

SECTION 8

MWRRI PURPOSE & NEED STATEMENT
MARCH 2008

PHASE I - MWRRRI

Draft Purpose and Need Statement

March 2008

PREPARED FOR

Steering Committee -

Midwest Regional Rail Initiative

Illinois Department of Transportation
Indiana Department of Transportation
Iowa Department of Transportation
Michigan Department of Transportation
Minnesota Department of Transportation
Missouri Department of Transportation
Nebraska Department of Roads
Ohio Rail Development Commission
Wisconsin Department of Transportation

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Phase I - MWRRRI Draft Purpose and Need Statement September 2007

1 Proposed Action

Four state transportation agencies; the Illinois Department of Transportation, the Indiana Department of Transportation, the Michigan Department of Transportation and Wisconsin Department of Transportation, propose to implement Phase I of the Midwest Regional Rail Initiative (MWRRRI). The Federal Railroad Administration (FRA), an operating administration within the U.S. Department of Transportation, has agreed to serve as the lead federal agency for the project. The MWRRRI is an ongoing effort to develop an improved and expanded passenger rail system in the Midwest. Phase I of the MWRRRI is defined as the implementation of high speed train service up to 110 mph on the following routes (See Figure 1):

Chicago-St. Louis:	Increase service from 5 round trips to 8 round trips.
Chicago-Milwaukee-Madison:	Increase service from 7 round trips to 10 round trips to Milwaukee; provide 6 new round trips to Madison.
Chicago-Detroit:	Increase service from 3 round trips to 6 round trips, (currently operating on a portion of the Amtrak segment at 95 mph, with an increase to 110 mph in early 2008).

The existing transportation network in these study corridors includes highway (auto and bus) and air modes, and limited passenger rail service between all city pairs, excepting the Milwaukee-Madison segment, which is not currently served by passenger rail (See Figure 2).

2 Purpose

The purpose of the MWRRRI and the proposed action is to provide a means to help meet future regional travel needs through improvements to the level and quality of regional passenger rail service. The proposed action offers an opportunity to provide reliable and competitive passenger rail service as an attractive alternative transportation choice by:

- Decreasing travel times,
- Increasing frequency of service,
- Improving reliability, and
- Providing amenities to improve passenger ride quality and comfort.

The FRA also refers to high-speed passenger rail service as high-speed ground transportation (HSGT). The FRA defines HSGT as a “self-guided intercity passenger ground transportation that is time competitive with air and/or auto on a door-to-door basis for trips in the approximate range of 100 to 500 miles. This is a market-based, not a speed-based definition. It recognizes that the opportunities and requirements for HSGT differ markedly among different pairs of cities.”¹

¹ <http://www.fra.dot.gov/us/content/31>



Minnesota

Wisconsin

Michigan

Lake Huron

Lake Michigan

Iowa

Illinois

Chicago

Gary

Kalamazoo

Detroit

Normal

Springfield

Ohio

Indiana

Missouri

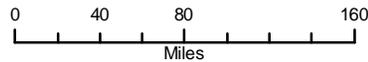
St. Louis

Legend

 Phase 1

MWRRI Phase I

FIGURE 1





- Legend**
- Existing Passenger Rail Service
 - - - Proposed Passenger Rail Service
 - Existing Freight Rail Corridors
 - Airports

Existing Regional Transportation Network Phase I MWRRI Corridors

FIGURE 2

Source: Bureau of Transportation Statistics, US Census Bureau



3 Background

The sponsors of the MWRRRI are nine transportation agencies across the Midwest:

- Illinois Department of Transportation
- Indiana Department of Transportation
- Iowa Department of Transportation
- Michigan Department of Transportation
- Minnesota Department of Transportation
- Missouri Department of Transportation
- Nebraska Department of Transportation
- Ohio Rail Development Commission and
- Wisconsin Department of Transportation

The MWRRRI was established in the context of the broader national federal efforts to support high-speed rail investment beginning with the Intermodal Surface Transportation Efficiency Act of 1991 (ISTEA) and its subsequent re-authorization in 1998 (TEA-21). Federal funds continue to support rail projects in the Midwest, including \$250 million for creating intermodal facilities, highway grade-crossing elimination and upgrades, construction of rail lines, and Illinois' CREATE program. As a result of this legislation and later designations, the Midwest Regional Rail System (MWRRS) corridors are part of the Chicago Hub high-speed rail network, one of ten FRA-designated high-speed rail corridor networks across the United States. This designation allows a corridor to receive specially targeted funding for highway-rail grade crossing safety improvements, and recognizes the corridor as a potential center of high-speed rail activity.

In October 1999, the MWRRRI agencies joined together to evaluate the potential for implementing the MWRRS and to create a business plan for its implementation. The MWRRS is proposed as a Chicago-based rail network encompassing approximately 3,000 route miles in the nine MWRRRI states (See Figure 3). With the full implementation of the MWRRS, planned passenger rail routes and complementary feeder bus service, approximately 90 percent of the Midwest region's population would be within an hour's ride of a MWRRIS rail station and /or 30 minutes of a MWRRS feeder bus station.²

Among the recommendations from previous MWRRRI studies is to implement the system through a phased approach, by first implementing corridor segments with the highest ridership potential per dollar invested. The MWRRRI states identified the Chicago-Milwaukee-Madison, Chicago-Detroit and Chicago-St. Louis corridors as Phase I corridors because existing rail service provides an opportunity to quickly implement improved reliability and amenities that are attributes of the MWRRRI. The increased investment in the Phase I corridors is an opportunity to create a strong base on which to implement future MWRRRI corridors throughout the system.

² Midwest Regional Rail Initiative. September 2004. Midwest Regional Rail System Executive Report. Page 9.



Full System MWRRI

FIGURE 3



Furthermore, IDOT, MDOT, and WisDOT have invested resources within the Phase I corridors to improve passenger rail service performance. WisDOT completed its NEPA review and preliminary engineering for implementing rail service between Milwaukee and Madison. WisDOT is currently implementing track and signal improvements in the corridor.

Recently, WisDOT has made a number of upgrades along the route between Chicago and Milwaukee. The State of Wisconsin purchased the Milwaukee Amtrak Station for \$1.4 million and construction will be completed in Fall 2007 on a \$16.7 million public-private sector venture to rehabilitate and improve the station. Additional work is underway to rehabilitate the train shed. In January 2005, Wisconsin opened the \$6.8 million Milwaukee Airport Rail Station at the General Mitchell International Airport in Milwaukee. This facility is one of four in the country that provide Amtrak service to a major international airport. More recently, in August 2006, a new station was opened at Sturtevant, WI, providing service to the Village of Sturtevant and to the City of Racine, WI.

IDOT completed an Environmental Impact Statement to allow for increased train speeds between St. Louis and Dwight and rehabilitation work between Springfield and Dwight has already been completed. This rehabilitation work brings the track up to Class 6 standards and allows speeds of up to 110 mph, with appropriate enhancement of the signal system.

MDOT has implemented a number of infrastructure and control system upgrades that are intended to ultimately allow for speeds up to 110 miles per hour along the Chicago-Detroit high-speed corridor. Michigan and Amtrak are also continuing work to close or protect all grade crossings along the corridor.

4 Need

To address the purpose of meeting regional travel needs by preserving, improving and expanding passenger rail service in the Phase I MWRRS corridors, it is necessary to provide reliable, attractive and safe passenger rail service as an alternative transportation choice for the Midwest. Shortly after the initiation of the MWRRRI, the transportation agencies conducted market research to gauge the feasibility of the MWRRS. The market research included intensive field survey of actual and potential rail passengers to understand their travel behaviors, requirements and preferences. The research concluded that the most important prerequisites for attracting and retaining rail riders are to overcome the current lack of reliability, infrequent service and provide travel times that are equal to or better than the auto mode.

The principal service attributes of the MWRRS are:

- Improved travel times and frequencies,
- Competitive fares that maximize revenue yields,
- Use of modern equipment,
- Improved accessibility and reliability, and
- Upgraded on-board and station amenities.³

³ Midwest Regional Rail Initiative. June 2004. MWRRRI Project Notebook, Page 3-1

The study findings indicate that the MWRRS can attract new passengers, primarily from auto and air markets, by providing improved service and amenities. Offering high quality service (competitive in terms of time, price, frequency, and reliability), modern facilities with comfortable stations and state-of-the-art trains would divert passengers into the rail market, yielding increased ridership and revenue.⁴

The surveys concluded that attracting travelers from all types of modes to the MWRRS will require a mix of marketing strategies and enhanced service attributes such as comparable trip times and more frequent service. While air service is one of the most expensive travel modes, air travelers place a high value on total trip time and frequency of service. Primary market research also concluded that it is important to dramatically improve current on-board and rail station services and continue making improvements. Marketing rail service to auto travelers must highlight service reliability in addition to convenience and reduced travel time.⁵

4.1 Travel Demand in MWRRRI corridors

A review of previous MWRRRI research, long range transportation plans, and long range capacity studies indicate that travel demand will continue to grow. Research shows that long term (through the year 2040), population, employment and income across all nine MWRRRI states are projected to grow consistently. This growth is expected to result in a 13 percent increase in intercity travel between 2010 and 2020 and a further 28 percent increase by 2040.⁶

A review of selected regional and state transportation plans mirror these statistics. For example, the Michigan DOT projects that by the year 2030 population and employment in the I-94 corridor between Chicago and Detroit will grow 3.4% and 6.7%, respectively. During that same time frame, total daily vehicle-miles of travel is expected to increase 35%.⁷ MDOT has estimated that travel on interstate freeways has increased 55 percent since 1990, with 35 percent of the average vehicle miles traveled occurring under congestion conditions. With the anticipated increase in traffic, MDOT expects that congestion on the freeway system will continue to increase.⁸

In northwest Indiana, between 1980 and 2000, population decreased one percent, but traffic volumes on major highways in the region increased about 50 percent. The Northwestern Indiana Regional Planning Commission (NIRPC) recognizes that part of this demand is the result of the region's strategic location at the southern end of Lake Michigan. Many of the nation's transportation systems converge in the region, making orderly flow of goods and services a priority for transportation planning in the region. According to the NIRPC's long range

⁴ Midwest Regional Rail Initiative. June 2004. MWRRRI Project Notebook, Page 4-10.

⁵ Midwest Regional Rail Initiative. June 2004. MWRRRI Project Notebook, Page 4-12.

⁶ Midwest Regional Rail Initiative. June 2004. MWRRRI Project Notebook, Page 4-26.

⁷ Michigan Department of Transportation.

⁸ Michigan Dept. of Transportation. August 23, 2002. State Long Range Plan, 2000-2025.

transportation plan, three of the seven major east-west transcontinental interstate highways cross through northwest Indiana. Trunk lines of three major eastern railroads pass through the region.⁹

A review of available state and regional long range transportation plans further supports the MWRRRI conclusions; these plans consistently reveal the following themes:

- Travel demand will continue to outpace population and employment growth,
- Populations will continue to age, indicating the need to meet travel demands through alternative modes,
- State DOTs and local metropolitan planning organizations, which oversee long range transportation planning, will continue to emphasize preservation of existing infrastructure before building new infrastructure, and
- Needed highway capacity expansion to meet travel demand exceeds available funds, indicating that travel needs will need to be met through alternative travel modes and travel demand management.¹⁰

The MWRRRI agencies concluded in their studies that the MWRRS can be a meaningful alternative to meet continued travel demand on highway and air infrastructure.¹¹ The MWRRRI studies estimate that in the year 2020, 4.4 million auto trips could be diverted to high-speed rail travel. In its high-speed ground transportation studies, the FRA calculated the travel time saved when traffic volumes are reduced on major highways between city pairs. FRA estimated the net present value (NPV) of the benefit of all diverted auto trips throughout the study period was the equivalent of \$23.48 per diverted passenger auto trip. This value, multiplied by the estimated 4.4 million auto trips diverted by the MWRRS and discounted over a 30- year period, yields a benefit of \$1.3 billion.¹²

The MWRRRI estimates similar benefits for air carriers. Trips diverted to rail can yield operating cost savings resulting from reduced airport congestion. This is especially important considering that airline delays reached an all-time high in 2006. In a March 2007 press release, U.S. Secretary of Transportation Mary E. Peters cautioned that aviation delays will grow without significant reforms¹³. Air traffic is expected to increase by the equivalent of two major hub airports annually

⁹ Northwestern Indiana Regional Planning Commission. 2006. Northwestern Indiana Long Range Transportation Plan-Connections 2030. pages 3-2 to 3-3.

¹⁰ Indiana Dept. of Transportation. December 15, 2004. INDOT 2030 Long Range Plan, 2004 Draft Update.

Michigan Dept. of Transportation. August 23, 2002. State Long Range Plan, 2000-2025.

Wisconsin Dept. of Transportation. 2000. Wisconsin State Highway Plan 2020.

Chicago Area Transportation Study. October 9. 2030 Regional Transportation Plan for Northeastern Illinois.

East-West Gateway Council of Government. March 2005. Legacy 2030.

Northwestern Indiana Regional Planning Commission. 2006. Northwestern Indiana Long Range Transportation Plan-Connections 2030.

Southeast Wisconsin Regional Planning Commission. April 2005. Review and Update of Regional Land Use and Transportation System Plans for Southeast Wisconsin, Newsletter #2.

¹¹ Midwest Regional Rail Initiative. June 2004. MWRRRI Project Notebook, Page 4-40.

¹² Ibid. Page 11-4.

¹³ Federal Aviation Administration, March 2007, FAA Forecast Steady Growth in Air Travel Demand, Press Release No. AOC-8-07

through 2020. As airport traffic volume approaches capacity, delays increase. The MWRRS would enhance travel options in the Midwest. Furthermore, since air service is primarily focused on trips that exceed 300 miles, the MWRRS would tend to complement rather than compete with air service in the Midwest¹⁴.

The Federal Aviation Administration (FAA) tracks the continuing growth of air travel demand. In 2001, the FAA developed benchmark summaries to compare projected growth in air travel demand with projected expansion in airport capacity. Demand at Chicago O'Hare is projected to grow by 18% by 2011. The FAA estimates that the imbalance between capacity and demand growth is will significantly increase delays at Chicago's O'hare International Airport.¹⁵

While capacity is expected to keep pace with demand at Detroit Metro Wayne County International and Lambert St. Louis International Airports, demand is projected to increase by nearly 30% by year 2011. Capacity generally decreases in adverse weather conditions, which may include poor ceiling and visibility, unfavorable winds and heavy precipitation. In its 2004 Airport Capacity Benchmark Report, the FAA estimates that poor weather reduces capacities at Chicago O'Hare, Detroit, and St. Louis International airports between 25 to 38%.¹⁶ Longer-term forecasts indicate that by 2025, enplanements at O'Hare are expected to increase by 65%; Detroit and St. Louis are projected to increase by 66 and 72%, respectively.¹⁷

For its study corridors, the FRA study estimated the benefits to air carriers by multiplying the projected reduction in the number of aircraft hours of delay by the average cost to the airlines for each hour of delay. Average delays were capped at 15 minutes per operation. The NPV of air carrier benefits was estimated at \$623 million for the 110-mph high-speed rail scenario, or the equivalent of \$23.46 per diverted passenger air trip. This value, multiplied by the 1.35 million air trips diverted to the MWRRS, yielded a discounted 30-year benefit of approximately \$0.4 billion.¹⁸

4.2 Decrease travel times

The preference surveys that the MWRRRI agencies conducted over the last several years have revealed several important factors that influence the success of high-speed rail service in the Midwest. Travel time, frequency of service, and reliability are the primary factors that determine the choice of transportation mode.

Thus, the MWRRRI agencies propose a passenger rail system that will provide a mix of travel times and train schedules to accommodate business as well as leisure travelers. Improved travel times and increased frequency of service will serve to foster connectivity throughout the region and strengthen the overall attractiveness and performance of the MWRRS. When compared with the travel times of the current passenger rail service, travel time savings on the MWRRS can range from 30 percent between Chicago and St. Louis to 32 percent between Chicago and Detroit. Table 1 illustrates travel time reductions achieved by improvements to rail infrastructure proposed

¹⁴ Midwest Regional Rail Initiative. June 2004. MWRRRI Project Notebook. Page 1-2

¹⁵ Federal Aviation Administration, 2001, Airport Capacity Benchmark Report 2001, page 32.

¹⁶ Federal Aviation Administration, 2004, Airport Capacity Benchmark Report, 2004, page 6.

¹⁷ Federal Aviation Administration, March 2007, Terminal Area Forecast Summary, FAA-APO-07-1

¹⁸ Midwest Regional Rail Initiative. June 2004. MWRRRI Project Notebook Page 11-4.

under the MWRRS. Improvements to infrastructure and mitigation of freight capacity issues can reduce rail travel times so they compare favorably with those of other travel modes. A comparison of estimated travel times between the various modes are illustrated in Tables 2 through 4 for the Phase I city pairs.

Table 1
Estimate Train Travel Times
Phase I MWRRS Corridors

City Pairs	Current Service	MWRRS Service	Time Reduction	% Reduction
Chicago-Detroit	5 hr 36 min	3 hr 46 min	1 hr 50 min	32%
Chicago-Madison*	NA	2 hr 32 min	NA	NA
Chicago-St. Louis	5 hr 20 min	3 hr 49 min	1 hr 31 min	28%

*no passenger rail service exists between Chicago and Madison.

Source: MWRRRI. September 2004. Midwest Regional Rail System Executive Report.

Table 2
Travel Time Comparisons between Travel Choices
Chicago - Madison¹

Mode	Estimated Travel Time Downtown to Downtown One-way	Estimated Total Travel Time	Passenger Rail Estimated Travel Time Comparison
Passenger Rail Walk/Auto Segment ² Station Segment Train Segment Walk/Auto Segment	15 minutes to Chicago Union Station 10 minutes 2 hours-32 minutes 15 minutes to Downtown Madison (assumes airport station)	3 hours-12 minutes	--
Auto and Parking	3-4 hours	3-4 hours	12 minutes faster to 48 slower than train
Bus³ Auto/Walk Segment Station Segment Bus Segment ³ Taxi/Walk	15 minutes to downtown bus station 10 minutes 4 hours 15 minutes to Downtown Madison	4 hours-40 minutes	1 hour-28 minutes slower than train.
Air Auto Segment Airport Segment Air Segment ⁴ Airport Segment Auto Segment	1 hour Downtown Chicago to O'Hare Airport (includes parking time in downtown) 1.5 hours O'Hare Airport 51 minutes 15 minutes 15 minutes Madison Airport to Downtown Madison	3 hours-51 minutes	39 minutes slower than train

¹ Full build-out of 110 mph service between Chicago-Milwaukee service included

² Travel time estimates for walk, auto, train, and station segments obtained from *Milwaukee-Madison Passenger Rail Corridor Project Environmental Assessment*, WisDOT ID 0410-40-40/0499-10-39, <http://www.dot.state.wi.us/projects/d1/hsrail/environ.htm>, June 2001.

³ Average bus travel time

⁴ Based on United Airlines, <http://travel.united.com/ube/core/us/compactSearch.do?waitingPageFlag=true>, Accessed September 2007.

Source: HNTB Corporation

Table 3
Travel Time Comparisons between Travel Choices
Chicago-St. Louis

Mode	Estimated Travel Time Downtown to Downtown One-way	Estimated Total Travel Time	Passenger Rail Estimated Travel Time Comparison
Passenger Rail Walk/Auto Segment ¹ Station Segment Train Segment ² Walk/Auto Segment	15 minutes to Chicago Union Station 10 minutes 3 hr 49 minutes 15 minutes to Downtown St. Louis	4 hours, 29 minutes	--
Auto and Parking	5-6 hours	5-6 hours	31 minutes to 1 hour-31 minutes slower than train
Bus³ Auto/Walk Segment Station Segment Bus Segment Auto/Walk	15 minutes to bus station 10 minutes 6 hours-23 minutes 15 minutes	7 hours-3 minutes	2 hours-34 minutes slower than train.
Air Auto/Transit Segment Airport Segment Air Segment ⁴ Airport segment	1 hour Downtown to O'Hare Airport 1.5 hours 1 hour-10 minutes O'Hare Airport to Lambert-St. Louis Airport 15 minutes	4 hours-55 minutes	26 minutes slower than train
Auto/Transit Segment	1 hour Lambert-St. Louis Airport to Downtown St. Louis (includes parking time in downtown)		

¹ Travel time estimates for walk, auto and station segments obtained from Milwaukee-Madison Passenger Rail Corridor Project Environmental Assessment, WisDOT ID 0410-40-40/0499-10-39, <http://www.dot.state.wi.us/projects/d1/hsrail/environ.htm>

²Travel time estimates for train segment are based on Midwest Regional Rail System, *Executive Report*, September 2004.

³Average bus travel time

⁴Based on United Airlines, <http://travel.united.com/ube/shopInput.do?waitingPageFlag=true>, Accessed September 2007.

Source: HNTB Corporation

Table 4
Travel Time Comparisons between Travel Choices
Chicago-Detroit

Mode	Estimated Travel Time Downtown to Downtown One-way	Estimated Total Travel Time	Passenger Rail Estimated Travel Time Comparison
Passenger Rail Walk/Auto Segment ¹ Station Segment Train Segment ² Auto Segment	15 minutes Downtown Chicago to Union Station 10 minutes 3 hours-46 minutes 15 minutes from New Center station to Downtown Detroit	4 hours-26 minutes	--
Auto and Parking	4 hours-30 min. to 5 hours	4 hours-30 min. to 5 hours	4 minutes to 34 minutes slower than train
Bus³ Auto/Walk Segment Station Segment Bus Segment Auto/Walk	15 minutes to downtown bus station 10 minutes 7 hours-10 minutes 15 minutes bus station to downtown	7 hours-50 minutes	3 hours-24 minutes slower than train.
Air Auto/Transit Segment Airport Segment Air Segment ⁴ Airport segment Auto Segment	1 hour Downtown Chicago to O'Hare Airport 1.5 hours 1 hour-15 minutes Detroit/Wayne Airport-O'Hare Airport 15 minutes 40 minutes to Detroit Wayne Airport to Downtown Detroit	4 hours-40 minutes	14 minutes slower than train

¹ Travel time estimates for walk, auto and station segments obtained from Milwaukee-Madison Passenger Rail Corridor Project Environmental Assessment, WisDOT ID 0410-40-40/0499-10-39, <http://www.dot.state.wi.us/projects/d1/hsrail/environ.htm>

² Travel time estimates for train segment are based on Midwest Regional Rail System, *Executive Report*, September 2004.

³ Average bus travel time

⁴ Based on, Northwest Airlines, <http://res.nwa.com/App/FlightSearchResults>, Accessed September 2007.

Source: HNTB Corporation

4.3 Increase frequency of service

The preference surveys that the MWRRRI agencies conducted found that air travelers place a high value on frequency as well as travel time. Thus, the MWRRS focuses on more frequent passenger rail service, with improved travel times to attract air travelers.¹⁹

Improvements to infrastructure and mitigation of freight capacity issues can allow for increased train frequency in the MWRRS. Table 5 provides a comparison of existing and proposed train frequencies, which generally creates a doubling or tripling of the level of service.

¹⁹ Midwest Regional Rail Initiative. June 2004. MWRRRI Project Notebook. Page 4-6.

Table 5
Number of Daily Round Trips

City Pair	Current Amtrak Service	Phase I MWRRS
Chicago-Detroit	3	6
Chicago-St. Louis	5*	8
Chicago-Milwaukee	8*	10
Milwaukee-Madison	0	6**

*Includes Amtrak long-distance trains

** MWRRS route differs from current Amtrak service

Source: MWRRRI Project Notebook, June 2004, Page 3-4

4.4 Improve reliability

According to MWRRRI 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 MWRRS 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 the Midwest is that it can typically operate in poor weather conditions, providing a reliable alternative to air travel in inclement weather.²⁰ Severe weather and congestion rarely cause delays and there is normally minimal waiting time at stations.²¹

However, there are several infrastructure and operational constraints along all three of the Phase I corridors that must be addressed to improve reliability of existing passenger rail service and future expansion of service proposed under the MWRRRI. The MWRRRI would improve reliability through corridor improvements including construction and upgrades of bridges, sidings, crossovers, interlockings, turnouts and the construction and upgrades of additional trackage.

In order to achieve financial goals, rolling stock must be very reliable in all weather conditions. The MWRRRI assumes that rolling stock suppliers would participate in on-going maintenance activities. It is also anticipated that equipment awards would include long-term performance and maintenance cost specifications; these would serve as incentives for long-range ease of maintenance and reliability.

4.4.1 Chicago-Detroit

Along the Chicago-Detroit corridor, capacity for passenger rail service is affected by heavy freight rail traffic and infrastructure constraints. For example, the high volume of national and local freight and passenger rail traffic through northwestern Indiana frequently delays existing passenger rail trains in the corridor. A network of national trunk rail lines, along with several regional and local rail lines cross through the region to and from all directions. Figure 4 illustrates the high density of freight rail traffic in northwestern Indiana.²² The main Norfolk Southern

²⁰ Midwest Regional Rail Initiative. June 2004. MWRRRI Project Notebook, Page 4-8

²¹ Midwest Regional Rail Initiative. June 2004. MWRRRI Project Notebook Page 4-31.

²² Indiana Department of Transportation, Multi-Modal Transportation Division, Indiana Rail Plan, October 2002, Page 5.

trunk line, from the Illinois state line at Hammond east to St. Joseph County, is the most heavily used rail line in northwest Indiana. This corridor accommodates over fifty trains per day²³.

Furthermore, in Michigan, relatively short sidings for passenger to passenger train meets, as well as relatively long distances between sidings create the potential for delays due to waiting for opposing traffic. Another capacity constraint is related to fact that there are no sidings between Battle Creek and Kalamazoo. There is also the potential for freight and passenger train congestion through Battle Creek and congestion delays in the Detroit area, especially at interlockings.²⁴

Amtrak's annual On-time Performance Reports and Minutes of Delay statistics for Amtrak's operations between Chicago and Detroit were analyzed for six trains over the period 2004-2006. Amtrak's on-time performance was approximately 50%. The reports indicate that the top reasons for delay were freight train interference, passenger train interference, and C&S work due to defects.²⁵ Delays due to freight interference can be expected to grow. An MWRRRI analysis projects freight traffic between Chicago and Porter, Indiana to grow between 2% and 5% annually. This increase is expected to lead to greater congestion and delay for both passenger and freight trains. Infrastructure improvements, including new tracks, are required to accommodate both passenger and freight service growth.²⁶

The MWRRRI's potential mitigation options along the Chicago-Detroit route include the infrastructure improvements between Chicago and Porter, Indiana and extension of sidings and double track, upgrading turnouts, and the construction of new trackage in Michigan. MWRRRI analysis indicates that freight trains would still need to be carefully slotted between Battle Creek and Kalamazoo, as will passenger trains coming into and out of Chicago.²⁷

4.4.2 Chicago-St. Louis

The freight traffic on the route between Joliet and Alton, IL is relatively light, but heavy in the St. Louis and Chicago terminal areas, causing passenger service delays. In the Chicago area, the route operates through a highly industrialized area, with numerous freight shippers. Freight congestion in the St. Louis area also causes delays. There are a number of meet-points along the route, but few are sufficient for unobstructed passenger to passenger train meets.²⁸

Amtrak's annual On-time Performance Reports and Minutes of Delay statistics for Amtrak's operations between Chicago and St. Louis were analyzed for two trains over the period 2004-2006. Amtrak's on-time performance was approximately 70%. The top reasons for delay on the

²³ Northwestern Indiana Regional Planning Commission, June 2007, Connections 2030 Regional Transportation Plan, Part I pages 58 - 59

²⁴ Midwest Regional Rail Initiative. June 2004. MWRRRI Project Notebook. Pages 6-51 - 6-53

²⁵ On-Time Performance and Minutes of Delay Statistics, May 2007 letter from Michael W. Franke (Senior Director, Amtrak)

²⁶ HNTB, December 2004, Detroit-Chicago High Speed Rail Corridor Study Update "South of the Lake Corridor"

²⁷ Midwest Regional Rail Initiative. June 2004. MWRRRI Project Notebook. Pages 6-52, 6-53

²⁸ Midwest Regional Rail Initiative. June 2004. MWRRRI Project Notebook. Pages 6-58

route between Chicago and St. Louis were due to C & S work, freight train interference, and speed restrictions due to defects or slow orders²⁹

There are several potential mitigation options to address delays on the route between Chicago and St. Louis. Potential improvements include the addition of crossovers, turnouts, and sidings along with the creation and management of train slots. These improvements should be sufficient to accommodate the MWRRS trains that would operate over this route.³⁰

4.4.3 Chicago-Milwaukee

Amtrak operates the Hiawatha service between Chicago and Milwaukee. Amtrak's annual On-time Performance Reports and Minutes of Delay statistics for Amtrak's operations between Chicago and Milwaukee were analyzed for 14 trains over 2004-2006. Over this time period, the on-time performance record for the Hiawatha service was over 90% and substantially better than the Chicago-St. Louis and Chicago-Detroit routes.³¹ The main reasons for delay along the Hiawatha route were due to interference by commuter trains, routing delays, and C & S work.

One of the key requirements of the MWRRS is the use of the right-of-way that is currently owned by the freight railroads. A goal of the MWRRRI is to develop cooperative agreements with freight railroads to allow increased passenger rail service. These cooperative agreements need to include additional capacity to ensure that the freight railroads can maintain their own train service. Other improvements that would increase capacity include upgrading signaling systems and the construction of additional tracks, railroad yard bypasses, and freight sidings.

4.5 Amenities

The MWRRS plan for improved passenger rail ridership also includes continuing focus on amenities. Technological advances, along with an increased attention to customer satisfaction, have led to considerable improvements to on-board amenities.³² In addition to improved performance and reliability, an expanded suite of amenities for the MWRRS allows passengers to work and relax comfortably while on the train. The following are examples of on-board amenities that would respond to customer expectations and satisfaction:

- Food and beverage service,
- Open seating and airline-type business class seating,
- Large flexible compartments,
- Receptacles for computers and other communication equipment,
- Wireless internet access, and
- Audio-visual monitors at seats for news, entertainment, and informational programs.

²⁹ On-Time Performance and Minutes of Delay Statistics, May 2007 letter from Michael W. Franke (Senior Director, Amtrak)

³⁰ Midwest Regional Rail Initiative. June 2004. MWRRRI Project Notebook, Pages 6-59

³¹ On-Time Performance and Minutes of Delay Statistics, May 2007 letter from Michael W. Franke (Senior Director, Amtrak)

³² Midwest Regional Rail Initiative. June 2004. MWRRRI Project Notebook, Pages 1-1, 3-6

MWRRS rail cars would also be equipped with special vibration-absorbing mountings and soundproofing to reduce noise levels. These features add to passenger comfort. Investments to improve amenities are expected to raise ridership and increase revenues as the high quality service offered by MWRRS would attract travelers into the rail market.³³

5 Conclusion

The purpose of the MWRRRI and the proposed action is to provide a means to help meet future regional travel needs through improvements to the level and quality of regional passenger rail service. The proposed action offers an opportunity to provide reliable and competitive passenger rail service as an attractive alternative transportation choice through improved travel times, improved frequency and reliability and upgraded amenities.

State 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.

The expected increases in travel demand will also affect air transportation. As a general rule, as air traffic volume approaches capacity, delays tend to increase. As air service is increasingly focused on trips that exceed 300 miles, MWRRS can compliment rather than compete with air service in the Midwest.

The MWRRS can offer a meaningful alternative to meet future regional travel demands by providing an improved level and quality of passenger rail service; principal service attributes include:

- Improved travel times, reliability and frequencies
- Competitive fares that maximize revenue yields
- Use of modern equipment
- Improved amenities

These improvements allow MWRRS to revitalize passenger rail in the Midwest and be a key component of the regional transportation system.

³³ Midwest Regional Rail Initiative. June 2004. MWRRRI Project Notebook. Page 2-7, 4-10

SECTION 9

MWRRI PHASE 1 EIS SCOPE
MARCH 2008



**DRAFT Scope of Services
Midwest Regional Rail Initiative
Phase I EIS and Rail Corridor Transportation Plan**

The Steering Committee for the Midwest Regional Rail Initiative (MWRRI) has determined to prepare an Environmental Impact Statement and Rail Corridor Transportation Plan to implement Phase I of the Midwest Regional Rail System (MWRRS). Phase I of the MWRRS would implement passenger rail service up to 110 mph on the following routes:

- Chicago-St. Louis: Increase service from 5 round trips to 8 round trips
 - project limits: Chicago Union Station to St. Louis Amtrak station
 - speed: existing track speed Chicago to Joliet, maximum 110 mph Joliet to Springfield, existing track speed Springfield to St Louis)
- Chicago-Milwaukee-Madison: Increase service from 7 round trips to 10 round trips to Milwaukee; provide 6 new round trips to Madison.
 - (project limit: Chicago Union Station to Milwaukee Union Station to proposed Madison Airport station)
 - speed: existing track speed Chicago to Watertown, maximum 110 mph Watertown to Madison
- Chicago-Detroit: Increase service from 3 round trips to 9 round trips
 - project limit: Chicago Union Station to Detroit New Center station
 - speed: current track speed Chicago to Buffington Harbor (CP 501), maximum 110 mph CP 501 to CP West Detroit, current track speed CP West Detroit to Detroit Intermodal Terminal

The Scope of Services under this CONTRACT consist of conceptual engineering, environmental studies and public involvement activities to support an Environmental Impact Statement evaluating actions required for high speed passenger rail service primarily within existing rail rights of way.

The EIS for Phase I of the MWRRI will incorporate previous data and analysis evaluated in NEPA documents completed on segments of the Phase I corridors. The EIS will include the following evaluations:

- re-evaluating the Madison-Milwaukee EA/FONSI (2004),
- re-evaluating and supplementing the Chicago-St. Louis EIS (2003) (to allow increased service between Dwight and Chicago)
- incorporating available NEPA documents completed for actions on the Chicago-Detroit corridor in Michigan.
- Incorporating available NEPA documents completed for actions on the Chicago-Milwaukee corridor.

It is assumed that the preferred alternatives and impacts evaluated in most previous NEPA studies will remain unchanged. The exception will be in the Chicago-St. Louis corridor, where the re-evaluation will assume the preferred build alternative between St. Louis and Dwight, and select a preferred build alternative between Dwight, Illinois and Chicago, Illinois using one of the corridors evaluated in the 2003 DEIS.

The Lead State Agency for execution and oversight of this contract will be determined upon future financing to implement Phase I of the MWRRI. An environmental review subcommittee,



established under a separate MWRRI Phase I MOU between FRA, Indiana DOT, WisDOT, MDOT and IDOT, will oversee agreement on analytical methodologies and preparation of the EIS document.

1. PROJECT MANAGEMENT

1.1 Preparation of Project Management Plan. As an early task the CONSULTANT will prepare a Project Management Plan. This plan brings together in one document a description of all project tasks and identifies responsibilities for these tasks. The plan provides a detailing of the activity schedule and inter-relationship of the various tasks. This activity schedule will insure that project tasks are scheduled in advance and completed when required. The plan will include a listing, schedule and description of all project deliverables and the process for their review and publication. The plan will further address project Steering Committee meeting dates and responsibilities and monthly reporting to the Lead Agency.

The CONSULTANT will create and maintain an electronic and hard copy of the Administrative Record. The FRA Administrative Record includes relevant studies, data, and documents used by the federal agency to prepare the NEPA document, as well as those documents considered in the Record of Decision (ROD). Key project documents will be filed and ready for reference if requested.

Deliverable: Project Management Plan and Administrative Record

1.2 Monthly Progress Reporting. Each calendar month the CONSULTANT will prepare a document describing activities carried out during the preceding month, as well as work scheduled for the current month. Progress on the project will be documented and assessed in accordance with the overall project schedule. Any discrepancies with the planned timetable will be addressed in the report. Major issues confronting the CONSULTANT or unresolved issues affecting the progress of the work will be identified and suggestions for their resolution presented. The reporting format will be addressed under Task 1.1. The monthly progress reports will be submitted each month by a mutually agreed upon date.

Deliverable: Monthly Progress Reports

1.3 Steering Committee Meetings. The CONSULTANT will attend up to 33 monthly meetings with the project Steering Committee and/or the MWRRI EIS Subcommittee. Meetings are expected to last approximately 3 to 4 hours. The CONSULTANT will work with the LEAD AGENCY in setting meeting dates. The CONSULTANT will work with the Lead Agency project manager to set the meeting agenda approximately one week in advance of the meeting. The CONSULTANT will make every effort to make materials available to the Steering Committee members in advance of the meeting. The CONSULTANT will provide an individual to take Committee minutes. Upon approval from the Lead Agency project manager, the CONSULTANT will distribute meeting minutes to Steering Committee members.

Deliverables: Steering Committee Agenda, meeting minutes and supporting material

1.4 Project Managers Meetings. The CONSULTANT 's PM and Project Environmental Lead will meet with the Lead Agency's PM as needed to discuss project concerns, task scheduling, procedural issues, deliverable reviews, outreach and community issues, etc. These meetings



may be called by either party, and shall be conducted by phone or in person as needed. The CONSULTANT will prepare minutes of these meeting. The CONSULTANT will be responsible for communicating the results of these meeting to appropriate project staff.

Deliverables: Meeting notes

1.5 Task and Deliverable Coordination. The CONSULTANT's PM and Project Environmental Lead will carryout all tasks necessary to guide, schedule and coordinate project activities and study deliverables. All deliverables will be prepared in draft in electronic form and delivered to the Lead Agency project manager for review and comment prior to finalizing. Scheduled review periods shall be set forth in the task schedule developed in Task 1.1. The CONSULTANT will modify each deliverable based upon one consolidated set of review comments from the Lead Agency. All deliverables, except the environmental document and engineering plans, will be prepared as chapters to a Project Report notebook. The CONSULTANT will prepare 10 Project Report notebook copies and CDs, and 10 paper copies and one CD for the Lead Agency. CONSULTANT will prepare a CD and 50 copies of the "Scoping" report and the circulation version of the environmental document as may be required for general public review.

Deliverables: Project Notebooks, CDs, Lead Agency Copies

2. PRELIMINARY ALTERNATIVES ANALYSIS

2.1 The CONSULTANT will conduct a preliminary alternatives analysis that will include identifying alternative corridors that have been addressed during the life of the MWRRI program in the Phase I corridors. The CONSULTANT will consider only a single technology diesel powered passive tilt train with multiple alternative routes between nodes. Work will consist of researching previous studies and coarsely defining alternatives that have not been previously considered. Each alternative will be developed sufficiently to define those characteristics that are important in evaluating the suitability of the route to satisfy the purpose and need. A scoring system will be developed. Route alternatives will be presented to the Steering Committee, who will score and rank, then select the alternative corridors for continued development for the DEIS. Routes not passing the screening will be rejected and documented as alternatives considered in the DEIS. Routes carried forward will be further developed and analyzed in the DEIS. Anticipated alternatives that may be addressed include:

- No Build Alternative
- High Speed Rail Build Corridors

Dedicated Passenger High Speed Rail Corridors

Shared-use Passenger Rail and Freight Rail Corridors

It is anticipated that the No-Build alternative will be described based on existing modal information available from the MWRRI coalition states. The No-Build alternative description will address existing and planned inter-city transportation options including the following modes:

- Highway Network
- Intercity Bus Service



- Passenger Rail Services
- Freight Railroad Network
- Air Travel Network

The No-Build Alternative will be used as the base against which the impacts of the Build Alternatives will be compared in the DEIS.

Development of HSR build alternative corridors for dedicated passenger high speed rail corridors and shared-use passenger and freight rail corridors will be conducted in conjunction with the identification of constraints. Public opinion will be considered in developing study corridors. Coordination with representatives from FRA and state DOTs, freight rail carriers and state and federal regulatory/resource agencies is anticipated during the development of corridors.

The preliminary build alternative corridors will be developed using the previously completed engineering and environmental screening studies conducted for the MWRI states. The CONSULTANT will also review specific, state level studies of corridors to include in the preliminary alternatives analysis. Studies to be reviewed will include:

- Milwaukee-Madison Passenger Rail Corridor Study Environmental Assessment 2000
- Chicago-St Louis High Speed Rail Project EIS 1999
- Tri-State Study 1991
- South-of-the-Lake Corridor Study 2004 (Amtrak Purchase Order S-049-31385)
- MWRI Phases 1-5

The majority of freight rail routes within the Phase I corridors have been assessed in previous MWRI studies. Each route alternative considered in previous MWRI Phase 1 to 5 studies will be reviewed as necessary to consider the identified specific infrastructure improvement requirements, capacity issues, and previously developed comparative capital cost estimates.

Corridors anticipated to be initially evaluated include:

Chicago-Madison:

Addressed under previous environmental documents

Chicago-Detroit

MC: Chicago-Gary-Michigan City-Niles-Kalamazoo-Battle Creek-Jackson-Ann Arbor-Detroit

WAB: Chicago-Gary-New Paris-Montpelier-Adrian-Detroit

GT/PM: Chicago-Blue Island-Valparaiso-South Bend-Battle Creek-Lansing-Howell-Detroit

Chicago-St. Louis

GM&O: Chicago-Joliet-Pontiac-Bloomington-Springfield-Alton-St. Louis

ICRR: Chicago-Kankakee-Gilman-Clinton-Springfield-Litchfield-Alhambra-St. Louis

WAB: Chicago-Orland Park-Gibson City-Bement-Decatur-Litchfield-Alhambra-St. Louis

Deliverables: Preliminary Alternatives Analysis Report

3. CONCEPTUAL ENGINEERING

3.1 Introduction. The requirements for conceptual engineering to support the NEPA process have not been uniformly implemented on recent high speed passenger rail studies. The Milwaukee-Madison study produced 100 scale plans on photogrammetric mapping and DTMs (1 inch = 100 feet) from Watertown to Madison and track schematics (1 inch = 1 mile) over the entire route from Milwaukee to Madison. However, the Chicago-St Louis EIS did not employ plans or schematics, but depicted the routes on very coarse scale state and regional maps. The Florida High Speed Rail study from Orlando to Tampa produced 100 scale plans and profiles on accurate orthophotography for a highway alternative and an existing railroad corridor alternative.

Recent studies for commuter rail projects under the FTA New Starts process typically produce 100 scale plans on high resolution orthophotography to aid in identifying environmental impacts and to produce accurate cost estimates. However, it should be noted that these studies generally address modest length corridors through suburban and urban regions. Accurate, high resolution base mapping or orthophotography is generally available for a nominal cost in such areas and sensitive neighbors tend to reside in close proximity to the rail corridors resulting in greater environmental impacts.

Due to the extensive area covered by this study, it is intended to minimize the scope and cost of engineering to that necessary to support the environmental process. Should the project proceed, it is anticipated that the preliminary engineering and final engineering stages will produce thorough and accurate operating plans, construction documents and cost estimates.

The FRA has prepared a document to guide the development of high speed passenger rail studies titled, "Railroad Corridor Transportation Plans: A Guidance Manual." The July 8, 2005 revision depicts existing track configuration and proposed track configuration in a schematic style that facilitates the visualization and quantification of improvements. While this approach serves to document the proposed infrastructure changes, it is not particularly effective in identifying property or wetlands impacts. However, it is very cost effective (does not require orthophotography) and easily understood by the host railroads. During later preliminary engineering, traditional engineering plans will be required to detail new tracks, structures and signals.

In cases where new track is required and the right of way is limited, it is prudent to develop scaled plans on orthphoto mapping to determine the feasibility and cost of construction.

3.2 Track Schematics. The consultant will prepare track schematics depicting existing and current conditions at 1 inch = 1 mile (or 1 inch = 0.1 to 0.5 miles in dense areas). The track schematics will show main line tracks, sidings and spurs, curvature, length of curve, grade, turnouts, crossovers, grade crossings, stations, yards, major culverts, bridge structures, retaining walls, signals, approximate right of way limits and property impacts.

Track schematics will be prepared for the entire Phase 1 network to serve as documentation for the capacity analysis and for updating the capital cost estimates for all build alternatives. (Track schematics are not required for the Milwaukee-Madison segment, as suitable documents are existing.) Source data will include previous studies, current railroad track charts and engineering (val) maps.

3.3 Conceptual Plans. The consultant will prepare conceptual plans at 1 inch = 100 ft for evaluating environmental impacts and verifying the feasibility of construction on two alternative build segments from Chicago to Porter. Profiles will be prepared for new flyover structures and roadway grade separations. The plans shall be prepared on existing orthophotography from either CREATE or MPO sources. Plans will depict existing and new main line tracks, sidings and spurs, curve data, turnouts, crossovers, grade crossings, stations, yards, major culverts, bridge structures, retaining walls, signals, geographic and political boundaries, approximate right of way limits and property impacts, and wetlands and wetland impacts.

Plans will also be prepared on sections of the Phase 1 network where it is expected that additional tracks, stations and/or parking, layover facilities/yards and shops, and grade separations will be constructed. Orthophotography and digital terrain model data will be obtained as necessary to prepare conceptual designs and evaluate property and wetlands impacts. Moderate length passing sidings in single track territory will be planned at 20 mile intervals to provide operational flexibility. Passings sidings will be coordinated with the computer modeling and schedules. (A preliminary engineering design exists on the segment from Watertown to Madison. Other segments requiring new infrastructure construction will require plan preparation.)

3.4 Vehicle Layover and Storage/Maintenance Facility Requirements. The CONSULTANT will define the functional facility requirements and size of vehicle layover and storage and maintenance facilities. Candidate layover sites will be identified and candidate Vehicle Storage and Maintenance Facility (VSMF) sites will be identified. One or two conceptual, 40 scale plans will be developed for application to multiple sites. In addition, site suitability will be evaluated in terms of community acceptance, relationship to local plans and zoning, and multi-modal potential. The results of this subtask will serve as input to capital cost estimates and determination of potential Right-of-Way (ROW) needs.

3.5 Structural Concepts. The CONSULTANT will develop standard concept plans and elevations for railroad and roadway structures including bridges, passenger tunnels and retaining walls. The standards shall be applied to establish capital costs and identify impacts to adjacent properties.

3.6 Capacity Analysis. The CONSULTANT will undertake operations simulation and line capacity analysis of the Chicago to Porter/Tolleston segment to include the full build-out of the MWRRS; Alton to St. Louis, Town Line Rd to New Center (Michigan), a limited analysis of the Chicago to Joliet segment for full build-out; and a technical analysis of the full build-out impact on the Chicago Union Station. (*Note: Capacity analysis is currently underway between Chicago and Milwaukee*) Operations on all mainline tracks, passing sidings, and interlockings will be considered. Operations off the mainline, in yards, sidings, or junctions with other rail lines will be modeled to the extent necessary to allow modeling of trains leaving or entering the mainline tracks.

Route segments with light passenger and freight traffic will not be modeled. In such cases, travel times will be estimated based on speed profiles and distances.

In addition to track and alignment characteristics, the model will incorporate a signal system suitable for the planned speeds. The signal system is a key factor in determining the capacity and flow of traffic through the system.

The network model will be constructed based on the existing configuration depicted in the track schematics. The train consists and performance, and signal system data will be added. Once the database is complete, the model will be verified against the raw data, to eliminate coding errors, and then be validated against existing operating schedules, train departure/arrival data, and on-time performance data.

Following validation, the CONSULTANT will use the validated model to analyze the existing system with expected future traffic to identify areas that will cause train delays and capacity constraints. The CONSULTANT will report the results of these evaluations in the form of operational statistics (run times, delay times, and speed performance) in table and graphical format as well as written text to assist in the interpretation of the data.

Specific Tasks:

- **Data Collection** – The CONSULTANT will compile a list of specific data requirements needed to build the simulation database to verify that all necessary data has been obtained. Typical items required include locomotive performance characteristics, train consists, train schedules; track geometry, point of switch locations, interlocking configuration and preferred routing; wayside/home signal locations; signal aspects; safe braking criteria for passenger and freight operations and existing operational statistics (for calibration purposes).
- **Data Entry and Verification** – Using the data collected the CONSULTANT will construct a simulation database using the Rail Traffic Controller (RTC) software package. This database will be verified vs. the source documentation to ensure accurate entry.
- **Simulation Validation** – The CONSULTANT will use the RTC model to simulate the existing operation on the system as described above, including a Monte Carlo analysis. The results of this simulation will be compared to the existing operational statistics received in task 1 to calculate a correction factor with which to normalize the results of future alternative analysis.
- **Analysis of Alternatives** – The CONSULTANT will use the validated model to analyze the existing system with existing and expected future traffic to identify areas that will cause capacity constraints and train delays. Once capacity constraints have been identified, the database will be modified to include conceptual track and/or signal improvements. The simulation shall be re-run to test the effectiveness of the improvements in mitigating train delays.
 - Passenger train schedules will be developed generally based on the previous work in the MWRRRI study with suitable schedule pad.
 - Simulations will be performed employing current levels or near term of commuter rail and freight traffic with the proposed high speed passenger service levels.
 - Simulations will be performed employing 20 year growth projections of all potential services in the corridors where such services are identified in the local or regional transportation plans.

3.7 Conceptual Systems Elements. Standard conceptual designs for systems elements, including signals, grade crossing warning devices, communications, and vehicles shall be established.

The standards shall be applied to establish capital costs and identify requirements for

supporting infrastructure. Signal block layouts will be established where necessary to support planned high speed passenger service.

3.8 Capital Cost Estimating/Alternatives Studies. The CONSULTANT will update previous capital cost estimates based on track schematics, plans and quantities for each of the build alternatives in the entire Phase I system.

3.9 Grade Crossing Analysis – Transportation Impacts. Grade crossing analysis was completed in the Milwaukee-Madison EA/FONSI and the Chicago-St. Louis EIS. No additional crossing analysis is anticipated in these corridors.

The CONSULTANT will update previously collected data on grade crossings in the Chicago-Detroit passenger rail corridor. The CONSULTANT will conduct a field reconnaissance of all public and private (330 est.) grade crossings. Each roadway crossing will be evaluated to assess potential safety and traffic operation impacts from train activity. Crossing activities will be categorized by type of proposed protection (a maximum of 3 categories), based upon exposure and other operational characteristics. Daily traffic volume thresholds will be set for each category. A detailed sketch will be prepared for each type of crossing.

Average daily traffic volumes will be obtained from the appropriate state DOTs for each public crossing. No volumes will be obtained for private crossings unless they serve commercial/industrial areas, in which case machine counts will be taken at up to 50 locations if approved by property owners. The CONSULTANT will develop 2035-yr. traffic projections for each public crossing and private road for which current counts are known. The projections will be based on historical patterns since 1990 and potential for development. An exhibit will be prepared to illustrate both current and future traffic volumes on public cross roads and private roadways where current volumes were established. The CONSULTANT will prepare approximate queue lengths and delay estimates that will be calculated for those crossings proposed to remain open, with protection, and will be based on standard highway capacity analysis procedures. Train scheduled crossing times and other operational details will be obtained from other CONSULTANT tasks.

Crossing locations with potential roadway closures will be identified by category. For each crossroad closure, access to adjacent properties will be confirmed, and access sketch plans will be prepared.

Crossing locations with potential adverse safety and/or operational problems will be identified by category. Mitigation sketch plans will be prepared for each crossroad identified as requiring improvements. The CONSULTANT will also prepare an improvement cost estimate for those crossings not previously evaluated in the Chicago-Detroit and Chicago-Milwaukee corridors.

3.10 Railroad Coordination. The CONSULTANT will, upon authorization from the MWRI Steering Committee, initiate coordination activities with railroad owners and operators in the Phase I corridors. Coordination is anticipated to include obtaining data, sharing preliminary and final results of engineering and modeling activities, meetings and revisions of deliverables to reflect appropriate revisions to address owner/operator comments. All meetings and railroad input will be documented.

3.11 Railroad Corridor Transportation Plans. The CONSULTANT will prepare Railroad Corridor Transportation plans for each of the three corridors. The plans will generally comply with the FRA guidelines: "Railroad Corridor Transportation Plans: A Guidance Manual," dated July 8, 2005. Specific exceptions or limitations are as follows:

- II. The route selection and analysis will be reported in the EIS as described in 2.1.
- III.A Track plans shall be developed for specific sites as described in 3.3. Profiles shall be prepared only at flyover structures as described in 3.3. (Note that the preparation of plans for the entire project would typically be performed in preliminary engineering phase of the work). Track schematics will be prepared for the entire corridor as described in 3.2. Track schematics will depict details as commonly provided on railroad track charts and timetables. (Greater detailed analysis requiring data sources such as valuation maps and signal plans is deferred to preliminary engineering.)
- III.B/C Signal and communication system plans will not be included as this data is not commonly available from the railroads at the early planning stages.
- V/VI Railroad operations analysis employing computer simulation tools shall be limited to regions where freight train interference is likely. Specific segments addressed in this study will include those areas identified in 3.6. Local commuter service shall be modeled only where such service exists or is funded under an FTA FFGA through preliminary engineering.
- VIII Environmental and historical impacts will be analyzed and reported in the EIS document.
- XI The report will be limited (not including those elements described above). In addition, the report will not include data that would normally be developed under a preliminary engineering program such as D. Curve Analysis, and G. Construction Sequence and H. Detailed Description of Signal System Changes.

Deliverables:

- Schematics and Conceptual engineering plans
- Vehicle layover and storage/maintenance facility technical report
- Structure Concepts technical report
- Systems elements technical report
- Rail crossing analysis
- Capital Cost Estimate
- Capacity Analysis report
- Materials and minutes from railroad coordination meetings
- Railroad Corridor Transportation Plan



4. INITIAL GIS AND GEOSPATIAL DATA COLLECTION AND MAPPING

Existing conditions (Chicago to Porter and Chicago to Dwight) will primarily be determined using existing GIS and geospatial data sets of information available from MWRI states and federal agencies. Depending on data availability, and where fiscally appropriate, GIS-based information will be used to help describe existing conditions and evaluate impacts through spatial analysis and modeling. The CONSULTANT will collect the following *existing* inventories of GIS-based environmental information from the affected State, Federal and local agencies:

- Ground and Surface Water Resources/Floodplain
- Wetlands
- Threatened and Endangered Species
- Parks and Recreation/Wildlife Refuge
- Special Protected Areas
- Historic and Cultural Resources (archeological sites will not be publicly disclosed)
- Environmental Justice / Demographic Census Information
- Farmland
- Land Use Compatibility
- Soils/Slopes Constraints
- Hazardous Material/Waste
- Socioeconomics
- Public Safety
- Coastal Resources

The CONSULTANT will standardize the collection, management and use of this GIS data by complying with the GIS Data Model rules developed as part of the MWRI Pilot GIS Data Model. Map production and spatial analysis will be prepared at an appropriate scale to conduct a representative impact analysis of alternatives.

5. IMPACT ASSESSMENT

The CONSULTANT will prepare an Environmental Impact Statement (EIS) on alternatives selected for further evaluation in Task 2, Preliminary Alternatives Analysis. The CONSULTANT will prepare the EIS in accordance with the WisDOT *Facilities Development Manual*, and will further coordinate with IDOT, INDOT and MDOT to confirm consistency with IDOT's *Bureau of Design and Environment Manual*, INDOT's *Procedural Manual for Preparing Environmental Studies* and MDOT's *Road Design Manual*. It is assumed that the Federal Rail Administration (FRA) will provide the federal agency leadership on this project. The Impact Assessment will assume little to no change in impacts for actions on which previous NEPA documents are completed and that the focus of assessment will be on the specific impact areas in the Chicago-Detroit and Chicago-Dwight routes.

5.1 Notice of Intent. The CONSULTANT will prepare a Notice of Intent to prepare an EIS. A copy of the Notice will electronically be sent to WisDOT, IDOT, INDOT and MDOT for review and comment. WisDOT will forward the revised NOI to the FRA for acceptance prior to FRA forwarding it for publication in the Federal Register. The Notice of Intent will include a brief description of the project limits, history, initial Purpose and Need, alternatives and alternative selection process. It will also include the names, addresses, and phone numbers of project representatives that will function as a point of contact.

Deliverable: Notice of Intent

5.2 Agency Coordination. The CONSULTANT will conduct early and ongoing agency coordination to identify concerns and resources for consideration during alternatives development. General agency coordination will consist of sending the initial project information package to key state and federal agencies to inform them about the project. In accordance with IDOT procedures, IDOT will take the lead to coordinate agency reviews within Illinois.

The CONSULTANT will work closely with the FRA during all coordination activities. In consultation with individual states, the CONSULTANT will host an agency scoping meeting in each state; Wisconsin, Illinois, Indiana and Michigan to gather data and comments on the project purpose and need, alternatives considered and potential impacts to be addressed in the EIS. Prior to the agency scoping meeting, the CONSULTANT will prepare a scoping packet to distribute to invited agencies. The packet will contain information on the project purpose and need, the range of alternatives to be considered in the EIS and anticipated impacts to be evaluated. Information and data collected from the scoping meeting will be incorporated into the data collection phase of the Environmental Impact Statement.

The CONSULTANT will prepare for and host follow up coordination meetings at key milestones during the project; after the initial impact assessment on alternatives selected for full evaluation in the EIS (prior to the public hearing on the DEIS), and upon selection of a preferred alternative.

The CONSULTANT will work with individual state agencies on specific issue areas such as natural resources, threatened and endangered species and historic resources. It is assumed that the Consultant will prepare for and attend up to a total of 24 individual state and federal agency meetings.

The CONSULTANT will provide an opportunity for up to four agency field reviews at selected locations the project corridor, if desired.

Deliverables:

- Scoping packet (Scoping Report to be prepared under Task 6.4)
- Meeting materials and minutes

5.3 Data Collection and Analysis. The CONSULTANT will collect information to identify early environmental concerns of the alternatives, as well as guide the development of a preferred alternative. The CONSULTANT will re-evaluate, supplement and incorporate findings from previous NEPA documents prepared for actions on the project alternative corridors.

The CONSULTANT will use existing literature, mapping and aerial photos collected under Task 4 to identify locations of potentially important upland habitats, wetlands and floodplains along the project corridor. This information will be plotted on a project base map (environmental constraints map). Available electronic data from FEMA will be used to map the 100-year flood boundary on the project base map. Literature and mapping reviews will be supplemented with field investigations to identify selected sensitive resources (no aquatic species surveys or water quality data will be collected) directly affected by the proposed action.

The CONSULTANT will prepare an environmental constraints map early in the project development process for use in agency coordination, public involvement, and local government coordination. Its purpose is to depict known resources located within the corridor that may influence the development and refinement of alternatives. This information will be displayed on project aerial maps

5.3.1 Land Use. The CONSULTANT will document the existing land uses as a part of this task. Such land uses may include; residential, commercial, agricultural, industrial, institutional and park lands. This information will be collected from state, regional and metropolitan planning organizations in the Phase I corridors and select local staff to obtain information on development and land use trends. The CONSULTANT will collect relevant state and regional reports, plans and documents. Additional information will be obtained from select local governments, such as the county agencies, Chambers of Commerce and interest groups, in areas of specific impact sensitivity. Types of data obtained may include information such as population, housing, industry data, economic data such as employment rates and labor pool availability, community services, agricultural preservation plans, and water quality management plans.

The CONSULTANT will identify and locate any other corridor resources/features considered of importance to development and refinement of the alternatives. Such resources may include potentially sensitive receptors (i.e. residential units, schools, churches, and in-patient medical facilities located within close proximity to either the existing and/or proposed roadway) aesthetic features, and prime farmland.

The CONSULTANT will analyze impacts to land use characteristics along the project corridors. The analysis will consider past, present and future trends and patterns along the project corridors, and land use compatibility and incompatibility. The CONSULTANT will coordinate with the regional and, where appropriate, local officials and agencies to evaluate potential land use impacts associated with the new alignment. Potential secondary and cumulative impacts of increased service in the project corridors will be considered in a qualitative manner and draw upon previous MWRI analyses.

5.3.2 Socioeconomics. The CONSULTANT will update and collect population and other economic data as documented by available sources (e.g. U.S. Bureau of the Census), for past trends and implications for future growth along the project corridors. The CONSULTANT will characterize economic conditions along the project corridors. Regional and local officials will be contacted for relevant information.

A description of the communities affected by the proposed action, including a demographic analysis will be conducted. Using U.S. Census data, state demographic data and information from metropolitan planning organizations, the CONSULTANT will document population and demographic trends along the project corridors. The CONSULTANT will coordinate with state and regional planning staff and select communities to obtain data on environmental justice populations along the alternative alignment corridors. The evaluation will comply with Executive Order on Environmental Justice 12898 – “Federal Actions to Address Environmental Justice in Minority and Low-Income Populations.”

Following completion of the conceptual design work for the stations and track alignment, the CONSULTANT will evaluate any potential property impacts, including takings arising from

right-of-way intrusion, station development, and grade separated crossings. The EIS will summarize the relocations in terms of number of business or residence, and discuss availability or replacement business or housing locations, and why this would or would not be a significant impact. In addition, a summary that adequately explains the relocation situation will be completed.

5.3.3 Farmlands. The CONSULTANT will re-evaluate farmland impact analyses conducted in previous NEPA documents. For new impact analyses in corridors not previously evaluated, the CONSULTANT will coordinate with the NRCS to define statewide prime, unique or locally important farmland within the limits of the project area. Once preliminary right-of-way limits have been determined for the alternatives, the Farmland Conversion Impact Rating form (AD-1006) will be completed for each alternative. The forms will then be forwarded to the NRCS in each state by the CONSULTANT. After the NRCS has completed their sections, the points will be totaled, and the relative impacts of each build alternative will be assessed.

The CONSULTANT will identify farm operations affected by right-of-way or access changes. The CONSULTANT will coordinate with the agricultural state agency in each state to confirm that no substantial impacts are anticipated requiring state level impact analysis (i.e. Wisconsin Ag Impact Statement, Michigan PA 116 or Illinois DOA coordination). The impact analysis will describe the agricultural area affected by the proposed action including: an estimate of the area to be acquired, a description of the direct effects on farm operations caused by the action and a description of measures to minimize adverse effects or to enhance benefits.

5.3.4 Historic Resources. The CONSULTANT will confirm previous Section 106 coordination completed for previous NEPA documents completed in the Phase I corridors. The CONSULTANT will undertake Section 106 coordination for remaining undocumented corridors (the Chicago-Milwaukee and Chicago-Detroit corridors and any new work in the Chicago-St. Louis corridor) to evaluate impacts to historic resources. The CONSULTANT will develop and propose to FRA the following:

- An approved “Area of Potential Effect (APE)” and suggested properties that are believed to be eligible, or on, the National Register of Historic Places within the APE;
- Up to three Consulting Party (CP) meetings in each state;
- A Draft and Final Historical Properties Report;
- A Draft and Final Effects Report.

The CONSULTANT will define the project’s APE, in consultation with individual SHPOs in Wisconsin, Illinois, Indiana and Michigan. For the purposes of this Scope of Services, it is assumed that the APE will be the existing railroad right of way, except in areas where additional right of way is required or where specific areas of proximity impacts may occur. In areas where additional right of way is required or proximity impacts occur, the APE is assumed to be the area immediately adjacent to the rail alignment. It is assumed that existing station areas will be used with no changes to existing station conditions.

The CONSULTANT will prepare, organize, and conduct the first CP meeting in each state to determine potentially significant properties within the APE. If “No Effect” is determined through



coordination with the state SHPOs and the CPs, the CONSULTANT will prepare the support documentation for a recommended “no historic properties affected”.

If the FRA in consultation with the SHPO determines that a structure, structures, or a district are listed on, or eligible for the National Register of Historic Places, research will be conducted and documented sufficiently in a Historical Properties Report for Section 106 coordination and (if applicable) Section 4(f) documentation to determine the impacts to the historic property. The CONSULTANT assumes that no more than 10 eligible resources will be documented. The CONSULTANT will prepare, organize, and conduct a second CP meeting in four states to discuss the National Register criteria and elements of integrity, and to provide an explanation of eligible properties. If additional eligible resources are identified, documentation will be considered Extra Services.

Once the identification and evaluation efforts of properties are complete, the CONSULTANT will determine whether there are historic properties affected. If there are historic properties affected, the CONSULTANT will develop a preliminary effect finding for up to 10 properties. The effects of the proposed action on historic properties will be described in the draft Findings of Effects Report. The CONSULTANT will prepare a draft report of findings which will include a description of the project background, the field techniques employed and a set of recommendations for the management of resources located. The report will also include a preliminary assessment of the potential eligibility of the recorded properties for listing in the NHRP, an assessment of the impact of the planned construction on the recorded above-ground resources, and recommendations for further study.

The CONSULTANT will prepare, organize, and conduct a third CP meeting in four states to discuss the Draft Findings of Effect and the CP and SHPO will have 30 days to comment on the Findings of Effects Report. Appropriate mitigation measures will be determined at the third CP meeting. The CONSULTANT will prepare a Final Effects Report based on comments on the Draft report. If a property is adversely affected, the CONSULTANT will prepare an Memorandum of Understanding/Agreement for up to one property per state for state DOT/SHPO/FRA/ACHP signature. Preparing MOU/MOAs for additional properties will be considered Extra Services.

The sufficiency for Section 106/4(f) will be determined by an environmental review subcommittee created in the Phase I MOU.

The CONSULTANT will include findings on historical resources and effects in all public meetings for the project. Detailed vibration analysis on historic properties is not included in this Scope of Services.

5.3.5 Archeological Resources. The CONSULTANT will initiate and participate in Section 106 consultation as described in Section 5.3.4. The CONSULTANT will re-evaluate previously studied Phase I corridors to confirm that previous Section 106 consultation findings are still valid (this includes the Chicago-St. Louis EIS, the Milwaukee-Madison EA/FONSI and previous MDOT NEPA documents for actions in the Chicago-Detroit corridor). The CONSULTANT will conduct a Phase 1a Archeological Literature Review for alternative corridors selected for further evaluation in Task 2, Preliminary Alternatives Analysis. The background research/records check will consist of a review of the available archaeological and historical information pertinent to the project corridors. The review will include:

- An inspection of the Wisconsin, Illinois, Indiana and Michigan SHPO site files for archaeological sites and Traditional Cultural Properties recorded within 0.5 miles of new railroad alignment (assuming a total of 10 miles of new alignment in the Phase I corridors) outside existing railroad right of way;
- A review of previous cultural resources studies that have been conducted within and near to the project corridors in order to compile background information relevant to identified cultural properties as well as to identify areas of high probability for archaeological sites (both historic and prehistoric) and other cultural resources. And
- A preliminary analysis of the area's environmental characteristics that may aid in understanding the location patterning of prehistoric and historic era sites.

Tribal consultation will be lead by WisDOT, IDOT, INDOT and MDOT in their respective states. The CONSULTANT will provide support materials and attend meetings with agency staff. Subsequent Phase 1 and Phase 2 archaeological field testing will not be conducted under this scope of services. The CONSULTANT will coordinate with WisDOT, IDOT, INDOT and MDOT to determine the scope of future Phase 1 and Phase 2 field testing that would be required for the Preferred Alternative evaluated in the Final EIS.

5.3.6 Section 4(f)/6(f) Lands. The CONSULTANT will re-evaluate Section 4(f)/6(f) findings of previous NEPA documents in the Phase I corridors. For remaining corridors, the CONSULTANT will document the location of public use section 4(f) and 6(f) lands within the project vicinity. Section 4(f) lands may include; public parks, recreation areas, waterfowl or wildlife refuge of national, state, or local significance, bike and walking paths and school recreation areas open to the public. Section 6(f) lands are those lands acquired or developed with Land and Water Conservation Funds. Documenting this data will require coordination with the state agencies administering Section 6(f) funds. This land use information will be plotted on the environmental constraints map.

The Section 4(f) evaluation will include a description of: public parks and recreation areas, wildlife and waterfowl refuges, historic properties, archeological sites, and special coastal areas likely to be impacted by the project. A description of the uniqueness of the property and the proposed action's use of the properties will be presented. An alternatives analysis will be conducted, including the "do nothing" alternative and prudent and feasible alternatives. The CONSULTANT will coordinate with agencies with jurisdiction over impacted Section 4(f) properties to determine measures that could minimize and mitigate adverse impacts and enhance beneficial effects. The CONSULTANT will coordinate with Lead Agency and FRA staff to determine the applicability of Section 4(f). It is assumed that a Section 4(f) Statement will be prepared for potential uses in the Indiana Dunes State Park and the Indiana Dunes National Lakeshore.

5.3.7 Water Resources/Floodplains. The CONSULTANT will re-evaluate impacts evaluated in previous NEPA documents and address impacts of remaining corridors to be evaluated in this Phase I EIS. Due to the length of the study corridors and assuming that most anticipated actions will be confined to existing rail rights-of-way, the environmental document will address impacts to water resources identified through secondary sources including USGS maps, aerial photographs and existing federal and state databases to generally characterize the water resources in the study corridors. The CONSULTANT will coordinate with individual state agencies to characterize the existing conditions of substantially affected streams. For potential new alignment, it is assumed that the study

corridors will be 100 feet wide. Corridor width of new alignment in Michigan will be determined in consultation with MDOT. The CONSULTANT will review USGS topographical mapping, aerial photography, Federal Emergency Management Agency (FEMA) floodplain and floodway mapping and site verify selected waterways where substantial stream impacts are anticipated. The CONSULTANT will coordinate with the United States Environmental Protection Agency (EPA) to determine if the proposed project is within a designated sole source aquifer area (SSA).

Perennial and intermittent streams will be identified using USGS maps, aerial photographs, and field reviews of the study corridor alignments. The number of stream crossings will be determined for each alternative carried forward into the DEIS. This analysis will identify the proposed conceptual design developed during the project such as whether the aquatic resource will be bridged, culverted, filled, and/or relocated. The CONSULTANT will briefly describe impacts to the physical, chemical, and biological characteristics of the aquatic ecosystem. Mitigation measures, such as erosion and sediment control, to avoid and minimize impacts will be discussed. No Hydrology and Hydraulic modeling is included in this Scope of Services. It is assumed that the study corridor alignments are not within a designated sole source aquifer. If the preferred alignment is within an area of a Sole Source Aquifer (SSA), further consultation with the EPA will be needed to determine if a detailed groundwater impact assessment is needed.

5.3.8 Wetlands. The CONSULTANT will re-evaluate impacts evaluated in previous NEPA documents and address impacts of remaining corridors to be evaluated in this Phase I EIS. The CONSULTANT will identify impacted wetland resources; evaluate the functions and values of identified wetlands and determine wetland impacts.

The CONSULTANT will gather preliminary information on wetlands via National Wetland Inventory maps, U.S.G.S. hydrological and topographical maps, U.S.D.A. Soils Surveys, NRCS wetland maps and aerial photography for the project area. Field determinations of the wetlands identified by the secondary sources will be conducted utilizing methodology outlined in the 1987 *U.S. Army Corps of Engineers Wetland Delineation Manual*.

Due to the undetermined schedule for construction and permitting, no formal wetland delineations will be performed. Wetland boundaries will not be surveyed or flagged in the field. Upon field verification of the wetlands identified through the secondary resources, boundaries of impacted resources will be established based upon aerial mapping. Field information and descriptions will be noted only on impacted wetland resources. The watershed, location, approximate size, classification, soils, vegetation, and hydrological regime of wetlands will be summarized. Wetland boundaries will be plotted on aerial photography and placed in the CONSULTANT's Geographical Information System (GIS) database.

The methodology for determining wetland functions will be determined in consultation with each state, but it is assumed that only one methodology will be employed for the Phase I corridors. Consensus for functional assessment methodology will be determined through the Phase I MOU between FRA, MDOT, INDOT, WisDOT and IDOT.

Direct and indirect impacts to wetlands will be evaluated by the CONSULTANT for each of the alternatives carried forward into the DEIS. Coordination will be conducted with the U.S. Army

Corps of Engineers, U.S. Fish and Wildlife Service, and individual state agencies to reach consensus on feasible measures to permit and, if necessary, mitigate wetland losses. This information will be documented in the DEIS. A formal wetland delineation, jurisdictional determination, wetland technical report or compensatory mitigation plan for the preferred alternative is not included in this scope of services.

5.3.9 Threatened and Endangered Species. The CONSULTANT will re-evaluate impacts evaluated in previous NEPA documents and address impacts of remaining corridors to be evaluated in this Phase I EIS. The CONSULTANT will review National Heritage Inventories and coordinate with the U.S. Fish and Wildlife Service (USFWS) and appropriate agencies in Illinois, Indiana, Wisconsin and Michigan to identify Threatened and Endangered species and other sensitive species issues along the project corridor. Two federally listed endangered species are known to occur along the project corridors: the Hines emerald dragonfly and the Karner Blue butterfly. It is anticipated that the CONSULTANT will conduct formal Section 7 Consultation for both species and will assume to prepare a Biological Assessment for the Karner Blue butterfly and update the existing Biological Assessment for the Hines emerald dragonfly. The CONSULTANT will coordinate with IDOT and collect additional surveys for the emerald dragonfly conducted in the Chicago-St. Louis corridor. A summary of consultation will be provided in the EIS.

5.3.10 Upland Habitats. The CONSULTANT will re-evaluate impacts evaluated in previous NEPA documents and address impacts of remaining corridors to be evaluated in this Phase I EIS. The CONSULTANT will collect existing information and describe major plant communities along the project corridors. At impacted uplands, the CONSULTANT will field verify habitats and provide a description of the upland habitat area including: prominent plant communities, expected wildlife associations with these communities, known endangered or threatened species in these habitats, known wildlife or waterfowl use areas or movement corridors, probable direct impact and significance on wildlife, and probable secondary impacts. Measures will be proposed to minimize the effects or enhance the beneficial effects of the project. It is assumed that no unique habitat will be affected. If habitat or resources are identified during agency coordination, additional surveys and consultation would be extra work outside of this scope of services.

5.3.11 Air Quality. The CONSULTANT will evaluate the potential air quality impacts of the project on the study area. The air quality analysis will determine if the proposed project will interfere with the attainment or maintenance of the National Ambient Air Quality Standards (NAAQS).

The CONSULTANT will identify the attainment status of criteria pollutants for all air quality control regions in the study area.

The CONSULTANT will review regional impacts based upon coordination with the Metropolitan and Regional Planning Organizations having interests in the study corridor. The regional analysis will calculate the projected change in ozone precursor emissions (nitrogen oxides and volatile organic compounds) due to the proposed alternative. Rail emission rates for the pollutant burden analysis will be developed using data published by the Environmental Protection Agency (EPA). Motor vehicle emission rates will be developed with EPA's MOBILE6.2. A total pollutant burden protocol will be submitted to IDOT, INDOT, WisDOT, MDOT, FTA and the Planning Organizations prior to development of the pollutant burden levels.

It is anticipated that local carbon monoxide analysis will not be required.

5.3.12 Noise and Vibration. The CONSULTANT will conduct a noise and vibration analysis to assess impacts and reasonable mitigation measures for the proposed project. This task will also include determination the existing Ldn noise levels along the project alternative corridors. The existing rail corridor and proposed alternative corridors will be evaluated to identify noise and vibration sensitive receptors. These receptor locations will be identified based upon review of USGS maps and aerial photographs, proposed plans and site visits.

Existing noise and vibration levels within the study corridor will be developed using the CREATE Freight Noise and Vibration Model for freight operations in the study areas combined with FTA's Transit Noise and Vibration Impact Assessment, FTA-VA-90-1003-06, May 2006 for passenger rail operations and FRA's publication High-Speed Ground Transportation Noise and Vibration Impact Assessment, October 2005, in areas of higher speed passenger rail operations.

The noise and vibration impact evaluation of future operations will be performed according to the FRA guidelines and procedures presented in FRA's publication High-Speed Ground Transportation Noise and Vibration Impact Assessment, October 2005. Horn noise analysis will be performed according to the FRA Horn Noise Analysis procedures and software.

The noise and vibration analysis will develop noise levels at representative sensitive receptor locations, develop vibration impact curves based upon train speed profiles and published vibration data. If noise or vibration impacts are identified, potential mitigation measures will be identified and feasibility will be addressed.

The CONSULTANT will provide a description of the types of construction equipment used and construction noise abatement measures to be employed.

5.3.13 Hazardous Materials. The CONSULTANT will re-evaluate the data collected during the Chicago-St. Louis DEIS/FEIS and Milwaukee-Madison NEPA documents and prepare an addendum to these documents.

The CONSULTANT will also conduct a Preliminary Environmental Site Assessment (PESA) the Chicago to Detroit segment (approximately 300 miles) to identify potentially contaminated sites that may impact/affect the project. The PESA survey will consist of a corridor search of standard federal and state environmental records sources within 1/8 mile of the rail road right-of-way, which includes: the National Priorities List (NPL); Comprehensive Environmental Response, Compensation, and Liability Information System (CERCLIS); Resource Conservation Recovery Act (RCRA); Emergency Response Notification System (ERNS); State-lead investigations and cleanups; Solid Waste Facilities (SWF); Leaking Underground Storage Tank (LUST) and Underground Storage Tank (UST); and spill incidents.

The sites identified on the database will be ranked as "low", "medium", or "high" based on their potential to impact the project. The site's ranking will be based on two criteria: 1) proximity to the project corridor; and 2) the magnitude and status of the environment conditions. Any database site given a "high" ranking for one or both categories will be



considered as a potential environmental impact to the corridor. The results of the environmental database records search review will be presented in a tabular format.

Based on the project's selected alternatives following the initial evaluation, the CONSULTANT will complete Phase I ESAs on properties identified in the PESA that would be acquired to construct new stations or siding locations, expand existing stations, or construct new track. The Phase I ESAs will be conducted to further identify any hazardous materials or releases to the corridor and/or potential site contamination that would affect the development of the project. For the purposes of this scope of services and cost estimate, it was assumed that 10 locations would require Phase I ESAs. The Phase I ESA scope of work includes:

- A site reconnaissance of the properties and surrounding area proposed for acquisition.
- Telephone interviews with present and/or former property owners, neighbors, and other private parties who may have knowledge of past or present property usage.
- A search of standard federal and state environmental records sources within the ASTM distance standards from the property locations proposed to be acquired.
- A review of City Tax and Building records to determine past and present property ownership and usage.
- A review of historical aerial photographs, historical topographic maps, and Sanborn Fire Insurance Maps to obtain information regarding historical property usage.
- A review City Directory Abstract information from local governmental agencies and library.
- A review of available physiographic information including topographic, pedologic, geologic and hydrogeologic information.
- A review of utility relocation corridors, if any, to determine where and at what depth they will be installed.

The findings and recommendations resulting from the PESA and Phase I ESA will be summarized in the Environmental Impact Statement.

Phase II Site Investigations are not included in this Scope of Services due to the unknown number of required evaluations.

5.3.14 Freight Capacity and Transportation Impacts. For the EIS, the CONSULTANT will summarize freight capacity analyses conducted under Task 2. The CONSULTANT will review long range plans of the DOTs and metropolitan planning organizations along the project alternative corridors to identify major planned transportation improvements for various modes, including transit, highway and rail investments. Available airport improvement plans will also be reviewed to identify major planned investments. The CONSULTANT will qualitatively evaluate the effect of implementing high speed passenger rail service on existing and planned transportation services and investments along the project corridors.

Grade crossing closures may be proposed in limited locations along the project alternative corridors. The CONSULTANT will identify proposed crossing closings and qualitatively evaluate the impacts to traffic flows. It is assumed that closures are proposed only at low-volume roads where alternative access exists, and that there will be an insignificant impact to local traffic patterns.

5.3.15 Public Safety. The CONSULTANT will identify safety considerations for freight providers, passenger and surrounding communities. The EIS will summarize proposed safety measures to avoid and reduce safety risks.

5.3.16 Indirect and Cumulative Impacts. The CONSULTANT will review the resource areas listed above and determine which areas will be analyzed for cumulative impacts. Documentation for these areas will include a discussion of impacts from direct, indirect, and other actions. The resources evaluated will be determined in conjunction with the environmental review subcommittee created under the Phase I MOU.

5.4 Environmental Document Production and Distribution

5.4.1 Draft Environmental Impact Statement. The CONSULTANT will prepare a Draft Environmental Impact Statement (DEIS). The data generated from the engineering, public involvement and environmental tasks will provide all of the information necessary to complete the EIS.

The CONSULTANT will incorporate the purpose and need for Phase I of the MWRI prepared previously. The administrative DEIS will be distributed to the Lead Agency and the Federal Railroad Administration for distribution to individual state DOTs for review and comment.

The Lead Agency will collect state DOT comments to submit to the CONSULTANT. The CONSULTANT will host one meeting with the Lead Agency and State DOTs to resolve comments. The administrative draft DEIS will be revised based upon comments received. It is anticipated that some of these comments may address content, however, it is not anticipated that any new analysis will be required.

The DEIS will be submitted to the Lead Agency and FRA for verification that all comments have been addressed, and for approval to print the document for distribution.

The CONSULTANT will coordinate printing of the DEIS. It is anticipated that approximately 50 paper copies and 50 CDs of the DEIS will be produced for distribution. A pdf file of the DEIS will be provided to IDOT, INDOT, WisDOT and MDOT and FRA for posting on their websites.

The CONSULTANT will prepare the DEIS distribution list and prepare the notice of availability of the EIS, and an opportunity for a public hearing. The CONSULTANT will provide the Notice of Availability to individual state DOTs for publication in local newspapers. The CONSULTANT will circulate the Notice of Availability to local municipalities along the project corridors. The CONSULTANT will provide the Notice of Availability to FRA for publication in the Federal Register.

5.4.2 Final Environmental Impact Statement. After the DEIS public hearing and review period, the CONSULTANT will review and organize comments and prepare responses to substantive public hearing/written and agency comments. The public hearing transcripts will be reviewed, as well as written comments received as a result of the Public Hearing, and agency comments received as a result of the DEIS review process.



A summary of substantive comments received (written and public hearing) along with a response to each will be included in the Final EIS (FEIS). The DEIS will be revised to reflect the Preferred Alternative and reasons for its preference. The FEIS will document mitigation commitments and compliance with applicable environmental laws and Executive Orders. Additional data needs will be identified and provided, if appropriate.

The CONSULTANT will prepare an administrative draft of the Final Environmental Impact Statement (FEIS). The FEIS will document the selected alternative and the reasons for its selection, as well as address substantive comments. The FEIS will document compliance/completion with requirements of applicable laws, executive orders and related requirements such as Section 106, Section 7, Section 4(f).

The CONSULTANT will distribute the FEIS to the Lead Agency to distribute to individual state DOT's. The Lead Agency will collect state DOT comments to submit to the CONSULTANT. The CONSULTANT will host one meeting with the Lead Agency and State DOTs to resolve comments. Based on Lead Agency and FRA review comments, the CONSULTANT will revise the FEIS. Copies of the revised document and a title sheet for signature will be produced. Once approved, fifty (50) paper copies and fifty (50) CDs of the approved version of the FEIS will be produced for distribution.

The CONSULTANT will prepare the Notice of Availability and distribute the FEIS. The CONSULTANT will provide the Notice of Availability to individual state DOTs for publication in local newspapers. The CONSULTANT will circulate the Notice of Availability to local municipalities along the project corridors. The CONSULTANT will provide the Notice of Availability to FRA for publication in the Federal Register.

5.4.3 Record of Decision. The CONSULTANT will be responsible for preparing the draft Record of Decision (ROD). The Consultant will review and organize comments on the FEIS and prepare responses to substantive comments. Comments and responses will be summarized in the ROD. A draft ROD will be prepared and submitted to the Lead Agency (who will submit to individual state DOTs) and FRA for review and comment. The ROD will be revised to reflect comments, and the revised document will be resubmitted for approval. Once approved, Fifty (50) paper copies and fifty (50) CDs of the approved version of the ROD will be submitted to IDOT, INDOT, WisDOT, MDOT and FRA for distribution.

Deliverables:

- Environmental Constraints Map
- Biological Assessment for Karner Blue butterfly/Hines emerald dragonfly
- Completed Farmland Conversion Impact Rating (AD-1006), if required.
- Phase 1a Assessment
- Administrative draft DEIS and Final DEIS
- Administrative draft FEIS, Final FEIS
- Administrative draft ROD, Final ROD

6. PUBLIC INVOLVEMENT

6.1 Public Involvement Plan. The CONSULTANT will develop a Public Involvement Plan for the project. The plan will outline the public involvement program and will identify key contacts within agencies, the news media, public officials and the general public. The plan



will also identify key contacts with civic and business groups, relevant interest groups, present and potential riders/users, and private service providers/shippers. The plan will identify how public involvement activities will be linked to key milestones in the planning/engineering and environmental analytic process. The plan also should identify link public involvement activities with key milestones, including:

- Notice of intent publication and scoping activities.
- Development of purpose and need.
- Identification of the range of alternatives.
- Collaboration on impact assessment methodologies.
- Completion of the Draft EIS.
- Identification of the preferred alternative alignments.
- Completion of the Final EIS.
- Completion of ROD

The plan will contain a series of public involvement and educational activities that will include: informational workshops; educational materials and displays; briefings for federal, state, and local elected officials; small group meetings; creation and maintenance of a comment/response database; creation and maintenance of a public outreach database; an agency coordination effort; and assistance to Lead Agency with the MWRRI Steering Committee.

The CONSULTANT will submit the draft Public Involvement Plan for Lead Agency and FRA review. The final plan will be revised based on received comments.

6.2 Mailing List. The CONSULTANT will establish and maintain a database of elected officials, public officials, agency staff, and key public stakeholders, as appropriate. The database will be used to provide the public with information concerning progress on the project and for notifying the public of meetings and workshops. The Lead Agency and state DOTs will review and provide input on the mailing list.

The initial mailing list will not attempt to include all of the adjacent property owners in the study corridors. The mailing list will be built using data obtained from key public agencies in each MWRRI Phase I state. The CONSULTANT will also contact state DOTs and their local offices for input on local/community leaders and contacts. Public officials will also be asked to provide community leader names during the initial telephone contact. Included in the database will be civic/social service agencies as identified in the community outreach research.

The database will have 2,500+ records at the time of the mailing for the first public workshop/first announcement and could grow to around 25,000 based upon updates and additions being made after each involvement activity, public requests and correspondence. For budgeting purposes, assume an initial mailing list of 2,500 contacts.

6.3 Phone and Mail Contac/Comment Database. The CONSULTANT will provide a toll-free telephone number for citizens wishing to contact the study team. The telephone service will begin prior to project Scoping and will continue through the completion of the Record of Decision. Telephone and mail contact will be handled by responsible project personnel having expertise in the area of concern. Responses to mail and phone responses will be

coordinated with the Lead Agency and appropriate state DOTs. Standard, form letters will be used to the greatest extent possible. All letters will be approved by the state agency in whose state inquiries originate. The CONSULTANT will maintain a correspondence file.

The CONSULTANT will implement a database to track, manage and report on all public comments related to the project. This database shall be used for routine reporting of comments to the Steering Committee, partner agencies and for tracking of all project correspondence to the public.

6.4 Public Scoping and Informational Meetings. The CONSULTANT will conduct two general Public Information Meetings over the course of the project. Given the length of the project corridors, each of these meetings will be conducted in up to ten (10) locations along the project alternative corridors (2 in Wisconsin, 3 in Illinois, 2 in Indiana, 3 in Michigan). Each location will be subject to review and approval by IDOT, INDOT, WisDOT and MDOT prior to selection.

The purpose of the public information meetings will be to provide the general public with information on the project and report study outcomes. The first series of public information meetings would be held near the start of the study process. This meeting would also serve as a Scoping Meeting to help define the alternatives and issues for study in the DEIS, prepared under Tasks 3.0, 4.0 and 5.0 above. The CONSULTANT shall document the outcome of the Scoping process in a Scoping Report. The second series of public information meetings would be conducted following the evaluation of alternatives to inform the public of alternatives screened from further analysis and gather input towards the selection of a preferred alternative. This information would be included in the EIS. It is assumed a formal Public Hearing on that document would be held under Task 5.11.

A number of activities will be undertaken as part of this task. These include activities related to preparing for and conducting the public meetings and are as follows:

- Preparation of a mailing list for information on the projects and these public meetings. This task also includes keeping that list updated throughout the course of the project.
- Preparation and distribution of the required meeting notice for each of the meetings to local clerks. The state DOTs will publish notices in local papers.
- Preparation of a slide show or other explanatory presentation for use in these meetings as well as in some of the other meetings described below.
- Identification and coordination of the meeting location.
- Preparation of explanatory handouts.
- Preparation of explanatory display boards presenting key project information for the meetings. It is anticipated that up to sixteen (16) displays may be required for each of the two series of meetings.
- Preparation of press releases (for individual state DOTs to distribute) and display advertising for each of the meetings.
- Provision of project staff to run the meetings and to meet with the public to answer questions and hear concerns.
- Preparation and distribution of Scoping Report.
- Preparation and distribution of minutes of public involvement meeting summarizing key comments and discussions.

- Preparation of a limited number of special information requests from elected officials attending the meetings.

6.5 Small Group Meetings. The CONSULTANT will conduct up to thirty (40) meetings with small groups located along the project alternative corridors who express interest in learning more about the study and its outcome. These groups are expected to represent a wide variety of interested parties from neighborhood groups concerned about the impact of an alignment on their properties to business groups concerned about the impacts on local business districts. The purpose of this task is to provide information to a broad spectrum in an effective way. This task also includes time for organizing and coordinating these meetings.

6.6 Local and State Public Officials Meetings. The CONSULTANT will conduct up to fifty (50) meetings to brief local and state elected officials on the progress of the study over its life. These meetings are intended to be held generally with a single official rather than a group. The purpose of these meetings is to ensure that elected officials are well informed on the study, its alternatives and the impacts of those alternatives on their constituents. This task also includes time for organizing, coordinating and reporting these meetings. The CONSULTANT will notify the Lead Agency and the appropriate state DOT prior to meeting with any public official in case they might want to attend. A brief e-mail note will be sent to the Lead Agency PM and state DOT contact immediately following the meeting.

6.7 Stakeholder Interviews. The CONSULTANT will conduct up to fifteen (15) key stakeholders early in the course of the study. These meetings are intended to be held generally with business groups, freight railroads and local communities who have an interest in the alternative corridors under consideration. The purpose of these meetings is to ensure that stakeholders are well informed on the study, its alternatives and the impacts of those alternatives. This task also includes time for organizing, coordinating and reporting these meetings. The CONSULTANT will notify the Lead Agency prior to meeting with any public official in case they might want to attend. A brief e-mail note will be sent to the Lead Agency's PM and state DOT contact immediately following the meeting.

6.8 Fact Sheets. The CONSULTANT will prepare up to 4 fact sheets on key issues of public concern. Possible fact sheet issues could include noise/vibration, traffic/safety/grade crossings, parking, property values, economic development, station locations and design and any other relevant issue that continuously appears in the comment response database or during public outreach activities. Fact sheets will be distributed to those communities in which a particular topic may be an issue. Other copies will be used as handouts at meetings and other outreach activities or used to provide project information as requested by the public. Fact sheets are envisioned as one "8 1/2" x "11" page, full color, printed front and back. The CONSULTANT and the Lead Agency, with input from the state DOTs, will agree upon the subjects to be covered by the fact sheets.

- 6.9 Website. The Lead Agency will host the project website. The CONSULTANT will prepare content and layout for the project web page in consultation with the each state a DOT public information officer. The CONSULTANT will provide updated information during key milestones throughout the study to provide an additional avenue to involve/inform the public about the project. The CONSULTANT will assist the Lead Agency (see Task 5.3) as needed in developing responses to posted comments.
- 6.10 Media Relations. All direct media inquires made to the CONSULTANT will be directed to the Lead Agency. At the direction of the Lead Agency, the CONSULTANT will prepare materials for press releases and other materials for editorial board briefings. The CONSULTANT will also meet with local editorial boards and media outlets up to twelve (12) times during the course of the project.
- 6.11 Official Public Hearing. The CONSULTANT will conduct one official public hearing on the DEIS. As with the public information meetings described above, the hearing will be held in up to ten (10) locations along the project alternative corridors to facilitate access by the interested public. It is anticipated that officials from the appropriate state DOT will officiate the public hearing in their respective state. The CONSULTANT will hold and staff an open house prior to the start of the official public hearing to allow attendees time to review display materials.

This task includes preparing notices, display advertising, press releases, preparation of a presentation , handouts and exhibits and making arrangements for hearing locations. This task also assumes making arrangements for court reporters and signing personnel (if requested). The task also includes attendance at the public hearing by key project staff. The official transcript and written material received on the project will be prepared for publication in the Final EIS.

Deliverables:

- Public Involvement Plan
- Scoping and public information meeting materials and minutes
- Scoping Report
- E-mail notes on each small group, public official and stakeholder meeting
- Listing of speaking engagements and media meetings in the Monthly Progress Report
- Fact Sheets
- Website materials
- Public Hearing presentation, handouts and displays
- Public Hearing Log including: legal notice, affidavits of public notice, list of newspapers publishing the notice, distribution list for hearing notice, hearing displays, handouts, presentation, transcripts, written comments and a summary of comments and responses
- Project Correspondence File and database

SECTION 10

MWRRI PRELIMINARY PEIS SCOPE OF WORK
MARCH 2008



**Midwest Regional Rail Initiative
TEMPLATE Scope of Services
Programmatic Environmental Impact Statement**

The CONSULTANT agrees to perform the professional planning, environmental and engineering services required to prepare a Programmatic Environmental Impact Statement for the proposed [XXXX corridor/region of the] Midwest Regional Rail System (MWRRS). The MWRRS is a proposed Chicago-hub based network of high speed passenger rail routes in a nine-state region consisting of Illinois, Iowa, Indiana, Michigan, Minnesota, Missouri, Nebraska, Ohio and Wisconsin. Portions of the 3,000-mile, high speed rail system are part of the national high speed rail system designated under the Intermodal Transportation Efficiency Act of 1991. The nine Midwestern states are aligned under the Midwest Regional Rail Initiative (MWRRI) to advance the MWRRS through a series of feasibility studies, conceptual engineering and NEPA evaluation. The Federal Railroad Administration (FRA) will be the lead federal agency.

The purpose of a programmatic EIS (PEIS) is to enhance the efficiency in conducting large-scale project environmental reviews. The PEIS serves as an initial screen by which various levels of environmental review, as defined by NEPA are identified. A PEIS (as defined in 40 CFR 1502.20) is a “concept” or “program level” document, also known as Tier 1.

The PEIS will identify segments of independent utility that would be subject to detailed environmental review in project level NEPA documents, also known as Tier 2. The PEIS will function as a system-wide cumulative impacts assessment that subsequent documents can use and be consistent with one another. Aside from these purposes, the PEIS also provides the federal review agency (ies) and each MWRRI state with a composite picture of sensitive, moderately sensitive, and not sensitive project segments.

The purpose of the study contained in this scope of services is to complete the tasks associated with a PEIS. Those tasks are defined in the remainder of this scope.

Task 1: Project Management

1.1 Project Work Plan. The CONSULTANT will prepare a detailed project work plan itemizing the work tasks necessary for completing the scope of work. The project work plan will include, information on the project team organization, the project schedule, standards



(graphics, report, communications) manual, invoicing and progress reporting methods and procedures, and the scope of work. The project work plan will be reviewed and approved by the [*The MWRRRI Steering Committee or Lead State Agency*]. The CONSULTANT will coordinate with the [State agency] to determine the appropriate electronic format for all project deliverables. This will be documented in the project work plan.

1.2 Project Advisory Committee. The [*State agency*] will appoint an Advisory Committee to provide technical input to the planning process for this project. Up to six Advisory Committee meetings will be held at key project milestones; an initial meeting on the project purpose and need and range of alternatives to be considered, a second meeting on alternatives screened for further evaluation, and up to three meetings to select a preferred alternative. The CONSULTANT will assist the [*State agency*] with the Committee by providing meeting agendas, preparing meeting materials and condensed minutes of these meetings. The CONSULTANT will provide up to four staff to attend these meetings. Minutes will be prepared by the CONSULTANT.

1.3 Project Team Coordination. The CONSULTANT will maintain coordination with the [*State agency*] and their designated representatives throughout the project. The coordination will include regular transmittals of project correspondence and records as well as telephone contact for items requiring immediate attention. Review meetings will be held monthly with the [*State agency*] to discuss project activities and schedules and to resolve potential problems. The CONSULTANT will provide minutes of the review meetings to the [*State agency*]. A maximum of [x] meetings are established for the project.

1.4 Administrative Record. The CONSULTANT will document and maintain files of all project activity, including key telephone communications, correspondence, media coverage and meetings. The CONSULTANT will prepare notes for all meetings attended for this contract, and will provide a copy to the [*State agency*] project manager. The CONSULTANT will standardize documentation procedures to be used by all team members.

A project master file will be established and maintained by the CONSULTANT during the course of the project. It will contain copies of reports, correspondence and other documents, and will be compiled and recorded in an Administrative Record as per *Document Management Procedures Handbook for NEPA Studies* by Cutler & Stanfield, April, 2000.

1.5 Progress Reports. The CONSULTANT will prepare a detailed monthly status report, which will track the project activities, progress, and expenditures against the budget. Copies will be distributed to designated recipients.

Deliverables:

- Project Work Plan
- Meeting materials and presentations
- Meeting minutes
- Administrative record
- Monthly Progress Reports

Task 2: Purpose and Need

The CONSULTANT will evaluate and summarize the purpose of and need for the project to establish the basis for developing preliminary study corridors. The evaluation will include, but not be limited to:

- The consistency of the project with national and state transportation goals and the comprehensively planned development of the project area;
- The existing and projected travel demand within the MWRRI corridor;
- Project planning and legislation;
- System linkage;
- Social and economic impacts including increased tax base, reduced cost to the traveling public, and improved access to public facilities; and
- Modal interrelationships.



A Purpose and Need Statement will be prepared by the CONSULTANT documenting the purpose of and need for the project. The Statement will contain sufficient detail to support the purpose of, and need for, the proposed action in the Programmatic Environmental Impact Statement. The Statement will be submitted to the [State agency] for review and the CONSULTANT will revise the document based on comments.

Deliverable:

- Draft and final Purpose and Need Statement

Task 3: Alternatives Development and Planning

The CONSULTANT will conduct a preliminary alternatives analysis that will include identifying alternative modes and corridors that have been addressed during the life of the MWRRI program. The CONSULTANT will consider only a single technology diesel powered passive tilt train (no maglev, no electrified rail, no jet train, no evacuated tube, etc) with multiple alternative routes between nodes. Work will consist of researching previous studies and coarsely defining alternatives that have not been previously considered. Each alternative will be developed sufficiently to define those characteristics that are important in evaluating the suitability of the route to satisfy the purpose and need. A scoring system will be developed. Route alternatives will be presented to the Steering Committee, who will score and rank, then select the alternative corridors for continued development for the DEIS. Routes not passing the screening will be rejected and documented as alternatives considered in the DEIS. Routes carried forward will be further developed and analyzed in the DEIS. Anticipated alternatives that may be addressed include:

- No Build Alternative
- High Speed Rail Build Corridors

This work may be performed under a Rail Corridor Transportation Planning (RCTP) program in advance of the Programmatic Environmental Impact Statement. In such case, the PEIS will incorporate the RCTP study alternatives and results by reference.

3.1 No Build Alternative. It is anticipated that the No-Build alternative will be described based on existing modal information available from the MWRRI coalition states. The No-



Build alternative description will address existing and planned intercity transportation options including the following modes:

- Highway Network
- Intercity Bus Service
- Passenger Rail Services
- Freight Railroad Network
- Air Travel Network

The No-Build Alternative will be used as the base against which the impacts of the Build Alternatives will be compared.

3.2 High Speed Rail Build Corridors. Development of HSR preliminary build study corridors for dedicated passenger high speed rail corridors and shared-use passenger and freight rail corridors will be conducted in conjunction with the identification of environmental constraints. Input from agency and public scoping meetings will be considered in developing study corridors. Coordination with representatives from FRA, the [State Agency], freight rail carriers and state and federal regulatory/resource agencies is anticipated during the development of corridors.

The preliminary build study corridors will be developed using the previously completed engineering and environmental screening studies conducted for the MWRRI states, including the Phase 1 System Environmental Impact Statement (Chicago-St Louis, Chicago-Milwaukee-Madison, Chicago-Detroit). The majority of freight rail routes within the Midwest have been assessed in previous MWRRI studies. Each route alternative considered in previous MWRRI Phase 1 to 5 studies will be reviewed as necessary to consider the travel times, ridership, revenues, operating costs, infrastructure improvement requirements, capacity issues, capital cost estimates and environmental impacts. At a minimum, the listed **MWRRS** corridors, including associated stations, have been identified for preliminary evaluation in the PEIS alternatives analysis. The CONSULTANT shall assume that one additional alignment within the corridors may be considered as a result of public and agency scoping [*note: the PEIS scope can be modified to address a partial list of these routes*].



In the event that a route has not been assessed in past MWRRI studies, field inspections, travel time estimates, operating costs and capital costs will be prepared. Data collected for this effort will include FRA grade crossing information; current track charts, timetables and valuation mapping (where available). Photographs of representative constructed structures, grade crossings, and major points of interest will be taken for illustrative purposes. Previous studies will be reviewed for applicable information. Where tracks are in good condition, infrastructure improvements may include simple tie replacement, resurfacing and minor signal improvements to increase permissible speeds of passenger equipment. Alternatively, it may be determined that extensive reconstruction is necessary including earthwork, bridge modifications, realignment, improved drainage, rail replacement, and signal and grade crossing improvements.

Existing and projected ridership and revenue data, capital cost estimates and operating cost estimates, and environmental impacts will be evaluated and updated as necessary by the CONSULTANT. Additional data will be developed to address study corridors not previously evaluated by the CONSULTANT. An evaluation matrix will be prepared, detailing both the qualitative and quantitative aspects of the preliminary corridors, including both environmental and engineering components. At the screening level, the evaluation will focus on qualitative criteria to reduce the range of alternatives for full consideration in the PEIS.

The following alternatives will be considered and are graphically illustrated in Attachment A
[Note: the actual list of corridors scope will vary, depending on scope of the PEIS action]:

Michigan Corridors

- GT: Battle Creek - Lansing - Flint - Port Huron
- PRR: Kalamazoo - Grand Rapids - Holland
- PM/GT: Michigan City - Benton Harbor - Holland - Grand Rapids – East Lansing - Flint - Port Huron

Chicago-Toledo-Cleveland Corridor

- NYC: Porter - South Bend - Elkhart - Waterloo - Toledo, NS to Cleveland, NS



- PRR: Gary-Wanatah-Warsaw-Ft. Wayne, WAB: Ft Wayne-New Haven-Defiance-Toledo, NYC: Toledo-Millbury-Sandusky-Vermillion-Cleveland
- PRR: Gary-Wanatah-Warsaw-Ft. Wayne, WAB: Ft Wayne-New Haven-Defiance-Toledo, NYC: Toledo-Millbury-Norwalk-Elyria-Cleveland
- IHB: Gary-Tolleston, CSX: Tolleston-Willow Creek-Alida-Wanatah, PRR: Warsaw-Ft. Wayne, WAB: Ft Wayne-New Haven-Defiance-Toledo, NYC: Toledo-Millbury-Sandusky-Vermillion-Cleveland
- IHB: Gary-Tolleston, CSX: Tolleston-Willow Creek-Alida-Wanatah, PRR: Warsaw-Ft. Wayne, WAB: Ft Wayne-New Haven-Defiance-Toledo, NYC: Toledo-Millbury-Norwalk-Elyria-Cleveland
- PRR: Gary-Wanatah-Warsaw-Ft. Wayne-Lima-Crestline, Big Four: Crestline-Cleveland

Chicago-Indianapolis-Cincinnati Corridor

Chicago-Indianapolis

- IHB: Gary-Tolleston, CSX Tolleston-Willow Creek, Monon: Willow Creek-Lafayette, CSX: Lafayette-Lebanon-Indianapolis
- PRR: Gary-Tolleston-Wanatah, Monon: Wanatah-Lafayette, CSX: Lafayette-Lebanon-Indianapolis
- IC: Chicago-Kankakee, Big Four: Kankakee-Sheldon-Lafayette-Lebanon-Indianapolis

Indianapolis-Cincinnati

- Big Four: Indianapolis-Greensburg-Cincinnati
- B&O: Indianapolis-Rushville-Cincinnati
- PRR: Indianapolis-Richmond-Cincinnati

Chicago-Champaign-Carbondale Corridor

- IC: Grand Crossing-Champaign-Mattoon-Centralia-Carbondale

St. Louis-Jefferson City-Kansas City Corridor

- MP: St. Louis-Kirkwood-Jefferson City-Sedalia-Pleasant Hill-Independence-Kansas City (Existing Amtrak route)



- MP: St. Louis-Kirkwood-Jefferson City-Boonville-Marshall-Lexington-Independence-Kansas City
- RI: St Louis-Eldon-Windsor-Pleasant Hill-Kansas City
- WAB: St. Louis-St. Charles-Mexico-Moberly-Carrollton-Kansas City

Chicago-Quincy/Des Moines-Omaha Corridor

- C&NW: Chicago-Geneva-Dixon-Clinton-Cedar Rapids-Ames-Carroll-Denison-Omaha
- CB&Q: Chicago-Aurora-Wyanet, IAIS: Wyanet-Rock Island-Davenport-Iowa City-Des Moines-Atlantic-Omaha
- ICRR: Chicago-Rockford-Dubuque-Waterloo-Ft Dodge-Dennison-Omaha
- CB&Q: Chicago-Aurora-Wyanet-Galesburg-Burlington-Ottumwa-Osceola-Creston-Omaha
- MLW: Chicago-Elgin-Byron-Savanna-Marion-Tama-Perry-Manilla-Omaha

Chicago-Milwaukee-Minneapolis/St. Paul-Green Bay Corridor

Milwaukee-Green Bay

- C&NW: Milwaukee-Fond Du Lac-Oshkosh-Green Bay
- C&NW: Milwaukee-Sheboygan-Manitowoc-Green Bay
- MLW: Milwaukee-Plymouth-Green Bay

Milwaukee-Minneapolis/St Paul

- MLW: Milwaukee-Watertown-Portage-Tomah-La Crosse-Red Wing-St Paul-Minneapolis
- MLW: Milwaukee-Watertown-Madison-Portage-Tomah-La Crosse-Red Wing-St Paul-Minneapolis
- C&NW: Milwaukee-Randolph-Wyeville-Eau Claire-St Paul-Minneapolis

Preliminary build study corridors developed but determined not feasible as alternative corridors and rejected from further study will be identified. The reasons for elimination from further analysis will be discussed. Feasible build alternative corridors determined to be



suitable for further study will be subject to additional engineering and environmental analysis.

Deliverable:

- Summary of alternatives considered, dismissed, and those to be evaluated in the PEIS.
- Map exhibits of alternatives considered, dismissed and carried through PEIS

Task 4: Conceptual Engineering – Route/Station Location Studies

Engineering documents produced under a Rail Corridor Transportation Planning program will be used to identify proposed infrastructure improvements and rail operations in the selected rail corridors. Typical rail line engineering products produced under the RCTP include:

- Scaled track schematics, signal system plans and communication system plans (depicting both existing and future conditions)
- Planned operations support facilities descriptions and plans (passenger stations and maintenance/operations/vehicle storage yards)
- Proposed operating plans (schedules, computer generated stringlines and service levels for a period 20 years in the future) for each service in the corridor (intercity passenger, local commuter, and freight)
- Tabulation identifying each grade crossing in the corridor and proposed treatment
- Capital cost estimates for the proposed improvements and rolling stock
- Operating cost estimates for the proposed passenger service
- Prioritization and timing of projects



Task 5: Initial GIS and Geospatial Data Collection and Mapping

Existing conditions will primarily be determined using existing GIS and geospatial data sets of information available from MWRRI states and federal agencies. Depending on data availability, and where fiscally appropriate, GIS-based information will be used to help describe existing conditions and evaluate impacts through spatial analysis and modeling. The CONSULTANT will collect the following *existing* inventories of GIS-based environmental information from MWRRI states and Federal agencies to be used in the GIS model:

- Ground and Surface Water Resources/Floodplain
- Wetlands
- Threatened and Endangered Species
- Parks and Recreation/Wildlife Refuge
- Special Protected Areas
- Historic and Cultural Resources (archeological sites will not be publicly disclosed)
- Environmental Justice / Demographic Census Information
- Farmland
- Land Use Compatibility
- Soils/Slopes Constraints
- Hazardous Material/Waste
- Socioeconomics
- Public Safety
- Coastal Resources

The CONSULTANT will standardize the existing GIS information collected from MWRRI states and federal agencies by complying with the GIS Data Model rules developed as part of the Pilot GIS Data Model. Mapping will be prepared at an appropriate scale to conduct a representative impact analysis of alternatives.

Task 6: Affected Environment

Existing conditions immediately along the proposed build alternative corridors will be described at a state and regional level primarily using available data and literature from MWRRI states, and supplemental field investigations to describe unique local conditions. All the jurisdictions within the MWRRS, such as, states, counties, MPO's, cities, towns, villages, and tribal reservations, will be compiled and mapped.



The CONSULTANT will initiate literature searches, letter correspondence, and telephone contacts with local, regional, state, and federal agencies to obtain available existing information concerning relative topics in the project area. The CONSULTANT will assemble the information and verify the information in the field when necessary. Previously prepared studies and environmental screenings associated with the MWRRI will be collected, reviewed, and summarized. Pertinent information from these studies will be incorporated into the land suitability analysis and alternative corridor development.

The CONSULTANT will coordinate with federal and state agencies to help describe significant regional and statewide resources and activities. This information will supplement information missing from existing databases. Local agencies may be contacted as well for specific sensitive areas. Spot field checking for unique or sensitive resources will supplement information obtained. General information on the listed topics will be obtained for each of the states where MWRRI corridors are under consideration.

Human Environment

- Land Use and Planning
- Socioeconomic Conditions
- Population
- Environmental Justice Populations
- Economic Characteristics
- Community Facilities and Services
- National, state, and local parks
- Recreational areas
- Farmlands
- Archaeological and Historical Resources

Natural Environment

- Water Resources
- Water Quality
- Wetlands
- Floodplains and Floodways
- Topography, Geology, and Soils
- Threatened and Endangered Species
- Wildlife
- Wild and Scenic Rivers
- Natural area designations
- Mineral Resources



Physical Environment

Existing/Planned Transportation Services

Air Quality

Noise and Vibration

Hazardous Materials

Energy

Visual Characteristics

Deliverable:

- Existing Conditions Section of PEIS

Task 7: Environmental Consequences

Due to the large study area and long routes of the study corridors, the PEIS will identify representative impacts of the no build and feasible build alternatives, screened for further analysis in Task 3. The analysis of impacts will be primarily GIS-based, supplemented with field observations at specific unique or sensitive areas. The evaluation of impacts will identify where specific impact analyses may be required in subsequent project NEPA documents on select alignments. The PEIS impact evaluation will consider those elements described in Existing Conditions noted above. The CONSULTANT will identify future Segments of Independent Utility (SIU) to be the subject of project level (Tier 2) NEPA review, and recommend the appropriate level of NEPA analysis for each SIU (e.g. Environmental Impact Statement, Environmental Assessment or Categorical Exclusion).

For the PEIS, the CONSULTANT will conduct analyses to define the nature and extent of each potentially significant adverse environmental impact and identify appropriate potential mitigation measures and strategies for potentially unavoidable adverse impacts. The CONSULTANT will prepare an Environmental Technical Report to support the development of the PEIS. Environmental issues to be evaluated by the CONSULTANT will include:

- Ground and Surface Water Resources/Floodplain – identify potential impacts to groundwater, streams, rivers, and standing bodies of water affected by high-speed train system alternatives.

- Wetlands – determine the approximate number and extent of wetland crossings (direct and indirect impacts) and wetland habitat types impacted by high-speed train system alternatives.
- Air Quality – conduct quantitative analysis regarding regional air quality impacts of high-speed train system alternatives.
- Threatened and Endangered Species – identify observations of threatened and endangered species and sensitive habitat. Section 7 consultations would occur at the project level.
- Parks and Recreation/Wildlife Refuge – identify potential impacts to parks, recreational areas and wildlife refuges for high-speed train alignments and potential impacts on nearby resources.
- Special Protected Areas – identify impacts to areas considered to be unique clusters with natural and human resource values worthy of a high level of concern and protection.
- Historic and Cultural Resources – identify potential impacts to historic and cultural resources as the first part of phased implementation of Section 106 consultation. Determinations of eligibility and effect would occur at the project level. Tribal consultation will be lead by [*State Agency*]. The CONSULTANT will provide support materials and attend meetings with agency staff.
- Archaeological Resources – conduct assessment of historic and prehistoric archeological sensitivity of the areas affected by the proposed alignments.
- Environmental Justice – evaluate the potential for disproportionate effects on low-income and minority population consistent with current guidance.
- Farmland – identify potential impacts to Prime Farmland, Unique Farmland, and Farmland of Statewide Importance.
- Land Use Compatibility – define classifications for various land uses along the high-speed train alignments and identify areas of compatible land uses.
- Soils/Slopes Constraints – identify steep slopes, erodibility and shrink/swell potential.
- Visual Assessment – consider the visual impacts of high-speed trains for all viewer groups, including adjacent land users (views of the project) as well as high-speed train users (views from the train). Identify the potential physical changes to the

environment, such as cuts/fills, elevated structures, water crossings, and loss of major vegetation and urban development. In addition, those viewers who would be sensitive to visual changes, such as residents, park users, and travelers along the proposed facility.

- Noise and Vibration – identify and estimate the potential populations affected by high-speed train noise levels. Calculate the approximate number of people residing within a specific number of feet from the centerline who may perceive train generated vibrations.
- Hazardous Material/Waste Constraints – identify and quantify potential hazardous material and waste constraints for each high-speed train alignment.
- Energy – affected environment with respect to energy assessment and energy needs of the program.
- Construction Impacts – identify general anticipated construction impacts.
- Socioeconomics (inclusive of business/residential relocation) – Identify qualitative impacts upon land values, tax revenues, employment levels, and minority populations.
- Access, traffic, and parking – transportation, traffic and parking conditions that may be affected by the proposed high-speed train system alignments and station locations.
- Freight Rail Impacts – summarize results of engineering coordination activities with freight rail carriers and identify areas of concern and potential operational impacts and potential mitigation.
- Public Safety – identify both potential increased and reduced risks as a result of high-speed train service. This assessment will include an overview of existing public crossings in each corridor and the public safety issues presented.
- Coastal Resources – impacts to coastal resources include coastal waters, related wildlife habitat and adjacent shorelands.
- Section 4(f) and 6(f) Properties – A formal Section 4(f)/6(f) Statement is not part of this scope; however, the CONSULTANT shall identify potential impacts to properties and measures to avoid impacts during project (Tier 2) studies.
- Indirect and Cumulative Impacts – Conduct an analysis to determine the indirect and cumulative effects using guidance from the Council on Environmental Quality’s *Considering Cumulative Effects under the National Environmental Policy Act*



(January 1997) and other CEQ documentation. Additional guidance from FHWA guidance and NCHRP Report 466 will also be consulted, as appropriate. The effects evaluation includes defining the Area of Potential Effect, analyzing existing and future land use trends and proposed development, assessing project characteristics, assessing the potential for project-induced changes to land use development, and evaluating existing tools or recommending tools to manage changes to land use development. Data collection will be based upon existing, readily available data sources at the state and regional level.

Deliverable:

- Environmental Report summarizing evaluation methods and anticipated representative impacts of No-Build and feasible build alternatives.

Task 8: Draft PEIS Documentation

8.1 Document Production. The CONSULTANT will prepare and edit the Draft PEIS, consistent with the requirements of the National Environmental Policy Act, FRA Procedures for Considering Environmental Impacts and [*State agency NEPA guidance*]. There will be a formal, internal CONSULTANT team QA/QC review process that will take place prior to the submittal of the Administrative Draft PEIS to the [*State agency*] for review. The [*State agency*] will determine what other internal technical areas will need to review the document. The CONSULTANT will submit an administrative draft of the Draft PEIS for [*State agency*] review. The Administrative Draft PEIS will be revised based upon this internal review. The CONSULTANT will provide [x] copies of the Administrative Draft PEIS to the [*State agency*] for the initial review.

8.2 Revisions. There will be at least one round of revisions to the Draft PEIS based upon the review and comment by the [*State agency*]. A second round of document revisions will be made based upon the review and comment from FRA, which will include the legal sufficiency review.



8.3 Circulate the Draft PEIS. The CONSULTANT will circulate the Draft PEIS for public review and prepare an electronic version of the document for the [State agency] project website.

The CONSULTANT will prepare a Notice of Availability of the Draft PEIS for publication in the Federal Register. A draft notice will be prepared and submitted to [State agency] and FRA for review and comment. The notice will be revised to reflect [State agency] and FRA comments. The revised document will be sent to [State agency] and FRA for approval. Once approved, copies of the notice will be submitted to [State agency] and FRA for publication in the Federal Register. The CONSULTANT, with [State agency] input, shall determine local media outlets for publishing the Notice of Availability. The CONSULTANT will be responsible for circulating the public notice to media outlets and local governments

Deliverable:

- Administrative and final Draft Programmatic EIS
- Electronic version of PEIS for project website
- Administrative and final Notice of Availability
- Legal notice in selected newspapers

Task 9: Final PEIS and Record of Decision

9.1 Review and Respond to Comments. After the Draft PEIS public hearing and review period, the CONSULTANT will review and organize comments and prepare responses to substantive public hearing/written and agency comments. The public hearing transcripts will be reviewed, as well as all written comments received as a result of the Public Hearing, and any agency comments received as a result of the Draft PEIS review process. The CONSULTANT will submit draft responses to the [State agency] for review and approval. A summary of comments received (written and from the public hearing) along with responses will be included in the Final Programmatic Environmental Impact Statement (Final PEIS).

9.2 Final PEIS Production. The CONSULTANT will prepare the Final PEIS to reflect the Selected Alternative and reasons for its preference. The Final PEIS will also document



recommended Segments of Independent Utility for future project (Tier 2) evaluation, mitigation commitments, as appropriate at the program level, and compliance with applicable environmental laws and Executive Orders. Additional quantitative data and analysis needs will be identified for future project (Tier 2) actions. The Final PEIS will identify requirements of future project (Tier 2) NEPA documents to comply with applicable laws, executive orders and related requirements such as Section 106, Section 7, and Section 4(f). The Final PEIS will also reference and summarize any Memoranda of Understanding between the [State agency] and the freight railroad operators, developed under Task 4.7, for capacity and operational analyses in future project (Tier 2) actions. The CONSULTANT will submit [x] copies of the administrative draft of the Final PEIS for [State agency] and FRA review.

9.3 Final PEIS Revisions. Based on [State agency] review and legal sufficiency by the FRA, the Final PEIS will be revised accordingly. Copies of the revised document and a title sheet for signature will be produced. Once approved, up to [X] copies of the Final PEIS will be produced for distribution. The CONSULTANT will distribute the Final PEIS to reviewing agencies, local governments and other interested citizens, as appropriate. The CONSULTANT will provide an electronic copy of the Final PEIS for placement on the [State agency] project website.

9.4 Notice of Availability. The CONSULTANT will prepare a Notice of Availability of the Final PEIS for publication in the Federal Register. A draft notice will be prepared and submitted to [State agency] and FRA for review and comment. The notice will be revised to reflect [State agency] and FRA comments. The revised document will be sent to [State agency] and FRA for approval. Once approved, copies of the notice will be submitted to [State agency] and FRA for distribution. The CONSULTANT, with [State agency] input, shall determine local media outlets for publishing the Notice of Availability. The CONSULTANT will be responsible for circulating the public notice.

9.5 Record of Decision. The CONSULTANT will be prepare the draft Record of Decision (ROD). The CONSULTANT will organize and summarize public comments on the Final PEIS. The CONSULTANT, in consultation with [State agency], will prepare draft responses



to comments. A draft ROD will be prepared and submitted to [State agency] and FRA for review and comment. The ROD will be revised to reflect [State agency] and FRA comments. The revised document will be sent to [State agency] and FRA for approval. Once approved, copies of the ROD will be submitted to [State agency] and FRA for distribution.

Deliverables:

- Administrative and approved Final Programmatic EIS
- Recommended Segments of Independent Utility
- Electronic version of Final PEIS for project website
- Draft ROD
- Final ROD

Task 10: Public Involvement and Agency Coordination

The CONSULTANT will be responsible to coordinate with review federal, state and local agencies and the public, as appropriate, for preparing the PEIS.

10.1 Public Involvement Plan. The CONSULTANT will develop a Public Involvement Plan for the project. The plan will outline the public involvement program and will identify key contacts within agencies, the news media, public officials and the general public. The plan will also identify key contacts with civic and business groups, relevant interest groups, present and potential riders/users, and private service providers/shippers. The plan will identify how public involvement activities will be linked to key milestones in the planning/engineering and environmental analytic process. The plan also should identify link public involvement activities with key milestones, including:

- Notice of intent publication and scoping activities.
- Development of purpose and need.
- Identification of the range of alternatives.
- Collaboration on impact assessment methodologies.
- Completion of the Draft PEIS.
- Identification of the preferred corridors and the level of design detail.



- Completion of the Final PEIS.
- Completion of ROD and recommended Segments of Independent Utility

The plan will contain a series of public involvement and educational activities that will include: interactive/informational workshops; educational materials and displays; briefings for federal, state, and local elected officials; small group meetings; media outreach strategy; creation of a web page; creation and maintenance of a comment/response database; creation and maintenance of a public outreach database; an agency coordination effort; and assistance to [State agency] with a project steering committee.

The CONSULTANT will submit the draft Public Involvement Plan for [State agency] and FRA review. The final plan will be revised based on received comments.

10.2 Mailing List. The CONSULTANT will establish and maintain a database of elected officials, public officials, agency staff, and key public stakeholders, as appropriate. The database will be used to provide the public with information concerning progress on the project and for notifying the public of meetings and workshops. The [State agency] will review and provide input on the mailing list.

The initial mailing list will not attempt to include all of the adjacent property owners in the study corridors. The mailing list will be built using data obtained from key public agencies in the [State]. The CONSULTANT will also contact [State agency] [regional or district] offices for input on local/community leaders and contacts. Public officials will also be asked to provide community leader names during the initial telephone contact. Included in the database will be civic/social service agencies as identified in the community outreach research.



The database will have 2,500+ records at the time of the mailing for the first public workshop/first newsletter and could grow to around 25,000 based upon updates and additions being made after each involvement activity, public requests and correspondence.

For budgeting purposes, assume an initial mailing list of 2,500 contacts.

10.3 Phone and Mail Contact. The CONSULTANT will provide a toll-free telephone number for citizens wishing to contact the study team. The telephone service will begin prior to project Scoping and will continue through the completion of the Record of Decision. Telephone and mail contact will be handled by responsible project personnel having expertise in the area of concern. Responses to mail and phone responses will be coordinated with the [State agency]. Standard, form letters will be used to the greatest extent possible. All letters will be approved by the [State agency].

10.4 Receiving and Responding to Comments and Data Requests/Comment/Response Database. The CONSULTANT will prepare responses to comments from the general public. Initial responses early in the project should be prepared, as appropriate, with input from [State agency] staff. Responses to elected officials shall be reviewed and approved by the [State agency] prior to release.

The CONSULTANT will create and maintain a database that logs comments and tracks responses. The database will detail the comments and questions received from the public and other interested parties (from public workshops, small group meetings and the project hot line) and the responses provided by the CONSULTANT and/or the [State agency]. The date and method via which each comment is received and responded to will be included. The database will be updated after each outreach activity or at least monthly.

10.5 Notice of Intent. The CONSULTANT will prepare a Notice of Intent to prepare a PEIS. The [State agency] will submit the NOI to FRA for publication in the Federal Register. The NOI must be published in the Federal Register no later than two weeks prior to the agency/public scoping meetings.

10.6 Agency Coordination. The CONSULTANT, with assistance of the [*State agency*], will identify appropriate review agencies and develop an initial agency distribution mailing list. The CONSULTANT will prepare, with assistance from the [*State agency*] and FRA, a list of agencies to be contacted for initial coordination. The CONSULTANT will prepare a coordination letter for the agencies. The letter shall concurrently provide an invitation to an agency scoping meeting.

Follow on coordination meetings with agencies shall be held at key milestones in the study process. The CONSULTANT shall assume 3 meetings as follows:

Scoping meeting

- Notice of intent publication and scoping activities.
- Development of purpose and need.
- Identification of the range of alternatives.

Alternatives screening meeting

- Identification of feasible alternatives to be fully evaluated in the Draft PEIS.
- Collaboration on impact assessment methodologies.

Selection of preferred corridors for future project (Tier 2) studies

- Identification of the preferred corridors and the level of design detail.

Agencies will be given the opportunity to review and comment on the Draft PEIS and Final PEIS. They will also be notified of the completion of the Record of Decision. The [*State Agency*] will assist the CONSULTANT in identifying the appropriate agency meeting venues. The [*State agency*] will arrange to reserve rooms for the meetings. The CONSULTANT will be responsible for preparing invitation letters, handouts and exhibits, attending and facilitating the meeting and preparing summary minutes.

10.7 Agency Scoping. The Agency Scoping Meeting invitation will be included in the agency coordination letter. The CONSULTANT will prepare a coordination packet for distribution at the meeting. The coordination packet will include a project overview, a copy of the NOI, draft



Purpose and Need elements, a range of alternatives to be considered and a summary of environmental considerations to be addressed in the PEIS. The [State agency] will advise the CONSULTANT on appropriate locations and schedules for the meeting. The CONSULTANT will arrange to reserve rooms and prepare exhibits and handouts.

[NOTE: add this language if joint pursuit between two state DOTs: A joint scoping meeting will be held with [State agency] and [State agency] in a central location. Scoping activities will be documented in meeting minutes and agency correspondence will be kept in a file.

10.8 Public Scoping. Concurrent with agency scoping activities, the CONSULTANT will host [X number] information public scoping meetings at locations that are geographically spread through the study corridors. This initial meeting will be the introduction of the project, the purpose and need, the range of alternatives to be considered and environmental considerations to be evaluated in the PEIS. The CONSULTANT will coordinate with the [State agency] to determine the appropriate locations for the meetings. The CONSULTANT will arrange to reserve rooms, prepare exhibits, provide staff and prepare a summary of comments and responses.

10.9 Public Officials Informational Meetings. At key points in the study, meetings will be held with the local public officials. These will most likely occur prior to Public Informational Workshops and will utilize board mounted graphic exhibits prepared for the workshops. The CONSULTANT will seek input from the [State agency district/regional contacts] in contacting public officials. When needed and/or requested, these formal meetings with public officials will be supplemented with small group meetings.

The CONSULTANT will provide a minimum of a two-person team for these meetings. Requests for such meetings will be coordinated with the [State agency] prior to establishing a meeting date and time. The CONSULTANT will provide informational material and prepare a summary of meeting comments. A maximum of [x] public officials' informational meetings is established for this phase of the project.



The initial contact with local officials will be via letter introducing the project and the PEIS process. This will be followed by phone calls to approximately [x] officials to conduct semi-structured interviews to solicit input on names that need to be included in the project mailing list and the best methods for contacting their communities.

10.10 Citizens Informational Workshops. Approximately [x] communities/groups of communities have been identified in the study area. The CONSULTANT shall assume [x] series of workshops within the study corridors. Each series shall assume maximum of [x] workshops to be located throughout the study corridors such that local residents will have access to workshops near them. The workshops will identify the list of feasible alternatives to be fully evaluated in the Draft PEIS and the screening criteria used to eliminate the preliminary range of alternatives.

The workshops will be informal in nature to encourage one-on-one discussions of the project with the public. The CONSULTANT will make a short formal presentation at each workshop. This formal presentation will be structured to the workshop being held and address local/regional concerns. Public concerns and comments identified during the meetings will be recorded in the comment/response database. The outreach and comment/response databases will be updated after each involvement activity. The CONSULTANT will also prepare summary minutes of the workshops.

The CONSULTANT will prepare project handouts for the workshops. The handout will be developed to relate to the workshop being held and will be approved by the [State agency] prior to public distribution. The CONSULTANT will provide sign-in sheets and comment sheets to record the public's input. Due to the size of the study area, the meeting notification effort will not include parcel level data.

The CONSULTANT will be responsible for locating and arranging facilities for the workshops with input from the [State agency]. The CONSULTANT will notify the public in



advance of the workshop through the use of newspaper advertisements. The [State agency] will prepare a press release notice through the Public Information Office regarding each workshop. Information about the workshops will also be posted on the project website.

10.11 Public Hearing. The CONSULTANT will prepare for and attend a public hearing the Draft PEIS. The CONSULTANT will coordinate with the [State agency] to determine the appropriate locations for the meetings. The CONSULTANT will arrange to reserve rooms, prepare exhibits, provide staff and prepare a summary of comments and responses.

It is assumed that the hearing will be held at up to [x] locations to afford public access through the project corridor. The CONSULTANT will prepare and distribute a hearing announcement, including arranging for notice in local newspapers and distributing the notice to local governments, agencies and the general public. The [State agency] will provide input on local media outlets, government officials and interested citizens that should receive the notice. The [State agency] and FRA shall approve all notices prior to public distribution. The CONSULTANT, in collaboration with the [State agency], shall prepare a presentation, meeting handouts and displays for the hearing. The CONSULTANT will hire a court reporter to record hearing proceedings and provide an original transcript along with three copies for the [State agency] and FRA.

The CONSULTANT will organize and summarize public comments received during the hearing and public comment period and prepare responses with [State agency] input. The CONSULTANT will prepare a Public Hearing Log that will contain: legal notices, the notice distribution list, display ads, hearing presentation, hearing exhibits, transcripts and comments.

10.12 Environmental Justice. The CONSULTANT will conduct research to identify community issues and the need to supplement outreach effort with a strategy for populations sectors that have traditionally been underrepresented in the planning process. This research is



expected to involve the investigation of corridor demographics using the most recent and reliable data available.

Upon identification of minority and low-income populations, the CONSULTANT will develop a strategy for the effective involvement of these sectors of the population in the EIS process. This strategy is expected to include contact with churches, social service agencies, interest groups, civic groups, tenant associations, neighborhood organizations in these communities, which may include but not be limited to the local chapters of the NAACP, the Urban League, and AARP. During the initial contact with local officials their input will be sought on the location of these populations.

The strategy shall also identify the need for small group meetings or presentations to these groups. The number of such meetings will depend upon the extent of low income and minority population groups in the corridor. It is assumed that this outreach effort will be able to be carried out as a part of the small group meetings specified in the following paragraphs.

10.13 Small Group Meetings/Speaker's Bureau. The purpose of the small group meetings is to provide the public with an opportunity to be informed about the project, the proposed purpose and need for the project and the development of study corridors, and to solicit their input. These meetings will take place with a variety of community and neighborhood groups, civic, business groups, and municipalities along the corridor. Some small group meetings will be face to face meetings with local officials and business leaders as needed and could also include outreach efforts with minority or low-income groups. It is envisioned that these meetings will take place in a variety of locations throughout the corridor.

Throughout the PEIS development process, requests for meetings with small groups from the project area will be accommodated. Requests for such meetings will be coordinated with the [State agency] prior to establishing a meeting date and time. The organization making the



request for the meeting will be responsible for providing the location and contacting their members.

The CONSULTANT will establish a Speakers Bureau to accommodate small group meetings. As a part of the Speakers Bureau, the CONSULTANT will develop some basic materials for use with small group meetings to ensure speakers have the most up to date information on the project and a consistent message is being provided to the public by speakers. Both the CONSULTANT and the [State agency] will provide speakers for these meetings. The CONSULTANT will provide a two-person team for each of these meetings. The CONSULTANT will provide informational material, update the mailing lists, and prepare a summary of the meeting comments. A maximum of [x] small group meetings is established for the project.

10.14 Media Outreach. The CONSULTANT will assist the [State agency] with implementation of a media outreach strategy including preparing for and attending editorial board briefings, press releases, meeting releases, and general outreach to both the print and broadcast media. The effort will include a periodic update of media informational packages about the project. The effort will also include the identification of the key media markets and needed media contact information. The media contact lists from the [State agency] Public Information Officer (PIO) will provide the base list. The CONSULTANT will supplement the list will, with PIO input, as needed. The CONSULTANT will also assist the [State agency] with media outreach including preparing meeting notice ads, press releases, and editorial board briefings for [x] major markets of the corridor. To the greatest extent possible, materials developed for public workshops and events, including public information pieces will be modified and used to create media information packets.

10.15 Newsletters. The CONSULTANT shall prepare four issues of a newsletter for distribution to those persons on the project mailing list and to [State agency] officials. The



[State agency] shall approve each newsletter prior to distribution. The CONSULTANT will be responsible for the printing, processing and mailing of the newsletters.

The CONSULTANT will develop a consistent project logo and theme to be used in project public communications. Expected Newsletter content is as follows:

- Newsletter #1

An introductory, educational project newsletter to be widely distributed to raise the general public's awareness of the project, the project purpose and need, anticipated range of alternatives, the EIS process to be conducted and to inform the public of the times and locations for the public meetings and workshops.

- Newsletter #2

The project newsletter will address alternatives screened from further consideration and anticipated workshops.

- Newsletter #3

The third project newsletter will address alternatives development, the announcement of the availability of the Draft PEIS, and announce the public hearing on the Draft PEIS.

- Newsletter #4

The fourth newsletter will announce the selection of a preferred alternative and the release of the Final PEIS.

10.16 Fact Sheets. The CONSULTANT will prepare up to [x] fact sheets on key issues of public concern. Possible fact sheet issues could include noise/vibration, traffic/safety/grade crossings, parking, property values, economic development, station locations and design and any other relevant issue that continuously appears in the comment response database or during public outreach activities. Fact sheets will be carefully distributed to those communities in which a particular topic may be an issue. Other copies will be used as handouts at meetings and other outreach activities or used to provide project information as requested by the public. Fact sheets are envisioned as one "8 ½" x "11" page, full color,



printed front and back. The CONSULTANT and the [State agency] will agree upon the subjects to be covered by the fact sheets.

10.17 Web Page. The [State agency] will host the project website. The CONSULTANT will prepare content and layout for the project web page in consultation with the [State agency] PIO. The CONSULTANT will provide updated information during key milestones throughout the study to provide an additional avenue to involve/inform the public about the project. The CONSULTANT will assist the [State agency] as needed in developing responses to posted comments.

10.18 Displays. The CONSULTANT will develop and prepare [x] copies of one set of transportable, informational displays. The CONSULTANT will also identify and arrange for the display of this exhibit in at least [x] locations within the corridor. When practical, the display will be available prior to the public outreach meetings and will include information about the dates, times and locations for the public workshop.

The display will provide general information and be posted at locations to supplement the workshops. Displays will be designed to include a comment form and, when logical, displays will be staffed to allow for interaction. This will allow the public an opportunity to have their questions answered and to provide their input without having to attend a formal workshop. The CONSULTANT will investigate possible locations for the displays such as community fairs, public events, festivals and other such activities. Up to [x] locations/activities will be identified. The CONSULTANT will provide a maximum of two persons to staff [x] events featuring the display. Other potential locations include city halls, municipal complexes, Amtrak passenger stations, main branch libraries, the [State agency] headquarters buildings, state capitol building and other key high traffic locations.

Deliverables:

- Public Involvement Plan
- Comment/Response Database
- Documentation of public involvement activities
- Four newsletters,
- Meeting handouts,



- Presentations,
- Meeting minutes
- Content for project website,
- Project fact sheets
- Project displays
- Public Hearing presentation, handouts and displays
- Public Hearing Log and Transcripts
- Hearing comment summary and responses

Attachment A
Preliminary MWRRI Corridors for Evaluation

SECTION 11

MWRRI LIST OF STUDIES

Available Previous Corridor Studies from the MWRRI States

Base Study

MWRRI Phase 1 – Technology Alternatives Study
MWRRI Phase 3 – Business Plan
MWRRI Financing Study
MWRRI Phase 5 – Updated Business Plan
MWRRI Phase 6

Chicago-Detroit/Grand Rapids/Port

Chicago-Detroit study update (Michigan South of the Lake)
Michigan International Re-route Study
Michigan Triangle
Lansing-Detroit Commuter Study
Ann Arbor-Detroit Commuter Rail Study
Ann Arbor –Detroit Regional Rail Project Direction

Chicago-Toledo-Cleveland

Northern Indiana/Northwestern Ohio Route Alternatives Study
The Ohio & Lake Erie Regional Rail – Cleveland Hub Study
Ohio Hub Passenger Rail Economic Impact Study
Ohio Intermodal Rail Freight Growth Strategy Concept Study
Ohio & Lake Erie Regional Rail – 2007 Technical Memorandum
Ohio Freight Rail Choke Point Study
Cleveland-Columbus-Cincinnati – 3C Corridor Study

Chicago-St. Louis

Joliet-St Louis EIS Study
Peoria-Chicago Feasibility Study
Chicago-Peotone-St. Louis Corridor Study
Chicago-St. Louis Independent Operating Study
Chicago-St. Louis Market Study

Chicago-Carbondale

Carbondale Corridor Market Analysis

Carbondale Branch Line Study
Carbondale Train Speed Study

Chicago-Des Moines-Omaha

Iowa Rail Alternatives Study
Iowa Rail Financing Evaluation Analysis
Lincoln-Omaha Feeder Bus Connect Study
Iowa City-Omaha Implementation Phasing Analysis

Chicago-Milwaukee-Madison-St. Paul

Tri-State I High-Speed Rail Feasibility Study
Tri-State II High-Speed Rail Development Study
Madison-Milwaukee Passenger Connection (FONSI and Preliminary Engineering)
Wisconsin State Rail Plan 2020
Milwaukee-Green Bay Passenger Rail
Minnesota Intrastate Study
Twin Cities-Rochester High-Speed Rail Connection Study
Hiawatha Commuter Rail Study
Twin Cities-Duluth Rail Corridor Study
Chicago-Milwaukee-Twin Cities Capacity Study

Chicago-Indianapolis-Cincinnati

Chicago-Indianapolis-Cincinnati – Big Four Route Analysis
Gary (Indiana) Rail Station Alternative Route Analysis
Crosset Site Concept Development Study
Indiana Rail Plan

St. Louis-Kansas City

Missouri Freight/Passenger Rail Capacity, July 2007
UP Sedalia/Jefferson City Sub Rail Analysis, Phase 2
St. Louis-Kansas City Market Analysis
St. Louis-Kansas City Capacity Analysis
Kansas Rail Corridor Development Study