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# New Mexico - Chihuahua Border Master Plan

# Nuevo México – Chihuahua Plan Maestro Fronterizo

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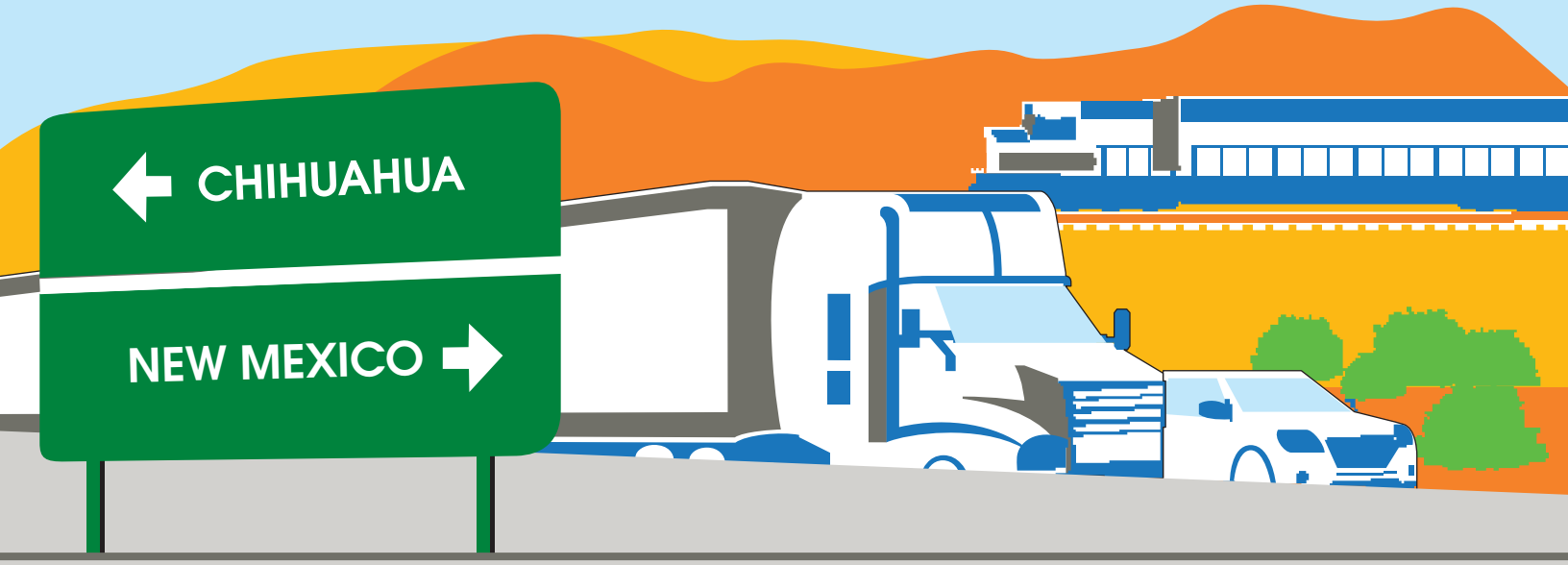


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## Introduction

Currently Mexico is the United States' 3rd largest trading partner (in terms of two way trade). Total trade between the two countries has shown an increase of approximately 80 percent in the last five years, increasing from $306 billion in 2009 to more than $550 billion in 2013. The State of New Mexico in the United States and the State of Chihuahua in Mexico share approximately 180 miles or 290 kilometers (km) of international border with three formal border crossings, referred to as Land Ports of Entry (LPOEs), located along this border. They are listed in the table below.

| New Mexico – Chihuahua Land Ports of Entry | |
|---|---|
| **New Mexico, U.S.** | **Chihuahua, Mexico** |
| Antelope Wells | El Berrendo |
| Columbus | Puerto Palomas |
| Santa Teresa | San Jerónimo |

Improving the operational efficiency of the LPOEs and supporting transportation infrastructure is essential to promote international trade, and enhance safety and security, in addition to relieving traffic congestion, reducing delays and improving the quality of life for residents in the border region. The New Mexico – Chihuahua Border Master Plan (BMP) is a comprehensive binational approach to coordinate the planning, inventory, and delivery of projects at LPOEs and related transportation infrastructure serving the international ports of entry in the border region. The New Mexico Department of Transportation (NMDOT) prepared this BMP in collaboration with the Federal Highway Administration (FHWA), Secretaría de Comunicaciones y Transportes (SCT), and the government of the State of Chihuahua, Mexico.

## Study Purpose and Objectives

The purpose of the New Mexico - Chihuahua BMP is to develop an integrated transportation infrastructure plan to guide future improvements and to enhance the efficiency and effectiveness of cross-border transportation facilities. The primary objectives of the New Mexico - Chihuahua BMP are:

- Provide an understanding of LPOE and transportation planning issues on both sides of the border.

- Develop a rational land use, environmental, population, socio-economic database as a component for transportation and LPOE planning.
- Evaluate growth and future capacity needs, and formulate forecasts of future conditions within the border corridor.
- Evaluate the existing binational LPOE and transportation system with respect to current and future demand and identify appropriate infrastructure improvement projects necessary to handle expected future growth.
- Develop a comprehensive and prioritized assessment of transportation needs along the border corridor, including access to/from LPOEs.
- Develop and implement a framework for ranking and prioritizing projects and services (e.g., roads, public transit, and railways).
- Design a stakeholder/public involvement process that is inclusive and ensures the participation of all agencies, interested parties, and others affected by LPOE projects and transportation infrastructure improvement projects associated with facilities serving LPOEs.
- Foster consistency between the planning processes of different agencies in order to facilitate implementation of Plan recommendations and create a mechanism for updating the plan on a regular basis, making it a living document.
- Ensure the BMP process is accepted and embraced by stakeholders throughout the border region.
- Ensure the Plan both reflects and is incorporated as a component of Federal, State, and local plans (including NMDOT's Statewide Long Range Multimodal Transportation Plan).
- Establish a process to ensure dialogue among federal, state, regional, and local stakeholders in the United States and Mexico to (1) identify future LPOE and connecting transportation infrastructure needs and (2) coordinate projects and update the Plan on a regular cycle (e.g., every 3 to 5 years).

An inclusive stakeholder involvement program, implemented on both sides of the border, was developed to support the achievement of the aforementioned objectives.

## Background

Border Master Plans are defined and promoted by the US - Mexico Joint Working Committee on Transportation Planning (JWC or Committee). The JWC is a binational group with the primary focus of engaging in cooperative land transportation planning and the facilitation of efficient, safe, and economical cross-border transportation movements. It is comprised of transportation professionals from FHWA and their Mexican counterpart SCT. In addition, the Committee includes representatives from the US Department of State (DOS), the Mexican Secretariat of Foreign Relations (SRE), the four US border state Departments of Transportation (DOTs), and the transportation agencies of the six Mexican border States. The General Services Administration (GSA) and Customs and Border Protection (CBP) of the Department of Homeland Security (DHS) also participate in JWC meetings.

BMPs are comprehensive long range plans that address existing and anticipated future demand for cross-border travel and trade generated by current and future stakeholders, a growing population, and increased binational economic activity. The Plans are intended to identify transportation infrastructure improvement projects that will expedite the movement of people and goods within a defined study area. BMPs document regional needs and priorities, identify and prioritize LPOE and LPOE supportive transportation projects, guide the allocation of future limited funding, and foster communication and coordination among border stakeholders. To date, five BMPs have been published to guide border area transportation improvement policies and actions: California Baja – California BMP (September, 2008, Updated July, 2014); Arizona – Sonora BMP (February, 2013); El Paso – Santa Teresa – Chihuahua BMP (October, 2013); Laredo Coahuila – Nuevo León – Tamaulipas BMP (June, 2012); and Lower Rio Grande Valley – Tamaulipas BMP (October, 2013).

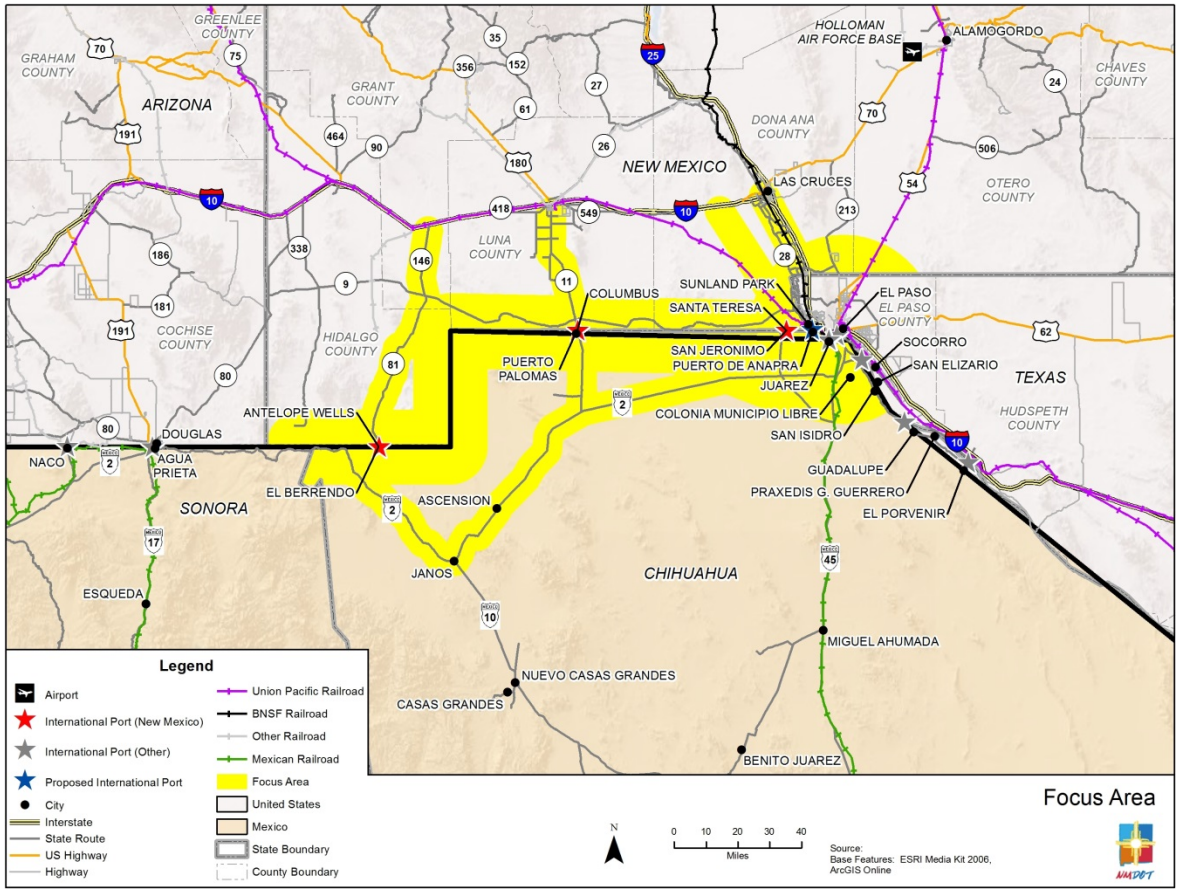
## The Study Area

The New Mexico - Chihuahua BMP included two areas for studying and evaluating transportation infrastructure needs along the international border. These two areas – Focus Area and Area of Influence – have been defined, because there are distinct issues, concerns, and needs associated with the movement of people and goods throughout the greater border region.

The Focus Area for the New Mexico Chihuahua Border Master Plan (BMP) is the immediate area north and south of the border, generally defined as approximately 10 miles in width (Figure ES-1). This ribbon of focus is expanded to encompass three principal metropolitan areas: the southern portion of Las Cruces, New Mexico; Deming, New Mexico; and Juárez, Chihuahua and the roadways that connect to the border.

The Area of Influence identified for the BMP extends approximately 60 miles (96.6 km) north and south of the international border encompassing Interstate 10 in the US, a major transcontinental highway stretching from coast to coast, and the southern terminus of Interstate 25. In Mexico, the Area of Influence extends to encompass Mexico Highway 2, which is the major east - west route between northwestern Sonora, Mexico, and Ciudad Juárez, Chihuahua. It also includes Mexico Highways 10 and 45, which provide direct access to northern Chihuahua and both coasts. In addition, in the US, there are numerous state highways which support travel to/from the international border areas.

**Figure ES-1: Focus Area**



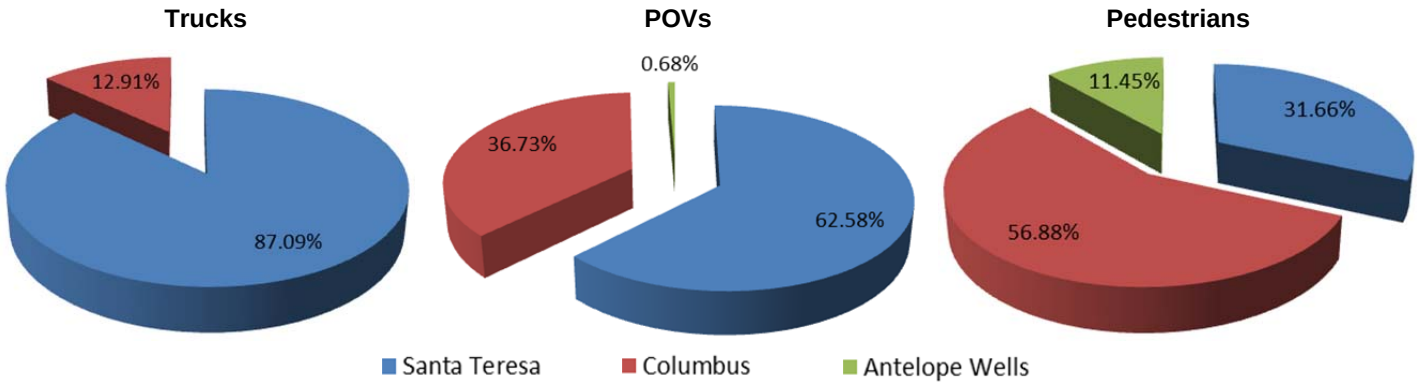
**Overview of the New Mexico-Chihuahua Land Ports of Entry (LPOEs)**

The State of New Mexico in the United States and the State of Chihuahua in Mexico share approximately 180 miles of international border. The three border crossings (depicted by red stars in Figure ES-1) located along this border are as follows, from west to east:

| | | |
|---|---|---|
| Antelope Wells / El Berrendo | Columbus / Puerto Palomas | Santa Teresa / San Jerómino |

These crossings not only serve as passageways for travel and tourism between New Mexico and Chihuahua, but also as fundamental gateways for both U.S. - Mexico and U.S. - Mexico-Canada trade. The majority of all border crossings from Chihuahua into New Mexico occur through the Santa Teresa - San Jerónimo LPOE. At this LPOE in 2013, over 81,000 trucks crossed the border with a variety of goods, accounting for approximately 87 percent of the total number of truck crossings at the New Mexico – Chihuahua Border. Travel by privately owned vehicles (POVs) at this port represents a smaller volume as only 63 percent of the POVs crossed at the Santa Teresa - San Jerónimo LPOE in 2013. By far the largest volume of pedestrians (57 percent) crossed through the Columbus - Puerto Palomas LPOE in 2013. The relatively high number of pedestrian crossings at Columbus is due to the large number of students crossing, who travel to New Mexico for their education. Antelope Wells LPOE is the least utilized crossing along the southern border. This port accounts for less than one percent of the total POV crossings between New Mexico and Chihuahua, at approximately 0.7 percent. This port accommodates a large number of shuttle buses, accounting for approximately 86 percent of the total bus crossings at the New Mexico – Chihuahua border. Antelope Wells counts bus passengers as pedestrian crossings in the data provided.

**Figure ES-2: Distribution of Chihuahua to New Mexico Crossings by Mode (2013)**

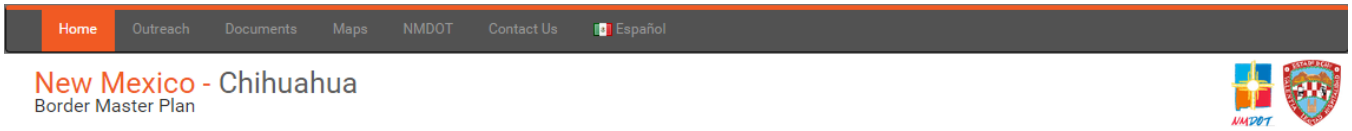


## The Planning Process

The purpose of this BMP is to develop an integrated transportation infrastructure plan to guide future improvements and to enhance the efficiency and effectiveness of cross-border transportation facilities. The BMP study area covers a wide range of jurisdictions, including federal, state, county, and city governments, planning organizations, and railroad companies. The process is supported by a comprehensive Stakeholder Outreach Plan, which is developed to ensure an effective stakeholder involvement process; and founded on the following principles:

- Providing continuous stakeholder access to study information and opportunities for stakeholder input using a variety of outreach tools, including a newsletter, comment cards, presentations, focus groups and a study website.
- Providing comprehensive stakeholder outreach, including briefing key stakeholders, government officials and business leaders throughout the study process.
- Linking stakeholder involvement activities to study milestones, technical activities and decision making.
- Documenting and maintaining, in a central accessible location, a record of all communication received throughout the duration of the study.
- Reviewing the effectiveness of the Stakeholder Outreach Plan periodically to ensure information is being disseminated in an efficient and effective manner.
- Conducting regular coordination meetings with the lead agency, cooperating agencies and other stakeholder groups throughout the study.

The Stakeholder Outreach Plan included development of a Policy Advisory Committee (PAC) and Technical Working Group (TWG). The PAC and TWG were fully engaged throughout the planning process, reviewing study materials and providing input relevant to identification and evaluation of projects incorporated in the New Mexico - Chihuahua BMP. In addition to public meetings, implementing the Stakeholder Outreach Plan included development and distribution of a series of newsletters and creation of a project website: www.nm-chihbmp.org.



**Transportation Project Evaluation Criteria**

Projects were divided into three "types" to reflect differences in funding sources:

1. LPOEs
2. Multimodal Infrastructure (MMI), including roadways, bridges, highway interchanges, pedestrians, bicyclists and transit
3. Rail

In order to prioritize projects, categories of evaluation criteria were developed to rank prospective projects. These categories were based upon similar criterion developed for border master plans prepared in California, Texas and Arizona. The Categories of Evaluation Criteria recommended by the TWG and approved by the PAC were as follows:

1. Cost Effectiveness
2. Project Readiness
3. Capacity/Congestion
4. LPOE Connectivity (not applicable to LPOE projects)
5. Regional Benefit
6. Binational Coordination (applies only to LPOE projects)

Within each of these major categories, criterion specific to the three project types were developed. In the final prioritization process, LPOEs and Multimodal Infrastructure projects were evaluated using 17 specific criteria. The evaluation of Rail projects utilized 16 specific criteria. All criteria are defined, in detail, in Appendix D.

A list of 50 transportation-related projects in New Mexico and Chihuahua was developed from the findings and recommendation of previous studies and stakeholder input. Each project was assigned a unique project identification (ID) number, then described with respect to project location, objectives/actions, and other pertinent data and information relevant to applicable evaluation criteria.

## Project Rankings

Using the data collected for each project, the study team independently completed the draft scoring of all projects (50 total projects) in each of the three project types. Several PAC/TWG meetings focused on analyzing the scoring. The study team typically reviewed a few example projects' scores and then each committee member was given the opportunity to request more detail on a specific project or series of project scores. Projects were compared in whole, versus other projects, and often specific criteria was used to contrast similar projects. The process was labor intensive, but resulted in a more consensus supported document. A portion of the results of these efforts are summarized in Tables ES-1 through ES-5. The comprehensive list of project rankings is confirmed in Chapter 7.

| Table ES-1: Evaluation of New Mexico Land Port of Entry Projects | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Evaluation of New Mexico Land Port of Entry Projects | | | | Capacity/Congestion Total Points | Project Cost (in US$1,000s) | Cost Effectiveness Total Points | Regional Benefit Total Points | Project Readiness Total Points | Binational Coordination Total Points | Weighted Combined Score | New Mexico LPOE Overall Rank |
| | | | Max Point Value | 47 | - | 5 | 7 | 7 | 7 | 100 | out of 4 |
| ID | State | Linked Projects | LPOE Project Description | | | | | | | | |
| 1003 | NM | 4003 | Columbus Port of Entry: Expand and reconstruct a new LPOE to the north of the existing facility; Separate truck and passenger vehicle traffic | 30 | 60,000 | 2 | 6 | 7 | 7 | 73 | 1 |
| 1001 | NM | 2003 | International Gateway Courtesy Plaza | 6 | 200 | 3 | 4 | 6 | 4 | 45 | 2 |
| 1004 | NM | 3003<br>4001<br>4002<br>6001 | Santa Teresa Port of Entry (Freight/Rail): Construct a new US LPOE in Santa Teresa capable of inspection of rail and truck freight crossing the border from San Jerónimo, Chihuahua | 20 | 150,000 | 1 | 3 | 2 | 5 | 41 | 3 |
| 1002 | NM | 2009<br>4004 | Construct a new US LPOE in Sunland Park, New Mexico with a connection to Anapra, Chihuahua. | 0 | 25,000 | 0 | 5 | 4 | 2 | 26 | 4 |

**Table ES-2: Evaluation of New Mexico Multimodal Infrastructure Projects**

| Evaluation of New Mexico Multimodal Infrastructure Projects | | | | | | | Capacity/Congestion Total Points | Project Cost (in US$1,000s) | Cost of Project vs. Projected Demand | Regional Benefit Total Points | Project Readiness Total Points | LPOE Connectivity Total Points | Weighted Combined Score | New Mexico MMI Overall Rank |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | Max Point Value | 12 | - | 3 | 8 | 5 | 9 | 100 | out of 22 |
| ID | State | Linked Projects | Facility | Sponsor | Project Description/ Extent | Proposed Improvement | | | | | | | | |
| 2003 | NM | 1001 2005 | NM 136 | NMDOT | POE to Intersection with TX State Line | Reconstruction | 7 | 40,000 | 3 | 5 | 3 | 7 | 69 | 1 |
| 2008 | NM | | NM 9 Columbus Road | NMDOT | McNutt (NM 273) to Pete Domenici (NM 136) | Extend as a 4-Lane Divided Principal Arterial | 9 | 14,977 | 3 | 4 | 3 | 5 | 67 | 2 |
| 2010 | NM | 2011 2016 | Industrial Drive | Doña Ana County | Divisadero Intersection | Widen Industrial Drive to 4 lanes with center-turn lane through intersection and construct 150' SB right-turn lane | 7 | 500 | 3 | 4 | 3 | 4 | 61 | 3 |
| 2014 | NM | 2015 | Strauss Road & Road 2A | NMDOT, Doña Ana County | Verde Logistics Industrial Park | Construct 600' WB right-turn lane | 7 | 100 | 3 | 4 | 3 | 4 | 61 | 4 |
| 2018 | NM | | Interstate 10, Hachita Bridge | NMDOT | Mile 49 | Bridge Replacement | 7 | 2,500 | 2 | 5 | 3 | 5 | 61 | 5 |
| 2001 | NM | | Gold Avenue | City of Deming | Gold Street to Spruce Road | Geometrics & Drainage Improvements | 6 | 800 | 2 | 6 | 3 | 4 | 60 | 6 |

**Table ES-3: Evaluation of New Mexico Rail Projects**

| Evaluation of New Mexico Rail Projects | | | | Capacity/Congestion Total Points | Estimated Project Cost (US $Millions per mile) | Cost Effectiveness Total Points | Regional Benefit Total Points | Project Readiness Total Points | LPOE Connectivity Total Points | Weighted Combined Score | New Mexico Rail Overall Rank |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Max Point Value | 11 | - | 3 | 8 | 5 | 5 | 100 | out of 4 |
| ID | State | Linked Project | Project Description | | | | | | | | |
| 3003 | NM | 1004<br>4002<br>6001 | Rail Line; Santa Teresa POE to UPPR and BNSF mainlines | 9 | $5m/mi + | 2 | 5 | 1 | 5 | 71 | 1 |
| 3002 | NM | | Commuter Rail; Las Cruces, New Mexico, to El Paso, Texas | 4 | $10m/mi + | 2 | 5 | 2 | 0 | 42 | 2 |
| 3001 | NM | | Denver to El Paso High-Speed Rail | 6 | $60m/mi + | 1 | 4 | 1 | 0 | 36 | 3 |

| Table ES-4: Evaluation of Chihuahua Land Port of Entry Projects | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Evaluation of Chihuahua Land Port of Entry Projects | | | | | Capacity/Congestion Total Points | Project Cost (in $1,000s MXN Pesos) | Cost Effectiveness Total Points | Regional Benefit Total Points | Project Readiness Total Points | Binational Coordination Total Points | Weighted Combined Score | Chihuahua LPOE Overall Rank |
| | | | | Max Point Value | 47 | - | 5 | 7 | 7 | 7 | 100 | out of 4 |
| ID | State | Linked Project | Sponsor | LPOE Project Description | | | | | | | | |
| 4003 | CHIH | 1003 | SAT | Expansion and rearrangement for Puerto Palomas POE - Expand and rearrange LPOE over 7.2 hectares, completely reorganizing import/export inspection facility areas including INM facility | 27 | | 0 | 5 | 6 | 7 | 59 | 1 |
| 4002 | CHIH | 1004<br>4001 | SAT | Rearrangement of San Jerónimo - Expansion of cargo lanes and privately owned vehicles, including facilities for temporarily import vehicles (CITEV), relocation of inspection equipment and INM facilities | 21 | | 0 | 5 | 5 | 7 | 53 | 2 |
| 4001 | CHIH | 1004<br>3003<br>4002<br>6001 | SCT-Chihuahua | New Rail POE at San Jerónimo POE Area (PROY. LF-2) | 21 | | 0 | 3 | 2 | 5 | 38 | 3 |
| 4004 | CHIH | 1002 | IMIP | POE Camino Real Tierra Adentro (PROY. CRTA-1) in Sunland-Anapra area. | 4 | | 0 | 5 | 4 | 2 | 29 | 4 |

**Table ES-5: Evaluation of Chihuahua Multimodal Infrastructure Projects**

| Evaluation of Chihuahua Multimodal Infrastructure Projects | | | | | | | Capacity/Congestion Total Points | Project Cost (in $1,000s MXN Pesos) | Cost of Project vs. Projected Demand | Regional Benefit Total Points | Project Readiness Total Points | LPOE Connectivity Total Points | Weighted Combined Score | Chihuahua MMI Overall Rank |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | Max Point Value | 12 | - | 3 | 8 | 5 | 9 | 100 | out of 14 |
| ID | State | Linked Project | Facility | Sponsor | Project Description/Extent | Proposed Improvement | | | | | | | | |
| 5024 | CHIH | | Access road to El Berrendo POE | SCT | Construct 8.3 km of 2-lane highway per SCT specs to complete access to El Berrendo POE. There are 3 km already paved from intersection of MEX-2 to El Berrendo. This new 8.3 km will provide a full paved road. | Construct 8.3 km of 2-lane highway per SCT specs to complete access to El Berrendo POE. There are 3 km already paved from intersection of MEX-2 to El Berrendo. This new 8.3 km will provide a full paved road. | 7 | 75,000 | 2 | 6 | 5 | 8 | 73 | 1 |
| 5009 | CHIH | 5007 | MEX-45D at MEX-2 | SCT | MEX-45D at MEX-2 (Jerónimo Loop) | Modernize the intersection of MEX-2 with MEX-45D | 7 | 7,500 | 2 | 5 | 3 | 4 | 67 | 2 |

**Table ES-6 Evaluation of Chihuahua Rail Projects**

| Evaluation of Chihuahua Rail Projects | | | | | Capacity/Congestion Total Points | Estimated Project Cost (in $1,000s MXN pesos) | Cost Effectiveness Total Points | Regional Benefit Total Points | Project Readiness Total Points | LPOE Connectivity Total Points | Weighted Combined Score | Chihuahua Rail Overall Rank |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Max Point Value | 11 | - | 3 | 8 | 5 | 5 | 100 | |
| ID | State | Linked Project | Project Description | Sponsor | | | | | | | | |
| 6001 | CHIH | 1004<br>3003<br>4002 | City of Juárez Rail Bypass (PROY. LF-1) | SCT-Chihuahua | 10 | 1,600,000 | 3 | 8 | 3 | 4 | 90 | 1 |
| 6003 | CHIH | 6002 | Rail Spur to South Loading Terminal | IMIP-Ascension | 6 | 288,000 | 2 | 4 | 3 | 2 | 53 | 2 |
| 6002 | CHIH | 6003 | South Loading Terminal (PROY. LF-3) | SCT | 8 | 500,000 | 1 | 4 | 2 | 2 | 51 | 3 |

**Next Steps**

The following recommendations are presented for consideration and implementation as appropriate and as funding permits:

- Contingent on the availability of binational funding, it is suggested that an Implementation Monitoring Committee (IMC) should be formed that includes persons representing the highest levels of affected governments and appropriate stakeholders with a direct and vested interest in project implementation.
- NMDOT should take a leadership position regarding border LPOE-related transportation infrastructure improvements to (1) ensure support for the formation of the IMC and (2) to define the functional role of the committee in context with on-going binational coordination efforts in the New Mexico-Chihuahua Border Region.
- The IMC should meet on a regular basis, perhaps semi-annually, to review the status of recommended projects and assess progress toward improvement goals.
- A Performance Assessment should be prepared to enable not only the tracking of progress on implementing high priority projects but, also, to facilitate an understanding of overall improvement of transportation systems and services in the New Mexico-Chihuahua Border Region.
- The IMC should formulate a Report Card to be used to identify where successes have occurred and where obstacles have arisen. This Report Card would serve as guidance for future activities and actions by the IMC and its members.
- The IMC should maintain close coordination with other important entities vital to the future vitality of international relationships pertaining to the New Mexico - Chihuahua border and border communities. Two critical organizations important to the planning and programming of improvements are the FHWA supported U.S. - Mexico Join Working Committee on Transportation Planning (JWC) and the U.S. - Mexico Bridges and Border Crossings Group (BBBXG).
- The IMC should recognize and keep abreast of Federal and State – U.S. and Mexico, New Mexico and Chihuahua – transportation and border facility coordination and programming initiatives to assure projects on the prioritized list are integrated fully in the funding and permitting processes.

- NMDOT should continue to work with the Secretaría de Comunicaciones y Transportes (SCT) to obtain a fully developed Travel Demand Model (TDM) for the Area of Influence within the State of Chihuahua. The TDM from SCT should be integrated with the next generation of NMDOT's TDM to develop a comprehensive Focused Area TDM for the New Mexico-Chihuahua Border Region.
- NMDOT should work with the General Services Administration, Customs and Border Protection, Federal Highway Administration (FHWA), and their counterparts in Mexico to obtain comprehensive wait time statistics, by travel mode, for each of the three Land Port of Entry crossings.
- For future BMPs, the New Mexico - Chihuahua stakeholders may consider projects in their conceptual stages (with little to no data in any of the weighted evaluation criteria categories) be documented in an inventory list in the appendix and not be ranked with other projects that do have data to support them. The inventory list then can be used in subsequent updates of the BMP in which presumably the project would be advanced enough and supported with appropriate data.

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## List of Acronyms

| | |
|---|---|
| AADT | Annual Average Daily Traffic |
| ADUANAS | Administración General de Aduanas Subadministración de Infraestructura |
| ARRA | Asphalt Recycling and Reclaiming |
| | American Recovery and Reinvestment Act |
| AWOS | Automated Weather Observation System |
| BANOBRAS | Banco Nacional de Obras y Servicios Públicos |
| BBBXG | Binational Bridges and Border Crossings Group |
| BBEDCA | Balanced Budget and Emergency Deficit Control Act |
| BECC | Border Environment Cooperation Commission |
| BMP | Border Master Plan |
| BNSF | Burlington Northern Santa Fe |
| BTEP | Border Technology Exchange Program |
| CBI | Coordinated Border Infrastructure |
| CBP | Customs and Border Protection |
| CILA | Comisión Internacional de Límites y Aguas |
| CIP | Capital Improvement Plan |
| CORBOR | Coordinated Border Infrastructure Program |
| CV | Commercial Vehicle |
| DACC | Doña Ana Community College |
| DCR | Department Of Conservation and Recreation |
| | Design Concept Report |
| DHS | Department of Homeland Security |
| DOS | Department of State |
| EA | Environmental Assessment |
| EIS | Environmental Impact Statement |
| ESA | Ecological Society of America |
| FAST | Free and Secure Trade |
| FHWA | Federal Highway Administration |
| FOB | Forward Operating Base |
| GIS | Geographic Information System |

| | |
|---|---|
| GRIP | Governor Richardson's Investment Partnership (Program) |
| GSA | General Services Administration |
| HRRP | High Risk Rural Roads Program |
| HSIP | Highway Safety Improvement Program |
| IBWC | International Boundary & Water Commission |
| ID | Identification |
| IM | Interstate Maintenance |
| IMIP | Instituto Municipal de Investigación y Planeación |
| IMPLAN | Institutos Municipales de Planeación |
| INDAABIN | Instituto de Administración y Avalúos de Bienes Nacionales |
| INEGI | Instituto Nacional de Estadística y Geografía |
| INM | Instituto Nacional de Migración |
| ITS | Intelligent Transportation System |
| JWC | Joint Working Committee |
| LGRF | Local Governments Road Fund |
| LOS | Level of Service |
| LPOE | Land Port of Entry |
| LPR | License Plate Readers |
| LRTP | Long Range Transportation Program |
| MAP-21 | Moving Ahead For Progress (In the 21st Century Act) |
| MMI | Multimodal Infrastructure |
| MPO | Metropolitan Planning Organization |
| MVM | Million Vehicle Miles |
| MVMPO | Mesilla Valley Metropolitan Planning Organization |
| NADB | North American Development Bank |
| NAFTA | North American Free Trade Agreement |
| NCII | National Corridor Infrastructure Improvements |
| NCPD | National Council for Population and Development |
| NDP | National Development Plan |
| NEPA | National Environmental Policy Act |
| NHPA | National Historic Preservation Act |

| | |
|---|---|
| NII | Non-Intrusive Inspection |
| NHS | National Highway System |
| NMDOT | New Mexico Department of Transportation |
| NMFA | New Mexico Finance Authority |
| NMSU | New Mexico State University |
| OMB | Office of Management and Budget |
| PAC | Policy Advisory Committee |
| PARA | Planning Assistance for Rural Areas |
| PCR | Pavement Condition Rating |
| PNI | Plan Nacionel de Infraestructura |
| POVs | Privately Owned Vehicles |
| PPP | Public-Private Partnership |
| PROTRAM | Public Transportation Federal Support Program |
| RFID | Radio Frequency Identification |
| RPM | Radiation Portal Monitors |
| RTP | Regional Transportation Plans |
| SAFETEA-LU | Safe Accountable Flexible Efficient Transportation Equity Acts: A Legacy for Users |
| SAGARPA | Secretaría de Agricultura, Ganadería, Desarrollo Rural, Pesca y Alimentación |
| SAT | Servicio de Administración Tributaria |
| SCOP | Secretaría de Comunicaciones y Obras Públicas |
| SCT | Secretaría de Comunicaciones y Transportes |
| SENTRI | Secure Electronic Network for Travelers Rapid Inspection |
| SEMARNAT | Secretaría del Medio Ambiente y Recursos Naturales |
| SRE | Secretaría de Relaciones Exteriores |
| SSHE | Safety, Security, Health and Environment |
| STIP | Statewide Transportation Improvement Program |
| TAP | Transportation Alternatives Program |
| TEA-21 | Transportation Equity Act (for the 21st Century) |
| TEU | Twenty-Foot Equivalent Units |
| TDM | Travel Demand Model |

| | |
|---|---|
| TIFIA | Transportation Infrastructure Finance and Innovation Act |
| TIGER | Transportation Investment Generating Economic Recovery |
| TIP | Transportation Improvement Program |
| TWG | Technical Working Group |
| TXDOT | Texas Department of Transportation |
| UPRR | Union Pacific Railroad |
| USDOT | United States Department of Transportation |
| USDHS | United States Department of Homeland Security |
| VACIS | Vehicle and Cargo Inspection System |
| VPD | Vehicles per Day |
| WHTI | Western Hemisphere Travel Initiative |
| WSA | Wilderness Study Area |

# 1.0 INTRODUCTION

This section identifies the purpose of the New Mexico-Chihuahua Border Master Plan (BMP) and provides background information regarding the need for and objectives of the plan. It also explains the process followed in preparing the BMP and introduces the subject matter of its various chapters.

## 1.1 BACKGROUND

The New Mexico Department of Transportation (NMDOT), in collaboration with the Federal Highway Administration (FHWA), Secretaría de Comunicaciones y Transportes (SCT) and the government of the State of Chihuahua, Mexico, is preparing the New Mexico – Chihuahua Border Master Plan (Plan or BMP). The Plan is a bi-national comprehensive approach to coordinate the planning, inventory, and delivery of projects at Land Ports of Entry (LPOEs) and related transportation infrastructure serving the international ports of entry in the New Mexico – Chihuahua border region.

Border Master Plans are defined and promoted by the US - Mexico Joint Working Committee on Transportation Planning (JWC or Committee). The JWC is a binational group with the primary focus of engaging in cooperative land transportation planning and the facilitation of efficient, safe, and economical cross-border transportation movements. It is comprised of transportation professionals from FHWA and their Mexican counterpart SCT. In addition, the Committee includes representatives from the US Department of State (DOS), the Mexican Secretariat of Foreign Relations (SRE), the four US border state Departments of Transportation (DOTs), and the transportation agencies of the six Mexican border States. The General Services Administration (GSA) and Customs and Border Protection (CBP) of the Department of Homeland Security (DHS) also participate in JWC meetings.

BMPs are comprehensive long range plans that address existing and anticipated future demand for cross-border travel and trade generated by current and future stakeholders, a growing population, and increased bi-national economic activity. The Plans are intended to identify transportation infrastructure improvement projects that will expedite the movement of people and goods within a defined study area. BMPs document regional needs and priorities,

identify and prioritize LPOE and LPOE supportive transportation projects, guide the allocation of future limited funding, and foster communication and coordination among border stakeholders. To date, five BMPs have been published to guide border area transportation improvement policies and actions: California Baja – California BMP (September, 2008, Updated July, 2014); Arizona – Sonora BMP (February, 2013); El Paso – Santa Teresa – Chihuahua BMP (October, 2013); Laredo Coahuila – Nuevo León – Tamaulipas BMP (June, 2012); and Lower Rio Grande Valley – Tamaulipas BMP (October, 2013).

BMPs take a comprehensive binational approach to coordinating the planning and delivery of projects to improve traffic operations at land ports of entry and the transportation infrastructure serving these ports US/Mexico border region. The Plans consider short term, mid term, and long term needs and result in a comprehensive list and prioritized assessment of the transportation and LPOE projects. Implementation of these projects will support international trade, improved cross-border travel and air quality, resulting in the improvement of the quality of life for the residents and visitors of each region. The outcome of the BMP process is extensively reviewed with stakeholders throughout the border region. The Plans should both reflect and be incorporated as a component of Federal, State, and local transportation planning process, including plans currently under development.

The purpose is to develop an integrated transportation infrastructure plan to guide future improvements and to enhance the efficiency and effectiveness of cross-border transportation facilities. The BMP study area covers a wide range of jurisdictions, including federal, state, county, and city governments, planning organizations, and railroad companies.

### 1.1.1 GUIDING PRINCIPLES

The primary objectives of the New Mexico Chihuahua BMP are to:

- Provide an understanding of LPOE and transportation planning issues on both sides of the border.
- Develop a rational land use, environmental, population, socio-economic database as a component for transportation and LPOE planning.
- Evaluate growth and future capacity needs, and formulate forecasts of future conditions within the border corridor.

- Evaluate the existing binational LPOE and transportation system with respect to current and future demand and identify appropriate infrastructure improvement projects necessary to handle expected future growth.
- Develop a comprehensive and prioritized assessment of transportation needs along the border corridor, including access to/from LPOEs.
- Develop and implement a framework for ranking and prioritizing short-, mid-, and long term projects and services (e.g., roads, public transit, and railways).
- Design a stakeholder/public involvement process that is inclusive and ensures the participation of all agencies, interested parties, and others affected by LPOE projects and transportation infrastructure improvement projects associated with facilities serving LPOEs.
- Foster consistency between the planning processes of different agencies in order to facilitate implementation of Plan recommendations and create a mechanism for updating the plan on a regular basis, making it a living document.
- Ensure the BMP process is accepted and embraced by stakeholders throughout the border region.
- Ensure the Plan both reflects and is incorporated as a component of Federal, State, and local plans (including NMDOT's Statewide Long Range Multimodal Transportation Plan).
- Establish a process to ensure dialogue among federal, state, regional, and local stakeholders in the United States and Mexico to (1) identify future LPOE and connecting transportation infrastructure needs and (2) coordinate projects and update the Plan on a regular cycle (e.g., every 3 to 5 years).

Achievement of these objectives will be supported by an inclusive stakeholder involvement program that will be seamlessly implemented on both sides of the border.

## 1.2 THE PLANNING PROCESS

The purpose of this BMP is to develop an integrated transportation infrastructure plan to guide future improvements and to enhance the efficiency and effectiveness of cross-border

transportation facilities. The BMP study area covers a wide range of jurisdictions, including federal, state, county, and city governments, planning organizations, and railroad companies.

### 1.2.1 STAKEHOLDER OUTREACH

A strategic, flexible and dynamic process of outreach and communication will ensure stakeholders are provided study information, as well as offer the opportunity to submit comments and input to the study team, in a timely manner. This Stakeholder Outreach Plan also will ensure an effective stakeholder involvement process is maintained based on the following guiding principles:

- Providing continuous stakeholder access to study information and opportunities for stakeholder input using a variety of outreach tools, including a newsletter, comment cards, presentations, focus groups and a study website.
- Providing comprehensive stakeholder outreach, including briefing key stakeholders, government officials and business leaders throughout the study process.
- Linking stakeholder involvement activities to study milestones, technical activities and decision making.
- Documenting and maintaining, in a central accessible location, a record of all communication received throughout the duration of the study.
- Reviewing the effectiveness of the Stakeholder Outreach Plan periodically to ensure information is being disseminated in an efficient and effective manner.
- Conducting regular coordination meetings with the lead agency, cooperating agencies and other stakeholder groups throughout the study.

### 1.2.2 PROJECT SELECTION, PRIORITIZATION, AND FUNDING

For major capital projects, GSA, CBP, FHWA, and DOS have established a process to develop border master plans to assist in the prioritization of POE and transportation infrastructure projects. Border master plans are developed on a regional basis with Federal, State, and local stakeholders from both the United States and Mexico.

Border master plans have a significant impact on what projects are included in CBP's annual submission of its Land Port of Entry Modernization: Promoting Security, Travel and Trade

report. This report lays out the basis for prioritizing capital investments in the LPOE infrastructure, which factors into safety and deficiencies in addition to operation and workload considerations. Included in the report is CBP's national list of projects that GSA and CBP have targeted for the next five years.

For those GSA Region 7 LPOE projects that are identified in CBP's list of projects targeted for the next five years, Region 7 works with the GSA Central Office to determine the possibility of requesting funds as part of GSA's Annual Capital Program submission. Through direction from the Office of Management and Budget (OMB), the GSA Central Office works to establish a budget target for LPOEs annually. Many LPOE projects have received partial funding (either for the initial phase of a multi-phase project or for site design) and still await the remaining funding piece to complete the project. These projects are considered based on their placement in CBP's five-year plan (issued annually) and on the ability to fund the project per the budget target. If a project has not received any initial funding, GSA works with CBP to establish the best planning/funding scenario (projected budget year request) in the context of the overall LPOE inventory nationwide.

LPOEs must be designed in accordance with GSA's Facility Standards for the Public Building Service and the U.S. Land Port of Entry Design Guide. LPOEs must also conform to the building code adopted by the local jurisdiction responsible for fire emergency services or the building code adopted by GSA. Finally, LPOE's must conform to State highway regulations.

## 1.3 ORGANIZATION OF THE REPORT

Information in this report is presented in ten chapters, providing focused discussion regarding specific aspects of the study and findings:

**Chapter 2.0, Study Area** – identifies two unique areas (Focus Area and Area of Influence) defined to assure comprehensive understanding of border area issues and features.

**Chapter 3.0, Relevant Studies** – provides a synopsis of the various studies, reports, and plans reviewed during the course of formulating the BMP.

**Chapter 4.0, Study Area Characteristics** – presents generalized information about the Study Area.

**Chapter 5.0, Overview of the New Mexico-Chihuahua Land Ports of Entry** – provides information on border crossings and the role they play in the border economy.

**Chapter 6.0, Summaries of Individual Land Ports of Entry** – presents detailed information regarding the status of each LPOE, operational characteristics, and access.

**Chapter 7.0, Project Evaluation** – presents the methodology and criteria used to evaluate LPOE transportation issues, multimodal infrastructure needs, and rail projects, as well as evaluation results (e.g. project scores and rankings).

**Chapter 8.0, Funding** – provides an overview of historical and current funding mechanisms for implementing improvements.

**Chapter 9.0, Implementation** – describes the processes that may be considered as the evaluated projects move forward toward implementation.

**Chapter 10, Stakeholder Involvement –** summarizes the various outreach activities conducted to secure critical input to the New Mexico-Chihuahua BMP.

# 2.0 STUDY AREA

Two areas have been identified for studying and evaluating transportation infrastructure needs along the New Mexico-Chihuahua border. These two areas – Focus Area and Area of Influence – have been defined, because there are distinct issues, concerns, and needs associated with the movement of people and goods throughout the greater border region.

## 2.1 FOCUS AREA

The Focus Area for the New Mexico Chihuahua Border Master Plan (BMP) is the immediate area north and south of the border, generally defined as approximately 10 miles in width (Figure 2-1). This ribbon of focus is expanded to encompass three principal metropolitan areas: the southern portion of Las Cruces, New Mexico; Deming, New Mexico; and Juárez, Chihuahua and the roadways that connect to the border (e.g. NM 81, NM 146, NM 11, NM 136, portions of I-10 and Mexican Federal Route 2). There are three distinct international Land Ports Of Entry's (LPOEs) located within the Focus Area:

| New Mexico, U.S. | Chihuahua, Mexico |
|---|---|
| • Antelope Wells | • El Berrendo |
| • Columbus | • Puerto Palomas |
| • Santa Teresa | • San Jerónimo |

A potential fourth LPOE is being considered in Sunland Park, NM and Anapra, Chihuahua. This potential LPOE would be non-commercial and privately funded and is currently sponsored by the City of Sunland Park.

## 2.2 AREA OF INFLUENCE

The international border area does not function as a distinctly separate socioeconomic unit, because the communities on each side of the border are dependent on each other for certain goods and services. It is necessary to review and understand the linkages to the interior areas of the US and Mexico. These linkages include major regional travel facilities that provide access to important nearby activity centers (e.g, El Paso, Texas), neighboring states,

especially Arizona and Texas in the US and Sonora in Mexico, and transcontinental routes that open markets in Canada and South America for trade across the border. Figure 2-2 shows the Area of Influence adopted to support preparation of this BMP. This area extends approximately 60 miles (96.6 km) north and south of the international border encompassing Interstate 10 in the US, a major transcontinental highway stretching from coast to coast, and the southern terminus of Interstate 25. In Mexico, the Area of Influence extends to encompass Mexico Highway 2, which is the major east west route between northwestern Sonora, Mexico, and Ciudad Juárez, Chihuahua. It also includes Mexico Highways 10 and 45, which provide direct access to northern Chihuahua and both coasts. In addition, in the US, there are numerous state highways which support travel to/from the international border areas.

**Figure 2-1: Focus Area**

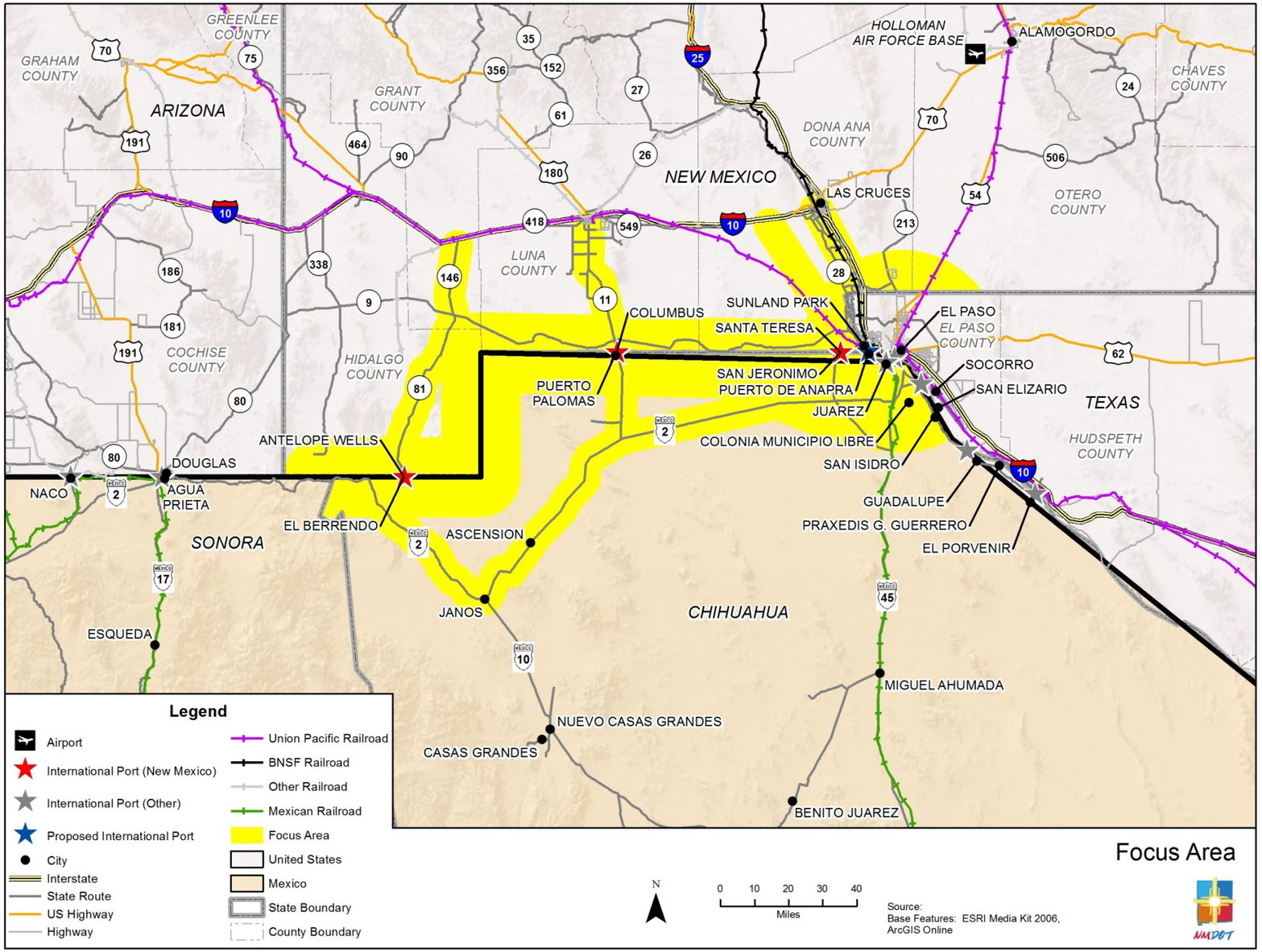
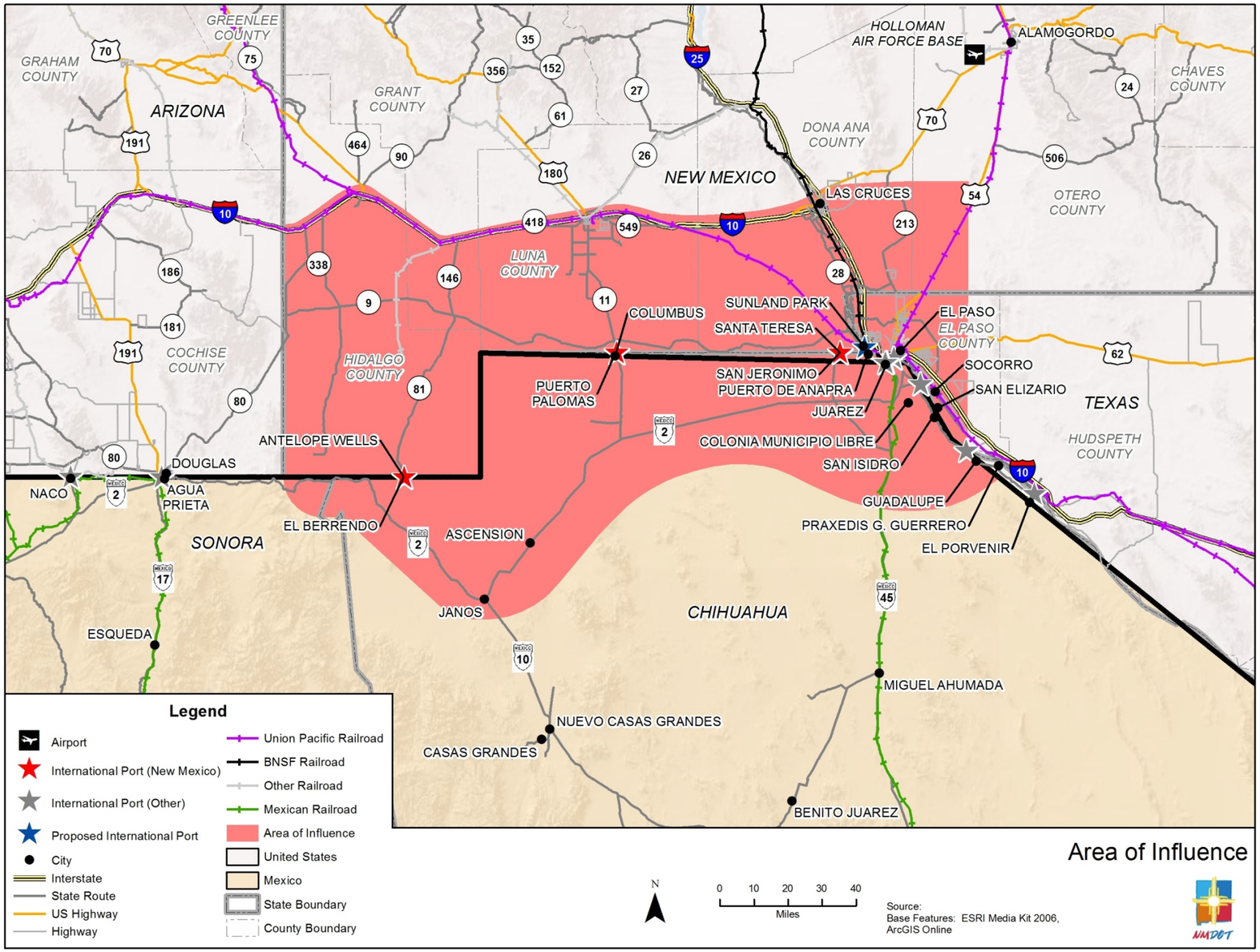


**Figure 2-2: Area of Influence**



# 3.0 RELEVANT STUDIES

A wide variety of studies, reports, and plans that contained pertinent information relevant to the evaluation and understanding of transportation systems and services available in the Focus Area or Area of Influence described in the previous chapter were reviewed at the onset of the planning process. Information, findings, and recommendations associated with these studies were scrutinized to identify programmed or planned improvements, as well as proposed long term actions which were incorporated and considered within the planning process, as appropriate. Information regarding conceptual or recommended improvements provided the basis for defining improvements considered for implementation in the Focus Area and evaluated for inclusion in the New Mexico – Chihuahua Border Master Plan. The following Table 3-1 provides a summary listing of relevant studies and plans reviewed (refer to Appendix A for additional details).

**Table 3-1: Relevant Studies and Plans**

| Document Name | Date |
|---|---|
| **Framework Studies** | |
| Statewide Long-Range Transportation Plan | Underway |
| New Mexico State Rail Plan | April 2014 |
| New Mexico 2030 Multimodal Freight Study | 2009 |
| Texas Department of Transportation (TxDOT) El Paso Region Freight Rail Study, Phases I and II | April, 2011 and July, 2013 |
| New Mexico 2030 Statewide Multimodal Transportation Plan | 2009 |
| **Border Specific Studies** | |
| El Paso / Santa Teresa - Chihuahua Border Master Plan, TxDOT | 2013 |
| NMDOT Transportation Investment Generating Economic Recovery (TIGER) Grant Application – Santa Teresa Border Area Transportation Needs Assessment - Strategic Plan; Project Narrative - Attachment to SF-424 Supporting and Application for TIGER Discretionary Grant Funding, prepared by NMDOT and USDOT, April,2014. | April, 2014 |

**Table 3-1: Relevant Studies and Plans (Continued)**

| Document Name | Date |
|---|---|
| Santa Teresa Rail Relocation Study: Feasibility study of Rail Bypass & International Border Crossing. | December, 2015 |
| Village of Columbus/POE Master Drainage Plan | 2010 |
| Bi-National Industrial Campus Master Plan | 2013 |
| New Mexico Railroad Bypass and Bi-National Border Crossing Alignment and Feasibility Study | May-14, 2011 |
| International Trade Corridor Plan | 2010 and 2012 |
| Border Trade Advisory Committee Report - 2012 | 2012 |
| Texas North American Free Trade Act (NAFTA) Study Update | February, 2007 |
| US Mexico Border Needs Assessment and Support Project, Phase 1 Scoping Assessment Report | April, 2014 |
| Verde Santa Teresa Intermodal Park | Acquired 2014 |
| Binational Border Transportation Infrastructure Needs Assessment Study | 2004 |
| Truck Transportation Through Border Ports of Entry: Analysis of Coordination Systems | 2002 |
| "Bottleneck Study," Transportation Infrastructure and Traffic Management Analysis of Cross-Border Bottlenecks | 2004 |
| Extension of Border Zone in the State of New Mexico, Final Rule, US Department of Homeland Security (USDHS), 8 CFR Part 235 | CFR - Wednesday, June 12, 2013 |
| **Regional Transportation Plan (RTPs)/Comprehensive Plans/General Plans** | |
| Mesilla Valley Metropolitan Planning Organization (MVMPO) Long Range Plan (2040) | 2010 |
| Mesilla Valley MPO Asset and Safety Management Plan | 2014 |
| El Paso MPO Long Range Plan (2040) | 2013 |
| Viva Doña Ana Comprehensive Plan | 2013 |

**Table 3-1: Relevant Studies and Plans (Continued)**

| Document Name | Date |
|---|---|
| NMDOT Statewide Transportation Improvement Program (TIP), FY 2014-2017, Amendment 1, Approved NMDOT/FHWA/FTA 11/20/13 | 2013 |
| Mesilla Valley MPO (MVMPO) Surface TIP 2014-2019 | 2013 |
| MVMPO Airport TIP 2014-2019 | 2013 |
| Comprehensive Transportation Study for City of Deming/Luna County | 2009 |
| Transborder 2035 Metropolitan Transportation Plan | 2007 |
| Plan Integral de Transporte para CD. Juárez-El Paso-Sur de Nuevo México | 2014 |
| Plan de Desarrollo Urbano de Ciudad Juárez | 2010 |
| Plan Estatal de Desarrollo del Estado de Chihuahua 2010-2016 | 2010 |
| Plan Maestro para el Desarrollo Urbano de los Sectores S-2 y S-5 de San Jerónimo | 2013 |
| San Jerónimo residential and industrial expansions Master Plan | 2013 |
| San Jerónimo Free Trade Zone Master Plan | 2013 |
| Sunland Park/Anapra “Metroplex Vision” Master Plan | 2007 |
| **Corridor Studies** | |
| NM-136 Verde Realty Access Project Location Study Report Phase A and B | 2007 |
| West Mesa Corridor Study | December, 2013 |
| NM 136 Pavement Evaluation/Alignment Study | 2014 |
| Doña Ana County Road A-017/Strauss Road Alignment Study | May, 10 |
| Columbus POE Bypass Road Study | 2007 |
| Viva Doña Ana El Camino Real Corridor Study, 2014 | 2014 |
| **Development Studies** | |
| Santa Teresa Weigh and Inspection Facility Traffic Impact Analysis | 2009 |

**Table 3-1: Relevant Studies and Plans (Continued)**

| Document Name | Date |
|---|---|
| "Strauss Yard Site Plan" | 2010 |
| Verde Logistics Industrial Park/Santa Teresa Traffic Impact Analysis | 2011 |
| Villa Valencia Subdivision Traffic Impact Analysis | 2013 |
| West Mesa Industrial Park (Development Plan Map) | 2012 |
| Santa Teresa Regional Focus and Regional Assets (Maps) | 2014 |
| Bi-National Park at Santa Teresa (Development Plan Map) | 2012 |
| Santa Teresa Logistics Park (Development Plan Map) | 2014 |
| Santa Teresa-Verde Master Plan (Development Plan Map) | 2012 |
| Sunland Park, NM/Anapra, Chihuahua, International POE | 2012 |
| **Miscellaneous** | |
| San Jerónimo/Santa Teresa Bi-National Community Task Force | 2014 |
| New Mexico Border Authority Port of Entry Traffic Counts | Monthly |
| Rail In The Pass: Past, Present, and Future Impacts of Rail in the El Paso Region | 2008 |
| Upper Valley Traffic Study, El Paso, Texas (Vol. 1) | 2008 |

# 4.0 STUDY AREA CHARACTERISTICS

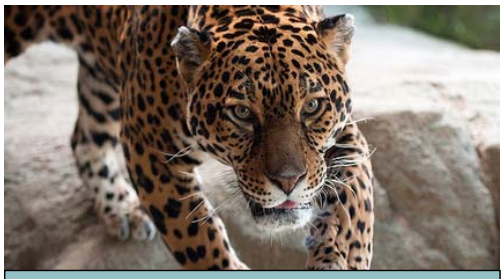
This chapter provides generalized information about the Study Area, with emphasis on the Focus Area and Area of Influence, as defined in Chapter 2. General land use and development information is presented, as well as estimates of future growth of population and employment. This is followed by descriptive information and data establishing the current status of the existing roadway network, including safety data reflecting crash frequency and severity on key routes of travel. Then, there is a discussion of other transportation system infrastructure elements, including railroads, airports, and public transportation services.

## 4.1 ENVIRONMENTAL AND SOCIOECONOMIC CHARACTERISTICS

### NEW MEXICO

A generalized pattern of existing land ownership on the U.S. side of the border is illustrated in Figure 4-1. This map illustrates major land holdings for U.S. Government agencies, the State of New Mexico, large public corporations, and the private sector. Figure 4-1A - Figure 4-1C are enlargements of Figure 4-1 in the areas surrounding LPOEs. The ensuing map (Figure 4-2 displays the principal defining environmental features, identifying large wilderness areas, wildlife habitats, parks, drainage (e.g., rivers, streams, canals), and topography.

General environmental information is important, as it provides a basis for anticipating potential impacts on social and economic activity (particularly the need for the acquisition of rights-of-way for new or expanded facilities) as well as aiding in identifying mitigation actions relating to environmental effects. When discussing future development, special consideration should be applied to protect natural resources and critical habitats for endangered animals located within the study area. For example, the Organ Mountains-Desert Peaks National Monument located east of Las Cruces (refer to Exhibit, next page) is considered to be one of the most significant protected natural resources within the border region. Furthermore, portions of Hidalgo County, New Mexico, are designated as a critical habitat for the protected jaguar.



**Critical habitat for the endangered Jaguar is located west of Antelope Wells LPOE (Flickr Commons/Eric Kilby)**

**Figure 4-1: Land Ownership & Management in the Focus Area and Area of Influence**

Note: Land Ownership information from Chihuahua was not available prior to the publishing of this Plan.

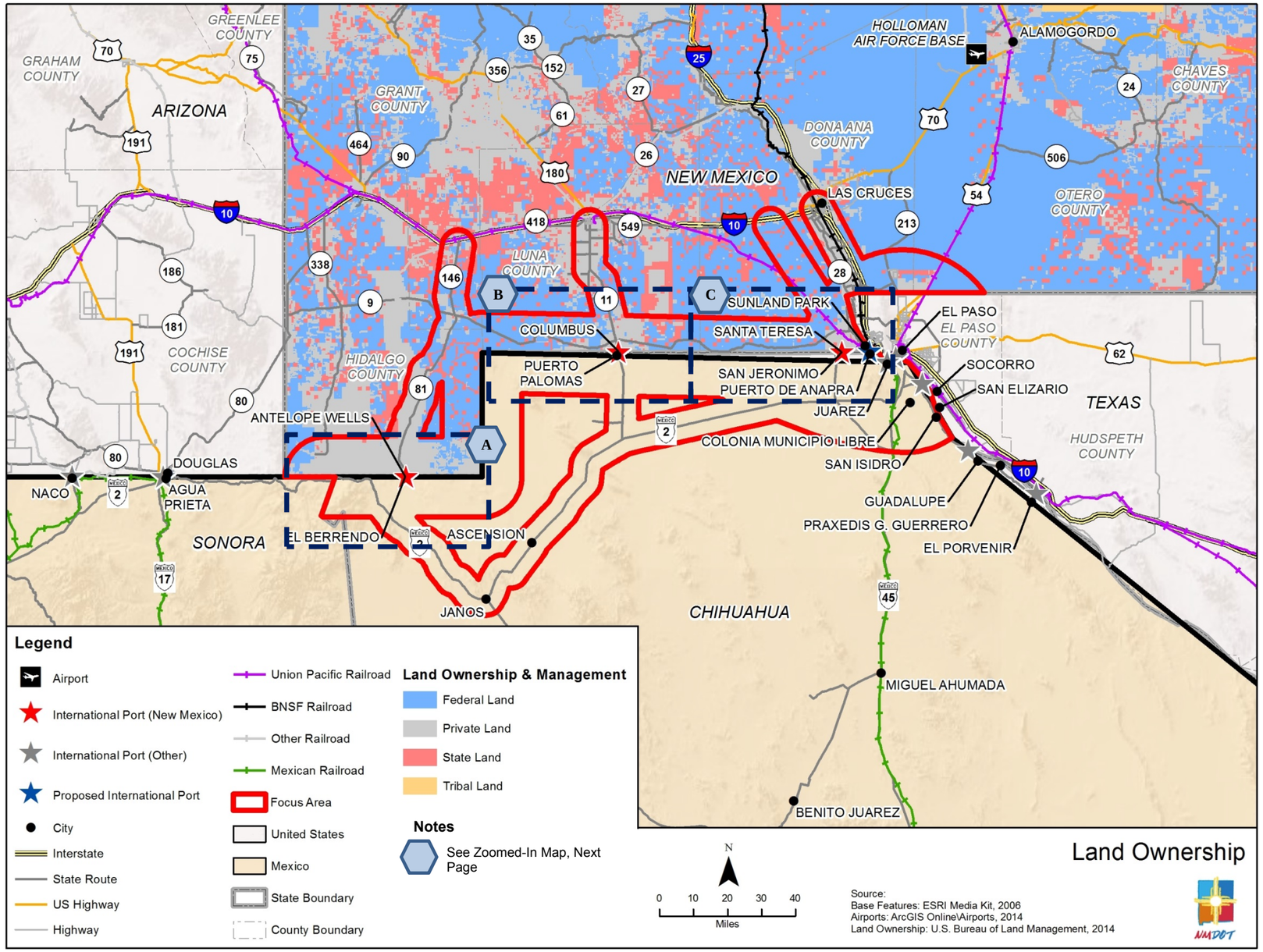


**Figure 4-1A: Land Ownership & Management near the Antelope Wells / El Berrendo LPOE**

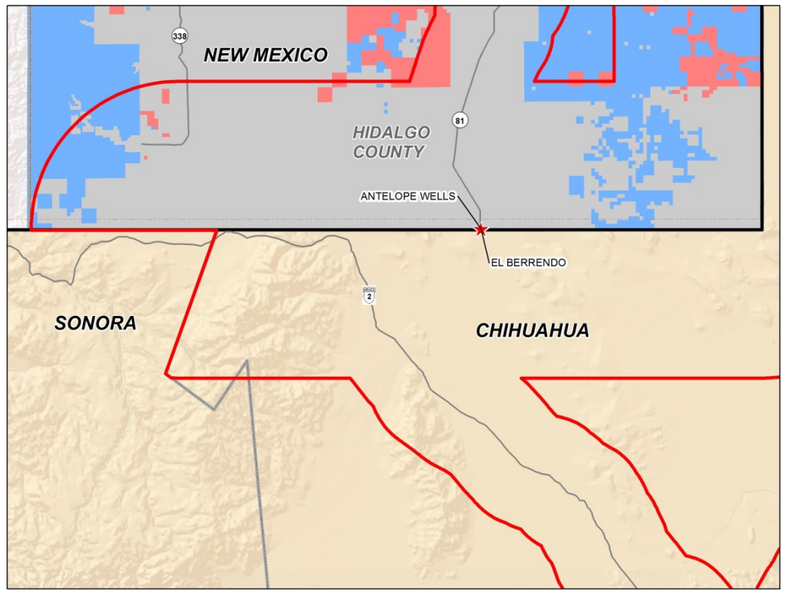



**Figure 4-1B: Land Ownership & Management near the Columbus / Puerto Palomas LPOE**

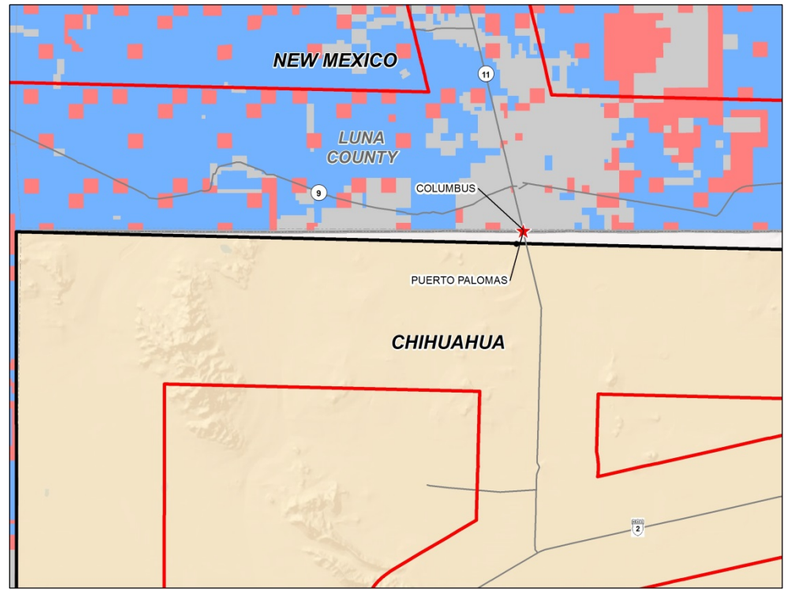
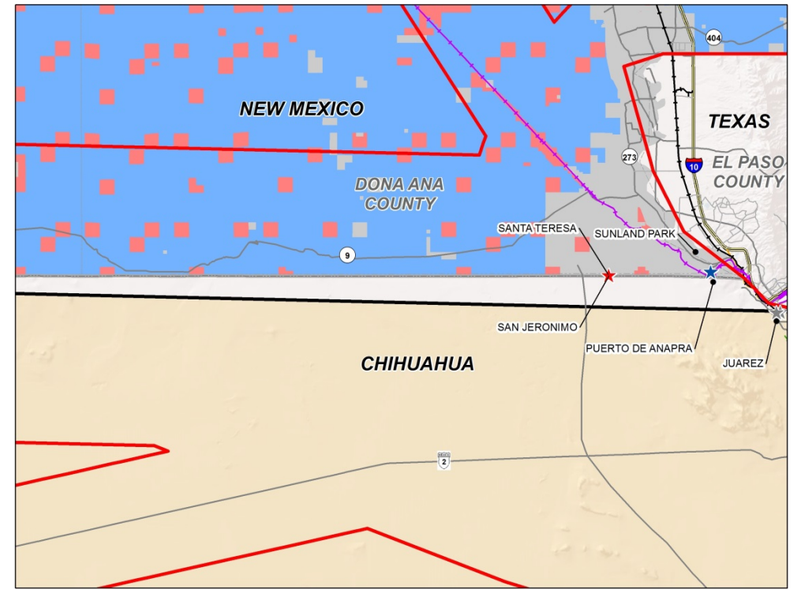



**Figure 4-1C: Land Ownership & Management near the Santa Teresa / San Jerónimo LPOE**




**Legend**

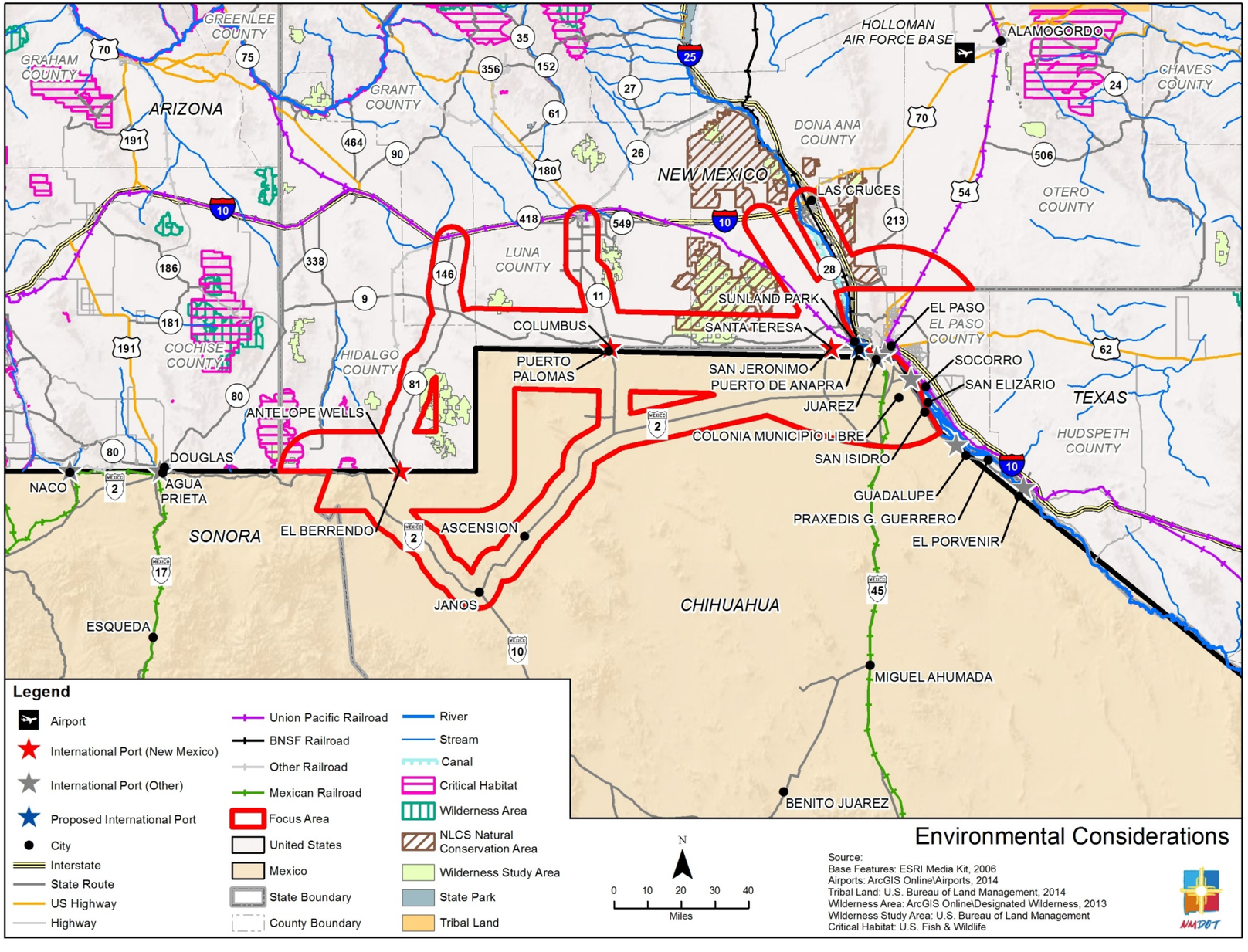
- Airport
- International Port (New Mexico)
- International Port (Other)
- Proposed International Port
- City
- Interstate
- State Route
- US Highway
- Highway
- Union Pacific Railroad
- BNSF Railroad
- Other Railroad
- Mexican Railroad
- Focus Area
- United States
- Mexico
- State Boundary
- County Boundary

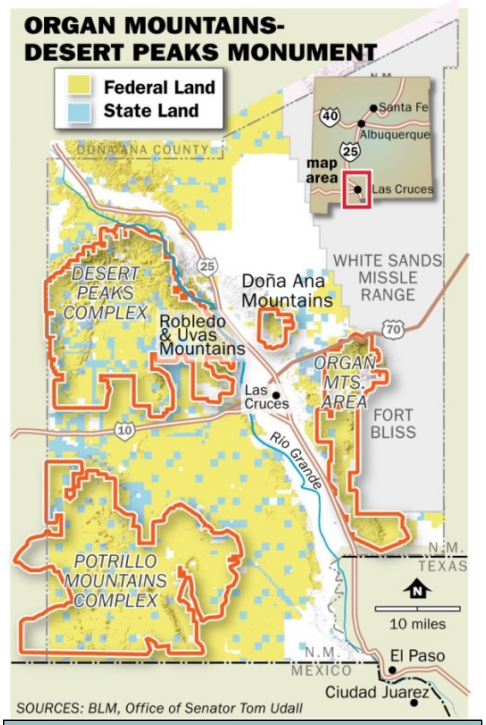
**Land Ownership & Management**

- Federal Land
- Private Land
- State Land
- Tribal Land

**Figure 4-2: Environmental Considerations in the Focus Area and Area of Influence**

Note: Environmental information from Chihuahua was not available prior to the publishing of this Plan.






**Location of the Organ Mountains - Desert Peaks Monument**

Additional attention should be provided to Wilderness Study Areas (WSA) as they may receive future designation of a formal wilderness area protected by the National Wilderness Preservation System. The largest existing designated Wilderness Study Area within the study area is in the West Portillo Mountains WSA, located between Columbus and Santa Teresa and bordered by NM 9 to the south.

A significant portion of the study region is composed of farmland. Within Luna and Doña Ana counties, much of the farmland is surrounded by areas experiencing high development. Consideration should be given to minimize development impacts and preserve the farmland in these areas.

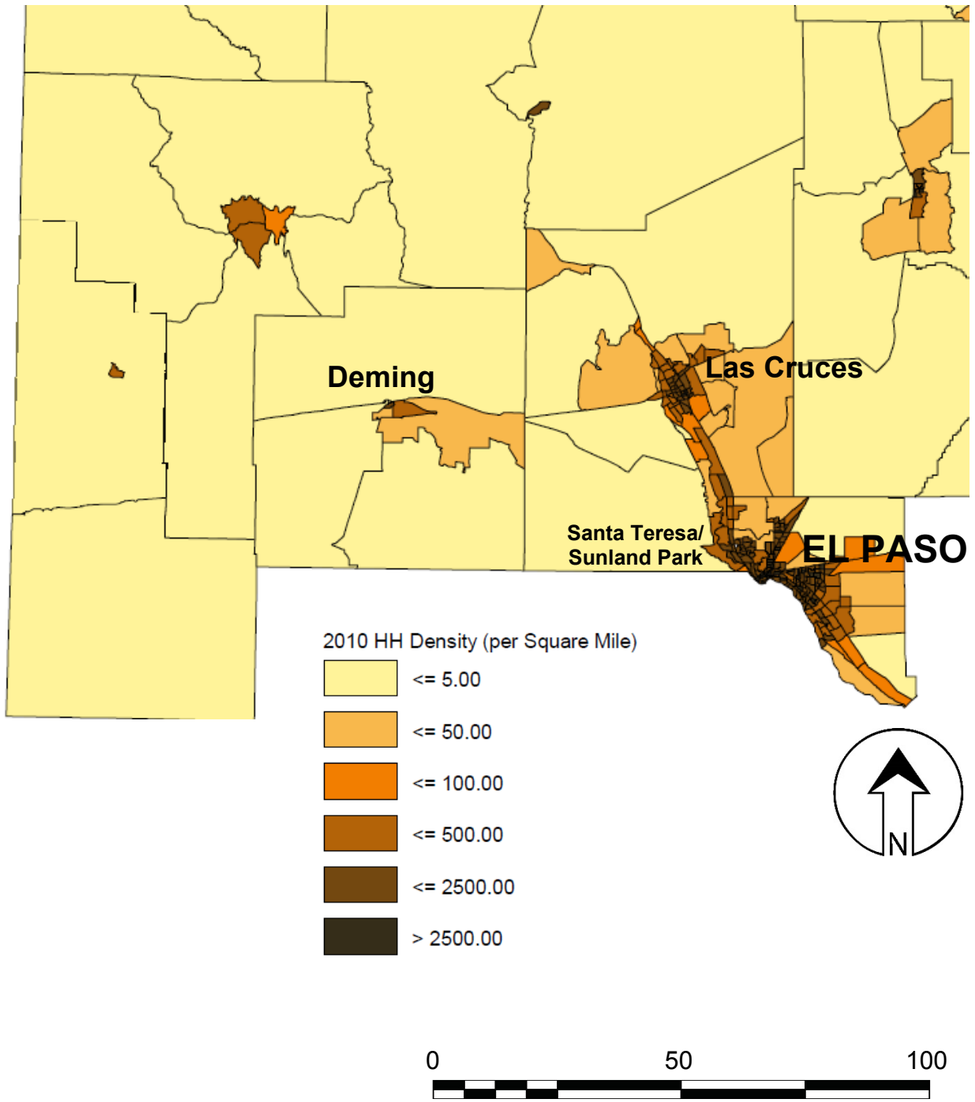
Further consideration should also be given to existing potential health and safety concerns that may worsen with future development. In Doña Ana County, New Mexico, there are Particulate Matter (PM-10) Nonattainment Areas located in Sunland Park and Anthony. There is a Natural Events Action Plan in effect for this area that includes agreement and tools to minimize public exposure to PM-10. There is also a threat to drinking water contamination, as all the drinking water sources in the region are groundwater and have been contaminated on a local level in the past. Transport of hazardous waste through the region is a potential threat to groundwater supplies, but typically does not impact future development. Any future development should be aware of these concerns and minimize any potential contamination threats.

It is also important to note that throughout southern New Mexico, there are several existing cultural resources sites which will require a cultural resource survey for any ground disturbances. If a significant discovery is found during the cultural resource survey it would require data recovery and therefore has potential to delay a project. Another potential environmental and socioeconomic concern is that within the southern New Mexico portion of

the study area, many of the communities are primarily minority and low-income populations. Any development that impacts these communities may involve Environmental Justice Issues.

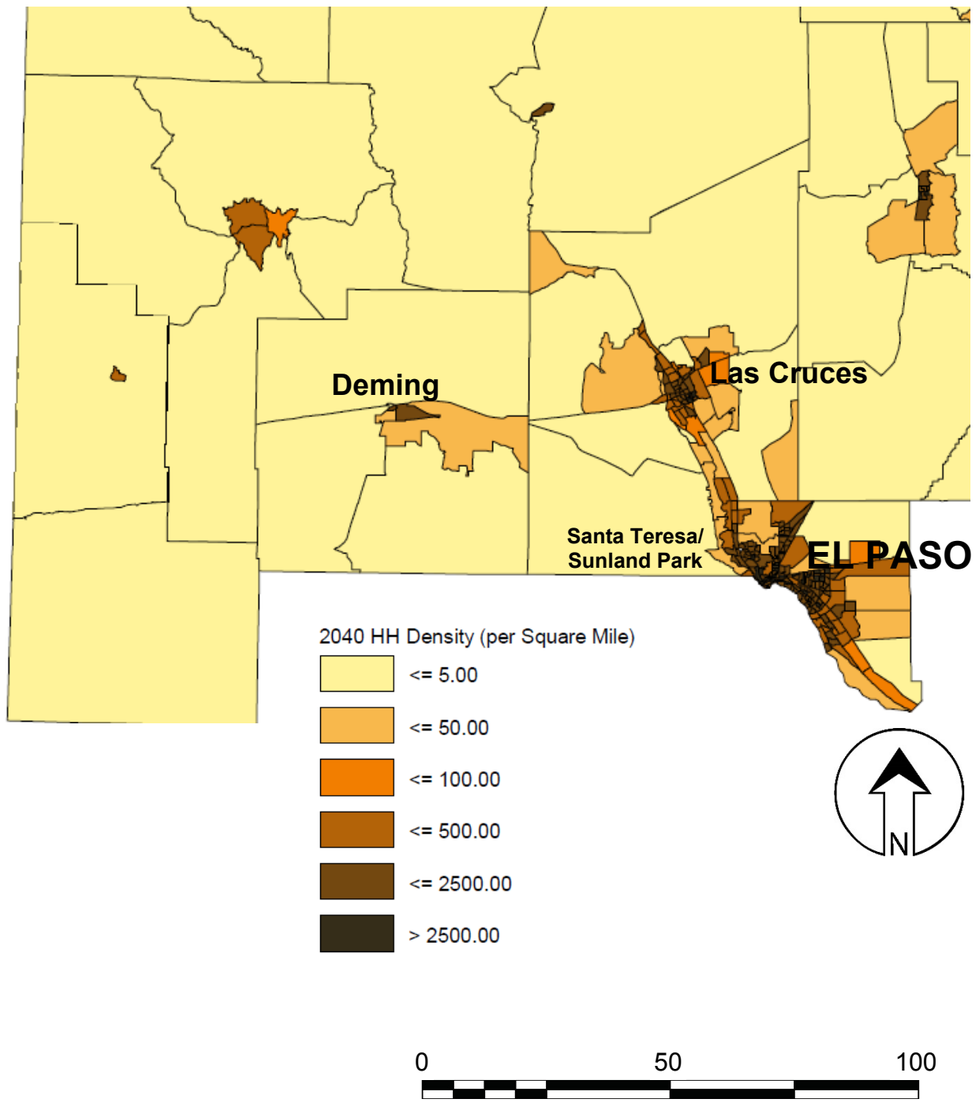
The generalized information relating to population and employment is illustrated herein on maps showing the Current (2010) Density of Population (Figure 4-3) and Future (2040) Population Density (Figure 4-4) in the state. These figures are followed by maps showing the Current (2010) Employment Distribution (Figure 4-5) and the Future (2040) Employment Distribution (Figure 4-6) in the state. The only significant population and employment concentration currently along the New Mexico-Chihuahua border is located in Doña Ana County along the I-10 Corridor. Deming and Las Cruces are the other two major urban concentrations. Population and employment projections for the future indicate the current pattern will not change significantly. The most notable difference will be the increase in employment westward in Doña Ana County between I-10 and the Union Pacific Railroad (UPRR) Sunset Line.

**Figure 4-3: Current (2010) Population Density Distribution**



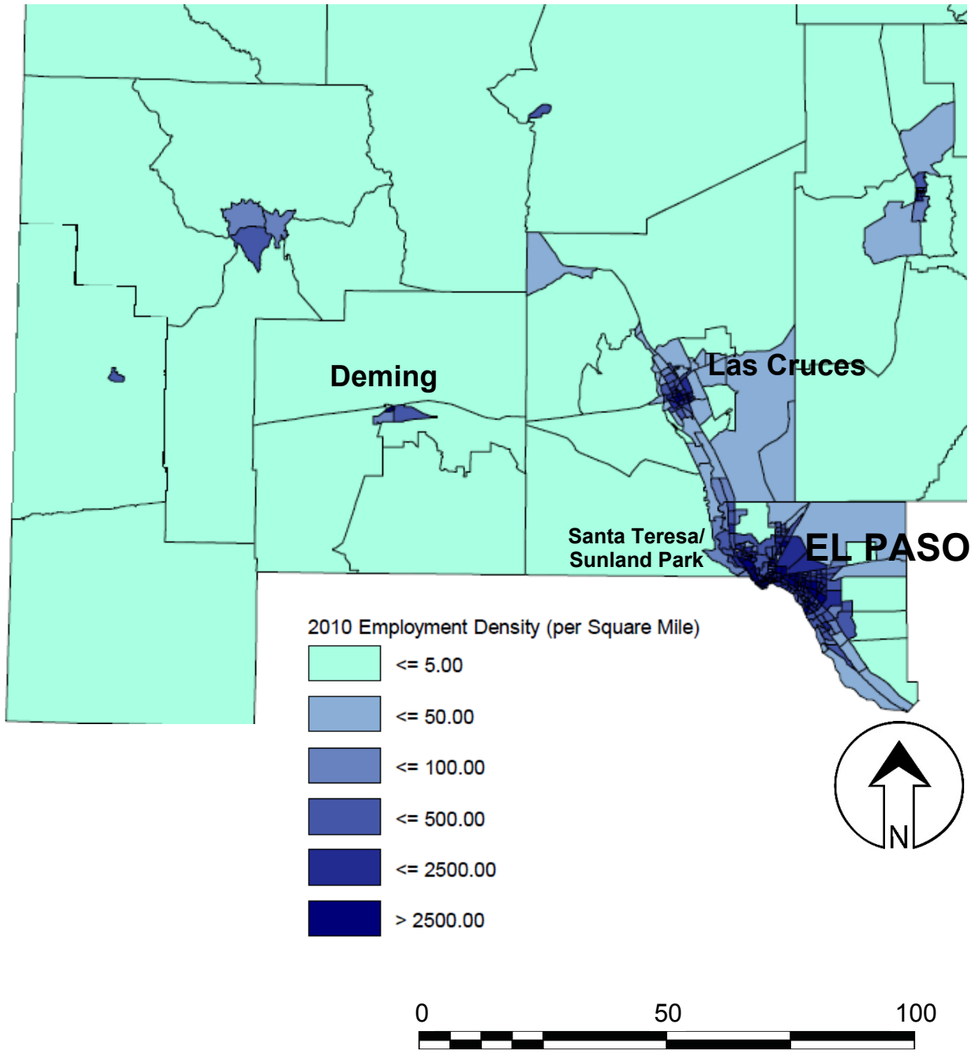

Source: Derived from the NMDOT Regional Travel Demand Model.

**Figure 4-4: Future (2040) Population Distribution**



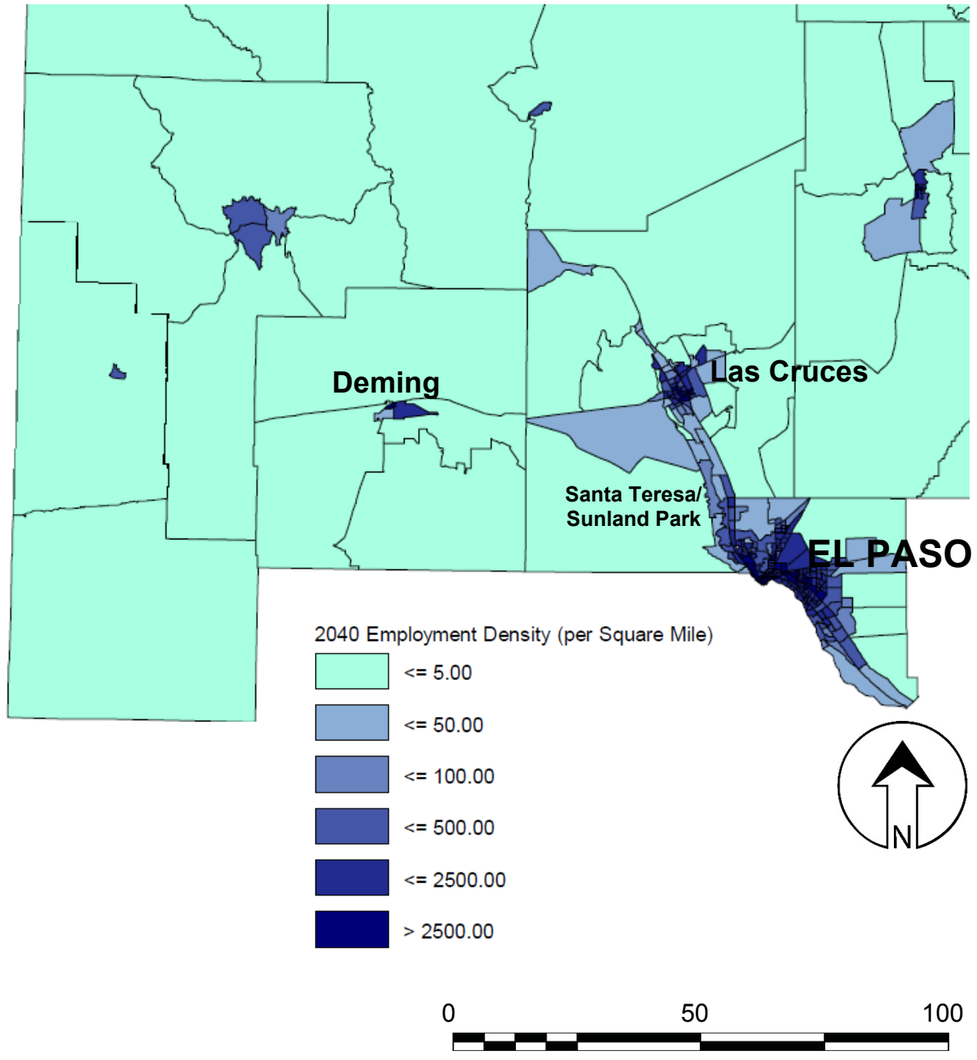

Source: Derived from the NMDOT Regional Travel Demand Model.

**Figure 4-5: Current (2010) Employment Distribution**




Source: Derived from the NMDOT Regional Travel Demand Model.

**Figure 4-6: Future (2040) Employment Distribution**




Source: Derived from the NMDOT Regional Travel Demand Model.

## CHIHUAHUA

Juárez is the largest city in the northern section of the State of Chihuahua. Janos and Ascensión are smaller urban centers. The following population summaries have been provided by Promotora de la Industria Chihuahuense, based on 2010 data.

- Table 4-1 Population Distribution in Northern Chihuahua
- Table 4-2 Population Distribution in the State of Chihuahua, by gender and age (2010)
- Table 4-3 Indicators of Migration in the State of Chihuahua (2010)
- Table 4-4 Employment Distribution in the State of Chihuahua (2010)

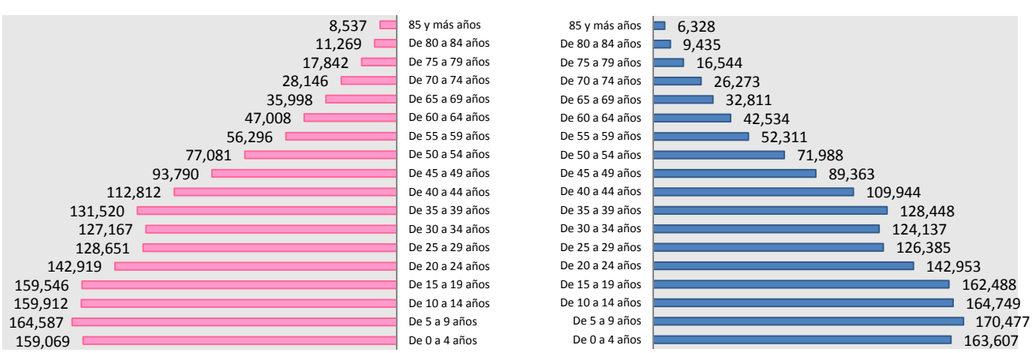
**Table 4-1: Population Distribution in Northern Chihuahua**

| Municipality | Total Population | Male Population | Female Population | Economically Active Population | Economically Active Male Population | Economically Active Female Population | Working Population | Working Male Population | Working Female Population | Unemployed Population | Unemployed Male Population | Unemployed Female Population |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Ascensión | 23,975 | 12,207 | 11,768 | 8,797 | 6,674 | 2,123 | 8,278 | 6,246 | 2,032 | 519 | 428 | 91 |
| Janos | 10,953 | 5,727 | 5,226 | 4,272 | 3,421 | 851 | 4,160 | 3,330 | 830 | 112 | 91 | 21 |
| Juárez | 1,332,131 | 665,691 | 666,440 | 530,465 | 345,981 | 184,484 | 496,320 | 319,186 | 177,134 | 34,145 | 26,795 | 7,350 |

Source: Secretaría de Economía de Gobierno del Estado. Data provided by Promotora De La Industria Chihuahuense.

**Table 4-2: Population Distribution in the State of Chihuahua, by gender and age (2010)**

| Female (49.63%) | Male (50.32%) |
|---|---|




Source: Censo de Población y Vivienda 2010, INEGI
Data provided by Promotora De La Industria Chihuahuense

**Table 4-3: Indicators of Migration in the State of Chihuahua (2010)**

| Concept | Population |
|---|---|
| Population Born in Chihuahua | 2,688,437 |
| Population Relocated to Chihuahua | 521,469 |

Source: Censo de Población y Vivienda 2010, INEGI. Data Provided by Promotora De La Industria Chihuahuense.

**Table 4-4: Employment Distribution in the State of Chihuahua (2010)**

| | Population | Percent |
|---|---|---|
| **Economically Active Population** | **1,432,882** | **100.00%** |
| Unemployed | 72,771 | 5.08% |
| Employed | 1,360,111 | 94.92% |
| Primary Sector | 126,781 | 9.32% |
| Secondary Sector | 499,598 | 36.73% |
| Tertiary Sector | 662,639 | 48.72% |
| Not Specified | 39,083 | 2.87% |

Source: Estimación CIES con datos del INEGI. Data Provided by Promotora De La Industria Chihuahuense.

There are continuous planning efforts in Mexico and specifically in the state of Chihuahua to improve the flow of people and goods. These are very large transportation projects being considered, such as:

- A new marine port at Nayarit to offset the congestion at Los Angeles/Long Beach and Mazatlán. A transportation corridor is being considered from the proposed port, through Chihuahua, potentially to the new Strauss Yard in New Mexico and to destinations beyond.
- Improving East-West Corridor from Mazatlán to Laredo and Brownsville.
- Improving the North-South Corridor from Mazatlán to Durango, Parral and San Jerónimo.

In northern Chihuahua these projects will improve the Corridor Camino Real de Tierra Adentro (Mexican Federal Route 45) north, from the City of Chihuahua, toward Juárez. Corridor del Noroeste (along Mexican Federal Route 10 toward Janos), Corridor Puenta al Pacifico (along the west side of the state), and Mexican Federal Route 2 from Juárez, to Janos and then toward Agua Prieta (in the state of Sonora).

As large transportation projects proceed it is imperative that land usage be considered in project development. At the international border we have identified some critical land use areas currently under study:

- Figure 4-7: Land Use Planning around the Santa Teresa – San Jerónimo LPOE
- Figure 4-8: Land Use Planning for Sunland Park, NM
- Figure 4-9: Land Use Planning for Anapra, Chihuahua

**Figure 4-7: Land Use Planning Around Santa Teresa - San Jerónimo LPOE**
Source: San Jerónimo / Santa Teresa Master Plan, 2013.

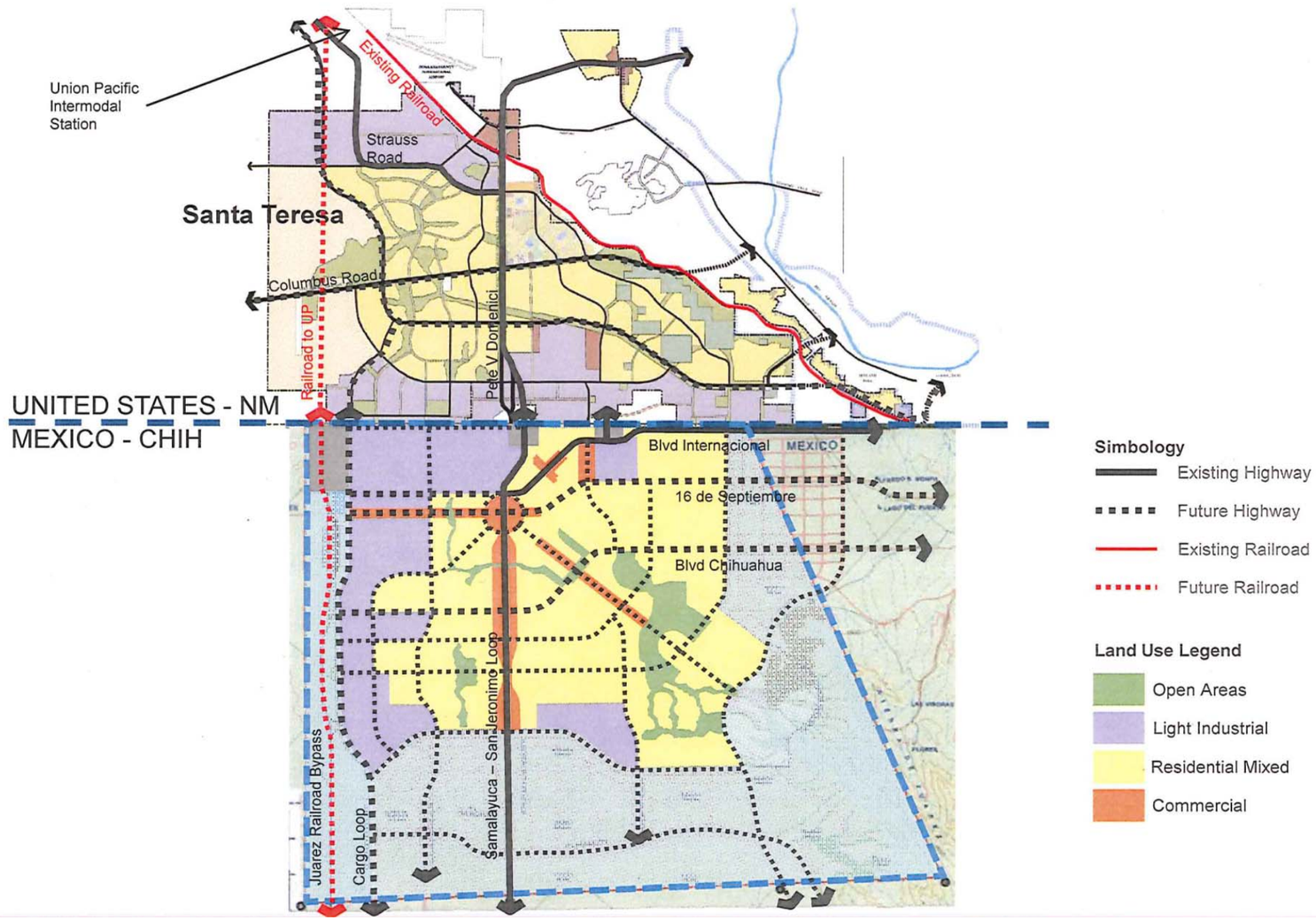


**Figure 4-8: Land Use Planning for Sunland Park, NM.**
Source: Downtown District, McNutt Corridor, and Border Crossing Master Plan, Sunland Park, New Mexico. August 31, 2007.

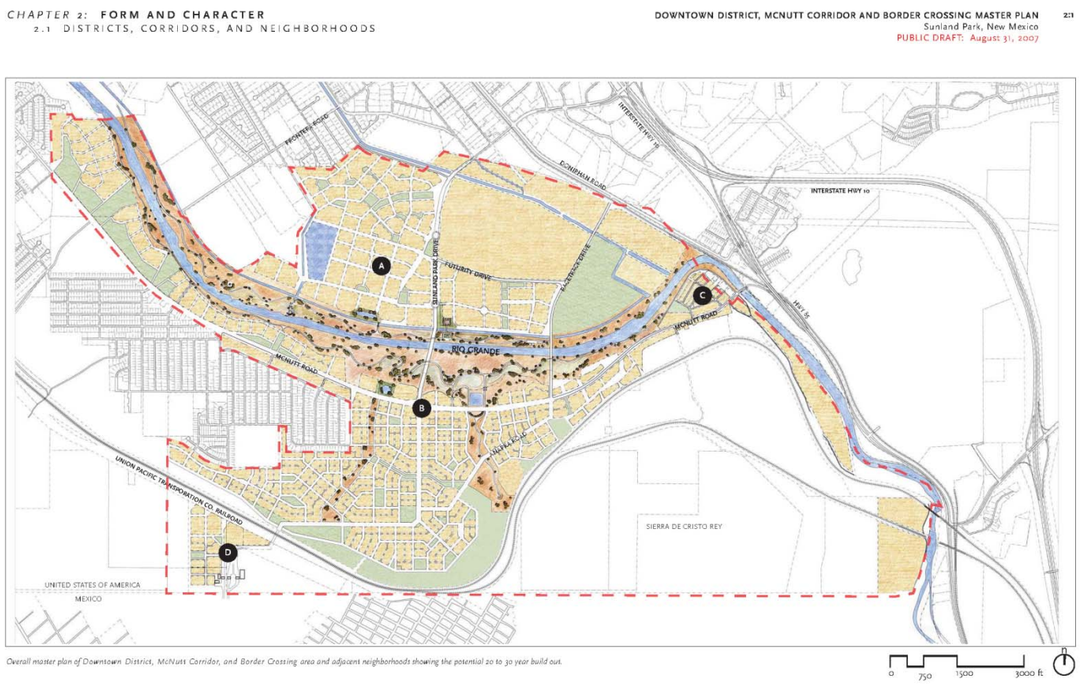
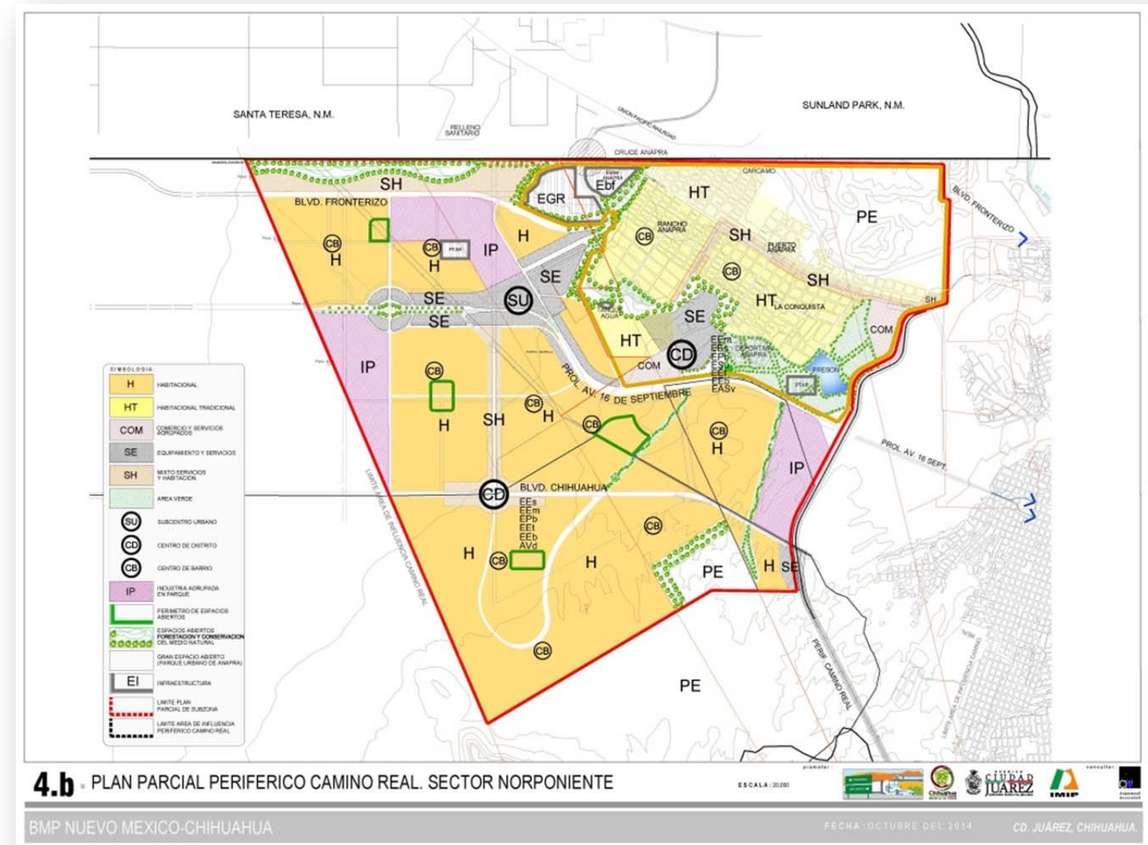



**Figure 4-9: Land Use Planning for Anapra, Chihuahua**
Source: Plan Maestro Fronterizo Nuevo Mexico-Chihuahua, Ciudad Juárez, Chihuahua. February 2015.



In addition to the development type land use planning discussed on the previous pages, there is detailed planning information regarding existing conditions in the state - from agriculture and pasture land, to jungle and scrub land (refer to Table 4-5). The mining industry continues to produce dividends within the state as tabulated in Table 4-6.

**Table 4-5: Land Use and Vegetation State of Chihuahua**

| Type of Land Use | Area (hectares) |
|---|---|
| Agriculture | 1,904,235 |
| Pasture Land | 4,583,291 |
| Forest Land | 5,889,193 |
| Jungle | 392,169 |
| Scrub Land | 8,058,109 |
| Other Vegetation | 65,592 |
| Secondary Vegetation - Pasture | 1,453,967 |
| Secondary Vegetation - Forest | 985,313 |
| Secondary Vegetation - Jungle | 137,619 |
| Secondary Vegetation - Scrub | 1,017,905 |
| Secondary Vegetation – Other | 20,655 |
| Areas Without Vegetation | 91,078 |
| Water Bodies | 68,736 |
| Urban Areas | 77,669 |

Source: II Conteo de Población y Viviend 2005, INEGI. Data provided by Promotora De La Industria Chihuahuense.

**Table 4-6: Mining Production in Chihuahua in December 2013**

| Mineral | Output (tons) |
|---|---|
| Copper | 1,408 |
| Iron | 24,448 |
| Lead | 5,142 |
| Zinc | 11,711 |
| Gold | 1,980 |
| Silver | 93,068 |

Source: INEGI. Data provided by Promotora De La Industria Chihuahuense.

As in many countries, the land and its use contribute to the economic vitality of its citizens. In the state of Chihuahua there are several sectors that drive the economy (refer to Table 4-7).

**Table 4-7: Economic Characteristics in the State of Chihuahua**

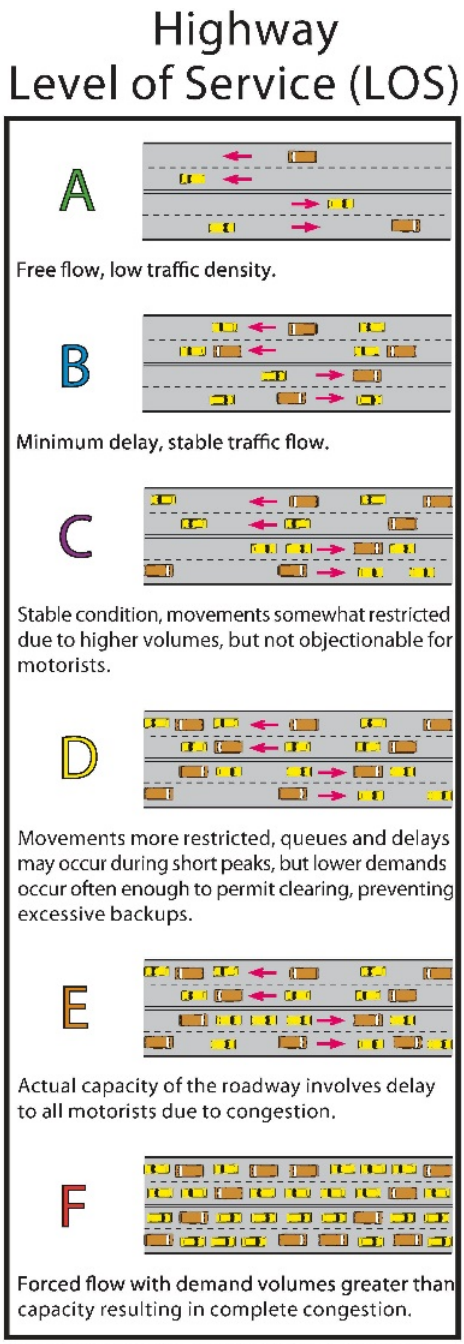
| Sector | Companies (in each Sector) | Employed Persons (by Sector) | Typical Salary (by Sector) | Expenses (pesos) | Income (thousands of pesos) | Gross Capital (thousands of pesos) |
|---|---|---|---|---|---|---|
| **Total** | **88,086** | **786,758** | **$54,730,508** | **$252,525,493** | **$388,554,460** | **$10,894,853** |
| Primary | 19 | 534 | 2,719 | 9,603 | 17,692 | 877 |
| Extractives | --- | 7,606 | 639,528 | 5,551,077 | 8,944,728 | 519,218 |
| Power | 3 | 8,365 | 2,048,162 | 11,270,006 | 21,746,699 | 2,034,897 |
| Construction | 563 | 23,442 | 1,341,585 | 9,705,518 | 13,151,005 | 194,625 |
| Industrial | 7,854 | 346,241 | 33,526,222 | 62,608,115 | 136,309,453 | 4,788,005 |
| Commercial | 44,135 | 178,043 | 5,749,199 | 135,945,874 | 154,339,098 | 1,571,365 |
| Service Industry | 34,992 | 197,568 | 9,433,421 | 22,750,150 | 44,337,588 | 1,454,841 |
| Transportation | 520 | 24,959 | 1,989,671 | 4,685,150 | 9,708,197 | 331,025 |

Source: Estimación CIES con información de los Censos Económicos 2009, INEGI. Data provided by Promotora De La Chihuahuense.

## 4.2 ROADWAY NETWORK CHARACTERISTICS

Table 4-8 (commencing on the next page) constitutes a list of the principal characteristics of key roadways within the study's Focus Area, including functional classification, number of lanes, annual average daily traffic (AADT), percent commercial trucks, volume-capacity ratio and current level of service (LOS). LOS, simply stated, describes traffic conditions in terms of speed, travel time, freedom to maneuver, comfort, convenience, traffic flow interruptions, and safety. Six levels of service (shown right), are designated by the letters A through F: 'A' represents the best operating conditions; and 'F' represents heavily congested flow with traffic demand exceeding highway capacity. Table 4-9 provides information regarding the same characteristics for roadways in the larger Regional Influence Area.

Future characteristics of the roadway network are similarly summarized in Table 4-10 and Table 4-11 for the Year 2040, based on data derived from NMDOT's travel demand model and El Paso MPO's travel demand model. LOS was calculated using the most conservative volume projection.




Source: North I-25 Environmental Impact Statement, Colorado Department of Transportation/Federal Transit Administration/Federal Highway Administration, August 17,2008.

| Table 4-8: Existing Route Characteristics (Focus Area Roadway Network) ( | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | Land Configuration/Location | | | Existing Conditions (2013) | | | |
| USA Port/ Mexico Port | Route | Facility Type[1] | Thru Lanes | Beginning Mile Post | Ending Mile Post | AADT[2] | Percent Trucks | Volume to Capacity | Level of Service (LOS) |
| Antelope Wells / El Berrendo | New Mexico (NM) 81 | Rural Major Arterial | 2 | 0.000 | 45.800 | 129 | 62% | 0.01 | A |
| | Carretera El Berrendo-Janos | Mexico Roadway Type A | 2 | U.S. Border to Fed. 2 | | NA | NA | NA | NA |
| | Mexico (MX) Fed. 2 | Mexico Roadway Type B | 2 | Extension of Sonora/ Chihuhuahua State Line to Edge of Focus Area | | 3,727 | NA | NA | B |
| | NM 9 | Rural Major Collector | 2 | 43.724 | 44.117 | 165 | 31% | 0.01 | A |
| | NM 146 | Rural Minor Arterial | 2 | 0.000 | 19.157 | 126 | 35% | 0.01 | A |
| Columbus/ Puerto Palomas | NM 11 | Rural Minor Arterial | 2 | Mexico Border to Poplar St. (Deming) | | NA | NA | NA | NA |
| | NM 11 | Rural Minor Arterial | 2 | 0.000 | 3.181 | 2,282 | 15% | 0.08 | A |
| | NM 11 | Rural Minor Arterial | 2 | 3.181 | 13.754 | 1,894 | 23% | 0.07 | A |
| | NM 11 | Rural Minor Arterial | 2 | 13.754 | 22.763 | 2,111 | 15% | 0.08 | A |
| | NM 11 | Rural Minor Arterial | 2 | 22.763 | 26.137 | 2,603 | 10% | 0.09 | A |
| | NM 11 | Rural Minor Arterial | 2 | 26.137 | 29.123 | 3,388 | 25% | 0.12 | A |
| | NM 11 | Rural Minor Arterial | 2 | 29.123 | 30.133 | 2,858 | 14% | 0.10 | A |
| | NM 11 | Rural Minor Arterial | 2 | 30.133 | 30.565 | 11,195 | 9% | 0.40 | A |
| | NM 11 | Rural Minor Arterial | 2 | 30.565 | 34.119 | 9,744 | 9% | 0.35 | A |
| | Avenida 5 de Mayo | Mexico Roadway Type A | 2 | U.S. Border to Fed. 2 | | 1212 | NA | NA | B |
| | NM 9 | Rural Major Collector | 2 | 44.117 | 87.865 | 621 | 42% | 0.03 | A |
| | NM 9 | Urban Collector | 2 | 87.865 | 109.154 | 654 | 31% | 0.03 | A |
| | NM 9 | Rural Major Collector | 2 | NM 11 to Luna- Doña Ana County Line | | NA | NA | NA | NA |

| Table 4-8: Existing Route Characteristics (Focus Area Roadway Network) (Continued) | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | Land Configuration/Location | | | Existing Conditions (2013) | | | |
| USA Port/ Mexico Port | Route | Facility Type[1] | Thru Lanes | Beginning Mile Post | Ending Mile Post | AADT[2] | Percent Trucks | Volume to Capacity | Level of Service (LOS) |
| Columbus/ Puerto Palomas (continued) | NM 495 | Rural Minor Arterial | 2 | NM 11 to C014 | | NA | NA | NA | NA |
| | County (C0) 14 | Rural Minor Arterial | 2 | NM 495 to C010 | | NA | NA | NA | NA |
| | C010 | Rural Minor Arterial | 2 | C014 to NM 517 | | NA | NA | NA | NA |
| | NM 517 | Rural Minor Arterial | 2 | C010 to NM 11 | | NA | NA | NA | NA |
| | NM 332 | Rural Minor Arterial | 2 | NM 11 to NM 331 | | NA | NA | NA | NA |
| Santa Teresa/ San Jerónimo | NM 136 | Rural Principal Arterial | 4 | 0.000 | 5.354 | 4,741 | 20% | 0.07 | A |
| | NM 136 | Rural Principal Arterial | 4 | 5.354 | 8.034 | 5,854 | 38% | 0.08 | A |
| | NM 136 | Rural Principal Arterial | 4 | 8.034 | 9.157 | 10,584 | 28% | 0.15 | A |
| | Carretera Jerónimo-Santa Teresa/ libramiento de Samalayuca-San Jerónimo | Mexico Roadway Type A | 2 | U.S. Border to Fed. 45 | | 938 | 15% | NA | NA |
| | Carretera Anapra-San Jerónimo | Mexico Roadway Type A | 4 | Rancho Anapra to Carretera Jerónimo- Santa Teresa | | 22,000 | 4% | NA | NA |
| | NM 273 | Urban Minor Arterial | 4 | 0.000 | 0.918 | 7,801 | 15% | 0.13 | A |
| | NM 273 | Urban Minor Arterial | 4 | 0.918 | 6.592 | 8,251 | 12% | 0.13 | A |
| | NM 273 | Urban Minor Arterial | 4 | 6.592 | 9.320 | 8,772 | 16% | 0.14 | A |
| | NM 273 | Urban Minor Arterial | 2 | 9.320 | 11.900 | 2,278 | 16% | 0.07 | A |
| | NM 273 | Urban Minor Arterial | 2 | 11.900 | 14.02 | 1,052 | 36% | 0.03 | A |
| | NM 28 | Urban Collector | 2 | 0.000 | 0.423 | 2,399 | 12% | 0.10 | A |

| Table 4-8: Existing Route Characteristics (Focus Area Roadway Network) (Continued) | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | Land Configuration/Location | | | Existing Conditions (2013) | | | |
| USA Port/ Mexico Port | Route | Facility Type[1] | Thru Lanes | Beginning Mile Post | Ending Mile Post | AADT[2] | Percent Trucks | Volume to Capacity | Level of Service (LOS) |
| Santa Teresa/ San Jerónimo (continued) | NM 28 | Rural Major Collector | 2 | 0.423 | 3.140 | 2,267 | 28% | 0.09 | A |
| | NM 28 | Rural Major Collector | 2 | 3.140 | 3.210 | 2,561 | 26% | 0.11 | A |
| | NM 28 | Rural Major Collector | 2 | 3.210 | 6.246 | 2,038 | 31% | 0.08 | A |
| | NM 28 | Rural Major Collector | 2 | 6.246 | 7.852 | 2,408 | 27% | 0.10 | A |
| | NM 28 | Rural Major Collector | 2 | 7.852 | 10.949 | 2,374 | 13% | 0.10 | A |
| | NM 28 | Rural Major Collector | 2 | 10.949 | 14.529 | 1,915 | 29% | 0.08 | A |
| | NM 28 | Rural Major Collector | 2 | 14.529 | 19.025 | 2,159 | 27% | 0.09 | A |
| | NM 28 | Rural Minor Arterial | 2 | 19.025 | 27.581 | 3,218 | 15% | 0.11 | A |
| | NM 28 | Urban Minor Arterial | 2 | 27.581 | 28.086 | 5,281 | 27% | 0.17 | A |
| | NM 28 | Urban Minor Arterial | 2 | 28.086 | 28.651 | 7,956 | 11% | 0.26 | A |
| | NM 28 | Urban Minor Arterial | 2 | 28.651 | 29.631 | 8,181 | 9% | 0.27 | A |
| | Interstate 10 (I-10 ) | Rural Interstate | 6 | 144.349 | 144.650 | 27,804 | 22% | 0.19 | A |
| | I-10 | Rural Interstate | 6 | 144.650 | 151.150 | 31,477 | 37% | 0.22 | A |
| | I-10 | Rural Interstate | 6 | 151.150 | 151.200 | 29,114 | 36% | 0.20 | A |
| | I-10 | Rural Interstate | 6 | 151.200 | 154.850 | 29,149 | 35% | 0.20 | A |
| | I-10 | Rural Interstate | 6 | 154.850 | 154.950 | 30,348 | 27% | 0.21 | A |
| | I-10 | Rural Interstate | 6 | 154.950 | 160.250 | 33,847 | 25% | 0.24 | A |
| | I-10 | Rural Interstate | 6 | 160.250 | 160.400 | 31,573 | 33% | 0.22 | A |
| | I-10 | Rural Interstate | 6 | 160.400 | 160.450 | 30,333 | 27% | 0.21 | A |
| | I-10 | Rural Interstate | 6 | 160.450 | 164.264 | 34,000 | 22% | 0.24 | A |
| | NM 478 | Rural Minor Arterial | 2 | 0.000 | 4.827 | 9,932 | 3% | 0.35 | A |

| Table 4-8: Existing Route Characteristics (Focus Area Roadway Network) (Continued) | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | Land Configuration/Location | | | Existing Conditions (2013) | | | |
| USA Port/ Mexico Port | Route | Facility Type[1] | Thru Lanes | Beginning Mile Post | Ending Mile Post | AADT[2] | Percent Trucks | Volume to Capacity | Level of Service (LOS) |
| Santa Teresa/ San Jerónimo (continued) | NM 478 | Rural Minor Arterial | 2 | 4.827 | 8.529 | 3,064 | 12% | 0.11 | A |
| | NM 478 | Rural Minor Arterial | 2 | 8.529 | 8.760 | 3,211 | 14% | 0.11 | A |
| | NM 478 | Urban Minor Arterial | 2 | 8.760 | 12.308 | 4,439 | 15% | 0.14 | A |
| | NM 478 | Urban Minor Arterial | 2 | 12.308 | 12.378 | 2,897 | 13% | 0.09 | A |
| | NM 478 | Urban Minor Arterial | 2 | 12.378 | 19.957 | 3,803 | 17% | 0.12 | A |
| | NM 478 | Urban Minor Arterial | 2 | 19.957 | 20.466 | 7,122 | 33% | 0.23 | A |
| | NM 478 | Urban Minor Arterial | 2 | 20.466 | 20.517 | 9,249 | 9% | 0.30 | A |
| | NM 478 | Urban Minor Arterial | 2 | 20.517 | 20.993 | 9,246 | 9% | 0.30 | A |
| | NM 478 | Urban Minor Arterial | 2 | 20.993 | 21.444 | 13,339 | 6% | 0.43 | A |
| | NM 460 | Rural Minor Arterial | 4 | 0.000 | 0.210 | 13,691 | 20% | 0.24 | A |
| | NM 460 | Rural Minor Arterial | 4 | 0.210 | 1.710 | 9,330 | 12% | 0.17 | A |
| | NM 460 | Rural Minor Arterial | 2 | 1.710 | 3.805 | 5,928 | 8% | 0.21 | A |
| | NM 404 | Rural Principal Arterial | 2 | 0.000 | 0.883 | 7,129 | 20% | 0.20 | A |
| | NM 186 | Rural Minor Collector | 2 | 0.000 | 1.250 | 697 | 13% | 0.03 | A |
| | O'Hara Road | Rural Major Collector | 2 | NM 186 to NM 404 | | NA | NA | NA | NA |
| | NM 226 | Rural Minor Collector | 2 | 0.000 | 2.600 | 960 | 32% | 0.05 | A |
| | NM 189 | Rural Major Collector | 2 | 0.000 | 1.200 | 2,278 | 28% | 0.09 | A |
| | NM 227 | Rural Major Collector | 2 | 0.000 | 1.816 | 3,557 | 12% | 0.15 | A |
| | NM 228 | Rural Major Collector | 2 | 0.000 | 1.812 | 2,968 | 23% | 0.12 | A |

| Table 4-8: Existing Route Characteristics (Focus Area Roadway Network) (Continued) | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | Land Configuration/Location | | | Existing Conditions (2013) | | | |
| USA Port/ Mexico Port | Route | Facility Type[1] | Thru Lanes | Beginning Mile Post | Ending Mile Post | AADT[2] | Percent Trucks | Volume to Capacity | Level of Service (LOS) |
| Santa Teresa/ San Jerónimo (continued) | NM 192 | Rural Major Collector | 2 | 0.000 | 2.367 | 1,068 | 20% | 0.04 | A |
| | NM 372 | Urban Collector | 2 | 0.000 | 0.521 | 624 | 37% | 0.03 | A |
| | NM 372 | Urban Collector | 2 | 0.521 | 1.533 | 507 | 4% | 0.02 | A |
| | NM 372 | Rural Minor Collector | 2 | 1.533 | 2.083 | 728 | 5% | 0.04 | A |
| | NM 372 | Rural Minor Collector | 2 | 2.083 | 2.633 | 674 | 0% | 0.03 | A |
| | NM 372 | Rural Minor Collector | 2 | NM 374 to NM 478 | | NA | NA | NA | NA |
| | NM 373 | Urban Collector | 4 | 0.000 | 1.026 | 1,118 | 7% | 0.02 | A |
| | NM 373 | Urban Collector | 4 | 1.026 | 1.496 | 2,311 | 23% | 0.05 | A |
| | NM 373 | Urban Principal Arterial | 4 | McDowell Place to I-10 | | NA | NA | NA | NA |
| | NM 359 | Urban Collector | 2 | 0.000 | 0.008 | 2,161 | 2% | 0.09 | A |
| | NM 359 | Urban Collector | 2 | 0.008 | 0.417 | 1,592 | 7% | 0.07 | A |
| | NM 359 | Urban Collector | 2 | 0.417 | 2.616 | 1,957 | 7% | 0.08 | A |
| | NM 359 | Rural Minor Collector | 2 | MP 2.626 to I-10 | | NA | NA | NA | NA |
| | Periferico Camino Real | Mexico Roadway Type B | 6 | Fed. 45 to Rancho Anapra | | 2,257 | 10% | NA | NA |
| | Blvd. Ing. Bernardo Norzagaray | Mexico Roadway Type A | 6 | Santa Fe Bridge (Cd. Juárez) to Periferico Camino Real | | 2,257 | 6% | NA | NA |
| | Rancho Anapra | Mexico Roadway Type A | 6 | Periferico Camino Real to Carretera Anapra-San Jerónimo | | 2,257 | 4% | NA | NA |
| | MX Fed. 45 | Mexico Roadway Type B | 4 | libramiento de Samalayuca-San Jerónimo to Fed. 2 | | 938 | 15% | NA | NA |
| | MX Fed. 2 | Mexico Roadway Type B | 6 | Fed. 45 Periferico Camino Real | | 2,257 | 15% | NA | C |

| Table 4-8: Existing Route Characteristics (Focus Area Roadway Network) (Continued) | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | Land Configuration/Location | | | Existing Conditions (2013) | | | |
| USA Port/ Mexico Port | Route | Facility Type(1) | Thru Lanes | Beginning Mile Post | Ending Mile Post | AADT(2) | Percent Trucks | Volume to Capacity | Level of Service (LOS) |
| Santa Teresa/ San Jerónimo (continued) | MX Fed. 2 | Mexico Roadway Type B | 4 | Periferico Camino Real to Calandria | | 2,257 | 15% | NA | C |
| | MX Fed. 2 | Mexico Roadway Type B | 2 | Calandria to libramiento de Samalayuca-San Jerónimo | | 2,257 | 15% | NA | C |

Notes:
(1) Facility Type based on NMDOT State Travel Demand Model
(2) AADT = Annual Average Daily Traffic volumes.
(3) NA = Volumes and LOS not available.
(4) Traffic volumes (AADT) and percent trucks data predates the opening of the UPRR Intermodal Facility.

Sources:
Traffic Volumes for Interstate, State Routes, and U.S. Routes: Obtained from NMDOT Average Annual Daily Traffic Counts (2013) at http://dot.state.nm.us/en/Planning.html
NMDOT 2040 State Travel Demand Model
El Paso MPO 2040 Horizon Travel Demand Model

| Table 4-9: Existing Route Characteristics (Area of Influence Roadway Network) | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Area of Influence Subarea | Route | Facility Type[1] | Lane Configuration/ Location | | | Existing Conditions (2013) | | | |
| | | | Thru Lanes | Beginning Mile Post | Ending Mile Post | AADT[2] | Percent Trucks | Volume to Capacity | Level of Service (LOS) |
| AZ/NM Line to Antelope Wells/ El Berrendo | New Mexico (NM) 80 | Rural Major Collector | 2 | 0.000 | 4.608 | 514 | 45% | 0.01 | A |
| | NM 80 | Rural Major Collector | 2 | 4.608 | 8.044 | 395 | 38% | 0.01 | A |
| | NM 80 | Rural Major Collector | 2 | 8.044 | 24.205 | 270 | 28% | 0.01 | A |
| | NM 80 | Rural Major Collector | 2 | 24.205 | 32.416 | 322 | 40% | 0.01 | A |
| | NM 145 | Rural Major Collector | 2 | 0.000 | 3.500 | 84 | 30% | 0.00 | A |
| | NM 338 | Rural Major Collector | 2 | 0.000 | 0.036 | 343 | 21% | 0.01 | A |
| | NM 338 | Rural Major Collector | 2 | 0.036 | 2.900 | 391 | 29% | 0.01 | A |
| | NM 338 | Rural Major Collector | 2 | 2.900 | 10.866 | 313 | 24% | 0.01 | A |
| | NM 338 | Rural Major Collector | 2 | 10.866 | 24.161 | 400 | 18% | 0.01 | A |
| | NM 338 | Rural Major Collector | 2 | 24.161 | 24.288 | 505 | 26% | 0.01 | A |
| | NM 338 | Rural Major Collector | 2 | 24.288 | 24.440 | 393 | 43% | 0.01 | A |
| | NM 9 | Rural Major Collector | 2 | 0.000 | 13.882 | 211 | 40% | 0.00 | A |
| | NM 9 | Rural Major Collector | 2 | 13.882 | 30.750 | 263 | 34% | 0.01 | A |
| | NM 9 | Rural Major Collector | 2 | 30.750 | 43.724 | 263 | 34% | 0.01 | A |
| | NM 113 | Rural Major Collector | 2 | 0.000 | 18.533 | 120 | 25% | 0.00 | A |
| | NM 113 | Rural Major Collector | 2 | 18.533 | 20.571 | 134 | 34% | 0.00 | A |
| | NM 113 | Rural Major Collector | 2 | 20.571 | 20.602 | 135 | 23% | 0.00 | A |
| | Interstate 10 (I-10) | Rural Interstate | 4 | 0.000 | 3.630 | 16,205 | 60% | 0.04 | A |
| | I-10 | Rural Interstate | 4 | 3.630 | 5.833 | 17,399 | 60% | 0.05 | A |
| | I-10 | Rural Interstate | 4 | 5.833 | 11.200 | 11,132 | 51% | 0.03 | A |

| Table 4-9: Existing Route Characteristics (Area of Influence Roadway Network) (Continued) | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Area of Influence Subarea | Route | Facility Type[1] | Lane Configuration/ Location | | | Existing Conditions (2013) | | | |
| | | | Thru Lanes | Beginning Mile Post | Ending Mile Post | AADT[2] | Percent Trucks | Volume to Capacity | Level of Service (LOS) |
| AZ/NM Line to Antelope Wells/ El Berrendo (continued) | I-10 | Rural Interstate | 4 | 11.200 | 15.680 | 16,706 | 84% | 0.04 | A |
| | I-10 | Rural Interstate | 4 | 15.680 | 20.720 | 12,129 | 43% | 0.03 | A |
| | I-10 | Rural Interstate | 4 | 20.720 | 20.820 | 17,738 | 67% | 0.05 | A |
| | I-10 | Urban Interstate | 4 | 20.820 | 22.594 | 19,296 | 48% | 0.04 | A |
| | I-10 | Urban Interstate | 4 | 22.594 | 22.610 | 9,714 | 64% | 0.02 | A |
| | I-10 | Urban Interstate | 4 | 22.610 | 24.395 | 10,344 | 65% | 0.02 | A |
| | I-10 | Rural Interstate | 4 | 24.395 | 24.565 | 9,913 | 61% | 0.03 | A |
| | I-10 | Rural Interstate | 4 | 24.565 | 24.600 | 15,815 | 52% | 0.04 | A |
| | I-10 | Rural Interstate | 4 | 24.600 | 24.610 | 8,240 | 68% | 0.02 | A |
| | I-10 | Rural Interstate | 4 | 24.610 | 29.300 | 10,937 | 63% | 0.03 | A |
| | I-10 | Rural Interstate | 4 | 29.300 | 29.556 | 18,138 | 45% | 0.05 | A |
| | I-10 | Rural Interstate | 4 | 29.556 | 29.700 | 13,113 | 45% | 0.03 | A |
| | I-10 | Rural Interstate | 4 | 29.700 | 34.217 | 13,163 | 41% | 0.03 | A |
| | I-10 | Rural Interstate | 4 | 34.217 | 42.400 | 19,191 | 45% | 0.05 | A |
| | I-10 | Rural Interstate | 4 | 42.400 | 42.470 | 13,403 | 44% | 0.03 | A |
| | I-10 | Rural Interstate | 4 | 42.470 | 42.570 | 11,277 | 68% | 0.03 | A |
| | I-10 | Rural Interstate | 4 | 42.570 | 49.870 | 12,351 | 34% | 0.03 | A |
| | I-10 | Rural Interstate | 4 | 49.870 | 49.900 | 15,113 | 45% | 0.04 | A |
| | I-10 | Rural Interstate | 4 | 49.900 | 49.970 | 11,508 | 67% | 0.03 | A |
| Antelope Wells/ El Berrendo to Columbus/ Puerto Palomas | NM 418 | Rural Major Collector | 2 | 0.000 | 12.830 | 837 | 17% | 0.02 | A |
| | NM 418 | Rural Major Collector | 2 | 12.830 | 14.069 | 1,832 | 11% | 0.04 | A |
| | I -10 | Rural Interstate | 4 | 49.970 | 55.790 | 11,480 | 56% | 0.03 | A |
| | I -10 | Rural Interstate | 4 | 55.790 | 56.210 | 13,146 | 64% | 0.03 | A |

| Table 4-9: Existing Route Characteristics (Area of Influence Roadway Network) (Continued) | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Area of Influence Subarea | Route | Facility Type[1] | Lane Configuration/ Location | | | Existing Conditions (2013) | | | |
| | | | Thru Lanes | Beginning Mile Post | Ending Mile Post | AADT[2] | Percent Trucks | Volume to Capacity | Level of Service (LOS) |
| Antelope Wells/ El Berrendo to Columbus/ Puerto Palomas (continued) | I -10 | Rural Interstate | 4 | 56.210 | 62.710 | 16,627 | 64% | 0.04 | A |
| | I -10 | Rural Interstate | 4 | 62.710 | 63.320 | 18,807 | 36% | 0.05 | A |
| | I -10 | Rural Interstate | 4 | 63.320 | 68.470 | 16,760 | 57% | 0.04 | A |
| | I -10 | Rural Interstate | 4 | 68.470 | 68.570 | 17,113 | 65% | 0.04 | A |
| | I -10 | Rural Interstate | 4 | 68.570 | 80.804 | 11,582 | 43% | 0.03 | A |
| | I -10 | Urban Interstate | 4 | 80.804 | 80.915 | 13,628 | 52% | 0.03 | A |
| | I -10 | Urban Interstate | 4 | 80.915 | 81.105 | 16,229 | 43% | 0.04 | A |
| | I -10 | Urban Interstate | 4 | 81.105 | 81.220 | 20,710 | 59% | 0.05 | A |
| | I -10 | Urban Interstate | 4 | 81.220 | 81.485 | 17,653 | 43% | 0.04 | A |
| | I -10 | Urban Interstate | 4 | 81.485 | 82.120 | 15,881 | 43% | 0.03 | A |
| | I -10 | Urban Interstate | 4 | 82.120 | 82.200 | 15,790 | 43% | 0.03 | A |
| | I -10 | Urban Interstate | 4 | 82.200 | 82.255 | 15,095 | 43% | 0.03 | A |
| | I -10 | Urban Interstate | 4 | 82.255 | 82.460 | 18,622 | 43% | 0.04 | A |
| | Mexico Federal (MX Fed.) 2 | Mexico Roadway Type A | 2 | Edge of Focus Area to Avenida 5 de Mayo | | 2,257 | 15% | NA | B |
| | MX Fed. 10 | Mexico Roadway Type B | 2 | Fed. 2 to Edge of Area of Influence | | 3,727 | NA | NA | B |
| Columbus/ Puerto Palomas to Santa Teresa/ San Jerónimo | I-10 | Urban Interstate | 4 | 82.460 | 82.580 | 16,183 | 42% | 0.04 | A |
| | I-10 | Urban Interstate | 4 | 82.580 | 82.730 | 15,771 | 43% | 0.03 | A |
| | I-10 | Urban Interstate | 4 | 82.730 | 83.120 | 17,276 | 43% | 0.04 | A |
| | I-10 | Urban Interstate | 4 | 83.120 | 83.170 | 21,352 | 43% | 0.05 | A |

| Table 4-9: Existing Route Characteristics (Area of Influence Roadway Network) (Continued) | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Area of Influence Subarea | Route | Facility Type[1] | Lane Configuration/ Location | | | Existing Conditions (2013) | | | |
| | | | Thru Lanes | Beginning Mile Post | Ending Mile Post | AADT[2] | Percent Trucks | Volume to Capacity | Level of Service (LOS) |
| Columbus/ Puerto Palomas to Santa Teresa/ San Jerónimo (continued) | I-10 | Urban Interstate | 4 | 83.170 | 83.670 | 18,651 | 43% | 0.04 | A |
| | I-10 | Urban Interstate | 4 | 83.670 | 83.715 | 15,706 | 43% | 0.03 | A |
| | I-10 | Rural Interstate | 4 | 83.715 | 84.950 | 18,467 | 43% | 0.05 | A |
| | I-10 | Rural Interstate | 4 | 84.950 | 85.240 | 17,442 | 60% | 0.05 | A |
| | I-10 | Rural Interstate | 4 | 85.240 | 85.360 | 18,255 | 57% | 0.05 | A |
| | I-10 | Rural Interstate | 4 | 85.360 | 85.509 | 11,367 | 54% | 0.03 | A |
| | I-10 | Rural Interstate | 4 | 85.509 | 102.950 | 17,465 | 52% | 0.05 | A |
| | I-10 | Rural Interstate | 4 | 102.950 | 116.125 | 19,577 | 60% | 0.05 | A |
| | I-10 | Rural Interstate | 4 | 116.125 | 127.230 | 19,451 | 55% | 0.05 | A |
| | I-10 | Rural Interstate | 4 | 127.230 | 132.031 | 15,092 | 50% | 0.04 | A |
| | I-10 | Urban Interstate | 4 | 132.031 | 134.540 | 16,345 | 37% | 0.04 | A |
| | I-10 | Urban Interstate | 4 | 134.540 | 134.637 | 22,814 | 49% | 0.05 | A |
| | I-10 | Urban Interstate | 4 | 134.637 | 134.740 | 20,469 | 43% | 0.04 | A |
| | I-10 | Urban Interstate | 4 | 134.740 | 138.968 | 10,925 | 22% | 0.02 | A |
| | I-10 | Urban Interstate | 4 | 138.968 | 138.968 | 24,065 | 22% | 0.05 | A |
| | I-10 | Urban Interstate | 4 | 138.968 | 140.060 | 29,949 | 43% | 0.07 | A |
| | I-10 | Urban Interstate | 4 | 140.060 | 140.215 | 21,043 | 22% | 0.05 | A |
| | I-10 | Urban Interstate | 4 | 140.215 | 141.460 | 21,655 | 38% | 0.05 | A |
| | I-10 | Urban Interstate | 4 | 141.460 | 141.552 | 18,151 | 47% | 0.04 | A |
| | I-10 | Urban Interstate | 4 | 141.552 | 141.660 | 25,479 | 22% | 0.06 | A |
| | I-10 | Urban Interstate | 4 | 141.660 | 141.827 | 26,540 | 22% | 0.06 | A |

| Table 4-9: Existing Route Characteristics (Area of Influence Roadway Network) (Continued) | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Area of Influence Subarea | Route | Facility Type[1] | Lane Configuration/ Location | | | Existing Conditions (2013) | | | |
| | | | Thru Lanes | Beginning Mile Post | Ending Mile Post | AADT[2] | Percent Trucks | Volume to Capacity | Level of Service (LOS) |
| Columbus/ Puerto Palomas to Santa Teresa/ San Jerónimo (continued) | I-10 | Urban Interstate | 4 | 141.827 | 144.260 | 17,957 | 48% | 0.04 | A |
| | I-10 | Urban Interstate | 4 | 144.260 | 144.349 | 27,389 | 38% | 0.06 | A |
| | NM 549 | Rural Major Collector | 4 | 0.000 | 1.780 | 2,572 | 19% | 0.01 | A |
| | NM 549 | Rural Major Collector | 4 | 1.780 | 4.165 | 1,166 | 19% | 0.01 | A |
| | NM 549 | Rural Major Collector | 2 | 4.165 | 31.430 | 1,166 | 12% | 0.02 | A |
| | MX Fed. 2 | Mexico Roadway Type B | 2 | Avenida 5 de Mayo to liberacion de Samalayuca - San Jerónimo | | 2,257 | 15% | NA | B |
| East of Santa Teresa/ San Jerónimo | NM 213 | Rural Major Collector | 2 | 0.000 | 2.620 | 7,400 | 29% | 0.15 | A |
| | NM 213 | Rural Major Collector | 2 | 2.620 | 6.085 | 2,492 | 7% | 0.05 | A |
| | NM 213 | Rural Major Collector | 2 | MP 6.085 to White Sands | | NA | NA | NA | NA |
| | United States (US 54) | Rural Principal Arterial | 4 | 0.000 | 6.067 | 6,783 | 26% | 0.02 | A |
| | US 54 | Rural Principal Arterial | 4 | 6.067 | 28.455 | 4,961 | 33% | 0.02 | A |
| | NM 404 | Rural Principal Arterial | 2 | 0.883 | 9.700 | 7,129 | 20% | 0.10 | A |
| | MX Fed. 45 | Mexico Roadway Type B | 4 | liberacion de Salamayuca-San Jerónimo to Edge of Area of Influence | | 938 | 15% | NA | NA |
| | MX Fed. 45 | Mexico Roadway Type B | 8 | Fed. 2 to U.S. Border | | 2,257 | 15% | NA | NA |
| | MX Fed. 2 | Mexico Roadway Type B | 6 | Fed. 45 to Bulevar Independencia | | 2,257 | 15% | NA | C |
| | MX Fed. 2 | Mexico Roadway Type B | 4 | Bulevar Independencia to Calle Rivera del Lago | | 2,257 | 15% | NA | C |

| Table 4-9: Existing Route Characteristics (Area of Influence Roadway Network) (Continued) | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Area of Influence Subarea | Route | Facility Type[1] | Lane Configuration/ Location | | | Existing Conditions (2013) | | | |
| | | | Thru Lanes | Beginning Mile Post | Ending Mile Post | AADT[2] | Percent Trucks | Volume to Capacity | Level of Service (LOS) |
| East of Santa Teresa/ San Jerónimo (continued) | MX Fed. 2 | Mexico Roadway Type B | 2 | Calle Rivera del Lago to End | | 2,257 | 15% | NA | B |

Notes:
(1) Facility Type based on NMDOT State Travel Demand Model
(2) AADT = Annual Average Daily Traffic volumes.
(3) NA = Volumes and LOS not available.
(4) Traffic volumes (AADT) and percent trucks data predates the opening of the UPRR Intermodal Facility.

Sources:
Traffic Volumes for Interstate, State Routes, and U.S. Routes: Obtained from NMDOT Average Annual Daily Traffic Counts (2013) at http://dot.state.nm.us/en/Planning.html
NMDOT 2040 State Travel Demand Model
El Paso MPO 2040 Horizon Travel Demand Model

| Table 4-10: Future (2040) Route Characteristics: Focus Area Roadway Network ( | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | Lane Configuration/Location | | | Future Conditions (2040) | | | |
| USA Port/ Mexico Port | Route | Facility Type[1] | Thru Lanes | Beginning Mile Post | Ending Mile Post | AADT[2] | Percent Trucks | Volume to Capacity | Level of Service (LOS) |
| Antelope Wells / El Berrendo | New Mexico (NM) 81 | Rural Major Arterial | 2 | 0.000 | 45.800 | 205 | 10% | 0.01 | A |
| | Carretera El Berrendo-Janos | Mexico Roadway Type A | 2 | U.S. Border to Fed. 2 | | 1,000 | 20% | NA | NA |
| | Mexico (MX) Fed. 2 | Mexico Roadway Type B | 2 | Extension of Sonora/ Chihuahua State Line to Edge of Focus Area | | 4,100 | 15% | NA | NA |
| | NM 9 | Rural Major Collector | 2 | 43.724 | 44.117 | 900 | 28% | 0.04 | A |
| | NM 146 | Rural Minor Arterial | 2 | 0.000 | 19.157 | 268 | 6% | 0.01 | A |
| Columbus/ Puerto Palomas | NM 11 | Rural Minor Arterial | 2 | Mexico Border to Poplar St. (Deming) | | NA | NA | NA | NA |
| | NM 11 | Rural Minor Arterial | 2 | 0.000 | 3.181 | 9,258 | 2% | 0.33 | A |
| | NM 11 | Rural Minor Arterial | 2 | 3.181 | 13.754 | 7,709 | 5% | 0.28 | A |
| | NM 11 | Rural Minor Arterial | 2 | 13.754 | 22.763 | 7,709 | 5% | 0.28 | A |
| | NM 11 | Rural Minor Arterial | 2 | 22.763 | 26.137 | 7,709 | 5% | 0.28 | A |
| | NM 11 | Rural Minor Arterial | 2 | 26.137 | 29.123 | 8,816 | 4% | 0.31 | A |
| | NM 11 | Rural Minor Arterial | 2 | 29.123 | 30.133 | 8,834 | 7% | 0.32 | A |
| | NM 11 | Rural Minor Arterial | 2 | 30.133 | 30.565 | 8,834 | 7% | 0.32 | A |
| | NM 11 | Rural Minor Arterial | 2 | 30.565 | 34.119 | 8,834 | 7% | 0.32 | A |
| | Avenida 5 de Mayo | Mexico Roadway Type A | 2 | U.S. Border to Fed. 2 | | NA | NA | NA | NA |
| | NM 9 | Rural Major Collector | 2 | 44.117 | 87.865 | 866 | 28% | 0.04 | A |
| | NM 9 | Urban Collector | 2 | 87.865 | 109.154 | 1,404 | 35% | 0.06 | A |
| | NM 9 | Rural Major Collector | 2 | NM 11 to Luna- Doña Ana County Line | | NA | NA | NA | NA |

| Table 4-10: Future (2040) Route Characteristics: Focus Area Roadway Network (Continued) | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | Lane Configuration/Location | | | Future Conditions (2040) | | | |
| USA Port/ Mexico Port | Route | Facility Type[1] | Thru Lanes | Beginning Mile Post | Ending Mile Post | AADT[2] | Percent Trucks | Volume to Capacity | Level of Service (LOS) |
| Columbus/ Puerto Palomas (continued) | NM 495 | Rural Minor Arterial | 2 | NM 11 to C014 | | NA | NA | NA | NA |
| | County (C0) 14 | Rural Minor Arterial | 2 | NM 495 to C010 | | NA | NA | NA | NA |
| | C010 | Rural Minor Arterial | 2 | C014 to NM 517 | | NA | NA | NA | NA |
| | NM 517 | Rural Minor Arterial | 2 | C010 to NM 11 | | NA | NA | NA | NA |
| | NM 332 | Rural Minor Arterial | 2 | NM 11 to NM 331 | | NA | NA | NA | NA |
| Santa Teresa/ San Jerónimo | NM 136 | Rural Principal Arterial | 4 | 0.000 | 5.354 | 17,957* | NA | 0.26 | A |
| | NM 136 | Rural Principal Arterial | 4 | 5.354 | 8.034 | 16,921* | NA | 0.24 | A |
| | NM 136 | Rural Principal Arterial | 4 | 8.034 | 9.157 | 28,233* | NA | 0.40 | A |
| | Carretera Jerónimo-Santa Teresa/ libramiento de Samalayuca-San Jerónimo | Mexico Roadway Type A | 2 | U.S. Border to Fed. 45 | | 1,032 | 15% | NA | NA |
| | Carretera Anapra-San Jerónimo | Mexico Roadway Type A | 4 | Rancho Anapra to Carretera Jerónimo- Santa Teresa | | 24,200 | 4% | NA | NA |
| | NM 273 | Urban Minor Arterial | 4 | 0.000 | 0.918 | 25,152* | NA | 0.41 | A |
| | NM 273 | Urban Minor Arterial | 4 | 0.918 | 6.592 | 30,555* | NA | 0.50 | A |
| | NM 273 | Urban Minor Arterial | 4 | 6.592 | 9.320 | 23,868* | NA | 0.39 | A |
| | NM 273 | Urban Minor Arterial | 2 | 9.320 | 11.900 | 8,817 | 14% | 0.29 | A |
| | NM 273 | Urban Minor Arterial | 2 | 11.900 | 14.02 | 9,168 | 16% | 0.30 | A |
| | NM 28 | Urban Collector | 2 | 0.000 | 0.423 | 9,843* | NA | 0.41 | A |

| Table 4-10: Future (2040) Route Characteristics: Focus Area Roadway Network (Continued) | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | Lane Configuration/Location | | | Future Conditions (2040) | | | |
| USA Port/ Mexico Port | Route | Facility Type[1] | Thru Lanes | Beginning Mile Post | Ending Mile Post | AADT[2] | Percent Trucks | Volume to Capacity | Level of Service (LOS) |
| Santa Teresa/ San Jerónimo (continued) | NM 28 | Rural Major Collector | 2 | 0.423 | 3.140 | 7,079* | NA | 0.29 | A |
| | NM 28 | Rural Major Collector | 2 | 3.140 | 3.210 | 6,405* | NA | 0.27 | A |
| | NM 28 | Rural Major Collector | 2 | 3.210 | 6.246 | 6,328* | NA | 0.26 | A |
| | NM 28 | Rural Major Collector | 2 | 6.246 | 7.852 | 4,273 | 6% | 0.18 | A |
| | NM 28 | Rural Major Collector | 2 | 7.852 | 10.949 | 4,297 | 10% | 0.18 | A |
| | NM 28 | Rural Major Collector | 2 | 10.949 | 14.529 | 3,843 | 20% | 0.16 | A |
| | NM 28 | Rural Major Collector | 2 | 14.529 | 19.025 | 3,344 | 6% | 0.14 | A |
| | NM 28 | Rural Minor Arterial | 2 | 19.025 | 27.581 | 9,326 | 3% | 0.33 | A |
| | NM 28 | Urban Minor Arterial | 2 | 27.581 | 28.086 | 4,473 | 3% | 0.15 | A |
| | NM 28 | Urban Minor Arterial | 2 | 28.086 | 28.651 | 5,740 | 3% | 0.19 | A |
| | NM 28 | Urban Minor Arterial | 2 | 28.651 | 29.631 | 11,107 | 3% | 0.36 | A |
| | Interstate 10 (I-10 ) | Rural Interstate | 6 | 144.349 | 144.650 | 87,187 | 20% | 0.61 | C |
| | I-10 | Rural Interstate | 6 | 144.650 | 151.150 | 87,187 | 20% | 0.61 | C |
| | I-10 | Rural Interstate | 6 | 151.150 | 151.200 | 78,917 | 25% | 0.55 | B |
| | I-10 | Rural Interstate | 6 | 151.200 | 154.850 | 79,593 | 22% | 0.55 | B |
| | I-10 | Rural Interstate | 6 | 154.850 | 154.950 | 79,708 | 22% | 0.55 | B |
| | I-10 | Rural Interstate | 6 | 154.950 | 160.250 | 83,524 | 20% | 0.58 | B |
| | I-10 | Rural Interstate | 6 | 160.250 | 160.400 | 81,482 | 21% | 0.57 | B |
| | I-10 | Rural Interstate | 6 | 160.400 | 160.450 | 81,482 | 21% | 0.57 | B |
| | I-10 | Rural Interstate | 6 | 160.450 | 164.264 | 81,482 | 21% | 0.57 | B |
| | NM 478 | Rural Minor Arterial | 2 | 0.000 | 4.827 | 23,639* | NA | 0.84 | E |

| Table 4-10: Future (2040) Route Characteristics: Focus Area Roadway Network (Continued) | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | Lane Configuration/Location | | | Future Conditions (2040) | | | |
| USA Port/ Mexico Port | Route | Facility Type[1] | Thru Lanes | Beginning Mile Post | Ending Mile Post | AADT[2] | Percent Trucks | Volume to Capacity | Level of Service (LOS) |
| Santa Teresa/ San Jerónimo (continued) | NM 478 | Rural Minor Arterial | 2 | 4.827 | 8.529 | 3,976 | 8% | 0.14 | A |
| | NM 478 | Rural Minor Arterial | 2 | 8.529 | 8.760 | 4,985 | 29% | 0.18 | A |
| | NM 478 | Urban Minor Arterial | 2 | 8.760 | 12.308 | 6,420 | 22% | 0.21 | A |
| | NM 478 | Urban Minor Arterial | 2 | 12.308 | 12.378 | 8,393 | 31% | 0.27 | A |
| | NM 478 | Urban Minor Arterial | 2 | 12.378 | 19.957 | 8,393 | 31% | 0.27 | A |
| | NM 478 | Urban Minor Arterial | 2 | 19.957 | 20.466 | 9,272 | 28% | 0.30 | A |
| | NM 478 | Urban Minor Arterial | 2 | 20.466 | 20.517 | 9,272 | 28% | 0.30 | A |
| | NM 478 | Urban Minor Arterial | 2 | 20.517 | 20.993 | 16,072 | 5% | 0.52 | B |
| | NM 478 | Urban Minor Arterial | 2 | 20.993 | 21.444 | 15,082 | 6% | 0.49 | A |
| | NM 460 | Rural Minor Arterial | 4 | 0.000 | 0.210 | 23,639* | NA | 0.42 | A |
| | NM 460 | Rural Minor Arterial | 4 | 0.210 | 1.710 | 7,909* | NA | 0.14 | A |
| | NM 460 | Rural Minor Arterial | 2 | 1.710 | 3.805 | 3,909* | NA | 0.14 | A |
| | NM 404 | Rural Principal Arterial | 2 | 0.000 | 0.883 | 10,593* | NA | 0.30 | A |
| | NM 186 | Rural Minor Collector | 2 | 0.000 | 1.250 | 921 | 10% | 0.05 | A |
| | O'Hara Road | Rural Major Collector | 2 | NM 186 to NM 404 | | 6,511* | NA | 0.27 | A |
| | NM 226 | Rural Minor Collector | 2 | 0.000 | 2.600 | 1,164 | 9% | 0.06 | A |
| | NM 189 | Rural Major Collector | 2 | 0.000 | 1.200 | 3,556 | 11% | 0.15 | A |
| | NM 227 | Rural Major Collector | 2 | 0.000 | 1.816 | 6,888 | 17% | 0.29 | A |
| | NM 228 | Rural Major Collector | 2 | 0.000 | 1.812 | 3,175 | 33% | 0.13 | A |

| Table 4-10: Future (2040) Route Characteristics: Focus Area Roadway Network (Continued) | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | Lane Configuration/Location | | | Future Conditions (2040) | | | |
| USA Port/ Mexico Port | Route | Facility Type[1] | Thru Lanes | Beginning Mile Post | Ending Mile Post | AADT[2] | Percent Trucks | Volume to Capacity | Level of Service (LOS) |
| Santa Teresa/ San Jerónimo (continued) | NM 192 | Rural Major Collector | 2 | 0.000 | 2.367 | 4,995 | 9% | 0.21 | A |
| | NM 372 | Urban Collector | 2 | 0.000 | 0.521 | 1,761 | 2% | 0.07 | A |
| | NM 372 | Urban Collector | 2 | 0.521 | 1.533 | 1,958 | 4% | 0.08 | A |
| | NM 372 | Rural Minor Collector | 2 | 1.533 | 2.083 | 1,498 | 6% | 0.07 | A |
| | NM 372 | Rural Minor Collector | 2 | 2.083 | 2.633 | 1,498 | 6% | 0.07 | A |
| | NM 372 | Rural Minor Collector | 2 | NM 374 to NM 478 | | NA | NA | NA | NA |
| | NM 373 | Urban Collector | 4 | 0.000 | 1.026 | 1,891 | 1% | 0.04 | A |
| | NM 373 | Urban Collector | 4 | 1.026 | 1.496 | 6,520 | 2% | 0.14 | A |
| | NM 373 | Urban Principal Arterial | 4 | McDowell Place to I-10 | | 19,243 | 9% | 0.22 | A |
| | NM 359 | Urban Collector | 2 | 0.000 | 0.008 | 6,720 | 4% | 0.28 | A |
| | NM 359 | Urban Collector | 2 | 0.008 | 0.417 | 6,720 | 4% | 0.28 | A |
| | NM 359 | Urban Collector | 2 | 0.417 | 2.616 | 6,720 | 4% | 0.28 | A |
| | NM 359 | Rural Minor Collector | 2 | MP 2.626 to I-10 | | NA | NA | NA | NA |
| | Periferico Camino Real | Mexico Roadway Type B | 6 | Fed. 45 to Rancho Anapra | | 2,483 | 10% | NA | NA |
| | Blvd. Ing. Bernardo Norzagaray | Mexico Roadway Type A | 6 | Santa Fe Bridge (Cd. Juárez) to Periferico Camino Real | | 2,483 | 6% | NA | NA |
| | Rancho Anapra | Mexico Roadway Type A | 6 | Periferico Camino Real to Carretera Anapra-San Jerónimo | | 2,483 | 4% | NA | NA |
| | MX Fed. 45 | Mexico Roadway Type B | 4 | libramiento de Samalayuca-San Jerónimo to Fed. 2 | | 1,032 | 15% | NA | NA |
| | MX Fed. 2 | Mexico Roadway Type B | 6 | Fed. 45 Periferico Camino Real | | 2,483 | 15% | NA | NA |

| Table 4-10: Future (2040) Route Characteristics: Focus Area Roadway Network (Continued) | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | Lane Configuration/Location | | | Future Conditions (2040) | | | |
| USA Port/ Mexico Port | Route | Facility Type(1) | Thru Lanes | Beginning Mile Post | Ending Mile Post | AADT(2) | Percent Trucks | Volume to Capacity | Level of Service (LOS) |
| Santa Teresa/ San Jerónimo (continued) | MX Fed. 2 | Mexico Roadway Type B | 4 | Periferico Camino Real to Calandria | | 2,483 | 15% | NA | NA |
| | MX Fed. 2 | Mexico Roadway Type B | 2 | Calandria to libramiento de Samalayuca-San Jerónimo | | 2,483 | 15% | NA | NA |

Notes:
(1) Facility Type based on NMDOT State Travel Demand Model
(2) AADT = Annual Average Daily Traffic volumes.
(3) NA = Volumes and LOS not available.
(4) Traffic volumes (AADT) and percent trucks data predates the opening of the UPRR Intermodal Facility.
* Denotes forecasted volumes extracted from the El Paso MPO model

Sources:
Traffic Volumes for Interstate, State Routes, and U.S. Routes: Obtained from NMDOT Average Annual Daily Traffic Counts (2013) at http://dot.state.nm.us/en/Planning.html
NMDOT 2040 State Travel Demand Model
El Paso MPO 2040 Horizon Travel Demand Model

| Table 4-11: Future (2040) Route Characteristics: Area of Influence Roadway Network ( | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Area of Influence Subarea | Route | Facility Type[1] | Lane Configuration/ Location | | | Future Conditions (2040) | | | |
| | | | Thru Lanes | Beginning Mile Post | Ending Mile Post | AADT[2] | Percent Trucks | Volume to Capacity | Level of Service (LOS) |
| AZ/NM Line to Antelope Wells/ El Berrendo | New Mexico (NM) 80 | Rural Major Collector | 2 | 0.000 | 4.608 | 846 | 40% | 0.02 | A |
| | NM 80 | Rural Major Collector | 2 | 4.608 | 8.044 | 984 | 49% | 0.02 | A |
| | NM 80 | Rural Major Collector | 2 | 8.044 | 24.205 | 777 | 48% | 0.02 | A |
| | NM 80 | Rural Major Collector | 2 | 24.205 | 32.416 | 1,172 | 44% | 0.02 | A |
| | NM 145 | Rural Major Collector | 2 | 0.000 | 3.500 | 407 | 41% | 0.01 | A |
| | NM 338 | Rural Major Collector | 2 | 0.000 | 0.036 | 322 | 20% | 0.01 | A |
| | NM 338 | Rural Major Collector | 2 | 0.036 | 2.900 | 322 | 20% | 0.01 | A |
| | NM 338 | Rural Major Collector | 2 | 2.900 | 10.866 | 322 | 20% | 0.01 | A |
| | NM 338 | Rural Major Collector | 2 | 10.866 | 24.161 | 688 | 24% | 0.01 | A |
| | NM 338 | Rural Major Collector | 2 | 24.161 | 24.288 | 555 | 32% | 0.01 | A |
| | NM 338 | Rural Major Collector | 2 | 24.288 | 24.440 | 555 | 32% | 0.01 | A |
| | NM 9 | Rural Major Collector | 2 | 0.000 | 13.882 | 363 | 41% | 0.01 | A |
| | NM 9 | Rural Major Collector | 2 | 13.882 | 30.750 | 619 | 40% | 0.01 | A |
| | NM 9 | Rural Major Collector | 2 | 30.750 | 43.724 | 890 | 28% | 0.02 | A |
| | NM 113 | Rural Major Collector | 2 | 0.000 | 18.533 | 268 | 3% | 0.01 | A |
| | NM 113 | Rural Major Collector | 2 | 18.533 | 20.571 | NA | NA | NA | NA |
| | NM 113 | Rural Major Collector | 2 | 20.571 | 20.602 | NA | NA | NA | NA |
| | Interstate 10 (I-10) | Rural Interstate | 4 | 0.000 | 3.630 | 30,518 | 65% | 0.08 | A |
| | I-10 | Rural Interstate | 4 | 3.630 | 5.833 | 30,498 | 65% | 0.08 | A |
| | I-10 | Rural Interstate | 4 | 5.833 | 11.200 | 30,931 | 56% | 0.08 | A |

| Table 4-11: Future (2040) Route Characteristics: Area of Influence Roadway Network (Continued) | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Area of Influence Subarea | Route | Facility Type[1] | Lane Configuration/ Location | | | Future Conditions (2040) | | | |
| | | | Thru Lanes | Beginning Mile Post | Ending Mile Post | AADT[2] | Percent Trucks | Volume to Capacity | Level of Service (LOS) |
| AZ/NM Line to Antelope Wells/ El Berrendo (continued) | I-10 | Rural Interstate | 4 | 11.200 | 15.680 | 32,598 | 67% | 0.08 | A |
| | I-10 | Rural Interstate | 4 | 15.680 | 20.720 | 32,598 | 67% | 0.08 | A |
| | I-10 | Rural Interstate | 4 | 20.720 | 20.820 | 30,784 | 68% | 0.08 | A |
| | I-10 | Urban Interstate | 4 | 20.820 | 22.594 | 28,177 | 65% | 0.06 | A |
| | I-10 | Urban Interstate | 4 | 22.594 | 22.610 | 27,525 | 64% | 0.06 | A |
| | I-10 | Urban Interstate | 4 | 22.610 | 24.395 | 27,720 | 64% | 0.06 | A |
| | I-10 | Rural Interstate | 4 | 24.395 | 24.565 | 30,732 | 58% | 0.08 | A |
| | I-10 | Rural Interstate | 4 | 24.565 | 24.600 | 30,732 | 58% | 0.08 | A |
| | I-10 | Rural Interstate | 4 | 24.600 | 24.610 | 30,732 | 58% | 0.08 | A |
| | I-10 | Rural Interstate | 4 | 24.610 | 29.300 | 31,394 | 57% | 0.08 | A |
| | I-10 | Rural Interstate | 4 | 29.300 | 29.556 | 28,731 | 61% | 0.07 | A |
| | I-10 | Rural Interstate | 4 | 29.556 | 29.700 | 28,731 | 61% | 0.07 | A |
| | I-10 | Rural Interstate | 4 | 29.700 | 34.217 | 31,122 | 63% | 0.08 | A |
| | I-10 | Rural Interstate | 4 | 34.217 | 42.400 | 29,933 | 67% | 0.08 | A |
| | I-10 | Rural Interstate | 4 | 42.400 | 42.470 | 28,629 | 61% | 0.07 | A |
| | I-10 | Rural Interstate | 4 | 42.470 | 42.570 | 28,629 | 61% | 0.07 | A |
| | I-10 | Rural Interstate | 4 | 42.570 | 49.870 | 28,703 | 61% | 0.07 | A |
| | I-10 | Rural Interstate | 4 | 49.870 | 49.900 | 28,679 | 61% | 0.07 | A |
| | I-10 | Rural Interstate | 4 | 49.900 | 49.970 | 28,679 | 61% | 0.07 | A |
| Antelope Wells/ El Berrendo to Columbus / Puerto Palomas | NM 418 | Rural Major Collector | 2 | 0.000 | 12.830 | 3,142 | 15% | 0.07 | A |
| | NM 418 | Rural Major Collector | 2 | 12.830 | 14.069 | 1,493 | 12% | 0.03 | A |
| | I -10 | Rural Interstate | 4 | 49.970 | 55.790 | 28,920 | 60% | 0.08 | A |
| | I -10 | Rural Interstate | 4 | 55.790 | 56.210 | 28,920 | 60% | 0.08 | A |

| Table 4-11: Future (2040) Route Characteristics: Area of Influence Roadway Network (Continued) | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Area of Influence Subarea | Route | Facility Type[1] | Lane Configuration/ Location | | | Future Conditions (2040) | | | |
| | | | Thru Lanes | Beginning Mile Post | Ending Mile Post | AADT[2] | Percent Trucks | Volume to Capacity | Level of Service (LOS) |
| Antelope Wells/ El Berrendo to Columbus / Puerto Palomas (continued) | I -10 | Rural Interstate | 4 | 56.210 | 62.710 | 30,572 | 67% | 0.08 | A |
| | I -10 | Rural Interstate | 4 | 62.710 | 63.320 | 30,572 | 67% | 0.08 | A |
| | I -10 | Rural Interstate | 4 | 63.320 | 68.470 | 31,474 | 63% | 0.08 | A |
| | I -10 | Rural Interstate | 4 | 68.470 | 68.570 | 27,575 | 56% | 0.07 | A |
| | I -10 | Rural Interstate | 4 | 68.570 | 80.804 | 27,005 | 57% | 0.07 | A |
| | I -10 | Urban Interstate | 4 | 80.804 | 80.915 | 26,615 | 57% | 0.06 | A |
| | I -10 | Urban Interstate | 4 | 80.915 | 81.105 | 26,615 | 57% | 0.06 | A |
| | I -10 | Urban Interstate | 4 | 81.105 | 81.220 | 26,615 | 57% | 0.06 | A |
| | I -10 | Urban Interstate | 4 | 81.220 | 81.485 | 26,615 | 57% | 0.06 | A |
| | I -10 | Urban Interstate | 4 | 81.485 | 82.120 | 36,490 | 53% | 0.08 | A |
| | I -10 | Urban Interstate | 4 | 82.120 | 82.200 | 31,895 | 56% | 0.07 | A |
| | I -10 | Urban Interstate | 4 | 82.200 | 82.255 | 31,895 | 56% | 0.07 | A |
| | I -10 | Urban Interstate | 4 | 82.255 | 82.460 | 31,895 | 56% | 0.07 | A |
| | Mexico Federal (MX Fed.) 2 | Mexico Roadway Type A | 2 | Edge of Focus Area to Avenida 5 de Mayo | | 2,483 | 15% | NA | NA |
| | MX Fed. 10 | Mexico Roadway Type B | 2 | Fed. 2 to Edge of Area of Influence | | 4,100 | NA | NA | NA |
| Columbus/ Puerto Palomas to Santa Teresa/ San Jerónimo | I-10 | Urban Interstate | 4 | 82.460 | 82.580 | 31,895 | 56% | 0.07 | A |
| | I-10 | Urban Interstate | 4 | 82.580 | 82.730 | 31,895 | 56% | 0.07 | A |
| | I-10 | Urban Interstate | 4 | 82.730 | 83.120 | 32,438 | 54% | 0.07 | A |
| | I-10 | Urban Interstate | 4 | 83.120 | 83.170 | 32,438 | 54% | 0.07 | A |

| Table 4-11: Future (2040) Route Characteristics: Area of Influence Roadway Network (Continued) | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Area of Influence Subarea | Route | Facility Type[1] | Lane Configuration/ Location | | | Future Conditions (2040) | | | |
| | | | Thru Lanes | Beginning Mile Post | Ending Mile Post | AADT[2] | Percent Trucks | Volume to Capacity | Level of Service (LOS) |
| Columbus/ Puerto Palomas to Santa Teresa/ San Jerónimo (continued) | I-10 | Urban Interstate | 4 | 83.170 | 83.670 | 32,438 | 54% | 0.07 | A |
| | I-10 | Urban Interstate | 4 | 83.670 | 83.715 | 36,573 | 49% | 0.08 | A |
| | I-10 | Rural Interstate | 4 | 83.715 | 84.950 | 36,573 | 49% | 0.10 | A |
| | I-10 | Rural Interstate | 4 | 84.950 | 85.240 | 33,062 | 59% | 0.09 | A |
| | I-10 | Rural Interstate | 4 | 85.240 | 85.360 | 33,062 | 59% | 0.09 | A |
| | I-10 | Rural Interstate | 4 | 85.360 | 85.509 | 33,062 | 59% | 0.09 | A |
| | I-10 | Rural Interstate | 4 | 85.509 | 102.950 | 33,062 | 59% | 0.09 | A |
| | I-10 | Rural Interstate | 4 | 102.950 | 116.125 | 34,866 | 55% | 0.09 | A |
| | I-10 | Rural Interstate | 4 | 116.125 | 127.230 | 34,416 | 53% | 0.09 | A |
| | I-10 | Rural Interstate | 4 | 127.230 | 132.031 | 34,244 | 53% | 0.09 | A |
| | I-10 | Urban Interstate | 4 | 132.031 | 134.540 | 36,123 | 49% | 0.08 | A |
| | I-10 | Urban Interstate | 4 | 134.540 | 134.637 | 34,142 | 53% | 0.07 | A |
| | I-10 | Urban Interstate | 4 | 134.637 | 134.740 | 34,142 | 53% | 0.07 | A |
| | I-10 | Urban Interstate | 4 | 134.740 | 138.968 | 34,142 | 53% | 0.07 | A |
| | I-10 | Urban Interstate | 4 | 138.968 | 138.968 | 32,581 | 37% | 0.07 | A |
| | I-10 | Urban Interstate | 4 | 138.968 | 140.060 | 43,862 | 46% | 0.10 | A |
| | I-10 | Urban Interstate | 4 | 140.060 | 140.215 | 34,720 | 35% | 0.08 | A |
| | I-10 | Urban Interstate | 4 | 140.215 | 141.460 | 42,613 | 43% | 0.09 | A |
| | I-10 | Urban Interstate | 4 | 141.460 | 141.552 | 39,543 | 33% | 0.09 | A |
| | I-10 | Urban Interstate | 4 | 141.552 | 141.660 | 39,543 | 33% | 0.09 | A |
| | I-10 | Urban Interstate | 4 | 141.660 | 141.827 | 39,543 | 33% | 0.09 | A |

| Table 4-11: Future (2040) Route Characteristics: Area of Influence Roadway Network (Continued) | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Area of Influence Subarea | Route | Facility Type[1] | Lane Configuration/ Location | | | Future Conditions (2040) | | | |
| | | | Thru Lanes | Beginning Mile Post | Ending Mile Post | AADT[2] | Percent Trucks | Volume to Capacity | Level of Service (LOS) |
| Columbus/ Puerto Palomas to Santa Teresa/ San Jerónimo (continued) | I-10 | Urban Interstate | 4 | 141.827 | 144.260 | 42,475 | 31% | 0.09 | A |
| | I-10 | Urban Interstate | 4 | 144.260 | 144.349 | 59,556 | 29% | 0.13 | A |
| | NM 549 | Rural Major Collector | 4 | 0.000 | 1.780 | 3,255 | 10% | 0.02 | A |
| | NM 549 | Rural Major Collector | 4 | 1.780 | 4.165 | 836 | 9% | NA | NA |
| | NM 549 | Rural Major Collector | 2 | 4.165 | 31.430 | 3,070 | 12% | 0.06 | A |
| | MX Fed. 2 | Mexico Roadway Type B | 2 | Avenida 5 de Mayo to liberacion de Samalayuca - San Jerónimo | | 2,483 | 15% | NA | NA |
| East of Santa Teresa/ San Jerónimo | NM 213 | Rural Major Collector | 2 | 0.000 | 2.620 | 12,641 | 11% | 0.26 | B |
| | NM 213 | Rural Major Collector | 2 | 2.620 | 6.085 | 5,940* | NA | 0.12 | A |
| | NM 213 | Rural Major Collector | 2 | MP 6.085 to White Sands | | 5,023* | NA | NA | NA |
| | United States (US 54) | Rural Principal Arterial | 4 | 0.000 | 6.067 | 28,326 | 8% | 0.10 | A |
| | US 54 | Rural Principal Arterial | 4 | 6.067 | 28.455 | 28,326 | 8% | 0.10 | A |
| | NM 404 | Rural Principal Arterial | 2 | 0.883 | 9.700 | 12,902 | 11% | 0.18 | A |
| | MX Fed. 45 | Mexico Roadway Type B | 4 | liberacion de Salamayuca-San Jerónimo to Edge of Area of Influence | | 1,032 | 15% | NA | NA |
| | MX Fed. 45 | Mexico Roadway Type B | 8 | Fed. 2 to U.S. Border | | 2,483 | 15% | NA | NA |
| | MX Fed. 2 | Mexico Roadway Type B | 6 | Fed. 45 to Bulevar Independencia | | 2,483 | 15% | NA | NA |
| | MX Fed. 2 | Mexico Roadway Type B | 4 | Bulevar Independencia to Calle Rivera del Lago | | 2,483 | 15% | NA | NA |

| Table 4-11: Future (2040) Route Characteristics: Area of Influence Roadway Network (Continued) | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Area of Influence Subarea | Route | Facility Type(1) | Lane Configuration/ Location | | | Future Conditions (2040) | | | |
| | | | Thru Lanes | Beginning Mile Post | Ending Mile Post | AADT(2) | Percent Trucks | Volume to Capacity | Level of Service (LOS) |
| East of Santa Teresa/ San Jerónimo (continued) | MX Fed. 2 | Mexico Roadway Type B | 2 | Calle Rivera del Lago to End | | 2,483 | 15% | NA | NA |

Notes:
(1) Facility Type based on NMDOT State Travel Demand Model
(2) AADT = Annual Average Daily Traffic volumes.
(3) NA = Volumes and LOS not available.
(4) Traffic volumes (AADT) and percent trucks data predates the opening of the UPRR Intermodal Facility.
* Denotes forecasted volumes extracted from the El Paso MPO model

Sources:
Traffic Volumes for Interstate, State Routes, and U.S. Routes: Obtained from NMDOT Average Annual Daily Traffic Counts (2013) at http://dot.state.nm.us/en/Planning.html
NMDOT 2040 State Travel Demand Model
El Paso MPO 2040 Horizon Travel Demand Model

It is also worthy of a note that in the state of Chihuahua there has been a compilation of data in regard to the composition of their roadways, by type, as illustrated in Table 4-12.

| Table 4-12: Roadway Types in the State of Chihuahua (2013) | | | | |
|---|---|---|---|---|
| Roadway Types | Paved | Stabilized Road | Dirt Road | Total |
| Main (Federal) | 2,835 | | | 2,835 |
| Secondary (State) | 5,399 | 317 | | 5,716 |
| Rural | | 4,231 | 990 | 5,221 |
| **Total** | **8,234** | **4,548** | **990** | **13,772** |

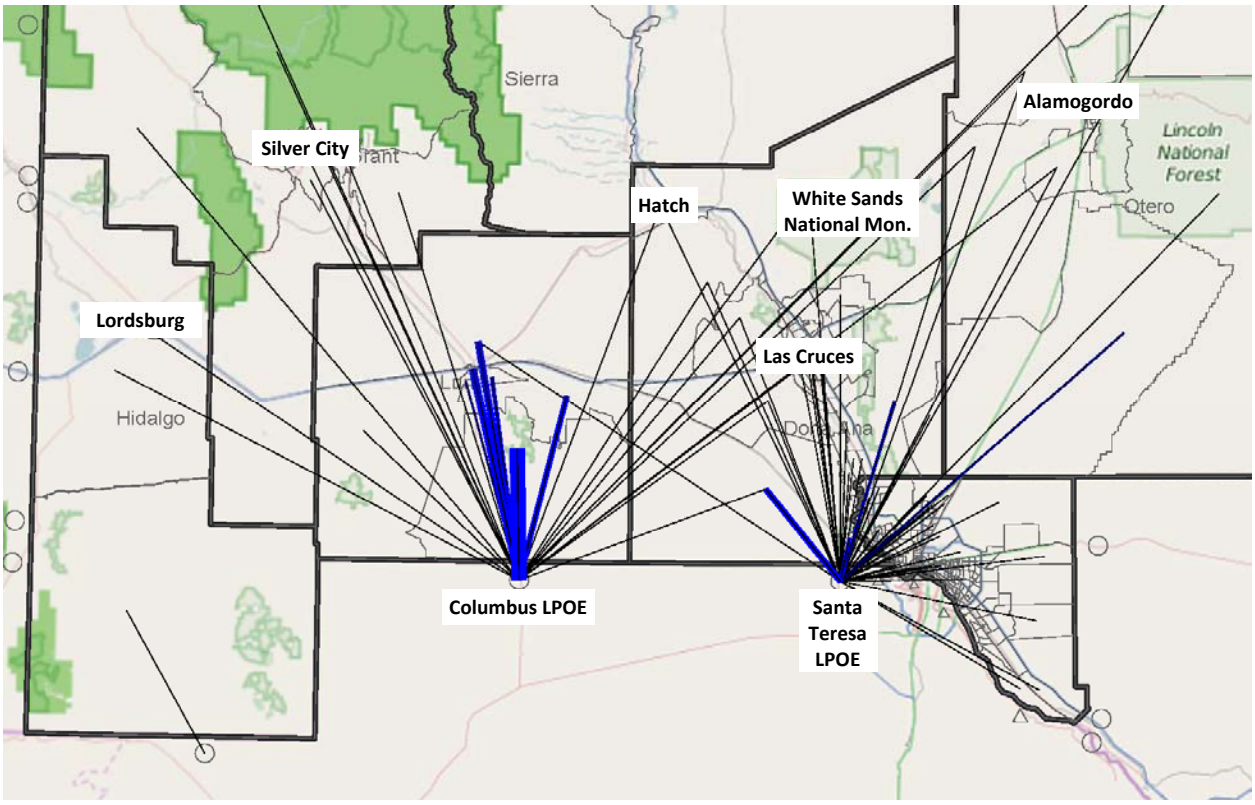
Source: Anuario Estadistico 2007, INEGI. Data provided by Promotora De La Chihuahuense.

## 4.3 ORIGINS AND DESTINATIONS OF VEHICLES TRAVELING THROUGH LPOES

Data from the NMDOT travel demand model was reviewed to determine the primary origins and destinations for automobiles and trucks using the Columbus, Santa Teresa, and Antelope Wells LPOEs. In the travel demand model, internal-external and external-internal trips are modeled for both cars and commercial truck. External-external trip tables are only available for trucks. The model assumes that all automobiles coming into New Mexico have a destination somewhere in New Mexico. The following provides an overview of the modeled trip patterns.

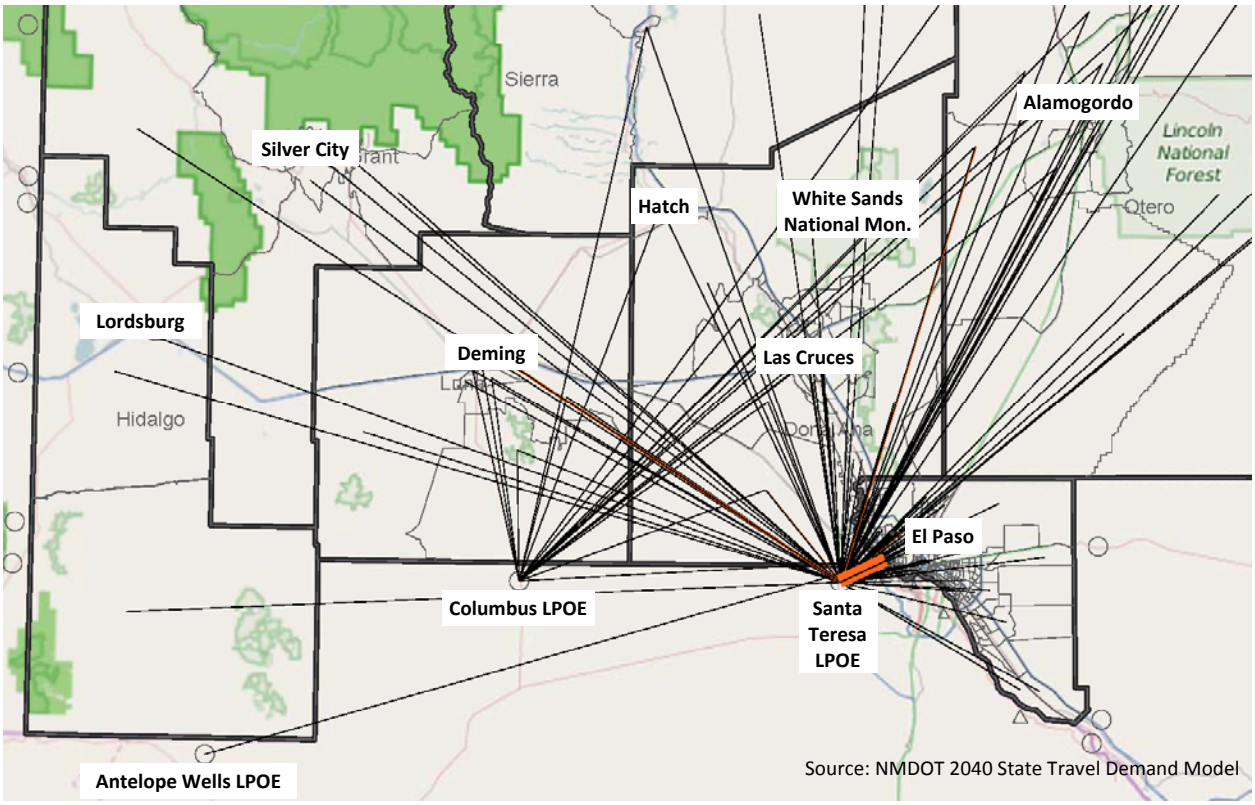
Desire line maps included in the State Travel Demand Model represent the concentration of travel to and from each port and are relative to the total flow of traffic using the Port. Figure 4-10 and Figure 4-11 illustrate the overall concentration of travel and key routes relative to the flow of all three ports for cars and commercial trucks, respectively.

**Figure 4-10: Travel Patterns for Cars at all New Mexico – Chihuahua LPOEs**




Legend: the origin of a trip is a LPOE (one end of a line segment); the destination is the other end of the line segment (the center of a Transportation Analysis Zone (TAZ)); thin lines represent lower concentrations of trips; thicker lines are more active concentrations of trips to that TAZ.

**Figure 4-11: Travel Patterns for Commercial Trucks at all New Mexico - Chihuahua LPOEs**




### 4.3.1 COMMUTE PATTERNS AT SANTA TERESA LPOE

At Santa Teresa LPOE, cars using the port have a high percentage of trip ends in southwestern Doña Ana County, southeast Doña Ana County, and Southern Otero County. Figure 4-12, shown on the following page, illustrates the desire line maps attributed to car traffic for this port. As illustrated in Figure 4-13, a large share of the truck traffic utilizing the Santa Teresa LPOE has a trip end in Sunland Park and Northern Luna County, near Deming. The port also processes large inbound flows to West Central Otero County, northern El Paso, and southwestern Doña Ana County.

**Figure 4-12: Travel Patterns for Cars at Santa Teresa LPOE**

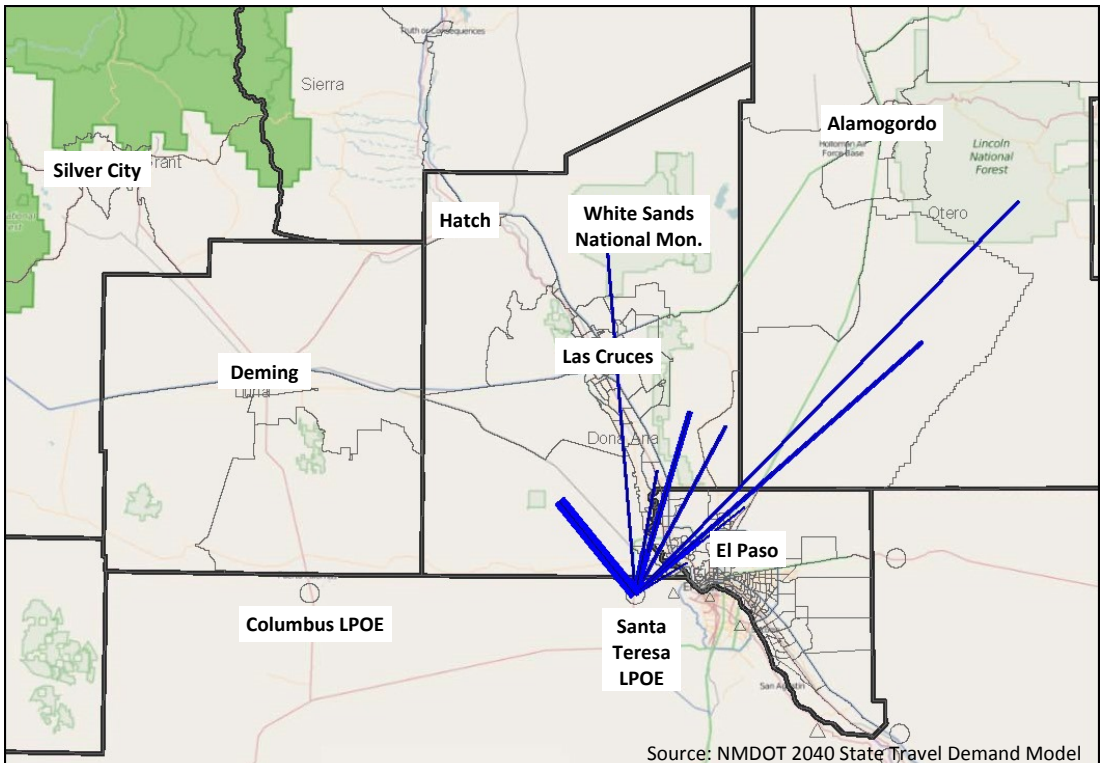
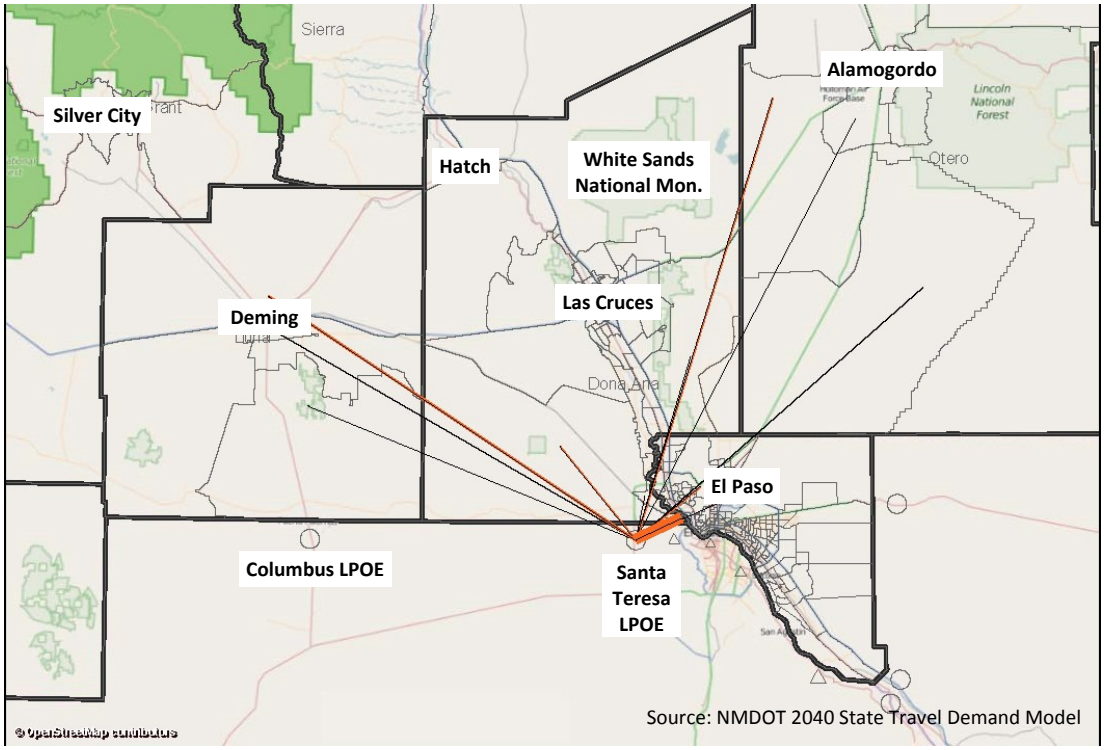


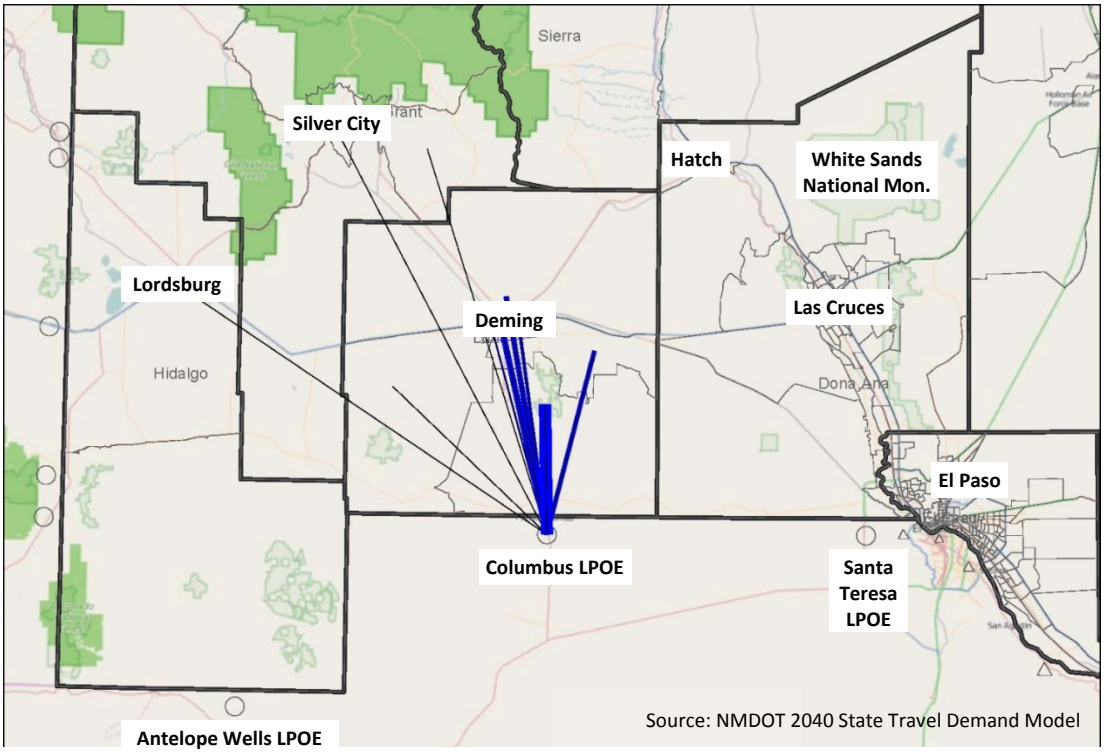

**Figure 4-13: Travel Patterns for Commercial Trucks at Santa Teresa LPOE**



### 4.3.2 COMMUTE PATTERNS AT COLUMBUS LPOE

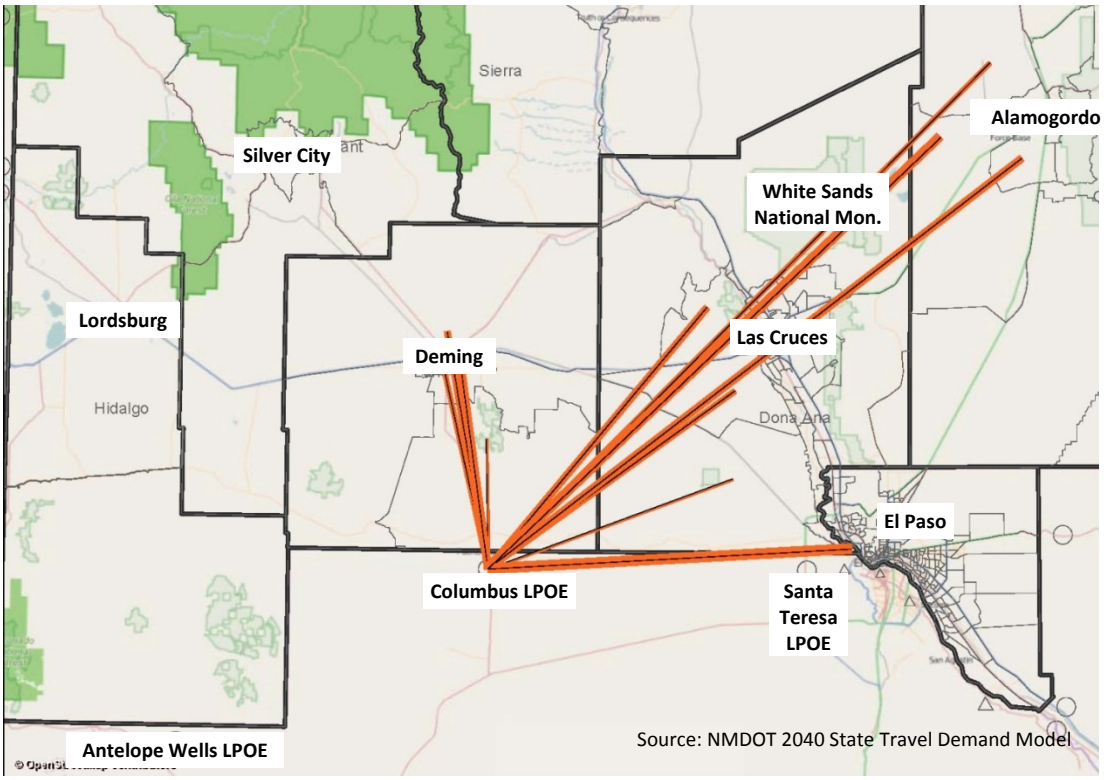
Commute patterns for automobiles passing through the Columbus LPOE are illustrated in Figure 4-14. Automobile trips using the Columbus Port of Entry mostly begin or end in Luna County, with southeastern Luna County accounting for the highest proportion of trips. Deming / Central Luna County also accounts for much of the automobile traffic utilizing this POE.

**Figure 4-14 Travel Patterns for Cars at Columbus LPOE**




On the following page, commute patterns for commercial trucks passing through the Columbus LPOE are illustrated in Figure 4-15. Primary origins and destinations for trucks passing through the Columbus Port of Entry are Sunland Park, Deming / Central Luna County, and West Central Otero County, west of Alamogordo.

**Figure 4-15: Travel Patterns for Commercial Trucks at Columbus LPOE**




### 4.3.3 COMMUTE PATTERNS AT ANTELOPE WELLS LPOE

Automobiles utilizing the Antelope Wells LPOE most frequently had trip ends in southern Hidalgo County and portions of Luna County, including Deming as shown in Figure 4-16 on the following page. As Figure 4-17 illustrates, tourist vehicles crossing the border at Antelope Wells LPOE had a high frequency of trip ends in Sunland Park, Lordsburg, Silver City, and Deming/Central Luna County.

**Figure 4-16: Travel Patterns for Cars at Antelope Wells LPOE**

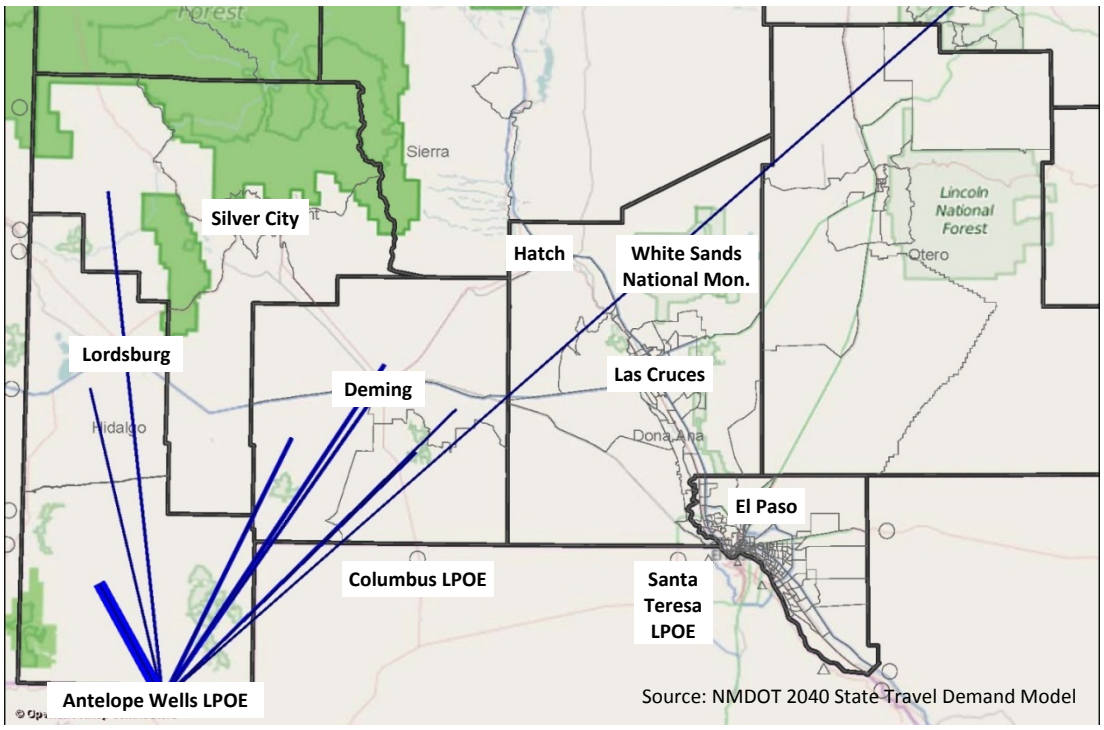
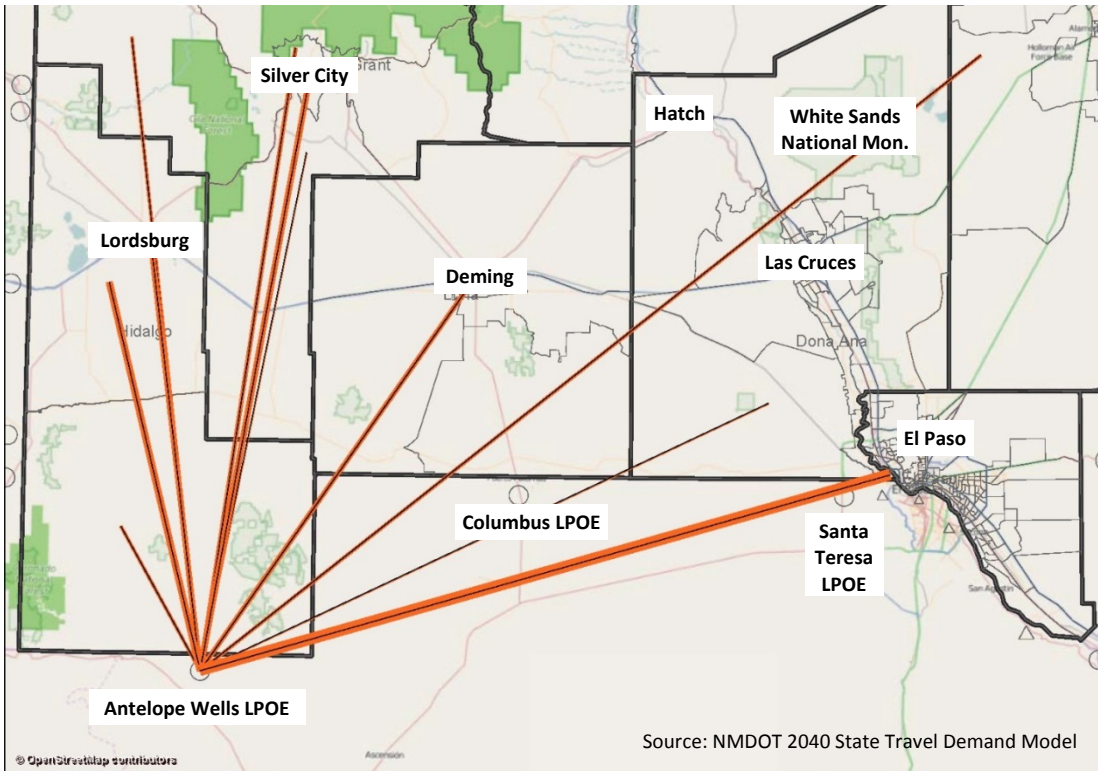



**Figure 4-17 Travel Patterns for Tourist Vehicles at Antelope Wells**



## 4.4 SAFETY ANALYSIS

Crash data on key study area roadways were obtained from NMDOT for a five year period from January, 2009, to December, 2013. On the following page, Table 4-13 provides the total number of crashes by year and summarizes the crash severity breakdown for all crashes during the five year analysis period on focus area roadways. Table 4-14 provides injury data for persons involved in crashes on focus area roadways during the five-year analysis period. Crashes involving alternate modes of travel within the five-year analysis period on focus area roadways are summarized in Table 4-15. Table 4-16 lists crashes involving alcohol on key roadways during the analysis period.

There were a total 2,276 accidents in the 5-year analysis period which occurred on key roadways located within the Focus Area. Most of the recorded crashes occurred on NM 478, NM 28, and on I-10. Of the total crashes:

- 21 crashes were classified as fatal, 43 percent of the recorded fatalities occurred on I-10
- 15 crashes involved pedestrians
- 107 crashes involved motorcycles
- 161 crashes involved alcohol, the majority of which occurred on NM 478, I-10 and NM 28
- 8 cyclist involved crashes occurred during the analysis period. 4 cyclist crashes occurred on NM 478 and 2 crashes occurred on NM 28. Both of these roadways are designated cycling routes within the border region.

**Table 4-13: Summarized Five-Year Crash Data for Focus Area Roadways**

| Route[1] | Total Crashes by Year | | | | | Fatal Crashes (2009 – 2013) | Injury Crashes (2009 – 2013) | Property Damage Only Crashes (2009 – 2013) | Total Crashes (2009 – 2013) |
|---|---|---|---|---|---|---|---|---|---|
| | 2009 | 2010 | 2011 | 2012 | 2013 | | | | |
| NM 478 | 319 | 277 | 215 | 78 | 64 | 1 | 345 | 607 | 953 |
| I-10 | 95 | 145 | 115 | 79 | 92 | 9 | 175 | 342 | 526 |
| NM 28 | 86 | 52 | 103 | 79 | 88 | 3 | 160 | 245 | 408 |
| NM 273 | 11 | 44 | 61 | 43 | 46 | 2 | 84 | 119 | 205 |
| NM 11 | 13 | 27 | 23 | 16 | 26 | 1 | 41 | 63 | 105 |
| NM 136 | 6 | 9 | 8 | 4 | 11 | 4 | 14 | 20 | 38 |
| NM 81 | 9 | 9 | 6 | 7 | 0 | 1 | 3 | 27 | 31 |
| NM 9 | 0 | 0 | 0 | 2 | 5 | 0 | 5 | 2 | 7 |
| NM 146 | 1 | 0 | 0 | 1 | 1 | 0 | 0 | 3 | 3 |
| **Total** | **540** | **563** | **531** | **309** | **333** | **21** | **827** | **1,428** | **2,276** |

Notes:
(1) Extent of Route reflects Milepost Limits as defined in Table 4-8: Existing Route Characteristics (Focus Area Roadway Network).

Source: Crash Data – New Mexico Department of Transportation (NMDOT) for the 5 year period January, 2009, through December, 2013.

**Table 4-14: Summarized Five-Year Crash Injury Data for Focus Area Roadways**

| Route[1] | Injury Severity | | | | | Total Number of People Involved in Crashes (2009 – 2013) | Total Crashes (2009 – 2013) |
|---|---|---|---|---|---|---|---|
| | Fatality | Class A | Class B | Class C | Unhurt | | |
| NM 478 | 1 | 56 | 96 | 379 | 2,255 | 2,787 | 953 |
| I-10 | 10 | 34 | 76 | 157 | 975 | 1,252 | 526 |
| NM 28 | 4 | 29 | 68 | 128 | 759 | 988 | 408 |
| NM 273 | 2 | 19 | 22 | 79 | 464 | 586 | 205 |
| NM 11 | 1 | 11 | 21 | 35 | 228 | 296 | 105 |
| NM 136 | 4 | 6 | 7 | 9 | 88 | 114 | 38 |
| NM 81 | 1 | 0 | 1 | 2 | 44 | 48 | 31 |
| NM 9 | 0 | 1 | 3 | 5 | 6 | 15 | 7 |
| NM 146 | 0 | 0 | 0 | 0 | 4 | 4 | 3 |
| **Total** | **23** | **156** | **294** | **794** | **4,823** | **6,090** | **2,276** |

Notes:
(1) Extent of Route reflects Milepost Limits as defined in Table 4-8: Existing Route Characteristics (Focus Area Roadway Network).

Source: Crash Data – New Mexico Department of Transportation (NMDOT) for the 5 year period January, 2009, through December, 2013.

**Table 4-15: Five Year Summary of Crashes Involving Alternate Modes of Travel on Focus Area Roadways**

| Route(1) | Pedestrian Involved Crashes | Motorcycle Involved Crashes | Cyclist Involved Crashes | Total Crashes (2009 – 2013) |
|---|---|---|---|---|
| NM 478 | 7 | 29 | 4 | 953 |
| I-10 | 4 | 10 | 0 | 526 |
| NM 28 | 0 | 57 | 2 | 408 |
| NM 273 | 1 | 7 | 1 | 205 |
| NM 11 | 2 | 2 | 0 | 105 |
| NM 136 | 1 | 2 | 1 | 38 |
| NM 81 | 0 | 0 | 0 | 31 |
| NM 9 | 0 | 0 | 0 | 7 |
| NM 146 | 0 | 0 | 0 | 3 |
| **Total** | **15** | **107** | **8** | **2,276** |

Notes:
(1) Extent of Route reflects Milepost Limits as defined in Table 4-8: Existing Route Characteristics (Focus Area Roadway Network)

Source: Crash Data – New Mexico Department of Transportation (NMDOT) for the 5 year period January, 2009, through December, 2013.

**Table 4-16: Five Year Summary of Alcohol Involved Crashes on Focus Area Roadways**

| Route(1) | Alcohol Involved Crashes | Total Crashes (2009 – 2013) |
|---|---|---|
| NM 478 | 43 | 953 |
| I-10 | 61 | 526 |
| NM 28 | 40 | 408 |
| NM 273 | 6 | 205 |
| NM 11 | 8 | 105 |
| NM 136 | 3 | 38 |
| NM 81 | 0 | 31 |
| NM 9 | 0 | 7 |
| NM 146 | 0 | 3 |
| **Total** | **161** | **2,276** |

Notes:
(1) Extent of Route reflects Milepost Limits as defined in Table 4-8: Existing Route Characteristics (Focus Area Roadway Network).

Source: Crash Data – New Mexico Department of Transportation (NMDOT) for the 5 year period January, 2009, through December, 2013.

## 4.5 ALTERNATE MODES OF TRAVEL IN THE BORDER REGION

### 4.5.1 CRITICAL CYCLING ROUTES IN THE BORDER REGION

Parallel state highways, NM 478 and NM 28, between Las Cruces and the Texas border offer cyclists two distinct route choices. Each is chosen for different reasons at different times of day and week. Some cyclists, mostly local, choose NM 478 with its wide shoulders despite the rough surface because it provides the most direct route through the valley. Other cyclists choose NM 28 for its slower traffic and scenic value through the valley. NM 478 has a higher volume of traffic due to its proximity to I-10 and the traffic is faster due to few traffic signals and its straight trajectory down the valley. NM 28 has slower traffic due to its proximity to the Rio Grande River and being further away from I-10; it has numerous curves through farm land and pecan orchards making it a preferred route of weekend recreational cyclists and cross-country cyclists using Adventure Cycling's Southern Tier Route. NM 28 is designated a State Bike Route from San Miguel to Las Cruces. The NMDOT Planning Division envisions NM 28 as a likely candidate for designation as a high priority cycling corridor extending from the Santa Teresa LPOE to Las Cruces; however, that will ultimately be determined through public involvement in developing the NMDOT's Bicycle, Pedestrian and Equestrian Plan during Federal Fiscal Year 2016. In the interim, care should be taken to limit heavy commercial traffic on NM 28 and consideration given to adding shoulders for bicycle use, where possible.

### 4.5.2 BUS ROUTES IN THE BORDER REGION

The New Mexico Department of Transportation provides two Park & Ride routes in the border region, as shown on Figure 4-18 the next page. The Gold route offers service from downtown Las Cruces, New Mexico State University (NMSU), and Anthony to the Texas Sun Metro public transit system in El Paso, Texas. Service from central Las Cruces and NMSU to White Sands Missile Range is provided via the Silver route. In addition, within the Las Cruces area there are nine Roadrunner Transit routes, which provide a fixed bus route service. There are also three bus routes which serve the NMSU and Doña Ana Community College (DACC) main campus and a shuttle service from the Mesilla Valley Mall to the DACC East Mesa campus. A transit service called Corre Caminos, operated by the Southwest Regional Transit District, offers fixed bus routes in Deming and Lordsburg and commuter services between Deming and Columbus.

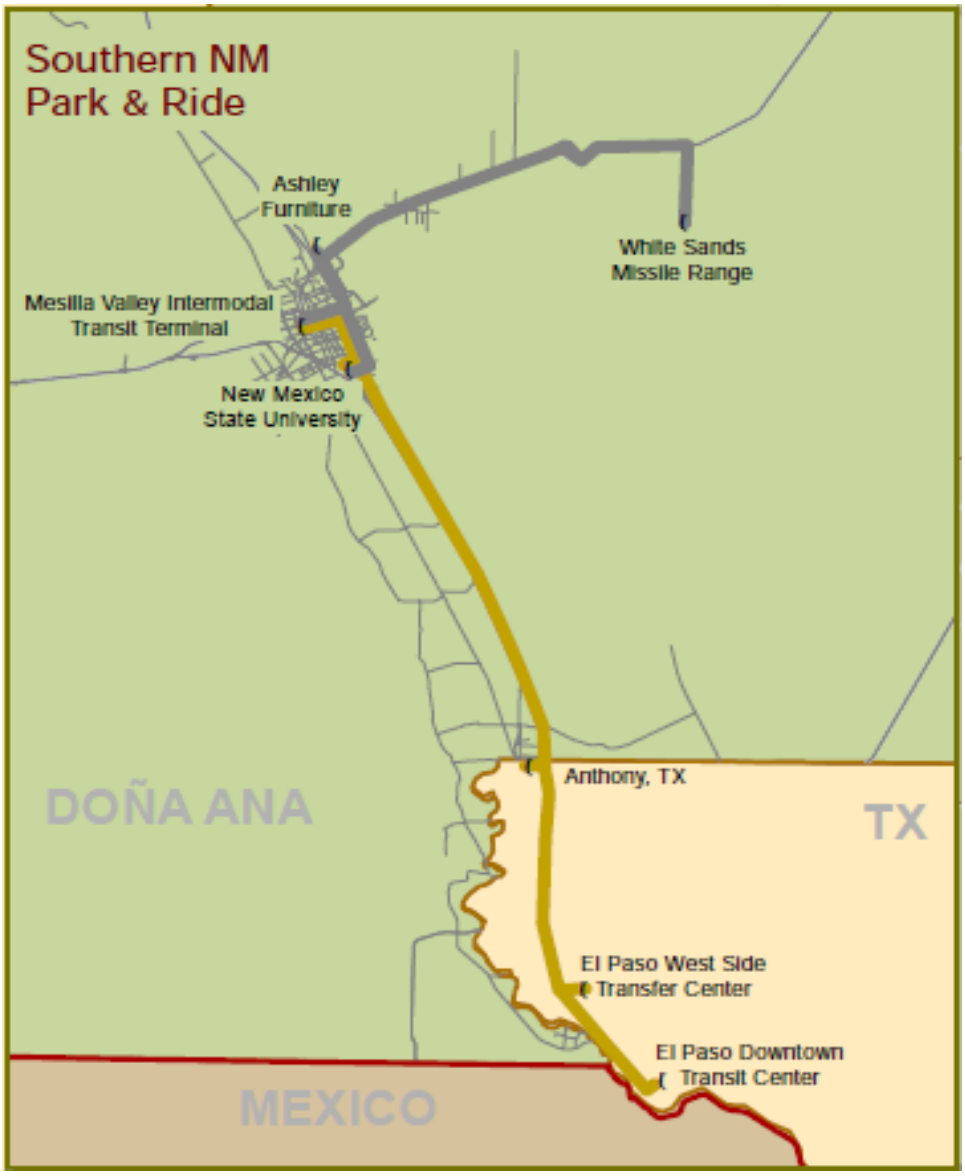



**Figure 4-18: NMDOT Park and Ride Routes near the Border**

## 4.6 FACILITY CONDITION CONSIDERATIONS IN THE BORDER REGION

The New Mexico Department of Transportation identified pavement condition concerns within the study area in the Draft Roadway Conditions Summary report completed in 2014. NMDOT uses the Pavement Condition Rating (PCR) and is based on 80 percent pavement surface distress and 20 percent roughness. Based on the information provided in this report, the pavement surface conditions vary widely across the various roadways, with spots ranging from Very Poor to Very Good. These ratings do not reflect the thickness, structural capacity or subgrade conditions; they are only reflective of the surface distress and present condition.

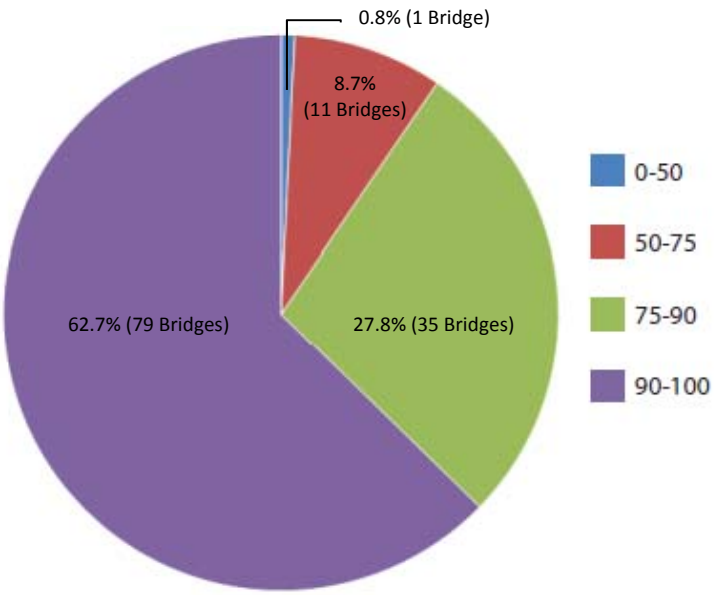



**Figure 4-19: Bridge Sufficiency Ratings in the Border Region**
Source: Draft Roadway Conditions Summary Report, NMDOT, September 2014

Along NM 81, the PCR is mostly categorized as in Good condition, with some portions of the roadway dipping down into the Very Poor condition. The PCR along NM 11 varies from Very Poor to Very Good, but the majority of the roadway is categorized in the Poor to Fair categories. NM 9 shows a PCR falling into the Good category for the majority of the roadway's extent. However, the PCR dips down to Very Poor in segments from Mile Marker (MM) 50 to MM 100. Along NM 136, the PCR ranges from Poor to Good within MM 0.0 to MM 2.0 and remains in Good to Very Good condition for the rest of the roadway's extent to the Texas border.

Also identified in the report is bridge sufficiency within the border region. Bridge sufficiency ratings indicate the overall condition of a bridge on a scale of 0 to 100, with 100 indicating an entirely sufficient bridge. As a general rule, bridges with sufficiency ratings less than 80 qualify for federal rehabilitation funds, and bridges with sufficiency ratings less than 50 qualify for federal replacement funds. Over 60 percent of the bridges identified in this report are rated above 90, with 98.0 being the highest rating. Of the 126 bridges located within the Focus

Area, 12 bridges had a sufficiency rating below 75. Nine of these bridges were located on I-10, with the lowest rating identified as 66.4 at MM 42.5. Only one bridge was rated below 50, with a rating of 35.7 on a bridge located on NM 28 at MM 19.4. Bridge data was not provided for the three bridges in the study region located on NM 273, NM 9, and NM 81.

With the projected increase in commercial trucks, this will result in a greater need for roadway maintenance within the study area. In particular, I-10 and NM-11 were identified as major commercial truck routes in the focus area. In addition to increased maintenance and operations, the anticipated increase in vehicle mix will also lead to safety concerns and congestion.

The following Table 4-17 indicates projects identified by NMDOT that have been recently completed to address condition concerns or are scheduled for implementation in the near term. Future development could lead to increased heavy vehicle traffic which could further impact these current infrastructure concerns.

| Table 4-17: NMDOT Completed and Scheduled Pavement Preservation and Bridge Improvement Projects | | | | | | |
|---|---|---|---|---|---|---|
| **Roadway** | **Project No.** | **Location** | **Description** | **Price** | **Status** | **FY** |
| NM 28 | N/A | MM 0.0 to MM 30.0 | Pavement Preservation | $1.20 M | Completed | 14 |
| NM 11 | N/A | MM 4.4 to MM 26.0 | Pavement Preservation | $2.80 M | Completed | 14 |
| NM 427/ NM 497 | N/A | MM 0.00 to MM 2.83 / MM 0.00 to MM 1.60 | Pavement Preservation | $0.90 M | Completed | 14 |
| NM 136 Pete Domenici Highway | CN 7682 | Santa Teresa Port of Entry | State Inspection Facility | $8.07 M | Completed | 14 |
| NM 136 Pete Domenici Highway | CN E100030 | MM 4.20 to MM 9.15 | Pavement Preservation | $5.00 M | Completed | 14 |
| Sunland Park Drive | CN E100050 | Sunland Park Drive | Pavement Preservation | $1.31 M | Completed | 14 |
| NM 478 | N/A | MM 8.5 to MM 21.0 | Pavement Preservation | $3.0 M | Completed | 15 |
| NM 28 / Frontage Road | CN 1101053 | MM 10.90 / MM 1.110 | Bridge Rehabilitation | $0.88 M | Completed | 15 |
| I-10 | CN G18A4 | NM 227 Interchange & NM 228 Interchange | Bridge Replacement & Roadway Reconstruction | $9.87 M | Completed | 15 |
| NM 498 | CN E100140 | MM 0.8 to MM 3.1 | Bridge Replacement over EBID Drain | $0.85 M | Scheduled | 17 |
| NM 136 | CN E100081 | MM 0.0 to MM 9.0 | Roadway Reconstruction | $40.0 M | Scheduled | 18 |
| NM 273 | CN E100090 | MM 9.3 to MM 14 | Pavement Preservation | $5.00 M | Scheduled | 19 |

Note: N/A = Project Number was not provided by NMDOT District 1.

Source: NMDOT District 1

## 4.7 RAIL FREIGHT INFRASTRUCTURE

This chapter provides information relating to the rail freight infrastructure serving the New Mexico-Chihuahua border region.

### 4.7.1 UPRR STRAUSS YARD

The Union Pacific Railroad (UPRR) recently completed construction of the primary elements of a new railroad service and intermodal facility on the company's critical Sunset Route. The Sunset Route stretches 760 miles from El Paso, Texas, to Los Angeles, California. The Santa Teresa Facility, also referred to as the Strauss Yard, is located along the route in southern New Mexico, approximately four miles west of Santa Teresa, NM (Figure 4-20). The Strauss Rail Yard is the first major facility developed by UPRR in close to a century. The facility extends 11.5 miles, is 0.8 mile wide, and occupied 2,200 acres (Figure 4-21).

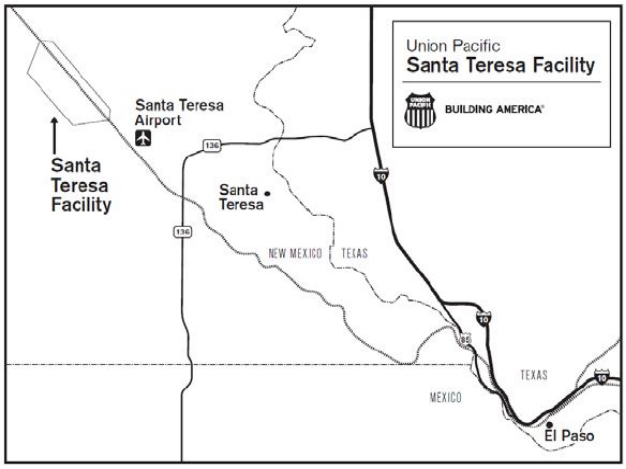



**Figure 4-20: Location of Santa Teresa Facility (Strauss Rail Yard)**

**Figure 4-21: UPRR Santa Teresa Facility (Strauss Rail Yard, Santa Teresa, NM)**

The completed portion of the new rail yard consists of a run-through fueling facility, intermodal yard, and block swap yard (Figure 4-22). The 300 acre intermodal hub, which will process containers moved by ships, trucks, and trains, will be the largest such facility operating along the U.S./Mexico border. Construction costs for the total facility of $400 million for the first stage include: 44 miles of track, 16.6 miles of county roads, 115,144 tons of asphalt, 212,000 tons of concrete, 23 buildings/structures including two LEED silver certified office buildings, six locomotive fueling islands, an inspection pit, eight automated gate lanes, and 1,166 intermodal parking spaces.

The completed facility will provide a key inland port and a strategic focal point for UPRR operations in the Southwest United States. It will significantly increase UPRR's operational efficiency that will allow shippers to leverage the economic and environmental benefits of shipping freight by rail. Proximity to Mexico will enhance the export/import process for U.S. and Mexico goods, resulting in long term, positive economic impacts for the region. Facility construction for this first stage created 3,000 jobs between 2011 and 2014, and the facility will be home to 300-600 permanent jobs when it reaches full capacity.

**Figure 4-22: UPRR Santa Teresa Facility (Strauss Rail Yard Selected Elements)**

**Central Administration and Control**

**Intermodal Facility**

**Railroad Service Facility**

**Mainline Tracks**

The intermodal facility will enable UPRR to take advantage of significant growth in the container shipment sector of the world economy. The finished capacity at this time allows the processing of 225,000 freight containers annually, with immediate future growth of the facility to boost capacity to 250,000 annually. The ultimate facility design is expected to support annual processing capacity of 700,000 freight containers. This new facility replaces the UPRR's intermodal facility located in El Paso, Texas, which had the capacity to process only 141,000 containers annually. The current operation is serving six to eight trains per day, and more than 1,000 truck drivers and 70 trucking companies, many Mexico based, are registered to use the facility. In addition, the railroad service portions (maintenance and refueling, see Figure 4-22 Railroad Service Facility) of the Strauss Rail Yard will support the needs of 40 to 60 trains that pass daily, a number expected to increase to over 100 trains per day as the UPRR double tracking project is completed.

The Strauss Rail Yard has four high tech cranes capable of 30 to 40 lifts per hour (a "lift" is any action taken to place a container on a rail car or remove a container from a rail car). The cranes have Global Position Systems (GPS) to help operators as they maneuver the containers around the yard. Between its opening in May, 2014, and the end of the year, the intermodal facility completed 104,150 freight container lifts (Table 4-18). UPRR indicates the number of lifts is expected to increase four percent in 2015, which means annual lifts could exceed 150,000 in the second year of operation.

**Table 4-18: Freight Container Lifts at the Santa Teresa, NM, Intermodal Facility Since Opening in May 2014**

| Month | No. of Lifts |
|---|---|
| May | 14,500 |
| June | 13,900 |
| July | 13,600 |
| August | 14,800 |
| September | 12,400 |
| October | 13,000 |
| November | 10,800 |
| December | 11,150 |
| **Total** | **104,150** |

A critical facet of the intermodal facility operation for the regional transportation system is truck movements into and out of the facility to drop off or retrieve freight containers. UPRR estimates the number of truck operations (a truck operation equals the travel of a truck into or out of the facility) is 15 to 20 percent higher than the number of lifts. This is based on recorded gate volumes and the observation that some trucks will come in empty, but leave with a container, and other trucks will come in with a container and leave empty. This means the number of truck operations at the Strauss Rail Yard ranged from 118,000 to 125,000 for the period May

December, 2014. The resulting truck traffic during the eight month period would be equivalent to 323 to 342 trucks per day.

Thus, the potential future impact for regional highways of planned expansion of the intermodal facility is significant. The estimated number of truck operations on the regional roadway network associated with the Strauss Rail Yard is shown in Table 4-19.

**Table 4-19: Estimate of Truck Operations Associated with the Strauss Rail Yard Intermodal Facility**

| No. of Containers Processed | Annual No. of Lifts [1] | Annual No. of Truck Operations (Range) [2] | Truck Operations per Day (Range) [3] |
|---|---|---|---|
| 104,150 – May-December, 2014 | 104,150 | 117,772 – 124,980 | 323 – 342 |
| 150,000 – 2015 | 150,000 | 172,500 – 180,000 | 473 – 493 |
| 250,000 per year – Near Future | 250,000 | 287,500 – 300,000 | 788 – 822 |
| 700,000 per year– Ultimate | 700,000 | 805,000 – 840,000 | 2,205 to 2,302 |

Notes:
1/ Assumes each container is put on a train or removed from a train.
2/ Range calculated reflects 15 to 20 percent more lifts than containers.
3/ Assumes facility operates 365 days per year.

As noted above, UPRR expects to process 150,000 freight containers in 2015. Each of the 150,000 containers will be lifted at least once; therefore,150,000 lifts translates into 172,500 to 180,000 truck operations during the year, which would be equivalent to 473 to 493 truck operations per day. In the near future, UPRR expects to be processing 250,000 freight containers annually. This level of operations would potential produce 788 to 822 associated truck operations into and out of the intermodal facility. Ultimately, the intermodal facility is planned to accommodate 700,000 containers annually. The associated truck traffic with this level of operation is estimated to be 2,205 to 2,302 truck operations per day. It must be noted that these estimates do not include other traffic the facility will attract on any given day.

Strauss Road, a road built by NMDOT and now maintained by Doña Ana County, provides the only surface access to the Strauss Rail Yard. Strauss Road is a two lane paved facility with a 7.5 foot paved shoulder within a 115 foot right of way. The roadway's primary regional connection is with the New Mexico State Route (NM) 136/Pete Domenici Memorial Highway, approximately 5.75 road miles to the east of the Strauss Rail Yard. NM 136 is a four lane divided highway, and Strauss Road has been constructed with two left turn lanes and a right turn lane at this intersection. This would indicate the heaviest traffic movement from the

Strauss Rail Yard is to the north on NM 136. Strauss Road also has a connection to Airport Road via Industrial Drive.

Development of this major regional UPRR facility is expected to not only create new, high paying administrative and technical jobs, but also lay the groundwork to attract light manufacturing, warehousing, and distribution facilities. A key attribute of the Strauss Yard is its proximity to Mexico. The NM 136/Strauss Road intersection is only 4.25 miles from the U.S./Mexico border and the Santa Teresa Land Port of Entry. Border crossing facilities have been improved on both sides of the border, which will aid in expediting the processing of truck loads moving in both directions.

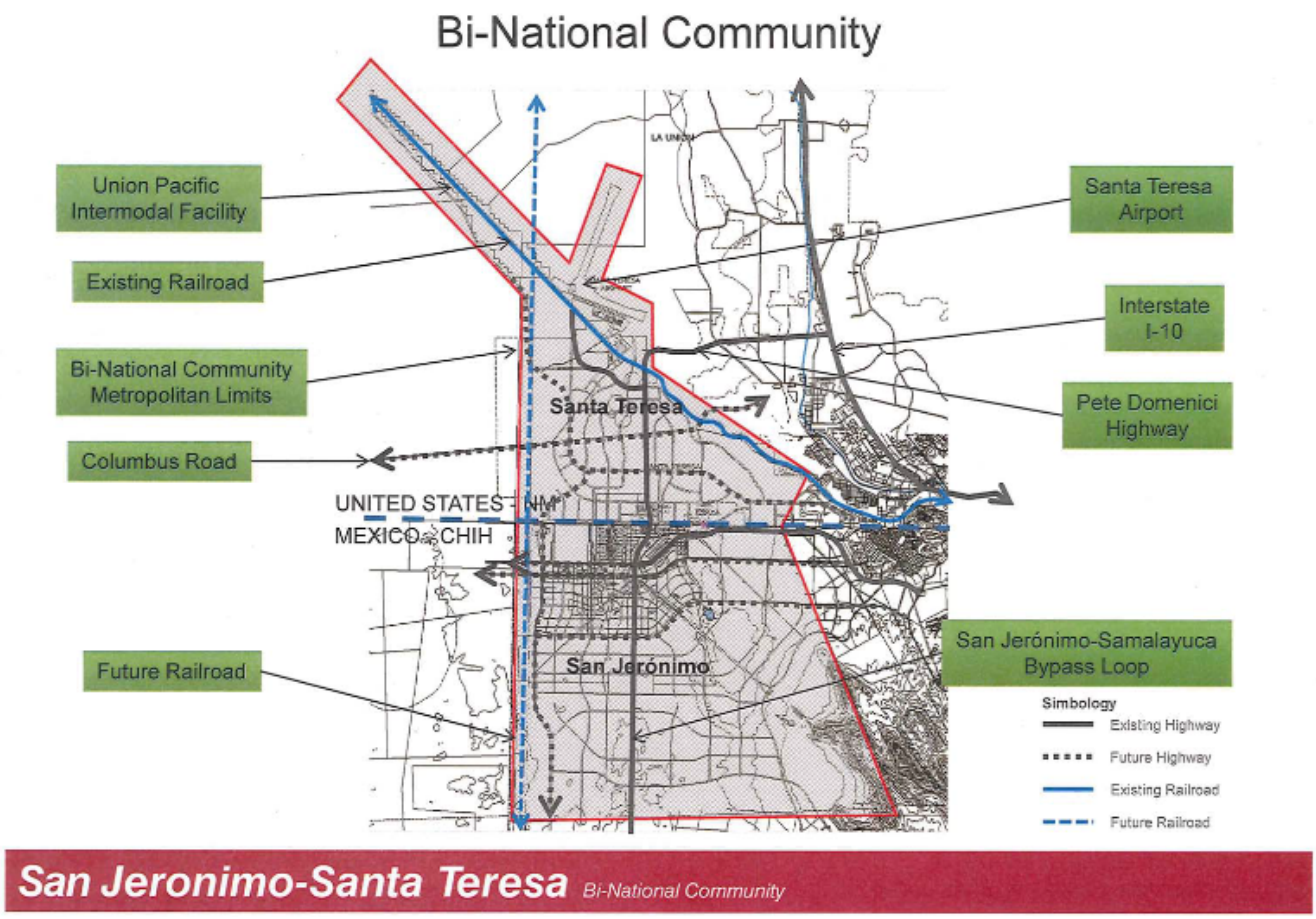
### 4.7.2 SAN JERÓNIMO-SANTA TERESA RAIL CONNECTION

The Bi-National Community of Santa Teresa, New Mexico, and San Jerónimo, Chihuahua, Mexico, was formed in August, 2013, as a mechanism for political and economic cooperation. The purpose for establishing the Bi-National Community is to aid in aligning development efforts around the San Jerónimo-Santa Teresa border crossing. The Bi-National Community specifically is focused on creating a 70,000 acre, first of its kind, binational, master planned community (Figure 4-23). The community will incorporate the largest inland port – the UPRR Santa Teresa Facility – to facilitate economic development through consolidation and integration of a new industrial, commercial, and residential community. The Bi-National Community Master Plan includes more than 2,000 acres of rail served industrial land – the Santa Teresa Logistics Park.

A second major element of the Bi-National Community Master Plan is a future railroad line extending north from the principal north south Ferromex line at Samalayuca in Chihuahua. Existing rail yards and trackage in El Paso, which have been the location of the regional rail services for decades have reached a stage of obsolescence relative to today's global markets. The need to create a new, more efficient rail infrastructure, therefore, is a key element of the Bi-National Community Master Plan. The new transborder rail line is proposed to bypass the City of Juárez (on the west) proceed northerly to a new LPOE (rail and potential commercial crossing), then proceed northerly into New Mexico, turning east and tying into the BNSF rail lines near the I-10 corridor. Highway improvements also are planned, with one roughly

paralleling the rail line, that will significantly improve the mobility and accessibility of the area in general and the UPRR Santa Teresa Facility, in particular. Overall, connectivity between New Mexico in the U.S. and Chihuahua in Mexico will be vastly improved and create social an economic hub with enhanced capabilities to compete regionally, nationally, and on a global scale.

**Figure 4-23: Bi-National Community San Jerónimo-Santa Teresa Master Plan**




### 4.7.3 BNSF RAILWAY VADO, NEW MEXICO YARD

As noted previously, the rail infrastructure in the central part of El Paso, Texas, is viewed as being obsolete and an impediment to the provision of timely competitive rail service. Like the UPRR, the BNSF Railway is considering the opportunity to relocate its El Paso Intermodal Terminal in response to a proposal by the Texas Department of Transportation (TxDOT) to use

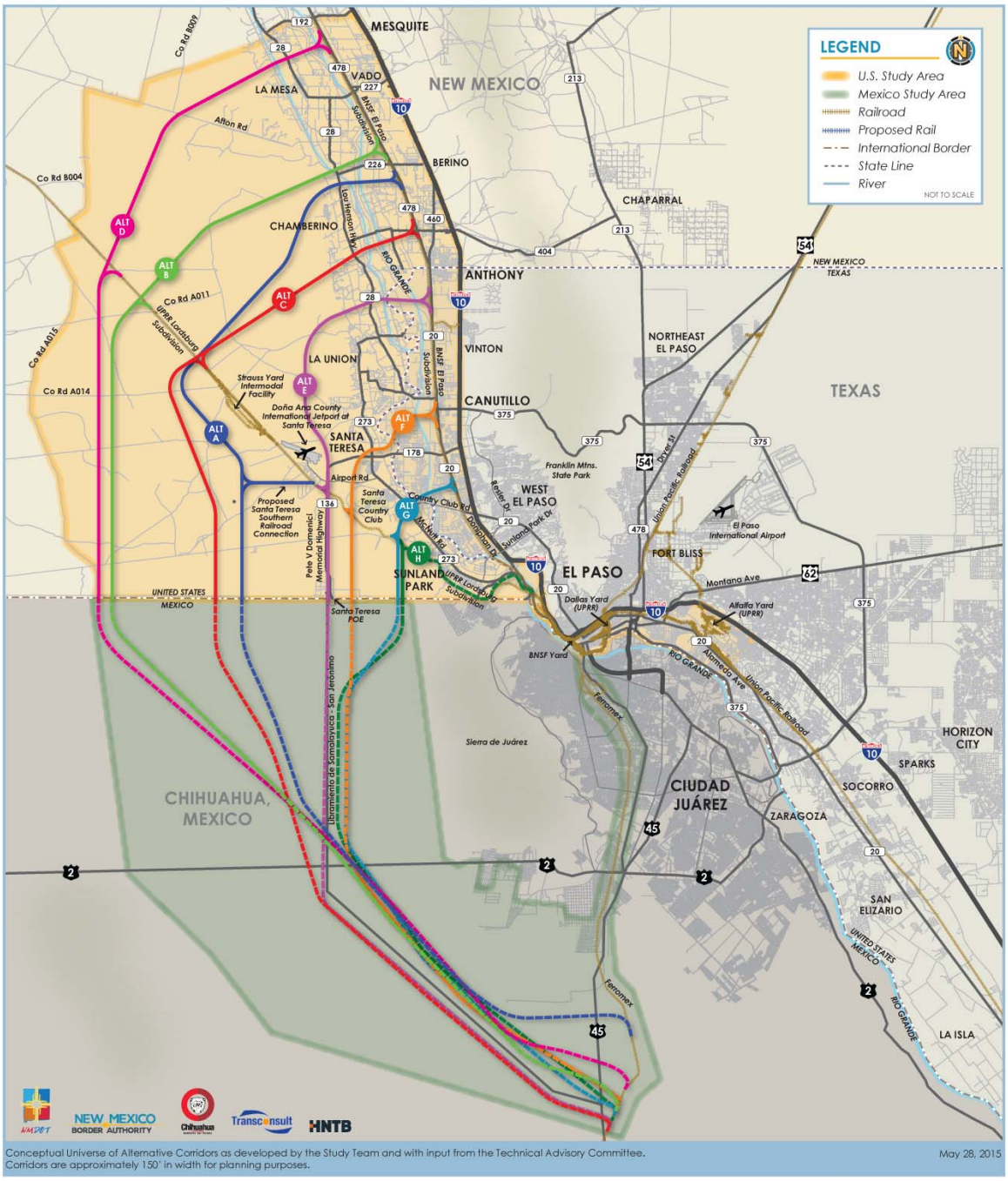
railroad right of way for the westward extension of the Border Highway. The Border Highway currently terminates at South Santa Fe Street in close proximity to the entrance to the BNSF rail yard. A potential site for the new intermodal facility has been identified along the I-10 corridor in the vicinity of Vado, New Mexico, approximately 25 miles north of El Paso, along an existing BNSF rail line. Potential concepts consider that a Vado Yard would be connected with a potential rail bypass route that ties in with a potential new international rail crossing at Santa Teresa/San Jerónimo (Figure 4-24). The bypass would connect with the UPRR Sunset Route, and it is envisioned the new rail line could be extended north via a bridge to connect with the BNSF El Paso Subdivision near Vado.

**Figure 4-24: Potential San Jerónimo-Santa Teresa Rail Bypass and International Railroad Crossing**

Source: Figure 1-6: Possible Santa Teresa Bypass and International Crossing in *El Paso Region Freight Rail Study,* Final Report, April, 2011, Pg. 1-13

The El Paso Region Freight Rail Study, published April, 2011, states the next step forward on this path, besides BNSF and TxDOT coming to an agreement to acquire the desired land for Border Highway, is to conduct a feasibility analysis and appropriate environmental studies associated with yard relocation and development of a yard at the Vado site. The New Mexico Border Authority is currently conducting this feasibility analysis and anticipates it will be completed in December 2015, as noted in Appendix A: List of Relevant Studies. Findings from this study will be included into the Border Master Plan Update. Conceptual alternatives for the potential bypass are illustrated in Figure 4-25 on the following page. The potential new 52 mile international railroad bypass shown above would need to be developed in conjunction with a rail border crossing at (or near) the Santa Teresa/San Jerónimo LPOE. This international project, if completed, also will include a new intermodal facility in Samalayuca, Chihuahua, to better support the rail operations of Ferromex.

**Figure 4-25: Conceptual Alternative Corridors for Rail Bypass at or near the Santa Teresa LPOE**
Source: Santa Teresa Rail Relocation Study: Feasibility Study of Rail Bypass & International Border Crossing, NMBA, 2015




SANTA TERESA INTERNATIONAL RAIL STUDY

# Universe of Alternatives

## 4.8 SANTA TERESA INTERNATIONAL AIRPORT

### (RUNWAY 10-28 – 8,500' LONG BY 100' WIDE)

The Airport has undertaken an airport multi-modal master plan (funded by the NMDOT – Aviation Division). This master plan will serve as an abbreviated planning study that updates key elements, including forecasts and airfield requirements, of the previous airport master plan, but will focus on the next five to ten years. The plan will take approximately 18 months to complete (this includes County, State and Federal Aviation Administration review and approvals). Tentative completion date is anticipated to be fall of 2016.

The Airport recently opened the new Customs and Border protection building. This allows aircraft to be able to clear customs at Santa Teresa versus going into El Paso International. At one time, the Doña Ana County airport was classified with the Federal Aviation Administration's National Plan of Integrated Airport Systems as a reliever airport. When the taxiways were reconstructed approximately 15 years ago, they were constructed to support air cargo operations. The initial intention was that the air cargo operations would move from El Paso International over to the Santa Teresa Airport. However, with the aviation marketplace changing significantly since 2001, those plans were put on hold. With the new rail developments, the idea of air cargo operations at the Santa Teresa Airport is becoming more of a reality.

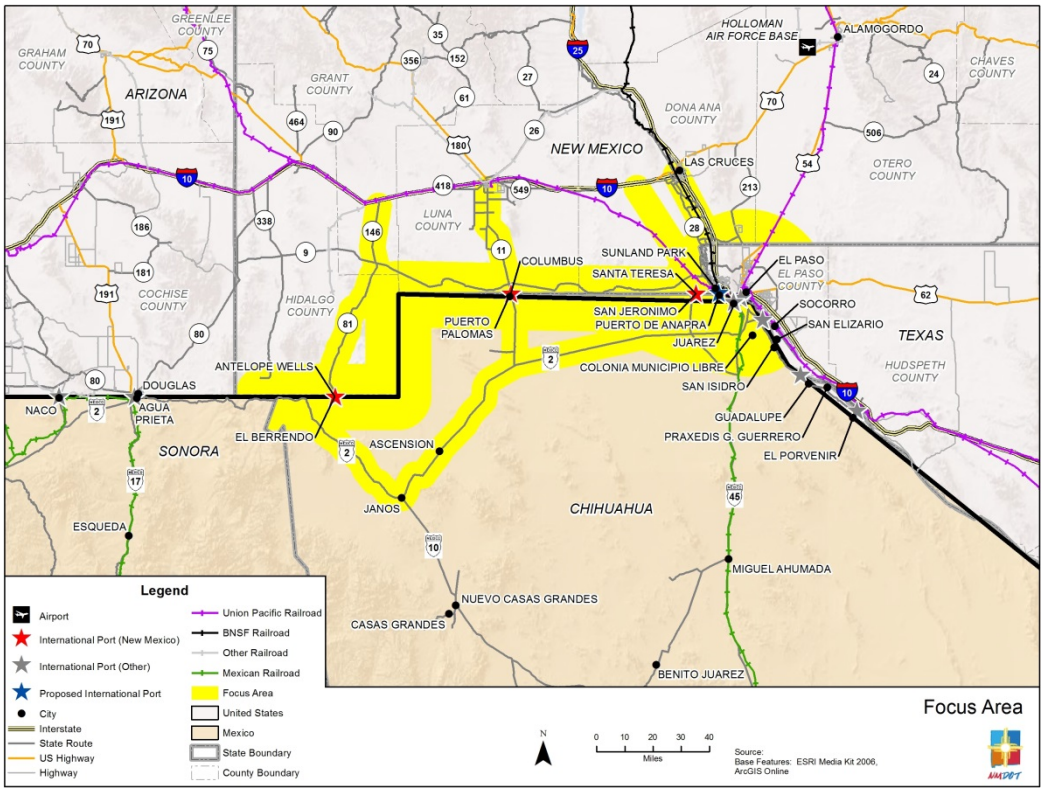
In order to have increased cargo operations, the airport would need to increase the capacity of its existing runway. The upgrade of the existing runway will be studied in the airport multi-modal master plan that is underway. It would also need to install in Automated Weather Observation System (AWOS). In the recent special session, that project was listed on the capital outlay bill. As for international flights, the Airport is currently able to support business and private international flights. With the Customs and Border Protection building at the airport, these flights are able to clear customs. For scheduled commercial air service, with the airports proximity to El Paso and Albuquerque and the current state of the commercial airline industry within the United States, having a major U.S. airline service may not be a reality. There has been interest from a Mexican airline in providing commercial service to and from Mexico City, Chihuahua from Santa Teresa. NMDOT is planning on further evaluating international air service in the master plan that is currently underway.

# 5.0 OVERVIEW OF THE NEW MEXICO – CHIHUAHUA LAND PORTS OF ENTRY (LPOEs)

The State of New Mexico in the United States and the State of Chihuahua in Mexico share approximately 180 miles of international border. The three border crossings (see Figure 5-1) located along this border are as follows, from west to east:

- Antelope Wells / El Berrendo
- Columbus / Puerto Palomas
- Santa Teresa / San Jerónimo

**Figure 5-1: Locations of New Mexico - Chihuahua Land Ports of Entry**




Concepts are being considered to create a rail POE near the Santa Teresa/San Jerónimo LPOE. In addition, there are discussions to create a private, non-commercial LPOE on the New Mexico/Chihuahua border in Sunland Park, NM, and Anapra, Chihuahua, to increase economic and cultural opportunities and to relieve congestion and reduce pollution now affecting the New Mexico-Texas-Chihuahua region.

The LPOEs at Antelope Wells and Columbus have existed since the early 1900s. The Santa Teresa LPOE is the newest crossing along the US/ Mexico border and was first opened in 1992. All three LPOEs have recently received money from the U.S. General Services Administration (GSA) to renovate and expand facilities, as shown in Figure 5-2.

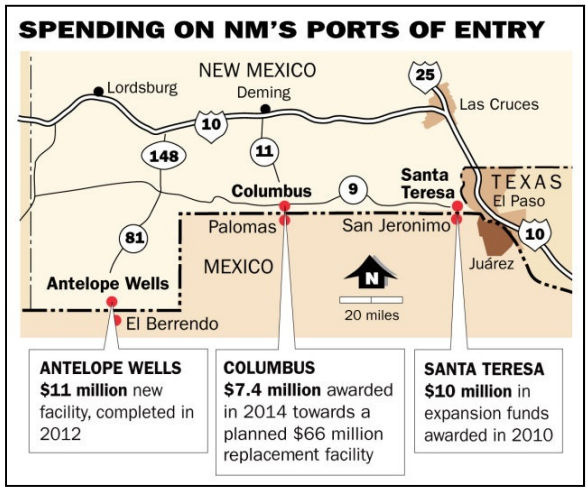



**Figure 5-2: Spending on New Mexico LPOEs**
Source: Albuquerque Journal, 2014.

Mexico currently is the United States' 3rd largest trading partner (in terms of two-way trade). US-Mexico total trade has shown an increase of approximately 80 percent in the last five years, increasing from $306 billion in 2009 to more than $550 billion in 2013. To promote international trade, New Mexico extended the overweight zone six miles (9.7 km) around the Columbus LPOE and the Santa Teresa LPOE, which allows for heavier loads to come legally farther into New Mexico from Mexico, eliminating a significant amount of transloading to trucks for destinations just inside the US. Additionally on August 26th, 2014, Doña Ana County passed Resolution No. 2014-86 that expanded the service area of Foreign Trade Zone No. 197 to include the entirety of Doña Ana County, subject to a 2,000 acre-activation limit. Foreign Trade Zone No. 197 prior to the extension was identified as five sites: Santa Teresa Business Center, West Mesa Industrial Park, Santa Teresa Bi-National Park, Santa Teresa Airport Industrial Park, and Santa Teresa Logistics Park for a total of 1,407 acres. The expansion was federally-approved under the alternative site framework (ASF), and it re-categorized existing sites as magnet sites, or sites intended to draw future users.

The value of cross-border shipments at the Santa Teresa and Columbus LPOEs, which are the two larger LPOEs situated on the New Mexico-Chihuahua international border, is shown in Table 5-1 on the following page. The Antelope Wells/El Berrendo LPOE does not have trade activity as commercial vehicles are not processed at this location. In 2010, the value of cross-border goods at the two crossings was approximately $13.4 billion. The value of goods moving through the two LPOEs increased 41.8 percent to $19 billion in 2013.

**Table 5-1: Total Goods Value and Mode of Movement at the New Mexico - Chihuahua Border**

| Port / Year / Mode | Total Trade (US Dollars) | Value of Exports (US Dollars) | Value of Imports (US Dollars) | Percent of Total US-Mexico Trade | Percent of Total US-Mexico Exports | Percent of Total US-Mexico Imports |
|---|---|---|---|---|---|---|
| **Santa Teresa Land Port of Entry, New Mexico** | | | | | | |
| **2013** | | | | | | |
| All Modes | 18,907,023,022 | 8,669,352,342 | 10,237,670,680 | 3.7 | 3.8 | 3.6 |
| Truck | 18,580,102,030 | 8,342,438,790 | 10,237,663,240 | 5.5 | 5.5 | 5.5 |
| Other Modes | 326,920,992 | 326,913,552 | 7,440 | Negligible | Negligible | Negligible |
| **2010** | | | | | | |
| All Modes | 13,268,277,792 | 4,874,776,076 | 8,393,501,716 | 3.4 | 3.0 | 3.6 |
| Truck | 13,219,370,390 | 4,825,952,997 | 8,393,417,393 | 5.1 | 4.3 | 5.6 |
| Other Modes | 48,907,402 | 48,823,079 | 84,323 | Negligible | Negligible | Negligible |
| **Columbus Land Port of Entry, New Mexico** | | | | | | |
| **2013** | | | | | | |
| All Modes | 86,234,046 | 28,259,590 | 57,974,456 | Negligible | Negligible | Negligible |
| Truck | 85,694,356 | 27,719,900 | 57,974,456 | Negligible | Negligible | Negligible |
| Other Modes | 539,690 | 539,690 | 0 | Negligible | Negligible | Negligible |
| **2010** | | | | | | |
| All Modes | 79,208,637 | 25,449,474 | 53,759,163 | Negligible | Negligible | Negligible |
| Truck | 78,017,120 | 24,257,957 | 53,759,163 | Negligible | Negligible | Negligible |
| Other Modes | 1,191,517 | 1,191,517 | 0 | Negligible | Negligible | Negligible |

Source: North American Transborder Freight Data: Port and Commodity Data. North American Transborder Freight Data, including Port and Commodity. Office of the Assistant Secretary for Research and Technology. US Department of Transportation, Bureau of Transportation Statistics, TransBorder Freight Data. Table 1: Trade between USA and Canada/Mexico through Ports with Commodity (Annual). At: http://transborder.bts.gov/programs/international/transborder/TBDR_QAPC07.html.

A large share of this increase occurred as a result of the shift in shipments of used vehicles to Mexico from the El Paso area to the Santa Teresa/San Jerónimo LPOE. Data on directional trade patterns indicate that value of southbound US-to-Mexico trade increased between 2010 and 2013 by 78 percent, while the value of northbound shipments increased only 22 percent as indicated in Table 5-1. The great majority of the value of cross-border goods is associated with the Santa Teresa/San Jerónimo LPOE. The Columbus/Puerto Palomas LPOE accounted for less than one percent of the total value of cross-border trade in 2013.

The study team received similar trade data from Servicio de Administración Tributaria (SAT) for the Puerto Palomas and San Jerónimo LPOEs, as summarized in Table 5-1A. The table compares the total value of imports and exports in pesos from 2013 through September of 2015.

**Table 5-1A: Value of Imports and Exports at the Chihuahua - New Mexico Border**

| Port / Year | Value of Exports (Mexican Pesos) | Value of Imports (Mexican Pesos) |
|---|---|---|
| **Puerto Palomas Land Port of Entry, Chihuahua** | | |
| 2015 (January - September) | $1,236,255,744 | $180,304,681 |
| 2014 | $1,269,595,716 | $217,880,694 |
| 2013 | $677,793,628 | $156,099,900 |
| **San Jerónimo Land Port of Entry, Chihuahua** | | |
| 2015 (January - September) | $25,432,061,195 | $15,350,357,019 |
| 2014 | $30,586,163,183 | $17,462,847,870 |
| 2013 | $24,906,713,371 | $11,709,281,823 |

Source - Servicio de Administración Tributaria (SAT)

A major shift upward in the value of shipments, by truck, through the Santa Teresa/San Jerónimo LPOE occurred in 2009 followed by another shift in 2010 that initiated a steep growth curve, as shown in Table 5-2. The value of truck shipments increased from less than $1.5 billion prior to 2009 to over $4 billion in 2009. Then in 2010, the value of trade at the LPOE increased to more than $13 billion and has continued to grow, eclipsing $18.5 billion in 2013. With this growth spurt, the Santa Teresa/San Jerónimo LPOE advanced from the eleventh ranked LPOE in terms of the total value of trade, by truck, with Mexico to the fifth ranked LPOE. The high value of cross-border shipments on the New Mexico-Chihuahua international border is primarily associated with shipments of high tech equipment, particularly machinery and appliances (e.g., televisions, recorders, electrical parts). Live animals, sugar products, and vegetables also are significant contributors to the value of cross border trade.

**Table 5-2: Value of US - Mexico Trade by Truck at Santa Teresa / San Jerónimo LPOE**

| Year | US Rank | Value of US - Mexico Trade (US Dollars) | | | Percent of US Value of Trade | | |
|---|---|---|---|---|---|---|---|
| | | Total | Exports | Imports | Total | Exports | Imports |
| 2013 | 5 | 18,580,102,030 | 8,342,438,790 | 10,237,663,240 | 5.5% | 5.5% | 5.5% |
| 2012 | 5 | 19,796,311,374 | 8,017,557,647 | 11,778,753,727 | 6.1% | 5.7% | 6.5% |
| 2011 | 5 | 17,726,012,449 | 7,402,949,524 | 10,323,062,925 | 6.0% | 5.8% | 6.2% |
| 2010 | 5 | 13,219,370,390 | 4,825,952,997 | 8,393,417,393 | 5.1% | 4.3% | 5.6% |
| 2009 | 8 | 4,414,973,874 | 1,506,263,066 | 2,908,710,808 | 2.1% | 1.7% | 2.5% |
| 2008 | 10 | 1,229,144,089 | 387,502,440 | 841,641,649 | 0.5% | 0.4% | 0.6% |
| 2007 | 10 | 1,389,779,318 | 478,769,573 | 911,009,745 | 0.6% | 0.5% | 0.7% |
| 2006 | 11 | 1,165,921,770 | 425,946,980 | 739,974,790 | 0.5% | 0.5% | 0.6% |
| 2005 | 10 | 1,179,846,510 | 422,999,914 | 756,846,596 | 0.6% | 0.5% | 0.7% |
| 2004 | 10 | 1,157,155,930 | 415,776,368 | 741,379,562 | 0.6% | 0.5% | 0.7% |

Source: North American Transborder Freight Data: Quick Search -- Thematic Map, Table, and Chart. US Department of Transportation, Office of the Assistant Secretary for Research and Technology, Bureau of Transportation Statistics. At: http://transborder.bts.gov/programs/international/transborder/TBDR_QuickSearch.html.

On the following page, Table 5-3 shows the volume of shipments by mode/type for the Years 2010 through 2013. The overall volume of border crossings has increased in this time frame, by approximately 21 percent. In a direct reflection of the value of shipments, the vast majority of all shipments at the border crossings in New Mexico occurred through the Santa Teresa/San Jerónimo LPOE. In 2013, over 81,000 trucks crossed the border with a variety of goods; this LPOE accounted for approximately 87 percent of the total number of truck crossings at the New Mexico-Chihuahua border. Travel by privately owned vehicles (POVs)

crossing the border is quite different. Only 63 percent of the POVs crossed at the Santa Teresa/San Jerónimo LPOE in 2013. By contrast, approximately 63 percent of the pedestrian border crossings occurred through the Columbus/Puerto Palomas LPOE in 2013. The relatively high number of pedestrian crossings at Columbus is due to the large number of students crossing, who travel to New Mexico for their education. Antelope Wells LPOE is the least utilized crossing along the southern border. This port accounts for less than one percent of the total POV crossings between New Mexico and Mexico, at approximately 0.7 percent. This port has a large number of buses crossing, accounting for approximately 86 percent of the total bus crossings at the New Mexico – Chihuahua border. Antelope Wells counts bus passengers as pedestrian crossings in the provided data.

**Table 5-3: Volume of New Mexico - Chihuahua Border Crossings by Mode (2010-2013)**

| Year | Port Name | Trucks[1] | Loaded Truck Containers[2] | Empty Truck Containers[2] | Buses[2] | Personal Vehicles[1] | Pedestrians[1] |
|---|---|---|---|---|---|---|---|
| **2013** | Santa Teresa | 81,001 | 57,169 | 20,209 | 215 | 421,872 | 145,057 |
| | Columbus | 12,007 | 10,743 | 2,449 | 0 | 247,632 | 260,600 |
| | Antelope Wells | 0 | 0 | 0 | 1,297 | 4,601 | 5,247[3] |
| | **Total:** | 93,008 | 67,912 | 22,658 | 1,512 | 674,105 | 458,130 |
| **2012** | Santa Teresa | 80,744 | 45,567 | 23,146 | 258 | 381,908 | 116,544 |
| | Columbus | 10,931 | 9,577 | 1,082 | 0 | 256,423 | 228,527 |
| | Antelope Wells | 0 | 0 | 0 | 1,393 | 4,430 | 4,703[3] |
| | **Total:** | 91,675 | 55,144 | 24,228 | 1,651 | 642,761 | 392,104 |
| **2011** | Santa Teresa | 71,849 | 50,150 | 21,072 | 315 | 400,958 | 120,829 |
| | Columbus | 9,368 | 7,663 | 1,273 | 0 | 239,052 | 209,950 |
| | Antelope Wells | 0 | 0 | 0 | 1,447 | 4,976 | 4,426[3] |
| | **Total:** | 81,217 | 57,813 | 22,345 | 1,762 | 644,986 | 375,042 |
| **2010** | Santa Teresa | 78,880 | 49,384 | 26,835 | 440 | 413,041 | 126,378 |
| | Columbus | 8,411 | 7,241 | 974 | 0 | 246,232 | 199,468 |
| | Antelope Wells | 0 | 0 | 0 | 1,633 | 5,549 | 5,186[3] |
| | **Total:** | 87,291 | 56,625 | 27,809 | 2,073 | 664,822 | 377,709 |

Source:
(1) Data provided from Department of Homeland Security, U.S. Customs and Border Protection, Office of Field Operations.
(2) Office of the Assistant Secretary for Research and Technology. US Department of Transportation, Bureau of Transportation Statistics, TransBorder Freight Data. *Border Crossing/Entry Data: Query Detailed Statistics – 2013*. Information on Antelope Wells LPOE is combined with Columbus LPOE at this source. At: http://transborder.bts.gov/programs/international/transborder/TBDR_BC/TBDR_BCQ.html.
(3) In buses.

Goods shipped across the border into New Mexico have a variety of destinations. Table 5-4 shows the most predominant destinations are the states of New Mexico and Texas. In all, goods are shipped directly to 16 states. This shipping pattern may be altered as the Union Pacific Railroad (UPRR) Strauss Yard becomes fully operational, permitting goods on trucks from Mexico to be transloaded to UPRR trains (refer to Section 4.7).

**Table 5-4: Destination for Imported/Exported Goods That Travel through NM - CHIH LPOEs (2013)**

| Destination | Percent of Total Value of Trade | Percent of Total Value of Exports | Percent of Total Value of Imports |
|---|---|---|---|
| **Santa Teresa Land Port of Entry, New Mexico** | | | |
| Texas | 87.9% | 92.4% | 84.0% |
| Utah | 3.5% | 0.0% | 6.5% |
| New Mexico | 2.3% | 4.5% | 0.4% |
| Florida | 1.8% | 0.0% | 3.3% |
| Michigan | 1.3% | 0.1% | 2.3% |
| California | 1.0% | 0.8% | 1.2% |
| North Carolina | 0.6% | 0.0% | 1.1% |
| New York | 0.2% | 0.1% | 0.4% |
| Connecticut | 0.1% | 0.0% | 0.2% |
| Colorado | 0.1% | 0.3% | 0.0% |
| **Columbus Land Port of Entry, New Mexico** | | | |
| New Mexico | 46.6% | 18.7% | 60.2% |
| Texas | 28.5% | 26.1% | 29.7% |
| Ohio | 5.9% | 18.0% | 0.0% |
| Wisconsin | 5.7% | 17.4% | 0.0% |
| Arizona | 4.6% | 1.0% | 6.3% |
| Pennsylvania | 2.3% | 7.0% | 0.0% |
| California | 1.4% | 2.2% | 1.0% |
| Illinois | 0.9% | 0.1% | 1.3% |
| Washington | 0.8% | 2.6% | 0.0% |
| Michigan | 0.5% | 1.6% | 0.0% |

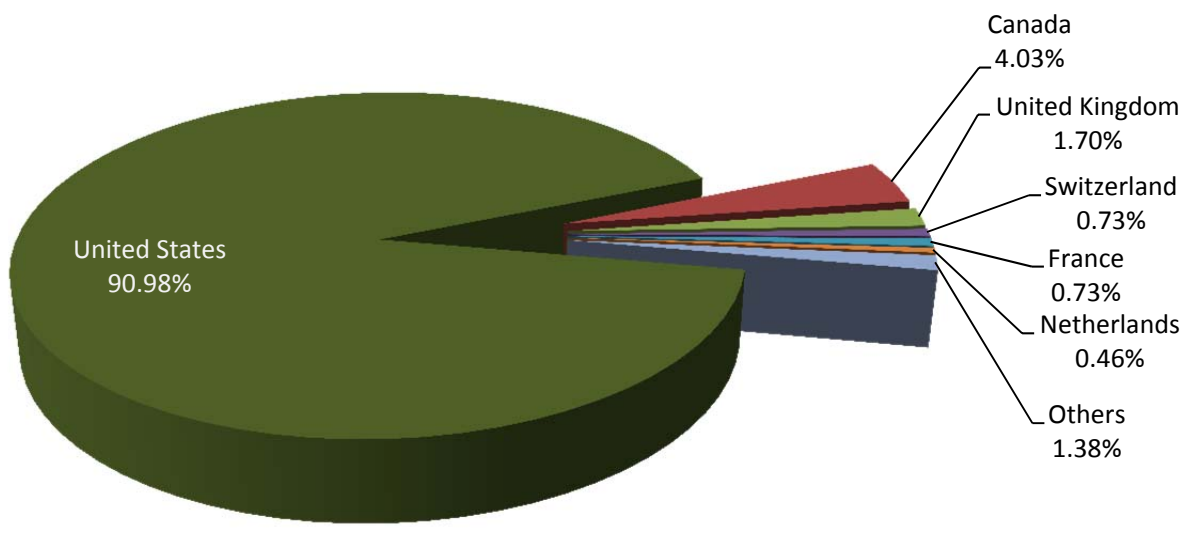
Source: North American TransBorder Freight Data: Top States. *US Trade with Canada and Mexico through a Specific Port or in a Specific Commodity.* Office of the Assistant Secretary for Research and Technology. US Department of Transportation, Bureau of Transportation Statistics, TransBorder Freight Data. At: http://transborder.bts.gov/programs/international/transborder/TBDR_QuickSearchPC.html.

On a global basis products from Chihuahua have a multitude of destinations. While the primary importer is still the US (at nearly 91 percent of the exports), seventy-four other counties are now recipients of these goods (refer to Table 5-5 and Figure 5-3).

**Table 5-5: Key Trading Partners receiving exports from companies established in Chihuahua ($) January – June 2014**

| Country | $Millions (MXN pesos) |
|---|---|
| United States | $22,851 |
| Canada | $1,011 |
| United Kingdom | $426 |
| Switzerland | $183 |
| France | $183 |
| Netherlands | $115 |
| Others | $345 |
| TOTAL | $25,114 |

**Figure 5-3: Key Trading Partners receiving exports from companies established in Chihuahua (%) January – June 2014**



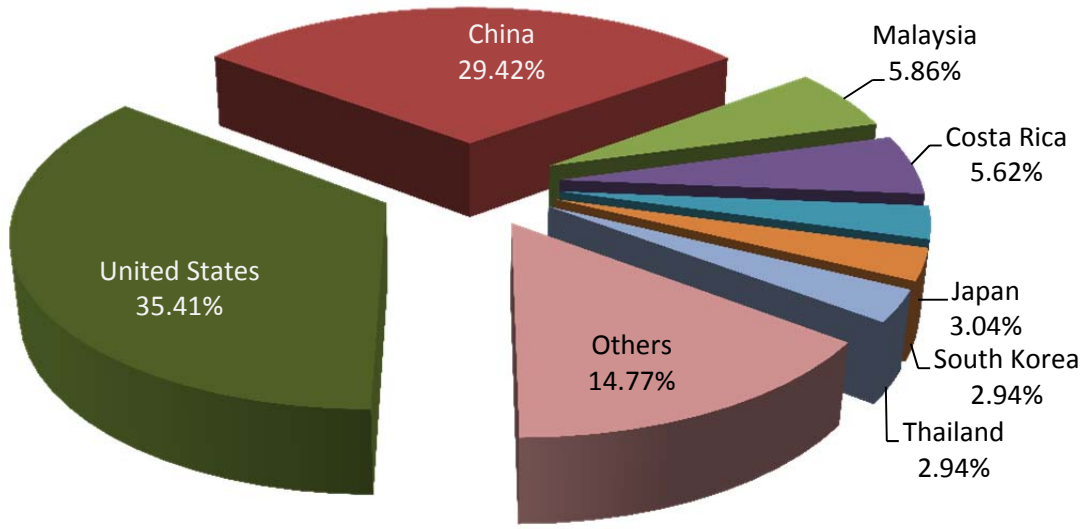

**Source:** Secretaria de Economia - Centro de Información Económica y Social, with informacion from the Director Data Provided by Promotora de la Chihuahuense.

Similarly, imports to Chihuahua came from a variety of countries with the US and China contributing the highest volumes (refer to Table 5-6 and Figure 5-4)

**Table 5-6: Key Trading Partners sending imports to Companies established in Chihuahua ($) January – June 2014**

| Country | $Millions (MXN pesos) |
|---|---|
| United States | $7,032 |
| China | $5,842 |
| Malaysia | $1,164 |
| Costa Rica | $1,115 |
| Japan | $604 |
| South Korea | $584 |
| Thailand | $583 |
| Others | $2,933 |
| TOTAL | $19,857 |

**Figure 5-4: Key Trading Partners receiving imports to Companies established in Chihuahua (%) January – June 2014**




**Source:** Secretaria de Economia - Centro de Información Económica y Social, with informacion from the Director Data Provided by Promotora de la Chihuahuense.

Somewhat unique along this portion of the international border is the Chihuahua export of cattle and horses. Most of the cattle is imported to be feeder stock and is destined for pasture and feedlots in New Mexico, Texas, Arizona, California and Midwestern states. Through both the Palamos and San Jerónimo ports these animals cross into the US in large volumes (refer to Table 5-7).

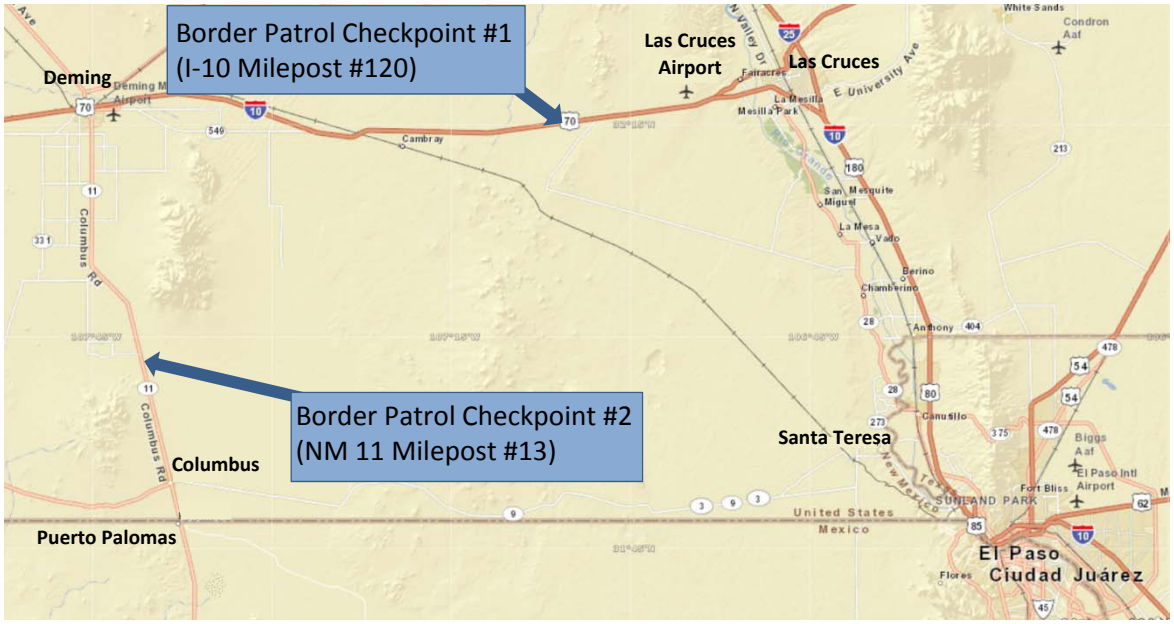
**Table 5-7: Exports by the Quarantine Stations in San Jerónimo between 2010 - 2014**

| | Number of Cattle | Number of Horses |
|---|---|---|
| 2010 | | |
| Palomas | 40,956 | 18 |
| San Jerónimo | 330,963 | 866 |
| **TOTAL 2010** | **371,919** | **884** |
| 2011 | | |
| Palomas | 46,100 | 9 |
| San Jerónimo | 401,182 | 1,049 |
| **TOTAL 2011** | **447,282** | **1,058** |
| 2012 | | |
| Palomas | 25,032 | 4 |
| San Jerónimo | 423,003 | 1,327 |
| **TOTAL 2012** | **448,035** | **1,331** |
| 2013 | | |
| Palomas | 35,817 | 47 |
| San Jerónimo | 349,790 | 1,634 |
| **TOTAL 2013** | **385,607** | **1,681** |
| 2014 | | |
| Palomas | 68,367 | 66 |
| San Jerónimo | 362,249 | 1,078 |
| **TOTAL 2014** | **430,616** | **1,144** |

Data provided by Promotora De La Chihuahuense.

The United States Border Patrol operates a number of traffic checkpoints near the southern border of the United States. The primary objective of these checkpoints is to deter illegal immigration and smuggling activities. The positioning of these checkpoints allows CBP the opportunity to deter illegal activities that may have bypassed official border crossings. Within the study area, there are two Border Patrol checkpoints located in New Mexico (illustrated in Figure 5-5 on the following page). One Border Patrol checkpoint is located on I-10, approximately 22 miles west of Las Cruces, near milepost 120. The second checkpoint is located on NM-11, near milepost 13, approximately 20 miles south of Deming.

**Figure 5-5: Border Patrol Traffic Checkpoints in New Mexico**




The Instituto Nacional de Migración (INM), the principal agency charged with enforcing migration law and protecting migrants, has two roadway checkpoints in the Northwest Zone in the State of Chihuahua (illustrated in Figure 5-6). The first INM checkpoint, El Picacho, is located on Mexican Federal Highway 2, Playa General Lauro del Villar – Tijuana (Juárez – Janos – Puerto San Luis). The second INM checkpoint is located at KM 235+500 of Mexican Federal Highway 10, El Sueco – Janos.

**Figure 5-6: Roadway Checkpoints in Chihuahua**

# 6.0 SUMMARIES OF INDIVIDUAL LAND PORTS OF ENTRY

There are three existing LPOE's along the New Mexico / Chihuahua border. When comparing and contrasting these three LPOEs, Antelope Wells is the most remote and least utilized crossing, Columbus has the most pedestrians crossing (largely due to the number of school children crossing each weekday), and Santa Teresa is the busiest port in terms of privately owned vehicles (POVs) and commercial crossings.

- Antelope Wells / El Berrendo LPOE (Privately Owned Vehicles (POVs), and Pedestrians)
- Columbus / Puerto Palomas LPOE (POVs, Pedestrians and Commercial)
- Santa Teresa / San Jerónimo LPOE (POVs, Pedestrians and Commercial)

## 6.1 ANTELOPE WELLS LAND PORT OF ENTRY

The Antelope Wells LPOE was established by President Ulysses S. Grant in 1872 and has been staffed and open to non-commercial crossings since 1928. This LPOE is unique in that it is the least utilized legal crossing along the southern border and considered to be the most remote port on either the Canadian or Mexican borders. Located between the Douglas LPOE in Arizona and Columbus LPOE, the Antelope Wells LPOE provides the most direct route to the eastern slope of the Sierra Madres and farmlands surrounding Ascension, Janos, Casas Grandes, Nuevo Casas Grades and Galeana.

**Antelope Wells LPOE – New Inspection Facility (2012)**

The LPOE's primary users are shuttle buses (shown right) and local ranchers. Antelope Wells is the official ending point for the Great Divide Mountain Bike Route, which is 2,745 miles long and starts in Banff, Alberta, Canada. There are two races every year on the Great Divide Mountain Bike Route, including the Great Divide Race, which starts in Roosville, Montana and follows the U.S. portion of the trail and the Tour Divide Race, which follows the entire route.

**Typical Vehicle at Antelope Wells**

### HOURS OF OPERATION

POV/Pedestrian Processing: 8 a.m.–4 p.m.

(7 days / week)

No Commercial Facilities

### ROADWAYS SERVING LPOE

NM-81

Access road on Mexican side

Antelope Wells is located 45 miles south of Hachita via NM 81. It is an additional 19.5 miles from Hachita to Interstate 10 via NM 146.

The Antelope Wells LPOE is estimated to have approximately 10-15 vehicles cross a day, including shuttle buses from Phoenix / Tucson to Chihuahua City. Specific traffic data from CBP indicates there are 4,601 POVs and 5,247 Pedestrians (although the majority of those are processed from the 1,297 shittle buses that cross at this location. There are no commercial facilities and wait times for POVs, pedestrians and shuttle buses are negligible.

**POV Inspection Lanes**

Antelope Wells LPOE recently completed an $11 million reconstruction project which provides a new 11,000 square foot border inspection station. The new LPOE facility includes two POV inspection lanes equipped with radiation portal monitors (RPMs) and license plate readers (LPRs) (shown above). One of the primary lanes can be closed from the elements (shown below, left). Secondary inspections can also be accommodated inside garage bays located to the north of the administration buildings (show below, right).

**POV Inspection Lanes**

**Primary Inspection Interior**

Similarly, the outbound (southbound) inspections can be accomplished inside or via the paved by-pass lane on the west side of the port (shown below).

**Outbound Inspection Bay**

**Outbound By-pass Lane**

Other facilities on the compound include a new 5,000 square foot Forward Operating Base (FOB) with living quarters to serve U.S. Customs and Border Patrol (shown below left), a new communication tower, and a photovoltaic array (shown below right) to provide a portion of the power necessary to run the facility.

**Border Patrol Facility**

**Photovoltaic Array**

Because of the recent reconstruction of Antelope Wells, there are no port specific improvement projects that are anticipated. However, the addition of minor improvements such as high visibility reflective pavement markings and vegetation control to the adjacent roadway would be an added benefit to promote safety by increasing visibility.

**High visibility striping is recommended on NM 81**

## 6.2 EL BERRENDO LAND PORT OF ENTRY

The El Berrendo LPOE is the Mexican sister facility to the Antelope Wells LPOE. It has hours of operation from 8 a.m. – 4 p.m., Monday – Sunday (as shown right).

Primary and secondary inspections (facility shown below) can generally occur under the one overhead canopy due to the low volume of traffic crossing the border at this location.

It would be desirable to include a canopy and additional tables (one shown below left) for the processing of northbound vehicles (shown below right). These observations and suggestions are based on discussions with Aduanas on-site personnel only.

Providing an all-season, paved road may be the key to attracting additional traffic to the remote crossing. Berrendo Road is the access road that connects the border with Mexican Federal Highway 2 and portions of the roadway (1.6 miles) have recently been paved (photos below). The roadway extends approximately 8 miles southeast of the port and is susceptible to significant damage when there are heavy rains (photos further below).

## 6.3 COLUMBUS LAND PORT OF ENTRY

**Inspection facilities at Columbus/Puerto Palomas LPOE**

Created more than 100 years ago, this multi-modal port was modernized in 1989 and has received $7.4 million, in 2014, to fund the design phase of a planned $66 million reconstruction project.

**HOURS OF OPERATION**

POV / Pedestrian Processing:

24 hours/day (7 days / week)

Commercial Processing:

9 a.m. – 5 p.m. (Mon – Fri)

**ROADWAYS SERVING LPOE**

NM-11

Avenida 5 de Mayo

**Photo depicting the original U.S. Customs House in Columbus, NM (Agte, 2002)**

CBP statistics reported 247,632 POV crossings, 12,007 commercial crossings, and 260,600 pedestrian crossings at this LPOE in 2013. In comparing this data to the numbers reported by the New Mexico Border Authority, the largest majority of pedestrian crossings were completed in Columbus. Nearly half the crossing pedestrians are students who live in Mexico but attend school in the United States. In addition, pedestrian crossings have increased 37 percent over the past 5 years, leading to a major safety concern at this LPOE.

From August to January, the daily number of trucks crossing the Columbus / Puerto Palomas LPOE more than doubles. This increase in volumes coincides with the peak agricultural season (especially chilies, shown right).

**Trucks hauling chilies at Columbus, NM (New Mexico Border Authority, 2012)**

U.S. Customs and Border Protection (CBP) recommended that the Columbus LPOE expand and modernize its facility to accommodate the increasing pedestrian traffic and the high season of commercial traffic. Current plans are targeting a new port facility north of the existing port footprint. It would increase the current size of the facility to 60,000 square feet from its current 20,000 square feet and it would build-out a more effective cargo inspection area.

**Elementary student being checked at Columbus LPOE before attending school (Zielinski)**

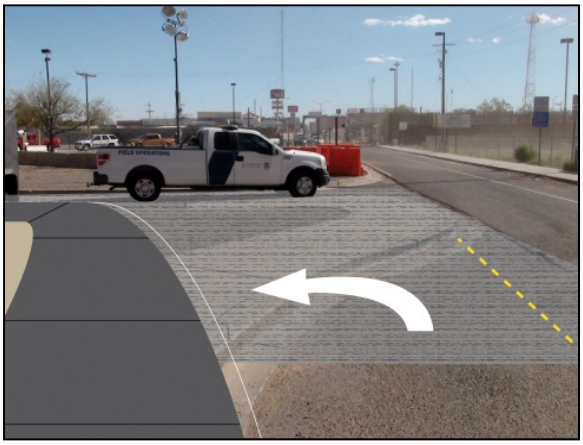
Other key elements identified in the Columbus improvements include a new main building, non-commercial primary inspection facility, pedestrian processing, a kennel, commercial inspection facilities, export facilities, Non-Intrusive Inspection (NII) systems, hazardous materials containment area, and expansion of primary and secondary inspection space and outside vehicle parking. The move north will improve the drainage problems at the port as it is currently situated at the drainage low point for a 44 square-mile watershed area. Another improvement involves construction of a new earthen berm, drainage basin, and enlargement of an existing culvert to further mitigate stormwater issues.

A $3.5 million bypass road designed to connect to what would be the new crossing point for cargo to the new facility has been completed since 2011. On the Palomas side of the LPOE, construction has begun to expand from the current one lane in / one lane out configuration to two lanes each way.

Based upon the study team's tour of the Columbus Land Port of Entry and input from CBP officers, several low cost / high impact improvements could be implemented to improve the efficiency of the port including:

- Commercial Exit Pavement Upgrade – the large majority of commercial trucks turn left out of the exit area towards the brokers located on NM 11 and deep rutting is now a concern.
- Outbound Inspection Area – currently a secondary inspection area does not exist. Some minor curb and sidewalk modifications would drastically improve the ability to take vehicles from the outbound area into the inbound POV secondary inspection area. Additionally, it would be an upgrade to include LPRs for outbound traffic movements.
- Dock Efficiency – the existing docks (shown right) are numbered 1-6, however, the offload space under the canopy may only be able to accommodate one or two trailers. Dock design/modifications should allow a trailer to be de-vanned straight back, the entire length of the trailer, without impacting an adjacent truck or its ability to be de-vanned on the dock simultaneously.

**Commercial Exit Pavement Issues**



**Curb and sidewalk modifications in the Outbound Inspection Area would allow for access to secondary inspection area.**

**Dock Efficiency - Canopy Space Issue**

- Safety – as noted, a large number of school children pass through the port each day. The pick-up area needs to be very visible to drivers as trucks often park immediately adjacent to the canopy where buses stop to pick up students (shown below, left). Oftentimes sight distance is hampered by blowing dust (shown below, right). High visibility reflective pavement markings or even a speed table may be prudent upgrades.

**School bus pick-up canopy**

**Challenging wind conditions affect sight distance**

- Port Entrance – traffic cones guide cars into the two POV primary inspection lanes (shown right). Commercial vehicles must take a hard right turn to the Cargo Inspection Compound. An additional northbound lane and/or direct access for trucks to their inspection area would be an effective upgrade.

**POV Primary Inspection lanes**

Port Wait Times were provided for the Columbus Land Port of Entry by CBP's Office of Field Operations from 2010 to 2013 and included in Table 6-1 below. Wait times at the port have been minimal, averaging at 4.6 minutes for POVs and 5.2 minutes for Commercial vehicles.

**Table 6-1: Average Daytime Wait Times for Columbus LPOE (2010-2013)**

| Land Port of Entry | Mode | Year | | | | Average (Minutes) |
|---|---|---|---|---|---|---|
| | | 2010 | 2011 | 2012 | 2013 | |
| Columbus LPOE | POV | 6.5 | 5.3 | 5.1 | 1.6 | 4.6 |
| | Commercial | 6.7 | 6.3 | 2.6 | 5.0 | 5.2 |

Source: Hourly wait times were provided by Department of Homeland Security, U.S. Customs and Border Protection, Office of Field Operations. The averages were calculated by taking the hourly recorded wait time (during hours of operation) and averaging these times for the Land Port of Entry for the calendar year.

## 6.4 PUERTO PALOMAS LAND PORT OF ENTRY

The Puerto Palomas LPOE in the sister facility to the Columbus LPOE. A very positive binational effort is on-going to complete major expansion and modernization projects at both the US and Mexican ports at this location. As noted in the previous section, if the larger projects do not progress some low cost / high impact improvements were noted, based on discussions with Aduanas on-site personnel only.

At this location the POV inspection facility functions adequately. It was noted that the entrance to the primary inspection area is slightly narrow (below left) and the turn into the secondary inspection permitting area is a 90° maneuver (below right).

Pedestrians (largely school students) cross at this port (below left). The pathway has been modified to reduce the number of pedestrian/vehicle conflicts by detouring students west of the POV primary inspection area (below right).

Commercial vehicles are inspected further to the East (below).

Based on discussions with Aduanas on-site personnel, it was noted that the dock area would be more efficient if it was deeper and allowed the truck to be offloaded in its entirety, straight back behind the vehicle (see left).

## 6.5 SANTA TERESA LAND PORT OF ENTRY

**Inspection facilities at Santa Teresa LPOE**

Santa Teresa LPOE is one of the newest ports on the U.S. / Mexico border, and the busiest LPOE in New Mexico. In 2013, Santa Teresa had 421,872 total POV crossings, 81,001 commercial crossings, and 145,057 pedestrian crossings at this LPOE in 2013.

### HOURS OF OPERATION

POV / Pedestrian Processing:

6 a.m. – 12 a.m. (7 days / week)

Commercial Processing:

8 a.m. – 8 p.m. (Monday-Friday);

10 a.m. – 2 p.m. (Saturday)

### ROADWAYS SERVING LPOE

NM-136 (Pete Domenici Highway)

NM-9

I-10

Cruce Internacional San Jerónimo – Santa Teresa

MEX 2

MEX 45D

**License Plate Readers (LPRs) at Santa Teresa Land Port of Entry**

The port was originally opened in 1992, and its permanent facilities were opened in 1998. A recent $10 million construction expansion of this port which doubled the size of the Santa Teresa border crossing was completed in 2012. This expansion added a pedestrian walkway, two non-commercial lanes, one commercial "oversize" lane, inspection booths for non-commercial and commercial traffic, as well as a new southbound inspection facility. The work also included renovation of the existing main port administration building.

The Santa Teresa LPOE is the largest facility for the import and export of livestock on US-Mexico border (shown below, left). The Livestock Facility can hold 13,000 head and has the capacity to process the crossing of up to 4,500 head in less than 12 hours and has plans to expand the facility to accommodate an additional 2,000 head of livestock. The New Mexico Border Authority reports that the Livestock Facility at Santa Teresa LPOE imports/exports $300 million worth of cattle each year.

**Santa Teresa LPOE Livestock Facility (New Mexico Border Authority, 2012)**

**Vehicle exports waiting to be processed at the Santa Teresa LPOE for resale in Mexico**

In addition to livestock, the Santa Teresa LPOE is the only crossing point in the region that processes used vehicles for resale in Mexico (shown above, right). These crossings have been shifted from the El Paso region to the Santa Teresa LPOE because the infrastructure in the El Paso region was not set up for the long line of used vehicles waiting to be processed. Additionally, there is room to grow and better flow at the Santa Teresa LPOE. In 2012, 36,353 vehicles were exported at Santa Teresa and the number has only increased in recent years due to changes in Mexican policy that reduced import fees and allowed inspection of newer

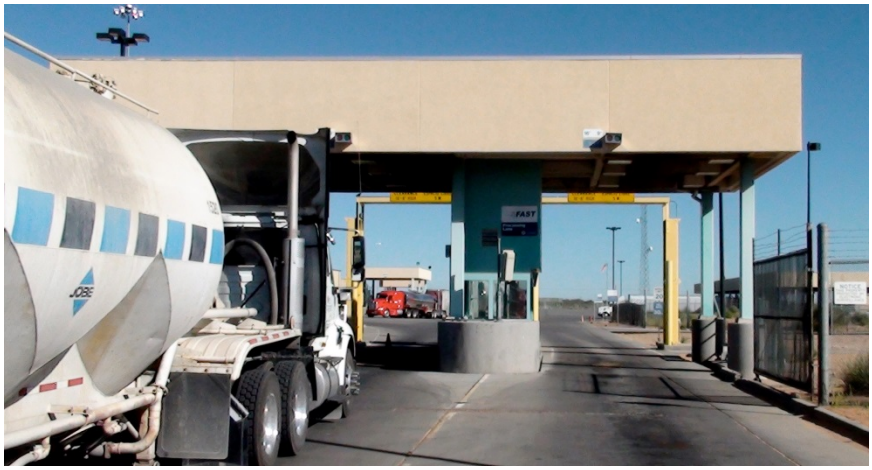
vehicles. In July 2014, the Mexican government restricted the hours for inspection of these used vehicles to 9 a.m. until noon. The result is longer lines and wait times. New Mexico's U.S. senators, Tom Udall and Martin Heinrich sent a letter to the Mexican ambassador to the U.S., Eduardo Medina Mora, asking to restore crossing hours for export vehicles. CBP has the staff available to accommodate longer hours to process vehicle exports.

Also, there are three major industrial parks in the Santa Teresa area with 2 million square feet of building space and 2,250 employees in 2012. Located south of the border, there is a large Foxconn Manufacturing plant with capacity for 20,000 employees. This plant manufactures electronic equipment for a variety of companies, including Dell computers.

Located approximately four miles northwest of the LPOE is the 12-mile-long, $400 million Strauss Rail Yard (shown below) which was recently completed by Union Pacific Railroad. In addition, there are concepts for a Juarez Rail Bypass from Samalayuca. These plans include a new international border crossing near Santa Teresa with connections to UPRR and BNSF rail lines. These rail services are expected to stimulate industrial development, which would spur commercial and residential development.

**Recently completed Strauss Yard in Santa Teresa, NM**

The Commercial Primary Inspection facilities include two processing booths, one of which is designated for Free and Secure Trade (FAST) vehicles (shown below, left).



**Commercial Primary Inspection Lanes**

**"Superbooth" for oversized vehicles**

**Example of the oversized vehicles that are accommodated at a separate "superbooth"**

In addition, there is a separate approach for oversized vehicles (shown above, right) that are accommodated at a "superbooth" for large or very long vehicles (shown directly above).

The Commercial Secondary Inspection area could use a little more space in the Non-Invasive Inspection zone (show below, left) for the staging of trucks, but the Dock area (shown below, right) has plenty of space to de-van trucks, as necessary.

**Non-Invasive Inspection Zone**

**Commercial Dock Area**

**Primary POV Inspection Facilities with four lanes for vehicle processing**

The Primary POV Inspection facilities are also well organized and appear to handle the current traffic volumes. There are four lanes (shown above) to accommodate POVs and buses. The left most lane is READY capable, the middle two lanes are general purpose and the far right lane accommodates buses and POVs. Pedestrians are accommodated via the sidewalk and protected by the concrete barriers. They are then processed inside via two processing stations (shown directly above) that now have the infrastructure necessary to expand to three stations.

Recent improvements to the POV Secondary Inspection area (shown below) at the Santa Teresa LPOE included additional stalls and a broader footprint (increased square footage) for the Head House.

**POV Secondary Inspection Area**

The regular Outbound Inspection facilities (shown below, left) appear to be in good working order with few delays although LPRs and a large overhead canopy would assist in the officer's routine. Immediately at the border, it would be desirable to convert the fence gate (shown below, right) from manual to electric operation.

**Outbound Inspection Facilities**

**Manually Operated Border Fence Gate**

Vehicle Export Inspection Facilities

A unique feature of the Santa Teresa LPOE is the Vehicle Export operation that commences along the west side of the port. As previously mentioned, Santa Teresa LPOE is the only port of entry in the area that facilitates vehicle exports (shown left). Currently a two-person CBP team inspects these exports from a stationary CBP vehicle. The addition of an overhead canopy and a permanent inspection booth to facilitate this interaction would be a desired improvement.

Because of the recent upgrades, port wait times seem to be reasonable compared to other southern border crossings. Average Wait Times for the Santa Teresa LPOE from 2010 to 2013 are displayed in Table 6-2 below. Wait Times for POVs and Commercial Vehicles decreased by 9.0 minutes and 3.6 minutes, respectively, between 2012 and 2013, while FAST Lane and Ready Lane Wait Times increased 2.9 minutes and 2.5 minutes, respectively, during this same period. Pedestrians faced negligible delays at this port.

**Table 6-2: Average Daytime Wait Times for Santa Teresa LPOE (2010-2013)**

| Land Port of Entry | Mode | Year | | | | Average (Minutes) |
|---|---|---|---|---|---|---|
| | | 2010 | 2011 | 2012 | 2013 | |
| Santa Teresa LPOE | POV | 19.6 | 18.9 | 18.0 | 9.0 | 16.4 |
| | Commercial | 5.2 | 5.5 | 7.7 | 4.1 | 5.6 |
| | Pedestrian | 0.0 | 0.0 | 0.0 | 0.1 | 0.0 |
| | FAST Lane | 1.6 | 4.1 | 0.3 | 3.2 | 2.3 |
| | Ready Lane | 0.0 | 0.0 | 0.0 | 2.5 | 0.6 |

Source: Hourly wait times were provided by Department of Homeland Security, U.S. Customs and Border Protection, Office of Field Operations. The averages were calculated by taking the hourly recorded wait time (during hours of operation) and averaging these times for the Land Port of Entry for the calendar year.

## 6.6 SAN JERÓNIMO LAND PORT OF ENTRY

The San Jerónimo LPOE is the sister facility to the Santa Teresa LPOE. It is the largest port along the Chihuahua border with New Mexico and accommodates commercial vehicles, POVs and pedestrians. In addition, this facility is also responsible for inspection / processing of vehicular imports (below) from the US as mentioned in the previous section. There has been discussion that the hours of operation should be expanded to accommodate the volume of import vehicles crossing at this location as long lines have been known to form in New Mexico backing up along the approach roadway.

**Vehicle Import Inspection Facilities**

The import facility has all of the necessary facilities including a 'Z' portal (x-ray type of device, below, left) and radiation portal monitors (RPMs, below, right).

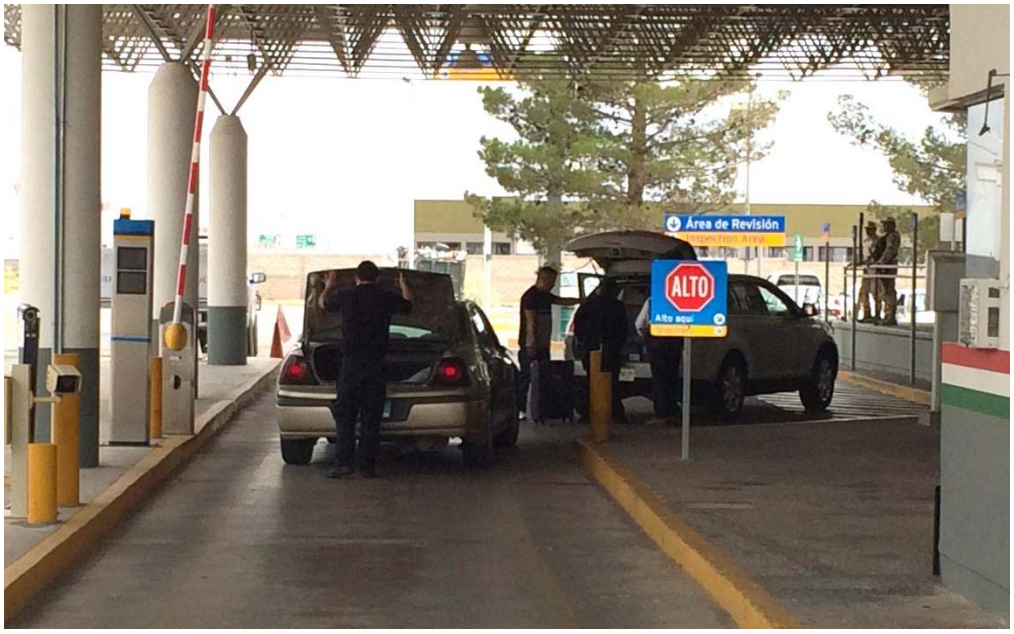
It was noted in the site visit that there appeared to be plenty of dock stalls. Some minor improvements based on observations and suggestions from Aduanas on-site personnel would include:

1. Additional dock depth - to offload cargo straight back behind the vehicle (below).
2. Reinstallation of rubber bumpers where trucks back up against the dock
3. Additional paved area for trucks to maneuver into and out of dock spaces and into and out of the dock facility.

The traditional facilities for the inspection of northbound commercial traffic includes two lanes, plus an oversized vehicle lane (below). Wait times appeared to be very low.

The dock facility was very spacious (below left) with extra room for the offloading of trucks, rubber bumpers at the dock face, and extra equipment (below right) to assist officers in the inspection process.

The POV and pedestrian processing facilities appeared to be working at high efficiency. Based upon conversations on site there may be a desire for an additional POV primary processing lane and additional room for secondary inspections (potentially being further separated from the primary inspection area).




Additionally the parking area for permitting may need to be expanded; not for additional parking spaces, but to allow officers to inspect vehicles away from the public areas of the port.

Also, considering the remote site location, it may be warranted to construct some minor housing facilities for officers that have excessive commutes and may need to stay overnight at the facility (similar to the military facility just south of the port proper). These observations and suggestions are based upon discussions with Aduanas on-site personnel only.

# 7.0 PROJECT EVALUATIONS

The initial stages of the New Mexico-Chihuahua Border Master Plan focused on stakeholder and committee member outreach, data collection and reviews of existing studies. The study team conducted an analysis of the data and studies collected and worked in conjunction with the Policy Advisory Committee (PAC) and Technical Working Group (TWG) committee representatives to develop a list of proposed projects. After the list of proposed projects was completed, the study team then focused on determining an approach to evaluate projects with the goal of creating a logical prioritization. The study team's overall direction, in principal, was developed from the California – Baja California Border Master Plan, dated September 2008, and the Arizona – Sonora Border Master Plan, dated February 2013, and involved the development of weighted criteria against which the prospective projects would be scored.

## 7.1 DEVELOPMENT OF EVALUATION CATEGORIES

The study team initiated the evaluation process by using examples of criterion used in the previously initiated Border Master Plans completed for California, Texas and Arizona. Subsequently, through a series of workshops, the TWG fine-tuned a series of options for Categories of Evaluation Criteria that would ultimately be used for the evaluation of proposed projects.

The Categories of Evaluation Criteria recommended by the TWG are as follows:

- Cost Effectiveness
- Project Readiness
- Capacity/Congestion
- Land Port of Entry (LPOE) Connectivity
- Regional Benefit
- Binational Coordination

These Categories of Evaluation Criteria were further broken down due to projects having different funding streams available and the competition for funding for specific projects. The TWG recommended that projects be broken down into three "types":

- LPOE's
- Multi-Modal Infrastructure (MMI) including:

  Roadway / Bridge / Interchange / Pedestrian / Bicyclist / Transit
- Rail

The committees considered whether to apply the Categories of Evaluation Criteria to all types of projects. The TWG agreed that the Binational Coordination Category would be specific to Land Port of Entry Projects, as a heavy binational component is required for the progression of these projects. The TWG also agreed that the LPOE Connectivity Criteria would not apply to LPOE Projects.

The Categories of Evaluation Criteria were modified as follows:

- Cost Effectiveness
- Project Readiness
- Capacity/Congestion
- LPOE Connectivity (not applicable to LPOE projects)
- Regional Benefit
- Binational Coordination (applies only to LPOE projects)

The PAC approved the Categories of Evaluation Criteria as modified above.

## 7.2 CATEGORY WEIGHTING

The study team led the TWG through a series of exercises targeting the development of a weighting structure for the Categories of Evaluation Criteria. Efforts focused on the member's priority amongst the categories, ultimately resulting in the individual rankings on percentage-based scale of 1 to 100.

As the Categories of Evaluation vary slightly by project type, it was necessary to rank each project individually. The PAC approved the weighting as presented in Table 7-1 below:

**Table 7-1: Category Weighting Values**

| Categories | Land Ports of Entry (LPOE) | Multimodal Infrastructure (MMI) | Rail |
|---|---|---|---|
| Capacity/Congestion | 36% | 30% | 28% |
| Cost Effectiveness | 18% | 16% | 18% |
| Regional Benefit | 22% | 28% | 26% |
| LPOE Connectivity | N/A | 16% | 18% |
| Project Readiness | 11% | 10% | 10% |
| Binational Coordination | 13% | N/A | N/A |
| Total | 100% | 100% | 100% |

## 7.3 DEVELOPMENT OF CRITERIA

After the Categories of Evaluation Criteria were weighted, deliberations began in regard to the development of specific criteria by which the projects were evaluated. Each of the Categories of Evaluation Criteria was broken down into component elements. The component elements varied slightly depending on project types. The complete description of the Criteria, by project type, is detailed below.

### LAND PORT OF ENTRY EVALUATION CRITERIA

#### CATEGORY: CAPACITY/CONGESTION

1. Change in projected demand. Change in volume of Commercial Vehicles (CV), Privately Owned Vehicles (POV), Pedestrian, & rail traffic.
   12 points possible, 3 in each mode (CV, POV, Ped, Rail).
2. Change in number/type/efficiency of booths/docks. Change in number of CV, POV, Ped, & rail processing booths; change in number of booths dedicated to SENTRI, FAST, tandem processing, etc.
   12 points possible, 3 in each mode (CV, POV, Ped, Rail).
3. Wait times. Existing documented wait times by travel mode.
   9 points possible, 3 in each mode (CV, POV, Ped).
4. Change in modes served. Are new travel modes able to be processed?
   2 points possible.

5. Percent of total New Mexico-Chihuahua border crossing demand. Ratio of existing or projected LPOE annual crossings to total crossings between New Mexico and Chihuahua.
   12 points possible, 3 in each mode (CV, POV, Ped, Rail).

### CATEGORY: COST EFFECTIVENESS

6. Cost of project versus projected demand. Project cost vs. number of users that would benefit from the investment.
   5 points possible.

### CATEGORY: REGIONAL BENEFIT

7. Environmental effects. Qualitative effects on air quality, parks/open space, wildlife areas or linkages. (*Assumes all projects will have some environmental benefit to air quality. Measure intended to account for potential disruption to natural environment.)*
   2 points possible.
8. Socioeconomic/community effects. Qualitative effects on neighborhoods, community services (schools, churches, medical, etc.), effects on minority populations.
   2 points possible.
9. Economic effects. Qualitative effects on businesses, job creation, transport of freight.
   2 points possible.
10. Modal effects. Does the project affect (positively or negatively) alternate travel modes (Ped, bike, transit).
    1 point possible.

### CATEGORY: PROJECT READINESS

11. Project Phase. What stage of planning, design, land acquisition, and dedicated funding?
    3 points possible.
12. Land Availability. Is land available at a reasonable cost and easily adapted or will acquisition be difficult/costly?
    1 point possible.

13. Local Infrastructure Compatibility. Is local infrastructure in place to support the proposed LPOE improvements project?
    2 points possible.
14. Change in efficiency of staff.
    1 point possible.

### CATEGORY: BINATIONAL COORDINATION/COMMITMENT/CONSENSUS

15. Federal Support. What level of discussion/commitment has been made by the U.S. and Mexican Federal Governments? Are both parties on board?
    2 points possible.
16. State/Local Support. What level of support/commitment has been observed by state or local agencies?
    2 points possible.
17. Level of Bi-national Consensus. Marked by federal milestones including exchange of official documents and coordination via Binational Bridges & Border Crossings Group (BBBXG).
    3 points possible.

## MULTIMODAL INFRASTRUCTURE EVALUATION CRITERIA

### CATEGORY: CAPACITY/CONGESTION

1. Increase in daily volume forecast. Change in volume of CV, POV, Ped on the subject facility (as applicable). (*Projects with an increase in volume greater than the average increase across all projects received 2 points. Projects with an increase in volume less than the average increase received 1 point.)*
   2 points possible.
2. Percent trucks. Of the total travel volume on the subject facility, what percentage is truck traffic? Points to both economic and safety aspects of the improvement.
   3 points possible.

3. Change in number and efficiency of lanes. How many lanes are added/removed by the improvement? Does the improvement enhance the efficiency of the facility (i.e. one-way conversions)?
   3 points possible.
4. Level of Service improvement. What is the relative improvement to LOS? Improvements to address E or F conditions would score higher than those addressing LOS A-D.
   2 points possible.
5. Increase in modes served. The more travel modes the improvement enhances, the higher the score.
   2 points possible.

### CATEGORY: COST EFFECTIVENESS

6. Cost of project versus projected demand. Project cost vs. number of users that would benefit from the investment, or projected VMT on the improved facility.
   3 points possible.

### CATEGORY: REGIONAL BENEFIT

7. Environmental effects. Qualitative effects on air quality, parks/open space, wildlife areas or linkages. (*Assumes all projects will have some environmental benefit to air quality. Measure intended to account for potential disruption to natural environment. New road construction received 0 points, widening received 1 point, other projects not requiring substantial additional ROW (such as pedestrian bridges, one-way street conversions) received 2 points).*
   2 points possible.
8. Socioeconomic / community effects. Qualitative effects on neighborhoods, community services (schools, churches, medical, etc.), effects on minority populations. (*Projects in proximity to populated neighborhoods that would improve access to communities were awarded 2 points, others were awarded 1 point unless a negative impact had been identified).*
   2 points possible.

9. Economic effects. Qualitative effects on businesses, job creation, transport of freight. (*Projects on roadways with higher functional classification (such as freeways, state highways, expressways) or facilities with high percentage of trucks were awarded 2 points, most others awarded 1 point unless there was specific rationale indicating otherwise).*
   2 points possible.
10. Modal effects. Does the project affect (positively or negatively) alternate travel modes (Ped, bike, transit)? (*Projects specifically targeted to alternate modes-such as pedestrian overpasses- were awarded 2 points, projects on roadways identified as part of a regional transit route or bicycle plan were awarded 1 point, other projects were awarded 0 points).*
    2 points possible.

### CATEGORY: PROJECT READINESS

11. Project phase. What stage of planning, design, land acquisition, and dedicated funding?
    3 points possible.
12. Land Availability. Is land available at a reasonable cost and easily adapted or will acquisition be difficult/costly? (*Projects located in densely developed areas were awarded 0 points as it was assumed land acquisition or adaptability would be more difficult than for projects is less developed areas).*
    1 point possible.
13. Community and stakeholder acceptance. What is the likelihood that the community would support the project? (*All projects extracted from final, approved documents were awarded 1 point. New projects not yet vetted with the public were awarded 0 points).*
    1 point possible.

### CATEGORY: LPOE CONNECTIVITY

14. Relative Connectivity. How much of a direct connection to an LPOE is provided by the route?
    3 points possible.

15. Distance to LPOE. What is the travel distance to the nearest LPOE?
    2 points possible.
16. Percent of daily volume related to LPOE. Of the total projected volume on the subject facility, what percentage of the volume is attributable to cross-border travel? (*Those in closest proximity, serving multiple LPOEs were awarded 3 points, those furthest from the LPOEs received 1 point.).*
    3 points possible.
17. Alternate Mode Connectivity.
    1 point possible.

## RAIL EVALUATION CRITERIA

### CATEGORY: CAPACITY/CONGESTION

1. Increase in projected number of rail cars. How many new rail cars will utilize the subject improvement?
   2 points possible.
2. Cross-border tonnage/value. What is the total weight and/or value of the goods that will utilize the improvement?
   3 points possible.
3. Change in number/miles of tracks. How many additional miles of track?
   2 points possible.
4. Change in travel speed. Will speed decrease, stay the same, or increase?
   2 points possible.
5. Change in modes served. Will the improvement accommodate a new mode or additional types of rail (heavy rail, commuter, high-speed, etc.)?
   2 points possible.

### CATEGORY: COST EFFECTIVENESS

6. Cost of Project versus projected demand. Planning level project cost versus benefit from the investment.
   3 points possible.

## CATEGORY: REGIONAL BENEFIT

7. Environmental effects. Qualitative effects on air quality, parks/open space, wildlife areas / linkages, or other sensitive land uses.
   2 points possible.
8. Socioeconomic/community effects. Qualitatively determined effects on neighborhoods, community services (schools, churches, medical, etc), effects on minority populations. Effects may include noise / traffic issues, or community bifurcation due to a new linear corridor.
   2 points possible.
9. Economic effects. Qualitative effects on businesses, job creation, transport of freight; degree to which project reduces infrastructure construction & maintenance costs as a result of decreased heavy vehicle travel.
   2 points possible.
10. Modal effects. Does the project affect (positively or negatively) alternate travel modes (ped, bike, transit).
    2 points possible.

## CATEGORY: PROJECT READINESS

11. Project Phase. What stage of planning, design, land acquisition, and dedicated funding?
    3 points possible.
12. Land Availability. Is land available at a reasonable cost and easily adapted or will acquisition be difficult/costly?
    1 point possible.
13. Conformity to private initiatives. Is this project already being planned by private initiatives?
    1 point possible.

**CATEGORY: LPOE CONNECTIVITY**

14. Number of LPOEs served. How are LPOEs in the study area served directly by the facility? (could be a new facility that originates in another state but runs through the study area – would not receive any points).
    2 points possible.
15. Distance to LPOE. What is the travel distance to the nearest LPOE?
    1 point possible.
16. Percent of total border-freight served. Of the total projected volume, what percentage is attributable to cross-border travel?
    2 points possible.

## 7.4 INVENTORY OF EVALUATED PROJECTS

For each of the three project categories (LPOE, Multi-Modal Infrastructure, and Rail), a list of improvement projects were separately identified for New Mexico and Chihuahua. The list of projects was derived from previous studies and stakeholder input. Each of the projects was assigned a unique project identification number (ID); project location and description information; and pertinent data applicable to evaluation criteria for each evaluation category. Tables 7-2 through 7-7 provide a summary of the identified projects.

## 7.5 PROJECT SCORING

Using the data collected for each project, the study team independently completed the draft scoring of all 50 projects in each of the three project categories. Several PAC/TWG and stakeholder meetings focused on analyzing the scoring. The study team typically reviewed a few example projects' scores and then each committee member was given the opportunity to request modifications to the initial scoring. Projects were compared in whole, versus other projects, and often specific criteria was used to contrast similar projects. The process was labor intensive, but resulted in a more consensus supportive document. The results of these efforts are summarized in Tables 7-2 to 7-7. Detailed scoring results are provided in Appendix F.

**Table 7-2: Evaluation of New Mexico Land Port of Entry Projects**

| Evaluation of New Mexico Land Port of Entry Projects | | | | Capacity/Congestion Total Points | Project Cost (in US$1,000s) | Cost Effectiveness Total Points | Regional Benefit Total Points | Project Readiness Total Points | Binational Coordination Total Points | Weighted Combined Score | New Mexico LPOE Overall Rank |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | **Max Point Value** | **47** | **-** | **5** | **7** | **7** | **7** | **100** | **out of 4** |
| **ID** | **State** | **Linked Projects** | **LPOE Project Description** | | | | | | | | |
| 1003 | NM | 4003 | Columbus Port of Entry: Expand and reconstruct a new LPOE to the north of the existing facility; Separate truck and passenger vehicle traffic | 30 | 60,000 | 2 | 6 | 7 | 7 | 73 | 1 |
| 1001 | NM | 2003 | International Gateway Courtesy Plaza | 6 | 200 | 3 | 4 | 6 | 4 | 45 | 2 |
| 1004 | NM | 3003<br>4001<br>4002<br>6001 | Santa Teresa Port of Entry (Freight/Rail): Construct a new US LPOE in Santa Teresa capable of inspection of rail and truck freight crossing the border from San Jerónimo, Chihuahua | 20 | 150,000 | 1 | 3 | 2 | 5 | 41 | 3 |
| 1002 | NM | 2009<br>4004 | Construct a new US LPOE in Sunland Park, New Mexico with a connection to Anapra, Chihuahua. | 0 | 25,000 | 0 | 5 | 4 | 2 | 26 | 4 |

**Table 7-3: Evaluation of New Mexico Multimodal Infrastructure Projects (**

| Evaluation of New Mexico Multimodal Infrastructure Projects | | | | | | | Capacity/Congestion Total Points | Project Cost (in US$1,000s) | Cost of Project vs. Projected Demand | Regional Benefit Total Points | Project Readiness Total Points | LPOE Connectivity Total Points | Weighted Combined Score | New Mexico MMI Overall Rank |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | Max Point Value | 12 | - | 3 | 8 | 5 | 9 | 100 | out of 22 |
| ID | State | Linked Projects | Facility | Sponsor | Project Description/ Extent | Proposed Improvement | | | | | | | | |
| 2003 | NM | 1001 2005 | NM 136 | NMDOT | POE to Intersection with TX State Line | Reconstruction | 7 | 40,000 | 3 | 5 | 3 | 7 | 69 | 1 |
| 2008 | NM | | NM 9 Columbus Road | NMDOT | McNutt (NM 273) to Pete Domenici (NM 136) | Extend as a 4-Lane Divided Principal Arterial | 9 | 14,977 | 3 | 4 | 3 | 5 | 67 | 2 |
| 2010 | NM | 2011 2016 | Industrial Drive | Doña Ana County | Divisadero Intersection | Widen Industrial Drive to 4 lanes with center-turn lane through intersection and construct 150’ SB right-turn lane | 7 | 500 | 3 | 4 | 3 | 4 | 61 | 3 |
| 2014 | NM | 2015 | Strauss Road & Road 2A | NMDOT, Doña Ana County | Verde Logistics Industrial Park | Construct 600’ WB right-turn lane | 7 | 100 | 3 | 4 | 3 | 4 | 61 | 4 |

**Table 7-3: Evaluation of New Mexico Multimodal Infrastructure Projects (Continued)**

| Evaluation of New Mexico Multimodal Infrastructure Projects | | | | | | | Capacity/Congestion Total Points | Project Cost (in US$1,000s) | Cost of Project vs. Projected Demand | Regional Benefit Total Points | Project Readiness Total Points | LPOE Connectivity Total Points | Weighted Combined Score | New Mexico MMI Overall Rank |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | Max Point Value | 12 | - | 3 | 8 | 5 | 9 | 100 | out of 22 |
| ID | State | Linked Projects | Facility | Sponsor | Project Description/ Extent | Proposed Improvement | | | | | | | | |
| 2018 | NM | | Interstate 10, Hachita Bridge | NMDOT | Mile 49 | Bridge Replacement | 7 | 2,500 | 2 | 5 | 3 | 5 | 61 | 5 |
| 2001 | NM | | Gold Avenue | City of Deming | Gold Street to Spruce Road | Geometrics & Drainage Improvements | 6 | 800 | 2 | 6 | 3 | 4 | 60 | 6 |
| 2006 | NM | 2007 | McNutt Road (NM 273) | NMDOT | Racetrack to Corishain Bridge | Addition of Center Turn Lane on McNutt Road (NM 273) and Widen from 2 Lanes to 4 Lanes where it's not 4 lanes now. | 8 | 5,285 | 3 | 5 | 2 | 1 | 59 | 7 |
| 2007 | NM | 2006 | McNutt Road (NM 273) | NMDOT | Racetrack to Ross | Addition of center turn lane for operational improvements, ADA & Drainage Improvements, Construction of a multi-use path, lighting and rehabilitation | 7 | 5,380 | 3 | 5 | 2 | 2 | 59 | 8 |

**Table 7-3: Evaluation of New Mexico Multimodal Infrastructure Projects (Continued)**

| Evaluation of New Mexico Multimodal Infrastructure Projects | | | | | | | Capacity/Congestion Total Points | Project Cost (in US$1,000s) | Cost of Project vs. Projected Demand | Regional Benefit Total Points | Project Readiness Total Points | LPOE Connectivity Total Points | Weighted Combined Score | New Mexico MMI Overall Rank |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | Max Point Value | 12 | - | 3 | 8 | 5 | 9 | 100 | out of 22 |
| ID | State | Linked Projects | Facility | Sponsor | Project Description/ Extent | Proposed Improvement | | | | | | | | |
| 2004 | NM | | High Mesa Road (Proposed) | NMDOT, Doña Ana County | NM 136 near Santa Teresa Airport to I-10 | Construct road on West Mesa parallel to I-10 between Santa Teresa and Las Cruces | 9 | 300,000 | 2 | 4 | 2 | 4 | 58 | 9 |
| 2009 | NM | 1002 4004 | Sunland Park Drive | NMDOT | McNutt Road (NM 273) to Proposed Sunland Park POE Site and Border Crossing | Construct 4-Lane Divided Principal Arterial with Grade Separation at UPRR tracks | 11 | 21,597 | 1 | 4 | 3 | 3 | 58 | 10 |
| 2002 | NM | | NM 11 | Luna County | Doña Ana Road to Walnut Street | Widen to 3-lanes, Pavement Reconstruction, Drainage, Signing and Striping | 6 | 4,800 | 3 | 5 | 2 | 3 | 58 | 11 |
| 2017 | NM | | Airport Road | Doña Ana County | NM 136 to Industrial Drive | Widen to 2 EB and 2 WB through lanes to Industrial Drive | 7 | 3,000 | 3 | 3 | 3 | 4 | 57 | 12 |

**Table 7-3: Evaluation of New Mexico Multimodal Infrastructure Projects (Continued)**

| Evaluation of New Mexico Multimodal Infrastructure Projects | | | | | | | Capacity/Congestion Total Points | Project Cost (in US$1,000s) | Cost of Project vs. Projected Demand | Regional Benefit Total Points | Project Readiness Total Points | LPOE Connectivity Total Points | Weighted Combined Score | New Mexico MMI Overall Rank |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | Max Point Value | 12 | - | 3 | 8 | 5 | 9 | 100 | out of 22 |
| ID | State | Linked Projects | Facility | Sponsor | Project Description/ Extent | Proposed Improvement | | | | | | | | |
| 2005 | | 2003 | Grade Separation At NM 136/NM 273 | NMDOT | At NM 136/NM 273 | Grade Separation | 8 | 16,423 | 1 | 5 | 3 | 4 | 56 | 13 |
| 2011 | NM | 2016 | Industrial Drive | Doña Ana County | Airport Road to Strauss Road | Widen to 4 lanes | 7 | 1,000 | 2 | 4 | 3 | 4 | 55 | 14 |
| 2015 | NM | 2014 | Strauss Road & Road 2A | NMDOT, Doña Ana County | Verde Logistics Industrial Park | Signalization and addition of 2nd SB left-turn lane as the 200' storage for both lanes. Construct 2nd EB through lane on Strauss through 2A | 7 | 500 | 2 | 4 | 3 | 4 | 55 | 15 |
| 2016 | NM | 2010 2011 | Airport Road & Industrial Drive | Doña Ana County | Verde Logistics Industrial Park | Signalization, construction of 375' WB left-turn lane and 660' NB right-turn lane | 7 | 500 | 2 | 4 | 3 | 3 | 54 | 16 |

**Table 7-3: Evaluation of New Mexico Multimodal Infrastructure Projects (Continued)**

| Evaluation of New Mexico Multimodal Infrastructure Projects | | | | | | | Capacity/Congestion Total Points | Project Cost (in US$1,000s) | Cost of Project vs. Projected Demand | Regional Benefit Total Points | Project Readiness Total Points | LPOE Connectivity Total Points | Weighted Combined Score | New Mexico MMI Overall Rank |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | Max Point Value | 12 | - | 3 | 8 | 5 | 9 | 100 | out of 22 |
| ID | State | Linked Projects | Facility | Sponsor | Project Description/ Extent | Proposed Improvement | | | | | | | | |
| 2019 | NM | | RoadRUNNER Transit | City of Las Cruces | Las Cruces, New Mexico | Buses and Bus-Related Facilities | 5 | 5,040 | 1 | 6 | 3 | 2 | 48 | 17 |
| 2013 | NM | | Interstate 10 | NMDOT | Exit 85 and Interstate 10 | Rehabilitation and/or Reconstruction of Interchange Project should be developed independently or in conjunction with proposed truck route options | 7 | 15,400 | 1 | 5 | 3 | 1 | 48 | 18 |
| 2012 | NM | | Futurity Drive | Sunland Park | Racetrack to McNutt (NM 273) | Construct Roadway | 8 | 4,000 | 1 | 4 | 2 | 1 | 45 | 19 |
| 2020 | NM | | El Camino Real | Doña Ana County | Sunland Park to Garfield | Construct 92 Miles of bike lanes (only include the 10 miles within the Focus Area) | 5 | 13,000 | 1 | 5 | 3 | 2 | 45 | 20 |

**Table 7-3: Evaluation of New Mexico Multimodal Infrastructure Projects (Continued)**

| Evaluation of New Mexico Multimodal Infrastructure Projects | | | | | | | Capacity/Congestion Total Points | Project Cost (in US$1,000s) | Cost of Project vs. Projected Demand | Regional Benefit Total Points | Project Readiness Total Points | LPOE Connectivity Total Points | Weighted Combined Score | New Mexico MMI Overall Rank |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | Max Point Value | 12 | - | 3 | 8 | 5 | 9 | 100 | out of 22 |
| ID | State | Linked Projects | Facility | Sponsor | Project Description/ Extent | Proposed Improvement | | | | | | | | |
| 2021 | NM | | DAC New Runway | Doña Ana County, State Aviation Division, FAA | DAC Airport | New Runway | 4 | 35,000 | 1 | 4 | 3 | 3 | 41 | 21 |
| 2022 | NM | | Construct IOC | IBWC | New IOC | New IOC | 4 | 1,500 | 1 | 2 | 3 | 6 | 39 | 22 |

**Table 7-4: Evaluation of New Mexico Rail Projects**

| Evaluation of New Mexico Rail Projects | | | | Capacity/Congestion Total Points | Estimated Project Cost (US $Millions per mile) | Cost Effectiveness Total Points | Regional Benefit Total Points | Project Readiness Total Points | LPOE Connectivity Total Points | Weighted Combined Score | New Mexico Rail Overall Rank |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | **Max Point Value** | **11** | **-** | **3** | **8** | **5** | **5** | **100** | **out of 4** |
| **ID** | **State** | **Linked Project** | **Project Description** | | | | | | | | |
| 3003 | NM | 1004<br>4002<br>6001 | Rail Line; Santa Teresa POE to UPPR and BNSF mainlines | 9 | $5m/mi + | 2 | 5 | 1 | 5 | 71 | 1 |
| 3002 | NM | | Commuter Rail; Las Cruces, New Mexico, to El Paso, Texas | 4 | $10m/mi + | 2 | 5 | 2 | 0 | 42 | 2 |
| 3001 | NM | | Denver to El Paso High-Speed Rail | 6 | $60m/mi + | 1 | 4 | 1 | 0 | 36 | 3 |

**Table 7-5: Evaluation of Chihuahua Land Port of Entry Projects**

| Evaluation of Chihuahua Land Port of Entry Projects | | | | | Capacity/Congestion Total Points | Project Cost (in $1,000s MXN Pesos) | Cost Effectiveness Total Points | Regional Benefit Total Points | Project Readiness Total Points | Binational Coordination Total Points | Weighted Combined Score | Chihuahua LPOE Overall Rank |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Max Point Value | 47 | - | 5 | 7 | 7 | 7 | 100 | out of 4 |
| ID | State | Linked Project | Sponsor | LPOE Project Description | | | | | | | | |
| 4003 | CHIH | 1003 | SAT | Expansion and rearrangement for Puerto Palomas POE - Expand and rearrange LPOE over 7.2 hectares, completely reorganizing import/export inspection facility areas including INM facility | 27 | | 0 | 5 | 6 | 7 | 59 | 1 |
| 4002 | CHIH | 1004<br>4001 | SAT | Rearrangement of San Jerónimo - Expansion of cargo lanes and privately owned vehicles, including facilities for temporarily import vehicles (CITEV), relocation of inspection equipment and INM facilities | 21 | | 0 | 5 | 5 | 7 | 53 | 2 |
| 4001 | CHIH | 1004<br>3003<br>4002<br>6001 | SCT-Chihuahua | New Rail POE at San Jerónimo POE Area (PROY. LF-2) | 21 | | 0 | 3 | 2 | 5 | 38 | 3 |
| 4004 | CHIH | 1002 | IMIP | POE Camino Real Tierra Adentro (PROY. CRTA-1) in Sunland-Anapra area. | 4 | | 0 | 5 | 4 | 2 | 29 | 4 |

**Table 7-6: Evaluation of Chihuahua Multimodal Infrastructure Projects**

| Evaluation of Chihuahua Multimodal Infrastructure Projects | | | | | | | Capacity/Congestion Total Points | Project Cost (in $1,000s MXN Pesos) | Cost of Project vs. Projected Demand | Regional Benefit Total Points | Project Readiness Total Points | LPOE Connectivity Total Points | Weighted Combined Score | Chihuahua MMI Overall Rank |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | Max Point Value | 12 | - | 3 | 8 | 5 | 9 | 100 | out of 14 |
| ID | State | Linked Project | Facility | Sponsor | Project Description/Extent | Proposed Improvement | | | | | | | | |
| 5024 | CHIH | | Access road to El Berrendo POE | SCT | Construct 8.3 km of 2-lane highway per SCT specs to complete access to El Berrendo POE. There are 3 km already paved from intersection of MEX-2 to El Berrendo. This new 8.3 km will provide a full paved road. | Construct 8.3 km of 2-lane highway per SCT specs to complete access to El Berrendo POE. There are 3 km already paved from intersection of MEX-2 to El Berrendo. This new 8.3 km will provide a full paved road. | 7 | 75,000 | 2 | 6 | 5 | 8 | 73 | 1 |
| 5009 | CHIH | 5007 | MEX-45D at MEX-2 | SCT | MEX-45D at MEX-2 (Jerónimo Loop) | Modernize the intersection of MEX-2 with MEX-45D | 7 | 7,500 | 2 | 5 | 3 | 4 | 67 | 2 |

**Table 7-6: Evaluation of Chihuahua Multimodal Infrastructure Projects (Continued)**

| Evaluation of Chihuahua Multimodal Infrastructure Projects | | | | | | | Capacity/Congestion Total Points | Project Cost (in $1,000s MXN Pesos) | Cost of Project vs. Projected Demand | Regional Benefit Total Points | Project Readiness Total Points | LPOE Connectivity Total Points | Weighted Combined Score | Chihuahua MMI Overall Rank |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | Max Point Value | 12 | - | 3 | 8 | 5 | 9 | 100 | out of 14 |
| ID | State | Linked Project | Facility | Sponsor | Project Description/Extent | Proposed Improvement | | | | | | | | |
| 5013 | CHIH | | Carretera Janos-Agua Prieta, km 61 - El Berrendo | SCT - Chihuahua | Janos | Improvement for MEX-2 Highway from El Berrendo Junction to Janos and Janos to Juárez city limits and Casa Grandes branch. | 6 | 2,907,000 | 2 | 5 | 5 | 6 | 66 | 3 |
| 5007 | CHIH | 5009 | MEX-45D at MEX-2 Overpass | SCT | Intersection of MEX-2 and MEX-45 | Construct overpass at intersection of Samalayuca - San Jerónimo Highway with MEX-45D | 8 | 50,000 | 1 | 5 | 3 | 4 | 64 | 4 |

**Table 7-6: Evaluation of Chihuahua Multimodal Infrastructure Projects (Continued)**

| Evaluation of Chihuahua Multimodal Infrastructure Projects | | | | | | | Capacity/Congestion Total Points | Project Cost (in $1,000s MXN Pesos) | Cost of Project vs. Projected Demand | Regional Benefit Total Points | Project Readiness Total Points | LPOE Connectivity Total Points | Weighted Combined Score | Chihuahua MMI Overall Rank |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | Max Point Value | 12 | - | 3 | 8 | 5 | 9 | 100 | out of 14 |
| ID | State | Linked Project | Facility | Sponsor | Project Description/Extent | Proposed Improvement | | | | | | | | |
| 5001 | CHIH | | Rancho Anapra Loop (16 de Septiembre Avenue Extension) | IMIP | Anapra-Sunland Park POE to Santa Teresa/Jerónimo POE | Construct a new urban 4-lane highway to connect to the Anapra-Sunland Park proposed POE and Santa Teresa/Jerónimo POEs without passing through the Rancho Anapra neighborhood. | 9 | 94,000 | 3 | 4 | 3 | 7 | 63 | 5 |
| 5006 | CHIH | | Internacional Boulevard (a portion of Camino Real Loop) | IMIP | Samalayuca Road to proposed rail bridge at Santa Teresa/Jerónimo POE | Widen 2 lane road to 4 lane for 3.4 km of road to complete vehicle and cargo infrastructure directed toward the Santa Teresa/Jerónimo POE and proposed rail bridge | 7 | 4,000 | 3 | 4 | 4 | 3 | 61 | 6 |

**Table 7-6: Evaluation of Chihuahua Multimodal Infrastructure Projects (Continued)**

| Evaluation of Chihuahua Multimodal Infrastructure Projects | | | | | | | Capacity/Congestion Total Points | Project Cost (in $1,000s MXN Pesos) | Cost of Project vs. Projected Demand | Regional Benefit Total Points | Project Readiness Total Points | LPOE Connectivity Total Points | Weighted Combined Score | Chihuahua MMI Overall Rank |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | Max Point Value | 12 | - | 3 | 8 | 5 | 9 | 100 | out of 14 |
| ID | State | Linked Project | Facility | Sponsor | Project Description/Extent | Proposed Improvement | | | | | | | | |
| 5022 | CHIH | | Town of Palomas Bypass (PROY. PP-03) | SCT | Construction of New Bypass for the town of Palomas to have direct access to the area of commercial export-import cargo facilities at Palomas POE. | Construction of New Bypass for the town of Palomas to have direct access to the area of commercial export-import cargo facilities at Palomas POE. | 9 | 100,000 | 2 | 4 | 3 | 8 | 60 | 7 |
| 5014 | CHIH | | International Blvd. in City of Juárez | SCT | Samalayuca Jerónimo Road to the proposed railroad tracks | Construction of a 5.50 km Avenue, in order to complete the road infrastructure needed for cargo import/export through the proposed port of Santa Teresa and Jerónimo railway crossing. | 7 | 66,000 | 2 | 3 | 2 | 4 | 58 | 8 |

**Table 7-6: Evaluation of Chihuahua Multimodal Infrastructure Projects (Continued)**

| Evaluation of Chihuahua Multimodal Infrastructure Projects | | | | | | | Capacity/Congestion Total Points | Project Cost (in $1,000s MXN Pesos) | Cost of Project vs. Projected Demand | Regional Benefit Total Points | Project Readiness Total Points | LPOE Connectivity Total Points | Weighted Combined Score | Chihuahua MMI Overall Rank |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | Max Point Value | 12 | - | 3 | 8 | 5 | 9 | 100 | out of 14 |
| ID | State | Linked Project | Facility | Sponsor | Project Description/Extent | Proposed Improvement | | | | | | | | |
| 5005 | CHIH | | Anapra-Jerónimo Highway and Jerónimo POE Bypass | IMIP | Upgrade intersection Anapra-Jerónimo Highway and Jerónimo POE Bypass | Construct an upper loop for vehicles heading toward MEX 45D. | 7 | 31,000 | 2 | 3 | 3 | 7 | 57 | 9 |
| 5002 | CHIH | | Fronterizo Boulevard (a segment of Bernardo Norzagaray Blvd.) | IMIP | Fronterizo Boulevard (a segment of Norzagaray Blvd.) | Extend Fronterizo Boulevard east toward the Rio Grande. | 9 | 91,500 | 2 | 5 | 3 | 3 | 54 | 10 |
| 5011 | CHIH | 5010 | Bernardo Norzagaray Boulevard Overpass | IMIP | | Construct overpasses to facilitate cargo moving to and from the Santa Teresa/Jerónimo POE and proposed rail bridge | 9 | 108,500 | 2 | 5 | 2 | 3 | 52 | 11 |

**Table 7-6: Evaluation of Chihuahua Multimodal Infrastructure Projects (Continued)**

| Evaluation of Chihuahua Multimodal Infrastructure Projects | | | | | | | Capacity/Congestion Total Points | Project Cost (in $1,000s MXN Pesos) | Cost of Project vs. Projected Demand | Regional Benefit Total Points | Project Readiness Total Points | LPOE Connectivity Total Points | Weighted Combined Score | Chihuahua MMI Overall Rank |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | Max Point Value | 12 | - | 3 | 8 | 5 | 9 | 100 | out of 14 |
| ID | State | Linked Project | Facility | Sponsor | Project Description/Extent | Proposed Improvement | | | | | | | | |
| 5016 | CHIH | | Highway Overpass (PROY. LF-4) | SCT | MEX-2 Overpass at Rail Road bypass | Construction of Overpass at MEX-2 for future rail bypass (City of Juárez Rail Bypass, shown within this BMP, Chih. Rail Projects) | 7 | 80,000 | 1 | 4 | 3 | 2 | 46 | 12 |
| 5020 | CHIH | | Highway Upgrade (PROY. SJ-3) | IMIP | Upgrade existing Jerónimo-Santa Teresa Highway from Km 0+000 to Km 18+000 | Upgrade existing Highway to SCT type B road from Km 0+000 to Km 18+000 to improve access to San Jerónimo POE | 7 | 15,400 | 3 | 2 | 2 | 1 | 46 | 13 |
| 5010 | CHIH | 5011 | Bernardo Norzagaray Boulevard | IMIP | Santa Teresa/ Jerónimo and Anapra/Sunland Park POEs. | Construct intersection to facilitate cargo traveling to and from the Santa Teresa/Jerónimo and Anapra/Sunland Park POEs | 7 | 62,000 | 1 | 4 | 3 | 3 | 46 | 14 |

**Table 7-7: Evaluation of Chihuahua Rail Projects**

| Evaluation of Chihuahua Rail Projects | | | | | Capacity/Congestion Total Points | Estimated Project Cost (in $1,000s MXN pesos) | Cost Effectiveness Total Points | Regional Benefit Total Points | Project Readiness Total Points | LPOE Connectivity Total Points | Weighted Combined Score | Chihuahua Rail Overall Rank |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Max Point Value | 11 | - | 3 | 8 | 5 | 5 | 100 | out of 3 |
| ID | State | Linked Project | Project Description | Sponsor | | | | | | | | |
| 6001 | CHIH | 1004<br>3003<br>4002 | City of Juárez Rail Bypass (PROY. LF-1) | SCT-Chihuahua | 10 | 1,600,000 | 3 | 8 | 3 | 4 | 90 | 1 |
| 6003 | CHIH | 6002 | Rail Spur to South Loading Terminal | IMIP-Ascension | 6 | 288,000 | 2 | 4 | 3 | 2 | 53 | 2 |
| 6002 | CHIH | 6003 | South Loading Terminal (PROY. LF-3) | SCT | 8 | 500,000 | 1 | 4 | 2 | 2 | 51 | 3 |

# 8.0 HISTORIC AND CURRENT INFRASTRUCTURE FUNDING OPPORTUNITIES

Transportation infrastructure along the U.S./Mexico border is crucial to the economy of both nations and the vitality of Border States. Therefore, public and private investment in the construction, maintenance and operation of roads, rail lines, and LPOEs are key to improving and enhancing international trade and regional economies. This chapter explores the historical funding associated with the border transportation infrastructure and presents a review of funding sources currently being applied to build and maintain necessary transportation infrastructure elements within the New Mexico-Chihuahua border region. Currently available public and private funding sources, as well as public-private partnerships (P3) – both utilized and not utilized – are identified.

## 8.1 FUNDING SOURCES – UNITED STATES

The recent period of uncertainty associated with economic conditions of the Great Recession, is giving way to greater optimism and active anticipation of new development activity and growth. State, national, and global markets are recovering and expanding as the global economy gains strength. New funding assistance to mitigate congestion and improve freight circulation through the implementation of border transportation infrastructure projects is becoming available. Thus, the ability of regional stakeholders in the New Mexico-Chihuahua border area to sponsor and market infrastructure improvements has improved significantly in the past few years.

### 8.1.1 HISTORICAL U.S. BORDER INFRASTRUCTURE FUNDING SOURCES

Prior to passage of Moving Ahead for Progress in the 21st Century (MAP-21) in 2012, targeted Federal funding assistance was available for infrastructure projects in the U.S./Mexico border region. Initial funding actions took the form of the Coordinated Border Infrastructure Program (CORBOR Program) established under the Transportation Equity Act for the 21st Century (TEA-21) in 1998. The CORBOR Program consisted of two programs: the Coordinated Border Infrastructure Program (CBI Program) and the National Corridor Planning and Development Program (NCPD Program). These two programs focused on providing funding for planning, project development, construction and operation of projects near Mexico and Canada and high

priority corridors throughout the United States serving border regions. States and metropolitan planning organizations (MPOs) were eligible under the NCPD program for discretionary grants for: corridor feasibility; corridor planning; multistate coordination; environmental review; and construction. Border States and MPOs were eligible under the CBI program for discretionary grants associated with: transportation and safety infrastructure improvements, operation and regulatory improvements, and coordination and safety inspection improvements in a border region.

The CBI Program was continued after August 2005 under successor legislation to TEA-21 – the Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU). The NCPD Program was not continued; it was replaced by the National Corridor Infrastructure Improvement Program. Under SAFETEA-LU and the 2010 Extension Act, CBI funds were apportioned annually by statutory formula to Border States. CBI Program funding was an important prototype of targeted funding for the U.S. border areas with Mexico and Canada. Funding under the newly defined National Corridor Infrastructure Improvement Program focuses on corridors of national significance, which still may include corridors serving border areas and affected by the North American Free Trade Agreement (NAFTA).

### 8.1.2 CURRENT PUBLIC FUNDING SOURCES

There are three types of funding now available for border infrastructure improvement projects: 1) Federal funding available through MAP-21; 2) Federal funds directed to improvement of LPOEs, primarily from the GSA Building Fund; and 3) state funds. General descriptions of these funding sources are provided below.

#### FEDERAL FUNDING UNDER MAP-21

With passage of MAP-21, the CBI Program was discontinued. However, eligibility for the type of programs supported through the CBI Program is maintained under the provisions of the Surface Transportation Program (STP) of the newer legislation. The STP is the most flexible and largest single highway development and improvement program conceived at the Federal level. States and MPOs may use STP funds for highways, bridges, transit (including intercity bus terminals), and pedestrian and bicycle infrastructure projects. MAP-21 covered FY 2013 and FY 2014, with an extension to May 31, 2015. There were no specific funds designated for

the types of projects supported by the CBI Program; but, if a state so decides, it may spend STP funds on CBI-type projects. Approximately $10 billion was attached to the STP under MAP-21. In FY 2013, New Mexico was apportioned $354,145,060 under MAP-21; the MAP-21 apportionment was increased slightly in FY 2014 to $354,439,590.

A key issue associated with current funding through MAP 21 is the sequestration of highway funds, as required by the Balanced Budget and Emergency Deficit Control Act (BBEDCA), as amended, sections 901a and 906(k)(6) of title 2, United States Code (U.S.C.). Although approximately $10 billion was attached to MAP-21 funding for FYs 2013 and 2014, the sequestration of highway funding reduced amounts ultimately apportioned to the states. Also, MAP-21 added new responsibilities to recipients of Federal assistance, requiring a set-aside in an amount equal to two percent of the total amount authorized from the Highway Account of the Highway Trust Fund (HTF) to be devoted to Transportation Alternatives Program (TAP). The new legislation combined biking, walking, and trails creation and improvement/enhancement programs to be supported by the two percent set-aside. The set-aside directly reduces STP funds. The loss of the dedicated CBI Program funding and other MAP-21 stipulations ultimately requires Border States and communities of the New Mexico/Chihuahua border area to compete for funding allocated to non-border projects.

MAP-21 was set to expire May 31, 2015 after an initial extension from the original expiration date of September 30, 2014. Legislation passed in May and signed by the President extended MAP-21 a second time, but only to July 31, 2015. The current consensus is that Congress will not be able to find a long-term funding solution for the HTF, and it is very likely that a third extension of the existing legislation will be passed. The critical issue associated with the HTF is the need to identify new revenue sources to provide long-term, sustainable funding levels consistent with the adopted amounts in the MAP-21 legislation. Therefore, funding for border infrastructure improvement projects is very likely to remain static for the near future, and new project can rely only on the existing stipulations of MAP-21.

MAP-21 includes, in addition to support for highway and alternative transportation modes, a number of provisions to address the national freight network and support investment in freight-related surface transportation projects. The U.S. Department of Transportation

(USDOT) is directed in MAP-21 to develop a National Freight Strategic Plan, regularly report on the performance of the national freight network, and prioritize projects to improve freight movement. Recommendations that will give form to the National Freight Strategic Plan were received by the Secretary of USDOT July, 2014, but the plan has yet to be created and adopted. On a state and local level, USDOT encourages development of State freight advisory committees and ongoing planning for immediate and long-range freight investments. The performance of the freight network in the New Mexico/Chihuahua border area is critical to the overall connectivity and economic development objectives associated with development plans by the two neighboring states, the Mesilla Valley, the LPOEs, and stakeholders, such as the UPRR, border area industries, and trucking enterprises.

Federal funding through MAP-21 supports major transportation infrastructure projects in the United States. All FHWA funding goes through NMDOT in accordance with the FHWA administrative rules. The FHWA Web site provides a database of various infrastructure funding sources.[1] The following funding programs are described:

### NATIONAL HIGHWAY SYSTEM (NHS)

The National Highway System (NHS) includes the Interstate Highway System (IHS) as well as other roads important to the nation's economy, defense, and mobility, including international border crossings. The NHS evolved from the HIS and was developed by the USDOT in cooperation with the states, local officials, and MPOs. This includes FHWA funding for federal routes and federal aid to New Mexico routes in the National Highway System (NHS). Funding may be obligated for a variety of projects, including:

- Construction, reconstruction, resurfacing, restoration, and rehabilitation;
- Operational improvements;
- Construction and operational improvements of a Federal-aid highway not on the NHS,
- Construction of a transit project associated with an NHS corridor;
- Highway safety improvements;
- Transportation planning;

[1] http://www.fhwa.dot.gov/federalaid/guide/guide_current.cfm.

- Bicycle transportation and pedestrian walkways;
- Publicly-owned intracity or intercity bus terminals;

Generally, projects associated with the NHS should provide or support an interconnected system of principal arterial routes that serve major population centers, international border crossings, ports, airports, public transportation facilities, other intermodal transportation facilities, and other major travel destinations; meet national defense requirements; and serve interstate and interregional travel.

### SURFACE TRANSPORTATION PROGRAM (STP)

The STP briefly cited earlier essentially does not have any limits relative to the projects supported on facilities that are part of the Federal-aid highway system. STP funds may not be used to improve roads functionally classified as local or rural minor collectors with certain exceptions. Examples of STP projects are cited below:

- Construction, reconstruction, rehabilitation, resurfacing, restoration, preservation, or operational improvements for highways;
- Replacement (including replacement with fill material), rehabilitation, preservation, and protection;
- Construction of a new bridge or tunnel;
- Capital costs for certain transit projects;
- Highway and transit safety infrastructure improvements and program;
- Transportation alternatives; and
- Recreational trails project.

A key stipulation is that projects must be identified in the State Transportation Improvement Plan (STIP), and the projects must be consistent with Long-Range Statewide Transportation Plan, Regional Transportation Plans, and the Metropolitan Transportation Plan(s). The State must coordinate with relevant MPO or rural planning organizations during the process of obligating funding under the Federal STP.

## COORDINATED BORDER INFRASTRUCTURE PROGRAM (CBI PROGRAM)

The most relevant aspect of the STP is that border infrastructure projects designated as eligible under Section 1303, Coordinated Border Infrastructure Program of the SAFETEA-LU remain eligible under MAP-21. The purpose of Section 1303 was and still is to improve the safe movement of motor vehicles at or across the border between the United States and Canada and the border between the United States and Mexico. Eligible projects include not only improvements on the U.S. side of the border, but also improvements on the Mexico side subject to specific stipulations regarding construction standards and maintenance. Improvement projects eligible for funding in the border region include:

- existing transportation and supporting infrastructure that facilitate cross-border motor vehicle and cargo movements;
- construction of highways and related safety and safety enforcement facilities that facilitate motor vehicle and cargo movements related to international trade;
- operational improvements, including improvements relating to electronic data interchange and use of telecommunications, to expedite cross border motor vehicle and cargo movement;
- modifications to regulatory procedures to expedite safe and efficient cross border motor vehicle and cargo movements; and
- international coordination of transportation planning, programming, and border operation with Canada and Mexico relating to expediting cross border motor vehicle and cargo movements.

Thus, the difference between SAFETEA-LU and MAP-21 is the manner in which funding is obtained; all projects originally stipulated in SAFETEA-LU remain eligible.

## INTERSTATE MAINTENANCE (IM)

MAAP-21 does not include this program. Although there is no distinct program or funding for this purpose, eligibilities exist within other MAP-21 programs. Carryover IM funding continues to be available for the original purpose under the rules that applied under the pre-MAP-21 Interstate Maintenance program. Eligible projects include:

- Resurfacing, restoration, rehabilitation, and reconstruction;

- Reconstruction or new construction of bridges, interchanges, and over crossings along existing Interstate routes, including the acquisition of right-of-way, where necessary;
- Capital costs for operational, safety, traffic management, or intelligent transportation systems (ITS) improvements (Note: operating costs for ITS are not eligible for IM funds);
- Preventive maintenance; and
- Construction of high-occupancy vehicle (HOV) or auxiliary lanes.

## TRANSPORTATION ALTERNATIVES PROGRAM (TAP)

The TAP is a Federal-aid funding program authorized under MAP-21. New Mexico's TAP is administered through the Government to Government (GTG) Unit. TAP funds generally can be used for bicycle and pedestrian infrastructure development projects and in support of activities encouraging bicycle and pedestrian travel, in addition to other projects outlined in the NM TAP Guide. The program is administered within a competitive process, in accordance with Federal legislation. NMDOT coordinates approximately every two years with the State's seven Regional Transportation Planning Organizations (RTPOs) and five MPOs to identify TAP-eligible projects and process applications.

## HIGH RISK RURAL ROADS PROGRAM (HRRRP)

MAP-21 does not provide a specific stipulation for High Risk Rural Roads (HRRR); however, prior to the passage of MAP-21, SAFETEA-LU designated $90 million in annual funding, which was set aside from the Highway Safety Improvement Program (HSIP) for HRR. MAP-21 incorporates a revised definition of "High Risk Rural Road" and created a Special Rule for HRRR that requires States with an increase in fatality rates on rural roads to obligate a specified amount of HSIP funds on HRRRs. This effectively continues construction and operational improvements on high risk rural roads as an eligible HSIP project. HRRR now means any roadway functionally classified as a rural major or minor collector or a rural local road with significant safety risks, as defined by a State in accordance with an updated State Strategic Highway Safety Plan (SHSP). With the passage of MAP-21, the specific funds set-aside included in SAFETEA-LU were eliminated and State funding obligations were attached to the safety performance, i.e., fatality rate, of rural roads over a two-year period. The

funding commitment, if the safety performance goal is not achieved, is equal to 200 percent of the funds the State received in FY 2009 for HRRR program needs.

### HIGHWAY SAFETY IMPROVEMENT PROGRAM (HSIP)

The purpose of the HSIP is to improve highway safety and achieve a significant reduction in traffic fatalities and serious injuries on all public roads through a data-driven, strategic approach focusing on results. Finding under the HSIP funds may be used to:

- Implement any highway safety improvement project on any public road or publicly-owned bicycle or pedestrian pathway or trail;
- Implement projects specifically oriented to HRRR Safety and Older Drivers; and
- Implement any project on a public road to maintain minimum levels of retroreflectivity.

Before obligating HSIP funds, a State must develop and implement an SHSP, produce a program of projects or strategies based on data analysis, establish a program for evaluating the SHSP on a regular basis, and submit annual reports, such as the HSIP report, which includes reporting on the HRRR Program. MAP-21 continues the HSIP as a core program but amends the original program created under SAFETEA-LU. It continues the set-aside of $220 million per year for railway-highway crossing improvements, and apportions the remaining funds to States based on the ratio of lane miles of Federal-aid highways in each State to the total lane miles of Federal-aid highways in all States, the ratio of vehicle miles traveled on lanes on Federal-aid highways in each State to the total vehicle miles traveled on lanes on Federal-aid highways in all States, and the ratio of the number of fatalities on the Federal-aid system in each State to the number of fatalities on the Federal-aid system in all States.

### ELIMINATION OF HAZARDS AT RAILWAY-HIGHWAY CROSSINGS

This successor to the Railway-Highway Crossings Improvement Program adopted as part of the MAP-21 legislation provides funds for improvement projects at all at-grade public railway-highway crossings. Funding assistance is available for, but not limited to: installation of protective devices, elimination of hazards, and grade crossing separation.

## INTERNATIONAL HIGHWAY TRANSPORTATION OUTREACH PROGRAM

This program was carried forward in MAP-21 from the SAFETEA-LU legislation. Although, no new funding was created, the program continues to be available for the original purpose until remaining funds are rescinded or expended. This program, which supports efforts at international outreach, could be useful in two areas of eligibility:

- Conducting studies to assess the need for or feasibility of highway transportation improvements in foreign countries; and
- Gathering and disseminating information on foreign transportation markets and industries.

## METROPOLITAN PLANNING FUNDS

Metropolitan Planning funds are available for MPOs to carry out the metropolitan transportation planning process required by 23 U.S.C. 134, including development of metropolitan area transportation plans and transportation improvement programs (TIPs). Eligible activities include:

- Conducting inventories of existing routes to determine their physical condition and capacity
- Determining the types and volumes of vehicles using these routes;
- Predicting the level and location of future population;
- Employment and economic growth studies to determine current and future transportation needs.

The MVMPO and EPMPO may use these funds for developing transportation improvement plans, including transit development actions as provided for in the Federal Transit Act. Plans must be fiscally constrained, and the TIPs must be consistent with the transportation plans.

## TRANSPORTATION INFRASTRUCTURE FINANCE AND INNOVATION ACT (TIFIA) PROGRAM

The Transportation Infrastructure Finance and Innovation Act (TIFIA) Program was reauthorized and amended under MAP-21. It provides Federal credit assistance to eligible surface transportation projects, including: highways, transit facilities, intercity passenger rail facilities, some types of freight rail facilities, and intermodal freight transfer facilities. The

fundamental goal of the TIFIA Program is to leverage Federal funds by attracting substantial private and other non-Federal, co-investment to support critical improvements to the nation's surface transportation system. There are three types of financial assistance: secured loans, loan guarantees, and lines of credit. Projects eligible for TIFIA Program assistance that are relevant to the New Mexico/Chihuahua border area are:

- International bridges and tunnels;
- Public and private freight rail facilities, specifically improvements that benefit highway users through direct highway-rail freight interchange;
- Intermodal freight transfer facilities;
- Projects providing access to, or improving the service of, freight rail facilities and transfer facilities; and
- Surface transportation infrastructure modifications necessary to facilitate direct intermodal interchange, transfer, and access into and out of a port.

## STATE FUNDING SOURCES

### LOCAL GOVERNMENTS ROAD FUND (LGRF)

The Local Government Road Fund Unit of The New Mexico Department of Transportation administers the LGRF through the State Maintenance Bureau and the Department's District Engineers. The LGRF supports several programs, including: Cooperative Program (CO-OP), County Arterial Program (CAP), School Bus Route Program (SBR), and Municipal Arterial Program (MAP). LGRF funding is available to be used in conjunction with projects by municipalities, counties, Indian Tribes/Pueblos, and other State and Federal Agencies that may be participating partners. If a local entity is experiencing financial hardship, a waiver of the matching funds requirement can be requested. The waiver must be approved by the NMDOT District, the Local Government Division of the State Department of Finance and Administration (or the Department of Education for School District Cooperative projects), NMDOT Secretary, and, finally, the New Mexico State Transportation Commission. Amounts available statewide for match waivers vary from year to year. Approval is not guaranteed.

## SEVERANCE TAX BOND (STB) PROJECTS

Severance taxes are levied on all products severed, i.e., removed, from State soil and sold, such as: oil, natural gas, liquid hydrocarbon, and carbon dioxide, as well as other natural resources including, timber and various mineral products (e.g. potash, molybdenum, copper, zinc, lead, gold, silver, coal and uranium). Tax receipts are deposited in the Severance Tax Bonding Fund and used to service Severance Tax Bonds (STBs) that support the financing of capital improvements. The New Mexico State Legislature appropriates a share of the proceeds of Severance Tax Bonds to NMDOT for local transportation projects. The NMDOT Local Government Agreement Unit develops and executes agreements for transportation projects with local government entities, and STB-financed projects are contained in capital outlay bills sponsored by the State Legislature.

Local government agencies act as lead agencies for STB projects and are responsible for either performing the work with public resources or letting the project to contract. Generally, payment for these projects is handled through the NMDOT District Offices. Federal tax regulations require STB projects to be developed sufficiently so that the agency reasonably expects to incur, within six months after the applicable bonds have been issued, a substantial binding obligation to a third party to expend at least five percent of the bond proceeds for the project. Additionally, 85 percent of project funds must be expended within three (3) years from the date the bonds are sold. Certification of agreement to conform to these requirements must be provided by the local entity prior to the sale of the bonds.

## NEW MEXICO DEPARTMENT OF TRANSPORTATION BONDS

The New Mexico Finance Authority (NMFA) issues bonds on behalf of the New Mexico State Transportation Commission and NMDOT under the Governor Richardson's Investment Partnership (GRIP) Program. NMDOT bonds are issued to fund transportation infrastructure projects in the State, such as highways, bridges, and passenger rail. Previously, the State Transportation Commission and NMDOT issued New Mexico State Highway Commission bonds. These older bonds were carried over into the GRIP Program and designated as Closed Lien bonds. The GRIP Program supports expansion and infrastructure improvement initiative statewide financed by the issuance of tax-exempt bonds into the Municipal Capital Markets. No NMFA assets or revenues are pledged in support of the GRIP bonds. Pledged revenues, such

as State Road Fund revenues and certain Federal revenues, are the sole source of repayment of the bonds. State Road Revenues include revenues from: Gasoline Excise Taxes, Special Fuel Excise Tax, Weight Distance Tax, and Motor Vehicle Registration Fees. Additionally, revenues come through the New Mexico Highway Infrastructure Fund, Lease Vehicle Gross Receipts Taxes, and Tire Recycling Fees.

## GENERAL FUND PROJECTS

The New Mexico State Legislature sometimes appropriates money to NMDOT from the State's General Fund for financing local government road and street projects. Approved projects are included in capital outlay bills. The NMDOT Local Government Agreement Unit develops and executes agreements with local government entities for the implementation of the projects. Local government entities generally act as the lead agency for the projects, being responsible for performing the work with public resources or letting the projects to contract. Generally, financing arrangements are handled through NMDOT District Offices. Some projects may require matching funds from the local government entity.

## PROGRAMS AND INFRASTRUCTURE FINANCE

The NMDOT Office of Infrastructure Divisions, headed by the Chief Engineer, offers a comprehensive array of professional services to the transportation industry in the State of New Mexico. The Office's mission is to support multimodal project delivery from concept through detailed design. The Programs and Infrastructure Finance Division provides financial oversight of project funding, assuring compliance with all requirements of Federal and State laws. This Division is responsible for administering Federal-aid Highway projects, LGRF projects, Tribal/Local Public Agencies projects and Capital Outlay projects. The centralization of projects, regardless of funding, provides consistency and minimizes duplication of efforts within NMDOT. The Division offers support, guidance, and resources to Local Entities seeking State and Federal funding for transportation projects. It also provides oversight and management of the US$565.2 million (MXN$8.8 billion) operating budget of the Office of Infrastructure Divisions, which accounts for approximately 70 percent of NMDOT's budget. According to the Office's Web site, as of June, 2015, the budget includes US$404.5 million (MXN$6.3 billion) in Federal Funds from three major programs: Federal Highway Administration (FHWA), Federal

Transit Administration (FTA), and National Highway Traffic Safety Administration (NHTSA). The remaining US$160.7 million (MXN$2.5 billion) is supported by the LGRF and seven other designated funds.

## 8.2 FUNDING SOURCES - MEXICO

This section provides a summary of the current status of national infrastructure planning and funding support in Mexico.

### 8.2.1 MEXICAN NATIONAL INFRASTRUCTURE PROGRAM

Until 2007, there were no dedicated funds for infrastructure building or maintenance. Former President Felipe Calderón initiated a major infrastructure support program with a commitment of US$234 billion (MXN$3.6 trillion) for some 300 projects. A recent article in Fontera Capital Advisors discusses an initiative of the current President of Mexico, Enrique Peña Nieto, to expand this funding effort created by President Calderon to improve the Mexican infrastructure. The National Infrastructure Program (*Plan Nacional de Infraestructura* or PNI), programmed for implementation during the period 2014-2018, when "…combined with new Federal Private-Public Partnership (PPP) laws, is expected to help modernize and rehabilitate the nation's infrastructure capabilities, draw private sector investment, and make a significant impact on the long-term health of the Mexican economy." Program funding of US$596 billion (MXN$9.3 trillion) is expected to be funded in part with public funds (63 percent) and private sector contributions (37 percent).

The new funding program includes 743 projects spanning six sectors, 223 of which will involve communications and transportation infrastructure projects. These projects are expected to attract over US$100 million (MXN$1.6 billion) of the total program expenditures. Expansion and modernization projects will account for approximately 54 percent, and the remainder will involve new construction. The new Public-Private Partnership model is expected to attract more than US$57 million (MXN$887.4 million). Approximately US$30 billion (MXN$467.1 million) has been allocated for 151 road infrastructure projects. Although this program consists of projects already identified, the initiative of the Federal government of Mexico indicates a more aggressive approach to creating a more competitive economic

position that likely will aid in improving the status and condition of the transportation infrastructure at the New Mexico/Chihuahua border area.

### 8.2.2 PUBLIC-PRIVATE PARTNERSHIPS (PPP)

New Federal PPP guidelines passed in 2012 include provisions to make the bidding process of funding associated with this mechanism more efficient and transparent and provide for dispute resolution by way of arbitration. The private partner of the PPP engages in improvements of existing facilities or constructing new infrastructure elements. The governmental or public entity that is party to the PPP (i.e., contracting authority) helps the private partner to obtain necessary permits for the project and assisting in or expediting processing of other necessary activities associated with the project. After an agreed upon period of time, control and ownership of the infrastructure project (e.g., highway) is turned over to the contracting authority.

### 8.2.3 EVALUATION OF MEXICAN PLANNING AND INFRASTRUCTURE FINANCE

An examination of transportation planning and programming in Mexico prepared for the *Lower Rio Grande Valley—Tamaulipas Border Master Plan* provides considerable insight into opportunities for funding transportation projects in the New Mexico/Chihuahua border area.

#### FEDERAL

The Secretary of Communications and Transportation (*Secretaría de Comunicaciones y Transportes* – SCT) retains the authority for transportation planning and programming in Mexico. Transportation planning decisions involve consideration of available funding resources and priorities established by SCT centers serving the States. Mexico does not have a dedicated funding source for transportation projects, which fall within the spectrum of infrastructure development. With respect to funding for transportation projects in the U.S./Mexico border region and the ports of entry, therefore, these projects must compete with all infrastructure-related projects, including transportation (e.g., highways, interchanges, bridges) and non-transportation (e.g., hospitals, schools, government buildings, social and cultural facilities).

The Federal Roads, Bridges and Motor Carrier Act (Ley de Caminos, Puentes y Autotransporte Federal) and Supreme Court rulings have established that international bridges

and crossings fall under the jurisdiction of the Federal government. Planning for and prioritization of transportation projects in the border region are activities undertaken independently by: SCT, Secretariat of Foreign Relations (Secretaría de Relaciones Exteriores – SRE), General Customs Administration (Administración General de Aduanas – Aduanas), and National Property Managing and Appraisal Institute (Instituto de Administración y Avalúos de Bienes Nacionales – INDAABIN). Interagency committees, such as the Border Interagency Group, Base Group, and Full Group, also are involved. SCT is responsible for identifying the most appropriate funding source(s) for building and maintaining Mexico's international bridges and border crossings based on the outcome of specific project studies, analyses, and the results of reviews conducted by the various participating entities. Major funding sources include the PNI and PPP financing through concessions, or a combination of the two funding sources.

## STATE

Although state-driven funding capabilities have grown in recent years, most transportation funding is prioritized and managed through formal project requests. Public Works or Transport Secretariats at the State level are responsible for establishing preliminary needs, identifying projects, planning, and securing funding. Local agencies have no responsibility for developing and implementing infrastructure projects, and they have minimal involvement in transportation planning and programming decisions that address medium- and long-range issues. States and municipalities must comply with Federal standards established by SCT to receive financial support for local improvement projects.

State governments have a variety of roles in the transportation infrastructure planning and development. States can be a funding source for municipalities, but the local agencies frequently must comply with State guidance and objectives. In some cases, funding stipulations can impose solutions on the local municipalities that may be contrary to local expectations. States can act as the intermediary for projects at the local level involving Federal strategic objectives and funding. States, in conjunction with the Federal government, are prominent in the planning and development of projects associated with binational trade, international cross-border movements, and mid- to long-term strategic initiatives.

**LOCAL**

Municipal planning for urban development and transportation systems is oriented to achieving short-term objectives, because municipal administrations serve only a three- or four-year term. Municipal Planning Institutes (Institutos Municipales de Planeación – IMPLAN) were established at the local level to be responsible for determining preliminary needs, identifying projects, and planning. IMPLANs were established to provide planning continuity at the local level, because of the short-term nature of administrations. The main planning document of municipalities — the Municipal Development Plan (*Plan de Desarrollo Municipal*) —documents policies, strategies, and objectives consistent with the State plan. The plans often are not comprehensive, lack long-term goals, specific milestones, and objectives, and frequently do not include specific time commitments. Nevertheless, municipalities are active agents for the execution of many infrastructure projects, and the organizational structure of most municipalities is directed to the construction of public works without regard to a well-defined planning structure.

### 8.2.4 PUBLIC TRANSPORTATION FEDERAL SUPPORT PROGRAM (PROTRAM)

Mexico's Public Transportation Federal Support Program (PROTRAM) offers Federal grants to city, state, and regional government agencies for up to 50 percent of the cost of public transportation infrastructure projects. The Secretary of the Treasury and Public Credit is charged with the responsibility of administering PROTRAM fund requests. Project evaluation guidelines have been developed that allow for rapid analysis of projects and continuous high-quality operational and financial reviews. PROTRAM projects generally promote the strengthening of planning, regulation and management activities associated with urban public transportation systems.

### 8.2.5 PRIVATE INVESTMENT INITIATIVES

There are two main channels the Mexican Federal government has for financing infrastructure projects: Banobras (Banco Nacional de Obras y Servicios Públicos), and Fonadin. Banobras is a regulated bank that specializes in financing infrastructure improvement projects. Fonadin is a government-owned trust managed by Banobras. Fonadin, since 2008, has acted to create the necessary conditions and promote national and international private sector investment in the

infrastructure of Mexico. Fonadin banking and financing activities support PPP projects (see above) and seeks the integration of private sector capital into infrastructure projects. Fonadin takes risks that the market is unwilling to bear, and looks for the granting of long-term financing that may otherwise not be available.

Of immediate relevance to this New Mexico/Chihuahua Border Master Plan, Fonadin specifically supports the development of toll roads and urban transportation among other projects and programs. Infrastructure improvement projects can obtain Fonadin support, if the projects are a component of a PPP agreement secured through an impartial bidding process. Project sponsors need to be able to demonstrate the existence of a partial or full source capability for repayment of funds offered by Fonadin. Fonadin is a key player in projects undertaken through PROTRAM (see above). Since 2008, Fonadin has invested in 95 projects worth more than $8 billion. The bulk of the investment (approximately 80 percent) has gone to the construction of toll roads and urban transportation. Although the main impetus of Fonadin's efforts was support for toll roads as a means of maintaining infrastructure growth during the Great Recession, its focus remains today on stimulating the investment of private sector funds in public infrastructure projects. The new Federal PPP law provides an integrated legal framework and guidance about international best practices that facilitates active engagement by Fonadin. The new law expressly allows:

- the private sector to propose new projects (unsolicited offers);
- a PPP contract term of up to 40 years;
- public entities to assist the private sector party in obtaining relevant authorizations for the development of the project; and
- step-in rights that facilitate amendment of financing and circumstances framing a PPP agreement.

## 8.3 BI-NATIONAL FUNDING SOURCES

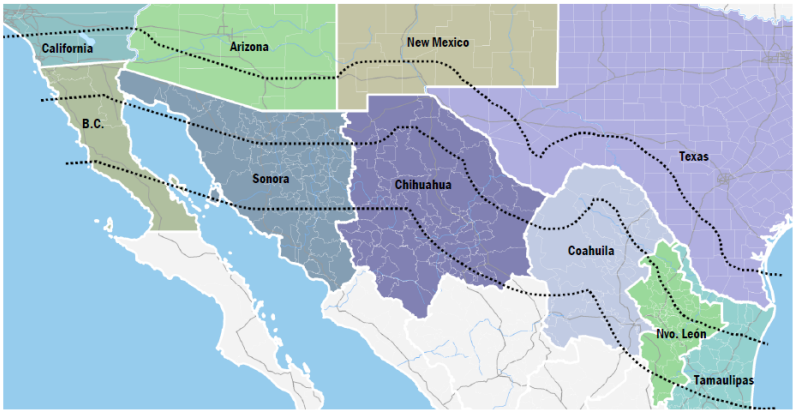
With ratification of the North American Free Trade Agreement (NAFTA), two binational institutions were established to support development of environmental infrastructure of the U.S./Mexico border region: North American Development Bank (NADB) and Border Environment Cooperation Commission (BECC). The NADB is a financial institution structured

to finance infrastructure projects. It is jointly capitalized and governed by the U.S. and Mexico. The BECC assists through the design and certification of projects based on criteria agreed to by the two nations. The BECC focuses on defining projects, and the NADB concentrates on financing, implementation, and oversight of the project. According to the NADB website, the BECC and NADB operate collaboratively to enhance the well-being of residents in both nations through support of projects "…that will prevent, control or reduce environmental pollutants or contaminants, improve the drinking water supply, or protect flora and fauna, so as to improve human health, promote sustainable development, or contribute to a higher quality of life." Although specifically oriented to environmental conditions and the improvement thereof, within the framework to the institutional roles of the two entities transportation-related projects may benefit.

Currently, the NADB is financing several projects either focused on improving transportation facilities or environmental projects with a transportation component in the U.S./Mexico border region. The border region for eligible projects is defined as 62 miles (100 kilometers-km) in the U.S. and 186 miles (300 km). The commitment to these projects shows that transportation-related improvements can be financed through NADB, if they are associated with improving environmental conditions and adding to the quality of life of residents. A "Comprehensive Paving Project to Improve Urban Mobility" has been funded in Ciudad Juárez, Chihuahua. Although the principal focus of this project is improved air quality, the project involves rehabilitation of six vehicle overpasses and 15 roadways: approximately 16.1 miles (25.9 kilometers) of new paving, and 25.8 miles (41.6 kilometers) of paving rehabilitation. Total cost: US$156.3 million (MXN$2.42 billion); NADB Funding: US$30.8 million (MXN$477.2 million). Several other such projects have been funded throughout the border region in Mexico, including:

**JURISDICTION**

100 km north and 300 km south of the international boundary*




* Projects beyond these areas may be eligible if they remedy a cross-border environmental or health problem.

- A “Comprehensive Paving Project” in Hermosillo, Sonora, focused on paving 0.6 square miles (sq mi) or 1.6 million square meters ($m^2$) of dirt roads, but included water and sewer lines. The principal focus of this project was improvement of air quality for over 150,000 residents. Total cost: US$68.3 million (MXN$1.06 billion; NADB Funding: US$19,607,843 (MXN$303.6 million).
- A “Basic Urban Infrastructure Project” in Hermosillo, Sonora, focused on the construction and rehabilitation of water and sewer lines, but it will include paving 0.163 sq mi (422,691 $m^2$) of dirt roads, expansion and rehabilitation of 0.156 sq mi (404,307 $m^2$) of existing roads, and installation of a traffic management and control system. Total cost: US$66.3 million (MXN$1.03 billion); NADB Funding: US$19.0 million (MXN$295.9 million).
- The future “Border-wide Public Transportation Improvement Program in Mexico” is oriented to supporting the purchase or lease of low-emission buses for operation in the 186-mile (300-kilometer) border region of Mexico. Total cost: US$11.4 million (MXN$176.6 million); NADB Funding: US$9.1 million (MXN$141.3 million).
- The “Air Quality Improvements through Street Paving for the Monterrey Metropolitan Area” Project in Monterrey, Nuevo Leon, is focused on improving air quality through the paving of 0.33 to 0.36 sq mi (844,000 to 928,000 $m^2$) of dirt roads. Total cost: US$62.6 million (MXN$969.8 million); NADB Funding: US$46.2 million (MXN$715.7 million).
- An “Air Quality and Paving Project” in Naco, Sonora, focused on paving 18 roadways extending 3.46 miles (5.57 km) to improve air quality for area residents and improving access. Total cost: US$909,091; NADB Funding: US$417,299.
- An “Air Quality and Street Paving Project” in Nuevo Laredo, Tamaulipas, focused on paving 0.35 sq mi (900,000 $m^2$) of roadways. Total cost: US$47.5 million (MXN$735.9 million); NADB Funding: US$36.4 million (MXN$563.9 million).
- The “Basic Environmental Infrastructure Project” in Nuevo Laredo, Tamaulipas, focused on the construction/installation of water and sewer lines, storm drainage facilities,

pumps, and a wastewater treatment plant. Included in this project were the paving of 0.05 sq mi (123,955 $m^2$) of dirt roads, expansion and rehabilitation of 0.13 sq mi (332,255 $m^2$) of existing roads, and four new urban overpasses. Total cost: US$35.5 million (MXN$550.0 million); NADB Funding: US$9.9 million (MXN$153.4 million).

- A "Street Paving and Rehabilitation Project" in San Luis Rio Colorado, Sonora, is focused on 0.62 sq mi (1.6 $m^2$) of dirt roads. The principal focus of this project is improved air quality for more than 178,000 residents. The project includes paving 0.09 sq mi (235,200 $m^2$) of dirt roads, rehabilitation of 0.05 sq mi (124,800 $m^2$) of existing roads, and construction of two new bridges. Total cost: US$14.7 million (MXN$227.7 million); NADB Funding: US$8.6 million (MXN$133.2 million).

Similar projects have been completed in: Nogales, Sonora; Nuevo Laredo, Tamaulipas; and Puerto Peñasco, Sonora. Funds also have been used for a metropolitan road system in Playa de Rosarito, Baja California, and a comprehensive road rehabilitation project in Tijuana, Baja California. Projects also have been funded to improve conditions at ports of entry, including bypasses to reduce congestion and improve air quality.

# 9.0 IMPLEMENTATION

As described in the previous chapter, funding for implementation of transportation improvements is, at this time, uncertain. Therefore, identification of a program of projects to be implemented in the short-, mid-, and long-term timeframes would be tentative at best and potentially unreliable. Therefore, this chapter provides salient background information regarding the funding climate affecting project implementation.

## 9.1 LAND PORT OF ENTRY (LPOE) FUNDING PERSPECTIVE

Land Ports of Entries (LPOEs) are facilities under federal jurisdiction and include the land, buildings, internal roadways, and parking lots attributed to the LPOE.General Services Administration (GSA) performs program oversight to ensure LPOEs are developed to acceptable standards consistent with established guidelines. The LPOE Group, which operates within the Expert Resources Division of the Office of Design and Construction, is responsible for administration of the national LPOE program. New Mexico-Chihuahua border facilities are managed as part of the U.S. Southern Border Program, which operates out of GSA's National Office in Washington, D.C. LPOEs in the New Mexico-Chihuahua border region fall under the authority of the Greater Southwest Region (Region 7).

Border master plans (BMPs) are developed on a regional basis with Federal, State and local stakeholders from both the US and Mexico to assist with the prioritization of LPOE and transportation infrastructure projects. United States Customs and Border Protection (CBP) considers these BMPs in determining which projects are to be included in their annual *Land Port of Entry Modernization: Promoting Security, Travel and Trade* report. Within this report, CBP includes a list of projects that GSA and CBP have targeted for the next five years.GSA has a method for evaluating, proposing and securing funding for capital projects known as the Capital Investment and Leasing Program (CLIP). For those projects identified in CBP's *Land Port of Entry Modernization: Promoting Security, Travel and Trade* report, the GSA regional office prepares and submits a project design prospectus to GSA's National Office, where it is reviewed and integrated into the annual capital program, in accordance with GSA's allocated budget. The annual capital program is submitted to the Office of Management and Budget

(OMB) in the spring of the given fiscal year specified in the annual capital program. LPOE projects compete against other capital projects within the overall GSA capital program, which becomes part of a national budget developed with respect to the national funding target. If the LPOE project is approved with the GSA budget by OMB, it is included in the President's Budget that is presented to Congress the following February. Congress reviews, authorizes, and funds the budget or portions thereof, depending on negotiations with the President and conferences between the two houses of Congress. This same process is undertaken to secure authorization and funding for the construction phase of a capital project once project design is completed.

## 9.2 PROJECT DELIVERY PROCESS

Funding allocations generally are accomplished through a request from the project sponsor, preparation of budgets by the funding agency and administrator, and passage of authorization bills by a legislative body. Summary explanations of this process for transportation infrastructure projects and LPOE improvement projects are presented below.

### 9.2.1 TRANSPORTATION INFRASTRUCTURE PROJECTS

In New Mexico, NMDOT is identified as the responsible agency for constructing and maintaining all interstate and state highways. Fulfilling this responsibility involves sophisticated technical evaluation of potential projects and extensive public participation and outreach throughout the state. The NMDOT Program Management Division is a multi-disciplinary group of managers, engineers, technicians, and financial professionals. The Division is responsible for managing, supporting, and delivering projects identified in the State Transportation Improvement Program (STIP). The STIP is NMDOT's annual, four-year transportation program. It is cooperatively and/or consultatively planned, comprehensive in scope, incorporates innovative Federal and State resources, is fiscally constrained, and addresses multimodal transportation needs throughout the State. The STIP identifies multimodal transportation improvement projects to be supported by Federal transportation program funding, State Bonds, State priority funds, State Capital Outlay budget, and local government transportation funds. It includes projects of regional significance (projects with high public interest or air quality impacts) as well as improvement projects for National Parks,

National Forests, and Indian Reservations. The Project Production & Scheduling Bureau is charged with overall management of the STIP, a responsibility that includes project scheduling and contract letting.

The Office of Infrastructure Divisions provides a comprehensive array of professional services to the transportation industry in the State of New Mexico. Its mission is focused on delivering multimodal transportation projects, and the Office has the experience and expertise to take any transportation improvement project from concept through detailed design. The Office is comprised of six Divisions that permits the extension of planning and engineering services to the remote regions of the State through its newly developed Regional Design Centers. The South Regional Division works in cooperation with District One (Socorro, Caltron, Grant, Sierra, Doña Ana, Luna, and Hidalgo counties) and District Two to move forward the development of roadway improvement plans. This Division also houses the Office of International Programs (OIP), which facilitates binational and State coordination between NMDOT and transportation-related federal and state governmental agencies in Mexico, Texas, Arizona, and California. The South Regional Division also maintains liaisons with appropriate directors and division heads of USDOT, FHWA, state transportation officials, public service agencies, and the general public.

### 9.2.2 LPOES

The LPOE Group of GSA is responsible for the administration of the national LPOE program, and the GSA U.S. Southern Border Program Office oversees LPOEs in GSA Region 7 by Subject Matter Experts who are assigned to Fort Worth, Texas and San Diego, California. Representatives of GSA participate in partnerships and conferences affecting the Southern Border, such as the U.S./Mexico Joint Working Committee on Transportation Planning (JWC), Border Governors Conference, and U.S. State Department Bridges and Border Crossings Group Conference.

The LPOE Planning Process is specified at the GSA Web site and is reproduced here to ensure information regarding this important activity is accurate:

> *For any given fiscal year, the Department of Homeland Security, Customs and Border Protection (CBP) submits a list of prioritized LPOE capital projects to*

> *GSA for consideration and inclusion in GSA's fiscal year capital program submission to the Office of Management and Budget (OMB). Based on the list submitted by CBP, GSA regional offices begin to develop the project by contracting with a private sector A/E [Architecture/Engineering] firm to develop a project feasibility study. The feasibility study will define the project's scope, budgets and schedules, as well as supporting the project design prospectus submitted in a fiscal year's capital program.*

It is important to note that LPOE modernization projects undertaken by CBP comply with the National Environmental Policy Act (NEPA), National Historic Preservation Act (NHPA), Endangered Species Act (ESA), and related statutes. These and other requirements direct CBP to fully consider and understand the potential environmental consequences of proposed actions during the decision making process. While CBP anticipates Categorical Exclusions (CatEx) may be appropriate for repair and alterations of the LPOE facilities, the agency prepares Environmental Assessments (EAs) for each new construction activity. The EAs are used to evaluate potential impacts to the human and natural environments and determine whether more detailed Environmental Impact Statements (EISs) are necessary.

As all LPOE projects are binational in nature, in addition to the CBP/GSA planning process, all LPOE projects that pierce the border or substantially modify existing crossings of the international border require a Presidential permit that determines the LPOE (or modification thereof) is in the national interest. Per Executive Order (E.O. 11423, as amended by E.O. 13337) the President has delegated this authority to the U.S. Department of State. The Presidential permitting process requires strong U.S. Government inter-agency coordination and public input via the Federal Register.

CBP recognizes that modernization improvements and new capital construction projects may be affected by time and circumstances. Examples of potential barriers to effective implementation of improvement projects are: environmental compliance issues, finalizing design and related technical requirements, real estate/land acquisition, access to state highway rights of way, stakeholder coordination and communication, and budget constraints.

## 9.3 PROJECT LINKAGES

As implementation of the prioritized list of improvement projects proceeds, it is important to recognize that certain projects may be linked to each other in some form or fashion. An attempt has been made in the following sections to identify which of the evaluated projects may be linked to other projects based on the rationale described.

### 9.3.1 LPOE PROJECT LINKAGES

LPOE projects could be linked to other LPOE, Multimodal, or Rail projects in a variety of ways. Project linkages were identified where a relationship existed between a New Mexico LPOE project and a Chihuahua LPOE project. Additionally, implementation of an LPOE project could necessitate improvements to the multimodal infrastructure or rail infrastructure connecting to that LPOE.

For example, construction of a new rail LPOE in Santa Teresa (Project IDs 1004) would require coordination with the addition of similar processing capabilities in San Jerónimo (Project ID 4001). If these projects were to be implemented, it would also be necessary to provide the rail track infrastructure serving the LPOEs. This would correspond to Project ID 3003 in New Mexico and 6001 in Chihuahua.

Similar linkages were identified for many of the LPOE projects, as indicated on the Tables contained in Chapter 7.

### 9.3.2 MULTIMODAL INFRASTRUCTURE PROJECT LINKAGES

In addition to the relationship of multimodal infrastructure and LPOE projects discussed above, linkages between multiple multimodal infrastructure projects were also identified. These projects can be linked in many ways. For example, adjacent collinear segments of a roadway may be listed as separate projects, but could be considered linked, as is the case on McNutt Road (NM 273) in New Mexico (Project IDs 2006 and 2007).

Roadway projects could also be linked to intersection or interchange improvement projects, such as on Airport Road and Industrial Drive in New Mexico (Project IDs 2010, 2011, and 2016).

Finally, there could be certain multimodal projects that provide different recommended treatments to mitigate the same or similar deficiency, and may make sense to just select one of the proposed projects. For example, multiple design treatments have been identified for the intersection of MEX-45D at MEX-2 in Chihuahua (Project IDs 5007 and 5009).

### 9.3.3 RAIL PROJECT LINKAGES

For any proposed new rail corridor, linked projects would exist for new rail LPOEs in both New Mexico and Chihuahua, a discussed above in Section 9.3.1.

## 9.4 IMPLEMENTATION MONITORING OF PRIORITIZED PROJECTS

Clearly, the international border has become a dynamic point of social and economic exchange. The prioritization of projects provides a path for affecting the quality of this exchange and improving the ability of this region to move greater amounts of goods while enhancing personal travel opportunities. Project prioritization provides a structured guidance for implementing transportation improvement projects that can enhance accessibility, travel efficiency, and safety in the New Mexico-Chihuahua border region. A listing of projects characterized by importance or need, in and of itself, will not alone accomplish the task at hand. Without a strong program in place to move the projects forward, such a list has little value.

Therefore, it is suggested that an Implementation Monitoring Committee (IMC) be formed, contingent on the availability of *binational* funding. The IMC should include persons representing the highest levels of affected governments and appropriate stakeholders with direct and vested interests in project implementation. The Chairperson of this advocacy group should be one who can champion the cause, campaign for needed funding and political support, and defend the findings and conclusions of this study. The IMC, once formally established, would consider and define a proper term of service for the Chairperson, a process for selection or appointment of this position, and a succession plan. For the purpose of forming the IMC and developing its charter and by-laws, once sufficient binational funding is identified and secured, it is recommended that NMDOT take a leadership position to ensure support for formation of the committee and definition of its functional role in context with on-going binational coordination efforts in the New Mexico-Chihuahua Border Region.

The IMC should meet on a regular basis, perhaps semi-annually, to review the status of recommended projects and assess progress toward improvement goals. A performance assessment should be prepared to enable not only the tracking of progress on implementing high priority projects but, also, facilitating an understanding of overall improvement of transportation systems and services in the border region. The IMC should formulate a Report Card that will identify where successes have occurred and where obstacles have arisen. This Report Card would serve as guidance for future activities and actions by the IMC and its members.

Finally, the IMC should maintain close coordination with other important entities essential to the future vitality of international relationships pertaining to the New Mexico-Chihuahua border region and border communities. Two critical organizations important to the planning and programming of improvements are:

- **U.S./Mexico Joint Working Committee on Transportation Planning**, created October 12, 2000, operates with the direct support of the USDOT. Specific support responsibility rests with FHWA Office of Interstate and Border Planning. The JWC is a binational group with the primary focus of establishing and maintaining cooperative land transportation planning and program development activities to facilitate efficient, safe, and economical cross border transportation movements. It is organized and operates around a biennial work plan. The most recent work plan, proposed for the period 2013-2015, has 14 focus areas and includes preparation of Regional Border Master Plans, such as this one, plus various studies to improve operations and the LPOEs, examine financing needs, and assess the potential for Intelligent Transportation System applications.

- **U.S./Mexico Bridges and Border Crossings Group (BBBXG)** is co-chaired by the Mexican SRE and the U.S. Department of State (State Department) and operates under the umbrella of the JWC. The State Department is co-chair of the BBBXG, because it is the U.S. federal agency responsible for the Presidential permitting process of border crossings, which supports actions by the GSA to build or modify an international border crossing (refer to Executive Order 11423). The BBBXG reviews the status of all border

crossings, including planned or ongoing projects, along the 1,952 mile U.S./Mexico border. It engages in discussions relating to the operation and planning of existing and proposed international bridges, border crossings, and POEs, and exchanges views on technical and policy information. All relevant federal and state agencies from both sides of the border participate in this technical discussion, which also includes a public session.

In addition to the various actions noted above, the IMC should recognize and keep abreast of Federal and State – U.S. and Mexico – transportation and border facility coordination and programming initiatives to ensure projects on the prioritized list are integrated fully in the funding and permitting processes. The *IMC* may, at appropriate times, determine a need for interaction and coordination with other agencies and organizations:

- **United States**
    - General Services Administration (GSA)
    - Department of State (DOS)
    - Customs and Border Protection (CBP)
    - Federal Highway Administration (FHWA)
    - New Mexico Department of Transportation (NMDOT)
    - New Mexico Tourism Department
    - Counties of Hidalgo, Luna, Doña Ana
    - Cities of Santa Teresa, Columbus, Sunland Park, Las Cruces, Deming, Lordsburg
    - Regional Planning Agencies – Mesilla Valley Metropolitan Planning Organization (MPO), El Paso Metropolitan Planning Organization
    - Union Pacific Railroad (UPRR)
    - BNSF Railway (BNSF)
- Mexico
    - Instituto de Administración y Avaluos de Bienes Nacionales (INDAABIN)
    - Secretaría de Relaciones Exteriores (SRE)

- Administración General de Aduanas – Subadministración de Infraestructura (ADUANAS)
- Secretaria del Medio Ambiente y Recursos Naturales (SEMARNAT)
- Secretaria de Comunicaciones y Obras Publicas, Gobierno del Estado de Chihuahua (SCOP)
- Secretaria de Agricultura, Ganadería, Desarrollo Rural, Pesca y Alimentación (SAGARPA)
- Comisión Internacional de Limites y Aguas (CILA)

- Promotora de La Industria Chihuahuense
- Instituto Nacional de Migración (INM)
- Servicio de Administración Tributaria (SAT)

- Cities of Palomas, Juárez, Janos, Ascension
- Ferrocarril Mexicano (Ferromex)
- Secretaría de Comunicaciones y Transportes (SCT)
- Instituto Municipal de Investigación y Planeación (IMIP)

# 10.0 STAKEHOLDER INVOLVEMENT

Implementing an inclusive stakeholder involvement program was a critical part of building a foundation of cooperation among the Policy Advisory Committee (PAC), Technical Working Group (TWG) and other interested parties. The study team worked closely with NMDOT leadership and the State of Chihuahua, in particular with Promotora de la Industria Chihuahuense, to identify and invite executive-level agency managers of federal, state, regional and local entities, from both the United States and Mexico, to participate. This resulted in the development of a PAC. The PAC then designated its senior agency technical staff to participate in the TWG.

The PAC and TWG worked together with the study team to develop and approve the stakeholder involvement plan. In addition to meetings, this plan also included the development and distribution of a series of newsletters (provided in Appendix E) and a project website. http://nm-chihbmp.org

## 10.1 COMMITTEE MEETINGS

During the course of the study, two PAC meetings and four TWG meetings were held, along with three joint PAC/TWG meetings. The final joint PAC/TWG meeting was held in July, 2015, to review the full project list, associated scoring and final project rankings. The nine committee meetings are listed in Table 10-1. A record of these meetings is available in Appendix C.

The meetings were held in Santa Teresa and Chihuahua. Meetings featured simultaneous translation to accommodate committee members who are not bilingual. Regular stakeholder meetings and consistent communication throughout the study timeframe ensured that stakeholder input was considered. The focus on steady communication resulted in a consensus-based plan that meets the needs of those involved and fulfills BMP goals.

| Table 10-1 Committee Meetings | | |
|---|---|---|
| **PAC Meetings** | **TWG Meetings** | **Joint PAC/TWG Meetings** |
| **January 14, 2015**<br>Santa Teresa, NM<br>29 attendees | **November 12, 2014**<br>Santa Teresa, NM<br>29 attendees | **October, 14, 2014**<br>Sunland Park, NM<br>47 attendees |
| **March 19, 2015**<br>Chihuahua, Chih.<br>24 attendees | **February 11, 2015**<br>Santa Teresa, NM<br>30 attendees | **June 9, 2015**<br>Santa Teresa, NM<br>31 attendees |
| | **March 10, 2015**<br>Santa Teresa, NM<br>28 attendees | **July, 2015**<br>Santa Teresa, NM |
| | **April 30, 2015**<br>Santa Teresa, NM<br>28 attendees | |

## 10.2 STAKEHOLDER / FOCUS GROUP MEETINGS

The focus group sessions held in Santa Teresa and Deming, New Mexico, as listed in Table 10-2, were an important part of the BMP stakeholder outreach. Forty-two participants from both sides of the border represented the following interests:

- Commerce, border trade advocacy groups and workforce providers
- Freight and railroad associations
- Developers, landowners and school representatives
- Law enforcement and emergency service providers
- Local, state and federal entities

Each focus group session started (and concluded) with a 30-minute open house format allowing attendees to review project exhibits and ask questions of the study team. A 30-minute presentation was also conducted by the study team, where attendees learned about the study's purpose, process, schedule and deliverables. Afterward, attendees were given the opportunity to ask general questions that were answered by the study team and/or NMDOT,

CBP, GSA or local officials. Attendees were also offered the opportunity to ask questions in smaller groups or in a one-on-one setting adjacent to the exhibit area.

**Table 10-2 Stakeholder / Focus Group Meetings**

| Focus Group Sessions | |
|---|---|
| **February 11, 2015**<br>Sunland Park, New Mexico | **April 29, 2015**<br>Deming, New Mexico |

## 10.3 IMPORTANT LINKS

- New Mexico Department of Transportation
  *http://dot.state.nm.us/content/nmdot/en.html*
- U.S./Mexico Joint Working Committee on Transportation Planning:
  *www.borderplanning.fhwa.dot.gov/masterplans.asp*
- U.S. Bureau of Transportation Statistics, North American Border Crossing/Entry Data:
  *www.bts.gov/programs/international/transborder/TBDR_BC/TBDR_BC_Index.html*
- Secretaría de Comunicaciones y Transportes:
  *www.sct.gob.mx*
- For additional New Mexico-Chihuahua background, including previous newsletters, see:
  *http://nm-chihbmp.org*

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# APPENDIX A

## List of Relevant Studies

**Appendix A – List of Relevant Studies**

| Document Name | Description | Author | Date | Status |
|---|---|---|---|---|
| **Framework Studies** | | | | |
| Statewide Long-Range Transportation Plan | Provide for the development, implementation, management, and operations of transportation systems and facilities in an effort to function as an intermodal system. | New Mexico Department of Transportation (NMDOT) | Underway | Active Development |
| New Mexico State Rail Plan | This plan provides a broad planning framework for passenger and freight rail network within New Mexico, articulates the existing and future role of rail, and identifies rail improvement projects. | NMDOT | April 2014 | Final Report |
| New Mexico 2030 Multimodal Freight Study | Integrates freight issues within statewide transportation planning and investment activities. | NMDOT | 2009 | Complete, Final |
| Texas Department of Transportation (TxDOT) El Paso Region Freight Rail Study, Phases I and II | This Phase II report for the El Paso Region Freight Rail Study is a supplement to the Phase I report previously completed in 2011, and begins with a reevaluation of the freight rail network previously developed for the six-county study area of the TxDOT El Paso District. | TxDOT | April, 2011 and July, 2013 | Phase I and II – Final Reports |
| New Mexico 2030 Statewide Multimodal Transportation Plan | Plan defines NMDOT Mission and Vision and is established to guide development of State transportation policies, internal protocols, design standards, planning activities, staffing decisions; and funding priorities for traditional and nontraditional, i.e., non-motorized modes of travel. | NMDOT | 2009 | Complete, Final |
| **Border Specific Studies** | | | | |
| El Paso / Santa Teresa - Chihuahua Border Master Plan, TxDOT | Comprehensive Bi-National Long-Range Plan developed to facilitate trade, prioritize improvements, and promote planned POE and transportation-related projects. | Texas Department of Transportation (TXDOT) | 2013 | Complete |
| NMDOT Transportation Investment Generating Economic Recovery (TIGER) Grant Application – Santa Teresa Border Area Transportation Needs Assessment - Strategic Plan; Project Narrative - Attachment to SF-424 Supporting and Application for TIGER Discretionary Grant Funding, prepared by NMDOT and USDOT, April,2014. | US Department of Transportation (USDOT) Application funding to create a coordinated method to benefit from all planning, maintenance, & capital improvement projects.<br><br>This TIGER Grant was not awarded to Doña Ana County in 2014 for this project, however the USDOT has a call out for the next round of TIGER projects, and the pre-application for the County for submittal on this same project is due June 2015. | NMDOT | April, 2014 | Complete |
| Santa Teresa Rail Relocation Study: Feasibility study of Rail Bypass & International Border Crossing. | Determine the feasibility of a new rail bypass and rail crossing near the Santa Teresa Port of Entry (POE) to support Presidential Permit application process; conduct environmental studies; coordinate with Union Pacific Railroad (UPRR) and BNSF Railway, State of Chihuahua, and Ciudad Juarez to complete cost-benefit analysis, phasing studies, financing, and development scenario. | NM Border Authority, (NMBA) | December, 2015 | On-going |
| Village of Columbus/POE Master Drainage Plan | Analyze the drainage runoff area in the vicinity of the Village of Columbus, including the Columbus POE. | NMDOT | 2010 | Complete |

**Appendix A – List of Relevant Studies**

| Document Name | Description | Author | Date | Status |
|---|---|---|---|---|
| Bi-National Industrial Campus Master Plan | 70,000 acre, Bi-National, Master Planned Community north and south of the Santa Teresa/San Jerónimo border crossing. | New Mexico & Chihuahua | 2013 | Complete |
| New Mexico Railroad Bypass and Bi-National Border Crossing Alignment and Feasibility Study | Request for Qualifications/Scope of Work | NMBA | May-14, 2011 | Complete |
| International Trade Corridor Plan | Documents trade activity by truck and rail at 13 POEs, including two in El Paso. | TxDOT | 2010 and 2012 | Complete |
| Border Trade Advisory Committee Report - 2012 | Committee defines and adopts strategies and recommendations to the Texas Transportation Commission regarding trade activity, challenges, and infrastructure improvements, including El Paso. | TxDOT | 2012 | Complete |
| Texas North American Free Trade Act (NAFTA) Study Update | Provides information regarding truck and rail trade levels through El Paso and identifies improvement alternatives. Provides perspective on potential level of rail movements on proposed El Paso Rail Bypass and International Beltway connecting Mesilla Valley, NM, and Chihuahua, Mexico. | TxDOT | February, 2007 | Final Report |
| US Mexico Border Needs Assessment and Support Project, Phase 1 Scoping Assessment Report | Results of research associated with a joint US Environmental Protections Agency (USEPA) and US Department of Agriculture (USDA) initiative to estimate coverage gaps in water and waste disposal infrastructure in this area with more detailed assessments in selected colonias. Describes socio-economic conditions and the overall need of water and waste disposal infrastructure of the area of focus and identifies target areas where communities appear to demonstrate the highest need. | UUSEPA and USDA | April, 2014 | Final |
| Verde Santa Teresa Intermodal Park | 1,442 acre master-planned, rail-served industrial park. 4,283 feet of railroad track and switch will service the first phase totaling 172 acres. Directly connected to the Union Pacific Railroad (UPRR) Main Line. Phase I is located within Foreign-Trade Zone No. 197. | Verde Corporate Realty Services | Acquired 2014 | Presentation |
| Binational Border Transportation Infrastructure Needs Assessment Study | Examines border transportation infrastructure between the United States and Mexico. | US/Mexico Joint Working Committee on Transportation Planning (JWC) | 2004 | Revised Executive Summary |
| Truck Transportation Through Border Ports of Entry: Analysis of Coordination Systems | Report summarizes findings of a binational study examining stakeholder coordination problems that compromise the efficiency and integrity of the US – Mexico border-crossing process for truck trade. Appendix B addresses the N-B border crossing process; Appendix D addresses coordination problems and alternative solutions. | Texas Transportation Institute (TTI) | 2002 | Final |

**Appendix A – List of Relevant Studies**

| Document Name | Description | Author | Date | Status |
|---|---|---|---|---|
| "Bottleneck Study," Transportation Infrastructure and Traffic Management Analysis of Cross-Border Bottlenecks | This study examines the bottlenecks at the US/Mexico ports of entry (POEs). | Caltrans at JWC | 2004 | Revised Executive Summary |
| Extension of Border Zone in the State of New Mexico, Final Rule, US Department of Homeland Security (USDHS), 8 CFR Part 235 | Extends the distance certain Mexican nationals admitted to the United States as nonimmigrant visitors may travel in New Mexico without obtaining a Form I–94 from 25 miles to 55 miles from the US/Mexico border. | US DHS | CFR - Wednesday, June 12, 2013 | Final |
| **Regional Transportation Plan (RTPs)/Comprehensive Plans/General Plans** | | | | |
| Mesilla Valley Metropolitan Planning Organization (MVMPO) Long Range Plan (2040) | Guides multimodal transportation planning, construction, operation, and maintenance of an integrated transportation network for the Las Cruces urbanized area. | MVMPO | 2010 | Currently being updated |
| Mesilla Valley MPO Asset and Safety Management Plan | Plan to create a process for regional asset management jurisdictions within the MVMPO | MVMPO | 2014 | On-going |
| El Paso MPO Long Range Plan (2040) | Short- and long-range plan with strategies/actions for development of an integrated transportation system that facilitates the efficient movement of people and goods. | EPMPO | 2013 | Complete |
| Viva Doña Ana Comprehensive Plan | A county-wide study focused on quality of life issues such as transportation, sustainability, Smart Growth, environment, economic development, and housing. | Doña Ana County | 2013 | On-going |
| NMDOT Statewide Transportation Improvement Program (TIP), FY 2014-2017, Amendment 1, Approved NMDOT/FHWA/FTA 11/20/13 | Lists transportation improvement projects for NMDOT Districts: District 1 | NMDOT | 2013 | Complete |
| Mesilla Valley MPO (MVMPO) Surface TIP 2014-2019 | Lists improvement projects for Las Cruces Metropolitan Area surface transportation system | MVMPO | 2013 | Complete |
| MVMPO Airport TIP 2014-2019 | Lists improvement projects for Las Cruces International Airport | MVMPO | 2013 | Complete |
| Comprehensive Transportation Study for City of Deming/Luna County | Addresses an array of transportation-related issues, including roadway capacity, safety, maintenance of existing facilities, and designation of future corridors. | City of Deming and Luna County | 2009 | Complete, Final |
| Transborder 2035 Metropolitan Transportation Plan | A transportation plan for the area that reflects a joint vision for the future. Plan encompasses cities of El Paso and Socorro, Texas, and Sunland Park, New Mexico, and Ciudad Juárez, Chihuahua, Mexico. | EPMPO | 2007 | Final |
| Plan Integral de Transporte para CD. Juárez-El Paso-Sur de Nuevo México | Ciudad Juárez – El Paso – Southern New Mexico Comprehensive Transportation Plan, Secretaría de Comunicaciones y Transportes (SCT) | Ciudad Juárez | 2014 | Complete |
| Plan de Desarrollo Urbano de Ciudad Juárez | City of Juárez Urban Development Plan | Ciudad Juárez | 2010 | Complete |
| Plan Estatal de Desarrollo del Estado de Chihuahua 2010-2016 | State of Chihuahua National Development Plan (2010-2016) | Chihuahua | 2010 | Complete |

**Appendix A – List of Relevant Studies**

| Document Name | Description | Author | Date | Status |
|---|---|---|---|---|
| Plan Maestro para el Desarrollo Urbano de los Sectores S-2 y S-5 de San Jerónimo | Master Urban Development Plan for San Jerónimo, Sectors S-2 and S-5 | Ciudad Juárez | 2013 | Complete |
| San Jerónimo residential and industrial expansions Master Plan | Master Plans for San Jerónimo, including residential and industrial expansions, Free Trade Zone | Ciudad Juárez | 2013 | Complete |
| San Jerónimo Free Trade Zone Master Plan | Master Plans for San Jerónimo, including residential and industrial expansions, Free Trade Zone | Ciudad Juárez | 2013 | Complete |
| Sunland Park/Anapra "Metroplex Vision" Master Plan | | City of Sunland Park | 2007 | Complete |
| **Corridor Studies** | | | | |
| NM-136 Verde Realty Access Project Location Study Report Phase A and B | Access control study for NM-136 from the POE to the Texas state line | Verde Realty/NMDOT | 2007 | Complete |
| West Mesa Corridor Study | Aka "High Mesa Road." Study will look at a parallel roadway to Interstate 10, on the West Mesa of Las Cruces, to divert the anticipated large volume of truck traffic from the Santa Teresa POE, Intermodal Rail Park, and Industrial Parks within the vicinity away from I-10. Proposed alignment will connect to NM-136 and continue north for approximately 30 miles along the West Mesa to I-10, with options to connect at Jackrabbit Interchange, Airport Interchange, and/or the Corrallitos Interchange.<br>Phase A: Initial Evaluation of Alternative Alignments from the Santa Teresa Industrial Park to I-10 west of Las Cruces<br>Phase B: Land Use and Environmental Impact Assessments | NMDOT | December, 2013 | On-going |
| NM 136 Pavement Evaluation/Alignment Study | Analyzes the need for improvements on the existing facility (NM-136) and identifies potential new projects, with design of roadway improvements | NMDOT | 2014 | On-going |
| Doña Ana County Road A-017/Strauss Road Alignment Study | Identifies alternative alignments for preliminary design, leading to final design | NMDOT | May, 10 | Complete |
| Columbus POE Bypass Road Study | Alignment study and design of the Columbus POE Bypass Road. | NMDOT | 2007 | Complete |
| Viva Doña Ana El Camino Real Corridor Study, 2014 | This report summarizes existing conditions for the 92-mile Camino Real Corridor Management Plan. | Doña Ana County | 2014 | On-going |
| **Development Studies** | | | | |
| Santa Teresa Weigh and Inspection Facility Traffic Impact Analysis | Identify the impacts of the proposed facility at the intersection of NM-136/Bi-National Rd. on the adjacent transportation system. | NMDOT | 2009 | Complete |
| "Strauss Yard Site Plan" | Traffic analysis for the UPRR Intermodal Yard that determines the impacts of the proposed facility on the existing street network and recommended mitigation measures. | Union Pacific/Doña Ana County | 2010 | Complete |

**Appendix A – List of Relevant Studies**

| Document Name | Description | Author | Date | Status |
|---|---|---|---|---|
| Verde Logistics Industrial Park/Santa Teresa Traffic Impact Analysis | Identifies the impacts of the proposed development on the existing street network and recommends mitigation measures | Verde Realty | 2011 | Complete |
| Villa Valencia Subdivision Traffic Impact Analysis | Santa Teresa residential development at the intersection of NM-136 and McNutt Road. | City of Sunland Park | 2013 | Complete |
| West Mesa Industrial Park (Development Plan Map) | 1,820 acres and is located on Interstate 10, eight miles west of downtown Las Cruces and immediately south of the Las Cruces International Airport. | Mesilla Valley Economic Development Alliance (MVEDA) | 2012 | Development Plan |
| Santa Teresa Regional Focus and Regional Assets (Maps) | Major development activity and key public and private economic activities. | MVEDA | 2014 | Complete |
| Bi-National Park at Santa Teresa (Development Plan Map) | 230 acres of industrial-zoned real estate adjacent to the US and Mexico customs facilities at the Santa Teresa International POE | MVEDA | 2012 | Development Plan |
| Santa Teresa Logistics Park (Development Plan Map) | 225 industrial-zoned acres with two million square feet of industrial space built and over three million square feet planned for new development. The park is served by a short-line railroad operation connecting to the UPRR Main Line running through the park. | MVEDA | 2014 | Development Plan |
| Santa Teresa-Verde Master Plan (Development Plan Map) | industrial development in Santa Teresa; the first phase in the creation of a master-planned bi-national city between the border and I-10 – includes Bi-National Park at Santa Teresa and Santa Teresa Logistics Park | MVEDA | 2012 | Development Plan |
| Sunland Park, NM/Anapra, Chihuahua, International POE | Proposal for new POE at Sunland Park/Anapra on triangular site of 111+ acres between UPRR main line and Carretera Anapra San Jerónimo Road in Juarez, Chihuahua, at NM-498 (Anapra Road), including new access road connecting to Sunland Park Drive with overpass of UPRR. | NM Finance Authority (NMFA) and City of Sunland Park, NM | 2012 | Development Concept |
| **Miscellaneous** | | | | |
| San Jerónimo/Santa Teresa Bi-National Community Task Force | Bi-National Agreement to promote and facilitate economic development of both states and the border region's economy at the San Jerónimo/Santa Teresa POE. Three committees are active: Marketing, Logistics, and Smart Water Use/Clean Energy. | Task Force | 2014 | On-going |
| New Mexico Border Authority Port of Entry Traffic Counts | Annual and monthly data for total pedestrian, passenger vehicle, and truck traffic, including wait-times analysis. | NMBA | Monthly | On-going |
| Rail In The Pass: Past, Present, and Future Impacts of Rail in the El Paso Region | Examines challenges and concerns for commercial trucks and rail crossings. Addresses current rail connections, crossings, rail traffic flow, environmental, regional west and international ports. An overview of recommendations is presented as well as a plan for implementation. Introduces new rail bypass west of Juarez and provides information on current rail service in New Mexico, Texas, and Chihuahua. | El Paso Metropolitan Planning Organization (EPMPO) | 2008 | Final |

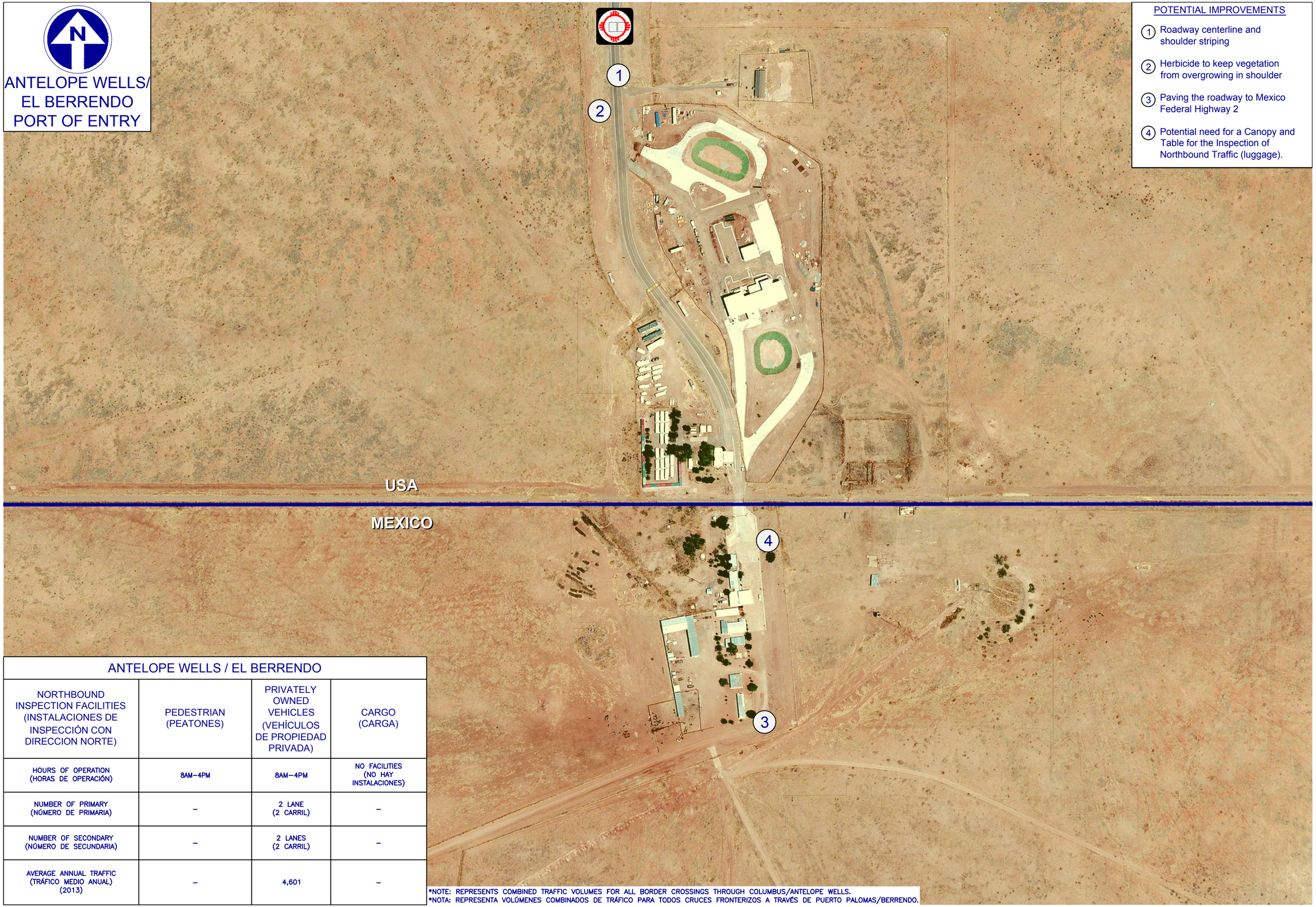
**Appendix A – List of Relevant Studies**

| Document Name | Description | Author | Date | Status |
|---|---|---|---|---|
| Upper Valley Traffic Study, El Paso, Texas (Vol. 1) | This study examines the growth forecasted for the Upper Valley area [northwest of El Paso] and provides recommendations on necessary road improvements required to meet future travel demand. | City of El Paso | 2008 | Final |

# APPENDIX B

## Aerial Photos of LPOEs with Tabulated Traffic Data

# ANTELOPE WELLS/ EL BERRENDO PORT OF ENTRY




POTENTIAL IMPROVEMENTS

1. Roadway centerline and shoulder striping
2. Herbicide to keep vegetation from overgrowing in shoulder
3. Paving the roadway to Mexico Federal Highway 2
4. Potential need for a Canopy and Table for the Inspection of Northbound Traffic (luggage).

| ANTELOPE WELLS / EL BERRENDO | | | |
|---|---|---|---|
| NORTHBOUND INSPECTION FACILITIES (INSTALACIONES DE INSPECCIÓN CON DIRECCION NORTE) | PEDESTRIAN (PEATONES) | PRIVATELY OWNED VEHICLES (VEHÍCULOS DE PROPIEDAD PRIVADA) | CARGO (CARGA) |
| HOURS OF OPERATION (HORAS DE OPERACIÓN) | 8AM–4PM | 8AM–4PM | NO FACILITIES (NO HAY INSTALACIONES) |
| NUMBER OF PRIMARY (NÚMERO DE PRIMARIA) | – | 2 LANE (2 CARRIL) | – |
| NUMBER OF SECONDARY (NÚMERO DE SECUNDARIA) | – | 2 LANES (2 CARRIL) | – |
| AVERAGE ANNUAL TRAFFIC (TRÁFICO MEDIO ANUAL) (2013) | – | 4,601 | – |

*NOTE: REPRESENTS COMBINED TRAFFIC VOLUMES FOR ALL BORDER CROSSINGS THROUGH COLUMBUS/ANTELOPE WELLS.
*NOTA: REPRESENTA VOLÚMENES COMBINADOS DE TRÁFICO PARA TODOS CRUCES FRONTERIZOS A TRAVÉS DE PUERTO PALOMAS/BERRENDO.

# COLUMBUS/ PUERTO PALOMAS PORT OF ENTRY

## POTENTIAL IMPROVEMENTS

1. Direct Access into Cargo Inspection Area
2. LPRs at Outbound Inspection
3. Full length dock spaces for devanning operations
4. Pavement reconstruction at Commercial Exit
5. Greater separation of school bus pickup canopy and truck pull off area
6. POV Lanes are narrow. Traffic must make a 90° turn into POV secondary and toward the exit.
7. Dock space is limited.

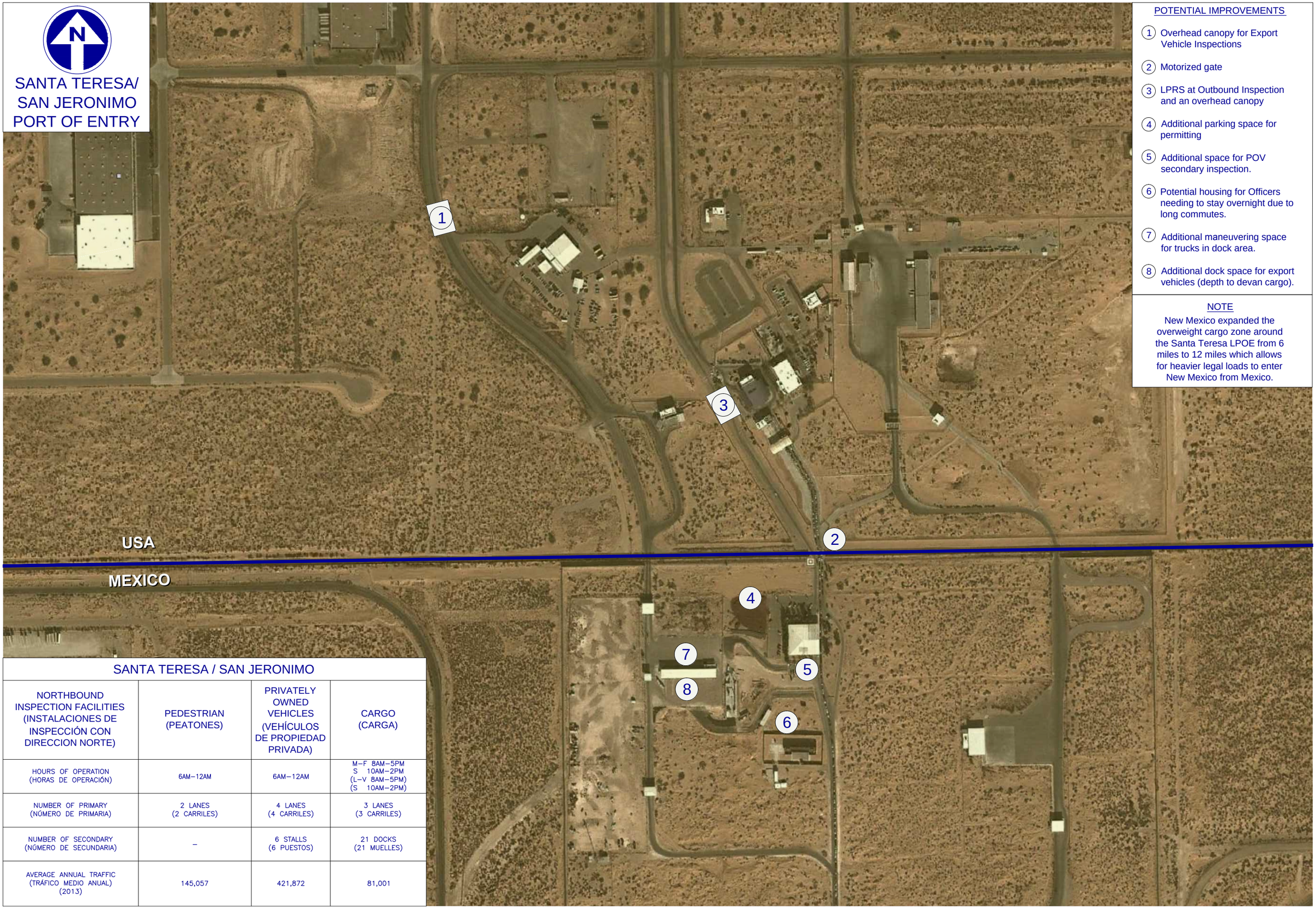
## NOTE

New Mexico expanded the overweight cargo zone around the Columbus LPOE from 6 miles to 12 miles which allows for heavier legal loads to enter New Mexico from Mexico.

## COLUMBUS / PUERTO PALOMAS

| NORTHBOUND INSPECTION FACILITIES (INSTALACIONES DE INSPECCIÓN CON DIRECCION NORTE) | PEDESTRIAN (PEATONES) | PRIVATELY OWNED VEHICLES (VEHÍCULOS DE PROPIEDAD PRIVADA) | CARGO (CARGA) |
|---|---|---|---|
| HOURS OF OPERATION (HORAS DE OPERACIÓN) | 12PM–12PM | 12PM–12PM | M–F 9AM–5PM (L–V 9AM–5PM) |
| NUMBER OF PRIMARY (NÚMERO DE PRIMARIA) | 1 LANE (1 CARRIL) | 2 LANES (2 CARRILES) | – |
| NUMBER OF SECONDARY (NÚMERO DE SECUNDARIA) | – | 4 STALLS (4 PUESTOS) | 9 DOCKS (9 MUELLES) |
| AVERAGE ANNUAL TRAFFIC (TRÁFICO MEDIO ANUAL) (2013) | 260,600 | 247,632 | 12,007 |

# SANTA TERESA/ SAN JERONIMO PORT OF ENTRY




## POTENTIAL IMPROVEMENTS

1. Overhead canopy for Export Vehicle Inspections
2. Motorized gate
3. LPRS at Outbound Inspection and an overhead canopy
4. Additional parking space for permitting
5. Additional space for POV secondary inspection.
6. Potential housing for Officers needing to stay overnight due to long commutes.
7. Additional maneuvering space for trucks in dock area.
8. Additional dock space for export vehicles (depth to devan cargo).

## NOTE

New Mexico expanded the overweight cargo zone around the Santa Teresa LPOE from 6 miles to 12 miles which allows for heavier legal loads to enter New Mexico from Mexico.

## SANTA TERESA / SAN JERONIMO

| NORTHBOUND INSPECTION FACILITIES (INSTALACIONES DE INSPECCIÓN CON DIRECCION NORTE) | PEDESTRIAN (PEATONES) | PRIVATELY OWNED VEHICLES (VEHÍCULOS DE PROPIEDAD PRIVADA) | CARGO (CARGA) |
|---|---|---|---|
| HOURS OF OPERATION (HORAS DE OPERACIÓN) | 6AM–12AM | 6AM–12AM | M–F 8AM–5PM<br>S 10AM–2PM<br>(L–V 8AM–5PM)<br>(S 10AM–2PM) |
| NUMBER OF PRIMARY (NÚMERO DE PRIMARIA) | 2 LANES (2 CARRILES) | 4 LANES (4 CARRILES) | 3 LANES (3 CARRILES) |
| NUMBER OF SECONDARY (NÚMERO DE SECUNDARIA) | – | 6 STALLS (6 PUESTOS) | 21 DOCKS (21 MUELLES) |
| AVERAGE ANNUAL TRAFFIC (TRÁFICO MEDIO ANUAL) (2013) | 145,057 | 421,872 | 81,001 |

# APPENDIX C

## Committee Meeting Record

# COMMITTEE MEETING RECORD

| MEETING | DATE |
|---|---|
| Policy Advisory Committee/ Technical Working Group Kickoff Meeting | October 14, 2014 |
| Technical Working Group Meeting #2 | November 12, 2014 |
| Policy Advisory Committee Meeting #2 | January 14, 2015 |
| Technical Working Group Meeting #3 | February 11, 2015 |
| Technical Working Group Meeting #3A | March 10, 2015 |
| Policy Advisory Committee Meeting #3 | March 19, 2015 |
| Technical Working Group Meeting #4 | April 30, 2015 |
| Policy Advisory Committee/ Technical Working Group Scoring Meeting | June 9, 2015 |
| Policy Advisory Committee/ Technical Working Group Results Meeting | July 24, 2015 |

**Agenda**
**New Mexico - Chihuahua Border Master Plan**
**Policy Advisory Committee and Technical Working Group**
**Kick-off Meeting**

**Tuesday, October 14, 2014; 1:30 PM – 3:30 PM**
**Gadsden Administrative Complex, 4950 McNutt Road**
**Sunland Park, NM 88063, Phone: (575) 882-6200**

1:30 PM Welcome and Introductions
Homerio Bernal, Project Manager, New Mexico Department of Transportation (NMDOT)
Sergio Jurado Medina, Undersecretary of Economy, State of Chihuahua

1:50 PM Goals and Objectives of the Study
Homerio Bernal, NMDOT

2:00 PM Roles and Responsibilities of the PAC and TWG
Homerio Bernal, NMDOT

2:10 PM Review, Refine and Approve Project Work Plan, including:
- Scope of Work
- Schedule
- Stakeholder Outreach Plan
- Study Area Boundary

Bill Ferris, Project Manager, Stantec Consulting

3:00 PM Stakeholder/Audience Comments

3:20 PM Schedule Next Meeting –
*tentatively* Wednesday, 11/19/2014; 9 AM – Noon

3:30 PM Adjourn

Stantec

# Meeting Notes

| | | | |
|---|---|---|---|
| To: | New Mexico Department of Transportation (NMDOT) – Homerio Bernal, Project Manager (PM) | From: | Bill Ferris – Consultant PM |
| File: | 1817 10110 | Date: | November 4, 2014 |

**Reference: New Mexico-Chihuahua Border Master Plan (BMP)**
**PAC / TWG Kickoff Meeting Notes (10/14/2014)**

The kickoff meeting was held at the Gadsden Administrative Complex, Board Room, in Sunland Park, NM on Tuesday, October 14, 2014 at 1:30 pm. A list of attendees is attached. Highlighted discussions of the meeting were as follows:

- Welcome and Introductions were given by Homerio Bernal, NMDOT PM and Sergio Jurado Medina, Undersecretary of Economy, State of Chihuahua.

- The evolution of the Border Master Plans, stemming from the objectives of the US-Mexico Joint Working Committee on Transportation Planning, was discussed by Homerio Bernal. Homerio also noted the completion of several other BMPs by the states on the US-Mexican border.

- Goals and Objectives were described in detail by Homerio Bernal.

- Roles and Responsibilities of the Policy Advisory Committee (PAC) and the Technical Working Group (TWG) were described in detail by Homerio Bernal.

- The Project Work Plan (PWP) and detailed scope of work were summarized by Bill Ferris, Consultant PM. Key components included:

    1. A brief overview of the major tasks that comprise the BMP Scope of Work. A synopsis (graphic) of the plan is contained on the last page of the Project Work Plan.

    2. The study team provided a draft list of all of the relevant studies, currently under review by the team, and requested review and feedback on whether any reports are outdated or missing. Several markups were provided by the participants.

    3. An outline of the general schedule was provided highlighting major milestones including the website activation in October, the submittal of Tech. Memo #1 – Land Port of Entry Review, in November and anticipated project completion in July, 2015.

Reference: **New Mexico-Chihuahua Border Master Plan (BMP) PAC / TWG Kickoff Meeting Notes (10/14/2014)**

4. An overview of the Stakeholder Outreach Plan was provided highlighting the approach to soliciting feedback from the many project stakeholders. The Focus Group meetings will include an initial open house style forum where participants may view wall mounted exhibits and ask questions, followed by a 20-30 minute general presentation, topic specific breakout sessions (with smaller groups) and concluding with another open house opportunity for one-on-one discussions with the study team.

5. Identification of the DRAFT Focus Area. An area extending from the border to a point 10 miles both north and south of the border. A modification was further proposed by the consultant team to extend the limits to 25 miles on the US side of the border in the vicinity of Sunland Park and Santa Teresa. A similar modification was proposed on the Mexican side of the border near San Jeronimo and Juarez. ***Following discussion, the participants recommended a modified map targeting an increase of the Focus Area to include major transportation corridors (e.g. – Route 11 from the Columbus Land Port of Entry to I-10). While it was debated whether the entire length of Route 11 would improve the efficiency and/or effectiveness of cross-border traffic, the consultant team committed to revising the Draft map for consideration (attached).***

6. Similarly, the proposed Area of Influence was summarized as a zone for data collection that would extend to a point approximately 50 miles north from the international border, to include the I-10 corridor and the city of Las Cruces; and, 80 miles south of the international border to include the cities of Janos and Ascension - primarily focused on the major transportation corridors. There was discussion on the merits of reducing the Area of Influence in Chihuahua, but ensuring the inclusion of San Jeronimo, Juarez and Guadalupe. ***The consultant team committed to revising the Draft map for consideration (attached).***

7. Bill Ferris noted that the study team had developed a formal Project Work Plan and Stakeholder Outreach Plan. Both documents had been distributed to candidate PAC and TWG members for review. A few minor editorial comments have been received and subsequently incorporated. ***Bill requested approval from the participants – following some discussions the documents were approved without any dissenting votes.***

8. Participants commented on the importance of coordinating the Border Master Plan with the Transportation Planning Organizations El Paso MPO and Southwest RTPO as well as providing consistency with the NMDOT State Long Range Plan.

Reference: **New Mexico-Chihuahua Border Master Plan (BMP) PAC / TWG Kickoff Meeting Notes (10/14/2014)**

9. Participants requested the inclusion of the El Paso area as part of the Area of Influence due to the commercial and POV traffic that does affect the Santa Teresa POE region, and southern New Mexico.

- The next meeting was scheduled with the TWG for November 12, 2014, from 9 am until noon. Because of concern regarding the acoustics and the ability for call-in participants to hear the conversations, the site of the next meeting was not confirmed. Subsequent to the meeting it was confirmed that the ensuing meeting will be held at the War Eagles Air Museum, 8012 Airport Rd, Santa Teresa, NM 88008.

- The meeting adjourned at approximately 3:30 pm.

**STANTEC CONSULTING SERVICES INC.**

William R. Ferris, Jr, PE
Senior Principal, Transportation
(602) 707-4693
bill.ferrisjr@stantec.com

Attachments: Revised/DRAFT Focus Area and Area of Influence maps

c. PAC members, TWG members, Consultant Team - Dan Marum, Omar Cervantes, Alvin Dominguez, Mario Juarez-Infante, Jeff Dana, Rosa Maria Boadella

Reference: **New Mexico-Chihuahua Border Master Plan (BMP) PAC / TWG Kickoff Meeting Notes (10/14/2014)**

## New Mexico-Chihuahua Border Master Plan
## PAC / TWG Kickoff Meeting Attendees (10/14/2014)

| | |
|---|---|
| Achaval, Lic. Rosalia Ochoa | Promotora De La Industria Chihuahuense |
| Barragan, Salvador | IMIP City of Juarez |
| Becerra, Adriana Rivera | INDAABIN – PTS. Region Chih I |
| Chavarria, Aaron | NMDOT |
| Chavez, Michael | Deming School District |
| Coleman, Robert | Sunland Park Public Works |
| De la O, Erika | NMBA |
| Diaz de Leon, Roberto | Sunland Park |
| Dominguez, Ricardo | Sunland Park |
| Doolittle, Trent E | NMDOT |
| Duran, Gabriel | US International Boundary & Water Commission |
| Garcia, Dr. David J. | Dona Ana County |
| Escobar, Lorenzo Gabriel Pico | Instituto Nacional de Migracion |
| Gomez, Cesar | CBP DHS |
| Grijalva, Cerisse | SW NM COG |
| Grijalva, Sylvia | FHWA |
| Hall, Tony | CBP |
| Hart, Charlie | GSA |
| Hortert, Daniel | Doña Ana County |
| Ibarbo, Peter | New Mexico Congressman Pearce Office |
| Kotkowski, Miriam | Omega Truck |
| Lopez, Jorge | PICH |
| Love, Harold A. | NMDOT |
| Mattiace, William | New Mexico Border Authority |
| McAdams, Michael A. | Mesilla Valley MPO |
| McLaughlin, Anne | NMDOT |
| Medina, Lic. Sergio Jurado | Promotora De La Industria Chihuahuense |
| Monge-Oviedo, Rodolfo | FHWA – NEW MEXICO DIVISION |
| Pacheco, Jerry | New Mexico International Business Accelerator |
| Partida, Danny | GSA |
| Perea, Javier | MAYOR Sunland Park |
| Poo, Manuel Lopez | IMIP City of Juarez |
| Proctor, Jesse G | CBP DHS |
| Reyes, Armando | CILA |
| Reza, Robert | CBP DHS |
| Saavedra, Lic. Wilfrido Campbell | Instituto Nacional de Migracion |

Reference: **New Mexico-Chihuahua Border Master Plan (BMP) PAC / TWG Kickoff Meeting Notes (10/14/2014)**

| | |
|---|---|
| Saenz, Jose Adrian | Desarollo Urbano - Juarez |
| Salcido, Ruben | IMIP City of Juarez |
| Sittig, Paul | NMDOT |
| Scroggins, Cecil | GSA |
| Valerio, Max | FHWA |
| Vasquez, Gabriel | New Mexico Senator Heinrich Office |
| Wilson, Vernon | Sunland Park |
| Black, Travis – phone | FHWA |
| Harmon, Bill – phone | ADOT |
| Montoya, Kelly – phone | NMDOT |
| Pavlov, Mikhail – phone | CBP |

**Agenda**
**New Mexico - Chihuahua Border Master Plan**
**Technical Working Group Meeting #2**

**Wednesday, November 12, 2014; 9:00 AM – Noon**
**War Eagles Air Museum**
**8012 Airport Rd, Santa Teresa, NM 88008**
**(575) 589-2000**

9:00 AM Welcome and Introductions
Homerio Bernal, Project Manager, New Mexico Department of Transportation (NMDOT)

9:15 AM Outline - Policy Advisory Committee (PAC) and Technical Working Group (TWG) Roles and Responsibilities
Anne McLaughlin, NMDOT

9:30 AM Review Area of Influence and Focus Area Mapping
Bill Ferris, Consultant Project Manager

9:45 AM Outline Technical Memorandum #1 – Land Ports of Entry

10:00 AM Discussion: Evaluation Process and Criteria
- Project Types
- Evaluation Categories
- Potential Category Weighting
- Potential Criteria

11:45 AM Schedule Update

11:55 AM Schedule Next Meeting –
*tentatively* Wednesday, 1/14/2015; 1:00 PM – 4:30 PM

12:00 PM Adjourn

# Meeting Notes

| | | | |
|---|---|---|---|
| To: | New Mexico Department of Transportation (NMDOT) – Homerio Bernal, Project Manager (PM) | From: | Bill Ferris – Consultant PM |
| File: | 1817 10110 | Date: | November 20, 2014 |

**Reference: New Mexico-Chihuahua Border Master Plan (BMP)**
**TWG Meeting #2 – Meeting Notes (11/12/2014)**

The kickoff meeting for the Technical Working Group was held at the War Eagles Air Museum, in Santa Teresa, NM on Wednesday, November 12, 2014 at 9:00 am. A list of attendees is attached. Highlighted discussions of the meeting were as follows:

- Welcome and Introductions were given by Homerio Bernal, NMDOT PM.

- A further refinement of the roles and responsibilities was presented by Anne McLaughlin, NMDOT. A memorandum outlining the changes is attached. Bill Ferris reviewed the list of PAC and TWG members and several modifications to the list were incorporated.

- Subtle refinements to the Focus Area and Area of Influence maps were presented. The TWG has accepted the changes.

- An outline of Technical Memo #1 was illustrated by Bill Ferris. The Draft document submittal to the TWG is imminent.

- A discussion on the overall project evaluation process was initiated. Key components included:

  1. Identification of unique project types. Because of funding streams it was determined to be prudent to separate the following project types:

     - Land Port of Entry (LPOE)
     - Multi-modal Infrastructure (MMI)
     - Rail

     It was determined that MMI will include Pedestrian, Bicycle and Transit projects, in addition to the traditional Roadway, Bridge and Interchange projects.

  2. Recommended Categories of Evaluation Criteria (similar to "Categories" propagated in CA, TX and AZ):

     - Cost Effectiveness
     - Project Readiness
     - Capacity/Congestion
     - LPOE Connectivity
     - Regional Benefit

Reference: **New Mexico-Chihuahua Border Master Plan (BMP) PAC / TWG Kickoff Meeting Notes (11/12/2014)**

Bill noted that there may be benefit to modifying the Categories of Criteria to address the specific "types of projects", as follows:

- Cost Effectiveness
- Project Readiness
- Capacity/Congestion
- LPOE Connectivity (N/A for LPOEs)
- Regional Benefit
- Bi-national Coordination (LPOEs only)

There was some further discussion to better define the suggestion. A similar presentation will be provided to the PAC for consideration.

3. The study team provided example "Weighting" values as defined by Border Master Plans in other regions:

| | CA | TX | Average |
|---|---|---|---|
| Cost Effectiveness | 40 | 62 | 51 |
| Project Readiness | 34 | 12 | 23 |
| Capacity/Congestion | 16 | 15 | 16 |
| LPOE Connectivity | 6 | 5 | 5 |
| Regional Benefit | 4 | 6 | 5 |

4. The study team also reviewed the results of the modified "Categories" and "Weighting" from AZ:

| | LPOE | MMI | Rail |
|---|---|---|---|
| Capacity/Congestion | 40 | 36 | 35 |
| Cost Effectiveness | 15 | 15 | 16 |
| Regional Benefit | 21 | 23 | 21 |
| LPOE Connectivity (N/A for LPOEs) | N/A | 16 | 15 |
| Project Readiness | 11 | 10 | 13 |
| Bi-national Coordination (LPOEs only) | 13 | N/A | N/A |

Several committee members desired an explanation of the purpose behind the inclusion of an additional "Category". Bill noted that LPOE Connectivity was focused on the infrastructure (roadway, rail, etc) that leads to/from the ports themselves. Therefore, that "Category" does not apply to the LPOE project type. An additional "Category" was added by the PAC to better emphasize the need for bi-national coordination in order for an LPOE project to be successful. This "Category" is only intended to be used on LPOE projects.

5. Lastly, the study team noted that 15-20 detailed criteria typically define the Categories of Criteria (listed above). The TWG typically selects the criteria, drafts the specific language and assign point values for each criteria. The next meeting will focus on this process. The study team will send out

Reference: **New Mexico-Chihuahua Border Master Plan (BMP) PAC / TWG Kickoff Meeting Notes (11/12/2014)**

materials in advance, so committee members can come to the next meeting prepared.

- The next meeting was scheduled with the TWG for February 4, 2015, from 10 am until 2 pm. ***Subsequent to the meeting it was learned that some bi-national meetings to be held on February 4-5 are in conflict. Therefore, we have identified February 11, 2015 as the date for our next meeting.***

- The project website noted below. It is very important to use Google Chrome to access the website. Internet Explorer and other internet search engines don't work very well.

  http://nm-chihbmp.org/

- The meeting adjourned at approximately 11:30 am.

**STANTEC CONSULTING SERVICES INC.**

William R. Ferris, Jr, PE
Senior Principal, Transportation
(602) 707-4693
bill.ferrisjr@stantec.com

Attachments: Roles and responsibilities memorandum

c. TWG members, Consultant Team - Dan Marum, Omar Cervantes, Alvin Dominguez, Mario Juarez-Infante, Doug Moseke, Rosa Maria Boadella

Reference: **New Mexico-Chihuahua Border Master Plan (BMP) PAC / TWG Kickoff Meeting Notes (11/12/2014)**

New Mexico-Chihuahua Border Master Plan
TWG Meeting #2 - Attendees (11/12/2014)

| | |
|---|---|
| Achaval, Lic. Rosalia Ochoa | Promotora De La Industria Chihuahuense |
| Becerra, Adriana Rivera | INDAABIN – PTS. Region Chih I |
| Bielek, Bob | TXDOT |
| Black, Travis | FHWA - USDOT |
| Cera, Luis Martin Palomares | Municipo de Ascension |
| Coleman, Robert | Sunland Park Public Works |
| Corral, Ing. Huber | Secretariat of Communications and Transportation (SCT) |
| De La O, Erika | NMBA |
| Diaz De Leon, Roberto | Sunland Park |
| Dominguez, Ricardo | Sunland Park |
| Escobar, Lorenzo Pico | Instituto Nacional de Migracion |
| Grijalva, Cerisse | SW NM COG |
| Grijalva, Sylvia | FHWA |
| Hortert, Daniel | Doña Ana County |
| Lopez, Jorge | PICH |
| Lopez Poo, Manuel | IMIP City of Juarez |
| Lopez, Vicente | IMIP |
| Love, Harold A. | NMDOT |
| McLaughlin, Anne | NMDOT |
| Medina, Michael | El Paso MPO |
| Padilla, Julio Cesar Espino | CILA |
| Proctor, Jesse G | CBP DHS |
| Reyes, Armando | CILA |
| Reza, Robert | CBP DHS |
| Saavedra, Lic. Wilfrido Campbell | Instituto Nacional de Migracion |
| Sittig, Paul | NMDOT |
| Siqueiros, Alejandro | Consulate General of Mexico |
| Scroggins, Cecil | GSA |
| Valerio, Max | FHWA |

New Mexico DEPARTMENT OF TRANSPORTATION

**Susana Martinez**
Governor

**Tom Church**
Cabinet Secretary

**Commissioners**

**Pete K. Rahn**
Chairman
District 3

**Ronald Schmeits**
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District 4

**Dr. Kenneth White**
Secretary
District 1

**Butch Mathews**
Commissioner
District 5

**Jackson Gibson**
Commissioner
District 6

**NOVEMBER 7, 2014**
**SECOND MEMORANDUM TO PAC/TWG PARTICIPANTS IN BORDER MASTER PLAN**

The NMDOT distributed the October 30th Memorandum to committee participants in the interest of elevating the New Mexico Border Master Plan (BMP) to a rigorous enough standard to facilitate integrating its project recommendations into the New Mexico Statewide Planning Program for eventual implementation through existing State and Federal transportation funding mechanisms.

However, the U.S. -Mexico Joint Working Committee (JWC) on transportation planning co-chaired by the FHWA & Mexican Secretariat of Communication and Transportation responded that all Regional Border Master Plans undertaken in conformance with their JWC Work Plans must follow the established protocols pertaining to the role and autonomy of the Planning Advisory Committee (PAC) and the non-binding nature of all Regional Border Master Plans in order to meet the needs of all agencies involved..

The NMDOT accepts these conditions as immutable and will move forward according to the terms specified in the BMP Work Plan adopted by participants at the Kick-Off meeting on October 14th. To the extent that we eventually discover critical planning issues that the approved BMP Work Program does not adequately address, we will utilize other resources available through the NMDOT Statewide Planning Work Program.

**Agenda**
**New Mexico - Chihuahua Border Master Plan**
**Policy Advisory Committee Meeting #2**

**Wednesday, January 14, 2015; 9:00 AM – Noon**
**War Eagles Air Museum**
**8012 Airport Rd, Santa Teresa, NM 88008**
**(575) 589-2000**

9:00 AM Welcome and Introductions
Homerio Bernal, Project Manager, NMDOT
Cameron D. McGlothlin, Office of Mexican Affairs, US Department of State
Sergio Jurado Medina, Undersecretary of Economy, State of Chihuahua

9:15 AM Area of Influence and Focus Area Mapping (Revised)
Bill Ferris, Consultant Project Manager

9:30 AM Technical Memorandum #1 – Land Ports of Entry
- Overview
- TWG Comments

9:45 AM Technical Memorandum #2 – Existing & Future Conditions
- Overview

10:00 AM Discussion: Evaluation Process and Criteria
- Project Types (confirm TWG recommendation)
- Evaluation Categories (confirm TWG recommendation)
- Potential Category Weighting (review historical data)
- Potential Criteria (refer to examples)

11:30 AM Review Stakeholder Program
- Stakeholder Distribution List (confirm)
- First Meeting (*tentatively* Wednesday evening, 2/11/2015)
- Newsletter #2 (*tentatively* following the February Stakeholder Meeting)

11:45 AM Schedule Update

11:55 AM Schedule Next Meetings –
(TWG - *tentatively* Wednesday, 2/11/2015; 9:00 AM – 1:00PM)
(PAC - *tentatively* Tuesday, 3/17/2015; 9:00 AM – Noon)

12:00 PM Adjourn

Stantec

# Meeting Notes

| | | | |
|---|---|---|---|
| To: | New Mexico Department of Transportation (NMDOT) – Homerio Bernal, Project Manager (PM) | From: | Bill Ferris – Consultant PM |
| File: | 1817 10110 | Date: | January 21, 2015 |

**Reference: New Mexico-Chihuahua Border Master Plan (BMP)**
**PAC Meeting Notes (1/14/2015)**

The meeting was held at the War Eagles Air Museum, in Santa Teresa, NM on Wednesday, January 14, 2015 at 9:00 AM. A list of attendees, an initial list of Key Stakeholders and the presentation are attached. Highlighted discussions of the meeting were as follows:

- Welcome and Introductions were given by Homerio Bernal, NMDOT PM, Sylvia Grijalva, FHWA, Rosalia Ochoa, State of Chihuahua and Cameron McGlothlin, Department of State. Cameron also outlined the overall importance of the Border Master Plan program "as they are considered when we make national interest determinations as part of the Presidential Permit process". They are also discussed at the Bi-national Bridges and Border Crossing Meetings; the next such meeting is scheduled for February 4, 2015, in Austin Texas.

- PAC members noted that a final refinement has yet to be incorporated into the Focus Area map. The High Mesa Corridor needs to be outlined in yellow. Bill will update the map prior to the next meeting.

- An outline of Technical Memo #1 (which has been reviewed by the TWG) was illustrated by Bill Ferris. He also provided a graphic of the comment resolution matrix and reviewed several of the comments received. Rosalia noted that the document focuses almost entirely on the US LPOEs. The PAC inquired as to whether a tour (and subsequent inclusion of the findings) of the Chihuahua LPOEs was possible. Bill noted that although attempts were made to invite SAT, at this point they have not yet participated. Bill will coordinate with the Mexican Consulate and INDAABIN in an attempt to schedule these port tours.

- An outline of Technical Memorandum #2 – Existing & Future Conditions was also illustrated, by Dan. He noted that the memo will contain a list of relevant studies and planned improvements that the consultant team needs to have reviewed to ensure the Border Master Plan contains all of the pertinent data. Dan discussed the inclusion of Population and Employment Density graphics and noted that they would be enlarged and overlaid with the Focus Area limits. Lastly, Dan showed an example tabulation of the Focus Area Roadway – Route Characteristics including location, functional classification, AADT, level-of-service (LOS) and future AADT and LOS. All of the data will be used to assist in the evaluation of potential projects. Homerio inquired as to whether the same

information could be provided for the facilities in Chihuahua. Dan will create a list of data needs and forward to Homerio next week.

Bill stated that Technical Memo #2 will also include crash data. The team is hopeful that the data will be obtained from NMDOT this week. Bill inquired with the committee members as to the progress on a comprehensive Mexican Travel Demand Model. Sylvia notified the group that SCT has not completed this effort, at this juncture. Several committee members noted that localized data can be made available. The consultant team will follow-up with the TWG representatives.

- A discussion on the overall project evaluation process was initiated. Key components included:

  1. Identification of unique project types. Because of funding streams it was determined to be prudent to separate the following project types:

     - Land Port of Entry (LPOE)
     - Multi-modal Infrastructure (MMI)
     - Rail

     It was determined that MMI will include Pedestrian, Bicycle and Transit projects, in addition to the traditional Roadway, Bridge and Interchange projects. The PAC supported the proposed project type definitions.

  2. Bill outlined the Recommended Categories of Evaluation Criteria:

     - Cost Effectiveness
     - Project Readiness
     - Capacity/Congestion
     - LPOE Connectivity (does not apply to LPOE project type)
     - Regional Benefit
     - Bi-national Coordination (applies to LPOE project type)

     He then led the committee through a manual voting process targeting the weighting of the proposed Categories of Evaluation. The results are as follows:

Criteria Category Prioritization Exercise

| | LPOE | MMI | Rail |
|---|---|---|---|
| Capacity/Congestion | 36% | 30% | 28% |
| Cost Effectiveness | 18% | 16% | 18% |
| Regional Benefit | 22% | 28% | 26% |
| LPOE Connectivity | N/A | 16% | 18% |
| Project Readiness | 11% | 10% | 10% |
| Bi-national Coordination | 13% | N/A | N/A |

While the consultant team registered surprise that Capacity/Congestion was not rated higher (as was the case in other states), the committee was supportive of the results that confirmed a higher score in the Regional Benefit category. The Committee was comfortable moving forward in the process with the Weighting as defined above.
These PAC recommended weighting levels will also be shared as an information item, with the TWG. Bill noted that the TWG will start to define the specific criteria that will be used to evaluate the projects in the next meeting to be held on February 11, 2015.

- Because of time constraints the committee was not able to confirm the list of Stakeholders. A list has been attached to this document and the study team requests the review of the list by the committee as soon as possible. Please forward any edits to Bill as soon as possible as the first Stakeholder Meeting is planned for the evening of February 11, 2015.

  Committee members inquired as to whether meetings would be held in other municipalities. At this time, the first Stakeholder Meeting will be held in Santa Teresa area to coincide with the TWG Meeting #3. PAC Meeting #3 will be held in Chihuahua, Chihuahua (afternoon - March 19, 2015) to coincide with the US-Mexico Joint Working committee meetings (March 18-19, 2015). Stakeholder Meeting #2 will be considered for the greater Columbus area to coincide with TWG Meeting #4 (TBD).

  Bill noted that it is still the intent of the study team to complete the Border Master Plan this summer with tentative dates as follows:

  - Draft Border Master Plan: 5/2015
  - PAC/TWG Results Meeting: 6/2015
  - Final Border Master Plan: 7/2015

- The meeting adjourned at approximately 11:40 AM.

**STANTEC CONSULTING SERVICES INC.**

William R. Ferris, Jr, PE
Senior Principal, Transportation
(602) 707-4693
bill.ferrisjr@stantec.com

Attachments: Presentation; Stakeholder Distribution List

c. PAC members, TWG members, Consultant Team - Dan Marum, Omar Cervantes, Alvin Dominguez, Mario Juarez-Infante, Doug Moseke, Rosa Maria Boadella

Reference: **New Mexico-Chihuahua Border Master Plan (BMP) PAC Meeting #2 Notes (1/14/2015)**

## New Mexico-Chihuahua Border Master Plan PAC Meeting #2 Attendees (1/14/2015)

| | |
|---|---|
| Achaval, Lic. Rosalia Ochoa | Promotora De La Industria Chihuahuense |
| Doolittle, Trent E | NMDOT |
| Gomez, Cesar | CBP DHS |
| Grijalva, Sylvia | FHWA |
| Hart, Charlie | GSA |
| Hernandez, Hugo | El Paso Metropolitan Planning Organization |
| Holquin, Efren Mar | Gobierno del Estado de Chihuahua |
| Lopez, Vicente | IMIP |
| López, Román Alberto Fernández | SRE - Phone |
| Lorenzo, Pico Escobar | Instituto Nacional de Migracion |
| McGlothlin, Cameron | Department of State, Office of Border Affairs |
| McLaughlin, Anne | NMDOT - Phone |
| Monge-Oviedo, Rodolfo | NMDOT - Phone |
| Nunez, Jose | IBWC |
| Padilla, Julio Cesar Espino | CILA |
| Palomares, Luis Martin | Ascension Chih |
| Provencio, Ray | CBP DHS |
| Reyes, Armando | CILA |
| Rico, Walter Renteria | Estado De Chihuahua |
| Riesgo, Ramon | GSA |
| Rivera, Adriana Becerra | INDAABIN – PTS. Region Chih I |
| Rivera, John | CBP |
| Salcido, Ruben | IMIP |
| Siqueiros, Alejandro | Consulate General of Mexico |
| Teran, Miguel Angel Villa | Puerto Palomas de Villa Ascension |
| Torres, Alice R. | ELPO/CBP/MSO |
| Torres, Mirna | US Consulate – Juarez |
| Vasquez, Linda | City of Sunland Park |
| Wilson, Vernon | Sunland Park |

**Agenda**
**New Mexico - Chihuahua Border Master Plan**
**Technical Working Group Meeting #3**

**Wednesday, February 11, 2015; 9:00 AM – 1:00 PM**
**War Eagles Air Museum**
**8012 Airport Rd, Santa Teresa, NM 88008**
**(575) 589-2000**

9:00 AM Welcome and Introductions
Homerio Bernal, Project Manager, NMDOT
Rosalia Ochoa, State of Chihuahua

9:15 AM Focus Area Mapping (Revised)
Bill Ferris, Consultant Project Manager

9:20 AM Technical Memorandum #2 – Existing & Future Conditions
- Overview
- TWG Comments

9:45 AM Discussion: Evaluation Process and Criteria
- Project Types (approved by PAC)
- Evaluation Categories (approved by PAC)
- Category Weighting (approved by PAC)
- Potential Criteria (working session)

12:15 PM Review Stakeholder Program
- Stakeholder Distribution List (confirm)
- First Meeting (Wednesday evening, 2/11/2015)
- Newsletter #2 (*tentatively* following the February Stakeholder Meeting)
- Updated website http://nm-chihbmp.org/en/

12:45 PM Schedule Next Meetings –
(PAC - *tentatively* Tuesday, 3/19/2015; 3:00 PM – 5:00 PM)

1:00 PM Adjourn

Stantec

# Meeting Notes

| | | | |
|---|---|---|---|
| To: | New Mexico Department of Transportation (NMDOT) – Homerio Bernal, Project Manager (PM) | From: | Bill Ferris – Consultant PM |
| File: | 1817 10110 | Date: | February 20, 2015 |

**Reference: New Mexico-Chihuahua Border Master Plan (BMP)**
**TWG Meeting #3 Notes (2/11/2015)**

The meeting was held at the War Eagles Air Museum, in Santa Teresa, NM on Wednesday, February 11, 2015 at 9:00 AM. A list of attendees and the presentation are attached. Highlighted discussions of the meeting were as follows:

- Welcome and Introductions were given by Homerio Bernal, NMDOT PM. Homer indicated that the committee has a large number of items on the agenda and a lot to accomplish within the four hour meeting timeframe.

- Bill Ferris, Consultant PM, outlined the agenda for the meeting and initiated discussions on the revised Focus Area Map. Luis Martin Palomares, representative from the city of Ascension, noted a desire to modify the Focus Area limits on the eastern side of Ascension and Manuel Lopez noted a desire to extend the limits on the western side of Juarez to ensure several planned projects are within the appropriate zone and eligible for consideration as part of the BMP. TWG members supported this Focus Area expansion, and Bill will update the map prior to the next meeting.

- An outline of Technical Memorandum #2 – Existing & Future Conditions was presented by Dan Marum, Consultant Planning Lead and Deputy PM. He noted that the memo will contain a list of relevant studies that the consultant team has reviewed to ensure the Border Master Plan contains all of the pertinent data. He specifically requested a review of the studies list to ensure that we have all of the critical data necessary to proceed with the BMP. Dan thoroughly reviewed the Route Characteristics tables that considered functional classification, number of lanes, existing and forecasted Average Annual Daily Traffic (AADT) volumes and Level of Service (LOS). He also noted a summary of the crash data along the Focus Area roadways. Homer voiced a desire to include a breakdown of commercial and POV traffic numbers. Bill indicated that traffic data by mode will be provided at the LPOEs; the number of commercial vehicles on the Focus Area roadways will be accounted for as a percentage of the overall traffic volume.

  Rosalia Ochoa, representative of the State of Chihuahua noted that the TM#2 had not been distributed to the Mexican participants. Bill apologized for the delay and indicated that the document has just completed translation and would be distributed by the end of the week. *Subsequent to the meeting TM#2 was distributed on Saturday, February 14, 2015.*

Randall Soderquist, Director of Planning, NMDOT, noted additional data may be necessary to adequately review TM#2. Bill asked that discussion of TM#2 be sent to the consultant team via email, due to the lengthy agenda at this meeting. *Subsequent to the meeting NMDOT requested a discussion on the specific elements of data and their sources to be included in TM#2. A meeting has been scheduled for Wednesday February 25, 2015, in Santa Fe.*

Travis Black, FHWA noted that there is a forthcoming North American freight flow forecast study, and that while the March 2016 completion target is beyond the timeframe for this project, he would work with the consultant team to strive to provide draft information for this region in time to work into the BMP.

Cecil Scroggins, GSA and Steven Kameny, DOS voiced concern regarding some of the data contained in the Technical Memos and requested information on the data sources. Bill noted that the majority of the data was obtained from the USDOT, Bureau of Transportation Statistics. TWG members asked that the consultant team distribute data source information to the TWG members early, to vet the information before it is included in the draft report.

*Subsequent to the meeting Cecil provided additional information related to border crossing traffic data. Bill inquired as to whether the data could be published as part of the Border Master Plan as CBP has historically been hesitant to publish their data. Cecil to follow-up. The Technical Memos typically site source data immediately following their figures or tables – example below:*

Source:
Office of the Assistant Secretary for Research and Technology. US Department of Transportation, Bureau of Transportation Statistics, TransBorder Freight Data. Border Crossing/Entry Data: Query Detailed Statistics – 2013. Information on Antelope Wells LPOE is not available through this source. At:
http://transborder.bts.gov/programs/international/transborder/TBDR_BC/TBDR_BCQ.html.

Bill indicated that the study team had a tremendously successful meeting with the Instituto Municipal de Investigacion y Planeacion (IMIP) in Juarez on Tuesday, February 10, 2015. The study team prepared a list of data needs from IMIP (attached) and we received an overwhelming compilation of information in return. The study team will also be reaching out to Mexican state and federal agencies in an attempt to supplement this data. A heartfelt “thank you” was extended to IMIP for their engagement in the BMP.

- Bill indicated that several key Evaluation Process items had been approved by the PAC including:

  1. Confirmation of the three project types
     - Land Port of Entry (LPOE)
     - Multi-modal Infrastructure (MMI)
     - Rail

It was determined that MMI will include Pedestrian, Bicycle and Transit projects, in addition to the traditional Roadway, Bridge and Interchange projects.

2. Confirmation of the Categories of Evaluation Criteria:
   - Cost Effectiveness
   - Project Readiness
   - Capacity/Congestion
   - LPOE Connectivity (does not apply to LPOE project type)
   - Regional Benefit
   - Bi-national Coordination (applies to LPOE project type)

3. Bill noted that the PAC was led through a manual voting process targeting the weighting of the proposed Categories of Evaluation. The results were approved by the PAC.

Criteria Category Prioritization Exercise

| | LPOE | MMI | Rail |
|---|---|---|---|
| Capacity/Congestion | 36% | 30% | 28% |
| Cost Effectiveness | 18% | 16% | 18% |
| Regional Benefit | 22% | 28% | 26% |
| LPOE Connectivity | N/A | 16% | 18% |
| Project Readiness | 11% | 10% | 10% |
| Bi-national Coordination | 13% | N/A | N/A |

While the consultant team noted it was unusual that Capacity/Congestion was not rated higher (as was the case in other states), the PAC was supportive of the results that confirmed a higher score in the Regional Benefit category. The PAC was comfortable moving forward in the process with the Weighting as defined above.

- The majority of the meeting was focused on the review of preliminary criteria that would be used in the evaluation of potential transportation projects located within the Focus Area. Bill led the TWG through both the verbiage and point allocations of each of the Criteria recommended for inclusion in the project evaluation process. The comprehensive list of Criteria for each of the project types is attached for further consideration, including new potential criteria, such as lifecycle costs.

  Bill, Dan and Amy Moran, Consultant Planner, attempted to lead the TWG though an exercise to illustrate how the criteria would be applied to a project. The study team selected two projects that have already been constructed – in an attempt to avoid concerns with potential projects that will be evaluated as part of the BMP and in hopes that many of the committee members would be familiar with the projects. The two projects:

- ❖ Strauss Road – a roadway leading from NM SR 136 to the new Rail Intermodal Facility.
- ❖ Santa Teresa LPOE improvements

Several TWG members noted that some criteria are assigned points based on a tiered approach (e.g. the upper third of the project list receive 3 points, the middle third 2 points, and the lower third 1 point). Homer inquired about a brief explanation of the point system. Bill will distribute the electronic version of the Point Spread allocations as part of the meeting notes distribution.

Roberto Diaz de Leon, city of Sunland Park, noted that a new LPOE should score well and Steven Kameny, DOS indicated that improvements to an existing LPOE would be more cost effective. Bill attempted to convey that a new LPOE would score well in certain categories of criteria related to capacity and congestion, whereas, an existing port would score better in categories such as cost. Ultimately, the projects need to be viewed comprehensively and that will occur later this year.

There was a general consensus that a follow-up meeting is required to allow for the review of the potential criteria, the associated point allocations and the opportunity to apply such to an example project in Chihuahua. Bill offered to work with Manuel Lopez Poo, IMIP on the development of those materials. The TWG agreed to hold TWG Meeting #3A the second week of March.

- Because of time constraints the committee was not able to confirm the list of Stakeholders. A list has been attached to this document and the study team requests a review of the list by the committee as soon as possible. Please forward any edits to Bill as soon as possible. Stakeholder Meeting #1 was scheduled for the evening of February 11, 2015.

- Committee members inquired as to whether meetings would be held in other municipalities. TWG Meeting #3A, as requested above, will be held at the War Eagles Air Museum in the first two weeks of March (date and time to be determined). PAC Meeting #3 will be held in Chihuahua, Chihuahua (afternoon - March 19, 2015) to coincide with the US-Mexico Joint Working committee meetings (March 18-19, 2015). Stakeholder Meeting #2 will be considered for the greater Columbus area to coincide with TWG Meeting #4 (TBD).

  Bill noted that it is still the intent of the study team to complete the Border Master Plan this summer with tentative dates as follows:

  - ❖ Draft Border Master Plan: 5/2015
  - ❖ PAC/TWG Results Meeting: 6/2015
  - ❖ Final Border Master Plan: 7/2015

- Bill indicated that the project website has been updated and may be viewed at: http://nm-chihbmp.org

  For further information related to the development of BMPs in other states, the committee should access the US-Mexico JWC website at: http://www.borderplanning.fhwa.dot.gov/masterplans.asp

- The meeting adjourned at approximately 1:05 PM.

**STANTEC CONSULTING SERVICES INC.**

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(602) 707-4693
bill.ferrisjr@stantec.com

Attachments: Presentation, Data Request List, Stakeholder Outreach List, Criteria List

c. TWG members, Consultant Team - Dan Marum, Omar Cervantes, Alvin Dominguez, Mario Juarez-Infante, Doug Moseke, Amy Moran

Reference: **New Mexico-Chihuahua Border Master Plan (BMP) TWG Meeting #3 Notes (2/11/2015)**

## New Mexico-Chihuahua Border Master Plan TWG Meeting #3 Attendees (2/11/2015)

| | |
|---|---|
| Achaval, Lic. Rosalia Ochoa | Promotora De La Industria Chihuahuense |
| Black, Travis | FHWA - USDOT |
| Castro, Luis Alberto | SAGRPA - SENASICA |
| De La O, Erika | NMBA |
| Diaz de Leon, Roberto | Sunland Park |
| Dominguez, Ricardo | Sunland Park |
| Gomez, Cesar | CBP DHS |
| Duarte, Alberto Nicolas Lopez | Municipio de Juarez Instituto Municipal de Investigacion y Planeacion |
| Herrera, Jolene | NMDOT |
| Holquin, Efren Mar | Gobierno del Estado de Chihuahua |
| Hortert, Daniel | Doña Ana County |
| Lopez, Vicente | IMIP |
| Lopez Poo, Manuel | IMIP City of Juarez |
| Lorenzo, Pico Escobar | Instituto Nacional de Migracion |
| Love, Harold A. | NMDOT |
| Medina, Michael | El Paso MPO |
| Orrantia, Francisco | SCT Co. Juarez, Chihuahua |
| Padilla, Julio Cesar Espino | CILA |
| Partida, Danny | GSA |
| Ramos V, Victor Hugo | Doña Ana County |
| Reyes, Armando | CILA |
| Roberson, Angela | Doña Ana County |
| Sittig, Paul | NMDOT |
| Siqueiros, Alejandro | Consulate General of Mexico |
| Scroggins, Cecil | GSA |
| Soderquist, Randall | NMDOT |
| Teran, Miguel Angel Villa | Puerto Palomas de Villa Ascension |
| Unnikrishna, Padinare | International Boundary and Water Commission |
| Valerio, Max | FHWA |
| Villanueja, Edgar | SCT |

**Agenda**
**New Mexico - Chihuahua Border Master Plan**
**Technical Working Group Meeting #3A**

**Tuesday, March 10, 2015; 9:00 AM – Noon**
**War Eagles Air Museum**
**8012 Airport Rd, Santa Teresa, NM 88008**
**(575) 589-2000**

9:00 AM Welcome and Introductions
Homerio Bernal, Project Manager, NMDOT
Rosalia Ochoa, State of Chihuahua

9:15 AM Focus Area (Revised based on comments from Mexican TWG members)

9:25 AM Technical Memorandum #2 – Existing & Future Conditions
- Status discussion (US and Mexico)

9:45 AM Discussion: A Perspective on the Border, from Chihuahua
- National projects that impact Chihuahua
- State and local priorities that impact the Mexican northern border region
- Mexican project scoring examples
  Bill Ferris, Consultant PM
  Manuel Lopez Poo, Arquitecto, Juarez

11:15 AM Review Data Request
- Discuss outstanding information (US and Mexico)

11:30 AM Project List Request
- Discuss outstanding projects that need to be incorporated into the future Technical Memorandum #3

11:45 AM Schedule Next Meeting –
(PAC - Thursday, 3/19/2015; 3:00 PM – 5:00 PM)
Update Rosalia Ochoa

12:00 PM Adjourn

Stantec

# Meeting Notes

| | | | |
|---|---|---|---|
| To: | New Mexico Department of Transportation (NMDOT) – Homerio Bernal, Project Manager (PM) | From: | Bill Ferris – Consultant PM |
| File: | 1817 10110 | Date: | March 23, 2015 |

**Reference: New Mexico-Chihuahua Border Master Plan (BMP)**
**TWG Meeting #3A Notes (3/10/2015)**

The meeting was held at the War Eagles Air Museum, in Santa Teresa, NM on Tuesday, March 10, 2015 at 9:00 AM. A list of attendees is attached. Highlighted discussions of the meeting were as follows:

- Welcome and Introductions were given by Homerio Bernal, NMDOT PM and Rosalia Ochoa, State of Chihuahua. Homer indicated that the committee has a large number of items on the agenda and a lot to accomplish within the meeting timeframe.
- Bill Ferris, Consultant PM, outlined the agenda for the meeting and initiated discussions on the revised Focus Area Map. TWG members approved the map as revised (attached).
- Ricardo Dominguez, Sunland Park suggested that the MPO boundaries be mapped because any projects located inside the MPO would have special requirements during design, such as the need to address air quality for regions in non-attainment. Bill reiterated that the BMP list will not bypass any project development process. Bill also clarified that projects outside the focus area, such as those in Texas, will not be included in the BMP project list. Bill noted that the boundaries can be shown in the BMP. Michael McAdams, Mesilla Valley MPO, offered to provide applicable GIS maps for this purpose.
- A suggestion was made to show Military, Immigration, and Customs checkpoints
    1. Customs – Merchandise: during the meeting the Mexican agencies handling the different types of inspection were identified.
    2. Immigration – People

    Bill to follow up with Lorenzo Gabriel Pico Escobar, Instituto Nacional de Migracion to obtain checkpoint locations.
- Several TWG members noted that a rail line needs to be removed on the mapping, from Nuevo Casas Grandes to Juarez. The right-of-way still exists, but thee rail has been removed.

- Bill inquired as to whether there were any remaining comments in regards to the initial submittal of Technical Memo #2 (TM#2). No further comments were forthcoming. Bill noted that TM#2 will be resubmitted to include the substantial information received from the Mexican committee members/agencies. The document is also anticipated to include a chapter on rail.
- Bill led the committee through a presentation of "A perspective on the Border, from Chihuahua". The presentation was loosely based on data received from the Instituto Municipal de Investigacion y Planeacion (IMIP) and the State of Chihuahua and highlighted:
    1. National projects that impact Chihuahua
        - Major roadway corridors
        - Potential new marine port at Nayarit and its tie to the proposed Western Rail Bypass
    2. State and local priorities that impact the Mexican northern border region
        - Traffic data related to the major roadway network
        - MPO boundary mapping
        - Major roadway corridors and the overall "system" that connects Las Cruces, NM to Guadalupe, Chihuahua including state highways, freeways and land ports of entry
        - Major projects could enhance the overall transportation system including:
            - New border crossings at San Jeronimo (Rail/Truck) and Anapra (Pedestrian/Car)
            - Western Rail Bypass to a potential new San Jeronimo / Santa Teresa border crossing
            - South Rail Intermodal Terminal
            - Bus Rapid Transit system within the rail right-of-way
            - Completion of the urban highway loop around the west side of Juarez
            - Completion of the bypass roadway to San Jeronimo
            - Planned improvements to the Puerto Palomas Land Port of Entry (LPOE) and the associated roadway that leads to Federal Route 2
            - Roadway improvements from El Berrendo LPOE to Fed Route 2
- Michael McAdams noted:
    1. The Extension of High Mesa Road is an extremely long-term endeavor and may not ultimately receive the support to proceed

2. Commuter Rail from El Paso to Las Cruces and then up to the Spaceport near Socorro should be considered as part of the BMP
3. He inquired into the status of Rail Hubs and who is the BNSF Mexican counterpart. Bill noted that rail coordination meetings are being planned with both BNSF and Ferromex in the next month. The team met with UP last week.

- Bill led the committee through an analysis of two Mexican projects utilizing the criteria as currently defined. The projects (somewhat hypothetical in nature) were intended to include a larger, more complex project (like the by-pass roadway around the west side of Juarez) and a smaller, less complex project (like the paving of the dirt road that connects El Berrendo LPOE to Federal Route 2). For purposes of the exercise it was the intent to use two projects that have already been constructed so there was no conflict of interest with any projects being evaluated as part of the BMP. The criteria used in in the evaluation are included, along with the applicable project scoring, as attachments. Numerous comments were discussed and they are highlighted below:

    1. Paul Sittig, NMDOT Planning, noted a continued desire to include an additional criterion related to Life Cycle costs. If implemented, it could be included under Cost Effectiveness as a second criterion under that category. Subsequent to the meeting Paul has offered to craft the language around a potential criterion.
    2. There was also discussion regarding the inclusion of a Funding Status criterion under the category Project Readiness. 2 points would be assigned for projects that have “secured/obligated/committed” funding. 0 points are assigned otherwise.
    3. Criteria #15 is related to the distance from the LPOE. 2 points are assigned for a project located within 2 miles of the LPOE. 1 point is assigned for a project located between 2 and 10 miles of the LPOE. 10 miles is typically the width of the Focus Area. Suggestions were made regarding applying 2 points out to a 4 mile limit.
    4. Michael McAdams was concerned about the movement of people and felt that bus usage and transit in general should be woven into the criteria language. It was suggested that a review of the established bus routes should be conducted. If a project is along a bus route it should have an impact on the project scoring. The study team will review the criteria language.
    5. Luis Palomares, Ascension, noted that under the criteria “Change in the number and/or Efficiency of lanes” a dirt road that is paved should receive full points (3) for improving the overall efficiency of the facility. The study team will review the suggestion.
    6. The question was raised on whether connecting projects in Texas should influence the scoring of projects in New Mexico? Bill indicated that Texas

initiatives will influence the BMP, but they will not directly impact the scoring.

- Several TWG members inquired about the status of the Travel Demand Model. Bill noted that the study team met with NMDOTs modelers on March 6, 2015. Based on those discussions it has become apparent that additional coordination with adjacent MPOs will be beneficial. Bill will initiate outreach to Michael Medina at the El Paso MPO first. Subsequent outreach will include Dona Ana County (DAC) where Angela Roberson will follow-up with Robert Armento, County Engineer. Additional follow-up will include Michael McAdams, Mesilla Valley MPO, Alberto Nicolas Lopez Duarte, IMIP, Lorenzo Huber Corral Anchondo, Secretariat of Communications and Transportation (SCT) - Centro SCT Chihuahua. Bill will coordinate with Rosalia Ochoa, initially, in regard to modeling data from the Mexican committee members.
- Homer suggested that there are still opportunities to provide data for inclusion in the study. Bill noted that a comprehensive "wish" list of ideal data packages has been prepared (attached). Any further information is welcome. As well as the opportunity for representatives from Mexico to share and comment during the meetings.
- Bill indicated that a comprehensive list of projects has been developed. The list (273 projects) is a compilation of "potential" projects that were gleaned from all of the studies that have been reviewed to date. Bill also noted that there are several projects that need to be added from Mexico (via Rosalia) and that will be accomplished next week. Several committee members expressed concern that the list is too long. Bill offered to take a first cut at applying a "filter" to the list of projects to ensure:
    1. All projects are located within the Focus Area
    2. All projects are appropriate in scope/size and meet the general objectives of the BMP mission

  Bill suggested that the current list could be color coded to indicate which projects are preliminarily intended for removal. The list would then be shared with the TWG for confirmation (in Excel format, for ease in adding/modifying). Bill requested that any new projects be added at the end of the document. Distribution of the revised list will occur in advance of the next TWG meeting.
- Bill recommended clarification in regard to attendance and overall voting procedures. It was noted that agencies have sent several attendees to participate in committee meetings and due to the technical nature of some meetings that may be appropriate. However, as the development of the BMP will lead to issues that need to be voted on we need to define the procedure. At PAC meetings each agency will receive one vote, by the PAC member of record. If a PAC member of record cannot attend a meeting then they have the option of sending a proxy with written confirmation by NMDOT PM, Homerio Bernal.

Reference: **New Mexico-Chihuahua Border Master Plan (BMP) TWG Meeting #3 Notes (3/10/2015)**

- Committee members inquired as to whether meetings would be held in other municipalities. PAC Meeting #3 will be held in Chihuahua, Chihuahua (March 19, 2015; 3:00 - 5:00 PM) to coincide with the US-Mexico Joint Working committee meetings (March 18-19, 2015). TWG Meeting #4 was originally intended to be held in Deming. Because of travel difficulties it was agreed that TWG Meeting #4 will again be held at the War Eagles Air Museum in Santa Teresa (date TBD; 10:00 AM start time). Stakeholder Meeting #2 is still anticipated to be held in Deming (date TBD). Newsletter #2 is anticipated to be complete next month.
- Bill noted that it is still the intent of the study team to complete the Border Master Plan this summer with tentative dates as follows:
    - Subsequent to the meeting it was suggested to combine Revised Tech Memo #2 with Draft Tech Memo #3 and distribute on April 27, 2015. This will include the project list.
    - Homer requested that both the English and Spanish versions be made available at the same time. Both English and Spanish versions be made available before the next TWG meeting.
    - Tentative TWG Meeting #4 date: April 30, 2015
    - Tentative TWG Meeting #5 date: June 3, 2015
    - Draft Border Master Plan: 6/2015
    - PAC/TWG Results Meeting: 7/2015
    - Final Border Master Plan: 7/2015
    - Bill indicated that the project website has been updated and may be viewed at: http://nm-chihbmp.org
    - The meeting adjourned at approximately 1:05 PM.

**STANTEC CONSULTING SERVICES INC.**

William R. Ferris, Jr, PE
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(602) 707-4693
bill.ferrisjr@stantec.com

Attachments: Focus Area Map, Data Request List, Criteria List, Project Scoring Slides

c. TWG members, Consultant Team - Dan Marum, Omar Cervantes, Alvin Dominguez, Mario Juarez-Infante, Doug Moseke, Amy Moran

Reference: **New Mexico-Chihuahua Border Master Plan (BMP) TWG Meeting #3 Notes (3/10/2015)**

## New Mexico-Chihuahua Border Master Plan TWG Meeting #3 Attendees (3/10/2015)

| | |
|---|---|
| Achaval, Rosalia Ochoa | Promotora De La Industria Chihuahuense |
| Becerra, Adriana Rivera | INDAABIN – PTS. Region Chih I |
| Bernal, Homerio | NMDOT |
| Cardenas, Ing. Juan Porras | City of Ascension |
| Castro, Ing. Luis Javier Castro | Secretariat of Exterior Relations (SRE) - proxy |
| Chavarria, Aaron | NMDOT |
| Corral, Ing. Huber | Secretariat of Communications and Transportation (SCT) |
| De La O, Erika | NMBA |
| Diaz de Leon, Roberto | Sunland Park |
| Dominguez, Ricardo | Sunland Park |
| Duarte, Alberto Nicolas Lopez | Municipio de Juarez Instituto Municipal de Investigacion y Planeacion |
| Fernandez, Roman (via phone) | Secretariat de Relaciones Exteriores (SRE) |
| Grijalva, Sylvia | FHWA |
| Holquin, Efren Mar | Gobierno del Estado de Chihuahua |
| Kameny, Steve (via phone) | Department of State |
| Lopez Poo, Manuel | IMIP City of Juarez |
| Lorenzo, Pico Escobar | Instituto Nacional de Migracion |
| Love, Harold A. | NMDOT |
| McAdams, Michael A. | Mesilla Valley MPO |
| Medina, Michael | El Paso MPO |
| Monardes, Dr. Pat | Sunland & Santa Teresa Bus |
| Padilla, Julio Cesar Espino | CILA |
| Palomares, Luis Martin | Ascension Chih |
| Reyes, Armando | CILA |
| Roberson, Angela | Dona Ana County Community Development |
| Sittig, Paul | NMDOT |
| Siqueiros, Alejandro | Consulate General of Mexico |
| Soderquist, Randall | NMDOT |

**Agenda**
**New Mexico - Chihuahua Border Master Plan**
**Policy Advisory Committee Meeting #3**

**Thursday, March 19, 2015; 3:00 PM – 5:00 PM**
**Secretaría de Economía**
**31125 Chihuahua, Chih., Mexico**

| | |
|---|---|
| 3:00 PM | Welcome and Introductions<br>Sergio Jurado Medina, State of Chihuahua<br>Randall Soderquist, NMDOT, Director of Planning |
| 3:15 PM | Focus Area Map (As Revised)<br>Bill Ferris, Consultant Project Manager |
| 3:30 PM | Technical Memorandum #2 – Existing and Future Conditions - STATUS |
| 4:00 PM | Review Data Request |
| 4:30 PM | Review Project List |
| 4:45 PM | National projects that impact Chihuahua<br>State and Local projects that impact the Mexican northern border region<br>Mexican project scoring Examples |
| 5:00 PM | Adjourn |

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# Meeting Notes

| | | | |
|---|---|---|---|
| To: | New Mexico Department of Transportation (NMDOT) – Homerio Bernal, Project Manager (PM) | From: | Bill Ferris – Consultant PM |
| File: | 1817 10110 | Date: | March 30, 2015 |

**Reference: New Mexico-Chihuahua Border Master Plan (BMP)**
**PAC Meeting #3 Notes (3/19/2015)**

The meeting was held at the Secretaría de Economía, in Chihuahua, Chihuahua on Thursday, March 19, 2015 at 3:00 PM, local time. A list of attendees is attached. Highlighted discussions of the meeting were as follows:

- Welcome and Introductions were given by Sergio Jurado, State of Chihuahua and Randall Soderquist, NMDOT Director of Planning. Randall noted the tremendous hospitality extended by our hosts, specifically, Sergio and Rosalia Ochoa, State of Chihuahua. The hosts were greeted with a round of applause.
- Bill Ferris, Consultant PM, outlined the agenda for the meeting and initiated discussions on the revised Focus Area Map. PAC members approved the map as revised (attached). Bill also reiterated the primary objective of the BMP:

  *"Develop and implement a plan for identifying, prioritizing, and promoting land port of entry (LPOE) and related transportation projects over the short-, medium- and long-term."*
- Bill provided a synopsis of progress to date, but noted that Technical Memo #2 (TM#2) will need to be resubmitted, primarily to better summarize traffic data and project information in Mexico. It is anticipated that the TM#2 will also include summary information on the railroads.
- Bill noted that a comprehensive "wish" list of ideal data packages has been prepared (a handout was provided; also attached). Any further information is welcome. Steven Kameny, Department of State further noted that a BMP is most useful to the State Department and other federal agencies when the rankings are based on unbiased, quality data. Sponsor-provided data may not be as objective as data from other sources. In particular, we are concerned about avoiding overly-optimistic traffic and revenue data.
- Bill indicated that the Evaluation Process has made great strides but it will continue to evolve. To date the "Types of Projects", the "Categories of Criteria" and the "Category Weighting" has been approved. The specific language of each of the individual "Criteria" and the "Point Allocation" of each of the criteria is being developed for recommendation by the Technical Working Group (TWG).

Reference: **New Mexico-Chihuahua Border Master Plan (BMP) PAC Meeting #3 Notes (3/19/2015)**

- Bill led the committee through a presentation of "A perspective on the Border, from Chihuahua". The presentation was loosely based on data received from the Instituto Municipal de Investigacion y Planeacion (IMIP) and the State of Chihuahua and highlighted:
    1. National projects that impact Chihuahua
        - ❖ Major roadway corridors
            - ➢ Some concern was raised regarding the potential cost of roadways that needed to traverse the mountainous regions on the west coast
        - ❖ Potential new marine port at Nayarit and its tie to the proposed Western Rail Bypass
    2. State and local priorities that impact the Mexican northern border region
        - ❖ Traffic data related to the major roadway network
        - ❖ Major roadway corridors and the overall "system" that connects Las Cruces, NM to Guadalupe, Chihuahua including state highways, freeways and land ports of entry
            - ➢ Several members from SCT provided more detailed information on the projects being progressed in the state of Chihuahua
        - ❖ Major projects could enhance the overall transportation system including:
            - ➢ New border crossings at San Jeronimo (Rail/Truck) and Anapra (Pedestrian/Car). It was noted that urban planning initiatives have focused on the areas around the potential new port areas
            - ➢ Western Rail Bypass to a potential new San Jeronimo / Santa Teresa border crossing
            - ➢ South Rail Intermodal Terminal
            - ➢ Completion of the urban highway loop around the west side of Juarez
            - ➢ Completion of the bypass roadway to San Jeronimo
            - ➢ Planned improvements to the Columbus and Puerto Palomas Land Ports of Entry (LPOE) and the associated roadway that leads to Federal Route 2
            - ➢ Roadway improvements from El Berrendo LPOE to Fed Route 2
                - ✓ Committee members noted that there is a straighter alternate route to Fed Route 2

- Bill described to the committee an analysis of two Mexican and one US project utilizing the criteria as currently defined. The projects (somewhat hypothetical in nature) were intended to include a larger, more complex project (like the by-pass roadway around the west side of Juarez) and a smaller, less complex project (like the paving of the dirt road that connects El Berrendo LPOE to Federal Route 2). For purposes of the exercise it was the intent to use three projects that have already been constructed so there was no conflict of interest with any projects being evaluated as part of the BMP. The criteria used in in the evaluation are included, along with the applicable project scoring, as attachments. Numerous comments were received from the TWG and summarized in the presentation to the PAC - they are highlighted below:
    1. There was a continued desire to include an additional criterion related to Life Cycle costs. If implemented, it could be included under Cost Effectiveness as a second criterion under that category.
    2. There was also discussion regarding the inclusion of a Funding Status criterion under the category Project Readiness. 2 points would be assigned for projects that have "secured/obligated/committed" funding. 0 points are assigned otherwise.
    3. Criteria #15 is related to the distance from the LPOE. 2 points are assigned for a project located within 2 miles of the LPOE. 1 point is assigned for a project located between 2 and 10 miles of the LPOE. 10 miles is typically the width of the Focus Area. Suggestions were made regarding applying 2 points out to a 4 mile limit. The PAC generally agreed that a 4 mile limit is more applicable to the rural nature of the Focus Area.
    4. It was conveyed that under the criteria "Change in the number and/or Efficiency of lanes" a dirt road that is paved should receive full points (3) for improving the overall efficiency of the facility. The PAC generally agreed with the interpretation.
- Bill indicated that a comprehensive list of projects has been developed. The list (273 projects) is a compilation of "potential" projects that were gleaned from all of the studies that have been reviewed to date. Bill also noted that there are several projects that need to be added from Mexico (via Rosalia) and that will be accomplished next week. The study team will take a first cut at applying a "filter" to the list of projects to ensure:
    1. All projects are located within the Focus Area
    2. All projects are appropriate in scope/size and meet the general objectives of the BMP mission

Reference: **New Mexico-Chihuahua Border Master Plan (BMP) PAC Meeting #3 Notes (3/19/2015)**

Bill suggested that the current list could be color coded to indicate which projects are preliminarily intended for removal. The list would then be shared with the TWG for confirmation (in Excel format, for ease in adding/modifying). Distribution of the revised list will occur in advance of the next TWG meeting.

- Sergio made some opening remarks on committee participation and Bill recommended clarification in regard to attendance and overall voting procedures. It was noted that agencies have sent several attendees to participate in committee meetings and due to the technical nature of some meetings that may be appropriate. However, as the development of the BMP will lead to issues that need to be voted on we need to define the procedure. At PAC meetings each agency will receive one vote, by the PAC member of record. If a PAC member of record cannot attend a meeting then they have the option of sending a proxy with written confirmation by NMDOT PM, Homerio Bernal.
- TWG Meeting #4 was originally intended to be held in Deming. Because of travel difficulties it was agreed that TWG Meeting #4 will again be held at the War Eagles Air Museum in Santa Teresa (date TBD; 10:00 AM start time). Stakeholder Meeting #2 is still anticipated to be held in Deming (date TBD). Newsletter #2 is anticipated to be complete next month.
- Bill noted that it is still the intent of the study team to complete the Border Master Plan this summer with tentative dates as follows:
    - Tentative TWG Meeting #4 date: April 30, 2015
    - Tentative TWG Meeting #5 date: June 3, 2015
    - Draft Border Master Plan: 6/2015
    - PAC/TWG Results Meeting: 7/2015
    - Final Border Master Plan: 7/2015
    - Bill indicated that the project website has been updated and may be viewed at: http://nm-chihbmp.org
    - The meeting adjourned at approximately 5:00 PM.

**STANTEC CONSULTING SERVICES INC.**

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(602) 707-4693
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Attachments: Focus Area Map, Data Request List, Criteria List, Project Scoring Slides

c. TWG members, Consultant Team - Dan Marum, Omar Cervantes, Alvin Dominguez, Mario Juarez-Infante, Doug Moseke, Amy Moran

Reference: **New Mexico-Chihuahua Border Master Plan (BMP) PAC Meeting #3 Notes (3/19/2015)**

## New Mexico-Chihuahua Border Master Plan PAC Meeting #3 Attendees (3/19/2015)

| | |
|---|---|
| Arechavaleta, Lic. Alberto Morales | Servicio De Administracion Tributaria (SAT) |
| Becerra, Adriana Rivera | INDAABIN – PTS. Region Chih I |
| Black, Travis | FHWA - USDOT |
| Carrillo, Javier | Ascension |
| Corral, Ing. Huber | Secretariat of Communications and Transportation (SCT) |
| De La O, Erika | NMBA |
| Franco, Jabier | Ascension GOB Mex |
| Galvan, Marco Antonio Frias | SCT |
| Gonzalez, Sergio | Presidencia de Ascension |
| Grijalva, Sylvia | FHWA |
| Harr, Tricia | FHWA (Headquarters) |
| Hart, Charlie | GSA |
| Holquin, Efren Mar | Gobierno del Estado de Chihuahua |
| Kameny, Steven | Department of State |
| Lopez Poo, Manuel | IMIP City of Juarez |
| Lopez, Vicente | IMIP |
| Nunez, Jose | US Section, IBWC |
| Palomares, Luis Martin | Ascension Chih |
| Perez, Rudy | Arizona Department of Transportation |
| Pico Escobar, Lorenzo | Instituto Nacional de Migracion |
| Porras, Juan | Ascension |
| Reyes, Armando | CILA |
| Rivas, Jose | USDOT – Federal Motor Carrier Safety Admin. |
| Saavedra, Lic. Wilfrido Campbell | Instituto Nacional de Migracion |

**Agenda**
**New Mexico - Chihuahua Border Master Plan**
**Technical Working Group Meeting #4**

**Thursday, April 30, 2015; 10:00 AM – 1:00 PM**
**War Eagles Air Museum**
**8012 Airport Rd, Santa Teresa, NM 88008**
**(575) 589-2000**

10:00 AM Welcome and Introductions
Homerio Bernal, Project Manager, NMDOT
Rosalia Ochoa, State of Chihuahua

10:15 AM Finalize DRAFT Criteria
- Review four proposed modifications
- Confirm language for use in Rankings

11:00 AM Finalize DRAFT Project List
- Review various filters
  - projects that we believe are outside of the study area
  - projects potentially inappropriate for a BMP (feasibility studies, intersection turn lanes, maintenance, etc.)
  - projects that we believe are already constructed
  - projects that we believe are duplicates
- Confirm list to be used for Rankings

12:15 AM Review Remaining Project Schedule

12:45 AM Schedule Next Meeting –
(Wednesday, June 3, 2015; 10:00 AM – 3:00 PM)

1:00 PM Adjourn

Call-in Data

Mexico (toll free) : 01 800 767 9138
Mexico, Mexico City : +52 55 1207 7323
USA /Canada (toll free) : 1-877-860-3058

Participant Passcode: 794284#

# Meeting Notes

| | | | |
|---|---|---|---|
| To: | New Mexico Department of Transportation (NMDOT) – Homerio Bernal, Project Manager (PM) | From: | Bill Ferris – Consultant PM |
| File: | 1817 10110 | Date: | May 12, 2015 |

**Reference: New Mexico-Chihuahua Border Master Plan (BMP)**
**TWG Meeting #4 Notes (4/30/2015)**

The meeting was held at the War Eagles Air Museum on Thursday, April 30, 2015 at 10:00 AM, local time. Highlighted discussions of the meeting were as follows:

- Welcome and Introductions were given by Homerio Bernal, NMDOT Project Manager.

- Bill Ferris, Consultant PM, outlined the agenda for the meeting and initiated discussions on the site visit to El Berrendo LPOE and the Stakeholder Outreach meeting held in Deming, NM on Wednesday, April 29th. The port visit was enlightening for the study team. The Mexican facilities were adequate for conducting inspections of the small volume of southbound border crossings that occur each day (staffing and building structures). The team did suggest a canopy and more permanent facilities (tables) for the inspection of luggage for northbound operations.

  The focus turned to the 11 kilometers of roadway infrastructure connecting the port to Federal Route 2. Bill noted that the southernmost three kilometers is fully paved and in excellent condition. The northern eight kilometers is unpaved and difficult to navigate (ruts, washboard texture, mounding and challenging turns at the fenceline). It is our understanding that plans exist to complete the remaining eight kilometers of paving. Photos were provided of key features of the visit.

  Attendance at Stakeholder Meeting #2 was improved over Stakeholder Meeting #1. Copies of Newsletters #1 and #2 were made available. A thirty minute presentation was provided on the objectives of the BMP and the progress made to date. Several attendees inquired about specific projects. The questions were addressed through a combination of expertise provided by Ascension, NMDOT, CBP and the Luna County Supervisor. Following the general question and answer period the team was available for specific questions and viewing of the wall map exhibits. Photos were provided of the event.

- Bill reiterated the progress made to date on the Evaluation Process including:
  - ✓ Approval of the Types of Projects
  - ✓ Approval of the Categories of Criteria

- ✓ Approval of the Weighting of the Categories
- ✓ Introduction of the specific language of each Criteria

Bill then reintroduced the four comments/suggestions regarding the language contained in the Criteria that will be used to score the proposed projects.

- ❖ New Criteria (#11 under Project Readiness):
  Funding (2 points for secured/ obligated funding, 0 points otherwise)

  Based on deliberations in the meeting it was determined that the potential new criteria was somewhat duplicative in nature, and therefore, would not be added to the Evaluation Criteria.

- ❖ New Criteria (#6 under Cost Effectiveness):
  Life Cycle Costs (language to be crafted)

  The original proposal was introduced by NMDOT and those participants now suggest that the concept be included only as a recommendation for consideration in the future update of the BMP. The proposed criteria will not be included at this time.

- ❖ Modified Criteria (#15 under LPOE Connectivity):
  What is the travel distance to the nearest LPOE?

  Considerable discussion was raised in regard to the limits that garner points for this criteria. It was ultimately resolved to provide: 2 points for projects within 5 miles of a LPOE; 1 point for projects between 5 and 10 miles of a LPOE; and, 0 points for projects located beyond 10 miles from a LPOE.

- ❖ Modified Criteria (#17 under LPOE Connectivity):
  Inclusion of bus routes

  Considerable discussion was raised in regard to modifying the criteria description to include bus routes. Based on the discussion the criteria description will be modified to state: "Projects located on routes from which a continuous path to an LPOE is available for alternate modes (sidewalks, bicycles, and dedicated transit routes with service/stops at the LPOE)"

- Bill reminded the committee that a comprehensive list of projects has been developed. The list (310 projects) is a compilation of "potential" projects that were gleaned from all of the studies that have been reviewed to date. The comprehensive list of projects was reviewed (over the course of 2+ hours) by the TWG and projects that were completed, outside the focus area, or deemed not appropriate in size/scope were removed from the list. The list will be finalized after additional follow up with IMIP regarding a few projects in Mexico.

- Bill noted that it is still the intent of the study team to complete the Border Master Plan this summer with tentative dates as follows:
  - Distribution of Revised TM#2: May 18, 2015
  - TM#2 Comments due: May 25, 2015
  - Distribution of TM#3: May 25, 2015
  - PAC/TWG Combined Meeting: June 9, 2015
  - TM#3 Comments due: June 10, 2015
  - Draft Border Master Plan: June 24, 2015
  - PAC/TWG Results Meeting: 7/2015
  - Final Border Master Plan: 7/2015
  - Bill indicated that the project website has been updated and may be viewed at: http://nm-chihbmp.org
  - The meeting adjourned at approximately 1:20 PM.

**STANTEC CONSULTING SERVICES INC.**

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(602) 707-4693
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c. TWG members, Consultant Team - Dan Marum, Omar Cervantes, Alvin Dominguez, Mario Juarez-Infante, Doug Moseke, Amy Moran

Reference: **New Mexico-Chihuahua Border Master Plan (BMP) TWG Meeting #4 Notes (4/30/2015)**

## New Mexico-Chihuahua Border Master Plan TWG Meeting #4 Attendees (4/30/2015)

| | |
|---|---|
| Bernal, Homerio | NMDOT |
| Black, Travis | FHWA - USDOT |
| Carrillo, Javier | Ascension |
| Chavarria, Aaron | NMDOT |
| De La O, Erika | NMBA |
| Diaz de Leon, Roberto | City of Sunland Park |
| Dominguez, Ricardo | City of Sunland Park |
| Franco, Jabier | Ascension GOB Mex |
| Gomez, Cesar | CBP |
| Gonzalez, Sergio | Presidencia de Ascension |
| Grijalva, Sylvia | FHWA |
| Holquin, Efren Mar | Gobierno del Estado de Chihuahua |
| Kameny, Steven (by phone) | Department of State |
| Love, Harold | NMDOT |
| Medina, Michael | El Paso MPO |
| Ochoa, Rosalia | Estado de Chihuahua |
| Unnikrishna, Padinare | US Section, IBWC |
| Palomares, Luis Martin | Ascension Chih |
| Partida, Daniel | GSA |
| Pico Escobar, Lorenzo | Instituto Nacional de Migracion |
| Porras, Juan | Ascension |
| Proctor, Jesse (proxy) | CBP |
| Reyes, Armando | CILA |
| Scroggins, Cecil | GSA |
| Siqueiros, Alejandro | SRE – Consulate General of Mexico |
| Sittig, Paul | NMDOT |
| Soderquist, Randall | NMDOT |
| Valerio, Max (by phone) | FHWA |

**Agenda**
**New Mexico - Chihuahua Border Master Plan**
**Combined PAC/TWG Scoring Meeting**

**Tuesday, June 9, 2015; 10:00 AM – 3:00 PM**
**War Eagles Air Museum**
**8012 Airport Rd, Santa Teresa, NM 88008**
**(575) 589-2000**

10:00 AM Welcome and Introductions
Homerio Bernal, Project Manager, NMDOT
Sergio Jurado Medina, State of Chihuahua

10:15 AM Review findings from Port tours (Chihuahua)
- Puerto Palomas
- San Jeronimo

10:30 AM Review filtered Project List and Study Team Scoring
- LPOE
- Multimodal Infrastructure
- Rail

2:30 PM Review Remaining Project Schedule

2:45 PM Schedule Next Meeting –
(Thursday, July 16, 2015; 10:00 AM – 1:00 PM)

3:00 PM Adjourn

Call-in Data

Mexico (toll free) : 01 800 767 9138
Mexico, Mexico City : +52 55 1207 7323
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Stantec

# Meeting Notes

| | | | |
|---|---|---|---|
| To: | New Mexico Department of Transportation (NMDOT) – Homerio Bernal, Project Manager (PM) | From: | Bill Ferris – Consultant PM |
| File: | 1817 10110 | Date: | June 25, 2015 |

**Reference: New Mexico-Chihuahua Border Master Plan (BMP) Scoring Meeting Notes (6/09/2015)**

The meeting was held at the War Eagles Air Museum on Thursday, June 9, 2015 at 10:00 AM, local time. Highlighted discussions of the meeting were as follows:

- Welcome and Introductions were given by Homerio Bernal, NMDOT Project Manager.
- Bill Ferris, Consultant PM, outlined:
  - ✓ Agenda for the meeting
  - ✓ Revisited the Primary Project Objectives
  - ✓ Reviewed the Focus Area Map
  - ✓ Provided a synopsis of the progress made to date
  - ✓ Identified the remaining BMP deliverables
    - ❖ Receive comments on Technical Memorandums
    - ❖ Initiate review of Study Team's Project Scoring (today)
    - ❖ Complete the Ranking Process
    - ❖ Prepare the Draft Border Master Plan
    - ❖ Receive comments on the Draft Border Master Plan
    - ❖ Convene Rankings/Results Meeting
    - ❖ Prepare the Final Border Master Plan
- Bill Ferris, Omar Cervantes and Doug Moseke of the Study Team were hosted by SAT at the Puerto Palomas Land Port of Entry (LPOE) on Thursday, April 30, 2015, and the team discussed the findings of the site-walk (through a compilation of photos):
  - ✓ The southbound inspection of Privately Owned Vehicles (POVs) works reasonably well, although, the lanes are a little narrow due to the vertical walls on each side of the approach to primary inspection. Under normal circumstances, all of the vehicles must execute a 90 degree right hand turn (immediately after primary inspection) passing through the secondary inspection and permitting areas in order to exit the facility.
  - ✓ Several hundred school students cross the border each day. Their return route, in the afternoon, has been modified to avoid conflicts with the primary and secondary inspection operations, however, there is still a significant crossing near the exit from the port.

- ✓ The Commercial primary inspection is located to the east, parallel to the international border and appears to be adequate to handle most large commercial vehicles.

- ✓ The Commercial secondary inspection is adjacent to the primary facility and provides a venue to de-van commercial loads at a dock facility. The dock is very small and does not allow off-loading of the trucks full contents directly behind the vehicle as the dock is not sufficiently deep.

- ✓ Bill reiterated that both the Mexican and US LPOEs are planned for expansion, reconstruction and modernization. The flow of commercial vehicles will be accommodated to the east with separate alignments for northbound and southbound traffic. POVs and pedestrians will be consolidated to the west with a separate crossing location away from the trucks. The collaboration between countries as appears to be very high and both of the LPOE projects are moving forward.

- Bill revisited the progress made to date on the Evaluation Process including:
  - ✓ Approval of the Types of Projects
  - ✓ Approval of the Categories of Criteria
  - ✓ Approval of the Weighting of the Categories
  - ✓ Approval of the specific language of each Criteria
  - ✓ Development of a comprehensive list of projects. The original list (310 projects) was filtered – removing projects that were completed, outside the focus area, or deemed not appropriate in size/scope.
    - ❖ Two projects in NM required further deliberation. Bill showed aerial photos of the at-grade rail crossing (Rail project) at La Union Road and indicated that the project appears to be complete. The committees agreed to remove the project from consideration. Additionally, the NM 136, Santa Teresa POE Infrastructure Improvements at the POE Commercial facility and the NM Border Authority (LPOE project) were similarly removed as they have been completed. The committee agreed to add the International Gateway Courtesy Plaza project for amenities (bathrooms and an information kiosk ) adjacent to the NMBA offices along NM 136. The study team will complete the Scoring on the new project over the course of the next week.
    - ❖ Bill showed an illustration of the multitude of alternatives currently under consideration related to the proposed rail bypass. The project extends from the south of the Cd. Juarez, around the west side of the city, progressing north across the international border and tying into rail infrastructure near the I-10 corridor between El Paso and Las Cruces. Bill Mattice, NMBA, noted that the eastern most alternatives are no longer being considered, which reduces the number of possible alignments in New Mexico to four. The alternative analysis should be completed later this year, likely around the end of September 2015. The project will remain in the project list, but will score poorly in the “project readiness” category.

- Sergio Jurado, State of Chihuahua noted a concern with regard to the lack of material associated with the Technical Memos and the completeness of the Filtering and Scoring for the projects in Chihuahua. After considerable deliberation it was agreed that the Mexican agencies would provide additional material/data for use in the Technical Memos by Friday, June 19, 2015. All data will be funneled through Rosalia Ochoa, State of Chihuahua to the Study Team. Bill noted that the additional information will be combined with the Technical Memos and presented in the Draft BMP.

- The majority of the 5-hour meeting was devoted to the review, discussion, debate and modification of the Scoring presented by the Study Team, who had filtered the 313 projects down to around 100. Two additional projects were removed earlier in the meeting and NMBA's Courtesy Plaza was added. Based on specific knowledge of the project details by committee members several scoring categories were modified to reflect more detailed information. Consensus was obtained on all NM Rail and LPOE projects (NM Multimodal Infrastructure projects were not yet reviewed due to time constraints). Confirmation was also obtained on five projects in Chihuahua. The Study Team anticipates updating the Scoring based on receipt of additional data from the Mexican agencies and then distributing the revised Study Team Scoring for further comment. The schedule for the remainder of the project will be distributed the week of June 29, 2015.

- Bill noted that it is still the intent of the study team to complete the Border Master Plan this summer with tentative dates as follows:
  - TM#3 Comments due: June 15, 2015
  - Draft Border Master Plan: July, 2015
  - PAC/TWG Results Meeting: Late July, 2015
  - Final Border Master Plan: Late July, 2015
  - The meeting adjourned at approximately 2:50 PM.

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c. Committee members, Consultant Team - Dan Marum, Omar Cervantes, Alvin Dominguez, Mario Juarez-Infante, Doug Moseke, Amy Moran

Reference: **New Mexico-Chihuahua Border Master Plan (BMP) Scoring Meeting Notes (6/09/2015)**

## New Mexico-Chihuahua Border Master Plan
## Combined PAC/TWG Scoring Meeting (06/09/2015)

| | |
|---|---|
| Achaval, Lic. Rosalia Ochoa | Promotora De La Industria Chihuahuense |
| Almaguer, Antonio | Xeytia Family Representative |
| Becerra, Adriana Rivera | INDAABIN – PTS. Region Chih I |
| Black, Travis | FHWA - USDOT |
| Caldera, Roberto | Consulate of Mexico, El Paso |
| Castro, Luis Alberto | SAGARPA-SENASICA |
| Chavarria, Aaron | NMDOT |
| Corral, Ing. Huber | Secretariat of Communications and Transportation (SCT) |
| Diaz de Leon, Roberto | Sunland Park |
| Dominguez, Ricardo | Sunland Park |
| Fernandez, Juan | Asesoria Juridica Especializada |
| Gomez, Cesar | CBP DHS |
| Grijalva, Sylvia | FHWA |
| Hart, Charlie | GSA |
| Lopez Poo, Manuel | IMIP City of Juarez |
| Lopez, Vicente | IMIP |
| Mattiace, William | New Mexico Border Authority |
| Medina, Michael | El Paso MPO |
| Neilan, Linda A | US Department of State, Mexican Desk |
| Palomares, Luis Martin | Ascension Chih |
| Parra, Ruben | Municipio de Janos |
| Partida, Danny | GSA |
| Pico Escobar, Lorenzo | Instituto Nacional de Migracion |
| Prieto, Manual R. | Municipio de Janos |
| Provencio, Ray | CBP DHS |
| Scroggins, Cecil | GSA |
| Siqueiros, Alejandro | Consulate General of Mexico |
| Sittig, Paul | NMDOT |
| Soderquist, Randall | NMDOT |
| Unnikrishna, Padinare | International Boundary and Water Commission |
| Veytia, Joe F. | Realtor, Sellers & Buyers |

**Agenda**
**New Mexico - Chihuahua Border Master Plan**
**Final Results Meeting**

**Friday, July 24, 2015; 10:00 AM – 1:00 PM**
**War Eagles Air Museum**
**8012 Airport Rd, Santa Teresa, NM 88008**
**(575) 589-2000**

10:00 AM Welcome and Introductions
Homerio Bernal, Project Manager, NMDOT
Sergio Jurado Medina, State of Chihuahua

10:20 AM Review filtered Project List and Study Team Scoring (Chihuahua)

- LPOE
- Multimodal Infrastructure
- Rail

11:30 PM Break

11:45 PM Review Project Rankings

- LPOE (Chihuahua)
- LPOE (NM)
- Multimodal Infrastructure (Chihuahua)
- Multimodal Infrastructure (NM)
- Rail (Chihuahua)
- Rail (NM)

1:00 PM Adjourn

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Participant Passcode: 794284#

# Meeting Notes

| | | | |
|---|---|---|---|
| To: | New Mexico Department of Transportation (NMDOT) – Homerio Bernal, Project Manager (PM) | From: | Bill Ferris – Consultant PM |
| File: | 1817 10110 | Date: | July 27, 2015 |

**Reference: New Mexico-Chihuahua Border Master Plan (BMP)**
**Final Results Meeting (7/24/2015)**

The meeting was held at the War Eagles Air Museum on Friday, July 24, 2015 at 10:00 AM, local time. Highlighted discussions of the meeting were as follows:

- Welcome and Introductions were given by Homerio Bernal, NMDOT Project Manager and Rosalia Ochoa, State of Chihuahua.
- Bill Ferris, Consultant PM, outlined:
  - ✓ Agenda for the meeting
    - ❖ Review requested modification to the Focus Area Map (attached)
    - ❖ Review of Study Team's Project Scoring (Chihuahua projects)
    - ❖ Review the Rankings for the NM projects
- Bill noted that there was a desire by committee members to modify the Focus Area to include the entirety of Mexican Federal Route 2, the major east-west corridor across the northern portion of the state of Chihuahua. A portion of the roadway was already included, however, the proposal extended the limits from the proximity of El Berrendo, to Janos and then onward toward Juarez. After reviewing the map there were no dissenting votes opposing the modification.

  There was an additional proposal to extend the Focus Area along Mexican Federal Route 10 from Janos to Nuevo Casas Grandes, however, that portion of roadway was well outside the Area of Influence and the proposal was turned down.
- The majority of the 3-hour meeting was devoted to the review, discussion, debate and modification of the Scoring, presented by the Study Team, on the projects proposed for the state of Chihuahua.

  There was an initial debate regarding the potential removal of the proposed POV/Pedestrian only LPOE project in Anapra. Following the discussions it was determined that the project could remain, largely considered a placeholder, for further consideration in future BMP updates.

Ray Provencio, Santa Teresa Port Director, CBP noted that there has been a steady uptick in the commercial traffic volumes observed crossing the international border at the Santa Teresa/San Jeronimo LPOE. Bill noted that the Study Team typically considers a full year of data in the BMP documents, and therefore the data was derived from 2013. Ray offered to provide current, 2015 data to ensure the Scoring is reflecting the most accurate information. Committee members supported this approach. The remainder of the Scoring associated with the LPOEs was supported. Likewise, Scoring of the Rail projects was supported as presented.

Following a lunch break Bill revealed the results of the final Rankings for all projects in NM. The highest ranked projects included:

- LPOE Project Type: Columbus Port of Entry
- Rail Project Type: Rail Bypass (proximity of Santa Teresa LPOE around the Strauss Rail Yard to proximity of I-10)
- Multimodal Infrastructure (MMI) Project Type: NM 136 (Pete Domenici Highway) from the Santa Teresa LPOE to the Texas State Line

Roberto Diaz de Leon, City of Sunland Park, noted that the cost associated with the proposed LPOE in Sunland Park of $30M included the cost of upgrades to roadways adjacent to the new facility. Consensus was achieved confirming that roadway improvements outside the LPOE campus should be considered separately, therefore, the cost needs to be recomputed to subtract the cost of the approach roadways. Roberto to furnish updated cost data to the Study Team.

The remainder of the meeting was focused on a review of the Scoring for the Chihuahua Multimodal Infrastructure projects. Initial discussions focused on the removal of several projects that were deemed to be duplicates of other projects already on the list. All of the Mexican representatives approved the modifications to the project list.

Huber Corral, SCT – provided project length and cost updates for the large project along Mexican Federal Route 2. Luis Martin Palomares, Ascencion provided confirmation of key project information. Several data entries were confirmed by Manuel Lopez Poo, IMIP and general input was provided by Vicente Lopez, Director, IMIP. There was continuous engagement from committee members throughout the meeting.

Time constraints limited the complete review of the project list. Bill requested that committee members review the remaining MMI projects as part of their analysis of the DRAFT BMP anticipated to be submitted in the next week or so.

- Bill noted that it is still the intent of the study team to complete the Border Master Plan this summer with tentative dates as follows:
  - Draft Border Master Plan: the week of July 27, 2015
  - Comment review period to be one week
  - Final Border Master Plan: mid-August 2015

Reference: **New Mexico-Chihuahua Border Master Plan (BMP) Final Results Meeting Notes (7/24/2015)**

- The meeting adjourned at 1:05 PM

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c. Committee members, Consultant Team - Dan Marum, Omar Cervantes, Alvin Dominguez, Mario Juarez-Infante, Doug Moseke, Amy Moran

Reference: **New Mexico-Chihuahua Border Master Plan (BMP) Final Results Meeting Notes (7/24/2015)**

## New Mexico-Chihuahua Border Master Plan
## Final Results Meeting (7/24/2015)

| | |
|---|---|
| Achaval, Lic. Rosalia | Promotora De La Industria Chihuahuense |
| Becerra, Adriana Rivera | INDAABIN – PTS. Region Chih I |
| Cardenas, Juan Porras | City of Ascension |
| Castillo, Ricardo | IBASA |
| Chavarria, Aaron | NMDOT |
| Corral, Ing. Huber | Secretariat of Communications and Transportation |
| Craven, Bill | NMDOT |
| De La O, Erika | New Mexico Border Authority |
| Diaz de Leon, Roberto | Sunland Park |
| Dominguez, Ricardo | Sunland Park |
| Doolittle, Trent | NMDOT |
| Escobar, Lorenzo Pico | Instituto Nacional de Migracion |
| Gomez, Cesar | CBP DHS |
| Grijalva, Cerisse | SW NM COG |
| Grijalva, Sylvia | FHWA |
| Hart, Charlie | GSA |
| Lopez Poo, Manuel | IMIP City of Juarez |
| Lopez, Vicente | IMIP |
| Love, Harold | NMDOT |
| Monge-Oviedo | FHWA (by phone) |
| Nereida, Cora | International Boundary and Water Commission |
| Padilla, Julio Cesar Espino | CILA |
| Palomares, Luis Martin | Ascension Chih |
| Riesgo, Ramon | GSA (by phone) |
| Reyes, Armando | CILA |
| Proctor, Jesse | CBP DHS |
| Provencio, Ray | CBP DHS |
| Siqueiros, Alejandro | Consulate General of Mexico |
| Soderquist, Randall | NMDOT |
| Valerio, Max | FHWA (by phone) |

# APPENDIX D

## Point Spreads for Evaluation Criteria

# POINT SPREADS FOR EVALUATION CRITERIA

## LAND PORT OF ENTRY EVALUATION CRITERIA

### CATEGORY: CAPACITY/CONGESTION

1. Change in projected demand. Change in volume of Commercial Vehicles (CV), Privately Owned Vehicles (POV), Pedestrian, & Rail traffic. 12 points possible, 3 in each mode (CV, POV, Ped, Rail).
    a. 3 points - Projects with the highest increase
    b. 2 points - Projects with medium increase
    c. 1 point - Projects with the lowest increase
    d. 0 points - Projects with a specific mode that is not offered
2. Change in number/type/efficiency of booths/docks. Change in number of CV, POV, Ped, & Rail processing booths; change in number of booths dedicated to SENTRI, FAST, tandem processing, etc. 12 points possible, 3 in each mode (CV, POV, Ped, Rail).
    a. 3 points - Projects with the highest increase
    b. 2 points - Projects with medium increase
    c. 1 point - Projects with the lowest increase
    d. 0 points - Projects with a specific mode that is not offered
3. Wait times. Existing documented wait times by travel mode. 9 points possible, 3 in each mode (CV, POV, Ped).
    a. 3 points - Projects with the longest wait
    b. 2 points - Projects with medium wait
    c. 1 point - Projects with the lowest wait
    d. 0 points - Projects with a specific mode that is not offered

4. Change in modes served. Are new travel modes able to be processed? 2 points possible.
    a. 2 points - More than one mode added
    b. 1 point - One mode added
    c. 0 points - No additional modes
5. Percent of total New Mexico-Chihuahua border crossing demand. Ratio of existing or projected LPOE annual crossings to total crossings between New Mexico and Chihuahua. 12 points possible, 3 in each mode (CV, POV, Ped, Rail).
    a. 3 points - Projects with the highest percent
    b. 2 points - Projects with medium percent
    c. 1 point - Projects with the lowest percent
    d. 0 points - Projects with a specific mode that is not offered

### CATEGORY: COST EFFECTIVENESS

6. Cost of project versus projected demand. Project cost vs. number of users that would benefit from the investment. 5 points possible.

### CATEGORY: REGIONAL BENEFIT

7. Environmental effects. Qualitative effects on air quality, parks/open space, wildlife areas or linkages. (*Assumes all projects will have some environmental benefit to air quality. Measure intended to account for potential disruption to natural environment.)* 2 points possible.
    a. 2 points - Projects with least impact
    b. 1 point - Projects with negligible impact
    c. 0 points - Projects with highest impact

8. Socioeconomic/community effects. Qualitative effects on neighborhoods, community services (schools, churches, medical, etc.), effects on minority populations. 2 points possible.
    a. 2 points - Projects with positive impact
    b. 1 point - Projects with negligible impact
    c. 0 points - Projects with negative impact
9. Economic effects. Qualitative effects on businesses, job creation, transport of freight. 2 points possible.
    a. 2 points - Projects with positive impact
    b. 1 point - Projects with negligible impact
    c. 0 points - Projects with negative impact
10. Modal effects. Does the project affect (positively or negatively) alternate travel modes (Ped, bike, transit)? 1 point possible.
    a. 1 point - Projects with positive impact
    b. 0 points - Projects with negligible or negative impact

## CATEGORY: PROJECT READINESS

11. Project Phase. What stage of planning, design, land acquisition, and dedicated funding? 3 points possible.
    a. 3 points - Permitted projects
    b. 2 points - Projects in advanced planning
    c. 1 point - Projects in conceptual planning
12. Land Availability. Is land available at a reasonable cost and easily adapted or will acquisition be difficult/costly? 1 point possible.
    a. 1 point - yes
    b. 0 points - no

13. Local Infrastructure Compatibility. Is local infrastructure in place to support the proposed LPOE improvements project? 2 points possible.
    a. 2 points – *Both* Roadway and Utility Infrastructure in place
    b. 1 point – *Only* Roadway *OR* Utility Infrastructure in place
    c. 0 points – Neither Roadway *OR* Utility Infrastructure in place
14. Change in efficiency of staff. 1 point possible.
    a. 1 point – Project improves existing staff efficiency
    b. 0 points – Project does not improve staff efficiency

## CATEGORY: BINATIONAL COORDINATION/COMMITMENT/CONSENSUS

15. Federal Support. What level of discussion/commitment has been made by the U.S. and Mexican Federal Governments? Are both parties on board? 2 points possible.
    a. 2 points – Strong support by all parties
    b. 1 point – Passive support by all parties
    c. 0 points – No support
16. State/Local Support. What level of support/commitment has been observed by state or local agencies? 2 points possible.
    a. 2 points – Strong support by all parties
    b. 1 point – Passive support by all parties
    c. 0 points – No support
17. Level of Bi-national Consensus. Marked by federal milestones including exchange of official documents and coordination via Binational Bridges & Border Crossings Group (BBBXG). 3 points possible.
    a. 3 points – Strong level of agreement
    b. 2 points – Medium level of agreement
    c. 1 point – Little consensus

## MULTIMODAL INFRASTRUCTURE EVALUATION CRITERIA

### CATEGORY: CAPACITY/CONGESTION

1. Increase in daily volume forecast. Change in volume of CV, POV, and Ped on the subject facility (as applicable). (*Projects with an increase in volume greater than the average increase across all projects received 2 points. Projects with an increase in volume less than the average increase received 1 point.)* 2 points possible.
    a. 2 points - Projects with higher increase
    b. 1 point - Projects with lower increase
2. Percent trucks. Of the total travel volume on the subject facility, what percentage is truck traffic? Points to both economic and safety aspects of the improvement. 3 points possible.
    a. 3 points - Projects with the higher percentage of trucks (7% or more)
    b. 2 points - Projects with medium percentage of trucks (3%-7%)
    c. 1 point - Projects with the lower percentage of trucks (less than 3%)
3. Change in number and efficiency of lanes. How many lanes are added/removed by the improvement? Does the improvement enhance the efficiency of the facility (i.e. one-way conversions)? 3 points possible.
    a. 3 points - Projects with the highest number of additional/modified lanes (3 or more lanes)
    b. 2 points - Projects with medium number of additional/modified lanes (2 lanes)
    c. 1 point - Projects with the lowest number of additional/modified lanes (1 or fewer lanes)
4. Level of Service improvement. What is the relative improvement to LOS? Improvements to address E or F conditions would score higher than those addressing LOS A-D. 2 points possible.

a. 2 points - Project results in improvement from a congested level (E or F) to an acceptable level (D or better)

b. 1 point - Project results in LOS improvement within the acceptable range of LOS A to LOS D.

5. Increase in modes served. The more travel modes the improvement enhances, the higher the score. 2 points possible.

   a. 2 points - More than one mode added

   b. 1 point - One mode added

   c. 0 points - No additional modes

## CATEGORY: COST EFFECTIVENESS

6. Cost of project versus projected demand. Project cost vs. number of users that would benefit from the investment, or projected VMT on the improved facility. 3 points possible.

   a. 3 points - Projects with the highest cost effectiveness scores

   b. 2 points - Projects with medium cost effectiveness scores

   c. 1 point - Projects with the lowest cost effectiveness scores

## CATEGORY: REGIONAL BENEFIT

7. Environmental effects. Qualitative effects on air quality, parks/open space, wildlife areas or linkages. (*Assumes all projects will have some environmental benefit to air quality. Measure intended to account for potential disruption to natural environment. New road construction received 0 points, widening received 1 point, other projects not requiring substantial additional ROW (such as pedestrian bridges, one-way street conversions) received 2 points).* 2 points possible.

   a. 2 points - Projects with least impact

   b. 1 point - Projects with negligible impact

   c. 0 points - Projects with highest impact

8. Socioeconomic / community effects. Qualitative effects on neighborhoods, community services (schools, churches, medical, etc.), effects on minority populations. (*Projects in proximity to populated neighborhoods that would improve access to communities were awarded 2 points, others were awarded 1 point unless a negative impact had been identified).* 2 points possible.
    a. 2 points - Projects with positive impact
    b. 1 point - Projects with negligible impact
    c. 0 points - Projects with negative impact
9. Economic effects. Qualitative effects on businesses, job creation, transport of freight. (*Projects on roadways with higher functional classification (such as freeways, state highways, expressways) or facilities with high percentage of trucks were awarded 2 points, most others awarded 1 point unless there was specific rationale indicating otherwise).* 2 points possible.
    a. 2 points - Projects with positive impact
    b. 1 point - Projects with negligible impact
    c. 0 points - Projects with negative impact
10. Modal effects. Does the project affect (positively or negatively) alternate travel modes (Ped, bike, transit)? (*Projects specifically targeted to alternate modes-such as pedestrian overpasses- were awarded 2 points, projects on roadways identified as part of a regional transit route or bicycle plan were awarded 1 point, other projects were awarded 0 points).* 2 points possible.
    a. 2 points - Positive effect on multiple modes
    b. 1 point - Positive effect on limited modes
    c. 0 points - No additional modes impacted

## CATEGORY: PROJECT READINESS

11. Project phase. What stage of planning, design, land acquisition, and dedicated funding? 3 points possible.
    a. 3 points - Final design phase
    b. 2 points - Advanced planning/preliminary engineering/environmental
    c. 1 point - Conceptual planning
12. Land Availability. Is land available at a reasonable cost and easily adapted or will acquisition be difficult/costly? (*Projects located in densely developed areas were awarded 0 points as it was assumed land acquisition or adaptability would be more difficult than for projects is less developed areas).* 1 point possible.
    a. 1 point - yes
    b. 0 points - no
13. Community and stakeholder acceptance. What is the likelihood that the community would support the project? (*All projects extracted from final, approved documents were awarded 1 point. New projects not yet vetted with the public were awarded 0 points).* 1 point possible.
    a. 1 point - support
    b. 0 points - no support

## CATEGORY: LPOE CONNECTIVITY

14. Relative Connectivity. How much of a direct connection to an LPOE is provided by the route? 3 points possible.
    a. 3 points - Project connects to 2 or more LPOEs
    b. 2 points - Project occurs on a roadway that has a terminus at a LPOE
    c. 1 point - Project occurs on a roadway that connects to a roadway that has a terminus at a LPOE

d. 0 points - Project occurs on a roadway that does not connect to a terminus at a LPOE

15. Distance to LPOE. What is the travel distance to the nearest LPOE? 2 points possible.

    a. 2 points - Project is within 5 miles of a LPOE

    b. 1 point - Project is between 5 and 10 miles of a LPOE

    c. 0 points - Project is beyond 10 miles of a LPOE

16. Percent of daily volume related to LPOE. Of the total projected volume on the subject facility, what percentage of the volume is attributable to cross-border travel? (*Those in closest proximity, serving multiple LPOEs were awarded 3 points, those furthest from the LPOEs received 1 point.).* 3 points possible.

    a. 3 points - Projects with the highest percentage of LPOE-related traffic (>50%)

    b. 2 points - Projects with medium percentage of LPOE-related traffic (25-50%)

    c. 1 point - Projects with the lowest percentage of LPOE-related traffic (<25%)

17. Alternate Mode Connectivity. 1 point possible.

    a. 1 point - Projects located on routes from which a continuous path to an LPOE is available for alternate modes (sidewalks or bicycles)

    b. 0 point - Projects located on routes from which there is no continuous path to an LPOE available for alternate modes (sidewalks or bicycles)

## RAIL EVALUATION CRITERIA

### CATEGORY: CAPACITY/CONGESTION

1. Increase in projected number of rail cars. How many new rail cars will utilize the subject improvement? 2 points possible.
    a. 2 points - Projects with higher expected increase/demand based on higher current trade volumes that would be served or potential for increased trade volumes.
    b. 1 point - Projects with lower increase/demand based on current trade volumes.
2. Cross-border tonnage/value. What is the total weight and/or value of the goods that will utilize the improvement? 3 points possible.
    a. 3 points - Projects with the highest tonnage/value
    b. 2 points - Projects with medium tonnage/value
    c. 1 point - Projects with the lowest tonnage/value
3. Change in number/miles of tracks. How many additional miles of track? 2 points possible.
    a. 2 points - Projects with higher number of tracks or miles added
    b. 1 point - Projects with lower number of tracks or miles added
4. Change in travel speed. Will speed decrease, stay the same, or increase?

    2 points possible.
    a. 2 points - Projects that improve travel speed
    b. 1 point - Projects have little effect on travel speed
    c. 0 points - Projects decrease travel speed

5. Change in modes served. Will the improvement accommodate a new mode or additional types of rail (heavy rail, commuter, high-speed, etc.)? 2 points possible.
    a. 2 points - Two types of rail service added
    b. 1 point - One additional rail service added
    c. 0 points - No additional service types

### CATEGORY: COST EFFECTIVENESS

6. Cost of Project versus projected demand. Planning level project cost versus benefit from the investment. 3 points possible.
    a. 3 points - Projects with the highest cost effectiveness scores
    b. 2 points - Projects with medium cost effectiveness scores
    c. 1 point - Projects with the lowest cost effectiveness scores

### CATEGORY: REGIONAL BENEFIT

7. Environmental effects. Qualitative effects on air quality, parks/open space, wildlife areas / linkages, or other sensitive land uses. 2 points possible.
    a. 2 points - Projects with anticipated net positive impact
    b. 1 point - Projects with anticipated negligible impact
    c. 0 points - Projects with potential for substantial adverse impact
8. Socioeconomic/community effects. Qualitatively determined effects on neighborhoods, community services (schools, churches, medical, etc), and effects on minority populations. Effects may include noise / traffic issues, or community bifurcation due to a new linear corridor. 2 points possible.
    a. 2 points - Projects with positive impact
    b. 1 point - Projects with negligible impact
    c. 0 points - Projects with negative impact

9. Economic effects. Qualitative effects on businesses, job creation, transport of freight; degree to which project reduces infrastructure construction & maintenance costs as a result of decreased heavy vehicle travel. 2 points possible.
    a. 2 points - Projects with positive benefit
    b. 1 point - Projects with negligible impact
    c. 0 points - Projects with negative impact
10. Modal effects. Does the project affect (positively or negatively) alternate travel modes (ped, bike, transit). 2 points possible.
    a. 2 points – Projects with a positive impact on multiple alternative modes (Ped/bike/transit)
    b. 1 point - Projects with positive impact through addition or expansion of one travel mode
    c. 0 points – Projects with negligible or negative impact

### CATEGORY: PROJECT READINESS

11. Project Phase. What stage of planning, design, land acquisition, and dedicated funding? 3 points possible.
    a. 3 points - Final design phase
    b. 2 points - Advanced planning/prelim engineering/environmental
    c. 1 point - Conceptual planning
12. Land Availability. Is land available at a reasonable cost and easily adapted or will acquisition be difficult/costly? 1 point possible.
    a. 1 point - yes
    b. 0 points – no

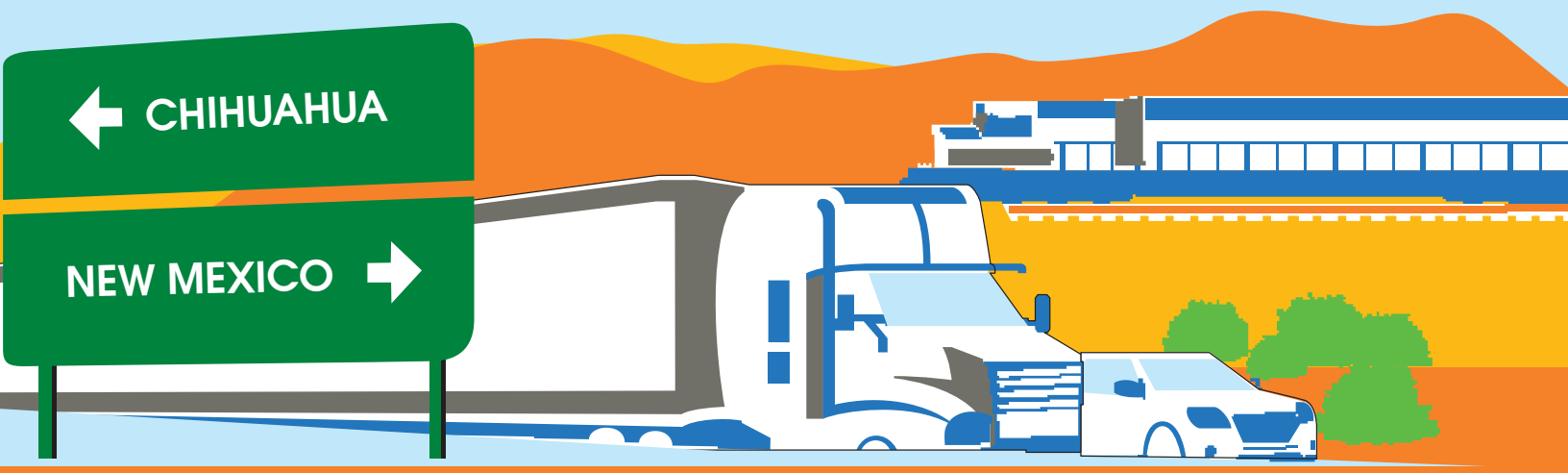
13. Conformity to private initiatives. Is this project already being planned by private initiatives? 1 point possible.
    a. 1 point - support
    b. 0 points - no support

## CATEGORY: LPOE CONNECTIVITY

14. Number of LPOEs served. How are LPOEs in the study area served directly by the facility? (Could be a new facility that originates in another state but runs through the study area – would not receive any points). 2 points possible.
    a. 2 points - Project occurs on a rail line that crosses the border or has a terminus at a LPOE
    b. 1 point - Project occurs on a rail line that connects to a rail line that has a terminus at a LPOE
    c. 0 points - Project occurs on a rail line that does not cross or have a terminus at the international border
15. Distance to LPOE. What is the travel distance to the nearest LPOE? 1 point possible.
    a. 1 point - Project is within 10 miles of a LPOE
    b. 0 points - Project is beyond 10 miles of a LPOE
16. Percent of total border-freight served. Of the total projected volume, what percentage is attributable to cross-border travel? 2 points possible.
    a. 2 points - Projects with the highest percentage of LPOE-related traffic
    b. 1 point - Projects with medium percentage of LPOE-related traffic
    c. 0 points - Projects with the lowest percentage of LPOE-related traffic

# APPENDIX E

## Newsletters




# NEW MEXICO-CHIHUAHUA BORDER MASTER PLAN

Newsletter Winter 2014

## PROJECT OVERVIEW

Roads, rail, highways, ports, and bridges link people, ideas, and places in ways that make communities thrive and the economy grow.

The New Mexico Department of Transportation (NMDOT) and Federal Highway Administration (FHWA) are embarking on a Border Master Plan (BMP) for the New Mexico-Chihuahua border region, working closely with the State of Chihuahua, Mexico, the Ministry of Foreign Affairs (Secretaria de Relaciones Exteriores), the Ministry of Communications and Transportation (Secretaria de Comunicaciones y Transportes), and several other local, state and federal agencies.

The BMP study area extends along the entire New Mexico-Chihuahua border, which incorporates a wide range of international jurisdictions, including federal, state, county and city governments on both sides of the border.

Columbus Land Port of Entry

## WHEN?

The workplan below shows the tasks and proposed schedule for the study process, scheduled for completion in mid-2015.

OCT 2014
- Combined Policy Advisory Committee (PAC)/ Technical Working Group (TWG) Kickoff Meeting #1, Sunland Park, NM

NOV 2014
- TWG Meeting #2, Santa Teresa, NM

DEC 2014
- Technical Memo #1: Land Port of Entry Review
- Technical Memo #2: Existing and Future Conditions

JAN 2015
- PAC Meeting #2. Santa Teresa, NM

FEB 2015
- TWG Meeting #3
- Focus Group Meeting #1
- Technical Memo #3: Draft Projects for Evaluation Criteria

MARCH 2015
- PAC Meeting #3
- Focus Group Meeting #2

APR 2015
- TWG Meeting #4

MAY 2015
- Draft Border Master Plan

JULY 2015
- Final Border Master Plan

## TECHNICAL WORKING GROUP UPDATE

The Technical Working Group (TWG) for the New Mexico-Chihuahua Border Master Plan (BMP) has the unenviable task of completing the BMP in one calendar year, elevating the Plan to the same level of completedness as comparable studies in California, Arizona, and Texas. The TWG met in November in Santa Teresa, NM, to begin the discussion on criteria to be used in assessing projects for consideration under the Plan. Attendees came from Chihuahua, Palomas, Juarez, and Mexico City, Mexico, as well as Las Cruces, Albuquerque, Santa Fe, Santa Teresa, Sunland Park, El Paso, Antelope Wells, Columbus, Deming, Sunland Park, El Paso, Phoenix, and Washington D.C.

## PLANNING PROCESS OVERVIEW

The New Mexico-Chihuahua BMP study began in Fall 2014 and is scheduled for completion in mid-2015. The planning process involves the following five major phases:

- Project initiation — Includes the creation of a PAC and TWG to ensure stakeholder involvement
- Existing and future conditions — Data is collected from various sources and reviewed
- Identification of operational and infrastructure needs — The needs of the LPOE's, rail and roadways/bridges are identified and analyzed
- Evaluation and prioritization of potential LPOE and transportation system improvement projects
- Draft and final report preparation

Did you know?

New Mexico has a total of three Land Ports of Entry (LPOE) along its border with Mexico. In 2011, nearly half a million people passed through these border crossings.

## STAY INFORMED!

Throughout the duration of the study, stakeholder information will be compiled and tracked through a database. The database will be used to track comments and the distribution of information, notifications and study updates. If you wish to be included in the stakeholder database and receive updates, please email Bill Ferris at bill.ferrisjr@stantec.com. Because the study encompasses stakeholders on both sides of the border, all meetings will be conducted in English and Spanish.

## POINTS OF CONTACT

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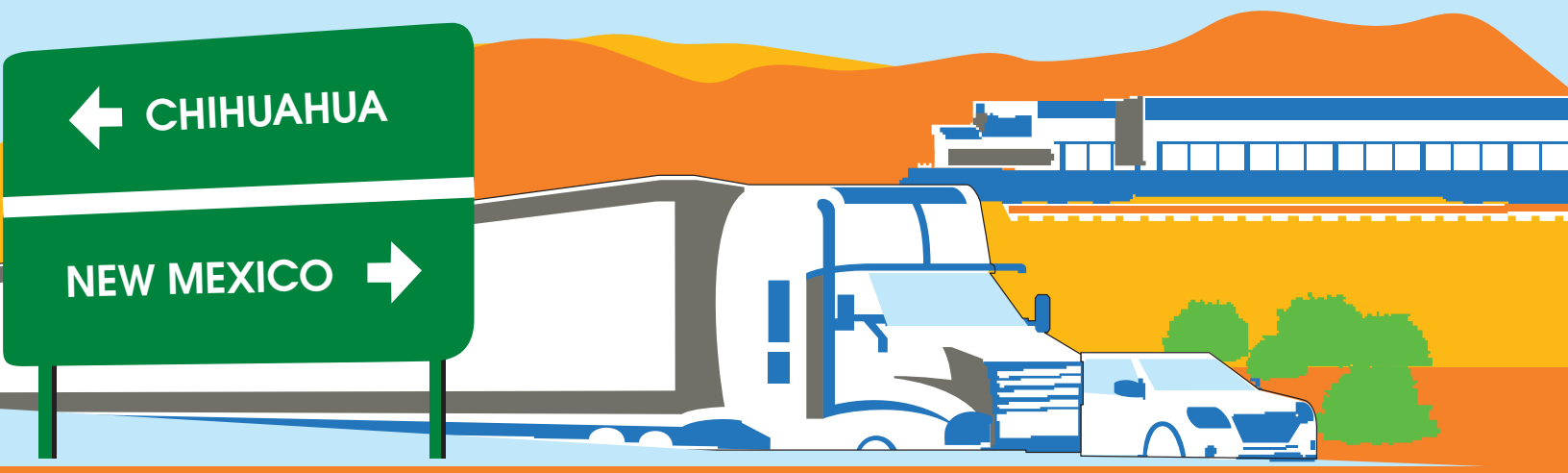
### CHANGE IS GOOD

**At each LPOE, heavy congestion and security issues affect daily pedestrian, commercial and vehicular traffic. Upon completion, the BMP will include a prioritized list of recommended New Mexico-Chihuahua border related infrastructure projects and document their readiness for funding and implementation.**




# NEW MEXICO-CHIHUAHUA BORDER MASTER PLAN

Newsletter Spring 2015

## PROJECT UPDATE

Great strides have been taken since our Winter 2014 newsletter.

Six committee meetings and one stakeholder meeting are in the books. Land Port of Entry (LPOE) data collection tours have been conducted at Antelope Wells, Columbus, and Santa Teresa. Visits to the Mexican counterparts of these LPOE's in El Berrendo, Puerto Palomas, and San Jerónimo are scheduled. We were also hosted at meetings in Juarez and Chihuahua.

## SCHEDULE

**The workplan below shows the tasks and proposed schedule for the study process, scheduled for completion in late July 2015.**

**APR 2015**
- Stakeholder Meeting #2 (Deming, NM) - 4/29 (5:30-7:00 pm)
- TWG Meeting #4 - 4/30

**MAY 2015**
- Revise and re-submit Technical Memo #2
- Submit Technical Memo #3
- Finalize list of proposed infrastructure projects
- Finalize criteria to be used in project evaluations

**JUNE 2015**
- Draft Border Master Plan

**JULY 2015**
- Evaluation Results Meeting
- Final Border Master Plan

Santa Teresa LPOE

## TECHNICAL WORKING GROUP (TWG) UPDATE

The TWG has now met four times to collaborate on the identification of applicable studies, traffic data, and potential projects. Committee members are also putting the finishing touches on the criteria that will be used to evaluate the recommended projects.

*NMDOT Homerio Bernal keeping the meeting focused and on task*

*Excellent bi-national participation*

## POLICY ADVISORY COMMITTEE (PAC) UPDATE

The PAC recently completed its third meeting, reviewing progress made by the TWG and the study team. The event was held at the Secretaría de Economía in Cd. Chihuahua. The PAC has approved the following Evaluation Components:

**Project Types –** Rail, Land Ports of Entry, Multimodal Infrastructure

| Categories of Criteria | Weighting | | |
|---|---|---|---|
| | LPOE | MMI | Rail |
| Capacity/Congestion | 36% | 30% | 28% |
| Cost Effectiveness | 18% | 16% | 18% |
| Regional Benefit | 22% | 28% | 26% |
| LPOE Connectivity | N/A | 16% | 18% |
| Project Readiness | 11% | 10% | 10% |
| Bi-national Coordination | 13% | N/A | N/A |

## STAY INFORMED!

Throughout the duration of the study, stakeholder information will be compiled and tracked through a database. The database will be used to track comments and the distribution of information, notifications and study updates. If you wish to be included in the stakeholder database and receive updates, please email Bill Ferris at bill.ferrisjr@stantec.com. Because the study encompasses stakeholders on both sides of the border, all meetings will be conducted in English and Spanish.

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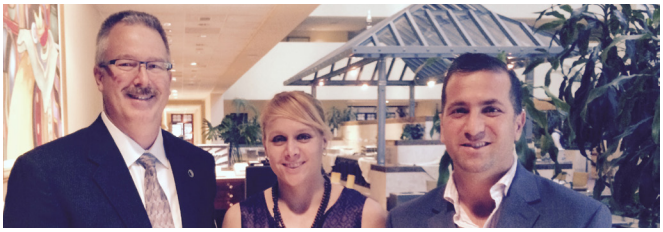
*PAC Meeting Attendees - Cd. Chihuahua*



*Gracious Hosts - Sergio Jurado and Rosalia Ochoa with Consultant PM Bill Ferris*

# APPENDIX F

## Project Scoring Data

New Mexico - Chihuahua Border Master Plan
Evaluation of Projects
11/30/2015

| Evaluation of New Mexico Land Port of Entry Projects | | | | | | | Existing ADT | | | | Forecast ADT (2040) | | | | Northbound LPOE Wait Times | | | | Number of Additonal Booths or Booths with Improved Efficiency | | | | Modes Enhanced by Proposed Improvement | | | | Forecast ADT Enhanced by Proposed Improvement | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | Commercial Vehicles | Passenger Vehicles | Pedestrians | Rail | Commercial Vehicles | Passenger Vehicles | Pedestrians | Rail | Commercial Vehicles | Passenger Vehicles | Pedestrians | Rail | Commercial Vehicles | Passenger Vehicles | Pedestrians | Rail | Commercial Vehicles | Passenger Vehicles | Pedestrians | Rail | Commercial Vehicles | Passenger Vehicles | Pedestrians | Rail |
| | | | | | | Max Point Value | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| ID | State | Linked Proj | Sponsor/ Lead Agency | LPOE Project Description | Existing Modes | Modes Enhanced by Proposed Improvement | | | | | | | | | | | | | | | | | | | | | | | | |
| 1003 | NM | 4003 | GSA | Columbus Port of Entry: Expand and reconstruct a new LPOE to the north of the existing facility; Separate truck and passenger vehicle traffic | CV, POV, Ped | CV, POV, Ped | 50 | 1300 | 760 | 0 | 228 | 1625 | 2709 | 0 | High | Medium | Low | n/a | 10 | 4 | 2 | | 1 | 1 | 1 | | 456 | 2438 | 2709 | 0 |
| 1001 | NM | 2003 | NMBA | International Gateway Courtesy Plaza | CV, POV, Ped | | 365 | 1730 | 440 | 0 | 456 | 2163 | 990 | 3 | High | Medium | Low | n/a | | | 1 | | | | 1 | | 0 | 0 | 990 | 0 |
| 1004 | NM | 3003 4001 4002 6001 | NMBA | Santa Teresa Port of Entry (Freight/Rail): Construct a new US LPOE in Santa Teresa capable of inspection of rail and truck freight crossing the border from San Jeronimo, Chihuahua | CV, POV, Ped | CV, Rail | 365 | 1730 | 440 | 0 | 456 | 2163 | 990 | 3 | Low | Low | Low | n/a | 1 | | | 1 | 1 | | | 1 | 913 | 0 | 0 | 1200 |
| 1002 | NM | 2009 4004 | City of Sunland Park | Construct a new US LPOE in Sunland Park, New Mexico with a connection to Anapra, Chihuahua. | none | POV, Ped | 0 | 0 | 0 | 0 | 0 | | | 0 | n/a | n/a | n/a | n/a | | | | | | 1 | 1 | | 0 | 0 | 0 | 0 |

| Evaluation of New Mexico Land Port of Entry Projects | | | | | | | Capacity/Congestion: Change in projected demand | | | | Capacity/Congestion: Change in #/type/efficiency of booths/docks | | | | Capacity/Congestion: Wait times | | | | Capacity/Congestion: Change in modes served | Capacity/Congestion: Percent of total border crossing demand | | | | Capacity/Congestion: Capacity/Congestion Total Points | Cost Effectiveness | | | Regional Benefit | | | | | Project Readiness | | | | | Binational Coordination/ Commitment/ Consensus | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | Commercial Vehicles | Passenger Vehicles | Pedestrians | Rail | Commercial Vehicles | Passenger Vehicles | Pedestrians | Rail | Commercial Vehicles | Passenger Vehicles | Pedestrians | Rail | Change in modes served | Commercial Vehicles | Passenger Vehicles | Pedestrians | Rail | | Project Cost (in US$1,000s) | Ratio of cost to LPOE users utilizing improvement | Cost Effectiveness Total Points | Environmental effects | Socieconomic effects/ Community effects | Economic effects | Modal effects | Regional Benefit Total Points | Project phase | Land availability | Local infrastructure compatability | Change in efficiency of staff | Project Readiness Total Points | Federal support | State/Local support | Level of bi-national consensus | Binational Coord. Total Points |
| | | | | | | Max Point Value | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 2 | 3 | 3 | 3 | 3 | 47 | - | - | 5 | 2 | 2 | 2 | 1 | 7 | 3 | 1 | 2 | 1 | 7 | 2 | 2 | 3 | 7 |
| ID | State | Linked Proj | Sponsor/ Lead Agency | LPOE Project Description | Existing Modes | Modes Enhanced by Proposed Improvement | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1003 | NM | 4003 | GSA | Columbus Port of Entry: Expand and reconstruct a new LPOE to the north of the existing facility; Separate truck and passenger vehicle traffic | CV, POV, Ped | CV, POV, Ped | 3 | 3 | 3 | 0 | 3 | 3 | 2 | 0 | 3 | 2 | 1 | 0 | 2 | 2 | 3 | 0 | **30** | 60,000 | 10.708 | **2** | 1 | 2 | 2 | 1 | **6** | 3 | 1 | 2 | 1 | **7** | 2 | 2 | 3 | **7** |
| 1001 | NM | 2003 | NMBA | International Gateway Courtesy Plaza | CV, POV, Ped | | 0 | 0 | 2 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 2 | 0 | **6** | 200 | 0.202 | **3** | 1 | 1 | 1 | 1 | **4** | 3 | 1 | 2 | 0 | **6** | 1 | 2 | 1 | **4** |
| 1004 | NM | 3003 4001 4002 6001 | NMBA | Santa Teresa Port of Entry (Freight/Rail): Construct a new US LPOE in Santa Teresa capable of inspection of rail and truck freight crossing the border from San Jeronimo, Chihuahua | CV, POV, Ped | CV, Rail | 2 | 0 | 0 | 3 | 1 | 0 | 0 | 1 | 1 | 0 | 0 | 1 | 3 | 3 | 2 | 3 | **20** | 150,000 | 71.006 | **1** | 0 | 1 | 2 | 0 | **3** | 1 | 1 | 0 | 0 | **2** | 1 | 2 | 2 | **5** |
| 1002 | NM | 2009 4004 | City of Sunland Park | Construct a new US LPOE in Sunland Park, New Mexico with a connection to Anapra, Chihuahua. | none | POV, Ped | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | **0** | 25,000 | 0.000 | **0** | 0 | 2 | 2 | 1 | **5** | 1 | 1 | 2 | 0 | **4** | 0 | 1 | 1 | **2** |

New Mexico - Chihuahua Border Master Plan
Evaluation of Projects
11/30/2015

| Evaluation of New Mexico Multimodal Infrastructure Projects | | | | | | | | | | | | | | | | Capacity/Congestion | | | | | | | Cost Effectiveness | | | Regional Benefit | | | | | Project Readiness | | | | LPOE Connectivity | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | Existing Daily Volume | Forecast Daily Volume | Change in Daily Volume | Percent Trucks | Project Length (miles) | Forecast E+C LOS | Number of New/Increased Efficiency Lanes | Distance to LPOE (miles) | Increase in Daily Volume Forecast | Percent Trucks | Change in Number and/ or Efficiency of Lanes | Level of Service Improvement | Increase in Modes Served | **Capacity/Congestion Total Points** | Project Cost (in US$1,000s) | Ratio of cost to users utilizing improvement | **Cost of Project vs. Projected Demand** | Environmental Effects | Socioeconomic/ Community Effects | Economic Effects | Modal Effects | **Regional Benefit Total Points** | Project Phase | Land Availability | Community and Stakeholder Acceptance | **Project Readiness Total Points** | Number of LPOEs Served | Distance to LPOEs | Percent of Daily Volume Related to LPOE | Alternate Mode Connectivity | **LPOE Connectivity Total Points** |
| | | | | | | | **Max Point Value** | - | - | | - | - | - | - | - | **2** | **3** | **3** | **2** | **2** | **12** | - | | **3** | **2** | **2** | **2** | **2** | **8** | **3** | **1** | **1** | **5** | **3** | **2** | **3** | **1** | **9** |
| **ID** | **State** | **Linked Project** | **Facility** | **Sponsor** | **Project Description/Extent** | **Proposed Improvement** | **Document (Implementation Timeline)** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| **MULTIMODAL INFRASTRUCTURE PROJECTS** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2003 | NM | 1001 2005 | NM 136 | NMDOT | POE to Intersection with Texas State Line | Reconstruction | New Mexico DOT Statewide Transportation Improvement Program, 11/20/13 (2018) | 5854 | 17957 | 12103 | 38% | 8.1 | | | 0 | 2 | 3 | 1 | 1 | 0 | **7** | 40,000 | 3.6 | **3** | 2 | 1 | 2 | 0 | **5** | 1 | 1 | 1 | **3** | 2 | 2 | 3 | 0 | **7** |
| 2008 | NM | | NM 9 Columbus Road | Dona Ana County | McNutt (NM 273) to Pete Dominici | Extend as a 4-Lane Divided Principal Arterial | | 0 | 4874 | 4874 | 10% | 11.5 | A | 4 | 2.8 | 1 | 3 | 3 | 1 | 1 | **9** | 14,977 | 3.7 | **3** | 0 | 2 | 2 | 0 | **4** | 1 | 1 | 1 | **3** | 1 | 2 | 2 | 0 | **5** |
| 2010 | NM | 2011 2016 | Industrial Drive | Dona Ana County | Divisadero Intersection | Widen Industrial Drive to 4 lanes with center-turn lane through intersection and construct 150' SB right-turn lane | Verde Logistics Industrial Park/Santa Teresa Traffic Impact Study (2B) | 227 | 8860 | 8633 | 10% | 0.4 | | 2 | 5 | 1 | 3 | 2 | 1 | 0 | **7** | 500 | 7.1 | **3** | 1 | 1 | 2 | 0 | **4** | 1 | 1 | 1 | **3** | 0 | 2 | 2 | 0 | **4** |
| 2014 | NM | 2015 | Strauss Road & Road 2A | NMDOT, Dona Ana County | Verde Logistics Industrial Park | Construct 600' WB right-turn lane | Verde Logistics Industrial Park/Santa Teresa Traffic Impact Study (2A) | 0 | 11290 | 11290 | 10% | 0.1 | | 1 | 5 | 2 | 3 | 1 | 1 | 0 | **7** | 100 | 11.3 | **3** | 1 | 1 | 2 | 0 | **4** | 1 | 1 | 1 | **3** | 0 | 2 | 2 | 0 | **4** |
| 2018 | NM | | Interstate 10, Hachita Bridge | NMDOT | Mile 49 | Bridge Replacement | New Mexico DOT Statewide Transportation Improvement Program, 11/20/13 (2018) | 11508 | 28679 | 17171 | 67% | 0.1 | | 0 | 64.9 | 2 | 3 | 1 | 1 | 0 | **7** | 2,500 | 1.1 | **2** | 2 | 1 | 2 | 0 | **5** | 1 | 1 | 1 | **3** | 2 | 0 | 3 | 0 | **5** |
| 2001 | NM | | Gold Avenue | City of Deming | Gold Street to Spruce Road | Geometrics & Drainage Improvements | Deming-Luna County Regional Comprehensive Transportation Study (2010-2015) | 6896 | 11454 | 4558 | 10% | 0.2 | A | | 35.3 | 1 | 3 | 1 | 1 | | **6** | 800 | 2.9 | **2** | 1 | 1 | 2 | 2 | **6** | 1 | 1 | 1 | **3** | 2 | 0 | 2 | 0 | **4** |
| 2006 | NM | 2007 | McNutt Road | NMDOT | Racetrack to Corishain Bridge | Addition Of Center Turn Lane On Mcnutt Rd (NM 273) And Widen From 2 Lanes To 4 Where It'S Not 4 Lanes Now. | Horizon 2040 Metropolitan Transportation Plan - El Paso | 7801 | 25152 | 17351 | 15% | 0.9 | A | 2 | 15.1 | 2 | 3 | 2 | 1 | 0 | **8** | 5,285 | 4.3 | **3** | 1 | 2 | 2 | 0 | **5** | 1 | 0 | 1 | **2** | 0 | 0 | 1 | 0 | **1** |
| 2007 | NM | 2006 | McNutt Road | NMDOT | Racetrack to Ross | Addition of center turn lane for operational improvements, ADA & Drainage Imrpovements, Construction of a multi-use path, lighting and rehabilitation | Horizon 2040 Metropolitan Transportation Plan - El Paso | 8251 | 30555 | 22304 | 12% | 2.3 | A | | 15.1 | 2 | 3 | 1 | 1 | 0 | **7** | 5,380 | 13.1 | **3** | 1 | 2 | 2 | 0 | **5** | 1 | 0 | 1 | **2** | 1 | 0 | 1 | 0 | **2** |
| 2004 | NM | | High Mesa Road (Proposed) | NMDOT, Dona Ana County | NM 136 near Santa Teresa Airport to I-10 | Construct road on West Mesa parallel to I-10 between Santa Teresa and Las Cruces | Fiscal Year 2013 State Planning Work Program, Amendment #1, NMDOT Planning Division, 08/13/13 | 0 | 20000 | 20000 | 10% | 30 | | 2 | 6.3 | 2 | 3 | 2 | 1 | 1 | **9** | 300,000 | 2.0 | **2** | 0 | 2 | 2 | 0 | **4** | 1 | 0 | 1 | **2** | 1 | 1 | 2 | 0 | **4** |
| 2009 | NM | 1002 4004 | Sunland Park Drive | NMDOT | McNutt Road (NM 273) to Proposed Sunland Park POE Site and Border Crossing | Construct 4-Lane Divided Principal Arterial with Grade Separation at UPRR tracks | Horizon 2040 Metropolitan Transportation Plan - El Paso | 0 | 9605 | 9605 | 10% | 1.1 | A | 4 | 1.1 | 2 | 3 | 3 | 1 | 2 | **11** | 21,597 | 0.5 | **1** | 0 | 2 | 1 | 1 | **4** | 1 | 1 | 1 | **3** | 0 | 2 | 1 | 0 | **3** |
| 2002 | NM | | NM 11 | Luna County | Dona Ana Road to Walnut Street | Widen to 3-lanes, Pavement Reconstruction, Drainage, Signing and Striping | Deming-Luna County Regional Comprehensive Transportation Study (2020-2025) | 9744 | 15539 | 5795 | 9% | 1.3 | | 1 | 33 | 1 | 3 | 1 | 1 | 0 | **6** | 4,800 | 4.2 | **3** | 1 | 2 | 2 | 0 | **5** | 1 | 0 | 1 | **2** | 2 | 0 | 1 | 0 | **3** |
| 2017 | NM | | Airport Road | Dona Ana County | NM 136 to Industrial Drive | Widen to 2 EB and 2 WB through lanes to Industrial Drive | Verde Logistics Industrial Park/Santa Teresa Traffic Impact Study (2C/2D) | 3320 | 10560 | 7240 | 10% | 1 | | 2 | 5 | 1 | 3 | 2 | 1 | 0 | **7** | 3,000 | 3.5 | **3** | 0 | 1 | 2 | 0 | **3** | 1 | 1 | 1 | **3** | 1 | 2 | 1 | 0 | **4** |
| 2005 | | 2003 | Grade Separation At NM 136/NM 273 | NMDOT | At NM 136/NM 273 | Grade Separation | Horizon 2040 Metropolitan Transportation Plan - El Paso | 7000 | 23000 | 16000 | 10% | 0.1 | | | 8.3 | 2 | 3 | 1 | 1 | 1 | **8** | 16,423 | 0.1 | **1** | 0 | 2 | 2 | 1 | **5** | 1 | 1 | 1 | **3** | 1 | 1 | 2 | 0 | **4** |
| 2011 | NM | 2016 | Industrial Drive | Dona Ana County | Airport Road to Strauss Road | Widen to 4 lanes | Verde Logistics Industrial Park/Santa Teresa Traffic Impact Study (2C/2D) | 227 | 8270 | 8043 | 10% | 0.4 | | 2 | 5 | 1 | 3 | 2 | 1 | 0 | **7** | 1,000 | 3.3 | **2** | 1 | 1 | 2 | 0 | **4** | 1 | 1 | 1 | **3** | 0 | 2 | 2 | 0 | **4** |
| 2015 | NM | 2014 | Strauss Road & Road 2A | NMDOT, Dona Ana County | Verde Logistics Industrial Park | Signalization and addition of 2nd SB left-turn lane as the 200' storage for both lanes. Construct 2nd EB through lane on Strauss through 2A | Verde Logistics Industrial Park/Santa Teresa Traffic Impact Study (2B) | 0 | 11290 | 11290 | 10% | 0.1 | | 1 | 5 | 2 | 3 | 1 | 1 | 0 | **7** | 500 | 2.3 | **2** | 1 | 1 | 2 | 0 | **4** | 1 | 1 | 1 | **3** | 0 | 2 | 2 | 0 | **4** |
| 2016 | NM | 2010 2011 | Airport Road & Industrial Drive | Dona Ana County | Verde Logistics Industrial Park | Signalization, construction of 375' WB left-turn lane and 660' NB right-turn lane | Verde Logistics Industrial Park/Santa Teresa Traffic Impact Study (2B) | 3320 | 13920 | 10600 | 10% | 0.1 | | 1 | 6 | 2 | 3 | 1 | 1 | 0 | **7** | 500 | 2.8 | **2** | 1 | 1 | 2 | 0 | **4** | 1 | 1 | 1 | **3** | 0 | 2 | 1 | 0 | **3** |
| 2019 | NM | | RoadRUNNER Transit | City of Las Cruces | Las Cruces, New Mexico | Buses and Bus-Related Facilities | MVMPO Surface Transportation TIP 2014-19 (2018) | 0 | 0 | 0 | 0% | 0 | | 0 | 50 | 1 | 1 | 1 | 1 | 1 | **5** | 5,040 | 0.0 | **1** | 2 | 2 | 1 | 1 | **6** | 1 | 1 | 1 | **3** | 0 | 0 | 1 | 1 | **2** |
| 2013 | NM | | Interstate 10 | NMDOT | Exit 85 and Interstate 10 | Rehabilitation and/or Reconstruction of Interchange Project should be developed independently or in conjunction with proposed truck route options. | Deming-Luna County Regional Comprehensive Transportation Study (2015-2020) | 18255 | 33062 | 14807 | 57% | 0.1 | | 0 | 38 | 2 | 3 | 1 | 1 | 0 | **7** | 15,400 | 0.2 | **1** | 2 | 1 | 2 | 0 | **5** | 1 | 1 | 1 | **3** | 0 | 0 | 1 | 0 | **1** |
| 2012 | NM | | Futurity Drive | Sunland Park | Racetrack to McNutt (NM 273) | Construct Roadway | Upper Valley Traffic Study (2035) | 0 | 5000 | 5000 | 6% | 0.4 | | 2 | 11 | 1 | 2 | 2 | 1 | 2 | **8** | 4,000 | 0.5 | **1** | 0 | 2 | 1 | 1 | **4** | 1 | 0 | 1 | **2** | 0 | 0 | 1 | 0 | **1** |

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| Evaluation of New Mexico Multimodal Infrastructure Projects | | | | | | | | | | | | | | | | Capacity/Congestion | | | | | | Cost Effectiveness | | | Regional Benefit | | | | | Project Readiness | | | | LPOE Connectivity | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | Existing Daily Volume | Forecast Daily Volume | Change in Daily Volume | Percent Trucks | Project Length (miles) | Forecast E+C LOS | Number of New/Increased Efficiency Lanes | Distance to LPOE (miles) | Increase in Daily Volume Forecast | Percent Trucks | Change in Number and/ or Efficiency of Lanes | Level of Service Improvement | Increase in Modes Served | **Capacity/Congestion Total Points** | Project Cost (in US$1,000s) | Ratio of cost to users utilizing improvement | **Cost of Project vs. Projected Demand** | Environmental Effects | Socioeconomic/ Community Effects | Economic Effects | Modal Effects | **Regional Benefit Total Points** | Project Phase | Land Availability | Community and Stakeholder Acceptance | **Project Readiness Total Points** | Number of LPOEs Served | Distance to LPOEs | Percent of Daily Volume Related to LPOE | Alternate Mode Connectivity | **LPOE Connectivity Total Points** |
| | | | | | | | **Max Point Value** | - | - | | - | - | - | - | - | **2** | **3** | **3** | **2** | **2** | **12** | - | | **3** | **2** | **2** | **2** | **2** | **8** | **3** | **1** | **1** | **5** | **3** | **2** | **3** | **1** | **9** |
| **ID** | **State** | **Linked Project** | **Facility** | **Sponsor** | **Project Description/Extent** | **Proposed Improvement** | **Document (Implementation Timeline)** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2020 | NM | | El Camino Real | Dona Ana County | Sunland Park to Garfield | Construct 92 Miles of bike lanes (only include the 10 miles within the Focus Area) | Viva Dona Ana El Camoino Real Corridor Enhancement Plan (Long-Term) | 0 | 0 | 0 | 0% | 10 | | 1 | 11 | 1 | 1 | 1 | 1 | 1 | **5** | 13,000 | 0.0 | **1** | 1 | 2 | 1 | 1 | **5** | 1 | 1 | 1 | **3** | 0 | 0 | 1 | 1 | **2** |
| 2021 | NM | | DAC New Runway | Dona Ana County, State Aviation Division, FAA | DAC Airport | New Runway | Binational Border Transportation Infrastructure Needs Assessment Study (2020) | 0 | 0 | 0 | 0% | 2 | | 1 | 7 | 1 | 1 | 1 | 1 | 0 | **4** | 35,000 | 0.0 | **1** | 0 | 1 | 2 | 1 | **4** | 1 | 1 | 1 | **3** | 1 | 1 | 1 | 0 | **3** |
| 2022 | NM | | Construct IOC | IBWC | New IOC | New IOC | IBWC | 0 | 0 | 0 | 0% | 0 | | 0 | 0 | 1 | 1 | 1 | 1 | 0 | **4** | 1,500 | 0.0 | **1** | 0 | 1 | 1 | 0 | **2** | 1 | 1 | 1 | **3** | 1 | 2 | 3 | 0 | **6** |

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| | | | | | Capacity/Congestion | | | | | | Cost Effectiveness | | Regional Benefit | | | | | Project Readiness | | | | LPOE Connectivity | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Evaluation of New Mexico Rail Projects** | | | | Approximate project length (miles)* | Change in projected number of railcars | Cross-border tonnage/value | Change in number/miles of tracks | Change in travel speed | Change in modes served | **Capacity/Congestion Total Points** | Estimated Project Cost (US $Millions/mile) | **Cost Effectiveness Total Points** | Environmental Effects | Socieconomic/ Community effects | Economic effects | Modal effects | **Regional Benefit Total Points** | Project phase | Land availability | Conformity to private initiatives | **Project Readiness Total Points** | Number of LPOEs served | Distance to LPOEs | Percent of cross-border freight served | **LPOE Connectivity Total Points** |
| | | | Max Point Value | - | 2 | 3 | 2 | 2 | 2 | **11** | - | **3** | 2 | 2 | 2 | 2 | **8** | 3 | 1 | 1 | **5** | 2 | 1 | 2 | **5** |
| ID | State | Linked Project | Project Description | | | | | | | | | | | | | | | | | | | | | | |
| 3003 | NM | 1004<br>4001<br>6001 | Rail Line; Santa Teresa POE to UPPR and BNSF mainlines | 20 | 2 | 3 | 1 | 2 | 1 | **9** | $5m/mi + | **2** | 2 | 1 | 2 | 0 | **5** | 1 | 0 | 0 | **1** | 2 | 1 | 2 | **5** |
| 3002 | NM | | Commuter Rail; Las Cruces, New Mexico, to El Paso, Texas | 25 | 1 | | 1 | 1 | 1 | **4** | $10m/mi + | **2** | 1 | 2 | 1 | 1 | **5** | 1 | 1 | 0 | **2** | 0 | 0 | 0 | **0** |
| 3001 | NM | | Denver to El Paso High-Speed Rail | 40 | 1 | | 2 | 2 | 1 | **6** | $60m/mi + | **1** | 1 | 1 | 1 | 1 | **4** | 1 | 0 | 0 | **1** | 0 | 0 | 0 | **0** |

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| Evaluation of Chihuahua Land Port of Entry Projects | | | | | | | Existing ADT | | | | Forecast ADT (2040) | | | | Northbound LPOE Wait Times | | | | Number of Additonal Booths or Booths with Improved Efficiency | | | | Modes Enhanced by Proposed Improvement | | | | Forecast ADT Enhanced by Proposed Improvement | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | Commercial Vehicles | Passenger Vehicles | Pedestrians | Rail | Commercial Vehicles | Passenger Vehicles | Pedestrians | Rail | Commercial Vehicles | Passenger Vehicles | Pedestrians | Rail | Commercial Vehicles | Passenger Vehicles | Pedestrians | Rail | Commercial Vehicles | Passenger Vehicles | Pedestrians | Rail | Commercial Vehicles | Passenger Vehicles | Pedestrians | Rail |
| | | | | | | Max Point Value | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| ID | State | Linked Proj | Sponsor | LPOE Project Description | Existing Modes | Modes Enhanced by Proposed Improvement | | | | | | | | | | | | | | | | | | | | | | | | |
| 4003 | CHIH | 1003 | SAT | Expansion and Rearrangement for Puerto Palomas POE - Expand and rearrange over a 7.2 hectares, completely reorganizing import/export inspection facility areas including INM facility | CV, POV, Ped | CV, POV, Ped | 82 | 1000 | 760 | 0 | 374 | 1250 | 2709 | 0 | High | Medium | Low | n/a | 2 | 2 | 2 | | 1 | 1 | 1 | | 748 | 1875 | 2709 | 0 |
| 4002 | CHIH | 1004<br>4001 | SAT-SENASICA | Rearrangement of San Jeronimo - Expansion of cargo lanes and privately onwed vehicles, including facilities for temporary import vehicles (CITEV), relocation of inspection equipment and INM facilities. Infrastructure for agricultural products | CV, POV, Ped | CV, POV | 365 | 1730 | 440 | 0 | 456 | 2163 | 990 | 0 | Low | Medium | Medium | n/a | 1 | 1 | | | 1 | 1 | | | 913 | 3244 | 0 | 0 |
| 4001 | CHIH | 1004<br>3003<br>4002<br>6001 | SCT-Chihuahua | New Rail POE at San Jerónimo POE Area (PROY. LF-2) | none | CV, Rail | 0 | 0 | 0 | 0 | 281 | 0 | 0 | 3 | Low | n/a | n/a | Low | 1 | | | 1 | 1 | | | 1 | 562 | 0 | 0 | 1200 |
| 4004 | CHIH | 1002 | IMIP | POE Camino Real Tierra Adentro (PROY. CRTA-1) in Sunland-Anapra area. | none | POV, Ped | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | n/a | n/a | n/a | n/a | | | | | | 1 | 1 | | 0 | 0 | 0 | 0 |

| Evaluation of Chihuahua Land Port of Entry Projects | | | | | | | Capacity/Congestion | | | | | | | | | | | | | | | | | | | | Cost Effectiveness | | | Regional Benefit | | | | | Project Readiness | | | | | Binational Coordination/ Commitment/Consensus | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | Change in projected demand | | | | Change in #/type/efficiency of booths/docks | | | | Wait times | | | | Percent of total border crossing demand | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | Commercial Vehicles | Passenger Vehicles | Pedestrians | Rail | Commercial Vehicles | Passenger Vehicles | Pedestrians | Rail | Commercial Vehicles | Passenger Vehicles | Pedestrians | Change in modes served | Commercial Vehicles | Passenger Vehicles | Pedestrians | Rail | Capacity/Congestion Total Points | Project Cost (in $1,000s MXN pesos) | Ratio of cost to LPOE users utilizing improvement. | Cost Effectiveness Total Points | Environmental effects | Socieconomic effects/ Community effects | Economic effects | Modal effects | Regional Benefit Total Points | Project phase | Land availability | Local infrastructure compatability | Change in efficiency of staff | Project Readiness Total Points | Federal support | State/Local support | Level of binational consensus | Binational Coordination Total Points |
| | | | | | | Max Point Value | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 2 | 3 | 3 | 3 | 3 | 47 | - | | 5 | 2 | 2 | 2 | 1 | 7 | 3 | 1 | 2 | 1 | 7 | 2 | 2 | 3 | 7 |
| ID | State | Linked Proj | Sponsor | LPOE Project Description | Existing Modes | Modes Enhanced by Proposed Improvement | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 4003 | CHIH | 1003 | SAT | Expansion and Rearrangement for Puerto Palomas POE - Expand and rearrange over a 7.2 hectares, completely reorganizing import/export inspection facility areas including INM facility | CV, POV, Ped | CV, POV, Ped | 3 | 2 | 3 | 0 | 2 | 2 | 2 | 0 | 3 | 2 | 1 | 0 | 2 | 2 | 3 | 0 | **27** | | 0.000 | **0** | 1 | 1 | 2 | 1 | **5** | 3 | 1 | 2 | 0 | **6** | 2 | 2 | 3 | **7** |
| 4002 | CHIH | 1004<br>4001 | SAT-SENASICA | Rearrangement of San Jeronimo - Expansion of cargo lanes and privately onwed vehicles, including facilities for temporary import vehicles (CITEV), relocation of inspection equipment and INM facilities. Infrastructure for agricultural products | CV, POV, Ped | CV, POV | 2 | 3 | 0 | 0 | 1 | 1 | 0 | 0 | 1 | 2 | 0 | 0 | 3 | 3 | 2 | 3 | 21 | | 0.000 | 0 | 2 | 1 | 2 | 0 | 5 | 2 | 1 | 2 | 0 | 5 | 2 | 2 | 3 | **7** |
| 4001 | CHIH | 1004<br>3003<br>4002<br>6001 | SCT-Chihuahua | New Rail POE at San Jerónimo POE Area (PROY. LF-2) | none | CV, Rail | 3 | 0 | 0 | 3 | 1 | 0 | 0 | 1 | 1 | 0 | 0 | 1 | 3 | 3 | 2 | 3 | **21** | | 0.000 | **0** | 0 | 1 | 2 | 0 | **3** | 1 | 1 | 0 | 0 | **2** | 1 | 2 | 2 | **5** |
| 4004 | CHIH | 1002 | IMIP | POE Camino Real Tierra Adentro (PROY. CRTA-1) in Sunland-Anapra area. | none | POV, Ped | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | **4** | | 0.000 | **0** | 0 | 2 | 2 | 1 | **5** | 1 | 1 | 2 | 0 | **4** | 0 | 1 | 1 | **2** |

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| Evaluation of Chihuahua Multimodal Infrastructure Projects | | | | | | | | Existing Daily Volume | 2040 Forecast Daily Volume | Change in Daily Volume | Percent Trucks | Project Length (Km) | Forecast E+C LOS | Number of New/Increased Efficiency Lanes | Distance to LPOE (Km) | Capacity/Congestion: Increase in Daily Volume Forecast | Capacity/Congestion: Percent Trucks | Capacity/Congestion: Change in Number and/ or Efficiency of Lanes | Capacity/Congestion: Level of Service Improvement | Capacity/Congestion: Increase in Modes Served | Capacity/Congestion: Capacity/Congestion Total Points | Cost Effectiveness: Project Cost (in $1,000s MXN Pesos) | Cost Effectiveness: Ratio of cost to LPOE users utilizing improvement | Cost Effectiveness: Cost of Project vs. Projected Demand | Regional Benefit: Environmental Effects | Regional Benefit: Socioeconomic/ Community Effects | Regional Benefit: Economic Effects | Regional Benefit: Modal Effects | Regional Benefit: Regional Benefit Total Points | Project Readiness: Project Phase | Project Readiness: Land Availability | Project Readiness: Community and Stakeholder Acceptance | Project Readiness: Project Readiness Total Points | LPOE Connectivity: Number of LPOEs Served | LPOE Connectivity: Distance to LPOEs | LPOE Connectivity: Percent of Daily Volume Related to LPOE | LPOE Connectivity: Alternate Mode Connectivity | LPOE Connectivity: LPOE Connectivity Total Points |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | Max Point Value | - | - | | - | - | - | - | - | 2 | 3 | 3 | 2 | 2 | 12 | - | | 3 | 2 | 2 | 2 | 2 | 8 | 3 | 1 | 1 | 5 | 3 | 2 | 3 | 1 | 9 |
| ID | State | Linked Project | Facility | Sponsor | Project Description/Extent | Proposed Improvement | Document (Implementation Timeline) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| MULTIMODAL INFRASTRUCTURE PROJECTS | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 5024 | CHIH | | Access road to El Berrendo POE | SCT | Construct 8.3 km of 2-lane highway per SCT specs to complete access to El Berrendo POE. There are 3 km already paved from intersection of MEX-2 to El Berrendo. This new 8.3 km will provide a full paved road. | Construct 8.3 km of 2-lane highway per SCT specs to complete access to El Berrendo POE. There are 3 km already paved from intersection of MEX-2 to El Berrendo. This new 8.3 km will provide a full paved road. | | 3727 | 4100 | 373 | 0% | 8.3 | | 2 | 1 | 2 | 1 | 2 | 1 | 1 | 7 | 75,000 | 0.5 | 2 | 1 | 2 | 2 | 1 | 6 | 3 | 1 | 1 | 5 | 2 | 2 | 3 | 1 | 8 |
| 5009 | CHIH | 5007 | MEX-45D at MEX-2 | SCT | MEX-45D at MEX-2 (Jerónimo Loop) | Modernize the intersection of MEX-2 with MEX-45D | El Paso/Santa Teresa–Chihuahua Border Master Plan (Short-Term) - 10* | 18968 | 20315 | 1347 | 15% | 1 | | 2 | 19.3 | 2 | 3 | 2 | 1 | 0 | 8 | 7,500 | 2.7 | 3 | 2 | 1 | 2 | 0 | 5 | 1 | 1 | 1 | 3 | 2 | 0 | 2 | 0 | 4 |
| 5013 | CHIH | | Carretera Janos-Agua Prieta, km 61 - El Berrendo | SCT - Chihuahua | Janos | Improvement for MEX-2 Highway from El Berrendo Junction to Janos and Janos to San Jeronimo. | Binational Border Transportation Infrastructure Needs Assessment Study (2004) | 3727 | 4100 | 373 | 15% | 236 | | | 11.3 | 2 | 3 | 1 | 1 | 0 | 7 | 2,907,000 | 0.3 | 2 | 2 | 1 | 2 | 0 | 5 | 3 | 1 | 1 | 5 | 3 | 1 | 2 | 0 | 6 |
| 5007 | CHIH | 5009 | MEX-45D at MEX-2 Overpass | SCT | Intersection of MEX-2 and MEX-45 | Construct overpass at intersection of Samalayuca - San Jeronimo Highway with MEX-45D | TXDOT El Paso / Santa Teresa / Chihuahua Border Master Plan (Long-Term) | 18968 | 20315 | 1347 | 15% | 1 | | 4 | 19.3 | 2 | 3 | 3 | 1 | 0 | 9 | 50,000 | 0.4 | 2 | 2 | 1 | 2 | 0 | 5 | 1 | 1 | 1 | 3 | 2 | 0 | 2 | 0 | 4 |
| 5001 | CHIH | | Rancho Anapra Loop (16 de Septiembre Avenue Extension) | IMIP | Anapra-Sunland Park POE to Santa Teresa/Jerónimo POE | Construct a new urban 4-lane highway to connect to the Anapra-Sunland Park proposed POE and Santa Teresa/Jerónimo POEs without passing through the Rancho Anapra neighborhood. | El Paso/Santa Teresa–Chihuahua Border Master Plan (Short-Term) - 28* | 2257 | 2483 | 226 | 4% | 5 | | 4 | 4 | 1 | 2 | 3 | 1 | 1 | 8 | 94,000 | 0.1 | 2 | 0 | 2 | 2 | 0 | 4 | 1 | 1 | 1 | 3 | 3 | 2 | 2 | 0 | 7 |
| 5006 | CHIH | | Internacional Boulevard (a portion of Camino Real Loop) | IMIP | Samalayuca Road to proposed rail bridge at Santa Teresa/Jeronimo POE | Widen 2 lane road to 4 lane for 3.4 km of road to complete vehicle and cargo infrastructure directed toward the Santa Teresa/Jeronimo POE and proposed rail bridge | El Paso/Santa Teresa–Chihuahua Border Master Plan (Long-Term) - 35*; and TXDOT El Paso / Santa Teresa / Chihuahua Border Master Plan (Long Term) | 2257 | 2483 | 226 | 10% | 3.4 | | 2 | 10 | 1 | 3 | 2 | 1 | 0 | 7 | 4,000 | 2.1 | 3 | 1 | 2 | 1 | 0 | 4 | 2 | 1 | 1 | 4 | 1 | 1 | 1 | 0 | 3 |
| 5022 | CHIH | | Town of Palomas Bypass (PROY. PP-03) | SCT | Construction of New Bypass for the town of Palomas to have direct access to the area of commercial export-import cargo facilities at Palomas POE. | Construction of New Bypass for the town of Palomas to have direct access to the area of commercial export-import cargo facilities at Palomas POE. | | 1082 | 1190 | 108 | 22% | 8 | | 2 | 0.1 | 1 | 3 | 2 | 1 | 1 | 8 | 100,000 | 0.1 | 1 | 0 | 2 | 1 | 1 | 4 | 1 | 1 | 1 | 3 | 2 | 2 | 3 | 1 | 8 |
| 5014 | CHIH | | International Blvd. in City of Juarez | SCT | Samalayuca Jeronimo Road to the proposed railroad tracks | Construction of a 5.50 km Avenue, in order to complete the road infrastructure needed for cargo import/export through the proposed port of Santa Teresa and Jeronimo railway crossing. | Juarez Chihuahua Road (Long Term) | 18968 | 20315 | 1347 | 50% | 5.5 | | 2 | 8 | 2 | 3 | 2 | 1 | 0 | 8 | 66,000 | 1.7 | 3 | 0 | 1 | 2 | 0 | 3 | 1 | 0 | 1 | 2 | 1 | 2 | 1 | 0 | 4 |
| 5005 | CHIH | | Anapra-Jerónimo Highway and Jeronimo POE Bypass | IMIP | Upgrade intersection Anapra-Jerónimo Highway and Jeronimo POE Bypass | Construct an upper loop for vehicles heading toward MEX 45D. | El Paso/Santa Teresa–Chihuahua Border Master Plan (Medium- to Long-Term) - 16* | 2257 | 24200 | 21943 | 4% | 0.5 | | | 1 | 2 | 2 | 1 | 1 | 1 | 7 | 31,000 | 0.4 | 2 | 1 | 1 | 1 | 0 | 3 | 1 | 1 | 1 | 3 | 2 | 2 | 3 | 0 | 7 |
| 5002 | CHIH | | Fronterizo Boulevard (a segment of Bernardo Norzagaray Blvd.) | IMIP | Fronterizo Boulevard | Extend Fronterizo Boulevard east toward the Rio Grande. | El Paso/Santa Teresa–Chihuahua Border Master Plan (Medium-Term) - 50* | 2257 | 2483 | 226 | 6% | 3.4 | | 4 | 12 | 1 | 2 | 3 | 1 | 1 | 8 | 91,500 | 0.1 | 1 | 0 | 2 | 2 | 1 | 5 | 1 | 1 | 1 | 3 | 1 | 1 | 1 | 0 | 3 |
| 5011 | CHIH | 5010 | Bernardo Norzagaray Boulevard Overpass | IMIP | | Construct overpasses to facilitate cargo moving to and from the Santa Teresa/Jeronimo POE and proposed rail bridge | El Paso/Santa Teresa–Chihuahua Border Master Plan (Long-Term) - 38*; and TXDOT El Paso / Santa Teresa / Chihuahua Border Master Plan (Long-Term) | 2257 | 2483 | 226 | 6% | 0.5 | | 4 | 14.3 | 1 | 2 | 3 | 1 | 1 | 8 | 108,500 | 0.0 | 1 | 1 | 2 | 2 | 0 | 5 | 1 | 0 | 1 | 2 | 1 | 1 | 1 | 0 | 3 |
| 5016 | CHIH | | Highway Overpass (PROY. LF-4) | SCT | MEX-2 Overpass at Rail Road bypass | Construction of Overpass at MEX-2 for future rail bypass (City of Juarez Rail Bypass, shown within this BMP, Chih. Rail Projects) | | 2257 | 2483 | 226 | 15% | 1.5 | | 2 | 20 | 1 | 3 | 2 | 1 | 0 | 7 | 80,000 | 0.0 | 1 | 1 | 1 | 2 | 0 | 4 | 1 | 1 | 1 | 3 | 1 | 0 | 1 | 0 | 2 |
| 5020 | CHIH | | Highway Upgrade (PROY. SJ-3) | IMIP | Upgrade existing Jeronimo-Santa Teresa Highway from Km 0+000 to Km 18+000 | Upgrade existing Highway to SCT type B road from Km 0+000 to Km 18+000 to improve access to San Jeronimo POE | | 2257 | 2483 | 226 | 15% | 18 | | 2 | 19.3 | 1 | 3 | 2 | 1 | 0 | 7 | 15,400 | 2.9 | 3 | 0 | 1 | 1 | 0 | 2 | 1 | 0 | 1 | 2 | 0 | 0 | 1 | 0 | 1 |
| 5010 | CHIH | 5011 | Bernardo Norzagaray Boulevard | IMIP | Santa Teresa/ Jerónimo and Anapra/Sunland Park POEs. | Construct intesection to facilitate cargo traveling to and from the Santa Teresa/Jeronimo and Anapra/Sunland Park POEs | TXDOT El Paso / Santa Teresa / Chihuahua Border Master Plan (Medium Term) - 32* | 2257 | 2483 | 226 | 6% | 0.25 | | 2 | 15 | 1 | 2 | 2 | 1 | 0 | 6 | 62,000 | 0.0 | 1 | 1 | 2 | 1 | 0 | 4 | 1 | 1 | 1 | 3 | 1 | 1 | 1 | 0 | 3 |

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| Evaluation of Chihuahua Rail Projects | | | | | | Capacity/Congestion | | | | | | Cost Effectiveness | | Regional Benefit | | | | | Project Readiness | | | | LPOE Connectivity | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | Approximate project length (km)* | Change in projected number of railcars | Cross-border tonnage/value | Change in number/miles of tracks | Change in travel speed | Change in modes served | Capacity/Congestion Total Points | Estimated Project Cost ($1,000s MXN pesos) | Cost Effectiveness Total Points | Environmental Effects | Socieconomic/ Community effects | Economic effects | Modal effects | Regional Benefit Total Points | Project phase | Land availability | Conformity to private initiatives | Project Readiness Total Points | Number of LPOEs served | Distance to LPOEs | Percent of cross-border freight served | LPOE Connectivity Total Points |
| | | | | Max Point Value | - | 2 | 3 | 2 | 2 | 2 | 11 | - | 3 | 2 | 2 | 2 | 2 | 8 | 3 | 1 | 1 | 5 | 2 | 1 | 2 | 5 |
| ID | State | Linked Project | Project Description | Sponsor | | | | | | | | | | | | | | | | | | | | | | |
| 6001 | CHIH | 1004<br>3003<br>4002 | City of Juarez Rail Bypass (PROY. LF-1) | SCT-Chihuahua | 63 | 2 | 3 | 2 | 2 | 1 | 10 | 1,600,000 | 3 | 2 | 2 | 2 | 2 | 8 | 2 | 0 | 1 | 3 | 1 | 1 | 2 | 4 |
| 6003 | CHIH | 6002 | Rail Spur to South Loading Terminal | IMIP - Ascension | 16 | 1 | 2 | 1 | 1 | 1 | 6 | 288,000 | 2 | 1 | 1 | 2 | 0 | 4 | 1 | 1 | 1 | 3 | 0 | 1 | 1 | 2 |
| 6002 | CHIH | 6003 | South Loading Terminal (PROY. LF-3) | SCT | | 2 | 3 | 1 | 1 | 1 | 8 | 500,000 | 1 | 0 | 1 | 2 | 1 | 4 | 1 | 0 | 1 | 2 | 0 | 0 | 2 | 2 |