

HASLET-FORT WORTH-SAGINAW CORRIDOR BONDS RANCH ROAD GRADE SEPARATION PROJECT

FY22 Railroad Crossing Elimination Grant Program Fort Worth, Texas

TABLE OF CONTENTS

-			
	NV E	DD	ALE

II. PROJECT SUMMARY	1
	1
IV. APPLICANT AND PROJECT ELIGIBILITY	2
V. DETAILED PROJECT DESCRIPTION	4
VI. HIGHWAY-RAIL GRADE CROSSING SAFETY INFORMATION & EDUCATION PROGRAMS	10
VII. PROJECT LOCATION	10
VIII. GRADE CROSSING INFORMATION	11
IX. EVALUATION AND SELECTION CRITERIA	12
X. SAFETY BENEFIT	
XI. DOT STRATEGIC GOALS	
XII. PROJECT IMPLEMENTATION AND MANAGEMENT	
XIII. ENVIRONMENTAL READINESS	

XIV. APPENDIX

TABLE OF CONTENTS CONTINUED

Table 1: Funding Components and Sources	2
Table 2: Population Growth in Corridor	4
Table 3: Haslet - Fort Worth - Saginaw Corridor Grade Crossings	4
Table 4: Grade Crossing Information	11
Table 5: Summary of Benefits and Costs	18
Table 6: TxDOT Discretionary Grants Awarded from 2015 to Present	20
Table 7: Potential Project Risks and Mitigation Strategies	20
Table 8: Potential Environmental Impacts	22
1	

FIGURES •

Figure 1: Bonds Ranch Road Proposed Roadway Typical Section		5
Figure 2: Project Lifecycle		5
Figure 3: Haslet - Fort Worth - Saginaw Corridor Grade Separation Locations		6
Figure 4: Bonds Ranch Road Proposed Profile		10
Figure 5: Project Location Map		
Figure 6: Highway-Rail Incidents By State, 2019-2021	12	
Figure 7: Highway-Rail Injury and Fatality Incidents By State, 2012-2021	12	
Figure 8: Flood Conditions on Bonds Ranch Road (April 2021)	16	
Figure 9: Bonds Ranch Road Flood Gage and Flashing Warning Sign Installation Pla	n 16	

APPENDIX 🔶

Appendix A: Funding Commitment Letters and Letters of Support Appendix B: Grant Agreement Attachments Appendix C: Project Information Appendix D: Benefits Cost Analysis

I. COVER PAGE O

PROJECT TITLE	HASLET-FORT WORTH- SAGINAW CORRIDOR BONDS RANCH ROAD GRADE SEPARATION PROJECT
Applicant	Texas Department of Transportation (TxDOT)
Federal Funding Requested Under this Notice of Funding Opportunity (NOFO)	\$17,187,552.80
Proposed Non-Federal Match	\$5,500,000.00 In-Kind: \$0.00
Does some or all of the proposed Non-Federal Match for the total project cost consist of preliminary engineering costs incurred before project selection? If yes, how much?	No PE and NEPA would be initiated following project selection with other funds from TxDOT.
Other Sources of Federal funding (if applicable)	Section 130 Formula Funds: \$229,167.20
Total Project Cost	\$22,916,720.00
Was a Federal Grant Application previously submitted for this Project? If yes, please specify the program, funding year, and project title of the previous application.	No
City(-ies), State(s) Where the Project is Located	Fort Worth, Tarrant County, Texas
Congressional District(s) Where the Project is Located	12th Congressional District
Is this project identified in:	
• The Freight Investment Plan component of a State freight plan, as required under Section 70202(b)(9):	Yes
 A State rail plan prepared in accordance with Chapter 227; or 	State Freight Plan: Draft Texas Freight Mobility Plan (2022).
• A State highway-rail grade crossing action plan, as required under section 11401(b) of Passenger Rail Reform and Investment Act of 2015 (title XI of P.L. 114-94).	State Crossing Action Plan: Texas Highway-Rail Grade Crossing State Action Plan (2022), through study reference.
If yes, please specify in which plans the project is currently identified and provide the identifying number if applicable.	Metroplex Freight Mobility Study (2021).
Is the Project Located in a Rural Area or on Tribal Land?	Yes: The northwest corner of the project is a designated rural area.
Is the project eligible for a funding set-aside in Section B.1? If yes, please specify which one [Planning Projects, Safety Information and Education Program, Rural or Tribal Set-Aside].	Yes: The northwest quadrant of the project is designated as rural.
If the Project is located in a Rural Area or Tribal Land, is the Project Located in a county with 20 or fewer residents per square mile, according to the most recent decennial census.	No.
U.S. DOT Crossing Number(s) (if applicable)	US DOT #020543V
Is the Project located on real property owned by someone other than the applicant? If yes, list real property owners and the nature of the property interest.	Temporary easements may be needed for construction. Any acquisitions would conform to state and federal requirements.



II. PROJECT SUMMARY O

The proposed project will build a four-lane grade separation with a bicycle track and pedestrian pathway over the BNSF Railway (BNSF) Fort Worth Subdivision creating a safe and reliable connection between the TxDOT US 287 Interchange reconstruction and Fort Worth roadway capacity improvement projects. The grade separation will eliminate an at-grade highway-rail crossing at the Bonds Ranch Road crossing (DOT #020543V) that is blocked multiple times per day due to high train volume and rail operations in the nearby BNSF Alliance Intermodal Facility and faced with closures due to flooding during heavy rain events.

Bonds Ranch Road is a rural two-lane roadway that serves approximately 17,924 vehicles per day,¹ including significant school bus traffic from seven nearby schools. Bonds Ranch Road is an east-west connector roadway to US 287 (US 81) located in a fast-growing residential area of predominately single-family housing with surrounding industrial land use in Fort Worth, Tarrant County, Texas.

East of the BNSF crossing, TxDOT is reconstructing the US 287 interchange with Bonds Ranch Road. West of crossing, the City of Fort Worth is adding capacity to Bonds Ranch Road to serve the growing population in this corridor. While the Bonds Ranch Road grade separation is a standalone project, it is a major component of a planned, sealed corridor along the BNSF Fort Worth Subdivision from Haslet to Fort Worth to Saginaw.

III. PROJECT FUNDING O

The total project cost is \$22,916,720.00. TxDOT is seeking \$17,187,552.80 in FY2022 Rail Crossing Elimination (RCE) grant funds, which represents 75.0 percent of the estimated project cost. City of Fort Worth and BNSF will provide the 24 percent match funds of \$5,500,000.00. Section 130 formula funds of \$229,167.20 will provide one percent of the project costs.

City of Fort Worth has committed a non-federal, contribution of up to \$4,000,000.00 and BNSF Railway has committed a non-federal, private sector contribution of \$1,500,000.00 to the project (24 percent of total project cost).

Funding from the identified sources will be available immediately upon award of grant funds and have no date requirements for obligation or spending.

Funding commitment letters are included in *Appendix A*. TxDOT is committed to leveraging partnerships and resources from the City of Fort Worth and BNSF, along with awarded federal funds, to deliver a high-quality project on time and on budget.

Table 1: Funding Components and Sources

TASK TASK NAME/ COMPONENT		FEDERAL CONTRIBUTION	NON-FEDERAL CONTRIBUTION	TOTAL COST	
1 Detailed Project Work Plan, Budget, and Schedule		\$73,900.00	\$23,320.00	\$97,220.00	
2	Final Design	\$1,216,000.00	\$384,000.00	\$1,600,000.00	
3 Construction		\$16,050,820.00	\$5,068,680.00	\$21,119,500.00	
4	Project Close Out	\$76,000.00	\$24,000.00	\$100,000.00	
TOTAL PF	ROJECT COST	\$17,416,720.00	\$5,500,000.00	\$22,916,720.00	
FUNDING	SOURCES				
Other Federal Funds TxDOT Rail-Highway Crossings (Section 130 Program)			\$229,167.20 \$229,167.20	1.00 percent 1.00 percent	
Federal F	unding Request Under this N	0F0	\$17,187,552.80	75.00 percent	
Non-Federal Funding / Match City of Fort Worth, Texas BNSF Railway			\$5,500,000.00 \$4,000,000.00 \$1,500,000.00	24.00 percent 17.45 percent 6.55 percent	
Portion of Non-Federal Funding from the Private Sector BNSF Railway			\$1,500,000.00 \$1,500,000.00	6.55 percent 6.55 percent	
Portion o	f Project Costs Spent in Rura	\$5,729,180.00	25.00 percent		
Pending Federal Funding Requests			\$0.00	0.00 percent	

IV. APPLICANT & PROJECT ELIGIBILITY

The applicant meets the eligibility criteria defined in the Notice of Funding Opportunity Section C(1)(a). The lead applicant for this grant is TxDOT, a unit of state government. As a State Department of Transportation, TxDOT is an eligible applicant with an extensive and successful history of delivering a sizable federal aid program, including funds administered by the Federal Railroad Administration (FRA). As detailed in the TxDOT Annual Financial Report for the Fiscal Year Ended August 31, 2021, TxDOT total revenues were \$13.2 billion with 7,490 construction projects in progress (and/or starting soon) valued at an estimated \$32.6 billion. TxDOT is a professional workforce made up of engineers, administrators, financial experts, and many others who work together to realize the TxDOT mission: **Connecting you with Texas.**

The primary contact for this application is:



Texas Department of Transportation (TxDOT) State Department of Transportation (Applicant) **Robin Ayers** Government Affairs Division, Legislative Liaison

125 E. 11th Street Austin, TX 78701-2483 512.463.8345 | robin.ayers@txdot.gov

As the lead applicant for this FRA grant, TxDOT will serve as the fiduciary recipient and grant administrator for federal funds. TxDOT will oversee and coordinate with project partners to facilitate the completion of project activities. Project partners and associated contacts include:

City of Fort Worth Transportation & Public Works Department

Kelly Porter Assistant Director, Transportation & Public Works Department 200 Texas Street Fort Worth, Texas 76102 817.392.7529 | Kelly.Porter@fortworthtexas.gov BNSF Railway Owning Railroad

Tim Huya Public Projects Liaison, Texas & Oklahoma Region 5800 Frontage Road Fort Worth, Texas 76179 817.352.2902 | Tim.Huya@bnsf.com

This project is eligible under the Notice of Funding Opportunity Section C(3)(a)(1) grade separation or closure, including through the use of a bridge, and Section C(3)(a)(3) the improvement of installation of protective devices, signals, signs, or other measures that improve safety, provided that such activities are related to a separation or relocation project described in paragraph C(3)(a)(1). The project will include eligible components for design, environmental review, construction, and construction engineering and inspection. The cost estimate and federal/non-federal funding sources are outlined in **Table 1**.

While the Bonds Ranch Road grade separation is a standalone project, it is a major component of a planned, sealed corridor along the BNSF Fort Worth Subdivision from Haslet to Fort Worth to Saginaw.



V. DETAILED PROJECT DESCRIPTION O

PROJECT BACKGROUND

The Haslet – Fort Worth – Saginaw (H-FW-S) corridor in the northwest area of the Dallas-Fort Worth Metroplex experienced unprecedented growth over the last ten years, as shown in Table 2. Spurred by the Alliance global logistics hub, distribution and logistics sector workforce expansion has created demand for housing and support services resulting in an overtaxed transportation network. The City of Fort Worth and Tarrant County are working together to respond to these demands through transportation network solutions that focus on safety and the mobility of residents, workers, and visitors to the area.

Table 2: Population Growth in Corridor

POPULATION	POPULATION, CENSUS (APRIL 1, 2010)	POPULATION, CENSUS (APRIL 1, 2020)	
Tarrant County	1,809,034	2,110,640	
City of Haslet	N/A	N/A	
City of Fort Worth	741,206	918,915	
City of Saginaw	19,806	23,890	

Source: https://www.census.gov/quickfacts/fact/table

US 287 and the BNSF Fort Worth subdivision create a spine in the center of the H-FW-S corridor. US 287 carries 53.304 vehicles per day² connecting northwest Tarrant County and the western Alliance region to downtown Fort Worth. The BNSF Fort Worth subdivision carries on average 36 trains per day serving the largest inland intermodal facility supporting commerce in Texas and the entire central US. The line also serves Amtrak's Heartland Flyer with two trains per day between Fort Worth and Oklahoma City.

There are four arterial roadways intersecting the railroad spine: Avondale Haslet Road, Blue Mound Road, Bonds Ranch Road, and Bailey Boswell Road. A future connection for Heritage Trace Parkway is under development by the City of Fort Worth. These roadways connect the housing subdivisions, schools, commercial districts, and logistics developments to the US 287 spine. But these connections are frequently disrupted at the four existing at-grade highway-rail grade crossings on the BNSF subdivision.

Regional partners, including the BNSF, have developed a plan to address the safety and delay in this corridor. The Metroplex Freight Mobility Study³ identified this corridor as a top location in the Dallas - Fort Worth (DFW) region for crossing improvements. All four existing at-grade crossings are identified as locations for grade separations. A grade separation is planned for the new crossing at Heritage Trace. The locations are listed in Table 3. As an outcome of this planning, funding for a grade separation at Avondale-Haslet Road was secured in 2021.

Table 3: Haslet - Fort Worth - Saginaw Corridor Grade Crossings

LOCATION	DOT #	STATUS
Avondale Haslet	020634B	Grade Separation Funded
Blue Mound Road	020545J	Planning
Bonds Ranch Road	020543V	RCE Application
Heritage Trace Parkway	Proposed	Planning*
Bailey Boswell Road	020542N	Planning

*The City of Fort Worth's FY22 RAISE application was not awarded.

² https://txdot.public.ms2soft.com/tcds/tsearch.asp?loc=Txdot&mod=TCDS (Count Location ID 220A8103) ³ https://www.txdot.gov/projects/projects-studies/statewide/metroplex-freight-study.html

Fort Worth has allocated city bond funds to Bonds Ranch Road for necessary roadway widening from US 287 to Wagley-Robertson Road⁴; however, the bond funding is insufficient to include a grade separation at the BNSF tracks. Expansion of US 287 to accommodate the growth in travel and added east-west traffic is under design by TxDOT. The US 287 project will require modifications at Bonds Ranch Road interchange which creates an opportunity to incorporate a grade separation of Bonds Ranch Road over the BNSF tracks.

TxDOT is seeking assistance through the RCE discretionary grant program to design, environmentally review, and construct a grade separation of Bonds Ranch Road over the BNSF tracks from US 287 to the west to tie into the City of Fort Worth's roadway expansion project. The grade separation will extend from the reconstructed interchange at US 287 to the west approximately 1,200 feet. *Figure 1* shows that the grade separation will include two eastbound and two westbound lanes, a raised center median, bicycle track, and pedestrian pathway. The project will meet required horizontal and vertical clearances over the BNSF Fort Worth Subdivision.





With systems planning and project planning complete, TxDOT is seeking FY22 RCE funding to advance the project through the Project Development, Final Design, and Construction phases, as shown in *Figure 2*. TxDOT will initiate Environmental Review and Preliminary Engineering upon project selection to advance the project schedule.



While the Bonds Ranch Road grade separation is a standalone project, *Figure 3* shows it is a major component of a greater corridor approach to improvements along the BNSF Fort Worth Subdivision. Avondale Haslet Road, approximately 1.5 miles north, is an existing at-grade rail crossing that will be grade separated through a North Central Texas Council of Governments and City of Haslet project. Grade separations at the existing highway-rail grade crossings at Blue Mound Road and Bailey Boswell Road, and a new grade separation at the proposed Heritage Trace Parkway will complete the corridor project.

Figure 3: Haslet - Fort Worth - Saginaw Corridor Grade Separation Locations



ADDITIONAL BACKGROUND ON THE CHALLENGES THE PROJECT AIMS TO ADDRESS AND THE EXPECTED OUTCOMES



SAFETY

USDOT Grade Crossing Incident reports and the TxDOT Crash Records Information System (CRIS) database were reviewed to evaluate crashes involving trains as well as other forms of crashes in the immediate area. Based on the analysis, 11 railroad-related crashes occurred in a five-year period along Bonds Ranch Road. There have been three train-vehicle crashes at the subject crossing since 1983.

The current statewide average crash rate for a two-lane rural type road is 96.14 crashes per 100 million vehicle miles. In comparison, the annual average crash rate for this roadway segment is 200.0 crashes per 100 million vehicle miles based on the five years from 2017 through 2021 - more than double the statewide average. Furthermore, when trains block the crossing that adds to the safety challenges along the roadway corridor. The high crash rate is not only attributed to the presence of trains at the crossing but also the proximity of the US 287 interchange approximately 800 feet east of the crossing. The interchange ramps create additional vehicle conflict points, especially when queuing occurs when a train is present.

Expected Outcome: The project implements countermeasures including elimination of one highway-rail grade crossing through a grade separation that will eliminate vehicle-train interactions and the crashes related to queuing and the interchange conflict points. The 11 crashes related to queues and the crossing were determined to be preventable crashes with the countermeasures applied.

TRAVEL DELAY

The existing at-grade crossing at Bonds Ranch Road experiences extensive delay when a train passes. The BNSF provided 2022 data noting that an average of 36 trains pass over this crossing every day operating at an average speed of 20 mph. This means that every train blocks the crossing for over four minutes resulting in a train present at the crossing over 10 percent of the day. Delay for roadway users will only increase with forecasted growth in train and vehicle traffic.

There are 19 blocked crossing reports logged in the USDOT Blocked Crossing database at this location. The majority of the reports note a blockage duration of 31-60 minutes indicating that trains may block the crossing for longer than four minutes calculated for a moving train. This could be a result of the train operations at the Alliance Intermodal Facility to the north of this crossing.

Expected Outcome: The grade separation project would enable vehicle traffic in the area to function without delay. This improvement is a substantial benefit to vehicular traffic reliability along the Bonds Ranch Road corridor.



CAPACITY

The current roadway section on Bonds Ranch Road is two-lane, one in each direction with no shoulders. Drainage is handled in open channels and no sidewalks or other pedestrian accommodations are provided. With traffic volumes at nearly 18,000 vehicles per day, the capacity of this roadway is constrained. Additionally, the roundabouts at the US 287 are over capacity which results in reoccurring vehicle queuing on all approaches during weekday morning and evening peak traffic times.

To address the capacity constraints, the City of Fort Worth has initiated a project to widen Bonds Ranch Road from US 287 to Wagley-Robertson Road to a four-lane divided section, with sidewalks and a separated shared-use path. TxDOT has a project to reconstruct the arterial/highway interchange of US 287/81 and Bonds Ranch Road. TxDOT's project will remove the roundabouts, widen the main-lane bridge over Bonds Ranch Road, add auxiliary turning lanes for the highway ramps, and match the City of Fort Worth proposed roadway section for Bonds Ranch Road.

The City of Fort Worth project does not have sufficient funding to grade separate the highway-rail grade crossing. Capacity constraints will still exist after these projects are built without a grade separation.

Expected Outcome: A grade separation connecting the City of Fort Worth and TxDOT projects would allow the corridor to operate at acceptable levels of service without the constraint of a blocked crossing when trains are present.

RAIL OPERATIONS

Rail operations along the BNSF Fort Worth Subdivision are greatly influenced by the Alliance Intermodal Facility to the north and the industrial area to the south in Saginaw. The Alliance Intermodal Facility is an inland intermodal facility with 1,500 containers coming in and out of the facility daily. At times, rail operations at these nearby facilities require trains to wait for extended periods to enter or move past other trains, which creates delay for roadway users.

Expected Outcome: The grade separation project would eliminate a grade crossing along the corridor removing the impact of BNSF operations on roadway users.

LIMITED ALTERNATE ROUTES FOR EMERGENCY & SCHOOL TRAFFIC

There are two fire stations west of US 287 that serve development near the Bonds Ranch Road crossing. The nearest hospital is east of US 287. Emergency services including fire, ambulance and public safety responders must traverse the crossing to access the hospital and other services in the area. There are seven schools within a two-mile radius of the Bonds Ranch Road grade crossing – four elementary, one middle and two high schools. School buses transporting students for the school day and activities make multiple trips over this crossing. Emergency responders and school buses experience delays and are exposed to risk for crashes at the crossing.

Expected Outcome: The project implements a grade separation that will ensure a safe, reliable route – without height or weight restrictions – for emergency and school traffic. The grade separation project would also reduce the use of less ideal routes, such as neighborhood streets.

page 9

FLOOD MITIGATION

The City of Fort Worth monitors stream stage and precipitation depths at 53 sites near low water locations. There is a stream gage and flashing warning sign on Bonds Ranch Road directly west of Hawks Landing. A new gage and flashing warning sign will be installed by the end of 2022 between the crossing and US 287 interchange as this location is a roadway drainage overtopping hazard.



Expected Outcome: The grade separation will be constructed to accommodate sufficient stormwater drainage and at an elevation where vehicles will not need to avoid the corridor during storm events.

MULTIMODAL ACCOMMODATIONS

There are currently no bicycle or pedestrian facilities at the Bonds Ranch Road crossing. The nearby schools and residential developments clearly demonstrate that multimodal facilities for non-motorized users are important.

Expected Outcome: The project includes an ADA-accessible sidewalk for non-motorized users to cross the rail corridor, which is a major barrier to multimodal connectivity in the greater area.

EXPECTED USERS AND BENEFICIARIES

There are multiple groups and users that would benefit from the project:

- **Traveling Public:** Nearly 18,000 vehicles currently cross this at-grade crossing every day. Eliminating the grade crossing will improve safety and reduce delay for the traveling public.
- Freight Rail: The double-track Fort Worth Subdivision is owned and operated on by the BNSF.
- **Passenger Rail:** The Heartland Flyer Amtrak passenger rail route utilizes the rail corridor approximately two times per day with service between Oklahoma City, OK to Fort Worth, TX with connecting service to other points via the Texas Eagle service.
- **Freight Industry Employees and Truck Traffic:** With its proximity to the BNSF Alliance Intermodal Facility, Fort Worth Alliance Airport, Hicks Airfield, and industries in Saginaw, the US 287 corridor is a major industrial hub within the Fort Worth region. Trucks and employees of freight industries rely on the Bonds Ranch Road for access to development.
- **Residents:** The project area is in the municipal limits for the City of Fort Worth. An estimated 10,703⁵ residents live within a two-mile radius of the project.
- Non-Motorized Users: Bicyclists and pedestrians would benefit from new multimodal facilities that provide safe access to jobs, services, and other opportunities.
- Emergency Services: Two emergency service stations are located within two miles of the project.
- Schools: Seven schools are located within two miles of the project. Employees, students, and families would benefit from reliable access to jobs and education as school attendance boundaries cover both sides of the rail corridor.

SPECIFIC PROJECT COMPONENTS AND ELEMENTS

The specific project components include elimination of the Bonds Ranch Road highway-rail grade crossing by building a grade separated bridge along Bonds Ranch Road over the BNSF tracks. The proposed project is approximately 1,100 feet in length and the bridge will span the BNSF right-of-way (ROW). The roadway ROW is approximately 120 feet wide; therefore, no additional ROW is anticipated to complete the project, but temporary easements may be acquired. A concept drawing is displayed in *Figure 1*.

The FY22 RCE Grant would be utilized for eligible design and construction activities for the Bonds Ranch Road grade separation. Construction of the grade separation project includes mobilization, utility adjustments, traffic control, and landscaping along with professional services for administration of the construction project including inspection, insurance, and testing. The proposed profile is illustrated in *Figure 4*.





PERFORMANCE MEASURES

FRA documents railroad project performance measures in Attachment 5 of the Grant Agreement (see *Appendix B*). The performance measure most relevant for this project measures the success of the project in eliminating vehicle-train interaction by constructing a grade separation and removing a highway-rail grade crossing. The project's performance – successful construction of the project – will result in the total elimination of annual vehicle crossings at the location. This is a reduction in risk for 17,924 vehicles per day after project implementation.

The project will result in the elimination of one grade crossing through grade separation.

VI. HIGHWAY-RAIL GRADE CROSSING SAFETY INFORMATION & EDUCATION PROGRAMS O

TxDOT is proud to serve as a key partner with <u>Texas Operation Lifesaver</u>. Increased awareness equates to increased safety. Education and outreach activities are vitally important at locations such as Bonds Ranch Road in Fort Worth due to the large number of slow-moving trains blocking the crossing and leading to traffic delay and safety concerns. TxDOT will continue to facilitate this information and education outreach to improve safety.

VII. PROJECT LOCATION

The Bonds Ranch Road grade separation is in the City of Fort Worth, Texas within Tarrant County. This location is served by the 16-county North Central Texas Council of Governments. According to USDOT's Rural Funding Eligibility tool, the northwest quadrant of the project location is designated as rural.⁶ The project location in relation to the State of Texas and Texas Congressional Districts is displayed in *Figure 5*. The Bonds Ranch Road Grade Separation is within Congressional District 12.

page 11

Figure 5: Project Location Map



VIII. GRADE CROSSING INFORMATION O

The proposed project is located along the BNSF Fort Worth Subdivision at the Bonds Ranch Road highway-rail grade crossing (DOT #020543V) in Fort Worth, Texas. BNSF is the primary railroad operator and Amtrak (ATK) has trackage rights at this crossing. **Table 4** shows the grade crossing information for Bonds Ranch Road.

Table -	4:	Grade	Crossing	Information
---------	----	-------	----------	-------------

	CHARACTERISTIC	BONDS RANCH ROAD		CHARACTERISTIC	BONDS RANCH ROAD
	USDOT Number	020543V		Subdivision	Fort Worth
	Milepost	358.496	F	Ownership	BNSF
WAT	Crossing Position	At Grade	RA	Trackage Rights	Amtrak
KUAD	Warning Device	Active: Flashing Lights and Gates		Tracks	2
	Lanes	2		Total Trains	36 (BNSF, 2022)
	Roadway Volume	17,924 (NCTCOG, 2019)			
	Posted Speed Limit	45 mph			

page 12

IX. EVALUATION AND SELECTION CRITERIA

The proposed project meets all evaluation and selection criteria per Section E of the NOFO.

EVALUATION CRITERIA

i. Project Benefits	ii. Technical Merit
A. Improves Safety at Grade Crossings Section IX (A)	A. Statement of Work Appendix B
B. Proposes to Grade Separate, Eliminate, or Close Section IX (F)	B. Project Readiness Section V-Project Background; Section XII & XIII
C. Improves Mobility of People and Goods Section IX (B & E)	C. Experience of Key Personnel Section XII
D. Reduces Emissions, Protects Environment, Community Benefit Section IX (D)	D. Freight Investment Plan 🛇 Cover Page
E. Improves Access to Emergency Services Section IX (D)	E. Innovation 🔗 Section IX (D & E)
F. Improves Access to Communities Section IX (C & E)	F. Rail Carrier Financial Support Section III
G. Provides Economic Benefit Section IX (B)	G. Mobility of Multiple Modes Section V-Expected Users & Beneficiaries; Section IX (A)
H. Uses Contracting Incentives to Employ Local Labor Section IX (C)	

SELECTION CRITERIA

TEXAS

CALIFORNIA

ILLINOIS

INDIANA

FLORIDA

LOUISIANA

ALABAMA

TENNESSEE

SOUTH CAROLINA MICHIGAN

NORTH CAROLINA

OHIO PENNSYLVANIA

IOWA

0

MISSISSIPPI

MISSOURI

A. SAFETY

The FRA Highway/Rail Grade Crossing Incidents Dashboard provides extensive safety data supporting investment in grade crossing safety improvements in Texas. From 2019 to 2021, Texas suffered the largest number of grade crossing incidents in the nation (*Figure 6*). From 2012 to 2021, Texas also led the nation in tragic injury and fatality crashes (*Figure 7*). Investment in this grade crossing elimination project, which was selected through a robust, data-driven prioritization process, is strongly justified with FRA and state crash data.

Figure 6: Highway-Rail Incidents by State, 2019-2021

200



Figure 7: Highway-Rail Injury and Fatality Incidents by State, 2012-2021

Source: FRA Grade Crossing Incident Database

Reduce Injury and Fatality Crashes: This project will enhance the safety of the corridor by eliminating the potential for train-vehicle interaction with a grade separated crossing. More specifically, in the last five years, one reported incident between an unoccupied automobile and a train was recorded in the USDOT Grade

Crossing Incident database. Two additional incidents occurred in 2006 and 1983. Between 2017 and 2021, the TxDOT Crash Records Information System (CRIS) database was reviewed to evaluate other crash types in the immediate area. Based on the analysis, 10 railroad-related crashes occurred in a five-year period along Bonds Ranch Road.

The current statewide average crash rate for a two-lane rural type road is 96.14 crashes per 100 million vehicle miles. In comparison, the annual average crash rate for this roadway segment is 200.0 crashes per 100 million vehicle miles based on the five years from 2017 through 2021 is more than double the statewide average. Furthermore, when trains block the crossing that adds to the safety challenges along the roadway corridor. The high crash rate is not only attributed to the presence of trains at the crossing but also the proximity of the US 287 interchange approximately 800 feet east of the crossing. The interchange ramps create additional vehicle conflict points, especially when queuing occurs when a train is present.



Reduce Exposure for Freight and Passenger Rail: The grade separation project upgrades infrastructure for a higher level of safety and will greatly enhance the safety for train employees and Amtrak passengers. All vehicle-train conflict points will be eliminated for the at-grade highway-rail grade crossing. The 36 average daily trains crossing Bonds Ranch Road would have no potential for train-vehicle incidents.

Improve Multimodal Safety: Sidewalk improvements included in the project ensure safety for all users regardless of mode of transportation. While there are currently no pedestrian accommodations at the crossing, transforming the area with pedestrian amenities will invite nearby walkable communities, encourage greater use of non-motorized modes and minimize vehicular associated crashes. New sidewalks will provide an ADA-accessible path for pedestrians and discourages trespassing along the rail corridor.

B. EQUITABLE ECONOMIC STRENGTH AND IMPROVING CORE ASSETS

Gross Domestic Product (GDP) is a measurement of the size and strength of an economy. According to 2019 GDP data from the International Monetary Fund, if Texas were a nation, it would be recognized as the ninth largest economy in the world. Strong employment and income growth forecasts rank Texas as first in the nation for its growth prospects.⁷

Investment in Infrastructure Assets: Investing in this specific highway-rail grade crossing at Bonds Ranch Road and the arterial roadway network along the BNSF Fort Worth Subdivision, including the funded grade separation at Avondale Haslet Road and planned grade separations at Blue Mound Road, Heritage Trace Parkway, and Bailey Boswell, supports the safe movement of goods throughout the region. The project would improve system reliability at the local and regional scale for vehicular and truck traffic.

More specifically, the Haslet – Fort Worth – Saginaw corridor has a strong employment sector. The industrial base includes Amazon, Coca-Cola, Excel, FedEx Freight, UPS, J.B. Hunt, Kraft, Michael's, Volkswagen, and Williamson-Dickie. Economic infrastructure assets for the region include the BNSF Alliance Intermodal Facility, Amazon Air Hub, and the Fort Worth Alliance Airport which solidify this project's importance as a link to the regional and national economy.

By 2040, Tarrant County is estimated to grow by 1.3 million people. North Fort Worth is well-positioned to capture a share of this future growth due to its proximity to these economic infrastructure assets. The

construction of a modern, grade-separated highway-rail crossing at Bonds Ranch Road will improve the safe and efficient movement of people and goods and continue to support American competitiveness.

In addition to supporting roadway functionality, this project would improve train operations near the BNSF Alliance Intermodal Facility. Centrally located in the United States, the BNSF Alliance Intermodal Facility is one of the world's premier inland ports and offers strategic multimodal transportation access between the BNSF, the Fort Worth Alliance Airport (the world's first 100 percent industrial airport), Interstate 35W from Mexico to Canada, and Amazon, FedEx and UPS ground hubs.

Fueled by the increase in online commerce, the intermodal facility has been the center of a multi-year expansion project involving more than 1,200-acres of development. Forecasted to have 1.4 million lifts per year, the new facility was designed to accommodate growth requiring the ability to rely on the rail network for efficient operations. Elimination of grade crossings will allow optimized use of the rail network.

Long-Term Job Creation and Economic Security: Reliability is critical to move people and goods safely and efficiently. This project will enable Amtrak and the BNSF to operate in a safe and efficient manner by reducing or eliminating crashes on their facilities. This strengthens the economic security within the State of Texas, helping promote long-term job creation.

The Haslet - Fort Worth – Saginaw corridor is a major freight center for the region, state and nation boasting numerous facilities that support the multimodal movement of goods by air, rail, and roadway. This project will provide a better local network for truck traffic by distributing goods across the region. Even more significantly it will ensure improved efficiency of the BNSF line that leads directly into several local freight facilities. Supply chain operations can improve with this project by preventing future delays though eliminating the potential for incidents at the grade crossing.

Supporting thousands of jobs, the Alliance global logistics hub, located approximately six miles north of the Bonds Ranch Road crossing, directly connects to the BNSF rail line and the following facilities: Alliance Airport, BNSF Alliance Intermodal Facility, and Amazon Regional Air Hub.

These facilities and their continuous operation are key to the economic success of the region and strong performance of the supply chain. In addition to those facilities, the Alliance global logistics hub is home to over 500 other companies, all of which rely on either the local road network or this BNSF rail line to ship goods to warehouses and retail spaces throughout the region, state, and nation. This project will enhance the efficiency of both the road and rail system in the City of Fort's freight quadrant.

Another significant economic center within the region is the Mercantile Center (Center) located only four miles south of the project. The Center comprises a 1,300-acre business complex housing office space, warehouse distribution centers, and tech sector operations. The Center also includes a TEXRail commuter rail station that connects directly to downtown Fort Worth and the DFW International Airport. Grade separations along this corridor will create better access to this economic center supporting its tenants and their employees.

This area of the City of Fort Worth is also home to the Meacham International Airport. It is about four miles from the project and is in one of the six opportunity zones within the City of Fort Worth. Meacham Airport is situated on 900 acres and supports nearly 100,000 operations annually. Its major activities include general aviation for non-commercial flights, military use, and it also has a helipad.

C. EQUITY AND BARRIERS TO OPPORTUNITY

Expansion and Improvement of Transportation Options: This project would improve transportation options in a historically disadvantaged community. This project is in a census tract designated in five of the seven disadvantaged categories by USDOT. The project would better the existing transportation system by providing a safer connection between residences, jobs, public services, and local amenities.

Mitigate Safety Risk: While the presence of the BNSF Alliance Intermodal Facility and surrounding rail-served development provides opportunities for direct and indirect jobs, the rail corridor is a major physical barrier in the community with a crash rate substantially higher than the statewide average. This project will mitigate the safety risk for all rail employees, passengers, and vehicle users through the elimination of a highway-rail grade crossing.

Community Engagement: TxDOT gathered stakeholder input as part of the Metroplex Freight Mobility Study Phase II (2021). In partnership with the North Central Texas Council of Governments and the BNSF, a meeting with the City of Fort Worth, City of Haslet, Northwest Independent School District, and elected officials was convened to evaluate alternatives and gain insight into transportation needs in this area. The input helped guide planning decisions along the Haslet – Fort Worth – Saginaw corridor.

Future community engagement will ensure considerations for disadvantaged and underserved communities are integrated into project implementation. Notably, some community members have a primary language other than English. Community engagement efforts will continue to be deliberate in accommodating non-English speakers and community members requiring additional accommodations.

Expand Workforce and Training: TxDOT, in partnership with the Highway Construction Workforce Partnership (HCWP), recently initiated a pilot program for highway construction training and placement.⁸ The initiative increased the number of people trained and hired for construction trades and crafts. TxDOT developed an ethnicity goal for the demographic data of the applicant pool in targeted congressional districts. The program intends to bring appropriate training and numerous job opportunities for the Texas community. This workforce program may be implemented with the construction of the Bonds Ranch Road grade separation project.

D. CLIMATE CHANGE AND SUSTAINABILITY

Reduces Emissions and Promotes Energy Efficiency: This project supports reductions in emissions and fuel consumption. The project area is in the 74th percentile nationally for Particulate Matter 2.5 in the air with 9.5 µg/m. Upgrading the grade crossing to a grade separated crossing would eliminate travel delay for roadway users which would reduce the amount of fuel consumed from idling and particulate matter emissions from drivers waiting for the train to pass. Train movements at the existing at-grade crossing at Bonds Ranch Road cause extensive delay. Not only do vehicles that cross over the tracks at Bonds Ranch Road experience delay when a train blocks the crossing, but also all vehicles on the surrounding network are often delayed. Alternatives to driving, which will be provided through new sidewalk and multi-use path, also encourage mode shift and reduce emissions.

Increases Resiliency and Prepares for Extreme Weather Events: The project increases the community's ability to respond to potential stresses – whether natural disasters such as flooding or man-made such as crashes, hazardous conditions, or long-term maintenance.

The flood warning system in Fort Worth, known as the High Water Warning System (HWWS), relies on water level measurements made at low-water crossings throughout the City of Fort Worth. Roadside flashers are installed at those locations to immediately warn drivers of a flood hazard. At the same time, text and email alerts to first responders are issued when the water level sensors of each flasher system are triggered from rising water.

Weather data (mainly rainfall) is collected at 39 low-water crossings and seven other weather stations. The gaged data is communicated through two dedicated radio frequencies in real-time, to a receiver station at the Burnett Plaza building. The Flood Warning System (FWS) maintained by City of Fort Worth stormwater management uses the HWWS communication backbone as much as possible, while adding weather data collection, and disseminating the real-time data to the public and other stakeholders.

There is an existing stream gage and flashing warning sign on Bonds Ranch Road directly west of Hawks Landing. A new gage and flashing warning sign will be installed between the crossing and US 287 interchange in 2022 as this location is a roadway drainage overtopping hazard (see *Figures 8 and 9*).

The grade separation will be constructed to accommodate sufficient stormwater drainage to eliminate hazardous road overtopping events at this location. With a grade separation, vehicles will not need to avoid the corridor during storm events. This project will also lessen demand on emergency responder resources during storm events.

Figure 8: Flood Conditions on Bonds Ranch Road (April 2021)



Looking West from the US 287 Interchange

Figure 9 Bonds Ranch Road Flood Gage and Flashing Warning Sign Installation Plan



Recycles or Redevelops Existing Infrastructure: The project improves an existing at-grade crossing to further support the existing railroad infrastructure at the BNSF Alliance Intermodal Facility and the existing roadway infrastructure for residents of three communities (City of Haslet, City of Fort Worth, and City of Saginaw). This project also reinforces the commitment to providing safe passenger rail by reducing exposure along an existing Amtrak route.

Protects Local Ecosystems: Landscaping, drainage enhancements, and construction best practices would support the protection of local ecosystems. Overall, the project would improve the functionality of the transportation system and minimizes impacts to undeveloped land compared to the other alternatives considered.

E. TRANSFORMATION OF OUR NATION'S TRANSPORTATION INFRASTRUCTURE

Advances Purpose-Driven Research: The project will advance the thoroughly researched Metroplex Freight Mobility Study Phase II (TxDOT, 2021), which screened at-grade highway-rail crossings within the region for grade separation potential. The study identified Bonds Ranch Road in Tarrant County as a potential crossing for a grade separation improvement. The specified project is in several other statewide plans, including the 2022 Draft Texas Freight Mobility Plan and by reference in the 2022 Texas State Highway-Rail Grade Crossing Action Plan. Including the Bonds Ranch Road grade separation project in these plans shows its significance to the State of Texas.

Adds Capacity to Congested Road Corridor: The current roadway section on Bonds Ranch Road is two-lane, one in each direction with no shoulders. With traffic volumes at nearly 18,000 vehicles per day, the capacity of this roadway is constrained. Additionally, the roundabouts at US 287 are over capacity resulting in reoccurring vehicle queuing on all approaches during weekday morning and evening peak traffic times.

To address the capacity constraints, the City of Fort Worth has initiated a project to widen Bonds Ranch Road from US 287 to Wagley-Robertson Road to a four-lane divided section, with sidewalk and a separated shared-use path. TxDOT has a project to reconstruct the arterial/highway interchange of US 287/81 and Bonds Ranch Road. TxDOT's project will remove the roundabouts, widen the main-lane bridge over Bonds Ranch Road, add auxiliary turning lanes for the highway ramps and match Fort Worth's proposed roadway section for Bonds Ranch Road.

The City of Fort Worth project does not have sufficient funding to grade separate the highway-rail grade crossing. Capacity constraints will still exist after these projects are built without a grade separation.

Adds Capacity to Congested Rail Corridor: The project will improve rail operations on the high-volume, doubletrack Fort Worth Subdivision and access to the BNSF Alliance Intermodal Facility. BNSF average train lengths along this corridor are 6,900 feet but trains can reach up to 8,400 feet. Railroad industry trends show that train lengths are reaching at least 10,000 feet and steadily increasing to longer lengths. The grade separation project at Bonds Ranch Road allows BNSF to effectively manage rail traffic and yard operations and increase national commerce as train length and train volume increase over the next few decades.

Ensures Assets are Improved to a State of Good Repair: The Bonds Ranch Road corridor is an important local route with 17,924 vehicles per day. The project improves an existing at-grade crossing to further support the existing BNSF Alliance Intermodal Facility, Fort Worth Alliance Airport, Hicks Airfield, and industries in Saginaw, and residents of three communities. With limited alternate routes across the rail corridor, the project ensures vehicular and truck traffic can flow across this physical barrier. The project would provide a key grade separated route across the rail corridor barrier to ensure essential, reliable fire and medical service to the community as alternate routes add critical minutes to response times.

F. ELIMINATING CROSSINGS AND MAKING CORRIDOR-WIDE IMPROVEMENTS

The project is part of a corridor-approach to rail crossing improvements along the Fort Worth Subdivision in the Haslet – Fort Worth – Saginaw corridor. As evaluated in the Metroplex Freight Mobility Study (2020), the

long-term plan is to implement grade separations at four existing at-grade crossings (Avondale Haslet, Blue Mound Road, Bonds Ranch Road, and Bailey Boswell Road) and grade separation at one planned crossing (Heritage Trace Parkway). The Bonds Ranch Road Grade Separation project is a top priority and one step closer to eliminating at-grade crossings along this rail corridor to create a seven-mile sealed corridor leading to the Alliance Intermodal Facility. The sealed corridor would greatly improve safety, increase flexibility in rail, and provide reliable access points across the rail corridor.

G. GEOGRAPHIC DIVERSITY

The project represents an investment in a diverse geographic area in terms of population, land use, and track use. An estimated 10,703 residents live within a two-mile radius of the project. Land use around the project area is diverse with industrial sites, commercial development, single-family homes, and park sites. Railroad use of the Fort Worth Subdivision is also diverse with freight use by BNSF and passenger use by Amtrak. A diverse group of residents and users would benefit from the roadway improvements. While residents and travelers would benefit from the roadway improvements, BNSF and Amtrak passengers would benefit from the highway-rail grade crossing removal.

TxDOT has not received any other competitive awards for this project.

X. SAFETY BENEFIT

This project eliminates the active at-grade highway-rail crossing at Bonds Ranch Road by constructing a four-lane grade separated bridge with a bicycle track and pedestrian pathway. The elimination of this grade crossing will enhance safety in the Haslet – Fort Worth – Saginaw corridor. The FRA Highway/Rail Grade Crossing Incidents Dashboard provides extensive safety data supporting investment in highway-rail grade crossing safety improvements in Texas. For the most recent three years of data, Texas leads the nation in overall incidents and in incidents that result in injury and fatality for more than ten years. The Bonds Ranch Road Grade Separation Project was selected through a robust, data-driven prioritization process and is strongly justified with state and FRA incident data.

USDOT Benefit-Cost Analysis (BCA) Guidelines for Discretionary Grant Programs (2022) were utilized to evaluate safety justifications for this project based on standardized, objective safety measures. The USDOT BCA guidelines use similar metrics to GradeDec.Net. A GradeDec.Net corridor analysis was completed to compare project costs with the estimated benefits and is available in *Appendix D*. *Table 5* summarizes the total discounted benefits under the project for which benefits are discounted at a seven percent rate.

The primary benefits conferred by the project are derived from the improved vehicular safety from reduced incidents involving injuries and fatalities and savings from reduced travel delays. Travel time savings from reduced traffic delays make up the most significant share of total benefits. Safety benefits for drivers and passengers from the expected reduction in vehicular incidents make up the remaining share of the

Table 5: Summary of Benefits and Costs

USDOT 2022 Guidance BCA Results	Discounted* (\$ Millions)
Total Benefits	\$16,693
Total Costs	\$15,892
Net Present Value	\$801
BENEFIT-COST RATIO	1.05
GradeDec.Net BCA Results	Discounted* (\$ Millions)
Safety	\$2,566
Travel Time Savings	\$9,510
Vehicle Operating Cost Savings	\$707
Environmental	\$236
Network Benefits	\$62
Residual Value (Salvage Value)	\$1,373
Benefits from Induced Trips	\$15
Disbenefits from Induced Trips	(\$0)
Total Benefits	\$14,469
Total Costs	\$13,834
BENEFIT-COST RATIO	1.05

*Note: All values are in 2020 dollars and discounted at 7 percent.

project's full benefits. The project will eliminate vehicle-train incidents and the incidents related to crossingrelated congestion as vehicles will no longer queue while the highway-rail grade crossing is blocked.

Substantial train traffic volume passes over the crossing, primarily due to the proximity to the nearby intermodal facility. Trains move on average around 20 mph due to the intermodal facility entry and exit movements. As a result, vehicles are often forced to queue for long periods when the crossing is blocked. Vehicles will no longer be impacted by blocked crossing delays and queuing congestion, allowing drivers and passengers to save substantial travel time after the construction of the grade separation. The estimate of travel time savings from reduced delays with the project is conservative, given that railroad crossing-related congestion in the project area and the surrounding roadway network were not considered.

XI. DOT STRATEGIC GOALS

The project furthers the DOT strategic goals to address weather fluctuations and sustainability initiatives, improve equity and reduce barriers to opportunity, and advance quality jobs and workforce programs and inclusion.

CLIMATE CHANGE AND SUSTAINABILITY IMPACTS

The Bonds Ranch Road grade separation will reduce, on average, 153 minutes of delay per day. In addition to passenger vehicles, approximately three percent of vehicles at the crossing are trucks, helping further reduce emissions. Rail is the most fuel-efficient way to move freight over land, ahead of other modes of surface transportation when it comes to limiting its carbon footprint. Moving freight by train instead of truck reduced greenhouse gas emissions by up to 75 percent.⁹ Furthermore, upgrading the Bonds Ranch Road highway-rail crossing to a grade separation will reduce greenhouse gas emissions caused by highway congestion by reducing fuel consumed and eliminating particulate matter emissions from drivers waiting for the train to pass. Therefore, the project allows Amtrak and a Class I railroad to effectively manage and grow a lower-emissions mode of transportation to support national commerce through the movement of people and goods.

IMPROVE EQUITY AND REDUCE BARRIERS TO OPPORTUNITY

Residents within the surrounding area will be provided more direct and efficient access to employment opportunities by traveling along Bonds Ranch Road. The residents within the project area are economically and racially diverse.

ADVANCE QUALITY JOBS AND WORKFORCE PROGRAMS

Texas has a very diverse work force. Minorities account for over 95 percent of the population growth in Texas. Approximately 40 percent of the Texas population is Hispanic or Latino, and approximately 13 percent of the state population is Black or African American.¹⁰ The project supports existing and growing employers that provide approximately 32,610 jobs¹¹ within a two-mile radius of the project.

The Highway Construction Workforce Partnership Strategic Workforce Development, a pilot program within Texas, works to increase the capacity and capability of the highway construction workforce.¹² The program intends to bring appropriate training and numerous job opportunities to the Texas community. This project may use this workforce program to ensure proper training and diversity within the project's construction.

⁹ https://www.aar.org/wp-content/uploads/2021/02/AAR-Freight-Rail-Climate-Change-Fact-Sheet.pdf

¹⁰ US Census

¹¹ https://onthemap.ces.census.gov/

¹² https://www.fhwa.dot.gov/innovativeprograms/pdfs/centers/workforce_dev/FHWA_WDCO_HCWP_Pilot_Survey_Metrics_TX.pdf

XII. PROJECT IMPLEMENTATION & MANAGEMENT O

TxDOT is the lead applicant for this application and the City of Fort Worth and BNSF are partners in delivering the project. TxDOT's vision is to be a *"forward-thinking leader delivering mobility, enabling economic opportunity, and enhancing quality of life for all Texans."* As of August 2021, TxDOT has over 12,000 employees at 25 districts and its headquarters in Austin. Approximately 40 percent of TxDOT's revenue comes from federal funds.

TxDOT has been awarded several USDOT discretionary grants in recent years. **Table 6** summarizes TxDOT awarded USDOT discretionary grants since 2015.

USDOT PROGRAM	AWARD AMOUNT	AWARD YEAR	LOCATION	PROJECT TYPE
RAISE	\$25,000,000	2022	Statewide	Active Transportation
RAISE	\$12,000,000	2021	Dallas	Bike & Pedestrian
INFRA	\$50,000,000	2021	Gainesville	Roadway Improvements
CRISI	\$1,451,250	2020	Hutto	Grade Crossing Improvements
BUILD	\$25,000,000	2020	Odessa/Midland	Interchange Improvements
BUILD	\$25,000,000	2018	Winkler County	Grade Separation
BUILD	\$25,000,000	2018	Glasscock & Reagan Counties	Roadway Improvements & Grade Separation
INFRA	\$65,000,000	2018	Tarrant County	Roadway Improvements
ATCMTD	\$6,850,000	2018	I-10 Corridor	Truck Parking Availability System
ATCMTD	\$6,090,221	2017	Statewide	Freight Technology
FASTLANE	\$7,000,000	2017	Presidio County	Railroad Improvements
ATCMTD	\$8,900,000	2016	Houston	ITS Improvements
TIGER	\$20,802,400	2015	Statewide	Transit

Table 6: TxDOT Discretionary Grants Awarded from 2015 to Present

TxDOT has extensive experience managing and overseeing similar projects for intersection and highway-rail grade crossing improvements. TxDOT will implement and manage the project while working closely to manage funding provided by the City of Fort Worth and BNSF. A project management plan will be in place for managing the implementation of the proposed project, including the management and mitigation of project risks. TxDOT is well versed in project delivery from contracting, oversight, and change order management.

As outlined in **Table 7**, TxDOT identified the following potential project risks and associated mitigation measures. Risks vary from agreements, approvals, and construction elements.

Potential Risk	Mitigation Strategy
ENVIRONMENTAL APPROVALS	All required environmental and NEPA analysis will follow FRA guidelines.
UTILITY CONFLICTS	If utility conflicts are identified, engineering will occur so utility coordination can be completed expeditiously.
RIGHT-OF-WAY ACQUISITION	Temporary easements may be needed for construction of the grade separation and is not anticipated to result in the relocation of businesses or individuals. Any easements or acquisitions would conform with state and federal requirements.
RAILROAD AGREEMENTS	TxDOT is routinely engaged with BNSF on project reviews and meetings. Regular communication will expedite execution of necessary railroad agreements.

Table 7: Potential Project Risks and Mitigation Strategies

During the term of the grant or cooperative agreement, TxDOT, as the FRA grantee, will submit the following to maintain conformance with federal requirements:

- Progress reports on a quarterly basis (FRA Quarterly Progress Report)
- Federal financial reports on a quarterly basis (Federal Financial Report SF-425)
- Final report on or before the end of the period of performance (Final Performance Report)

All grant agreement terms and conditions will be followed by TxDOT and included as flow-down requirements in any sub-agreements required to implement the project.

XIII. ENVIRONMENTAL READINESS

The proposed action qualifies as a CE under one or more of the following CEs listed in 23 Part 771.116(c): (17).

The rehabilitation, reconstruction, or replacement of bridges, the rehabilitation or maintenance of the rail elements of docks or piers for the purposes of intermodal transfers, and the construction of bridges, culverts, or grade separation projects that are predominantly within existing right-of-way and that do not involve extensive in-water construction activities, such as projects replacing bridge components including stringers, caps, piles, or decks, the construction of roadway overpasses to replace at-grade crossings, construction or reconstruction of approaches or embankments to bridges, or construction or replacement of short span bridges.



LOCATION

This project is in Fort Worth, Tarrant County, Texas. Grade crossing information for this project is outlined in *Table 4.*

PROJECT DESCRIPTION

This project will build a four-lane grade separation with a bicycle track and pedestrian pathway over the BNSF Fort Worth Subdivision at the highway-rail crossing at Bonds Ranch Road (DOT #020543V). The grade separation will extend from the US 287 interchange to Hawks Landing Road. The grade separation will be built within the 120-foot-wide roadway right-of-way and utilize retaining walls and a concrete or steel bridge structure over the railroad right-of-way.

PROJECT PLANNING TO DATE

Project identification was completed in the Metroplex Freight Mobility Study Phase II completed in 2021.

PAST/PRESENT ENVIRONMENTAL STUDIES

TxDOT will initiate Environmental Review and Preliminary Engineering upon project selection to advance the project schedule.

PAST/ANTICIPATED PUBLIC OUTREACH OR AGENCY MEETINGS

Throughout final design and construction, community engagement will assure equity considerations for disadvantaged and underserved communities are integrated into project implementation. Community engagement efforts will be deliberate in accommodating non-English speakers and community members with disabilities.

ANTICIPATED ENVIRONMENTAL IMPACTS, PERMITS, AND CONSULTATIONS

While the project is not likely to be controversial on environmental grounds, the proposed action may affect environmental resources FRA is required to review. Anticipated environmental impacts are summarized in **Table 8**. Historic and cultural resources, noise and vibration, air quality, water quality, and prime and unique farmlands are not likely to be impacted.

Table 8: Potential Environmental Impacts

RESOURCE AREA	ANTICIPATED IMPACT
PARKS & RECREATION FACILITIES	It is not anticipated that this project would impact any recreational facilities or 4(f) properties.
HAZARDOUS MATERIALS	Potential hazardous materials impact will be reviewed and mitigated as required.
PROPERTY ACQUISITION	Temporary easements may be needed for construction of the grade separation and is not anticipated to result in the relocation of businesses or individuals. Any easements or acquisitions would conform with state and federal requirements.
COMMUNITY IMPACTS	The project is anticipated to result in positive community impacts. Public outreach, as described above, will be included in the project scope.
SURFACE WATERS, FLOODPLAINS, & WETLANDS	Should any of these resources be impacted, TxDOT will ensure that required environmental permits or approvals will be obtained.
THREATENED & ENDANGERED SPECIES	Potential impacts to threatened or endangered species or protected habitat will be reviewed and mitigated as required.

TxDOT is prepared to expeditiously advance completion of a Categorical Exclusion worksheet immediately upon award of a RCE grant.

The Texas Department of Transportation respectfully submits this grant application for the new Railroad Crossing Elimination Grant Program administered by the Federal Railroad Administration. TxDOT looks forward to advancing this project through the next stage in the project development lifecycle.

