TEXAS FREIGHT MOBILITY PLAN UPDATE
Stakeholder Workshops, Final Round

June 2017

Workshop Agenda and Objectives

- Texas Freight Mobility Plan (TFMP) Update and Workshop overview
  - Set the context for how today’s input fits into the larger project
- The Texas Multimodal Freight Network (TMFN)
  - Provide an overview of the process, review the results and discuss the network
- Identification of bottlenecks, needs and recommendations
  - Present preliminary needs and solicit stakeholder input on existing and future needs, opportunities and recommendations for enhancing freight transportation
- Prioritizing projects
  - Present TxDOT’s process and funding projects, discuss project evaluation criteria and obtain input on how TxDOT should evaluate and prioritize freight projects and recommendations
- Open discussion and next steps
  - Provide stakeholders a final opportunity for input and a schedule for finalizing the update
The Freight Plan (adopted in January 2016) is TxDOT’s first multimodal transportation plan that focuses on freight needs:

- Identifies freight transportation challenges and outlines investment strategies needed to address them
- Provides a vision for a safe, reliable, and efficient freight transportation system
- Identifies freight transportation investments critical to Texas’ economic growth and competitiveness
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Freight Plan Update

- FAST Act Requirements
  - Data refresh and new elements
- TxDOT and TxFAC Priorities
  - Enhancements and expansions
- Update Work Plan & Outreach
  - Balance with expedited schedule

Workshop Input to freight Plan Update

**Round 1 workshops**
- Added industry to strategic supply chain
- Eliminated some criteria
- Identified critical freight corridors
- Identified factors impacting freight flows

**Used in Update of TFMP**
- Evaluated and designated new THFN
- Identified candidates for Critical Rural Freight Corridors (CRFC)
- Profiled strategic supply chains
- Generated alternative freight scenarios
Workshop Input to Freight Plan Update

Round 2 workshops

• Review Freight Network
  Identify needs and opportunities on Freight Network
• Provide input on project prioritization criteria and weighting

To be used in update of Freight Plan

• Finalize Freight Network
  Identify and screen projects and recommendations
• Develop Freight Investment Plan

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Purpose and Objective of the Network Designation Process

- Texas Multimodal Freight Network (TMFN) was a key policy outcome of the adopted Freight Plan
- The FAST Act requires designating Critical Urban Freight Corridors (CUFCs) and Critical Rural Freight Corridors (CRFCs) to become part of the National Highway Freight Network (NHFN)
- Projects on the NHFN highways are eligible for National Highway Freight Program funds and FASTLANE discretionary grants
- The THFN designation process employed an objective, data-driven process that is also stakeholder informed
- The THFN will be the basis of needs assessment, project prioritization, recommendations and implementation

Designating the Texas Multimodal Freight Network

Role
- Promotes safe and efficient freight movement statewide
- Carries the majority of the state’s freight movements
- Connects the state to domestic, international and statewide trading partners
- Supports the state’s economy and exports

Benefits
- Focuses limited funding on the network moving the majority of freight
- Preserves the freight network for the movement of freight
- Encourages private investment
**Evaluation and Designation Process**

- Develop criteria based on goals
- Develop draft THFN
- Incorporate & compare against Trunk System and existing network
- Rank facilities based on total weighted scores
- Weight criteria based on input
- Designate critical urban and rural corridors
- Draft final system for TXFAC approval
- Final Texas Highway Freight Network
Scoring the Highway Corridors

- The evaluation process scored every highway segment based on criteria measuring the role of the highway in supporting:
  - Economic competitiveness (20% of total score);
  - Goods movement (30% of total score);
  - Strategic supply chains (25% of total score); and,
  - Market access and connectivity (25% of total score)

Components of the Updated Texas Highway Freight Network

- Texas' portion of the National Highway Freight Network
- All highways scoring the average score and above in the designation process
- All highways on the Texas Trunk System
- All highways on the previously adopted freight network
The Final Texas Highway Freight Network

Previous Texas Highway Freight Network
19,205 miles

Updated Texas Highway Freight Network
21,793 miles

December 2015
May 2017

FREIGHT RAIL NETWORK

TEXAS DEPARTMENT OF TRANSPORTATION
Freight Rail Network

- All Class 1 railroads
  - BNSF Railway
  - Kansas City Southern (KCS)
  - Union Pacific (UP)
- All shortlines

PORTS AND WATERWAYS
Texas Ports and Waterways on TMFN

- Ports
  - Beaumont
  - Brownsville
  - Calhoun
  - Corpus Christi
  - Freeport
  - Galveston
  - Houston
  - Port Arthur
  - Texas City
  - Victoria
- Gulf Intracoastal Waterway
Texas Airports on the TMFN

- Airports on NMFN
  - The 6 Texas airports that rank in the FAA top 50 air cargo airports based on tonnage
- Plus Laredo because of freight importance and location
International Border Crossings on the TMFN

- 12 commercial vehicle border ports of entry
- 5 rail crossings
  - Brownsville
  - Eagle Pass
  - El Paso (2)
  - Laredo

FREIGHT NEEDS AND PROJECTS
What is the Unified Transportation Program (UTP)?

- TxDOT’s 10-year plan to **guide transportation development**
- Required by the Texas Administrative Code and approved each year by the Texas Transportation Commission (TTC)
- Organized by 12 Categories of funding, each covering a different scope of work
- Includes projects involving highways, aviation, public transportation, and state and coastal waterways
- Outlines project selection process by Category
- Requires public involvement
- It is not a budget or a guarantee that projects will/can be built.

*The UTP authorizes projects & programs for development and planning activities*
Incorporating the TFMP Update into UTP Development

- The process of updating the TFMP informs TxDOT Districts, Divisions and Administration of:
  - The national and Texas freight networks being defined;
  - The evaluation process of prioritizing projects from the freight mobility perspective; and
  - Freight-related issues that may influence UTP project prioritization and funding allocations on freight networks

- The 2018 UTP list of projects will be a key element to develop the Freight Implementation Plan (*a component of the TFMP Update*).
**Freight Highway Needs and Projects**

Identified needs and projects based on Freight Plan goals

| **Mobility and Connectivity** | • Capacity expansion  
|                              | • Lane widening or additions  
|                              | • New freeway or highway construction |

| **Safety** | • Areas where truck-related accidents are most frequent |

| **Freight Asset Utilization and Management** | • Bridges in poor condition  
|                                             | • Bridges with less than 18’6’’ vertical clearance  
|                                             | • Roadway rehabilitation |

| **Technology** | • Improved signalization  
|                | • Wireless ITS and traffic management systems  
|                | • Dynamic message signage |

**Highway Freight Network Needs Assessment**

- Level of service – measure of volume to capacity
- Congestion
- Truck travel time index
- Roadway conditions
  - Pavement conditions
  - Bridge clearance
- Truck involved crashes
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**Truck Buffer Time Index**

- **Texas Highway Freight Network Truck Travel Time Reliability**
  - 0.25
  - 0.25 - 5.00
  - 5.01 - 10.00
  - 10.01 - 15.00
  - 15.01 - 45.00

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**Bridge Needs on the Texas Highway Freight Network**

- **Bridge Condition**
  - Poor
  - Fair
  - Good
  - Excellent

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Truck Involved Crashes on the Texas Highway Freight Network

Adopted Freight Plan – Highway Projects

<table>
<thead>
<tr>
<th>Total</th>
<th>#</th>
<th>Est ($B)</th>
</tr>
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<tbody>
<tr>
<td>Total</td>
<td>878</td>
<td>$36.6</td>
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</table>

<table>
<thead>
<tr>
<th>List (1/2017)</th>
<th>#</th>
<th>Est ($B)</th>
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<tbody>
<tr>
<td>Total</td>
<td>121</td>
<td>$1.9</td>
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### Freight Plan Update – Highway Projects

<table>
<thead>
<tr>
<th>Status</th>
<th>#</th>
<th>Estimate ($B)</th>
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<tbody>
<tr>
<td>Finalizing for Construction</td>
<td>846</td>
<td>$7.43</td>
</tr>
<tr>
<td>Under Development</td>
<td>408</td>
<td>$14.95</td>
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<tr>
<td>Long Term Planning</td>
<td>53</td>
<td>$4.85</td>
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<tr>
<td><strong>Total to be Developed</strong></td>
<td><strong>1307</strong></td>
<td><strong>$27.22</strong></td>
</tr>
<tr>
<td>Construction Scheduled</td>
<td>575</td>
<td>$4.54</td>
</tr>
<tr>
<td><strong>Overall Total</strong></td>
<td><strong>1882</strong></td>
<td><strong>$31.76</strong></td>
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</table>

### Freight Plan Update – Highway Projects

<table>
<thead>
<tr>
<th>Category</th>
<th>#</th>
<th>Estimate ($M)</th>
</tr>
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<tbody>
<tr>
<td>Mobility/Connectivity</td>
<td>538</td>
<td>$24,921</td>
</tr>
<tr>
<td>Safety</td>
<td>415</td>
<td>$341</td>
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<tr>
<td>Asset Utilization and Management</td>
<td>219</td>
<td>$1,445</td>
</tr>
<tr>
<td>Bridge</td>
<td>122</td>
<td>$438</td>
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<tr>
<td>Technology</td>
<td>13</td>
<td>$80</td>
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<tr>
<td><strong>Total</strong></td>
<td><strong>1307</strong></td>
<td><strong>$27,224</strong></td>
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</table>
Air Cargo Access Needs and Projects

Proximity to airports
- Highway projects in 5 mile radius

Highway projects
- Roadway widening
- Interchange improvements
- ITS installation

Airport survey
- Major cargo airports
- Capture any ongoing or planned projects
- Specific needs

Adopted Freight Plan – Air Cargo Highway Access Projects

<table>
<thead>
<tr>
<th>Airport</th>
<th>Projects</th>
<th>Additional Needs</th>
</tr>
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<tbody>
<tr>
<td>DFW</td>
<td>8 $1,424,764</td>
<td>$ 2,794 Million</td>
</tr>
<tr>
<td>IAH</td>
<td>2 8,300</td>
<td></td>
</tr>
<tr>
<td>SAT</td>
<td>3 481,756</td>
<td></td>
</tr>
<tr>
<td>AFW</td>
<td>2 10,250</td>
<td></td>
</tr>
<tr>
<td>ELP</td>
<td>12 324,196</td>
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<tr>
<td>AUS</td>
<td>5 411,527</td>
<td></td>
</tr>
<tr>
<td>LRD</td>
<td>11 130,683</td>
<td></td>
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</tbody>
</table>

Widen US 183 bridge and install left turn lane
Loop 20/International Boulevard interchange
**Rail Need and Projects**

**Example Projects to Address Needs**

- **System capacity and operations**
  - Doubletracking
  - Line reconstruction
  - Mainline capacity

- **Intermodal and rural connectivity**
  - New facilities
  - Rehabilitations of shortlines
  - Line upgrades (weights and clearance)

- **NAFTA and Border Ports of Entry**
  - New rail bridges
  - Capacity enhancements

- **Safety/security**
  - Grade crossing elimination
  - Grade crossing technology

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**Ports and Waterways Needs**

**Example Projects to Address Needs**

- **System capacity and operations**
  - Deepening, widening and dredging
  - Terminal construction/enhancements
  - Improved access and relief routes

- **Intermodal and rural connectivity**
  - New on-dock and near-dock facilities
  - Improved access routes
  - At-grade crossing elimination

- **Connectivity to Border Ports of Entry**
  - Improved rail and road access between ports and border regions
  - Expanded warehouse and distribution networks

- **Safety/security**
  - Grade crossing elimination
  - Cargo screening technology
### Adopted Freight Plan - Number of Projects by Port

<table>
<thead>
<tr>
<th>Port</th>
<th>Count of Project</th>
</tr>
</thead>
<tbody>
<tr>
<td>Beaumont</td>
<td>32</td>
</tr>
<tr>
<td>Brownsville</td>
<td>10</td>
</tr>
<tr>
<td>Calhoun</td>
<td>5</td>
</tr>
<tr>
<td>Corpus Christi</td>
<td>7</td>
</tr>
<tr>
<td>Freeport</td>
<td>11</td>
</tr>
<tr>
<td>Galveston</td>
<td>5</td>
</tr>
<tr>
<td>Houston</td>
<td>17</td>
</tr>
<tr>
<td>Port Arthur</td>
<td>11</td>
</tr>
<tr>
<td>Victoria</td>
<td>7</td>
</tr>
<tr>
<td><strong>Grand Total</strong></td>
<td><strong>105</strong></td>
</tr>
</tbody>
</table>

Port Project Total Costs – $2,953,823

### Adopted Freight Plan - Gulf Intracoastal Waterway Projects

- **Brazos River Floodgates and Colorado River Locks Repairs and Updates**
  - 2014 GIWW Master Plan
- **Placement of revetments along placement areas**
  - 2014 GIWW Master Plan
- **New fleeting areas: Provide funding assistance for the creation of new fleeting areas that would accommodate all available barge traffic**
  - 2014 GIWW Master Plan
- **Replacement of FM 457 swing bridge (Caney Creek Bridge)**
  - 2014 GIWW Master Plan
- **Real estate options for PA86 placement area in Brazoria County**
  - 2014 GIWW Master Plan
- **Various dredging and widening navigational channel projects**
  - TxDOT Legislative Appropriations Request (2015-2016)
**International Border Crossing Needs**

**System capacity and operations**
- Last mile connection improvements
- Expanded/new commercial crossings

**Intermodal and port connectivity**
- Improved/new rail access
- Grade crossing eliminations

**Safety/security**
- Truck harmonization zones
- Cargo screening technology

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**What is Needed from Stakeholders?**

**Participant Workshop Activity**
- Review Critical Rural Freight Corridors
- Identify needs and opportunities
- Discuss potential projects from the latest UTP and other updated modal plans and studies
- Provide input on strategic and longer term freight projects
Objective

- Identify freight projects
- Develop a systematic process for evaluating and prioritizing freight recommendations that is
  - Data-driven
  - Stakeholder-informed
- Gather input from stakeholders through
  - Texas Freight Advisory Committee
  - Regional workshops
  - Metropolitan Planning Organizations (MPO) and District Engineer webinars
- Use input to finalize recommendation screening process
Freight Plan Project Identification Process

- **Needs Assessment**
  - Stakeholder Input
  - Data analysis of existing and future conditions and demand

- **Project Identification**
  - Compare existing planned projects to needs assessment
  - Develop strategic projects

- **Prioritization**
  - Develop evaluation criteria
  - Screen and evaluate projects

- **Freight Investment Plan**

Texas Freight Mobility Plan Goals

- **Goal 1: Safety** – Improve multimodal freight transportation safety.


- **Goal 3: Mobility and Reliability** – Reduce congestion and improve freight system efficiency and performance.

- **Goal 4: Multimodal Connectivity** – Provide transportation choices and improve system connectivity for all freight modes.
Texas Freight Mobility Plan Goals

- **Goal 5: Stewardship** – Manage resources responsibly and be accountable in decision-making.

- **Goal 6: Customer Service** – Understand and incorporate citizen and private freight stakeholder input in decision-making processes and be open and forthright in all agency communications.

- **Goal 7: Sustainable Funding** – Identify and sustain freight funding sources for all modes.

- **Goal 8: Economic Competitiveness** – Improve the freight network serving key exporting supply chains important to the State’s economic competitiveness, productivity and development.

Stakeholder Workshops

June 2017

Stakeholder Input - Poll on Evaluation Criteria

http://Camsys.participoll.com/
**Project Evaluation Criteria**

**Economic Competitiveness Criteria**
- Project supports growth in freight volumes for targeted supply chains
- Project supports access to Megasite or other certified development site

**Mobility and Reliability**
- Project improves facility design for more efficient freight movement
- Project improves freight travel time reliability
- Project reduces freight travel time
Project Evaluation Criteria

Multimodal Connectivity
- Project improves access to freight generator/terminal

<table>
<thead>
<tr>
<th></th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>E</th>
</tr>
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<tbody>
<tr>
<td></td>
<td>Not relevant</td>
<td>Somewhat relevant</td>
<td>Neutral</td>
<td>Relevant</td>
<td>Very relevant</td>
</tr>
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</table>

Asset Management and Utilization
- Project enhances the state of good repair on the TMFN
- Project improves facility that is structurally deficient or functionally obsolete for freight vehicles on the TMFN (vertical clearance, posted weights, etc.)
- Project encourages truck to rail diversion

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### Project Evaluation Criteria

#### Safety
- Project addresses a freight safety hotspot on TMFN
- Project enhances safety on a high volume Hazardous Material Route
- Project eliminates at-grade crossings on the TMFN

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#### Sustainable Funding
- Project has some funding from an alternative source

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<td>Relevant</td>
<td>Very relevant</td>
<td></td>
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</table>
Project Evaluation Criteria

Technology
• Project improves access to efficient real-time travel information (delays, construction schedules, incidents, truck parking, etc.) on the THFN

A B C D E
Not relevant Somewhat relevant Neutral Relevant Very relevant

Draft Project Evaluation Criteria

<table>
<thead>
<tr>
<th>Criteria</th>
<th>Goal Areas Addressed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Project supports growth in freight volumes for targeted supply chains</td>
<td>2, 3, 4, 8</td>
</tr>
<tr>
<td>Project supports access to Megasite or other certified development site</td>
<td>2, 5, 8</td>
</tr>
<tr>
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<td>2, 3, 8</td>
</tr>
<tr>
<td>Project improves freight travel time reliability</td>
<td>2, 3, 8</td>
</tr>
<tr>
<td>Project improves access to freight generator/terminal</td>
<td>2, 8</td>
</tr>
<tr>
<td>Project reduces freight travel time</td>
<td>2, 3, 8</td>
</tr>
<tr>
<td>Project enhances the state of good repair on the TMFN</td>
<td>2, 5, 8</td>
</tr>
<tr>
<td>Project improves facility that is structurally deficient or functionally obsolete for freight vehicles on the TMFN (vertical clearance, posted weights, etc.)</td>
<td>1, 2, 3, 5, 8</td>
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## Draft Project Evaluation Criteria

<table>
<thead>
<tr>
<th>Criteria</th>
<th>Goal Areas Addressed</th>
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</thead>
<tbody>
<tr>
<td>Project addresses a freight safety hotspot</td>
<td>1</td>
</tr>
<tr>
<td>Project enhances safety on a high volume Hazardous Material Route</td>
<td>1, 2</td>
</tr>
<tr>
<td>Project eliminates at-grade crossings on the TMFN</td>
<td>1, 3</td>
</tr>
<tr>
<td>Project encourage truck to rail diversion</td>
<td>1, 2, 3, 4, 8</td>
</tr>
<tr>
<td>Project has some funding from an alternative source</td>
<td>4, 7</td>
</tr>
<tr>
<td>Project improves access to efficient real-time travel information</td>
<td>2, 3</td>
</tr>
<tr>
<td>(delays, construction schedules, incidents, truck parking, etc.) on the THFN</td>
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**Stakeholder Workshops**

June 2017

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**TEXAS DEPARTMENT OF TRANSPORTATION**

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**WRAP-UP AND NEXT STEPS**
Workshop Input to Freight Plan Update

Round 2 workshops
- Review Freight Network
  - Identify needs and opportunities on Freight Network
  - Provide input on project prioritization criteria and weighting

To be used in update of Freight Plan
- Finalize Freight Network
  - Identify and screen projects and recommendations
  - Develop Freight Investment Plan

Next Steps

June
- Finalize TMFN

July
- Develop and Screen Recommendations
- Develop Freight Investment Plan

July/Aug
- Draft Updated Freight Mobility Plan

Aug/Sept
- Commission Adopts the Texas Freight Mobility Plan by Oct, 2017
- FHWA Approved the Texas Freight Mobility Plan by Dec 4, 2017

Visit Movetexasfreight.org for updates