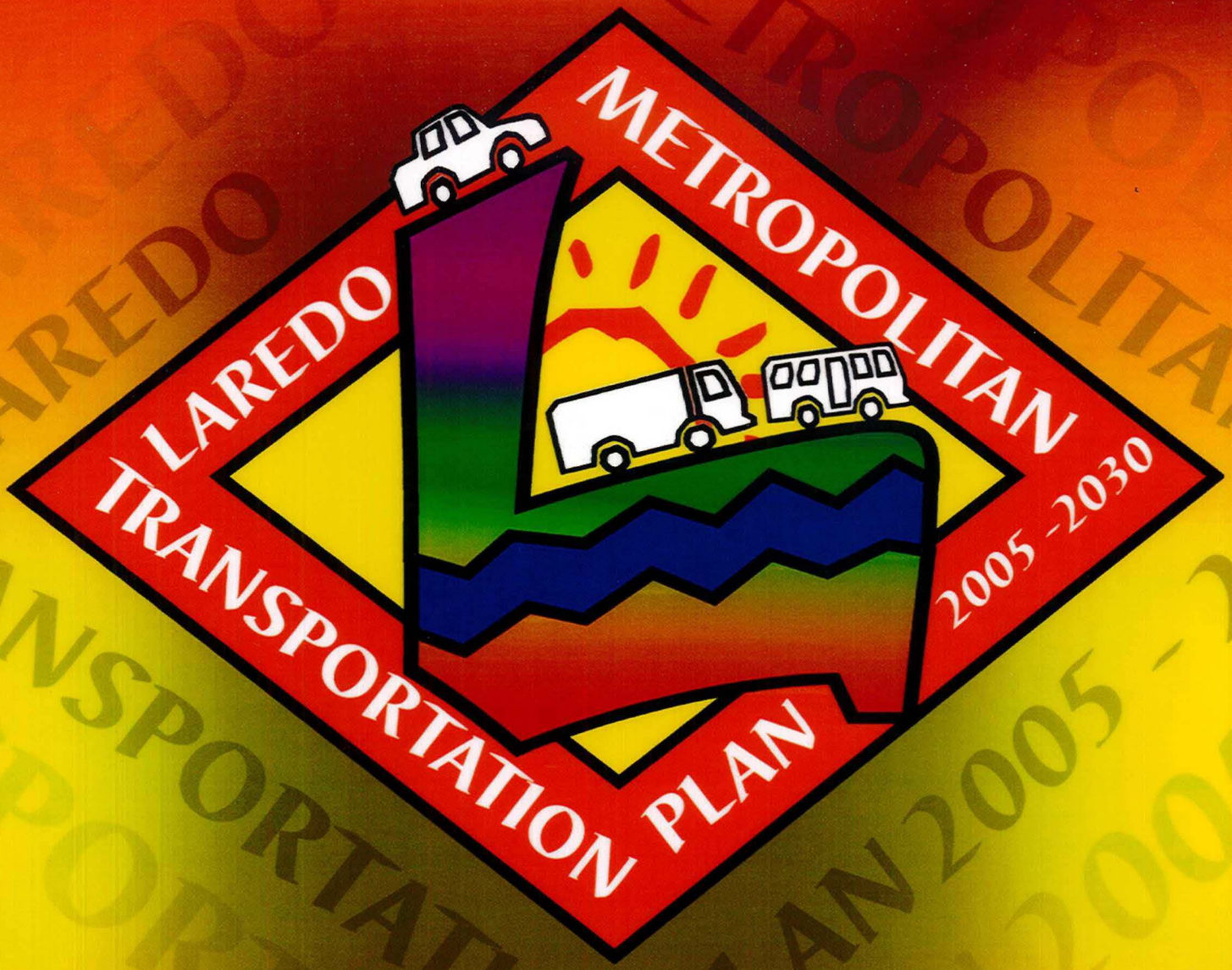


Adopted 12-17-04

CITY OF LAREDO

SPECIAL CITY COUNCIL MEETING
A-2008-SC-15
CITY COUNCIL CHAMBERS
1110 HOUSTON STREET
LAREDO, TEXAS 78040
DECEMBER 8, 2008
12:15 p.m.

DISABILITY ACCESS STATEMENT

Persons with disabilities who plan to attend this meeting and who may need auxiliary aid or services are requested to contact Gustavo Guevara, City Secretary at (956) 791-7308 at least two working days prior to the meeting so that appropriate arrangements can be made. The accessible entrance and accessible parking spaces are located at City Hall, 1100 Victoria Ave.

Out of consideration for all attendees of the City Council meetings, please turn off all cellular phones and pagers, or place on inaudible signal. Thank you for your consideration.

I. CALL TO ORDER

II. PLEDGE OF ALLEGIANCE

III. ROLL CALL

IV. PUBLIC HEARNINGS

1. **Public hearing and introductory ordinance** altering and extending the boundary limits of the City of Laredo, annexing additional territory of 183.26 acres, more or less, located adjacent to El Portal Industrial Park Units 6 and 7 to the west and IH-35 to the east, specifically the El Portal Industrial Tract, providing for the effective date of the ordinance, authorizing the City Manager to execute a contract adopting a service plan for the annexed territory, and establishing the initial zoning of M-1 (Light Manufacturing District).

2. **Public hearing and introductory ordinance** altering and extending the boundary limits of the City of Laredo, annexing additional territory of 0.03 acres, more or less, located adjacent to the southwest corner of Las Ventanas Subdivision, Phase 1, specifically the Las Ventanas Tract, providing for the effective date of the ordinance, authorizing the City Manager to execute a contract adopting a service plan for the annexed territory, and establishing the initial zoning of R-1A (Single Family Reduced District).

3. **Public hearing and introductory ordinance** altering and extending the boundary limits of the City of Laredo, annexing additional territory of 80.00 acres, more or less, located west of IH-35, west of the Unitec Industrial Park,

specifically the N. D. Hachar Tract, providing for the effective date of the ordinance, authorizing the City Manager to execute a contract adopting a service plan for the annexed territory, and establishing the initial zoning of M-1 (Light Manufacturing District).

4. **Public hearing and introductory ordinance** altering and extending the boundary limits of the City of Laredo, annexing additional territory of 101.06 acres, more or less, located east of Bob Bullock Loop 20 and north of Casa Verde Road (extension of Del Mar Boulevard), specifically the Killam Quiote Tract, providing for the effective date of the ordinance, authorizing the City Manager to execute a contract adopting a service plan for the annexed territory, and establishing the initial zoning of R-1A (Single Family Reduced Area District).

V. STAFF REPORT

5. Staff presentation on the 2005-2035 Metropolitan Transportation Plan (MTP)

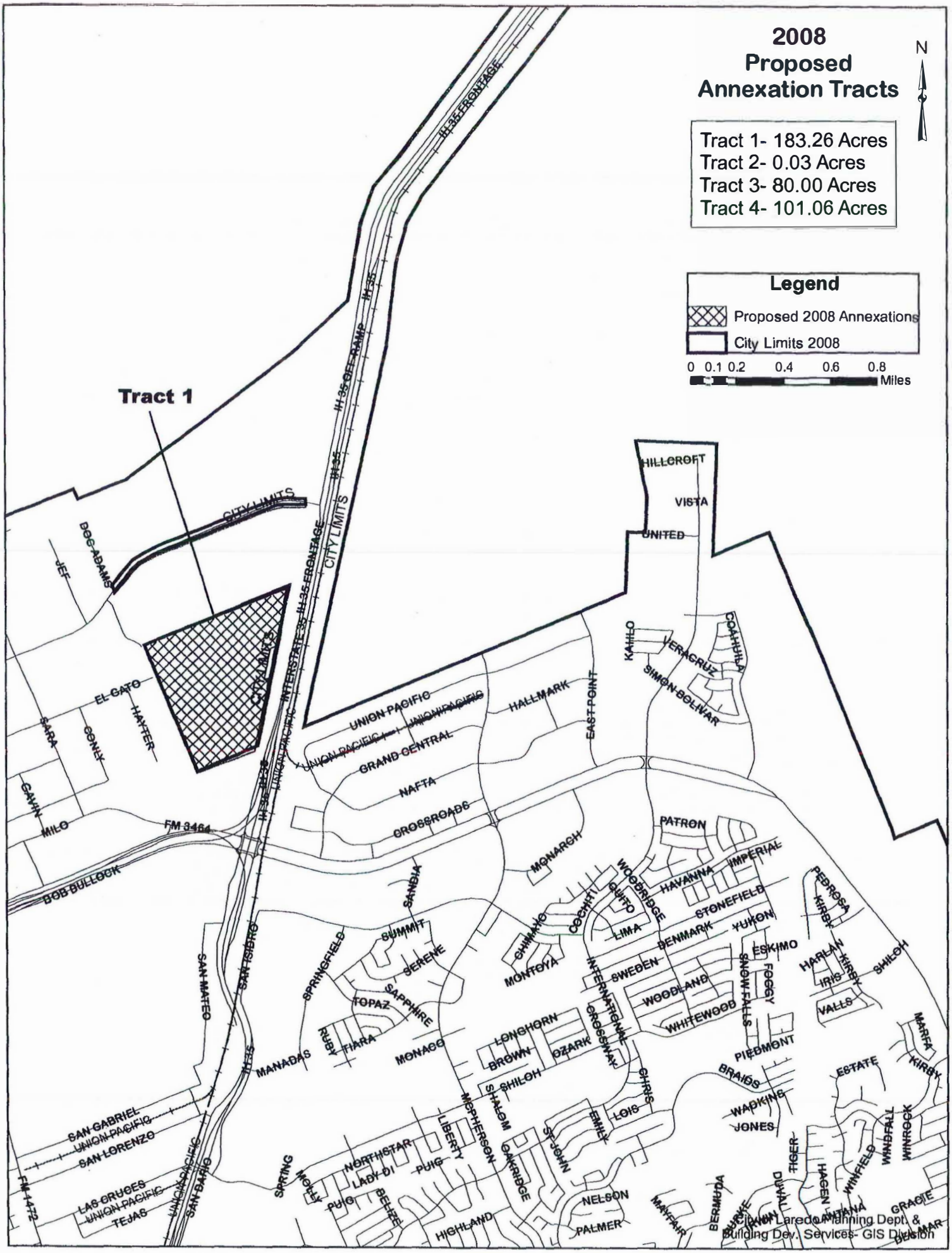
VI. EXECUTIVE SESSION

The City Council hereby reserves the right to go into executive session at any time during this public meeting, if such is requested by the City Attorney or other legal counsel for the City, pursuant to his or her duty under Section 551.071(2) of the Government Code, to consult privately with his or her client on an item on the agenda, or on a matter arising out of such item.

VII. ADJOURNMENT

This notice was posted at the Municipal Government Offices, 1110 Houston Street, Laredo, Texas, at a place convenient and readily accessible to the public at all times. Said notice was posted on Wednesday, December 3, 2008, at 5:30 p.m.

Gustavo Guevara, Jr.
City Secretary


2008
Proposed
Annexation Tracts
N
Tract 1- 183.26 Acres
Tract 2- 0.03 Acres
Tract 3- 80.00 Acres
Tract 4- 101.06 Acres
Legend
Proposed 2008 Annexations
City Limits 2008
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Miles
Tract 1
CITY LIMITS
INTERSTATE 35
IH-35 FRONTAGE
IH-35 OFF RAMP
IH35
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VISTA
UNITED
KAHLO
VERACRUZ
COAHUILA
SIMON BOLIVAR
BOG ADAMS
JEF
EL GATO
HAYTER
SARA
CONEY
CAVIN
MILO
FM 3464
BOB BULLOCK
GRAND CENTRAL
NAFTA
CROSSROADS
HALLMARK
EAST POINT
PATRON
MONARCH
SANDIA
SUMMIT
SERENE
SPRINGFIELD
SAN MATEO
SAN ISIDRO
TOPAZ
SAPPHIRE
RUBY TIARA
MANADAS
MONACO
CHIMANO
COCHITI
QUITO
LIMA
WOODBRIDGE
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IMPERIAL
STONEFIELD
YUKON
DENMARK
SWEDEN
MONTOYA
INTERNATIONAL
GROSSWAY
WOODLAND
WHITEWOOD
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SNOW FALLS
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IRIS
SHILOH
VALLS
LONGHORN
BROWN
OZARK
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SHALOM
MCPHERSON
LIBERTY
PUIG
NORTHSTAR
LADY DI
MOLLY
SPRING
SAN GABRIEL
SAN LORENZO
LAS CRUCES
TEJAS
FM 1472
SAN DARIO
OAKRIDGE
SP JOHN
EMMIE
LOIS
CHRIS
PIEDMONT
BRAIDS
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ESTATE
MARFA
MINNOCK
MINGHILL
WINFIELD
TIGER
HAGEN
DUVAL
BURKE
IRON
MONTANA
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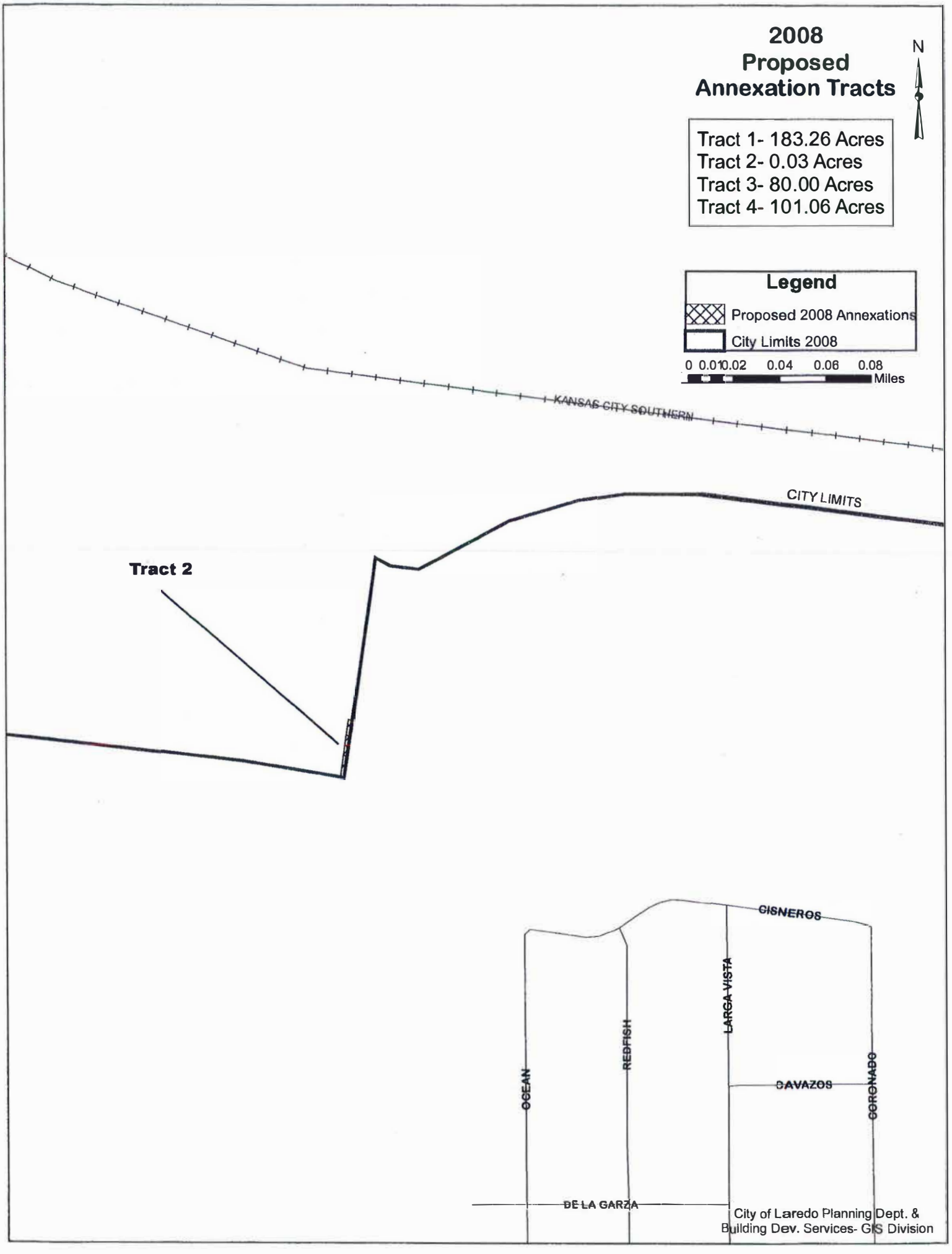
HIGHLAND
BETTEL
City of Laredo Planning Dept. &
Building Dev. Services- GIS Division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Tract 3- 80.00 Acres
Tract 4- 101.06 Acres
Legend
Proposed 2008 Annexations
City Limits 2008
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CITY LIMITS
Tract 2
CISNEROS
LARGA VISTA
REDFISH
OCEAN
CORONADO
CAVAZOS
DE LA GARZA
City of Laredo Planning Dept. &
Building Dev. Services- GIS Division

2008 Proposed Annexation Tracts

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Tract 1- 183.26 Acres
Tract 2- 0.03 Acres
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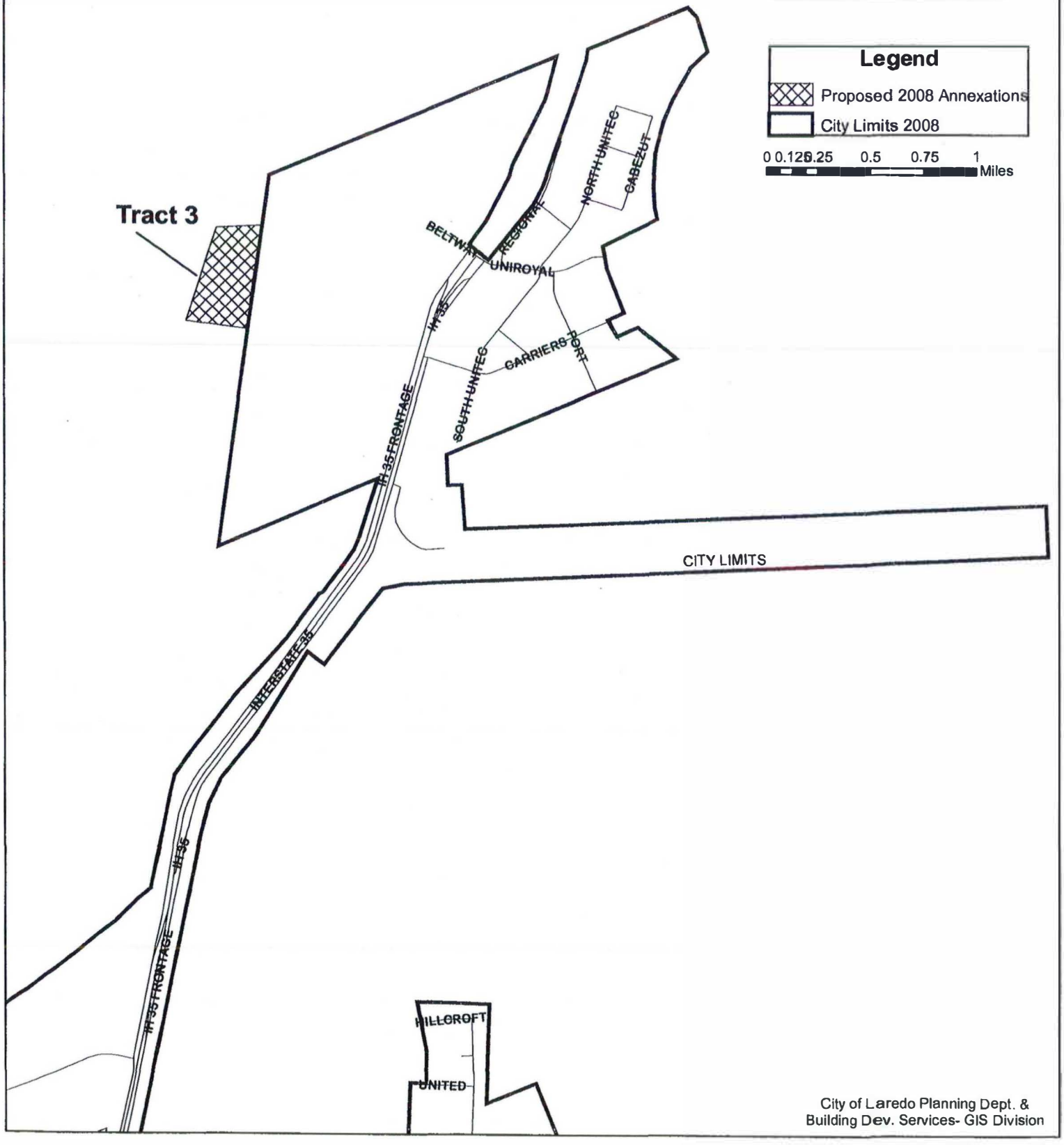

City of Laredo Planning Dept. &
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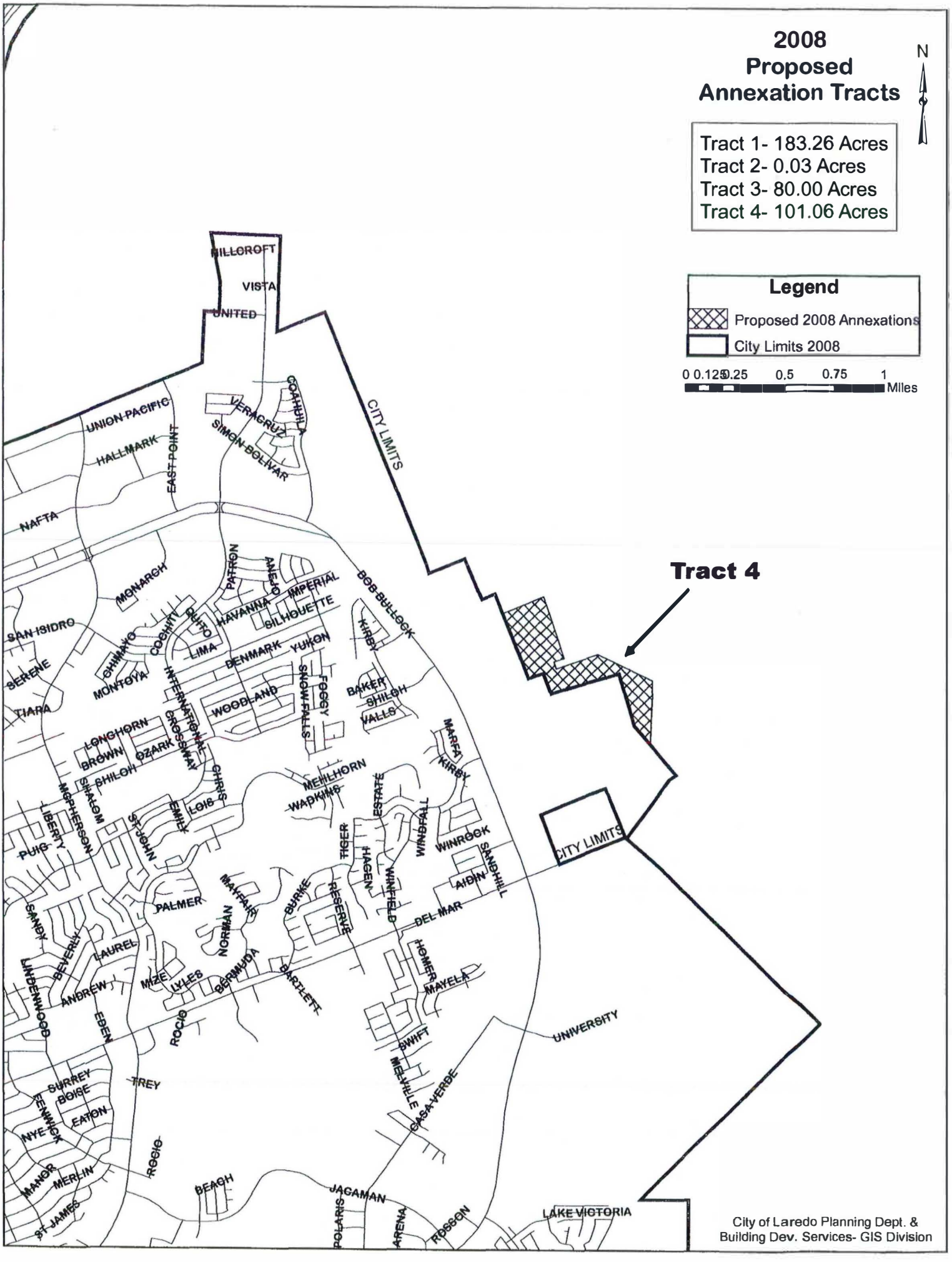
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UNION PACIFIC
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VERACRUZ
COAHUILA
SIMON BOLIVAR
MONARCH
PATRON
ANEJO
IMPERIAL
HAVANNA
SILHOUETTE
BOB BULLOCK
KIRBY
SAN ISIDRO
SERENE
TIARA
CHIMAYO
COBAHUI
PLUTO
LIMA
MONTOYA
DENMARK
YUKON
INTERNATIONAL
GROSSWAY
WOODLAND
SNOWFALLS
FOGGY
BAKER
SHILOH
VALLS
LONGHORN
BROWN
OZARK
SHILOH
SHALOM
MCPHERSON
LIBERTY
PUIG
CHRIS
EMILY
LOIS
ST JOHN
MEHLHORN
WADKINS
ESTATE
TIGER
HAGEN
WINFIELD
WINBRAE
MARFA
KIRBY
WINROCK
SANDHILL
AIDIN
DEL MAR
RESERVE
BURKE
MATHARE
NORMAN
PALMER
SANDY
BEVERLY
LAUREL
LINDENWOOD
ANDREW
MIZE
LYLES
BERMUDA
BARTLETT
EDEN
ROCIO
HOMER
MAYELA
SWIFT
MELVILLE
CASA VERDE
UNIVERSITY
SURREY
BOISE
EATON
FENWICK
NYE
TREY
MANOR
MERLIN
ST JAMES
ROCIO
BEACH
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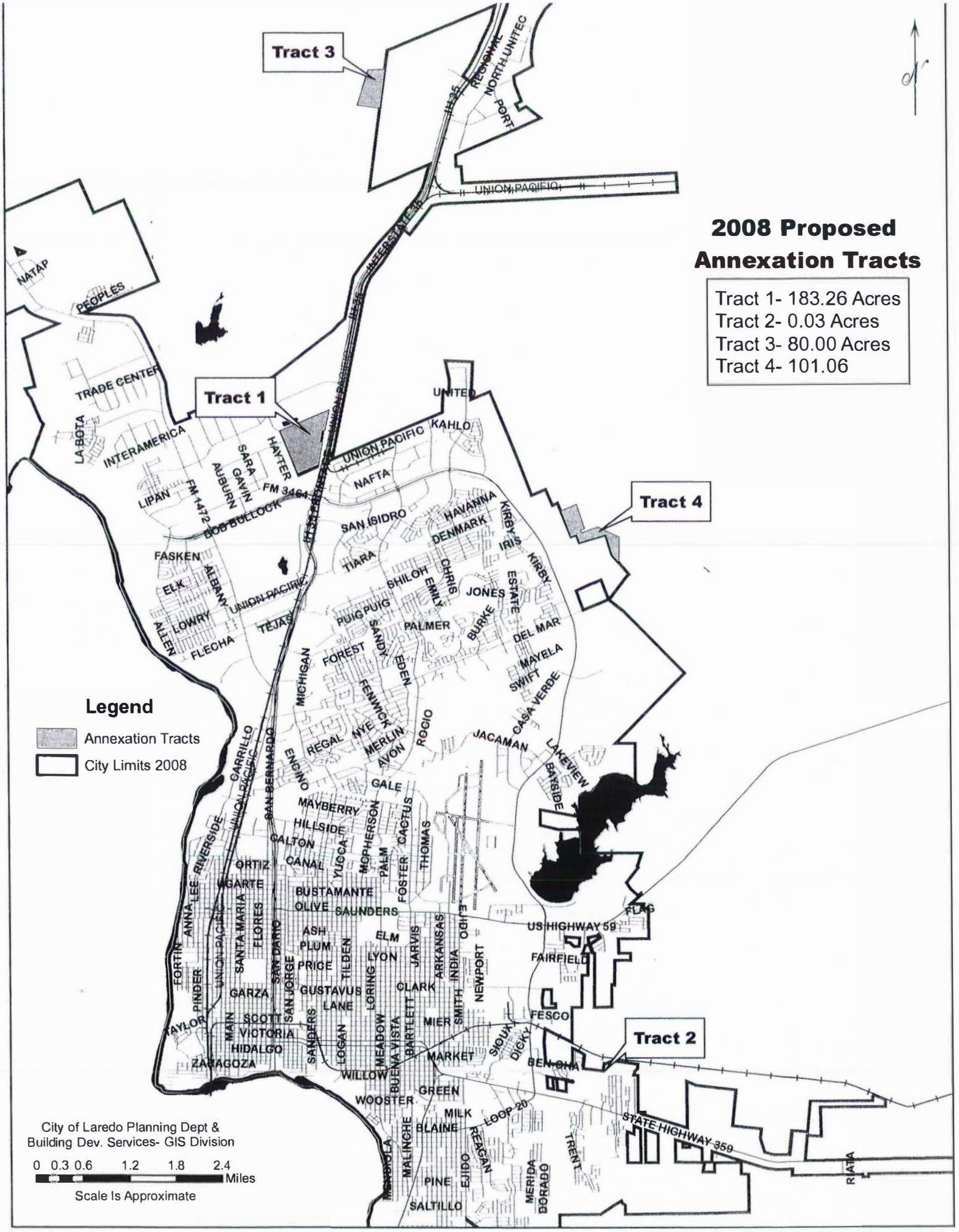
POLARIS
ARENA
RISSON
LAKE VICTORIA
City of Laredo Planning Dept. &
Building Dev. Services- GIS Division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Tract 2- 0.03 Acres
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Tract 4- 101.06
Legend
Annexation Tracts
City Limits 2008
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Scale Is Approximate
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TRADE CENTER
LA BOTA
INTERAMERICA
LIPAN
FM 1472
SARA AUBURN
GAVIN
HAYTER
FM 3464
BOB BULLOCK
UNION PACIFIC
NAFTA
KAHLO
UNITED
SAN ISIDRO
TIARA
HAVANNA
DENMARK
KIRBY
IRIS
FASKEN
ELK
ALBANY
ALLEN
LOWRY
FLECHA
TEJAS
SHILOH
CHRIS
EMILY
JONES
ESTATE
PUIG
PALMER
BURKE
DEL MAR
MAYELA
SWIFT
CASA VERDE
FOREST
SANDY
EDEN
FENWICK
MICHIGAN
REGAL
NYE
MERLIN
AVON
ROCIO
JACAMAN
LAKEVIEW
BAYSIDE
ENCINO
SAN BERNARDO
GARRILLO
RIVERSIDE
GALE
MAYBERRY
HILLSIDE
CALTON
CANAL
ORTIZ
YUCCA
MCPHERSON
PALM
CACTUS
FOSTER
THOMAS
OLIVE
SAUNDERS
BUSTAMANTE
ANNA
LEE
FLORES
SANTA MARIA
SAN DARIO
ASH
PLUM
PRIGE
TILDEN
ELM
LYON
JARVIS
ARKANSAS
INDIA
OHIO
NEWPORT
FAIRFIELD
US HIGHWAY 59
FLAG
FORTIN
PINDER
GARZA
GUSTAVUS
LANE
LORING
CLARK
SMITH
SAN JORGE
TAYLOR
MAIN
SCOTT
VICTORIA
HIDALGO
ZARAGOZA
SANDERS
LOGAN
MEADOW
BUENA VISTA
BARTLETT
MIER
MARKET
SIOUX
DICKY
FESCO
BEN OMA
WILLOW
WOOSTER
GREEN
MILK
BLAINE
LOOP 20
STATE HIGHWAY 359
MALINCHE
REAGAN
EJIDO
PINE
SALTILLO
MERIDA
DORADO
TRENT
RIATA

ENGINEERS
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Wilbur Smith Associates

9800 Richmond Ave., Suite 400
Houston, TX 77042-4521
(713) 785-0080
(713) 785-8797 fax
www.wilbursmith.com

December 17, 2004

Mr. Gabriel Del Bosque
MPO Coordinator
Laredo MPO
P.O. Box 579
Laredo, Texas 78042-0579

RE: Laredo MPO Metropolitan Transportation Plan

Dear Mr. Del Bosque:

We are pleased to submit this Final report entitled: *Laredo MPO Metropolitan Transportation Plan*, which was prepared in accordance with our contract with the Laredo MPO dated March, 2004.

This report documents the development of the financially constrained Metropolitan Transportation Plan (MTP) for the Laredo area. The development of the MTP included an analysis of existing conditions and travel characteristics, projection of future travel demands, development of transportation improvement alternatives, and a financial analysis. This MTP concludes with a recommended transportation plan that prioritizes the improvements into short and long-term programs. This plan also includes multimodal improvements, such as improved transit service, and recommends effective implementation strategies such as access management measures and corridor preservation.

We wish to acknowledge the excellent cooperation and assistance provided by the Laredo MPO, City of Laredo, Texas Department of Transportation, and Webb County during the development of the MTP. We appreciate the opportunity to have been involved in this important project and trust the MTP will assist the Laredo MPO and its agency partners in improving mobility throughout the region.

Sincerely,

WILBUR SMITH ASSOCIATES

Robert A. Hamm

Robert A. Hamm, P.E.
Project Manager

Table of Contents

Figures

Chapter 1
Introduction

The Laredo Metropolitan Transportation Plan (MTP) serves as an important tool in facilitating orderly urban and rural development through guiding the location and type of roadway facilities that are needed to meet projected growth and development in the area. The Plan addresses all modes of transportation and provides a structure and planning process for improving the region's transportation system. The MTP serves as an update of the previous plan that was prepared in 1999, and covers a 25 year planning horizon through the Year 2030. Key elements of the Plan include, defining the region's transportation goals, evaluating the existing transportation system and future transportation needs and identifying recommended improvements that will enhance mobility and economic development in the Laredo Metropolitan area. Additionally, the MTP includes a financial plan which prioritizes the short- and long-term transportation improvements and identifies federal, state, local and/or private funding sources for each identified project.

Background and Purpose

According to the results of the 2000 U.S. Census, Laredo is one of the fastest growing cities in Texas and in the U.S. Laredo's location as the center of a primary trade route between Mexico, U.S. and Canada and increased trade activity have resulted in significant growth in the Laredo metropolitan area over the past decade. The Laredo MSA population grew from 133,239 in 1990 to 193,117 in the Year 2000 representing an annual increase of 3.8 percent. This growth in population coupled with increased trade traffic continues to place increasing demands on the transportation system. The Port of Laredo is the largest inland port on the US-Mexico border and consists of four international bridges including two passenger vehicle bridges, one rail bridge and two commercial bridges. A safe, efficient and well maintained multimodal transportation system will be important in enhancing the movement of goods and people and in continuing to promote international trade and economic development in the Laredo area.

The purpose of the MTP is to develop a comprehensive multimodal transportation plan to accommodate travel demands for the Laredo metropolitan area through the Year 2030. The study identifies the existing and future land use trends and transportation needs, and develops coordinated strategies to provide necessary transportation facilities essential for the continued mobility and economic vitality of the Laredo metropolitan area. Additionally, the development of the MTP is required under TEA-21 to assure the continuation of federal transportation funds for the Laredo metropolitan area.

The Laredo MTP documents the urban area's existing transportation system and evaluates its future transportation needs for the next 25 years. TEA-21 requires the MTP to be financially constrained, meaning each transportation project and strategy identified in the plan is backed by clearly specified federal, state, local and/or private funding. The Laredo Urban Transportation Study (LUTS) leads the overall review of transportation plans and programs for the Laredo Metropolitan Area by virtue of its designation as the Metropolitan Planning Organization (MPO) for the area.

Legislation

With the passing of the Federal Aid Highway Act of 1962, Congress made urban transportation planning a condition for receipt of federal funds for highway projects in urban areas with a

population of 50,000 or more. This new legislation encouraged a continuing, comprehensive transportation planning process carried on cooperatively by the states and local communities. Metropolitan Planning Organizations (MPO) were designated by the governor in each state to carry out this legislative requirement. As a result the Laredo Urban Transportation Study was created as the MPO, to provide for a continuing, comprehensive transportation planning process for the Laredo urbanized area as mandated by the Act.

The Laredo MPO derives its authority from Title 23, United States Code 134. The MPO is governed by a Policy Committee established in accordance with by-laws adopted June, 1994 and revised in June 1997 and June 2000. It is the Policy Committee's responsibility to review and make decisions regarding the transportation planning efforts in the Laredo metropolitan area. Transportation planning activities are undertaken by the planning staff of LUTS (acting as the MPO) and by the Texas Department of Transportation (TxDOT). The Committee is chaired by the Mayor of the City of Laredo and includes as voting members: the mayor, three Laredo City Council persons, the Webb County Judge, two County Commissioners, the TxDOT Laredo District Engineer, and the Director of the Transportation Planning Department. Ex-officio, non voting members include the State Senator for District 21, State Representative for District 42 and State Representative for District 31.

Under the direction of the Policy Committee, transportation planning efforts for the Laredo metropolitan area are managed by the Technical Committee. This committee has the responsibility of professional and technical review of work programs, policy recommendations and transportation planning activities. The Technical Committee is comprised of 22 members representing the city, county, state, school districts and the private sector. The Committee is chaired by the Laredo City Planning Director (also the MPO Planning Director).

There are three major pieces of federal legislation that define metropolitan transportation planning. The Intermodal Surface Transportation Efficiency Act (ISTEA) of 1991 recognizes the economic and cultural diversity of metropolitan areas, and the need to provide metropolitan areas with more control over transportation in their own areas. ISTEA emphasizes the efficient use and preservation of the existing transportation infrastructure, the inclusion of private citizens and stakeholders in the planning process, the synergistic relationship between all modes of transportation, and transportation's linkage with the environment. The Transportation Equity Act for the 21st Century (TEA-21) was passed into law in 1998. TEA-21 reaffirms all that ISTEA set out to accomplish. This includes public involvement, linking land use to transportation planning, a multimodal approach in developing transportation solutions, the need for increased mobility and transportation's key role in economic growth. Finally, ISTEA and TEA-21 are linked to the Clean Air Act Amendments of 1990 (CAAA). The CAAA recasts the planning function to ensure that transportation planning is geared towards meeting federal air quality standards. It encourages reduced auto emissions, and fewer trips by single occupancy vehicles, and it promotes the use of alternative transportation (transit and bicycles) as a more viable part of the transportation system. The linkage between transportation planning and federal air quality standards is reinforced by making the receipt of federal transportation funding dependent upon a region's ability to meet the air quality standards.

Study Area

Laredo is located in Webb County in southwestern Texas, on the border between Mexico and the United States. It is separated from Nuevo Laredo, Mexico by the Rio Grande. The study area for the MTP includes all areas located within the MPO's planning boundary (**Figure 1-1**). The MPO boundary was expanded in 2004 to include additional areas of Webb County expected to become urbanized in the next 25 years. The MPO planning region includes all of the City of Laredo, plus the City of Rio Bravo and other areas in Webb County. This area is approximately 291 square miles. Based on the 2000 Census the population of the study area is approximately 186,120.

Benefits of Transportation Planning

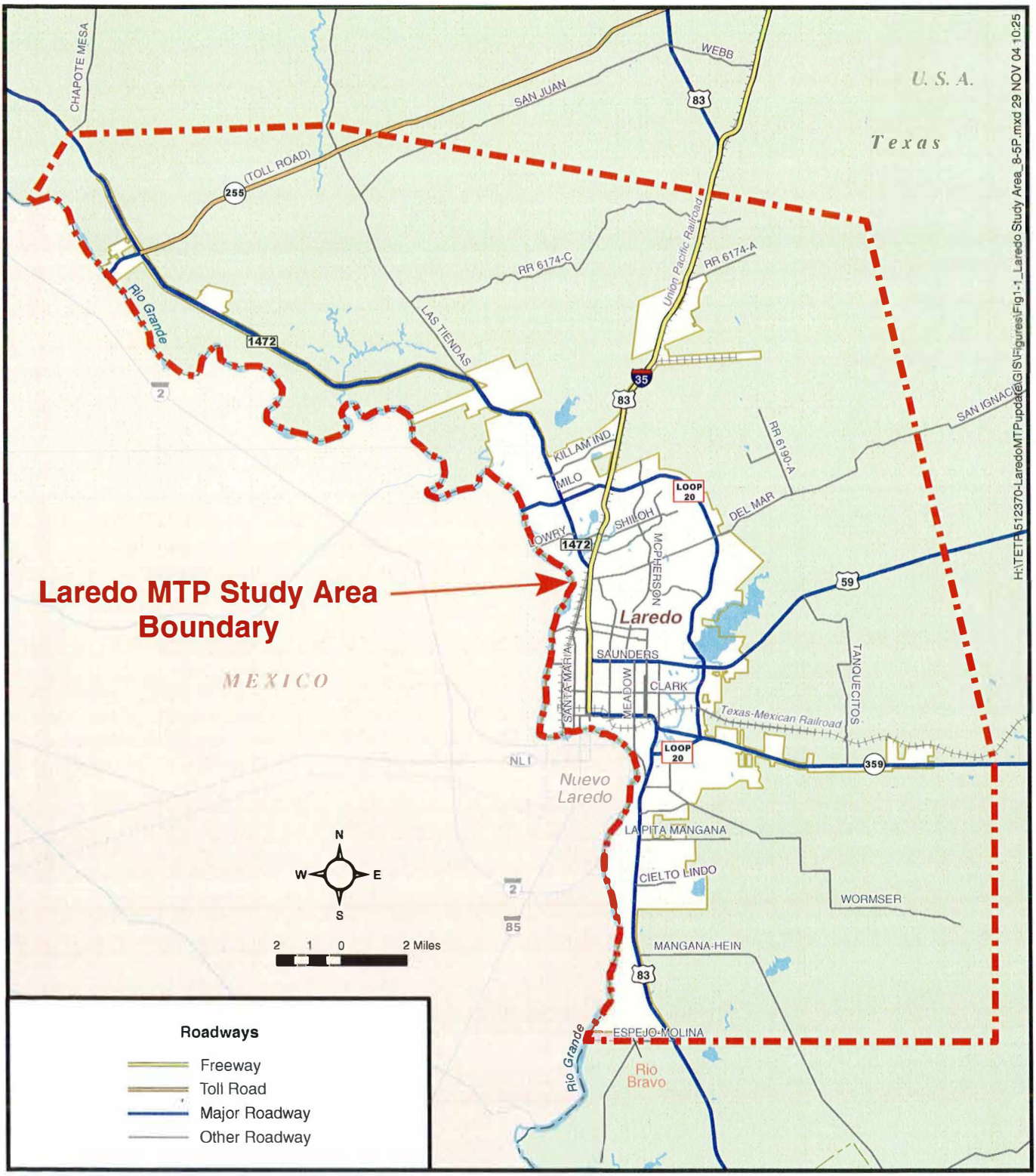
Transportation planning is the process used by municipalities and other governmental entities to provide for the development of an efficient and appropriate transportation system to meet existing and future travel needs. The primary purpose is to ensure the orderly and progressive development of the urban and rural street system to serve the mobility and access needs of the public. Transportation planning is interrelated with other components of the urban planning and development process.

The Metropolitan Transportation Plan is a 25 year transportation planning document that provides a framework for addressing the area's transportation needs. The MTP is the MPO's adopted plan for guiding transportation system improvements, including the existing and planned extension of major highways. The transportation system is comprised of existing and planned freeways/expressways, arterials, collectors and local streets, which could require wider or new rights-of-way for needed improvements. One objective of the MTP is to ensure the preservation of adequate right-of-way (ROW) on appropriate alignments and of sufficient width to allow the orderly and efficient expansion and improvement of the transportation system to serve existing and future transportation needs.

The benefits provided by effective transportation planning are realized by achieving the following objectives:

- Maximizing mobility while minimizing the negative impacts of street widening and construction on neighborhood areas and the overall community by recognizing where future improvements may be needed and incorporating thoroughfare needs;
- Preservation of adequate rights-of-way for future long-range transportation improvements;
- Making efficient use of available resources by designating and recognizing the major streets that will likely require improvements;
- Minimizing the amount of land required for street and highway purposes;
- Identifying the functional role that each street should be designed to serve in order to promote and maintain the stability of traffic and land use patterns;
- Informing citizens of the streets that are intended to be developed as arterial and collector streets, so that private land use decisions can anticipate which streets will become major traffic facilities in the future;

Figure 1-1 Laredo MTP Study Area



- Providing information on thoroughfare improvement needs, which can be used to determine priorities and schedules in the City's Capital Improvement Program (CIP); and,
- Providing an implementation program to prioritize improvements and identify funding sources.

GOALS

Goals developed for the MTP are the result of a collaborative effort between the Policy Committee, Technical Committee, and the Laredo Public. Goals reflect a collective vision that defines important transportation issues for the Laredo Metropolitan Area. These goals provide the framework for the MTP and include:

Operational Goals:

- Deploy intelligent transportation systems;
- Evaluate intra-city commercial truck traffic;
- Provide for sufficient air transportation;
- Upgrade existing transportation facilities;
- Provide for grade separations at intersections of key arterial roads over existing rail lines;
- Incorporate full accessibility in all new street designs;
- Accommodate bicycle routes in new street designs or segregated facilities;
- Establish a plan for public transportation to meet rider needs; and,
- Implement accessible public mass transit service.

Policy Goals:

- Promote multi-modal transportation projects;
- Increase the safety and efficiency of the transportation system;
- Provide safe and efficient mobility throughout the community;
- Optimize available local, State and Federal funding sources;
- Protect and Enhance the quality of life of the Laredo area; and,
- Encourage transportation alternatives that reduce the impact on the environment.

PUBLIC INVOLVEMENT

Public involvement was an important component of the Plan and included several activities to involve public agencies and stakeholders throughout the plan development process. Public involvement activities centered on obtaining meaningful input from key stakeholders concerning transportation issues in the area. The MPO Technical Committee guided the overall plan development and provided technical expertise throughout the process.

Meetings

Three meetings were held with the MPO Technical committee, which is responsible for reviewing the overall study progress. These meeting were held at key milestones allowing the committee to evaluate data forecasts and alternative evaluation criteria, initiate the evaluation of alternatives, review the evaluation of alternatives, prioritize improvements, develop the financial implementation plan and review the draft plan.

LUTS Public Involvement Process

In compliance with Federal regulations, a Public Involvement Process (PIP) was developed by the LUTS. The Public Involvement Process provides every opportunity and encouragement for the involvement of citizens in the transportation planning process. The purpose of the Public Involvement Process is to:

- Provide early and continuing public involvement opportunities throughout the transportation planning and programming process;
- Provide timely information concerning transportation issues and processes to area residents, affected public agencies, representatives of transportation agency employees, private providers of transportation, other interested parties and segments of the community affected by transportation plans, programs, and projects;
- Seek out and consider the needs of those traditionally underserved by existing transportation systems, such as low-income and minority households;
- Provide adequate public notice of public involvement activities and time for public review and comment at key decision points, including the approval of plans and programs;
- Demonstrate explicit consideration and response to public input received during the planning and program development process.

The adoption of the Metropolitan Transportation Plan (MTP) required a public review and comment period of 45 days prior to final action by the Policy Committee. A project nomination form was published in a newspaper of general circulation and was made available through the Internet 90 days prior to final action by the Policy Committee. Presentations on the proposed MTP were made to the Laredo City Council and Webb County Commissioners Court prior to the public review and comment period. Additionally, written comments and project nomination forms received during the public review and comment period regarding the draft MTP were incorporated into the final document. **Table 1-1** identifies the meetings held as part of the MTP process. A summary of all public comments received by the MPO is included in **Appendix A.**

Table 1-1
Meetings
Laredo Metropolitan Transportation Plan Update

Agency	Date	Purpose	Advertised in Newspaper	Televised	Noticed as per Texas Open Meetings Act
MPO Policy Committee	Sept. 9, 2004	Present and adopt the project selection criteria	✓	✓	✓
Laredo City Council	Oct. 25, 2004	Present draft plan and receive comments	✓	✓	✓
Webb County Commissioners Court	Oct. 25, 2004	Present draft plan and receive comments	✓	✓	✓
MPO Policy Committee	Oct. 29, 2004	Present draft plan and initiate public comment period	✓	✓	✓
MPO Policy Committee	Dec. 17, 2004	Adopt plan	✓	✓	✓

Chapter 2
Existing Conditions

This chapter examines the existing physical features and transportation system in the Laredo area. Having an understanding of the existing conditions in the region is an important first step in developing the transportation plan and in making recommendations regarding future improvements. The existing street network and traffic patterns will serve as the basis for the future street network and in identifying future transportation conditions and needs. Additionally, existing environmental and physical features of the community may impact transportation improvements and should be recognized and considered in the development of the plan.

Geography

Laredo is the largest city in Webb County and is located on the north bank of the Rio Grande River across from Nuevo Laredo, Mexico. Laredo's total land area has grown from 33.5 square miles in 1990 to approximately 81 square miles in 2003, an increase of 142 percent. The Port of Laredo is the largest inland port on the US Mexico border. Laredo is the only city that operates international bridges between two Mexican States. Currently the city maintains three border crossings with the Mexican State of Tamaulipas at Nuevo Laredo and one with the Mexican State of Nuevo Leon at Columbia.

World Trade Bridge

Land Use

Evaluating existing and future land use patterns and trends is important as development patterns will influence transportation needs and improvements in the region. **Figure 2-1** displays the existing land use in the Laredo study area. The Laredo Metropolitan area has experienced rapid growth and development over the past decade. As shown, the majority of development has occurred inside Loop 20, with some additional development occurring along major transportation corridors including I-35, US 59, SH 359, US 83 and FM 1472. Of the developed acreage, residential accounts for the largest use, 27 percent, followed by right-of-way, 22 percent, and industrial, 18 percent. Residential, industrial and commercial development is expected to continue to occur in the region particularly to the east along U.S 59, SH 359, south along the U.S 83 corridor, northwest along FM 1472 and north along I-35.

Environmental Features

Protecting natural features and minimizing impacts of transportation programs on the natural environment are an important consideration in transportation planning. In developing transportation programs and policies every effort should be made to ensure their compatibility with the region's environmental goals. The following section examines existing environmental features and constraints in the Laredo study area. Environmental features that may be impacted by transportation programs include endangered species habitat, wetlands, public parks, national grasslands or wildlife management areas and historic structures.

Figure 2-1a Existing Land Use, Study Area

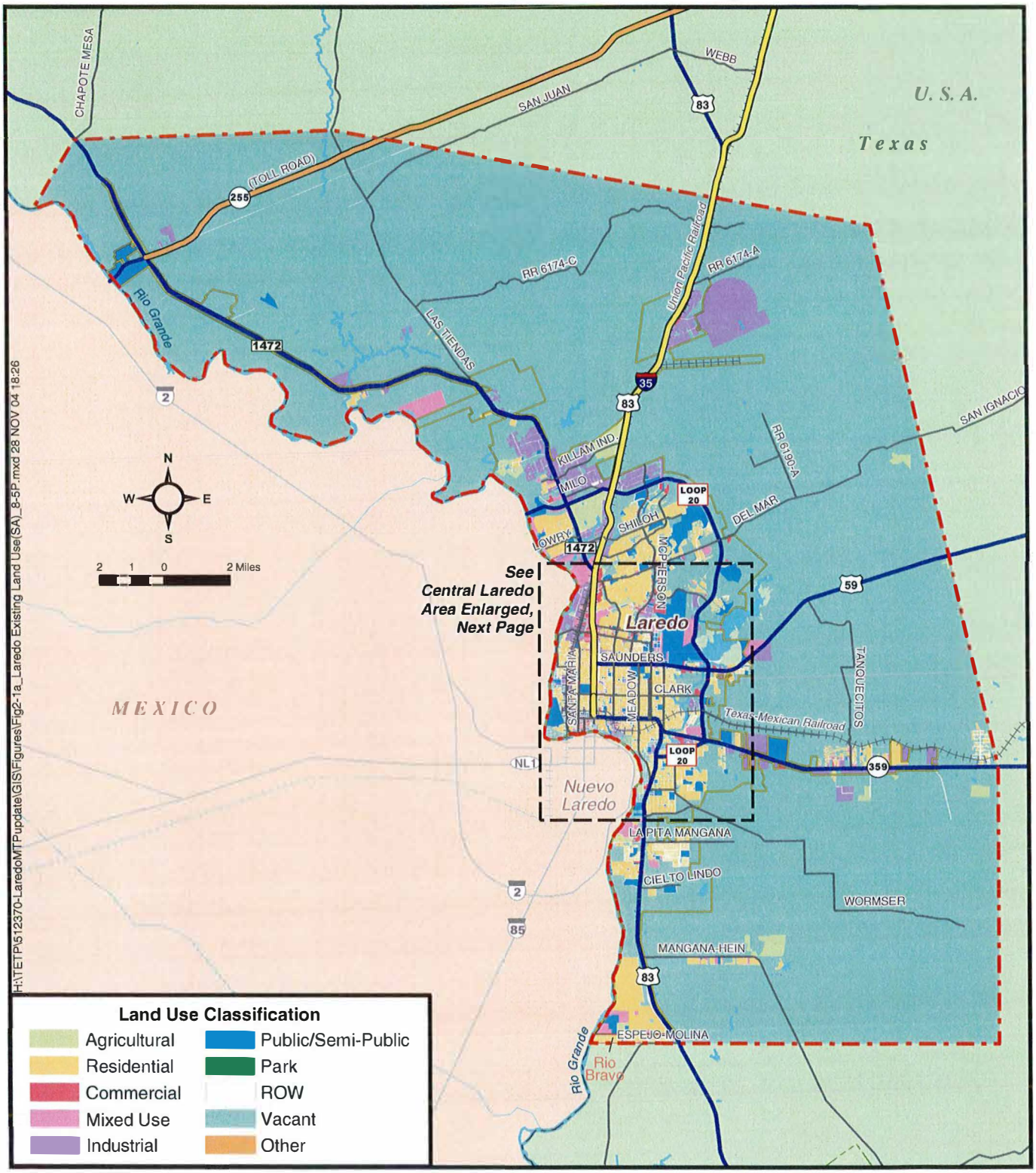
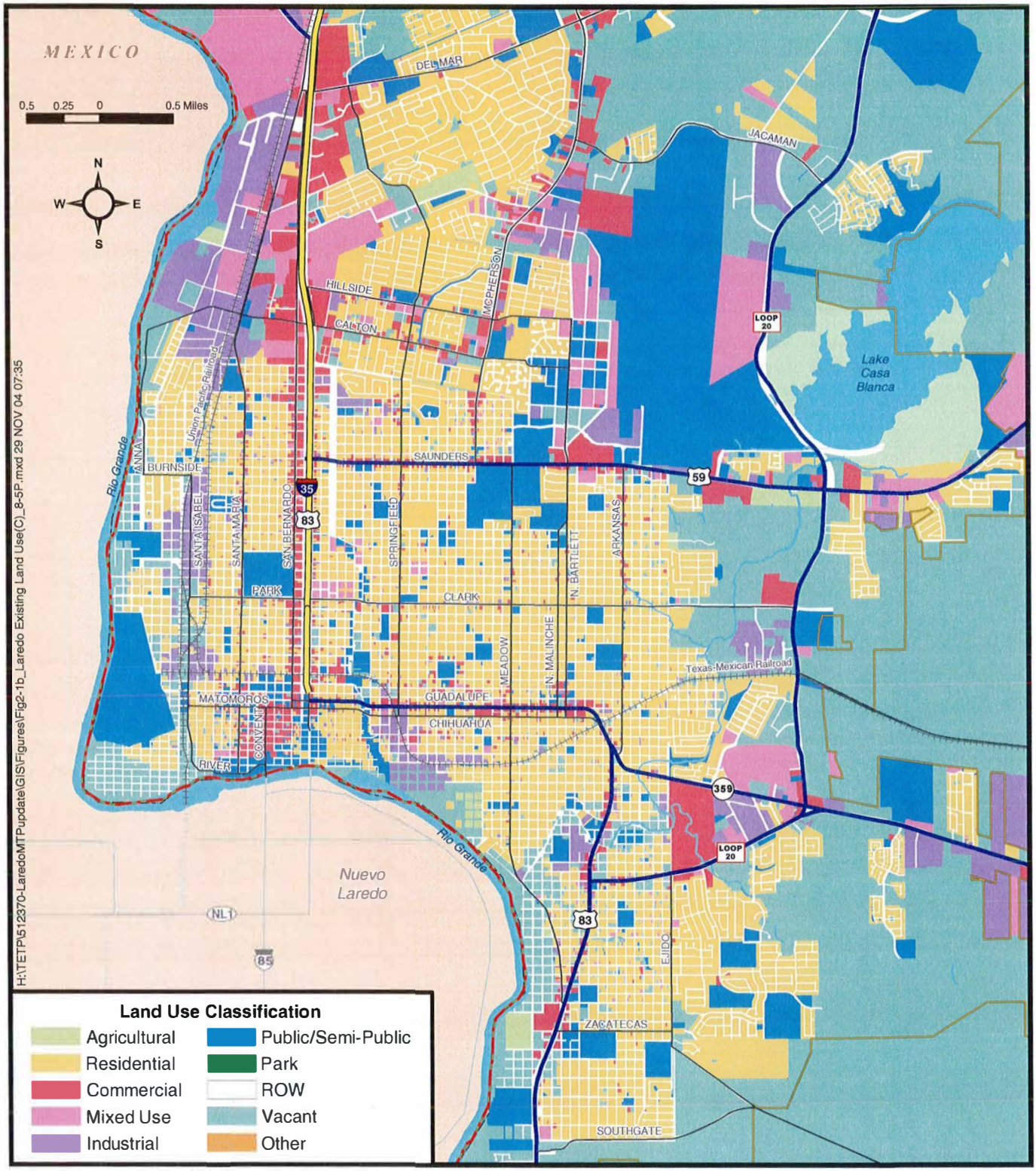


Figure 2-1b Existing Land Use, Central Laredo



Historical Landmarks and Sites

Throughout the Laredo area, numerous landmarks and sites have been designated as historically significant at either the local, state or national level. Some of these sites may be protected under Section 106 of the National Historic Preservation Act (NHPA) of 1966 (as amended in 1976, 1980 and 1992) which requires federal agencies, prior to implementing an undertaking, take into account the effects of the undertaking on historic properties and afford various interested persons, groups, or agencies an opportunity to comment on the undertaking.

The Federal Highway Administration (FHWA) delegates responsibility for the Section 106 process of highway projects to TxDOT. If a property/site has been determined to be eligible for addition to the National Register of Historic Places (NRHP), the regulatory procedures implementing Section 4(f) to the DOT Act are applied accordingly. A Section 4(f) evaluation is prepared and coordinated with the FHWA and the Department of the Interior (DOI). If the site is determined to be valuable or important only for the data that may be recovered from the site, rather than its importance in place, Section 4(f) does not apply.

Figure 2-2 identifies historic districts and landmarks within the study area. As shown there are three districts within the study area that are on the National Register of Historic Places, including Fort McIntosh Historic District, Villa San Augustin de Laredo Historic District and Barrio Azteca Historic District. Additionally, the City of Laredo has also designated three districts and several landmarks as historic. Landmarks considered historic include the following:

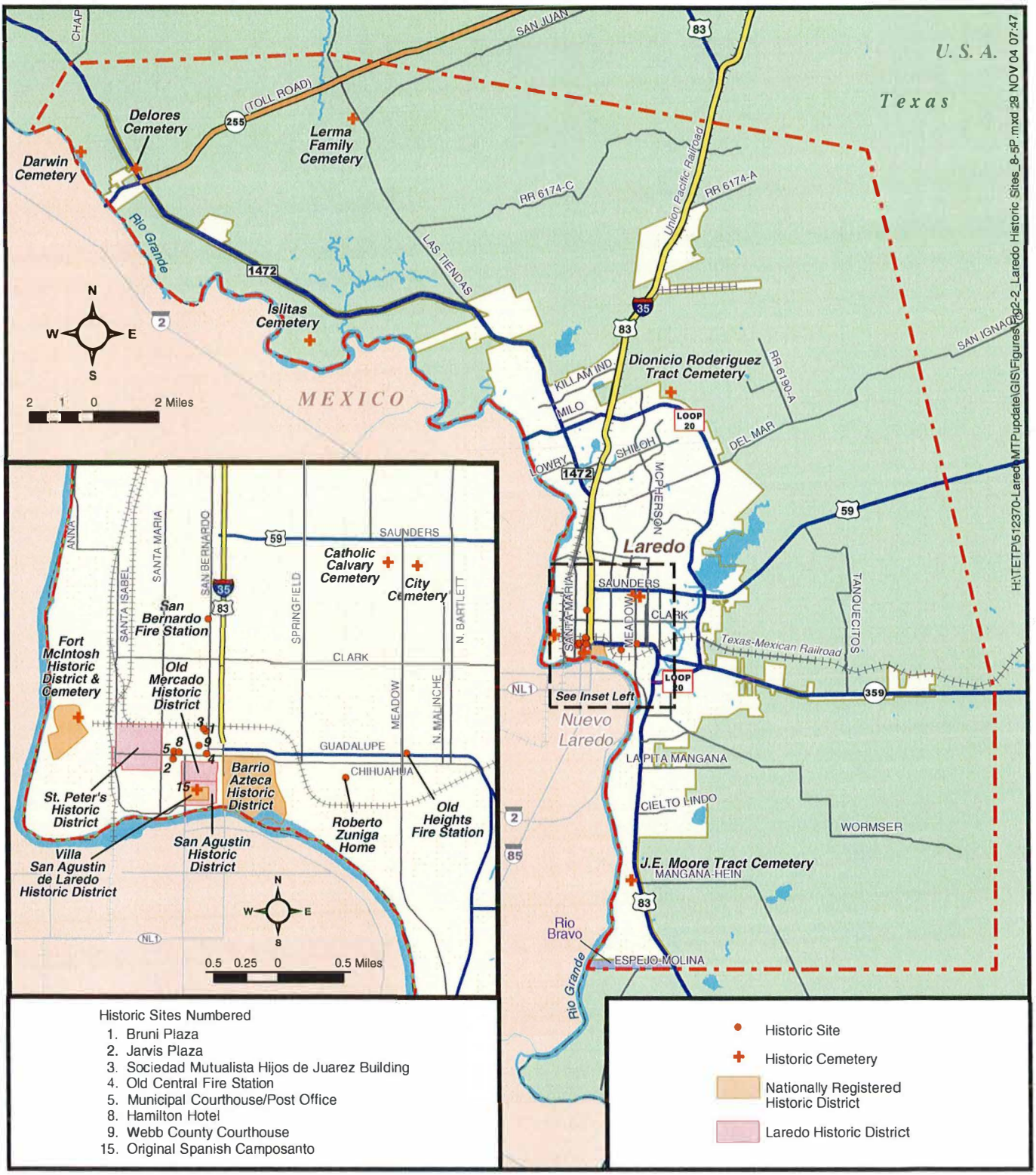
- Bruni Plaza;
- Jarvas Plaza;
- Sociedad Mutualista Hijos de Juraez Building;
- Old Central Fire Station;
- Municipal Courthouse/Post Office;
- Hamilton Hotel;
- Webb County Courthouse; and,
- Original Spanish Camposanto.

Soils and Farmlands

The purpose of the Farmland Protection Policy Act of the Agricultural and Food Act of 1981 is to minimize the extent to which federal programs contribute to the unnecessary and irreversible conversion of prime, unique, and other farmlands of statewide or local importance to non-agricultural uses. Federal agencies are directed to take into account the adverse effects of federal action on farmlands, to consider appropriate alternative actions that mitigate adverse effects, and to assure that such federal actions are compatible with those state, local, and private programs designed to protect farmlands.

According to the Soils Survey of Webb County, Texas prime farmland soils, defined by the U.S. Department of Agriculture, are those that are best suited for producing food, feed, forage, fiber, and oil seed crops. Prime farmland soils produce the highest yields with minimal inputs of energy and economic resources, and farming these soils results in the least damage to the environment.

Figure 2-2 Historic Sites



There is no prime farmland in Webb County without irrigation, including non-irrigated pastureland and cropland. However, in those areas where there is water available for irrigation the agricultural potential becomes prevalent. The majority of the prime farmland (when irrigated) is located along the eastern perimeter extending toward the Rio Grande River in the northern and southern portions of the city.

Floodplains

The area surrounding the City of Laredo has creeks that form the local drainage basin for the Rio Grande River. Past this drainage basin there is a broad drainage basin from the Nueces River. As shown in **Figure 2-3** there are several areas within the study area that are subject to the 100 and 500 year floods. The majority of flood prone areas occur along the Rio Grande River and along creeks within the region including San Idelfonso Creek, Cuervo Creek, Becerra Creek, Sombreitillo Creek, Chacon Creek, Zacate Creek and Santa Isabel Creek. These areas are subjected to flash flooding and should be allowed to function unhindered by structures in the stream channels or floodway.

Wetlands

Wetlands are areas that are inundated by surface or ground water frequently enough to support vegetation or aquatic life that requires saturated or seasonally soil conditions. The U.S Army Corps of Engineers performs field investigations to identify "jurisdictional" wetlands – those considered a part of "waters of the United States". Permits are required for activities impacting federally identified wetlands under Section 404 of the Clean Water Act and Section 10 of the Rivers and Harbors Act of 1899. The extent of floodplain areas identified by the Federal Emergency Management agency is indicative of where wetlands are more likely to be found, although all of the floodplain areas are not necessarily considered to be jurisdictional wetlands.

In 1979, a comprehensive classification system of wetlands and deepwater habitats was developed for the U.S. Fish and Wildlife Service (Cowardin et al. 1979). Under this system, Laredo's wetlands are categorized as inland (also known as non-tidal, freshwater). The wetlands common to the Laredo metropolitan area are riparian wetlands commonly found in the semiarid west. The following is a brief description of the two classes of wetlands under the Cowardian system found in the study area.

Palustrine (predominant class in study area) - All nontidal wetlands dominated by trees, shrubs, persistent emergents, emergent mosses or lichens, and all such tidal wetlands where ocean-derived salinities are below 0.5 parts per thousand. This category also includes wetlands lacking such vegetation but with all of the following characteristics: (1) area less than 8 hectares; (2) lacking an active wave-formed or bedrock boundary; (3) water depth in the deepest part of the basin less than two meters at low water; and (4) ocean-derived salinities less than 0.5 parts per thousand.

Riverine - All wetlands and deepwater habitats contained within a channel except those wetlands (1) dominated by trees, shrubs, persistent emergents, emergent mosses or lichens; and (2) which have habitats with ocean-derived salinities in excess of 0.5 parts per thousand.

Figure 2-3a Development Constraints, Study Area

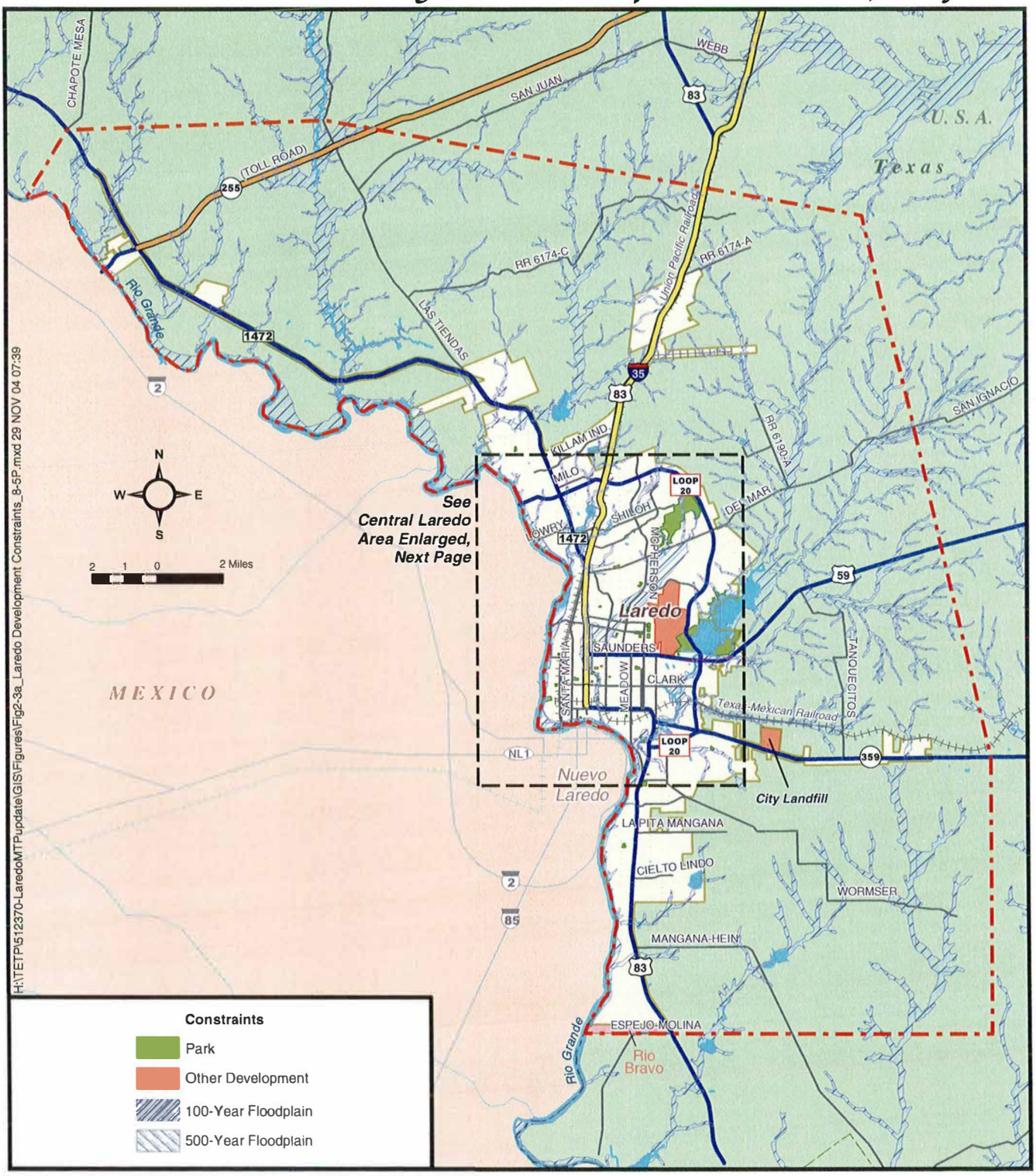
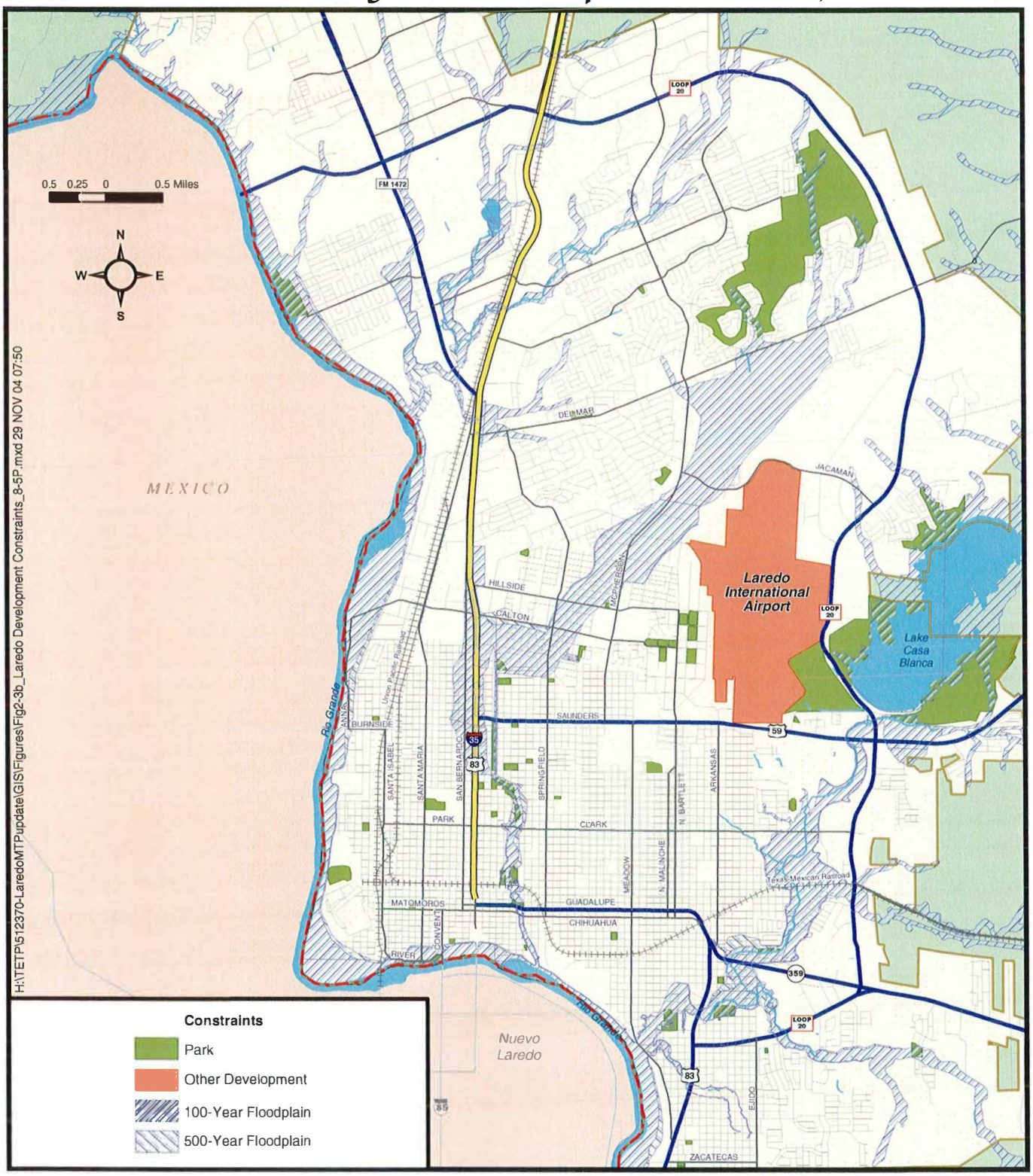


Figure 2-3b Development Constraints, Central Laredo



Parks and Recreation

The U.S. Department of Transportation Act of 1966, Section 4(f), requires that no publicly-owned land from a public park or recreation area, or land from a significant historic site be used for federal-aid highways unless there is no feasible or prudent alternative. The Land and Water Conservation Fund Act of 1970, Section 6(f), requires land conversion approval by park authorities where these funds were used in purchase or development of parklands or facilities.

The City of Laredo has numerous recreational facilities and the majority of these are located within the central part of the city. The City of Laredo currently oversees 554 acres of parkland including 8 recreational facilities, 61 parks and open space areas owned by the City and five parks that were jointly developed with the local independent school districts. The nearby Lake Casa Blanca State Park provides a swimming pool, golf course, picnic areas, and boating facilities. Parks and recreation facilities are identified in **Table 2-1** and displayed on Figure 2-3.

Table 2-1
Parks and Recreation Facilities
Laredo Metropolitan Transportation Plan Update

Parks	
Al King Little League park	Las Palmas Park Trail
Aldo Tantagelo Walkway	Los Dos Laredos Park
Azteca Park	Lyon Street Skate Park
Base Community Complex	Market Street Complex
Benavides Park	Noon Lions Park
Bruni Plaza	Northeast Hillside Park
Canizales Park	Ochoa Sanchez Park
Chaparral Park	Santa Fe Park
Cirlcle Drive Park	Santa Rita Park
Civic Center Pool	Scott Street park
Community Baseball Fields	Seven Flags Park
Cruz Little League Field	San Augustin Plaza
Del Mar Community Park	St. Peter's Plaza
Dryden Park	Taylor Street Park
East Central Park	Three Points Park and Pool
Garcia-Vela Park	Toddler Park
Jarvis Plaza	Villa del Sol Park
La Ladrillera Park	Zacate Creek Park
Las Brisas Park	Zacate Linear Park
Facilities	**Joint Use Facilities**
Canizales Boxing Gym	Albert Ochoa Park
Cigarroa Recreation Center	East Martin Baseball Field
Civic Center	Father Mc Naboe Park
D.D. Hachar Recreation Center	Freddy Benavides Complex
Farias Recreation Center	Veteran's Field/West Martin
Tarver Recreation Center	
La Ladrillera Recreation Center	
NE Hillside Recreation Center	

Air Quality

Over the past several decades, air quality has become increasingly a national concern. With the passing of the Clean Air Act of 1970 and the Clean Air Act Amendments of 1977 and 1990 (CAAA), individual states have become responsible for adhering to pollution limits set forth by the Environmental Protection Agency (EPA) and preparing State Implementation Plans which outline regulations and policies to reduce pollution levels in the region. Transportation facilities are a major source of pollution levels and thus serve as an impediment to maintaining clean air goals. These regulations set forth by federal and state agencies to improve and/or maintain air quality standards affect transportation programs and policies in the region.

The Clean Air Act requires EPA to set National Ambient Air Quality Standards for pollutants considered harmful to public health and the environment. The EPA has set NAAQS for the following six principal pollutants which are called "criteria" pollutants:

- carbon monoxide;
- nitrogen oxides;
- ozone;
- particulate matter;
- sulfur dioxides; and,
- lead.

The EPA classifies a county's or metropolitan area's ambient air quality with respect to conformity to the NAAQS. The classifications are as follows:

- Attainment - Met or better than NAAQS;
- Nonattainment - Did not meet NAAQS; and,
- Unclassifiable - Cannot be classified.

In Texas, air quality is monitored by the Texas Commission on Environmental Quality. The commission measures both particulate matter and ozone. Currently, the Laredo metropolitan area is classified as being within the "attainment" criteria. However, it will be crucial to monitor closely the increasing truck and automobile traffic projected for the study area to be able to verify and maintain this status.

Although Laredo is classified as being within attainment, airborne particulate matter is becoming a concern within the Laredo metropolitan study area. The high particulate readings are caused by the dry climate, frequent winds, and unpaved streets.

As mentioned previously, the attainment status is directly related to the area's current and projected truck traffic. In addition to the emissions generated by automobiles and trucks, diesel trucks (which are the predominate type of trucks) generate particulates. The amount of particulate is dependent on the number, relative speed, fuel quality, and engine maintenance of the trucks. Traffic congestion that results in lower speeds and idling for long periods of time also increases the emission levels.

Major Area Roadways

The Laredo MPO region is served by an interstate and several state roadways that provide the basic framework of transportation facilities for the area. The Texas Department of Transportation (TxDOT) maintains the state roadways for the Laredo MPO area, while the City of Laredo and Webb County maintain all local roadways that are not part of the state system. Study area roadways range from six-lane interstate and arterial roads to two-lane local streets. **Figure 2-4** presents the existing travel lanes for the Laredo MTP roadway network.

Interstate Highways

Serving as the only interstate facility in the region, IH 35 provides north-south access for persons traveling from San Antonio to the City of Laredo and the international border crossing for Mexico. IH 35 is considered a major international trade corridor that extends from Duluth, Minnesota to Laredo where it terminates at the Juarez-Lincoln International Bridge, Texas-Mexico border. Vehicle access across the bridge is provided and vehicles can enter the City of Nuevo Laredo and continue on into the interior of Mexico. Average daily traffic along IH 35 ranges from 13,700 vpd at the northern edge of planning boundary to 97,000 vehicles per day (vpd) in the central part of the City.

IH 35 is a four to six-lane controlled-access facility with a varying posted speed limit of 60 to 65 mph within the MTP boundary. The interstate has a mix of concrete and asphalt surfaces with both inside and/or outside shoulders. Along the northern edge of the study boundary the mainlanes are separated by a wide grass median. Within the City the mainlanes are separated by a concrete barrier. Frontage road sections along IH 35 extend from the northern study limits to U.S 83 / Matamoros Boulevard. Between the northern study limit and Loop 20 the frontage roads are primarily two-way with one travel lane in each direction. Between Loop 20 and Matamoros Boulevard the frontage roads are primarily one-way with 2 or 3 travel lanes.

I-35

U.S. Highways

The Laredo MTP study area contains two U.S. Highway facilities (US 59 and US 83) that provide service from other Texas regions to this area. US 59 begins in Laredo at the interchange with IH 35 and travels east to Victoria and Houston, while US 83 provides north-south access from Brownsville, through Laredo, and north to Abilene and west Texas.

Figure 2-4a Existing Roadway Travel Lanes, Study Area

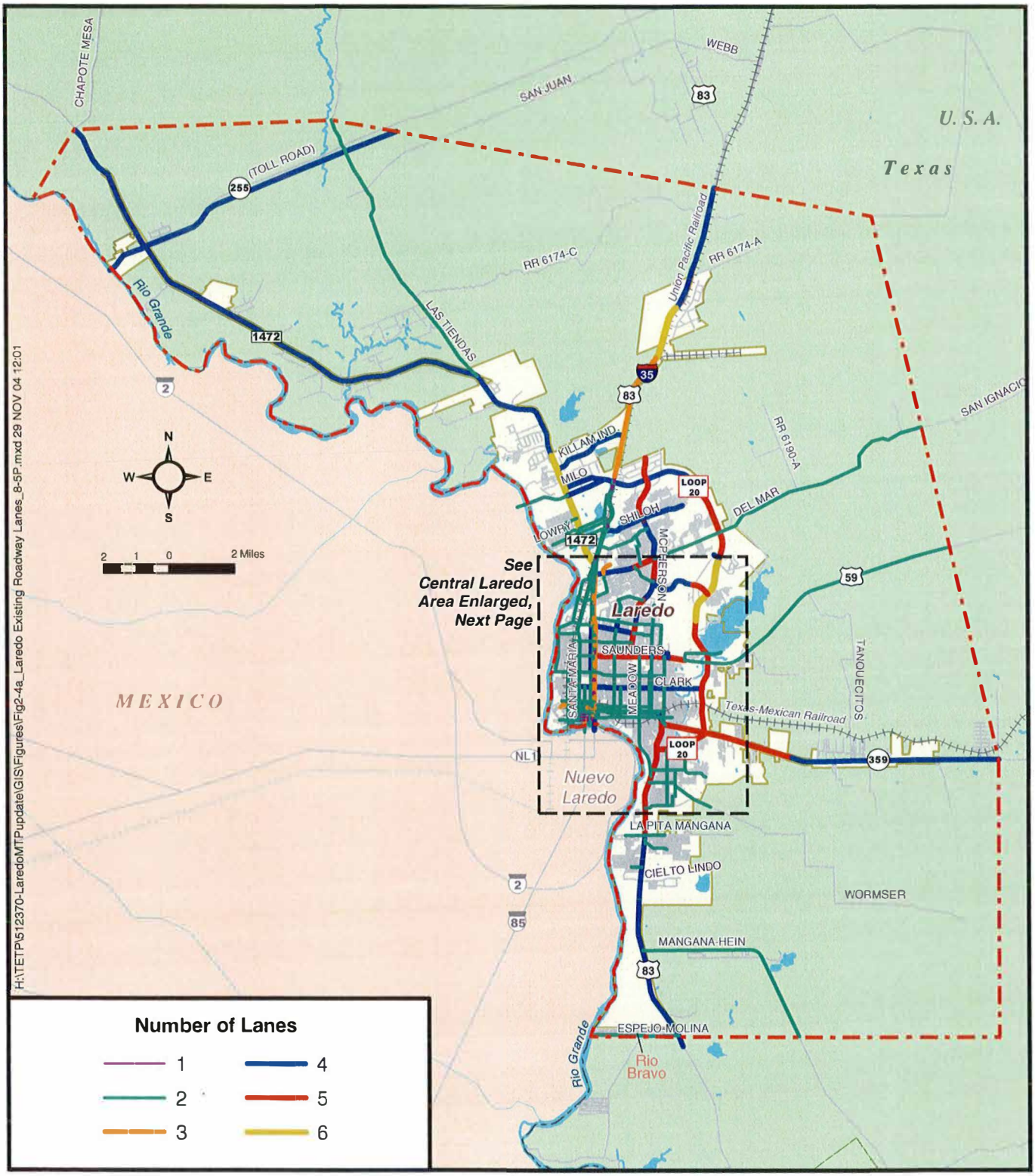
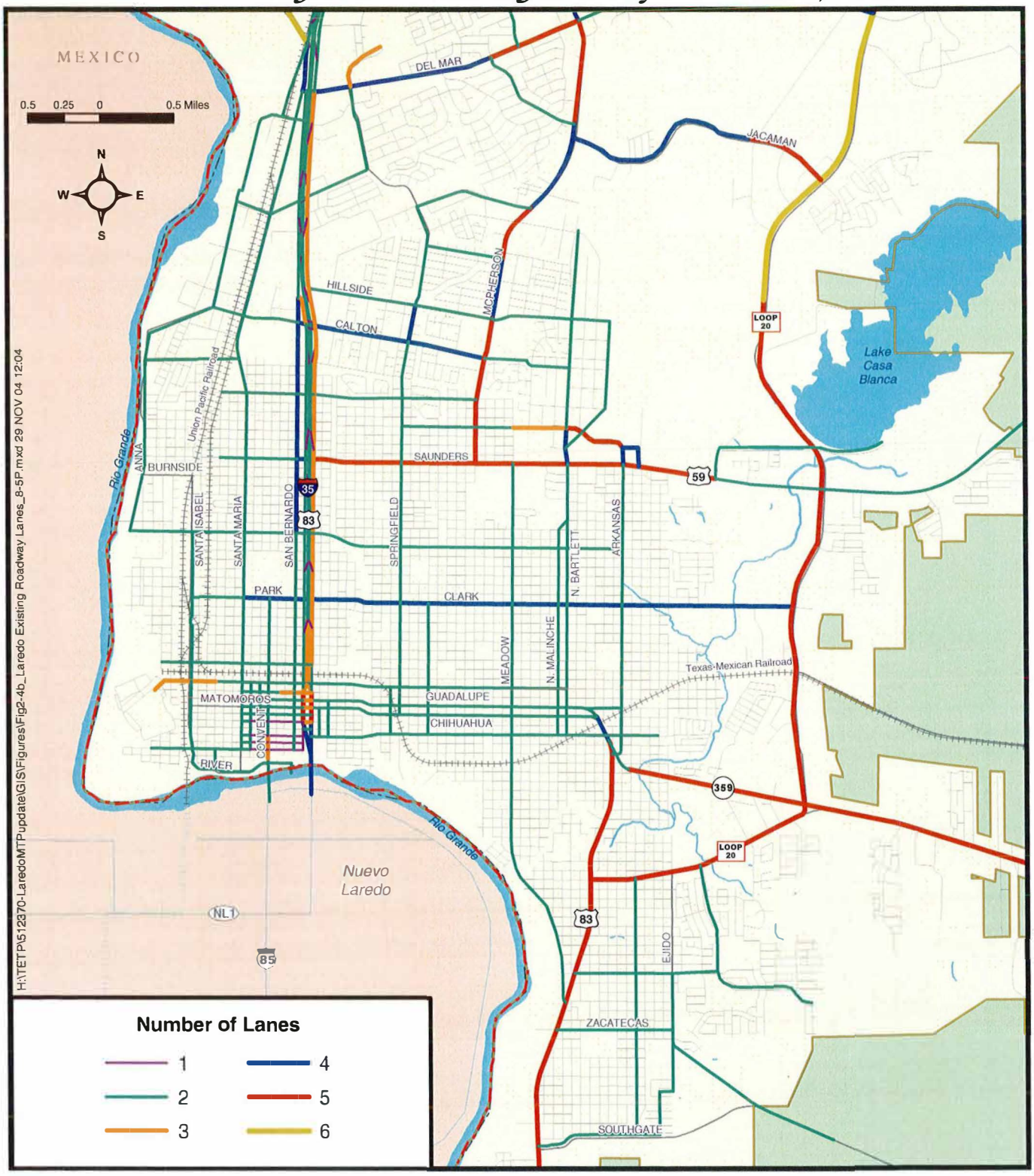
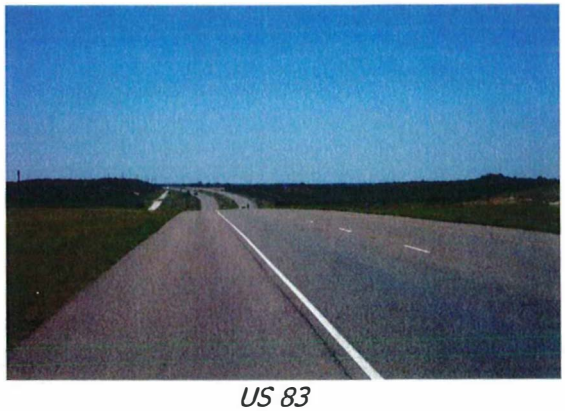


Figure 2-4b Existing Roadway Travel Lanes, Central Laredo



US 59 consists of a four-lane principal arterial with a center turn lane (Saunders Street) within the urban area and a two-lane roadway in rural areas. The urban arterial section has an asphalt surface with a continuous left turn lane (CLT) , while the rural section has an asphalt surface with a CLT and shoulders. US 59 has a posted speeds ranging from 35 to 65 mph within the study area, and carries an average daily traffic between 3,200 and 25,000 vpd.

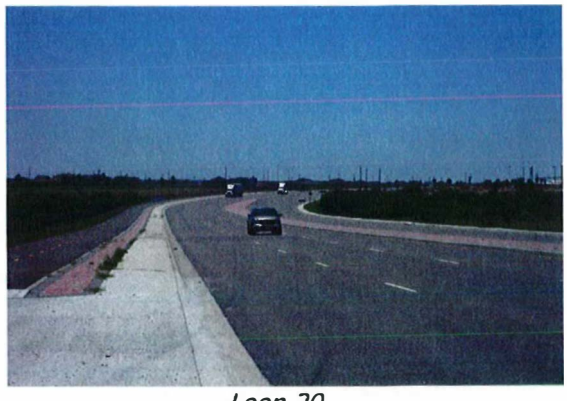
US 83 is a four-lane expressway (Zapata Highway) from Palo Blanco to the southern study limits. Within this study section US 83 is an asphalt roadway that has inside and outside shoulders and the posted speed limits ranges from 55 to 65 mph. Between Market Street and Palo Blanco US 83 is a 4-lane asphalt covered arterial roadway with a continuous center turn lane. The posted speed limit in this section is 35 mph. Between Market and the IH 35, US 83 splits into 2 one-way pairs (Chihuahua – eastbound and Guadalupe – westbound). Both streets are 2 lanes asphalt roadways with limited on-street parking. The posted speed limit within this section is 30 mph. From IH 35, US 83 extends north following the IH 35 alignment for about 14 miles. US 83 carries average daily traffic volume of 13,600 to 35,000 vpd.



US 83

State Highways

The Laredo MTP study area currently contains one State Highway and one State Loop roadways. Loop 20 is the primary bypass loop around the City of Laredo that begins at the intersection with US 83 South and travels north and west to its terminus at the World Trade Bridge west of Mines Road. SH 359 originates near the intersection of US 83 (Zapata Highway) and Arkansas Avenue, and travels eastward to the town of Alice and south Texas.



Loop 20

State Loop 20 (Bob Bullock Loop) extends from US Highway 83 to the Texas-Mexico border crossing where there is a large intermodal inspection station and border crossing. Between US 83 and Sinatra Parkway Loop 20 is a 4-lane asphalt and concrete roadway with a continuous center turn lane. Within this area there are outside shoulders that are used as right turn lanes and the posted speed limit varies from 40 to 50 mph. Between Sinatra Parkway and Del Mar, Loop 20 is a 6-lane concrete and asphalt facility with a concrete median separating the travel directions. There is a newly constructed jogging/bicycle path constructed along the eastern side of Loop 20. The posted speed limit is 50 mph. North of Del Mar and continuing west of the IH 35 interchange, Loop 20 is undergoing major construction. New overpasses are being constructed as well as travel lanes and jogging/bicycle lanes. During field review, this section had been narrowed to two lanes (1 each direction). Loop 20 continues under IH 35 and continues as a freeway section to the Texas-Mexico border, where there is a truck only border crossing.

SH 359 consists of a four-lane roadway with a posted speed of 55 mph and an ADT between 8,300 and 13,800 vpd. The roadway section along SH 359 is asphalt with a CLT and shoulders. The Laredo MTP region also has the Camino Colombia Toll Road that connects IH 35 (south of Encinal) to the Colombia-Solidarity International Bridge. The Toll Road, which was recently purchased by the State of Texas, now has a new designation, SH 255, and is in operation. FM 255 was recently designated as part of SH 255 and also serves the Laredo area connecting FM 1472 to the Colombia Bridge.

Farm-to-Market Roads

The Laredo MTP region has three Farm-to-Market (FM) roads providing connections between the major highway facilities and urban and rural residential areas, including FM 1472, and FM 3368. FM 1472 begins with the interchange with IH 35 north of downtown Laredo and travels northwest to the Colombia-Solidarity International Bridge and the western regions of Webb County.

FM 1472

The urban section of FM 1472 (Mines Road) is classified as a six-lane divided primary arterial with a posted speed of 45 mph and an ADT of about 40,000 vpd. Mines Road is asphalt with a CLT and sidewalks. The rural section of FM 1472 is a four-lane roadway with a posted speed of 65 mph and an ADT of about 7,000 vpd. This section has an ashphalt surface with shoulders and an open space median. FM 3368 (Las Tiendas Road) also serves the Laredo area.

Local Roads / Streets

Many City of Laredo streets and Webb County roads consist of two-lane collectors and local access roads / streets with a speed limit of 30 mph. However, the City of Laredo has several arterials connecting the interstate and state roadways to commercial and residential areas. The four-lane arterials include McPherson Road (from Saunders Street to Loop 20), Del Mar Boulevard (from IH 35 to the eastern portion of Webb County), and Clark Boulevard in downtown Laredo (connecting IH 35 and Santa Maria Avenue to Loop 20 south of US 59). Two-lane arterials include Arkansas Avenue (between SH 359 and US 59) and Santa Maria Avenue (from downtown Laredo to the FM 1472 interchange with IH 35).

Existing Functional Classification

Functional classifications of transportation facilities are designed to describe the hierarchical arrangement and interaction between various roadways. These classifications may change over time, as the function of roadways changes to serve different land uses or other transportation facilities. As an area becomes more developed, roads that have previously been classified in one category may be reclassified to a higher category.

As previously mentioned, US 59 is located along the potential route of Interstate 69 and may eventually be upgraded to an interstate-type facility with intermodal improvements for enhanced truck access between the Mexican border and other U.S. destinations. **Figure 2-5** shows the current functional classifications for the area roadways within the Laredo MTP boundary, and these classifications are described in the following categories:

Figure 2-5a Existing Roadway Functional Classifications, Study Area

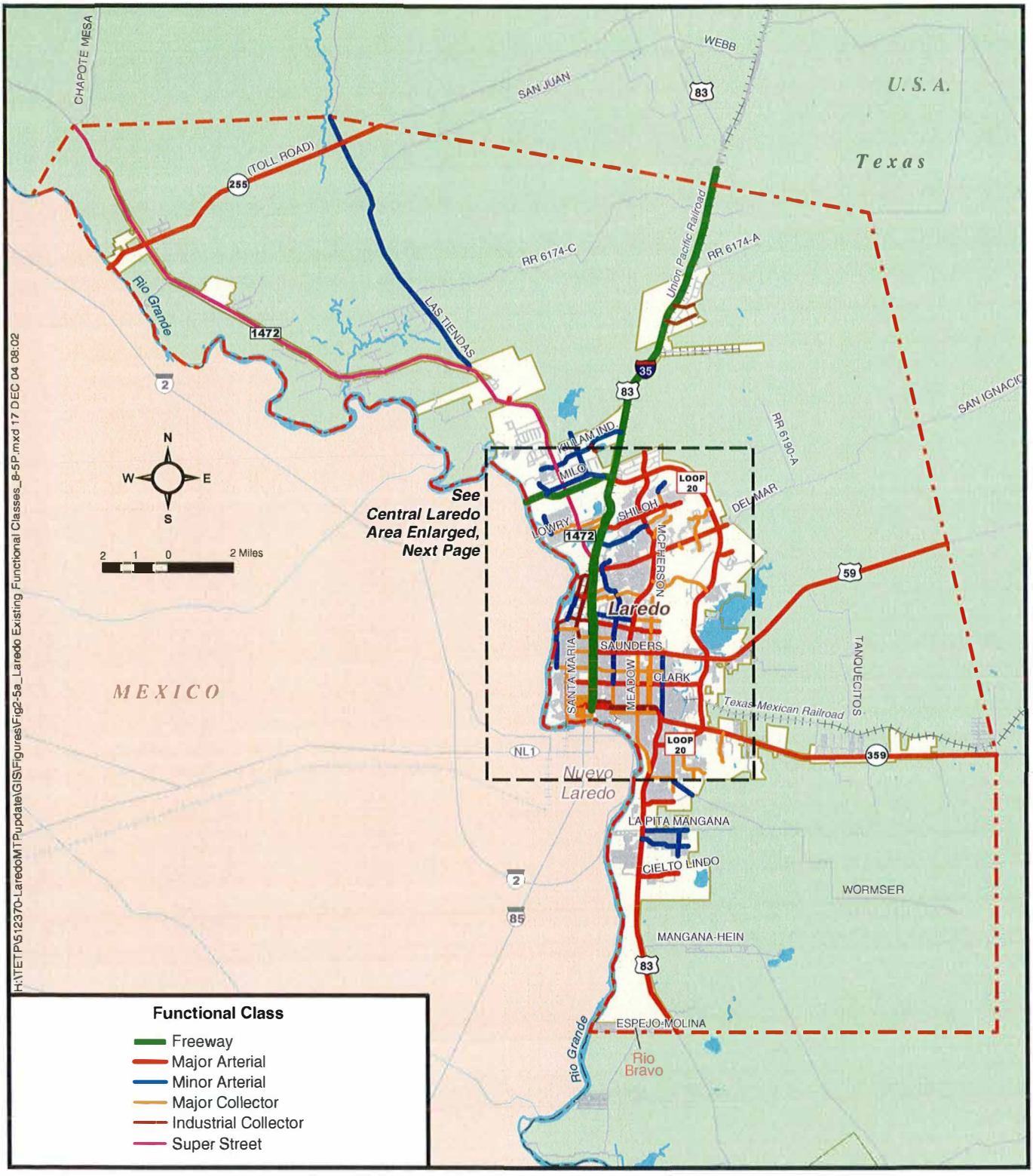
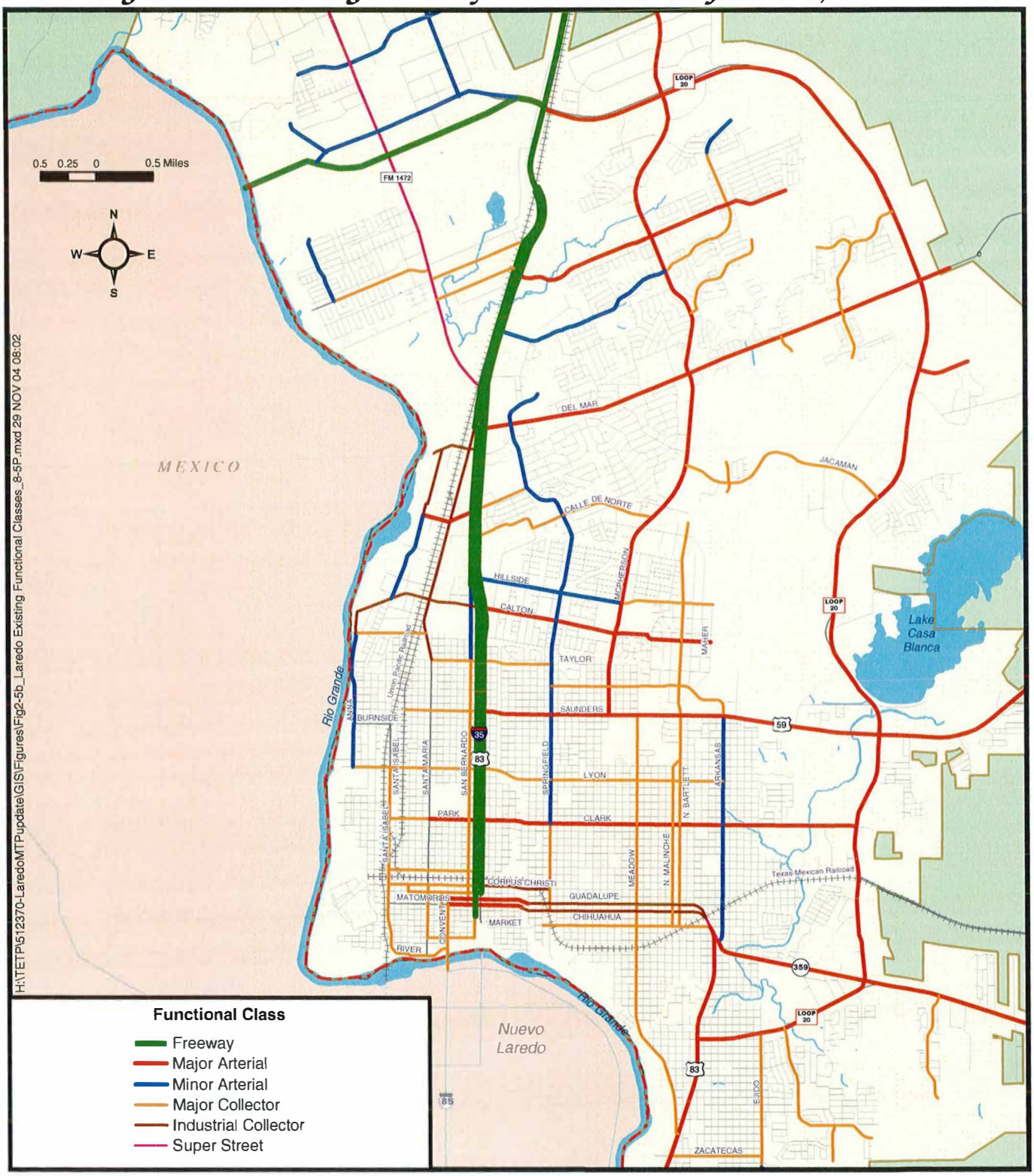


Figure 2-5b Existing Roadway Functional Classifications, Central Laredo



Freeways/Expressways

Classified as interstate highways, freeways or expressways, these facilities provide for the rapid and efficient movement of large volumes of goods and traffic between regions and across the metropolitan area. Direct access to abutting property is not an intended function of these facilities. Design characteristics support the function of traffic movement by providing multiple travel lanes, a high degree of access control, and few or no intersections at grade.

Tollways

These facilities generally serve the same purpose as a freeway or expressway classification with access control and goods and traffic movement between major roadways. However, access control and traffic flow is managed through the use of toll booths (and other possible toll collection methods) located along the main lanes and access ramps of the tollway.

Arterial Streets

Arterials primarily provide for traffic movement with a secondary function being the provision of direct access to abutting property. Major arterials typically serve as connections between major traffic generators and land use concentrations, and facilitate large volumes of through traffic traveling across the community. Minor arterials typically serve as connections between local/collector streets and major arterials, and facilitate the movement of large traffic volumes over shorter distances within the community. Because direct access to abutting property is a secondary function of arterial streets, access should be carefully managed to avoid adverse impacts on movement function intended for these facilities.

Collector Streets

Collector streets provide for a balance of the traffic movement and property access functions. Traffic movement is often internal to local areas and connects residential neighborhoods, parks, churches, etc., with the arterial street system. As compared to arterial streets, collector streets accommodate smaller traffic volumes over shorter distances.

Local Streets

Local streets function to provide access to abutting property and to collect and distribute traffic between parcels of land and collector or arterial streets.

Existing Traffic Control

Facilitation of traffic flow on the roadway network is provided through the application of traffic control devices such as traffic signals, traffic signs, and pavement markings. Of these, traffic signals have the greatest impact on the traffic flow and roadway capacity. Within the Laredo MTP region, there are approximately 233 signalized intersections operated by pre-timed or traffic-actuated controller equipment. Plus, signal coordination has been established along the major thoroughfares. Under an interagency agreement, traffic signals installed by the TxDOT district office are maintained by the City of Laredo's Traffic Safety Department.

Daily Traffic Volumes

Average daily traffic volumes for the Laredo MTP region were provided by the Texas Department of Transportation. Existing daily traffic volumes along major roadway facilities range from 97,000 vpd on IH 35 north of the US 59 interchange to 350 vpd on FM 1472 at the northern limits of the study area boundary. The most heavily traveled roadway segments are those approaching or within the City of Laredo. **Figure 2-6** shows the 2003 ADT on major roadways throughout the study area. Traffic volumes along major roadways are discussed below:

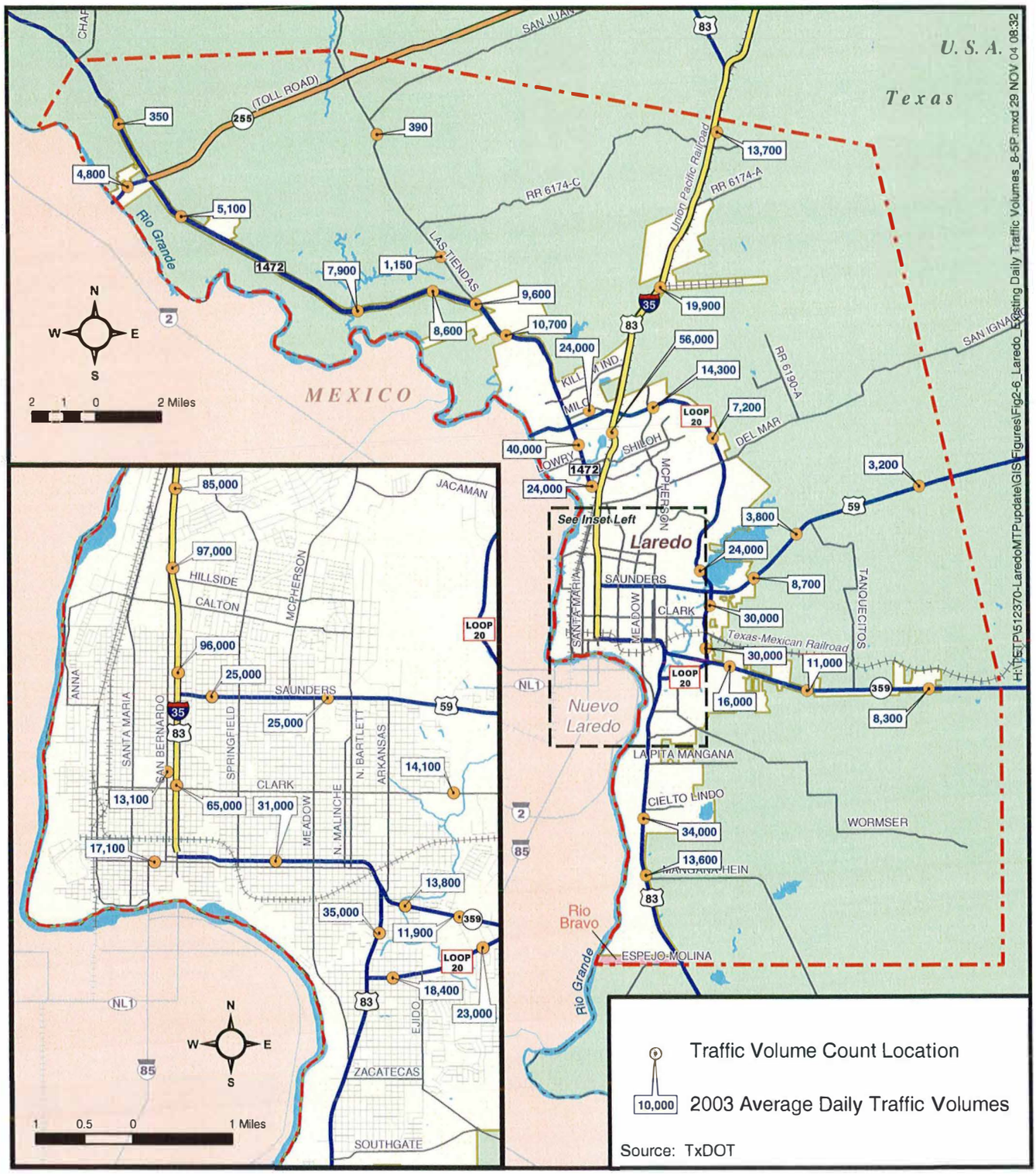
- I-35 – I-35 is one of the most heavily traveled roadways in the study area. Average daily traffic along I-35 ranges from 97,000 vpd in the central part of the City to 13,700 vpd at the northern edge of the planning area boundary;
- U.S. 59 – Average daily traffic volumes along US 59 range from 25,000 vpd, east of I-35 to 3,200 vpd at the eastern edge of the study area;
- FM 1472 / Mines Road – Average daily traffic volumes along FM 1472 range from 40,000 vpd north of Lowry to 350 vpd north of the Camino Columbia Toll Road;
- Loop 20 – Average daily traffic volumes along Loop 20 range from 30,000 vpd along the southern portion of the Loop to 7,200 vpd north of Del Mar; and,
- US 83 – Average daily traffic volumes along U.S 83 south of downtown range from 13,600 vpd near the southern edge of the planning area to 35,000 vpd south of downtown.

Table 2-2 identifies historical traffic volumes for the Years 1993 and 2002 along selected segments of major roadways in the Laredo area. As shown, the Laredo region has experienced significant growth in traffic along its roadways over the past nine years. Growth in traffic has ranged from an annual increase of 3.1 percent on I-35 to 13.4 percent along FM 1472.

Table 2-2
Historic Traffic Volumes
Laredo Metropolitan Transportation Plan Update

Map_ID	Roadway	Location	Rural or Urban	1993	2002	Annual % Increase
41	I-35	North of Killam Industrial Road	U	9,930	19,960	8.1%
40	I-35	North of Shiloh	U	15,520	23,140	4.5%
37	I-35	North of Saunders	U	47,960	63,330	3.1%
11	US 59	West of N. Bartlett	U	11,000	28,000	10.9%
9	US 59	West of Tanquecitos Road	R	2,900	3,700	2.7%
15	US 83	North of Southgate Road	U	16,000	29,000	6.8%
13	US 83	West of Meadow Street	U	21,000	35,000	5.8%
17	US 83	At Southern Laredo City Limits	R	8,100	12,100	4.6%
26	State Loop 20	South of SH 359	U	6,100	17,000	12.1%
46	SH 359	West of Tanquecitos Road	R	5,600	11,000	7.8%
7	SH 359	West of State Loop 20	U	6,600	11,000	5.8%
34	FM 1472	North of Lowry	U	12,300	38,000	13.4%
33	FM 1472	South of FM 3338	U	4,000	9,400	10.0%
30	FM 1472	South of Thiesel Road	U	2,700	6,100	9.5%

Figure 2-6 Existing Daily Traffic Volumes



Traffic Operations

Utilizing the traffic count data and design capacities based on the roadway functional classes, existing traffic operations can be evaluated by conducting a traffic volume to capacity ratio analysis. Roadway capacity is defined as the maximum number of vehicles that can be accommodated on a roadway facility during a particular time period under prevailing roadway, traffic, and control conditions. An important result of this type of capacity analysis is the determination of the roadway level-of-service (LOS).

Level-of-Service is a qualitative measure of operating conditions at a location and is directly related to the volume-to-capacity ratio along roadways, as shown in **Table 2-3**. LOS is given a letter designation ranging from A to F (free flow to heavily congested), with LOS D considered in most urban areas as the limit of acceptable operation. For example, LOS can be related to the grading scale of a report card: A – Excellent, B – Good, C – Average, D – Acceptable, E – Needs improvement, and F – Failing. Utilizing procedures identified in the 2000 Highway Capacity Manual and the available traffic data identified previously, level-of-service was determined for principal roadways within the study area.

Table 2-3
Level-of-Service Definitions for Principal Roadways
Laredo Metropolitan Transportation Plan Update

Level-of-Service (LOS)	Maximum Volume-to-Capacity Ratio (v/c)			Description
	Two-Lane Roadways	Multi-Lane Arterials	Freeways	
A	0.10	0.35	0.35	Very low vehicle delays, traffic signal progression extremely favorable, free flow, most vehicles arrive during given signal phase
B	0.25	0.50	0.50	Good signal progression, more vehicles stop and experience higher delays than for LOS A.
C	0.40	0.65	0.70	Stable flow, fair signal progression, significant number of vehicles stop at signals.
D	0.60	0.80	0.85	Congestion noticeable, longer delays and unfavorable signal progression, many vehicles stop at signals.
E	1.00	1.00	1.00	Limit of acceptable delay, unstable flow, poor signal progression, traffic near roadway capacity, frequent cycle failures.
F	> 1.00	> 1.00	> 1.00	Unacceptable delay, extremely unstable flow, and congestion, traffic exceeds roadway capacity, stop-n-go conditions.

Source: Adapted from Highway Capacity Manual, Transportation Research Board, 2000

Figure 2-7 displays existing LOS in the study area. As shown many of roadways outside the central part of the city have an LOS of A to C, meaning they are operating below capacity, resulting in acceptable traffic operations. However, segments of many of the area's roadways, in particular within the central part of the City, have an LOS of D, E, or F, meaning that they are near or exceed capacity. The majority of congestion problems are occurring along roadways in the central part of Laredo and/or along roadways approaching the City. Segments of roadways within the City experiencing congestion problems include segments of US 83, I-35, and SH 359.

Special Traffic Generators

The analysis of traffic operations also requires the determination of major activity centers, like large industrial companies with numerous employees and major retail facilities that attract many shopping trips. The location and character of these activity centers (or major traffic generators) have an influence on the regional traffic volumes and flow patterns. For the Laredo MTP study area, the traffic generators can be classified into the following categories: industrial facilities, commercial / retail, civic-related facilities, colleges and universities, medical facilities, transportation-related services, and sport and recreational facilities. **Table 2-4** and **Figure 2-8** show the descriptions and locations of individual traffic generators discussed in the following sections.

Laredo Community College

Industrial Facilities

The Laredo region contains several clusters of industrial parks and a few major distribution centers along the outskirts of the City of Laredo. Seven industrial locations are classified as foreign trade zones: the Laredo International Airport, the Tex-Mex Railroad, Killam Industrial Park, International Commerce Center, La Barranca Ranch Development, Unitec Industrial Park, and Embarcadero Industrial Park.

Many industries are located along the FM 1472 corridor north of Loop 20, the Loop 20 corridor from FM 1472 to IH 35, and in the region surrounding the SH 359 and Loop 20 intersection. Plus, several industrial parks have access to the Union Pacific and Texas-Mexican Railroads. The U.P. Terminal and the nearby Port of Laredo are located near the IH 35 and Loop 20 interchange, which provides easy access to truck traffic entering and leaving the Laredo region.

Commercial / Retail

Retail establishments within the City of Laredo include two shopping malls, several plazas, and various retail centers throughout the city. Mall del Norte is located on IH 35 north of Hillside Road, while the El Portal is located on Santa Maria Avenue in downtown Laredo. The downtown area also has several plazas. Other retail corridors include IH 35 corridor north of Saunders Street and Loop 20 from the airport to SH 359.

Figure 2-8b Special Traffic Generators, Central Laredo

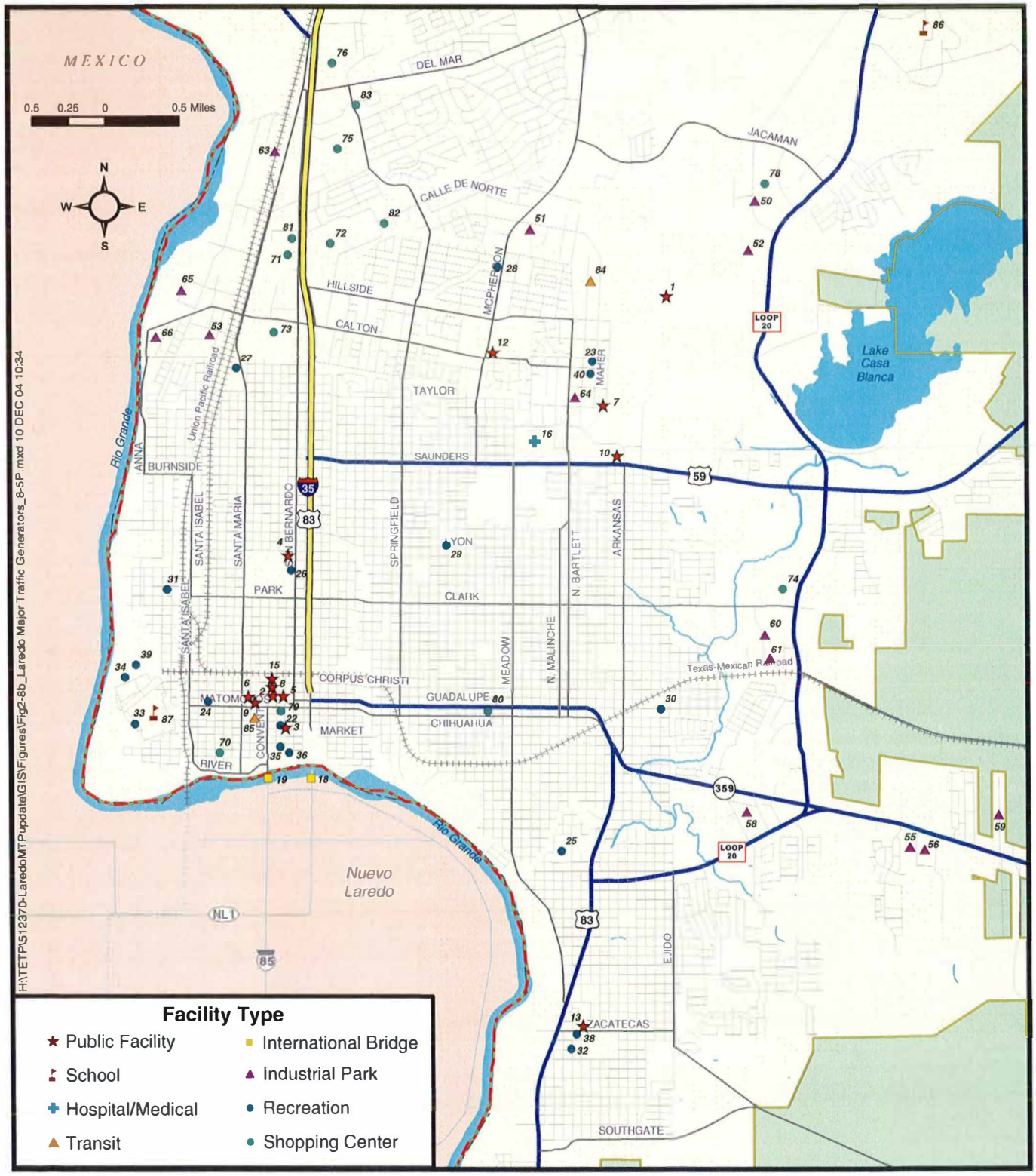
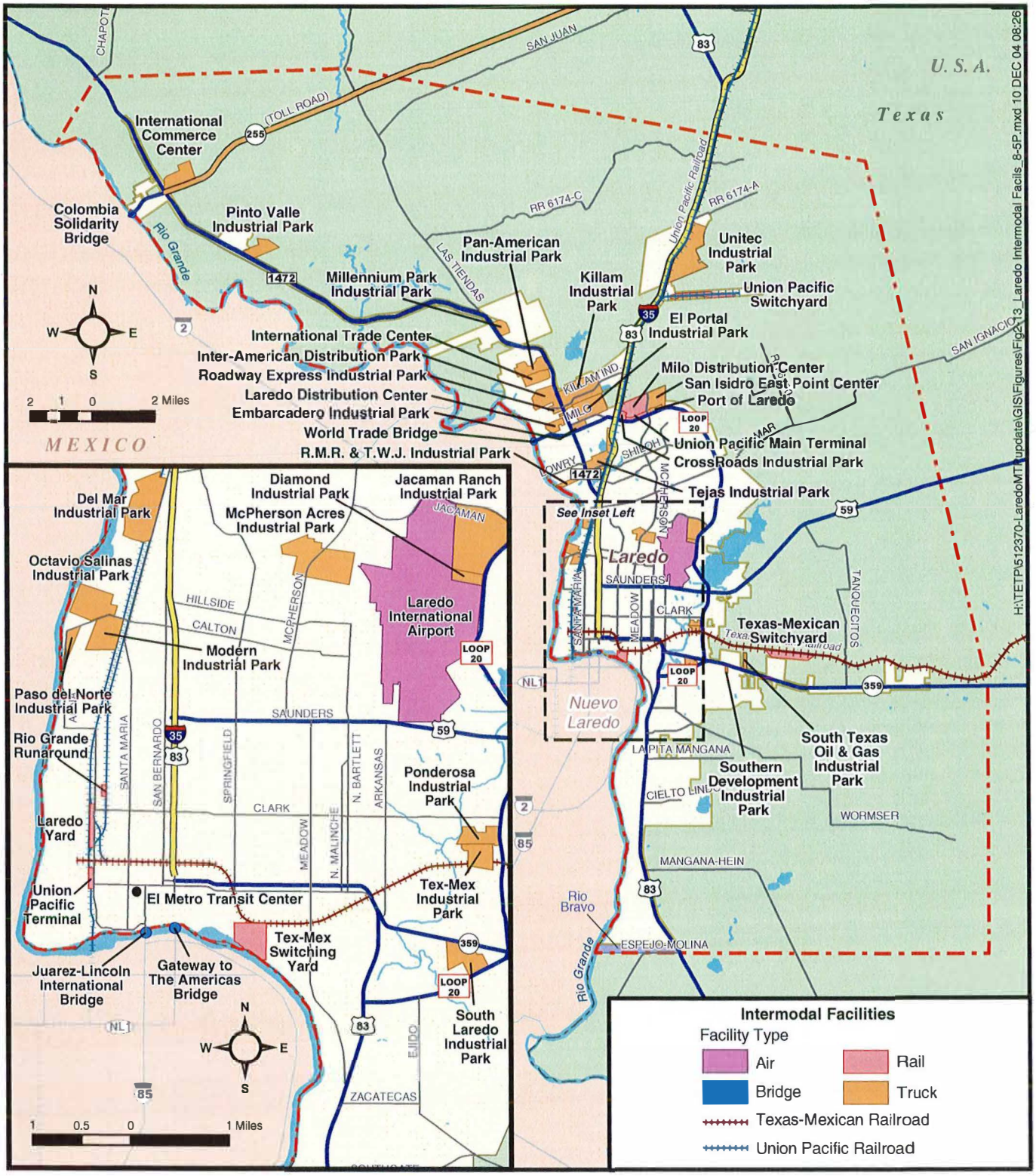


Table 2-4
Traffic Generators
Laredo Metropolitan Transportation Plan Update

Public Facility			
	Map ID		Map ID
Laredo International Airport	1	Federal Court/Post Office	9
City Hall	2	Post Office	10
Convention & Visitors Bureau	3	Del Mar Branch Post Office	11
Laredo Civic Center	4	Laredo Public Library	12
Webb County Courthouse	5	Public Library	13
Federal Courthouse	6	City of Laredo Landfill	14
Municipal Courthouse	7	Webb County Administrative Building	15
Webb County Justice Center	8		
Hospital/Medical			
Laredo Medical Center	16	Doctors Hospital of Laredo	17
International Bridge			
Juarez-Lincoln International Bridge	18	World Trade Bridge	20
Gateway to the Americas/Bridge	19	Colombia-Solidarity Bridge	21
Recreation			
Center for the Arts	22	Freddy Benavides Sport Complex	32
Laredo Little Theatre	23	Laredo Children's Museum	33
Laredo Theatre Arts Bldg.	24	Lamar Bruni Vergara Science Center	34
Benavides Park	25	Republic of the Rio Grande Museum	35
Civic Center Pool Complex	26	Washington's Birthday Celebration Museum	36
Farias Recreation Center	27	Webb County LIFE Downs Racetrack	37
Northeast Hillside Recreation Center	28	Cigarroa Recreation Center	38
Tarver Recreation Center	29	Ft. McIntosh Sports & Recreation Center	39
D.D. Hachar Recreation Center	30	Lite-Up Laredo Pool & Pavilion	40
La Ladrillera Recreation Center	31		
Industrial Parks			
Unitec Industrial Park	41	Southern Development Industrial Park 2	56
Pan American Industrial Park	42	Tejas Industrial Park	57
International Trade Center Industrial Pa	43	South Laredo Industrial Park	58
Killam Industrial Park	44	South Texas Oil and Gas Industrial Park	59
Inter-American Distribution Park	45	Ponderosa Industrial Park	60
Pellegrino Industrial Park	46	Tex-Mex Industrial Park	61
El Portal Industrial Park	47	Port of Laredo Industrial Park	62
Union Pacific Main Terminal	48	Del Mar Industrial Park	63
Milo Distribution Center	49	International Airport Industrial Park	64
Jacaman Ranch Industrial Park	50	Octavio Salinas Industrial Park	65
McPherson Acres Industrial Park	51	Paso del Norte Industrial Park	66
Diamond Industrial Park	52	R.M.R & T.W.S. Industrial Park	67
Modern Industrial Park	53	Cross Roads Industrial Park	68
San Isidro East Point Center	54	International Commerce Center	69
Southern Development Industrial Park 1	55		

Figure 2-11 Intermodal Facilities



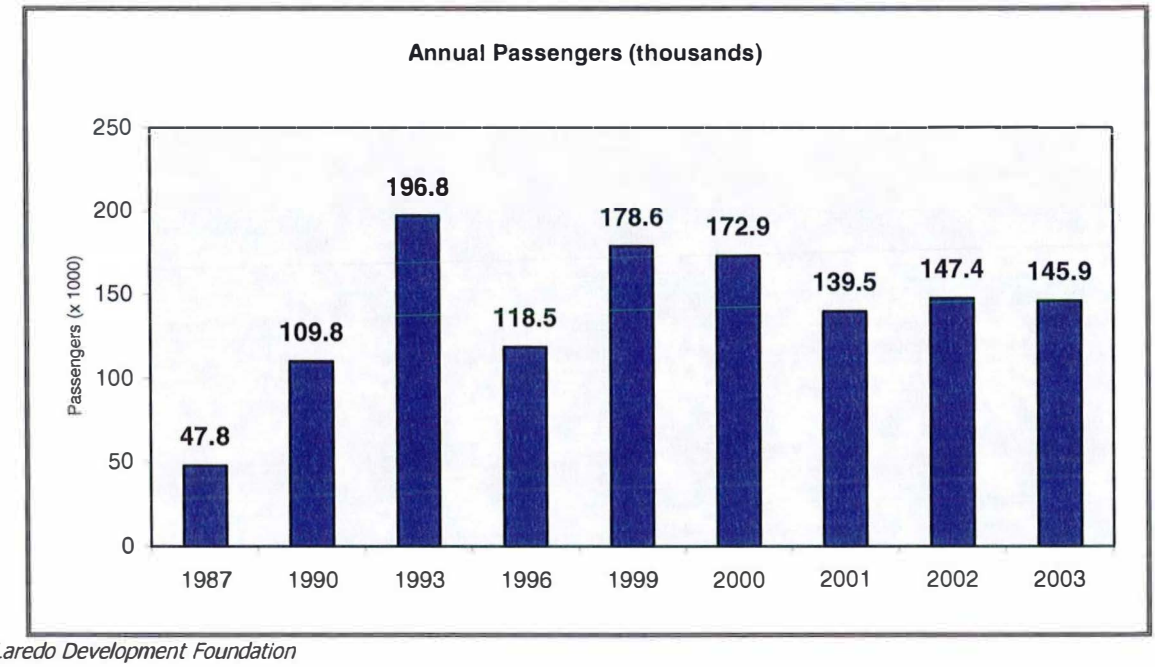
Airports

The Laredo International Airport (LRD) is owned and operated by the City of Laredo, and provides daily air service to and from Houston, Dallas / Fort Worth, and Mexico City. LRD serves the air transport needs of the Laredo MTP region and south Texas, including commercial air carrier, air taxi and commuter airline service for domestic and international passengers and cargo, as well as the general and military aviation needs of Laredo and the surrounding area. LRD is also classified as a Foreign Trade Zone, which is utilized for aeronautical and industrial purposes.

The Laredo International Airport is located in the eastern part of Laredo, on a portion of the 1,400 acre former Laredo Air Force Base that was deactivated by the U.S. Department of Defense in 1973. LRD currently has 16 scheduled flights during weekdays and 10 flights on the weekends. The airport itself is bounded in the south by U.S. 59 and the east by Casa Blanca Lake State Park. The main access road to the airport is from Loop 20 on the east side, while the west side of the airport has a secondary freight access from Hillside Road and Maher Avenue.

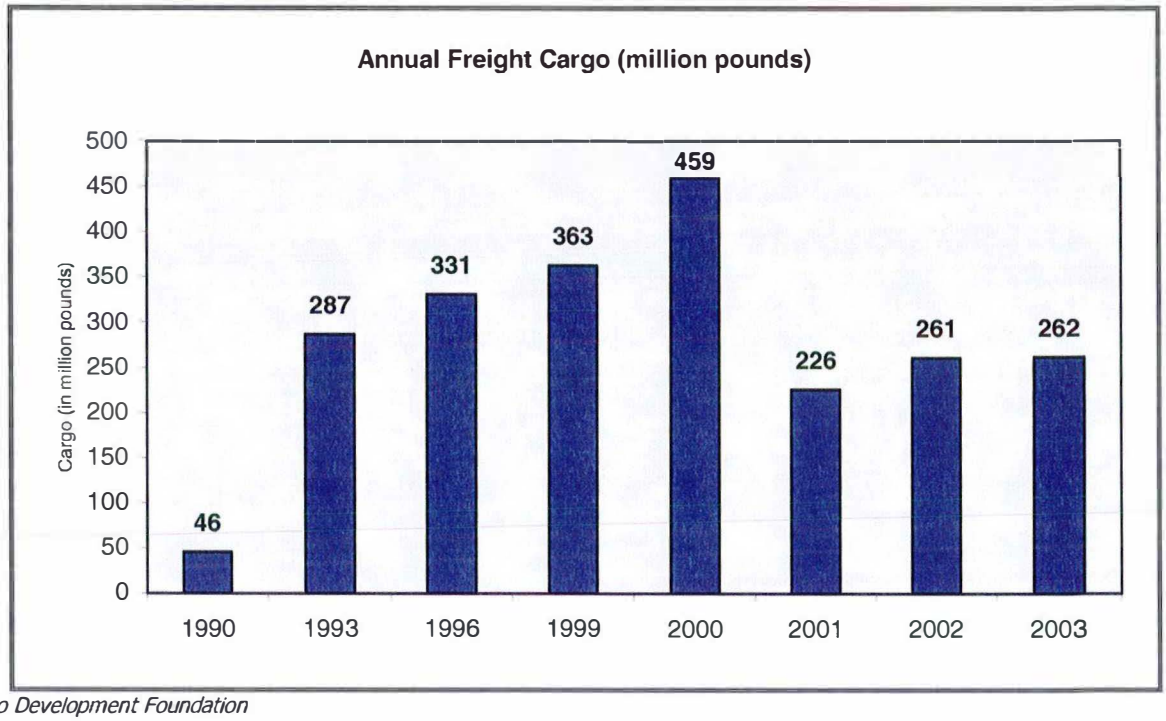
As shown in **Figure 2-12**, annual passengers have increased by 205 percent from 47,800 passengers in 1987 to 145,900 passengers in the Year 2003. Air Cargo has also increased over the past decade from 46 million pounds in 1990 to 262 million pounds in 2003, an increase of 469 percent. LRD is still considered a major port for Latin American air cargo; being ranked 8th in the nation by Air Cargo World in 1993. **Figure 2-13** displays cargo traffic handled by the airport for the last decade.

Figure 2-12
Annual Passengers
Laredo Metropolitan Transportation Plan Update



Laredo Development Foundation

Figure 2-13
Annual Freight Cargo
Laredo Metropolitan Transportation Plan Update



Laredo Development Foundation

The Laredo International Airport includes the following physical constructs for the commercial aviation, general aviation, and air cargo freight operations. The primary runway (designated as RW 17R-35R) is 7,800 feet long and 150 feet wide; while the secondary parallel runway (designated as RW 17L-35R) is 8,200 feet long and 150 feet wide. This runway was rebuilt to support the heaviest aircraft currently flying. The crosswind runway (designated as RW 14-32) is 5,900 feet long and 150 feet wide. Taxiways connect the runways to the apron and terminal areas located on the west side of the airfield. LRD is equipped with runway and taxiway lighting systems, an instrument landing system (ILS) for the primary runway, and an air traffic control tower and other navigational aids for operation under both visual flight rule (VFR) and instrument flight rule (IFR) conditions.

In 1998, LRD completed a $31 million, 78,000 square foot passenger terminal facility. The terminal provides space for six airlines, five car rental agencies, a duty-free store and government inspection facilities. The terminal has jet-boarding bridges on currently-operating gates, and is expandable to 20 gates for accommodating future demand. In addition, LRD has two fixed-base operators that provide general aviation services, and dedicated air freight facilities in excess of 340,000 square feet.

Railroads

The railroad network in Laredo is part of an international network, which extends into Mexico and serves the rail cargo needs of the area on both sides of the US/Mexico border. Freight rail service is provided by privately owned US carriers: the Union Pacific Railway (UP) and Texas-Mexican Railway Company (Tex-Mex). Together, these railway companies account for all rail traffic through Laredo and utilize the only international rail bridge between Laredo and Nuevo Laredo. Tex-Mex Railways owns the international rail bridge and has an agreement with Union Pacific that allows UP to use the bridge, Tex-Mex mainline, and the storage tracks located at the north end of the bridge.

The Union Pacific rail line travels in a north – south direction through Laredo along IH 35 and Santa Maria Road. The UP Railroad continues north to San Antonio and provides service throughout the United States. UP Railway operates an average of 16 trains per day in the Laredo area, and its main rail yard is located near the IH 35 and Loop 20 interchange. UP also maintains a terminal and yard at Lafayette Street north of the International Railroad Bridge.

The Texas-Mexican rail line begins with Mexico's rail line that crosses over the international bridge from Nuevo Laredo. The Tex-Mex line then travels eastward from the UP downtown terminal to the industrial parks along SH 359, and onward to serve the area east of Laredo to as far as Corpus Christi, Texas. Tex-Mex Railway operates an average of eight trains per day, and has a rail yard located on SH 359. In addition to carrying freight, the Tex-Mex Railway also serves passenger traffic between Nuevo Laredo and the interior of Mexico.

According to **Table 2-7**, cargo transport by rail has been increasing in the last few years; with the City of Laredo reporting a total of about 394,200 loaded rail car crossings in year 2003. The northbound loaded rail cars (imports to US) have increased annually by an average of 13.5 percent between 1998 and 2003. Southbound loaded rail cars (exports from the US) have increased annually for the same period by an average of approximately 8.2 percent.

Table 2-7
Loaded Rail Cars Exports and Imports
Laredo Metropolitan Transportation Plan Update

Travel Direction	1998	1999	2000	2001	2002	2003
Southbound (exports)	148,009	167,871	184,498	182,226	190,974	219,362
Percent Change		13%	10%	-1%	5%	15%
Northbound (imports)	92,829	115,771	151,110	168,376	174,762	174,837
Percent Change		25%	31%	11%	4%	0%

Source: Laredo Development Foundation

Given the increase of rail traffic in Laredo, traffic movement and safety considerations are important concerns due to the point of conflict between trains and roadway vehicles. Vehicles are delayed as trains travel from one location to another and block roadways. The UP Railroad has about 53 crossings in Laredo, which includes 49 at-grade crossings and four grade separated crossings. Additionally there are 3 proposed crossings along this rail alignment, two at the intersection Calton Road and one at the intersection of FM 1472. The Tex-Mex Railroad has a total of 33 crossings in Laredo (including 32 at-grade crossings and one grade separated crossing). **Figure 2-14** shows all existing at-grade rail crossings and grade-separated crossings; along with proposed grade separations.

Other rail interests in the area include the Webb County Rural Rail Transportation District which was established by Webb County. Rural Rail Transportation Districts 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 have the power of eminent domain and can be used to construct new rail lines or acquire and rehabilitate existing rail lines. Additionally they can be used to develop rail served industrial parks, intermodal facilities and transload facilities.

Trucks

Almost all major freight truck carriers serve the industrial community in the Laredo area, and have intermodal connections to the Union Pacific Railway via the Port of Laredo, a transloading trucking facility owned by U.P. Also, Laredo is the only border city served by freight carriers licensed by the Interstate Commerce Commission (ICC) to provide international service between the City of Laredo and Nuevo Laredo. There are about 515 freight forwarders, 210 trucking companies, and 105 licensed U.S. Customs brokers operating within the Laredo area.

According to Table 2-5, southbound trucks (exports to Mexico) decreased by seven percent between 1998 and 2003. This decrease in traffic is primarily attributed to the events of September 11th. Northbound trucks (imports from Mexico) remained relatively constant during that same time frame.

Figure 2-14a Railroad Crossings, Study Area

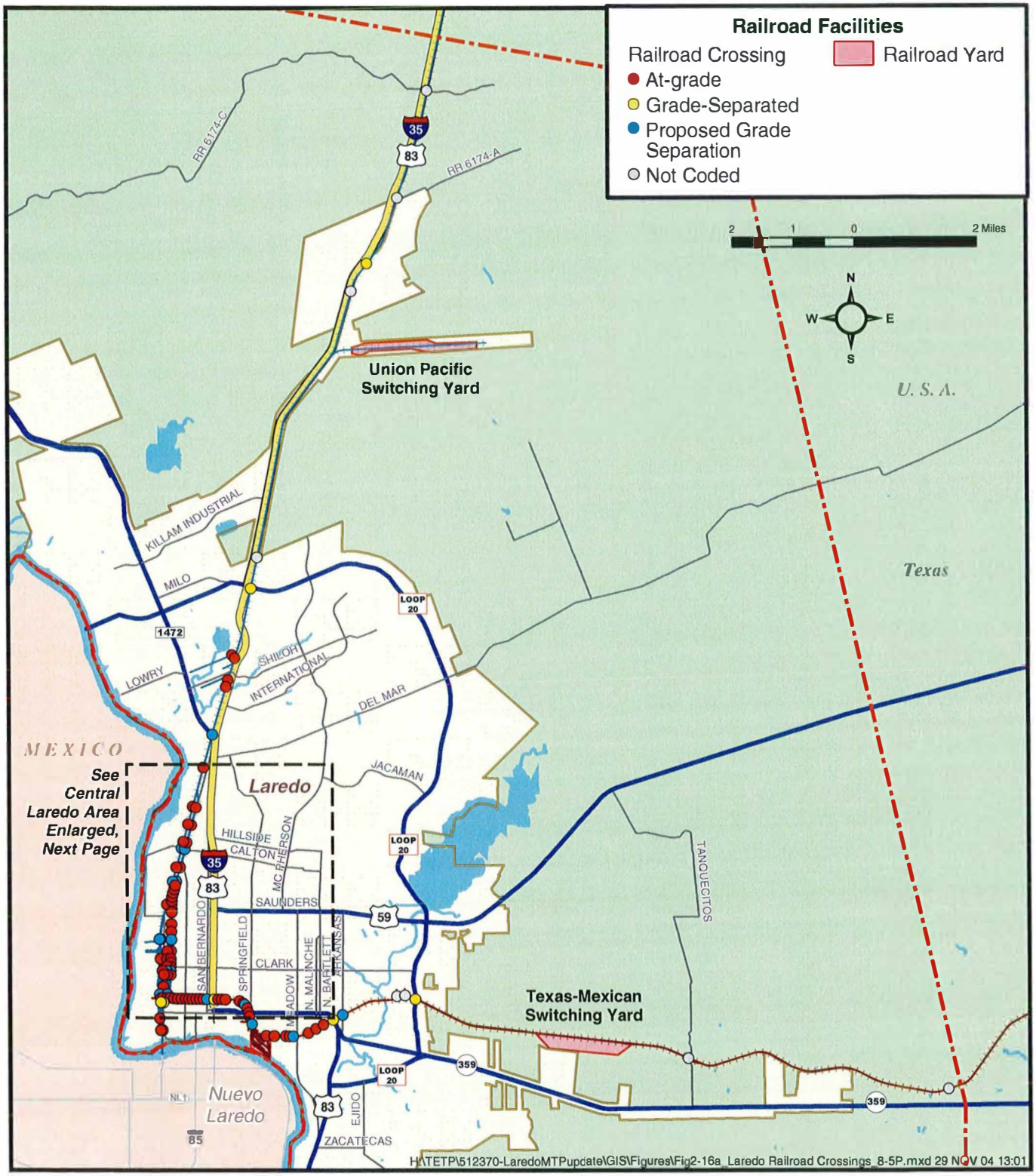


Figure 2-14b Railroad Crossings, Central Laredo

As shown in **Figure 2-15**, truck traffic is significant in the Laredo area. As shown, I-35 has the highest volumes of truck traffic in the region, with volumes ranging from over 63,000 trucks per day north of Saunders Street to 14,000 trucks per day at the northern limits of the study area. The percentage of truck traffic along major roadways in the region including I-35, US 59, US 83, SH 359, FM 1472 and Saunders Street exceed 15 percent and along several segments exceed 25 percent.

In order to concentrate commercial traffic to certain corridors within the area, the City of Laredo designated specific roadways as truck routes, as shown in **Figure 2-16.** These routes include all freeways and most primary arterials, like IH 35, Loop 20, US 83, US 59, SH 359, and FM 1472; as well as local roads like Calton Road and Santa Isabel Avenue that provide access to intermodal facilities. By separating commercial vehicles away from non-commercial vehicles, the movement of freight transportation is improved throughout the area, along with better access to the industrial parks and terminals and the international bridge crossings.

Public Transportation

The El Metro transit system operates 18 fixed bus routes and recorded an annual ridership of 4.8 million passengers in 2001. **Figure 2-17** shows that these bus routes are predominantly radial, connecting downtown Laredo with neighborhoods and major traffic generators. This radial structure is designed to serve the needs of the transit-dependent community of Laredo's compact central area.

Currently, El Metro has a total fleet size of 60 vehicles, which includes over 40 fixed-route buses, two trolleys, and 18 El Lift paratransit vans. The fixed-route service has an average frequency of about 30 minutes between vehicles, and a regular fare of $1 / patron (with reduced fares for children, senior citizens, and disabled riders). Also, El Metro provides transit service seven days a week and on several busy transit corridors, such as San Bernardo, Santa Maria, and Del Mar Boulevard.

As for transit operations, El Metro Transit reported about 2.1 million revenue miles in FY 2002. Average weekday passenger ridership for El Metro fixed route service is 15,400 patrons, and the combined fixed-route and paratransit services recorded an average of about 32 weekday passengers per revenue hour.

Also in 1997, El Metro opened a new Multimodal Transportation Terminal in Downtown Laredo adjacent to Jarvis Plaza and serving as the central transfer point for El Metro's downtown bus activity. In addition to serving as El Metro's bus terminal and administrative offices, this new multi-level facility also features an inter-city bus terminal, passenger waiting areas, and public parking. The El Metro Terminal currently receives about 327,000 transfers from urban transit and inter-city bus services, like Greyhound and Valley Transit. Also, El Metro provides bus service to the Park and Ride lot located at the airport on Hillside Road.

Figure 2-15 Existing Daily Truck Traffic Volumes

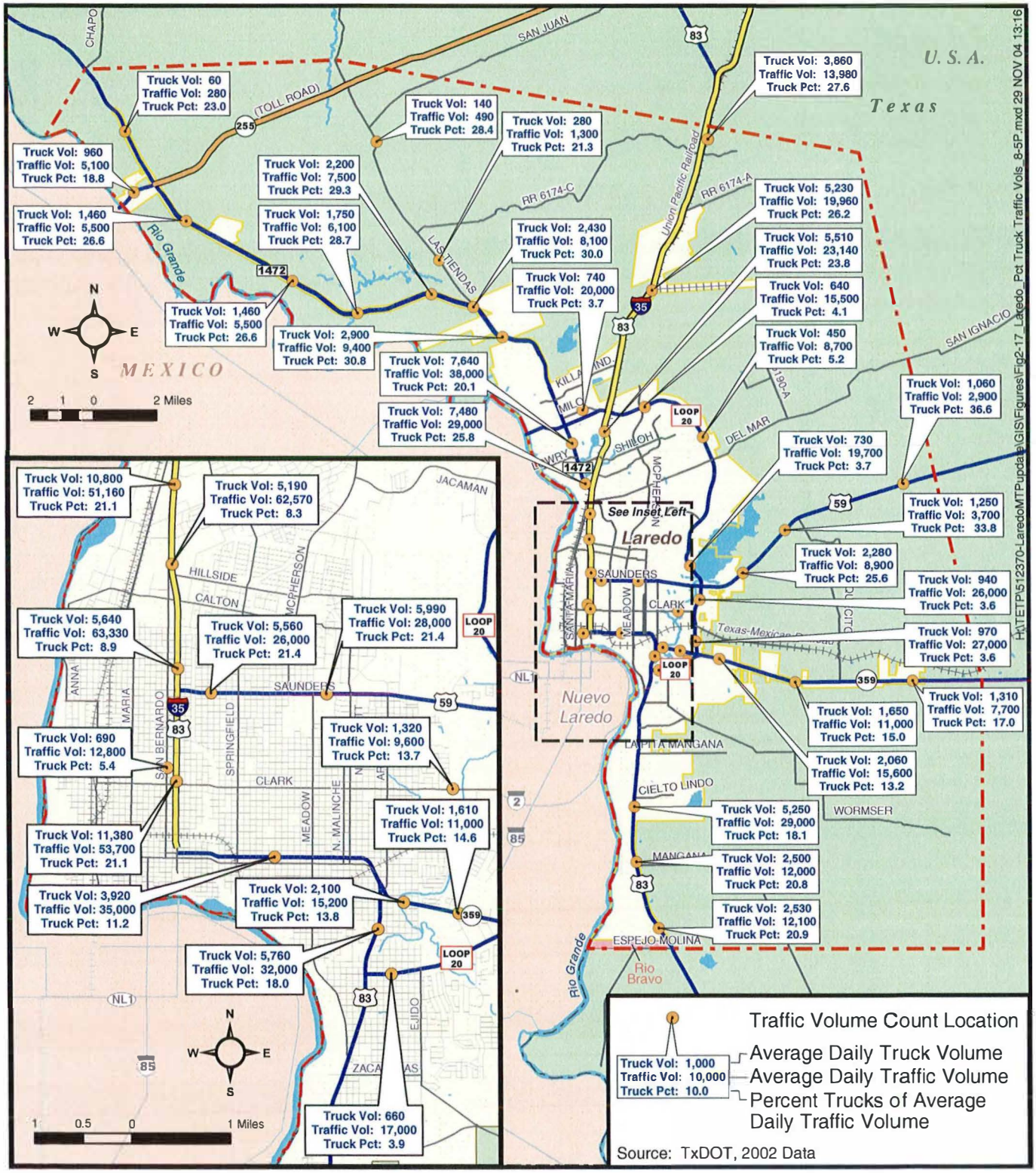


Figure 2-16 Designated Truck Routes

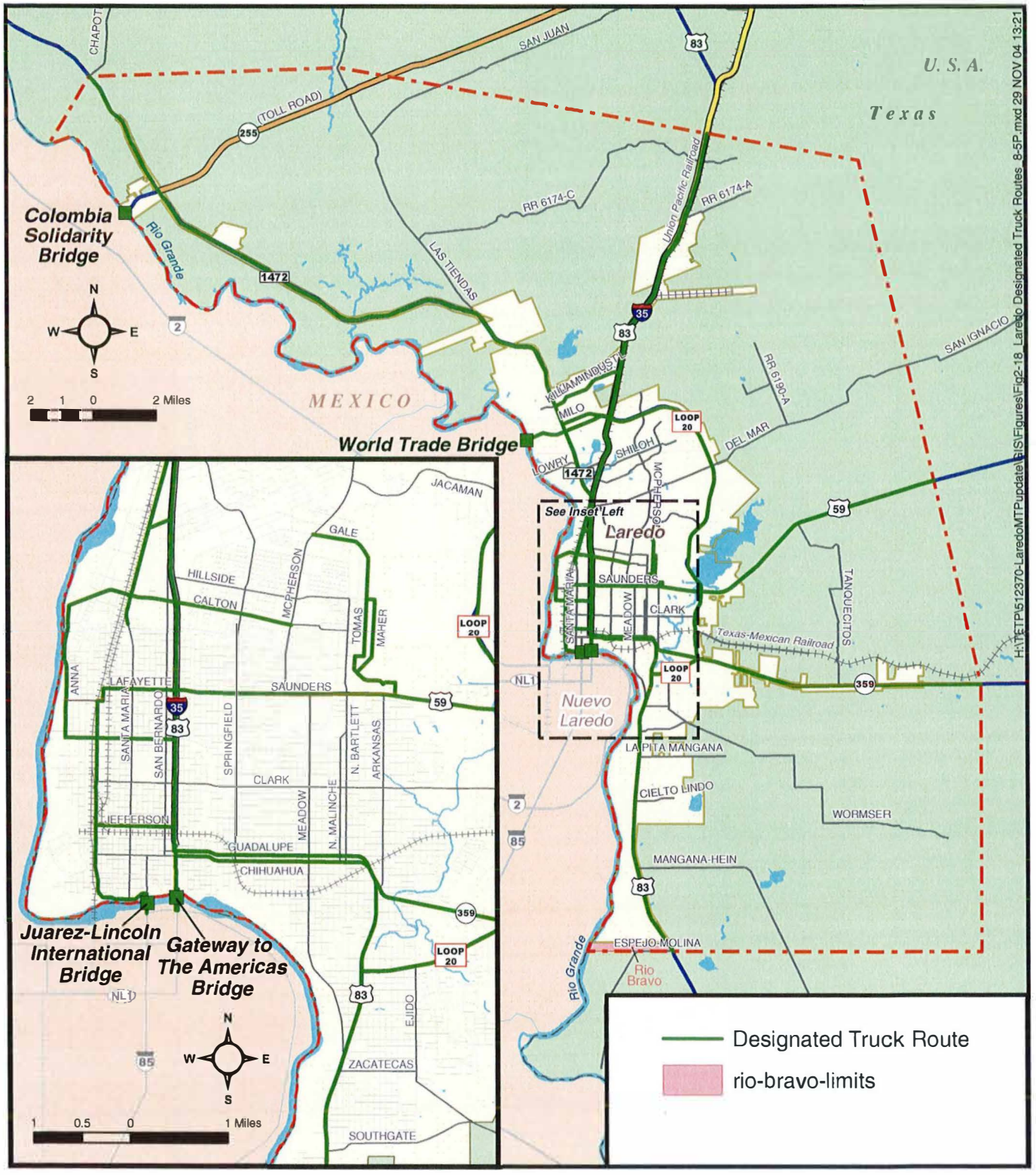
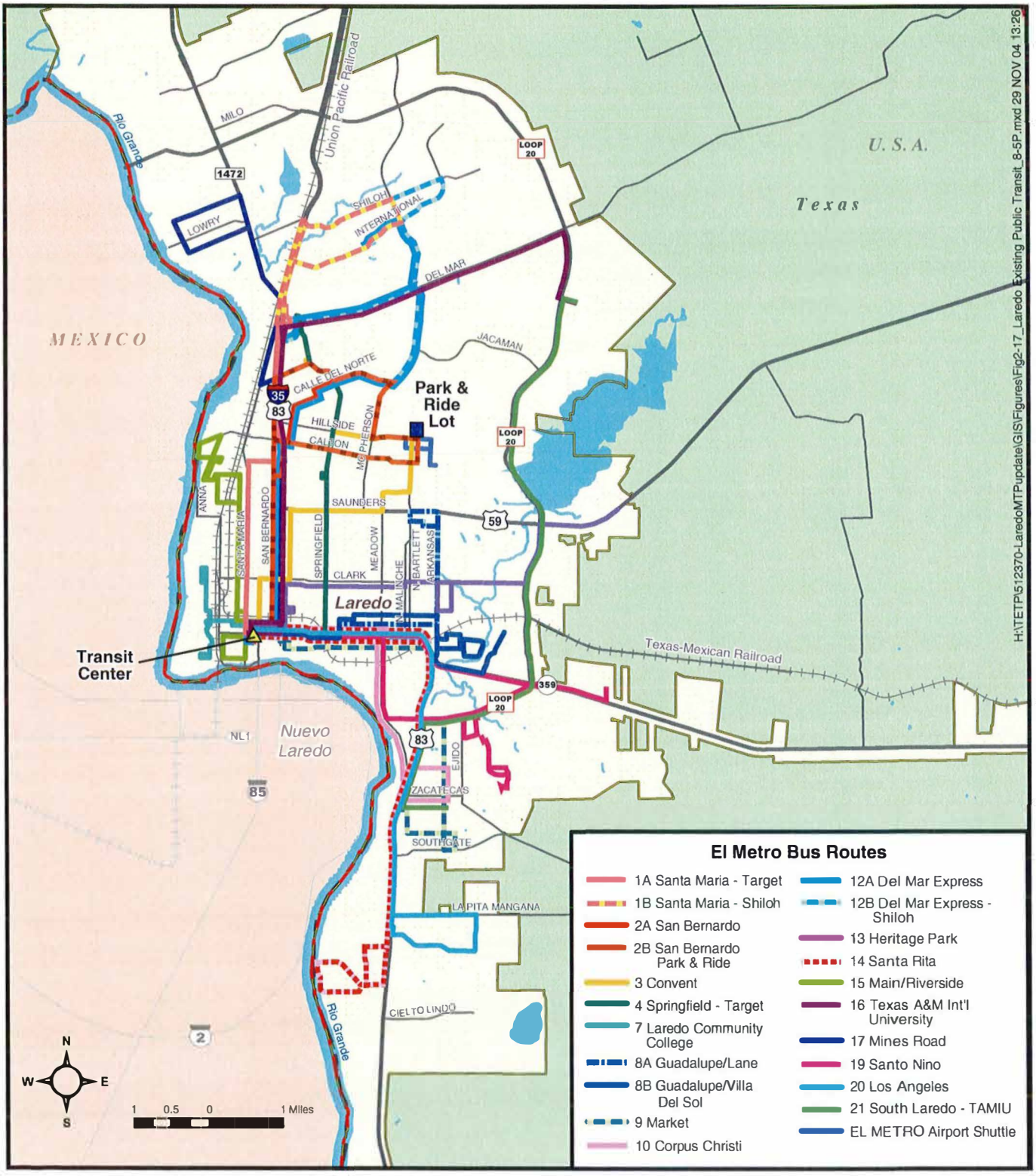


Figure 2-17 Existing Public Transit



Bicycle and Pedestrian Facilities

Bicycle and pedestrian systems facilitate the use of alternative modes of transportation such as cycling or walking. These facilities can also serve to reduce congestion and pollution. Bicycle and pedestrian facilities should be coordinated with the local transit system to provide access to transit stops and bolster transit ridership. To ensure that these forms of transportation are possible, the City of Laredo has adopted sidewalk standards that call for the provision of sidewalks in most developments within the city limits. Bicycle facilities and pedestrian attraction centers are shown in **Figure 2-18.**

Bicycle System

The State currently has a bicycle lane along Spur 400 (Clark Boulevard). Additionally there is a newly constructed jogging/bicycle path constructed along the eastern side of Loop 20. Safety is the main priority in developing the bicycle transportation system. Congested areas and truck routes need to be avoided when developing bicycle corridors. This is accomplished by providing bike lanes that are separated by striping on the right shoulder of roadways, and/or constructing off-street trails within exclusive right-of-way for use by bicycles, joggers and pedestrians. Figure 2-18 identifies proposed bike routes in the Laredo area. These bikeways were developed with respect to traveler safety and useful origins and destinations.

Pedestrian System

Previous studies conducted for the City of Laredo identify the main pedestrian attractions as schools, grocery stores, and shopping centers. In Laredo, the intersections of Park and Santa Maria, Tacuba and Old Santa Maria, and Garcia and Davis were identified as the intersections having the largest concentrations of pedestrian activity. All three intersections are located adjacent to school buildings and as a result, are used extensively by people on foot. Figure 2-18 shows the primary pedestrian attraction centers.

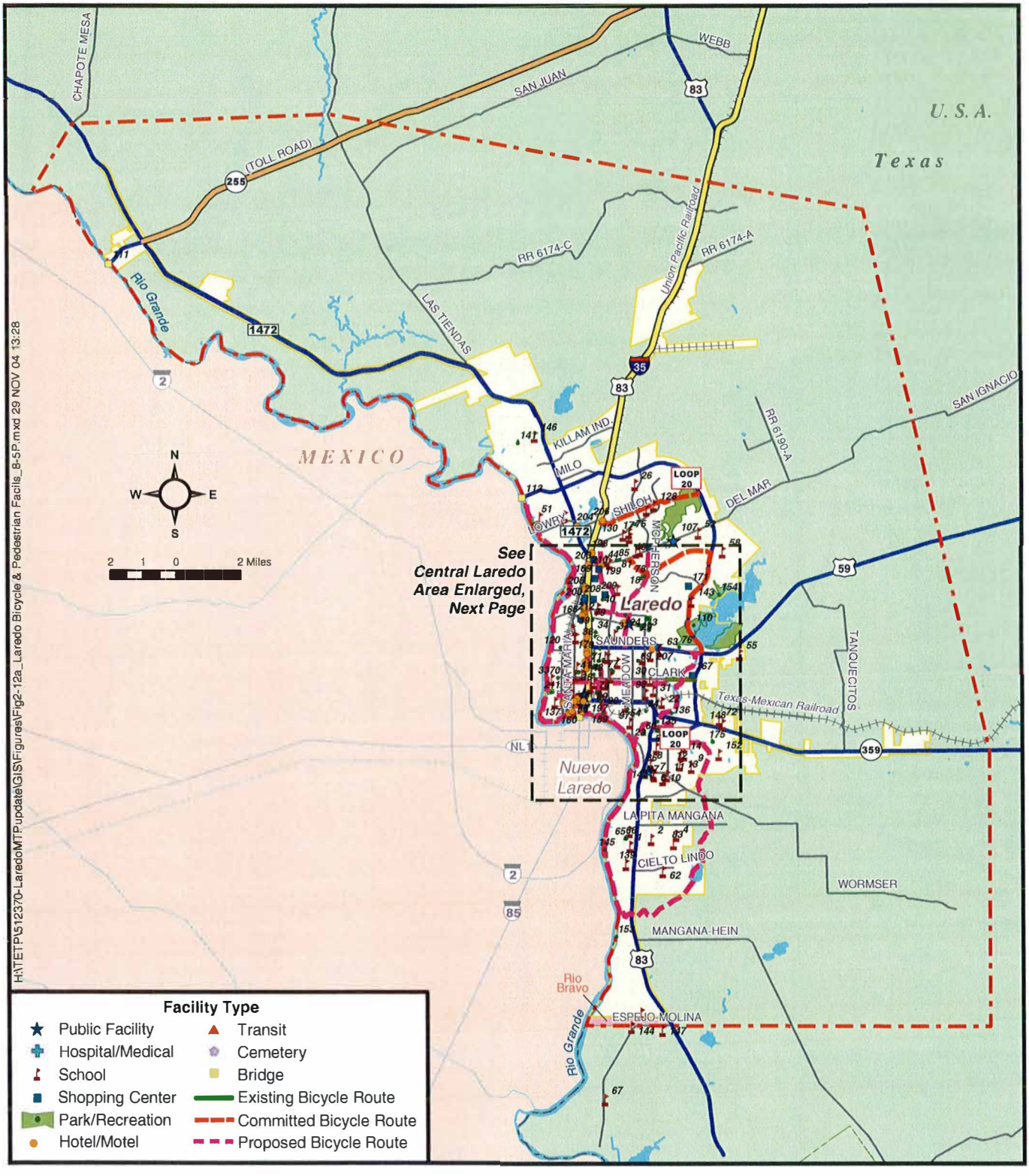
In January 2004, over 350,000 northbound pedestrians crossed the Gateway to the Americas Bridge between downtown Laredo and Nuevo Laredo. Once they enter Laredo, these pedestrians are typically destined for Jarvis Plaza, HEB and other retail centers, or the Los Dos Laredos Park. The multimodal transit center south of Jarvis Plaza provides transit access throughout the city, while the retail centers and Los Dos Laredos Park serve shopping and recreational demands, respectively.

Safety

Safety of the transportation system is an important issue for the Laredo region. A safe transportation network is essential to the community's economic vitality and quality of life. Transportation safety concerns primarily focus on accidents that occur on the roadway system involving motorists, pedestrians and bicyclists.

Traffic accident records are maintained by the different law enforcement agencies in the Laredo Metropolitan area. Recorded accident information is sent to the Department of Public Safety in Austin, where information is centralized. This information is available to transportation agencies to evaluate the safety of the area roadway system operations and to help develop strategies

Figure 2-18a Bicycle Facilities and Pedestrian Attractions, Study Area



that will enhance public safety. The most recent accident data available for the Laredo Metropolitan area is for the Year 2001, as shown in **Tables 2-8** and **2-9**.

During the year 2001 there were 1,099 accidents reported, half of which involved possible injury. Non-Injury accounted for 316 of the accidents or 29 percent followed by non-incapacitating injury, 16 percent, incapacitating injury, 4 percent and fatal injury, 2 percent.

Table 2-8
Study Area Traffic Accidents, 2001
Laredo Metropolitan Transportation Plan Update

Quarter	Non-Injury	Possible Injury	Non-Incapacitating Injury	Incapacitating Injury	Fatal Injury	Total
Jan-Mar 2001	80	139	41	7	7	274
Apr-Jun 2001	87	148	43	16	4	298
Jul-Sep 2001	74	127	37	13	6	257
Oct-Dec 2001	75	133	50	8	4	270
Total	316	547	171	44	21	1099
Pct of Total	28.75%	49.77%	15.56%	4.00%	1.91%	100

Source: TxDOT

Table 2-9 shows the number of accidents during 2001 that involved pedestrians and bicyclists. As shown, 27 accidents, 2.5 percent, involved pedestrians while 4 accidents involved collisions with bicyclists.

Table 2-9
Study Area Traffic Accidents Involving Non-Autos, 2001
Laredo Metropolitan Transportation Plan Update

Quarter	With Pedestrians	With Bicyclists	Total
Jan-Mar 2001	8	2	10
Apr-Jun 2001	5	1	6
Jul-Sep 2001	5	0	5
Oct-Dec 2001	9	1	10
Total	27	4	31
Percent of Total Accidents	2.5	0.4	2.8

Source: TxDOT

Chapter 3 - Demographics & Travel Demand Model

DEMOGRAPHIC DATA

The purpose of the following section is to examine existing and future demographic conditions that are used as inputs to the area travel demand computer model. The model is used to estimate existing and future trip generation and traffic volumes for area roadways. Demographic variables discussed in this section include population, employment and income. Through analysis of these variables and development of forecasts, future transportation needs can be identified and evaluated. This report discusses basic demographic information for the City of Laredo and Webb County and summarizes forecasts developed for the study area. More detailed information is presented in a separate report entitled, Socioeconomic Data Collection and Forecast Study. The transportation networks and travel demand model developed for this study will be discussed in further detail later on this chapter.

Methodology

This chapter addresses existing and future conditions that are closely associated with travel demand and trip generation characteristics of the Laredo Metropolitan area. Demographic estimates were prepared for the base year 2003 and forecasts were prepared for the years 2010, 2020 and 2035. The forecasts were prepared for the Laredo MPO planning area at the Traffic Analysis Zone (TAZ) level. Traffic Analysis Zones (TAZs) define geographic areas (Census block groups) which are used to relate travel demand to socioeconomic characteristics. The resulting traffic analysis zone system is shown in **Figure 3-1**. There are a total of 232 TAZs within the Laredo MPO planning area, 216 of which are internal zones and 16 of which are external zones (locations where traffic enters and exits the study area). Demographic variables examined within each TAZ include:

- Population
- Households
- Housing Units
- Total Employment
- Retail Employment
- Basic Employment
- Service Employment
- Median Household Income
- Undeveloped Acreage

Base Year Estimates

Base year estimates were developed using available data from the US Census Bureau, Texas Workforce Commission and City of Laredo. In developing 2003 estimates for population, households and housing units, 2000 US Census Bureau block level data was aggregated to the TAZ level. This data was then adjusted to reflect the Texas State Data Center's 2003 population estimate for Webb County through utilizing available plat data to determine the number of housing units built since the Year 2000.

Figure 3-1a Traffic Analysis Zones, Study Area

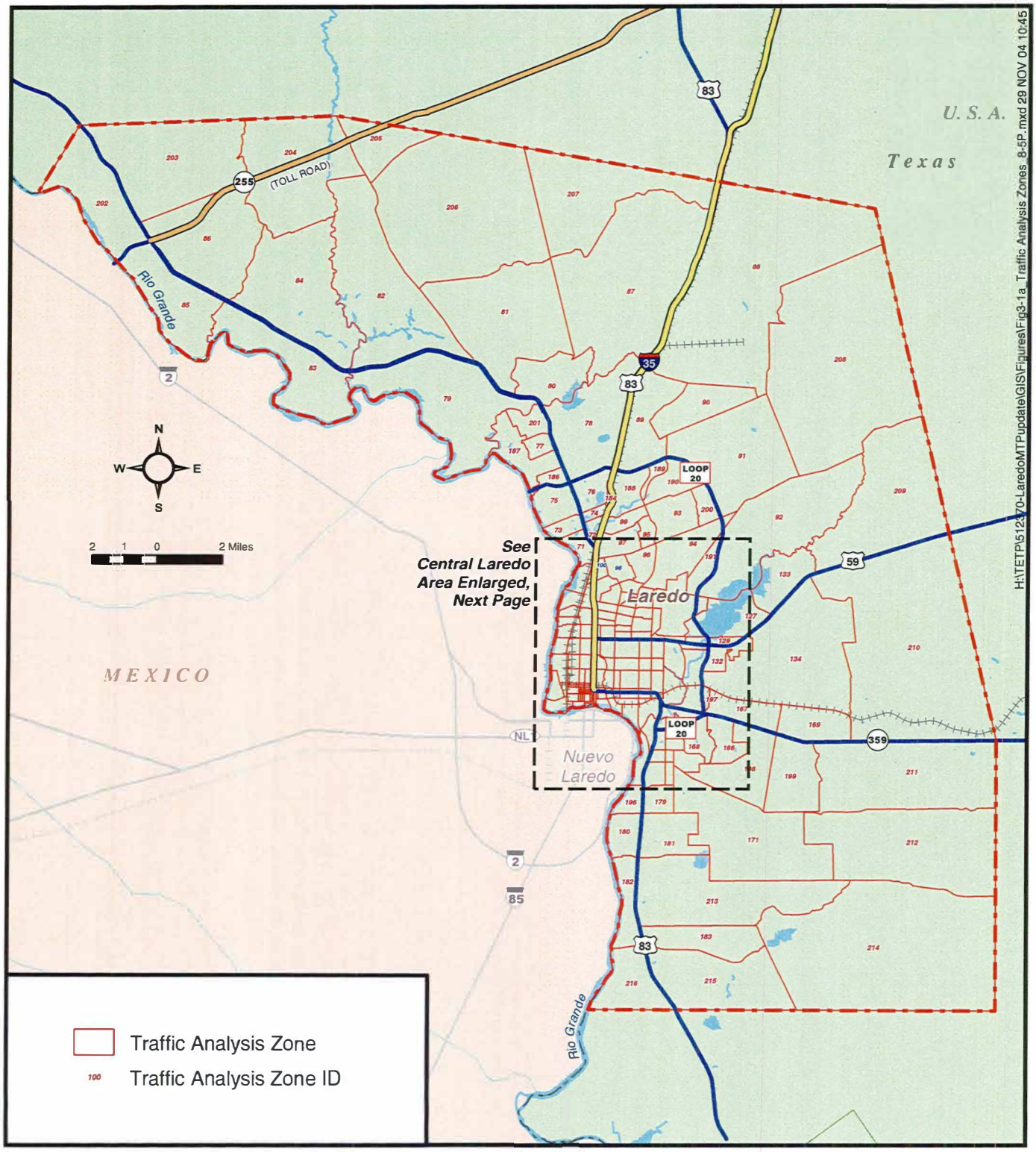
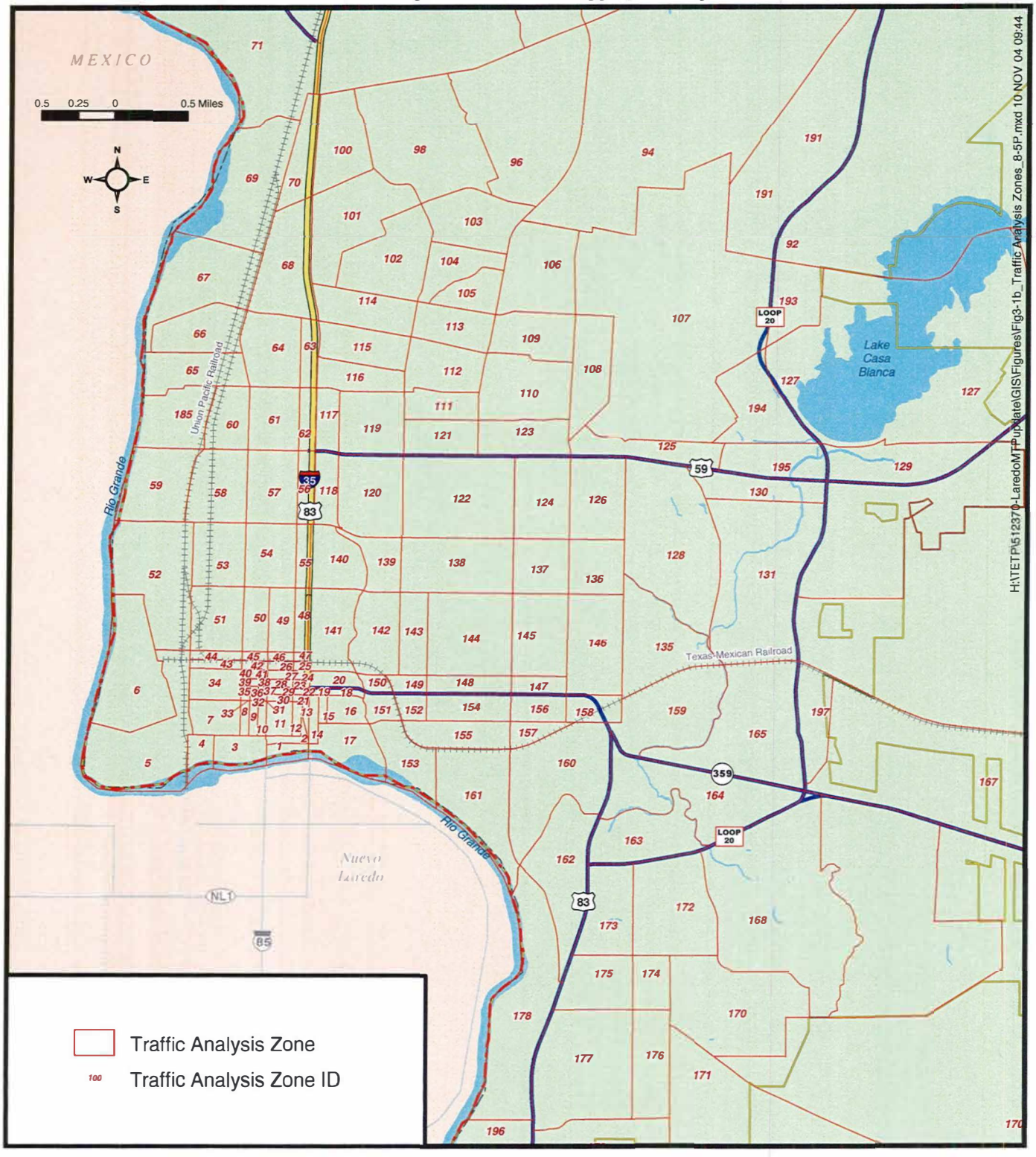


Figure 3-1b Traffic Analysis Zones, Central Laredo



In developing base year data for employment, a database of employers and their number of employees in Webb County was obtained from an outside vendor. This database, as well as data obtained from the City and Texas Workforce Commission was used to disaggregate employment to the TAZ level.

Median Household Income for the Year 2003 was developed by applying historical growth rates in median household income in Webb County to the 2000 U.S. Census Bureau estimates. Finally undeveloped acreage was estimated using an existing land use inventory obtained from the City, supplemented by aerial photography flown in 2003.

Control Totals

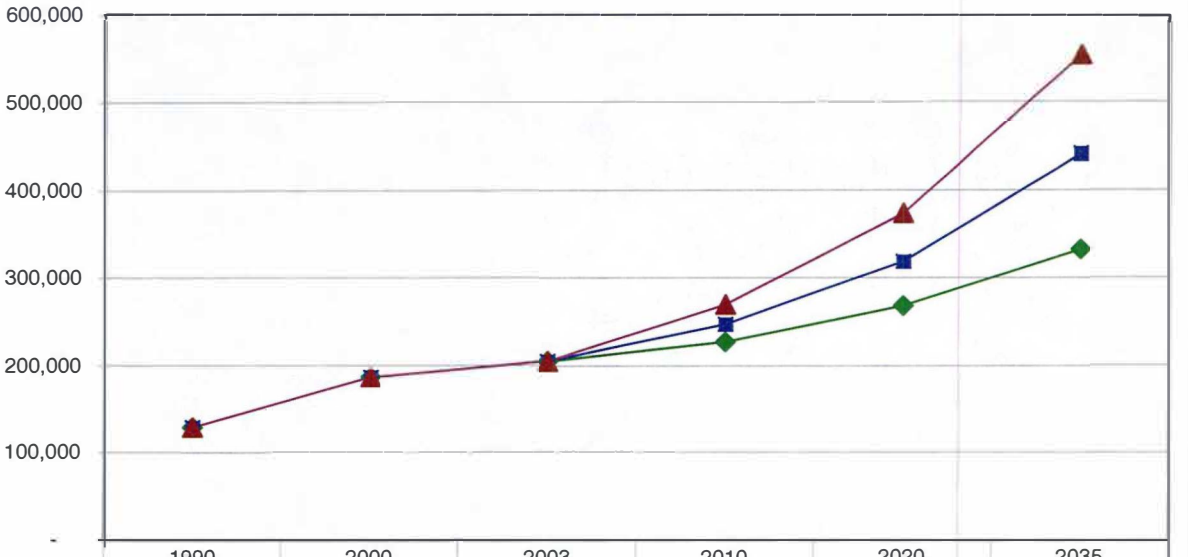
The initial step in developing socioeconomic data for the study area was to establish existing and future population "control totals". The Texas State Data Center, the Census Bureau's state-level affiliate based at Texas A&M University, is one of many public and private entities that prepare population projections for cities, counties and metropolitan areas using sophisticated models that consider migration patterns as well as fertility (birth) and mortality (death) rates. Three projections scenarios are produced by the State Data Center which differ in their assumptions relative to net migration. The 0.0 Migration Scenario assumes that immigration and outmigration 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. The 1990s was a period of rapid growth and it is unlikely that this growth will continue to occur, therefore 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. Texas State Data Center forecasts for Webb County were adapted to reflect the Study area's share of the county population.

Displayed in **Figure 3-2** are alternative population projections for the study area. As shown, forecasts for the Year 2035 range from 332,532 (0.0 Scenario) to 553,917 (1.0 Scenario).

In selecting a growth scenario historical growth patterns were examined in Webb County and Laredo. According to the results of the 2000 U.S. Census, Laredo is one of the fastest growing cities in Texas and the U.S. Laredo's location as the center of a primary trade route between Mexico, U.S. and Canada and increased trade activity have resulted in significant growth in the Laredo metropolitan area over the past decade. Economic growth of recent years has spurred considerable new investment and migration into the Laredo area and this growth is expected to continue over the next decade, therefore the 1.0 scenario was chosen for the forecast year 2010. However in the long-term, growth in the Laredo region is not expected to continue at such an aggressive rate, therefore the 0.5 scenario was chosen for forecast Years 2020 and 2035. Utilizing theses scenarios resulted in the following population control totals:

- 2003 – 205,081
- 2010 – 269,203
- 2020 – 347,979
- 2035 – 482,300

Figure 3-2
Population Projections
Laredo Metropolitan Transportation Plan Update



	1990	2000	2003	2010	2020	2035
0	128,702	186,120	205,081	226,619	267,740	332,532
0.5	128,702	186,120	205,081	246,932	318,653	441,142
1	128,702	186,120	205,081	269,203	373,943	553,917

Employment forecasts are a function of population and are based on the population projections outlined above. Employment control totals were developed by using a ratio of employment to overall population, considering historical employment figures and unemployment trends. Retail, Basic and Service employment was determined through examining their historical shares of total employment and adjusting these shares based on projected state and national trends. Control totals for employment are shown below:

- 2003 – 76,398
- 2010 – 99,482
- 2020 – 128,881
- 2035 – 178,629

Allocation Of Control Totals

Once the control totals for population and employment were determined, input was solicited to identify the zones that are suitable for future development and most likely to develop by Forecast Years 2010, 2020 and 2035. This input was used to guide the assignment of future population and employment. Staff identified TAZs as high or moderate growth for both residential and nonresidential development and for forecast years 2010, 2020 and 2035. The moderate and high growth areas are those with pending development and availability of utilities

and transportation access. TAZs not identified as high or moderate growth areas were assumed to have limited growth.

Population

Historical Population

Webb County has experienced significant growth over the past several decades. As shown in **Table 3-1**, the county's population has more than doubled since 1970 as it grew from 72,859 people in the Year 1970 to over 193,000 people in the Year 2000, an annual increase of 3.3 percent. The most significant growth occurred during the 1990s with an average annual growth rate of 3.8 percent. Historical growth rates for the City of Laredo mirrored those of the County. Laredo is the largest city in the county and in the Year 2000 comprised 91 percent of the County's total population.

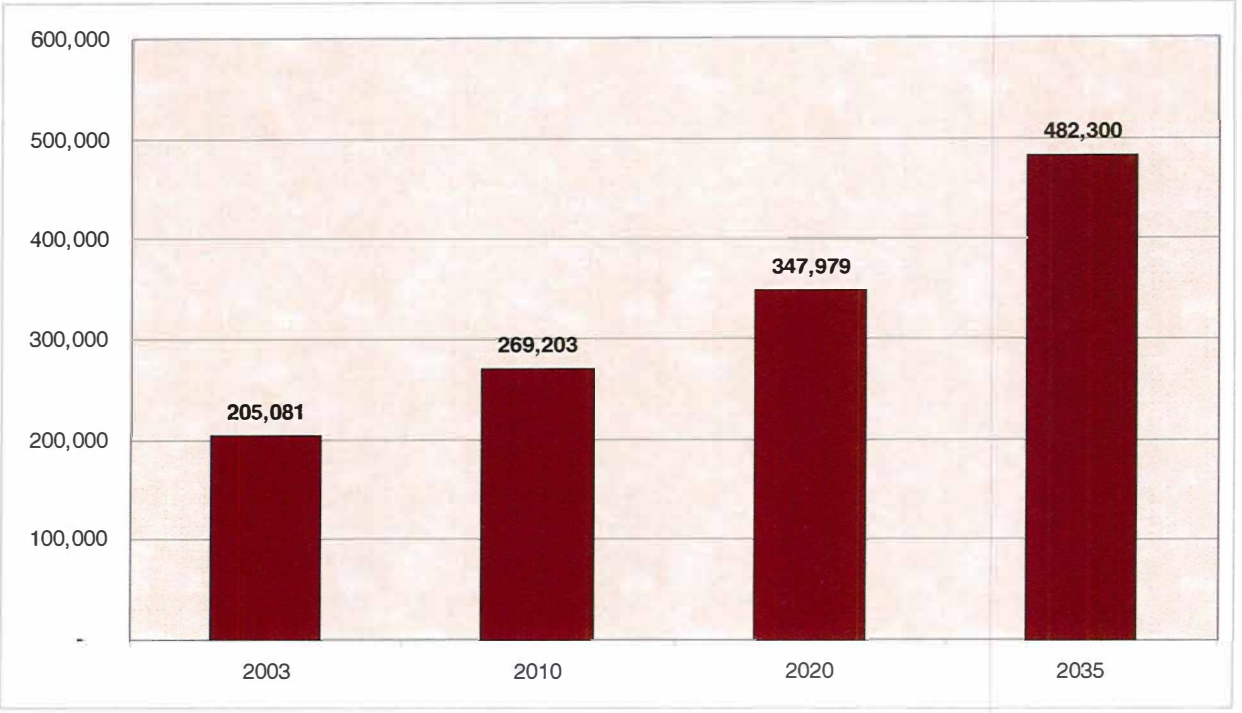
Table 3-1
Historical Population
Laredo Metropolitan Transportation Plan Update

Year	Webb County	Annual % increase	Laredo	Annual % increase
1970	72,859		69,024	
1980	99,258	3.1%	91,449	2.9%
1990	133,239	3.0%	122,899	3.0%
2000	193,117	3.8%	176,576	3.7%

Projected Population

Figure 3-3 displays base and forecast year population for the MPO planning area. As shown, the MPO planning area is expected to experience continued growth over the next several decades. Population is projected to grow from 205,081 in the Year 2003 to 482,300 in the Year 2035, an annual increase of 2.7 percent.

Figure 3-3
Projected Population
Laredo Metropolitan Transportation Plan Update



Households & Housing Units

Historical

Between 1990 and 2000 households and housing units grew at a faster rate than population. As shown in **Table 3-2**, households, or occupied housing units grew by 47 percent in Webb County from 34,438 households in 1990 to 50,740 households in the Year 2000. Housing units grew by 48 percent from 37,197 units in 1990 to 55,206 units in the Year 2000. This resulted in an 8 percent housing vacancy rate in the Year 2000.

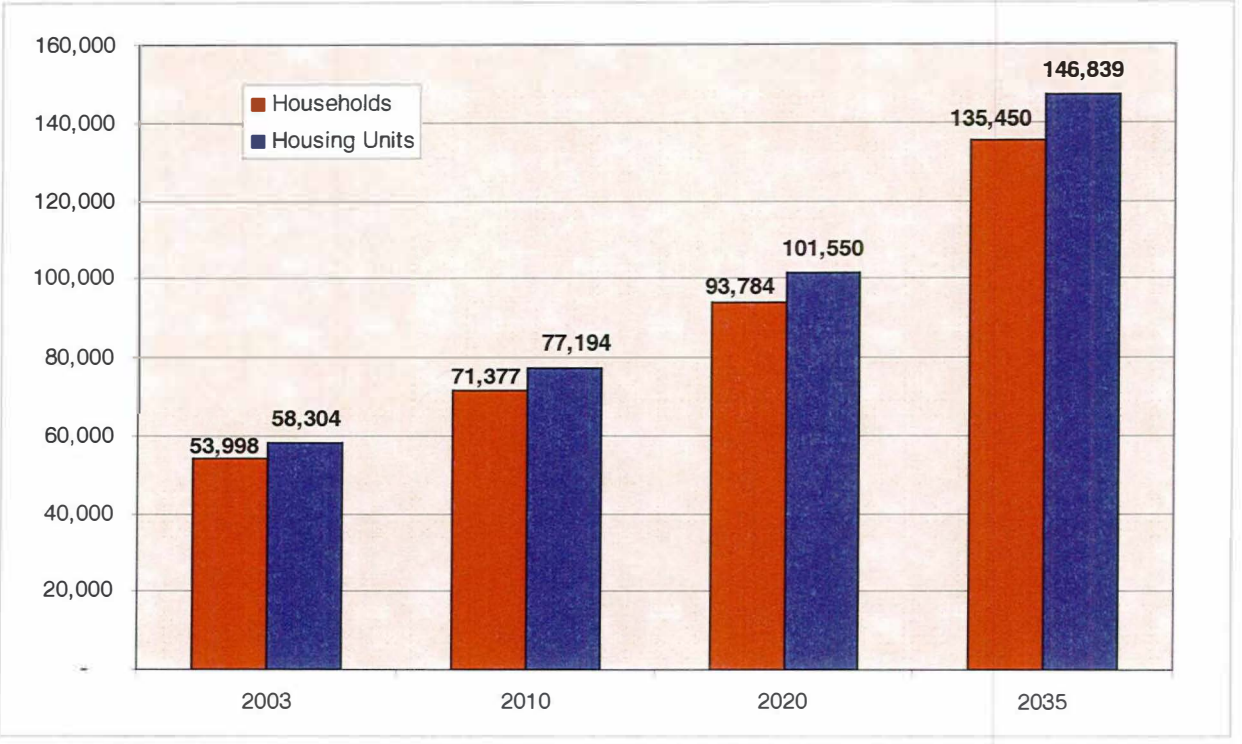
Table 3-2
Households and Housing Units
Laredo Metropolitan Transportation Plan Update

	Webb County		Laredo	
	Households	Housing Units	Households	Housing Units
1990	34,438	37,197	32,029	33,998
2000	50,740	55,206	46,852	50,319

Projected Households and Housing Units

As displayed in **Figure 3-4**, households in the MPO planning area projected to increase by 151 percent from 53,998 in the Year 2003 to 135,450 in the Year 2035, and annual increase of 2.9 percent. Within the MPO planning boundary housing units are projected to grow by 152 percent from 58,304 units in the Year 2003 to 146,839 units in the Year 2035, an average annual increase of 2.9 percent.

Figure 3-4
Projected Households and Housing Units, MPO Boundary
Laredo Metropolitan Transportation Plan Update



Employment

Employment by Industry

Table 3-3 displays covered employment data, employment for which unemployment taxes are collected, for Webb County. As shown total employment in Webb County was estimated at 77,187 in the Year 2003 with Trade, Transportation and Utilities industries comprising the largest percentage, 33 percent, of total employment followed by Local Government and Education and Health Services, with 18 and 13 percent of total employment respectively.

Table 3-3
Employment by Industry, Webb County, 2003 (fourth quarter)
Laredo Metropolitan Transportation Plan Update

Industry	Employment	Percent of Total
Natural Resources & Mining	1,509	2.0%
Construction	2,496	3.2%
Manufacturing	1,126	1.5%
Trade, Transportation & Utilities	25,391	32.9%
Information	660	0.9%
Financial Activities	4,139	5.4%
Professional & Business Services	4,814	6.2%
Education & Health Services	10,237	13.3%
Leisure & Hospitality	7,244	9.4%
Other Services	1,340	1.7%
Nonclassifiable	35	0.0%
Federal Government	2,327	3.0%
State Government	1,723	2.2%
Local Government	14,146	18.3%
Total Employment	***77,187***	***100.0%***

Source: Texas Workforce Commission, 2003

Major Employers

Based on data obtained from the Laredo Development Foundation there are 8 employers with over 1,000 employees in Laredo. These major employers include:

- United Independent School District – 4,500 employees
- Laredo Independent School District – 3,857 employees
- City of Laredo – 2,084 employees
- Laredo Medical Center – 1,661 employees
- H.E.B Grocery – 1,327 employees
- Webb County – 1,270 employees
- U.S. Department of Border Protection – 1,147 employees
- McDonald's Restaurant – 1,114 employees

Unemployment Rates

Based on data obtained from the Texas Workforce Commission, the Laredo Metropolitan Statistical Area (MSA) labor force grew by almost 10,000 people or 12.8 percent between 2000 and 2003. An additional 8,600 people were employed in the region as employment increased from 69,396 in the Year 2000 to 77,996 employees in the year 2003. As shown in **Table 3-4**, the labor force has been increasing at a greater rate than employment, resulting in increasing unemployment rates over the past couple of years.

Table 3-4
Unemployment Rates, Laredo MSA
Laredo Metropolitan Transportation Plan Update

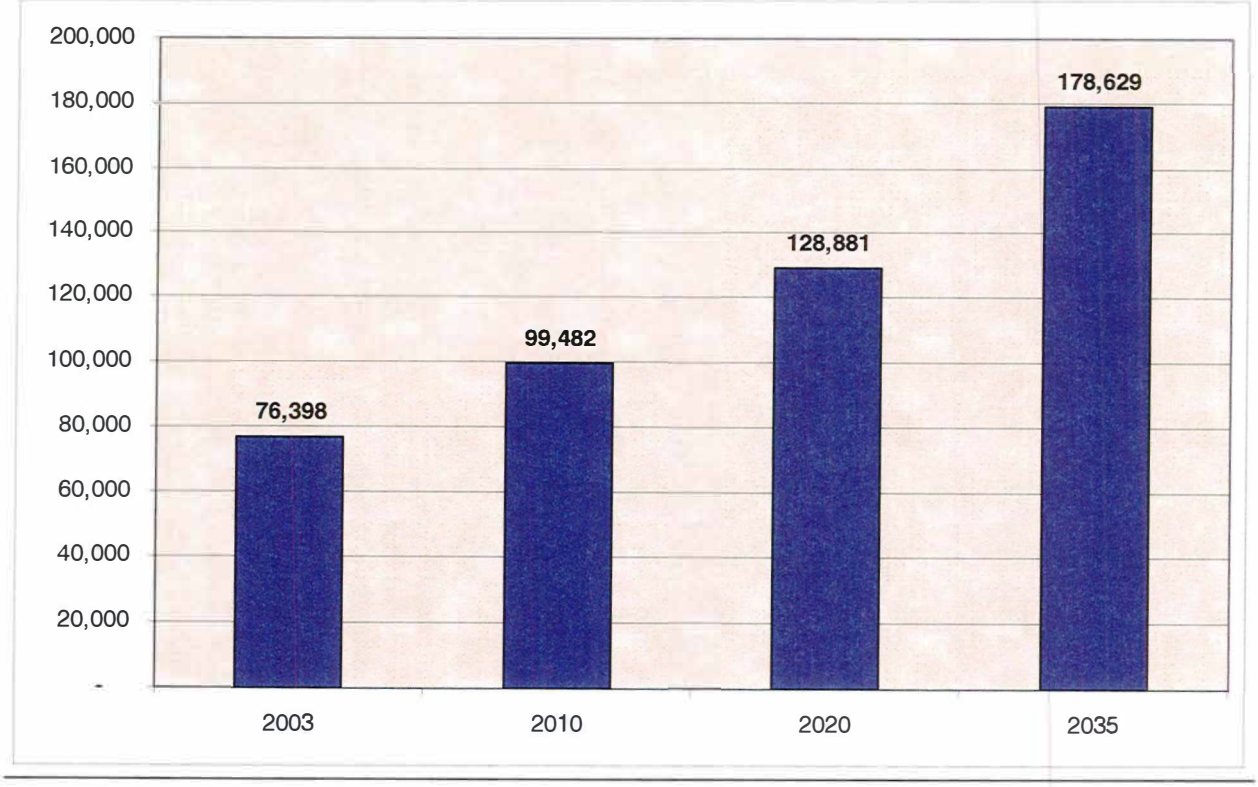
Year	Labor Force	Employment	Unemployment	Unemployment Rate
2000	74,614	69,396	5,218	7.0
2001	76,301	70,952	5,349	7.0
2002	80,404	74,523	5,881	7.3
2003	84,173	77,996	6,177	7.3

Source: Texas Workforce Commission, 2003

Projected Employment

As shown in **Figure 3-5**, the MPO planning area is expected to experience continued growth in employment over the next several decades. Within the MPO planning area, over 102,000 jobs are expected be added to the economy by the Year 2035, increasing employment from 76,398 in the year 2003 to 178,629 in the Year 2035. This represents an annual increase of 2.7 percent.

Figure 3-5
Projected Employment
Laredo Metropolitan Transportation Plan Update



Income

Table 3-5 displays median household income for Webb County and the City of Laredo. In 1999, the City of Laredo had a median household income of $29,108, which is higher than the county average of $28,100.

Table 3-5
Median Household Income
Laredo Metropolitan Transportation Plan Update

	Webb County	Laredo
1989	$18,074	$18,395
1999	$28,100	$29,108

Special Generators

Special generators are major employers, institutions and attractors which create unique travel patterns. These include high schools and post-secondary schools that have peak travel times other than the typical rush hours. Regional shopping malls also have heavy traffic during mid-day rather than from 7:00-9:00 a.m. and 4:00-6:00 p.m. Regional/state parks and entertainment centers also create unique traffic patterns and peak times. Additionally, hospitals and a number of manufacturing plants work around the clock with three shifts of employees creating heavier-than-normal traffic in the off-hours. Special Generators in the Laredo Metropolitan Area are shown in **Table 3-6**.

Table 3-6
Special Generators
Laredo Metropolitan Transportation Plan Update

Schools			
TAZ	**School**	**Students**	**Staff**
92	Texas A&M International University	4,100	1,031
6	Laredo Community College	7,352	580
180	Laredo Community College - South Campus	100	2,000
94	John B. Alexander High School	1,989	246
93	United High School	2,411	250
168	United South High School	1,007	245
124	Nixon High School	2,093	245
54	Martin High School	1,741	250
177	Cigarroa High School	1,499	210
144	St. Augustine Jr./Sr. High School	629	58
213	Lyndon B. Johnson	1,482	250

Airports			
TAZ	**Airports**	**Number of Boardings**	**Number of Deplaning Passengers**
107	Laredo International Airport	73,648	72,345

Transit Center		
TAZ	**Transit Center**	**Annual Bus System Transfers**
9	Laredo Intermodal Transit Center	326,783

Hospitals			
TAZ	**Hospitals**	**Number of Employees**	**Number of Beds**
123	Mercy Regional Medical Center	1,700	326
188	Doctor's Hospital	721	178

Regional Shopping Malls		
TAZ	**Regional Shopping Malls**	**Number of Employees**
101	Mall del Norte	1,441
131	Wal Mart Super Center	523

Regional Entertainment/Sports Facilities			
TAZ	**Regional Entertainment/Sports Facilities**	**Type**	**Capacity**
54	Laredo Civic Center	Special Event	Auditorium: 1,979 Ballroom: 1,200 4 Meeting Rooms: 250 each
191	Laredo Entertainment Center	Special Event	Arena: 8065 (sports) 9622 (concerts) 6 meeting rooms: 400 each club level: 150 Parking: 2,000

Regional Parks			
TAZ	**Regional Parks**	**Acreage**	**Visitors**
92, 127, 133	Lake Casa Blanca International State Park	371 (plus 1,650 acre lake)	16,928 (overnight) 310,252 (day)

Demographics Used in the Model

The demographic forecasts discussed above were generated after the model was developed. Therefore for the purpose of this study, forecasts previously prepared for the MPO in 1999 were used as the demographic inputs for the travel demand model. Utilizing the forecasts prepared in 1999 versus those prepared in 2003 has an insignificant impact on the travel demand model and its results.

Networks/Travel Demand Model

In addition to the demographics previously discussed another major input to the travel demand model is the transportation networks. The following section describes these networks and the development and calibration of the transportation model that was used for evaluating existing travel conditions and forecasting future travel demand for the Laredo MPO area. The development of mathematical models capable of simulating existing traffic patterns and projecting future travel demand is one of the most important phases of the transportation planning process.

Networks

The 2000 Laredo model network is a geographical depiction of the Laredo MPO roadway system. A travel demand model compares demand for travel to the supply of the roadway system within a defined study area. Travel demand is derived from population and employment, while the supply side of the equation is the roadway system on which travel occurs. Similar to socioeconomic and demographic data previously described, network attributes describe the characteristics of the roadway system.

The Laredo model network was developed from the Laredo MPO's thoroughfare system. The study area networks are developed and maintained by both the Laredo MPO and TxDOT Laredo District, while TxDOT's Transportation Planning and Programming (TP&P) Division manages the travel forecasting process. The remaining discussion in Chapter 3 is based on documentation from the Laredo Travel Demand Model 1998 Validation summary prepared by TxDOT – TP&P on October 12, 2001.

The following model network features are used to develop a geographical representation of a road thoroughfare system:

- Links,
- Nodes,
- Centroid Connectors, and
- Centroids.

Links are used to represent roadway sections. Nodes are used to split links where roadway attributes differ (i.e., speed limits, number of lanes, or facility type) or where intersections or interchanges occur. Interchanges differ from intersections in that multiple links and nodes are needed. Interchanges require links representing access and egress ramps and require nodes where those ramp connections occur with the intersecting roadway.

Special links and nodes are used to "load" traffic onto the network. Traffic originates from and is destined to geographic areas called traffic analysis zones (TAZs). Special nodes called

"centroids" are used to represent TAZs in the network. Special links called "centroid connectors" are used to represent local streets contained in a TAZ and provide access between centroids and the network. Also, a centroid can have more than one centroid connector.

Figure 3-6 presents the network layout for the year 2003 "base" network. In addition to the graphical depiction of the network, a database is also associated with the model network. The database is used to store link attribute data including but not limited to length (typically in feet), direction of flow (one-way vs. two-way), functional class, area type, number of lanes, posted speeds, model-adjusted speeds and travel times (typically in minutes), directional and total roadway capacities, and observed traffic count data where collected. The base network for the Laredo model was originally calibrated to year 2000 traffic counts, and then this network was utilized to develop the 2025 and 2030 forecast networks (with annotation data about projects and other network modifications).

The forecast networks were updated during a review of each network link's roadway functional class, area type, and number of lanes. Roadway functional class is used to categorize a network link based on its design and intended performance. For example, Del Mar Boulevard has a different functional class than Interstate 35. These facilities are designed differently and intended to perform different travel functions. We expect that speed limits and carrying capacity should differ between the two facilities in our example. The following describes the functional class system for the Laredo MPO region.

Laredo Functional Class System:

Facility Type	Description
1	Radial Freeways
2	Circumferential Freeways
3	Expressways
4	Divided Primary Arterials
5	Undivided Primary Arterials
6	Divided Minor Arterials
7	Undivided Minor Arterials
8	Collectors
9	Local Roads
0	Centroid Connectors

Area type classifies the interaction between a network link and the surrounding land use (for example, urban, suburban, and rural). For example, Santa Maria Avenue provides for more intense interactions between its surrounding land uses than Loop 20 provides to its surrounding land uses. Again, speed and carrying capacity should differ between the two facilities.

Figure 3-6a 2003 Network, Study Area

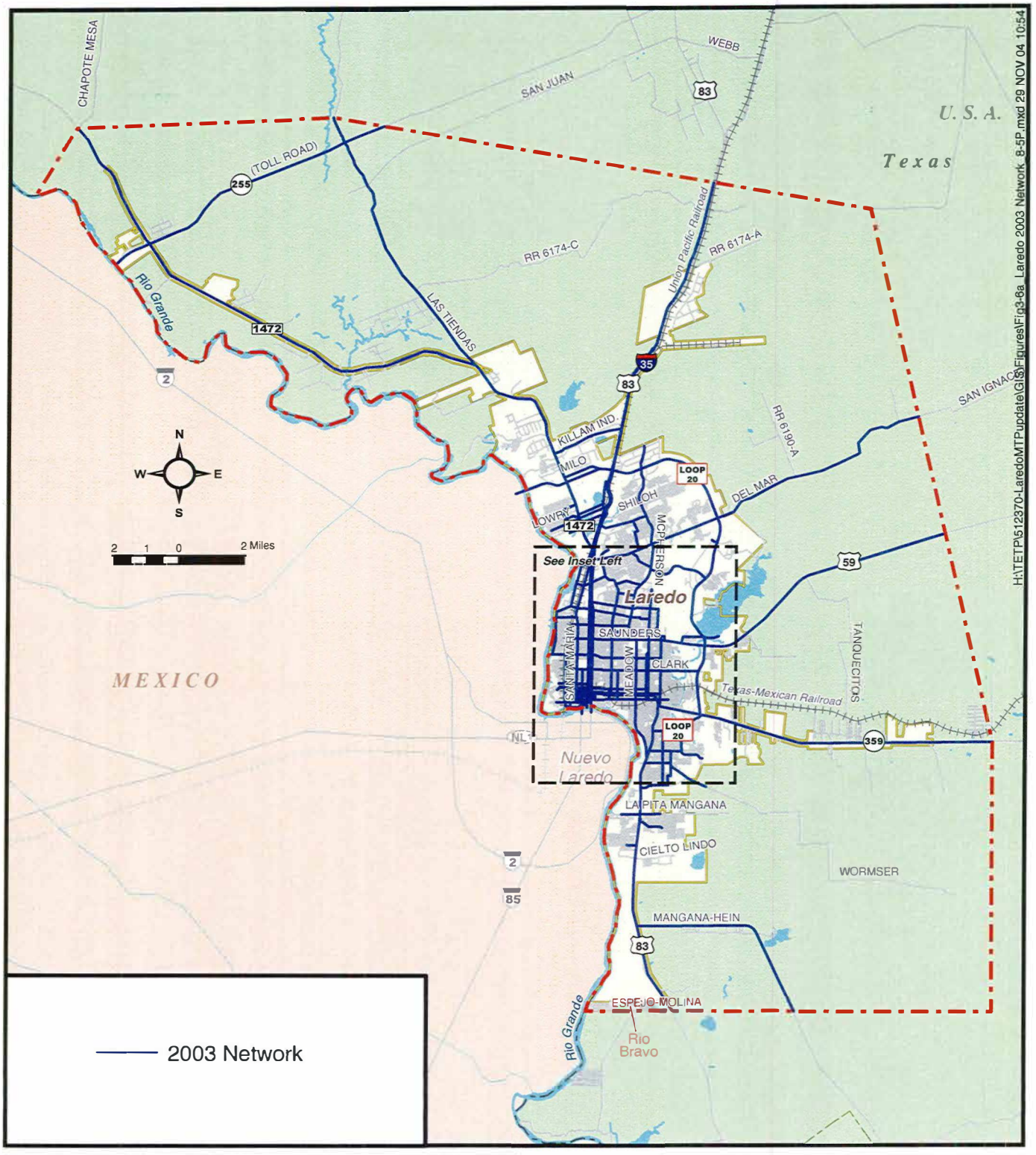
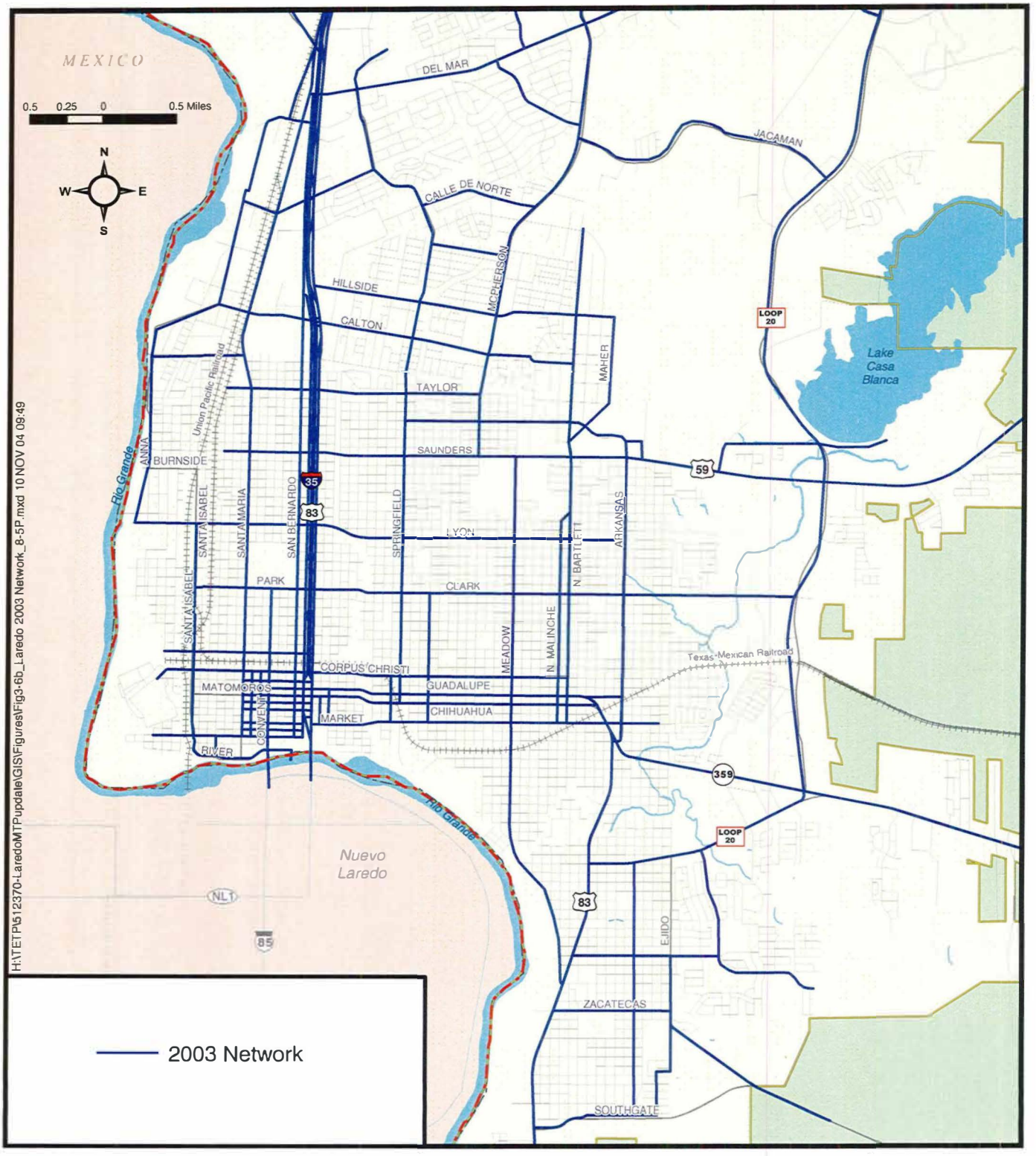


Figure 3-6b 2003 Network, Central Laredo



The number of lanes is also an important roadway feature, representing network supply. Generally speaking, the more lanes a facility has the greater its carrying capacity. These three variables (functional class, area type, and number of lanes) are used to assign speed and capacity values to a network link. **Table 3-7** provides the speed-capacity lookup table for the Laredo model network links.

Table 3-7
Speed – Capacity Lookup Table
Laredo Metropolitan Transportation Plan Update

Note: The top number is *Speed* (mph), the bottom number is *Lane Capacity* (vpd)

	Area Type					
Functional Class	**CBD (1)**	**CBD Fringe (2)**	**Urban (3)**	**Suburban (4)**	**Industrial (5)**	**Rural (6)**
1	35 19,200	43 18,900	51 18,400	55 16,700	52 15,300	60 13,900
2	32 19,200	35 19,700	42 20,100	49 18,900	43 17,900	55 16,900
3	25 10,200	27 10,000	33 9,700	37 8,500	33 7,500	53 6,300
4	23 7,500	28 7,400	33 7,100	36 6,200	33 5,500	53 4,600
5	24 6,700	27 6,600	32 6,400	36 5,600	32 5,000	44 4,200
6	23 6,500	25 6,400	31 6,100	35 5,400	30 4,800	43 4,000
7	22 5,900	25 5,800	30 5,600	34 5,000	30 4,400	42 3,800
8	25 5,000	29 4,900	34 4,700	38 4,200	35 3,700	45 3,100
9	30 3,000	32 3,000	36 2,900	44 2,500	36 2,300	50 1,900
0	22 N/A	25 N/A	30 N/A	35 N/A	30 N/A	42 N/A

Travel Model Forecasting

The entire network development and review process described above is often referred to as network coding. Once network coding is completed, the model network is used as an input to the travel demand model. Prior to forecasting travel demand, the base year model results should be compared to existing traffic patterns of the base year, which is a process referred to as model validation. Validation involves the adjustment of model parameters, so that assigned model volumes fall within an established confidence interval of observed traffic volumes (ground counts) obtained in the base year. **Table 3-8** shows the model validation results by area type and functional class.

Table 3-8
Comparison of Assigned to Counted VMT
Laredo Metropolitan Transportation Plan Update

Area Type	Observed	Assigned	Percent
CBD	38,190	33,841	112.85%
CBD Fringe	717,933	679,192	105.70%
Urban	567,895	567,814	100.01%
Suburban	276,075	271,983	101.50%
Industrial	338,557	337,892	100.20%
Rural	326,525	316,272	103.24%
Total	***2,265,175***	***2,206,994***	***102.64%***

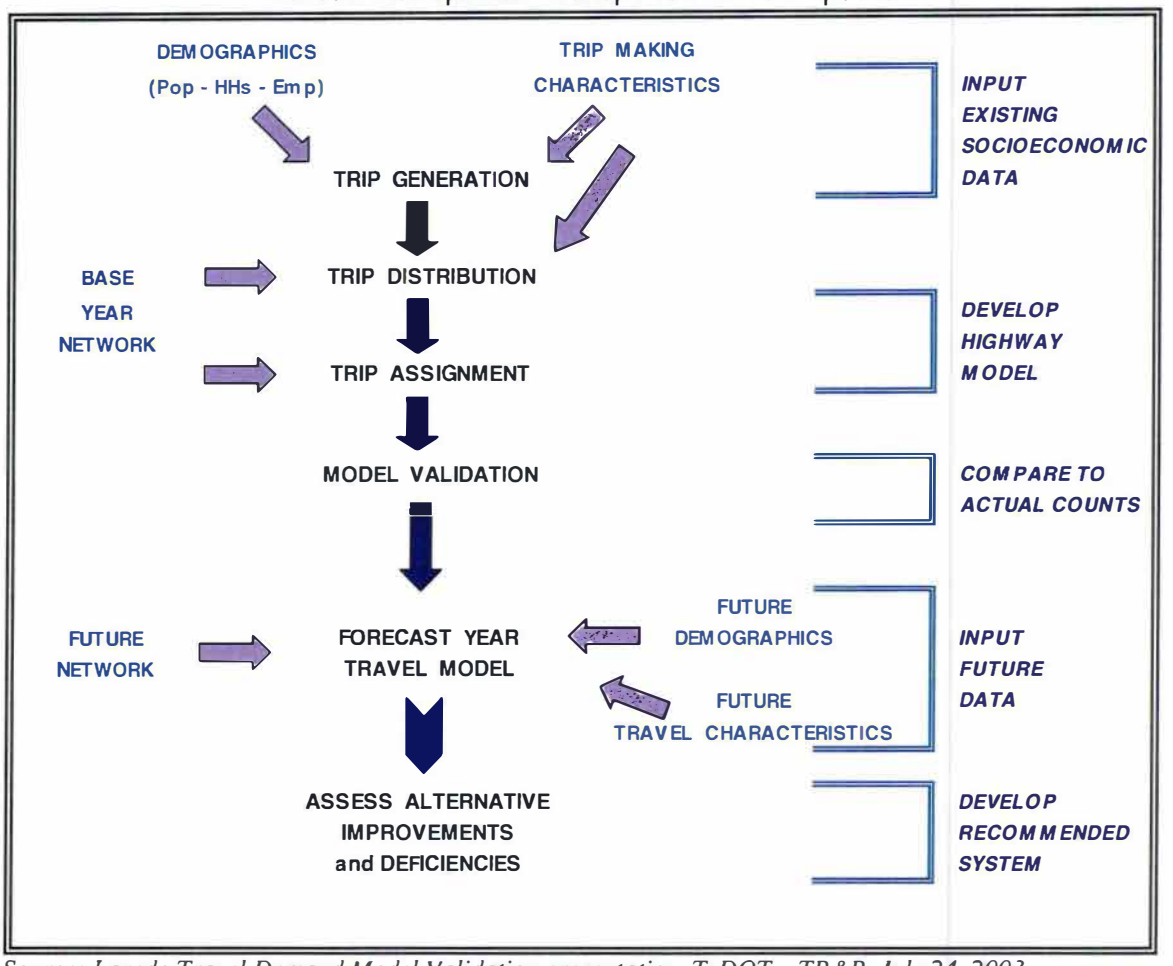
Functional Class	Observed	Assigned	Percent
Freeways	612,973	606,087	101.14%
Expressways	419,317	397,174	105.58%
P. Arterials	603,752	583,377	103.49%
M. Arterials	530,313	505,244	104.96%
Collectors	75,703	93,395	81.06%
Local Roads	23,116	21,717	106.44%
Total	***2,265,174***	***2,206,994***	***102.63%***

The validation results indicate that the model is performing within an acceptable range. Once confident in its performance, the model can be utilized to test the adequacy of proposed transportation improvements for serving projected demand. Travel model forecasting also works in conjunction with land use forecasts, since both depend largely on the following factors:

- Socioeconomic conditions affecting trip productions and attractions,
- Land use patterns based on locations and intensities of use, and
- The type, extent, and quality of transportation networks and facilities.

The Laredo MTP model forecasting process is based on the Texas Model package, which is a modified 4-step analysis maintained by TxDOT-TP&P. This forecasting process includes the trip generation, trip distribution, and traffic assignment steps, as well as a model validation procedure previously described. **Figure 3-7** presents the four steps of the Texas Model along with the inputs to and analyses within the process. One particular input is the TAZ map layer and / or data file; which contains all socioeconomic and demographic data that are a factor in determining the generation and distribution of trips between zones.

Figure 3-7
Travel Demand Model Process Chart
Laredo Metropolitan Transportation Plan Update



Source: Laredo Travel Demand Model Validation presentation, TxDOT – TP&P, July 24, 2003.

The Laredo travel demand model is a planning analysis tool which helps the Laredo MPO and District with their MTP development by evaluating system improvements, identifying system deficiencies, and conducting alternative analyses. One performance measure that helps with this analysis is the volume-to-capacity (V/C) ratio, which helps to determine if a roadway and / or improvement is deficient in capacity (supply) to meet a projected volume (travel demand). The V/C ratio is also useful in describing the Level of Service (LOS) of a particular roadway.

Trip generation is the initial modeling step, which provides an estimation of the amount of travel within the Laredo MTP study area. This method determines the number of trip ends produced from and attracted to each TAZ, and also classifies these trip ends by the following trip purposes:

- HBW = Home-based work trips
- HBNW = Home-based non-work trips
- NHB = Non-home base trips (within the study area)
- NHB-Ext = Non-home base trips (with external destinations)
- Truck / Taxi = "Specialized" truck and carpool trips
- Ext-Through = External "pass-through" trips
- Ext-Local = External trips (with local destinations)

For trip generation, the Texas Model utilizes Tripcal5, a multi-functional and flexible program that can estimate trip productions and attractions for a TAZ coverage of no more than 10,000 zones. TripCal5 has several types of cross-classification or linear regression models; three of which are used for estimating trip-end productions and five for trip attractions. The cross-classification models for trip productions are based on the number of households by household size, income, or auto ownership. Conversely, the trip attraction models estimate the number of employees by area type.

Trip distribution is the second step performed by the model. Trip distribution uses the TAZ productions and attractions output from trip generation, and assigns each production to a destination and each attraction to an origin for all possible zones in the study area. This step is typically accomplished using the gravity model based on Isaac Newton's mathematical formula. The gravity model analyzes the frequency of trip interchange between zone pairs based on the relationship between each zone's productions and attractions and the travel time between the zones.

However, the Texas Model utilizes the Atomistic Model that considers the travel opportunities within a zone to be spatially distributed around instead of concentrated at the zone's centroid. Therefore instead of the single travel time relationship used in the gravity model, the Atomistic Model uses trip attractions and trip length frequencies as factors for calibrating each model iteration, until the model converges on the desired attraction and trip length frequency settings.

The final step involves an iterative process called *traffic assignment*. The trip productions and attractions (from trip generation) are converted to origins and destinations (from trip distribution). The output of trip distribution is an origin-destination (O-D) matrix which contains total vehicle trips for each O-D pair. The O-D matrix is assigned to the network using a minimum path algorithm based on travel time and capacity restraints.

The Texas Model uses the User Equilibrium (UE) method for assignment, which runs iterative minimum path assignments and readjusts travel times according to link delays. Link delays increase as a result of congestion on a particular link. As link volumes approach link capacity, the V/C ratio increases for that link. The result is a decrease in the LOS on that link and travel time is reduced. As travel time is reduced due to congestion, vehicles divert to other links with faster travel times. This process is continued until no one vehicle can further reduce their travel time. At this point, the assignment is said to have reached "equilibrium". The results of the equilibrium assignment are displayed in the network database for further analysis and for presentation purposes.

The results from the UE assignment are then compared back to the "ground counts" for validation of the base year model (previously discussed). Once the model has been validated, through feedback loops, it is ready for use in the planning and development of forecast networks.

Chapter 4
Project Evaluation

Preparation of a Metropolitan Transportation Plan for the Laredo MPO area requires a detailed understanding of the study area's growth potential and traffic flow characteristics. Based on community objectives and future transportation needs, an evaluation is needed to analyze alternative transportation networks. In addition to traffic service, factors such as maximum utilization of the existing transportation system, community acceptance, and conformance with community goals were all considered in evaluating transportation plan alternatives.

Project Selection Criteria

Project selection criteria was developed by the MPO and used to assist in determining the short term, long-range and unfunded needs sections of the plan for state-sponsored projects. Local projects for the City of Laredo and Webb County were also reviewed.

The MPO Technical Advisory Committee reviewed and modified the project selection criteria at its regular meeting in September 2004. The MPO Policy Committee formally approved the project selection criteria on September 9, 2004. The project selection criteria include the following six categories:

1. **Demonstrated Need** – Does the project documentation clearly demonstrate existing or future need for this project? Does the project significantly improve LOS along the facility or adjacent facilities?

   - Demonstrated Need is evaluated based on an improvement in Level-of-Service (LOS) on existing or parallel facility.

   Current Congestion (existing or parallel facility)

Criteria	Points
LOS A	0
LOS B	25
LOS C	50
LOS D	75
LOS E/F	100

   Future Congestion (existing or parallel facility)

Criteria	Points
LOS A	0
LOS B	25
LOS C	50
LOS D	75
LOS E/F	100

2. **Cost Reasonableness** - Does the proposed cost for the project seem reasonable when compared to comparable projects undertaken in the City, County or Region? Are the cost estimates in line with TxDOT or County estimates for similar projects?

- Cost Reasonableness is evaluated using the cost of project divided by the future VMT multiplied by the project length (Cost per Vehicle Mile). For new construction the 2030 VMT will be used.

Criteria	Points
$0-$75	75
$75-$125	50
$125-$500	25
>$500	0

3. **Modal Impacts -** Does this project help or assist bicycle mobility? Does the project improve accessibility or safety for bicyclists? Does this project improve mobility or access for pedestrians? Is pedestrian safety enhanced with this project? Does this project assist with transit access?

   - Modal Impacts are evaluated by assigning points to projects that provide bicycle, pedestrian, transit, airport, and/or rail access.

Criteria	Points
Bicycle Access	20
Sidewalks	20
Transit Access	20
Airport Access	20
Rail Access	20

4. **Environmental/Socioeconomic Impacts -** Does this project impact the community's environment positively, or is there the potential for negative environmental impacts? Does the project have community support, and is it a priority for the community?

   - Environmental/Socioeconomic Impacts are evaluated by assigning points to projects based on the need for wetland mitigation and/or acquisition of additional Right-of-way.

Criteria	Points
Negative	-10
Positive	10
Public Acceptance	20

ROW Cost as a Percent of Total Implementation Cost:

Criteria	Points
0% of total cost	25
1-25% of total cost	20
26-50% of total cost	15
51-75% of total cost	10
76-100% of total cost	0

5. **Project Readiness -** Is this project likely to be implemented within this 3-year TIP period? Has sufficient engineering work occurred on this project to ensure timely implementation? Has the right-of-way for the project been secured?

   - Project Readiness is evaluated by assigning points to projects based on the likelihood of implementation and on what stage the project is at in the planning and development process.

Criteria	Points
ROW Purchased	10
PE Completed	10
Plans Completed	10

6. **Special Circumstances** – Additional factors considered important to the project which include safety, economic impacts, and system continuity and connectivity. **Safety -** Will implementation of the project improve safety for vehicles, bicyclists or pedestrians? Will accidents be reduced with this project? Does this project reduce the likelihood of accidents or remove unsafe driving/biking/walking conditions? **Economic Impacts –** Does the project support economic development and international trade in the community? **System Continuity and Connectivity** - Does the project provide for connecting sections of an existing or planned street that are presently discontinuous?

   - **Special Circumstances** are evaluated by assigning points for safety, economic impacts, and system continuity and connectivity.

Criteria	Points
Safety	30
Economic Impacts	15
System Continuity	15

Each of these criteria, as well as the results of the analysis, are discussed in the following sections.

Transportation Improvement Needs

The first step in identifying projects to be included in the MTP is projecting traffic demands and needs. Using TxDOT's travel demand model for the Laredo MPO Boundary, projected capacity deficiencies were identified along the existing roadway system. Projected future deficiencies were determined by conducting a capacity/level-of-service analysis of the roadway system.

Roadway capacity is defined as the maximum number of vehicles that can be accommodated on a roadway facility during a particular time period under prevailing roadway, traffic, and control conditions. Roadway capacity is determined by several contributing factors, including the functional class of the roadway, type and intensity of adjacent development, and the number of

travel lanes. Other contributing factors of roadway capacity include intersection spacing, efficiency of signalized intersections, traffic composition, traffic controls and regulations.

An important result of a capacity analysis is the determination of level-of-service. Level-of-Service (LOS) is a qualitative measure of operating conditions at a location and is directly related to the volume-to-capacity ratio along roadways. LOS is given a letter designation ranging from A to F (free flow to heavily congested), with LOS D considered in most urban areas as the limit of acceptable operation. For example, LOS can be related to the grading scale of a report card: A – Excellent, B – Good, C – Average, D – Acceptable, E – Needs improvement, and F – Failing. LOS criteria used to evaluate projected future traffic deficiencies were identified previously in Chapter 2.

In determining the transportation improvement needs for the Laredo MPO area, a base network of the existing roadway system operational in 2003 was developed. All added capacity and regionally significant roadway projects completed by the end of 2003 were added to the updated base network. Plus, a model assignment was conducted to determine the traffic volume and LOS distributions throughout the MPO study area.

The base 2003 network was then utilized to establish a "No-Build" network, where traffic loadings based on year 2020 and 2030 demographic data were projected onto the existing 2003 network. These 2020 and 2030 "No-Build" alternatives analyzed how future traffic volumes were distributed on the existing network if no transportation improvements were implemented during that time period. The 2020 and 2030 No-Build networks also provided a baseline for comparisons between networks with project implementation and the no-build network.

Projected future year 2020 and 2030 daily traffic volume assignments and LOS on the No Build networks are shown in **Figure 4-1** and **Figure 4-2**, respectively. The traffic volume and LOS distributions for each network are based on trip assignments that are described as part of the travel model forecasting process in Chapter 3: Travel Demand Modeling and Demographics. The trip assignments utilize data inputs provided by the Laredo MPO that are originally based on demographic data for the 2030 forecast years.

If no roadway improvement projects are implemented over the course of the next 25 years, most major roadway corridors within the MPO boundary are projected to operate at unacceptable LOS conditions by year 2030, as illustrated in Figure 4-2. The majority of the roadways in Laredo deteriorate to unacceptable LOS, including US 83, Saunders (US 59), Guadalupe, Chihuahua, and IH 35. Clearly, a need for transportation improvements throughout the Laredo MPO area has been identified.

Alternative Improvements

With the analysis of the existing and no build networks complete, the next step was evaluate numerous additional projects for inclusion in the MTP update. As per the Laredo MPO Public Involvement Process, a project nomination form was published in the newspaper in early

Figure 4-1 Year 2020 Traffic Volumes and LOS on No Build Network

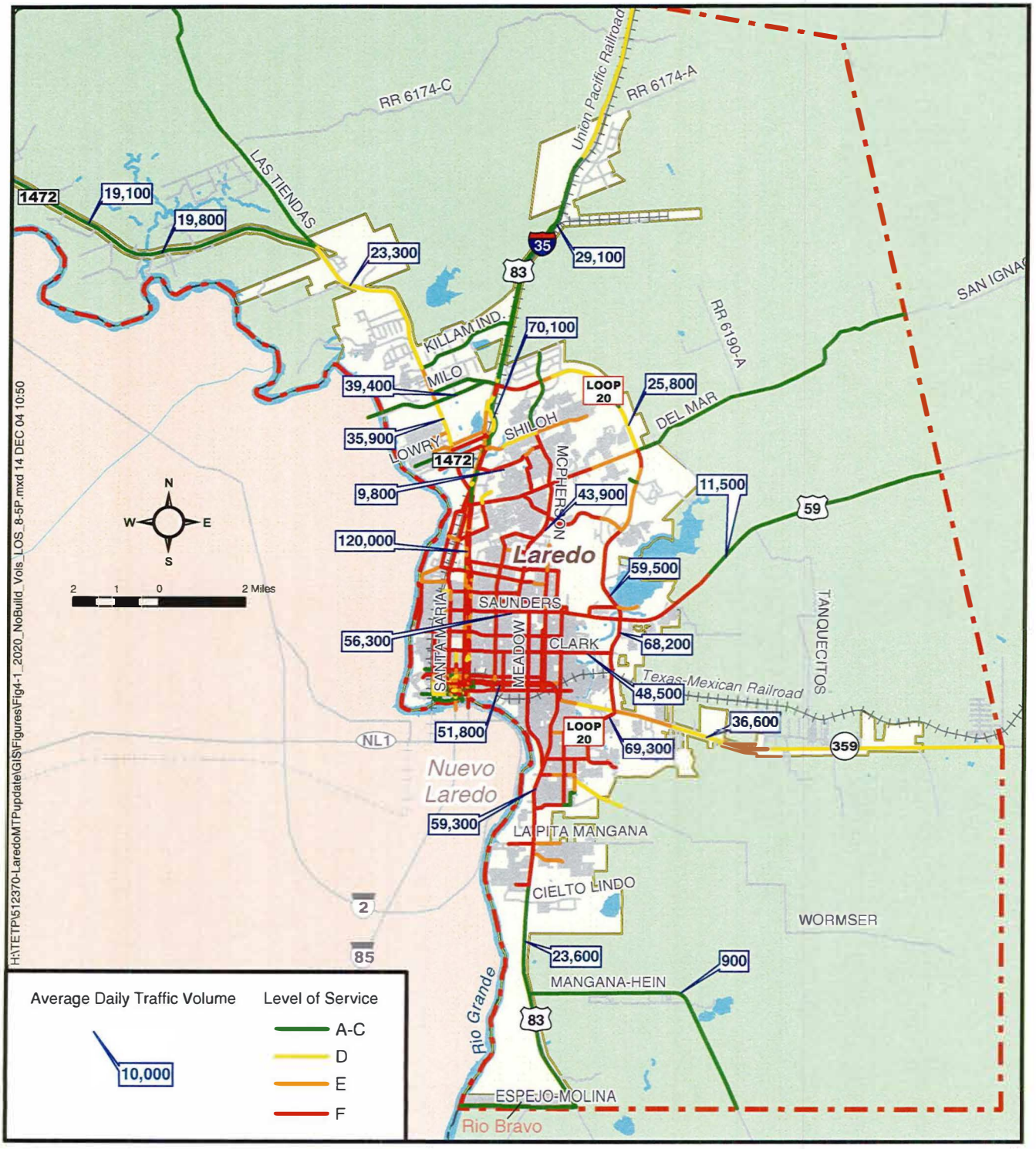
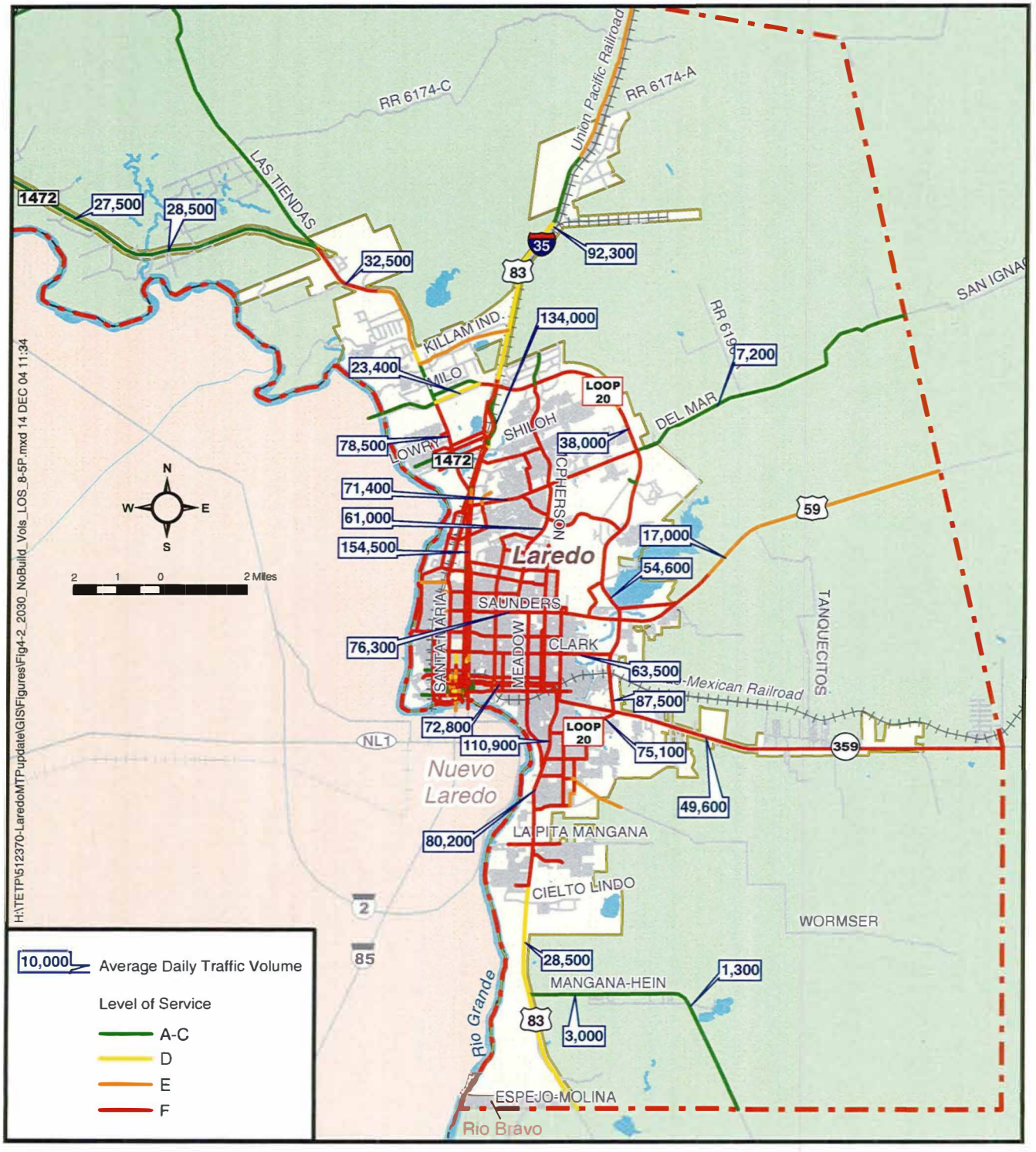


Figure 4-2 Year 2030 Traffic Volumes and LOS on No Build Network



September 2004 to invite the public to nominate projects for inclusion in the MTP. The published nomination form is shown in **Figure 4-3**. In addition, the Laredo MPO Policy Committee, Laredo MPO Technical Committee, TxDOT staff, City of Laredo staff, and El Metro provided input in nominating projects for potential inclusion into the MTP. Projects from the Transportation Improvement Program (TIP), Unified Transportation Program (UTP), and the City of Laredo's Capital Improvement Program (CIP) were all reviewed to develop a complete list of potential projects. Approximately 85 projects were identified for evaluation.

Evaluation of Alternatives

The project selection criteria approved by the MPO Policy Committee, as discussed previously in this chapter, were used to evaluate the alternative transportation improvements for inclusion into the Laredo MTP Update. The project selection criteria were grouped into six categories, including Demonstrated Need, Cost Reasonableness, Modal Impacts, Environmental/Social Impacts, Project Readiness, and Special Circumstances.

Demonstrated Need - The Demonstrated Need category included an analysis existing traffic volumes, existing level-of-service, future traffic volumes, and future level-of-service. The resulting LOS analyses would help to determine which road projects provide a better benefit to surrounding traffic flow conditions. The more effective projects will eventually help to develop a fully integrated and continuous transportation system to serve the future population of the Laredo MPO area.

Using existing year 2003 traffic assignments and future traffic assignments for 2030 no build network, a project matrix was developed to include all evaluated transportation improvement alternatives. The matrix contained several attributes of each project, including the project length and cost, the assigned volumes from the model analysis, and the corresponding LOS value for the project. The volume and LOS data were typically based on the highest assigned values within the limits of the project and for both the existing and future no-build conditions. For new location facilities, traffic volume and LOS data for parallel facilities were used, as the new location facilities would provide a traffic operations benefit to the parallel facilities.

The resulting project matrix is included in **Appendix B**. The change in traffic conditions between the existing and no-build networks helped to rate the need for implementing a particular transportation improvement. Nearly half of the projects were rated with LOS F conditions for both the existing and future time periods and received the maximum score of 200 points for the Demonstrated Need criteria. Another 13 projects received 175 points with LOS E conditions in the existing time period and LOS F in the future time period.

Cost Reasonableness - Cost estimates for the projects discussed in this chapter are based on averages for current roadway construction and are intended for planning purposes only. These order-of-magnitude construction cost estimates will be refined as the projects are staged through the Transportation Improvement Program (TIP) for implementation. The majority of the cost estimates used in this analysis were provided by the Texas Department of

Figure 4-3: Project Nomination Form

Laredo Metropolitan Transportation Plan Update
Project Nomination Form

The Laredo Urban Transportation Study is in the process of updating their Metropolitan Transportation Plan (MTP). The MTP is a long range transportation plan that will guide transportation improvements in the region over the next 25 years. The Metropolitan Planning Organization is accepting nominations for proposed transportation projects of regional significance to be considered in the plan. Proposed projects may include highway, aviation, transit and bicycle and pedestrian improvements.

Project Name _____

Limits _____

Description _____

_____

_____

_____

Please mail or fax forms to
Gabriel Del Bosque
MPO Coordinator
Laredo MPO
P.O. Box 579
Laredo, Texas 78042-0579
Fax: (956) 794-1624
Email: gdelbosque@ci.laredo.tx.us

Transportation, City of Laredo, or Webb County for projects in the TIP, UTP, or CIP. Additional order-of-magnitude cost estimates for other nominated projects were developed by WSA using an analysis of fiscal 1995-97 average road construction costs from the Texas Comptroller of Public Accounts and TxDOT for types of various roadway construction adjusted to year 2004 value. All estimated costs are in terms of year 2004 cost values and are to be used only for the purposes of comparing the relative cost of a project against other projects. The construction cost estimates for recommended improvements are summarized in the project matrix in Appendix A.

Cost reasonableness was calculated by determining the cost per vehicle-mile traveled and using it as a cost-benefit comparison value to compare potential alternatives against each other. Projects with a lower cost per VMT value were assumed to provide more benefits to the public at a lower implementation cost. Cost per VMT values ranged from about $3 per VMT to over $1,600 per VMT. Most projects had cost per VMT values between $20 and $150. The lowest cost per VMT projects (less than $5 per VMT) were access management projects, which are relatively low cost projects which provide travel benefits. The project matrix included in Appendix A identifies cost per VMT values for each project.

MODAL IMPACTS – Each project was also reviewed for potential modal impacts. Modal impacts included whether or not a nominated project included bicycle, pedestrian, transit, rail, or airport access improvements. Most nominated projects did not include bicycle facilities, while most of the arterial street projects within the City of Laredo city limits do include sidewalks. However, even though most roadway projects do not include bicycle facilities, bicycle only projects do receive separate transportation enhancement funding, as discussed in Chapter 6. Projects located along Loop 20 received 20 points, as improvements to Loop 20 would provide improved access to the Laredo International Airport.

ENVIRONMENTAL/SOCIAL IMPACTS – Environmental/Social impacts included public acceptance of the project, positive or negative environmental impacts, and ROW Cost as a percent of total cost. All nominated projects were perceived to have public support, as the projects were nominated by public citizens or agency representatives, with the exception of a few projects such as the Outer Loop, Loop 20, and FM 1472 raised median projects. These three projects, while they do have some support from citizens, they also have some opposition, so they did not receive points for public support. During the 45 day public comment period, citizens were provided the opportunity to again voice their acceptance of nominated projects.

In addition, projects were given points depending upon the amount of additional right-of-way (ROW) that will be required to implement a project. The purchase of right-of-way typically impacts adjacent businesses or residences, so less amount of additional right-of-way needed to implement a project received higher scores than projects requiring a larger percentage of ROW. Twenty-eight of the evaluated projects do not include any additional right-of-way to implement, so they received a full 25 points. For the remaining evaluated projects, ROW cost as a percent of total construction cost ranged from two percent to 70 percent.

Minority Populations

This section involves assessing the minority population within the study area. Minority populations are defined in accordance with Executive Order 12898, U.S. Department of Transportation's (DOT) Order DOT 5610.2 and Federal Highway Administration's DOT Order 6640.23 Actions to Address Environmental Justice in Minority Populations and Low-income Populations. Minority is defined as:

- Black (having origins in any of the black racial groups of Africa);
- Hispanic (of Mexican, Puerto Rican, Cuban, Central or South American, or other Spanish culture or origin, regardless of race);
- Asian American (having origins in any of the original peoples of the Far East, Southeast Asia, the Indian subcontinent, or the Pacific Islands); or
- American Indian and Alaskan Native (having origins in any of the original people of North America and who maintains cultural identification through tribal affiliation or community recognition).

Table 4-1 displays race, Hispanic Origin and minority populations for the City of Laredo and Webb County. As shown, 94 percent of Webb County is of Hispanic Origin.

Table 4-1
Race, Hispanic & Minority Population, 2000
Laredo Metropolitan Transportation Plan Update

	Webb County	City of Laredo
Total:	193,117	176,576
Not Hispanic or Latino:	11,047	10,360
White alone	9,508	8,891
Black or African American alone	294	276
American Indian and Alaska Native alone	144	122
Asian alone	783	773
Native Hawaiian and Other Pacific Islander alone	16	15
Some other race alone	22	22
Two or more races	280	261
Hispanic or Latino:	182,070	166,216
White alone	149,162	136,376
Black or African American alone	419	376
American Indian and Alaska Native alone	768	662
Asian alone	50	47
Native Hawaiian and Other Pacific Islander alone	32	32
Some other race alone	27,008	24,589
Two or more races	4,631	4,134
Total Minority Population	**183,609**	**167,685**

Source: U.S. Census Bureau, 2000

Low Income Population

Low-Income is defined as a person whose household income (or in the case of a community or group, whose median household income) is at or below the U.S. Department of Health and Human Services poverty guidelines. The 2004 Health and Human Services poverty guideline for a family of 4 is $18,850. Data sources used in identifying low-income populations in the Laredo area includes available information from the U.S. Census Bureau. The median household income for Webb County and the City of Laredo in 1999 was $28,100 and $29,108 respectively.

Table 4-2 identities persons whose income in 1999 was below poverty level. As shown, 30 percent of Webb County's population was living below poverty level.

Table 4-2
Persons Living Below Poverty Level, 2000
Laredo Metropolitan Transportation Plan Update

	Total Population (for which poverty status is determined)	Below Poverty Level	
		Persons	Percent
City of Laredo	174,070	51,493	31%
Webb County	190,359	59,339	30%

Table 4-3 displays the number of households with an income less than $20,000, based on the 2000 Census. As shown thirty five percent of households in the county have an income less than $20,000.

Table 4-3
Number of Households with Income Less than $20,000, 2000
Laredo Metropolitan Transportation Plan Update

	Total Households	Households with an income less than $20,000	Percent
City of Laredo	46,908	16,437	36%
Webb County	50,647	18,397	35%

Chapter 5 – Financial Plan

The Transportation Equity Act for the 21st Century (TEA-21) requires that the MTP incorporate a financial plan for the planning period. The MTP is required to be "financially constrained", meaning the estimated implementation costs for the planned transportation improvements are in balance with the projected revenues available from identified funding sources. This requirement for a financially constrained MTP ensures that the plan is based upon realistic considerations of the estimated costs for the planned improvements and how they are to be funded. A financially constrained MTP supports the Metropolitan Planning Organization (MPO) in prioritizing area transportation needs and developing a transportation system that maximizes the use of available financial resources.

Funding Sources

The purpose of this section is to identify funding sources and project costs associated with the transportation improvements identified in the Laredo Metropolitan Transportation Plan Update. Transportation improvements in the Laredo MPO can be funded through a variety of sources including federal, state and local funds. In fact many projects are funded through a combination of these sources.

Federal and State

The Texas Department of Transportation recently streamlined project funding categories from 24 main categories to 12. Projects now fall under the Statewide Preservation Program (SPP), which is supported by the department's "Maintain It' strategy, or the Statewide Mobility Program (SMP), which is supported by the "Build It" strategy. **Table 5-1** provides a general overview of the 12 TxDOT funding categories.

The Laredo MPO is eligible for funding in the following categories:

1- Preventive Maintenance and Rehabilitation
3 – Urban Area (non-TMA) Corridor Projects
4- Statewide Connectivity Corridor Projects
6 – Structures Replacement and Rehabilitation
8 – Safety
9- Transportation Enhancements
10 – Supplemental Transportation Projects
11 – District Discretionary
12 – Strategic Priority

Table 5-1
Funding Summary
Laredo Metropolitan Transportation Plan Update

Funding Category #	Funding Category Name	Program Authority	Allocation Program	Summary / Restrictions	Funding Fed	Funding State	Funding Local
MAINTAIN IT							
1	Preventive Maintenance and Rehabilitation	Commission	Districts	Preventive maintenance and rehabilitation of the existing state highway system including interstate main lanes, structures, signs, markings, striping.	90% 80% 0%	10% 20% 100%	
6	Structures Replacement and Rehabilitation	Commission	none	Rehab of bridges on and off the state system, replacement of existing highway-railroad grade crossing or railroad underpasses	80% 80% 0%	20% 10% 100%	10%
BUILD IT							
2	Metropolitan Area (TMA) Corridor Projects	Commission	none	Mobility and added capacity projects for TMA MPOs	80% 0%	20% 100%	
3	Urban Area (non-TMA) Corridor Projects	Commission	none	Mobility and added capacity projects for non-TMA MPOs	80% 0%	20% 100%	
4	Statewide Connectivity Corridor Projects	Commission	none	Mobility and added capacity projects which serve the mobility needs of statewide connectivity	80% 0%	20% 100%	
5	Congestion Mitigation & Air Quality Improvement	Commission Allocation Projects selected by MPO in consultation with TxDOT and TCEQ	Districts	Addresses attainment of air quality standards in non-attainment areas	80% 80%	20%	20%
7	Metropolitan Mobility/ Rehabilitation	Commission Allocation. Projects selected by MPO & TxDOT	Districts	Transportation needs within MPOs with populations of 200,000 or greater	80% 80% 0%	20% 0% 100%	0% 20% 0%
8	Safety – Federal Hazard Elimination Program	Commission Allocation. Selected statewide by federally mandated safety indices	Traffic Operations Division	Safety related projects	90% 0%	10% 100%	
	Safety – Federal Railroad Signal Safety Program	Commission Allocation. statewide	Traffic Operations Division	Installation of automatic RR warning devices	90% 0%	10% 100%	

Funding Category #	Funding Category Name	Program Authority	Allocation Program	Summary / Restrictions	Funding Fed	Funding State	Funding Local
9	Transportation Enhancements	Commission selection and approval	none	Projects beyond normal what is normally expected for transportation enhancements	80% 80%	20% 0%	0% 20%
	Safety Rest Area Program	Commission allocation. Selected statewide by Maintenance Division	Maintenance Division	Projects to renovate, build, relocate safety rest areas	80%	20%	
10	Supplemental Transportation Projects - State Park Roads	Commission Allocation. Projects selected by Tx Parks & Wildlife	Transportation Planning & Programming Division	Construction and rehabilitation of roadways within or adjacent to state parks	0%	100%	0%
	Supplemental Transportation Projects RR Grade Crossing Replanking Program	Commission allocation	Traffic Operations Division	Replacement of rough railroad crossing surfaces	0%	100%	
	Supplemental Transportation. Projects RR Signal Maintenance Program	Commission allocation	Traffic Operations Division	Contributions to RR Companies based on number of crossings	0%	100%	
10	Supplemental Transportation Projects Construction Landscape Programs	Commission allocation. Projects selected by Districts	Design Division	Landscape, aesthetic, and environmental improvements	0%	100%	
	Supplemental Transportation Projects Landscape Cost Sharing Program	State	Design Division	Allows the department to execute joint landscape improvement projects through partnerships	0%	100%	
	Supplemental Transportation Projects Landscape Improvement Program	Districts	Design Division	Landscape projects for non-attainment air quality or near non-attainment areas	0%	100%	
	Supplemental Transportation Projects Supplemental (Federal)	Federal allocations	None	Federal programs such as Forest Highways, Indian Reservation Highways, Federal Land Highways and Ferry Boat Discretionary	80% 100% 0%	20% 0% 100%	
11	District Discretionary	Commission Allocation. Projects selected by districts	Districts	Projects selected at district's discretion	80% 0% 80%	20% 100% 0%	0% 0% 20%
12	Strategic Priority	Commission Selection. Project-specific	None	Projects must promote economic development, provide system continuity with adjoining states, increase efficiency on military deployment routes	80% 0%	20% 100%	

Source: Texas Department of Transportation

Innovative Financing Techniques

With continued growth and development occurring across the state, traditional funding sources are no longer adequate to keep up with transportation needs. As a result in June 2003, HB 3588 was passed, which provides local officials the necessary tools to develop and improve Texas' transportation infrastructure. The new legislation gives local authorities more power and provides them with innovative techniques to finance transportation improvements allowing projects to be planned and built at a much faster rate. Innovative financing techniques include the following methods found in the new transportation bill and other tools available to local authorities to supplement the traditional "pay-as-you-go" method of financing highway projects:

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.

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.

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.

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 combing them all into one contract, it also helps reduce the cost of completing a project and accelerates its completion.

Pass-Through Toll Agreements

This type of agreement is where the driver pays no tolls. 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.

State Infrastructure Bank

TxDOT has a state infrastructure bank (SIB), which 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, sale and lease of property, 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.

Historical Funding

Historical funding levels by federal, state, and local agencies over the past ten years provides an important baseline for projecting future funding levels for the next 25 year period.

Federal and State

TxDOT provided historical funding for the Laredo MPO for the past 10 years (FY1995 – FY2004). As shown in **Table 5-2**, over the past 10 years state and federal funding in the area totaled approximately $383 million. For the "Maintain It" construction categories (cat 1 and 6 and maintenance fund), approximately $74 million, or 19 percent of total funding was expended in the region, while a review of the "Build It" construction categories showed that 81 percent or $309 million was expended in the area.

Local

Over the past 5 years the City of Laredo has expended approximately $13.5 million on street and traffic projects and $12.4 million on maintenance and rehabilitation of the existing system.

Transit

El Metro has received approximately $48.6 million dollars in federal, state and local revenues over the past five years.

Table 5-2
Historical and Projected Funding, Laredo MPO
Laredo Metropolitan Transportation Plan Update

	Historical (1995-1999)	Historical (2000-2004)	10 Year Historical (1995-2004)	Projected 10 Year 2005-2014	Projected 15 year 2015-2029
State and Federal Funding					
Build It	**$189,644,134**	**$119,079,875**	**$308,724,009**	**$253,222,242**	**$375,761,574**
Total Mobility (Construction 3,4,12, 11)				***$204,040,242***	***$328,328,130***
Non Capacity Improvements					
Cat 8 - Safety				$10,017,000	$15,066,707
Cat 9 - Enhancement				$4,000,000	$6,000,000
Cat 10 - Miscellaneous				$27,165,000	$11,300,030
Cat 11 - District Discretionary				$8,000,000	$15,066,707
Total Non Mobility				**$49,182,000**	**$47,433,444**
Maintain It (cat 1,6 and maintenance fund)	**$43,960,082**	**$30,134,479**	**$74,094,561**	**$125,496,949**	**$175,737,211**
Cat 1	$40,100,457	$30,134,479	$70,234,936	$79,496,949	$135,737,211
Cat 6	$3,859,624	$	$3,859,624	$46,000,000	$ 40,000,000
Total Federal & State	***$233,604,215***	***$149,214,354***	***$382,818,570***	***$ 378,719,191***	***$551,498,785***
Local Funding					
City of Laredo Construction		$13,529,940		$27,000,000	$ 41,000,000
*Webb County		$4,588,250		$9,176,500	$13,764,750
Transit Funding					
Operating					
El Metro Federal		$3,373,232		$45,535,000	$70,000,000
El Metro State		$17,261,009		$9,107,000	$14,000,000
El Metro Local		$27,990,421		$75,458,000	$116,000,000
Total		**$48,624,662**		**$130,100,000**	**$200,000,000**
Capital				$8,500,000	

*Based on County projects located within the MPO boundary as identified in the 2002-2007 Webb County CIP

PROJECTED FUNDING AVAILABILITY

Historical funding expenditures, area growth and slated projects were used in developing projected funding over the 25 year time frame. Projections were developed for expected federal, state and local funding for the 10-year the short-term strategy (2005-2014) and the 15-year long-term strategy (2015-2029).

Federal and State Funding

In developing forecasts for federal and state funding, historical expenditures for all "Maintain It" and "Build It" construction categories were combined over the past 10 years. As shown in Table 5-2, historical funding between 1995-1999 was significantly higher than 2000-2004 funding levels, due to three large projects for which the MPO received funding for in FY 1999 (funding in FY 1999 equaled approximately $137 million). Due to this unique situation in 1999, it was decided that a straight line projection of historical expenditures over the last five years (2000-2004) would be performed to arrive at a 10 year forecast. The 15 year forecast was then developed by multiplying the 10 year forecast by 1.5. An additional $12 million was added to the short-term strategy to account for additional anticipated category 6 funds. Once total funding was forecasted for the 25 year time frame, forecasts were divided into "Build It" and "Maintain It" categories based on historical percentages each represented of total funding.

As shown in Table 5-2 federal and state funding is projected at $378.7 million in the short-term and $551 million in the long-term. The "Maintain It" categories are projected to account for $125 million or 33 percent of total funding in the short-term and $176 million in the long-term.

Funding for the "Build It" categories is projected to account for $253 million in the short-term and $375 million in the long-term. Funding for the "Build It" categories was further broken down into "mobility" which accounts for the majority of capacity and intersection improvement projects and includes funding from Categories 3,4,11 and 12.

Lump sum categories were also developed for Category 8 – Safety, Category 9 – Enhancements, Category 10 – Miscellaneous and Category 11 – District Discretionary (non-capacity improvements). Category 11 funds can be used for a variety of projects and the lump sum category reflects funding for projects not individually listed in the plan. A more detailed discussion of these categories is provided in the following paragraphs.

Category 8 – Safety

Category 8 - Safety funding is projected to equal $10 million in the short-term and $15 million in the long-term. Funding from this category can be used for a variety of safety related projects which are not individually listed in the plan including access management projects, safety lighting, signs and railroad warning devices.

Category 9 – Enhancement

Category 9 – Enhancement funding is projected to equal $4 million in the short-term and $6 million in the long-term. Funding from this category can be used for projects above and beyond what normally is expected for transportation enhancements as outlined in TEA-21. Funding from this category is typically used for bicycle and pedestrian improvements and enhancements. To obtain funding for bicycle and pedestrian facilities, the City of Laredo or

other local agencies will need to nominate and sponsor projects and compete on a statewide basis for funding.

Category 10 – Miscellaneous

Category 10 – Miscellaneous funding is projected to equal $27 million in the short-term and $11 million in the long-term. Funding from this category can be used for miscellaneous projects including state park roads, border safety inspection facilities, railroad grade crossing replanking, railroad signal maintenance and landscape programs.

Category 11 – District Discretionary

Category 11 – District Discretionary (non-capacity improvements) funding is projected to equal $8 million in the short-term and $15 million in the long-term. Funding from this category can be used for a variety of projects at the TxDOT Laredo District's discretion; however, this lump sum category reflects funds that may used for non capacity improvement projects not individually listed in the plan. Historically category 11 funding has been used for the following non-capacity improvements in the MPO: drainage, landscaping and rehabilitation projects.

Local Transportation Improvement Funding

City of Laredo funding for construction is projected to equal $27 million in the short-term strategy and $41 million in the long-term from 2015-2029. County funding for construction and maintenance within the MPO boundary is projected to equal $9 million in the short-term and $14 million in the long-term.

System Preservation – State and Federal Funding

Funding strategies to maintain the existing transportation system are part of TxDOT's "Maintain It" budget strategy. Two highway construction programs are part of the "Maintain It" strategy:

- Category 1- Preventive Maintenance and Rehabilitation
- Category 6- Structures Replacement and Rehabilitation

Federal regulations do not require maintenance projects to be individually listed in the MTP. However, forecasts were developed for expected funding in these categories over the 25 year time frame. Based on historical trends, funding for the "Maintain It" categories (including the maintenance fund) is projected to equal $125 million in the short-term strategy and $176 million in the long range strategy.

Public Transportation Funding

Based on historical trends a straight-line projection was performed to determine future revenues for the short-term strategy. The same funding level was assumed over the long-term strategy. Funding for operations is expected to equal $130 million during the short-term strategy and $200 million during the long-term strategy. Funding for capital expenditures is expected to equal $8.5 million.

Estimated Funding VS Expenditures

Table 5-3 compares project funding availability with the total estimated cost of the Plan's transportation improvements. As shown the plan is financially constrained. A detailed list of short-range and long-term federal, state and local transportation improvements is provided in Chapter 6.

Table 5-3
Estimated Funding VS Project Expenditures
Laredo Metropolitan Transportation Plan Update

	Projected 10 Year 2005-2014	Projected 15 year 2015-2029	Expenditures 2005-2014	Expenditures 2015-2029
State and Federal Funding				
Build It	**$253,222,242**	**$375,761,574**	**$253,177,186**	**$351,549,063**
Total Mobility (Construction 3,4,12, 11)	***$204,040,242***	***$328,328,130***	***$203,995,186***	***$304,115,619***
Non Capacity Improvements				
Cat 8 - Safety	$10,017,000	$15,066,707	$10,017,000	$15,066,707
Cat 9 - Enhancement	$4,000,000	$6,000,000	$4,000,000	$6,000,000
Cat 10 - Miscellaneous	$27,165,000	$11,300,030	$27,165,000	$11,300,030
Cat 11 - District Discretionary	$8,000,000	$15,066,707	$8,000,000	$15,066,707
Total Non Mobility	***$49,182,000***	***$47,433,444***	***$49,182,000***	***$47,433,444***
Maintain It (cat 1,6 and maintenance fund)	**$125,496,949**	**$175,737,211**	**$125,496,949**	**$175,737,211**
Cat 1	$79,496,949	$135,737,211	$79,496,949	$135,737,211
Cat 6	$46,000,000	$ 40,000,000	45,700,000	$ 40,000,000
Total Federal & State	***$ 378,719,191***	***$551,498,785***	***378,674,135***	***527,286,274***
Local Funding				
City of Laredo Construction	$27,000,000	$ 41,000,000	$22,537,000	$18,888,000
International Bridge				*$51,400,000
Webb County	$9,176,500	$13,764,750	$364,500	**$61,400,000
Transit Funding				
Total Operations	$130,100,000	$200,000,000	$130,100,000	$200,000,000
Total Capital	$8,500,000		$8,500,000	

**The International Bridge will be funded by the City or County through bonds (estimated costs range from $32 to $51.4 million)*
***This project will be funded by the Webb County Rural Rail Transportation District through bonds*

Chapter 6 – Transportation Improvements

The Metropolitan Transportation Plan (MTP) for the Laredo MPO area was updated based upon future traffic volume forecasts, transportation network continuity, projected future development, environmental considerations/constraints, and other factors. This chapter identifies the recommended transportation plan, which includes all added capacity and new roadway facility projects on the state system, local projects of regional significance, as well as transit projects. Additionally this chapter outlines other recommendations for corridor preservation and access management.

Legislative Background

ISTEA required that Metropolitan Transportation Plans divide transportation projects into two sections: short-range (2005-2014) and long-range (2015-2029). ISTEA also required that plans be fiscally constrained -- the plan can only contain those projects which can reasonably be expected to be funded. TEA-21 maintained these requirements, but also allowed the plan to include for "illustrative purposes" additional projects that would be included in the long-range plan if "reasonable additional resources" were available. These projects are called "unfunded needs."

Project Selection

This chapter provides a general overview of projects that were identified as a priority in relieving congestion and accommodating future transportation needs within the Laredo urban area. As discussed in Chapter 4, a list of potential projects was initially developed through the public involvement process and input from the Technical and Policy Committees, TxDOT, and the Laredo MPO. Potential projects were evaluated and prioritized based on results of the travel demand model including existing and future level of service and future vehicle miles of travel. Other criteria used in evaluating the projects included cost considerations, modal impacts, public acceptance, ROW requirements, project readiness and other special circumstances. Based on the results of this evaluation, available funding and project development time-frame, projects were designated as short-term, long-term or unfunded.

Recommended Transportation Improvements

The Transportation Plan includes a short-term implementation plan (2005 to 2014) and long range plan (2015 to 2029).

State Sponsored Short-Range Projects

The short-term improvement program includes roadway extensions, new roadways, roadway widening projects, intersection improvements, railroad grade separation and raised median projects. New roadway projects include construction of the Outer Loop as a two lane facility. The recommended short-term program is identified in Table 6-1. Short-term state and local projects are shown in Figure 6-1.

Figure 6-1 Recommended Short-Term Transportation Improvements

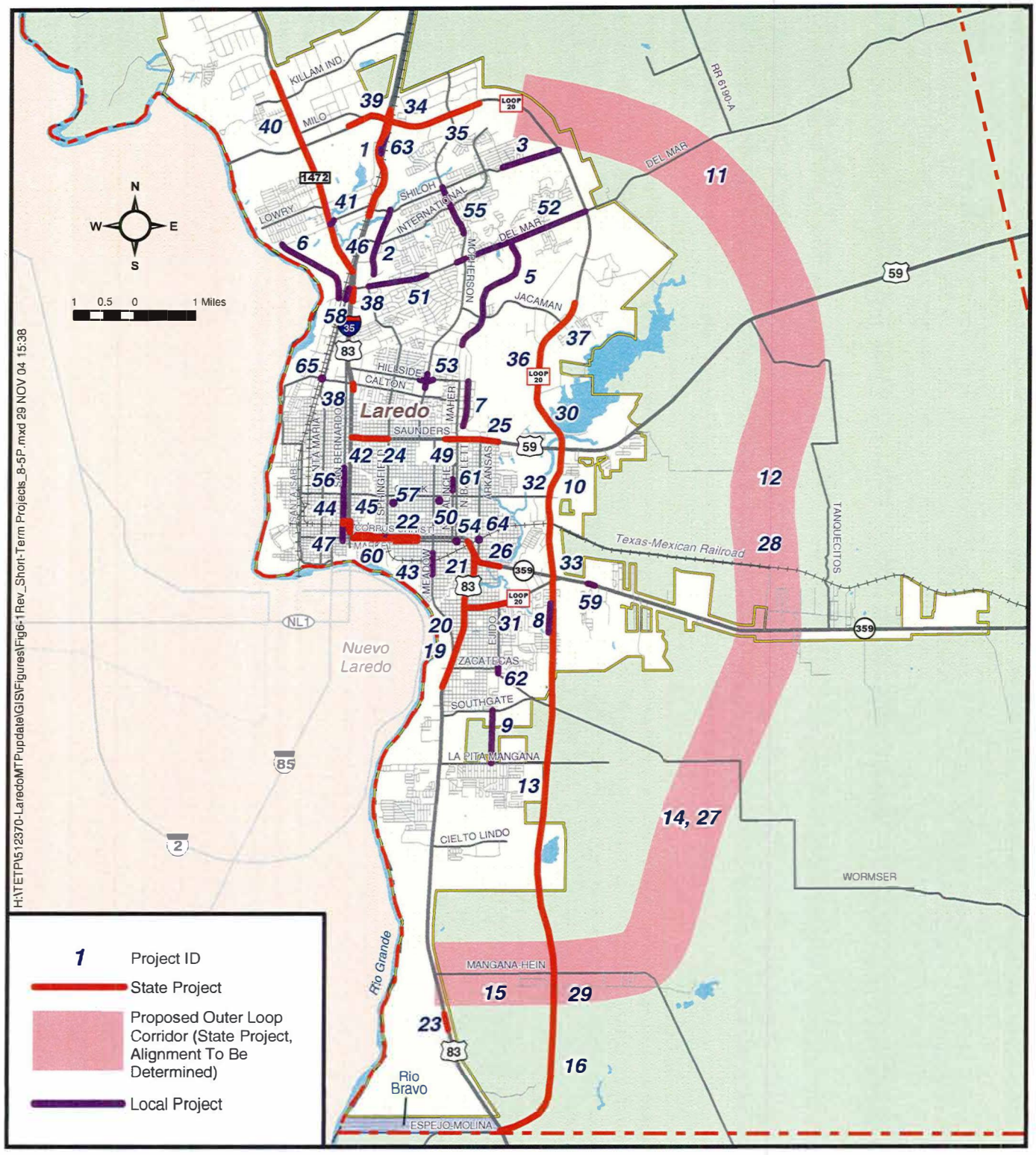


Table 6-1
State Sponsored Short-Term Improvements
Laredo Metropolitan Transportation Plan Update

Map ID	Project Location	From Limits	To Limits	Project Description	Length (Miles)	Estimated Cost (In $)
Mobility Improvements						
20	US 83	Chacon Creek Bridge	Palo Blanco Street	Reconstruct Roadway	1.50	$4,600,000
21	US 83	SH 359 / Cortez Street Intersection	Chacon Creek Bridge	Realign and Grade Separate Intersection	0.63	$5,000,000
22	US 83	San Eduardo Street	Mcpherson Road	Construct Railroad Grade Separation and Approaches	1.06	$9,360,000
23	US 83	At 2.0 Miles North Of Espejo Molina Road		Construct Overpass	1.00	$5,000,000
26	SH 359	Texas Mexico Railway	Smith Street	Realign Intersection	0.59	$5,000,000
12	Outer Loop	SH 359	US 59	Outer Loop, Construct 2 Lane Section W/Shoulder, and RR Grade Separation (Phase 1)	5.34	$8,400,000
15	Outer Loop	US 83	Cuatro Vientos	Outer Loop, Construct 4 Lane Divided Facility with an Interchange at US 83 (Phase 1)	1.83	$6,070,000
14	Outer Loop	Cuatro Vientos	SH 359	Outer Loop, Construct 2-Lane Section with Shoulder (Phase 1)	7.64	$6,120,000
27	Outer Loop	Cuatro Vientos	SH 359	Outer Loop Upgrade to a 4-Lane Divided Facility (Phase 2)	7.64	$8,773,939
28	Outer Loop	At SH 359		Outer Loop, For Construction of an Interchange	1.00	$3,000,000
29	Outer Loop	At Cuatro Vientos		For the Construction of an Interchange	1.25	$3,000,000
11	Outer Loop	Loop 20	US 59	Outer Loop, Construct 2-Lane Section W/Shoulder, and an Interchange at Inner Loop 20 (Phase 1)	5.78	$17,000,000
30	Loop 20	0.20 Miles South Of Spur 400	1.68 Miles North Of US 59	For the Construction of a Diamond Interchange	2.72	$9,880,000
10	Loop 20	US 59	SH 359	Widen to 6 Lanes and Upgrade Intersection at Spur 400	2.19	$5,000,000
32	Loop 20	At Spur 400 From Fairfield	Tex Mex RR Bridge	Construct Overpass	1.00	$6,500,000
33	Loop 20	At SH 359		For the Construction of an Interchange Facility	1.00	$18,000,000
34	Loop 20	0.32 Miles West Of Milo Interchange	0.57 Miles East Of Mcpherson Road	For the Construction of Westbound Mainlanes over IH 35	2.25	$10,000,000

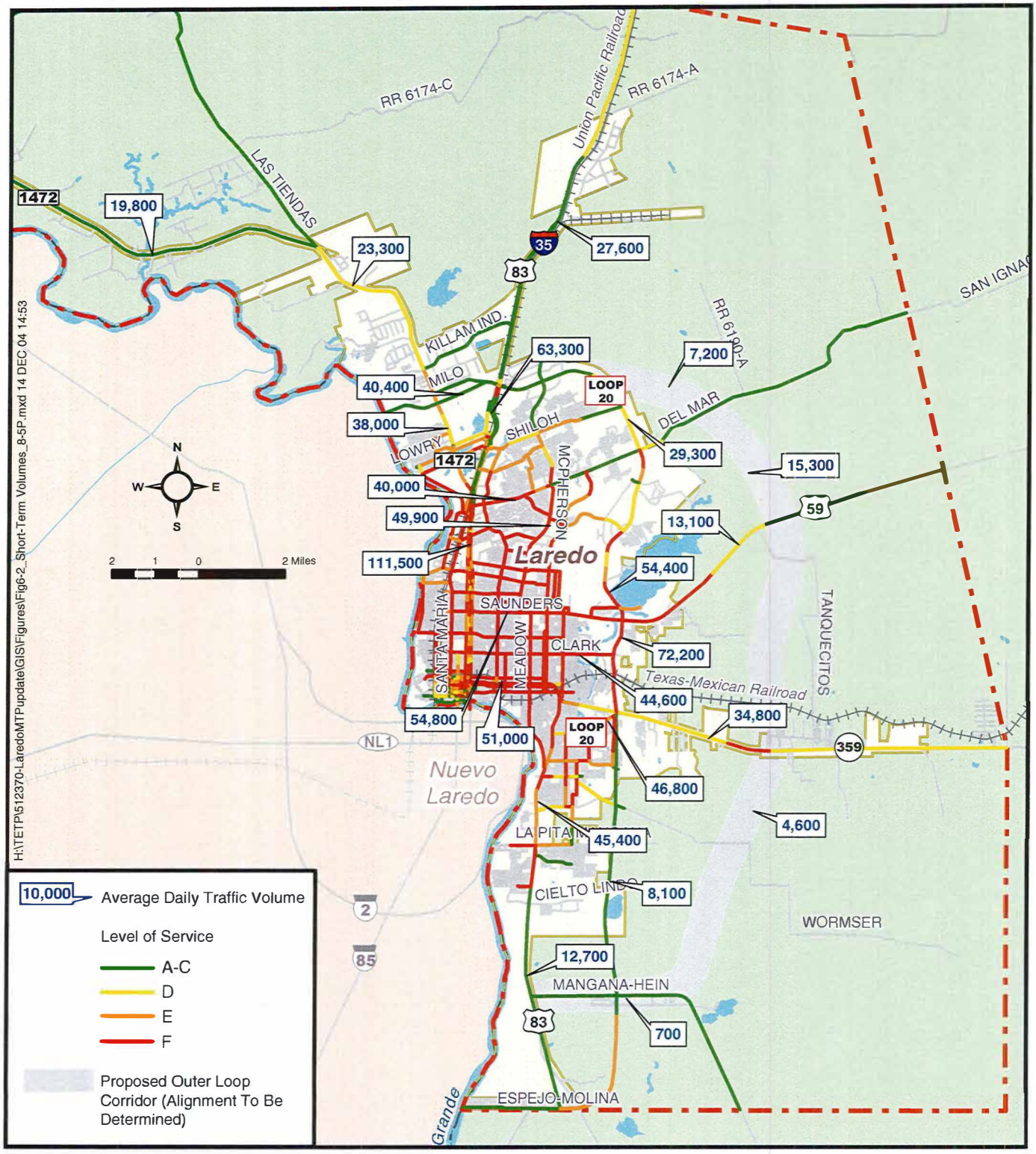
Map ID	Project Location	From Limits	To Limits	Project Description	Length (Miles)	Estimated Cost (In $)
35	Loop 20	0.39 Miles West Of Mcpherson Road	0.39 Miles East Of Mcpherson Road	For the Construction of Interchange Facility over Mcpherson Road	0.78	$4,083,608
36	Loop 20	At Laredo International Airport		Construct Overpass	1.00	$5,000,000
37	Loop 20	At Jacaman		Construct Overpass	1.00	$5,000,000
38	IH 35	East Access Road At Calton Road And	Del Mar Boulevard	Add Right Turn Lanes	0.25	$600,000
1	IH 35	Shiloh Road	0.25 Miles North Of Loop 20 / FM 3464	Widen NB And SB Mainlanes to 3 Lanes Each Direction, Construct New Railroad Crossing	3.73	$6,000,000
39	IH 35	0.5 Miles South Of Loop 20	Loop 20	For The Const Of Direct Connector (#7) Consist Of Pavmt, Grdg, Drg, Signing, Pavmt Marking,Illum, Sw3p, Trf Management & Strs	1.50	$9,000,000
13	Cuatro Vientos	SH 359 At Loop 20	Proposed Outer Loop	Loop 20, Extension Of Loop 20 - Construct 5 Lane Urban Section	7.03	$39,607,639
16	Cuatro Vientos	Outer Loop	Us 83 Main Entrance To Rio Bravo	Loop 20, Extension Of Cuatro Vientos - Construct 2 Lane Rural Section	3.05	$4,000,000
Total Mobility Improvements						**$203,995,186**
Non Mobility Improvements						
Category 8 – Safety						
19	US 83	Gautemozin	Palo Blanco Street	Install Raised Median	2.13	$800,000
24	US 59	Maryland	San Dario	Install Raised Median	0.65	$200,000
25	US 59	Ejido	Buena Vista	Install Raised Median	0.84	$200,000
31	Loop 20	Los Presidentes	US 83	Install Raised Median	0.77	$230,000
40	FM 1472	Interamerica	IH 35	Install Raised Median	3.62	$987,000
Category 8 – Lump Sum						$7,600,000
Total Category 8						*$10,017,000*
Category 10 – Miscellaneous						
17	Various	Located In Vicinity Of GSA Facility	Bridge IV	For The Construction of a Border Safety Inspection Facility		$9,600,000

Map ID	Project Location	From Limits	To Limits	Project Description	Length (Miles)	Estimated Cost (In $)
48	Various	Various Locations	In Laredo	Develop an ITS Regional Architecture and ITS Deployment Plan		$340,000
18	Various	Located in Vicinity of GSA Facility	Colombia/ Solidarity	For the Construction of a Border Safety Inspection Facility		$9,600,000
2 local projects identified in Table 6-3						$7,625,000
Total Category 10						*$27,165,000*
Category 9 - Enhancement						
Category 9 - Enhancement						*$4,000,000*
Category 11 –District Discretionary						
Category 11 District Discretionary						*$8,000,000*
Total Non Mobility						**$49,182,000**
Category 6						
42	*US 59	0.019 Miles East Of San Francisco	0.021 Miles West Of San Francisco	For the Construction of the Replacement of an Existing Bridge	0.04	$1,200,000
44	*IH 35	The Int. Of Santa Ursula And Moctezuma	On West Frontage Road	Construct Railroad Grade Separation Str and Approaches	0.25	$4,000,000
45	*IH 35	The Int. Of San Dario And Santa Ursula	On East Frontage Road	Construct Railroad Grade Separation Str & Approaches	0.25	$4,000,000
46	*FM 1472	0.4 Miles North Of IH 35 West Frontage Road	IH35 West Frontage Road (Dot #446697k)	Construction of Railroad Grade Separation Str & Approaches	0.40	$17,000,000
47	*Bus IH 35-A	The Int. Of San Bernardo And Moctezuma		Construct Railroad Grade Separation Str and Approaches	0.25	$4,000,000
3 local projects identified in table 6-2						$15,500,000
Total						**$45,700,000**

*These projects would be funded by Category 6 funds.

Figure 6-2 displays Level of Service (LOS) and projected daily traffic volumes in the Year 2020 with the implementation of the short-term projects. Short-term improvements including the Outer Loop and the Cuatro Vientos extension provide alternative routes through Laredo and relieve congestion along US 83 south and in the inner city area.

Figure 6-2 Year 2020 Traffic Volumes and LOS for the Short-Term Network



Twenty five mobility improvements have been identified in the short-term plan totaling approximately $204 million. Non Mobility projects and the "lump sum" categories total approximately $49 million. This primarily includes short-term non-capacity improvement projects that could be funded by the following categories:

- Category 8 – Safety
- Category 9 – Enhancement
- Category 10 - Miscellaneous
- Category 11 – District Discretionary

The "lump sum" categories were developed to account for non-capacity improvement projects that are not individually listed in the plan.

Local Short Term Projects

Local short-term improvements include roadway extensions, roadway widening, intersection improvements and roadway reconstruction projects. As shown in **Table 6-2**, 21 City of Laredo projects have been identified in the plan totaling approximately $22.5 million. The majority of these projects are identified in the city's CIP (2005-2009). It should be noted that funding for these projects include city funds, bonds and other sources including private developers. One Webb County project, within the MPO Boundary, totaling $364,500 has been identified in the plan. This project is identified in the County's CIP (2002-2007). Additionally five federally funded local projects are included in the plan totaling approximately $23.1 million.

Table 6-2
Local Improvements
Laredo Metropolitan Transportation Plan Update

Map ID	Project Location	From Limits	To Limits	Project Description	Length (miles)	Funding	Estimated Cost
City of Laredo							
5	Bartlett Avenue	Gale	Del Mar Boulevard	Widen existing roadway between Sandman and Hillside and extend to Del Mar	2.12	Bond	$3,804,000
49	Bartlett Avenue	at Saunders (US 59)		Intersection improvements		Bond	$266,000
50	Bueno Vista	at Gustavos		Reconstruct intersection		Bond	$218,000
51	Del Mar	Fenwick	Springfield	Widen roadway and construct sidewalks		Bond	$1,874,000
52	Del Mar	1000 feet east of McPherson	Loop 20	Widen roadway and construct sidewalks		Bond	$1,757,000
9	Ejido Avenue	La Pita Mangana Road	Colombia Street	Construct road extension	0.89	City	$2,000,000
53	Hillside	at McPherson		Widen roadway to 5 lanes at intersection		Bond	$465,000
54	Market at Bartlett	Del Mar Boulevard	Shiloh Road	Widen to 65 feet and increase through lanes		Bond	$90,000
55	McPherson (Phase II)	Villa	Shiloh Road	Widen to 65 feet with utility adjustments and lighting		Bond	$1,000,000
8	Merida	North Merida	South Merida	Connect existing roads and acquire ROW	1.17	City Developer	$2,583,000
56	San Bernardo	Farragut	Jefferson	Street and sidewalk rehabilitation		Bond	$960,000
57	San Eduardo	at Sanchez		Widen and reconstruct intersection		Bond	$150,000
58	Santa Maria Avenue	Industrial Boulevard	Del Mar Boulevard	Reconstruct roadway		Bond	$442,000
59	SH 359	at Concord Hills Subdivision		Improve intersection access to subdivision		Bond	$75,000
3	Shiloh Road	Stone Creek Subdivision	Loop 20	Extend as a 44-foot roadway	0.75	City Developer	$1,080,000
2	Springfield	Hill Top II Subdivision	Shiloh Road	North extension of Springfield	1.16	Bond	$3,800,000
60	Springfield	Existing road	Tilden	South extension of Springfield (near Meadow and Tex-Mex Railroad)		Bond	$250,000
61	Stewart	at Malinche		Reconstruct intersection		Bond	$80,000

Map ID	Project Location	From Limits	To Limits	Project Description	Length (miles)	Funding	Estimated Cost
7	Tomas Avenue	Bustamante	Hillside	Widening, reconstruct, realignment	0.77	Bond	$989,000
62	Zacatecas	Ejido Avenue	Las Americas Subdivision	Widen street to 48 feet		Bond	$354,000
63	I-35 Exit Ramp	San Isidro Parkway		Exit Ramp off I-35 onto San Isidro Parkway		Developer	$300,000
Total City of Laredo							**$22,537,000**
Webb County							
	TxDOT Bridge Replacement Program			Rubio Road/San Junito Creek Eagle Pass Rd./San Ambrosio Creek Jefferies Rd./Tejanos Creek Callaghan Rd./Becerra Creek			$364,500
Total Webb County (within the MPO Boundary)							**$364,500**
Federally Funded Local Projects							
6	CPL Road	Industrial Blvd	Riverbank Road	For the Construction of a New Location Roadway	1.42	Category 10 Funds	$4,469,250
41	City Street	0.25 Miles East Of Calton Road / St Maria	0.25 Miles East Of Las Cruces / Flecha Lane	For the Realignment of Flecha Ln / Las Cruces Along FM 1472 & For The PE Work of a Grade Sep at Calton Rd / Santa Maria Int	0.50	Category 10 Funds	$3,155,750
64	Arkansas Street			Railroad Grade Separation		Category 6 Funds	$6,000,000
65	Calton Road			Railroad Grade Separation		Category 6 Funds	$6,000,000
43	Meadow Street	At Tex-Mex RR Crossing		Replace Bridge and Approaches	0.25	Category 6 Funds	$3,500,000
Total							**$23,125,000**

State Sponsored Long Range Projects

Using roadway deficiencies identified by the travel demand model in Year 2030, recommended transportation improvements for the long-term time horizon were developed. The long-term improvement program (2015-2029) includes roadway extensions, new roadways, roadway widening and intersection improvement projects. The recommended long-term program is identified in **Table 6-3** and long-term state projects are shown in **Figure 6-3**.

Twenty two projects have been identified in the long-range plan totaling approximately $304 million. In addition to these projects $47 million of total funding is set aside for long-term non capacity improvement projects that could be funded by the following categories: Category 8 – Safety, Category 9 – Enhancement, Category 10- Miscellaneous and Category 11 – District Discretionary. Category 8 - Safety funds can be used to implement access management projects which can improve traffic efficiency and flow along roadways where capacity improvements are not possible. Access management techniques are further discussed in the Corridor Preservation element of the plan.

Figure 6-4 displays Level of Service (LOS) in the Year 2030 with the implementation of the long-term projects

Table 6-3
State Sponsored Long-Term Improvements
Laredo Metropolitan Transportation Plan Update

Map ID	Project Location	From Limits	To Limits	Project Description	Length (Miles)	Cost
Capacity Improvements						
8	Various	At Cuatro Vientos / SH 359		Construction of 2 Direct Connectors	2.00	$18,000,000
9	Various	At Laredo Outer Loop / US 83		Construction of Direct Connector	1.00	$9,000,000
6	US 83 (Guadalupe)	IH 35	SH 359	Restripe for Additional Lanes	2.15	$6,600,000
6	US 83 (Chihuahua)	IH 35	SH 359	Restripe for Additional Lanes	2.15	$6,600,000
	US 83	*To Be Determined*		Construct Overpass	1.00	$5,000,000
10	US 59	3.3 Miles East Of Arkansas Street	Proposed Outer Loop	Construct 7 Lane Urban Section Of Roadway	3.66	$20,700,000
4	US 59	Outer Loop	MPO Boundary	4 lane divided rural freeway		$14,000,000
5	Spur 400	Loop 20	Proposed Outer Loop	Construct 5 Lane Urban Section of Roadway	6.20	$35,075,000
11	Loop 20	1.000 Mile West Of IH 35	McPherson Rd	Construct Eastbound Mainlanes	2.00	$12,000,000
12	Loop 20	Inner/Outer Loop Interchange	FM 1472	Construct Roadway and Interchange @ IH35	8.00	$40,000,000
13	Loop 20	Mcpherson	0.5 Mile East Of Intersection With Outer Loop	Construction of Mainlanes	2.00	$6,000,000
14	Loop 20	At Del Mar		Construct Overpass	1.00	$5,000,000
15	Loop 20	At Shiloh		Construct Overpass	1.00	$5,000,000
17	IH 35	0.5 Miles North On IH 35	0.5 Miles East On Loop 20	Construction of Direct Connector #3	1.00	$9,000,000

Map ID	Project Location	From Limits	To Limits	Project Description	Length (Miles)	Cost
20	IH 35	0.5 Miles East On Loop 20	0.5 Miles North On IH 35	Construction of Direct Connector #4	1.00	$9,000,000
21	IH 35	0.5 Miles East On Loop 20	0.5 Miles South On IH 35	Construction of Direct Connector #5	1.00	$9,000,000
22	IH 35	0.5 Miles South On IH 35	0.5 Miles East On Loop 20	Construction of Direct Connector #6	1.00	$9,000,000
23	IH 35	0.5 Miles West On Loop 20	0.T Miles South On IH 35	Construction of Direct Connector #8	1.00	$9,000,000
7	Cuatro Vientos	SH 359 At Loop 20	Proposed Outer Loop	Widen To 6 Lane Urban Section with Median	7.25	$20,000,000
24	Cuatro Vientos	2.77 Miles South Of SH 359	2.39 Miles South Of SH 359	Construct Overpass at Southgate Blvd	1.00	$15,676,749
25	Cuatro Vientos	6. 26 Miles South Of SH 359	5.90 Miles South Of SH 359	Construct Overpass at Unnamed Minor Arterial	1.00	$14,988,111
26	Cuatro Vientos	4.8 Miles South Of SH 359	3.6 Miles South Of SH 359	Construct Overpass at Cielto Lindo Rd and Sierra Vista Rd	1.18	$25,475,759
Total Capacity						**$304,115,619**
Non Capacity Improvements						
Category 8 - Safety						$15,066,707
Category 9 - Enhancement						$6,000,000
Category 10 - Miscellaneous						$11,300,030
Category 11 – District Discretionary						$15,066,707
Total Non-Capacity						**$47,433,444**

Local Sponsored Long Range Projects

Local long-term improvements include roadway widening and roadway reconstruction projects. As shown in **Table 6-4**, 6 local projects have been identified in the plan totaling approximately $132 million. This includes the International Bridge #5 which will be funded locally by the City, or County through bonds (estimated costs range from $32 to $51.4 million). The current location of the bridge is unknown and several proposals exist from the City and County. This project would be funded separately through bonds and therefore is not accounted for in the local funding projections.

Table 6-4
Local Sponsored Long-Term Improvements
Laredo Metropolitan Transportation Plan Update

Map ID	Project Location	From Limits	To Limits	Project Description	Length (miles)	Funding	Estimated Cost
27	Bartlett Avenue	at US 83		ROW acquisition and bridge reconstruction		City Unfunded	$9,975,000
28	Calton Road	Santa Maria Road	McPherson Road	Reconstruct roadway		City Unfunded	$2,553,000
29	Springfield	Olive	San Pedro	Widen roadway		City Unfunded	$360,000
30	Loop 20	at International		Grade Separation		Private or Toll	$6,000,000
31	*International Rail Bridge and Railroad Line	Construct an International Bridge at the south side of the existing Laredo Columbia International Bridge and a Railroad line from the bridge to IH 35 Mile Marker 24 utilizing the TxDOT SH 225 ROW and connecting to the existing Union Pacific Railroad				Webb County Rural Rail Transportation District Bonds	$61,400,000
	**International Bridge #5	South Laredo between US 83 and Rio Grande River.		Construction of an international bridge		Locally funded through bonds	$51,400,000
Total							**$131,688,000**

** This project will be funded by the Webb County Rural Rail Transportation District through bonds, a portion of the project extends beyond the MPO boundary*

***The International Bridge will be funded by the City or County through bonds (estimated costs range from $32 to $51.4 million)*

Figure 6-3 Recommended Long-Term Transportation Improvements

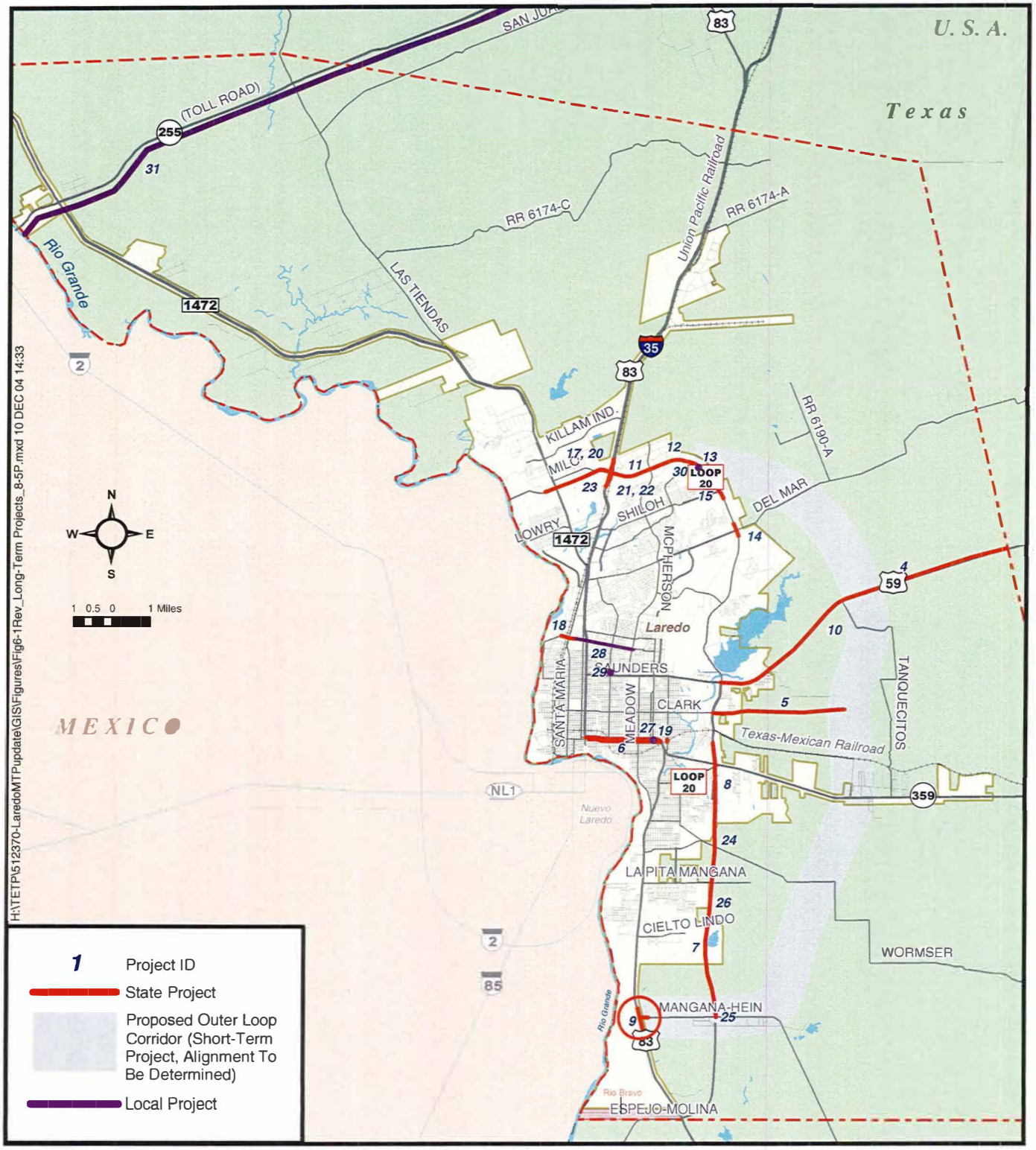
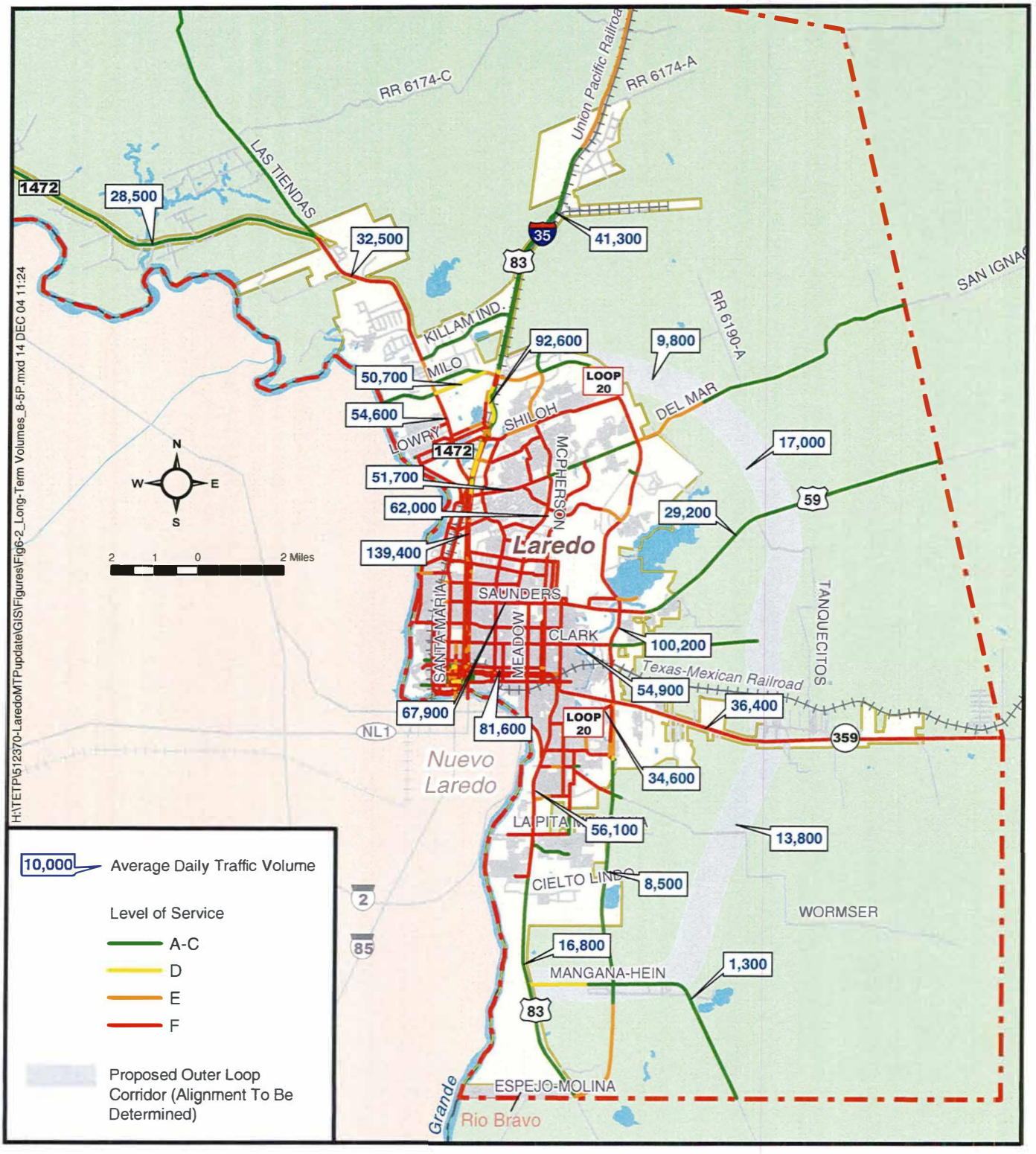


Figure 6-4 Year 2030 Traffic Volumes and LOS for the Long-Term Network



Effectiveness of the Recommended Transportation Plan

The effectiveness of the recommended transportation plan can be evaluated by reviewing projected traffic volumes, level-of-service, and can be measured in terms of daily vehicle-hours traveled. A comparison of the existing year 2003 network and the year 2030 recommended transportation plan networks is presented in Table 6-5.

As shown in **Table 6-5**, implementation of the recommended year 2030 transportation plan is estimated to save area motorists more than 345,000 hours of time each day spent traveling in their vehicles.

Table 6-5
Comparison of Daily Vehicle Hours of Travel
Laredo Metropolitan Transportation Plan Update

Year	Network	Total Trips	Vehicle Hours of Travel (hours per day)	Hours Saved Per Day Verses No Build or E+C Network
2003	Base Year	790,213	107,187	
2020	No Build	1,290,486	547,161	
	Recommended short-term transportation plan	1,290,486	423,659	123,502
2030	E + C Network	1,641,953	1,866,910	
	Recommended long term transportation plan	1,641,953	1,522,074	344,836

Enhancement Projects

Category 9 – Enhancement funding is projected to equal $4 million in the short-term and $6 million in the long-term. Figure 2-18 in Chapter 2 displays proposed bicycle facilities in the Laredo area. To obtain funding for bicycle and pedestrian facilities, the City of Laredo or other local agencies will need to nominate and sponsor projects and compete on a statewide basis for funding.

Other Categories

Federal law requires that system preservation also be accounted for in the transportation plan, although these projects do not have to be listed individually in the MTP. Types of projects included in system preservation include rehabilitation and maintenance of roadways, traffic operations improvements, bridge replacement or reconstruction, and railroad safety projects. Traffic operation projects include signalization installation or enhancement, intersection capacity improvements, roadway striping, shoulder enhancements and other similar projects which are primarily concerned with traffic flow improvements. These projects are combined into a "lump sum" in this plan. Funding for these projects are listed in Chapter 5, Financial Plan, as:

- "Maintain It" – Category 1- Preventive Maintenance and Rehabilitation, Category 6- Structures Replacement and Rehabilitation
- City of Laredo Maintenance/Rehab
- Webb County Maintenance/Rehab

TRANSIT

Operational expenditures and revenues are expected to equal $130 million in the short-term strategy and $200 million in the long-term plan. As shown in Table 6-6, capital projects equal $52.3 million. Funding totaling $2.5 million has been secured for four of the projects. An additional $6 million has been secured to partially fund the operations and maintenance bus facility. The remaining projects have been identified as "unfunded" and are considered illustrative projects. The implementation of these "illustrative" projects will be subject to available funding. The transit agency will continue to apply for grants and/or obtain other funding for these projects.

It should be noted that in the Year 2010 the Laredo MPO area will have a population over 200,000 which will impact transit funding. With a population over 200,000 the transit agency will receive funding directly from the FTA and will no longer receive funding from the state.

Table 6-6
El Metro Transit Projects
Laredo Metropolitan Transportation Plan Update

Funded	Source	Year	Project	Cost
Yes	FTA	2005	Buses (7)	$2,275,000
Yes	Tax	2005	Bus Shelters	$25,000
Yes	FTA	2005	Comprehensive Operational Analysis	$100,000
Yes	FTA	2005	Bus Pullouts (4)	$100,000
	FTA	2005	Mobile Data Terminals with GPS	$250,000
	FTA	2006	Buses (4)	$1,300,000
	FTA	2006	Land Acquisition Former Texas Travel Ctr.	$1,200,000
	Tax	2006	Bus Shelters	$25,000
	FTA	2007	North and South Hubs	$4,000,000
	FTA	2007	Buses (4)	$1,300,000
Partial*	FTA/Tax	2007	Operations and Maintenance Bus Facility	$10,000,000
	Tax	2007	Bus Shelters	$25,000
	FTA	2008	Operations and Maintenance Bus Facility	$10,000,000
	FTA	2008	Bus (4)	$1,300,000
	Tax	2008	Bus Shelters	$25,000
	FTA	2009	Compressed Natural Gas Plant	$1,000,000
	FTA	2009	Bus (4)	$1,300,000
	FTA	2009	Articulated Buses (4)	$2,000,000
	Tax	2009	Bus Shelters	$25,000
	FTA	2010	Transit Center Addition	$15,000,000
	FTA	2010	Buses (3)	$1,300,000
	Tax	2010	Bus Shelters	$25,000
Total				**$52,575,000.00**

* Total funded for project to date $6,000,000

Bus Rapid Transit

A Bus Rapid Transit Plan was prepared for the Laredo Urban Transportation Study in 2003. The purpose of the study was to develop a feasible plan for Bus Rapid Transit (BRT) services and facilities for the Laredo Urban Area. BRT addresses improvement in travel times and service quality. Projects may include reserved bus lanes, special stops, traffic signal priority, limited stop service along designated corridors and express bus service. After identifying and evaluating several alternatives as BRT projects in the Laredo area, the study identified potential short-range and long-range projects as shown in **Table 6-7**. The total capital cost of these projects omitting duplicated cost items would be approximately $159 million. Although BRT is not feasible at this time, the community will work towards implementing feasible projects in the future. The projects identified in Table 6-7 are "illustrative" and their implementation would be subject to future feasibility and available funding.

Table 6-7
BRT Projects
Laredo Metropolitan Transportation Plan Update

BRT Project	Conceptual-Level Capital Cost Estimate (current prices)	Approximate Net Annual O&M Cost (current prices)
Alternative A: Zacatecas Transit Center and BRT service to downtown Laredo Transit Center	$7.8 million including Zacatecas Transit Center and BRT corridor improvements	$0.57 million, not including probable offset from increased fare revenue due to attraction of added riders
Alternative D: Mall Del Norte Transit Center and BRT service to downtown Laredo Transit Center	$7.7 million including Mall Del Norte Transit Center and BRT corridor improvements	$0.56 million, not including probable offset from increased fare revenue due to attraction of added riders
Alternative E: Zacatecas Transit Center and BRT Busway to Bridge #1, service continuing to downtown Laredo Transit Center	$64.7 million including new Transit Center, or $61.2 million if the transit center has previously been provided	$1.01 million, not including probable offset from increased fare revenue due to attraction of added riders
Alternative F: Mall Del Norte Transit Center and BRT Busway to downtown Laredo Transit Center	$77.1 million including new Transit Center, or $73.8 million if the transit center has previously been provided	$1.48 million, not including probable offset from increased fare revenue due to attraction of added riders
Alternative G: Double-ended shuttle bus service across pedestrian-only Bridge #1	$2.2 million	$0.53 million, but potentially more than recovered from nominal fare (previously un-served passenger market)
Alternative H: BRT service via Loop 20 between Zacatecas Transit Center and Shiloh Transit Center	$4.3 ($6.3 if Shiloh Transit Center cost is included)	$1.19 million, not including probable offset from increased fare revenue due to attraction of added riders

Source: Laredo Urban Transportation Study, Bus Rapid Transit Plan, July 7, 2003

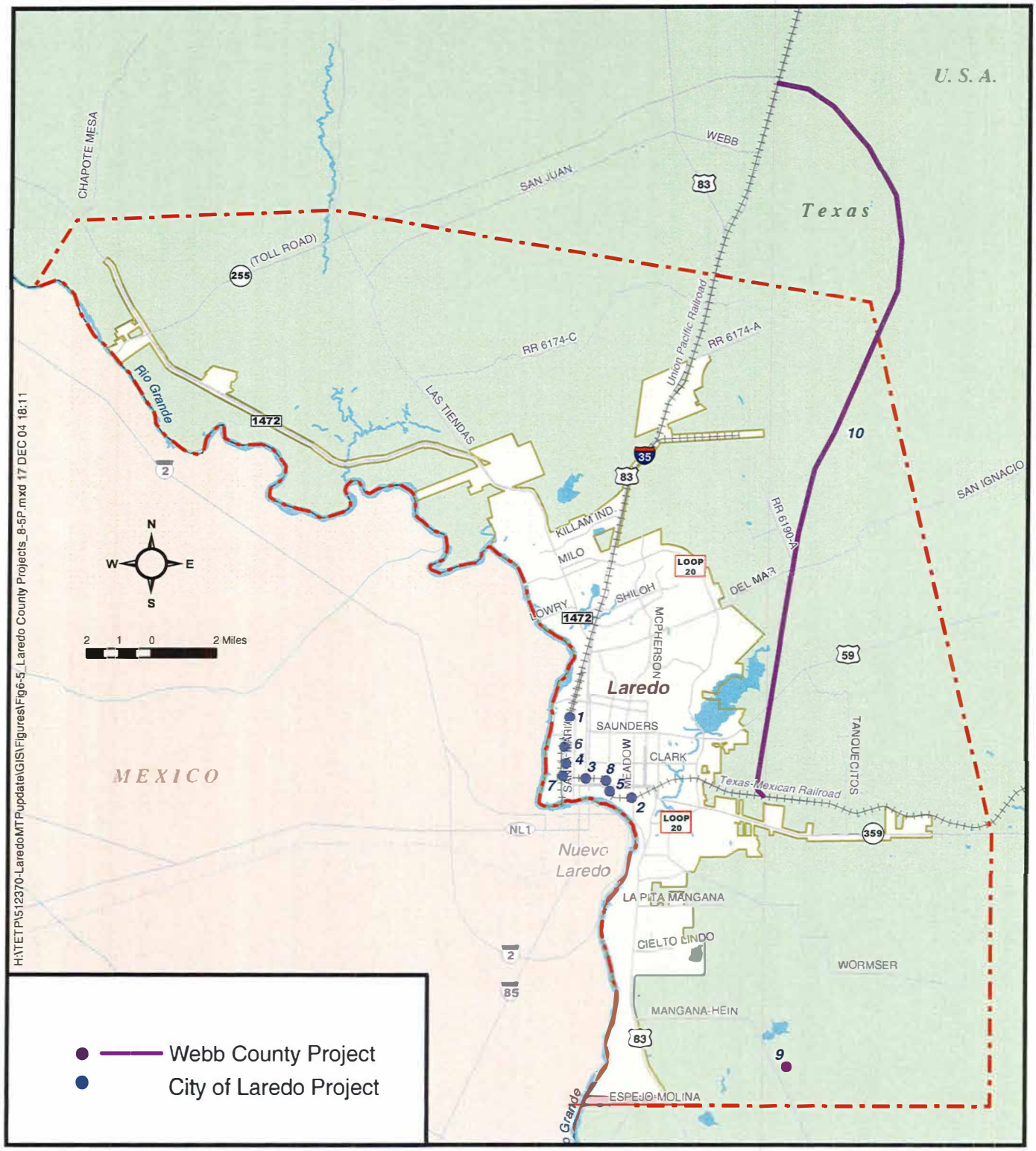
Illustrative Projects

This plan includes a list of unfunded projects which may eventually be included in the long-range plan if "reasonable additional resources" become available. As shown in **Table 6-8**, 8 railroad grade separation projects, totaling $48 million have been identified. Additionally two county projects have been identified totaling approximately $68.5 million. Illustrative projects are displayed in **Figure 6-5**.

Table 6-8
Illustrative Projects
Laredo Metropolitan Transportation Plan Update

Map ID	Location/Project Name	Description	Cost
City of Laredo			
1	Chicago	Railroad Grade Separation	$6,000,000
2	Seymour	Railroad Grade Separation	$6,000,000
3	San Bernardo	Railroad Grade Separation	$6,000,000
4	Sanchez	Railroad Grade Separation	$6,000,000
5	Market Street	Railroad Grade Separation	$6,000,000
6	Jefferson (E&W)	Railroad Grade Separation	$6,000,000
7	Scott	Railroad Grade Separation	$6,000,000
8	Corpus Christi	Railroad Grade Separation	$6,000,000
Total			**$48,000,000**
Webb County			
9	Mangana Hein Road	Paving Project – east to the MPO Boundary	$1,830,000
10	Rural Rail District Project (Phase II)	Rail line from the existing Tex-Mex rail yard on Highway 359 to the eastern edge of the existing toll road (connecting to Phase I)	$66,700,000
Total			**$68,530,000**

Figure 6-5 Illustrative Projects



AVIATION

Aviation projects as identified in the Laredo International Airport Master Plan Study (2004), are shown in **Tables 6-9** thru **6-11**. As shown, 26 Phase I capital improvement projects have been identified totaling $163.4 million. Phase II capital improvement projects total $41.7 million and Phase III projects total $96.8 million.

Table 6-9
Phase I Capital Improvement Projects (2004-2009)
Laredo Metropolitan Transportation Plan Update

ID Number	Title	Amount
I-01	FAR Part 150 Noise	$24,000,000
I-02	Construct Cargo Pads	$200,000
I-03	Upgrade AOA Electrical	$200,000
I-04	New GA and Cargo FIS	$4,500,000
I-05	Reconstruct Taxiways - Phase 1	$8,600,000
I-06	Acquire Land for RPZ and Airport Development	$19,000,000
I-07	Expand Automobile Parking Area - Phase 1	$2,260,000
I-08	Expand North East Cargo Apron - Phase 2	$9,150,000
I-09	Expand North East Cargo Area - Phase 1 (Private Sector)	$13,200,000
I-10	Extend Runway 17L-35R - Phase 1	$7,900,000
I-11	Reconstruct West Side Cargo and GA Apron Phases I-IV	$27,000,000
I-12	ATCT - Site Selection	$90,000
I-13	Construct New Air Traffic Control Tower	$2,000,000
I-14	Perimeter Fence	$200,000
I-15	Runway 17R-35L Safety Area Improvements	$6,000,000
I-16	Reconstruct Runway 17-35L - Phase 1	$4,400,000
I-17	Reconstruct Runway 14-32	$7,000,000
I-18	Extend Taxiway G to Taxiway A	$2,200,000
I-19	Extend Taxiway E to Runway 17R-35L	$620,000
I-20	Expand General Aviation Apron	$9,000,000
I-21	Construct T-Hanger Storage Units (Private Sector)	$900,000
I-22	Construct Conventional Hangars (Private Sector)	$3,000,000
I-23	Expand Terminal Apron	$1,000,000
I-24	Expand Passenger Terminal Building	$5,500,000
I-25	Extend Taxiway D to Terminal Apron	$1,400,000
I-26	Construct New Maintenance Facility	$4,100,000
Total		**$163,420,000**

Table 6-10
Phase II Capital Improvement Projects (2010-2015)
Laredo Metropolitan Transportation Plan Update

ID Number	Title	Amount
II-01	Taxiway Reconstruction - Phase II	$4,500,000
II-02	Construct New ARFF Facility	$1,100,000
II-03	Update FAR Part 150 Study	$350,000
II-04	Update Airport Master Plan	$350,000
II-05	Reconstruct Runway 17R-35L	$12,000,000
II-06	Expand North East Cargo Area Phase II	$13,200,000
II-07	Acquire Land North of East Cargo Facilities	$2,200,000
II-08	Construct High Speed Exit Taxiway	$1,400,000
II-09	Construct Entrance Taxiway North of Taxiway C	$2,900,000
II-10	Install 4-Box PAPIs on Runway 17R-35L	$240,000
II-11	Install 4-Box PAPIs and REIL on Runway 14-32	$275,000
II-12	Extend Thomas Avenue	$500,000
II-13	Construct Access Taxiways for South T-Hangars	$1,150,000
II-14	Construct South T-Hangar	$570,000
II-15	Construct Two Conventional Hangars in Central GA Area	$950,000
Total		**$41,685,000**

Table 6-11
Phase III Capital Improvement Projects (2016-2025)
Laredo Metropolitan Transportation Plan Update

ID Number	Title	Amount
III-01	Construct T-Hangar Storage Units	$570,000
III-02	Expand Automobile Parking Area - Phase II	$1,200,000
III-03	Expand North East Cargo Apron - Phase III	$25,000,000
III-04	Extend Dual Parallel Taxiway	$3,500,000
III-05	Expand North East Cargo Area - Phase III	$43,000,000
III-06	Reconstruct Runway 17L-35R	$18,600,000
III-08	Extend Taxiway B	$1,200,000
III-09	Construct High Speed Exit Taxiway	$1,700,000
III-10	Construct Conventional Hangar in Central GA Area	$2,050,000
Total		**$96,820,000**

Corridor Management

In addition to the proposed roadway improvements identified in this plan there are other non-capacity transportation-related recommendations that can enhance the transportation system in the Laredo MPO area. These recommendations include modifications to transportation-related regulations, policies, and guidelines; corridor preservation measures; and, access management guidelines.

Collectively, these recommendations are referred to as corridor management. Corridor management includes preserving needed right-of-way in advance, minimizing development within the proposed right-of-way of a planned transportation facility, and preserving the safety and efficiency of the existing facilities through access management. Corridor management promotes the orderly development of a transportation network and helps to assure that transportation facilities will be adequate to serve existing and planned development.

Corridor Preservation

Corridor preservation is the first action in the corridor management process. Corridor preservation techniques are important tools for local, state, and federal agencies to protect needed future right-of-way for proposed transportation facilities. AASHTO defines corridor preservation as a "concept utilizing the coordinated application of various measures to obtain control of or otherwise protect right-of-way for a planned transportation facility. Corridor preservation techniques should be applied as early as possible after the transportation corridor is identified either along a new alignment, or along an existing facility to:

- Prevent inconsistent development;
- Minimize or avoid environmental, social, and economic impacts;
- Reduce displacement;
- Prevent the foreclosure of desirable location options;
- Permit orderly project development; and,
- Reduce costs.

A prerequisite for selecting corridors for preservation is the presence of a transportation plan. These types of plans typically identify future transportation corridors based on analysis of transportation deficiencies, a needs study, a statewide planning process, and urban development plans. Potential transportation corridors not identified in a transportation plan would require too much study, planning, and public participation to warrant early preservation action. Corridor preservation candidates can be prioritized using the following five criteria:

- Importance of the Corridor;
- Immediacy of Development;
- Risk of Foreclosing Options;
- Opportunity to Prevent Loss of the Corridor; and,
- Strength of Local Government Support.

intervals of one-half mile and the use of a non-traversable median to restrict left-turns will increase the capacity of a four-lane urban arterial by about 50 percent as compared to quarter-mile signal spacing and unrestricted left-turns. This is the same increase in capacity that can be obtained by widening a four-lane divided arterial to six lanes. Also, safety will be increased and congestion reduced to a greater extent than by the roadway widening. Research has consistently shown that access management helps to reduce the rate and severity of traffic accidents and improves pedestrian and bicycle safety.

Table 6-12
Corridor Preservation Techniques
Laredo Metropolitan Transportation Plan Update

Corridor Preservation Technique	Interim Protection	Preservation
Subdivision Regulations	✓	✓
Building Permits	✓	
Building Setbacks	✓	
Access Management and Control	✓	✓
Fee Simple Acquisition		✓
Development Easement Acquisition		✓
Landowner Donations		✓
Public/Private Partnerships (toll facilities)		✓
Options to Purchase at a Later Date	✓	
Official Maps of Reservation	✓	
General Plan Corridor Designations	✓	
Transfer Development Rights to Other Properties or Land Swaps		✓
Density Transfer within a Single Property	✓	
Interim Uses on Right-of-Way	✓	
Irrevocable Offers to Dedicate	✓	
Highway Right-of-Way Platting	✓	
Developer Agreements	✓	
Tax Abatement	✓	
Voluntary Developer Reservations	✓	
Special Assessment Districts Involving Right-of-Way Dedications		✓

Source: : Corridor Preservation: Case Studies and Analysis Factors in Decision-Making, Volume I, U.S. Department of Transportation, Federal Highway Administration, FHWA-PD-96-044, 1995.

From a land development perspective, access management assists in the orderly layout and use of land and helps to discourage poor subdivision and site design. Poorly designed entrances and exits to major developments not only present a traffic hazard, but also cause increased congestion, which can create a negative image of the development. In addition, access management techniques, such as reducing the number and frequency of driveways and median openings, improve the appearance of major corridors. Scenic and environmental features can be increased, which improves the image of streetscapes and can attract additional economic development.

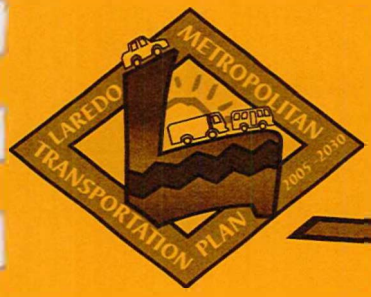
Access management relies on a variety of access control techniques to promote efficient vehicular movements. These include the following:

- Limit number of conflict points;
- Separate conflict points;
- Limit deceleration;
- Remove turning vehicles from through lanes;
- Space major intersections to facilitate progressive travel speeds along arterials; and,
- Provide adequate on-site storage to accommodate both ingress and egress traffic.

The Texas Department of Transportation recently adopted an Access Management Manual which identifies the procedures and requirements for the control of access along State maintained roadways. Several corridors within Laredo were identified as corridors with strong potential for implementation of access management techniques. These corridors typically have limited right-of-way, dense development, and limited opportunity for roadway capacity improvements. These corridors include, but are not limited to, the following:

- US 59 (Marlyland to San Dario)
- US 59 (Ejido to Buena Vista)
- US 83 (Gautemozin to Palo Blanco Street)
- Loop 20 (Los Presidentes to US 83)
- FM 1472 (Interamerica to IH-35)

Each of these corridors should be investigated by local agencies for potential access management improvements, including traffic signal timing modifications/upgrades, medial access control (such as installation of raised medians), and driveway consolidations. Corridors selected for access management improvements would be eligible for Category 8 funding as part of this plan.



Appendix A

Public Comments

Appendix A
Public Comments

Source	Comment	How Comment was Addressed in the Plan
TxDOT	Figure 2-3A, 2-3b, 2-5b – would prefer for the enlarged area to include the area outside Loop 20.	Maps were modified to include this enlarged area.
TxDOT	Figure 2-5a would be helpful to have a typical section of the different functional classification. What is the difference between the freeway and expressway, IH-35 is both in some sections.	Expressway was removed from the functional classification. IH-35 is shown as freeway.
TxDOT	Add more to description for IH 35 Shiloh to Milo Project, as we will have to construct a new RR crossing.	Description of this project was expanded to include the new RR crossing.
TxDOT	Loop 20 overpasses at Jacaman and Airport, should move to long term.	These projects were moved forward to the short-term due to available funding.
TxDOT	Would prefer another table be prepared for State Administered Off-system roadway projects.	State administered off system roadway projects were included in the local listing
TxDOT	US 59 from 3.3 Miles E. of Arkansas St. to Proposed Outer Loop description needs to be changed to 7 lane, instead of 5. Also the project is duplicated with one labeled from Lifedown to MPO boundary; the section East of the Outer Loop was proposed to be 4 lane divided; the urban section would go only to the Outer Loop.	The Lifedown to MPO Boundary project was removed. US 59 - Outer Loop to MPO Boundary was added as a four lane rural highway.
County (see attached letter)	The draft of the MTP proposes a modification to the existing long-range thoroughfare plan and current MTP by realigning the proposed Outer Loop to a location south of Mangana-Hein Road. **Recommendations:** • Clarify that the final route alignment of the Outer Loop will be determined by TxDOT after completion of the route alignment study, resolution of environmental issues, public comment process and the approval of the Federal Highway Administration on all project descriptions, analysis, maps and	The final alignment of the Outer Loop has not yet been determined. The MTP does not establish alignments. • All maps were revised to show the Outer Loop as a corridor in the plan. • There is no site specific language regarding the Outer Loop and its alignment in the MTP document.

Source	Comment	How Comment was Addressed in the Plan
	funding matrices of the proposed MTP • Revise all maps to depict the location of the proposed Outer Loop to a central location within the study corridor (Mangana Hein Road) or alternatively show all three alignments under consideration • Revise funding matrices and project descriptions to remove site-specific language within the MTP document related to the Outer Loop, its intersections with US 83 or proposed interchanges contemplated along the route	
County	The draft of the MTP proposes funding for an interchange at US Highway 83 and a modified location of the Outer Loop to serve the 5th International Bridge Recommendations: • Clarify that the location of the interchange will be determined after the final route alignment of the Outer Loop has been determined in conjunction with an approved bridge site. Alternatively, modify the MTP to include funding for interchanges at both proposed bridge sites or all three alignments of the Outer Loop currently under study. • Revise all maps to show the location of the proposed interchange associated with the location of the proposed Outer Loop to a central location within the study corridor. Alternatively, identify proposed interchanges at all three alignments of the Outer Loop currently under consideration or at both proposed bridge sites. • Revise funding matrices and project descriptions to remove site-specific language within the MTP document related to this interchange	• The location of the bridge has not yet been determined. The project identified in the long range plan includes a direct connector at US 83 and the Outer Loop. Maps were revised to show this project as a general area as opposed to a site specific location. • Text was added to Chapter 6 stating that the current location of the bridge is unknown and several proposals exist from the City and County. • There is no site-specific language regarding this interchange in the MTP the document.
County	The draft MTP fails to identify and show the public portion of the Mangana-Hein Road in its entirety Recommendations: • Revise all maps to show the location of the Mangana-Hein Road in its entirety	• All maps were revised to show Mangana-Hein Road in its entirety • Existing condition and short and long-term network maps were revised to show volumes and level of service along Mangana Road within

Source	Comment	How Comment was Addressed in the Plan
	and label its name accordingly • Revise the MTP to reflect the existing conditions, traffic analysis and level of service associated the Mangana-Hein Road within the MPO Study area and its impact the ADT volumes and LOS for the short-term and long-term networks	the study area.
County	The draft of the MTP fails to identify the Webb County Rural Rail District (WCRRD) or its proposed rail projects. Recommendation: • Incorporate comments and projects identified by the WCRRD	• At the time of publication of the draft document, WSA had not received information from Webb County regarding the WCRRD or proposed projects. However the information has since been provided. The document was revised and now references the district in Chapter 2, under rail as well as in Chapter 5 under innovative financing techniques. One of WCRRD's projects has been added to the long-term plan and another to the list of illustrative projects in Chapter 6.
County	The draft of the MTP appears to limit local sponsored projects to only those transportation projects of the City of Laredo Recommendations: • Incorporate all county projects in the MTP – including the county's proposal for the fifth international bridge. Alternatively remove local sponsored projects in their entirety and any reference to locally sponsored projects	• County projects were not originally incorporated into the plan as we had not received the County's CIP. WSA accessed the County's CIP online, but projects were not identified in the plan because they were outside the MPO boundary or were part of a state system project (ie. Cuatro Vientos Road) • Based on more recent information provided by the county, four county projects have been added to either the short or long-term plan or as an illustrative project. • The international bridge has been identified as being funded locally by the City or County through bonds (estimated costs range from $32 to $51.4 million)
County	Inclusion of RMA Projects	Once the RMA is formed the MTP can be revised to include any projects proposed by the RMA

Source	Comment	How Comment was Addressed in the Plan
County	Include the following projects in the MTP: • Mangana Hein Road Paving Project • International Bridge #5 • Rail District – International Bridge and Railroad Line	• Mangana Hein Road Paving Project was added as an illustrative project • One international bridge project is shown in the plan and it has been identified as being funded locally by the City or County through bonds (estimated costs range from $32 to $51.4 million) • Phase 1, Rural Rail District's Project – International Bridge and Railroad Line was added to the local long-term plan • Phase 2, Rural Rail District's Project – Rail line from the Tex-Mex rail yard to the eastern edge of the existing toll road, was added as an illustrative project
FHWA (see attached letter)	Has the expanded study area boundary been approved by the Governor	The expanded boundary has been approved and the "Proposed boundary" text was removed from Figure 1-1
FHWA	Functional Classification does not extend to MPO Boundary	All maps were revised and the functional classification of all roadways extend to the MPO Boundary
FHWA	Does the Laredo MPO have a separate bicycle/pedestrian plan and how will the expansion or enhancement of the bicycle system be accomplished	Proposed bicycle facilities were added to Figure 2-18
FHWA	Explain the straight line projections used to forecast available federal and state funding	A more detailed explanation of how funding was projected was added to Chapter 5
FHWA	Include a table indicating total estimated costs of projects versus estimated revenues	Table was added to Chapter 5
FHWA	Table 6-4 (Comparison of daily vehicle hours of travel) appears to be missing significant amount of information	The document was draft at the time of submittal to FHWA and this table has since been updated with all relevant data.
FHWA	How does the MPO propose to address Title VI considerations	A discussion of Environmental Justice considerations was added to Chapter 4
City Council	Include grade separation at International and Loop 20	Project was added to the local long range strategy (Table 6-4)
MPO Policy Committee Meeting	Funding for grade separation at International and Loop 20 would be private	This project was listed as privately funded in the long range plan, as no other funding source could be identified.

Source	Comment	How Comment was Addressed in the Plan
Project Nomination Form	Many properties in the Heights area were allowed to disregard building code regulations and cover the sidewalk areas with vegetation forcing the children to walk to school on the street.	The MTP sets aside funding for Category 9 – Enhancement which can be used for bicycle and pedestrian projects. The MTP does not address building codes.

U.S. Department
of Transportation:
Federal Highway Administration

J. J. Pickle Federal Bldg.
300 E. 8th Street, Room 826
Austin, Texas 78701

October 27, 2004

In Reply Refer To: HPP-TX

Draft 2005-2030 Laredo Metropolitan
Transportation Plan (MTP)

Mr. James L. Randall, P. E.
Director, Transportation Planning
and Programming Division
Texas Department of Transportation
125 E. 11th Street
Austin, Texas 78701

Attention: Fred Marquez

Dear Mr. Randall:

We have reviewed the draft 2005-2030 Laredo Metropolitan Transportation Plan (MTP) transmitted to our office via the Laredo Urban Transportation Study's October 13, 2004 memorandum. Based upon our review, we offer the following comments:

1. Chapter 1, page 1-3: The discussion on this page indicates that the Metropolitan Planning Organization (MPO) planning boundary was expanded in 2004. Has the expanded study area boundary been approved by the Governor or the Governor's designee (figure 1-1 on page 1-4 indicates the MPO's study boundary as proposed)?

2. Chapter 2, page 2-16: Figure 2-5a on this page indicates the functional classification of various roadways within the Laredo MPO study area. It is noted that the functional classification of the several roadways included in the map (FM 1472, US 83, US 59, etc.) do not extend to the study boundary (the functional classification of I-35 extends past the study boundary to the north). What is the significance of this? Do the functional classifications noted in this figure represent model or Highway Performance Monitoring System (HPMS) functional classification? Please note that HPMS functional classification is largely determined by roadway location (i.e., inside or outside the adjusted urbanized area boundary and not the study (planning) boundary).

3. Chapter 2, page 2-44: The discussion regarding the "Bicycle System" on this page indicates that a bicycle lane currently exists along Spur 400 (Clark Boulevard) however the figure 2-18b on page 2-46 shows the bicycle lane on a roadway parallel to Spur 400 not along it. Additionally, there is no discussion on future plans for expanding/enhancing the bicycle system or coordination with existing or planned pedestrian facilities. Does the Laredo MPO have a separate bicycle/pedestrian plan and how will the expansion or enhancement of the bicycle system be accomplished?

4. Chapter 5, page 5-7: The discussion on Federal and State funding on this page indicates that future revenue estimates of available Federal and State funding were based on straight line projections of historical expenditures resulting in projected funding of $367 million in the short term (10-year) and $551 million in the long term (15-year). It is noted however, that the historical expenditures noted in Table 5-2 on page 5-6, indicate a decrease in funding expenditures from the 1995-1999 period to the 2000-2004 period. Additionally, the short term projection of $367 million is less than the noted total for 1995-2004 while the long term projection is approximately 150% higher than the short term projection. Please explain the straight line projections used to forecast available Federal and State funding.

5. Chapter 5: It is recommended that a table indicating total estimated project costs of short term, long term and locally funded projects versus estimated revenue sources be included in this chapter. Additionally, any shortfalls between estimated available revenue and expenditures should be noted with a discussion of how the shortfall will be addressed.

6. Chapter 6, page 6-14: Table 6-4 on this page is appears to be missing a significant amount of information, was this expected (due to being a draft document)?

7. General: The consideration of Title VI (Environmental Justice) was not noted in the discussions included in the draft document. How does the MPO propose to address this issue in the final document and what analysis have been/will be conducted in support of the Title VI (Environmental Justice) considerations?

A copy of this letter is being forwarded to the Laredo MPO to expedite their consideration of our comments. We look forward to reviewing completed MTP when available and will provide additional comments, if warranted, at that time. Should you have any questions concerning these comments please contact me at (512) 536-5932.

Sincerely yours,

Jose M. Campos
Intermodal Planning Engineer
Federal Highway Administration

cc: Laura Wallace, FTA Region VI
Melisa Montemayor, TxDOT – Laredo District
Keith Selman, Laredo MPO

LOUIS H. BRUNI
WEBB COUNTY JUDGE

October 28, 2004

Laredo Urban Transportation Study
Metropolitan Planning Organization Policy Committee

Re: Laredo 2005-2030 Metropolitan Transportation Plan (MTP)

My Fellow Committee Members,

On behalf of Webb County and for the ultimate welfare of our community, I am sending this letter in reference to some very critical issues that must be addressed before the final draft of the Laredo 2005-2030 Metropolitan Transportation Plan (MTP) is released to the public. Enumerated below are a number of significant comments that should be incorporated into this document, if it is to serve as a true, accurate, and effective blue print for the future growth and prosperity of our local community.

Specifically, we offer the following comments for your consideration:

1. ***The draft of the MTP proposes a modification to the existing Long-Range Thoroughfare Plan and current MTP by realigning the proposed Outer Loop to a location south of Mangana-Hein Road.***

    - The location of the Outer Loop is currently under a route alignment study by a consultant for the Laredo TX-DOT District Office (see attached copy of correspondence dated October 25, 2004 from Luis A. Ramirez, PE, District Engineer). The study corridor currently under review by TX-DOT is inclusive of the Mangana-Hein Road as well as areas located both north and south of this road.

    - Project descriptions, analysis, maps, and funding matrices scattered throughout the proposed MTP are based upon the location of the Outer Loop at this modified location.

    Recommendations:

    - Clarify that the final route alignment of the Outer Loop will be determined by TX-DOT after completion of the route alignment study, resolution of environmental issues, public comment process and the approval of the Federal

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Highway Administration (FHWA) on all project descriptions, analysis, maps, and funding matrices of the proposed MTP;

- Revise all maps to depict the location of the proposed Outer Loop to a central location within the study corridor (Mangana-Hein Road) or alternatively, show all three (3) alignments currently under consideration; and

- Revise funding matrices and project descriptions to remove site-specific language (i.e., parallel roads, connection to City's proposed 5th International bridge, etc.) within the MTP document related to the Outer Loop, its intersection with US Highway 83 or proposed interchanges contemplated along its route.

2. ***The draft of the MTP proposes funding for an interchange at US Highway 83 and a modified location of the Outer Loop to serve the 5th International Bridge.***

   - Although no specific bridge site has been approved nor has the location of the Outer Loop been determined, the draft MTP has proposed site-specific funding for an interchange at a location consistent with the City of Laredo's application for a bridge permit.

   - Project descriptions, analysis, maps, and funding matrices scattered throughout the proposed MTP have been based upon the location of the proposed interchange at this specific site.

   Recommendations:

   - Clarify that the location of the interchange will be determined after the final route alignment of the Outer Loop has been determined (as described in the recommendations above) in conjunction with an approved bridge site. Alternatively, modify the MTP to include funding for interchanges at both proposed bridge sites or all three alignments of the Outer Loop currently under study;

   - Revise all maps to show the location of the proposed interchange associated with the location of the proposed Outer Loop to a central location within the study corridor (Mangana-Hein Road). Alternatively, identify proposed interchanges at all three (3) alignments of the Outer Loop currently under consideration or at both proposed bridge sites; and

   - Revise funding matrices and project descriptions to remove site-specific language (i.e., location descriptions, parallel roads, connection to City's proposed 5th International bridge, etc.) within the MTP document related to this interchange or provide site-specific language for the additional interchanges defined herein.

3. ***The draft of the MTP fails to identify and show the public portion of the Mangana-Hein Road in its entirety.***

- None of the maps incorporated within the draft of the MTP have identified the name or shown the entirety of the Mangana-Hein Road – representing approximately nine (9) additional miles of public right-of-way and roughly 13 additional miles of private road that have been excluded.

- In 2003, TX-DOT identified the Mangana-Hein Road near its intersection with US Highway 83 with an ADT (average daily traffic) count of 1240. This ADT count identifies the Mangana-Hein Road as the second most traveled county road. Further, the Mangana-Hein Road right-of-way has an established width of approximately 100 feet. The traffic associated with this road, coupled with the established right-of-way, substantiates its inclusion in the MTP.

Recommendations:

- Revise all maps to show the location of the Mangana-Hein Road in its entirety and label its name accordingly. (Note: On October 25, 2004 a digital file of all road centerlines was emailed to the project consultant, Wilbur Smith Associates for inclusion in their maps); and

- Revise MTP to reflect the existing conditions, traffic analysis and level of service (LOS) associated with the Mangana-Hein Road within the MPO study area and its impact (if any) the ADT volumes and LOS for the Short-Term and Long-Term Networks.

4. ***The draft of the MTP fails to identify the Webb County Rural Rail District or its proposed rail projects.***

- The draft of the MTP contains no reference to the Webb County Rural Rail District (WCRRD) nor identifies any of the projects proposed by this entity. Since rail is an integral part of the overall transportation system that must be addressed by the MTP, it is imperative that the MTP be revised to incorporate WCRRD comments and proposed project(s).

Recommendations:

- Incorporate comments and projects identified by the WCRRD.

5. ***The draft of the MTP appears to limit local sponsored projects to only those transportation projects of the city of Laredo.***

- Although Webb County's Capital Improvement Plan (CIP) was provided to the consultants, it appears that the draft of the MTP identifies only local sponsored projects of the city of Laredo, including such unfunded and unresolved issues as the 5th International Bridge. The MPO or LUTS boundary is not confined to the corporate limits of Laredo and thus, project identification in the MPT should not narrowed or partisan in its approach to or recognition of projects.

Recommendations:

- Incorporate all county projects in the MTP – including the county's proposal for the fifth international bridge (Puente de la Unidad). Alternatively, remove local sponsored projects in their entirety and any reference to locally sponsored projects such as the 5th International Bridge.

The severity of the need to address the modifications listed above is so strong to the eventual transportation improvements that will one day come to fruition through this committee's hard work and planning efforts, that I cannot overly stress their importance. The final revision of the MTP that I am strongly recommending before its subsequent release to the public can only serve to strengthen the relevance, substance, and weight of this important document. Thus, because the corrections and suggestions outlined in this letter are of such a significant nature, I strongly urge you to incorporate these crucial comments into the final draft of the 2005-2030 MTP.

Your prompt attention and favorable response to this critical request will be sincerely appreciated. Should you have any questions or comments regarding this important matter, please feel free to contact my office.

Sincerely,

Louis H. Bruni

Louis H. Bruni
Webb County Judge
Vice-Chairman, MPO

cc: The Honorable Judith Zaffirini, State Senator District 21
The Honorable Richard Raymond, State Representative District 42
The Honorable Ryan Guillen, State Representative District 31
The Honorable Gerardo "Jerry" Vasquez, Webb County Commissioners Pct. 1
The Honorable Judith G. Gutierrez, Webb County Commissioners Pct.
The Honorable Felix Velasquez, Jr., Webb County Commissioners Pct. 3
The Honorable David R. Cortez, Webb County Commissioners Pct. 4

encl: Letter dated 10/25/04 from Luis A. Ramirez, PE, District Engineer (TX-DOT)

TOMAS M. RODRIGUEZ, JR., P.E.
COUNTY ENGINEER

PHONE: (956) 523-4055

FAX: (956) 523-50

WEBB COUNTY ENGINEERING DEPARTMENT
1110 WASHINGTON ST., SUITE 303 LAREDO, TX. 78040

November 17, 2004

Mr. Keith Selman, MPO Director
City of Laredo Planning Department
1120 San Bernardo
Laredo, Texas 78042

RE: Webb County's Projects

Dear Mr. Selman:

Please add the following projects:

1. Mangana Hein Rd Paving Project
   A. County plans to pave the 13.2 miles at 2 miles per year.
   B. Completion of project is projected at 2014
   C. Cost of Project considering an inflation rate of 3% is $3,659,040.
   D. Funding available at this time is $130,000.00

2. Int'l Bridge No. 5
   A. Webb County proposes to construct an Int'l Bridge west northwest of the intersection of Hwy 83 South and Mangana Hein Road.
   B. The estimated costs of the Bridge and ancillary facilities on the US side are the following:

1. Bridge and ancillary facilities	$20,500,000.00
2. US Hwy 83 South Interchange	10,900,000.00
3. Water and Sewer Improvements	328,000.00
4. Environmental Mitigation	275,000.00
5. Total	$32,003,000.00

3. Rail District – Int'l Rail Bridge and Railroad Line
   A. Webb County plans to construct an Int'l Rail Bridge at the south side of the existing Laredo Colombia Int'l Bridge and a railroad line from the bridge to IH35 Mile Marker 24 utilizing the TxDOT State Hwy 255 (old Laredo Colombia Toll Road) R.O.W. and connecting to the existing Union Pacific Railroad.

B. The estimated costs on the US side to construct this project are the following:

1. Construction of the Bridge	$8,400,000.00
2. Construction of Custom Facilities	4,000,000.00
3. Construction of the railroad line	34,000,000.00
4. Construction of Additional structures	15,000,000.00
5. Total	$61,400,000.00

Attached is a form that you requested with above-mentioned information.

If you should have any questions or comments, please call me at (956) 523-4055.

Yours truly,

Tomas M. Rodriguez Jr., P.E.
County Engineer

Xc: Honorable Louis H. Bruni, Webb County Judge
Hon. Gerardo "Jerry" Vasquez, Webb County Commissioner Pct. 1
Hon. Judith G. Gutierrez, Webb County Commissioner Pct. 2
Hon. Felix Velasquez Jr., Webb County Commissioner Pct. 3
Hon. David R. Cortez, Webb County Commissioner Pct. 4
Homero Ramirez, Webb County Attorney
Raul Casso IV, Webb County Chief of Staff
Carlos R. Villarreal, Commissioners Court Executive Administrator
Rhonda M. Tiffin, Director, Webb County Planning Department

Exhibit A
Webb County Projects
Draft 2005-2030 MTP

Project Location	From Limits	To Limits	Project Description	Length (miles)	Estimated Cost
International Rail Bridge	Rio Grande, South of the Laredo Solidarity Bridge		Construction of an international rail bridge		$8,400,000
International Rail Bridge Custom Facilities	Rio Grande, South of the Laredo Solidarity Bridge		Custom Facilities associated with the Rail Bridge		$4,000,000
Railroad Line Extension	International rail bridge	UP Rail line adjacent to IH 35	Rail line extension generally following the Colombia Toll Road		$49,000,000
Mangana-Hein Road	End of pavement	End of road	Paving improvements to unpaved portions of the Mangana-Hein Road		$3,659,040
Puente de la Unidad	Rio Grande at an extension of the Mangana-Hein Road		Construction of an Int'l Bridge & ancillaries		$20,500,000
Puente de la Unidad	River Blvd to Mangana-Hein Rd and Bridge Site		Water and Wastewater Improvements & Environmental Mitigation		$603,000
Puente de la Unidad	International Bridge Customs	US 83	Interchange on US 83		$10,9000,000

Naina Magon

From: Gabriel Del Bosque [gdelbosque@ci.laredo.tx.us]
Sent: Monday, October 25, 2004 9:55 AM
To: Naina Magon; bhamm@wilbursmith.com
Subject: FW: MTP Comments

-----Original Message-----
From: Jo Ann E. Garcia [mailto:JEGARCIA@dot.state.tx.us]
Sent: Wednesday, October 20, 2004 10:04 AM
To: Gabriel Del Bosque
Cc: Melisa Montemayor
Subject: MTP Comments

I have a few comments on the draft.

1. Chaper 2 Existing Condition Map, Figure 2-3A, Figure 2-3b, Figure 2-5b, like the maps, would prefer for the enlarged area to also include the area outside of Loop 20. This way we get to see more of the urbanized area.
2. Figure 2-5A - would be helpful to have a typical section of the different functional classification. What is the difference between the freeway and the expressway, I noticed IH 35 is both in some sections.
3. Short Term Projects tables:
A. May be good to add more to discription for IH 35 Shiloh to Milo Project as will also need for us to construct new RR crossing.
B. Loop 20 overpasses at Jacaman and Airport, should move to long term.
C. Would prefer another table be prepared for State Administered Off-system roadways projects - instead of State Sponsored this would include CPL, City Street, Meadow to name the ones I saw on the Short term.
4. Long Term Projects tables:
A. US 59 from 3.3 Miles E. of Arkansas St. to Proposed Outer Loop description needs to be changed to 7 lane, instead of 5. Also the project is duplicated with one labeled from Lifedown to MPO boundary, I'm not sure where the MPO boundary line is but the section East of the Outer Loop was proposed to be 4 lane divided, the urban section would go only to the Outer Loop.

Didn't check but does the plan end up being financially balanced?

Laredo Metropolitan Transportation Plan Update
Project Nomination Form

The Laredo Metropolitan Planning Organization (MPO) is in the process of updating their Metropolitan Transportation Plan (MTP). The MTP is a long range transportation plan that will guide transportation improvements in the region over the next 25 years. The Metropolitan Planning Organization is accepting nominations for proposed transportation projects of regional significance to be considered in the plan. Proposed projects may include highway, aviation, transit and bicycle and pedestrian improvements.

Project Name: Sidewalks

Limits: Prop owners will pay 1/2 of Cost

Description: Many properties in the Heights area were allowed to disregard building code regulations & Covered the sidewalk areas with unlawful planting of vegetation forcing Children to walk to school in the streets. Please enforce the building code. Do your duty!

Please mail or fax forms to:
Gabriel Del Bosque, MPO Coordinator
P.O. Box 579
Laredo, Texas 78042-0579
Fax: (956) 794-1624

SAN ISIDRO SOUTHWEST, LTD.
400 FM 534
SANDIA, TEXAS 78383
361-547-9111
FAX: 361-547-0900

May 1, 2003

Mr. Keith Selman, Chairman
Metropolitan Planning Organization
P.O. Box 579
Laredo, Texas 78042

Re: Proposed Exit Ramp Off IH-35 onto San Isidro Parkway ("Proposed IH-35 Exit Ramp")

Dear Mr. Selman:

Please let this correspondence serve as San Isidro Southwest's formal request that the Proposed IH-35 Exit Ramp be included in the Metropolitan Planning Organization's (MPO's) Metropolitan Transportation Plan (MTP). I am attaching copies of all the plans and drawings that have been approved by the Texas Department of Transportation.

As I advised, the funding for the construction of the Proposed IH-35 Exit Ramp can be accomplished from Developer participation with the City, and or County or State, or in an effort to expedite construction, the Developer, at its discretion, may fund the construction. The Developer will, as required, be responsible for the funding of construction of the connecting street, which will subsequently be dedicated for public use. Please submit this request to the MPO so the IH-35 Exit Ramp may be included in the Metropolitan Transportation Plan.

Should you have any questions or comments, please do not hesitate to call.

Sincerely,

San Isidro Southwest, Ltd.
by San Isidro Management, L.C.

By: J. Houdmann
J. J. "Bucky" Houdmann
Its Vice President

Texas Department of Transportation

1817 BOB BULLOCK LOOP • LAREDO, TX 78043 • (956) 712-7400 FAX (956) 712-7401

December 14, 2004

The Honorable Elizabeth G. Flores
Mayor, City of Laredo
P. O. Box 579
Laredo, Texas 78042

Dear Mayor Flores:

Please accept my apology for my absence at Friday's December 17, 2004 Metropolitan Planning Organization (MPO) meeting. In my absence, I ask that you please read this letter into the record of the meeting. I urge all of my fellow committee members to vote in favor of the entire Metropolitan Transportation Plan (MTP) document. The projects within the 25-year MTP are extremely important for the safety, mobility, and economic vitality of Laredo and Webb County.

I am aware that there is a concerted effort to remove the raised median project on FM 1472 (Mines Road) from the MTP. Our extensive studies and research have shown that this project, which is slated for bids in June 2005, will have a significant positive impact on the safety, mobility, and economic vitality of the Mines Road area. The project was funded through a statewide competition for highways which have accident rates that are above the statewide average. The project was developed after much input from the public and elected officials at multiple public meetings and hearings, and whose comments were implemented in the project's final design.

According to statistics from the State of Texas official crash records maintained by the Texas Department of Public Safety (DPS), an average of 1.3 fatalities, 3 incapacitating injuries, 11.5 non-incapacitating injuries, and 37 possible injury crashes occurred *per year* on Mines Road from Interstate 35 to Interamerica Boulevard between 1997 and 2000. These statistics do not include property-damage-only crashes since DPS does not track these statistics. However, the number of property-damage-only crashes can be estimated from national averages to be an additional 248.5 crashes per year. In total, 301.3 crashes per year occur along Mines Road. Based on past and current traffic patterns, if the raised median is not constructed, you can expect crashes, injuries, and fatalities to increase yearly as traffic growth along Mines Road continues.

National and state research over the past 20 years on raised median projects indicates that raised medians will reduce crashes an average of 14 percent *per year* on roadways with the level of traffic volume and the number of driveways on Mines Road. With this potential for crash reduction, the impact of voting against this project will increase occurrences to 1.5 fatalities, 3.5 incapacitating injuries, 13.5 non-incapacitating injuries, and 42 possible injury crashes *per year*. The total crashes on Mines Road will increase dramatically from the current 301.3 crashes per year to 343.5 crashes per year.

In summary, I urge you to support this raised median project which was previously approved by the MPO, in order to provide for the safety, mobility, and economic vitality of the Mines Road area.

Sincerely,

Luis A. Ramirez, P.E.
District Engineer

Appendix B

Project Evaluation Matrix

US 83	Chacon Creek Bridge														
US 83	SH 359 / Cortez Street Intersection	Chacon Creek Bridge	Realign and grade separate intersection	0.63	1	5,000,000									
US 83	San Eduardo Street	Mcpherson Road	Construct Railroad Grade Separation Structure and Approaches	1.06	1	9,360,000		42,700	F	72,800	F	77,168	$121.29	$8,000,000	
US 83	At 2.0 Miles North Of Espejo Molina Road		Construct Overpass	1.00	1	$5,000,000		15,300	C	25,600	D	25,600	$195.31	$2,600,000	
US 59	Maryland	San Dario	Install Raised Median	0.65	1	200,000		34,400	F	71,100	F	46,215	$4.33	$0	
US 59	Ejido	Buena Vista	Install Raised Median	0.84	1	200,000		32,800	F	80,600	F	67,704	$2.95	$0	
SH 359	Texas Mexico Railway	Smith Street	Realign Intersection	0.59	1	5,000,000		19,200	F	48,000	F	28,320	$176.55	$3,000,000	
Outer Loop	SH 359	US 59	Outer Loop, Construct 2 Lane Section w/Shoulders, and RR Grade Separation (Phase 1)	5.34	1	8,400,000	Loop 20	33,400	F	87,500	F	467,250	$17.98	$543,000	
Outer Loop	US 83	Cuatro Vientos	Outer Loop, Construct 4 Lane Divided Facility with an Interchange at US 83 (Phase 1)	1.83	1	6,070,000	Loop 20	30,800	F	75,100	F	137,433	$44.17	$625,000	
Outer Loop	Cuatro Vientos	SH 359	Outer Loop Upgrade to a 4-Lane Divided Facility (Phase 2)	7.64	1	8,773,939	Loop 20	30,800	F	75,100	F	573,764	$15.29	$0	
Outer Loop	Cuatro Vientos	SH 359	Outer Loop, Construct 2-Lane Section with Shoulder (Phase 1)	7.64	1	6,120,000	Loop 20	30,800	F	75,100	F	573,764	$10.67	$640,000	
Outer Loop	At SH 359		Outer Loop, for Construction of an Interchange	1.00	1	3,000,000	Loop 20	33,100	F	87,500	F	87,500	$34.29	$500,000	
Outer Loop	At Cuatro Vientos		For the Construction of an Interchange	1.25	1	3,000,000	US 83	16,300	D	28,500	D	35,625	$84.21	$500,000	
Outer Loop	Loop 20	US 59	Outer Loop, Construct 2-Lane Section W/Shoulder, and an Interchange at Inner Loop 20 (Phase 1)	5.78	1	17,000,000	Loop 20	20,200	C	54,600	F	315,588	$53.87	$500,000	
Loop 20	0.20 Miles South of Spur 400	1.68 Miles North of US 59	For the Construction of a Diamond Interchange	2.72	1	9,880,000		28,400	F	68,300	F	185,776	$53.18	$650,000	
Loop 20	Los Presidentes	US 83	Install Raised Median	0.77	1	230,000		19,300	D	64,100	F	49,357	$4.66	$	
Loop 20	US 59	SH 359	Widen to 6 Lanes and Upgrade Intersection at Spur 400	2.19	1	5,000,000		33,400	F	87,500	F	191,625	$26.09	$500,000	
Loop 20	At Spur 400 from Fairfield	Tex Mex RR Bridge	Construct Overpass	1.00	1	$6,500,000		33,400	F	87,500	F	87,500	$74.29	$3,500,000	
Loop 20	At SH 359		For the Construction of an Interchange Facility	1.00	1	18,000,000	Loop 20	33,100	F	87,500	F	87,500	$205.71	$500,000	
Loop 20	0.32 Miles West of Milo Interchange	0.57 Miles East of McPherson Road	For the Construction of Westbound Mainlanes over IH 35	2.25	1	10,000,000		22,200	D	54,200	F	121,950	$82.00		
Loop 20	0.39 Miles West of McPherson Road	0.39 Miles East of McPherson Road	For the Construction of Interchange Facility over McPherson Road	0.78	1	4,083,608		20,900	D	52,600	F	41,028	$99.53		
Loop 20	At Laredo International Airport		Construct Overpass	1.00	1	$5,000,000		20,200	D	52,700	F	52,700	$94.88	$3,500,0	
Loop 20	At Jacaman		Construct Overpass	1.00	1	$5,000,000		20,200	C	52,700	F	52,700	$94.88	$3,500,0	
IH 35	East Access Road at Calton Road	Del Mar Boulevard	Add Right Turn Lanes	0.25	1	600,000	At Calton intersection	15,100	F	30,000	F	7,500	$80.00	$120,0	
IH 35	Shiloh Road	0.25 Miles North of Loop 20 / FM 3464	Widen NB and SB Mainlanes to 3 Lanes Each Direction, Construct RR Crossing	3.73	1	6,000,000		34,500	C	134,000	F	499,820	$12.00		
IH 35	0.5 Miles South of Loop 20	Loop 20	For the Const of Direct Connector (#7) Consist of Pavmt, Grdg, Drg, Signing, Pavmt Marking,Ilium, Sw3P, Trf Management & Strs	1.50	1	9,000,000	Intersection LOS	17,400	D	64,200	E	96,300	$93.46		
FM 1472	Interamerica	IH 35	Install Raised Median	3.62	1	987,000		48,200	E	78,500	F	284,170	$3.47		
Cuatro Vientos	SH 359 at Loop 20	Proposed Outer Loop	Loop 20, Extension of Loop 20 - Construct 5 Lane Urban Section	7.03	1	39,607,639	US 83	40,800	F	80,200	F	563,806	$70.25		
Cuatro Vientos	Outer Loop	US 83 Main Entrance to Rio Bravo	Loop 20, Extension of Cuatro Vientos - Construct 2 Lane Rural Section	3.05	1	4,000,000	US 83	16,300	C	28,500	D	86,925	$46.02	$60	
CPL Road	Industrial Blvd	Riverbank Road	For The Construction of a New Location Roadway	1.42	1	4,469,250	FM 1472	48,200	E	78,500	F	111,470	$40.09	$50	
City Street	0.25 Miles East of Calton Road / St Maria	0.25 Miles East of Las Cruces / Flecha Lane	For The Realignment of Flecha Ln / Las Cruces along FM 1472 and for the PE Work of a Grade Sep at Calton Rd / Santa Maria Int	0.50	1	3,155,750	FM 1472	34,100	D	86,600	F	43,300	$72.88	$5	
*US 59	0.019 Miles East of San Francisco	0.021 Miles West of San Francisco	For the Construction of the Replacement of an Existing Bridge	0.04	1-6	1,200,000		34,400	F	71,100	F	2,844	$421.94		
*Meadow Street	at Tex-Mex RR Crossing		Replace Bridge and Approaches	0.25	1-6	3,500,000		22,500	F	56,600	F	14,150	$247.35		
*IH 35	The Intersection of Santa Ursula and Moctezuma	On West Frontage Road	Construct Railroad Grade Separation Structure and Approaches	0.25	1-6	4,000,000		13,900	E	32,600	F	8,150	$490.80		
			Construct Railroad Grade Separation Structure and	0.25	1-6	4,000,000	San Dario Ave.	9,800	E	36,800	F	9,200	$434.78		

Appendix B - Project Evaluation Matrix

Project	From Limits	To Limits	Project Description	Length (miles)	In Plan	Estimated Cost (in $)	Parallel Roads	Existing Volumes	Existing LOS	Future Volumes	Future LOS	Future VMT	Cost / Future VMT	ROW Cost	ROW Cost as Percent of Total	Existing LOS Rating	Future LOS Rating	Cost Reas. Rating	Modal Impact Rating	Public Accept. Rating	ROW Cost Rating	Project Readiness Rating	Special Circumst. Rating	TOTAL SCORE
*Arkansas	at Tex-Mex RR Crossing		Construct Railraode Grade Separation	0.50	1-6	6,000,000		18,800	C	45,900	F	22,950	$261.44	$0	0.0%	50	100	25	0	20	25	0	30	250
*Calton Rd.	at UP Railroad Crossing		Construct Railraode Grade Separation	0.50	1-6	6,000,000		7,400	E	25,600	F	12,800	$468.75	$0	0.0%	100	100	25	0	20	25	0	30	300
Various	At Cuatro Vientos / SH 359		Construct 2 Direct Connectors	2.00	2	$18,000,000	Loop 20 South of SH 359	30,800	F	75,100	F	150,200	$119.84	$2,000,000	11.1%	100	100	50	20	20	20	0	0	310
Various	At Laredo Outer Loop / US 83		Construct Direct Connector	1.00	2	$9,000,000	US 83	15,300	C	25,600	D	25,600	$351.56	$2,700,000	30.0%	50	75	25	0	20	15	0	0	185
US 83 (Guadalupe)	IH 35	SH 359	Restripe for additional lanes	2.15	2	$6,600,000		18,600	F	38,000	F	27,898	$236.58	$0	0.0%	100	100	25	0	20	25	0	0	270
US 83 (Chihuahua)	IH 35	SH 359	Restripe for additional lanes	2.15	2	$6,600,000		23,500	F	43,600	F	93,740	$70.41	$0	0.0%	100	100	75	0	20	25	0	0	320
US 83	*To Be Determined*		Construct Overpass	1.00	2	$5,000,000		15,300	C	25,600	D	25,600	$195.31	$0	0.0%	50	75	25	0	20	25	0	15	210
US 59	3.3 Miles East of Arkansas Street	Proposed Outer Loop	Construct 7 Lane Urban Section	3.66	2	$20,700,000		15,500	E	53,600	F	196,122	$105.55	$1,500,000	7.2%	100	100	50	0	20	20	0	0	290
US 59	Outer Loop	MPO Boundary	Construct 4 Lane Rural Freeway	1.20	2	$14,000,000		4,800	C	17,000	E	20,400	$686.27	$0	0.0%	50	100	0	0	20	25	0	0	195
Spur 400	Loop 20	Proposed Outer Loop	Construct 5 Lane Urban Roadway	6.20	2	$35,075,000	SH 359	19,600	D	52,200	F	323,640	$108.38	$2,400,000	6.8%	75	100	50	0	20	20	0	0	265
Loop 20	1.000 Mile West of IH 35	McPherson Rd	Construct Eastbound Mainlanes	2.00	2	$12,000,000		22,200	D	54,200	F	108,400	$110.70	$0	0.0%	75	100	50	20	20	25	0	0	290
Loop 20	Inner/Outer Loop Interchange	FM 1472	Construct Roadway and Interchange at IH 35	8.00	2	$40,000,000		22,200	D	54,200	F	433,600	$92.25	$3,000,000	7.5%	75	100	50	20	20	20	0	0	285
Loop 20	McPherson	0.5 Mile East of Intersection With Outer Loop	Construct Mainlanes	2.00	2	$6,000,000		11,700	C	35,100	F	70,200	$85.47	$0	0.0%	50	100	50	20	20	25	0	0	265
Loop 20	At Del Mar		Construct Overpass	1.00	2	$5,000,000		18,500	C	47,200	F	47,200	$105.93	$3,500,000	70.0%	50	100	50	20	20	10	0	15	265
Loop 20	At Shiloh		Construct Overpass	1.00	2	$5,000,000		10,500	C	35,600	E	35,600	$140.45	$3,500,000	70.0%	50	100	25	20	20	10	0	15	240
IH 35	0.5 Miles North on IH 35	0.5 Miles East on Loop 20	Construction of Direct Connector #3	1.00	2	$9,000,000	IH 35 mainlanes	8,900	C	33,000	D	33,000	$272.73	$0	0.0%	50	75	25	0	20	25	0	0	195
IH 35	0.5 Miles East on Loop 20	0.5 Miles North on IH 35	Construction of Direct Connector #4	1.00	2	$9,000,000	IH 35 mainlanes	8,900	C	33,000	D	33,000	$272.73	$0	0.0%	50	75	25	0	20	25	0	0	195
IH 35	0.5 Miles East on Loop 20	0.5 Miles South on IH 35	Construction of Direct Connector #5	1.00	2	$9,000,000	IH 35 mainlanes	8,900	C	33,000	D	33,000	$272.73	$0	0.0%	50	75	25	0	20	25	0	0	195
IH 35	0.5 Miles South on IH 35	0.5 Miles East on Loop 20	Construction of Direct Connector #6	1.00	2	$9,000,000	IH 35 mainlanes	8,900	C	33,000	D	33,000	$272.73	$0	0.0%	50	75	25	0	20	25	0	0	195
IH 35	0.5 Miles West on Loop 20	0.7 Miles South on IH 35	Construction of Direct Connector #8	1.00	2	$9,000,000	IH 35 mainlanes	8,900	C	33,000	D	33,000	$272.73	$0	0.0%	50	75	25	0	20	25	0	0	195
Cuatro Vientos	SH 359 at Loop 20	Proposed Outer Loop	Widen to 6 Lane Urban Section with Median	7.25	2	$20,000,000	US 83	40,800	F	100,900	F	731,525	$27.34	$0	0.0%	100	100	75	20	0	25	0	0	320
Cuatro Vientos	2.77 Miles South of SH 359	2.39 Miles South of SH 359	Construct Overpass at Southgate Blvd	1.00	2	$15,676,749	US 83	40,800	F	100,000	F	100,000	$156.77	$2,700,000	17.2%	100	100	25	20	0	20	0	45	310
Cuatro Vientos	6. 26 Miles South of SH 359	5.90 Miles South of SH 359	Construct Overpass at Unnamed Minor Arterial	1.00	2	$14,988,111	US 83	15,300	C	28,500	D	28,500	$525.90	$2,700,000	18.0%	50	75	0	20	0	20	0	45	210
Cuatro Vientos	4.8 Miles South of SH 359	3.6 Miles South of SH 359	Construct Overpass at Cielto Lindo Rd and Sierra Vista Rd	1.18	2	$25,475,759	US 83	16,800	C	30,200	D	35,636	$714.89	$2,700,000	10.6%	50	75	0	20	20	20	0	45	230
US 83	SH 359	Chacon Creek Bridge	Widen to 7-lane section	0.75		$500,000		48,000	F	110,900	F	83,175	$6.01	$0	0.0%	100	100	75	0	20	25	0	0	320
US 83	Palo Blanco	3.1 miles south of Loop 20	Widen to 7-lane section	1.85		$9,500,000		40,800	F	92,400	F	170,940	$55.58	$0	0.0%	100	100	75	0	20	25	0	0	320
US 83	Chacon Creek Bridge	Palo Blanco	Widen to 7-lane section	1.81		$15,321,700		40,400	F	100,900	F	182,629	$83.90	$0	0.0%	100	100	50	0	20	25	0	0	295
US 83	Proposed Outer Loop	MPO Boundary	Upgrade to freeway facility	8.80		$28,280,000		16,300	C	28,500	D	250,800	$112.76	$0	0.0%	50	75	50	0	20	25	0	0	220
US 59	IH 35	Buena Vista	Widen to 7-lane urban section	2.50		$35,767,500		37,900	F	76.300	F	190,750	$187.51	$0	0.0%	100	100	25	0	20	25	0	0	270
SH 359	Loop 20	1 mile east of Loop 20	Widen to 7-lane section	4.25		$26,713,500		19,600	D	52,200	F	221,850	$120.41	$0	0.0%	75	100	50	0	20	25	0	0	270
SH 359	US 83 / Texas-Mexico RR	Smith Street	Widen to 7-lane section	0.28		$8,058,360		19,200	F	48,000	F	13,440	$599.58	$0	0.0%	100	100	0	0	20	25	0	0	245
SH 359	Smith Street	Loop 20	Widen to 7-lane section	1.01		$11,734,620		17,500	C	54,700	F	55,247	$212.40	$0	0.0%	50	100	25	0	20	25	0	0	220
Outer Loop	at US 59		Construct interchange	0.25		$63,630,000	Loop 20	28,400	F	68,300	F	17,075	$3,726.50	$0	0.0%	100	100	0	0	0	25	0	15	240
Outer Loop	at Spur 400		Construct interchange	0.25		$4,040,000	Loop 20	33,400	F	87,500	F	21,875	$184.69	$0	0.0%	100	100	25	0	0	25	0	15	265
Outer Loop	US 59	SH 359	Widen to 4-lane rural freeway	6.20		$30,057,600	Loop 20	33,400	F	87,500	F	542,500	$55.41	$0	0.0%	100	100	75	0	0	25	0	15	315
Outer Loop	Loop 20	US 59	Widen to 4-lane rural freeway	7.00		$33,936,000	Loop 20	20,200	C	54,600	F	382,200	$88.79	$0	0.0%	50	100	50	0	0	25	0	15	240
NW Loop 20 Extension	FM 1472	IH 35	Construct new 2-lane rural and later widen to 4-lane divided facility	4.75		$18,801,000	Killiam Industrial	2,800	C	16,600	E	78,850	$238.44	$0	0.0%	50	100	25	0	20	25	0	0	220
North Loop 20 Extension	Loop 20	IH 35	Construct new 2-lane rural section	2.10		$7,834,000	IH 35	25,600	C	93,700	D	196,770	$39.81	$0	0.0%	50	75	75	20	20	25	0	0	265
North Loop 20 Extension	Loop 20	IH 35	Widen to 5 or 7-lane rural section	2.10		$6,868,000	IH 35	25,600	C	93,700	D	196,770	$34.90	$0	0.0%	50	75	75	20	20	25	0	0	265
IH 35	Shiloh Road	Loop 20	Widen frontage roads to 3 lanes per direction	6.00		$12,120,000		11,400	D	36,300	F	217,800	$55.65	$0	0.0%	75	100	75	0	20	25	0	0	295
IH 35	at North Loop 20 Extension		Construct overpass	0.25		$10,100,000		20,200	C	93,700	D	23,425	$431.16	$0	0.0%	50	75	25	20	20	25	0	0	215
IH 35	at Vallecillo		Construct overpass	0.25		$6,060,000		20,200	C	93,700	D	23,425	$258.70	$0	0.0%	50	75	25	0	20	25	0	0	195
FM 1472	at NW Loop Extension		Construct interchange	0.25		$4,040,000		9,300	C	29,700	F	7,425	$544.11	$0	0.0%	50	100	0	0	20	25	0	0	195

*In Plan: 1=Short Term, 2 = Long Range, 1-6=Short Term, Category 6 Funding