High-Speed Rail Update

NCTCOG Public Meeting

November 13, 2018
Topics

• What is High-Speed Rail?
• What is Hyperloop?
• Dallas to Houston
• Fort Worth to Dallas
• Fort Worth to Laredo

Source: Texas Central Railway
What is High-Speed Rail?
## High-Speed Rail Definitions

<table>
<thead>
<tr>
<th>NCTCOG Terminology</th>
<th>FRA Terminology</th>
<th>Speed (mph)</th>
<th>Grade Separated?</th>
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<tbody>
<tr>
<td>Regional Rail</td>
<td>Conventional Passenger Rail (Local Rail and Amtrak)</td>
<td>&lt;79</td>
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<tr>
<td>Intercity Rail</td>
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<tr>
<td>Higher Speed (At-Grade)</td>
<td>Higher Speed Rail</td>
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<tr>
<td>High-Speed (Grade Separated)</td>
<td>High-Speed Rail</td>
<td>&gt;110</td>
<td>Yes</td>
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</table>

Sources: Federal Railroad Administration and NCTCOG
High-Speed Rail Recommendations

Corridor-specific alignment, design, and operational characteristics for the intercity passenger, regional passenger, and freight rail systems will be determined through capacity evaluation and ongoing project development. Refined rail forecasts are necessary to determine technology and alignment in future rail corridors.
High-Speed Rail

• Connected System
• “One Seat Ride”
• Three Stations
  • Fort Worth
  • Arlington
  • Dallas

Source: Getty Images
High-Speed Passenger Rail Projects

- Fort Worth to Laredo High Speed Transportation Study
- DFW Core Express Service (CES)
- Environmental Impact Statement (EIS)
- Texas Central Railway (TCR)
- Dallas-Houston Corridor

Corridor-specific alignment, design, and operational characteristics for the intercity passenger, regional passenger, and freight rail systems will be determined through capacity evaluation and ongoing project development. Refined rail forecasts are necessary to determine technology and alignment in future rail corridors.
IH 20/IH 45 Rendering

Source: Texas Central Railway
HSR in a City
Possible Station Design
Inside Stations
Xi’an to Beijing HSR

• Maximum speed: 193mph
• 713 miles
• 4 hr, 40 minutes
What is Hyperloop?
What is Hyperloop?

• New Mode of Transportation Consisting of Moving Passenger and Cargo Vehicles Through a Near-Vacuum Tube Using Electric Propulsion

• Autonomous Pod Levitates Above the Track and Glides at 700+ MPH Over Long Distances
Hyperloop Test Track
Hyperloop Test Track
Inside The Tube
Passenger Pod
Hyperloop Station Rendering

Source: AECOM
Hyperloop Station Rendering

Source: AECOM
Dallas to Houston
High-Speed Passenger Rail Projects

Dallas-Houston Corridor
Texas Central Railway (TCR)

Corridor-specific alignment, design, and operational characteristics for the intercity passenger, regional passenger, and freight rail systems will be determined through capacity evaluation and ongoing project development. Refined rail forecasts are necessary to determine technology and alignment in future rail corridors.
Dallas Area Station Study

• Station Location Identified by Texas Central Railway
• Monitoring Westward Alignment Opportunities
• Coordination Efforts
  • Texas Central Railway Project
  • City of Dallas Station Zone Assessment
  • DART
  • TxDOT
  • NCTCOG Alignment Analysis

• NCTCOG/City of Dallas Connections Analysis
Dallas to Houston

Utility Corridor Option

Potential Stations

Additional Alignment Refinement On-Going
Downtown Dallas Station
Dallas to Houston Current Activity Highlights

• Building the Project Every Day
• Working with Design/Build Partner
• Land Option Program
• Preparation for Construction Activity
• System Safety and Security
• Draft Environmental Impact Statement
  • Comments Received
  • Record of Decision Expected 1Q 2019
Fort Worth to Dallas
Corridor-specific alignment, design, and operational characteristics for the intercity passenger, regional passenger, and freight rail systems will be determined through capacity evaluation and ongoing project development. Refined rail forecasts are necessary to determine technology and alignment in future rail corridors.
Candidate Alignment Options
Arlington Station Study Results
Fort Worth Station Study Results

E. ITC – 127

G. Central Rail – 121
F. East Sundance – 115
C. Southside – 96
A. Butler – 89
D. T&P – 86
B. East Lancaster – 81
Fort Worth to Dallas Project

• **Station Area Studies**
  - Fort Worth (completed)
  - Arlington (completed)
  - Dallas (on-going)

• **NCTCOG Completed Preliminary Alignment Analysis**

• **Preparing for Consultant Procurement**
  - Federal Environmental Impact Study
  - Phase 1 – NCTCOG
  - Phase 2 – Federal Railroad Administration
  - Study will Last Approximately 36 Months
  - Goal: Attain Record of Decision from Federal Railroad Admin.
Fort Worth to Laredo
High-Speed Passenger Rail Projects

Fort Worth to Laredo
High Speed Transportation Study

Corridor-specific alignment, design, and operational characteristics for the intercity passenger, regional passenger, and freight rail systems will be determined through capacity evaluation and ongoing project development. Refined rail forecasts are necessary to determine technology and alignment in future rail corridors.
Texas-Oklahoma Passenger Rail Study

• TOPRS
• Conducted by TxDOT
• “Big-Picture” High Level Study
• 850 Mile Corridor
  Oklahoma City to Laredo
Central Section – TPRS

Recommended Route Alternatives

C4A Higher-Speed and High-Speed

C4B Higher-Speed and High-Speed

C4C Higher-Speed and High-Speed

Source: TxDOT
Fort Worth to Laredo Project

• TxDOT Completed TOPRS
  • Attained Planning Level Record of Decision from Federal Railroad Administration (FRA)
  • Used as Input into Next Study

• NCTCOG High-Speed Transportation Study
  • Revisit DFW Alignment Alternatives
  • Investigate Hyperloop Technology Applicability
  • Refine Project for Engineering Level Environmental Study
  • Coordinating with all Corridor Metropolitan Planning Organizations
  • Currently in Procurement Process
Study Corridor
# Potential Route Options

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<tr>
<th>Option 1</th>
<th>Option 2</th>
<th>Option 3</th>
<th>Option 4</th>
<th>Option 5</th>
<th>Option 6</th>
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<tbody>
<tr>
<td>Hyperloop</td>
<td>High-Speed Rail</td>
<td>Hyperloop + Regional Rail</td>
<td>High-Speed Rail + Regional Rail + Guaranteed Transit</td>
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**Notes:**

1. Regional rail and guaranteed transit would have more frequent stops.
2. Guaranteed transit would be dedicated next generation transit vehicles operating on the managed lanes on IH 35.
Questions?

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