High-Speed Intercity Passenger Rail (HSIPR) Program

Application Form

Final Design (FD)/Construction (FY 2009)

Applicants for FD/Construction funds are required to submit this Application Form and other documents as outlined in Section G of this application. Please complete this document and provide any supporting documentation electronically. Supporting documentation should be logically and descriptively labeled. For each question, enter the appropriate information in the designated gray box. If a question is not applicable to your FD/Construction Project, please indicate "N/A." If you have questions about the HSIPR program or this application, please contact FRA at HSIPR@dot.gov.

A. Point of Contact and Project Information

(Must be consistent with information provided on applicant's SF 424)

<table>
<tr><td colspan="3">(1) Submitting Agency:
Michigan Department of Transportation (MDOT)</td><td colspan="3">Submitting Agency Authorized Representative Name and Title: Kirk T. Steudle, Director</td></tr>
<tr><td>Street Address:
425 W. Ottawa</td><td>City:
Lansing</td><td>State:
MI</td><td>Zip Code:
48909</td><td colspan="2">Telephone Number:
517 - 373-2114
Email:
SteudleK@michigan.gov</td></tr>
<tr><td colspan="3">Application Point of Contact (POC) Name and Title (If different): Al Johnson, Supervisor - Office of High Speed Rail and Innovative Project Advancement</td><td colspan="3">Application POC Telephone: 517-335-2549
Application POC Email: JOHNSONAL@Michigan.gov</td></tr>
<tr><td colspan="6">(2) Name(s) of additional States applying (if applicable): N/A</td></tr>
<tr><td colspan="6">(3) Project name (Please provide a clear, concise, and descriptive name, example "Capital City River Bridge Replacement"): West Detroit Connection Track Project (WDCTP)</td></tr>
<tr><td colspan="6">(4) Total Cost of the FD/Construction Project (year of expenditure (YOE) Dollars*): $ 15,825,546

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

MDOT believes all applicable project costs will be established this year; therefore we are not applying a percentage increase to account for an inflated cost based on work being performed in future years. MDOT has a consultant currently under contract to develop final designs. Right-of-way (ROW) acquisitions and utility relocations are estimated based on cost that will be established this year. Work by host railroads is being negotiated and the estimate reflects the anticipated total cost including consideration for when the work will be completed. The cost estimate for the work MDOT will let this year to a construction contractor also accounts for the time when work will be completed.

MDOT will pay for the final design and ROW costs with State of Michigan funds. These costs are included in the total project costs, and will be applied as soft-match on the construction phase of the project. Costs incurred by Michigan prior to March 11, 2009 will not be eligible as soft-match.

Of the total cost of the FD/Construction Project, how much would come from the FRA HSIPR Program: (YOE</td></tr>
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Dollars**) $ 15,825,546 is estimated to be eligible costs. Of this amount, MDOT is requesting $7,912,773 (50%) come from the FRA HSIPR Program. The remaining $7,912,773 (50%) will be paid by Michigan.

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

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

(5) Project Abstract (In 3 - 5 sentences, please describe your proposed project):

This project will construct new Central Traffic Control (CTC) signals from Milwaukee Junction to West Detroit Junction (4.6 miles), and an efficient connection of the east-west track owned by Conrail Shared Assets Operations (CSAO) and the north-south track owned by Grand Trunk Western Railroad (CN). The project includes CTC signal installation, construction of 1.34 miles of new connection track on existing and previously abandoned railroad property (0.21 Miles of new CSAO track and 1.11 miles of new CN track), replacement of the bridge over Junction Avenue, relocating approximately 0.86 track miles of existing CSAO tracks, construction of 3 new cross-overs and construction of a service drive. Host railroads will place a portion of the top ballast and perform the final rail installation and MDOT will contract out the remaining work. The final design of the CTC signals will take into account upcoming requirements for Positive Train Control. By improving the access at this junction, the project will improve passenger travel times by up to 10 minutes, reduce pollution, and improve safety by eliminate conflicts with the 4 railroads that use this line (CSAO, CN, Norfolk Southern Railway (NS) and National Railroad Passenger Corporation (Amtrak)).

B. Project Overview

(1) Indicate the activity(ies) for which you are applying *(check both if applicable)*:

☒ Final Design ☒ Construction

(2) What are the anticipated start and end dates for the FD/Construction Project? *(mm/yyyy)*

Start Date: 11/2010 **End Date:** 12/2011

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

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

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

The West Detroit Connection Track Project (WDCTP) is located in the City of Detroit, Michigan (See WDCTP_Project_Location_Map.pdf). This project will provide a more efficient and direct connection for passenger rail services at West Detroit Junction as well as new CTC Signals between West Detroit Junction and Milwaukee Junction. Currently both freight and intercity passenger trains make a connection through Bay City Junction; this project will separate freight and passenger trains movements. Amtrak's "Wolverine" service, which provides three daily round trips between Chicago and Detroit/Pontiac, will utilize the new connection track. West Detroit Junction is a key link between the Dearborn Station and the Detroit New Center Station. In 2009, this track moved 444,127 passengers on the Wolverine service. This project has several benefits that improve the safety and reliability of the rail system while reducing congestion and pollution.

Final design for the Junction Avenue Bridge replacement, service drive and all track work is nearly complete, (See WDCTP_Track_Bridge_ROW.pdf). MDOT is developing the CTC signalization plans, and anticipates the final design will be completed in November, 2010. Negotiations are underway with host railroads for the work they will complete through force account and service outcomes. Estimated costs from host railroads are being reviewed and have been considered in MDOT's budget for this project.

The WDCTP will significantly improve the access and reliability of Amtrak's "Wolverine" service. The proposed improvements will reduce travel times between the Dearborn Station and the Detroit New Center Station by up to 10 minutes. The existing speed at this junction will be increased from between 10 to 15 mph up to 40 to 45 mph. This significant improvement in time and speed will increase the reliability of the system making passenger rail and other non-vehicular modes of transportation (biking, bus, and proposed light rail services) a more viable and attractive option for passengers. The project will improve access to a proposed light rail corridor along Woodward Avenue. The proposed light rail service will provide access from the Detroit New Center Station to downtown Detroit.

This area is one of the most congested freight segments in Michigan. Twenty five minute delays to freight trains are not uncommon at Bay City Junction. By reestablishing the connection track at West Detroit and eliminating the conflicts with freight and passenger rail at Bay City Junction and adding CTC signalization, congestion will be significantly decreased and freight rail services will significantly improve due to the increased reliability.

This project is part of Michigan's Corridor Development Plan (See WDCTP_Corridor_Service_Development_Plan.pdf) and the Midwest Regional Rail System Plan (See WDCTP_MWRRI_9-2004.pdf) which is designed to be a high speed link from Chicago to Detroit/Pontiac. This project also complies with several goals in Michigan's 2005-2030 State Long Range Transportation Plan regarding safety, mobility, environmental concerns, strengthening the State's economy and improving intermodalism. The completion of this rail corridor may prove to be a key in reversing the economic downturn within the Detroit area, and moving toward greater economic gain for the entire state.

The WDCTP is also an improvement identified in MDOT's Detroit Intermodal Freight Terminal (DIFT) project for which a Record of Decision was issued from the Federal Highway Administration (FHWA) on April 22, 2010.

The train congestion in the West Detroit Junction area creates several undesirable conditions including delays, pollution, and safety conflicts. The proposed WDCTP will improve these undesirable conditions. When the cost of the project is compared to the proposed benefits to both passenger and freight trains, the public will realize a time of return of less than 10 years.

The project benefits are not dependent on other projects being completed in order to have immediate and tangible improvements in service, safety, congestion and pollution.

The WDCTP will utilize existing ROW from CSAO and CN as well as ROW previously abandoned by the railroads. The attached plans (See WDCTP_Track_Bridge_ROW.pdf) show the limits of proposed ROW required to construct the project. ROW acquisition work has begun and is expected to be completed before September, 2010.

While these improvements are justified based on their benefit to existing intercity passenger rail, they will also benefit future intercity passenger service increases and future commuter rail service.

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

☒ Yes (Final Design) ☐ Yes (Construction) ☐ No

If "Yes," please describe the activities that are underway or completed in the table below.[1] *If more than three activities, please detail in an attachment to this application*

Activity	Description	Completed? (If yes, check box)	Actual Initiation Date (mm/yyyy)	Actual or Anticipated Completion Date (mm/yyyy)
Final Design	West Detroit Junction - Track and Bridge Replacement Work	☐	02/2009	07/ 2010
Right of Way	ROW Acquisition	☐	02/2009	09/2010
Final Design	CTC Signalization	☐	02/2009	11/2010

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

☒ Additional Service Frequencies
☒ Improved Service Quality
☒ Improved On-Time Performance on Existing Route
☒ Increased Average Speeds/Shorter Trip Times
☒ Other *(Please Describe):* Increased safety, reduced passenger/freight congestion, reductions in emissions resulting from travelers being diverted from automobile and air travel modes, improved passenger safety and greater accessability in the Metro Detroit area

(6) Types of capital investments proposed *(check all that apply):*

☒ Structures (Bridges, Tunnels, etc.)
☐ Track Rehabilitation
☒ New or Restored Sidings/Passing Tracks
☐ Major Interlockings
☐ Station(s)
☒ Communication, Signaling and Control
☐ Rolling Stock Refurbishments
☐ Rolling Stock Acquisition
☐ Support Facilities (Yards, Shops, Admin. Buildings)
☐ Grade Crossing Improvements
☐ Electric Traction
☐ Other *(Please Describe)*:

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

Type of Railroad	Railroad Right-of-Way Owner	Route Miles	Track Miles	Status of Agreements to Implement Projects
Class 1 Freigh	CN	4.6	8.2	Host Railroad Consulted, but S
Class 1 Freigh	CSAO	0.47	0.94	Host Railroad Consulted, but S
Amtrak		0	0	Master Agreement in Place

[1] Please note: (a) requests for reimbursement of costs incurred prior to enactment of the relevant appropriations will not be considered and (b) supporting documentation for activities may also be required as noted in Section 3.3.1.5 of the FY 2009 FD/Construction NOFA.

(8) Services. Provide information for all existing rail services within project boundaries (freight, commuter, and intercity passenger). *If more than three services, please detail in an attachment to this application.*

Type of Service	Name of Operator	Top Speed Within Project Boundaries		Number of Route-Miles Within Project Boundaries	Average Number of Daily One-Way Train Operations[2] within Project Boundaries	Notes
		Passenger	Freight			
Intercity Pa	Amtrak	15		5.07	6	
Freight	CN		15	4.6	13	
Freight	CSAO		15	0.47	3	

(9) Benefits to Non-Intercity Passenger Rail Services. If there will be benefits to non-intercity passenger rail services (e.g. commuter and freight), describe in detail the nature of those benefits. Include specific details on speed, number of daily operations, on-time performance, or other benefits expected to accrue to the non-intercity passenger rail services.

Freight rail will benefit as the intercity passenger rail trains will no longer be traveling on the most congested freight segments in Michigan. Also, intercity passenger rail trains will generally use the western track the entire distance between West Detroit Junction and the Detroit New Center Station thereby being separated from freight train movements.

When commuter rail service is provided between Ann Arbor and Detroit it would realize the same benefits as intercity passenger rail.

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

Existing Amtrak equipment will be used in the immediate future. MDOT intends to pursue opportunities to acquire new equipment for intercity passenger rail services through FRA, consistent with section 305 of PRIIA in future rounds of funding.

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

C. Eligibility Information

(1) Establish Completion of Preliminary Engineering. In the space(s) below, please list the documents that establish completion of Preliminary Engineering for the project covered by this application. See Appendix 2 of FY 2009 FD/Construction NOFA. If more than four references need to be listed, please place the additional information in Section F.

Document Name	Completion Date (mm/yyyy)
Detroit Intermodal Freight Terminal (Wayne and Oakland Counties)	08/2008
Preliminary Feasibility Study for the West Detroit Track Connection for the National Railroad Passenger Corporation	09/2006
Detroit Intermodal Freight Terminal Cost Estimate Review	05/2009

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

WDCTP_Track_Bridge_ROW.pdf	07/2010

(2) Establish Completion of NEPA Documentation (the date document was issued and how documentation can be verified by FRA). The following are approved methods of NEPA verification (in order of FRA preference): 1) References to large EISs and EAs that FRA has previously issued, 2) Web link if NEPA document is posted to a website (including www.fra.dot.gov), 3) Electronic copy of non-FRA documents attached with supporting documentation, or 4) a hard copy of non-FRA documents (large documents should not be scanned but should be submitted to FRA via an express delivery service). See Section 3.2 of FY 2009 FD/Construction NOFA.

Documentation	Date *(mm/yyyy)*	Describe How Documentation Can be Verified
☒ Categorical Exclusion Documentation	05/2010	See "WDCTP_Cat_Ex_to_FRA.pdf" requesting a CE determination by the FRA.
☐ Final Environmental Assessment		
☒ Final Environmental Impact Statement	4/2010	Detroit Intermodal Freight Terminal Record of Decision from the FHWA - FRA was consulted during the development of the DIFT's EIS and ROD. (See WDCTP_DIFT_ROD.pdf)

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

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

D. Public Return on Investment

(1) 1A. Transportation Benefits. *See Section 4.2.1 of FY 2009 FD/Construction NOFA. Please limit response to 8,000 characters:*

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

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

Amtrak's current time scheduled for this corridor varies from 5 hours and 28 minutes to 5 hours and 38 minutes in the time table. Within this corridor, Amtrak operates between Dearborn and Detroit (New Center station) for approximately eight miles and is schedule for between 21 minutes to 33 minutes in the public time table. Passenger train operating speeds through the West Detroit area are currently restricted to 15 mph. The existing passenger train routing goes through CSAO controlled interlockings at West Detroit, Scotten, Springworks and Vinewood before joining the CN Shore Line Subdivision track to the Detroit New Center Station.

The proposed system timetable will be up to 10 minutes less with less variance between trains operating in opposing directions and in the same direction. The six Amtrak trains will no longer be traversing the CSAO track between West Detroit Junction and Bay City Junction (22 freight trains daily) and between Bay City Junction and Control Point (CP) Spring Works (Vinewood)(6 freight trains daily) eliminating the passenger/freight train conflicts on those two CSAO segments. Instead, Amtrak trains will operate approximately one mile over CN between West Detroit Junction and CP Spring Works (Vinewood) on the new track and continue on the westernmost track to the

New Center Amtrak Station located on the west side of the railroad right-of-way immediately west of Woodward Avenue thereby again minimizing passenger/freight train conflicts and improving the safe railopearations in this area.

Station access will be the same as it has been with passenger drop off and pick up at the station's front door. Trainside access will be safe and convenient with trains stopping on the track nearest the station. The project will reduce travel time, increase reliability (on-time performance), and reduce passenger/freight train conflicts in an area with substantial freight train volumes. Using the value of time of $26 per hour for business travelers and $15 per hour for non-business travelers determined in the Midwest Regional Rail Initiative, business travelers would save up to $50,200 annually, non-business travelers $260,500 or more annually. Approximately 50 freight trains currently travel through Bay City Junction daily, operated by CN, Canadian Pacific Railway, CSAO, and Norfolk Southern Railway (NS). Because of the existing track configuration, typically only one train can traverse the Vinewood connection at a time. Upon completion of the West Detroit Connection Track, simultaneous train operations will be possible, thereby increasing the efficiency of rail operations for all carriers, including Amtrak.

The single largest benefit of the project is the reduction in the variability of the time it takes to operate over the current route resulting from passenger/freight train conflicts. The delay time can be as much as 25 minutes per train. In addition, it will reduce Amtrak's pure running time schedule by up to 10 minutes per train for the six daily trains, resulting in approximately one hour schedule time savings per day. The increased reliability of passenger rail can improve other transit services currently operating in the area by creating a more reliable network for patrons to utilize.

In FY 2009, 123,273 passengers traversed the part of the route this project would impact. Consequently, this project will save 9,580 to 19,160 person hours or 4.6 to 9.2 person work years. Based on "The Intercity Rail and Bus Passenger Study" dated November 6, 2002 and an Intercity Passenger Rail Survey conducted in Spring 2007, eight to 10 percent (9,300 to 11,600) of the passengers are making a business trip. The time savings and avoidance of time delays make using the Chicago-Detroit-Pontiac intercity passenger rail service more reliable, particularly to the business traveler.

Freight Rail Benefits:

# freight train movements daily	16
Interlocker time savings per movement (hrs)	0.25
Daily time savings (hours)	4
Annual time savings (hours)	1460
Train oper cost/hr	$ 1,000
Cost savings/yr	$ 1,460,000

Passenger Rail Benefits:

Travel time over 4.6 miles in study area @15 mph (hrs)	0.30
Travel time over 4.6 miles in study area @30 mph (hrs)	0.15
Times savings (hours)	0.15
# train movements daily	6
Daily time savings (hours)	0.9
Annual time savings (hours)	328
Train oper cost/hr	$ 1,000
Cost savings/yr	$ 292,000
Total savings/year	$ 1,788,000

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

Project/Program Metric	Actual— FY 2010 levels	Projected Totals by Year (Actual Levels Plus Project-Caused Changes Only)		
		First Full Year After Project Completion	Fifth Full Year After Project Completion	"X" If N/A or Unsure
Annual passenger-trips	123,273 - From 2009, Actual FY 2010 levels are not available	123,889	126,386	☐
Annual passenger-miles (millions)	0.98	0.99	1.01	☐
Annual IPR seat-miles offered (millions)				☒
Average number of daily round train trip operations (typical weekday)	3	3	3	☐
On-time performance (OTP)[3] – percent of trains on time at endpoint terminals	69%	73%	80%	☐
Average train operating delays: minutes of en-route delays per 10,000 train-miles[4]				☒
Top operating speed (mph)	15	45	45	☐
Average scheduled operating speed (mph) (between endpoint terminals)	15	21	21	☐

	FD/ Construction Period	First full Year of Operations	Fifth full Year of Operations
Anticipated number of annual onsite and other direct jobs created (on a 2080 work-hour per year, full-time equivalent basis)	*336 * Calculations based on "Job Impacts of Spending on Public Transportation: updated 04/29/2009	*574	*574

[3] As calculated and reported by Amtrak according to its existing procedures and definitions. An example can be found at page E-7 of the May 2009 Monthly Performance Report at:
http://www.amtrak.com/servlet/ContentServer/Page/1241245669222/1241256467960
'On-time' is defined as within the distance-based thresholds originally issued by the Interstate Commerce Commission, which are: 0 to 250 miles and all Acela trains—10 minutes; 251 to 350 miles—15 minutes; 351 to 450 miles—20 minutes; 451 to 550 miles—25 minutes; and 551 or more miles—30 minutes.

[4] As calculated by Amtrak according to its existing procedures and definitions. Useful background can be found at pages E-1 through E-6 of Amtrak's May, 2009 Monthly Performance Report (see previous footnote).

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

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

- Any projected reductions in key emissions (CO2, O^3, CO, PMx, and NOx) and their anticipated effects. Provide any available forecasts of emission reductions from a baseline of existing service for the first and fifth years of full operation *(provide supporting documentation if available).*
- Any expected energy and oil savings from traffic diversion from other modes and changes in the sources of energy for transportation. Provide any available information on changes from the baseline of the existing service for the first and fifth years of full operation (*provide supporting documentation if available*).
- Use of green methods and technologies. Address green building design, "Leadership in Environmental and Energy Design" building design standards, green manufacturing methods, energy efficient rail equipment, and/or other environmentally-friendly approaches.

By improving on time performance and reliability of service on six daily Amtrak trains in this corridor, this improvement will produce many environmental benefits by retaining existing ridership and diverting new riders from automobiles. More efficient passenger and freight rail service will result in less pollution, lower greenhouse gas emissions, more transportation options and enhanced connectivity between communities. Rail investment will lead to opportunities for transit-oriented development, which will lead to lower land acquisition needs for highways and airports and reduced energy conumption. For this project, environmental benefits would include the reduction in emissions in one of the most congested rail areas within the state.

(3) Livable Communities Project Benefits Narrative. *Please limit response to 3,000 characters.*

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

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

The construction of the West Detroit Connection Track will greatly enhance rail travel as a viable option for mobility in the Metro Detroit area. The increased reliability and improved connectivity will result in passenger rail service becoming a more attactive option for travelers. This accessibility to Chicago, Ann Arbor, Kalamazoo, etc. without automobile ownership or availibility will also create an opportunity for transit-oriented development in the vicinity of the New Center Station.

Detroit has suffered in recent years with population loss, decentralization, and the effects of suburbanization. The city is ripe to capitalize on this outgrowth through higher density, mixed-use development. The New Center Station area, within this project's limits, is experiencing high-density revitalization, and this project will provide opportunities for continued redevelopment. The proposed Woodward Avenue Light Rail Transit Service is designed with transit-oriented development in mind. This line is currently funded with predominantly privately held interests and is largely intended to spur transit-oriented development in the New Center area, the Woodward Corridor, and downtown Detroit.

The West Detroit Connection Track project will create a vital connection for the transportation modes present in Detroit. The enhanced transportation services provided at the New Center Station include not only the new light rail line, but also existing bus services on Woodward Avenue and throughout the metro Detroit area. The surrounding area is also well suited to accommodate pedestrian and other non-motorized modes of transportation. New riverfront walking trails and bicycle trails within downtown Detroit create a destination and make these areas more "livable".

E. Project Success Factors

(1) Project Management Approach and Applicant Qualifications Narrative: *Please provide separate responses to each of the following. Additional information on project management is provided in Section 4.2.2 of the FY 2009 FD/Construction NOFA.*

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

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

☒ Yes - Briefly describe experience (brief project(s) overview, dates)

☐ No - Briefly describe expected plan to build technical and managerial capacity; provide reference to Project Management Plan.

MDOT staff is highly skilled and thoroughly trained in project management, as evidenced by their track record in applying new technology and innovations to address a full array of rail transportation challenges. MDOT was the first state to interconnect traffic and grade crossing signals to prevent motorists from being trapped on a grade crossing. MDOT is in the process of conducting an FRA-approved test project using raisable barriers to prevent gate running violations. MDOT has partnered with the FRA, Amtrak and General Electric to implement an Incremental Train Control System (ITCS) which has resulted in approval in 2005 to operate passenger trains at 95 mph in one 70 mile segment of the Chicago to Detroit/Pontiac high speed rail corridor. Amtrak received conditional approval from the Surface Transportation Board for Amtrak to operate at 110 mph and are expecting this will occur this summer. Amtrak has received ARRA funding to extend this to Porter, Indiana over the next few years.

MDOT has initiated and successfully managed a variety of large-scale projects. One example is the Detroit Intermodal Freight Terminal (DIFT) Project, which will soon move into the implementation phase now that a Record of Decision has been issued. The DIFT project will provide a consolidated intermodal freight terminal and improve the routing of the CSX, NS, CN, CSAO, and Amtrak through the city of Detroit to reduce passenger and freight rail congestion.

Michigan is part of one of the original five federally-designated high speed rail corridors as a result of MDOT's long-standing advocacy for integrated interstate high-speed passenger rail services and its commitment to and participation in the Midwest Regional Rail Initiative (MWRRI).

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

The MDOT Office of High Speed Rail & Innovative Project Advancement consists of a team of experts in passenger 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 rail rapid 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 passenger rail projects. Staff members in this office are well-versed in all aspects of project management and have experience in working with railroads, contractors, stakeholders and federal regulatory agencies.

MDOT will also draw upon experts in the remainder of the department, particularly the Bureau of Highway Development and the Bureau of Aeronautics and Freight Services. The Bureau of Highway Development is experienced in managing mega transportation projects. Some of their personnel are already managing rail projects, including the final design work for this project. For the projects on private railroads, these units coordinated with railroads and authorize force account work.

The Freight Services Division manages the State owned rail lines, oversees the development of rail infrastucture projects, coordinates rail safety improvements, and collects and analyses rail related data.

MDOT has utlizied a consultant to develop the final plans. Construction work will be completed by host railroads and a contractor selected through MDOT's typical contracting procedures. MDOT staff will over see the construction activities performed by the MDOT contractor. MDOT will coordinate all activities with the construction activities performed by the host railroads

The Project Management Plan (See WDCTP_PMP_05-19-10.pdf) contains additional information including an organization chart, roles of MDOT staff, contractors and other relevant information.

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

☐ Yes- If yes, explain and provide a timeline for obtaining the waivers
☒ No

Please limit response to 1,500 characters.

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

Michigan will contract with the host railroads and draw on their expertise where applicable to construct infrastructure improvements on their ownership. Railroads are in agreement with needed improvements.

Michigan has benefitted from Amtrak support for development of train schedules, projection of ridership and revenues, projection of annual operating funding requirements, station development, negotiation/coordination with host railroads, and engineering.

Current "Wolverine" service is provided by Amtrak as part of their National System.

(2) Stakeholder Agreements Narratives. *Additional information on Stakeholder Agreements is provided in Section 3.3.1.5 of the FY 2009 FD/Construction NOFA.*

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

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

As a part of the DIFT project, a pre-development agreement has been executed. This document (See page 63 of WDCTP_DIFT_ROD.pdf) memorializes the intention of each party to participate in the DIFT project. When funding for additional DIFT related interlocker projects is available, MDOT will execute a contract with the owning railroad for each interlocker improvement. The owning railroads will likely construct the improvements with their own forces or contract with third parties.

Draft construction agreements are being reviewed by both CN and CSAO. Amtrak is providing service outcome needs and these will be included in the agreements. Maintenance and operating agreements between the host railroad and Amtrak will be modified to address the improvements resulting from the WDCTP.

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

Existing "Wolverine" service is provided by Amtrak as part of their National System. Future operating agreements resulting from PRIIA Section 209 will be negotiated with Amtrak, as has been done with Amtrak for decades on existing state supported Blue Water and Pere Marquette service.

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

Construction, maintenance and service agreements with Amtrak and host railroads are pending.

The governors of eight Midwestern states including Illinois, Indiana, Iowa, Michigan, Minnesota, Missouri, Ohio, Wisconsin and the Mayor of Chicago signed a letter and Memorandum of Understanding on July 27, 2009 to work coorperatively in developing the MWRRI High Speed Rail Corridors throughout the Midwest Region. Copies of the letter and MOU are attached to this application (See WDCTP_Governors_MOU.pdf). Additional letters of support submitted with the ARRA application for the WDCTP various stakeholders are included as an attachment (See WDCTP_Support_Letters.pdf).

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

Amtrak has existing agreements with host railroads to operate intercity passenger service in this corridor. Service outcomes will be negotiated as part of the construction agreement processand is ongoing.

Freight services benefit as passenger service is rerouted out of high density freight area. Also, separation of passenger and freight is improved to a great extent by the provision of a second track that allows freight to use the southern track and passenger rail to use the northern track.

(3) Financial Information.

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

Non-FRA Funding Sources	New or Existing Funding Source?	Status of Funding[5]	Type of Funds	Dollar Amount (YOE Dollars)	% of Project Cost	Describe Uploaded Supporting Documentation to Help FRA Verify Funding Source
MDOT	New	Committed	State of Michigan Funds	$7,912,773	50	See WDCTP_Financial Plan.pdf
	New	Committed				

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

State of Michigan funds are committed to this project. MDOT will provide 50% of the project costs. MDOT is requesting that the State funds used for the Final Design and Right of Way acquisition be used as "soft-match" for the project.

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

☐ Yes ☒ No

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

(a) How did you project future State operating subsidies for the benefiting service(s); and

(b) What is the source, nature, and likelihood of the funding that will enable the State to finance the projected increases in annual operating subsidies due to the project?

MDOT does not expect significant increases in the operating subsidy due to this project. Proposed language in PRIIA may affect the operating subsidy, but this project will not have an impact on the future subsidy.

	New	Committed				

[5] Reference Notes: The following categories and definitions are applied to funding sources:
Committed: Committed sources are programmed capital funds that have all the necessary approvals (e.g. legislative referendum) to be used to fund the proposed project/program without any additional action. These capital funds have been formally programmed in the State Rail Plan and/or any related local, regional, or State Capital Investment Program CIP or appropriation. Examples include dedicated or approved tax revenues, State capital grants that have been approved by all required legislative bodies, cash reserves that have been dedicated to the proposed project/program, and additional debt capacity that requires no further approvals and has been dedicated by the sponsoring agency to the proposed project/program.
Budgeted: This category is for funds that have been budgeted and/or programmed for use on the proposed project but remain uncommitted, (i.e., the funds have not yet received statutory approval.) Examples include debt financing in an agency-adopted CIP that has yet to be committed in their near future. Funds will be classified as budgeted where available funding cannot be committed until the grant is executed, or due to the local practices outside of the project sponsor's control (e.g., the project development schedule extends beyond the State Rail Program period).
Planned: This category is for funds that are identified and have a reasonable chance of being committed, but are neither committed nor budgeted. Examples include proposed sources that require a scheduled referendum, requests for State/local capital grants, and proposed debt financing that has not yet been adopted in the agency's CIP.

Subsidy	Actual— FY 2010 levels (YOE Dollars)	Projected Totals by Year (Actual Levels Plus Project Caused Changes Only) (YOE Dollars)	
		First Full Year After Project Completion	Fifth Full Year After Project Completion
State operating subsidy (total for all benefiting services)	0	0	0

(4) Financial Management Capacity and Capability – Provide audit results and describe applicant capability to absorb potential cost overruns, financial shortfalls, or financial responsibility for potential disposition requirements (include as supporting documentation as needed). Provide statutory references/legal authority to build and oversee a rail capital investment. *Please limit response to 2,000 characters.*

MDOT has attached a Finacial Management Plan with this application for the project (See WDCTP_Financial Plan.doc). The plan describes MDOT's 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 a rail capital investment through the State Transportation Preservation Act of 1976, Act 296 of 1976, and Act 51 of 1951. As indicated in the report, at this time there are no risk factors to note. If unforeseen increases to the project should occur, MDOT has the financial resources necessary to fund these expenses as outlined in the plan.

(5) Timeliness of Project Completion – Provide the following information on the dates and duration of key activities, if applicable. *For more information, see Section 4.2.4 of the FY 2009 FD/Construction NOFA.*

Final Design Duration:	2 months for track and bridge final design, CTC final design will be completed in approximately 6 months
Construction Duration:	12 months
Rolling Stock Acquisition Duration:	NA months
Rolling Stock Testing Duration:	NA months
Service Operations Start date:	At Project Completion (12/2011) *(mm/yyyy)*

(6) If applicable, describe how the project will promote domestic manufacturing, supply and other industries, including United States-based equipment manufacturing and supply industries. *Please limit response to 1,500 characters.*

This project is a key component in improving domestic maufacturing, supply and other industries. This area represents key corridors to manufacturing centers in the state of Michigan. The new track capacity and uncongested movement will open more options for business ventures in southeast Michigan as well as the entire corridor and state. The West Detroit Connection Track Project will provide additional options for shipping and suppliers from local southeast Michigan automotive industry producers and suppliers to ship more efficiently via rail freight. Currently the congestion in this corridor is a hinderance to the existing freight traffic, as well as a detriment to future manufacturing growth.

With the success of this project, orders for rail, turnouts, man power, and other materials coming from this project will stimulate economic growth, and the hope is that all the material needed for a successful project will come from local and regional vendors and manufacturers based in the United States. Michigan is optimistic that this program's funds can stimulate the local economy while providing the current intercity passenger and freight operators on this rail line a more efficient track configuration.

(7) If applicable, describe how the project will help develop U.S. professional railroad engineering, operating, planning and management capacity needed for sustainable HSR/IPR development in the United States, including promotion of a diverse workforce. *Please limit response to 1,500 characters.*

With this substantial influx of funding from the federal government, most railroads may need to employ new engineering personnel to facilitate the on-time completion of the projects, thus introducing a new generation of engineers into the railroad side of engineering. The new employees will hopefully bring enthusiasm to an "old"

industry, along with innovative ideas and sound solutions for a discipline that has basically stuck to the motto of, "this is how we do it" for years. MDOT hopes that the railroads take this opportunity to look at the industry and ignite an explosion for passenger rail, intermodal freight, and travel and help the United States catch up with our foreign partner countries and take passenger and high-speed rail travel to the next level for speed, reliability, comfort, convenience, environmental benefits and safety.

F. Additional Information

(1) Please provide any additional information, comments, or clarifications and indicate the section and question number that you are addressing (e.g., Section B, Question 3). *This section is optional.*

MDOT has been working toward integrating all modes of transportation as evidenced through our Mission Statement and Strategic Plan. By addressing this several years ago, MDOT set the stage for a new multimodal approach to solving transportation problems. MDOT has been drawing on the expertise throughout the department to deliver intercity passenger rail capital projects. The most recent example of this has been with this West Detroit Track Connection Project.

Working through this effort has allowed MDOT to see what would formally need to take place in an organizational structure to handle a robust intercity passenger rail program. As a result, MDOT created a new Office of High Speed Rail & Innovative Project Advancement that reports directly to the Director and is responsible for program delivery.

(2) Optional Supporting Documents (If you have uploaded documents to *Grants.gov*, please provide document title, filename, and description here)

Document title	Filename	Description and Purpose
West Detroit Connection Track Project - Project Location Map	WDCTP_Project_Location_Map.pdf	This file shows the general location of the West Detroit Connection Track Project
Final Design Plans for the Track Improvements, Bridge Replacement and Right of Way	WDCTP_Track_Bridge_ROW.pdf	Final Design Plans for the Track Improvements, Bridge Replacement and Right of Way
Chicago – Detroit/Pontiac Corridor Service Development Plan	WDCTP_Corridor_Service_Development_Plan.pdf	Service Development Plan for the Chicago to Detroit/Pontiac High Speed Rail Corridor
Midwest Regional Rail System - Executive Report	WDCTP_MWRRI_9-2004.pdf	Midwest Regional Rail System Executive Report
Service Development Plan for the Midwest Regional Rail System	WDCTP_MWRRI_Service_Development_Plan.pdf	Service Development Plan for the Midwest Regional Rail System
Categorical Exclusion Request to FRA	WDCTP_Cat_Ex_to_FRA.pdf	CE request form provided to FRA
FHWA Record of Decision	WDCTP_DIFT_ROD.pdf	FHWA Record of Decision for the DIFT Project
Project Management Plan for the West Detroit Connection Track Project	WDCTP_PMP_05-19-10.pdf	Project Management Plan for the West Detroit Connection Track Project
Memorandum of Understanding	WDCTP_Governors_MOU.pdf	Memorandum of Understanding between 8 states and the City of Chicago for improvements to the High Speed Rail Corridor
Letters of Support from various stakeholders supporting improvements in the Chicago-Detroit/Pontiac HSR corridor.	WDCTP_Support_Letters.pdf	Letters of Support from various stakeholders supporting improvements in the Chicago-Detroit/Pontiac HSR corridor.
Financial Plan	WDCTP_Financial Plan.pdf	Financial Plan for the WDCTP
Conrail Shared Asset Operation Force Account Estimate and plan review comments	WDCTP_CSAO_FA_Plan_Comments.pdf	CSAO Force Account Estimate for work on the West Detroit Connection Track Project, and documentation indicating CSAO has been active in the project's development.

Memorandum of Understanding Between Indiana, Illinois, & Michigan DOT	**WDCTP_MOU_IN_IL_MI.pdf**	**MOU supporting various improvements including Chicago-Detroit/ Pontiac Corridor Improvements which includes the WDCTP.**
MDOT/ Amtrak Executed Agreement in Principle and Draft Service Outcome Agreement	**WDCTP_MDOT_Amtrak_Executed_AIP_Host_RR_Improvements_and Draft_SOA.pdf**	**Agreement Betweeen MDOT and Amtrak for the ARRA High Speed Rail projects. The WDCTP was included in the application for ARRA HSR funds. Following the Agreement in Priciple is a draft Service Outcome agreement for the WDCTP.**
Various documentation from CN to Terry Stepanski (MDOT)	**WDCTP_CN_Scope_Verification.pdf**	**Various documentation from CN to Terry Stepanski (MDOT) indicating CN has been actively involved in project development and scope**

G. Checklist of Application Materials

Required Documents	Reference	Description	Format
☒ HSIPR FD/Construction Application Form	HSIPR FY 2009 FD/ Construction NOFA Section 3.3.1.1	This document to be submitted as an attachment through *Grants.gov*.	Form
☒ General Info- Tab 1 of HSIPR Project Budget and Schedule Form Excel Document	HSIPR FY 2009 FD/ Construction NOFA Section 3.3.1.2	This document to be submitted as an attachment through *Grants.gov*.	Form

☒ Detailed Capital Cost Budget- Tab 2 of HSIPR Project Budget and Schedule Form Excel Document	HSIPR FY 2009 FD/ Construction NOFA Section 3.3.1.2	This document to be submitted as an attachment through *Grants.gov*.	Form
☒ Annual Capital Cost Budget- Tab 3 of HSIPR Project Budget and Schedule Form Excel Document	HSIPR FY 2009 FD/ Construction NOFA Section 3.3.1.2	This document to be submitted as an attachment through *Grants.gov*.	Form
☒ Project Schedule- Tab 4 of Project Budget and Schedule Form Excel Document	HSIPR FY 2009 FD/ Construction NOFA Section 3.3.1.2	This document to be submitted as an attachment through *Grants.gov*.	Form
☒ OMB Standard Forms • SF 424: Application for Federal Assistance • SF 424C: Budget Information- Construction • SF 424D: Assurance Construction	HSIPR FY 2009 FD/ Construction NOFA Section 3.3.1.3	This document to be submitted as an attachment through *Grants.gov*.	Form
☒ FRA Assurances Document	HSIPR FY 2009 FD/ Construction NOFA Section 3.3.1.4	May be obtained from FRA's website at http://www.fra.dot.gov/downloads/admin/assurancesandcertifications.pdf. The document should be signed by an authorized certifying official for the applicant. Submit through *Grants.gov*.	Form
Optional Supporting Documents	**Reference**	**Description**	**Format**
☒ Map of proposed project area	HSIPR FY 2009 FD/ Construction NOFA Section 3.3.1.1	This document to be submitted as an attachment through Grants.gov.	None
☒ Other supporting documents as identified by applicant	HSIPR FY 2009 FD/ Construction NOFA Section 3.3.1.1	This document to be submitted as an attachment through Grants.gov.	None

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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**.