

# ARIZONA-SONORA BORDER MASTER PLAN



## Introduction

Travel between the State of Arizona in the United States and the State of Sonora in Mexico at the international border has increased over the last ten years. There are nine specific land ports of entry (LPOE) facilitating movements between the two states. The majority of LPOEs have experienced an increase in the movement of people and goods, and the increases are expected to continue to grow in future years as population and economic growth occurs in the border region. In 2010, more than 23 million people crossed through LPOEs at the Arizona-Sonora border on foot or in various personal or commercial (e.g., bus, freight) vehicles. The Arizona-Mexico Commission reports nearly \$55 million in bi-national trade and \$7.3 million in tourism expenditures are conducted daily through the LPOEs.<sup>1</sup>

Nine Arizona – Sonora Land Ports of Entry	
Arizona, U.S.	Sonora, Mexico
San Luis <ul style="list-style-type: none"> <li>○ San Luis I</li> <li>○ San Luis II</li> </ul>	San Luis Rio Colorado <ul style="list-style-type: none"> <li>○ San Luis I</li> <li>○ San Luis II</li> </ul>
Lukeville	Sonoyta
Sasabe	El Sasabe
Nogales <ul style="list-style-type: none"> <li>○ DeConcini</li> <li>○ Morley Gate</li> <li>○ Mariposa</li> </ul>	Nogales <ul style="list-style-type: none"> <li>○ Nogales I</li> <li>○ Nogales II</li> <li>○ Nogales III</li> </ul>
Naco	Centro Naco
Douglas	Agua Prieta

Note: Detailed descriptions/data of each individual port is contained in Chapters 5 and 6

Improving the capacity and operational efficiency of the LPOEs and supporting transportation infrastructure is essential to relieving traffic congestion, reducing delays, enhancing safety and security, promoting international trade, and improving the quality of life for residents in the border region. The Arizona-Sonora Border Master Plan (BMP) presents a comprehensive bi-national approach to coordinating the planning and delivery of projects to improve traffic operations at each LPOE and enhance the efficiency of the multimodal transportation infrastructure providing access to the LPOEs. The Arizona Department of Transportation

<sup>1</sup> According to the Commission’s Website, its mission is “...to improve the economic well-being and quality of life for the residents of Arizona through a strong cooperative relationship with Mexico and Latin America through advocacy, trade, networking and information.”

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(ADOT) prepared this BMP in collaboration with the Federal Highway Administration (FHWA), Secretaría de Comunicaciones y Transportes (SCT), and the government of the State of Sonora, Mexico.

## Study Purpose and Objectives

The purpose of the Arizona-Sonora BMP is to provide a roadmap for improving the efficiency and effectiveness of Arizona-Sonora transportation facilities supporting critical social and economic interactions across the international border. The primary objectives of the Arizona-Sonora BMP are:

- Develop and implement a plan for identifying, prioritizing, and promoting LPOE and related transportation projects and services;
- Design a process to ensure relevant international stakeholders participate in the planning of LPOE projects and related transportation infrastructure improvements in the border region;
- Increase understanding of the LPOE and transportation planning processes on both sides of the border; and
- Establish a process for continued dialogue among relevant international stakeholders that will promote coordination on current and future projects, especially through coordination of planning and programming processes adopted and pursued by study participants/partners.

## Background

In cooperation with other stakeholders, ADOT defined the long-range transportation infrastructure needs throughout Arizona through a process known as Building a Quality Arizona (BQAZ). The result was the *2010 Statewide Transportation Framework*, which included recommendations contained in the *Statewide Rail Framework Study*. Based on this past work, ADOT released a new Long-Range Transportation Plan (LRTP) in November 2012, known as *What Moves You Arizona*. The LRTP incorporates fiscally-constrained recommendations for transportation infrastructure improvements through the Year 2035, including those that directly affect access to Arizona-Sonora LPOEs and movement throughout the border region.

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The *2010 Statewide Transportation Framework* and the LRTP did not specifically consider the implications of transportation infrastructure improvements in the border region and at the various LPOEs. ADOT proceeded with development of the Arizona-Sonora BMP as an action item of the US/Mexico Joint Working Committee on Transportation Planning. This BMP has been prepared with the active involvement of the FHWA and was funded by the Coordinated Border Infrastructure (CBI) Program. FHWA has also been involved with the other BMP initiatives through its Surface Transportation Environment and Planning Cooperative Research Program (STEP) which has sponsored and is sponsoring development of border master plans for the regions of California, New Mexico, and Texas.

## **The Study Area**

The Arizona-Sonora BMP included three hierarchical areas for studying and evaluating the specific transportation system needs along the international border. These three areas – Focus Area, Area of Influence, and Regional Area of Influence – have been defined, because there are distinct issues, concerns, and needs associated with the cross-border movement of people and goods as well as throughout the greater border region.

The Focus Area (Figure ES.1) is the zone generally 10 miles north and south of the 389-mile Arizona-Sonora international border. This narrow ribbon of focus was expanded slightly to encompass the three principal metropolitan areas: Yuma/San Luis, Nogales/Nogales, and Douglas/Agua Prieta. The nine distinct international LPOEs are located within the Focus Area.

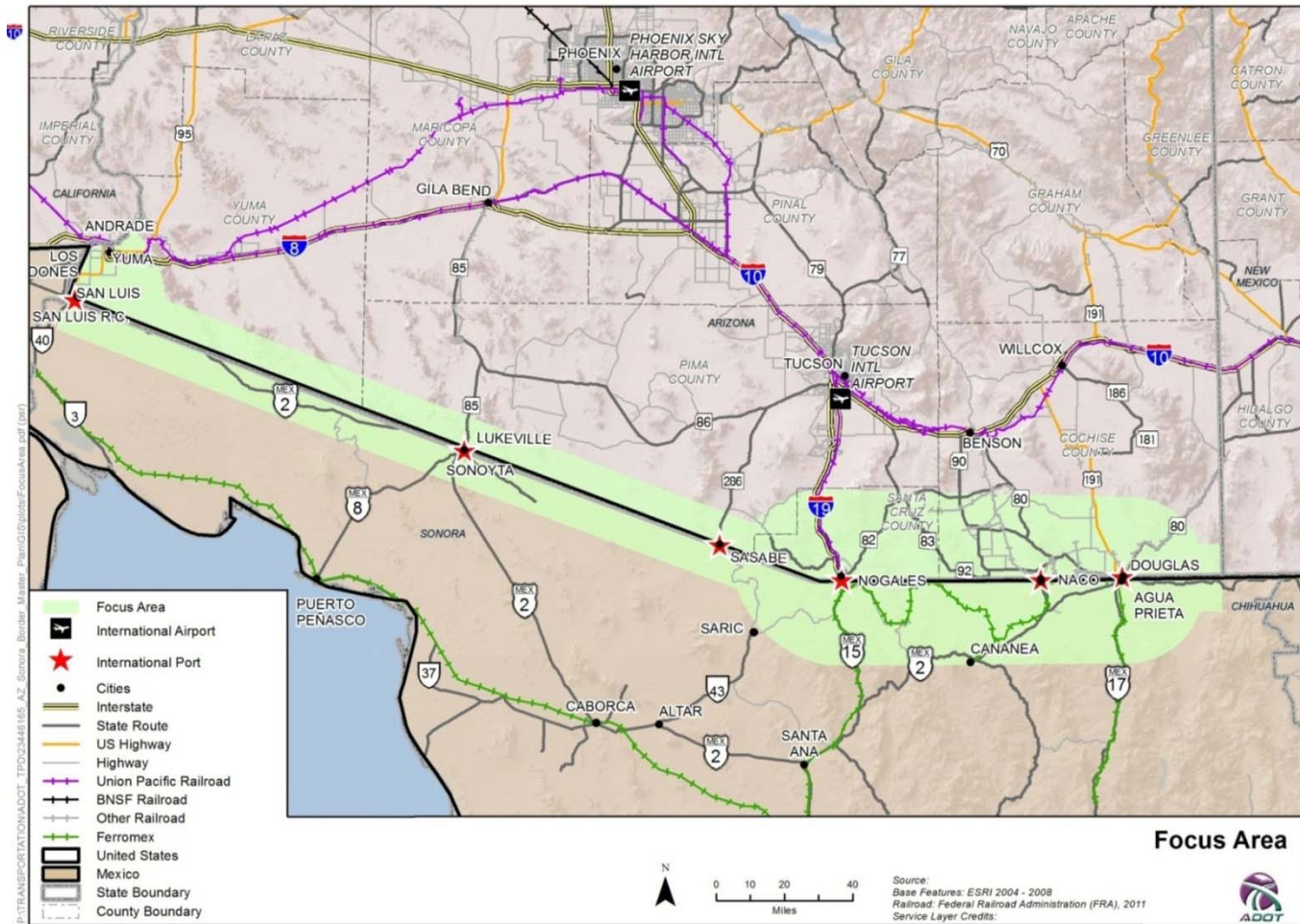
The Area of Influence considers the extent to which social and economic mobility north and south of the border affects transportation facilities in the various travel corridors. The Key Corridors are the north-south corridors linking the two countries. However, the east-west travel corridors are also important. As a result, the Area of Influence encompasses that portion of Arizona and Sonora within 80 miles of the border and includes all significant transportation facilities that support social and commercial interaction through the LPOEs.

The need to coordinate the findings and recommendations of the Arizona-Sonora BMP with those of the California-Baja California BMP (2008) to the west and the future New Mexico/Chihuahua BMP to the east defined the much larger Regional Area of Influence.

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Figure ES.1 Focus Area



## Overview of the Arizona-Sonora Land Ports of Entry (LPOEs)

The State of Arizona in the United States and the State of Sonora in Mexico share approximately 389 miles of international border. The six crossing locations (depicted by red stars in Figure ES.1) along this border are as follows, from west to east:<sup>2</sup>

San Luis (San Luis I & II)	Sasabe	Naco
Lukeville / Sonoyta	Nogales (Mariposa, DeConcini and Morley Gates)	Douglas / Agua Prieta

These crossings not only serve as passageways for travel and tourism between Arizona and Sonora, but also as fundamental gateways for both U.S.-Mexico and U.S.-Mexico-Canada trade.

<sup>2</sup> There are a total of nine specific LPOEs. However, grouping of data from the two San Luis LPOEs and the three Nogales LPOEs results in most references listing only six LPOEs.

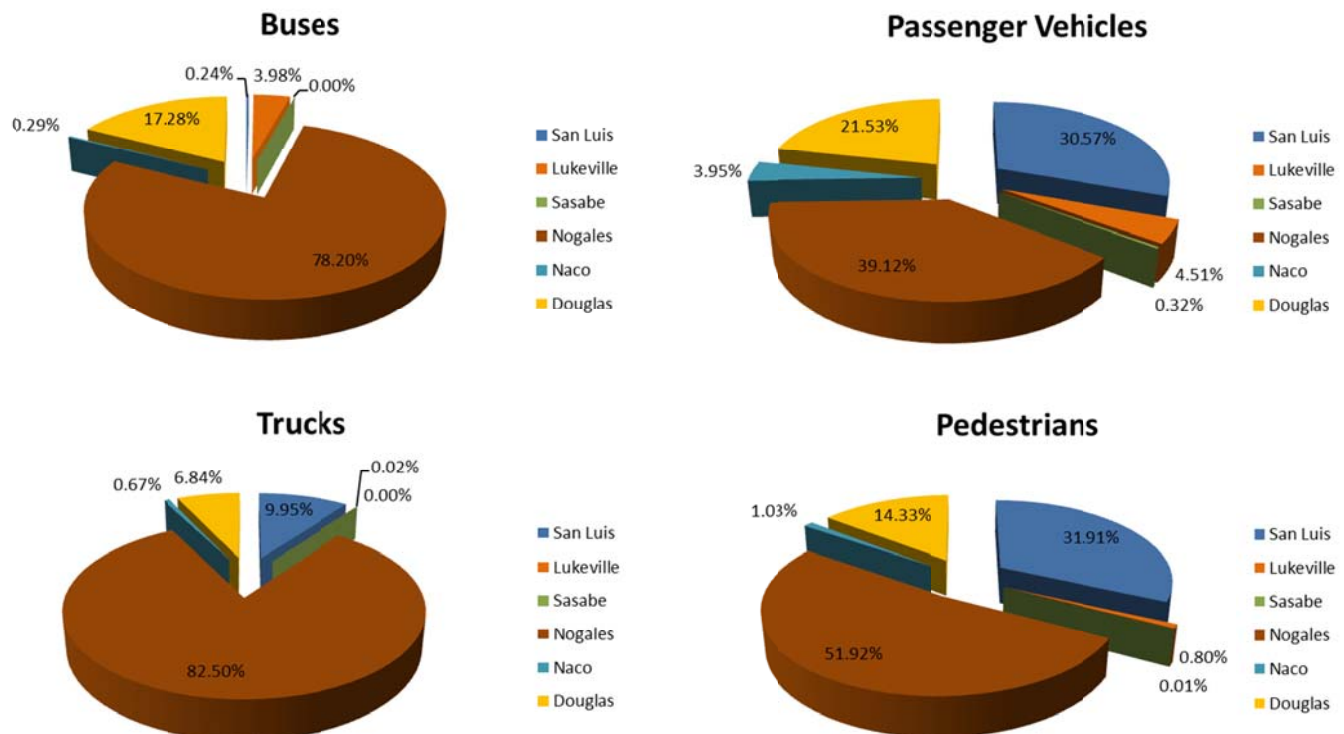
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In 2009, over 25.4 million people crossed into the United States through the Arizona LPOEs, which equates to approximately 15% of all persons entering the United States from Mexico. Nearly 70% of these persons were foreign nationals entering the U.S. to visit, work, conduct business or shop. The remaining 30% is composed largely of U.S. citizens returning home from Mexico. The majority of persons crossing the border (70%) did so in vehicles (cars, buses, or as drivers of commercial trucks). The remaining 30% or approximately eight million people crossed through the Arizona LPOEs as pedestrians in 2009.

The majority of all border crossings from Sonora into Arizona occur through the three LPOEs in Nogales (Figure ES.2). Using averages from 2006-2010, approximately 60% of all pedestrian crossings, 40% of privately owned vehicles (POVs) and 75% of all truck crossings occur through the Nogales LPOEs. The San Luis LPOEs near Yuma experience the second highest number of border crossings in all three categories with approximately 30% of pedestrian crossings, 11% of commercial vehicles, and 30% of POV crossings. The Sasabe LPOE processes the fewest crossings.

**Figure ES.2 Distribution of Sonora-to-Arizona Crossings by Mode (Average 2006-2010)**





## The Planning Process

The Arizona-Sonora BMP encompasses a wide range of administrative and geographic jurisdictions in the United States and Mexico, including federal, state, county, and municipal governments and tribal nations, along with operating entities including port authorities, planning organizations, and railroad companies. Therefore, an open and objective process involving data collection, planning, engineering, and stakeholder feedback was essential to development of the Arizona-Sonora BMP. The planning process assured a logical and transparent approach to identification, evaluation, and selection of an appropriate transportation infrastructure improvement framework.

The process was initiated with a Work Plan supported by a comprehensive Stakeholder Outreach Plan. The Stakeholder Outreach Plan included development of a Policy Advisory Committee (PAC) and Technical Working Group (TWG). The agencies involved in the BMP process are listed in Appendix H.

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 Arizona-Sonora BMP. Two focus groups were established, commerce and government, where stakeholders were asked to reflect and comment on their border crossing experiences, including needed border improvements and associated concerns, and perceptions of the constraints and obstacles to economic development in their areas. 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.azdot.gov/azborderplan](http://www.azdot.gov/azborderplan)





## 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, transit, pedestrians, and bicyclists
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 and Texas. Five Major Categories of Evaluation Criteria were developed:

1. Cost Effectiveness
2. Project Readiness
3. Capacity/Congestion
4. Regional Benefit
5. LPOE Connectivity (MMI and Rail projects) / Bi-National Coordination (LPOE projects)

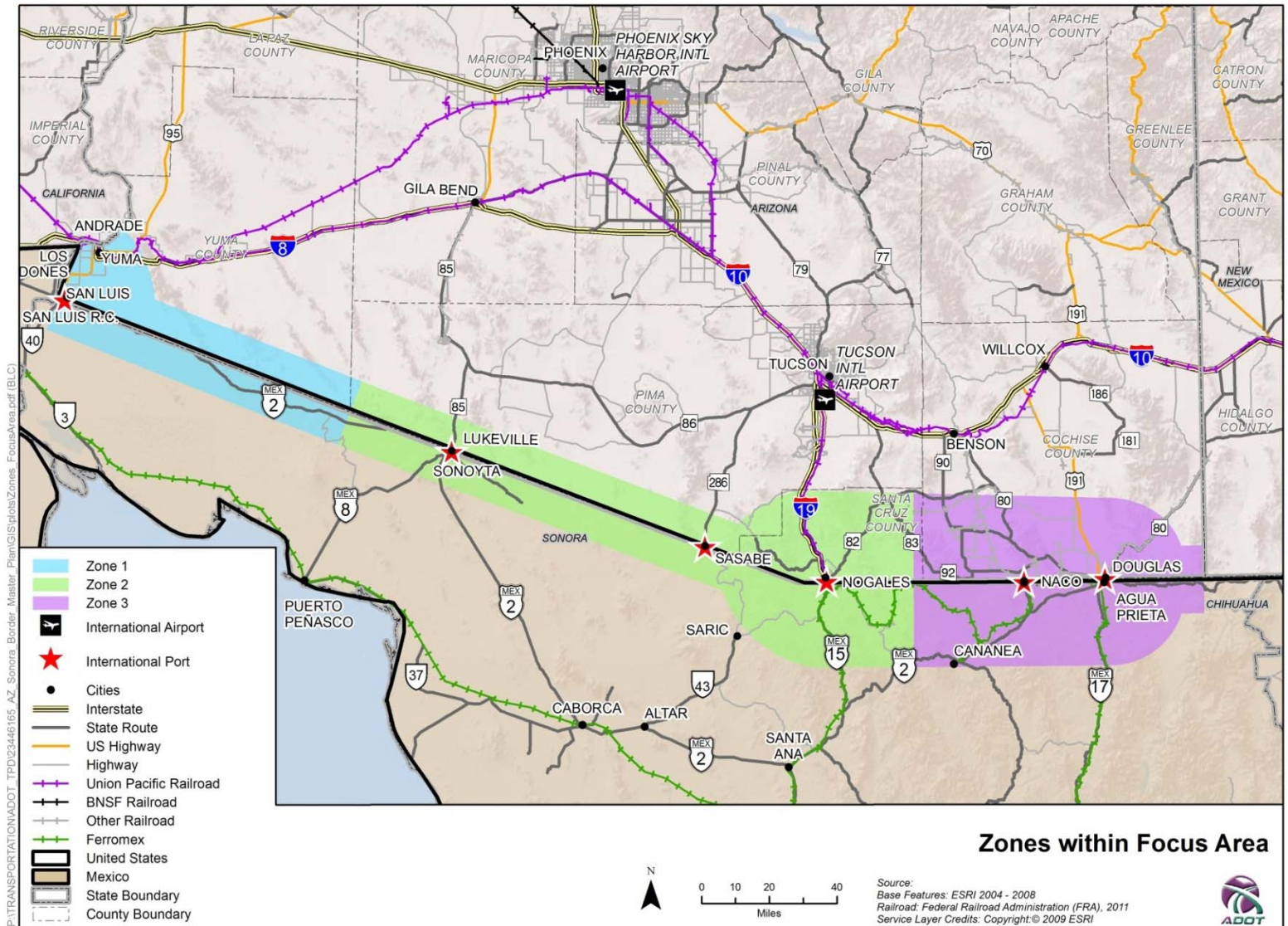
Within each of these major categories, criterion specific to the three project types were developed. In the final prioritization process, LPOEs and Multimodal Infrastructure projects were evaluated using 17 specific criteria. The evaluation of Rail projects utilized 16 specific criteria. All criteria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

A list of over 160 transportation-related projects in Arizona and Sonora 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. Projects were also classified into three Zones, as depicted in Figure ES.3 – projects in Zone 1 (blue) generally are located in Yuma County, projects in Zone 2 (green) in Pima /Santa Cruz Counties, and projects in Zone 3 (purple) in Cochise County.

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Figure ES.3 Project Zones







## Project Rankings

Using the data collected for each project, the study team independently completed the draft scoring of all projects (more than 160) 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.

Resulting scores were also integrated into the interactive GIS tool to enable interested stakeholders to access pertinent project data, project scoring, and project rankings. The interactive GIS tool is anticipated to be available in March, 2013 at [www.azdot.gov/azborderplan](http://www.azdot.gov/azborderplan). Directions for access and use of the GIS tool are provided in Appendix E.

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**Table ES.1 Evaluation of Arizona Land Port of Entry Projects**

					Capacity/Congestion Total Points	Estimated Project Cost (in \$1,000s)	Cost Effectiveness Total Points	Regional Benefit Total Points	Project Readiness Total Points	Binational Coord. Total Points weighted	Combined Score	Arizona LPOE Overall Rank
Max Point Value					47	-	5	7	7	7	100	Out of 17
ID	Zone	State	Linked Projects	LPOE Project Description								
1001	1	AZ		San Luis I - SENTRI Primary Booth Project	13	150	5	6	6	7	66	1
1002	1	AZ		San Luis I - Pedestrian Pop-Out Project #1 (Reconfiguration in place)	13	250	5	7	5	6	3	2
1003	1	AZ		San Luis I - Pedestrian Pop-Out Project #2 (Expansion)	15	1,000	4	7	4	6	63	3
1004	1	AZ	5, 3012, 4001	San Luis II - POV / Pedestrian Processing Facility	24	5000	3	6	4	5	63	4
1015	3	AZ	102, 3010	Douglas - Expansion and Modernization	23	90,000	2	7	4	4	60	5
1005	1	AZ		San Luis I - Outbound Technology Project	12	50	5	4	5	6	56	6
1016	3	AZ	3009	Douglas - Non-Commerical Port Reconfiguration	17	80,000	2	7	4	4	55	7
1006	1	AZ		San Luis I - SENTRI Secondary Inspection Area	12	350	4	4	6	6	55	8
1007	1	AZ	3003	San Luis I - Expansion and Modernization	21	80,000	2	5	4	5	54	9
1008	1	AZ	3003	San Luis I - Outbound Inspection Infrastructure	13	750	3	5	5	6	54	10
1009	1	AZ		San Luis I - Primary Booth Replacement Project	12	450	4	4	4	6	52	11
1011	2	AZ	108, 2005, 3006	Nogales Area (east) - New LPOE	31	100,000	2	5	1	1	51	12
1012	2	AZ		DeConcini - Repatriation Consolidation	9	1,000	0	5	4	3	35	13
1017	3	AZ	102, 1016, 3008	Douglas - New Commercial Port Facility	10	35,000	1	3	3	3	31	14
1013	2	AZ	2006, 3007	Nogales Area (west) - New Rail LPOE	8	5,000	2	4	1	1	28	15
1010	1	AZ	2001, 3002	San Luis II - New Rail LPOE	5	5,000	2	4	1	1	26	16
1014	3	AZ	2008, 3011	Naco - New Rail LPOE	5	5,000	2	4	1	1	26	17

Note: There are no projects at this time for Lukeville, Sasabe, Mariposa or Morley Gate. Projects 1001 (San Luis I – SENTRI Primary Booth) and 1006 (San Luis I – SENTRI Secondary Inspection Area), though defined separately, must be completed together to maximize the efficiency of SENTRI operations.

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**Table ES.2 Evaluation of Arizona Multimodal Infrastructure Projects**

							Capacity/Congestion Total Points	Project Cost (in \$,000s)	Cost of Project vs. Projected Demand	Regional Benefit Total Points	Project Readiness Total Points	LPOE Connectivity Total Points	Weighted Combined Score	Arizona MMI Overall Rank
Max Point Value							12	-	3	8	5	9	100	Out of 108
ID	Zone	State	Linked Project	Facility	Project Description/Extent	Proposed Improvement								
1	1	AZ		Archibald Street and First Avenue	C Street to Urtuzuastegui Street	Convert to One-Way Couplet & construct bus pullouts	8	5000	2	8	5	8	81	1
2	1	AZ		Main Street Project	Hwy 95 from A St to Juan Sanchez Blvd	Design & Construction	6	1040	3	7	5	8	77	2
60	2	AZ		I-19 Interchanges	At SR 289/Ruby Road	Interchange Upgrades: Round-a-bout	11	3000	2	6	2	6	75	3
61	2	AZ	66,67,69, 73,76	SR 189/Mariposa Road	Nogales Mariposa LPOE to I-19	Roadway widening to 6 lanes and improve intersections	9	46500	2	6	3	8	74	4
3	1	AZ	4	Juan Sanchez Blvd	10 <sup>th</sup> Avenue to Avenue E.	Widen to 5 lanes, Unspecified Improvements	8	15000	3	5	4	7	74	5
62	2	AZ		Pedestrian Staging Area	On Arizona Side of international border near Mariposa LPOE (SR 189 just north of border)	Construct new facility	10	1000	1	5	5	8	74	6
4	1	AZ	3	Juan Sanchez Boulevard	10 <sup>th</sup> Avenue to US-95	Widening, Unspecified Improvements	8	12000	2	6	4	8	73	7
63	2	AZ	64,68,84	Crawford Street	At UPRR - Nogales	Pedestrian Overpass	9	5000	1	7	3	8	72	8
101	3	AZ		Chino Road Realignment	Douglas	Realign at intersection of SR 80 and US-191 and update to ADOT standards	7	1000	3	4	5	7	70	9
64	2	AZ	63,68,84	New Pedestrian Bridge	South of Court Street	Construct new pedestrian bridge across the railroad	8	1000	1	7	3	8	69	10
65	2	AZ		Ruby Road	At UPRR	Vehicular Overpass	9	7800	2	6	3	4	67	11
66	2	AZ	61,67,69, 73,76	SR 189 / Mariposa Road	Grand Avenue to I-19	Design and Reconstruct to 6-lane roadway	6	3500	3	6	3	6	67	12
102	3	AZ	1017, 3008	Chino Road Extension Project	Extension Project in City of Douglas	Extension Project in City of Douglas	9	2000	1	5	4	7	67	13
5	1	AZ	1004, 3012, 4001	Avenue E.	San Luis II LPOE at Arizona-Sonora border to SR 195/ASH	Widening to 4 lanes	9	13125	2	3	4	7	66	14

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**Table ES.3 Evaluation of Arizona Rail Projects**

					Capacity/Congestion Total Points	Estimated Project Cost	Cost Effectiveness Total Points	Regional Benefit Total Points	Project Readiness Total Points	LPOE Connectivity Total Points	Weighted Combined Score	Arizona Rail Overall Ranking
Max Point Value					11	-	3	8	5	5	100	Out of 8
ID	Zone	State	Linked Project	Rail Project Description								
2003	2	AZ		Build second line (track)/Nogales Branch (MP 65 to border)	9	\$3-7m/mi +/-	3	4	5	5	82	1
2004	2	AZ		Upgrade Nogales Branch (to accommodate heavier vehicles)	6	\$3-7m/mi +/-	3	5	5	5	75	2
2005	2	AZ	1011, 3006	New rail corridor/Puerta de Anza (east side of Nogales)	8	\$15m/mi +/-	2	4	2	5	68	3
2006	2	AZ	1013, 3007	New rail corridor/west side of Nogales	8	\$15m/mi +/-	2	4	1	5	66	4
2001	1	AZ	1010, 3002	New rail corridor/through San Luis II LPOE	9	\$15m/mi +/-	1	2	1	4	55	5
2008	3	AZ	1014, 3011	Rehab and new rail/Benson or Curtiss to Naco LPOE	7	\$15m/mi +/-	2	3	3	2	54	6
2007	2	AZ		Passenger rail service/Nogales to Tucson	7	\$15m/mi +/-	1	6	1	2	54	7
2002	1	AZ		Rehab and new rail/Gila Bend to Lukeville LPOE	7	\$15m/mi +/-	1	2	1	2	42	8

Notes:  
 Rail corridors are conceptual. Projects 2005 and 2006 (Nogales bypasses) are assumed to be additional corridors, not a replacement for the existing rail line.  
 Projects 2003 & 2004 are planned UPRR (Private Investment) Projects.

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**Table ES.4 Evaluation of Sonoran Land Port of Entry Projects**

						Capacity/Congestion Total Points	Project Cost (in \$1,000s)	Cost of project vs. projected demand for improvement	Regional Benefit Total Points	Project Readiness Total Points	Binational Coord. Total Points	Weighted Combined Score	Sonoran LPOE Overall Rank
Max Point Value						47	-	5	7	7	7	100	Out of 12
ID	Zone	State	Linked Project	LPOE Project Description	Proposed Improvement								
3003	1	SON	1007, 1008, 4003, 4004, 4005	San Luis Rio Colorado I - Expansion and Modernization	Reconstruction of the LPOE to improve southbound processing of passenger vehicles and pedestrians.	18	4,000	5	7	6	6	72	1
3012	1	SON	5, 1004, 4001	San Luis II - POV/Ped Processing	Expansion of the existing San Luis Rio Colorado II commercial LPOE to accommodate passenger vehicles and pedestrians.	22	500	5	6	4	5	67	2
3004	2	SON		Nogales III (adjacent to Mariposa LPOE)- Expansion and Modernization	Reconfiguration of the existing LPOE facility immediately adjacent to the border to improve southbound processing of passenger vehicles and pedestrians.	16	4,000	4	6	5	7	64	3
3010	3	SON	1015	Agua Prieta - Expansion and Modernization	Reconstruction of the LPOE to improve southbound processing of commercial vehicles, passenger vehicles, and pedestrians. Would negate the need for projects 3008 and 3009.	21	3,000	4	6	4	5	63	4
3001	2	SON	4006	Sonoyta - Expansion and Modernization	Reconstruction of the LPOE to improve southbound processing of commercial vehicles, passenger vehicles, and pedestrians. Also includes additional queuing capacity for northbound traffic to coincide with improvements at Lukeville, AZ.	16	5,500	3	6	5	7	61	5
3009	3	SON	1016, 1017, 3008	Agua Prieta - Non-Commercial Port Reconfiguration	Reconfiguration of the existing LPOE. Assumes relocation of commercial vehicle processing to a new commercial port (Project ID 3008).	15	2,500	4	7	4	5	61	6

Notes: Rail corridors are conceptual. Projects 2005 and 2006 (Nogales bypasses) are assumed to be additional corridors, not a replacement for the existing rail line.

Projects 2003 & 2004 are planned UPRR (Private Investment) Projects

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**Table ES.5 Evaluation of Sonoran Multimodal Infrastructure Projects**

							Capacity/Congestion Total Points	Estimated Project Cost (in \$1,000s)	Cost of Project vs. Projected Demand	Regional Benefit Total Points	Project Readiness Total Points	LPOE Connectivity Total Points	Weighted Combined Score	Sonora MMI Overall Ranking
Max Point Value							12	-	3	8	5	9	100	Out of 19
ID	Zone	State	Linked Projects	Facility	Project Description/Extent	Proposed Improvement								
4001	1	SON	5, 1004, 3012, 4002	San Luis Rio Colorado Loop Phase I	Bypass closely spaced signals in urbanized area of Mexico Federal Highway 2 to accommodate a more efficient movement of trucks	Upgrade, shoulder & safety improvements to 7 miles of existing two lane roadway to Type A2 per SCT standards	6	1,200	3	5	5	7	70	1
4006	1	SON	3001	Mexico Federal Route 8	Sonoyta LPOE to Mexico Federal Route 2	Upgrade 2 miles of existing roadway and construct four reversible through lanes and two lanes for local access	7	3,000	1	7	4	8	68	2
4017	3	SON		Saric Sasabe Highway	Construct improved connection between Saric and Sasabe, Sonora	Construct 31 miles of two lane roadway to Type C per SCT standards, including 12 bridges	5	12,000	3	4	4	7	62	3
4018	3	SON		Altar-Sasabe Highway	Construct improved connection between Altar and Sasabe, Sonora	Construct 50 miles of two lane roadway to Type C per SCT standards	5	14,000	3	4	4	7	62	4
4016	3	SON		Mexico Federal Route 2	Mexico Federal Route 2 Juarez-Cananea between Cananea-Agua Prieta	Upgrade 47 miles of existing two lane roadway and construct two additional lanes to Type A2 per SCT standards	5	58,000	2	5	5	7	62	5
4012	2	SON	4014	Nogales-Santa Cruz Highway	Construct improved connection between Nogales and Santa Cruz, Sonora	Construct 35 miles of two lane roadway to Type C per SCT standards	5	12,500	3	5	5	4	61	6
4004	1	SON	3003, 4003, 4005	San Luis Rio Colorado - First Street	LPOE to Madero Street	Conversion to pedestrian/bicycle facility only and construction of alternative mode overpass crossing Obregon Avenue (Mexico Federal Route 2)	6	500	1	6	3	8	60	7



## Project Linkages

Acknowledging recent changes in legislation and the associated uncertainty in funding streams, it was the consensus of the PAC to limit the implementation assessment process and focus on project linkages. During the implementation stage, it is important to recognize that certain projects may need to be linked to each other in some fashion in order to produce more effective transportation network results.

LPOE projects could be linked to other LPOE, MMI or Rail projects in many ways, including where a relationship exists between an Arizona LPOE project and a Sonoran LPOE project. Additionally, implementation of an LPOE project could necessitate improvements to the multimodal infrastructure or rail infrastructure connecting to a particular LPOE. For example, the addition of pedestrian and privately-owned vehicle (POV) processing at San Luis II in Arizona would likely require coordination with the addition of similar processing capabilities at San Luis Rio Colorado II in Sonora. Both facilities today only process commercial vehicles. If these projects were to be implemented, it also may be necessary to improve the multimodal infrastructure serving the project area.

Transportation linkages may occur between multiple multimodal infrastructure projects, e.g., where adjacent segments of a roadway may be listed as separate projects or where a roadway project is integral to an intersection or interchange improvement. Any new cross border rail corridor projects would need to link with new rail LPOEs in both Arizona and Sonora.

## Coordinated LPOE Project Scoring

The Arizona-Sonora BMP focuses heavily on LPOE project priorities, where LPOE projects in Arizona and Sonora would require coordinated implementation timelines. To express the relative importance of these projects, an additional combined project score was developed. Some projects, particularly in Arizona, were considered “low-cost, high-impact” projects that could be implemented without a corresponding project in Sonora. Other Arizona projects have been completed or will soon be completed ahead of their Sonoran counterpart. The combined score for these related projects helped indicate priorities for LPOE improvements. The evaluations of 24 individual projects were combined into twelve coordinated LPOE projects from opposite sides of the border. These projects are identified in ranked order in Table ES.6.

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**Table ES.6 Evaluation of Combined LPOE Projects**

Zone	Arizona LPOE Projects			Sonoran LPOE Projects			Combined Project Score
	ID	LPOE Project Description	Project Score*	ID	LPOE Project Description	Project Score*	
2	n/a	Completed Project - Expansion and Modernization of Mariposa LPOE	100	3004	Nogales III (adjacent to Mariposa LPOE)- Expansion and Modernization	64	164
2	n/a	Completed Project - Expansion and Modernization of Lukeville LPOE	100	3001	Sonoyta - Expansion and Modernization	61	161
2	n/a	Completed Project - Expansion and Modernization of Mariposa LPOE	100	3005	Nogales III - New Customs Processing Facility for Commercial Vehicles	55	155
1	1004	San Luis II - POV / Pedestrian Processing Facility	63	3012	San Luis II - POV/Pedestrian Processing	67	130
1	1007	San Luis I - Expansion and Modernization	54	3003	San Luis Rio Colorado I - Expansion and Modernization	72	126
3	1015	Douglas - Expansion and Modernization	60	3010	Agua Prieta - Expansion and Modernization	63	124
3	1016	Douglas - Non-Commercial Port Reconfiguration	55	3009	Agua Prieta - Non-Commercial Port Reconfiguration	61	117
2	1011	Nogales Area (east) - New LPOE	51	3006	Nogales Area (east) - New LPOE	54	105
3	1017	Douglas - New Commercial Port Facility	31	3008	Agua Prieta - New Commercial Port Facility(*)	36	66
2	1013	Nogales Area (west) - New Rail LPOE	28	3007	Nogales Area (west) - New Rail LPOE	34	62
1	1010	San Luis II - New Rail LPOE	26	3002	San Luis Rio Colorado II - New Rail LPOE	26	51
3	1014	Naco - New Rail LPOE	26	3011	Naco - New Rail LPOE	26	51

Note:

\* Projects already completed that are linked to a proposed project are included in the table for reference and assigned a maximum project score of 100 points.



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As noted above and cited in Table ES.6, some of the proposed Sonoran LPOE projects coincide with projects already completed at the corresponding Arizona LPOE, specifically Mariposa and Lukeville. Because the Arizona projects have been completed or will soon be completed, they were awarded the maximum available project score of 100 points. The results of the combined LPOE project scoring process indicate the highest priority LPOE projects are those Sonoran projects to be constructed in response to recent improvements at the Mariposa and Lukeville LPOEs (Zone 2 – Nogales Area).

The next group of priority projects is in Zone 1 – San Luis Area, with the modification of the San Luis II LPOEs (IDs 1004 and 3012) in Arizona and Sonora receiving the highest score. Modifications at these LPOEs would consist of constructing additional facilities to process POVs and pedestrians. The expansion and modernization of San Luis I (ID 1007) and San Luis Rio Colorado I (ID 3003) scored slightly lower. It is worth noting that, should the proposed improvements to San Luis II occur in both Arizona and Sonora, it would likely alter the current POV and pedestrian demand at the San Luis I and San Luis Rio Colorado I LPOEs. This change in demand may impact the overall scope and composition, prevailing need, relative scoring, and/or timing for improvements at San Luis I and San Luis Rio Colorado I.

In Zone 3 – Douglas/Agua Prieta area, the highest scoring project consists of the complete expansion and modernization of the existing LPOEs (IDs 1015 and 3010), which serve all travel modes. Based on the combined project scores, full modernization of the two LPOEs more effectively meets the scoring criteria identified by the PAC and TWG. Should the full expansion and modernization project be implemented (IDs 1015 and 3010), the separate commercial and POV/pedestrian improvement projects would no longer be required.

Of all the projects examined and ranked, the potential new LPOE facilities generally received the lowest scores. These projects primarily are proposed to serve future demand that potentially could result from conceptual land development or conceptual rail projects. Therefore, they are considered lowest priority.



## Next Steps

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

- An Implementation Monitoring Committee 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.
- ADOT should take a leadership position regarding border LPOE-related transportation infrastructure improvements to (1) ensure support for the formation of the Implementation Monitoring Committee and (2) define the functional role of the committee in context with on-going bi-national coordination efforts in the Arizona-Sonora Border Region.
- The Implementation Monitoring Committee should meet on a regular basis 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 Arizona-Sonora Border Region.
- The Implementation Monitoring Committee 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 Implementation Monitoring Committee and its members.
- The Implementation Monitoring Committee should maintain close coordination with two important entities vital to the future vitality of international relationships pertaining to the Arizona Sonora border and border communities: the Arizona-Mexico Commission and the FHWA-supported U.S./Mexico Joint Working Committee on Transportation Planning (JWC).
- The Implementation Monitoring Committee should recognize and keep abreast of Federal and State – U.S. and Mexico, Arizona and Sonora – transportation and border facility coordination and programming initiatives to assure projects on the prioritized list are integrated fully in the funding processes.

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- ADOT 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 Sonora. The TDM from SCT should be integrated with the next generation of ADOT's TDM (AZTDM) to develop a comprehensive Focused Area TDM for the Arizona-Sonora Border Region.
- ADOT 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 nine Land Port of Entry crossings.