

GRAND RAPIDS – CHICAGO CORRIDOR

**US DEPARTMENT OF TRANSPORTATION
FEDERAL RAILROAD ADMINISTRATION
CORRIDOR IDENTIFICATION AND DEVELOPMENT PROGRAM**

**SUBMITTED BY: MICHIGAN DEPARTMENT OF TRANSPORTATION
OFFICE OF RAIL**



I. Cover Page

Corridor Title	Grand Rapids – Chicago (Pere Marquette)
Applicant	Michigan Department of Transportation
Was a Federal Grant Application Previously Submitted for this Corridor?	No
Other sources of Funding for the Corridor?	Yes – Michigan Comprehensive Transportation Fund, approximately \$100 Million annual appropriation
City(-ies), State(s) Where the Corridor is Located	Grand Rapids, Michigan to Chicago, Illinois
Congressional District(s) Where the Corridor is Located	Michigan Congressional Districts: 3, 4, 5 Illinois Congressional Districts: 1, 2 Indiana Congressional District: 1
Is the Corridor currently programmed or identified in: State rail plan, or regional or interregional intercity passenger rail systems planning study?	Yes – Michigan Mobility 2045 (State Rail Plan)
Is the applicant working with other entities in support of the Corridor?	Yes – Amtrak, Michigan Association of Rail Passengers, Midwest Interstate Passenger Rail Commission

II. Corridor Summary

The Michigan Department of Transportation (MDOT) respectfully submits the **Grand Rapids – Chicago Corridor** for inclusion in the Corridor Identification and Development Program. This corridor that carries the state-supported Amtrak Pere Marquette service, connects Grand Rapids, Michigan and Chicago, Illinois, and is comprised of one daily round trip that serves five stations. One of the largest challenges faced on this corridor is service reliability, most notably on-time performance. In addition, MDOT is supportive of exploring a potential increase in frequency of service to offer more options for passengers, ultimately making intercity passenger rail a more attractive mode of transportation.

III. Corridor Funding

The Office of Rail administers MDOT's rail and port programs, which are primarily supported with annual Comprehensive Transportation Fund (CTF) revenues. While MDOT's rail program funding is subject to annual appropriation and can vary from year to year, it is approximately \$100M in FY2023. It is expected to remain relatively consistent going forward. A portion of that state appropriation is used for expenses that are either statutorily (operating support for the three current Amtrak services at \$15-30 Million annually) or contractually (such as the maintenance of the Kalamazoo-Dearborn corridor and non-Federal match to existing Federal grants) mandated. These mandatory expenses vary from year to year as well, but in total, require approximately half of our appropriation annually. The remainder is available, at MDOT's discretion, to invest in other priorities in the best interest of rail transportation in Michigan. Those priorities include, but are not limited to, investments in the state-owned portion of the accelerated corridor utilized by the Blue Water and Wolverine services. Should this corridor be selected for the Federal Railroad Administration's (FRA) Corridor Identification and Development (CID) Program, the required match for activities beyond Step 1 would come from that discretionary portion of our funding in any appropriate Fiscal Year(s). This funding would also offer potential match funds for projects identified through the CID Program.

MDOT has successfully completed work, or partnered with third party agencies to complete work, under numerous HSIPR, Consolidated Rail Infrastructure and Safety Improvements (CRISI), and Federal-State Partnership for State of Good Repair (SOGR) grants for improvements on passenger rail infrastructure in Michigan. Details are found in the table below.

PASSENGER RAIL FEDERAL GRANTS 2010 to FEBRUARY 2023			
Project	FY Started	Fed \$ M	Federal Grant
Michigan Line 5 Bridge Reconstruction of Structures PE/NEPA	Pending	\$1.55	FY21 State of Good Repair
Jackson-Ypsilanti Curve Mods	Pending	\$15.57	FY20 State of Good Repair
Kalamazoo-Dearborn Trespass Grant	2023	\$15.62	FY20 CRISI
Kalamazoo-Dearborn Track and Signal Infrastructure Reliability Improvement	2020	\$6.52	FY19 State of Good Repair Grant
Battle Creek Station Connection PE/NEPA	2020	\$0.75	FY19 CRISI
Kalamazoo-Dearborn, Jackson & Mechanic St. Bridge Replacements	2019	\$23.34	FY 18 State of Good Repair Grant
Kalamazoo-Dearborn - Rail Curve Modification Battle Creek to Jackson	2014	\$9.40	TIGER FY13
West Detroit Connection Track	2012	\$7.90	HSIPR FY09
Kalamazoo-Dearborn - Acquisition/Enhancements/Professional Services	2012	\$150.00	HSIPR FY10
Kalamazoo-Dearborn - Service Development Program	2012	\$196.50	ARRA HSIPR
Midwest Next Generation Train Equipment Procurement *	2012	\$268.20	ARRA HSIPR
Dearborn Station	2011	\$28.20	ARRA HSIPR
Ann Arbor Station - PE/NEPA	2011	\$2.80	ARRA HSIPR
Chicago-Detroit/Pontiac Corridor Investment Plan - Environmental Clearance	2011	\$3.20	HSIPR FY10
Troy Station	2011	\$8.30	ARRA HSIPR
Battle Creek Station	2010	\$3.60	ARRA HSIPR
Grand Rapids Amtrak Station/Railroad Relocation	2010	\$3.80	FY09 Rail Line Reloc. & Improv.
Total	2010-23	\$745.25	

IV. Applicant Eligibility

MDOT is the applicant for the Project. As a Department of the State of Michigan, MDOT meets eligibility requirements outlined in Section C.1.b. of the Notice of Funding Opportunity.

V. Detailed Corridor Description

1. Basic Characteristics

The 176-mile corridor between Grand Rapids, Michigan and Chicago, Illinois is part of the Chicago Hub Passenger Rail Network. This existing corridor is one of several branches in the hub and spoke passenger rail system centered on Chicago, as identified in the Midwest Regional Rail Plan, published by FRA in 2021.

Current Amtrak service on the Grand Rapids – Chicago Corridor includes the Pere Marquette service at one round trip per day, in addition to a portion of the corridor serving Michigan's other two services daily. The Grand Rapids – Chicago Corridor travels through three states: Michigan, Indiana, and Illinois. Corridor ownership includes three railroads: CSX, Norfolk Southern (NS), and Amtrak. CSX owns 135 miles; NS owns 39 miles; Amtrak owns just over a mile leading into Chicago Union Station.

The corridor serves four station communities within Michigan, plus Chicago Union Station, and connects both urban and rural areas. While the corridor begins in Michigan's second largest city, Grand Rapids hosts many festivals throughout the year, including ArtPrize. The area outside of metropolitan Grand Rapids consists of rolling farmlands and orchards covering over 157,000 acres within Kent County.¹ The corridor continues to Holland, which is a popular year-round tourist destination and Lake Michigan lakeshore community, as well as host to Hope College. The corridor then continues to Bangor, which is a very rural area and is home to Michigan's Apple Festival. It continues through rural farm and fruit production lands to St. Joseph, another lakeshore tourist destination, before crossing the Indiana-Michigan state line and traversing to Chicago.

Through the development of a Service Development Plan (SDP), MDOT aims to identify improvements to the corridor that will improve on-time performance of the service. In FY2022, this corridor was on time for only 73 percent² of its passengers. While this is Michigan's best performing service, an improvement in service reliability and on-time performance would increase the potential growth of this corridor.

Ridership potential, as well as operational and capital investment requirements, and public benefits for expanded service on the Grand Rapids – Chicago corridor must be evaluated to determine market demand for additional frequencies. Currently operating at just one round-trip train per day, MDOT would like to assess the potential of adding a second daily round-trip. This vision is supported in the Amtrak Connects US plan³. Increasing the frequency of rail service within the corridor would significantly improve its attractiveness to travelers and is an integral element needed to allow the rail service to meet existing and future passenger demand.

¹ [2017 Census of Agriculture, Kent County Profile](#)

² [Amtrak Status Report, October 1, 2022](#)

³ <https://www.amtrakconnectsus.com/>

2. Corridor Readiness

The corridor currently supports a successful Amtrak intercity passenger service. MDOT desires to enhance the corridor to provide a topnotch service to its customers. Due to its experience with the 2017 SDP for the Detroit/Pontiac – Chicago corridor, as well as numerous other planning projects, MDOT Office of Rail is well-prepared to manage the preparation of an SDP for the Grand Rapids – Chicago corridor, in addition to any of the proposed work from the PE/NEPA phase through Final Design and Construction of the projects identified within the SDP.

3. Eligible Activities

This application seeks to initiate the Corridor development efforts under the CID Program, including the development of a scope, schedule, and cost estimate for preparing an SDP for the Grand Rapids – Chicago Corridor, as outlined in Section C.4.a. of the Notice of Funding Opportunity.

4. Intended Operator

The intended operator of the Grand Rapids – Chicago corridor continues to be Amtrak.

5. Legal, Technical, and Financial Capacity

MDOT has the legal, technical, and financial capacity to carry out the proposed project.

Legal Capacity

Michigan has the statutory legal authority to build and oversee rail capital investment through the State Transportation Preservation Act of 1976 “Act 296 of 1976” and “Act 51 of 1951.”

Technical Capacity

The MDOT Office of Rail consists of a team of experts in railroad management, each with their own area of expertise. This office is responsible for promoting and developing the infrastructure needed to support intercity passenger rail. 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.

In addition, MDOT is supported by Quandel Consultants, Inc., a 30-person engineering firm specializing in federally funded railroad projects. Quandel represents several Midwest clients in their implementation of freight improvement programs funded through FRA programs.

Financial Capacity

All rail funding in the State of Michigan is subject to annual appropriation. The Rail Operations and Infrastructure line item in MDOT’s FY2022-2023 appropriation bill, 2022 PA 166, funds several individual programs and activities, ranging from passenger rail operating assistance to capital and maintenance activities on the 665 miles of state-owned rail lines to programs that enhance economic development and support the state’s overall investments in rail infrastructure. For FY2023, the line item is funded with \$99,650,700 in state CTF dollars, and provides the authority to spend federal, local, and private dollars. At this time, no local or private dollars are anticipated to be available for expenditure.

Financial statements of the State of Michigan's Comprehensive Annual Financial Report (SOMCAFR) are prepared by the Michigan Department of Management and Budget and are audited by the State

Auditor General. Separate Audited Financial Statements of the restricted funds of MDOT AFR can be found at the Michigan Office of the Auditor General website at: <http://audgen.michigan.gov>, and MDOT's website at www.michigan.gov/MDOT.

Audits of the SOMCAFR and MDOT AFR are performed by both the State of Michigan's Auditor General and MDOT's Office of Commission Audits. MDOT's ability to absorb unforeseen cost increases, cost overruns or financial shortfalls is limited to those funds made available to its rail programs per statutory distribution of Michigan's Comprehensive Transportation Fund, per PA 51 of 1951. Allocation of funds over and above those already made available to MDOT's rail program is at the discretion of the state legislature.

6. Challenges to Address

A challenge facing intercity travelers along the Grand Rapids – Chicago Corridor is the lack of competitiveness of rail transportation to automobile travel. Improved intercity passenger rail service would offer an alternative to traditional highway and air travel between major urban centers in the face of increasing fuel costs and congestion on Midwest highways and at Midwest airports.

Michigan's long-range plan, Michigan Mobility 2045, indicates that our population and economy are changing in response to trends that affect travel patterns and demand across all modes of transportation. Population and jobs are projected to grow gradually over the next 25 years and will likely increase demand for travel, particularly in and between urban areas. An aging population, structural changes in the economy, and the further implementation of new technologies will shape the character of that growth. Non-auto mobility options will be more critical than ever to accommodate demographic change and promote health, equitable access to opportunity, and achieve Michigan's climate goals.

To achieve Michigan's vision for an interconnected multimodal system that is people focused, equitable, reliable, convenient for all users, and enriches Michigan's economic and societal vitality, our intercity passenger rail corridors must operate more reliably. As stated under *Basic Characteristics* above, customer on-time performance for the Grand Rapids – Chicago corridor was only 73 percent in FY2022.

Pere Marquette

FY17	FY18	FY19	FY20	FY21	FY22
All Stations OTP				Customer OTP	
92%	86%	75%	81%	76%	73%

*FY21 began FRA's first full year of Customer OTP as a standard OTP metric.

In large part, this may be due to operational constraints and conflicts between passenger and freight service operations on the same lines between Chicago and Porter, Indiana in what is known as the South of the Lake (SOTL) portion of the corridor. Addressing capacity constraints on this portion of the corridor is critical to all three Michigan passenger rail services. Solving this issue is likely a key to accomplishing better on-time performance and enabling future growth of the corridor with additional frequencies.

Offering travelers more schedule options is essential in achieving Michigan's vision, especially with our rapidly aging population and generational preferences for alternatives to automobile driving. Increasing frequency of service on the Grand Rapids – Chicago corridor would offer more flexibility and options to travelers. Accessibility and connectivity are the bedrock of the transportation system and fundamental to unlocking Michigan's economic growth and equitable access to opportunities. In addition, increasing

frequency of service within the corridor to meet travel demand and ridership potential will attract new customers and provide transportation options to travelers.

7. Users and Beneficiaries

There are numerous expected users and beneficiaries associated with the Grand Rapids – Chicago Corridor:

- Amtrak
- MDOT
- Cities of Grand Rapids, Holland, Bangor, St. Joseph, and Chicago
- CSX, Norfolk Southern, and their customers
- Current and potential new users of Amtrak’s Pere Marquette service, in addition to users of the Wolverine and Blue Water services

For Amtrak and MDOT, improvements to the corridor would benefit intercity passenger services across Michigan. The primary beneficiaries of the Grand Rapids – Chicago Corridor are existing and future riders of Amtrak’s Pere Marquette service. However, even users of Amtrak’s Wolverine and Blue Water services would benefit with improvements made to the shared corridor between Chicago and Porter, Indiana. The resulting operational improvements would represent tangible progress toward the state’s vision for enhanced mobility and support of economic development and environmental sustainability.

According to a 2019 study completed by Michigan State University,⁴ travelers utilizing the Pere Marquette service had the following trip purposes:

Pere Marquette Travelers – Trip Purpose	
Visit Friends and Family	46.72%
Leisure and Other	21.17%
Vacation	18.25%
Business	10.22%
School	3.65%

It is anticipated that Amtrak and MDOT will benefit from increased ridership once improvements are identified and implemented. A significant growth in business and school travel could be achieved by more reliable and available service. Overall improvements within the corridor will support the Amtrak service’s competitiveness with air, automobile, and bus travel for intercity trips. The average train ticket is economically competitive with other modes, but the reliability and trip time often discourages users from choosing rail. Investing within this corridor will help to improve the service’s ability to give confidence to consumers that rail service is fast, effective, and reliable. This in turn, offers benefits to both Amtrak and the State of Michigan, in terms of improved farebox recovery ratios.

8. Potential Scaling of the Corridor

MDOT’s priority is to improve on-time performance within the corridor. Following that, MDOT is interested in exploring the implementation of an additional frequency of service on the corridor.

⁴ “Intercity Bus and Passenger Rail Study,” September 2019, Prepared by Michigan State University

9. Prioritization of Corridors

In addition to this Grand Rapids – Chicago Corridor application, MDOT is submitting independent applications for the Detroit/Pontiac – Chicago Corridor and the Port Huron – Chicago Corridor. MDOT's priority, based on ridership and OTP, for these applications is as follows:

Prioritization of Corridors with Supporting Data			
Rank	Corridor	FY22 Ridership	On-Time Performance
1	Detroit/Pontiac – Chicago	367,254	62%
2	Port Huron – Chicago	145,072	66%
3	Grand Rapids – Chicago	86,148	73%

10. Other Information to Consider

The following documents support the development of this corridor:

- [FRA Midwest Regional Rail Plan](#)
- [Midwest Regional Rail Initiative](#)
- [Michigan Mobility 2045](#)
- [Michigan Mobility 2045, Rail Supplement](#)
- [Amtrak Connects US](#)

Letters of support for the corridor are included in the Attachments to this application and have been received from: Amtrak, Michigan Association of Rail Passengers, and the Midwest Interstate Passenger Rail Commission.

VI. Corridor Location

The Grand Rapids – Chicago Corridor traverses through three states (Michigan, Indiana, and Illinois), with two host railroads (CSX and NS). Within each state, the passenger rail service travels through many counties, cities, and Congressional districts.

In Michigan, the corridor begins at the Grand Rapids station located in Kent County and ends at the Michigan/Indiana state line. It travels through the counties of Berrien, Van Buren, Allegan, Ottawa, and Kent. Within these counties, the corridor in Michigan serves the cities of St. Joseph, Bangor, Holland, and Grand Rapids. The Indiana portion of the corridor begins at the Indiana/Michigan state line and ends at the Illinois/Indiana state line, and includes Lake, Porter, and La Porte Counties, Indiana. The Illinois portion of the corridor begins at the Illinois/Indiana state line and ends at the Chicago Union Station. This segment of 15 miles is entirely within the City of Chicago & Cook County.

See map on following page.



VII. Evaluation and Selection Criteria

1. Corridor Benefits

A. Projected Ridership, Revenues, Capital Investment, and Operating Funding Requirements

Amtrak Connects US estimates, based on Amtrak's 2021 forecasting, projected annual ridership of 359,000 at three round-trip services per day by 2035. This results in an operating cost of \$15.5 million, revenues of \$12.9 million, and a state contribution of \$2.6 million.⁵ Capital expenditures are estimated at \$456 million. The development of an SDP is expected to refine these estimates and develop estimates for an increase to two round-trip services per day.

B. Environmental, Congestion Mitigation, and Other Public Benefits

There is significant opportunity to reduce carbon emissions by using trains over automobiles or planes. This is due to an increased energy efficiency of trains versus other forms of transportation. Travel on Amtrak trains outside the NEC emits up to 55% fewer GHGs than driving alone, and up to 30% fewer than flying.⁶ These benefits would scale with corridor improvements. As referenced in the Connects US

⁵ Source: Amtrak Connects US, 2021

⁶ Source: Amtrak Connects US, 2021

plan, Amtrak trains are energy-efficient and will grow even more efficient with the latest generation of locomotives, which are 10% more fuel-efficient than previous diesels. Across Amtrak's national system, traveling by Amtrak is 46% more energy efficient than driving, and 34% more efficient than flying.⁷

As referenced in Amtrak's Corridor Vision in the Connects US plan, offering modal choices, and attracting new rail customers results in a reduction in highway congestion, as well as in vehicle crashes and the accompanying injuries and fatalities.

In addition, Southwest Michigan is home to some of the state's worst air quality along the Lake Michigan lakeshore. The Michigan Department of Environment, Great Lakes and Energy works closely with the West Michigan Clean Air Coalition to monitor, raise awareness, and improve air quality in the region. Reducing emissions and encouraging more users of rail transportation will support this region in achieving cleaner air.

C. Projected Trip Times and Competitiveness with Other Modes

Current average trip times from endpoint-to-endpoint total four hours and six minutes. Any future improvements made to the corridor would help to reduce the trip time and make it more competitive with automobile travel.

Differing population growth in different regions, shifting travel preferences, congestion on other modes, and concern over impacts of climate change all combine to underscore the importance of a new vision for how intercity rail can serve the nation's transportation needs. By diverting passengers to rail traffic, fewer cars will be on the region's roads. This modal diversion improves the safety of these passengers due to the higher risk of traveling in automobiles. The modal diversion reduces the wear on the existing roadways and will reduce the maintenance costs associated with paving and painting. Furthermore, the reduction of cars on roadways improves congestion, providing a benefit to the existing drivers. Finally, the modal diversion will provide travel cost savings to those passengers who are diverted from automobile to rail travel. The savings are seen in a reduction in operating costs of personal vehicles, such as gasoline, maintenance, tires, and automobile depreciation. However, this reduction in operating costs is partially offset by the purchase of a train ticket.

D. Economic and Employment Impacts

This corridor is home to Grand Rapids, which represents one of the fastest growing economies in Michigan and the Midwest. The Grand Rapids area has long been known as a leader in the furniture industry and has worked to diversify its economy. It is now a center for advanced manufacturing, health sciences, food processing and agribusiness, and technological innovation.⁸ Some of the largest employers along the corridor include Magna, GE Aviation, Haworth, Tyson, Whirlpool, Bosch, Spectrum Health, Amway, Steelcase, Herman Miller, and Meijer.

Intercity passenger train travel with more frequent and reliable service effects the competitiveness of the state and region to attract new residents, business opportunities and tourism. Additionally, the diversion from highways to intercity passenger rail provides economic competitive benefits by providing a reduction in roadway fatalities and crashes, congestion savings, travel cost savings, roadway maintenance savings, and emissions savings. Improvements to operational reliability and the expansion of service by increasing frequency on this corridor is part of a larger effort to improve rail transportation in the State of Michigan and in the United States. This overall effort contributes to the

⁷ Source: Amtrak Connects US, 2021

⁸ [The Right Place](#)

economic competitiveness of Michigan and the United States over the medium and long-term by improving the national transportation system while creating and preserving jobs.

E. Benefits to Rural Communities

Transportation options in rural areas allow for access to food, healthcare, educational opportunities, and employment. It allows access to non-farming jobs, increases tourism and travel, helps make rural communities more attractive to larger corporations, and provides access to higher education and training for rural citizens.

Although several stations on this corridor are in smaller urbanized areas, many riders of this service live in the surrounding rural and agricultural areas. In fact, the greater Grand Rapids area has seen a 45% growth rate in agribusiness in the last decade, which supports over one-third of Michigan’s agricultural production and sales in West Michigan.⁹ This corridor also traverses through a fruit production belt in Michigan. Improvements on this corridor will help to make the rail travel mode more competitive with air, automobile, and bus for intercity trips. The average train ticket is economically competitive with other modes, but often the reliability, trip time, and schedule pushes users to other options.

Improving operational reliability and increasing frequency of intercity passenger rail service in the corridor will allow rural citizens more dependable service options to make it to healthcare appointments, education options, and employment in the connecting urban areas. This provides confidence to consumers that rail service is fast, effective, and reliable.

F. Serving Historically Unserved or Underserved and Low-Income Communities or Areas of Persistent Poverty

60 percent¹⁰ of the station communities served by the Grand Rapids – Chicago Corridor are within opportunity zones for historically unserved or underserved, low-income, or persistent poverty areas. This corridor provides these areas with a wider range of travel options so that they can affordably expand their personal mobility.

G. Connectivity with Other Modes

Intercity passenger rail service within the state of Michigan connects with other modes at stations, as well as offers the ability to bring bicycles onto trains. Additionally, all Michigan stations but one (Albion) offer connections to local transit. Thirteen of Michigan’s stations provide connections to intercity buses. Amtrak provides this connecting bus service using locally contracted intercity buses, which extends the network by 1,470 miles within Michigan.¹¹ The table below includes modal connections within the Grand Rapids – Chicago corridor.

Modal Connections by Station (Grand Rapids – Chicago Corridor)		
Station	Intercity Bus Connections	Transit Connections
Grand Rapids	Indian Trails, Greyhound, Amtrak Thruway Motorcoach	The Rapid
Holland	Indian Trails	Macatawa Area Express
Bangor	N/A	Van Buren Public Transit (Dial-A-Ride Transit)
St. Joseph	N/A	Twin Cities Area Transportation Authority

⁹ *The Right Place*

¹⁰ Source: USDOT, *Areas of Persistent Poverty & Historically Disadvantaged Communities, 2023*

¹¹ *Michigan Mobility 2045, State Rail Plan Supplement*

The potential to benefit or improve connectivity with existing or planned transportation services of other modes does exist within the corridor. By supporting the reliability of consistent passenger operations and on time performance, it provides the ability for travelers to utilize the corridor's services for connections to other modes, such as connecting to buses or flights. In addition, throughout the development of the SDP, it is likely that station improvements will be identified as a need. As stations are updated and improved, integration and connections with other modes such as transit and active transportation are improved. In turn, this multiplies the convenience and perceived value of intercity passenger rail transportation.

H. Connection Between Most Populated Metropolitan Areas

This corridor connects two of most populated metropolitan areas in the Midwest and nation. According to the 2020 U.S. Census, Chicago ranked 3rd and Grand Rapids ranked 51st in the most populated metropolitan areas within the United States. When looking at the Midwest, Chicago ranks 1st and Grand Rapids ranks 11th for most populated metropolitan areas.

I. Enhancements to Regional Equity and Geographic Diversity

This corridor begins in Grand Rapids, which is one of Michigan's largest metropolitan areas, however many users of this service live and work in the nearby rural and agricultural communities. Having a link between urban and rural areas provides the opportunity for a growth in regional equity with access to higher education institutions, jobs, health care, and more. This corridor serves several college and university communities, including community colleges, Grand Valley State University, Hope College, and Davenport University. Improving service will help to make rail transportation more attractive to the students on these campuses, providing them with more travel opportunities.

Providing improved access will help local Michigan station communities leverage and attract new generations of Americans, who tend to travel more frequently and gravitate towards trains and transit options. Similarly, the corridor can benefit older generations who are less comfortable driving than they once were.

J. Integration into the National Rail Passenger Transportation System

The corridor will remain integrated into the national rail passenger transportation system. Improving operational reliability and providing more options for travelers offers better connectivity between Amtrak routes connecting at Chicago Union Station.

2. Technical Merit

A. Readiness

MDOT is well-prepared and ready to commence activities under the Corridor Identification and Development Program and eagerly anticipates the start of Step 1 and Step 2. Developing an SDP for the corridor will provide the data and guidance necessary to assist MDOT in developing Office of Rail priorities for project implementation.

B. Experience of Key Personnel

MDOT's experienced staff in the Office of Rail will lead the project. Office of Rail Director, Peter Anastor, leads a dedicated team of MDOT employees focused on all rail activities in Michigan. Peter

has over 25 years of experience in leading high-level teams within Michigan government to promote economic development opportunities and the efficient utilization of infrastructure assets. MDOT's Chief Rail Engineer, Brandan Maurer, leads the Infrastructure and Asset Management section within the office and has over 10 years of transportation development and management experience. Nikkie Johnson leads the Passenger and Freight Development section within the office and has over 15 years' experience managing rail programs within the State of Michigan. Jeff Martin has over 7 years of experience managing various components of Michigan's passenger rail program within the Office of Rail and is a key member of the project team. Sara Moore has over 20 years of transportation planning, policy oversight, and development experience within MDOT, including over 14 years in MDOT's rail office. Sara will be the MDOT project manager.

C. Commitment to Operation

MDOT is committed to the implementation and operation of the corridor. As noted in *Section III. Corridor Funding* of this application, MDOT currently funds three State-Supported Amtrak routes and receives an annual appropriation from the state legislature and retains a level of flexibility in determining how that funding is used within the rail program. This allows MDOT the ability to invest in priorities that are found to be in the best interest of rail transportation in Michigan.

D. Inclusion in Planning Studies

The Grand Rapids – Chicago Corridor is an established corridor within the national rail network. Increased frequency of service was included in the FRA's Midwest Regional Rail Plan, which was published in October 2021, as well as identified in Amtrak's Connects US plan published in June 2021, and in Michigan Mobility 2045, published in November 2021, which serves as Michigan's long-range transportation plan, rail plan, and freight plan.

E. Funding Commitment

As previously mentioned, MDOT is committed to funding the state match portion of Steps 2, and 3 of the CID Program, as well as through implementation and operation of the corridor, subject to annual appropriation.

F. State Rail Plan Inclusion

All aspects of this application were included in Michigan Mobility 2045, which serves as the State Rail Plan for Michigan.

G. Passenger Operator Support

Amtrak will continue operation of the Grand Rapids – Chicago service and has expressed support for increased frequency in the Connects US plan.

VIII. DOT Strategic Goals

1. Strategic Goals

A. Safety

The Grand Rapids – Chicago Corridor is already included in Amtrak’s System Safety Program Plan. The most important facet of rail planning, design and operations is promoting the safety of passengers and rail workers. The future Michigan rail system will ensure safety by employing the most current train control technology and track inspection equipment. Minimizing interactions between trains and automobiles through grade crossing management will also be considered during the planning process.

By supporting the operational reliability and expansion of passenger rail service, these improvements will help to sustain and grow ridership on the Pere Marquette passenger service. As travel by rail is significantly safer than travel by passenger vehicle, and passenger vehicle is the primary competing mode for this corridor, supporting and increasing ridership in this corridor results in an overall increase in safety to the transportation system and a decrease in transportation-related fatalities and serious injuries.

B. Economic Strength and Global Competitiveness

Infrastructure Investment and Job Creation

Implementation of the improvements to this corridor is expected to create jobs in the rail industry, from construction to operations and maintenance. These jobs will generate additional household income across the region. Overall, the corridor will support existing industries and businesses such as Meijer, Steelcase, Herman Miller, GE Aviation, and others to foster growth across the Midwest by improving access between communities. Improved service and stations will encourage transit-oriented development, which will result in an increase in property values.

Support Resilient Supply Chains and Economic Opportunity

The corridor will also support the resiliency of the Midwest supply chain through construction of the improvements identified in the SDP, such as new track, structures, stations, platforms, and/or signal and communications equipment that will increase rail network capacity, reduce congestion, and increase multimodal connections. This will create a more balanced, multimodal transportation network that provides a viable transportation alternative for underserved communities and segments of the population that cannot, or choose not to, drive.

C. Equity

MDOT has a duty to serve all Michiganders, including minority groups, low-income populations, the elderly, people with disabilities, and all those who traverse the state. This corridor serves Holland, which has a Hispanic population of 24.2% and Grand Rapids, which has a population comprised of 36% persons of color.¹² In addition, Grand Rapids and Bangor have poverty rates of 18.6% and 17.8%, respectively.¹³ MDOT recognizes its responsibility to provide fairness and equity in all its programs, services, and activities, and to abide by and enforce federal and state civil rights legislation related to transportation. MDOT is committed to achieving transportation equity through the fair distribution of the

¹² U.S. Census Bureau

¹³ U.S. Census Bureau

impacts of transportation resources, projects, and policies. MDOT recognizes that not all Michiganders have the same access to opportunity, safe mobility options, and healthy environments.

According to a 2019 study completed by Michigan State University, 29.7%¹⁴ of travelers using the Amtrak Pere Marquette service report a household income of less than \$50,000. Improvements to the corridor will expand transportation options and provide more opportunities for residents across the region to choose a safe and cost-effective mode of transportation. It will enhance Michigan's rail system and serve cities and historically underserved areas. Furthermore, there will be more opportunities to connect smaller and rural communities.

D. Climate and Sustainability

In response to the dramatic impacts of human induced climate change on the health and prosperity of Michiganders, Governor Whitmer committed Michigan to the goals of the Paris Agreement to reduce greenhouse gas emission by at least 26-28 percent below 2005 levels by 2025. Reducing transportation-related emissions is a necessary component of Michigan's strategy. Altogether, cars, trucks, marine vessels, trains, and aircraft contribute 29 percent of total U.S. greenhouse gas emissions, the highest share of any sector. Without significantly decreasing transportation emissions over the next two decades, Michigan will risk incurring greater and greater damage to its infrastructure, health, and economy as severe weather escalates in frequency, duration, and intensity.

A robust passenger rail system throughout the Midwest can help address the climate change impacts mentioned above, as well as sustainability, by diverting auto and air travelers to rail. This will remove millions of car trips and plane trips annually and reduce congestion on highways and in airports. In addition, as mentioned in Section VII.1.B, Southwest Michigan is home to the state's worst air quality along the Lake Michigan lakeshore. The Michigan Department of Environment, Great Lakes and Energy works closely with the West Michigan Clean Air Coalition to monitor, raise awareness, and improve air quality in the region. Reducing emissions and encouraging more users of rail transportation will support this region in achieving cleaner air. Energy-efficient passenger trains use less fuel than cars and planes and provide a climate change-friendly mode of public transportation. As climate change impacts become more severe with more frequent and acute storms, increased pollution and other impacts, resilient rail infrastructure and robust passenger rail service will be critical to the region.

E. Transformation

This corridor is in the Midwest, which serves as the heart of the nation's rail network, with one out of every four U.S. freight trains passing through Chicago each year, totaling about 500 freight trains and 800 passenger and commuter trains every day. The creation of an SDP for the Grand Rapids – Chicago corridor will help to improve the network such that the benefits are felt locally, regionally, and nationally through increased capacity, increased frequencies, stronger supply chain resiliency, and a set of rail assets maintained in a state of good repair.

2. High-Speed Rail Corridor Designation

The Grand Rapids – Chicago Corridor is not a federally designated High-Speed Rail Corridor.

¹⁴ *Intercity Bus and Passenger Rail Study*, "September 2019, Prepared by Michigan State University