Appendix B – Purpose and Need Statement

Purpose and Need Statement

Milwaukee-Twin Cities High-Speed Rail Corridor Program

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Minnesota Department of Transportation
Wisconsin Department of Transportation

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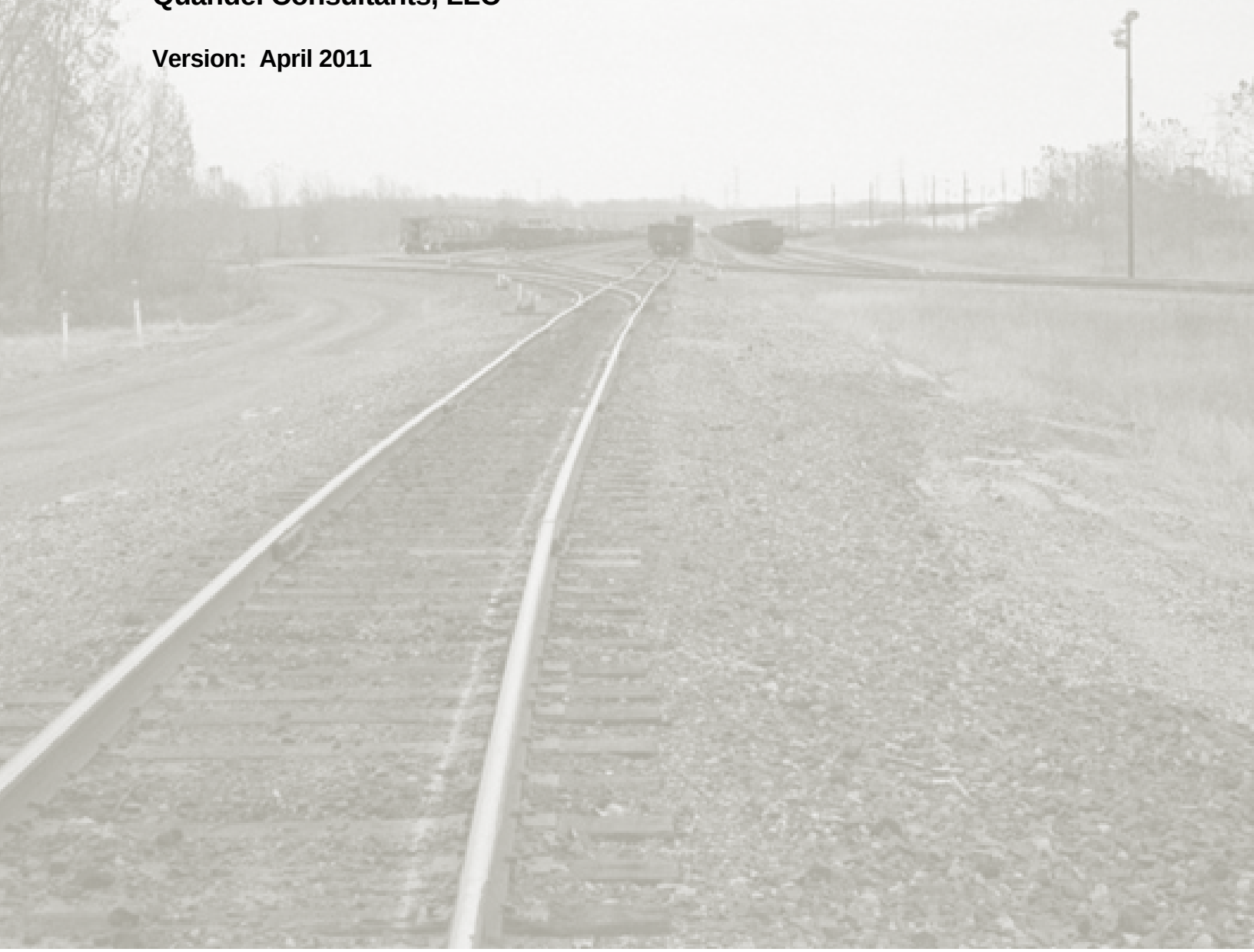

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1.0 PURPOSE AND NEED FOR ACTION

On December 11, 1998 Then FRA Administrator Molitoris announced the *TEA-21* authorized extension of the Midwest High-Speed Rail Corridor from Milwaukee, WI to Minneapolis/St. Paul, MN, in the Federal Register. (Vol. 63, No. 238/ page 68500). The Minnesota Department of Transportation (Mn/DOT) and the Wisconsin Department of Transportation (WisDOT), in cooperation with the FRA, propose to construct and operate a high-speed passenger rail corridor between Milwaukee, Wisconsin and Minneapolis/St. Paul (Twin Cities), Minnesota.

This document addresses the purpose and need for the proposed action. Need is driven by the limitations and vulnerabilities of available travel modes between Milwaukee and Twin Cities. The purpose of the project is to meet future regional travel needs in the Milwaukee-Twin Cities corridor through improvements to the level and quality of regional passenger rail service and providing connections to other existing and planned transportation systems and the roadway network.

2.0 BACKGROUND

2.1 Background of Midwest Regional Rail Initiative

In 1996, nine Midwest states, including Wisconsin and Minnesota, and Amtrak initiated the MWRRI. The MWRRI elements include:

- Operation of a hub and spoke passenger rail system centered on Chicago
- Use of 3,000 miles of existing rail right of way to connect rural and urban areas
- Track and signal improvements and introduction of modern trains operating at speeds up to 110 mph
- Provision of multi-modal connections to improve system access
- Improvement in frequency, reliability, speed, and on-time performance

The work of this initiative (MWRRI) has resulted in a well coordinated and integrated 110-mph rail Business Plan that defines the way in which the rail system should be implemented. This Business Plan consists of various documents that were prepared - an Executive Summary (2004), MWRRI Project Notebook (2004), Appendices (2004), and Benefit Cost and Economic Analysis (2006)[1].

In 2007, the MWRRI States developed a Draft Purpose and Need for the MWRRI, a Scope of Work for undertaking preliminary engineering and environmental studies of the MWRRI Phase 1 corridors, and a Scope of Work for undertaking a programmatic environmental study of the other MWRRS corridor outside of Phase 1.

On July 27, 2009 the Governors of the States of Illinois, Indiana, Iowa, Michigan, Minnesota, Missouri, Ohio, and Wisconsin and the Mayor of the City of Chicago executed a Memorandum of Understanding for the "Implementation of High- Speed Rail Passenger Service and Connections Involving Corridors Linking Cities in their Respective States". This document affirms that "all MOU Participants recognize a priority to establish the Chicago Hub to corridors consisting of Chicago-St. Louis, Chicago to Milwaukee-Madison, and Chicago to Detroit-Pontiac, (MWRRI Phase 1) that would form a high speed hub in the heart of the nation with high-speed and conventional passenger service connections radiating to seven other Midwestern states".

The Chicago to Twin Cities corridor (MWRRI Phase 2) was predicated on six round trip trains per day to the Twin Cities with four additional round trip trains per day to Madison and was scheduled for implementation one year after Phase 1. The MWRRI timeline suggests for a corridor or corridor segment, two years to complete advanced planning and environmental assessment and two to five years for engineering and construction once funded.

[1] http://www.dot.wisconsin.gov/projects/rail.htm

In March 2009, WisDOT, acting as the Secretariat for the MWRRI Steering Committee, entered into a cooperative agreement with FRA under the "Capital Assistance to States – Intercity Passenger Rail Service Program" for on-going planning work or Phase 7. The Phase 7 work was intended to provide basic information for the participant states as states proceed with meeting the requirements of the federal NEPA process for the preparation of a programmatic Environmental Impact Statement (EIS) for route selection in MWRRI corridors. The Project Notebook of 2004 and the Benefit Cost and Economic Analysis report of 2006 is the Plan for the MWRRI and addresses elements that comprise a SDP on a broad level. To meet the FRA High Speed Intercity Passenger Rail application requirements, a Service Development Plan (SDP) for the MWRRI system as a whole was developed to support the formulation of an SDP for each corridor of the MWRRI system. In 2009, individual corridor SDPs were prepared for corridors for which a Track 2 HSIPR application was submitted.

2.2 Background of Milwaukee-Twin Cities High-Speed Rail Corridor Program

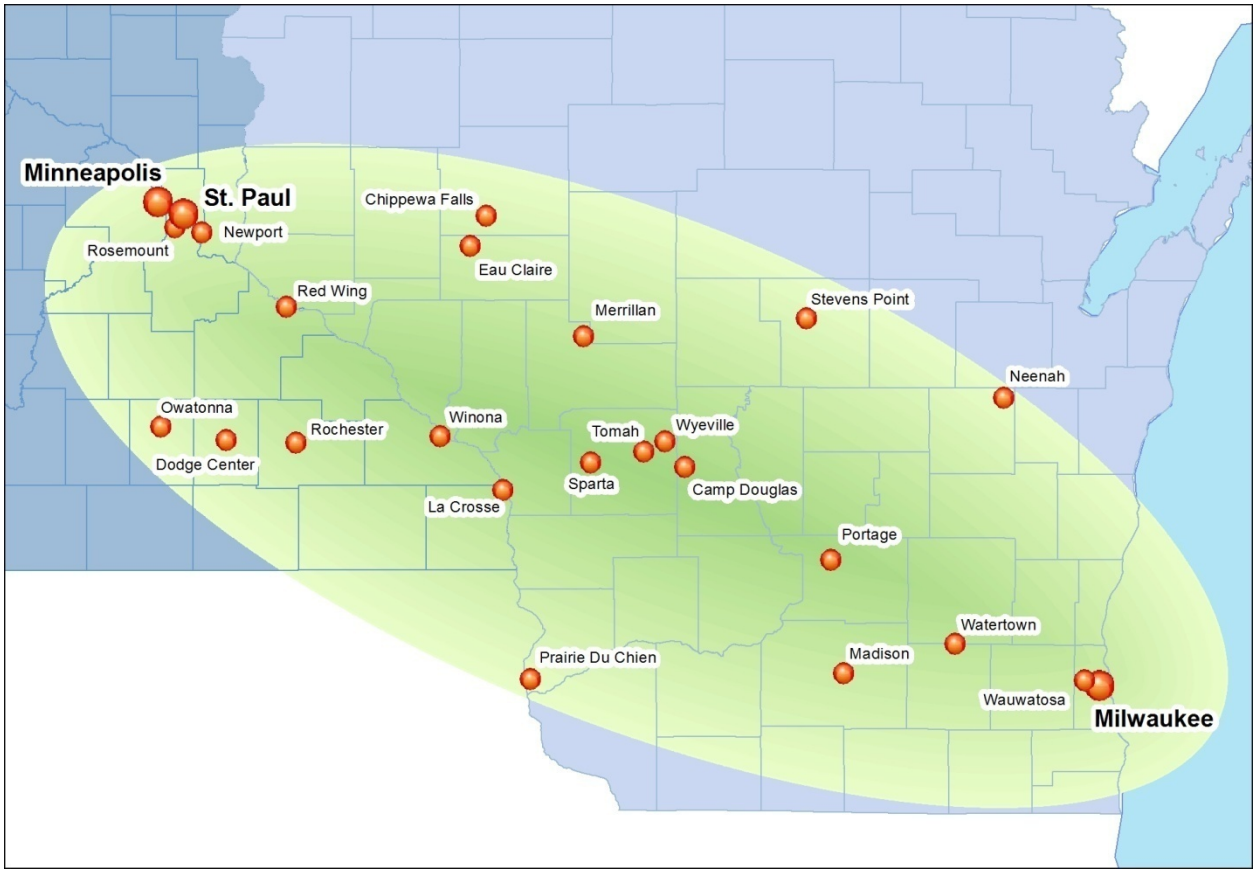
On June 23, 2009, the FRA issued a Notice of Funding Availability (NOFA) for the HSIPR Program in the Federal Register. In response, Mn/DOT submitted an application to develop a Tier 1 EIS document for new passenger rail service on the Milwaukee-Twin Cities corridor, a segment of the Chicago to Twin Cities high-speed rail corridor. The FRA reviewed Mn/DOT's application for eligibility and ranking with the criteria outlined in the NOFA. Based upon this evaluation, the FRA selected the State of Minnesota for an award of $600,000 for this project, through a cooperative agreement between FRA and Mn/DOT (the Grantee).

Mn/DOT entered into a cooperative agreement with FRA to develop the Tier 1 EIS document for the Milwaukee-Twin Cities Corridor. Funding for the project has been committed through Minnesota and Wisconsin state funds and FRA's HSIPR Program described in the previous paragraph. In addition to funding the project cooperatively, Mn/DOT and WisDOT have been working together on public involvement throughout both states.

2.3 Project Study Area

The project study area for the Milwaukee-Twin Cities high-speed rail corridor program will generally comprise the southern half of Wisconsin and the southeast portion of Minnesota. Since the project analyzes a two-state network of routes, the project study area is limited to the existing, abandoned, and out of service rail lines serving the terminal cities in a reasonably direct manner that the public would consider as possible passenger rail routes. Figure 2-1 depicts the Project Study Area.

Figure 2-1. Milwaukee-Twin Cities Project Study Area



2.4 Logical Termini

The MWRRI Project Notebook designated the Milwaukee Intermodal Station and St. Paul Union Depot as the logical termini for the corridor. The Project Notebook recognized that multiple rail routes existed in the terminal areas requiring more detailed investigation in further studies and that the designation of these stations as logical termini did not preclude other station sites from being studied and selected as the terminal stations.

After the Project Notebook was published, Minnesota DOT determined that the preferred location for the Twin Cities terminal station was MTI. This is supported by the Minnesota State Rail Plan published in February 2010, which states that all rail services be connected "to both the new Minneapolis downtown terminal (MTI) and St. Paul Union Depot".[2] This report assumes that the terminal station in the Twin Cities is located at the MTI with a stop at the St. Paul Union Depot.

Sections 2.1.1 and 2.1.2 discuss the Milwaukee and Twin Cities terminal areas.

[2] http://www.dot.state.mn.us/planning/railplan/finalreport/MNRailPlanFinalReportFeb2010.pdf

2.4.1 Milwaukee-Area Network

The Milwaukee Intermodal Station is the designated terminal station, at 433 W. St. Paul Avenue in Milwaukee. The station is accessible from the Canadian Pacific Watertown Line. The station currently serves two Amtrak routes, the *Empire Builder*, and the *Hiawatha*. The *Empire Builder* provides once-daily service from Chicago through Milwaukee to Seattle/Portland. The *Hiawatha* provides seven round trips per day (six on Sundays) between Chicago and Milwaukee.[3] Figure 2-2 depicts the Milwaukee Intermodal Station.

Figure 2-2. Milwaukee Intermodal Station

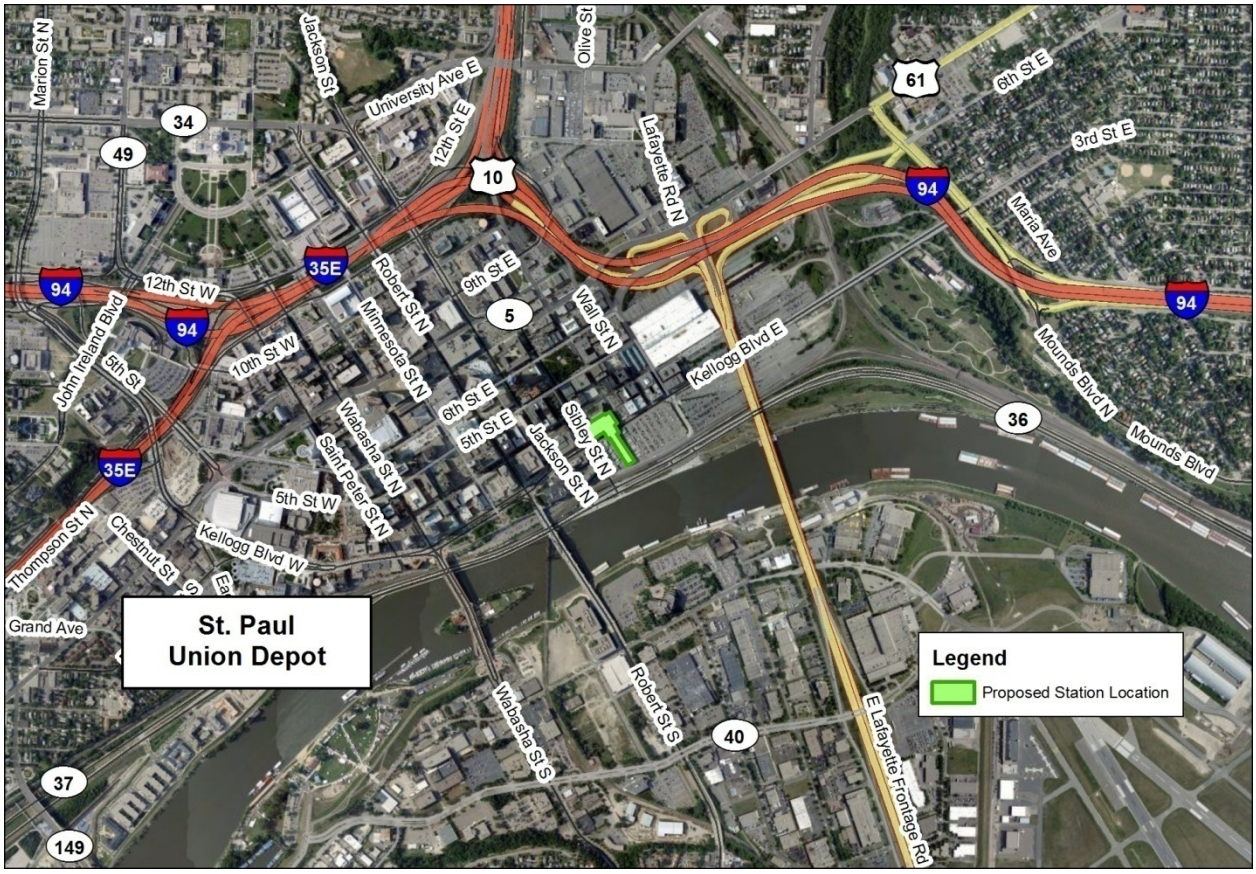
2.4.2 Twin Cities-Area Network

Several Twin Cities-Area locations are considered for use as the terminal station. The first location is the St. Paul Union Depot, located at 214 E. 4th Street in St. Paul. Access to a station at the Union Depot is provided by the Canadian Pacific River Line. The Ramsey County Regional Rail Authority is constructing a multimodal transit hub at the existing St. Paul Union Depot in downtown St. Paul. St. Paul Union Depot will be revitalized and refurbished to become the Union Depot Multi-Modal Transit Hub. Transit

[3] www.amtrak.com

planned at the hub includes light rail, regional and intercity buses, passenger rail, and bicycle and pedestrian accessibility. Plans call for the use of St. Paul Union Depot as a stop on the *Empire Builder*. Figure 2-3 depicts the St. Paul Union Depot site.[4]

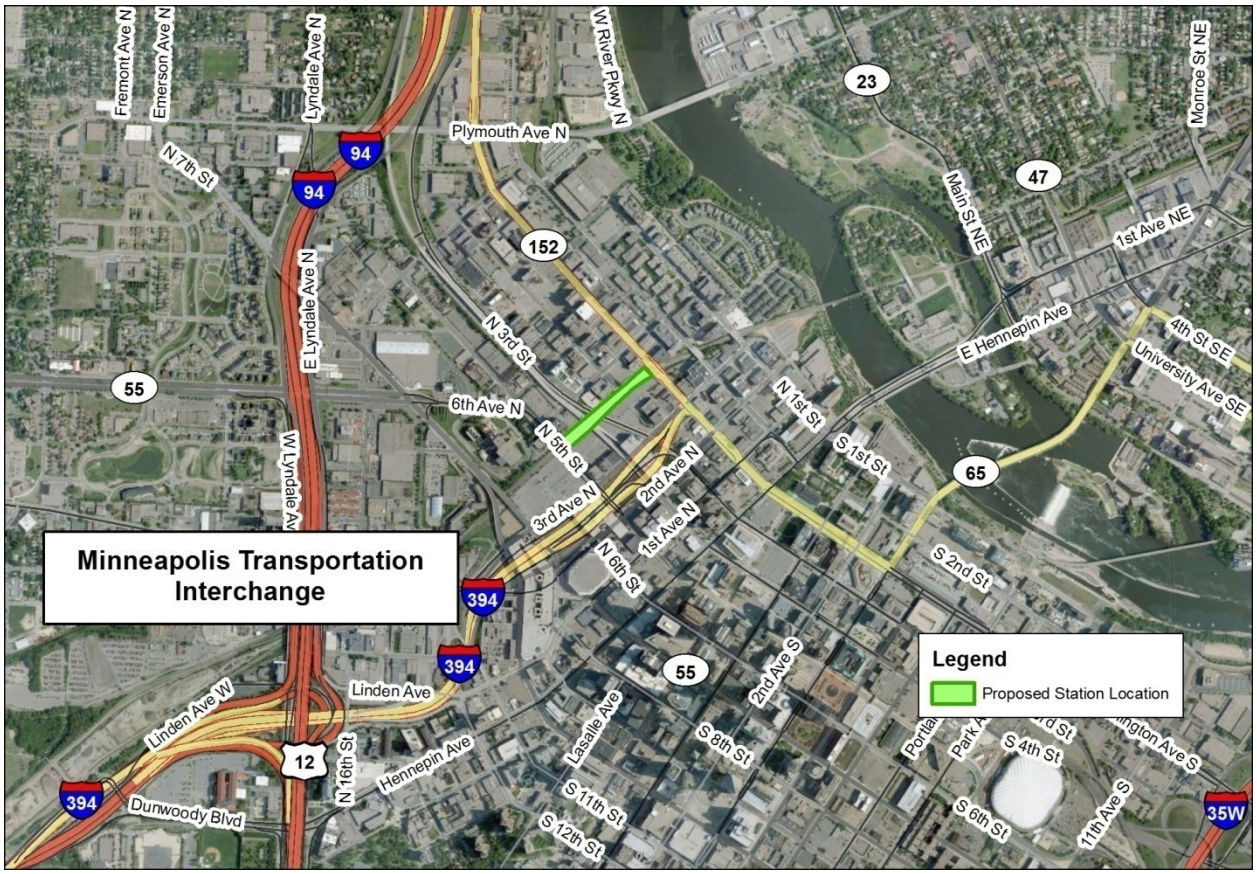
Figure 2-3. St. Paul Union Depot Center Site



The second Twin Cities location is the Minneapolis Transportation Interchange (MTI). The new intermodal station is planned in downtown Minneapolis near the new Target Field. This future multimodal transit station will be located adjacent and just north of the new Minnesota Twins Target Field ball park on 5th St. between 3rd Avenue and 5th Avenue and is planned to accommodate other modes of transportation, including light rail transit, commuter rail, taxi, pedestrian, bicycle, and integration of the nearby bus network. Access to the station would be provided by the BNSF Wayzata Line. Figure 2-4 depicts the MTI Site.

[4] http://www.uniondepot.org/

Figure 2-4. Minneapolis Transportation Interchange Site



3.0 PROJECT PURPOSE

The purpose of the proposed action is to meet future regional travel demand and provide intermodal connectivity to existing and planned transportation systems in Minnesota and Wisconsin. The proposed action offers an opportunity to provide reliable and competitive passenger rail service as an attractive alternative transportation choice between Milwaukee and Twin Cities by:

- Decreasing travel times,
- Increasing frequency of service, and
- Providing safe and reliable service.

In addition, the project will:

- Improve overall system connectivity in the interstate transportation network in conformance with statewide and regional transportation plans
- Provide accessibility to major population centers,
- Improve freight rail mobility, and
- Minimize environmental impacts.

4.0 PROJECT NEED

The need for the proposed action is based on the limitations and vulnerabilities of available travel modes between Milwaukee and Twin Cities. Existing transportation modes, including highway, bus, and air travel, have inherent problems including congested highways near the Milwaukee, Madison, and Twin Cities metro areas and airport capacity issues at Minneapolis-St. Paul International Airport and Milwaukee's General Mitchell International Airport. Improved and expanded passenger rail service can provide an alternative mode and/or relief to these congested roadways and airports.

The need for the proposed action exists because:

1. **Travel demand** is projected to increase within the corridor placing a significant burden on existing transportation infrastructure;
2. **Competitive and attractive alternative** modes of travel do not exist in the corridor;
3. As travel demand increases a new travel mode must be **reliable** to attract riders from existing travel modes; and
4. **Intermodal connectivity** among existing transportation systems is limited.

4.1 Travel Demand

Several studies were used to gather travel demand data for the Milwaukee-Twin Cities corridor. The studies include the MWRRI Project Notebook, the Wisconsin Draft Rail Plan 2030, the Wisconsin DOT Connections 2030 Long-Range Multimodal Plan, and the Minnesota Comprehensive Statewide freight and Passenger Rail Plan.

Both the MWRRI Project Notebook and the Connections 2030 Plan state that population will increase by 2030. Specifically, the Wisconsin State Rail Plan states that Wisconsin's population is predicted to increase by 22% between 2000 and 2030. This growth is expected to result in a 13 percent increase in intercity travel in the Midwest between 2010 and 2020 and a further 28 percent increase by 2040.[5]

Furthermore, between 2007 and 2030, vehicle miles traveled on Wisconsin's roadways is expected to increase by 34%[6].

The Minnesota State Rail Plan states that the rail mode share of ridership between Chicago and the Twin Cities is projected to be 21.2% in 2030.

Amtrak's *Empire Builder* (the long-distance train between Chicago, Milwaukee, Minneapolis/St. Paul and Seattle/Portland) has shown a 23% increase in ridership between 2004 and 2009. Even though the *Empire Builder* is a long-distance train, 75% of its riders arriving or departing at Wisconsin stations had an origin or destination within

[5] Midwest Regional Rail Initiative. June 2004. MWRRI Project Notebook, Page 4-26.

[6] Wisconsin Draft Rail Plan 2030

the Chicago-Twin Cities corridor of the route in 2009. This demonstrates that Wisconsin travelers are using the *Empire Builder* more for regional travel than long distance travel[7].

4.2 Competitive and Attractive Service

In order to attract rail users, the proposed action must provide conveniences that are competitive with or better than conveniences provided by other transportation modes.

4.2.1 Travel Time

The alternative must provide service that is time-competitive. Estimated vehicle travel time for the 355-mile distance between Milwaukee and Twin Cities is 5 hours and 58 minutes during uncongested conditions. The existing Greyhound bus route has a travel time of 6 hours 30 minutes between Milwaukee and Twin Cities during uncongested conditions[8]. The existing Amtrak *Empire Builder* travel time between Milwaukee and Twin Cities is 6 hours and 36 minutes[9].

4.2.2 Frequency of Service

Improvements to infrastructure and mitigation of freight capacity issues can allow for increased train frequency in the corridor. Currently, Amtrak provides one trip per day eastbound and westbound between Milwaukee and Twin Cities. The MWRRI Project Notebook of June 2004 proposed that the service frequency w would increase to 6 round trips per day based on ridership data developed at that time. More current ridership studies may determine that more service frequency is needed to meet current and future travel demand in the corridor.

4.3 Reliability

According to MWRRI surveys, both business and leisure travelers value reliability; particularly business air travelers, who value reliability substantially more than non-business air travelers and all rail travelers. Thus, the success of the Milwaukee-Twin Cities corridor to attract ridership is closely linked to providing on-time performance that is competitive with airline on-time performance. A potential added benefit of passenger rail in this corridor is that it can typically operate in poor weather conditions and has fewer incident management issues, providing a reliable alternative to air and highway travel.[10]

However, there are several infrastructure and operational constraints along the corridor that must be addressed to provide future expansion of service. Corridor improvements, such as construction and upgrades of bridges, sidings, crossovers, interlockings, turnouts and installation of additional trackage that is needed to implement the proposed action, improves reliability of passenger and freight rail within the corridor. .

[7] Wisconsin Rail Plan 2030

[8] www.greyhound.com

[9] www.amtrak.com

[10] Midwest Regional Rail Initiative. June 2004. MWRRI Project Notebook. Page 4-8

4.4 Intermodal Connectivity

The Milwaukee-Twin Cites high-speed rail corridor program is envisioned as a significant element within a system of transportation options, connecting major population centers and existing or future intermodal facilities within the states of Wisconsin and Minnesota as well as with adjoining states.

The proposed action creates increased opportunity for intermodal connectivity. Successfully addressing intermodal connectivity needs in the corridor will:

- Provide seamless connections between modes,
- Create more trip choices,
- Improve transportation operating efficiencies, and
- Foster economic development.[11]

4.4.1 Inter-City Passenger Rail

4.4.1.1 Existing Amtrak Service: Empire Builder

Amtrak provides rail transportation through the *Empire Builder*, a long-distance service between Chicago and Seattle/Portland. Stations in the Milwaukee-Twin Cities corridor include Columbus, Portage, WI, Wisconsin Dells, WI, Tomah, WI, La Crosse, WI, Winona, MN, and Red Wing, MN. Currently, Amtrak provides one eastbound and one westbound train daily.

4.4.1.2 Existing Amtrak Service: Hiawatha

Amtrak provides additional rail transportation through the *Hiawatha* which provides service between Chicago and Milwaukee. Amtrak provides seven round trips per day Monday-Saturday and six round trips on Sunday.

4.4.1.3 Planned Service: Northern Light Express (Twin Cities-Duluth)

The Northern Lights Express Passenger Rail Alliance, in cooperation with the Federal Railway Administration (FRA) and the Minnesota Department of Transportation (Mn/DOT) and Wisconsin Department of Transportation (WisDOT), has proposed to construct and operate a high speed passenger rail service between Minneapolis and Duluth, Minnesota. Mn/DOT and the NLX Alliance completed a Feasibility Study in 2008 for this corridor. The study concluded that operating passenger rail service at speeds up to 110 mph between the termini was feasible. Mn/DOT and the NLX Alliance are currently conducting an an alternative analysis and environmental assessment of the corridor to determine the preferred passenger rail route. It is anticipated that the NLX passenger service will connect to the Twin Cities- Milwaukee corridor at either MTI in Minneapolis or the St Paul Union Depot.

4.4.2 Commuter Rail

[11] Wisconsin DOT Connections 2030 Statewide Long-Range Transportation Plan

4.4.2.1 Northstar Commuter Rail

Minnesota's first commuter rail service, the Northstar line, began operations in November 2009. Northstar provides service from the northwest including the cities of Big Lake, Elk River, Anoka, Coon Rapids and Fridley to downtown Minneapolis at the Minneapolis Transportation Interchange during the morning rush hour, and return service during the evening rush hour. Northstar also provides limited service during special events such as Twins baseball games at Target Field. Discussions are currently underway to extend Northstar service northwest to St. Cloud, Minnesota.

4.4.2.2 Minnesota Planned Commuter Rail

Alternative analyses, either in process or completed, for the Bottineau Corridor, Rush Line Corridor and Red Rock Corridor have considered and evaluated commuter rail in the alternatives analysis process and have yielded the following recommendations:

- Bottineau Corridor: screened from further consideration
- Red Rock (St. Paul south): a potential long-term consideration, with a western terminus at the Minneapolis Transportation Interchange

4.4.2.3 Wisconsin Planned Commuter Rail

A commuter link has been planned to connect Kenosha, Racine, and Milwaukee to one another and to northeast Illinois and Chicago. A Draft Environmental Impact Statement (DEIS) was prepared by the Southeastern Wisconsin Regional Planning Commission (SEWRPC) to assess a full range of commuter rail and bus alternatives, the affected environment, and the environmental impacts of each alternative in the corridor. SEWRPC plans on submitting an application to allow the project to enter into Preliminary Engineering within the year.[12]

Transport 2020 completed an alternatives analysis and selected a locally preferred alternative for commuter rail service between Middleton, WI and Sun Prairie, WI through downtown Madison. A Draft Environmental Impact Statement is being prepared and an application in the FTA New Starts program to begin preliminary engineering is planned.

4.4.3 Light Rail Transit

4.4.3.1 Hiawatha Corridor LRT

In 2004, Minnesota opened its first LRT line traveling along the Hiawatha Avenue Corridor. The 12-mile LRT line connects downtown Minneapolis, with a northern terminus at the Minneapolis Transportation Interchange, with the Minnesota Veterans Administration, the Minneapolis/St. Paul International Airport, and the Mall of America in Bloomington with a travel time of 40 minutes. The line, which currently operates 27 light-rail vehicles, has exceeded year 2020 ridership projections.

4.4.3.2 Central Corridor LRT

[12] http://maps.sewrpc.org/KRMonline/

Central Corridor is a planned LRT facility connecting downtown St. Paul, the University of Minnesota and downtown Minneapolis. The western terminus of this line is planned for the Minneapolis Transportation Interchange to facilitate connectivity with Northstar Commuter Rail, Hiawatha LRT and other planned LRT corridors and future passenger and high-speed rail. The eastern terminus of the corridor lies at the front door of Union Depot, a planned multi-modal facility for the eastern portion of the metro area. Construction on the Central Corridor project is scheduled to begin during 2010.

4.4.3.3 Additional Planned LRT routes

Several additional LRT route is currently under environmental review. The Southwest Corridor EIS, an LRT corridor extending from the Minneapolis Transportation Interchange to the southwest suburbs, will be released for public comment in 2010.

The Milwaukee Streetcar route is funded and is 30% complete with Preliminary Engineering. Final design is expected to be complete in late 2011 with construction complete in the summer of 2013. The streetcar will have a stop at the Milwaukee Intermodal Station.

LRT alternatives are also being included in alternatives analysis studies for the Bottineau Corridor (extending northwest from the Minneapolis Transportation Interchange), and the Rush Line Corridor (extending north from the St. Paul Union Depot).

4.4.4 Bus Rapid Transit

4.4.4.1 Twin Cities Region

The Cedar Avenue Bus Rapid Transit runs from the southern suburbs of Lakeville, Apple Valley and Eagan to the Mall of America and downtown Minneapolis is in final design with construction anticipated as early as 2011.

BRT alternatives are currently under study for the Bottineau Corridor and Rush Line.

4.4.5 Urban Bus Transit

4.4.5.1 Metro Transit

Metro Transit is one of the country's largest transit systems, providing roughly 95 percent of the 73 million bus trips taken annually in the Twin Cities. The remaining 5 percent of the trips are supplied by suburban opt-out providers. Each weekday customers board Metro Transit buses and trains an average of 240,000 times. Metro Transit operates the Hiawatha light-rail line, 118 bus routes — 63 are local-service routes and 46 are express routes and 9 contract service routes, using a fleet of 821 buses. The majority of the company's fleet (681) is made up of standard 40-foot buses while 140 are articulated ("accordion") buses. All Metro Transit buses are equipped with wheelchair lifts or ramps and racks for bicycles. All trains feature step-free boarding, bicycle racks and luggage storage areas.

4.4.5.2 Milwaukee Region

The Milwaukee County Transit System operates 50 routes serving downtown Milwaukee and Milwaukee County. Key destinations within the system include downtown

Milwaukee, Marquette University, University of Wisconsin-Milwaukee, and various museums and other tourist attractions.

4.4.6 Automobile Connections

Interstate 94 is the principal arterial providing connection between Milwaukee and Twin Cities. Through the Twin Cities metro area, I-94 divides into 3 adjacent corridors: I-694 through the northern portion of the metro area, I-494 through the southern portion of the metro area, and I-394 connecting I-94 and I-494 west of downtown Minneapolis. Through the Milwaukee metro area, I-94 connects with I-894 west of downtown Milwaukee, and I-794 and I-43 within downtown. Interstate 90 connects Madison, Tomah, and La Crosse with one another.

Intermodal connectivity between these principal arterial networks and the high speed rail corridor is envisioned to occur at park and ride facilities adjacent to stations.

4.4.7 Airport Connections to Terminals

4.4.7.1 Milwaukee Region

The General Mitchell International Airport (MKE) is located 5 miles south of downtown Milwaukee. Public transportation options to and from MKE include Badger Coaches bus service, Coach USA bus service, and the Milwaukee County Transit System bus service. Additionally, Amtrak's *Hiawatha* Line connects the airport to the Milwaukee Intermodal Station via Canadian Pacific Railroad track. The *Hiawatha* Line provides 7 daily round trips between the Milwaukee Airport Rail Station at MKE and the Milwaukee Intermodal station.

4.4.7.2 Twin Cities Region

Minneapolis-St. Paul International Airport (MSP) is located approximately 12 miles southwest of downtown St. Paul and approximately 9.5 miles south of Minneapolis. Light rail transit via the Hiawatha line provides service from MSP to downtown Minneapolis and MTI. No existing freight track or track right-of-way connects the airport to downtown Minneapolis or St. Paul.

4.4.8 Bicycle Connections

Several of the proposed stations have access to bicycle routes. Intermodal connectivity between these bicycle routes and the high speed rail corridor is envisioned to occur at park and ride facilities adjacent to stations.

4.4.9 Other Proposed Transit Services

Other proposed transit services include corridors and transit modes that are identified in the Minnesota and Wisconsin State Rail Plans.

5.0 PRELIMINARY ALTERNATIVE EVALUATION CRITERIA

Specific evaluation criteria have been developed to assess the effectiveness of the alternatives in addressing the stated project purpose and need. A preliminary identification of the evaluating criteria is presented below.

- Route Characteristics
- Market Size
- Travel Time
- Capital Costs
- Operating Costs
- Safety
- Reliability
- System Connectivity
- Environmental Features

6.0 CONCLUSION

The purpose of the Milwaukee-Twin Cities high-speed rail corridor program and the proposed action is to meet future regional travel needs and intermodal connectivity to existing and planned transportation systems. The proposed action offers an opportunity to provide reliable and competitive passenger rail service as an attractive alternative transportation choice through decreased travel times, increased frequency, improved safety and reliability and upgraded amenities. These improvements allow passenger rail to be revitalized in the Milwaukee to Twin Cities corridor and be a key component of the regional transportation system.

Minnesota and Wisconsin DOTs and local metropolitan planning organizations anticipate consistent increases in total daily vehicle-miles traveled on their freeway systems; much of these increases are expected to occur under congested conditions. As needed highway capacity expansion is physically constrained or exceeds available funds, future travel demands will need to be met through alternative travel modes and travel demand management.