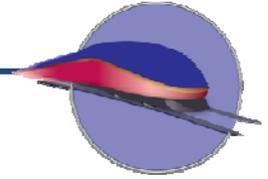


# Individual PE/NEPA Activities Application Form

## High-Speed Intercity Passenger Rail (HSIPR) Program



Applicants interested in applying for funding of Preliminary Engineering (PE)/National Environmental Protection Act (NEPA) activities under the FY10 Individual Project solicitation are required to submit this application form and other required documents as outlined in Section H of this application. List and describe any supporting documentation submitted in Section G. Applicants should reference the FY10 Individual Projects Notice of Funding Availability (NOFA) for more specific information about application requirements. If you have questions about the HSIPR Program or this application, please contact the Federal Railroad Administration (FRA) at [HSIPR@dot.gov](mailto:HSIPR@dot.gov).

Applicants must use this form by entering the required information in the gray narrative fields, check boxes, or drop-down menus. Submit this completed form, along with any supporting documentation, electronically by uploading them to [GrantSolutions.gov](http://GrantSolutions.gov) by 5:00 p.m. EDT on August 6, 2010.

### A. Point of Contact and Applicant Information

Applicant should ensure that the information provided in this section matches the information provided on the SF-424 forms.

<b>(1) Name the submitting agency:</b> Missouri Department of Transportation		<b>Provide the submitting agency Authorized Representative name and title.:</b> Rodney P. Massman, Administrator of Railroads		
<b>Street Address:</b> P.O. Box 270	<b>City:</b> Jefferson City	<b>State:</b> MO	<b>Zip Code:</b> 65102	<b>Authorized Representative telephone:</b> 573-751-7476 <b>Authorized Representative email:</b> rodney.massman@modot.mo.gov
<b>Provide the submitting agency Point of Contact (POC) name and title (if different from Authorized Representative):</b> same as above		<b>Submitting agency POC telephone:</b> 573-751-7476 <b>Submitting agency POC email:</b> rodney.massman@modot.mo.gov		
<b>(2) List the name(s) of additional state(s) applying (if applicable):</b>  N/A				

## B. Eligibility Information

Complete the following section to demonstrate satisfaction of applicant eligibility requirements.

(1) **Select the appropriate box from the list below to identify applicant type.** Applicant type is defined in Section 3.1 of the NOFA.

- State
- Group of States
- Amtrak
- Amtrak in cooperation with one or more States

If selecting one of the types below, additional documentation is required. Please select the appropriate box to establish applicant eligibility as described in Section 3.2 of the NOFA and list the supporting document in Section G.2 of this application.

- Interstate Compact
- Public Agency established by one or more States

(2) **Indicate the planning processes used to identify the underlying project.**<sup>1</sup> As defined in Section 3.5.1 of the NOFA, the process should analyze the investment needs and service objectives of the service that the underlying project is intended to benefit. The appropriate planning document must be listed in Section G.2 of this application.

- State Rail Plan
- Service Development Plan (SDP)
- Service Improvement Plan (SIP)
- Statewide Transportation Improvement Plan (STIP)
- Other, please list this document in Section G.2 with “Other Appropriate Planning Document” as the title
- The underlying project is not included in a relevant and documented planning process

<sup>1</sup> PE/NEPA activities include the specific tasks necessary to complete PE/NEPA documentation and other tasks applied for in this application that relate to this phase of the underlying project's development. The underlying project is the larger area and/or infrastructure that will become the Final Design (FD)/Construction project following completion of the PE/NEPA activities.

## C. PE/NEPA Activities Summary

Identify the title, location, and other information of your proposed PE/NEPA work by completing this section.

**(1) Provide a clear, concise, and descriptive project name.** Use identifiers such as state abbreviations, major cities, infrastructure, and tasks of the underlying project (e.g., “DC-Capital City to Dry Lake Track Improvements”).

MO-KC to STL Corridor - 3<sup>rd</sup> Mainline Track in Jefferson City Yard

**(2) Indicate the anticipated funding level for the PE/NEPA activities below.** This information must match the SF-424 forms, and dollar figures must be rounded to the nearest whole dollar. When the non-Federal match percentage is calculated, it must meet or exceed 20 percent of the total project cost.

Federal Funding Request	Non-Federal Match Amount	Total PE/NEPA Activities Cost	Non-Federal Match Percentage of Total Activities Cost
\$ 892,800	\$ 223,200	\$ 1,116,000	20 %

**(3) Indicate the activity(ies) for which you are applying.** Check all that apply.

Preliminary Engineering     Project NEPA<sup>2</sup>

**(4) Indicate the anticipated duration, in months, for these PE/NEPA activities (e.g., 36).**

Number of Months: 12

**(5) List the name of the corridor where the underlying project is located.**

Kansas City to St. Louis, Missouri Corridor

**(6) Describe the underlying project location, using municipal names, mileposts, control points, or other identifiable features such as longitude and latitude coordinates.** If available, please provide a project GIS .shp file as supporting documentation. This document must be listed in Section G.2 of this application.

Project is located at Jefferson City, (Cole County) Missouri, Jefferson City Subdivision, MP 125 through MP 126.4, entirely within the state of Missouri.

**(7) Provide a project abstract outlining the proposed PE/NEPA activities.** Summarize the project narratives provided in the Statement of Work in 4-6 sentences. Capture the major milestones and outcomes of PE/NEPA activities and the anticipated benefits that will result from the completion of the underlying project.

This project will improve on-time performance along the entire Union Pacific corridor in Missouri between St. Louis and Kansas City, and will enhance the future provision of 90- to 110-mph service. This project will increase fluidity through Jefferson City by maintaining two main lines for bi-directional freight trains when Amtrak is stopped at the Jefferson City station. This will extend track number one by 1,400 feet and will essentially create a third main line, allowing Amtrak to easily access the Jefferson City station. This will also increase passenger comfort by not stopping the train before it arrives at the Jefferson City station in order to get the train on the correct unloading track. This will also allow Union Pacific more options to interchange trains when more than two freight trains are in the area.

Pursuant to MoDOT’s stewardship goals and tangible result of being environmentally responsible, MoDOT Design environmental staff, in coordination with Union Pacific Railroad, will review the project to determine the appropriate environmental classification/level of NEPA documentation. This project will have minimal social, economic or environmental impacts; however, due to potential impacts and the proximity of the project to the Missouri River, a Section 404 Clean Water Act individual

<sup>2</sup> Project NEPA documentation is required for the specific design alternative identified through Preliminary Engineering and related activities. Project NEPA documentation may also be referred to as site-specific NEPA or Tier II NEPA documentation.

permit will more than likely be required. In addition, the project will likely require an Environmental Assessment. Please refer to the following web site for MoDOT's Engineering Policy Guide identifying the detailed steps for the PE/NEPA process.  
[http://epg.modot.mo.gov/index.php?title=127.14\\_National\\_Environmental\\_Policy\\_Act\\_\(NEPA\)\\_Classification\\_and\\_Documents](http://epg.modot.mo.gov/index.php?title=127.14_National_Environmental_Policy_Act_(NEPA)_Classification_and_Documents).

When completed, the project is noted as having a positive impact on the passenger service's on-time performance. The Jefferson City yard is primarily the only major yard between Kansas City and St. Louis. It is a crew-change point for UP and causes difficulties in the area due to the stopping and starting trains, which are mostly long coal trains. The Jefferson City Amtrak station is also at the end of the yard's east side, which complicates getting the train to the station due to the coal trains.

This project takes advantage of the area's existing track by adding new tracks and switches that achieve the functionality of an entire new length of track without a costly investment.

**(8) Indicate the source, amount, and percentage of matching funds for the PE/NEPA activities.** The sum of the figures below should equal the amount provided in Section C.2. Click on the prepopulated fields to select the appropriate responses from the lists provided in type of source, status of funding, and type of funds. Dollar figures must be rounded to the nearest whole dollar. Identify supporting documentation that will allow FRA to verify the funding source, and list it in Section G.2 of this application.

Non-Federal Funding Sources	New or Existing Source?	Status of Funding <sup>3</sup>	Type of Funds	Dollar Amount	% of Total Project Cost	Describe Any Supporting Documentation to Help FRA Verify Funding Source
Union Pacific Railroad	New	Committed	Cash	\$ 223,200	20 %	See attached MOU.
<b>Sum of Non-Federal Funding Sources</b>				\$ 223,200	20 %	N/A

<sup>3</sup> 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., statutory authority) to be used to fund the proposed project 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 or appropriation guidance. 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, and additional debt capacity that requires no further approvals and has been dedicated by the sponsoring agency to the proposed project.

**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 capital investment program that has yet to be committed in the near future. Funds will be classified as budgeted when available funding cannot be committed until the grant is executed or due to the local practices outside of the project sponsors 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 (e.g., 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 capital investment program).

## D. Underlying Project Overview

Answer the following questions about the underlying construction project that is the subject of the PE/NEPA application.

**(1) Indicate the expected service outcomes of the underlying project.<sup>4</sup>** Check all that apply.

- |   |  |
|---|--|
| <input type="checkbox"/> Additional service frequencies                         | <input checked="" type="checkbox"/> Improved operational reliability on existing route |
| <input checked="" type="checkbox"/> Service quality improvements                | <input checked="" type="checkbox"/> Improved on-time performance on existing route     |
| <input checked="" type="checkbox"/> Increased average speeds/shorter trip times | <input type="checkbox"/> Other (please describe)                                       |

Briefly clarify your response(s), if needed:

This project will improve the overall on-time performance of the route by maintaining reliability and implementing ease of schedules.

**(2) Quantify the applicable service outcomes of the underlying project.** Provide the current conditions and anticipated service outcomes. Future state information is necessary only for relevant service benefits.

	Frequencies <sup>5</sup>	Scheduled Trip Time (in minutes)	Average Speed (mph)	Top Speed (mph)	Reliability – Provide Either On-Time Performance Percentage or Delay Minutes
Current	4	540	49	79	80%
Future	4	540	55	79	85%

**(3) Indicate the type of expected capital investments included in the underlying project.** Check all that apply.

- |   |  |
|---|--|
| <input type="checkbox"/> Structures (bridges, tunnels, etc.)              | <input type="checkbox"/> Rolling stock acquisition                                   |
| <input checked="" type="checkbox"/> Track rehabilitation and construction | <input type="checkbox"/> Support facilities (yards, shops, administrative buildings) |
| <input checked="" type="checkbox"/> Major interlockings                   | <input type="checkbox"/> Grade crossing improvements                                 |
| <input type="checkbox"/> Station(s)                                       | <input type="checkbox"/> Electric traction   |
| <input checked="" type="checkbox"/> Communication, signaling, and control | <input type="checkbox"/> Other (please describe)                                     |
| <input type="checkbox"/> Rolling stock refurbishments                     |  |

**(4) Select and describe the operational independence of the underlying project.<sup>6</sup>**

- This project is operationally independent.     This project is not operationally independent.

Briefly clarify your response:

This project takes advantage of the area’s existing track by adding new tracks and switches that achieve the functionality of an entire new length of track without a costly investment that would otherwise be required for an entirely new length of track. This project will positively impact on-time performance even if no other projects are built.

<sup>4</sup> The underlying project is the larger area and/or infrastructure that will become the FD/Construction project following completion of the PE/NEPA activities.

<sup>5</sup> Frequency is measured in daily one-way train operations. One daily round-trip operation should be counted as two daily one-way train operations.

<sup>6</sup> A project is considered to have operational independence if, upon being implemented, it will provide tangible and measurable benefits, even if no additional investments in the same service are made.

**(5) Provide Right-of-Way ownership in the underlying project area.** Where railroads currently share ownership, identify the primary owner. If Amtrak is the Type of Railroad, the Right-of-Way Owner field does not need to be completed. Click on the prepopulated fields to select the appropriate response from the lists of railroad types and status of agreements. If more than five owners, please provide the same information in a separate supporting document, and list it in Section G.2 of this application.

Type of Railroad	Right-of-Way Owner	Route-Miles	Track-Miles	Status of Agreements to Implement
Class 1 Freight	Union Pacific Railroad	283	424	Preliminary Executed Agreement/MOU

**(6) Name the Intercity Passenger Rail Operator and provide the status of the agreement.** If applicable, provide the status of the agreement with the partner that will operate the planned passenger rail service (e.g., Amtrak). Click on the prepopulated field to select the appropriate response from the status of agreement list.

Name of Rail Service Operator	Status of Agreement
Amtrak	Final executed agreement on project scope/outcomes

**(7) Identify the types of services affected by the underlying project and provide information about the existing rail services within the underlying project boundaries (e.g., freight, commuter, and intercity passenger).** Click on the prepopulated fields to select the appropriate response from the list of types of service.

Type of Service	Name of Operator	Top Existing Speeds Within Underlying Project Boundaries		Number of Route-Miles Within Underlying Project Boundaries	Average Number of Daily One-Way Train Operations <sup>7</sup> Within Underlying Project Boundaries	Notes
		Passenger	Freight			
Freight	Union Pacific Railroad	65	55	1	50	This number is expected to increase with the improvement in the economy as the average number of trains in this area in 2007 was approximately 56.
Intercity Pa	Amtrak	65	55	1	4	There are two morning trains and two evening trains in each direction. This location is within ten miles of the Jefferson City station which requires the Amtrak train to be on Track #1 coming into the station so extra sortability of trains is helpful.

<sup>7</sup> One daily round-trip operation should be counted as two daily one-way train operations.

**(8) Estimate the share of benefits that will be realized by nonintercity passenger rail service (e.g., commuter, freight) and select the approximate cost share to be paid by the beneficiary.**<sup>8</sup> Click on the prepopulated fields to select the appropriate response from the lists of type of beneficiary, anticipated share of benefits, and approximate cost share. If more than three types of nonintercity passenger rail are beneficiaries, please provide additional information in a separate supporting document, and list in Section G.2 of this application.

Type of Nonintercity Passenger Rail	Expected Share of Benefits	Approximate Cost Share
Freight	Less than 50%	0-25%

<sup>8</sup> Benefits include service improvements such as increased speed, on-time performance, improved reliability, and other service quality improvements.

## E. Additional Response to Evaluation Criteria

Provide a separate response to each of the following categories of potential benefits to identify the ways in which the proposed PE/NEPA activities and underlying project will achieve these benefits.<sup>9</sup>

### (1a) Transportation Benefits

Describe the ways in which the proposed PE/NEPA activities or underlying corridor program will address the potential of successfully executing these transportation benefits in a cost-effective manner:

- Supporting the development of intercity high-speed rail service;
- Generating improvements to existing high-speed and intercity passenger rail service, as reflected by estimated increases in ridership (as measured in passenger-miles), increases in operational reliability (as measured in reductions in delays), reductions in trip times, additional service frequencies to meet anticipated or existing demand, and other related factors;
- Generating cross-modal benefits, including anticipated favorable impacts on air or highway traffic congestion, capacity, or safety, and cost avoidance or deferral of planned investments in aviation and highway systems;
- Creating an integrated high-speed and intercity passenger rail network, including integration with existing intercity passenger rail services, allowance for and support of future network expansion, and promotion of technical interoperability and standardization (including standardizing operations, equipment, and signaling);
- Encouragement of intermodal connectivity and integration through provision of direct, efficient transfers among intercity transportation and local transit networks at train stations, including connections at airports, bus terminals, subway stations, ferry ports, and other modes of transportation;
- Enhancing intercity travel options;
- Ensuring a state of good repair of key intercity passenger rail assets;
- Promoting standardized rolling stock, signaling, communications, and power equipment;
- Improved freight or commuter rail operations, in relation to proportional cost-sharing (including donated property) by those other benefiting rail users;
- Equitable financial participation in the project's financing, including, but not limited to, consideration of donated property interests or services; financial contributions by freight and commuter rail carriers commensurate with the benefit expected to their operations; and financial commitments from host railroads, non-Federal governmental entities, nongovernmental entities, and others;
- Encouragement of the implementation of positive train control (PTC) technologies (with the understanding that 49 U.S.C. 20147 requires all Class I railroads and entities that provide regularly scheduled intercity or commuter rail passenger services to fully institute interoperable PTC systems by December 31, 2015); and
- Incorporating private investment in the financing of capital projects or service operations.

This project will improve on-time performance along the entire Union Pacific corridor in Missouri between St. Louis and Kansas City, and will enhance the future provision of 90- to 110-mph service. Passenger numbers on the line increased by 10% from FY2008 to FY2009 and by nearly the same percentage in 2010. This project will increase fluidity through Jefferson City by maintaining two main lines for bi-directional freight trains when Amtrak is stopped at the Jefferson City station. This will extend track number one by 1,400 feet and will essentially create a third main line, allowing Amtrak to easily access the Jefferson City station. This will also increase passenger comfort by not stopping the train before it arrives at the Jefferson City station in order to get the train on the correct unloading track. This will also allow Union Pacific more options to interchange trains when more than two freight trains are in the area.

This project will provide benefits in getting passengers to the Jefferson City station in a timely and effective manner. It will also help sort the trains in the Jefferson City yard. These trains must now contend with each other in attempting to effectively get the Amtrak train to the station and the area's coal trains through the yard.

One of the major safety issues addressed will be to ensure the Jefferson City passengers can now always board the train on track 1, which is closest to the station. After the St. Louis and Kansas City stations, Jefferson is a major point for detraining and boarding. The Jefferson City location is often noted on the Amtrak delay reports regarding passenger-boarding delays. This project will lessen the delays by getting the train more quickly to the station and on the correct

<sup>9</sup> PE/NEPA activities include the specific tasks necessary to complete PE/NEPA documentation and other tasks applied for in this application that relate to this phase of the underlying project. The underlying project is the larger area and/or infrastructure that will become the FD/Construction project following completion of the PE/NEPA activities.

MO-KC to STL Corridor- JC 3<sup>rd</sup> Mainline (PE/NEPA)

track – both changes that improve the overall Amtrak on-time performance.

There is no commuter service on the line. However, freight trains will benefit as well by keeping them sorted correctly to stay on the appropriate tracks away from the station when Amtrak is in the area. Another benefit is to also keep freight trains moving when now they must stop in order to permit Amtrak or other freight trains to access the correct tracks. There are also environmental benefits in reducing idling time in the Jefferson City yard because trains will no longer have to stop and wait for track time on other tracks.

Positive Train Control (PTC) refers to technology that will eventually be used on this line that is capable of preventing train-to-train collisions, over speed derailments and casualties or injuries to roadway workers. It is a process by which the train can detect speed reductions, and the train will automatically slow down or come to a complete stop if the engineer does not respond in a timely manner. The proposed upgrades listed in this grant application will allow for the upgrades of signalized circuitry on these projects and a smoother transition from the standardized signal systems to the new circuitry that is compatible with positive train control equipment. Therefore, such upgrades will encourage the railroads to take a more immediate role in implementing PTC on the corridor, permitting freight and passenger trains to interact within a safer environment, especially in congested areas such as St. Louis.

UP is contributing 20 percent of the project improvement costs. This is a complementary project to the many other projects on the line and was also previously applied for during the 2009-2010 round of applications. It is also a current application for PE-NEPA work, and the reason it was applied for in this same round of applications is due to the nature of the improvements that are beneficial to both freight and passenger here because of the presence of the Amtrak station and the yard in essentially the same configuration of track. The operational benefits are good for use of the yard configurations in that area when they are implemented, they will provide a major boost to sort ability in and out of the Jefferson City yard and Jefferson City Amtrak station.

UP is showing its commitment to the project by its voluntary contribution of 20 percent and its use of future dispatching techniques to allow for better and easier dispatching of Amtrak trains in the area. UP also supported the effort to apply for this project in the previous round of applications, which shows its commitment and focus to this effort to make the Jefferson City yard and Amtrak approach track a fully functional and effortless endeavor.

### (1b) Other Public Benefits

Demonstrate the potential of the proposed PE/NEPA activities or underlying project to achieve other public benefits in a cost-effective manner:

- Environmental quality and energy efficiency and reduction in dependence on foreign oil, including use of renewable energy sources, energy savings from traffic diversions from other modes, employment of green building and manufacturing methods, reductions in key emissions types, and the purchase and use of environmentally sensitive, fuel-efficient, and cost-effective passenger rail equipment;
- Promoting interconnected livable communities, including complementing local or state efforts to concentrate higher-density, mixed-use, development in areas proximate to multi-modal transportation options (including intercity passenger rail stations);
- Improving historic transportation facilities; and
- Creating jobs and stimulating the economy. Although this solicitation is not funded by the American Recovery and Reinvestment Act of 2009 (Public Law 111-5), these goals remain a top priority of this Administration. Therefore, Individual Project applications will be evaluated on the extent to which the project is expected to quickly create and preserve jobs and stimulate rapid increases in economic activity, particularly jobs and activity that benefit economically distressed areas, as defined by section 301 of the Public Works and Economic Development Act of 1965, as amended (42 U.S.C. 3161) (“Economically Distressed Areas”).

Allowing MoDOT to pursue the PE/NEPA study for a third mainline track will confirm that freight and passenger rail travel improves environmental quality, maintains bi-directional freight operations and reduces oil dependency. The project will have a positive affect on both passenger and freight rail travel by strengthening the Missouri corridor, increasing on-time performance and providing growth opportunities for additional freight and passenger trains, while

MO-KC to STL Corridor- JC 3<sup>rd</sup> Mainline (PE/NEPA)

offering many environmental benefits to the state.

- Each ton-mile of freight moved by rail reduces greenhouse gas emissions by 2/3, compared to truck transportation.
- Freight trains are almost 4 times more fuel-efficient than trucks and have less impact on greenhouse gas emissions.
- Rail travel generates less carbon dioxide and consumes less energy per passenger mile than cars or planes.
- Amtrak has committed to a 6% reduction in carbon dioxide emissions by volunteering to meet reduction targets.

There are other more expensive options to consider for solving this problem, such as a complete new mainline track through the area. However, the changes proposed through this project application are relatively small in terms of new track. This project takes advantage of the area's existing track by adding new tracks and switches that achieve the functionality of an entire new length of track without a costly investment.

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. 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 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. Clearly the expected improvements to Amtrak service will foster positive enhancement to livable communities.

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 involved three corridor improvement projects with a combined investment of \$36 million. Additional projects in this round of applications complete phase two with a combined investment of \$36 million. The total investment estimated for the Missouri plan as of today is estimated at \$247 million, with more investments to come. (See attached MODOT/UP/Amtrak proposed funding improvements and graph as of August, 2010.)

The Jefferson City yard third mainline track project would increase fluidity through the yard by maintaining bi-directional freight operations with Amtrak operations. Project construction is located in the economically distressed area of central Missouri. The total project investment is \$10.8 million.

The following information from the Missouri Department of Economic Development's Missouri Economic Research and Information Center in 2009 address the economic recovery and reinvestment benefits.

#### **Statewide Impact of Jefferson City Yard 3rd Mainline Project as of 8/2009**

During the next three years, every dollar of project investment returns (benefit-cost ratio):

- 0.02 : 1.00 in new net general revenues totaling \$0.228 million,
- 0.46 : 1.00 in new personal income totaling \$4.464 million,
- 0.61 : 1.00 in new value-added (GSP) totaling \$5.927 million, and
- 1.02 : 1.00 in new economic activity (output) totaling \$9.873 million.

On average each year, the project creates:

MO-KC to STL Corridor- JC 3<sup>rd</sup> Mainline (PE/NEPA)

35 new jobs annually (23 direct/ 12 indirect) paying an average wage of \$32,945 per job,

\$ 0.08 million in new net general revenues annually,

\$ 1.49 million in new personal income annually,

\$ 1.98 million in new value-added to the economy annually, and

\$ 3.29 million annually in new economic activity.

(See the attached MERIC report.)

As materials are made, bought and consumed for this project, a need for additional resources will occur that will provide opportunities for U.S. manufacturing firms to increase their production of these items. The sources of supply for these items and the procurement contracts covering their acquisition and installation will include "Buy America" provisions and requirements, which will help support the U.S. industry as a whole.

## (2) Project Delivery Approach

Consider the following factors to determine the risk associated with the PE/NEPA activities delivery within budget, on time, and as designed:

- The applicant's financial, legal, and technical capacity to implement the project, including whether the application depends upon receipt of any waiver(s) of Federal railroad safety regulations that have not been obtained;
- The applicant's experience in administering similar grants and projects, including a demonstrated ability to deliver on prior FRA financial assistance programs;
- The soundness and thoroughness of the cost methodologies, assumptions, and estimates for the proposed project;
- The reasonableness of the schedule for project implementation;
- The thoroughness and quality of project management documentation;
- The timing and amount of the project's future noncommitted investments;
- The overall completeness and quality of the application, including the comprehensiveness of its supporting documentation;
- The readiness of the project to be commenced; and
- The timeliness of project completion and the realization of the project's anticipated benefits.

There is no known funding risk if approved per the cost-sharing terms with Union Pacific per the MOU. The project can be completed in a one-year construction timeframe, so barring extreme unforeseen 'acts of God,' such as earthquakes, tornadoes, floods or fires, there are no schedule risks. Amtrak has shown no propensity to discontinue service as long as there is state financial support, which has been in place for more than 30 years. Many communities have invested substantial funds in their train stations and have a vested interest in ensuring the route's success, so there is no substantial risk of cities discontinuing support of their station stops.

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

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 was complete in December 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. Also three shovel-ready projects were awarded to MODOT in 2010 on the first round of applications, and these projects are in the pre-construction stage.

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 in order to solve problems and expedite solutions.

MO-KC to STL Corridor- JC 3<sup>rd</sup> Mainline (PE/NEPA)

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

PE/NEPA for all projects will be completed relatively quickly upon grant award, and the projects can be moved to FD/Construction immediately, should the simultaneous application be granted. Each of the projects has been estimated in terms of projected costs and are refinanced in one or both of the following: (1) the University of Missouri Engineering School's detailed capacity analysis of the line and its subsequent updates, and (2) the memorandum of understanding signed between MoDOT and Union Pacific – a result of MoDOT's efforts to pursue projects for funding along the present UP corridor for its state-supported trains and in conjunction therewith to secure minimum levels of performance.

### (3) Project Delivery Approach

Address the likelihood of realizing the proposed project's benefits:

- The quality of financial planning documentation that demonstrates the financial viability of the HSIPR service that will benefit from the project;
- The availability of any required operating financial support, preferably from dedicated funding sources for the benefiting intercity passenger rail service(s);
- The quality and adequacy of project identification and planning;
- The reasonableness of estimates for user and non-user benefits for the project;
- The comprehensiveness and sufficiency, at the time of application, of agreements with key partners (including the railroad operating the intercity passenger rail service and infrastructure-owning railroads) that will be involved in the operation of the benefiting intercity passenger rail service, including the commitment of any affected host-rail carrier to ensure the realization of the anticipated benefits, preferably through a commitment by the affected host-rail carrier(s) to an enforceable on-time performance of passenger trains of 80 percent or greater;
- The favorability of the comparison between the level of anticipated benefits and the amount of Federal funding requested; and
- The applicant's contribution of a cost share greater than the required minimum of 20 percent.

The HSIPR project that will benefit from this planning is the *Missouri River Runner* Amtrak service which has been in existence for 31 years and continues to thrive. Recent increases in on-time performance and in passenger increases in numbers have made it a route with a great future. Although it is funded by the state's general revenue and like every other state, Missouri has had an extremely tight budget the last few years, there is no reason to expect that the service will not continue, especially as other projects to improve on-time service come on line and further support its funding.

The list of projects identified for this application were essentially the same as are being used with some exceptions from the University of Missouri study in 2007. All of these projects present a comprehensive and complete overview of the entire line and the needs at all places along the line. This project is in a small area that was specifically identified in the 2007 study as the area between Sedalia and Jefferson City being an area of needed improvements that when totalled equal 16.7 percent of all total delays on the line (by far the largest amount of delays), so the spirit and intent of the project is well within the study's guidelines. The study has garnered great attention and continues to do so, and as the projects in the study are funded, it creates even greater support and continuing emphasis on all projects in the study being funded.

Estimates for users vary, but in light of the fact that this is an area with many trains parking and proceeding through the yard for miles in either direction, this will create an excellent service method for trains to use in order to quickly reach the station at Jefferson City. It is estimated that a substantial portion of the freight trains now using the mainline that have to park will be diverted to the new mainline at the times the Amtrak trains are in the area.

The UP is committed by its MOU to the success of this project by its contribution of 20 percent. MODOT maintains that this project will not only improve Amtrak on-time performance but also remove freight trains from the mainline and move them onto the siding, thereby making the solution for all parties better and more comprehensive. Not only is the UP committed to at least an 85 percent on-time performance when this project and several other projects are completed in the immediate area of western Missouri per the MODOT-UP MOU of 2009, but they are committed immediately to

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an 80 percent OTP when the three shovel-ready projects previously applied for and granted in 2010 are complete. The amounts requested are 80 percent federal, and UP will provide the remaining 20 percent of the cost. Last year's OTP for the overall portion of the route was 92%.

These amounts are commensurate with the overall benefits in that the Amtrak benefits will be immediately apparent when in place. The freight benefits will be realized over a number of years and along with future projects for Missouri KC to S. Louis service for passenger trains by showing how the additional capacity provided helps remove freight trains from former bottlenecks and puts them on a track to success with fewer problems in arriving at stations on-time. As the frequencies in freight train travel and the Missouri passenger rail service may be expected to increase in the future, the types of access and infrastructure improvements sought, such as the existing project, will be clearly the type of projects with the most delivery at the least cost.

## F. Statement of Work

Provide a detailed response for how the PE/NEPA activities will be carried out in the text fields and tables provided. The tables in this section are unlocked; applicants can add rows, as necessary, for additional tasks. If you reference a supporting document, it must be listed in Section G.2.

- (1) Background.** Briefly describe the events that led to the need for the proposed PE/NEPA activities and the underlying issue the project will address. Also describe the rational planning process used to analyze the investment needs and service objectives of the full corridor on which the individual underlying project and the PE/NEPA activities are located.

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

A University of Missouri study (attached) identified this project as a bottleneck in the system. When completed, the project is noted as having a positive impact on the passenger service's on-time performance. The Jefferson City yard is primarily the only major yard between Kansas City and St. Louis. It is a crew-change point for UP and causes difficulties in the area due to the stopping and starting trains, which are mostly long coal trains. The Jefferson City Amtrak station is also at the end of the yard's east side, which complicates getting the train to the station due to the coal trains.

This project will improve on-time performance along the entire Union Pacific corridor in Missouri between St. Louis and Kansas City, and will enhance the future provision of 90- to 110-mph service. This project will increase fluidity through Jefferson City by maintaining two main lines for bi-directional freight trains when Amtrak is stopped at the Jefferson City station. This will extend track number one by 1,400 feet and will essentially create a third main line, allowing Amtrak to easily access the Jefferson City station. This will also increase passenger comfort by not stopping the train before it arrives at the Jefferson City station in order to get the train on the correct unloading track. This will also allow Union Pacific more options to interchange trains when more than two freight trains are in the area.

- (2) Scope of Activities.** Clearly describe the scope of the proposed PE/NEPA activities and identify the general objective and key deliverables.

- (2a) General Objective.** Provide a general description of the PE/NEPA work to be accomplished through this grant, including PE/NEPA activities, the underlying project study area, and other parties involved. Describe the end-state of the project, how it will address the need identified in Background (above), and the outcomes that will be achieved as a result of these PE/NEPA activities and underlying project.

MoDOT will coordinate with Union Pacific Railroad to obtain all necessary information for completing a thorough environmental evaluation of the project location. The project study area is the Jefferson City yard located extending from the Jefferson City Amtrak station on the east side.

Based upon MoDOT's and the railroad's initial review of the environmental impacts of the project, this project will have minimal social, economic or environmental impacts; however, due to potential impacts and the proximity of the project to the Missouri River, a Section 404 Clean Water Act individual permit will more than likely be required. In addition, the project will likely require an Environmental Assessment. Union Pacific Railroad has completed PE/NEPA requirements satisfactorily on several other projects in coordination with MoDOT.

When completed, the project is noted as having a positive impact on the passenger service's on-time performance. The Jefferson City yard is primarily the only major yard between Kansas City and St. Louis. It is a crew-change point for UP and causes difficulties in the area due to the stopping and starting trains, which are mostly long coal trains. The Jefferson City Amtrak station is also at the end of the yard's east side, which complicates getting the train to the station due to the coal trains.

The project will greatly benefit Amtrak in getting trains to the station. It will eliminate the need to stop eastbound trains

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approximately 2 miles west of Jefferson City, which is now commonplace and frustrating for passengers. If the coal trains are sorted on the proper tracks, there will be no interference with Amtrak trains. There will also be environmental benefits as a result of decreasing the trains' idling times while waiting for a second or third track to become available.

This project takes advantage of the area's existing track by adding new tracks and switches that achieve the functionality of an entire new length of track without a costly investment. Union Pacific Railroad has already provided an estimate of costs for project construction, and it is attached.

**(2b) Description of Work.** Provide a detailed description of the specific tasks to be accomplished through this grant in a logical sequence that would lead to the anticipated outcomes and the end state of the activities.

Description of Work: This project is located at Jefferson City, (Cole County) Missouri, Jefferson City Subdivision, MP 125 through MP 126.4. This will extend track number one by 1,400 feet and will essentially create a third main line, allowing Amtrak to easily access the Jefferson City station.

MoDOT, in coordination with Union Pacific Railroad plans to achieve environmental compliance with FRA's permission in an expedited manner through procedures similar to the following:

Environmental Assessment

MoDOT steps include the following.

- Identify project's purpose and need, and alternates being considered
- Early consultation, coordination with agencies with jurisdiction by law or with special expertise to specific resources
- Draft document development
- Hold public hearing, as necessary
- Agency and internal review of draft document
- Identification of preferred alternate, as necessary
- Final document development
- Public, agency and internal review of final document
- Letter to federal agency to accompany FONSI that states any changes to preferred alternate
- Develop Finding of No Significant Impact (FONSI)
- Federal approval with a signed FONSI

**(2c) Deliverables.** Provide FRA with a list of the deliverables in the table below. List the deliverables, both interim and final, that are the outcomes of the project tasks. This should include a first deliverable 1 – Detailed PE/NEPA Workplan and Schedule. Add rows to the table as necessary.

	Deliverable	Task
1	Detailed PE/NEPA Workplan and Schedule (Required)	Schedule and workplan for PE/NEPA process
2	Preliminary Engineering	Evaluation of PE/NEPA
3	Environmental surveys, testing, investigation, permits	Includes 404 individual permit, SHPO clearance, etc.

**(3) Project Schedule.** In the table below, list all tasks and estimate the approximate duration for completing each task identified above in Deliverables. For example, “6 months after start date the first task or interim deliverable will be complete.” Add rows to the table as necessary.

	Task	Task Duration
1	Detailed PE/NEPA Workplan and Schedule (Required)	3 months after grant agreement executed
2	Preliminary Engineering	12 months after grant agreement executed
3	Environmental surveys, testing, investigation, permits	12 months after grant agreement executed

**(4) Project Cost Estimate/Budget.** Provide an overall cost summary, by phase, of PE/NEPA activity in this section, using Appendix 3 of the NOFA. Ensure that the information below corresponds to the list of tasks provided above. The figures in this section of the Statement of Work should match exactly with the funding amounts requested in the SF-424 and in Section C of this application. If there is any discrepancy between the Federal funding amount requested in this section, the SF-424 form, or Section C of this application, the lesser amount will be considered as the Federal funding request. Round to the nearest whole dollar when estimating costs.

*The total estimated PE/NEPA activities cost is provided below, for which the FRA grant will contribute no more than the Federal funding request amount indicated. Any additional expense required beyond that provided in this grant to complete the PE/NEPA activities shall be borne by the Grantee.*

PE/NEPA Activities Overall Cost Summary			
#	Task	Cost in FY 2011 Dollars	
1	Preliminary Engineering	\$ 1,068,000	
2	Environmental surveys, testing, investigation, permits	\$ 48,000	
	Total PE/NEPA activities cost	\$ 1,116,000	
Federal/Non-Federal Funding			
		Cost in FY 2011 Dollars	Percentage of Total Activities Cost
	Federal funding request	\$ 892,800	80 %
	Non-Federal match amount	\$ 223,200	20 %
	Total PE/NEPA activities cost	\$ 1,116,000	100 %

## G. Optional Supporting Information

Provide a response to the following questions, as necessary, for the proposed PE/NEPA activities.

- (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 3).** Completing this question is optional.

The third mainline in the Jefferson City yard will help with sorting trains correctly as they approach the Jefferson City Amtrak station and the Jefferson City yard. It will also help in moving crews around and out of the Union Pacific crew change point, which is just to the east of the Amtrak station. It will essentially create a third mainline that will bring freight trains through the city on a new track that will get them in and out of the city with ease even when Amtrak is stopping at the station.

- (2) Please provide a document title, filename, and description for all optional supporting documents.** Ensure that these documents are uploaded to GrantSolutions.gov or that an active link is provided with your application and use a logical naming convention.

Document Title	Filename	Description and Purpose
JC 3rd Mainline Aerial Photo	Jeff_City_Third_Main_Line_Aerial_Locate_07_26_10.pdf	Aerial photo of project location.
JC 3 <sup>rd</sup> Mainline Estimate	Jeff_City_Third_Main_Line_PE-NEPAEstimate.pdf	Estimate of project costs.
JC Location Plan Sheet	Jeff_City_Third_Main_Line_Plan_Sheet_Locate_07_26_10.pdf	Plan sheet that identifies location of project.
JC Subdivision	Jeff_City_Subdivision_Capacity_07_21_10.pdf	Capacity of Jefferson City Subdivision
Introductory letter from MoDOT Interim Director	1Intro LETTER signed by KKeith.pdf	Cover letter for the HSIPR projects signed by MoDOT Interim Director
Project Overview	2Project Overview.pdf	Introduction to HSIPR projects for 2010
HSIPR Projects Division of Costs	3HSIPR RAIL PROJECTS DIVISION OF COSTS July 2010.pdf	HSIPR Projects Division of Costs
Project Map and Partner Signature Map	4Project Map and Partner Signature Map.pdf	Detailed project map and same map with signatures of support
Governor's MOU	5Multi-StateGovernorsMOUSigned.pdf	Signed copy of Multi-State Governors' MOU
States for Passenger Rail High Speed Rail Corridors	6US Federally Designated High Speed Rail Corridor Map.pdf	US Federally Designated High Speed Rail Corridor Map
Letters of Support	7Complete Letters of Support-reduced.pdf	Letters of Support
Rail Capacity Analysis I & II	8Rail Capacity Analysis Reports I and II.pdf	Rail Capacity Analysis Reports I and II
2009 MERIC Analysis Report	9MERIC HSIPR Statewide and Longterm Impacts 2009.pdf	HSIPR Statewide and Longterm Impacts 2009 study prepared by MERIC
2010 MERIC Analysis Report	10MERIC HSIPR Economic Impacts of Terminal RR.pdf	HSIPR Economic Impacts of Terminal RR study prepared by MERIC
MO Passenger Rail Schedule	11MO Passenger Rail Schedule.pdf	Missouri Passenger Rail Schedule
MO Intercity Bus Stops	12Intercity Bus Stops.pdf	Missouri Intercity Bus Stops
STIP 2011-2015 and East West Gateway Support Letter	13STIP 2011-2015 plus East West Gateway Support Letter.pdf	HSIPR Projects on MoDOT's 2011-2015 STIP to include support letter from East West Gateway
Amtrak-MoDOT MOU	14Amtrak-MoDOT MOU.pdf	Amtrak-MoDOT MOU
Amtrak Operating Agreement	15Amtrak Operating Agreement.pdf	Amtrak Operating Agreement
UP-MoDOT MOU	16UP-MODOT MOU signed copy.pdf	UP-MoDOT MOU
Terminal-MoDOT MOU	17Terminal-MoDOT MOU.pdf	Terminal-MoDOT MOU
'96 Agreement	18-1996 agreement between MODOT and UP to preserve 3 more slots.pdf	1996 agreement between MODOT and UP to preserve 3 more slots
UP Track Layout	19UP Track Layout.pdf	UP Track Layout

Shell Spur Agreement	20Shell Spur Agreement.pdf	Shell Spur Agreement
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## H. Checklist of Application Materials

Use this section to determine the thoroughness of your PE/NEPA application prior to submission.

Documents	Format
<b>1. Application Form</b>	
<input checked="" type="checkbox"/> HSIPR Individual Project Application Form – PE/NEPA (this form)	Form
<b>2. OMB Standard Forms</b>	
<input checked="" type="checkbox"/> SF 424: Application for Federal Assistance	Form
<input checked="" type="checkbox"/> SF 424A: Budget Information-Non Construction	Form
<input checked="" type="checkbox"/> SF 424B: Assurances-Non Construction	Form
<b>3. FRA Assurances Document</b>	
<input checked="" type="checkbox"/> FRA Assurances Document (See Section 4.2.4 of the NOFA)	Form
<b>4. Project Development Supporting Documentation</b>	
<input checked="" type="checkbox"/> Project Planning Documentation (See Section 4.2.5 of the NOFA)	No Specified Format
<b>5. Project Delivery Supporting Documentation</b>	
<input checked="" type="checkbox"/> Project Management Documentation (See Section 4.2.6 of the NOFA)	No Specified Format
<input checked="" type="checkbox"/> Financial Planning Documentation (See Section 4.2.6 of the NOFA)	No Specified Format
<input checked="" type="checkbox"/> Railroad and Project Sponsor Agreements (See Section 4.2.6 of the NOFA)	No Specified Format
<b>6. Optional Supporting Documentation</b>	
<input checked="" type="checkbox"/> Other Relevant and Available Documentation (See Section 4.2.7 of the NOFA)	n/a
<input checked="" type="checkbox"/> Eligibility Documentation (See Section 3.2 of the NOFA)	n/a

**PRA Public Protection Statement:** Public reporting burden for this information collection is estimated to average 32 hours per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. According to the Paperwork Reduction Act of 1995, a Federal agency may not conduct or sponsor, and a person is not required to respond to, nor shall a person be subject to a penalty for failure to comply with, a collection of information unless it displays a currently valid OMB control number. The valid OMB control number for this information collection is 2130-0583.