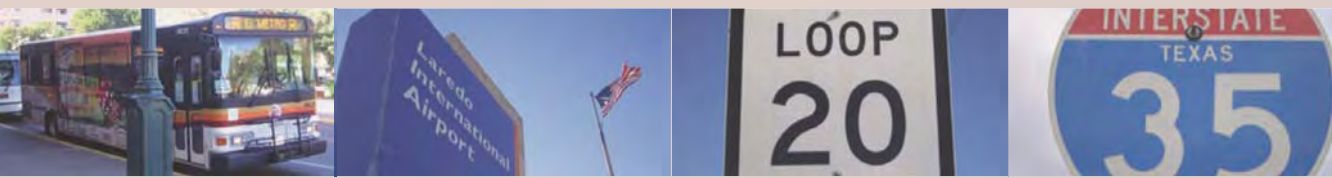


# Laredo

T E X A S

2010-2035 Metropolitan Transportation Plan



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# 2010-2035 METROPOLITAN TRANSPORTATION PLAN ADOPTED: DECEMBER 11, 2009



## ***Acknowledgements***

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# CHAPTER 1: PLANNING CONTEXT



## Introduction

A transportation system influences every aspect of a region's growth and prosperity because it acts as an important network, linking the various nodes of activity where people live, work, and play. Therefore, it is critical to plan a transportation network in a manner that provides for the safe, secure, efficient, and accessible mobility of people and goods. The **Laredo 2010-2035 Metropolitan Transportation Plan (MTP)** is the comprehensive, multimodal, and coordinated transportation plan for the Laredo metropolitan area. As such, the MTP seeks to promote strategies for operating, maintaining, managing, building, and financing the transportation network in order to advance the region's long-term goals and overall quality of life.

The MTP identifies policies, programs and projects for each mode of travel including roadways, public transit, bicycle, pedestrian facilities, aviation, rail, and freight movement that will be necessary to meet the region's transportation needs through the year 2035. Essentially, the MTP serves as a guide and blueprint for transportation improvements and investments in the Laredo region for the next 25 years

Within the Laredo MTP, current and future regional issues as well as existing transportation conditions are analyzed in order to prioritize future transportation programs and projects. Moreover, available financial resources and funds have also been identified in order to implement the programs and projects in the MTP.

The MTP was prepared by the Laredo Urban Transportation Study (LUTS), which acts as the Laredo Metropolitan Planning Organization (MPO), through a continuing, coordinating, and comprehensive effort that included input from a variety of stakeholders.

## Laredo MPO

A Metropolitan Planning Organization (MPO) is a federally mandated entity responsible for coordinating transportation planning, policies, and programming in urbanized areas with populations of 50,000 or more. The existence of MPOs are required in order to ensure that federally funded transportation projects and programs are based on a continuing, cooperative, and comprehensive (3-C) planning process. The Laredo Urban Transportation Study (LUTS), also known as the Laredo Metropolitan Planning Organization, is the designated MPO for the Laredo region responsible for transportation planning in accordance with the federal metropolitan planning requirements.

LUTS is required to work cooperatively with federal, state, and local governments and local transportation service providers within the context of a well defined metropolitan transportation planning process. LUTS does not lead the implementation of transportation projects, but rather serves as the venue for planning and programming for transportation improvements within the Laredo region. Furthermore, as required by federal legislation, LUTS must provide the public and interested parties with reasonable and meaningful opportunities to be involved in the transportation planning process.

## ***MPO Planning Documents***

In order to carry out its function as the coordinating agency for transportation planning, LUTS develops, implements, monitors, and updates a variety of transportation plans including the **Unified Planning Work Program (UPWP)**, the **Transportation Improvement Program (TIP)**, and this **Metropolitan Transportation Plan (MTP)**. The UPWP is essentially an annual work program and budget and identifies all activities to be undertaken by each member agency in a fiscal year. The TIP is the short-range program of transportation projects based on the long-range MTP and covers a period of four years. Finally, the MTP is the long-range, financially constrained transportation plan for the region covering a planning horizon of 25 years. According to federal law, all MTPs must be updated every four or five years. For the Laredo metropolitan area, the MTP must be updated every five years, because it is in attainment for certain air quality standards.

## ***MPO Structure***

LUTS is comprised of a policy committee, technical committee, and planning staff to support transportation planning activities. A set of by-laws, adopted in 1994 and subsequently revised in 1997, 2000, and 2007, establishes the structure and representation of the MPO. The Policy Committee, comprised of representatives from the city, county, and state, has the decision-making authority and is responsible for overseeing transportation planning efforts. The Technical Committee, comprised of representatives from the same entities plus those from school districts and the private sector, serves in an advisory role to the Policy Committee and is responsible for professional and technical review of work programs, policy recommendations, and transportation planning activities. City of Laredo Planning Department staff supports the efforts of both committees in transportation planning and works in cooperation with the Texas Department of Transportation (TxDOT) and other entities to carry out various planning tasks.

### ***MPO Policy Committee***

#### **City of Laredo**

**Mayor of Laredo (Chair)**

**Three (3) City Councilpersons**

#### **Webb County**

**County Judge (Vice Chair)**

**Two (2) County Commissioners**

#### **State of Texas**

**TxDOT Laredo District Engineer**

**TxDOT Laredo District Transportation  
Planning and Development Director**

## Legislative Mandates

In the mid-twentieth century, transportation planning was primarily focused on highway building and expansion to accommodate the increased use of automobiles. Through the decades, the focus has shifted to establishing a multimodal transportation system including roadways, public transit, and bicycling and pedestrian facilities. As a result, more recent transportation laws, regulations, and policies have encouraged the development of a multimodal transportation planning process. Recently, metropolitan transportation planning has been shaped and defined by three significant federal acts: the Intermodal Surface Transportation Efficiency Act (ISTEA), the Transportation Equity Act for the 21st Century (TEA-21), and the Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU).

**ISTEA**, signed into law on December 18, 1991, is heralded as the first piece of federal transportation legislation intended to define the federally aided transportation program in the post-Interstate Highway System era. This landmark transportation act diverged from traditional transportation planning requirements and advocated for a collaborative, integrated, and multimodal approach to transportation planning and funding. Further, it gave more powers to MPOs, provided for more flexible funding strategies, and required the consideration of many planning factors that addressed such societal issues as energy conservation, economic development, and system preservation.

**TEA-21** was enacted June 9, 1998 and authorized the federal surface transportation programs and funding from 1998 to 2003. TEA-21 continued many of the planning requirements of ISTEA and emphasized a total of seven planning factors for metropolitan and statewide transportation planning. As with ISTEA, there was a continued focus on public involvement in the planning process, but with an increased emphasis on including such stakeholders as transit operators and freight suppliers, as well as including traditionally underserved populations such as minorities and low-income groups. Additionally, there was added focus on environmental issues and an integration of environmental process requirements.

## *MPO Technical Committee*

### **City of Laredo**

City Bridge Director

City Engineering Director

City Planning Director

City Traffic Safety Director

El Metro General Manager

Laredo International Airport Director

Laredo Independent School District

United Independent School District

### **Webb County**

County Engineering Director

County Planning Director

County Rural Transit Director

South Texas Economic Development Representative

### **Texas Department of Transportation**

TxDOT Laredo District Transportation Planning and Development Director

TxDOT Laredo District Planning Coordinator (Vice-Chair)

TxDOT Laredo District Laredo Area Engineer

TxDOT Funding/Safety Administrator

TxDOT Transportation Planning and Programming Staff Member

### **Federal Highway Administration**

FHWA Planning Engineer

### **Private Sector**

Kansas City Southern Railroad

Union Pacific Railroad

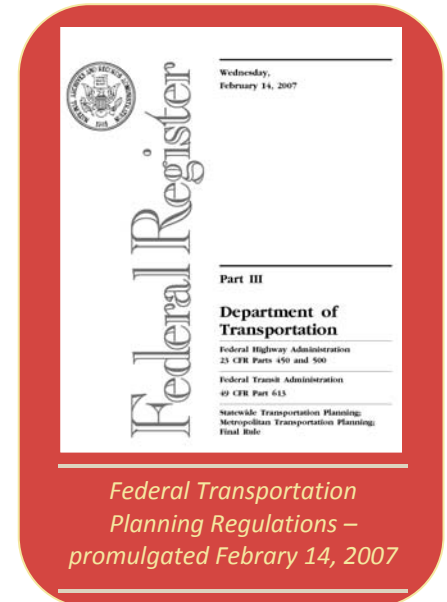
Transportation Service Provider

The latest surface transportation program legislative act, **SAFETEA-LU**, was signed into law on August 10, 2005, and authorized the federal surface transportation programs and funding from 2005 to 2009. The \$286 billion legislation represented the largest surface transportation investment in our country's history. SAFETEA-LU addresses several challenges prevalent in transportation today including improving safety and security, reducing traffic congestion, improving efficiency in freight movement, increasing intermodal connectivity, heightening public participation, and protecting the environment. Having expired on September 30, 2009, Congress is expected to begin working on a bill to replace SAFETEA-LU for the next six-year period.

SAFETEA-LU, built on the foundations of ISTEA and TEA-21, provided the primary authoritative direction for the development of the 2035 Laredo MTP and overall metropolitan transportation planning process. In particular, the updated requirements for metropolitan transportation planning included eight planning factors that must be considered in the planning process.

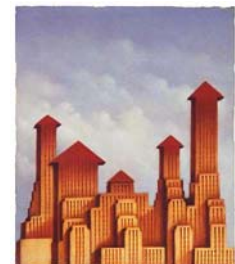
### **Transportation Planning Factors**

On February 14, 2007, the U.S. Department of Transportation promulgated the Final Rule on Statewide and Metropolitan Transportation Planning. Within 23 CFR § 450.306, a series of eight planning factors are identified and required to be considered in the metropolitan transportation planning process. The MPO's approach to these planning factors is as follows.



*Federal Transportation Planning Regulations – promulgated February 14, 2007*

**1. Economic Vitality:** The transportation network provides the region with access to jobs, shopping, education, and recreational activities. It also enables inter-regional travel and affects freight movement and international trade. Therefore, the transportation network must be planned for in such a way as to maintain mobility and increase system efficiency. The MTP provides recommendations for projects and strategies that should relieve congestion on key transportation corridors that provide access to primary activity centers such as jobs, schools, shopping, and other recreational activities. Further, improvements to infrastructure supporting freight movement and air travel is also considered in the MTP in order to increase regional and global competitiveness.



**2. Safety:** Motorized and non-motorized users of the transportation system expect and deserve a safe experience while travelling. As such, the Laredo MPO has developed this plan with safety considerations forefront in mind. Strategies to improve safety include developing transportation system management



techniques such as access management, system expansion projects within congested corridors to increase capacity, designing new facilities to meet current design standards, and reducing the number of at-grade intersections – especially for rail and vehicular traffic.

**3. Security:** In a post 9/11 and Katrina nation, concerns for security have gained more prominence in transportation planning. As a major international gateway, serious consideration has been given to possible threats, both natural and man-made, while developing this plan.



**4. Accessibility and Mobility:** Improving the mobility of both people and freight is a key objective of the Laredo MPO. By adding new transit centers, constructing new interchanges, building bikeways, planning for new freight railroad facilities and a new international border crossing, the MPO is performing the proper planning and making the necessary investments to increase the accessibility and mobility of both people and goods.

**5. Environment, energy conservation, planned growth:**

People are increasingly more conscious of their actions on the environment, making sure natural resources can sufficiently meet today's needs and those of future generations. As such, new technologies and alternative energy sources are becoming increasingly sought after. As growth and development occurs, the amount of travel increases, which in turn, leads to increased congestion, poorer air quality, and wasted fuel. Therefore, the MPO encourages smarter growth supported by sounder transportation investments in order to improve the quality of life for all residents in the Laredo region.



**6. Modal Integration and Connectivity:** The Laredo 2010-2035 MTP includes projects that support a balanced, multimodal system. Specifically, the MPO is investing in new transit centers, additional bike paths, and strategic additions to the roadway system, all of which promote better integration of modes and enhance system connectivity.

**7. System Management and Operation:** Getting the most out of the existing transportation infrastructure is a key goal of the Laredo MPO. By investing resources in ITS solutions, improving access management along existing roadways, and improving existing intersections and interchanges, the existing system can perform more efficiently. Moreover, by encouraging non-automobile methods of travel, the burden on the existing roadway system can be reduced.



**8. System Preservation:** While growth in the region certainly calls for increased transportation capacity, it is just as important to maintain the existing infrastructure in a state of good repair. As such, the Laredo MPO has dedicated 42% of available highway funding in this MTP to system preservation efforts.

## Additional Transportation Planning Factors

In addition to these federally mandated planning factors, the Laredo MPO has formally considered two additional factors in developing this MTP.

**9. Stewardship of financial resources:** It is essential that public dollars are spent in the best way possible. Because of this, it is important to prioritize projects and programs that most effectively and efficiently address the region’s transportation needs. The Laredo MPO has taken this role seriously and has developed an MTP that strikes the proper balance between preserving the existing transportation infrastructure and expanding its capacity to accommodate future growth.



**10. Consideration of all groups of people:** As with any public asset, it is important to ensure that all transportation resources and benefits are fairly distributed to all people, regardless of race, national origin, or income. This is especially important for minority, low-income, elderly, disabled, and other such historically underserved populations. The MPO has tried to maintain a level of social and geographic equity in the selection of its regional transportation investments.

## Development and Content of the Metropolitan Transportation Plan

Within 23 CFR § 450.322, specific requirements of the metropolitan transportation planning process and content of the MTP are outlined. The approach of the Laredo MPO to address these requirements is included in Table 1-1.

**Table 1-1: MTP Content Requirements**

<b>Content Requirement</b>	<b>Required Content in Laredo MTP</b>
<b>The transportation planning process shall address at least a 20-year planning horizon</b>	This plan has a 26 year planning horizon, covering the years from 2010 to 2035.
<b>The transportation plan shall include both long-range and short-range strategies that lead to an integrated multimodal transportation system</b>	The long-range MTP includes specific projects and strategies for all transportation modes, including roads, transit, bicycle/pedestrian facilities, aviation, rail, and intermodal facilities. Further, the needs of freight transportation have also been considered. The MTP categorizes projects as short-term (2010-2019) and long-term (2020-2035). In addition, the MTP includes illustrative projects that are beyond the financial capacity of the MTP. These projects are considered to be very long-term (beyond 2035). Should additional funding become available, it is expected that some of these projects would be moved to the long-term horizon.

**Table 1-1: MTP Content Requirements (continued)**

<b>Content Requirement</b>	<b>Required Content in Laredo MTP</b>
<b>The MPO shall review and update the transportation plan at least every four years in nonattainment areas and maintenance areas and at least every five years in attainment areas</b>	Because the Laredo metropolitan planning area is considered to be in attainment for ozone or carbon monoxide, the plan is on a five year update cycle. This MTP reflects a completely new, updated plan that supersedes the previous plan which was approved in December of 2004, and subsequently updated in 2008. The next MTP update is expected to occur in 2014.
<b>In metropolitan areas that are in nonattainment for ozone or carbon monoxide, the MPO shall coordinate the development of the transportation plan with the Transportation Control Measures (TCMs) in the State Implementation Plan (SIP)</b>	The Laredo metropolitan planning area is considered in attainment for ozone and carbon monoxide; therefore this requirement is not applicable.
<b>The MPO shall base updates on the latest available estimates for population, land use, travel, employment, congestion, and economic activity</b>	The 2035 Laredo MTP is based on the most recent available set of socioeconomic and transportation planning data. Specifically, the existing land use data was recently updated in 2009. In addition, up to date population and employment data was developed for the regional travel demand model. Finally, the future year socioeconomic data was developed to account for currently planned developments as well as areas of the region most suitable for growth. Additional details of the development of these data can be found in Chapter 3.
<b>The transportation plan shall include projected transportation demand of persons and goods in the metropolitan planning area over the period of the transportation plan</b>	As part of the transportation planning process, the MTP project development team updated the regional travel model, which was used to predict future vehicular travel in 2035. In addition, the MTP includes an analysis of projected freight movement through the region.
<b>The transportation plan shall include existing and proposed transportation facilities that should function as an integrated system</b>	Chapter 4 of the MTP includes a thorough discussion of the existing transportation system, while Chapter 10 includes a list of planned projects that will shape the future transportation system. Roadway, transit, bicycle, pedestrian, aviation, rail, and freight movement are also addressed within the MTP.

**Table 1-1: MTP Content Requirements (continued)**

<b>Content Requirement</b>	<b>Required Content in Laredo MTP</b>
<b>The transportation plan shall include operational and management strategies to improve the performance of existing transportation facilities</b>	In each of the modal plan chapters (Chapter 7 through 9), the MTP addresses operational and management strategies to improve the performance of the existing system in order to relieve congestion and enhance the safety and mobility of people and goods in the Laredo region. These strategies are also aided by recent and ongoing plans and studies that address these issues, including the Border Crossing Travel Time Study, the City of Laredo Downtown Signalization Report, the ITS Master Plan, the Laredo Traffic Calming and Access Management Workshop Report, and the McPherson Corridor Capacity and Mobility Analysis.
<b>The transportation plan shall consider the results of the congestion management process in TMAs</b>	Although not required of the Laredo metropolitan planning area because it is not presently considered a Transportation Management Area (TMA), a congestion management process (CMP) is recommended in the future to address congested-related issues through the use of performance measure evaluations and system and operation strategies. This represents a “next steps” strategy for when the Laredo region is found to exceed a population of 200,000 and is then defined as a TMA, which is expected to occur after the 2010 Census.
<b>The transportation plan shall include an assessment of capital investment and other strategies to preserve the existing system and provide for multimodal capacity increases</b>	The MTP addresses capital investment strategies to preserve existing transportation infrastructure and provide for multimodal capacity increases based on regional priorities and needs. In particular, the modal plans found in Chapters 7 through 9 outline capacity enhancing projects for various modes of transportation. Further, the MTP includes projects along two primary corridors, Loop 20 and US 83, where current and projected congestion threatens the function of key components of the region’s transportation system.



**Table 1-1: MTP Content Requirements (continued)**

<b>Content Requirement</b>	<b>Required Content in Laredo MTP</b>
<b>The transportation plan shall include descriptions of all existing and proposed transportation facilities in sufficient detail for conformity determinations. In all areas (regardless of air quality designation), all proposed improvements shall be described in sufficient detail to develop cost estimates</b>	The MTP project development team worked closely with project proponents to sufficiently define the scope of all projects to develop reasonable cost estimates. The MTP projects listed in Chapter 10 present both project descriptions and cost estimates.
<b>The transportation plan shall include a discussion of potential environmental mitigation activities to restore and maintain environmental functions affected by the transportation plan</b>	In Chapter 11, the MTP includes a discussion of the environmental impacts of the transportation plan and potential mitigation efforts. In addition, various stakeholders were invited to a roundtable discussion to address such environmental impacts and mitigation efforts.
<b>The transportation plan shall include pedestrian walkway and bicycle transportation facilities</b>	The MTP recognizes the importance of providing sufficient pedestrian and bicycle facilities. The Chacon and Manadas hike and bike trails project are significant facilities that the MPO will pursue to support non-motorized travel options.
<b>The transportation plan shall include transportation and transit enhancement activities</b>	The MTP includes a list of transportation enhancement projects in Chapter 9.
<b>The transportation plan shall include a financial plan that demonstrates how the adopted transportation plan can be implemented and that meets several requirements as outlined in 23 CFR § 450.322</b>	A financially constrained plan with costs and revenues in year of expenditure dollars is presented in Chapter 10. Only reasonably available funding sources were considered. The MTP was developed cooperatively with TxDOT, the City of Laredo, Webb County, and El Metro.

*Table 1-1: MTP Content Requirements (continued)*

<b>Content Requirement</b>	<b>Required Content in Laredo MTP</b>
<b>The metropolitan planning organization shall consult with state and local agencies responsible for land use management, natural resources, environmental protection, conservation, and historic preservation regarding development of the transportation plan</b>	The Laredo MPO’s public participation plan calls for involving all stakeholders in the development of the MTP, including the agencies with an interest in the areas of land use management, environmental resources, environmental protection, conservation, and historic preservation. Moreover, representatives of such entities were invited to participate in a series of roundtable discussions. In addition, historic and regional conditions were inventoried and are reflected in Chapter 2. Finally, the Texas Commission on Environmental Quality, the Texas Historical Commission, and the Texas Soil and Water Conservation Board were invited to comment on the plan.
<b>The transportation plan shall include a safety element that incorporates or summarizes the priorities, goals, countermeasures, or projects as well as emergency relief and disaster preparedness plans and strategies and policies that support homeland security and safeguard the personal security of all motorized and non-motorized users</b>	The MPO recognizes the importance of providing a safe and secure transportation system, and Chapter 6 is dedicated to these issues. In addition, several transportation projects included in the plan explicitly address safety and security issues.
<b>The MPO shall provide interested parties with a reasonable opportunity to comment on the transportation plan</b>	The Laredo MPO strictly adheres to its public participation plan and has provided all interested parties (including citizens, public agencies, freight shippers, freight carriers, representatives of users of pedestrian walkways and bicycle facilities, representatives of the disabled, and others) with extensive opportunity and ample time to comment on all aspects of the MTP. The process by which the MTP was developed is presented later in this chapter and included substantial and proactive public outreach efforts.

**Table 1-1: MTP Content Requirements (continued)**

<b>Content Requirement</b>	<b>Required Content in Laredo MTP</b>
<b>The MTP shall be published or otherwise made readily available for public review</b>	The Laredo MTP is made available for public review through both printed copies available at the MPO offices and electronically accessible formats through the MPO's website: <a href="http://www.ci.laredo.tx.us/city-planning/Departments/MPO/index.html">www.ci.laredo.tx.us/city-planning/Departments/MPO/index.html</a> . In addition, the draft document was made available for public review at the Laredo City Planning office for a 30-day period between November 5 and December 4, 2009.
<b>The MPO shall not be required to select any project from the illustrative list of additional projects included in the financial plan</b>	Although an illustrative list of additional projects is included in the MTP, the MPO acknowledges that it will not be required to select any from that list.
<b>In nonattainment and maintenance areas for transportation-related pollutants, the MPO must make a conformity determination on any updated or amended transportation plan in accordance with transportation conformity regulations</b>	The Laredo metropolitan planning area is considered in attainment for ozone and carbon monoxide; therefore this requirement is not applicable.

### **Recent Legislative Actions**

The stimulus bill, formally known as The American Recovery and Reinvestment Act (ARRA), was passed on February 17, 2009 in an effort to immediately improve economic conditions in the United States. In regards to transportation spending, ultimately \$48 billion or six percent of all ARRA spending was reserved for capital funding for highways, transit, rail, and aviation “shovel-ready” projects. ARRA requires that states and regions must spend their transportation funds within three years or risk losing their allocations to other states. Within this context to expedite the spending of transportation dollars, the funds have been administered through the states and MPOs through existing policies and formulas instituted in the last surface transportation act (SAFETEA-LU).

Of note, transit and passenger rail received approximately 40 percent of total transportation funding in the ARRA as compared with an 18 percent average in a usual year. Also, high-speed rail funding increased from a normal year’s spending of \$1 billion to \$8 billion. The ARRA could set a precedent for the future surface transportation act. Based on an added emphasis on transit and passenger rail and the way transportation dollars were administered and allocated, the new surface transportation act may have similar priorities and operations. However, the promise for change from the Obama administration could also mean new regulations and reorganization. In this case, MPOs across the nation will be further affected and required to comply with new regulations. The Laredo MPO stands ready to comply with any new forthcoming federal transportation planning regulations.



*Congress is currently discussing new federal surface transportation legislation*

### **Consistency with State Plans**

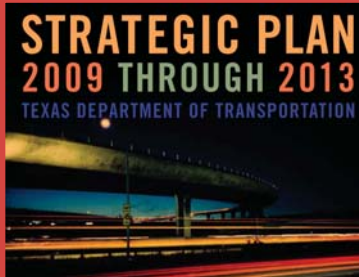
The Texas Department of Transportation (TxDOT) is responsible for planning, designing, building, operating, and maintaining the state’s transportation system, in cooperation with local and regional entities. Within TxDOT, there are 25 district offices that oversee the agency’s responsibilities in each district area as well as 21 divisions and six offices located in Austin, which serve in an administrative and technical capacity for the district offices. TxDOT is governed by the Texas Transportation Commission, which is a five-member commission appointed by the governor with the advice and consent of the Texas Senate.



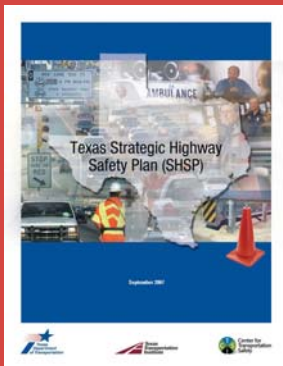
*TxDOT’s Laredo District plays a significant role in regional transportation planning.*

The TxDOT Laredo District Office works in cooperation with LUTS to carry out transportation planning tasks and activities in the Laredo metropolitan planning area. In addition, it oversees the implementation of transportation projects throughout an eight-county area in south Texas.

The following statewide plans have been identified as pertinent to the metropolitan transportation planning process:



*TxDOT's Strategic Plan focuses on strategies that are seen as essential for TxDOT to achieve its mission.*



*TxDOT's Strategic Highway Safety Plan identifies key safety needs on all public roadways.*

**Strategic Plan (2009-2013)** – This document is an overarching policy statement designed to provide a framework for taking action within TxDOT. It addresses strategies and tactics that are necessary in order for TxDOT to fulfill its mission and goals over five years (2009-2013) and establishes performance measures to monitor its progress.

**Texas Strategic Highway Safety Plan (SHSP)** – SAFETEA-LU requires that all states develop and implement a SHSP and that the metropolitan transportation planning process be consistent with the plan. This document identifies safety needs and directs investment decisions in order to reduce highway fatalities and serious injuries on public roads.

**Report on Texas Bridges (as of September 2006)** – This document describes the conditions of publicly owned vehicular bridges and tracks the progress that TxDOT has made towards its goals of improving bridge conditions. It also outlines a plan to improve Texas bridges and meet TxDOT's goals.

**Unified Transportation Program (UTP)** – This document is a 10-year plan approved by the Texas Transportation Commission and addresses 12 different categories of funding that will guide transportation project development and construction in the state of Texas. The UTP is further divided into two documents; the Statewide Mobility Program (STP) and the Statewide Preservation Program (SPP). It represents a medium-range planning document that should be consistent with MTPs across the state.

## Other Related Plans and Studies

The Laredo 2010-2035 MTP is the most current transportation plan for the Laredo area. As with most planning documents, it both builds upon and incorporates the ideas, issues, and recommendations of past and current planning efforts. The following plans and studies served as valuable inputs into the development of the MTP.

**Border Crossing Travel Time Study:** This 2008 study was developed for the TxDOT Transportation Planning and Programming Division (TPP) in order to evaluate short-term improvement options for passenger and freight flow on roadways within the surrounding area of each international border crossing within TxDOT’s Laredo District.

**Bus Rapid Transit Plan:** This July 2003 study for the Laredo MPO assessed the feasibility for Bus Rapid Transit (BRT) service in the Laredo region.

**City of Laredo Downtown Signalization Report:** This study was prepared for the Laredo MPO in April of 2008 in order to evaluate traffic conditions in the city’s downtown street network and determine the feasibility of coordinated timing plans for 70 intersections in the downtown area.

**City of Laredo ITS Master Plan:** Developed in January of 2005, this plan identified current intelligent transportation system (ITS) components, users of ITS technologies, and potential ITS projects.

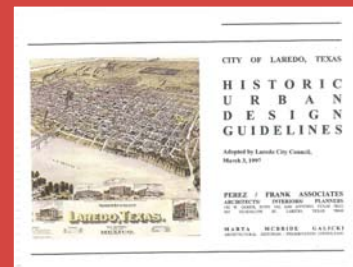
**Comprehensive Plan of Laredo, Texas:** Adopted in August 1991 by the City of Laredo, this plan provides a basis and vision for a coordinated planning approach in managing the city’s future growth.

**Hazardous Cargo Community Risk Assessment and Transportation Route Alternative Analysis for the City of Laredo:** This 2006 study assessed various alternative non-radioactive hazardous material (NRHM) routes for the City of Laredo.

**Historic Urban Design Guidelines:** This 1997 report was produced for the City of Laredo in order to provide guidance for the historic preservation and development of the city’s historic districts.

**Laredo International Airport Master Plan Study Update:** This 2005 study evaluated current airport conditions and future development scenarios and provides a basis for planning and continued development decisions.

**Laredo Metropolitan Transportation Plan 2005-2030:** Prepared in 2004 and routinely modified to reflect additional federal reporting requirements and refined priorities, the 2005-2030 plan has served as the long-range transportation plan for the Laredo MPO for the past five years. It is replaced by this plan.



*Recent Laredo Area Planning Documents*

**Laredo Traffic Calming and Access Management Workshop Report:** This 2008 report was prepared for the Laredo MPO and analyzes workshop findings and next steps for using traffic calming and access management strategies for improving traffic operations.

**Long Range Thoroughfare Plan:** This plan, developed by the City of Laredo, provides a basis for establishing a hierarchical street network that takes into account current and future land use patterns and represents the ultimate build-out of the city's major roadway network.

**McPherson Corridor Capacity and Mobility Analysis:** This plan is currently being prepared for the Laredo MPO and will evaluate mobility improvement alternatives along McPherson Road.



**Public Participation Plan:** Developed by the Laredo MPO, this document serves as the plan for involving all citizens and transportation stakeholders in the public involvement process for metropolitan transportation planning.

**San Bernardo Avenue Renovation and Restoration Project:** This 2008 report, prepared for the Laredo MPO, provides a basis and vision for redeveloping the San Bernardo corridor.

**South Texas Planning Region Public Transportation Coordination Plan:** Originally developed in December of 2006 for the South Texas Development Council Economic Development Program and then subsequently updated in July of 2008, this plan establishes a basis for a coordinated human service transportation network in the South Texas Planning Region.

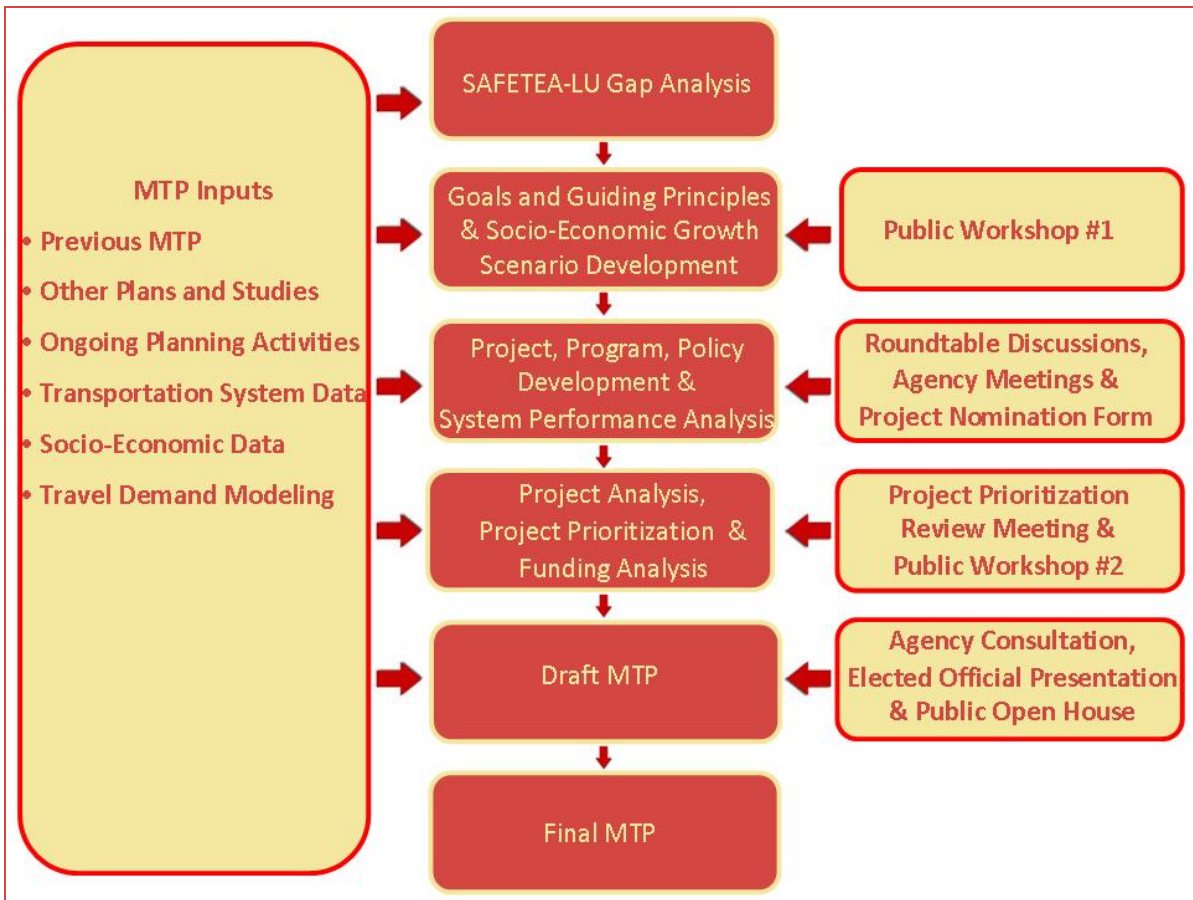
**Texas Urban Mobility Plan (TUMP):** Prepared by the Laredo MPO in cooperation with TxDOT, the purpose of this plan was to go beyond the MTP and focus on all transportation needs necessary to reduce congestion and improve mobility, regardless of funding availability.

**Transit Development Plan:** This plan was recently completed for the Laredo MPO and evaluates existing transit conditions and provides guidance for meeting future public transportation needs in the Laredo region.

## MTP Development Process

The **Laredo 2010-2035 Metropolitan Transportation Plan** was developed as a by-product of a continuous, comprehensive, and cooperative transportation planning process. The **2010-2035 MTP** was developed over a two-year period and involved city, county, state, and federal agencies, the business community, community advocates, and other interested stakeholders.

A traditional planning process of defining goals and objectives, assessing existing conditions, predicting future needs, developing, evaluating, and prioritizing investments, and formulating funding strategies was used to develop this plan.



### ***Vision and Guiding Principles***

Because the MPO has engaged in a well founded continuous transportation planning process, the overarching goals of this plan reflect those of the previously adopted plan. However, for the purposes of this plan update, the goals from the previous plan have been restructured in the form of a vision statement and a series of guiding principles.



### ***MPO VISION***

**Develop a transportation system that offers safe, efficient, affordable travel choices for people and goods, while supporting economic development and long-term quality of life.**

### ***Guiding Principles***

1. Be proactive in addressing future transportation needs.
2. Increase viable, affordable travel choices for people and goods.
3. Enhance the economic vitality by efficiently and effectively connecting people to jobs, goods, and services, and by moving goods within the region and beyond with an integrated multimodal transportation system.



4. Promote the unique identities and qualities of neighborhoods, communities, and the region as a whole.
5. Minimize overall environmental impacts and improve environmental quality.
6. Meet future needs without generating emissions that threaten public health, air quality, global climate and biological diversity.
7. Adapt to changing lifestyles, patterns of travel, new technologies, new methods of communication, and other trends.
8. Foster sustainable development that accommodates the diverse needs of all residents including those of future generations.
9. Promote competitive freight options by improving existing transportation system.
10. Comply with state and federal requirements.

### ***Public Outreach and Stakeholder Involvement***

For the development of this MTP, the MPO broadened its stakeholder involvement efforts to be more consistent with federal transportation planning guidelines. Input was sought and received from elected officials, government agencies, the business community, community advocates, as well as the public at large.

The 2010-2035 MTP was developed through the consensus of both the general community as well as the public and private entities included within the MPO's Policy Board and Technical Committee. Throughout its transportation planning process, the MPO has provided a wide range of opportunities for the public to be involved in the development of this MTP.

**Project Kickoff Meeting:** A project kickoff meeting was held on Tuesday, June 24, 2008 with the Technical Advisory Committee. At this meeting, the project scope and schedule were reviewed, and members of the MPO Technical Committee were provided an opportunity to discuss their main concerns about the development and content of the new MTP.

**Public Workshop #1:** On Tuesday, February, 10, 2009, the first in a series of three public workshops was held. Various outreach methods were used to advertise the meeting and encourage public participation. Hardcopy invitations, written in both English and Spanish, were signed by Mayor Raul G. Salinas and were distributed to a list of 200 individuals. Two advertisements were placed in the Laredo Morning Times in the January 28th and the February 8th editions. Invitations were posted on various websites and community calendars. Email invitations were sent to the Laredo and United Independent School District principals and to faculty, staff, and students of Texas A&M International University and the Laredo Community College. Advertisements for the workshop were also placed on El Metro buses. Finally, the Laredo Chamber of Commerce emailed an invitation to the workshop to all of its members.

The workshop was intended to gain participants' perspectives on possible future development scenarios, including the opportunities and challenges that each of those scenarios may present. In addition, ideas were generated regarding future potential transportation investments needed to support those scenarios. Approximately 52 members of the community and representatives from various public entities were in attendance at the workshop held on Tuesday, February 10, 2009 at the Laredo Public Library. The public was invited to provide input on the various growth scenarios presented. It was explained that the MPO would select one of these scenarios as a basis for making decisions regarding which projects to include in the MTP.

During the workshop the following four potential growth scenarios were presented and discussed:

- **Trend/Current Policy Scenario**, which assumes that growth continues in the future in the same pattern as it has historically;
- **Union Pacific Relocation Scenario**, which assumes that the UP will relocate their railroad from downtown to a location along the Camino Colombia Toll Road;
- **KCS Railroad Relocation and Fifth International Bridge Scenario**, which assumes that Kansas City Southern constructs a ring railroad to the east of the city and that a fifth international bridge is constructed south of Laredo; and
- **Corridor-centric Scenario**, which assumes that future growth is primarily concentrated along heavily traveled corridors which could support the development of a bus rapid transit system, featuring transit-oriented developments.



Meeting Poster  
Spanish Version



January 18, 2009 Laredo  
Morning Times Advertisement



Public Workshop # 1  
participants discuss an  
alternative growth scenario.

The primary benefit of this discussion helped to confirm that most participants were comfortable with the way the city is growing, provided that the supporting infrastructure is in place to accommodate the projected growth.

### Roundtable Discussions

In an effort to obtain additional input from a variety of perspectives, the MPO hosted a series of thematic roundtable discussions on Wednesday, May 13, 2009. The four roundtables were attended by 27 individuals and were organized around the following four themes:

**Freight and Goods Movement:** a forum for regional carriers, shippers, and members of the international trade industry focused on issues related to the transportation system's capacity, accessibility, and reliability, both now and in the future.

**Safety and Security:** a forum for public and private community service agencies focused on the health, safety, and security of local residents to discuss how the transportation system can best serve people of all ages and abilities

**Multimodal Transportation:** a forum for public transportation service providers and related organizations focused on regional strategies to optimize all transportation modes to meet the mobility needs of the region over the next 25 years.

**Economic and Community Development:** a forum for members of both public and private sector agencies and organizations that will play a key role in the future development of the region, focused on ways to optimize and coordinate transportation and land development, promote economic development, and address the growing concern of environmental stewardship and historic preservation.



*Roundtable Discussion participants engage in dialog about critical transportation planning*

### Agency Coordination Meetings

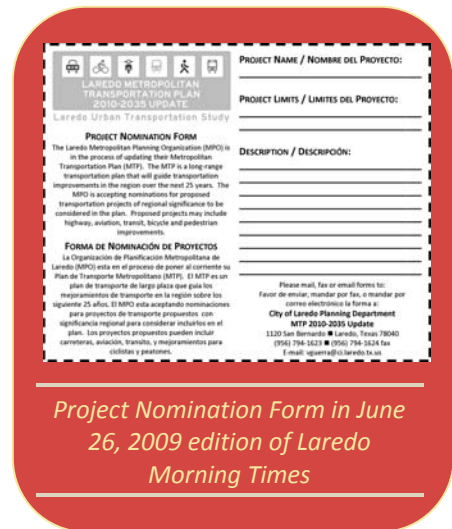
On June 10 and 11, 2009, the MPO conducted a series of meetings with city engineering and environmental staff, planners from TxDOT's Laredo District, the General Manager and planning staff of El Metro, and planning and engineering staff from Webb County to review a set of candidate projects for the MTP. These meetings primarily focused on the status and scope of the projects. Follow-up meetings and other communications occurred to refine cost estimates, estimate construction timing, and conduct project evaluation criteria scoring.

## Project Nomination Form

To comply with the Public Participation Plan of the Laredo MPO, a project nomination form was advertised in the Friday, June 26, 2009 edition of the Laredo Morning Times and included both English and Spanish text.

## Project Prioritization Meeting

On September 17, 2009, the MPO's Technical Advisory Committee convened a meeting to review the list of candidate transportation projects and their scoring. This meeting served to solidify the timing of investments and determine which projects are required in the near-term (2010-2019) and the long-term (2020-2035).



The image shows a project nomination form from the Laredo Metropolitan Planning Organization (MPO). The form is titled "PROJECT NOMINATION FORM" and "FORMA DE NOMINACIÓN DE PROYECTOS". It includes sections for "PROJECT NAME / NOMBRE DEL PROYECTO:", "PROJECT LIMITS / LIMITES DEL PROYECTO:", and "DESCRIPTION / DESCRIPCIÓN:". The form is set against a background of the Laredo Morning Times newspaper page from June 26, 2009.

## Public Workshop #2

The second public workshop was held on September 30, 2009 at Laredo Community College south campus. Participants were provided with a menu of 55 projects totaling \$1.634 billion dollars and asked to spend \$200 million on their top priorities. After participants completed the exercise individually, they were arranged in small groups and repeated the prioritized spending exercise. The results of the prioritization process were then taken into account in the formal MPO project evaluation criteria.



*Workshop #2 participants help shape investments priorities*

## Agency Consultation

During the plan's public review period draft copies were sent to the Texas Council on Environmental Quality, the Texas Historical Commission, and the Texas State Soil and Water Conservation Board.

## Presentation to Elected Officials

To fulfill the MPO's public participation plan requirements, presentations of the draft plan were given to the Laredo City Council at their October 19, 2009 meeting and to the Webb County Commissioners Court on October 26, 2009.

## MTP Open House

As part of the formal, mandatory 30-day public review period of the MTP, the MPO conducted an Open House at the Laredo City Library on Wednesday, November 18, 2009 from 4pm to 6pm. The event was attended by approximately 30 individuals.



*Open House Attendees preview the 2010-2035 MTP*

## Plan Amendment Process

As the MPO carries out their continuing, cooperative, and comprehensive (3C) planning process, amendments to this Plan are expected. These may occur due to changes in project priorities, funding availability, or state and/or federal guidance. Amendments to the Plan require adoption by the MPO Policy Committee, following an opportunity for the general public to review and comment.

## MTP Overview

The socioeconomic data forecasting process, along with a description of existing and future land use, is included in **Chapter 2, Regional Context**.

The main factor in determining future transportation need is the magnitude and location of future population and employment. The development of the forecasted socioeconomic conditions of the Laredo region is presented in **Chapter 3, Future SocioEconomic Conditions**.

The collection and analysis of information related to the transportation system is summarized in **Chapter 4, the Transportation System**. The base year data regarding the supply, condition, and usage of the transportation system was used to develop an understanding of the existing system and to identify trends.

Because the Laredo region is a nationally significant freight gateway connecting the United States to the rest of the globe, **Chapter 5, Freights and Good Movement** presents an in-depth look at the current state of freight transportation in the region, what challenges lie ahead, and how the region can accommodate the substantial growth that is expected to occur in the future.

Again, due to its position and role as a national gateway, safety and security are of paramount concern within the Laredo region. As such, **Chapter 6, Safety and Security**, focuses on safety and security issues and what current and future programs will keep both our transportation system and its users safe from both internal events and external threats.

**Chapter 7, Roadway Plan**, presents a detailed list of roadway-related investments that improve regional highway mobility, increase safety, and maintain the existing system.

**Chapter 8, Transit Plan** discusses the importance of the public transit system in the Laredo region and documents how federal, state, and local transit funds will be expended over the next 25 years.

With the significant amount of bicycle and pedestrian traffic in the city **Chapter 9, Bicycle/Pedestrian Plan** presents an extensive list of recommendations and specific project investment priorities to the regional system.

How the region will pay for the recommended projects in the plan is presented in **Chapter 10, Financial Plan**.

Finally, **Chapter 11, Benefits, Impacts, and Next Steps** presents how this plan will impact the region and what benefits it will provide. In addition, this chapter presents how the MPO can monitor the performance of the transportation system in the future so that it can ensure its investments are having the intended results and so that it can make adjustments to this plan, as events warrant.

## CHAPTER 2: REGIONAL CONTEXT



### Introduction

Within South Texas, the Laredo region benefits significantly from its location along the Interstate 35 corridor, its adjacency to Mexico, and the resulting international trade. These factors have contributed to the population of Webb County from just over 133,000 in 1990 to approximately 233,000 in 2007. Based upon the most recently developed estimates, the population is expected to more than double by the year 2035 with an estimated population of approximately 490,000. As a “gateway” to the United States and a dominant inland port along the US/Mexican border, smart investments in transportation infrastructure are important in meeting today’s needs and the future demands of the region.



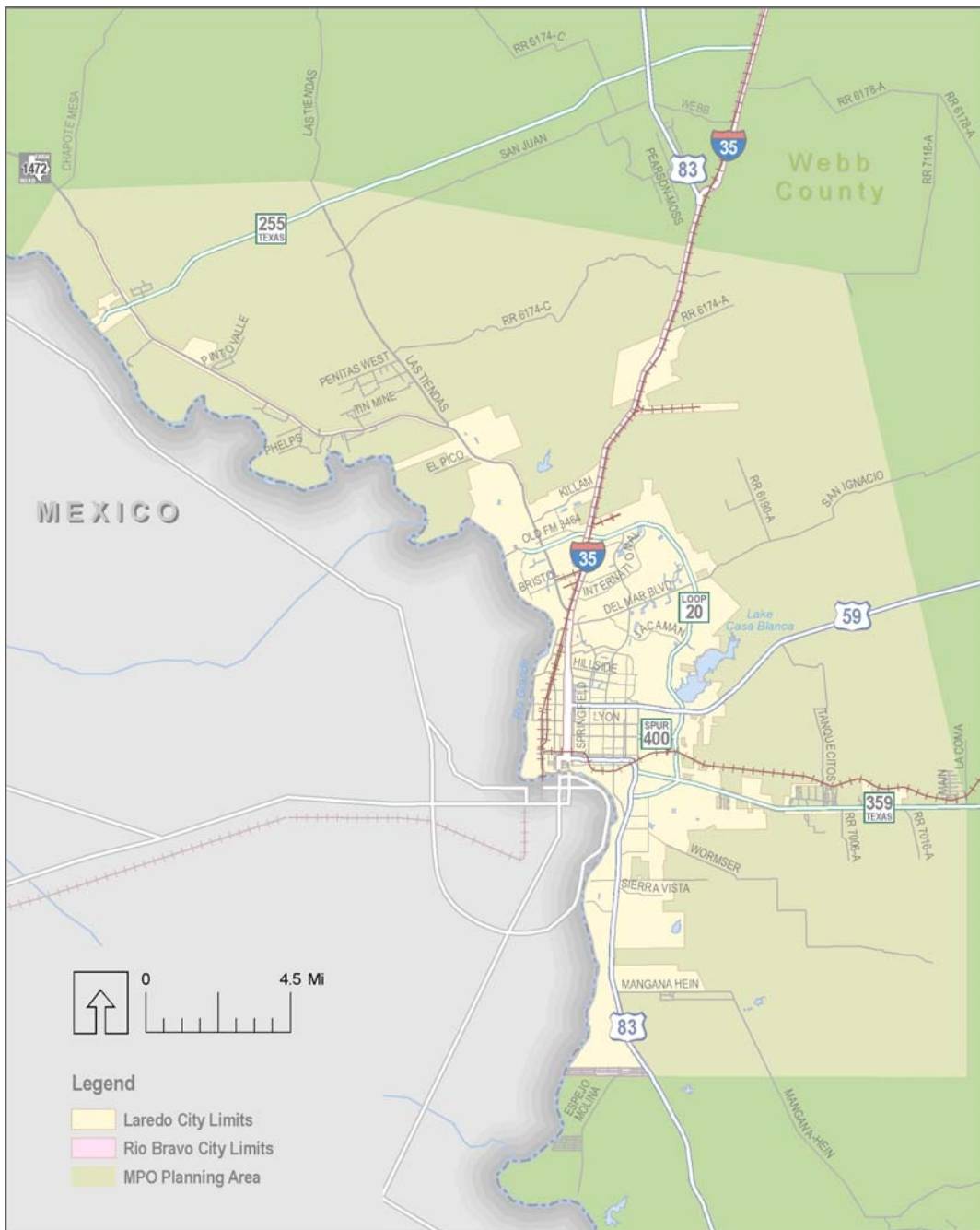
**Figure 2-1: Regional Setting**

### Geography

The Laredo Metropolitan Planning Organization’s planning area encompasses all of the cities of Laredo and Rio Bravo and parts of Webb County and is shown in Figure 2-2. The MPO’s planning boundaries consist of about 417.8 square miles, covering approximately 12.4 percent of Webb County. The City of Laredo is located on the north side of the Rio Grande River along the border between the United States and Mexico about 150 miles southwest of San Antonio and 135 miles west of Corpus Christi. Across the river, Laredo shares cultural and economic ties with Nuevo Laredo, Mexico. Laredo is the county seat of Webb County and also the county’s largest city, with most inhabitants of the county living in the Laredo metropolitan area. Through annexation, the City of Laredo’s land area grew from 33.5 square miles in 1990 to about 89.3 square miles in 2008, an increase of about 166%.

It is important to be aware of the geographic characteristics of an area in order to understand the natural barriers or opportunities for developing transportation networks and infrastructure. Furthermore, the natural resources of an area are significant not only in terms of the ecosystem, but also in terms of the attractiveness of a region. Developing with the natural features, instead of against them, are smart investment strategies for the future.

**Figure 2-2: Laredo MPO Planning Area**



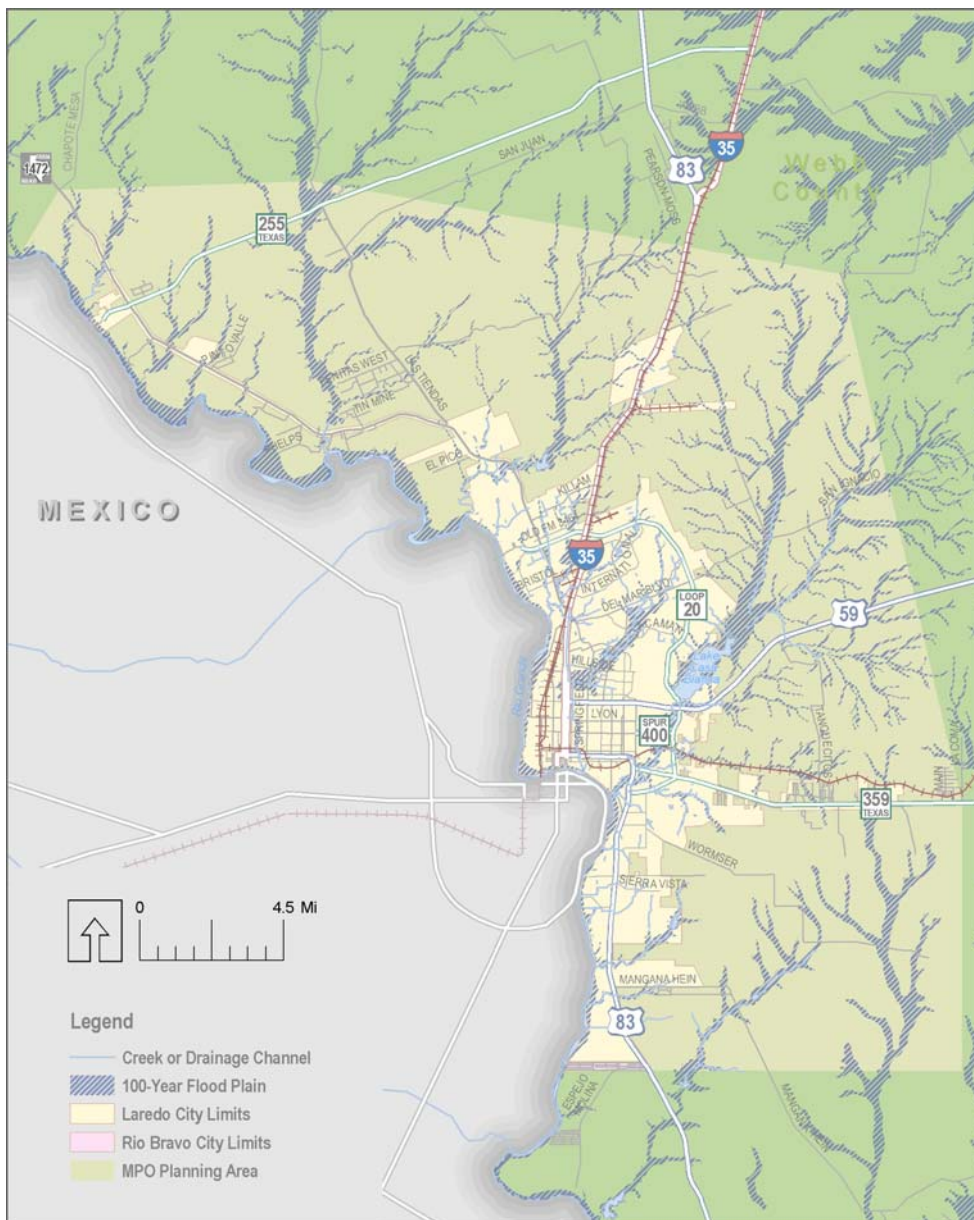
Within the vast Texas geography, Laredo is located south of the Edwards Plateau of Central Texas, on the west side of the Rio Grande Plains, west of the Coastal Plains, and east of the mountains of Mexico. The land is relatively flat with a few rolling hills and an average elevation of about 438 feet. The flat land is primarily covered with brush consisting of grasslands, oak, and mesquite trees. Besides the Rio Grande River, Lake Case Blanca in Lake Casa Blanca International State Park, which consists of about 756 surface acres along Chacon Creek, is another significant feature located northeast of downtown Laredo, just west of Bob Bullock Loop.



Other water features include several smaller lakes and creeks that drain into the Rio Grande River including San Idelfonso Cuervo, Becerra, Sombreitillo, Chacon, Zacate, and Santa Isabel creeks. These creeks in the local drainage basin are more prone to flooding and tend to be within the 100 and 500 year floodplains, as classified according to the Federal Emergency Management Agency (FEMA). In relation to transportation planning, it is especially important to allow the creeks to drain as nature intended and to avoid constructing transportation infrastructure within the flood areas.

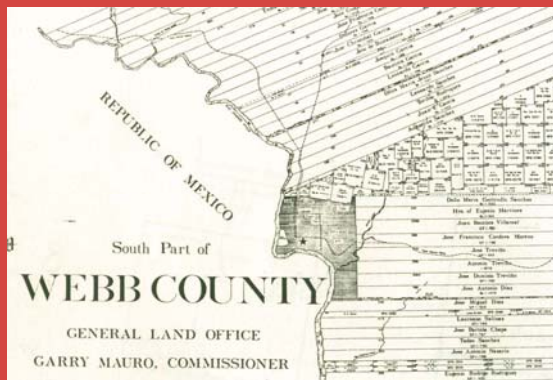
Flooding along certain roadways tends to be a source of major concern. Furthermore, as identified in the City of Laredo Intelligent Transportation Systems (ITS) Master Plan in 2005, flood detection improvements at certain key intersections (including Flecha Lane west of FM 1472, Las Cruces Drive east of FM 1472, Anna Avenue and Calton Road, and along Jacaman Road near McPherson Road) are necessary in order to notify and prevent drivers from crossing over unsafe roadways.

**Figure 2-3: Floodplains**



## History of Laredo

The history of the Laredo region can be traced back to Spanish colonization of the New World where it was once a part of the Nuevo Santander province. In 1745, Jacinto de León found a river crossing close to the future city of Laredo that was later known as “El Paso de Jacinto” and also “El Paso de los Indios”. In 1755, the present city of Laredo, which was first known as Villa de Agustin de Laredo, was founded by Tomás Sánchez de la Barrera y Garza who, along with three other families, was granted permission from José de Escandón to settle on 15 leagues of land along the Rio Grand River. Even in those times, the community was said to be the usual crossing point for those people traveling to Texas from Nuevo León and Coahuila.



*Webb County map showing 'porciones'  
- courtesy of Webb County Heritage  
Foundation*

In 1767, a main plaza was laid out with important civic buildings on its east and west sides, including a church, a jailhouse, and the captain’s house. Other town lots were designated for public and private uses, and eighty-nine parcels of land or “porciones” were laid out, each consisting of a half mile of river frontage and a depth of about 15 to 16 miles. These original land designations can still be seen in Webb County today. In the beginning of its settlement, the population of Laredo grew from just 85 in 1757, to 185 in 1767, and 708 in 1789. Its first election of public officials was in 1768 and it opened its first public school in 1783.

In the nineteenth century, Laredo experienced much change. In 1836, Texas won its independence from Mexico and created the Republic of Texas. Although Texans thought of the Rio Grande as the southern most boundary of the Republic of Texas, there was still ambiguity over the exact jurisdiction of the border area. For the same reasons that Texas revolted against Mexico and declared its independence, the Mexican states of Coahuila, Nuevo León, and Tamaulipas seceded and formed the Republic of the Rio Grande in 1840 with Laredo as its capital. Several years later in 1845, the United States annexed Texas, and the Mexican-American War broke out in 1846 over the jurisdiction of Texas. It was not until 1846 that Laredo was under Texas jurisdiction and the United States flag was flown over the city.

In 1848, the Treaty of Guadalupe Hidalgo was signed which officially established the Rio Grande River as the border between the United States and Mexico, thereby securing Laredo as part of the United States. However, many people who wanted to remain Mexican citizens settled on the south side of the river and established what would be known as Nuevo Laredo. At this same

time, Laredo officially incorporated as a city. In 1849, The United States established Fort McIntosh west of Laredo, which remained in operation through most of the first half of the twentieth century, until it later became the Laredo Junior College campus.

During the Civil War, border towns such as Laredo held important roles in getting cotton to Mexico in order for the cotton to then be exported overseas from Mexican ports. In 1864, the Battle of Laredo was fought and the Confederate Army under Colonel Santos Benavides thwarted Union soldiers at Zacate Creek from destroying the bales of cotton stored around San Agustín Plaza.

In 1881, several railroads, including the Texas Mexican Railroad from Corpus Christi and Jay Gould's International and Great Northern Railroad from San Antonio arrived in Laredo. In 1887, the Mexican National railway connected Nuevo Laredo and Mexico City, thereby securing Laredo as a strategic point of trade. In 1889, according to the City of Laredo's Historic Urban Guidelines, the first electric street car west of the Mississippi River was built. Also in 1889, a steel railroad bridge and the First International Bridge were built and connected Laredo with Nuevo Laredo.

The 1880s were a fast changing decade for Laredo, as the main streets of the town were graded and a courthouse and city hall were erected. The last couple of decades of the nineteenth century exhibited major changes and economic growth due to the railroads, coal mining nearby, and the beginning of onion farming in 1898. Because of this, the population of Laredo increased from just 3,521 in 1880 to 13,429 in 1900. Additionally, the discovery of oil and gas in the Laredo region during the early twentieth century further contributed to the economy of the area.

According to the Texas State Historical Association, the population of Laredo increased from 22,710 in 1920 to 39,274 in 1940 and then from 60,678 in 1960 to 122,899 in 1990. In 2000, the City of Laredo had increased to 176,576. In the establishment of *maquiladoras* - factories along the border that import foreign materials on a tax or tariff free basis for assembly and then export back the finished product- has enabled Laredo's economy to thrive due to trade between Mexico and the United States. Additionally, the implementation of the North American Free Trade Agreement (NAFTA) in 1994 further enabled Laredo to become a strategic point of trade activity.



Historical Images of Laredo  
- courtesy of The Portal to  
Texas History



*Map of Laredo 1881  
- courtesy of Laredo Public  
Library*



*Bird's Eye View of Laredo 1892  
- courtesy of Webb County  
Heritage Foundation*



*Lands leased to the United  
States – 1853  
- courtesy of Webb County  
Heritage Foundation*

## Land Use

### *History of Laredo Development*

The original town of Laredo was strategically positioned along the Rio Grande River between Zacate Creek and the right angle bend of the Rio Grande. According to the City of Laredo's Historic Urban Design Guidelines, the original town was laid out similar to other villas or towns in the border region, with a public square and two streets diverging from the corners in either direction. This plan layout was based on the Law of the Indies, a set of Spanish laws and guidelines for the establishment of colonial settlements. The original plaza was laid out according to an area of 100 varas by 80 varas, or about 275 feet by 220 feet. The streets were 10 varas or about 27.5 feet wide, and the buildings were constructed close to the street property line. Today, the narrow street pattern can still be seen in the historical city center, and the grid street plan was the basis of development for centuries later.

While the historical downtown area of Laredo has remained in a grid pattern with a mix of land uses and development, it no longer remains connected, as it once was, due to the arrival of the railroad in the late nineteenth century and the interstate system in the mid-twentieth century.

According to the City of Laredo's comprehensive plan, the urbanized area further from downtown has grown into more of a hierarchical establishment of traffic corridors with more commercial development focused on the arterials, with a few neighborhood commercial centers in older areas. Furthermore, development in later years has primarily been based on a separation of land uses and a curvilinear street pattern of local streets connected to collector and arterial roadways. From the 1990s until today, a significant increase in population has led to the construction of major infrastructure improvements including two international bridges and the Bob Bullock Loop.

### *Municipal Annexation*

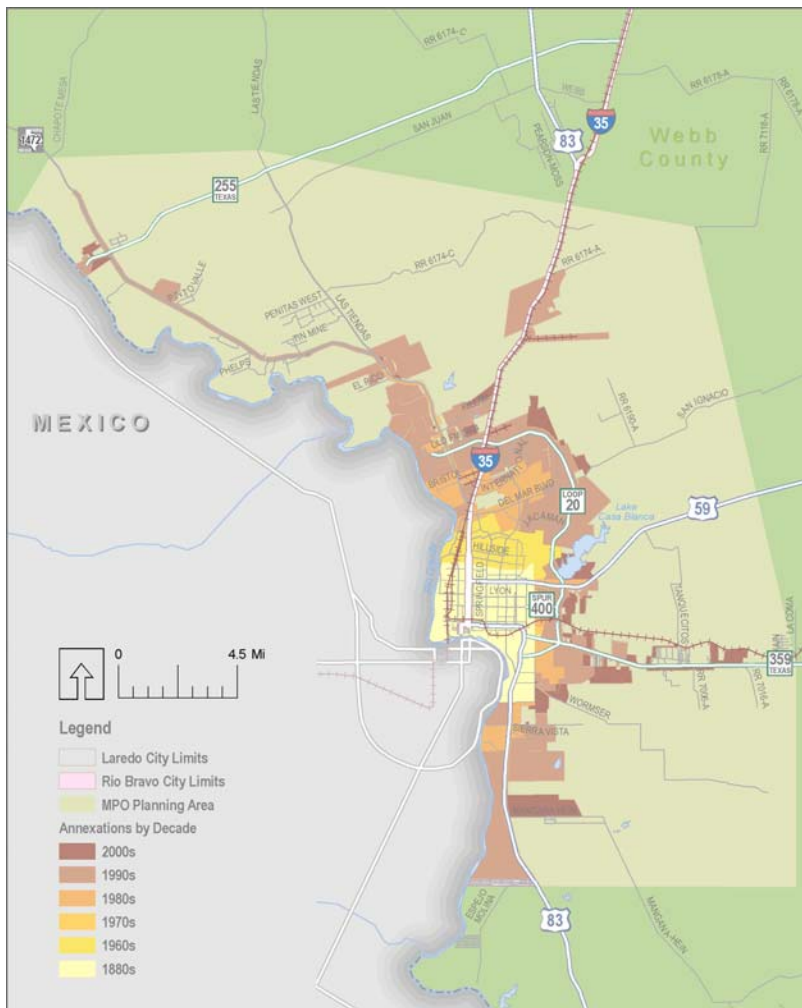
Through the years, the city boundaries of Laredo have grown significantly from when it was first settled in 1755. According to the City of Laredo's Historic Urban Design Guidelines, the city boundaries of Laredo were changed from one square mile established in 1848 to the original Spanish boundaries of four square leagues or approximately 14 square miles. Also, according to a map in 1853, the actual city consisted of 20 blocks of development with three roads leading in other directions from

Laredo. This map, however, does not show any other development within the approximately 14 square miles besides Fort McIntosh and the 20 city blocks.

From there, the city developed essentially in a grid like pattern to occupy the rest of the original 14 square miles. It was not until 1960 that the City of Laredo annexed an area of land of about six square miles immediately north of the original community. During this time, streets began to diverge from the original grid street pattern and to evolve into curvilinear residential streets. This was in keeping with early suburban development seen all across the United States during this time.

Into the 1980s, the City of Laredo annexed an additional 13 square miles in adjacent areas north, south, and east of Laredo. These annexations also included narrow swaths of land extending along major roadways such as FM 1472, IH 35, US 59, and US 83. In the 1990s, the City of Laredo saw its most significant increase in development and annexed an additional 45 square miles of land in areas to the north, south, and east of the previous boundaries. This also included narrow swaths of land extending along SH 359, IH 35, and most particularly along FM 1472 towards the Laredo-Colombia Solidarity Bridge. More recently, between 2000 and 2007, the City of Laredo has annexed approximately 10 square miles in the same manner as in previous decades, including a narrow swath of land extending along SH 359.

**Figure 2-4: City of Laredo Annexation**



## ***Historic Districts and Landmarks***

As required by federal law, all federal agencies must establish their own historic preservation programs for the purpose of identifying, evaluating, and protecting historic properties. In particular, Section 106 of the National Historic Preservation Act (NHPA) of 1966 (as amended in 1976, 1980, and 1992) and Section 4(f) of the Department of Transportation Act of 1966 requires such historical preservation responsibilities of the Federal Highway Administration (FHWA). Therefore, it is important for metropolitan transportation planning purposes to identify such historical landmarks and sites.

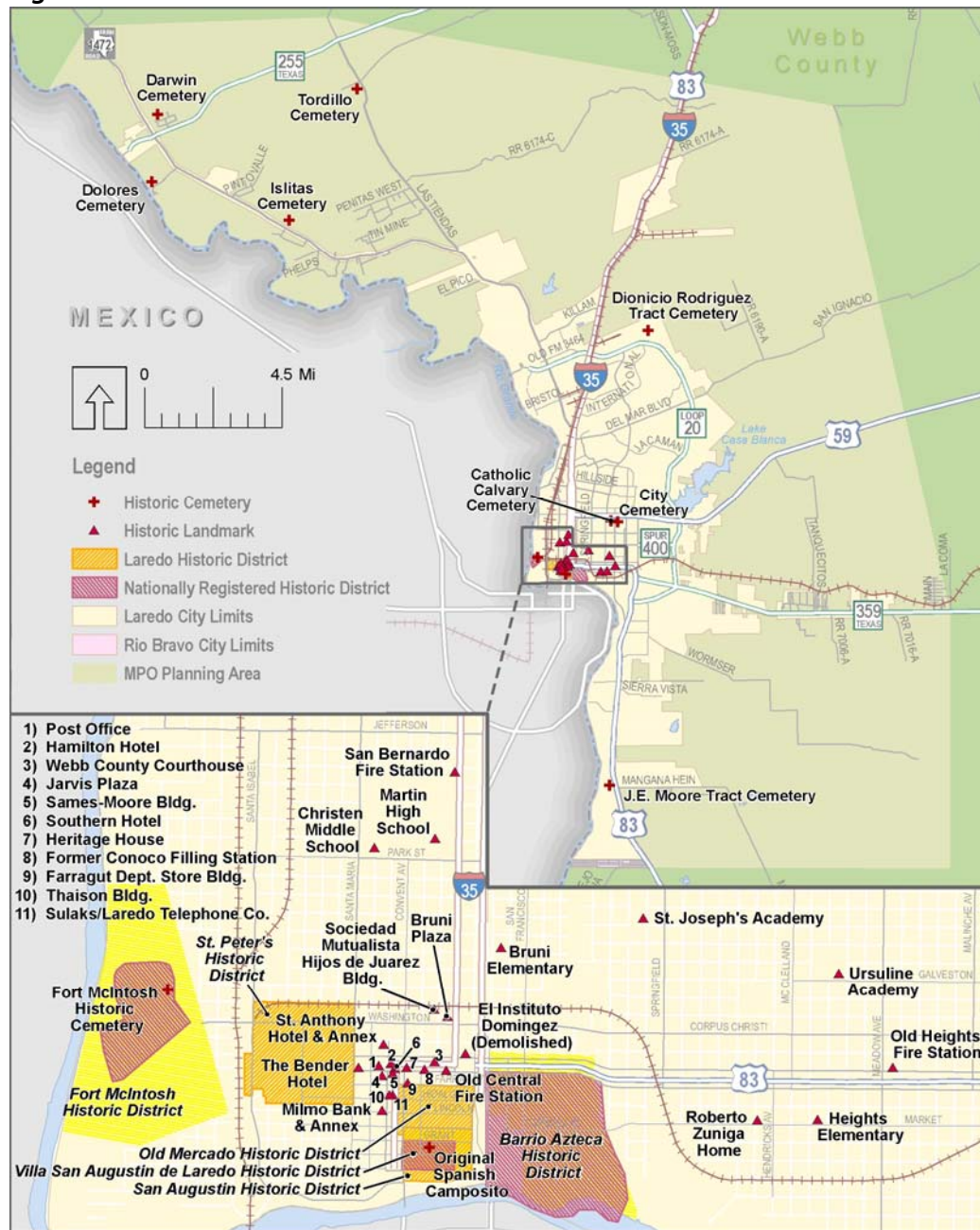


As mandated by the National Historic Preservation Act of 1966, the National Park Service administers the National Register of Historic Places (NRHP) as part of a national program to determine and protect landmarks and sites of historic significance. As such, the NRHP is the official list of the nation's historic landmarks and sites deemed historically important and worthy of preservation. In order to be eligible, a property must meet the National Register Criteria for Evaluation in relation to the property's age, integrity, and significance.

Within the Laredo region, many landmarks and sites have been identified as historically significant at either the local, state, or national level. Specifically, eight historical places in Webb County have been identified on the National Register of Historic Places, including the San Jose de Palafox Historic/Archeological District, Barrio Azteca Historic District, Fort McIntosh, Hamilton Hotel, Los Ojuelos, San Augustin de Laredo Historic District, U.S. Post Office and Custom House, and the Webb County Courthouse. Most of these places are located within the city's downtown area. Additional locally identified historic districts include the San Augustin District, the Old Mercado District, and the St. Peter's District. Local historic urban design guidelines and policies for development can be found in the City of Laredo's 1997 Historic Urban Design Guidelines.



**Figure 2-5: Historic Districts and Landmarks**



### Major Traffic Generators

Special traffic generators, such as public facilities, hospitals, universities, shopping centers, and other special transportation hubs such as airports, place special demands upon the transportation system. In Laredo, this is particularly true of industrial parks, as the commercial vehicle traffic related to the international trade activity is an important issue for the region. These points of major activities attract many people, and thus contribute to the regional traffic volumes and flow patterns. It is important to identify where these regional traffic generators are in order to plan effectively for transportation infrastructure and improvements. Table 2-1 identifies these major traffic generators, while Figure 2-6 shows their locations.

**Table 2-1: Major Traffic Generators (See Figure 2-6)**

---

**Public Facilities**

- |                                 |   |
|---------------------------------|---|
| 1. City Hall                    | 7. Federal Court/Post Office            |
| 2. Civic Center                 | 8. Laredo International Airport         |
| 3. Convention & Visitors Bureau | 9. Municipal Courthouse                 |
| 4. El Metro Transit Center      | 10. Public Library                      |
| 5. Entertainment Center         | 11. Webb County Administrative Building |
| 6. Federal Courthouse           | 12. Webb County Courthouse              |
|                                 | 13. Webb County Justice Center          |

---

**Hospitals**

- |                                |                           |
|--------------------------------|---------------------------|
| 14. Doctors Hospital of Laredo | 15. Laredo Medical Center |
|--------------------------------|---------------------------|

---

**Industrial Parks**

- |                                      |   |
|--------------------------------------|---|
| 16. Cross Roads Industrial Park      | 30. Modern Industrial Park                  |
| 17. Del Mar Industrial Park          | 31. Octavio Salinas Industrial Park         |
| 18. Diamond Industrial Park          | 32. Pan American Industrial Park            |
| 19. El Portal Industrial Park        | 33. Paso del Norte Industrial Park          |
| 20. Embarcadero                      | 34. Pellegrino Industrial Park              |
| 21. Inter-American Distribution Park | 35. Ponderosa Industrial Park               |
| 22. International Commerce Center    | 36. R.M.R Industrial Park                   |
| 23. International Trade Center       | 37. Roadway Express, Inc.                   |
| 24. Jacaman Ranch Industrial Park    | 38. San Isidro East Point Center            |
| 25. Killam Industrial Park           | 39. South Laredo Industrial Park            |
| 26. Laredo Distribution Center       | 40. South Texas Oil and Gas Industrial Park |
| 27. McPherson Acres Industrial Park  | 41. Southern Development Industrial Park    |
| 28. Millennium Park                  | 42. Tejas Industrial Park                   |
| 29. Milo Distribution Center         | 43. Tex-Mex Industrial Park                 |
|                                      | 44. Unitec Industrial Park                  |

---

**Shopping Centers**

- |                             |                               |
|-----------------------------|-------------------------------|
| 45. Del Mar Plaza           | 57. Mall Del Norte            |
| 46. El Portal Center        | 58. North Creek Plaza         |
| 47. Gateway Shopping Center | 59. Rio Norte Shopping Center |
| 48-54. HEB Food Store       | 60. Sam's Club                |
| 55. K-Mart                  | 61. Target                    |
| 56. Lowe's Shopping Center  | 62-64. Walmart                |

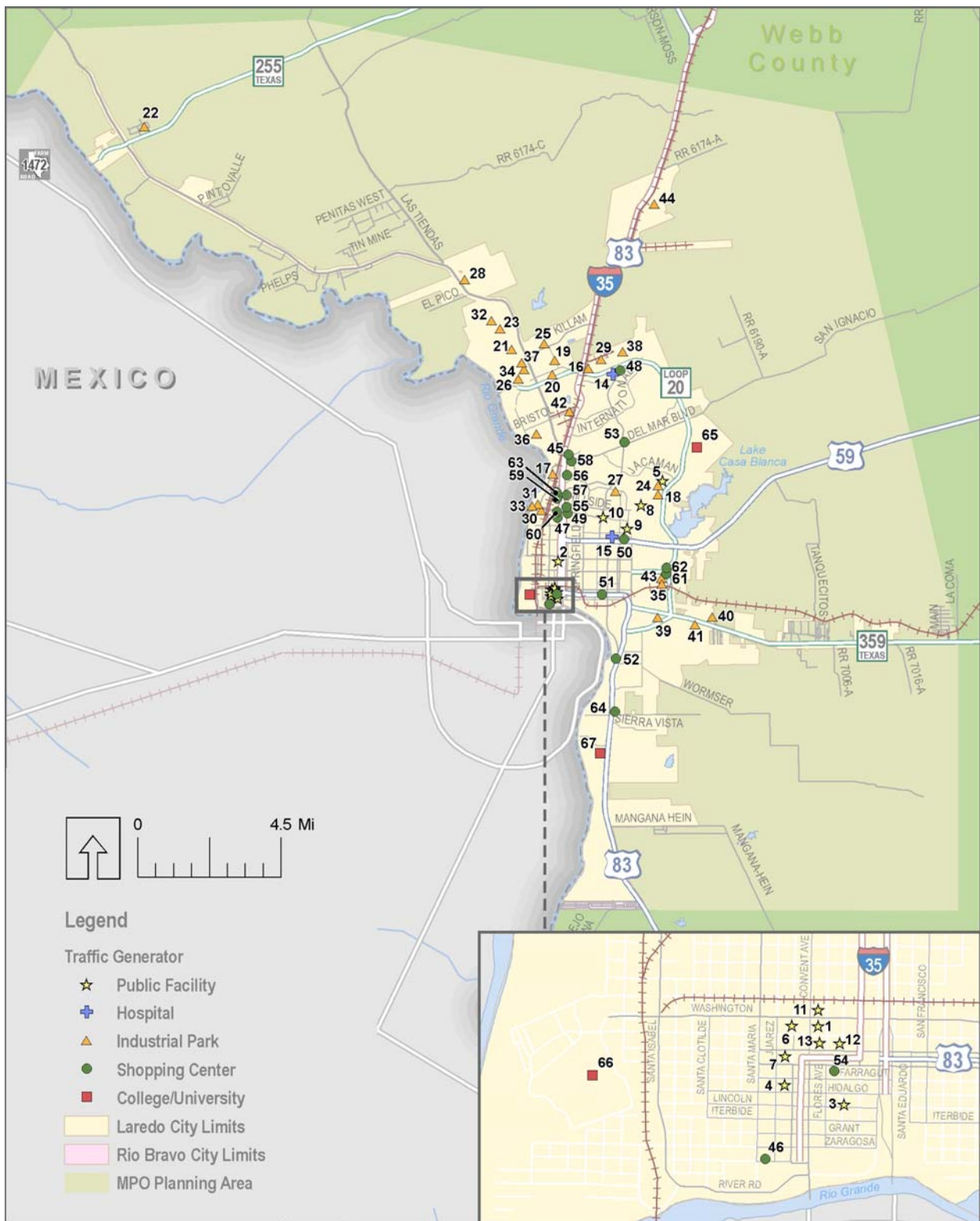
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**Colleges and Universities**

- |                                |                                 |
|--------------------------------|---------------------------------|
| 65. Texas A&M Int'l University | 66-67. Laredo Community College |
|--------------------------------|---------------------------------|



Figure 2-6: Major Traffic Generators





## Public Facilities

Public facilities, such as post offices and courthouses, attract many people in a region due to the nature of the purpose they serve. In the Laredo region, most of the public facilities, such as the City Hall, Webb County Courthouse, Webb County Administrative Building, Webb County Justice Center, and the Federal Courthouse, are located within the downtown area. The proximity of such facilities contributes to traffic in the city center. Public facilities, such as the Laredo Civic Center and Laredo Entertainment Center, are located north of the downtown area along major thoroughfares. The Laredo Entertainment Center, located at Bob Bullock Loop and Jacaman Road, is approximately 178,000 square feet and has the capacity to seat about 8,000 people for arena football and ice hockey and about 10,000 people for concerts. In contrast, the Laredo Civic Center, located at San Bernardo Avenue near Garden Street, has a capacity of about 2,000 people for events.



Major transportation-related facilities in the Laredo region that attract many people include the Laredo International Airport and the El Metro Transit Center. The Laredo International Airport is located on Bob Bullock Loop just north of US 59, and provides both freight and commuter service. Travelers are offered daily flights to Dallas, Houston, and Las Vegas. The El Metro Transit Center, which is located in downtown Laredo near Salinas Avenue and Farragut Street, is the main transfer point in the Laredo transit system and also

houses the Greyhound Bus Lines.

## Hospitals

The Laredo region has two general medical facilities, including the Laredo Medical Center and Doctor's Hospital. The Laredo Medical Center, located on Saunders Street about halfway between IH 35 and Bob Bullock Loop, is the largest regional medical facility in Laredo with 326 licensed beds. Doctors Hospital, located at McPherson Road and Bob Bullock Loop, is the second largest medical facility in Laredo with 180 licensed beds.



## Industrial Facilities

As stated previously, industrial facilities place special demands on the transportation system in Laredo because of the high volume of commercial vehicle traffic and the importance of trade in the region. Laredo's position along Interstate 35 at the US/Mexico border makes the region an important gateway for commerce.



Within the Laredo region, there are several groups of industrial facilities, including industrial parks and distribution centers, which are located mostly in the outer areas surrounding the city. Most of these clusters are primarily situated along Mines Road (FM 1472) just north of Bob Bullock Loop, along IH 35 north of Loop 20, and along Loop 20 between IH 35 and Mines Road. This area on the north side of Laredo is especially suited for commercial traffic coming from the Gateway to the Americas Bridge. Other areas where there is a preponderance of industrial land uses include the following:

- the Uni-tec Industrial Park on the east side of IH35, north of the Union Pacific terminal, about six miles north of Loop 20
- Along the west side of the Union Pacific railroad, north of downtown
- Just west of the airport along McPherson Road
- Along the Kansas City Southern rail line and near the intersection of Bob Bullock Loop and SH 359
- Near the intersection of the Camino Colombia Toll Road and Mines Road



It is important for the industrial facilities to be located along truck routes in order to separate commercial traffic from non-commercial traffic and also from environmentally sensitive areas. Furthermore, the industrial facilities should be located along roadways equipped with the ability to accommodate substantial truck traffic. Presently, industrial facilities are located at such places within the Laredo region, but it will be important to continue regulating the locations and operations of these facilities. Additional information regarding the relationship between the industrial facilities and the transportation network can be found in Chapter 4.

### Shopping Centers

Shopping Centers are considered major traffic generators as they can increase traffic during certain peak times including on the weekends and in the evenings. Mall del Norte is currently the largest mall in the region and is located along IH 35 at Hillside Dr. Other shopping centers and major stores are also in close proximity to Mall del Norte along the IH 35 frontage road. Within downtown Laredo, the El Portal Center, formally called the River Drive Mall, is an indoor mall located on Salinas Avenue facing the north bank of the Rio Grande River. Other regional shopping centers include Del Mar Plaza and North Creek Plaza near IH 35 and Del Mar.



Furthermore, there are several HEB Food Stores and Walmarts throughout the City of Laredo that attract many people shopping for groceries and other goods.

### Colleges and Universities

The Laredo region has one major university and one community college with two campuses. These types of institutions place a special demand on the transportation system as they



attract vehicular traffic from students and employees at different times of the day. Moreover, the campuses place a demand on public transit, as many students do not own their own vehicles and must rely on alternative modes of transportation.

Texas A&M International University is located in Northeast Laredo on Bob Bullock Loop between Del Mar and Jacaman Road. It is a member of the Texas A&M University system and offers both bachelors and master's degrees focused in arts and sciences, business administration, education, and nursing and health sciences, and one Doctor of Philosophy degree in International Business Administration. The university has approximately 5,000 students and 1,000 faculty and staff.



The Laredo Community College has two campuses with the main campus located in the downtown area at the former

Fort McIntosh site on Washington Street, and the newest campus located in South Laredo on Zapata Highway (US 83) at Don Camilo Boulevard. The two-campus institution offers two-year associates degrees and serves the three-county area of Webb, Jim Hogg, and Zapata counties. The student enrollment for Laredo Community College was approximately 8,200 in the fall of 2008 and employed about 1,500 faculty and staff as of 2009.

### Current Policies

The City of Laredo Comprehensive Plan, adopted August 26, 1991, provides a basis and vision for land development in the City of Laredo. It includes policies based on goals, objectives, and strategies for a coordinated planning approach in managing future growth. In the 1991 plan, the focus for planning was directed towards the land use and transportation elements. As stated in the plan, future elements to address would include parks, recreation, schools, and open space, urban design, central business district, economic development, housing, and all utilities.

In particular, the urban form model in the plan plays off of the existing grid street pattern in central Laredo and is based on a neo-traditional town planning concept in which the most intensive land uses are located in clusters, along thoroughfares and at the intersection of major roadways. The planning model, in turn, is based on a neighborhood concept in which all identified areas or neighborhoods of the City have access to equal facilities and services. As stated in the Comprehensive Plan, the planning tools for implementation include zoning, subdivision ordinances, and the capital improvement program (CIP).

Along with these planning tools, the City of Laredo also has a thoroughfare plan which provides a basis for establishing a hierarchical street network that takes into account current and future land use patterns. In particular, the thoroughfare plan is focused on the future allocation of the transportation network through the reservation of road right-of-way.

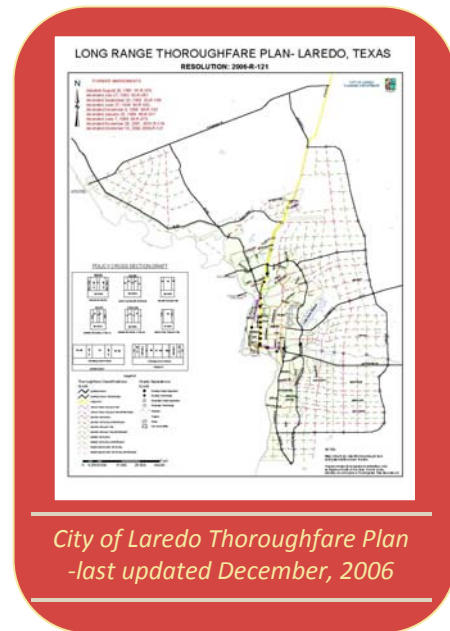
### ***Connecting Land Use and Transportation Planning***

The types of land uses and development in a region generally fall into the categories of where a person lives, works, or plays. These nodes of activity are often times separated, but are increasingly becoming more integrated as people realize the benefits of mixed forms. The links connecting the nodes of activity are the highways, roads, and other such pathways in a transportation system. Where these land uses are located, as well as their density and design, impacts the amount of travel and mode choice in a region. For example, a school located within a neighborhood would more likely have children walking to it than would a school located on a major highway. In the latter case, the roadway can act as a barrier to a community. Despite some of the barriers they cause, roadways act the connecting links for most land uses in America.

In general, how a city or region is planned in terms of the types of land uses has a direct effect on how the transportation system is developed. This is also true for how the transportation system is planned and how it can affect future land use. For instance, new or improved transportation infrastructure, combined with other such services, enables a community or region to extend into new areas of development. Therefore, linking land use planning and transportation planning is important for the overall health of a region.

### ***Current Land Use***

It is useful to examine existing land use, as current development patterns directly influence how future development occurs, and therefore, how the transportation system will evolve. The distribution of current land uses can be categorized into broad percentages to understand how much land is contained within a single land use in order to determine future distributions of growth and development. Table 2-2 shows the current land use square miles and percentage of total land for each broad land use category within the Laredo MPO planning area as well as for the city itself. In particular, undeveloped and vacant land tends to be quite large compared with other land uses, which indicates the relative compactness of the current development. The amount of undeveloped land and growing population has further implications for the possibility of urban sprawl. The type of density is important, because greater density increases the efficiency and effectiveness of transportation services.



**Table 2-2: Land Use**

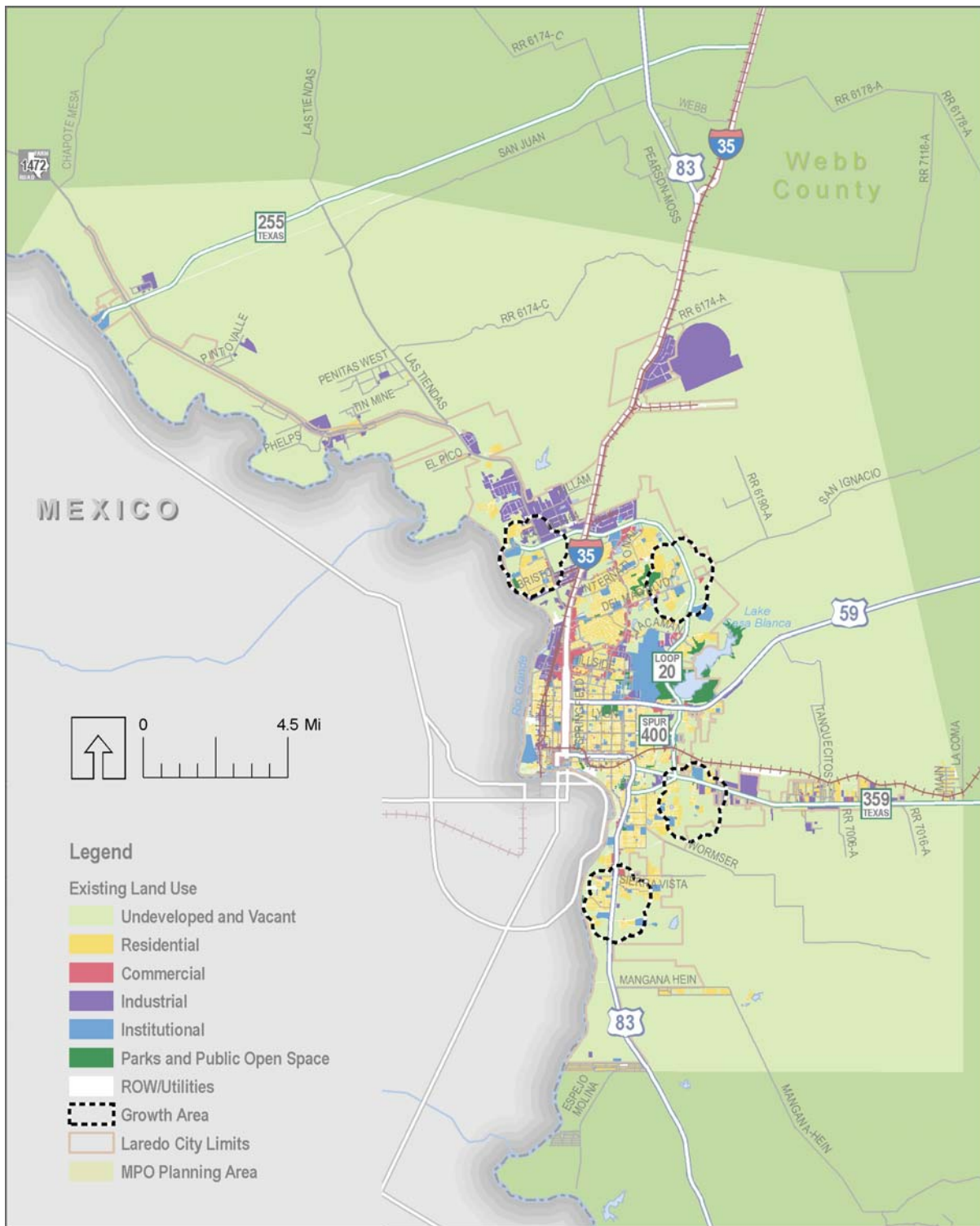
Land Use Type	MPO Planning Area		City of Laredo	
	Square Miles	Pct.	Square Miles	Pct.
<b>Commercial</b>	3.25	0.8%	3.25	3.7%
<b>Industrial</b>	14.00	3.4%	9.00	10.1%
<b>Institutional</b>	5.50	1.3%	5.50	6.2%
<b>Parks and Public Open Space</b>	3.50	0.8%	2.50	2.8%
<b>Residential</b>	17.75	4.3%	15.75	17.7%
<b>ROW/Utilities</b>	16.00	3.8%	12.75	14.3%
<b>Undeveloped and Vacant</b>	357.50	85.6%	40.25	45.2%
<b>Total</b>	414.0	100.0%	89.00	100.0%

Figure 2-7 displays the existing land use patterns in the Laredo region. Overall, commercial and retail development tends to be situated along major road thoroughfares such as IH 35. The most predominant area of commercial and retail development is in the Mall del Norte area along IH 35, between Del Mar Boulevard and Calton Road. Industrial facilities are concentrated in industrial park areas on the outskirts of the City of Laredo, especially along IH 35, Mines Road, and Bob Bullock Loop towards the north. Public or institutional uses are interspersed throughout the City of Laredo, particularly in the city center and in residential areas. Parks and open spaces are also interspersed throughout the City and often in proximity or adjacent to water features such as creeks. The main park in the region is Lake Casa Blanca State Park in the northeast. Lastly, residential development is the primary land use in the City of Laredo and is contained primarily between the Rio Grand River and Bob Bullock Loop (Loop 20), although there are clusters along Mines Roads, Zapata Highway (US 83), and SH 359.

Over the past five years, the following areas have experienced significant growth in primarily residential development:

- Area west of Mines Road (FM 1472), including north and south of Bob Bullock Loop
- Area west of Bob Bullock Loop (SL 20), north of Del Mar, east of Laredo Country Club, and north of Jacaman
- Area southwest of Bob Bullock Loop (SL 20), east of Ejido, and south of SH 359
- Area on both sides of Zapata Highway (US 83) between Lomas Del Sur and Cielito Lindo

**Figure 2-7: Existing Land Use, with recent growth areas**



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# CHAPTER 3: SOCIOECONOMIC DATA



## Introduction

The Laredo region benefits significantly from its location along the Interstate 35 corridor and its adjacency to Mexico. These factors have contributed to the fact that Webb County’s population has grown from just over 133,000 in 1990 to approximately 233,000 in 2007. Based upon the most recently developed estimates, the population is expected to more than double by the year 2035 with an estimated population of approximately 490,000. As a “gateway” to the United States and a dominant inland port along the US/Mexican border, smart investments in transportation infrastructure is important in meeting today’s needs and the future demands of the region.

## Current Socioeconomic Data

Examining current and projected socioeconomic data in a region is an important step in determining present and future transportation requirements. Socioeconomic characteristics, such as population, size and number of households, and employment, are key variables that aid in understanding the traveling habits of the region’s population. Because most data is reported at the county level and because the MPO planning area accounts for nearly all of the population and employment in the county, county-level data is presented throughout this chapter.

## Population

Population data is considered the most important element of a region’s socioeconomic characteristics. Based on magnitude and location of population, decisions can be made to satisfy regional transportation needs. Table 3-1 indicates the total population for Webb County in 1990, 2000, and 2007, with comparative statistics for the State of Texas and the nation as a whole.



**Table 3-1: Population, Webb County, Texas, and United States**

	1990	2000	2007	Percent Change (1990-2000)	Percent Change (2000-2007)
<b>Webb County</b>	133,239	193,117	233,152	44.9%	20.7%
<b>State of Texas</b>	16,986,510	20,851,820	23,904,380	22.8%	14.6%
<b>United States</b>	248,709,873	281,421,906	301,621,159	13.2%	7.2%

Source: U.S. Census Bureau

Figure 3-1 displays population concentrations in the Laredo region in terms of the number of people per acre for each traffic analysis zone (TAZ). Analyzing the distribution of people in a region is necessary in order to understand how transportation improvements can affect different numbers of people. Smarter infrastructure investments can be made by pinpointing transportation improvements in more densely populated areas that serve more people. This is especially true for public transit, as the efficiency and effectiveness of public transit is largely dependent on the number of people it can serve. The most densely populated areas of Laredo are the older residential areas east of Interstate 35 and in the southeastern portion of the city.

**A Traffic Analysis Zone (TAZ) is a geographic area delineated by transportation planners within a travel demand model. The model estimates the number of trips that are generated within and attracted to each zone based upon the characteristics of the population and employment located within each zone.**

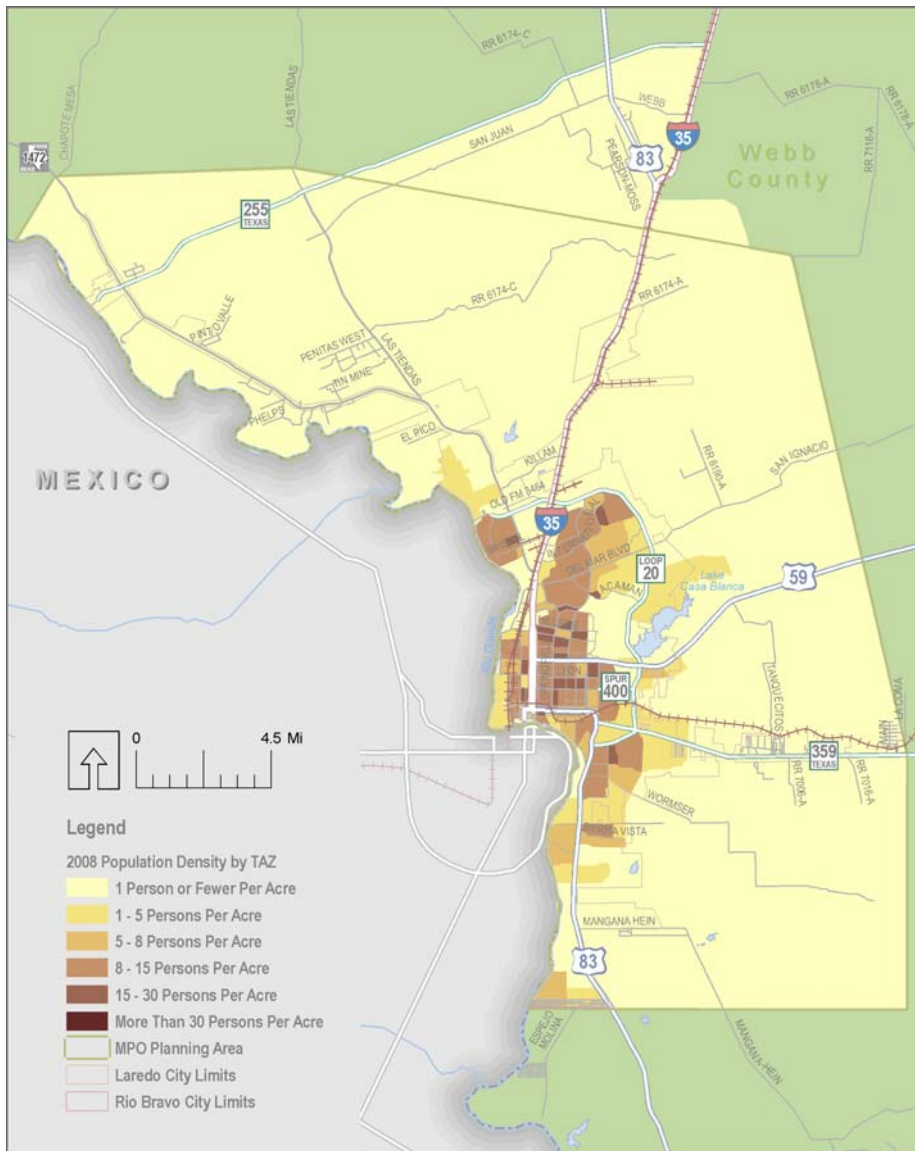
### Households

The number of households and the size of those households have an effect on the number of trips made within a given region. Larger households generally tend to generate more trips than do smaller households. Similar to an increase in population, an increase in the number of households correlates to increased demand on a transportation system. Across the United States, the number of households has increased while the size of households has decreased over time. This is due to various cultural factors such as the decrease in children per family and an increase in single-parent households. Table 3-2 presents the total number of households for Webb County in 1990, 2000, and 2007, as provided by the U.S. Census Bureau.

**Table 3-2: Households, Webb County, Texas, and United States**

	1990	2000	2007	Percent Change (1990-2000)	Percent Change (2000-2007)
<b>Webb County</b>	34,438	50,740	60,859	47.3%	19.9%
<b>State of Texas</b>	6,070,937	7,393,354	8,095,025	21.8%	9.5%
<b>United States</b>	91,947,410	105,480,101	111,609,629	14.7%	5.8%

**Figure 3-1: Population Density by Traffic Analysis Zone, 2007**

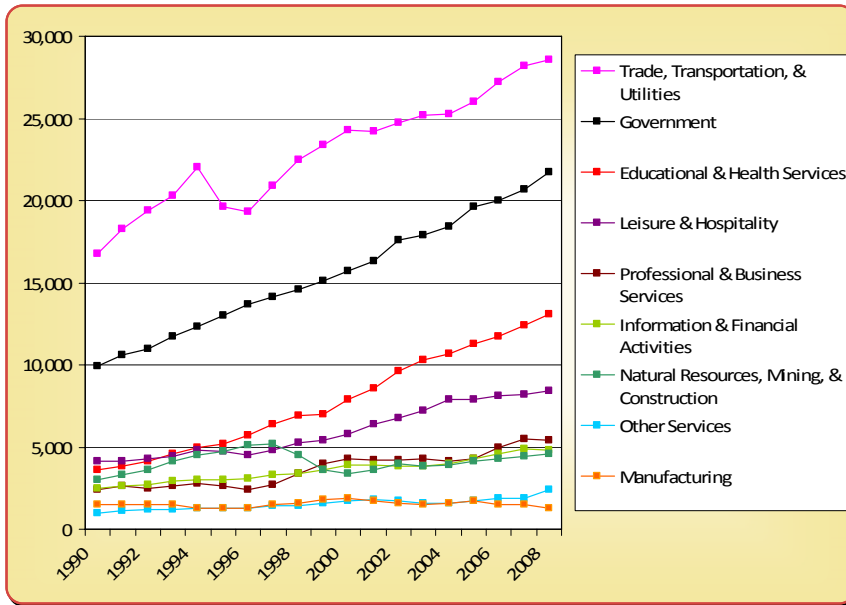


### **Employment**

A region’s economy is largely dependent on the ability of workers to reach their destinations. In turn, a region’s transportation system must meet the needs of the users by providing adequate circulation and connectivity. In transportation planning, employment is a major factor to consider because it generates a significant amount of trips. Therefore, it is essential to review important economic indicators in order to properly plan future transportation investments.

It is advantageous to assess employment changes at broad industrial levels in order to gain a general understanding of major differences in the labor force for a given region. Figure 3-2 below displays employment by major industrial sectors from 1990 until 2008 for Webb County. Compared with other industrial sectors, the Laredo region has benefited from the strengths in the Trade, Transportation, and Utilities sector, as well as the Government and Education & Health Services sectors.

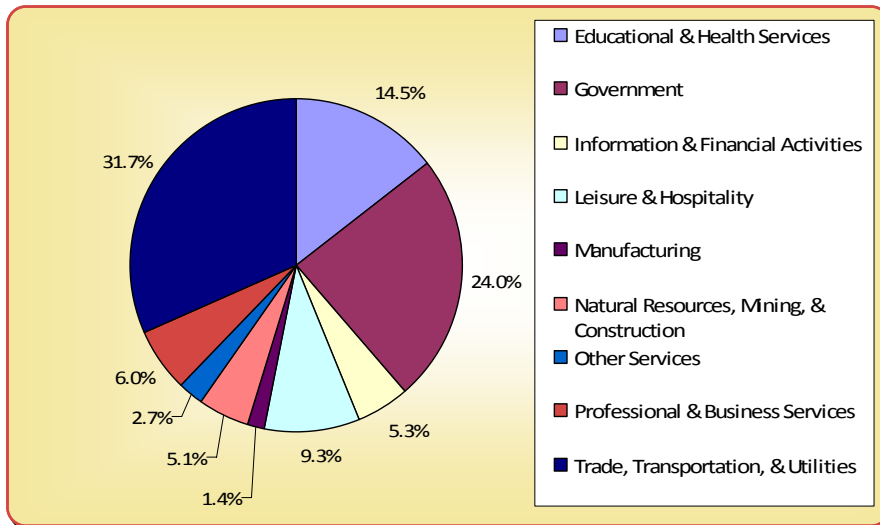
**Figure 3-2: Webb County Employment, 1990 to 2008**



**Source: Texas Workforce Commission, 2008**

Figure 3-3 shows the distribution of employment by various industry sectors in 2008 for Webb County.

**Figure 3-3: Webb County Employment by Sector, 2008**



**Source: Texas Workforce Commission, 2008**

### Major Employers

Based on information from the Laredo Development Foundation, the following table is a list of the top 20 major employers in the Laredo region. As shown, the largest employers in the Laredo region tend to be in the public sector.

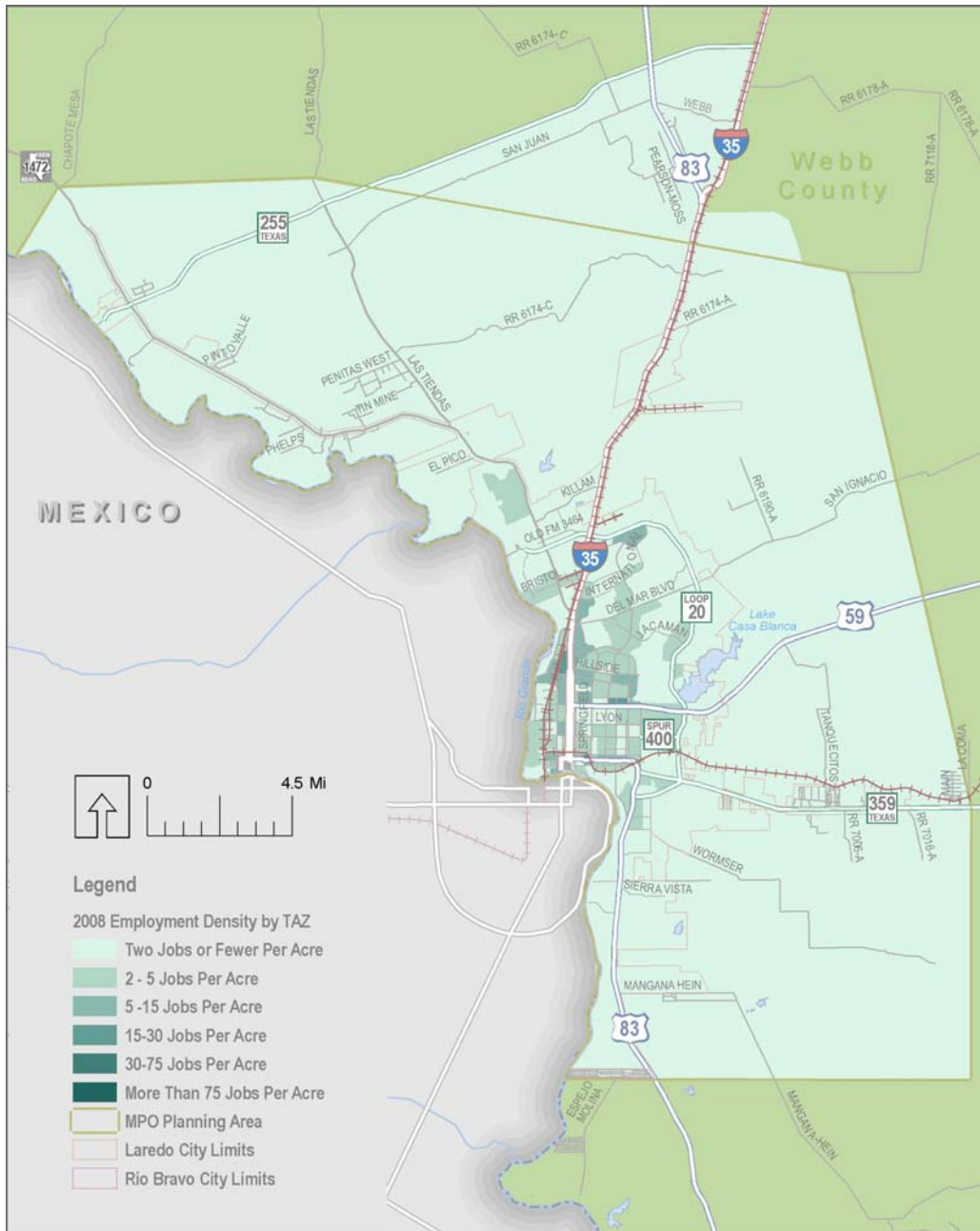
**Table 3-3: Major Employers, 2008**

<b>Number of Employees</b>	<b>Employer</b>	<b>Sector</b>	<b>Type</b>
<b>Over 2,000</b>	City of Laredo	Public	Municipal
	Laredo Independent School District	Public	Education
	United Independent School District	Public	Education
<b>1,500 to 1,999</b>	HEB Grocery	Private	Grocery
	Laredo Community College	Public	Education
	Laredo Sector Border Patrol	Public	Immigration
	Webb County	Public	County
<b>1,000 to 1,499</b>	Convergys Call Center	Private	Call Center
	Laredo Medical Center	Private	Medical
	McDonald's Restaurant	Private	Fast Food
	Texas A&M International University	Public	Education
	Wal-Mart	Private	Retail
<b>500 to 999</b>	Compass Bank (formerly LNB)	Private	Financial
	Doctor's Hospital	Private	Medical
	International Bank of Commerce	Private	Financial
<b>200 to 499</b>	Falcon International Bank	Private	Financial
	Laredo Entertainment Center	Private	Arena
	Paul Young Auto Group	Private	Retail
	Stripes Convenience Stores	Private	Retail
	Target Greatland	Private	Retail

*Source: Laredo Development Foundation, 2008*

Not only is it important to consider employment levels in major industry sectors and major employers, but it is also useful to consider the relative locations of all employment within a region. Figure 3-4 below shows the employment density per acre for the Laredo region. In evaluating transportation improvement options, it is useful to identify concentrations of employment to assess the relative locations of major travel destinations. Employment within the Laredo region is primarily located within the urban core and along major arterial facilities. In addition, there is high concentration of employment within the area's industrial parks.

**Figure 3-4: Employment Density by TAZ, 2008**



## Environmental Justice

Environmental justice seeks to provide an equitable distribution of both benefits and adverse impacts borne of public policy decisions. These decisions could refer to, for example, the equal distribution of clean air and water, parks, healthcare, education, and transportation. In particular, Title VI of the Civil Rights Act of 1964 states, "No person in the United States shall, on the ground of race, color, or national origin be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any program or activity receiving Federal financial assistance."

Then, in 1994 Executive Order 12898 mandated that every federal agency was responsible for incorporating environmental justice concerns into their programs, policies, and activities. In doing so, the U.S. Department of Transportation (USDOT) issued its own mandate to ensure that environmental justice concerns were addressed in transportation decisions, including those of transportation planning agencies. As defined by USDOT, the three fundamental environmental justice principles include the following:

- **To avoid, minimize, or mitigate disproportionately high and adverse human health and environmental effects, including social and economic effects, on minority populations and low-income populations.**
- **To ensure the full and fair participation by all potentially affected communities in the transportation decision-making process.**
- **To prevent the denial of, reduction in, or significant delay in the receipt of benefits by minority and low-income populations.**

In order to account for environmental justice concerns in relation to transportation investments, 2000 data from the U.S. Census Bureau were used in order to identify population characteristics and geographic distributions of minority, low income, elderly, and the disabled population. Furthermore, because of Laredo's special circumstances, the existence and locations of "colonias" were also considered.

## Minorities

USDOT has defined five minimum race categories for environmental justice considerations, including African-American, Hispanic, Asian, Native American or Alaskan Native, and Native Hawaiian or Other Pacific Islander. Table 3-4 illustrates the 2007 racial distribution of the Laredo region and compares it with the rest of Texas and the United States.



**Table 3-4: Population by Race, 2007**

Race	Webb County	Percent	Texas	United States
<b>One race</b>	<b>224,765</b>	<b>98.7%</b>	<b>98.3%</b>	<b>97.9%</b>
White	169,527	74.5%	70.6%	74.1%
Black or African American	775	0.3%	11.5%	12.4%
American Indian and Alaska Native	863	0.4%	0.5%	0.8%
Asian	1,246	0.5%	3.3%	4.3%
Native Hawaiian and Other Pacific Islander	51	0.0%	0.1%	0.1%
Some other race	52,303	23.0%	12.3%	6.2%
<b>Two or more races</b>	<b>2,813</b>	<b>1.3%</b>	<b>1.7%</b>	<b>2.1%</b>
<b>Total</b>	<b>277,068</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>
Hispanic or Latino (of any race)	215,441	94.7%	35.5%	14.7%

Source: U.S. Census Bureau, 2007

### Low Income

Based on 2007 U.S. Census Bureau estimates, the median household income and median family income for Webb County, Texas, and the United States are shown in Table 3-5.

**Table 3-5: Median Household and Family Income, 2007**

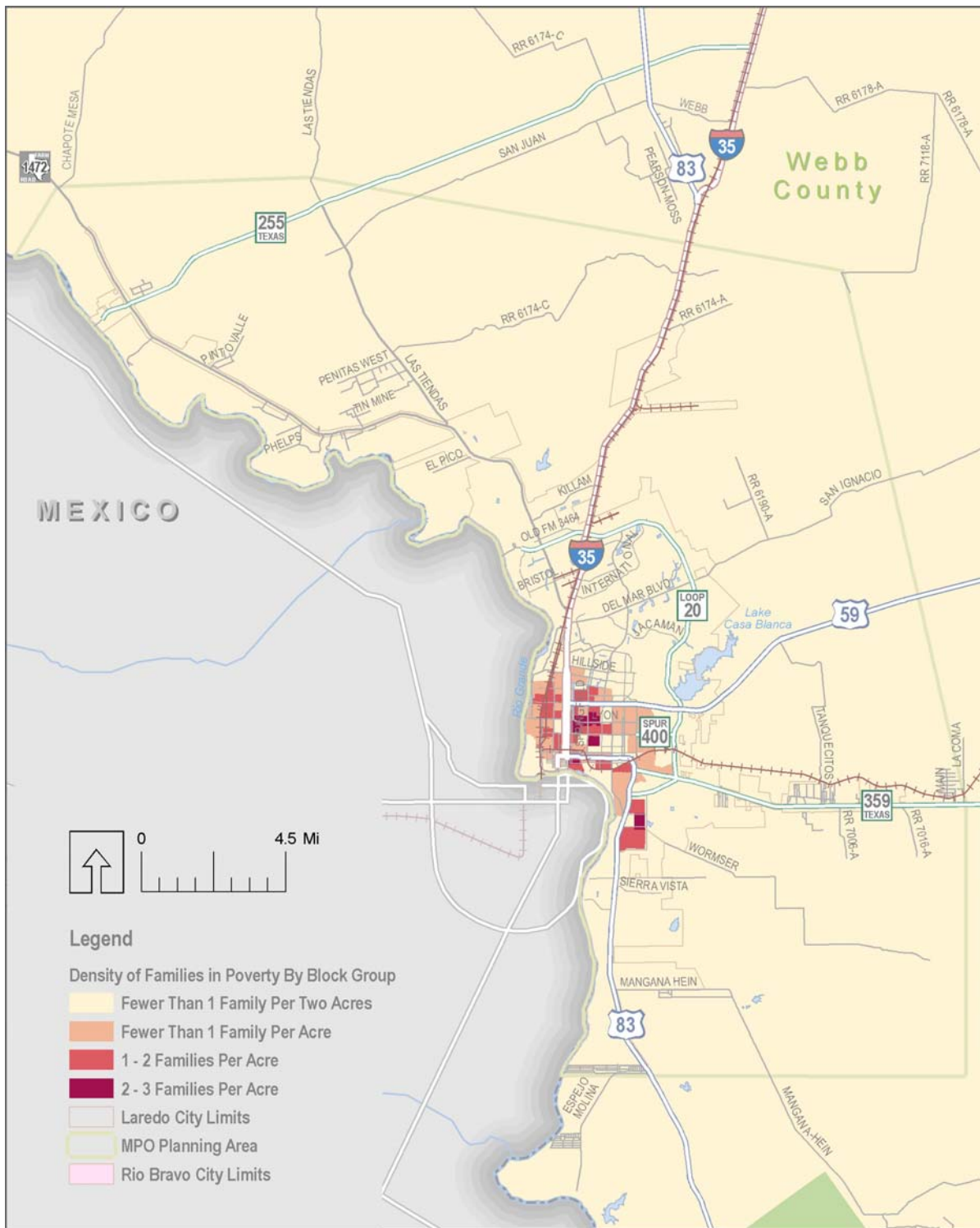
	Webb County	Texas	United States
Median Household Income	\$34,236	\$46,248	\$50,007
Median Family Income	\$35,471	\$54,165	\$60,374

Source: U.S. Census Bureau

Figure 3-5 below displays the density of families considered below the national poverty level in 2000 by census block groups. This is useful in determining any concentrations of poverty within the Laredo region. In particular, the largest concentrations of families living below the poverty level were within the central city of Laredo.



**Figure 3-5: Density of Families in Poverty by Block Group, 2000**



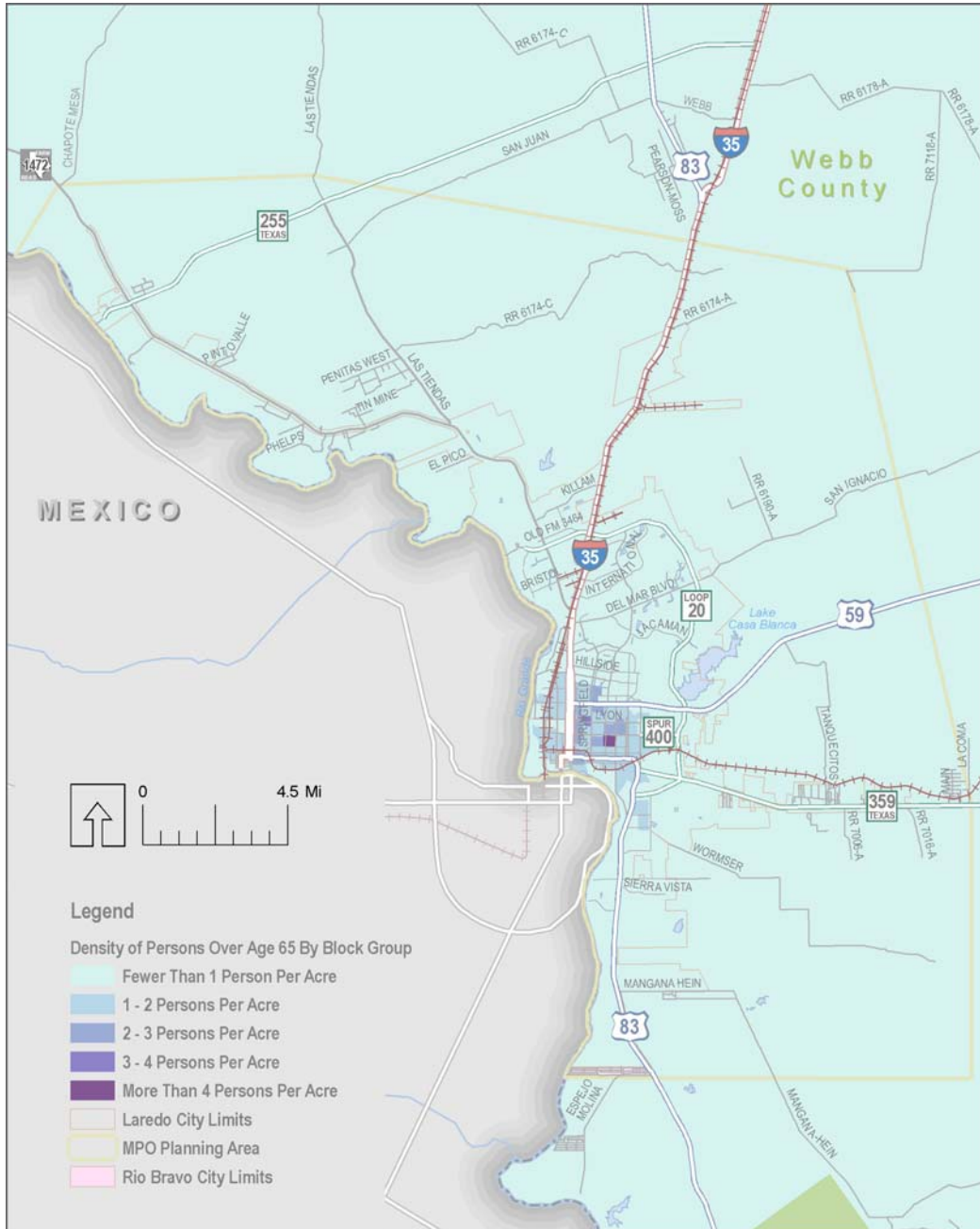
### Elderly

Besides minority and low-income populations, other populations that should be considered in relation to transportation needs are the elderly and people with disabilities, because these populations are more likely to be dependent on public transportation services.

According to 2007 U.S. Census Bureau estimates, approximately 18,261 people, or 8 percent of the population, in Webb County were 65 years or older.

Figure 3-6 below displays the density of people aged 65 or older in 2000 by census block groups. This is useful in determining any concentrations of elderly within the Laredo region. As shown, the largest concentration of elderly occurred in the central city of Laredo.

**Figure 3-6: Density of Persons over 65 by Block Group, 2000**



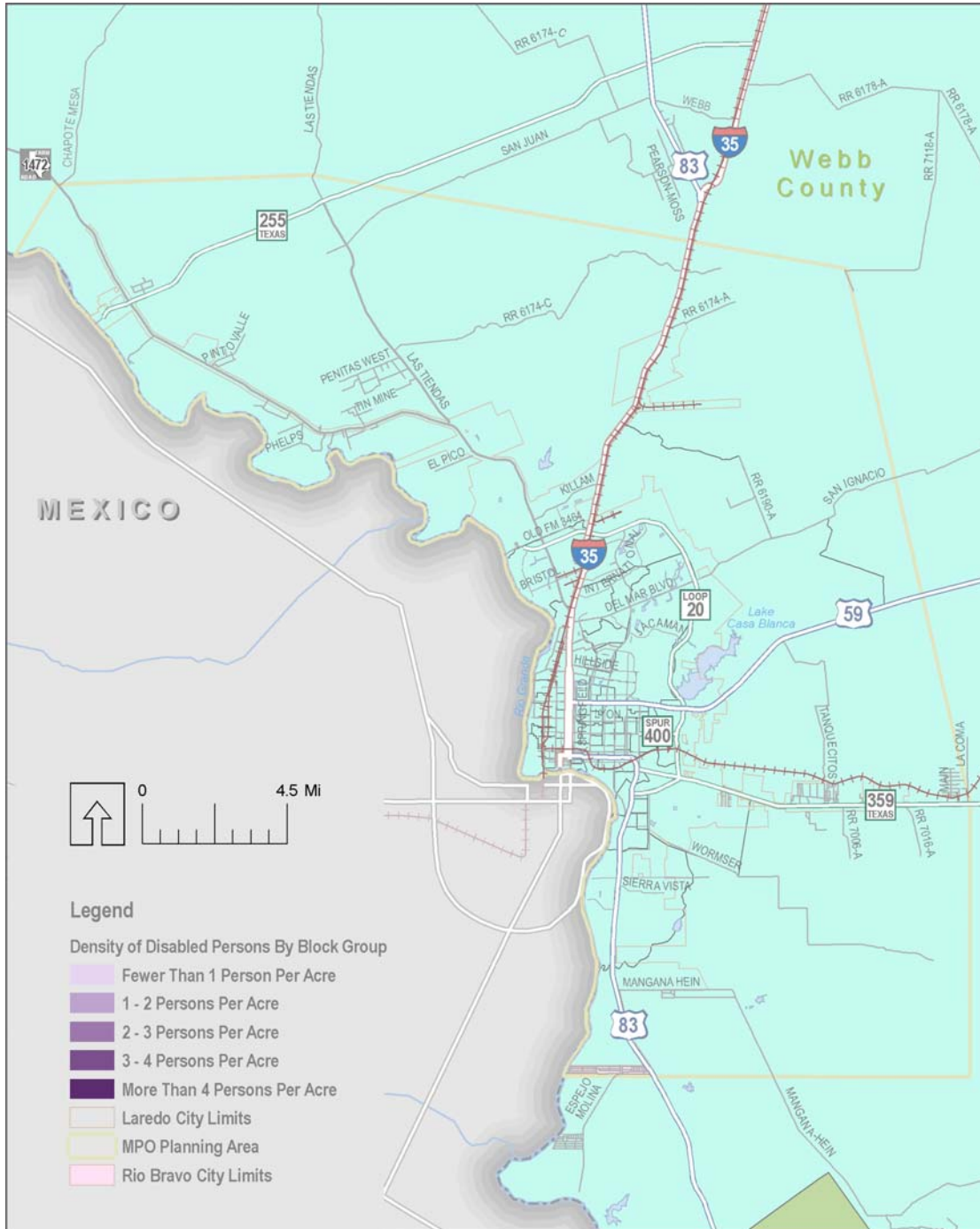
### Disabled

As defined by the Americans with Disabilities Act (ADA), a person has a disability if that individual has “a physical or mental impairment that substantially limits one or more of the major life activities of such individual, a record of such an impairment, or is being regarded

as having such an impairment.” According to 2007 U.S. Census Bureau estimates, approximately 31,035 of the population five years and over, or about 15.8 percent, were considered disabled.

Figure 3-7 below shows the density of the population five years and over that was considered disabled in 2000 by census block groups. This is important for determining any concentrations of disabled populations within the Laredo region. As shown, the largest concentration of disabled people occurred within the central city of Laredo.

**Figure 3-7: Density of Disabled Persons by Block Group, 2000**

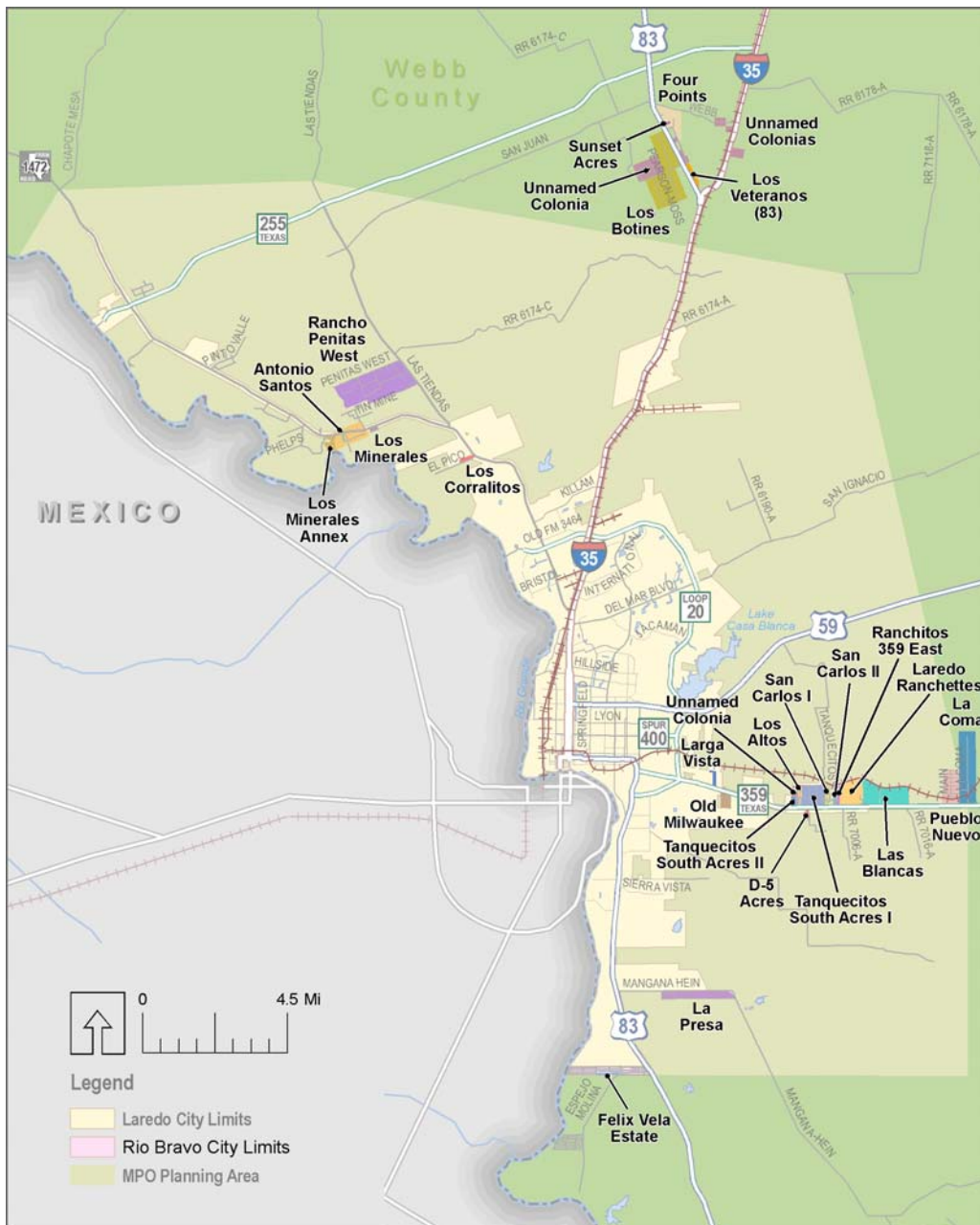


## Colonias

“Colonia” is the Spanish term for a community or neighborhood. Within Texas, colonias are defined as economically distressed residential areas located in unincorporated land along the US-Mexico border, often lacking basic public infrastructure, including potable water, sewer systems, electricity, paved roads, and safe and sanitary housing. Residents of colonias are mostly low-income individuals seeking access to affordable living accommodations. Moreover, colonias are usually located on undesirable land such as floodplains and in unincorporated areas with looser governmental regulations.

Figure 3-8 displays the locations of colonias within the Laredo region. When considering these areas, it is important to take into account transportation improvements, as well as public transit needs of these more rural areas.

**Figure 3-8: Colonias**



## Other Transportation related Socioeconomic Statistics

Analyzing transportation data such as how people travel to work, the time it takes to reach work, vehicle miles traveled, availability of vehicles, and the number of registered vehicles is helpful in understanding transportation needs and trends. Increased travel time to work could correspond with an expanding population as well as a congested transportation network. The ways in which people travel to work may indicate the importance of certain types of modes over others. The availability of vehicles or the number of registered vehicles could be related to the number of people driving to work. All of these issues are important in identifying improvements in transportation infrastructure.

### Travel time to Work

Table 3-6 below shows a breakdown of commuters according to the amount of time it takes to travel to work on a daily basis for Webb County, Texas, and the United States. Compared to the rest of Texas and the U.S., people in Webb County spend less time commuting to work. This is not surprising as the urbanized area of Webb County is generally smaller in area and more compact, which enables commuters to spend less time traveling to work.



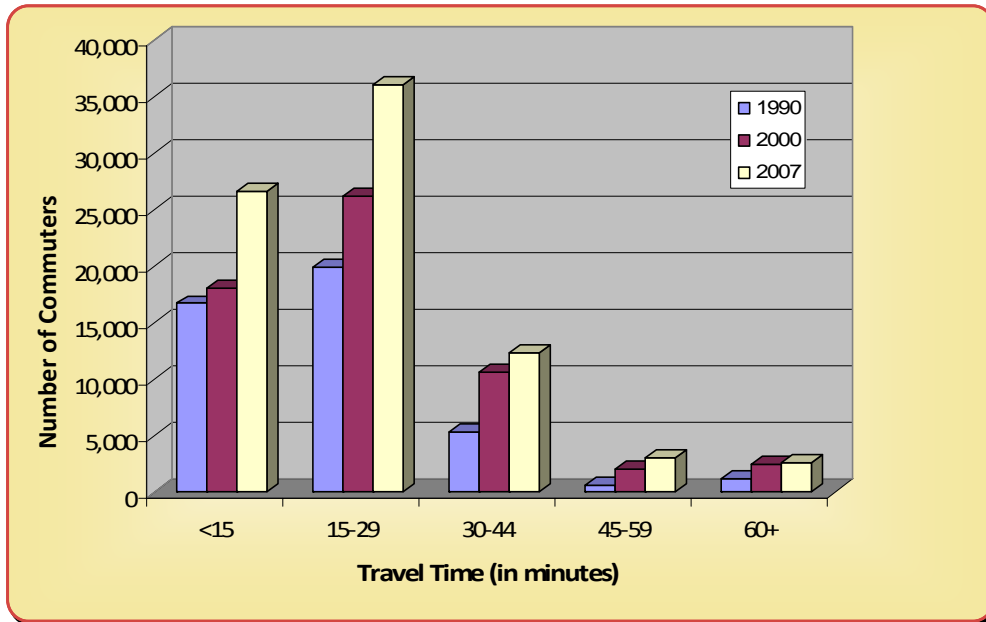
**Table 3-6: Percent of Commuters by Travel time to Work, 2007**

	Total Commuters	<15 min.	15-29 min.	30-44 min.	45-59 min.	60+ min.	Mean Travel Time
<b>Webb County</b>	80,789	33.1%	44.7%	15.2%	3.7%	3.3%	19.7 min.
<b>Texas</b>	10,027,376	28.5%	36.2%	20.4%	7.7%	7.1%	24.7 min.
<b>United States</b>	131,558,218	29.0%	36.0%	19.5%	7.5%	8.0%	25.1 min.

*Source: U.S. Census Bureau*

Figure 3-9 displays the number of workers in Webb County according to their daily commute time for 1990, 2000, and 2007. As shown, the number of workers commuting has increased, which further indicates an increased level of use of the region's transportation network. This also corresponds with the overall increase in population for the region. Longer commute times can also correlate with increased congestion and people living further from their workplace. Moreover, with the increase in travel time and more people using the transportation system, this can also indicate increased congestion problems in certain areas.

**Figure 3-9 Travel time to work, Webb County, 1990, 2000, 2007**

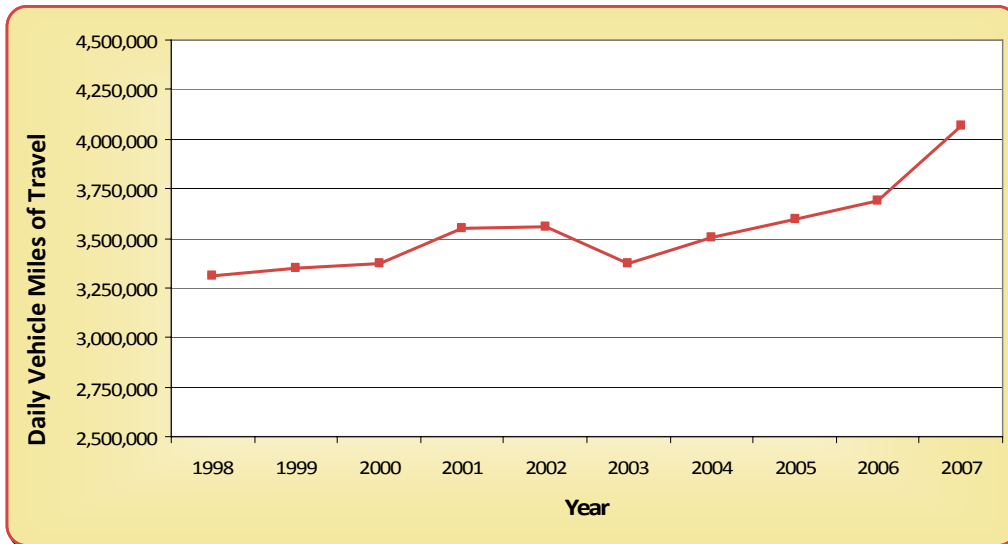


Source: U.S. Census Bureau

### Vehicle Miles Traveled

Vehicle miles traveled (VMT) is the total amount of all miles traveled by all vehicles on all public roads. Figure 3-10 displays the total daily VMT for Webb County from 1998 to 2007. Increased VMT is also related to population growth and expansion and may further indicate that people are living further from their workplace. Additionally, a region’s income and economy may also be a reflection of the use and access of personal vehicles, which in turn, will cause VMT to increase.

**Figure 3-10: Daily Vehicle Miles of Travel for Webb County**



Source: TxDOT Transportation Planning and Programming Division

## Means of Transportation to Work

Table 3-7 displays the percentage of workers in Webb County, Texas, and the United States that used a certain type of transportation to commute to work in 2007. Of note, more workers in Webb County tended to carpool or use public transportation as compared to all workers in Texas. As compared with the rest of Texas, Webb County has more people below the national poverty level. In general, people in poorer economic situations are less likely to have access to a personal vehicle and must rely on alternative modes of transportation.

**Table 3-7: Means of Transportation to Work, 2007**

	Webb County	Texas	United States
<b>Total (workers 16 years and older):</b>	83,800	10,391,858	136,926,294
<b>Drove alone</b>	76.0%	78.7%	76.1%
<b>Carpooled</b>	14.8%	12.5%	10.6%
<b>Public transportation</b>	2.1%	1.7%	4.8%
<b>Taxicab, motorcycle, bicycle, walked, or other means</b>	3.5%	3.6%	4.5%
<b>Worked at home</b>	3.6%	3.5%	3.9%

Source: U.S. Census Bureau

Table 3-8 indicates the percentage of workers (who are 16 years and older) in Webb County that used a certain type of transportation to commute to work in 1990, 2000, and 2007. As shown, the percentage of people that drove alone increased from both 1990 to 2000 and from 2000 to 2007. This increase directly relates to the decrease in the percentage of people that carpooled, used public transportation, or used an alternative means (such as walking or biking) during the same time periods.



**Table 3-8: Means of Transportation to Work, Webb County**

	1990	2000	2007
<b>Total (workers 16 years and older)</b>	44,910	61,256	83,800
<b>Drove alone</b>	68.1%	71.5%	76.0%
<b>Carpooled</b>	20.5%	19.3%	14.8%
<b>Public transportation</b>	3.3%	2.5%	2.1%
<b>Taxicab, motorcycle, bicycle, walked, or other means</b>	5.8%	3.8%	3.5%
<b>Worked at home</b>	2.4%	2.9%	3.6%

Source: U.S. Census Bureau

## Vehicle Availability

Table 3-9 indicates the vehicle availability of households in Webb County, Texas, and the United States in 2007. As shown, a larger percentage of households were less likely to have access to any vehicle as compared to Texas and the United States. Further, more households in Texas and the United States were more likely to own two vehicles as compared to the Laredo region. This has further implications for the use of alternative modes of transportation in the Laredo region, as the availability of vehicles directly relates to the use of personal transportation.

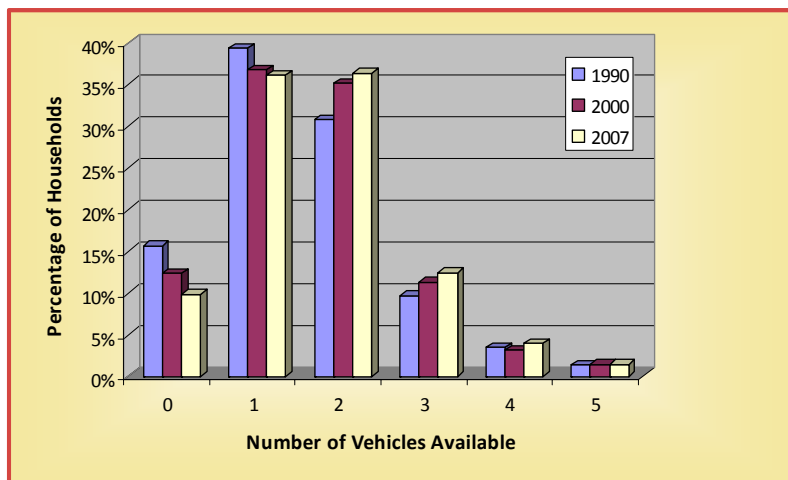
**Table 3-9: Number of Vehicles Available, 2007**

	Webb County	Texas	United States
<b>Total Vehicles (for all households)</b>	60,859	8,095,025	111,609,629
<b>No vehicle available</b>	9.8%	6.2%	8.8%
<b>1 vehicle available</b>	36.1%	35.1%	33.1%
<b>2 vehicles available</b>	36.3%	40.8%	38.1%
<b>3 vehicles available</b>	12.4%	13.3%	14.1%
<b>4 vehicles available</b>	3.9%	3.5%	4.3%
<b>5 or more vehicles available</b>	1.4%	1.1%	1.6%

Source: U.S. Census Bureau

Figure 3-11 displays the vehicle availability for households in Webb County for the years 1990, 2000, and 2007. In particular, the percentage of households owning only one or no vehicles decreased over time, while the percentage of households owning two or three cars increased over time. This occurrence also directly relates to the increase in driving alone and the decrease in carpooling, use of public transportation, and alternative means during the same time period.

**Figure 3-11: Number of Vehicles Available, Webb County**



Source: U.S. Census Bureau



## Registered Vehicles

Table 3-10 displays the number of registered vehicles for 1991, 1999, and 2007 for Webb County and Texas. As shown, the number of vehicles registered continually increased for each year for both Texas and Webb County. However, Webb County’s registered vehicles increased by a larger percentage both from 1991 to 1999 and from 1999 to 2007. This increase in registered vehicles relates to the increase in vehicle availability, use of personal transportation, and total vehicle miles traveled in Webb County.

**Table 3-10: Registered Vehicles**

	1991	1999	2007	Percent Change (1991-1999)	Percent Change (1999-2007)
<b>Webb County</b>	81,410	104,008	153,906	27.76%	47.98%
<b>Texas</b>	14,420,265	17,724,030	21,459,459	22.91%	21.08%

Source: TxDOT, Vehicle Titles and Registration Division

## Future SocioEconomic Data



By year 2035, Laredo metropolitan region is anticipated to accommodate approximately 485,000 people, more than doubling the year 2008 population. Table 3-11 shows historical population values and future population projection provided by the Texas state data center for Webb County. The State Data Center produced a series of four population projection scenarios. Each scenario differs by the assumptions relative to net migration. The 0.0 Migration Scenario assumes that in-migration and out-migration are equal resulting in growth only through natural increase. The 0.5 Migration Scenario assumes rates of net migration one-half of those of those experienced during the 1990s, and the 1.0 Migration Scenario assumes that migration patterns of the 1990s will continue to occur in the future. Scenario 2000 – 2007

assumes that migration patterns from year 2000 to 2007 will continue to occur in the future. The Texas State Data Center recommends the 0.5 Migration Scenario as appropriate for most Texas counties as this scenario reflects slower but steadier growth than that experienced in the 1990s.

**Table 3-11: Population Projections for Webb County**

Year	Population			Scenario 2000-2007
	Scenario 0	Scenario 0.5	Scenario 1	
1970			72,859	
1980			99,258	
1990			133,239	
2000			193,117	
2005	217,625	226,862	236,249	224,Ex575
2010	242,258	263,727	286,370	257,590
2015	266,060	302,631	341,794	288,968
2020	290,189	344,135	402,259	318,283
2025	315,924	388,512	466,388	345,969
2030	343,746	437,726	536,379	372,899
2035	372,352	490,418	610,917	398,062

Source: Texas State Data Center

The Laredo MPO has accepted the 0.5 scenario for use in its long-range transportation planning process. In so doing, the population of Webb County located within the MPO planning area has been estimated to be 485,206 for the year 2035. Likewise, the MPO has estimated that future employment within the planning area will more than double from 95,961 in year 2008 to approximately 202,100 in year 2035. Table 3-12 presents the current and forecasted values for both population and employment.

**Table 3-12: Population and Employment Forecast for Laredo MPO Planning Area**

	2008	2010	2015	2020	2025	2030	2035
Population	220,692	233,954	270,701	313,219	362,416	419,341	485,206
Employment	91,124	96,663	112,029	129,837	150,476	174,397	202,119

### Future Growth Patterns

The location and distribution of this growth will impact future transportation demands on the Laredo region. In an effort to predict this impact, both the future population and employment levels were distributed to the 514 internal Traffic Analysis Zones (TAZs) within the Laredo region’s travel demand model. This model is used to measure the transportation impacts of the projected growth and test



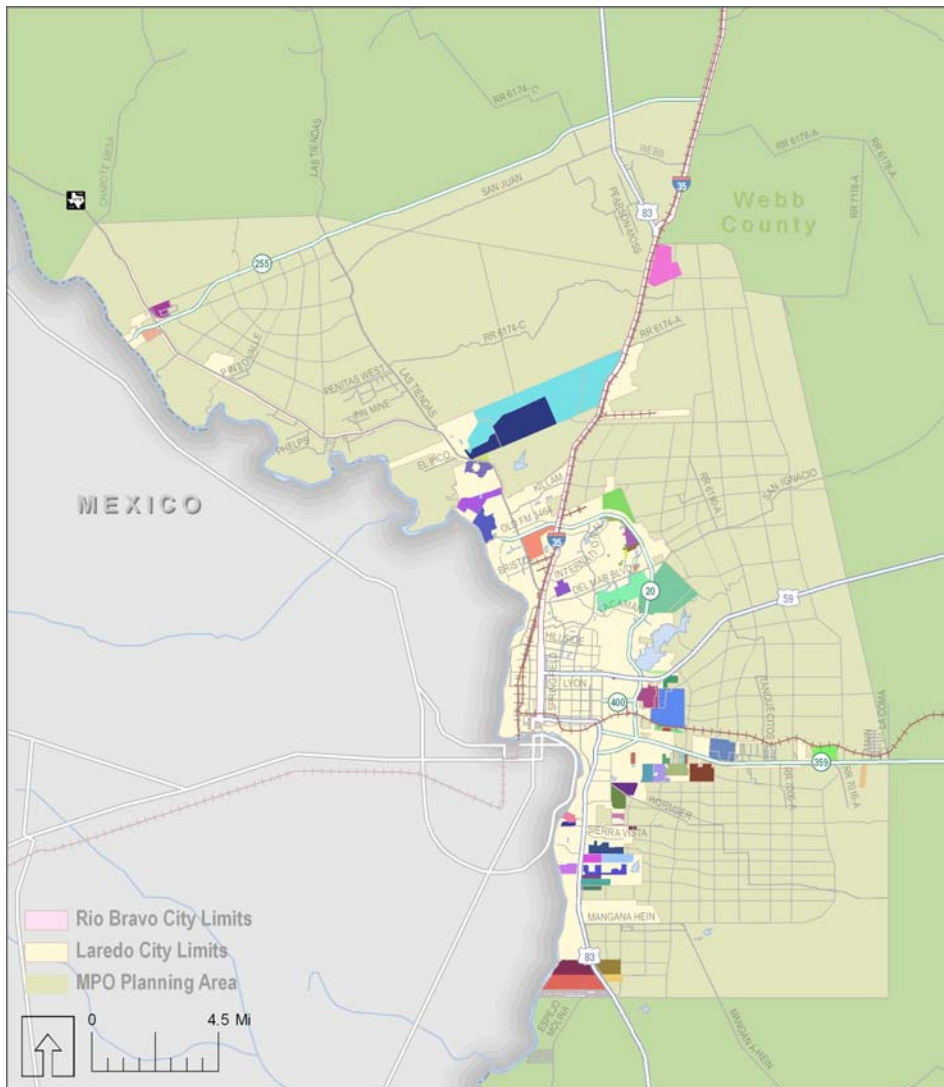
transportation system improvements to address these impacts. The allocation and assignment of future growth through the TAZs in Laredo region was performed in a two step process; first by identifying currently planned developments, and then by identifying areas most likely to experience long-term growth.

### Planned Developments

Final and preliminary plats submitted to the city represent the planned developments. Based upon information from city planning staff, approximately 16,900 acres in the region have been platted for development. Figure 3-12 shows the platted developments, which account for more than 28,000 residential lots and 2,500 acres of commercial/industrial development. These planned developments are expected to support 121,300 new residents and bring 67,020 new jobs to the region.

Substantial development is expected along the Loop 20, SH 359, and US 83 on the south side of Laredo. Based on the plans submitted for approval, population and employment were developed for these plotted developments. This growth was then allocated to the respective TAZs where the development is expected to occur.

**Figure 3-12: Platted Developments**



By adding the current 2008 population and employment values to those anticipated to occur within the planned developments, a significant portion of the population and employment expected to be in place by 2035 can be accurately located.

**Table 3-13: Long-term Population and Employment Growth**

	Population	Employment
<b>Year 2008 (a)</b>	220,692	91,124
<b>Planned Developments (b)</b>	121,295	67,060
<b>“Located” Growth (c = a+b)</b>	341,987	158,184
<b>Year 2035 Control Total (d)</b>	485,206	202,119
<b>“To Be Located” Growth (e = d-c)</b>	143,219	43,935

**“To Be Located” Growth**

As presented in Table 3-13, an additional 143,219 residents and 43,935 jobs had to be accounted for to reach the 2035 population and employment control totals. To allocate where this growth will occur, a suitability analysis was performed that assigned an “attraction” factor for each TAZ.

Suitability analysis is a technique used to categorize locations according to a set of criteria that define an area’s attractiveness for development. Each aspect of land has intrinsic characteristics that are in some degree either suitable or not suitable for development. There are many factors that influence and drive the growth or expansion of urban areas. The analysis performed to estimate the locations of additional population and employment considered natural resources, infrastructure, and other information to identify land most suited for development, as well as those areas in which development should be avoided.



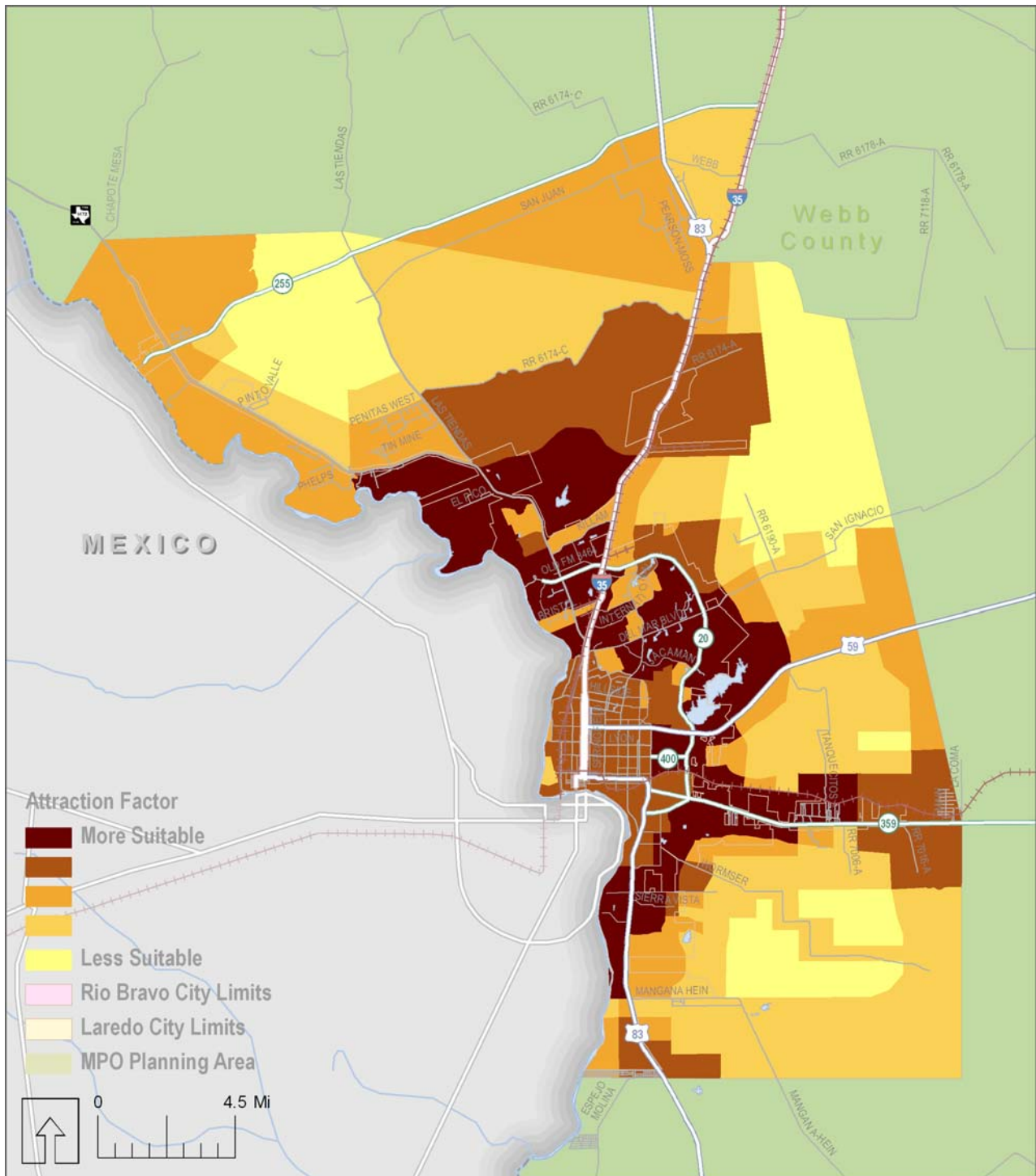
The following factors were assumed to drive future developments in the Laredo region:

- Availability of Developable Land
- Proximity to Major Roads
- Accessibility
- Proximity to Downtown
- Planned Developments

For this analysis, a linear relationship was assumed to exist between the likelihood of the development of land in a TAZ and its attraction factors. That is, the probability of the occurrence of development within a TAZ was directly related to a TAZ’s attraction factor.

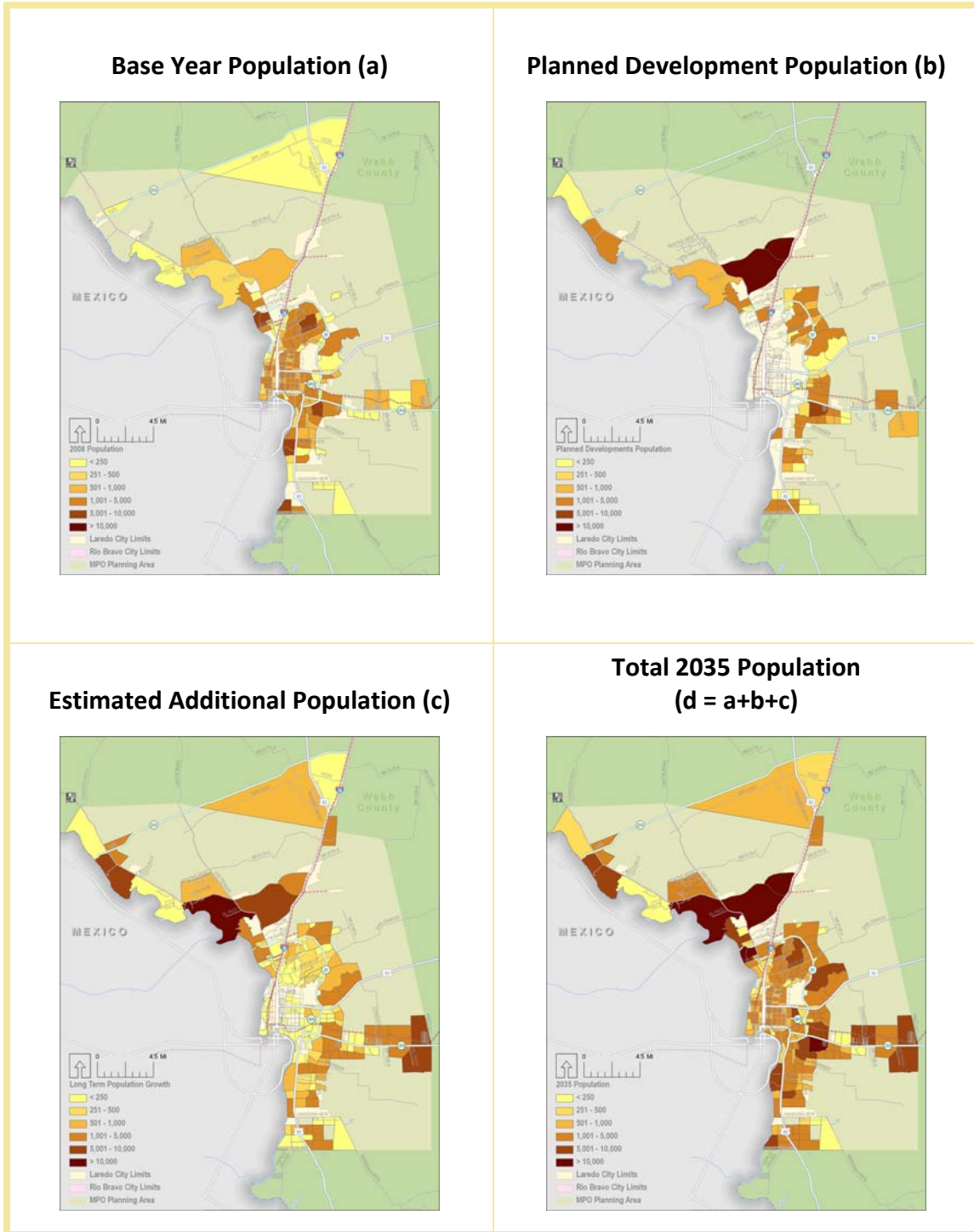
Figure 3-13 shows the attraction factors developed for the TAZs with the Laredo MPO planning area. The “to be located” growth was distributed to each TAZ based upon each TAZs attraction factor.

**Figure 3-13: Attraction Factors by Traffic Analysis Zone**

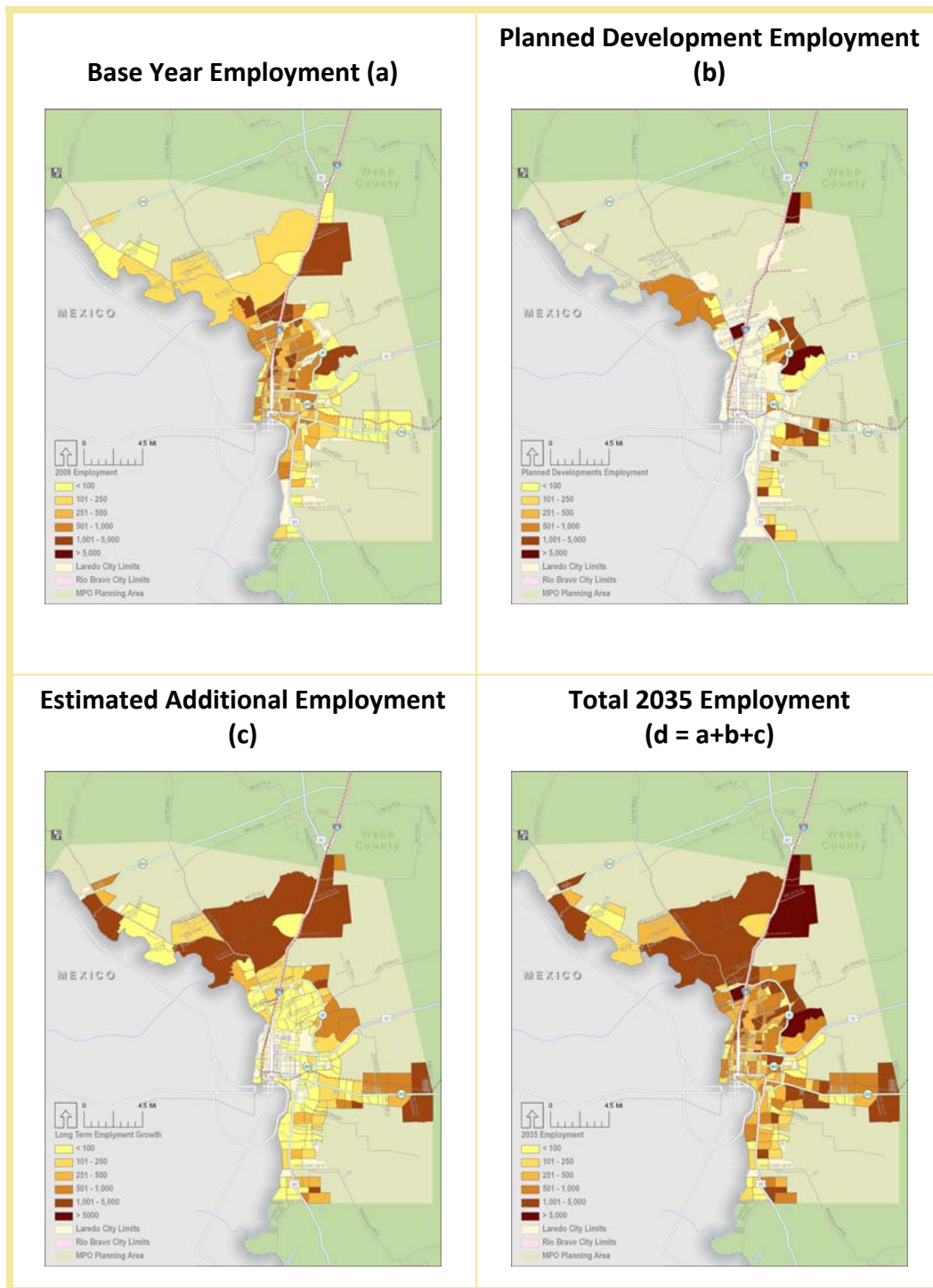


Next, the growth from planned developments was added to the “to be located” growth to estimate the distribution of population and employment growth for year 2035. Figure 3-14 (population) and Figure 3-15 (employment) present the results of this exercise.

**Figure 3-14: Development of 2035 Population Projection**



**Figure 3-15: Development of 2035 Employment Projection**



Finally, to determine the final population and employment levels for each TAZ in the year 2035, this new growth was added to the base year population and employment levels and to the growth from planned developments. The resultant socioeconomic data was then input into the regional travel demand model in order to analyze future travel patterns.

## Nuevo Laredo

A discussion about the socioeconomic profile of the Laredo would not be complete without some mention of its sister community across the Rio Grande River. While Nuevo Laredo is outside the formal U.S. metropolitan planning area, the impact of its growth and development is directly felt by the Laredo region.



At one time, the settlement surrounding Laredo was one community. However, with the signing of the Treaty of Guadalupe Hidalgo in 1848 that established the Rio Grande River as the border between the United States and Mexico, Nuevo Laredo was founded thereafter on the south side of the Rio Grande with people who wanted to remain Mexican citizens. Therefore, Laredo and Nuevo Laredo share common historical and cultural ties. Today, that bond can still be felt through the daily international crossings of people and goods, as well as the shared economic circumstances as important inland ports of entry.

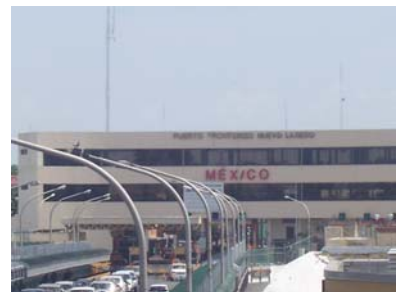


Nuevo Laredo's growing population and similar economic situation directly influences various aspects of the Laredo region and its transportation system, including the international bridges, roadways, bicycle and pedestrian facilities, railways, and the transit system. In particular, many Nuevo Laredo residents cross the international bridges daily to enjoy the wide and varied retail opportunities that Laredo has to offer. This especially

affects the downtown area of Laredo and its street network with the daily foot traffic and pedestrian border crossings.

Nuevo Laredo, a city within the Mexican state of Tamaulipas, is the most important Mexican gateway to the U.S in terms of freight and as well as the chief point of entry for U.S. tourists driving to Mexico. According to the border crossing and entry data maintained by the Bureau of Transportation Statistics, nearly 32% of the truck volumes coming from Mexico to the U.S. used Nuevo Laredo as the port of entry in 2006. Moreover, based on Global Insight's World Trade Model, of the 109.7 million metric tons of cargo carried by rail and truck north and south across the U.S.-Mexico border in 2006, nearly 46% traveled through the Nuevo Laredo port of entry.

According to the National Institute of Statistics and Geography (INEGI), the city's population grew from 308,828 in 2000 to 348,387 in 2005. In addition, in its 2003 Mexico Economic Census, INEGI estimated the total employment for the Mexican state of Tamaulipas was 211, 921 and the gross domestic product (GDP) was 96,227,877. Based on this information, Tamaulipas is ranked among the top ten Mexican states in terms of employment and GDP,



suggesting a high level of economic development compared to other states or regions in Mexico. The location at the U.S.-Mexico border and transportation advantages add to the





attractiveness of Nuevo Laredo and Tamaulipas as a business location for both new businesses and for existing businesses to remain and expand.

Overall, the Nuevo Laredo economy is centered on the commercial and industrial importation and exportation between the U.S. and Mexico. The economy depends on the regional transportation infrastructure of both Nuevo Laredo and Laredo to facilitate the flow of trade and merchandise among the two countries.

As population, employment opportunities, and international trade continue to grow in Nuevo Laredo, the Laredo region must be proactive and contend with increased user demands and impacts on the region's transportation infrastructure. Therefore, it is crucial that the Laredo region not only account for its own growth, but also continue to monitor growth trends in its sister community.

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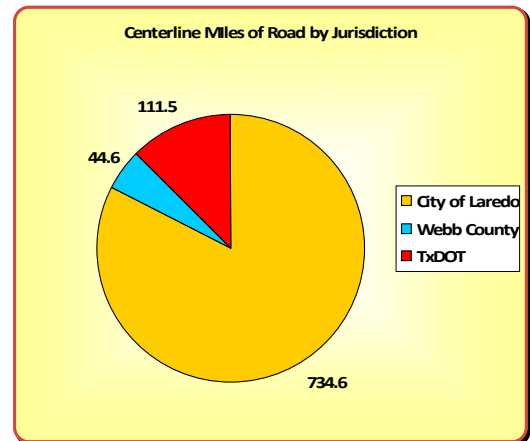


### Introduction

The Laredo region has a well-established multimodal transportation network including roadways, railroads, a fixed route transit system, and bicycle and pedestrian facilities. This chapter discusses this interconnected network and presents trends that help understand future needs.

### Major Roadways

The roadway network within the Laredo Metropolitan Planning area consists of interstate, freeway, arterial, collector, and local roadways. The Texas Department of Transportation (TxDOT) maintains 111.5 centerline miles of state roadways, while Webb County maintains 44.6 centerline miles of roadways, and the City of Laredo maintains 734.6 miles of roadways within the area.



### Interstate 35

Often referred to as the NAFTA Superhighway, Interstate 35 (IH 35) travels northward from Laredo, through the heart of Texas, and as far north as the Canadian border in Duluth, Minnesota. Current average daily traffic along IH 35 ranges between 32,000 vehicles per day (vpd) in the northern portion of the MPO Planning area to 118,000 vpd just south of Mann Road. Speed limits range between 30 miles per hour (mph) approaching the international border to 70 mph in rural areas. IH 35 primarily consists of four to six lanes of roadway, but changes into two one-way streets consisting of a total of ten lanes as it approaches the international border.



### Business Interstate 35

Business Interstate 35 (BI 35) is locally known as San Bernardo Avenue between IH 35 and Houston Street. Then, it operates along a series of one-way parallel facilities in the urban core of downtown Laredo. The southbound portion of BI 35 operates westerly along Houston Street and thence southerly along Salinas Avenue to the US Customs Port of Entry. The northbound portion of BI 35 operates northerly along Covent Avenue and thence easterly along Matamoros Street at San Bernardo Avenue. Traffic volumes along this roadway range from 12,000 to 25,000 vpd.





### *US Highways*

US 59 begins at IH 35 in downtown Laredo and extends easterly as a four to six-lane roadway (also known as Saunders Street). East of Loop 20 it becomes a two-lane roadway. It transports 3,500 vpd in the far eastern section of the MPO planning area and 36,000 vpd just east of IH 35.



Approaching downtown Laredo from the southern part of the planning area, US 83, also called Zapata Highway, transforms into the one-way pair streets of Chihuahua and Guadalupe. From there, it is co-aligned with IH 35 northward for approximately 14 miles, then veers in a northerly direction towards Abilene. US 83 ranges from a four-lane expressway varying between 55 and 70 mph in some areas, to a four-lane arterial or one-way pair streets in downtown Laredo with speed limits as low as 30 mph. US 83 transports an average daily traffic volume of about 14,000 vpd a few miles north of Rio Bravo to 41,000 vpd just east of IH 35.



### *State Highways*

Loop 20, which is also known as the Bob Bullock Loop, provides a bypass on the eastern side of the City of Laredo. It begins at US 83 in the south, intersects with IH 35 to the north, then travels westward past Mines Road (FM 1472) and ends at the World Trade Bridge. The Bob Bullock Loop ranges from a four-lane to six-lane roadway with speed limits ranging from 40 to 55 mph. As of 2007, the loop experienced an average daily traffic volume of about 19,600 to 41,000 vpd.



SH 255, also known as the Camino Colombia Toll Road, is located in the northwestern region of the Laredo MTP study area and connects the Camino Colombia International Bridge with IH 35 to the north. Within the study area, it contains two to four-lanes of roadway and intersects with FM 255, FM 1472, and FM 3368. SH 255 also has speed limits which range from 50 to 70 mph and an average daily traffic volume of about 870 vpd. The route was officially opened in 2000 as a privately owned toll road intended primarily for commercial vehicles circumventing the congested streets of the City of Laredo.



However, due to an unsuccessful beginning, the toll road was foreclosed in 2003, after which it was auctioned off to a private financial institution. The following year TxDOT bought the toll road and currently operates and maintains it as a tolled state highway.



SH 359 begins at US 83 in the southeastern part of central Laredo, crosses Loop 20, and then proceeds eastward towards Hebbronville and Alice. It is primarily a four-lane roadway with speed limits that vary from 30 to 70 mph with an average daily traffic volume between 8,500 and 19,800 vpd.



State Spur 400 is a four-lane roadway consisting of the eastern portion of Clark Boulevard between Arkansas Avenue and Loop 20. Speed limits range from 35 to 45 mph with average daily traffic volumes around 21,000 vpd.

### ***Farm to Market Roads***

Within the Laredo region, TxDOT operates three Farm-to-Market (FM) roads: FM 255, FM 1472, and FM 3338. FM 255 begins at the Camino Columbia International Bridge and continues for about one mile to the intersection of SH 255 and FM 1472. FM 1472, also known as Mines Road, travels in a northwesterly direction from IH 35 just north of downtown Laredo, follows the Rio Grande River, intersects with SH 255 near the Camino Columbia International Bridge, and proceeds further northwest.



Near central Laredo, FM 1472 begins as a six-lane roadway and transforms into four lanes as it travels towards SH 255 and then into two lanes further north. Speed limits range from 45 mph in the urban area with 38,000 vpd to 70 mph in the rural area with 420 to 8,200 vpd. From FM 1472, FM 3338 (also known as Las Tiendas Road) branches off as a two-lane roadway and travels in a northwesterly direction past SH 255. The speed limit on FM 3338 is 55 mph with average daily traffic volumes ranging from 560 to 2,100 vpd.

### ***City Streets***

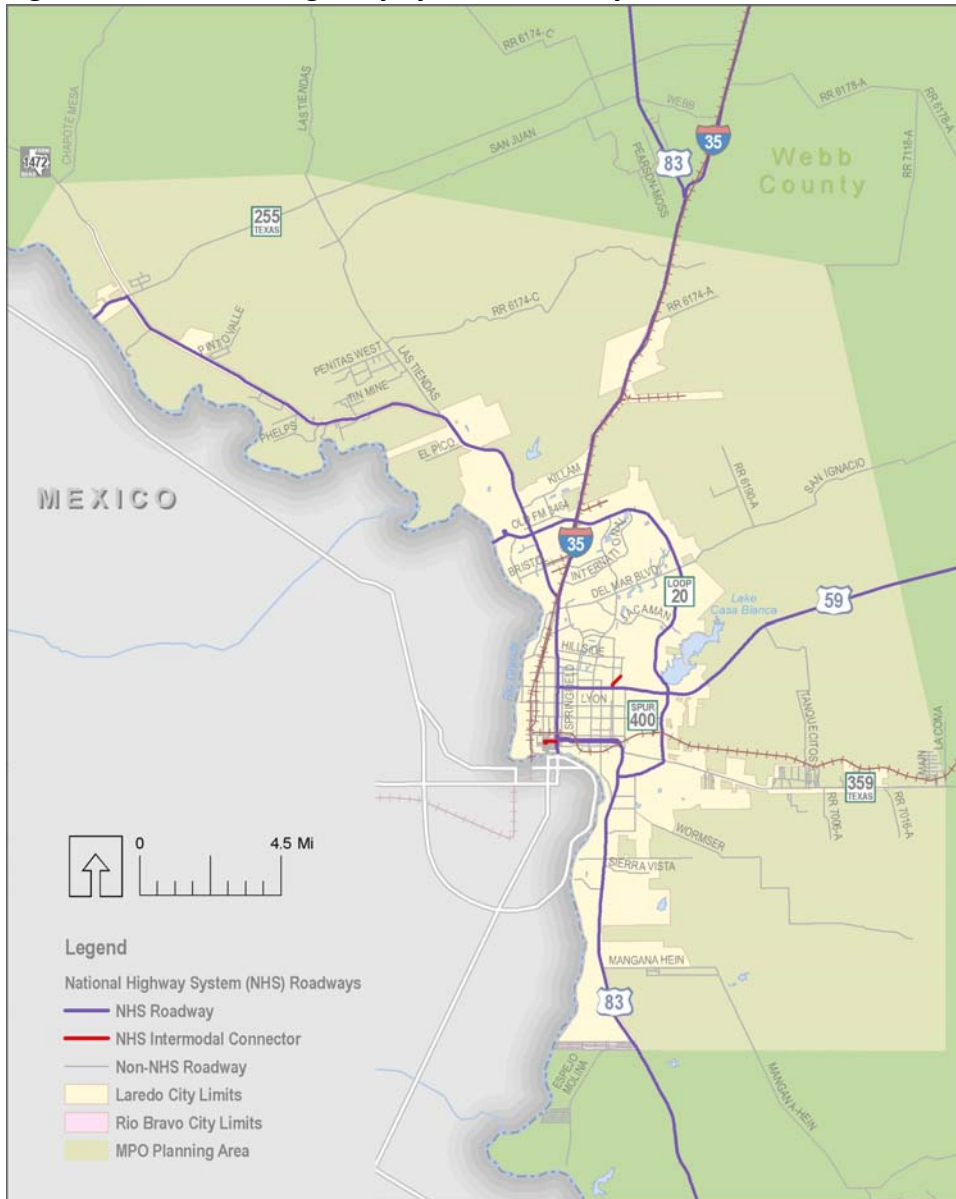
The Laredo road network consists primarily of a grid pattern street system within the incorporated boundaries of Laredo. In recent years, developments have expanded throughout the region with more curvilinear street patterns. These streets are mainly two-lane collector and local access roads with speed limits of 30mph. Major east/west roadways include Calton Rd, Clark Blvd, Del Mar Blvd, Jefferson St, Lyon St, Park St, and Washington St. Major north/south city streets include Arkansas Ave, Malinche Ave, McPherson Rd, Meadow Ave, Santa Isabel Ave, Santa Maria Ave, and Springfield Ave.



### ***National Highway System***

The National Highway System (NHS) is comprised of the Interstate Highway System and other roads that are important to the nation's economy, defense, and mobility. The NHS was developed by the US Department of Transportation in cooperation with the states, local officials, and Metropolitan Planning Organizations. Roadways on the NHS in the Laredo region, shown in Figure 4-1, are eligible to receive NHS funding. Connections from the NHS to major intermodal facilities in Laredo include Bartlett and Maher Avenues connecting US 59 (Saunders Street) to the west side of the airport, and Farragut Street, Juarez Avenue, and Hidalgo Street connecting Interstate 35 to El Metro's downtown transit center.

**Figure 4-1: National Highway System Roadways**



### Functional Classification

Functional classification is the process by which roadways are grouped into categories according to the character of service they are intended to provide. Individual roads do not serve travel independently; most travel involves movement through a network of roads. Functional classification examines the channelization of traffic throughout a roadway network and defines the role that each roadway plays in serving traffic flow. Two important variables define roadway function: mobility and access. At one end of the spectrum, freeways provide the highest level of mobility and the lowest level of access, serving long-distance trips with minimal access to abutting land uses. Local streets, on the other hand, have numerous driveways and connections to provide local access to businesses and residences and are not intended for use over long distances. Table 4-1 provides additional details regarding the functional classification categories and examples within the Laredo

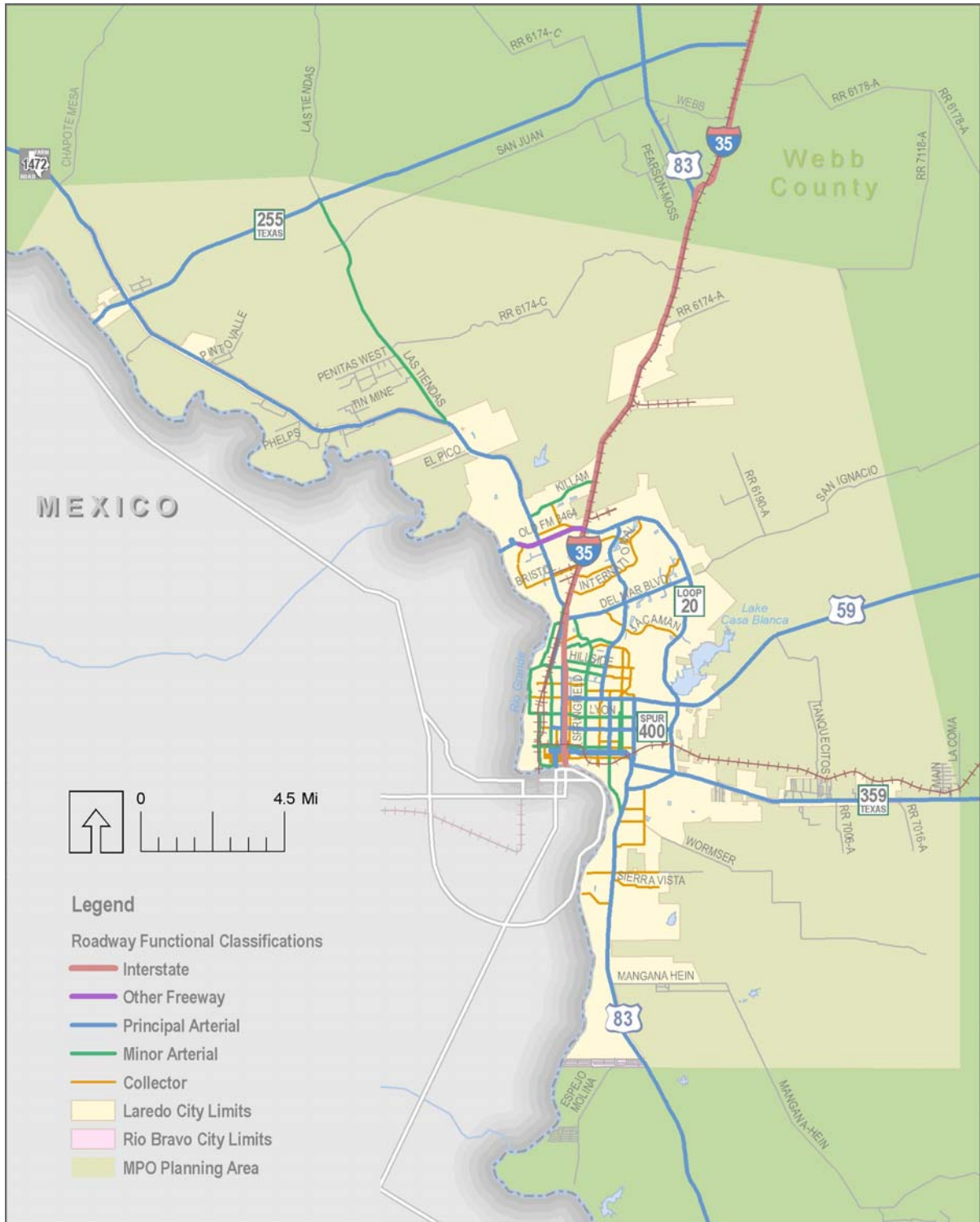
regional roadway network. Various functional classification schemes exist, such as those defined within Laredo’s thoroughfare plan and within the regional travel demand model. However, for the purposes of this MTP, FHWA’s functional classification scheme is used.

**Table 4-1: Functional Classification Definitions**

Functional Classification	Characteristics	Example
<b>Interstate</b>	<ul style="list-style-type: none"> <li>• High speed, divided highway with full control of access and grade separated interchanges</li> <li>• Moving inter- and intra-regional traffic, particularly long trips in high traffic volume corridors. Providing access between cities and across metropolitan areas</li> <li>• Normally in excess of 20,000 vehicles per day</li> <li>• Formally designated by US DOT</li> </ul>	Interstate 35
<b>Other Freeway</b>	<ul style="list-style-type: none"> <li>• High speed, divided highway with full control of access and grade separated interchanges</li> <li>• Across metropolitan areas and between major activity centers (2 or more miles)</li> <li>• Normally in excess of 20,000 vehicles per day</li> </ul>	Loop 20 west of Interstate 35
<b>Principal Arterial</b>	<ul style="list-style-type: none"> <li>• Typically divided street with major access points at intersections with the surface street system. Some direct access permitted to abutting land uses</li> <li>• Serve major centers of activity, with service to abutting land uses secondary to the provision of travel service</li> <li>• 10,000 to 30,000 vehicles per day</li> </ul>	McPherson Blvd US 83 (Zapata Hwy)
<b>Minor Arterial</b>	<ul style="list-style-type: none"> <li>• Number of lanes and type of median directly relate to traffic volumes and abutting land use</li> <li>• Augments and feeds primary arterial system and distributes traffic to geographic areas smaller than those served by the higher system, with more emphasis on service to abutting land uses</li> <li>• 5,000 to 15,000 vehicles per day</li> </ul>	Springfield Ave Meadow Ave south of Chihuahua St
<b>Collector</b>	<ul style="list-style-type: none"> <li>• High access to local streets and driveways</li> <li>• Connect local streets to the arterial system. Typically used for trips that are near their origin or destination point, primarily connecting neighborhoods within and among sub-regions</li> <li>• 1,500 to 10,000 vehicles per day</li> </ul>	Fenwick Dr La Pita Mangana Rd
<b>Local</b>	<ul style="list-style-type: none"> <li>• High access to driveways</li> <li>• Provides direct access to abutting property</li> <li>• 1,500 or fewer vehicles per day</li> </ul>	Basswood Dr Madera Ave

The functional classification system should be routinely reviewed to ensure that road use and function is consistent with current travel patterns. Figure 4-2 shows functional classification of the roadway network in the Laredo region. All roads classified as an urban collector and above are eligible to receive federal funding assistance.

**Figure 4-2: Functional Classification of Roadways**





## Daily Traffic Volumes

Table 4-2 presents the absolute growth and percent growth for locations that experienced the increase in daily traffic volumes between 1998 and 2007. The most significant growth occurred along State Loop 20, which highlights the growing importance of the roadway and also the increasing population and development pressure in this part of the region.

**Table 4-2: High Traffic Volume Growth Locations**

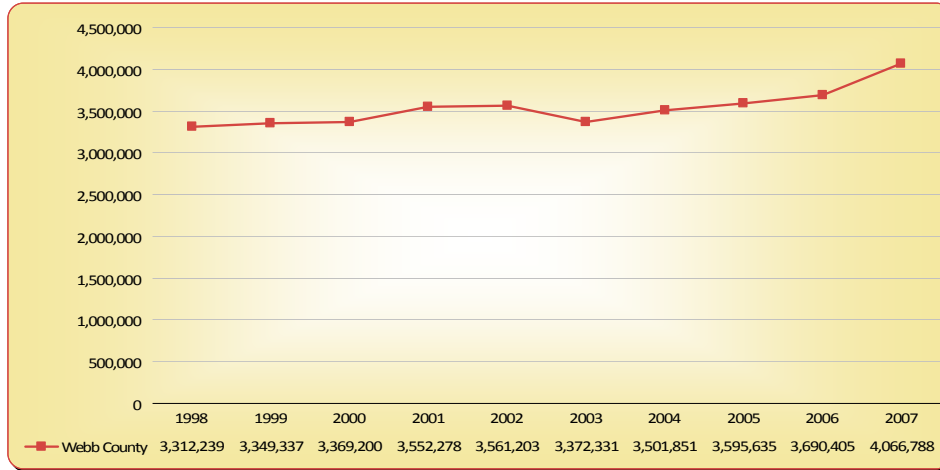
Roadway	Location	1998	2007	Absolute Growth	Percent Growth
Loop 20 (Bob Bullock Loop)	North of SH 359	15,800	41,000	25,200	159.5%
Loop 20 (Bob Bullock Loop)	South of US 59 (Saunders)	16,700	41,000	24,300	145.5%
Loop 20 (Bob Bullock Loop)	East of IH 35	12,400	33,000	20,600	166.1%
IH 35	South of Mann	98,000	118,000	20,000	20.4%
Loop 20 (Bob Bullock Loop)	South of SH 359	14,500	33,000	18,500	127.6%
IH 35	South of Calton	90,000	108,000	18,000	20.0%
IH 35	North of Killam Industrial	21,000	38,000	17,000	81.0%
Loop 20 (Bob Bullock Loop)	East of IH 35	14,200	31,000	16,800	118.3%
FM 1472 (Mines Rd)	North of Las Cruces	24,000	38,000	14,000	58.3%
Loop 20 (Bob Bullock Loop)	North of US 59 (Saunders)	14,100	28,000	13,900	98.6%
FM 1472 (Mines Rd)	North of Pan American	6,600	19,800	13,200	200.0%
Spur 400 (Clark Blvd)	East of Arkansas	8,900	21,000	12,100	136.0%
FM 1472 (Mines Rd)	South of FM 3338 (Las Tiendas)	6,400	17,900	11,500	179.7%

Source: TxDOT, Transportation Planning and Programming Division

## Vehicle Miles Traveled

Vehicle-Miles Traveled (VMT) is the total number of miles driven by all vehicles within a given time period and geographic area. It is influenced by factors such as population, the number of vehicles per household, the number of car trips per day, and distance traveled. The daily VMT for Webb County for years 1998 to 2007 was obtained from TxDOT and summarized in Figure 4-3.

**Figure 4-3: Daily Vehicle Miles Traveled, Webb County**



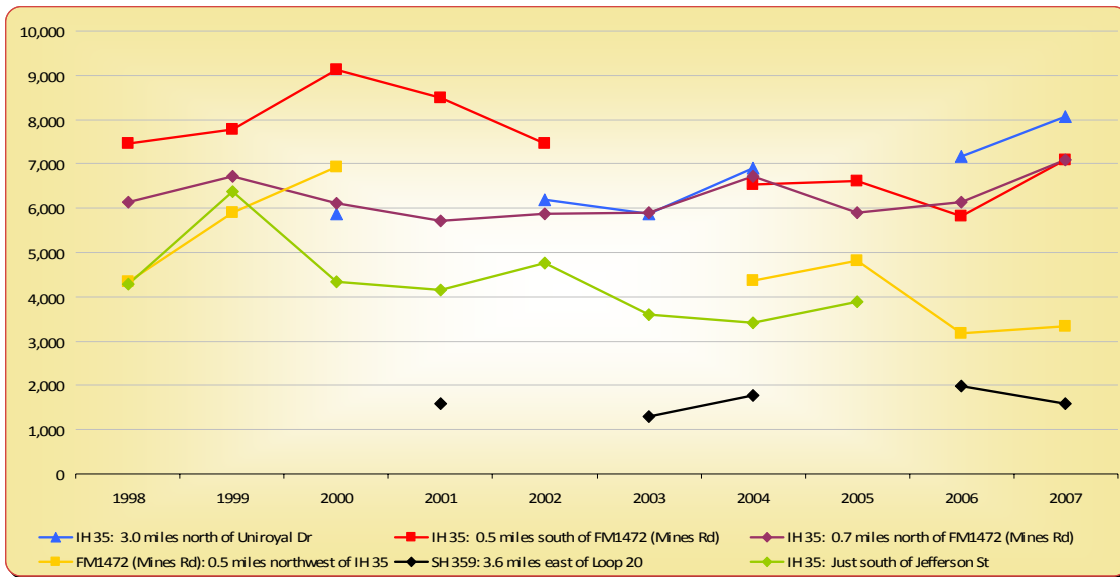
VMT is important in evaluating how well transportation investments and land use policies work together. In the Laredo region VMT has risen steadily over the last decade. VMT directly affects gas consumption, emissions, and traffic patterns. Reduction in VMT can be attained through shifts to other modes of travel, such as transit, bicycling or walking. Land use policies that encourage a mix of uses often result in shorter driving distances, and hence lower VMT.

## Truck Volumes

TxDOT collects traffic volume data by vehicle type (i.e., cars, trucks, motorcycles) on an annual basis at six non-border crossing locations throughout the Laredo region. This data shows that truck volumes have shown no marked trend over the past ten years. The location with the highest observed truck volume was along IH 35 north of Uniroyal Dr. Figure 4-4 illustrates truck volume trends for various locations throughout the region. It should be noted that the volumes in the figure represent mainlane volumes only (i.e., frontage roads are not included) and that the values are based upon a 24-hour or 48-hour sample.



**Figure 4-4: Daily Truck Volumes, 1998 to 2007**



### Level of Service Analysis

Congestion on a roadway can be indicated by its level-of-service. Level-of-service (LOS) is a qualitative measure of traffic operations, ranging in values from LOS A to LOS F, and is based upon the ratio of a roadway’s traffic volume to the roadway’s capacity. The graphic to the right describes the conditions a driver would experience on a roadway given a particular level of service rating.

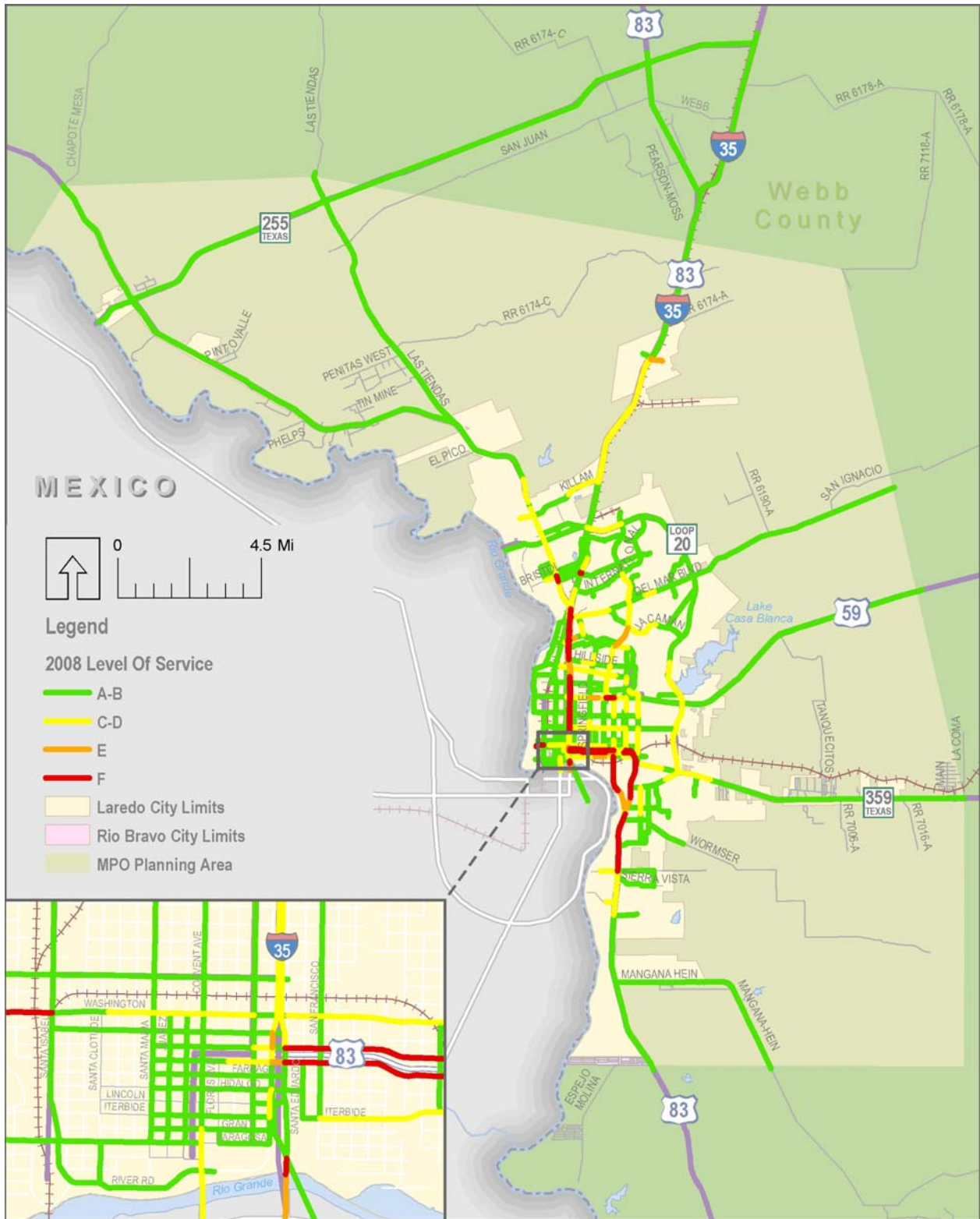
The primary factors in determining a roadway’s capacity include the number of travel lanes, the type of traffic control at intersections, the number of access points, and speed limit.

A planning level capacity assessment of existing roadway system traffic conditions was developed using the regional travel demand model. This model was updated to a base year of 2008 and attempts to predict travel conditions in the region by looking at both the supply of and demand for transportation. The supply dimension of the model is reflected in the roadway network, while the socioeconomic data of the region reflects the demand side of the equation.

<b>A</b> 	<b>Excellent</b> Very low vehicle delays, free traffic flow, signal progression extremely favorable, most vehicles arrive during given signal phase.	<p><b>Free Flow</b></p> <p><b>Severe Congestion</b></p>
<b>B</b> 	<b>Good</b> Good traffic flow, good signal progression, more vehicles stop and experience higher delays than for LOS A.	
<b>C</b> 	<b>Average</b> Stable traffic flow, fair signal progression, significant number of vehicles stop at signals.	
<b>D</b> 	<b>Acceptable</b> Noticeable traffic congestion, longer delays and unfavorable signal progression, many vehicles stop at signals.	
<b>E</b> 	<b>Congested</b> Unstable traffic flow, poor signal progression, significant congestion, traffic near roadway capacity, frequent traffic signal cycle failures.	
<b>F</b> 	<b>Severely Congested</b> Unacceptable delay, extremely unstable flow, heavy congestion, traffic exceeds roadway capacity, stop-and-go conditions.	

According to the updated 2008 base year travel demand model, current roadway congestion is most severe along the Interstate 35, US 83 in south Laredo, along US 59 (Guadalupe St and Chihuahua St), and portions of McPherson Road. The level of service for all model roadways is shown in Figure 4-5.

**Figure 4-5: Existing Level of Service, 2008**





## Crash Data

According to TxDOT's Crash Records Inventory System, approximately 18,350 crashes occurred within the Laredo area between 2005 and 2007. Among these, 40 were fatal, 219 involved pedestrians, and 51 involved bicyclists.

Table 4-3 and Figure 4-7 identify the top 20 intersections with crash occurrences. The most accidents occurred at the junction of two of the busiest arterial roadways in Laredo, McPherson Rd. and Del Mar Blvd. In addition, the junction of US 83 and SH 359 is the fourth highest crash location. However, this intersection was recently reconfigured, and thus should have far fewer crashes in the future.

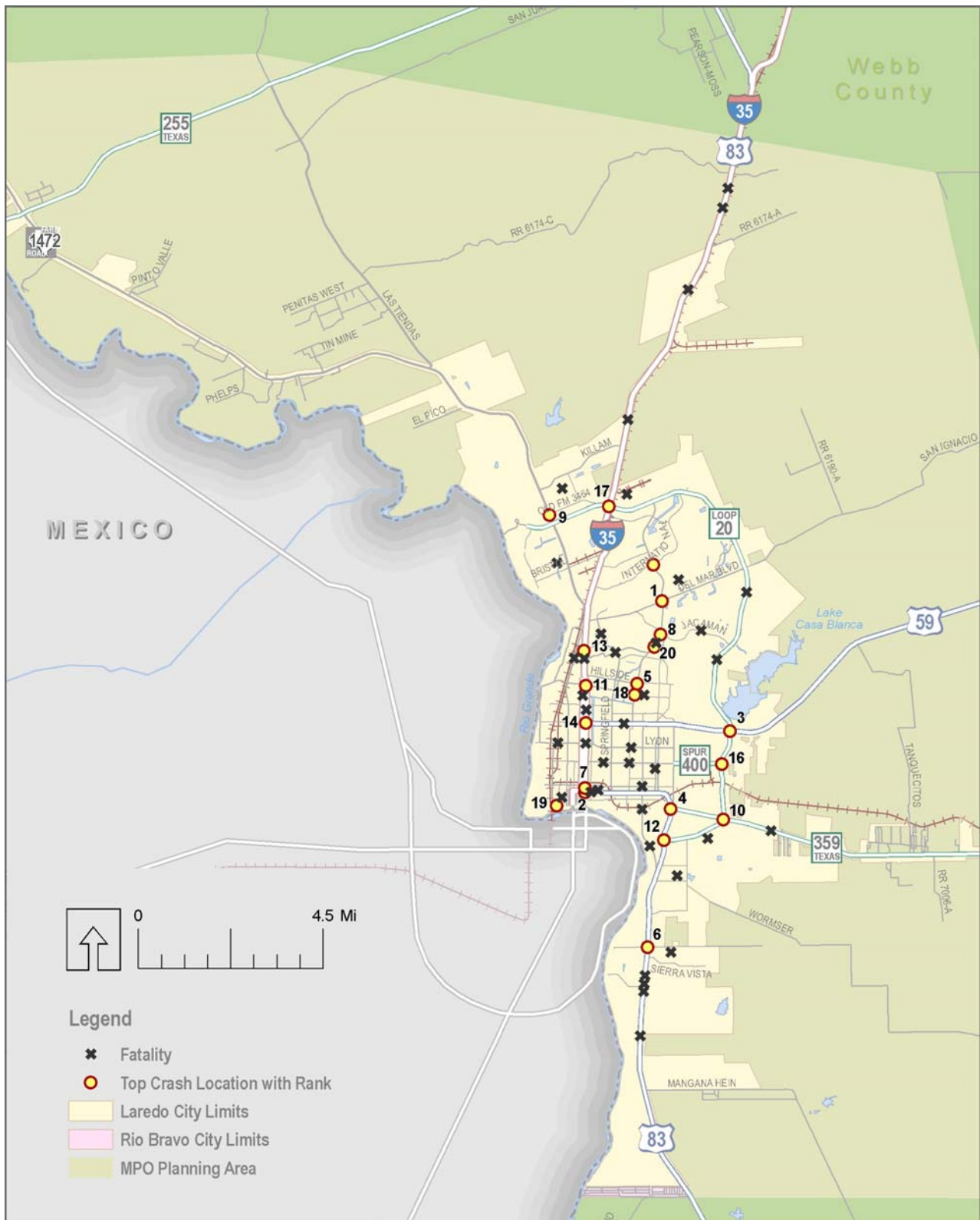


**Table 4-3: Top 20 Crash Locations, 2005 to 2007**

Intersection	# of Crashes
1. McPherson Rd. and Del Mar Blvd.	287
2. IH 35 and US 83 (Matamoros St.)	214
3. Loop 20 (Bob Bullock Loop) and US 59 (Saunders St.)	162
4. US 83 (Zapata Hwy) and SH 359	155
5. McPherson Rd. and Calton Rd.	147
6. US 83 (Zapata Hwy) and Masterson Rd.	129
7. IH 35 and Victoria St.	129
8. McPherson Rd. and Jacaman Rd.	127
9. FM 1472 (Mines Rd.) and Milo Rd.	125
10. Loop 20 (Bob Bullock Loop) and SH 359	113
11. IH 35 and Calton Rd.	112
12. US 83 (Zapata) and Loop 20 (Bob Bullock)	111
13. IH 35 and Mann Rd.	109
14. IH 35 and US 59 (Saunders St.)	105
15. McPherson Rd. and International Blvd.	101
16. Loop 20 (Bob Bullock Loop) and Spur 400 (Clark Blvd.)	101
17. IH 25 and Loop 20 (Bob Bullock Loop)	101
18. McPherson Rd. and Hillside Rd.	101
19. Santa Rita Ave. and Water St.	93
20. McPherson Rd. and Commerce Dr.	87

Source: TxDOT, Traffic Operations Division

**Figure 4-7: Top 20 Crash and All Fatal Crash Locations, 2005 to 2007**

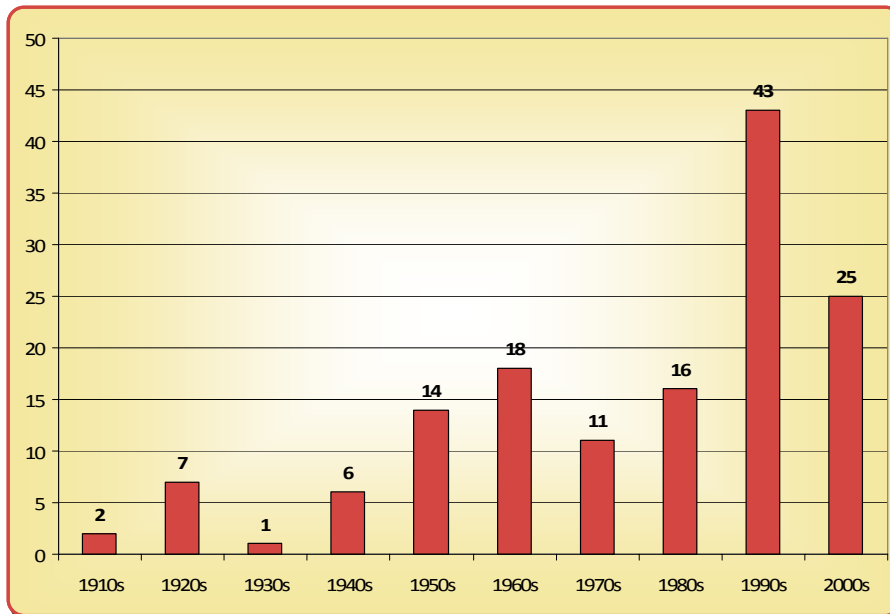


## Bridges

In the Laredo MPO planning area, there are a total of 143 bridge structures. Of these structures, three are owned by railroads, nine are owned by Webb County, 31 are owned by the City of Laredo, and 100 are owned by TxDOT. TxDOT's bridge inventory data and FHWA's National Bridge Inventory was used to ascertain the age of the bridges and whether they were rated as "structurally deficient" or "functionally obsolete". While no bridge structures in the region were rated as "structurally deficient", 16 of the 143 bridges (11.2%) were rated as "functionally obsolete". Of the 16 "functionally obsolete" bridges, most were built before 1970 and a little over half of them were located in central Laredo.

Figure 4-8 shows the number of bridges built during each decade, while Figure 4-9 displays the spatial location of these bridges according to the decade in which they were built. As shown, most bridges were built during the 1990s and 2000s with a total of 43 built in the 1990s and 25 built in the 2000s. The increase in bridges in the last two decades is mostly due to new road construction during this same time period such as the Camino Colombia Toll Road and Bob Bullock Loop. Also, the lack of "structurally deficient" bridges and low amount of "functionally obsolete" bridges tends to correlate with the number of newer bridges.

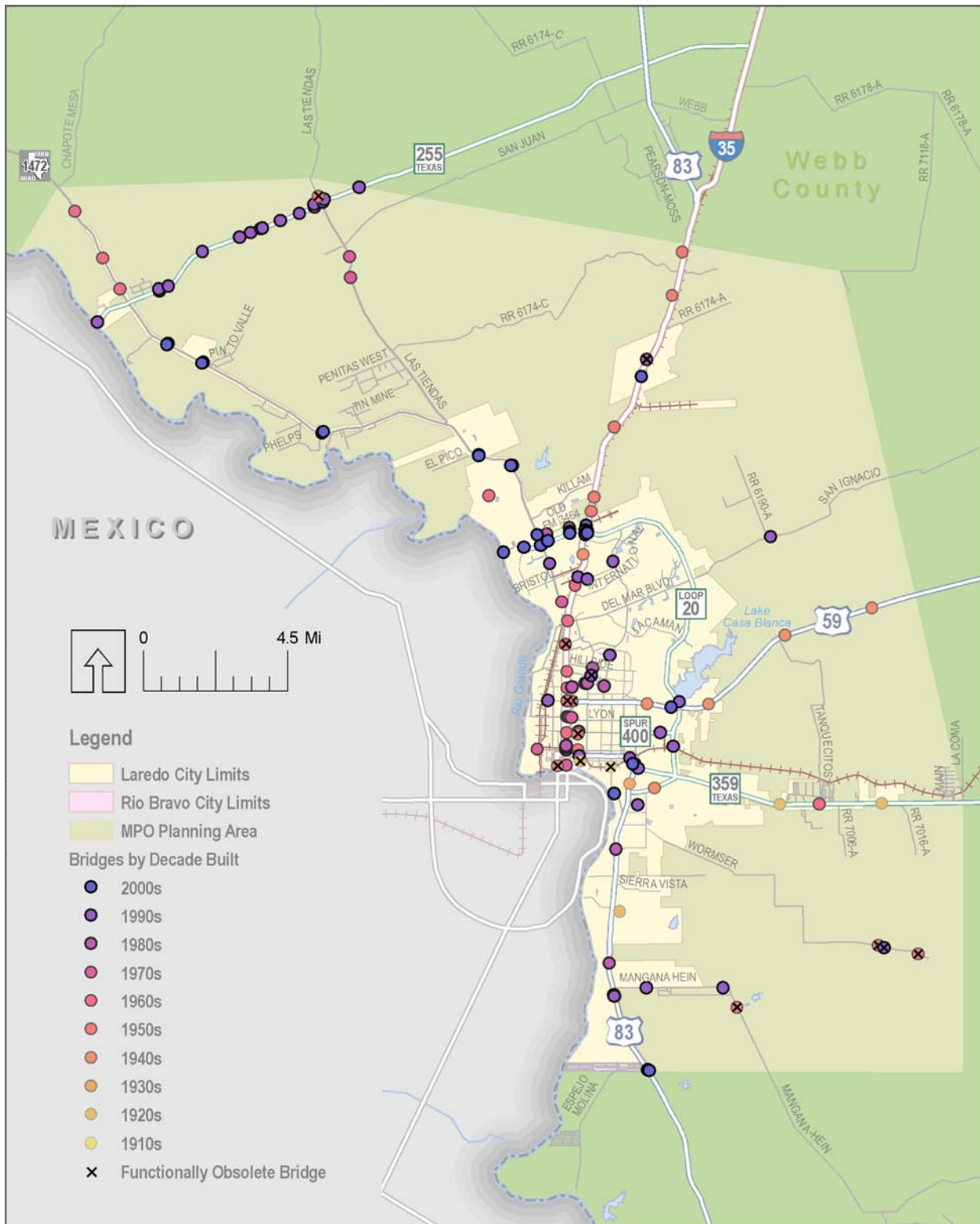
**Figure 4-8: Number of Bridges by Decade Built**



Source: TxDOT, Bridge Division



**Figure 4-9: Bridges by Decade Built**



## ***International Bridges***

Border traffic at the international bridge crossings is a significant concern in the Laredo region. In fact, according to the Laredo Development Foundation, the city of Laredo is the number one inland port on the US/Mexico border.

Within the State of Texas, there are 26 international border roadway crossings that join the United States and Mexico. Of these 26 roadway crossings, four of them are situated within the Laredo area:

- Gateway to the Americas (Bridge #1)
- Juarez-Lincoln Bridge (Bridge #2)
- Laredo-Colombia Solidarity Bridge (Bridge #3)
- World Trade Bridge (Bridge #4)

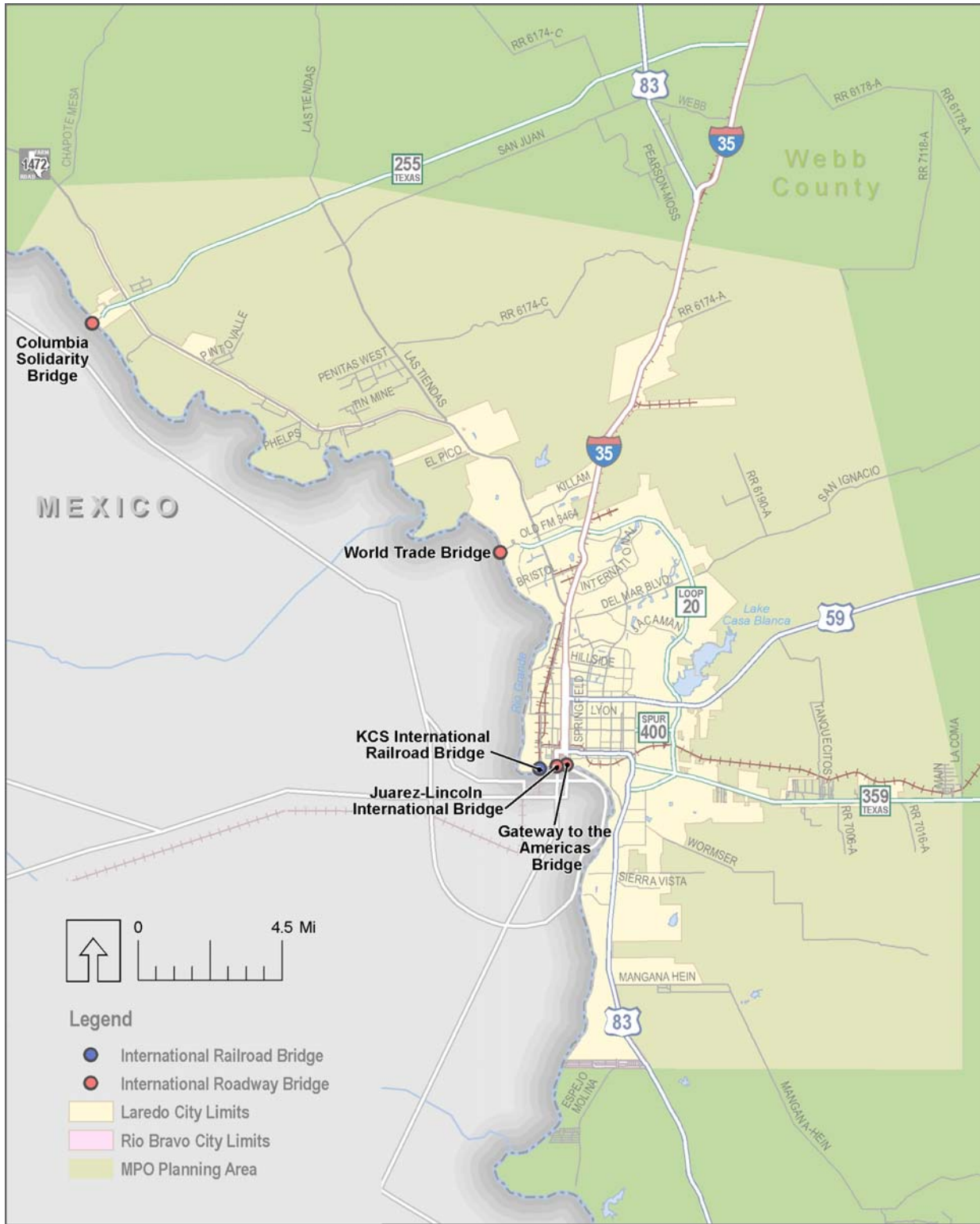
In addition, an international railroad bridge exists just west of the Juarez-Lincoln roadway bridge (Bridge #2).

These crossings, shown in Figure 4-10, are not only important in terms of international trade and commerce, but also in terms of the overall movement and mobility patterns of the two countries and immediate communities on both sides of the international border. Clearly, these crossings play an important role on both a local and international scale.

Increased population and trade will continue to be a concern in the Laredo region, and so the international border crossings must be able to keep up with user demands. Because of this, it is important to understand the existing conditions of the crossings in order to identify potential improvements of the infrastructure. The following subsections describe existing border crossing characteristics as well as historical traffic conditions.

All four bridges in the Laredo Bridge System, except for the Gateway to the Americas Bridge, offers a “Laredo Trade Tag” (LTT), which is based on an Automatic Vehicle Identification (AVI) system and enables both commercial and non-commercial customers an alternative form of toll payment. Also, the Laredo Bridge System operates a series of cameras located on each of the international crossings, which every few minutes takes pictures of traffic conditions. These pictures can be accessed online at [www.ci.laredo.tx.us/bridgesys/bridge4cam.html](http://www.ci.laredo.tx.us/bridgesys/bridge4cam.html) and provide bridge users with up-to-date information on traffic conditions and operations.

**Figure 4-10: International Border Crossings**



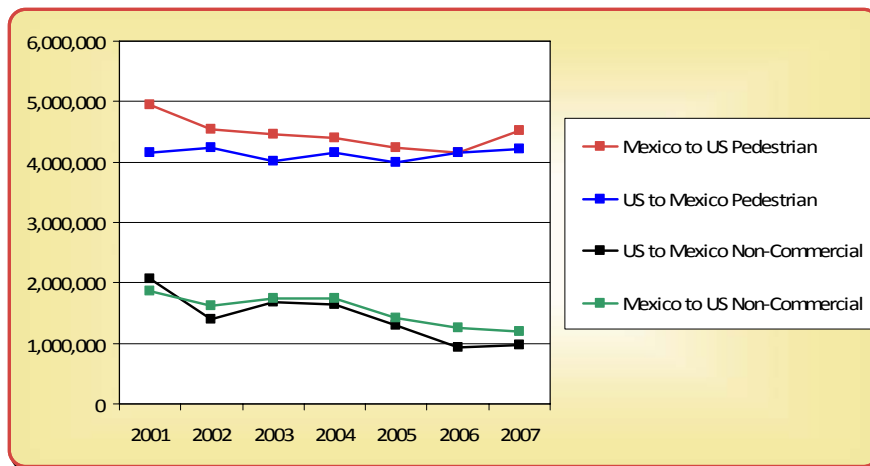
## Gateway to the Americas (Bridge #1)

The Gateway to the Americas crossing, which is known locally as Bridge #1, is located in downtown Laredo on Convent Avenue near its intersection with US 83. The crossing is a tolled facility and handles privately owned vehicles (POV) and pedestrians. It is accessed southbound from Santa Maria Avenue and northbound via Convent Avenue. The City of Laredo owns the bridge facility while the General Services Administration owns the border station. The crossing is open 24 hours a day, seven days a week. The bridge itself is a four lane facility with two lanes in each direction. Pedestrian accommodations occur on both sides of the bridge. The total length of the bridge is approximately 1,050 feet, and it operates 24 hours a day for pedestrians and POV. It was reconstructed in 1956 after being destroyed in 1954 by floods resulting from a hurricane in the Gulf of Mexico.



Figure 4-11 shows border traffic coming into the US and Mexico via the Gateway to the Americas Bridge for the years 2001 to 2007. The bridge primarily serves as the main pedestrian crossing for the Laredo region. In previous years, it did serve some 35,000 commercial vehicles commuting into Mexico between 2001 and 2003; however, the bridge now serves pedestrians and non-commercial vehicles only. For non-commercial vehicles, there has been a general decline in traffic volumes between 2001 and 2007. Pedestrian traffic is more than twice as much as non-commercial traffic. In general, pedestrian traffic in both directions has remained relatively stable over the last seven years.

**Figure 4-11: Gateway to the Americas Bridge Crossings, 2001 to 2007**



Source: TxDOT International Relations Office and Laredo Bridge System

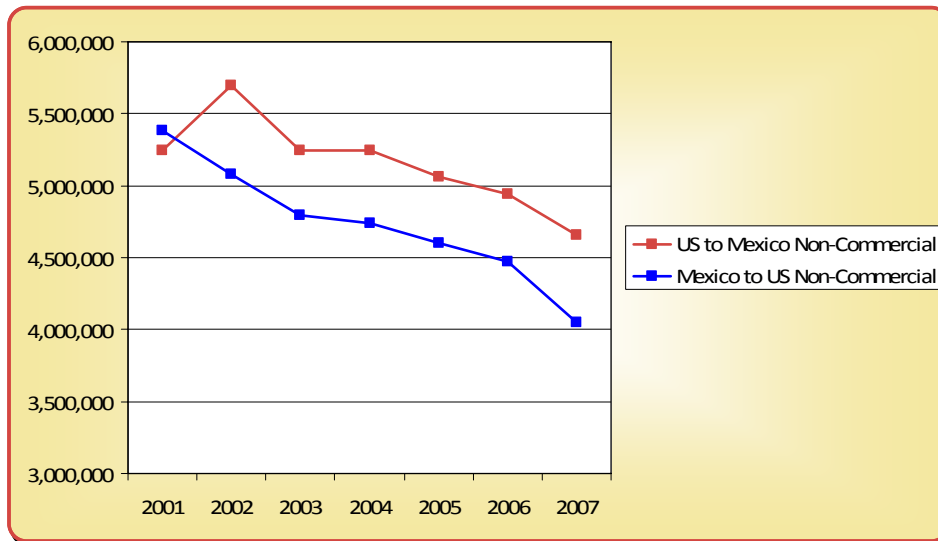
## Juarez-Lincoln Bridge (Bridge #2)

The Juarez-Lincoln Crossing, known locally as Bridge #2, is a POV and buses only bridge. The crossing is tolled and is located in downtown Laredo on San Dario Avenue near its intersection with US 83, at the beginning of Interstate 35. Santa Ursula Avenue carries southbound traffic toward the crossing, while northbound traffic uses San Dario Avenue. The bridge is open continuously, 24 hours a day, seven days a week. The bridge itself is an eight-lane facility, four lanes in each direction, and has a non-commercial Automatic Vehicle Identification dedicated lane. The length of the bridge is approximately 1,010 feet and operates 24 hours a day for POVs. Intelligent traffic systems (ITS) are deployed on the northbound and southbound approaches to the bridge on the US side of the border. The bridge became operational in 1976 and is owned by the City of Laredo. The border station was completed in 1982 and is owned by the US General Services Administration.



Figure 4-12 shows border traffic coming into the US and Mexico via the Gateway to the Americas Bridge for the years 2001 to 2007. Compared with the other border crossings, the Juarez-Lincoln Bridge handles the most non-commercial traffic. However, this traffic has been significantly decreasing over the past few years.

**Figure 4-12: Juarez-Lincoln Bridge Crossings, 2001 to 2007**



*Source: TxDOT International Relations Office and Laredo Bridge System*

### Laredo-Colombia Solidarity Bridge (Bridge #3)

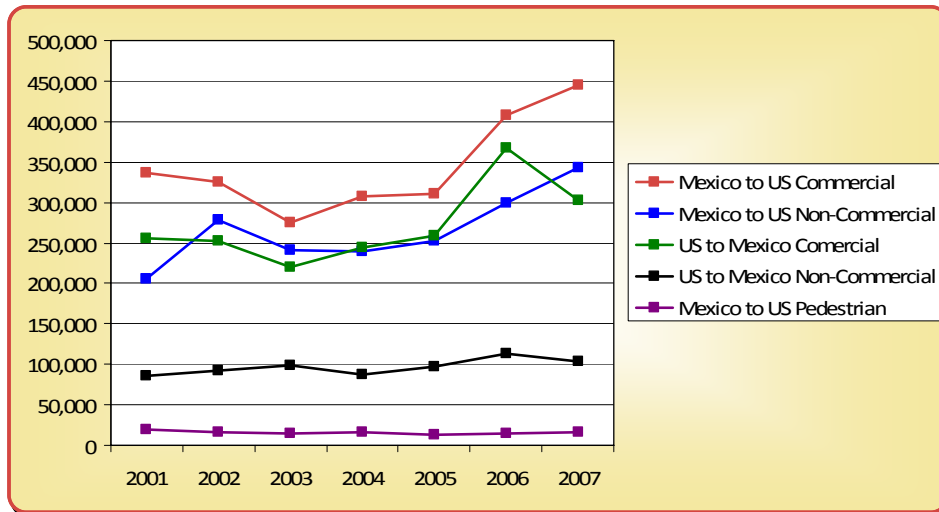
The Laredo-Colombia Solidarity Bridge is located on FM 255 near its intersection with FM 1472, locally known as Mines Rd. It was completed in the summer of 1991 and is approximately 1,215 feet long. The crossing is a tolled facility that handles both commercial and non-commercial vehicles, as well as pedestrian traffic. For commercial traffic the bridge is open from 8:00am to midnight Monday through Friday, from 8:00am to 4:00pm on Saturday, and from 10:00am to 2:00pm on Sunday.

The eight-lane bridge is the designated crossing within the Laredo region for transporting hazardous materials between Mexico and the US. The City of Laredo owns the bridge facility while the General Services Administration owns the border station.



Figure 4-13 shows border traffic coming into the US and Mexico via the Laredo-Colombia Solidarity Bridge for the years 2001 to 2007. Both inbound and outbound commercial traffic declined immediately following the events of September 11th. However, it has been gradually increasing since then. Pedestrian traffic, data for which is only available for incoming foot traffic, has stayed relatively constant over the past several years.

**Figure 4-13: Laredo-Colombia Solidarity Bridge Crossings, 2001 to 2007**



Source: TxDOT International Relations Office and Laredo Bridge System

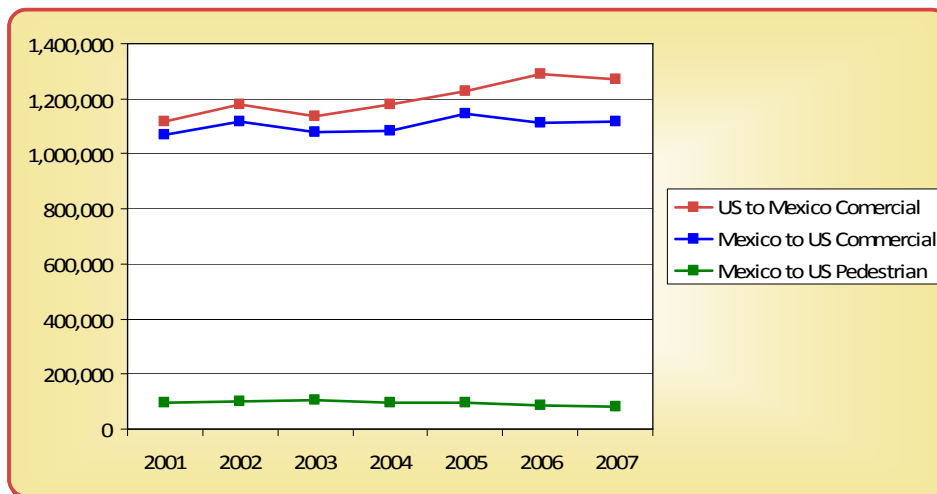
## World Trade Bridge (Bridge #4)

The World Trade Crossing is located on Loop 20 near its intersection with FM 1472, locally known as Mines Rd. This eight-lane bridge is open to commercial vehicles only. Pedestrians do cross from Mexico to the US northbound on this bridge, but the bridge is not intended for pedestrian traffic, and southbound pedestrian traffic is prohibited. The bridge and border station opened on April 15, 2000. The City of Laredo owns the border station while the US General Services Administration leases the facilities. The tolled bridge has eight-lanes and is approximately 975 feet in length. It is the busiest international bridge in Texas, carrying over one-third of inbound trucks.



Figure 4-14 shows border traffic coming into the US and Mexico via the World Trade Bridge for the years 2001 to 2007. In particular, the World Trade Bridge serves as the primary commercial vehicle bridge in the region. From 2001 to 2007, commercial traffic in both directions has risen slightly, with northbound traffic lagging slightly behind southbound traffic. A recent six-month pilot program to keep the bridge open 24 hours a day was suspended, and the bridge is now open from 8:00am to midnight Monday through Friday (although northbound traffic is permitted to cross at 6:00am), 8:00am to 4:00pm on Saturday, and from 10:00am to 2:00pm on Sunday.

**Figure 4-14: World Trade Bridge Crossings, 2001 to 2007**



*Source: TxDOT International Relations Office and Laredo Bridge System*

## Border Crossing System

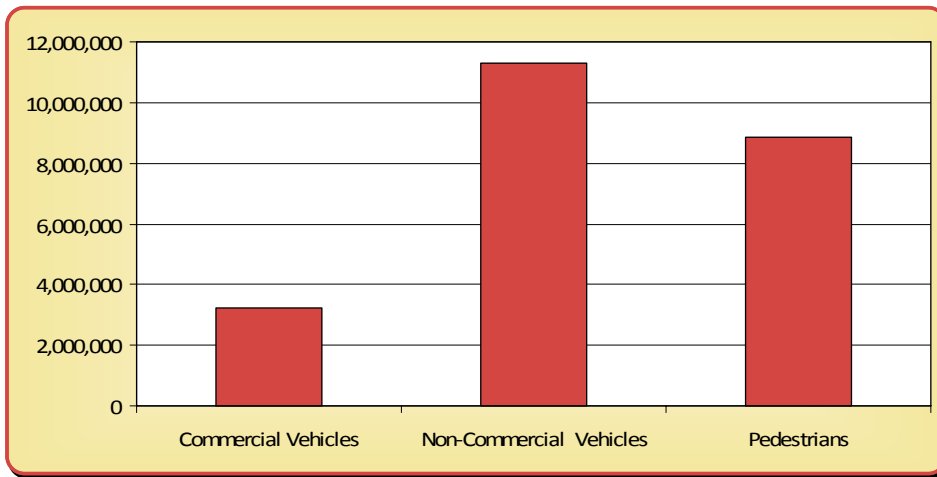
Currently, the two south border crossings near central Laredo serve a significantly higher proportion of overall traffic volumes than do the bridges further north. This is particularly true for non-commercial and pedestrian traffic. However, non-commercial traffic has decreased for both south bridges, but



has increased for the Laredo-Colombia Solidarity Bridge. As the primary commercial bridge for the Laredo region, the World Trade Bridge has seen more increases in commercial traffic volumes. Since its opening in 2000, the bridge has served the Laredo region well by taking commercial traffic away from the central city area. Far from the other more southern bridges, the Laredo-Colombia Solidarity Bridge, with its tolled state highway corridor, handles the least amount of overall traffic. However, it has seen more use in current years for both commercial and non-commercial traffic.

Figure 4-15 shows the distribution of commercial, non-commercial, and pedestrian traffic for all bridge crossings in 2007. Out of a total of 23.3 million crossings, about 3.2 million were commercial vehicles, 11.3 million were non-commercial vehicles, and about 8.8 were pedestrians.

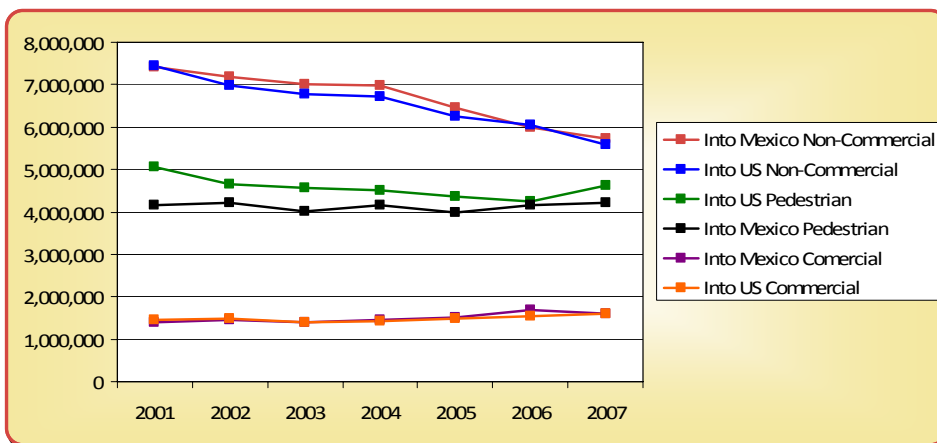
**Figure 4-15: Total Bridge Crossings, 2007**



*Source: TxDOT International Relations Office and Laredo Bridge System*

Figure 4-16 shows border traffic coming into the US and Mexico for all border crossings in the Laredo region for years 2001 to 2007. In general, commercial traffic has increased slightly over recent years, pedestrian traffic has remained relatively stable, and non-commercial traffic for all bridges has decreased substantially.

**Figure 4-16: Total Border Crossings, 2001 to 2007**



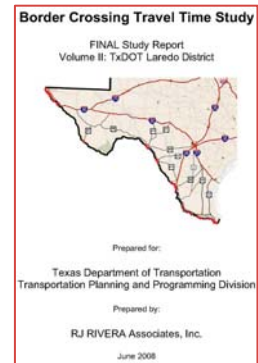
*Source: TxDOT International Relations Office and Laredo Bridge System*



## Border Crossing Issues

A June, 2008 TxDOT Border Crossing Travel Time Study report was produced to document the existing needs and conditions at each border crossing in the Laredo District and to assess short-term improvement alternatives for the roadways in the vicinity of the border crossings.

For the four international border crossings in the Laredo MPO planning area, the study found that the main factor affecting the flow of traffic for these crossings was Port of Entry (POE) operations. While these operations are necessary, they are out of the hands of state jurisdiction. The study found that TxDOT would be most effective by regularly monitoring traffic conditions and implementing short-term improvement projects. Bridge-specific highlights of this study are shown in Table 4-4.



**Table 4-4: Short-term Border Crossing Improvement Recommendations**

<b>Gateway to the Americas Bridge</b>	<b>Juarez-Lincoln Bridge</b>
<p><b>Issues:</b> Safety concerns in relation to lane assignment confusion over the Automatic Vehicle Identification (AVI) lane</p> <p><b>Recommendations:</b> synchronizing traffic signals, installing ITS devices, and improving or adding signs to indicate lane assignments</p>	<p><b>Issues:</b> Conflicts of turning movement and lane assignments; absence of pavement markings and signage</p> <p><b>Recommendations:</b> synchronizing traffic signals, installing ITS devices, improving or adding signs to indicate lane assignments, installing dual left-turn lanes at problem intersections, and restriping of lanes</p>
<b>Laredo-Colombia Solidarity Bridge</b>	<b>World Trade Bridge</b>
<p><b>Issues:</b> Port of Entry (POE) configuration, internal circulation, and outdated facility layouts. FM 255 and FM 1472 turning movement safety issues and traffic queues at the inspection facility</p> <p><b>Recommendations:</b> adding a traffic signal at FM 1472/FM 255 intersection, lane striping, improving/adding signage, adding a right-turn lane for traffic entering the facility, and increasing the acceleration lane for commercial trucks exiting the facility</p>	<p><b>Issues:</b> mixing of commercial traffic types, capacity inadequacies, the lack of an adequate amount of inspection booth</p> <p><b>Recommendations:</b> improving traffic signal phasing and timing at certain key intersections and improving/adding signs to the immediate area surrounding the border crossing</p>

**Source: TxDOT Border Crossing Travel Time Study, June 2008**

## Public Transportation

As explained in more depth in the Regional Context chapter, a smaller percentage of workers in Webb County tend to drive alone to work and a larger percentage of workers either carpooled or used public transit to travel to work as compared with the rest of Texas in 2007. Furthermore, a larger percentage of the population in Webb County also tended to have no access to any vehicle as compared with the rest of Texas and the United States. These characteristics are important when understanding the demand and need for alternative modes of transportation such as public transit, walking, and bicycling. As such, it is essential to also focus on these alternative modes of transportation in order to provide for a comprehensive, multimodal transportation plan for the Laredo region.

### Transit Services

#### Fixed Route Service



El Metro is the primary transit provider in the Laredo region, which operates 49 buses for its 22 fixed bus routes. It also operates two Chance Trolleys and 18 diesel-powered vans for its El Lift ADA paratransit service. As of 2007, the average bus fleet age was 8.7 years and the average van fleet age was 5 years. El Metro's bus fleet is presently powered mainly by compressed natural gas (CNG), which is more environmentally friendly and less expensive than regular gasoline and diesel

fuel. In addition, all new model buses have bike racks, which are capable of carrying two bicycles.

Since 2003, First Transit has administered the operational duties of El Metro and the El Metro Transit Center. Currently, El Metro employs about 187 people, has an operating budget of approximately \$12.5 million, a capital budget of about \$8.5 million, and an annual ridership of about 4.3 million passengers.

El Metro's major transportation facility is the five-story Laredo Transit Center located in downtown Laredo at 1301 Farragut Street across from Jarvis Plaza. The transit center serves as a multimodal transportation terminal for the Laredo region and is the main point of transfer for El Metro routes, El Aguila rural routes, and inter-city services like Valley Transit and Greyhound. It also houses El Metro's administrative offices and a public parking garage for downtown visitors. Additionally, El Metro has a park and ride lot located at the airport on Hillside Road and is presently underutilized.



## Paratransit Service

The El Lift Paratransit Service provides persons within the City of Laredo, who are unable to utilize the El Metro fixed route system due to a disability, with shared, curb-to-curb public transportation. Wheel chair lifts are provided on all vans as well as on all fixed route buses. In order to use El Lift, a personal doctor or social service agency must determine a person's eligibility. Eligible passengers must schedule trips in advance by calling El Lift customer service.



## Hours of Operation

The fixed route system operates Monday through Saturday from 6:00 am until 10:00 pm, with peak level operating hours from 6:00 to 9:00 am and 3:00 to 6:00 pm. Additionally, the fixed route system operates from 7:00 a.m. to 8:30 p.m. on Sundays and major holidays. The demand response or El Lift system operates Monday through Saturday from 6:00 am to 10:00 pm and on Sunday and major holidays from 7:00 am to 9:30 pm.

## Fares

El Metro fixed route bus fares are listed in Table 4-5. Electronic value cards can be purchased on the buses or at the ticket vending machines at the El Metro Transit Center and can store up to \$20 worth of bus fares. Additionally, eligible El Lift passengers can purchase a 10-ride book for \$7.50 to ride the El Lift van.

**Table 4-5: Current El Metro Fare Structure**

<i>Fare Type</i>	<i>Fare</i>
Adults	\$1.25
Students with I.D.	\$1.00
Children 5 - 11 years of age	\$0.25
Children under 5 years of age	Free
Senior Citizens (62+) / Disabled w/ Metro I.D. (Peak Hours)	\$0.10
Senior Citizens (62+) / Disabled w/ Metro I.D. (Off-Peak Hours)	Free
Medicare Card Holder w/picture I.D.	\$0.50
Transfers	\$0.05
El Lift Paratransit (eligible riders and guests)	\$0.75

**Source: El Metro**

## Demographic Characteristics of El Metro Riders

As part of the September 2009 *Laredo Transit Development Plan*, a survey of El Metro passengers was conducted. The purpose of the survey, which was conducted at the Laredo Transit Center, was to analyze the socio-demographic and travel behavior characteristics of El Metro riders. The following characteristics were revealed:

- Spanish was the primary language of El Metro riders (91%)
- 81% of the riders did not own any vehicle
- Half of the riders were employed, with 29% of them employed full-time and 22% of them employed part-time
- Personal trips (e.g., shopping) were the primary purpose, while only 29% of riders were traveling to or from work
- Nearly half (45%) of those interviewed at the Transit Center were making trips to or from Mexico
- 75% percent of riders did not make any transfers
- 84% used the El Metro system at least twice a week, and only 15% of riders used it daily

These characteristics were based completely on the 412 usable surveys gathered at the Laredo Transit Center. As such, this data may not necessarily represent the full spectrum of transit riders, because based on the unexpanded sample data derived from the boarding and alighting survey, approximately 35 percent of riders do not pass through the Transit Center.

#### *Level of Service - Revenue Miles, Revenue Hours*

A transit system’s level of service can generally be determined by the amount of revenue hours and revenue miles that the whole system experiences during a given time period. Revenue hours and revenue miles are the total amount of hours and miles for all vehicles in a transit system when the vehicles are available to the general public. Table 4-6 illustrates annual revenue hours and miles for the years 2002 through 2007 for both the demand response El Lift service and fixed route bus service.

The extent of fixed route service has remained relatively stable over the past six years, while the amount of demand responsive service has shown a marked increase over the same time period. This fact points to the growing need of specialized transit services for those individuals unable to utilize the fixed route service.

**Table 4-6: Annual Vehicle Revenue Miles and Hours of Service**

	2002	2003	2004	2005	2006	2007
<b>Fixed Route</b>						
<b>Vehicle Revenue Miles</b>	1,937,832	1,777,531	1,783,037	1,765,835	1,766,513	1,716,113
<b>Vehicle Revenue Hours</b>	154,492	154,385	154,437	165,129	165,859	161,557
<b>Demand Response</b>						
<b>Vehicle Revenue Miles</b>	154,544	159,142	160,549	220,903	272,481	279,904
<b>Vehicle Revenue Hours</b>	26,260	24,263	24,002	26,714	29,693	30,600

*Source: National Transit Database*

### Transit Use – Ridership

Transit utilization is determined by the level of ridership or passenger trips on a system. Passenger miles traveled is the sum of the distances ridden by each passenger in a transit system. Unlinked passenger trips refer to the total number of passengers who board public transit vehicles, regardless of how many vehicles it takes to reach a destination. Table 4-7 presents annual passenger miles and unlinked trips for the years 2002 through 2007. Ridership estimates dropped significantly in 2004, which, according to the *Laredo Transit Development Plan*, was due to the installation of new Odyssey GSI fareboxes that provided more accurate passenger data than the ones that were replaced.



From 2004 to 2007, ridership levels exhibited a positive increase for fixed route operations. In fact, the El Metro system is the most heavily used transit system in urban areas with less than 200,000 population in the state of Texas.

**Table 4-7: Annual Passenger Miles and Unlinked Trips**

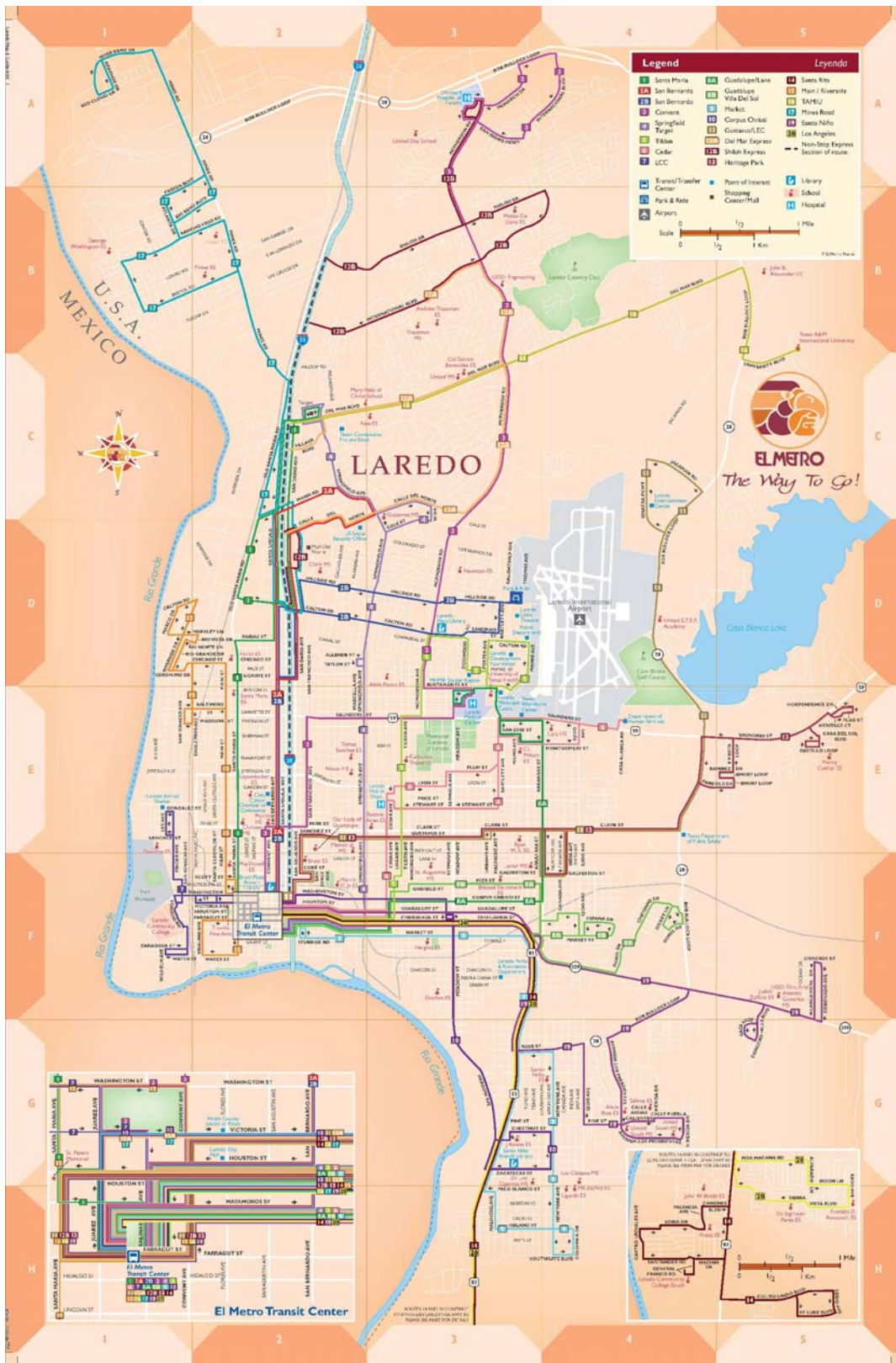
	2002	2003	2004	2005	2006	2007
<b>Fixed Route</b>						
<b>Passenger Miles</b>	21,524,492	21,535,157	15,893,177	11,999,473	12,845,289	13,311,072
<b>Unlinked Trips</b>	4,596,162	4,964,495	3,661,883	3,898,147	4,176,073	4,324,395
<b>Demand Response</b>						
<b>Passenger Miles</b>	141,024	145,671	157,193	216,642	293,668	256,981
<b>Unlinked Trips</b>	52,520	48,263	51,965	52,227	54,307	51,548

Source: National Transit Database

### Bus Routes and Stops

El Metro operates 22 fixed bus routes, all of which pass through the El Metro Transit Center. Figure 4-17 below presents the El Metro fixed route bus system.

Figure 4-17: El Metro System Map



Source: El Metro

Table 4-8 shows the frequency and approximate daily ridership levels for each route.

**Table 4-8: Current Service Frequency and Ridership by Route**

Route	Route Name	Approximate Frequency (in minutes)						Ridership			
		Weekday			Saturday		Sunday		Week-day	Satur-day	Sun-day
		Peak	Day	Eve	Day	Eve	Day	Eve			
1	Santa Maria	20	20	20-55	20	20-55	40-80	40	1,492	1,710	1,239
2A	San Bernardo	30	30	30-60	30	30-60	60	60	1,517	1,796	755
2B	San Bernardo	30	30	30-60	30	30-60	60	60	1,099	916	n/a
3	Convent	45	45	45	45	45	60	60	1,096	811	219
4	Springfield	37-38	37-38	37-38	37-38	37-38	75	75	933	667	325
5	Tilden	70	70	70	70	70	70	70	323	279	171
6	Cedar	30	60	60	60	60	60	60	963	475	310
7	LCC	30-60	30-60	30-60	30-60	30-60	30-60	30-60	282	175	98
8A	Guadalupe/Lane	70	70	70	70	70	70	70	547	374	331
8B	Guadalupe/Villa Del Sol	70	70	70	70	70	-	-	283	214	-
9	Market	45	45	44-90	45	45	90	90	1,053	920	506
10	Corpus Christi	30	30	30	30	30	60	60	899	640	279
11	Gustavus/LEC	75	75	75	75	75	85	85	333	304	179
12A	Del Mar Express	30	60	60	60	60	60	60	767	592	195
12B	Shiloh Express	30	60	60	75	75	-	-	791	277	-
13	Heritage Park	75	75	-	75	-	85	85	452	119	275
14	Santa Rita	90	90	90	90	90	90	90	251	258	460
15	Main/Riverside	60	60	60	60	60	60	60	326	282	129
16	TAMIU	30	60	60	60	60	60	-	311	449	71
17	Mines Road	37	75	75	75	75	75	-	513	430	129
19	Santo Niño	70	70	70	70	70	70	-	681	439	206
20	Los Angeles	85	85	85	85	-	90	90	585	531	n/a

Source: El Metro and 2008 El Metro Boarding and Alighting Survey (n/a=not available)

The ridership data is based on an expanded sample of the boarding and alighting survey done in the summer of 2008 for the Laredo Transit Development Plan. Based on the above ridership levels, it is evident that the most popular routes during the weekdays are Route 1 Santa Maria, Routes 2A and 2B San Bernardo, Route 3 Convent, and Route 9 Market. Each of these routes carry over a thousand passengers during the weekdays and account for



approximately 34 percent of the weekday total. Similarly, the most popular routes on Saturdays and Sundays are by far Route 1 Santa Maria and Route 2A San Bernardo.

In particular, Route 1 serves downtown Laredo along Santa Maria Avenue between the Transit Center and the retail destinations of Mall del Norte and Target, while Route 2A operates in a similar fashion along the busy commercial corridor of San Bernardo and connects the Transit Center with Mall del Norte. Route 2B follows the same alignment as Route 2A along San Bernardo until it heads east on Hillside towards the park and ride lot near the airport and circles back to downtown via Calton Road. Similarly, Route 3 begins at the Transit Center downtown but heads in a mainly northwest direction, serving such destinations as the Laredo Medical Center, Laredo Main Library, and the Doctor’s Hospital of Laredo. Route 4 also begins at the Transit Center downtown and travels in a mainly north/southern direction, serving the Springfield Avenue corridor.

*Operating Costs and Funding Sources*

In 2007, El Metro incurred approximately \$12.8 million in operating expenses for its fixed route and demand response services. This represented \$0.81 per passenger mile on the fixed bus routes and \$7.84 per passenger mile on the El Lift vans. Table 4-9 exhibits annual operating expenses and the operating expense per passenger mile for El Metro’s transit services from 2002 through 2007.

**Table 4-9: Annual Operating Expenses**

	2002	2003	2004	2005	2006	2007
<b>Fixed Route</b>						
<b>Operating Expenses</b>	\$7.831m	\$8.584m	\$9.226m	\$9.866m	\$10.568m	\$10.827m
<b>Operating Expense per Passenger Mile</b>	\$0.36	\$0.40	\$0.58	\$0.82	\$0.82	\$0.81
<b>Demand Response</b>						
<b>Operating Expenses</b>	\$1.844m	\$1.797m	\$1.596m	\$1.654m	\$1.828m	\$2.015m
<b>Operating Expense per Passenger Mile</b>	\$13.07	\$12.34	\$10.15	\$7.64	\$6.22	\$7.84

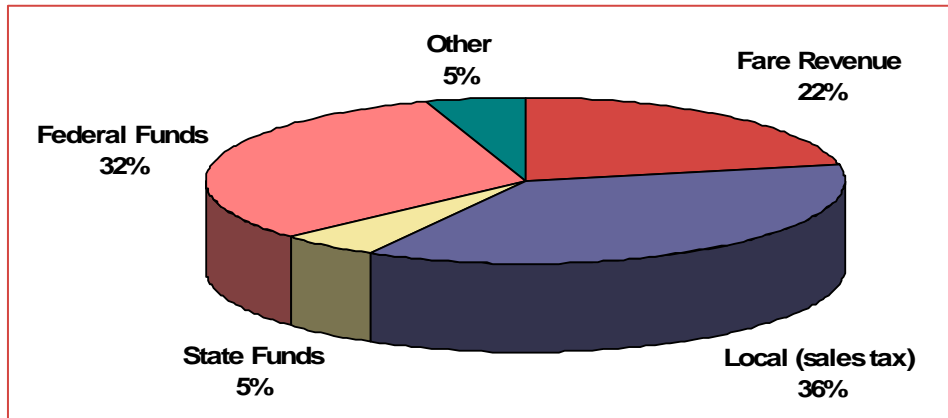
*Source: National Transit Database*



El Metro’s services are funded mostly through user fees (fares), sales tax, state funds, and federal funds, while a small percentage are covered by other funds such as advertising sales. Figure 4-18 shows the specific breakdown by funding source.

**Figure 4-18: El Metro Operating Cost Funding Sources, 2007**

Presently, about 3% of the local sales tax (or 0.25% of all sales made locally) are contributed to covering operating expenses. This amount accounted for about \$4.6 million of operating expenses in 2007, while federal



funds accounted for \$4.1 million and state funds covered only about \$635,000. In particular, funds provided by the Federal Transit Administration (FTA) to subsidize the operating expenses of the fixed route transit system may not be available for the Laredo region after 2010. Currently, the FTA does not permit these types of funds to subsidize transit operating expenses for urbanized areas over 200,000 people. In addition, El Metro will no longer be eligible for state funding assistance according to the Texas Transportation Code 456.003. In the next census in 2010, the Laredo region is forecasted to be well over 200,000, thereby decreasing the amount of both federal and state transit funding assistance it will be eligible to receive.

Fare revenues contributed a total of about \$2.8 million for operating expenses in 2007. Table 4-10 below shows the amount of fare revenues collected each year from 2002 through 2007. The significant change in fare revenues collected from 2003 and 2004 for the fixed route services was related to the increase in fares in 2004.



**Table 4-10: Annual Fare Revenues**

	2002	2003	2004	2005	2006	2007
<b>Fixed Route</b>	\$2.086m	\$1.945m	\$2.406m	\$2.484m	\$2.674m	\$2.775m
<b>Demand Response</b>	\$29,593	\$30,578	\$30,167	\$32,242	\$34,561	\$33,109

Source: National Transit Database

### El Aguila

El Aguila is the designated rural public transit provider in Webb County and connects patrons living in the rural parts of Webb County to the City of Laredo’s fixed route system at certain



route stops and the transit center in downtown Laredo. El Aguila's fleet of 23 vehicles operates approximately 342,800 miles and 17,285 hours annually and transports about 110,000 passengers a year. El Aguila provides both fixed route and demand response services to the general public, including the elderly, persons with disabilities, students, and welfare-to-work participants.

## Greyhound



Greyhound Lines, Inc. is the largest provider of intercity bus transit services in the United States, with 2,300 destinations and 13,000 departures daily throughout North America. Within the Laredo region, Greyhound's Laredo station is co-located at the El Metro Transit Center. According to scheduling information, provided online through Greyhound's website, the highest frequency of passenger services occurs between Laredo and San Antonio, with approximately 17 one-way, non-stop trips per day. Other non-stop destinations from Laredo to major cities include Austin, Dallas, and Houston. These services are provided through the Valley Transit Company and Americanos USA, which are operating subsidiaries in the Greyhound family of services. Besides providing passenger services, Greyhound also provides same-day and next-day package delivery, as well as charter services for businesses, conventions, schools, and other groups.

## Bicycle and Pedestrian Facilities

By providing a means for other forms of transportation, bicycle and pedestrian facilities, such as sidewalks and bicycle lanes, play an important role in a region's transportation system. This is especially true for the Laredo region, which overall has comparatively less personal vehicle ownership. Moreover, the city has a thriving downtown retail environment which is enjoyed by thousands of 'on-foot' shoppers. Therefore, the downtown sidewalk system represents an important asset to preserve and maintain.

Bicycle and pedestrian facilities assist in reducing vehicle congestion and the resulting pollution, which is important for improving air quality and achieving other sustainability objectives. In particular, people worldwide are generally more cognizant of the importance of preserving the environment and are increasingly focused on more efforts to reduce their overall effect on the environment.

When constructing new multi-use trails, it is important to ensure that they are located in proximity to non-vehicular dependent populations, densely populated areas, and mixed land uses in order to maximize their benefits. The following safety factors should also be considered: the separation of cars from bicyclists and pedestrians, proper street and intersection design, and compliance with American with Disabilities Act (ADA) standards. Further, these facilities should also be considered in conjunction with the regional transit system in order to provide access to transit stops and to increase the use of public transit.

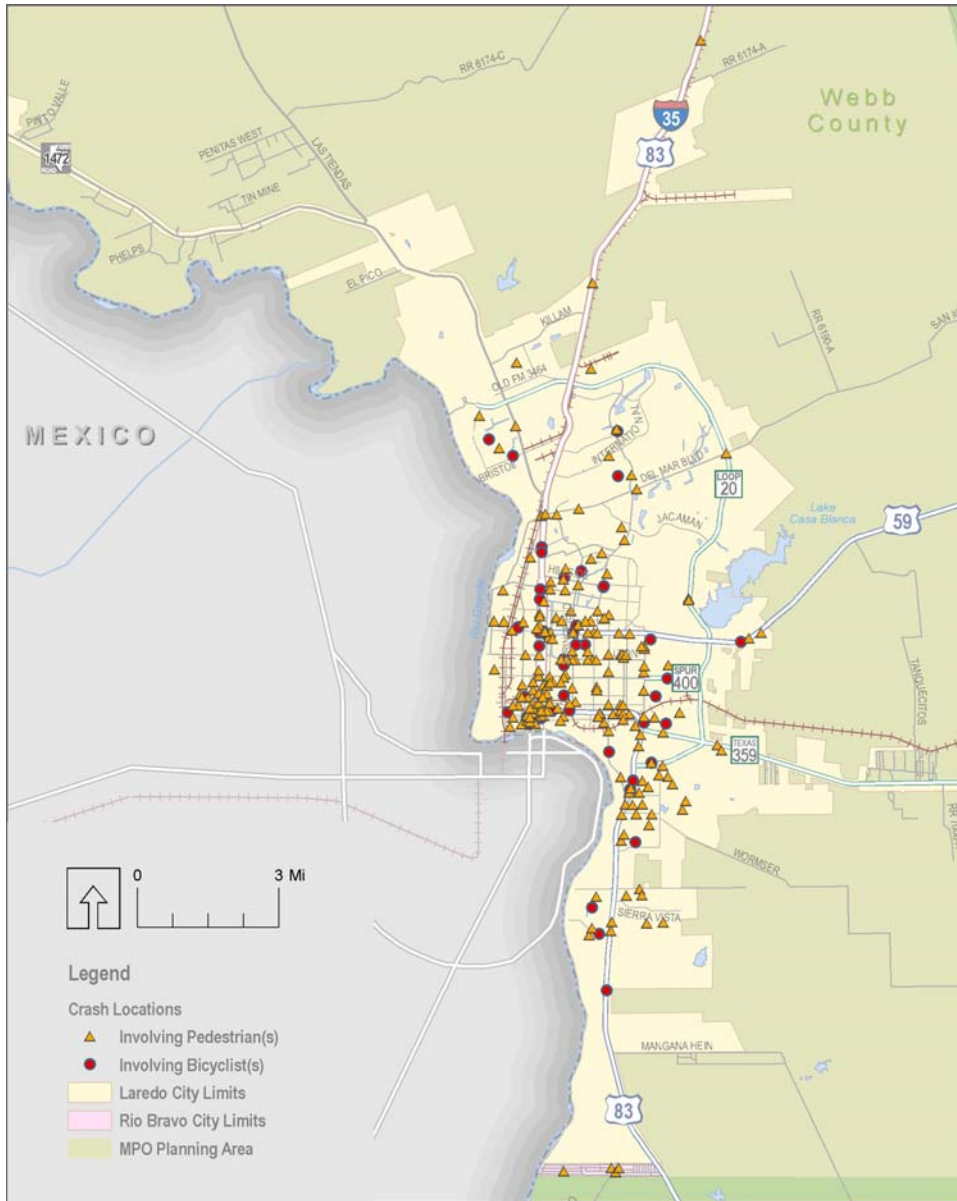
An existing bicycle route is located along Clark Boulevard (Spur 400) between Bob Bullock Loop (Loop 20) and Ejido Avenue. In addition, there is a long bicycle/jogging path along the northbound side of Bob



Bullock Loop (Loop 20) from US 59 to University Boulevard. Sidewalk facilities are located along most streets and within most developments.

As mentioned in the safety section under existing roadway conditions, out of 18,000 total accidents that occurred in the Laredo region between 2005 and 2007, 219 included incidents involving pedestrians and 51 included incidents involving bicyclists. The locations of these crashes are shown in Figure 4-19.

**Figure 4-19: Crashes Involving Bicycles and Pedestrians, 2005 to 2007**



## Air Transportation

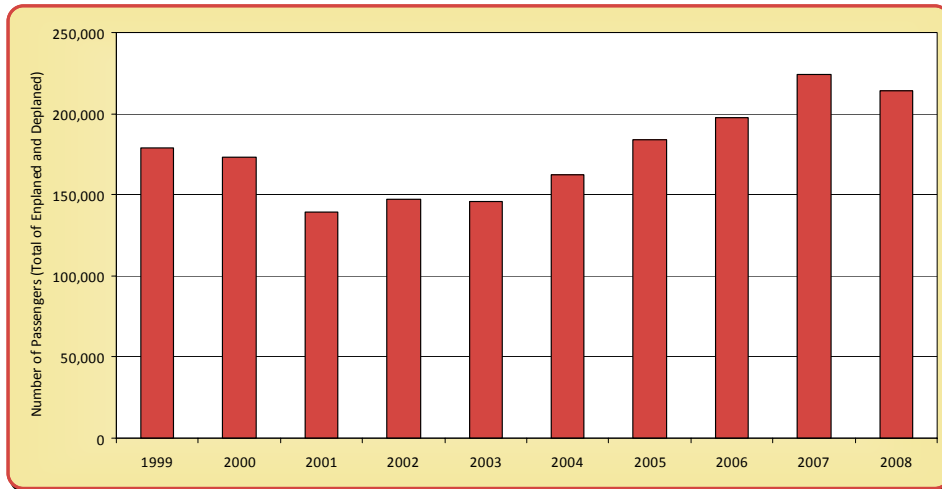
The Laredo International Airport (LRD) is the primary airport in the Laredo region and provides air transportation services for both cargo and passengers. LRD is located on approximately 1,800 acres of the former Laredo Air Force Base in eastern Laredo and is generally bounded by U.S. 59 to the south, Lake Casa Blanca State Park and Loop 20 to the east, and Jacaman Rd to the north. In 2006, the Federal Aviation Administration (FAA)

named LRD “airport of the year” and has rated it as “exemplary” during airport inspection for certification every year since 2006.

LRD is owned and operated by the City of Laredo and provides daily commercial flights to Houston, Dallas/Fort Worth, and Las Vegas. Private fixed wing and helicopter service is also available. Additionally, LRD is classified as a Foreign Trade Zone (FTZ) site and can accommodate aeronautical and industrial purposes. Information on freight services is provided in more detail in Chapter 5.

Figure 4-20 portrays the total number of annual passengers at LRD from 1999 to 2008. After a small decline in the late 1990s and early 2000s, the number of passengers using the airport has shown a steady increase. However, the current economic downturn has caused a recent dip in the number of passengers.

**Figure 4-20: Annual Airport Passengers**



**Source: Laredo Development Foundation via the Laredo International Airport (LRD)**



LRD’s airfield contains two parallel runways and one cross-wind runway. Taxiways connect the runways to the apron and terminal areas located on the west side of the airfield. The primary runway, Runway 17R/35R is approximately 7,800 feet long; while the secondary runway, Runway, 17L/35R is approximately 8,200 feet long. The cross-wind runway, Runway 14/32, is approximately 5,900 feet long. Further, LRD is aided by runway and taxiway lighting systems, an instrument landing system (ILS) for the primary runway, an air traffic control tower in operation 18 hours on the weekdays and 14 hours on the weekends, and other navigational aids for

operation under both visual flight rule (VFR) and instrument flight rule (IFR) conditions.

The current passenger terminal is approximately 78,000 square feet and provides space for six airlines, five car rental agencies, a duty-free store, and government and federal inspection facilities. In particular, the passenger terminal has the potential to be expanded

on surrounding available land. In fact, the *Laredo International Airport Master Plan Update* calls for it to be expanded by approximately 26,500 square feet with two additional gates in order to accommodate future demand.

LRD has a Federal Inspection Station that offers 24/7 federal inspection services, including custom, agriculture, and immigration services for the international aviation community. Additionally, the airport is serviced by two fixed base operators that provide general aviation services. Surrounding land on the city-owned airport property is available for lease, and other entities, such as the Laredo Police Department, are located on airport property. In addition, an El Metro park and ride lot is near the airport entrance.



Over the past 15 years, the City of Laredo and the FAA have invested over \$100 million to upgrade the airport's infrastructure. Projects that have been completed during this time period include:

- A totally reconstructed Runway 17L/35R to accommodate heavy aircraft
- Partial reconstruction of Runway 17R
- Engineered Materials Arresting System (EMAS)
- New and reconstructed cargo aprons with capacity to simultaneously park an additional 20 large cargo aircraft
- New and reconstructed taxiways, a new passenger terminal, and a new fuel farm
- Constructed airside cargo warehouses

The City of Laredo and the FAA also have further plans to improve the airport. Current and short-term, future planned improvements include the following projects:

- Reconstructing all pavements on runways, taxiways, and aprons
- Extension of Runway 17R/35L of approximately 800 feet to be completed by 2010.
- Acquisition of approximately 166 acres of land for the extension of Runway 17L/35R
- Installation of an instrument landing system (ILS) to enable precision landings to Runway 17L/35R
- Construction of a new federal inspection station on the west (general aviation) side of the airport to process private aircraft and air cargo only.
- Establishment of an airport noise compatibility program
- Upgrading airport roadways and parking lots to improve drainage and road access
- Construction of a new air traffic control tower, new aircraft rescue and fire fighting facility, new airport maintenance building, new rental car service center
- Rehabilitation of taxiways and taxiway extensions.
- Expansion of existing passenger terminal parking lot and its conversion to a paid parking facility.

## Rail

The Laredo region is served by two of the seven Class I railroads in the country. The Kansas City Southern Railway (KCS) owns the international rail bridge and has an agreement with Union Pacific (UP) that allows UP to use the bridge. KCS railroad operations consist of an east-west railroad through the city and a switching yard terminal located about two miles east of Loop 20.



The Union Pacific operates a north-south railroad that generally parallels Santa Isabel Avenue and Interstate 35 throughout the Laredo region. The UP's primary switching yard is located about four miles north of the junction of Interstate 35 and Loop 20, just south of the Unitec Industrial Park. The UP also maintains a terminal and yard just east of the Laredo Community College north campus, between Zaragosa and Moctezuma Streets.



A more thorough discussion of railroad operations and the amount and type of freight that these lines carry can be found in the following chapter.

**Figure 4-21: Rail Network**



## CHAPTER 5: FREIGHT



### Introduction

The Laredo regional economy relies significantly on the freight transportation system due to its special geographic location and socioeconomic and development characteristics. The North American Free Trade Agreement (NAFTA), which has resulted in increased trade with Mexico, has created a strong demand for trucking, warehousing, and support service industries in the region.



The port of Laredo serves as a major national gateway connecting the U.S. with Mexico, making freight movement an extremely important local issue. Over time, increasing freight movement will require more infrastructure improvements and better connectivity between the national transportation system corridors and trade partners in order to increase synergies that reduce logistics costs of goods and services in final consumption markets. By being able to provide quick, affordable, and efficient goods movement, the Laredo region is expected to attract more freight-dependent industries and benefit from trade related strategies.

The purpose of this chapter is to provide a general understanding of freight activities in the Laredo region and aid planners in making informed freight planning policies and investment decisions. This chapter addresses various aspects of freight transportation, including freight infrastructure, current and forecasted freight flows by mode, and issues and challenges faced by the freight industry.

### Congressional High Priority Corridors

Congress has designated a total of 80 corridor High Priority Corridors (HPCs) in the country, and three of these (HPC 23, HPC 20 and HPC 38) travel through the Laredo region. These corridors, shown in Figure 5-1, connect the international markets of Canada, the U.S., and Mexico.

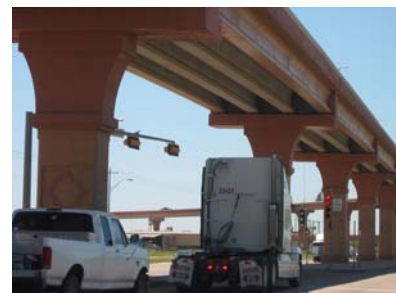
**Figure 5-1: Congressional High Priority Corridors**



These corridors will play an important role in the burgeoning international trade market. In fact, two of these corridors, IH-35 and U.S. 59 are the two high-priority corridors for TxDOT’s Corridor Program, additional discussion about which can be found in Chapter 7.

## Freight Infrastructure

Laredo has a strong freight transportation system that serves the movement of goods and chiefly supports international trade between the U.S. and Mexico. The main freight transportation modes in the Laredo region are highway and rail. Figure 5-2 shows the major freight transportation infrastructure, including both network and facilities, in the Laredo region.



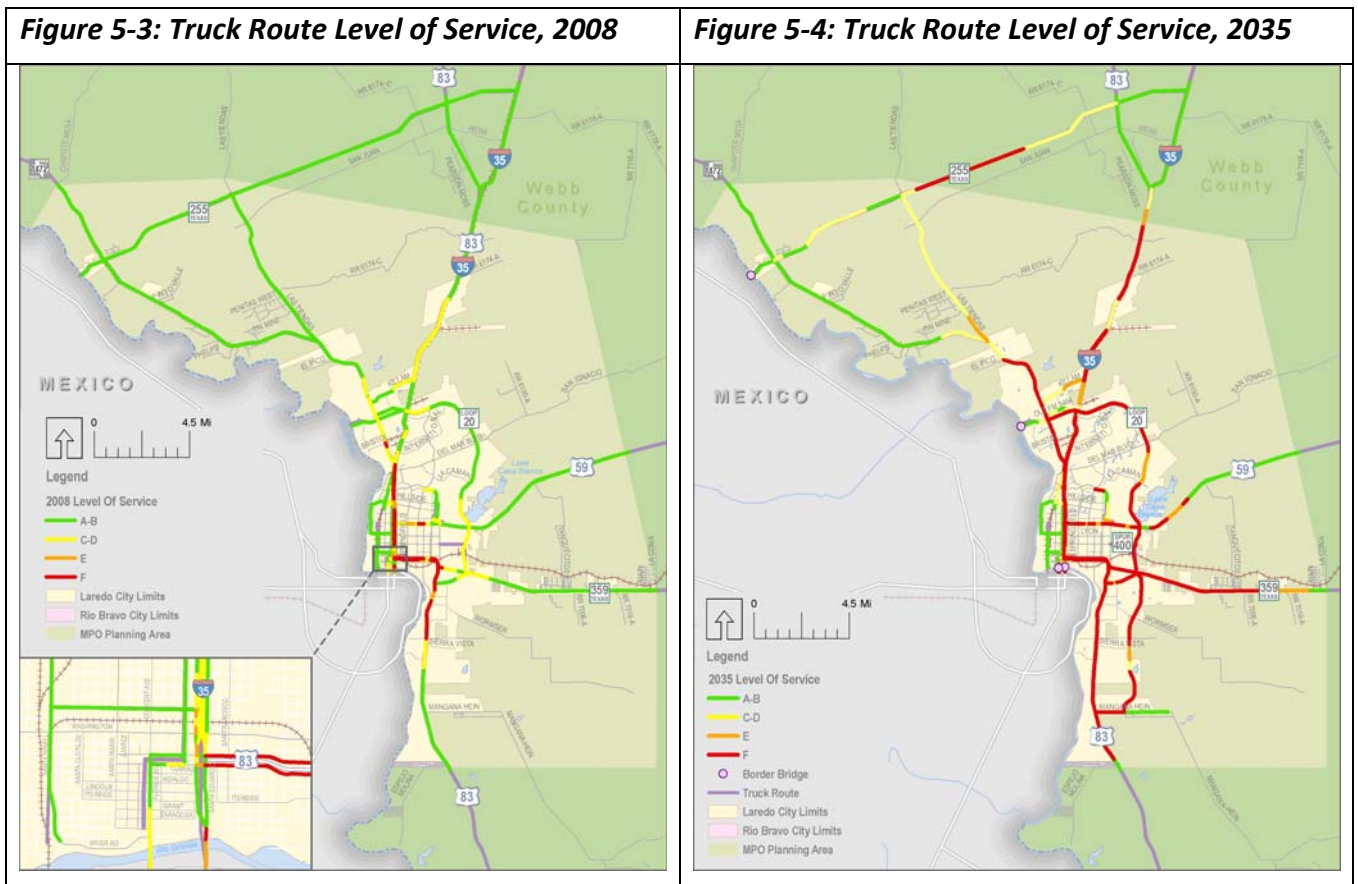




industrial facilities within the region. The primary truck routes that provide for the movement of goods are:

- Interstate 35:
- U.S. Highways: U.S. 59 and U.S. 83
- State Highways/Loops: SH 359 and Loop 20
- Farm-to-Market (FM) roads: FM 1472 and FM3368, and
- Major arterials: McPherson Road, Del Mar Boulevard, Clark Boulevard, Arkansas Avenue, and Santa Maria Avenue.

Figures 5-3 and 5-4 show the level of service (LOS) for the truck routes in the Laredo region for 2008 and 2035. In 2008, certain segments of IH-35, U.S. 83, and U.S. 59 are considered to be over capacity. If there were no highway capacity expansion, beyond what is committed in the current TIP, by 2035 the congestion would spread out into the whole metropolitan planning area.



### ***Railroad Network***

Laredo is one of seven rail ports of entry on the U.S.-Mexico international border and is the largest rail freight gateway in the U.S. Laredo's freight rail service is provided by two U.S. carriers: Union Pacific (UP) Railroad and the Kansas City Southern Railway (KCS).

UP is a Class I railroad and operates the most extensive rail network in not only Texas, but also the U.S. Within Laredo, UP has two rail yards, one located about four miles north of the IH 35 and Loop 20 interchange, south of the Unitec Industrial Park, and the other located north of the International Railroad Bridge yard, between Zaragosa and Moctezuma Streets. UP operates between 10 and 12 trains per day through Laredo. By the year 2020, this number is projected to increase to 20 trains per day.



KCS is a Class I railroad operating in the central United States. It also owns and indirectly operates Kansas City Southern de México (KCSM) in the central and northeastern states of México. The main KCS rail yard is located about two miles east of Loop 20 and has a capacity of 1,375-cars. KCS currently operates six to seven trains per day.



On the Mexican side of the border, KCSM maintains the Sanchez yard, which is located 11 miles south and west of Nuevo Laredo. This rail yard contains 22 tracks, including two for car repairs and an intermodal terminal capable of handling 1,500 trucks per day. According to the KCS *Feasibility Study for Proposed International Rail Bridge*, the Sanchez yard has recently been improved, doubling its capacity to 40 trains per day.



### ***International Border Bridges***

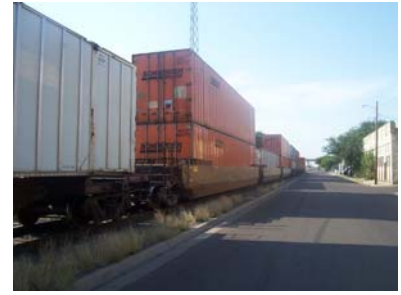
Laredo has five international bridges serving the border crossings between the U.S. and Mexico. Only three of these bridges, the Colombia-Solidarity Bridge, the World Trade Bridge, and the Laredo International Railway Bridge, allow commercial traffic. The other two international bridges (i.e., Juarez-Lincoln International Bridge, Gateway to the Americas Bridge) are for passenger usage only. Additional information regarding these bridges can be found in the previous chapter.

The Texas Mexican Railway International Bridge is currently owned by KCS, which purchased Tex-Mex and KCSM. It is a single track bridge, and both UP and KCS share operation of it. According to the *Presidential Permit Application for KCS East Loop Bypass*, the rail bridge is expected to exceed its capacity of 40 trains per day by or before 2020. It should be noted that this prediction is based on no substantive changes in trans-border security measures in the interim. More stringent screening and inspections could substantially decrease the total capacity.

In anticipation of increasing rail traffic, the Webb County Rural Rail District, KCS, and UP are contemplating new international rail bridges as part of their long-range planning efforts. See Figures 5-15 and 5-16 at the end of this chapter for their proposed locations.

## Mexican Multimodal Corridor

In an ongoing study sponsored by the Mexican Secretariat of Communications and Transportation, the Lázaro Cárdenas – San Luis Potosí – Monterrey – San Antonio Corridor has been identified as a high priority trade corridor that will provide Mexico with a master plan to develop a multimodal transportation network of key corridors that meets the requirements of a world class multimodal transport system, and that furthers the goal of Mexico becoming a prominent participant in world trade.



Corridor 6, which is shown in Figure 5-5, begins at the port city of Lázaro Cárdenas, and ends in the San Antonio, Texas. The Mexican portion of this corridor ends at the city of Nuevo Laredo, just before the U.S.-Mexico international border. It is approximately 953 miles from the port to the border. This corridor is connected by a KSCM rail line, and links the port of Lázaro Cárdenas to Monterrey and the U.S. market via Laredo.

**Figure 5-5: Lázaro Cárdenas – San Luis Potosí – Monterrey – San Antonio Corridor**



**Source: Mexico Multimodal Master Plan**

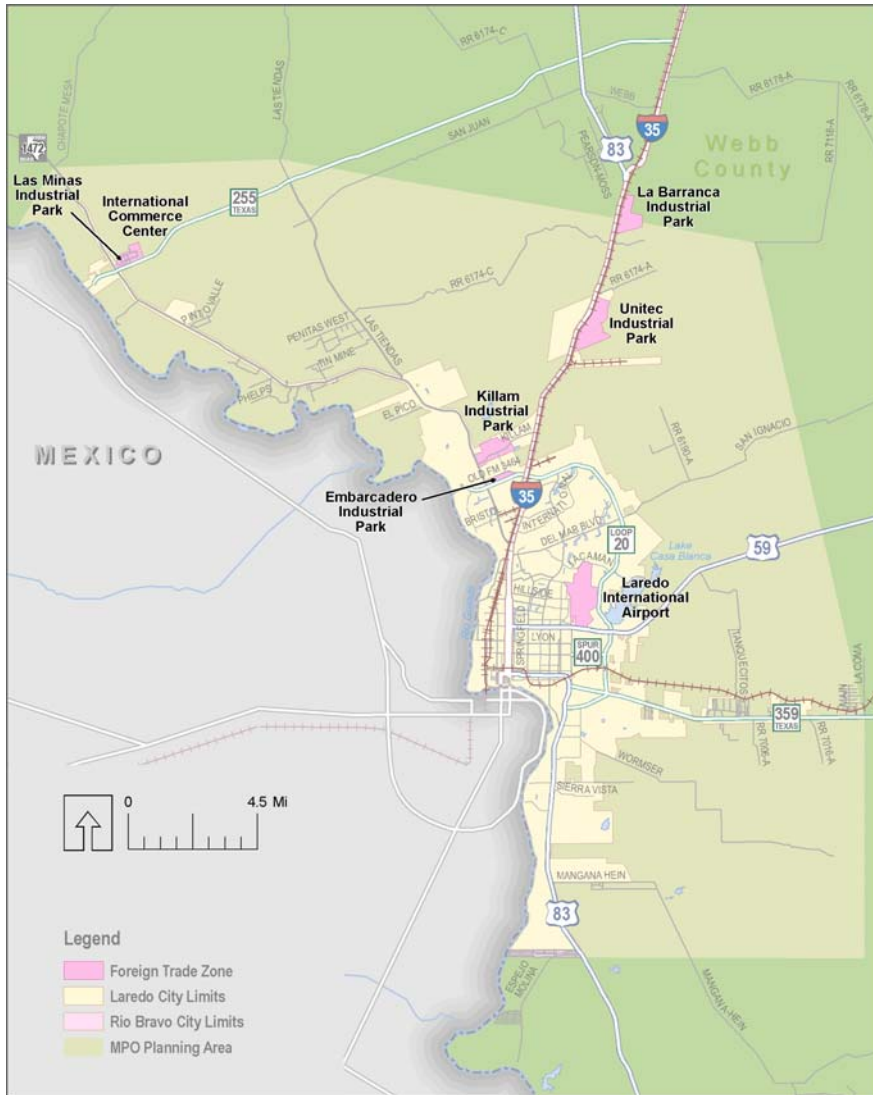
This route connects important industrial cities in the NAFTA corridor, including Querétaro, San Luis Potosí, Saltillo, and Monterrey. The MPO will continue to monitor the developments of this corridor and coordinate as necessary with federal and state entities on both side of the border.

## Foreign Trade Zones

Laredo has seven active Foreign Trade Zone (FTZ 94) sites, which are shown in Figure 5-6. These zones are located in the Laredo International Airport and at various industrial parks.

An FTZ is a location where domestic and foreign merchandise are brought for the purpose of storage, manufacturing, accessibility, exhibition, manufacturing or other operations, free from customs duties until the goods leave the zone and enter the U.S. for domestic use. According to the Laredo Development Foundation, the FTZ sites located in Laredo cover nearly 5,000 acres, which includes warehouses, assembly space, and other facilities. Freight forwarding, custom brokerage, and other manufacturing companies can utilize the FTZ sites in Laredo and reduce operating costs for their businesses.

**Figure 5-6: Foreign Trade Zones**



**Source: Laredo Development Foundation**

### **Air Freight Facilities**

Air freight in Laredo is served by the Laredo International Airport (LRD), which has dedicated air freight facilities. LRD is located approximately three miles from the center of the city, and six miles from the international border. The airport has direct access to U.S. 59 and Loop 20. Foreign Trade Zone 94 is also located at the airport.



LRD currently has three runways, 579,000 square feet of storage space, and 20 air cargo operators, including Federal Express, Emery Worldwide, BAX Global, American International, Northstar, Rhoades, and Ferreteria. Table 5-1 presents existing hanger and air cargo facilities in the airport.

**Table 5-1: Storage Facilities in Laredo International Airport**

Category	Storage Space (square feet)
10 Aircraft Hangars	207,000
15 Air Cargo Facilities	360,000
Federal Express Facility	30,000
<b>Total Storage Space</b>	<b>597,000</b>

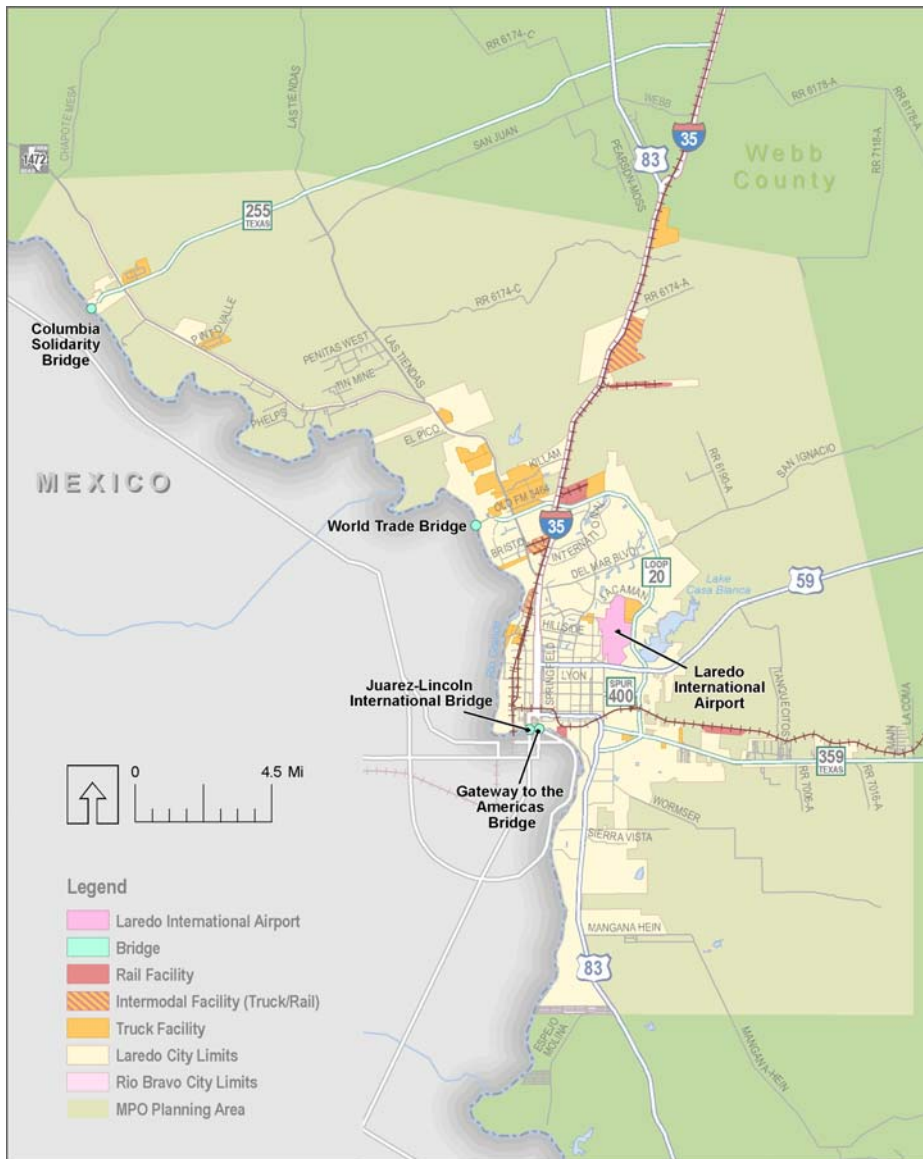
**Source: Laredo International Airport**

According to the *Airport Master Plan Update*, the existing air cargo apron and building space will be expanded in order to accommodate growing air cargo activities. The recommended air cargo expansion plan includes a total of 720,000 square feet of air cargo building space, 246,000 square feet of aircraft parking yard, 82,100 square feet of truck docking area, and 55,000 square feet of fuel farm or non-aviation commercial activities.

### **Industrial Facilities**

Industrial facilities in the Laredo region are the nerve centers for freight traffic in the Laredo region. These facilities serve as the origins and destinations of the majority of commercial traffic. Through zoning and other regulations, the city of Laredo has steered the development of these facilities away from residential areas and have tried to isolate their impacts to a handful of clusters around the region. No doubt, the location of future facilities will impact the freight movement throughout the region. Strategic investments in the transportation infrastructure near and around these industrial facilities will help support this critical piece to the local and national economy. Figure 5-7 shows the location of regional industrial facilities.

**Figure 5- 7: Regional Industrial Facilities**



## Goods Movement

### Value of Trade

Data from the Texas Center for Border and Economic and Enterprise Development indicates that the Port of Laredo accumulated \$116 billion worth of U.S./Mexico trade in 2008. Comparatively, this amount far exceeded the amount of other ports along the Texas/Mexico border. Table 5-2 shows the total amount of U.S./Mexico trade dollars by port of entry in Texas for 2004 and 2008. Laredo’s nearest competitor, El Paso, accumulated about \$48 billion worth of trade in 2008, less than half as much as Laredo.

**Table 5-2: U.S./Mexico Total Trade Dollars by Port of Entry in Texas**

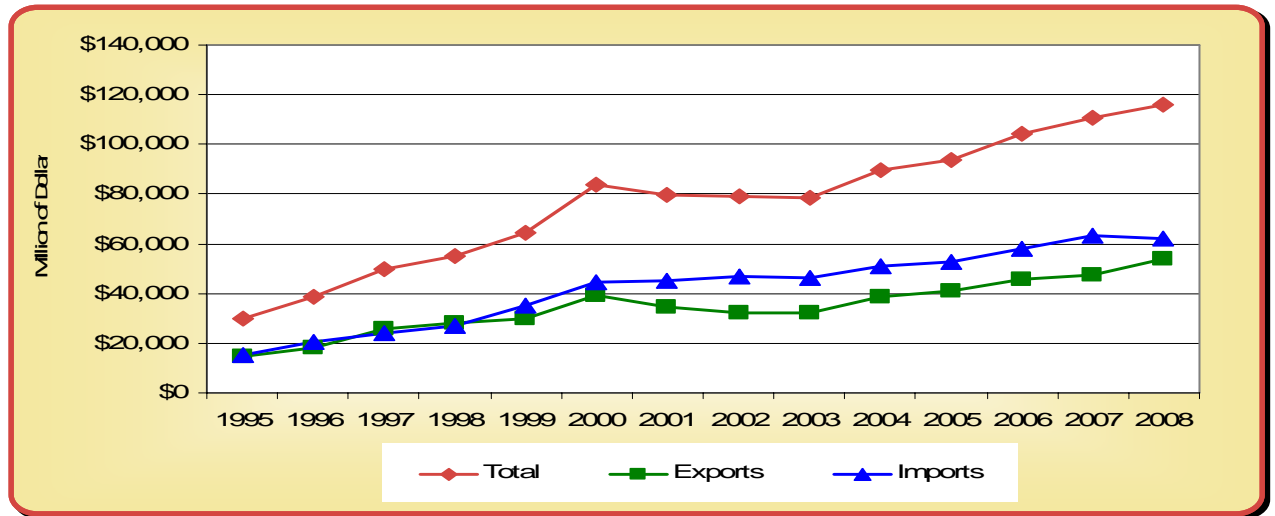
Port of Entry	2004	2008	% Change
Laredo	\$89,682,667,340	\$116,055,113,393	29.4%
El Paso	\$42,898,696,624	\$48,202,525,711	12.4%
Hidalgo	\$15,877,243,660	\$22,214,482,264	39.9%
Eagle Pass	\$6,875,116,445	\$12,829,924,018	86.6%
Brownsville-Cameron	\$10,761,096,851	\$12,697,276,534	18.0%
Del Rio	\$2,797,360,229	\$2,821,222,542	0.9%
Presidio	\$409,543,159	\$548,180,107	33.9%
Rio Grande City	\$220,992,652	\$441,030,596	99.6%
Progreso	\$142,610,696	\$394,767,150	176.8%
Roma	\$79,755,879	\$183,316,125	129.8%
Fabens	\$32,432,624	\$26,082,253	-19.6%

Source: Texas Center for Border and Economic and Enterprise Development

### Historical Freight Flows

Figure 5-8 shows that U.S.-Mexico trade value through the port of Laredo has steadily increased over the last decade, with an annual growth rate of 5.6%.

**Figure 5-8: U.S.-Mexico Trade Value, Through Port of Laredo**



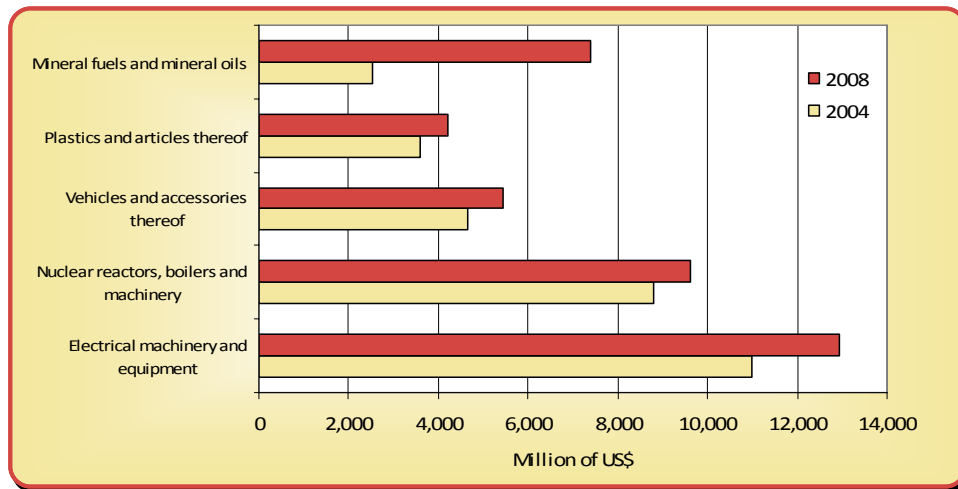
Source: Bureau of Transportation Statistics. North American Transborder Data



## Freight Commodities

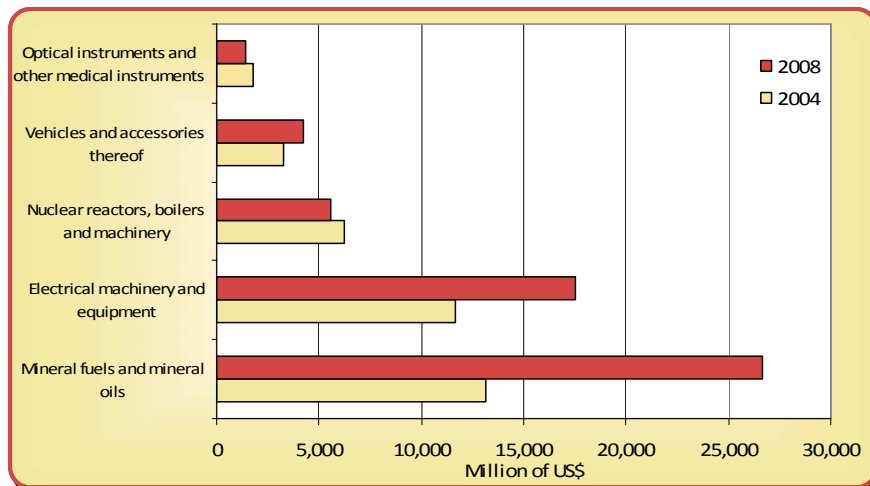
Figures 5-9 and 5-10 show the top five export and import commodities that move through the port of Laredo. The top five export commodities include electrical machinery and equipment, mineral fuels and oils, nuclear reactors, boilers and machinery, vehicles and accessories thereof, plastics and articles thereof. These commodities represented approximately two-thirds of the value of all exports. The top five import commodities included electrical machinery and equipment, mineral fuels and oils, nuclear reactors, boilers and machinery, vehicles and accessories thereof, and optional and other medical instruments. These commodities accounted for just over three-quarters of the value of all imports.

**Figure 5-9: Top Export Commodities**



Source: Bureau of Transportation Statistics. North American Transborder Data

**Figure 5-10: Top Import Commodities**



Source: Bureau of Transportation Statistics. North American Transborder Data

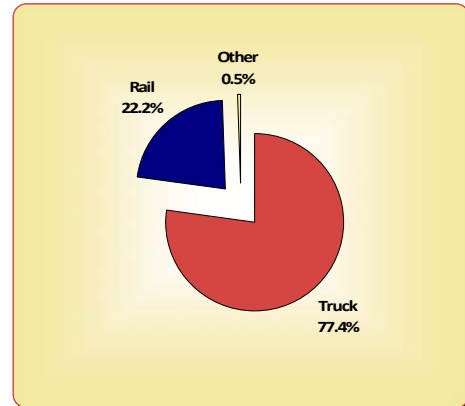
## Freight Modes

While all modes play a role in moving freight into and out of the Laredo region, trucks carry the lion's share of the load. Figure 5-11 shows the percentages of total value that truck, rail, air, and other modes transport across the border.

Trucks carried over three-quarters of the total value of all freight transported between U.S. and Mexico via the Port of Laredo in 2008. According to Texas A&M International University's border crossing data, around three million trucks crossed the port of Laredo in 2008.

Rail carries most of the remaining freight across the border. According to the Bureau of Transportation Statistics, 3,921 trains passed through the Port of Laredo in 2008, making Laredo the busiest crossing for trains along the U.S.-Mexico border.

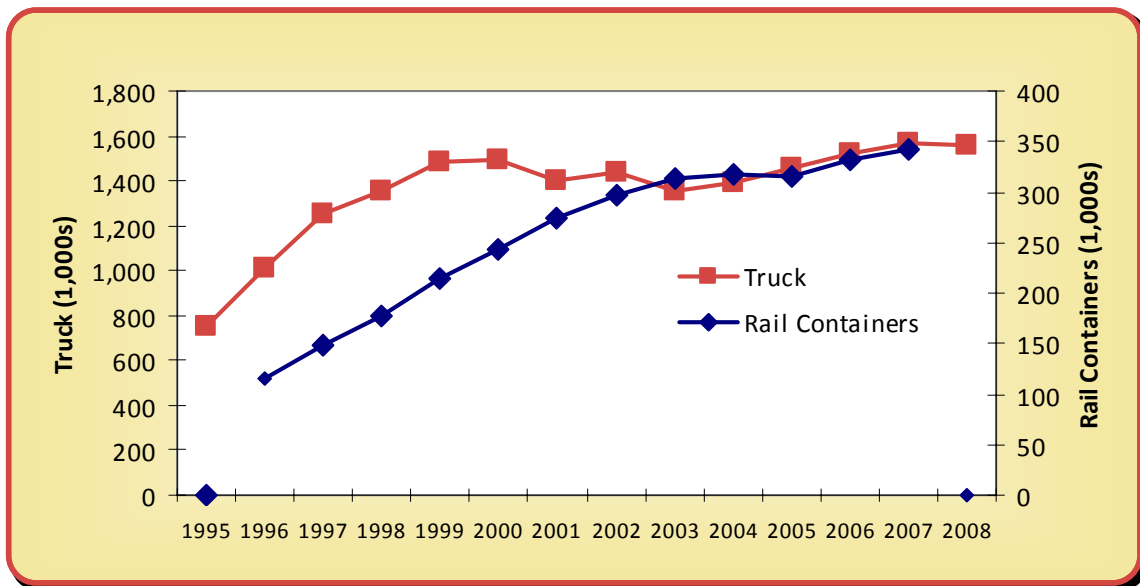
**Figure 5-11: Import and Export Goods Value by Mode, 2008**



Source: Bureau of Transportation Statistics. North American Transborder Data

According to the Bureau of Transportation Statistics Border Crossing database, the truck and rail traffic coming from Mexico through the port of Laredo rose sharply immediately following the passage of NAFTA in 1994. After the year 2000, however, growth has continued, albeit at a slower, but steady pace.

**Figure 5-12: Northbound Truck/Rail Crossings, 1995 - 2008**



Source: Bureau of Transportation Statistics. Border Crossing/ Entry Database

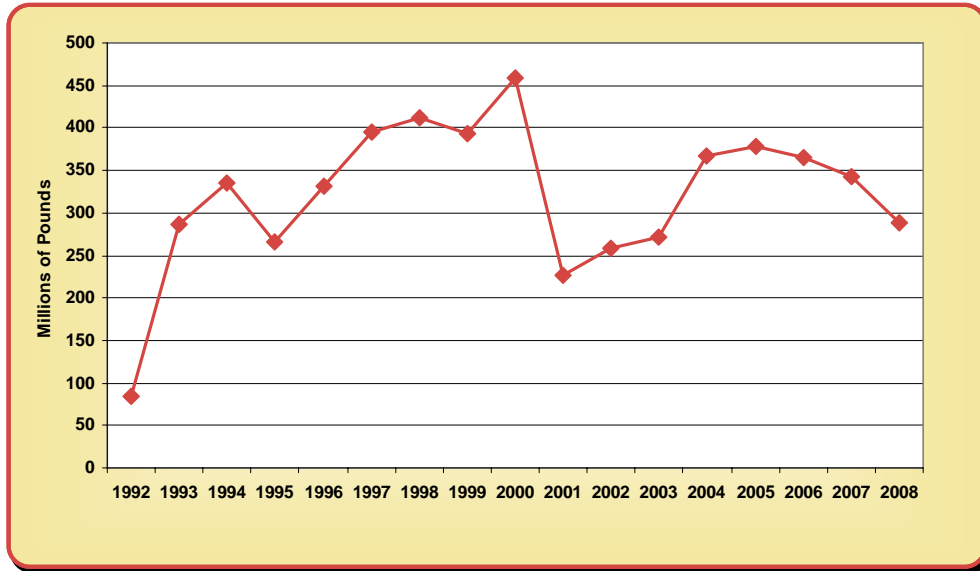
## Air Freight

In the Laredo region, air freight is becoming an increasingly important component of the transportation of goods. Air freight typically serves time-sensitive, high-value commodities such as documents and precision equipment. According to the *Laredo International Airport*

*Master Plan*, Emery Worldwide, BAX Global, FedEx, and UPS currently serve LRD on a scheduled basis, while non-scheduled operators include Ameristar, Express One, and U.S.A Jet.

Figure 5-13 presents the historical air cargo activities in LRD since 1992. According to the information provided by LRD, the air cargo business at LRD, about 90% of the air cargo business is related to the automobile industry.

**Figure 5-13: Total Air Cargo at LRD, 1992 - 2008**



**Source: Laredo International Airport**

The *LRD Master Plan* forecasts that growth in air freight between 2010 and 2025 will be between 7.2% and 11% annually. The higher growth scenario is based on an assumption that the air cargo market will become more diverse, while the lower growth scenario assumes that the air cargo at LRD will remain predominately be from the automobile industry.

Based on the air cargo growth forecast, the plan indicates that the existing air cargo facilities currently located on the southwest side of the airport are fully developed, and will have deficiencies starting in 2010; therefore, a new air cargo area should be identified for improvements.

The City of Laredo and LRD are working together for approval to locate an external operation of Mexican Customs, Immigration, and Agriculture at the Laredo International Airport for the purpose of pre-clearing passenger and cargo bound for Mexico. Laredo is expected to become the first city in the U.S. to provide Mexican Customs service if the application gets approved. With this will come a marked increase in air freight traffic at the airport.

## Trading Partners

According to the FHWA's Freight Analysis Framework 2 database, Laredo's top five domestic trading partners include locations in California, Michigan, and other parts of Texas. Table 5-3 shows the value of the amount traded with these regions along with forecasted growth rates.

**Table 5-3: Top Trading Partners in the U.S. (Million of Dollars)**

State	Region	Annual Trade Value (millions)		Annual Growth Rate (2002-2010)
		2002	2010	
Michigan	Detroit-Watton-Flint	\$9,378	\$9,951	0.66%
	Grand Rapids-Wyoming-Holland	\$5,693	\$5,653	-0.08%
California	Los Angeles-Long Beach-Riverside	\$3,173	\$4,122	2.95%
Texas	Houston-Baytown-Huntsville	\$2,632	\$10,572	16.71%
	Dallas-Fort Worth	\$2,565	\$2,889	1.33%

Source: Federal Highway Administration. Freight Analysis Framework 2.

According to the *Mexico Multimodal Master Plan*, over the period from 2006 and 2020, Webb County's top five trading partners in Mexico include the states of Distrito Federal, Nuevo Leon, Coahuila Jalisco, and Mexico. Figure 5-4 shows the trade volume in metric tons for 2006 and 2020 between Webb County and these states.

**Table 5-4: Top Trading Partners in Mexico (Metric Tons)**

Mexican State	Annual Trade Volume (metric tons)		Annual Growth Rate (2006-2020)
	2006	2020	
Mexico	10,986,259	17,638,495	3.21%
Distrito Federal	8,746,100	14,265,970	3.32%
Nuevo Leon	8,035,574	11,898,804	2.65%
Coahuila	4,922,765	8,058,522	3.34%
Jalisco	3,246,836	4,181,175	1.70%

Source: Mexico Multimodal Master Plan

## Future Freight Demand

Looking into the future, the Laredo region will continue to deliver more goods between U.S. and Mexico. According to the freight projection from the Freight Analysis Framework 2 database, the U.S.-Mexico trade value from the port of Laredo for all modes will increase by 29% in the short term (2010-2015) and 285% in the long term (2016-2035). Table 5-5 presents the annual growth rates of trade value by mode.

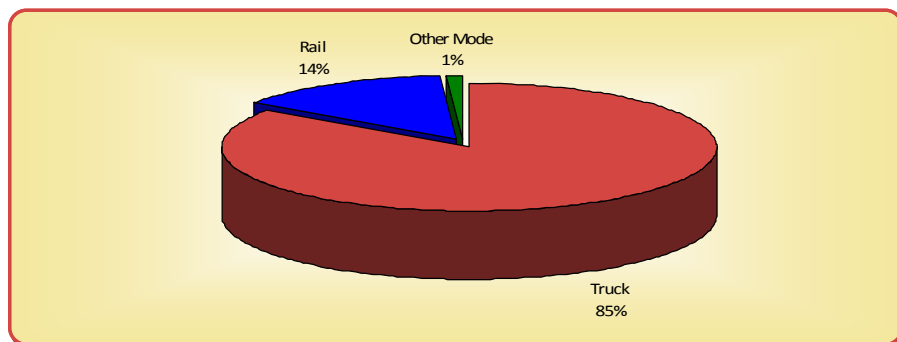
**Table 5-5: Projected Trade Value Growth by Mode**

Mode	Short Term (2010-2015)		Long Term (2016-2035)	
	Total	Annual	Total	Annual
Truck	31.7%	5.7%	339%	6.1%
Rail	19.2%	3.6%	121%	3.2%
Other	27.2%	4.9%	277%	5.5%
<b>All Modes</b>	<b>28.6%</b>	<b>5.2%</b>	<b>284%</b>	<b>5.5%</b>

*Source: Federal Highway Administration. Freight Analysis Framework 2.*

Figure 5-14 presents the trade value share by mode in 2035. Truck and rail will still be the dominant modes in the freight transportation. All modes are projected to grow, but truck will do so at a greater rate as it will carry an increasing share of future freight shipments.

**Figure 5-14: Projected Trade Value Share by Mode, 2035**



*Source: Federal Highway Administration. Freight Analysis Framework 2.*

## Issues and Challenges

There are a number of freight movement issues in the Laredo region that need to be addressed. These challenges include capacity constraints, border crossing wait times, air pollution, and security.

**Capacity issues** will be the most critical challenge to the international gateways, and Laredo will be no exception. The freight flow projections presented above indicate that freight growth will continue to add capacity burdens on an already congested network.

TxDOT has long recognized these challenges and serious planning efforts are underway. While the Trans-Texas Corridor concept has been formally abandoned, the state is recrafting its approach to solving these challenges. The broad and bold strokes of the

Trans-Texas Corridor have been replaced with more focused, regionally based planning initiatives. While the congestion issues along the Interstate 35 and US 59 (Interstate 69) corridors are not solely caused by freight movement, rail and truck transportation along these corridors will continue to grow at a pace most likely higher than passenger transportation. Therefore, the state has assembled stakeholders throughout these corridors, including representatives from the freight community, to seek ways to address transportation issues in these important trade corridors.



**Border crossing wait times** is another factor that exacerbates highway and rail congestion. Heightened security practices instituted over the last decade coupled with growing demand have increased travel times and delay. According to the *Texas DOT NAFTA Study*, the average wait-time for northbound commercial vehicles crossing at the World Trade Bridge is about 45 minutes. In contrast a non-delayed border crossing should normally take only 10 minutes.

**Air pollution** in the region is caused by the significant volume of heavy truck traffic, either traveling on the highways or idling at border crossing and traffic lights. According to the *2001 North American Trade and Transportation Corridors: Environmental Impacts and Mitigation Strategies* study, CO and CO<sub>2</sub> will be the most rapidly growing emissions in the Laredo region. It is estimated that by 2020, these emissions will be three and four times their levels in 1999.



**Security** measures implemented after 9/11 has increased the cost of doing business between the U.S. and Mexico border. Increased wait times affect overall regional productivity, and the increased projected freight volume will only make matters worse. It has been estimated that the total economic impact to the region resulting from lost productivity is between \$2.0 billion and \$2.5 billion annually.



As will be described in more detail in the following chapter, the Department of Homeland Security's Customs and Border Protection has instituted several programs to increase the security and efficiency of cross-border commercial vehicle movements, including:

- The Free and Secure Trade (FAST) program;
- The Customs Trade Partnership Against Terrorism (C-TPAT);
- The Automated Commercial Environment (ACE).

After 9/11, the CBP launched these programs to encourage business in the supply chain to increase security. While these programs have been generally successful in keeping our nation secure, they are not free from shortcomings. For example, there is one FAST lane on the World Trade Bridge, but, according to the *Texas DOT NAFTA Study*, only 6 to 7 percent

of the total commercial vehicles that cross the bridge use the FAST lane. The major reason is that, in order to use the FAST Lane, the international importer, manufacturer, carrier, and driver must all be C-TPAT certified, which includes a detailed review and approval from CBP of the entire manufacturing and shipping supply chain. Therefore, from the private sector perspective, these programs are expensive to implement.

Table 5-6 lists potential strategies regarding the freight infrastructure capacity and air pollutions issues. Strategies for the safety and security issues are discussed in Chapter 6.

**Table 5-6: Freight Infrastructure Performance Strategies**

<b>Operational Improvements</b>	<b>Capacity Enhancement</b>
Providing real-time information on incidents, weather, congestion, and other traffic conditions	Creating truck-only lane facilities
Creating routing restrictions for heavy loads	Widening access roads to rail intermodal yards
Improving management of truck and container traffic at terminals	Constructing grade separated railroad crossings
Adjusting street traffic signals near freight terminals	Improving landside access to airports
Managing curb space for freight deliveries	Reconfiguring terminals
Establishing dedicated truck routes	<b>Air Pollution Mitigation</b>
Creating emergency management and incident response systems for truck routes	Reducing empty freight mileage
<b>Demand Management</b>	Reducing border delays
Tolls, Value/Congestion pricing	Using alternative fuels
Peak and off-peak delivery for freight	Using longer combination vehicles

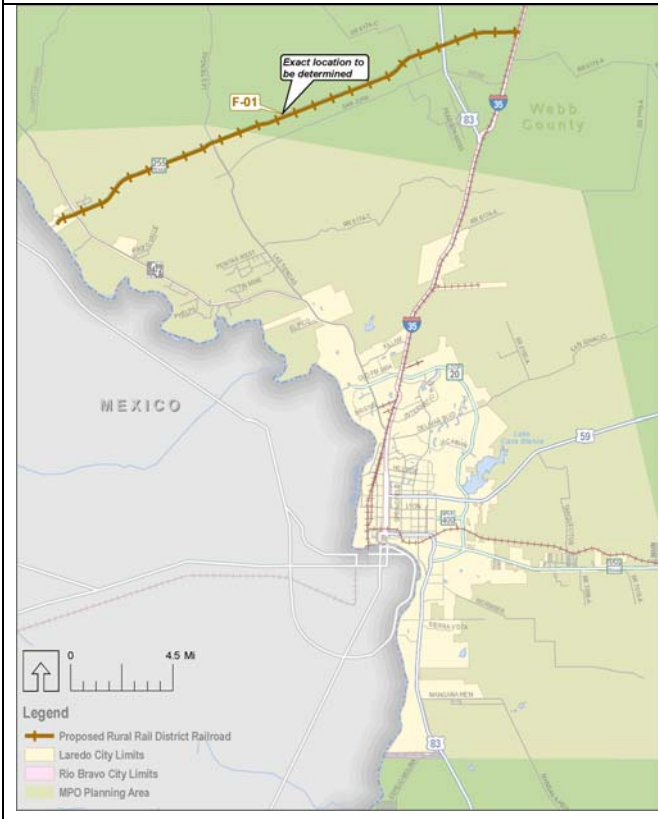
## Laredo Freight Plan

For roadway based freight movements, projects that will assist in the movement of freight are included in Chapter 7 – Roadway Plan. For rail, the Rural Rail District, the Union Pacific, and the Kansas City Southern Railroad are pursuing a long-range rail relocation projects. However, during the public outreach efforts for the development of this MTP, citizens and other stakeholders rejected the idea of encircling the city with railroad tracks. Therefore, it is likely that only one of these two projects will actually be constructed. The MPO will continue to work with its planning partners on these two long-range proposals. The two projects are listed in Table 5-7 and shown in Figures 5-15 and 5-16.

**Table 5-7: Freight Projects (See Figures 5-15 and 5-16)**

ID	Railroad	Limits	Project Descriptions
<b>Railroad Projects</b>			
F-01	Prop. Railroad (north) and bridge	South side of Laredo Colombia International Bridge to IH 35 Mile Marker 24	Construct new railroad and bridge (22.4 miles)
F-02	Prop. KCS Railroad (east)	Mexico Border to UP Railyard	Construct new railroad (29.0 miles)

**Figure 5-15: Proposed Rural Rail District Rail Project**



**Figure 5-16: Proposed KCS Rail Project**





## CHAPTER 6: SAFETY AND SECURITY



### Introduction

In a post Katrina and 9/11 world, the planning for transportation safety and security has increasingly become a crucial component of the metropolitan transportation planning process. MPOs are responsible for addressing ways to ensure the security and safety of the transportation system for motorized and nonmotorized users, by coordinating with agencies that have direct influences on specific security, safety, or emergency planning. The Laredo MPO addresses these issues by actively communicating and coordinating with multiple agencies.

Safety may be defined as the freedom from unintentional harm. Planning for safety on the transportation network, including the highway infrastructure, transit system, rail network, airports, and bicycle and pedestrian facilities, should consider ways that the transportation system can operate efficiently while still being safe for users from accidents, crashes, and other unintentional events resulting in fatalities, injuries, or loss of property. This could include any number of projects or programs such as police surveillance, intelligent transportation systems, and improvements at high-crash locations.

Security, on the other hand, may be defined as the freedom from intentional harm, including those inflicted by people, as well as from natural phenomena, such as extreme weather events. Per new SAFETEA-LU requirements, security has been designated as a separate planning factor in the development of long-range MTPs. In particular, security goes beyond safety and includes the planning to prevent, manage, or respond to threats to the region and the transportation system. These threats could include any number of events, such as natural disasters, terrorist threats, and smuggling of people or drugs, all of which endanger the lives of people and important transportation infrastructure that is vital to the region.

Although safety and security planning for the transportation system can be considered as completely separate efforts, in essence, they overlap each other significantly, and thus, are not mutually exclusive. Regions must consider them both simultaneously and separately. Therefore, this chapter addresses both safety and security programs and initiatives simultaneously, but gives adequate consideration to these issues separately to fulfill federal transportation planning requirements.

The purpose of this chapter is to discuss transportation safety and security and to provide an overview of security and safety related issues and ongoing efforts that are being coordinated to protect the transportation network, infrastructure, users of the transportation system, modes of travel, and transport of goods in the Laredo region.

In particular, safety and security of the transportation system is coordinated within various agencies at the federal, state, and local levels. While the efforts of these agencies may range from the active implementation of programs and measures to lesser actions of simply coordinating activities within other agencies, the role of each agency enhances safety and security of the regional transportation network.

## Federal Agencies and Programs

The U.S. Department of Transportation and the U.S. Department of Homeland Security address a variety of transportation safety and security efforts in the Laredo region.

### *U.S. Department of Transportation*

As stated by the U.S. Department of Transportation (DOT), the mission of the U.S. DOT is to “serve the United States by ensuring a fast, safe, efficient, accessible and convenient transportation system that meets our vital national interests and enhances the quality of life of the American people, today and into the future.” The U.S. DOT comprises 13 administrations and bureaus, each with its own management and organizational structure, and responsible for the various aspects of policies and planning for our nation’s transportation infrastructure, including the planning for transportation safety and security. Even though all administrations and bureaus are involved with various aspects of transportation safety and security, the following information will provide a brief overview of agencies involved in the Laredo region.



### Federal Highway Administration



The Federal Highway Administration (FHWA) has the broad responsibility of ensuring that the nation’s roads and highways are safe and efficient and the most technologically up-to-date. Through the Federal-aid Highway Program, the FHWA provides federal financial and technical support to state and local governments for constructing, preserving, and improving the nation’s roads. FHWA ensures safety and security of the transportation system through a variety of efforts such as:

- Supporting the National Highway System
- Working with the U.S. Department of Defense to maintain and enhance the Strategic Highway Safety Network (STRAHNET) and its connecting network
- Dedicating its Office of Safety to reducing highway fatalities and crash severities by addressing the “4E’s” of safety: engineering, education, enforcement, and emergency medical services
- Focusing its safety programs on roadway departures, intersections, and pedestrians
- Conducting safety research, technology, and outreach projects.
- Administrating the national Highway Safety Improvement Program (HSIP), as signed into law as part of the passage of SAFETEA-LU, to reduce traffic fatalities and serious injuries on all public roads through infrastructure-related highway safety improvements.

### National Highway Traffic Safety Administration

The National Highway Traffic Safety Administration (NHTSA) is committed to education programs, research, safety standards,



and enforcement activity which reduce traffic-related fatalities, injuries, and economic costs. NHTSA focuses traffic and vehicle safety initiatives on such issues related to aggressive driving, speeding, bicyclists, pedestrians, child passengers, seat belts, disabled drivers and passengers, drowsy and distracted driving, emergency medical services, enforcement and justice services, impaired driving, motorcycles, new drivers, occupant protection, older drivers, school buses, air bags, brakes, tires, and overall vehicle safety testing . NHTSA also administers the National Center for Statistics and Analysis (NCSA), which provides statistical and analytical support for NHTSA.

### Research and Innovative Technology Administration

The Research and Innovative Technology Administration (RITA) is responsible for coordinating research programs in the U.S. Department of Transportation and advancing technology to enhance the nation’s transportation system. For instance, RITA dedicates an office for the advancement of Intelligent Transportation Systems (ITS) in the nation. Also within RITA, the Transportation Safety Institute provides transportation safety and security training to those involved with enforcement or compliance with security and safety standards in the nation’s transportation system.



### Federal Motor Carrier Safety Administration

The Federal Motor Carrier Safety Administration (FMCSA) is dedicated to reducing crashes, injuries, and fatalities involving large trucks and buses through developing and enforcing regulations, focusing safety information systems on higher risk carriers, implementing educational programs, and partnering with various stakeholders.



### Pipeline and Hazardous Materials Safety Administration



The Pipeline and Hazardous Materials Safety Administration (PHMS) is comprised of the Office of Hazardous Materials Safety and the Office of Pipeline Safety. The Office of Hazardous Materials regulates and strives to ensure the safe and secure transport of hazardous materials by air, rail, highway, and water. The Office of Pipeline Safety regulates and strives to ensure the safe and secure transport of the nation’s 2.3 million miles of natural gas and hazardous liquid pipelines. PHMS requires that all hazardous materials transportation and pipeline accidents are reported to the National Response Center (NRC), which is the national point of contact for reporting all oil, chemical, radiological, biological, and etiological discharges into the environment.

### Federal Transit Administration

The Federal Transit Administration (FTA) provides support to state and local transit providers through various programs, including financial assistance, to either improve and maintain existing transit systems or develop new transit systems in the nation. Across the



U.S., public transportation supported by the FTA include buses, subways, light rail, commuter rail, streetcars, monorail, passenger ferry boats, inclined railways, and people movers. In the Laredo region, the public transit system includes buses and paratransit vehicles. The FTA also strives to ensure safety and security on the nation’s public transit system through its Office of Safety and Security utilizing a variety of initiatives such as:

- Encourage transit systems to develop and implement a safety program plan
- Developing guidelines and best practices
- Providing training for employees and supervisors of transit systems
- Improving emergency preparedness by strengthening emergency preparedness plans and funding emergency response drills conducted in cooperation with local responders.
- Increasing public awareness of safety and security issues
- Performing system safety analyses and review of transit systems
- Coordinating with the Transportation Security Administration (TSA)

### Federal Aviation Administration

The Federal Aviation Administration (FAA) is responsible for overseeing and regulating all aspects of civil aviation in the U.S., including private and commercial air transportation. Other major roles include promoting safety, regulating air navigation facilities’ geometry and flight inspection standards, developing civil aeronautics and new aviation technology, regulating pilot certificates, overseeing a system of air traffic control and navigation for both civil and military aircraft, researching and developing the National Airspace System, overseeing programs to control aircraft noise and other environmental aviation impacts, and promoting air transportation safety. The FAA enhances air transportation safety through such programs as their Aviation Safety Reporting System, which is an online database to voluntarily submit aviation safety incidents, and the FAA Safety Team, which promotes safety principles and practices through training, outreach, and education. Additionally, the FAA works actively with the Transportation Security Administration, which is responsible for screening passengers, air cargo, and baggage at airports.



### Federal Railroad Administration

The Federal Railroad Administration (FRA) primarily works to advance and enforce rail safety regulations, provide financial support through railroad assistance programs, and conduct research and policy analysis, and provide recommendations on the overall rail industry and railroad system in the U.S. The FRA’s efforts are focused mainly on supporting freight rail and the nation’s intercity rail passenger system, including Amtrak. Through its Office of Railroad Safety, the FRA promotes and regulates safety in the railroad industry through such efforts as the following:



- Employs over 415 federal safety inspectors in eight regional offices across the U.S.
- Federal safety inspectors specialize in five safety areas, including hazardous materials, locomotive power and equipment, operating practices (including drug and alcohol), signal and train control, and track structures.
- Collects and analyzes rail accident/incident data from railroads

### **U.S. Department of Homeland Security**

After the terrorist attacks on the nation on September 11, 2001, the U.S. Department of Homeland Security (DHS) was established to protect the security of the United States from external and terrorist attacks, as well as for responding to natural disasters and domestic emergencies. Today, DHS consists of approximately 16 agencies, offices, and directorates to fulfill its mission of integrating multiple agencies and leveraging resources from federal, state, and local layers of government in order to protect the homeland of the United States. The national strategy is to develop a comprehensive and complementary system that does not duplicate efforts, and to coordinate the homeland security responsibilities of more than 87,000 different governmental jurisdictions at the federal, state, and local levels.



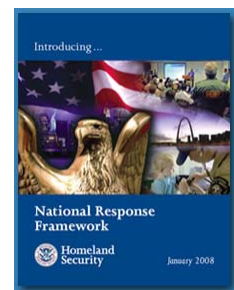
DHS is primarily concerned with issues such as border security, critical infrastructure protection, emergency preparedness and response, domestic intelligence activities, bio-defense, researching and implementing security technologies, the detection of nuclear and radiological materials, and the provision of transportation security. Although there are numerous entities within DHS, the agencies discussed below have a direct role in overseeing the secure movement of people, goods, aviation activities, and well as the overall safety and security of the region.

### **Federal Emergency Management Agency**



The Federal Emergency Management Agency (FEMA) is focused on supporting citizens and first responders to ensure that the nation is coordinated at all levels to prepare for, protect against, respond to, recover from, and mitigate all hazards, including natural disasters, acts of terrorism, and other man-made disasters. FEMA leads and supports the country in a risk-based, comprehensive emergency management system, and strives to reduce the loss of life and property associated with all types of hazards and disasters. As a sub-part of FEMA, the National Preparedness Directorate (NPD) manages the National Response Framework and the National Incident Management System (NIMS).

The **National Response Framework** was replaced by the National Response Plan in 2008 and provides the structure and processes for national-level policy for the management of incidents. The framework is important for transportation security because it provides guidance and support, and establishes protocols for the national government’s coordination of communities, states, tribes, private-sectors, and nongovernmental partners for security and incident-related events.



Specifically, the plan assimilates best practices and mechanisms from all incident management professionals, including emergency management, law enforcement, firefighting and first response, public works, and emergency medical services.

The **National Incident Management System** is designed to work in coordination with the National Response Framework and provide the template for the management of incidents. NIMS provides a systematic and proactive approach to guide all levels of government, nongovernmental organization, and the private sectors to work in coordination in order to prepare for, respond to, recover from, prevent, and mitigate the effects of incidents. In order to receive federal preparedness assistance through grants, contract, and other activities, states, tribes, and local organizations must adopt NIMS. Thus, public entities in the Laredo region incorporate NIMS guidelines to develop and maintain all homeland security activities.

Five Phases of Emergency Management



### Transportation Security Administration

As part of the Aviation and Transportation Security Act that was passed after the tragedies of September 11, 2001, the Transportation Security Administration (TSA) was created to secure the nation's transportation system. TSA oversees and coordinates with state, regional, and local organizations to secure highways, railroads, buses, mass transit systems, ports, and the 450 national airports. The largest group of employees, and most visible to the public, consists of Transportation Security Officers at airport checkpoints. Besides screening passengers, TSA officers must also screen all commercial luggage and packages for explosive and other threats before coming aboard airplanes. Besides the more obvious TSA Officers, other layers of security screening include intelligence gathering and analysis, checking passenger manifests against watch lists, random canine team searches at airports, federal air marshals, federal flight deck officers and more security measures both visible and invisible to the public. The following list provides more information on security enhancing programs or initiatives administered by TSA:



- **Visible Intermodal Prevention and Response (VIPR) teams:** Teams consisting of federal air marshals, surface transportation security inspectors, transportation security officers, behavior detection officers, and explosives detection canine teams present to increase security at important transportation facilities around the country.
- **Travel Document Checker (TDC):** A specially trained TSA officer present at every checkpoint in all U.S. airports to check passengers' boarding passes and identification.
- **Behavior Detection Officer (BDO):** An officer trained to detect high-risk passengers through the use of non-intrusive behavior observation.
- **Secure Flight:** Program in place to streamline the watch list matching process.

- **Federal Air Marshall:** Serves as the primary law enforcement entity with TSA and protects airports, passengers, and crews against hostile acts.
- **Federal Flight Deck Officers:** Eligible flight crewmembers who are authorized by TSA's Office of Law Enforcement/Federal Air Marshal Service to use firearms to defend against an act of criminal violence or air piracy attempting to gain control of an aircraft.
- **Employee Screening:** TSA officers assigned to screen and inspect workers as well as their property and vehicles at airports.
- **Checkpoint Screening Technology:** Constantly striving to use the most advanced screening technologies.

## US Customs and Border Protection



The United States Customs and Border Protection (CBP) is responsible for securing the country's border at and between the official ports of entry. The CBP facilitates the legal flow of trade and travel across the country's borders by preventing the illegal entry of people and goods, including terrorists and terrorist weapons, while simultaneously enforcing numerous U.S. laws. Within the CBP, the Office of Border Patrol and the Office of Field Operations play key roles in securing the border and the Laredo port of entry. In the Office of Border Patrol, the agents are responsible for securing the borders between the ports of entry; whereas, the Office of Field Operations is responsible for securing the ports of entry.

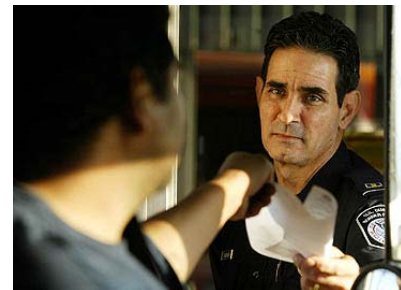
### *Office of Border Patrol*

The Office of Border Patrol coordinates with many agencies in securing the border in the Laredo region and also the transportation system. These include a whole range of agencies such as the Highway Patrol and Commercial Vehicle Enforcement in the Texas Department of Public Safety, Transportation Security Agency, Immigration and Customs Enforcement (ICE), and also the local police department. Besides acting as law enforcement along the nation's border, the Office of Border Patrol also runs public education programs, including a drug demand reduction program where agents visit schools and discuss the dangers of drugs.



The Office of Border Patrol was present at the safety and security roundtable and relayed several transportation issues in the Laredo region that make securing the borders challenging.

The representatives mainly discussed concerns about people evading border security through abuse of the transportation infrastructure. Specifically, roadways in close proximity to the border are necessary to regulate the

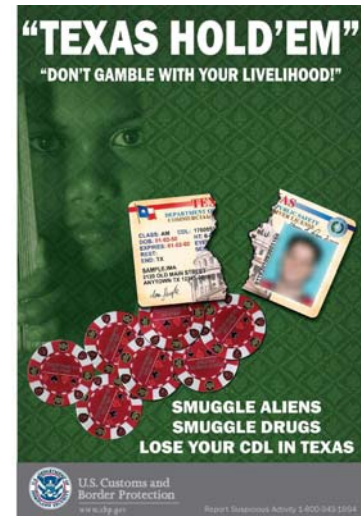


border, but they are also used for people to enter the U.S. illegally or for smuggling drugs or even people. This is further complicated by one-way streets which prevent border patrol officers from safely pursuing individuals who choose to violate the law and drive in the opposite direction. Another specific issue raised was the need to consider safety and security when designing new bridges and infrastructure along the border.

Texas Hold 'Em is a multi-agency initiative between U.S. Customs and Border Protection, ICE, and the Texas Department of Public Safety to improve border security. This initiative has reduced human and illegal contraband smuggling in commercial vehicles such as tractor-trailers, buses, and freight carriers. Specifically, if a driver of a commercial vehicle is found to be smuggling people or drugs, then that driver will not only suffer consequences of breaking federal laws, but will also lose their Commercial Driver's License (CDL) under Texas law.

This initiative also includes a media awareness campaign to educate the general public, transportation industry, freight forwarding agencies, customs brokers, and commercial drivers regarding the consequences of the Texas Hold 'Em initiative, including the disqualification of the perpetrator's CDL.

Furthermore, not only is it the goal of this program to become standard practice for all Border Patrol sectors in Texas, but to also increase overall communication and coordination between transportation stakeholders and law enforcement agencies.



### *Office of Field Operations*



The Office of Field Operations, in the U.S. Customs and Border Protection, works with a variety of agencies in securing the ports of entry and also the transportation system. Examples of federal agencies include the US DOT in conducting safety examinations on commercial truck conveyances, the Food and Drug Administration on importations of food and drug items, and the Department of Agriculture on food items. In the Laredo region, they also work with several state agencies and local agencies such as fire, police, and EMS.

The Office of Field Operations institutes many actions to screen people, trucks, rail cargo, and non-commercial vehicles. In general, all people and merchandise are screened at the international border. At times, this may be done more in-depth with certain vehicles and people. All vehicles and people must go through a security screening before proceeding through the official port of entry, and all vehicles must also be screened at a location several miles on the north side of Laredo on IH-35. Overall, CBP officers are extensively trained in detecting any anomalies in cargo and people attempting to traverse the international borders. However, security enhancing technologies are utilized to aid in securing the borders.





Because the Port of Laredo processes the largest amount of commercial traffic on the US/Mexico border, the screening of commercial vehicles is an important process and is accomplished through a multi-layered approach. Via an electronic manifest, a commercial vehicle must notify CBP at the U.S. port of entry of its approach and of the types of merchandise being transported at least one hour in advance (30 minutes for members of the FAST program discussed in more detail below).

Once at the border crossing, automated systems are used on trucks, and agents will run additional targeting on commercial conveyances. Some trucks may be forced to undergo additional security clearances. All vehicles go through a secondary express screening, in which CBP officers and canines examine the vehicles. If selected for additional screening, non-intrusive imaging systems are used. Finally, there is an exit gate that all vehicles must use, and if certain measures were not taken, then the trucks can be sent back to undergo additional screening.

For rail cargo traveling northbound into the U.S., non-intrusive imaging systems are used to scan rail cargo. If anomalies are detected, rail cargo can be selected for additional screening. CBP officers are also present at all international rail crossings.

For the transport of hazardous materials, there are additional requirements for commercial vehicles transporting this sensitive cargo. For example, drivers of commercial vehicles must provide additional documentation and cross at the Laredo-Columbia Solidarity Bridge. Per SAFETEA-LU requirements, and as part of TSA's Hazmat Threat Assessment Program, drivers who wish to obtain a new Hazardous Materials Endorsement (HME) on their state-issued Commercial Driver's License (CDL) must undergo the collection of biographical information and fingerprints.



### *Other Specific Programs and Initiatives*

Besides everyday screening of commercial, non-commercial vehicles, and pedestrians who cross the international border in Laredo, there are several other programs that are present. Examples of these include the initiatives under the Trusted Traveler Programs, Western Hemisphere Travel Initiative, Secure Border Initiative, Customs-Trade Partnership Against Terrorism, and the Automated Commercial Environment.

The Secure Electronic network for Travelers Rapid Inspection (SENTRI) is a program under the Trusted Traveler Program, in which pre-approved, low-risk travelers are provided expedited CBP processing. Applicants must be pre-screened and voluntarily undergo a thorough biographical background check. The people who qualify can use a dedicated lane on the Lincoln-Juarez Bridge for expedited crossing. This is accomplished through a Radio Frequency Identification Card (RFID) that identifies the person and vehicle in a database at the U.S. Port of Entry.

Similar to the SENTRI program, the Free and Secure Trade Program (FAST) is also a Trusted Traveler Program that is specific to commercial vehicles, where pre-approved low-risk shipments are afforded expedited CBP processing. Commercial carriers must have completed thorough background checks and fulfill certain eligibility requirements. Further,

participation in the FAST program requires that all associated links in the company, including drivers and imports are certified under the Customs-Trade Partnership Against Terrorism (C-TPAT) program. Once qualification is established, qualified commercial vehicles may use a dedicated lane on the World Trade Bridge for expedited crossing. However, although they already have taken measures to show that they are low-risk, this does not preclude CBP from requiring additional screening, if necessary.

The C-TPAT is a voluntary initiative between government and businesses to establish cooperative relationships that improve trading and U.S. border security. To be eligible, a company must submit a security profile, and the CBP will evaluate the application and inspect the business in Mexico. The CBP may make recommendations to ensure that the business is not susceptible to any security issues before they are approved for the C-TPAT program. The FAST program, as described above, is also a benefit of being part of this program.



Affective in June of 2009, the Western Hemisphere Travel Initiative instituted new land and sea requirements, which obligate all U.S. citizens to present appropriate proof of citizenship such as a passport in order to return to the U.S. According to a media relations employee in the Office of Field Operations, the Laredo region is seeing about a 90% compliance rate of U.S. citizens, including those providing proof of citizenship such as a passport or proof that they have applied for such documentation. Overall, however, this initiative has not had a significant affect on everyday operations, as only about 20 to 25% of inbound traffic is comprised of U.S. citizens. Approximately 75% are from non-U.S. citizens that must show some type of special documentation to enter the country.

The Secure Border Initiative, according to the U.S. Homeland Security website, is “a comprehensive multi-year plan to secure America’s borders and reduce illegal migration”, and includes more agents to patrol the border and ports of entry and enforce immigration law, upgrading of certain technology, and increased investment in infrastructure improvements at the border. Although this initiative is important for all divisions in U.S. Customs Border Protection, it mainly affects the operations of Border Patrol.

The Automated Commercial Environment (ACE) is the commercial trade processing system that is being developed by CBP to enhance trade while also improving border security. At its most basic level, it is a secured web page, which connects CBP, certain government agencies, and the trade industry to communications and information regarding cargo shipments. Presently, the CBP is converting from the previous Automated Commercial System (ACS) to ACE, a more modernized and robust system.

## State of Texas Agencies and Programs

Within the State of Texas, the Texas Department of Transportation and the Texas Department of Public Safety address a variety of transportation safety and security issues in the Laredo region.

## **Texas Department of Transportation**

In the Laredo region, the TxDOT Laredo Office works on behalf of the State and in coordination with the Laredo MPO to carry out transportation planning tasks and activities, including the planning of transportation safety and security.

TxDOT works to ensure the safety of Texas roadways through a variety of means. It partners with other state, federal, and local entities to enhance safety on the roadways and have a focused traffic safety program that includes 13 targeted safety program areas. TxDOT also collects crash data from law enforcement agencies and evaluates the cause of crashes and fatalities in order to focus efforts in making roadways safer. For more information on Laredo-specific crash data and high crash locations in the region, please refer to Chapter 4.



TxDOT also has increased seat belt use through the Click It or Ticket enforcement program and has also addressed safe driving among teens in the Teens in the Drivers Seat program. Further, TxDOT has

improved overall roadway safety by administering a grant called the Selective Traffic Enforcement Program (STEP), which funds additional hours of traffic law enforcement. To decrease the number of impaired drivers on roadways, TxDOT has also funded a large variety of alcohol and drug countermeasure programs.

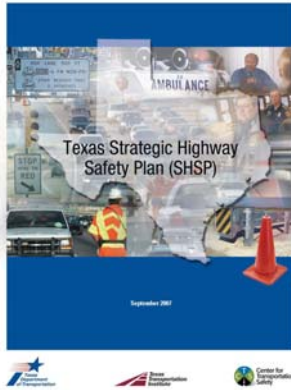
TxDOT maintains designated hazardous materials routes and works with the Texas Department of Public Safety to develop contra-flow plans for major hurricane evacuation routes. Specifically, U.S. Highways 59 and 83 are designated as evacuation routes for coastal communities such as Brownsville and Corpus Christi, and the Laredo region serves as an evacuation point for such communities. For more information on hazardous materials routes in the Laredo region, please see Chapter 4.

TxDOT has various intelligent transportation system (ITS) elements in place to monitor traffic and safety and security issues in the Laredo region. These include dynamic message signs (DMS), closed-circuit television (CCTV) cameras, lane control signals, highway advisory radios, speed detectors, and video image vehicle detection systems (VIVDS). Additionally, a railroad coordination system called the Wireless Advisory Railroad Network (WARN) is in place to inform drivers of closures at railroad crossings.

The TxDOT Laredo District operates the South Texas Regional Advance Transportation Information System (STRATIS), which serves as a transportation management center (TMC) for the region. Working in cooperation with local agencies, TxDOT provides a data connection between STRATIS and the City of Laredo TMC for sharing of CCTV camera feeds and control. This system also allows the City of Laredo TMC to view messages placed on the DMS. Further, TxDOT also provides the City of Laredo 911 Dispatch Center with its CCTV camera images.



## Strategic Highway Safety Plan (SHSP)



The Texas Strategic Highway Safety Plan (SHSP) identifies safety needs and directs investment decisions in order to reduce highway fatalities and serious injuries on public roads. As outlined in SAFETEA-LU, this type of plan is required for all states in order to receive federal funding for roadway improvement projects. The plan was produced by reviewing national crash initiatives and emphasis areas from key publications and professional organizations, examining Fatal Analysis Reporting System (FARS) crash data, and consulting with various stakeholders throughout Texas.

The overall state goal is to have no more than 1.4 fatalities and 41.2 serious injuries per 100 million vehicle miles traveled by 2010. In order to address this goal, emphasis areas and issues were established and crash reduction objectives related to those issues were developed.

The SHSP is divided into the following emphasis areas involving crash fatalities and serious injuries: run off the road, head-on, intersection, work zone, railroad grade crossing, older drivers, teen drivers, motorcyclists, bicyclists, driving under the influence (DUI), pedestrians, commercial drivers, speeding, aggressive driving, lack of restraint use, cell phone usage, traffic/crash records, E 911 reporting systems, and both public and policy maker awareness.

## Texas Department of Public Safety

The Texas Department of Public Safety (DPS) was created, as described in its mission statement, “to provide public safety services to those people in the state of Texas by enforcing laws, administering regulatory programs, managing records, educating the public, and managing emergencies, both directly and through interaction with other agencies.” Texas DPS includes eight major divisions; and of these divisions, Criminal Law Enforcement, Texas Highway Patrol, and the Division of Emergency Management play vital roles in the safety and security of the transportation system in Laredo.



## Criminal Law Enforcement

The Criminal Law Enforcement (CLE) division is responsible for the direction and coordination of DPS criminal law enforcement activities. Within the division, three major units are important in managing safety and security on the transportation system in Laredo, including the Criminal Intelligence Service, Motor Vehicle Theft Service, and Narcotics Service. The Criminal Intelligence Service is responsible for intelligence gathering, threat assessment, investigation, and response to terrorist threats or attacks within the state. The Motor Vehicle Theft Service is the lead group for auto theft investigation, primarily focusing on organized theft rings, in the State of Texas. The Narcotics Service leads the state’s



enforcement efforts against illegal drug trafficking, among other things, and also assists state, federal, county, and local agencies in drug law enforcement.

### Texas Highway Patrol

The Texas Highway Patrol (THP) Division is generally responsible for police traffic supervision and traffic and criminal law enforcement on the rural highways of Texas. THP's Commercial Vehicle Enforcement group specializes in enforcing state and federal laws governing the operation of commercial motor vehicles, including vehicle weight and size limitations, driver licenses, insurance requirements, vehicle registration, and motor carrier safety. The Motor Carrier Bureau is responsible for tracking commercial vehicle enforcement documents and distributes information regarding commercial vehicle enforcement. Also within Texas Highway Patrol, the Vehicle Inspection Service oversees the statewide Vehicle Inspection Program.

### Highway Patrol Service

Perhaps the best known group within the Texas Highway Patrol is the Highway Patrol Service, which regulates traffic along Texas' rural roads and highways in order to prevent and minimize the effects of crashes and to prevent crime. Highway Patrol Service troopers focus their enforcement activities on intoxicated drivers, speeding, seat belt use, drug violations, fugitives from justice and ongoing criminal activity. Further, Highway Patrol troopers play a special role in public safety awareness in Texas. Throughout Texas, and locally in Laredo, Highway Patrol has safety education troopers visit schools and businesses to educate people on safety issues. They also relay information and make public service announcements for the Texas DPS Public Information Office.



Within the Laredo region, the Highway Patrol works with many federal agencies such as the FBI, CBP, and ICE on such issues as the smuggling of people and drugs into the country. However, the primary law enforcement agency within the Laredo region is the City of



Laredo Police Department. They are assisted by Webb County's sheriffs and constables. On a day to day basis, Highway Patrol is mainly focused on regulating traffic and crime on the rural highways and roadways of the region. In the event of an emergency, troopers also serve important roles in emergency management and mitigation efforts, particularly in directing traffic during evacuations.

Although Highway Patrol primarily works with monitoring vehicular traffic, they may also coordinate with, for instance, the railroad police for issues regarding rail transportation. The railroad police are police officers employed by rail companies, and they have the authority to conduct investigations and make arrests for crimes committed against the railroad.

In particular, the Highway Patrol Service in Laredo works in close cooperation with the TxDOT Laredo District to address transportation safety and security issues. In fact, Highway Patrol's offices are situated in a building next door to TxDOT's offices in Laredo. TxDOT periodically sends the Highway Patrol bulletins on roadway issues and crash problems.

## Governor's Division on Emergency Management

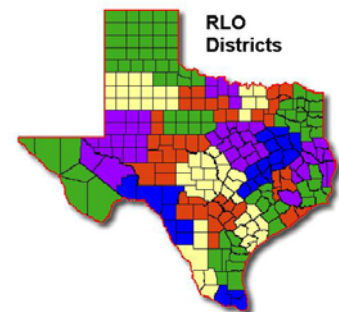


The Governor's Division on Emergency Management (GDEM) is both a division of the Governor's office and a division of the Texas Department of Public Safety. Also, the director of the Texas Office of Homeland Security in the Governor's Office also serves as the director of GDEM. According to GDEM, its mission is to carry out a "comprehensive all-hazard emergency management program for the State and for assisting cities, counties, and state agencies in planning and implementing their emergency management programs." This comprehensive approach includes preparation, protection, response, recovery, and mitigation efforts of all known hazards. Furthermore, GDEM is the designated division to serve as the State Administrative Agency (SAA) for the U.S. Department of Homeland Security's homeland security grant programs in Texas.

GDEM develops and maintains state-level emergency plans, distributes state standards for local emergency management plans, assists local jurisdiction in developing emergency plans, and also reviews those plans for conformance with state planning standards. Also, GDEM provides training to state and local emergency responders for emergency management, and administers numerous state and federal grants for emergency management. In the Texas DPS headquarters in Austin, GDEM manages and staffs the State Operations Center (SOC), which serves as the state's warning point and center for emergency operations. Collocated with the SOC, is the Border Security Operations Center (BSOC), which monitors border security along the Texas-Mexico border.

As discussed previously, the State of Texas and all local jurisdictions conform to the federal NRF and NIMS standards for the management of incidents and emergencies. In the event of any type of incident, large or small, emergency management activities begin at the local level and then continue in a hierarchical structure to include state and federal assistance, depending on whether the situation exceeds the capabilities and resources of lower levels of government. In regard to the transportation system, emergency management activities include traffic management and transportation services for evacuees.

The State of Texas is divided into 24 disaster districts, which function as regional emergency management organizations and serve as the first point of state emergency assistance for local governments. The disaster districts also have the same geographical boundaries as the 24 Councils of Government. The chairman of a district is a local Texas Highway Patrol commander; and along with directing a district, the chairman oversees a committee consisting of state agencies and volunteer groups that have resources within the District's area of responsibility. This function is important for identifying resources in order to respond to requests for emergency assistance from local governments and state agencies.



To aid local jurisdictions to prepare for, protect against, respond to, recover from, and mitigate all hazards, Regional Liaison Officers (RLOs), employed by Texas GDEM, are stationed throughout the State. They serve as the conduit of state government and local

government in regard to emergency management. Specifically, RLOs both carry out emergency preparedness activities and coordinate emergency response operations.

At the local level, mayors and county judges have the responsibility of emergency preparedness and response within their jurisdictions. However, an Emergency Management Coordinator (EMC) may be appointed to manage day-to-day program activities. Local emergency management organizations or agencies are often part of the local fire department or law enforcement agency, but may also be organized as part of other offices.

## **Regional and Local Agencies and Programs**

The South Texas Development Council, Webb County, and the City of Laredo also address transportation safety and security efforts in the Laredo region.

### ***South Texas Development Council***

The South Texas Development Council (STDC) is one of 24 Council of Governments (COGs) in Texas that coordinate regional planning. STDC encompasses four counties in South Texas, including Webb, Starr, Zapata, and Jim Hogg. Within the STDC, various departments advance regional planning goals and initiatives. In particular, the Department on Homeland Security acts as coordinator and steward for the Governor's Homeland Security Strategy in the South Texas region. They work with state government in assisting local jurisdictions with emergency management efforts and administering emergency management funds from the state to local governments. The main resource for emergency management is the state homeland security grant.



The STDC Department of Homeland Security is aided by the South Texas Homeland Security Advisory Committee (HSAC) and serves in an advisory role to address issues related to homeland security, terrorism, disaster planning, regional response issues, communication, and training in the STDC region. The HSAC also provides guidance on projects related to homeland security, and is made up of representatives from various jurisdictions within the four-county region. In particular, representatives from the City of Laredo and Webb County are part of the HSAC.

Additionally, the STDC Department of Homeland Security has played vital roles in the development of the STDC Homeland Security Interoperability Plan. Required of all 24 COGs in Texas, this plan deals with communication and coordination between entities in order to make communication interoperable for emergency operations.

The Regional Action Mitigation Plan is also a plan that has been developed with the involvement of STDC. It is primarily concerned with mitigating natural hazards along the Rio Grande border, including hurricanes, drought, flooding, hazardous material release, fuel pipeline breach, dam failure, wildland fire, hail, tornadoes, and extreme summer heat. This area includes the Laredo region and involved Webb County and the City of Rio Bravo in the planning effort. The City of Laredo, however, was not involved in the planning process, as it already has a hazard mitigation plan within its emergency management plan.

## **Webb County**

Webb County provides various services which contribute to ensuring the safety and security of the transportation system in the Laredo region. These services include law enforcement through the Sheriff's Office and Constables, emergency management through the Emergency Management Coordinator, and transportation infrastructure management through the Engineering and Road and Bridges departments. As stated by Webb County's emergency management coordinator, the sheriffs and constables are the lead group on the ground and are the "eyes" of the county. For other important services, the City of Laredo provides emergency response services and 911 communications through a mutual aid agreement.



Webb County also coordinates with other agencies to guarantee safety and security of the transportation system. For overall emergency planning and preparedness, they work with the South Texas Development Council, Disaster District, and City of Laredo. In the event of an emergency, representatives of Webb County will convene at the Emergency Operations Center, along with other pertinent agencies, such as the City of Laredo, Texas Department of Public Safety, TxDOT, U.S. Border Patrol, and many more, in order to respond to contingencies and coordinate together whatever needs to be provided, whether it be shelter, public works, or public transportation. For road and traffic issues on major roadways, TxDOT is especially important in providing oversight and coordination in emergency situations.

To coordinate responses in the event of an emergency, Webb County has an emergency management plan, which is required of all local jurisdictions in the State of Texas. This plan is similar in structure to many other emergency management plans and stipulates responsibilities and the use of resources during emergencies. The last plan was completed in 2006 and is due to be revised in 2011. A more in-depth discussion on emergency management plans, especially in regard to the City of Laredo, is provided later in this chapter.

Especially in regard to the transportation system, Webb County does not have as many safety and security issues due to its mostly rural nature. However, the presence of colonias in the rural areas brings many challenges to the area, as the developments often do not have proper infrastructure and roadways to support the people. This is further complicated by the fact that many people rely on public transit or other means for their transportation. These issues will continue to be important to address when dealing with life-threatening events.



## City of Laredo

The City of Laredo performs several functions which contribute to transportation safety and security in the Laredo region.



## City of Laredo Emergency Management

The City of Laredo has a mutual aid agreement to provide emergency services and 911 communications outside of its jurisdiction, including the four-county region of the South Texas Development Council. First response or emergency services are provided by the City of Laredo Fire Department. In most cases, mutual aid would include Fire, EMS, law enforcement, public works, or public health resources. The City's Emergency Management Coordinator is the Chief of the Fire Department.

### Laredo Fire Department Office of Emergency Management

- Monitor severe weather and tropical disturbances
- Remain in compliance with the National Response Plan (NRP) and continue to support and implemented the National Incident Management System (NIMS)
- Provide "on-location" support and assistance to local first response agencies (Fire, EMS, Health Department, and Law Enforcement) with our proposed Mobile Command Unit (MCU)
- Develop local emergency response plans, procedures and guidelines
- Provide technical assistance to public and private emergency management programs
- Provide or coordinate mutual aid with the State of Texas and surrounding counties
- Comply with state and federal emergency preparedness and response requirements and standards
- Review emergency plans for health care facilities, residential developments, businesses and government agencies
- Implement local hurricane shelter and evacuation development standards
- Collect and distribute emergency related information, such as the All Hazards Guide in English and, Spanish
- Conduct and coordinate public outreach seminars and workshops, as a public service to the community
- Conduct local emergency management briefings, workshops, meetings and training courses
- Coordinate regional/state/federal emergency-related training courses
- Conduct and evaluate local emergency exercises and drills
- Maintain the Special Needs Program for the City and County

## Emergency Operations Center (EOC)

The City of Laredo, in cooperation with Webb County, operates an Emergency Operations Center (EOC), which functions as a hub and gathering point for agencies during the event of an emergency. During an emergency situation, the EOC receives emergency information

through the Emergency Dispatch Center (911) and reports serious emergencies to the State Warning Point (SWP), located at the State EOC in Austin. In turn, they coordinate State and/or Federal involvement or assistance within the County through the Multi-Agency Coordinating Center (MACC).

The EOC has three preparedness stages, also known as activation levels. Level III functions at a normal operating level on a day-to-day basis. Level II requires partial activation, with some available EOC aspects. Lastly, Level I is the full activating level, with 24 hour services during an emergency. During Level I activation, essential representatives from public safety agencies, emergency relief organizations, county departments, municipalities, utility companies, media and other pertinent agencies convene at the EOC.

### City of Laredo Traffic Department

The City of Laredo Traffic Department's website mission is to "provide for safe and efficient movement of traffic on all City streets, adequately illuminate intersections and major roadways, and enforce parking regulations in the central business district." Their department is divided into addressing traffic safety, granting permits to transport oversized loads, and enforcing parking restrictions.

The Traffic Department also operates and maintains traffic signals and the Traffic Management Center (TMC), which includes various intelligent transportation system (ITS) and security enhancing technologies to monitor traffic in Laredo. These include closed-circuit television (CCTV) cameras, video image detectors systems (VIVDS), and loop detectors to monitor traffic. Furthermore, the Traffic Department coordinates with TXDOT by sharing information. Video images from TxDOT's CCTV cameras and information from TxDOT's dynamic message signs (DMS) and traffic signals are sent to the TMC.



Projects in the 2005 City of Laredo ITS Master Plan that have been or soon will be completed that enhance the safety, security, and efficiency of the transportation system include:

- Improvements to downtown traffic signals including a downtown closed loop signal system on routes approaching Bridge 1
- Traffic coordination on routes approaching Bridges 1 and 2 including additional CCTV cameras to monitor traffic and DMS to provide motorists with traffic information
- Flood detection and roadway closure system on Flecha Lane and Las Cruces Drive

Short-term future projects enhancing safety and security include:

- Upgrade of traffic signal control equipment and communication devices
- Installation of additional video monitoring devices at major intersections and arterials
- Installation of dynamic message signs at major arterials
- Installation of traffic signals at needed intersections
- Installation of streetlights to provide proper illumination and visibility at various places

Future projects that would also enhance safety and security, as outlined in the ITS Master Plan and round table discussion on safety and security, are:

- Installing emergency vehicle signal preemption on priority intersections to allow EMS and fire vehicles to preempt traffic signals
- Red light cameras to monitor vehicles running red lights at high crash intersections
- Collocation of the Emergency Operations Center (EOC), TMC, and 911 Dispatch

Overall, safety issues are addressed in-house and are evaluated on a case by case basis. This may include restriping of streets and improvements or installation of road signs. Further, such programs such as the Safe Routes to School Program are sought after in order to improve safety for pedestrian and bicyclists traveling to school. However, although Safe Routes to School projects were recently submitted to TxDOT for approval, they were denied funding.



### City of Laredo Plans

Among other plans, the City of Laredo has two important plans in place to respond to emergency situations. They are the Pre-Disaster Mitigation Plan and the Emergency Management Plan.

#### *Pre-Disaster Mitigation Plan*

Changes in federal policy along with the passage of the Disaster Mitigation Act in 2000 have encouraged local jurisdictions to develop plans and procedures for hazard mitigation. As such, the City of Laredo has developed their Pre-Disaster Mitigation Plan to serve as a blueprint for the prevention of hazards and emergency situations. Particularly, it seeks to make areas more resistant to disasters and sustain fewer losses by reducing the risks of loss of life and property damage associated with various disasters.

#### *Emergency Management Plan*

The City of Laredo's Emergency Management Plan is a standard plan required of all local jurisdictions and or/regions in the State of Texas. The Governor's Division on Emergency Management (GDEM) provides a standard, sample emergency management plan, which can act as a template for any local government's emergency management plan. This plan, in turn, is adopted and tailored to the specific jurisdiction's circumstances and resources. The City of Laredo and Webb County utilize this standard plan, including the basic plan and the associated annexes.

Specifically, the Emergency Management Plan for the City of Laredo is considered an "advanced level" of information plan and has different components (also known as annexes) on relevant issues. The basic plan outlines the general approach to emergency operations and provides guidance for emergency management activities. It provides for organization and designated responsibilities to mitigate, prepare, respond to, or recover from incidents or emergency situations. The annexes provide additional information on various functions and resources. They are as follows:

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## Annexes

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<b>A</b> Warning	<b>L</b> Utilities
<b>B</b> Communications	<b>M</b> Resource Management
<b>C</b> Shelter & Mass Care	<b>N</b> Direction & Control
<b>D</b> Radiological Protection	<b>O</b> Human Services
<b>E</b> Evacuation	<b>P</b> Hazard Mitigation
<b>F</b> Firefighting	<b>Q</b> Hazardous Materials & Oil Spills
<b>G</b> Law Enforcement	<b>R</b> Search & Rescue
<b>H</b> Health	<b>S</b> Transportation
<b>I</b> Emergency Public Information	<b>T</b> Donations Management
<b>J</b> Recovery	<b>U</b> Legal
<b>K</b> Public Works & Engineering	<b>V</b> Terrorist Incident Response

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### Laredo Police Department

The Laredo Police Department (LPD) provides law enforcement services within the City of Laredo’s jurisdictional boundaries. Along with law enforcement, LPD also provides additional transportation safety and security in the region through its coordination with other City of Laredo departments, Webb County Sheriff’s Department, TxDOT, Highway Patrol, and federal agencies such as US Customs and Border Protection.



In the Laredo metropolitan planning area, LPD coordinates with the Webb County’s Sheriff’s Department and the Texas Department of Public Safety Highway Patrol troopers for law enforcement and traffic monitoring. However, LPD primarily deals within the urban area, while Webb County sheriffs and Highway Patrol troopers primarily work with the more rural areas of the region. At the federal level, LPD also works with such agencies as the US Customs and Border Control for matters associated with border and homeland security.

Specific to transportation safety, LPD works with TxDOT to report traffic accidents on roadways and enforce traffic safety laws. This is particularly important as TxDOT administers federal traffic safety grants through the National Highway Traffic Safety Administration (NHTSA) for public education initiatives and traffic enforcement. Examples of these grants include Commercial Motor Vehicle enforcement, Safety Belt, Child Safety Seat, and Intoxicated Driver Enforcement grants. In fact, LPD pays some officers overtime for concentrating their efforts on monitoring moving violations, per a grant funded by TxDOT.

For other modes of transportation, LPD provides safety and security services for public transit providers, handles truck route and other commercial vehicle violations, and monitors rail crossings. To keep track of these and other incidents, LPD has a records division that retains information on everything from traffic accidents to citations for speeding. The public

can obtain certain accident and incident reports for a fee through an internet based site and also from LPD in-person.

For the Laredo region, specific challenges for the local police include issues related to its location along the international border and along a highly utilized trade thoroughfare. In terms of transportation safety and security, the transport of hazardous materials and the enforcement of commercial vehicle violations are particularly challenging due to aforementioned issues.

### **El Metro**

El Metro, the primary public transit provider within the Laredo region, has established certain measures in order to ensure the safe, secure, and efficient service of the transit system. In particular, El Metro has contracted with an outside vendor to provide security services at the Laredo Transit Center, as well as at the operation and maintenance facilities. Along with providing security services at the Transit Center, the security guards also patrol alighting and boarding activities in the area surrounding the Transit Center building. A security plan is in place for these services and is described in more detail in the section below

Besides providing for safety and security services at transit facilities, El Metro has also ensured that all new fixed route buses and paratransit vehicles include surveillance cameras. These cameras, although not having real-time capabilities, are necessary in the event of incidences occurring on the buses. If such safety and security incidences were to occur, the drivers are trained in how to handle such situations, and procedures are in place to contact local law enforcement.

In order to be prepared for safety and security occurrences, safety meetings are held once every two months for employees. Additionally, El Metro has a safety coordinator who participates in safety meetings within the Laredo region. The safety coordinator must also keep track of any safety and security incidents or accidents, document what actions were taken, and determine if the incidents were preventable. In doing so, the coordinator is also aided by a committee of drivers and mechanics that helps to determine the outcomes of incidents.



#### **El Metro's Bus Safety Rules**

- Don't wait for a bus in or near the street; stay safe on the sidewalk.
- Always enter the bus through the front doors.
- Never stand in the stairwell or in front of the yellow line near the driver.
- Don't stand near the doors while the bus is moving.
- Avoid conversation with the operator while the bus is in motion.
- Stay seated while the bus is in motion unless you are holding on to a handrail.

In addition to safety and security operations within El Metro and training for employees, El Metro also has programs in place to educate the public on bus safety and security issues. These programs include disseminating information on bus safety rules, material detailing types of suspicious behavior, response instructions and emergency preparedness tips, and other information related to the Transit Watch campaign. In particular, the Transit Watch program, developed by the Federal Transit Administration (FTA) in coordination with agencies, is a nationwide initiative advocating for the active participation of passengers and employees to cooperate together in order to ensure a safe and secure transit system. In essence, it encourages employees and passengers to be the “eyes and ears” of the public transit system.



In the event of an emergency, El Metro works in cooperation with other entities to provide drivers and buses if necessary. As provided in the City of Laredo’s Emergency Management Plan, El Metro has agreed to be called upon to provide for the evacuation of people during life-threatening events. Similarly, El Metro has passed agreements with facilities such as the Doctor’s Hospital to provide buses, which would evacuate all patients to another location during an emergency.

### Facilities Department Security Plan

El Metro has a specific security plan in place for the Facilities Department, including the security of the Transit Center and the operations and maintenance buildings. Specifically, this plan, revised in March 2009, recommended the services of a security company for the Transit Center and the operations and maintenance buildings, which include the prevention of vandalism, theft, fire, trespassing, and illegal entry and assault. Moreover, the plan outlines evacuation procedures for the Transit Center and the operation and maintenance buildings in the event of an emergency. The plan also includes Annex S of the City of Laredo’s Emergency Management Plan, which delineates roles and responsibilities for the transportation of people, supplies, and materials during the event of an emergency.

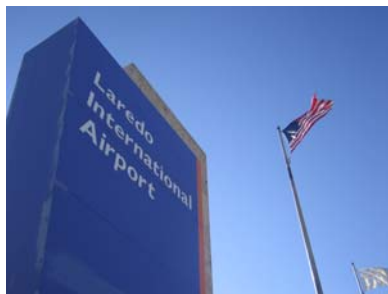
Lastly, the plan addresses future security plans for the Transit Center, including the following initiatives:

- Housing all departments at one location
- Keeping all buildings and grounds well lighted
- Implementing surveillance cameras and security guards throughout the facility (both inside and outside)
- Installing keyless entries and gated doors
- Upgrading alarm systems and monitoring
- Requiring name tags for employees and visitors entering the facility
- Establishing clearance procedures for visitors entering the facility through the use of a valid Driver License or other form of identification
- Requiring the security company providing security guard services to submit current copies of criminal backgrounds of their employees.

## Annex S - City of Laredo's Emergency Management Plan

Annex S of the City of Laredo's Emergency Management Plan is focused on providing for the transportation of people, supplies, and materials during the event of an emergency. In particular, it identifies the Transportation Officer as El Metro's General Manager, who will be responsible for coordinating transportation operations in the event of an emergency. Among many issues, it addresses the transportation challenges of transporting special needs groups, including medical patients, nursing home residents, the elderly, prisoners, school children, and those with disabilities. The plan identifies that such special facilities (schools, hospitals, nursing homes, day care facilities, and correctional facilities) are ultimately responsible for the welfare of the affected persons and must have an emergency plan which addresses emergency evacuation and arrangements for transportation services.

Furthermore, the transportation section of the Emergency Management Plan assumes that the primary mode of transportation in an emergency will be private vehicles. For those without personal vehicles, the City will use their own transportation resources, as well as those available through inter-local agreements. Other resources may include school buses, leased or rented buses, donated transportation equipment or services, municipal or rural transit system buses, and state-owned or contracted vehicles. The transportation of emergency cargo will be addressed through the use of city/county-owned vehicles, commercial freight carriers, leased or contract equipment, cargo vehicles provided by other jurisdictions pursuant to inter-local agreements, and donated transportation equipment or service. . It especially identifies Laredo Independent School District (LISD), United Independent School District (UISD), and El Metro as providers of school buses and drivers to assist in emergency operations.



### **Laredo International Airport**

The Laredo International Airport (LRD) is the primary airport in the Laredo region that provides air services for both cargo and passengers. As the main provider for air transportation, it has the responsibility to ensure safe, secure, and efficient service, along with other cooperating entities. Agencies that LRD coordinates with for safety and security include the Federal

Aviation Administration (FAA), the Transportation Security Administration (TSA), US Customs and Border Protection (CBP), and other local agencies such as the City of Laredo Fire Department.

In particular, the FAA has rated LRD as "exemplary" during airport inspections for certification every year since 2006. In 2006, the FAA also named LRD "airport of the year". This distinction is only given to airports possessing no deficiencies during inspections. As such, this designation would also indicate the level of preparedness and accommodations for safety and security issues.



## Safety and Security Operations and Existing Infrastructure

The Transportation Security Administration (TSA) and U.S. Customs and Border Protection (CBP) provide standard safety and security services for the Laredo International Airport. In support of these services, the airport also provides approved screening technologies for baggage, cargo, and passengers and other precautions. Additionally, since LRD is classified as a Federal Aviation Regulation (FAR) Part 139 airport for operations, certain measures related to on-airport security are in place. Specifically, FARs are rules imposed by the FAA, which govern all aviation activities in the U.S such as airplane design, airline flights, pilot training activities, building and structure heights, and model aircraft operation in order to advance aviation safety and national security.

Examples of specific airport safety infrastructure in place include airfield signage, security fencing, airfield lighting, navigational aids, and an airport rescue and fire fighting facility. For vehicle ground movements, LRD has lighted guidance signs around the paved areas of the airfield. Security fencing is in place around the airport property boundary, and access gates at various locations provide restricted access to the airfield. Airfield lighting of high and medium intensity provides visual aid during evening hours and low light conditions. Additionally, LRD has navigational aids (NAVAIDS), which are electronic or visual instruments that provide guidance or position information to aircraft in flight.

Situated just north of the current air traffic control tower, the airport rescue and fire fighting (ARFF) facility provides for both structural firefighting and ARFF services. The station is staffed by City of Laredo firefighters, per a mutual aid agreement between LRD and the City of Laredo. Just recently, LRD purchased a new fire truck to aid in fire and emergency events at the airport.



Besides standard safety and security services provided by TSA and CBP and existing airport infrastructure, examples of LRD safety and security precautions include regular infrastructure and surface checks, security technologies, incident management, and general safety and security plans. In particular, LRD has its own airport police that provide added safety and security at the airport. In addition to their regular duties, the officers examine airport signage, fences, light conditions, and airport pavement two or three times a day. Airport pavement checks may include checking for debris or other surface conditions on the runways, taxiways, and other supporting airport structures. Further, the airport is aided by security enhancing technologies such as surveillance cameras and general protocol such as evacuation plans in the event of an emergency. If emergency events or other similar incidents were to occur, LRD records and reports these incidences to the FAA.

## Safety and Security Enhancing Projects

In addition to safety and security precautions, further examples of projects and programs which will enhance the safety and security of LRD in the future include the construction of the new federal inspection station (FIS), reconstruction and maintenance of airport infrastructure,





the airport noise compatibility program, runway extensions, airport streets and parking lot improvements, a new air traffic control tower, a new ARFF, and new airport maintenance building.

Currently, security clearance for air cargo and passengers is handled in the existing passenger terminal. A new FIS will be located on the west side of the airport (general aviation side) and will process private aircraft and air cargo only. The current terminal will continue to process commercial flights as well as process international airline passengers once international service is established. Not only will the new FIS house US Customs, but it will also include space for Mexican Customs should it become possible to locate them there in the future. This, however, could take some time, as the airport would have to obtain special approval to house Mexican Customs. Overall, the separation of air cargo and private aircraft from commercial flights will provide added security to the airport and all aviation users.

To further enhance airport safety, LRD has been reconstructing all pavements that have failed federal inspection by the FAA. Specifically, they are planning to complete reconstructing all three runways by the end of 2009. Also, LRD will be reconstructing all taxiways and aprons and will have pavement that will be superior in all aspects to the old concrete. Moreover, the airport is planning to extend Runways 17R and 17L/35R. Presently, LRD has awarded a contract to extend Runway 17R by approximately 800 feet, scheduled to be completed by the end of 2010. Runway 17L/35R will undergo a benefit cost analysis to justify the extension and the installation of an instrument landing system (ILS) to enable precision landings.

The airport noise compatibility program is in place to mitigate the effects of airport noise on residential property located south of the airport. The program includes three voluntary options for affected property owners: either to sell their property, soundproof their home if it is feasible and sell a navigational easement, or to simply sell a navigational easement in order to fly aircraft over the property.

At the end of 2009, LRD plans on beginning work on improving airport streets and parking lots. This project will include drainage, utility improvements, and general renovations to existing airport streets and parking lots. Other future safety and security enhancing projects include the construction of a replacement air traffic control tower, an airport maintenance building, and air rescue and fire fighting (ARFF) facility. A new airport maintenance building, in particular, would consolidate airport building and grounds operations in order to better service daily operation needs, and thus, airport safety and security needs.

### ***Laredo Bridge System***

The Laredo Bridge System is a department within the City of Laredo. The City of Laredo owns the 4 international bridges and is responsible for the operations and maintenance of the infrastructure. The United States' General Services Administration (GSA) owns the border stations on the Laredo-Colombia Solidarity Bridge, Juarez-Lincoln Bridge, and Gateway to the Americas Bridge. GSA leases the border station on GSA from the City of Laredo, but will own the



facility in 2012. The Bridge Department's administration offices are at Bridge 1 (Gateway to the Americas), while federal offices, including U.S. Customs and Border Protection (CBP) are at Bridge 2 (Juarez-Lincoln).



For safety and security, the bridge department primarily works with the City of Laredo Police Department and CBP. The City of Laredo has an emergency management plan, which also applies to the bridge department. Safety and security incidents are recorded and kept track of by the CBP. In terms of security enhancing infrastructure, the international bridges have technology such as surveillance cameras and live web cameras to show continuous bridge conditions and traffic. Although the surveillance cameras are part of the bridge department's own internal control, law enforcement can request to look at the recordings. Further, deflation devices are in place on Bridges 1 and 2 in order to detour vehicles attempting to evade law enforcement when traveling into the U.S.

In the near future, safety and security enhancing projects, as identified in the Capital Improvement Program for the City of Laredo, include the following:

- **Lighting – Bridge 1** – Improvements to the wiring and fixtures at the Gateway to Americas Bridge in order to ensure better visibility and security.
- **Toll Booth and Lane Barriers – Bridges 1 and 2** - Replacement of protective barriers on nine lanes of Gateway to Americas Bridge and of toll booth doors on five lanes of the Lincoln-Juarez Bridge.
- **Northbound Lane Delineators – Bridge 2** – Installation of lane delineators on northbound lanes at the Lincoln-Juarez Bridge in order to prevent traffic from shifting lanes.
- **Surveillance System – Bridges 2, 3, and 4** – Upgrade existing surveillance system on all bridges, except the Gateway to Americas Bridge, in order to monitor customer crossings and transactions.
- **Federal Inspection Station Expansion Project – Bridge 4** Expansion of the federal inspection station on the World Trade Bridge by adding seven lanes in order to increase the processing capacity of northbound commercial truck traffic into the U.S.
- **Hazardous Materials Containment System, Bridge 4** Construction of this facility is necessary should the World Trade Bridge be used as a crossing for hazardous materials.
- **Siren Alert System – All bridges** – Installation of a siren alert system would alert US and Mexico bridge agencies of emergencies approaching the international bridges.
- **Tire Deflation Devices – All bridges** – Addition of more tire deflation devices in order to hinder vehicles attempting to avoid law enforcement.



## Private Railroad Companies

In general, railroad companies and government agencies coordinate to ensure safety of railroads and motorists crossing at railroad and roadway intersections. Typical features in place include standard cross buck signs, advanced warning signs, and active warning devices or signals to warn motorists of crossing at railroad and roadway intersections. Further, federal laws are in place, through the FRA, governing rail safety. For instance, locomotive horns must be sounded at all public grade crossings 15-20 seconds before entering a crossing, but not more than one-quarter mile in advance. However, quiet zones may be implemented if alternative safety measures are in place.



In the Laredo region, Union Pacific (UP) and Kansas City Southern (KCS) coordinate with local, state, and federal agencies to ensure the safety and security of the railroad. These companies have their own public safety departments dedicated to advancing public safety, as well as police departments which deal with hazardous materials releases, personal injuries, criminal activities, illegal dumping, or other safety and security incidents. For instance, in the Laredo region, Texas KCS has two special agents assigned to the KCS Police Department with K-9 units. The railroad companies also have local emergency preparedness plans for the Laredo region which focus on safety and security emergencies. Moreover, UP and KCS both have toll-free emergency numbers that are used to contact the companies in the event of an emergency. For example, KCS coordinates all safety and security issues through their Critical Incident Desk (CID) in Kansas City and notifies all local first responders internally and externally in the event their services are needed.



To prevent the occurrence of certain events, KCS and UP are both active in public awareness organizations or campaigns which seek to educate the public on transportation safety and security issues. One such organization is Operation Lifesaver, which is a non-profit, international continuing public education program established to end collisions, deaths, and injuries at railroad and roadway crossings and on railroad rights-of-way. In particular, KCS has four Operation Lifesaver presenters for the Laredo region that focus on performing three presentations per month. Another public awareness effort is Transportation Community Awareness and Emergency Response (TRANSCAER), which focuses on assisting communities to prepare for and respond to potential hazardous material transportation incidents. TRANSCAER is comprised of volunteer representatives from a variety of organizations, including UP and KCS. UP, for instance, has hazardous material special agents and personnel from their Hazardous Material Management department present emergency planning and response training classes to local emergency management coordinators and committees.



Because it is located along the U.S.-Mexico border, security is a special concern for the Laredo region. In the past, there have been issues of illegal aliens attempting to enter the U.S. via trains that operate on the rail network. In this regard, UP and KCS work closely with

U.S. Customs and Border Protection, along with local and state law enforcement agencies, in order to minimize the occurrence of such events. Overall, extensive security measures are in place, through the DHS and CBP, to guard against the illegal crossing of people and goods into the U.S. CBP utilizes such technology as vehicle and cargo inspection system (VACIS) gamma ray detectors to scan the railcars crossing at the international border.

# CHAPTER 7: ROADWAY PLAN



## Introduction

A hierarchical roadway system provides the primary foundation for a comprehensive, multimodal transportation environment. Roadways are utilized by nearly everyone and enable movement for nearly all modes of travel, including walking, biking, driving, and transit, as well as the movement of freight by commercial vehicles.

The Laredo region is not unlike most parts of the United States in that driving a personal automobile is the dominant form of transportation. While the city remains compact and densely developed, which typically results in shorter trips, the region has experienced longer commute times, growth in vehicles miles traveled, and a rise in levels of congestion.



In light of these issues, the Laredo MPO is driven to accommodate future growth and vehicular mobility. During the outreach efforts conducted during the development of this plan, the transportation issues cited as most important were improving travel times, reducing congestion, increasing the overall safety of the transportation system, and increasing economic development. Other specific issues that were mentioned included:

- upgrading Loop 20 to a freeway, whereby grade separations are provided for intersections at major intersections
- providing for grade separations at intersections with railroads
- increased enforcement of truck routes and separate lanes for trucks on major roadways to eliminate conflicts with commercial and non-commercial vehicles
- increasing the number of main thoroughfares and arterials to distribute traffic over more roadways, especially in South Laredo
- a new international bridge to accommodate increasing cross-border traffic
- more consideration of hazardous materials movement

Although it is unrealistic to expect that personal vehicles will not continue to be the dominant form of transportation, some people can be optimistic about opportunities to nurture the growth of alternative transportation modes. Representatives from the business and economic development community have articulated their support for increasing growth in more dense, compact development within existing urban areas in order to reduce the need for additional infrastructure. In addition, they voiced support for promoting alternative modes, such as transit, walking, and bicycling, as a means to create a better quality of life and preserve the environment. As such, local governments can leverage existing and future investment opportunities that not only increase mobility for personal vehicular transportation, but also provide attractive community design and broader travel options to elicit an improved quality of life.

## Roadway Construction

As the Laredo region plans for and evaluates the needs for transportation infrastructure over the next 25 years, it is clear that continued growth and development pressures and increasing travel demands will be placed on the existing roadway network. Roadway construction and other improvements are therefore needed in order to increase capacity and mobility. Even if enhancements are made for alternative transportation modes, an increased usage of bicycling, walking, and transit would not substantially reduce the need for additional roadway capacity improvements, given that the region is expected to double in size over the next 25 years.



However, there are limitations to new roadway construction and additions to existing roadways. Natural and man-made barriers exist, for instance, that hinder the construction of roadway improvements. Additionally, traditional methods of building new roadways or adding new lanes to existing thoroughfares often cannot be done fast enough to meet the future mobility needs of a region. Further, adequate funding resources are simply not available to implement such expensive solutions to resolve all existing and future deficiencies in the roadway system.

Therefore, apart from enhancing infrastructure for alternative modes of transportation and promoting a variety of traveling options, other strategies must be implemented in order to provide for future transportation needs and acceptable levels of service. These strategies and best practices include system preservation, travel demand management, transportation system management, and considerations for land use and urban design.

## Best Practices and Strategies for Roadway Improvements

The Laredo region has an extensive transportation infrastructure that is an indispensable asset to the regional economy. This infrastructure represents a large investment over many years and is relied upon by residents, visitors, and the business community to provide reliable transportation service. This long-term plan must succeed at preserving, maintaining, and improving the operational efficiency of the transportation system. The most effective use of limited transportation resources is to direct them towards the following:

- Preserving existing facilities by maintaining a state of good repair
- Promoting alternative programs and modes of transportation through travel demand management
- Utilizing transportation system management strategies to improve mobility, accessibility, and operational efficiency
- Adopting land use and urban design elements that are more appropriate for a multimodal transportation environment

## System Preservation Programs

In recognition of the considerable investment in the transportation system, preserving existing facilities is an important priority and guiding principle of the Laredo MPO. Bridge and roadway deterioration is closely related to use, especially by heavy trucks, which make up a significant component of regional traffic volumes. Adequate resources must be directed toward preservation efforts to continue to meet the challenge of keeping the transportation system in good condition.



### Roadway maintenance

With increasing traffic volumes, aging highways and bridges, and budgets that cannot keep up with demands, transportation agencies face a growing number of challenges. The implementation of an effective roadway maintenance program requires expertise in management, engineering, and economics, and encompasses routine/corrective maintenance, preventive maintenance, and rehabilitation activities.

Roadway pavements require continual reinvestment to sustain their structural viability and to maximize the original financial investment made to build them. Roadways that lack proper maintenance experience increased failure rates, cause increases in costs overall, and contribute to safety hazards and property loss. In fact, an April 2009 study by the Pacific Institute for Research and Evaluation finds that the cost and severity of crashes where roadway conditions are a factor greatly exceeds the cost and severity of crashes where alcohol, speeding, or lack of seat belt use was involved.<sup>1</sup> The study reports that roadway condition is a contributing factor in more than half of fatalities and nearly 40 percent of non-fatal crashes.

Roadway maintenance activities can be generally categorized into three areas:

- **Routine** - These activities are undertaken on a regular, ongoing basis and can be grouped into cyclic and reactive works efforts. Cyclic works are those undertaken on a regular pre-defined schedule, such as mowing, while reactive works are those undertaken in response to any deficiencies that may arise, such as pothole repairs.
- **Preventive** - These are projects undertaken at regular, somewhat longer intervals to preserve the structural integrity of a road, such as crack sealing.
- **Special** – The activities include emergency work to repair unexpectedly damaged roads.

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<sup>1</sup> Ted R. Miller, Eduard Zaloshnja, 2009, "On A Crash Course: The Dangers and Health Costs of Deficient Roadways", Pacific Institute for Research and Evaluation.

In the Laredo region, TxDOT’s Maintenance Division oversees the preservation, upkeep and restoration of all state-owned roadways. One of the five TxDOT budget categories, “Maintain It,” focuses on preventive maintenance and rehabilitation. The goal of the “Maintain It” funds category is to minimize the costs over time of managing and maintaining the transportation system. These funds are used to preserve the structural integrity of transportation facilities and for some safety improvements. Work under this category includes reconstruction, resurfacing, signing, striping, and other routine or periodic maintenance.



The City of Laredo and Webb County undertake street maintenance and rehabilitation responsibilities of all non-state-owned roadways, which represent nearly 88 percent of the area’s roadways. Through scheduled routine maintenance, department staff and contractors fill potholes, mow the grass, clean out ditches, and perform other routine preventive maintenance activities. Both the city and county maintain Capital Improvement Programs, which include roadway paving, resurfacing, and reconstruction projects.



### Pavement management

TxDOT monitors the surface condition of all of its roadways in a Pavement Management and Information System (PMIS). Road conditions are rated on a scale from “poor” to “better” that takes into account factors that include the smoothness of the ride and the structural integrity of the roadway. TxDOT is committed to reaching its goal of having 90 percent of its roads rated as “good” or “better” by year

2019. To meet this goal, much of the state’s transportation funds will be directed towards system preservation and maintenance.

### Bridge Maintenance and Rehabilitation

Bridges also require scheduled maintenance and inspection to ensure they can continue to safely carry increasing traffic volumes and higher numbers of loaded trucks. The SAFETEA-LU Technical Corrections Act, enacted June 6, 2008, changed the Federal Highway Bridge Replacement and Rehabilitation Program to the Highway Bridge Program and placed greater emphasis on the importance of proper and timely bridge preservation. Highway Bridge Program funds can now be used for replacement, rehabilitation, painting, performing systematic preventive maintenance, and seismic retrofitting to eligible bridges.



Based upon structural assessments, TxDOT determines condition ratings for bridges in the Laredo MPO region. Bridges that need improvement fall into two categories: “structurally deficient,” which means a bridge’s load capacity is significantly decreased due to deterioration, and “functionally obsolete,” which is a bridge, while not physically deficient, no longer meets current design standards. These bridge condition ratings provide methods



that enable TxDOT to make informed decisions about where and how to spend funds for bridge replacement and rehabilitation. Based upon bridge condition information, the Laredo MPO will continue to support funding the maintenance and rehabilitation of the region's bridges. In fact, within this MTP, seven of the 16 functionally obsolete bridges are planned to be replaced during the life of this plan.

### ***Travel Demand Management***

With any good or service, a balance is typically achieved between supply and demand. For roadway transportation, the "supply" consists of all public roads that enable travel between origins and destinations, while the "demand", of course, is people's mobility requirements which are evidenced by their travel patterns. As previously discussed, simply increasing the "supply" alone is not a sustainable strategy. Travel demand management (TDM) seeks to improve system performance by decreasing or shifting the demand for travel, primarily for those trips made by single-occupant automobiles. TDM strategies are effective in influencing travel patterns and behavior, increasing vehicle occupancy, promoting and encouraging alternative transportation modes, and redistributing the timing of trips to reduce traveling peaks, thereby reducing the overall demand on the transportation system.

The following list of TDM strategies could be of benefit to the Laredo region:

- **Telecommuting and Flexible Work Schedules** – With today's communications technology, it is quite feasible and practical to work at or closer to home. This is an excellent tactic in reducing the number of vehicles on the road. Additionally, other flexible work options which enable employees to shift their work schedules to earlier or later parts of the days spreads out demand for travel, thereby reducing congestion.
- **Ridesharing** – Carpool, vanpool, and other ride-share programs result in fewer single-occupancy vehicle trips and less congestion on roadways. Carpools are typically informal, while vanpool programs are more likely to be a more formal agreement through a local transit agency. Park-and-ride lots can help to encourage not only public transit, but also both informal and formal ridesharing services.
- **Parking Management** – The cost and availability of parking can affect the choice of whether or not to drive a personal vehicle. Downtown areas and other employment centers are more likely to promote diversified transportation choices when parking is unavailable or too costly. Presently, the City of Laredo has an effective system of monitoring parking meters in their downtown areas.
- **Support for Transit** – Providing necessary support for transit ridership can be instrumental in encouraging people to use alternative modes of transportation. People value their time and the convenience of a vehicle; therefore, transit should provide frequent service and be accessible to multiple origins and destinations. Specific programs to encourage transit use include employer-provided, tax-free transit passes, and guaranteed ride-home programs.



- **Support for Bicycling and Walking** – Bicycle and pedestrian facilities that offer safe, accessible, contiguous, and direct pathways are most ideal for bicyclists and pedestrians and can take some of the burden off of the roadway network.
- **School Considerations** – Schools generate a substantial amount of vehicular traffic when parents drive their children to and from school. Children even living within close proximity to schools may not walk or bike to school because parents do not feel that the environment is safe to do so. Programs such as Safe Routes to School and the Walking School Bus (which provides chaperoned walks to schools), are effective in providing safe and accessible walking environments. Better coordination between local governments and school districts can also help in selecting sites for new schools that are conducive to walking and bicycling.

### *Transportation System Management and Operational Efficiency*

Transportation System Management (TSM) programs help to accommodate the safe and efficient movement of people and vehicles within the existing transportation system. They typically involve roadway improvements that increase capacity, optimize traffic operation, or apply traffic calming in residential areas. Furthermore, they generally may come at a relatively low cost, require minimal right-of-way, and often can be accomplished quickly. An example of a broad TSM program is the implementation of intelligent transportation systems (ITS) technologies. In particular, ITS can improve transportation safety and mobility and enhance efficiency through the integration of advanced communications technologies. The Laredo MPO recognizes the importance of best practices involving operational and management strategies for solving transport problems.

### *Intersection and Signal Improvements*

Intersections are a significant component of traffic delay. The City of Laredo conducts traffic impact studies, signal warrant analyses, and traffic flow studies to improve the traffic operations at intersections throughout the city. Types of intersection improvements include intersection channelization projects, signal upgrades, realignments and interchange construction. The Laredo MPO will continue to work to enhance traffic operations in the region by funding intersection improvements on regionally significant roadways.



### *Intelligent Transportation Systems*

Intelligent transportation systems (ITS) include a broad range of wireless and wire line communications-based information and electronics technologies. These technologies improve transportation mobility, safety, and security of the transportation system infrastructure. ITS technology is employed by various agencies in the Laredo region. In 2003, a four county region including Webb, Duval, LaSalle, and Dimmit Counties, developed the Laredo Regional ITS Architecture and Deployment Plan with representatives from the City of



Laredo, El Metro, Webb County, TxDOT, FHWA, US Border Patrol, and US Customs. This effort was a part of a TxDOT initiative to develop regional ITS architectures and deployment plans throughout the state for regions without ITS plans. In January of 2005, the City of Laredo developed an ITS Master Plan in order to identify current ITS components, ITS stakeholders and users of ITS technologies, as well as potential ITS projects and priorities.

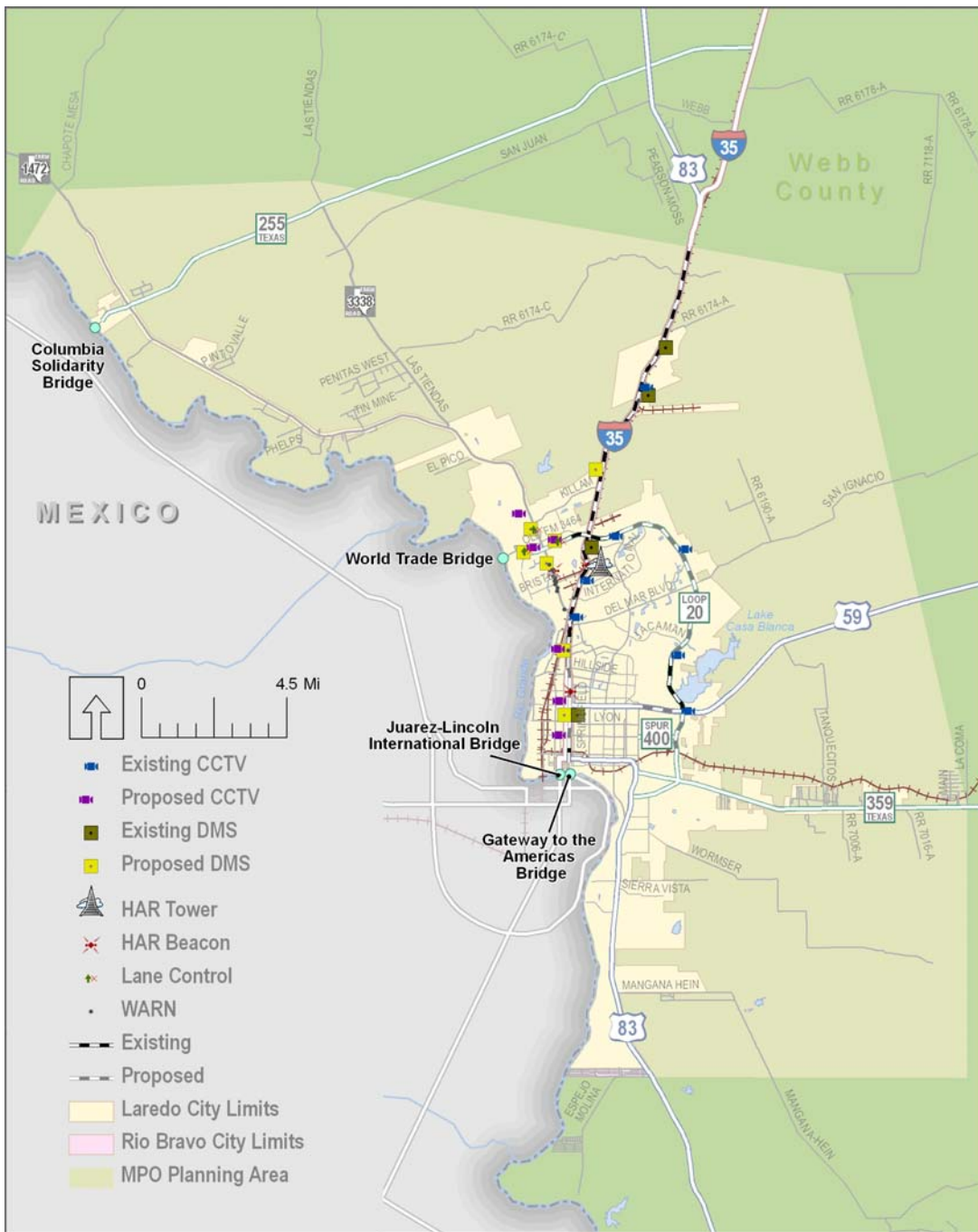
*South Texas Regional Advanced Transportation Information System (STRATIS)*

STRATIS is the transportation management center administered by TxDOT’s Laredo District and has been operational since February 2004. The mission of the program is “to provide best transportation and emergency management services through the use of our collective resources to maximize safety and mobility to the public”. From STRATIS center, TxDOT has access to ITS implementations such as CCTV Cameras, Dynamic Message Signs (DMS), Highway Advisory Radio (HAR), Lane Control Signals, and Video Image Vehicle Detection System (VIVIDS). TxDOT has also deployed several miles of fiber optic cable around the City to provide communications to their roadside infrastructure. The total length of TxDOT fiber will more than double in the future with TxDOT’s planned deployments and will include most of Loop 20 and Interstate 35 within the Laredo region. HAR is used by TxDOT to broadcast traveler information messages to drivers. DMSs provide up-to-date information about traffic flow conditions that helps drivers to make decisions about their trip. A railroad coordination system called the Wireless Advisory Railroad Network (WARN) is in place to inform drivers of closures at railroad crossings. TxDOT also provides “Twitter” feeds about local traffic information. Figure 7-1 illustrates the exiting and planned ITS deployments by TxDOT in the Laredo region.



The STRATIS system is connected to the City of Laredo Transportation Management Center (TMC) to share CCTV camera feeds and control. This connection also allows the City of Laredo TMC to view messages that have been placed on the DMSs. TxDOT has also provided monitors to the City of Laredo 911 Dispatch Center to provide CCTV camera images to the center. The STRATIS center assists the local law enforcement agencies in detecting and responding to traffic incidents or any emergency incidents. These centers enable better communication and response times resulting in faster clearing of incidents, improved mobility and air quality, and reduced risk of further incidents.

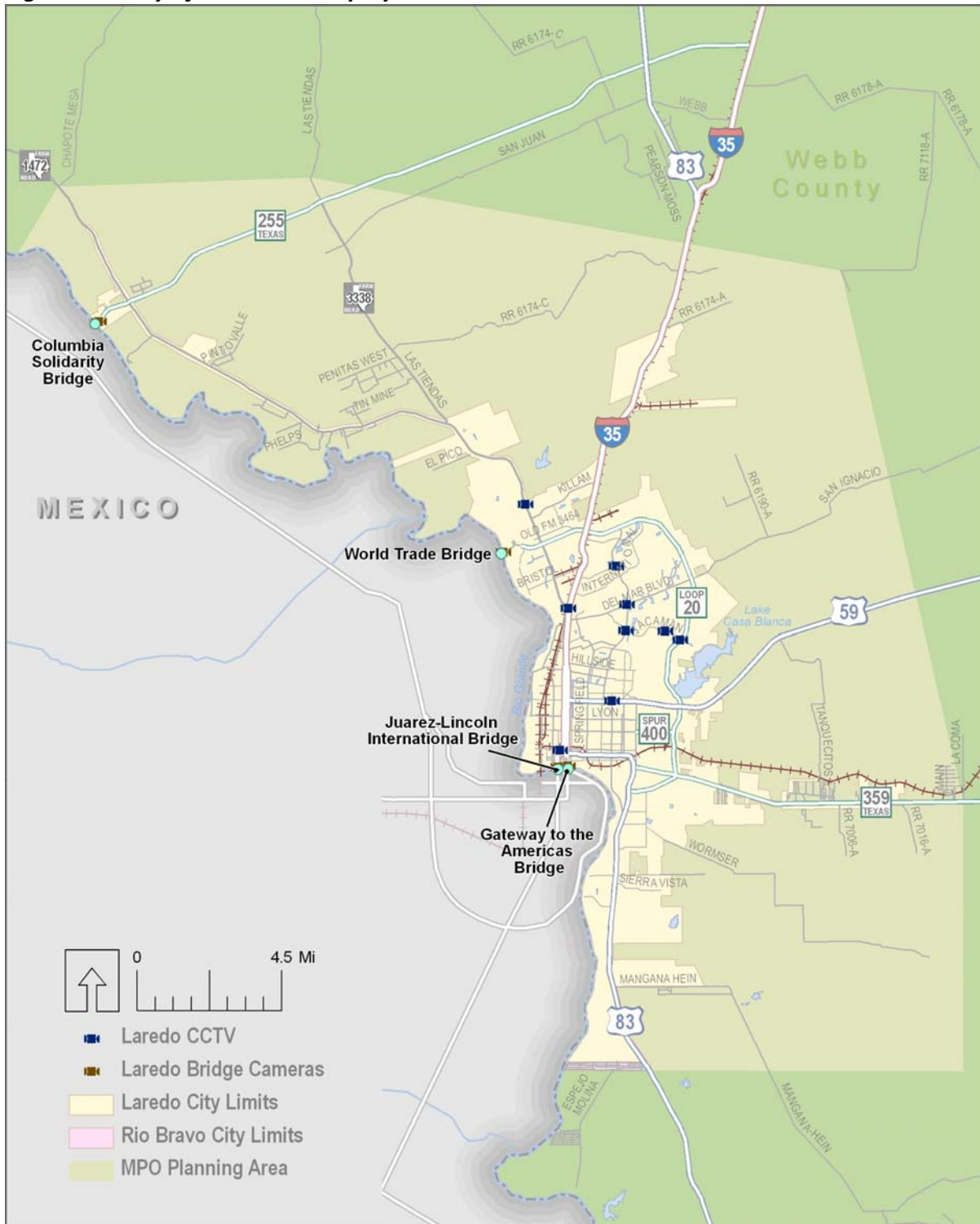
**Figure 7-1: TxDOT ITS Deployment**



**Laredo Transportation Management Center**

The City of Laredo Traffic department hosts the Transportation Management Center, which monitors the traffic operations on city-owned roads. The TMC controls all 130 signals throughout the city and 10 CCTV cameras. The city’s Traffic Department has been working to deploy and operate ITS technology to address the growing demand on its transportation system. The department has currently deployed CCTV cameras on arterial streets, synchronized traffic signal systems, and improved vehicle detection capabilities. The locations of the city’s ITS cameras are shown in Figure 7-2.

**Figure 7-2: City of Laredo ITS Deployment**



The city of Laredo recently implemented ITS solutions for traffic signals in the downtown area as a pilot project and is monitoring its efficiency. ITS elements include new traffic signal control equipment and communication devices, video monitoring devices at major intersections, and dynamic message signs at major arterials, all of which will be operated from the TMC.

### *Joint Operations Center*

The City of Laredo Police Department operates the 911 Dispatch Center, where calls for police, fire, and emergency medical services (EMS) are handled. Physical space in the center is a concern as there is little room left for growth or the addition of new equipment. The Fire Department provides fire, emergency medical, and hazardous material response services for the City of Laredo through their Emergency Operations Center (EOC) which is temporarily located at the Public Works Building.

As the City of Laredo TMC, EOC, and 911 Dispatch Center reach the capacity of their existing facilities, the City of Laredo ITS Master Plan has recommended that it is time to consider a joint operations center for the City. This joint operations center will be a partnership formed by the transportation and emergency management agencies to collocate their operations in one building. This will be an opportunity to enhance coordination and streamline operations on a day-to-day basis, as well as during an emergency situation. It is envisioned that the City of Laredo joint operations center would include the TMC, City of Laredo EOC, and the City of Laredo 911 Dispatch Center. The joint operations between TMC and EOC would allow sharing of video, traveler information capabilities through DMS, flood detection, and traffic signal control during an emergency. Resources can be pulled together to add features that are required by both types of centers, such as security, communications systems, and 24-hour operational capability. The addition of 911 dispatch would further improve incident identification and response capabilities. Sharing of video feeds and traffic data between the TMC and 911 dispatch will allow incidents to be detected faster, allow dispatchers to more quickly route emergency vehicles to an incident, and provide emergency responders with information about the incident obtained from video feeds. The Laredo MPO strongly supports this type of cooperation to improve both the efficiency and the safety of the city's transportation system.

### *International Bridges*

As discussed in Chapter 4, the City of Laredo Bridge Department along with the General Services Administration (GSA) operates and manages four international bridges within the City of Laredo. Tolls for bridge crossing are collected in the form of cash, swipe cards, or automated vehicle identification (AVI) transponders. The city has implemented Automatic Vehicle Identification (AVI) at Bridges II, III and IV for toll collection. The AVI operates using an electronic transponder, installed on the windshield inside the vehicle. As vehicle pass through the bridge, an overhead antenna reads the transponder and automatically debits the correct toll amount from the prepaid AVI account of the user. All bridges are also equipped with CCTV cameras that transmit images to the Bridge Department and are also displayed on the Bridge Department's website for public access. Weigh-in-motion devices were also recently installed on Bridges II and IV, improving inspection operations at those crossings.



The City has allocated funds through their CIP program for 2009 - 2013 to implement a Siren Alert System on Bridges II, III and IV. Funds have also been allocated in the MPO's recent TIP to implement weigh-in-motion and automated vehicle identification devices on all four ports of entry.

### **Traffic Calming**

Traffic calming efforts can include an array of programs, such as traffic law enforcement, public awareness and educational programs, as well as physical measures, which calm traffic flows and encourage safer roadways. In terms of transportation management, this usually includes a variety of infrastructure improvements that reduce the negative effect of vehicle use and improves conditions for non-motorized transportation. Further, these strategies can be



effective in eliminating cut-through traffic on local or neighborhood streets. Some examples of traffic calming techniques utilized in transportation management include speed humps, roundabouts, traffic circles, and raised medians or islands that limit vehicular access and turning capabilities. The city of Laredo has employed various traffic calming techniques and will continue to do so as the need for such measures arises.

### **Access Management**

Another technique to improve mobility and alleviate congestion is access management. In essence, access management includes a broad set of techniques designed to improve

roadway capacity, mobility, and safety by limiting the accessibility of vehicular traffic. This is accomplished by inhibiting the amount of conflict points, separating them, and removing turning vehicles and traffic buildup from through-vehicle movements. The techniques usually control and regulate the location, spacing, and design of driveways, medians, median openings, traffic signals, and freeway interchanges. Furthermore, when combined with



streetscape improvements, access management techniques can also contribute to attractive multimodal environments. Medians, for instance, can offer space for street trees while also limiting vehicular access and providing a safe refuge for pedestrians crossing roadways.

### **Land Use and Urban Design Considerations**

How a city is planned in terms of the types of land uses has a direct effect on how the transportation system is developed. This is also true for how the transportation system is planned and how it can affect future land use. For instance, new or improved transportation infrastructure, combined with other services, enables a community to extend into new

areas of development. Therefore, promoting smart and integrated land use and transportation development planning policies is vital for the overall health of a region.

A few best practices in integrating land use and urban design considerations with transportation systems include the following:

- **Grid street pattern** – A road system best serves the transportation needs of a region in a hierarchical, grid-like street pattern. A hierarchical structure of major thoroughfares, arterials, collectors, and local roads in a grid-like pattern more evenly distributes traffic volumes over multiple roads. Further, it offers more direct travel options and connectivity for vehicles as well as transit, bicyclists, and pedestrians. An ideal street network would consist of complete blocks and road segments with design elements catering towards multiple modes of travel. Many of the older sections of the city have this foundational structure.
- **Complete Streets** – This concept seeks to convert roadways from auto-centric thoroughfares into people or community-oriented streets that accommodate the safe and efficient movement of all transportation users. The complete street principle includes design enhancements such as medians, street trees, and bike lanes set in an attractive, urban scale environment. The San Bernardo project is one example of the Laredo MPO pursuing a complete street concept in that it is planned to be a “linear transit hub.”
- **Context Sensitive Solutions** – Context sensitive solutions are concerned with involving all stakeholders and design professionals in a collaborative way to develop a transportation facility that not only provides for safety and efficient mobility for transportation users, but also blends into its physical and cultural context and preserves historic, natural, and other existing environmental resources. This type of approach focuses on considering the total context and community setting of transportation improvement projects.
- **Corridor Preservation** – Presently, the city of Laredo has identified major existing and future transportation corridors in the region within its thoroughfare plan. This is necessary in order to preserve future right-of-way and ensure a continuing and connected roadway system for future use.



## Special Issues

A variety of unique transportation issues exist within the Laredo MPO planning area. In terms of roadways, some of the more compelling issues are the future of the Interstate 35 and Interstate 69 corridors, traffic growth along Loop 20, the large number of at-grade railroad crossings present in the inner parts of the city, and the potential for a fifth international bridge.



## Interstate 35 and Proposed Interstate 69

There is little doubt that statewide mobility improvements are needed to keep pace with current and future demand. While the Trans-Texas Corridor concept has been formally abandoned, issues related to statewide mobility are still of primary concern.



In Texas, Interstate 35 carries a high volume of traffic, especially commercial trucks. Interstate 69 is a planned 1,600-mile national highway serving the United States between the borders of Mexico and Canada. Eight states are involved in the project. In Texas, the proposed I-69 study area extends from Texarkana/Shreveport to Mexico.

Back on March 27, 2008, the Texas Transportation Commission approved Minute Order #111294. This minute order created the I-35 and I-69 Corridor Advisory Committees to assist the Texas Department of Transportation in the transportation planning process for these two corridors. The purpose of these committees is to facilitate and achieve consensus from affected communities, governmental entities, and other interested parties in the planning of transportation improvements within these corridors.



In providing advice and recommendations, the advisory committees are required to evaluate economic, political, societal, and demographic population trends. Based upon those evaluations, they will consider solutions that range from upgrading the existing facility to constructing new facilities. The committees will also consider multimodal solutions and help determine available financing options.

### Corridor Advisory Committees

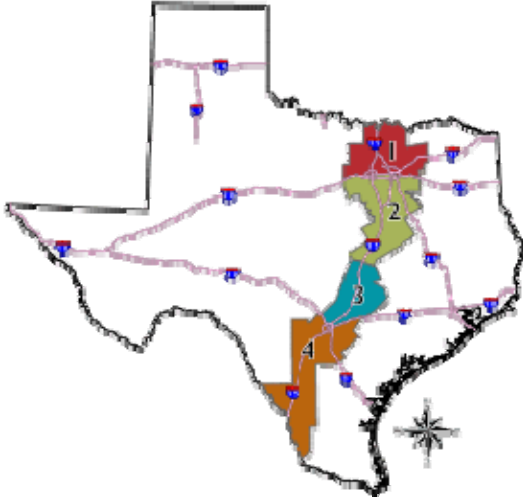
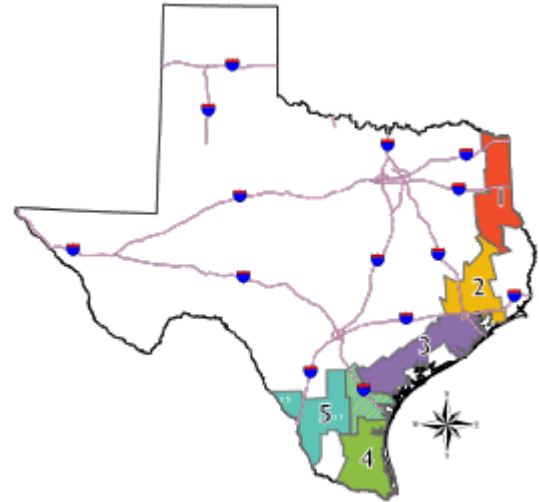
Both I-35 and I-69 have Corridor Advisory Committees that consist of 18 members from various jurisdictions along their route. In late 2008, both committees submitted “Citizens’ Reports on the Current and Future Needs” of each corridor. These reports spell out the guiding principles and recommendations to consider for improvements to both corridors.

### I-35 and I-69 Corridor Segment Committees

To better plan for these improvements and bring in more local input, TxDOT has set up a group of segment committees representing the I-35 and I-69 Corridors. Laredo has representation on two of these committees: the I-35 Corridor Segment Committee Number Four, which covers the corridor from San Antonio to Laredo, and the I-69 Corridor Segment Committee Number Five, which covers an eight-county area in south Texas.

These segment committees will provide input regarding priority projects in their area, as well as advise TxDOT on the planning and development of those projects. These committees will also have input on environmental studies for projects proposed for construction.

**Figure 7-3: I-35 and I-69 Segment Committees**

I-35 Corridor Segment Committee Boundaries		I-69 Corridor Segment Committee Boundaries	
			
I-35 Segment 4 Committee Membership		I-69 Segment 5 Committee Membership	
Counties		Counties	
Atascosa	Medina	Duval	Nueces
Bexar	Webb	Jim Wells	San Patricio
Frio	Wilson	Live Oak	Webb
Guadalupe	Zapata	McMullen	Zapata
La Salle			
MPOs		MPOs	
Laredo	San Antonio/Bexar County	Corpus Christi	Laredo
Cities		Cities	
Cotulla	San Antonio	Alice	George West
Laredo	Seguin	Corpus Christi	Laredo
Pearsall	St. Hedwig	Freer	Robstown
Other Organizations		Other Organizations	
Greater San Antonio Chamber of Commerce		Corpus Christi Chamber of Commerce	
Seguin Chamber of Commerce		San Patricio Economic Development Corp.	
South San Antonio Chamber of Commerce		Port of Corpus Christi	
Port of Laredo		Port of Laredo	
Texas Farm Bureau		Texas Farm Bureau	





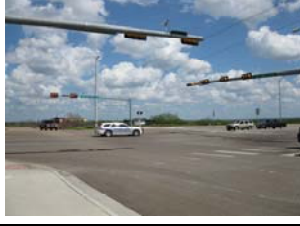

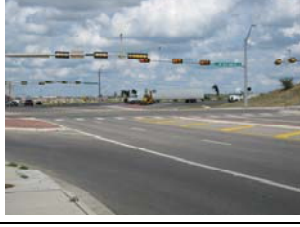
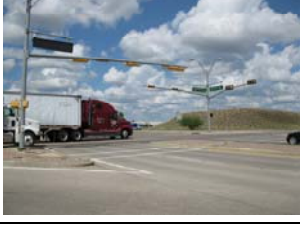
**Loop 20**

As discussed in Chapter 4, traffic volumes along Loop 20 have risen dramatically since its construction in 1995. The Laredo Entertainment Center, Texas A&M International University, and the Doctor’s Hospital have all had a large impact on the loop’s traffic volumes. With safety and congestion a growing concern, overpass and interchanges are needed at major intersections, much like the recent diamond interchange at US 59.

The long-term vision is to upgrade the entire length of the Loop 20 to a limited access facility. The current Laredo TIP calls for interchanges at Clark Blvd (Spur 400) and SH 359.

The interchange at SH 359 is part of the Cuatro Vientos project which will carry Loop 20 down into south Laredo to offer relief to the US 83 corridor. The existing section of Loop 20 between SH 359 and US 83 has been re-designated as Spur 260. Figure 7-4 below shows the intersections between US 59 and McPherson Road, along with the traffic data from TxDOT’s urban saturation count program.

**Figure 7-4: Loop 20 Major Intersections**

<b>US 59 (complete)</b>		<b>Laredo International Airport</b>	
	US 59: 28,320 west of Loop 20 Loop 20: 44,940 south of US 59		Loop 20: 40,010 north of airport
<b>Jacaman Road</b>		<b>University Boulevard</b>	
	Jacaman: 8,660 west of Loop Loop 20: 35,520 north of Jacaman		University: 12,030 east of Loop 20 Loop 20: 33,450 north of University
<b>Del Mar Boulevard</b>		<b>Shiloh Drive</b>	
	Del Mar: 13,670 west of Loop 20 Loop 20: 13,060 north of Del Mar		No data
<b>International Boulevard</b>		<b>McPherson Road</b>	
	No data		McPherson: 16,080 north of Loop 20 Loop 20: 26,410 west of McPherson

### ***At-Grade Railroad Crossings***

Forty-nine of the 53 roadway crossings of the Union Pacific railroad are at-grade, while 32 of the 33 roadway crossings of the KCS/Tex-Mex rail line are at-grade. While there is widespread concern over the safety and congestion related to at-grade railroad crossings in the region, it has been difficult to justify the full investment needed to address this issue given the frequent discussion of the possibility of both railroads relocating most of their railroad operations outside of the city. Nevertheless, the MPO has identified its top dozen grade separation projects, and has committed to funding three of the top priorities. These locations include Calton Rd over the UP and Arkansas Avenue and US 83 (Chihuahua and Guadalupe Streets) over the KCS/Tex-Mex.



### ***Fifth International Bridge***

Growth in trade and related services coupled with dramatic economic and population growth on both sides of the border has increased border traffic on Laredo's four international bridges and the existing railroad bridge. In response to this growth, the construction of a fifth international bridge crossing to accommodate continuing growth has been proposed. This bridge is envisioned to be a full service crossing located in south Laredo and connect to US 83 and Mexico 85 in Nuevo Laredo. Moving forward, the city and county have pledged to work in partnership on the construction of this bridge, which remains a high-priority, long-term goal for the MPO.

### ***Laredo Roadway Plan***

The MPO is committed to investing in a variety of projects that expand the roadway system's capacity, enhance its efficiency and safety, and improve its overall quality. Roadway improvements in this MTP focus on adding new capacity, improving traffic flow and system efficiency and increasing safety. Not only will these improvements include traditional means of constructing new roadways and widening existing roadways, but they will also include best practices mentioned above to adequately address future transportation needs.

### ***Project Evaluation Criteria***

In an effort to prioritize projects, the MPO has developed a series of project evaluation criteria to objectively score projects. While the criteria attempt to quantify the potential benefits and effects of each project, they are not the sole determinant in establishing regional investment priorities. Rather, these criteria are simply a tool to help discuss the merits of each project and evaluate them on an equal playing field.

The project evaluation criteria considered various factors related to the project including traffic operations and safety, integration with other modes, community development, project cost and funding, environmental impacts, and project and system management.

**Table 7-1: Project Evaluation Criteria**

<b>DEMONSTRATED NEED</b>	
<p><b>Current Congestion</b> Does the project specifically address a currently congested facility; or in the case of a new alignment roadway, does it specifically address a “parallel” facility that is congested?</p>	<p><b>Current Level of Service = E or F</b> ..... 100 points  <b>Current Level of Service = D</b> ..... 75 points  <b>Current Level of Service = C</b> ..... 50 points  <b>Current Level of Service = B</b> ..... 25 points  <b>Current Level of Service = A</b> ..... 0 points</p> <p>Level of Service based upon assigned traffic volume from base year travel demand model.</p>
<p><b>Future Congestion</b> Does the project specifically address a facility that is expected to become congested at the end of the MTP planning horizon (currently 2035), or in the case of a new alignment roadway, does it specifically address a “parallel” facility that is projected to be congested?</p>	<p><b>Future Level of Service = E or F</b> ..... 100 points  <b>Future Level of Service = D</b> ..... 75 points  <b>Future Level of Service = C</b> ..... 50 points  <b>Future Level of Service = B</b> ..... 25 points  <b>Future Level of Service = A</b> ..... 0 points</p> <p>Level of Service based upon assigned traffic volume from horizon year travel demand model (existing plus committed network).</p>
<b>PROJECT COST</b>	
<p><b>Cost Reasonableness</b> Is the project cost per future daily vehicle mile of travel (DVMT from “build” alternative from travel demand) a reasonable amount?</p>	<p><b>\$75 or less per DVMT</b> ..... 75 points  <b>Between \$75 and \$125 per DVMT</b> ..... 50 points  <b>Between \$125 and \$500 per DVMT</b> ..... 25 points  <b>More than \$500 per DVMT</b> ..... 0 points</p>
<p><b>Right of Way</b> Does this project have exceedingly high right of way and utility costs, in terms of total project cost?</p>	<p><b>0% of Total Cost</b> ..... 25 points  <b>Less than 25% of Total Cost</b> ..... 20 points  <b>Between 25% and 50% of Total Cost</b> ..... 15 points  <b>Between 50% and 75% of Total Cost</b> ..... 10 points  <b>More than 75% of Total Cost</b> ..... 0 points</p>
<b>MODAL IMPACTS</b>	
<p>Does the project improve accessibility to an alternative mode of transportation?</p>	<p><b>Transit</b> ..... 20 points  <b>Bicycling</b> ..... 20 points  <b>Walking</b> ..... 20 points  <b>Airport</b> ..... 20 points  <b>Rail</b> ..... 20 points</p>
<b>ENVIRONMENTAL</b>	
<p>What type of impact does the project have on the natural environment?</p>	<p><b>Positive environmental impacts</b> ..... 10 points  <b>Neutral environmental impacts</b> ..... 0 points  <b>Negative environmental impacts</b> ..... -10 points</p>

**Table 7-1: Project Evaluation Criteria (continued)**

<b>PROJECT READINESS</b>	
Has sufficient planning and engineering work been done on this project to ensure timely implementation?	<b>ROW purchased</b> ..... 10 points <b>Preliminary Engineering completed</b> ..... 10 points <b>Plans completed</b> ..... 10 points
<b>OTHER FACTORS</b>	
<b>Safety</b>	
Does the project improve safety?	
<b>Economic Impacts</b>	
Does the project support economic development and international trade?	<b>Safety</b> .....30 points
	<b>Economic Impacts</b> ..... 15 points
<b>System Continuity</b>	
Does the project provide for connecting sections of an existing or planned street that are presently discontinuous?	<b>System Continuity</b> ..... 15 points
	<b>Public Acceptance</b> ..... 20 points
<b>Public Acceptance</b>	
Does the project have community support?	

**Roadway Projects**

The projects that have been selected for inclusion with the Laredo long-range Metropolitan Transportation Plan were carefully selected and prioritized. The list of projects that are presented on the pages that follow was developed by including projects from the FY2010 and FY2011 elements of the FY2008-2011 Transportation Improvement Program and by including short-term (2012-2019) and long-term (2020-2035) priorities.

**Projects from FY2008-2011 Transportation Improvement Program**

Projects from the current FY 2008-2011 Transportation Improvement Program (TIP) must be found within a conforming Metropolitan Transportation Plan. Projects listed in the FY 2010 and FY 2011 element of the TIP are shown in Table 7-2.

**Table 7-2: FY 2010-2011 TIP Projects (See Figure 7-5)**

<b>ID</b>	<b>Roadway</b>	<b>Limits</b>	<b>Project Descriptions</b>
P-01	Calton Rd	At Santa Maria	Construct railroad grade separation
P-03	CPL Road	Industrial Blvd to Flecha Ln	Construct new roadway
P-04	Flecha Ln	At Las Cruces Dr	Realign roadway
P-05	SH 255	Near Bridge III	Construct safety/inspection facility
P-06	US 83	At KCS railroad	Construct railroad grade separation
P-07	Various	In industrial areas	Reconstruct roadways
P-08	Various	In industrial areas	Reconstruct roadways
P-09	Various	In industrial areas	Reconstruct roadways
P-10	Various	In industrial areas	Reconstruct roadways
P-11	Various	At Bridges I, II, III, and IV	Install WIM, AVI, and computer devices
T-01	Loop 20	At GSA facility at Bridge IV	Construct safety/inspection facility
T-02	Loop 20	US 59 to SH 359	Widen to 6 lanes and construct overpass at Spur 400 (Clark Blvd)
T-03	Arkansas Ave	At Tex-Mex railroad	Construct railroad grade separation

### Funding Priorities

Once the TIP projects are addressed, the following projects are next in line. These projects are those that were given careful consideration by the MPO by taking into account the MPO's project evaluation criteria, input from the community, economic development issues, and safety concerns. Because of the current fiscal realities of transportation funding in Texas and the nation, only a small number of projects are included in this targeted list.

### Short-term projects (2012-2020)

Based upon their position in the MPO's project ranking system and based upon expected short-term funding availability, the following seven projects represent the MPO's short-term priorities for major roadway investments in the Laredo region.

**Table 7-3: Short-term Funding Priorities (See Figure 7-5)**

<b>ID</b>	<b>Roadway</b>	<b>Limits</b>	<b>Project Descriptions</b>
B-01	Meadow St	At Tex-Mex railroad	Replace bridge
R-01	Loop 20	SH 359 to Los Presidentes	Install raised median
R-02	US 59	Ejido Ave to Loop 20	Install raised median
R-03	Interstate 35	3.9 miles north of Loop 20 to 0.5 miles north of Uniroyal	Install roadway illumination
R-04	Interstate 35	0.25 miles north of Loop 20 to 3.9 miles north of Loop 20	Install roadway illumination
R-05	US 83 (Chihuahua)	Interstate 35 to SH 359	Add one travel lane
R-06	US 83 (Guadalupe)	Interstate 35 to SH 359	Add one travel lane

### *Long-term projects (2021-2035)*

Based upon their position in the MPO’s project ranking system and based upon expected long-term funding availability, the following dozen projects represent the MPO’s long-term priorities for major roadway investments in the Laredo region.

**Table 7-4: Long-term Funding Priorities (See Figure 7-5)**

<b>ID</b>	<b>Roadway</b>	<b>Limits</b>	<b>Project Descriptions</b>
B-02	US 59	At Zacate Creek/San Francisco Ave	Replace bridge
B-03	Convent Ave	At Rio Grande River	Rehabilitate bridge
B-04	Sanchez St	At Zacate Creek	Replace bridge
B-05	Mangana Hein Rd	At Becerra Creek	Replace bridge
B-06	Wormser Rd	At Dolores Creek	Replace bridge
B-07	Las Tiendas Rd	At Tejones Creek	Replace bridge
R-07	Loop 20	Interstate 35 to McPherson Rd	Construct mainlanes
R-08	Loop 20	At McPherson Rd	Construct overpass and ramps
R-09	Loop 20	At Laredo International Airport	Construct overpass and ramps
R-10	Loop 20	At Del Mar Blvd	Construct overpass and ramps
R-11	Loop 20 (Cuatro Vientos)	Mangana-Hein Rd to US 83	Construct new roadway
R-12	Loop 20	At Shiloh Dr	Construct overpass and ramps

### *Local Projects*

The City of Laredo and Webb County maintain Capital Improvement Programs (CIPs) to meet their local infrastructure related challenges. While much of their programs relate to major roadway rehabilitation and reconstruction projects, the CIP for the City of Laredo reflects the city’s continuing efforts to keep pace with growth by expanding the capacity of existing roads and constructing new roadways. These projects that expand the local roadway system will be funded by city bond initiatives and/or by local developers. These projects are listed below for informational purposes only.

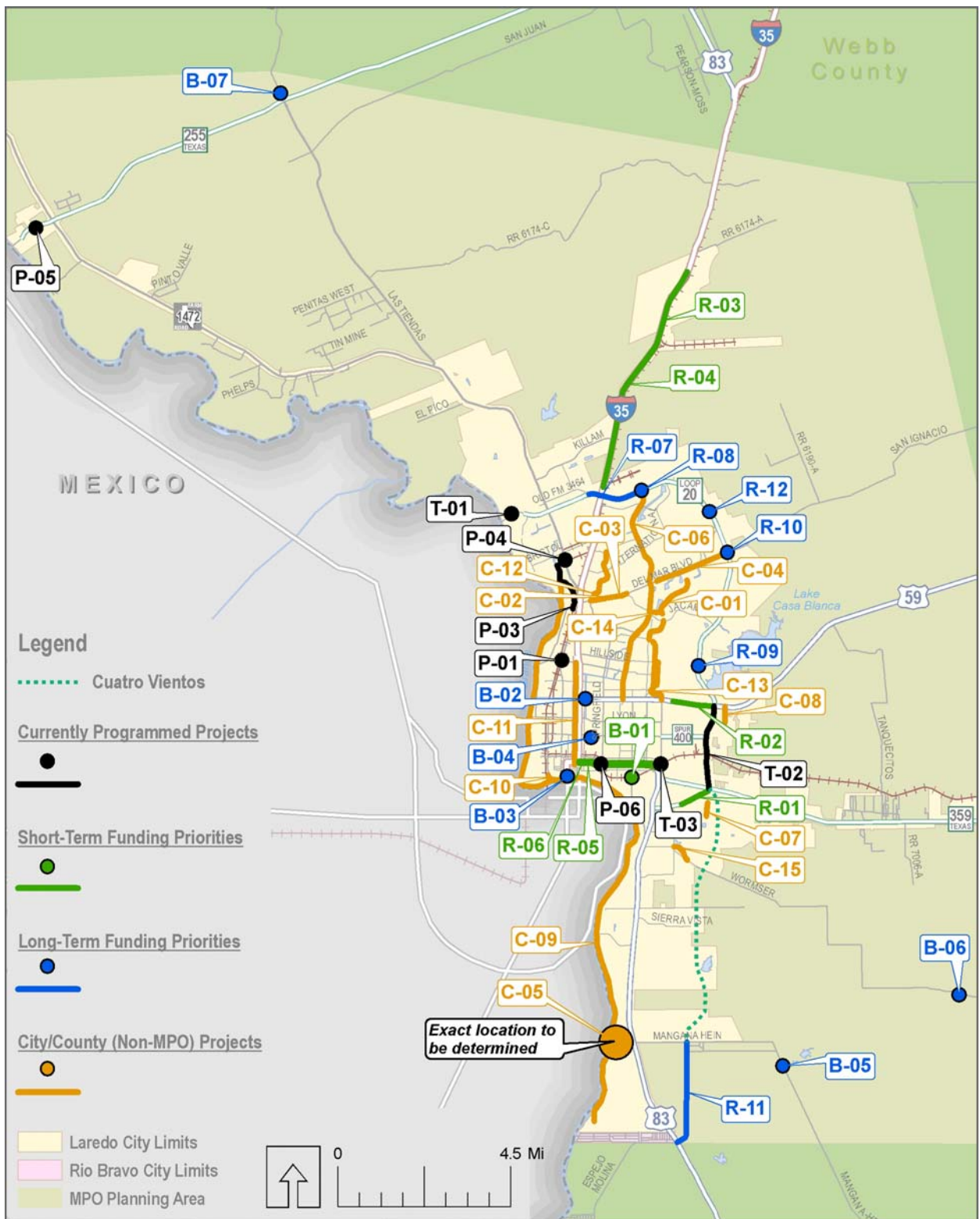


**Table 7-5: Local Projects (See Figure 7-5)**

<b>ID</b>	<b>Roadway</b>	<b>Limits</b>	<b>Project Descriptions</b>
C-01	Bartlett Ave	Del Mar Blvd to Gale St	Construct new 4-lane road (1.9 miles)
C-02	Del Mar Blvd	Springfield Ave to Broadcrest Dr	Widen road and construct sidewalks (0.8 miles)
C-03	Del Mar Blvd	Broadcrest Dr to Fenwick Dr	Widen road and construct sidewalks (0.2 miles)
C-04	Del Mar Blvd	1000' east of McPherson to Loop 20	Widen road and construct sidewalks (2.0 miles)
C-05	Prop. Bridge V	To be determined – South Laredo	Construct new bridge
C-06	McPherson Rd	Loop 20 to US 59 (Saunders St)	Install median (5.8 miles)
C-07	North Merida Dr	Gillman Rd to Whipple Rd	Construct new road (0.4 miles)
C-08	Ponderosa/US 59 Connector	US 59 to Fairfield Dr	Construct new road (0.4 miles)
C-09	River Road	Future CPL Rd to 2 miles south of Mangana-Hein Rd	Construct new road (17.4 miles)
C-10	River Vega	Bridge Salinas to Santa Isabel	Construct new road (0.6 miles)
C-11	San Bernardo Ave	Hidalgo to Calton	Reconstruct roadway to include linear transit hub (2.7 miles)
C-12	Springfield Ave	Shiloh Rd to Hill Top II subdivision	Construct new road (1.3 miles)
C-13	Thomas Ave / Maher Ave / Hillside Rd	Daugherty Ave to US 59 (Saunders St)	Widen, reconstruct, and realign roads (2.5 miles)
C-14	University Blvd	End of existing road east of Rocio to proposed Bartlett extn. (C-01)	Construct new 4-lane road (0.2 miles)
C-15	Zacatecas St	Ejido Ave to Las Americas Subdivision	Construct new 2-lane road (0.5 miles)

Figure 7-5 shows projects currently programmed in the MPO's TIP in FY 2010 and FY 2011, the MPO's short and long-term funding priorities, as well as other non-MPO transportation investments.

Figure 7-5: Funding Priorities



### Other Unfunded Needs (Illustrative)

The MPO has determined that the following projects are needed for congestion relief, economic development, and improved safety. However, current funding forecasts leave these projects without an identified funding source. Should additional funding be made available through either federal, state, local, or other sources, these projects will be developed and advanced accordingly. These projects are considered as “illustrative” and are outside the financial constraint of this plan. Table 7-6 lists the projects in order of priority according to the project evaluation criteria. Figure 7-6 shows their location.

**Table 7-6: Other Unfunded Needs (See Figure 7-6)**

ID	Roadway	Limits	Project Descriptions	2010 Total Project Cost
X-01	US 83	SH 359 to Prop. Outer Loop	Widen to 7-lane section	\$64,686,532
X-02	Loop 20 (Cuatro Vientos)	At Southgate Blvd	Construct overpass and ramps	\$41,361,993
X-03	Loop 20 (Cuatro Vientos)	SH 359 to Prop. Outer Loop	Widen to 6-lane divided road	\$47,367,993
X-04	Loop 20	World Trade Bridge to IH-35	Add 1 lane in each direction	\$8,425,662
X-05	Interstate 35	Shiloh Dr to Loop 20	Widen NB and SB main lanes to 3 lanes each direction	\$48,272,000
X-06	Interstate 35	At Loop 20	Construct Direct Connector #4 (20WB to 35NB)	\$31,552,290
X-07	Interstate 35	At Loop 20	Construct Direct Connector #3 (35SB to 20EB)	\$31,552,290
X-08	Interstate 35	At Loop 20	Construct Direct Connector #6 (35NB to 20 EB)	\$31,552,290
X-09	Interstate 35	At Loop 20	Construct Direct Connector #8 (20EB to 35SB)	\$31,552,290
X-10	Interstate 35	At Loop 20	Construct Direct Connector #5 (20WB to 35SB)	\$31,552,290
X-11	US 83	At San Rio Blvd	Construct overpass and ramps	\$9,854,207
X-12	Loop 20 (Cuatro Vientos)	At Cielito Lindo/Sierra Vista	Construct overpass and ramps	\$50,067,993
X-13	Loop 20	McPherson Blvd to Bucky Houdmann Blvd	Add mainlanes	\$21,383,466
X-14	Loop 20	At Jacaman Rd	Construct overpass and ramps	\$45,435,629
X-35	Loop 20	At International Blvd	Construct overpass and ramps	\$21,319,555
X-15	US 59	2.0 miles east of Loop 20 to Prop. Outer Loop	Widen to 7 lanes	\$72,570,269

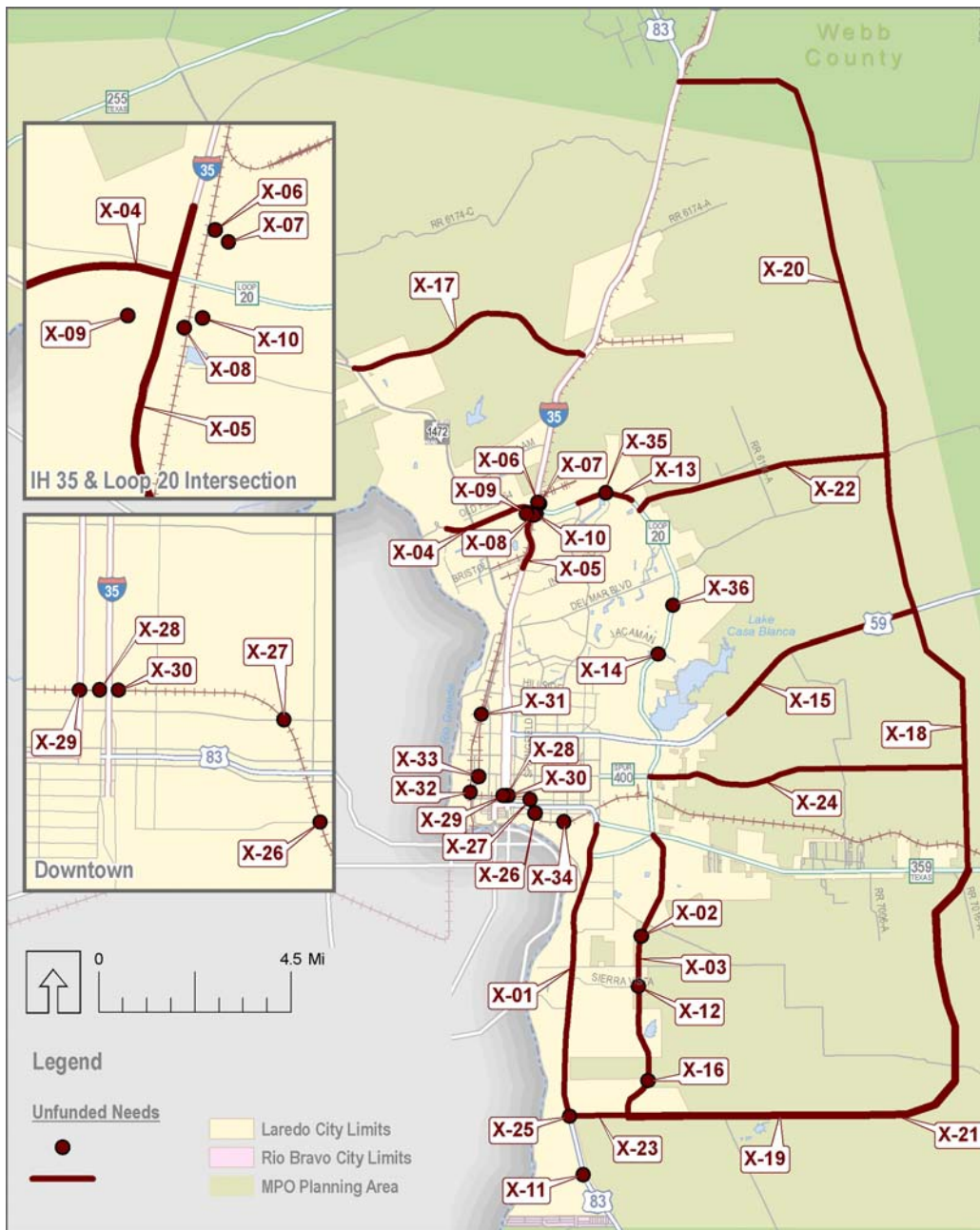
**Table 7-6: Other Unfunded Needs (continued)**

<b>ID</b>	<b>Roadway</b>	<b>Limits</b>	<b>Project Descriptions</b>	<b>2010 Total Project Cost</b>
X-36	Loop 20	At University Blvd	Construct overpass and ramps	\$21,319,555
X-16	Loop 20 (Cuatro Vientos)	At future minor arterial (1 mile north of Mangana Hein Rd)	Construct overpass and ramps	\$50,067,993
X-17	FM 1472 spur	FM 1472 (southeast of FM 3338) to IH-35 at Mile Marker 11	Construct new roadway	\$24,585,440
X-18	Prop. Outer Loop	SH 359 to US 59	Construct 2 lane section with shoulder and railroad grade separation	\$32,599,694
X-19	Prop. Outer Loop	SH 359 to Loop 20 (Cuatro Vientos)	Construct 2 lane section with shoulder (Phase 1)	\$53,635,677
X-20	Prop. Outer Loop	IH-35 to US 59	Construct 2 lane roadway	\$60,866,165
X-21	Prop. Outer Loop	SH 359 to Loop 20 (Cuatro Vientos)	Upgrade to a 4 lane divided facility (Phase 2), including intchg at Loop 20 (Cuatro Vientos)	\$78,396,782
X-22	Prop. Outer Loop Spur	Loop 20 to Prop. Outer Loop	Construct 2 lane roadway	\$102,139,844
X-23	Prop. Outer Loop	Loop 20 (Cuatro Vientos) to US 83	Construct 4 lane divided facility with an interchange at US 83	\$45,051,346
X-24	Clark Blvd (Spur 400)	Loop 20 to Prop. Outer Loop	Construct new 5-lane road	\$125,366,287
X-25	US 83	At Prop. Outer Loop	Construct 2 direct connectors - NB US 83 to EB Outer Loop and WB Outer Loop to SB US 83	\$63,104,581
X-26	Market St	At Tex-Mex Railroad	Construct railroad grade separation	\$10,000,000
X-27	Corpus Christi St	At Tex-Mex Railroad	Construct railroad grade separation	\$10,000,000
X-28	IH 35 SB Frontage Rd (Santa Ursula)	At Tex-Mex Railroad	Construct railroad grade separation	\$10,000,000
X-29	San Bernardo (Bus. Interstate 35)	At Tex-Mex Railroad	Construct railroad grade separation	\$10,000,000
X-30	IH 35 NB Frontage Rd (Santa Ursula)	At Tex-Mex Railroad	Construct railroad grade separation	\$10,000,000
X-31	Chicago St	At UP Railroad	Construct railroad grade separation	\$10,000,000

**Table 7-6: Other Unfunded Needs (continued)**

ID	Roadway	Limits	Project Descriptions	2010 Total Project Cost
X-32	Scott St	At UP Railroad	Construct railroad grade separation	\$10,000,000
X-33	Sanchez St	At UP Railroad	Construct railroad grade separation	\$10,000,000
X-34	Seymour Ave	At Tex-Mex Railroad	Construct railroad grade separation	\$10,000,000
<b>TOTAL</b>				<b>\$1,335,640,113</b>

**Figure 7-6: Unfunded Needs**



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# CHAPTER 8: TRANSIT PLAN



## Introduction

In order to provide a comprehensive, multimodal transportation system careful consideration should be given to investment decisions. Infusing monetary resources into roadways and infrastructure that primarily benefit personal vehicular transportation will not provide enough support for alternative transportation such as public transit, bicycling, and walking. Given today's growing concern about the environment and sustainability and changing societal preferences, there is renewed interest for actions that promote secondary transportation choices.

Public transit offers many societal, personal, and environmental advantages. It is the primary transportation option for individuals without access to their own automobile or those who are unable to drive. Personal benefits include cost savings, reduced stress from driving, and increased "down time." Environmental benefits include less vehicle miles traveled, which results in decreased fuel consumption and better air quality.

## Transit Issues

To meet its goals, a transit system must contend with a variety of complexities. A delicate balance between funding, ridership, and service delivery must be achieved in order to operate a successful system. Specifically, transit systems must receive adequate funding to provide quality service and attract ridership to increase revenue sources. In contrast, if funding is insufficient, service suffers and ridership decreases, which in turn causes revenue to drop. Therefore balancing these elements are at the heart of most transit issues and challenges.



The City of Laredo has a robust transit system and consistently ranks at or near the top of similarly sized transit agencies in measures of system utilization. According to a peer analysis completed for the *Laredo Transit Development Plan*, El Metro's fixed route services were above average for cost effectiveness, productivity, and ridership levels per capita, with passenger boardings twice as high as the national average and three times as high as other systems in Texas.

El Metro's productive and efficient transit service success is in part due to the large number of Nuevo Laredo residents that utilize the system daily. Further reasons for the system's success include the relatively dense land uses and a large captive population without access to other means of transportation.

Among the more important issues that El Metro will be facing during the upcoming years include the following:

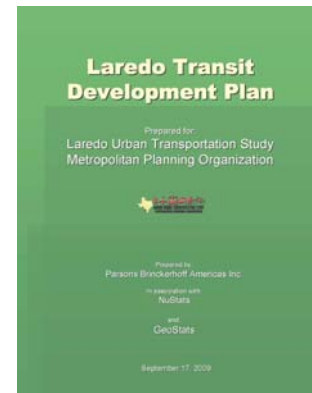
- **More customers:** Population projections show a growing transit-dependent population, especially in growth areas in South Laredo.
- **More service needs:** Recent ridership surveys conducted during the *Laredo Transit Development Plan* process revealed concerns about frequency of service, slowness of buses, and the length of wait; suggested improvements included more frequent services and longer service hours
- **Higher costs:** While the dramatic spike in fuel cost during 2008 has subsided, fuel and other costs are expected to rise. In response to higher costs, the city of Laredo
- **Less funding:** Decrease in federal and state operation funding assistance are likely to result from the fact that the 2010 census will set the population of the Laredo region over 200,000.
- **Less ridership and less fare revenues:** Recent El Metro data shows a marked decrease in transit ridership and fare revenues from 2008 to the first half of 2009 due to the current economic conditions. This further reduces the funding available to maintain the existing service.

These challenges are further underscored by the already weakened overall economic conditions which make finding other funding sources more difficult. New sources of revenue and other funding strategies will be needed to meet the transit demands in the future as well as maintain the existing transit service.

### ***Laredo Transit Development Plan***

In order to enhance Laredo's transit system, the MPO commissioned a transit development plan to recommend improvements over a five year period. Highlights of the plan's recommendations include the following:

- Consider fare increases and limited service reductions to address the recent ridership and fare revenue losses.
- Refine and optimize current bus schedules to provide reliable service for patrons.
- Stagger arrival times of routes with the most frequent services at the Transit Center in order to decrease bus congestion.
- Continue to recognize service expansion needs and consider the city's future planning efforts such as their thoroughfare and land use plans.





- Consider restructuring and consolidating routes that provide similar services. This is especially targeted at the San Bernardo corridor and includes a “Linear Hub” that reorganizes six current routes into two: one to serve local needs along San Bernardo and the other to provide express service on IH-35.
- Replace the current Downtown Trolley route with a new downtown circulation system.
- Initiate a major route restructuring study to determine the feasibility of the San Bernardo Linear Hub concept and other route improvements that would improve operational efficiency and level of service.
- Reduce expenditures for paratransit by establishing stricter eligibility requirements through an interview method and evaluate the feasibility of contracting paratransit services through taxicab operators.
- Consider recommended marketing strategies and prepare and implement such transit marketing programs.
- Provide real-time passenger trip planning service.
- Make certain capital improvements, including new bus stops and shelters and a new operations and maintenance facility.

### ***Captive and Choice Riders***

Users of public transportation services can be divided into two general types of riders: captive riders and choice riders. Captive riders usually have no other choice but to use public transit and consist of people without access to other means of transportation, persons with disabilities, and individuals who are otherwise unable to transport themselves. In these situations, transit is an integral component of the transportation system. It enables many people to access jobs, education, medical care, and other needed services. In contrast, choice riders have other means of transportation at their disposal. They may use transit for a variety of reasons, including cost savings, convenience, or environmental cognizance. Attracting additional choice riders is a challenge for many public transit systems in small to medium sized urban areas where roadway congestion or parking prices are not a significant problem or where a stigma or negative perception of transit is attached to using the system. In addressing future mobility issues, transit must offer a competitive alternative to the personal automobile.



## **Ridership Factors**

The following characteristics are important considerations for attracting “choice” riders:

- Cost of service
- Travel time
- Directness of travel
- Number of transfers required
- Frequency of service
- Service hours
- Suitability of routes for desired trips
- Transit stop amenities, such as bus shelters, seating, route and service information, and lighting
- Proximity to origin and destination
- General walking environment

## **Growing Elderly Population**

As the population ages, it will become more imperative to consider additional transportation options for those individuals not able to operate their own vehicle. Public transit and special mobility services, such as demand-response paratransit services, will enable a growing elderly population to continue to engage in the community and receive needed medical and support services. However, the cost borne by the public for increasing specialized transportation services can be extensive. Therefore, it will become vital to coordinate services and funding through a collaboration of many providers, such as medical, social, human services, and faith-based groups. Recognizing the importance of the transportation of our nation’s elderly and disabled population, the Federal Transit Administration provided formula-based funding to states to assist private non-profit organizations in meeting the transportation needs of our senior and physically disabled citizens.

## **Best Practices for Public Transit**

A wide variety of best practices exists to ensure successful operation of a public transit system. In order to address the transit-related challenges of the Laredo region, the MPO will pursue the following “toolbox” of policies, strategies, and actions, along with recommendations presented in the *Laredo Transit Development Plan*.

## **Continually Reevaluate Transit Operations**

To promote a balanced transit system, it is necessary to continually assess overall system and route-level performance. Understanding the tradeoffs involved in changing the number of routes, the frequency of service, and the extent of service hours is important in making strategic decisions about allocating resources. A transit system should also continually evaluate its transit coverage as it relates to the region’s growth from new development.

As development occurs, a transit system should determine the feasibility of extending coverage to newly populated areas. Expanding system coverage to new areas may attract new riders, but at the same time may lower the level of service to areas or destinations in



higher demand. As such, it is important to continually monitor the location of popular destinations and new development.

Extended service hours, higher service frequencies, additional routes, and expanded coverage areas are all more likely to be achieved through improved overall operational efficiency, more direct routes, better accessibility, and increased schedule reliability. In short, providing the broadest, most efficient, and most reliable service can greatly improve system operations and, in turn, increase ridership. Furthermore, simple concepts, such as longer spacing between bus stops and transit priority at signalized intersections, can help improve transit speed.

El Metro will continue to employ best practices to increase operational efficiency in order to maximize services to the benefit of its users. Currently, El Metro operates 49 buses for its 22 fixed bus routes. It also operates two Chance Trolleys and 18 diesel-powered vans for its El Lift ADA paratransit service. The buses have stop announcements, both audible and visual, at major stops, intersections, and transfer points along the route to assist passengers. El Metro has also installed electronic fare payment on all buses and is working towards adding Automated Vehicle Location (AVL) and security cameras to their fleet. Currently, 17 buses have cameras with on-board recording, and plans are to have all new buses equipped with cameras in the future

### ***System Preservation and Maintenance***

Maintenance is an important activity for the operation of a transit system for the purpose of extending the useful life of vehicles, equipment, and facilities. Such maintenance is also critical to passenger comfort and transit service reliability. Vehicles in poor condition (e.g., torn seats, broken wheelchair lifts, or poor temperature control) affect the comfort of transit patrons. On-street boarding locations that fall into disrepair affect safety and accessibility. Vehicle breakdowns may cause severe hardships to transit patrons, affecting future ridership.



Examples of vehicle maintenance programs are the following:

- **Daily Service** - Pre-trip inspections prior to operating a vehicle in public service and post-trip inspections upon return to the operating facility are conducted by bus operators. Inspections can detect problems in areas such as lighting, tires, and safety equipment before failures occur while the vehicle is in service. The bus operators also monitor the operating condition of the vehicle throughout the operating day. All defects are documented on vehicle condition reports, and corrective action will be taken before the vehicle is returned to service.
- **Periodic Inspection** - These inspections are generally performed on a mileage basis, and cover all major components of the vehicle. They are designed to provide maintenance personnel an opportunity to detect and repair damage or wear conditions before major repairs are necessary. They will include, at a minimum, inspection of suspension elements, leaks, belts, electrical connections, tire wear, and any noticeable problems.

- **Interval Related Maintenance** - Specific components are inspected on an interval basis to identify wear, alignment, or deterioration problems of parts or fluids. The interval maintenance program includes lubricating oils and filters, alignment, tires, steering components, engine, transmission, and brakes.

Even with regular, routine maintenance, transit vehicles reach the end of their useful service life. Although El Metro preserves and maintains their bus fleet on an as-needed basis, they still must invest in new vehicles and equipment. Presently, El Metro is in the process of acquiring, through a joint ARRA funded effort with one or more other transit entities, six new 35 foot low-floor and six 40 foot low-floor diesel fueled buses. Also, El Lift recently received 18 new diesel-powered paratransit buses with on-board surveillance cameras.

The north Laredo transit hub will also include a new operations and maintenance facility. Other maintenance and system preservation projects include vehicle replacement for fixed route and paratransit services, bus lift replacements, maintenance equipment and general preventive maintenance.

### ***Land Use and Development Considerations***

Transit service is most effective where land development patterns are compact, densely populated, and include a mix of uses. Transit service also requires direct pedestrian connections between transit stops and origins and destinations. As such, considerations for pedestrians should coincide with development considerations for transit users.

The City of Laredo should support land use design standards, policies, and principles which promote more pedestrian and transit friendly developments and more sustainable growth patterns. The MPO should consider whether a “business as usual approach” will be sustainable and should well consider the problems of other regions in Texas which have undergone a similar pattern of explosive growth. Investments in a multimodal transportation system, which include enhancements to the transit system, are needed to support an increased quality of life for all citizens.

### ***Transit Amenities***

Offering certain facilities and other amenities to transit users may greatly enhance the transit experience in order to further promote transit usage. Park-and-ride facilities in strategic locations can act as important anchors to the regional transit system, serving as satellite hubs for local, intercity, and regional transit services. Enhanced transit centers with amenities such as weather protection, passenger information, and vending machines provide additional incentives for regional and local riders. Furthermore, transit stops with bus shelters, signage, and passenger information enhance the attractiveness, comfort, and safety of the transit system. On the vehicles themselves, amenities such as bike racks and automated route information improve the experience of traveling customers. El Metro currently offers such amenities, but additional ones are needed. Projects in this



MTP include additional bus shelters and two new transit centers to further satisfy the needs of transit users.

### ***Integrating Transit Considerations with Designing Roadway Improvements***

A transit system must be considered in conjunction with other modes in a multimodal transportation system. For example, a bus requires a roadway upon which to operate, which require adequate surfaces, conditions, and other design features which can accommodate large transit vehicles. Congested roadways with poorly engineered street systems and traffic signals degrade transit service. Lastly, transit users are also most likely pedestrians at some point during their trip, and therefore must also have adequate sidewalks, transit stops, safe street crossings, and proper lighting to safely and efficiently conduct their travel. Certain roadway improvements included in this plan, such as the grade separation of railroad tracks and roadways, will significantly increase transit performance in areas where the railroads pose a barrier in mobility.

### ***Intelligent Transportation Systems (ITS) for Transit***

ITS enhancements should be considered when developing improvements for achieving increased efficiency of the transit system. For example, technology that enables signal preemption for buses increases the speed of transit service. Instant traveler information technology informs patrons more reliably when the next bus will arrive. Such investments may be more cost effective in order to increase the efficiency and attractiveness of the system. Projects in this MTP which include ITS enhancements are the AVL-GPS technology for El Lift vehicles and additional security equipment for buses.

### ***Coordination among Transit Entities***

Transit service providers in a region should coordinate and collaborate as much as possible to reduce the occurrence of repeated services. In particular, each region is mandated by the federal government to produce a coordinated regional service plan. Coordination of existing services and general improvements to public transportation services in the South Texas Planning Region, of which Webb County is a part, are provided in the *South Texas Planning Region Public Transportation Coordination Plan*. Some of the recommendations and issues discussed relevant to the Laredo metropolitan planning area include:



- Increasing transfer points between El Aguila and El Metro
- Extending services to highly needed areas such as the colonias in the more rural areas
- Extending El Aguila routes to service destinations along the Bob Bullock Loop
- Providing new transit service to access major employment centers along Mines Road near Loop 20

- Providing vanpools along some major corridors may be a viable option as census data indicates a higher propensity to rideshare
- Offering Dial-a-Ride service for more rural areas and also for after-hour, fixed route service needs
- Targeting projects that use JARC, New Freedom, and Section 5310 funds for low-income individuals, persons with disabilities, and the elderly
- Identifying local funding sources to match federal spending in rural areas
- Establishing a mechanism such as a Memorandum of Agreement to enable different transit providers to enter into agreements to coordinate services and reduce duplication of services
- Establishing a forum, such as an internet webpage or telephone support, that provides a “one stop shop” for transit services offered in the region
- Providing a mentoring and support program initiated by El Aguila and El Metro for small transit operators that provide paratransit service

### **Marketing**

To attract additional ridership, transit service providers should develop a comprehensive marketing program to promote transit usage. The marketing program should advertise the extent of transit amenities and educate the region about the benefits of using mass transit. Moreover, the marketing program can target existing or potential customers such as college students and residents of new developments.



### **Laredo Transit Plan**

Providing a multimodal transportation system with convenient and viable options is an integral component of the quality of life of the region. The purpose of the transit projects in this plan is to provide strategic investments which will positively affect the transit system. With the 2010 Census officially setting the Laredo region’s population, decreased federal and state funding will result. In anticipation of a drop in funding assistance, El Metro will be raising fares by \$0.15 in November 2009, and also plans to increase fares by another \$0.10 in the fall of 2010. El Metro is also considering privatizing the El Lift paratransit services.

### **Funding and Revenue**

With the 2010 Census officially setting the Laredo region’s population, decreased federal and state funding will result. In anticipation of a drop in funding assistance, El Metro will be raising fares by \$0.15 in November 2009, and also plans to increase fares by another \$0.10 in the fall of 2010. El Metro is also considering privatizing the El Lift paratransit services.

Should these increases in fares not be sufficient to maintain existing service levels, El Metro would need to employ cost cutting measures such as reducing service hours on some

routes, running fewer buses during the off-peak times, and perhaps eliminate some routes all together.

### **Current Funding Priorities**

Based upon current funding projections, fixed route transit service is generally expected to remain at current levels, as the ability of El Metro to provide service is limited to the amount of federal and state operating subsidies it receives. As the city is expecting significant growth to occur over the next 25 years, the MPO will pursue various projects and programs that will help El Metro absorb some of the increases in the demand for travel. Investments in the El Metro system can be divided into four basic categories:

- General operation of the transit service
- Purchase of new vehicles
- Maintenance of existing vehicles
- Construction and expansion of passenger amenities

As shown in Table 8-1, El Metro will make strategic investments in all four categories during the life of this plan in order to provide riders with an efficient and affordable service.

**Table 8-1: Transit Projects (See Figure 8-1)**

<b>Program Names</b>	<b>Project Descriptions</b>
El Metro Operations (MO)	<ul style="list-style-type: none"> <li>• Base level operations from 2010 to 2035</li> <li>• Mobile Data Terminal for Paratransit Fleet: 2010</li> <li>• Security Equipment: 2010</li> </ul>
El Metro Vehicle Replacement Program (MV)	<ul style="list-style-type: none"> <li>• Support vehicle replacement: 2010, 2012, 2020, 2030</li> <li>• Maintenance vehicle replacements: 2010, 2020, 2030</li> <li>• Bus replacement: 2010 (12), 2012 (3), 2015 (6), 2018 (7), 2023 (10), 2028 (12), 2033 (12)</li> <li>• Paratransit van replacement: 2015, 2020, 2025, 2030, and 2035 (18)</li> </ul>
El Metro Vehicle Maintenance Program (MM)	<ul style="list-style-type: none"> <li>• Preventive and regular maintenance from 2010 to 2035</li> <li>• Maintenance Equipment: 2010, 2020, 2030</li> </ul>
El Metro Station and Shelter Program (MA)	<ul style="list-style-type: none"> <li>• ADA signage and sidewalks: 2010</li> <li>• Bus Terminal Facility Improvements: 2010</li> <li>• Bus Shelters: 2010, 2011</li> <li>• North Laredo Transit Hub and Operations/Maintenance Facility: (MA-1)</li> <li>• South Laredo Transit Hub: 2010 (MA-2)</li> <li>• Intercity Bus Terminal: 2012 (MA-3)</li> <li>• San Bernardo Linear Hub: (see C-11, in roadway plan)</li> </ul>

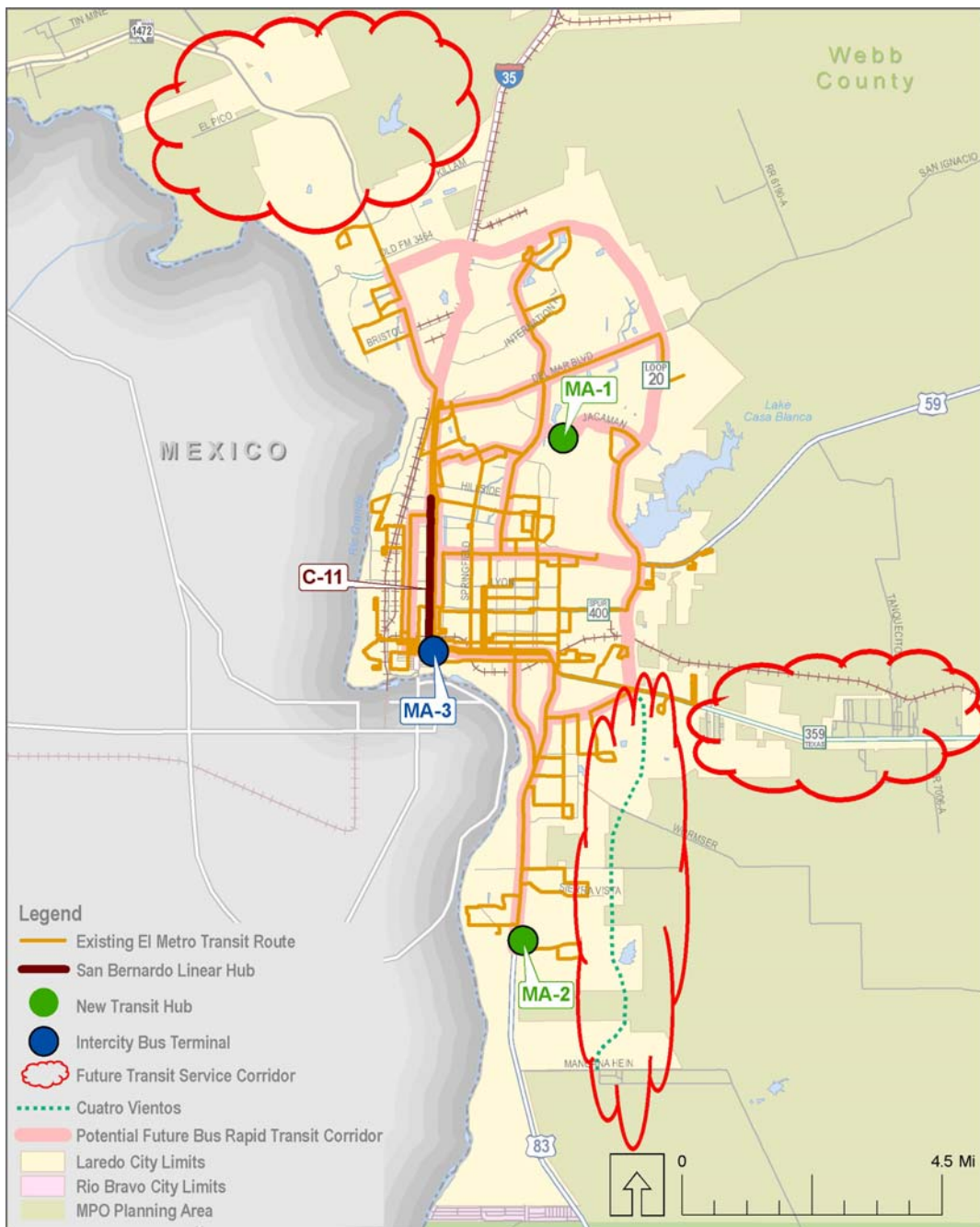
The costs and expected funding sources for these projects are presented in Chapter 10, Financial Plan.

### Future Unfunded Transit Needs

Over time, the MPO and El Metro will monitor the changing transit needs of the city and pursue service expansions when economically feasible. Particular attention will be given to the high-growth areas of the city, including north of Loop 20, along SH 359, and along the Cuatro Vientos corridor in south Laredo. In addition, as demand and growth warrant, the MPO will continue to work towards implementing a bus rapid transit system along major corridors. No specific funding source has been identified for these illustrative projects.

Figure 8-1 depicts the city's current transit system, two planned transit centers, the San Bernardo linear hub, future fixed route service areas, and potential future bus rapid transit corridors.

**Figure 8-1: Transit Plan**



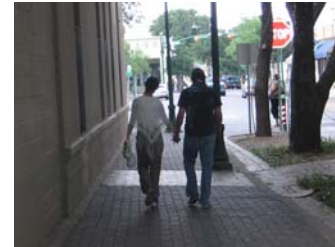


# CHAPTER 9: BICYCLE & PEDESTRIAN PLAN



## Introduction

Bicycling and walking serve as an alternative, affordable means of transportation for a variety of purposes. Pedestrian and bicycle facilities that are safe, accessible, and well connected are important to supporting a high quality of life. They also contribute to environmental and societal enhancements through reduced vehicle miles traveled, decreased roadway congestion, overall improved public health, an increased sense of community, improved mobility for those without access to a personal automobile, reduced air and noise pollution, and improved water quality. Unfortunately, however, pedestrians and bicyclists are often overlooked when planning for transportation improvements and investments.



## Laredo Regional Interest



In the Laredo region, bicycling and walking are important means of transportation. On any given day, the urban core of the city is teeming with shoppers on foot and the presence of cyclists using the roadways and sidewalks for transportation is very evident. Visitors from Nuevo Laredo, students at LCC, and other residents that rely on walking and bicycling to meet their daily transportation needs require a safe experience during their travels. Therefore, paying attention to elements of the system that support walking and bicycling should be an important community goal.

Perhaps native Laredoans do not walk or bicycle as often as their visitors from across the international border. However, although trends show an increase in vehicle ownership and commuting alone to work in the Laredo region, there is still a significant percentage of the population that relies on other modes of travel rather than the automobile. Compared with Texas and the United States, Web County has a larger percentage of its population that has no access to any vehicle. Therefore, providing transportation infrastructure for other modes besides personal automobiles is essential to creating a comprehensive, multimodal transportation system for the Laredo region.

Lastly, bicycling and walking do not have to be solely for those that do not have the financial means to own their own vehicle, but for anyone that may simply want more options to fulfill their daily travel needs.



## Bicycle and Pedestrian Requirements

To make bicycling and walking viable transportation options, the basic needs of bicyclists and pedestrians must be taken into consideration. Environments that are more conducive to bicycling and walking are those that include mixed and dense land uses and appropriately

scaled infrastructure. In addition to having safe, ADA-compliant facilities for individuals with disabilities, a quality pedestrian environment should provide direct paths, be continuous, have safe crossings, have visual interest, and offer various amenities.

Pathways along an interconnected network of streets generally offer more direct travel to destinations than curvilinear and cul-de-sac streets. Street crossings should be well-designed, visible, and contain crosswalks and signal activation devices where appropriate. Additionally, street crossings that incorporate raised medians and innovative design features such as bulbouts, which act as extensions of the pedestrian network into the roadway, make crossing streets safer for pedestrians. Streets that provide visible interests and amenities such as street furniture and trees encourage more people to walk. Also, a sense of safety and security is achieved through such features as street lighting, pedestrian signs, and other visibility-related design features.



The needs for bicyclists are closely related to those of pedestrians. In general, bicyclists are made up of advanced, basic, and child users. As such, bicycle facilities should accommodate the needs of each level of users. Various bicycle facility options include shared lanes, striped lanes, multi-use paths, and signed routes. Shared lanes are usually wider outside lanes that provide additional room to accommodate bicyclists, while striped lanes are narrow lanes for the exclusive use of bicyclists and contain markings to indicate their designated use. Multi-use paths are typically asphalt, concrete, or gravel pathways that run adjacent to roadways and can be shared by both pedestrians and bicyclists. Signed routes are created in cases where no room exists to create additional space for bicyclists and are often on less congested streets with reduced traffic speeds. Basic and child bicyclists may feel more confident utilizing multi-use paths and striped lanes; while more advanced users may travel safely on shared lane facilities.



A bicycle transportation network should meet certain requirements to ensure that bicycling is safe, convenient, and efficient for both utilitarian travel and recreational purposes. Hazards include a lack of proper lighting, overhead obstructions, vehicular traffic, drainage grates, and conflict with other users such as pedestrians. The bicycle network itself should be direct and provide adequate connections between popular destinations, as well as access to public transit routes.



Clear and consistent route signage not only assists bicyclists in way-finding, but also helps motorists be aware of the presence of bicyclists. Bicycle parking that is safe, secure, and convenient is critical at popular destinations. Ancillary facilities, such as showers and lockers at places of employment, are also important for those that travel to work.

Four critical components augment the success of a non-motorized transportation system: engineering, education, encouragement, and enforcement. Proper engineering and design of roadways incorporating a multimodal environment are vital in promoting a successful pathway network. Educational programs that administer information about the correct and safe way of traveling by foot or bicycle and that make motorists aware of “sharing the road” with different types of transportation uses are imperative for transportation safety. This is further complemented by the enforcement of traffic laws that relate to the interaction between motorists and pedestrians and bicyclists.

## **Best Practices for Bicycle and Pedestrian Planning**

Several best practices exist concerning the proper planning of bicycle and pedestrian facilities. Similar to the other modes of transportation, this “toolbox” of policies, strategies, and actions can assist in advancing bicycle and pedestrian transportation in the region.

### ***Integrating Land Use and Transportation***

Land use and transportation planning should be integrated to make communities livable and accessible for walking and bicycling. Standards, policies, and guidelines should be developed in order to support a safe, walkable, and bicycle-friendly environment. Land uses and street configurations most conducive to bicycling and walking are concentrated in mixed-use, dense, compact developments with a variety of services and facilities. In addition, “complete streets” concepts aid in accommodating pedestrians and bicyclists and encourage additional amenities that promote non-motorized transportation.



Specific policies for land use and transportation considerations may include providing clearly defined, separate lanes for bicyclists in order to create a physical division between motorists and bicyclists. This helps to elevate the importance of bicycling as a legitimate form of transportation. Other examples include requiring public rights-of-way for the construction of pathways connecting cul-de-sacs between developments, encouraging schools to include pedestrian and bicycle accessibility issues in new school location decisions, and developing specific requirements for pedestrian and bicycle facilities in town centers, transit corridors, and employment centers.

### ***Maintaining a Database of Bicycle and Pedestrian Facilities***

In order to stay abreast of continuing bicycle and pedestrian needs, it is important for communities to maintain a database of pedestrian and bicycle facilities. This database should first involve creating an inventory of the existing system and contain information as to the conditions and features of the infrastructure. Besides facility conditions and other basic features, the database could also include the location of missing links in sidewalks and pathways, and the conditions of



existing traffic operations and geometric conditions which impact a pedestrian or bicyclist’s decision in using certain roadways. Criteria for determining bicycle and pedestrian levels of

service could also be maintained to evaluate system performance. The database should be updated regularly to help in planning for future improvements to better accommodate bicyclists and pedestrians. The City of Laredo has a good start on a bicycle network inventory, including a basic inventory of existing or committed facilities, as well as proposed facilities. However, the city could benefit greatly by maintaining a detailed sidewalk inventory, especially for the downtown area.

### ***Preserving Future Bicycle and Pedestrian Corridors***

To further assist bicycle and pedestrian efforts, it is prudent to plan for and preserve future bicycle and pedestrian corridors. Strategies include requiring future development to set aside trail and pathway easements, incorporating bikeway right-of-way designations in transportation and master plans, identifying recreational trail corridors in park and community plans, and establishing pathways along utility easements and railroad corridors.

### ***Incorporating Bicycle and Pedestrian Elements into Roadway Projects***

Requiring that new roadways include bicycle and pedestrian elements would also improve non-automobile modes of transportation. This could be achieved through wider outer lanes,



paved shoulders, bicycle-friendly drainage infrastructure, and sidewalks or other types of pathways running parallel to the roadway. Additionally, coordination with TxDOT to ensure such accommodations on new or improved major roadways, bridges, underpasses, at-grade rail crossings, and highway interchanges could better support regional non-motorized transportation. Too often, such enhancements are considered a “luxury” and often get ignored in the name of cost savings.

### ***Marketing and Encouraging Bicycling and Walking***

Marketing non-motorized transportation facilities as strongly-valued community assets may encourage more people to bicycle and walk. In doing so, efforts should focus on bicycling and walking as practical, popular, and mainstream activities that all types of people can enjoy. “Selling points” could include that transportation can be more than just a means of traveling to destinations, but also a fun and recreational experience that can be done safely and at little or no cost. Materials, such as route maps and websites, can be created to promote bicycling and walking and inform people about bicycle-compatible roads, pedestrian-friendly areas, and other bicycle and pedestrian amenities.

### ***Educational/Safety Programs***

To increase bicycle and pedestrian safety, educational programs can be implemented which teach basic pedestrian and bicycling safety issues. Youth can especially benefit from



bicycling and safety education, since they are very likely to walk or bike to school or other destinations. Further, public awareness programs can educate motorists about the importance of sharing the roadway with non-vehicular traffic and other such safety considerations.

### *Safe Routes to School*



Schools can be considerable sources of traffic and congestion, as many parents drive their children to school. In particular, cities should work with school districts to ensure that improvements near schools are designed to minimize conflicts between pedestrians, bicyclists, and motorists by directing students to safer routes to schools. Further, school districts should be encouraged to consult with local governments about transportation circulation and to ensure safe and appropriate pedestrian and bicycle access. Safe Routes to School is a federal program that was implemented through SAFETEA-LU to encourage bicycle and pedestrian safety. It provides funds for pedestrian and bicycle improvements, including those related to safety and education. This program is likely to continue in the future federal transportation legislation and has been heralded as a vital tool in improving safety for children. The Laredo MPO should continue to pursue the development of Safe Routes to School projects for schools and surrounding neighborhoods that are in most need of bicycle and pedestrian infrastructure.

### *Funding*

Funding for proposed bicycle and pedestrian projects is many times the last obstacle to their implementation. While the level of state and federal enhancement grants has varied over time, there appears to be recent renewed interest in funding such projects. Therefore, establishing priorities is critical to the success of the bicycle and pedestrian element of this transportation plan. The MPO can pursue alternative funding sources, such as private sponsorship or the Laredo Development Foundation.



Another option to consider is the development of a Tax Increment Reinvestment Zone. A Tax Increment Reinvestment Zone (TIRZ) is an economic development tool available to Texas cities to help finance public improvements that are needed to promote development or redevelopment in a specific geographic area. The downtown Laredo urban core is one area to consider for a TIRZ. This area is bounded by Santa Maria Avenue, Moctezuma Street, Santa Ursula Avenue, and Water Street and sees the greatest amount of pedestrian traffic in the city.

## Laredo Bicycle and Pedestrian Plan

Presently, the Laredo region has only a few bicycle-only facilities, including an existing route along Clark Boulevard (Spur 400) between Bob Bullock Loop (Loop 20) and Arkansas Avenue and a long bicycle/jogging path along the northbound side of Bob Bullock Loop (Loop 20) from US 59 to University Boulevard. Additionally, the region possesses many qualities that contribute to its ability to attract bicyclists and pedestrians, including a favorable climate, a flat landscape, and good connectivity through its local street network in the central city of Laredo.



However, as in most regions, automobiles are the dominant form of transportation, and bicycling and walking may not be considered viable alternatives for many people in the area. This may be further exacerbated by the presence of unsafe crossings, missing segments in bicycle facilities and sidewalks, design of arterials and major roadways, and a lack of dedicated lanes to give the sense of a visible division between automobiles and bicyclists.

To further encourage and promote bicycling and walking as practical and reasonable options, the MPO will pursue projects included in this MTP that will provide bicycle and pedestrian enhancements. In particular, a major focus has centered on the development of hike and bike trails providing regional connectivity along existing water features, including Chacon Creek and Manadas Creek. These environmental features provide a safe and beautiful corridor and represent exciting new transportation facilities for the residents of Laredo.

The Chacon Creek hike/bike trail will connect the LCC South campus to the southern terminus of the existing Loop 20 trail. Along its path, it will connect to several parks including Santa Rita Park, Benavidez Park, Dryden Park, Villa Del Sol Park, and Eastwoods Park. This trail will greatly benefit students wishing to bicycle from TAMIU to the LCC South campus. Similarly, the Manadas Creek hike/bike trail will begin at United High School and terminate at the Rio Grande River, just west of the intersection of Interstate 35 and FM 1472 (Mines Road). It will connect several schools including the old and new United High Schools, Matias De Llano Elementary School, United Day Elementary School, Malakoff Elementary School, and Borchers Elementary School. Together, these projects will further promote regional connectivity for non-motorized transportation users. Connecting the gap between the northern terminus of the existing trail along Loop 20 to the Manadas Creek trail would effectively create a hike and bike trail loop around the city of Laredo.



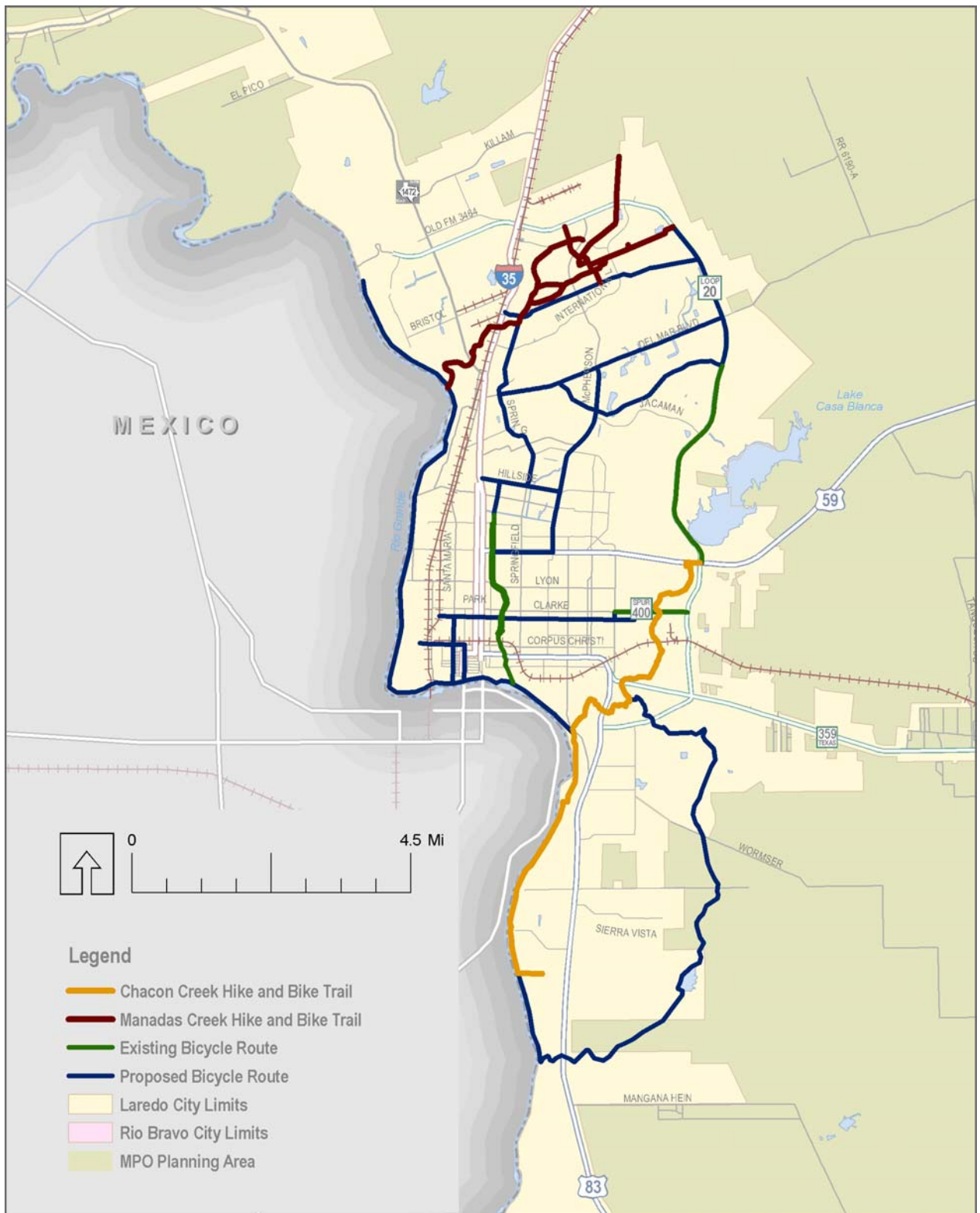
**Table 9-1: Bicycle/Pedestrian Projects (See Figure 9-1)**

<b>ID</b>	<b>Project Name</b>	<b>Limits</b>	<b>Description</b>
P-02	Chacon Creek Hike/Bike Trail	LCC south campus to southern terminus of existing trail along Loop 20	Construct 9.7 mile off-road trail along Chacon Creek
E-01	Manadas Creek Hike/Bike Trail	Rio Grande River (just west of IH35 Mines Rd junction) to United H.S., including spurs	Construct 10.8 mile off-road trail along Manadas Creek

The cost and funding of these projects are presented in Chapter 10, Financial Plan.

Figure 9-1 on the following page presents the area's existing bicycle transportation network, the projects identified in this plan, as well as a long-range vision of additional local access routes that will represent the beginnings of a regional bicycle network.

**Figure 9-1: Bicycle and Pedestrian Plan**





# CHAPTER 10: FINANCIAL PLAN



## Introduction

Funding for our nation's transportation system is at a crossroads. Federal and state transportation revenue streams are rapidly losing pace with needed investments. A few key factors are eroding these sources of revenue. First, state and federal gas taxes have not changed since the early 1990s when the cost of a postage stamp was 29 cents. Second, recent increases in oil prices and an increased trend towards green technology have caused people to adjust their driving habits and buy more fuel-efficient cars. Federal programs such as the recently "successful" Cash for Clunkers program have made strides towards rejuvenating the automobile industry and decreasing emissions, but those advances have come at the cost of decreasing our federal and state transportation revenue.

In addition to these recent trends, SAFETEA-LU recently expired in September 2009, and it could be several months until our nation has a new comprehensive transportation funding bill in place. Regardless of when it is implemented, it is unlikely that it will adequately fund all of our nation's transportation needs. When it is enacted, however, the Laredo MPO stands ready with a prioritized list of transportation improvement projects.

Various suggestions have been made to bolster federal and state transportation funding mechanisms, including increasing the gasoline tax and/or indexing it to the consumer price index, increasing local vehicle registration fees, and imposing a local tax dedicated to transportation improvements. However, such tax increases are typically very politically unpopular. Other suggestions include transitioning to a tax based upon miles driven, rather than gasoline consumed. Technologies to implement this type of solution have been around for years, but concerns over privacy are likely to prevent these solutions from materializing. At the local level, the Texas State Legislature recently declined the opportunity to allow some counties to impose a "local option" tax which would allow local officials to put a tax on the ballot which would raise the gas tax as well as auto registration and licensing fees.

A recent July, 2009 publication, *Funding the Future*, was developed by the Texas Association of MPOs, the Texas Transportation Institute, the Center for Transportation Research, and the Texas Department of Transportation. The purpose of the report was to develop a forecast for transportation finance in the state. The report's main finding is that barring significant changes in policy, future transportation funding will only be available to maintain the existing system, and even then, only at a level that still falls short of the state's roadway condition goals. Future population growth and the likely increases in driving that will follow will be outpaced by the improvements in fuel efficiency.

## Financial Constraint

Federal planning regulations require that the financial plan in Metropolitan Transportation Plans be "financially constrained", meaning that the estimated cost for all transportation improvements presented in the plan cannot exceed the amount of "reasonably expected"

revenues projected from identified funding sources. This requirement ensures that the plan is based upon realistic assumptions and is not merely a “wish list.”

However, developing a financially constrained plan is particularly challenging. For example, during the last MTP update five years ago, it would have been difficult to predict the massive infusion of federal funds made available through the recent American Recovery and Reinvestment Act. Today, projections point towards future funding levels that can barely cover the costs related to operating and maintaining the existing system. Furthermore, new and innovative financing strategies are still emerging and have little to no history that would allow planners to confidently project future funding from those fledgling sources. Simply put, it is very hard to predict the levels and sources of funding 25 years from now.

Nevertheless, the MPO has done a careful analysis of what funds are to be reasonably expected, how those funds may be allocated, and how and when projects will be financed. To be sure, actual funding availability over the next 25 years will depend largely upon future actions and public policy directives initiated at the federal and state levels.

### **Revenue Projections**

The first step in the process of demonstrating financial constraint is to determine what revenues can be reasonably expected over the life of the plan. Most regional roadway projects are financed through federal and state funds which are mostly derived from taxes on fuel and fees from vehicle registration. Transit projects are also funded through federal, state, and local sources, as well as revenue received through fares.

### **Roadway and Bicycle/Pedestrian Funding Revenue**

To assist in financial planning and program administration, TxDOT has developed two high-level funding programs. The first, the Statewide Preservation Program (“Maintain It”), consists of the following three funding categories related to system maintenance:

- **Category 1:** Preventive Maintenance and Rehabilitation
- **Category 6:** Bridge Replacement and Rehabilitation
- **Category 8:** Safety

The second program is the Statewide Mobility Program (“Build It”) which is comprised of the following nine funding categories related to system expansion:

- **Category 2:** Metropolitan Area (for areas over 200,000 population)
- **Category 3:** Urban Area (for areas under 200,000 population)
- **Category 4:** Statewide Connectivity
- **Category 5:** Congestion Mitigation and Air Quality (for non-attainment areas)
- **Category 7:** Metropolitan Mobility/Rehabilitation (for areas over 200,000 population)
- **Category 9:** Transportation Enhancements
- **Category 10:** Supplemental Projects
- **Category 11:** District Discretionary
- **Category 12:** Strategic Priority

Due to the fact that the Laredo region was considered to have a population less than 200,000 at the time of the 2000 Census and is in attainment of air quality standards, the Laredo MPO is not eligible to receive Category 2, Category 5, or Category 7 funds.

In order to estimate the amount of funding that can reasonably be considered to be available over the life of this plan, historical TxDOT construction expenditures in Webb County were gathered from 2006 to 2009. The total sum was first increased by 22.5% to reflect total project cost amounts not reflected in the construction amounts and then divided by four to obtain an annual average for each category. The results of this analysis are shown in Table 10-1.

**Table 10-1: Annual Average Funding Levels by Category, 2006-2009**

<b>System Preservation</b>	<b>Average Annual Amount</b>
Category 1: Preventive Maintenance and Rehabilitation	\$1,238,965
Category 6: Bridge Replacement and Rehabilitation	\$0
Category 8: Safety	\$1,483,755
<b>System Expansion (Mobility)</b>	
Category 3: Urban Area (non-TMA) Corridor	\$8,381,758
Category 4: Statewide Connectivity	\$7,467,984
<b>Other "Build It" Categories</b>	
Category 9: Transportation Enhancements	\$0
Category 10: Supplemental Projects	\$6,418,453
Category 11: District Discretionary	\$7,727,908
Category 12: Strategic Priority	\$0
<b>Total</b>	<b>\$32,718,453</b>

In recognition of TxDOT's recently articulated system preservation goal, which states that 90% of all state roadways will be in "good or better" condition by 2019, the following assumptions were made for anticipated revenues between 2010 and 2019:

- Half of the funds projected for Category 3, Category 4, and Category 11 and 10 % of Category 10 have been reallocated to Category 1
- 25% of Category 4 and 10% of Category 10 have been reallocated to Category 6
- One quarter of the projected funds for Category 11 has been reallocated to Category 3 and one quarter has been allocated to Category 8
- The remainder of Category 4 funds (25%) has been reallocated to Category 3
- The remainder of Category 10 funds has been reallocated to Category 3 (10%) and Category 8 (25%), and Category 9 (45%).

For the years 2020 to 2035, the following assumptions were made:

- All projected Category 10 funds have been reallocated to Category 1
- All projected Category 4 funds have been reallocated to Category 3
- 77.8% of funds projected for Category 11 has been reallocated to Category 1, and 22.2% have been left in Category 6

For the purposes of this plan, TxDOT's funding categories have been consolidated into five main categories: system preservation, bridge replacement and rehabilitation, system expansion, safety, and transportation enhancements. In essence, this amounts to grouping Category 3 and Category 4 together, and allocating Category 10 and Category 11 to specific purposes. Based upon the methodology described above and the consolidation of categories, the projected amount of funding for roadway projects is shown in Table 10-2.

**Table 10-2: Projected Roadway Funding**

Category	2010-2019 Projected Amount	2020-2035 Projected Amount	Total 2010-2035 Projected Amount
System Preservation	\$136,692,663	\$218,709,781	\$355,402,444
Bridge Replacement and Rehabilitation	\$25,088,412	\$27,449,529	\$52,537,941
System Expansion (Mobility)	\$86,316,971	\$253,595,863	\$339,912,834
Safety	\$50,203,452	\$23,740,082	\$73,943,534
Transportation Enhancements (Bicycle/Pedestrian)	\$28,883,037	\$0	\$28,883,037
<b>Total</b>	<b>\$327,184,535</b>	<b>\$523,495,255</b>	<b>\$850,679,790</b>

### Transit Funding Revenue

El Metro services are funded through Section 5307, Urbanized Area Formula Grant Program, with state and local contributions. These funds can be used for operations, planning, and maintenance activities. However, the Census 2010 will likely prevent §5307 federal funds from being used to finance operations, and will likely eliminate contributions from the state.

In order to estimate future revenue for El Metro transit services, recent §5307 funding allocations and expenditures were used as a baseline. Then, modest 5% increases were assumed to occur once every five years. Starting with \$12,135,00 in 2010, split up between federal (34%), state (5.25%), and local (60.75%) sources, the percent increases start in 2015, and are again assumed in 2020, 2025, 2030, and 2035. However, beginning in 2012, state contributions have been assumed to be replaced by increased revenues from increased fares.

New El Metro vehicles are funded by §5309 (Capital Investment Program) funds. While §5309 funds are discretionary, the MPO is relying upon the availability of §5309 funds to make vehicle purchases, to construct the South Laredo Hub, and add on to construct an intercity bus station, during the life of this plan.

**Table 10-3: Projected Transit Funding**

Category	2010-2019 Projected Amount	2020-2035 Projected Amount	Total 2010-2035 Projected Amount
<b>Operating, Planning, and Maintenance</b>			
§5307	\$42,290,475	\$76,966,345	\$119,256,820
State (2010 and 2011)	\$1,274,175	\$0	\$1,274,175
Local/Fares	\$80,819,100	\$149,405,257	\$230,224,357
<b>Subtotal</b>	<b>\$124,383,750</b>	<b>\$226,371,602</b>	<b>\$350,755,352</b>
§5309 (Capital)	\$54,450,000	\$21,350,000	\$75,800,000
New Freedom	\$375,000	\$0	\$375,000
<b>Subtotal</b>	<b>\$54,825,000</b>	<b>\$21,350,000</b>	<b>\$76,175,000</b>
<b>Total</b>	<b>\$179,208,750</b>	<b>\$247,721,602</b>	<b>\$426,930,352</b>

### **Cost Estimates**

Federal planning regulations require that project cost estimates include the cost of the total project and account for inflation. Cost estimates for all roadway and bicycle/pedestrian projects were carefully prepared using a consistent methodology and locally derived unit cost estimates. In addition, total project cost was calculated based upon project-specific factors developed in cooperation with staff from the Texas Department of Transportation’s Laredo District. To account for preliminary engineering, construction engineering, contingencies, and indirect costs, the following set of percentages were developed:

- Preliminary Engineering = 5.0%, if construction cost is greater than \$10m  
6.5%, if construction cost is between \$5m and \$10m  
8.0%, if construction cost is less than \$5m
- Construction Engineering = 4.9%, regardless of construction cost
- Contingencies = 5.0%, regardless of construction cost
- Indirect Costs = 7.0%, regardless of construction cost

Taken together, these “other” costs range from 21.9% to 24.9% of the total cost of a project. In addition, a 4% compounded rate to account for the effect of inflation was applied to all base year (2010) project costs to estimate future year of expenditure costs.

To estimate the year of expenditure, a cash-flow analysis was performed in order to ensure adequate revenue had been generated before the project costs were incurred. This conservative approach pushed many projects in the latter years of the plan. However, this is a more reasonable approach than assuming all anticipated funding is immediately available and basing year of expenditure simply on the amount of time for project development.

### **Estimated Revenue vs. Estimated Costs**

Tables 10-4 and 10-5 demonstrate that the Laredo MPO’s 2035 long-range Metropolitan Transportation Plan is financially constrained. In other words, the revenue anticipated during the life of this plan is adequate to cover the projected costs.

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**Table 10-4: Roadway and Bicycle/Pedestrian Fiscal Constraint**

									System Preservation	Bridge	System Expansion	Safety	Transp. Enhancements	Total
<b>Expected Revenue 2010-2019</b>									\$136,692,663	\$25,088,412	\$86,316,971	\$50,203,452	\$28,883,037	\$327,184,535
<b>Expected Revenue 2020-2035</b>									\$218,709,781	\$27,449,529	\$253,595,863	\$23,740,082	\$0	\$523,495,255
<b>Total Revenue</b>									<b>\$355,402,444</b>	<b>\$52,537,941</b>	<b>\$339,912,834</b>	<b>\$73,943,534</b>	<b>\$28,883,037</b>	<b>\$850,679,790</b>
ID	Roadway	Limits	Description	2010 Constr. Cost	% Other Costs	Total Cost	YOE	YOE Cost						
R-01	Loop 20	SH 359 to Los Presidentes	Install Raised Median	\$541,100	27.68%	\$690,876	2012	\$747,252				\$747,252		\$747,252
R-02	US 59	Ejido Ave to Loop 20	Install raised median	\$899,199	27.68%	\$1,148,097	2012	\$1,241,782				\$1,241,782		\$1,241,782
B-01	Meadow St	At Tex-Mex Railroad crossing	Replace bridge	\$6,626,000	22.68%	\$8,128,777	2013	\$9,143,768		\$9,143,768				\$9,143,768
R-03	Interstate 35	3.866 miles North of LP 20/IH 35 to 0.50 miles North of Uniroyal Road	Install roadway illumination	\$1,081,600	23.68%	\$1,337,723	2013	\$1,504,756				\$1,504,756		\$1,504,756
R-04	Interstate 35	0.25 miles North of Loop 20 to 3.9 miles North of LP 20/IH 35	Install roadway illumination	\$1,081,600	23.68%	\$1,337,723	2013	\$1,504,756				\$1,504,756		\$1,504,756
R-05	US 83 (Chihuahua)	IH 35 to SH 359	Widen to add 1 lane	\$19,173,307	22.68%	\$23,521,813	2015	\$28,617,882			\$28,617,882			\$28,617,882
R-06	US 83 (Guadalupe)	IH 35 to SH 359	Widen to add 1 lane	\$19,173,307	22.68%	\$23,521,813	2015	\$28,617,882			\$28,617,882			\$28,617,882
E-01	Manadas Creek Hike and Bike Trail	Rio Grande River NW of water treatment plant to United H.S.	Construct Hike and Bike Trail	\$15,000,000	22.68%	\$18,402,000	2020	\$27,239,455					\$27,239,455	\$27,239,455
R-07	Loop 20	IH 35 to McPherson Road	Construct mainlanes	\$34,860,557	20.68%	\$42,069,720	2021	\$64,764,401			\$64,764,401			\$64,764,401
B-02	US 59	At Zacate Creek/San Francisco Ave	Replace existing bridge	\$10,585,465	22.68%	\$12,986,249	2022	\$20,791,403		\$20,791,403				\$20,791,403
R-08	Loop 20	At McPherson	Construct overpass and ramps	\$23,240,372	22.68%	\$28,511,288	2024	\$49,372,327			\$49,372,327			\$49,372,327
R-09	Loop 20	At Laredo International Airport	Construct overpass and ramps	\$36,679,968	20.68%	\$47,765,385	2026	\$89,463,671			\$35,712,669	\$53,751,002		\$89,463,671
B-03	Convent Ave	At Rio Grande River	Rehabilitate bridge	\$4,302,085	23.68%	\$5,320,818	2028	\$10,779,002		\$10,779,002				\$10,779,002
B-04	Sanchez St	At Zacate Creek	Replace bridge	\$500,000	27.68%	\$638,400	2029	\$1,345,013		\$1,345,013				\$1,345,013
B-05	Mangana Hein Road	At Becerra Creek	Replace bridge	\$200,000	27.68%	\$255,360	2029	\$538,005		\$538,005				\$538,005
R-10	Loop 20	At Del Mar	Construct overpass and ramps	\$14,525,232	22.68%	\$21,319,555	2029	\$44,917,086			\$44,917,086			\$44,917,086
B-06	Wormser Road	At Dolores Creek	Replace bridge	\$425,818	27.68%	\$543,684	2030	\$1,191,280		\$1,191,280				\$1,191,280
R-11	Loop 20 (Cuatro Vientos)	Mangana-Hein Road to US 83 at Rio Bravo	Construct 2 lane roadway	\$8,890,752	22.68%	\$13,567,175	2031	\$30,916,444			\$30,916,444			\$30,916,444
B-07	Las Tiendas Road	At Tejones Creek to Isabel Creeks and Palito Blanco Arroy	Replace bridge	\$1,614,000	23.68%	\$1,996,195	2033	\$4,920,053		\$4,920,053				\$4,920,053
R-12	Loop 20	At Shiloh	Construct overpass and ramps	\$14,525,232	22.68%	\$21,319,555	2035	\$56,834,443			\$56,834,443			\$56,834,443
2010-2035 Various Grouped CSJ Projects								\$355,402,444	\$355,402,444			\$15,193,986		\$370,596,429
<b>Total Costs</b>									<b>\$355,402,444</b>	<b>\$48,708,523</b>	<b>\$339,753,135</b>	<b>\$73,943,534</b>	<b>\$27,239,455</b>	<b>\$845,047,091</b>
<b>Balance</b>									<b>\$0</b>	<b>\$3,829,418</b>	<b>\$159,699</b>	<b>\$0</b>	<b>\$1,643,581</b>	<b>\$5,632,700</b>

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**Table 10-5: Transit Fiscal Constraint**

Expected Revenue	Ops, Plng, Maint, & Facilities	Vehicle Replacement/Stations	Total
2010 – 2019	\$124,383,750	\$54,825,000	<b>\$179,208,750</b>
2020 – 2035	\$226,371,602	\$21,350,000	<b>\$247,721,602</b>
<b>Total</b>	<b>\$350,755,352</b>	<b>\$76,175,000</b>	<b>\$426,930,352</b>
Year	Ops, Plng, Maint, & Facilities Cost	Vehicle Replacement/Stations	Total
2010	\$12,135,000	\$375,000 (ADA signage and sidewalks) \$5,000,000 (MA-1: N. Laredo) \$4,200,000 (12 buses) \$3,000,000 (MA-2: South Laredo Hub)	\$24,710,000
2011	\$12,135,000	\$5,000,000 (MA-1: N. Laredo)	\$17,135,000
2012	\$12,135,000	\$5,000,000 (MA-1: N. Laredo) \$975,000 (3 buses) \$200,000 (2 support vehicles) \$15,000,000 (MA-3: Intercity Bus Terminal)	\$33,310,000
2013	\$12,135,000	\$5,000,000 (MA-1: N. Laredo)	\$17,135,000
2014	\$12,135,000	\$5,000,000 (MA-1: N. Laredo)	\$17,135,000
2015	\$12,741,750	\$2,100,000 (6 buses) \$1,350,000 (18 paratransit vans)	\$16,191,750
2016	\$12,741,750		\$12,741,750
2017	\$12,741,750		\$12,741,750
2018	\$12,741,750	\$2,625,000 (7 buses)	\$15,366,750
2019	\$12,741,750		\$12,741,750
2020	\$13,378,838	\$250,000(2 support/ maintenance vehicles) \$1,440,000 (18 paratransit vans)	\$14,978,838
2021	\$13,378,838		\$13,378,838
2022	\$13,378,838		\$13,378,838
2023	\$13,378,838	\$4,000,000 (10 buses)	\$17,378,838
2024	\$13,378,838		\$13,378,838
2025	\$14,047,779	\$1,530,000 (18 paratransit vans)	\$15,577,779
2026	\$14,047,779		\$14,047,779
2027	\$14,047,779		\$14,047,779
2028	\$14,047,779	\$5,100,000 (12 buses)	\$19,147,779
2029	\$14,047,779		\$14,047,779
2030	\$14,750,168	\$300,000(2 support/ maintenance vehicles) \$1,620,000 (18 paratransit vans)	\$16,670,168
2031	\$14,750,168		\$14,750,168
2032	\$14,750,168		\$14,750,168
2033	\$14,750,168	\$5,400,000 (12 buses)	\$20,150,168
2034	\$14,750,168		\$14,750,168
2035	\$15,487,677	\$1,710,000 (18 paratransit vans)	\$17,197,677
<b>Total Costs</b>	<b>\$350,755,352</b>	<b>\$76,175,000</b>	<b>\$426,930,352</b>

## Other Financing Techniques

In 2003, the Texas Legislature passed HB 3588. The bill provided local officials the necessary tools to develop and improve Texas' transportation infrastructure including Regional Mobility Authorities (RMAs), the Texas Mobility Fund, bonding authority, TxDOT's participation in rail operations, statewide coordination of public transportation, innovative toll financing, and transportation fund allocation. The legislation gave local authorities more power and provided them with innovative techniques to finance transportation improvements allowing projects to be planned and built at a much faster rate.

The 80<sup>th</sup> Texas Legislature passed SB 792. The bill included a moratorium on Comprehensive Development Agreements (CDAs) and created a special joint legislative study commission. The moratorium prohibits the execution of CDAs that would permit non-public entities from managing or collecting tolls on a toll road in Texas. The moratorium was in effect until September 1, 2009. It excluded certain projects in the Dallas/Fort Worth, San Antonio, Houston, El Paso, and Grayson County area, and the southernmost end of the proposed IH 69 project, which is envisioned to possibly be in Laredo.

### *Border Infrastructure Funding*

Due to its locations along the United States-Mexico Border, the Laredo MPO is from time to time also eligible to receive special funds set aside for the improvement of border infrastructure related to safety and security measures. The Coordinated Border Infrastructure Program is an example of this type of funding. From 2005 through 2009 there were \$833 million available for the 15 international land Border States. The funds required a 20 percent local match and are available for Interstate projects to add high occupancy vehicle or auxiliary lanes, but not other lanes. Additionally, certain safety improvements are eligible for up to 100 percent federal share. These funds can be used for:

- Improvements in a border region to existing transportation and supporting infrastructure that facilitate cross-border motor vehicle and cargo movements
- Construction of highways and related safety and safety enforcement facilities in a border region that facilitate motor vehicle and cargo movements related to international trade
- Operational improvements in a border region, including improvements relating to electronic data interchange and use of telecommunications, to expedite cross border motor vehicle and cargo movement
- Modifications to regulatory procedures to expedite safe and efficient cross border motor vehicle and cargo movements
- International coordination of transportation planning, programming, and border operation with Canada and Mexico relating to expediting cross border motor vehicle and cargo movements

### *Texas Mobility Fund*

The Texas State Legislature created the Texas Mobility Fund in order to accelerate completion of TxDOT projects and improvements. The Fund allows the state to issue bonds,

which is backed by a dedicated revenue source. HB 3588 authorizes certain transportation related fees such as motor vehicle inspection fees and driver's license fees to be moved from the state's General Revenue Fund to the Texas Mobility Fund.

### ***Bonds***

Bonds allow the state to borrow money to pay for projects over time. Bonds are secured by the existing State Highway Fund and the state can leverage up to \$3 billion for transportation projects. Proceeds from bonds would be used to fund highway improvements with at least \$600 million dedicated to safety projects. At the time of the writing of this plan TxDOT was still contemplating how to precisely use these funds.

### ***Toll Roads***

A toll road is the fastest method to generate revenue, which means projects can start sooner and finish quicker, reducing construction delays. Toll equity allows state funds to be combined with other funds to build toll roads. Toll Conversion allows the commission to transfer segments of any non-tolled state highway to a county or regional toll authority for operation and maintenance providing local authorities another option that can accelerate maintenance and expansion improvements. SB 220 passed in April 2009 placed further parameters around toll conversion. It allows the reconstruction of an existing tax-financed state highway with tolls if and only if the same or more un-tolled lanes are provided as existed prior to reconstruction.

### ***Regional Mobility Authority***

Regional Mobility Authorities (RMA) can construct, maintain, and operate transportation projects. RMAs can generate revenue through issuing bonds and collecting tolls. Additionally, RMAs can purchase right-of-way and lease portions for use by businesses including hotels, restaurants, and gas stations. Significant dialog has occurred to establish an RMA within the Laredo region; however, one has yet to be officially constituted.

### ***Comprehensive Development Agreements***

A Comprehensive Development Agreement combines all phases of a toll road project into one contract. This includes the design, construction, right of way acquisition, and maintenance phases of a typical project. By combining them all into one contract, it also helps reduce the cost of completing a project and accelerates its completion. A moratorium on CDAs was in effect through September 1, 2009. Pending any new legislation to extend this moratorium, this will remain an innovative financing tool for the Laredo MPO.

### ***Pass-Through Toll Agreements***

This type of agreement is where the driver pays no tolls. Rather, a local government or private entity makes a transportation improvement and is reimbursed from the state based on the number of vehicles using the highway. This allows the local area more funding to complete projects quicker while providing a more "fair" way to allocate funds, based on usage. The pass-through financing program has been widely utilized since its inception. The last call for projects for this particular type of financing was done in February 26, 2009.

Availability of this type of funding mechanism will be up to the Texas Transportation Commission and will be determined by the Laredo MPO's ability to compete for this limited funding source.

### ***State Infrastructure Bank***

TxDOT has a state infrastructure bank (SIB) that offers various loans and credit enhancement products for highway projects. SIB loans are available that can help pay for various phases of a project.

### ***Rural Rail Transportation District***

Rural Rail Transportation Districts (RRTDs) are special government entities or subdivisions of the State of Texas that have the power to purchase, operate, and/or build new railroad and intermodal facilities. RRTDs are formed by action of one or more county's commissioners courts under rules outlined in Vernon's Texas Civil Statutes Title 112, Chapter 13, Article 6650c. RRTDs have the power of eminent domain and can be used to construct new rail lines or acquire and rehabilitate existing rail lines and can be used to develop rail served industrial parks, intermodal facilities and transload facilities. Funding for RRTD projects can be derived from a variety of sources including revenue bonds, grants, private rail funding, property sales and leases, rents for use of right-of-way, and public and private partnerships. RRTDS cannot levy or collect ad valorem taxes. A Rural Rail Transportation District has been established by Webb County.

### **Conclusion**

At the time of the writing of this MTP, the future of transportation funding is uncertain at best and woefully inadequate at worst. Dire funding projections at one end of the spectrum, and federal "windfalls" such as funds from the American Recovery and Reinvestment Act at the other, make it difficult to predict future transportation funding with any real degree of certainty. Recognizing the uncertainty related to future funding, the Laredo MPO has taken a "middle of the ground" approach in developing its financial plan. Nevertheless, the Laredo MPO will continue to seek out innovative funding options and partnerships with state and local governments, as well as private entities, such as local economic development interest groups. Furthermore, the MPO understands that future "windfalls" may come at any time, and when they do, the MPO can utilize its prioritized list of projects to quickly recommend which projects should be advanced next. In any case, if the federal and state funding issues aren't resolved soon, much-needed projects will either require significant local contribution or run the risk of not being implemented.

# 11: BENEFITS, IMPACTS & NEXT STEPS



## Introduction

The implementation of this long-range transportation plan will advance many goals of the MPO and the community at large. Improved roadways, safer interchanges, reconstructed bridges, and new bicycle facilities will all serve to improve the regional transportation system. However, the construction of these projects will not be without disruption to some members of the community, nor will they alone guarantee a better quality of life. To evaluate the performance of the transportation system and to keep abreast with local priorities, ongoing monitoring of the regional transportation system and the continuing, comprehensive, and coordinated long-range transportation planning efforts of the MPO and its regional partners are required to monitor regional travel trends and land development. Therefore, this final chapter attempts to quantify some of this plan's benefits and its impacts, as well as provide some key "next steps" for the MPO and its planning partners to pursue as they implement this plan.

## Benefits and Impacts

A community's investment in transportation infrastructure and services can provide significant benefits in terms of mobility, travel choice, and quality of life. This plan identifies a variety of projects and programs that seek to establish a safe and efficient multimodal transportation system. These investments help to achieve a variety of goals, including:

- Improving economic activities
- Increasing the safety and security of all modes of transportation
- Improving accessibility and mobility of both people and freight
- Fostering sustainable growth
- Integrating different modes of transportation
- Improving air quality
- Promoting system management and more efficient operations
- Stepping up system preservation efforts
- Promoting social and geographic equity

Oftentimes, however, these investments come at a societal cost, as negative impacts to the natural and physical environments can result. Irreversible damage to environmental features, such as floodplains and wetlands, can be made by poorly planned transportation improvements. Investments that benefit parts of the community may also have a negative effect on minority or low-income citizens. Transportation facilities and roadway expansions should be implemented in a manner that promotes the beneficial aspects and minimizes unwanted effects. Negative impacts of transportation projects are typically minimized and mitigated through detailed project development and environmental assessment procedures.



### ***Economic Benefits***

Indeed, the economic vitality of the Laredo region relies upon a strong transportation infrastructure. The expanded multimodal transportation will serve business, residential, and mixed-use centers. Transit, bicycle, and pedestrian facilities will be linked in a network to a growing inventory of residential developments, as well as employment and commercial centers. When transportation systems are efficient, they provide economic and social opportunities and benefits.

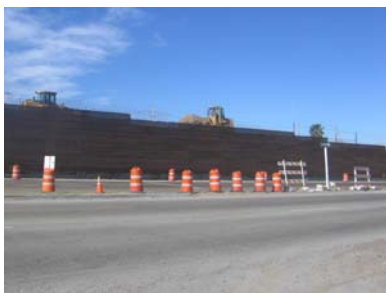


Economic impacts of transportation projects can also be measured through job creation. Measures at the national level show the substantial and growing impact of roadway investment on job creation. The total number of jobs supported by roadway investment including construction-related jobs, jobs in supplier industries, and jobs supported indirectly throughout the economy, rose about 12.5 percent, from 1.65 million jobs in 1997 to 1.85 million jobs in 2007, as a result of increased roadway investment from all levels of government. According to a report from US DOT, every \$1 billion of federal roadway investment supports 42,100 total full-time equivalent jobs. Out of this total, 27,600 jobs are in highway construction and related industries and 14,500 jobs are in other industries throughout the economy.

### ***Transportation System Benefits***

Providing mobility for people and goods is transportation's most essential function. The 2035 Laredo MTP recommends a set of fiscally constrained improvements to the region's roadway, transit, and bicycle/pedestrian systems to accommodate future travel demand. Roadway capacity improvements are a major component of the plan. These improvements increase capacity by either construction of new roads, widening existing facilities, or grade-separating intersections.

The 2035 MTP also commits substantial resources to improving transit, bicycle, and pedestrian facilities and demonstrates the MPO's commitment to provide a multimodal transportation system in the region. However, given that the MPO planning area is expected to double in population over the life of this plan, the projects in this financially constrained plan will not be sufficient to relieve system-wide congestion. Unless further funding is identified to begin addressing the long list of unfunded needs, the transportation system will be overwhelmed by automobile travel, causing degradation in air quality, safety, user costs, energy consumption, and travel time.



## Environmental Assessment

SAFETEA-LU requires a discussion of environmental mitigation strategies within Metropolitan Transportation Plans. A qualitative screening analysis was performed to assess the potential environmental impacts of the roadway projects recommended for inclusion in the Laredo 2035 MTP. The purpose of this initial environmental assessment is to identify projects that may negatively impact the natural and built environment. The assessment is done early in the planning process with the intent of preventing negative impacts on the environment, as well as identifying potential issues early on in the planning process.

As the Laredo region continues to grow, it will be important to strike an acceptable balance between economic development and mobility with the desire for a high quality of life that includes clean air and water, environmental preservation, and recreational opportunities. Protecting natural features and minimizing impacts of transportation projects on the environment are an important consideration in transportation planning. It is inevitable that some projects presented in this plan will have an impact on the region's environmental and social features. Roadway projects tend to require land acquisition in order to construct a new facility or widen an existing facility. While sidewalks and bicycle facilities involve smaller cross-sections and often occur as part of roadway construction, they also have an impact on the environment for which they are designed. Transit improvements—whether expansion of an existing bus route or creation of a new route—occur on existing or planned roadways, and therefore also impact the natural and social environments of a community. In the Laredo region, environmental features that may be impacted by transportation programs include wetlands, public parks, national grasslands and historic structures.

### Natural Resources

The Laredo region's geography is discussed in more detail in Chapter 2: Regional Context. The significant features of this region include its relative flatness and landscape consisting primarily of brush, including grasslands, oak, and mesquite trees. The Rio Grande River and Lake Casa Blanca are significant water features, as well as the creeks that drain into the Rio Grande. In order to prevent future damage to property and transportation infrastructure it is important to avoid developing within the floodplains of these features.



Other natural features in the Laredo region include wetlands, which are saturated by surface or ground water and home to certain types of vegetation and wildlife that require such conditions. The primary wetlands found in the Laredo region are riparian, which are commonly found in the semiarid west, and consist largely of two classes of wetlands: palustrine and riverine. In addition to natural drainage ways and wetland habitats, it is also important to consider the effects of transportation infrastructure and

subsequent development on prime farmland soils. The majority of the prime farmland is located along the eastern perimeter extending toward the Rio Grande River in the northern and southern portions of the city.

## Cultural Resources

Cultural resources are significant and meaningful assets in a community and encompass a variety of places that serve essential, enriching or humanizing functions. For the purposes of this analysis, cultural and community resources included of schools, libraries, museums, historic sites, medical facilities, parks, recreational facilities, airports, and cemeteries. These landmarks are worthy of preservation and protection because they provide popular destinations for citizens and visitors and serve as important community landmarks and critical service facilities. Careful consideration for these resources when planning for transportation investments should be undertaken so as not to adversely impact them.



In particular, it is important for the metropolitan transportation planning process to identify historical landmarks or sites. Section 106 of the National Historic Preservation Act (NHPA) of 1966 (as amended in 1976, 1980, and 1992) and Section 4(f) of the Department of Transportation Act of 1966 requires the Federal Highway Administration (FHWA) to identify, evaluate, and protect properties of historical significance. The National Register of Historic



Places (NRHP), as administered by the National Park Service, is the official list of the nation's historic landmarks and sites considered historically important and worthy of preservation. Those sites in the Laredo region, which are on the NRHP, include San Jose de Palafox Historic/Archeological District, Barrio Azteca Historic District, Fort McIntosh, Hamilton Hotel, Los Ojuelos, San Augustin de Laredo Historic District, U.S. Post Office and Custom House, and the Webb County Courthouse.

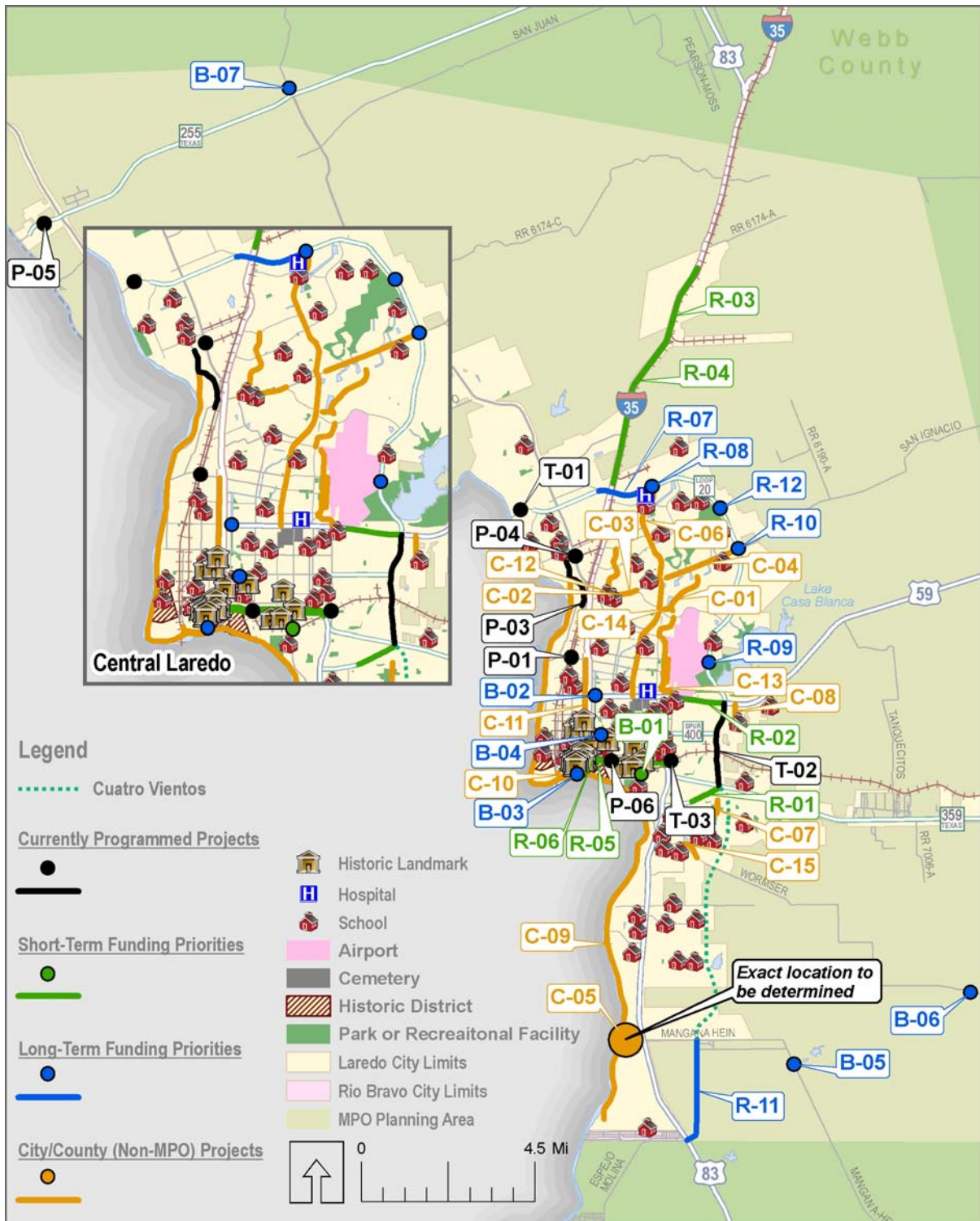
## Environmental Impacts

The fiscally constrained projects identified in Chapter 10 were evaluated to determine the impacts on the natural and cultural resources of the Laredo region. This analysis consisted of overlaying project alignments and locations onto a series of GIS layers representing sensitive natural and cultural resources, the results of which are shown in Figures 11-1 and 11-2. Buffers were assigned to financially constrained and high-priority unfunded roadway projects that have potential environmental impact. The environmental features described above that fell within the buffers were noted. The buffer size for each project varied depending on its type. Interchange projects were given a buffer of 500 feet from entrance and exit ramps and cross streets. Linear road projects were given a buffer of 200 feet on either side of the road, making a 400-foot buffer overall. Table 11-1 summarizes the potential impact the projects may have on environmentally sensitive areas. This table does not identify the various levels of potential impacts, but simply denotes an environmental factor's proximity to a proposed transportation project. This inventory of environmental features in no way substitutes a project sponsor's need to complete a more in-depth environmental assessment.





Figure 11-2: Cultural Resources and Fiscally Constrained Projects



**Table 11-1: Environmental Assessment Results**

Plan ID	Project	Buffer Distance	100-YR Flood Plain	Water Bodies	Airport	Cemetery	Historic Site	Medical Facility	Park and Rec. Facility	School
<b>TIP Projects</b>										
T-01	Loop 20	500'								
T-02	Loop 20	400'								
T-03	Arkansas Ave	500'	☑							
<b>MTP Projects</b>										
B-01	Meadow St	500'								
B-02	US 59	500'	☑	☑					☑	
B-03	Convent Ave	500'	☑	☑			☑		☑	
B-04	Sanchez St	500'	☑						☑	
B-05	Mangana Hein Road	500'	☑							
B-06	Wormser Road	500'	☑							
B-07	Las Tiendas Road	500'	☑							
R-05	US 83 (Chihuahua St)	400'	☑				☑		☑	
R-06	US 83 (Guadalupe St)	400'	☑				☑		☑	
R-07	Loop 20	400'	☑							
R-08	Loop 20	500'						☑		
R-09	Loop 20	500'			☑					
R-10	Loop 20	500'								
R-11	Cuatro Vientos	400'	☑							
R-12	Loop 20	500'							☑	

## ***Environmental Mitigation Activities***

SAFETEA-LU states that “long-range transportation plans should include a discussion of types of potential environmental mitigation activities and potential areas to carry out these activities, including activities that may have the greatest potential to restore and maintain the environmental functions affected by the plan”. In addition, SAFETEA-LU requires that potential environmental mitigation activities be developed in consultation with federal, state, and tribal wildlife, land management, and regulatory (resource) agencies. The Laredo MPO is committed to minimizing and mitigating the negative affects of transportation projects on the natural and built environments. In doing so, the MPO recognizes that not every project will require the same type or level of mitigation. Some projects, such as new roadways and new interchanges, involve major construction with considerable earth disturbance. Others, like intersection improvements, street lighting, and resurfacing projects, involve minor construction and minimal, if any, earth disturbance. The mitigation efforts used for a project should depend upon how severe the impact on environmentally sensitive areas is expected to be. To the extent possible, transportation projects should minimize off-site disturbance in sensitive areas and develop strategies to preserve air and water quality, limit tree removal, minimize grading and other earth disturbance, provide erosion and sediment control, and limit noise and vibration. Where feasible, alternative designs or alignments are developed that would lessen the project’s impact on environmentally sensitive areas. 40 CFR 1508.20 suggest that typical steps for mitigation include the following:



- Avoiding the impact altogether by not taking a certain action or parts of an action.
- Minimizing impacts by limiting the degree or magnitude of the action and its implementation.
- Rectifying the impact by repairing, rehabilitating, or restoring the affected environment.
- Reducing or eliminating the impact over time by preservation and maintenance operations during the life of the action.
- Compensating for the impact by replacing or providing substitute resources or environments.

Effective mitigation starts at the beginning of the environmental process, not at the end. Mitigation must be included as an integral part of the alternatives development and analysis process. An ordered approach to mitigation, known as “sequencing,” involves understanding the affected environment and assessing transportation effects throughout project development. A variety of possible mitigation activities and measures that can be considered when dealing with environmental impacts, most of which are considered by the MPO during the project development process. The environmental mitigation strategies and activities are intended to be regional in scope, and may not necessarily address potential project-level impacts. As the location and magnitude of the proposed projects are determined, appropriate project level mitigation measures can be developed.

**Table 11-2: Potential Environmental Mitigation Activities**

Resource	Mitigation Measures
<b>Agricultural areas</b>	Mitigation sequencing requirements involving avoidance, minimization, compensation (could include preservation, creation, restoration, in-lieu fees, riparian buffers); design exceptions and variances; environmental compliance monitoring.
<b>Ambient air quality</b>	Transportation control measures, transportation emission reduction measures, adoption of local air quality mitigation fee program, development of energy efficient incentive programs; adoption of air quality enhancing design guidelines.
<b>Cultural Resources</b>	Avoidance, minimization; landscaping for historic properties; preservation in place of excavation for archeological sites; Memoranda of Agreement with the Department of Historic Resources; design exceptions and variances; environmental compliance monitoring.
<b>Endangered and threatened species</b>	Avoidance, minimization; time of year restrictions; construction sequencing; design exceptions and variances; species research; species fact sheets; Memoranda of Agreements for species management; environmental compliance monitoring.
<b>Forested and other natural areas</b>	Avoidance, minimization; Replacement property for open space easements to be of equal fair market value and of equivalent usefulness; design exceptions and variances; environmental compliance monitoring.
<b>Neighborhoods, communities, homes and businesses</b>	Impact avoidance or minimization; context sensitive solutions for communities (appropriate functional and/or aesthetic design features).
<b>Parks and recreation areas</b>	Avoidance, minimization, mitigation; design exceptions and variances; environmental compliance monitoring.
<b>Wetlands or water resources</b>	Avoidance, minimization; design exceptions and variances; environmental compliance monitoring.

**Air Quality**



Air quality continues to play a major role in metropolitan planning. The National Ambient Air Quality Standards (NAAQS) are federal standards that set allowable concentrations and exposure limits for certain pollutants. Primary standards are intended to protect public health, while secondary standards protect public welfare. Air quality standards have been established for the following six criteria pollutants: ozone, carbon monoxide, particulate matter, nitrogen dioxide, lead, and sulfur dioxide. If

monitored levels of any of these pollutants violate the NAAQS, then the Environmental Protection Agency (EPA), in cooperation with the State of Texas, will designate the contributing area as "nonattainment."

A significant portion of the federal air quality regulations applies only to areas that are in nonattainment under the air quality standards of the Clean Air Act. Since the Laredo metropolitan area is not currently designated as a nonattainment area, meaning it meets applicable air quality standards, these portions of the regulations do not apply and have not been directly incorporated into the Laredo MPO's transportation planning process. However, Laredo MPO recognizes the importance of air quality standards and is cognizant of the importance in maintaining the region's attainment status.

### *Climate Change*

Climate change is expected to have an impact on transportation planning and priorities. Although there is currently no official mandate concerning how climate change should be addressed in the planning process, MPOs are encouraged to consider both greenhouse gases (GHG) and climate change as part of their ongoing long-range transportation process.



While the debate regarding climate change continues, it nevertheless is emerging as a main environmental concern linked to transportation. Transportation is the single largest contributor to the nation's carbon footprint. In 2007, it was estimated that approximately 28 percent of GHG emissions in the United States come from transportation, and 82 percent of the transportation sector's emissions are generated by road use. FHWA suggests the following four primary strategies to reduce GHG emissions from transportation:

**Improve system and operational efficiencies:** Traffic flow improvements can be achieved through intelligent transportation systems, route optimization, congestion pricing, and improved intermodal links and system connectivity. Other system efficiencies could be achieved by switching to more energy-efficient modes. Operational efficiencies can be achieved through improving vehicle maintenance, which can improve fuel efficiency and prevent breakdowns that tie up traffic, and reducing idling of freight vehicles.

**Reduce growth of vehicle miles traveled (VMT):** Implementing land use strategies that concentrate development can lessen the need to drive. Providing HOV lanes, transit options, pedestrian and bicycle facilities, and promoting travel demand management programs and telecommuting can also reduce the number of vehicle trips.

**Transition to lower GHG fuels:** By replacing gasoline and diesel with fuels such as biodiesel and natural gas, less GHGs are emitted over their lifecycle, from production and refining to distribution and final consumption. Alternative fuels, as defined by the Energy Policy Act of 1992 (EPAct), include ethanol, natural gas, propane, hydrogen, biodiesel, electricity, methanol, and p-series fuels. Using these alternative fuels in vehicles can generally reduce harmful pollutants and exhaust emissions. In addition, most of these fuels can be locally produced and derived from renewable sources.

**Improve vehicle technologies:** Promoting the development and usage of more fuel efficient vehicles, such as plug-in electric hybrids, will reduce the GHG emissions. Programs like “Drive Clean Across Texas” can help raise awareness and change attitudes about air pollution. Providing tax credits through programs like “Cash for Clunkers” can also encourage the purchase of more fuel efficient vehicles.

### ***Environmental Justice***

The purpose of an environmental justice (EJ) review is to ascertain that federally-funded transportation projects do not adversely impact minority populations and low-income populations. FHWA states that “Disproportionately high and adverse effects, not size, are the bases for



Environmental Justice. A very small minority or low-income population in the project, study, or planning area does not eliminate the possibility of a disproportionately high and adverse effect on these populations. What is needed is to show the comparative effects on these populations in relation to either non-minority or higher income populations, as appropriate.” The Environmental Justice review for this plan includes consideration of whether these two population groups bear disproportionate impacts resulting from governmental decisions. MPOs are responsible for assessing the benefits and burdens of transportation system investments for different socio-economic groups. This includes both performing data analysis and developing a process to engage minority, low-income, and disabled populations in public involvement activities.

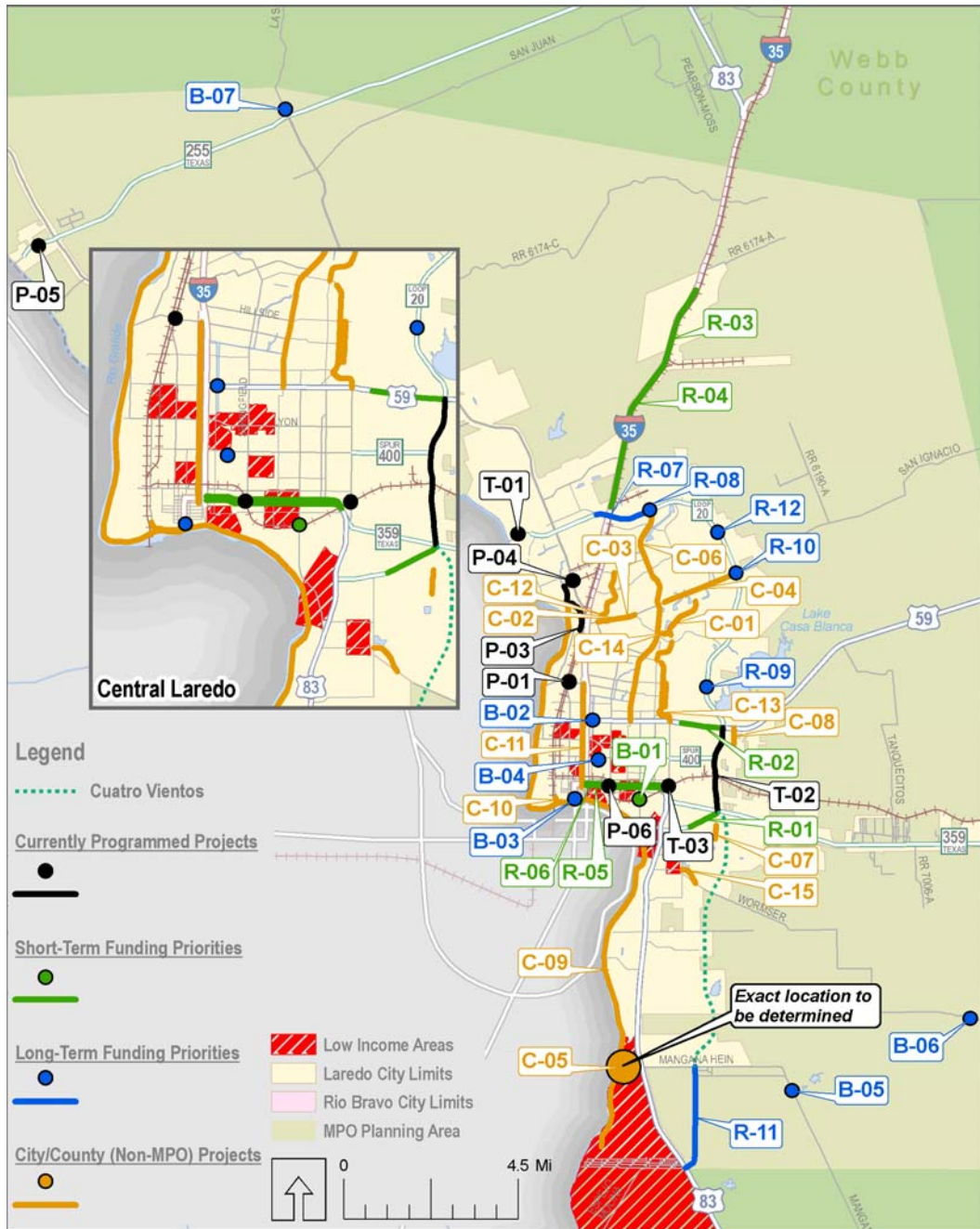
The Environmental Justice analysis for the 2035 MTP focused on the potentially adverse impacts caused by regionally significant street and highway construction projects. The construction of new roadways along new rights-of-way received special attention due to their potential to split or isolate parts of the community. Widening of existing roadways was deemed not as critical, but was still scrutinized for potential impacts. Alternative mode investments in transit service and bicycle and pedestrian facilities were considered to provide positive impacts to the minority and low-income populations of the region. For those locations that do not currently have multimodal transportation facilities, alternative mode services and facilities would provide additional, lower-cost transportation options to increase the mobility of these populations and their access to the community.

As part of this transportation plan update, Census 2000 data by block groups was used to identify the geographic distribution of low-income populations. Because the Laredo region is predominantly Hispanic, locally identified colonias were also used for the environmental justice assessment. Within Texas, colonias are defined as economically distressed residential areas located in unincorporated land along the US-Mexico border, often lacking basic public infrastructure, including potable water, sewer systems, electricity, paved roads, and safe and sanitary housing. Residents of colonias are mostly low-income individuals seeking access to affordable living accommodations.

In order to determine which block groups are considered low income in the Laredo region, a threshold of one standard deviation more than the regional averages for the target population was established. In a normal distribution, the average plus one standard deviation is roughly equivalent to the average of the top-third of the data.

Figures 11-3 and 11-4 present the locations of Environmental Justice populations and the priority projects within this MTP, while Table 11-3 identifies which projects are located in Environmental Justice areas.

**Figure 11-3: Low Income Areas and Fiscally Constrained Projects**







**Table 11-3: Fiscally Constrained Projects and Environmental Justice Population**

Plan ID	Highway	Limits	Type	Buffer Distance (Ft)	Low Income Block Group	Colonias
T-01	Loop 20	Located in vicinity of GSA Facility at Bridge IV	Construction of a Border Facility Inspection Facility	500		
T-02	Loop 20	US 59 to SH 359	Add Lanes	400		
T-03	Arkansas Ave	Near Guadalupe and Chihuahua Streets	Grade Separate	500		
B-01	Meadow St	At Tex-Mex Railroad crossing	Replace Bridge	500	<input checked="" type="checkbox"/>	
B-02	US 59	At Zacate Creek/San Francisco	Replace Bridge	500		
B-03	Convent Ave	At Rio Grande River	Improve Bridge	500		
B-04	Sanchez St	At Zacate Creek, 0.35 miles East of IH-35	Replace Bridge	500	<input checked="" type="checkbox"/>	
B-05	Mangana Hein Road	At Becerra Creek to 4.25 miles SE of US 83	Replace Bridge	500		
B-06	Wormser Road	At Dolores Creek to 9.8 miles SE of Ejido Avenue	Replace Bridge	500		
B-07	Las Tiendas Road	At Tejones Creek to Isabel Creek and Palito Blanco Arroyo	Replace Bridge	500		
R-05	US 83 (Chihuahua St)	IH 35 to SH 359	Widen to add one travel lane	400	<input checked="" type="checkbox"/>	
R-06	US 83 (Guadalupe St)	IH 35 to SH 359	Widen to add one travel lane	400	<input checked="" type="checkbox"/>	
R-07	Loop 20	IH 35 to McPherson Road	Upgrade to freeway	400		
R-08	Loop 20	At McPherson	Construct Interchange	500		
R-09	Loop 20	At Laredo International Airport	Grade Separate	500		
R-10	Loop 20	At Del Mar	Grade Separate	500		
R-11	Cuatro Vientos	Mangana-Hein Road to US 83 at Rio Bravo	Construct New Road	400	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
R-12	Loop 20	At Shiloh	Grade Separate	500		

## Environmental Justice Effects

The environmental justice screening conducted for this plan is not intended to quantify specific impacts. The critical purpose of this screening is the identification of projects in the transportation plans that, due to proximity, have the potential to affect communities of special interest. When individual studies are begun as part of project development, more detailed analyses will be needed to identify and minimize specific community impacts on a project-by-project basis. Proactive efforts should be made to ensure meaningful opportunities for public participation including specific activities to increase outreach for low-income and minority participation during the project development process for each of the fiscally constrained projects identified in this plan. This participation will be important to the decision-making process and will help to ensure that transportation needs of the target populations are met to the greatest extent possible.

In summary, all population groups would benefit from the planned transportation improvements in the region. In fact, many of the improvements will have positive impacts on these populations in terms of increased access to the community and additional transportation options. Continued transit service will be provided and roadways will include improvements designed to make the roads safer for the traveling public. In terms of negative impacts, all segments of the population who live adjacent to roadway construction projects may endure some short-term construction related impacts relative to visual changes, noise, and alterations in access. In general, neither low income nor minority populations in the region would endure high and disproportionate impacts due to the projects proposed within this plan.

## Next Steps

The process of developing the metropolitan transportation plan resulted from considerable coordination among a variety of stakeholders. The MPO is committed to continuing these planning efforts and expanding its role in regional planning. These future efforts include conducting performance monitoring activities, developing a congestion management process, supporting the cities of Laredo and Rio Bravo in their local planning efforts, and seeking alternative sources of funding for transportation projects.



## Performance Monitoring

The primary objectives of performance monitoring are to continually assess how the existing transportation system is performing and to comprehensively evaluate the efficacy of implemented projects. While not yet finalized, the draft Surface Transportation Authorization Act (STAA) of 2009 increases the importance of performance monitoring in the metropolitan planning process and identifies new performance targets, including:

- Creating a national MPO database at USDOT to collect information on MPO performance
- Requiring USDOT to set transportation planning performance measures for MPOs

- Setting minimum requirements for MPOs' performance measures
- Mandating that MPOs develop performance targets to meet the performance measures
- Requiring annual reporting that documents the degree to which MPOs are meeting performance targets
- Linking performance management to MPO certification process

The Laredo MPO will begin to establish a program that will provide a framework for reporting performance at the system, facility, and project levels. Such a program will be able to communicate measures related to mobility and accessibility and to provide a deeper understanding of how the transportation system is performing.

### ***Congestion Management Process***

A Congestion Management Process (CMP) could be established as an initial step toward monitoring performance. The federal government requires a CMP in Transportation Management Areas (TMAs) with populations over 200,000. Although not required of the Laredo planning area because it is not presently considered a TMA, a CMP will help in addressing congested-related issues through the use of performance measure evaluations and system and operations strategies.



FHWA defines an effective CMP as “a systematic process for managing congestion that provides information on transportation system performance and on alternative strategies for alleviating congestion and enhancing mobility.” The CMP results in implementation of strategies that provide the most efficient and effective use of existing and future transportation facilities. The required elements of a CMP include:

- Methods to monitor and evaluate the performance of the multimodal transportation system, identify the causes of congestion, identify and evaluate alternative actions, provide information supporting the implementation of actions, and evaluate the efficiency and effectiveness of implemented actions.
- Definition of parameters for measuring the extent of congestion and for supporting the evaluation of the effectiveness of congestion reduction and mobility enhancement strategies for the movement of people and goods.
- Establishment of a program for data collection and system performance monitoring to define the extent and duration of congestion, to help determine the causes of congestion, and to evaluate the efficiency and effectiveness of implemented actions.
- Identification and evaluation of the anticipated performance and expected benefits of appropriate traditional and nontraditional congestion management strategies that will contribute to the more efficient use of existing and future transportation systems based on the established performance measures.

- Identification of an implementation schedule, implementation responsibilities, and possible funding sources for each strategy (or combination of strategies) proposed for implementation.
- Implementation of a process for periodic assessment of the efficiency and effectiveness of implemented strategies, in terms of the area's established performance measures.

### ***Funding Strategies***

The most significant obstacle in realizing many of this plan's objectives is the overwhelming challenge of funding transportation-related needs. The MPO is very concerned about the status of future transportation funding at both the state and federal level and will therefore explore alternative funding sources. By working with various stakeholders and continuing dialog with Washington D.C., the Laredo MPO will seek innovative funding arrangements to advance the mobility of the region.

### ***Plan Amendment Process***

This MTP was developed over a 16-month period between September 2008 and December 2009. It reflects the latest planning assumptions, current regional transportation priorities, and most recent funding projections. However, planning is an ever-changing and dynamic process. As time goes on, regional priorities, federal and state funding revenue assumptions, and federal and state transportation planning requirements are likely to change. If and when they do, the MPO will revise this plan accordingly by following its formal plan amendment process as defined in its Public Participation Plan. The plan is currently scheduled to be completely updated again in December 2014.

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WilburSmith  
ASSOCIATES