

# 1 Introduction

US 190 and I-10 are major east-west highways that traverse and serve the entire state of Texas and other states further west and east. The US 190/I-10 Feasibility Study evaluates the impacts and feasibility of alternative transportation improvements along this major corridor in the state of Texas. The study area for this project includes the US 190/I-10 corridor from El Paso, Texas to the Louisiana state line, which is approximately 900 miles in length and provides important access and connections to numerous cities, counties, intermodal facilities, military installations, and major developments. This study report is a summary of the interim technical memoranda that were completed at major study milestones. This chapter discusses the study's background, goals and objectives, need and purpose, project development process, schedule, coordination, and interim technical memoranda.

## 1.1 Study Background

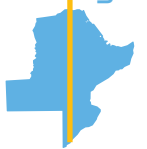
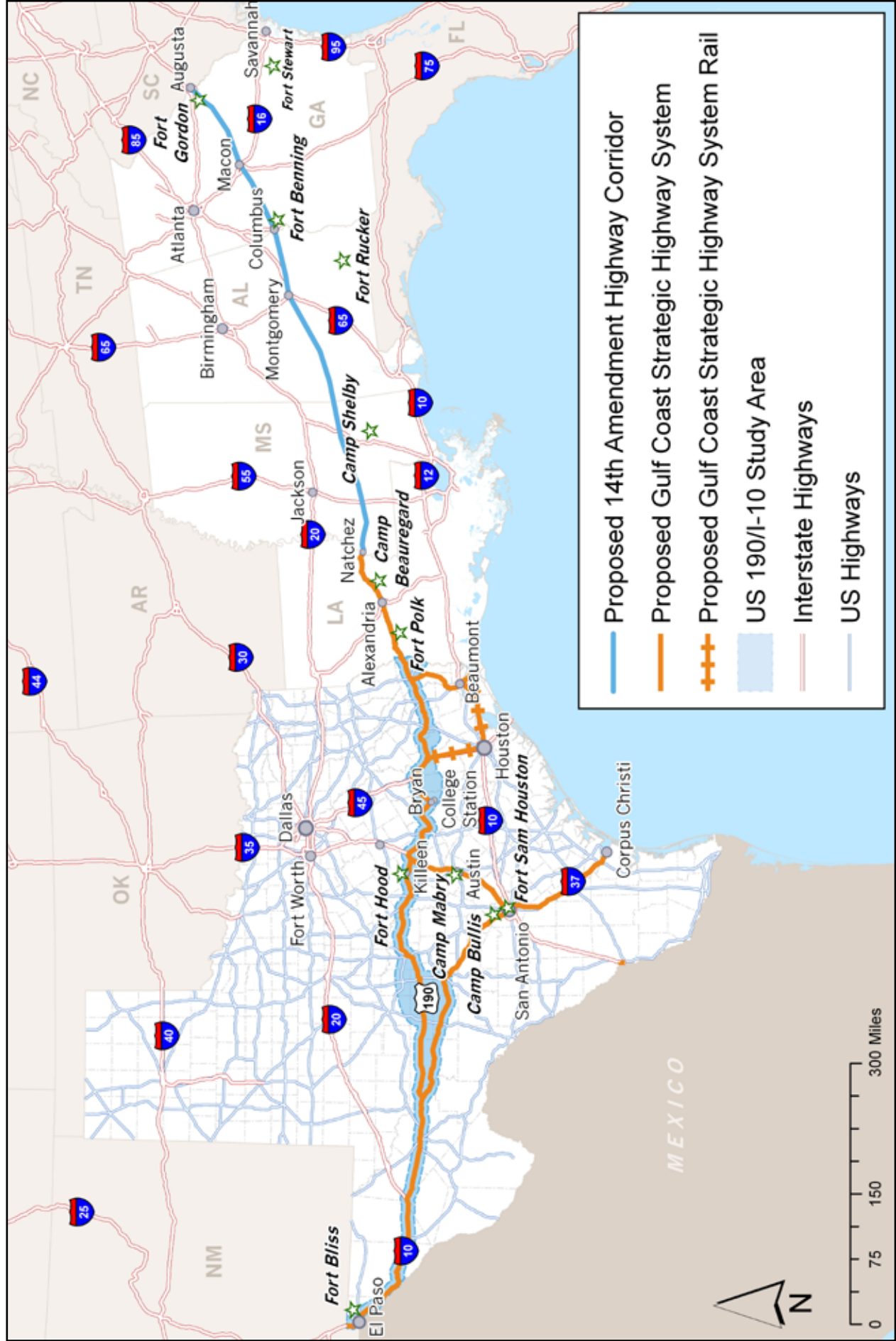
This study originated following the proposed interstate highway from Natchez, Mississippi to Augusta, Georgia, referred to as the 14th Amendment Highway, which was introduced into Federal congressional legislation in 2004. The study of the 14th Amendment Highway was eventually incorporated into the Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU) of 2005. The proposed 14th Amendment Highway is shown in blue in **Figure 1-1**.

In addition, the Gulf Coast Strategic Highway Coalition was formed in 2001 to promote the need for improved access and connections to military installations along the US 190/I-10 corridor and regional highways that serve as deployment routes between the major army bases and designated ports along the Gulf Coast. These routes would be a continuation of the 14th Amendment Highway further west through Louisiana and Texas. The current routes being promoted by the Gulf Coast Strategic Highway Coalition from El Paso, Texas to Natchez, Mississippi, are shown in orange in Figure 1-1. The primary route in Texas is the US 190/I-10 corridor which is the focus of this feasibility study.

In January of 2007, the Texas Transportation Commission approved Minute Order 110815 which authorized feasibility and route studies for the US 190/I-10 corridor in the state of Texas to evaluate the potential strategic, economic, emergency, and environmental benefits of implementing various transportation improvements. This US 190/I-10 Feasibility Study was initiated by the Texas Department of Transportation (TxDOT) in response to this minute order. Consideration was given to this corridor's connectivity to military installations and deployment ports, as well as its potential for congestion relief and economic development. This study considered upgrading



Figure 1-1 US 190/I-10 Feasibility Study and Other Relative Projects



US 190 to a freeway or four-lane divided highway, and constructing localized transportation improvements such as grade separations (interchanges), relief routes, truck passing lanes, and other operational and geometric improvements. It also determined the adequacy of existing rail facilities along the US 190/I-10 corridor to meet both existing and future freight demands.

This study does not recommend a preferred alternative, but provides sufficient technical information and comparisons of the impacts and feasibility of various improvements that could be considered to address existing and future transportation needs along the study corridor. The study results will be used by TxDOT and other involved agencies to assist in prioritizing potential projects along the US 190/I-10 corridor. These projects would need to be examined in further detail as part of subsequent project development phases.

## 1.2 Goals and Objectives of Study

The goals and objectives established at the beginning of the US 190/I-10 Feasibility Study were as follows:

### Goals:

- Prepare for the future
- Enhance safety
- Maintain transportation system
- Relieve congestion
- Enhance connectivity
- Work with partners to identify funding strategies

### Objectives:

- Assess the feasibility of a freeway or interstate type facility within a 15-mile corridor generally centered on the existing US 190 facility from Bon Wier to a terminus at I-10 and continuing along I-10 to El Paso. Analyze any associated improvements to ancillary corridors such as US 69 necessary to provide access to the major Texas Gulf ports.
- Evaluate adequacy of existing rail corridors from El Paso to Bon Wier for existing and projected freight and military movements.
- Assess the need to smooth the existing alignment.
- Assess the feasibility of a four-lane divided trunk system standard facility if a freeway is not feasible.
- Evaluate the impact of the enlargement of Fort Bliss and Fort Hood as well as any other military deployment issues associated with connecting the military bases and posts.



- Evaluate what, if any, advantage there is to connecting military bases and posts to each other.
- Evaluate the impact to the corridor of the development of SAFETEA-LU Sec. 1927 Corridors (14th Amendment and 3rd Infantry Division Highways).
- Identify economic development and institutional issues related to the development and construction of the corridor including identification of potential funding and revenue sources.
- Provide public involvement through an outreach program and public meetings.

### 1.3 Corridor Needs

The existing and future needs along the study corridor were developed at the beginning of the study based on TxDOT's six Strategic Plan Goals, a comprehensive analysis of the existing and future traffic and freight demands, and input from stakeholders. The details of these analyses were documented in the *Need and Purpose Statement Technical Memorandum* for this study. The following needs along with brief descriptions were identified:



US 190 at Copperas Cove

#### Transportation Mobility

- *Roadway capacity is inadequate to relieve existing and future congestion, particularly on US 190 between Copperas Cove and Hearne, which includes a portion of I-35; the portion of I-45 concurrent with US 190; and I-10 through El Paso.*

By 2040 nearly 160 miles of the approximately 900 mile roadway corridor (17%) are anticipated to operate at unacceptable LOS "E-F" due to insufficient capacity to accommodate forecasted traffic volumes.

- *There is limited east-west mobility for auto and truck travel under existing and future conditions.*

As auto and truck travel between cities in the study corridor increases over the next 30 years, roadway users will encounter many obstacles restricting



their mobility. The forecast congestion within the study corridor will result in substantial reductions in free flow speeds in the El Paso area and numerous areas east of Brady, Texas.

## Safety

- *There are safety concerns due to above average crash rates on portions of the existing roadways in the study corridor.*

The evaluation of crash data for each corridor section indicated the crash rate was above the statewide average between I-20 and Balmorhea, in and east of Fort Stockton, between Iraan and Eldorado, in the Killeen-Temple area, sections between Rogers and Cameron, sections between Bryan-College Station and Madisonville, sections between Huntsville and Jasper, and near Newton.

- *There are locations on US 190 from I-10 to the Louisiana state line which do not meet current TxDOT design standards.*

There are some portions of US 190 which do not meet current design standards in regards to lane or shoulder widths. Additionally, portions of the roadway include rolling vertical alignments which result in limited sight distances. The typical section of the roadway is inconsistent throughout the corridor with regards to right-of-way (ROW) widths, whether it is divided or undivided, and varying number of lanes.

## System Connectivity

- *Portions of US 190 within the study corridor do not meet Trunk System standards.*

Portions of US 190 in the West US 190 Section and the majority of US 190 in the Central and East US 190 sections of the study area corridor are designated as part of the Texas Trunk System. Currently, approximately 98 percent of the West US 190 Section, 44 percent of the Central US 190 Section, and 68 percent of the East US 190 Section are two-lane undivided and therefore do not meet the legislated standards of Texas Trunk System (four-lane divided). The Statewide Long-Range Transportation Plan 2035 identifies US 190 as ranking 11 out of 48 non-Phase 1 Trunk Highways (“Other Trunk Highways”) with identified design criteria and capacity needs.

- *There is a potential lack of east-west emergency evacuation routes.*

The populations of the Gulf Coast region of the United States are frequently required to evacuate the region due to the danger of approaching hurricanes. Major east-west emergency evacuation routes in Texas include I-10, US 290,

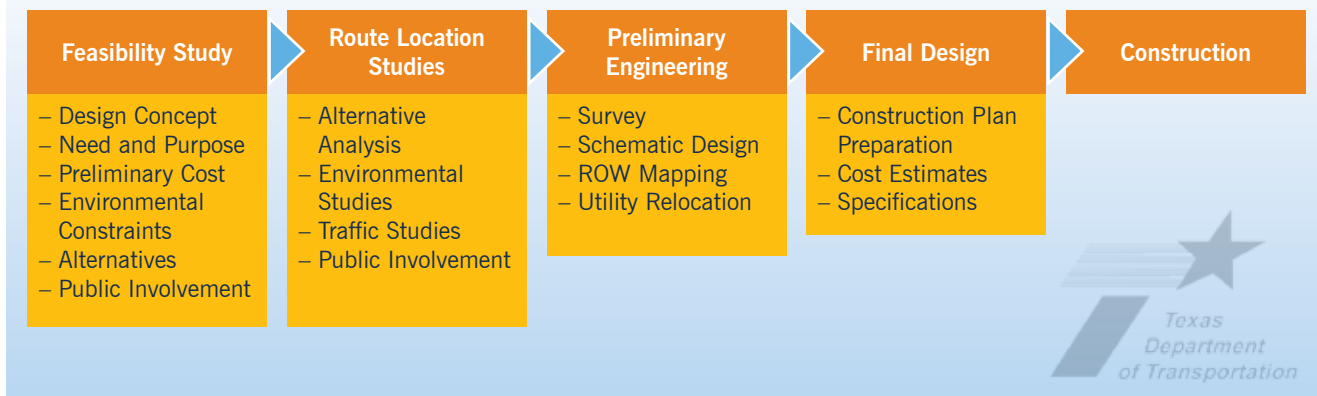


and US 79. US 290 is the only major east-west evacuation route between I-10 and US 79. The majority of the remaining east-west evacuation routes are local and occur between north-south routes. The lack of alternative east-west evacuation routes leads to heavy congestion on the existing east-west routes during emergencies which inhibits the orderly and safe evacuation of persons along the Gulf Coast. As the majority of US 190 between I-35 and the Louisiana border is a two-lane, undivided facility it cannot at present serve as an adequate evacuation route.

## 1.4 Project Development Process

This feasibility study is the first phase of TxDOT's project development process, and does not include environmental documentation, design, right-of-way (ROW) acquisition, or construction of proposed improvements. These are all future implementation activities dependent on available funding. TxDOT's project development process is shown in **Figure 1-2**.

**Figure 1-2** TxDOT's Project Development Process

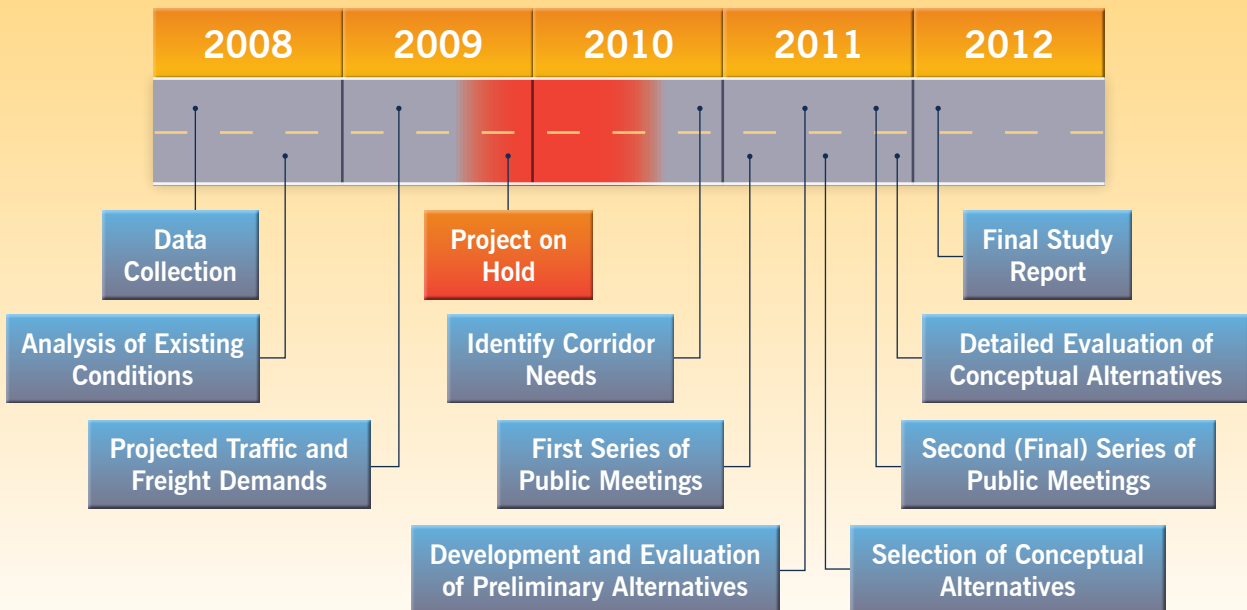


## 1.5 Study Schedule

This study began in July 2008 with an anticipated completion date of December 2009 for an overall duration of 18 months. The study was put on hold from October 2009 through September 2010 due to TxDOT budget constraints and internal deliberations regarding what transportation projects to reinstate within Texas. The study was reactivated in October 2010 and was completed in May 2012 as shown in **Figure 1-3**.



Figure 1-3 Study Schedule



## 1.6 Study Development and Coordination

This study was led by TxDOT's Transportation Planning and Programming Division, and involved coordination with TxDOT Districts traversed by the US 190/I-10 corridor. Local Outreach Groups were formed which included representatives from area metropolitan planning organizations (MPO), counties, cities, local agencies, ports, forts, railroads, and other major stakeholders. Members of the general public



*I-45 North of Huntsville*



were given opportunities to provide input throughout the study which included two series of public meetings at several locations along the study corridor. Detailed information concerning public involvement is discussed in *Chapter 2 – Public Involvement*, and details regarding meetings and discussions with the port, forts, and railroads are summarized in *Chapter 3 – Existing Conditions* and *Chapter 4 – Future Conditions*.

Coordination for this study was conducted with representatives of the nine TxDOT Districts shown in **Figure 1-4**. The District representatives are listed in **Table 1-1**. Eight project meetings were held with TxDOT over the course of the study to coincide with major project milestones. The purpose of the project meetings was to allow TxDOT representatives to provide input and comments on the direction of the study, project findings, review of study documentation, and the overall study progress.

**Figure 1-4** TxDOT Study Districts





**Table 1-1 TxDOT Study Division/Districts and Representatives**

<b>TxDOT Transportation Planning and Programming</b> Ms. Peggy Thurin, P.E., <i>Project Manager, Statewide Planning Coordinator</i>		
<b>TxDOT Rail Division</b> Mr. Orlando Jamandre, <i>Rail Specialist</i>		
<b>Austin District</b> Mr. Joseph Carrizales, P.E. <i>Advanced Project Development Engineer</i>	<b>Bryan District</b> Mr. Bob Appleton, P. E. <i>Director of Transportation Planning and Development</i>	<b>Odessa District</b> Mr. Matt Carr, P.E., <i>District Planning Engineer</i>
<b>Beaumont District</b> Mr. Phillip Lujan, P.E. <i>Director of Transportation Planning and Development</i>	<b>El Paso District</b> Mr. Eduardo Calvo <i>Director of Transportation Planning and Development</i>	<b>San Angelo District</b> Mr. John DeWitt, P.E. <i>Director of Transportation Planning and Development</i>
<b>Brownwood District</b> Mr. Elias Rmeli, P.E. <i>Director of Transportation Planning and Development</i>	<b>Lufkin District</b> Mr. Kevin Harbuck, P.E. <i>Area Engineer</i>	<b>Waco District</b> Mr. Kevin Dickey, P.E. <i>Transportation Engineering Supervisor</i>

## 1.7 Study Technical Memoranda

This Study Report for the US 190/I-10 Feasibility Study summarizes the detailed and technical information that was documented in the interim technical memoranda prepared at the completion of major project milestones. Technical memoranda previously prepared for this Feasibility Study include:

- **Technical Memorandum No. 1: *Need and Purpose Statement (2012)*** – evolving document initially prepared in 2008, and finalized in 2012 that presented existing and future conditions and the need for improvements along the study corridor.
- **Technical Memorandum No. 2: *Existing Conditions (2009)*** – presented existing transportation, rail, environmental, and socioeconomic conditions along the US 190/I-10 corridor (Volume I). Roadway inventory mapping (Volume II), and GISST environmental constraints mapping (Volume III) were also prepared.
- **Technical Memorandum No. 3: *Traffic/Freight Forecasts (2009)*** – discussed forecasts and trends for traffic and freight.
- **Technical Memorandum No. 4: *Selection of Conceptual Alternatives (2011)*** – presented the development of Preliminary Alternatives, initial screening analysis, and the selection of Conceptual Alternatives to be studied in more detail.
- **Technical Memorandum No. 5: *Detailed Evaluation of Conceptual Alternatives (2012)*** – discussed the comparison of crash history, traffic



counts, and socioeconomic inputs between years 2008 and 2011, freight characteristics, and the detailed evaluation of Conceptual Alternatives.

- **Technical Memorandum No. 6: *Transportation Improvement Strategies (2012)*** – identified potential local transportation improvements (safety, passing lanes, intersection, etc.) and prioritized them into near to mid-term and long-term projects.
- **Technical Memorandum No. 7: *Finance Plan and Institutional Issues (2012)*** – discussed funding tools and options to finance infrastructure improvements and institutional issues that are inherent with a corridor that spans across the state of Texas.
- ***Public Meeting and Local Outreach Group Summary (2012)*** – provided a summary of the first and final series of public and Local Outreach Group meetings held during the course of the study.

