

DFW HIGH-SPEED TRANSPORTATION CONNECTIONS STUDY

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PROJECT STATUS

Phase 1 of the alternatives analysis, and Levels 1 and 2 evaluation analysis, are now complete. Forty-three, end-to-end alignments/corridors were originally identified between Dallas and Fort Worth, all connecting the proposed Dallas high-speed rail station to Fort Worth Central Station. After rigorous investigation and analysis, the Project Team is now moving forward with ten alignments (seven on I-30 and three on SH 180) and three travel modes (high-speed rail, maglev, and hyperloop).



Criterion being used in the Level 3 evaluation analysis include:

- constructability and construction costs per mile;
- annual operations and maintenance costs per mile;
- need and cost of right-of-way;

- *environmental impacts,*
- *and technology safety and maturity of operations systems.*

GENERAL

What is the intent of the study?

The intent of the Dallas-Fort Worth High-Speed Transportation Connections study is to examine potential routes and high-speed transportation modes between Dallas and Fort Worth. This study is reviewing high-speed options in the corridor by analyzing potential routes, evaluating potential vehicles, developing operations and service plans, preparing preliminary engineering documents, and compiling environmental documentation.

Once the study is complete, will the project be constructed? When?

The goals of this 36-month study which began in May 2020 are: selecting a passenger technology; identifying two potential alignments/routes, and receiving federal environmental approval. Once the environmental approval is given, the next phases of the project (securing funding, detailed design, right-of-way acquisition, and construction) can begin.

Would this proposed project connect to other planned high-speed projects?

Yes, the proposed project would provide connectivity to planned future high-speed passenger systems connecting major metropolitan regions in Texas.

How is this different from the Dallas to Houston high-speed rail project?

Texas Central is a private entity that is planning for proposed high-speed rail between the Dallas and Houston areas. The Dallas-Fort Worth High-Speed Transportation Connections project is studying and analyzing the feasibility of high-speed technologies in the DFW area, including but not limited to high-speed rail.

Who has oversight over the project?

The North Central Texas Council of Governments (NCTCOG), in cooperation with the Federal Railroad Administration (FRA) and the Federal Transit Administration (FTA), is conducting the study for the high-speed passenger service between Downtown Dallas and Downtown Fort Worth. Once a technology is identified, the lead federal agency will be named.

What is the role of NCTCOG?

NCTCOG is involved in the deliverables that include general project management activities, such as the development of a detailed work plan, project schedule, monthly coordination meetings, compiling environmental documentation, and quality assurance and quality control. NCTCOG is also tasked with developing and implementing an agency and public involvement plan.

Are DART, Denton County Transit Authority (DCTA), Trinity Metro, and Trinity Railway Express (TRE) involved in this study?

DART, Trinity Metro, and the TRE are partners in this study as it moves forward. An overarching goal of this project is to create a seamless transportation system in which a high-speed technology travel mode connects to other transit systems to easily move people throughout the region. DCTA does not provide service within the project study area.

What is the Core Express Service project?

The Core Express Service project was a previous study conducted by the Texas Department of Transportation that only studied high-speed rail between Dallas and Fort Worth. This new study examines not only high-speed rail, but many other modes of high-speed technology, including maglev and hyperloop.

How does COVID-19 impact this project? People are not taking transit much right now.

This project is long-term and, once complete, would be used for the next 50+ years. It is anticipated to take 8+ years for the project to be ready for passenger service.

If the Dallas to Houston HSR project never happens, is this connection between Dallas and Fort Worth still viable?

Connecting the Dallas-Fort Worth High-Speed Transportation Connections project to other planned high-speed transportation projects in Texas is ideal, but the project is not reliant on others and can stand alone. Additionally, if the Dallas to Houston high-speed rail project is no longer viable, there may still be future opportunities to connect to a Fort Worth to South Texas high-speed system.

TRAFFIC RELIEF

Why is the project needed?

High-speed technologies provide a safe, reliable, and convenient alternative to driving. The Dallas-Fort Worth region has a population of 7.5 million today and is anticipated to be home to more than 11.2 million by 2045. As the region continues to grow, there is a need to implement high-speed transportation choices in North Texas. Additionally, Texas is seeing unprecedented growth. The project would offer a connection to other planned high-speed systems in Texas, eventually connecting megaregions in the Texas Triangle.

Why can't we just expand the roads/highways?

As the population in North Texas continues to grow, lane expansions will simply not keep up with demand. Because of high construction costs and a lack of available land, expanding highways between Downtown Dallas and Downtown Fort Worth is not feasible. New modes will be needed to keep the DFW region moving.

How does high-speed transportation assist with congestion management?

A high-speed transportation service would improve mobility by providing drivers with an additional choice. Congestion would be reduced by providing an alternative to driving between Downtown Dallas and Downtown Fort Worth.

TECHNOLOGY

What are the differences in the types of technology being considered?

When the study began, five different high-speed transportation modes were analyzed. A screening process removed two modes from further consideration; conventional rail which has a top speed of 80 mph and higher-speed rail with a top speed of 125 mph. Both require approximately 20 to 30 minutes between trains and do not mix cargo with passenger transport. The TRE, TEXRail and the A-Train are examples of conventional rail. Amtrak Acela, currently in use the northeast United States, is an example of higher-speed rail.

Analysis continues on the following high-speed transportation modes:

- High-speed rail – Operating on fixed schedules in Asia and Europe, high-speed passenger rail technology has a top speed of 250 mph. It requires an exclusive guideway (a track used by only one passenger rail service). High-speed rail requires generally three to 30 minutes between trains (peak headway) and does not mix cargo with passenger transport. There is a project under construction in California, from San Francisco to the Los Angeles basin.
- Magnetic Levitation or Maglev – Operating in China, Germany, Japan, and South Korea on fixed schedules, maglev passenger rail technology has a top speed of more than 300 mph. It requires an exclusive guideway (a track used by only one passenger rail service) and generally 15 to 20 minutes between trains (peak headways). It does not mix cargo with passenger transport in the same train. An additional example is under environmental study in the United States from Washington, D.C. to Baltimore, Maryland.
- Hyperloop – Although not currently operational, hyperloop passenger rail technology prototypes are currently undergoing testing. It has a top speed of more than 650 mph and requires an exclusive guideway (a track used by only one passenger rail service). Hyperloop requires generally around two minutes between trains or pods (peak headway) and is predicted to operate in an on-demand schedule. It offers the ability to carry both passengers and cargo on the same train.



Dallas and Fort Worth aren't that far apart. Can any of these technologies really get up-to-speed in that short of a distance?

The technologies are being evaluated for their performance in carrying passengers between Dallas and Fort Worth. The top speed within this distance allowed by each of these technologies is one criterion among many in the evaluation process aimed at differentiating between transportation modes.

Will it be above or below ground?

Most of the technologies being evaluated are anticipated to run above ground.

Hyperloop is a new technology with no real-world application. Isn't it risky to consider a technology like this? What if it never develops beyond testing on a test track?

Maturity of the technology is a major criterion in the evaluation process. The study team is committed to understanding the potential risks and the likelihood of encountering such issues in newer transportation modes and will use these as factors in differentiating between technologies. For example, hyperloop would not "score" as high in this area as a technology like high-speed rail, which has operated successfully in many places for decades. While it is not proven at this time, by the beginning of construction on this project, it is anticipated that hyperloop technology would likely be ready for service.

How will "on-demand" service work with hyperloop?

With peak headways (the general amount of time required between two trains or pods) as low as two minutes, hyperloop potentially allows for passengers to request transport at their convenience.

ENVIRONMENTAL AND LAND IMPACTS

How would this potential project affect the environment along the proposed route and in surrounding areas?

An Environmental Impact Statement (EIS) or Environmental Assessment (EA), in compliance with the National Environmental Policy Act (NEPA), will be conducted to assess the potential beneficials and adverse environmental impacts for each alignment studied. NCTCOG, FRA, and FTA will develop and evaluate reasonable alternatives and document these efforts following the NEPA process.

What/who determines the route/alignment?

This study will help to discover which areas will be the best routes/alignments for connecting these two major cities. NCTCOG is looking at technologies and design criteria when determining the routes to study. Additionally, public meetings encourage comments from the public, business owners, stakeholders, local governments, etc. in the study area. NCTCOG is working with FTA and FRA to recommend the best route for the environment and the study area as defined. The Regional Transportation Council (RTC), the policy-making body for the Metropolitan Planning Organization (MPO), will decide on the recommended routes with input from all listed here.

Will the study determine where stations would be located?

The beginning and end stations for the study are the Fort Worth Central Station and proposed Dallas high-speed rail terminal station. Two locations for a midpoint stop in Arlington's Entertainment District were previously identified and are being examined further. The feasibility of an alternate, intermediate station location is based on specific alignment and technology requirements.

Will the project use eminent domain to be built? If so, what is the process?

Eminent domain refers to the power of the government to take private property and use it for public use, with compensation. The Fifth Amendment provides that the government may only exercise this power if just compensation is provided to the property owners. The Texas Transportation Code allows a railroad's entry onto private property for the purpose of selecting the "most advantageous route for its railroad." The Texas Constitution in Article I, Section 17 allows for the taking of private property with adequate compensation by an entity that is granted the right of eminent domain by Texas law. If eminent domain is required in future steps following the completion of this study, federal and state laws will be followed.

How much right-of-way will be needed?

The amount of right-of-way will be determined by the specific alignment and type of technology that is used.

SAFETY AND SECURITY

How safe is high-speed transportation?

Current high-speed rail technology has been operating in other countries for many years. For example, high-speed rail in Japan has operated more than 50 years with zero fatalities. These trains use a dedicated system, meaning no other trains travel on the same tracks. And, because it never crosses a road at grade, it removes any conflict points with vehicles.

What type of security measures will the system use?

Robust security measures for the system are anticipated. High-speed rail in Japan regularly inspects the system and maintenance is performed daily. All applicable local, state, and federal safety measures will be implemented.

Will the stations include security checkpoints like an airport terminal?

Similar to airport terminals, passengers would have a security checkpoint before boarding. Current state law requires high-speed rail in Texas to coordinate with the Department of Homeland Security, the Transportation Security Administration, Texas Department of Public Safety, the Federal Bureau of Investigation, and local law enforcement. All applicable local, state, and federal safety measures will be implemented.

How early would one need to arrive before departure to go through any kind of security?

Exact timing is unclear now, but passengers would need to allow adequate time for security measures.

RIDERSHIP**What is the passenger capacity?**

The mode of transportation selected and its operating characteristics will determine the passenger capacity.

How much would it cost to ride?

Exact cost is undetermined at this time.

How often would vehicles run?

The frequency of service will be determined by the selected mode and the operator of the system. Frequency could range from once every two minutes to once an hour.

Will it be ADA accessible?

Yes, trains or any other type of vehicle used in the project will meet or exceed existing federal accessibility regulations required by the Americans with Disabilities Act.

Would vehicles operate late at night? What about weekends?

Vehicles can operate late at night as well as weekends, but potentially not as frequently depending on demand for service. Additionally, maintenance inspections may need to be completed overnight on some vehicles and the guideway/trackage.

How long would the trip take?

Trip time would vary depending on the technology, alignment, and number of intermediate stations. The goal is to provide a reliable service that takes less time to travel between Fort Worth and Dallas, which can typically take up to an hour in a car during peak periods. Technology and alignment alternatives with travel times between Dallas and Fort Worth of fewer than 22 minutes, a criterion in Level 1 Screening, are being considered.

Would there be parking lots at stations?

Yes, parking would be available at stations, similar to current park and ride transit stations. Connecting to other forms of transit and utilizing ride share are other options when traveling to and from stations. Bicycle and pedestrian accommodations will also be incorporated into station designs.

Will it connect to local modes of transportation (light-rail, bus, DFW International Airport)?

Connectivity to DFW International Airport is being considered during the study. At a minimum, bus and/or light-rail connections would be available at stations to ensure passengers are able to travel throughout the region. Travel to the airport is currently available through connections in Downtown Fort Worth and Downtown Dallas. In addition, bicycle and pedestrian accommodations will also be incorporated into station designs.

Would this project lower ridership on the DART, TEXRail and TRE?

Many persons are likely to choose this connection specifically because of its high speed connecting Downtown Dallas and Downtown Fort Worth not wanting to grapple with increasing traffic congestion and safety risks on I-30. However, ridership on other rail lines is expected to increase as more people recognize the connectivity of transit developments throughout the region.

Why not expand and improve the TRE?

This project would provide a different service to different customers in the North Central Texas region. For more detailed information on our analysis on the TRE corridor, please see our document titled, "[Trinity Railway Express \(TRE\) Corridor Evaluation Considerations.](#)"

Will this new high-speed transportation service be affordable?

Yes, as people evaluate its speed and reliability, they are expected to use the convenience of this ground-breaking option for rapid travel between the two major cities. Whether their trips would be for business or leisure, they would see the cost as reasonable because they value their time. Moreover, they would appreciate the connections this service would provide to other major urban areas in the state, such as San Antonio, Laredo, Houston and El Paso.

ECONOMY

How will the project impact the economy?

Construction of large infrastructure projects will create jobs and promote economic development near the stations. Additionally, state-of-the-art transportation options have been recognized as a differentiator for companies and employees as they consider relocating to the region.

What are the construction impacts?

Until a final route is determined and final design completed, exact impacts are unknown. As with all transportation construction projects in the DFW region, minimizing impacts to existing transportation infrastructure and the surrounding land uses and environment is essential.

Will any business be inconvenienced due to the building of this project?

During construction, efforts will be made to work with nearby businesses to avoid any major inconveniences.

Will it bring jobs to the DFW region? If so, what are the projections? What sectors can we expect to see growth in?

Jobs could be created in many sectors including construction, security, and maintenance. More economic development near stations is also expected. Growth in the technology and commercial sectors as well as mixed-use development (housing, retail, neighborhood services, and restaurants, etc.) are examples of where jobs are most likely to be created.

FUNDING

How much will it cost to build?

As part of the study, costs estimates for each technology will be determined.

Will it be publicly or privately owned?

This has not been decided at this time.

How will funding work?

Funding sources have not been identified at this time. No funding has been secured.

PUBLIC INVOLVEMENT

How can I stay informed about the study and provide input?

Project and study information is posted on the NCTCOG website at www.nctcog.org/dfw-hstcs. You may also sign up to receive updates about the study, request to receive meeting notices, and let us know your thoughts or comments regarding the project.

If only virtual meetings are offered, how do I connect if I do not have a computer or internet access?

Public meetings are currently being held virtually due to COVID-19 statewide regulations. In addition to watching public meetings online, telephone townhall meetings are scheduled. Study information can be mailed upon request. Call 817-695-9240 or go to NCTCOG's website at www.nctcog.org/dfw-hstcs to find out more.