Project Name: MO-KC to STL Corridor-Missouri Rail Crossing Safety Improvements

Version Number

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.
- Please name the project according to the following format and include the project name in the header on ALL application materials. 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: <u>HSIPR@dot.gov</u>

A. Point of Contact and Applicant Information

()		POC Title: Administrato	POC Title: Administrator of Railroads		
Street Address: 2217 St. Mary's Blvd.	City: Jefferson City	State: MO	Zip Code: 65109	Telephone Number: 573-751-7476	
Fax: 573-526-4709		Email: rodne	ey.massman@modot.	mo.gov	

Version Number:

for
Maybe

Program/Project Name	Lead Applicant	Track	Total HSIPR Funding Proposed (if known)	Status of application
*MO-KC to STL Corridor-2 nd Rail Bridge over Osage River	Missouri	Track 1a - FD/Construction	\$28.3 M	Applied
MO-KC to STL Corridor-Webster Universal Crossover	Missouri	Track 1a - FD/Construction	\$4.4 M	Applied
MO-KC to STL Corridor-Bonnots Mill Universal Crossover	Missouri	Track 1b - PE/NEPA	\$5.6 M total \$764,000 PE-NEPA	Applied
MO-KC to STL Corridor-Knob Noster Passing Siding Extension	Missouri	Track 1b - PE/NEPA	\$8.5 M total, \$836,800 PE-NEPA	Applied
MO-KC to STL Corridor- Hermann Universal Crossover	Missouri	Track 1b - PE/NEPA	\$5.2 M total, \$712,500 PE-NEPA	Applied
MO-KC to STL Corridor-3 rd Mainline Track in Jeff City Yard	Missouri	Track 1b - PE/NEPA	\$9.7 M total, \$930,000 PE-NEPA	Applied
MO-KC to STL Corridor- Kingsville Passing Siding	Missouri	Track 1b - PE/NEPA	\$11.5 M total, \$958,800 PE-NEPA	Applied
MO-KC to STL Corridor- Strasburg Grade Separation	Missouri	Track 1b - PE/NEPA	\$15 M total, \$1,700,000 PE-NEPA	Applied
MO-KC to STL Corridor-Double Track Lee's Summit to Pleasant Hill	Missouri	Track 1b - PE/NEPA	\$56.6 M total, \$1,418,800 PE-NEPA	Applied
MO-KC to STL Corridor-Real- Time Passenger Information Displays	Missouri	Track 1b - PE/NEPA	\$3 M total, \$750,000 PE-NEPA	Applied
MO-KC to STL Corridor-New Locomotive Equipment	Wisconsin -MO	Track 2	\$50 M total, undetermined PE-NEPA	Will Apply

^{*} This project would immediately <u>follow</u> the asterisk (*) highlighted project in priority order.

OMB No. 2130-0583

Project Name: MO-KC to STL Corridor-Missouri Rail Crossing Safety Improvements Date of Submission: 8-24-09

Version Number:

B. Project Overview

(1)	FD/Construction Project Name: MO-KC to STL Corridor-Missouri Rail Crossing Safety Improvements
(2)	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).
(3)	Indicate the activity(ies) for which you are applying (check both if applicable): Final Design Construction
(4)	What are the anticipated start and end dates for the FD/Construction Project? (mm/yyyy)
()	Start Date: *Depends on obligation, but no later than 02/01/10 End Date: 02/01/12
,	Total Cost of the FD/Construction Project (year of expenditure (YOE) Dollars*): \$ 3,145,000.00 Please provide proposed inflation assumptions and methodology, if applicable in the space below. Please limit response to 1,000 characters. Since each signal project will be constructed within two years of obligation, there are no inflation assumptions. However, each signal project has a 10-percent contingency included in order to account for any fluctuations in unit costs. No dollars
	or being requested for road or closure projects. MoDOT will fund these projects through existing sources. Of the total cost of the FD/Construction Project, how much would come from the FRA HSIPR Program: (YOE Dollars**) \$ 1,887,000.00
	Indicate percentage of total cost to be covered by <u>matching funds</u> 40 percent is covered by matching funds, with additional expenses paid for by MoDOT for all closure and road improvement costs, which will be approx. \$250,000.00 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.

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.

This shovel-ready project is located on the Union Pacific Railroad in Missouri along the *Missouri River Runner* route, which is the Amtrak-state supported service. There are 10 Amtrak stations along the route that include St. Louis, Kirkwood, Washington, Hermann, Jefferson City, Sedalia, Warrensburg, Lee's Summit, Independence and Kansas City. There is no commuter rail service on this line. The only freight use is by Union Pacific freight trains, which will also benefit from the

completed?

Project Name: MO-KC to STL Corridor-Missouri Rail Crossing Safety Improvements Date of Submission: 8-24-09

Version Number:

shovel-ready project. There will be no donated land from the railroad in order to construct the project..

As illustrated in the attached information, this project will improve on-time performance along the entire Union Pacific corridor in Missouri between St. Louis and Kansas City. It will also enhance the future provision of 90- to 110-mph service. Many of these crossings have a history of train-vehicle accidents, most of them involving the higher-speed Amtrak trains. These crossings were identified through a process that reviewed the busiest five rail corridors in Missouri. Since this is the busiest Amtrak corridor and one of the top 10 busiest freight corridors in Missouri, these crossings all need improvements for overall traffic and train safety.

This project will improve 15 highway/rail at-grade crossings between Sedalia and Kansas City. There are 13 crossings that will receive lights and gates, and two crossings that will be closed. The area in question is the only major area left on the 283-mile corridor that does not have many crossings with a full set of lights and gates. When this project is completed, the crossings left without a full set of lights and gates will either be closed or have such a low-vehicle traffic count that they will not need to be upgraded.

This project is part of an already existing agreement between MoDOT and the Union Pacific Railroad in which the costs are split 80-20 between the two parties. UP's share remains the same at 20 percent. MODOT intends to use both state funds and federal 23 USC Section 130 funds for its share of 20 percent. MoDOT is proposing ARRA funds for the other 60 percent.

All the crossings identified in an attached sheet are in Cole, Franklin, Pettis, Johnson and Cass counties on the UP Sedalia and Jefferson City subdivisions. Crossing improvements will all be full lights and gates installations with constant warning time circuitry and LED lighting. Closed crossings will be closed with type IV object markers and surfaces obliterated. All expenses of crossing closures, grading improvements and connecting roads will be paid for with existing funds and will not be part of the request for grant reimbursement. The overall purpose of this project is to promote crossing safety and reduce the amount of accidents between Amtrak trains and vehicles.

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

	Design)	completed in the	table below. ¹ If more	e than three
Activity	Description	Completed? (If yes, check box)	Actual Initiation Date (mm/yyyy)	Actual or Anticipated Completion Date (mm/yyyy)
Final design and estimate	Railroad's completion of estimates and final design	\boxtimes	4-1-09	7-3-09

(8) Describe the project service objectives (check all that apply): □ Additional Service Frequencies □ Increased Average Speeds/Shorter Trip Times □ Other (Please Describe): Primary issue is safety as □ many of these crossings are passive and have

rail/highway accidents

been the site of numerous freight and Amtrak

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.

Types of capital investments contemplated (check all	tnat 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):

(10) **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 Freigh	Union Pacific	283	424	Preliminary Executed Agreem
Amtrak				Master Agreement in Place
Amtrak				Master Agreement in Place

(11) **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.*

		Pro	ed Within eject daries	Number of Route-Miles	Average Number of Daily One-Way Train Operations ²	
Type of Service	Name of Operator	Passenger	Freight	Within Project Boundaries	within Project Boundaries	Notes
Freight	Union Pacific	*varies but avg is 70	*varie s, but avg is 55	169.77	38	before economic downturn
Intercity Pa	Amtrak	*varies but avg is 70	*varie s but avg is 55	169.77	4	current
Freight						

(12) 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*.

Amtrak currently provides two train sets. One includes a locomotive, two coach cars and one food (lounge) car with a first-class section for one round trip per day between St. Louis and Kansas City. The second set includes an additional coach car for one round trip per day. Together this provides for a total of four train trips per day. The contract is renegotiated yearly, and the overall number of available seats -- which is 195 on the average train -- is not expected to decline. This provides a total capacity for 780 passengers per day. Missouri is also applying on Track 2 as part of the state of Wisconsin's application for two new sets of train equipment for use on this corridor.

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

Track 1a – FD/Construction

OMB No. 2130-0583 Project Name: MO-KC to STL Corridor-Missouri Rail Crossing Safety Improvements Date of Submission: 8-24-09 Version Number: **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: Amtrak Status of Agreement: Final executed agreement on project scope/outcomes (14) Benefits to Other Types of Rail Service(s). Are benefits to non-intercity-passenger rail services (e.g., commuter, freight) foreseen? X Yes ☐ No If "Yes", provide further details in Section E, Question 2. 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)
Railroad has provided copies of final estimates and designs for each	7-3-09
crossing	
	1 11 1 44 1

(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
☐ Categorical Exclusion Documentation	8/14/09	attached
Final Environmental Assessment		
Final Environmental Impact Statement		

Version Number:

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

Documentation	Date (mm/yyyy)	Hyperlink (if available)
Categorical Exclusion Determination	N/A	N/A
☐ Finding of No Significant Impact		
Record of Decision		

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, <u>including</u> information on the following (*please provide a level of detail appropriate to the type of investment*):

- <u>IPR network development</u>: 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.
- <u>IPR service results</u> (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):
 - o 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.
 - o 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.

There are many transportation benefits associated with this project. The *Missouri River Runner* Amtrak service has four trains per day that connect to large metropolitan areas. In St. Louis, there are connections to five Amtrak trains to Chicago, one to San Antonio and one Amtrak bus connector to Carbondale, Illinois. These connections are based in the recently expanded St. Louis Gateway Center, which makes it possible to house all services in one building. Also at the center is several intercity bus services, city bus service and the MetroLink light rail system, which connects to the airport and many other areas of St. Louis metro region.

Version Number:

In Kansas City, the *Missouri River Runner* service connects to one train to Chicago and one train to Los Angeles. Plans are to also provide for the Heartland Flyer service to connect to Wichita, Oklahoma City and Dallas. These connections are all based in the Union Station complex, which is joined to several hotels and attractions through a downtown skyway.

The service improvements are outlined in the attached document highlighting a recent University of Missouri study of Amtrak delays and their causes. The findings show a dramatic decrease in Amtrak delays as a result of this project. Passenger numbers are currently increasing on the *Missouri River Runner* route. These numbers increased 10 percent from fiscal year 2008 to fiscal year 2009 and are expected to significantly increase with a reliable on-time performance, something that has been sought for many years. There is no commuter rail service on the line.

There is the potential for passenger service growth on this line. Both the MWRRI and the 1996 MOU between MoDOT and the UP (attached) show that at least three more slots have been preserved for this corridor, meaning the *Missouri River Runner* service could reach five round trips per day.

See the attached findings from the University of Missouri on specific improvements to on-time performance expected as a result of this project. The study demonstrates that all improvement projects would result in a 47 percent decrease in Amtrak delays. While this project is not specifically mentioned, it is clear the presence of lights and gates at crossings will decrease by 90 percent the chances of an at-grade crossing incident between a vehicle and an Amtrak train. Any single incident causes an Amtrak delay of at least two hours. This will effectively reduce the overall travel time by virtually eliminating these types of accidents in the area and increase ridership as the average travel time becomes more and more predictable.

Version Number:

1B. Operational and Ridership Benefits Metrics: In the table(s) below, provide information on the anticipated transportation benefits and ridership changes <u>projected to result from the project</u>. 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).

		Projected Totals by Year (Actual Levels <u>Plus</u> Project-Caused Changes Only)		
Project/Program Metric	Actual— FY 2008 levels	First Full Year After Project Completion	Fifth Full Year After Project Completion	"X" If N/A or Unsure
Annual passenger-trips	151,691	155,000	170,000	
Annual passenger-miles (millions)	28,327,133	35,000,000	40,000,000	
Annual IPR seat-miles offered (millions)	80,156,920	80,156,920	120,000,000*depen dent on legislative appropriation	
Average number of daily round train trip operations (typical weekday)	2	2	3*dependent on legislative appropriation	
On-time performance (OTP) ³ – percent of trains on time at endpoint terminals	18%	80%	85%	
Average train operating delays: minutes of enroute delays per 10,000 train-miles ⁴	3,227.871	3,000.00	2,800.00	
Top operating speed (mph)	79 mph	79	90	
Average scheduled operating speed (mph) (between endpoint terminals)	49.94 mph	55	58	

(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.

Page 9

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

Project Name: MO-KC to STL Corridor-Missouri Rail Crossing Safety Improvements De

Version Number:

Date of Submission: 8-24-09

The *High-Speed Intercity Rail Plan's* goal is to reduce delay time for both passenger and freight trains by adding additional rail sidings and enhancing existing rail infrastructure. The project would span the distance between Kansas City and St. Louis. The first phase involves three shovel-ready projects with a combined investment of approximately \$34 million. An additional six projects along the corridor will complete phase two with a combined investment of \$101 million. The total investment for the Missouri plan is estimated at \$151.3 million.

The rail crossing improvement project will upgrade 13 crossings and close two crossings in areas mainly west of Sedalia. This will complete the Jefferson City-to-Kansas City portion of the rail crossing safety corridor project. Project construction is located in the economically distressed area of western central Missouri. Total project investment if \$3.6 million.

Please see the attached analysis for the additional program-specific report of economic benefits provided by Missouri Department of Economic Development's Missouri Economic Research and Information Center.

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.

****See attachment from Missouri Economic Research and Information Center

Anticipated number of annual onsite and	FD/ Construction	First full Year	Fifth full Year
	Period	of Operations	of Operations
other direct jobs created (on a 2080 workhour per year, full-time equivalent basis)	19	1	1

(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, PMx, and NOx) 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.

Since crossing projects are primarily safety-oriented, the directly applicable environmental quality benefits will be realized in terms of what it is assumed will not happen in the future, rather than an easily ascertainable benefit. However, since this line is a busy freight route, it is clear that the lights and gates projects will prevent future accidents and possibly derailments resulting there from, which will mean the release of toxins, hazardous materials and other inhalation risks will be lowered dramatically on this line. The use of lights and gates as opposed to merely cross bucks at any particular crossing has the immediate impact of reducing the potential for accidents by over 90 percent.

The idling of trains and vehicles that result from the accidents or derailments will be eliminated as well. There also should be some benefit in reducing idling of traffic at the various crossings because vehicles will no longer have to idle excessively while traversing the crossings. Lastly, there is a power benefit to the project being in Missouri in that the MoDOT Railroad Section requires the use of LED's rather than incandescent bulbs on most railroads, and the UP will be required to use them here. This saves energy over the term the lights and gates are in place and are much more energy efficient than incandescent bulbs.

Rail travel consumes less energy per passenger mile than car or air travel. By diverting 10 percent of the freight moved on highways to rail, the nation could save as much as one billion gallons of fuel annually. Amtrak is committed to a 6 percent reduction in carbon dioxide emissions by voluntary committing to meet greenhouse gas emission reduction targets.

Version Number:

(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).

One of the project's goals is to improve dependability and speed of Amtrak service between St. Louis and Kansas City. This service connects 10 diverse communities including Missouri's two largest major metropolitan areas, the state capital and several popular historic towns. Improving the service will synergistically support the existing transportation systems providing intermodal access to an abundance of work- and tourist-related locations within these 10 communities. There is no concurrent intercity bus service on the same parameters as the Amtrak route (see attached map), so the service obviously shows a need for its existence. The Gateway Transportation Center in downtown St. Louis combines access from Amtrak to the local transit systems (light rail and bus), taxis and intercity buses.

In Hermann, Sedalia and Jefferson City, passengers can access the Katy Trail State Park, which is Missouri's most popular hiking/biking facility and the nation's longest rails-to-trails conversion. Amtrak and Missouri partnered to provide specific accommodation for bicycles on board the trains in response to passengers' desiring to take bikes along for trail rides. Also in Sedalia, the OATS transit system shares the building with the Amtrak station.

In Warrensburg, home of the University of Central Missouri, the local bus system includes the Amtrak station along with 14 other regular stops. In Kansas City, the Amtrak station is located at Union Station, which is a local bus transfer facility offering access to the metropolitan area.

In addition to these locations with interconnectability to other transportation facilities, six of the Amtrak stations provide direct access to historic downtown business areas with stores, restaurants, wineries and lodging within walking distance. The expected improvements to Amtrak service will foster positive enhancement to livable communities.

Project Name: MO-KC to STL Corridor-Missouri Rail Crossing Safety Improvements

Version Number:

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 applicant previously secured a grant from the Federal Railroad Administration, Intercity Passenger Rail Program, Grant No. 6048 of \$3,292,684, to construct a new siding at Shell Spur on the same Union Pacific-Amtrak corridor of this project. The award was made Sept. 30, 2008, and construction began May 29, 2009. Work is on going and will be complete by Dec. 31, 2009. The award was matched to a \$5 million state appropriation. An MOU and a later multifaceted agreement were signed in 2009 with the Union Pacific Railroad to facilitate the project. A grant agreement was also signed with the FRA.

Both application and the current grant oversight are efforts on behalf of many areas of expertise in the Missouri Department of Transportation. These areas include but are not limited to environmental, design, controller's office, transportation planning, governmental relations and multimodal operations. The key stakeholder/project driver in MoDOT is the railroad section. Each of these units also interfaces with Union Pacific and the actual contractor as well in order to solve problems and expedite solutions.

The project is similar to the Shell Spur project and another of the Track 1b projects -- the Knob Noster siding extension, which was designed using part of the monies from the same Shell Spur grant. The third mainline construction is expected to be similar to the Shell Spur siding. MoDOT has been extensively involved in all areas of the shell siding project including design, pre-bid process and daily updates with the contractor.

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.

The previous Shell Spur project serves as a good example of the approach that will be used. Union Pacific, the project owner and maintainer, is responsible for design and estimate. These crossing improvements were agreed to in separate diagnoctic reviews of each site and are supported by UP, the local road authority and MoDOT. A recent University of Missouri study shows that if Missouri's plan to complete 11 projects (including the four shovel-ready projects being proposed) is achieved, Amtrak delays along the corridor will decrease 47 percent.

The project's oversight process will follow these key steps: 1) initial diagnostic review on-site by all parties and initial estimate and design by UP, recognized in an MOU with MoDOT, 2) final plans' approval and final agreement entered into by UP and MoDOT, 3) MoDOT orders projects done by administrative order with a due date, 4) UP enters into its own schedule with its own employees to schedule construction and maintains contact with MoDOT regarding progress and other issues, 5) UP and MoDOT agree on billing cycle and process payments, and 6)MoDOT approves final project, has FRA-certified state signal inspectors inspect the project for any errors or problems, if none MoDOT accepts signals as functional, and MoDOT then audits payments made to UP and adjusts for any errors or ommissions.

Procedures and approvals as with any crossing project under the 23 USC Section 130 program and state grade crossing funds will be used. Each crossing will be authorized by an agreement and executed by an administrative order. Each project will be inspected upon completion by the railroad and audited for costs thereafter. The railroad is responsible for maintaining the signals thereafter.

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

Date of Submission: 8-24-09

of such waiver petitions.)
YES- If yes, explain and provide a timeline for obtaining the waivers
NO
Please limit response to 1,500 characters.

N/A

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.

There is no known funding risk if the application is approved per the the cost-sharing percentages with Union Pacific and MoDOT's funds that will be committed through the MOU. Union Pacific has agreed that the proposed project can be completed within a two-year construction timeframe, thus barring extreme unforseen 'acts of God,' such as earthquakes, tornados, floods or fires, there are no schedule risks. Amtrak has shown no propensity to discontinue service on the line as long as the state of Missouri financially supports the service, which has been in place for more than 30 years. There is no stakeholder risk. Many communities along the route have invested substantial amounts of money in their train stations, so there is a vested interest in ensuring the route's success of the route, thus there is not substantial risk of cities discontinuing support of their station stops.

If MoDOT is successful with this application, it will appreciate an expedited completion of the grant agreement so the project can be quickly started. MoDOT will require minimal technical assistance. Any assistance would be similar to the FRA assistance requested during the successful implementation efforts regarding the application for an intercity passenger rail grant in 2008.

(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*.

See the attached MOU's with both UP and amtrak. See also the 1996 agreement between MoDOT and UP agreeing to not only preserve the existing 2 operating slots but also the option to add an additional 3 slots.

A final multifaceted agreement will also be signed between Union Pacific and MoDOT for this proposed project following the grant award, which will be similar to the Shell Spur agreement, also attached.

The agreement details all aspects of the project, including design, scope, benefits, maintenance, ownership and expectations on behalf of all parties. Work on this final agreement will begin immediately when a grant is awarded.

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*.

Amtrak has approved this proposed project and recongizes it as a benefit to the Amtrak operation. Each year, MoDOT renegotiaties an annual contract with Amtrak. A copy of this contract is attached. The most recent contract was modified to specifically include language highlinging the parties' agreement to cooperate and share information on any projects involving federal grants for infrastructure.

Version Number:

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*.

Amtrak was established in 1971 and has operated the St. Louis-to-Kansas City passenger train service since then. In 1979, this line became a state-supported passenger rail service when Amtrak proposed the elimination of the link connecting Missouri's two largest metropolitan areas and the state's capital.

During the first two decades of operation, the state support needed by Amtrak to keep the line in operation steadily increased. The state legislature requested MoDOT seek a competitive bid in a quest to find an operator requiring less financial support. In both 2004 and 2005, a formal request for bids to operate the St. Louis-to-Kansas City service was extensively advertised; however, no bids were received in response to either request. Considering the current statutory advantages Amtrak enjoys, it is unlikely any other operator could compete for this service.

The conclusion made from this effort is Amtrak is the most economical provider of the passenger service.

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

Current state agreements include MoDOT's participation and funding in the Midwest Regional Rail Initiative (MWRRI), the States for Passenger Rail Coalition (SPRC) and the Midwest Interstate Passenger Rail Commission (MIPRC). The state also participates in the FRA's State Participation Program for Rail Safety Inspectors pursuant to 49 USC 20105. Each year, MoDOT contracts with local governments to spend limited funds available for station improvements selected by the local entities. MoDOT also contracts with local road authorities, including cities along the route, when crossing upgrades or improvements are made. In some cases, this is done to share costs, but most often, it is simply a gesture recgonzing the needed improvements.

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*.

An MOU for this proposed project has been signed with Union Pacific, and a full multifaceted agreement will be signed following the grant award for the project.

- (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
Union Pacific	New	Committed	Cost share funds	\$629,000.00	20	MOU attached

⁵ <u>Reference Notes:</u> 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.

Project Name: MO-KC to STL Corridor-Missouri Rail Crossing Safety Improvements

Version Number:

MoDOT	Existing	Committed	23 USC Sec. 130 funds	\$314,500.00	10	MOU attached
MoDOT	Existing	Committed	State Grade Crossing	\$314,500.00	10	MOU attached
			safety funds			

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*.

This project involves the installation of lights and gates, and road crossing closures, which is the normal business of the MoDOT Rail Section. Since it is the only entity in the state of Missouri authorized to order and approve these installations, MoDOT and UP are committing to cover 40 percent of the total costs of each project. This will consist of using 10 percent state grade-crossing safety funds, 10 percent federal funds received from the 23USC Section 130 program and 20 percent UP funds. All projects will be overseen, billed, inspected and audited using all routine grade-crossing procedures under federal and state standards. This application is not requesting any dollars for road improvements or closures; it is only seeking funds for the installation of lights and gates. All costs, along with any cost overruns, for closures and connecting roads will be funded through existing MoDOT program funds.

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

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?

N/A

Project Name: MO-KC to STL Corridor-Missouri Rail Crossing Safety Improvements

Version Number:

Projected Totals by Year (Actual Levels Plus **Project Caused Changes Only)** (YOE Dollars) Actual— FY 2009 levels Fifth Full Year After First Full Year After **Subsidy** (YOE Dollars) **Project Completion Project Completion** State operating subsidy (total for all benefiting N/A N/A N/A services)

(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. *Please limit response to 2,000 characters*.

The legal corporate body overseeing MoDOT is the Mo. Highways and Transportation Commission. The state constitution, Article 4 §29, gives it authority over railroad programs/facilities as provided by law and authority to plan, locate, relocate, establish, acquire, construct, maintain, control and as provided by law to operate, develop and fund public transportation facilities as part of any state rail transportation system or program.

Mo. statutes, §226.008 RSMo, give MHTC authority to administer and enforce all railroad laws in chapters 389 and 622 previously enforced by the Division of Motor Carrier and Railroad Safety. Also, §622.090 outlines MHTC's powers and duties, which extend to all railroads, to all transportation of persons or property thereon and to the person owning, leasing, operating or controlling the same; and to the portion of the lines of any other railroad within Mo. and to the person or entity owning, leasing, or operating the same, so far as concerns the construction, maintenance, equipment, terminal facilities and local transportation facilities/transportation of persons or property; and to all railroad corporations operating or doing business in Mo.

Under §622.140, MHTC may contract with or act as an agent for the US or any agency thereof, or any railroad, that are proper, expedient, fair and equitable and in the interest of the state and its citizens and to that end the now MHTC may receive and disburse any contributions, grants or other financial assistance as a result of or pursuant to such agreements or contracts. Lastly, §622.250 gives MHTC authority to generally supervise common carriers and to examine and keep informed as to the safety, adequacy and security afforded by them and their compliance with all provisions of law, orders and MHTC decisions. MHTC may inspect tracks and facilities of any rail carrier, including of locomotives or trains.

(5) **Timeliness of Project Completion** – Provide the following information on the dates and duration of key activities, if applicable. *For more information, see Section 5.1.3.1 of the HSIPR Guidance, Timeliness of Project Completion.*

Final Design Duration:	complete months
Construction Duration:	24 months to construct all crossings months
Rolling Stock Acquisition Duration:	N/A months
Rolling Stock Testing Duration:	N/A months
Service Operations Start date:	N/A (mm/yyyy)

(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.

The installation of new railroad crossing warning devices will require the purchase of a variety of supplies and manufactured goods. The largest share of the cost will be spent purchasing the crossing signal equipment including the flashing lights and gates, electronic devices to operate the warning devices, backup battery systems and bungalows to house the equipment. Additional materials needed for this project include aggregate, corrugated metal pipe, seed and mulch.

The total material cost is expected to exceed \$2.5 million. As with the current FRA- MoDOT grant intercity passenger rail project to build a siding at Shell Spur near California, MO, all purchased products will comply with the "Buy America" provisions, and local suppliers typically will be used for the commonly available items. Thus, this project will stimulate domestic supply and

Track 1a – FD/Construction **OMB No. 2130-0583**

Project Name: MO-KC to STL Corridor-Missouri Rail Crossing Safety Improvements Date of Submission: 8-24-09

Version Number:

manufacturing industries.

(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.

This project is one part of the plan to incrementally improve the St. Louis-to- Kansas City rail passenger infrastructure. The implementation and operation of the improved rail passenger system will exert a positive, long-term impact on the professional railroad industry. During the project implementation phase, professional railroad engineers, planners and managers will be employed to assure the improvements are properly designed and constructed. When completed, the improved infrastructure will become a part of the Midwest regional system of high-speed intercity passenger rail service. This regional system will create a greater capacity and need for efficient railroad operations and technological improvements for the next generation, thus supporting a sustainable high-speed intercity rail passenger service.

Missouri Department of Transportation and the Union Pacific Railroad foster a culture of diversity within their respective workforces, and both agencies are strong supporters of the USDOT Disadvantaged Business Enterprise (DBE) Program. MoDOT has an exceptional track record of DBE compliance with regard to the award of contracts for transportation improvement projects. In light of this long-standing, clear commitment to workforce diversity, the administration of these FRA ARRA funds will undoubtedly promote a diverse workforce as the project progresses from final design to operation of the improved rail passenger infrastructure.

Track 1a – FD/Construction **OMB No. 2130-0583**

Project Name: MO-KC to STL Corridor-Missouri Rail Crossing Safety Improvements

Version Number:

F. Additional Information

(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.*

All roadway improvements, turn lanes and connecting roads, along with the cost of railroad crossing closures will be funded through other MoDOT funds. No ARRA funds are being requested for those purposes. Any environmental issues with the road improvements will be completed using normal FHWA/MoDOT procedures.

Date of Submission: 8-24-09

Version Number:

G. Summary of Supporting Materials

		•	or with contra		
Application Form	Required	Optional	Reference	Description	Format
☐ 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
⊠ General Info.	✓		HSIPR Guidance Section 4.3.5	This document to be submitted through <i>GrantSolutions</i> .	Form
□ Detailed Capital Cost □ Budget	√		HSIPR Guidance Section 4.3.5	This document to be submitted through <i>GrantSolutions</i> .	Form
Annual Capital Cost Budget	√		HSIPR Guidance Section 4.3.5	This document to be submitted through <i>GrantSolutions</i> .	Form
□ 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
		√	Application Question B.6	Map of the Planned Investment location. Please upload into <i>GrantSolutions</i> .	None
Standard Forms	Required	Optional	Reference	Description	Format
SF 424: Application for Federal Assistance	√		HSIPR Guidance Section 4.3.3.3	Please submit through GrantSolutions	Form

Version Number:

SF 424C: Budget Information- Construction	✓		HSIPR Guidance Section 4.3.3.3	Please submit through GrantSolutions	Form
SF 424D: Assurance Construction	✓		HSIPR Guidance Section 4.3.3.3	Please submit through GrantSolutions	Form
FRA Assurances Document	= HSIPK Guidance		May be obtained from FRA's website at http://www.fra.dot.gov/downloads/admi n/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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