

# Narrative Application Form – Individual FD/Construction Part I



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

Applicants interested in applying for funding under the March 2011 Notice of Funding Availability (NOFA) are required to submit the narrative application forms, parts I and II, and other required documents according to the checklist contained in Section 4.2 of the NOFA and the Application Package Instructions available on FRA’s website. All supporting documentation submitted for this FD/Construction project should be listed and described in Section G of this form. Questions about the HSIPR program or this application should be directed to the Federal Railroad Administration (FRA) at [HSIPR@dot.gov](mailto:HSIPR@dot.gov).

Applicants must enter the required information in the gray narrative fields, check boxes, or drop-down menus of this form. Submit this completed form, along with all supporting documentation, electronically by uploading them to [www.GrantSolutions.gov](http://www.GrantSolutions.gov) by 8:00 p.m. EDT on April 4, 2011.

### 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> Michigan Department of Transportation		<b>Provide the submitting agency Authorized Representative name and title:</b> Kirk T. Steudle, Director		
<b>Address 1:</b> 425 West Ottawa Street	<b>City:</b> Lansing	<b>State:</b> MI	<b>Zip Code:</b> 48909-7550	<b>Authorized Representative telephone:</b> (517)373-2114 ext.
<b>Address 2:</b> P.O. Box 30050		<b>Authorized Representative email:</b> steudlek@michigan.gov		
<b>Provide the submitting agency Point of Contact (POC) name and title (if different from Authorized Representative):</b> Al Johnson, Supervisor		<b>Submitting agency POC telephone:</b> (517)335-2549 ext. <b>Submitting agency POC email:</b> johnsonal@michigan.gov		
<b>(2) List out the name(s) of additional State(s) applying (if applicable):</b>				

## B. Eligibility Information

Complete the following section to demonstrate satisfaction of an application’s eligibility requirements.

- (1) Select the appropriate box from the list below to identify applicant type.** Eligible applicants are listed 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 applicant types below, additional documentation is required to establish applicant eligibility. Please select the appropriate box and submit supporting documentation to demonstrate applicant eligibility, as described in Section 3.2 of the NOFA, to GrantSolutions.gov and list the supporting documentation under “Additional Information” 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 proposed FD/Construction project.** 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 individual project is intended to benefit. Refer to the FD/Construction Application Package Instructions for more information. The appropriate planning document must be submitted with the application package and 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
  - This project is not included in a relevant and documented planning process

- (3) Verify the completion of Preliminary Engineering requirements.** List the documents that establish completion of Preliminary Engineering for the project covered by this application. Refer to the NOFA and FD/Construction Application Package Instructions for more information. Any document not available online should be submitted with the application package and listed in Section G.2 of this application. If more rows are required, please provide the same information for additional PE requirements in a separate supporting document and list it in Section G.2 of this application.

Documentation	Date of Issue (mm/yyyy)	Describe How Documentation Can Be Verified (choose one)	
		Submitted in GrantSolutions	Web Link (if available)
PE Aerial Track Chart Drawings	8/2010	<input checked="" type="checkbox"/>	
	/	<input type="checkbox"/>	
	/	<input type="checkbox"/>	
	/	<input type="checkbox"/>	
	/	<input type="checkbox"/>	

**(4) Verify the completion of NEPA documentation.** Indicate the date the document was issued and how the document can be verified by FRA. A NEPA decision document (Record of Decision, Finding of No Significant Impact, or FRA Categorical Exclusion concurrence) is not required for an application but must have been issued by FRA prior to award of a construction grant. Applications that are accompanied by a final NEPA determination will be looked upon favorably during the application review and selection process. Verified documents can be submitted as a supporting document or referenced through an active public URL. Any document not available online should be submitted with the application package and listed in Section G.2 of this application. Refer to the NOFA and FD/Construction Application Package Instructions for more information.

Documentation	Date of Issue (mm/yyyy)	Describe How Documentation Can Be Verified (choose one)	
		Submitted in GrantSolutions	Web Link (if available)
<b>NEPA Documentation</b>			
<input checked="" type="checkbox"/> Categorical Exclusion Documentation (worksheet)	4/2010	<input checked="" type="checkbox"/>	
<input type="checkbox"/> Environmental Assessment	/	<input type="checkbox"/>	
<input type="checkbox"/> Final Environmental Impact Statement	/	<input type="checkbox"/>	
<b>Project NEPA Determination</b>			
<input type="checkbox"/> Categorical Exclusion	/	<input type="checkbox"/>	
<input type="checkbox"/> Finding of No Significant Impact	/	<input type="checkbox"/>	
<input type="checkbox"/> Record of Decision	/	<input type="checkbox"/>	

**(5) Select and describe the operational independence of the proposed FD/Construction project.**<sup>1</sup> Refer to Sections 3.4.4 and 3.5.2 of the NOFA for more information about operational independence and applications related to previously-selected projects.

- This project is operationally independent.
- This project is operationally independent when considered in conjunction with previously selected or awarded HSIPR project(s) (identify previously selected or awarded projects below).
- This project is not operationally independent.

Briefly clarify the response:

Funding for the deferred maintenance on NS ownership between Kalamazoo (MP143.2) to Dearborn (MP7.5 Townline) for interim spot tie replacement in the FY 2011 construction season will prevent further degradation of infrastructure in this section of the corridor. In addition, it will provide MDOT sufficient time to negotiate and complete acquisition of this section of the corridor. This will also position the corridor for future infrastructure improvements planned to begin in FY 2012 as part of the SDP application to increase passenger speeds to 110 mph.

<sup>1</sup> A project is considered to have operational independence if, upon implementation, it will have tangible and measurable benefits, either independently of other investments or cumulatively with projects selected to receive awards under previous HSIPR program solicitations.

## C. FD/Construction Project Summary

Identify the title, location, and other information of the proposed project 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 individual project (e.g., “DC-Capital City to Dry Lake Track Improvements”). Please limit the response to 100 characters.

MI-CHICAGO HUB-KALAMAZOO\_DEARBORN DEFERRED MAINTENANCE

**(2) If the applicant submitted an application for this project, or a project within the scope, that was not selected, indicate the solicitation under which that application was submitted.** Check all that apply.

- |  |   |
|--|---|
| <input checked="" type="checkbox"/> ARRA – Track 1 | <input type="checkbox"/> FY 2010 Service Development Program          |
| <input checked="" type="checkbox"/> ARRA – Track 2 | <input type="checkbox"/> FY 2010 Individual Project – PE/NEPA         |
| <input type="checkbox"/> FY 2009 – Track 4         | <input type="checkbox"/> FY 2010 Individual Project – FD/Construction |
| <input type="checkbox"/> FY 2009 Residual          | <input type="checkbox"/> N/A  |

**(3) Indicate the activity(ies) proposed in this application.** Check all that apply.

- Final Design     Construction

**(4) Indicate the anticipated duration, in months, for the proposed FD/Construction project.** Consider that American Recovery and Reinvestment Act funding must be obligated by September 30, 2017.

Number of Months: 6

**(5) Specify the anticipated HSIPR funding level for the proposed FD/Construction project.** This information must match the SF-424 documents, and dollar figures must be rounded to the nearest whole dollar. All applicants are encouraged to contribute non-Federal matching funds. FRA will consider matching funds in evaluating the merit of the application. See Section 3.3 of the NOFA for further information regarding cost sharing.

HSIPR Federal Funding Request	Non-Federal Match Amount	Total Project Cost	Non-Federal Match Percentage of Total
\$5,170,000	\$0	\$5,170,000	0 %

**(6) Indicate the source, amount, and percentage of non-Federal matching funds for the proposed FD/Construction project.**  
 The sum of the figures below should equal the amount provided in Section C.5. Click on the gray boxes to select the appropriate response 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. Also, list the percentage of the total project cost represented by each non-Federal funding source. Provide supporting documentation that will allow FRA to verify each funding source, any documentation not available online should be submitted with the application package and listed in Section G.2 of this application.

Non-Federal Match Funding Sources	Type of Source	Status of Funding <sup>2</sup>	Type of Funds	Dollar Amount	% of Total Project Cost	Describe Any Supporting Documentation to Help FRA Verify Funding Source
				\$	%	
				\$	%	
				\$	%	
				\$	%	
				\$	%	
				\$	%	
				\$	%	
				\$	%	
				\$	%	
				\$	%	
<b>Sum of Non-Federal Funding Sources</b>				\$	%	N/A

**(7) Indicate whether the proposed activities in this application are also included as a component project or phase in a Service Development Program application submitted concurrently.**

- Yes, all of the activities in this application have also been submitted as a component project or phase of a Service Development Program application.
- Yes, some of the activities within this application have also been submitted as a component project or phase of a Service Development Program application.
- No, this application and its proposed activities have not been submitted as a component project or phase of a Service Development Program application.

**(8) Indicate the name of the corridor where the project is located and identify the start and end points as well as major integral cities along the route.**

This project work is on the Chicago Hub (Chicago-Detroit/Pontiac) High Speed Rail Corridor. Specifically on Norfolk Southern’s ownership, between Kalamazoo and Dearborn. Major cities/station stops in this section include Kalamazoo, Battle Creek, Albion,

<sup>2</sup> 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. 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 capital investment program.



Jackson, Ann Arbor, and Dearborn.

**(9) Describe the 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 shapefile (.shp) as supporting documentation. This document must be listed in Section G.2 of this application.

The project location is Norfolk Southern ownership between MP 143.2 in Kalamazoo, Michigan and MP 7.5 Townline in Dearborn, Michigan.

**(10) Provide an abstract outlining the proposed FD/Construction project.** Briefly summarize the project narrative provided in the Statement of Work in 4-6 sentences. Capture the major milestones, outcomes, and anticipated benefits that will result from the completion of the individual project.

NS has indicated to both Amtrak and MDOT that their freight business on this corridor is down and they can no longer justify maintaining track standards to 79 mph on their ownership between Kalamazoo MP (143.2) and Dearborn (MP 7.5 Townline). NS has indicated that their existing freight business only requires track standards to be 25 mph. As a result, NS plans to down grade this track over the next few years by issuing slow orders. The initial slow order was issued on July 1, 2010 reducing passenger speeds from 79 mph to 60 mph on 41.2 miles of track in this segment with a few smaller segments reduced to 25 mph. NS has indicated that additional slow orders are expected and it will gradually expand 60 mph passenger speeds to the entire segment (135 miles) by the end of 2012. Project funding would be used for deferred maintenance including an interim spot tie replacement (approximately 24,000 ties) and some minor ballast fill throughout this section of the corridor, in the FY 2011 construction season. This will prevent further degradation of the infrastructure and existing intercity passenger service (ridership and revenue) this year. This would allow time for MDOT and NS to complete an ownership arrangement by the end of 2011. In addition it will position the corridor for future infrastructure improvements planned to begin in FY 2012 as part of the SDP application for this section of the corridor to increase passenger speeds to 110 mph. This routine maintenance work could begin immediately on execution of both the grant agreement with FRA and construction agreement between MDOT and Norfolk Southern under force account work and would be completed early in the 2011 construction season.

**(11) Indicate the type of expected capital investments included in the proposed FD/Construction project.** Check all that apply.

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

**(12) Indicate the anticipated service outcomes of the proposed FD/Construction project.** 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 the response(s) if needed:

NS has indicated to both Amtrak and MDOT that their freight business on this corridor is down and they can no longer justify maintaining track standards to 79 mph on their ownership between Kalamazoo MP (143.2) and Dearborn (MP 7.5 Townline). NS has indicated that their existing freight business only requires track standards to be 25 mph. As a result, NS plans to down grade this track over the next few years by issuing slow orders. The initial slow order was issued on July 1, 2010 reducing passenger speeds from 79 mph to 60 mph on 41.2 miles of track in this segment with a few smaller segments reduced to 25 mph. NS has indicated that additional slow orders are expected and it will gradually expand 60 mph passenger speeds to the entire segment (135 miles) by the end of 2012.

**(13) Provide the following information about job creation through the life of the proposed FD/Construction project.** Please consider construction, maintenance, and operations jobs.

Anticipated number of <u>annual</u> onsite and other direct jobs created (on a 2080 work-hour per year, full-time equivalent basis).	<b>FD/ Construction Period</b>	<b>First full Year of Operations</b>	<b>Fifth full Year of Operations</b>
	56	0	0
Indicate the anticipated fiscal year.	N/A	2011	2016

**(14) Quantify the applicable service outcomes of the proposed FD/Construction project.** Provide the current conditions and anticipated service outcomes. Future state information is required only for the service outcomes identified in Section C.11.

	<b>Frequencies<sup>3</sup></b>	<b>Scheduled Trip Time</b> (round-trips, in minutes)	<b>Average Speed</b> (mph)	<b>Top Speed</b> (mph)	<b>Reliability</b> – Provide Either On-Time Performance Percentage or Delay Minutes
<b>Current</b>	3	157	60	79	19
<b>Future</b>	3	145	64	79	12

<sup>3</sup> Frequency is measured in daily round-trip train operations. One daily round-trip operation should be counted as one frequency.

**(15) Indicate if any FD or Construction activities that are part of this proposed project are underway or completed.** Check all that apply.

- |   |  |
|---|--|
| <input type="checkbox"/> Final Design activities are complete.                    | <input type="checkbox"/> Construction activities are complete.                               |
| <input checked="" type="checkbox"/> Final Design activities are in progress.      | <input type="checkbox"/> Construction activities are in progress.                            |
| <input type="checkbox"/> No Final Design activities are in progress or completed. | <input checked="" type="checkbox"/> No Construction activities are in progress or completed. |

Describe any activities that are underway or completed in the table below. If more space is necessary, please provide the same information for additional activities underway or completed in a supporting document and list in Section G.2 of this application.

Activity	Description	Completed? (If yes, check box)	Start Date (mm/yyyy)	Actual or Anticipated Completion Date (mm/yyyy)
Final Design	Amtrak/NS Study has identified problem areas requiring deferrd maintenance for interim spot tie replacement and minor ballast fill/surfacing.	<input checked="" type="checkbox"/>	1/2010	6/2010
		<input type="checkbox"/>	/	/
		<input type="checkbox"/>	/	/
		<input type="checkbox"/>	/	/
		<input type="checkbox"/>	/	/
		<input type="checkbox"/>	/	/
		<input type="checkbox"/>	/	/

## D. Infrastructure Owner(s) and Operator(s)

Address the section below with information regarding railroad infrastructure owners and operators of the proposed FD/Construction Project. Applicants that own and/or control the infrastructure to be improved by the project or have a service outcomes agreement in place with the infrastructure owning railroad for the proposed project, or an executed agreement that could be amended with the infrastructure owning railroad for a project(s) located on the same corridor as the proposed project, will be looked upon favorably during the application review and selection process.

**(1) Provide information regarding Right-of-Way Owner(s).** Where railroads currently share ownership, identify the primary owner. Click on the gray boxes to select the appropriate response from the lists of railroad type, right-of-way owner and status of agreement. If the Right-of-Way Owner is not included on the prepopulated list, select “Other” and type the name in the adjacent text box within that field. Should the application have more than five owners, please provide the same information for additional owners 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 Agreement to Implement
Class 1 Freight	NS	135	169	Preliminary Executed Agreement/MOU

**(2) Name the Intercity Passenger Rail Operator and provide the status of 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 gray box to select the appropriate response from the status of agreement list. Should the proposed service have more than three operators, please provide the same information for additional operators in a separate supporting document and list it in Section G.2 of this application.

Name of Rail Service Operator	Status of Agreement
Amtrak	No agreement, but partner supports project

**(3) Provide information about the existing rail services within the project boundaries (e.g., freight, commuter, and intercity passenger).** Click on the gray boxes to select the appropriate response from the list of types of service. If the Name of Operator is not included in the prepopulated list, select “Other” and type the name in the adjacent text box within that field.

Type of Service	Name of Operator	Top Existing Speeds Within Project Boundaries (mph)		Number of Route-Miles Within Project Boundaries (miles)	Average Number of Daily One-Way Train Operations <sup>4</sup> within Project Boundaries
		Passenger	Freight		
Freight	NS		60	135	8
Intercity Passenger	Amtrak	79		135	6

<sup>4</sup> One daily round-trip operation should be counted as two daily one-way train operations.



**(4) Estimate the share of benefits that will be realized by non-intercity passenger rail services and select the approximate cost share to be paid by the beneficiary.**<sup>5</sup> Click on the gray boxes to select the appropriate response from the lists of type of beneficiary, expected share of benefits, and approximate cost share. If more than three types of non-intercity passenger rail are beneficiaries, please provide additional information in a separate supporting document, and list it in Section G.2 of this application.

Type of Non-Intercity Passenger Rail	Expected Share of Benefits	Approximate Cost Share
Freight		

<sup>5</sup> Benefits include service improvements such as increased speed or on-time performance, improved reliability, and other service quality improvements.

## E. Additional Response to Evaluation Criteria

Respond to each of the following evaluation criteria in the gray text boxes provided to demonstrate how the proposed FD/Construction project will achieve these benefits.

**(1) Project Readiness**

Describe the feasibility of the proposed FD/Construction project to proceed promptly to award, including addressing:

- The applicant’s progress, at the time of application, in reaching compliance with NEPA for the proposed project. Although a NEPA decision document (Record of Decision, Finding of No Significant Impact, Categorical Exclusion determination) is not required at the time of application, applications for Individual FD/Construction Projects that are accompanied by a final NEPA determination will be looked upon favorably during the application review and selection process;
- The applicant’s progress, at the time of application, in reaching final service outcomes agreements (where necessary) with key project partners. Applicants that own and/or control the infrastructure to be improved by the project or have a service outcomes agreement in place with the infrastructure owning railroad for the proposed project, or an executed agreement that could be amended with the infrastructure owning railroad for a project(s) located on the same corridor as the proposed project, will be looked upon favorably during the application review and selection process; and
- The quality and completeness of the project’s Statement of Work, including whether the Statement of Work provides a sufficient level of detail regarding scope, schedule, and budget to immediately advance the project to award.

MDOT has completed Project NEPA documentation for Categorical Exclusion under Deferred Maintenance and submitted with this application for FRA determination. The deferred maintenance project will include an interim spot tie replacement throughout NS ownership from Kalamazoo to Dearborn. This interim tie replacement (up to 24,000 ties), and minor ballast/surfacing work is considered to be routine maintenance for the host railroad and would be able to move immediately into construction upon execution of a project award with FRA and construction agreement with NS under force account work. NS is supporting this application for funding and is committed to completing project work to help stabilize the corridor immediately. This will allow MDOT to complete negotiations for acquisition with NS for ownership of this section of the corridor in 2011 with funding selected under FRA's FY 2010 SDP. In addition, this will position the corridor for future investments anticipated with an additional SDP application to make improvements in this section of the corridor to allow for passenger speeds up to 110 mph.

Final Service outcome agreements would be minimal or not needed as the current Amtrak/NS agreement already exists. This project work is focused on preventing any further degradation of this section of the corridor, maintaining the current service agreements that exists today, while a long term solution which includes acquisition in 2011 can be negotiated between MDOT and NS.

**(2a) Transportation Benefits**

Describe the transportation benefits that will result from the proposed FD/Construction project and how they will be achieved in a cost-effective manner, including addressing:

- Generating improvements to existing high-speed and intercity passenger rail service, as reflected by estimated increases in ridership, increases in operational reliability, 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;
- Encouragement of intermodal connectivity and integration, including a focus on convenient connection to local transit and street networks, as well as coordination with local land use and station area development;
- 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 from benefiting entities in the project's financing;

- 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.

The Chicago Hub (Chicago-Detroit/Pontiac) High Speed Rail Corridor has had significant past capital investments (\$100 million) and future planned investments under selections from HSIPR program (\$469.6 million). Past investments in infrastructure and positive train control have yielded revenue passenger speeds up to 95 mph between Kalamazoo, MI and New Buffalo, MI. Amtrak is extending this work west to Porter, IN over their entire ownership (98 miles). Revenue passenger speeds are expected to be increased to 110 mph between Porter, IN and Kalamazoo, MI by the fall of 2011.

At the same time, NS has indicated to both Amtrak and MDOT that their freight business on this corridor is down and they can no longer justify maintaining track standards to 79 mph on their ownership between Kalamazoo MP (143.2) and Dearborn (MP 7.5 Townline). NS has indicated that their existing freight business only requires track standards to be 25 mph. As a result, NS plans to down grade this track over the next few years by issuing slow orders. The initial slow order was issued on July 1, 2010 reducing passenger speeds from 79 mph to 60 mph on 41.2 miles of track in this segment with a few smaller segments reduced to 25 mph. NS has indicated that additional slow orders are expected and it will gradually expand 60 mph passenger speeds to the entire segment (135 miles) by the end of 2012.

On January 29, 2010 Amtrak announced that it would perform a high-speed rail improvement study, with assistance from NS, focused on determining what infrastructure upgrades are needed to provide 110 mph train service on the NS owned rail corridor between Kalamazoo and Dearborn (135 miles). This study was completed in June 2010 and the results were used to prepare a Service Development Program (SDP) which was selected for funding by FRA under the FY 2010 SDP for \$150 million in federal funds requiring \$37.5 million in matching funds. MDOT is working with FRA on a long term solution to stabilize this section of the corridor by using these funds to acquire this infrastructure from NS and complete final design on future investments. This would position this segment of the corridor to build on the work already completed on the Amtrak ownership and protect the service benefits from both past and future planned investments.

Funding this project would stabilize this segment of the corridor and allow time for MDOT and NS to complete an ownership arrangement by the end of 2011. In addition, it will position the corridor for future infrastructure improvements planned to begin in FY 2012 as part of the SDP application for funding to complete Track Rehabilitation and Positive Train Control/Signal investments which would increase passenger speeds to 110 mph.

## (2b) Other Public Benefits

Describe the other public benefits that will result from the proposed FD/Construction project and how they will be achieved in a cost-effective manner, including addressing:

- The extent to which the project is expected to create and preserve jobs and stimulate increases in economic activity;
- Promoting environmental quality, energy efficiency, and reduction in dependence on oil, including the 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; and
- Promoting coordination between the planning and investment in transportation, housing, economic development, and other infrastructure decisions along the corridor, as identified in the six livability principles developed by DOT with the Department of Housing and Urban Development and the Environmental Protection Agency as part of the Partnership for Sustainable Communities, which are listed fully at <http://www.dot.gov/affairs/2009/dot8009.htm>.

Michigan's intercity passenger services are currently experiencing all time record levels for both ridership and revenue. Further degradation of infrastructure in the NS ownership between Kalamazoo (MP 143.2) and Dearborn (MP 7.5 Townline) will negatively impact intercity passenger rail service which includes Amtrak's Wolverine service (three round trips per day) and the State supported Blue Water service (at one round trip per day which enters and exits the corridor at Battle Creek, MI). This project would provide the necessary funding to continue a level of maintenance on the infrastructure that would maintain existing service benefits and provide the time necessary to bring a long term solution to this section of the corridor. It is estimated to preserve up to 56 jobs over the short term. Long term job creation has been estimated in our SDP application for

this same segment of the corridor based on reports from the Midwest Regional Rail Initiative Project Notebook/Appendices.

### (3) Project Delivery Approach

Describe the risk associated with the delivery of the proposed FD/Construction project within budget, on time, and as designed, including addressing:

- The timeliness of project completion and the realization of the project's benefits;
- The applicant's financial, legal, and technical capacity to implement the project;
- The applicant's experience in administering similar grants and projects;
- The soundness and thoroughness of the cost methodologies, assumptions, and estimates;
- The thoroughness and quality of the project management documentation;
- The timing and amount of the project's future noncommitted investments;
- The adequacy of any completed engineering work to assess and manage/mitigate the proposed project's engineering and constructability risks; and
- The sufficiency of system safety and security planning.

MDOT is fluent in railroad laws covering train movement, signalization, hazardous materials and handling of same, track worker protection, railroad employee hours of service and safety protections, and grade crossing safety. MDOT is also familiar with the guidelines and enforcement authority of the FRA, National Transportation Safety Board, FTA and other regulatory bodies, and has experience working with the railroad's larger union organizations (BLE & UTU). These requirements will be followed in work performed by MDOT and will be passed on contractually to sub-recipients when necessary.

Examples of MDOT's experience in similar projects include:

1. The partnership of MDOT, FRA, Amtrak, and General Electric Transportation Systems has worked to implement the Incremental Train Control System through FRA's Next Generation High Speed Rail Program. This technology has received conditional approval from FRA (in March 2010) to raise intercity passenger rail speeds to 110 mph between Kalamazoo and New Buffalo on Amtrak's ownership. Total cost to date on this project is just under \$40 million dollars.
2. With respect to rail investment management, the State of Michigan, since the mid-1970s, has acquired and managed over 1,000 miles of active rail lines, investing over \$250,000,000 in capital improvements and purchases. The state presently owns and manages approximately 530 miles of rail property, and takes an active role in design and implementation of significant capital improvement projects. The state has dedicated railroad engineering staff in place to plan and implement right-of-way projects to enhance its rail corridors, and the state also has multiple Railroad Safety Inspectors that are well-trained and highly experienced in railroad construction project supervision. Comparable projects managed by internal staff on the state-owned rail network include annual tie and surfacing programs, siding and yard construction, crossing construction, bridge evaluation and repairs, and hands-on supervision of pre-qualified railroad contractors. In addition, the state has its own AREMA-compliant set of standard railroad construction specifications that can be immediately adapted for use in current or future preservation and enhancement projects on the NS railways.

MDOT established a new Office of High Speed Rail and Innovative Project Advancement which consists of a team of experts in rail management, each with their own area of expertise. This office is responsible for promoting and developing the infrastructure needed to support intercity passenger rail, commuter rail and light rail transit services. This office works with contractors, provides project oversight, oversees financial aspects of program development and interacts with stakeholders to ensure the success of all rail projects. Staff members in this office are well-versed in all aspects of project management and have experience in working with rail owners and contractors, stakeholders and federal regulatory agencies.

MDOT is aware of the good practices of preventive maintenance, engineering-out problem areas in advance of construction, continuous employee training, and conscientious safety and security awareness and reporting.

MDOT is the State Safety Oversight Agency for the Detroit People Mover, and all future rail transit agencies that would initiate commuter, overhead guideway system, or street running operations, not under FRA jurisdiction in Michigan. MDOT is fully compliant with 49 CFR Part 659, Rail Fixed Guideway Systems; State Safety Oversight; Final Rule. MDOT has developed an FTA approved System Safety Program Standard which requires existing and future rail transit agencies to develop System Safety Program Plans and System Security Plans for MDOT's approval. This document can be modified to meet APTA/FRA requirements, including requirements for Collision Hazard Analysis. A copy of Michigan's SSPS has been included with this application as supporting documentation. MDOT is fully capable of conducting internal audits, triennial reviews, and accident investigations. MDOT ensures that the rail transit agency maintains records, files and training reports as prescribed in CFR 49, Part 659.

Michigan has the statutory legal authority to build and oversee rail capital/operating investments through the State Transportation Preservation Act of 1976, Act 295 of 1976, [MCL 474.51 - MCL 474.56] and Act 51 of 1951. If unforeseen increases to the project should occur, MDOT has the financial resources necessary to fund these expenses.

On January 29, 2010 Amtrak announced that it would perform a high-speed rail improvement study, with assistance from NS, focused on determining what infrastructure upgrades are needed to provide 110 mph train service on the NS owned rail corridor between Kalamazoo and Dearborn. This study was completed in June 2010 and the results have been used in preparing Preliminary Engineering Drawings and NEPA documents have been included as supporting documentation for FRA review. Funding for this project would stabilize this segment of the corridor and allow time for MDOT and NS to complete an ownership arrangement by the end of 2011. In addition, it will position the corridor for future infrastructure improvements planned to begin in FY 2012 as part of the SDP application for funding to complete Track Rehabilitation and Positive Train Control/Signal investments which would increase passenger speeds to 110 mph. Both Amtrak and NS have reviewed costs and this work is considered normal maintenance and could begin upon grant award and execution of construction agreements.

MDOT is currently working with a consultant to prepare a State Rail Plan. This work is expected to be completed in July 2011.

#### **(4) Sustainability of Benefits**

Identify the likelihood of realizing the proposed FD/Construction project's benefits, including addressing:

- The applicant's financial contribution to the project;
- The quality of a financial planning documentation that analyzes 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;
- The quality and adequacy of project identification and planning; and
- The reasonableness of estimates for user and non-user benefits for the project.

MDOT's has the capability to absorb potential cost overruns, financial shortfalls, or financial responsibility for potential disposition requirements. In addition, Michigan has the statutory legal authority to build and oversee rail capital/operating investment through the State Transportation Preservation Act of 1976, Act 295 of 1976, [MCL 474.51 - MCL 474.56] and Act 51 of 1951. If unforeseen increases to the project should occur, MDOT has the financial resources necessary to fund these increases.

Section 2.4 of the SDP presents revenue, operating and maintenance cost projections in exhibits 7 and 8.

The existing Wolverine service is part of Amtrak's National System Service and currently does not require funding from Michigan to support operations. Michigan provides state funding for the Blue Water service (Chicago-Port Huron) which enters and exits this segment of the corridor at Battle Creek. Michigan has a long history of supporting intercity passenger rail and is currently working with Amtrak and other state partners to implement the requirements of Section 209 of the Passenger Rail Investment and Improvement Act of 2008.

MDOT has made annual appropriations committed to the continuous investment of state funds in intercity passenger

rail since 1974, with over \$60 million in capital and operating investments since 2002. A subsidy has been provided to Amtrak for the Blue Water Service (Port Huron to Chicago) for over 35 years and for the Pere Marquette (Grand Rapids to Chicago) for over 25 years.

MDOT is exploring alternative approaches to funding these potential future costs through innovative partnerships. Please review the PPP Funding Approach which has been uploaded as supporting documentation.

Since 1995, MDOT has participated with eight other Midwest states (Indiana, Illinois, Iowa, Minnesota, Missouri, Nebraska, Ohio, and Wisconsin) and Amtrak on the MWRRRI to develop an enhanced passenger rail system in the Midwest. The FRA also participates from time to time. This work has led to a comprehensive MWRRS Service Development Plan which provides a long term vision for increased speeds and service frequencies on the Chicago Hub (Chicago-Detroit/Pontiac) High Speed Rail Corridor. In addition, Michigan will lead a multi state effort (Indiana, Illinois and Michigan) to complete a Corridor Investment Plan which will include updating the existing MWRRS Service Development Plan for the Chicago-Detroit/Pontiac Corridor and completing a corridor wide environmental document (Tier 1 EIS). All of the work proposed in this SDP is consistent with the development of the MWRRS. Also, all of the improvements proposed in this SDP are consistent with MDOT's Commission Policy under Resolution 2004-1 adopted February 26, 2004. This Resolution 2004-1 has been uploaded as supporting documentation.

Both Amtrak and NS have estimated the costs of the improvements. The difference in estimates is minimal. MDOT is confident the capital cost estimates requested in this application are adequate and will meet industry standards.

## F. Statement of Work

The Statement of Work (SOW) is a required document. This must be submitted using the Narrative Application Form Part II. Statement of Work available on FRA’s website to provide the required information. The quality and completeness of this document will be measured as a Project Readiness evaluation criterion, as outlined in Section 5.2.1 of the NOFA.

Please provide the SOW as a separate document and list it in Section G.2 of this application.

The SOW is a description of the work that will be completed under the grant agreement and must address the background, scope, and schedule, and include a high-level budget of the proposed project.

- (1) The SOW is required for a complete application package.
- (2) The SOW should contain sufficient detail so that both FRA and the applicant can:
  - a. Understand the expected outcomes of the work to be performed by the applicant, and
  - b. Track applicant progress toward completing key project tasks and deliverables during the period of performance.
- (3) The SOW should clearly describe project objectives, but allow for a reasonable amount of flexibility regarding how the objectives will be accomplished. It is important to describe the overall approach to and expectations for project/activity completion.
- (4) If the SOW describes work for phases and/or groups of component projects, the larger program should be explained in the background section of the SOW. The remainder of the SOW should be limited to describing the activities that directly contribute to the combined FRA and applicant effort which is funded under the grant agreement.

## G. Optional Supporting Information

Provide a response to the following questions, as necessary, for the proposed FD/Construction project.

**(1) Please provide any additional information, comments, or clarifications, and indicate the section and question number that being addressed (e.g., Section E.2).** Completing this question is optional.

**(2) Please provide a document title, filename, and description for all optional supporting documents.** Ensure that these documents are uploaded to GrantSolutions.gov with the narrative application form and use a logical naming convention.

Document Title	Filename	Description and Purpose
MI-Chicago Hub: Kalamazoo-Dearborn Service Development Plan	SDP_Chicago Hub_Kalamazoo-Dearborn2 HSR Corridor Program_April 4.pdf	Service Development Program also being applied for work building on the work scope of this project.
MWRRS Service Development Plan	MWRRS Service Development Plan.pdf	Service Development Plan -Supports project as part of planning/policy decision
MI-Chicago Hub: Kalamazoo-Dearborn Project Management Plan	PMP_Chicago Hub_Kalamazoo-Dearborn Deferred Maintenance_April 4.pdf	Project Management Plan
MI-Chicago Hub: Kalamazoo-Dearborn Financial Plan	FP_Chicago Hub_Kalamazoo-Dearborn Deferred Maintenance_April 4.pdf	Financial Plan
Categorical Exclusion Documentation	Chicago Hub_Kalamazoo-Dearborn Deferred Maintenance Final NS Categorical Exclusion Documentation.pdf	Support NEPA Requirements
Pontiac-Detroit-Chicago High Speed Rail Corridor CORRIDOR SEGMENTS BY RAILROAD OWNERSHIP	Segments Ownership Map.pdf	Visual of Chicago-Detroit/Pontiac HSR corridor ownership
Michigan State Transportation Commission Resolution 2004-1	Commission Policy Resolution 2004-1	Supports SDP as part of planning/policy decision
HSR Public-Private Partnerships	PPP Funding Approach.pdf	Support states approach to funding services
Email on July 1, 2010 Slow order from NS	NS Speed Restriction HSR Application Kalamazoo - Dearborn.pdf	Verification of Slow order issued July 1, 2010
Memorandum of Understanding Between Michigan DOT and Norfolk Southern Railway Company for the Kalamazoo-Dearborn Section of the Chicago-Detroit/Pontiac High Speed Rail Corridor	NS-Michigan MOUs.pdf	MOU between NS and MDOT for acquisition
Support Letters	Support Letter.pdf	Letters of support for the SDP
MDOT Passenger Rail Map	MDOT_Passenger Rail Map.pdf	Show Michigan's existing Passenger Rail Service
MI-Chicago Hub: Kalamazoo-Dearborn Risk Management Plan	RMP_Chicago Hub_Kalamazoo-Dearborn Deferred Maintenance_April 4.pdf	Risk Management Plan

AMTRAK ANALYSIS of the RAIL LINE from KALAMAZOO to TOWN LINE	Amtrak Study Summary.pdf	Amtrak Study which supports SDP
AIP between Amtrak and MDOT	Amtrak AIP NS Segment.pdf	Railroad Project Sponser Agreements
Michigan System Safety Program Standard	Michigan System Safety Program Standard.pdf	System Safety Program Plan
PE Project Maps	PE Aerial Track Chart Drawings Kalamazoo_Dearborn.pdf	Support of PE Requirements
Construction Budget Form 424C	Kalamazoo-Dearborn Deferred Maintenance 424C.pdf	424C
Budget Narraitive	Kalamazoo-Dearborn Deferred Maintenance Budget Narrative.pdf	Support for 424C form
NS Railway Ownership	NS_Railway_Section Map.pdf	Support Map for Project Location
Budget Form	Kalamazoo-Dearborn Deferred Maintenance Budget.pdf	Support for cost of project
SOW Part 2	MI-CHICAGO HUB-KALAMAZOO_DEARBORN DEFERRED MAINTENANCE Part 2.pdf	Support application with SOW

# Narrative Application Form Individual FD/Construction

## Part II Statement of Work



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

## Statement of Work

The quality and completeness of this document will be measured as a Project Readiness evaluation criterion, as outlined in Section 5.2.1 of the NOFA. The applicant must provide a sufficient level of detail regarding scope, schedule, and budget that demonstrates the project is ready to immediately advance to award. Tables have been provided as illustrative examples for capturing data however, applicants can delete or adjust the tables as necessary. This form must be listed in Section G.2 of the Narrative Application Form Part I.

- (1) **Background.** Briefly describe the events that led to the development of this FD/Construction project and the issue the project will address. Also describe the transparent, inclusive planning process used to analyze the investment needs and service objectives of the full corridor on which the individual FD/Construction project is located.

NS has indicated to both Amtrak and MDOT that their freight business on this corridor is down and they can no longer justify maintaining track standards to 79 mph on their ownership between Kalamazoo MP (143.2) and Dearborn (MP 7.5 Townline). NS has indicated that their existing freight business only requires track standards to be 25 mph. As a result, NS plans to down grade this track over the next few years by issuing slow orders. The initial slow order was issued on July 1, 2010 reducing passenger speeds from 79 mph to 60 mph on 41.2 miles of track in this segment with a few smaller segments reduced to 25 mph. NS has indicated that additional slow orders are expected and it will gradually expand 60 mph passenger speeds to the entire segment (135 miles) by the end of 2012.

On January 29, 2010 Amtrak announced that it would perform a high-speed rail improvement study, with assistance from NS, focused on determining what infrastructure upgrades are needed to provide 110 mph train service on the NS owned rail corridor between Kalamazoo and Dearborn (135 miles). This study was completed in June 2010 and the results were used to prepare a Service Development Program (SDP) which was selected for funding by FRA under the FY 2010 SDP for \$150 million in federal funds requiring \$37.5 million in matching funds. MDOT is working with FRA to use the selected funding on a long term solution to stabilize this section of the corridor by acquiring this infrastructure from NS and complete final design on anticipated future investments. This would position this segment of the corridor to build on the work already completed on the Amtrak ownership and protect the service benefits from both past and future planned investments.

- (2) **Scope of Activities.** Clearly describe the scope of the proposed FD/Construction project and identify the general objective and key deliverables.

(2a) **General Objective.** Provide a general description of the work to be accomplished through this grant, including project work effort, project location, 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 the project.

The deferred maintenance project would benefit services in the Chicago Hub (Chicago-Detroit/Pontiac) High Speed Rail Corridor. Current services on this corridor include Amtrak's National System Wolverine service (Chicago-Detroit/Pontiac) at 3 round trips per day and Michigan's state supported Amtrak Blue Water service (Chicago-Port Huron) at one round trip per day. The Blue Water service enters and exits the corridor in Battle Creek. This corridor is 304 miles long and travels through 3 states (Illinois, Indiana, and Michigan). Corridor ownership includes 4 railroads (Norfolk Southern Railway (NS), Amtrak, Conrail Shared Assets Operations (CSAO), and Grand Trunk Western Railroad, Inc. (CN).

**This project work will prevent further degradation of the infrastructure and existing intercity passenger service (ridership and revenue) this year. Funding this project would stabilize this segment of the corridor and allow time for MDOT and NS to complete an ownership arrangement by the end of 2011.**

**Without this funding, the corridor segment between Kalamazoo (MP 143.2 ) and Dearborn (MP 7.5 Townline) will continue to degrade and become less reliable for intercity passenger service. No action will begin to offset and eventually lose all of the benefits from past investments (\$100,000,000) and present planned investments (\$469,600,000) in this corridor.**

**(2b) Description of Work.** Provide a detailed description of the work to be accomplished through this grant by task (e.g., FD and Construction) including a description of the geographical and physical boundaries of the project. Address the work in a logical sequence that would lead to the anticipated outcomes and the end state of the activities.

**This project work is focused in Michigan on one key section (approximately 135 miles) of the corridor which is currently owned by Norfolk Southern Railway. This section is from Kalamazoo, MI (MP 143.2) to Dearborn, MI (MP 7.5 – Townline). This section serves several key station communities including Kalamazoo, Battle Creek, Albion, Jackson, Ann Arbor, and Dearborn.**

**Project funding would be used for deferred maintenance to include an interim spot tie replacement (approximately 24,000 ties) and some minor ballast fill throughout this section of the corridor in the FY 2011 construction season. The routine maintenance work could begin immediately on execution of both the grant agreement with FRA and construction agreement between MDOT and Norfolk Southern under force account work. The deferred maintenance project would be completed early in the 2011 construction season. This work could be sequenced with existing services and would cover the areas of this section of the line that are or soon will be under slow orders for reduced speeds.**

**(2c) Deliverables.** Describe the work products of the project to be completed to FD, or constructed in accordance with the FD that were provided to FRA during the application process or will be completed as a part of this grant. In the table provided, list the deliverables, both interim and final, that are the outcomes of the project tasks.

	Deliverable	Task
1	Interim Spot Tie Replacement	Replace up to 24,000 tie in areas that are or soon will be under slow order for reduced speeds.
2	Ballast and surfacing.	Replace ballast and surfacing as needed throughout this section of the corridor (MP143.2 to MP7.5 Townline)
3		
4		

**(3) Project Schedule.** In the table below, estimate the approximate duration for completing each task in months. For total project duration, reference Section C.4 in the Narrative Application Form Part I.

	Task	Duration		
		Start Month	to	End Month
1	Interim Spot Tie Replacement	6/2011	to	10/2011
2	Ballast and surfacing.	6/2011	to	10/2011
	Total project duration	4 months		

**(4) Project Cost Estimate/Budget.** Provide a high-level cost summary of FD/Construction work in this section, using the FD/Construction Application Package Instructions, the HSIPR Individual Project Budget and Schedule form, and the Narrative Application Form Part I as references. The figures in this section of the Statement of Work should match exactly with the funding amounts requested in the SF-424 form, the HSIPR Individual Project Budget and Schedule form, and Section C of the Narrative Application Form Part I. If there is any discrepancy between the Federal funding amounts requested in this section, the SF-424 form, the HSIPR Individual Project Budget and Schedule form, or Section C of the Narrative Application Form Part I, the lesser amount will be considered as the Federal funding request. Round to the nearest whole dollar when estimating costs.

*The total estimated cost of the proposed FD/Construction project 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 proposed FD/Construction project shall be borne by the Grantee.*

FD/Construction Project Overall Cost Summary			
#	Task	Cost in FY11 Dollars	
1	Interim Spot Tie Replacement	\$ 4,240,000	
2	Ballast and surfacing.	\$ 460,000	
3	Contingency	\$470,000	
	Total FD/Construction project cost	\$ 5,170,000	
Federal/Non-Federal Funding			
		Cost in FY11 Dollars	Percentage of Total Activities Cost
	Federal funding request	\$ 5,170,000	100 %
	Non-Federal match amount	\$ 00,000	00 %
	Total FD/Construction project cost	\$ 5,170,000	100 %