Interstate 45 (I-45), linking Galveston, Houston and Dallas is the most heavily traversed multimodal freight corridor in Texas. The highway element of the I-45 Corridor is also one of the most congested in the nation: A national study released in 2015 showed that of the top 100 freight bottlenecks in the nation, five were located on I-45. Across the entire Interstate Highway System, I-45 had more freight bottlenecks per mile than any other facility in the nation.

Last year the Federal Highway Administration (FHWA) designated I-45 as an element of the Highway Primary Freight Network (HPFN). Under the recent highway reauthorization bill passed by Congress, Fixing America’s Surface Transportation (FAST) Act, corridors on the HPFN are eligible for a five year, $6.3 billion state formula freight funding program.

The Texas Department of Transportation (TxDOT) has prepared the I-45 Freight Corridor Plan (I-45 FCP) to achieve departmental goals for supporting private sector supply chains, enhancing freight mobility, and improving the competitiveness of the Texas economy. This plan examines the multimodal freight corridor and identifies strategic actions and investments for improving the efficiency, mobility, reliability, and safety of this critical transportation corridor.

The I-45 FCP is a direct result of work done by TxDOT in preparing the Texas Freight Mobility Plan (TFMP), the state’s first statewide freight plan, which was adopted by the Texas Transportation Commission in January 2016. The TFMP established broad freight movement objectives and performance targets for the state’s freight network. Under this umbrella the I-45 FCP serves as a master plan for freight system improvements in the I-45 corridor, identifying short and long term improvement strategies, including infrastructure enhancements, operational improvements, and freight policies.
WHY IS THE I-45 FREIGHT CORRIDOR IMPORTANT?

Texans understand that a vibrant economy and quality standard of living is highly dependent upon efficient and effective transportation systems. The multimodal I-45 Freight Corridor is a key element of an integrated regional freight network of critical importance that moves massive freight volumes supporting the Texas economy and international commerce. Connecting the Houston-Galveston and Dallas-Fort Worth areas, two of the largest metropolitan areas in the nation and the two largest in the state, the corridor provides primary access for freight movement between those two major markets including the major seaports in the Houston and Galveston, and major inland ports in Dallas and Fort Worth.

The importance of the I-45 Freight Corridor to the movement of goods extends beyond Texas. Commodity flow data suggests that in 2010, 47% of the freight tonnage originating or terminating at the ports or counties within the corridor had an origin or destination outside of Texas. This percentage is forecasted to decrease to 34% in 2040.

According to the recently completed Texas Freight Mobility Plan, nearly half of all truck freight in Texas is moved through the eleven counties of the corridor. The I-45 Freight Corridor is comprised of the 276 miles of I-45, plus the multimodal networks supported by arterial highways and collector routes, the Class I Union Pacific railroad line, terminal railroads, seaports, major air cargo airports, intermodal facilities, inland ports, and associated facilities — including many industrial, warehousing, and distribution centers. Thus, the I-45 Freight Corridor is far from just a “highway.”
**FREIGHT STAKEHOLDERS: A CRITICAL CONSTITUENT ON I-45**

Freight stakeholder engagement was an essential element of the I-45 FCP that occurred throughout the project. Gathering stakeholder input began by building upon the stakeholder information gathered through the TFMP, extracting specific I-45 input gained from statewide surveys of motor carriers, shippers/receivers, and truck drivers. The study team also sought and received input from elected officials, motor carriers and railroads, truck drivers, economic development professionals, and local and regional planners along the I-45 corridor. Throughout the study meetings were held along the corridor to update stakeholders of progress and ask opinions about the study process, verify information and findings, and solicit feedback on preliminary results. Principal elements of the Stakeholder Engagement Program included:

- TFMP shipper and carrier surveys that included specific questions regarding I-45
- I-45 specific freight stakeholder interviews and surveys
- I-45 Corridor Listening Sessions in Houston, Jewett, Corsicana, and Dallas – May and June 2014
- I-45 Key Stakeholder Meetings
  - Houston and Dallas - June 2015
  - Houston and Dallas - October 2015 (expanded to include Listening Session participants)

Of particular value, was stakeholder information confirming hot spot and bottleneck locations. It was also useful to hear first-hand insights about freight movement challenges in the corridor from system users.

<table>
<thead>
<tr>
<th>Outreach Method</th>
<th>Fact-Finding and Issue Identification</th>
<th>Draft Plan Policies and Recommendations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Listening Sessions</td>
<td>Input to identify key freight needs, challenges, strengths and opportunities</td>
<td>Input on freight improvement strategies</td>
</tr>
<tr>
<td>I-45 key stakeholder meetings</td>
<td>Input on freight movement deficiencies and opportunities</td>
<td>Review and input on draft recommendations and recommendation packaging</td>
</tr>
<tr>
<td>TFMP Shipper and carrier surveys</td>
<td>Input on travel patterns, freight flows and volumes and key issues and concerns across the network</td>
<td>Data informed development of policies and recommendations</td>
</tr>
<tr>
<td>Surveys and Interviews</td>
<td>Input on information on the freight movement challenges along I-45</td>
<td>Data informed development of policies and recommendations</td>
</tr>
</tbody>
</table>
WHO IS DRIVING FREIGHT DEMAND ON THE I-45 CORRIDOR?

We all drive freight demand. Freight activity is an expression of economic vitality and quality of life. Regional populations that consume only what is produced in the regional economy are likely to be poor and have limited choices. While regional economies often produce some essential goods and services (e.g., food, clothing and shelter), consumers in more prosperous regions are more likely to demand wider choices, requiring goods and services to be imported from other regions. Regional businesses that produce more than the local population consumes export excess production to external regions creating freight activity.

I-45 IS AN IMPORTANT LINK IN SUPPLY CHAINS SUPPORTING THE TRADE ECONOMY

I-45 and parallel Class I railroads were the primary freight modes examined by the I-45 FCP. In addition to moving freight between the Houston-Galveston and Dallas regions, the corridor also carries much of Texas’ inbound marine port cargo to inland destinations in North Texas and the rest of the U.S. The I-45 Corridor, anchored by two of the fastest growing metropolitan regions in the nation, serves as the primary conduit to the Port of Houston – the second largest U.S. marine port by tonnage; and, it supports the growing inland distribution hubs around Fort Worth Alliance and South Dallas.

The I-45 Freight Corridor supports many supply chains important to the Texas economy. Five analyzed for the I-45 FCP include: automotive, beef, cotton, electronics, and gasoline. The oil and gas industry constitutes over one-third of Texas’ economy. Gasoline is the highest volume commodity moving on the I-45 corridor now and through 2040. Forecasts suggest that between now and 2040 products associated with Electrical Equipment will have the greatest tonnage increase on the corridor. Overall, commodities supporting the electronics industry are projected to increase nearly ten-fold (891 percent). Due to the time sensitivity of electronic components most of this increase in tonnage will be carried by truck. Automotive Manufacturing, another Texas growth industry is forecast to increase tonnage of automotive parts in the corridor from 277,844 tons per year to 943,462 tons by 2040, a 240 percent increase (262 percent increase by truck and 193 percent increase by rail).

Source: Texas Freight Mobility Plan, 2015
WHAT ARE THE CHALLENGES FACING THE I-45 FREIGHT CORRIDOR?

The I-45 Corridor is facing mounting pressure in terms of safety, infrastructure condition, congestion and reliability due to growing traffic in the corridor. Increasing population and expanding trade means more goods moving in the future between the essential economic network of ports, terminals, warehousing, and distribution centers in the corridor. Congestion is already an issue and future projections of traffic and freight movement shows that conditions will worsen unless an action plan is undertaken to address these challenges.

To better understand and assess the multimodal freight needs in the corridor, the plan assembled an inventory of the existing freight assets and their condition. Using this inventory, the condition and performance of key corridor assets were evaluated across four TFMP metrics: Safety, Asset Management, Mobility and Economic Competitiveness. To analyze existing conditions, and assess potential action strategies with a meaningful level of detail, the I-45 corridor was divided into the following ten segments:

<table>
<thead>
<tr>
<th>Segment</th>
<th>Segment Description</th>
<th>Length</th>
<th>Character</th>
<th>TxDOT District</th>
</tr>
</thead>
<tbody>
<tr>
<td>10</td>
<td>FM 660 to I-20 (Dallas)</td>
<td>10</td>
<td>Suburban/rural</td>
<td>Dallas</td>
</tr>
<tr>
<td>9</td>
<td>SH 31 to FM 660 (Ferris)</td>
<td>35</td>
<td>Rural</td>
<td>Dallas</td>
</tr>
<tr>
<td>8</td>
<td>US 79 to SH 31 (Corsicana)</td>
<td>53</td>
<td>Rural</td>
<td>Dallas/Bryan</td>
</tr>
<tr>
<td>7</td>
<td>SH 75/FM 1791 to US 79 (Buffalo)</td>
<td>60</td>
<td>Rural</td>
<td>Bryan</td>
</tr>
<tr>
<td>6</td>
<td>SH 242 to SH 75/FM 1791 (Huntsville)</td>
<td>39</td>
<td>Rural</td>
<td>Bryan/Houston</td>
</tr>
<tr>
<td>5</td>
<td>FM 1960 to SH 242 (Woodlands &amp; Conroe)</td>
<td>13</td>
<td>Suburban/rural</td>
<td>Houston</td>
</tr>
<tr>
<td>4</td>
<td>I-610N to FM 1960 (Houston)</td>
<td>15</td>
<td>Suburban/urban</td>
<td>Houston</td>
</tr>
<tr>
<td>3</td>
<td>I-10 to I-610N (Houston)</td>
<td>3</td>
<td>Urban</td>
<td>Houston</td>
</tr>
<tr>
<td>2</td>
<td>I-610S to I-10 (Houston)</td>
<td>8</td>
<td>Urban</td>
<td>Houston</td>
</tr>
<tr>
<td>1</td>
<td>Galveston (SH 87 to I-610S)</td>
<td>40</td>
<td>Suburban/urban</td>
<td>Houston</td>
</tr>
</tbody>
</table>

Notes: FM = Farm to Market Route; SH = State Highway

SAFETY

Safety performance in the I-45 Corridor was evaluated using two crash metrics: 1) All commercial motor vehicle (CMV) crashes per million vehicle miles of travel (MVMT), 2) Fatal CMV crashes per MVMT. When applied to each segment of the corridor, segments 2 through 9 performed ‘very good.’ Segment 1 between Galveston and Houston performed ‘fair’ while segment 10 in Dallas performed “poor.”

Source: The Port of Houston Authority
ASSET MANAGEMENT

The I-45 FCP also evaluated conditional attributes for important infrastructure such as pavement condition, bridge condition and bridge vertical clearance. The evaluation found that mainline bridge and pavement conditions are largely in “good” or “fair” condition with only 1 percent of bridges and 4 percent of pavement miles rated as “poor” (see the top two pie charts in the Conditions Summary graphic). Federal Interstate Highway policy recommends a minimum vertical clearance for bridges of 16 feet. The TxDOT Roadway Design Manual sets a minimum standard of 16’6”. A major policy recommendation of TFMP was to raise the vertical clearance for all primary freight highways to 18’ 6”. Currently a small number of I-45 bridges do not meet the current 16’ 6” standard; 23 bridges on I-45 meet the TFMP policy target of 18’ 6”. Many of the secondary routes in the corridor do not meet the current TxDOT bridge standard (see the bottom pie charts in the following graphic).
**MOBILITY AND ECONOMIC COMPETITIVENESS**

**Frontage Roads and Interchanges**

I-45 frontage roads provide access to residential and commercial land uses and provide for local traffic circulation, often reducing the number of short trips using the I-45 main lanes. In addition to providing local access, frontage roads provide critical alternate diversion routes during temporary main line closures (e.g., crash incidents, construction, or weather). While I-45 has adjacent frontage roads along most of the roadway between Dallas and Galveston, portions of I-45 without frontage roads include downtown Houston and some short sections in more rural areas of the corridor. In a number of locations there are two-way frontage roads along only one side of I-45.

Stakeholders, asked to identify interchanges where they perceived problems with either capacity, geometry, or overall operations, called out the following I-45 interchanges:

- I-10
- I-610 North
- US 59
- SH 84 in Fairfield
- I-610 South
- I-20
- SH 75 and US 79/SH 164 in Buffalo
- SH 7 in Centerville
- FM 1394 in Richland
- US 287 and Business I-45 in Corsicana

According to the American Transportation Research Institute (ATRI), the not-for-profit research arm of the American Trucking Association, six of the top 100 freight bottlenecks in the country in 2015 are on I-45. Four of these locations were the same interchanges identified by stakeholders **(bold in the list above)**. The ATRI analysis also identifies I-45 at I-30 in Dallas, and I-45 and the Sam Houston Tollway (North) in Houston as other congested interchanges.

**Congestion**

Because congestion impacts the efficient movement of goods in the I-45 corridor, truck mobility in the corridor was investigated using Level of Service (LOS) and average truck speed. LOS is an indicator metric based on the ratio of traffic volume to highway capacity. The easiest way to think of the LOS metrics is as a report card for highway congestion. An “A” LOS means free flowing conditions with only minor traffic disruption, while an LOS of “F” suggests a severely congested facility often plagued with **stop and go** traffic. Currently much of the corridor is experiencing a LOS of F in the southern third of the corridor in the Houston region and north to Conroe. The data also shows that the percent of trucks in the traffic stream is greatest in the middle sections of the corridor, where the volumes of passenger vehicles drops in rural sections of I-45.

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**Level of Service**

![LOS Diagram](attachment:LOS.png)

<table>
<thead>
<tr>
<th>Level</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>Excellent</td>
</tr>
<tr>
<td></td>
<td>Highest quality of service. Free flow conditions with minor traffic disruptions.</td>
</tr>
<tr>
<td>B</td>
<td>Good</td>
</tr>
<tr>
<td></td>
<td>Traffic is stable and flows freely. The ability to maneuver in traffic is only slightly restricted.</td>
</tr>
<tr>
<td>C</td>
<td>Average</td>
</tr>
<tr>
<td></td>
<td>Stable traffic flow. Freedom to maneuver is noticeably restricted.</td>
</tr>
<tr>
<td>D</td>
<td>Acceptable</td>
</tr>
<tr>
<td></td>
<td>Speeds decline and density increases. Freedom to maneuver is severely limited.</td>
</tr>
<tr>
<td>E</td>
<td>Congested</td>
</tr>
<tr>
<td></td>
<td>Vehicles are closely spaced with little room to maneuver. Travel demand approaching or at roadway capacity.</td>
</tr>
<tr>
<td>F</td>
<td>Severely Congested</td>
</tr>
<tr>
<td></td>
<td>Very congested traffic with traffic jams. Travel demand exceeds roadway capacity.</td>
</tr>
</tbody>
</table>

Level: Severe Congestion

Source: [Willis Smith Associates](http://www.willis-smith.com)
Freight Forecasts

Forecasts of freight demand were developed to understand likely impacts on the corridor in the future. Over the next twenty-five years, population and employment in the I-45 corridor are expected to grow 58 percent and 79 percent, respectively. With this population and employment growth, corresponding increases in shipping of freight into the region is expected for consumer consumption, manufacturing inputs, or international imports; and shipping out of the region as international exports or manufacturing output is also expected. Exhibit 7 shows volume estimates for truck and rail modes in the corridor for 2010 and 2040. While overall tonnage in the corridor is expected to increase by 89 percent, truck tonnage in the corridor is expected to more than double, with the forecasts suggesting an increase of 130 percent, as the share of freight moving by truck in the corridor is expected to grow. Investments in rail infrastructure and improvements in rail service in the corridor, could impact these forecasts.

2010 and 2040 Truck and Rail Tonnage Volumes Moving on the I-45 Corridor

Source: TxDOT TRANSEARCH

™ data 2011
HOW CAN CHALLENGES FACING I-45 BE ADDRESSED; NOW AND IN THE FUTURE?

The I-45 FCP developed improvement scenarios with customized alternative strategies in response to the specific freight needs identified from the performance data.

Potential improvement actions and projects was developed using a three-tiered improvement framework.

- **Quick Start Projects/Strategies**: relatively quick and low cost projects addressing immediate, “hot spot” issues (less than $5 million; 1-4 years)
- **Multimodal Network Enhancements**: focus on traditional highway capital investments (up to $200 million; 5-10 years)
- **Horizon Strategies**: non-traditional projects and/or policies that due to their nature are very high cost and may require long time horizons due to regulatory hurdles, the state of technology, public acceptance, or private sector buy-in (10 or more years, or requires a legislative or law change).

Applying a Case Study Evaluation Approach

Potential improvement scenarios for the I-45 Freight Corridor were evaluated using a case study approach. For each improvement strategy, case studies were identified and reviewed to determine benefits and/or negative outcomes relative to the four identified freight performance goals. Each potential strategy was evaluated and assigned an effectiveness rating of Highly Effective, Somewhat Effective, or Not Effective for each of the four goal areas based on the case study results. A score was assigned to each goal area, by segment, based on the effectiveness of the strategy to address the need, and the performance and condition rating of the segment for that goal area.
WHAT WILL THE FUTURE OF FREIGHT MOVEMENT ON I-45 LOOK LIKE?

Recommendations of the I-45 FCP provide a master plan for implementing freight mobility improvements along the I-45 corridor. They identify policy, operational, and infrastructure investment improvement strategies to address freight needs between Galveston and Dallas in three timeframes: short-term, intermediate, and longer term. This plan will assist TxDOT in achieving the goals of supporting private sector supply chains, enhancing freight mobility, safety, efficiency, reliability, and congestion, and improving the economic competitiveness of the region and state. The actions and investments identified will help to provide efficient, reliable and safe freight transportation along the corridor while maintaining quality of life in the adjacent communities. While the TFMP has set broad freight movement objectives and performance targets for the state’s freight network, the I-45 FCP identifies and recommends improvements to address specific needs along this vital freight corridor.

TxDOT Districts along the I-45 Freight Corridor (Houston, Bryan, and Dallas) and TxDOT Administration will utilize the I-45 FCP recommendations as a guidebook for freight system improvements in the I-45 corridor. Recommended short- and long-term improvement strategies, including infrastructure enhancements, operational improvements, and freight policies, will be implemented along I-45 to create a cohesive, freight-friendly corridor. Passage of Proposition 7 by Texas voters in November of 2015 will provide additional funds for TxDOT to begin to develop the recommended strategies along the corridor. Additionally, the federal FAST Act, enacted in December of 2015, provides dedicated Federal funding for freight projects on the Highway Primary Freight Network (HPFN) which may help to advance the recommended strategies in the project development process. To prioritize the recommendations within this Plan, TxDOT should identify freight related factors within their project development and prioritization process on Freight Network highways such as I-45 to highlight freight-centric needs within the state.

RECOMMENDED IMPROVEMENT STRATEGIES

The recommended improvement strategies represent policies and programs that have the highest potential of improving freight operations along the I-45 freight corridor. Each of the recommended strategies were evaluated to determine location-specific implementation and timing based on identified needs and recognition of the planned and programmed projects within each corridor segment. In addition to the recommended strategies, the plan also identified TxDOT planned and programed projects along I-45 between its southern terminus in Galveston and I-20 in Dallas, to understand where improvements that might facilitate freight flows are already in progress. The following maps show the recommended quick start and multimodal enhancement improvement strategies as well as planned and programed projects by segment for each TxDOT district.

In addition to the strategies shown on the maps below, there are also recommended Horizon strategies which would have a corridor-wide, staged implementation. A logical sequence would be determined based on freight movements, volumes, origins, and destinations. The recommended Horizon strategies are:

- New freight movement technologies
- Conversion to "bridgeless" corridor (no bridges crossing mainlines)
- Conversion to heavy truck corridor

The implementation of these Horizon strategies would ultimately involve bundling many of the recommended Quick Start and Multimodal Network Enhancements projects and strategies, and may include other actions that have not been recommended as part of this plan.

February 2016
Segment 10 (I-20 to FM 660 in Ferris)
Programmed projects: None
Planned projects: None
Recommendations
Quick Start: CVO traveler information; ITS collision avoidance; truckload consolidation; detailed corridor safety analysis; enhanced weigh in motion monitoring; bright striping of low bridges; and public education/safety campaign
Multimodal Enhancements: Reconstruction of 9 bridges crossing the primary freight network to height clearance of 18’6”; interchange improvements at I-20; integrated corridor management; pavement rehabilitation; and roadway reconstruction

Segment 9 (FM 660 in Ferris – SH 31 in Corsicana):
Programmed projects: Widen mainline
Planned projects: None
Recommendations
Quick Start: CVO traveler information; ITS collision avoidance; truckload consolidation; detailed corridor safety analysis; enhanced weigh in motion monitoring; bright striping of low bridges; and public education/safety campaign
Multimodal Enhancements: Reconstruction of 17 bridges crossing the primary freight network to height clearance of 18’6”; interchange improvements at I-45BUS; integrated corridor management; pavement rehabilitation; and roadway reconstruction

Segment 8 – Dallas District portion (SH 31 in Corsicana – US 79 near Buffalo):
Programmed projects: Widen mainline
Planned projects: None
Recommendations:
Quick Start: CVO traveler information; ITS collision avoidance; detailed corridor safety analysis; enhanced weigh in motion monitoring; bright striping of low bridges; and public education/safety campaign
Multimodal Enhancements: Reconstruction of 6 bridges crossing the primary freight network to height clearance of 18’6”; interchange improvements at US287/FM1394/SH84; integrated corridor management; pavement rehabilitation; and roadway reconstruction
Bryan District Freight Recommendations

Segment 8 – Bryan District portion (SH 31 in Corsicana – US 79 near Buffalo):

**Programmed projects:** Seal coat

**Planned projects:** Widen mainline; rehabilitate roadway; and seal coat

**Recommendations:**

- Quick Start: CVO traveler information; ITS collision avoidance; detailed corridor safety analysis; enhanced weigh in motion monitoring; bright striping of low bridges; and public education/safety campaign

**Multimodal Enhancements:** Reconstruction of 9 bridges crossing the primary freight network to height clearance of 18’6”; interchange improvements at US287/FM1394/SH84; integrated corridor management; pavement rehabilitation; and roadway reconstruction

Segment 7 (US 79 near Buffalo – SH 75 in Huntsville):

**Programmed projects:** None

**Planned projects:** Widen mainline and pavement overlay

**Recommendations:**

- Quick Start: CVO traveler information; ITS collision avoidance; detailed corridor safety analysis; enhanced weigh in motion monitoring; bright striping of low bridges; and public education/safety campaign

**Multimodal Enhancements:** Reconstruction of 10 bridges crossing the primary freight network to height clearance of 18’6”; interchange improvements at US287/FM1394/SH84; and integrated corridor management

Segment 6 – Bryan District portion (SH 75 in Huntsville – SH 242 south of Conroe):

**Programmed projects:** None

**Planned projects:** Widen mainline

**Recommendations:**

- Quick Start: CVO traveler information; ITS collision avoidance; detailed corridor safety analysis; enhanced weigh in motion monitoring; bright striping of low bridges; and public education/safety campaign

**Multimodal Enhancements:** Reconstruction of 9 bridges crossing the primary freight network to height clearance of 18’6” and 1 bridge crossing the secondary network to a height clearance of 16’6”; interchange improvements at US287/FM1394/SH84; integrated corridor management; variable pricing HOV; and add general purpose lanes/capacity
Segment 6 – Houston District portion (SH 75 in Huntsville – SH 242 south of Conroe):  
**Programmed projects:** Construct park and ride lot and create 2 managed lanes  
**Planned projects:** Widen mainline; construct northbound frontage road; ramp modifications; and add auxiliary lanes  
**Recommendations:**  
**Quick Start:** CVO traveler information; ITS collision avoidance; detailed corridor safety analysis; enhanced weigh in motion monitoring; bright striping of low bridges; and public education/safety campaign  
**Multimodal Enhancements:** Reconstruction of 8 bridges crossing the primary freight network to height clearance of 18’6”; interchange improvements at US287/FM1394/SH84; integrated corridor management; variable pricing HOV; and add general purpose lanes/capacity

Segment 5 (SH 242 south of Conroe - FM 1960):  
**Programmed projects:** Create 2 managed lanes  
**Planned projects:** Ramp modifications and add auxiliary lanes  
**Recommendations:**  
**Quick Start:** CVO traveler information; ITS collision avoidance; detailed corridor safety analysis; enhanced weigh in motion monitoring; bright striping of low bridges; and public education/safety campaign  
**Multimodal Enhancements:** Increase 8 bridges to crossing the primary freight network height clearance of 18’6”; integrated corridor management; variable pricing HOV; and add general purpose lanes/capacity

Segment 4 (FM 1960 – I-610N):  
**Programmed projects:** Create 2 managed lanes; high mast illumination; transportation system management; and reconstruct frontage roads  
**Planned projects:** Widen mainline and frontage roads; add managed lanes express lanes or HOV lanes; and reconfigure interchanges  
**Recommendations:**  
**Quick Start:** CVO traveler information; ITS collision avoidance; truckload consolidation; detailed corridor safety analysis; enhanced weigh in motion monitoring; bright striping of low bridges; and public education/safety campaign  
**Multimodal Enhancements:** Reconstruction of 15 bridges crossing the primary freight network to height clearance of 18’6”; bridge rehabilitation/replacement/reconstruction; interchange improvements at 610N; BW 8; integrated corridor management; variable pricing HOV; and add general purpose lanes/capacity
Segment 3 (I-610N – I-10):
Programmed projects: High mast illumination; transportation system management; and reconstruct frontage roads
Planned projects: Widen mainline and frontage roads; reconfigure interchanges; and add managed lanes, express lanes, or HOV lanes
Recommendations:
Quick Start: CVO traveler information, ITS collision avoidance, truckload consolidation, detailed corridor safety analysis, enhanced weigh in motion monitoring, bright striping of low bridges, public education/safety campaign, and restricted truck lanes
Multimodal Enhancements: Reconstruction of 6 bridges crossing the primary freight network to height clearance of 18’6”, interchange improvements at I-10, US 59, integrated corridor management, variable pricing HOV, pavement rehabilitation, roadway reconstruction, and add general purpose lanes/capacity

Segment 2 (I-10 – I-610S):
Programmed projects: High mast illumination; transportation system management; reconstruct frontage roads
Planned projects: Widen mainline and frontage roads; reconfigure interchanges; and add managed lanes express lanes or HOV lanes
Recommendations:
Quick Start: CVO traveler information; ITS collision avoidance; truckload consolidation; detailed corridor safety analysis; enhanced WIM weigh in motion monitoring; bright striping of low bridges; public education/safety campaign; and restricted truck lanes
Multimodal Enhancements: Reconstruction of 18 bridges crossing the primary freight network to height clearance of 18’6” and 3 bridges crossing the secondary freight network to a height clearance of 16’6”; bridge rehabilitation/replacement/reconstruction interchange improvements at I-610S; integrated corridor management; variable pricing HOV; pavement rehabilitation; roadway reconstruction; and add general purpose lanes/capacity

Segment 1 (I-610S - SH 87 in Galveston):
Programmed projects: High mast illumination; transportation system management; reconstruct frontage roads; and pavement overlay
Planned projects: Widen mainline and frontage roads; reconfigure interchanges; add managed lanes express lanes or HOV lanes; and build direct connector to Loop 197
Recommendations:
Quick Start: CVO traveler information; ITS collision avoidance; changes in port operation/off peak hours; truckload consolidation; detailed corridor safety analysis; enhanced weigh in motion monitoring; bright striping of low bridges; public education/safety campaign; and restricted truck lanes
Multimodal Enhancements: Reconstruction of 20 bridges crossing the primary freight network to height clearance of 18’6”; integrated corridor management; variable pricing HOV; pavement rehabilitation; roadway reconstruction; and add general purpose lanes/capacity
Values

**People**
People are the Department’s most important customer, asset, and resource. The well-being, safety, and quality of life for Texans and the traveling public are of the utmost concern to the Department. We focus on relationship building, customer service, and partnerships.

**Accountability**
We accept responsibility for our actions and promote open communication and transparency at all times.

**Trust**
We strive to earn and maintain confidence through reliable and ethical decision-making.

**Honesty**
We conduct ourselves with the highest degree of integrity, respect, and truthfulness.

Vision

A forward-thinking leader delivering mobility, enabling economic opportunity, and enhancing quality of life for all Texans.

Mission

Work with others to provide safe and reliable transportation solutions for Texas.