

The Western Michigan Intercity Passenger Rail Connectivity & Expansion Initiative



USDOT
TIGER grant application prepared by City of New Buffalo, Michigan
DOT.GOV

INTRODUCTION

The City of New Buffalo, Michigan is sponsoring this project that consists of studying connecting two Amtrak intercity passenger routes as well as constructing additional trackage on one of these respective routes to increase capacity and operational flexibility. This project piggybacks onto projects previously funded by both TIGER and the American Recovery and Reinvestment Act (ARRA) to increase the connectivity and alternative transportation options available to Michiganders.

The vision of the *Western Michigan Intercity Passenger Rail Connectivity & Expansion Initiative (WMC&E)* is to:

- Study and design a connection between the Amtrak Chicago-Grand Rapids, MI *Pere Marquette* service to New Buffalo
- Increase capacity on Amtrak's *Wolverine* corridor to allow better traffic flow and addition of *Pere Marquette* service
- Reduce the run-time for all Michigan passenger trains via added capacity to Amtrak Michigan line

The WMC&E is a multi-phased project. The first phase will conjugate all Amtrak services in Michigan into a single corridor between New Buffalo and the Michigan/Indiana state line. The second phase adds the necessary capacity to keep Michigan in line with the metrics of the Midwest Regional Rail Initiative (MWRRI), the standard measure of passenger rail expansion in the Midwest, as well as dramatically increasing the efficiency and on-time performance of existing Amtrak Michigan services.

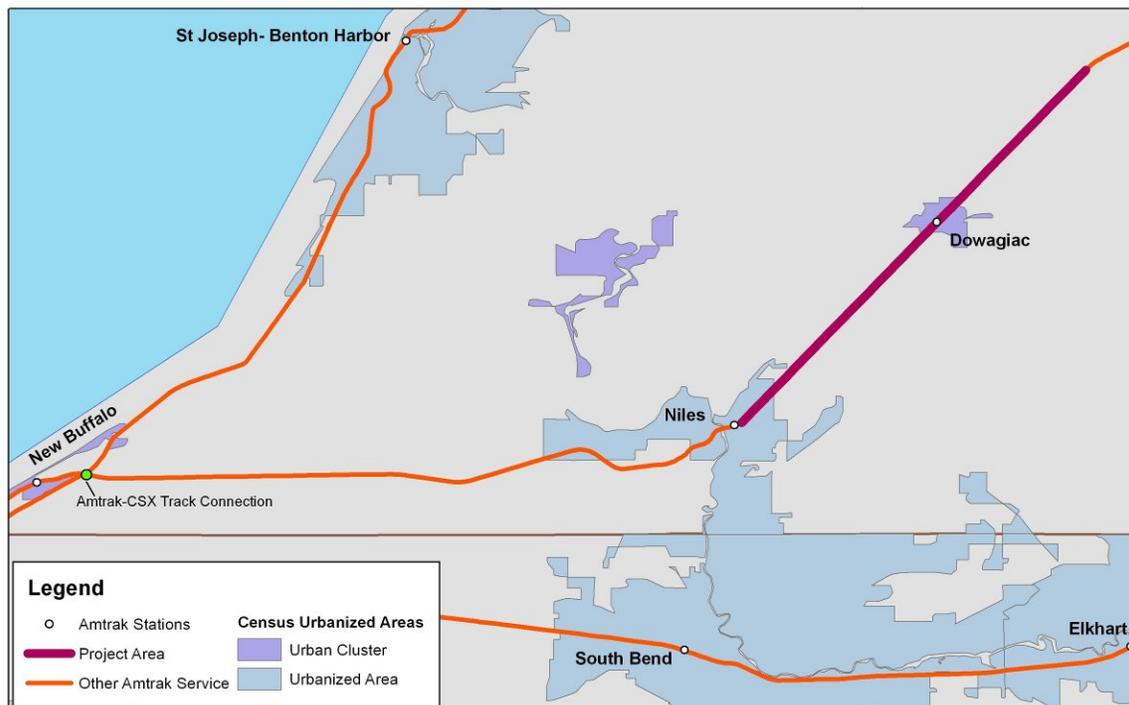


Figure 1: Project Area

IA. PROJECT DESCRIPTION: NEW BUFFALO CONNECTING TRACK

The first leg of the WMC&E project involves building a connecting track just northeast of New Buffalo between two railroads used by Amtrak passenger trains. At present three different Amtrak services go through New Buffalo on two different rail corridors, and as a result only two of these routes serve the city. The connecting track would allow all three routes to serve New Buffalo.

Project Location

The area proposed for the New Buffalo connecting track is located outside the city limits in the New Buffalo Township (Berrien County, Michigan). Currently three Amtrak routes come through New Buffalo on two separate corridors. Those Amtrak routes are:

- Chicago-New Buffalo-Kalamazoo-Detroit-Pontiac *Wolverine* service
- Chicago-New Buffalo-Kalamazoo-Lansing-Port Huron *Blue Water*¹ service
- Chicago-St. Joseph-Holland-Grand Rapids *Pere Marquette* service

As noted above, the *Pere Marquette* service does not serve New Buffalo but did as of 2009. This will be discussed in more depth later in this narrative. Under current operations, the *Pere Marquette* crosses over the Amtrak-owned route of the *Wolverine* and *Blue Water* on a CSX Transportation-owned freight corridor, the Grand Rapids Subdivision. The first phase of the WMC&E project would entail building a connecting track between these two rail corridors where they cross each other (**Figure 1**). Due to the limited amount of TIGER funding available in 2012, the City of New Buffalo is only requesting funding for the NEPA and design portion of this project.

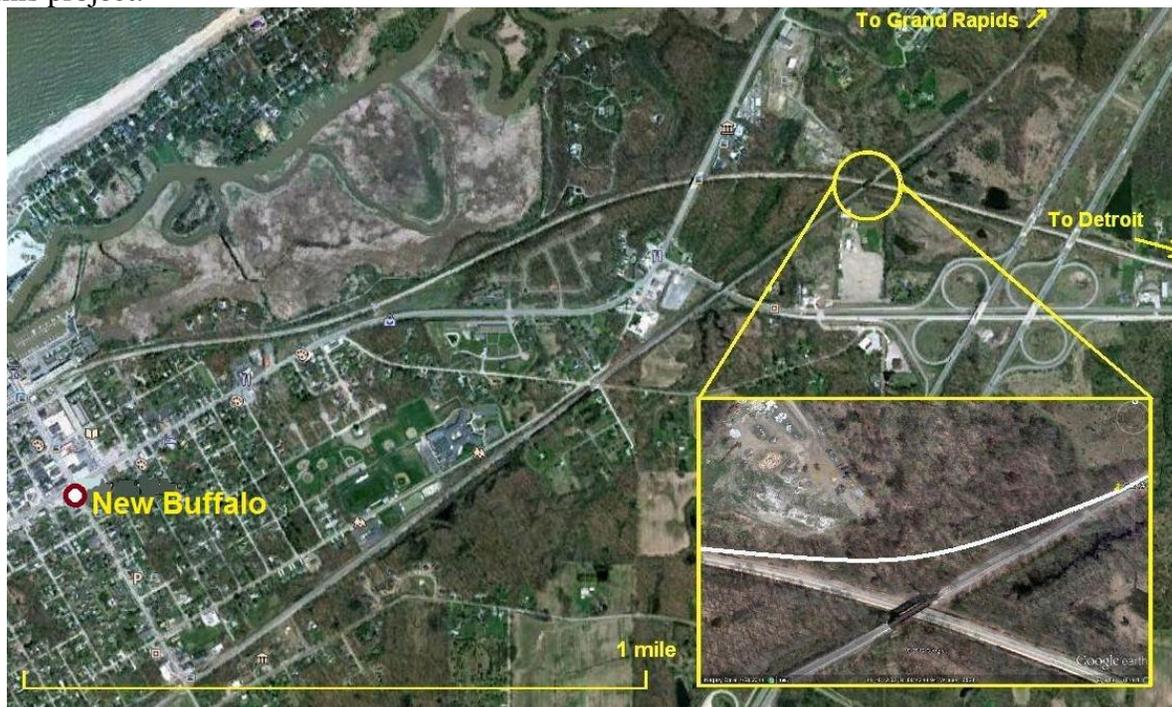


Figure 2: New Buffalo Connecting Track

Project Background, Needs, and Objectives

The City of New Buffalo lies on the eastern “Gold Coast” of Lake Michigan in the southwestern-most corner of the “Blue Water” state. Less than a hundred miles from downtown Chicago, the city has a population of approximately 2,500, with many more seasonal and part-time residents. Because of proximity to major highways and Amtrak intercity rail service, many New Buffalo residents work in downtown Chicago.

New Buffalo and its citizens have long been supporters of passenger rail, and this support goes beyond advocacy. The city has been an Amtrak-served community since 1984. From 1984 to 2009, New Buffalo was served once daily in each direction by the Chicago-to-Grand Rapids Amtrak *Pere Marquette* service. The *Pere Marquette* uses the CSX Transportation Grand Rapids Subdivision track alignment on the eastern outskirt of New Buffalo, as opposed to the Amtrak Michigan Line which goes through downtown. In the early-2000s, the idea of moving the Amtrak station to this downtown alignment along the Lake Michigan shore first came to the attention of local officials.

The station served by the *Pere Marquette* on the CSX alignment was not ADA-compliant, and one train in each direction limited travel options. To coincide with condominium and other development in downtown New Buffalo, local real estate developers offered to fund construction of a new station. After lengthy negotiations between all the relevant parties, a groundbreaking ceremony took place on October 31, 2008. Construction took just short of a year, and on October 26, 2009 the brand new, fully ADA-compliant station went into service with 3 trains in each direction daily between Chicago and Detroit/Port Huron. In an era when public/private partnership investments in infrastructure are cutting edge, New Buffalo and its new Amtrak station are leading the pack.

At the same time the new station opened, the old station on the *Pere Marquette* was closed and removed. While New Buffalo added train service to Detroit and Lansing/Port Huron, service was discontinued to St. Joseph, Bangor Holland, and Grand Rapids. The ability to route the *Pere Marquette* through downtown New Buffalo and connect it to the new station is what first piqued the interest of the city, and the foremost reason for seeking TIGER funding.

Beyond putting New Buffalo back on the Chicago-to-Grand Rapids route, the proposed connecting track has regional implications on a far-greater scale. Routing the *Pere Marquette* through New Buffalo will provide Amtrak passengers between Grand Rapids and St. Joseph with connectivity to the rest of the Amtrak network in Michigan. Under current operations, passengers must take a train from Grand Rapids into Chicago before connecting to points east such as Kalamazoo, Detroit and Lansing. With a connecting track from the current route to the Amtrak Michigan line, passengers will be able to connect to eastbound trains in New Buffalo, saving the time and expense of a trip into Chicago.

WESTERN MICHIGAN INTERCITY PASSENGER RAIL CONNECTIVITY & EXPANSION INITIATIVE

Transportation Challenges Addressed by This Project

As part of an integrated alternative transportation network, intercity passenger rail has long been a viable travel option for those who don't have a car, can't afford to fly, or are generally limited in their physical ability to travel via these "conventional" modes. In Michigan, passenger rail is fast becoming a conventional mode of travel. Local, state, and federal investment has been strong across the Blue Water state over the past decade, and the results are plain to see. As Detroit continues its comeback from economic devastation, higher-speed passenger trains are expected to accelerate that recovery. For Detroit and for the smaller urban areas along this route (Kalamazoo, Niles), efficient, frequent, and connected passenger rail service has served as tool against the woes of urban blight.

In keeping with this spirit of connectivity, the proposed connecting track at New Buffalo will integrate all Amtrak services in Michigan into the same corridor from New Buffalo into Chicago. This will allow Michiganders to access *every city* served by Amtrak within the State of Michigan by rail without having to switch modes. This kind of connectivity has never existed in the 40-plus years of Amtrak as the nation's passenger rail operator.

Such connectivity is especially essential in an era when the baby-boomer population is entering their golden years and need another way to get to their destination. While accessibility across other modes of transportation may come up short, the fully ADA-compliant stations and services Amtrak provides are a hallmark of contemporary passenger rail service.



Figure 3: New Buffalo Amtrak Station

The New Buffalo connecting track helps address a major rail safety issue as well. Under the *Rail Safety Improvement Act* of 2008, all mainline railroad tracks carrying passenger trains must deploy interoperable "Positive Train Control" (PTC) systems by December 31, 2015. This ruling was made in response to a deadly 2008 head-on collision between a passenger train and a freight train, where the passenger train engineer did not notice a wayside signal indicating "stop" and ran into a stopped freight train.

On railroads featuring PTC, a train running through a stop signal would automatically be brought to a stop electronically, and such a disaster would be avoided. The Amtrak Michigan Line from Kalamazoo to New Buffalo to Porter, Indiana features the Incremental Train Control System (ITCS), which is a PTC equivalent. The *Wolverine* and *Blue Water* services currently using the Amtrak Michigan Line are not only operationally safer, but are allowed to run at an increased speed as well because of ITCS. On the other hand the *Pere Marquette* uses the CSX Transportation route from New Buffalo to Porter, Indiana, and runs at slower speeds on a route featuring outdated technology. With the construction of the New Buffalo connecting track, the *Pere Marquette* could take advantage of the safety and speed benefits of ITCS as well.

WESTERN MICHIGAN INTERCITY PASSENGER RAIL CONNECTIVITY & EXPANSION INITIATIVE

Relevant Data

The last year of *Pere Marquette* service to the old New Buffalo station was Amtrak Fiscal Year 2009 (FY09), covering October 1, 2008 to September 30, 2009. Service to this station ceased shortly thereafter, with the last *Pere Marquette* leaving New Buffalo for Chicago on the morning of October 26, 2009. **Table 1** illustrates ridership to and from New Buffalo in FY09:

<u>Station</u>	<u>To</u>	<u>From</u>	<u>Total</u>
Bangor, MI	4	9	13
Chicago, IL	1,497	2,102	3,599
Grand Rapids, MI	87	77	164
Holland, MI	55	69	124
St. Joseph, MI	18	34	52
Total	1,661	2,291	3,952

Table 1: New Buffalo Ridership in FY09

It comes as no surprise that passengers travelling to and from Chicago make up the majority of New Buffalo train ridership. For Amtrak, Chicago is the main hub for long-distance trains, those being trains with overnight service and running 750 miles or greater. Amtrak also connects to most of the major cities in the Midwest and Mid-south, so a passenger arriving at New Buffalo may have changed trains at Chicago after coming from Memphis, Tennessee.

In Fiscal Year 2011 (FY11), 13,118 passengers took Amtrak services to and from New Buffalo at the new station. This works out to approximately three-times the passenger count from FY09, which is a measurable increase even when accounting for the increased number of frequencies. **Table 2** below illustrates the increase in riders-per-train at each of the New Buffalo stations, new and old. “Old” station data is from FY09, the “New” station data is from FY11:

<u>NEW BUFFALO, MI</u>	Total Ridership	Trains Yearly	Riders Per Train
Old Station (2 daily trains)	3,952	730	5.41
New Station (6 daily trains)	<u>13,118</u>	2,190	6

Table 2: Riders-Per-Train

WESTERN MICHIGAN INTERCITY PASSENGER RAIL CONNECTIVITY & EXPANSION INITIATIVE

In addition to a natural boost in ridership from additional frequencies and a more preferred station location, the New Buffalo connecting track will eliminate delays the *Pere Marquette* encounters between New Buffalo and Porter, Indiana on the CSX Transportation-controlled Grand Rapids Subdivision.

Table 3, on the right, breaks down the delays to the *Pere Marquette* between station signs “XOM” and “XPI” on the CSX route. “XOM” is the closest point of reference in railroad parlance to where the proposed connecting track would be built outside New Buffalo, and “XPI” is where the CSX route ends at Porter, Indiana. These delays occurred during Amtrak Fiscal Year 2011.

While such Codes as “ENG” indicate engine failure in the *Pere Marquette* locomotive and wouldn’t necessarily be affected by using a different routing, other delay categories can be directly attributed to using the structurally-inferior CSX route.

Code	XOM - XPI		
	Train		Total
	370	371	
ADA	-	-	-
CAR	-	-	-
DBS	-	-	-
DCS	-	53	53
DMW	-	3	3
DSR	-	-	-
ENG	-	146	146
FTI	5	189	194
HLD	-	-	-
INJ	-	-	-
MBO	-	-	-
NOD	-	-	-
OTH	-	-	-
POL	-	-	-
PTI	-	113	113
RTE	-	20	20
SYS	10	118	128
TRS	-	-	-
WTR	-	-	-
TOTAL	15	642	657

Table 3: Delays on CSX Route

For example “DCS” indicates a delay due to maintenance of or breakdown in the signal system on the CSX route, which totaled 53 minutes over the fiscal year ending September 30, 2011. While such breakdowns can occur on any stretch of railroad, the safety implications are far greater on a stretch of track lacking Positive Train Control, such as this CSX route.

The greatest source of delays, totaling 194 minutes for both *Pere Marquette* trains was due to “FTI”, or *Freight Train Interference*. Unlike the Amtrak Michigan Line, the CSX Grand Rapids Subdivision owned by and under the operational control of a freight railroad. While Amtrak trains are legally obligated to have priority over tracks shared with freight, there is far less of a chance of “FTI” being a problem on the Amtrak Michigan Line, which is owned and controlled by the passenger rail operator.

All figures being what they are, delays to the *Pere Marquette* service due to the “host” railroads over which it operates between New Buffalo and Porter, Indiana came to 511 minutes. While not an overwhelming figure in itself, we will couple this number to other delay factors that can be alleviated by the WME&C project as a whole later in this proposal.

Although Amtrak continues to set revenue and ridership records, the nature of intercity passenger rail requires subsidy from state and federal authorities to make up for the revenue loss of operating the service. Among the costs associated with this loss are access fees paid to the “Host Railroad” over which the train operates. In the case of the *Pere Marquette*, the host railroad is CSX Transportation from Porter, Indiana to New Buffalo. If the *Pere Marquette* were rerouted onto the Amtrak Michigan Line from New Buffalo to Porter, Amtrak officials estimate the savings from not paying access fees over that segment to be \$50,000 per year.

WESTERN MICHIGAN INTERCITY PASSENGER RAIL CONNECTIVITY & EXPANSION INITIATIVE

For the purposes of this TIGER application, Amtrak also prepared ridership projections based on the assumed addition of the New Buffalo stop to the *Pere Marquette* service. The total projected increase in ridership from the additional frequencies is shown in Table 4 below. This table factors in what portion of that additional ridership for the *Pere Marquette* will come from existing services at New Buffalo.

<u>NEW BUFFALO, MI</u>	RIDERSHIP ¹
Projected Increase By Adding Pere Marquette	3,000
Portion of Increase Taken From Current Services	-1,100
Net Increase	1,900

Table 4: New Buffalo Ridership with *Pere Marquette* Service

For a variety of positive reasons, Amtrak ridership to/from New Buffalo is projected to increase by 1,900 passengers if *Pere Marquette* trains began serving the city under current train operations. For purposes of this ridership forecast, and additional 5 minutes was added to the train schedule as a baseline time change for adding a stop to the *Pere Marquette*.

Adding this stop would not only add an additional frequency in each direction between New Buffalo and Chicago. The *Pere Marquette* stopping in New Buffalo will allow passengers to travel to all Amtrak-served communities in Michigan, without leaving Michigan.

Under current operating conditions, a passenger that wanted to travel from Grand Rapids to Detroit (or reverse) would have to take a train to Chicago and then change trains there for other points in Michigan. With the construction of the connecting track discussed in this application, passengers travelling within Michigan can simply change trains in New Buffalo. When train travel time between New Buffalo and Chicago runs from 1 hour and 19 minutes to 1 hour and 38 minutes, this can be a significant savings to the passenger of both time and expense.

A final but hardly insignificant cost savings attributed to the proposed connecting track relates to Positive Train Control (PTC). As discussed earlier, the Amtrak Michigan Line and its Incremental Train Control System meet and exceed the FRA requirements for PTC. While the final implementation deadline for PTC nationally is December 31, 2015, debate rages on as to whether the railroads or the federal government should pay to install PTC on the scale necessary to cover all passenger trains routes.

Regardless of who pays this cost, shifting the *Pere Marquette* to the Amtrak Michigan Line from New Buffalo to Porter, Indiana frees up 23.5 miles of CSX track from PTC passenger train requirements. Amtrak has estimated this PTC cost to be up to \$1.75 million per mile on the CSX line, for a high total of \$41,125,000 in cost savings from switching routes.

This concludes the background, description and data reasoning for the “Connectivity” aspect of the WMC&E. Part IB will discuss the “Expansion” element.

¹ Ridership as projected for Amtrak by AECOM Corp. Ridership projection is accurate as of March 15, 2012. All other information in Tables provided publicly or by direct request to Amtrak.

IB. PROJECT DESCRIPTION: DOUBLE-TRACKING AMTRAK LINE

Seventeen miles east of the proposed New Buffalo connecting track is the “Expansion” aspect of this project. The second part of the WMC&E entails double-tracking a portion of the Amtrak-owned Michigan Line. The Michigan Line hosts the Chicago to Detroit/Pontiac *Wolverine* and Chicago to Lansing/Port Huron *Blue Water* services. By connecting existing passing (siding) tracks from Niles to just east of Dowagiac, Amtrak trains will be allowed to “meet” at speed, reducing trip time and conserving energy.

Project Location

In this TIGER application, the City of New Buffalo is seeking the financial resources to double-track the Amtrak Michigan Line from Niles to Glenwood Road (hereafter referred to as “Glenwood”), just east of Dowagiac, a total distance of 19 miles. Of the 19 miles, 16 miles would be new track, as passing sidings already exist for short intervals between the proposed endpoints. **Figure 4** shows the project area of proposed double-tracking as well as its proximity to New Buffalo.

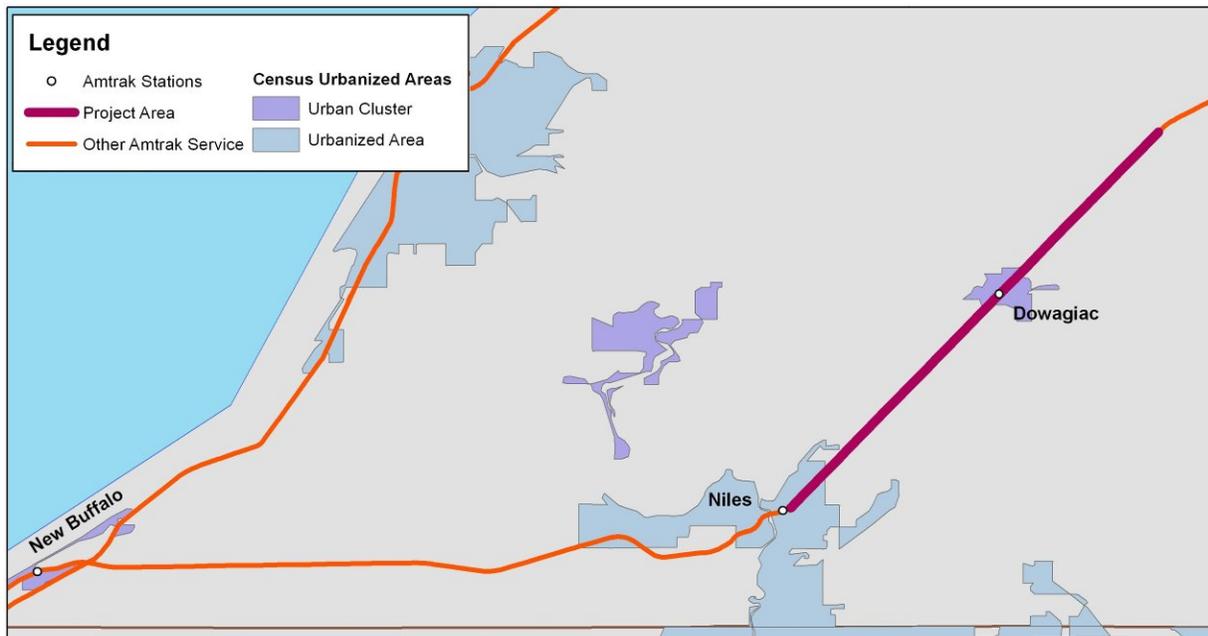


Figure 4: Amtrak Double-Tracking

WESTERN MICHIGAN INTERCITY PASSENGER RAIL CONNECTIVITY & EXPANSION INITIATIVE

Project Background, Needs, and Objectives

Running 97 miles from Porter, Indiana to Kalamazoo, Michigan, Amtrak's Michigan Line is the longest segment of track owned by the intercity passenger rail operator outside of their Boston-Washington, D.C. Northeast Corridor. As of March 2012 this segment boasts the fastest railroad speeds outside the northeast, with 80 of the 97 miles rated for train operations at 110 miles-per-hour. This and adjoining routes have received regular input of ARRA and High-Speed Intercity Passenger Rail (HSIPR) funding.

Through regular Amtrak capital infrastructure investments, federal grants, and a long-standing partnership with the State of Michigan, speeds on this corridor have increased over the past decade, from 79 to 90 to 95 to the current 110 MPH. The majority of the track on this route is rated Class 6 under Federal Railroad Administration guidelines. This is the highest speed allowed on a route with at-grade road crossings, and generally accepted as the highest sustainable speed by most American locomotives running solely on traditional diesel power.

The Amtrak Michigan Line currently functions largely as a single-track mainline railroad with short passing sidings for meeting trains. Although a train in a passing siding can continue moving while trains pass on the adjoining main track, the train in the siding is moving at a greatly-reduced speed. If a train in the siding reaches the end of that siding before the train it was scheduled to meet has arrived, the train in the siding must come to a complete stop and wait. With double-tracking between Niles and "Glenwood", these trains would generally be allowed to pass each other at the maximum allowable speed of 110 MPH.

The need of this project from a TIGER grant perspective is upgrading of the existing passing siding tracks to FRA Class 6 track standards and laying of 16 miles of new track to connect the existing passing sidings together to form a second main track. The objectives of this undertaking can be broken into the following categories:

- **Immediate:** a double-track mainline will *immediately* reduce trip times for *Wolverine* and *Blue Water* services by an average of 12 minutes, as discussed in-depth later in this narrative
- **Long Term:** the added track capacity from this undertaking will keep this corridor in line with the [Michigan State Rail Plan](#) as well as the long-term passenger rail guidelines defined by the [Midwest Regional Rail Initiative](#)
- **Global:** this rail capacity expansion will add to the already stellar reputation of rail as a reliable, environmentally-sound transportation option, moving passengers safely while reducing the overall carbon footprint of American transportation

The Midwest Regional Rail Initiative (MWRRI) plan calls for a 'hub-and-spoke' system for connecting all the mid-sized and major cities in America's heartland. With the service 'hub' being Chicago, the *Wolverine* corridor to Detroit is one of the most important 'spokes'. Chicago-to-Detroit Amtrak riders are the first to experience the returns from the recent boom of local, state and federal investment in intercity passenger rail. This corridor already boasts the fastest train speeds west of the Appalachian Mountains, and speed and reliability will only increase in the coming years.

WESTERN MICHIGAN INTERCITY PASSENGER RAIL CONNECTIVITY & EXPANSION INITIATIVE

Transportation Challenges Addressed By This Project

The MWRRI [Michigan Corridor Service Development Plan](#)² discusses in depth some of the transportation challenges currently facing the Chicago-Detroit corridor. While not a final solution to these issues, the WMC&E lays vital groundwork towards achieving the goals of MWRRI. As taken from the MWRRI Michigan plan, here are some pertinent issues addressed by the double-tracking project. From Section 1.2.3 on “Reliability”:

“In Michigan, relatively short sidings for passenger train to passenger train meets, as well as relatively long distances between sidings create the potential for delays due to waiting for opposing traffic”

*“...there are several infrastructure and operational constraints along the corridor that must be addressed to improve reliability of the existing intercity passenger rail service. MDOT would improve reliability through corridor improvements by constructing sidings, crossovers, interlockings, turnouts, and **additional mainline trackage.**”*

As illustrated by those excerpts, this capacity-adding initiative is neither new nor unique to this TIGER grant request. Double-tracking the Amtrak Michigan Line from Niles to “Glenwood” is another step in the process of making Chicago-Detroit an elite state-of-the-art corridor.



Figure 5: Midwest Regional Rail Initiative

² http://www.michigan.gov/documents/mdot/Michigan_Corridor_SDP_330329_7.pdf

WESTERN MICHIGAN INTERCITY PASSENGER RAIL CONNECTIVITY & EXPANSION INITIATIVE

The near-term MWRI proposal calls for increasing the number of daily frequencies between Chicago and Detroit from three frequencies in each direction to six frequencies in each direction, for a total of twelve frequencies per day on the *Wolverine* route. Such an increase is challenging if not impossible given the current capacity limits on the Amtrak Michigan Line.

The Northeast Corridor (NEC), the passenger rail route from Boston to New York and Washington is Amtrak’s most successful route for a number of reasons. Power from overhead centenary wire powers Amtrak electric locomotives, allowing higher speeds than those achieved by traditional diesel locomotives. The NEC features the only “true” high-speed passenger service in the United States on a section of track in Rhode Island rated for 150 miles-per-hour train speeds. While a large portion of the NEC features three mainline tracks, Amtrak’s runs their fastest trains over only two mainline tracks.

Although the NEC is built to a higher classification than the Amtrak Michigan Line, 150 MPH operations are a fairly recent development. Prior to 2000, the 150 MPH section of the NEC was not only a lower speed, but was not yet electrified. Similar to the Amtrak Michigan Line, train speeds maxed out at 110 MPH. Unlike the Michigan Line however, the Northeast Corridor was already double-tracked. While overhead electric-powered trains whizzing across Michigan may be in the far distant future, double-tracking of the Amtrak Michigan Line will allow the Chicago-Detroit corridor to take a giant leap forward in development of true high-speed rail.

This process will soldier on for the near future, but as mentioned earlier, the past few years have been fairly eventful on the intercity passenger rail front in Michigan. **Table 5** below spells out all improvements completed and ongoing in Michigan since 2009 and the source of funding.

<u>PROJECT</u>	<u>SOURCE</u>	<u>AWARD (\$)</u>	<u>AWARDEE</u>	<u>SERVICES</u>
Battle Creek Station Improvement	ARRA	\$3,620,552	City of Battle Creek	<i>Blue Water; Wolverine</i>
New Dearborn Intermodal Station	ARRA	\$28,204,450	City of Dearborn	<i>Wolverine</i>
New Troy Intermodal Station	ARRA	\$8,485,212	City of Troy	<i>Wolverine</i>
West Detroit Rail Improvements	HSIPR	\$7,912,773	State of Michigan	<i>Wolverine</i>
Chicago-Detroit High-Speed Rail Corridor Plan	HSIPR	\$3,200,000	State of Michigan	<i>Blue Water; Pere Marquette; Wolverine</i>
Kalamazoo-Dearborn Corridor Purchase	HSIPR	\$150,000,000	State of Michigan	<i>Blue Water; Wolverine</i>
Kalamazoo-Dearborn Corridor Improvement	ARRA	\$199,309,608	State of Michigan	<i>Blue Water; Wolverine</i>
New Ann Arbor Station	HSIPR	\$2,806,400	City of Ann Arbor	<i>Wolverine</i>
Porter-Kalamazoo Amtrak Upgrades	ARRA	\$42,000,000	Amtrak	<i>Blue Water; Wolverine</i>

Table 5: Investment in Passenger Rail Since 2009

WESTERN MICHIGAN INTERCITY PASSENGER RAIL CONNECTIVITY & EXPANSION INITIATIVE



Figure 6: Image of Amtrak Line near Niles Proposed For Double-Tracking

Relevant Data

The current lack of capacity on the Amtrak Michigan Line has both anticipated and unanticipated effects on train performance, and both effects cause delays to trains. As a rule, any Amtrak train that has meeting another train at a passing siding as part of its default schedule automatically has 5 minutes added to the scheduled runtime. This is because of the unpredictability of trying to schedule one train's operation around the operation of a completely separate train. Such scheduling methodology is commonplace in the arena of railroad logistics.

Besides the anticipated 5 minute delays, there remains the unknown factor of delays along route. Like any mode of travel, Amtrak trains can become late for reasons not unlike air or highway travel, such as traffic congestion or equipment malfunction. While train operations over the Amtrak-owned Michigan Line are comparatively efficient, the scheduled meets between trains suffer greatly because of other rail entities.

One of the busiest stretches of railroad in the United States is the Norfolk Southern Railroad Mainline from Porter, Indiana into downtown Chicago. Amtrak Michigan trains have to jockey with voluminous freight traffic as well as other Amtrak services on the 30-plus miles between the Indiana/Michigan state line and Chicago. This is especially troublesome for Amtrak Michigan service trains operating during the morning and evening rush hour into and out of Chicagoland, when heavy freight traffic often combines with Metra Chicago commuter train traffic to bring operations to a standstill.

WESTERN MICHIGAN INTERCITY PASSENGER RAIL CONNECTIVITY & EXPANSION INITIATIVE

<u>Train No.</u>	<u>Service</u>	<u>Delay Min.</u>
350	Wolverine	2,892
351	Wolverine	1,730
352	Wolverine	1,041
353	Wolverine	1,516
354	Wolverine	306
355	Wolverine	255
364	Blue Water	23
365	Blue Water	2,114
TOTAL DELAY MIN.		9,877

Table 6: Delay Minutes Niles-Kalamazoo

As **Table 6** illustrates at left, *Wolverine* and *Blue Water* trains are plagued with delay across the Amtrak Michigan Line in the area proposed for double-tracking. The Delay Minutes indicated in Table 6 are “Passenger Train Interference” (PTI) delays between Niles and Kalamazoo, a distance of 49 miles.

While the root cause of these delays might be attributable to poor handling or dispatching of the Amtrak trains when they were on the Norfolk Southern Chicago mainline, the delay minutes accrued here could be largely mitigated by increased capacity and “moving meets” on a double-tracked Amtrak Michigan Line.

Currently 5 of 8 trains using the Amtrak Michigan Line are scheduled to meet between Niles and Kalamazoo. Of the 9,877 PTI delay minutes from the most recent year, 9,293 of those minutes were incurred by one train waiting to meet another train. Factoring in cancellations and other factors effecting days of service, this works out to an average of close to 5 minutes per train, every train, every day.

Double-tracking from Niles to “Glenwood” wouldn’t necessarily eliminate all these delays. However, the performance of the five *Wolverine* and *Blue Water* frequencies with scheduled meets between Niles and “Glenwood” would no longer be waiting at the end of a short passing siding staring at a red signal and losing time. With a double-track mainline these trains would be allowed to pass at speed, and in many cases a few minutes lost on the Norfolk Southern line will no longer factor into operations on the Amtrak Michigan Line.

The immediate gain from the double-tracking portion of the WMC&E is an average of 10 minutes faster run time. The 5 minutes added to trains with scheduled meets would be removed immediately, and the extra 5 minutes average delay incurred per train would go by the wayside as Amtrak Michigan trains glide past each other at 110 miles-per-hour. This is especially notable considering the 10 minutes will come off the schedule over a portion of the route only 49 miles long.

II. PROJECT PARTIES

- **City of New Buffalo:** The City of New Buffalo is the applicant and primary party of the WMC&E. Besides submitting the formal application to USDOT, the city is working with New Buffalo Township to support their effort to acquire the land required to build the connecting track between Amtrak and CSX. Discussions with the land owner are ongoing, and the city is optimistic that this should provide no unmanageable impediment.
- **CSX Transportation (pending):** For the purposes of building the connecting track, CSX Transportation has been contacted by Amtrak officials to notify CSX of the City of New Buffalo’s intentions to apply for a TIGER grant to build a track from the Amtrak Michigan Line connecting to the CSX Grand Rapids Subdivision. CSX has not yet been asked to approve or submit change orders for any connecting track plans as no formal designs have yet been produced. Amtrak will continue outreach with CSX Transportation in this matter pending the outcome of this TIGER application.
- **Michigan Department of Transportation (MDOT):** MDOT will be providing matching funding for any portions of this TIGER request approved for funding. As they successfully have for previous funding cycles, MDOT would seek a 20% match for all funds awarded legislatively. Intercity passenger rail is the beneficiary of strong bi-partisan support in Michigan, having previously won the support of both bodies of the Legislature and the Governor.
- **Amtrak:** Amtrak will continue to act in an informative, advisory capacity throughout the TIGER grant application and selection process and will oversee construction where appropriate if and when requisite funding is made available for either aspect of this two-part project.

<u>Organization</u>	Letter of Support	Resolution
City of Dowagiac		X
City of Niles	X	
Grand Valley Metro Council		X
Macatawa Area Coordinating Council	X	
Southwest Michigan Planning Commission	X	
Amtrak	X	
Michigan Department of Transportation	X	
Michigan Senate		X
Michigan House of Representatives	X	

Table 7 at left lists the letters-of-support and formal resolutions adopted by various state, local and federal authorities in support of the WMC&E project.

Copies of these documents will also be included with the submitted application.

Table 7: Documents In Support of WMC&E

III. SOURCE OF FUNDS AND PROJECT COSTS

The estimated total cost of the WMC&E as discussed in this TIGER grant application is \$70,802,753. This sum covers environmental assessment and design of the New Buffalo connecting track (\$2,000,000) and construction of a second main track on the Amtrak Michigan Line from Niles to Glenwood Road, east of Dowagiac (\$68,802,753).

DOUBLE-TRACKING NILES-"GLENWOOD"		
DESCRIPTION	FORMULA	COST (\$)
Straight Time - Labor		3,038,413
Overtime - Labor		455,762
Direct Purchase - Material		13,534,213
Material Handling Additive	15% of Direct Purchase - Material	2,030,132
Vehicles (GSA leased)		N/A
CWR Train		15,500
Work Equipment		660,000
Construction Management		5,236,505
<i>Road Bed and sub grade</i>		8,630,000
Environmental (Permitting & Design)		3,150,000
Communication & Signals		15,275,780
Composite Overhead, Straight Time	156.8% of Direct Labor	4,764,231
Composite Overhead, Overtime	119.6% of Direct Labor	545,091
SUBTOTAL		57,335,627
<i>Contingency</i>	20% of Subtotal	<u>11,467,125</u>
TOTAL		68,802,753

Table 8: Double-Tracking Cost

The City of New Buffalo is requesting 80% of the total estimated cost in this TIGER application, or **\$56,642,202**. Of that total, \$1,600,000 is for the connecting track study/design and \$55,042,202 is for construction of the double-track. While the focus of TIGER grants remains on “shovel-ready” projects, the City of New Buffalo will gratefully accept TIGER funding for assessment/design of the New Buffalo connecting track, to fully-prepare that project for construction. A more detailed breakdown of costs for constructing the double-track is available to the City of New Buffalo by Amtrak at the city’s request.

WESTERN MICHIGAN INTERCITY PASSENGER RAIL CONNECTIVITY & EXPANSION INITIATIVE

NEW BUFFALO CONNECTING TRACK	
DESCRIPTION	COST (\$)
Design & Review³	2,000,000
Red Arrow Highway Overpass Work	10,000,000
Track	6,000,000
Communication & Signals	2,000,000
TOTAL	20,000,000

Table 9: Connecting Track Cost

As discussed in the “Project Parties” section, Michigan Department of Transportation (MDOT) will provide the 20% matching funds for this project, or \$14,160,551⁴. Amtrak and MDOT officials contacted by the city both spoke to the fruitful relationship the two organizations have nurtured to ensure that state policymakers are well-versed in the benefits of passenger rail. This has allowed passenger rail to sustain and grow at a rate in Michigan that is on par with any other state in the Midwest as well as the nation.

³ The Design & Review cost is the only portion of the New Buffalo connecting track applied for in this TIGER application

⁴ Although the requisite portion of this project is outside of census-designated “urban” zones to qualify the WMC&E as “rural” (where no local match is required), the State of Michigan understands the transportation funding need to be greater than that available and therefore will willingly seek matching funding legislatively.

IV. SELECTION CRITERIA

1. Primary Selection Criteria

a. Long-Term Outcomes

- i. *State of Good Repair*: both the connecting track and double-tracking of the Amtrak Michigan Line improve the condition of existing transportation systems. In particular, adding a second main track will allow Amtrak to more evenly distribute train traffic across multiple tracks, limiting the wear-and-tear on both tracks and minimizing life-cycle costs of the physical plant.
- ii. *Economic Competitiveness*: as high-speed rail is a frontline agenda item of the current Administration, any investment that provides mobility options in a state that has suffered economic downturn on a scale similar to Michigan will only enhance the state's portfolio in the eyes of potential investors.
- iii. *Livability*: Western Michigan and Harbor Country have long prided themselves to be a "getaway" from the city life while still close to the economic core offered by major American cities. Adding the Grand Rapids market to a travel market already including Detroit, Ann Arbor, and more will further enhance the reputation of intercity rail as being a convenient, connected option between all the facets of life in the Midwest.
- iv. *Environmental Sustainability*: Although not formally measured here, Amtrak burns an incredible amount of fuel wastefully through the stop/start operations currently limiting fluid, efficient train operations on their Michigan Line. Double-tracking will allow trains to continue at speed when meeting and passing each other, and fuel wasted constantly having to go from zero to 110 miles per hour will be conserved.
- v. *Safety*: Besides the obvious safety perks of more passengers choosing to leave their cars at home and take the train, Amtrak *Pere Marquette* trains will become measurably safer if allowed access to the Incremental Train Control System (ITCS) equipped Michigan Line as opposed to their current CSX routing, which has no system comparable to ITCS or Positive Train Control.

WESTERN MICHIGAN INTERCITY PASSENGER RAIL CONNECTIVITY & EXPANSION INITIATIVE

- b. Job Creation & Near-Term Economic Activity: for the double-tracking project, Amtrak and the City of New Buffalo will return in excess of \$70,000,000 to the state and local economy. In FY11 Amtrak spent over \$42,000,000 on wages, supplies and other expenses in Michigan. This is especially important in a state such as Michigan, which has suffered as much as any other during the economic downturn of the past three years. Areas covered by the double-tracking project such as Niles and Dowagiac are federally-designated blighted areas.
- c. Innovation: the most persuasive argument regarding the innovative nature of the WMC&E is the proper utilization of the ITCS on the Amtrak Michigan Line. ITCS when fully implemented is a cutting edge system designed to maximize the utility of a railroad infrastructure in a way that outdated signal systems cannot necessarily comprehend. By giving ITCS added track capacity through the double-tracking, the system can be used to its ultimate design; safely allowing the operator to tweak the schedule so that trains meet and pass at exactly the right time to prevent slowdown or interference.
- d. Partnership: the WMC&E presents a very unique partnership scenario. In this application, the railroad operator merely acts in a support capacity. The State provides the fiduciary match and legislative support. Although not totally unheard of, the local municipality takes the lead in applying for a grant with local, state, and national implications.

V. PROJECT READINESS

- **New Buffalo Connecting Track:** as part of this TIGER grant request, the City of New Buffalo is seeking \$2,000,000 for the environmental assessment and design of a connecting track. Therefore, NEPA and other environmental impact assessment processes have not yet been completed.

- **Double-Tracking Amtrak Michigan Line:** following annual inspections estimated to conclude by July 2012, Amtrak will consider seeking a Categorical Exclusion designation for the double-tracking of Amtrak's Michigan Line from Niles to "Glenwood". This is due to the scope of the work proposed being contained within the existing right-of-way and in the roadbed of a former second track as well as the limited historic or local impact the project would have with all major work being done outside of any urban area. Results of this annual inspection will be reviewed and released at the proper time.

This concludes the narrative portion of this application.

ⁱ *Blue Water and Pere Marquette* are supported/sponsored by the State of Michigan