

Chapter 4. Current POEs and Related Transportation Facilities

U.S.-Mexico trade amounted to almost \$494 billion in 2012, 60 percent of which crossed at a Texas LPOE. In 2012, the total value of U.S.-Mexico trade that crossed by surface mode in Brownsville was \$13.8 billion: \$8.2 billion in exports and \$5.6 billion in imports. In Hidalgo, the total value of U.S.-Mexico trade that crossed the border was \$25.6 billion: \$10.0 billion in exports and \$15.6 billion in imports. Rio Grande City, Progreso, and Roma accounted for a combined \$699.0 million in U.S.-Mexico trade: \$340.5 million in exports and \$358.5 million in imports.¹

This chapter of the Border Master Plan describes the current and projected conditions of the five POEs (as defined by CBP) in the Focused Study Area—Brownsville, Hidalgo, Progreso, Rio Grande City, and Roma—and the current and anticipated transportation infrastructure that serves these POEs.

The Focused Study Area has 13 vehicular or pedestrian bridges/crossings and 2 rail bridges. The two rail bridges are the B&M Bridge and the Brownsville West Rail Bypass International Bridge, which is currently under construction. The rail carriers operating in the study area are Burlington Northern Santa Fe Railroad (BNSF), UPRR, Brownsville and Rio Grande International Railroad (BRG), and Kansas City Southern de Mexico (KCSM). The bridges are listed in Table 4.1, and their locations are illustrated in Figure 4.1.

Table 4.1: Number of Bridges/Crossings in Focused Study Area

U.S. Counties/ Mexican Municipalities	Number of Vehicular or Pedestrian Bridges	Number of Rail Bridges
Cameron/Matamoros	4	2
Hidalgo/Río Bravo, Reynosa	6	0
Starr/Gustavo Díaz Ordaz, Camargo, Miguel Alemán, Mier, Guerrero	3	0
Zapata/Guerrero	0	0
<i>Total</i>	<i>13</i>	<i>2</i>

Source: TxDOT²

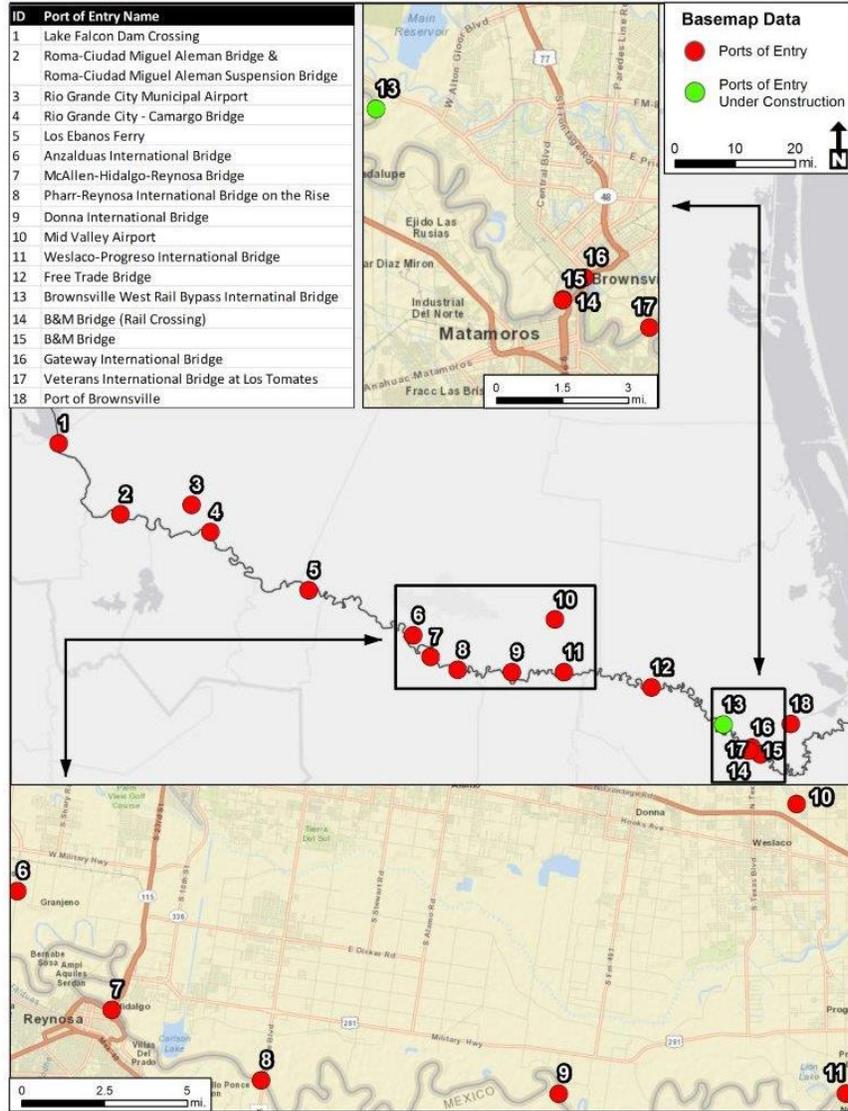


Figure 4.1: Location of Bridges/Crossings in Focused Study Area

Table 4.2 presents the current number of lanes/rail tracks and the number of booths by bridge/crossing in the Focused Study Area. The Donna International Bridge has the most lanes (9), and the McAllen-Hidalgo-Reynosa Bridge has the most northbound booths (17). This table also specifies the number of Secure Electronic Network for Travelers Rapid Inspection (SENTRI) lanes, which provide expedited customs processing; and Free and Secure Trade (FAST) lanes, which are designed to quickly clear low-risk shipments.

Table 4.2: Characteristics of Bridges/Crossings in Focused Study Area

Bridge	Total Number of Inbound Lanes (POV and Cargo combined)	Total Number of Inbound Booths* (POV and Cargo combined)	Number of Inbound Pedestrian Turnstiles	Number of FAST Lanes**	Number of POV SENTRI Lanes***	Number of Pedestrian SENTRI Lanes	Number of Outbound Lanes (POV and Cargo combined)	Number of Outbound Booths (POV and Cargo combined)
Veterans International Bridge at Los Tomates	8	8	1	1	1	0	6	2
Gateway International Bridge	5	5	4	0	0	0	3	1
B&M Bridge	4	4	1	0	0	0	3	1
B&M Bridge (Rail Crossing)	1	1	0	0	0	0	1	1
Free Trade Bridge	8	8	1	1	0	0	2	1
Brownsville West Rail Bypass International Bridge (under construction)	1	1	0	0	0	0	1	1
Weslaco-Progreso International Bridge	7	5	4	0	0	0	2	0
Donna International Bridge	4	4	4	0	0	0	2	1
Pharr-Reynosa International Bridge on the Rise	3	12	1	1	1	0	1	4****
McAllen-Hidalgo-Reynosa Bridge	4	12	5	0	1	1	3	6*****

Bridge	Total Number of Inbound Lanes (POV and Cargo combined)	Total Number of Inbound Booths* (POV and Cargo combined)	Number of Inbound Pedestrian Turnstiles	Number of FAST Lanes**	Number of POV SENTRI Lanes***	Number of Pedestrian SENTRI Lanes	Number of Outbound Lanes (POV and Cargo combined)	Number of Outbound Booths (POV and Cargo combined)
Anzaldúas International Bridge	2	4	2	0	1	0	2	5
Los Ebanos Ferry	1	1	1	0	0	0	1	0
Rio Grande City-Camargo Bridge	5	5	2	0	0	0	4	0
Roma-Ciudad Miguel Alemán Bridge	6	5	1	0	0	0	2	0
Lake Falcon Dam Crossing	3	3	0	0	0	0	2	1

Note: * All booths are not necessarily staffed by CBP during bridge/crossing hours of operation.

** FAST, a commercial clearance program, provides for expedited trade processing while ensuring safety and security.

*** SENTRI provides expedited CBP processing for pre-approved, low-risk travelers.

**** Total of eight, but four are operational

*****Total of eight, but two are not operational

Source: CBP³

The bridges/crossings were grouped according to the U.S. county/Mexican municipality in which they are located. Thus, the four areas covered are Cameron County/Municipality of Matamoros; Hidalgo County/Municipalities of Valle Hermoso, Reynosa, and Díaz Ordaz; Starr County/Municipalities of Camargo and Miguel Alemán; and Zapata County/Municipality of Guerrero.

Notes:

1. The bridge crossing sections reflect the latest data available from CBP (northbound bridge crossings) and Texas A&M International University’s Texas Center for Border Economic and Enterprise Development (southbound bridge crossings). Southbound bridge crossing data were not available for all modes.
2. TxDOT’s 2010 TLOG database provided 2010 and 2030 AADT and percent truck data for Texas roadways. SCT Dirección General de Servicios Técnicos provided 2010 AADT and percent truck data for Mexico roadways.⁴ The study team did not have access to 2030 AADT data for Mexico at the time of publication.
3. Accident data for Texas were calculated using the 2010 Crash Records Information System (CRIS) database. The number of accidents per mile on a roadway is equal to the number of accidents along the roadway’s control section divided by the length of the control section.
4. The study team did not have access to accident data for Mexico roadways at the time of publication. The LOS data obtained for Mexican roadways did not include section references or date information.
5. The term “commercial truck” is used as defined by CBP when referring to bridge crossings, and the term “truck,” in relation to truck percentage of AADT, refers to the percent of single and combination trucks using a roadway as defined by TXDOT and SCT.
6. Bridge toll rates are current as of August 2013, and a 12.40 Mexico peso (MXN) to 1 U.S. dollar (US\$) currency conversion rate is used for all bridge toll rates.⁵
7. Bridge hours of operation are provided in the time zone the bridge is located in.

4.1 Cameron County/Municipality of Matamoros

There are four bridge crossings, two rail crossings, three airports, and two marine ports in Cameron County and the Municipality of Matamoros. Two of the bridges—Veterans International Bridge and Free Trade Bridge—process pedestrians, non-commercial, and commercial vehicles. The Port of Brownsville is the only marine port in the Focused Study Area that serves trade between the U.S. and Mexico. Table 4.3 provides a summary of the bridges, airports, and marine ports in Cameron County and the Municipality of Matamoros. The table also shows the transportation modes processed by these facilities or, in the case of the Port of Brownsville, the modes serving the port.

**Table 4.3: Summary of Cameron County/Municipality of Matamoros
Bridges, Airports, and Marine Ports**

Bridge/Airport/ Marine Port	Location	Pedestrians/ Airport Passengers	Non- commercial Vehicles	Commercial Vehicles	Rail
Veterans International Bridge at Los Tomates	Brownsville/ Matamoros	Yes	Yes	Yes	No
Gateway International Bridge	Brownsville/ Matamoros	Yes	Yes	No	No
B&M Bridge	Brownsville/ Matamoros	Yes	Yes	No	No
B&M Bridge (Rail Crossing)	Brownsville/ Matamoros	No	No	No	Yes
Free Trade Bridge	Los Indios/ Lucio Blanco	Yes	Yes	Yes	No
Brownsville West Rail Bypass International Bridge (under construction)	Brownsville/ Matamoros	No	No	No	Yes
Brownsville South Padre Island International Airport	Brownsville	Yes	N/A	N/A	N/A
Valley International Airport	Harlingen	Yes	N/A	N/A	N/A
Matamoros International Airport	Matamoros	Yes	N/A	N/A	N/A
Port of Brownsville	Brownsville	N/A	N/A	Yes	Yes
Port of Matamoros*	Matamoros	N/A	N/A	N/A	N/A

Note: * The Port of Matamoros is currently not in operation.

4.1.1 Veterans International Bridge at Los Tomates

On the U.S. side, the Veterans International Bridge at Los Tomates is owned by Cameron County and the City of Brownsville, and is operated by the Cameron County International Bridge System. On the Mexican side, the bridge is owned by the Government of Mexico (through the National Infrastructure Fund–FARAC) and operated by CAPUFE. The bridge is 4,024 feet long and has four lanes—two lanes in

each direction—and two pedestrian walkways. The bridge became operational on April 30, 1999, on both the U.S. and Mexico sides. It is located just east of the University of Texas at Brownsville campus on US 77/US 83 on the U.S. side and on the northern terminus of MEX 101 in Matamoros, Tamaulipas. The crossing is also known locally as the Los Tomates Bridge, Expressway 77 Bridge, Brownsville Expressway Bridge, and Puente Internacional General Ignacio Zaragoza.

Recently, the bridge was expanded with a new bridge span to reduce congestion, improve the FAST and SENTRI lanes, and promote economic development. The existing bridge serves southbound traffic, and the new bridge span serves northbound traffic.⁶ The bridge expansion was funded through the CBI program.⁶

Border Station

The U.S. border station (LPOE Los Tomates) is owned by GSA.

Hours of Operation

The bridge currently operates from 6:00 a.m. to 12:00 a.m. 365 days a year for POVs. For commercial/cargo vehicles, the bridge operates from 8:00 a.m. to 4:00 p.m. Saturday and Sunday, and 8:00 a.m. to 11:00 p.m. Monday through Friday.

Tolls

Table 4.4 provides the southbound and northbound toll rates for the Veterans International Bridge at Los Tomates.

Table 4.4: Toll Rates for Veterans International Bridge at Los Tomates

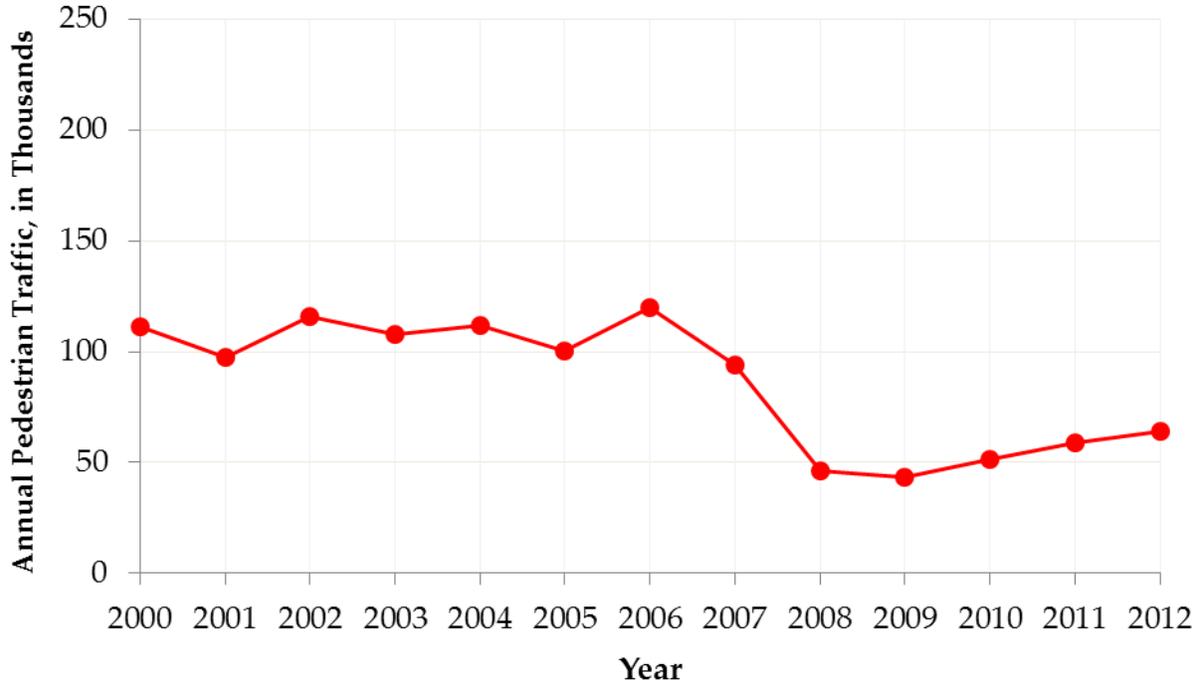
Mode	Southbound Toll Rate (US\$)	Northbound Toll Rate (US\$)
Pedestrian or Bicycle	0.75	0.25
Motorcycle	3.00	1.05
Non-commercial Auto or Pickup	3.00	2.10
Extra Axle for Non-commercial Vehicle	3.00	1.21
Commercial Truck (2 Axles)	7.75	4.33
Commercial Truck (3 Axles)	11.25	4.33
Commercial Truck (4 Axles)	14.75	4.33
Commercial Truck (5 Axles)	18.25	9.27
Commercial Truck (6 Axles)	21.75	9.27
Commercial Truck (7, 8, and 9 Axles)	N/A	14.50
Extra Axle for Commercial Vehicle	3.50	2.42
Passenger Bus (2, 3, and 4 Axles)	N/A	4.33
Bus or Recreational Vehicle	10.00	N/A
Express Line (per Year)	N/A	316.53

Note: Exchange rate = MXN 12.40 per US \$1.

Source: Cameron County International Bridge System⁷ and CAPUFE⁸

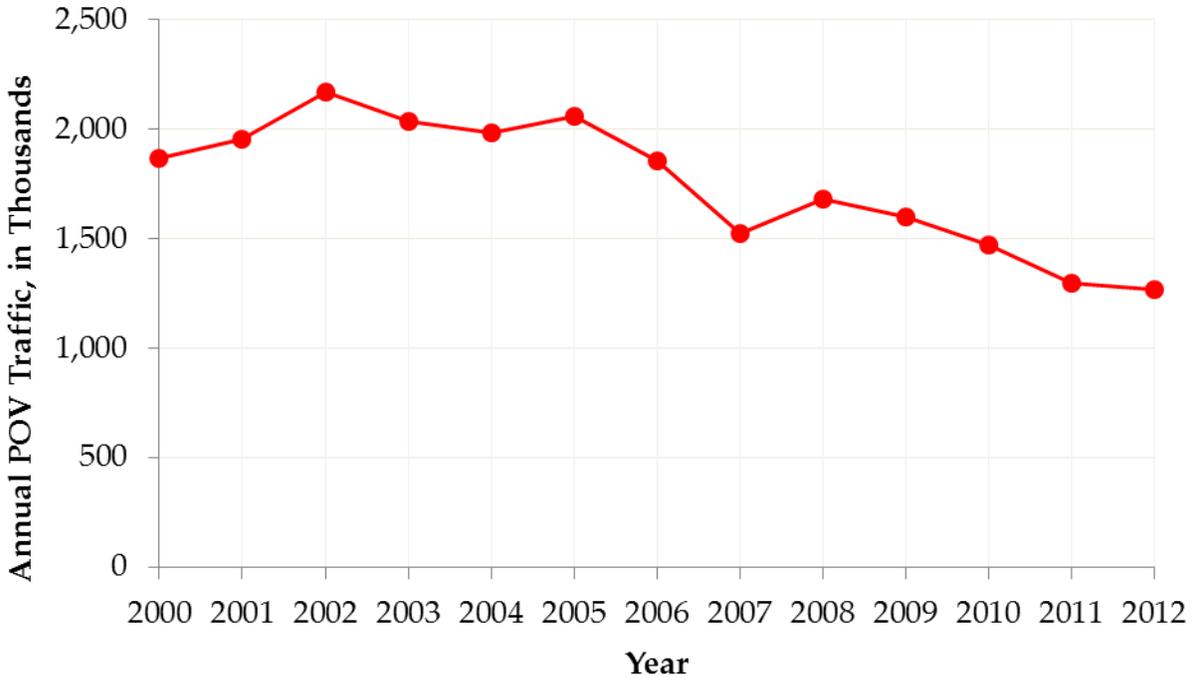
Bridge Crossings

Figures 4.2 through 4.5 illustrate the number of northbound crossings by mode between Mexico and the United States between 2000 and 2012 at the Veterans International Bridge at Los Tomates. Figures 4.6 through 4.8 illustrate the number of southbound crossings at the Veterans International Bridge at Los Tomates, the Gateway International Bridge, and the B&M Bridge. Southbound crossing data for the individual bridges were not available from the Texas A&M International University’s Texas Center for Border Economic and Enterprise Development.



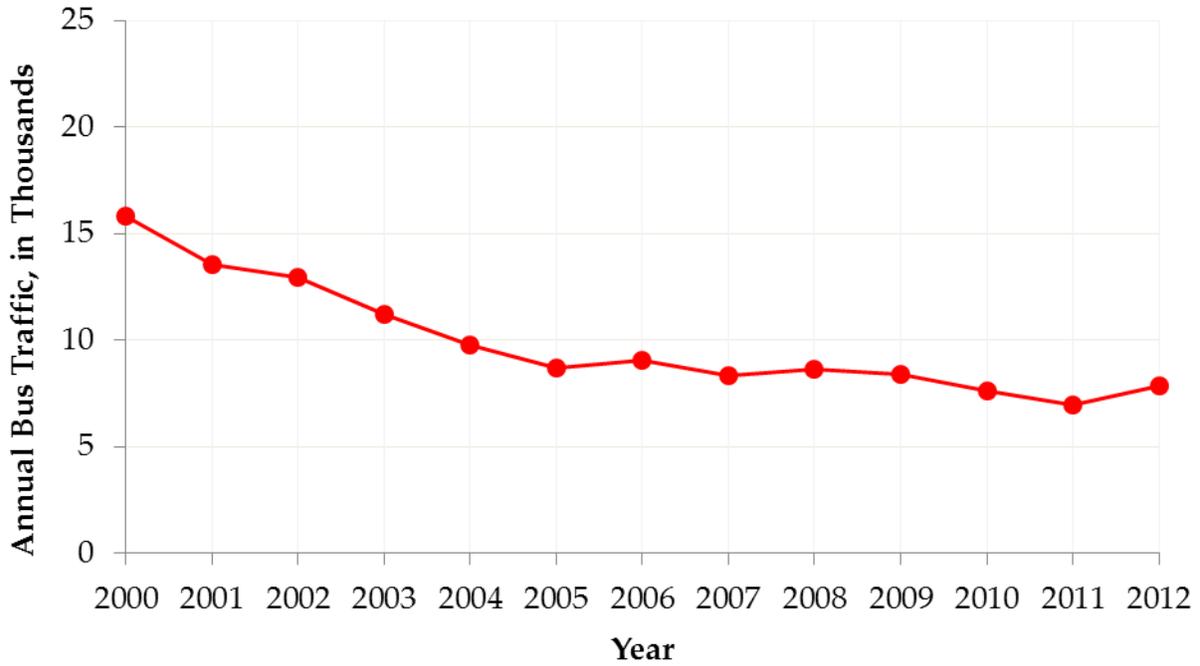
Source: CBP⁹

Figure 4.2: Veterans International Bridge—Northbound Pedestrian Crossings



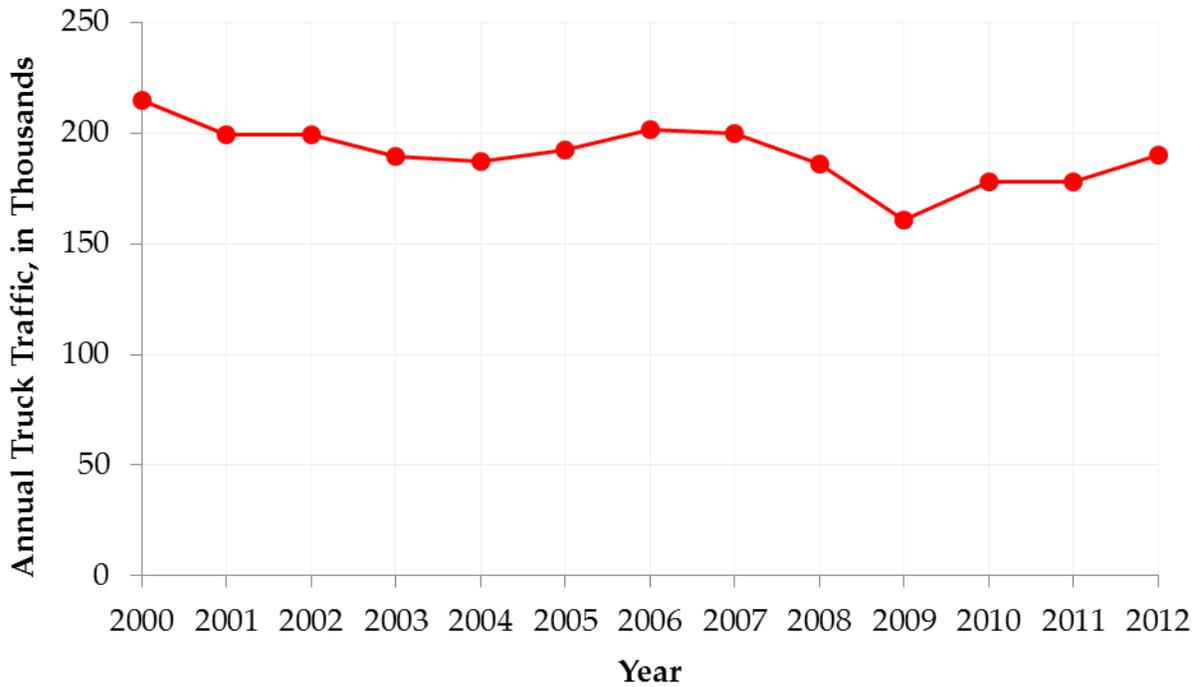
Source: CBP⁹

Figure 4.3: Veterans International Bridge—Northbound POV Crossings



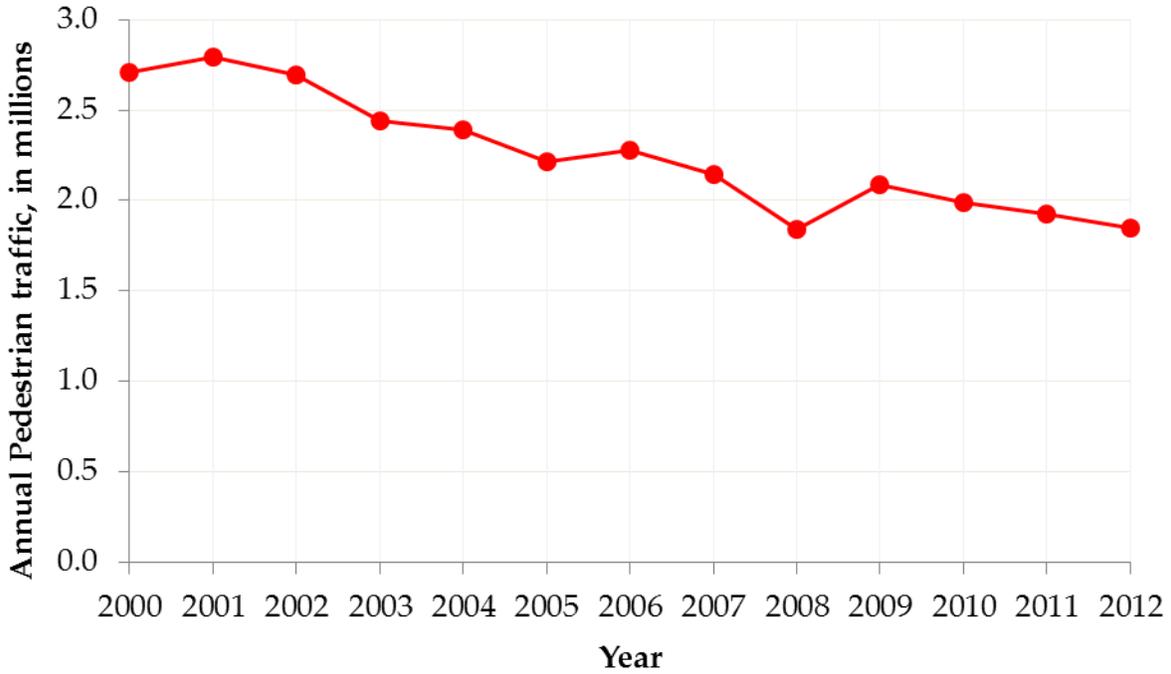
Source: CBP⁹

Figure 4.4: Veterans International Bridge—Northbound Bus Crossings



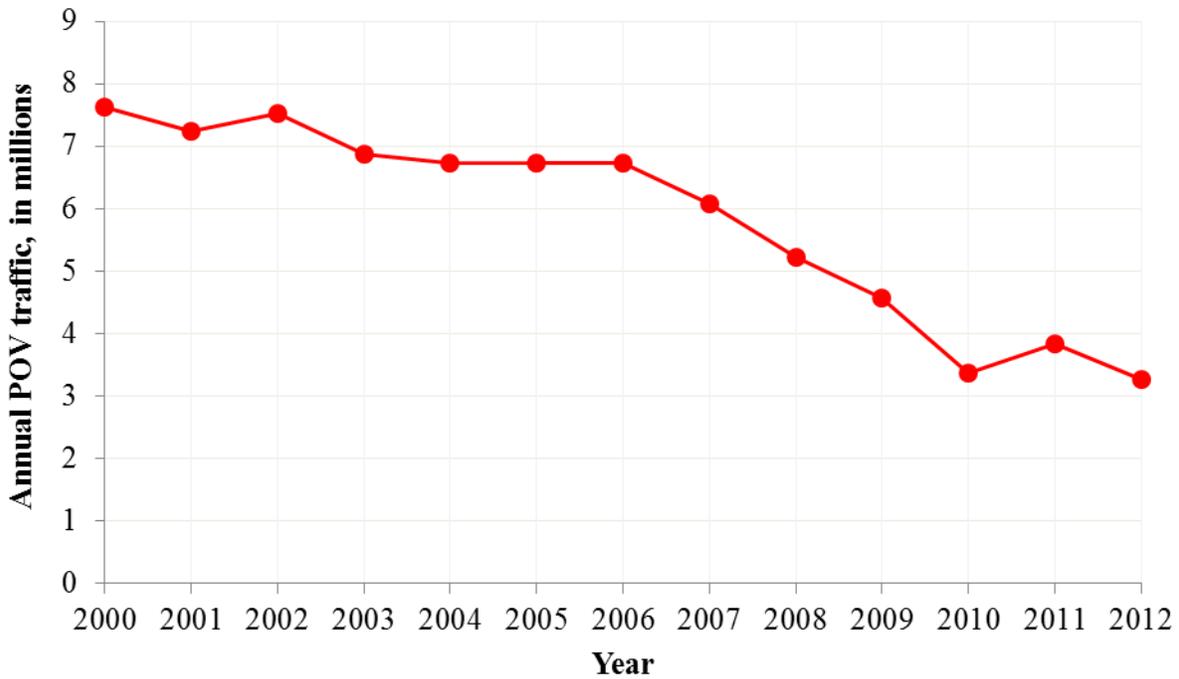
Source: CBP⁹

Figure 4.5: Veterans International Bridge—Northbound Commercial Truck Crossings



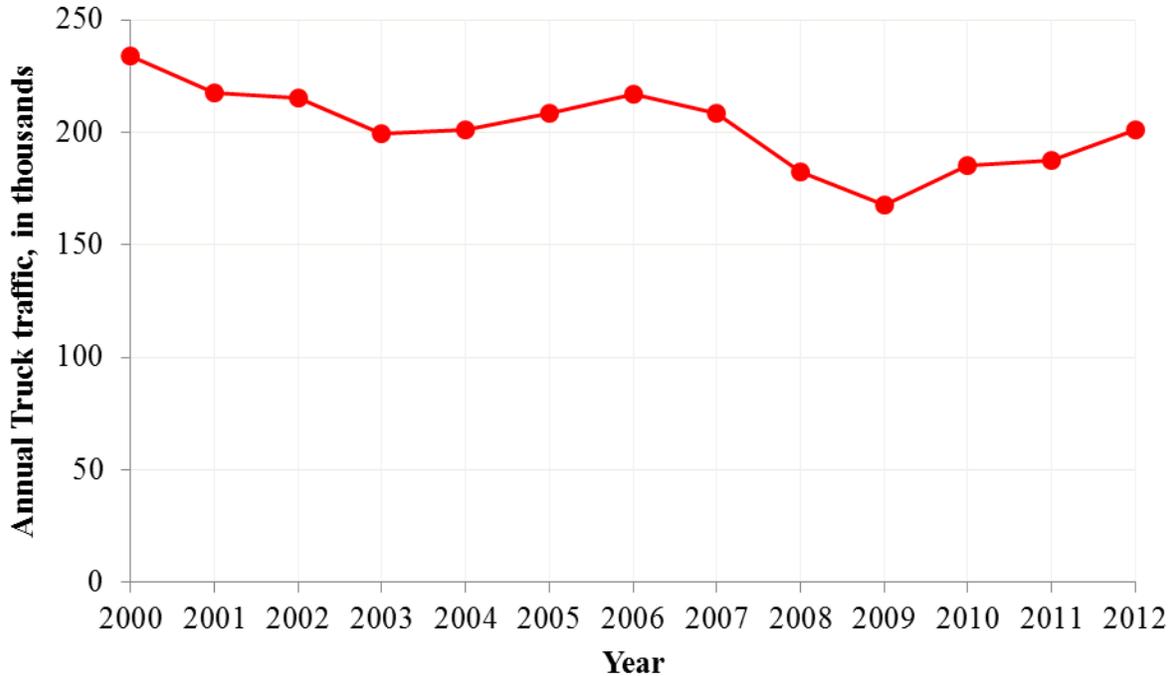
Source: Texas A&M International University, Texas Center for Border Economic and Enterprise Development¹⁰

Figure 4.6: Brownsville/Matamoros Bridges—Southbound Pedestrian Crossings



Source: Texas A&M International University, Texas Center for Border Economic and Enterprise Development¹⁰

Figure 4.7: Brownsville/Matamoros Bridges—Southbound POV Crossings



Source: Texas A&M International University, Texas Center for Border Economic and Enterprise Development¹⁰

Figure 4.8: Brownsville/Matamoros Bridges—Southbound Commercial Truck Crossings

Northbound Crossings: Between 2000 and 2006, the annual number of pedestrian crossings fluctuated between 100,000 and 120,000 at the Veterans International Bridge at Los Tomates (see Figure 4.2). In 2007, however, the number of pedestrian crossings began to decrease significantly, with the lowest number of crossings (43,080) recorded in 2009. This decrease is likely a reflection of the U.S. economy at the time. The number of pedestrian crossings increased steadily between 2010 and 2012 at an average annual rate of 14.2 percent.

Northbound POV crossings have largely decreased since 2002, from 2,172,168 in 2002 to 1,268,070 in 2012, a 41.6 percent decrease (see Figure 4.3). Similarly, bus crossings have decreased, from 15,819 in 2000 to 6,977 in 2011, a 55.9 percent decrease (see Figure 4.4). In 2012, the number of northbound bus crossings increased 12.9 percent compared to 2011, reaching 7,880.

Relative to the decrease in POV and bus crossings, commercial truck crossings decreased moderately (11.5 percent) between 2000 and 2012 (see Figure 4.5). During the U.S. economic recession in 2008 and 2009, commercial truck crossings decreased relative to 2007 by 6.8 percent and 20.9 percent, respectively. However, between 2010 and 2012, the number of commercial truck crossings increased 7.0 percent, reaching 190,204 in 2012.

Southbound Crossings: As mentioned earlier, the southbound crossing data are for the Veterans International Bridge at Los Tomates, Gateway International Bridge, and B&M Bridge connecting Brownsville and Matamoros. Disaggregated data for the southbound traffic on the individual bridges are not available from Texas A&M International University’s Texas Center for Border Economic and Enterprise Development. Figures 4.6, 4.7, and 4.8 thus present the information for all three bridges between 2000 and 2012.

Similar to northbound crossings, southbound crossings of both pedestrians and POVs decreased between 2000 and 2012. Pedestrian crossings decreased 31.7 percent between 2000 and 2012. The lowest number of southbound pedestrian crossings (1,839,580) was recorded in 2008. The number of southbound pedestrian crossings, however, increased 13.4 percent between 2008 and 2009 to reach 2,086,748 crossings (see Figure 4.6). Between 2009 and 2012, the number of southbound pedestrian crossings decreased 11.3 percent to reach 1,850,098 crossings in 2012.

Figure 4.7 indicates that the number of southbound POV crossings decreased 55.7 percent between 2000 and 2010. In 2011, the number of southbound POV crossings increased 13.8 percent, before decreasing 14.8 percent in 2012 to reach its lowest level of 3,276,389 crossings in 2012.

Southbound commercial truck crossings¹¹ decreased 28.4 percent between 2000 and 2009 (see Figure 4.8). Between 2009 and 2012, the number of southbound commercial truck crossings increased 20.0 percent to reach 201,189 crossings in 2012.

Primary Roadways Serving Veterans International Bridge at Los Tomates

Figure 4.9 shows the location of the Veterans International Bridge at Los Tomates. On the U.S. side, US 77/US 83, a six-lane divided highway, connects directly to the Veterans International Bridge at Los Tomates. University Boulevard intersects US 77/US 83 about 0.75 miles north of Veterans International Bridge, and further north, US 77/US 83/IH 69E is intersected by SH 4. In 2010, the AADT on US 77/US 83 was 54,150 vehicles, of which about 8.1 percent were trucks. There were 41.36 accidents recorded per mile on this road. The LOS¹² on US 77/US 83 was F in 2010.

On the Mexican side, MEX 101 (Pedro Cárdenas Gutiérrez) runs north to south through the center of Matamoros, while MEX 2 runs east to west, connecting Matamoros and Reynosa. MEX 101 and MEX 2 are four-lane highways. The LOS on MEX 101 was E in 2010, while the LOS on MEX 2 was B in 2010. MEX 180 (Antiguo Camino Sendero Nacional) forms a loop around the southwest section of the city, and then turns into Libramiento Emilio Portes Gil before heading northeast. The LOS on the two-lane MEX 180 was D in 2010.

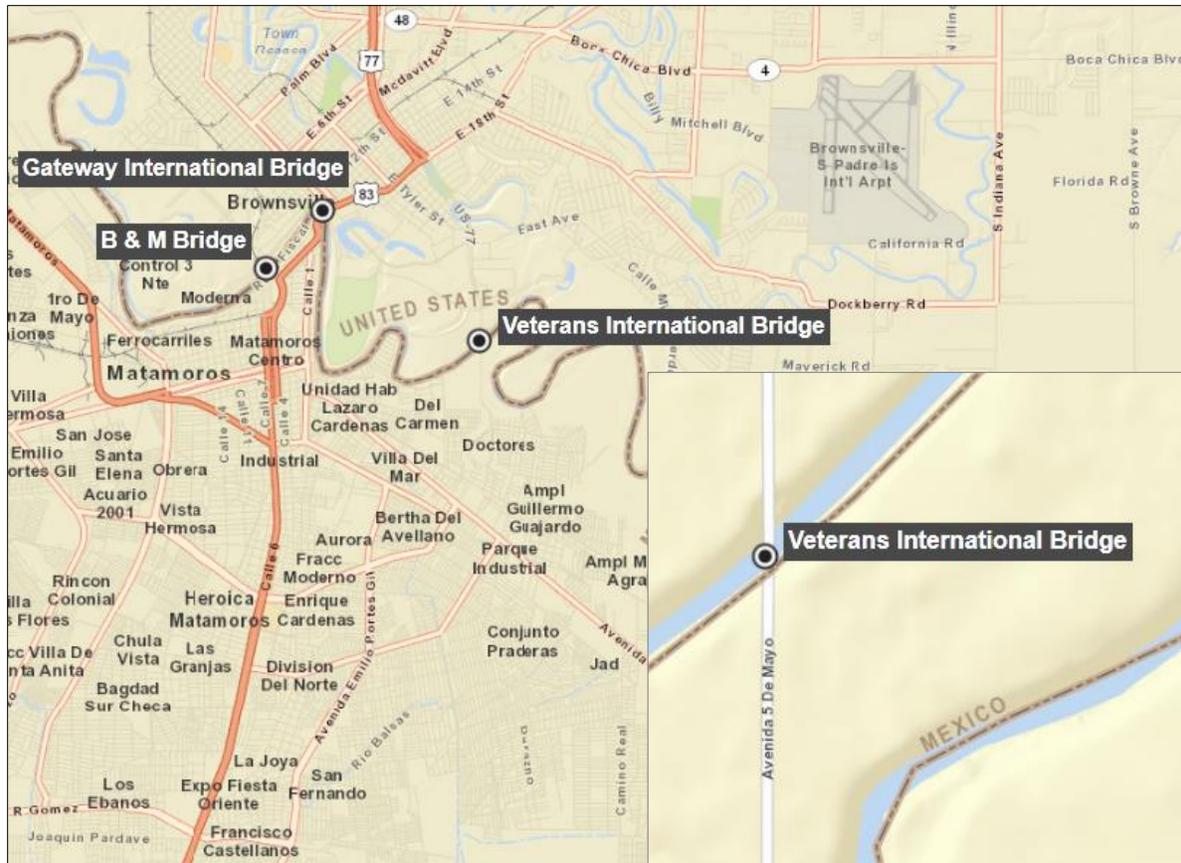


Figure 4.9: Veterans International Bridge at Los Tomates

Acción Cívica (Avenida 5 Mayo) runs northwest from MEX 101 (Pedro Cárdenas Gutiérrez)—intersecting with Libramiento Emilio Portes Gil, Roberto Guerra Cárdenas, and Avenida General Lauro Villar—before turning north to connect to Veterans International Bridge. All the aforementioned arterial roads and city streets operated at LOS E in 2010 with the exception of Libramiento Emilio Portes Gil (LOS C) and Roberto Guerra Cárdenas (LOS D). Acción Cívica, Pedro Cárdenas Gutiérrez, and Avenida General Lauro Villar are six-lane facilities, while Libramiento Emilio Portes Gil and Roberto Guerra Cárdenas each have four lanes.

Planned Changes in Infrastructure (Present to 2030)

On the U.S. side, funding for SH 32-East (Phase II) has been authorized by TxDOT to construct a connection between US 77/US 83 and SH 4. The proposed SH 32 project would be from the FM 3068/Indiana Avenue and FM 1419/Southmost Road intersection, east-northeast to SH 4. The construction cost is estimated at \$40 million, and the project is expected to let by 2030. This investment is expected to provide a relief route for SH 4, which would improve the LOS on SH 4.

On the Mexican side, additional capacity is planned for MEX 101, MEX 180, Pedro Cárdenas Gutiérrez, and Libramiento Emilio Portes Gil in the form of two additional lanes by 2035.

4.1.2 Gateway International Bridge

The U.S. side of the Gateway International Bridge is owned by Cameron County and operated by the Cameron County International Bridge System. The Mexican side of the bridge is owned by the Government of Mexico and operated by CAPUFE. The bridge has twin structures—one structure serves southbound traffic, and the other serves northbound traffic—with a total of four lanes. The southbound span is 687 feet long, and the northbound span is 477 feet long.⁶ The Gateway International Bridge is located on International Boulevard/SH 4 near the intersection of SH 4 and BU 77 in Brownsville on the U.S. side and on Avenida Alvaro Obregón near the intersection of MEX 2 and MEX 101 in Matamoros on the Mexican side. The crossing is also known locally as El Puente, Puente Nuevo, and Puerta México.

Border Station

On the U.S. side, the border station (LPOE Gateway) was completed in 1969 and is owned by GSA. In March 1994, a renovation and expansion project was completed, and GSA is planning another major renovation for this facility that is scheduled to begin in 2013.⁶ On the Mexican side, the border station has been operational since 1963.¹³ The Mexican border station was remodeled in 1968.

Hours of Operation

The bridge currently operates 24 hours a day 365 days a year for POVs only.

Tolls

The toll rates for the Gateway International Bridge are provided in Table 4.5.

Table 4.5: Toll Rates for Gateway International Bridge

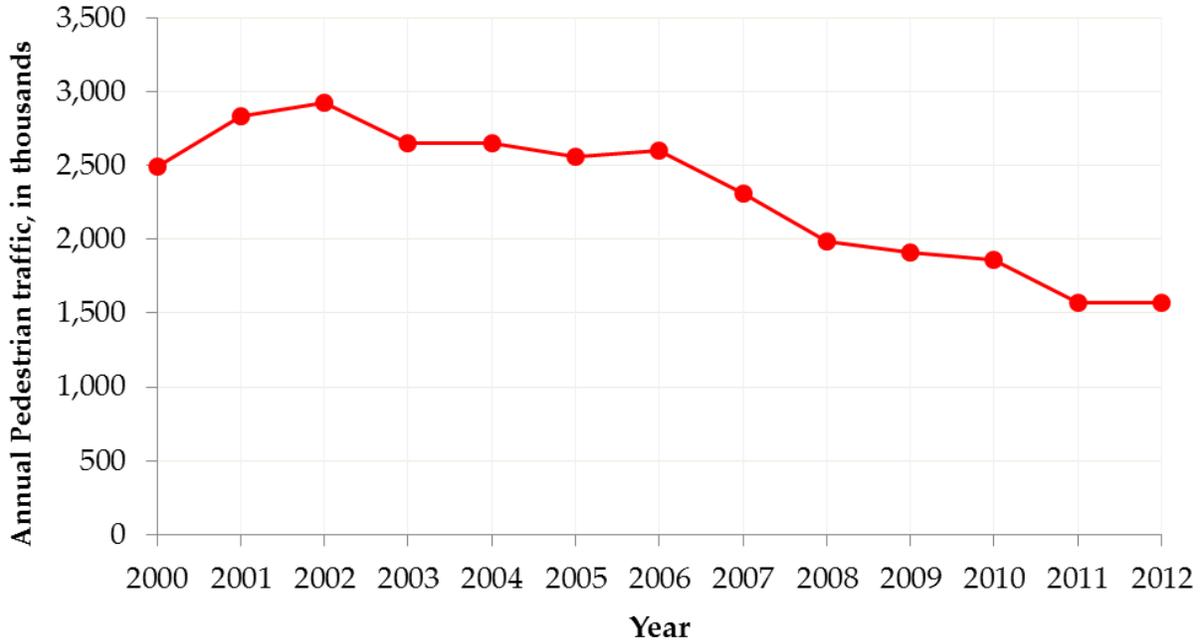
Mode	Southbound Toll Rate (US\$)	Northbound Toll Rate (US\$)
Pedestrian or Bicycle	0.75	0.25
Motorcycle (2 Axles)	3.00	0.97
Non-commercial Auto or Pickup	3.00	2.00
Extra Axle for Non-commercial Vehicle	3.00	1.04
Commercial Truck (2 Axles)	7.75	N/A
Commercial Truck (3 Axles)	11.25	N/A
Commercial Truck (4 Axles)	14.75	N/A
Commercial Truck (5 Axles)	18.25	N/A
Commercial Truck (6 Axles)	21.75	N/A
Commercial Truck (7, 8, and 9 Axles)	N/A	N/A
Extra Axle for Commercial Vehicle	3.50	N/A
Passenger Bus (2, 3, and 4 Axles)	N/A	N/A
Bus or Recreational Vehicle	10.00	N/A

Note: Exchange rate = MXN 12.40 per US \$1.

Source: Cameron County International Bridge System⁷ and CAPUFE⁸

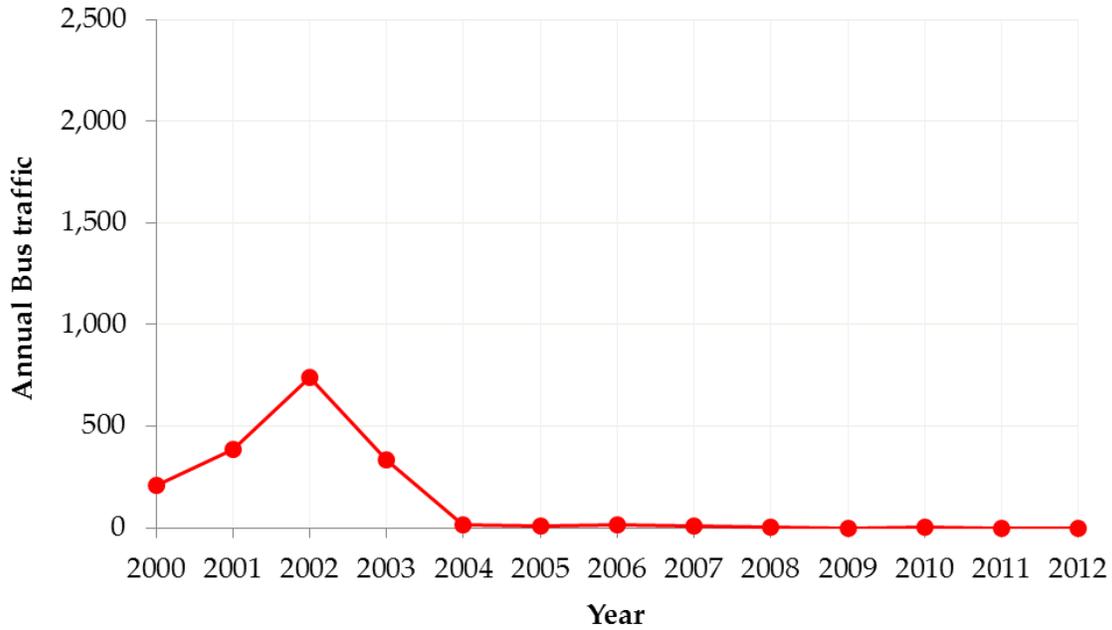
Northbound Bridge Crossings¹⁴

Figures 4.10 through 4.12 illustrate the northbound bridge crossings at the Gateway International Bridge between 2000 and 2012. As shown in Figure 4.10, Gateway International Bridge experienced a steady decrease in the number of northbound pedestrian crossings between 2002 and 2012, a 46.3 percent decrease. The most significant decreases occurred between 2006 and 2008 when pedestrian crossings decreased 23.5 percent and between 2008 and 2011 when pedestrian crossings decreased 21.0 percent.



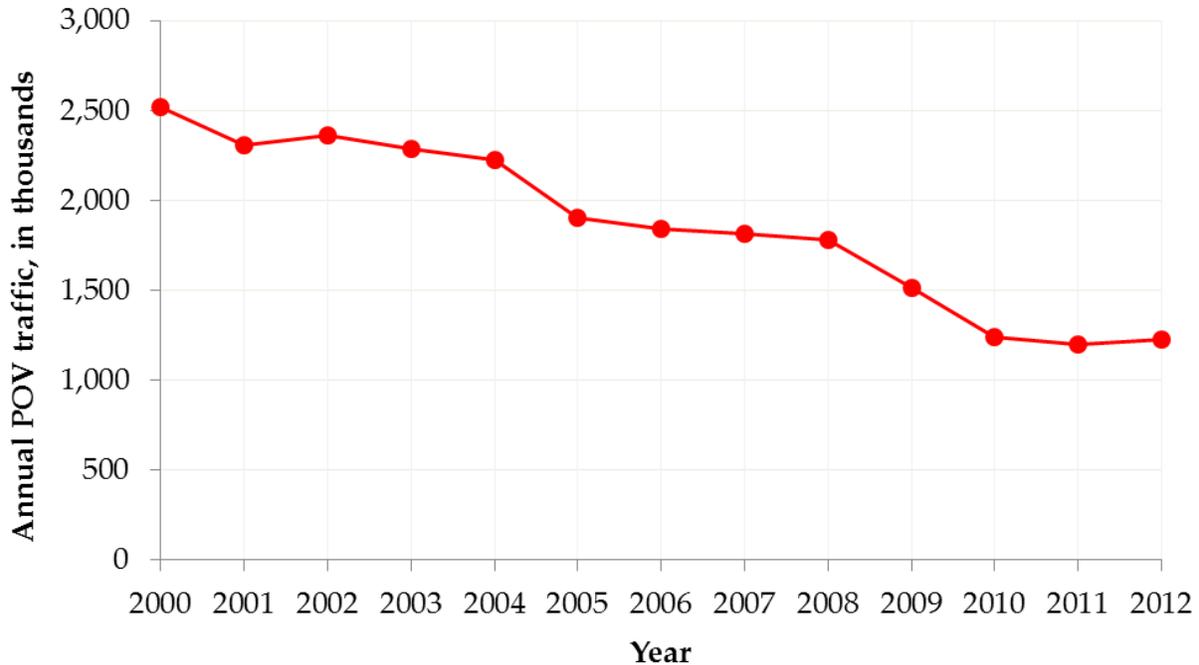
Source: CBP⁹

Figure 4.10: Gateway International Bridge—Northbound Pedestrian Crossings



Source: CBP⁹

Figure 4.11: Gateway International Bridge—Northbound Bus Crossings



Source: CBP⁹

Figure 4.12: Gateway International Bridge—Northbound POV Crossings

CBP opened a pedestrian READY lane at the Gateway International Bridge on March 7, 2013. This lane allows pedestrians traveling with an approved document that has radio frequency identification (RFID) technology to be processed faster. The pedestrian READY lane operates between 6:00 a.m. and 6:00 p.m. Monday through Friday and between 10:00 a.m. and 6:00 p.m. Saturday and Sunday. Three new kiosks were installed to process READY lane pedestrians.¹⁵

From the data obtained, bus crossings at the Gateway International Bridge all but ceased as of 2004 (Figure 4.11), when the number of bus crossings decreased from 335 in 2003 to 15 in 2004.

Similar to the Veterans International Bridge at Los Tomates, the Gateway International Bridge has seen POV crossings decrease significantly from its peak of 2,519,878 in 2000 to 1,196,730 in 2011, a 52.5 percent decrease (see Figure 4.12). In 2012, the number of northbound POV crossings increased marginally (2.2 percent) relative to 2011 to reach 1,223,130 crossings.

Primary Roadways Serving Gateway International Bridge

Figure 4.13 illustrates the location of the Gateway International Bridge. On the U.S. side, SH 4 connects directly to the Gateway International Bridge. SH 4 is intersected by University Boulevard and Washington Street about 400 and 800 feet east of the Gateway International Bridge, respectively. SH 4 is a four-lane undivided highway with

a continuous left-turn lane in the center toward its southern end. The AADT on SH 4 was 15,900 vehicles in 2010, of which 6.6 percent were trucks. The number of accidents reported per mile on SH 4 was 61.02 in 2010, and SH 4 had an LOS of B in 2010.

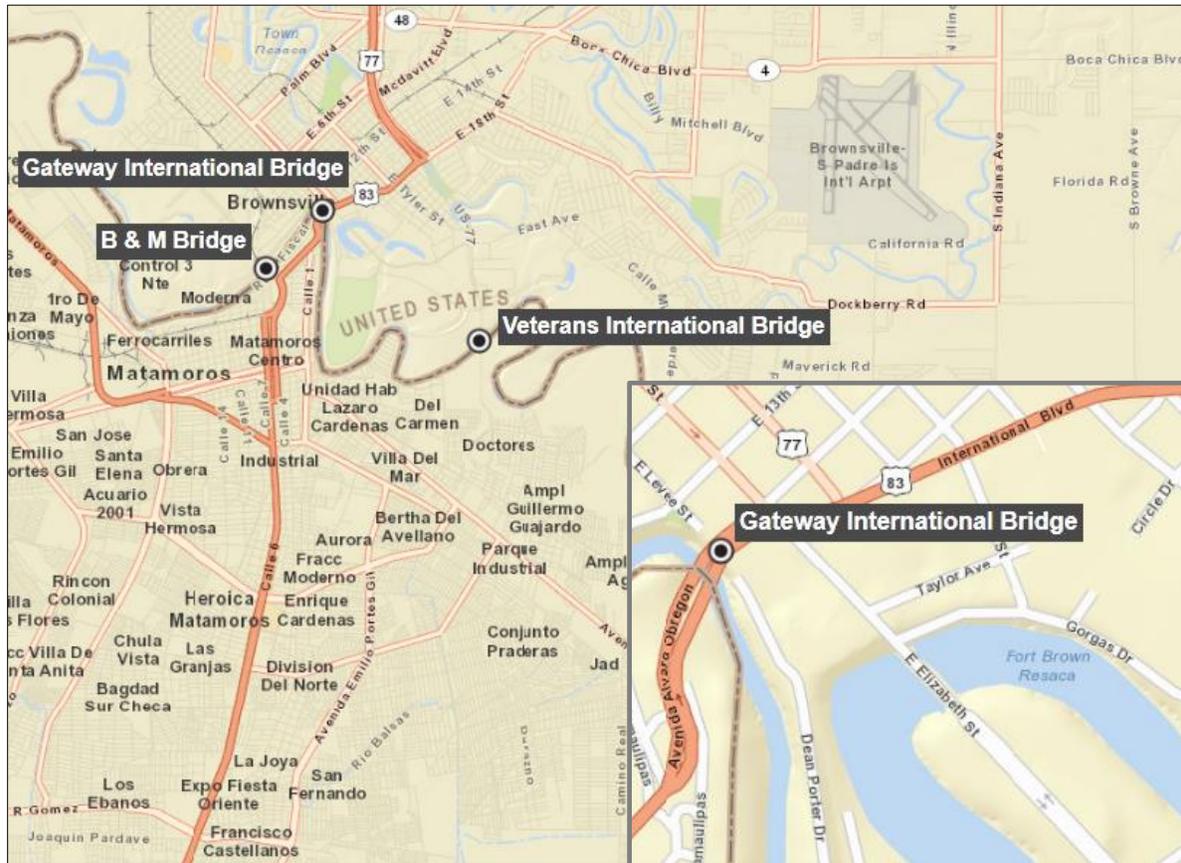


Figure 4.13: Gateway International Bridge

Texas State Senate Bill 1276 (75th Legislature, 1997) permitted TxDOT to grant the Brownsville Navigation District (BND) the authority to issue permits for the movement of oversize/overweight (OS/OW) vehicles transporting freight between the Gateway International Bridge and the Port of Brownsville. TTC subsequently approved BND’s permit-issuing authority on February 17, 1998. By December 15, 1998, BND had issued 23,713 permits. BND currently has special authority to issue permits for the movement of OS/OW trucks on SH 48/SH 4 between the Gateway International Bridge and the entrance to the Port of Brownsville. BND can also issue permits on US 77/US 83 and SH 48/SH 4 between the Veterans International Bridge at Los Tomates and the entrance to the Port of Brownsville.¹⁶ Revenues raised from the permits are used by TxDOT to maintain the designated truck routes.⁶ In addition, the Cameron County Regional Mobility Authority (CCRMA) funded another OS/OW truck route (SH 550) that connects the Port of Brownsville to US 77/US 83/IH 69E on the north end. SH 550 is a tolled facility and is now operational.

On the Mexican side, MEX 101 runs north to south through the center of Matamoros, while MEX 2 runs east to west connecting Matamoros and Reynosa. MEX 101 and MEX 2 are four-lane facilities. MEX 101 had an LOS of E in 2010, while MEX 2 had an LOS of B in 2010. Heading north, MEX 101 turns into Pedro Cárdenas Gutiérrez and then Calle 6. The number of lanes on Calle 6 varies between two and six lanes. Calle 6 had an LOS of E in 2010. East of Calle 6 is Calle 5, which turns into Álvaro Obregón—a four-lane arterial that operated at LOS D in 2010—that heads north and connects to the Gateway International Bridge. Primero de Mayo (a two-lane arterial that operated at LOS C in 2010) and Rigo Tovar (a four-lane arterial that operated at LOS E in 2010) channels traffic toward the bridge from the west. Canales and División del Norte (both four-lane arterials operated at LOS E and D, respectively, in 2010) channel traffic toward the bridge from the east.

Planned Changes in Infrastructure (Present to 2030)

On the U.S. side, no planned infrastructure projects have been identified that will serve the Gateway International Bridge.

On the Mexican side, additional capacity is planned for MEX 101 in the form of two additional lanes by 2035.

4.1.3 B&M Bridge

Until 2009, the U.S. and Mexican sides of the B&M Bridge were owned by the Brownsville and Matamoros Bridge Company.⁶ The Brownsville and Matamoros Bridge Company is owned by UPRR and the Federal Government of Mexico. Four UPRR officials and four Mexican Government representatives serve on the board of directors.¹⁷

The 100-year concession for the Mexican side of the bridge that was granted in 1909 expired in 2009. As of March 2013, however, all bridge administration, security, and maintenance services for both sides of the B&M Bridge are still managed by a single corporation, the Brownsville and Matamoros Bridge Company, located in the United States.¹⁷

The Municipality of Matamoros has strongly supported the concession of the bridge and has started the application process with SCT. In the past, the municipality has also advocated for CAPUFE to manage the toll revenues for the Mexican side. The Brownsville and Matamoros Bridge Company determines the toll amount that the municipality currently receives, as opposed to the set 12.5 percent of toll revenues border municipalities receive from international crossings managed by CAPUFE. However, the Mexican Government’s infrastructure fund (FONADIN) has also expressed interest in investing in the bridge and managing the future concession.

The original 1909 B&M Bridge, which opened in 1910, was an 18-foot steel structure that accommodated rail, POVs, pedestrians, and cattle crossings. In 1953, the B&M Bridge was widened by 3 feet to accommodate commercial truck traffic. In 1992, the bridge was renovated to service increased traffic, and in 1997, a concrete structure was constructed next to the original steel bridge.¹⁷ On April 30, 1999, the bridge stopped processing northbound commercial truck traffic, and on December 30, 1999, it stopped processing southbound commercial truck traffic. At this time, all commercial truck traffic began to use the Veterans International Bridge at Los Tomates.⁶

The B&M Bridge's concrete structure consists of four lanes—two in each direction—and is currently used exclusively for non-commercial traffic. The concrete structure also includes the northbound pedestrian walkway. The older, steel structure is currently used for train crossings and includes the southbound pedestrian walkway.

The B&M Bridge is located on Mexico Boulevard near the intersection with Sam Perl Boulevard/E. 12th Street on the U.S. side and on Avenida Las Américas near the intersection with Avenida Álvaro Obregón in Matamoros. The crossing is also known locally as the Brownsville and Matamoros Bridge, ByM, Puente Viejo, and Express Bridge.

Border Station

The border station on the U.S. side (LPOE B&M) was completed in 1992 and is owned by GSA.² The border station facility for tourist traffic on the Mexican side was completed in 1997. The Brownsville and Matamoros Bridge Company owns all of the facilities on the Mexican side.

Hours of Operation

The bridge currently operates 24 hours a day 365 days a year for pedestrians and POVs.

Tolls

The current toll rates for the B&M Bridge are provided in Table 4.6. The bridge also provides a service, Xpress Card Plus, to pay bridge tolls at any toll booth at the B&M Bridge with a Hughes Identification Devices Global, Inc., (HID) proximity card. An RFID reader identifies the card and checks the account balance. The user receives a discount on tolls and a special permit to use a bypass lane when a train is blocking Calle Sexta in Matamoros.

Table 4.6: Toll Rates for B&M Bridge

Mode	Southbound		Northbound*	
	Toll Rate (US\$)	Express Card	Toll Rate (US\$)	Express Card
Pedestrian or Bicycle	1.00	N/A	1.00	N/A
Non-commercial Auto, Pickup, or Motorcycle	3.00	2.25	2.00	1.95
3 Axles	6.00	2.25	5.00	1.95
4 Axles	9.00	8.40	8.00	7.80
5 Axles	12.00	11.20	11.00	10.73

Note: * Northbound toll rates are always converted to US\$ at an exchange rate of MXN 15 per US \$1.

Source: B&M Bridge¹⁷

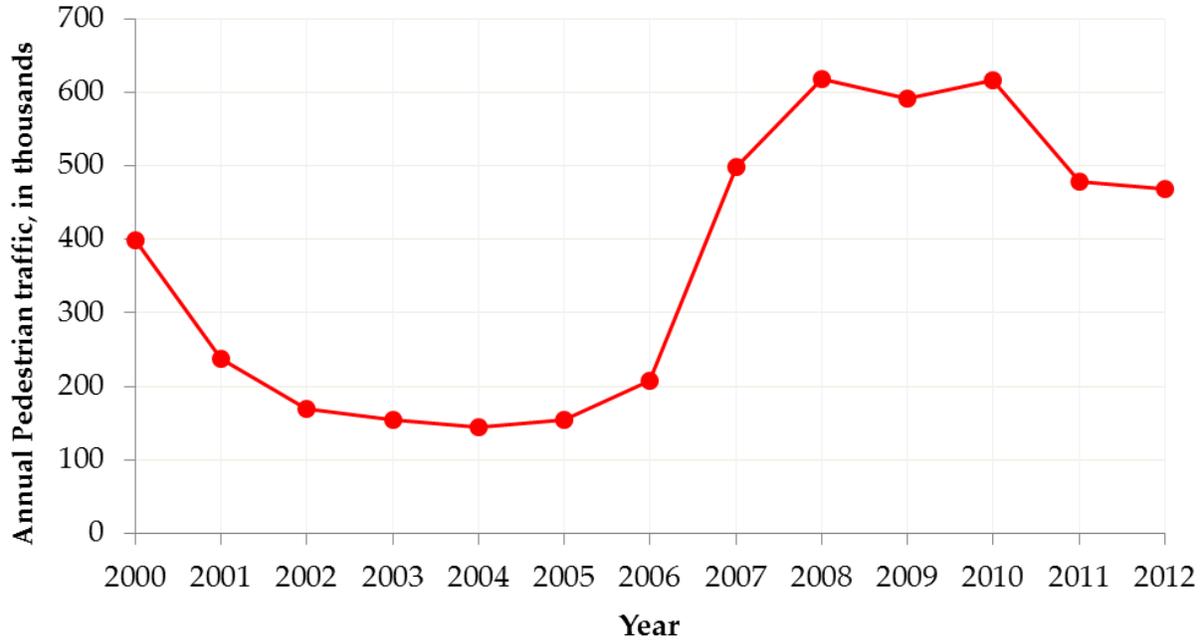
Bridge Crossings

Figures 4.14 and 4.15 illustrate northbound bridge crossings¹⁸ at the B&M Bridge between 2000 and 2011.

Northbound Crossings: As shown in Figure 4.14, the B&M Bridge experienced a 63.9 percent decrease in pedestrian crossings between 2000 and 2004, followed by a substantial increase from a low 144,391 crossings in 2004 to 617,536 crossings in 2008, a 328 percent increase. Since then, the annual number of northbound pedestrian crossings has decreased again to reach 479,034 in 2011.

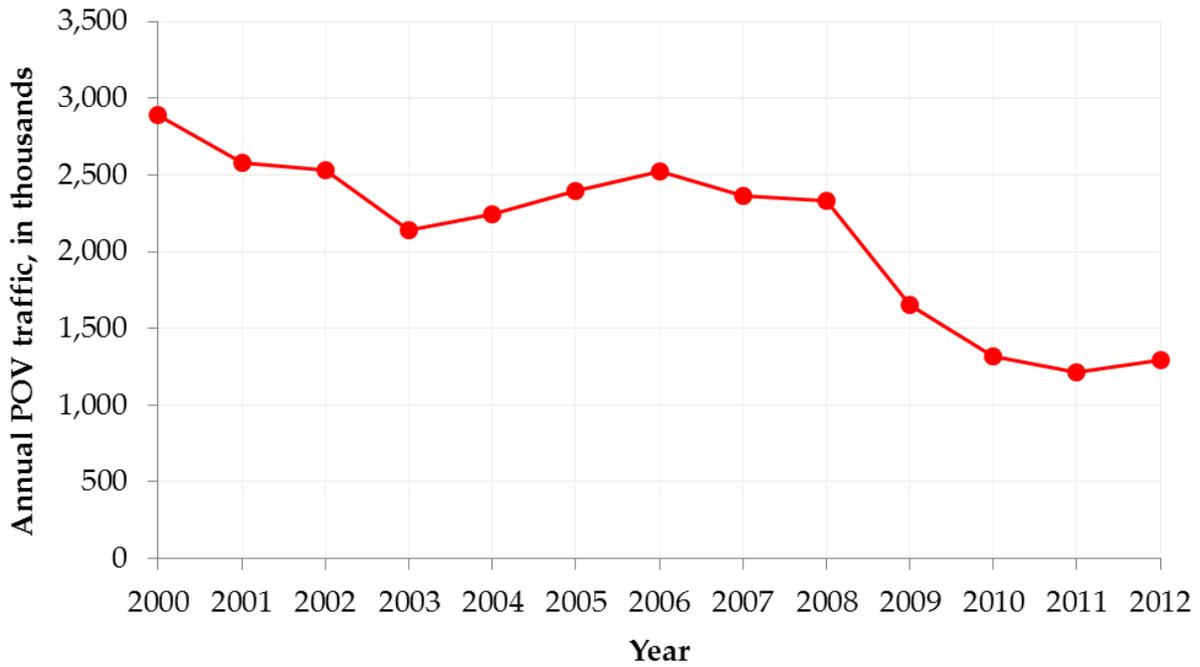
POV crossings decreased 58.1 percent between 2000 and 2011, with the most significant decrease in POV crossings occurring between 2008 and 2011. Between 2008 and 2011, the number of POV crossings decreased from 2,332,136 (2004) to 1,211,133 (2011), a decrease of 48.1 percent (see Figure 4.15).

Rail Crossings: Annual rail container crossings between 2000 and 2012 at the B&M Rail Bridge are shown in Figure 4.16. Figure 4.16 shows that rail container crossings decreased from 139,803 in 2000 to 34,021 in 2009, a decrease of 75.7 percent. Between 2009 and 2012, the number of rail container crossings increased 58.8 percent to reach 54,023 in 2012. Figure 4.17 illustrates the number of loaded rail containers crossing at the B&M Rail Bridge between 2000 and 2012. Figure 4.17 shows that the number of loaded rail container crossings was quite irregular between 2001 and 2012, fluctuating between 9,992 in 2003 and 5,612 in 2012—the lowest level of loaded rail container crossings. Peak traffic was recorded in 2000 at 13,363 loaded container crossings.



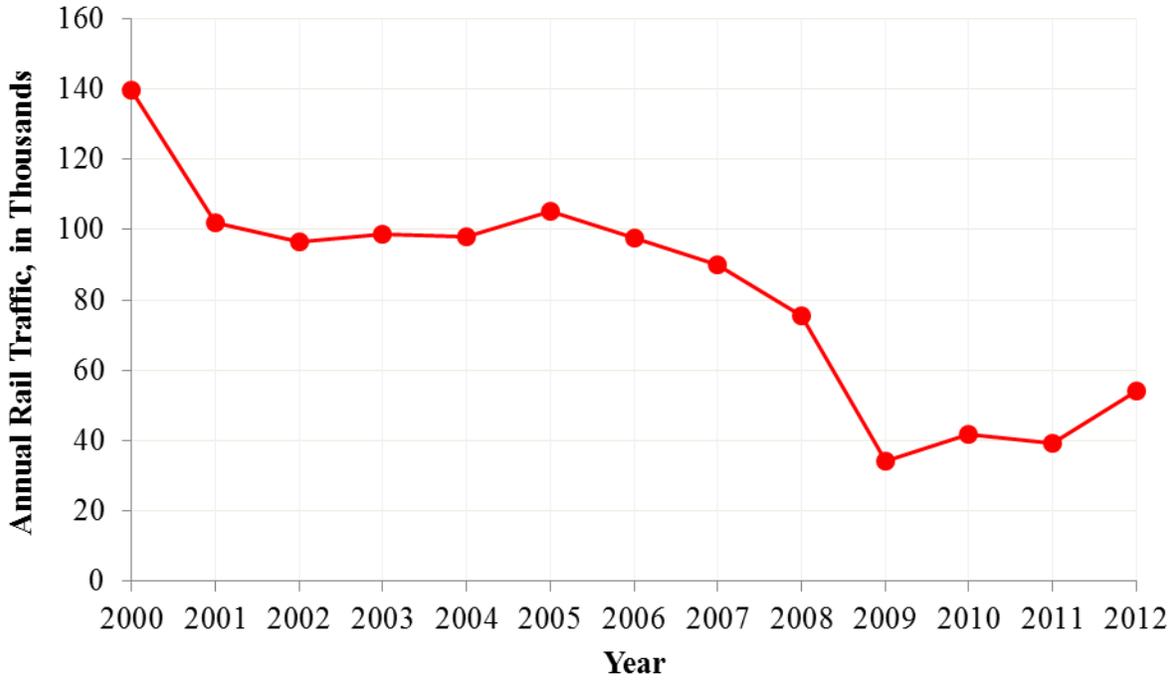
Source: CBP⁹

Figure 4.14: B&M Bridge—Northbound Pedestrian Crossings



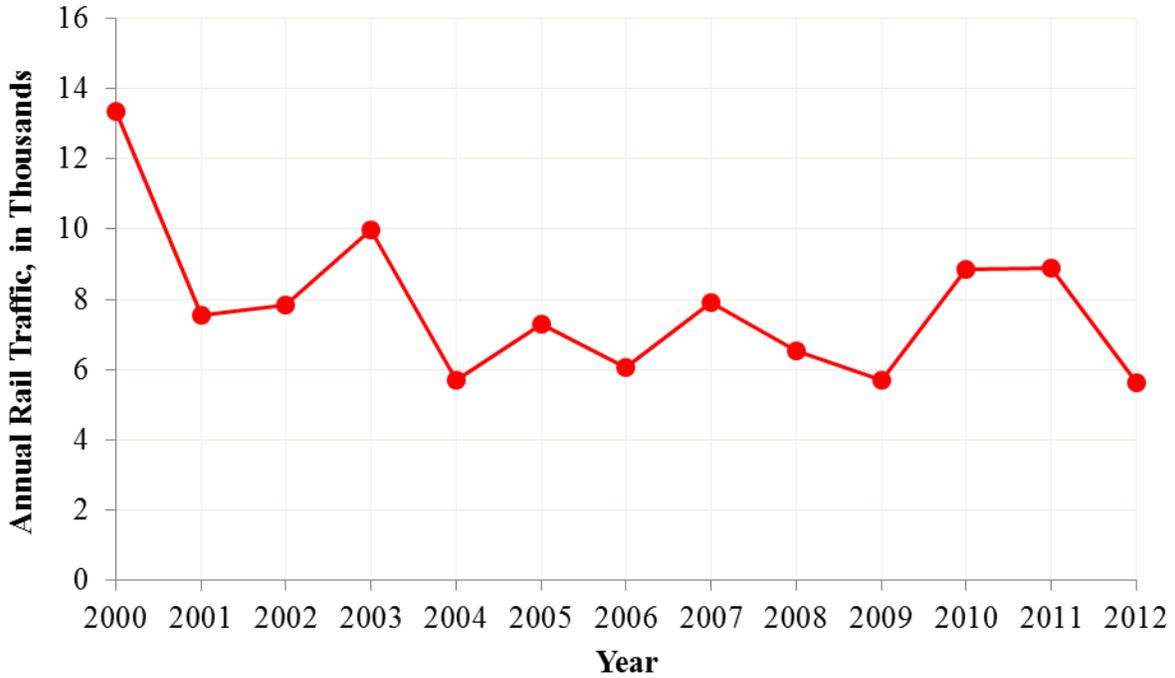
Source: CBP⁹

Figure 4.15: B&M Bridge—Northbound POV Crossings



Source: USDOT¹⁹

Figure 4.16: Brownsville/Matamoros Rail Crossings—Total Rail Containers



Source: USDOT¹⁹

Figure 4.17: Brownsville/Matamoros Rail Crossings—Total Loaded Containers

Primary Roadways Serving B&M Bridge

Figure 4.18 shows the location of the B&M Bridge. On the U.S. side, Mexico Boulevard connects directly to the B&M Bridge. Approximately 1,500 feet from the B&M Bridge, Mexico Boulevard is a six-lane divided facility. Sam Perl Boulevard, a local six-lane divided highway, also leads to the bridge from the northeast.



Figure 4.18: B&M Bridge

On the Mexican side, MEX 101 runs north to south through the center of Matamoros, while MEX 2 runs east to west connecting Matamoros and Reynosa. MEX 101 and MEX 2 are four-lane facilities. MEX 101 had an LOS of E in 2010, while MEX 2 had an LOS of B in 2010. Heading north, MEX 101 turns into Pedro Cárdenas Gutiérrez and then Calle 6. The number of lanes on Calle 6 varies between two and six. Calle 6 had an LOS of E in 2010. Calle 6 intersects with Las Américas, a four-lane arterial, which operated at LOS E in 2010. Las Américas runs north and connects to the B&M Bridge. Virgilio Garza Ruiz channels traffic north through western Matamoros toward the bridge. The number of lanes on this road varies from two to six, and the calculated LOS was D in 2010.

Planned Changes in Infrastructure (Present to 2030)

On the U.S. side, no planned infrastructure projects have been identified near the B&M Bridge.

On the Mexican side, additional capacity is planned for MEX 101 in the form of two additional lanes by 2035. Also, the capacity of Las Américas is expected to double—the number of lanes will increase from four to eight—by 2030.

4.1.4 Free Trade Bridge

The construction of the Free Trade Bridge was completed in 1992. On the U.S. side, the Free Trade Bridge is owned by Cameron County (50 percent), the City of San Benito (25 percent), and the City of Harlingen (25 percent), and is operated by the Cameron County International Bridge System. On the Mexican side, the bridge is owned by the Mexican Government. SCT granted the State of Tamaulipas a concession to operate and manage the bridge. Per a legislative decree signed on December 3, 2009, the State of Tamaulipas created a single trust (fideicomiso) in which toll revenues obtained from the Free Trade Bridge and Donna International Bridge are deposited.

The bridge has four lanes and is 503 feet long. The U.S. customs facilities are approximately 2,500 feet north of the U.S.-Mexico border. A parking/staging area was constructed in 2009 for southbound commercial vehicles to help alleviate traffic backing up on Farm to Market (FM) 509 (the approach to the bridge⁶). It is located on Cantu Road, approximately 1.03 miles south from where FM 509 intersects US 281/Military Highway in Los Indios on the U.S. side and on the northern terminus of MEX 2 in Lucio Blanco, Tamaulipas. The crossing is also known locally as the Los Indios-Lucio Blanco Bridge, Puente Lucio Blanco-Los Indios, Puente Internacional Libre Comercio, TLC Lucio Blanco, and Los Indios Free Trade Bridge.

Border Station

The border station (LPOE Los Indios) is owned by GSA and was completed in 1992.² On the Mexican side, the border station has been operational since 1992.

Hours of Operation

The bridge currently operates from 6:00 a.m. to midnight 365 days a year for POVs and pedestrians. The bridge operates from 8:00 a.m. to 10:00 p.m. Monday through Friday, and from 10:00 a.m. to 6:00 p.m. Saturday and Sunday for commercial/cargo vehicles.

Tolls

Table 4.7 lists the current southbound and northbound toll rates for the Free Trade Bridge.

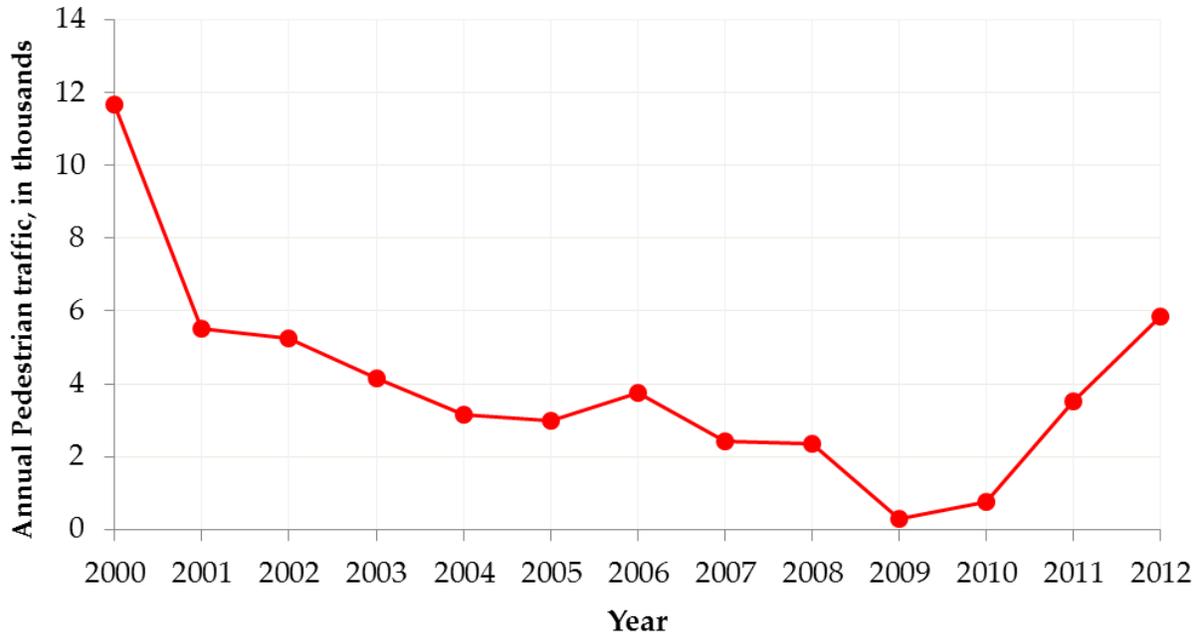
Table 4.7: Toll Rates for Free Trade Bridge

Mode	Toll Rate (US\$) Southbound	Toll Rate (US\$) Northbound
Pedestrian or Bicycle	0.75	N/A
Motorcycle	3.00	1.05
Non-commercial Auto or Pickup	3.00	2.18
Extra Axle for Non-commercial Vehicle	3.00	1.13
Commercial Truck (2 Axles)	7.75	4.52
Commercial Truck (3 Axles)	11.25	4.52
Commercial Truck (4 Axles)	14.75	9.19
Commercial Truck (5 Axles)	18.25	9.19
Commercial Truck (6 Axles)	21.75	14.60
Extra Axle for Commercial Vehicle	3.50	2.26
Bus or Recreational Vehicle	10.00	N/A

Source: Cameron County International Bridge System⁷ and State of Tamaulipas²⁰

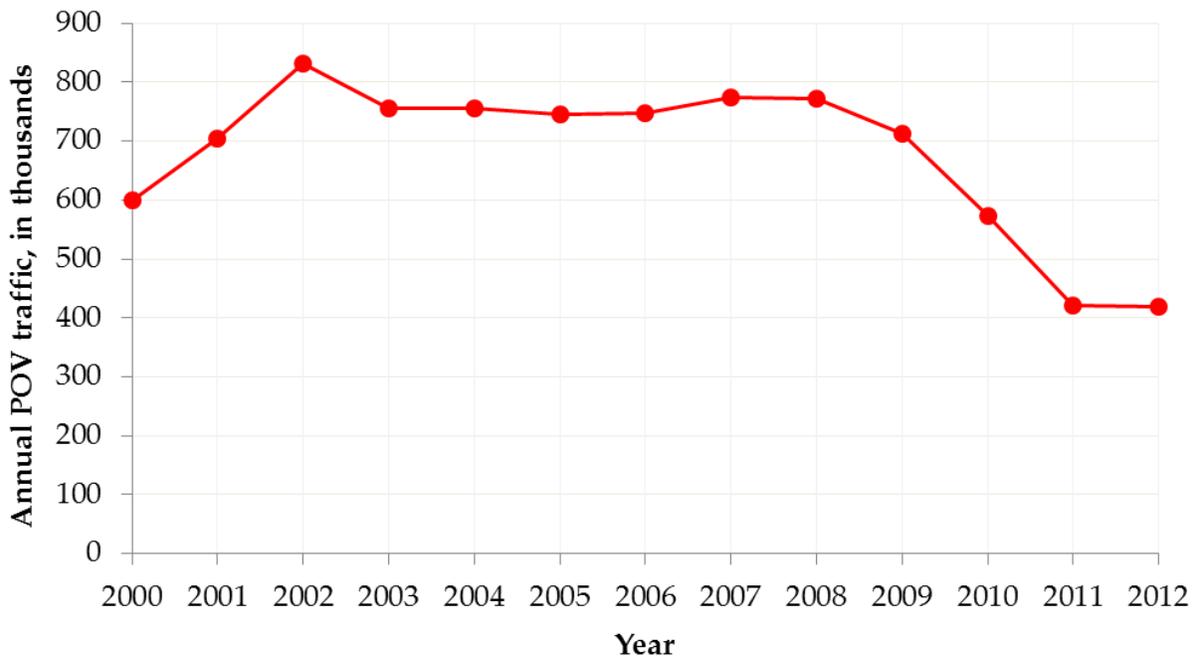
Bridge Crossings

Figures 4.19 through 4.22 illustrate northbound crossings by mode at the Free Trade Bridge between 2000 and 2012, and Figures 4.23 through 4.25 illustrate the southbound crossings by mode at the Free Trade Bridge between 2000 and 2012.



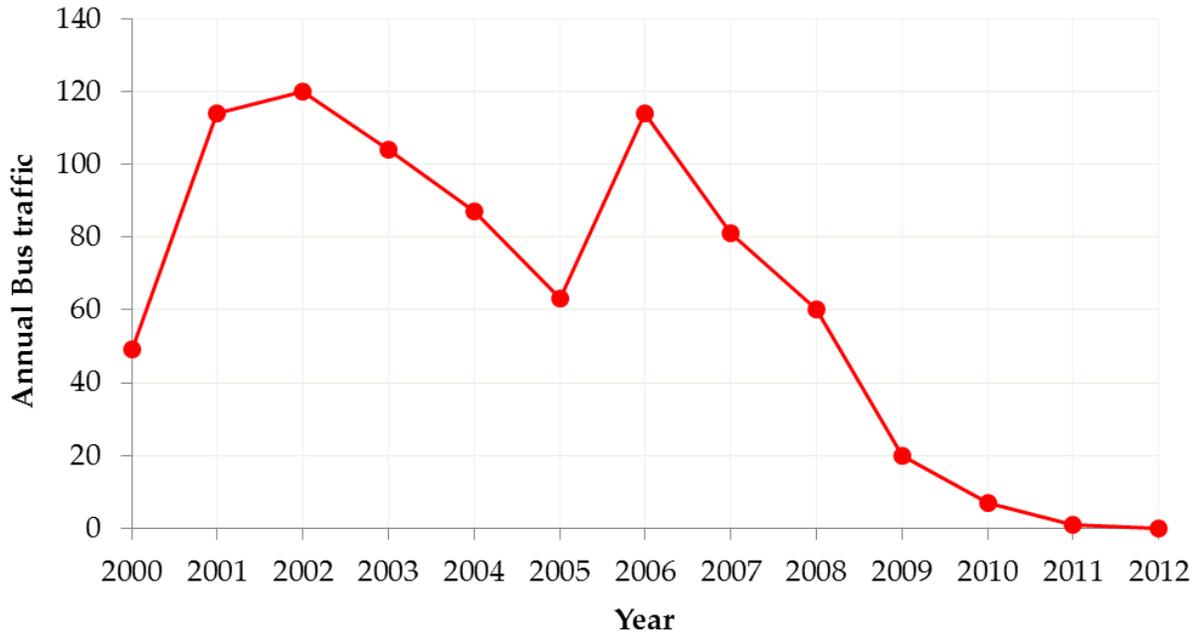
Source: CBP⁹

Figure 4.19: Free Trade Bridge—Northbound Pedestrian Crossings



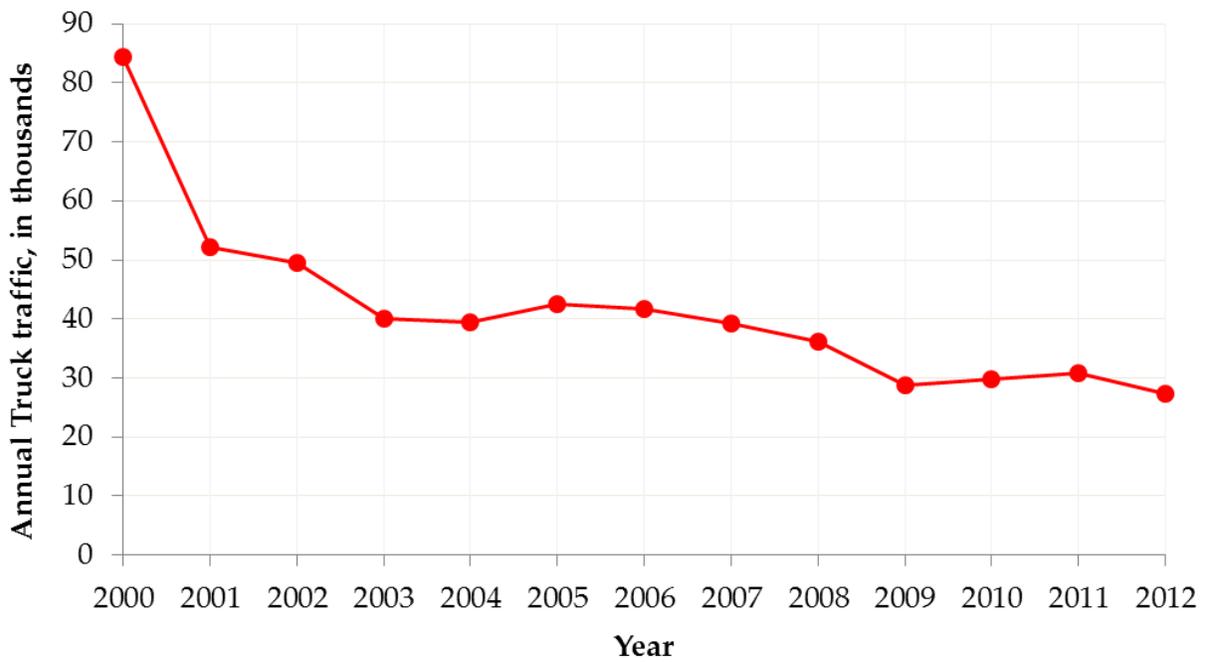
Source: CBP⁹

Figure 4.20: Free Trade Bridge—Northbound POV Crossings



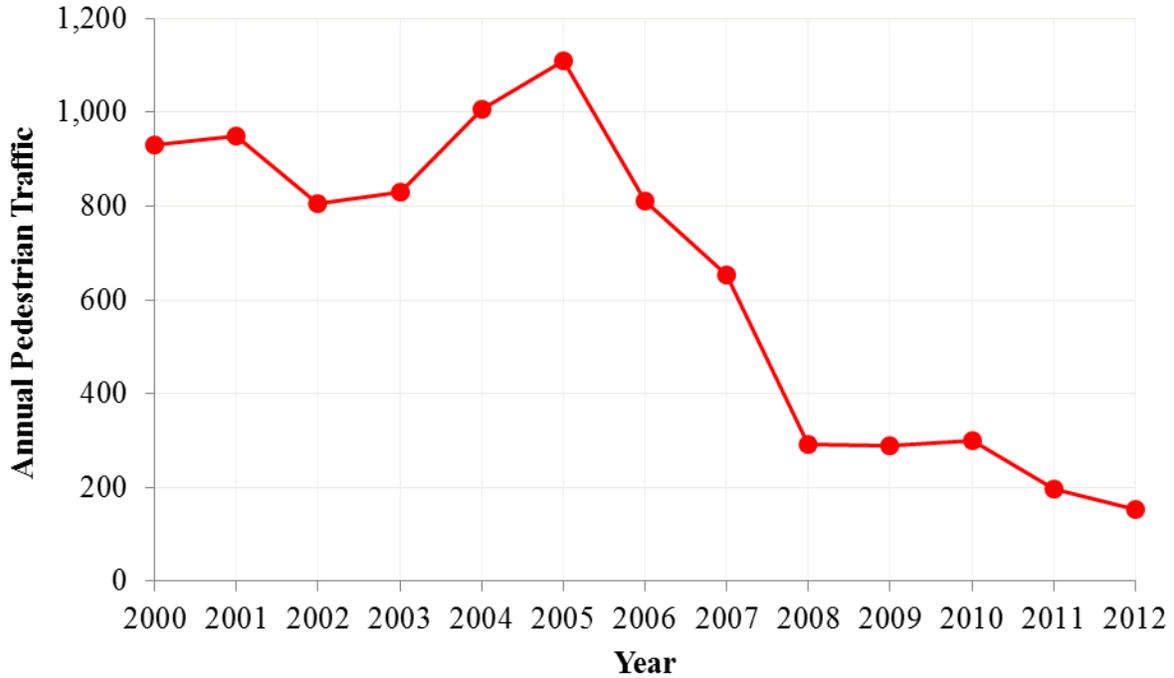
Source: CBP⁹

Figure 4.21: Free Trade Bridge—Northbound Bus Crossings



Source: CBP⁹

Figure 4.22: Free Trade Bridge—Northbound Commercial Truck Crossings



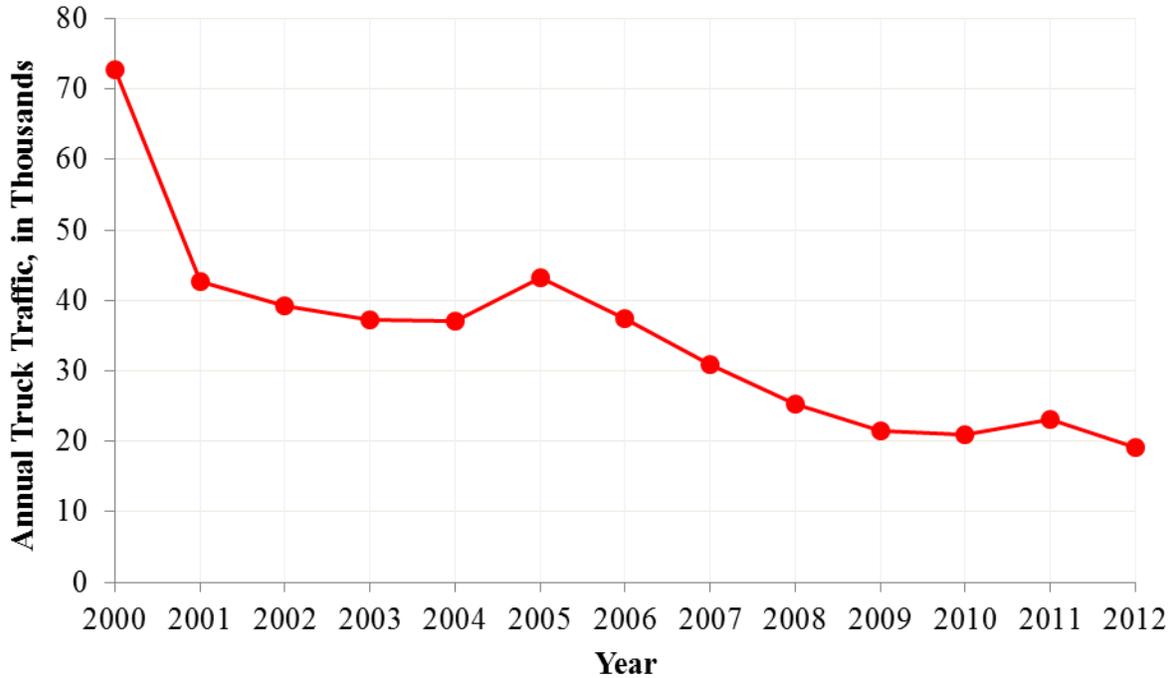
Source: Texas A&M International University, Texas Center for Border Economic and Enterprise Development¹⁰

Figure 4.23: Free Trade Bridge—Southbound Pedestrian Crossings



Source: Texas A&M International University, Texas Center for Border Economic and Enterprise Development¹⁰

Figure 4.24: Free Trade Bridge—Southbound POV Crossings



Source: Texas A&M International University, Texas Center for Border Economic and Enterprise Development¹⁰

Figure 4.25: Free Trade Bridge—Southbound Commercial Truck Crossings

Northbound Crossings: Figure 4.19 illustrates the number of northbound pedestrian crossings at the Free Trade Bridge. Specifically, it shows that the number of northbound pedestrian crossings decreased sharply between 2000 when 11,670 pedestrians crossed the bridge and 2009 when 284 pedestrians crossed the bridge. The 97.6 percent decrease in the number of northbound pedestrian crossings between 2000 and 2009 could be attributed to the events of September 11, 2001. Between 2009 and 2012, the number of northbound pedestrian crossings increased significantly to reach 5,841 in 2012.

Alternately, northbound POV crossings at the Free Trade Bridge remained fairly constant between 2003 and 2008, fluctuating between 746,148 and 774,681 POV crossings per year. However, northbound POV crossings decreased 45.8 percent between 2008 and 2012 to reach 418,275 in 2012 (see Figure 4.20).

Northbound bus crossings at the Free Trade Bridge have been cyclical, increasing sharply (144.9 percent) between 2000 and 2002 before decreasing sharply between 2002 and 2005 (47.5 percent) and then increasing again sharply between 2005 and 2006 (almost 81 percent). Between 2006 and 2012, the number of buses crossing northbound decreased significantly to only one recorded bus crossing in 2011 and zero recorded bus crossings in 2012 (see Figure 4.21).

Annual truck crossings at the Free Trade Bridge have also decreased from a peak of 84,422 crossings in 2000 to the lowest recorded level of 27,300 crossings in 2012, a decrease of 67.7 percent (see Figure 4.22).

Southbound Crossings: Figure 4.23 shows southbound pedestrian crossings at the Free Trade Bridge decreased 86.1 percent between 2005 (the peak year) and 2012, when the lowest level of southbound pedestrian crossings was recorded at 154.

Figure 4.24 shows southbound POV crossings at the Free Trade Bridge decreased 52.8 percent between 2002 (the peak year) and 2012, when the lowest level of southbound pedestrian crossings was recorded at 321,803.

Annual southbound commercial truck crossings at the Free Trade Bridge decreased from 72,714 in 2000 (the peak year) to 19,171 in 2012 (the lowest level), a decrease of 73.6 percent (see Figure 4.25). The relatively sharp decrease in the number of southbound commercial truck crossings in 2001 relative to 2000 could be attributed to the events of September 11, 2001.

Primary Roadways Serving Free Trade Bridge

Figure 4.26 shows the location of the Free Trade Bridge. On the U.S. side, FM 509 is the primary ingress and egress to the Free Trade Bridge. FM 509 is about 15 miles long and connects the bridge to US 77/US 83/IH 69 E. For most of its length FM 509 is a two-lane undivided highway. However, toward the bridge, after US 281/Military Highway, FM 509 becomes a four-lane divided highway. In 2010, the AADT on FM 509 was 3,700 vehicles, of which 4.2 percent were trucks. FM 509 had 1.54 accidents reported per mile in 2010. The LOS on FM 509 was A in 2010.

Approximately 1.5 miles from the bridge, FM 509 intersects with US 281/Military Highway, a two-lane undivided highway that runs parallel to the U.S.-Mexico border on the U.S. side. In 2010, the AADT on US 281/Military Highway was 5,900 vehicles per day, of which 16.9 percent were trucks. The number of accidents on US 281/Military Highway was 0.8 accidents per mile in 2010. The LOS on US 281/Military Highway was A in 2010.

On the Mexican side, Cantu Road is the primary ingress and egress to the Free Trade Bridge. Cantu Road becomes MEX 2 at the intersection of Cantu Road and MEX 2D. MEX 2 runs west to Reynosa and intersects with MEX 12 (which runs north from Valle Hermoso). MEX 2D also runs west to Reynosa, parallel and to the north of MEX 2. MEX 2 and MEX 2D have four lanes and operated at LOS E in 2010.

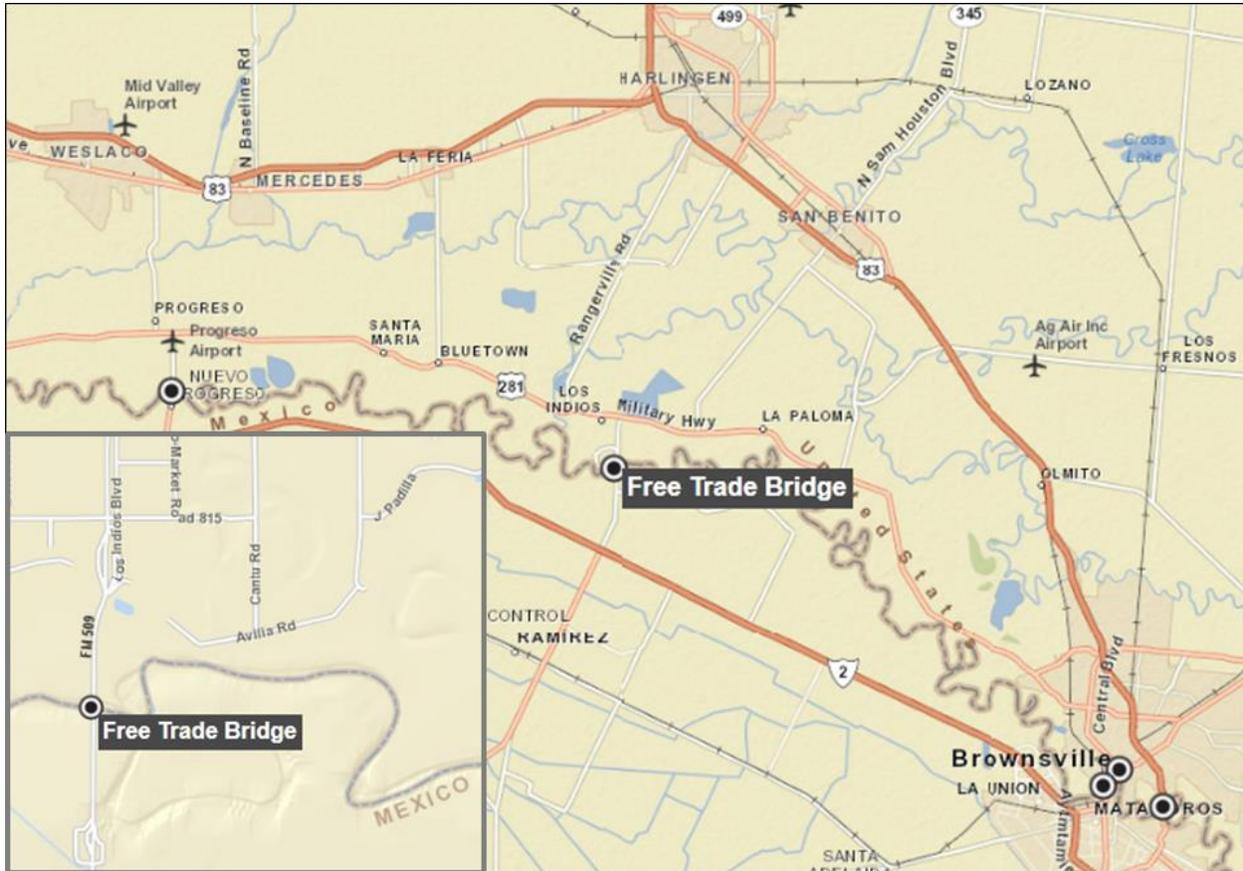


Figure 4.26: Free Trade Bridge

Planned Changes in Infrastructure (Present to 2030)

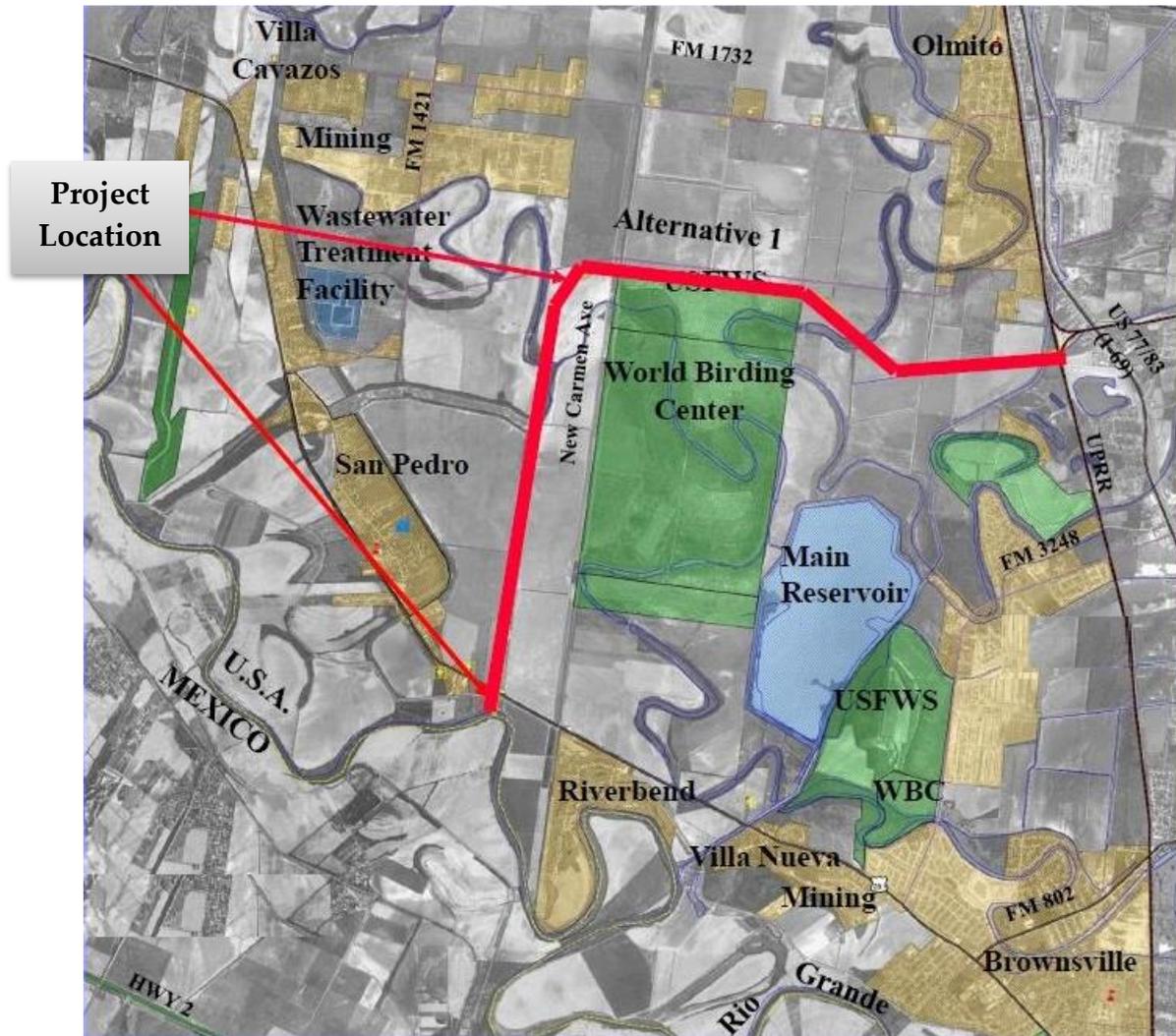
Current TxDOT plans include a new four-lane divided highway for the US 281/Military Highway connector starting from 0.5 miles west of FM 732/Narcisco Martinez Highway to US 77/US 83/IH 69E/SH 100 (TxDOT Project 0220-04-900). The proposed highway is expected to accommodate as many as 34,200 vehicles per day by 2035. This new highway will provide a relief route for US 77/US 83/IH 69E and US 281/Military Highway.

4.1.5 Brownsville West Rail Bypass International Bridge

Construction of the Brownsville West Rail Bypass International Bridge—by Cameron County in conjunction with TxDOT and UPRR—began in 2010 in the United States and in 2011 in Mexico. Bridge construction was expected to be completed at the end of 2012,⁶ but the opening remains delayed as of August 2013. The Brownsville West Rail Bypass International Bridge will be a new international crossing with Mexico west of Brownsville.²¹ The rail bypass will eliminate multiple grade crossings within Brownsville, thereby reducing traffic congestion within the area. The bypass alignment runs west from the Olmito Yard north of Brownsville and turns south at Resaca de la

Palma State Park before crossing over US 281/Military Highway and the Rio Grande River into Mexico.

The total cost of the project to the United States is estimated at \$38.3 million. The project is funded by the Federal Highway Bridge Program (\$13.0 million), American Recovery and Reinvestment Act of 2009 (\$7,809,326), 2005 Omnibus Act (\$1.75 million), FY 2003 Earmark (\$885,600), SAFETEA-LU (\$4.0 million), and the Federal Railroad Administration (\$4.0 million).²² On the Mexican side, FONADIN provided all funding for the project, MXN 804 million (approximately US \$64.8 million). Figure 4.27 illustrates the location of the Brownsville West Rail Bypass International Bridge.



Source: Sepulveda²³

Figure 4.27: Brownsville West Rail Bypass International Bridge

4.1.6 Brownsville South Padre Island International Airport

The Brownsville South Padre Island International Airport is a public-use airport owned by the City of Brownsville. It is located 4 miles east of the central business district (CBD). The airport opened on March 9, 1929. The Brownsville South Padre Island International Airport is served by three airlines: AeroMexico, American Airlines, and United Airlines. South Texas Express, Inc., provides local delivery, ground handling, and 500-mile midnight express air cargo services.²⁴

Hours of Operation

CBP provides customs and immigration services and agricultural inspections at the airport 24 hours a day 365 days a year.

Primary Roadways Serving Brownsville South Padre Island International Airport

The Brownsville South Padre Island International Airport is primarily served by FM 2519/Billy Mitchell Boulevard, which connects the airport to SH 4/Boca Chica Boulevard and US 77/US 83/IH 69E (see Figure 4.28). FM 2519/Billy Mitchell Boulevard is a four-lane undivided highway with an AADT of 9,500 vehicles, of which 10.4 percent were trucks in 2010. There were 8.86 accidents reported per mile on this highway in 2010. The 2010 LOS on FM 2519 was A.



Figure 4.28: Brownsville South Padre Island International Airport and Valley International Airport

Planned Changes in Infrastructure (Present to 2030)

On the U.S. side, no planned infrastructure projects have been identified near the Brownsville South Padre Island International Airport.

4.1.7 Valley International Airport

Valley International Airport, also known as the Rio Grande Valley International Airport, is the largest airport in the Rio Grande Valley in terms of the number of passengers.²⁵ It is a public-use airport operated by the City of Harlingen, located 3 miles northeast of the CBD. Valley International Airport is served by three airlines—Southwest, United, and Sun Country—and four cargo carriers—FedEx, Southwest Cargo, United Cargo, and DHL.

Hours of Operation

CBP provides customs and immigration services from 8:00 a.m. to 4:00 p.m. Monday through Friday.

Primary Roadways Serving Valley International Airport

Valley International Airport is primarily served by Loop 499/Ed Carey Drive and FM 507. Loop 499/Ed Carey Drive is a four-lane divided highway that connects to US 77/IH 69E on the west side and US 77/US 83/IH 69E on the south side (see Figure 4.28). The AADT on Loop 499/Ed Carey Drive was 9,000 vehicles in 2010, of which 8.7 percent were trucks. There were 12.24 accidents reported per mile on Loop 499/Ed Carey Drive in 2010. The LOS on this facility was A in 2010.

FM 507 is a two-lane undivided highway with an AADT of 11,400 vehicles in 2010, of which 4.2 percent were trucks. FM 507 had 8.81 accidents reported per mile in 2010. The LOS on FM 507 was B in 2010.

Planned Changes in Infrastructure (Present to 2030)

On the U.S. side, two improvements to FM 509 are planned. The first involves the construction of a new section of FM 509 (FM 509 Extension/Outer Parkway) between US 77/IH 69E at Orphanage Road and FM 508 (TxDOT Project 0921-06-254) by 2030. FM 509 Extension/Outer Parkway will be a two-lane undivided section. The proposed section is expected to serve an AADT of 2,700 vehicles, of which 10 percent will be trucks in 2030. The LOS on the extension is expected to be C by 2030.

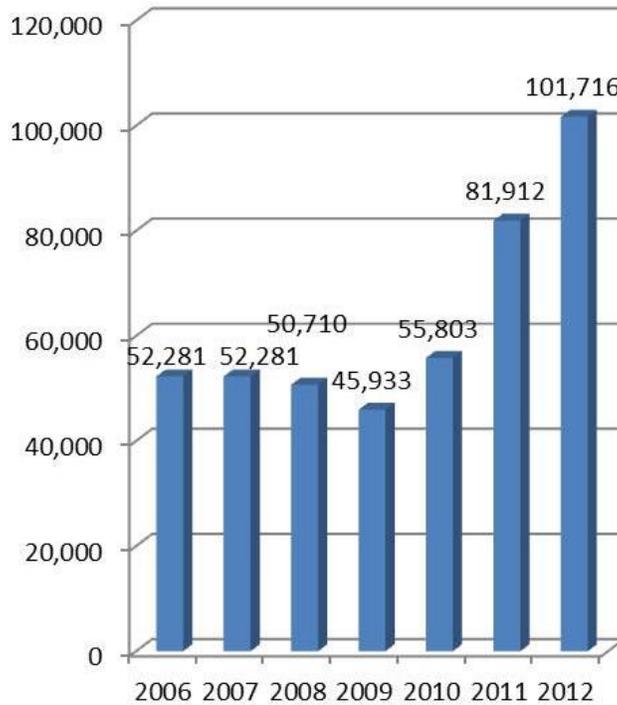
The second planned project involves the expansion of FM 509 between BU 77N and FM 106 from a two-lane undivided facility to a four-lane divided facility (TxDOT Project 2369-01-016) by 2030. The projected traffic after project completion is estimated at 27,700 vehicles per day. This increase in number of lanes will improve the LOS on this section of FM 509 by 2030.

4.1.8 Matamoros International Airport

The Matamoros International Airport, also known as the General Servando Canales Airport, is located 5.5 miles south of Matamoros. The airport opened in 1950.

The Matamoros International Airport has one asphalt landing strip with an operational capacity of 20 flights per hour. The airport is served by two commercial airlines: AeroMexico and Aeromar. Non-stop service is provided to Ciudad Victoria and Mexico City, and airport studies support the future development of commercial routes to Guadalajara and Monterrey.²⁶

Figure 4.29 shows the number of passengers handled at the Matamoros International Airport between 2006 and 2012. Figure 4.29 indicates that between 2006 and 2010, the number of passengers remained fairly constant. The number of passengers, however, almost doubled between 2010 and 2012.



Source: Aeropuertos y Servicios Auxiliares²⁶

Figure 4.29: Matamoros International Airport—Number of Passengers

Hours of Operation

The airport provides daily service between 8:00 a.m. and 8:00 p.m. 365 days a year.

Primary Roadways Serving Matamoros International Airport

The Matamoros International Airport is served by MEX 101, which connects to Matamoros MEX 2 and Libramiento Portes Gil to the north, and to Tamaulipas (TAM) 5 (Port of Matamoros) and TAM 12 (Valle Hermoso) to the south (see Figure 4.30).

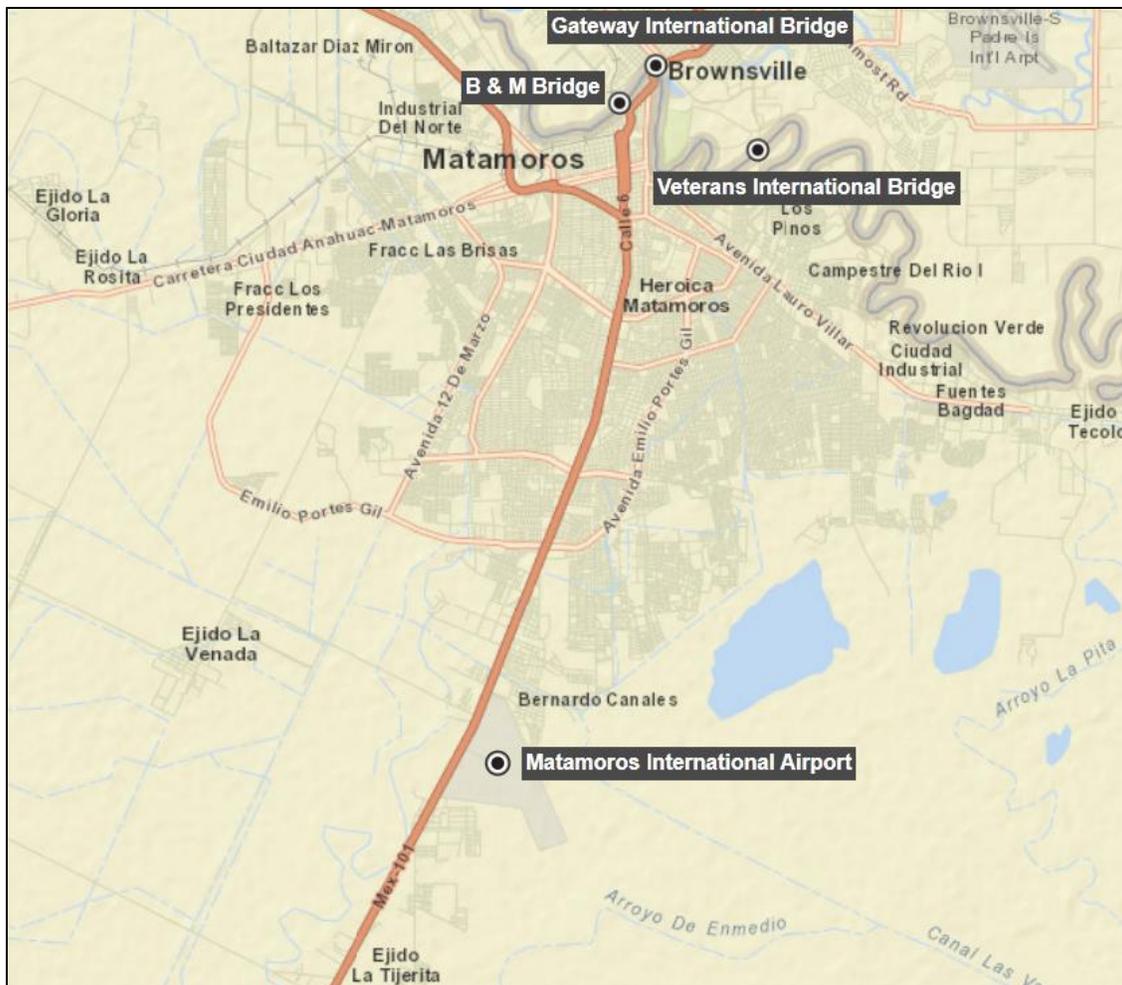


Figure 4.30: Matamoros International Airport

Planned Changes in Infrastructure (Present to 2030)

The State of Tamaulipas is planning on improving TAM 57, which connects the Port of Matamoros to MEX 101. Additional information about this project can be found in Chapter 5.

4.1.9 Port of Brownsville

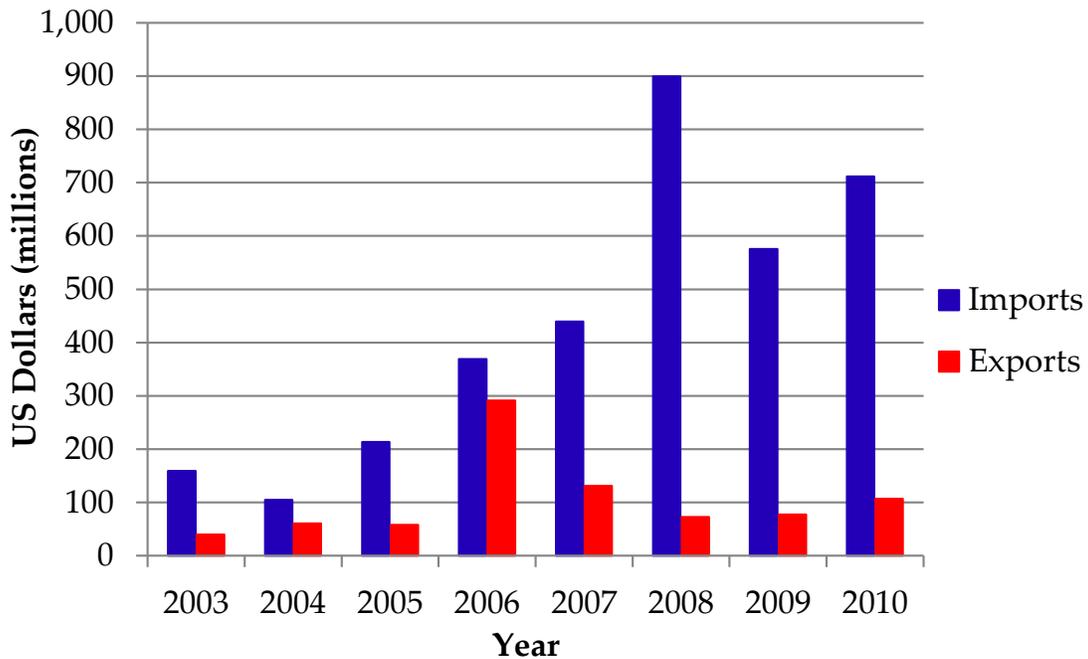
The Port of Brownsville opened in 1936. The Port of Brownsville is an inland deep-water seaport with access to the Gulf of Mexico through a 17-mile ship channel, linking the land transportation infrastructure of Mexico and the United States with the U.S. Inland Waterway System. Located 2 miles northeast of Brownsville on 40,000 acres of land, the port has 571,065 square feet of covered storage, 11 cargo docks, 4 oil docks, 1 liquid-cargo dock, and an express dock.²⁷ The current authorized depth of the Brownsville Ship Channel is 42 feet, and the turning basin has a depth of 36 feet and a

width of 1,200 feet.²⁸ It is governed by the Brownsville Navigation District, and guidance is provided by an elected board of commissioners.

The Port of Brownsville is primarily a bulk commodity port that handles chemicals, liquid petroleum gas, clays, petroleum, grain, agricultural products, sulfur, steel, bulk minerals, ores, and aluminum.

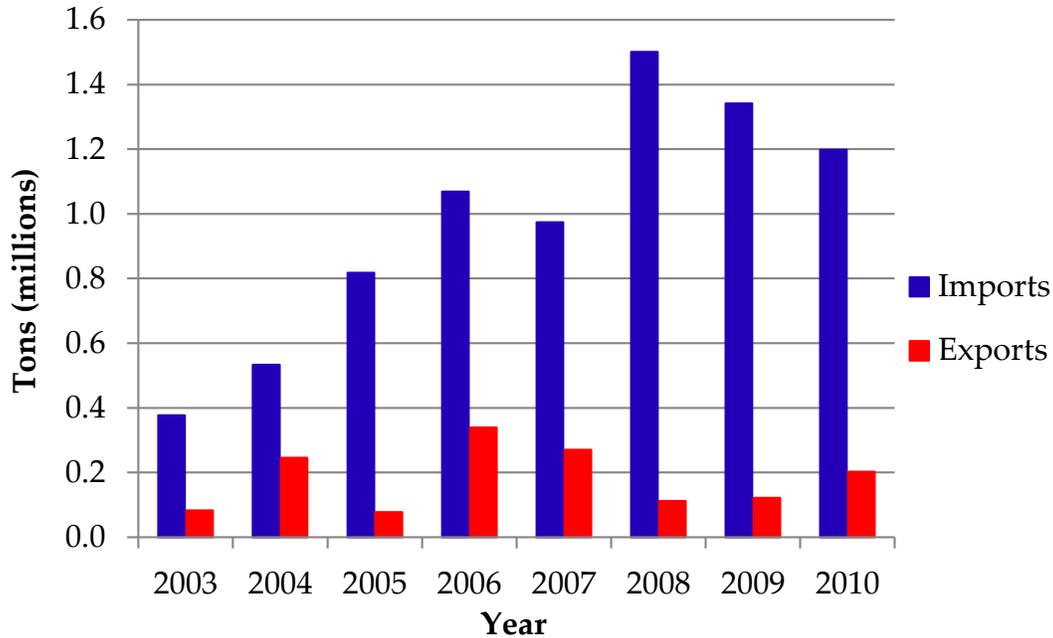
As shown in Figures 4.31 and 4.32, U.S. imports through the Port of Brownsville increased 500 percent in terms of value and 285 percent in terms of tonnage between 2003 and the peak year 2008. Between 2008 and 2009, however, the value of U.S. imports through the Port of Brownsville decreased 36 percent, while the imported tonnage decreased only 10 percent. Interestingly, in 2010, the value of imports increased \$120 million, while imported tonnage decreased 150,000 tons.

U.S. exports through the Port of Brownsville amounted to \$100 million and 200,000 tons in 2010. The highest export value and tonnage were recorded in 2006, after which both the value and tonnage of goods exported through the Port of Brownsville decreased. Between 2008 and 2010, however, a modest increase in both the exported value and tonnage was recorded.



Source: World Port Source²⁹

Figure 4.31: Port of Brownsville Foreign Trade Measured by Value (US\$)



Source: World Port Source²⁹

Figure 4.32: Port of Brownsville Foreign Trade Measured by Weight (U.S. Short Tons³⁰)

Rail freight traffic at the Port of Brownsville is handled by BRG, a short-line railroad owned by the Brownsville Navigation District, which provides rail service to all facilities located within its jurisdictional boundaries. Trains at the port interchange with the UPRR Brownsville Subdivision at the Olmito Yard on the North Rail Loop. The Brownsville Subdivision runs from the Texas-Mexico border north toward Corpus Christi.³¹

The Port of Brownsville is the closest deep-water port to the industrial centers in Northern Mexico. Consequently, the B&M Bridge and the road and rail infrastructure of South Texas are used extensively to move freight between the port and industrial sites in Matamoros, Mexico, and beyond. Approximately 65 percent of the freight handled at the Port of Brownsville originates from or is destined for Mexico.³¹ Martin Associates determined that 4,373 jobs were directly related to the marine cargo and vessel activity and the ship and rig repair operations at the Port of Brownsville in 2012. Martin Associates also found that 2,366 indirect jobs were supported by \$212.9 million of local purchases. These purchases came from businesses supplying services at the marine terminals and businesses dependent on the Port of Brownsville for the shipment and receipt of cargo and on the ship and rig repair operations.³¹

Primary Roadways Serving the Port of Brownsville

Figure 4.33 shows the location of the Port of Brownsville. The Port of Brownsville is served by FM 511 on the west side and SH 48 on the north side. FM 511 runs north

and connects to SH 550 just north of Port Isabel Road. For the most part, FM 511 is a two-lane undivided facility. This highway saw 5.02 accidents per mile in 2010. FM 511 had an AADT of 6,200 vehicles in 2010, of which 21.9 percent were trucks. The LOS on FM 511 was A in 2010.

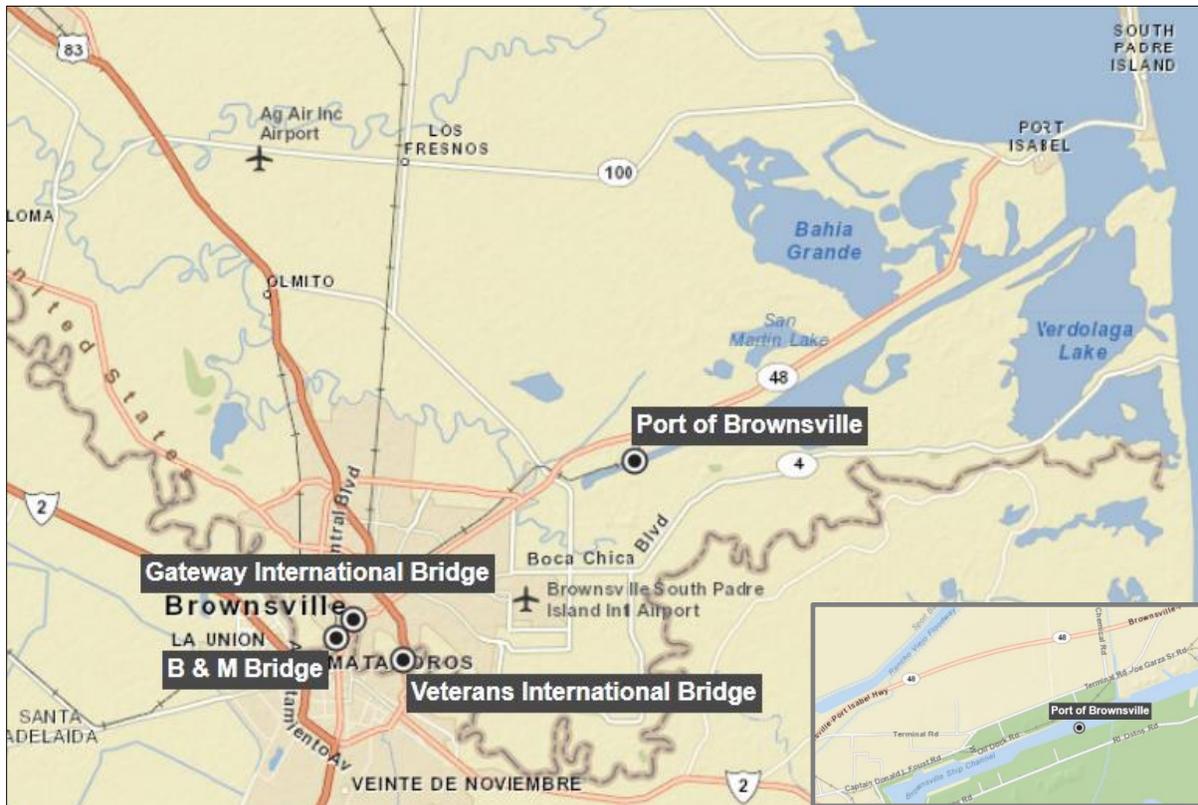


Figure 4.33: Port of Brownsville

TxDOT and Cameron County constructed SH 550, a four-lane divided highway. SH 550 is a tolled facility and overlaps with FM 511 from Olmito to Old Port Isabel Road. At that point, SH 550 veers east and then south to connect to the Port of Brownsville at a planned new north entrance.

SH 48 runs west and provides access to and from the Port of Brownsville to SH 4 and US 77/US 83/IH 69 E. Near the Port of Brownsville, SH 48 is a four-lane divided highway that had an AADT of 14,100 vehicles in 2010, of which 2.8 percent were trucks. This facility had 2.34 accidents reported per mile in 2010. The LOS on this facility in 2010 was B.

As mentioned earlier, BND currently has special authority to issue permits for the movement of OS/OW trucks on SH 48/SH 4 between the Gateway International Bridge and the entrance to the Port of Brownsville, and on US 77/US 83 and SH 48/SH 4 between the Veterans International Bridge at Los Tomates and the entrance to the Port

of Brownsville.³² In addition, the Cameron County RMA has funded another OS/OW truck route (SH 550) that connects the Port of Brownsville to US 77/83/IH 69 E on the north end.

Planned Changes in Infrastructure (Present to 2030)

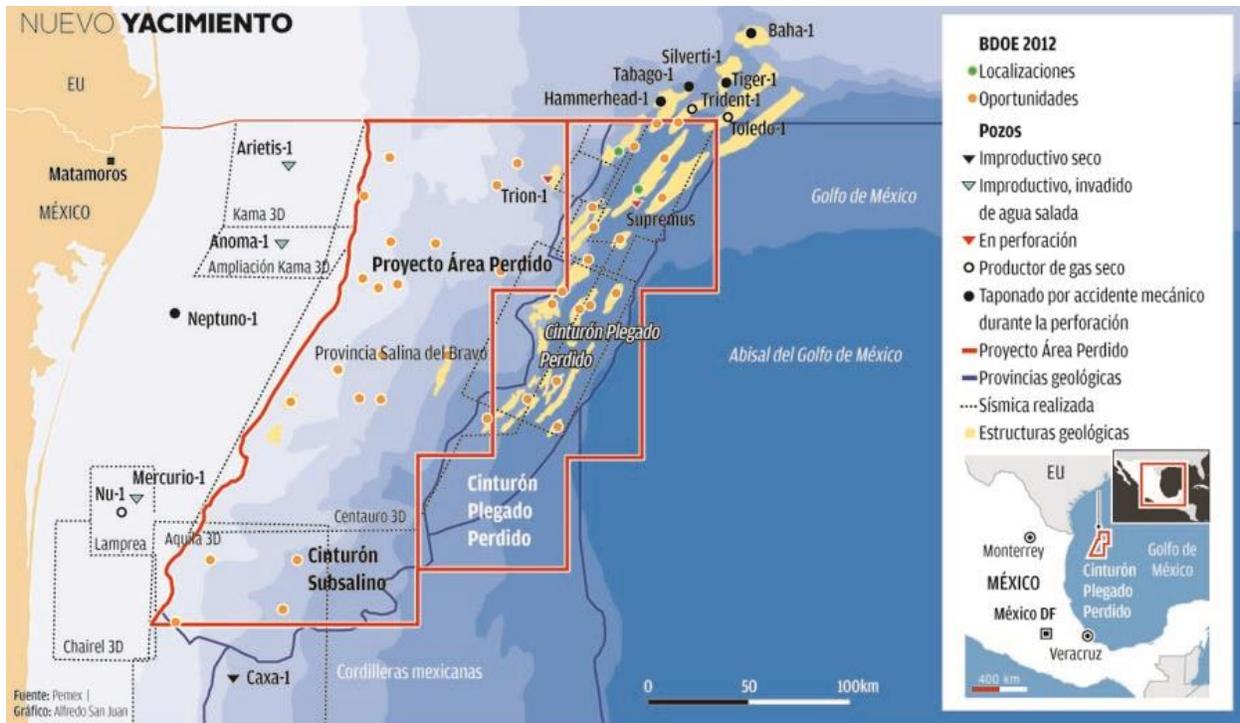
SH 32-East (Phase II), a new highway to connect US 77/83 and SH 4, has been approved. The proposed SH 32 project would be from the FM 3068/Indiana Avenue and FM 1419/Southmost Road intersection east-northeast to SH 4. The construction cost is estimated at \$40 million, and the project is expected to let by 2030. This investment is expected to provide a relief route for SH 4, which would improve the LOS on SH 4. SH 32-East (Phase II) will divert trucks away from Brownsville's most populated areas and provide access to the Port of Brownsville at a planned new south entrance.

4.1.10 Port of Matamoros

The Government of Tamaulipas and the State Housing Institute co-own the Port of Matamoros, also known as Port of El Mezquital, through a State Port Administration Authority (Administración Portuaria Integral, S.A. de C.V. [API Tamaulipas]). Currently, conditions at the port do not allow for significant operations.

In 2006, API Tamaulipas published an ambitious plan, the 2006–2011 Port of El Mezquital Master Plan (Programa Maestro de Desarrollo Portuario: 2006–2011).³³ This plan contained short-, medium-, and long-term goals; a strength/weaknesses/opportunities/threats (SWOT) analysis; best strategies; and an implementation plan that included estimated projects costs. The short-term goals included initiation of bulk grain, general freight, and limestone shipments. Over the medium and long term, the goals were to attract maritime platform and ship scrapping companies, as well as a liquid natural gas (LNG) terminal. A lack of investment and certain utility services, inadequate road access, the condition of the channel, and the port's location in the environmentally sensitive Laguna Madre y Delta del Río Bravo³⁴ (home to a number of protected species³⁵) may have all contributed to the port failing to achieve its goals from 2006 to 2011.

In October 2012, Petróleos Mexicanos (PEMEX) confirmed the discovery of important oil reserves at its Trion-1 and Supremus-1 wells in the Perdido Basin in the Gulf of Mexico. The discovery of these oil reserves, mapped in Figure 4.34, has positively impacted investments at the Port of Matamoros. The State of Tamaulipas has started to invest in road infrastructure to provide access to the port and is working with PEMEX on how to best develop the port to support the development of PEMEX's deep-water operations.



Source: 2b1st Consulting³⁶

Figure 4.34: Location of PEMEX'S Deep-Water Exploration and Relevant Wells in Region

Primary Roadways Serving the Port of Matamoros

The Port of Matamoros is served by TAM 5, a two-lane road, that is currently being upgraded to four lanes. TAM 5 connects to MEX 101, which connects to MEX 2 and Libramiento Portes Gil to the north and to TAM 12 (Valle Hermoso) to the south. The port is not served by rail (see Figure 4.35).

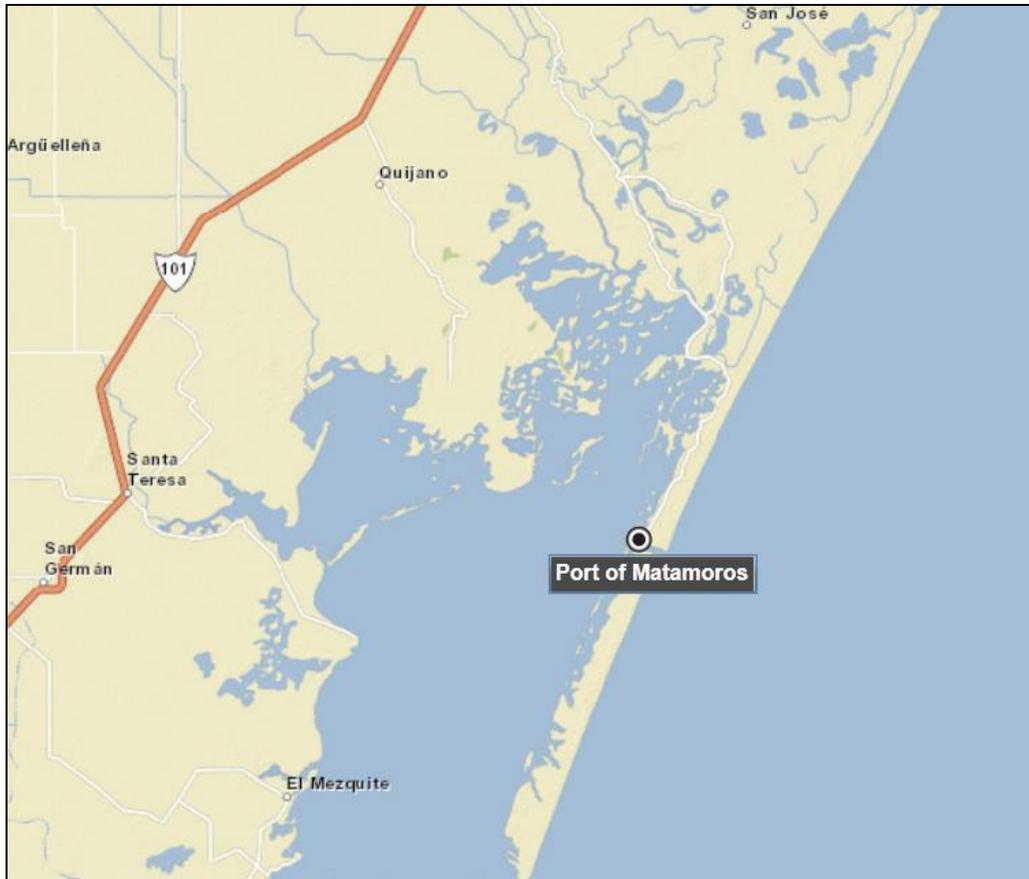


Figure 4.35: Port of Matamoros

4.2 Hidalgo County/Municipalities of Valle Hermoso, Reynosa, and Díaz Ordaz

There are five bridge crossings and one ferry crossing in Hidalgo County and the Municipalities of Valle Hermoso, Reynosa, and Díaz Ordaz. Four of the five bridges serve pedestrian, non-commercial, and commercial vehicles. The exception is the Donna International Bridge, which does not serve commercial truck traffic. The Los Ebanos Ferry is the only ferry crossing in the Focused Study Area and serves pedestrians and non-commercial vehicles. The specific transportation modes served by each of the facilities are provided in Table 4.8.

Table 4.8: Summary of Hidalgo County/Municipalities of Valle Hermoso, Reynosa, and Díaz Ordaz Bridges, Ferry, and Airports

Bridge/Ferry	Location	Pedestrians	Non-commercial Vehicles	Commercial Vehicles	Rail
Weslaco-Progreso International Bridge	Progreso/ Nuevo Progreso	Yes	Yes	Yes	No
Donna International Bridge	Donna/ Río Bravo	Yes	Yes	No	No
Pharr-Reynosa International Bridge on the Rise	Pharr/ Reynosa	Yes	Yes	Yes	No
McAllen-Hidalgo-Reynosa Bridge	Hidalgo/ Reynosa	Yes	Yes	Yes	No
Anzaldúas International Bridge	Mission/ Reynosa	Yes	Yes	No	No
Los Ebanos Ferry	Los Ebanos/ Gustavo Díaz Ordaz	Yes	Yes	No	No
McAllen-Miller International Airport	McAllen	Yes	N/A	N/A	N/A
Weslaco/Mid Valley Airport	Harlingen	Yes	N/A	N/A	N/A
South Texas International Airport	Edinburg	Yes	N/A	N/A	N/A
Reynosa International Airport	Reynosa	Yes	N/A	N/A	N/A

4.2.1 Weslaco-Progreso International Bridge

On the U.S. side, the Weslaco-Progreso International Bridge is owned and operated by the B&P Bridge Company of Weslaco. The Mexican side of the bridge is owned by the Mexican Government and operated by CAPUFE. The 628-foot bridge has four lanes for automobile traffic—two lanes in each direction—with pedestrian sidewalks and a separate two-lane truck bridge.

The bridge is located on FM 1015 south of US 281/Military Highway in Progreso on the U.S. side and on Benito Juárez north of MEX 2 in Nuevo Progreso, Tamaulipas. The crossing is also known locally as the B&P Bridge, Puente Las Flores, and Puente Internacional Nuevo Progreso-Progreso.

Border Station

GSA leases the U.S. LPOE facility (Progreso LPOE) from the B&P Bridge Company. The original facility was completed in 1983. GSA is negotiating a long-term succeeding lease with the lessor, which will include upgrading the electrical wiring, plumbing, and lighting. There are no plans for expansion of the facility at this time.³⁷ The border station on the Mexican side has been in operation since 1951.⁶

Temporary modular facilities for truck inspections by the Federal Motor Carrier Safety Administration have been erected adjacent to the import lot. The two-lane truck bridge is currently only used by northbound commercial truck traffic. A lack of Mexican inspection facilities has delayed the usage of this bridge by southbound commercial truck traffic.

Hours of Operation

The bridge currently operates 24 hours a day 365 days a year for POVs only. For commercial/cargo vehicles, the bridge operates from 8:00 a.m. to 5:00 p.m. Monday through Friday and from 10:00 a.m. to 12:00 p.m. Saturday for commercial vehicles.

Tolls

Table 4.9 provides the toll rates for the Weslaco-Progreso International Bridge.

Table 4.9: Toll Rates for Weslaco-Progreso International Bridge

Mode	Southbound Toll Rate (US\$)	Northbound Toll Rate (US\$)
Pedestrian or Bicycle	0.50	0.25
Non-commercial Vehicle	2.00	N/A
Motorcycle	N/A	1.05
Non-commercial Auto or Pickup	N/A	2.10
Extra Axle for Non-commercial Vehicle	N/A	1.21
Commercial Vehicle	3.50 per axle	N/A
Passenger Bus (2, 3, and 4 Axles)	N/A	4.33
Commercial Truck (2, 3, and 4 Axles)	N/A	4.33
Commercial Truck (5 and 6 Axles)	N/A	9.27
Commercial Truck (7, 8, and 9 Axles)	N/A	14.50
Extra Axle for Commercial Vehicle	N/A	2.42

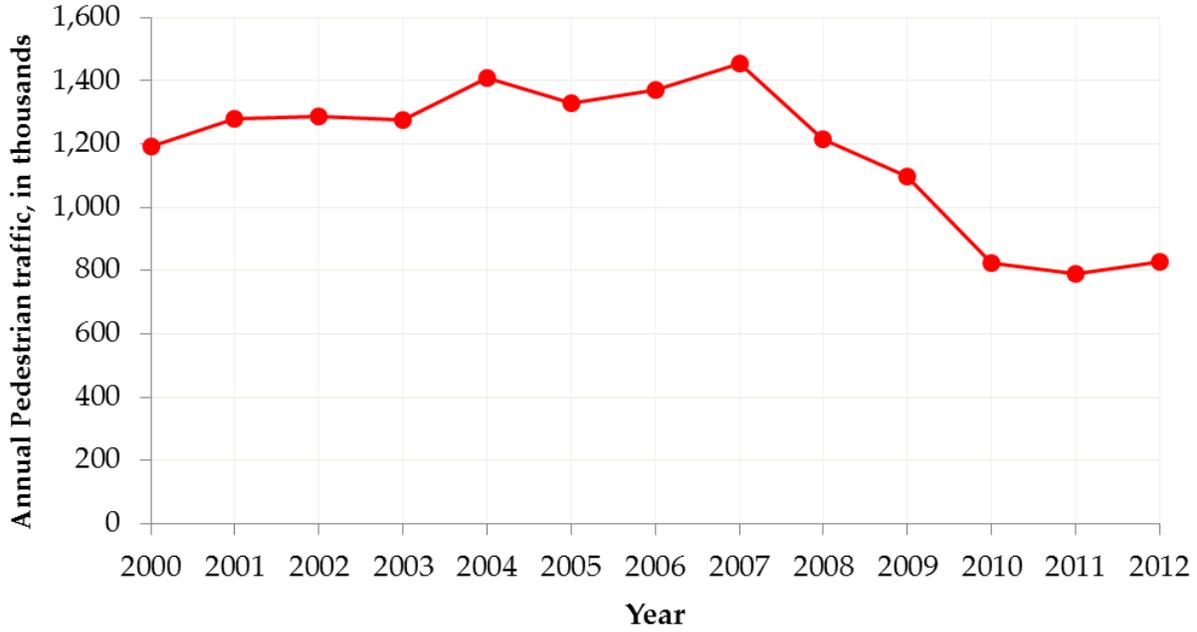
Note: Exchange rate = MXN 12.40 per US \$1.

Source: Progreso International Bridge³⁸ and CAPUFE⁸

Bridge Crossings

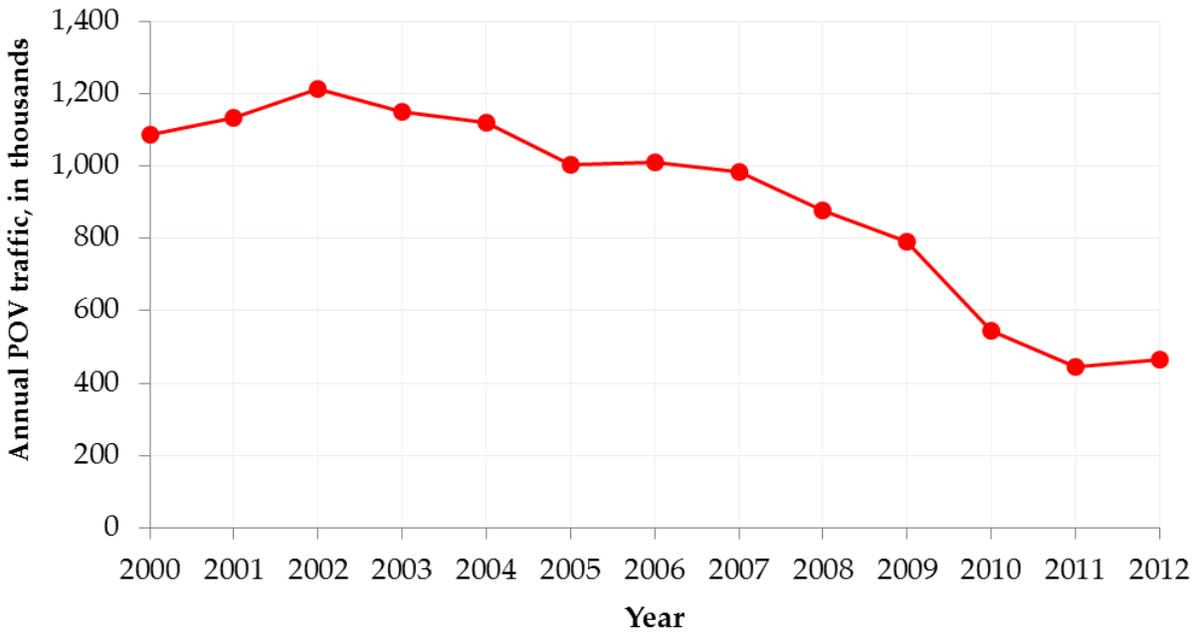
Figures 4.35 through 4.38 illustrate the number of northbound bridge crossings by mode at the Weslaco-Progreso International Bridge between 2000 and 2012. Figures 4.39 through 4.41 illustrate the number of southbound crossings at the Weslaco-Progreso International Bridge between 2000 and 2012.

Northbound Crossings: Figure 4.35 shows that the annual number of pedestrian crossings at the Weslaco-Progreso International Bridge fluctuated between 1.2 and 1.5 million between 2000 and 2008. However, between 2007 and 2011, the number of annual northbound pedestrian crossings decreased substantially from a high of 1,456,657 in 2007 to a low of 791,099 in 2011, a 45.7 percent decrease. In 2012, the number of northbound pedestrian crossings increased 4.6 percent relative to 2011 to reach 827,708.



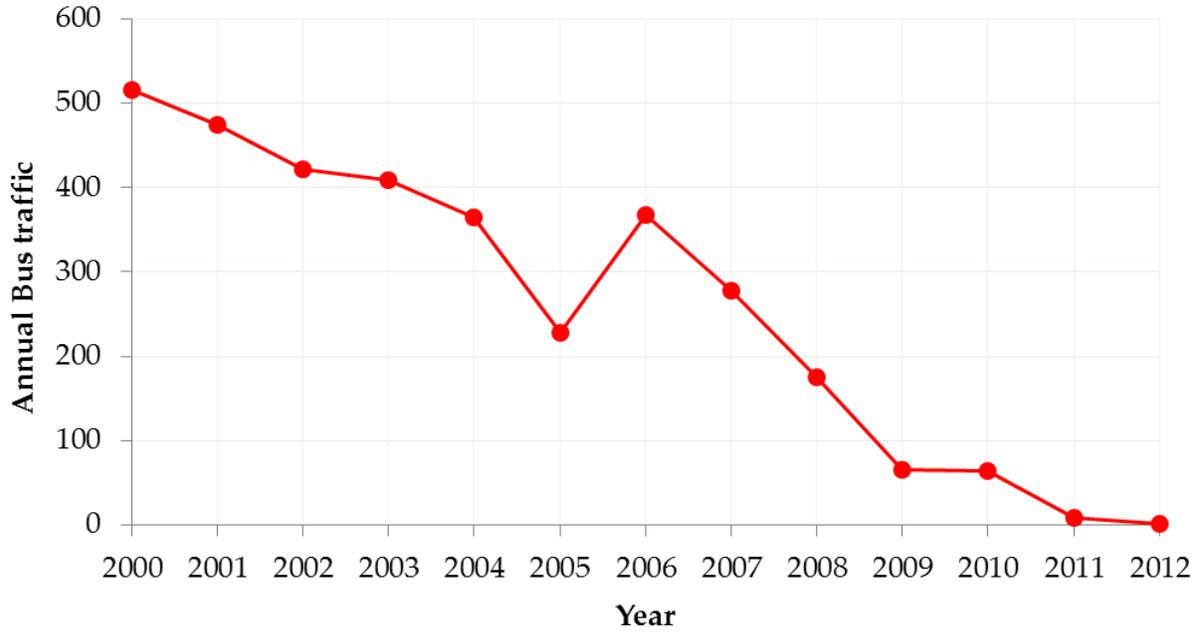
Source: CBP⁹

Figure 4.35: Weslaco-Progresso International Bridge—Northbound Pedestrian Crossings



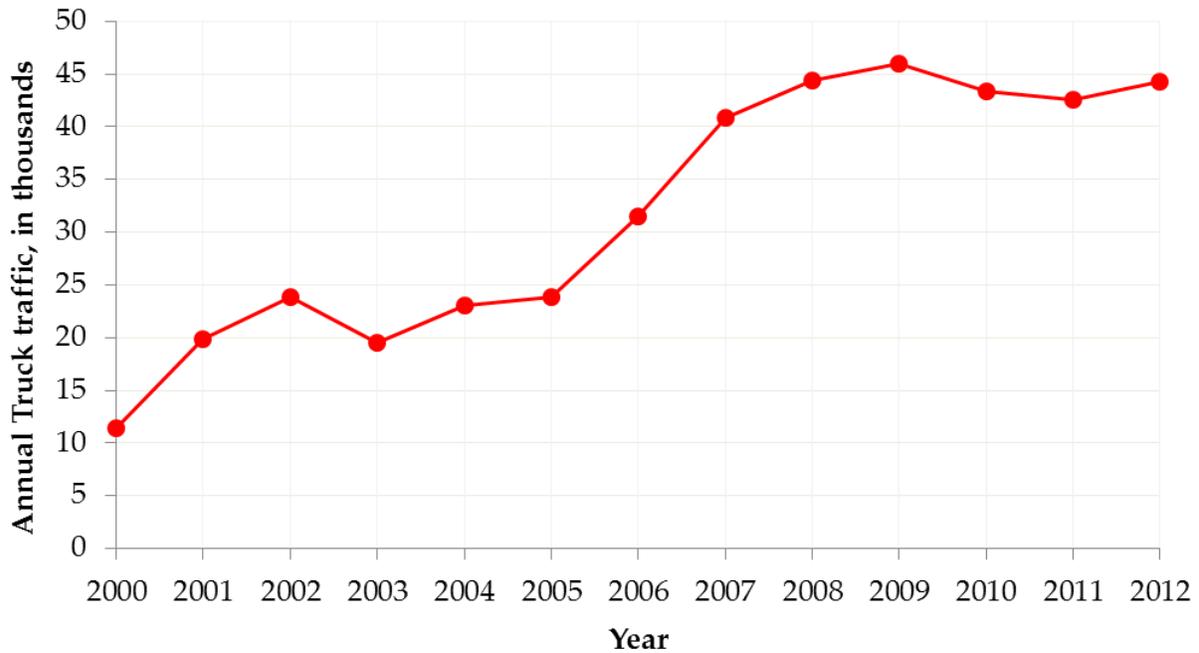
Source: CBP⁹

Figure 4.36: Weslaco-Progresso International Bridge—Northbound POV Crossings



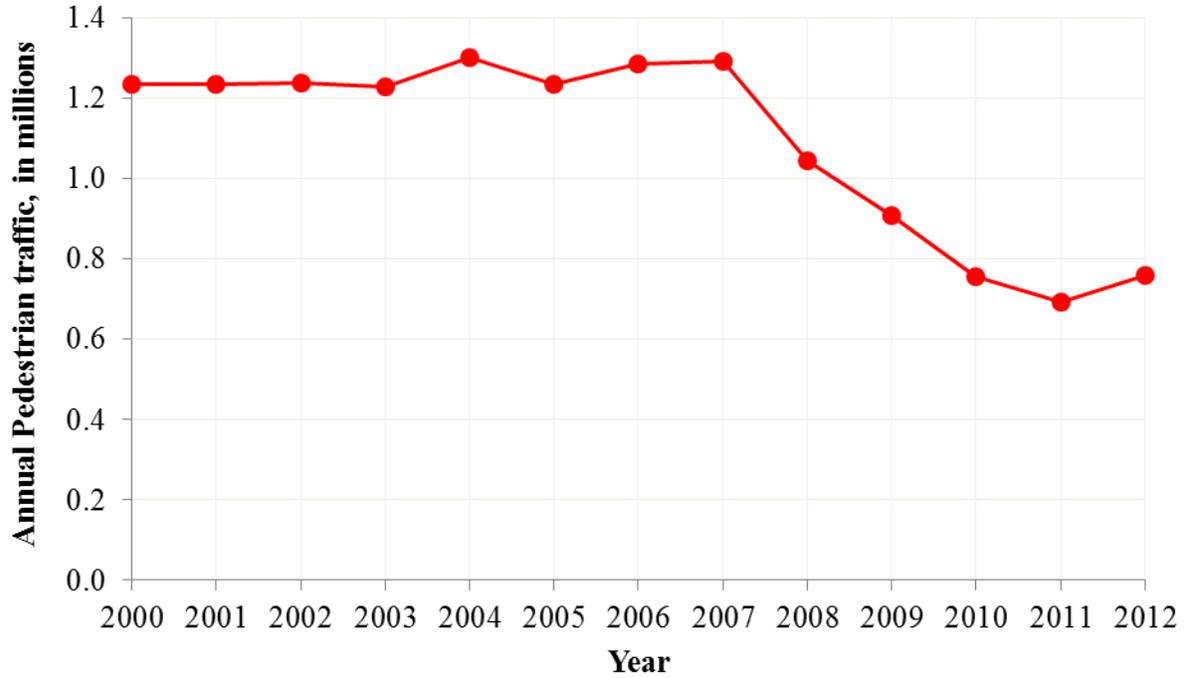
Source: CBP⁹

Figure 4.37: Weslaco-Progreso International Bridge—Northbound Bus Crossings



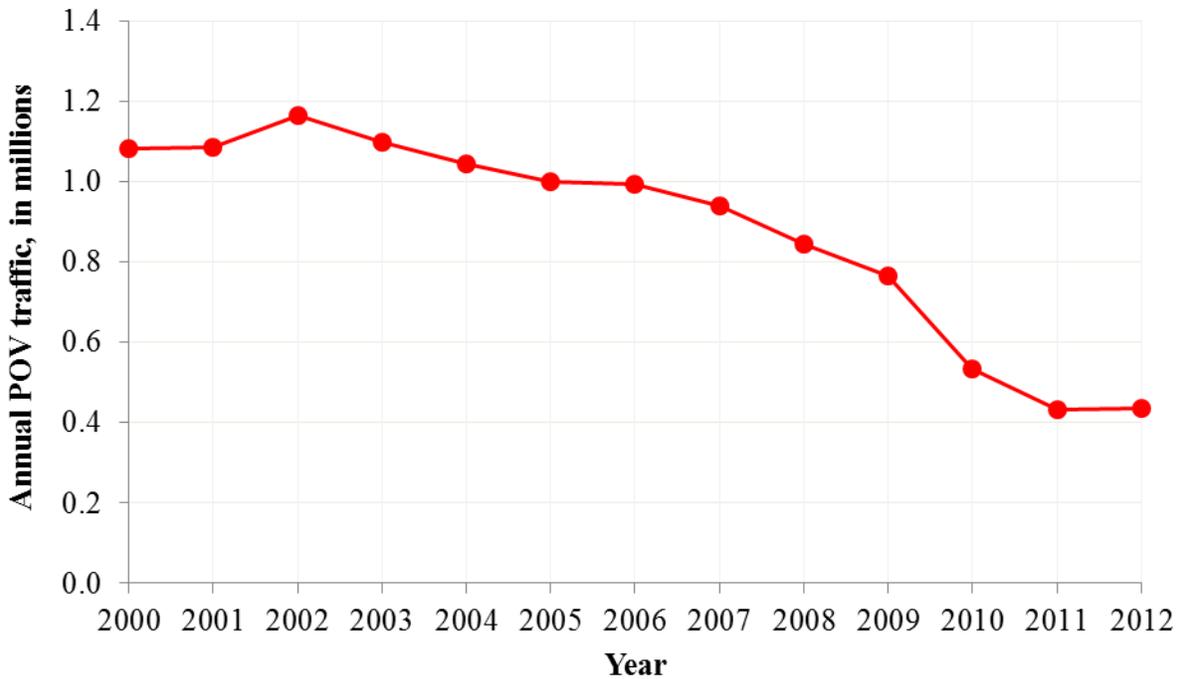
Source: CBP⁹

Figure 4.38: Weslaco-Progreso International Bridge—Northbound Commercial Truck Crossings



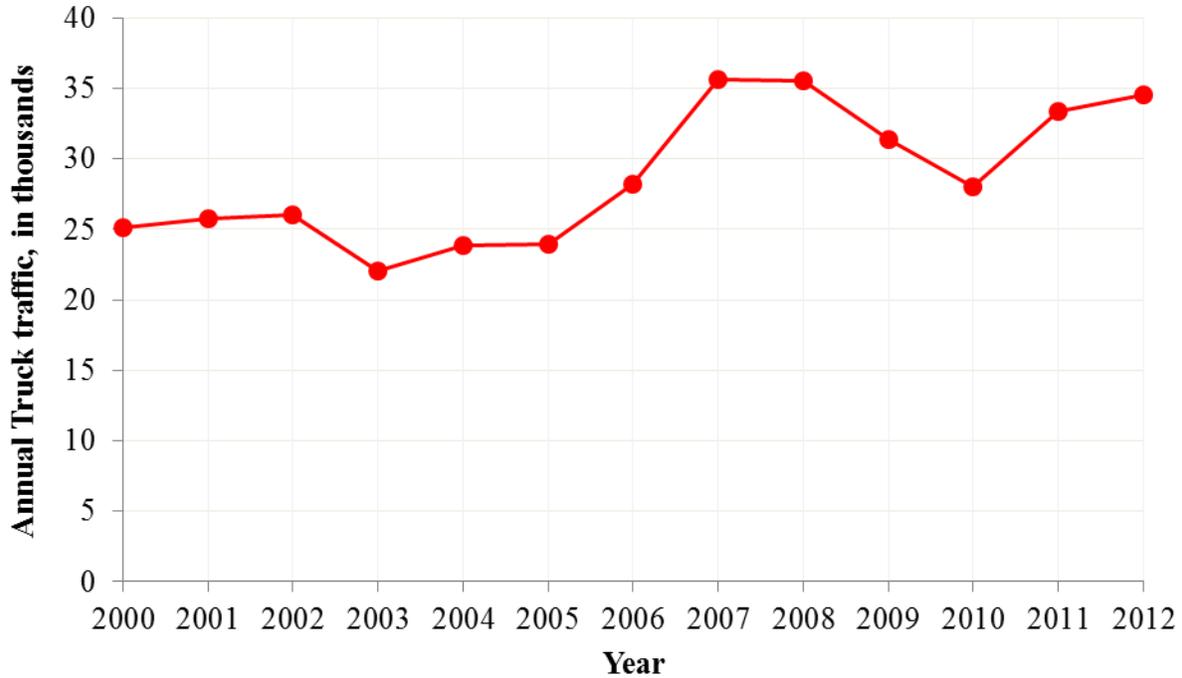
Source: Texas A&M International University, Texas Center for Border Economic and Enterprise Development¹⁰

Figure 4.39: Weslaco-Progreso International Bridge—Southbound Pedestrian Crossings



Source: Texas A&M International University, Texas Center for Border Economic and Enterprise Development¹⁰

Figure 4.40: Weslaco-Progreso International Bridge—Southbound POV Crossings



Source: Texas A&M International University, Texas Center for Border Economic and Enterprise Development¹⁰

Figure 4.41: Weslaco-Progresso International Bridge—Southbound Commercial Truck Crossings

Although the number of northbound POV crossings at the Weslaco-Progresso International Bridge increased between 2000 and 2002, Figure 4.36 shows a continuous decrease in the number of northbound POV crossings between 2002 and 2011. Specifically, the number of northbound POV crossings decreased 63.2 percent from a high of 1,214,011 in 2002 to a low of 446,241 in 2011. In 2012, the number of northbound POV crossings increased 4.6 percent relative to 2011 to reach 466,544.

Figure 4.37 shows that the annual number of northbound bus crossings decreased from 516 in 2000 to one in 2012, a 99.8 percent decrease.

On the other hand, the number of northbound commercial truck crossings increased 286.5 percent between 2000 and 2012. Although the number of northbound commercial truck crossings decreased 7.3 percent between the 2009 peak year and 2011, the crossings increased 4.0 percent in 2012 to reach 44,300 (see Figure 4.38).

Southbound Crossings¹⁰: Southbound pedestrian crossings at the Weslaco-Progresso International Bridge remained relatively constant between 2000 and 2007, fluctuating between 1,227,698 and 1,299,493 crossings per year (see Figure 4.39). However, between 2007 and 2011, annual southbound pedestrian crossings decreased 46.3 percent to reach 692,719 crossings in 2011 (the lowest level). In 2012, the number of

southbound pedestrian crossings increased 9.6 percent relative to 2011 to reach 759,259 crossings.

Figure 4.40 shows that the number of southbound POV crossings at the Weslaco-Progreso International Bridge decreased 62.7 percent from a high of 1,164,289 in 2002 to a low of 433,887 in 2011. In 2012, the number of southbound POV crossings increased marginally (0.6 percent) relative to 2011 to reach 436,449 crossings.

Figure 4.41 shows the number of southbound commercial truck crossings at the Weslaco-Progreso International Bridge increased 61.6 percent between 2003 and 2007. The number of southbound commercial truck crossings, however, remained relatively constant in 2008 before decreasing 21.0 percent between 2008 and 2010. Between 2010 and 2012, the number of southbound commercial truck crossings increased 23.2 percent to reach 34,567 in 2012.

Primary Roadways Serving Weslaco-Progreso International Bridge

Figure 4.42 shows the location of the Weslaco-Progreso International Bridge. On the U.S. side, FM 1015/Bill Summers International Boulevard is the primary access road to the Weslaco-Progreso International Bridge. FM 1015/Bill Summers International Boulevard is about 30 miles long and connects the bridge to US 281/Military Highway, US 83/IH 2, and SH 107 before terminating at SH 186. The widening of FM 1015/Bill Summers International Boulevard to a four-lane undivided facility with a continuous left-turn lane in the center from the border to US 83/IH 2 was completed in November 2008 at a cost of \$6 million.⁶ The AADT on FM 1015/Bill Summers International Boulevard was 13,500 vehicles in 2010, of which 4.6 percent were trucks. There were 0.48 accidents reported per mile on FM 1015 in 2010. In 2010, the LOS on FM 1015 was A.

Approximately 1.5 miles from the bridge, FM 1015/Bill Summers International Boulevard and US 281/Military Highway intersect. US 281/Military Highway is a two-lane undivided facility that runs parallel to the U.S.-Mexico border on the U.S. side. In 2010, the AADT on US 281/Military Highway near the bridge was 7,700 vehicles, of which 13.1 percent were trucks. No accidents were recorded on US 281/Military Highway in 2010. In 2010, the LOS on US 281/Military Highway was A.

On the Mexican side, MEX 2 and MEX 2D (located north of but parallel to MEX 2) run east-west between Reynosa and Matamoros. Near Nuevo Progreso, MEX 2 is a two-lane facility, and MEX 2D is a four-lane divided facility. MEX 99 and MEX 12 channel traffic north from Valle Hermoso to either side of Nuevo Progreso. Benito Juárez, a two-lane facility, intersects with MEX 2 and MEX 2D and passes through Nuevo Progreso before connecting to the Weslaco-Progreso International Bridge.

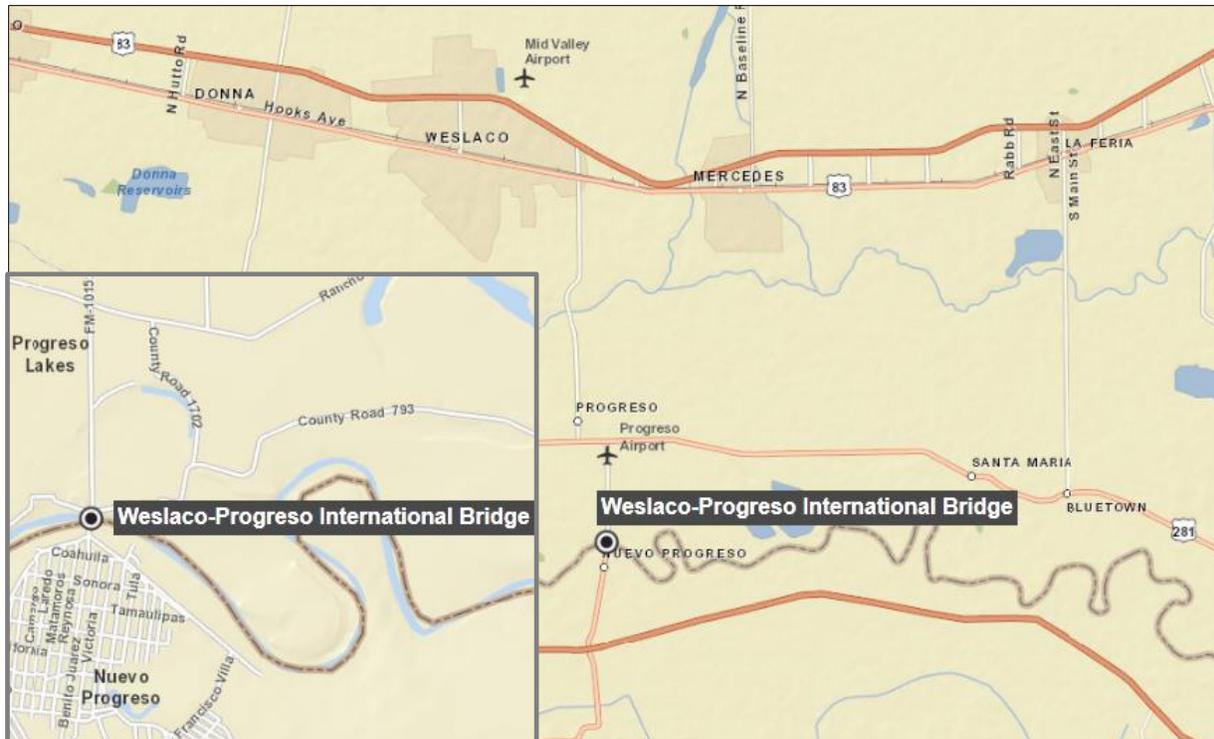


Figure 4.42: Weslaco-Progresso International Bridge

Planned Changes in Infrastructure (Present to 2030)

No planned infrastructure projects have been identified near the Weslaco-Progresso International Bridge.

4.2.2 Donna International Bridge

The Donna International Bridge opened on December 14, 2010.⁶ On the U.S. side, the bridge is owned and operated by the City of Donna. The bridge has four southbound and four northbound lanes for POVs and a pedestrian walkway. The bridge is approximately 1,000 feet long and 108 feet wide.⁶ The bridge has a capacity of 15,000 vehicles per day.³⁹ The Donna International Bridge is also certified as meeting the requirements of the Leadership in Energy and Environmental Design (LEED) program.

On the Mexican side, SCT granted the State of Tamaulipas a concession in March 2008 to construct, operate, and manage the Donna International Bridge. Per a legislative decree signed on December 3, 2009, Tamaulipas created a single trust (fideicomiso) to collect all tolls and manage all toll revenue obtained from the Free Trade Bridge and the Donna International Bridge. The Mexican side of the bridge was completed in December 2010 at an estimated cost of MXN 300 million (US \$24.2 million). Information about the entity/company operating the bridge on the Mexican side is not publicly available.

The Donna International Bridge is located near the intersection of FM 493 and US 281/Military Highway on the U.S. side and near the intersection of Puebla and MEX 2 in Río Bravo, Tamaulipas. The crossing is also known locally as the Donna/Rio Bravo International Bridge and Puente Rio Bravo-Donna.

Border Station

The City of Donna donated land to the Federal Government. GSA has constructed a new border station facility on the U.S. side (LPOE Donna).⁴⁰

Hours of Operation

The bridge currently operates from 6:00 a.m. to 10:00 p.m. 365 days a year for POVs only. The bridge also has a READY lane that is open from 9:00 a.m. to 2:00 p.m., which expedites crossing for travelers with RFID-enabled cards, such as a U.S. passport card or SENTRI card.

Tolls

Table 4.10 lists the toll rates for the Donna International Bridge.

Table 4.10: Toll Rates for Donna International Bridge

Mode	Toll Rate	
	Southbound (US\$)	Northbound (US\$)
Pedestrian	0.50	0.50
Bicycle	1.00	1.29
Non-commercial Vehicle or Motorcycle	3.00	3.87
Extra Axle for Non-commercial Vehicle	3.50	4.52
2-Axle Truck	8.00	10.32
3-Axle Truck	12.00	15.48
4-Axle Truck	14.00	18.06
Pushing/Pulling Car	5.00	6.45
Recreational Vehicle	20.00	25.81

Note: Exchange rate = MXN 12.40 per US \$1.

Source: City of Donna⁴⁰

Bridge Crossings⁴¹

The Donna International Bridge opened to traffic in December 2010.

Northbound Crossings: In 2011—the first full year for which crossing data were available—380,971 northbound POV crossings were reported. In 2012, the number of northbound POV crossings increased 28.0 percent relative to 2011 to reach 487,617.⁴⁰

Southbound Crossings: Southbound crossing data for the Donna International Bridge were also available for 2011 and 2012. In 2011, 310,212 POVs crossed southbound at the Donna International Bridge. In 2012, this number decreased 26.6 percent to reach 392,584 crossings.⁴⁰

Primary Roadways Serving Donna International Bridge

Figure 4.43 shows the location of the Donna International Bridge. On the U.S. side, FM 493 provides direct access to Donna International Bridge before continuing north and connecting to major routes, such as US 281/Military Highway. FM 493 is known as International Boulevard between the Donna International Bridge and US 281/Military Highway. FM 493 is known as Donna Road/South Salinas Boulevard north of US 281/Military Highway as it extends into Donna.

US 281/Military Highway near the bridge is a two-lane undivided highway with an AADT of 6,500 vehicles in 2010, of which 14.1 percent were trucks. In 2010, there were 1.85 accidents recorded per mile, and the LOS on the facility was A.

FM 493 intersects US 281/Military Highway about 1 mile north of the bridge and connects it to Donna and major routes, such as US 83/IH 2. FM 493 is a two-lane undivided highway with an AADT of 2,100 vehicles per day, of which 6.6 percent were trucks in 2010. The number of accidents recorded per mile was 3.78, and the LOS on FM 493 was A in 2010.

On the Mexican side, Ciudad Río Bravo is bordered to the south by MEX 2 and to the north by MEX 2D. Both highways are four-lane divided facilities. Puente Internacional Río Bravo-Donna begins downtown and heads north to connect with MEX 2D and ultimately the Donna International Bridge. MEX 12 channels traffic north to Ciudad Río Bravo from Valle Hermoso.



Figure 4.43: Donna International Bridge

Planned Changes in Infrastructure (Present to 2030)

TxDOT is planning to rehabilitate the section of FM 493 between US 281/Military Highway and BU 83 (TxDOT Project 0863-01-047). Improvements include reconstructing the highway and adding paved shoulders. These improvements are expected to enhance traffic flow and improve safety. The project is planned to be let in August 2014.

TxDOT is also planning to widen FM 493 between US 281/Military Highway and Champion Avenue (TxDOT Project 0863-01-056) at a cost of \$19.7 million. This project is currently not in the STIP. This project will improve the LOS on the corridor from the current level of C to A.

4.2.3 Pharr-Reynosa International Bridge on the Rise

On the U.S. side, the Pharr-Reynosa International Bridge on the Rise is owned and operated by the City of Pharr. On the Mexican side, the bridge is owned by the Mexican Government (though FARAC/FONADIN) and operated by CAPUFE. The bridge has four lanes—three northbound and one southbound—and a pedestrian walkway on the northbound side. The bridge is 3.2 miles long and became operational in January 1995.⁶ U.S. customs booths are located approximately 1.5 miles north of the U.S.-Mexico border. As of September 1, 1996, all northbound commercial traffic was

directed from the McAllen-Hidalgo-Reynosa Bridge to the Pharr-Reynosa International Bridge on the Rise.⁶

The Pharr-Reynosa International Bridge on the Rise is located on Spur 600, south of US 281/Military Highway, on the U.S. side and on Camino al Puente Internacional Reynosa-Pharr north of MEX 2 near Luis Donaldo Colosio Murrieta in Reynosa, Tamaulipas. The crossing is also known locally as Puente Internacional Reynosa-Pharr and Nuevo Amanecer.

Border Station

The border station in the United States (LPOE Pharr) is owned by GSA and opened to traffic in April 1996. A toll collection system, funded by a Federal CBI grant, was added to the GSA facilities in 2004.⁶

In January 2009, the northbound approaches from the bridge to the truck and vehicle booths were widened, and the dedication of a FAST lane on the bridge was completed.⁶ A proposed project, currently in the development stages, includes a second span expansion, additional commercial inspection facilities, 13 security cameras on the U.S. side, the installation of intelligent transportation system (ITS) fiber-optic cable/communications, a cold storage facility, and the expansion of an administration building.⁶

Hours of Operation

The bridge currently operates from 6:00 a.m. to 12:00 a.m. 365 days a year for POVs. For commercial/cargo vehicles, the bridge operates from 7:00 a.m. to 11:00 p.m. Monday through Saturday.

Tolls

The toll rates for the Pharr-Reynosa International Bridge on the Rise are provided in Table 4.11.

Table 4.11: Toll Rates for Pharr-Reynosa International Bridge on the Rise

Mode	Southbound Toll Rate (US\$)	Northbound Toll Rate (US\$)
Pedestrian or Bicycle	N/A	0.25
Motorcycle	N/A	1.05
Non-commercial Auto or Pickup	N/A	2.10
Non-commercial Vehicle, Motorcycle, or Bicycle	3.00	N/A
Extra Axle for Non-commercial Vehicle	3.00	1.21
Passenger Bus (2, 3, and 4 Axles)	N/A	4.33
Commercial Vehicle (2 Axles)	10.25	4.33
Commercial Vehicle (3 Axles)	14.25	4.33
Commercial Vehicle (4 Axles)	16.20	4.33
Commercial Vehicle (5 Axles)	21.25	9.27
Commercial Vehicle (6 Axles)	24.25	9.27
Commercial Vehicle (7, 8, and 9 Axles)	N/A	14.50
Extra Axle for Commercial Vehicle	N/A	2.42
Wide Load (Special Crossing)	32.25	N/A
Motorhome	20.50	N/A

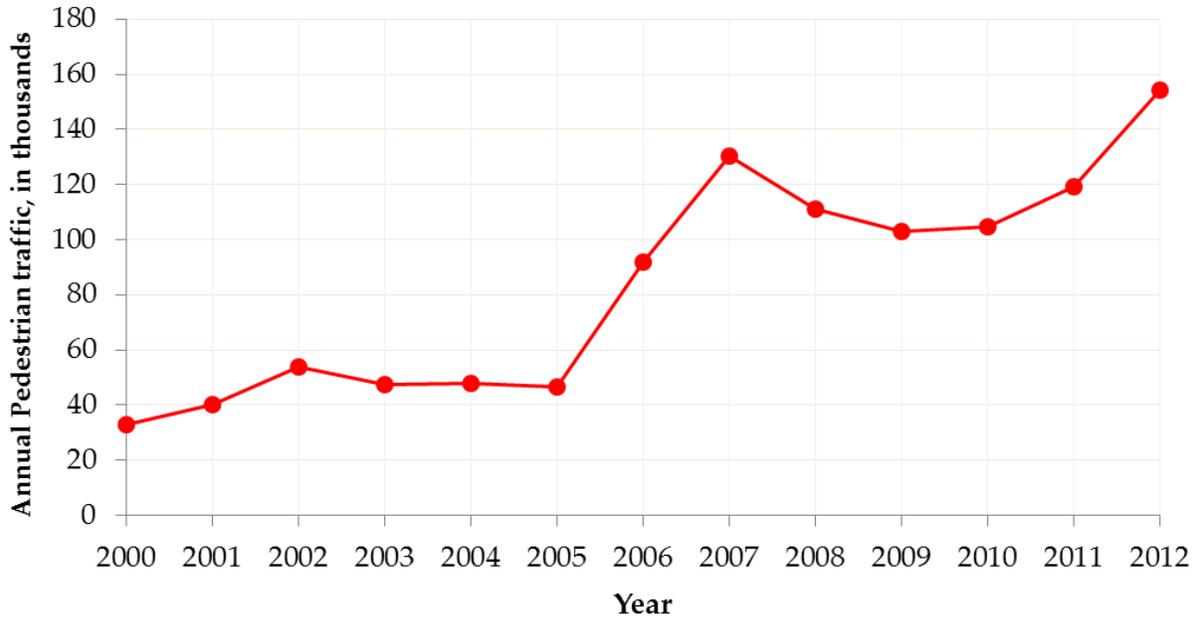
Note: Exchange rate = MXN 12.40 per US \$1.

Source: City of Pharr⁴² and CAPUFE⁸

Bridge Crossings

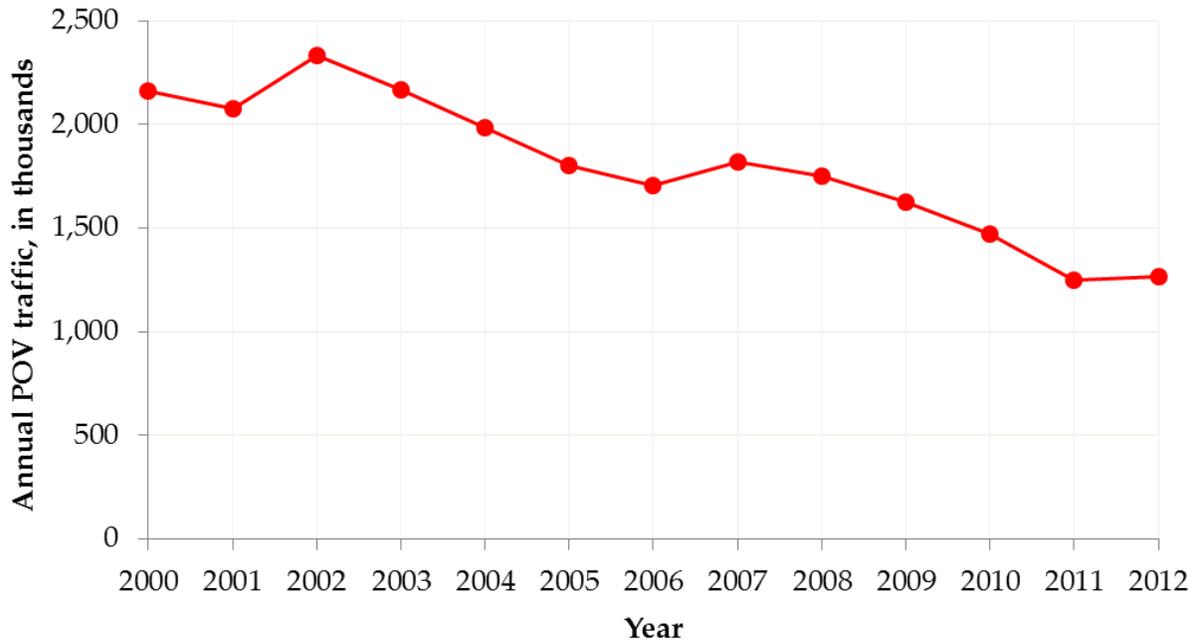
Figures 4.44 through 4.47 illustrate the number of northbound bridge crossings by mode at the Pharr-Reynosa International Bridge on the Rise between 2000 and 2012. Figures 4.48 and 4.49 illustrate the number of southbound crossings at the Pharr-Reynosa International Bridge on the Rise between 2000 and 2012. Southbound pedestrian crossing data were not available.

Northbound Crossings: Figure 4.44 shows that the number of annual northbound pedestrian crossings varied between 32,991 and 53,613 between 2000 and 2005. Subsequently, between 2005 and 2007, the number of northbound pedestrian crossings increased 180.8 percent, from 46,483 in 2005 to 130,511 in 2007. However, the number of northbound pedestrian crossings decreased 21.1 percent between 2007 and 2009 before increasing by 49.7 percent between 2009 and 2012 to reach 154,127 crossings in 2012.



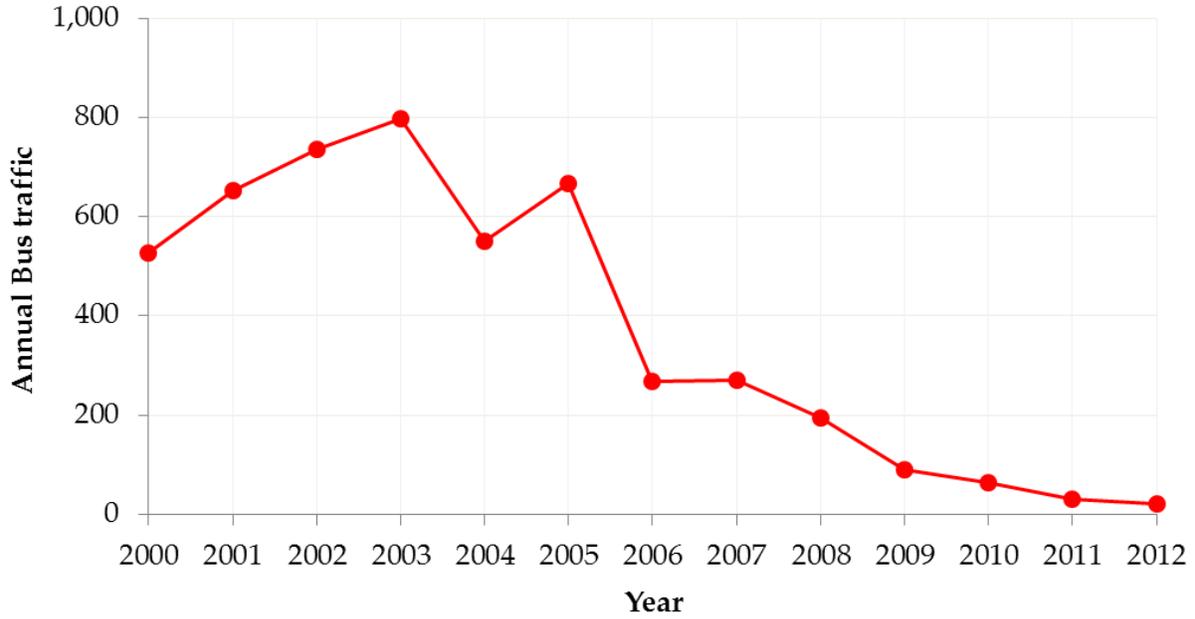
Source: CBP⁹

Figure 4.44: Pharr-Reynosa International Bridge on the Rise—Northbound Pedestrian Crossings



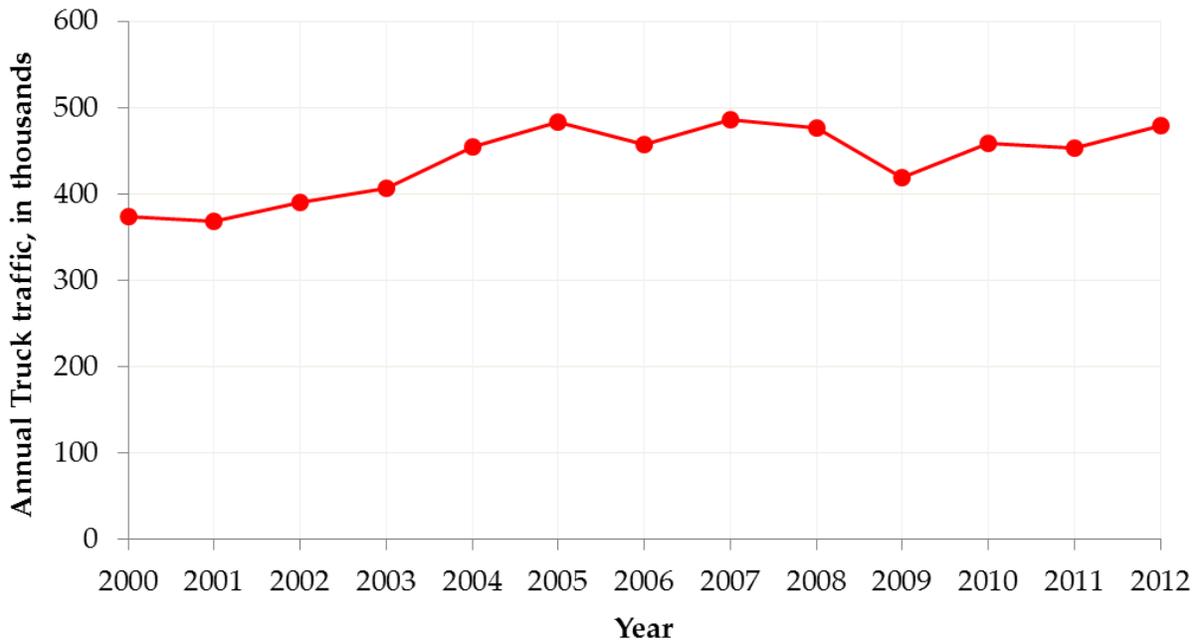
Source: CBP⁹

Figure 4.45: Pharr-Reynosa International Bridge on the Rise—Northbound POV Crossings



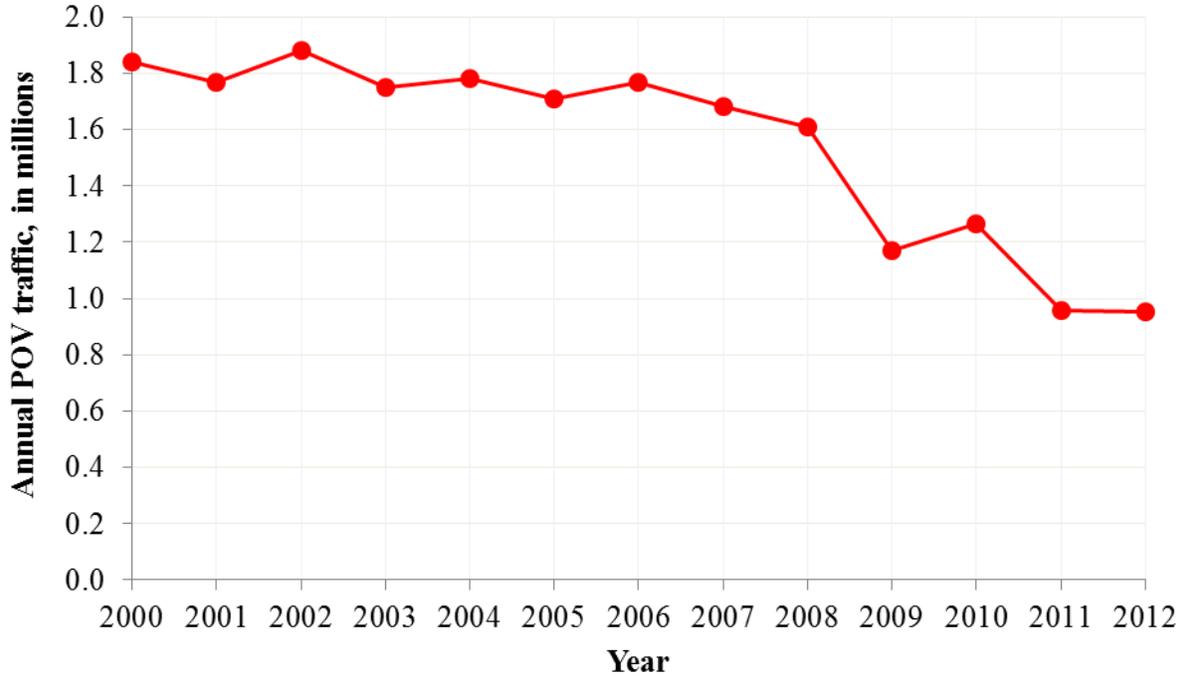
Source: CBP⁹

Figure 4.46: Pharr-Reynosa International Bridge on the Rise—Northbound Bus Crossings



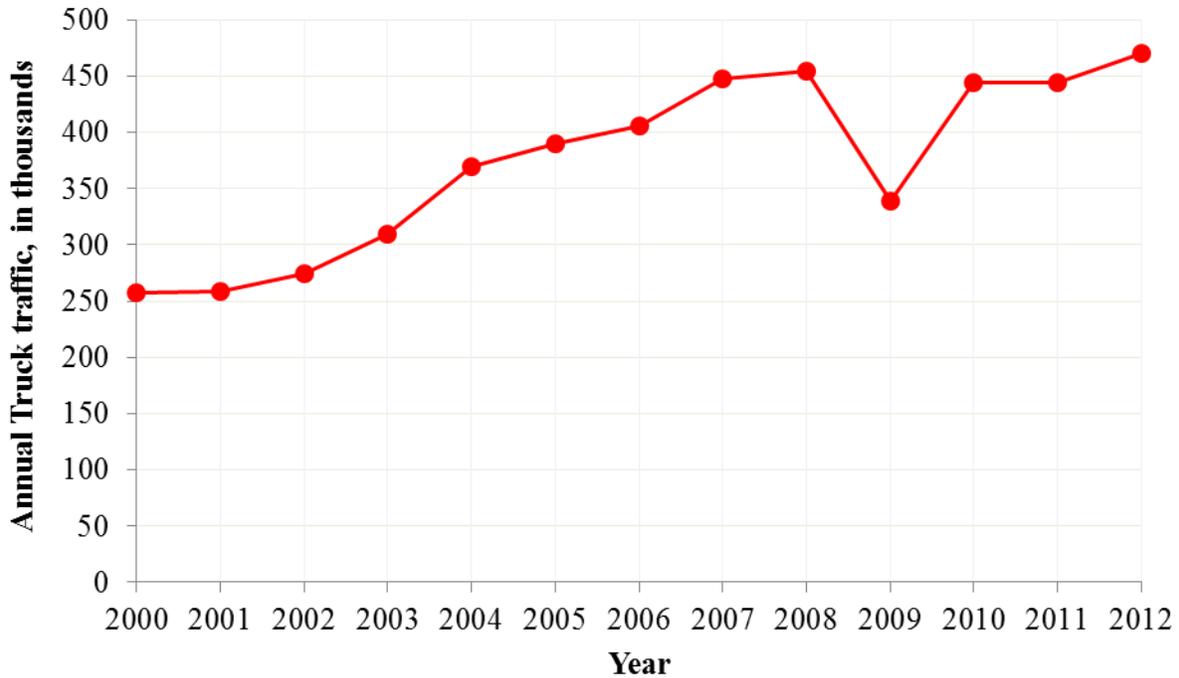
Source: CBP⁹

Figure 4.47: Pharr-Reynosa International Bridge on the Rise—Northbound Commercial Truck Crossings



Source: Texas A&M International University, Texas Center for Border Economic and Enterprise Development¹⁰

Figure 4.48: Pharr-Reynosa International Bridge on the Rise—Southbound POV Crossings



Source: Texas A&M International University, Texas Center for Border Economic and Enterprise Development¹⁰

Figure 4.49: Pharr-Reynosa International Bridge on the Rise—Southbound Commercial Truck Crossings

The number of northbound POV crossings decreased 46.5 percent from a peak of 2,334,269 in 2002 to 1,248,316 in 2011 (see Figure 4.45). In 2012, the number of northbound POV crossings increased marginally (1.6 percent) relative to 2011 to reach 1,268,415 crossings.

The number of northbound bus crossings at the Pharr-Reynosa International Bridge on the Rise decreased 97.5 percent between 2003 and 2012, from 797 crossings in 2003 to 20 crossings in 2012 (see Figure 4.46).

Figure 4.47 shows that the number of northbound commercial truck crossings increased 28.2 percent between 2000 and 2012, from 374,150 in 2000 to 479,530 in 2012.

*Southbound Crossings*¹⁰: Southbound POV crossings at the Pharr-Reynosa International Bridge decreased 48.2 percent between 2000 and 2012, with the sharpest decrease occurring between 2008 and 2009 (see Figure 4.48). More specifically, between 2002 and 2012, the number of southbound POV crossings decreased 49.2 percent from a peak of 1,879,256 in 2002 to a low of 953,948 in 2012.

The number of southbound commercial truck crossings increased 76.6 percent from 257,228 in 2000 to 454,146 in 2008. However, between 2008 and 2009, the number of southbound commercial truck crossings decreased 25.3 percent to reach 339,371 in 2009 (see Figure 4.49). Since then, the number of southbound commercial truck crossings increased 38.7 percent to reach a peak of 470,716 in 2012.

Primary Roadways Serving Pharr-Reynosa International Bridge on the Rise

Figure 4.50 shows the location of the Pharr-Reynosa International Bridge on the Rise. The Pharr-Reynosa International Bridge on the Rise is located on Spur 600, south of US 281/Military Highway, in Pharr. Spur 600 intersects SH 241/US 281/Military Highway about 0.25 miles north of the bridge and continues as US 281/South Cage Boulevard.

Near the bridge, Spur 600 is a six-lane facility with a continuous left-turn lane in the center. For most of its length, however, Spur 600 is a four-lane undivided highway. The construction of Spur 600 was completed in 1994. An average of 13,500 vehicles used this facility per day in 2010, of which 5.9 percent were trucks. In 2010, there were 6.67 accidents per mile on Spur 600. The LOS on the facility was A.

SH 241/US 281/Military Highway is a four-lane divided facility at the intersection with Spur 600, but east of the intersection it is a two-lane undivided facility with wide shoulders. West of the intersection it is a four-lane undivided facility with a continuous left-turn lane. In 2010, the AADT on SH 241/US 281/Military Highway west of the intersection with Spur 600 was 6,500 vehicles, of which 14.1 percent were trucks. There were 1.85 accidents per mile, and the LOS on this facility was A in 2010.



Figure 4.50: Pharr-Reynosa International Bridge on the Rise

US 281/South Cage Boulevard is a four-lane undivided highway that connects to US 83/IH 2. The AADT on US 281/South Cage Boulevard was 26,000 vehicles in 2010, of which 12.8 percent were trucks. In 2010, there were 0.87 accidents per mile, and the LOS on this facility was B.

On the Mexican side, MEX 2 runs east-west between Reynosa and Ciudad Río Bravo. East of Reynosa, Camino al Puente Internacional Reynosa-Pharr intersects with MEX 2 and channels traffic north to cross the border. West of the bridge, MEX 97 connects Reynosa with San Fernando to the south. East of the bridge, MEX 12 connects Río Bravo with Valle Hermoso to the south. Luis Donaldo Colosio Murrieta and Porfirio Díaz (MEX 2)—both six-lane facilities—connect Reynosa to the four-lane Camino al Puente Internacional Reynosa-Pharr.

Planned Changes in Infrastructure (Present to 2030)

On the U.S. side, several projects that involve Spur 600 and US 281/South Cage Boulevard are planned. TxDOT Project 0921-02-289 is included in the STIP and involves redesigning the northbound approach to add lanes and customs booths, which is expected to improve traffic flow. The second project (TxDOT Project 0220-01-023) involves construction of a grade-separated intersection at San Juan Road between

US 281/South Cage Boulevard and Veterans Boulevard, which will improve safety at the intersection of San Juan Road and US 281/Military Highway.

A new highway (SH 365) is also funded for 2015 to provide direct access between FM 1016 and FM 3072 (TxDOT Project 3627-01-001). SH 365 will thus serve as a relief route for US 281/South Cage Boulevard in the northbound direction. Current TxDOT plans also include the installation of ITS measures to alleviate the congestion currently impacting the Pharr-Reynosa International Bridge, the McAllen-Hidalgo-Reynosa Bridge, and the Anzaldúas International Bridge (TxDOT Project 0921-02-253).

TxDOT plans to construct a two-lane tolled highway between Spur 600 and FM 493 along the US 281/Military Highway corridor. This tolled highway will provide a relief route for US 281/Military Highway in the eastward direction (TxDOT Project 0921-02-142). This project is currently not included in the STIP.

4.2.4 McAllen-Hidalgo-Reynosa Bridge

The U.S. side of the McAllen-Hidalgo-Reynosa Bridge is owned and operated by the City of McAllen. The Mexican side of the bridge is owned by the Government of Mexico and operated by CAPUFE. The bridge has two structures: the old 524-foot-long four-lane bridge constructed in 1965 that serves only southbound traffic and the new 852-foot-long four-lane bridge built in 1987 that serves only northbound traffic. The bridge is located on International Boulevard near the intersection of US 281/Military Highway, SH 115, and SH 336 on the U.S. side and near El Maestro-Centro off of MEX 97 in Reynosa, Tamaulipas. The crossing is also known locally as the Hidalgo Bridge, Puente Reynosa, and Puente Reynosa-McAllen.

Border Station

On the U.S. side, the border station (LPOE Hidalgo), which was completed in 1982, is owned by the City of McAllen and leased by GSA.⁶ On the Mexican side, the border station, which has been in operation since 1965, was remodeled in 1988.⁶

Hours of Operation

The bridge currently operates 24 hours a day 365 days a year .

Tolls

The toll rates for the McAllen-Hidalgo-Reynosa Bridge are provided in Table 4.12.

Table 4.12: Toll Rates for McAllen-Hidalgo-Reynosa Bridge (Southbound)

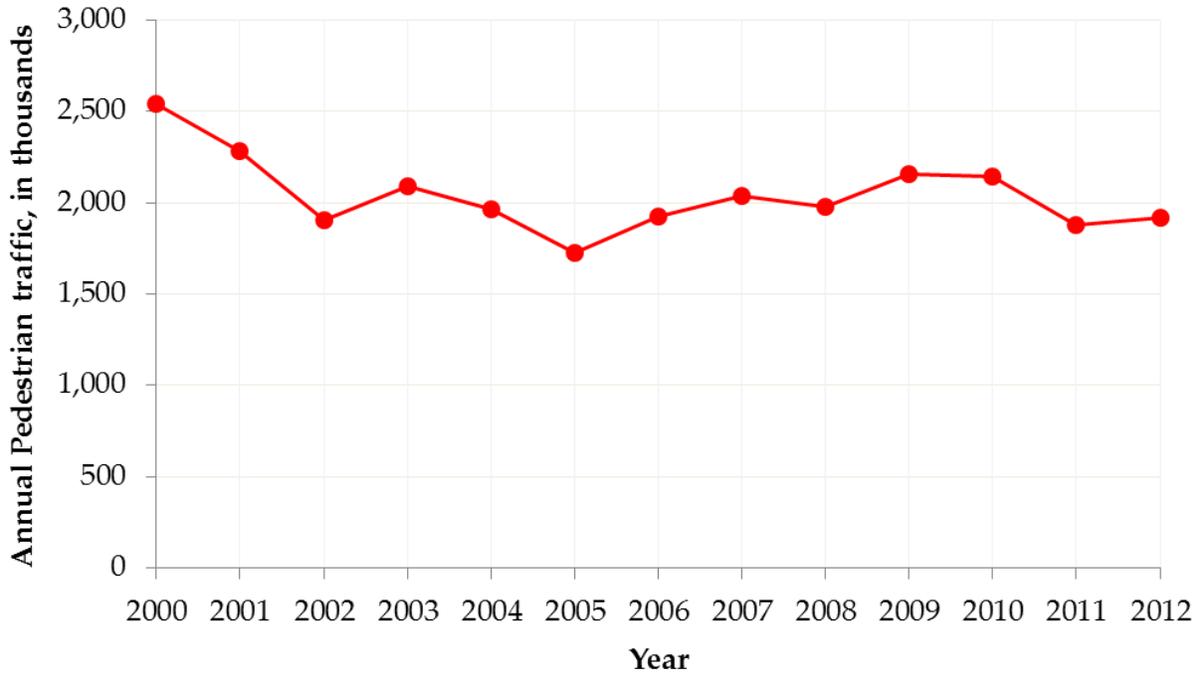
Mode	Toll Rate (US\$)
Pedestrian	1.00
Motorcycle	3.00
Non-commercial Auto or Pickup	3.00
Commercial Vehicle (2 Axles)	7.00
Commercial Vehicle (3 Axles)	10.00
Commercial Vehicle (4 Axles)	14.00
Commercial Vehicle (5 Axles)	17.00
Commercial Vehicle (6 Axles)	20.00
Bus (2 Axles)	7.00
Bus (3 Axles)	9.00
Motorhome, Machinery, or Trailer	3.00 per Axle

Source: City of McAllen⁴³

Bridge Crossings

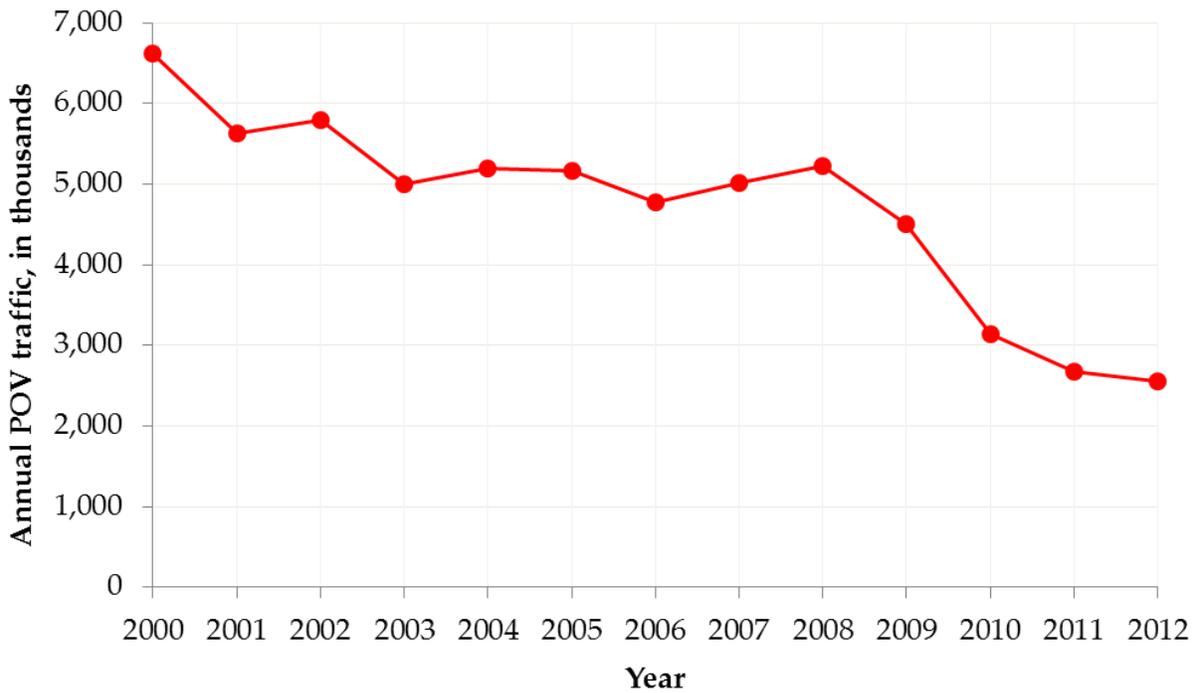
Figures 4.51 through 4.53 illustrate the northbound bridge crossings at the McAllen-Hidalgo-Reynosa Bridge, and Figures 4.54 and 4.55 illustrate the total southbound bridge crossings at the McAllen-Hidalgo-Reynosa Bridge and by the Los Ebanos Ferry. Disaggregated data for the bridge and the ferry crossing are not available.

Northbound Crossings: Figure 4.51 shows that the number of annual northbound pedestrian crossings peaked at 2,542,361 in 2000. Between 2002 and 2008, the number of northbound pedestrian crossings fluctuated between 1,727,701 and 2,091,028. In 2009 and 2010, the number of northbound pedestrian crossings remained above 2.1 million, the highest number of crossings since 2001. However, the number of northbound pedestrian crossings decreased 12.2 percent from 2,140,426 in 2010 to 1,879,014 in 2011. In 2012, the number of northbound pedestrian crossings increased marginally (2.1 percent) relative to 2011 to reach 1,919,346 crossings.



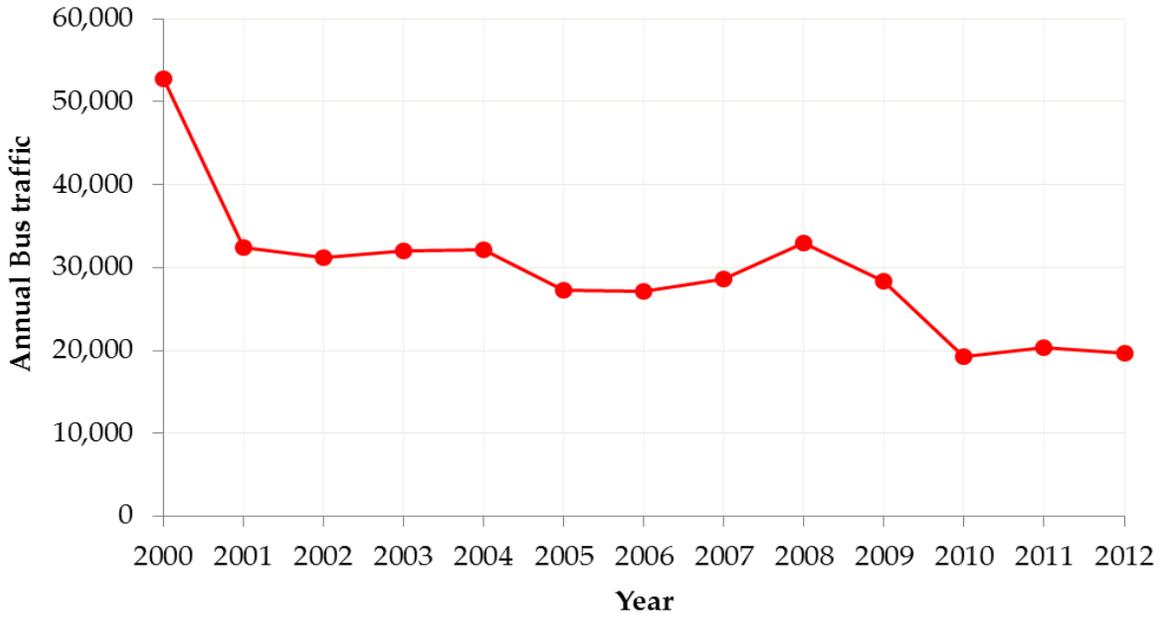
Source: CBP⁹

Figure 4.51: McAllen-Hidalgo-Reynosa Bridge—Northbound Pedestrian Crossings



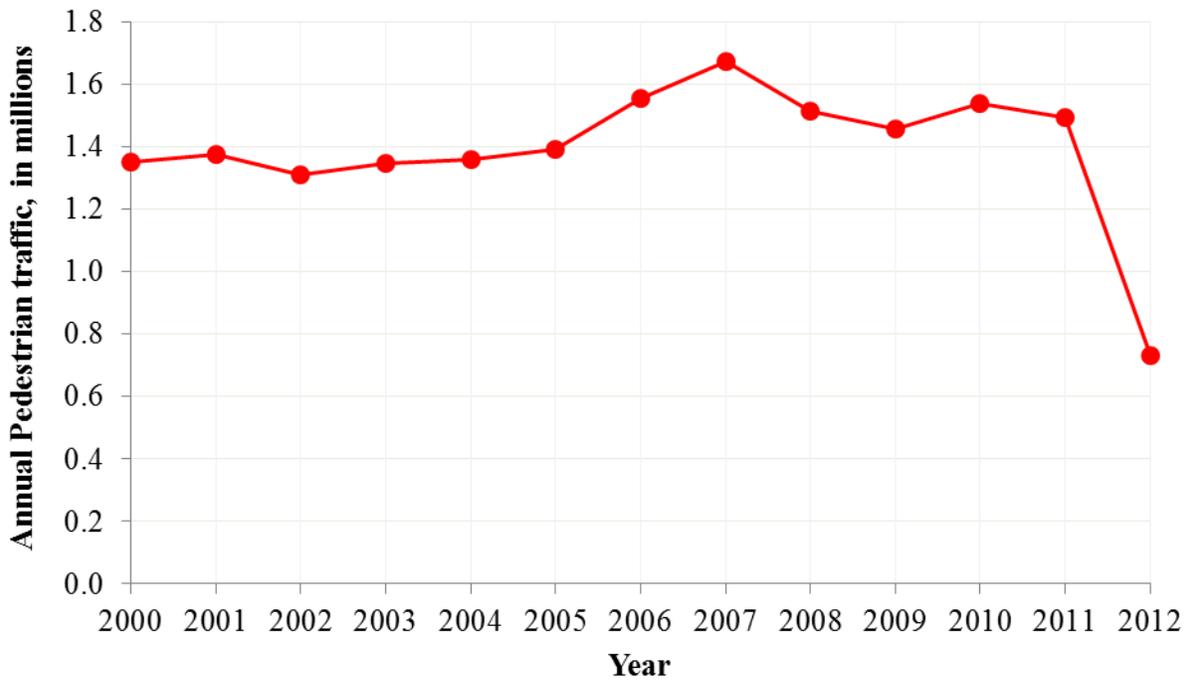
Source: CBP⁹

Figure 4.52: McAllen-Hidalgo-Reynosa Bridge—Northbound POV Crossings



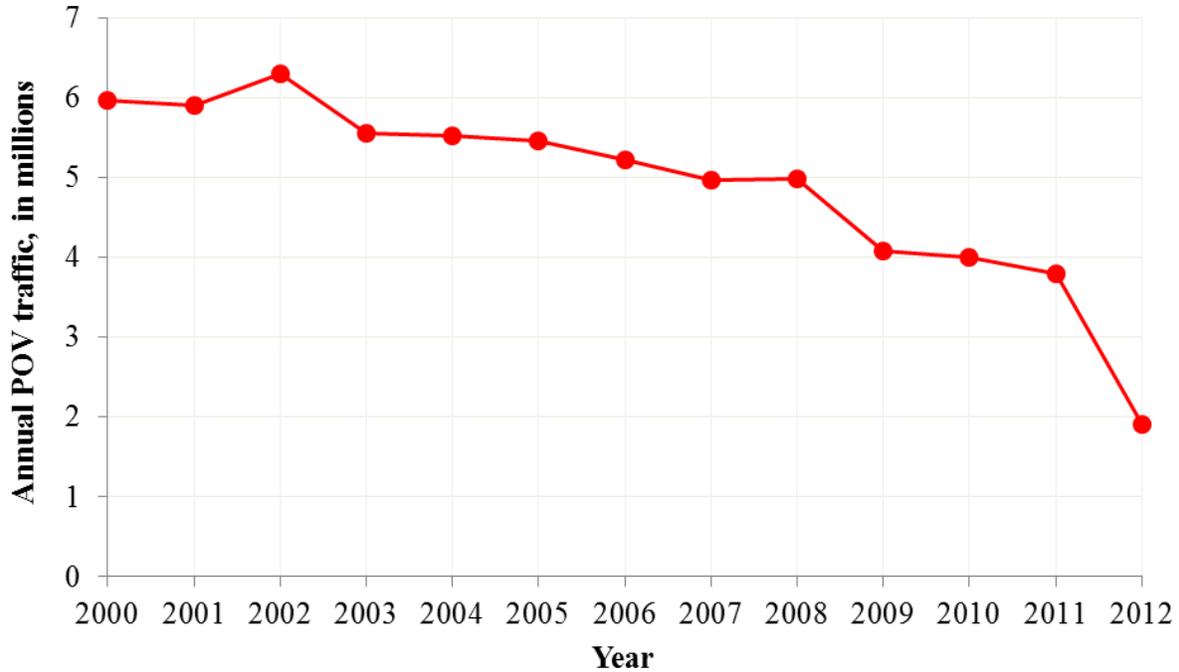
Source: CBP⁹

Figure 4.53: McAllen-Hidalgo-Reynosa Bridge—Northbound Bus Crossings



Source: Texas A&M International University, Texas Center for Border Economic and Enterprise Development¹⁰

Figure 4.54: McAllen-Hidalgo-Reynosa Bridge/Los Ebanos Ferry—Southbound Pedestrian Crossings



Source: Texas A&M International University, Texas Center for Border Economic and Enterprise Development¹⁰

Figure 4.55: McAllen-Hidalgo-Reynosa Bridge/Los Ebanos Ferry—Southbound POV Crossings

Figure 4.52 shows that the number of annual northbound POV crossings peaked in 2000 at 6,616,232 crossings. Between 2003 and 2008, the number of northbound POV crossings remained fairly constant, fluctuating between 4,772,472 and 5,230,546 crossings per year. However, a sharp decrease occurred between 2008 and 2012 when the number of northbound POV crossings decreased 51.2 percent from 5,230,546 in 2008 to 2,552,452 in 2012.

Figure 4.53 shows that the number of annual northbound bus crossings peaked in 2000 at 52,809 crossings. Between 2000 and 2001, the number of annual northbound bus crossings decreased 38.7 percent. Between 2001 and 2008, the number of northbound bus crossings remained fairly constant, fluctuating between 27,077 and 32,932 crossings per year. However, between 2008 and 2010, the number of northbound bus crossings decreased 41.5 percent from 32,932 in 2008 to 19,258 in 2010 (the lowest level). In 2011, the number of northbound bus crossings increased 5.6 percent relative to 2010. In 2012, however, the number of northbound bus crossings decreased again 3.1 percent to reach 19,698 in 2012.

Southbound Crossings: As mentioned earlier, the southbound crossing data are for the McAllen-Hidalgo-Reynosa Bridge and the Los Ebanos Ferry, both of which connect McAllen and Reynosa. Disaggregated data for southbound traffic at the individual

crossings are not available. Figures 4.54 and 4.55 thus present the information for both crossings.

Figure 4.54 shows that the number of annual southbound pedestrian crossings at the McAllen-Hidalgo-Reynosa Bridge and the Los Ebanos Ferry remained fairly constant between 2000 and 2005, fluctuating between 1,310,776 and 1,389,613 crossings per year. Between 2005 and 2007, however, the number of annual southbound pedestrian crossings increased 20.4 percent to peak at 1,673,285 in 2007. Between 2007 and 2009, the number of southbound pedestrian crossings decreased 12.8 percent. Between 2009 and 2011, the number of southbound pedestrian crossings increased 2.3 percent to reach 1,491,694. In 2012, however, the number of southbound pedestrian crossings decreased 50.9 percent to reach the lowest level of 732,175 crossings in 2012.

Figure 4.55 shows that annual southbound POV crossings decreased from a peak of 6,297,301 in 2002 to a low of 1,906,208 in 2012, a decrease of 69.7 percent. Although the annual number of southbound POV crossings decreased almost every year since 2002, the most substantial decrease occurred between 2011 and 2012 when the number of southbound POV crossings decreased 49.8 percent.

Primary Roadways Serving McAllen-Hidalgo-Reynosa Bridge

Figure 4.56 shows the location of the McAllen-Hidalgo-Reynosa Bridge. On the U.S. side, SH 115 is the primary access road to the McAllen-Hidalgo-Reynosa Bridge. SH 115 is approximately 8 miles long and connects the bridge to US 83/IH 2 and the McAllen-Miller International Airport. Toward the bridge, after intersecting FM 1016, SH 115 is a six-lane divided facility. However, for most of its length, SH 115 is a four-lane undivided facility with an AADT of 24,000 vehicles in 2010, of which 4.4 percent were trucks. In 2010, there were 5.33 accidents per mile on SH 115, and the LOS was B.

Approximately 1 mile from the bridge, SH 115 intersects with US 281/Military Highway/SH 241. US 281/Military Highway/SH 241 runs parallel to the U.S.-Mexico border on the U.S. side. US 281/Military Highway/SH 241 is a four-lane undivided highway with an AADT of 26,000 vehicles in 2010, of which 12.8 percent were trucks. There were 0.87 accidents per mile, and the LOS on the facility was B in 2010.

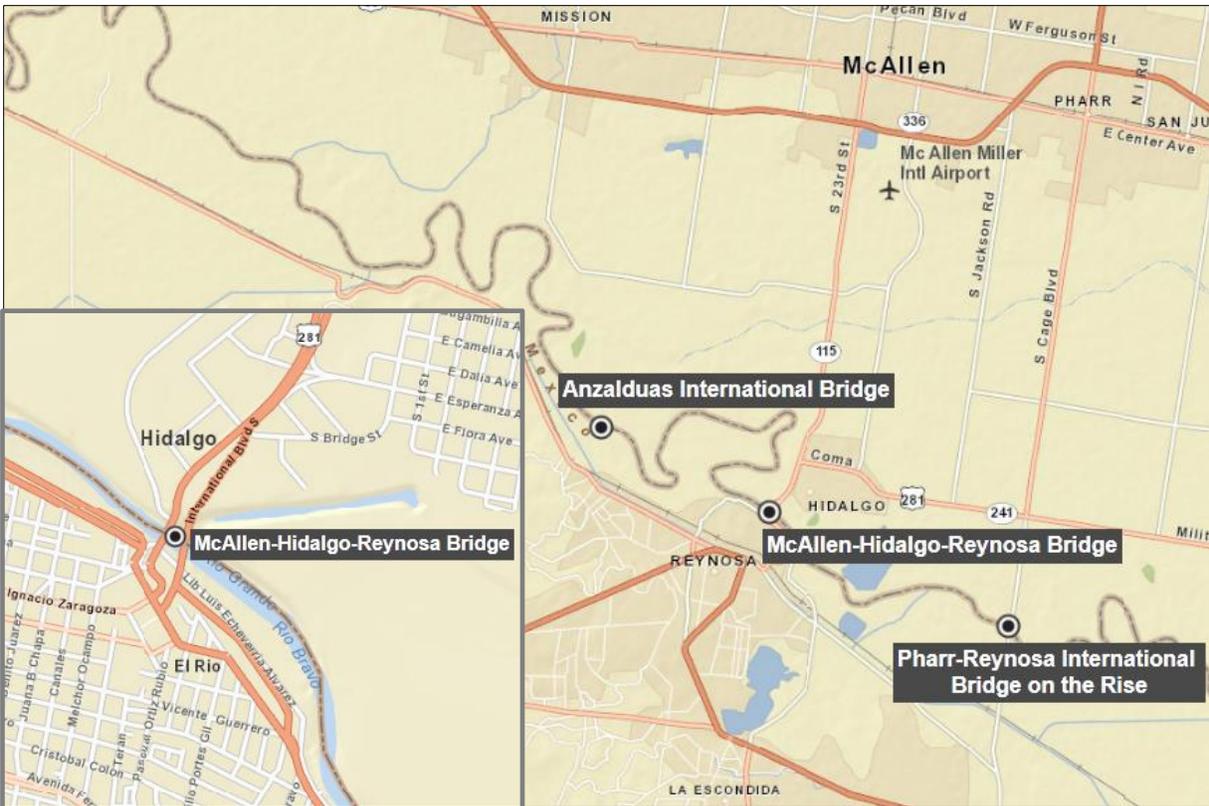


Figure 4.56: McAllen-Hidalgo-Reynosa Bridge

On the Mexican side, MEX 2 runs west to east through the center of Reynosa, where it intersects with MEX 40 and turns south. MEX 40, also known as Autopista Cadereyta-Reynosa, includes a tolled section. The tolled section (MEX 40D) spans from the boundary of the States of Tamaulipas and Nuevo León, to Cadereyta, Nuevo León. In 2011, MEX 40 served an AADT of 4,405 vehicles. Luis Echeverría, 20 de Noviembre, and Oriente form a loop around the north side of Reynosa and connect with MEX 97 on the east side. These highways have between four and six lanes. The loop connects to International Boulevard, which connects to the McAllen-Hidalgo-Reynosa Bridge.

Planned Changes in Infrastructure (Present to 2030)

A new highway (SH 365) is funded for 2015 to provide direct access between FM 1016 and FM 3072 (TxDOT Project 3627-01-001). SH 365 will serve as a relief route for US 281/South Cage Boulevard in the northbound direction. Current TxDOT plans also include the installation of ITS measures to alleviate the congestion currently impacting the Pharr-Reynosa International Bridge, the McAllen-Hidalgo-Reynosa Bridge, and the Anzalduas International Bridge (TxDOT Project 0921-02-253).

4.2.5 Anzaldúas International Bridge

On the U.S. side, the Anzaldúas International Bridge is owned and operated by the Cities of Hidalgo, McAllen, and Mission. Constructed in 2010, the bridge is the first LPOE on the southern border certified as meeting the requirements of the LEED program. The bridge spans 3.2 miles and has four lanes²—two southbound and two northbound—and a pedestrian walkway. There is, however, sufficient right of way to expand the existing bridge to an eight-lane divided facility in the future.⁶

The bridge currently serves only non-commercial vehicular traffic northbound. The Anzaldúas International Bridge may begin processing northbound commercial traffic in 2015 or when the Pharr-Reynosa International Bridge on the Rise processes an average of 15,000 northbound commercial vehicles per week.⁶

On the Mexican side, the Mexican Government granted a 30-year concession to Grupo Marhnos in 2007 to build and operate 6 miles of road, the international bridge, and the border station.⁴⁴

The bridge is located 3 miles upriver from the McAllen-Hidalgo-Reynosa Bridge near FM 494 and FM 396 (Bryan Road) on the U.S. side and near Las Quintas just north of MEX 2 in Reynosa, Tamaulipas. The crossing is also known locally as the Sharyland Bridge and Puente Anzaldúas.

Border Station

On the U.S. side, GSA completed construction of the border station facilities, and CBP initiated operations at the Anzaldúas LPOE on December 15, 2009. This non-commercial crossing has four primary and 12 secondary inspection lanes.⁶ No information was available on the Mexican side.

Hours of Operation

The bridge currently operates from 6:00 a.m. to 10:00 p.m. 365 days a year.

Tolls

Table 4.13 lists the toll rates for the Anzaldúas International Bridge.

Table 4.13: Toll Rates for Anzaldúas International Bridge (Southbound)

Mode	Toll Rate (US\$)
Pedestrian	1.00
Motorcycle	3.00
Non-commercial Auto or Pickup	3.00
Commercial Vehicle (2 Axles)	7.00
Commercial Vehicle (3 Axles)	10.00
Commercial Vehicle (4 Axles)	14.00
Commercial Vehicle (5 Axles)	17.00
Commercial Vehicle (6 Axles)	20.00
Bus (2 Axles)	7.00
Bus (3 Axles)	9.00
Motorhome, Machinery, or Trailer	3.00 per Axle

Source: City of McAllen⁴³

Bridge Crossings

Northbound Crossings: In 2011—the first full year for which crossing data were available—967,657 northbound POV crossings and 624 northbound bus crossings were reported. In 2012, the number of northbound POV crossings increased 11.0 percent relative to 2011 to reach 1,073,619. The number of northbound bus crossings, however, decreased 44.1 percent in 2012 relative to 2011 to reach 349.⁹

Southbound Crossings: Southbound crossing data for the Anzaldúas International Bridge became available as of December 2009 and were available for 2010 and 2011. In 2010, 886,965 POVs crossed southbound at the Anzaldúas International Bridge. In 2011, this number decreased 7.2 percent to reach 822,946 crossings. Alternately, southbound bus crossings at the Anzaldúas International Bridge increased 29.1 percent from 2,605 in 2010 to 3,362 in 2011.¹⁰

Primary Roadways Serving Anzaldúas International Bridge

Figure 4.57 shows the location of the Anzaldúas International Bridge. The Anzaldúas International Bridge is connected to FM 396/Bryan Road. FM 396/Bryan Road connects the bridge to US 83/IH 2 to the north. It also intersects FM 1016 about 1 mile north of the bridge.

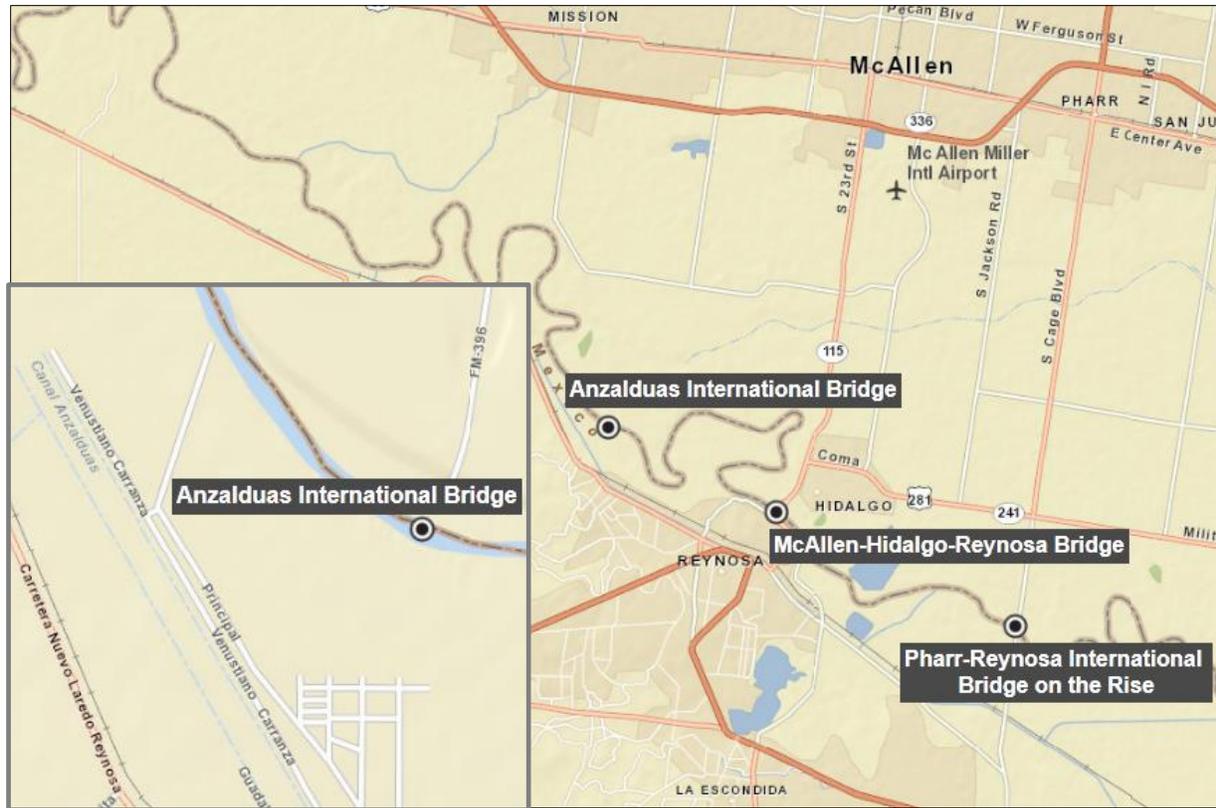


Figure 4.57: Anzaldúas International Bridge

FM 396/Bryan Road is a four-lane undivided highway from US 83/IH 2 to FM 1016/Military Highway. From FM 1016/Military Highway to the bridge, FM 396/Bryan Road is a six-lane divided highway. An average of 17,000 vehicles used this facility per day in 2010, of which 5.5 percent were trucks. The accident rate reported on FM 39/Bryan Road was comparatively high at 18.7 accidents per mile. In 2010, the LOS on FM 396 was A.

FM 1016 is a four-lane undivided facility with a continuous left-turn lane in the center that connects to US 83/IH 2 to the north. The AADT on FM 1016 was 10,300 vehicles in 2010, of which 3.7 percent were trucks. The number of accidents per mile on FM 1016 was 3.35 in 2010. The LOS on FM 1016 was A.

On the Mexican side, MEX 2 and Viaducto Reynosa intersect with Puente Internacional Anzaldúas near the northwest corner of Reynosa. From here, Puente Internacional Anzaldúas connects directly to the bridge. MEX 40 also connects Reynosa with Monterrey to the southwest.

Planned Changes in Infrastructure (Present to 2030)

A new highway (SH 365) is funded for 2015 to provide direct access between FM 1016 and FM 3072 (TxDOT Project 3627-01-001). SH 365 will serve as a relief route

for US 281/South Cage Boulevard northbound. Current TxDOT plans also include the installation of ITS measures to alleviate the congestion currently impacting the Pharr-Reynosa International Bridge, McAllen-Hidalgo-Reynosa Bridge, and Anzaldúas International Bridge (TxDOT Project 0921-02-253).

4.2.6 Los Ebanos Ferry

On the U.S. side, the Los Ebanos Ferry is owned and operated by the Reyna family. The Mexican side is owned and operated by Armando de la Garza. The ferry can accommodate up to 3 vehicles and 12 pedestrians at a time. Ferry service began in the 1950s; the current ferry has been in operation since 1979.⁶ The crossing is located near Sullivan City at FM 886/El Faro Road on the U.S. side and near Avenida Adolfo López Mateos in Mexico. The crossing is also known locally as Los Ebanos-San Miguel Camargo, Ferry Gustavo Díaz Ordaz, Ferry Díaz Ordaz-Los Ebanos, and El Chalán de Los Ebanos.

Border Station

On the U.S. side, the border station (LPOE Los Ebanos) was completed in 1992 and is owned by CBP.⁶ There is no Mexican border station at this site. An Aduanas checkpoint is located 2 miles away, before entering the town of Gustavo Díaz Ordaz.

Hours of Operation

The ferry currently operates from 8:00 a.m. to 4:00 p.m. 365 days a year for POVs and pedestrians only. However, the ferry’s operations are impacted by the weather and water level of the Rio Grande/Rio Bravo River.

Tolls

The toll rates for the Los Ebanos Ferry that were obtained from the Los Ebanos Ferry Operator’s Office are provided in Table 4.14.

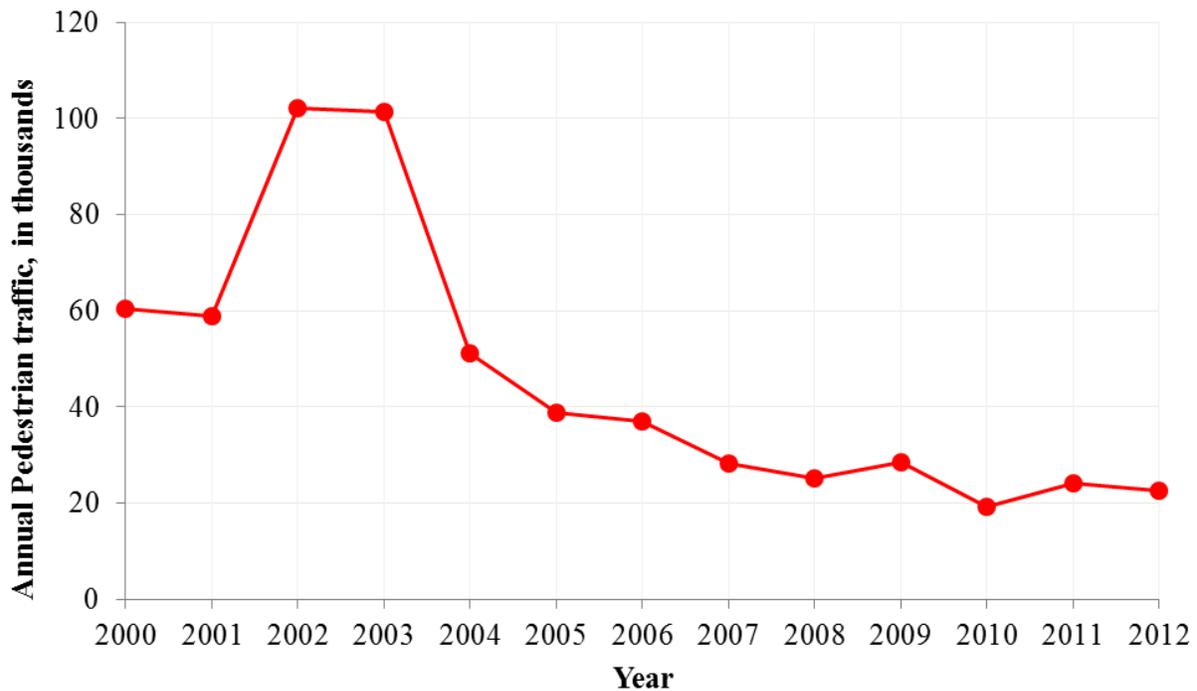
Table 4.14: Toll Rates for Los Ebanos Ferry (Northbound and Southbound)

Mode	Toll Rate (US\$)
Pedestrian or Bicycle	0.50
Non-commercial Vehicle	3.50

Source: Los Ebanos Ferry⁴⁵

Ferry Crossings

Figure 4.58 shows the number of northbound pedestrian crossings on the Los Ebanos Ferry. Northbound pedestrian crossings on the ferry experienced a peak in 2002 and 2003 with 102,059 and 101,448 crossings, respectively. However, the number of northbound pedestrian crossings decreased almost every year from 2003 to 2012. The exceptions were 2009 (when the number of crossings increased 12.9 percent relative to 2008) and 2011 (when the number of crossings increased 25.3 percent from 2010). In 2012, the number of northbound pedestrian crossings, however, decreased again 6.6 percent to reach 22,640 in 2012.



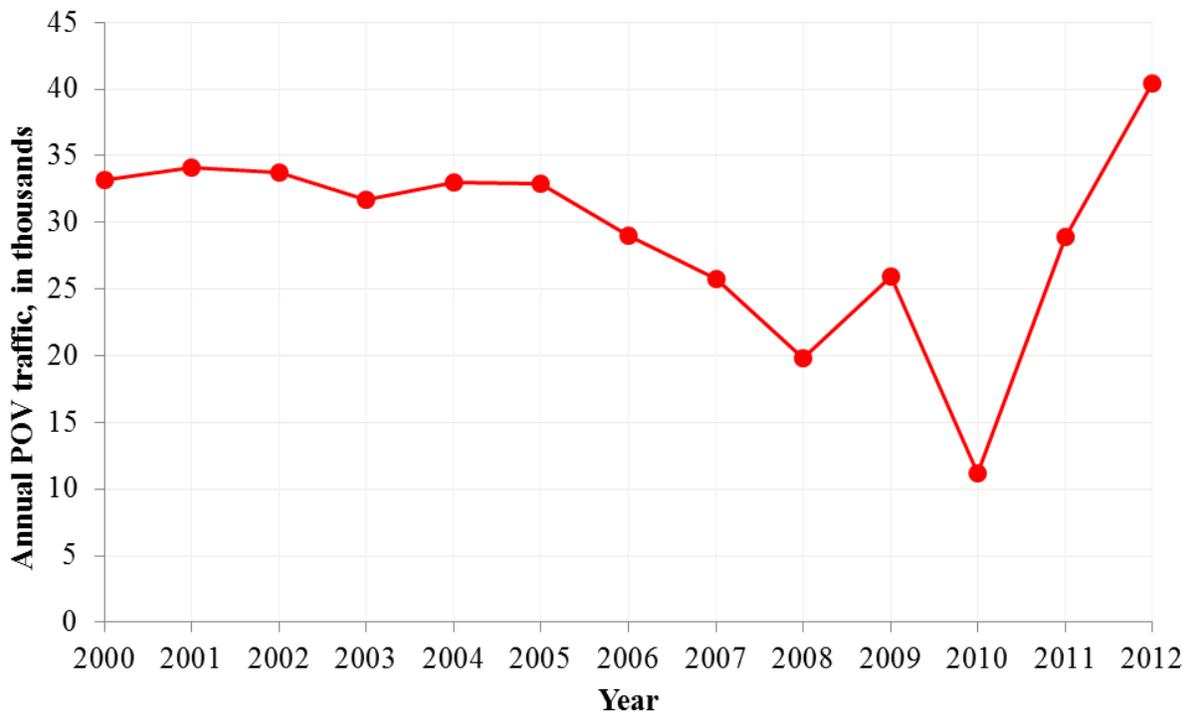
Source: CBP⁹

Figure 4.58: Los Ebanos Ferry—Northbound Pedestrian Crossings

Northbound POV crossings on the ferry were relatively constant between 2000 and 2005, fluctuating between 31,666 and 34,149. This period was followed by a substantial decrease in the number of northbound POV crossings. Between 2005 and 2008, the number of northbound crossings decreased 39.7 percent. In 2009, however, the number of northbound crossings increased 30.9 percent (relative to 2008) to 25,985 before decreasing 57.0 percent in 2010 to reach a low of 11,171 crossings. Between 2010 and 2012, the number of northbound POV crossings again increased 262.0 percent to peak at 40,434 crossings in 2012 (see Figure 4.59).

Data on southbound crossings on the Los Ebanos Ferry are provided in Section 4.2.4, along with data on southbound crossings for the McAllen-Hidalgo-

Reynosa Bridge. Disaggregated data for the bridge and the ferry crossing are not available.



Source: CBP⁹

Figure 4.59: Los Ebanos Ferry—Northbound POV Crossings

Primary Roadways Serving Los Ebanos Ferry

Figure 4.60 shows the location of the Los Ebanos Ferry. The Los Ebanos Ferry operates between Sullivan City on the U.S. side and El Jalisco on the Mexican side. Land access is provided by FM 886/Faro Road to the north and by US 83 to the east and northwest.

FM 886/Faro Road is a two-lane undivided highway with an AADT of 2,700 vehicles in 2010, of which 7.3 percent were trucks. No accidents were recorded on FM 886/Faro Road in 2010. In 2010, the LOS on FM 886/Faro Road was A.

US 83, a four-lane divided highway, runs parallel to the U.S.-Mexico border. The facility served an AADT of 36,000 vehicles in 2010, of which 9 percent were trucks. The number of accidents per mile varied on US 83 in 2010. The number of accidents per mile on US 83 was 4.83 east of FM 886/Faro Road and 12.62 northwest of FM 866/Faro Road in 2010. In 2010, the LOS on US 83 was C.

On the Mexican side, MEX 2, a two-lane facility, connects Ciudad Gustavo Díaz Ordaz with Ciudad Camargo to the west and Reynosa to the east. Avenida Hidalgo Sur

connects Ciudad Gustavo Diaz Ordaz with MEX 40 further south near the border of Tamaulipas and Nuevo León. Avenida Adolfo Lopez Mateos connects Ciudad Gustavo Díaz Ordaz’s city center to the Los Ebanos Ferry.

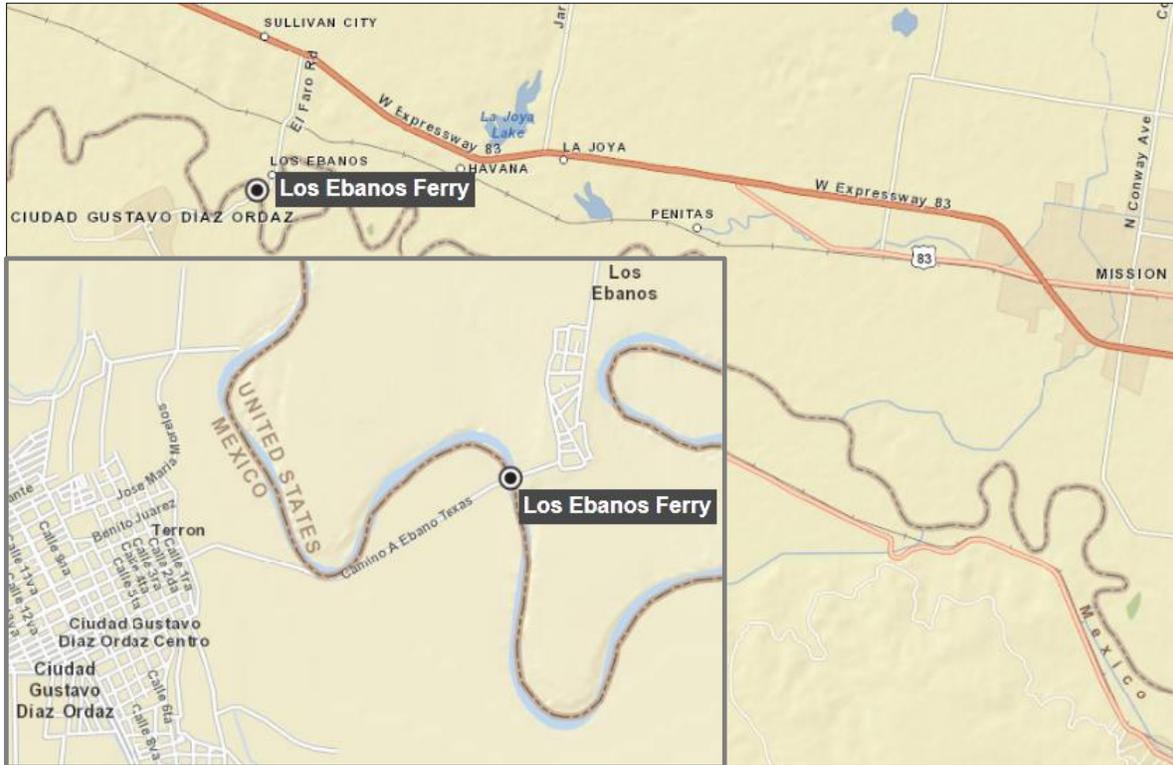


Figure 4.60: Los Ebanos Ferry

Planned Changes in Infrastructure (Present to 2030)

TxDOT is planning to upgrade US 83 to a four-lane divided facility between the Starr County line and Showers Road by 2015 (TxDOT Project 0039-02-040). This investment should improve traffic flow and positively impact the LOS on this facility. In addition, TxDOT is planning a similar upgrade to US 83 between the Hidalgo County line and 2.3 miles west of the county line (TxDOT Project 0039-01-066). Upon completion of this project, the LOS on this section of US 83 will improve from its current level of C to B.

4.2.7 McAllen-Miller International Airport

The McAllen-Miller International Airport is a public-use airport owned by the City of McAllen and is located 2 nautical miles south of the CBD (see Figure 4.61). The airport is served by four commercial airlines: Delta, American Airlines, Allegiant, and United Airlines. In addition, six cargo carriers serve the McAllen-Miller International

US 83/IH 2 is a six-lane facility with an AADT of 101,000 vehicles, of which 5.7 percent were trucks in 2010. In 2010, 45.49 accidents were reported per mile, and the LOS was F.

Planned Changes in Infrastructure (Present to 2030)

Current TxDOT plans include the construction of an overpass at the existing underpass intersection at US 83/IH 2 and Bicentennial Boulevard to improve traffic flow on Bicentennial Boulevard. This project is currently not included in the STIP.

As mentioned earlier, TxDOT is planning to upgrade another section of US 83 to a four-lane divided facility, extending from the Hidalgo County line to 2.3 miles west (TxDOT Project 0039-01-066). Upon completion of this project, the LOS on this section of US 83 will improve from its current level of C to B.

4.2.8 Weslaco/Mid Valley Airport

Weslaco/Mid Valley Airport is a public-use general aviation airport, which means that the airport serves aircraft capable of carrying 20 passengers or less. Owned by the City of Weslaco, the airport is located 2 nautical miles northeast of the CBD (see Figure 4.61). The airport has one 5,000-foot lighted runway. Aviation businesses at the Weslaco/Mid Valley Airport include Wilson Aircraft, Sterling Air Service, Garric War Birds, Chachalaca Aero, and Cain Productions.

Hours of Operation

The airport is open 24 hours a day 365 days a year, but CBP services are available only Monday through Saturday from 8:00 a.m. to 5:00 p.m.

Primary Roadways Serving Weslaco/Mid Valley Airport

The airport is served by FM 88/North Texas Boulevard to the west and FM 1015 to the east. US 83/IH 2 is to the south of the airport.

FM 88/North Texas Boulevard is a four-lane undivided facility that averaged 29,000 vehicles per day in 2010, of which 17.9 percent were trucks. There were 9.33 accidents reported per mile on this highway in 2010, and the LOS was B.

FM 1015 connects Weslaco/Mid Valley Airport to the Weslaco-Progreso International Bridge and major highways, such as US 281/Military Highway and US 83/IH 2. For most of its length, FM 1015 is a four-lane undivided highway with an AADT of 16,500 vehicles in 2010, of which 4.4 percent were trucks. This facility had 4.8 accidents per mile in 2010, and the LOS was A.

US 83/IH 2 is a six-lane highway with an AADT of 91,890 vehicles in 2010, of which 6.0 percent were trucks. In 2010, US 83/IH 2 had 18.8 accidents per mile, and the LOS was E.

Planned Changes in Infrastructure (Present to 2030)

No planned infrastructure projects have been identified near the Weslaco/Mid Valley Airport.

4.2.9 South Texas International Airport at Edinburg

The South Texas International Airport is a public-use airport owned by the City of Edinburg, located 9 nautical miles north of the CBD (see Figure 4.61). It is a single-runway general aviation airport. The City of Edinburg has requested State support for an \$18 million runway extension project to allow larger air cargo planes and emergency response operations at the airport. This project will extend the runway from 5,000 feet to 7,800 feet. The city is also investing \$1 million in a customs facility, is embarking on a \$2.8 million new taxiway that is expected to be completed in 2013, and has allocated another \$1 million for a new fuel facility.⁴⁶

Hours of Operation

The airport is open 24 hours a day 365 days a year .

Primary Roadways Serving South Texas International Airport at Edinburg

The airport is served by FM 490 to the north and US 281 to the west. For most of its length, FM 490 is a two-lane undivided facility. The AADT on FM 490 was 1,300 vehicles in 2010, of which 15.2 percent were trucks. In 2010, there were 1.31 accidents per mile, and the LOS was A.

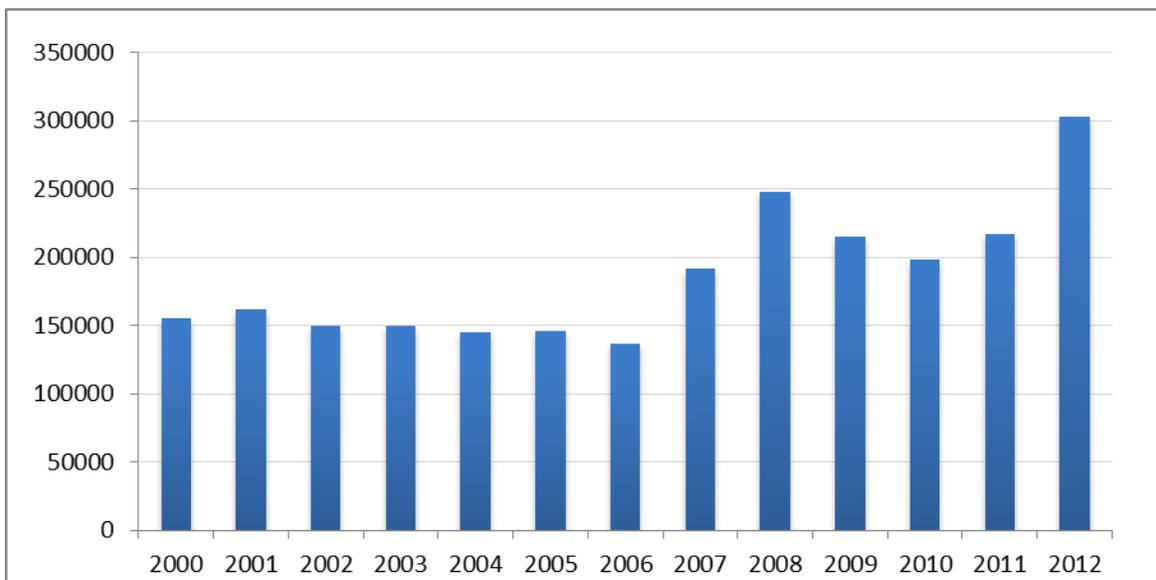
US 281 is a four-lane divided highway with an AADT of 18,600 vehicles in 2010, of which 29.0 percent were trucks. In 2010, there were 8.51 accidents per mile, and the LOS was B.

4.2.10 Reynosa International Airport

The Reynosa International Airport, also known as Aeropuerto General Lucio Blanco, is located 3 miles east of the City of Reynosa. The Reynosa International Airport has one landing strip with an operational capacity of 18 flights per hour. The airport can accommodate B-737-200 airplanes and smaller aircraft. The airport has a commercial platform, a general aviation platform, and a commercial terminal.⁴⁷

The airport is served by three commercial airlines: AeroMexico, Aeromar, and VivaAerobus. In addition, the charter line AeroRex offers commercial services from this airport. Non-stop service is provided to Mexico City, Poza Rica, and Veracruz.

Figure 4.62 shows the number of passengers handled at the Reynosa International Airport between 2000 and 2012. Between 2000 and 2006, the number of passengers remained fairly constant. Between 2006 and 2008, the total number of passengers handled increased 80.5 percent before decreasing in 2009 to 215,392 passengers. Between 2009 and 2011, the number of passengers remained again fairly constant before increasing by 39.9 percent between 2011 and 2012 to reach 302,934 passengers.



Source: OMA⁴⁷

Figure 4.62: Reynosa International Airport—Number of Passengers

The airport has an important freight terminal. The airport is served by 10 freight airlines: Aerotransportes Más de Carga, Astar Air Cargo, Bax Global, Estafeta Carga Aérea, FedEx, Jett Paquetería, Mex Jet, Starship, UPS, and Vigo Jet. These airlines provide non-stop service to Ciudad Juárez, Culiacán, Chihuahua, Mazatlán, Monterrey, and San Luis Potosí.

Hours of Operation

The airport provides daily service between 7:00 a.m. and 7:00 p.m. 365 days a year.

Primary Roadways Serving City of Reynosa International Airport

Figure 4.63 shows the location of the Reynosa International Airport. The Reynosa International Airport is primarily served by MEX 2, which connects the airport to MEX 2D and to the Acceso al Puente Internacional Reynosa/Pharr to the east; and to TAM 97, Libramiento Reynosa Sur II, and MEX 40 to the west.

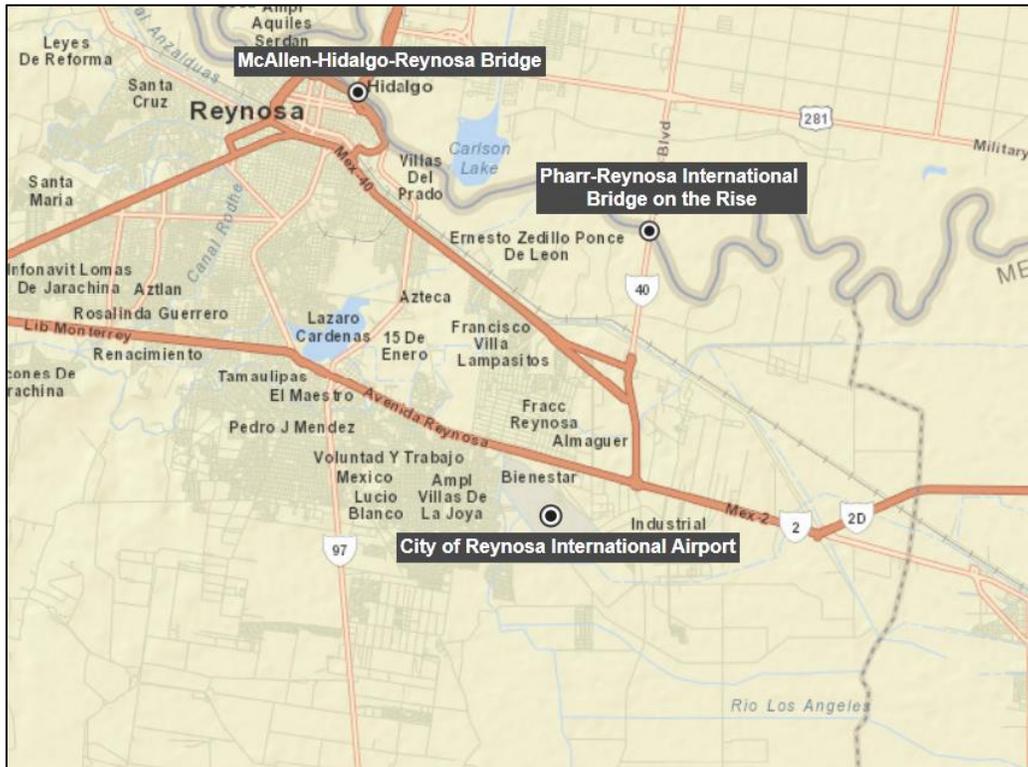


Figure 4.63: City of Reynosa International Airport

Planned Changes in Infrastructure (Present to 2030)

The State of Tamaulipas and Municipality of Reynosa are currently developing a loop around the City of Reynosa (Reynosa bypass).

4.3 Starr County/Municipalities of Camargo and Miguel Alemán

There are two bridge crossings and one dam crossing in Starr County and the Municipalities of Carmago and Miguel Alemán. Both bridges serve pedestrian, non-commercial, and commercial vehicles. The Lake Falcon Dam Crossing is the only dam crossing in the Focused Study Area and serves only non-commercial vehicles. The specific transportation modes served by each of the facilities is provided in Table 4.15. (No rail crossing is available in Starr County.)

Table 4.15: Summary of Starr County/Municipalities of Camargo and Miguel Alemán Bridges, Dam Crossing, and Airport

Bridge/Crossing	Location	Pedestrians	Non-commercial Vehicles	Commercial Vehicles	Rail
Rio Grande City-Camargo Bridge	Rio Grande City/Camargo	Yes	Yes	Yes	No
Roma-Ciudad Miguel Alemán Bridge	Roma/Ciudad Miguel Alemán	Yes	Yes	Yes	No
Lake Falcon Dam Crossing	Falcon Heights/Ciudad Guerrero	No	Yes	No	No
Rio Grande City Municipal Airport	Rio Grande City	Yes	N/A	N/A	N/A

4.3.1 Rio Grande City-Camargo Bridge

The Rio Grande City-Camargo Bridge opened in 1966.⁶ The U.S. side of the bridge is owned and operated by the Starr-Camargo Bridge Company. The Mexican side of the bridge is owned by the Mexican Government and operated by CAPUFE. The bridge has two lanes and is 591 feet long.

The bridge is located between Rio Grande City and Las Lomas off of Pete Díaz Avenue and US 83 on the U.S. side, and off of Obreros Mexicanos north of Ciudad Camargo, Tamaulipas, on the Mexican side. The crossing is also known locally as the Starr-Camargo Bridge and Puente Camargo.

Border Station

The original U.S. border station (LPOE Rio Grande) was constructed in 1969 by the Starr-Camargo Bridge Company, which also constructed the new border station in 1999. GSA leases the new border station from the Starr-Camargo Bridge Company.⁶ On the Mexican side, the current border station has been in operation since 1968. In 2003, the Mexican Government signed a contract to purchase land for the expansion of the border station in Camargo and to remodel the existing facility. It has since been developed into a state-of-the-art facility and is now recognized as one of Mexico’s top 25 POEs.⁶

Hours of Operation

The bridge currently operates from 7:00 a.m. to 12:00 a.m. 365 days a year.

Tolls

Table 4.16 lists the southbound toll rates for the Rio Grande City-Camargo Bridge. Table 4.17 provides the northbound toll rates.

Table 4.16: Toll Rates for Rio Grande City-Camargo Bridge (Southbound)

Mode	Toll Rate (US\$)
Pedestrian or Bicycle	0.25
Non-commercial Vehicle	3.00
Non-commercial Pickup with Dolly	4.25 (3 Axles)
Commercial Vehicle with Trailer	6.25 (3 Axles)
Commercial Vehicle (Empty)	10.25
Commercial Vehicle (Loaded)	12.25

Source: Starr Camargo Bridge Company⁴⁸

Table 4.17: Toll Rates for Rio Grande City-Camargo (Northbound)

Mode	Toll Rate (US\$)
Pedestrian or Bicycle	0.25
Motorcycle	1.05
Non-commercial Auto or Pickup	2.10
Extra Axle for Non-Commercial Vehicle	1.21
Passenger Bus (2, 3, and 4 Axles)	4.33
Commercial Truck (2, 3, and 4 Axles)	4.33
Commercial Truck (5 and 6 Axles)	9.27
Commercial Truck (7, 8, and 9 Axles)	14.50
Extra Axle for Commercial Vehicle	2.42

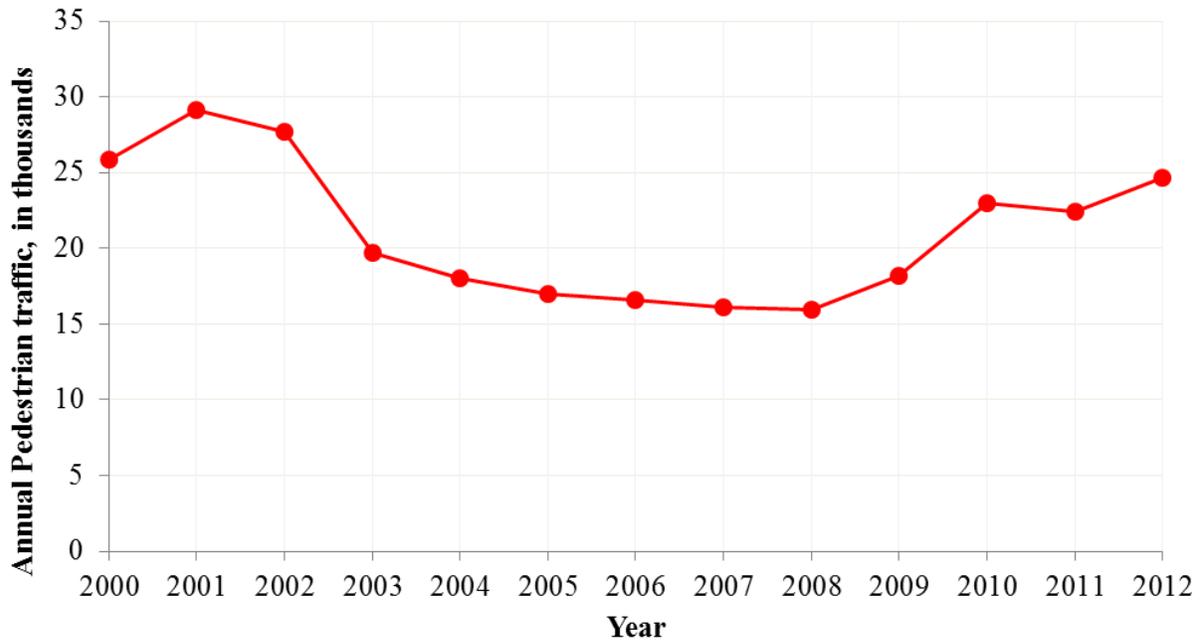
Note: Exchange rate = MXN 12.40 per US \$1.

Source: CAPUFE⁸

Bridge Crossings

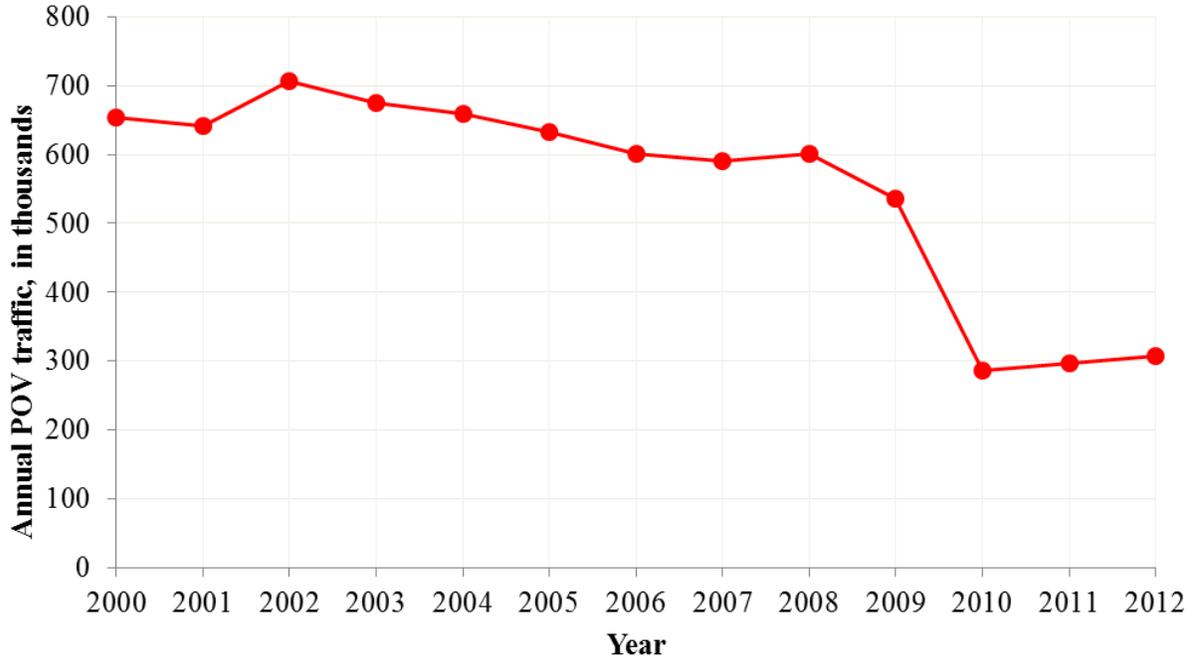
Figures 4.64 through 4.66 illustrate the number of northbound bridge crossings by mode at the Rio Grande City-Camargo Bridge between 2000 and 2012. Figures 4.67 through 4.69 illustrate the number of southbound crossings at the Rio Grande City-Camargo Bridge between 2000 and 2010—the latest year for which reliable data were available.

Northbound Crossings: Since the peak of 29,146 northbound pedestrian crossings in 2001, the annual number of northbound crossings decreased every year to reach its lowest level of 15,941 in 2008, a decrease of 45.3 percent. As of 2008, the number of northbound crossings increased in 2009 (14.3 percent relative to 2008) and 2010 (26.0 percent relative to 2009) before decreasing marginally (2.3 percent) to reach 22,417 in 2011 (see Figure 4.64). In 2012, however, the number of northbound pedestrian crossings increased 9.9 percent relative to 2011 to reach 24,634 crossings.



Source: CBP⁹

Figure 4.64: Rio Grande City-Camargo Bridge—Northbound Pedestrian Crossings



Source: CBP⁹

Figure 4.65: Rio Grande City-Camargo Bridge—Northbound POV Crossings



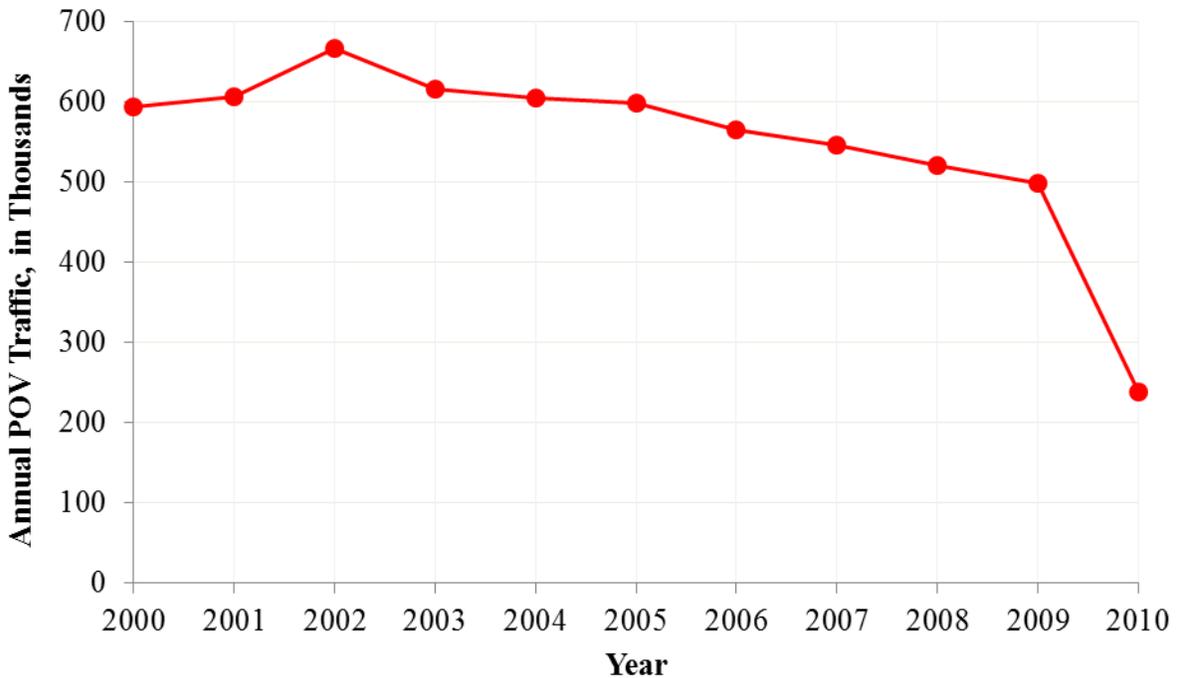
Source: CBP⁹

Figure 4.66: Rio Grande City-Camargo Bridge—Northbound Commercial Truck Crossings



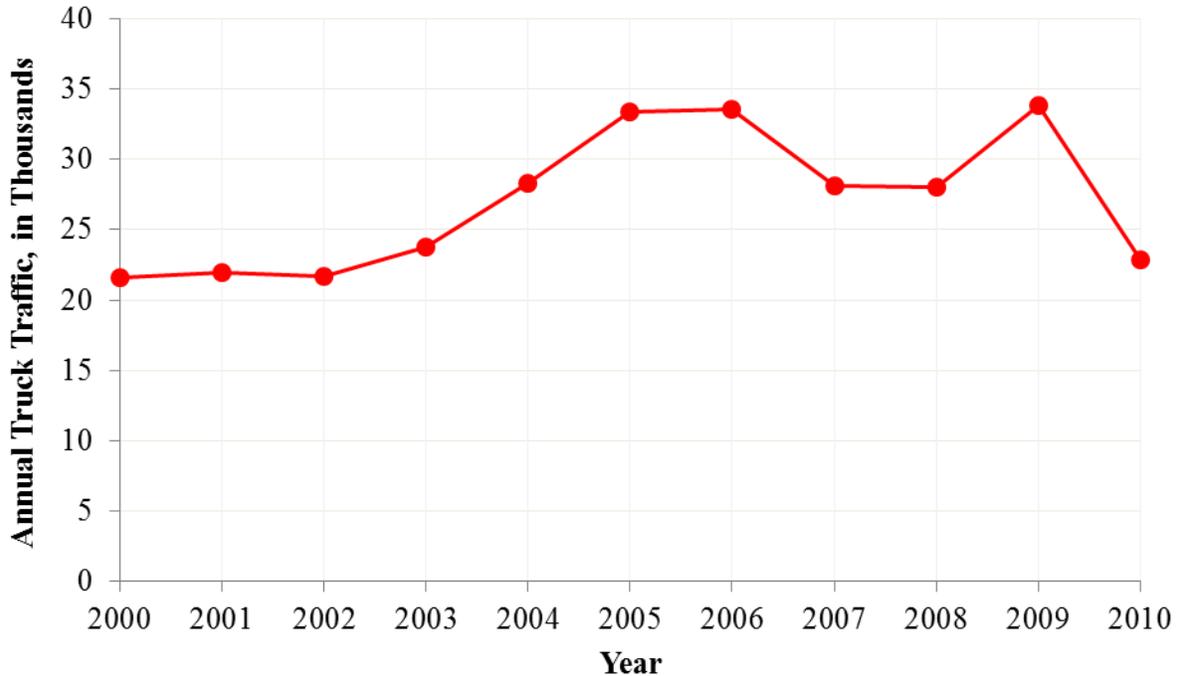
Source: Texas A&M International University, Texas Center for Border Economic and Enterprise Development¹⁰

Figure 4.67: Rio Grande City-Camargo Bridge—Southbound Pedestrian Crossings



Source: Texas A&M International University, Texas Center for Border Economic and Enterprise Development¹⁰

Figure 4.68: Rio Grande City-Camargo Bridge—Southbound POV Crossings



Source: Texas A&M International University, Texas Center for Border Economic and Enterprise Development¹⁰

Figure 4.69: Rio Grande City-Camargo Bridge—Southbound Commercial Truck Crossings

Figure 4.65 shows that the number of northbound POV crossings decreased almost every year between the 2002 peak year (when 706,674 northbound POV crossings were recorded) and 2010 (when the lowest level of 285,880 northbound POV crossings were recorded). The only exception was 2008 when a marginal increase (1.8 percent) in the annual number of northbound POV crossings was recorded relative to 2007. Between 2010 and 2012, the annual number of northbound POV crossings increased 7.5 percent to reach 307,372 in 2012.

According to available data, two buses crossed northbound at the Rio Grande City-Camargo Bridge in 2001, three in 2002, and seven in 2006. No other northbound bus crossings were reported between 2000 and 2012.⁹

Figure 4.66 shows that the number of northbound commercial truck crossings increased consistently between 2000 and 2005 to reach a peak of 46,308, an increase of 92.4 percent. However, between 2005 and 2010, the number of northbound commercial truck crossings decreased 53.6 percent to reach the lowest number of annual northbound commercial truck crossings recorded at the Rio Grande City-Camargo Bridge in 2010 with 21,503. Between 2010 and 2012, however, the number of northbound commercial truck crossings increased 35.6 percent to reach 29,160 crossings in 2012.

Southbound Crossings: Figure 4.67 shows the dramatic decrease (98.7 percent) in annual southbound pedestrian crossings at the Rio Grande City-Camargo Bridge between 2000 and 2010. Specifically, the number of southbound pedestrian crossings decreased from a high of 10,356 in 2000 to a low of 133 in 2010.

Figure 4.68 shows that the number of annual southbound POV crossings decreased from a peak of 666,433 in 2002 to the lowest value of 238,554 in 2010, a decrease of 64.2 percent.

Annual southbound commercial truck crossings at the Rio Grande City-Camargo Bridge increased 55.5 percent between 2002 and 2006, decreased 16.3 percent in 2007, and increased again 20.5 percent between 2007 and 2009 to reach 33,817 crossings in 2009. In 2010, however, the number of southbound commercial truck crossings decreased 32.4 percent relative to 2009 to reach 22,870 crossings (see Figure 4.69).

Primary Roadways Serving Rio Grande City-Camargo Bridge

Figure 4.70 shows the location of the Rio Grande City-Camargo Bridge. On the U.S. side, Pete Diaz Junior Avenue connects directly to the Rio Grande City-Camargo Bridge and US 83. FM 755 intersects US 83 about 0.5 miles north of the bridge. The AADT on US 83—a four-lane divided facility—was 35,000 vehicles in 2010, of which 9.1 percent were trucks. In 2010, 13.25 accidents were reported per mile of this facility, and the LOS on US 83 was C.

On the Mexican side, MEX 2 connects Ciudad Camargo with Ciudad Miguel Alemán to the northwest and Ciudad Gustavo Díaz Ordaz to the southeast. Libertad intersects with the four-lane MEX 2 on the south side of the city, changes to Avenida Ensenada, and runs north to connect to the Rio Grande City-Camargo Bridge. The AADT on Avenida Ensenada was 830 vehicles in 2011.⁴⁴

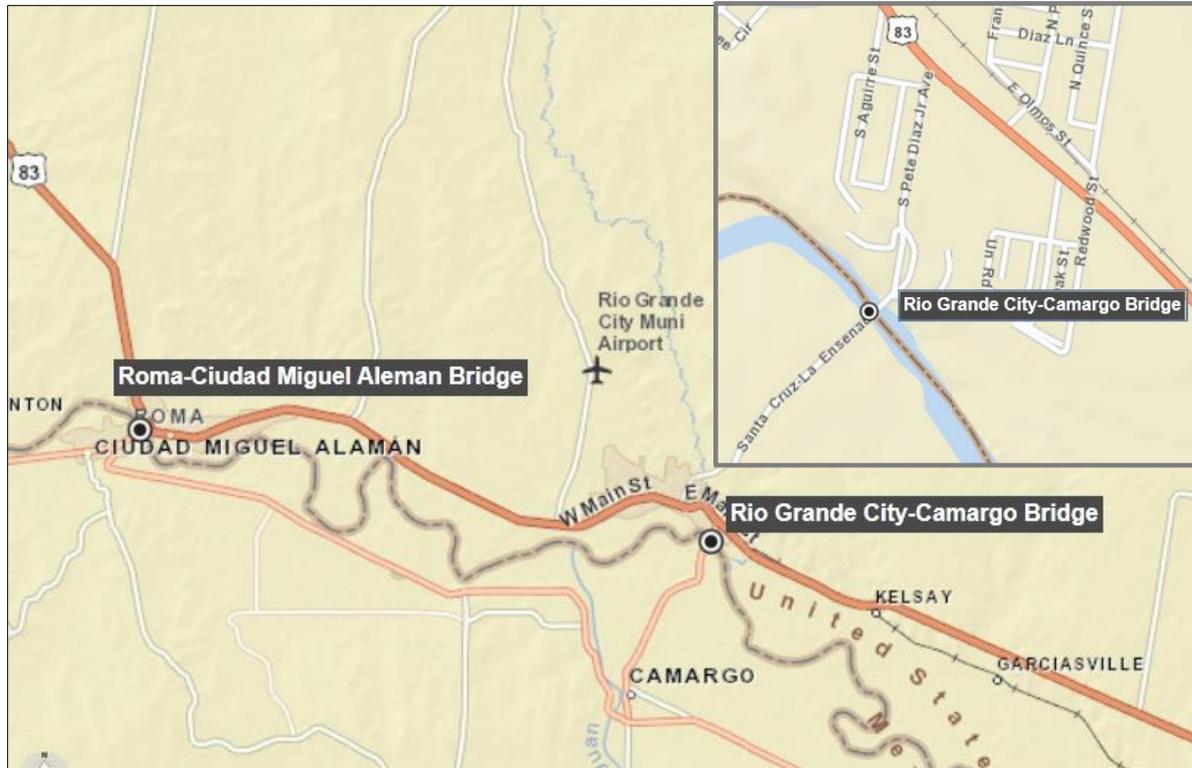


Figure 4.70: Rio Grande City-Camargo Bridge

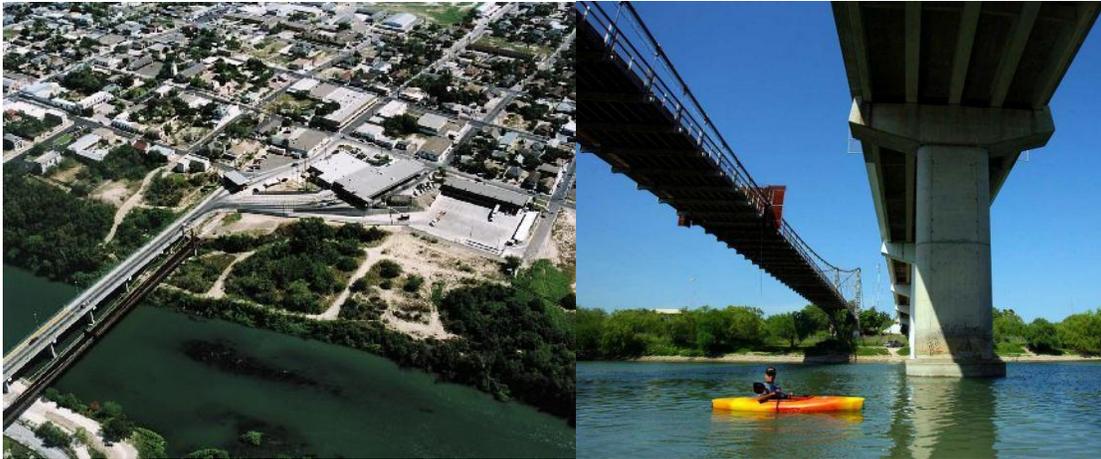
Planned Changes in Infrastructure (Present to 2030)

On the U.S. side, several projects are planned along the FM 755 corridor. The first project involves realigning FM 755 to divert traffic from the Rio Grande City-Camargo Bridge away from populated areas in Rio Grande City (TxDOT Project 1103-04-027). This link should also divert some of the traffic between the bridge and Rio Grande City away from US 83 North, alleviating congestion on US 83 and improving the LOS on this facility. This project is included in the STIP. In addition, TxDOT also plans to construct the Roma/Rio Grande City Relief Route, which is expected to divert some traffic away from FM 755 (TxDOT Project 0921-26-004). This project is also included in the STIP.

On the Mexican side, the Comité de Desarrollo Inter-municipal (CODEIM) is working on widening the road south of Camargo to Monterrey (known as La Ruta Corta) and is seeking to connect to the Reynosa/Cadereyta toll road.⁶

4.3.2 Roma-Ciudad Miguel Alemán Bridge

Two bridges between Roma and Ciudad Miguel Alemán share the same location and border station, but only one bridge is operational. Figure 4.71 shows both bridges: the operating and functional bridge (the Roma-Ciudad Miguel Alemán Bridge) and the closed suspension bridge (the San Pedro-Roma International Bridge).



Source: (a) Texas A&M University, TTI, and the Center for Transportation Research (CTR); and (b) mysanantonio.com

Figure 4.71: Bridges between Roma and Ciudad Miguel Alemán—Operating Concrete Bridge and Closed Suspension Bridge

The San Pedro-Roma Suspension Bridge was built in 1927 and became operational on 1928. The bridge was operated as a toll crossing of the Rio Grande River until it was closed to all traffic in 1978, when the new concrete bridge was built adjacent to the old suspension bridge.⁴⁹

The Roma-Ciudad Miguel Alemán Bridge is a concrete structure built in 1978–1979. On the U.S. side, it is owned and operated by Starr County. On the Mexican side, the bridge is owned by the Government of Mexico and operated by CAPUFE. It has two lanes and is 810 feet long.

Both bridges are located in Roma near US 83 and Spur 200/West Bravo Boulevard on the U.S. side. On the Mexican side, they are on the northern terminus of MEX 2 in Ciudad Miguel Alemán, Tamaulipas. These crossings are known locally as the Starr County International Bridge, Roma Bridge, and Puente Roma-Miguel Alemán and San Pedro-Roma Bridge.

Border Station

The U.S. border station (LPOE Roma) is owned by Starr County and was completed in 1988. GSA leases the facilities.⁶ On the Mexican side, the border station was constructed in 1943 and renovated in 1991.⁶ The Mexican Government plans to expand and modernize the customs facilities.⁶

Hours of Operation

The Roma-Ciudad Miguel Alemán Bridge currently operates 24 hours a day 365 days a year for POVs and from 10:00 a.m. to 6:00 p.m. Monday through Friday for commercial/cargo vehicles.

Tolls

Table 4.18 provides the southbound toll rates for the Roma-Ciudad Miguel Alemán Bridge as of January 2012. Table 4.19 provides the northbound toll rates as of November 2012.

Table 4.18: Toll Rates for Roma-Ciudad Miguel Alemán Bridge (Southbound)

Mode	Toll Rate (US\$)
Pedestrian or Bicycle	0.50
Non-commercial Auto or Pickup (2 Axles)	3.00
Extra Axle for Non-commercial Vehicle	1.00
Commercial Vehicle (2 Axles)	6.00
Extra Axle for Commercial Vehicle	2.00
Bus	20.00

Source: Starr Camargo Bridge Company⁴⁸

Table 4.19: Toll Rates for Roma-Ciudad Miguel Alemán Bridge (Northbound)

Mode	Toll Rate (US\$)
Pedestrian or Bicycle	0.25
Motorcycle	1.05
Non-commercial Auto or Pickup	2.10
Extra Axle for Non-commercial Vehicle	1.21
Passenger Bus (2, 3, and 4 Axles)	4.33
Commercial Truck (2, 3, and 4 Axles)	4.33
Commercial Truck (5 and 6 Axles)	9.27
Commercial Truck (7, 8, and 9 Axles)	14.50
Extra Axle for Commercial Vehicle	2.42

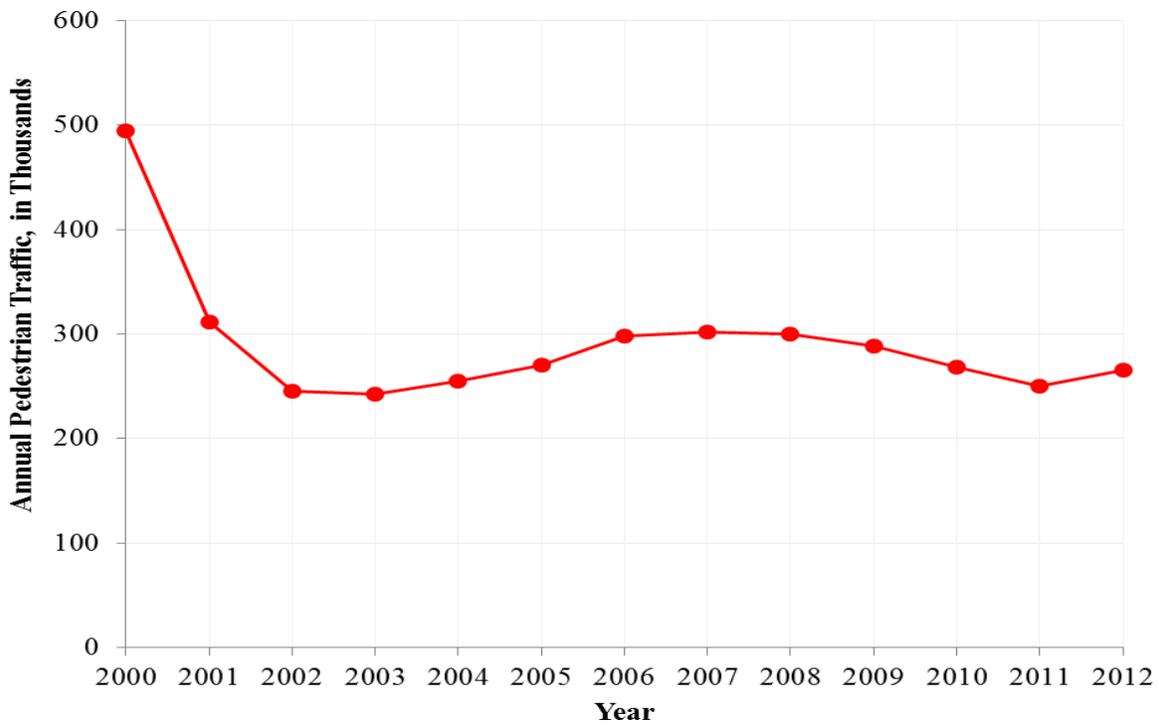
Note: Exchange rate = MXN 12.40 per US \$1.

Source: CAPUFE⁸

Bridge Crossings

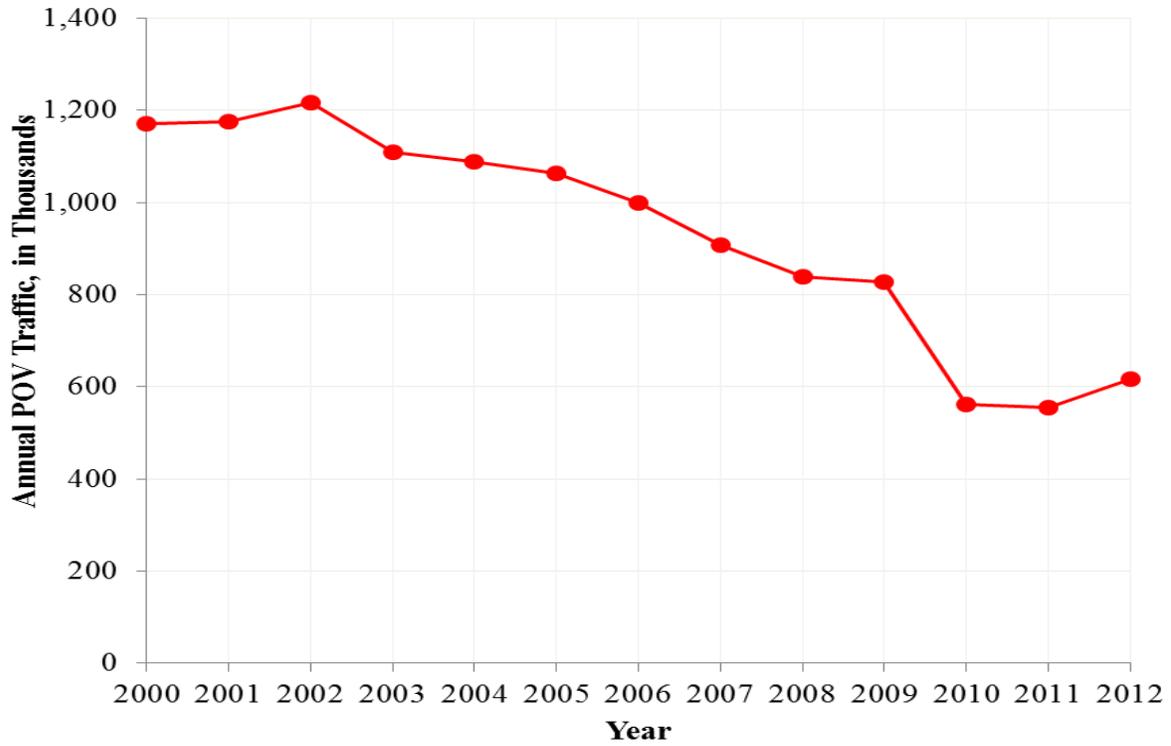
Figures 4.72 through 4.75 illustrate the number of northbound bridge crossings by mode at the Roma-Ciudad Miguel Alemán Bridge between 2000 and 2012. Figures 4.76 through 4.78 illustrate the number of southbound crossings at the Roma-Ciudad Miguel Alemán Bridge between 2000 and 2012.

Northbound Crossings: Figure 4.72 shows that the northbound pedestrian crossings at the Roma-Ciudad Miguel Alemán Bridge peaked at 494,713 crossings in 2000. The number of northbound pedestrian crossings, however, decreased 50.4 percent between 2000 and 2002. Since 2002, the annual number of northbound pedestrian crossings increased every year until 2007. Between 2002 and 2007, the annual number of northbound pedestrian crossings increased 22.9 percent. Between 2007 and 2011, however, the annual number of northbound pedestrian crossings decreased every year to reach 250,307 in 2011. In 2012, the number of northbound pedestrian crossings increased 6.3 percent relative to 2011 to reach 266,021.



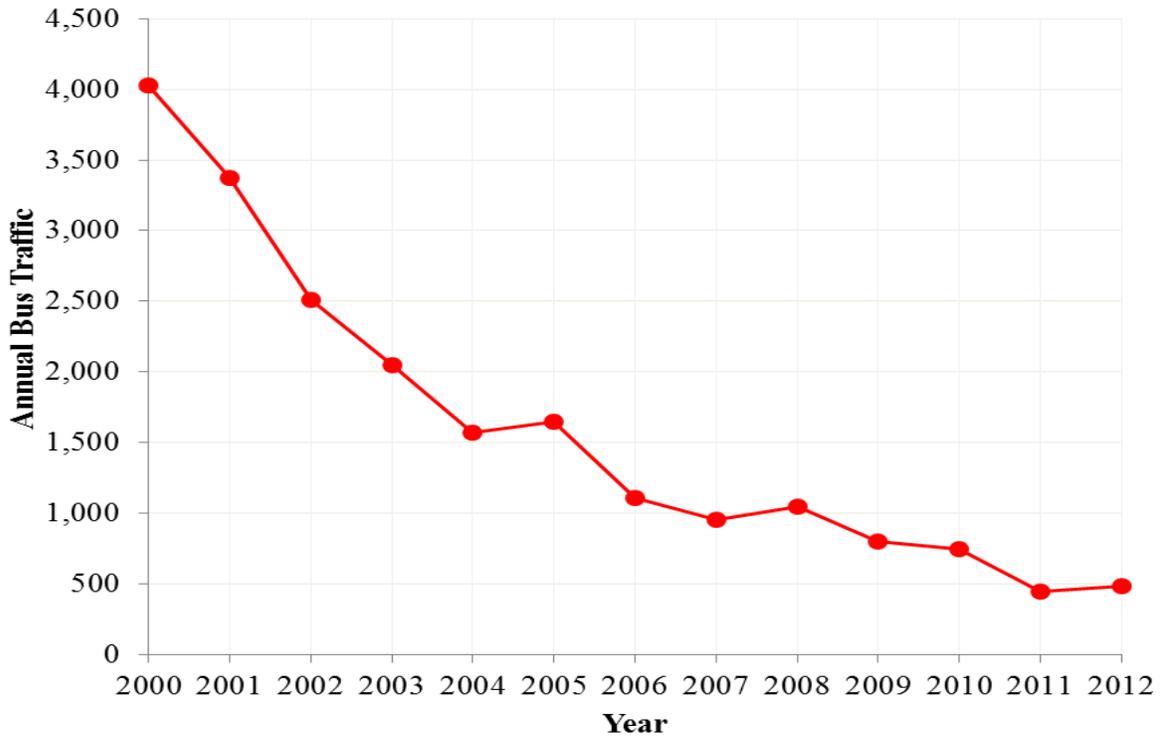
Source: CBP⁹

Figure 4.72: Roma-Ciudad Miguel Alemán Bridge—Northbound Pedestrian Crossings



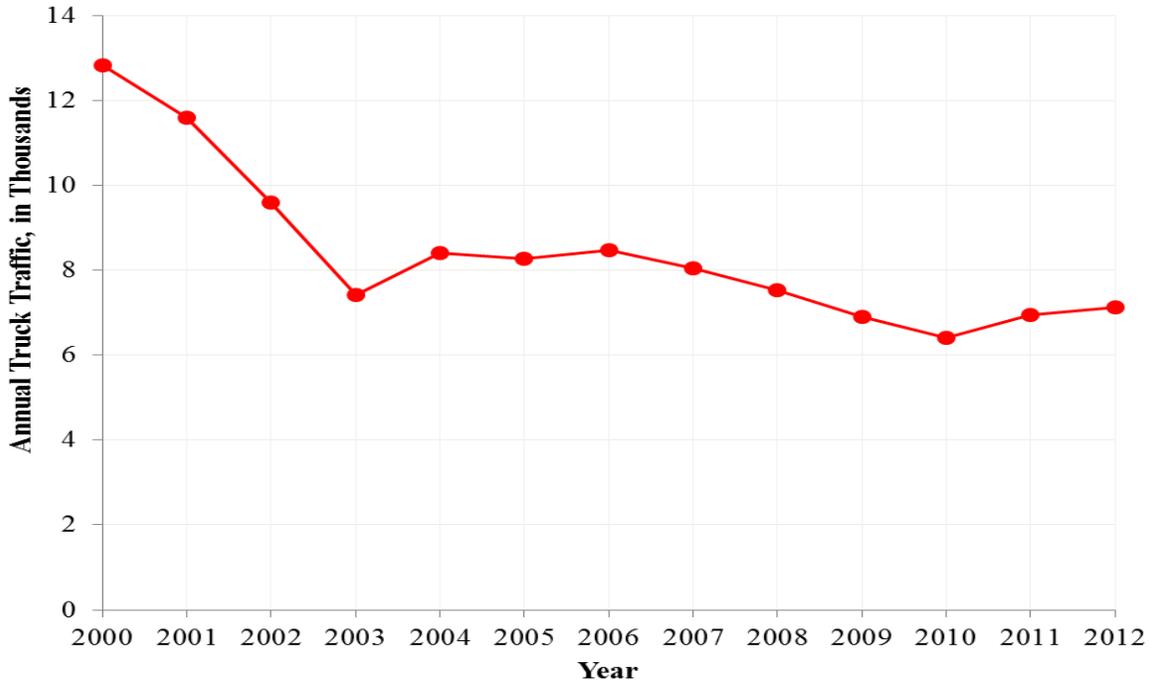
Source: CBP⁹

Figure 4.73: Roma-Ciudad Miguel Alemán Bridge—Northbound POV Crossings



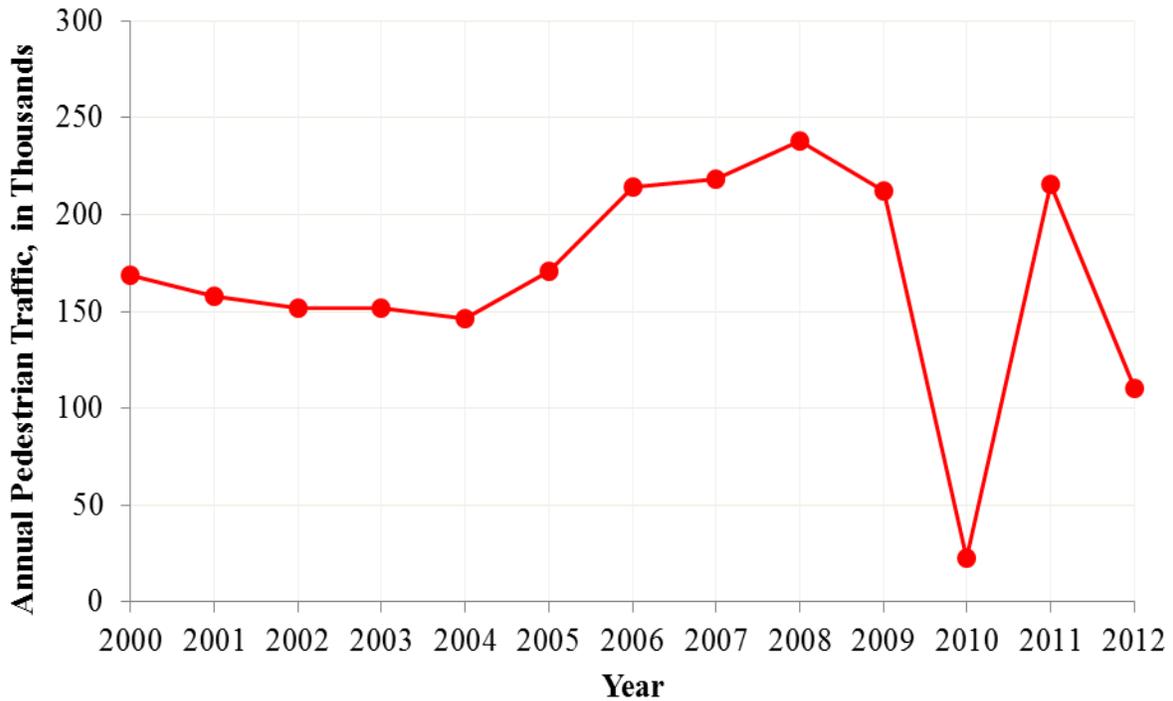
Source: CBP⁹

Figure 4.74: Roma-Ciudad Miguel Alemán Bridge—Northbound Bus Crossings



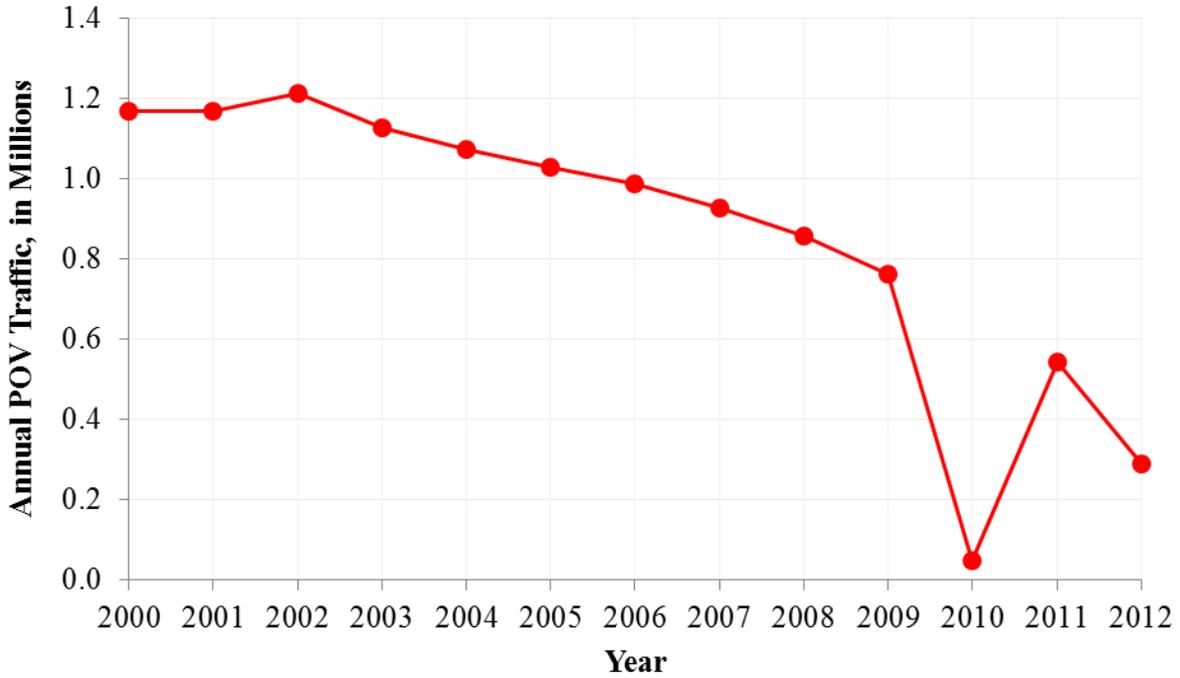
Source: CBP⁹

Figure 4.75: Roma-Ciudad Miguel Alemán Bridge—Northbound Commercial Truck Crossings



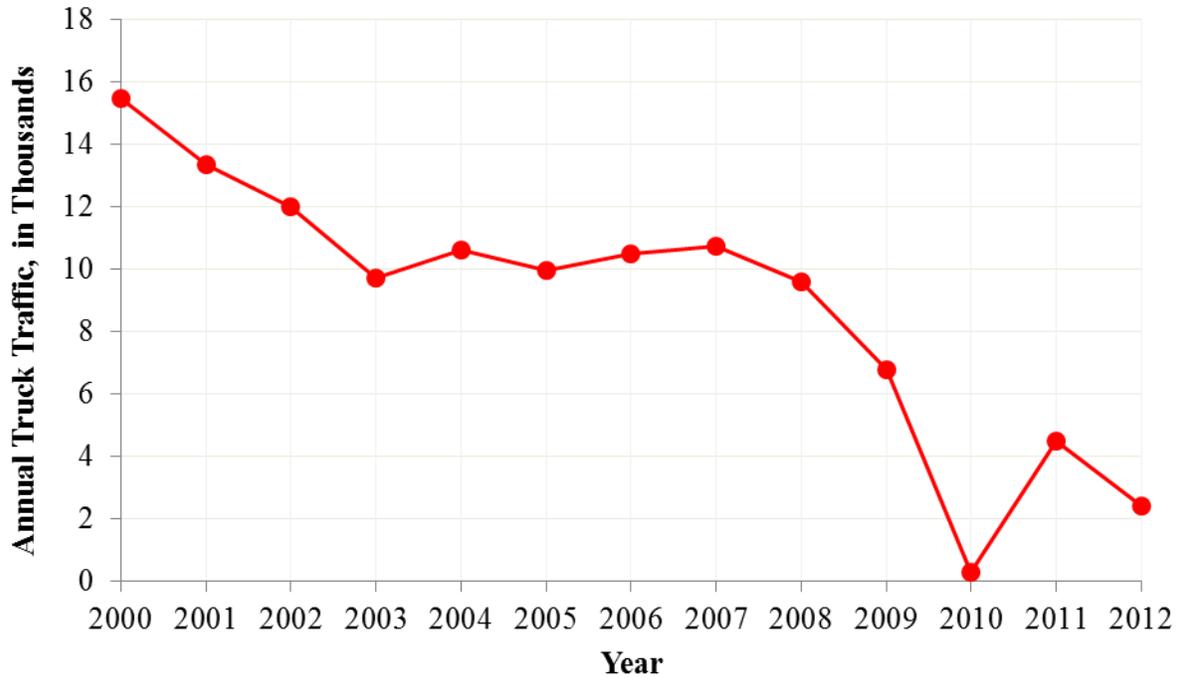
Source: Texas A&M International University, Texas Center for Border Economic and Enterprise Development¹⁰

Figure 4.76: Roma-Ciudad Miguel Alemán Bridge—Southbound Pedestrian Crossings



Source: Texas A&M International University, Texas Center for Border Economic and Enterprise Development¹⁰

Figure 4.77: Roma-Ciudad Miguel Alemán Bridge—Southbound POV Crossings



Source: Texas A&M International University, Texas Center for Border Economic and Enterprise Development¹⁰

Figure 4.78: Roma-Ciudad Miguel Alemán Bridge—Southbound Commercial Truck Crossings

The annual number of northbound POV crossings has decreased consistently between 2002 and 2011. Since the 2002 peak year when 1,216,091 crossings were recorded, the annual number of northbound POV crossings decreased 54.3 percent to reach 555,726 in 2011. In 2012, the number of northbound POV crossings increased 11.2 percent relative to 2011 to reach 617,848 (see Figure 4.73).

Figure 4.74 illustrates that the number of northbound bus crossings decreased from 4,031 in 2010 to 445 in 2011, a decrease of 89.0 percent. In 2012, the number of northbound bus crossings increased 9.2 percent relative to 2011 to reach 486.

The number of northbound commercial truck crossings decreased 42.1 percent from its peak year in 2000 to 2003. This was followed by a period of four years (2004 to 2007) during which the annual number of northbound commercial truck crossings fluctuated between 8,050 and 8,467. Between 2007 and 2010, the annual number of northbound commercial truck crossings decreased 20.3 percent to reach its lowest value of 6,417 in 2010. Since 2010, the annual number of northbound commercial truck crossings, however, increased 11.1 percent to reach 7,130 crossings in 2012 (see Figure 4.75).

Southbound Crossings: As shown in Figure 4.76, annual southbound pedestrian crossings at the Roma-Ciudad Miguel Alemán Bridge decreased 13.6 percent between 2000 and 2004. Between 2004 and 2008, annual southbound pedestrian crossings increased 63.0 percent to reach 238,233 crossings in 2008. Between 2008 and 2010, however, the number of southbound pedestrian crossings decreased 90.5 percent to reach the lowest level of 22,701 in 2010. Since 2010, the number of southbound crossings increased 851.2 percent in 2011 before decreasing again 48.8 percent in 2012 to reach 110,528 crossings in 2012.

Annual southbound POV crossings at the Roma-Ciudad Miguel Alemán Bridge decreased 95.9 percent from the peak of 1,211,853 crossings in 2002 to the lowest level of 49,992 crossings in 2010. Since 2010, the number of southbound crossings increased 988.7 percent in 2011 before decreasing again 46.8 percent in 2012 to reach 289,618 crossings in 2012 (see Figure 4.77).

Figure 4.78 shows annual southbound commercial truck crossings at the Roma-Ciudad Miguel Alemán Bridge decreased 56.1 percent between 2000 and 2009. Between 2000 and 2003, annual southbound crossings decreased 37.2 percent. This was followed by a period of four years (2004 to 2007) during which the annual number of southbound commercial truck crossings remained relatively constant, fluctuating between 9,965 and 10,746. Between 2007 and 2010, the annual number of southbound commercial truck crossings decreased 97.1 percent to reach its lowest value of 310 in 2010. Since 2010, the number of southbound crossings increased substantially in 2011 to reach 4,513 crossings

before decreasing again 46.5 percent in 2012 to reach 2,416 crossings in 2012 (see Figure 4.78).

Primary Roadways Serving Roma-Ciudad Miguel Alemán Bridge

Figure 4.79 shows the location of the Roma-Ciudad Miguel Alemán Bridge. On the U.S. side, Spur 200 is the primary access road to the Roma-Ciudad Miguel Alemán Bridge. Approximately 0.25 miles from the bridge, Spur 200 intersects US 83 and continues as Bravo Boulevard. For most of its length, Spur 200 is a two-lane roadway—one lane in each direction—from US 83 to the bridge. The AADT on Spur 200 was 1,000 vehicles in 2010, of which 10.3 percent were trucks. No accidents were reported on this facility in 2010, and the LOS on Spur 200 was A.

For most of its length, US 83 is a four-lane undivided highway that runs parallel to the U.S.-Mexico border on the U.S. side. In 2010, the AADT on US 83 was 10,800 vehicles, of which 6.4 percent were trucks. In 2010, 9.26 accidents were reported per mile of this facility, and the LOS was A.

On the Mexican side, MEX 2 connects Ciudad Miguel Alemán with Mier to the west and with Ciudad Camargo to the east. MEX 2 has four lanes at this location. Toward the northeast of Ciudad Miguel Alemán, MEX 2 branches off into Hidalgo and Zapata and directly connects to the Roma-Ciudad Miguel Alemán Bridge.

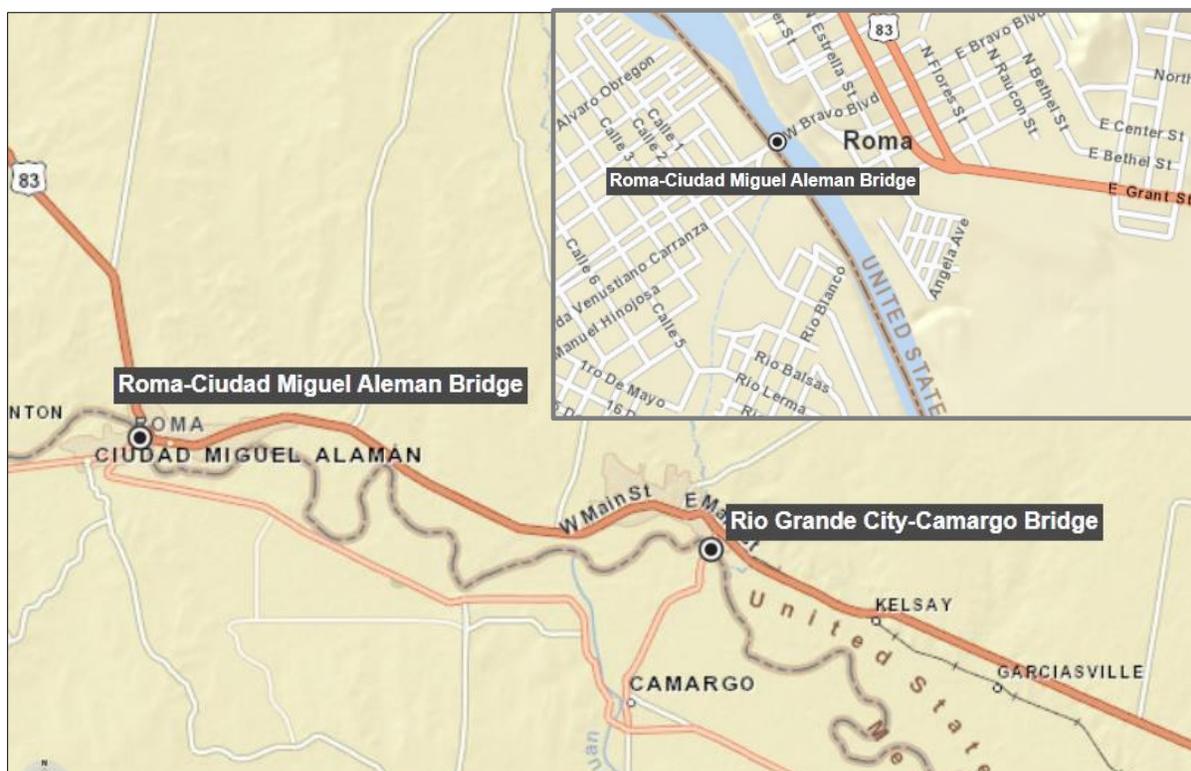


Figure 4.79: Roma-Ciudad Miguel Alemán Bridge

Planned Changes in Infrastructure (Present to 2030)

On the U.S. side, no planned infrastructure projects have been identified near the Roma-Ciudad Miguel Alemán Bridge.

4.3.3 Lake Falcon Dam Crossing

The Falcon Dam is a major multipurpose international dam and reservoir on the Rio Grande River. The Falcon Dam facilitates irrigation, flood releases, and electricity generation through a hydroelectric generating plant.⁵⁰ The Falcon Dam and Reservoir were built to provide a dependable water supply for crop growers in the Lower Rio Grande Valley delta and to provide recreational opportunities.

The Lake Falcon Dam Crossing is located off of FM 2098 near Falcon State Park in Falcon Heights on the U.S. side and near MEX 2 in Nuevo Ciudad Guerrero on the Mexican side. The crossing is also known locally as Falcon Dam, Puente San Juan, Presa Falcón, and Puente Internacional de la Presa.

Border Station

The Lake Falcon Dam Crossing is owned and operated by IBWC. The U.S. border station was constructed in 1960 by IBWC and expanded in 1977 and 1989. The border station was transferred from IBWC to CBP after construction of the dam. GSA completed renovation of the facility in March 2009.⁶

Hours of Operation

The bridge currently operates from 7:00 a.m. to 9:00 p.m. 365 days a year for POVs only.

Tolls

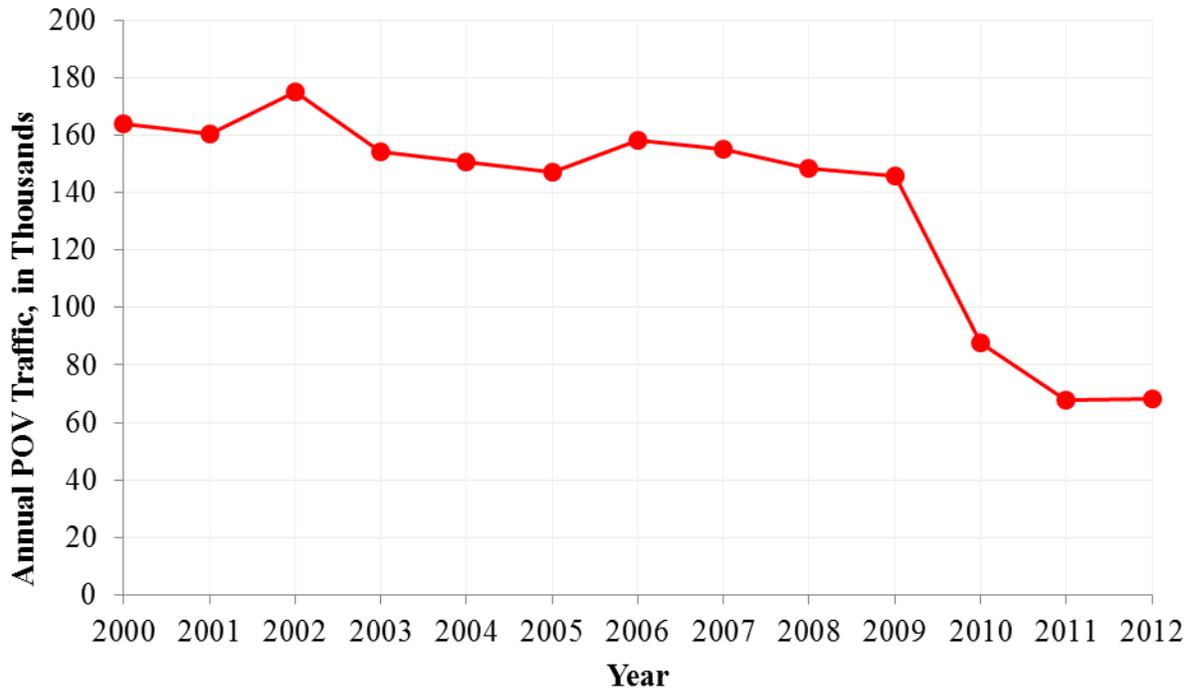
The Lake Falcon Dam Crossing does not charge any toll fees.

Dam Crossings

This section provides the northbound crossings at the Lake Falcon Dam Crossing by mode between 2000 and 2012. The available data revealed that four pedestrians crossed northbound at the Lake Falcon Dam Crossing in 2000 and one crossed in 2002. No other northbound pedestrian crossings were reported between 2000 and 2012. Similarly, the number of northbound bus crossings at the Lake Falcon Dam Crossing decreased from a peak of 52 buses in 2001 to 3 in 2004 and 4 in 2005. No northbound bus crossings have been reported since 2005.⁹

Figure 4.80 shows that the number of northbound POV crossings at the Lake Falcon Dam Crossing peaked in 2002 at 175,075 crossings. The 2002 peak year was

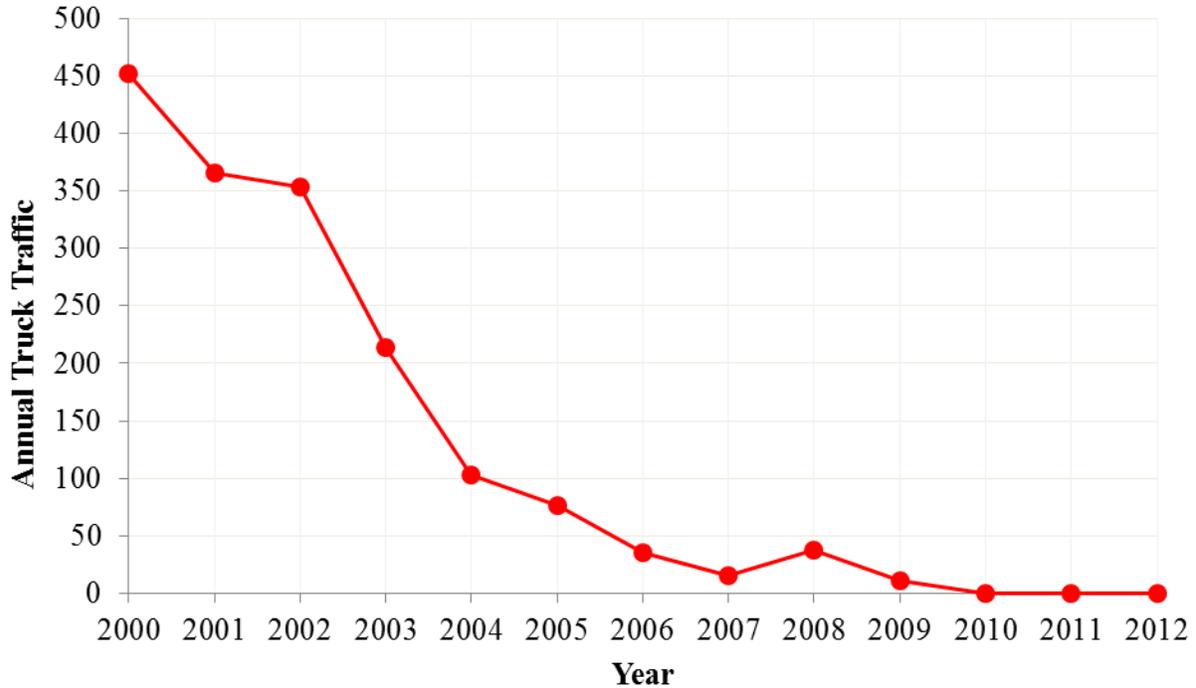
followed by a period of seven years (2003 to 2009) during which the annual number of northbound POV crossings ranged between 146,002 and 158,054. Between 2009 and 2011, the annual number of northbound POV crossings decreased 53.6 percent to reach its lowest value of 67,745 in 2011. In 2012, however, the number of northbound POV crossings increased marginally (1 percent) relative to 2011 to reach 68,387 crossings.



Source: CBP⁹

Figure 4.80: Lake Falcon Dam Crossing—Northbound POV Crossings

Figure 4.81 shows that the number of northbound commercial truck crossings decreased from a peak of 452 in 2000 to 11 in 2009. No northbound commercial truck crossings have been reported since 2009.



Source: CBP⁹

Figure 4.81: Lake Falcon Dam Crossing—Northbound Commercial Truck Crossings

Primary Roadways Serving Lake Falcon Dam Crossing

Figure 4.82 shows the location of the Lake Falcon Dam Crossing. On the U.S. side, FM 2098 is the primary access road to the Lake Falcon Dam Crossing. Approximately 2 miles from the crossing, FM 2098 intersects Park Road (PR) 46 and continues northeast to connect with US 83. For most of its length, FM 2098 is a two-lane undivided road. The AADT on FM 2098 was 620 vehicles in 2010, of which 3.1 percent were trucks. In 2010, 0.49 accidents were reported per mile of this facility, and the LOS was A.

PR 46 is a two-lane undivided facility that provides access to Falcon State Park. In 2010, the AADT on PR 46 was 600 vehicles, of which 6.3 percent were trucks. No accidents were reported on PR 46 in 2010, and the LOS was A.

In Mexico, Carretera A Septima Base Militar is the primary access road to the Lake Falcon Dam Crossing.



Figure 4.82: Lake Falcon Dam Crossing

Planned Changes in Infrastructure (Present to 2030)

No planned infrastructure projects have been identified near the Lake Falcon Dam Crossing.

4.3.4 Rio Grande City Municipal Airport

The Rio Grande City Municipal Airport is a single-runway public-use airport owned by the City of Rio Grande. It is located 3 nautical miles northwest of the CBD.

Hours of Operation

The airport operates from sunrise to sunset 365 days a year.

Primary Roadways Serving Rio Grande City Municipal Airport

Figure 4.83 shows the location of the Rio Grande City Municipal Airport. The Rio Grande City Municipal Airport is primarily served by FM 3167, which connects the airport to US 83. FM 3167 is a two-lane undivided facility. In 2010, the AADT on this facility was 12,200 vehicles per day, of which 12.1 percent were trucks. In 2010, 0.86 accidents were reported per mile on this facility, and the LOS on FM 3167 was C.

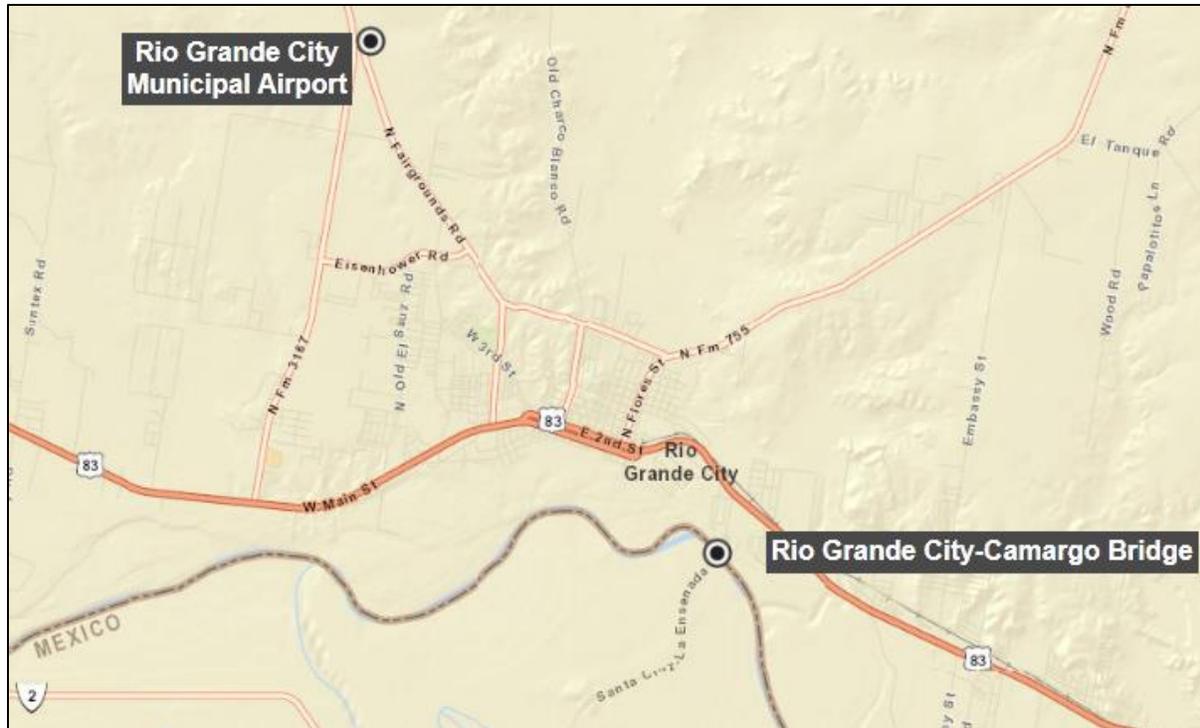


Figure 4.83: Rio Grande City Municipal Airport

Planned Changes in Infrastructure (Present to 2030)

No planned infrastructure projects have been identified near the Rio Grande City Municipal Airport.

4.4 Zapata County/Municipality of Guerrero

Currently there are no international bridges located in Zapata County.

4.4.1 Zapata County Airport

The Zapata County Airport is a single-runway public-use airport owned by the Zapata County. It is located 4 nautical miles northeast of Zapata.

Primary Roadways Serving Zapata County Airport

Figure 4.84 shows the location of the Zapata County Airport. The Zapata County Airport is 5 miles northeast of Zapata off of SH 16. For most of its length, SH 16 is a two-lane undivided highway that connects with US 83 to the south. The AADT on SH 16 was 9,900 vehicles in 2010, of which 14 percent were trucks. There were 0.04 accidents reported per mile on this facility in 2010, and the LOS was B.

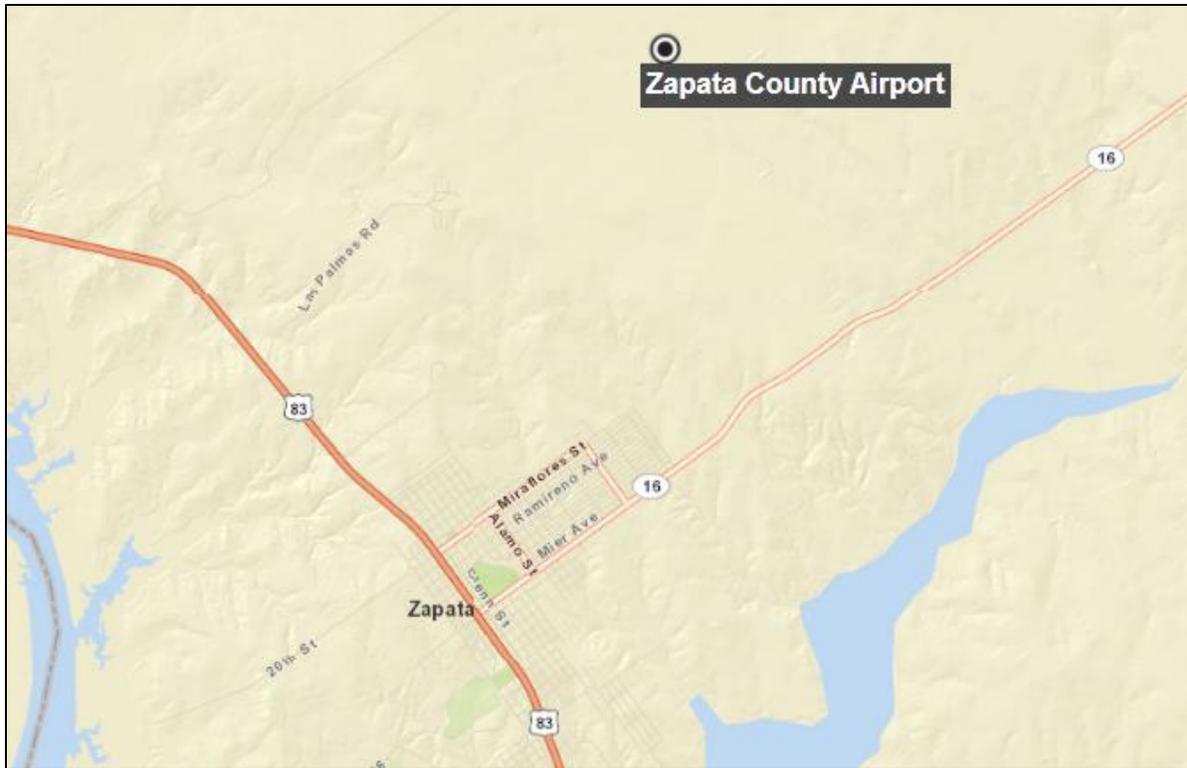


Figure 4.84: Zapata County Airport

US 83 is a four-lane undivided highway with a continuous left-turn lane in the middle. In 2010, the AADT on US 83 was 18,900 vehicles, of which 13.4 percent were trucks. The number of accidents per mile was 1.79 in 2010, and the LOS was A.

Planned Changes in Infrastructure (Present to 2030)

TxDOT plans to replace the bridge on US 83 located 1.8 miles south of SH 16 over the Arroyo Veleno (TxDOT Project 0038-04-054). Upon completion, this project will improve the structural capacity of the bridge and remove the need for the currently imposed load restrictions on the bridge, enhancing truck mobility in the region.

4.5 Rail Infrastructure in Focused Study Area

Figure 4.85 shows the rail infrastructure in the Focused Study Area. Five rail companies operate in the area: UPRR, KCSM, BRG, Rio Valley Switching Company (RVSC), and Border Pacific Railroad (BOP). This section highlights each of these rail companies.

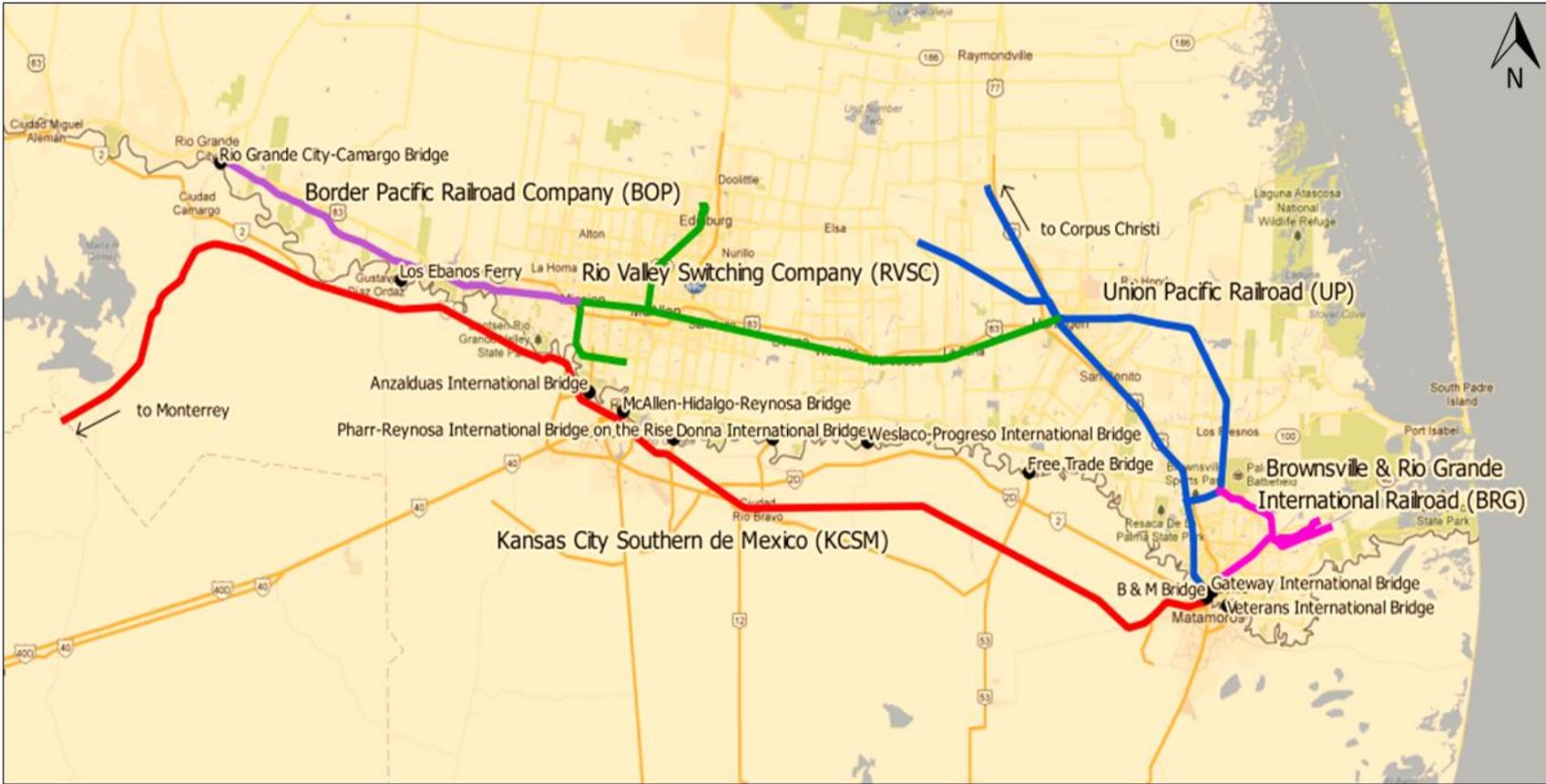


Figure 4.85: Focused Study Area—Existing Rail Infrastructure Map⁵¹

4.5.2 Union Pacific Railroad

UPRR is a Class I railroad that serves all major cities and gulf ports of Texas, as well as international gateways at El Paso, Eagle Pass, Laredo, and Brownsville. The railroad's diversified business portfolio includes agricultural, automotive, chemical, energy, and industrial products.⁵² In the Focused Study Area, UPRR travels northwest from the U.S.-Mexico border in Brownsville to connect to Harlingen, and then continues north toward Corpus Christi. In Harlingen, UPRR interchanges with RVSC to the west and has a small branch to the northwest that connects to Santa Rosa, Texas.

4.5.3 Kansas City Southern de Mexico

KCSM is an international subsidiary of the Kansas City Southern (KCS) transportation holding company. KCS owns the KCSM fleet and the rights to operate and maintain a rail system in Mexico through a concession from the Mexican Government. KCSM serves northeastern and central Mexico from Mexico City to the U.S.-Texas border at Nuevo Laredo and Matamoros, connecting also to the port cities of Lázaro Cárdenas, Tampico, and Veracruz.⁵³ KCSM thus connects the Gulf of Mexico and the Pacific Ocean to the U.S. border. In the Focused Study Area, KCSM connects with UPRR at the U.S.-Mexico border in Matamoros, travels west along the border to Reynosa and Camargo, and then heads southwest toward Monterrey (see Figure 4.85).

4.5.4 Brownsville and Rio Grande International Railroad

BRG is a short-line railroad that provides freight rail transportation to and from the Port of Brownsville. Although BRG is operated on behalf of the Brownsville Navigation District of Cameron County, it is managed and controlled separately. BRG rail traffic is interchanged with UPRR at UPRR's Olmito switchyard. BRG interchanges with BNSF through a haulage agreement between UPRR and BNSF by which UPRR hauls BNSF traffic from Houston to Brownsville and interchanges with BRG. Finally, BRG interchanges with KCSM through an intermediate switch with UPRR at the B&M Bridge.⁵⁴

4.5.5 Rio Valley Switching Company

RVSC, also known as the Valley Railroad, is a short-line railroad that interchanges with UPRR in Harlingen. From Harlingen, RVSC extends 55 miles west toward Mission and the McAllen foreign trade zone. A branch of RVSC also extends 11 miles north to Edinburg.⁵⁵

4.5.6 Border Pacific Railroad

BOP is a short-line railroad headquartered in Rio Grande City. BOP interchanges with RVSC in Mission and travels 32 miles west along the U.S.-Mexico border to Rio Grande City. The company mostly transports bulk freight such as silica sand, ballast, crushed stone, asphalt, scrap paper, and feed grains.⁵⁶

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- ² TxDOT, 2011, Texas-Mexico International Bridges and Border Crossings Existing and Proposed: 2011, http://ftp.dot.state.tx.us/pub/txdot-info/iro/2011_international_bridges.pdf (accessed June 2013).
- ³ CBP, personal communication with Mikhail Pavlov, August 2013.
- ⁴ SCT, 2011, Datos Viales, <http://dgst.sct.gob.mx/index.php?id=668> (accessed August, 2013). Although more recent versions were available (2012 data, published in 2013) 2010 was used in this chapter for consistency purposes.
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- ⁶ TxDOT, 2010, Texas-Mexico International Bridges and Border Crossings – Existing and Proposed: 2010.
- ⁷ Cameron County International Bridge System, Schedule of Toll Fares, <http://www.co.cameron.tx.us/dot/docs/newtolls.pdf> (accessed August 2013).
- ⁸ CAPUFE, Tarifas Vigentes en Autopistas, Caminos Directos y Puentes, Red FONADIN, Tarifas a partir del 14 de noviembre de 2012, <http://www.capufe.gob.mx/portal/wwwCAPUFE/ParaViajar/Tarifas/Tarifas100113.pdf> (accessed April 2013).
- ⁹ CBP, Texas Bridge Crossing Data from 2000 to 2012 (received March 2012 and June 2013).
- ¹⁰ Texas A&M International University, Texas Center for Border Economic and Enterprise Development, Border Crossings, http://texascenter.tamui.edu/texcen_services/border_crossings.asp (accessed June 2012).
- ¹¹ Commercial trucks are defined as two- to six-axle loaded and unloaded vehicles.
- ¹² *Level of service* is a term used to qualitatively describe the operating conditions on a road given factors such as speed, travel time, maneuverability, delay, and safety. The LOS of a facility is designated with letters A to F, where A represents free-flow operations and F represents a breakdown in vehicle flow.
- ¹³ INDAABIN, Puertos Fronterizos y Palacios Federales, 2013, <http://www.indaabin.gob.mx/gxportal51/page.aspx?2.servicios,puertos-fronterizos-y-palacios-federales,P,es,0> (accessed August 2013).

- 14 Disaggregate data for the southbound crossings at the Gateway International Bridge were not available. The total number of southbound crossings at the Veterans International Bridge at Los Tomates, Gateway International Bridge, and B&M Bridge connecting Brownsville and Matamoros is provided in the section on southbound crossings for the Veterans International Bridge at Los Tomates.
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- 17 B&M Express Bridge, 2013, information provided through private correspondence with Mr. Oscar Delgado, B&M Express Bridge’s accounting officer.
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