TEXAS
RAIL PLAN

EXECUTIVE SUMMARY

December 2019

Texas Department of Transportation

The Texas freight and passenger rail system is a significant component of the national rail network. Rail transportation provides low-cost, high-capacity, and low environmental impact solutions for the movement of people and goods.

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BENEFITS

The Texas rail network is a valuable asset to the citizens of Texas. It is a critical component of a thriving economy, safely connecting industries, ports, people, and provides an effective alternative to highways.

The benefits of moving freight by rail include less congestion on highways, efficient fuel consumption, lower greenhouse gas emissions, and an excellent safety record. It would take 385 semi-trailer trucks to carry the same amount of cargo as a 100-car train carrying 100 tons per rail car. Benefits generated by the rail industry in Texas stem from firms providing freight and passenger transport services, as well as industries using rail freight services to transport goods. Of these activities, freight-users generate more than 99 percent of the economic impact. The economic benefits of rail to Texas are estimated using the IMPLAN economic model with input data and assumptions from freight movement data, values of commodity shipments, passenger rail operations, and visitor expenditures. IMPLAN forecasts the effects of a given industry or economic activity on the state economy in its direct form and including multiplier effects with indirect and induced impacts.

58,809 jobs, 0.4% of the 16.6 million jobs statewide

$4.6 billion earned by employees, 0.6% of the state's employment income

$7.6 billion in added value, 0.5% of the state's Gross State Product (GSP)

$14 billion in output, 0.5% of Texas's total output

$1.5 billion in tax revenues

On average, railroads are four times more fuel efficient than trucks

75% less greenhouse gas emissions, moving freight by rail instread of truck

The Texas freight and passenger rail system is a significant component of the national rail network. In 2017, Texas ranked first in the nation for number of rail miles by state with more than 10,500 miles.

State and local public entities collaborate with the private sector to carry out, administer, or assist in rail operations planning in the state. These entities include TxDOT's Rail Division, TxDOT district offices located throughout the state, local transportation authorities that manage regional commuter rail or rail transit systems, Rural Rail Transportation Districts (RRTDs), metropolitan planning organizations, and state or local public and private economic development agencies.

Employment – Economic impacts of rail amounts to 17,862 jobs of employees directly employed in the provision of rail transport services (both passenger and freight). When multiplier effects are included, the impact of rail transportation services is estimated at 58,809 jobs which represent 0.4 percent of the 16.6 million statewide employment.

Employment Income – In terms of employment income, the impact amounts to nearly $2.3 billion earned by employees directly employed in the provision of rail transportation, and $4.6 billion with multiplier effects accounting for 0.6 percent of state employment income.

Value Added – Together with multiplier effects, the value added generated by rail transportation services amounts to $7.6 billion, or 0.5 percent of the state's Gross State Product (GSP).

Output – In terms of total business output or revenue, transport service providers generated a total impact of $14 billion, or 0.5 percent of state economy.

Tax Revenue – Federal, state and local tax revenues generated by rail service providers amounted to $1.5 billion. When transportation users are included as well, the total impacts of the more broadly defined rail-related industry are even higher.

Texas freight and passenger RRTDs are formed at the county government level. Counties cited the following three motivations for the formation of RRTDs:

Rail Preservation/ Prevent Abandonment

Economic Development

Improved Passenger Rail Service

TEXAS RAIL SYSTEM

FREIGHT RAIL

Texas is served by 58 freight railroads consisting of three Class I and 55 shortline railroad rail operators. The Class I rail operators in Texas include BNSF Railway (BNSF), Kansas City Southern Railway (KCS), and Union Pacific Railroad (UP) as shown on the map. Texas' Class I railroads make significant capital investments within the state annually. UP's 2018 capital program plans for Texas called for $450 million for infrastructure projects, while BNSF's Texas program called for $375 million. KCS also makes significant capital investments in the state annually.

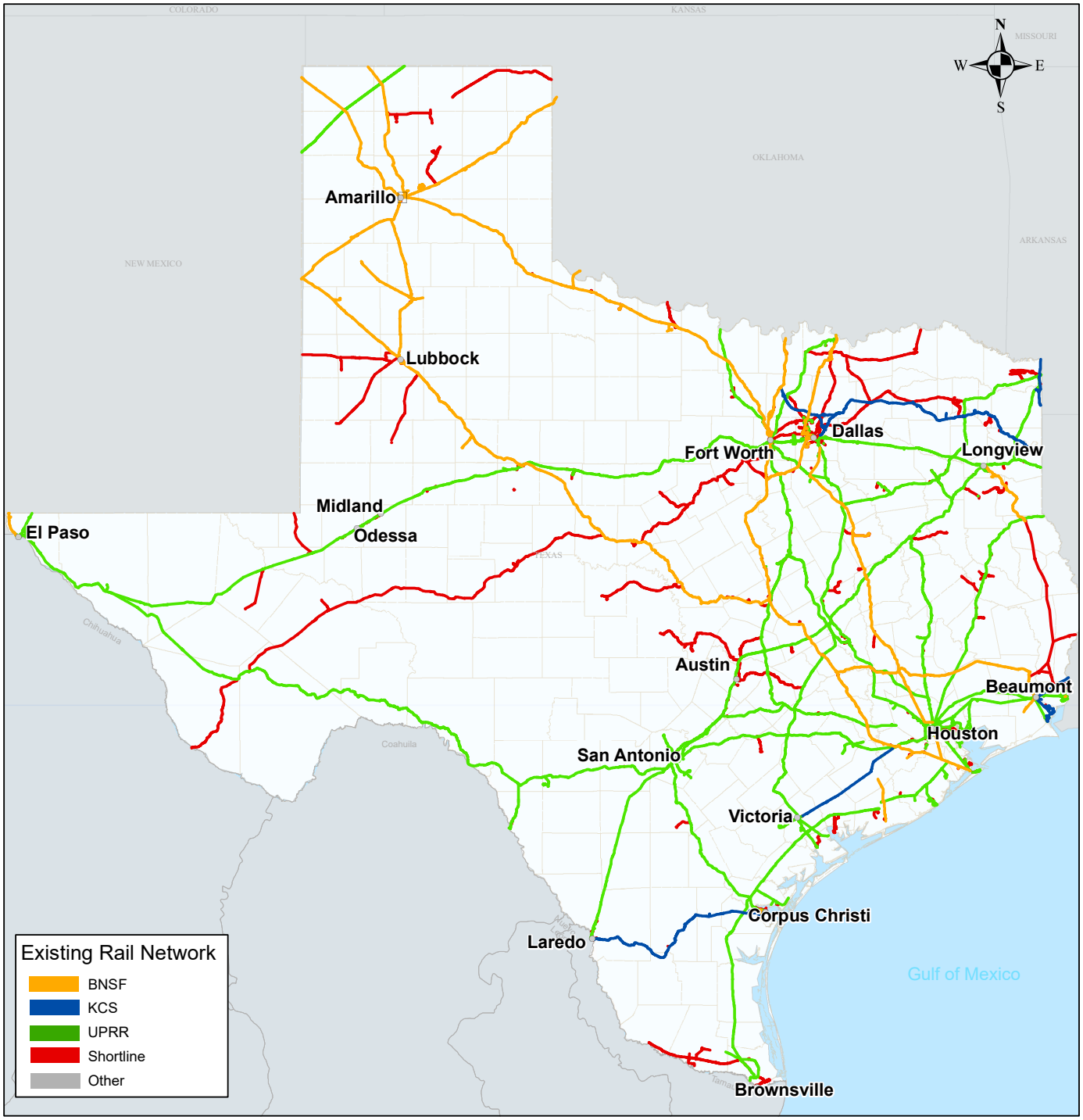
Shortline railroads provide specialized services and connect with the Class I railroads.

Texas is home to approximately 20 intermodal rail facilities, where shipping containers are transferred between trains and trucks or vessels. These facilities are concentrated mostly in the eastern portion of the state. BNSF and UP operate intermodal facilities at the Port of Houston, which is the No. 2 seaport by volume (tonnage) in the U.S.

Texas rail lines carry more than 9.9 million rail carloads annually. In addition to rail shipments between Texas and other U.S. states, Texas receives more than 750,000 rail cars across the Mexican border. In 2016, Texas railroads moved more than 400 million tons of freight.

Class I railroads own nearly 80 percent of the rail network in Texas, totaling 8,396 miles of track in 2018.

Shortline railroads own and use 2,143 miles of track, including trackage rights, which comprise about 20 percent of the state's total trackage in 2018.


COLORADO
KANSAS
MISSOURI
OKLAHOMA
ARKANSAS
NEW MEXICO
TEXAS
Chihuahua
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Lubbock
Dallas
Fort Worth
Longview
Midland
Odessa
El Paso
Austin
Beaumont
Houston
San Antonio
Victoria
Corpus Christi
Laredo
Brownsville
Gulf of Mexico
Existing Rail Network
BNSF
KCS
UPRR
Shortline
Other

TEXAS RAIL SYSTEM

PASSENGER RAIL

Intercity passenger rail service in Texas is provided by Amtrak, the National Railroad Passenger Corporation. It operates three routes as shown on the map: the Heartland Flyer, Sunset Limited, and Texas Eagle.

The Texas Eagle operates daily service between Chicago and San Antonio. At San Antonio, it connects to the Sunset Limited for continued service to Los Angeles. Twelve stations within Texas are served by this train.

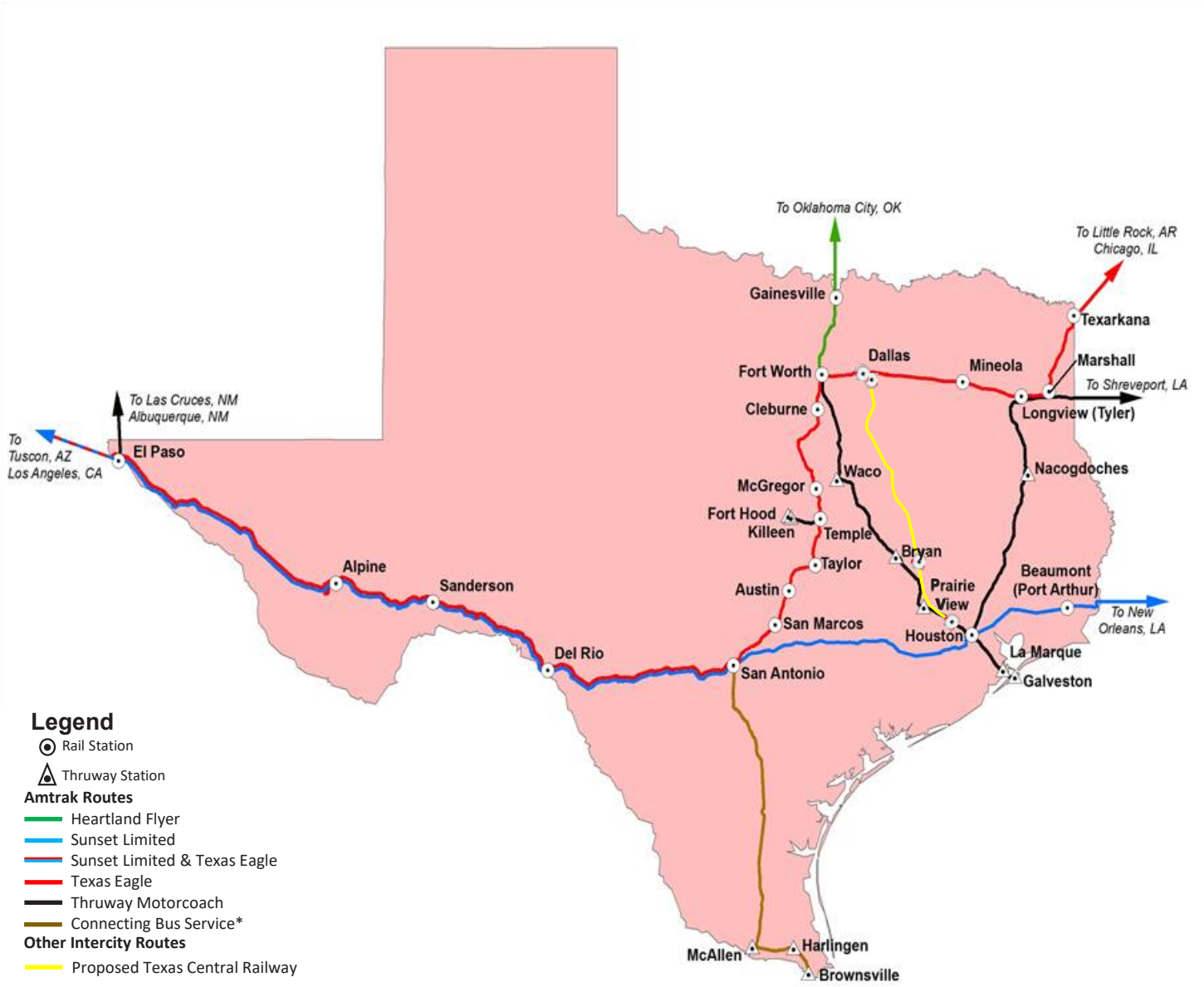
The Sunset Limited provides tri-weekly service between New Orleans and Los Angeles. Seven Texas stations are served by this train.

The Heartland Flyer is a daily passenger train that operates between Oklahoma City and Fort Worth. Two stations in Texas are served by this train. The service is operated by Amtrak under contract to the states of Texas and Oklahoma. The schedule is timed to allow transfers to the Texas Eagle in each direction.

The Texas Rail Plan also summarizes efforts underway by a private, investor-driven company called Texas Central Partners to build and operate a 240-mile-long high-speed passenger rail line between Dallas and Houston. The proposed "Texas Bullet Train" is planned to take approximately 90 minutes, with one intermediate stop in the Brazos Valley.

In addition to three intercity passenger trains, Texas has **four commuter rail operations,** three in the Dallas/Fort Worth region and one in Austin. These operations are planned, managed, and funded by local/regional transit agencies.

Texas also has **six light rail streetcar transit operations**—in Dallas, Houston, Galveston, and El Paso—and **six tourism railroads.**



Legend

Rail Station

Thruway Station

Amtrak Routes

- Heartland Flyer
- Sunset Limited
- Sunset Limited & Texas Eagle
- Texas Eagle
- Thruway Motorcoach
- Connecting Bus Service*

Other Intercity Routes

- Proposed Texas Central Railway

*Amtrak lists additional Connecting Services (bus & rail) in Dallas-Fort Worth Metroplex
Source: Spring Summer 2015 Amtrak system Timetable
Texas Central Railway Source:
Dallas to Houston High-Speed Rail Draft Environmental Impact Statement, December 2017

RECENT ACCOMPLISHMENTS AND NETWORK SIGNIFICANCE

Since the adoption of the 2016 Texas Rail Plan, completed projects and improvements to the state's rail network include the following accomplishments, which further strengthen the significance of rail in Texas.

FREIGHT

Reconstruction of the Presidio-Ojinaga Rail Bridge

This bridge is 1 of 5 rail border crossings between Texas and Mexico, and 1 of 8 between the U.S. and Mexico. Fires in 2008/09 closed the bridge to rail traffic and severely damaged the structure. Reconstruction of the bridge is scheduled for completion in 2019.

Broadway Double Track Project

Completed in 2019, this project expanded rail capacity and reduced operational constraints on a key rail link serving the Port of Houston. The project reduces train delays for three Class I railroads and alleviates one of the largest bottlenecks on the Port Terminal Railroad Association system.

SORR Train Speed Increase and Track Improvements

Freight rail operations on the South Orient Rail Line (SORR) improved in March 2019, when shortline operating railroad Texas Pacifico Transportation increased train speeds from 25 to 40 mph across 70 miles. The speed increase enhances operating efficiency and supports regional economic development.

RAIL NETWORK SIGNIFICANCE

Alleviate Highway Congestion

Texas has more of the 100 worst truck bottlenecks (13) than any other state in the U.S.

(American Transporation Research Institute, The Nation's Top Truck Bottlenecks 2019)

Texas is #1 in Exports

In 2016, Texas was ranked #1 in the nation in exports by the U.S. Census Bureau, a position the state has held for 14 consecutive years.

(Texas Freight Mobility Plan, 2017)

Economic Growth

Texas' rail network serves 2 of the 10 U.S. mega-regions where most of the nation's population growth and economic expansion is occuring—the Texas Triangle (Austin, Dallas/Fort Worth, Houston, San Antonio) and the Gulf Coast (from Texas to Florida, including Corpus Christi, Houston, and Beaumont).

(www.America2050.org)

PASSENGER

TRE Valley View Double Track Project

This project allowed Amtrak service to move off the UP main line onto the Trinity Railway Express (TRE) corridor, improving freight movement and passenger rail service between Dallas and Fort Worth.

TEXRail Communter Rail Launched

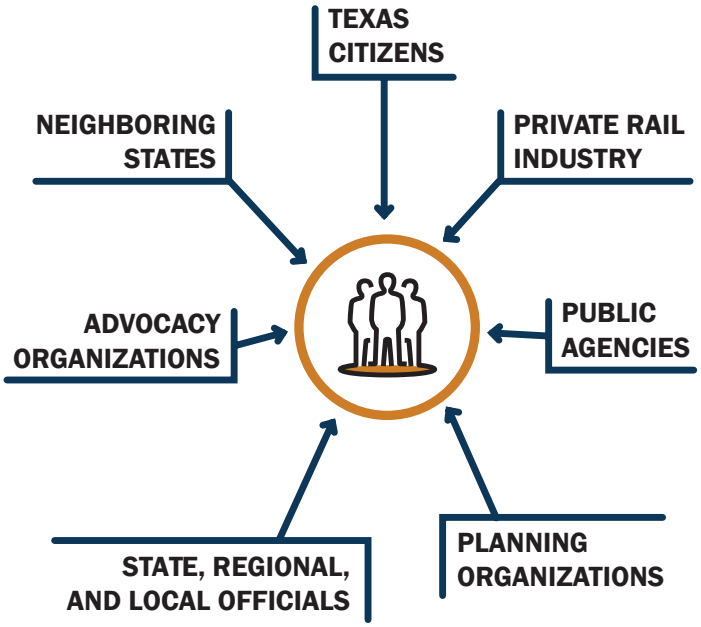
TEXRail launched in January 2019, becoming the fourth commuter rail operation in Texas. The service connects downtown Fort Worth with the DFW Airport, serving nine stations.

Increasing Demand for Public Transportation

Amtrak ridership grew in 2017, after declines in 2015 and 2016. The three Amtrak trains serving Texas carried more than 506,000 riders in 2017.

TEXAS' VISION FOR THE FUTURE

As part of the previous 2016 Texas Rail Plan and this 2019 Texas Rail Plan, TxDOT held a series of workshops and invited rail stakeholders to solicit input into the creation of a vision for Texas freight and passenger rail for the future. These rail visions were consolidated into the most essential needs and opportunities for the state with regard to its rail network, while recognizing that the private sector drives 99 percent of the investment in rail in Texas. The state of Texas does not have a constant and reliable source of funding for rail improvements. The legislature has provided a structure for financing but has not capitalized this funding source. Furthermore, there is no reliable and consistent source of funding at the federal level. Regardless of its limited role, the state can maximize the value of rail through collaboration with private and local stakeholders, and identification and support of important projects.



STATE RAIL PLAN VISION

The State of Texas will work with private rail providers to improve the efficiency and connectivity of the rail network to expand the State's economic competitiveness, improve safety and reduce congestion on our roadways. The State supports a multimodal approach to expanding transportation opportunities for the citizens of Texas.

GOALS AND OBJECTIVES

It is essential that the vision and policies advocated in individual modal plans, as well as proposed projects included in those plans, be consistent with those visions and transportation policies in other transportation plans. This 2019 Texas Rail Plan is intended to integrate with and expand upon the 2017 Texas Freight Mobility Plan and Texas Transportation Plan 2040.

GOALS	OBJECTIVES
SAFETY	Reduce rail-related fatalities and serious injuries, especially at at-grade rail crossings.
ASSET MANAGEMENT	Achieve a state of good repair of the rail assets, especially those assets owned by TxDOT.
MOBILITY AND RELIABILITY	Reduce congestion and improve rail system efficiency, capacity, and performance, including rail freight and passenger travel time reliability.
MULTIMODAL CONNECTIVITY	Provide freight and passenger choice by improving the rail system and providing intermodal and multimodal connectivity.
ECONOMIC COMPETITIVENESS	Strengthen Texas' position as a trade and logistics hub and support both existing industries and the attraction of new industries.

PLANNED IMPROVEMENTS AND INVESTMENTS

The 2019 Texas Rail Plan includes more than 200 proposed short- and long-term freight and passenger rail projects identified and described by Texas railroads, the State of Texas, and other stakeholders as part of the outreach activities conducted during the development of the recently completed Texas Freight Mobility Plan and this Texas Rail Plan. Texas' freight and passenger rail needs are dynamic and are affected by the following external factors that drive demand for services:

SHORT TERM (2019-2022)

- Funding source(s) identified
- Program size restricted by funding availability

LONG TERM (2023-2039)

- Funding source(s) not yet identified
- Further evaluation of public and private benefits may be needed

RAIL INDUSTRY DRIVERS

- Growth in Intermodal Traffic
- Changes in Energy Production: Oil, Gas and Coal
- Congestion
- Environmental
- Technology
- Demographic Changes
- Global Trade
- Changes in Rail Governance Framework
- Aging Infrastructure

PASSENGER RAIL IMPROVEMENTS AND INVESTMENTS

- Passenger rail station improvements
- Privately-funded ventures to increase intercity passenger rail service
- Continued coordination with neighboring states for state-supported intercity passenger service
- Commuter and regional passenger rail extension and improvement projects funded by local and regional public agencies

FREIGHT RAIL IMPROVEMENTS AND INVESTMENTS

- Preservation, protection, and enhancement of state-owned assets
- Track upgrades to accommodate heavier, industry standard railcars (286,000 lbs)
- Mainline capacity expansion through double tracking
- Improved rail efficiency through the construction of wye tracks
- Safety improvements for at-grade crossings
- Highway-rail grade separation projects
- Improved rail operations at the U.S.-Mexico border
- Track and bridge maintenance, Positive Train Control, and other projects funded internally by Class I railroads

PLANNED IMPROVEMENTS AND INVESTMENTS

Freight Rail Projects	Short Term (Number of projects identified in the 2019 Texas Rail Plan)	Long Term (Number of projects identified in the 2019 Texas Rail Plan)
Class I Railroad Improvements (BNSF, KCS, and UP)	23	14
Rail Intermodal/Terminal Facility Projects	5	4
Shortline Railroad Improvements	1	44
Freight Rail/Port Projects	10	14
Freight Rail/Border Crossing Projects	2	2
Highway-Rail Crossing Projects	7	28
State-Owned Rail Line Projects	-	10
Other Projects	1	-

Passenger Rail Projects	Short Term (Number of projects identified in the 2019 Texas Rail Plan)	Long Term (Number of projects identified in the 2019 Texas Rail Plan)
Privately-Funded Passenger Rail Project	1	-
Regional and Commuter Rail Projects	40	36

6780
6780
BNSF

TEXAS RAIL PLAN

ABOUT THE TEXAS RAIL PLAN

The 2019 Texas Rail Plan is a federally specified document detailing the state of the rail system in Texas and opportunities for improvement. The Texas Rail Plan sets a direction for rail planning and project development, with the intention to meet federal requirements to qualify the state for any future federal rail funding. In accordance with state law, the plan includes forecasts and potential impacts of proposed passenger rail systems.

The Texas Rail Plan supports the Texas Freight Mobility Plan and the Texas Transportation Plan 2040.

The development of this Texas Rail Plan was achieved through participation of rail stakeholders and interested agencies. TxDOT expresses its appreciation to those individuals and organizations who participated in this effort. The Texas rail system is very important to the economic vitality of the state.

CHAPTER INDEX

01 TEXAS RAIL VISION

Outlines the statewide planning context; describes how public-private collaboration can benefit the predominantly private rail network; describes how rail supports established goals and objectives for a multimodal transportation system; and summarizes recent achievements and future plans for the rail system.

02 EXISTING TEXAS RAIL SYSTEM: DESCRIPTION AND INVENTORY

Discusses the existing freight and passenger rail system, trends, and forecasts freight and passenger rail traffic.

03 POTENTIAL PASSENGER RAIL IMPROVEMENTS AND INVESTMENTS

Identifies various passenger rail projects and improvements proposed in Texas.

04 PROPOSED FREIGHT RAIL IMPROVEMENTS AND INVESTMENTS

Identifies possible future improvements and investments to address the freight rail needs of Texas.

05 TEXAS RAIL SERVICE AND INVESTMENT PROGRAM

Outlines potential short-range and long-range freight and passenger rail projects.

06 COORDINATION AND REVIEW

Contains a compendium of outreach activities that were conducted during the preparation of the Texas Rail Plan.

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