TEXAS FREIGHT MOBILITY
PLAN 2017
Texas Transportation Commission
Overview of the Texas Freight Mobility Plan

2016 Plan
First multimodal freight mobility plan
Identified freight network, challenges, recommendations

WHY THE 2017 PLAN?

FAST Act Requirements

- Critical Urban Freight Corridors
- Critical Rural Freight Corridors
- 5-Year Freight Investment Plan
2017 Freight Plan Development Process

- Refresh Goals and Objectives
- Identification of Trends Affecting Texas Freight
- Analysis of Current Network Performance and Trends
- Development and Analysis of Forecasts
- Identification of Critical Urban and Rural Freight Corridors
- Identification of Texas Highway Freight Network

- Identification of High-Level Needs
- Systematic Needs Assessment on Freight Network
- Matching Needs to Projects and Funding

Freight Improvement Strategy

- Policy Recommendations
- Program Recommendations
- Project Recommendations
Freight Plan Development was Stakeholder-Informed

**TxFAC**

**KEY ROLE (Review, Revise, Approve)**

- Goals & Objectives
- Needs and Challenges
- Texas Highway Freight Network
- Critical Urban and Rural Corridors
- Performance Measures
- Project Prioritization
- Key Policies
- Final Freight Plan

**Workshops (Round 1)**

- Current Conditions
- Future Conditions
- Texas Highway Freight Network Designation

**Surveys and Interviews (March - June)**

- Modal Challenges
- Identification and Verification of Trends

**Webinars with MPOs and Districts**

- Texas Highway Freight Network Designation
- Critical Urban Freight Corridor Designation
- Verification of Data and Trends

**Workshops (Round 2)**

- Critical Rural Freight Corridors
- Needs Assessment Criteria
- Project Selection and Prioritization Criteria

**Stakeholder Meetings**

- 7 TxFAC meetings (plus one more scheduled)
- 23 stakeholder workshops in 12 cities
- 3 MPO webinars plus individual meetings
- 2 District Webinars

Meetings with railroad, ports and border regions
Coordination calls with neighboring states
The Role of Freight Transportation on the Texas Economy

Number of Jobs

- Transportation and Warehousing, 901,353, 42%
- Wholesale Trade, 222,915, 10%
- Administrative and Support and Waste Management and Remediation Services, 138,814, 6%
- Health Care and Social Assistance, 129,573, 6%
- Retail Trade, 124,396, 6%
- Finance and Insurance, 113,203, 5%
- Accommodation and Food Services, 102,394, 5%
- Professional, Scientific, and Technical Services, 86,803, 4%
- Other Services (except Public Administration), 86,282, 4%
- Real Estate and Rental and Leasing, 84,072, 4%
- Other industries, 167,609, 8%

- 2,157,415 full-time jobs
- $393.9 billion in GSP
- $49.0 billion in tax revenue
- $144.9 billion in wage income
Key Drivers of Freight Growth in Texas

**Trade and Employment**
- Key international trade markets (NAFTA)
- Panama Canal expansion
- Employment growth and industry trends

**Demographics**
- Significant population growth
- Urbanization

**Energy**
- Texas oil and gas production
- Renewable energy
- Alternative transportation fuels

**Technology**
- Intelligent Transportation Systems (ITS)
- Autonomous freight vehicles
- Alternate delivery systems
- On-demand shipping

**Business and Consumer Practices**
- Sourcing
- Advances in manufacturing
- E-commerce
Texas’ Key Freight Transportation Challenges Reaffirmed

**CAPACITY/CONGESTION**
- freight bottlenecks, congestion

**SYSTEM OPERATIONS**
- Freight network, traffic management center, technology solutions

**SAFETY**
- Driver education, truck parking, at-grade rail crossings

**CONNECTIVITY**
- Between modes, urban/rural

**ASSET MANAGEMENT**
- Maintaining and modernizing existing system

**BORDER CROSSINGS**
- Congestion, wait times, coordination

**PUBLIC AWARENESS/EDUCATION**
- Economic role of freight

**FUNDING**
- Invest in freight, long-term funding
Growing Texas Freight Volumes - 2016 and 2045

- 2.2 billion tons in 2016
- 4.0 billion tons in 2045

79% growth or an additional 1.8 billion tons of freight by 2045

Source: 2016 TRANSEARCH®, STB Waybill and USACE Data.
2016, 1.2 billion tons moved by trucks
2045, projected to double to 2.5 billion tons—an increase of 1.3 billion tons

6 of top 25 national freight bottlenecks
2016, $5 billion congestion costs to trucking
More Freight and More Congestion on Texas Highways in 2045

Truck Vehicle Miles Traveled (VMT)

- 2016 - 104 million daily truck VMT occurred on Texas roadway
- 2045 - an estimated 163 million daily truck VMT on Texas roadways – an additional 59 million VMT

Daily truck trips

- 2016 - 745,800 daily truck trips occurred on Texas roadways,
- 2045 - daily truck trips projected to almost double to 1.1 million

Intrastate truck movements

- 2016 - 806 million tons moved by truck within the state
- 2045 - truck movement within the state will more than double to 1.7 billion tons
Freight Plan Recommendations

**Policies**
- Regulatory
- Institutional

Broad policy recommendations to enhance comprehensive freight planning

**Programs**
- TxDOT internal processes
- External programs

Programs and initiatives that can be undertaken to achieve policy goals

**Projects**
- Under development
- Strategic projects

Infrastructure investments that support policy goals and improve freight movement in Texas
Freight Plan Policy Recommendations

1. Support and expand freight planning capacity and activities
2. Adopt Freight Network as a strategic framework for transportation investment decisions
3. Review and modify design guidelines on the Texas Highway Freight Network
4. Implement a comprehensive system-based approach to address freight mobility needs
5. Continue to invest in transportation strategies that promotes multimodal connectivity
6. Identify transportation strategies that enhance rural connectivity to support economic development
7. Align transportation investments the state’s economic development goals
8. Invest in transportation solutions to support Texas as a North American trade and logistics hub and gateway
9. Identify and implement strategies to improve Safety, Security and Resiliency of the Freight Transportation System
10. Continue to invest freight transportation asset management
11. Continue to be a leader in implementing freight-based technology solutions and innovation
12. Identify and adopt strategies that improve stewardship and freight project delivery
13. Invest in and facilitate international border crossing coordination strategies
14. Continue to identify and address energy sector development transportation
15. Collaborate with rail industry to identify strategies expand freight rail capacity to accommodate freight growth
16. Collaborate with Texas ports and other stakeholders to develop strategies improve maritime freight transportation
17. Integrate the needs of the Texas aviation air cargo system into the transportation investment decisions
18. Work with the Railroad Commission and other stakeholders to support strategies that expand pipeline capacity
19. Investigate additional options for funding and financing projects that impact freight movement
20. Foster institutional coordination and collaboration by coordinating with industries and international, national, state, regional and local agencies
21. Increase public awareness and education by partnering with the public and private sector stakeholders to communicate the importance of freight movement to the state’s economy and quality of life.
# Freight Program Recommendations

## Key Statewide Programs

- Multimodal freight-focused traffic management center
- Highway Freight Network Incident management program
- Highway Freight Network Operations and Technology Plan
- Freight-centric technology readiness plan and pilots
- Highway Freight–centric design standards
- Truck parking needs assessment
- Update Freight Network Resiliency Plan
- Comprehensive HazMat Transportation Plan
Texas Freight Mobility Plan Update 2017

September 28, 2017

Total of 2,424 projects costing $64 Billion
$40 billion unfunded

Multimodal Freight Project Recommendations – Currently in Plans

Number of Projects

<table>
<thead>
<tr>
<th>Mode</th>
<th>Projects</th>
<th>Percentage</th>
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<tbody>
<tr>
<td>Highway</td>
<td>2,222</td>
<td>91%</td>
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<tr>
<td>Rail</td>
<td>82</td>
<td>3%</td>
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<tr>
<td>Port</td>
<td>8</td>
<td>&lt;1%</td>
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<tr>
<td>Airport</td>
<td>20</td>
<td>1%</td>
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<tr>
<td>Border Crossing</td>
<td>92</td>
<td>4%</td>
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Cost ($millions)

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<thead>
<tr>
<th>Mode</th>
<th>Cost</th>
<th>Percentage</th>
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<tbody>
<tr>
<td>Highway</td>
<td>$61,494</td>
<td>95%</td>
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<tr>
<td>Rail</td>
<td>$896</td>
<td>1%</td>
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<tr>
<td>Port</td>
<td>$269</td>
<td>1%</td>
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<tr>
<td>Airport</td>
<td>$812</td>
<td>1%</td>
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<tr>
<td>Border Crossing</td>
<td>$1,382</td>
<td>2%</td>
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Texas Freight Mobility Plan Update 2017

September 28, 2017
### 5-Year Financially Constrained Freight Investment Plan

<table>
<thead>
<tr>
<th>Year</th>
<th>Number of Projects</th>
<th>Cost Estimate</th>
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<tbody>
<tr>
<td>2018</td>
<td>215</td>
<td>$2.2 B</td>
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<tr>
<td>2019</td>
<td>182</td>
<td>$2.3B</td>
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<tr>
<td>2020</td>
<td>101</td>
<td>$2.5B</td>
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<td>2021</td>
<td>60</td>
<td>$3.1B</td>
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<td>2022</td>
<td>52</td>
<td>$1.4B</td>
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<tr>
<td>Grand Total</td>
<td>610</td>
<td>$11.5B</td>
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#### Projects Cost by Need

- **Congestion**: 71%
- **Connectivity**: 22%
- **Asset Preservation**: 5%
- **Safety**: 1%
- **Technology**: 1%

Only 40 percent of the Highway Freight Network has a fully funded project over the next five years.
# Next Steps and Anticipated Freight Plan Completion Schedule

<table>
<thead>
<tr>
<th>Key Activities</th>
<th>Key Dates</th>
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<tbody>
<tr>
<td>30-day Public Comment Period Ends</td>
<td>October 26, 2017</td>
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<tr>
<td>Freight Advisory Committee Meeting</td>
<td>November 2, 2017</td>
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<tr>
<td>Commission Adoption of Freight Plan</td>
<td>November 16, 2017</td>
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<tr>
<td>Submission to Federal Highway Administration</td>
<td>November 17, 2017</td>
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