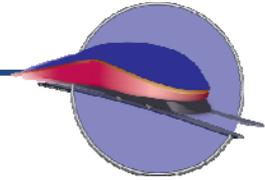


Project Name: **TX- Crossing Signal Timing, BNSF Fort Worth Sub** Date of Submission: 8/24/09 Version Number: v1

High-Speed Intercity Passenger Rail (HSIPR) Program

Application Form



Track 1a–Final Design (FD)/Construction

& Track 4–FY 2009 Appropriations Projects

Welcome to the Track 1a Final Design (FD)/Construction and Track 4 Application for the Federal Railroad Administration’s High-Speed Intercity Passenger Rail (HSIPR) Program. Applicants for Track 1a FD/Construction and/or Track 4 are required to submit this Application Form and Supporting Materials (forms and documents) as outlined in Section G of this application and in the HSIPR Guidance.

We appreciate your interest in the program and look forward to reviewing your application. If you have questions about the HSIPR program or this application, please contact us at HSIPR@dot.gov.

Instructions:

- Please complete the HSIPR Application electronically. See Section G for a complete list of the required application materials.
- In the space provided at the top of each section, please indicate the project name, date of submission (mm/dd/yy) and the application version number. The distinct Track 1a and/or Track 4 project name should be less than 40 characters and follow the following format: State abbreviation-route or corridor name-project title (e.g., HI-Fast Corridor-Track Work IV).
- For each question, enter the appropriate information in the designated gray box. If a question is not applicable to your FD/Construction Project, please indicate “N/A.”
- Narrative questions should be answered concisely within the limitations indicated.
- Applicants must upload this completed application and all other application materials to www.GrantSolutions.gov by August 24, 2009 at 11:59pm EDT.
- Fiscal Year (FY) refers to the Federal Government’s fiscal year (Oct. 1- Sept. 30).
- Please direct questions to: HSIPR@dot.gov

A. Point of Contact and Applicant Information

(1) Application Point of Contact (POC) Name: Jennifer Moczygemba, P.E.		POC Title: Multimodal Section Director		
Street Address: 118 E. Riverside Drive	City: Austin	State: TX	Zip Code: 78704	Telephone Number: 512-486-5125
Fax: 512-416-2348		Email: jmoczyg@dot.state.tx.us		

(2) Name of lead State or organization applying (only States may apply for Track 4): Texas Department of Transportation

(3) Name(s) of additional States and/or organizations applying in this group (if applicable): N/A

(4) Is this project for which you are applying for HSIPR funding related or linked to additional applications for HSIPR funding that may be submitted in this or subsequent rounds of funding? Yes No Maybe
 If “yes” or “maybe,” provide the following information:

Program/Project Name	Lead Applicant	Track	Total HSIPR Funding Proposed (if known)	Status of Application
		Track 1a - FD/Construction	\$	Applied
		Track 1a - FD/Construction	\$	Applied
		Track 1a - FD/Construction	\$	Applied
		Track 1a - FD/Construction	\$	Applied
		Track 1a - FD/Construction	\$	Applied
		Track 1a - FD/Construction	\$	Applied
		Track 1a - FD/Construction	\$	Applied
		Track 1a - FD/Construction	\$	Applied

Project Name: BNSF Signal Timing - Ft Worth Sub Date of Submission: 8/24/09 Version Number: v1

B. Project Overview

FD/Construction Project Name: TX- Crossing Signal Timing, BNSF Fort Worth Sub

(1) Indicate the Track under which you are applying: Track 1a - FD/Construction
 Please note if you are applying for Track 1a–FD/Construction and Track 4 concurrently, you must submit **two separate versions** of this application into www.GrantSolutions.gov (one for Track 1a –FD/Construction and one for Track 4–FY 2009 Appropriations Projects).

(2) Indicate the activity(ies) for which you are applying (check both if applicable):
 Final Design Construction

(3) What are the anticipated start and end dates for the FD/Construction Project? (mm/yyyy)
Start Date: 11/2009 **End Date:** 12/2010

(4) Total Cost of the FD/Construction Project (year of expenditure (YOE) Dollars*): \$ 3,754,180

Please provide proposed inflation assumptions and methodology, if applicable in the space below. Please limit response to 1,000 characters.

All cost projections in this application are based on 10% preliminary engineering project estimate. All unit costs used are based on projected 2010 unit values. Costs were then escalated with a 20% contingency factor to arrive at the \$3,754,180 estimate to account for both cost refinements during final design engineering as well as construction bidding uncertainties. All contract bids will require the inclusion for all applicable material, fuel and labor escalators prior issuance of the final agreements.

Of the total cost of the FD/Construction Project, how much would come from the FRA HSIPR Program: (YOE Dollars) \$3,754,180**

Indicate percentage of total cost to be covered by matching funds 0 %
 Applications submitted under Track 4 require at least a 50 percent non-Federal match to be eligible for HSIPR funding.

* Year-of-Expenditure (YOE) dollars are inflated from the base year.
 ** This is the amount for which the applicant is applying.

(5) Project Overview Narrative. Please limit response to 5,000 characters.

Provide an overview of the main features and characteristics of the FD/Construction Project, including:

- The location of the project including name of rail line(s), State(s), and relevant jurisdiction(s) (include map if available in supporting documentation).
- Identification of service(s) that would benefit from the project, the stations that would be served, and the State(s) where the service operates.
- How the project was identified through a planning process and how the project is consistent with an overall plan for developing High-Speed Rail/Intercity Passenger Rail service.
- How the project will fulfill a specific purpose and need in a cost-effective manner.
- The project’s independent utility.
- The specific improvements contemplated.
- Any use of railroad assets or rights-of-way, and potential use of public lands and property.
- Other rail services, such as commuter rail and freight rail that will make use of, or otherwise be affected by, the project.

Since re-opening in 1999 after a 20-year hiatus, the Flyer’s 821/822 418 mile daily round trip service from Oklahoma City to Fort Worth, TX has provided viable transportation service with stops at Norman, Purcell, Pauls Valley, Ardmore, OK and Gainesville, TX. In 2008, the Flyer served 80,892 passengers on this 4 hr round trip daily service along one of the nation’s fastest growing

state funded rail corridors.

Today, the Heartland Flyer operations on the BNSF’s Red Rock and Fort Worth Subdivisions, which supports

- Amtrak’s Flyer service
- Intermodal, auto, merchandise, and grain moving between the Pacific Northwest, California, Midwest and Oklahoma, Texas and the Gulf Coast
- Coal traffic from the Powder River Basin, WY to electric utilities in South Texas
- Grain and merchandise moving to and from Mexico

In line with the vision for improved intercity passenger rail networks, this application submittal is a compilation of signal infrastructure investments to improve Amtrak speeds of up to 79 MPH along the BNSF Fort Worth Subdivision between MP 346.9 and 410.5. These proposed signal improvements are the result of a comprehensive performance review relative to improved intercity passenger rail service for Amtrak’s Heartland Flyer service considering a realized maximum operating speed of 79 MPH. This collaborative effort encompassed a comprehensive review of the Amtrak’s Flyer services operating over the Fort Worth Subdivision from Fort Worth, TX to Gainesville, TX as part of the service network between Oklahoma City and Fort Worth. A team reviewed performance data, identified delay contributors and developed a strategic signal infrastructure improvement plan to modify signal timing for 15 crossings that would improve overall on-time service/performance. A summary of the plan is noted below.

BNSF Fort Worth Sub - Fort Worth to Gainesville - Potential speed improvements for 821/822
8/20/09 Revision

Location	Location Number	Begin Mile Post	End Mile Post	Freight Speed MPH	Proposed Passenger Speed MPH	Distance	Estimated Passenger Minute Savings	RX - Upgrades SH=move shunt RX=upgrade RX Circuit Remote=add hut
Ft Worth	1	346.9	348.8	40	55	1.90	0.8	1 RX .5 RM
	2	349.0	349.9	40	45	0.90	0.1	1 RX .5 RM
	3	349.9	351.0	40	55	1.10	0.5	1 RX
	4	354.1	359.6	55	79	5.50	1.8	2 RX
	5	359.6	360.7	55	75	1.10	0.3	1 RX
Lambert	6	368.7	370.2	55	79	1.50	0.5	1 RX 1 Remote
	7	370.2	370.5	55	75	0.30	0.1	
Justin	8	370.5	382.4	55	79	11.90	3.9	12 RX 2 Remote
Krum	9	382.4	383.4	55	65	1.00	0.2	
	10	383.4	389.4	55	79	6.00	2.0	4 RX
	11	389.4	389.8	55	55	0.40	0.0	
Sanger	12	389.8	393.7	55	79	3.90	1.3	3 RX
	13	393.7	394.1	55	75	0.40	0.1	
	14	394.1	398.8	55	79	4.70	1.6	3 RX
	15	399.2	410.5	55	79	11.30	3.7	9 RX
16.9								

These capital improvements will have significant impacts to OTP and identified Amtrak delay. In 2008 the Heartland Flyer – Amtrak Time Table Schedule was 36.2%. By this project providing a reduction of up to 16.9 minutes for running time for 821/822 in Texas, the project is expected to improve OTP by approximately 4 percentage points.

(6) Status of Activities: Are any FD or Construction activities that are part of this planned investment underway or completed?

- Yes (Final Design) Yes (Construction) No

If “Yes,” please describe the activities that are underway or completed in the table below.¹ If more than three activities, please detail in Section F of this application.

Activity	Description	Completed? (If yes, check box)	Actual Initiation Date (mm/yyyy)	Actual or Anticipated Completion Date (mm/yyyy)
		<input type="checkbox"/>		
		<input type="checkbox"/>		
		<input type="checkbox"/>		

(7) Describe the project service objectives (check all that apply):

- Additional Service Frequencies
- Improved Service Quality
- Improved On-Time Performance on Existing Route
- Increased Average Speeds/Shorter Trip Times
- Other (Please Describe):

(8) Types of capital investments contemplated (check all that apply):

- Structures (bridges, tunnels, etc.)
- Track Rehabilitation
- New or restored sidings/passing tracks
- Major Interlockings
- Station(s)
- Communication, Signaling and Control
- Rolling Stock Refurbishments
- Rolling Stock Acquisition
- Support Facilities (Yards, Shops, Admin. Buildings)
- Grade Crossing Improvements
- Electric Traction
- Other (Please Describe):

(9) Right-of-Way-Ownership. Provide information for all railroad right-of-way owners in the FD/Construction Project area. Where railroads currently share ownership, identify the primary owner. If more than three owners, please detail in Section F of this application.

Type of Railroad	Railroad Right-of-Way Owner	Route Miles	Track Miles	Status of Agreements to Implement Projects
Class 1 Freight	BNSF Railway (per Amtrak Master Agreement)			Master Agreement in Place

¹ Please note: (a) requests for reimbursement of costs incurred prior to enactment of the relevant appropriations will not be considered and (b) supporting documentation for activities may also be required as noted in Appendix 2 of the HSIPR Guidance.

(10) Services. Provide information for all existing rail services within project boundaries (freight, commuter, and intercity passenger). *If more than three services, please detail in Section F of this application.*

Type of Service	Name of Operator	Top Speed Within Project Boundaries		Number of Route-Miles Within Project Boundaries	Average Number of Daily One-Way Train Operations ² within Project Boundaries	Notes
		Passenger	Freight			
Intercity Passenger	Amtrak	40-55		63.6	2	
Freight	BNSF Railway		40-55	63.6	22	

(11) Rolling Stock Type. Describe the fleet of locomotives, cars, self-powered cars, and/or trainsets that would be intended to provide the service upon completion of the project. *Please limit response to 1,000 characters.*

While increased frequency and trains sets are not a direct expectation of this Project, the OTP and run time efficiencies are expected to increase potential ridership along this existing designated High Speed Rail Corridor.

The Amtrak Flyer service currently consists of 1 GE Genesis P42 passenger locomotive, 2 Superliner coaches, 1 Superliner II Coach Café, and a Non-Powered Control Unit (NPCU) making the train bi-directional

(12) Intercity Passenger Rail Operator. Provide the status of agreements with partners that will operate the benefiting high-speed rail/intercity passenger rail service(s) upon completion of the planned investment (e.g., Amtrak).
 Name of Operating Partner:
 Status of Agreement: Final executed agreement on project scope/outcomes

(13) Benefits to Other Types of Rail Service(s). Are benefits to non-intercity-passenger rail services (e.g., commuter, freight) foreseen?
 Yes No
 If “Yes”, provide further details in Section E, Question 2.

² One daily round-trip train operation should be counted as two daily one-way train operations.

Project Name: TX- Crossing Signal Timing, BNSF Fort Worth Sub Date of Submission: 8/24/09 Version Number: v1

C. Eligibility Information

(1) Select applicant type, as defined in Appendix 1.1 of the HSIPR Guidance (only States may apply for Track 4):

- State
- Amtrak

If one of the following, please append appropriate documentation as described in Section 4.3.1 of the HSIPR Guidance:

- Group of States
- Interstate Compact
- Public Agency established by one or more States
- Amtrak in cooperation with a State or States

(2) Establish Completion of Preliminary Engineering. In the space(s) below, please list the documents that establish completion of Preliminary Engineering for the project covered by this application. See HSIPR Guidance Appendix 2.2. If more than four references need to be listed, please place the additional information in Question F.

Document Name	Completion Date (mm/yyyy)
10% Preliminary Engineering Plans	08/2009
10% ROM Project Estimate	08/2009
10% Project Critical Path Schedule	08/2009
RTC Modeling and Scope of Work Development	08/2009

(3) Establish Completion of NEPA Documentation (the date document was issued and how documentation can be verified by FRA). The following are approved methods of NEPA verification (in order of FRA preference): 1) References to large EISs and EAs that FRA has previously issued, 2) Web link if NEPA document is posted to a website (including www.fra.gov), 3) Electronic copy of non-FRA documents attached with supporting documentation, or 4) a hard copy of non-FRA documents (large documents should not be scanned but should be submitted to FRA via an express delivery service). See HSIPR Guidance Section 1.6 and Appendix 3.2.9.

Documentation	Date (mm/yyyy)	Describe How Documentation Can be Verified
<input checked="" type="checkbox"/> Categorical Exclusion Documentation	08/2009	Copy of CE submitted to FRA attached
<input type="checkbox"/> Final Environmental Assessment		
<input type="checkbox"/> Final Environmental Impact Statement		

(4) Indicate if there is an environmental decision from FRA (date document was issued and web hyperlink if available).

Documentation	Date (mm/yyyy)	Hyperlink (if available)
<input type="checkbox"/> Categorical Exclusion Determination		Pending FRA review
<input type="checkbox"/> Finding of No Significant Impact		
<input type="checkbox"/> Record of Decision		

Project Name: TX- Crossing Signal Timing, BNSF Fort Worth Sub Date of Submission: 8/24/09 Version Number: v1

D. Public Return on Investment

(1) 1A. Transportation Benefits. See HSIPR Guidance Section 5.1.1.1. Please limit response to 8,000 characters:

How is the project anticipated to improve Intercity Passenger Rail (IPR) service? Describe the overall transportation benefits, including information on the following (*please provide a level of detail appropriate to the type of investment*):

- **IPR network development:** Describe improvements to intermodal connections and access to stations as well as actual and potential expansions to the IPR network that may result from the project (including opportunities for interoperability with other services).
- **IPR service performance improvements** (*also provide specific metrics in table 1B below*): Please describe service performance improvements directly related to the project, as well as a comparison with the existing service (*without project*). Describe relevant reliability improvements (e.g., increases in on-time performance, reduction in operating delays), reduced schedule trip times, increases in frequencies, aggregate travel time savings (resulting from reductions to both schedule time and delays, expressed in passenger-minutes), and other relevant performance improvements.
- **IPR service results** (*also provide specific metrics in table 1B below*): Describe relevant outcomes of the service improvement such as increases in ridership, passenger-miles, and other results in comparison with the existing service (*without project*).
- **Suggested supplementary information** (*only when applicable*):
 - Transportation Safety: Describe overall safety improvements that are anticipated to result from the FD/Construction Project, including railroad and highway-rail grade crossing safety benefits, and benefits resulting from the shifting of travel from other modes to safer IPR service.
 - Cross-modal benefits from the FD/Construction Project, including benefits to:
 - ✓ Commuter Rail Services – Service improvements and results (applying the same approach as for IPR above).
 - ✓ Freight Rail Services – Service performance improvements (e.g., increases in reliability and capacity), results (e.g. increases in ton-miles or car-miles of the benefiting freight services), and/or other congestion, capacity or safety benefits.
 - ✓ Congestion Reduction/Alleviation in Other Modes; Delay or Avoidance of Planned Investments – Aviation and highway congestion reduction/alleviation, and/or other capacity or safety benefits. Describe any planned investments in other modes of transportation that may be avoided or delayed due to the improvement to IPR service that will result from the project.

As the nation’s highway infrastructure continues to be taxed by useful life exhaustion, increase population and reduced maintenance per operated motor vehicle, other viable modes of intercity transportation must carry the load. This fact, coupled with our national vision of an improved “green” strategy for tomorrow, requires a new global way of thinking concerning our choice in transporting goods and people.

One viable mode of transportation is that of intercity passenger rail service. Teaming with other adjoining states, the operating Class 1’s and other support functions, much effort was put forth towards establishing the South Central HSR Rail Corridor as a viable corridor for both sustained growth and ridership. A major part of this corridor is that of the BNSF’s Red Rock Subdivision of which consists of main line track infrastructure between Gainesville, TX and Oklahoma City, OK. This subdivision, coupled with the northern portion of the BNSF’s Fort Worth Subdivision, makes up the current route of Amtrak’s Heartland Flyer service currently running on the South Central Corridor. This service is the foundation for future service and connectivity as part of the South Central HSR Corridor.

The Heartland Flyer service currently connects Oklahoma City, OK to Fort Worth, TX with HSR plans to extend service to Tulsa,

OK and eventually northward into Kansas City, KS. Since 1999, the Flyer's 821/822 418 mile daily round trip service has provided viable transportation service with stops at Norman, Purcell, Pauls Valley, Ardmore, OK and Gainesville, TX. In 2008, the Flyer served 80,892 passengers on this 4 hr round trip daily service along one of the nation's fastest growing state funded rail corridors.

To ensure the sustainability of this service and the increased ridership trends that have been realized over the past 10 years, OTP and service reliability are an absolute must. Based on realized 2008 metrics, the Amtrak time table OTP for the Heartland Flyer 821/822 service was 36.2% for those trains measured and counted. Contributing to this OTP result is the continued growth of both passenger and freight volumes utilizing the same rail network, compounding the negative results of operational conflicts attributable to both infrastructure and operating constraints. In view of this "room for growth" reality, as well as the fact that this corridor is essential to intercity passenger service growth, a detailed RTC modeling analysis and on-time performance review was initiated to identify critical conflict locations, determine the resulting train delays and to develop a remediation plan to improve the rail operations reliability along the existing rail corridor.

This application is a compilation of signal infrastructure improvements to improve Amtrak on-time performance along a 63 mile segment of BNSF's Fort Worth Subdivision through a strategic signal infrastructure improvement plan to modify signal timing for 15 highway-rail grade crossings.

By this project providing a reduction of up to 16.9 minutes for running time for 821/822 in Texas, the project is expected to improve OTP improve by approximately 4 percentage points.

When considering the proposed infrastructure improvements and resulting OTP/run-time efficiencies, it is fully expected that the end result will be increased ridership resulting in more passenger-miles ridden on the Flyer service. Overall, service reliability will be greatly improved, driving a more cost effective, timely and predictable intercity passenger operation.

1B. Operational and Ridership Benefits Metrics: In the table(s) below, provide information on the anticipated transportation benefits and ridership changes projected to result from the project. Please do not include benefits and changes that would occur even if the project is not implemented (for example, as a result of population or economic growth factors).

Project/Program Metric	Actual— FY 2008 levels	Projected Totals by Year (Actual Levels <u>Plus</u> Project-Caused Changes Only)		“X” If N/A or Unsure
		First Full Year After Project Completion	Fifth Full Year After Project Completion	
Annual passenger-trips				<input checked="" type="checkbox"/>
Annual passenger-miles (millions)				<input checked="" type="checkbox"/>
Annual IPR seat-miles offered (millions)				<input checked="" type="checkbox"/>
Average number of daily round train trip operations (typical weekday)				<input checked="" type="checkbox"/>
On-time performance (OTP) ³ – percent of trains on time at endpoint terminals	36.2% Amtrak Timetable	+ 4%	+ 4%	<input type="checkbox"/>
Average train operating delays: minutes of en-route delays per 10,000 train-miles ⁴	TBD	- 8 mins	-8 mins	<input type="checkbox"/>
Top operating speed (mph)	40-55 MPH	45-79MPH	45-79MPH	<input type="checkbox"/>
Average scheduled operating speed (mph) (between endpoint terminals)				<input type="checkbox"/>

(2) 2A. Economic Recovery Benefits. *This section is required for Track 1a, and optional for Track 4. Please limit response to 4,000 characters. For more information, see Section 5.1.1.2 of the HSIPR Guidance.*

Describe the contribution the FD/Construction Project is intended to make towards economic recovery and reinvestment, including information on the following:

- How the project will result in the creation and preservation of jobs, including number of onsite and other direct jobs (on a 2,080 work-hour per year, full-time equivalent basis), and timeline for achieving the anticipated job creation.
- How the different phases of the project will affect job creation (consider the construction period vs. operating period)
- How the project will create or preserve jobs or new or expanded business opportunities for populations in Economically Distressed Areas (consider the construction period vs. operating period)
- How the project will result in increases in efficiency by promoting technological advances.
- How the project represents an investment that will generate long-term economic benefits (including the timeline for achieving economic benefits and describe how the project was identified as a solution to a wider economic challenge)
- If applicable, how the project will help to avoid reductions in State-provided essential services.

The Ft Worth Sub Signal Improvement Project would result in definite economic recovery benefits to the North Texas area. Over the life of the project it is estimated to create 75 direct and indirect jobs-years of employment based on the US Department of Commerce data indicate that every dollar of rail infrastructure investment generates more than three dollars in total economic

³ As calculated and reported by Amtrak according to its existing procedures and definitions. An example can be found at page E-7 of the May 2009 Monthly Performance Report at <http://www.amtrak.com/pdf/0905monthly.pdf>. ‘On-time’ is defined as within the distance-based thresholds originally issued by the Interstate Commerce Commission, which are: 0 to 250 miles and all Acela trains—10 minutes; 251 to 350 miles—15 minutes; 351 to 450 miles—20 minutes; 451 to 550 miles—25 minutes; and 551 or more miles—30 minutes.

⁴ As calculated by Amtrak according to its existing procedures and definitions. Useful background can be found at pages E-1 through E-6 of Amtrak’s May, 2009 Monthly Performance Report at <http://www.amtrak.com/pdf/0905monthly.pdf>

output because of the investment, purchases, and employment occurring among upstream suppliers. All told, each \$1 billion of new rail investment creates an estimated 20,000 jobs nationwide (on a 2,080 work-hour per year, full-time equivalent basis).

2B. Job Creation: Provide the following information about job creation through the life of the FD/Construction Project. Please consider construction, maintenance, and operations jobs.

	FD/ Construction Period	First full Year of Operations	Fifth full Year of Operations
Anticipated number of <u>annual</u> onsite and other direct jobs created (on a 2080 work-hour per year, full-time equivalent basis)	75	N/A	N/A

(3) Environmental Benefits. *Please limit response to 4,000 characters.*

How will the FD/Construction project improve environmental quality, energy efficiency, and reduction in the Nation’s dependence on oil? Address project-caused changes in the following:

- Any projected reductions in key emissions (CO₂, O₃, CO, PM_x, and NO_x) and their anticipated effects. Provide any available forecasts of emission reductions from a baseline of existing service for the first and fifth years of full operation (*provide supporting documentation if available*).
- Any expected energy and oil savings from traffic diversion from other modes and changes in the sources of energy for transportation. Provide any available information on changes from the baseline of the existing service for the first and fifth years of full operation (*provide supporting documentation if available*).
- Use of green methods and technologies. Address green building design, “Leadership in Environmental and Energy Design” building design standards, green manufacturing methods, energy efficient rail equipment, and/or other environmentally-friendly approaches.

The Ft Worth Signal Improvement Project derives indirect environmental benefits. While it is probable with higher speeds the locomotive fuel use will go up, improved OTP / reliability is likely to increase ridership, and replace definitive automobile trips between Oklahoma and Texas (with particular impact on single occupancy vehicles often associated with the business traveler), with the fuel efficiency and low environmental footprint of intercity passenger rail. These benefits would occur in along the current Flyer route, supporting our national vision towards improved air quality by leveraging and improving green transportation services.

(4) Livable Communities Project Benefits Narrative. *(For more information, see Section 5.1.1.3 of the HSIPR Guidance, Livable Communities).* *Please limit response to 3,000 characters.*

How will the FD/Construction Project foster Livable Communities? Address the following:

- Integration with existing high density, livable development: Provide specific examples, such as (a) central business districts with walking/biking and (b) public transportation distribution networks with transit-oriented development.
- Development of intermodal stations: Describe such features as direct transfers to other modes (both intercity passenger transport and local transit).

The Flyer connects the two major business centers of Oklahoma City and Ft. Worth, with stops in Norman, Purcell, Pauls Valley, & Ardmore, OK, as well as Gainesville, TX. The Flyer carries you directly in to downtown Oklahoma City, with the station located adjacent to the historic Bricktown Entertainment District. The district includes a canal with a mile-long river walk lined with restaurants. The station is also conveniently located near the city’s Metro Transit public bus system, allowing passengers access to other attractions such as the National Cowboy and Western Heritage Museum and Myriad Botanical Gardens. Flyer travelers can also connect to the Texas Eagle and other Amtrak routes to travel to Chicago and further east, south to Austin and San Antonio, or west to Los Angeles.

The Flyer and trains arrive at the recently constructed Intermodal Transportation Center (ITC); the hub for bus, taxi and rail service in Ft. Worth, allowing direct transfers to multiple modes of transportation. The ITC is located only blocks away from historic Bass Performance Hall and Sundance Square, part of a 20-block entertainment district in the heart of downtown Ft. Worth. The ITC offers other modes of public transportation such as Greyhound inter-city bus service, Ft. Worth’s city bus system known as The T, as well as the Trinity Railway Express, a commuter rail connecting the cities of Ft. Worth and Dallas. Additionally, DFW Airport

provides a shuttle service every 15 minutes, which allows passengers from as far north as Oklahoma City easy access to DFW’s international airport.

Project Name: TX- Crossing Signal Timing, BNSF Fort Worth Sub Date of Submission: 8/24/09 Version Number: v1

E. Project Success Factors

(1) Project Management Approach and Applicant Qualifications Narrative: Please provide separate responses to each of the following. Additional information on project management is provided in Section 5.1.2.1 of the HSIPR Guidance, Project Management.

1A. Applicant qualifications. Please limit response to 2,000 characters.

Management experience: Does the applicant have experience in managing rail investment projects and managing projects of a similar size and scope to the one proposed in this application?

- Yes - Briefly describe experience (brief project(s) overview, dates)
- No- Briefly describe expected plan to build technical and managerial capacity; provide reference to Project Management Plan.

The railroad project funding will be administered by TxDOT through a written agreement with the railroad to provide the work through railroad force account. The railroad will provide plans, specifications, and estimates for the project which will be attached to the agreement as an exhibit and as a detailed project description.

The agreement requires the railroad and/or its contractors to provide a comprehensive general liability insurance policy, a contractor’s protective liability insurance policy, and railroad protective liability insurance, providing a limit of not less than \$2,000,000 aggregate for all occurrences.

The agreement stipulates that development of the project must comply with the National Environmental Policy Act and the National Historic Preservation Act and stipulates how the cost of any environmental mitigation or remediation will be included in the project costs.

The agreement requires the railroad to comply with all applicable provisions of the American Recover and Reinvestment Act of 2009 (ARRA), including all reporting requirements, audits, examination of records, and identifies specific reporting and auditing requirements by ARRA Section. The agreement includes the requirement for all parties to comply with all federal, state, and local laws, statues, ordinances, rules, regulations, and orders and decrees of any courts or administrative bodies. The agreement includes a lobbying certification in which the parties certify that no appropriated funds have been or will be used for lobbying efforts.

When the agreement is finalized and signed by both parties, and the grant agreement is executed with the FRA and funds obligated, the project will proceed through the railroad force account process as detailed above. Monthly invoices will be submitted for work completed and paid after audit and verification of the work reported. TxDOT would then submit billings to the FRA for reimbursement.

This process is the same process that TxDOT has used for many years for grade crossing improvements and is a well established process.

1B. Describe the organizational approach for the different project stages included in this application (final design, construction), including the roles of staff, contractors and project stakeholders in implementing the project. For construction activities, provide relevant information on work forces, including railroad contractors and grantee contractors. Please limit response to 2,000 characters.

A diverse cross functional team has and will be assembled to implement and manage the Ardmore Signal Improvement Project. The project team currently consists of applicable members of the Texas Department of Transportation, Amtrak, and BNSF Railway with support from professional consultants. Through the contribution of this inclusive team, a project plan was developed including scope development, preliminary engineering, environmental permitting, final design, bidding/contract generation and construction.

Scope development for the Ft Worth Sub Crossing Signal Project was completed through comprehensive RTC modeling of the future and proposed freight and passenger rail operations. Led by the BNSF, the results of this modeling effort were utilized to develop infrastructure improvements supporting operational fluidity resulting in an agreed to project scope of work. With this scope of work, the BNSF has progressed with this project's efforts as well generated 10% preliminary engineering effort associated with the proposed signal improvements.

As for final design and construction, pending HSIPR funding award, it is currently planned for the Texas Department of Transportation to act as the governing agency in control of funding allocation and budgetary review and the BNSF Railway as the project implementer responsible for project management, field review and signal construction.

1C. Does the FD/Construction Project require approval by FRA of a waiver petition from a Federal railroad safety regulation? (Reference to, or discussion of, potential waiver petitions will not affect FRA's handling or disposition of such waiver petitions.)

- YES- If yes, explain and provide a timeline for obtaining the waivers
 NO

Please limit response to 1,500 characters.

1D. Provide a preliminary self-assessment of project uncertainties and mitigation strategies (consider funding risk, schedule and budget risk and stakeholder risk). Describe any areas in which the applicant could use technical assistance, best practices, advice or support from others, including FRA. Please limit response to 2,000 characters.

The inclusive scope of work is financially reasonable, constructible, and meets all parties' operational needs; however, risks from project uncertainties do exist. To alleviate the impact of these risks, a risk assessment was performed to identify key drivers and mitigation strategies. As part of this process, risks were categorized as Stakeholder, Funding/Budgetary, and Schedule risks with risks preventing project implementation labeled as non-starter.

Stakeholder risks are those relative to agreements, contracts and assurances. While unlikely, one main risk was identified: stakeholder scope and agreement incongruity. To mitigate agreement incongruity, a Scope and Terms Agreement for pre-concurrence in advance of potential HSIPR funding award has been implemented.

Three Funding/Budgetary risks were identified: 1) non-award of HSIPR funding, 2) bid overruns and 3) scope creep. The impact of non-award of HSIPR is a non-starter risk for the Signal Improvements. All efforts to develop an effective project resulting in positive impacts to high speed rail and economic recovery were taken to mitigate this risk. As for bid overruns, a cross team review process was utilized to ensure that all scope items were inclusive and accounted for in the estimates. The risk of scope creep will be mitigated by the agreed to Scope and Terms Agreement.

Finally, two Schedule risks were identified: 1) weather impacts and 2) signal design/material acquisition. To mitigate the occurrence and impact of these risks, a phasing plan has been developed to condense the critical path with concurrent construction activity. This preliminary planning will promote immediate final design activity and increase activity float to ensure a timely and flexible schedule.

(2) Stakeholder Agreements Narratives. *Additional information on Stakeholder Agreements is provided in Section 5.1.2.2 of the HSIPR Guidance.*

Under each of the following categories, describe the applicant's progress in developing requisite agreements with key stakeholders. In addition to describing the current status of any such agreements, address the applicant's experience in framing and implementing similar agreements, as well as the specific topics pertaining to each category.

2A. Ownership Agreements – Describe how agreements will be finalized with railroad infrastructure owners listed in the “Right-of-Way Ownership” and “Service Description” tables in Section B. If appropriate, “owner(s)” may also include operator(s) under trackage rights or lease agreements. Describe how the parties will agree on project design and scope, project benefits, project implementation, use of project property, project maintenance, scheduling, dispatching and operating slots, project ownership and disposition, statutory conditions and other essential topics. Summarize the status and substance of any ongoing or completed agreements. *Please limit response to 2,000 characters.*

Considering that the project involves property of the BNSF Railway, all parties have worked collectively to produce an agreeable scope of work. Specifically, preliminary engineering has been reviewed and agreed upon by all parties. A high-level construction schedule is understood by all Parties which will meet ARRA Track 1 requirements. TXDOT will assume responsibility for overseeing overall project progression and budget. Due to existing collective bargaining agreements, all construction activities will be the sole responsibility of the BNSF for work performed on its own property and as such, all Parties agree that the Railroads will own all improvements on their respective properties, including sole responsibility for all operations and maintenance in perpetuity.

Considering the above, TXDOT, and USDOT will have no future obligation to maintain or contribute to this facility in any way once construction has been completed. Once the project is fully funded, the BNSF and TXDOT will enter into Construction and Maintenance (CM) agreements which formalize the above terms consistent with the requirements of the Parties and the ARRA. These CM agreements are predominantly standard form, and have been successfully entered into and fully executed numerous times previously by the BNSF and TXDOT.

Additionally, passenger operations affected by this project are in place now and are already controlled by existing operating agreements between the BNSF and Amtrak. Per the current operational agreements, it is agreed to by all parties that dispatching and operating protocols establish the priority of Amtrak passenger trains and that these terms ensure that congestion relief benefits will first accrue to the passenger trains.

2B. Operating Agreements – Describe the status and contents of agreements with the intended operator(s) listed in “Services” table in the Project Overview section above. Address project benefits, operation and financial conditions, statutory conditions, and other relevant topics. *Please limit response to 2,000 characters.*

A solidified operating agreement between the National Railroad Passenger Corporation and Burlington Northern Railroad Company and The Atchison, Topeka and Santa Fe Railway Company exists and is valid.

By statute and under the Agreement the BNSF agrees to provide Amtrak with the use of facilities and the service requested by Amtrak for or in connection with the operation of Amtrak’s Intercity Rail Passenger Service, including the carrying of mail and express on Intercity Rail Passenger Trains to the extent authorized by the Act (Title 49 USC Section 24101 et seq.).

In addition, BNSF agrees under the Agreement to “provide and furnish all labor, materials, equipment and facilities necessary to perform the service to be provided” under Sections 3.1 and 3.2 (Basic Service, and New, or Emergency Service) of the Agreement.

Finally, the Agreement ensures that “BNSF shall cooperate in good faith with Amtrak in providing service which will contribute to the success of Amtrak’s Intercity Rail Passenger Service.” In that regard, BNSF has worked closely with Amtrak management in Texas, as well as state transportation officials, in the identification of capital investments needed to improve Amtrak service.

This application puts forth such proposed infrastructure improvements to improve the viability of the Flyer Amtrak service by maximizing OTP and run time reliability for the service between Gainesville, Texas and Fort Worth, Texas.

2C. Selection of Operator – This question applies to Track 1a only. If the proposed operator railroad was not selected competitively, please provide a justification for its selection, including why the selected operator is most qualified, taking into account cost and other quantitative and qualitative factors, and why the selection of the proposed operator will not needlessly increase the cost of the project or of the operations that it enables or improves. *Please limit response to 1,000 characters.*

N/A

2D. Other Stakeholder Agreements – Provide relevant information on other stakeholder agreements including State and local governments. *Please limit response to 2,000 characters.*

2E. Agreements with operators of other types of rail service – Describe any cost sharing agreements with operators of non-intercity passenger rail service (e.g., commuter, freight). *Please limit response to 2,000 characters.*

Not applicable

(3) Financial Information.

3A. Capital Funding Sources. Please provide the following information about your funding sources (if applicable).

Non FRA Funding Sources	New or Existing Funding Source?	Status of Funding ⁵	Type of Funds	Dollar Amount (YOE Dollars)	% of Project Cost	Describe Uploaded Supporting Documentation to Help FRA Verify Funding Source
	New	Committed				

3B. Capital Investment Financial Agreements: Describe any cost sharing contribution the applicant intends to make towards the FD/Construction Project, including its source, level of commitment, and agreement to cover cost increases or financial shortfalls. Describe the status and nature of any agreements between funding stakeholders that would provide for the applicant’s proposed match, including the responsibilities and guarantees undertaken by the parties. Provide a brief description of any in-kind matches that are expected. *Please limit response to 2,000 characters.*

The Texas Department of Transportation does not intend to provide initial funding for this Project. The intent of this application is to secure \$3,754,180 in funding for the project improvements through the HSIPR grant program. Financial agreements between BNSF and TXDOT detailing TxDOT’s obligation to fund any cost overruns are being drafted and will be finalized by the time the project is chosen for funding.

3C. Operating Financial Plan: Does the applicant expect that the State operating subsidy requirements for the benefiting intercity passenger rail service will significantly increase, **as a result of the project**, during the first five years after project completion?

Yes No

⁵ Reference Notes: The following categories and definitions are applied to funding sources:

Committed: Committed sources are programmed capital funds that have all the necessary approvals (e.g. legislative referendum) to be used to fund the proposed project/program without any additional action. These capital funds have been formally programmed in the State Rail Plan and/or any related local, regional, or State Capital Investment Program CIP or appropriation. Examples include dedicated or approved tax revenues, State capital grants that have been approved by all required legislative bodies, cash reserves that have been dedicated to the proposed project/program, and additional debt capacity that requires no further approvals and has been dedicated by the sponsoring agency to the proposed project/program.

Budgeted: This category is for funds that have been budgeted and/or programmed for use on the proposed project but remain uncommitted, i.e., the funds have not yet received statutory approval. Examples include debt financing in an agency-adopted CIP that has yet to be committed in their near future. Funds will be classified as budgeted where available funding cannot be committed until the grant is executed, or due to the local practices outside of the project sponsor's control (e.g., the project development schedule extends beyond the State Rail Program period).

Planned: This category is for funds that are identified and have a reasonable chance of being committed, but are neither committed nor budgeted. Examples include proposed sources that require a scheduled referendum, requests for State/local capital grants, and proposed debt financing that has not yet been adopted in the agency's CIP.

If “Yes,” please complete the table below (in YOE dollars) and answer the following questions. *Please limit response to 2,000 characters.*

- (a) How did you project future State operating subsidies for the benefiting service(s); and
- (b) What are the source, nature, and likelihood of the funding that will enable the State to finance the projected increases in annual operating subsidies due to the project?

Subsidy	Actual— FY 2009 levels (YOE Dollars)	Projected Totals by Year (Actual Levels <u>Plus</u> Project Caused Changes Only) (YOE Dollars)	
		First Full Year After Project Completion	Fifth Full Year After Project Completion
State operating subsidy (total for all benefiting services)			
<p>(4) Financial Management Capacity and Capability – Provide audit results and describe applicant capability to absorb potential cost overruns, financial shortfalls, or financial responsibility for potential disposition requirements (include as supporting documentation as needed). Provide statutory references/ legal authority to build and oversee a rail capital investment. <i>Please limit response to 2,000 characters.</i></p> <p>TxDOT has authority under Chap 91 of the Transportation Code to build rail projects.</p> <p>The railroad project funding will be administered by TxDOT through a written agreement with the railroad to provide the work through railroad force account. The railroad will provide plans, specifications, and estimates for the project which will be attached to the agreement as an exhibit and as a detailed project description.</p> <p>The agreement requires the railroad and/or its contractors to provide a comprehensive general liability insurance policy, a contractor’s protective liability insurance policy, and railroad protective liability insurance, providing a limit of not less than \$2,000,000 aggregate for all occurrences.</p> <p>The agreement stipulates that development of the project must comply with the National Environmental Policy Act and the National Historic Preservation Act and stipulates how the cost of any environmental mitigation or remediation will be included in the project costs.</p> <p>The agreement requires the railroad to comply with all applicable provisions of the American Recover and Reinvestment Act of 2009 (ARRA), including all reporting requirements, audits, examination of records, and identifies specific reporting and auditing requirements by ARRA Section. The agreement includes the requirement for all parties to comply with all federal, state, and local laws, statues, ordinances, rules, regulations, and orders and decrees of any courts or administrative bodies. The agreement includes a lobbying certification in which the parties certify that no appropriated funds have been or will be used for lobbying efforts.</p> <p>When the agreement is finalized and signed by both parties, and the grant agreement is executed with the FRA and funds obligated, the project will proceed through the railroad force account process as detailed above. Monthly invoices will be submitted for work completed and paid after audit and verification of the work reported. TxDOT would then submit billings to the FRA for reimbursement.</p> <p>This process is the same process that TxDOT has used for many years for grade crossing improvements and is a well established process.</p>			
<p>(5) Timeliness of Project Completion – Provide the following information on the dates and duration of key activities, if applicable. <i>For more information, see Section 5.1.3.1 of the HSIPR Guidance, Timeliness of Project Completion.</i></p>			
Final Design Duration:		5 months	

Construction Duration:	10 months
Rolling Stock Acquisition Duration:	N/A months
Rolling Stock Testing Duration:	N/A months
Service Operations Start date:	12/2010 (mm/yyyy)
<p>(6) If applicable, describe how the project will promote domestic manufacturing, supply and other industries, including United States-based equipment manufacturing and supply industries. Please limit response to 1,500 characters.</p> <p>This Project promotes domestic manufacturing, supply and local US industry in many ways. Specifically, all construction materials anticipated for project implementation will be sourced domestically to the best ability of BNSF.</p> <p>Explicit to construction, more than \$500,000 in labor dollars are anticipated to be expended on domestically sourced services specific to signal/control systems implementation.</p>	
<p>(7) If applicable, describe how the project will help develop US professional railroad engineering, operating, planning and management capacity needed for sustainable HSR/IPR development in the United States, including promotion of a diverse workforce. Please limit response to 1,500 characters.</p> <p>Striving to meet the needs for an efficient, environmentally friendly and reliable passenger transportation system, since the late 1990's much effort has been expended by USDOT, TxDOT, affected Cities and contributing Class I railroads towards developing a viable high speed rail corridor through Texas and into Oklahoma supporting the Flyer route today and in the future. This effort has afforded growth and experience in design, operation and management of a viable intercity passenger service among all parties.</p> <p>Specific to this project, local rail engineering and operation modeling/planning firms have been contracted to join the collective team relative to scope development and preliminary engineering. This diverse work force has worked diligently to best understand current operational sensitivities, infrastructure constraints towards future growth and to develop infrastructure conflict resolutions. Through the work performed to date, critical drivers of on-time performance and run time have been realized.</p> <p>By promoting this project with a HSIPR funding award, continued focus will be given to this promising high speed rail corridor, affording further team development, more refined knowledge of high speed rail and local opportunities for professional services specifically related to the growth and viability of the corridor.</p>	

Project Name: TX- Crossing Signal Timing, BNSF Fort Worth Sub Date of Submission: 8/24/09 Version Number: v1

F. Additional Information

<p>(1) Please provide any additional information, comments, or clarifications and indicate the section and question number that you are addressing (e.g., Section E, Question 1B). This section is optional.</p> <p>See included BNSF Project Management Plan for additional support relative to project planning and process control.</p>

G. Summary of Supporting Materials

Application Form	Required	Optional	Reference	Description	Format
<input type="checkbox"/> This Application Form	✓		HSIPR Guidance Section 4.3.3.3	This document to be submitted through <i>GrantSolutions</i> .	Form
Supporting Forms	Required	Optional	Reference	Description	Format
<input type="checkbox"/> General Info.	✓		HSIPR Guidance Section 4.3.5	This document to be submitted through <i>GrantSolutions</i> .	Form
<input type="checkbox"/> Detailed Capital Cost Budget	✓		HSIPR Guidance Section 4.3.5	This document to be submitted through <i>GrantSolutions</i> .	Form
<input type="checkbox"/> Annual Capital Cost Budget	✓		HSIPR Guidance Section 4.3.5	This document to be submitted through <i>GrantSolutions</i> .	Form
<input type="checkbox"/> Project Schedule	✓		HSIPR Guidance Section 4.3.5	This document to be submitted through <i>GrantSolutions</i> .	Form
Supporting Documents	Required	Optional	Reference	Description	Format
<input type="checkbox"/> Map of the Planned Investment		✓	Application Question B.6	Map of the Planned Investment location. Please upload into <i>GrantSolutions</i> .	None
Standard Forms	Required	Optional	Reference	Description	Format
<input type="checkbox"/> SF 424: Application for Federal Assistance	✓		HSIPR Guidance Section 4.3.3.3	Please submit through <i>GrantSolutions</i>	Form

<input type="checkbox"/> SF 424C: Budget Information-Construction	✓		HSIPR Guidance Section 4.3.3.3	Please submit through <i>GrantSolutions</i>	Form
<input type="checkbox"/> SF 424D: Assurance Construction	✓		HSIPR Guidance Section 4.3.3.3	Please submit through <i>GrantSolutions</i>	Form
<input type="checkbox"/> FRA Assurances Document	✓		HSIPR Guidance Section 4.3.3.3	May be obtained from FRA's website at http://www.fra.dot.gov/downloads/admin/assurancesandcertifications.pdf . The document should be signed by an authorized certifying official for the applicant. Submit through <i>GrantSolutions</i> .	Form

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