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Chicago to Iowa City Intercity Passenger Rail Service

TIER I SERVICE LEVEL ENVIRONMENTAL ASSESSMENT

Submitted Pursuant to 64 FR 28545
by the

U.S. Department of Transportation
Federal Railroad Administration

and

Illinois Department of Transportation

and

Iowa Department of Transportation

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Date of Approval

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Date of Approval

For FRA

The Illinois Department of Transportation (DOT) and Iowa DOT, in conjunction with the Federal Railroad Administration (FRA) are evaluating alternatives to reestablish passenger rail service between Chicago, Illinois, and Iowa City, Iowa, via the Quad Cities of Illinois and Iowa. This is a Tier 1 Service Level Environmental Assessment (EA) which addresses the service level issues that would be part of the initial operations of two round-trip passenger trains per day The Route A Alternative (Preferred Alternative), is the environmentally preferable alternative. It requires fewer miles of track improvements, is a shorter and faster route, provides better ridership and would provide more environmental benefits than the Route B Alternative The Route A Alternative would reduce air pollutants and energy use to a greater extent, and have fewer noise impacts than the Route B Alternative. Impacts on natural resources are very similar between the two build alternatives, with some key exceptions. The Wyanet Connection is only needed for the Route A Alternative and would include work outside of the existing right-of-way (ROW). The Route B Alternative is adjacent to critical habitat of the threatened Indiana bat and, due in part to its longer length, crosses eight more waterways and has 119 more National Wetland Inventory-listed (NWI) wetlands within 100 feet of the ROW than the Route A Alternative

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Comments on this Tier 1 Service Level EA are due by October 14, 2009, and should be sent to either George Weber or Tamara Nicholson at the above addresses.

EXECUTIVE SUMMARY

The Illinois Department of Transportation (DOT) and Iowa DOT, in conjunction with the Federal Railroad Administration (FRA) are evaluating alternatives to reestablish passenger rail service between Chicago, Illinois, and Iowa City, Iowa, via the Quad Cities of Illinois and Iowa. The proposed passenger rail service would have two round trips per day (four passenger trains per day) from Chicago to Iowa City with a stop in the Quad Cities and other intermediate locations and would attract approximately 187,000 passengers per year. The Chicago to Iowa City passenger rail service would be part of the Midwest Regional Rail Initiative (MWRRI), an initiative of nine Midwest states and Amtrak to establish an intercity passenger rail system in the Midwest. Chicago would be the hub of the MWRRI and a series of high speed and conventional speed rail corridors would provide land based connectivity with the major Midwest population centers. The Chicago to Iowa City passenger rail service would be one section of the Chicago to Omaha corridor and is planned for conventional speed (79 mile per hour).

This Environmental Assessment (EA) is a Tier 1 Service Level EA which addresses the service level issues that would be part of the initial operations of two round trip passenger trains per day. Future Tier 2 Project Level analyses would be prepared for specific project level activities required to implement the Chicago to Iowa City passenger rail service. These project level activities include the evaluation and selection of specific station locations and designs, identification and evaluation of specific track improvements, and evaluation of the location of specific construction activities such as sidings and new connecting track. The purpose for the proposed passenger rail service is to re-introduce passenger rail service in Iowa City and the Quad Cities to increase regional mobility, reduce roadway congestion, meet future travel demands, and provide an affordable modal option for the communities served.

In addition to the No-Build Alternative, Illinois DOT and Iowa DOT evaluated two different alternatives for providing passenger rail service from Chicago to Iowa City. Both alternatives would use a combination of existing passenger rail and freight rail alignments to provide passenger service. The Route A Alternative would connect Chicago's Union Station to Iowa City using rail lines owned by Amtrak, BNSF Railway Company (BNSF), and Iowa Interstate Railroad (IAIS). This alternative would require the construction of a new connection between the BNSF and IAIS rail lines near Wyanet, Illinois. The Route A Alternative would reestablish passenger rail service to Geneseo, Illinois; the Quad Cities (Moline, Illinois); and Iowa City, Iowa; and would provide expanded passenger service to the existing stations in La Grange Road, Naperville, Plano, Mendota, and Princeton, and Illinois. The Route B Alternative would connect Chicago's Union Station to Iowa City using tracks owned by Amtrak, Canadian National (CN), Metra, CSX Transportation (CSX), and IAIS. The Route B Alternative would not require any new connections. It would provide new passenger rail service to; Morris, LaSalle, Geneseo, Illinois; Quad Cities , Illinois; and Iowa City, Iowa; and would provide expanded passenger service to the existing station in Joliet, Illinois.

The Route A Alternative would provide a shorter and faster route than the Route B Alternative, and because of the more competitive travel time, the Route A Alternative would attract a higher ridership than the Route B Alternative. Almost half of the Route A Alternative (110 miles out of a total of 219 miles) currently supports 79 mph intercity passenger service and would not require any improvements. Far less of the Route B Alternative (42 miles out of a total of 238 miles) currently supports passenger trains, which means that the Route B Alternative would require more improvements to the track structure and grade crossings than the Route A Alternative.

Both the Route A and Route B Alternatives would divert a substantial number of passengers from automobiles to the passenger trains, providing some congestion relief on the regional highway system. Both the Route A and Route B Alternatives would have an increase in rail traffic of four additional passenger trains per day, which would add to the existing train related noise and vibration effects. However, in several locations the track structure would be improved which would reduce the noise impact. In addition, improvements to the track in the Quad Cities area would allow for an increase in the train speed through the communities which would further reduce noise impacts. The warning systems at the at-grade crossings would be improved as needed by installing gates and flashing lights at public crossings and upgrading to constant time warning circuitry. This would allow communities to pursue quiet zones if the communities so desired. Illinois DOT and Iowa DOT selected the Route A Alternative as the preferred alternative since it requires fewer miles of track improvements, is a shorter and faster route, provides better ridership, has fewer adverse environmental impacts and provides for more environmental benefits than the Route B Alternative.

ABBREVIATIONS AND ACRONYMS

ARRA	American Recovery and Reinvestment Act
BGEPA	Bald and Golden Eagle Protection Act
BMP	Best Management Practice
BNSF	Burlington Northern Santa Fe Railway
CEQ	Council on Environmental Quality
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CFR	Code of Federal Regulations
CN	Canadian National Railway Corporation
CO_2	carbon dioxide
CSXT	CSX Transportation Company
CTC	centralized traffic control
CWA	Clean Water Act
CWR	continuous welded rail
CWTD	constant warning time activation
dBA	A-weighted decibels
DNR	Department of Natural Resources
DOT	Department of Transportation
DTC	direct traffic control
EA	Environmental Assessment
EJ	environmental justice
EJ&E	Elgin, Joliet and Eastern Railway
EO	Executive Order
EPA	U.S. Environmental Protection Agency
EPCRA	Emergency Planning and Community Right-to-Know Act
ESA	U.S. Endangered Species Act
et seq.	and the following
FAA	Federal Aviation Administration
FEMA	Federal Emergency Management Agency

FHWA	U.S. Department of Transportation Federal Highway Administration
FONSI	Finding of No Significant Impact
FR	Federal Register
FRA	Federal Railroad Administration
ft	foot or feet
FTA	Federal Transit Administration
GBV	ground-borne vibration
GHG	human-generated greenhouse gas
GIS	Geographic Information Systems
HSIPR	High Speed Intercity Passenger Rail
IA	Iowa
IAIS	Iowa Interstate Railroad
IC&E	Chicago & Eastern Railroad
IL	Illinois
ILCS	Illinois Compiled Statutes
Illinois EPA	Illinois Environmental Protection Agency
ISTEA	Intermodal Surface Transportation Efficiency Act of 1991
Ldn	day-night noise level
LUST	Leaking Underground Storage Tank
MBTA	Migratory Bird Treaty Act
µin	microinch(es)
MOU	Memorandum of Understanding
mph	miles per hour
MSA	Metropolitan Statistical Area
MWRRI	Midwest Regional Rail Initiative
MWRRS	Midwest Regional Rail System
NAAQS	National Ambient Air Quality Standards
NEPA	National Environmental Policy Act
NHPA	National Historic Preservation Act
NO_2	nitrogen dioxide
NO_x	nitrogen oxides

NPDES	National Pollutant Discharge Elimination System
NRCS	Natural Resources Conservation Service
NRHP	National Register of Historic Places
NRI	Nationwide Rivers Inventory
NWI	National Wetlands Inventory
O_3	ozone
Pb	lead
PHMSA	U.S. Department of Transportation Pipeline and Hazardous Materials Safety Administration
PL	Public Law
PM-10	particulate matter less than 10 micrometers in diameter
PM-25	particulate matter less than 2.5 micrometers in diameter
Preferred Alternative	Route A – Amtrak-BNSF-IAIS
Project	reestablishment of passenger rail service between Chicago, Illinois, and Iowa City, Iowa
PTC	positive train control
RCRA	Resource Conservation and Recovery Act
ROW	right-or-way
SARA	Superfund Amendments and Reauthorization Act
Section 4(f)	Section 4(f) of the U.S. Department of Transportation (USDOT) Act of 1966
Section 6(f)	Section 6(f) of the Land and Water Conservation Act of 1965
Section 106	Section 106 of the National Historic Preservation Act, as amended
Section 404	Section 404 of the Federal Water Pollution Control Act
SHPO	State Historic Preservation Office
SO_2	sulfur dioxide
TEA-21	Transportation Equity Act for the 21st Century
TOD	transportation-oriented development
TPD	trains per day
TSCA	Toxic Substances Control Act

TWC	track warrant control
USACE	U.S. Army Corps of Engineers
USC	United States Code
USDOT	U.S. Department of Transportation
USFWS	U.S. Fish and Wildlife Service
USGS	U.S. Geological Survey
VdB	vibration decibels
VOC	volatile organic compound

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CHAPTER 1
PURPOSE AND NEED

This chapter describes the history of the project, the project area, the purpose of and need for the project, decisions to be made based on this document, connected actions, applicable regulations, and permits and approvals that are expected to be required prior to construction.

1.1 INTRODUCTION

The Illinois Department of Transportation (DOT) and Iowa DOT, in conjunction with the Federal Railroad Administration (FRA), are evaluating alternatives for the reestablishment of passenger rail service between Chicago, Illinois, and Iowa City, Iowa (the Project), which is part of the Midwest Regional Rail Initiative (MWRRI). See Section 1.2, Project History, for more information about the MWRRI.

As described in more detail in Section 2.1, Introduction, the service plan identified in the MWRRI calls for an ultimate service level of five round-trips per day (for a total of 10 passenger trains per day [TPD]); however, consistent with the incremental approach adopted by the MWRRI, Illinois DOT and Iowa DOT are proposing an initial service level of two round-trips per day (four passenger TPD). In addition, the MWRRI envisions an ultimate train speed of 90 miles per hour (mph) for the maximum authorized track speed on the section from Chicago to Wyanet[1] and a maximum authorized track speed of 79 mph from Wyanet to Iowa City when operating five round-trip TPD. For the initial service, Illinois DOT and Iowa DOT are proposing 79 mph on the entire route. The initial service was evaluated by Amtrak in its feasibility studies (Franke et al., 2008a; Franke et al., 2008b). Illinois DOT and Iowa DOT have determined that the initial service level would provide viable stand-alone service and would have independent utility; that is, developing the initial service does not force Illinois DOT or Iowa DOT to expand the service elsewhere. As addressed in Chapter 2, Alternatives, two alternatives have been identified for the section from Chicago to Wyanet where multiple rail lines are present. Because only one rail line connecting Wyanet to Iowa City currently exists, only one alternative has been identified for this section (see Figure 1-1, Potential Intercity Passenger Rail Routes, Chicago to Quad Cities and Iowa City).

This Environmental Assessment (EA) is a Tier 1 service level analysis. The EA evaluates both the initial service and the ultimate build-out proposed in the MWRRI, as well as the two alternative routes and the No-Build Alternative. At this time, Illinois DOT and Iowa DOT are proposing only the initial service on the route from Chicago to Iowa City. The operating agreements with the host railroads and Amtrak address only the initial service level. Any future increase in service levels will necessitate additional compliance with

[1] There is no station stop at Wyanet; however, Wyanet is where the alignment transitions to the Iowa Interstate Railroad.

the National Environmental Policy Act (NEPA) of 1969 (42 United States Code [USC] 4321 et seq.).

1.2 PROJECT HISTORY

The MWRRI was established in 1991 as part of the Intermodal Surface Transportation Efficiency Act of 1991 (ISTEA) (Public Law [PL] 102-240) and its reauthorization in 1998 with the Transportation Equity Act for the 21st Century (TEA-21) (PL 105-178). ISTEA and TEA-21 included a broader national effort to support high-speed rail investment. Nine transportation agencies across the Midwest and Amtrak sponsored the MWRRI:

- 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

As a result of the MWRRI and the national high-speed rail initiative, numerous corridors were identified, with Chicago as the hub. A number of studies were completed to identify and refine the corridors. Between 1996 and 2004, the MWRRI was refined from a series of individual corridors into a transportation plan. Numerous studies were also completed with regard to bus service integration into the MWRRI; financial, economic, market, and transportation analysis; infrastructure and capital costs; operating costs; and institutional and organizational issues. These efforts culminated in 2004, when the MWRRI issued the MWRRI Project Notebook (Transportation Economics & Management Systems, Inc., 2004a) and the Midwest Regional Rail System (MWRRS) Executive Report (Transportation Economics & Management Systems, Inc., 2004b). Since 2004, efforts have progressed to develop the various corridors. In 2006, Chapter 11, Benefit Cost and Economic Analysis, of the Midwest Regional Rail Initiative Project Notebook was updated (Transportation Economics & Management Systems, 2006a). The reports issued from these studies included the following passenger rail corridors in the MWRRS (see Figure 1-2):

- Chicago to Detroit/Grand Rapids/Port Huron, Michigan
- Chicago to Cleveland, Ohio
- Chicago to Cincinnati, Ohio
- Chicago to Carbondale, Illinois
- Chicago to St. Louis, Missouri
- St. Louis, Missouri, to Kansas City, Missouri
- Chicago to Quincy, Illinois
- Chicago to Omaha, Nebraska

- Chicago to Milwaukee, Wisconsin, and to St. Paul, Minnesota/Green Bay, Wisconsin

The Chicago to Iowa City corridor is a portion of the Chicago to Omaha corridor. The MWRRI includes many high-speed (110-mph) passenger rail corridors, but the Chicago to Iowa City service is planned for conventional speed (79 mph) and not high speed. The Project includes two round-trip TPD at maximum authorized track speeds of up to only 79 mph between Chicago and Iowa City. Depending on the specific route selected, under the MWRRI plan a portion of the Chicago to Iowa City corridor would be upgraded in the future to allow for maximum authorized track speeds of 90 mph when operating five round-trip TPD.

The existing railroads that are proposed to be used to provide passenger service were all in place by 1862 (Colton, 1862; Wikipedia, 2009a; Wikipedia, 2009b; Wikipedia, 2009c) and are among the oldest railroads in the region. The railroads were initially constructed to carry passengers and to haul a variety of freight and have evolved into very busy railroads. Most of the passenger service along these routes began when the rail lines were constructed and generally was terminated between the 1950s and the 1970s, when railroad passenger service declined nationally. However, one section (between Chicago and Naperville) has been providing regular commuter rail service since 1863 (Wikipedia 2009a). This section is on the alignment of the Preferred Alternative, discussed in Chapter 2, Alternatives.

As stated in the Midwest Regional Rail Initiative Project Notebook (Transportation Economics & Management Systems, Inc., 2004b), full implementation of the MWRRI would significantly improve Midwest passenger rail service by:

- Upgrading existing rail rights-of-way (ROW) to permit frequent, reliable, high-speed passenger train operations
- Accommodating operation of a hub-and-spoke[2] passenger rail system that provides through-service and connectivity in Chicago to locations throughout the Midwest region
- Introducing modern train equipment that offers improved amenities operating at speeds of up to 110 mph
- Providing multimodal connections and feeder bus systems to improve access to the rail system
- Introducing a contracted rail operation that improves efficiency, reliability and on-time performance

With full implementation (estimated to occur in 2025), the MWRRS would encompass approximately 3,000 route miles in the sponsor states and would attract approximately 13.6 million passengers annually. Approximately 90 percent of the Midwest region's population would be within an hour's ride of an MWRRI rail station and/or within 30

[2] A hub-and–spoke passenger rail system is one that provides transportation to a central location. From this central location (the hub), one can travel to various other destinations (the spokes).

minutes of an MWRRS rail station (Transportation Economics & Management Systems, Inc., 2004b).

1.3 PROJECT AREA

The Project area consists of existing rail corridors between Chicago and Iowa City. The proposed build alternatives include combinations of the existing freight and passenger lines of Amtrak, Metra, BNSF Railway Company (BNSF), Canadian National Railway Corporation (CN), CSX Transportation Company (CSXT), and Iowa Interstate Railroad (IAIS). One new connection would be required in Wyanet for the Preferred Alternative (Route A – Amtrak-BNSF-IAIS), which would leave the existing ROW and would require acquisition of approximately 7 acres of land[3].

1.4 PROJECT PURPOSE AND NEED

The purpose of the Project, and of the MWRRI, is to expand existing and develop new regional passenger rail service to help meet future travel demands in the Midwest. The Project would expand and create a rail transportation alternative to automobile, bus, and air and would meet needs for more efficient travel by:

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

There is a need to reduce the congestion and the transportation-related effects of further population growth over the long term. Many communities between Chicago and Iowa City have experienced rapid growth since 2000 and have seen increased congestion on roadways (Franke et al., 2008a; Franke, et al. 2008b). As discussed in Section 3.3, Socioeconomics, the Project area population increased by 15 percent between 1970 and 2008 (U.S. Census Bureau, August 5, 2009).

In addition to roadway congestion, the University of Iowa and nationally recognized hospitals are located in Iowa City, and approximately 20 percent of the University of Iowa student body (about 30,000 students) is from Illinois. Furthermore, the Quad Cities area (a region comprising the cities of Moline, East Moline, and Rock Island, Illinois; Davenport and Bettendorf, Iowa) offers numerous tourist attractions, including the Mississippi River, river boating, riverboat casinos, and the Rock Island Arsenal as well as museums and other cultural attractions (Franke et al., 2008b). Approximately 60 percent of the visitors to the Quad Cities are from the Chicago area (Franke et al., 2008a). Bus service and personal automobile are currently the only two modes of transportation that provide a direct connection for individuals traveling between Chicago and Iowa City. The nearest commercial airport to Iowa City is in Cedar Rapids, Iowa, which is approximately 30 miles north of Iowa City. The passenger rail service will fulfill a need for a

[3] A dispute exists between BNSF and the adjacent property owner with respect to the ownership of the parcel in question. This Tier 1 Service Level EA takes no position with respect to the dispute and has therefore identified the parcel as a potential acquisition. The alternatives alignments for the connection and the associated site-specific impacts will be evaluated in a Tier 2 Project Level NEPA document.

transportation alternative to and from these areas while relieving congestion on existing infrastructure.

1.5 DECISIONS TO BE MADE

Illinois DOT, Iowa DOT, and FRA must comply with NEPA due to the proposed use of High-Speed Intercity Passenger Rail Program funds for the Project. "The NEPA process is intended to help public officials make decisions that are based on understanding of environmental consequences, and take actions that protect, restore, and enhance the environment" (40 Code of Federal Regulations [CFR] 1500.1). NEPA requires the evaluation of a proposed project to determine if impacts on the environment will be significant. If it is determined through the EA that no significant impacts will result from the proposed action, then a Finding of No Significant Impact (FONSI) is issued by the sponsoring federal agency.

FRA has issued guidance supporting an approach that includes service level NEPA documents followed by project level NEPA documents, which can be accomplished with a tiered NEPA approach (FRA, August 14, 2009). With a tiered approach, the Tier 1 Service Level NEPA document evaluates impacts of a project as a whole, with focus on more qualitative than quantitative impacts. Following completion of the Tier 1 Service Level NEPA document and the associated decision document, Tier 2 Project Level NEPA documents are developed to evaluate quantitatively the environmental impacts within one or more specific sections.

The purpose of this Tier 1 Service Level EA is to provide FRA and the public with full understanding of the service-wide environmental impacts of the alternatives developed to meet the Project purpose and need. Prior to implementation of passenger rail service between Chicago and Iowa City, Tier 2 Project Level NEPA documents will be developed for the sections identified in Chapter 5.0, Next Steps.

1.6 CONNECTED ACTIONS

The Project is part of the MWRRI although it proposes only the expansion or addition of passenger rail service between Chicago and Iowa City. The implementation of passenger rail service along the other corridors included in the MWRRI is connected to the Project, but would be evaluated separately.

1.7 APPLICABLE REGULATIONS AND PERMITS

The following Federal regulations, statutes, and orders apply to and were focused on during preparation of this Tier 1 Service Level EA for the Project:

- Clean Water Act of 1977 (33 USC § 1251-1376)
- Endangered Species Act (50 CFR 17)
- Executive Order 11988, Floodplain Management (42 Federal Register [FR] 26951)
- Executive Order 11990, Protection of Wetland (42 FR 26961)
- Executive Order 12898, Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations (59 FR 7629)

- Executive Order 13166, Improving Access to Services for Persons with Limited English Proficiency (65 FR 50121)
- Federal Railroad Administration Procedures for Considering Environmental Impacts (64 FR 28545 and 49 CFR Part 260.35)
- National Environmental Policy Act of 1969 (42 USC § 4321 et seq., signed January 1, 1970)
- Regulations for Implementing the Procedural Provisions of the National Environmental Policy Act (40 CFR 1500–1508)
- Section 4(f) of the U.S. Department of Transportation Act of 1966 (49 USC § 303)
- Section 6(f) of the Land and Water Conservation Act of 1965 (16 USC § 460)
- Sections 9 and 10 of the Rivers and Harbors Act of 1899 (33 USC § 401)
- Section 106 of the National Historic Preservation Act, as amended (16 USC § 470)
- Section 404 of the Federal Water Pollution Control Act (33 USC § 1344)
- Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, as amended (42 USC § 61)
- Use of Locomotive Horns at Highway-Rail Grade Crossings, Final Rule (40 CFR 222 and 229)

Illinois DOT and Iowa DOT would be required to obtain the following permits prior to the start of any construction that is needed:

- Section 404 General or Individual Permits – The U.S. Army Corps of Engineers (USACE) administers the Clean Water Act (CWA) on behalf of the U.S. Environmental Protection Agency (EPA). Section 404 permits are needed for projects involving the discharge of dredge or fill material into waters of the U.S., which include wetlands and surface waters with a connection to a navigable waterway.

- Section 401 Water Quality Certification – This section of the CWA requires an applicant for an action that may result in discharges into waters of the U.S. to obtain clearance for this discharge from the state. Section 401 water quality certifications will be needed for both Illinois and Iowa.

Since the focus of this Tier 1 Service Level EA focuses on the broader impacts of the Project as a whole, the Tier 2 Project Level NEPA documents are expected to identify additional state and local level permits and approvals that are needed based upon specific activities to be completed. State and local permits and approvals will be discussed in the Tier 2 Project Level NEPA documents.

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Potential Intercity Passenger Rail Routes, Chicago to Quad Cities and Iowa City

Source: Feasibility Study on Proposed Amtrak Service
Quad Cities to Chicago - January 7, 2008
Chicago to Iowa City - April 18, 2008

Chicago to Iowa City Intercity Passenger Rail Service

DATE
September 2009

FIGURE
1-1

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*Indiana DOT is evaluating additional passenger rail service to South Bend and to Louisville.
**In Missouri, current restrictions limit train speeds to 79 mph.

Not to Scale

Iowa Department of Transportation
Iowa Connections
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Illinois Department of Transportation

MWRRS

Source: Transportation Economics & Management Systems, Inc. 2004b
Midwest Regional Rail System Executive Report

Chicago to Iowa City Intercity Passenger Rail Service

DATE
September 2009

FIGURE
1-2

CHAPTER 2
ALTERNATIVES

2.1 INTRODUCTION

This chapter describes the alternative actions considered for implementing the proposed passenger rail Project between Chicago, Illinois, and Iowa City, Iowa.

As discussed in Chapter 1, Purpose and Need, the Project is part of the MWRRI to develop and operate a Midwest Regional Rail System (MWRRS). The MWRRI envisions a rail network of more than 3,000 route-miles to serve nine states (Illinois, Minnesota, Wisconsin, Michigan, Ohio, Indiana, Iowa, Missouri, and Nebraska) with a combined population of 60 million people, a fifth of the total population of the United States. Portions of the 3,000-mile, MWRRS are part of the national High Speed Rail system designated under the Intermodal Transportation Efficiency Act of 1991 (consisting of the existing Northeast Corridor and ten major corridors identified for potential high-speed rail projects). Chicago would serve as the hub for nine corridors in the MWRRS noted in Chapter 1 and shown in Figure 1-2.

Secondary corridors and branch lines connected to these corridors would provide passenger rail service to other cities and towns including Quincy, Illinois; Green Bay, Wisconsin; Pontiac, Michigan; Grand Rapids, Michigan; Holland, Michigan; and Port Huron, Michigan. The system would provide scheduled service to other regional centers including Springfield, Illinois; Madison, Wisconsin; Kalamazoo, Michigan; Lansing, Michigan; Toledo, Ohio; Fort Wayne, Indiana; Indianapolis, Indiana; Iowa City, Iowa; Des Moines, Iowa; Omaha, Nebraska, and Jefferson City, Missouri.

A feeder passenger-bus system, with service schedules coordinated with the passenger rail service, would connect smaller towns and cities with the passenger rail corridors. 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 MWRRS rail station and /or within 30 minutes of a MWRRS feeder bus station. Passenger rail service in each of these corridors would be implemented in increments.

The proposed Chicago to Iowa City Intercity Passenger Rail Service is Phase 3 (of seven phases) of the MWRRI and is part of the proposed Chicago to Omaha corridor. A feasibility study was completed by Amtrak for the corridor between Chicago and the Quad Cities of Iowa and Illinois. Subsequently, a feasibility study was completed by Amtrak for the extension of service between the Quad Cities and Iowa City. During the development of these studies, Illinois DOT, Iowa DOT, host railroads, local government representatives, and advocacy groups were consulted to develop alternatives for the passenger rail service (Franke et al., 2008a; Franke et al., 2008b).

The proposed Chicago to Iowa City Intercity passenger rail service would result in the reestablishment of intercity passenger rail service between Chicago and the Quad Cities

and to Iowa City. The Project would benefit the communities by providing transportation options and improving connectivity to Chicago. The Project would serve a market that is not currently served and provide an affordable and competitive modal option.

The MWRRI plan for service levels on the Chicago to Iowa City corridor is for five round-trip passenger TPD. However, consistent with the incremental approach adopted by the MWRRI for the development of the MWRRS, Illinois DOT and Iowa DOT propose to initiate passenger service on the corridor at two round-trip passenger TPD. Both the two round-trips per day initial service level and the five round-trips per day ultimate service level are considered in this assessment.

The evaluation of the five round-trips per day scenario is included in this Tier 1 Service Level EA because this is the ultimate service level that Illinois DOT and Iowa DOT, as well as the MWRRI, envision at some point in the future. However, since the High Speed Intercity Passenger Rail (HSIPR) grant application only requests the funding required for the initial service level, and all of the improvements required for the ultimate service level have not been fully defined, Illinois DOT and Iowa DOT recognize that this Tier 1 Service Level EA may need to be revisited before the ultimate service level of five round-trip passenger TPD is implemented. The implementation of the initial service level of two round trips per day would have independent utility and would not necessitate the ultimate service level of five round-trip TPD, nor would it foreclose any future opportunities for passenger rail service in the region.

2.2 NO-BUILD ALTERNATIVE

The No-Build Alternative would consist of operating the current trackage and operations with the present level of maintenance and no appreciable change to current track configuration or operating conditions. The No-Build Alternative would not meet the Project purpose and need because passenger rail service would not be reestablished in the Quad Cities or Iowa City, there would not be an attractive alternative to highway or airline travel, and congestion of these modes of transportation in the Chicago to Quad Cities and Iowa City area would not be reduced.

The No-Build Alternative was retained for detailed analysis to allow equal comparison to the two round-trip TPD and five round-trip TPD scenarios and to help decision-makers and the public understand the consequences of taking no action. Additionally, NEPA requires consideration of no action to serve as a baseline comparison with the proposed action and other alternatives seriously considered.

2.3 TWO ROUND-TRIP TRAINS PER DAY SCENARIO

Initial passenger service would begin with two round-trip TPD. Future passenger rail service operations could increase to five round-trip TPD; the impacts of five round-trip TPD are discussed in Section 2.4, Five Round-trip Trains per Day Scenario.

Feasibility studies were previously conducted to identify a range of potential alternative routes. Three alternatives were considered for the two round-trip TPD scenario: Route A (Amtrak-BNSF-IAIS), Route B (Amtrak-CN-Metra/Rock Island-CSXT-IAIS), and an alternative route through Chicago to New Lenox to Metra/Rock Island (Franke et al., 2008a; Franke et al., 2008b). Route C, which was eliminated from further consideration,

would use Metra's Southwest Service route from Chicago through New Lenox. A connection from the Southwest Service route to the Metra Rock Island District route would be required because these two routes are grade separated. This alternative was dismissed from further consideration because the land needed to construct the connection includes part of a public park; local officials indicated vigorous opposition to use of parkland for the proposed connection (Franke et al., 2008a)

The No-Build, Route A, and Route B alternatives were retained for detailed study. The following text identifies activities associated with both of the alternatives.

2.3.1 Preferred Alternative (Route A – Amtrak-BNSF-IAIS)

The Amtrak feasibility study indicated that the Route A Alternative (Chicago through Wyanet to Quad Cities to Iowa City) should be the Preferred Alternative because this route is currently used to provide Amtrak service on the portion of this line from Chicago through Princeton and would require fewer capital improvements than Route B Alternative (Franke et al., 2008a; Franke et al., 2008b). The Preferred Alternative consists of using the tracks of three rail carriers: Amtrak (1.6 miles), BNSF (115.3 miles), and IAIS (102.3 miles) to provide passenger rail service between Chicago and Iowa City (see Figure 1-1). The passenger rail service would use the Arsenal Bridge to cross the Mississippi River. USACE owns and operates the Arsenal bridge, but IAIS is responsible for the track and signal maintenance across the bridge.

The Project would provide two round-trip passenger TPD travelling at speeds of up to 79 mph. The Route A Alternative would provide passenger rail service from Chicago to existing Amtrak stations at La Grange Road, Naperville, Plano, Mendota, and Princeton; expanding existing passenger rail service between Chicago and Princeton and introducing passenger rail service to Geneseo, the Quad Cities, and Iowa City, where there is currently no passenger rail service.

The Chicago through Wyanet route section is currently used by Amtrak as part of the long distance California Zephyr and Southwest Chief passenger service to the west coast and for regional intercity passenger service on the Illinois Zephyr and the Carl Sandburg to Quincy, Illinois. Amtrak currently operates an average of eight TPD on the section of BNSF rail line between Chicago and Wyanet (four westbound and four eastbound). The maximum speed for passenger rail service on the BNSF rail line is currently 79 mph. The BNSF line is used by Metra commuter trains from Chicago's Union Station to Aurora, Illinois, (an average of 81 commuter TPD) and by freight trains (an average of 35 TPD between Chicago and Eola Yard in Aurora, and an average of 18.5 TPD west of the Eola Yard through Wyanet). The IAIS line from Wyanet to Iowa City is not currently used for passenger rail service, but is used by freight trains (an average of 10 TPD through Wyanet to the Quad Cities, and an average of six TPD from the Quad Cities to Iowa City).

The BNSF line is mostly double and triple track, is signalized, and is under centralized traffic control (CTC). The IAIS line is single track, is non-signalized, and operates under track warrant control (TWC).

The Route A Alternative would include track upgrade, construction of a connection track, installation of a CTC system including a wayside signal system and remote control

switches, and provision of station facilities at Geneseo[1], Illinois; the Quad Cities; and Iowa City (Franke et al., 2008a; Franke et al., 2008b).

Track Upgrades

The existing Amtrak track from Union Station in Chicago to its connection with the BNSF track (1.6 miles) and the BNSF track from Chicago to Wyanet (115.3 miles) is in excellent condition and would not require any upgrade to support train service at speeds of up to 79 mph[2]. The IAIS track from Wyanet to Iowa City is currently a mixture of jointed rail and continuous welded rail (CWR). Approximately 9 miles of the IAIS track between Wyanet and Iowa City consists of jointed rail; this would be replaced with CWR. There are also a few joints still remaining within the CWR sections that would be welded, and worn CWR at two curve locations that would be replaced prior to implementing the proposed passenger rail service. Many of the crossties would need to be replaced and the track would need to be resurfaced (correcting the alignment of the rails to make them smooth by compacting the ballast and straightening and leveling the track). Most existing curves would require an increase in superelevation to allow higher train speeds. At-grade crossing protection would be upgraded to support the proposed 79 mph operation (Franke et al., 2008a; Franke et al., 2008b).

Most of the track rehabilitation from Chicago to Iowa City would be completed within the existing railroad grade, but some ditching, minor bridge and culvert work, elimination of mud spots in the track, and shoulder work as warranted to support speed upgrades may be required outside the existing railroad grade.

Wyanet Connection

Approximately 1 mile southwest of Wyanet, the BNSF Railway track is grade-separated over the IAIS track; there is currently no connection between the tracks. To permit straightaway train movements a connection track (approximately 4,000 feet long) would be constructed in the northwest quadrant of the intersection (see Figure 2-1). The connection would be designed to accommodate a train speed of 50 mph. Approximately 7 acres of ROW would be required for the proposed connection.

Wayside Signals and Remote Control Switches

The existing IAIS track from Wyanet to the Quad Cities and from the Quad Cites to Iowa City is non- signalized TWC territory. A CTC wayside signal system, compatible with future positive train control (PTC) overlay equipment, would be installed along these route sections. Dispatcher-controlled power switches would be installed at existing and new freight sidings for passenger service. Tree and brush clearing would be performed as needed to provide necessary sight distances for the wayside signal system. Upgrades as warranted will be implemented to the IAIS's dispatching center. Both BNSF and IAIS's dispatching offices will be automatically notified as trains from one railroad are being routed onto the other railroad.

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[1] The Geneseo Station was identified in the Amtrak feasibility study and was not included in the MWRRI study. As a result, the MWRRI documents, including the MWRRI SDP, do not include a station at Geneseo.

[2] See Section 3.21 Indirect and Cumulative Impacts for a discussion concerning improvements required at the BNSF Eola Yard in Aurora, Illinois.

At-grade Roadway Crossings

The existing Amtrak track from Union Station in Chicago to its connection with the BNSF track and the BNSF track from Chicago to Wyanet is in excellent condition and would not require any at-grade crossing upgrade to support train service at speeds of up to 79 mph. Due to the increased speed (from 40 mph to 79 mph) on the Wyanet to Iowa City section, approximately 180 public and private at-grade crossing would be improved. Tree and brush clearing would be performed at crossings where needed to address sight distance issues. Public at-grade crossing warning devices would be upgraded to constant warning time devices (CWTD), and at a minimum, flashing light signals with gates would be provided.

Additional safety measures (for example, medians or quad gates) would be considered for locations with problematic geometric conditions or chronic accident histories. Potential crossing closures/consolidations or grade separations would be identified for areas with multiple crossings nested together within a short distance. All private at-grade crossings would be upgraded to provide, at a minimum, passive warning signage. Private industrial or other heavily used private at-grade crossings would use flashing light signals with gates where warranted by traffic volumes and site conditions. Farm and other low-volume private at-grade crossings would use passive warning signage at all locations and would also include locked gates at locations where there are multiple tracks, sight distance issues, or other significant risk factors. Crossings with humps would be graded to eliminate the potential for hanging up low-clearance equipment. Crossing improvements or closings will be evaluated in subsequent Tier 2 Project Level NEPA documents.

Station Facilities

The proposed passenger rail service would continue to use existing stations at La Grange Road, Naperville, Plano, Mendota, and Princeton, Illinois. Amtrak stations are proposed at Geneseo and Moline, Illinois; and Iowa City, Iowa (Franke et al., 2008a; Franke et al., 2008b).

A site for an Amtrak station in Geneseo has not yet been determined (see Figure 2-2). Construction and operation of the Geneseo Amtrak station will be evaluated in subsequent Tier 2 Project Level NEPA documents.

The Rock Island County Metropolitan Mass Transit District, along with the City of Moline, is planning to construct an Amtrak station near the existing bus station in downtown Moline as part of Centre Station, a transit oriented development (see Figure 2-2). The Centre Station site is also being studied for a commuter rail station and could develop into an intermodal transit facility, linking passenger rail, commuter rail, local and regional bus, water taxi, and other non-transit modes of transportation such as automobiles and bicycles (S.B. Friedman and Company, July 2009).

The potential for reacquiring and remodeling the former passenger rail service terminal in Iowa City, near Wright Street and Dubuque Street, for use as an Amtrak station is being explored (see Figure 2-3). The former station is currently being used for non-rail purposes.

An overnight train storage track location in Iowa City would be identified. A small building facility would be needed for train crews, storage of cleaning equipment, and communications. Standby power and potable water would also be required. Several sites for the storage track are being explored and will be evaluated in subsequent Tier 2 Project Level NEPA documents.

Other Infrastructure Improvements

The IAIS crossing of the BNSF line at Colona would be improved to increase the operating speed of the proposed passenger rail service trains. Currently, train speeds at this crossing are limited to 10 mph. Improvements would also be implemented at the Rock Island Yard to reduce congestion from switching operations. Relocation of the Rock Island Yard to Silvis is also under consideration (Hanson Professional Services, Inc., July 3, 2008).

Schedule

The proposed passenger rail service would provide an alternative to highway or air transportation between Chicago, the Quad Cities, and Iowa City. A typical passenger rail service train departing Chicago would arrive in the Quad Cities in approximately 3.3 hours and in Iowa City in approximately 5 hours. The typical time of travel and distances between stations, and a preliminary passenger train schedule is provided in Appendix A.

2.3.2 Route B Alternative (Amtrak-CN-Metra/Rock Island District-CSXT-IAIS)

The Route B Alternative consists of using the tracks of five rail carriers: Amtrak (1.6 miles), CN (1.0 miles), Metra/Rock Island District (39.4 miles), CSXT (54.0 miles), and IAIS (142.2 miles) to provide passenger rail service between Chicago and Iowa City. The Project would provide two round-trip passenger TPD travelling at speeds of up to 79 mph. The Metra/Rock Island line is used for Metra commuter passenger service between Chicago and Joliet (54 TPD). There is currently no passenger rail service between Joliet and Iowa City. The CSXT line is currently used for freight trains (six TPD) from Joliet to Utica, Illinois. An average of 10 freight TPD operate on the IAIS line between Utica and Moline; an average of six freight TPD operate on the IAIS line between Moline and Iowa City.

The Project would include track upgrade, installation of a wayside signal system and remote control switches, and provision of station facilities at Morris, La Salle, Geneseo, and Moline, Illinois, and Iowa City, Iowa. A station stop is also proposed for the existing Amtrak station at Joliet. A connection track would not be required near Wyanet, as the existing IAIS track continues both east and west of Wyanet.

Track Upgrades

The existing Metra/Rock Island District track from Union Station in Chicago to its connection with the CSXT track in Joliet is in excellent condition and would not require any upgrade to support train service at speeds of up to 79 mph. The CSXT track from Joliet to the IAIS track in Bureau is in various states of condition; the majority of this track is jointed rail with crossties that are insufficient to support the higher speed of the proposed passenger rail service. All of the remaining jointed rail and crossties in poor condition would need to be replaced to support the proposed passenger rail service. The

entire line from Joliet to Bureau would be resurfaced; this would include increasing the superelevation of curves for higher speed as required. With the exception of a short section of jointed rail at Bureau, the IAIS line from Bureau to Wyanet consists of CWR track. The jointed rail would be upgraded to CWR track and crossties would be replaced (Franke et al., 2008a).

The Metra/Rock Island District track is used for commuter trains from Chicago to Joliet. The Metra/Rock Island line is double track to Joliet and is controlled via CTC. The CSXT section of this route (west of Joliet) is used by freight trains. Due to a heavy concentration of industrial rail customers west of Joliet, local train traffic is heavy, with numerous turnouts and sidings. The CSXT line is single track; sidings at Rockdale and Seneca provide opportunities to pass.

Most of the track rehabilitation from Chicago to Wyanet would be completed within the existing railroad grade, but some ditching, minor bridge and culvert work, elimination of mud spots in the track, and shoulder work as warranted to support curve speed upgrades may be required outside the existing railroad grade.

The Route B Alternative would use the existing IAIS line from Wyanet to Iowa City (the same line as under the Route A Alternative). Track upgrades along this section would be the same as described under Route Alternative A.

Wyanet Connection

A connection track would not be required for the Route B Alternative, as this alternative would use the existing IAIS line from Utica, Illinois to Iowa City.

Wayside Signals and Remote Control Switches

The existing CSXT and IAIS track from Joliet to Wyanet is non-signalized. A CTC wayside signal system compatible with the future PTC overlay would be installed along these route sections. Remote controlled switches would be installed at ten siding tracks. The Amtrak feasibility study recommends conducting a train traffic flow simulation on the CSXT section to determine if additional line or switching capacity would be required (Franke et al., 2008a).

At-grade Roadway Crossings

The existing Amtrak-owned track from Union Station in Chicago to its connection with CN's St. Charles Airline (0.8 miles) and the CN section to 16th Street Tower have no at-grade highway/rail crossings. Metra's Rock Island Subdivision between 16th Street Tower and Joliet has several at-grade road crossings. The route is in excellent condition and would not require any at-grade crossing upgrade to support train service at speeds of up to 79 mph (Franke et al., 2008a). Due to the increased speed (from 40 mph to 79 mph) from Joliet to Utica on CSX's New Rock Subdivision and from Utica to Iowa City section, more than 180 at-grade public and private at-grade crossing would be improved. Tree and brush clearing would be performed at crossings where needed to address sight distance issues. Public at-grade crossing warning devices would be upgraded to CWTD and at a minimum flashing light signals with gates would be provided.

Additional safety measures (for example, medians or quad gates) would be considered for locations with problematic geometric conditions or a chronic accident history. Potential

crossing closures/consolidations and grade separations would be identified for areas with multiple crossings nested together within a short distance. All private at-grade crossings would be upgraded to provide at a minimum passive warning signage. Private industrial or other heavily used private at-grade crossings would utilize flashing light signals with gates where warranted by the traffic volumes and site conditions. Farm and other low volume private at-grade crossings would utilize passive warning signage at all locations and also include locked gates at locations where there are multiple tracks, sight distance issues or other significant risk factors. Crossings with humps would be graded to eliminate the potential for hanging up low-clearance equipment. Crossing improvements or closings will be evaluated in subsequent Tier 2 Project Level NEPA documents.

Station Facilities
The proposed passenger rail service would continue to use an existing Amtrak station at Joliet. Additional stations are proposed for Morris and La Salle on the CSX section (see Figure 2-4). Similar to the Route A Alternative, Amtrak stations are proposed at Geneseo, Moline, and Iowa City along the IAIS (see Figure 2-2 and Figure 2-3) (Franke et al., 2008a).

Similar to the Route A Alternative, Route B would require an overnight train storage track location, a small building facility for train crews, storage of cleaning equipment, and communications; and standby power and potable water.

Other Infrastructure Improvements
The IAIS crossing of the BNSF line at Colona and access through the Rock Island Yard area would be improved to increase the operating speed of the proposed passenger rail service trains, as discussed in the Preferred Alternative. Relocation of the Rock Island Yard to Silvis is also under consideration (Hanson Professional Services, Inc., July 3, 2008).

Table A-5 in Appendix A provides a comparison of estimated order of magnitude capital costs of Route A and B alternatives. Schedule
A typical passenger rail service train departing Chicago would arrive in the Quad Cities in approximately 5 hours and in Iowa City in approximately 6.5 hours. The typical time of travel and distances between stations, and a preliminary passenger train schedule is provided in Appendix A.

2.4 FIVE ROUND-TRIP TRAINS PER DAY SCENARIO

Operation of the Chicago to Iowa City intercity passenger rail service is proposed to begin with an initial service level of two round-trip TPD, as discussed in Section 2.3, Two Round-trip Trains per Day Scenario. The ultimate service level for the Chicago to Iowa City intercity passenger rail service, as specified in the MWRRI Project Notebook, is five round-trip TPD. The five round-trip TPD are anticipated to operate at 90 mph from Chicago to Wyanet on BNSF and at 79 mph from Wyanet to Iowa City on IAIS. A separate Tier 1 Service Level NEPA document and analysis would be required prior to increasing the train frequency and train speeds. The 90 mph operational speed will be addressed in that Tier 1 Service Level NEPA document.

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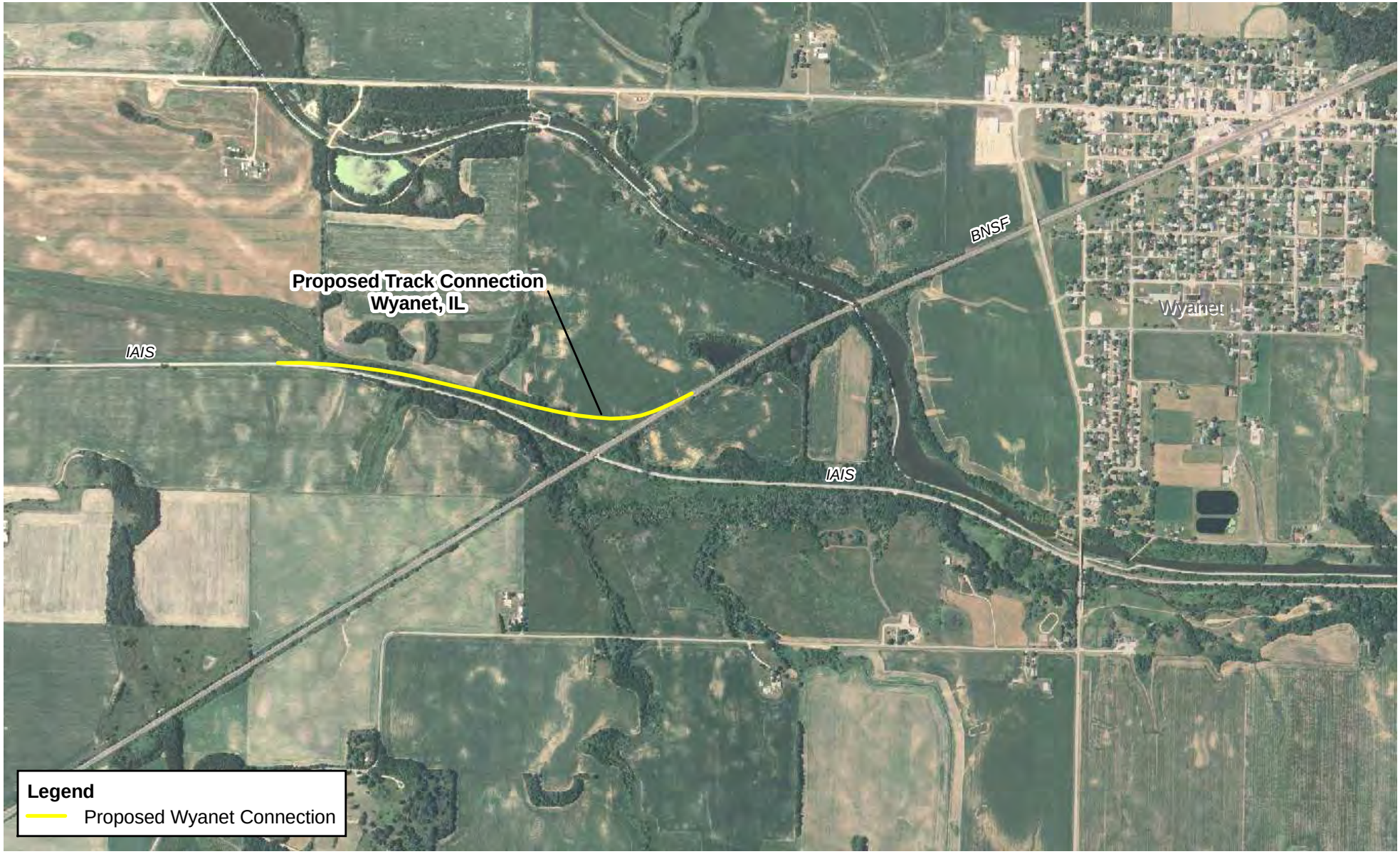

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0.25 0.125 0 0.25 Miles

Scale

Iowa Department of Transportation

Iowa Connections

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Illinois Department of Transportation

Wyanet Connection

Chicago to Iowa City Intercity Passenger Rail Service

DATE

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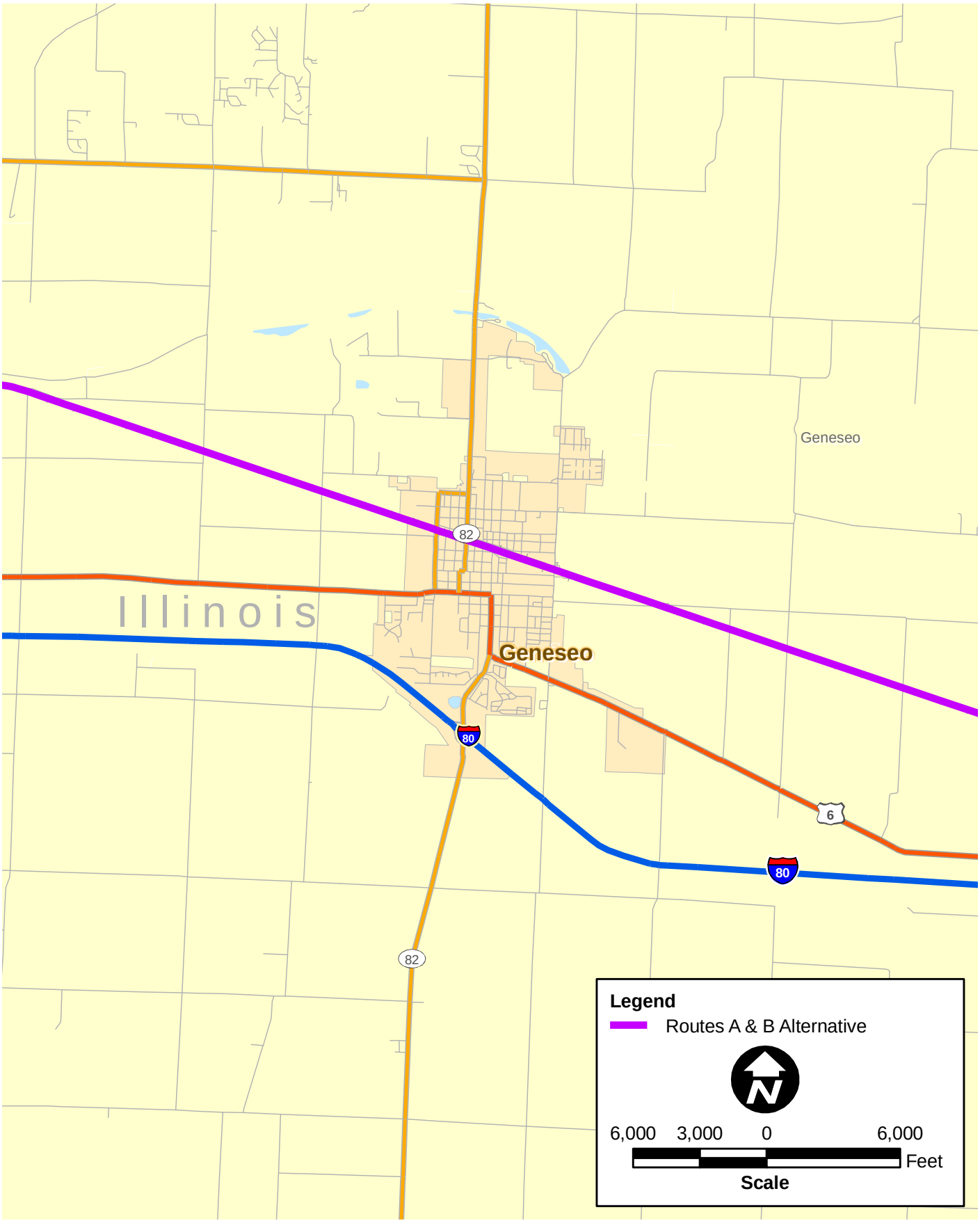
FIGURE

2-1



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Iowa Department of Transportation
Iowa Connections
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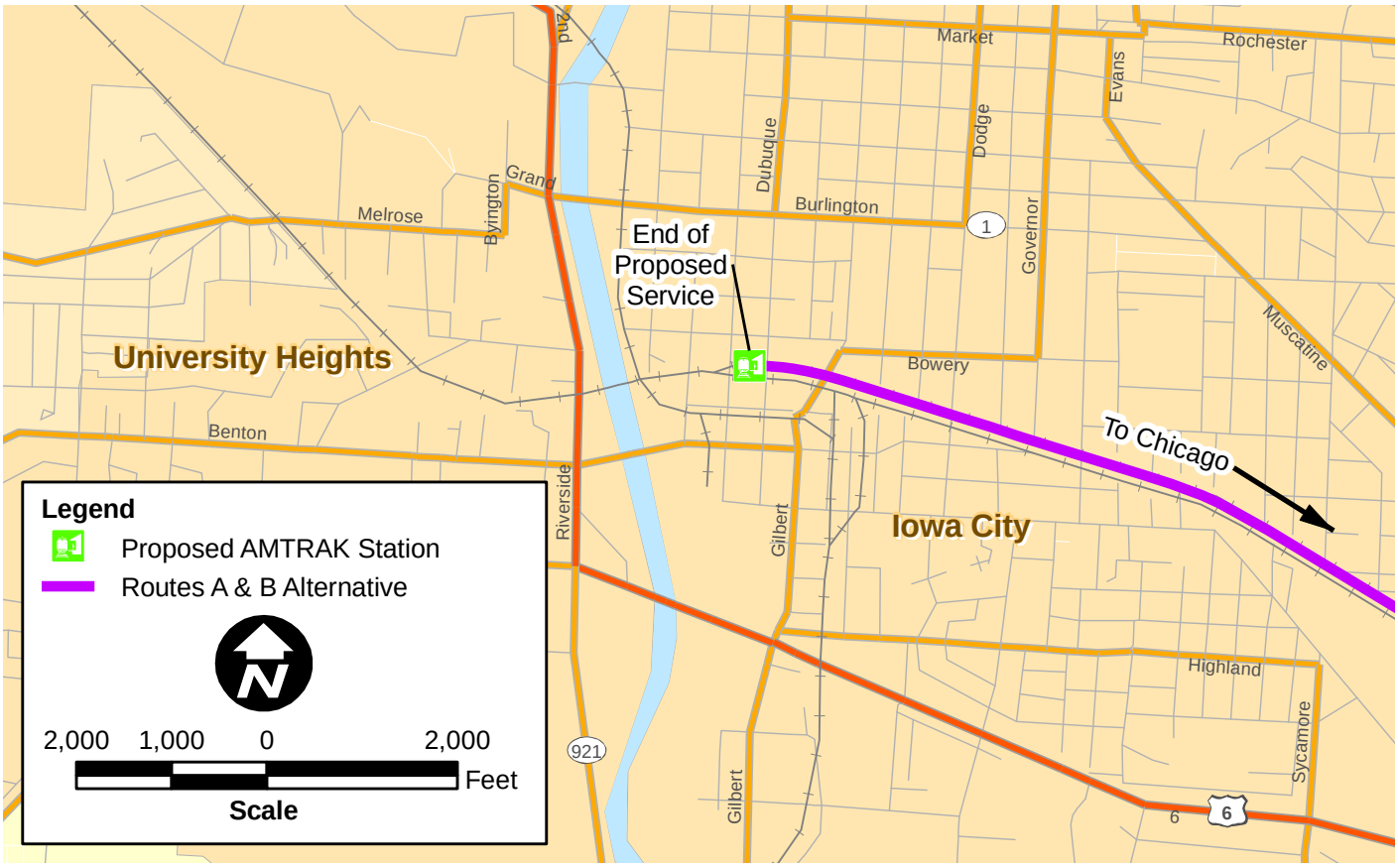
Illinois Department of Transportation

Station Locations to be Determined - Geneseo

Chicago to Iowa City Intercity Passenger Rail Service

DATE
September 2009

FIGURE
2-2



Iowa Department of Transportation
Iowa Connections
Get on Board
Illinois Department of Transportation

Proposed Station Locations - Moline & Iowa City

Chicago to Iowa City Intercity Passenger Rail Service

DATE
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FIGURE
2-3

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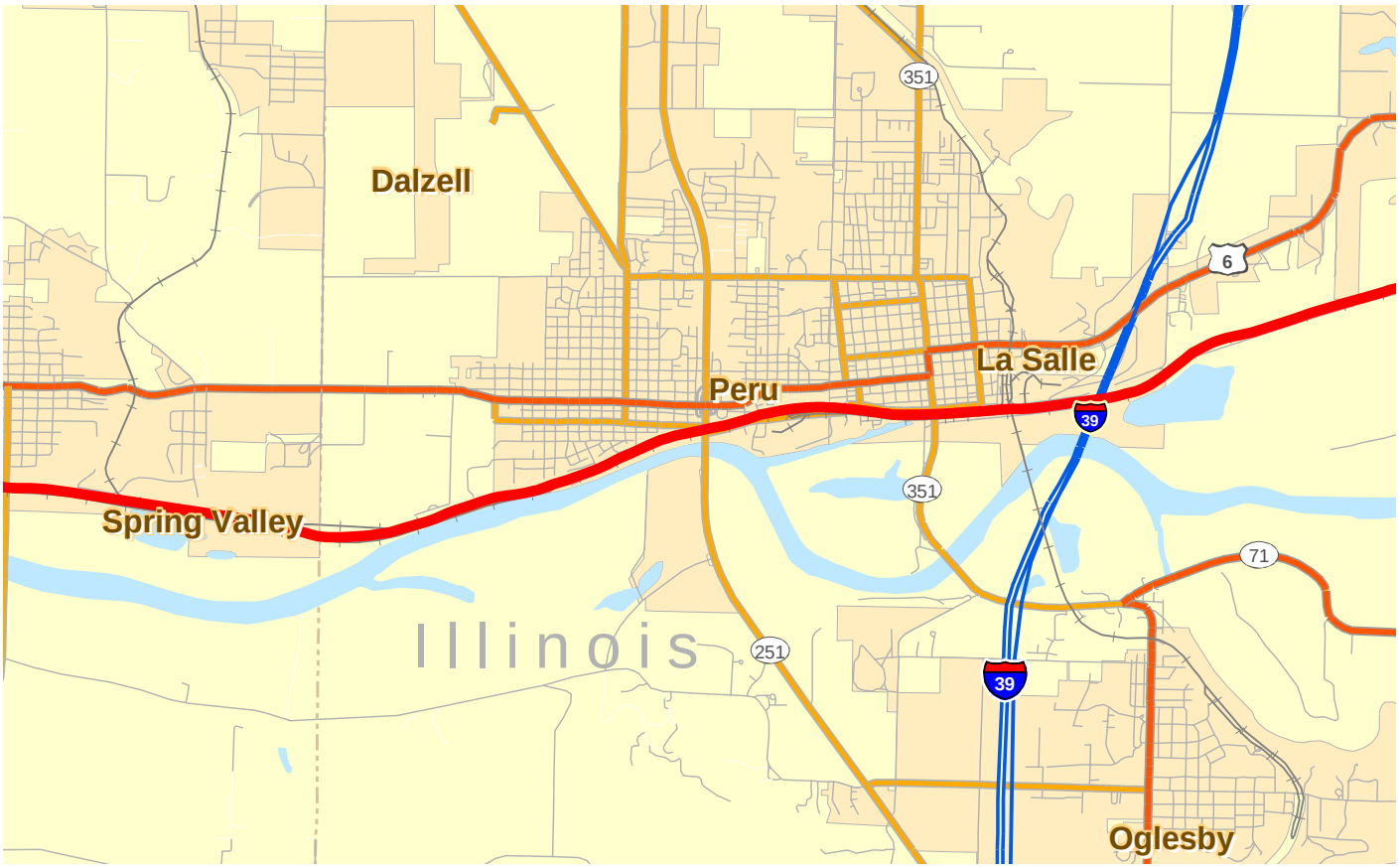

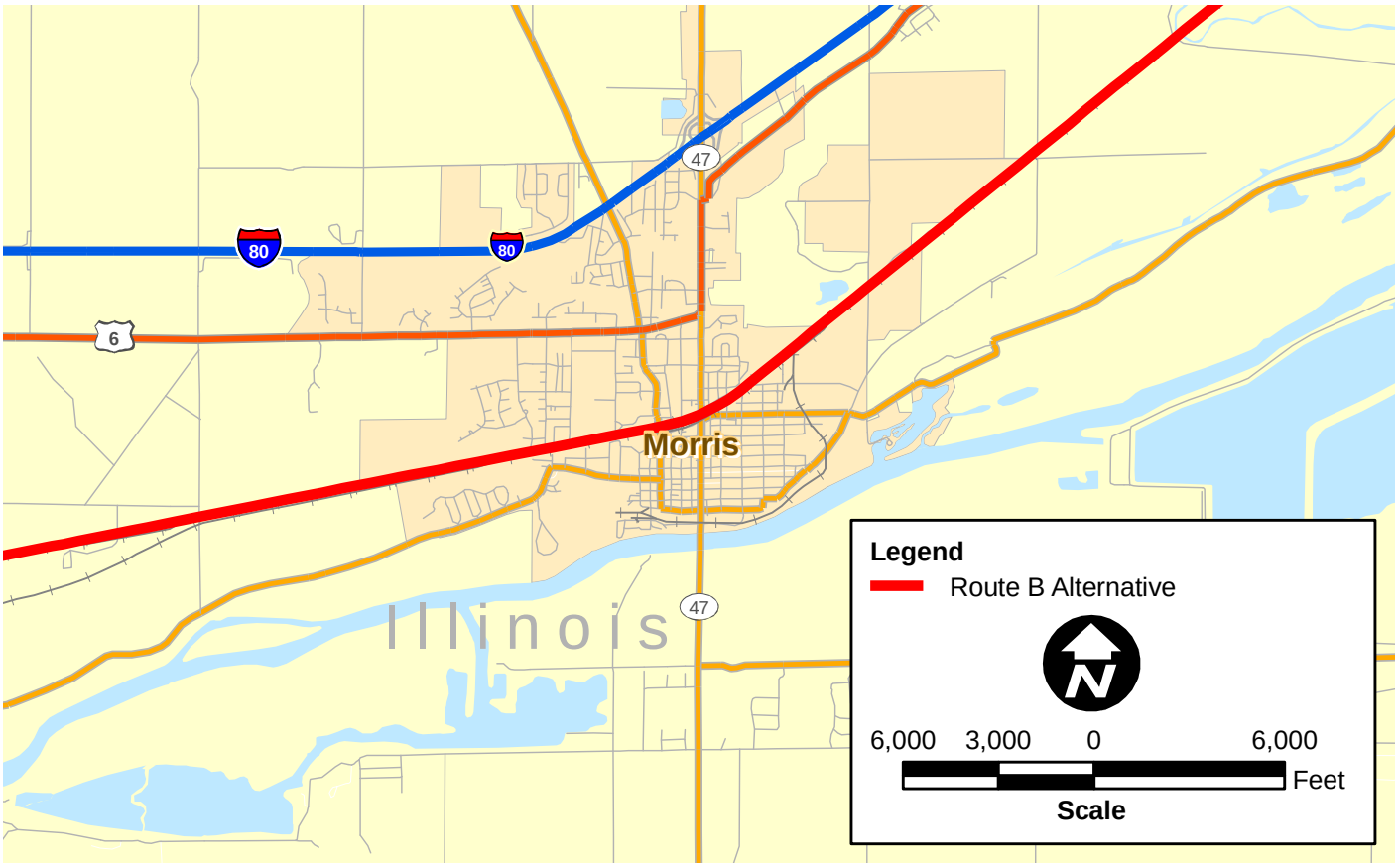

Iowa Department of Transportation
Iowa Connections
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Illinois Department of Transportation

Station Locations to be Determined - Peru & Morris

Chicago to Iowa City Intercity Passenger Rail Service

DATE
September 2009

FIGURE
2-4

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CHAPTER 3
AFFECTED ENVIRONMENT AND ENVIRONMENTAL CONSEQUENCES

3.1 INTRODUCTION

This chapter describes the existing social, economic, and environmental conditions in the Project area, which serve as a baseline for comparing the potential impacts of the proposed action and alternatives. Under the No-Build Alternative, passenger rail service would not be developed between Chicago and Iowa City. This chapter identifies mitigation options that could be used to eliminate or minimize some of the potential environmental consequences that would result from implementation of one of the build alternatives.

To describe the existing conditions and environmental consequences, 17 resource-specific topics have been identified. These resources are discussed in individual sections of this chapter, each of which identifies the geographic area analyzed in the EA. Specific topics discussed include transportation; socioeconomics; environmental justice; land use, zoning, property acquisition; public health and safety; noise and vibration; air quality; hazardous materials; cultural resources; Section 4(f) resources; wetlands; waterways; water quality; floodplains; threatened and endangered species; energy use and climate change; and management areas. Additional sections at the end of this chapter address construction impacts, irreversible and irretrievable commitment of resources, and indirect and cumulative impacts.

3.2 TRANSPORTATION

3.2.1 Affected Environment

This sub-section describes the existing transportation environment between Chicago, Illinois, and Iowa City, Iowa. The discussion focuses on four major components:

- The regional transportation network
- Highway crossings
- Navigation
- Freight rail

Regional Transportation Network

The proposed Project is along one of two rail corridors between Chicago, Illinois, and Iowa City, Iowa. The Route A Preferred Alternative is along an approximately 219-mile corridor that includes 115 miles on trackage owned by BNSF, 102 miles on trackage owned by IAIS, and 2 miles on Amtrak. The Route B Alternative corridor is approximately 238 miles long, 54 miles of which are on tracks owned by the CSX Corporation, 1 mile on Canadian National, 2 miles on Amtrak, and 39 miles on

Metra/Rock Island. The remaining 142 miles are on the same IAIS trackage as that for Route A.

The proposed Project would share track with freight trains and other passenger trains between Wyanet and Chicago. The current freight operation consists of between 18 and 35 TPD on the BNSF tracks, and 6 to 10 TPD on the IAIS tracks. Amtrak currently operates about eight passenger TPD on the BNSF line between Halsted (about 2 miles west of Chicago's Union Station) and western Illinois. Freight rail traffic on the CSX line runs between 6 and 10 TPD. However, within the Chicago metropolitan area, Amtrak and Metra both operate on CSX lines, and run between 50 and 100 passenger TPD.

Chicago, which lies at the eastern end of the Project, is a metropolitan area of more than 9 million people. On the western end of the Project are the metropolitan areas of Iowa City and Cedar Rapids, Iowa, and the Quad Cities of Davenport and Bettendorf, Iowa, and Rock Island and Moline, and East Moline, Illinois. Though the population of this area is just over one-half million people, it is an important destination in the Midwest. The University of Iowa has an annual enrollment of more than 30,000 students, and the University of Iowa Hospital is nationally recognized. Cedar Rapids, which is not along the proposed rail corridor but would be accessible from a feeder bus service from Iowa City, is becoming an important energy center that serves new industries that manufacture or transport wind turbine components.

The region is connected with an extensive transportation network (see Figure 3.2-1, Regional Transportation Network) that includes air, rail, bus, and automobile routes. Airports served by major airlines are located in Chicago (O'Hare and Midway Airports), Moline (Quad City International Airport), and Cedar Rapids (Eastern Iowa Airport), which serves the Cedar Rapids-Iowa City metro area. Currently, Quad City International offers five round-trips daily to Chicago through two carriers flying regional jets; and the Eastern Iowa Airport offers eight daily round-trips, also through two carriers.

Although passenger rail service is available in the region, there is no direct service to the Quad Cities or Iowa City area. The nearest available passenger rail service would be Amtrak in Galesburg, Illinois, which is about 60 miles southeast of Rock Island. This Project seeks to enhance and expand passenger rail service.

Bus service is available for travel to surrounding communities, although regional travel is limited. Currently, there are only two round-trips available from Iowa City to Chicago.

The predominant mode of travel in the region is the automobile. Highway access between Iowa City and the Quad Cities to Chicago is afforded through Interstates 80 and 88 (portions of which are toll road), as well as a number of federal and state highways. Table 3.2-1 shows the total trips in the Chicago-Des Moines-Omaha corridor for the year 2000.

Table 3.2-1
Total Trips in the Chicago-Des Moines-Omaha Corridor, for the Year 2000

Mode of Travel	Reason for Travel		Total	Percent of Total
	Business	Non-business		
Air	270,000	452,000	722,000	1.4%
Bus	5,000	118,000	123,000	0.2%
Auto	12,324,000	38,738,000	51,062,000	98.0%
Rail	32,000	149,000	181,000	0.3%
Total	12,631,000	39,457,000	52,088,000	

Note:
Data modified from Transportation Economics & Management Systems, Inc., 2006a, Midwest Regional Rail Initiative Project Notebook, Exhibit 4-10. (Values have been rounded to nearest 1,000 trips and adjusted to remove estimated travel to Quincy, Illinois).

Highway Crossings

The BNSF, CSX, and IAIS tracks cross a number of rural and urban roadways between Chicago and Iowa City. These crossings, summarized in Table 3.2-2, include both public and private roadways. Private roads include farmstead entrances as well as entrances to trackside industries and commercial properties.

Table 3.2-2
Summary of Highway/Rail at-Grade Crossings

Location	Public (Rural)	Public (Urban)	Private (Rural)	Private (Urban)	Pedestrian
Route A					
Chicago to Wyanet	31	82	15	3	26
Route B (New Lenox to North Utica)					
Chicago to North Utica [1]	14	59	19	1	25
Route A and B					
Wyanet to Iowa City	36	97	33	17	3
TOTALS					
Route A	67	179	48	20	16
Route B	50	159	52	18	28

Note:
[1]Crossing data between North Utica and Wyanet were not available.

In addition to highway/rail at-grade crossings, the Route B alternative alignment also crosses three other rail lines at-grade, as shown in Table 3.2-3.

Table 3.2-3
Rail/Rail At-Grade Crossings for Route B

Location	Railroad	No. of tracks
Englewood	Norfolk Southern	3
East Joliet	Canadian National/Elgin, Joliet and Eastern Railway (CN/EJ&E)	2
Joliet	BNSF, CN, Union Pacific Railroad	4

Navigation

The proposed action also crosses two navigable waterways – the Des Plaines River and the Mississippi River. Route B, which includes a major portion of trackage owned by CSX, crosses the Des Plaines River at Joliet via a vertical lift bridge. The river historically supported commercial barge traffic between Lake Michigan and the Mississippi River via a system of locks and dams. The Surface Transportation Board[1] estimated that approximately 15 vessels per day pass through the Lockport Lock, which is upstream of the CSX bridge.

The Government Bridge, or Arsenal Bridge, spans the Mississippi River connecting Rock Island, Illinois, and Davenport, Iowa, adjacent to Mississippi River Lock and Dam 15. The bridge is a steel truss that carries two lanes of roadway and a single railroad track. The bridge includes a swing section, mounted on the center wall of the lock, to accommodate traffic navigating the locks. The average bridge operation takes 13 minutes. Most operations take around 8 to 9 minutes, but some operations can take up to 30 minutes. The longer operations are for barges that are too long for the lock and that have to be uncoupled and moved through the lock in two stages.

The bridge is normally kept in the "closed" position; that is, it is open to vehicular and rail traffic. Boat traffic using the locks usually requires the bridge to be "turned" (that is, opened) approximately 3,000 to 4,000 times during a year (9 to 10 months). The locks are closed from mid/late December to late February/early March. The bridge operator is connected to the IAIS radio system.

The bridge is owned and operated by the federal government, and FRA has no official jurisdiction.

Freight Rail

While BNSF has operated for years with a mix of freight and passenger trains, the Iowa Interstate Railroad primarily hauls freight and only authorizes an occasional excursion passenger train on its tracks.

Burlington Northern Santa Fe Railway

BNSF currently operates approximately 18.5 TPD on the double-track Mendota Subdivision that includes the section between Wyanet and Montgomery (near Aurora). Due to fluctuations in traffic levels, BNSF has operated up to 34 TPD recently. Most of these trains are simply moving from western origins and destinations to eastern and generally move along this section at track speed (normally 50 to 60 mph). At Montgomery, the average freight train volume virtually doubles with 35.0 TPD operating east of this junction with a maximum volume of 52.0 TPD.

Currently, the Chicago Subdivision is double-tracked to West Eola then triple tracked to Chicago Union Station. West Eola is the location where the 80 plus TPD of Metra's commuter fleet enter the BNSF system. Because of this volume, it is often necessary to hold trains on the BNSF main track west of Montgomery especially during the morning and evening peak hour periods. This situation is complicated by the fact that many BNSF

[1] Surface Transportation Board, July 2008. *Draft Environmental Impact Statement, Canadian National Railway Company Acquisition of the Elgin, Joliet, and Eastern Railway*. STB Finance Docket 35087.

freight trains enter and depart the Chicago Subdivision at East Eola where they connect to the CN/EJ&E alignment. The relatively slow track speed at this connection requires ample time in order to move the time-sensitive intermodal and coal traffic through this congested section. Scheduled Amtrak trains are "caught up" within these commuter peaks and occasionally incur delays.

In a separate action, BNSF has proposed that a fourth main track be constructed from West Eola to East Eola that would move the location where many BNSF trains enter and leave the BNSF network and enter or leave the CN/EJ&E alignment. Because the staging of BNSF freight trains is now affected by current commuter train volumes, the improvements to the physical plant at Eola are considered as a prerequisite for the addition of trains, such as those for the proposed Chicago to Iowa City service, to the BNSF network.

Iowa Interstate Railroad

According to IAIS officials, IAIS operates up to 10.0 TPD on the section between Iowa City, Iowa and Utica, Illinois (located just east of La Salle, Illinois) with several trains entering and leaving the IAIS main track and 6.0 TPD between Utica and their Burr Oak Yard located near Blue Island. Many IAIS trains require the use of the main track to switch cars going to or coming from industries that have spur tracks.

3.2.2 Impacts of Proposed Action and Alternatives – Two Round-trip Trains per Day Scenario

The proposed Chicago to Iowa City passenger service is described in two documents:

- Feasibility Study on Proposed Amtrak Service from Chicago to Iowa City, Iowa, via Quad Cities (an addendum to the Feasibility Report on Proposed Amtrak Service, Quad Cities–Chicago) (Franke et al., 2008c)
- Midwest Regional Rail Initiative Project Notebook (Transportation Economics & Management Systems, Inc., 2004a)

As noted in Chapter 2, Alternatives, two corridors were carried forward for detailed evaluation:

- Route A Alternative, the Preferred Alternative, with proposed service from Chicago's Union Station on BNSF's Chicago and Mendota Subdivisions through La Grange, Naperville, Aurora, Plano, Mendota, and Princeton, with a new connection to the IAIS rail line at Wyanet, and continuing to Geneseo, Moline/Rock Island, and Iowa City
- Route B Alternative, with proposed passenger service from Chicago's Union Station on CN's St. Charles Air Line, on Metra's Rock Island Subdivision to Joliet, thence on the CSX rail line to Utica, and on the IAIS rail line through Wyanet toward Iowa City as described in Alternative A. This route is 19 miles longer than Route A.

The two round-trip passenger trains would travel daily at a maximum operating speed of 79 mph. The proposed schedule calls for a 4 hour 58 minute run-time along Route A and a 6 hour 24 minute run time along Route B.

The option to support five round-trips per day assumed that the trackage from Chicago to Wyanet would be upgraded to 90 mph, and that the Wyanet to Iowa City section would be upgraded to 79 mph. This schedule contemplates operating five round-trips daily on a 3 hour 23 minute run time for a three-stop schedule and 3 hour 40 minute run time for a seven-top schedule. Overall average velocity is 65.5 mph for the three stop schedule and 60.0 mph for the seven stop schedule.

No-Build Alternative

Under the No-Build Alternative, the local and regional transportation networks would not change. It is expected that automobile travel would continue to increase, as would travel by air, largely due to normal growth. Bus travel would also increase, although perhaps not at the same rate as travel by auto. Highway/rail at-grade crossings would not be affected, other than by increased freight rail and automobile traffic. The No-Build Alternative would not impact local traffic patterns at the station locations.

Preferred Alternative (Route A – Amtrak-BNSF-IAIS)

Regional Transportation Network

The purpose of the Project, and of the Midwest Regional Rail System, is to expand existing, and develop new, regional passenger rail service to help meet future travel demands in the Midwest. Development of the proposed passenger rail service would provide an additional mode of travel choice for the potential rider. As such, the Project would impact the regional transportation network by:

- Diverting riders from auto, bus, or air travel modes to rail
- Increasing traffic volumes on the local road network near train stations in Iowa City and Moline
- Increasing rail traffic at highway/rail at-grade crossings

In studies conducted by Amtrak in 1998, the annual ridership for new rail service between Iowa City and Chicago, and the Quad Cities and Chicago, was estimated to be 76,100 and 110,800, respectively. The portion of this ridership attributable to the service between Iowa City and Chicago is shown in Table 3.2-4. More than two-thirds of these trips are due to diversion from auto, air, and bus trips. While the majority of these diverted trips are from auto, they effectively reduce auto's market share by only a fraction of a percent. Twenty-four percent of the diverted trips are from air, with the remaining 9 percent from bus (Transportation Economics Management [TEMS], 1998).

The Project would also generate induced demand. These are new trips that come about because of the convenience and low cost of the new rail service. The amount of induced demand has been estimated by Amtrak and MWRRI, respectively, to range between 5 and 10 percent (TEMS, 1998; Transportation Economics & Management Systems, Inc., 2004).

Table 3.2-4
Total Ridership and Estimated Diversions, Based on Two Round-Trip Trains per Day

Mode	Estimated diversion, Route A	Estimated diversion Route B
Air	42,000	32,000
Auto	117,000	88,000
Bus	16,000	12,000
Induced demand	13,000	10,000
Total ridership	187,000	147,000

The operations of two round-trips per day could potentially impact local traffic patterns at the station locations. The traffic volumes on the local road network would increase along with the demand for parking. Details on the impact to the local road network and parking availability will be discussed in the Tier 2 Project Level NEPA documents. Mitigation for any permanent impacts will be indentified in the Tier 2 Project Level NEPA review.

The Amtrak Feasibility Study projected 256 round-trip riders per day on the Chicago-Quad Cities-Iowa City service on this nine-station route. The amount of trips per station would vary depending on the population served, demand, and other factors. The proposed passenger rail service would use existing stations at Chicago (Union Station), La Grange Road, Naperville, Plano, Mendota, and Princeton, Illinois. Amtrak stations are proposed at Geneseo and Moline, Illinois; and Iowa City, Iowa.

Because the existing stations along this route are active stations, the proposed service is expected to have minimal impact on them with regard to the local road network and parking demand.

A new Amtrak station would be needed in Geneseo (population 6,500) to serve the city and the surrounding communities. There are currently two potential station sites located in Geneseo. The City of Geneseo currently owns one of the sites and the other site is the old depot station which is privately owned.

There is an ongoing study proposing a new intermodal transit center in downtown Moline that would provide for an Amtrak station. A major regional bus station and terminal is currently operating in downtown Moline. The study is developing the estimated parking space needs and a concept for a future parking garage to serve an intermodal facility. Commuter rail service is being considered as part of the study. The new Amtrak station in Moline would serve the Quad Cities area which has an approximate population of 377,626.

The Amtrak station in Iowa City is proposed to be located at the Old Rock Island Depot and would serve the Iowa City area which has an approximate population of 140,000. The depot currently has approximately 20 parking stalls. There is a county-owned parking garage approximately one block away with 300 spaces and a city-owned parking garage approximately two blocks away with 300 spaces, as well as on-street parking. The Old Rock Island Depot is two blocks from the Court Street Transportation Center, which provides local and regional bus service.

The regional transportation network would generally benefit from the proposed new rail service. Highway congestion would be relieved, and riders would have an additional

mode of travel choice. Details on the impact to the local road network and parking availability will be discussed in the Tier 2 Project Level NEPA documents. Mitigation for any permanent impacts will be identified in the Tier 2 Project Level NEPA review.

Highway Crossings

On July 28, 2009, FRA issued a Discussion Draft for Public Outreach titled "Highway-Rail Grade Crossing Guidelines for High-Speed Passenger Rail." This document provides guidance on crossing safety for both public and private crossings and provides a tiered approach to safety measures based on passenger train speed.

For the two round-trip TPD service level, the proposed Chicago to Iowa City passenger service falls within the Tier IA category for conventional service, 0 to 79 mph, as described in the Appendix of the guidance document. Tier 1A safety measures include:

- Encouraging closures of redundant crossings
- Requiring automated warning devices (and supplemental measures where warranted) at public crossings
- Considering automated warning devices or locked gates at private crossings
- Allowing cross bucks and yield signs for private crossings where conditions permit

All at-grade crossings affected by the new service would be evaluated and modified as appropriate to be consistent with the guidance documents.

Navigation

According to Coast Guard regulations, vessel traffic on the Des Plaines River and Mississippi River would have precedence over railroad operations at the bridge. Therefore, the Proposed Project would not affect navigation. Passenger and freight rail traffic using the bridge could be delayed slightly in the event of a vessel passing through.

Freight Rail

BNSF trains impact the proposed Chicago to Iowa City passenger service at two locations. At Colona, the BNSF crosses the IAIS at a rail/rail at-grade crossing. This crossing was formerly a diamond crossing but was revised to a series of turnouts that enable BNSF to operate at 30 mph and IAIS at 10 mph through the interlocking.[2]

Between East Moline and Rock Island, the IAIS operates on a trackage right on an approximately 5-mile-long section of BNSF trackage. BNSF operates a road switcher over this trackage once a day (out, plus the return movement). This train occasionally holds the main track while awaiting clearance to cross the Mississippi River on the Iowa, Chicago & Eastern Railroad (IC&E) bridge located just south of the Arsenal Bridge. Chapter 2 discusses the infrastructure requirements necessary to operate passenger trains through Colona and through the yard between East Moline and Rock Island at higher velocities more appropriate for passenger train operation.

[2] An interlocking is an arrangement of signal equipment so interconnected that train movements must succeed ach other in safe, proper sequence. It may be operated manually or automatically.

Analysis of the meets and passes[3] on the single track IAIS for the proposed passenger train service indicates that several miles of double tracking would be required between Mineral and Annawan, Illinois, near Green River, Illinois, and near Walcott, Iowa. This infrastructure would be necessary to minimize delay to opposing passenger trains only. Additional infrastructure to accommodate the six to 10 freight trains that operate daily on the IAIS would be over and above the physical plan improvements anticipated for the passenger trains. As with the BNSF network, a detailed simulation of the proposed network would be required to identify the requisite improvements to the physical plant for both the added passenger and freight train volumes.

Route B Alternative (Amtrak-CN-Metra/Rock Island District-CSXT-IAIS)

Regional Transportation Network

Portions of Alternative B would operate on sections of CSX's New Rock Subdivision, Metra's Rock Island Subdivision, CN's St. Charles Air Line, and Amtrak's Union Station. The two round-trip passenger TPD are envisioned to operate out of Union Station thence onto Metra's Rock Island Subdivision. However, no direct connection exists between these two railroads. To operate trains between these two destinations, it would be necessary to duplicate the reverse movement now employed by three round-trip Amtrak TPD that use the former Illinois Central route in and out of the Greater Chicago area.

This movement requires that as the passenger train enters Union Station from the St. Charles Air Line; the train must first pull west of Halsted Avenue then back 0.8 mile into Union Station. To depart Union Station, the outbound train must first back up the same 0.8 mile before reversing its course of action at Halsted Avenue and proceeding across the Chicago Ship Canal Drawbridge to the 16th Street Tower area. Trains en route to the southern Illinois area on the former Illinois Central continue east on the St. Charles Air Line, whereas passenger trains en route to Metra's Rock Island Subdivision would use an existing connecting track at the 16th Street tower area to proceed south and then west.

Following the CN/EJ&E merger, most freight train activity associated with CN's St. Charles Air Line has been relocated to other corridors within the Greater Chicago area. Consequently, little impact on existing or potential freight operations is envisioned under Alternative B. CSX impacts are similar to those described in the section above that focuses on the IAIS.

The Amtrak Feasibility Study projected two round-trips per day on the Chicago-Quad Cities-Iowa City service on this seven-station route. The number of trips per station would vary depending upon the population served, demand, and other factors. The proposed rail service would use existing stations at Chicago (Union Station) and Joliet. Amtrak stations are proposed at Morris, La Salle, Geneseo, Moline, and Iowa City.

A new Amtrak station would be needed in Morris and La Salle to serve the cities and the surrounding communities. Morris and La Salle have approximate populations of 12,000 and 9,800, respectively.

[3] A meet and pass is when two trains approach from opposite directions and pass, one using a siding.

The impacts to the local traffic patterns at the station locations at Geneseo, Moline, and Iowa City for the Route B Alternative would be the same as those identified in the Preferred Alternative.

Details on the impact to the local road network and parking availability at the station locations will be discussed in the Tier 2 Project Level NEPA documents. Mitigation for any permanent impacts will be indentified in the Tier 2 Project Level NEPA review.

Impacts on highway crossings, navigation, and freight rail traffic would be similar to those discussed for the Preferred Alternative.

3.2.3 Impacts of Proposed Action and Alternatives – Five Round-trip Trains per Day Scenario

Regional Transportation Network

At the ultimate MWRRI operational level of five round-trip TPD, the same station locations would potentially be affected as under the initial two round-trip TPD scenario. However, when capacity is increased from two to five round-trip TPD, additional ridership could impact parking requirements and the local road network. Impacts on parking and the local road network will be further evaluated at the station locations in the Tier 2 Project Level NEPA documents.

For the five round-trip TPD scenario, the annual ridership for new rail service between Iowa City and Chicago was estimated by MWRRI to be 505,000 (Transportation Economics & Management Systems, Inc., 2004a). Diversions would be in a similar proportion to those generated by the two round-trip TPD scenario and would be 334,000, 81,000, and 40,000 for auto, air, and bus, respectively. Data were not available to compare the route alternatives.

Highway Crossings

For the five round-trip TPD Preferred Alternative, the maximum speed on the BNSF between Chicago and Wyanet would be increased from 79 mph to 90 mph. This speed falls within the Tier 1B category for Emerging High Speed Rail, 80 to 110 mph, as described in the Appendix of the guidance document. Tier 1B safety measures are more rigorous than the Tier 1A and include:

- a requirement for demonstrated effort and results for crossing closures;
- a sealed corridor where, in addition to automated warning devices, all lanes of travel are blocked by supplemental measures (such as four-quadrant gates, median arrangements, one-way paired streets, etc.); and,
- either automated warning devices or locked gates with dispatcher control over entry at private crossings.

Navigation

The five round-trip TPD scenario would not impact current or future navigation activities.

Freight Rail

The MWRRI schedule provides for five round-trip passenger TPD between Chicago's Union Station and Iowa City, and only considers the use of the Preferred Alternative alignment. As described above, MWRRI envisions operating trains at 90 mph between Halsted Avenue and Wyanet on the BNSF system, and at 79 mph on the IAIS. According to BNSF officials, the difference between two round-trip TPD and five round-trip TPD is considerable, and will require careful simulations of the network before the infrastructure necessary to support the additional six trains can be identified, costs estimated, and funds allocated. This is because more than 125 trains operate daily on the section between Aurora (Eola) and Chicago's Union Station, all at a maximum operating speed of 70 mph in this congested corridor. In addition to the change in operating speed, there may not be sufficient capacity to handle the additional passenger train volume. General "rules-of-thumb" for capacity limits indicate that roughly 35 TPD can operate on a single track railroad, 70 TPD on a double track railroad and 110 TPD on a triple track railroad. With many more trains now operating on the Chicago Subdivision, considerable infrastructure may be required to accommodate the proposed ultimate MWRRI schedule.

BNSF has also indicated that the carefully orchestrated schedule of the current Amtrak and Metra programs allows for a "window" of track maintenance to occur during the morning and evening peak hours. Should any passenger train schedule (as proposed by either Amtrak or by MWRRI) impact these windows, it may be necessary to adjust the work window to night-time periods.

Should maintenance activity be shifted to night-time hours, this action would likely increase the noise level to residents living adjacent to the BNSF corridor while maintenance is being performed. Other factors, such as increased ambient light levels, higher costs to perform similar maintenance tasks, and safety and labor agreement issues, would need to be addressed if sufficient opportunities for maintenance are not available during daytime hours.

Increasing the FRA class of track rating from 4 to 5 in order to accommodate 90-mph operation would also necessitate more frequent maintenance activity that must be accomplished with a higher level of precision. Nighttime maintenance may be required even if daytime windows are available due to BNSF's effort to meet these more stringent track safety standards.

If the Route B Alternative is ultimately selected for development of the new rail service, expansion of that service from two to five round-trip TPD would have a similar effect on existing trains now using those tracks. Careful simulations of the network would be needed to support the additional trains. Details on the impact on existing freight and passenger rail operations would be discussed in the Tier 2 Project Level NEPA documents. Mitigation for any permanent impacts will be indentified in the Tier 2 Project Level NEPA review.

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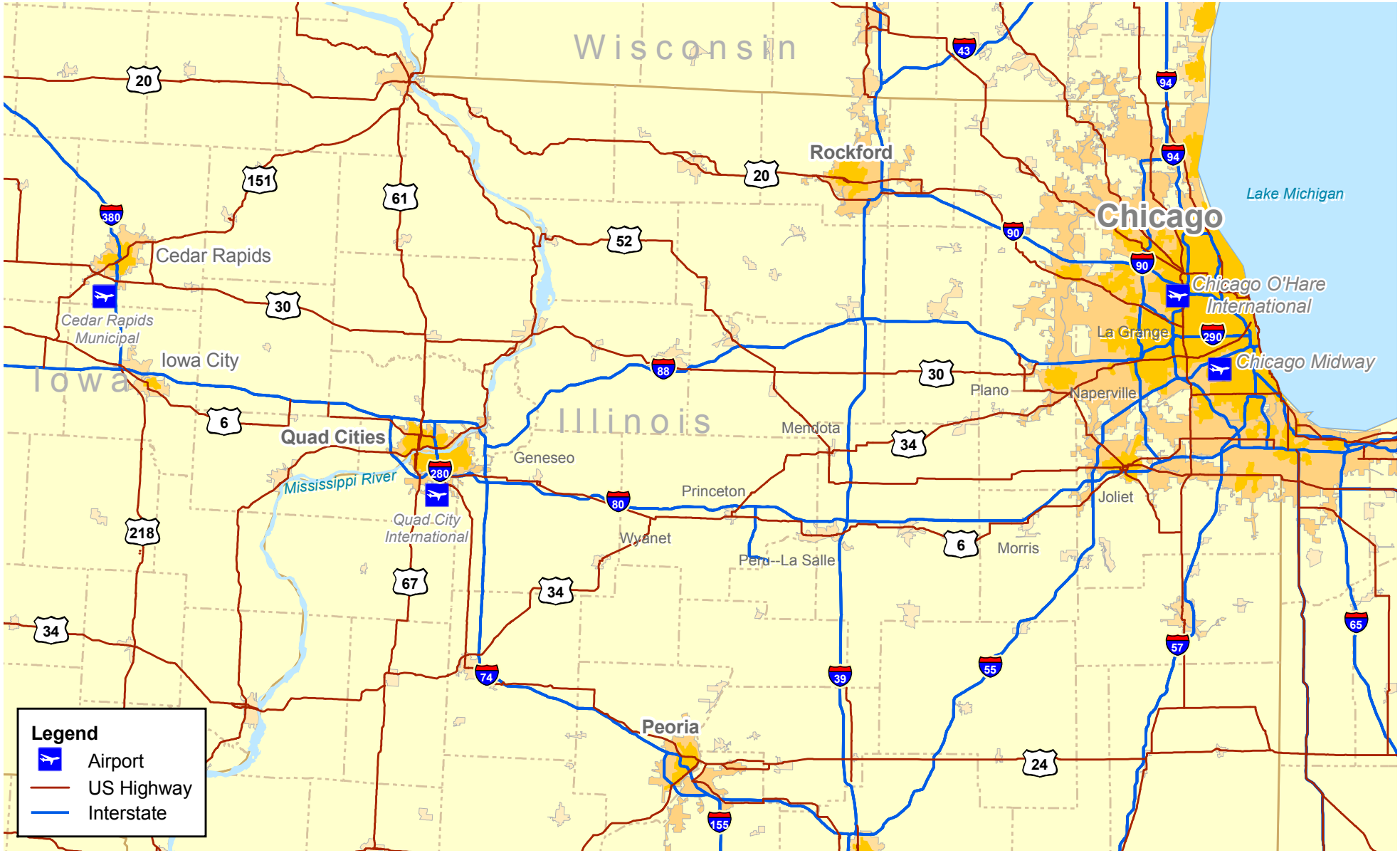

25 12.5 0 25 Miles

Scale

Iowa Department of Transportation

Iowa Connections

Get on Board

Illinois Department of Transportation

Regional Transportation Network

Chicago to Iowa City Intercity Passenger Rail Service

DATE

September 2009

FIGURE

3.2-1

3.3 SOCIOECONOMICS

The Project area corridor from Chicago to Iowa City, via the Quad Cities, comprises 11 counties in Illinois (Bureau, Cook, De Kalb, Du Page, Grundy, Henry, Kane, Kendall, La Salle, Rock Island, and Will) and four counties in Iowa (Cedar, Johnson, Muscatine, and Scott). These counties have a combined 2008 estimated population of nearly 8.4 million (U.S. Census Bureau, August 5, 2009). The Project area population increased by 15 percent between 1970 and 2008. The population of four counties in the Project area (Bureau, Cook, Henry, and Rock Island) declined between 1970 and 2008, while the population of seven counties (De Kalb, Du Page, Grundy, Kane, Kendall, Will, and Johnson) increased by more than 25 percent (U.S. Census Bureau, February 1982; U.S. Census Bureau, 1991; U.S. Census Bureau, 2001a; U.S. Census Bureau, August 5, 2009). Table 3.3-1 shows population change in the Project area compared to Illinois, Iowa, and United States.

The major cities from east to west within the Project area corridor include the following (with 2008 estimated populations):

- Chicago (2,853,114)
- Cicero (80,414)
- Downers Grove (49,250)
- Joliet (146,125)
- Naperville (143,117)
- Aurora (171,782)
- Quad Cities (377,626)
- Iowa City (67,831)

Approximately 30 smaller cities and villages are located within the Project area corridor. Most of these cities and towns lost population between 1970 and 2008. The exceptions are the suburban cities outside of Chicago (Downers Grove, Lisle, Joliet, Minooka, Montgomery, Naperville), a few towns in rural Illinois (Colona, Earlville, Marseilles, Sandwich, and Seneca), rural Iowa (Atalissa, Durant, Walcott, and West Liberty), and Iowa City. Population growth was strong in suburban Chicago and Iowa City, and was slow or fluctuating in other cities and towns. During this time, the population of Illinois increased by 16 percent, the population of Iowa grew by 6 percent, and population in the United States increased by nearly 50 percent (U.S. Census Bureau, February 1982; U.S. Census Bureau, 1991; U.S. Census Bureau, 2001a; U.S. Census Bureau, August 5, 2009).

Table 3.3-1
Population Changes in the Project Area

County	Population			Population Change, Percent		
	1970	2000	2008	1970-2000	1970-2008	2000-2008
Illinois						
Bureau	38,541	35,503	34,933	-7.9	-9.4	-1.6
Cook	5,492,369	5,376,741	5,294,664	-2.1	-3.6	-1.5
De Kalb	71,654	88,969	106,321	24.2	48.4	19.5
Du Page	491,882	904,161	930,528	83.8	89.2	2.9
Grundy	26,535	37,535	47,958	41.5	80.7	27.8
Henry	53,217	51,020	49,569	-4.1	-6.9	-2.8
Kane	251,005	404,119	507,579	61.0	102.2	25.6
Kendall	26,374	54,544	103,460	106.8	292.3	89.7
La Salle	111,409	111,509	112,474	0.1	1.0	0.9
Rock Island	166,734	149,374	146,886	-10.4	-11.9	-1.7
Will	249,498	502,266	681,097	101.3	173.0	35.6
State of Illinois	11,113,976	12,419,293	12,901,563	11.7	16.1	3.9
Iowa						
Cedar	17,655	18,187	18,079	3.0	2.4	-0.6
Johnson	72,127	111,006	128,094	53.9	77.6	15.4
Muscatine	37,181	41,722	42,504	12.2	14.3	1.9
Scott	142,687	158,668	164,690	11.2	15.4	3.8
State of Iowa	2,824,376	2,926,324	3,002,555	3.6	6.3	2.6
United States	203,211,926	281,421,906	304,059,724	38.5	49.6	8.0

Source: U.S. Census Bureau, February 1982; U.S. Census Bureau, 1991; U.S. Census Bureau, 2001a; U.S. Census Bureau, August 5, 2009.

The diversity of employment by industry sector in the Project area varies between urban and rural areas. Employment in the urban area of Chicago is the most diverse, with no dominant sector. Employment in rural counties of Illinois and Iowa is more dependent upon retail trade and manufacturing. Farm employment makes up a larger percentage of employment in Cedar County, Iowa, and Bureau and Henry counties, Illinois as compared to the rest of the counties in the Project area (Bureau of Economic Analysis, April 23, 2009).

From 2000 to 2008, the unemployment rate in the Project area has generally exceeded the national rate in Illinois counties and been generally lower than the national rate in Iowa. Unemployment in Cook, Grundy, and La Salle counties in Illinois has consistently exceeded state and national rates from 2000 to 2008; unemployment in De Kalb, Du Page, Kane, Kendall, and Will counties has consistently been lower than the state average. In Iowa, unemployment in Scott County has consistently exceeded the state average from 2000 to 2008, but not the U.S. rate; unemployment in Cedar and Johnson counties has consistently been lower than the state average. The unemployment rate generally bottomed out in 2006 and has increased in 2007 and 2008 (Illinois Department of Employment Security, no date; Iowa Workforce Development, April 21, 2009).

The U.S. DOT Federal Highway Administration (FHWA) has issued guidance to determine economically distressed areas under the priority language in the Highway Infrastructure Investment appropriation of the Recovery Act. In accordance with the Public Works and Economic Development Act of 1965, as amended, the guidance provides that an area is economically distressed if it has a per capita income of 80 percent or less than the national average, or if it has an unemployment rate that is, for the most recent 24-month period for which data are available, at least 1 percent greater than the national average (FHWA, August 24, 2009). FHWA has determined that in Illinois, DeKalb County is economically distressed due to per capita income, and LaSalle and Grundy counties are economically distressed due to unemployment (FHWA, August 6, 2009). Economically distressed counties are shown in Figure 3.3-1.

3.3.1 No-Build Alternative

The No-Build Alternative would consist of operating the current passenger rail service from Chicago to Quincy, St. Louis, or Carbondale and Omaha via southern Iowa with the present level of service and no appreciable change to the current track configuration or operating conditions. Passenger rail service from Chicago to Iowa City via the Quad Cities would not be implemented. Existing socioeconomic conditions (population change, employment, economically distressed counties, and the existing transportation options) would continue.

3.3.2 Two Round-trip Trains per Day

Under this alternative, two daily round-trip trains (four TPD) would operate from Chicago to Iowa City, as described in Chapter 2. These trains would operate at a maximum speed of 79 mph.

An economic impact study and cost-benefit analysis conducted by MWRRI anticipates substantial beneficial economic impacts on the Midwest United States through investment in the establishment and operation of the MWRRS. Economic benefits would be derived from construction and upgrade of rail infrastructure, permanent job creation to operate the system, and improved community connectivity and regional mobility. More localized economic impacts would be derived from the construction and operation of the proposed passenger rail service from Chicago to Iowa City via the Quad Cities (Transportation Economics & Management Systems, Inc., November 2006a; Transportation Economics & Management Systems, Inc., November 2006b).

The construction industry would benefit from implementation of the Project through temporary jobs and the purchase of construction materials. Manufacturers would benefit through the purchase of rail and rail equipment. Employment would increase in retail trade, health care and social assistance, and accommodation and food services. The real estate, rental and leasing, and finance and insurance industries would also benefit (Transportation Economics & Management Systems, Inc., November 2006a; Transportation Economics & Management Systems, Inc., November 2006b).

Establishment of the proposed passenger rail service would reduce travel times by rail between these cities, would improve the mobility of the population in the Chicago-Iowa City corridor, and would reduce congestion on other modes of travel. Implementation of the rail system would bring environmental benefits (such as a reduction in air pollutants

and energy use) and improved freight-rail transportation safety (through improved track conditions, installation of signaling, and enhanced at-grade crossing protection).

Investment in the proposed passenger rail service would improve accessibility to markets and generate a benefit in terms of increased economic value, as services became more easily or cheaply traded. Changes in accessibility would increase the long-term demand for goods and services, while creating new business and commercial development opportunities. Establishment of the proposed passenger rail service would support existing manufacturing and service industries and foster the growth of new small businesses across the Project due to improved access among communities. This would encourage large businesses to distribute their operations more widely across the Midwest and reap the benefit of providing more efficient operations in the now more accessible smaller communities. These communities provide a high quality of life for residents in terms of lower cost housing, good schools, friendly and secure neighborhoods, and less congested highway systems (Transportation Economics & Management Systems, Inc., November 2006a; Transportation Economics & Management Systems, Inc., November 2006b).

As the gateway to their communities, passenger rail stations would provide considerable joint development potential. For example, the proposed station at Moline would be developed near an existing bus station set within transportation oriented development. An opportunity exists to tie the new Amtrak service into the region's existing bus transit service and other pedestrian, bicycle, and river ferry transportation. Increased train operations would encourage the service industry (such as restaurants and hotels) to locate at or near the station. This activity would generate both commercial and residential development. The station would be located near other attractions, specialty shopping and dining, municipal and civic facilities, and riverfront trails, contributing to the revitalization of the historic heart of Moline (Transportation Economics & Management Systems, Inc., November 2006b; S.B. Friedman, July 15, 2009). Similar opportunities for redevelopment would exist in Geneseo and Iowa City.

Property values would increase near stations and would benefit communities through increased state and local tax revenue.

Preferred Alternative (Route A – Amtrak-BNSF-IAIS)

Under this alternative, a connection at Wyanet in Bureau County would be constructed, track would be upgraded, wayside signaling would be installed, and grade crossing protection would be enhanced in Bureau, Henry, La Salle and Rock Island counties in Illinois, and in Scott, Muscatine, Cedar, and Johnson counties in Iowa. New Amtrak stations would be constructed in Geneseo (Henry County), Moline (Rock Island County), and Iowa City (Johnson County). This construction activity would provide a temporary boost in employment in these counties, including the economically distressed LaSalle County.

The Preferred Alternative would enhance passenger rail service from Chicago to Princeton and reestablish service from Chicago to Iowa City, via the Quad Cities. Service would be provided at existing Amtrak stations in Chicago, La Grange, Naperville, Plano, Mendota, and Princeton, and at proposed stations in Geneseo, Moline, and Iowa City. Operation of the service would provide economic benefits at existing and proposed

stations through job creation, opportunities for joint development near the stations, increased economic activity in these communities, and increased mobility of residents in these cities and towns, especially in the rural counties that are dependent upon limited economic and employment opportunities. Construction of the Wyanet Connection and the upgrade of the rails, crossties, signalization, and grade crossing protection would cost an estimated $51 million (Franke et al., 2008a; Franke et al., 2008b). The cost of station construction has not yet been estimated.

Impacts from specific construction and operational activities would be evaluated in subsequent Tier 2 Project Level NEPA documents.

Route B Alternative (Amtrak-CN-Metra/Rock Island District-CSXT-IAIS)
Under this alternative, track would be upgraded, wayside signaling would be installed, and grade crossing protection would be enhanced in Will, Grundy, LaSalle, Bureau, Henry, and Rock Island counties in Illinois, and in Scott, Muscatine, Cedar, and Johnson counties in Iowa. This construction activity would provide a temporary boost in employment in these counties, including the economically distressed Grundy and LaSalle counties.

The Route B Alternative would reestablish service from Chicago to Iowa City, via Joliet and the Quad Cities. Service would be provided at existing Amtrak stations in Chicago and Joliet, and at proposed stations in Morris, LaSalle, Geneseo, Moline, and Iowa City. Operation of the service would provide economic benefits at existing and proposed stations through job creation, opportunities for joint development near the stations, increased economic activity in these communities, and increased mobility of residents in these cities and towns, especially in the rural counties that are dependent upon limited economic and employment opportunities. Upgrade of the rails, crossties, signalization, and grade crossing protection would cost an estimated $109 million (Franke et al., 2008a; Franke et al., 2008b). The cost of station construction has not yet been estimated.

Impacts from specific construction and operational activities would be evaluated in subsequent Tier 2 Project Level NEPA documents.

3.3.3 Five Round-trip Trains per Day

Implementation of the ultimate service level envisioned by the MWRRI (five round-trip trains, 10 TPD) would generate additional economic activity beyond the initial service level of two round-trip TPD. Additional track improvements and at-grade crossing protection would generate temporary construction employment. Operation of five round-trip TPD would require increased staffing of train and support operations. Additional rail equipment needs would generate manufacturing employment. Increased revenue from operation of the additional trains and associated retail activity would generate additional tax income for state and local governments. The ultimate service level of five round-trip TPD would improve mobility to a greater degree than the initial service level of two round-trip TPD.

Impacts of the five round-trip TPD scenario would be evaluated in subsequent Tier 1 NEPA documents before the increased level of service would be implemented.

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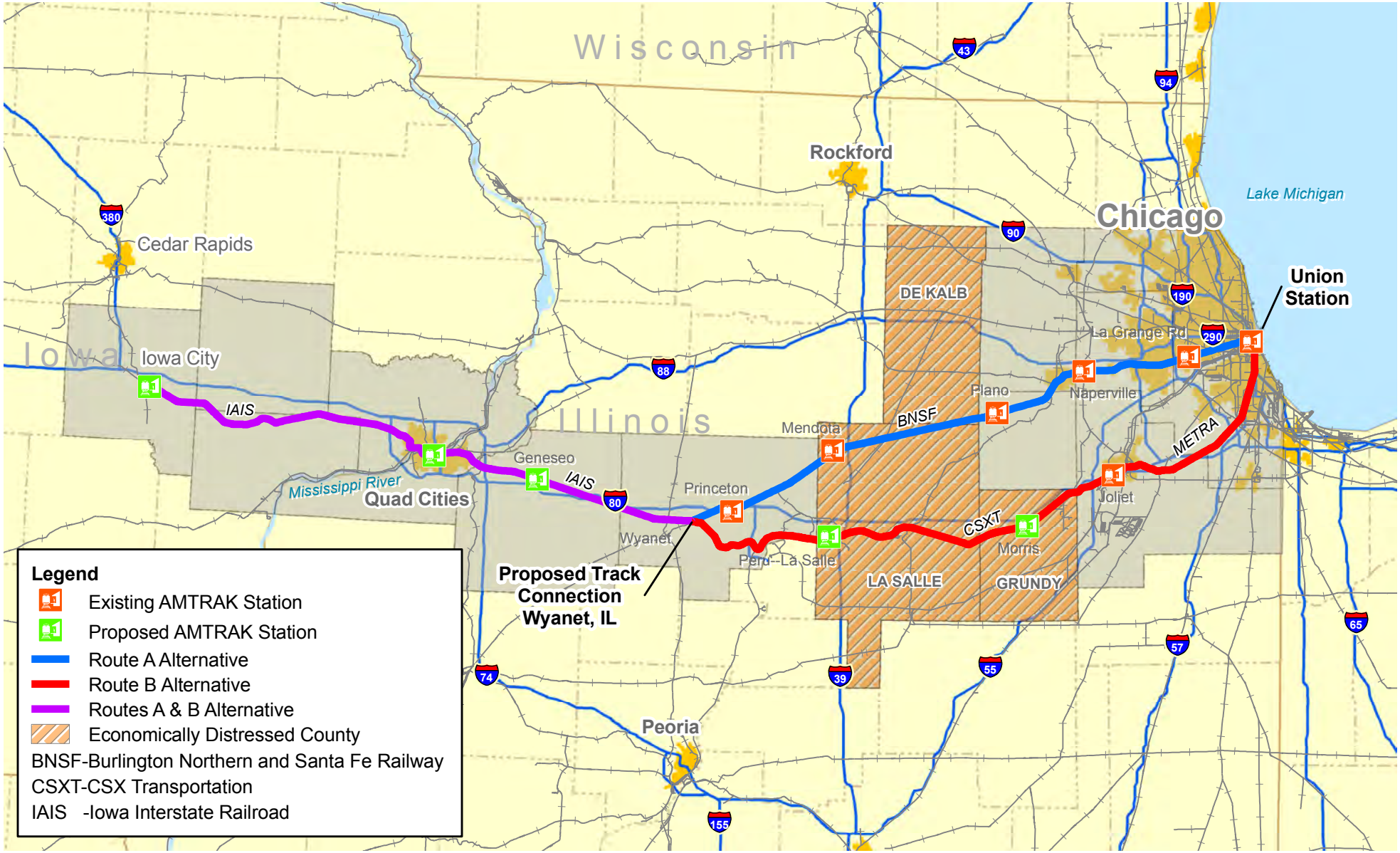

25 12.5 0 25 Miles

Scale

Iowa Department of Transportation

Iowa Connections

Get on Board

Illinois Department of Transportation

Economically Distressed Counties

Chicago to Iowa City Intercity Passenger Rail Service

DATE

September 2009

FIGURE

3.3-1

3.4 TITLE VI AND ENVIRONMENTAL JUSTICE

Title VI of the Civil Rights Act of 1964 assures that individuals are not excluded from participation in public involvement activities, denied the benefits of a project, or subjected to discrimination in any way on the basis of race, color, age, sex, national origin, disability, or religion. This Project is being developed in full compliance with Title VI.

The Executive Order (EO) 12898 on environmental justice directs that federal actions must be assessed to determine if disproportionately high and adverse human health and environmental impacts (such as those noted below) may affect minority or low income populations:

- bodily impairment, infirmity, illness, or death;
- air, noise, and water pollution and soil contamination;
- destruction or disruption of manmade or natural resources;
- destruction or diminution of aesthetic values;
- destruction or disruption of community cohesion or a community's economic vitality;
- destruction or disruption of the availability of public and private facilities and services;
- vibration;
- adverse employment effects;
- displacement of persons, businesses, farms, or nonprofit organizations;
- increased traffic congestion; isolation, exclusion, or separation of minority, vulnerable age, or low-income individuals within a given community or from the broader community; and,
- the denial of, reduction in, or significant delay in the receipt of benefits of USDOT programs, policies, or activities.

To meet the requirements of EO 12898, the socioeconomic composition of each of the alternative corridors was examined. Minority or low income populations have been identified to assess potential disproportionate impacts on these groups. In addition, specific types of impacts were examined with respect to their potential to disproportionately impact these social groups, regardless of where the impact might occur. Minority and low income populations were determined by relative population measures using county and place (city or village) information from Census 2000.

Minority and low income populations were evaluated by comparing their percentage in each county in the alternative corridor to the percentage in the state, and the percentage in each place to the percentage in the corresponding county.

Minority populations are substantially higher than the State average in seven counties in the Project area (Cook, De Kalb, Du Page, and Kane in Illinois, and Johnson, Muscatine, and Scott in Iowa). Johnson County, Iowa, also has a population whose income below the poverty level is substantially above the State average. See Appendix B for detailed demographic information for all counties in the Project area.

More detailed census data was used to determine potential environmental justice impacts in areas where potential noise impacts were identified in Moline, East Moline, and Iowa City (see Section 3.7, Noise). Analysis of census block group data, the most detailed level available for income, identified areas of poverty in East Moline, Moline, and Iowa City. The population whose income is below the poverty level is substantially higher than the county average in two of the three census block groups in East Moline and Moline and in one of the six census block groups in Iowa City (U.S. Census, 2001b).

Analysis of census block data, the most detailed available for demographic characteristics of the population, identified minority and low income populations in East Moline, Moline, and Iowa City. Twelve census blocks in Moline were studied; 11 of these blocks have percentages of minority and low income populations are substantially above the community average. The minority population in this area consists of Hispanic (nine blocks), some other race (nine blocks), two or more races (five blocks), blacks (two blocks), and Asian (one block). Eight of the blocks include multiple minority population categories (U.S. Census, 2001a).

All eight of the census blocks studied in East Moline have minority and low income populations that are substantially above the community average. The minority and low income population in this area consists of Hispanic and some other race (all eight blocks), and black and two or more races (two blocks). All eight of the census blocks include multiple minority population categories (U.S. Census, 2001a).

In Iowa City, three of the blocks studied have minority and low income populations that are substantially above the community average. The minority and low income population in this area consists of Hispanic, two or more races, black, American Indian, Asian, and some other race. Two of the blocks include multiple EJ population categories (U.S. Census, 2001a).

3.4.1 No-Build Alternative

The No-Build Alternative would consist of operating the current Amtrak passenger rail service from Chicago to Quincy, St. Louis, or Carbondale and Omaha via southern Iowa with the present level of service and no appreciable change to the current track configuration or operating conditions. Passenger rail service from Chicago to Iowa City via the Quad Cities would not be implemented. Existing conditions (such as air quality and noise) would continue; minority and low income populations would not have access to the increased mobility that the proposed passenger rail service would provide.

3.4.2 Two Round-trip Trains per Day

Under this scenario, two round-trip TPD (four TPD) would operate from Chicago to Iowa City, as described in Chapter 2. These trains would operate at a maximum speed of 79 mph. Various resource-specific impacts were considered in relation to their potential effect on minority and low income populations. Air quality impacts would be negligible, and appreciable impacts to water quality and public safety are not anticipated.

Severe noise impacts (as defined by the Federal Transit Administration – see Section 3.7, Noise and Vibration) are anticipated to increase by approximately 0.7 per mile. However, the severe noise impacts are not considered a significant impact to the noise environment because there is less than one severe impact per mile over the proposed route and the

impacts are distributed along the entire route, affecting large urban areas, small cities and villages, and rural areas. Approximately half of the severe noise impacts are anticipated in communities with minority and low income populations substantially above local averages, roughly one-third would occur in communities without minority and low income populations substantially above local averages, and the remainder of the impacts would occur in unincorporated or rural areas.

The greatest changes in noise impacts were observed in the Moline area (Moline and East Moline) where existing train traffic is relatively low (making the additional passenger trains proportionally more significant) and the trains are limited to speeds of 10 to 20 mph (the duration of a noise event due to a passing train is longer). Substantial numbers of impacts were also observed in Iowa City. East Moline and Iowa City have minority and low income populations. Minority and low income populations were identified in parts of Moline. Though many of the noise impacts are anticipated to occur in census block areas with minority and low income populations some of the impacts would occur in areas without minority and low income populations. Many of the census block areas immediately adjacent to noise impacts do not have minority and low income populations, and many census block areas near the route with minority and low income populations would not be affected by severe noise impacts.

Many of the anticipated severe noise impacts would be diminished by proposed track and signal improvements in the Quad Cities to increase the passenger rail speed through the communities. These improvements would also improve the speed for the current freight trains. The speed increases would reduce the number of noise receptors that would be impacted (see Section 3.7, Noise and Vibration).

The proposed passenger rail system would provide greater mobility and employment opportunities to residents of communities throughout the Project area (see Section 3.3, Socioeconomics), benefitting all residents, including minority and low income populations.

Preferred Alternative (Route A – Amtrak-BNSF-IAIS)

Minority and low income populations along the Preferred Alternative route would not be disproportionately impacted by severe noise impacts. The largest number of noise impacts would occur in East Moline, Moline, and Iowa City. The Preferred Alternative would provide increased mobility and employment opportunities to Chicago, Cicero, Downers Grove, Naperville, Aurora, Plano, Mendota, Princeton, Geneseo, East Moline, Moline, Davenport, Iowa City, and other smaller cities and rural areas along the proposed route.

Impacts from specific construction and operational activities would be evaluated in subsequent Tier 2 Project Level NEPA documents.

Route B Alternative (Amtrak-CN-Metra/Rock Island District-CSXT-IAIS)

Minority and low income populations along Route B would not be disproportionately impacted by severe noise impacts. The largest number of noise impacts would occur in East Moline, Moline, Marseilles, and Iowa City. The Route B Alternative would provide increased mobility and employment opportunities to Chicago, Joliet, Geneseo, Moline,

Davenport, Iowa City, and other smaller cities along the proposed route, benefitting all residents, including minority and low income populations.

3.4.3 Five Round-trip Trains per Day

Implementation of the ultimate service level envisioned by the MWRRI (five round-trip TPD) would generate additional severe noise impacts beyond the initial service level of two round-trip TPD. The geographic distribution of these impacts would not likely differ substantially from the two round-trip TPD scenario. The ultimate service level of five round-trip TPD would improve mobility and employment opportunities to a greater degree than the initial service level of two round-trip TPD.

Impacts from the five round-trip TPD scenario would be evaluated in subsequent NEPA documents before the increased level of service would be implemented.

3.5 LAND USE, ZONING, AND PROPERTY ACQUISITIONS

The setting along the Preferred Alternative and Route B Alternative consists of a mix of urban, suburban, and rural areas. Both Alternatives begin in the heavily developed urban and suburban industrial, commercial, and residential areas of Chicago. The rail corridors for both Alternatives continue though Illinois and Iowa in predominately rural areas with scattered urban areas. The westward progression of the rail corridor passes though residential, commercial, and industrial areas of Moline, Davenport, and Iowa City. Zoning designations vary along the corridor by community.

Rural areas within the corridor are predominately agricultural. In the vicinity of the proposed Wyanet Connection, existing land use includes agricultural, riparian area, and parkland.

3.5.1 No-Build Alternative

The No-Build Alternative would require no additional property and would not impact land use or zoning. Farmland would not be affected.

3.5.2 Two Round-trip Trains per Day

Preferred Alternative (Route A – Amtrak-BNSF-IAIS)
The Preferred Alternative includes track upgrade from Wyanet to Iowa City and construction of a connection track at Wyanet. The Preferred Alternative would also include proposed station facilities at Geneseo, Moline, and Iowa City. The anticipated need for land acquisition is as follows:

- From Chicago to Wyanet, the existing rail line is currently used for freight and passenger trains and is in excellent condition. Track upgrades would not be required; land acquisition is not anticipated along this section.
- Approximately 1 mile southwest of Wyanet, the track is grade-separated; there is currently no connection between the BNSF and IAIS tracks. A connection track (approximately 4,000 feet long) would be constructed in the northwest quadrant of the intersection. The connection would be designed to

accommodate a train speed of 50 mph. Approximately 7 acres of ROW would be acquired for the proposed connection.

- From Wyanet to Iowa City, the rail line is currently used for freight trains. Along this section of the Preferred Alternative, minimal land acquisition would be required in areas where track curves need to be straightened for safety reasons, or where minor bridge and culvert work is needed. The land acquired would be adjacent to the existing rail lines; existing adjacent land uses would likely continue and future land use patterns would not change due to the proposed operation of two round-trip TPD.
- Construction of station facilities at Geneseo and Moline would require land acquisition. The potential locations of the station facilities would be adjacent to the existing rail lines. A location for the proposed station in Geneseo has not yet been selected, but it is anticipated that the station would be located adjacent to the rail line in an area compatible with commercial use. No adverse impacts to land use are anticipated. The proposed Amtrak station in Moline would be constructed adjacent to the rail line at an existing bus station in an emerging transportation-oriented development (TOD). The proposed Amtrak station is anticipated to enhance efforts to develop TOD at this location into an intermodal transit facility, linking passenger rail, commuter rail, local and regional bus, water taxi, and other non-transit modes of transportation such as automobiles and bicycles (S.B. Friedman and Company, July 2009).
- It is anticipated that the former Iowa City passenger train depot adjacent to the ISIS rail line would be acquired and refurbished for the proposed Amtrak station in Iowa City. The former depot is located in a commercial area and land use change would negligible.

Construction of the Wyanet Connection would require the acquisition of approximately 7 acres; approximately 2 acres of farmland would be acquired for ROW. A USDA farmland conversion impact rating form (AD 1006) was completed, with a preliminary score of 90. Conservative assumptions were used in developing the form because of the preliminary nature of the connection concept; as alternatives for the connection are further developed, the form will be revised. Revision of the form and coordination with the Natural Resources Conservation Service for their review of the form and completion of Part IV will be performed and documented in Tier 2 Project Level NEPA Documents. The preliminary form is included in this EA as Appendix G. Some incremental loss of farmland could also occur in areas where ROW would need to be expanded for track upgrades.

Specific construction and operational land use impacts from the Preferred Alternative would be evaluated in the Tier 2 Project Level NEPA Documents.

Route B Alternative (AMTRAK-CN-METRA/ROCK ISLAND DISTRICT-CSXT-IAIS)
The Route B Alternative would include track upgrades and proposed station facilities at Morris, La Salle, Geneseo, Moline, and Iowa City. The anticipated need for land acquisition is as follows:

- From Union Station to Joliet, the track is in excellent condition and no upgrade would be required. Therefore, no land acquisitions are needed.
- From Joliet to Wyanet, the track is in various states of condition and would need upgrades that could potentially require land acquisition. The upgrades would be constructed within the existing rail line ROW when possible, and acquisition is anticipated to only occur adjacent to existing tracks.
- A connection track would not be required near Wyanet, as the existing track continues both east and west of Wyanet.
- From Wyanet to Iowa City, track upgrades would be the same as described under the Preferred Alternative. The upgrades needed to the track would occur within railroad ROW when possible. Minimal land acquisition would be required in areas where track curves need to be straightened for safety reasons and where minor bridge and culvert work is needed; acquisition is anticipated to only occur adjacent to existing tracks.
- Additional stations are proposed at Geneseo, Morris, and La Salle. Construction of these stations would require land acquisition; locations for the proposed stations have not yet been selected, but it is anticipated that the stations would be located adjacent to the rail line in an area compatible with commercial use. No adverse impacts to land use are anticipated.
- Similar to the Preferred Alternative, stations are proposed at Moline and Iowa City, with impacts occurring as discussed above.

Land adjacent to the rail lines would likely be able to continue to support current land use and proposed future use. Although the Wyanet connection would not occur and affect farmland for ROW conversion, some incremental loss of farmland could occur in areas where ROW would need to be expanded for track upgrades. Specific construction and operational land use impacts from the Route B Alternative would be evaluated in the Tier 2 Project Level NEPA Documents.

3.5.3 Five Round-trip Trains per Day

The ultimate service level of five round-trip TPD could require additional sidings to support a heavier volume of traffic on the Chicago to Iowa City corridor. Additional land would be acquired as needed, with acquisitions anticipated to occur adjacent to existing tracks. Land adjacent to the rail lines would likely be able to continue to support current land use and proposed future use. The proposed station locations would be the same as described for two round-trip TPD and the land use impacts would be similar. Farmland impacts, specific construction, and operational land use impacts from the five round-trip TPD scenario would be evaluated in future NEPA documents.

3.6 PUBLIC HEALTH AND SAFETY

The Preferred Alternative Project area consists of an existing freight rail line from Chicago to Wyanet and from Wyanet to Iowa City. The rail line from Chicago to Wyanet is also used for passenger rail service, and for commuter rail traffic from downtown Chicago to Aurora. The rail line passes through approximately 40 miles of urban area

from Chicago to Aurora; west of Aurora to Wyanet (approximately 70 miles), the line passes through towns and rural areas. The rail line crosses numerous two- to four-lane roads and highways with at-grade and grade-separated crossings. These crossings have various forms of warning devices, from actively protected grade crossing predictor technology (constant time warning systems) with gates and flashing light signals, to passively protected lights- and bells-only crossing signals. Some of the rural crossings have only cross-buck warning signs. The BNSF rail line from Chicago to Wyanet is signalized and is under CTC.[4] Freight train speeds generally range from 50 to 60 mph and the maximum passenger train speed is 79 mph (Franke et al, 2008a).

The IAIS line from Wyanet to Iowa City (approximately 107 miles) passes through a mixture of urban areas (Quad Cities and Iowa City), small towns, and rural areas. This rail line is not signalized and is under TWC.[5] The current maximum speed for freight trains is 40 mph; currently, passenger trains do not operate on this track. Trains on some track sections in the Quad Cities and Iowa City operate at speeds of 10 to 25 mph. Many of the crossings are actively protected by grade crossing predictor technology with gates and flashing light signals, but there are numerous crossings with only cross-buck warning signs (Franke, 2008a; Franke, 2008b).

The Route B Alternative Project area consists of the Metra/Rock Island rail line from Chicago to Joliet, the CSXT rail line from Joliet to Utica, and the IAIS line from Utica to Wyanet. The Metra/Rock Island rail line from Chicago to Joliet is currently used for passenger and commuter rail service, and is under CTC. Passenger rail service operates at a maximum speed of 79 mph. The CSXT rail line from Joliet to Utica and IAIS rail line from Utica to Wyanet are used for freight traffic operating at speeds of up to 40 mph. The CSXT section is not signalized and operates under TWC and direct traffic control (DTC).[6] The IAIS from Utica to Wyanet is not signalized and is under TWC (Franke, 2008a; Franke, 2008b).

Hazardous material is currently transported by freight trains on the aforementioned rail lines; Amtrak does not transport hazardous material.

3.6.1 No-Build Alternative

The No-Build Alternative would consist of operating the current passenger rail service from Chicago to Princeton and other destinations beyond the Project area on the BNSF line and from Chicago to Joliet and other destinations beyond the Project area, with the present level of crossing protection and no appreciable change to the current track configuration or operating conditions. Passenger rail service from Chicago to Iowa City, via the Quad Cities would not be implemented. The No-build Alternative would not impact public health and safety. The safety of vehicular, bicycle, and pedestrian traffic would not be enhanced as the grade-crossing signals would not be upgraded or replaced.

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4 Centralized traffic control is a system of railroad operations by means of which the movement of trains through blocks on a designated section of track is directed by signals controlled by a designated point (Franke et. al 2008a).

5 Traffic warrant control is a method to authorize train movement on a main track within specified limits in a territory designated by a timetable (Franke et. al 2008a). These tracks are not signalized.

6 Direct traffic control consists of a block or series of blocks of tracks where a train dispatcher authorizes track occupancy (Franke et. al 2008a).

Travel from Iowa City and the Quad Cities to Chicago would continue to be mostly by private automobile.

3.6.2 Two Round-trip Trains per Day

Under this scenario, two round-trip TPD (four TPD) would operate between Chicago and Iowa City, as described in Chapter 2. These trains would operate at a maximum speed of 79 mph. Safety measures designed to reduce the risk of accidents would be incorporated in accordance with FRA, FHWA, and State of Illinois and Iowa regulations.

Preferred Alternative (Route A – Amtrak-BNSF-IAIS)

The existing BNSF rail line from Chicago to Wyanet would not require any improvements. Amtrak passenger trains currently operate on this line at maximum speeds of 79 mph; the line is signalized, and is under CTC.

Wayside signaling[7] would be installed on the IAIS rail line from Wyanet to Iowa City. Traffic control would be upgraded to CTC. Advance warning circuitry for active crossing protection (gates and flashing lights) would be upgraded where needed for higher speed trains. Line of sight clearing[8] would be increased as needed at all at-grade crossings (Franke, 2008a; Franke, 2008b; FHWA, November 2002; Illinois DOT, December 2002; Illinois DOT, December 2006; FHWA, December 2007).

Adding the Preferred Alternative's four additional train trips on existing, active rail lines would have no appreciable negative impact on public health and safety. The Preferred Alternative would instead improve public health and safety by upgrading grade-crossing signal equipment and provide a safe, efficient modal choice for travel from Iowa City and the Quad Cities to Chicago. By diverting some commuter traffic from Interstate 80, area highways, and local roads between Chicago and Iowa City, the Preferred Alternative would likely reduce congestion and improve safety on the roads and highways. The safety of hazardous material transportation by freight trains would improve on the IAIS rail line from Wyanet to Iowa City due to track and crossing protection upgrades.

Impacts from specific construction and operational activities would be evaluated in subsequent Tier 2 Project Level NEPA Documents.

Route B Alternative (Amtrak-CN-Metra/Rock Island District-CSXT-IAIS)

The existing Metra rail line from Chicago to Joliet would not require any improvements. Amtrak and Metra passenger trains currently operate on this line at maximum speeds of 79 mph and the line is signalized.

Wayside signaling would be installed on the CSXT and IAIS rail lines from Joliet to Wyanet. Traffic control would be upgraded to CTC. Advance warning circuitry for active crossing protection (gates and flashing lights) would be upgraded where needed for

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7 Wayside signaling comprises the integration of signal hardware located along the track right of way (such as track circuits to detect trains, signal displays, powered switch machines, train stops, and constant time warning systems) and communication systems between train operators and dispatchers that safely control the movement of trains and warn traffic at grade crossings.

8 Clearing of all obstacles, including vegetation, to provide a clear line of sight to motorists crossing train tracks. The line of sight required at a crossing depends upon train speeds and vehicle type.

higher speed trains. Line of sight clearing would be increased as needed at all at-grade crossings (Franke, 2008a; Franke, 2008b; FHWA, November 2002; Illinois DOT, December 2002; Illinois DOT, December 2006; FHWA, December 2007).

Safety equipment upgrades from Wyanet to Iowa City, as discussed in the Route A Alternative, would also be required for the Route B Alternative. However, the Route B Alternative would require wayside signaling, crossing protection upgrades, and line of sight clearing over a greater distance of rail line than the Route A Alternative.

Similar to the Preferred Alternative, adding four additional train trips on existing, active rail lines for the Route B Alternative would have no appreciable negative impact on public health and safety. The Route B Alternative would instead improve public health and safety by upgrading grade-crossing signal equipment. By diverting some commuter traffic from Interstate 80, area highways, and local roads between Chicago and Iowa City, the Route B Alternative would likely reduce congestion and improve safety on the roads and highways; safety improvements would occur in an area south of the Preferred Alternative between Chicago and Wyanet, but in the same area between Wyanet and Iowa City. The safety of hazardous material transportation by freight trains would improve on the CSXT rail line from Joliet to Utica and on the IAIS rail line from Utica to Iowa City due to track and crossing protection upgrades.

Impacts from specific construction and operational activities would be evaluated in subsequent Tier 2 Project Level NEPA Documents.

3.6.3 Five Round-trip Trains per Day

In addition to signaling and crossing protection upgrades described in the two round-trip TPD scenario, additional upgrades would be needed to support the operation of five round-trip TPD at a maximum speed of 90 mph from Chicago to Wyanet. At-grade crossings that require active protection (gates and flashing lights) would also require supplemental safety devices, such as active advance warning signs with flashers, active advance turn restriction signs, median separations, wide-raised medians, barrier wall systems, curb islands, four quadrant traffic gate systems, and train detection systems (FHWA, November 2002; FHWA, December 2007).

Adding five round-trip TPD (10 additional train trips) on existing, active rail lines in the Chicago area would have no appreciable negative impact on public health and safety. Areas west of Chicago would see more of a relative increase in traffic. The risk of accidents could increase from the additional trains and higher train speeds between Chicago and Wyanet. However, the safety upgrades that would be implemented could reduce the risk of accidents.

Impacts from the five round-trip TPD scenario would be evaluated in a subsequent Tier 1 Service Level NEPA document before the increased level of service would be implemented.

3.7 NOISE AND VIBRATION

This section discusses the methodology and potential impacts related to the operational airborne noise and ground-borne vibration impacts from the Project. Both the noise and vibration analyses followed Federal Transit Administration (FTA) guidelines published

in "Transit Noise and Vibration Impact Assessment" (May 2006). The FRA published virtually identical guidance for assessing noise and vibration from high speed passenger trains in 2005.

A Screening Noise Assessment was performed using aspects of the General Noise Assessment in accordance with FTA guidelines. Both existing and future rail traffic were evaluated in order to assess the incremental, Project-related effects of airborne noise. Analysis results identified a limited number of potential noise impacts throughout the Project corridor. Noise from horns and wheel-rail interaction (wayside noise) contribute to the projected noise impacts. The methodology used to assess Project-related noise is based on guidance provided by the FRA for use in Tier 1 NEPA review.

The General Vibration Assessment described here was also prepared in accordance with FTA guidelines using FRA vibration assessment methods. The purpose of this assessment is to determine the number of potential ground-borne vibration (GBV) impacts associated with the proposed Project at vibration-sensitive land uses throughout the Project corridor.

Refer to Appendix C for a discussion of basic vibration and acoustical concepts, methodology details, etc.

3.7.1 Noise Evaluation Criteria

The FTA and FRA established similar procedures and guidelines for assessing train noise. Train noise is expressed in units of A-weighted decibels (dBA) as a function of time. The time descriptor used in this train noise assessment is the day-night noise level (Ldn). The Ldn can be thought of as a 24-hour average noise level that penalizes noise events that happen at night because most people are more annoyed by noise at nighttime than during the daytime.

This Tier 1 Service Level NEPA noise assessment only assessed Project-related noise at land uses where overnight sleep occurs (primarily residences),which is consistent with FRA guidance for Tier 1 Service Level NEPA reviews. Residences were identified by visual inspection of digital aerial photographs; no windshield surveys were performed.

This EA also performed a cursory review of land use adjacent to the Project corridors to determine where parks abut the rail lines. Visual inspection of digital aerial photographs and a limited internet search identified a number of parks adjacent to the rail corridors. There may be other small parks that were not picked up at this level of analysis. The impact assessments, discussed later in this subsection, use the term receptors to refer to land uses where overnight sleep occurs; each noise or vibration impact identified later in this subsection represents a single receptor, or land use where overnight sleep occurs.

Analysis results show that the incremental increase in the distance to the noise impact contour (the point at which noise impacts are no longer predicted to occur) in most instances is less than 20 feet. This small incremental change is nominal at this level of analysis, and impacted parks will be identified using the residential noise impact contours. Therefore the actual noise effect upon parks is minimal because the incremental change in noise is so small. The Project would not introduce a noise source that is unfamiliar in the parks (for the purposes of this analysis, diesel locomotives are assumed to sound the same). Therefore, this incremental increase does not merit a site-specific

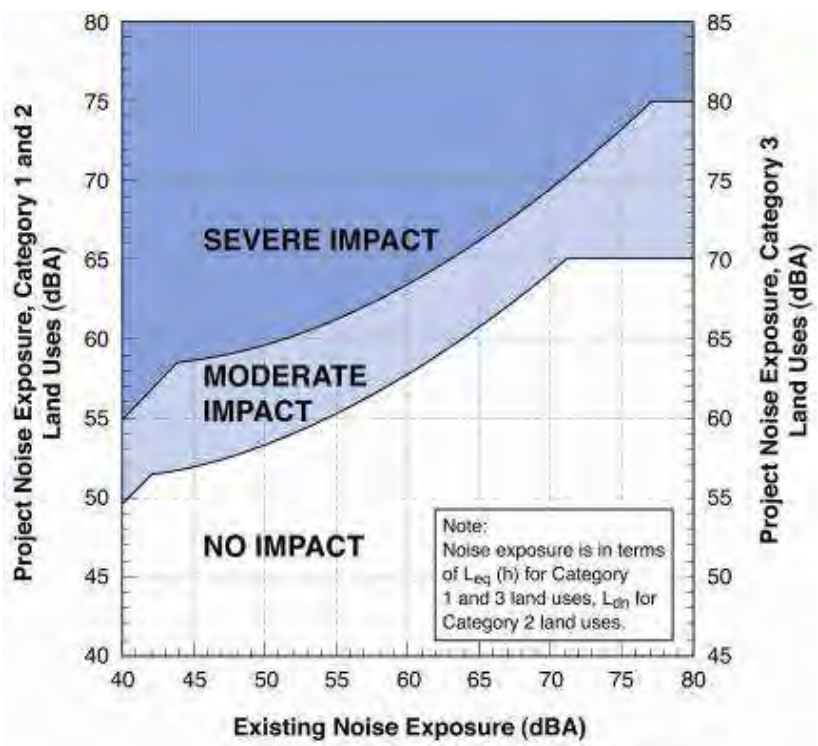
discussion of Project-related noise impacts at parks. Refer to Section 3.11, Parks and Federally or State-listed Natural Areas, for additional information.

The FTA noise impact criteria are defined by two curves, representing severe and moderate noise impacts, which are defined below.

- **Severe Impact.** A significant percentage of people are highly annoyed by noise in this range. Noise mitigation would normally be specified for severe impact areas unless it is not feasible or reasonable (unless there is no practical method of mitigating the impact).
- **Moderate Impact.** In this range, other project-specific factors are considered to determine the magnitude of the impact and the need for mitigation. These factors include the predicted increase over existing noise levels, the types and number of noise-sensitive land uses affected, existing outdoor-indoor sound insulation, and the cost-effectiveness of mitigating noise to more acceptable levels.

The FTA noise impact criteria are summarized in Chart 3.7-1 below. The chart illustrates existing noise exposure and Project-related noise exposure, and demonstrates that FTA noise impact thresholds vary with existing noise levels. Although the chart below references all three land use categories used by FTA, this analysis focused on Category 2 (land uses where overnight sleep occurs).

Chart 3.7-1
FTA Noise Impact Criteria



The first step in the noise assessment is to identify existing noise levels. This assessment used methods published by FTA (2006) and FRA (2005) to estimate existing noise levels based on factors such as proximity to roadways, highways, and railroads, and also by population density. In accordance with FTA guidance, the highest estimate of existing noise levels produced by these methods was incorporated into this analysis. In accordance with FTA and FRA guidance, this analysis used the existing noise level to identify the noise impact threshold. The noise impact threshold is determined by locating the measured or estimated existing noise level in a table published by FTA and FRA; the table identifies noise impact thresholds corresponding to the existing noise levels. Using the methods described above, this analysis determined an existing noise Ldn of 62 dBA for lands immediately adjacent to the rail line everywhere throughout the Project corridors.

The range of train volumes and speeds present in the Project corridors was summarized as a series of eight traffic conditions (A through H), as shown in Table 3.7-1. This allowed the corridor to be subdivided into sections with similar train traffic characteristics. A series of "traffic conditions," or zones, were established throughout the rail line; each traffic condition represents a range of similar rail traffic and surrounding land use (and existing noise levels). Assigning traffic conditions to the Project corridor allowed it to be logically subdivided into sub-sections, simplifying the noise analysis.

Table 3.7-1
Summary of Traffic Conditions

Traffic Condition	Trains per Day	No. of Locomotives	No. of Cars	Speed
	Freight Trains			
A	10.0	2.9	125.3	40
B	10.0	2.9	125.3	15
C	18.5	2.6	90.7	60
D	0.0	0.0	0.0	0
E	0.0	0.0	0.0	0
F	36.0	2.6	74.8	37
G	36.0	2.6	74.8	60
H	36.0	2.6	74.8	60
	Passenger Trains			
A	0.0	0.0	0.0	0
B	0.0	0.0	0.0	0
C	7.8	1.5	9.8	60
D	53.7	1.0	12.7	60
E	53.7	1.0	12.7	60
F	89.1	1.0	11.4	37
G	89.1	1.0	11.4	60
H	89.1	1.0	11.4	60
	Future Passenger Trains			
A	4.0	1.0	8.0	79
B	4.0	1.0	8.0	15
C	4.0	1.0	8.0	79
D	4.0	1.0	8.0	60
E	4.0	1.0	8.0	60

Traffic Condition	Trains per Day	No. of Locomotives	No. of Cars	Speed
F	4.0	1.0	8.0	37
G	4.0	1.0	8.0	70
H	4.0	1.0	8.0	55

In general, Traffic Condition A was defined for the rail sections from Iowa City to Wyanet along Route A (except the vicinity of Moline which was assigned Traffic Condition B), and from Wyanet to Joliet along Route B. Traffic Condition C includes the rail sections from Wyanet to Aurora along Route A. Traffic Condition D was assigned to the sections between Joliet and Englewood along Route B. Traffic Condition E was assigned and from Englewood to Chicago along Route B. Conditions F through H were assigned from Aurora to Chicago along Route A.

The range of development density present throughout the Project corridor was simplified into the three land use categories used in the FRA horn noise model (rural, suburban, and urban). The shielding assumptions used in that model for each respective land use were also incorporated into this analysis. A series of "noise conditions" were then created by combining traffic conditions and the three categories of development density. Table 3.7-2, below, summarizes the Noise Condition definitions. Figure 3.7-1, Figure 3.7-2, and Figure 3.7-3 at the end of this section show the assigned Noise Conditions.

Table 3.7-2
Noise Condition Definitions

Noise Condition	Traffic Condition	Development Density
1	A	Rural
2	A	Suburban
3	B	Suburban
4	A	Urban
5	C	Rural
6	C	Suburban
7	D	Urban
8	D	Suburban
9	E	Urban
10	F	Urban
11	G	Urban
12	H	Urban

Assigning noise conditions to the Project corridor allowed it to be logically subdivided into sub-sections with similar rail traffic, building-induced shielding characteristics, and existing noise levels, and therefore similar noise impact thresholds—thus simplifying the noise analysis. The moderate noise impact threshold was 59 dBA and the severe noise impact threshold was 64 dBA, both on an Ldn basis.

The FRA grade crossing database was incorporated in this assessment. It was used to identify the locations of public at-grade rail crossings where locomotive horns are used, and also to identify where quiet zones exist. Based on the FRA database, this analysis assumes that a quiet zone exists between Chicago and Aurora on the Preferred Alternative (Route A – Amtrak-BNSF-IAIS). In addition, the FRA grade crossing database indicates that all crossings appear to be grade-separated between Chicago and

Englewood on Alternative B (Amtrak-CN-Metra/Rock Island District-CSXT-IAIS). These portions of the Project area comprise much of Noise Condition 9. Horns are apparently not used on any Noise Condition 9 rail sections, therefore, locomotive horn analyses were not performed for Noise Condition 9.

The FRA locomotive horn noise model does not allow a modeler to model several different trains at the same time, and was therefore not used on this analysis. The horn noise contours were created using methods in the FTA and FRA guidance documents, and incorporating some of the features of the FRA horn noise model (the 1/4-mile contour distance, and the shielding equations).

No-Build Alternative

This analysis assumes that train-induced noise does not change anywhere throughout the Project area under the No-Build Alternative. Consequently, no new noise impacts are projected to occur beyond those that could occur due to other projects.

Two Round-trip Trains per Day

Both the existing and proposed (two round-trip passenger TPD) rail traffic was assessed; this allowed the analysis to identify the incremental increase in train noise effects on residential land uses in the Project area reported in the sections below. This portion of the analysis is based on the proposed addition of two round-trip passenger TPD at 79 mph from Chicago to Iowa City. Existing noise impacts were determined by modeling existing train traffic and plotting the resulting noise impact contour.

Preferred Alternative (Route A – Amtrak-BNSF-IAIS)

Table 3.7-3 presents the incremental increase in noise impacts at residential land uses adjacent to the Preferred Alternative. The table presents noise impacts predicted to occur in each municipality along the Preferred Alternative, and sorts the impacts as moderate or severe grade crossing and wayside (wheel/rail) noise impacts. The portion of the route unique to Route A is distinguished from the portion of the route that would be the same for Routes A and B (defined as “Common Section”). The entire corridor was evaluated; rural areas are listed as unincorporated in the table below.

Analysis results show a low incremental increase in noise impacts per mile associated with the Preferred Alternative. The Preferred Alternative is projected to result in: 1.5 new moderate noise impacts per mile; 0.7 new severe noise impacts per mile, and a combined average total of 2.1 noise impacts per mile. On this basis, the incremental increase in train noise is not considered to be significant for this analysis.

Table 3.7-3, below, shows that the distribution of Project-related noise impacts is scattered throughout the Project corridor. Areas with high existing traffic volumes and quiet zones are expected to experience a minor incremental increase in train noise associated with the Preferred Alternative. Conversely, areas with low existing traffic volumes, slow trains, and fewer or no quiet zones are expected to experience a larger incremental increase in train noise associated with the Preferred Alternative.

Table 3.7-3 reflects the trend of a low incremental increase in noise impacts in Chicago where train volumes are already higher than elsewhere in the project corridors (refer to the traffic summary in the table above) but much of the area along the Preferred Alternative consists of a quiet zone. Analysis results show that municipalities in the Quad Cities, where train speeds and volumes are low and quiet zones do not exist, are likely to experience a larger incremental increase in train noise levels and corresponding impacts associated with the Preferred Alternative. The influence of quiet zones on the magnitude of the incremental increase in train noise impacts suggests they represent an opportunity to mitigate many of the predicted impacts. Mitigation opportunities are discussed at the end of Section 3.7.1.

Table 3.7-3
Incremental Increase in Noise Impacts Associated with the Preferred Alternative

Municipality	Moderate		Severe		Total
	Grade Crossing	Wayside	Grade Crossing	Wayside	
Alignment A					
Arlington	1		2		3
Aurora		1			1
Berwyn		3		2	5
Brookfield		3		5	8
Chicago		8		5	13
Clarendon Hills		2		4	6
Downers Grove		6		1	7
Earlville	8		2		10
Hinsdale		2			2
Leland	2		6		8
Lisle		1			1
Malden	1		3		4
Mendota	3	1		1	5
Montgomery	4				4
Naperville		1		1	2
Plano	10		5		15
Princeton	1			1	2
Riverside		13		10	23
Sandwich	10		4	1	15
Somonauk	3	1	1		5
Western Springs		3		3	6
Westmont		4			4
Wyanet	6		1		7
Unincorporated	5	9	5	12	31
Common Section					
Annawan, IL	3		1		4

Municipality	Moderate		Severe		Total
	Grade Crossing	Wayside	Grade Crossing	Wayside	
Atalissa, IA	3		6		9
Atkinson, IL	4				4
Carbon Cliff, IL	1	1			2
Colona, IL	9	2	3	1	15
Davenport, IA	17	15	1	2	35
Durant, IA	9				9
East Moline, IL	39		8	4	51
Geneseo, IL	12		1		13
Green River, IL	1				1
Iowa City, IA	1	6	1	9	17
Mineral, IL	1		3		4
Moline, IL	37	4	6	3	50
Rock Island, IL	2	1	6		9
Sheffield, IL	2				2
Silvis, IL	2				2
Stockton, IA	1	2	3		6
Walcott, IA	7				7
West Liberty, IA	4				4
Wilton, IA	5		1		6
Unincorporated	10	4	6	2	22
Alternative A Totals	**224**	**93**	**75**	**67**	**459**
	317		**142**		

Route B Alternative (Amtrak-CN-Metra/Rock Island District-CSXT-IAIS)

Table 3.7-4 presents the incremental increase in noise impacts at residential land uses adjacent to the Route B Alternative. The table presents noise impacts predicted to occur in each municipality along the Route B Alternative, and sorts the impacts in to moderate and severe grade crossing and wayside (wheel/rail) noise impacts. The number of moderate and severe noise impacts in unincorporated, rural areas is also quite low due to the low density of development in these areas. The portion of the route unique to Route A is distinguished from the portion of the route that would be the same for Routes A and B (defined as "Common Section"). The number of moderate and severe noise impacts in unincorporated, rural areas is also quite low due to the low density of development in these areas.

The incremental increase in noise impacts per mile associated with the Route B Alternative is not significant. The table below shows that the distribution of Project-related noise impacts is also scattered throughout the Project corridor. Unlike the Preferred Alternative, the Route B alternative does not contain a quiet zone in the Chicago metro area. As a result, train noise impacts are predicted to be higher along this alternative. Consistent with the Preferred Alternative, areas with low existing traffic

volumes, slow trains, and no quiet zones are expected to experience a larger incremental increase in train noise associated with the Route B Alternative.

Table 3.7-4
Incremental Increase in Noise Impacts Associated with the Route B Alternative

Municipality	Moderate		Severe		Total
	Grade Crossing	Wayside	Grade Crossing	Wayside	
Alignment B					
Blue Island	5	4	1	1	11
Bureau Junction	5		5		10
Chicago	12	12	13	11	48
De Pue	4				4
Joliet	2	2	2		6
La Salle	2	2			4
Marseilles	18	4	4	4	30
Midlothian	2	1			3
Minooka	12				12
Mokena	5		1	1	7
Morris	10				10
New Lenox	1		1		2
North Utica	5		2		7
Oak Forest		5		1	6
Ottawa	6		2		8
Peru	2				2
Rockdale	1				1
Seneca	2				2
Spring Valley				1	1
Tinley Park	1		1		2
Tiskilwa	2	1			3
Unincorporated	1	3	5		9
Common Section					
Annawan, IL	3		1		4
Atalissa, IA	3		6		9
Atkinson, IL	4				4
Carbon Cliff, IL	1	1			2
Colona, IL	9	2	3	1	15
Davenport, IA	17	15	1	2	35
Durant, IA	9				9
East Moline, IL	39		8	4	51
Geneseo, IL	12		1		13
Green River, IL	1				1

Municipality	Moderate		Severe		Total
	Grade Crossing	Wayside	Grade Crossing	Wayside	
Iowa City, IA	1	6	1	9	17
Mineral, IL	1		3		4
Moline, IL	37	4	6	3	50
Rock Island, IL	2	1	6		9
Sheffield, IL	2				2
Silvis, IL	2				2
Stockton, IA	1	2	3		6
Walcott, IA	7				7
West Liberty, IA	4				4
Wilton, IA	5		1		6
Unincorporated	10	4	6	2	22
Alternative B Totals	**268**	**69**	**83**	**40**	**460**
	337		**123**		

The Route B Alternative is projected to result in: 1.4 new moderate noise impacts per mile; 0.5 new severe noise impacts per mile, and a combined total of 2.0 noise impacts per mile. On this basis, the incremental increase in train noise is not considered to be significant for this analysis.

Table 3.7-4 also reflects the trend of a high incremental increase in noise impacts in Chicago and in the Quad Cities. The number of noise impacts in unincorporated, rural areas is comparable to the Preferred Alternative. The absence of quiet zones on the Route B Alternative and its influence on the magnitude of the incremental increase in train noise impacts also suggests that they represent an opportunity to mitigate many of the predicted impacts. Mitigation opportunities are discussed at the end of Section 3.7.1.

Five Round-Trip Trains per Day

The MWRRI envisions five round-trip TPD, at 90 mph, from Chicago to Wyanet, Illinois; and at 79 mph from Wyanet to Iowa City, Iowa. This level of increased train activity was assessed in this Tier 1 Service Level NEPA review to help inform the reader of the likely potential impacts from the implementation of the MWRRI's ultimate vision. (A separate NEPA analysis would be required prior to increasing the train numbers and speeds.)

Five round-trip TPD were evaluate using the same methods and modeling approach as described in the previous section, but with increased future passenger train traffic. Table 3.7-5 presents a simple comparison of noise contour distances under each of the ranges of rail traffic.

Table 3.7-5
Impact Threshold Contour Distances

Noise Condition	Existing Moderate Impact	4-TPD Moderate Impact	10-TPD Moderate Impact	Existing Severe Impact	4-TPD Severe Impact	10-TPD Severe Impact
Wayside Contour Distances (ft)						
1	*274*	*295*	324	*126*	*136*	*149*
2	200	212	229	*126*	*136*	*149*
3	264	296	336	*179*	207	245
4	183	194	210	126	136	149
5	391	408	*432*	*180*	*188*	*199*
6	266	275	287	*180*	*188*	*199*
7	203	210	203	*104*	*108*	*104*
8	222	229	222	143	149	143
9	203	210	203	104	108	104
10	281	286	281	149	152	149
11	256	261	256	134	137	134
12	256	261	256	134	137	134
Grade Crossing Contour Distances (ft)						
1	*377*	*404*	441	*258*	*285*	*323*
2	349	375	410	*200*	*206*	*229*
3	504	570	647	*291*	336	391
4	323	348	381	174	189	210
5	436	458	*483*	*318*	*342*	*371*
6	405	426	450	*225*	*239*	*255*
7	505	520	505	*291*	*301*	*291*
8	541	556	541	316	326	316
9	505	520	505	291	301	291
10	720	731	720	444	452	444
11	613	621	613	366	372	366
12	613	624	613	366	374	366

Note: Italicized contour distances do not include a shielding correction because the corrected distance is less than FRA-assumed threshold distance for applying shielding in areas with the specified density of development.

The table above shows that the incremental increase in noise impact contour distances associated with the five round-trip TPD scenario is greatest in noise condition 3 areas where train speeds are slow and development density and shielding is classified as suburban. The incremental increase in noise impact contours is least in noise condition 9 areas where development density is high and train volumes are high.

Noise Mitigation Opportunities

As shown above, the presence or absence of quiet zones has a great effect on the predicted number of train noise impacts. Locomotive horn use at public at-grade crossings causes the majority of the predicted noise impacts. Therefore, minimizing locomotive horn use in the Project area represents the greatest opportunity to mitigate potential Project-related noise impacts. The Project would upgrade some electronic circuitry through installation of constant time circuitry (warning lights) at public at-grade roadway-rail crossings. In effect, the Project would install the electronic infrastructure for quiet zones. Municipalities predicted to experience an increase in train noise impacts can choose to initiate the process of developing quiet zones, to take advantage of the infrastructure provided by the proposed Project.

The largest concentration of anticipated noise impacts would be in the Quad Cities region. The following additional receptors would be impacted under either alternative route: 56 in East Moline; 58 in Moline; 10 in Rock Island; and 36 in Davenport. The increase in receptors would be primarily due to the slow speed of the existing track configuration through the Quad Cities area. Colona, IL would also see an additional 20 receptors impacted primarily due to the slow current track speed at the crossing of the IAIS and the BNSF rail lines.

However, track improvements would be made in both the Quad Cities and in Colona to improve the fluidity of the passenger trains and to increase the passenger rail speed through the communities. In the Quad Cities, track signals would be improved through East Moline, Moline, Rock Island, and Davenport to allow for an increase in passenger train speeds from the current 10 to 15 mph constraint to 40 mph. In addition, a passenger train by-pass of the Rock Island yard would be constructed to reduce the delays to the passenger trains through the yard. In Colona, the crossing of the BNSF and IAIS rail lines would be reconstructed to increase the track speed on the IAIS from the current 10 mph to 40 mph. These improvements in the Quad Cities and Colona would also improve the speed for the current freight trains. The speed increases would reduce the number of noise receptors that would be impacted because the duration of a locomotive horn use (pass-by) event would be shorter.

3.7.2 Ground-borne Vibration

This section summarizes potential ground-borne vibration (GBV) impacts associated with the proposed Project. Existing and future rail traffic scenarios were analyzed, and the incremental increase in ground-borne vibration associated with the proposed Project was identified. (Refer to Appendix C for background information on vibration and additional methodology details.) Only GBV was evaluated. For the purposes of this assessment, ground-borne noise (which is different than both air-borne noise and ground-borne vibration, and can be estimated using FTA/FRA methods) was not addressed; this is consistent with vibration analyses performed for FRA on other Tier 1 service-level HSIPR projects.

Based on the daily train counts for the current and anticipated rail usage, and the number of locomotives per train, the number of vibration events may range from less than 30 (infrequent) to more than 70 (frequent) events per day depending on location. FTA recommends, however, that the frequent-event criterion be applied for line-haul freight

trains because of the lengthy vibration event caused by the rail cars. Since both Routes A and B contain qualifying line-haul freight traffic, the frequent-event criterion of 72 vibration decibels is applied in this assessment. In this section, vibration decibels (VdB) relative to a reference of 10^{-6} inches per second (1 μin/sec) are used. The frequent-event criterion represents the most conservative case.

Both existing and proposed (future) operations were evaluated to assess the potential vibration impact along Routes A and B. The future use scenario includes passenger trains moving at 79 mph, along with existing freight train traffic, on welded track. A potential 90-mph passenger train scenario on Route A was partially analyzed only for the five round-trip TPD scenario, and potential impact distances are provided for comparison purposes.

The assessment began with a data gathering task and construction of a geographic information system (GIS) for the Project. The railroad alignments, surface geology, aerial photography, and train traffic data (the number of locomotives and rail cars) were among the critical information gathered. Geology sources included GIS data and maps available at the Iowa Geological Survey and Illinois State Geological Survey Web sites. Train traffic data were compiled during the noise assessment. The traffic conditions developed for use in the noise assessment documented in the first part of this section were also applied in the vibration analysis. The traffic conditions, described in

Table 3.7-6, refer to sections of rail which have specific combinations of train speed and frequency (although for the vibration assessment the frequent-event criterion is assumed).

Table 3.7-6
Traffic Conditions

Traffic Condition	Location	Speed (mph)	
		Existing	Future
A	Aurora; Wyanet to Moline; Moline to Iowa City	40	79
B	Moline	15	15
C	Aurora to Wyanet	60	79
D	Englewood to Joliet	60	60
E	Chicago to Englewood	60	60
F	Chicago to West Side	37	37
G	West Side to Eola	60	70
H	Eola to Aurora	60	55

Once the necessary datasets had been gathered, the vibration impacts for existing and future scenarios were analyzed. The generalized ground surface vibration curves (see Figure 10-1 in the FTA guidance document) provide the distance from track centerline the point where ground-borne vibration levels fall below impact thresholds; this is the vibration impact contour. In order to determine the distance to potential impacts at Category 2 thresholds, the generalized (reference) ground-surface vibration curve needs to be adjusted to more accurately fit the actual conditions.

The GBV reference curve most applicable to this Project assumes a locomotive powered passenger or freight train traveling at 50 mph on CWR, over soil that is inefficient at transmitting vibration. Given the actual geologic conditions and the current and future

train speeds, adjustments for geology and train speed were needed. (Note: it is assumed that all existing jointed track would be replaced with CWR.)

The surface geology of the area generally consists of a mixture of silt, sand, gravel, and floodplain sediments, all of which are assumed to be non-efficient at transmitting vibration for this assessment, and glacial till, which is assumed to be a stiff clay efficient at transmitting vibration. The approximate linear extent of efficient and non-efficient soil that each traffic condition section transects was calculated and a VdB adjustment applied to the section. The reference vibration curve adjustment factors for existing use, future 79-mph, and future 90-mph scenarios are provided in Appendix C. The 90-mph scenario applies only to the five round-trip TPD scenario. Once the adjustments were applied to the ground-borne vibration reference curve, the distance to the vibration impact threshold contours was determined.

This Tier 1 Service Level NEPA vibration assessment only assessed Project-related ground-borne vibration at land uses where overnight sleep occurs (primarily residences) for the same reasons as noted in Section 3.7.1.

A cursory review of land use adjacent to the Project corridors was also performed to determine where parks abut the rail lines. Visual inspection of digital aerial photographs and a limited search of the internet identified a number of parks immediately adjacent to the rail corridors. There may be other small parks that were not identified at this screening level. While the receptor database in GIS includes the parks noted above, vibration analysis results are not presented on a site-specific basis. If vibration impacts are predicted to occur at a park, that park is simply reported as an impact in the analysis results table.

No-Build Alternative

This analysis assumes that train-induced ground-borne vibration does not change anywhere throughout the Project area under the No-Build Alternative. Consequently, no new vibration impacts are projected to occur beyond those that could occur due to other projects.

Two Round-Trip Trains per Day

Both the existing and proposed (two round-trip TPD) rail traffic was assessed; this allowed the analysis to identify the incremental increase in ground-borne vibration effects on residential land uses in the Project area for Routes A and B.

Preferred Alternative (Route A – Amtrak-BNSF-IAIS)

Table 3.7-7 presents the incremental increase in vibration impacts, as defined by FTA, at residential land uses adjacent to the entire Preferred Alternative. The table presents vibration impacts predicted to occur in each municipality along the Preferred Alternative.

Table 3.7-7
Incremental Increase in Ground-borne Vibration Impacts
Associated with the Preferred Alternative

Municipality	No. of Impacts	Municipality	No. of Impacts
Alignment A		Common Section	
Arlington, IL	8	Atalissa, IA	20
Aurora, IL	23	Davenport, IA	304
Berwyn, IL	51	Durant, IA	53
Brookfield, IL	55	Iowa City, IA	174
Chicago, IL	110	Stockton, IA	27
Cicero, IL	24	Walcott, IA	56
Clarendon Hills, IL	35	West Liberty, IA	40
Downers Grove, IL	81	Wilton, IA	35
Earlville, IL	19	Annawan, IL	27
Hinsdale, IL	41	Atkinson, IL	25
La Grange, IL	38	Geneseo, IL	61
Leland, IL	23	Mineral, IL	20
Lisle, IL	44	Sheffield, IL	21
Malden, IL	10	Unincorporated	58
Mendota, IL	32		
Montgomery, IL	28		
Naperville, IL	68		
Oswego, IL	16		
Plano, IL	13		
Princeton, IL	5		
Riverside, IL	39		
Sandwich, IL	33		
Somonauk, IL	34		
Western Springs, IL	33		
Westmont, IL	31		
Wyanet, IL	20		
Unincorporated	93		
Vibration Impacts Associated with Alternative A			**1,928**

Analysis results identified approximately 9 vibration impacts per mile associated with the Preferred Alternative. Train-induced ground-borne vibration levels reach the impact thresholds determined in this analysis during the 79 mph train pass-by. The Project proposes to introduce two round-trip trains at this speed each day. Therefore there would be four train pass-by events at this speed. Analysis results also show that the number of vibration impacts in each municipality is related to the density of residential development in areas adjacent to the rail line.

Route B Alternative (Amtrak-CN-Metra/Rock Island District-CSXT-IAIS)

Table 3.7-8 presents the incremental increase in ground-borne vibration impacts, as defined by FTA, at residential land uses adjacent to the Route B Alternative. The table presents vibration impacts predicted to occur in each municipality along the route. The number of vibration impacts in unincorporated rural areas is quite low due to the low density of development in these areas.

Table 3.7-8
Incremental Increase in Ground-borne Vibration Impacts
Associated with the Route B Alternative

Municipality	No. of Impacts	Municipality	No. of Impacts
Alignment B		Common Section	
Bureau Junction, IL	24	Atalissa, IA	20
De Pue, IL	74	Davenport, IA	304
Joliet, IL	28	Durant, IA	53
La Salle, IL	55	Iowa City, IA	174
Marseilles, IL	195	Stockton, IA	27
Minooka, IL	54	Walcott, IA	56
Morris, IL	119	West Liberty, IA	40
North Utica, IL	44	Wilton, IA	35
Ottawa, IL	102	Annawan, IL	27
Peru, IL	41	Atkinson, IL	25
Rockdale, IL	19	Geneseo, IL	61
Seneca, IL	28	Mineral, IL	20
Spring Valley, IL	18	Sheffield, IL	21
Tiskilwa, IL	27	Unincorporated	58
Unincorporated	52		
Vibration Impacts Associated with Alternative B			**1,801**

Analysis results identified approximately 8 vibration impacts per mile associated with the Route B Alternative. Train-induced ground-borne vibration levels reach the impact thresholds determined in this analysis during the 79 mph train pass-by. The Project proposes to introduce two round-trip trains at this speed each day. Therefore, there would be four train pass-by events at this speed. The number of impacts per mile for Alternative B is slightly less than the number of impacts per mile calculated for the Preferred Alternative. Analysis results show that the number of vibration impacts is related to the density of residential development in areas adjacent to the rail line.

Five Round-Trip Trains per Day

The MWRRI envisions five round-trip TPD, at 90 mph, from Chicago to Wyanet, Illinois; and 79 mph from Wyanet to Iowa City, Iowa. This level of increased train activity was assessed in this Tier 1 Service Level NEPA review to help inform the reader

of the likely potential impacts from the implementation of MWRRI's ultimate vision. (A separate NEPA analysis would be required prior to increasing the train numbers.)

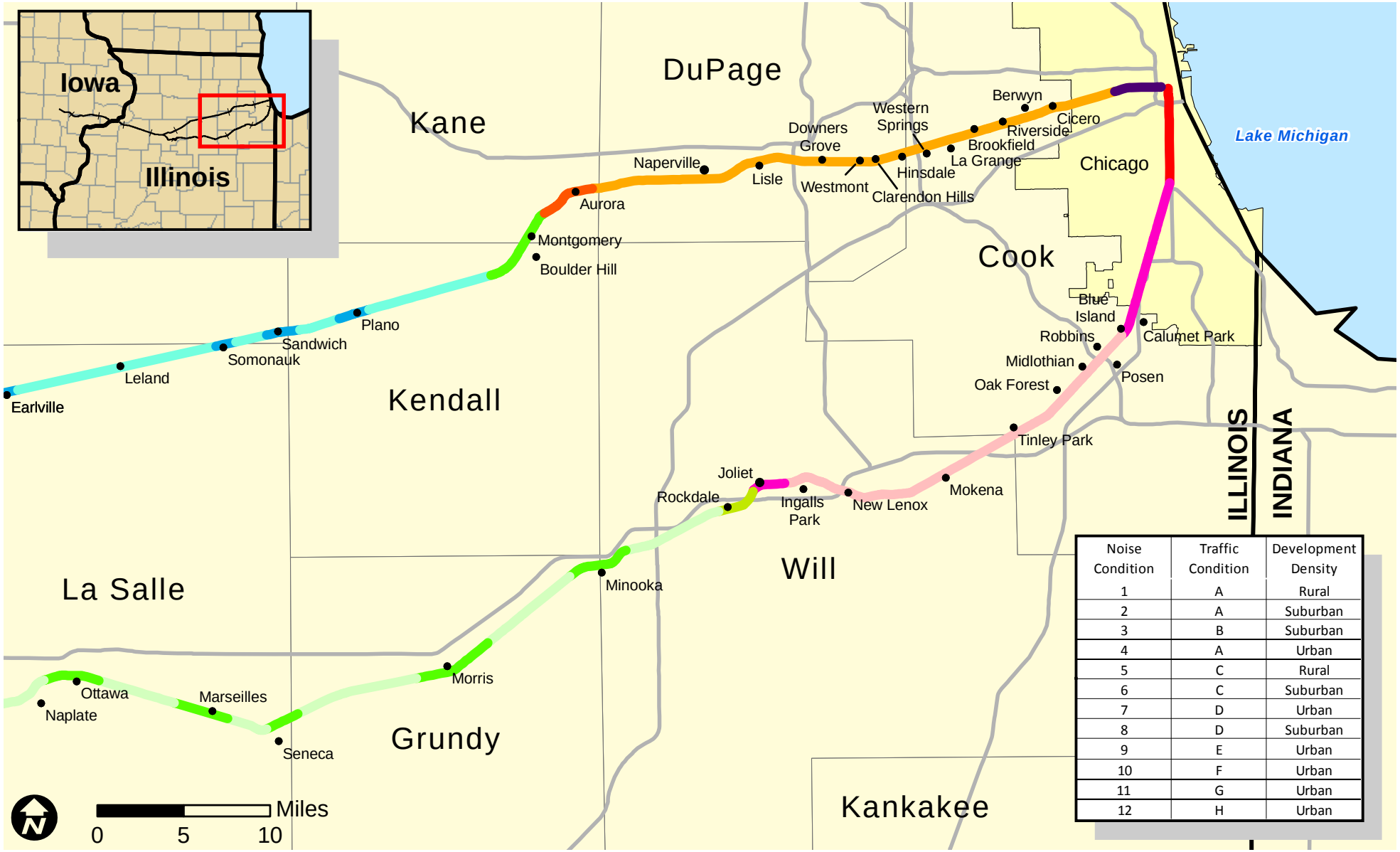
The five round-trip TPD scenario was evaluated using the same methods and modeling approach as described in the previous section, but with increased future passenger train traffic. **Error! Reference source not found.** presents a simple comparison of vibration impact contour distances for existing conditions, 79 mph train service, and 90 mph train service.

Table 3.7-9
Distances to Category 2 Ground-Borne Vibration Impacts

Scenario	GBV Impact Level (VdB)	Distance to Impact Level (ft)							
		Traffic Cond. A	Traffic Cond. B	Traffic Cond. C	Traffic Cond. D	Traffic Cond. E	Traffic Cond. F	Traffic Cond. G	Traffic Cond. H
Existing Use	72	212	119	281	499	504	380	450	560
Future Use: 79 mph	72	370	119	352	499	504	380	509	520
Future Use: 90 mph	72	414	119	394	685	700	380	620	773

The table above shows that as the train speed increases, the distance to the ground-borne vibration impact contour also increases. Areas outside of, or beyond the vibration impact contour are predicted to experience train-induced ground-borne vibration levels below the FTA/FRA vibration impact threshold. Traffic condition B represents the portion of the Quad Cities area that imposes a 15 mph speed limit on trains, therefore the distance to the vibration impact contour does not change. The distance to the vibration impact contour for Traffic condition F also does not change. Traffic condition F represents a portion of the Preferred Alternative near downtown Chicago where new traffic will average 37mph. For purposes of this assessment, this average speed was also applied to existing traffic.

Appendix C contains a more detailed discussion of the noise and vibration analyses, and presents figures depicting the ground-borne vibration contours and projected impacts along Alternative Routes A and B.



Noise Condition	Traffic Condition	Development Density
1	A	Rural
2	A	Suburban
3	B	Suburban
4	A	Urban
5	C	Rural
6	C	Suburban
7	D	Urban
8	D	Suburban
9	E	Urban
10	F	Urban
11	G	Urban
12	H	Urban

Noise Conditions

1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12

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Noise and Traffic Conditions

Chicago to Iowa City Intercity Passenger Rail Service

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FIGURE
3.7-1

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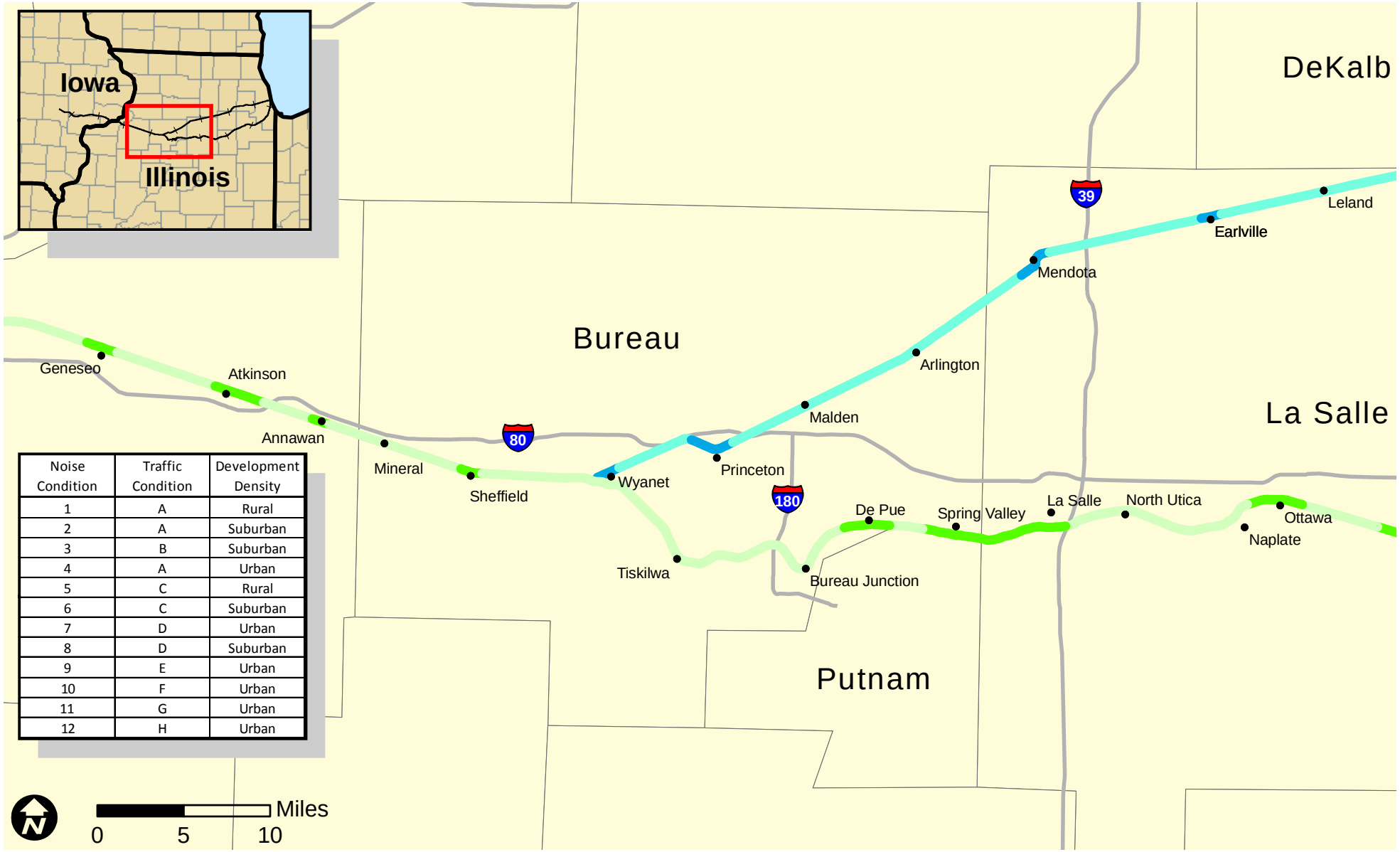

Noise Condition	Traffic Condition	Development Density
1	A	Rural
2	A	Suburban
3	B	Suburban
4	A	Urban
5	C	Rural
6	C	Suburban
7	D	Urban
8	D	Suburban
9	E	Urban
10	F	Urban
11	G	Urban
12	H	Urban

Noise Conditions

1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12

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FIGURE
3.7-2

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Noise Condition	Traffic Condition	Development Density
1	A	Rural
2	A	Suburban
3	B	Suburban
4	A	Urban
5	C	Rural
6	C	Suburban
7	D	Urban
8	D	Suburban
9	E	Urban
10	F	Urban
11	G	Urban
12	H	Urban

Noise Conditions

1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12

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Chicago to Iowa City Intercity Passenger Rail Service

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FIGURE
3.7-3

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3.8 AIR QUALITY

EPA regulates air pollution in accordance with primary and secondary National Ambient Air Quality Standards (NAAQS) established by the Clean Air Act, as amended. Iowa DNR and the Illinois Environmental Protection Agency regulate air pollutants and operate air monitors throughout each state. Illinois developed Illinois Ambient Air Quality Standards that are similar to the NAAQS. Iowa uses the NAAQS to measure air quality. The NAAQS currently address six criteria pollutants. These pollutants are: carbon monoxide (CO), nitrogen dioxide (NO_2), ozone (O_3), lead (Pb), particulate matter, and sulfur dioxide (SO_2). Particulate matter has been further defined by size. There are standards for particulate matter smaller than 10 microns in diameter (PM-10) and smaller than 2.5 microns in diameter (PM-2.5). Most O_3 forms as a result of volatile organic compounds (VOCs) and nitrogen oxides (NO_x) reacting with sunlight. Areas of the country where air pollution levels persistently exceed the national ambient air quality standards are designated as nonattainment areas.

The Project area comprises the following counties in Illinois: Cook, Du Page, Kane, Kendall, De Kalb, La Salle, Bureau, Henry, Will, and Grundy, and the following counties in Iowa: Johnson, Cedar, Muscatine, and Scott. Table 3.8-1, below, and Figure 3.8-1 and 3.8-2, at the end of this section, display the counties in the Project area that are currently designated as nonattainment or maintenance areas by EPA (EPA, August 6, 2009).

Table 3.8-1
Nonattainment and Maintenance Areas within the Project Area

Critical Pollutants	County	State	Status
Particulate matter less than 10 microns in diameter (PM-10)	Cook County – Lyons Township and Southeast Chicago[a]	IL	Maintenance
Particulate matter less than 2.5 microns in diameter (PM-2.5)	Cook County	IL	Nonattainment
	Du Page County	IL	Nonattainment
	Grundy County – Aux Sable and Goose Lake Townships	IL	Nonattainment
	Kane County	IL	Nonattainment
	Kendall County – Oswego Township	IL	Nonattainment
	Will County	IL	Nonattainment
8-hour ozone	Cook County	IL	Nonattainment
	Du Page County	IL	Nonattainment
	Grundy County – Aux Sable and Goose Lake Townships	IL	Nonattainment
	Kane County	IL	Nonattainment
	Kendall County – Oswego Township	IL	Nonattainment
	Will County	IL	Nonattainment

Notes:
[a] *Also locally referred to as McCook and Lake Calumet, respectively.*

In 2006, USEPA lowered its 24-hour ambient air quality health standard for fine particulate matter with a diameter of 2.5 microns or smaller, known as PM-2.5, from 65 to 35 micrometers per cubic meter of air. Possible contributors of PM-2.5 include industrial combustion as well as vehicle exhaust. The Iowa DNR monitors air quality

within Scott County, and based on that monitoring, had recommended that part of Scott County be designated as nonattainment for PM-2.5. EPA concurred with that recommendation. In December 2008 EPA signed a final rule, and proposed to publish it in the Federal Register, with new designations for nonattainment areas, including the listing of part of Scott County as nonattainment. The Federal Register notice is currently under review and has not been published as of the date of this EA.

A federal agency must make a determination that a federal action conforms to one or more applicable state implementation plans (SIP) to achieve attainment of the NAAQS. General conformity emissions thresholds, defined in 40 CFR 51, Subpart W, are defined by the nonattainment or maintenance status for each criteria pollutant in the Project area. The applicable *de minimis*[9] thresholds for the proposed passenger rail service are as follows:

- O_3, 100 tons per year of either NO_x or VOC
- PM-2.5, 100 tons per year
- PM-10, 100 tons per year

If emissions from an action are below these thresholds, conformity analysis is not required.

In addition to the criteria air pollutants for which there are NAAQS, EPA also regulates air toxics. Many air toxics originate from human-made sources, including on-road mobile sources, non-road mobile sources (such as airplanes or locomotives), and stationary sources (such as factories or refineries). Mobile Source Air Toxics (MSATs) are those pollutants that are known or suspected to cause cancer or other serious health effects, such as reproductive effects or birth defects, or adverse environmental effects. Research into the health impacts of MSATs is ongoing; the EPA is in the process of assessing the risks of various kinds of exposures to these pollutants.

Emissions of air toxics from diesel engines are expected to be measured as a subset of either particulate matter (PM) and/or hydrocarbons (HC). EPA has established emission standards for these pollutants for newly manufactured and remanufactured locomotives. These standards are dependent on the date a locomotive is first manufactured; the most stringent set of standards applies to locomotives originally manufactured in 2015 and later. The vast majority of PM emitted by locomotive diesel engines is in the form of PM-10. EPA is projecting that the PM-10 and HC emissions from the passenger locomotive fleet are already on an accelerating downward trend, and will drop by much more than an order of magnitude over the next three decades as a result of EPA's emissions standards.

3.8.1 No-Build Alternative

The No-Build Alternative would not appreciably worsen air quality in the near future. Over time, air quality would worsen as congestion increases on the roads and highways between Chicago and Iowa City.

[9] A *de minimis* impact is defined as a minor, trifling impact.

3.8.2 Two Round-Trip Trains per Day

Preferred Alternative (Route A – Amtrak-BNSF-IAIS)
The Preferred Alternative route passes through three counties in Illinois that are in nonattainment for PM-2.5 and 8-hour O_3: Cook, DuPage, and Kane counties, and Oswego Township in Kendall County. Southeast Chicago and Lyons Township in Cook County are also listed as a maintenance area for PM-10. The remainder of the counties along Route A are in attainment for all criteria pollutants.

The Preferred Alternative, with four additional train trips per day along the Chicago to Iowa City corridor, would result in a negligible increase in emissions. The Preferred Alternative would have no significant impact on current or future air quality standards or lead to the establishment of a nonattainment area. Implementation of the two round-trip TPD scenario on the Preferred Alternative Route would potentially improve the air quality in the region by diverting approximately 117,000 vehicle trips from the roads and highways and 8.4 million airline passenger-miles between Chicago and Iowa City. Table 3.8-2 illustrates the potential changes in air emissions from operation of the additional trains and the reduction in emissions from diversion of trips from vehicle and plane to rail over the entire length of the route between Chicago and Iowa City. The amount of HC and CO would decrease; NO_x, PM-10, and PM-2.5 would increase. Emissions of carbon dioxide (CO_2), a greenhouse gas, would decrease.

Table 3.8-2
Estimated Changes in Air Pollutants from Diversion of Vehicle and Plane Trips (tons per year)[a]

Pollutant	Additional Train Emissions	Reduction in Emissions		Net Change
		Vehicles	Planes	
HC	5.06	-11.55	-0.45	-6.94
CO	22.03	218.56	-2.81	-199.34
NO_x	108.51	-9.61	-8.99	89.90
PM-10	2.82	-0.45	0.00	2.36
PM-2.5	2.73	-0.45	0.00	2.28
CO_2	8,417.51	-8,381.63	-2,036.46	-2,000.59

Notes:
[a] *Calculations of emissions from vehicles (including a mix of automobiles, light trucks, and sport utility vehicles) and trains were performed using EPA emission factors (Energy Information Administration, no date; EPA, Office of Transportation and Air Quality, April 2009; EPA, Office of Transportation and Air Quality, August 2005; FHWA, Office of Natural and Human Environment, April 2005; U.S. Department of Energy, no date; EPA, Technology Transfer Network, no date).*

Emissions from the Preferred Alternative would be well below the *de minimis* threshold for all nonattainment and maintenance areas within the Project area and general conformity analysis would not be required. Table 3.8-3 displays emissions within nonattainment and maintenance areas from the Preferred Alternative.

Should EPA publish the Federal Register notice regarding Scott County, Iowa in the near term and if a portion of Scott County is formally designated as nonattainment for PM-2.5, general conformity for the new 24-hour PM-2.5 standard does not apply until one year

after the effective date of the nonattainment designations that consider that standard. In addition, the contribution from the Project would be well below the de minimis threshold of 100 tons per year, so that general conformity would not apply in any case.

Table 3.8-3
Summary of General Conformity Determination for Preferred Alternative[a]

Pollutant	Route Miles in Area	De Minimis Threshold	Train Emissions Increase	Net Emissions Change[b]
Chicago PM-2.5 and O_3 Nonattainment Area[c]				
HC	46	100	1.06	-1.87
NO_x	46	100	22.79	18.19
PM-2.5	46	100	0.57	0.46
Lyon Township (McCook) PM-10 Maintenance Area				
PM-10	4	100	0.05	0.04

Notes:
[a] *All numbers are in tons per year*
[b] *Includes reduction in vehicle and plane emissions from trips diverted*
[c] *The Chicago nonattainment area includes the counties and townships listed in Table 3.8-1 and shown in Figure 3.8-1.*

The Preferred Alternative would result in some air toxics emissions along the rail line, but these would be sporadic and diffuse. This fact, as well as the anticipated decline in MSAT emissions from locomotives, indicates that the air toxics effects of implementing the proposed passenger rail service would be minimal.

Specific impacts from construction and operational activities would be evaluated in the Tier 2 Project Level NEPA Documents/Review.

Route B Alternative (Amtrak-CN-Metra/Rock Island District-CSXT-IAIS)

The Route B Alternative would cross two counties in Illinois that are in nonattainment for PM-2.5 and 8-hour O_3: Cook, and Will counties; Aux Sable and Goose Lake Townships in Grundy County are also in nonattainment for these pollutants. An area in Southeast Chicago (Lake Calumet) in Cook County is also listed as a maintenance area for PM-10. The remainder of the counties along Route B are in attainment for all criteria pollutants.

The Route B Alternative, with four additional train trips per day along the Chicago to Iowa City corridor, would result in a negligible increase in emissions. The Route B Alternative would have no significant impact on current or future air quality standards or lead to the establishment of a nonattainment area. Implementation of the two round-trip TPD scenario on the Route B Alternative would potentially improve the air quality in the region by diverting approximately 92,000 vehicle trips from the roads and highways and 6.6 million airline passenger-miles between Chicago and Iowa City. Table 3.8-4 illustrates the potential changes in air emissions from operation of the additional trains and the reduction in emissions from diversion of trips from vehicle and plane to rail over the entire length of the route between Chicago and Iowa City. The amount of HC and CO would decrease (the decrease of HC would be less compared to the Preferred Alternative); NO_x, PM-10, and PM-2.5 would increase. CO_2 would decrease.

Table 3.8-4
Estimated Changes in Air Pollutants from Diversion of Vehicle and Plane Trips (tons per year)

Pollutant	Additional Train Emissions[a]	Reduction in Emissions[b]		Net Change
		Vehicles	Planes	
HC	4.32	-9.09	-0.35	-5.11
CO	18.82	-171.86	-2.21	-155.25
NO_x	92.70	-7.56	-7.07	78.07
PM-10	2.41	-0.36	0.00	2.05
PM-2.5	2.33	-0.36	0.00	1.98
CO_2	7,191.05	-6,590.69	-1,600.08	-999.72

Notes:
[a] *Calculations of emissions from vehicles (including a mix of automobiles, light trucks, and sport utility vehicles) and trains were performed using EPA emission factors (Energy Information Administration, no date; EPA, Office of Transportation and Air Quality, April 2009; EPA, Office of Transportation and Air Quality, August 2005; FHWA, Office of Natural and Human Environment, April 2005; U.S. Department of Energy, no date; EPA, Technology Transfer Network, no date).*

Emissions from the Route B Alternative would be well below the de minimis threshold for all nonattainment and maintenance areas within the Project area and general conformity analysis would not be required. Table 3.8-5 displays emissions within nonattainment and maintenance areas from the Route B Alternative.

Should EPA publish the Federal Register notice regarding Scott County, Iowa in the near term and if a portion of Scott County is formally designated as nonattainment for PM-2.5, general conformity for the new 24-hour PM-2.5 standard does not apply until one year after the effective date of the nonattainment designations that consider that standard. In addition, the contribution from the Project would be well below the de minimis threshold of 100 tons per year, so that general conformity would not apply in any case.

Table 3.8-5
Summary of General Conformity Determination for Route B Alternative[a]

Pollutant	Route Miles in Area	De Minimis Threshold	Train Emissions Increase	Net Emissions Change[b]
Chicago PM-2.5 and O_3 Nonattainment Area[c]				
Hydrocarbons	60	100	1.09	-1.22
NO_x	60	100	23.37	19.76
PM-2.5	60	100	0.59	0.50
Southeast Chicago (Lake Calumet) PM-10 Maintenance Area				
PM-10	4	100	0.03	0.02

Notes:
[a] *All numbers are in tons per year*
[b] *Includes reduction in vehicle and plane emissions from trips diverted*
[c] *The Chicago nonattainment area includes the counties and townships listed in Table 3.8-1 and shown in Figure 3.8-1.*

The Route B Alternative would result in some air toxics emissions along the rail line, but these would be sporadic and diffuse. This fact, as well as the anticipated decline in MSAT emissions from locomotives, indicates that the air toxics effects of implementing the proposed passenger rail service would be minimal.

Specific impacts from construction and operational activities would be evaluated in the Tier 2 Project Level NEPA documents.

3.8.3 Five Round-Trip Trains per Day

At the ultimate MWRRI operational level of five round-trip TPD, the route would cross the same counties that are in nonattainment areas as discussed above. Additional emissions would be produced from the 10 TPD, but more vehicles would be diverted from the roads as compared to two train trips per day. Implementation of the five round-trip TPD scenario would potentially improve the air quality in the region by diverting approximately 345,000 vehicle trips from the roads and highways between Chicago and Iowa City.

Table 3.8-6 illustrates the potential changes in air emissions from operation of the additional trains and the reduction in emissions from diversion of trips from vehicle and plane to rail. The amount of HC and CO would decrease (the decrease would be less as compare to the Preferred Alternative); PM-10-, PM-2.5, and NO_x would increase. CO_2 would decrease.

An evaluation of emissions in nonattainment and maintenance areas compared to de minimis thresholds for general conformity would be completed and documented subsequent NEPA documents before the increased level of service would be implemented.

Table 3.8-6
Estimated Changes in Air Pollutants from Diversion of Vehicle and Plane Trips
(tons per year)

Pollutant	Additional Train Emissions[a]	Reduction in Emissions[b]		Net Change
		Vehicle	Plane	
HC	12.97	-34.07	-0.88	-21.98
CO	59.50	-644.49	-5.55	-590.53
NO_x	293.03	-28.35	-17.77	246.91
PM-10	7.61	-1.34	0.00	6.27
PM-2.5	7.38	-1.34	0.00	6.04
CO_2	22,731.77	-24,715.07	-4,024.44	-6,007.74

Notes:

[a] *Calculations of emissions from vehicles (including a mix of automobiles, light trucks, and sport utility vehicles) and trains were performed using EPA emission factors (Energy Information Administration no date; EPA, Office of Transportation and Air Quality April 2009; EPA, Office of Transportation and Air Quality August 2005; FHWA, Office of Natural and Human Environment April 2005; U.S. Department of Energy no date; EPA, Technology Transfer Network no date).*

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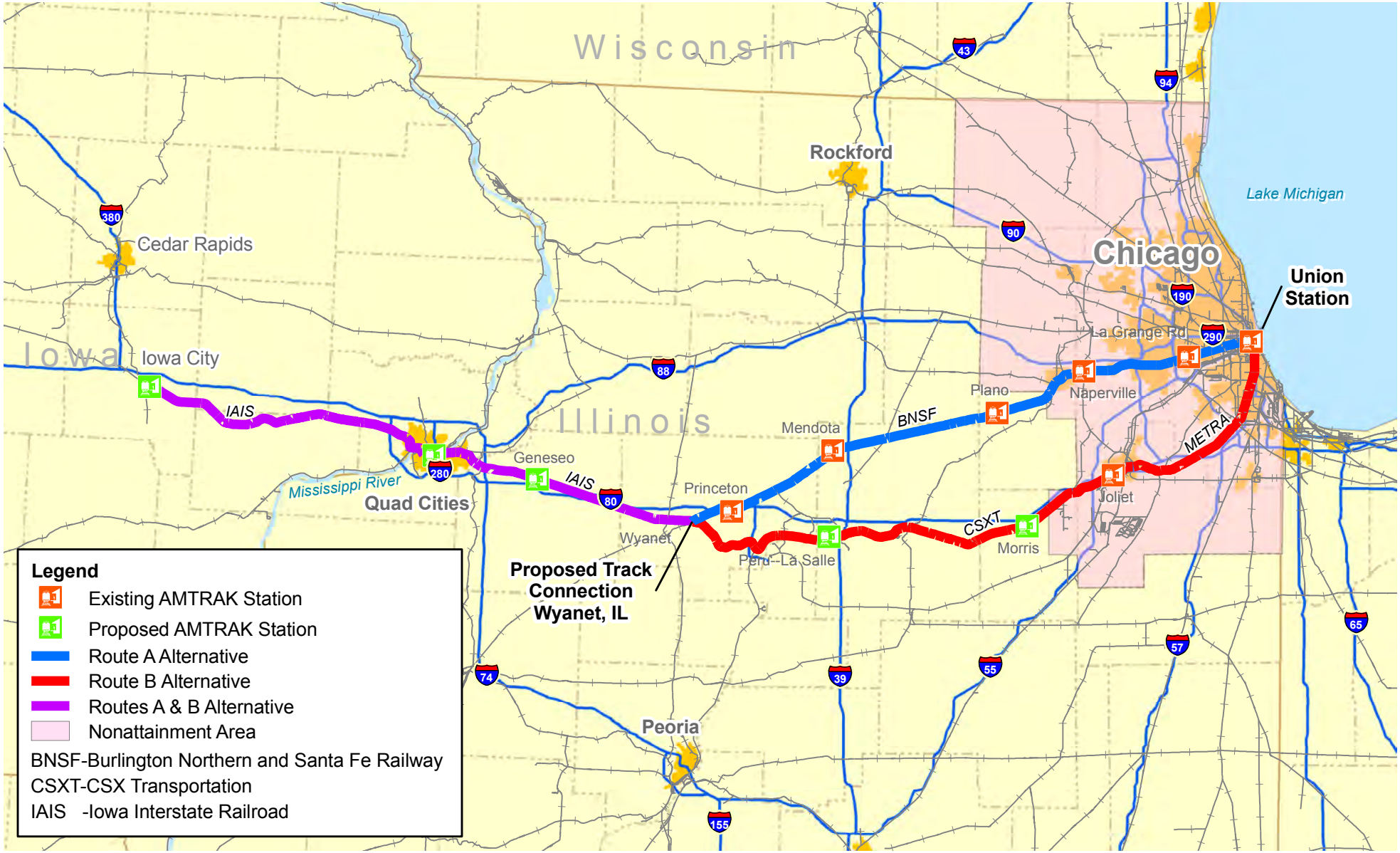

25 12.5 0 25 Miles

Scale

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Ozone & PM2.5 Nonattainment Areas

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FIGURE

3.8-1

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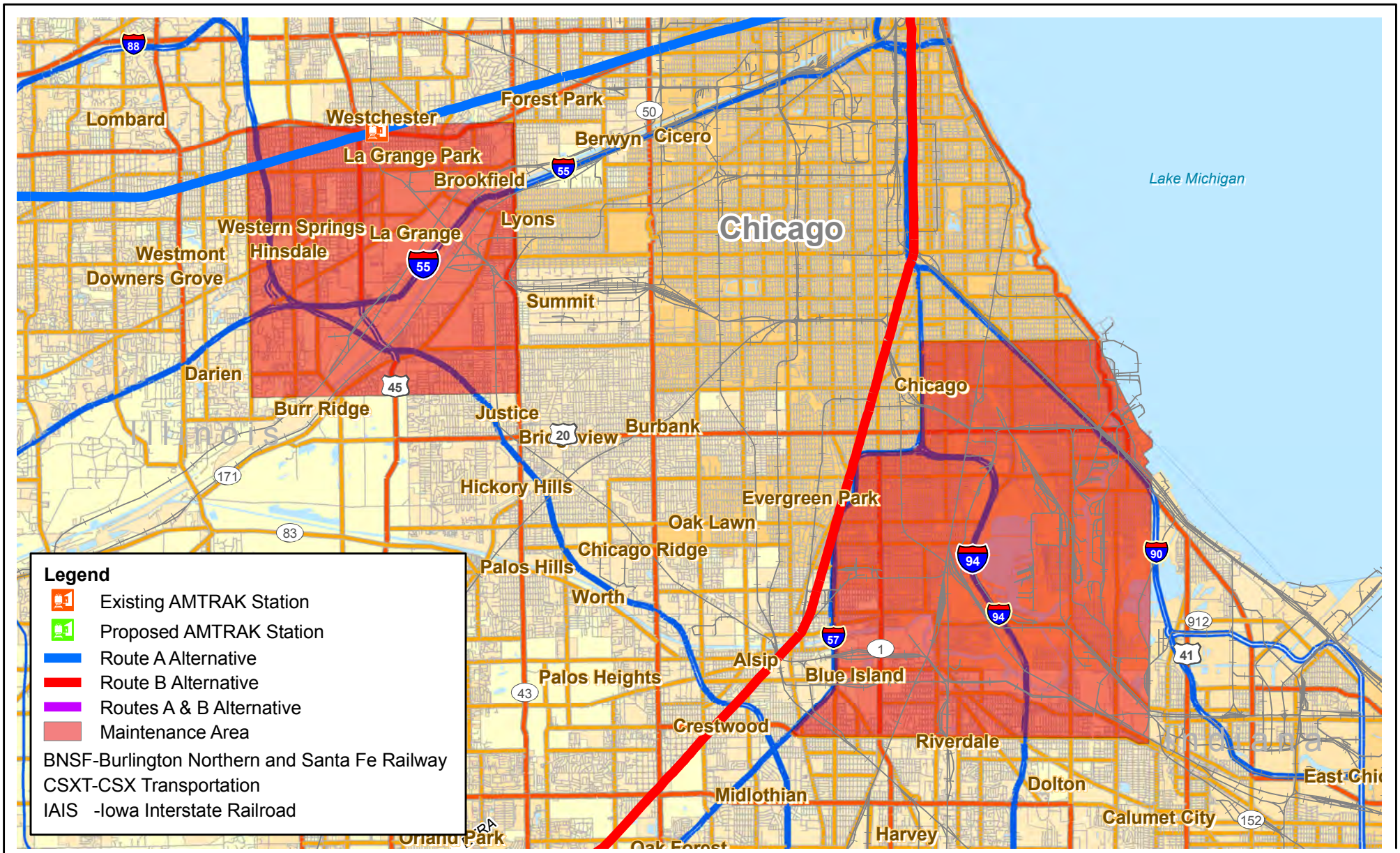

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PM10 Maintenance Areas

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FIGURE
3.8-2

3.9 HAZARDOUS MATERIAL

Hazardous materials are substances that, because of their quantity, concentration, or physical, chemical, or infectious characteristics, may present a substantial danger to public health or the environment if released. Hazardous materials are regulated by EPA and other federal agencies under the Toxic Substances Control Act (TSCA), the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), the Resource Conservation and Recovery Act (RCRA), the Superfund Amendments and Reauthorization Act (SARA), and the Emergency Planning and Community Right-to-Know Act (EPCRA). State agencies also regulate hazardous materials. Hazardous material sites include Superfund, which is EPA's inventory of abandoned, inactive, or uncontrolled hazardous waste sites regulated under CERCLA; hazardous waste generators or storage sites; and leaking underground storage tanks. The State of Illinois refers to hazardous waste, potentially infectious medical waste, and industrial process waste or pollution control waste as "special waste." Typically, construction activities and railroad operations are unlikely to disturb hazardous material sites located more than 500 feet from the rail line.

Because the section from Chicago to Wyanet on the existing BNSF line is in excellent condition and is currently used for Amtrak passenger rail service at speeds up to 79 mph, no construction would be needed on this rail section to support the proposed Chicago to Iowa City intercity passenger rail service. Amtrak passenger rail service trains do not transport hazardous materials. In the last 10 years, ending May 31, 2009, there have not been any releases of hazardous material from Amtrak trains in Illinois during rail accidents (FRA, August 31, 2009; U.S. Department of Transportation Pipeline and Hazardous Materials Safety Administration (PHMSA), May 18, 2009). Therefore, no hazardous material sites would be impacted along this rail section.

The analysis of hazardous material sites focused on confirmed areas where construction would be required to support the proposed passenger rail service: an area approximately 1 mile southwest of Wyanet where a connection from the BNSF tracks to the IAIS tracks would be constructed and limited areas of construction outside of the existing ballast grade (minor bridge and culvert work and superelevation of curves), but generally within the existing railroad ROW. Therefore, hazardous material sites were identified within 1 mile of the proposed Wyanet connection and within approximately 500 feet of the existing IAIS rail line from Wyanet to Iowa City and existing IAIS and CSXT rail lines from Joliet to Wyanet (see Figure 3.9-1, Environmental Constraints).

Two hazardous material sites were identified within 1 mile of the proposed Wyanet connection. A leaking underground storage tank at the Esther Jaggers estate is located west of the intersection of U.S. Highway 6 and County Road 8 (approximately 0.8 mile northeast of the intersection of the IAIS and BNSF rail lines). A conditionally exempt small quantity generator of hazardous waste (the Wyanet Body Shop) is located near South West Street and West 4th Street (approximately 0.9 mile northeast of the intersection of the IAIS and BNSF rail lines); there have not been any reported spills at the body shop (EPA, June 8, 2009; Illinois Environmental Protection Agency [Illinois EPA], May 15, 2003).

From Wyanet to Iowa City, there are approximately 232 hazardous material sites within 500 feet of the IAIS rail line. These include storage tanks, generators of hazardous waste, leaking underground storage tanks, and cleanup of hazardous waste sites. There are three Superfund sites: one in Sheffield, Illinois; one in Moline, and one in Davenport (EPA, June 8, 2009; Illinois EPA, May 15, 2003; Iowa DNR, no date).

From Joliet to Wyanet, there are approximately 132 hazardous material sites within 500 feet of the IAIS and CSXT rail lines. There are two Superfund sites along this route: one in Joliet southwest of the Amtrak station, and one in Peru, Illinois (EPA, June 8, 2009; Illinois EPA, May 15, 2003).

3.9.1 No-Build Alternative

The No-Build Alternative would consist of operating the current passenger rail service from Chicago to Wyanet and from Chicago to Joliet with the present level of maintenance and no appreciable change to the current track configuration or operating conditions. Hazardous material hauling by freight traffic and hazardous material sites near rail lines would not be impacted.

3.9.2 Two Round-trip Trains per Day

Reconstruction of rail lines could potentially impact hazardous material sites if additional ROW would be needed to upgrade the rail line for the proposed passenger rail service. The trains would operate in a variety of urban and rural environments. Operation of the two round-trip TPD would minimally increase the chance of a hazardous material incident during refueling or maintenance operations or from a spill during operation of the trains. Impacts under each alternative are addressed below.

Preferred Alternative (Route A – Amtrak-BNSF-IAIS)

Two hazardous material sites are located nearly 1 mile from the intersection of the IAIS and BNSF rail lines where the proposed connection at Wyanet would be constructed. Depending on the design of the connection, ground as close as 0.7 mile to the known sites could be disturbed. The proposed connection would be constructed south of the Hennepin Canal. Due to the distance between the leaking underground storage tank (LUST) and the connection, and the presence of the canal between the LUST and the connection, construction would not impact contaminated soil associated with the hazardous material sites or remediation of the site.

Reconstruction of the rail line between Wyanet and Iowa City could potentially be impacted by approximately 232 hazardous material sites (and any additional sites identified before construction begins) within 500 feet of the rail line. Impacts from specific construction activities would be evaluated in subsequent Tier 2 NEPA documents.

Route B Alternative (Amtrak-CN-Metra/Rock Island District-CSXT-IAIS)

Reconstruction of the rail line between Joliet and Wyanet could potentially be impacted by approximately 132 sites between the Amtrak station in Joliet and the Wyanet connection and the 232 hazardous material sites between Wyanet and Iowa City (and any additional sites identified before construction starts) within 500 feet of the rail line. Construction could potentially affect remediation of hazardous material sites adjacent to

or near the rail line. Impacts from specific construction activities would be evaluated in subsequent Tier 2 NEPA documents.

3.9.3 Five Round-trip Trains per Day

As discussed in the two round-trip TPD scenario, reconstruction of rail lines could potentially impact hazardous material sites if additional ROW is needed for upgrades to the rail lines. The trains would operate in a variety of urban and rural environments. Operation of the five round-trip TPD would minimally increase the chance of a hazardous material incident during refueling or maintenance operations, or from a spill during operation of the trains.

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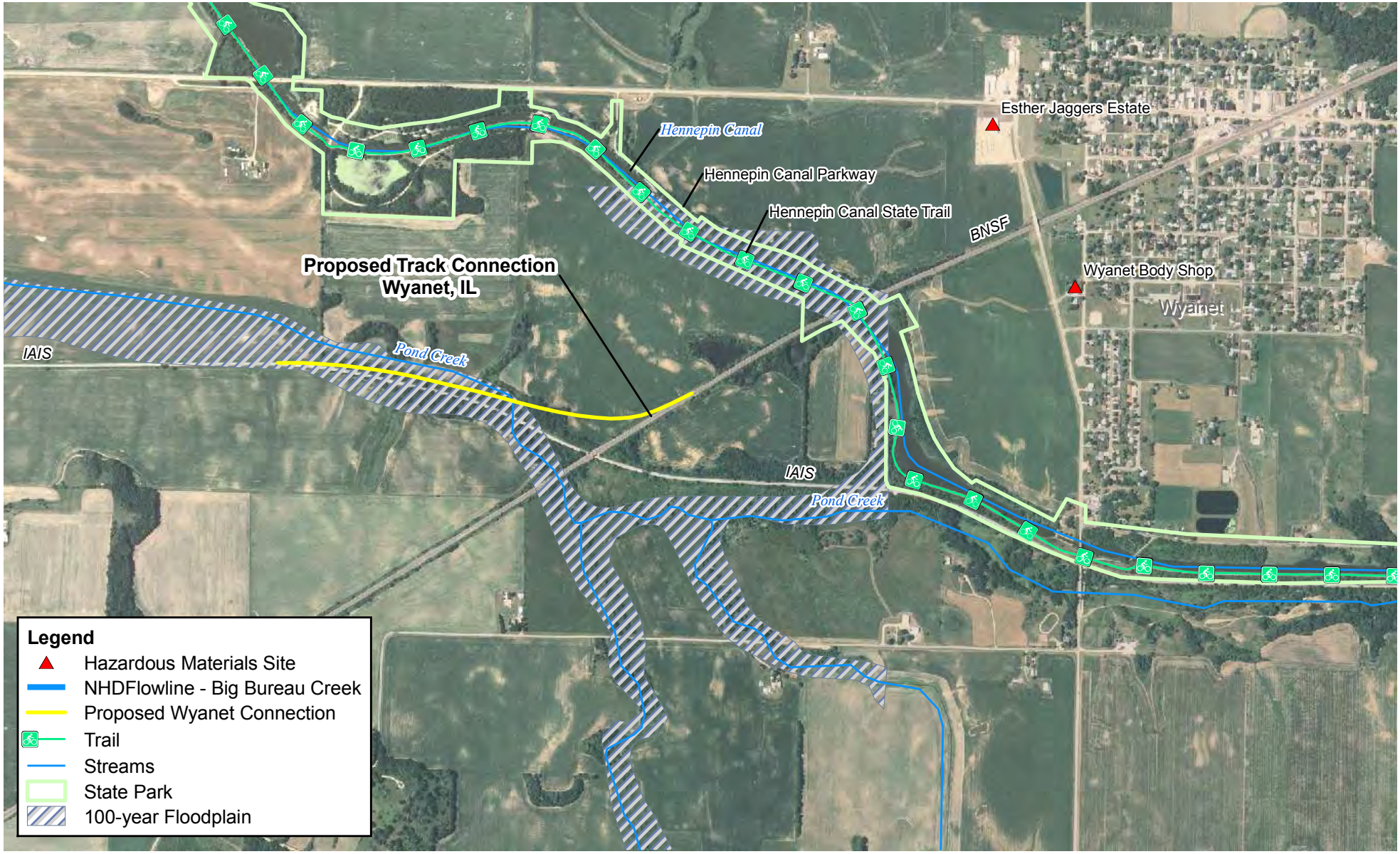

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Scale

Iowa Department of Transportation

Iowa Connections

Get on Board

Illinois Department of Transportation

Environmental Constraints

Chicago to Iowa City Intercity Passenger Rail Service

DATE

September 2009

FIGURE

3.9-1

3.10 CULTURAL RESOURCES

3.10.1 Introduction

Section 106 of the National Historic Preservation Act (NHPA) of 1966, as amended, requires that federal actions be reviewed for their potential impact to significant historic resources; the term "historic property" can apply to both architectural and archaeological resources and applies to properties that have already been listed in the National Register of Historic Places (NRHP) or have been formally determined to be eligible for listing on the NRHP. NEPA involves Section 106 compliance to ensure that projects involving federal decisions and/or funds account for potential impacts to significant historic resources.

The Illinois and Iowa DOTs advised their respective State Historic Preservation Offices (SHPOs) of the Project, in accordance with NEPA (see Appendix E). FRA subsequently consulted with the Illinois and Iowa SHPOs and several Native American Tribes per the requirements of Section 106, albeit without any discussion of specific adverse effects to historic properties (see Appendix E). Since the current NEPA analysis is at the service level, specific Project impacts are not known. That being the case, Section 106 consultation regarding adverse effects to historic properties is not applicable at this time.

The Iowa SHPO responded in writing to the NEPA scoping letter on September 3, 2009. In their response letter, they informed the FRA that the rail section that passes through Iowa is one of the earliest railroad lines constructed in the State of Iowa and that the location of this rail line has not changed very much since its construction in 1855. They also informed FRA of two historic events that took place along this rail section. One of these events was the migration of Mormon families from Illinois to Utah in what became known as the Mormon Handcart Expedition. Mormon families used this section of the rail line to get to the starting point of their exodus in Iowa City, which began on June 9, 1856 and continued into early 1860. The other notable historic event, which happened in 1859, was the departure from Iowa of the abolitionist John Brown and his followers, who used this segment of the railroad in their migration to Canada.

The Applicant sponsored a review of previously identified cultural resources in, and adjacent to, the existing ROW for each Project alternative. The Applicant gathered information from Iowa SHPO, the Iowa Office of the State Archaeologist, and the Illinois State Museum. Previous evaluations of historic architectural resources for the rail corridor indicate that there are historic properties within and adjacent to the rail ROWs. Some of these historic properties are listed on the NRHP, such as the proposed passenger depot in Iowa City, or have been formally determined to be eligible for listing on the NRHP, such as the Arsenal Bridge across the Mississippi River at Rock Island. NRHP eligible archaeological sites were also identified in and adjacent to the existing rail ROW for each Project alternative. The list of known historic properties within the rail corridor (and available at these repositories as of August 2009) are shown in Table E-1 in Appendix E, Cultural Resources Property Listing.

3.10.2 No-Build Alternative

The No-Build Alternative would not impact known historic properties.

3.10.3 Two Round-trip Trains per Day

An ongoing analysis of noise and vibration associated with the Project on adjacent buildings and structures is being conducted. Adverse effects on structures resulting from noise and vibration are not expected to occur because the existing alignments would remain unchanged. During this ongoing analysis, however, structures may be identified for some type of mitigation. If modification is planned for historic properties, these modifications may be considered potential adverse effects on those properties and require Section 106 consultation to determine the preferred method of treatment.

Preferred Alternative (Route A – Amtrak-BNSF-IAIS)
Alternative A, the Preferred Alternative, proposes to replace the existing steel rail, wood ties, and ballast with new materials from Wyanet, Illinois, to Iowa City and to construct a new connection at Wyanet between the BNSF and IAIS tracks. The replacement of existing rail, ties, and ballast, a common practice that is essential to operation and maintenance of any railroad, would not likely represent any adverse effects to historic properties. A new station would be constructed in Geneseo, Illinois. At this time, any specific impacts associated with construction of the Wyanet Connection are unknown; therefore any specific adverse effects to historic properties are not known. Also, any adverse effects to historic properties associated with noise or vibration mitigation efforts are not known. Once the Project construction and operations footprint of the Wyanet Connection is known, as well as any potential for mitigation activities on historic properties, consultation would occur between the FRA, the Applicant, and the consulting parties, and surveys would be performed.

Route B Alternative (Amtrak-CN-Metra/Rock Island District-CSXT-IAIS)
Alternative B also proposes to replace the existing steel rail, wood ties, and ballast with new rails and ties in order to upgrade the line for passenger service between Joliet and Iowa City. New stations would be constructed in Illinois at Morris, Peru-La Salle, and Geneseo. The replacement of existing rail, ties, and ballast, similar to that called for in Alternative A, would not likely represent any adverse effects to historic properties. At this time any specific impacts associated with construction of new stations are unknown; therefore any specific adverse effects to historic properties are not known. Any adverse effects to historic properties associated with noise or vibration mitigation efforts are also not known. Once the Project construction and operations footprint of the new stations is known, as well as any potential for mitigation activities on historic properties, consultation would occur between the FRA, the Applicant, and the consulting parties, and surveys would be performed.

3.10.4 Five Round-trip Trains per Day

The effect on historic properties of five round-trip TPD, the ultimate service level, are assumed to be the generally the same as those of the two round-trip TPD scenario. Slight increases in noise and vibration are possible with the higher level of service and would be evaluated as part of a separate Tier 1 Service Level EA for the five round-trip TPD scenario.

Although specific Project components are not currently known, this scenario could call for infrastructure improvements within existing ROW, such as sidings and signal

upgrades. The locations of these activities, once defined, would require (as with other possible construction activities off of the rails, ties, and ballast) a review for historic properties and trigger consultation among FRA, the Applicant, and the consulting parties.

3.11 PARKS AND FEDERALLY OR STATE-LISTED NATURAL AREAS

Parks, wildlife management areas, and nature preserves are private and public lands that have rare plants, animals, and other unique natural features, or that contain habitat for spawning and nursery areas, nesting and feeding areas, or wintering areas. They are permanently protected by federal or state law.

Federally or state-designated natural areas exist within the Project area but outside the ROW and are not expected to be permanently affected. Figure 3.11.1 shows state management areas for Illinois and Iowa. As with the wildlife management areas and preserves, parks also exist within the Project area but outside the ROW. A limited review of a sample data set (Google, 2009) indicates that public parks do abut the ROW at distinct points along each route alternative.

3.11.1 No-Build Alternative

The No-Build Alternative would not impact parks or federally or state-designated natural areas.

3.11.2 Two Round-Trip Trains per Day

Any impacts on parks or federally or state-designated natural areas would be temporary during construction and would cease after construction is completed. These potential impacts on management areas, refuges, preserves, and parks will be further analyzed in the Tier 2 Project NEPA documents. The greatest potential for temporary impacts would be during culvert replacement or bridge work or during construction of passenger stations or the layover facility in Iowa City.

Preferred Alternative (Route A – Amtrak-BNSF-IAIS)
Along the Route A Preferred Alternative, one state level management area exists within 1 mile of the ROW in Illinois. One state level management area is also located within 1 mile of the ROW in Iowa. No federally designated nature preserves or wildlife refuges are known to exist along the alignment for Illinois or Iowa. At least 20 parks exist adjacent to the ROW in both states. Additional review of community parcel data along the ROW may likely indicate other parks abutting the ROW. Two parks exist within the Wyanet Connection area; the Hennepin Canal Parkway and Hennepin Canal State Trail (see Figure 3.9-1, Environmental Constraints, from the previous section). Alternatives for the Wyanet Connection are still in development; these alternatives and their potential impacts on Hennepin Canal Parkway and Hennepin Canal State Trail will be evaluated fully in a Tier 2 Project Level NEPA document. At this time, no impacts are anticipated.

Route B Alternative (Amtrak-CN-Metra/Rock Island District-CSXT-IAIS)
Along the Route B Alternative, four state-level management areas exist within 1 mile of the ROW in Illinois. Furthermore, the Pecumsaugan Creek-Blackball Mines Nature Preserve in Illinois is directly adjacent to the railroad ROW. This preserve has been designated critical habitat for the Indiana Bat (see Figure 3.17-1, in Section 3.17,

Threatened and Endangered Species). In Iowa, one state level management area is located within 1 mile of the alignment. No federally designated nature preserves or wildlife refuges are known to exist along the alignment in Iowa.

Approximately 15 parks exist adjacent to the route B Alternative through both states. Additional review of community parcel data is likely to indicate other parks abutting the ROW.

3.11.3 Five Round-Trip Trains per Day

The ultimate MWRRI operational level of five round-trip TPD would potentially have the same affect as the initial scenario of two round-trip TPD. However, when capacity is increased from two to five round-trip TPD, additional sidings and operational modifications would be required and would have the potential to impact more resources than the two round-trip TPD scenario. For areas where sidings, culvert extensions, or any work outside of the existing railroad grade would occur, impacts on other resources (including parks) will be further analyzed in the Tier 2 Project NEPA documents.

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Scale

Iowa Department of Transportation

Iowa Connections

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Illinois Department of Transportation

State Wildlife Management Areas, Illinois and Iowa

Chicago to Iowa City Intercity Passenger Rail Service

DATE

September 2009

FIGURE

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3.12 SECTION 4(f) PROPERTIES

Section 4(f) of the U.S. Department of Transportation (USDOT) Act of 1966 (49 USC 303) grants special protection to four specific types of property. One type of protected property is historic sites, which are defined as historic properties that are included in or eligible for inclusion in the NRHP. The other three types of protected properties are publicly owned parks, publicly owned refuges for wildlife and/or waterfowl, and publicly owned recreational areas.

Section 4(f) forbids the Secretary of Transportation from approving projects that require the conversion of land from these protected properties (termed "use") unless it can be clearly demonstrated that there is no feasible and prudent alternative to use of land from the property and the action includes all possible planning to minimize harm to the property resulting from such use, or the Administration determines that the use of the property, including any measure(s) to minimize harm (such as any avoidance, minimization, mitigation, or enhancement measures) would have a *de minimis* impact. A direct use occurs when there is a physical incorporation of land into a transportation facility. A constructive use occurs when a project does "not incorporate land from a section 4(f) resource, but the project's proximity impacts are so severe that the protected activities, features, or attributes that qualify a resource for protection under section 4(f) are "substantially impaired" and the resource can no longer perform its designated function (49 USC 303).

A variety of Section 4(f) properties are located within the Project area. As discussed in Section 3.10, Cultural Resources, there are historic features along the existing railroad, such as the NRHP-eligible Arsenal Bridge over the Mississippi River and the NRHP-listed railroad depot in Iowa City. A variety of other Section 4(f) properties exist outside of the ROW along the existing railroad corridors, such as the depot in Iowa City.

As discussed in Section 3.11, Parks and Federally or State-Listed Natural Areas, there are a number of parks, wildlife refuges, and wildlife management areas found outside of the rail ROW in the vicinity of the three rail corridors that may be Section 4(f) properties. Examples of these types of Section 4(f) properties include parks, such as Klatt Park in Plano, Illinois; recreation areas such as Copley Playground in Aurora, Illinois; and wildlife management areas, such as the Heritage Woods Forest Preserve in Naperville, Illinois.

3.12.1 No-Build Alternative

The No-Build Alternative would not require the use of land from any Section 4(f) properties.

3.12.2 Two Round-trip Trains per Day

The Route A Preferred Alternative and Route B Alternative both pass through the vicinity of Section 4(f) properties. At this time, no use, either direct or constructive, has been identified of any Section 4(f) property located outside of the rail ROW. If use of any Section 4(f) property is identified, then coordination would be conducted between FRA and the officials with jurisdiction over the specific 4(f) property in accordance with the Section 4(f) process found in 23 CFR 774.

Preferred Alternative (Route A – Amtrak-BNSF-IAIS)
The single known location where construction would occur outside of the existing ROW is at the proposed track connection at Wyanet; however, no Section 4(f) properties have been identified at that location. Based on the description of the proposed work and a review of Section 4(f) resources, it appears that there would be no use of Section 4(f) properties located outside of the ROW for the Preferred Alternative; however, this conclusion is not yet final because areas of new ROW required to allow for improved safety are not known.

Other than at the Wyanet connection, the proposed work would be limited to the rail and tie replacement upgrades that would not alter the historic character of the railroad. At this time, the Preferred Alternative is not anticipated to affect the integrity of any existing historic bridge structures. FRA, Illinois DOT, and Iowa DOT are working through the Section 106 process, and it appears likely that there would be no use of any Section 4(f) properties within the rail corridor ROW as a result of the implementation of the Preferred Alternative.

FRA, Illinois DOT, and Iowa DOT will continue to work closely with the relevant officials with jurisdiction over Section 4(f) properties through the Tier 2 NEPA process to confirm compliance with Section 4(f) regulations.

Route B Alternative (Amtrak-CN-Metra/Rock Island District-CSXT-IAIS)
Based on the description of the proposed work and a review of Section 4(f) resources, it appears that there would be no use of Section 4(f) properties located outside of the ROW for the Preferred Alternative; however, this conclusion is not yet final because areas of new ROW required to allow for improved safety are not known.

The proposed work for the Route B Alternative would be limited to the rail and tie replacement upgrades that would not alter the historic character of the railroad. At this time, the Route B Alternative is not anticipated to affect the integrity of any existing historic bridge structures. FRA, Illinois DOT, and Iowa DOT are working through the Section 106 process, and it appears likely that there would be no use of any Section 4(f) properties as a result of the implementation of the Route B Alternative.

FRA, Illinois DOT, and Iowa DOT will continue to work closely with the relevant officials with jurisdiction over Section 4(f) resources through the Tier 2 NEPA process to confirm compliance with Section 4(f) regulations.

3.12.3 Five Round-Trip Trains per Day

Increasing passenger train traffic to five round-trip TPD along either the Preferred Alternative or Route B Alternative would not result in any known uses of Section 4(f) properties outside of the ROW. Modifications to signal systems or structures along the railroad that would be needed as a result of the increased speeds to 90 mph would be reevaluated in the future, when the specific nature and location of work is determined, to verify that no historic, park, recreation, or waterfowl or wildlife preserve properties eligible for Section 4(f) protection within the ROW would be compromised through upgrade implementation. Whereas vibration levels would increase slightly as discussed in Section 3.7, Noise and Vibration, these increases would not be of a magnitude that would result in a constructive use of Section 4(f) properties adjacent to the railroad.

3.13 WATERWAYS

Several perennial and intermittent waterways are crossed by the rail line. Major surface perennial waterways include the Mississippi River, Green River, Des Plaines River, Fox River, Du Page River, and the Little Vermillion River along with several other, smaller perennial streams. Two rivers close to the Project area have been listed on the Nationwide Rivers Inventory (NRI): Big Bureau River in Illinois and Cedar River in Iowa. The NRI is a listing of free-flowing river segments in the United States that are believed to possess one or more "outstandingly remarkable" natural or cultural values judged to be of more than local or regional significance. Under a 1979 Presidential directive, and related Council on Environmental Quality (CEQ) procedures, all federal agencies must seek to avoid or mitigate actions that would adversely affect one or more NRI segments.

For navigational purposes, both the Mississippi River and the Des Plaines River are important components of the inland water system and both support commercial navigation. Bridges already exist over these rivers, and no modifications would be required to support the additional passenger trains. Navigation on these waterways is discussed further in Section 3.2, Transportation.

3.13.1 No-Build Alternative

The No-Build Alternative would not impact waterways.

3.13.2 Two Round-Trip Trains per Day

Although most impacts on waterways would be temporary, it is possible for some waterways to experience permanent impacts if a waterway crossing structure is replaced, such as conversion of a crossing from a bridge to a culvert or during construction of a station or the layover facility in Iowa City. Temporary impacts would cease immediately after the activity is completed. Specific construction impacts will be evaluated in the Tier 2 Project NEPA documents as final design is determined. Impacts on waterways would be minimized by following Best Management Practices (BMPs) and state standards for culvert replacement. Permits and approvals would be required from USACE, Illinois EPA, and Iowa DNR. Waterways are not expected to be impacted during operation of the Project. Impacts on navigation are not anticipated, therefore no U.S. Coast Guard permit would be needed.

Preferred Alternative (Route A – Amtrak-BNSF-IAIS)

There are a total of 120 waterway crossings on Alternative A (based on National Hydrography Dataset flowlines, U.S. Geological Survey [USGS], 1999). Of these crossings, 61 are intermittent waterways and 59 are perennial streams or connector waterways. The Route A Alternative would cross Big Bureau Creek, which is designated under the NRI about 2 miles south of the crossing (see Figure 3.13-1). Cedar River in Iowa is also designated under the NRI less than 1 mile from where the Project would cross the river. The NRI segments are not directly crossed by the project so no impacts are expected to these areas and BMPs would be implemented to avoid downstream impacts on the NRI segments. Most impacts to waterways would be temporary; however, permanent impacts could occur during construction of the Wyanet connection as it would cross a section of Pond Creek (see Figure 3.9-1). Detailed impact analysis to this

waterway will be evaluated in the Tier 2 Project NEPA documents when design alternatives have been developed for the Wyanet Connection.

Route B Alternative (Amtrak-CN-Metra/Rock Island District-CSXT-IAIS)
There are a total of 128 waterway crossings on Alternative B (based on National Hydrography Dataset flowlines, USGS, 1999). Of these crossings, 60 are intermittent waterways and 68 are perennial streams or connector waterways. The Route B Alternative would cross Big Bureau Creek, which is designated under the NRI less than 1 mile north of the project crossing (see Figure 3.13-1). Cedar River in Iowa is also designated under the NRI less than 1 mile from where the Project would cross the river. These NRI sections are not directly crossed by the alignment and impacts to these segments are not likely to occur. The Route B Alternative would require more track modifications and safety upgrades for the passenger rail which could result in a higher chance of impacting waterways.

3.13.3 Five Round-Trip Trains per Day

At the ultimate MWRRI operational level of five round-trip TPD, the same waterways would have the potential to be affected as under the initial two round-trip TPD scenario. However, when capacity is increased from two to five round-trip TPD, additional sidings and operational modifications would be required and would likely have the potential for additional impacts on waterways. The Tier 2 Project NEPA documents will further evaluate impacts on areas where construction of sidings or culvert extensions or any work outside of the existing railroad grade may occur. Waterways are not expected to be impacted during project operation at five round-trip TPD.

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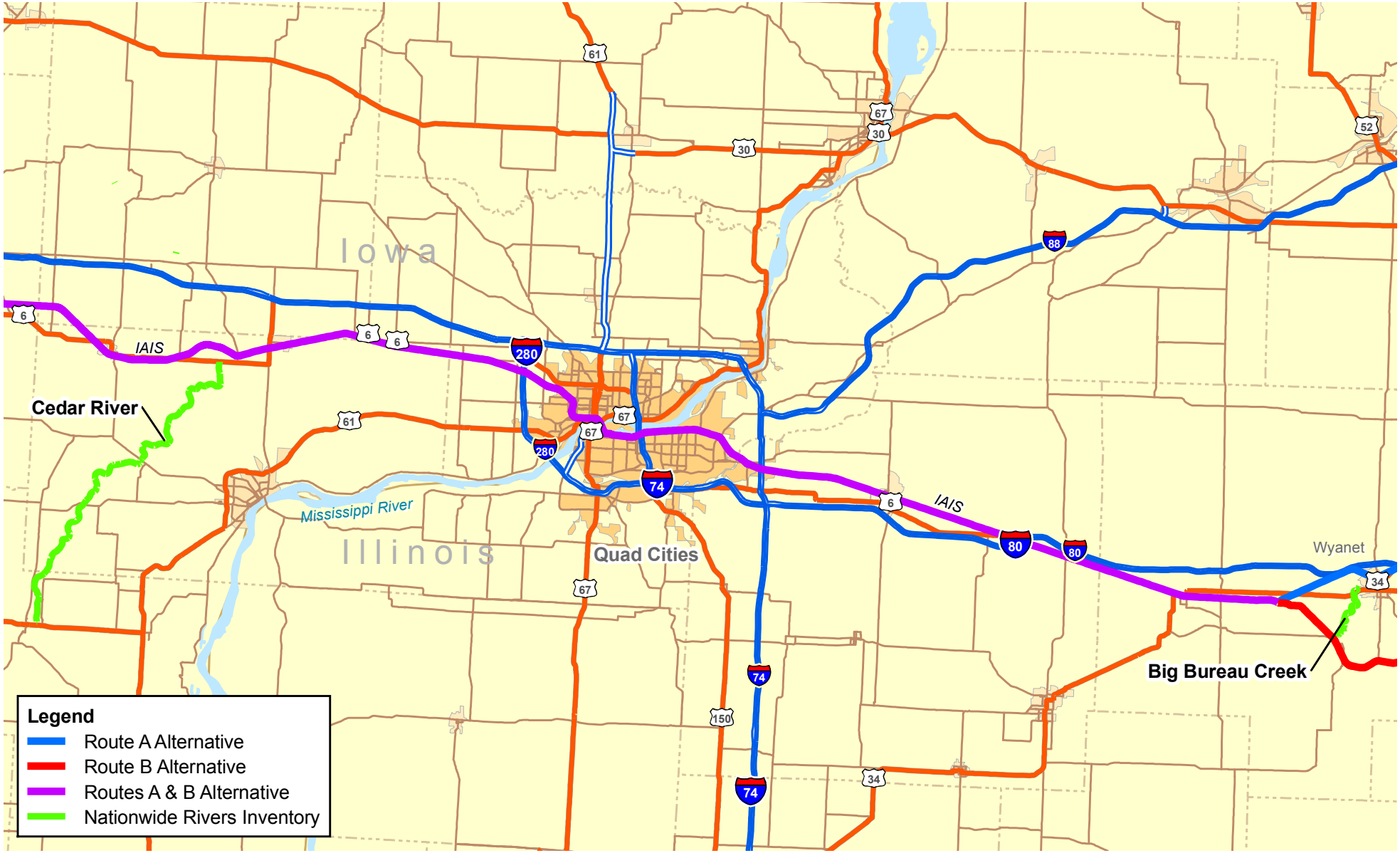

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National Rivers Inventory Areas

Chicago to Iowa City Intercity Passenger Rail Service

DATE

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FIGURE

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3.14 WETLANDS

Section 404 of the CWA provides protections for waters and wetlands of the United States. Illinois DNR regulates activities in wetlands in Illinois under the Illinois Wetland Policy Act of 1989. In Iowa, a joint permit between Iowa DNR and USACE is needed for any work within wetlands.

3.14.1 No-Build Alternative

The No-Build Alternative would not affect wetlands.

3.14.2 Two Round-Trip Trains per Day

Wetlands along the existing ROW for the Project alternatives were identified using U.S. Fish and Wildlife Service (USFWS) National Wetlands Inventory (NWI) mapping and were identified within 100 feet of each route. No field evaluations were performed for the Tier 1 Service Level analysis, but they will be conducted during the Tier 2 Project Level NEPA review. Although the change in rail operations would not cause a loss in wetlands, the construction of sidings and layover or station facilities as well as culvert/bridge replacement could result in the direct loss of existing wetland areas. Wetlands would be avoided to the extent practicable, but bridge repair and culvert replacement or other modifications may be required for track safety. Impacts would be minimized by using BMPs and by following state standards for culvert replacement. Temporary wetland impacts as a result of Project construction would be related to culvert replacement and bridge work. Mitigation for permanent impacts would occur through mitigation site development or purchase of wetland mitigation credits. Wetlands are not expected to be impacted during rail operations of two round-trips per day.

Preferred Alternative (Route A – Amtrak-BNSF-IAIS)
There are 144 identified NWI wetlands along the Route A Alternative alignment (within 100 feet of the alignment). The majority of these wetlands are palustrine emergent or palustrine forested wetlands. Wetlands would be avoided to the extent practicable, but bridge repair or culvert replacement and other operational modifications may be required for track safety. These modifications have a potential for impacting wetlands. Limitations on track design at the Wyanet connection (see Figure 3.9-1) or the layover facility in Iowa City may preclude complete avoidance of all wetlands. Though no NWI wetlands are shown at the Wyanet Connection, a field review would be performed during the Tier 2 Project Level NEPA process to determine if wetlands exist that would be impacted by construction of the connection.

Route B Alternative (Amtrak-CN-Metra/Rock Island District-CSXT-IAIS)
There are 263 identified NWI wetlands along the Route B Alternative alignment (within 100 feet of the alignment). The majority of these wetlands are palustrine emergent or palustrine forested wetlands. Wetlands would be avoided to the extent practicable, but bridge repair or culvert replacement and other operational modifications may be required for track safety. The Route B Alternative would require more track modifications and safety upgrades for the passenger rail which could result in a higher chance of impacting wetlands.

3.14.3 Five Round-Trip Trains per Day

At the ultimate MWRRI operational level of five round-trip TPD, the same wetlands would have the potential to be impacted as under the initial two round-trip TPD scenario. When capacity is increased from two to five round-trip TPD, however, additional sidings and operational modifications would be required that would have potential to impact wetlands. Impacts on wetlands would be evaluated in areas where construction of sidings or culvert extensions or any work outside of the existing railroad grade would occur. No wetlands are expected to be impacted by rail operations of five round-trips per day.

3.15 WATER QUALITY

Impacts on water resources are evaluated in accordance with the CWA (33 USC 1251 et seq.) and EO 12088, Federal Compliance with Pollution Control Standards (43 FR 47707). It is not likely that construction or operation of the rail line would permanently impact water quality.

Any temporary impacts on water quality would cease after construction is completed. Temporary impacts on water resources would be minimized by the use of BMPs. Temporary impacts will be further evaluated in the Tier 2 Project Level NEPA review when specific construction locations are known. Discharge of stormwater during construction would be addressed under the National Pollutant Discharge Elimination System permitting and/or with BMPs. Furthermore, Section 401 water quality certifications for construction would be obtained from each state during the Tier 2 Project NEPA review.

Operation and maintenance activities as a result of the Project, including ditch cleaning, mowing, and spraying, have the potential to affect surface water quality. Possible negative effects of improper maintenance include erosion and siltation and the overuse or spill of herbicides. The risks for these potential effects would be similar for both build alternatives and for the No-Build Alternative. Potential hazardous materials spills resulting from operational changes are described in Section 3.9, Hazardous Materials.

3.15.1 No-Build Alternative

The No-Build Alternative would not affect water quality.

3.15.2 Two Round-Trip Trains per Day

Construction of the project has a potential to temporarily impact water quality as culverts or bridges are being replaced or other modifications are made near water resources. The potential to impact water quality would be avoided or minimized by the placement of approved BMPs. Operation of the two round-trip TPD would minimally increase the chance of a hazardous material incident during refueling or maintenance operations or from a spill during operation of the trains. Additionally, operation and maintenance activities in conjunction with the Project, such as mowing and spraying, have the potential to affect surface water quality, though these practices would not change from current practices.

The Tier 2 Project Level NEPA documents will assess the potential for construction to create pathways for groundwater pollution or any new potential sources of groundwater

pollution as defined in the Illinois Environmental Protection Act (415 ILCS 5/3 et seq.) or in Iowa's Groundwater Protection Act (Iowa Code 2003: Section 455E).

Preferred Alternative (Route A – Amtrak-BNSF-IAIS)
Construction and operation of the Route A Alternative would pose slight risks to water quality. Bridge repair, culvert replacement, or other operational modifications may be required for track safety and may affect surface or groundwater quality. Maintenance of the ROW has the potential to affect surface water quality, though these practices would not change from current practices. Increased chances of temporarily impacting water quality could occur at the Wyanet Connection where the Route A Alternative would cross Pond Creek. Detailed impact analysis to this waterway and chances to impact water quality will be evaluated in the Tier 2 Project Level NEPA documents.

Route B Alternative (Amtrak-CN-Metra/Rock Island District-CSXT-IAIS)
Section 3.13, Waterways, describes the nature of anticipated impacts on waterways which have the potential to impact water quality. The Route B Alternative impacts would be similar to the Route A Alternative impacts. However, the Route B Alternative would require more track modifications and safety upgrades for the passenger rail which results in a higher likelihood of impacting wetlands.

3.15.3 Five Round-Trip Trains per Day

At the ultimate MWRRI operational level of five round-trip TPD, water quality impacts would be affected the same as under the initial scenario of two round-trip TPD. However, when capacity is increased from two to five round-trip TPD, additional sidings and operational modifications would be required and would have the potential to temporarily impact water quality at more locations during construction. Impacts on water quality will be further evaluated in the Tier 2 Project NEPA documents for areas where sidings, culvert extensions, or any work outside of the existing railroad grade would occur.

3.16 FLOODPLAINS

EO 11988, Floodplain Management, offers federal protection to floodplains. These policies require federal agencies to avoid, to the extent possible, the long- and short-term, adverse impacts associated with the occupancy and modification of floodplains and to avoid direct and indirect support of floodplain development wherever there is a practicable alternative.

The Federal Emergency Management Agency (FEMA) has primary responsibility for identifying flood-prone areas. FEMA data were utilized to assess the Project area for flood areas within Zone A. FEMA Zone A floodplains and FRA base floodplains are both defined as areas with a 1 percent annual chance of flooding; these are considered 100-year floodplains for the purpose of this analysis. Coordination with the Illinois DNR or the Iowa DNR would be initiated for any construction that encroaches into a Zone A flood area.

3.16.1 No-Build Alternative

The No-Build Alternative would not impact Zone A floodplains.

3.16.2 Two Round-Trip Trains per Day

Because the Project would be on existing rail, most impacts in Zone A floodplains would be temporary. In some locations along the IAIS, limited track improvements such as culvert replacement and bridge repair could potentially occur in some Zone A floodplains. The track improvements would be designed to avoid any permanent impacts to floodplains. Temporarily affected areas would be restored following construction. Details on work within Zone A floodplains will be discussed in the Tier 2 Project Level NEPA documents. Stations, the layover facility in Iowa City and passing siding would generally be located outside of any floodplains, but depending on the specific configuration and location, could potentially impact a floodplain. To the extent that a floodplain could not be reasonably avoided, the design and construction of any required facilities would occur in coordination with the appropriate floodplain administrator to avoid any impacts to the base floodplain. Project operation is not expected to impact floodplains at two round-trip TPD.

Preferred Alternative (Route A – Amtrak-BNSF-IAIS)
The Route A Alternative would cross several floodplain areas. Most impacts on Zone A floodplains would be temporary; however, permanent impacts could occur during construction of the Wyanet connection as it may cross a small portion of the Zone A floodplain of Pond Creek. The design and construction of any bridge or culvert replacements would be coordinated with the appropriate floodplain administrator to avoid any impacts to the base floodplain Potential impacts from specific construction activities will be further evaluated in the Tier 2 Project Level NEPA documents.

Route B Alternative (AMTRAK-CN-METRA/ROCK ISLAND DISTRICT-CSXT-IAIS)
The Route B Alternative would cross several floodplain areas. Most impacts on Zone A floodplains would be temporary and would cease when construction is completed. The design and construction of any bridge or culvert replacements would be coordinated with the appropriate floodplain administrator to avoid any impacts to the base floodplain Potential impacts from specific construction activities will be further evaluated in the Tier 2 Project Level NEPA documents

3.16.3 Five Round-Trip Trains per Day

At the ultimate MWRRI operational level of five round-trip TPD, the same floodplains would have the potential to be affected as under the initial scenario of two round-trip TPD. However, when capacity is increased from two to five round-trip TPD, additional sidings and operational modifications would be required and would have the potential to impact floodplains. Impacts on these floodplains will be further evaluated in the Tier 2 Project Level NEPA documents for areas where sidings, culvert extensions, or any work outside of the existing railroad grade would occur. Project operation is not expected to impact floodplains at five round-trip TPD.

3.17 THREATENED AND ENDANGERED SPECIES

The U.S. Endangered Species Act (ESA) of 1973 (16 USC 1531 et seq.) is the primary legislation that provides protections to threatened and endangered species in the United States. The ESA is administered by USFWS, which has a key responsibility for managing

species designations and protections granted under the ESA. As defined by the ESA, "endangered" refers to species that are "in danger of extinction within the foreseeable future throughout all or a significant portion of [their] range," while "threatened" refers to "those animals and plants likely to become endangered within the foreseeable future throughout all or a significant portion of their ranges" (16 USC 1531 et seq.). Plant species and varieties (including fungi and lichens), animal species and subspecies, and vertebrate animal populations are eligible for listing under the ESA.

Along with the ESA, state regulatory agencies can grant protection to species to further protect species. In Illinois, the Illinois Endangered Species Board advises Illinois DNR on state-listed threatened and endangered species. In Iowa, the Natural Resource Commission and Iowa DNR are responsible for administering Iowa's program to protect state-listed threatened and endangered species.

3.17.1 No-Build Alternative

The No-Build Alternative would not impact threatened and endangered species.

3.17.2 Two Round-Trip Trains per Day

Eleven federally listed ESA species are listed in the counties the Project would cross and may be found within the Project area. **Error! Reference source not found.** summarizes those species and their status. These species are listed as endangered or threatened.

Table 3.17-1
Federally Listed, Threatened, and Endangered Species within the Project Area

Common Name	Scientific Name	Status	State
Western prairie fringed orchid	*Platanthera praeclara*	Threatened	IA
Prairie bush clover	*Lespedeza leptostachya*	Threatened	IA, IL
Eastern prairie fringed orchid	*Platanthera leucophaea*	Threatened	IA, IL
Indiana bat[a]	*Myotis sodalist*	Endangered	IA, IL
Higgin's-eye pearlymussel	*Lampsilis higginsii*	Endangered	IA, IL
Decurrent false aster	*Boltonia decurrens*	Threatened	IL
Piping plover	*Charadrius melodus*	Endangered	IL
Hine's emerald dragonfly	*Somatochlora hineana*	Endangered	IL
Leafy-prairie clover	*Dalea foliosa*	Endangered	IL
Mead's milkweed	*Asclepias meadii*	Threatened	IL
Lakeside daisy	*Hymenopsis herbacea*	Threatened	IL

Sources: Illinois – http://www.fws.gov/midwest/endangered/lists/illinois-cty.html and Iowa – http://www.fws.gov/midwest/endangered/lists/iowa_cty.html
Note:
[a] *Critical habitat has been designated in LaSalle County, Illinois.*

In addition to ESA protection, the Migratory Bird Treaty Act (MBTA) and the Bald and Golden Eagle Protection Act (BGEPA) were implemented to offer protection to avian species. The MBTA makes it unlawful to pursue, hunt, take, capture, kill, or sell migratory birds. The BGEPA prohibits anyone from taking bald eagles, including their parts, nests, or eggs, without a permit issued by the Secretary of the Interior. The BGEPA provides for criminal penalties for persons who "take, possess, sell, purchase, barter, offer to sell, purchase or barter, transport, export or import, at any time or any manner, any bald eagle ... [or any golden eagle], alive or dead, or any part, nest, or egg thereof."

This also pertains to impacts that result from human-induced alterations initiated around a previously used nest site during a time when eagles are not present, if, upon the eagle's return, such alterations agitate or bother an eagle to a degree that interferes with or interrupts normal breeding, feeding, or sheltering habits, and causes injury, death, or nest abandonment. The primary means for mitigating potential impacts on migratory birds, bald eagles, and golden eagles would be scheduling construction to minimize impacts.

During operation of the Project, train collisions would have the greatest chance to affect mobile species. Since numerous trains already travel the existing alignments, adding two TPD would only slightly increase the chance of collision. Operation of the rail may affect, but is not likely to adversely affect any threatened, endangered or candidate species during project operations.

As part of the project, particularly from Wyanet west to Iowa City, tree and brush clearing is expected to occur to improve crossing site distance for both vehicle and train traffic. This work would be conducted during specific time periods to comply with MBTA and BGEPA. Specific time intervals and locations requiring clearing will be identified during the Tier 2 Project Level NEPA analysis when specific areas requiring clearing have been identified.

Preferred Alternative (Route A – Amtrak-BNSF-IAIS)
All of the species listed in **Error! Reference source not found.**, except for the lakeside daisy, have been identified within counties that would be crossed by Route A. In addition to federally listed species, numerous state-listed species are found in the counties that the Route A Alternative would cross and may be found within the Project area. Specific construction impacts for listed and candidate species will be evaluated further in the Tier 2 Project Level NEPA review. Although it is not likely that impact would occur on threatened and endangered species, a field review may be needed during the Tier 2 Project Level NEPA analysis in the location of the Wyanet Connection to ensure that any listed species do not exist in the area. The MBTA and BGEPA will also be addressed in the Tier 2 Project Level NEPA review for any tree or brush clearing that may occur for the project. Based on avoidance, minimization and mitigation measures (such as construction timing), and the limited amount of work that would occur outside of the existing ROW, the Project construction may affect but is not likely to adversely affect threatened and endangered species.

Route B Alternative (Amtrak-CN-Metra/Rock Island District-CSXT-IAIS)
The 14 species identified in **Error! Reference source not found.** have been identified within counties that would be crossed by the Route B Alternative. Furthermore, critical habitat (the Pecumsaugan Creek-Blackball Mines Nature Preserve, (Figure 3.17-1) for the endangered Indiana bat has been designated in LaSalle County, Illinois, along Route B. Similarly to the Route A Alternative, numerous state-listed species may be found within the counties along Route B and may be within the Project area.

Although these species are listed in the Project counties, habitat for these species may or may not be crossed by Routes A and B. Both alternatives would follow the existing rail line; and most work would be limited to track and tie replacement and would not occur outside of the existing railroad grade. The greatest potential for impact would be during

any culvert replacement; bridge work; upgrading of passenger stations; and construction of the Wyanet connection and the layover facility in Iowa City. Based on avoidance, minimization and mitigation measures (such as construction timing), and the limited amount of work that would occur outside of the existing ROW, the Project construction may affect but is not likely to adversely affect threatened and endangered species.

3.17.3 Five Round-Trip Trains per Day

At the ultimate MWRRI operational level of five round-trip TPD, the same species would have the potential to be affected as under the initial scenario of two round-trip TPD. However, when capacity is increased from two to five round-trip TPD, additional sidings and operational modifications would be required and would have the potential to impact threatened and endangered species. Areas where sidings, culvert extensions, or any work outside of the existing railroad grade would occur would need to be surveyed for the presence of threatened and endangered species and their habitats. In addition, the current federal and state species lists would need to be reviewed for the addition or removal of any of the species listed in **Error! Reference source not found.**.

Since numerous trains already travel the alignment, adding five TPD would only slightly increase the chance of collision. Operation of the rail may affect, but is unlikely to adversely affect, any threatened, or endangered species during Project operations.

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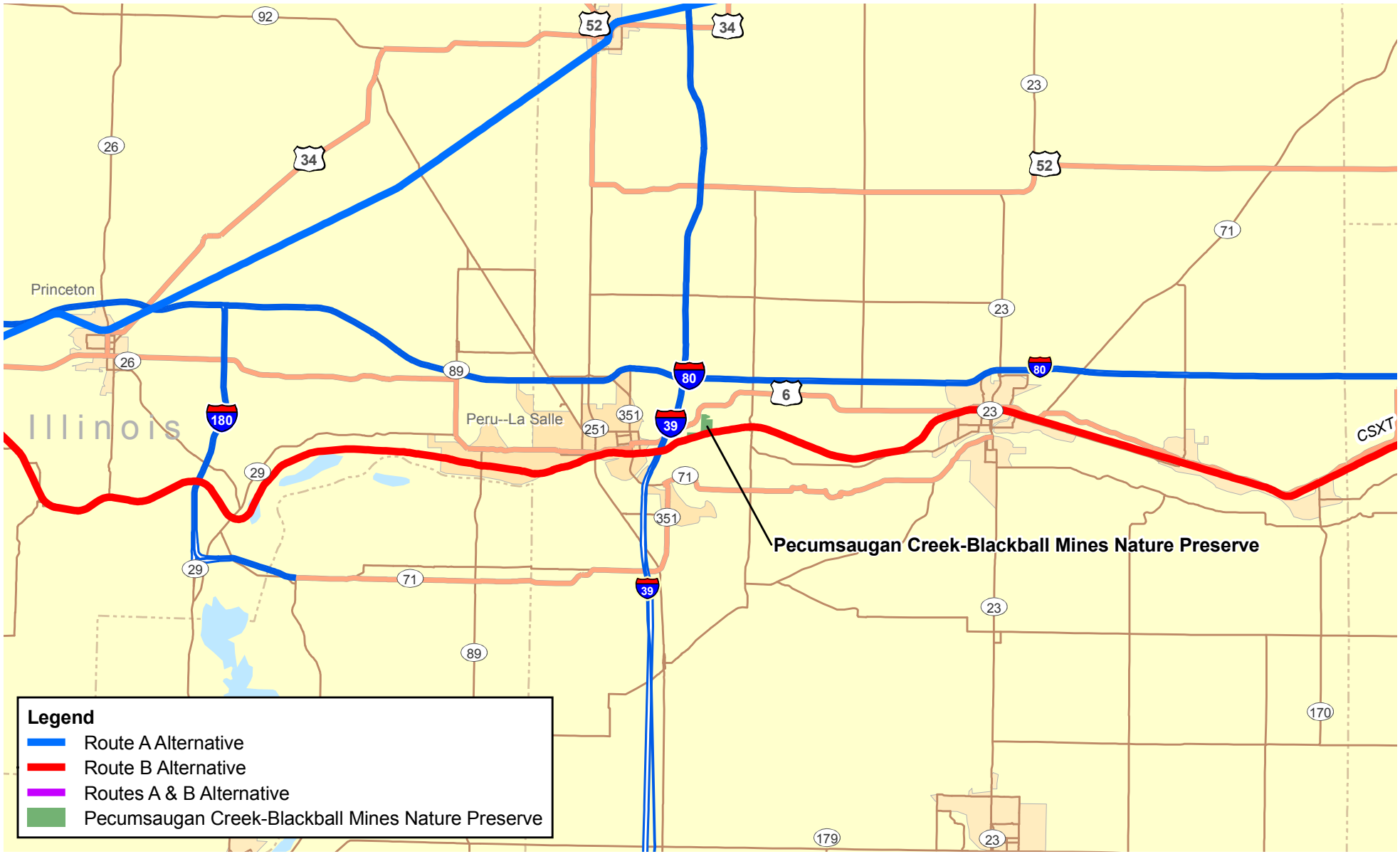

5 2.5 0 5 Miles

Scale

Iowa Department of Transportation

Iowa Connections

Get on Board

Illinois Department of Transportation

Indiana Bat Critical Habitat

Chicago to Iowa City Intercity Passenger Rail Service

DATE

September 2009

FIGURE

3.17-1

3.18 ENERGY USE/CLIMATE CHANGE

Climate change is any measured change in climate over a long period of time. Climate change can be attributed to different causes, such as natural factors (for example, changes in the sun's energy or slow changes in the earth's orbit around the sun), natural processes within the climate system (for example, changes in ocean circulation), or human activities that change the atmosphere's makeup (for example, burning fossil fuels) and the land surface. In the U.S., energy-related activities account for three-quarters of our human-generated greenhouse gas (GHG) emissions, mostly in the form of carbon dioxide emissions from burning fossil fuels. More than half the energy-related emissions come from large stationary sources such as power plants, and about a third comes from transportation (EPA, 2009).

The primary mode of travel between Iowa City and Chicago is by automobile. Air service does exist between the Quad Cities and Chicago, but once again automobile travel is the dominant form of transportation.

3.18.1 No-Build Alternative

The No-Build Alternative would not increase GHGs from train traffic. However, passenger trains would not be as readily available to the public, resulting in use of automobiles for transportation. The No-Build Alternative would not decrease vehicle use; thus, over time there would be slight increase in GHG emissions.

3.18.2 Two Round-Trip Trains per Day

As described in Section 3.2, Transportation, and Section 3.8, Air Quality, the Project would divert trips from automobiles to passenger rail resulting in a net reduction fuel usage. The Project would decrease the emissions of GHGs, primarily carbon dioxide (CO_2).

Implementation of the Project would also require indirect consumption of energy for the processing of materials, for construction activities, and for operation of the passenger rail service. The Project is expected to reduce vehicle congestion on area highways. This would result in less direct and indirect vehicular operational energy consumption under Alternatives A and B than under the No-Build Alternative. Therefore, postconstruction operational energy requirements should offset construction and maintenance energy requirements and result in a net savings in energy usage.

Preferred Alternative (Route A – Amtrak-BNSF-IAIS)
The Route A Alternative would decrease automobile traffic by 16.5 million passenger - miles per year and reduce airline travel by 8.4 million passenger-miles per year. GHG emissions would decrease by approximately 2,001 tons per year. Fuel consumption would decrease by approximately 266,000 gallons per year.

Route B Alternative (Amtrak-CN-Metra/Rock Island District-CSXT-IAIS)
The Route B Alternative would have similar impacts on climate change and GHG emissions as the Route A Alternative. Automobile traffic would decrease by 13.0 million passenger-miles and reduce airline travel by 6.6 million passenger-miles per year; GHG

would decrease by approximately 1,000 tons per year. Fuel consumption would decrease by approximately 159,000 gallons per year.

3.18.3 Five Round-Trip Trains per Day

At the ultimate MWRRI operational level of five round-trip TPD, a higher potential to decrease GHGs would exist by removing more vehicle traffic from highways and roads. Implementation of the ultimate service level of five round-trip TPD would divert approximately 48.8 million passenger-miles per year and reduce airline travel by 16.6 million passenger-miles per year; GHG would decrease by approximately 6,008 tons per year. Fuel consumption would decrease by approximately 1,500,000 gallons per year.

3.19 CONSTRUCTION IMPACTS

Impacts from construction of an alternative would be temporary in nature and would occur during and immediately following construction. The time required for construction impacts to dissipate varies by the type of construction activity and resources affected. Most construction impacts cease immediately with completion of construction.

3.19.1 No-Build Alternative

Under the No-Build Alternative, no changes would be made to existing railroad operations and no passenger rail service would be added between Chicago and Iowa City. Therefore, no construction impacts would be associated with the No-Build Alternative except for ongoing maintenance and other regularly scheduled activities.

3.19.2 Two Round-Trip Trains per Day

Construction activities for signal improvements; track and tie upgrades; and bridge and culvert repair, rehabilitation, and replacement would result in temporary impacts on the environment.

Preferred Alternative (Route A – Amtrak-BNSF-IAIS)

During construction, ground disturbance would result in the removal of vegetation from some areas, and BMPs would be implemented to minimize both wind and water erosion of exposed soil. Areas would be revegetated as soon as practicable to maintain long-term stability. In addition to vegetation clearing, construction would have temporary impacts on waterways, wetlands, and floodplains, but these impacts would be temporary in nature and predominantly limited to bridge and culvert replacement activities. Necessary permits and approvals would be acquired, and implementation of their requirements would minimize impacts from construction.

Where work at road crossings is required, localized transportation patterns may be affected temporarily by the presence of equipment and by temporary crossing closings while the track and ties are upgraded. As the majority of the work would be limited to the existing railroad grade, construction impacts are anticipated to be minimal. In addition, because the railroads are currently operating, any closures would need to be kept to the shortest time possible to allow continued train operations during construction.

The equipment necessary to perform construction activities would also have a temporary impact on air quality in the immediate vicinity of construction, but these impacts would cease immediately with completion of construction.

The approximately 4,000-foot-long Wyanet connection would require the construction of a new connector track between the BNSF and IAIS rail lines. This area would be the largest construction area outside of the existing railroad grade. The impacts at the Wyanet connection would be temporary and similar to those described above but would be of a longer duration than for other construction activities.

At this time, it is not feasible to evaluate all of the impacts of construction as they are dependent on final design or the construction contractor. Impacts related to staging areas, stockpiling and storing equipment and materials, construction timing, methods and equipments, and disposal sites will be discussed in the Tier 2 Project Level NEPA documents.

Route B Alternative (Amtrak-CN-Metra/Rock Island District-CSXT-IAIS)
The construction impacts for the Route B Alternative would be similar to those of the Preferred Alternative, excluding the impacts at the Wyanet connection. As a result, the construction impacts for the Route B Alternative would be slightly less than those for the Preferred Alternative.

3.19.3 Five Round-Trip Trains per Day

Increasing train traffic to five round-trip TPD and speeds to 90 mph from Chicago to Wyanet would require the construction of additional sidings and signal upgrades. The construction impacts would be similar to those described for two round-trip TPD but would require more new construction, similar to construction at the Wyanet connection, for the sidings. Segment-specific impacts of construction will be addressed in the Tier 2 Project Level NEPA documents.

3.20 IRREVERSIBLE AND IRRETRIEVABLE COMMITMENT OF RESOURCES

Irreversible and irretrievable commitments of resources directly relate to the trade-offs of implementing a project versus not implementing a project. Commitments of resources that are considered wholly or in part to be irreversible and irretrievable include land resources, construction materials, energy resources, and financial resources.

3.20.1 No-Build Alternative

The No-Build Alternative would not result in an irreversible and irretrievable commitment of land resources, construction materials, and financial resources. However, energy resources would continue to be consumed by automobile travelers between Chicago and Iowa City at a slightly higher rate than with the build alternatives, as described in Section 3.18, Energy Use/Climate Change.

3.20.2 Two Round-Trip Trains per Day

Both of the build alternatives would result in an irreversible and irretrievable commitment of resources as described below.

Preferred Alternative (Route A – Amtrak-BNSF-IAIS)
Construction of the Preferred Alternative would result in the irreversible and irretrievable commitment of land for the Wyanet connection. The land would be converted from its current condition to a railroad grade and track.

Construction materials would consist largely of steel, concrete, ballast rock, and wood. Whereas the use of these materials would be largely irretrievable, these resources are not in short supply and many of the materials could be recycled for other projects when they no longer meet the design needs for passenger rail service.

Several energy resources would be committed to the Project, including petroleum, natural gas, electrical, and manpower expenditures for construction, operation, and maintenance. These resources are generally irretrievable.

In addition to the above resources commitments, federal and state financial resources would be irreversibly and irretrievably committed to the Project for the development of Tier 2 Project NEPA documentation, design, construction, operation, and maintenance. These financial resources would no longer be available for other federal or state projects.

Route B Alternative (Amtrak-CN-Metra/Rock Island District-CSXT-IAIS)
With the exception of the land resource requirement for the Wyanet connection, the irreversible and irretrievable commitment of resources would be the same for the Route B Alternative as for the Preferred Alternative.

3.20.3 Five Round-Trip Trains per Day

With the increase in passenger rail service to five round-trip TPD and 90 mph train speeds from Chicago to Wyanet, additional land resources, construction materials, energy resources, and financial resources would be irreversibly and irretrievably committed. The use of these resources would be similar to the use described for the Preferred Alternative, with additional land resources and construction materials being committed for the construction of additional sidings needed to maintain train movement. Additional energy resources would also be committed for this new construction as well as during the operation and maintenance of the railroad. Federal and state financial resources would again be irreversibly and irretrievably committed for the development of NEPA documentation, design, construction, operation, and maintenance.

3.21 INDIRECT AND CUMULATIVE IMPACTS

CEQ regulations require that indirect and cumulative impacts, in addition to direct impacts, be evaluated for a proposed action.

As defined in CEQ regulations, indirect impacts are those impacts that:

> … are caused by the action and are later in time or farther removed in distance, but are still reasonably foreseeable. Indirect effects may include growth inducing effects and other effects related to induced changes in the pattern of land use, population density or growth rate, and related effects on air and water and other natural systems, including ecosystems (40 CFR 1508.8b).

As defined in CEQ regulations, cumulative impact are those impacts on the environment that:

> … [result] from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (Federal or non-Federal) or person undertakes such other actions. Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time (40 CFR 1508.7).

The primary types of projects associated with cumulative impacts relative to the Project are the completion of the development of the Midwest Regional Rail System itself, roadway improvement projects, the construction of the Eola Yard, and the implementation of other high-speed intercity passenger rail projects. Track 1a (Final Design/Construction) and Track 1b (Preliminary Engineering/NEPA) projects in Illinois and Iowa are:

- Illinois: Midwest Train Equipment Fleet – This project would provide new rolling stock for the Midwest states of Illinois, Iowa, Michigan, Missouri, Ohio, and Wisconsin.
- Illinois: Chicago Terminal Limits for the Midwest Regional Rail System – This project would provide final design and construction for the Quad Cities, Milwaukee, and Detroit as well as preliminary design and NEPA work for the St. Louis, Detroit, and Milwaukee corridors.
- Illinois: Chicago to St. Louis High-Speed Rail Corridor – Joliet to St. Louis Meet Resolution Project – This project would complete the first phase of ground work for the high-speed rail corridor; it would include final design, rehabilitation and construction of existing sidings, new sidings, and development of a second main line to accommodate train meet points associated with the high-speed rail corridor as well as accompanying signal, bridge, and crossing work.
- Illinois: Improvements Proposed for the BNSF Eola Yard in Aurora – Improvements are proposed to improve the flow of train traffic on the BNSF line from Chicago to Aurora. This triple-track line is currently used for BNSF freight trains, Metra commuter trains, and Amtrak passenger trains. Metra commuter trains depart and arrive at the Hill Yard/Aurora Transportation Center using two lead tracks, which join the double-track BNSF main lines at the west end of Eola Yard. Departing and arriving Metra trains block the main BNSF lines, delaying BNSF and Amtrak trains. The Hill Yard lead track would be extended to the east end of Eola Yard, freeing up one of the BNSF main lines. Two yard lines would be extended to ensure that trains in the Eola Yard can clear the BNSF line. This would allow BNSF and Amtrak trains to operate on this BNSF main line, reducing delays through this congested area. Because of the high number of freight, commuter, and intercity passenger trains currently operating on the BNSF rail line between Chicago and Aurora, the improvements to the BNSF Eola Yard in Aurora are needed before the service to Iowa City could commence. A separate HSIPR grant application was submitted by Illinois DOT on August 24, 2009, for funds to pursue the

BNSF Eola Yard improvements. These improvements, which are one part of a suite of Chicago Terminal improvements, are needed to reduce congestion and improve the on-time performance of the current passenger trains as well as accommodate the new Chicago to Iowa City service. Because the Eola Yard improvements have independent utility and will be pursued irrespective of the Chicago to Iowa City service, the Eola Yard improvements will be the subject of a separate NEPA evaluation (State of Illinois, August 24, 2009).

- Illinois: Amtrak Illinois Zephyr Galesburg Congestion Relief Project – This project would construct three new BNSF tracks in Galesburg for staging freight trains to improve passenger train service, build a third main line track through the Galesburg passenger station to improve efficiencies, and install a new connection between Brookfield and Mendota.
- Iowa: Ottumwa Subdivision Capitalized Maintenance – This project would reduce temporary speed restrictions of the California Zephyr (Amtrak 5 and 6) on the BNSF Ottumwa Subdivision across southern Iowa. The California Zephyr operates between Chicago's Union Station and Amtrak's Emeryville station located just outside San Francisco, California. The Zephyr serves seven states, (Illinois, Iowa, Nebraska, Colorado, Utah, Nevada, and California).
- Iowa: Ottumwa Subdivision Crossover Improvements – This project would improve the service performance of the California Zephyr, consisting of two daily Amtrak trains (Amtrak 5 and 6) that operate between Chicago's Union Station and Amtrak's Emeryville station.

Illinois has one Track 3 (Planning) project, which consists of studying the feasibility of 220 mph high-speed express passenger service between Chicago and St. Louis. Iowa also has one Track 3 project, which seeks funding for the planning effort for the complete MWRRI corridor from Chicago to Omaha.

Specific roadway improvement projects within or crossing the rail corridors are numerous and are not identified in this Tier 1 analysis. However, during Tier 2 NEPA analyses, a more detailed review at potential indirect and cumulative impacts of projects would be conducted.

3.21.1 No-Build Alternative

The No-Build Alternative would result in a slight indirect impact due to the lack of passenger rail service between Chicago and Iowa City. This indirect impact would primarily be in the form of increased traffic congestion over time as travelers between Chicago and Iowa City would continue to use existing roadways. In addition, the No-Build Alternative would have a slight negative contribution to cumulative impacts by continuing the dependence on personal automobiles on highways for travel between Chicago and Iowa City. Selection of the No-Build Alternative would not result in the elimination of any of the projects listed above with the exception of the MWRRI corridor from Chicago to Omaha which includes the section from Chicago to Iowa City.

3.21.2 Two Round-Trip Trains per Day

The indirect and cumulative effects of Alternative A are similar to those of Alternative B.

Preferred Alternative (Route A – Amtrak-BNSF-IAIS)
The Preferred Alternative would have the potential for several beneficial indirect effects along the route. First, implementation would help to reduce traffic congestion on existing roadways by diverting some potential motorists from the roadways to the passenger trains; this would also slightly reduce vehicle emissions. There is also the potential for transit-oriented development of other services near the proposed stops; this would likely further reduce traffic congestion and emissions.

When considered collectively with the projects listed above, the Preferred Alternative would have a slight beneficial contribution to cumulative impacts by improving overall air quality and reducing roadway congestion and would have the potential for increased transit-oriented development. Should construction of this Project occur simultaneously with some of the above listed projects, existing passenger and freight rail services could see temporary increases in delays and congestion but overall train traffic would be maintained throughout construction.

Route B Alternative (Amtrak-CN-Metra/Rock Island and District-CSXT-IAIS)
The indirect and cumulative impacts of the Route B Alternative would be of the same nature as those of the Preferred Alternative, but the impacts would be of a slightly reduced magnitude due to lower ridership projections and the longer distance of the route.

3.21.3 Five Round-Trip Trains per Day

Whereas increasing passenger rail service from two round-trip TPD to five round-trips per day would require infrastructure improvements and construction in new areas, overall the beneficial indirect and cumulative impacts of the two round-trip TPD scenario would be expected to increase in magnitude. This increase is expected as a result of the further decrease in personal vehicles traveling the roadways between Chicago and Iowa City due to increased passenger rail service, as well as transit-oriented development of other services near the proposed stops.

3.22 SUMMARY OF IMPACTS

Route A (the Preferred Alternative) is the environmentally preferable alternative; when compared to the Route B Alternative it requires fewer miles of track improvements, is a shorter and faster route, would provide better ridership, and would provide more environmental benefits.

The Route A Alternative is 219 miles long and would require approximately 102 miles of track upgrade, as compared to a route length of 238 miles for the Route B Alternative, with 196 miles of track upgrade required. The Route A Alternative would attract a projected ridership of 187,000 compared to 147,000 on the Route B Alternative. The Route A Alternative is projected to divert 117,000 vehicle trips, 16,000 bus passenger trips, and 42,000 plane passengers per year, reducing fuel usage and non-passenger rail transportation system congestion in the Project area. The Route B Alternative would divert 92,000 vehicle trips, 12,000 bus passenger trips, and 33,000 plane passengers per

year, reducing fuel usage and non-passenger rail transportation system congestion to a lesser extent than the Route A Alternative. Traffic congestion would continue to worsen under the No Build Alternative.

Both the Route A and Route B Alternatives would provide economic benefits through job creation, potential for joint development, and increased economic activity. There would be no disproportionate impacts to minorities and low income populations. The passenger rail service would provide increased mobility and employment opportunities throughout the Project area. These improvements would not be realized and socioeconomic conditions would not change under the No-Build Alternative.

In general, existing adjacent land uses would likely continue and future land use patterns would not change due to either Build Alternative. The proposed Amtrak station in Moline is anticipated to enhance transportation-oriented development adjacent to the rail line at an existing bus station. Construction of the Wyanet Connection for the Route A Alternative would require the acquisition of approximately 7 acres of land, including approximately 2 acres of farmland. Land use would not change under the No-Build Alternative.

Both Build Alternatives would improve public health and safety by upgrading grade-crossing signal equipment and providing a safe, efficient modal choice for travel from Chicago to Iowa City, through the Quad Cities. Noise impacts would increase under both Alternatives; the areas impacted between Chicago and Wyanet would differ, but the total number of impacts would be approximately the same. The safety benefits provided by the Build Alternatives would not be realized under the No-Build Alternative. Noise conditions would not change with the No-Build Alternative.

Annual emissions of HC and CO would be reduced to a greater extent with the Route A Alternative (7 tons and 199 tons, respectively), as compared to the Route B Alternative (5 tons and 155 tons, respectively). Annual emissions of NO_x, PM-10, and PM-2.5 would increase under both alternatives. Due to anticipated worsening congestion, emissions of pollutants generated by vehicles and planes are expected to increase with the No-Build Alternative.

The Route A Alternative has fewer hazardous material sites near the route (approximately 232 versus 364 for the Route B Alternative). Hazardous material sites would not be affected by the No-Build Alternative. Because of track and crossing upgrades, the safety of hazardous material transportation by freight trains would improve under both the Route A and B Alternatives, but would remain unchanged under the No-Build Alternative.

No impacts are expected to cultural resources, parks, and federally or state-listed natural areas; site specific analysis will take place during the tier 2 evaluation of specific Projects.

Approximately 120 waterways would be crossed by the Route A Alternative, compared to 128 by the Route B Alternative. Based on a National Wetlands Inventory review, there are 144 wetlands within 100 feet of the Route A Alternative, and 263 wetlands within 100 feet of the Route B Alternative. The Wyanet Connection is needed only for the Route A Alternative and would include work outside of the existing ROW near Pond Creek and

its floodplain, a trail, and a parkway. The Route B Alternative is adjacent to critical habitat of the threatened Indiana bat. The No-Build Alternative would not impact waterways, wetlands, or threatened and endangered species.

GHG emissions would decrease by 2,001 tons per year under the Route A Alternative and fuel usage would decline by 266,000 gallons per year as compared to the No-Build Alternative. GHG emissions would decrease by 1,000 tons per year under the Route B Alternative and annual fuel usage would decline by 159,000 gallons per year as compared to the No-Build Alternative.

CHAPTER 4
COMMENTS AND COORDINATION

4.1 INTRODUCTION

This chapter describes the efforts and events conducted for agency coordination, public meetings, tribal coordination, and public involvement during the development of this Tier 1 EA. Coordination and consultation with agencies, stakeholder groups, and the public was initiated early in the study to incorporate their comments and concerns into the development and analysis of the project purpose and need, alternatives, and potential resultant environmental impacts.

4.2 PUBLIC AND AGENCY OUTREACH

Representatives from Iowa DOT, Illinois DOT, and the community coordinated closely on the Project. The public meetings held to date (Table 4-1) helped to gain public support for the Project. Since Project initiation the public and communities along the proposed routes have shown overwhelming support for the Project, as reflected in Table 4-2, Written Coordination. The communities along the route have encouraged support of the Project from their residents. The Project would increase jobs and provide an alternative transportation route within the communities and has been strongly supported by local officials.

Public coordination included stakeholder meetings, briefings, and conference presentations. Table 4-1 lists the public coordination that occurred for the Project. A public information meeting to obtain public comments on this Tier 1 EA will be held September 29, 2009, at Moline Centre Station from 4 p.m. to 7 p.m. Comments and materials from this meeting will be added to this section after the meeting, and the comments will be considered for inclusion in the FRA decision document.

Table 4-1
Public Meetings

Date(s)	Coordination	Type of Coordination
August 25, 2009 May 26, 2009 March 24, 2009 January 27, 2009	Urban Transportation Policy Committee Meeting	Public Meeting
June 15, 2009 June 13, 2009	Region 9 Transportation Policy Commission Meeting	Public Meeting
June 18, 2009 April 16, 2009 February 19, 2009	Iowa Quad City Joint Chamber Transportation Committee	General update at meeting
April 18, 2009	Illinois Transportation Planning Conference	Presentation

Date(s)	Coordination	Type of Coordination
March 25, 2009	Bi-State Regional Commission	Public Meeting
July 29, 2009	Governors' Midwest Rail Plan[a]	Eight Midwest Governors and Chicago Mayor signed a Memorandum of Understanding (MOU) for the Chicago Hub High Speed Rail Corridor
July 26, 2009	Governor Culver's Iowa Unlimited Train [a]	Meeting at future Quad City station
March 27, 2009	Congressmen Hare and Braley meet with passenger rail supporters [a]	Meeting
November 21, 2008	Quad City Coalition met with legislatures at Wyanet Connection [a]	Site Visit
May 19, 2008	Quad City Rail 1st Anniversary [a]	Meeting
October 2007	Iowa Transportation Commission and DOT Commission	Presentation outlined passenger rail service efforts; community updates were given, and the Amtrak corridor studies were described. The Quad Cities described their efforts for passenger rail – they were working with the Illinois DOT. Dubuque, Iowa City and Des Moines also described their passenger rail efforts.
June 2008	Iowa Transportation Commission and DOT Commission	Presentation outlined the importance of passenger rail and DOT initiatives. The funding for passenger rail projects and pertinent legislation was also described.
August 2008	Iowa Transportation Commission and DOT Commission	Sue Czeshinski from the Dubuque Convention and Visitors Bureau described the proposed rail alignment from Chicago to Dubuque, the committees involved in the planning process as well as activities and outcomes involved in their projects and community coalitions and tourism.
May 11, 2009	Iowa Transportation Commission and DOT Commission	This presentation provided basically the same information from the presentation given in June of 2008
June 24, 2003	Iowa Transportation Commission and DOT Commission, Sioux City	The Sierra Club asked why there isn't a lot more passenger rail in Iowa. ICE responded that while a modest investment in rail infrastructure can have a huge benefit to moving freight, the incremental investments required for passenger service are substantial.
July 8, 2003	Iowa Transportation Commission and DOT Commission, Creston, IA	Dr. Forkenbrock discussed passenger rail in Europe and rising demand in U.S.
July 23, 2003	Iowa Transportation Commission and DOT Commission, Council Bluffs, IA	Dr. Forkenbrock discussed need for shorter haul passenger service and passengers and freight sharing rails.
July 30, 2003	Iowa Transportation Commission and DOT Commission, Spencer, IA	Discussion of need for society to invest in passenger rail, and that it may be feasible only in large population areas.
September 9, 2003	Iowa Transportation Commission and DOT Commission, Davenport, IA	Some of the focus from the earlier meetings has been on the high speed rail between Chicago and Des Moines. There is a lot to be said about passenger rail.
September 30,	Iowa Transportation	Discussion of why inter-modalism (i.e. using intercity

Date(s)	Coordination	Type of Coordination
2003	Commission and DOT Commission, Mount Pleasant, IA	busses in combination with passenger rail) should be a key focus in transportation today.
October 7, 2003	Iowa Transportation Commission and DOT Commission, Cedar Rapids, IA	Discussion of the need for interstate cooperation to make passenger rail viable.
October 21, 2003	Iowa Transportation Commission and DOT Commission, Mount Pleasant, IA	California, which was always held up as the biggest proponent of automobiles, has now become the largest producer of public passenger rail in the country. Los Angeles has become a leader in public rail transit simply because you can't get anywhere with a private automobile.
February 2000	Iowa DOT	Iowa's Rail System Plan
2004	Iowa DOT	Held Public Outreach meetings for the modal system plans. Established Iowa DOT Office of Rail Transportation webpage. www.iowarail.com
2004, 2005, 2006	Iowa DOT	Iowa State Fair information booths
2007	Iowa DOT	Meetings with regional and local supporters of Amtrak routes to Chicago, on-going since 2007
2007	Iowa DOT	Iowa legislation passed to join the Midwest Interstate Passenger Rail Compact (MIPRC)
April 18, 2007	Iowa DOT	Media Event – Release of Amtrak Feasibility Study for Chicago to Iowa City route
2008	Iowa DOT	Formation of the statewide Passenger Rail Advisory Committee
2009	Iowa DOT	Iowa Connections website highlighting passenger rail expansion in Iowa. http://www.iowadot.gov/IowaPassengerRail/index.htm
undated	Iowa DOT	Presentations to Iowa Metropolitan Planning Organization/Regional Planning Affiliations – held quarterly
June 24, July 27, & September 23, 2009	Iowa DOT	Iowa Governor Culver rides train across Iowa promoting passenger rail awareness
April 1, 2009	Iowa Passenger Rail Advisory Committee (PRAC)	Meeting with members in Ames, IA
April 30, 2009	Iowa Passenger Rail Advisory Committee (PRAC)	Conference call with members
August 14, 2009	Iowa Passenger Rail Advisory Committee (PRAC)	Meeting with members in Ames, IA
November 18, 2009	Iowa Passenger Rail Advisory Committee (PRAC)	Meeting with members in Ames, IA

Source:
[a] *Quad Cities Passenger Rail Coalition. 2009. http://www.quadcitychamber.com/qcrail/index.htm.*

Agency/Department	Date	Regarding
Passenger Rail and Greater Des Moines Partnership [a]		become a member of the Midwest Business Coalition for Passenger Rail.
Resolution from the Quad Cities Audubon Society	June 6, 2007	Passenger rail transportation between the Quad Cities and Chicago would reduce the amount of automobile traffic and consequently reduce carbon dioxide emissions which contribute to global warming.
Resolution from Bettendorf City Council [a]	June 5, 2007	The Bettendorf City Council encourages area residents to advocate their support for passenger rail by joining the Quad City Passenger Rail Coalition
YPN Creative Council [a]	May 23, 2007	Encourages members and area young professionals to advocate their support for passenger rail.
Bettendorf Chamber of Commerce Resolution	May 20, 2007	Encourages all citizens and interested parties to indicate their support for his effort by joining the QC Rail Coalition.
Midwest High Speed Rail Association [a]	May 11, 2007	The Midwest High Speed Rail Association would like to applaud the creation of the Quad Cities Passenger Rail Coalition.
Iowa DOT [a]	April 3, 2007	On Feb. 20, 2007, the Illinois DOT requested that Amtrak conduct a feasibility study to resume services between Chicago and Quad Cities. The Iowa DOT respectfully requests that the study be extended to include service to Iowa City, Iowa.

Source:
[a] *Franke, M.W., R.P. Hoffman, and B.E. Hillblom. 2008c. Feasibility Study on Proposed Amtrak Service from Chicago to Iowa City, Iowa, via Quad Cities (an addendum to December 5, 2007, Feasibility Report on Proposed Amtrak Service, Quad Cities-Chicago).*

Early agency coordination with federal, state, and local government agencies was initiated on August 19, 2009, to commence the NEPA analysis of the Project. An example of the early coordination letter sent to federal state, and local government agencies as well as the written comments received from those agencies can be found in Appendix F, Comments and Coordination. A specialized set of early coordination letters were sent to the Iowa and Illinois SHPO and potentially interested Tribes. SHPO and tribal coordination letters as well as the written comments received from the SHPOs and tribes can be found in Appendix E, Cultural Resources.

The federal and state agencies consulted regarding the Project include:

- Federal Aviation Administration
- Federal Emergency Management Agency
- Federal Highway Administration
- Federal Railroad Administration
- Federal Transit Administration
- Iowa Department of Natural Resources
- U.S. Department of Interior National Park Service

- State Historical Society of Iowa
- U.S. Army Corps of Engineers
- U.S. Coast Guard
- U.S. Department of Agriculture, Natural Resources Conservation Service
- U.S. Department of Housing and Urban Development
- U.S. Environmental Protection Agency
- U.S. Department of Interior U.S. Fish and Wildlife Service
- Illinois Department of Natural Resources
- State Historical Society of Illinois
- Illinois Environmental Protection Agency
- Illinois Commerce Commission

Tribal coordination was also conducted as part of this Tier 1 EA. Early coordination letters were sent from the Federal Railroad Administration to the following tribal parties:

- Peoria Tribe of Indians of Oklahoma
- Forest County Potawatomi
- Citizen Potawatomi Nation
- Prairie Band Potawatomi Nation
- Pokagon Band of Potawatomi Indians
- Hannahville Indian Community
- Sac and Fox Nation of Oklahoma
- Sac and Fox Nation of Missouri
- Sac and Fox Nation of Mississippi in Iowa
- Ho-Chunk Nation
- Winnebago Tribe of Nebraska
- Otoe-Missouria Tribe
- Iowa Tribe of Kansas and Nebraska
- Iowa Tribe of Oklahoma

Table 4-3 lists letters received from federal and state agencies.

Table 4-3
Agency Coordination

Date	Coordination	Key Comments
Illinois EPA	September 3, 2009	We have no objections to the project; however, a permit may be required from the Division of Water Pollution control. If more than 1 acre is disturbed during construction, a construction site activity stormwater National Pollutant Discharge Elimination System (NPDES) permit will also be required from the division. Solid and hazardous waste must be properly disposed of or recycled.
Iowa State Historical Society [a]	September 3, 2009	We look forward to consulting with FRA for this project and determining whether this project will affect any significant historic properties.

Date	Coordination	Key Comments
U.S. Department of Homeland Security, U.S. Coast Guard	September 3, 2009	Route A does not appear to cross any river until it reaches the Mississippi River. However, Route B appears to cross the Illinois Waterway at several locations; please advise this office of the proposed crossings of the Illinois River. Both proposed routes will cross the Mississippi River on the Rock Island Railroad and Highway Drawbridge at mile 482.9. This drawbridge also crosses Lock 15. The EA should include the impact of drawbridge operations. If the other crossings of the Illinois River require drawbridges, they also need to be addressed.
EPA, Midwest Region 5	September 1, 2009	The Tier 1 review should adequately assess the goals it intends to achieve (selecting the preferred alternative, identifying station stops, and identifying logical next steps) and should compare the environmental impacts of each alternative.
Illinois Commerce Commission Transportation Division/Rail Safety Section	August 28, 2009	We recommend 1) along the IAIS corridor, a review of all highway-rail grade crossings for potential safety improvements, including the elimination of redundant crossings; 2) along the BNSF corridor, a diagnostic review at all crossings equipped only with crossbuck warning and yield signs; and 3) a review of existing pedestrian-rail and private highway-rail grade crossings for possible safety improvements.
Natural Resources Conservation Service (NRCS-Iowa)	August 28, 2009	Please take into account any erosion which may occur in any work done within or outside the existing rail.
NRCS-Illinois	August 26, 2009	I would expect this project to have no significant impacts on prime agricultural lands in Illinois.
Federal Aviation Administration (FAA)	August 25, 2009	You will need to know where the public-use and military airports are in the project area in order to judge whether a project requires airspace review.
Illinois State Historical Society[a]	September 1, 2009	Your proposal summary is acceptable to the Illinois Historic Preservation Agency provided that once individual sites are approved they will be submitted for review.

Date	Coordination	Key Comments
USACE – Rock Island District	September 2, 2009	1. No further Rock Island District real estate coordination is necessary. 2. Any proposed placement of dredged or fill material into waters of the U.S. (including jurisdictional wetlands) requires Department of the Army authorization under Section 404 of the CWA. When detailed plans are available, submit an application packet to the Rock Island District. 3. The responsible federal agency should coordinate with the Illinois Historic Preservation Officer and with the State Historical Society of Iowa to determine impacts on historic properties. 4. Contact the USFWS Rock Island field office to determine if there would be impacts on federally listed endangered species and, if so, how to avoid or minimize impacts. 5. Contact the Illinois Emergency Management Agency and the Iowa Emergency Management Division to determine if the proposed project may impact areas designated as floodway in Illinois and Iowa, respectively. 6. If your proposal includes building a train station in downtown Moline, there appear to be many LUST and site remediation program cleanup sites. A Phase I and/or II environmental site assessment may be required.
Iowa Department of Natural Resources	September 17, 2009	We would ask that Best Management Practices be used to control erosion and protect water quality near the project.
U.S. Environmental Protection Agency	September 22, 2009	The Purpose and Need for this HSR project is comparable to and consistent with goals of the FRA funding program for a Track 2 program seeking to establish a passenger service corridor that may eventually upgrade to HSR service.

Note:
[a] *These documents are in Appendix E, Cultural resources.*

CHAPTER 5
NEXT STEPS

As stated in Chapter 1 and throughout this Tier 1 Service Level EA, additional NEPA documentation, studies, and design must occur so location-specific impacts can be identified and minimized before the Project can be implemented. This chapter describes how FRA, Illinois DOT, and Iowa DOT plan to complete the additional documentation and design needed to advance the Project.

5.1 PROJECT SECTIONS

As funding becomes available, the design and Tier 2 Project Level NEPA documentation will be advanced for sections of the Project. Separate Tier 2 Project Level NEPA documentation will be prepared for each of the sections identified with two round-trip trains per day. At this time, the Tier 2 Project sections are anticipated to be as follows, but may be combined or modified based upon available funding.

Tier 2 Project sections required regardless of alternative selected:

- **Illinois Track Improvements** – This Tier 2 Project Level NEPA document will include the track, tie, culvert, and bridge improvements or replacement to bring existing track to the standards needed for 79 mph passenger trains along the alignment in Illinois.
- **Iowa Track Improvements** – This Tier 2 Project Level NEPA document will include the track, tie, culvert, and bridge improvements or replacement to bring existing track to the standards needed for 79 mph passenger trains along the alignment in Iowa.
- **Geneseo, Illinois, Station** – There is currently no passenger train station in Geneseo. This Tier 2 Project Level NEPA document will include the evaluation of station location alternatives and design.
- **Iowa City, Iowa, Station** – This Tier 2 Project Level NEPA document will include the evaluation of the repurchase and remodel of the existing station in Iowa City. Should acquisition not be possible, an evaluation of station locations and design would be conducted in-lieu of the analysis of remodeling the existing station.
- **Moline, Illinois, Station** – There is currently no passenger train station in Moline. This Tier 2 Project Level NEPA document will include the evaluation of station location alternatives and design.
- **Iowa City, Iowa, Layover Facility** – There is currently no layover facility in Iowa City. This Tier 2 Project Level NEPA document will include the evaluation of station location alternatives and design. Alternatives considered may include areas outside of existing railroad ROW.
- **Colona, Illinois, Improvements –** This Tier 2 Project Level NEPA document will evaluate alternatives and design to improve the BNSF crossing in Colona.

- **Rock Island, Illinois, Yard Bypass –** This Tier 2 Project Level NEPA document will evaluate alternatives and design for a yard bypass track to allow passenger trains to avoid traveling through the Rock Island yard.
- **Silvis, Illinois, Bypass –** If the Rock Island yard bypass is not implemented, a Tier 2 Project Level NEPA document will evaluated alternatives and design for improvements to the existing track alignments in Silvis.

Additional Tier 2 Project sections needed if the Preferred Alternative is selected:

- **Wyanet Connection** – This Tier 2 Project Level NEPA document will present alternatives and design for the connection between the BNSF and IAIS Railroads near Wyanet, Illinois. See the Wyanet Connection discussion in Section 2.3.1, Preferred Alternative (Route A – Amtrak-BNSF-IAIS) for more information on this connection.
- **Eola, Illinois, Yard Improvements** – This Tier 2 Project Level NEPA document will include the evaluation of alternatives and design to improve the flow of train traffic on the BNSF line from Chicago to Aurora. This double-track line is currently used for BNSF freight trains, Metra commuter trains, and Amtrak passenger trains.

Additional Tier 2 Project sections needed if the Route B Alternative is selected:

- **Morris, Illinois, Station** – There is currently no passenger train station in Morris. This Tier 2 Project Level NEPA document will include the evaluation of station location alternatives and design.
- **Peru-La Salle, Illinois, Station** – There is currently no passenger train station in Peru-La Salle. This Tier 2 Project Level NEPA document will include the evaluation of station location alternatives and design.

Project sections have not yet been identified for the ultimate five round-trip trains per day operational level. The uncertainties that exist for this operational level make identification of sections difficult and impractical at this time. Prior to the implementation of the five round-tip trains per day scenario, a supplemental Tier 1 Service Level NEPA document will be developed for the route from Chicago to Iowa City. This will be followed by Tier 2 Project Level NEPA documents for implementation.

5.2 ADDITIONAL STUDIES

In Tier 2 of the NEPA process, multiple documents will be developed. These documents are anticipated to be a mixture of environmental assessments for areas such as the Wyanet connection, and categorical exclusions for areas with minimal effects. The specific type of NEPA document has not yet been determined for each of the sections.

In addition to NEPA documentation for the Project sections, design will be advanced and numerous studies will be completed as part of the Tier 2 process to determine the specific nature and quantity of impacts. The design process will consider avoidance and minimization of impacts to sensitive environmental resources. Based upon the Project section, the following studies may be required:

- Wetland delineations and Section 404 permitting

- Cultural resources surveys and Section 106 consultation
- Threatened and endangered species surveys
- Engineering surveys
- Noise analysis
- Section 4(f) resource evaluation
- Phase I Environmental Site Assessments
- Air emissions analysis in non-attainment areas

In addition to the various studies, mitigation for impacts will also be developed. Anticipated types of mitigation include wetland mitigation, construction timing restrictions for threatened and endangered species, implementation of a stormwater pollution and prevention plan, implementation of best management practices, and documentation of historic railroad structures.

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APPENDIX A
COMPARATIVE DATA FOR THE ALTERNATIVES

CONTENTS

Table A-1	Typical Time of Travel Preferred Alternative
Table A-2	Chicago to Iowa City Preferred Alternative
Table A-3	Typical Time of Travel Route B Alternative
Table A-4	Chicago to Iowa City Route B Alternative
Table A-5	Estimated Cost of Route A and B Alternatives

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COMPARATIVE DATA FOR THE ALTERNATIVES

Table A-1 shows the typical time of travel and distances for the Preferred Alternative (Route A Alternative) at a maximum operating speed of 79 miles per hour.

Table A-1
Typical Time of Travel Route A Alternative[a]

Daily Origin/Destination by Station[b]	Cumulative Time of Travel[c]	Travel Distance	Cumulative Travel Distance
Depart Chicago	--	--	--
Depart La Grange Road, Illinois	17 minutes	13.7 miles	13.7 miles
Depart Naperville, Illinois	34 minutes	14.7 miles	28.4 miles
Depart Plano, Illinois	59 minutes	23.1 miles	51.5 miles
Depart Mendota, Illinois	1 hour, 27 minutes	31.6 miles	83.1 miles
Depart Princeton, Illinois	1 hour, 49 minutes	21.1 miles	104.2 miles
Depart Geneseo, Illinois	2 hours, 44 minutes	36.6 miles	140.8 miles
Depart Moline, Illinois	3 hours, 22 minutes	19.1 miles	159.9 miles
Arrive Iowa City, Iowa	4 hours, 58 minutes	59.3 miles	219.2 miles
Time of travel, Chicago to Iowa City	**4 hours, 58 minutes**		**219.2 miles**

Notes:
[a] Table A-1 illustrates the typical time of travel for the proposed westbound trips.
[b] Source: Franke et al., 2008a; Franke et al,. 2008b; IAIS track chart not dated; BNSF Railway Company January 1, 2005.
[c] Additional schedule improvements are possible with additional infrastructure improvements.

Table A-2 shows the preliminary passenger train schedule for the Preferred Alternative (Route A Alternative) at a maximum operating speed of 79 miles per hour.

Table A-2
Chicago to Iowa City Preferred Alternative
(Chicago-Naperville-Mendota-Princeton-Geneseo-Moline-Iowa City)

Morning Westbound	Evening Westbound	Station				Morning Eastbound	Evening Eastbound
9:30 AM	6:30 PM	DP [a]	Chicago, IL	AR [b]		12:00 PM	10:00 PM
R[c] 9:47AM	R 6:47 PM	DP	La Grange Road, IL	DP		D[d] 11:32 AM	D 9:32 PM
R 10:04 AM	R 7:04 PM	DP	Naperville, IL	DP		D 11:17 AM	D 9:17 PM
10:29 AM	7:29 PM	DP	Plano, IL	DP		10:53 AM	8:53 PM
10:57 AM	7:57 PM	DP	Mendota, IL	DP		10:25 AM	8:25 PM
11:19 AM	8:19 PM	DP	Princeton, IL	DP		10:05 AM	8:05 PM
12:14 PM	9:14 PM	DP	Geneseo, IL	DP		9:12 AM	7:12 PM
12:52 PM	9:52 PM	DP	Moline, IL	DP		8:40 AM	6:40 PM
2:28 PM	11:28 PM	AR	Iowa City, IA	DP		7:02 AM	5:02 PM

Source: Franke, M.W., R.P. Hoffman, and B.E. Hillblom. 2008b. Executive Summary: Feasibility Study on Proposed Amtrak Service from Chicago to Iowa City, Iowa, via Quad Cities (An addendum to December 5, 2007 Feasibility Report on Proposed Amtrak Service, Quad Cities-Chicago.

Notes:
[a] DP – Departing
[b] AR – Arriving
[c] R – LaGrange Road and Naperville Westbound stop only to receive passengers
[d] D – Naperville and LaGrange Road Eastbound stop only to discharge passengers

Table A-3 shows the preliminary passenger train schedule for the Route B Alternative at a maximum operating speed of 79 miles per hour.

Table A-3
Typical Time of Travel Route B Alternative[a]

Daily Origin/Destination by Station[b]	Cumulative Time of Travel[c]	Travel Distance	Cumulative Travel Distance
Depart Chicago	--	--	--
Depart Joliet, Illinois	1 hour, 21 minutes	42.0 miles	42.0 miles
Depart Morris, Illinois	1 hour, 58 minutes	19.0 miles	61.0 miles
Depart La Salle, Illinois	3 hours, 9 minutes	39.3 miles	100.3 miles
Depart Geneseo, Illinois	4 hours, 7 minutes	59.5miles	159.8 miles
Depart Moline, Illinois	4 hours, 48 minutes	19.1 miles	178.9 miles
Arrive Iowa City, Iowa	6 hours, 24 minutes	59.3 miles	238.2 miles
Time of travel, Chicago to Iowa City	6 hours, 24 minutes		238.2 miles

Notes:
[a] Table A-3 illustrates the typical time of travel for the proposed westbound trips.
[b] Source: Franke et al., 2008a; Franke et al., 2008b, IAIS Track chart, Wyanet to Iowa City, not dated.
[c] Additional schedule improvements are possible with additional infrastructure improvements.

Table A-4 shows the preliminary passenger train schedule for the Route B Alternative at a maximum operating speed of 79 miles per hour.

Table A-4
Chicago to Iowa City Route B Alternative
(Chicago-Joliet-Morris-LaSalle-Geneseo_Moline-Iowa City)

Morning Westbound	Evening Westbound	Station					Morning Eastbound	Evening Eastbound
9:22 AM	6:35 PM	↓	DP [a]	Chicago, IL	AR [b]	↑	1:54 PM	11:59 PM
R[c] 10:43AM	R 7:56 PM	↓	DP	Joliet, IL	DP	↑	D[d] 12:35 PM	D 10:40 PM
11:26 AM	8:39 PM	↓	DP	Morris, IL	DP	↑	11:44 AM	9:49 PM
12:48 AM	10:01 PM	↓	DP	LaSalle, IL	DP	↑	10:13 AM	8:18 PM
2:04 PM	11:17 PM	↓	DP	Geneseo, IL	DP	↑	9:05 AM	7:10 PM
2:49 PM	12:02 AM	↓	DP	Moline, IL	DP	↑	8:29 AM	6:34 PM
4:44 PM	1:57 AM	↓	AR	Iowa City, IA	DP	↑	6:32 AM	4:37 PM

Source: Franke, M.W., R.P. Hoffman, and B.E. Hillblom. 2008b. Executive Summary: Feasibility Study on Proposed Amtrak Service from Chicago to Iowa City, Iowa, via Quad Cities (An addendum to December 5, 2007 Feasibility Report on Proposed Amtrak Service, Quad Cities-Chicago.

Notes:
[a] DP – Departing
[b] AR – Arriving
[c] R – Joliet Westbound stops only to receive passengers
[d] D – Joliet Eastbound stops only to discharge passengers

A comparison of cost for the Preferred Alternative and the Route B Alternative is provided in Table A-5. The comparison was made at feasibility study level and has not been updated to reflect actions needed that were identified after the completion of the feasibility studies.

Table A-5
Estimated Cost of Route A and B Alternatives

Proposed Actions	Cost ($millions) Route A	Cost ($millions) Route B
Construct connection track at Wyanet from BNSF to IAIS	5.6	0.0[a]
Replace jointed rail with continuous welded rail	17.1	41.5
Replacement of crossties	6.0	11.4
Resurfacing track	1.3	2.3
Miscellaneous track, bridge, culvert, drainage, and roadbed work	2.5	4.9
Upgrade circuits of grade crossing warning devices	2.6	4.0
Install wayside signal system, remote control switches	13.1	25.6
Contingencies on items above	2.2	19.2[b]
Iowa City layover facility	0.3	0.3
Total	**50.7**	**109.2**

Source: Franke et al. 2008a; Franke et al. 2008b.

[a] A connection track would not be required for the Route B Alternative.
[b] Includes $5.0 million for capacity mitigation.

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APPENDIX B
ENVIRONMENTAL JUSTICE DATA TABLES

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Table B-1
Hispanic or Latino Population by State and County

Population Area	Total Population	Hispanic or Latino	Percentage
United States	**281,421,906**	**35,305,818**	**12.5%**
Illinois	**12,419,293**	**1,530,262**	**12.3%**
Iowa	**2,926,324**	**82,473**	**2.8%**
Bureau County, Illinois	35,503	1,732	4.9%
Cook County, Illinois	5,376,741	1,071,740	19.9%
DeKalb County, Illinois	88,969	5,830	6.6%
DuPage County, Illinois	904,161	81,366	9.0%
Grundy County, Illinois	37,535	1,552	4.1%
Henry County, Illinois	51,020	1,467	2.9%
Kane County, Illinois	404,119	95,924	23.7%
Kendall County, Illinois	54,544	4,086	7.5%
La Salle County, Illinois	111,509	5,791	5.2%
Rock Island County, Illinois	149,374	12,791	8.6%
Will County, Illinois	502,266	43,768	8.7%
Cedar County, Iowa	18,187	171	0.9%
Johnson County, Iowa	111,006	2,781	2.5%
Muscatine County, Iowa	41,722	4,973	11.9%
Scott County, Iowa	158,668	6,445	4.1%

Source: Census 2000 Summary File 1 (SF 1) 100-Percent Data

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Table B-2
Population by Race - State and County

		White alone		Black or African American alone		American Indian and Alaska		Asian alone		Native Hawaiian and Other Pacific		Some other race alone		Two or more races	
	Total	Total	Percentage	Total	Percentage	Total	Percentage	Total	Percentage	Total	Percentage	Total	Percentage	Total	Percentage
United States	281,421,906	211,460,626	75.1%	34,658,190	12.3%	2,475,956	0.88%	10,242,998	3.6%	398,835	0.14%	15,359,073	5.5%	6,826,228	2.4%
Illinois	12,419,293	9,125,471	73.5%	1,876,875	15.1%	31,006	0.25%	423,603	3.4%	4,610	0.04%	722,712	5.8%	235,016	1.9%
Iowa	2,926,324	2,748,640	93.9%	61,853	2.1%	8,989	0.31%	36,635	1.3%	1,009	0.03%	37,420	1.3%	31,778	1.1%
Bureau County, Illinois	35,503	34,365	96.8%	116	0.3%	61	0.17%	182	0.5%	10	0.03%	455	1.3%	314	0.9%
Cook County, Illinois	5,376,741	3,025,760	56.3%	1,405,361	26.1%	15,496	0.29%	260,170	4.8%	2,561	0.05%	531,170	9.9%	136,223	2.5%
DeKalb County, Illinois	88,969	78,704	88.5%	4,084	4.6%	197	0.22%	2,087	2.3%	58	0.07%	2,440	2.7%	1,399	1.6%
DuPage County, Illinois	904,161	759,924	84.0%	27,600	3.1%	1,520	0.17%	71,252	7.9%	217	0.02%	28,166	3.1%	15,482	1.7%
Grundy County, Illinois	37,535	36,442	97.1%	71	0.2%	90	0.24%	114	0.3%	4	0.01%	487	1.3%	327	0.9%
Henry County, Illinois	51,020	49,077	96.2%	583	1.1%	52	0.10%	127	0.2%	6	0.01%	669	1.3%	506	1.0%
Kane County, Illinois	404,119	320,340	79.3%	23,279	5.8%	1,255	0.31%	7,296	1.8%	144	0.04%	42,870	10.6%	8,935	2.2%
Kendall County, Illinois	54,544	50,658	92.9%	718	1.3%	105	0.19%	480	0.9%	12	0.02%	1,842	3.4%	729	1.3%
La Salle County, Illinois	111,509	105,896	95.0%	1,723	1.5%	191	0.17%	598	0.5%	26	0.02%	1,908	1.7%	1,167	1.0%
Rock Island County, Illinois	149,374	127,742	85.5%	11,260	7.5%	410	0.27%	1,524	1.0%	45	0.03%	5,612	3.8%	2,781	1.9%
Will County, Illinois	502,266	411,027	81.8%	52,509	10.5%	1,038	0.21%	11,125	2.2%	162	0.03%	18,219	3.6%	8,186	1.6%
Cedar County, Iowa	18,187	17,909	98.5%	34	0.2%	34	0.19%	55	0.3%	5	0.03%	47	0.3%	103	0.6%
Johnson County, Iowa	111,006	100,051	90.1%	3,223	2.9%	313	0.28%	4,578	4.1%	48	0.04%	1,116	1.0%	1,677	1.5%
Muscatine County, Iowa	41,722	37,852	90.7%	294	0.7%	128	0.31%	345	0.8%	7	0.02%	2,525	6.1%	571	1.4%
Scott County, Iowa	158,668	140,481	88.5%	9,689	6.1%	500	0.32%	2,502	1.6%	32	0.02%	2,606	1.6%	2,858	1.8%

Source: Census 2000 Summary File 1 (SF 1) 100-Percent Data

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Table B-3
Poverty - State and County

	Total Population	Income in 1999 below poverty level	Percentage
United States	**273,882,232**	**33,899,812**	**12.4%**
Illinois	**12,095,961**	**1,291,958**	**10.7%**
Iowa	**2,824,435**	**258,008**	**9.1%**
Bureau County, Illinois	34,940	2,537	7.3%
Cook County, Illinois	5,285,159	713,040	13.5%
DeKalb County, Illinois	81,025	9,203	11.4%
DuPage County, Illinois	889,343	32,163	3.6%
Grundy County, Illinois	37,029	1,786	4.8%
Henry County, Illinois	50,346	4,038	8.0%
Kane County, Illinois	397,285	26,587	6.7%
Kendall County, Illinois	54,251	1,636	3.0%
La Salle County, Illinois	108,216	9,894	9.1%
Rock Island County, Illinois	144,505	15,523	10.7%
Will County, Illinois	491,997	24,225	4.9%
Cedar County, Iowa	17,862	989	5.5%
Johnson County, Iowa	102,859	15,406	15.0%
Muscatine County, Iowa	40,936	3,632	8.9%
Scott County, Iowa	155,520	16,329	10.5%

Source: Census 2000 Summary File 3 (SF 3) Sample Data

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Table B-4
Population Below the Poverty Level, Census Blocks in which Severe Noise Impacts Occur

Block Group	Town	Total	Income in 1999 below poverty level	Percent below poverty	Percent below poverty, city
Block Group 2, Census Tract 206, Rock Island County, Illinois	East Moline	2,190	632	28.9%	13.9%
Block Group 1, Census Tract 207, Rock Island County, Illinois	East Moline	761	231	30.4%	13.9%
Block Group 2, Census Tract 207, Rock Island County, Illinois	East Moline	991	122	12.3%	13.9%
Block Group 1, Census Tract 214, Rock Island County, Illinois	Moline	1,233	129	10.5%	9.5%
Block Group 1, Census Tract 223, Rock Island County, Illinois	Moline	1,152	384	33.3%	9.5%
Block Group 2, Census Tract 223, Rock Island County, Illinois	Moline	1,190	299	25.1%	9.5%
Block Group 1, Census Tract 15, Johnson County, Iowa	Iowa City	1,461	86	5.9%	21.7%
Block Group 2, Census Tract 15, Johnson County, Iowa	Iowa City	1,156	116	10.0%	21.7%
Block Group 1, Census Tract 16, Johnson County, Iowa	Iowa City	3,500	1,609	46.0%	21.7%
Block Group 1, Census Tract 17, Johnson County, Iowa	Iowa City	972	80	8.2%	21.7%
Block Group 2, Census Tract 17, Johnson County, Iowa	Iowa City	726	64	8.8%	21.7%
Block Group 3, Census Tract 17, Johnson County, Iowa	Iowa City	1,232	311	25.2%	21.7%

Source: Census 2000 Summary File 3 (SF 3) Sample Data

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Table B-5
Hispanic Population, Census Blocks in which Severe Noise Impacts Occur

Block Group	City name	Total	Hispanic	Percent	City percent
Block 2062, Block Group 2, Census Tract 206, Rock Island County, Illinois	East Moline	82	44	53.7%	15.2%
Block 2065, Block Group 2, Census Tract 206, Rock Island County, Illinois	East Moline	85	31	36.5%	15.2%
Block 2066, Block Group 2, Census Tract 206, Rock Island County, Illinois	East Moline	77	51	66.2%	15.2%
Block 1006, Block Group 1, Census Tract 207, Rock Island County, Illinois	East Moline	59	34	57.6%	15.2%
Block 2000, Block Group 2, Census Tract 207, Rock Island County, Illinois	East Moline	47	16	34.0%	15.2%
Block 2004, Block Group 2, Census Tract 207, Rock Island County, Illinois	East Moline	46	11	23.9%	15.2%
Block 1004, Block Group 1, Census Tract 214, Rock Island County, Illinois	Moline	49	0	0.0%	11.9%
Block 1011, Block Group 1, Census Tract 214, Rock Island County, Illinois	Moline	54	10	18.5%	11.9%
Block 1018, Block Group 1, Census Tract 214, Rock Island County, Illinois	Moline	19	9	47.4%	11.9%
Block 1022, Block Group 1, Census Tract 214, Rock Island County, Illinois	Moline	47	2	4.3%	11.9%
Block 1035, Block Group 1, Census Tract 214, Rock Island County, Illinois	Moline	26	10	38.5%	11.9%
Block 1017, Block Group 1, Census Tract 223, Rock Island County, Illinois	Moline	20	9	45.0%	11.9%
Block 2010, Block Group 2, Census Tract 223, Rock Island County, Illinois	Moline	68	61	89.7%	11.9%
Block 2011, Block Group 2, Census Tract 223, Rock Island County, Illinois	Moline	23	21	91.3%	11.9%
Block 2014, Block Group 2, Census Tract 223, Rock Island County, Illinois	Moline	52	20	38.5%	11.9%
Block 2015, Block Group 2, Census Tract 223, Rock Island County, Illinois	Moline	38	23	60.5%	11.9%
Block 2023, Block Group 2, Census Tract 223, Rock Island County, Illinois	Moline	66	56	84.8%	11.9%
Block 2024, Block Group 2, Census Tract 223, Rock Island County, Illinois	Moline	47	43	91.5%	11.9%
Block 1042, Block Group 1, Census Tract 15, Johnson County, Iowa	Iowa City	114	6	5.3%	2.9%

Table B-5
Hispanic Population, Census Blocks in which Severe Noise Impacts Occur

Block Group	City name	Total	Hispanic	Percent	City percent
Block 2018, Block Group 2, Census Tract 15, Johnson County, Iowa	Iowa City	42	1	2.4%	2.9%
Block 2022, Block Group 2, Census Tract 15, Johnson County, Iowa	Iowa City	31	0	0.0%	2.9%
Block 1025, Block Group 1, Census Tract 16, Johnson County, Iowa	Iowa City	83	0	0.0%	2.9%
Block 1004, Block Group 1, Census Tract 17, Johnson County, Iowa	Iowa City	27	0	0.0%	2.9%
Block 2002, Block Group 2, Census Tract 17, Johnson County, Iowa	Iowa City	11	0	0.0%	2.9%
Block 3002, Block Group 3, Census Tract 17, Johnson County, Iowa	Iowa City	72	3	4.2%	2.9%

Source: Census 2000 Summary File 1 (SF 1) 100-Percent Data

Table B-6
Population by Race, Census Blocks in which Severe Noise Impacts Occur

	City name	Block Group	White alone	Black or African American alone			American Indian and Alaska Native alone			Asian alone			Native Hawaiian and Other Pacific Islander			Some other race alone			Two or more races		
		Total	Total	Total	Percent	City pct	Total	Percent	City pct	Total	Percent	City pct	Total	Percent	City pct	Total	Percent	City pct	Total	Percent	City pct
Block 2062, Block Group 2, Census Tract 206, Rock Island County, Illinois	**East Moline**	**82**	41	10	12.2%	7.3%	0	0.0%	0.4%	0	0.0%	2.3%	0	0.0%	0.0%	30	36.6%	7.5%	1	1.2%	2.5%
Block 2065, Block Group 2, Census Tract 206, Rock Island County, Illinois	**East Moline**	**85**	56	8	9.4%	7.3%	4	4.7%	0.4%	0	0.0%	2.3%	0	0.0%	0.0%	15	17.6%	7.5%	2	2.4%	2.5%
Block 2066, Block Group 2, Census Tract 206, Rock Island County, Illinois	**East Moline**	**77**	50	0	0.0%	7.3%	0	0.0%	0.4%	0	0.0%	2.3%	0	0.0%	0.0%	25	32.5%	7.5%	2	2.6%	2.5%
Block 1006, Block Group 1, Census Tract 207, Rock Island County, Illinois	**East Moline**	**59**	23	4	6.8%	7.3%	0	0.0%	0.4%	0	0.0%	2.3%	0	0.0%	0.0%	29	49.2%	7.5%	3	5.1%	2.5%
Block 2000, Block Group 2, Census Tract 207, Rock Island County, Illinois	**East Moline**	**47**	28	5	10.6%	7.3%	0	0.0%	0.4%	0	0.0%	2.3%	0	0.0%	0.0%	11	23.4%	7.5%	3	6.4%	2.5%
Block 2004, Block Group 2, Census Tract 207, Rock Island County, Illinois	**East Moline**	**46**	35	0	0.0%	7.3%	0	0.0%	0.4%	0	0.0%	2.3%	0	0.0%	0.0%	11	23.9%	7.5%	0	0.0%	2.5%
Block 1004, Block Group 1, Census Tract 214, Rock Island County, Illinois	**Moline**	**49**	47	0	0.0%	3.1%	0	0.0%	0.2%	0	0.0%	1.4%	0	0.0%	0.0%	0	0.0%	5.1%	2	4.1%	1.8%
Block 1011, Block Group 1, Census Tract 214, Rock Island County, Illinois	**Moline**	**54**	44	3	5.6%	3.1%	0	0.0%	0.2%	0	0.0%	1.4%	0	0.0%	0.0%	7	13.0%	5.1%	0	0.0%	1.8%
Block 1018, Block Group 1, Census Tract 214, Rock Island County, Illinois	**Moline**	**19**	12	0	0.0%	3.1%	0	0.0%	0.2%	0	0.0%	1.4%	0	0.0%	0.0%	6	31.6%	5.1%	1	5.3%	1.8%
Block 1022, Block Group 1, Census Tract 214, Rock Island County, Illinois	**Moline**	**47**	45	1	2.1%	3.1%	0	0.0%	0.2%	0	0.0%	1.4%	0	0.0%	0.0%	0	0.0%	5.1%	1	2.1%	1.8%
Block 1035, Block Group 1, Census Tract 214, Rock Island County, Illinois	**Moline**	**26**	24	1	3.8%	3.1%	0	0.0%	0.2%	0	0.0%	1.4%	0	0.0%	0.0%	1	3.8%	5.1%	0	0.0%	1.8%
Block 1017, Block Group 1, Census Tract 223, Rock Island County, Illinois	**Moline**	**20**	9	3	15.0%	3.1%	0	0.0%	0.2%	1	5.0%	1.4%	0	0.0%	0.0%	5	25.0%	5.1%	2	10.0%	1.8%
Block 2010, Block Group 2, Census Tract 223, Rock Island County, Illinois	**Moline**	**68**	24	2	2.9%	3.1%	0	0.0%	0.2%	0	0.0%	1.4%	0	0.0%	0.0%	42	61.8%	5.1%	0	0.0%	1.8%
Block 2011, Block Group 2, Census Tract 223, Rock Island County, Illinois	**Moline**	**23**	2	0	0.0%	3.1%	0	0.0%	0.2%	0	0.0%	1.4%	0	0.0%	0.0%	19	82.6%	5.1%	2	8.7%	1.8%
Block 2014, Block Group 2, Census Tract 223, Rock Island County, Illinois	**Moline**	**52**	36	1	1.9%	3.1%	0	0.0%	0.2%	0	0.0%	1.4%	0	0.0%	0.0%	11	21.2%	5.1%	4	7.7%	1.8%
Block 2015, Block Group 2, Census Tract 223, Rock Island County, Illinois	**Moline**	**38**	24	1	2.6%	3.1%	0	0.0%	0.2%	0	0.0%	1.4%	0	0.0%	0.0%	13	34.2%	5.1%	0	0.0%	1.8%
Block 2023, Block Group 2, Census Tract 223, Rock Island County, Illinois	**Moline**	**66**	46	0	0.0%	3.1%	0	0.0%	0.2%	0	0.0%	1.4%	0	0.0%	0.0%	19	28.8%	5.1%	1	1.5%	1.8%
Block 2024, Block Group 2, Census Tract 223, Rock Island County, Illinois	**Moline**	**47**	37	1	2.1%	3.1%	0	0.0%	0.2%	0	0.0%	1.4%	0	0.0%	0.0%	9	19.1%	5.1%	0	0.0%	1.8%
Block 1042, Block Group 1, Census Tract 15, Johnson County, Iowa	**Iowa City**	**114**	90	10	8.8%	3.7%	0	0.0%	0.3%	7	6.1%	5.6%	0	0.0%	0.0%	0	0.0%	1.3%	7	6.1%	1.7%
Block 2018, Block Group 2, Census Tract 15, Johnson County, Iowa	**Iowa City**	**42**	41	0	0.0%	3.7%	0	0.0%	0.3%	0	0.0%	5.6%	0	0.0%	0.0%	1	2.4%	1.3%	0	0.0%	1.7%
Block 2022, Block Group 2, Census Tract 15, Johnson County, Iowa	**Iowa City**	**31**	31	0	0.0%	3.7%	0	0.0%	0.3%	0	0.0%	5.6%	0	0.0%	0.0%	0	0.0%	1.3%	0	0.0%	1.7%
Block 1025, Block Group 1, Census Tract 16, Johnson County, Iowa	**Iowa City**	**83**	75	1	1.2%	3.7%	0	0.0%	0.3%	5	6.0%	5.6%	0	0.0%	0.0%	0	0.0%	1.3%	2	2.4%	1.7%
Block 1004, Block Group 1, Census Tract 17, Johnson County, Iowa	**Iowa City**	**27**	27	0	0.0%	3.7%	0	0.0%	0.3%	0	0.0%	5.6%	0	0.0%	0.0%	0	0.0%	1.3%	0	0.0%	1.7%
Block 2002, Block Group 2, Census Tract 17, Johnson County, Iowa	**Iowa City**	**11**	11	0	0.0%	3.7%	0	0.0%	0.3%	0	0.0%	5.6%	0	0.0%	0.0%	0	0.0%	1.3%	0	0.0%	1.7%
Block 3002, Block Group 3, Census Tract 17, Johnson County, Iowa	**Iowa City**	**72**	66	3	4.2%	3.7%	1	1.4%	0.3%	0	0.0%	5.6%	0	0.0%	0.0%	1	1.4%	1.3%	1	1.4%	1.7%

Source: Census 2000 Summary File 1 (SF 1) 100-Percent Data

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APPENDIX C
NOISE AND VIBRATION

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NOISE AND VIBRATION METHODOLOGY

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Noise and Vibration

This section discusses the methodology and potential impacts related to the operational airborne noise and vibrations from the proposed Chicago to Iowa City Project. The noise analysis followed Federal Transit Administration (FTA) guidelines published in “Transit Noise and Vibration Impact Assessment” (May 2006). The FRA published virtually identical guidance for assessing noise and vibration from high speed passenger trains in 2005. The Project team performed a Screening Noise Assessment using aspects of the General Noise Assessment and General Vibration Assessment in accordance with FTA guidelines. Both existing and future rail traffic were evaluated in order to assess the incremental, Project-related effects of airborne noise. Analysis results identified a limited number of potential noise impacts throughout the Project corridor. Noise from horns and wheel-rail interaction (wayside noise) contribute to the projected noise impacts. The methodology used to assess Project-related noise is based on guidance provided by the FRA for use in Tier 1 NEPA review.

1.0 Noise Evaluation Criteria

The FTA and FRA established similar procedures and guidelines for assessing train noise. Train noise is expressed in units of A-weighted decibels (dBA) as a function of time. The time descriptor used in this train noise assessment is the day-night noise level (Ldn). The Ldn can be thought of as a 24-hour average noise level that penalizes noise events that happen at night because most people are more annoyed by noise at nighttime than during the daytime.

This Tier 1 Service-level (programmatic) NEPA noise assessment assessed Project-related noise at land uses where overnight sleep occurs (primarily residences); this is consistent with FRA guidance for Tier 1 Service-level NEPA review. Residences were identified by visual inspection of digital aerial photographs; no windshield surveys were performed. The impact assessment, discussed later in this document, uses the term receptors to refer to land uses where overnight sleep occurs; each noise impact identified later in this report represents a single receptor, or land use where overnight sleep occurs.

This EA also performed a cursory review of land use adjacent to the Project corridors to determine where parks abut the rail lines. Visual inspection of digital aerial photographs and a limited search of the Internet identified a small number of parks immediately adjacent to the rail corridors. There may be other small parks that didn’t get picked up at this screening-level of analysis. Analysis results show that the incremental increase in the distance to the noise impact contour (the point at which noise impacts are no longer predicted to occur) in most instances is less than 20 feet. This small incremental change is nominal at this level of analysis, and impacted parks will be identified using the residential noise impact contours. Therefore the actual noise effect upon parks is minimal because the incremental change in noise is so small. Also, the Project will not introduce a noise source that is unfamiliar in the parks, (for the purposes of this analysis, diesel locomotives are assumed to sound the same). Therefore, this incremental increase does not merit a site-specific discussion of Project-related noise impacts at parks. Refer to Section 3.11, Parks and Federally or State-listed Natural Areas for additional information.

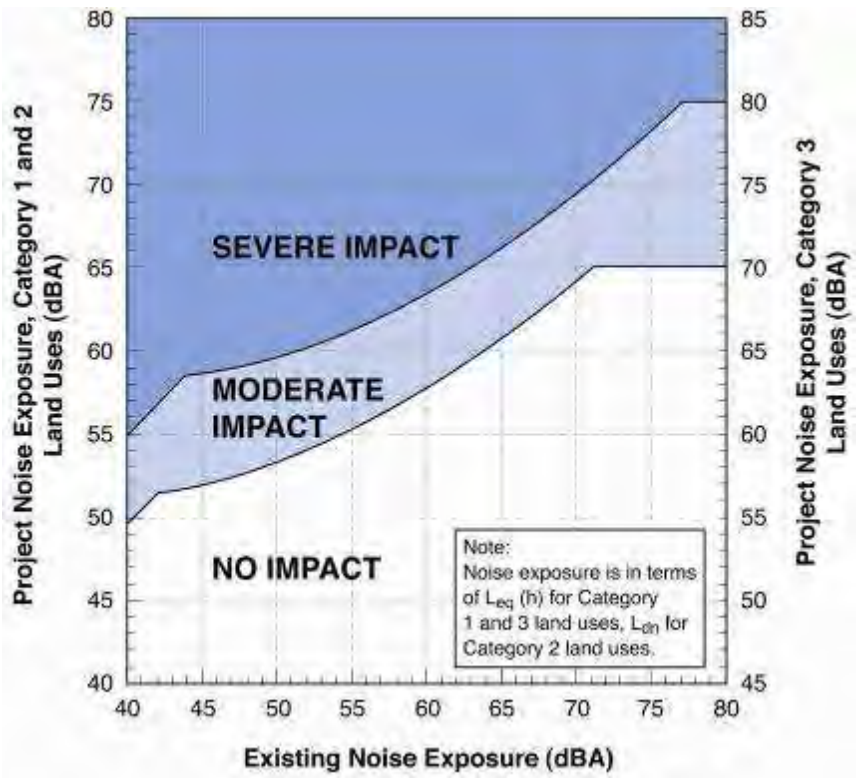
The FTA noise impact criteria (summarized in Figure 1, FTA Noise Impact Criteria) are defined by two curves, representing severe and moderate noise impacts, which are defined below.

Severe Impact. A significant percentage of people are highly annoyed by noise in this range. Noise mitigation would normally be specified for severe impact areas unless it is not feasible or reasonable (unless there is no practical method of mitigating the impact).

Moderate Impact. In this range, other project-specific factors are considered to determine the magnitude of the impact and the need for mitigation. Other factors include the predicted increase over existing noise levels, the types and number of noise-sensitive land uses affected, existing outdoor-indoor sound insulation, and the cost-effectiveness of mitigating noise to more acceptable levels.

The FTA noise impact criteria are summarized in Chart 1 (FTA Noise Impact Criteria) below. The chart illustrates existing noise exposure and project-related noise exposure, and demonstrates that FTA noise impact thresholds vary with existing noise levels. Although the chart below references all three land use categories used by FTA, this analysis focused on Category 2 (land uses where overnight sleep occurs).

Chart 1 FTA Noise Impact Criteria



The first step in the noise assessment is to identify existing noise levels. This assessment used methods published by FTA (2006) to estimate existing noise levels based on factors such as proximity to roadways, highways, and railroads, and also by population density. Per FTA guidance, the highest estimate of existing noise levels produced by these methods was incorporated into this analysis. In accordance with FTA and FRA guidance, this analysis used the existing noise level to identify the noise impact threshold. The noise impact threshold is determined by locating the measured or estimated existing noise level in a table published by FTA and FRA; the table identifies noise impact thresholds corresponding to the existing noise levels. Using the methods described above, this analysis determined an existing noise Ldn of 62 dBA for lands immediately adjacent to the rail line everywhere throughout the Project corridors.

The range of train volume and speeds present in the Project corridors were summarized into a series of eight traffic conditions (A through H), as shown in Table 1. This allowed the corridor to be subdivided into sections with similar train traffic characteristics. A series of “traffic conditions”, or zones, were established throughout the rail line; each traffic condition represents a range of similar rail traffic and surrounding land use (and existing noise levels). Assigning traffic conditions to the Project corridor allowed the corridor to be logically subdivided into sub-sections, simplifying the noise analysis.

Table 1
Summary of Traffic Conditions

Traffic Condition	Trains per Day	No. of Locomotives	No. of Cars	Speed
	Freight Trains			
A	10.0	2.9	125.3	40
B	10.0	2.9	125.3	15
C	18.5	2.6	90.7	60
D	0.0	0.0	0.0	0
E	0.0	0.0	0.0	0
F	36.0	2.6	74.8	37
G	36.0	2.6	74.8	60
H	36.0	2.6	74.8	60
	Passenger Trains			
A	0.0	0.0	0.0	0
B	0.0	0.0	0.0	0
C	7.8	1.5	9.8	60
D	53.7	1.0	12.7	60
E	53.7	1.0	12.7	60
F	89.1	1.0	11.4	37
G	89.1	1.0	11.4	60
H	89.1	1.0	11.4	60
	Future Passenger Trains			
A	4.0	1.0	8.0	79
B	4.0	1.0	8.0	15
C	4.0	1.0	8.0	79
D	4.0	1.0	8.0	60
E	4.0	1.0	8.0	60
F	4.0	1.0	8.0	37
G	4.0	1.0	8.0	70
H	4.0	1.0	8.0	55

In general, Traffic Condition A was defined for the rail sections along Route A from Iowa City to Wyanet (except the vicinity of Moline which was assigned Traffic Condition B), and from Wyanet to Joliet along Route B. Traffic Condition C includes the rail sections from Wyanet to Aurora along Route A. Traffic Condition D was assigned to the sections between Joliet and Englewood along Route B. Traffic Condition E was assigned from Aurora to Chicago along Route A, and from Englewood to Chicago along Route B. Conditions F through H were assigned from Aurora to Chicago along Route A.

The range of development density present throughout the Project corridor was simplified into the three land use categories used in the FRA horn noise model (rural, suburban, and urban). The shielding assumptions used in that model, for each respective land use, were also incorporated into this analysis. A series of “noise conditions” were then created by combining traffic conditions and the three categories of development density. Table 2, below, summarizes the Noise Condition definitions. Figures C-1 through C-3 show the assigned Noise Conditions.

Table 2
Noise Condition Definitions

Noise Condition	Traffic Condition	Development Density
1	A	Rural
2	A	Suburban
3	B	Suburban
4	A	Urban
5	C	Rural
6	C	Suburban
7	D	Urban
8	D	Suburban
9	E	Urban
10	F	Urban
11	G	Urban
12	H	Urban

Assigning noise conditions to the Project corridor allowed the corridor to be logically subdivided into sub-sections with similar rail traffic, building-induced shielding characteristics, existing noise levels, and therefore noise impact thresholds (thus simplifying the noise analysis). The moderate noise impact threshold was 59 dBA and the severe noise impact threshold was 64 dBA, both on an Ldn basis.

The FRA grade crossing database was incorporated in this assessment. It was used to identify the locations of public at-grade rail crossings where locomotive horns are used, and also to identify where quiet zones exist. Based on the FRA database, this analysis assumes that a quiet zone exists between Chicago and Aurora on Alternative A (the northern route). In addition, according to the FRA grade crossing database all crossings appear to be grade-separated between Chicago and Englewood on Alternative B (the southern route). These portions of the Project area comprise much of Noise Condition 9. Therefore, horns are apparently not used on any Noise Condition 9 rail sections, and locomotive horn analyses were not performed for Noise Condition 9.

The FRA locomotive horn noise model does not allow a modeler to model several different trains at the same time, and was therefore not used on this analysis. The horn noise contours were created using methods in the FTA and FRA guidance documents, and incorporating some of the features of the FRA horn noise model (the 1/4-mile horn noise zone distance, and the shielding equations).

1.1 No-Build Alternative

This analysis assumes that train-induced noise does not change anywhere throughout the Project area under the No-Build Alternative.

1.2 Two Round Trip Trains per Day

Both the existing and proposed (two round trip passenger TPD) rail traffic was assessed; this allowed the analysis to identify the incremental increase in train noise effects on residential land uses in the Project area – which is reported in the sections below. This portion of the analysis is based on the proposed addition of two round-trip passenger TPD at 79 mph from Chicago to Iowa City. Existing noise impacts were determined by modeling existing train traffic and plotting the resulting noise impact contour.

1.2.1 Preferred Alternative (Route A – Amtrak-BNSF-IAIS)

Table 3 presents the incremental increase in noise impacts at residential land uses adjacent to the Preferred Alternative. The table presents noise impacts predicted to occur in each municipality along the Preferred Alternative, according to moderate and severe grade crossing and wayside (wheel/rail) noise impacts. The portion of the route unique to Route A is distinguished from the portion of the route that would be the same for Routes A and B. The entire corridor was evaluated; rural areas are listed as unincorporated in the table below.

Table 3
Incremental Increase in Noise Impacts Associated with the Preferred Alternative

Municipality	Moderate		Severe		Total
	Grade Crossing	Wayside	Grade Crossing	Wayside	
Alignment A					
Arlington	1		2		3
Aurora		1			1
Berwyn		3		2	5
Brookfield		3		5	8
Chicago		8		5	13
Clarendon Hills		2		4	6
Downers Grove		6		1	7
Earlville	8		2		10
Hinsdale		2			2
Leland	2		6		8
Lisle		1			1
Malden	1		3		4
Mendota	3	1		1	5

Municipality	Moderate		Severe		Total
	Grade Crossing	Wayside	Grade Crossing	Wayside	
Montgomery	4				4
Naperville		1		1	2
Plano	10		5		15
Princeton	1			1	2
Riverside		13		10	23
Sandwich	10		4	1	15
Somonauk	3	1	1		5
Western Springs		3		3	6
Westmont		4			4
Wyanet	6		1		7
Unincorporated	5	9	5	12	31
Common Section					
Annawan, IL	3		1		4
Atalissa, IA	3		6		9
Atkinson, IL	4				4
Carbon Cliff, IL	1	1			2
Colona, IL	9	2	3	1	15
Davenport, IA	17	15	1	2	35
Durant, IA	9				9
East Moline, IL	39		8	4	51
Geneseo, IL	12		1		13
Green River, IL	1				1
Iowa City, IA	1	6	1	9	17
Mineral, IL	1		3		4
Moline, IL	37	4	6	3	50
Rock Island, IL	2	1	6		9
Sheffield, IL	2				2
Silvis, IL	2				2
Stockton, IA	1	2	3		6
Walcott, IA	7				7
West Liberty, IA	4				4
Wilton, IA	5		1		6
Unincorporated	10	4	6	2	22
Alternative A Totals	**224**	**93**	**75**	**67**	**459**
	317		**142**		

Analysis results show a low incremental increase in noise impacts per mile associated with the Preferred Alternative. The Preferred Alternative is projected to result in: 1.5 new moderate noise impacts per mile; 0.7 new severe noise impacts per mile, and a combined average total of 2.1

noise impacts per mile. On this basis, the incremental increase in train noise is not considered to be significant for this analysis. The table above shows that the distribution of Project-related noise impacts is scattered throughout the Project corridor. Areas with high existing traffic volumes, and quiet zones are expected to experience a minor incremental increase in train noise associated with the Preferred Alternative. Conversely, areas with low existing traffic volumes, slow trains, and fewer or no quiet zones are expected to experience a larger incremental increase in train noise associated with the Preferred Alternative.

Table 3 reflects the trend of a low incremental increase in noise impacts in Chicago where train volumes are already higher than elsewhere in the corridor but much of the area along the Preferred Alternative consists of a quiet zone. Analysis results show that municipalities in the Quad Cities, where train speeds and volumes are low, and quiet zones do not exist, are likely to experience a larger incremental increase in train noise levels and corresponding impacts associated with the Preferred Alternative. The influence of quiet zones on the magnitude of the incremental increase in train noise impacts suggests they represent an opportunity to mitigate many of the predicted train noise impacts.

1.2.1.1 Route B Alternative (AMTRAK-CN-METRA/ROCK ISLAND DISTRICT-CSXT-IAIS)

Table 4 presents the incremental increase in noise impacts at residential land uses adjacent to the Route B Alternative. The table presents noise impacts predicted to occur in each municipality along the Route B Alternative, and sorts the impacts in to moderate and severe grade crossing and wayside (wheel/rail) noise impacts. The portion of the route unique to Route B is distinguished from the portion of the route that would be the same for Routes A and B. The number of moderate and severe noise impacts in unincorporated, rural areas is also quite low due to the low density of development in these areas.

Table 4
Incremental Increase in Noise Impacts Associated with the Route B Alternative

Municipality	Moderate		Severe		Total
	Grade Crossing	Wayside	Grade Crossing	Wayside	
Alignment B					
Blue Island	5	4	1	1	11
Bureau Junction	5		5		10
Chicago	12	12	13	11	48
De Pue	4				4
Joliet	2	2	2		6
La Salle	2	2			4
Marseilles	18	4	4	4	30
Midlothian	2	1			3
Minooka	12				12
Mokena	5		1	1	7
Morris	10				10
New Lenox	1		1		2
North Utica	5		2		7
Oak Forest		5		1	6

Municipality	Moderate		Severe		Total
	Grade Crossing	Wayside	Grade Crossing	Wayside	
Ottawa	6		2		8
Peru	2				2
Rockdale	1				1
Seneca	2				2
Spring Valley				1	1
Tinley Park	1		1		2
Tiskilwa	2	1			3
Unincorporated	1	3	5		9
Common Section					
Annawan, IL	3		1		4
Atalissa, IA	3		6		9
Atkinson, IL	4				4
Carbon Cliff, IL	1	1			2
Colona, IL	9	2	3	1	15
Davenport, IA	17	15	1	2	35
Durant, IA	9				9
East Moline, IL	39		8	4	51
Geneseo, IL	12		1		13
Green River, IL	1				1
Iowa City, IA	1	6	1	9	17
Mineral, IL	1		3		4
Moline, IL	37	4	6	3	50
Rock Island, IL	2	1	6		9
Sheffield, IL	2				2
Silvis, IL	2				2
Stockton, IA	1	2	3		6
Walcott, IA	7				7
West Liberty, IA	4				4
Wilton, IA	5		1		6
Unincorporated	10	4	6	2	22
Alternative B Totals	**268**	**69**	**83**	**40**	**460**
	337		**123**		

The Route B Alternative is projected to result in: 1.4 new moderate noise impacts per mile; 0.5 new severe noise impacts per mile, and a combined total of 2.0 noise impacts per mile. On this basis, the incremental increase in train noise is not considered to be significant for this analysis. The table above shows that the distribution of Project-related noise impacts is also scattered throughout the Project corridor. Unlike the Preferred Alternative, the Route B alternative does not contain a quiet zone in the Chicago metro area. As a result, train noise impacts are

predicted to be higher along this alternative. Consistent with the Preferred Alternative, areas with low existing traffic volumes, slow trains, and no quiet zones are also expected to experience a larger incremental increase in train noise associated with the Route B Alternative.

Table 4 also reflects the trend of high incremental increase in noise impacts in Chicago and in the Quad Cities. The number of noise impacts in unincorporated, rural areas is comparable to the Preferred Alternative. The absence of quiet zones on the Route B Alternative and its influence on the magnitude of the incremental increase in train noise impacts also suggests that they represent an opportunity to mitigate many of the predicted train noise impacts.

1.2.2 Five Round-Trip Trains Per Day

The MWRRI envisions five round-trip trains per day (TPD) – at 90 mph, from Chicago to Wyanet, Illinois; and 79 mph from Wyanet to Iowa City, Iowa. This level of increased train activity was assessed in this Tier 1 Service-level (programmatic) NEPA review to help inform the reader of the likely potential impacts from the complete implementation of the MWRRI vision. (A separate NEPA analysis would be required prior to increasing the train numbers and speeds.)

Five round-trip TPD were evaluate using the same methods and modeling approach as described in the previous section, but with increased future passenger train traffic. Table 5 presents a simple comparison of noise contour distances under each of the ranges of rail traffic.

Table 5
Impact Threshold Contour Distances

Noise Condition	Existing Moderate Impact	4-TPD Moderate Impact	10-TPD Moderate Impact	Existing Severe Impact	4-TPD Severe Impact	10-TPD Severe Impact
Wayside Contour Distances (ft)						
1	*274*	*295*	324	*126*	*136*	*149*
2	200	212	229	*126*	*136*	*149*
3	264	296	336	*179*	207	245
4	183	194	210	126	136	149
5	391	408	*432*	*180*	*188*	*199*
6	266	275	287	*180*	*188*	*199*
7	203	210	203	*104*	*108*	*104*
8	222	229	222	143	149	143
9	203	210	203	104	108	104
10	281	286	281	149	152	149
11	256	261	256	134	137	134
12	256	261	256	134	137	134
Grade Crossing Contour Distances (ft)						
1	*377*	*404*	441	*258*	*285*	*323*
2	349	375	410	*200*	*206*	*229*
3	504	570	647	*291*	336	391

Noise Condition	Existing Moderate Impact	4-TPD Moderate Impact	10-TPD Moderate Impact	Existing Severe Impact	4-TPD Severe Impact	10-TPD Severe Impact
4	323	348	381	174	189	210
5	436	458	*483*	*318*	*342*	*371*
6	405	426	450	*225*	*239*	*255*
7	505	520	505	*291*	*301*	*291*
8	541	556	541	316	326	316
9	505	520	505	291	301	291
10	720	731	720	444	452	444
11	613	621	613	366	372	366
12	613	624	613	366	374	366

Note: Italicized contour distances do not include a shielding correction because the corrected distance is less than the FRA-assumed threshold distance for applying shielding in areas with the specified density of development. TPD means trains per day.

The table above shows that the incremental increase in noise impact contour distances associated with the five round trip TPD scenario is greatest in noise condition 3 areas where train speeds are slow and development density and shielding is classified as suburban. The incremental increase in noise impact contours is least in noise condition 9 areas where development density is high and train volumes are high.

1.2.3 Noise Mitigation Opportunities

As shown above, the presence or absence of quiet zones has a large effect on the predicted number of train noise impacts. Locomotive horn use at public-at grade crossings causes the majority of the predicted noise impacts. Therefore, minimizing locomotive horn use in the Project area represents the greatest opportunity to mitigate potential Project-related noise impacts. The Project would upgrade some electronic circuitry due to installation of constant time circuitry (warning lights) at public at-grade roadway-rail crossings. In effect, the Project would install the electronic infrastructure for quiet zones. Municipalities predicted to experience an increase in train noise impacts can chose to initiate the process of developing quiet zones, and to take advantage of the infrastructure provided by the proposed Project. The largest concentration of anticipated noise impacts would be in the Quad Cities region. The following additional receptors would be impacted under either alternative route: 56 in East Moline, 58 in Moline, 10 in Rock Island, and 36 in Davenport. The increase in receptors would be primarily due to the slow speed of the existing track configuration through the Quad Cities area. Colona, IL would also see an additional 20 receptors impacted primarily due to the slow current track speed at the crossing of the IAIS and the BNSF rail lines.

However, track improvements would be made in both the Quad Cities and in Colona to improve the fluidity of the passenger trains and to increase the passenger rail speed through the communities. In the Quad Cities, track signals would be improved through East Moline, Moline, Rock Island and Davenport to allow for an increase in passenger train speeds from the current 10 to 15 mph constraint to 40 mph. In addition, a passenger train by-pass of the Rock Island yard would be constructed to reduce the delays to the passenger trains through the yard. In Colona, the crossing of the BNSF and IAIS rail lines would be reconstructed to increase the track speed on the IAIS from the current 10 mph to 40 mph. These improvements in the Quad

Cities and Colona would also improve the speed for the current freight trains. The speed increases would reduce the number of noise receptors that would be impacted because the duration of a locomotive horn use (pass-by) event would be shorter.

2.0 Ground-borne Vibration

This section summarizes potential ground-borne vibration (GBV) impacts associated with the proposed Project. The General Vibration Assessment described here was prepared in accordance with Federal Transit Administration (FTA) guidelines ("Transit Noise and Vibration Impact Assessment," May 2006); FRA has very similar vibration assessment methods. The purpose of this assessment is to determine the number of potential ground-borne vibration (GBV) impacts associated with the proposed Project at vibration-sensitive land uses (receptors) throughout the Project corridor.

Existing and future rail traffic scenarios were analyzed, and the incremental increase in ground-borne vibration associated with the proposed Project was identified.

2.6 Human Response and Perception of Vibration Levels

GBV can be a serious concern for residents or at facilities that are vibration-sensitive, such as laboratories or recording studios. The effects of GBV include perceptible movement of building floors, interference with vibration sensitive instruments, rattling of windows, shaking of items on shelves or hanging on walls, and rumbling sounds.

Vibration consists of rapidly fluctuating motions. However, human response to vibration is a function of the average motion over a longer (but still short) time period, such as one second. The root mean square (RMS) amplitude of a motion over a one second period is commonly used to predict human response to vibration. For convenience, decibel notation is used to describe vibration relative to a reference level. In this section, vibration decibels (VdB) relative to a reference of 10^{-6} inches per second (1 µin/sec) are used.

In contrast to airborne noise, GBV is not a phenomenon that most people experience every day. The background vibration level in residential areas is usually 50 VdB or lower—well below the threshold of perception for humans, which is around 65 VdB. Levels at which vibration interferes with sensitive instrumentation such as nuclear magnetic resonance (NMR) equipment and other optical instrumentation can be much lower than the threshold of human perception. Most perceptible indoor vibration is caused by sources within a building such as the operation of mechanical equipment, movement of people, or slamming of doors. Typical outdoor sources of perceptible GBV are construction equipment, steel-wheeled trains, and traffic on rough roads.

Vibration as it relates to railway movements is generally caused by uneven interactions between the wheels of the train and the railway surfaces. Examples of this include wheels rolling over rail joints and flat spots on wheels that are not true. These uneven interactions result in vibration that travels through the adjacent ground. This vibration can range from barely perceptible to very disruptive. Consistent with other FRA Tier 1 Service-level NEPA vibration assessments, ground-borne noise was not evaluated in this analysis.

2.6.1 FTA Vibration Criteria

The FTA recognizes three land use categories for assessing general vibration impacts.

Land Use Category 1 – High Vibration Sensitivity: This category includes buildings where low ambient vibration is essential for operations within the building that may be well below levels associated with human annoyance. Typical Category 1 land uses include vibration-sensitive research and manufacturing facilities, hospitals, and university research operations. Category 1 also includes special land uses, such as concert halls, television and recording studios, and theaters, which can be very sensitive to vibration and ground-borne noise. The FTA has developed special vibration levels for these land uses.

Land Use Category 2 – Residential: This category includes all residential land uses and any building where people sleep, such as hotels and hospitals.

Land Use Category 3 – Institutional: This category includes schools, churches, other institutions, and quiet offices that do not have vibration-sensitive equipment, but still have the potential for activity interference.

The criteria for GBV used in this assessment are shown in Table 6.

Table 6
Ground-Borne Vibration Impact Criteria

Land Use Category	Ground-Borne Vibration Impact Levels (VdB re 1 micro inch/sec)		
	Frequent Events[1]	Occasional Events[2]	Infrequent Events[3]
Category 2: Residences and buildings where people normally sleep.	72 VdB	75 VdB	80 VdB

Source: FTA, "Transit Noise and Vibration Impact Assessment" (May 2006) (FTA-VA-90-1103-06), page 8-3.
Notes:
[1] *"Frequent Events" is defined as more than 70 vibration events per day. Most rapid transit projects fall into this category.*
[2] *"Occasional Events" is defined as between 30 and 70 vibration events of the same source per day. Most commuter trunk lines have this many operations.*
[3] *"Infrequent Events" is defined as fewer than 30 vibration events per day. This category includes most commuter rail branch lines.*
[4] *This criterion limit is based on levels that are acceptable for most moderately sensitive equipment such as optical microscopes. Vibration-sensitive manufacturing or research would require detailed evaluation to define the acceptable vibration levels. Ensuring lower vibration levels in a building often requires special design of the HVAC systems and stiffened floors.*

Table 6 includes impact criteria for all three event frequencies defined by FTA. Based on the daily train counts for the current and anticipated rail usage, and the number of locomotives per train, the number of vibration events may range from less than 30 (infrequent) to over 70 (frequent) events per day depending on location. FTA recommends, however, that the frequent-event criterion be applied for line-haul freight trains because of the lengthy vibration event caused by the rail cars. Since both Routes A and B contain qualifying line-haul freight traffic, the frequent-event criterion is applied in this assessment. The frequent-event criterion represents the most conservative case.

2.6.2 Methodology

A General Vibration Assessment was performed in accordance with the FTA guidance document (2006). Only GBV was evaluated. For purposes of this assessment ground-borne noise, (which is different than both air-borne noise and ground-borne vibration, and can be

estimated using FTA/FRA methods),was not addressed; this is consistent with vibration analyses performed for FRA on other Tier 1 service-level HSIPR projects. Both existing and proposed (future) operations were evaluated to assess the potential vibration impact along Routes A and B. The future use scenario includes passenger trains moving at 79 miles per hour (mph), along with existing freight train traffic, on welded track. A potential 90 mph passenger train scenario on Route A was partially analyzed for a future 5 train/day scenario, and potential impact distances are provided for comparison purposes

The assessment began with a data gathering task and construction of a geographic information system (GIS) for the Project. The railroad alignments, surface geology, aerial photography, and train traffic data (number of locomotives and rail cars per train) were among the critical information gathered. Geology sources included GIS data and maps available at the Iowa Geological Survey and Illinois State Geological Survey websites. Train traffic data were compiled during the noise assessment. The traffic conditions developed for use in the noise assessment documented in the first part of this section were also applied in the vibration analysis. The traffic conditions, described in Table 7, refer to sections of rail which have specific combinations of train speed and frequency (although for the vibration assessment the frequent-event criterion is assumed). The frequent event vibration impact threshold is lower than the infrequent event vibration impact threshold. This adds an element of conservatism to the analysis.

Table 7
Traffic Conditions

Traffic Condition	Location	Speed (mph)	
		Existing	Future
A	Aurora; Wyanet to Moline; Moline to Iowa City	40	79
B	Moline	15	15
C	Aurora to Wyanet	60	79
D	Englewood to Joliet	60	60
E	Chicago to Englewood	60	60
F	Chicago to West Side	37	37
G	West Side to Eola	60	70
H	Eola to Aurora	60	55

Once the necessary datasets had been gathered, the vibration impacts for existing and future scenarios were analyzed. The generalized ground surface vibration curves (Figure 10-1 in the FTA guidance document) provide the distance from track centerline within which potential receptors (impacts) should be counted at various vibration decibel (VdB) levels. In order to determine the distance to potential impacts at Category 2 thresholds, the generalized (reference) ground surface vibration curve needs to be adjusted to more accurately fit the actual conditions.

The ground-borne vibration reference curve most applicable to this Project assumes a locomotive-powered passenger or freight train traveling at 50 mph on CWR, over soil that is inefficient at transmitting vibration. Given the actual geologic conditions and the current and future train speeds, adjustments for geology and train speed were needed. (Note: it is assumed that all existing jointed track would be replaced with CWR.) The surface geology of the area generally consists of a mixture of silt, sand, gravel, and floodplain sediments, all of which are assumed to be non-efficient at transmitting vibration for this assessment, and glacial till, which is

assumed to be a stiff clay and efficient at transmitting vibration. The approximate linear extent of efficient and non-efficient soil that each traffic condition section transects was calculated and a weighted average vibration decibel (VdB) adjustment applied to the section. The reference vibration curve adjustment factors for existing use, future 79 mph, and future 90 mph scenarios are provided in Tables 8 through 10, respectively. The 90 mph scenario applies only to the five round trip TPD option.

The information contained in Tables 8 through 10, on the following pages, was used to adjust the ground surface vibration reference curve and determine an appropriate estimate of vibration levels for this Project. The new ground-borne vibration curves, based on the adjustment factors, are shown in Charts 2 through 4, which follow. The distance to the ground-borne vibration impact contour was established using Charts 2 through 4.

Table 8
Reference Vibration Curve Adjustment Factors (Existing Use)

Reference Curve Assumptions:			
Vehicle Type:	Locomotive Powered Passenger or Freight		
Speed (mph):	50		
Track:	Continuously Welded Rail (CWR)		
Geology:	Normal soil, inefficient at transmitting vibration		
Traffic Condition A (Aurora; Wyanet to East Moline; Moline to Iowa City):			
Train Type:	Locomotive Powered Freight		
Speed (mph):	40		
Track:	CWR (same as reference case)		
Geology:	Till	303,853	Linear Ft
	Sand/Gravel/Sed	659,853	Linear Ft
	Total	963,706	Linear Ft
Reference Curve Adjustment Factors:			
Increased Speed:	**-1.9**	**dB, calc. per FTA guidance**	
Track:	**0**	**dB**	
Geology:	10	dB, for till (efficient soil)	
	0	dB, for sand/gravel/sediment (inefficient soil)	
	3.2	**dB, weighted average over section**	
Total Adjustments:	**1.2**	**dB**	
Traffic Condition B (East Moline to Moline):			
Train Type:	Locomotive Powered Freight		
Speed (mph):	15		
Track:	CWR (same as reference case)		
Geology:	Till	38,554	Linear Ft
	Sand/Gravel/Sed	28,805	Linear Ft
	Total	67,359	Linear Ft
Reference Curve Adjustment Factors:			
Increased Speed:	**-10.5**	**dB, calc. per FTA guidance**	
Track:	**0**	**dB**	
Geology:	10	dB, for till (efficient soil)	
	0	dB, for sand/gravel/sediment (inefficient soil)	
	5.7	**dB, weighted average over section**	
Total Adjustments:	**-4.7**	**dB**	
Traffic Condition C (Aurora to Wyanet):			
Train Type:	Locomotive Powered Freight and Passenger		
Speed (mph):	60		
Track:	CWR (same as reference case)		
Geology:	Till	89,277	Linear Ft
	Sand/Gravel/Sed	246,281	Linear Ft
	Total	335,558	Linear Ft
Reference Curve Adjustment Factors:			
Increased Speed:	**1.6**	**dB, calc. per FTA guidance**	
Track:	**0**	**dB**	
Geology:	10	dB, for till (efficient soil)	
	0	dB, for sand/gravel/sediment (inefficient soil)	
	2.7	**dB, weighted average over section**	
Total Adjustments:	**4.2**	**dB**	

Traffic Condition D (Englewood to Joliet):			
Train Type:	Locomotive Powered Passenger		
Speed (mph):	60		
Track:	CWR (same as reference case)		
Geology:	Till	146,328	Linear Ft
	Sand/Gravel/Sed	21,454	Linear Ft
	Total	167,782	Linear Ft
Reference Curve Adjustment Factors:			
Increased Speed:	**1.6**	**dB, calc. per FTA guidance**	
Track:	**0**	**dB**	
Geology:	10	dB, for till (efficient soil)	
	0	dB, for sand/gravel/sediment (inefficient soil)	
	8.7	**dB, weighted average over section**	
Total Adjustments:	**10.3**	**dB**	
Traffic Condition E (Chicago to Englewood):			
Train Type:	Locomotive Powered Freight and Passenger		
Speed (mph):	60		
Track:	CWR (same as reference case)		
Geology:	Till	24,628	Linear Ft
	Sand/Gravel/Sed	2,883	Linear Ft
	Total	27,511	Linear Ft
Reference Curve Adjustment Factors:			
Increased Speed:	**1.6**	**dB, calc. per FTA guidance**	
Track:	**0**	**dB**	
Geology:	10	dB, for till (efficient soil)	
	0	dB, for sand/gravel/sediment (inefficient soil)	
	9.0	**dB, weighted average over section**	
Total Adjustments:	**10.5**	**dB**	
Traffic Condition F (Chicago to West Side):			
Train Type:	Locomotive Powered Freight and Passenger		
Speed (mph):	37		
Track:	CWR (same as reference case)		
Geology:	Till	21,120	Linear Ft
	Sand/Gravel/Sed	0	Linear Ft
	Total	21,120	Linear Ft
Reference Curve Adjustment Factors:			
Increased Speed:	**-2.6**	**dB, calc. per FTA guidance**	
Track:	**0**	**dB**	
Geology:	10	dB, for till (efficient soil)	
	0	dB, for sand/gravel/sediment (inefficient soil)	
	10.0	**dB, weighted average over section**	
Total Adjustments:	**7.4**	**dB**	

Traffic Condition G (West Side to Eola):			
Train Type:	Locomotive Powered Freight and Passenger		
Speed (mph):	60		
Track:	CWR (same as reference case)		
Geology:	Till	125,101	Linear Ft
	Sand/Gravel/Sed	38,579	Linear Ft
	Total	163,680	Linear Ft
Reference Curve Adjustment Factors:			
Increased Speed:	**1.6**	**dB, calc. per FTA guidance**	
Track:	**0**	**dB**	
Geology:	10	dB, for till (efficient soil)	
	0	dB, for sand/gravel/sediment (inefficient soil)	
	7.6	**dB, weighted average over section**	
Total Adjustments:	**9.2**	**dB**	
Traffic Condition H (Eola to Aurora):			
Train Type:	Locomotive Powered Freight and Passenger		
Speed (mph):	60		
Track:	CWR (same as reference case)		
Geology:	Till	16,368	Linear Ft
	Sand/Gravel/Sed	0	Linear Ft
	Total	16,368	Linear Ft
Reference Curve Adjustment Factors:			
Increased Speed:	**1.6**	**dB, calc. per FTA guidance**	
Track:	**0**	**dB**	
Geology:	10	dB, for till (efficient soil)	
	0	dB, for sand/gravel/sediment (inefficient soil)	
	10.0	**dB, weighted average over section**	
Total Adjustments:	**11.6**	**dB**	

Table 9
Reference Vibration Curve Adjustment Factors (Future 79 mph Use)

Reference Curve Assumptions:			
Vehicle Type:	Locomotive Powered Passenger or Freight		
Speed (mph):	50		
Track:	Continuously Welded Rail (CWR)		
Geology:	Normal soil, inefficient at transmitting vibration		
Traffic Condition A (Aurora; Wyanet to East Moline; Moline to Iowa City):			
Train Type:	Locomotive Powered Freight and Passenger		
Speed (mph):	79		
Track:	CWR (same as reference case)		
Geology:	Till	303,853	Linear Ft
	Sand/Gravel/Sed	659,853	Linear Ft
	Total	963,706	Linear Ft
Reference Curve Adjustment Factors:			
Increased Speed:	**4.0**	**dB, calc. per FTA guidance**	
Track:	**0**	**dB**	
Geology:	10	dB, for till (efficient soil)	
	0	dB, for sand/gravel/sediment (inefficient soil)	
	3.2	**dB, weighted average over section**	
Total Adjustments:	**7.1**	**dB**	
Traffic Condition B (East Moline to Moline):			
Train Type:	Locomotive Powered Freight and Passenger		
Speed (mph):	15		
Track:	CWR (same as reference case)		
Geology:	Till	38,554	Linear Ft
	Sand/Gravel/Sed	28,805	Linear Ft
	Total	67,359	Linear Ft
Reference Curve Adjustment Factors:			
Increased Speed:	**-10.5**	**dB, calc. per FTA guidance**	
Track:	**0**	**dB**	
Geology:	10	dB, for till (efficient soil)	
	0	dB, for sand/gravel/sediment (inefficient soil)	
	5.7	**dB, weighted average over section**	
Total Adjustments:	**-4.7**	**dB**	
Traffic Condition C (Aurora to Wyanet):			
Train Type:	Locomotive Powered Freight and Passenger		
Speed (mph):	79		
Track:	CWR (same as reference case)		
Geology:	Till	89,277	Linear Ft
	Sand/Gravel/Sed	246,281	Linear Ft
	Total	335,558	Linear Ft
Reference Curve Adjustment Factors:			
Increased Speed:	**4.0**	**dB, calc. per FTA guidance**	
Track:	**0**	**dB**	
Geology:	10	dB, for till (efficient soil)	
	0	dB, for sand/gravel/sediment (inefficient soil)	
	2.7	**dB, weighted average over section**	
Total Adjustments:	**6.6**	**dB**	

Traffic Condition D (Englewood to Joliet):

Train Type:	Locomotive Powered Freight and Passenger		
Speed (mph):	60		
Track:	CWR (same as reference case)		
Geology:	Till	146,328	Linear Ft
	Sand/Gravel/Sed	21,454	Linear Ft
	Total	167,782	Linear Ft

Reference Curve Adjustment Factors:

Increased Speed:	**1.6**	**dB, calc. per FTA guidance**
Track:	**0**	**dB**
Geology:	10	dB, for till (efficient soil)
	0	dB, for sand/gravel/sediment (inefficient soil)
	8.7	**dB, weighted average over section**
Total Adjustments:	**10.3**	**dB**

Traffic Condition E (Chicago to Englewood):

Train Type:	Locomotive Powered Freight and Passenger		
Speed (mph):	60		
Track:	CWR (same as reference case)		
Geology:	Till	24,628	Linear Ft
	Sand/Gravel/Sed	2,883	Linear Ft
	Total	27,511	Linear Ft

Reference Curve Adjustment Factors:

Increased Speed:	**1.6**	**dB, calc. per FTA guidance**
Track:	**0**	**dB**
Geology:	10	dB, for till (efficient soil)
	0	dB, for sand/gravel/sediment (inefficient soil)
	9.0	**dB, weighted average over section**
Total Adjustments:	**10.5**	**dB**

Traffic Condition F (Chicago to West Side):

Train Type:	Locomotive Powered Freight and Passenger		
Speed (mph):	37		
Track:	CWR (same as reference case)		
Geology:	Till	21,120	Linear Ft
	Sand/Gravel/Sed	0	Linear Ft
	Total	21,120	Linear Ft

Reference Curve Adjustment Factors:

Increased Speed:	**-2.6**	**dB, calc. per FTA guidance**
Track:	**0**	**dB**
Geology:	10	dB, for till (efficient soil)
	0	dB, for sand/gravel/sediment (inefficient soil)
	10.0	**dB, weighted average over section**
Total Adjustments:	**7.4**	**dB**

Traffic Condition G (West Side to Eola):			
Train Type:	Locomotive Powered Freight and Passenger		
Speed (mph):	70		
Track:	CWR (same as reference case)		
Geology:	Till	125,101	Linear Ft
	Sand/Gravel/Sed	38,579	Linear Ft
	Total	163,680	Linear Ft
Reference Curve Adjustment Factors:			
Increased Speed:	**2.9**	**dB, calc. per FTA guidance**	
Track:	**0**	**dB**	
Geology:	10	dB, for till (efficient soil)	
	0	dB, for sand/gravel/sediment (inefficient soil)	
	7.6	**dB, weighted average over section**	
Total Adjustments:	**10.6**	**dB**	
Traffic Condition H (Eola to Aurora):			
Train Type:	Locomotive Powered Freight and Passenger		
Speed (mph):	55		
Track:	CWR (same as reference case)		
Geology:	Till	16,368	Linear Ft
	Sand/Gravel/Sed	0	Linear Ft
	Total	16,368	Linear Ft
Reference Curve Adjustment Factors:			
Increased Speed:	**0.8**	**dB, calc. per FTA guidance**	
Track:	**0**	**dB**	
Geology:	10	dB, for till (efficient soil)	
	0	dB, for sand/gravel/sediment (inefficient soil)	
	10.0	**dB, weighted average over section**	
Total Adjustments:	**10.8**	**dB**	

Table 10
Reference Vibration Curve Adjustment Factors (Future 90 mph Use)

Reference Curve Assumptions:			
Vehicle Type:	Locomotive Powered Passenger or Freight		
Speed (mph):	50		
Track:	Continuously Welded Rail (CWR)		
Geology:	Normal soil, inefficient at transmitting vibration		
Traffic Condition A (Aurora; Wyanet to East Moline; Moline to Iowa City):			
Train Type:	Locomotive Powered Freight and Passenger		
Speed (mph):	90		
Track:	CWR (same as reference case)		
Geology:	Till	303,853	Linear Ft
	Sand/Gravel/Sed	659,853	Linear Ft
	Total	963,706	Linear Ft
Reference Curve Adjustment Factors:			
Increased Speed:	**5.1**	**dB, calc. per FTA guidance**	
Track:	**0**	**dB**	
Geology:	10	dB, for till (efficient soil)	
	0	dB, for sand/gravel/sediment (inefficient soil)	
	3.2	**dB, weighted average over section**	
Total Adjustments:	**8.3**	**dB**	
Traffic Condition B (East Moline to Moline):			
Train Type:	Locomotive Powered Freight and Passenger		
Speed (mph):	15		
Track:	CWR (same as reference case)		
Geology:	Till	38,554	Linear Ft
	Sand/Gravel/Sed	28,805	Linear Ft
	Total	67,359	Linear Ft
Reference Curve Adjustment Factors:			
Increased Speed:	**-10.5**	**dB, calc. per FTA guidance**	
Track:	**0**	**dB**	
Geology:	10	dB, for till (efficient soil)	
	0	dB, for sand/gravel/sediment (inefficient soil)	
	5.7	**dB, weighted average over section**	
Total Adjustments:	**-4.7**	**dB**	
Traffic Condition C (Aurora to Wyanet):			
Train Type:	Locomotive Powered Freight and Passenger		
Speed (mph):	90		
Track:	CWR (same as reference case)		
Geology:	Till	89,277	Linear Ft
	Sand/Gravel/Sed	246,281	Linear Ft
	Total	335,558	Linear Ft
Reference Curve Adjustment Factors:			
Increased Speed:	**5.1**	**dB, calc. per FTA guidance**	
Track:	**0**	**dB**	
Geology:	10	dB, for till (efficient soil)	
	0	dB, for sand/gravel/sediment (inefficient soil)	
	2.7	**dB, weighted average over section**	
Total Adjustments:	**7.8**	**dB**	

Traffic Condition D (Englewood to Joliet):

Train Type:	Locomotive Powered Freight and Passenger		
Speed (mph):	90		
Track:	CWR (same as reference case)		
Geology:	Till	146,328	Linear Ft
	Sand/Gravel/Sed	21,454	Linear Ft
	Total	167,782	Linear Ft

Reference Curve Adjustment Factors:

Increased Speed:	**5.1**	**dB, calc. per FTA guidance**
Track:	**0**	**dB**
Geology:	10	dB, for till (efficient soil)
	0	dB, for sand/gravel/sediment (inefficient soil)
	8.7	**dB, weighted average over section**
Total Adjustments:	**13.8**	**dB**

Traffic Condition E (Chicago to Englewood):

Train Type:	Locomotive Powered Freight and Passenger		
Speed (mph):	90		
Track:	CWR (same as reference case)		
Geology:	Till	24,628	Linear Ft
	Sand/Gravel/Sed	2,883	Linear Ft
	Total	27,511	Linear Ft

Reference Curve Adjustment Factors:

Increased Speed:	**5.1**	**dB, calc. per FTA guidance**
Track:	**0**	**dB**
Geology:	10	dB, for till (efficient soil)
	0	dB, for sand/gravel/sediment (inefficient soil)
	9.0	**dB, weighted average over section**
Total Adjustments:	**14.1**	**dB**

Traffic Condition F (Chicago to West Side):

Train Type:	Locomotive Powered Freight and Passenger		
Speed (mph):	37		
Track:	CWR (same as reference case)		
Geology:	Till	21,120	Linear Ft
	Sand/Gravel/Sed	0	Linear Ft
	Total	21,120	Linear Ft

Reference Curve Adjustment Factors:

Increased Speed:	**-2.6**	**dB, calc. per FTA guidance**
Track:	**0**	**dB**
Geology:	10	dB, for till (efficient soil)
	0	dB, for sand/gravel/sediment (inefficient soil)
	10.0	**dB, weighted average over section**
Total Adjustments:	**7.4**	**dB**

Traffic Condition G (West Side to Eola):			
Train Type:	Locomotive Powered Freight and Passenger		
Speed (mph):	90		
Track:	CWR (same as reference case)		
Geology:	Till	125,101	Linear Ft
	Sand/Gravel/Sed	38,579	Linear Ft
	Total	163,680	Linear Ft
Reference Curve Adjustment Factors:			
Increased Speed:	**5.1**	**dB, calc. per FTA guidance**	
Track:	**0**	**dB**	
Geology:	10	dB, for till (efficient soil)	
	0	dB, for sand/gravel/sediment (inefficient soil)	
	7.6	**dB, weighted average over section**	
Total Adjustments:	**12.7**	**dB**	
Traffic Condition H (Eola to Aurora):			
Train Type:	Locomotive Powered Freight and Passenger		
Speed (mph):	90		
Track:	CWR (same as reference case)		
Geology:	Till	16,368	Linear Ft
	Sand/Gravel/Sed	0	Linear Ft
	Total	16,368	Linear Ft
Reference Curve Adjustment Factors:			
Increased Speed:	**5.1**	**dB, calc. per FTA guidance**	
Track:	**0**	**dB**	
Geology:	10	dB, for till (efficient soil)	
	0	dB, for sand/gravel/sediment (inefficient soil)	
	10.0	**dB, weighted average over section**	
Total Adjustments:	**15.1**	**dB**	

Chart 2
Ground Surface Vibration Curves - Existing Use

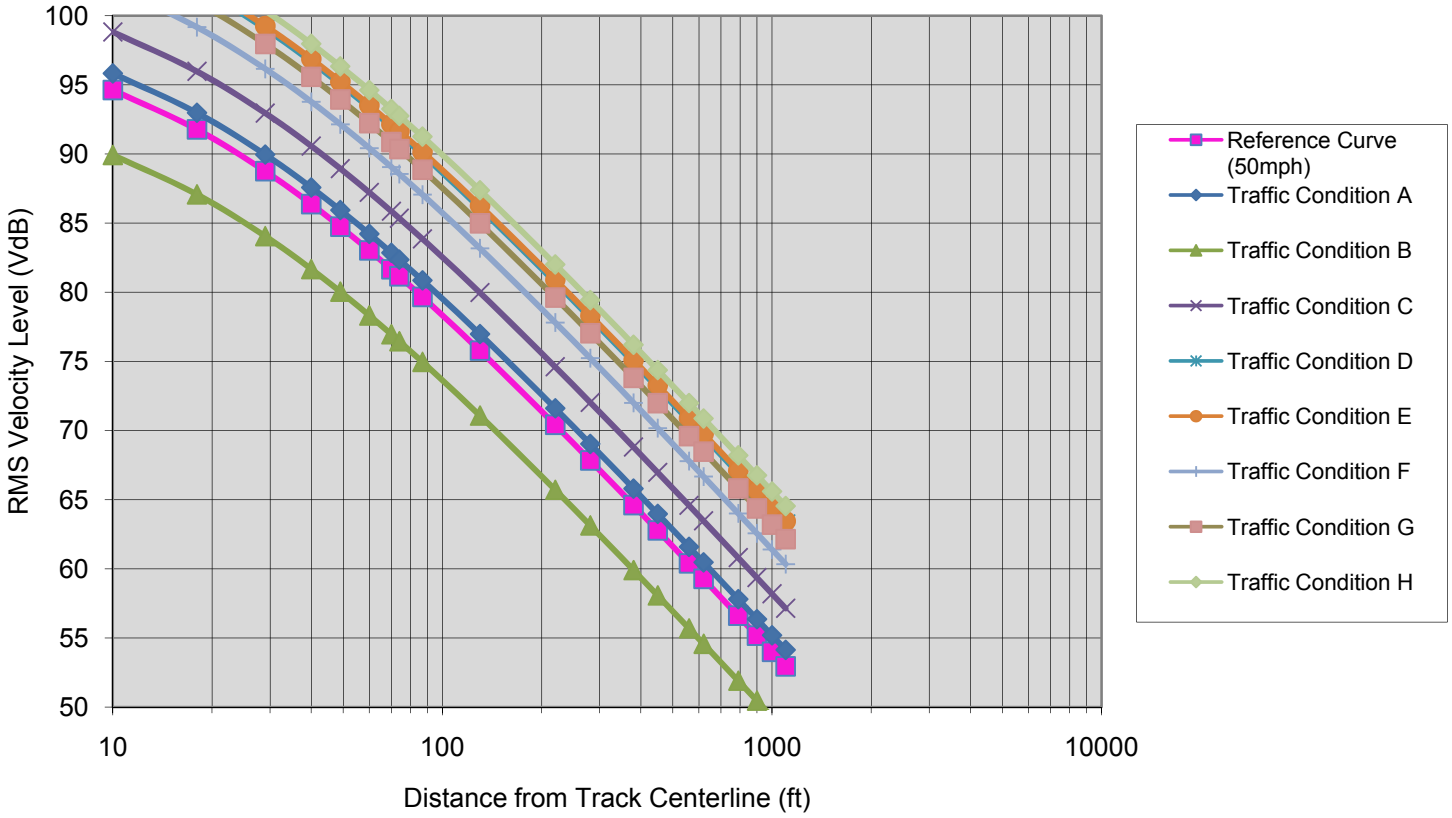


Chart 3
Ground Surface Vibration Curves - Future 79mph Use

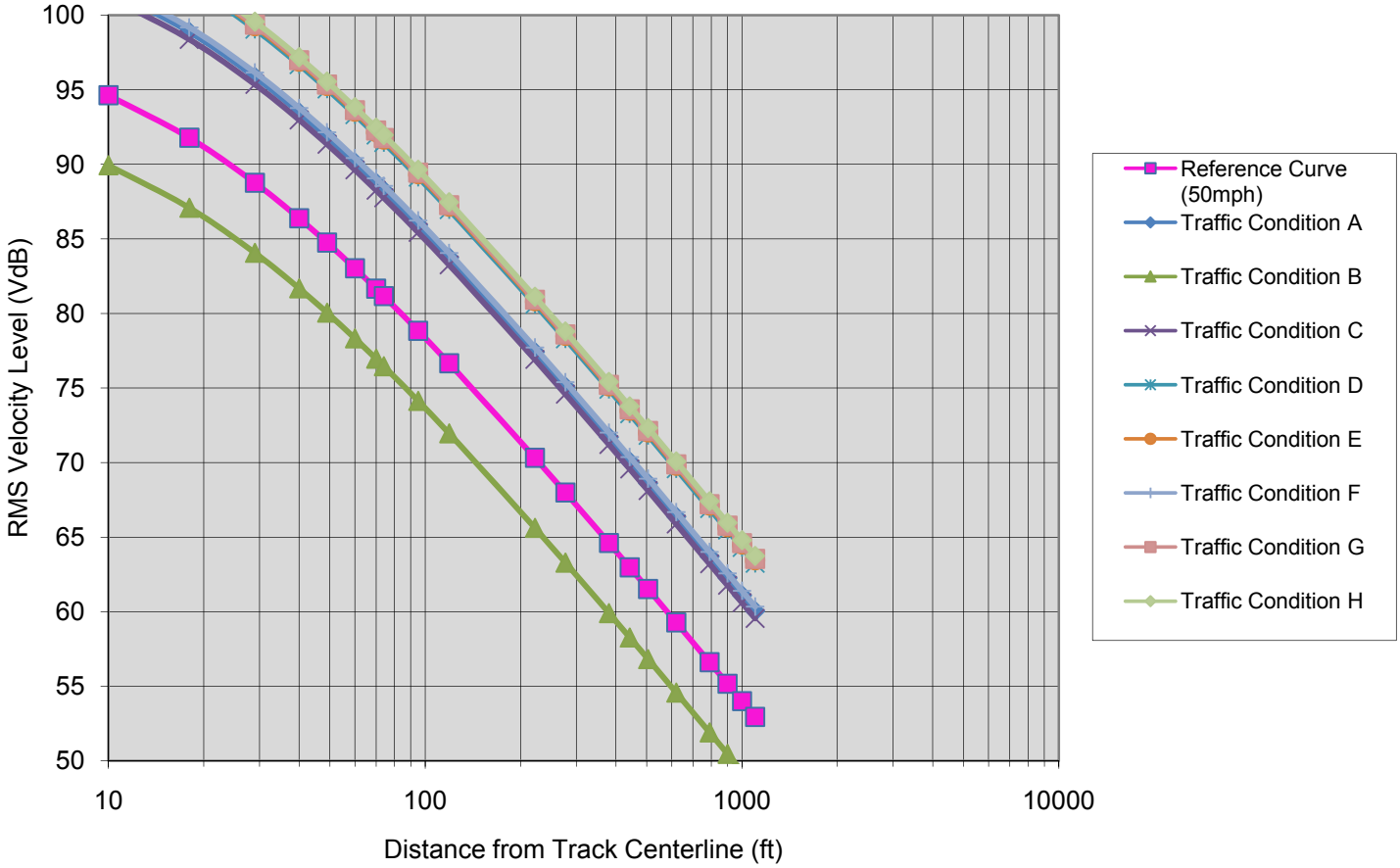
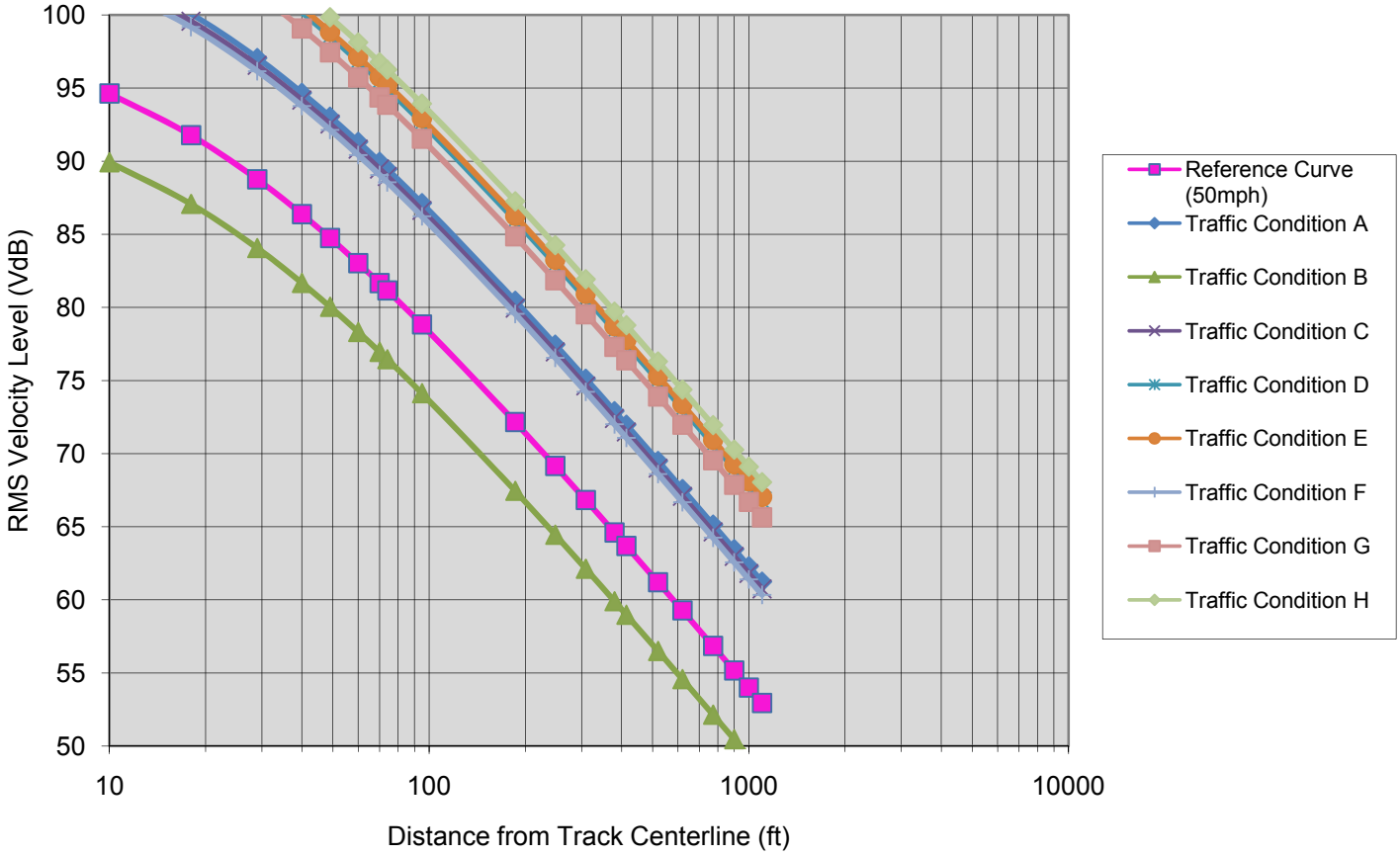


Chart 4
Ground Surface Vibration Curves - Future 90mph Use



This Tier 1 Service-level NEPA vibration assessment only assessed Project-related ground-borne vibration at land uses where overnight sleep occurs (primarily residences) for the same reasons as noted in the introduction to Section 3.7.

2.6.2.1 No-Build Alternative

This analysis assumes that train-induced ground-borne vibration does not change anywhere throughout the Project area under the No-Build Alternative. Consequently, no new vibration impacts are projected to occur beyond those that could occur due to other projects.

2.6.2.2 Two Round Trip Trains per Day

Both the existing and proposed (two round trip TPD) rail traffic was assessed; this allowed the analysis to identify the incremental increase in ground-borne vibration effects on residential land uses in the Project area for Routes A and B.

2.6.2.3 Preferred Alternative (Route A – Amtrak-BNSF-IAIS)

Table 11 presents the incremental increase in vibration impacts, as defined by FTA, at residential land uses adjacent to the entire Preferred Alternative, including rural areas. The table

presents vibration impacts predicted to occur in each municipality along the Preferred Alternative.

Table 11
Incremental Increase in Ground-borne Vibration Impacts
Associated with the Preferred Alternative

Municipality	No. of Impacts	Municipality	No. of Impacts
Alignment A		Common Section	
Arlington, IL	8	Atalissa, IA	20
Aurora, IL	23	Davenport, IA	304
Berwyn, IL	51	Durant, IA	53
Brookfield, IL	55	Iowa City, IA	174
Chicago, IL	110	Stockton, IA	27
Cicero, IL	24	Walcott, IA	56
Clarendon Hills, IL	35	West Liberty, IA	40
Downers Grove, IL	81	Wilton, IA	35
Earlville, IL	19	Annawan, IL	27
Hinsdale, IL	41	Atkinson, IL	25
La Grange, IL	38	Geneseo, IL	61
Leland, IL	23	Mineral, IL	20
Lisle, IL	44	Sheffield, IL	21
Malden, IL	10	Unincorporated	58
Mendota, IL	32		
Montgomery, IL	28		
Naperville, IL	68		
Oswego, IL	16		
Plano, IL	13		
Princeton, IL	5		
Riverside, IL	39		
Sandwich, IL	33		
Somonauk, IL	34		
Western Springs, IL	33		
Westmont, IL	31		
Wyanet, IL	20		
Unincorporated	93		
Vibration Impacts Associated with Alternative A		**1,928**	

Analysis results identified approximately 9 additional vibration impacts per mile associated with the Preferred Alternative. This increase is not considered to be significant for this analysis. Analysis results also show that the number of vibration impacts in each municipality is related to the density of residential development in areas immediately adjacent to the rail line.

2.6.2.4 Route B Alternative (AMTRAK-CN-METRA/ROCK ISLAND DISTRICT-CSXT-IAIS)

Table 12 presents the incremental increase in ground-borne vibration impacts, as defined by FTA, at residential land uses adjacent to the Route B Alternative. The table presents vibration impacts predicted to occur in each municipality along the Route B Alternative. The number of vibration impacts in unincorporated, rural areas is also quite low due to the low density of development in these areas.

Table 12
Incremental Increase in Ground-borne Vibration Impacts
Associated with the Route B Alternative

Municipality	No. of Impacts	Municipality	No. of Impacts
Alignment B		Common Section	
Bureau Junction, IL	24	Atalissa, IA	20
De Pue, IL	74	Davenport, IA	304
Joliet, IL	28	Durant, IA	53
La Salle, IL	55	Iowa City, IA	174
Marseilles, IL	195	Stockton, IA	27
Minooka, IL	54	Walcott, IA	56
Morris, IL	119	West Liberty, IA	40
North Utica, IL	44	Wilton, IA	35
Ottawa, IL	102	Annawan, IL	27
Peru, IL	41	Atkinson, IL	25
Rockdale, IL	19	Geneseo, IL	61
Seneca, IL	28	Mineral, IL	20
Spring Valley, IL	18	Sheffield, IL	21
Tiskilwa, IL	27	Unincorporated	58
Unincorporated	52		
Vibration Impacts Associated with Alternative B		**1,801**	

Analysis results identified approximately 8 additional vibration impacts per mile associated with the Route B Alternative. This increase in the number of vibration impacts is slightly less than the number of vibration impacts calculated for Route A, and is also not considered to be significant for this analysis. Analysis results show that the number of vibration impacts is related to the density of residential development in areas immediately adjacent to the rail line.

2.6.3 Five Round-Trip Trains per Day

The MWRRI envisions five round-trip TPD – at 90 mph, from Chicago to Wyanet, Illinois; and 79 mph from Wyanet to Iowa City, Iowa. This level of increased train activity was assessed in this Tier 1 Service-level (programmatic) NEPA review to help inform the reader of the likely potential impacts from the complete implementation of the MWRRI vision. (A separate NEPA analysis would be required prior to increasing the train numbers.)

Five round-trip TPD scenario was evaluated using the same methods and modeling approach as described in the previous section, but with increased future passenger train traffic. Table 13

presents a simple comparison of vibration impact contour distances for existing conditions, 79 mph train service, and 90 mph train service.

Table 13
Distances to Category 2 Ground-Borne Vibration Impacts

Scenario	GBV Impact Level (VdB)	Distance to Impact Level (ft)							
		Traffic Cond. A	Traffic Cond. B	Traffic Cond. C	Traffic Cond. D	Traffic Cond. E	Traffic Cond. F	Traffic Cond. G	Traffic Cond. H
Existing Use	72	212	119	281	499	504	380	450	560
Future Use: 79 mph	72	370	119	352	499	504	380	509	520
Future Use: 90 mph	72	414	119	394	685	700	380	620	773

The table above shows that as the train speed increases, the distance to the ground-borne vibration impact contour also increase. Note that the distance to the vibration impact threshold remains the same under traffic conditions B and F. Traffic condition B represents the portion of the Quad Cities area that imposes a 15 mph speed limit on trains, therefore the distance to the vibration impact contour does not change. Traffic condition F represents a portion of the Preferred Alternative near downtown Chicago where the average speed of future traffic is 37 mph. For purposes of this assessment, the same average speed was applied to existing traffic.

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PREFERRED ALTERNATIVE
NOISE AND VIBRATION CONTOUR MAPS

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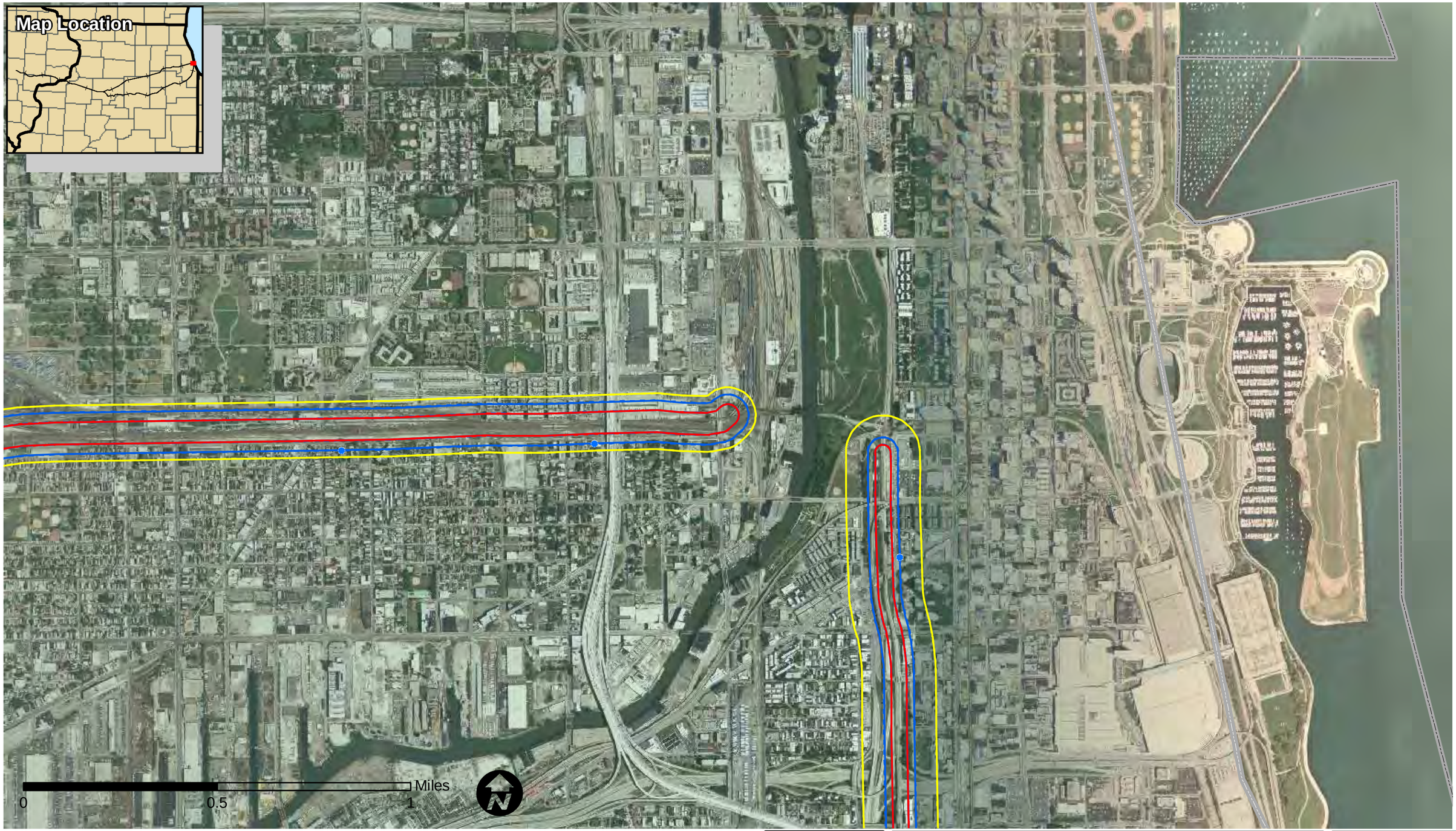

Vibration Impacts

- Vibration Impact - Future

Noise Impacts

- Moderate - Future
- Severe - Future

Noise Contours

- Moderate Level - Existing
- Moderate Level - Future
- Severe Level - Existing
- Severe Level - Future

Vibration Contours

- Existing Contour
- Future Contour
- County Boundary

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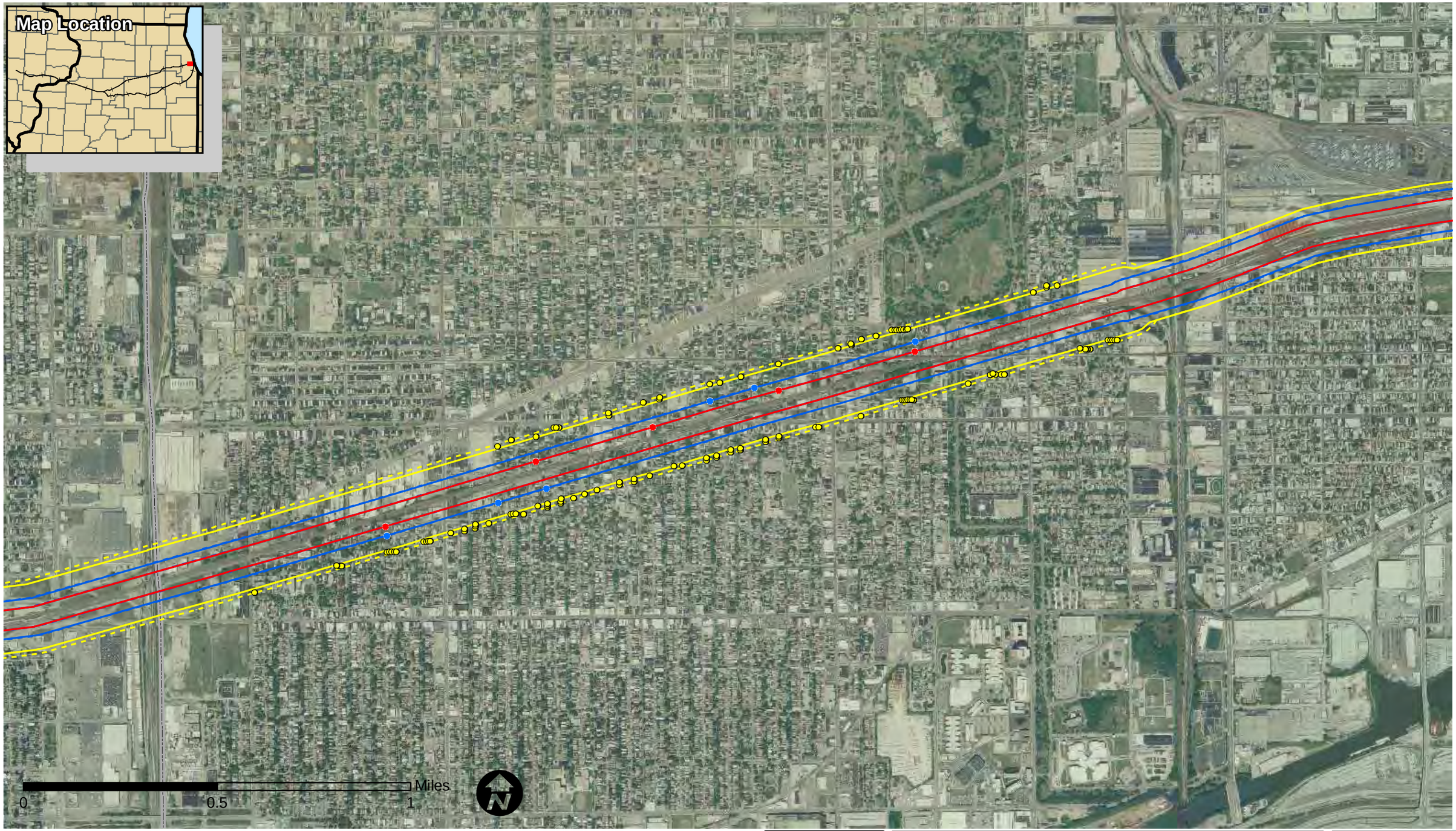

Vibration Impacts

- Vibration Impact - Future

Noise Impacts

- Moderate - Future
- Severe - Future

Noise Contours

- Moderate Level - Existing
- Moderate Level - Future
- Severe Level - Existing
- Severe Level - Future

Vibration Contours

- Existing Contour
- Future Contour
- County Boundary

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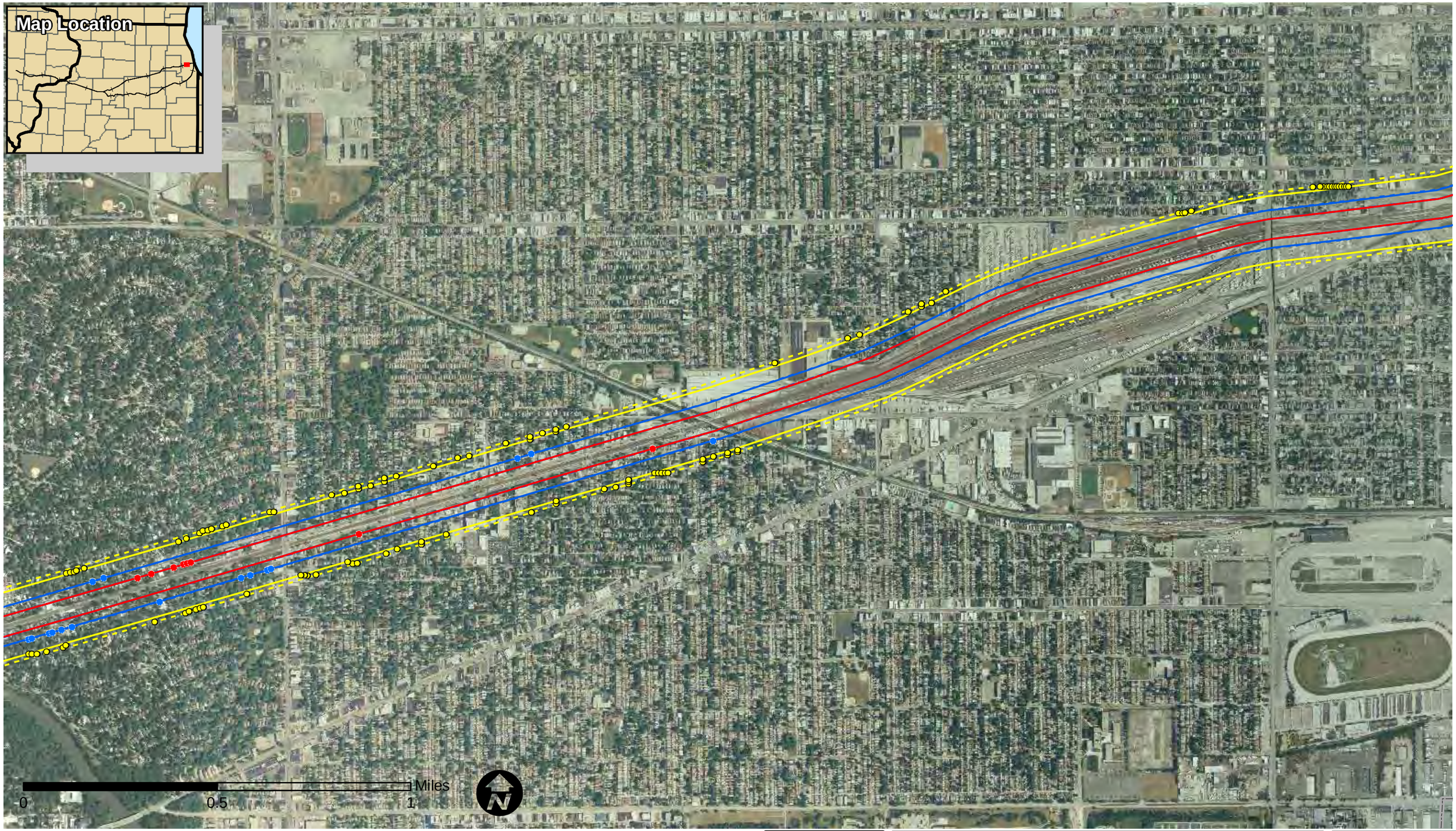

Vibration Impacts

- Vibration Impact - Future

Noise Impacts

- Moderate - Future
- Severe - Future

Noise Contours

- Moderate Level - Existing
- Moderate Level - Future
- Severe Level - Existing
- Severe Level - Future

Vibration Contours

- Existing Contour
- Future Contour
- County Boundary

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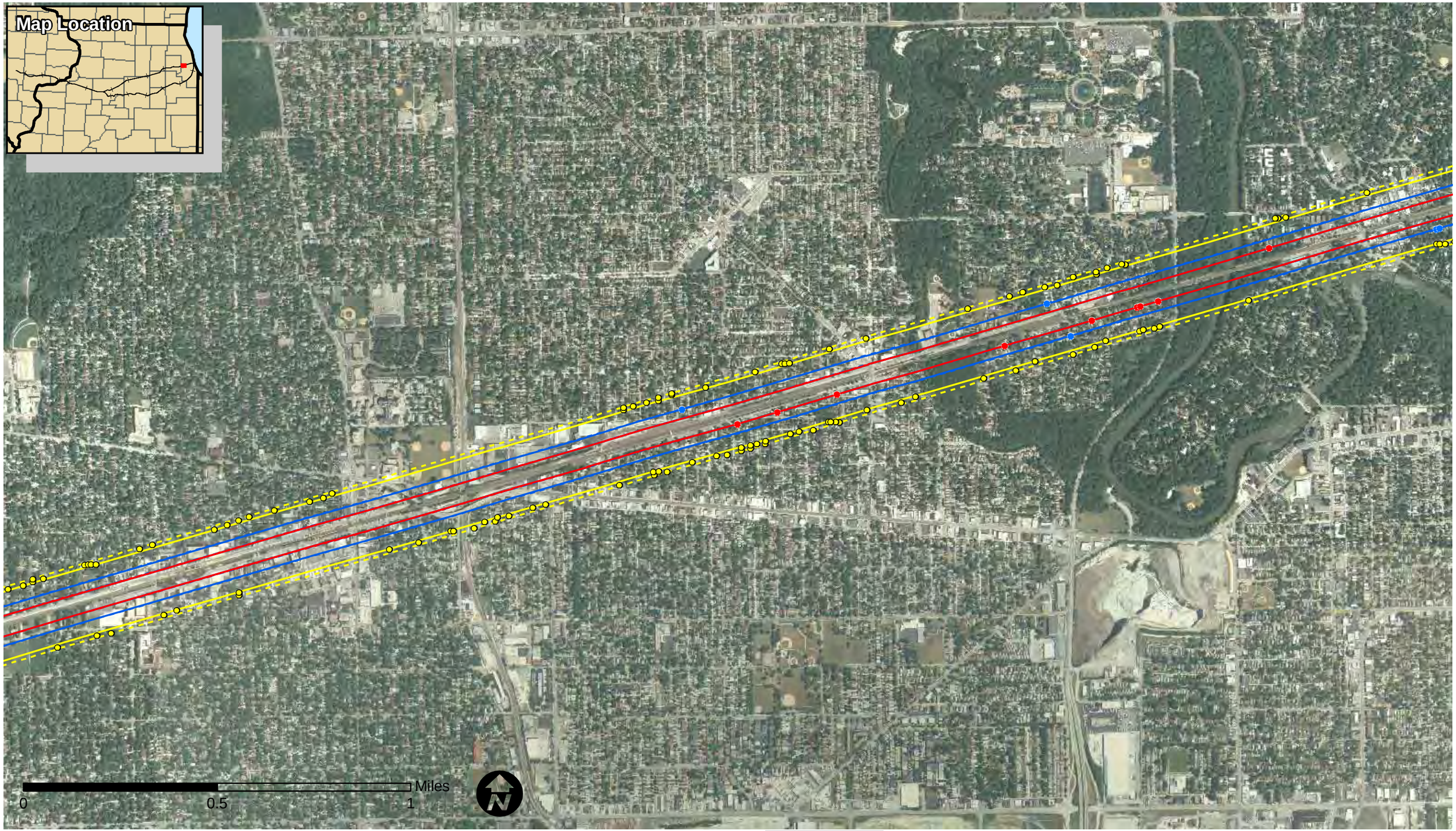

Vibration Impacts

- Vibration Impact - Future

Noise Impacts

- Moderate - Future
- Severe - Future

Noise Contours

- Moderate Level - Existing
- Moderate Level - Future
- Severe Level - Existing
- Severe Level - Future

Vibration Contours

- Existing Contour
- Future Contour
- County Boundary

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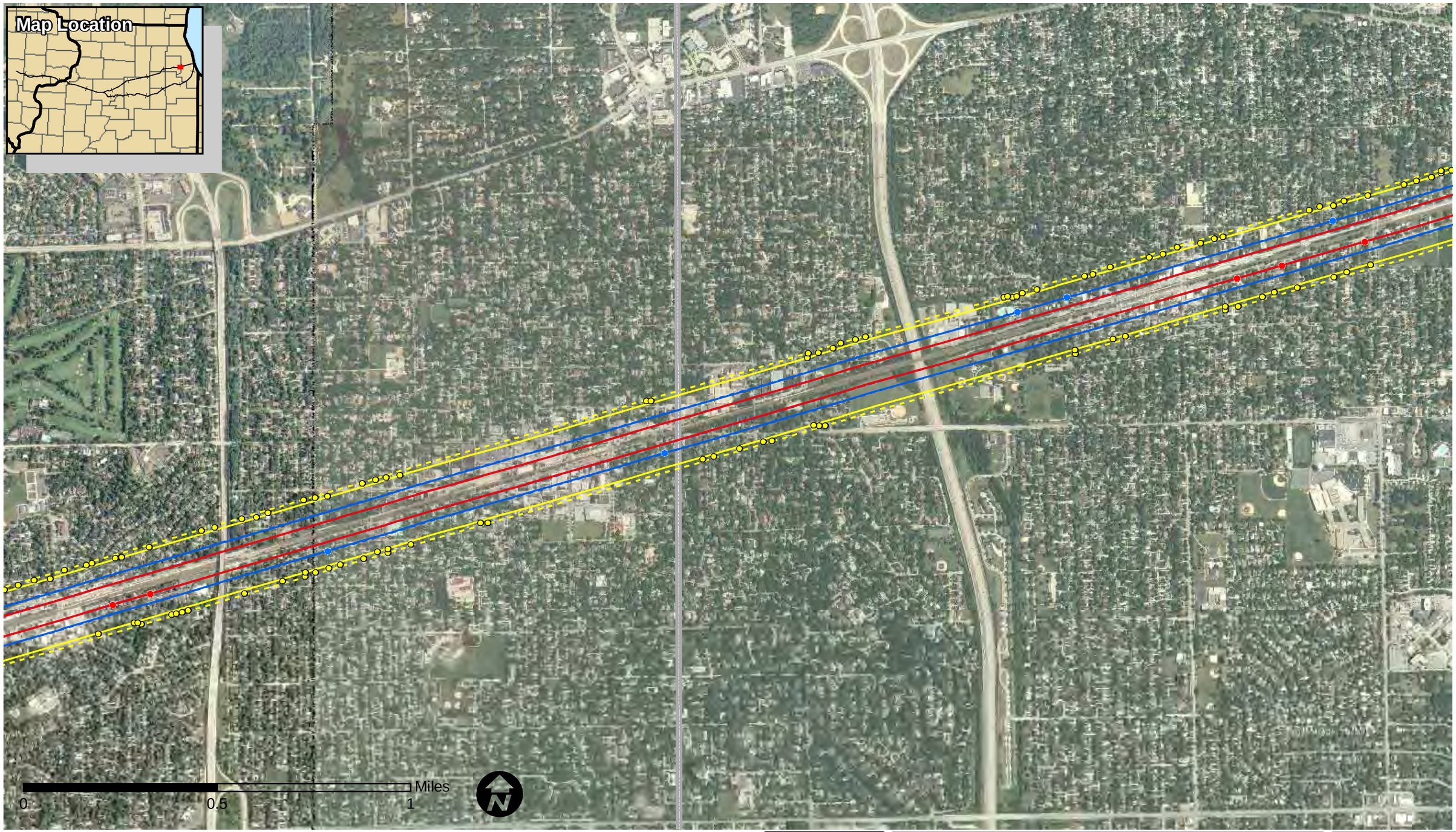

Vibration Impacts

- Vibration Impact - Future

Noise Impacts

- Moderate - Future
- Severe - Future

Noise Contours

- Moderate Level - Existing
- Moderate Level - Future
- Severe Level - Existing
- Severe Level - Future

Vibration Contours

- Existing Contour
- Future Contour
- County Boundary

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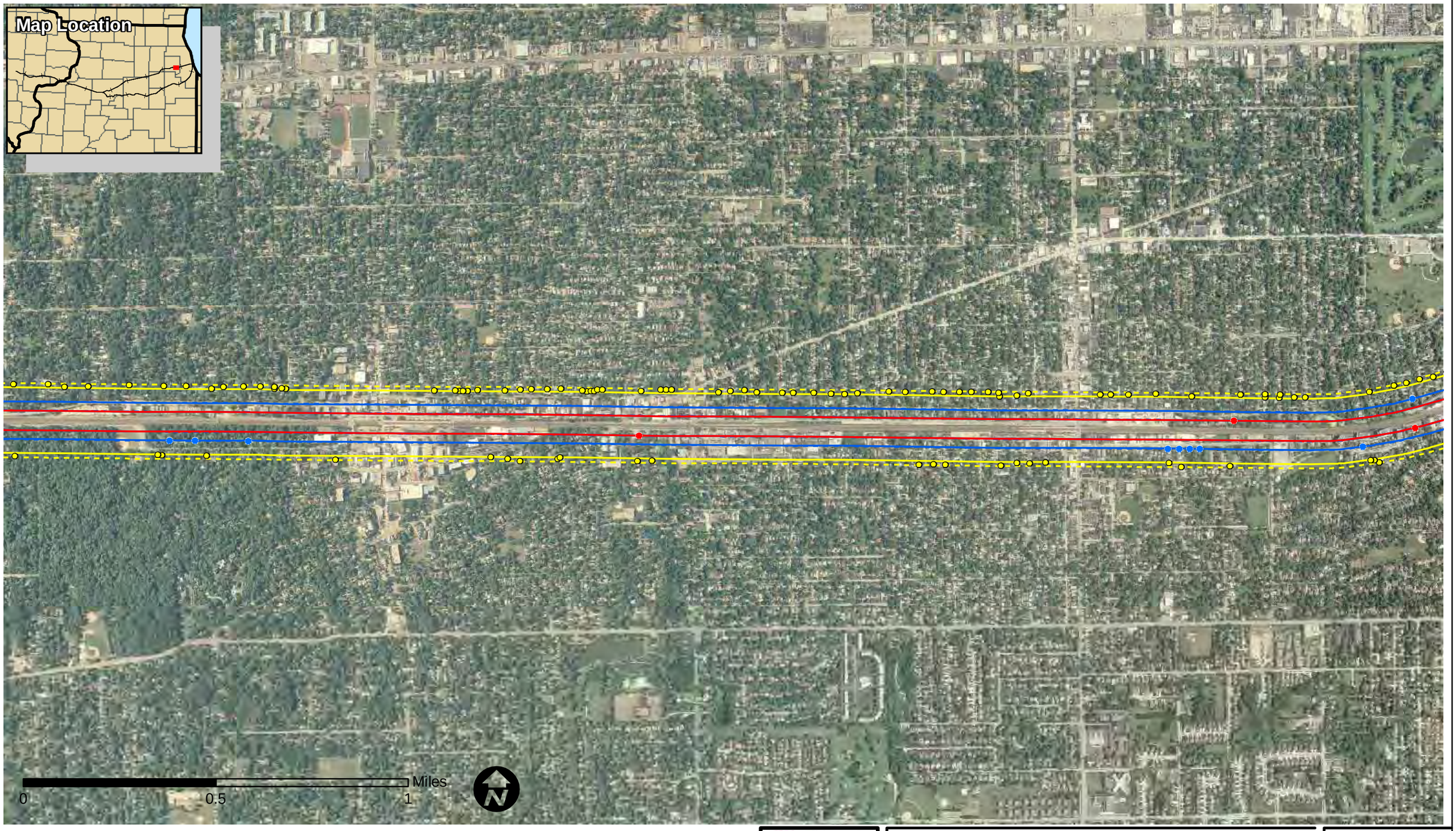

Vibration Impacts

- Vibration Impact - Future

Noise Impacts

- Moderate - Future
- Severe - Future

Noise Contours

- Moderate Level - Existing
- Moderate Level - Future
- Severe Level - Existing
- Severe Level - Future

Vibration Contours

- Existing Contour
- Future Contour
- County Boundary

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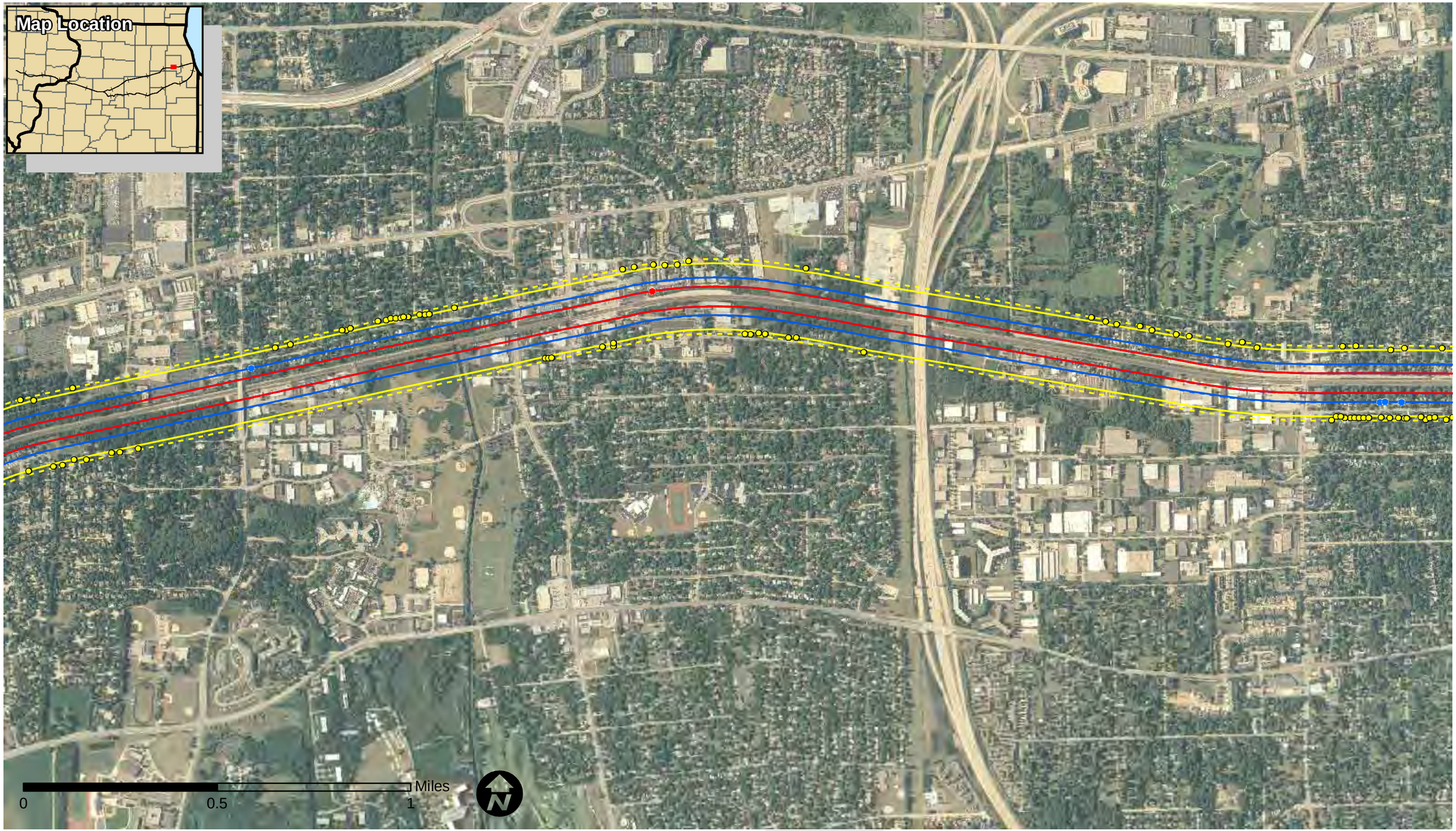

Vibration Impacts

- Vibration Impact - Future

Noise Impacts

- Moderate - Future
- Severe - Future

Noise Contours

- Moderate Level - Existing
- Moderate Level - Future
- Severe Level - Existing
- Severe Level - Future

Vibration Contours

- Existing Contour
- Future Contour
- County Boundary

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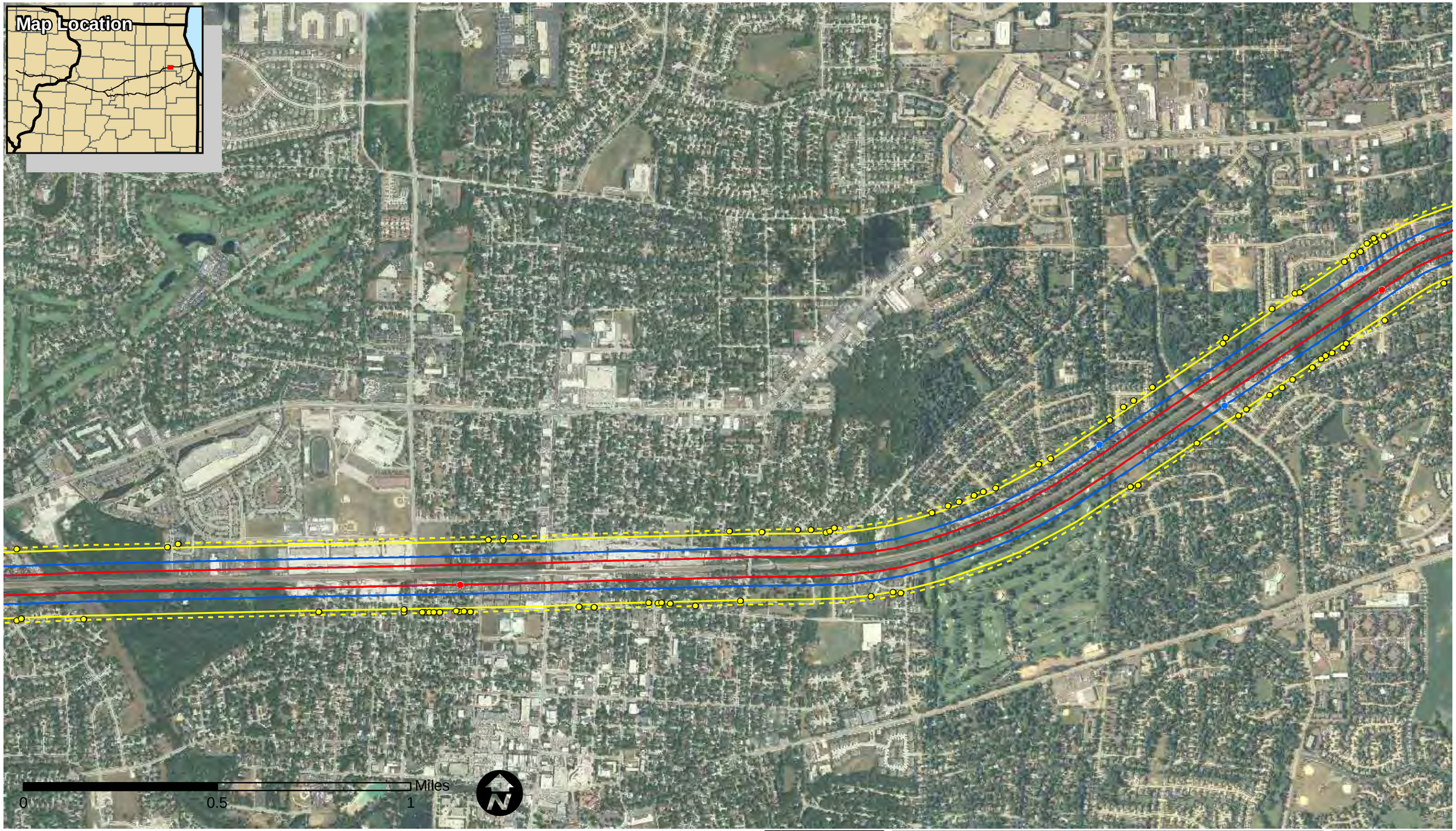

Vibration Impacts

- Vibration Impact - Future

Noise Impacts

- Moderate - Future
- Severe - Future

Noise Contours

- Moderate Level - Existing
- Moderate Level - Future
- Severe Level - Existing
- Severe Level - Future

Vibration Contours

- Existing Contour
- Future Contour
- County Boundary

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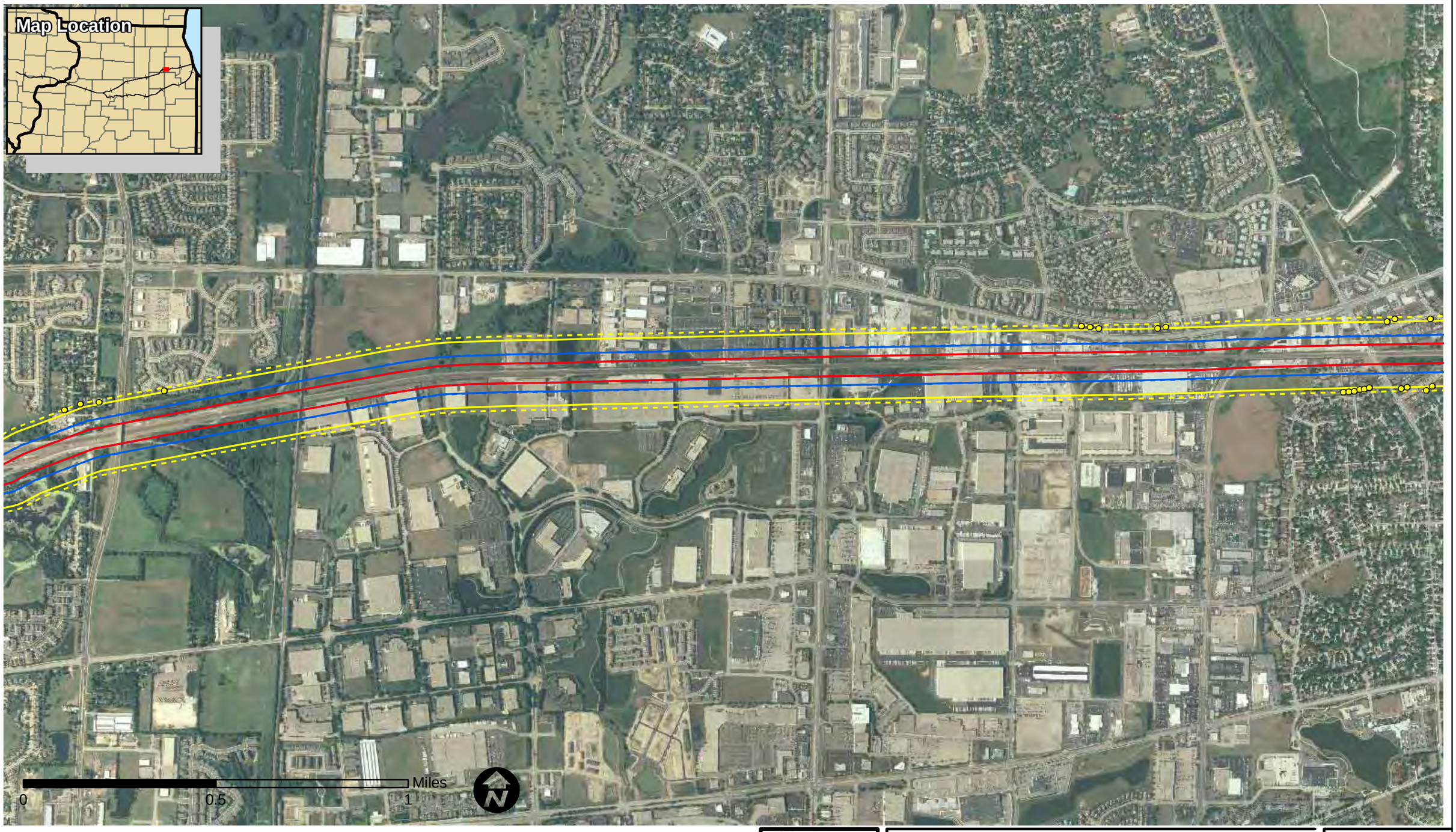

Vibration Impacts

- Vibration Impact - Future

Noise Impacts

- Moderate - Future
- Severe - Future

Noise Contours

- Moderate Level - Existing
- Moderate Level - Future
- Severe Level - Existing
- Severe Level - Future

Vibration Contours

- Existing Contour
- Future Contour
- County Boundary

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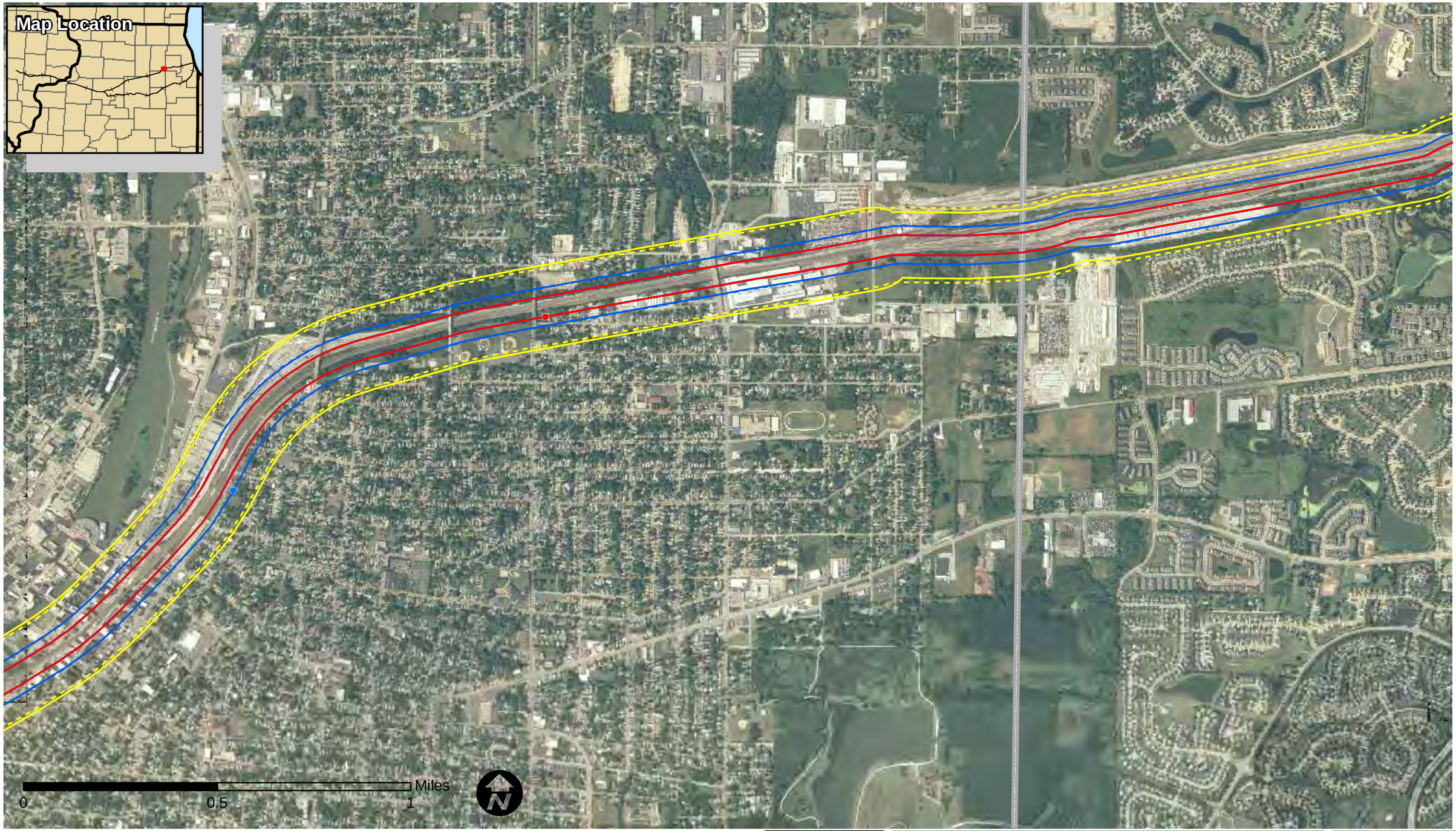

Vibration Impacts

- Vibration Impact - Future

Noise Impacts

- Moderate - Future
- Severe - Future

Noise Contours

- Moderate Level - Existing
- Moderate Level - Future
- Severe Level - Existing
- Severe Level - Future

Vibration Contours

- Existing Contour
- Future Contour
- County Boundary

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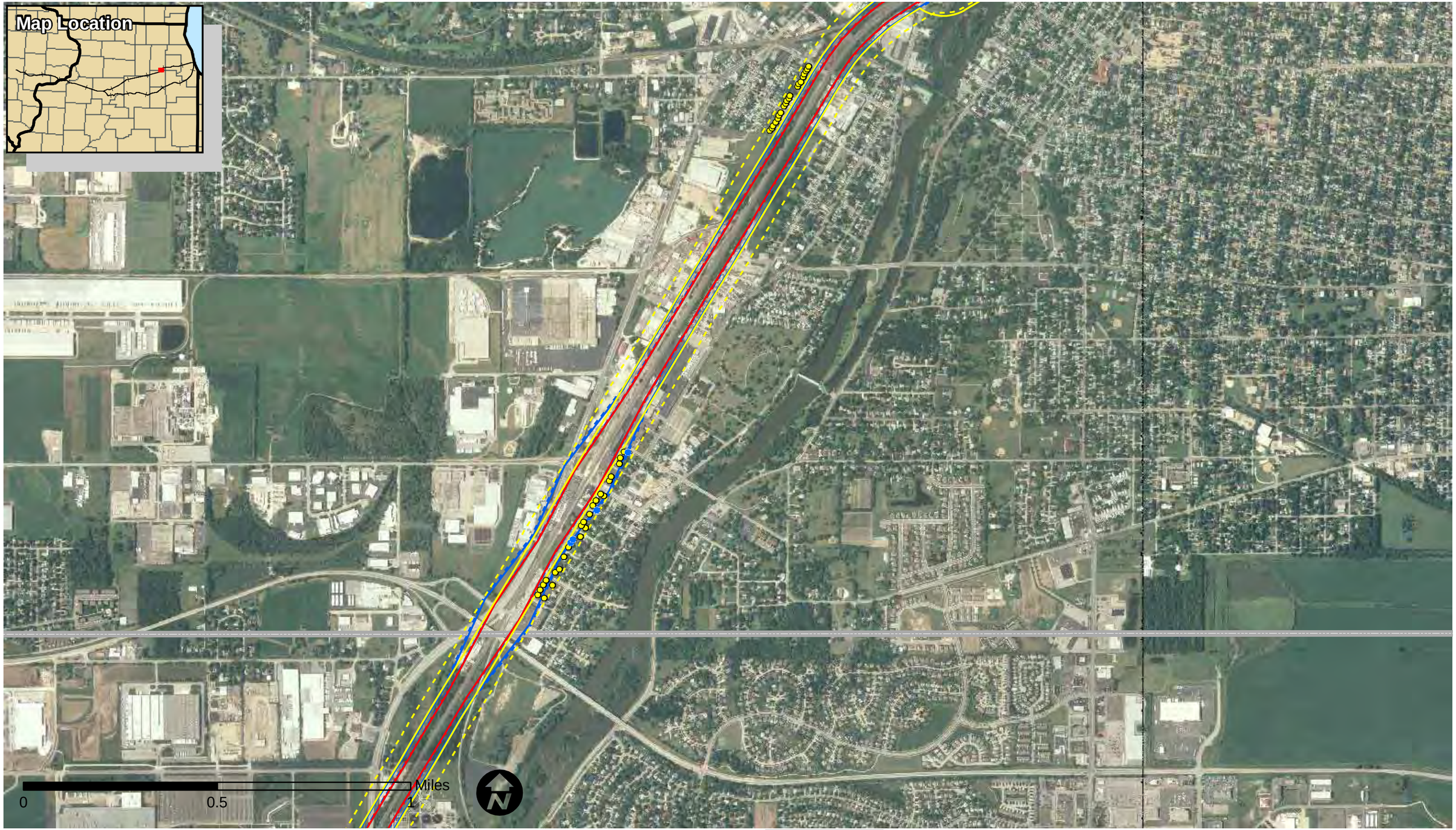

Vibration Impacts

- Vibration Impact - Future

Noise Impacts

- Moderate - Future
- Severe - Future

Noise Contours

- Moderate Level - Existing
- Moderate Level - Future
- Severe Level - Existing
- Severe Level - Future

Vibration Contours

- Existing Contour
- Future Contour
- County Boundary

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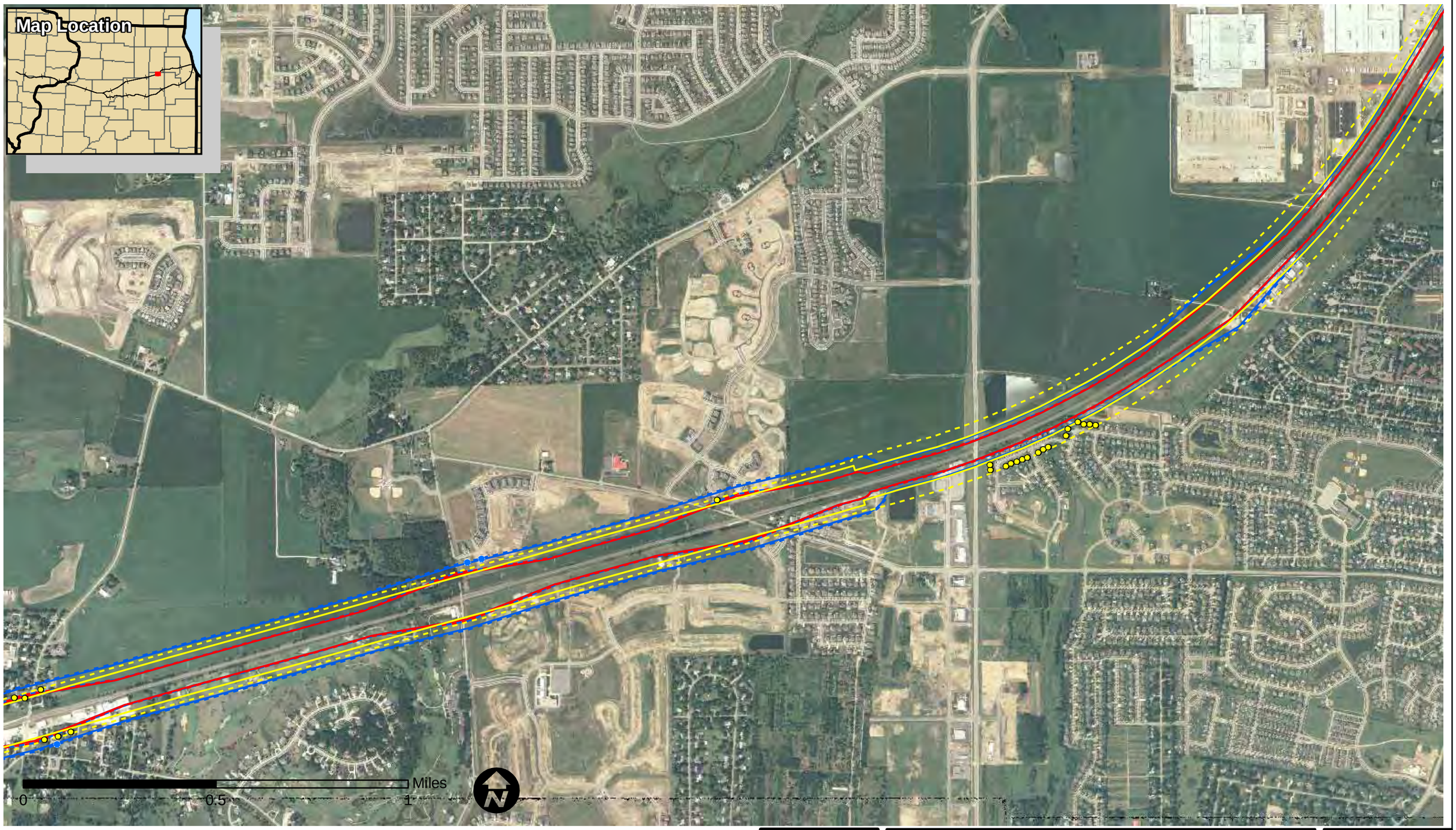

Vibration Impacts

- Vibration Impact - Future

Noise Impacts

- Moderate - Future
- Severe - Future

Noise Contours

- Moderate Level - Existing
- Moderate Level - Future
- Severe Level - Existing
- Severe Level - Future

Vibration Contours

- Existing Contour
- Future Contour
- County Boundary

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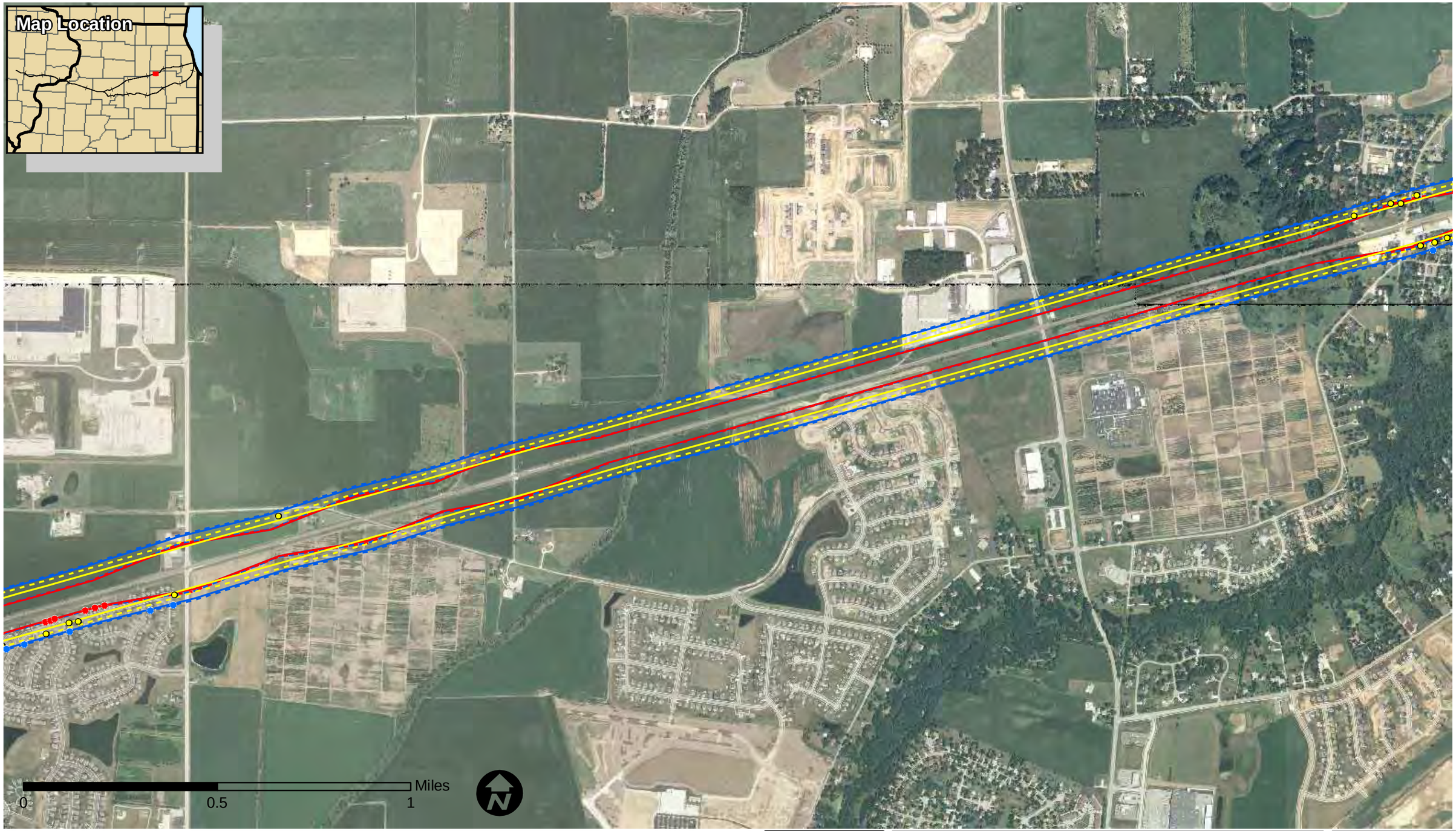

Vibration Impacts

- Vibration Impact - Future

Noise Impacts

- Moderate - Future
- Severe - Future

Noise Contours

- Moderate Level - Existing
- Moderate Level - Future
- Severe Level - Existing
- Severe Level - Future

Vibration Contours

- Existing Contour
- Future Contour
- County Boundary

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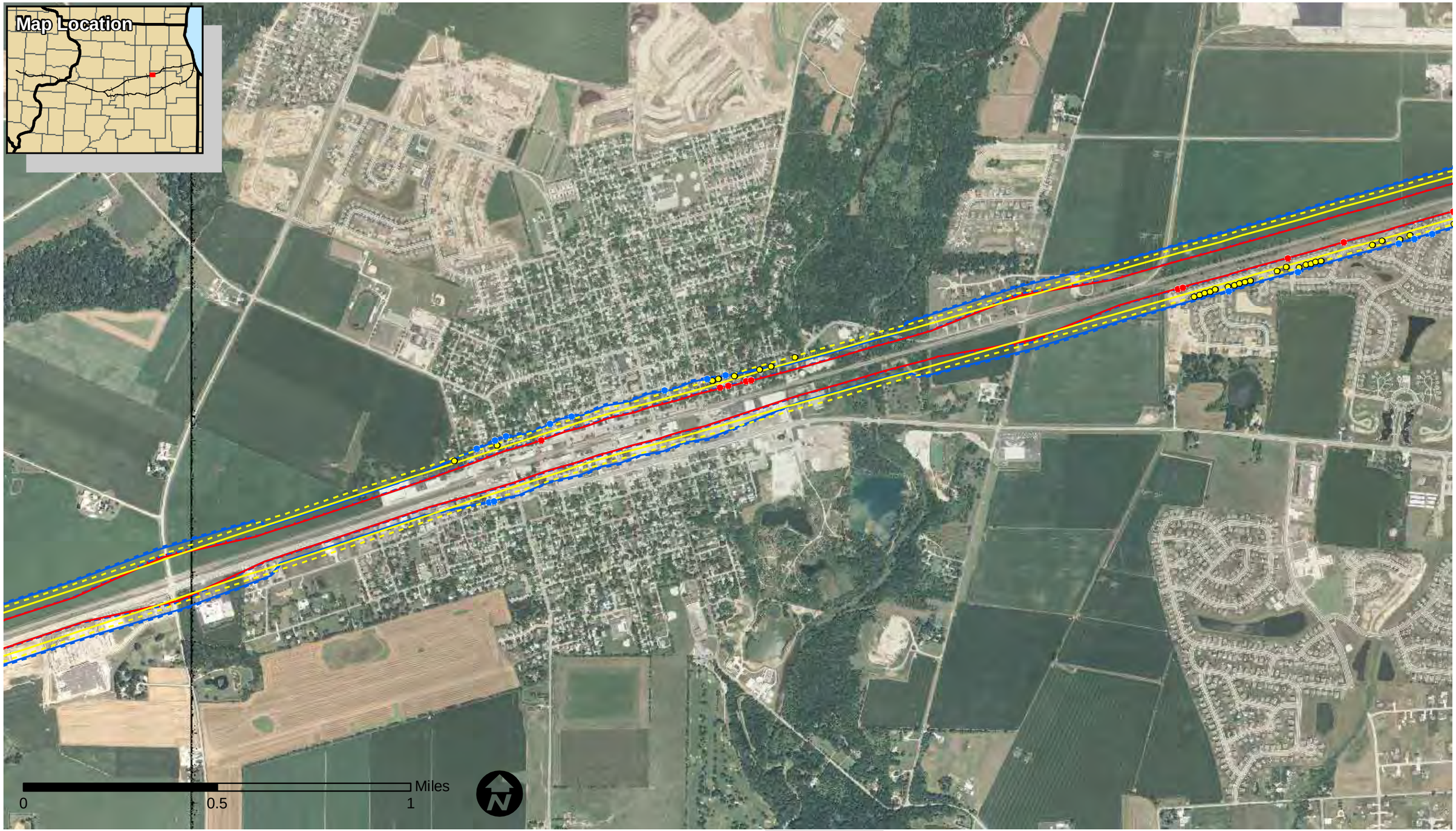

Vibration Impacts

- Vibration Impact - Future

Noise Impacts

- Moderate - Future
- Severe - Future

Noise Contours

- Moderate Level - Existing
- Moderate Level - Future
- Severe Level - Existing
- Severe Level - Future

Vibration Contours

- Existing Contour
- Future Contour
- County Boundary

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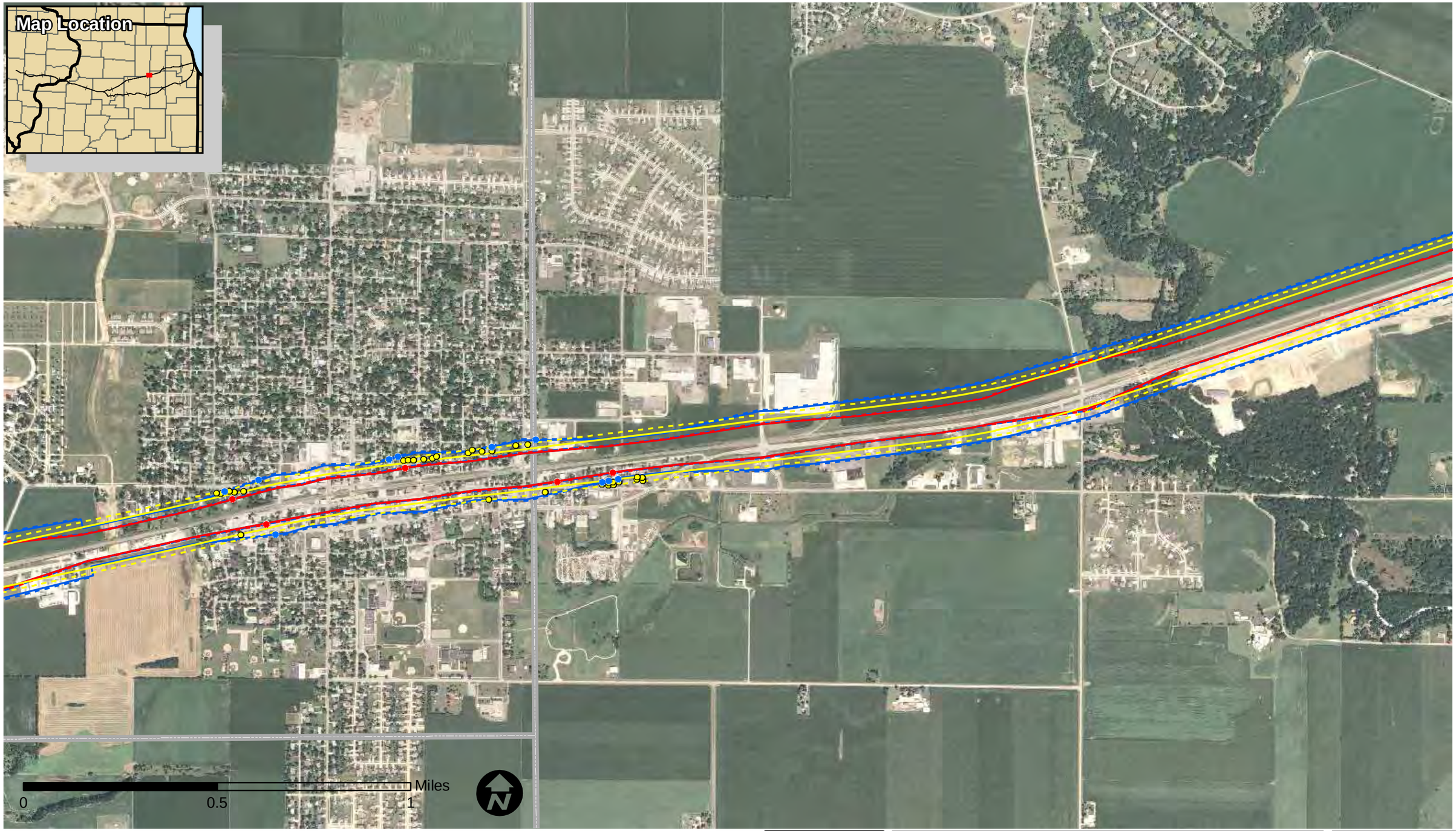

Vibration Impacts

- Vibration Impact - Future

Noise Impacts

- Moderate - Future
- Severe - Future

Noise Contours

- Moderate Level - Existing
- Moderate Level - Future
- Severe Level - Existing
- Severe Level - Future

Vibration Contours

- Existing Contour
- Future Contour
- County Boundary

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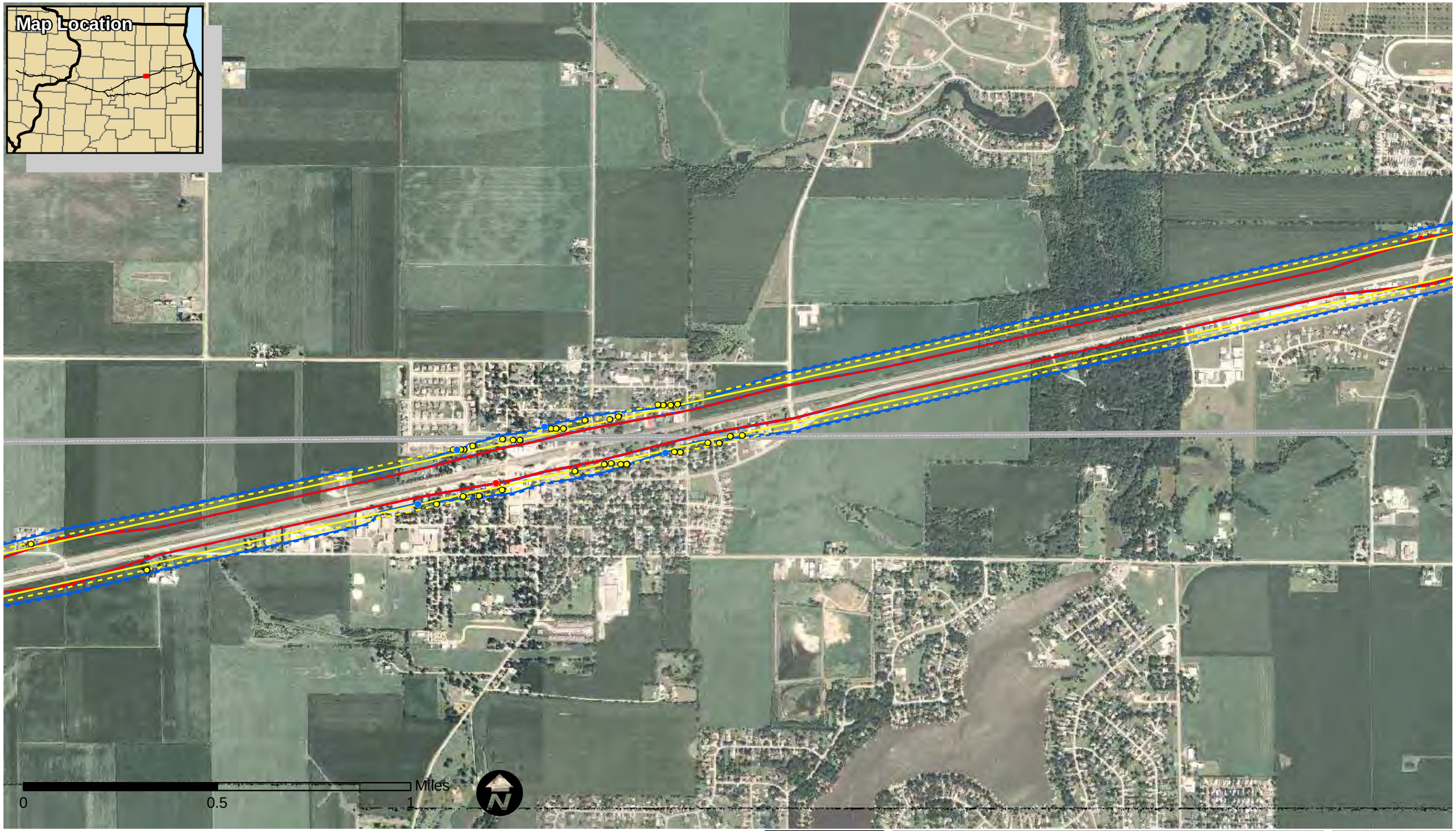

Vibration Impacts

- Vibration Impact - Future

Noise Impacts

- Moderate - Future
- Severe - Future

Noise Contours

- Moderate Level - Existing
- Moderate Level - Future
- Severe Level - Existing
- Severe Level - Future

Vibration Contours

- Existing Contour
- Future Contour
- County Boundary

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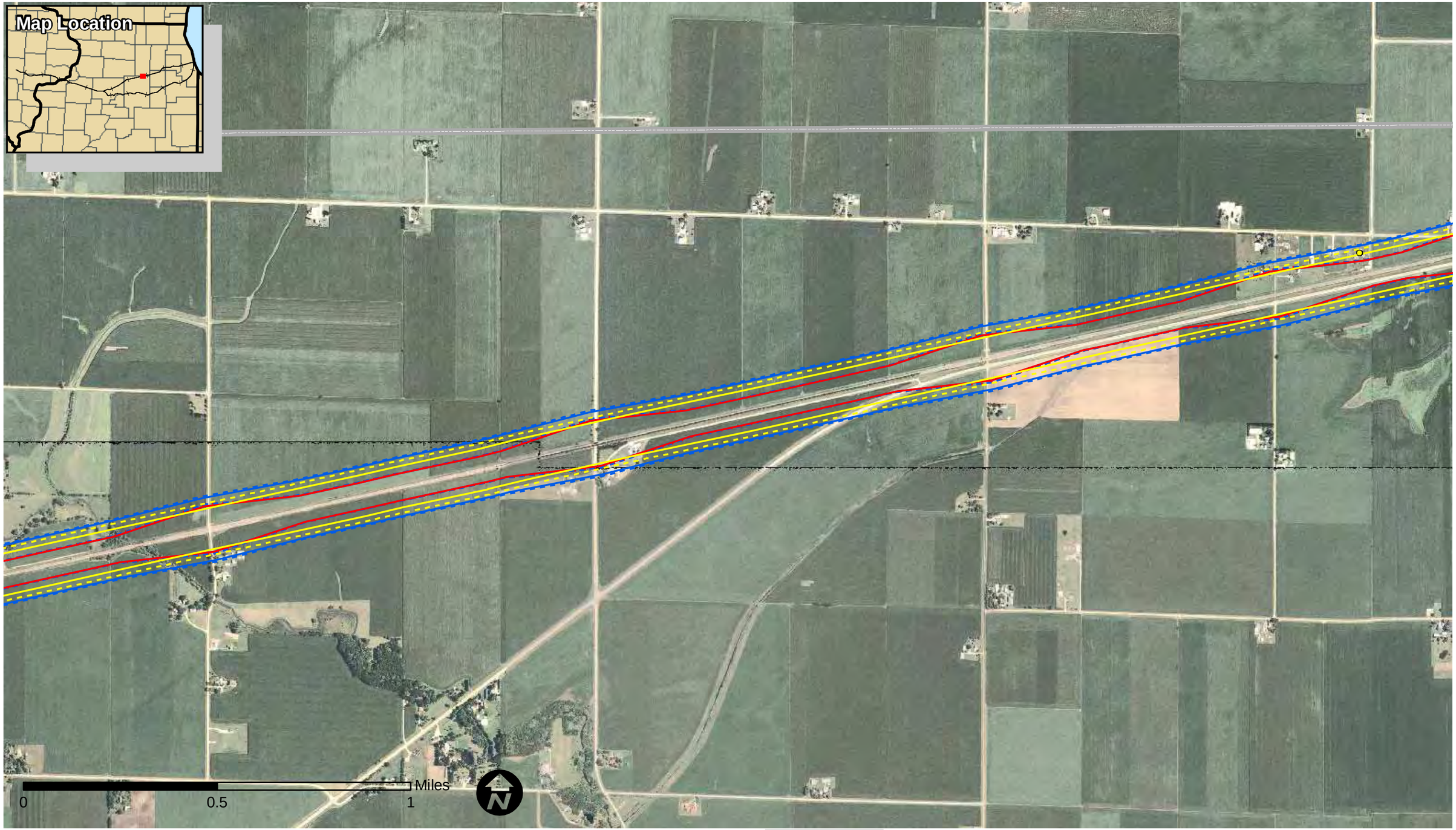

Vibration Impacts

- Vibration Impact - Future

Noise Impacts

- Moderate - Future
- Severe - Future

Noise Contours

- Moderate Level - Existing
- Moderate Level - Future
- Severe Level - Existing
- Severe Level - Future

Vibration Contours

- Existing Contour
- Future Contour
- County Boundary

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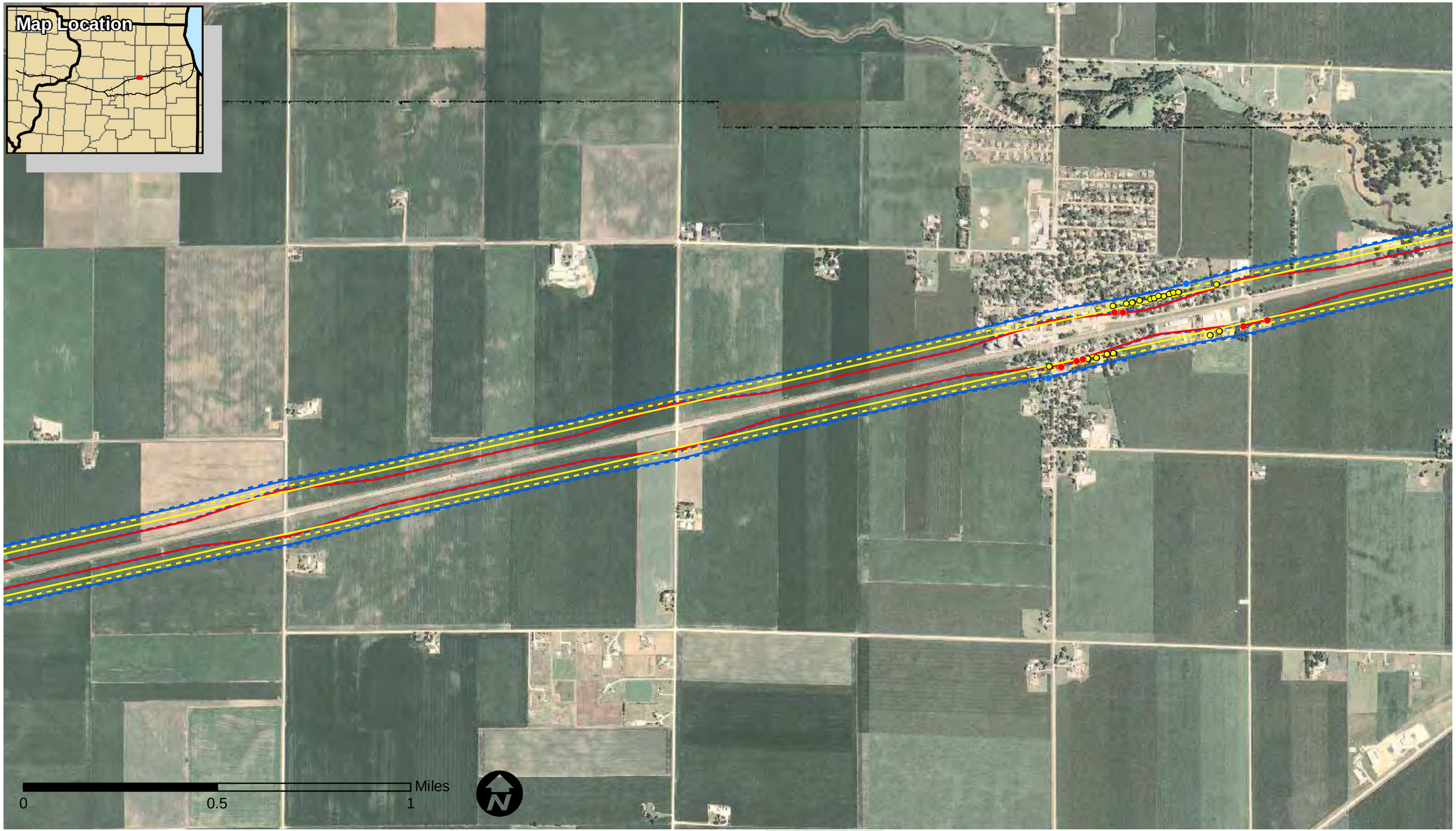

Vibration Impacts

- Vibration Impact - Future

Noise Impacts

- Moderate - Future
- Severe - Future

Noise Contours

- Moderate Level - Existing
- Moderate Level - Future
- Severe Level - Existing
- Severe Level - Future

Vibration Contours

- Existing Contour
- Future Contour
- County Boundary

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Vibration Impacts

- Vibration Impact - Future

Noise Impacts

- Moderate - Future
- Severe - Future

Noise Contours

- Moderate Level - Existing
- Moderate Level - Future
- Severe Level - Existing
- Severe Level - Future

Vibration Contours

- Existing Contour
- Future Contour
- County Boundary

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Vibration Impacts

- Vibration Impact - Future

Noise Impacts

- Moderate - Future
- Severe - Future

Noise Contours

- Moderate Level - Existing
- Moderate Level - Future
- Severe Level - Existing
- Severe Level - Future

Vibration Contours

- Existing Contour
- Future Contour
- County Boundary

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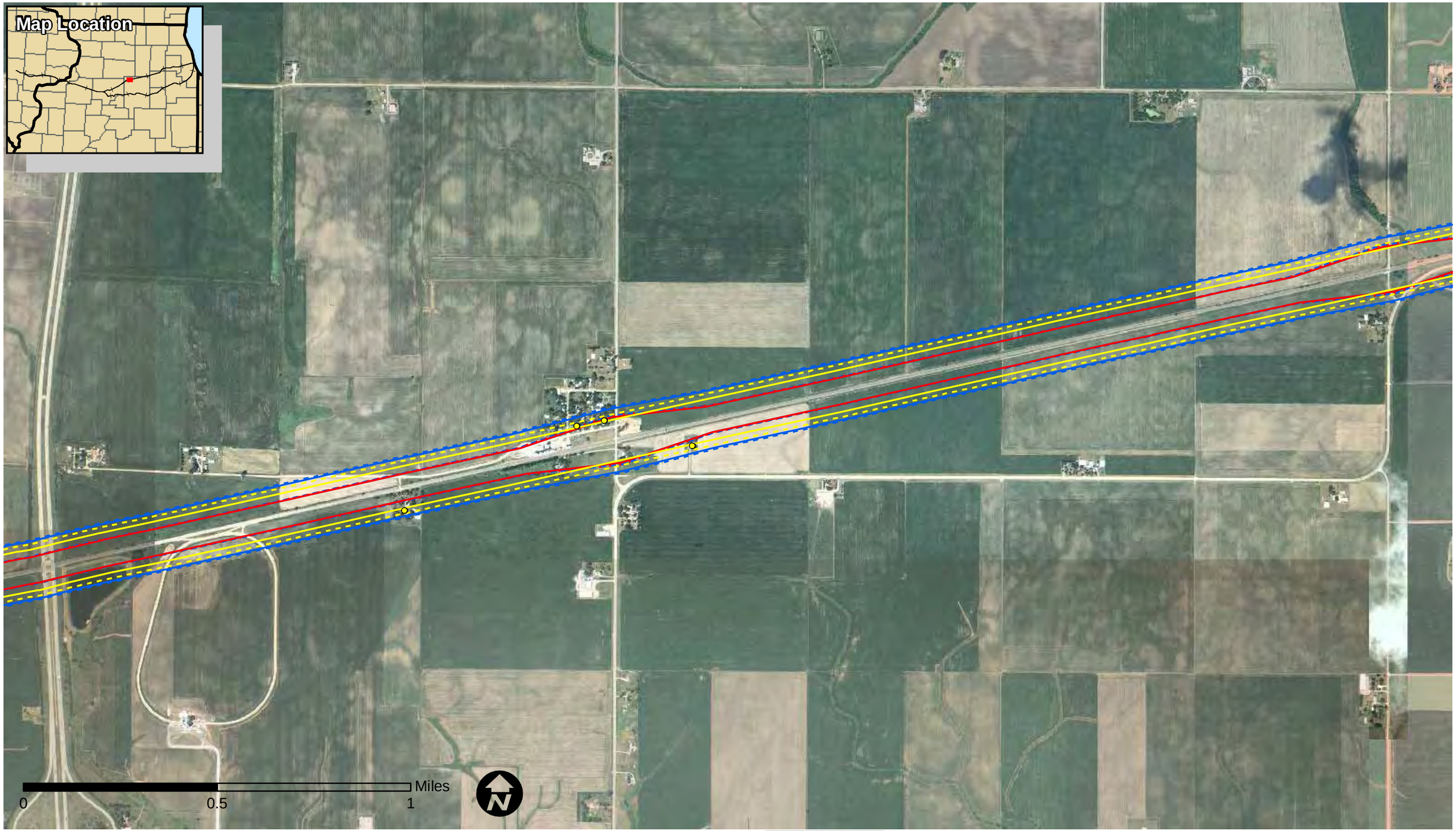

Vibration Impacts

- Vibration Impact - Future

Noise Impacts

- Moderate - Future
- Severe - Future

Noise Contours

- Moderate Level - Existing
- Moderate Level - Future
- Severe Level - Existing
- Severe Level - Future

Vibration Contours

- Existing Contour
- Future Contour
- County Boundary

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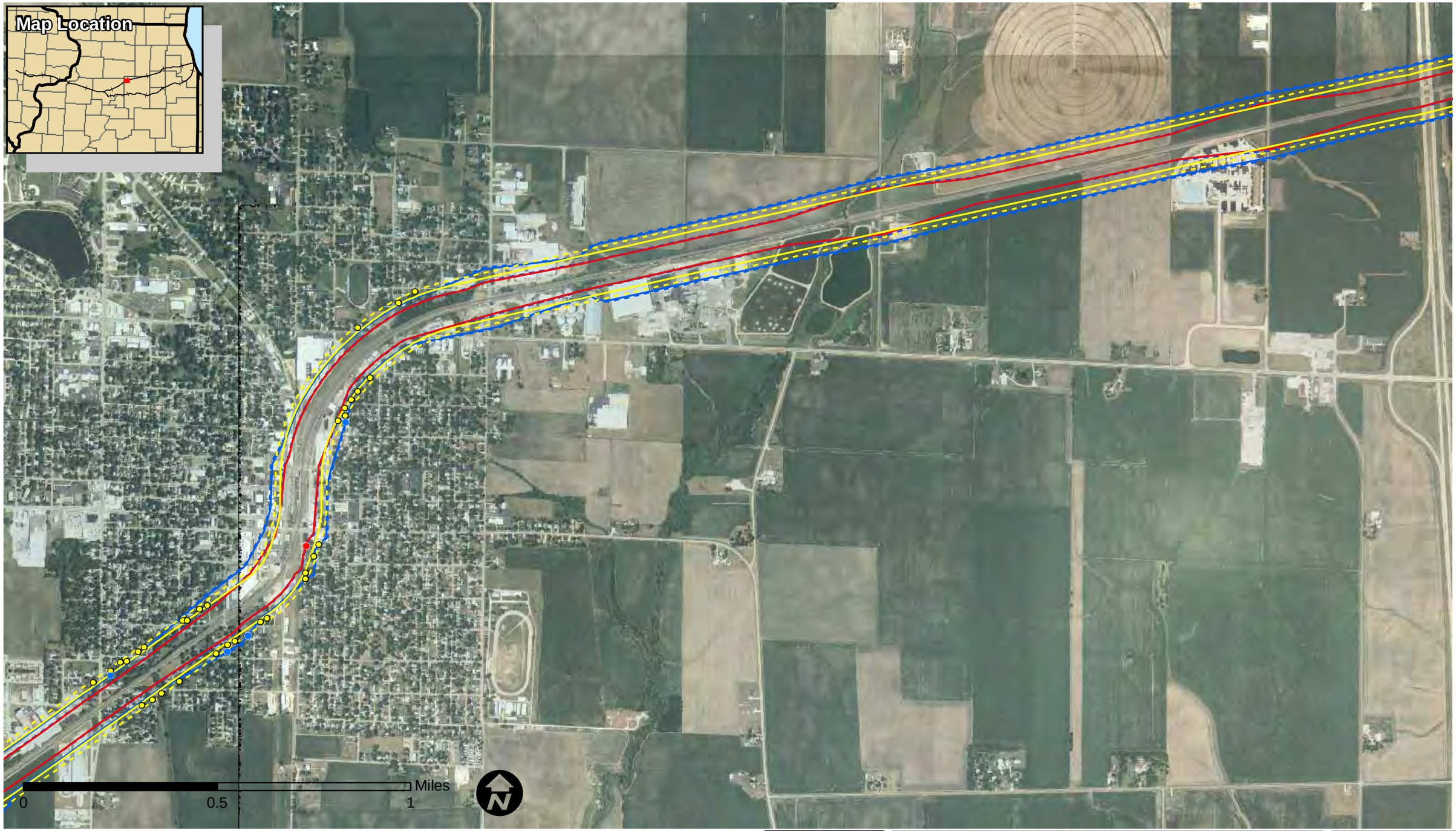

Vibration Impacts

- Vibration Impact - Future

Noise Impacts

- Moderate - Future
- Severe - Future

Noise Contours

- Moderate Level - Existing
- Moderate Level - Future
- Severe Level - Existing
- Severe Level - Future

Vibration Contours

- Existing Contour
- Future Contour
- County Boundary

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Vibration Impacts

- Vibration Impact - Future

Noise Impacts

- Moderate - Future
- Severe - Future

Noise Contours

- Moderate Level - Existing
- Moderate Level - Future
- Severe Level - Existing
- Severe Level - Future

Vibration Contours

- Existing Contour
- Future Contour
- County Boundary

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Vibration Impacts

- Vibration Impact - Future

Noise Impacts

- Moderate - Future
- Severe - Future

Noise Contours

- Moderate Level - Existing
- Moderate Level - Future
- Severe Level - Existing
- Severe Level - Future

Vibration Contours

- Existing Contour
- Future Contour
- County Boundary

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Vibration Impacts

- Vibration Impact - Future

Noise Impacts

- Moderate - Future
- Severe - Future

Noise Contours

- Moderate Level - Existing
- Moderate Level - Future
- Severe Level - Existing
- Severe Level - Future

Vibration Contours

- Existing Contour
- Future Contour
- County Boundary

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Vibration Impacts
- Vibration Impact - Future

Noise Impacts
- Moderate - Future
- Severe - Future

Noise Contours
- Moderate Level - Existing
- Moderate Level - Future
- Severe Level - Existing
- Severe Level - Future

Vibration Contours
- Existing Contour
- Future Contour
- County Boundary

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Vibration Impacts

- Vibration Impact - Future

Noise Impacts

- Moderate - Future
- Severe - Future

Noise Contours

- Moderate Level - Existing
- Moderate Level - Future
- Severe Level - Existing
- Severe Level - Future

Vibration Contours

- Existing Contour
- Future Contour
- County Boundary

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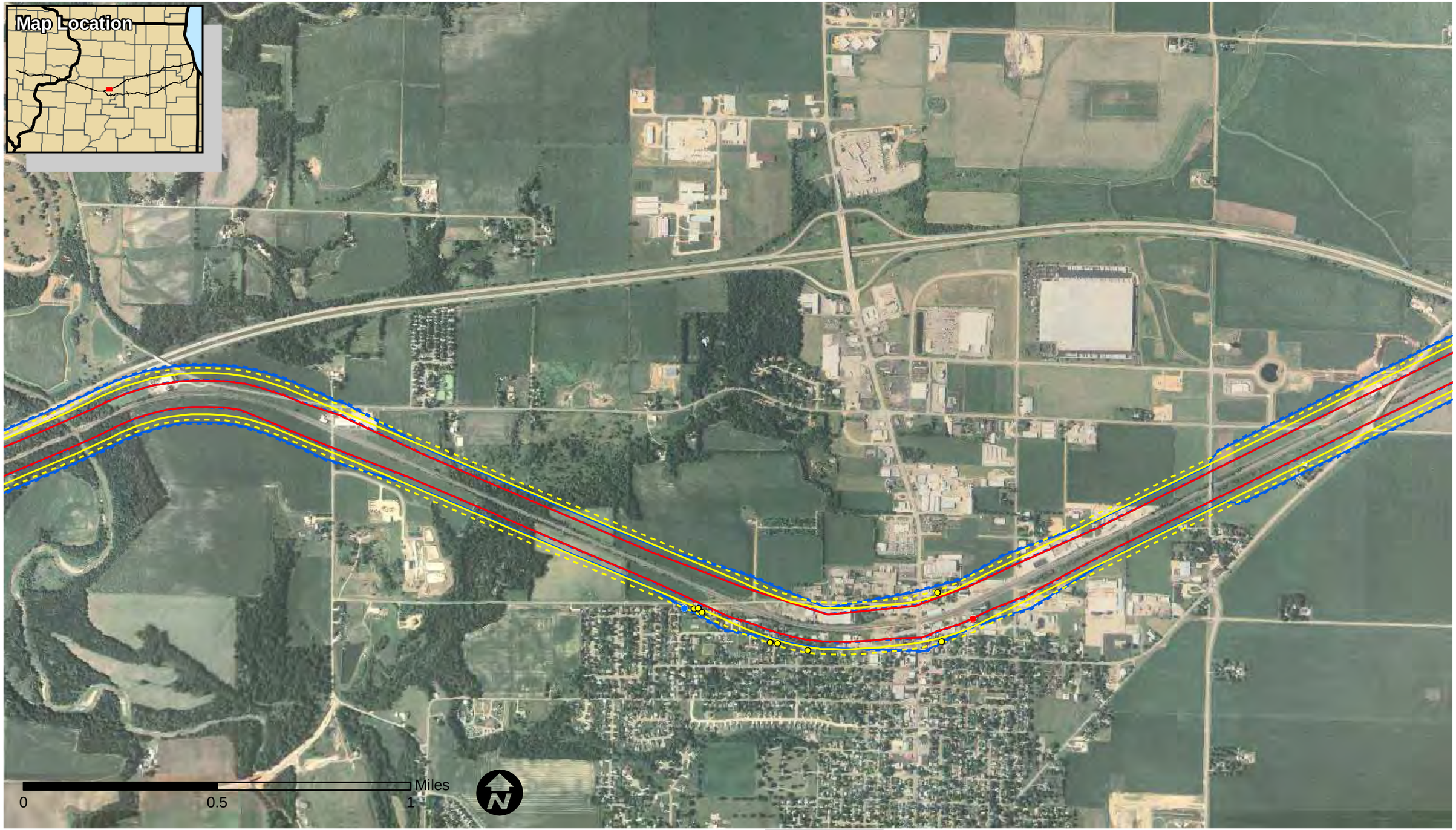

Vibration Impacts

- Vibration Impact - Future

Noise Impacts

- Moderate - Future
- Severe - Future

Noise Contours

- Moderate Level - Existing
- Moderate Level - Future
- Severe Level - Existing
- Severe Level - Future

Vibration Contours

- Existing Contour
- Future Contour
- County Boundary

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Vibration Impacts

- Vibration Impact - Future

Noise Impacts

- Moderate - Future
- Severe - Future

Noise Contours

- Moderate Level - Existing
- Moderate Level - Future
- Severe Level - Existing
- Severe Level - Future

Vibration Contours

- Existing Contour
- Future Contour
- County Boundary

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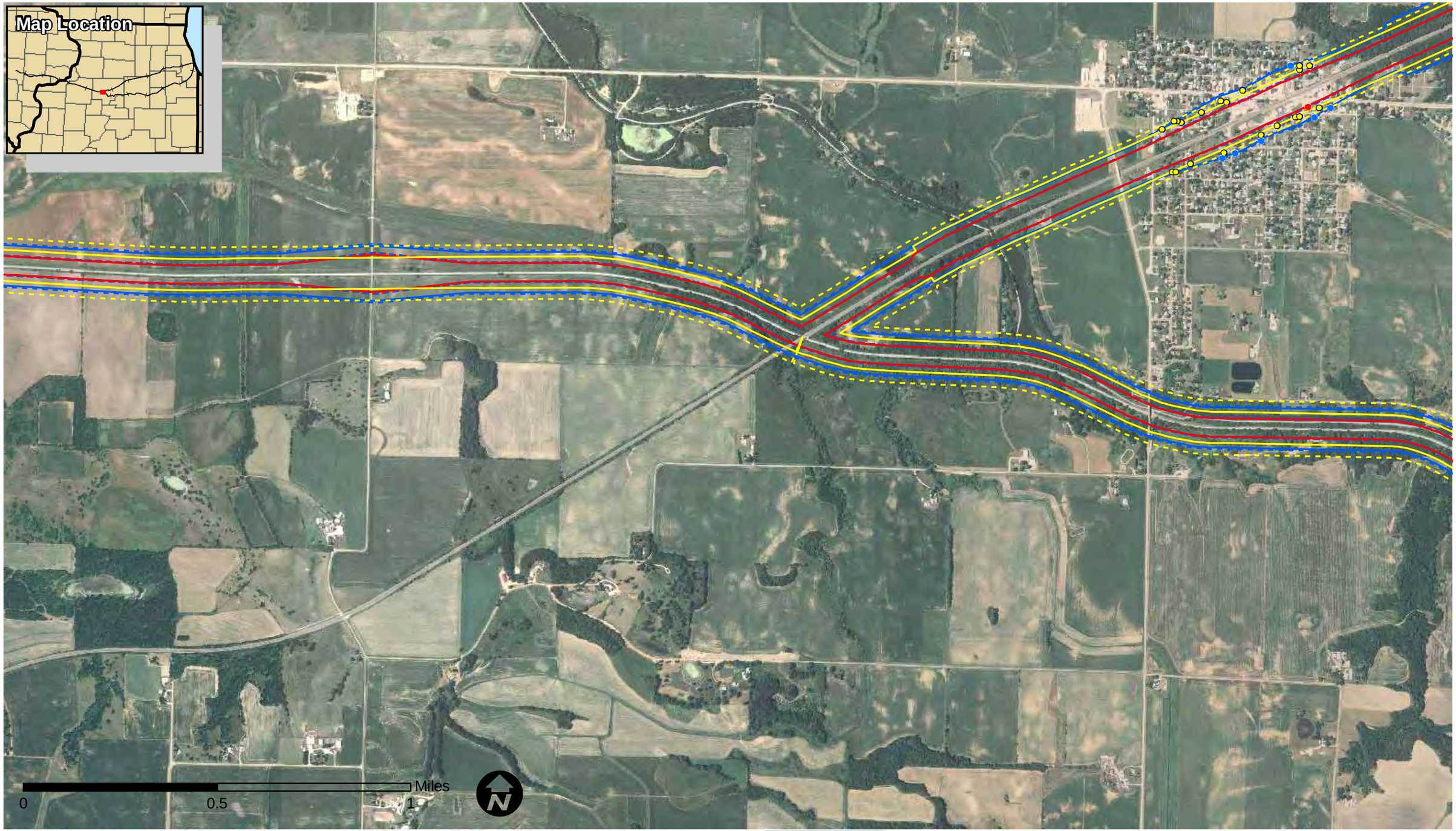

Vibration Impacts

- Vibration Impact - Future

Noise Impacts

- Moderate - Future
- Severe - Future

Noise Contours

- Moderate Level - Existing
- Moderate Level - Future
- Severe Level - Existing
- Severe Level - Future

Vibration Contours

- Existing Contour
- Future Contour
- County Boundary

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ROUTE B ALTERNATIVE
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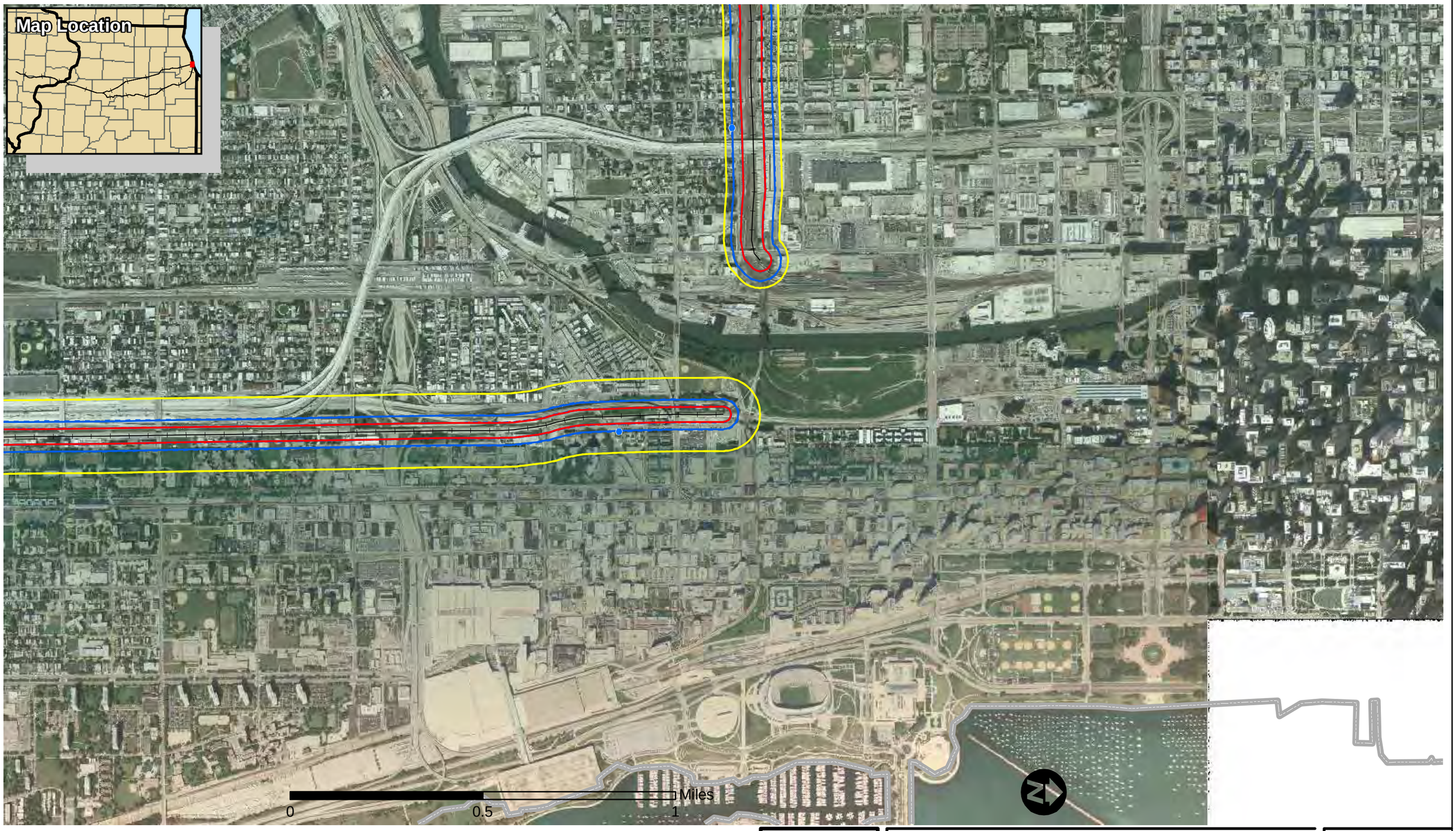

Vibration Impacts

- Vibration Impact - Future

Noise Impacts

- Moderate - Future
- Severe - Future

Noise Contours

- Moderate Level - Existing
- Moderate Level - Future
- Severe Level - Existing
- Severe Level - Future

Vibration Contours

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- Future Contour

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Vibration Impacts
- Vibration Impact - Future

Noise Impacts
- Moderate - Future
- Severe - Future

Noise Contours
- Moderate Level - Existing
- Moderate Level - Future
- Severe Level - Existing
- Severe Level - Future

Vibration Contours
- Existing Contour
- Future Contour

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Vibration Impacts

- Vibration Impact - Future

Noise Impacts

- Moderate - Future
- Severe - Future

Noise Contours

- Moderate Level - Existing
- Moderate Level - Future
- Severe Level - Existing
- Severe Level - Future

Vibration Contours

- Existing Contour
- Future Contour
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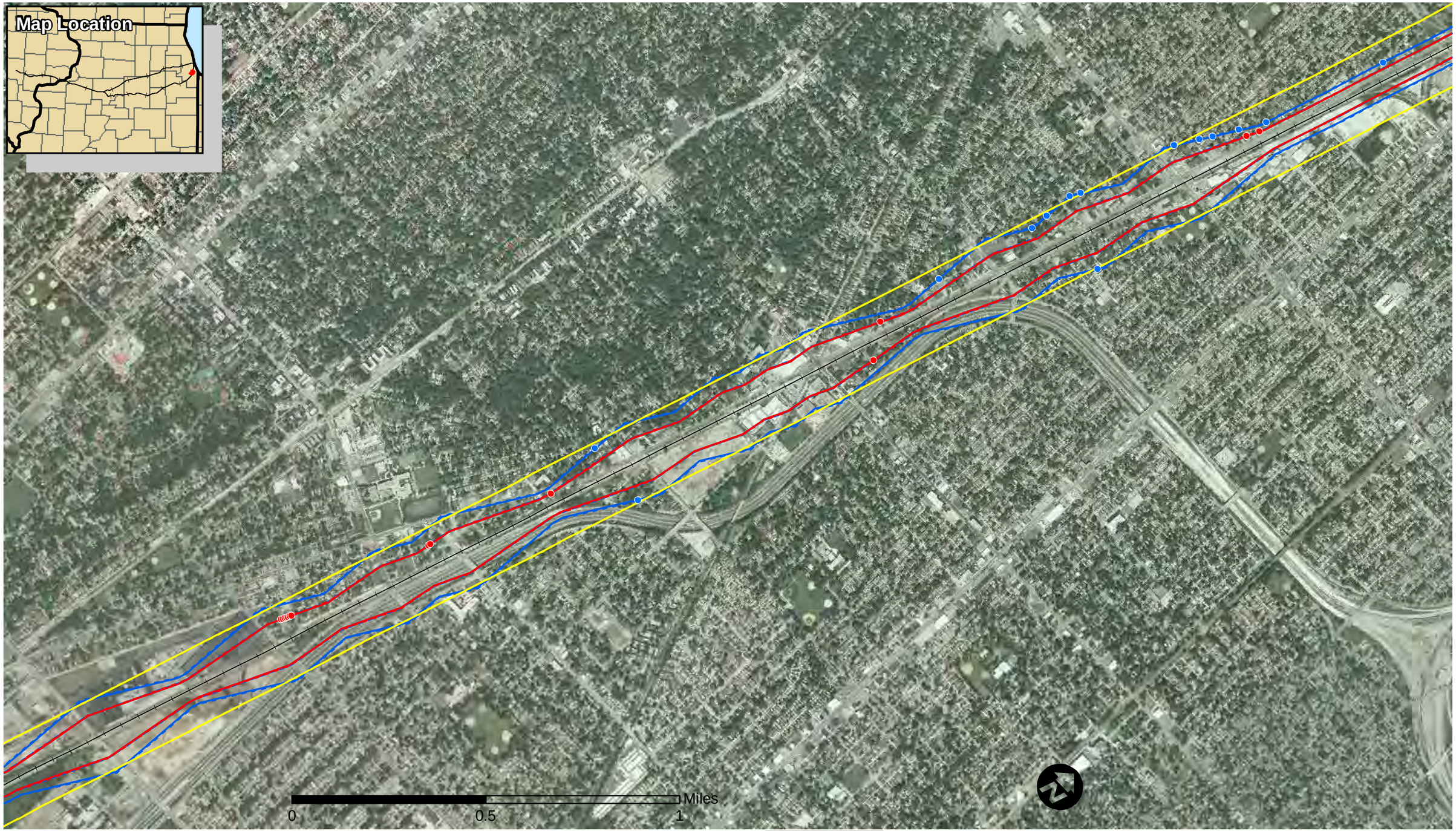

Vibration Impacts
- Vibration Impact - Future

Noise Impacts
- Moderate - Future
- Severe - Future

Noise Contours
- Moderate Level - Existing
- Moderate Level - Future
- Severe Level - Existing
- Severe Level - Future

Vibration Contours
- Existing Contour
- Future Contour

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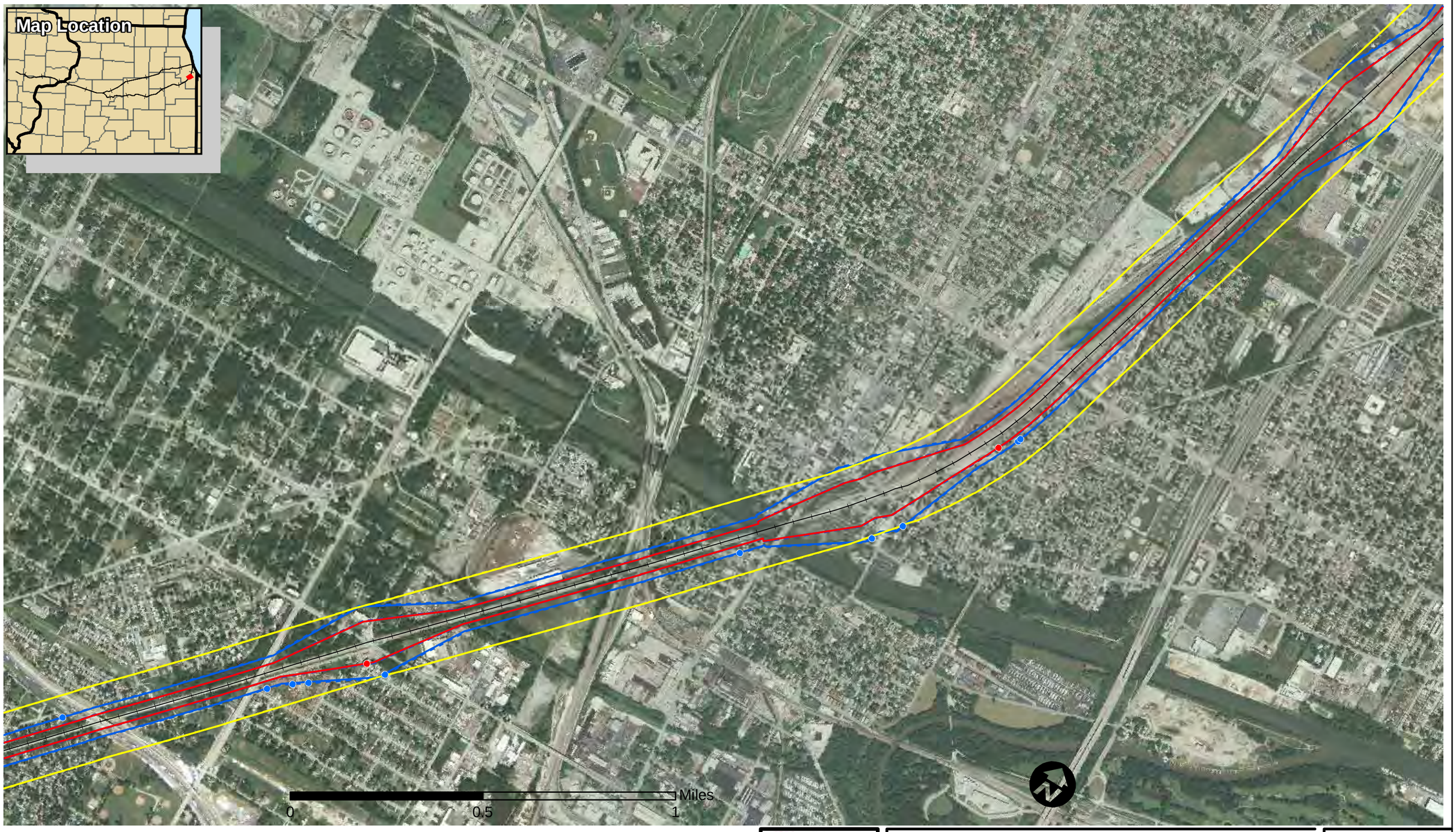

Vibration Impacts

- Vibration Impact - Future

Noise Impacts

- Moderate - Future
- Severe - Future

Noise Contours

- Moderate Level - Existing
- Moderate Level - Future
- Severe Level - Existing
- Severe Level - Future

Vibration Contours

- Existing Contour
- Future Contour

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Vibration Impacts

- Vibration Impact - Future

Noise Impacts

- Moderate - Future
- Severe - Future

Noise Contours

- Moderate Level - Existing
- Moderate Level - Future
- Severe Level - Existing
- Severe Level - Future

Vibration Contours

- Existing Contour
- Future Contour

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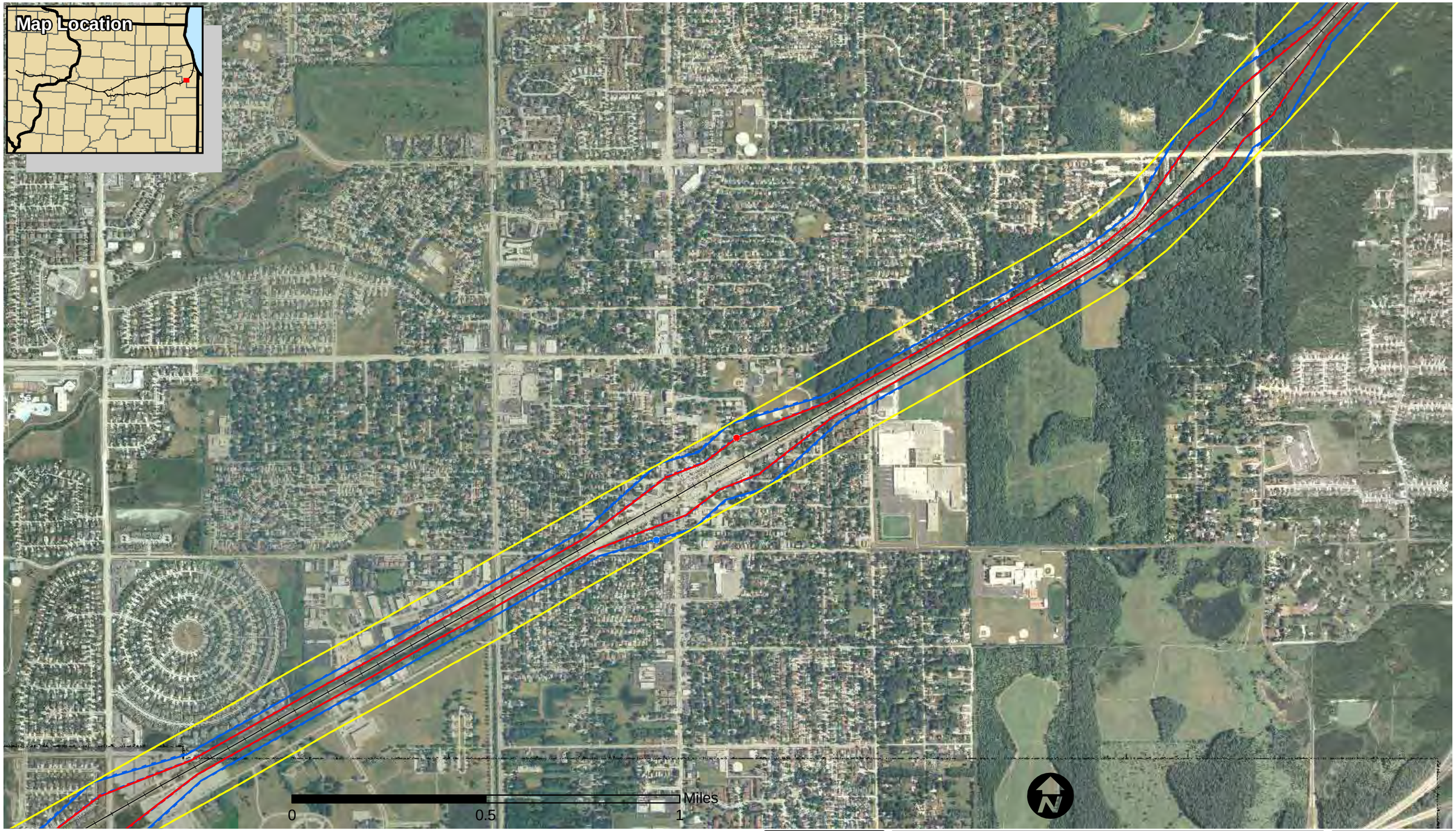

Vibration Impacts

- Vibration Impact - Future

Noise Impacts

- Moderate - Future
- Severe - Future

Noise Contours

- Moderate Level - Existing
- Moderate Level - Future
- Severe Level - Existing
- Severe Level - Future

Vibration Contours

- Existing Contour
- Future Contour

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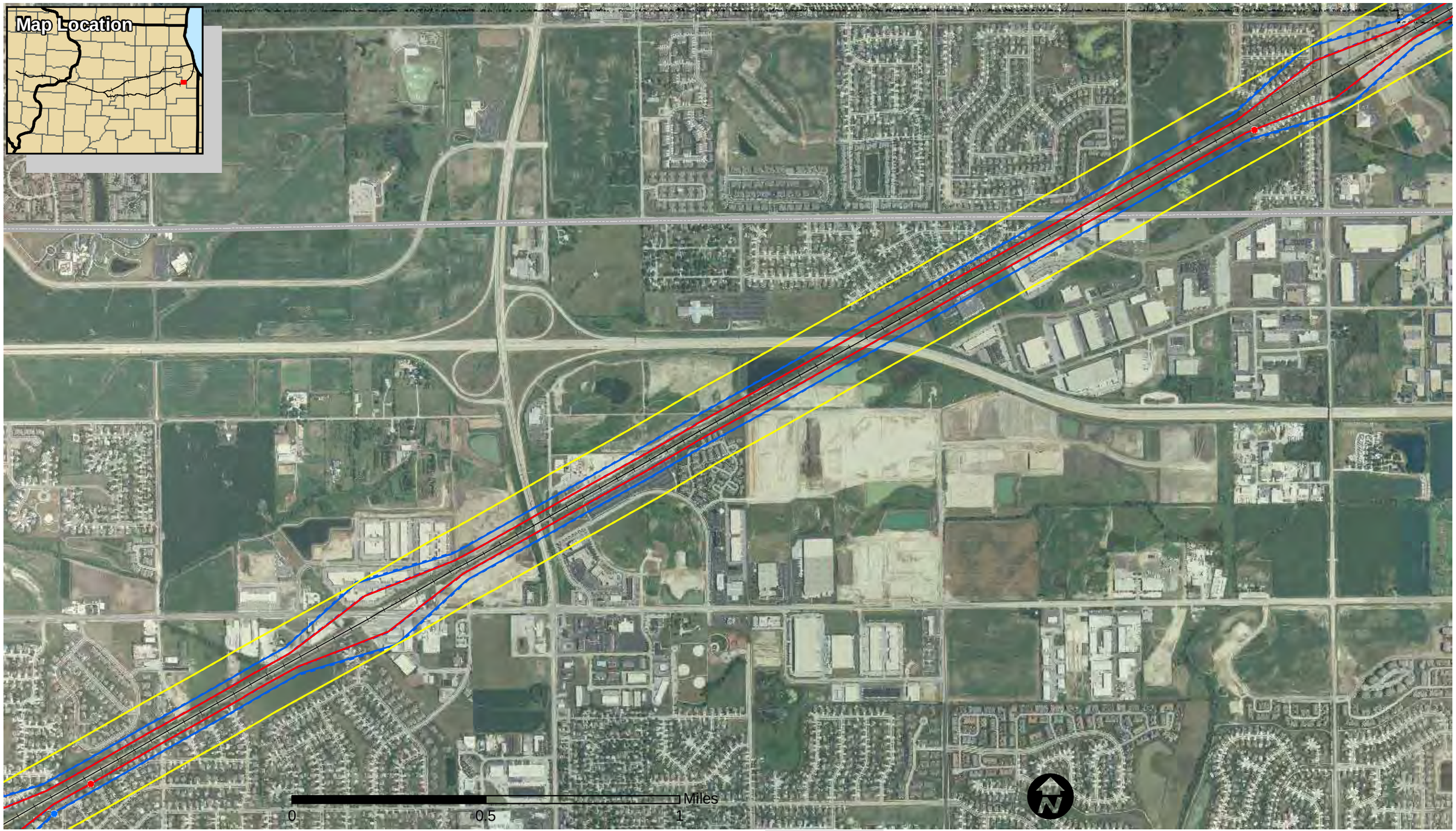

Vibration Impacts
- Vibration Impact - Future

Noise Impacts
- Moderate - Future
- Severe - Future

Noise Contours
- Moderate Level - Existing
- Moderate Level - Future
- Severe Level - Existing
- Severe Level - Future

Vibration Contours
- Existing Contour
- Future Contour

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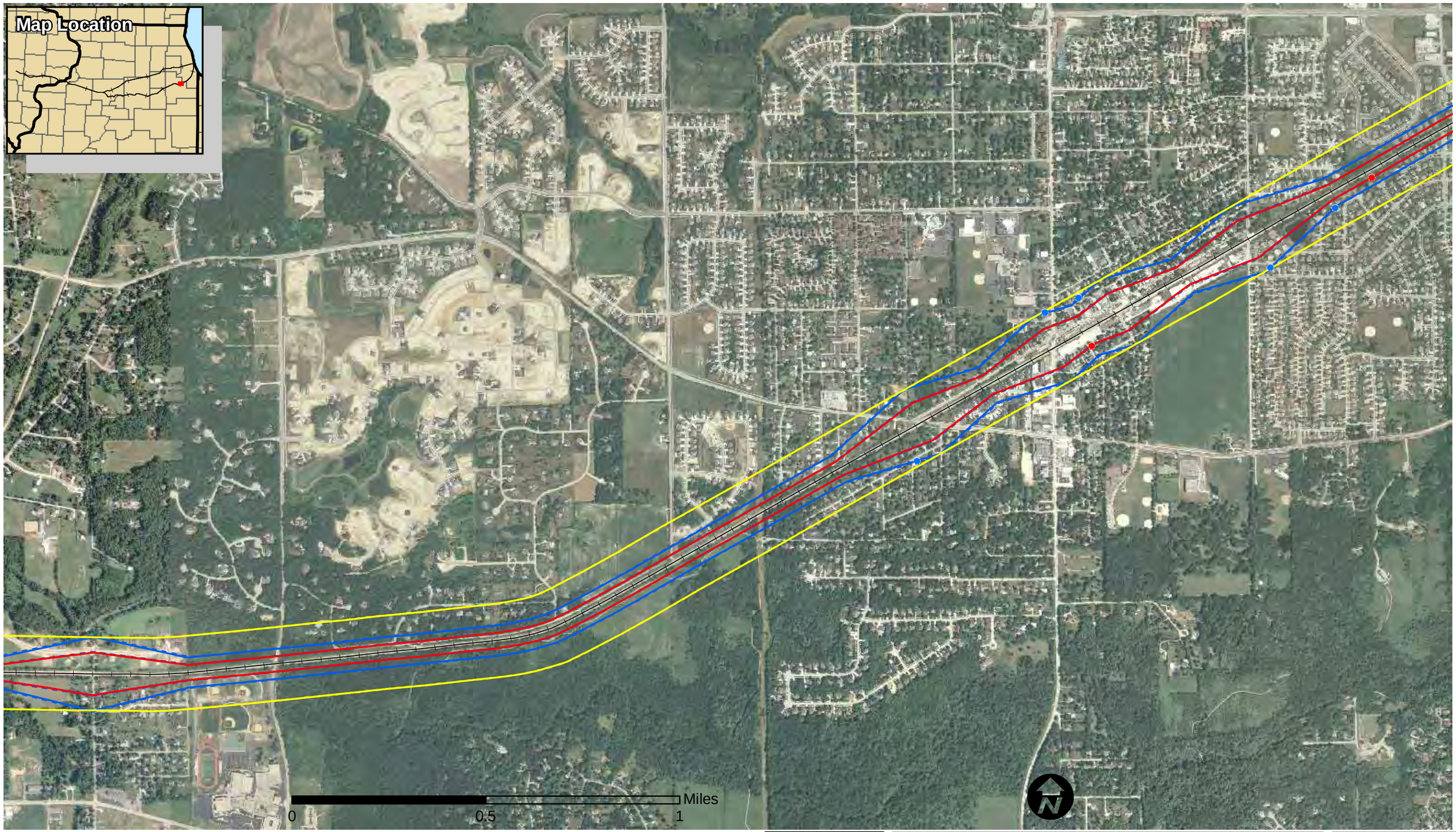

Vibration Impacts

- Vibration Impact - Future

Noise Impacts

- Moderate - Future
- Severe - Future

Noise Contours

- Moderate Level - Existing
- Moderate Level - Future
- Severe Level - Existing
- Severe Level - Future

Vibration Contours

- Existing Contour
- Future Contour
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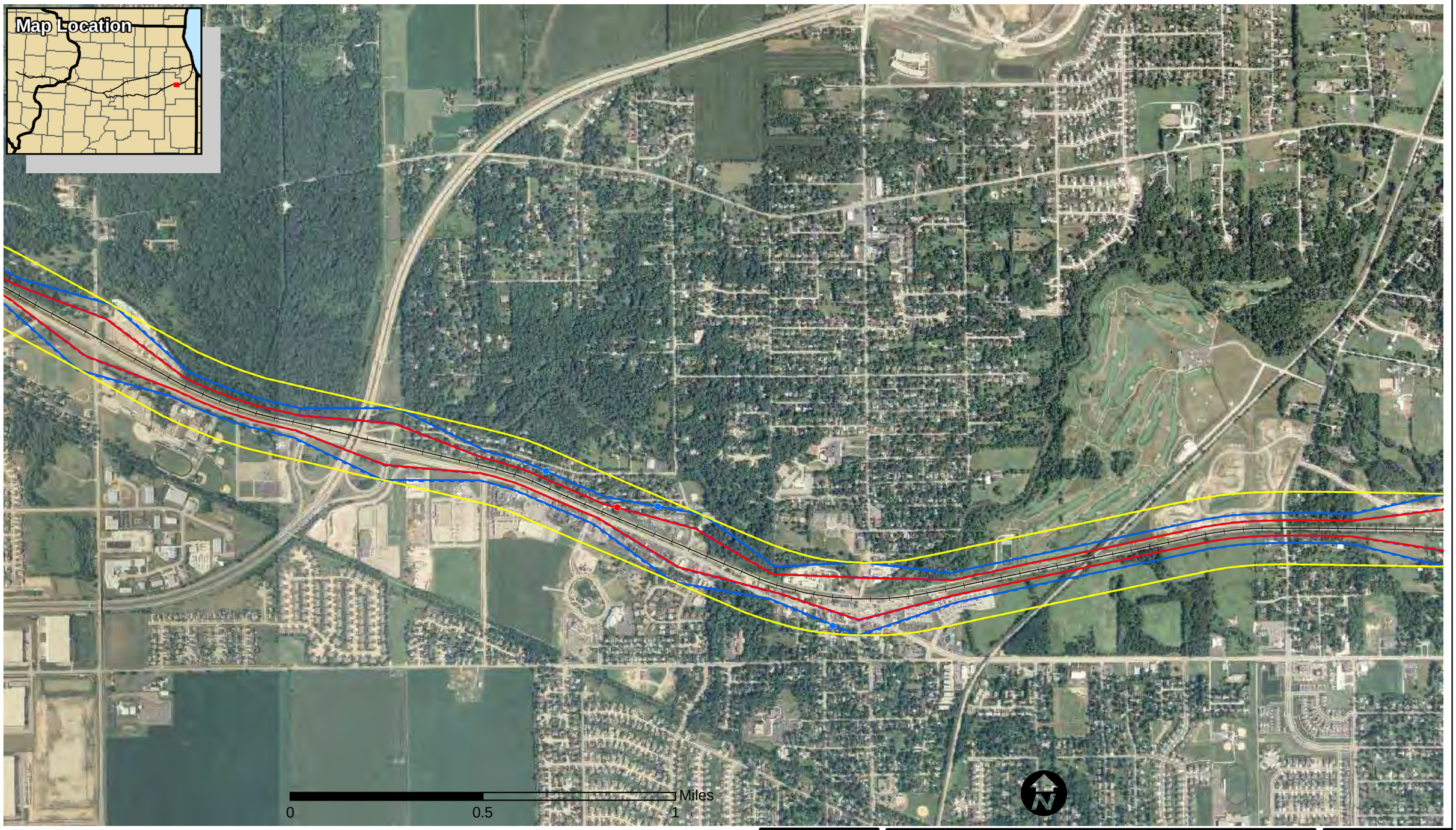

Vibration Impacts

- Vibration Impact - Future

Noise Impacts

- Moderate - Future
- Severe - Future

Noise Contours

- Moderate Level - Existing
- Moderate Level - Future
- Severe Level - Existing
- Severe Level - Future

Vibration Contours

- Existing Contour
- Future Contour

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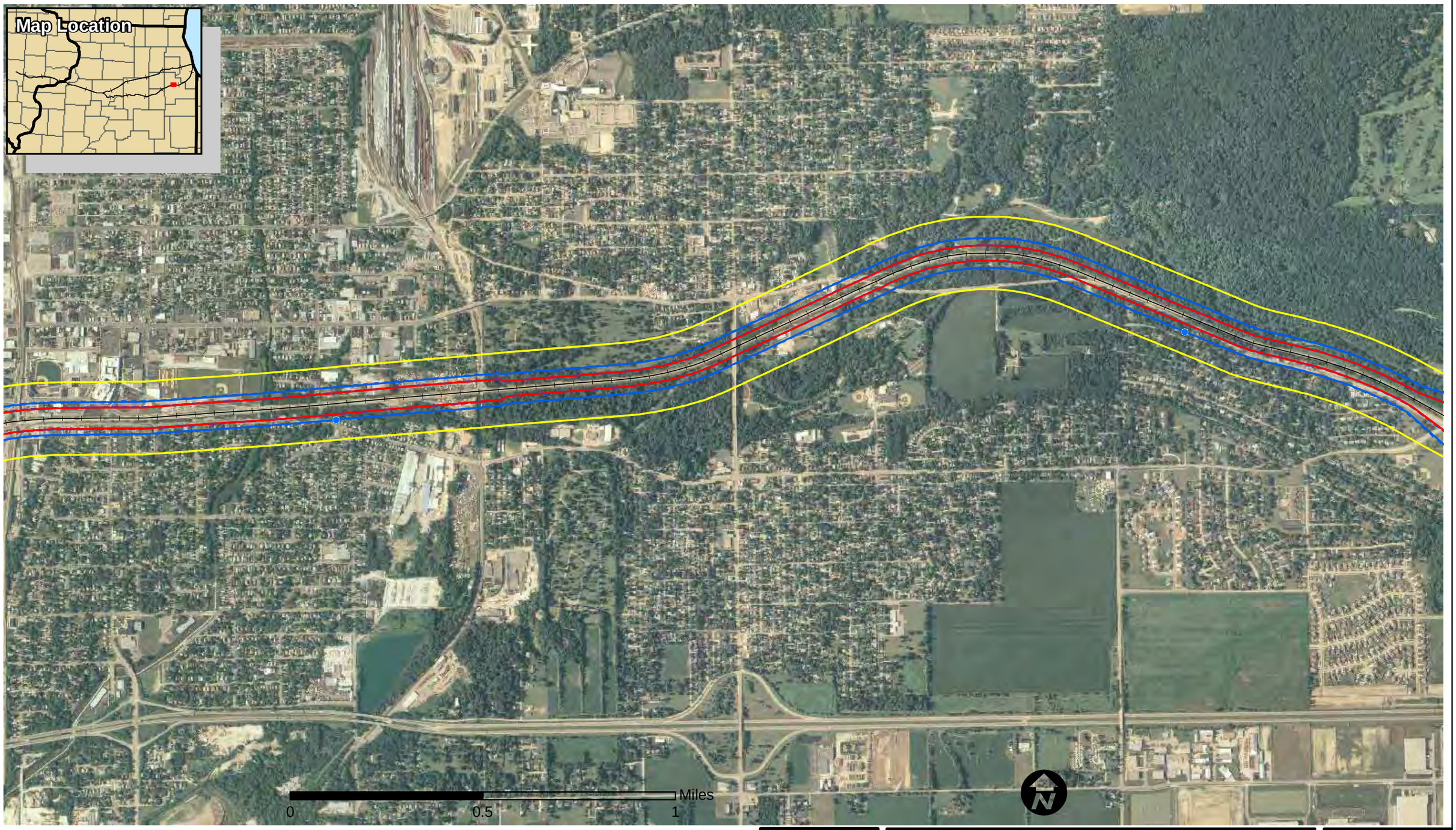

Vibration Impacts

- Vibration Impact - Future

Noise Impacts

- Moderate - Future
- Severe - Future

Noise Contours

- Moderate Level - Existing
- Moderate Level - Future
- Severe Level - Existing
- Severe Level - Future

Vibration Contours

- Existing Contour
- Future Contour
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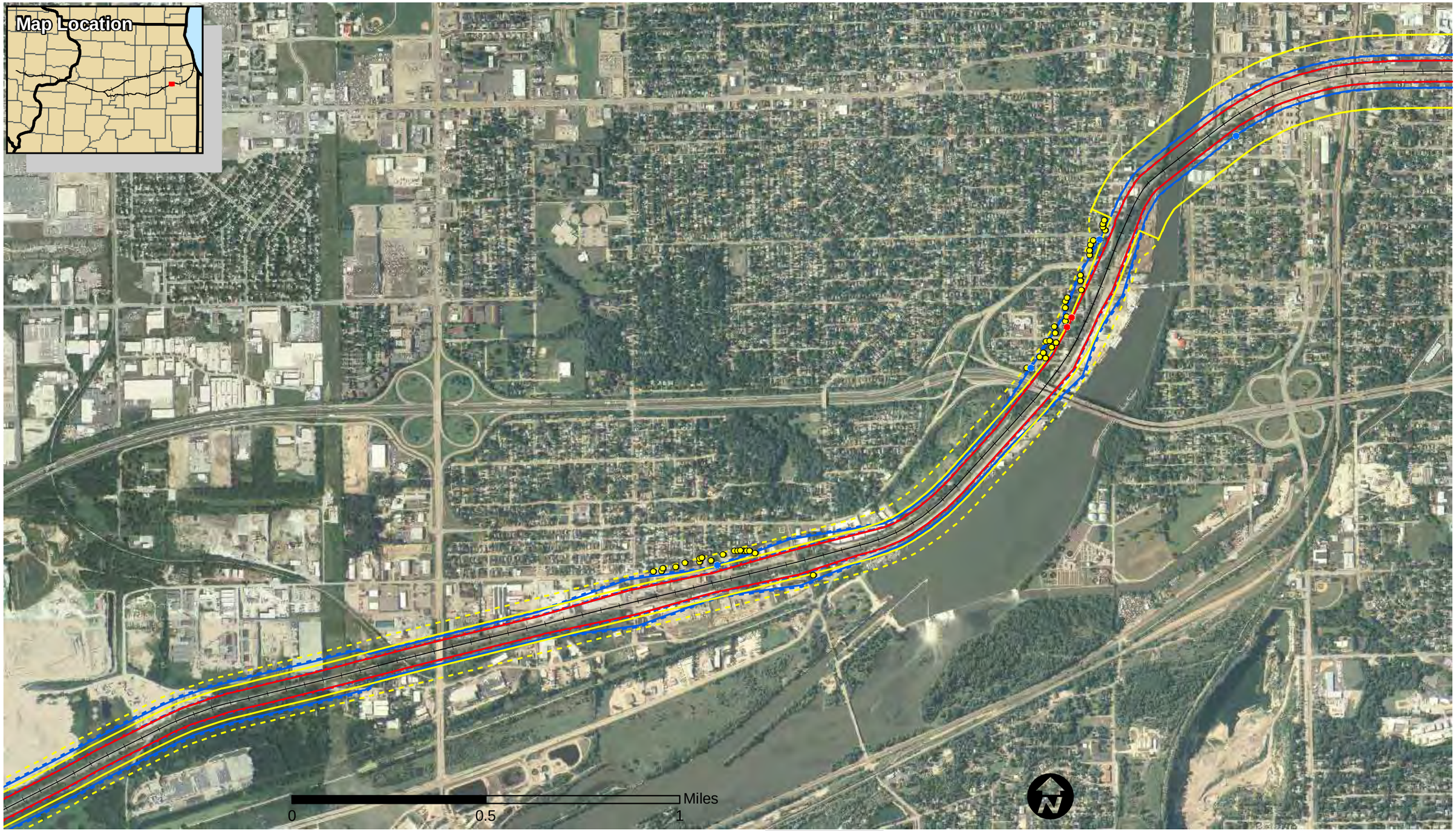

Vibration Impacts

- Vibration Impact - Future

Noise Impacts

- Moderate - Future
- Severe - Future

Noise Contours

- Moderate Level - Existing
- Moderate Level - Future
- Severe Level - Existing
- Severe Level - Future

Vibration Contours

- Existing Contour
- Future Contour

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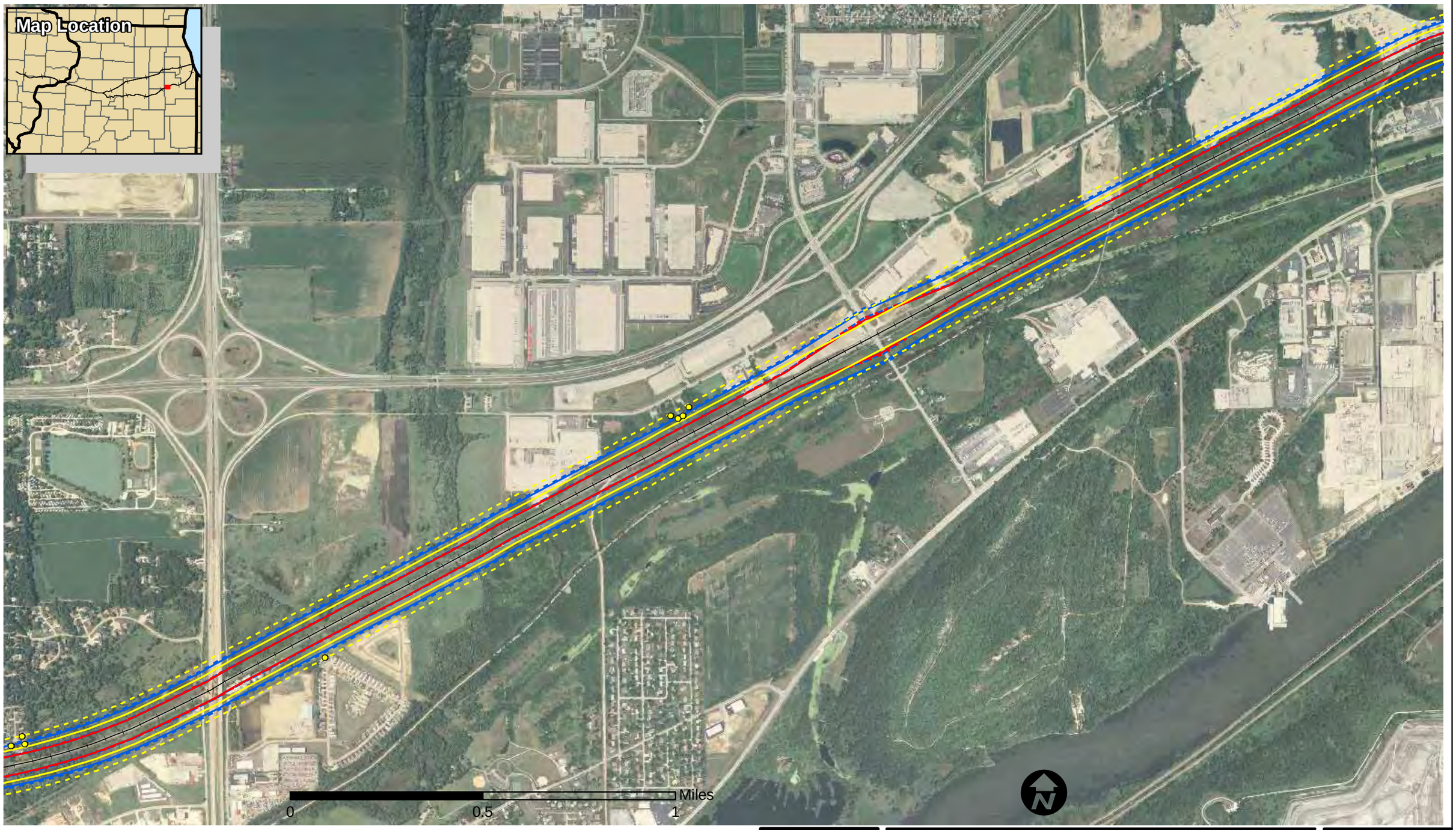

Vibration Impacts

- Vibration Impact - Future

Noise Impacts

- Moderate - Future
- Severe - Future

Noise Contours

- Moderate Level - Existing
- Moderate Level - Future
- Severe Level - Existing
- Severe Level - Future

Vibration Contours

- Existing Contour
- Future Contour
- County Boundary

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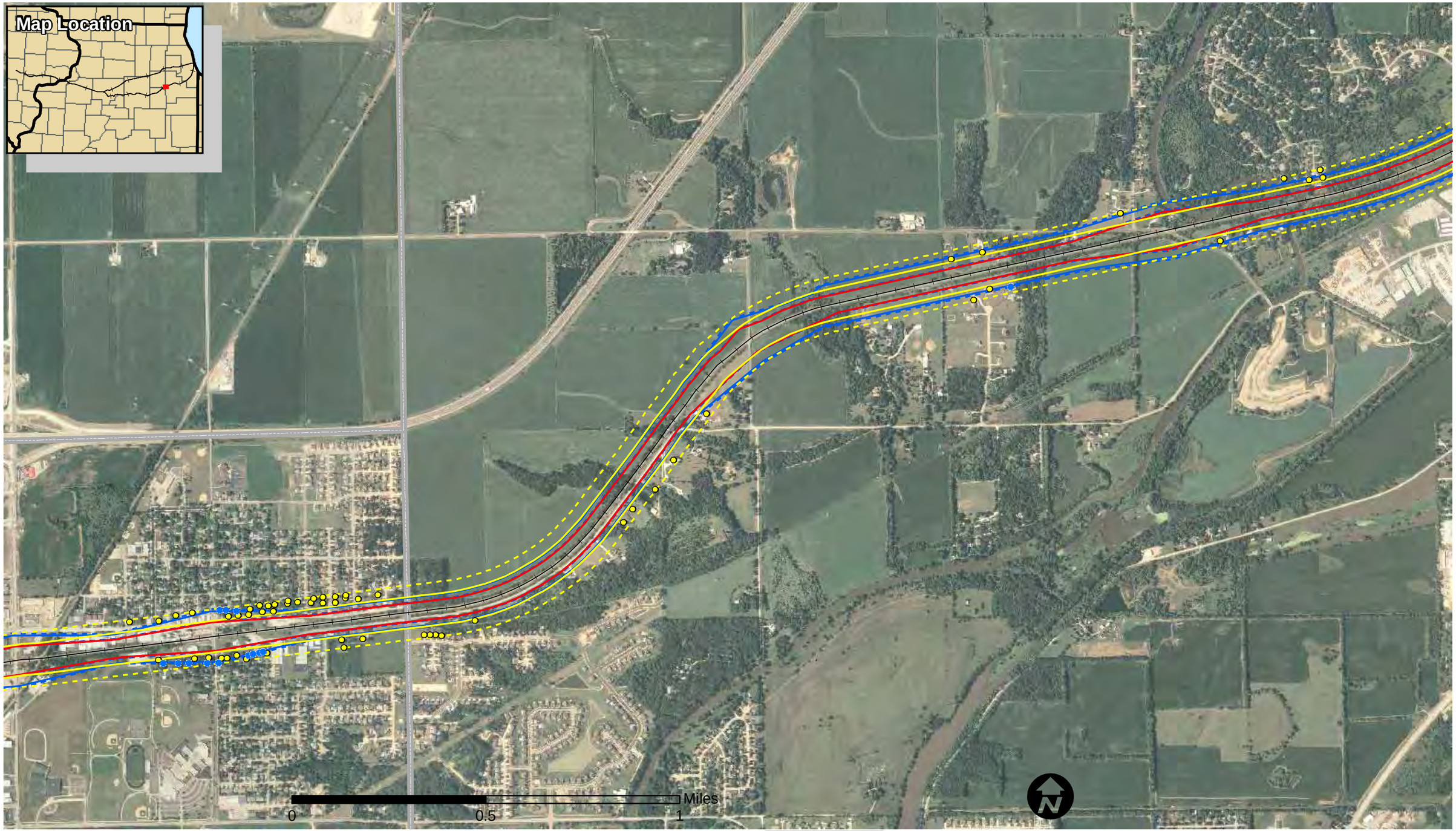

Vibration Impacts

- Vibration Impact - Future

Noise Impacts

- Moderate - Future
- Severe - Future

Noise Contours

- Moderate Level - Existing
- Moderate Level - Future
- Severe Level - Existing
- Severe Level - Future

Vibration Contours

- Existing Contour
- Future Contour

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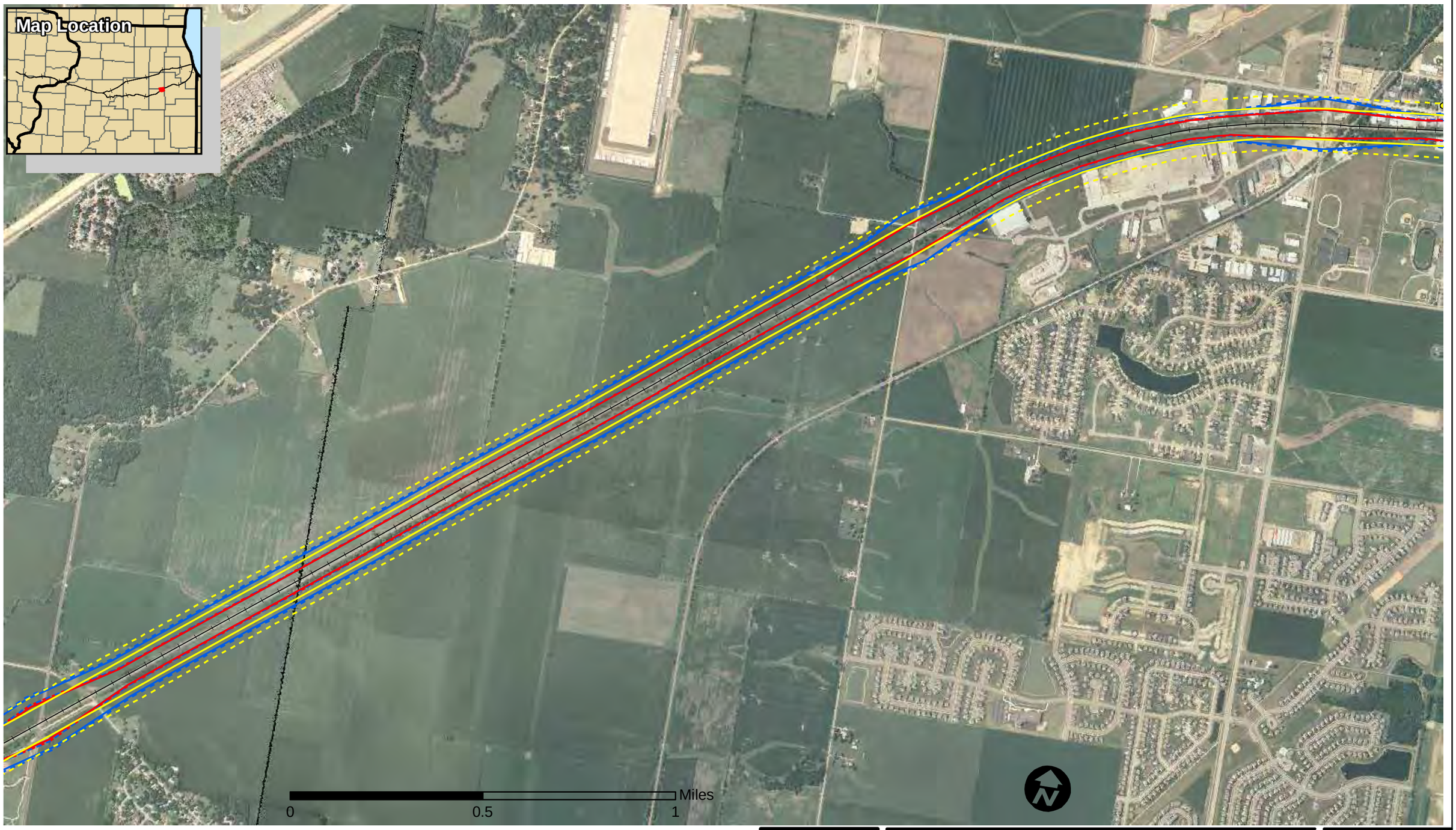

Vibration Impacts
- Vibration Impact - Future

Noise Impacts
- Moderate - Future
- Severe - Future

Noise Contours
- Moderate Level - Existing
- Moderate Level - Future
- Severe Level - Existing
- Severe Level - Future

Vibration Contours
- Existing Contour
- Future Contour

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Vibration Impacts
- Vibration Impact - Future

Noise Impacts
- Moderate - Future
- Severe - Future

Noise Contours
- Moderate Level - Existing
- Moderate Level - Future
- Severe Level - Existing
- Severe Level - Future

Vibration Contours
- Existing Contour
- Future Contour
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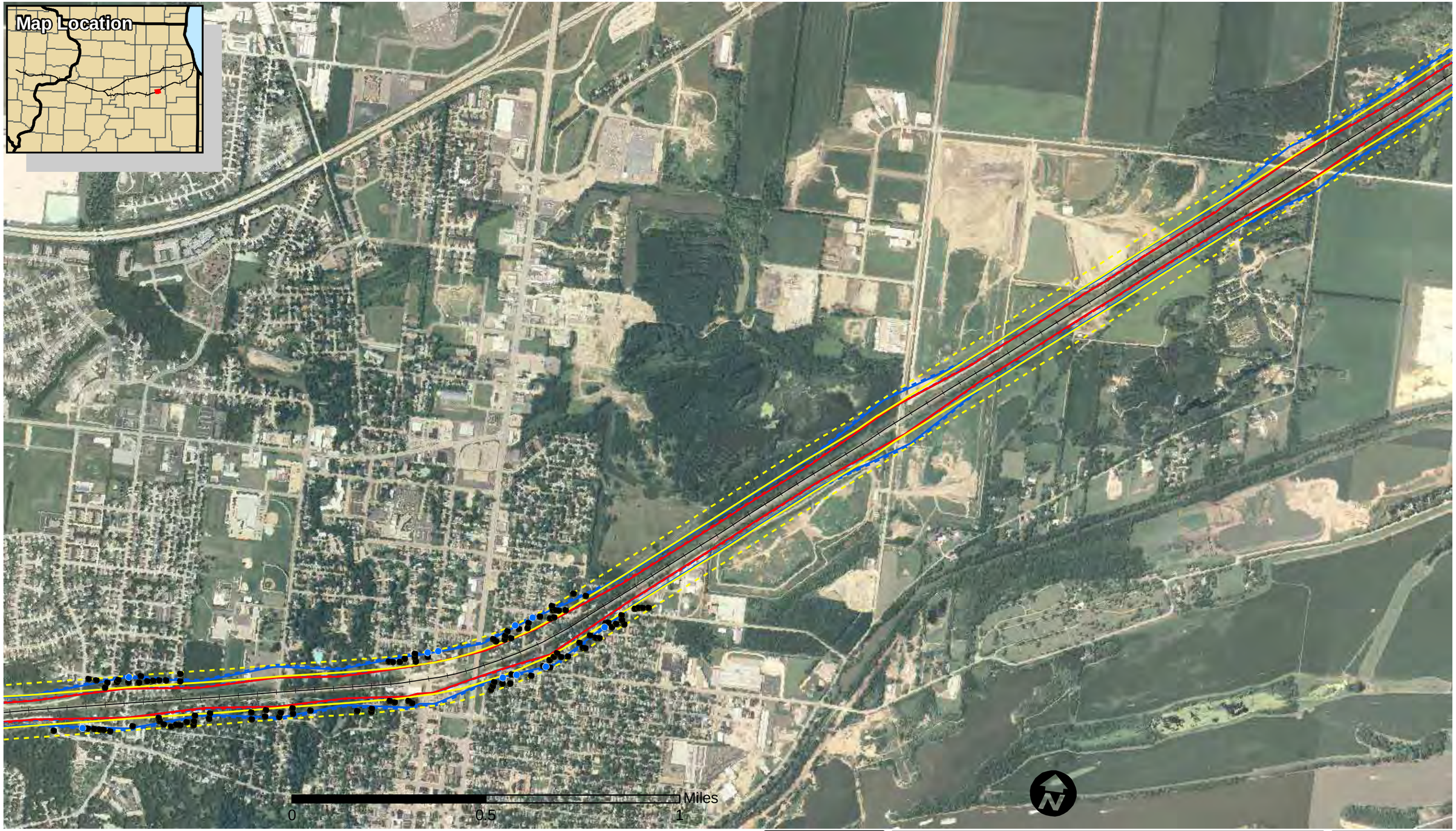

Vibration Impacts

- Vibration Impact - Future

Noise Impacts

- Moderate - Future
- Severe - Future

Noise Contours

- Moderate Level - Existing
- Moderate Level - Future
- Severe Level - Existing
- Severe Level - Future

Vibration Contours

- Existing Contour
- Future Contour

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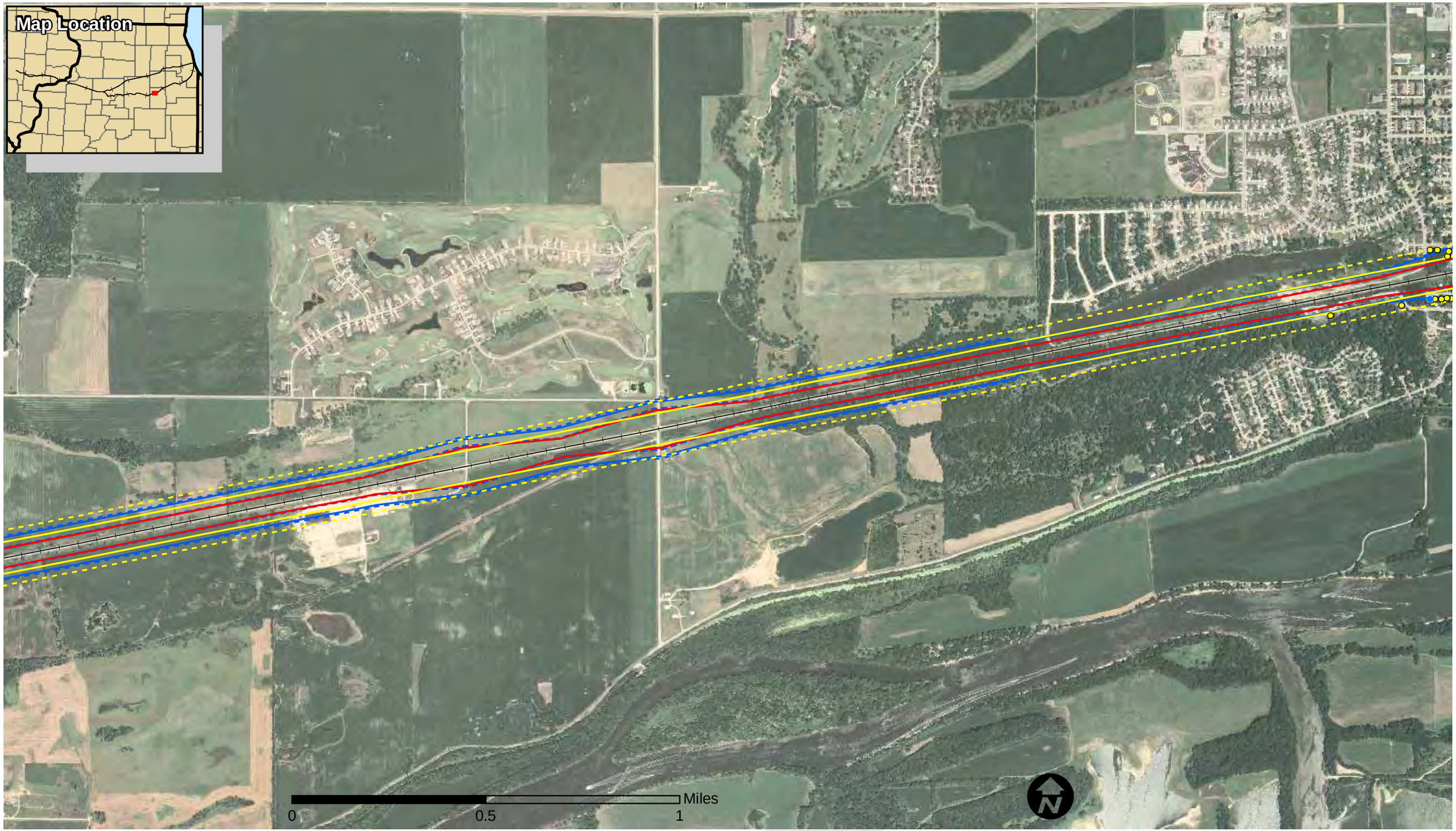

Vibration Impacts

- Vibration Impact - Future

Noise Impacts

- Moderate - Future
- Severe - Future

Noise Contours

- Moderate Level - Existing
- Moderate Level - Future
- Severe Level - Existing
- Severe Level - Future

Vibration Contours

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- Future Contour
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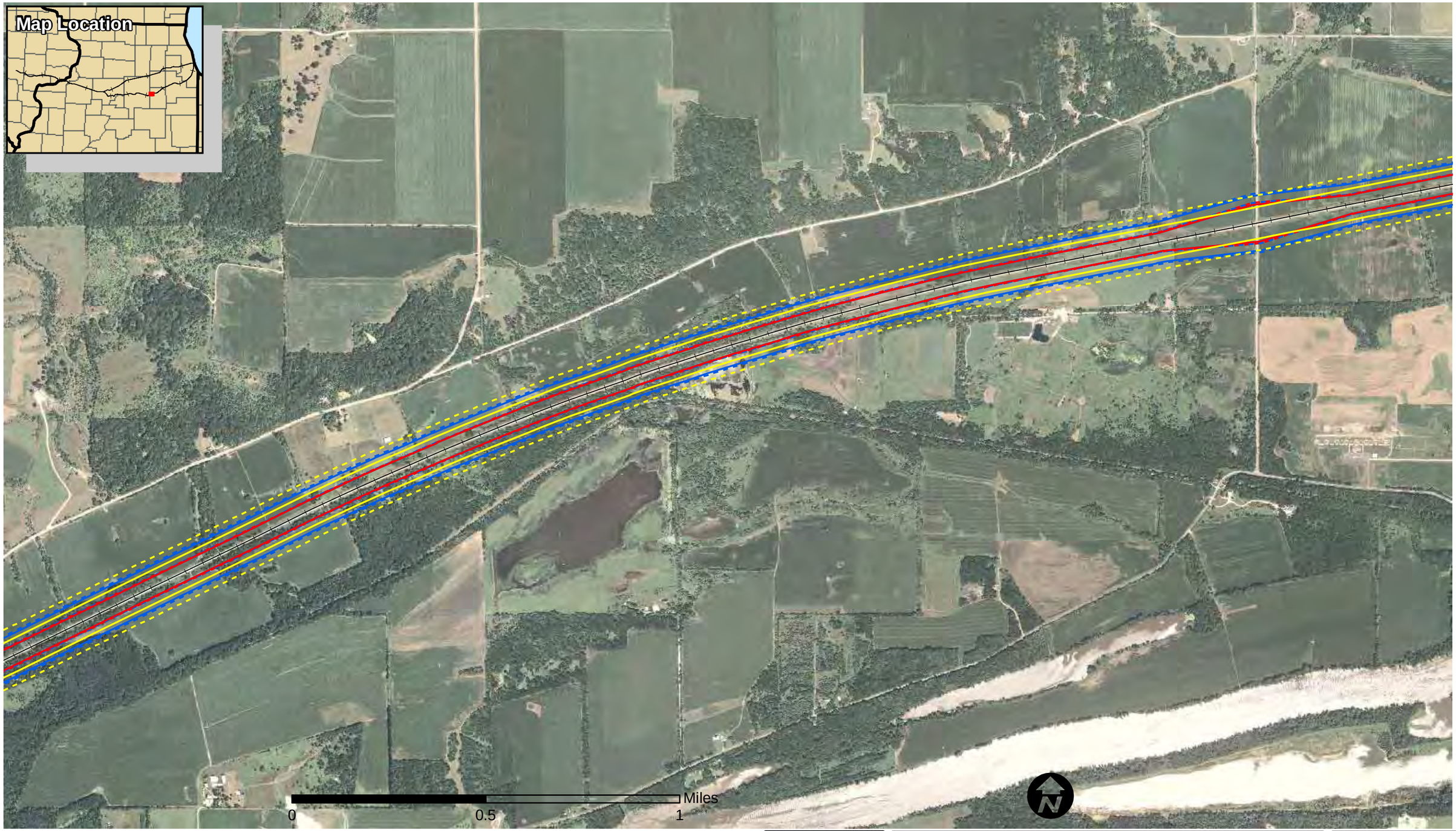

Vibration Impacts
- Vibration Impact - Future

Noise Impacts
- Moderate - Future
- Severe - Future

Noise Contours
- Moderate Level - Existing
- Moderate Level - Future
- Severe Level - Existing
- Severe Level - Future

Vibration Contours
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Vibration Impacts

- Vibration Impact - Future

Noise Impacts

- Moderate - Future
- Severe - Future

Noise Contours

- Moderate Level - Existing
- Moderate Level - Future
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- Severe Level - Future

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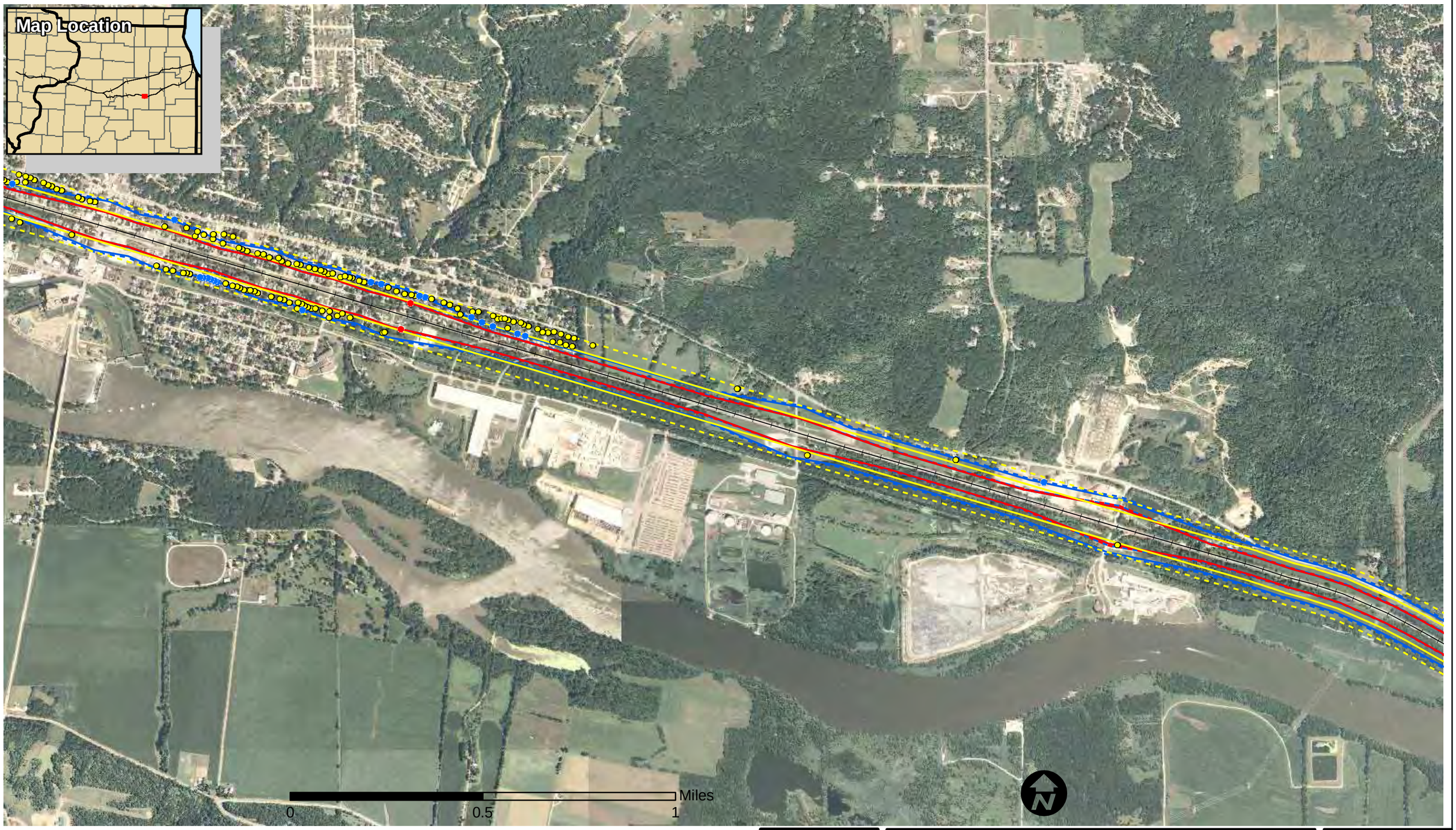

Vibration Impacts

- Vibration Impact - Future

Noise Impacts

- Moderate - Future
- Severe - Future

Noise Contours

- Moderate Level - Existing
- Moderate Level - Future
- Severe Level - Existing
- Severe Level - Future

Vibration Contours

- Existing Contour
- Future Contour
- County Boundary

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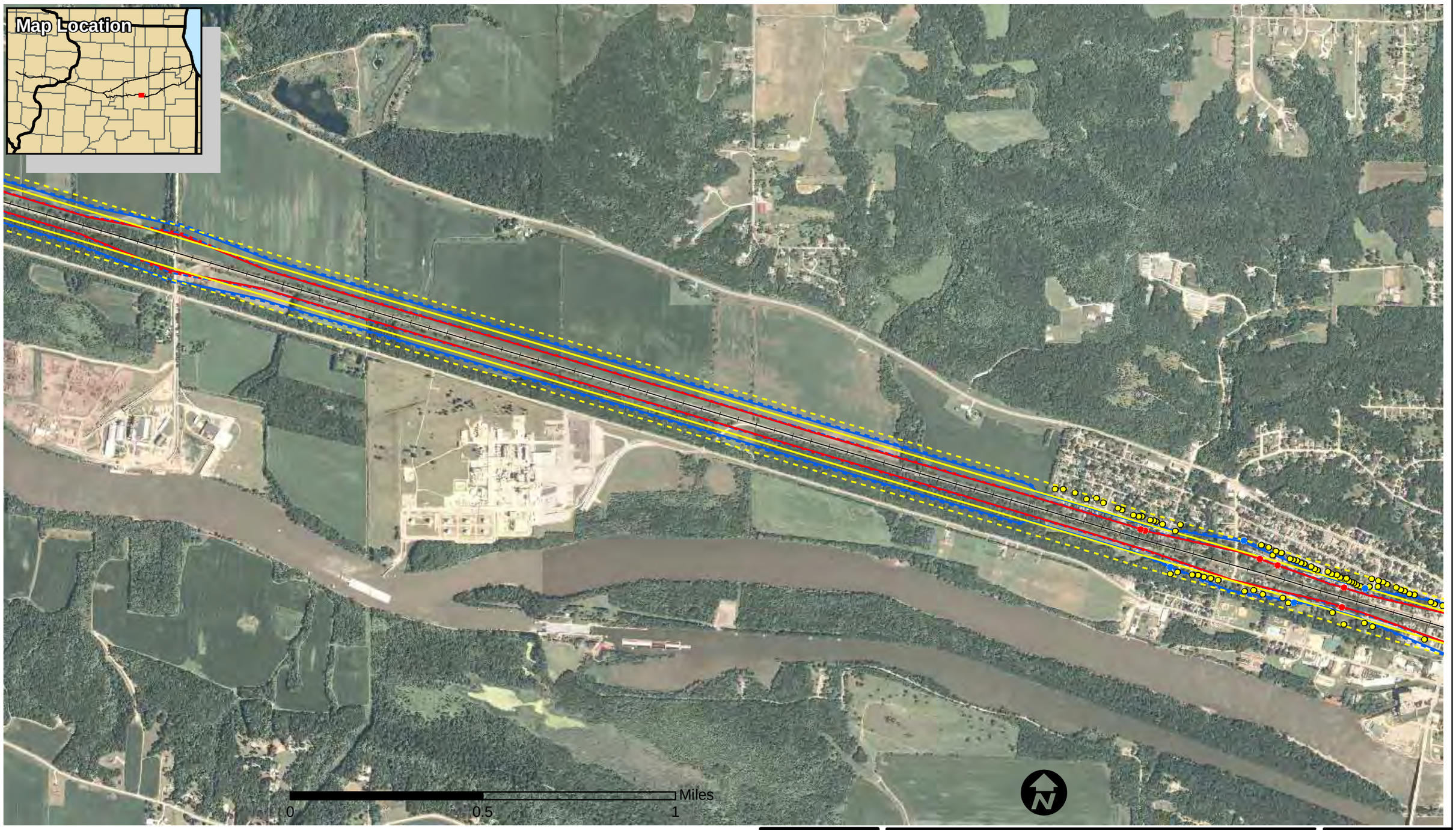

Vibration Impacts

- Vibration Impact - Future

Noise Impacts

- Moderate - Future
- Severe - Future

Noise Contours

- Moderate Level - Existing
- Moderate Level - Future
- Severe Level - Existing
- Severe Level - Future

Vibration Contours

- Existing Contour
- Future Contour
- County Boundary

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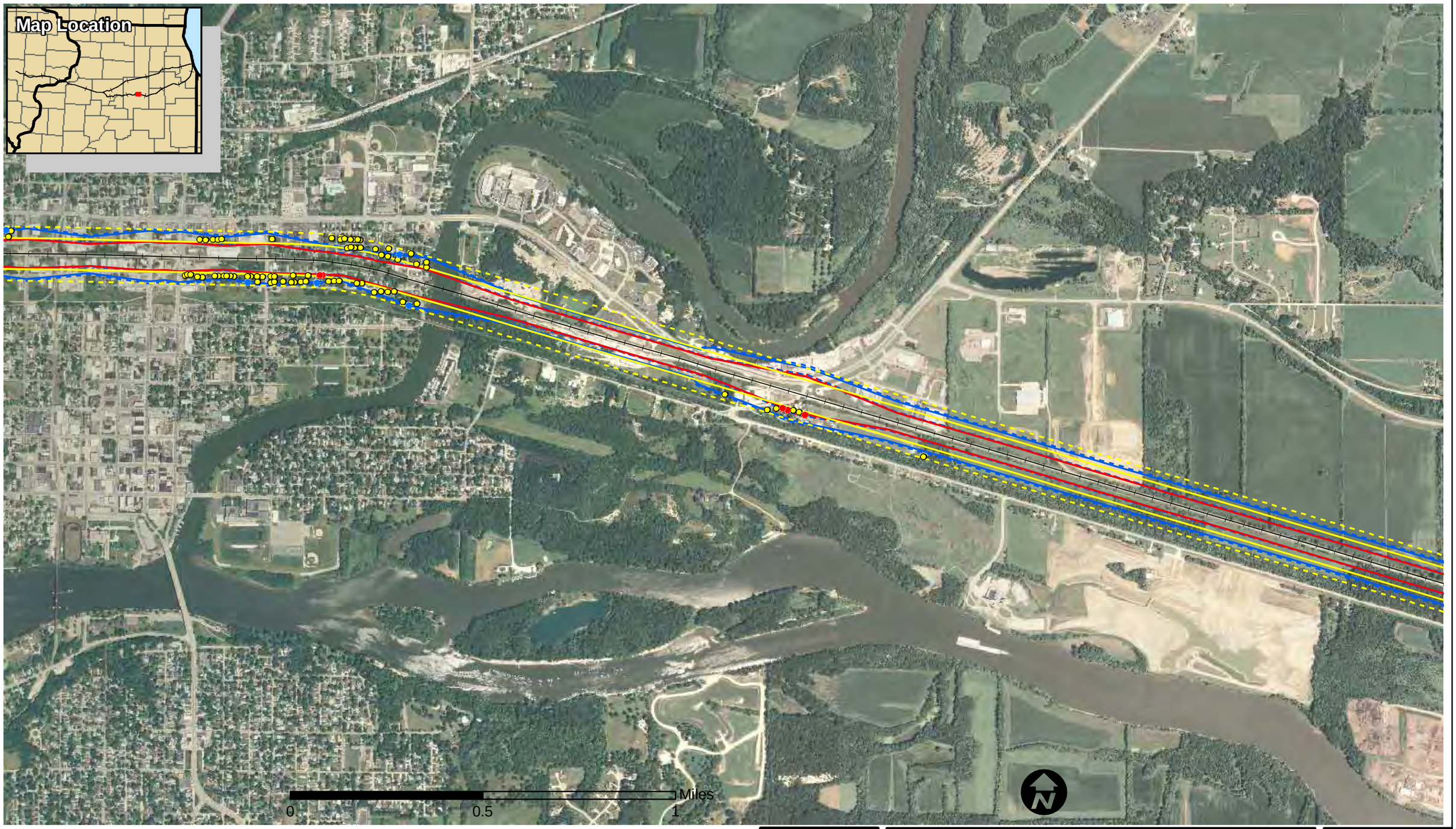

Vibration Impacts

- Vibration Impact - Future

Noise Impacts

- Moderate - Future
- Severe - Future

Noise Contours

- Moderate Level - Existing
- Moderate Level - Future
- Severe Level - Existing
- Severe Level - Future

Vibration Contours

- Existing Contour
- Future Contour
- County Boundary

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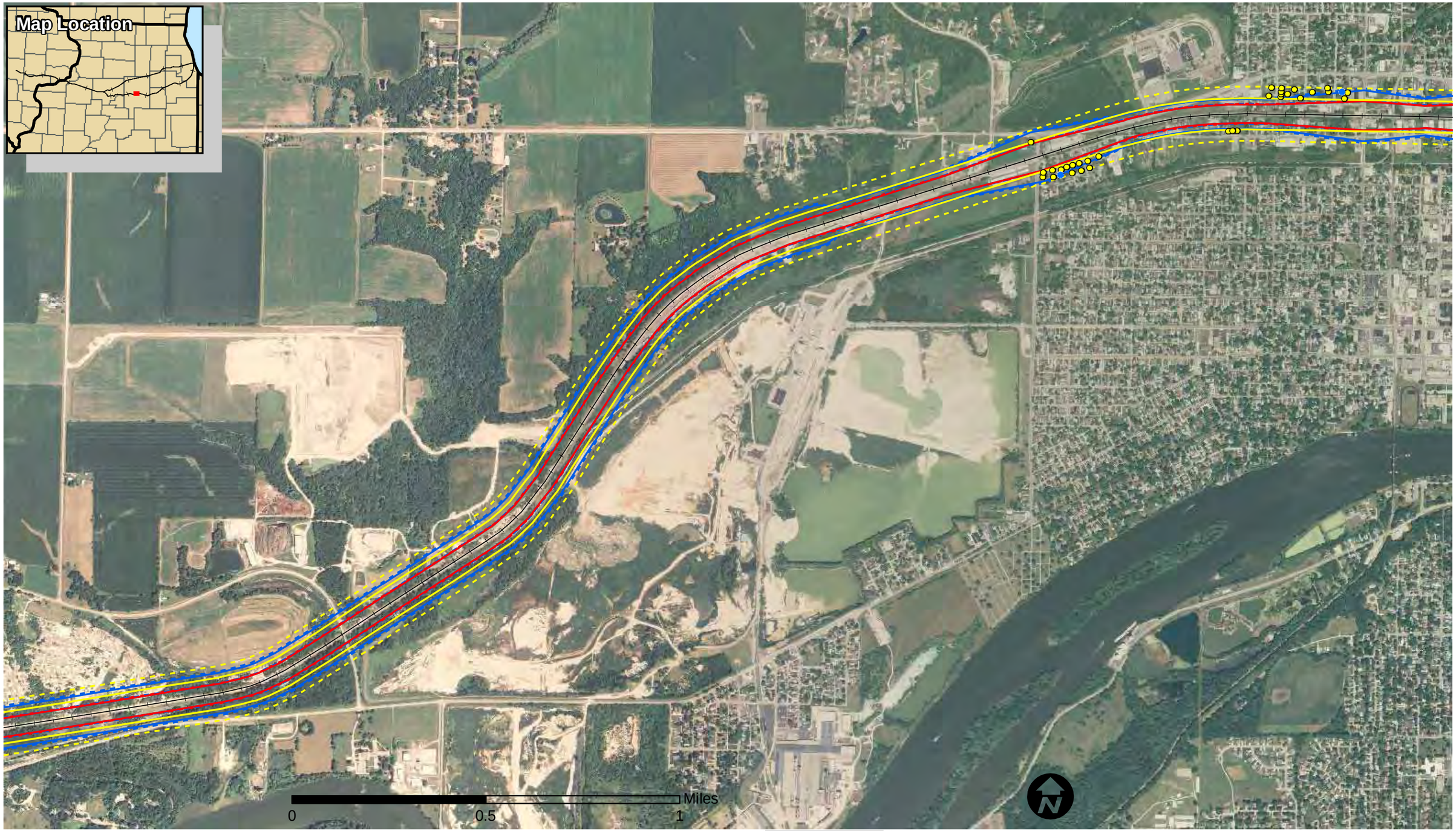

Vibration Impacts
- Vibration Impact - Future

Noise Impacts
- Moderate - Future
- Severe - Future

Noise Contours
- Moderate Level - Existing
- Moderate Level - Future
- Severe Level - Existing
- Severe Level - Future

Vibration Contours
- Existing Contour
- Future Contour

County Boundary

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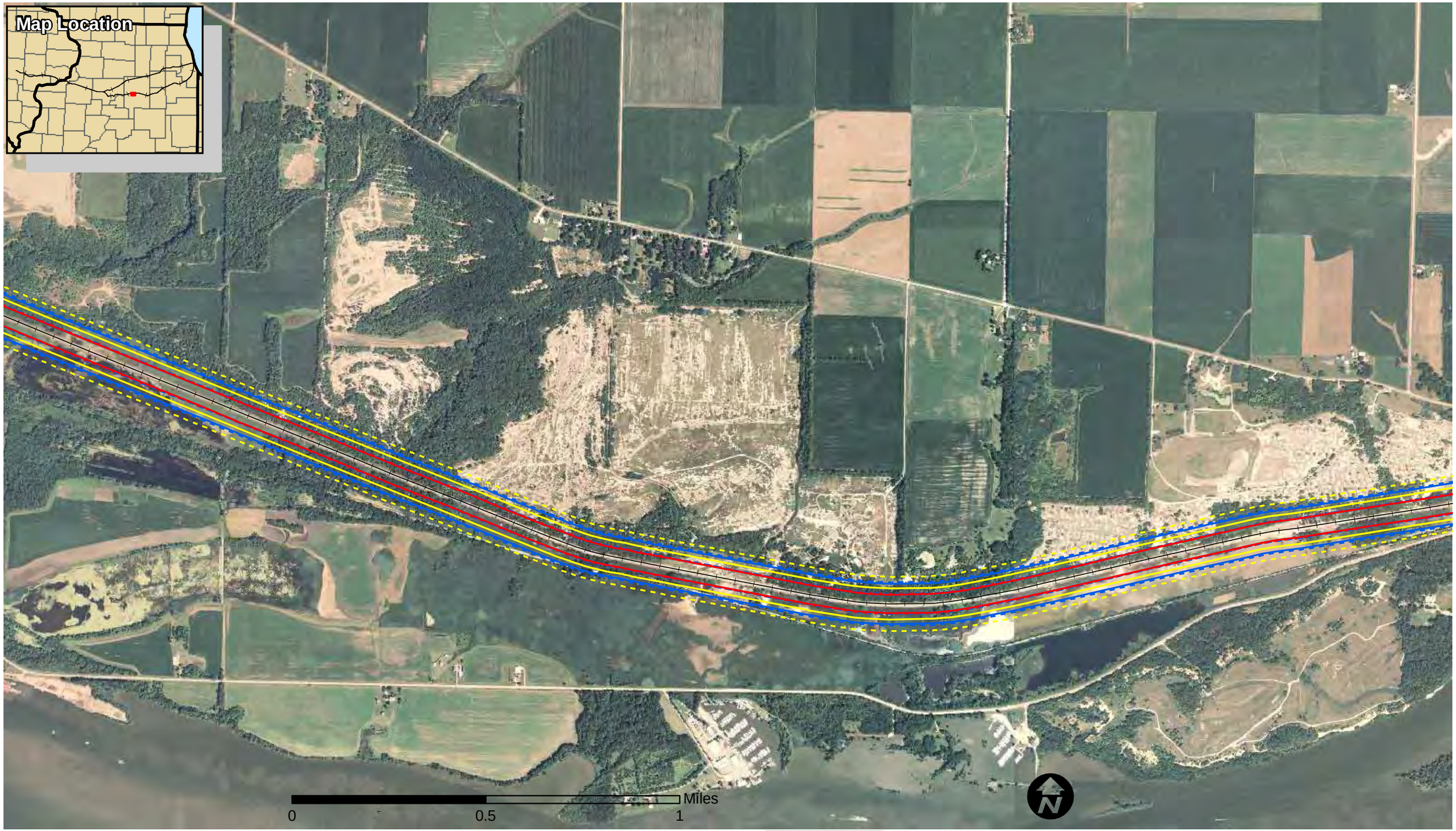

Vibration Impacts

- Vibration Impact - Future

Noise Impacts

- Moderate - Future
- Severe - Future

Noise Contours

- Moderate Level - Existing
- Moderate Level - Future
- Severe Level - Existing
- Severe Level - Future

Vibration Contours

- Existing Contour
- Future Contour
- County Boundary

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Vibration Impacts

- Vibration Impact - Future

Noise Impacts

- Moderate - Future
- Severe - Future

Noise Contours

- Moderate Level - Existing
- Moderate Level - Future
- Severe Level - Existing
- Severe Level - Future

Vibration Contours

- Existing Contour
- Future Contour

County Boundary

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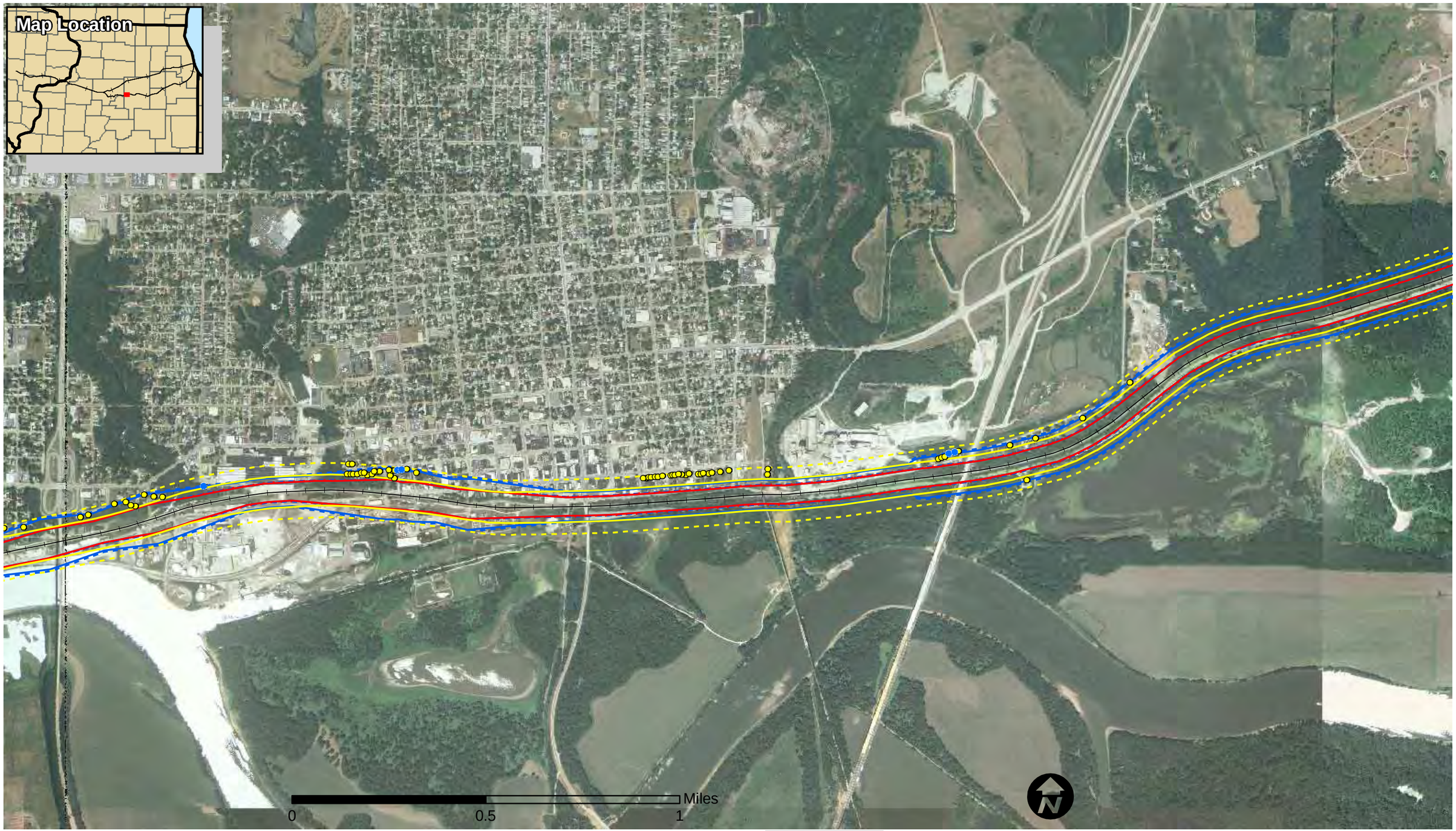

Vibration Impacts
- Vibration Impact - Future

Noise Impacts
- Moderate - Future
- Severe - Future

Noise Contours
- Moderate Level - Existing
- Moderate Level - Future
- Severe Level - Existing
- Severe Level - Future

Vibration Contours
- Existing Contour
- Future Contour

County Boundary

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Vibration Impacts

- Vibration Impact - Future

Noise Impacts

- Moderate - Future
- Severe - Future

Noise Contours

- Moderate Level - Existing
- Moderate Level - Future
- Severe Level - Existing
- Severe Level - Future

Vibration Contours

- Existing Contour
- Future Contour

County Boundary

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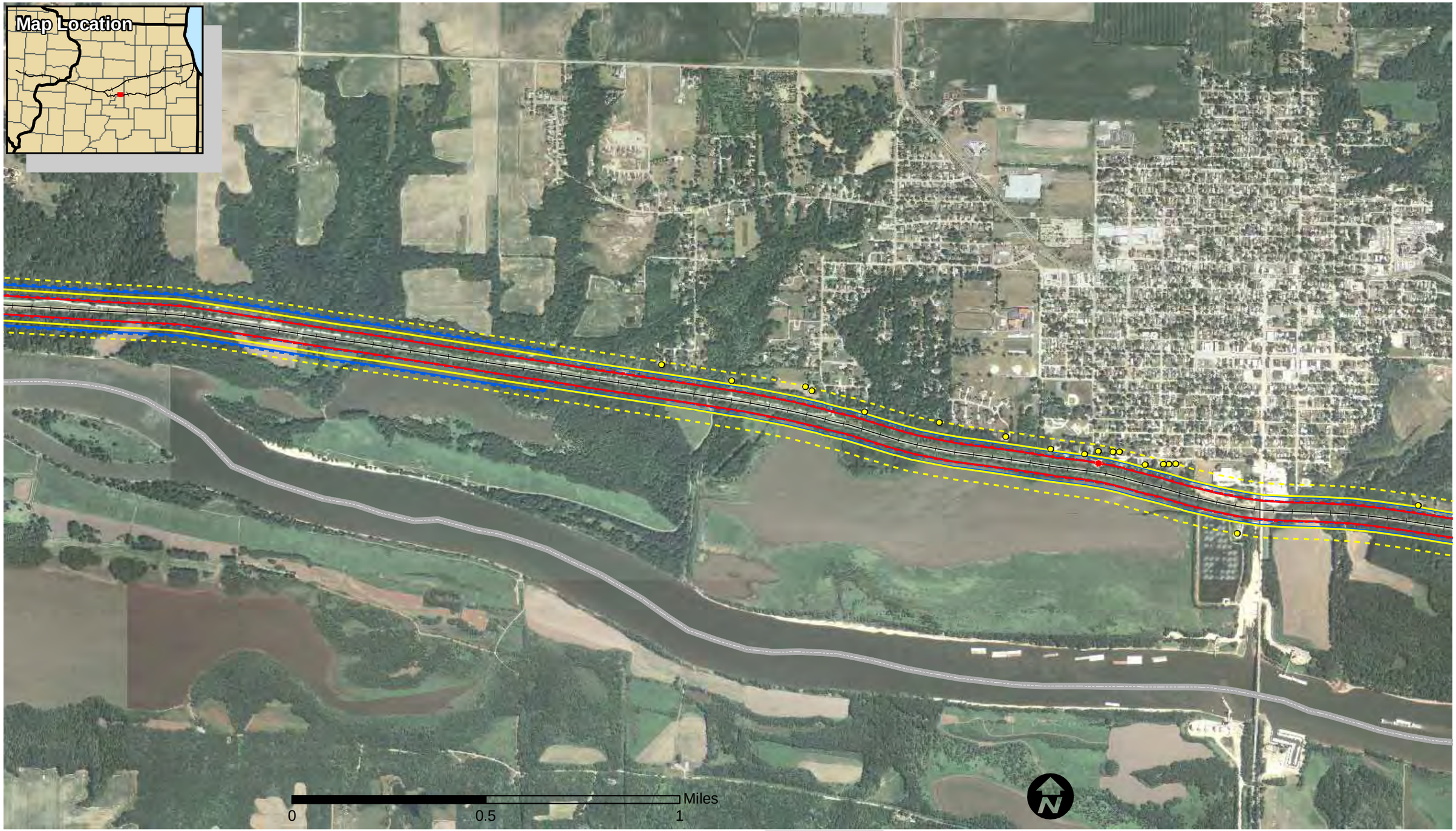

Vibration Impacts
- Vibration Impact - Future

Noise Impacts
- Moderate - Future
- Severe - Future

Noise Contours
- Moderate Level - Existing
- Moderate Level - Future
- Severe Level - Existing
- Severe Level - Future

Vibration Contours
- Existing Contour
- Future Contour
- County Boundary

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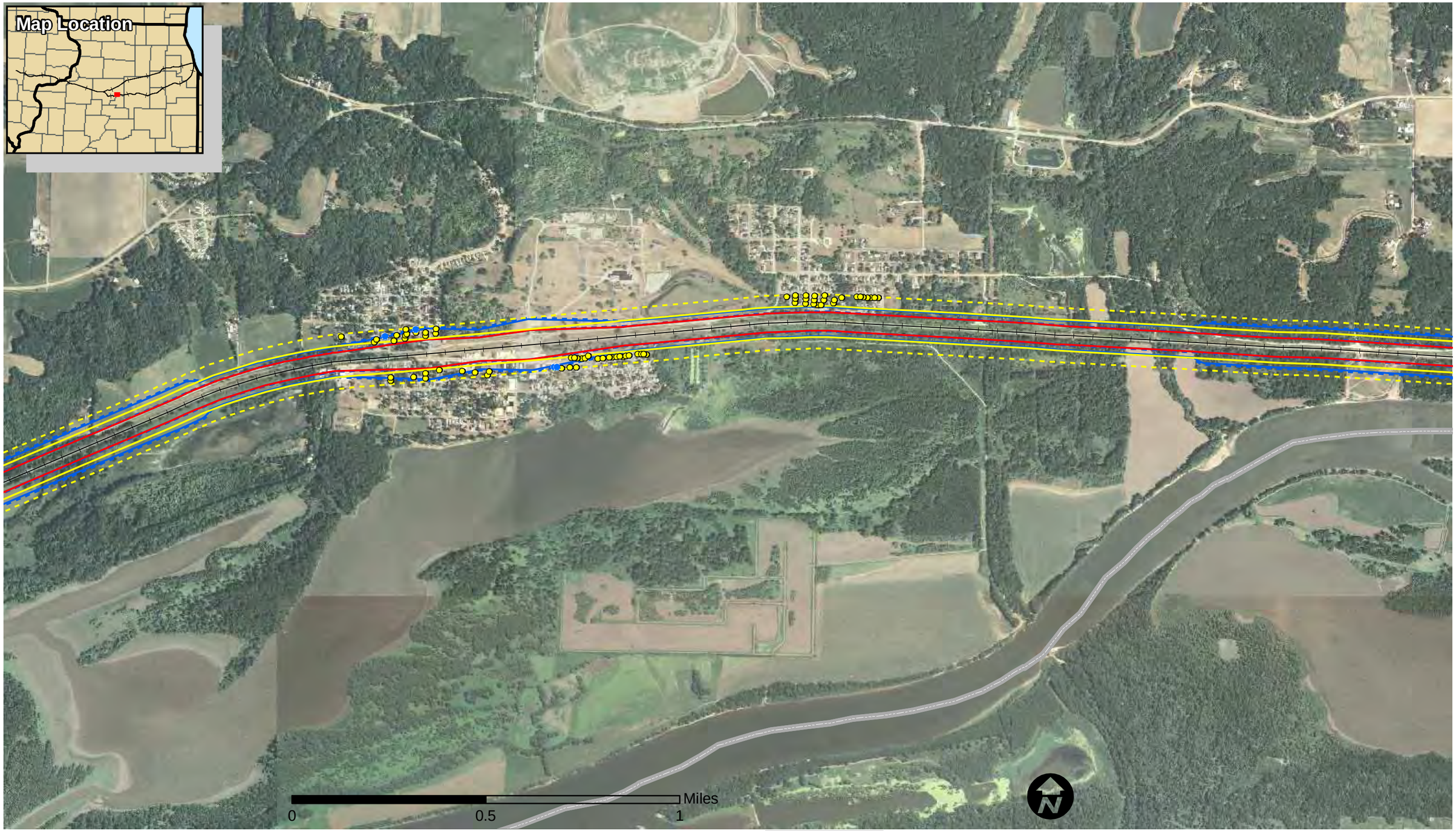

Vibration Impacts
- Vibration Impact - Future

Noise Impacts
- Moderate - Future
- Severe - Future

Noise Contours
- Moderate Level - Existing
- Moderate Level - Future
- Severe Level - Existing
- Severe Level - Future

Vibration Contours
- Existing Contour
- Future Contour
- County Boundary

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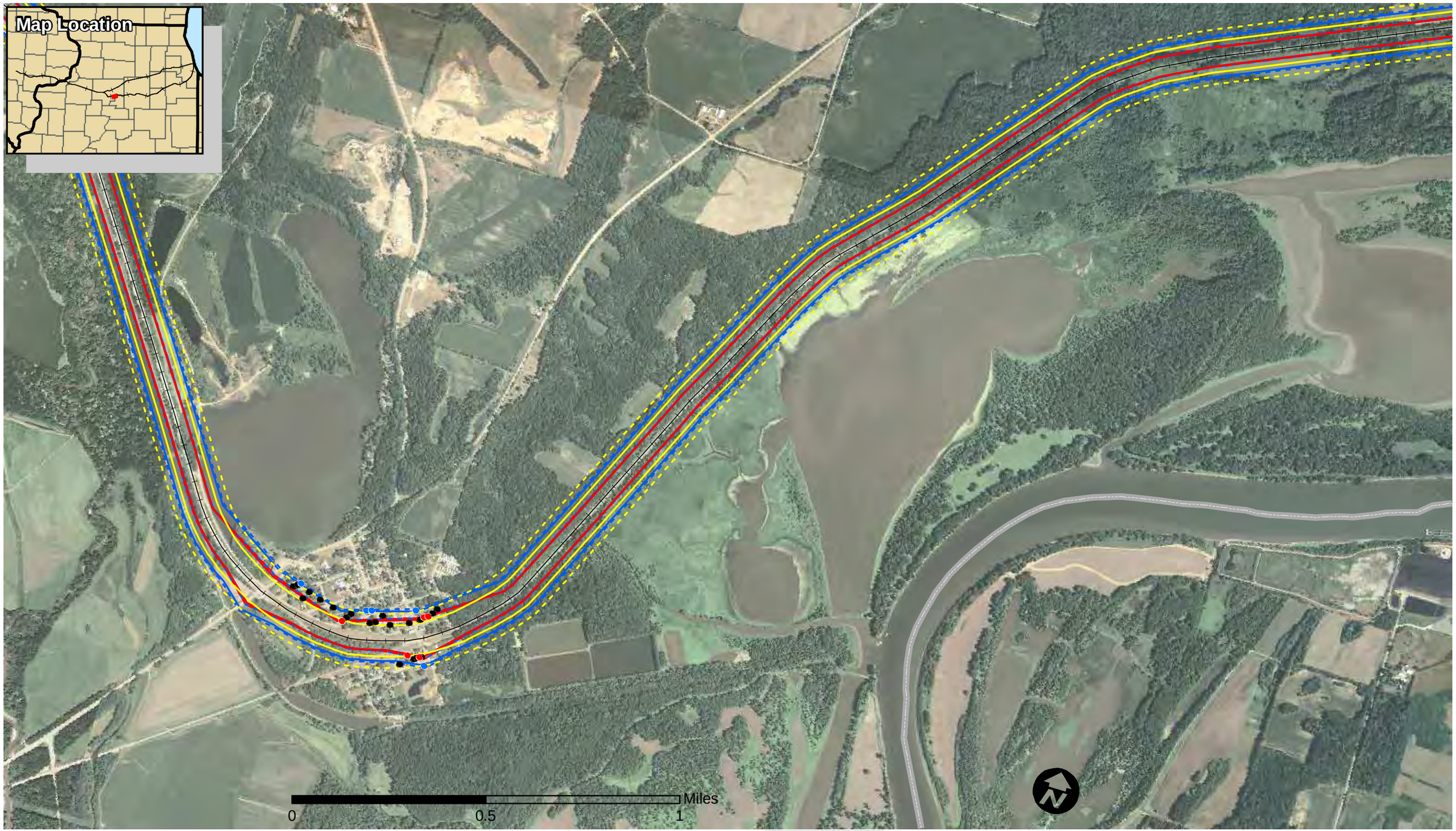

Vibration Impacts

- Vibration Impact - Future

Noise Impacts

- Moderate - Future
- Severe - Future

Noise Contours

- Moderate Level - Existing
- Moderate Level - Future
- Severe Level - Existing
- Severe Level - Future

Vibration Contours

- Existing Contour
- Future Contour
- County Boundary

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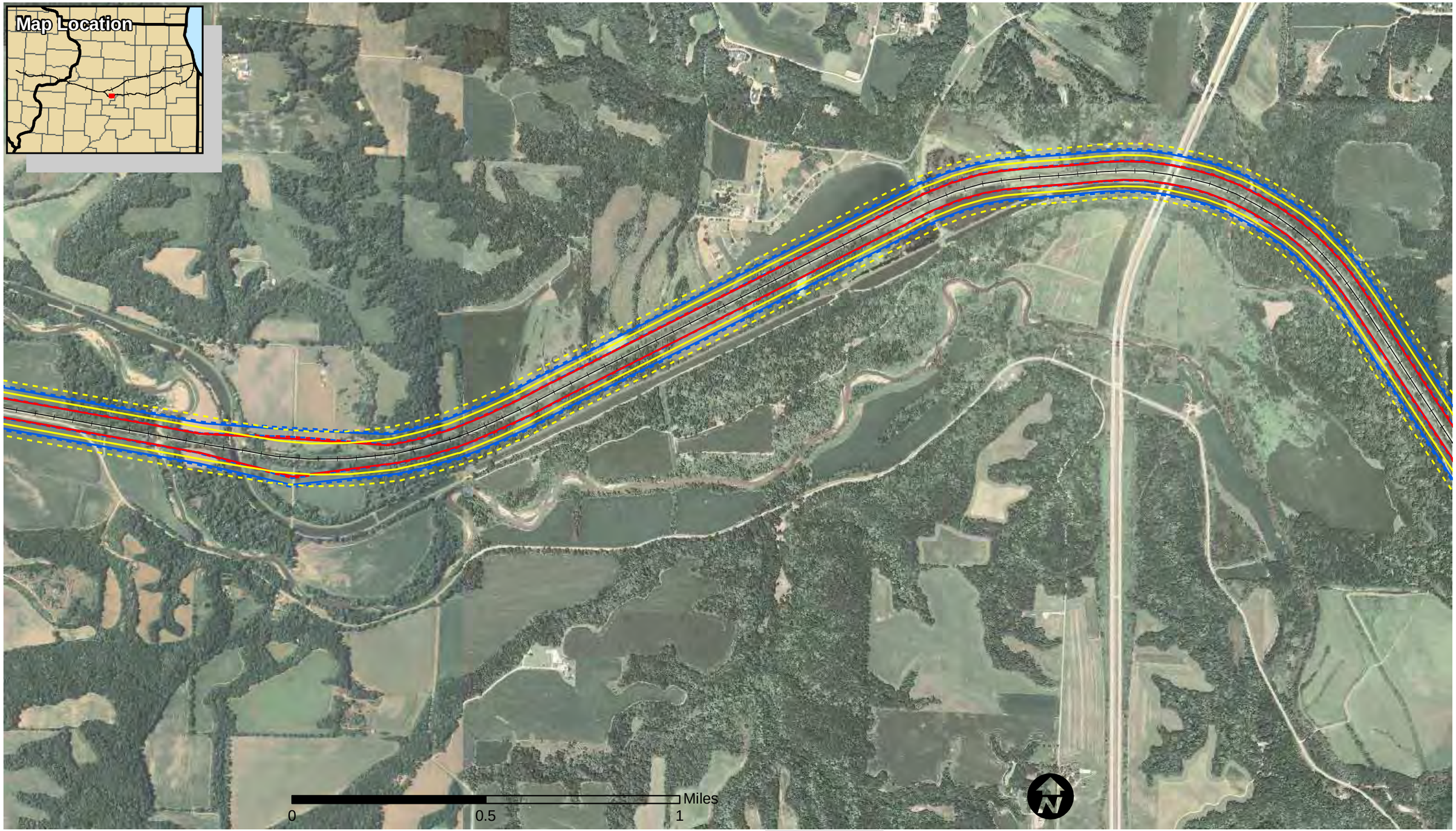

Vibration Impacts

- Vibration Impact - Future

Noise Impacts

- Moderate - Future
- Severe - Future

Noise Contours

- Moderate Level - Existing
- Moderate Level - Future
- Severe Level - Existing
- Severe Level - Future

Vibration Contours

- Existing Contour
- Future Contour

County Boundary

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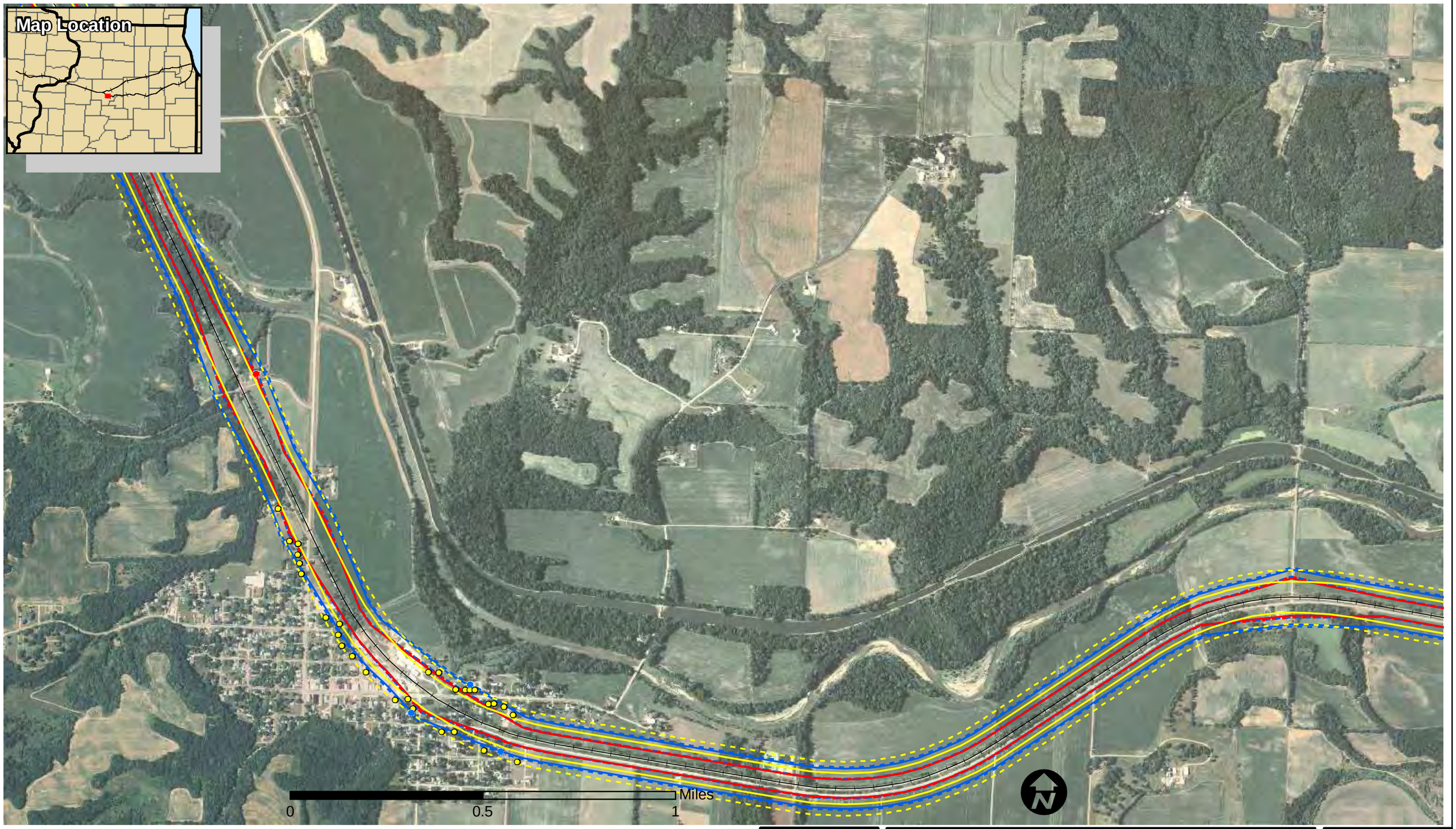

Vibration Impacts

- Vibration Impact - Future

Noise Impacts

- Moderate - Future
- Severe - Future

Noise Contours

- Moderate Level - Existing
- Moderate Level - Future
- Severe Level - Existing
- Severe Level - Future

Vibration Contours

- Existing Contour
- Future Contour
- County Boundary

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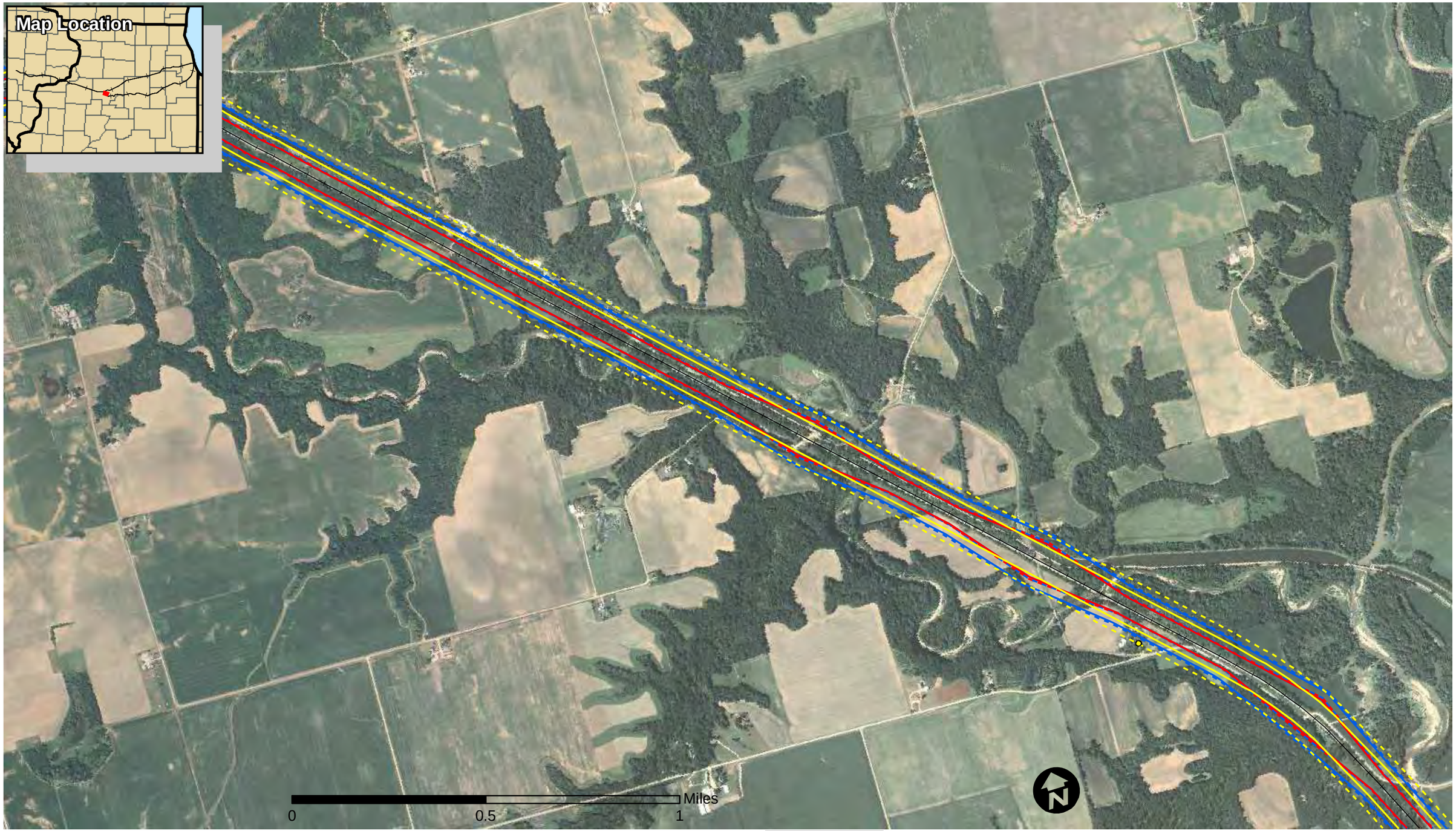

Vibration Impacts

- Vibration Impact - Future

Noise Impacts

- Moderate - Future
- Severe - Future

Noise Contours

- Moderate Level - Existing
- Moderate Level - Future
- Severe Level - Existing
- Severe Level - Future

Vibration Contours

- Existing Contour
- Future Contour
- County Boundary

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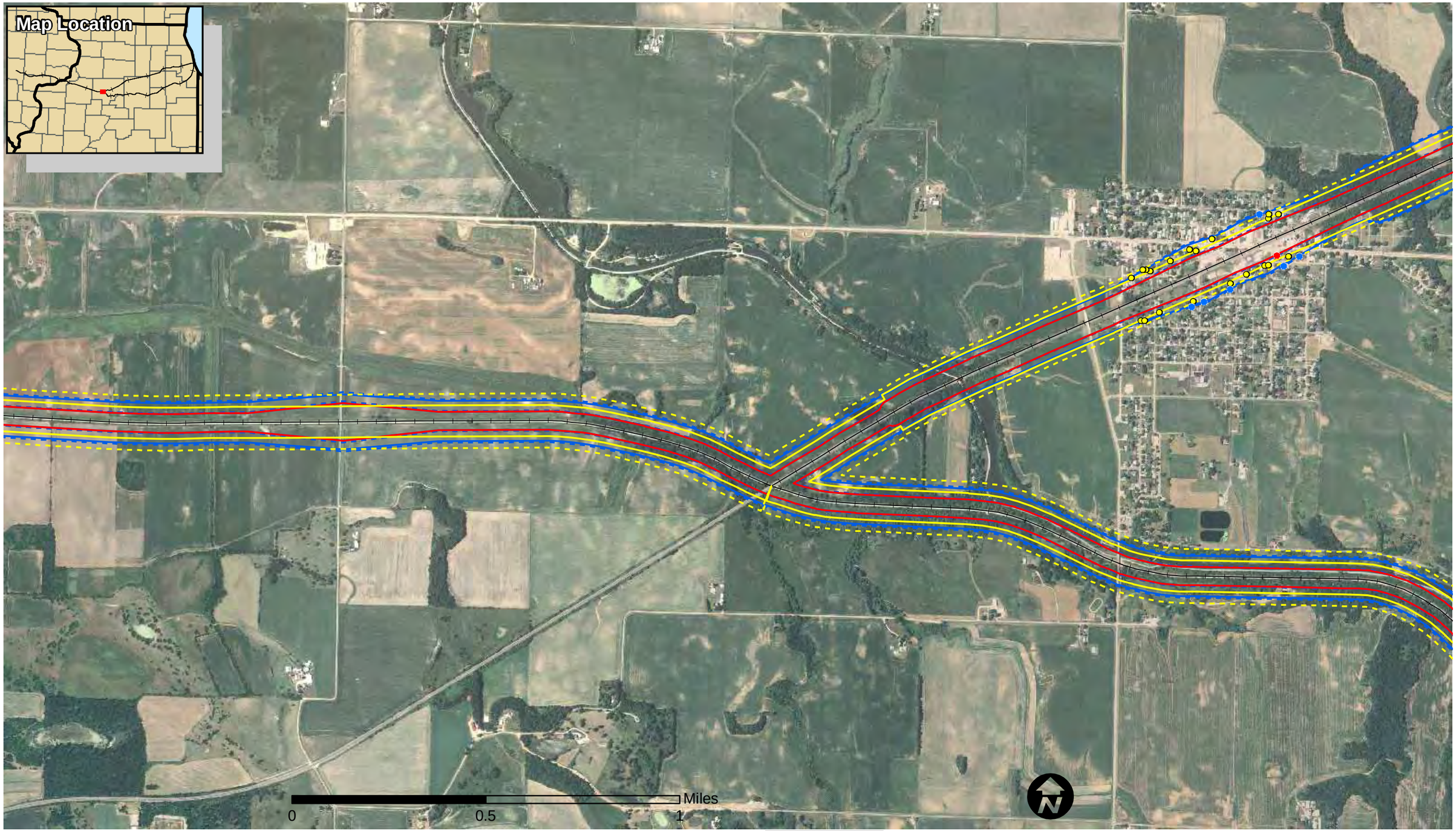

Vibration Impacts
- Vibration Impact - Future

Noise Impacts
- Moderate - Future
- Severe - Future

Noise Contours
- Moderate Level - Existing
- Moderate Level - Future
- Severe Level - Existing
- Severe Level - Future

Vibration Contours
- Existing Contour
- Future Contour
- County Boundary

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PREFERRED ALTERNATIVE AND ROUTE B ALTERNATIVE JOINT SEGMENT NOISE AND VIBRATION CONTOUR MAPS

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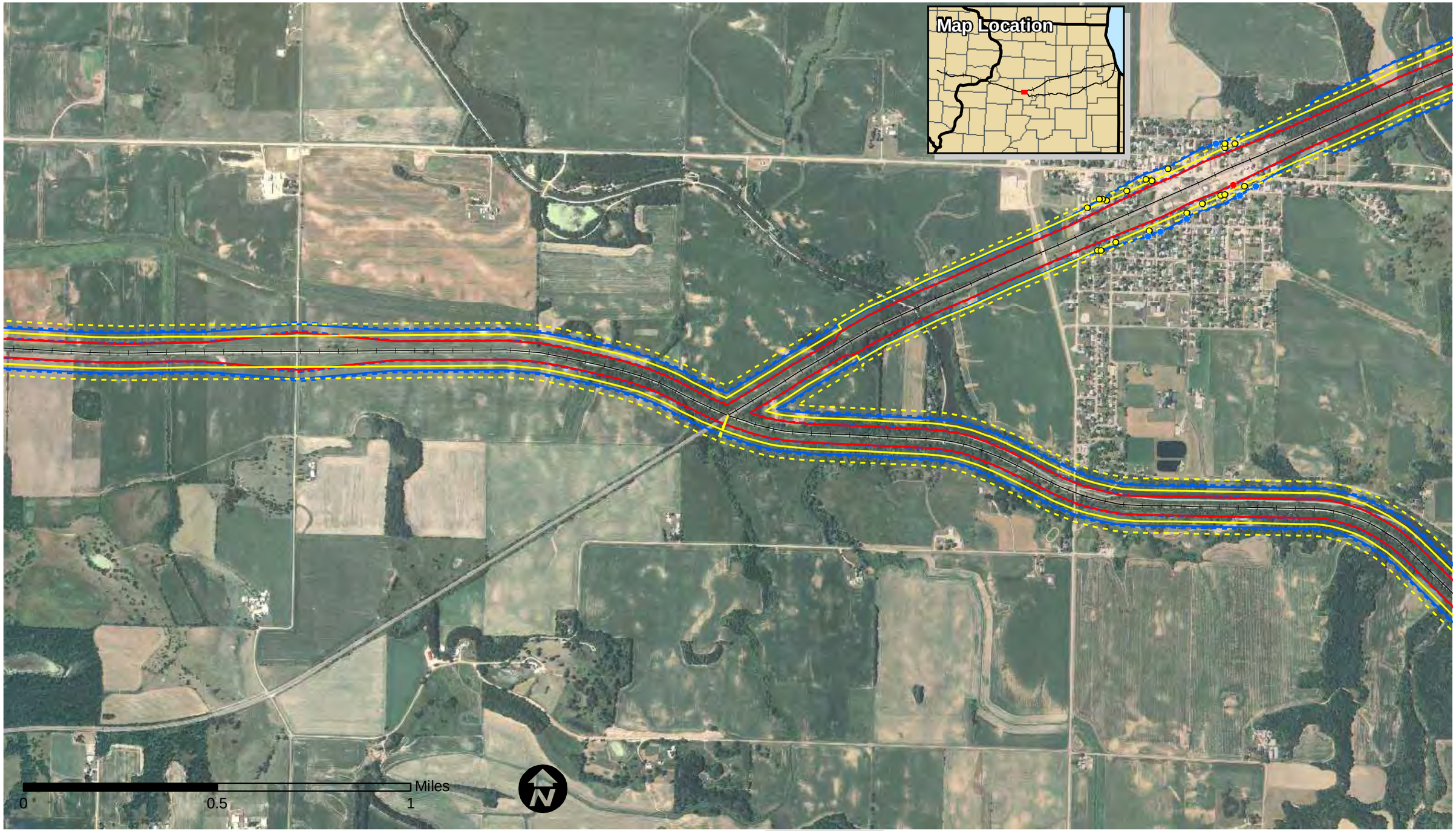

Vibration Impacts
- Vibration Impact - Future

Noise Impacts
- Moderate - Future
- Severe - Future

Noise Contours
- Moderate Level - Existing
- Moderate Level - Future
- Severe Level - Existing
- Severe Level - Future

Vibration Contours
- Existing Contour
- Future Contour

- County Boundary

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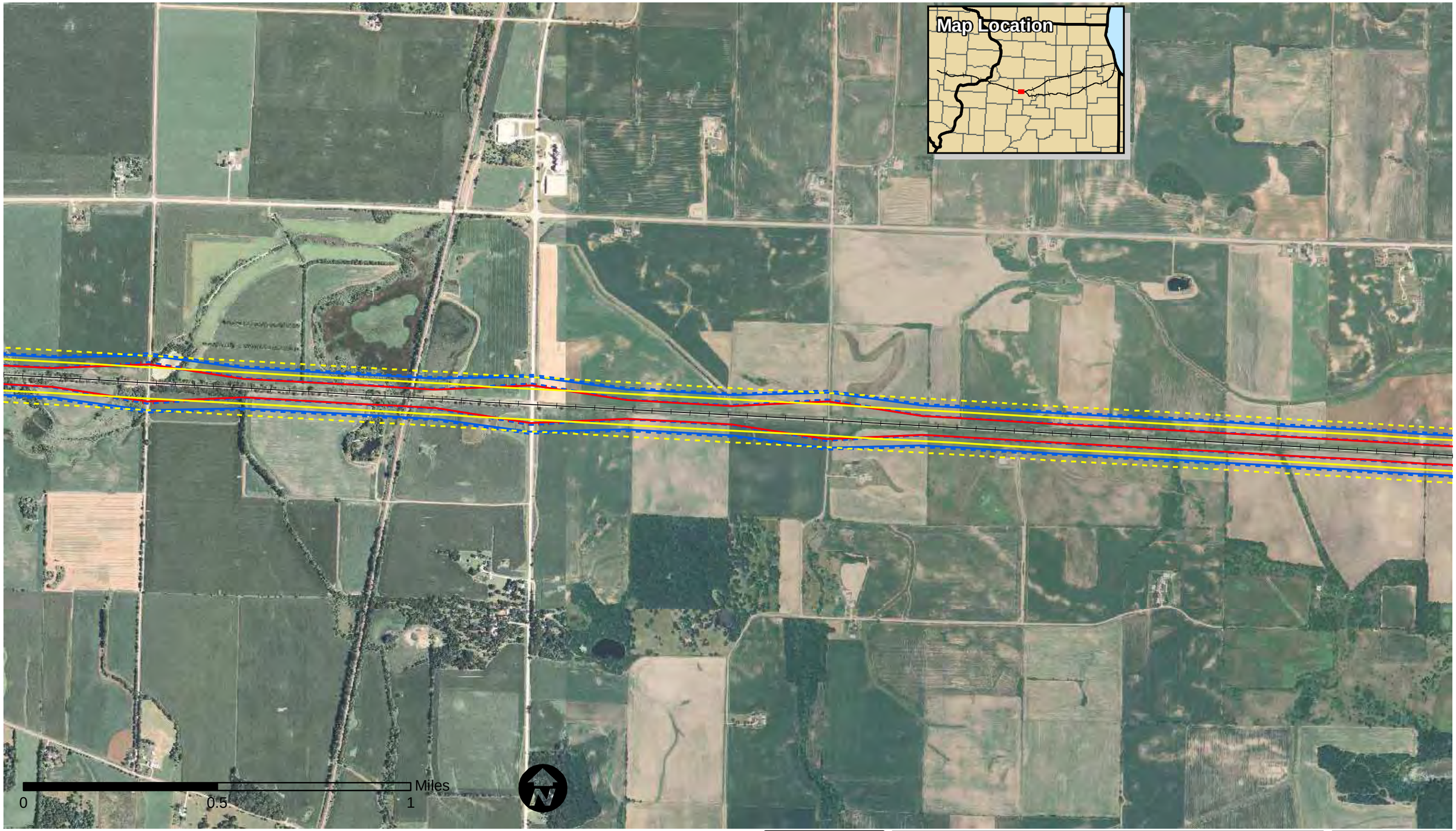

Vibration Impacts
- Vibration Impact - Future

Noise Impacts
- Moderate - Future
- Severe - Future

Noise Contours
- Moderate Level - Existing
- Moderate Level - Future
- Severe Level - Existing
- Severe Level - Future

Vibration Contours
- Existing Contour
- Future Contour
- County Boundary

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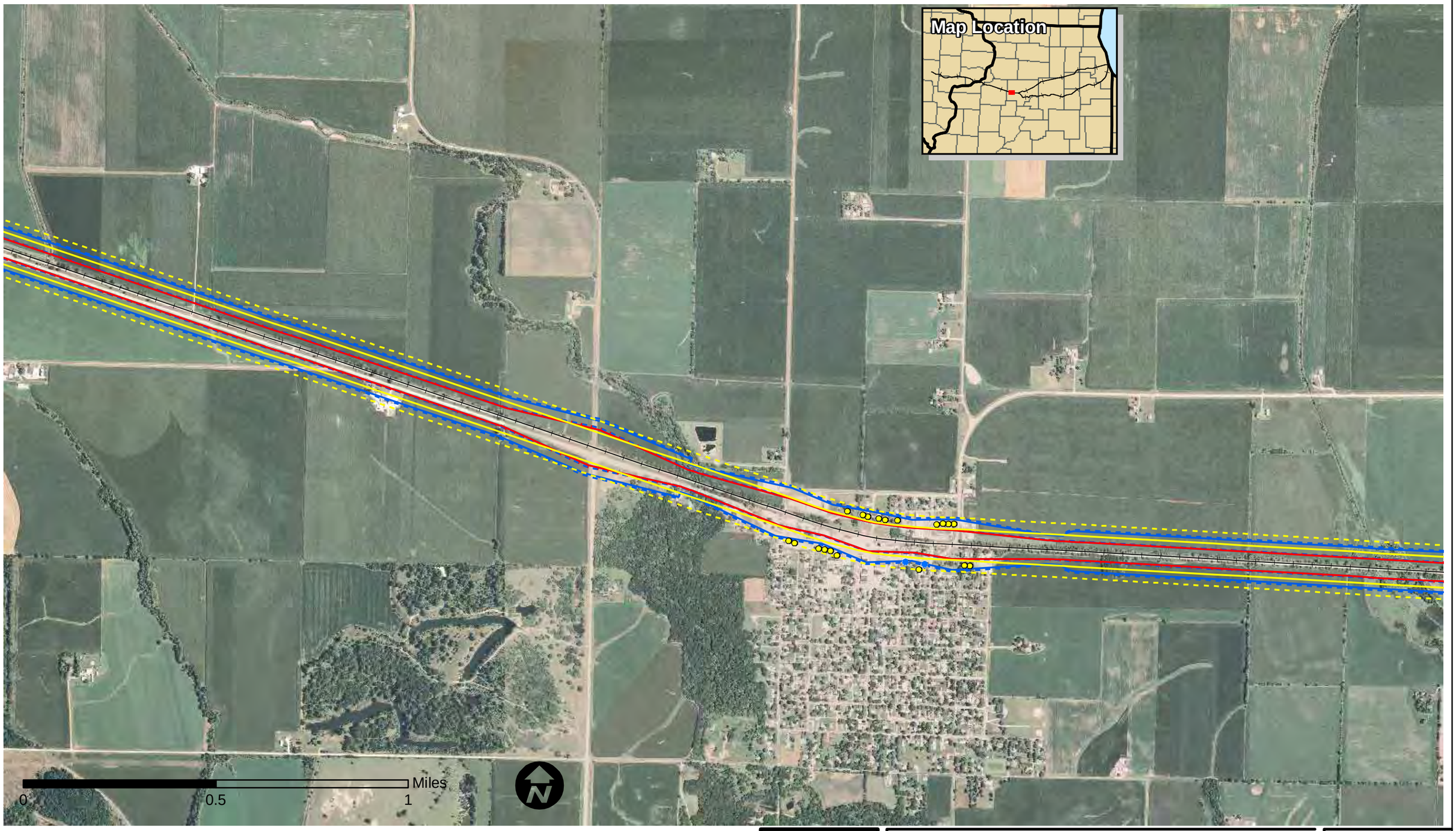

Vibration Impacts
- Vibration Impact - Future

Noise Impacts
- Moderate - Future
- Severe - Future

Noise Contours
- Moderate Level - Existing
- Moderate Level - Future
- Severe Level - Existing
- Severe Level - Future

Vibration Contours
- Existing Contour
- Future Contour
- County Boundary

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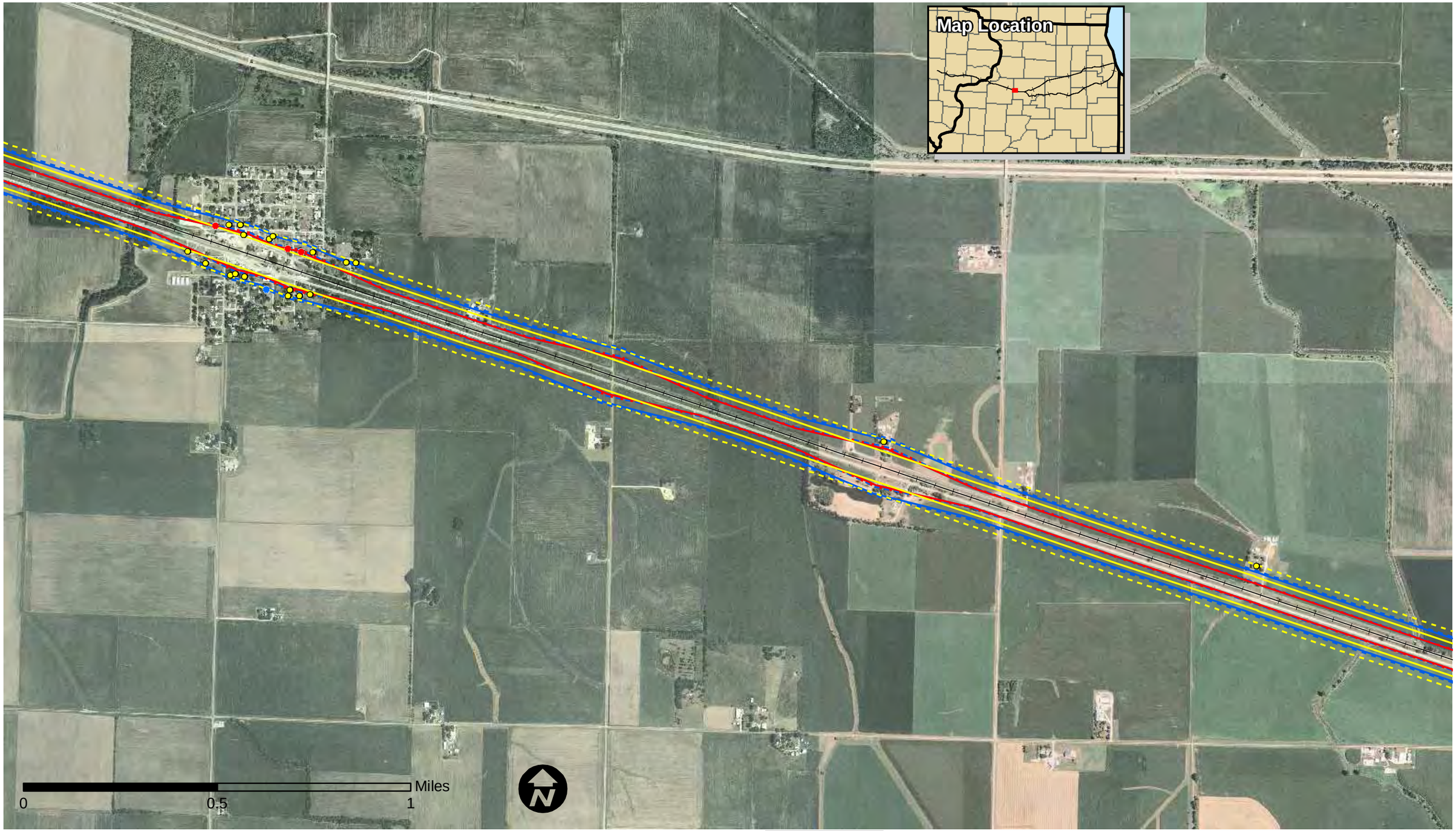

Vibration Impacts
- Vibration Impact - Future

Noise Impacts
- Moderate - Future
- Severe - Future

Noise Contours
- Moderate Level - Existing
- Moderate Level - Future
- Severe Level - Existing
- Severe Level - Future

Vibration Contours
- Existing Contour
- Future Contour

- County Boundary

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Vibration Impacts
- Vibration Impact - Future

Noise Impacts
- Moderate - Future
- Severe - Future

Noise Contours
- Moderate Level - Existing
- Moderate Level - Future
- Severe Level - Existing
- Severe Level - Future

Vibration Contours
- Existing Contour
- Future Contour

- County Boundary

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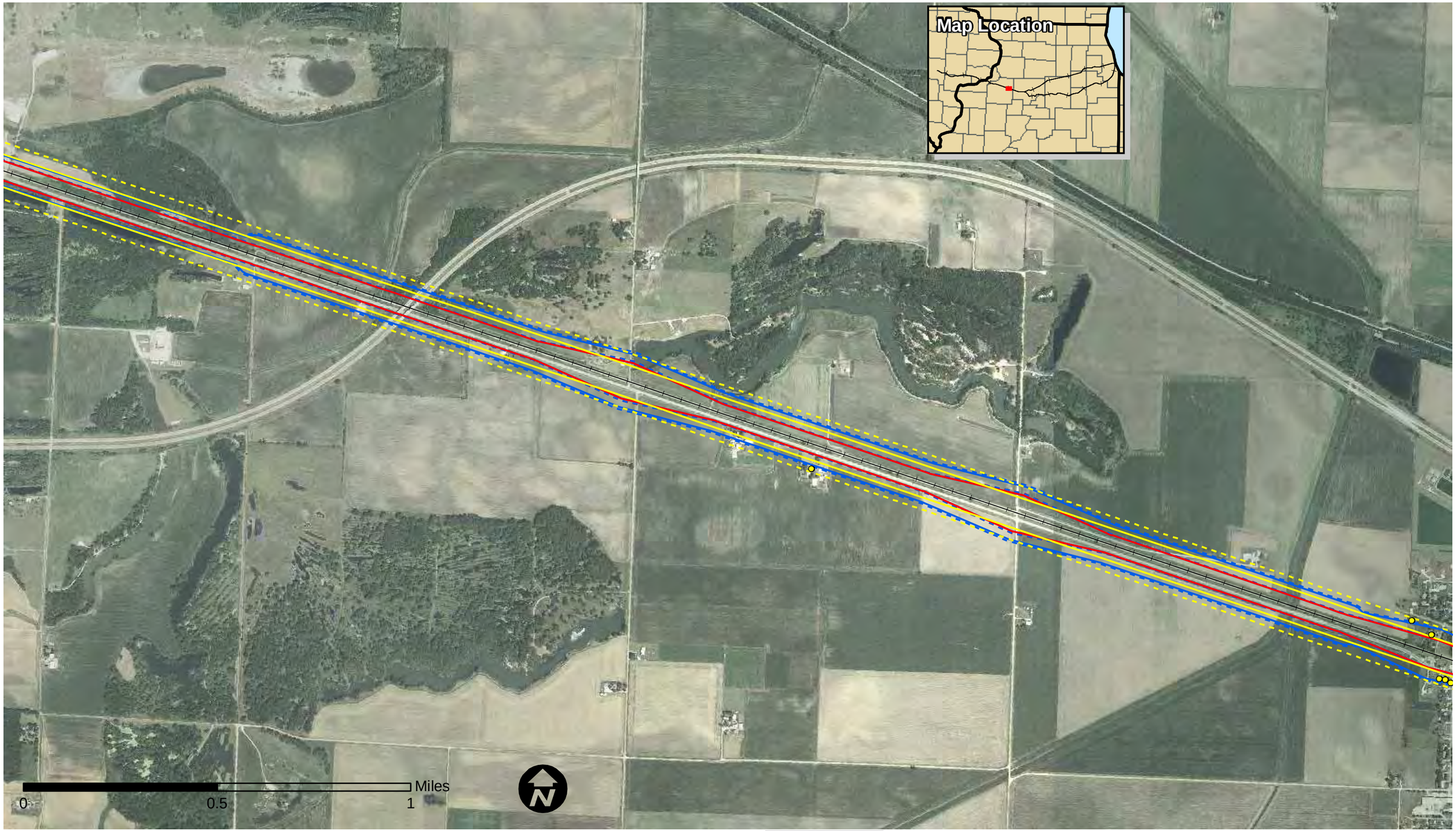

Vibration Impacts

- Vibration Impact - Future

Noise Impacts

- Moderate - Future
- Severe - Future

Noise Contours

- Moderate Level - Existing
- Moderate Level - Future
- Severe Level - Existing
- Severe Level - Future

Vibration Contours

- Existing Contour
- Future Contour
- County Boundary

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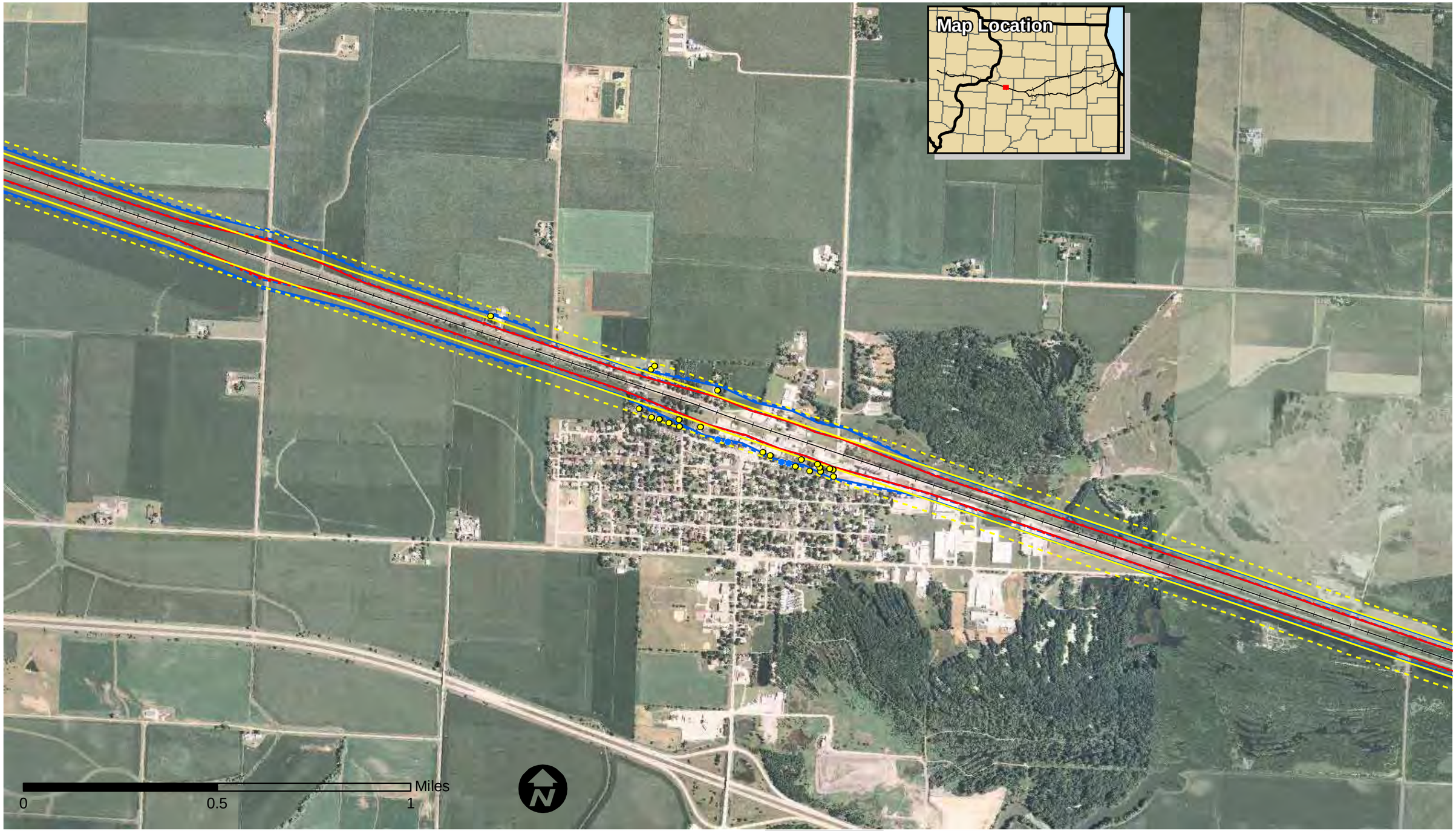

Vibration Impacts
- Vibration Impact - Future

Noise Impacts
- Moderate - Future
- Severe - Future

Noise Contours
- Moderate Level - Existing
- Moderate Level - Future
- Severe Level - Existing
- Severe Level - Future

Vibration Contours
- Existing Contour
- Future Contour
- County Boundary

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Rts A & B Alternative

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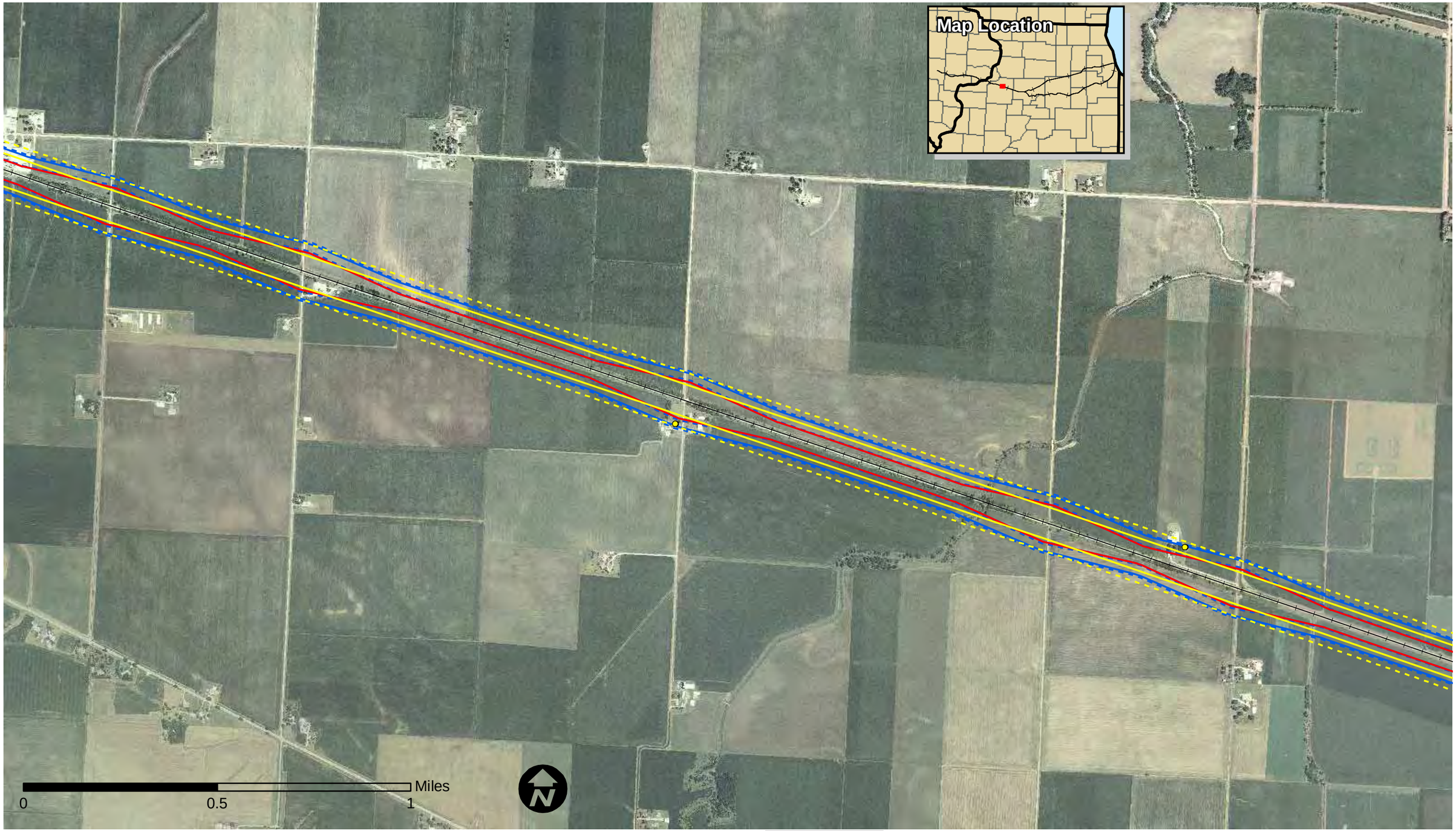

Vibration Impacts
- Vibration Impact - Future

Noise Impacts
- Moderate - Future
- Severe - Future

Noise Contours
- Moderate Level - Existing
- Moderate Level - Future
- Severe Level - Existing
- Severe Level - Future

Vibration Contours
- Existing Contour
- Future Contour

- County Boundary

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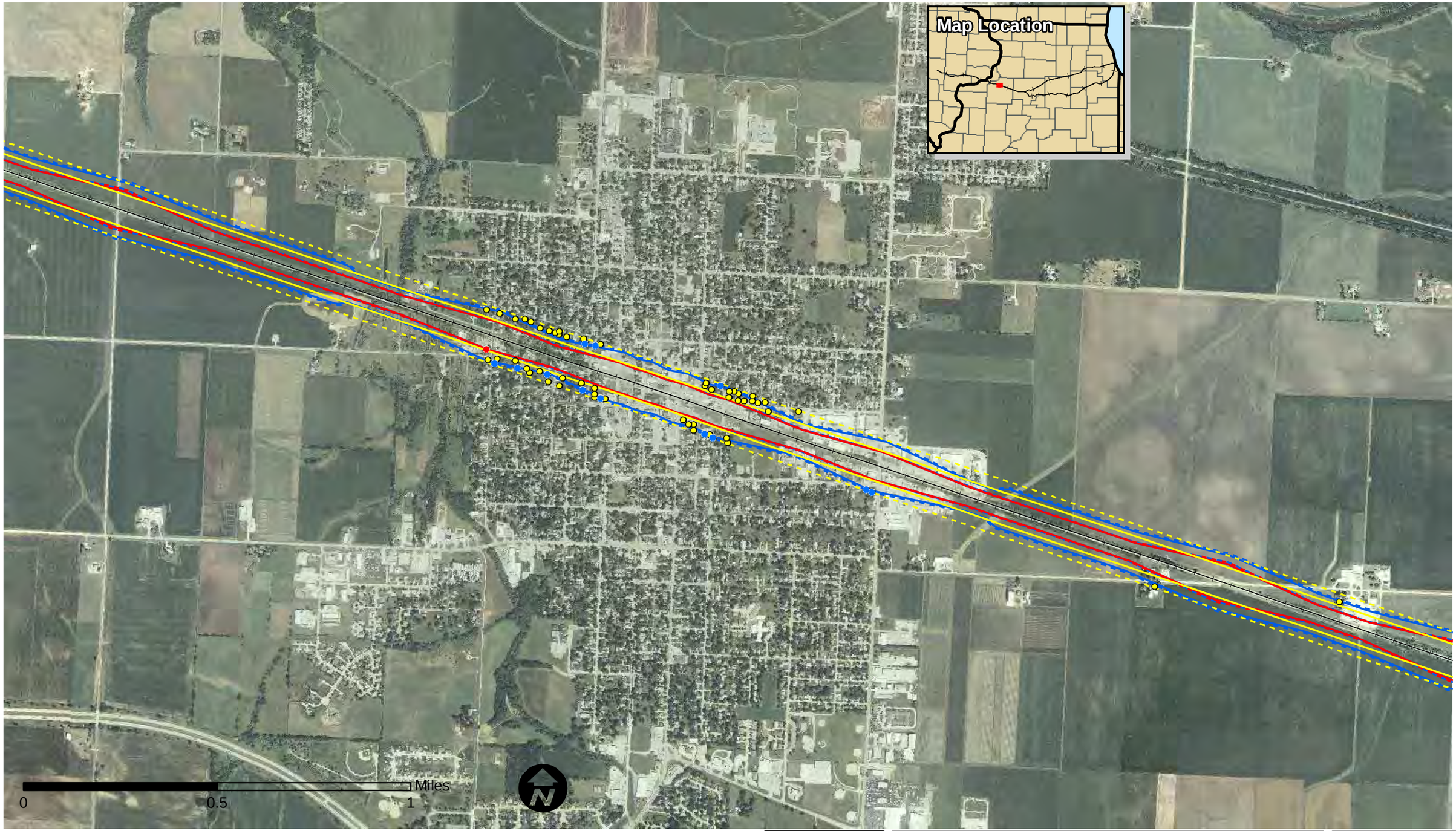

Vibration Impacts

- Vibration Impact - Future

Noise Impacts

- Moderate - Future
- Severe - Future

Noise Contours

- Moderate Level - Existing
- Moderate Level - Future
- Severe Level - Existing
- Severe Level - Future

Vibration Contours

- Existing Contour
- Future Contour
- County Boundary

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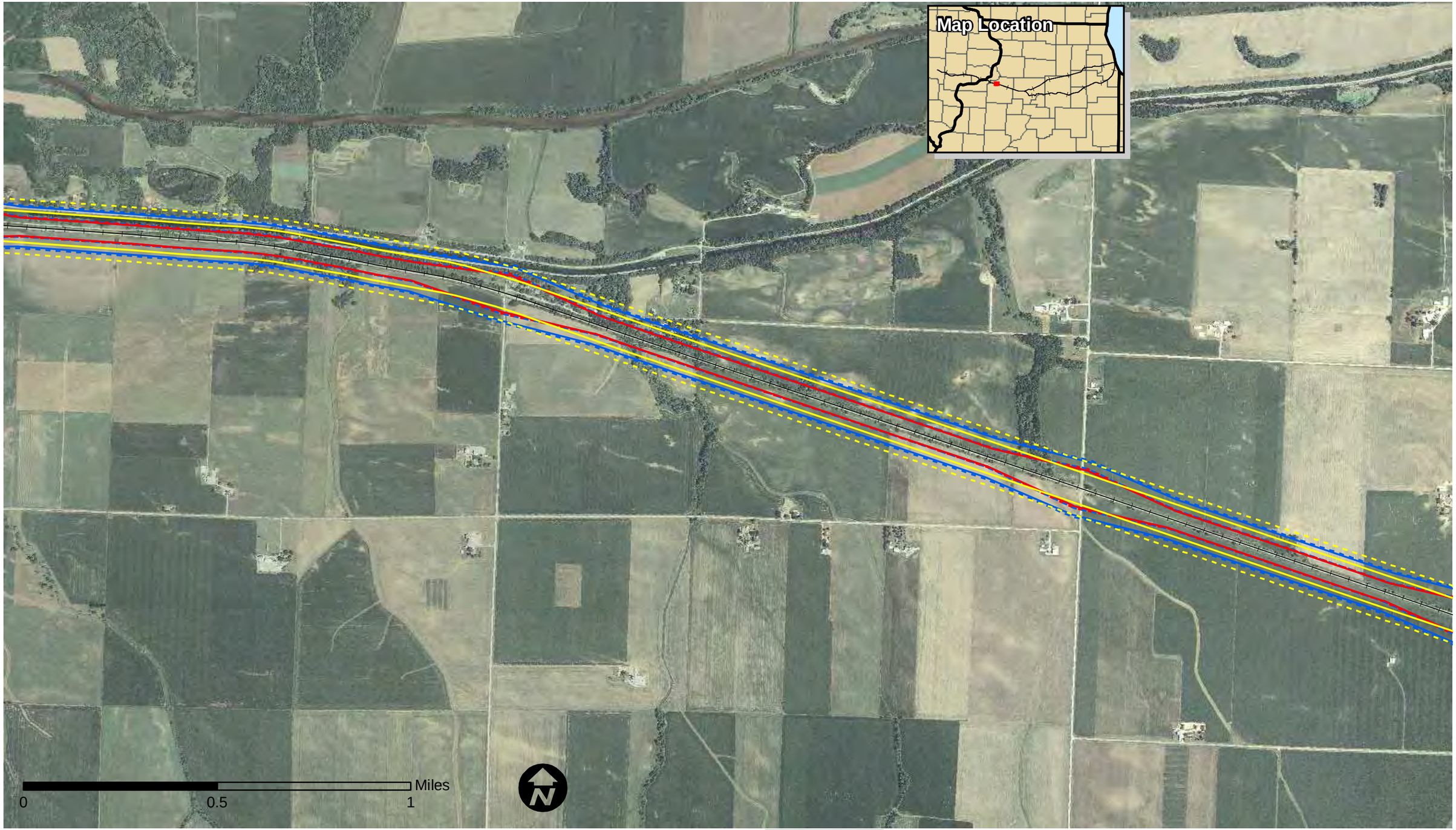

Vibration Impacts

- Vibration Impact - Future

Noise Impacts

- Moderate - Future
- Severe - Future

Noise Contours

- Moderate Level - Existing
- Moderate Level - Future
- Severe Level - Existing
- Severe Level - Future

Vibration Contours

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- Future Contour
- County Boundary

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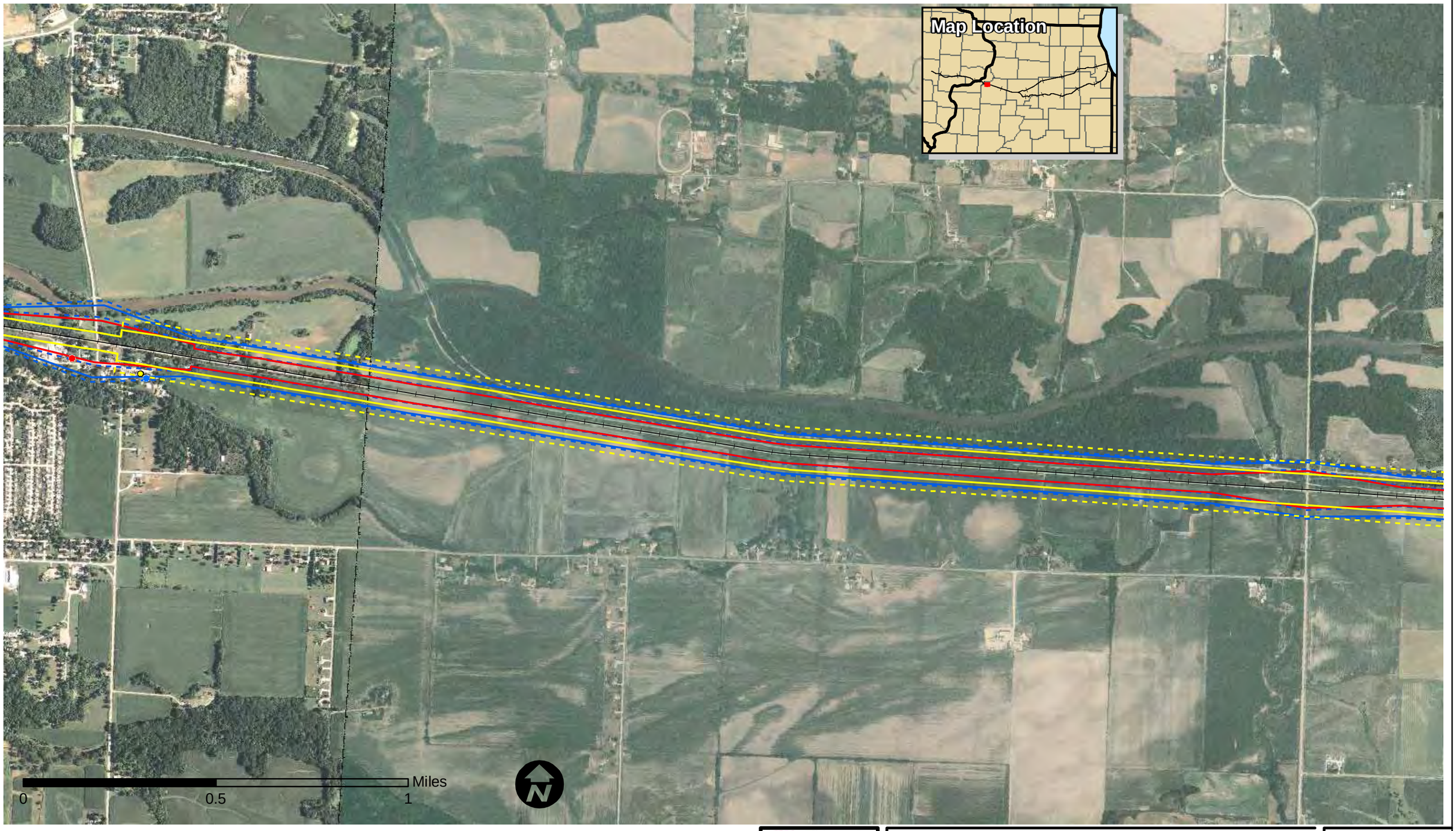

Vibration Impacts

- Vibration Impact - Future

Noise Impacts

- Moderate - Future
- Severe - Future

Noise Contours

- Moderate Level - Existing
- Moderate Level - Future
- Severe Level - Existing
- Severe Level - Future

Vibration Contours

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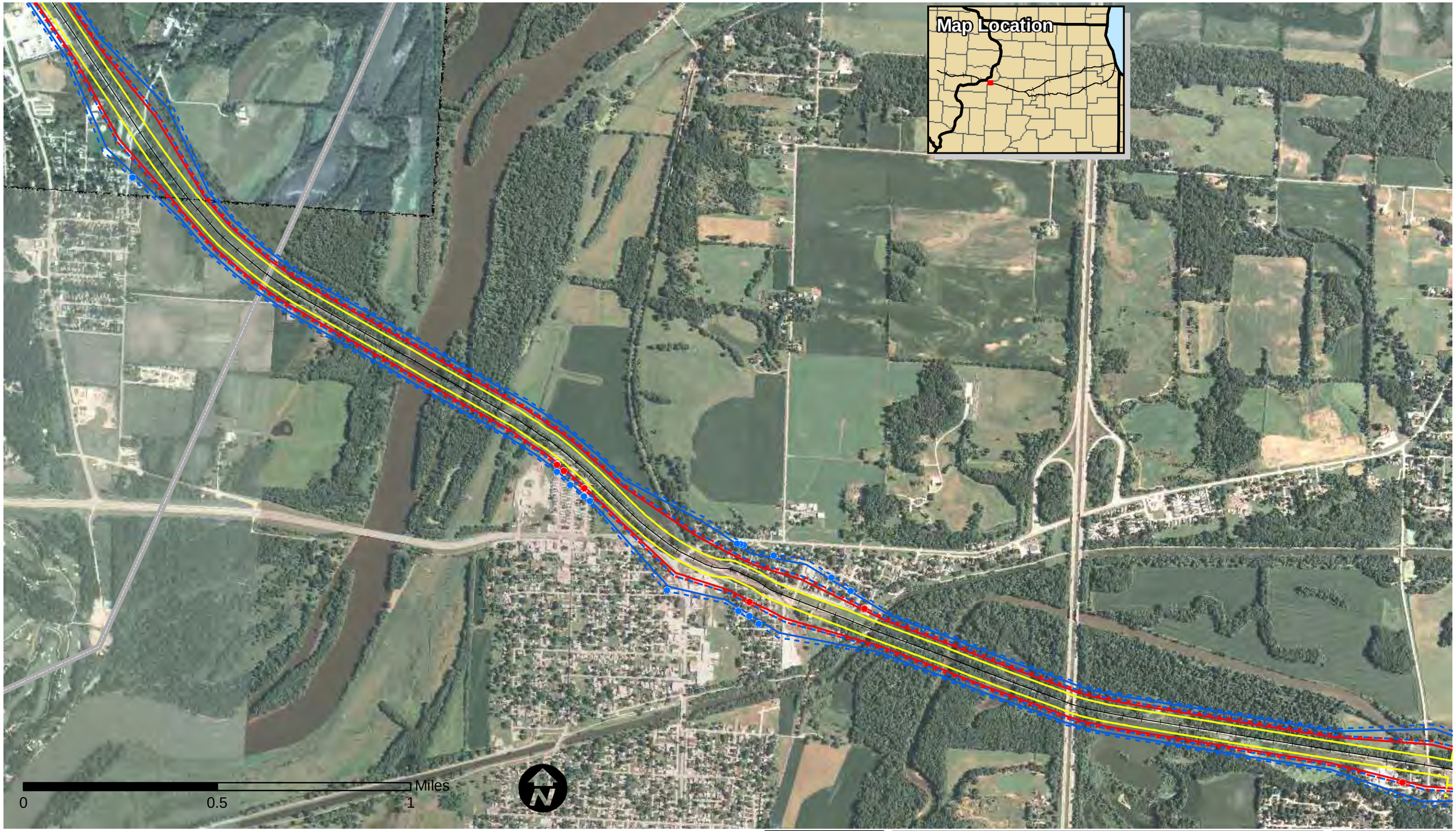

Vibration Impacts
- Vibration Impact - Future

Noise Impacts
- Moderate - Future
- Severe - Future

Noise Contours
- Moderate Level - Existing
- Moderate Level - Future
- Severe Level - Existing
- Severe Level - Future

Vibration Contours
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- County Boundary

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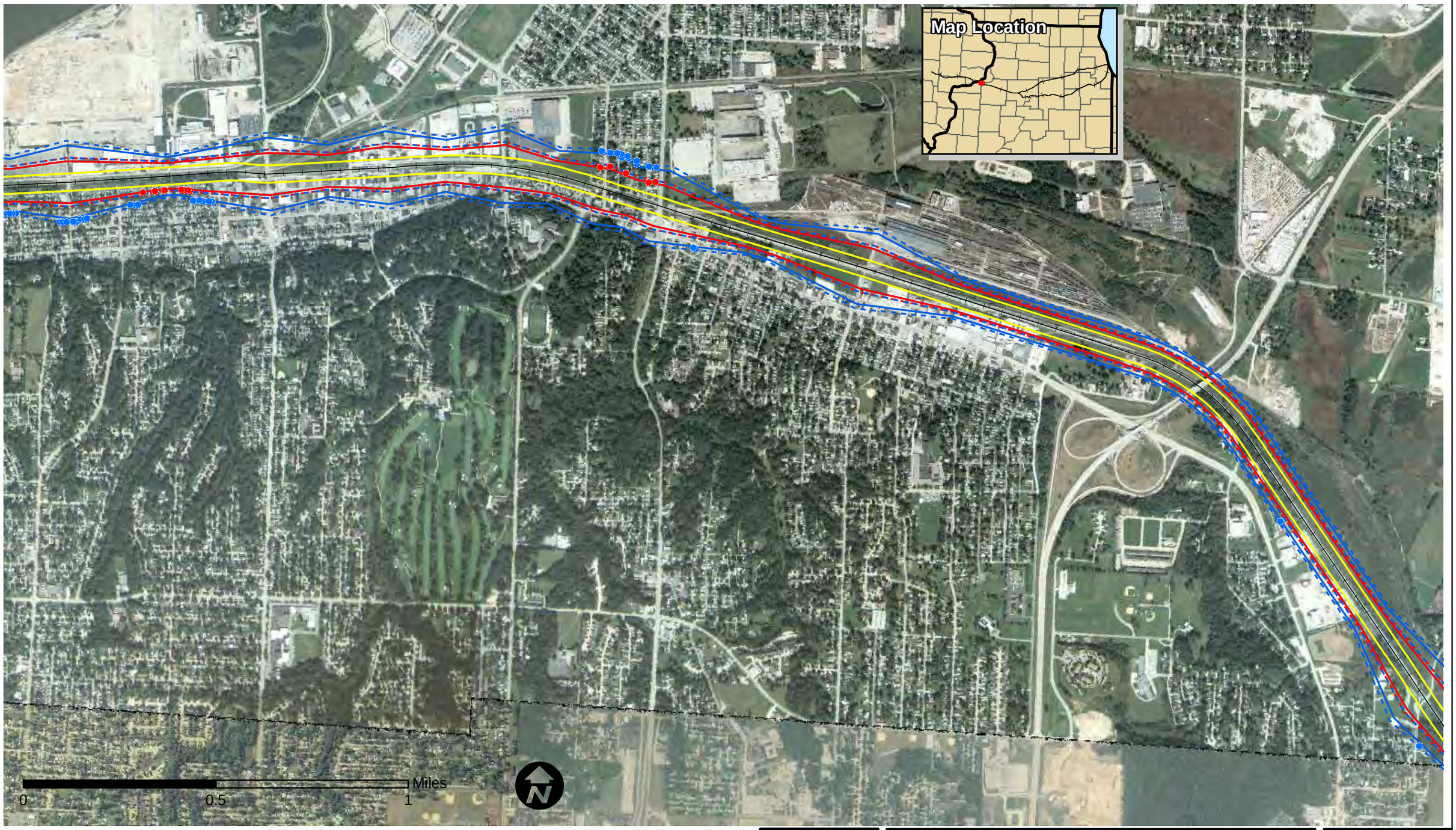

Vibration Impacts

- Vibration Impact - Future

Noise Impacts

- Moderate - Future
- Severe - Future

Noise Contours

- Moderate Level - Existing
- Moderate Level - Future
- Severe Level - Existing
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Vibration Contours

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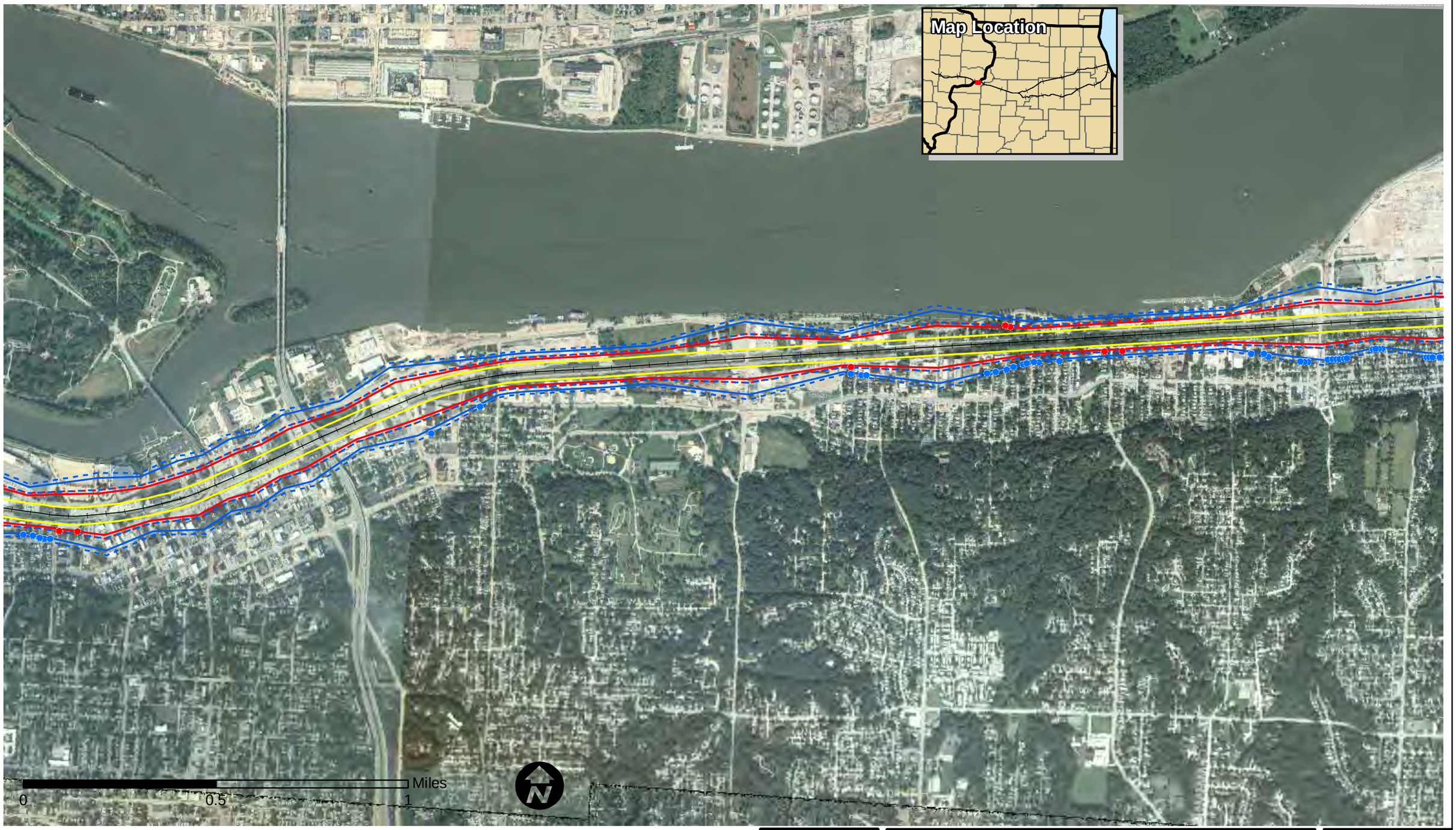

Vibration Impacts
- Vibration Impact - Future

Noise Impacts
- Moderate - Future
- Severe - Future

Noise Contours
- Moderate Level - Existing
- Moderate Level - Future
- Severe Level - Existing
- Severe Level - Future

Vibration Contours
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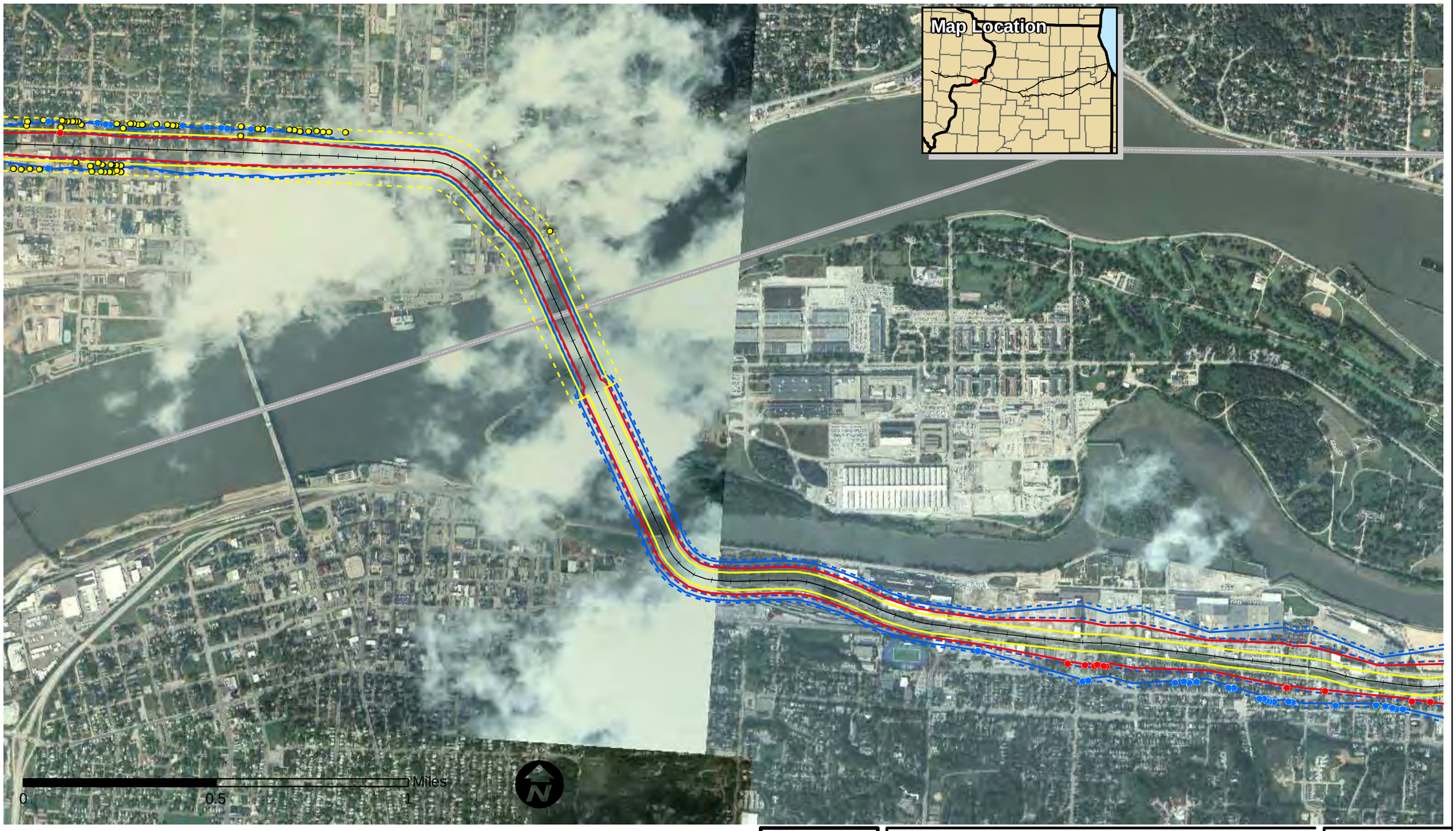

Vibration Impacts

- Vibration Impact - Future

Noise Impacts

- Moderate - Future
- Severe - Future

Noise Contours

- Moderate Level - Existing
- Moderate Level - Future
- Severe Level - Existing
- Severe Level - Future

Vibration Contours

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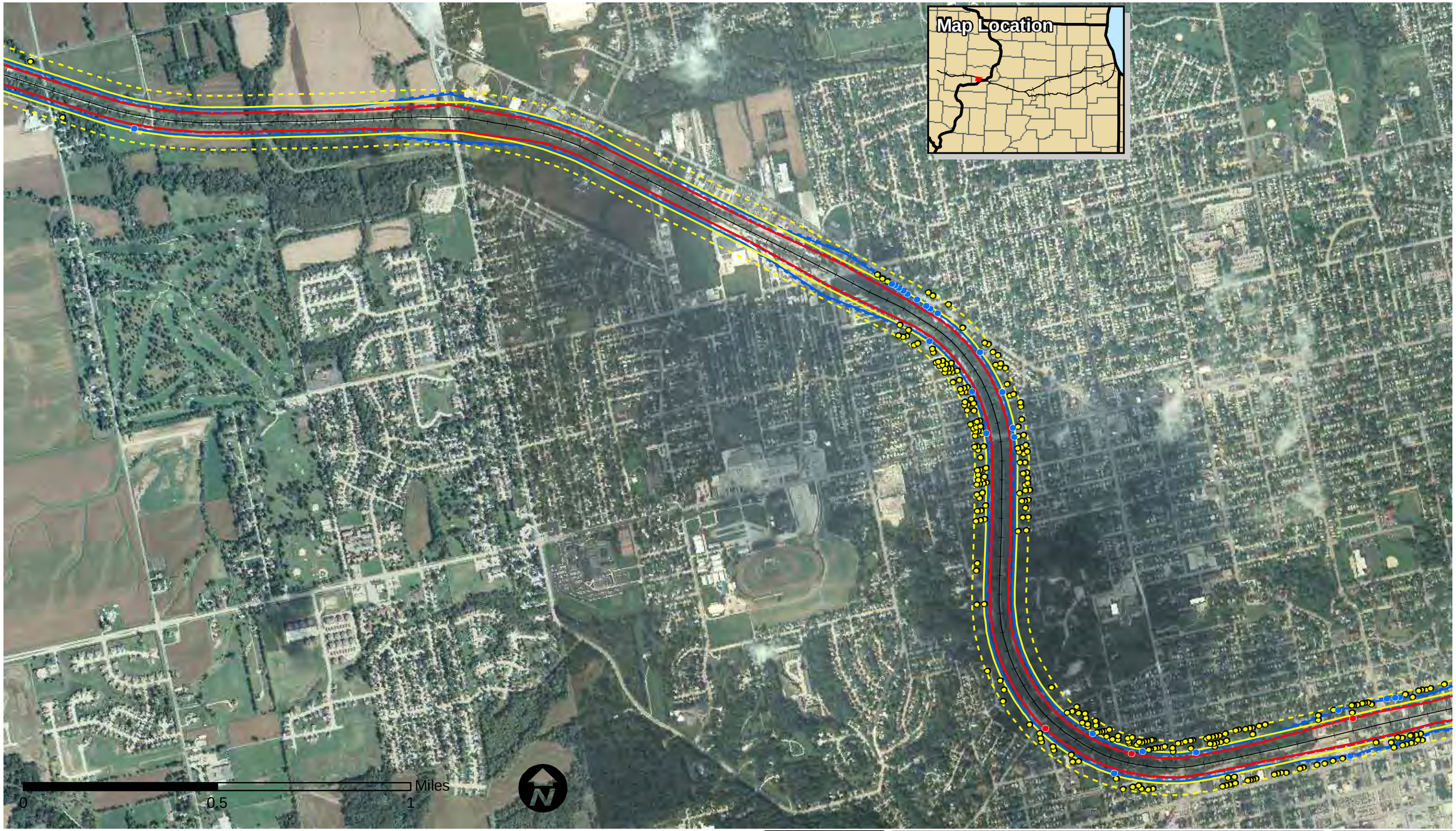

Vibration Impacts
- Vibration Impact - Future

Noise Impacts
- Moderate - Future
- Severe - Future

Noise Contours
- Moderate Level - Existing
- Moderate Level - Future
- Severe Level - Existing
- Severe Level - Future

Vibration Contours
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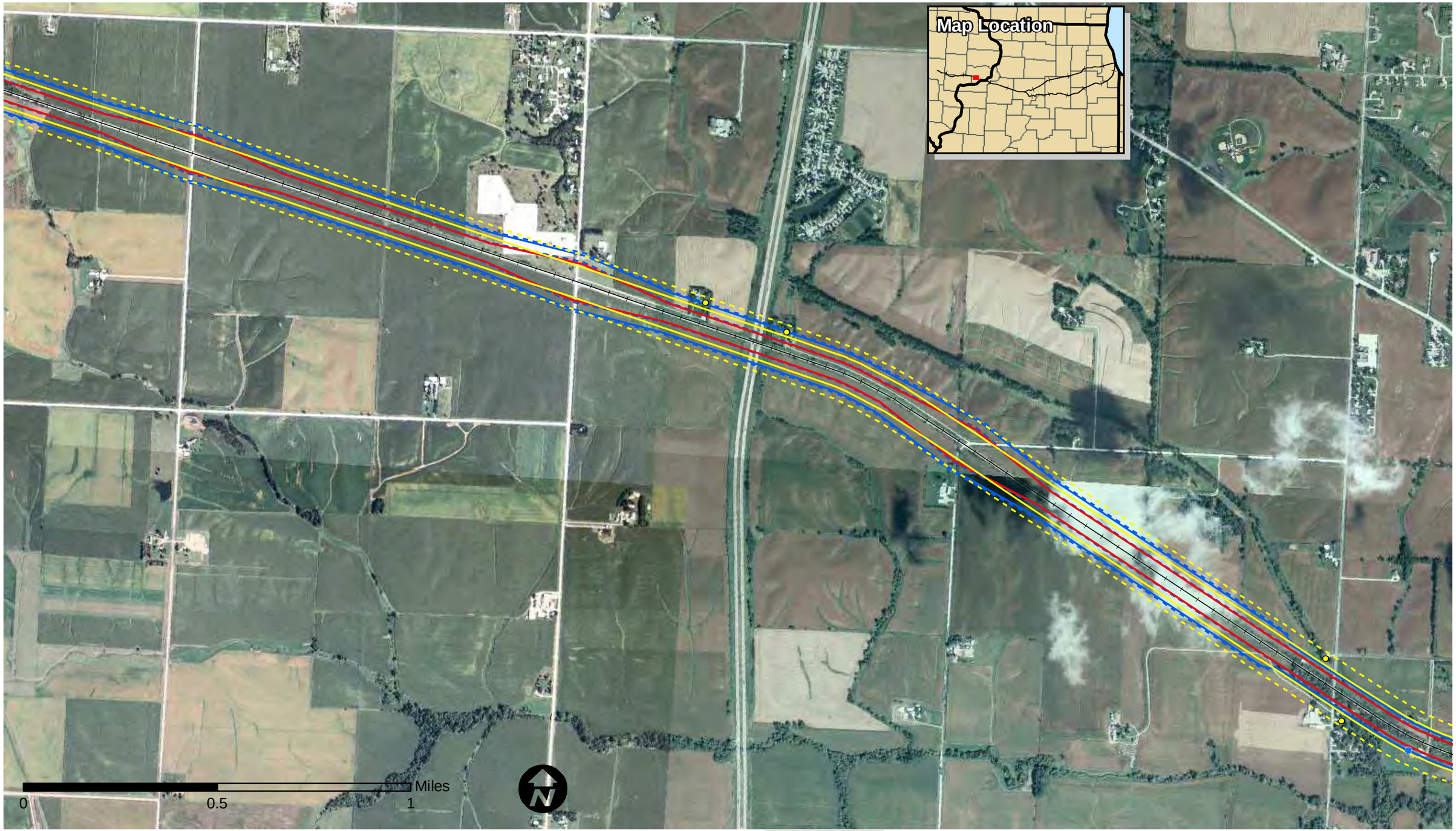

Vibration Impacts
- Vibration Impact - Future

Noise Impacts
- Moderate - Future
- Severe - Future

Noise Contours
- Moderate Level - Existing
- Moderate Level - Future
- Severe Level - Existing
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Vibration Contours
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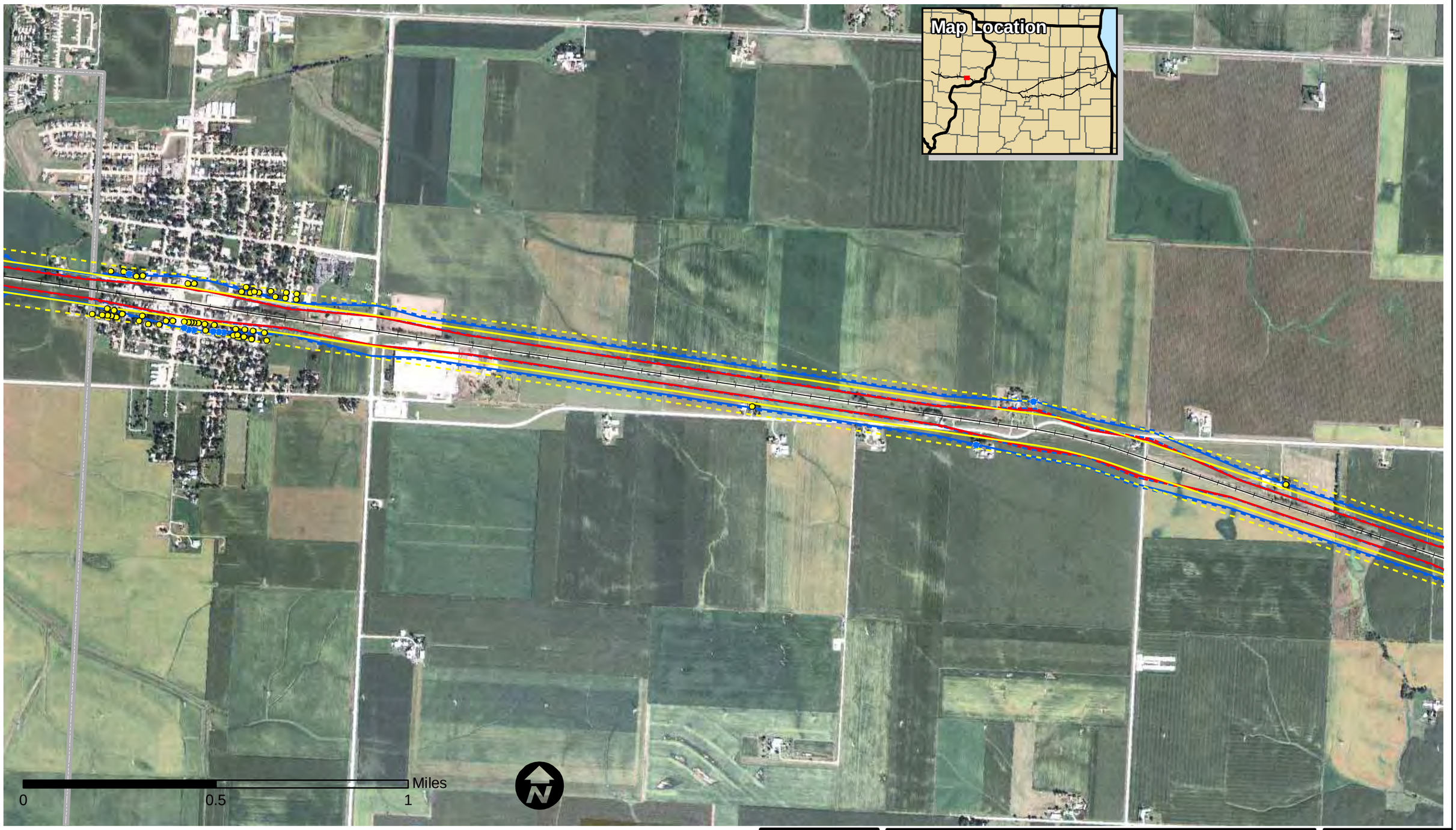

Vibration Impacts
- Vibration Impact - Future

Noise Impacts
- Moderate - Future
- Severe - Future

Noise Contours
- Moderate Level - Existing
- Moderate Level - Future
- Severe Level - Existing
- Severe Level - Future

Vibration Contours
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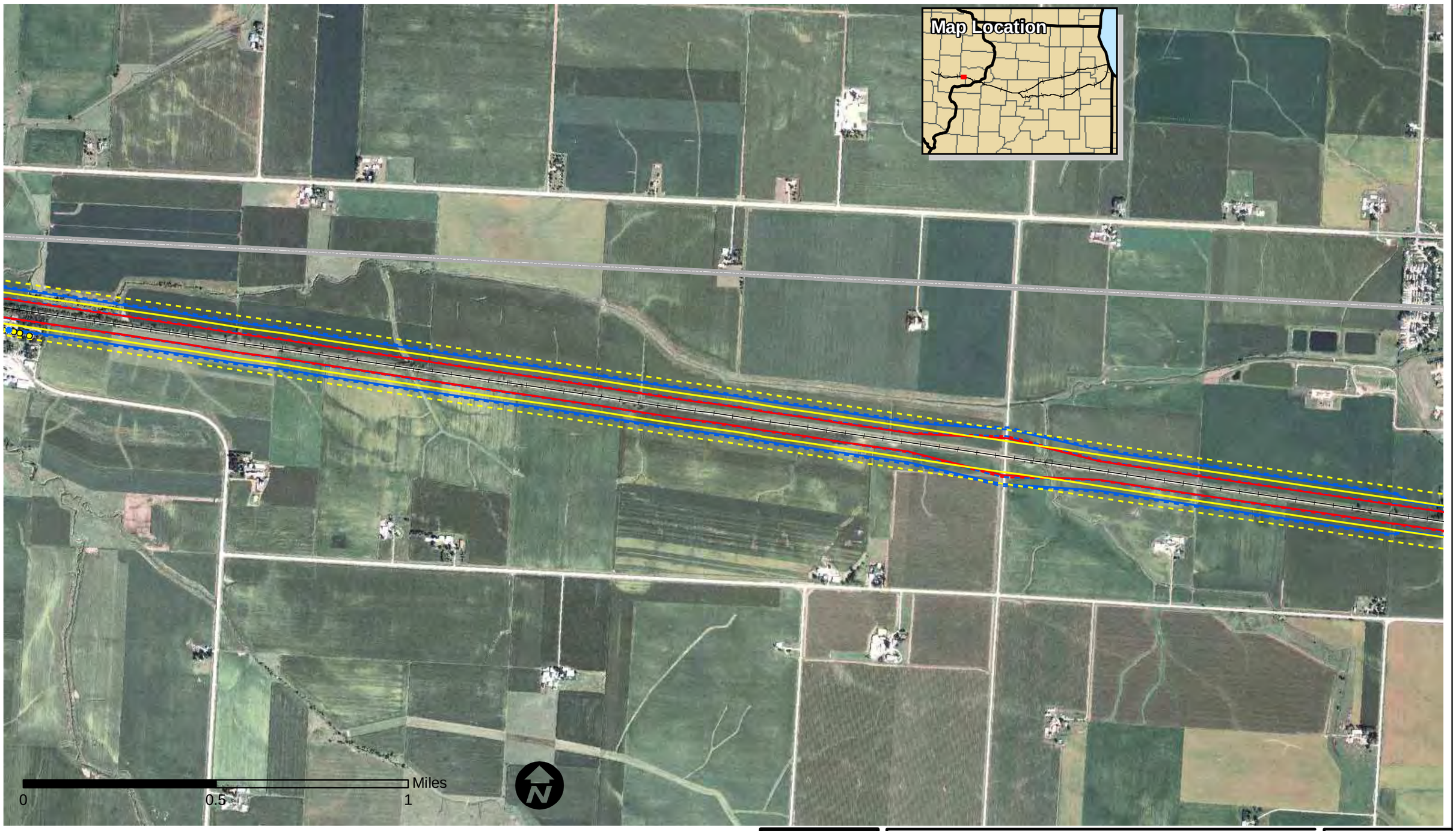

Vibration Impacts
- Vibration Impact - Future

Noise Impacts
- Moderate - Future
- Severe - Future

Noise Contours
- Moderate Level - Existing
- Moderate Level - Future
- Severe Level - Existing
- Severe Level - Future

Vibration Contours
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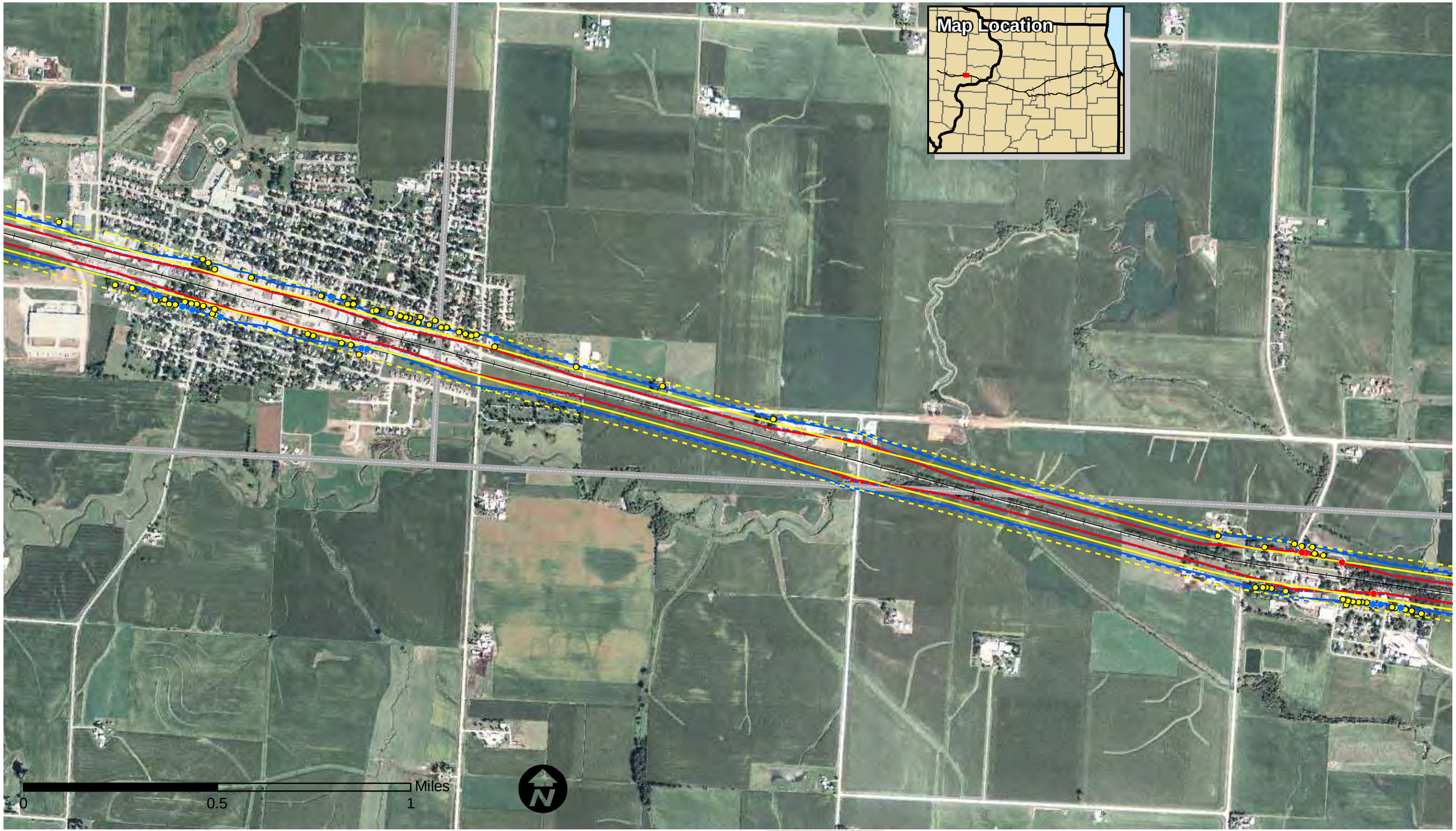

Vibration Impacts

- Vibration Impact - Future

Noise Impacts

- Moderate - Future
- Severe - Future

Noise Contours

- Moderate Level - Existing
- Moderate Level - Future
- Severe Level - Existing
- Severe Level - Future

Vibration Contours

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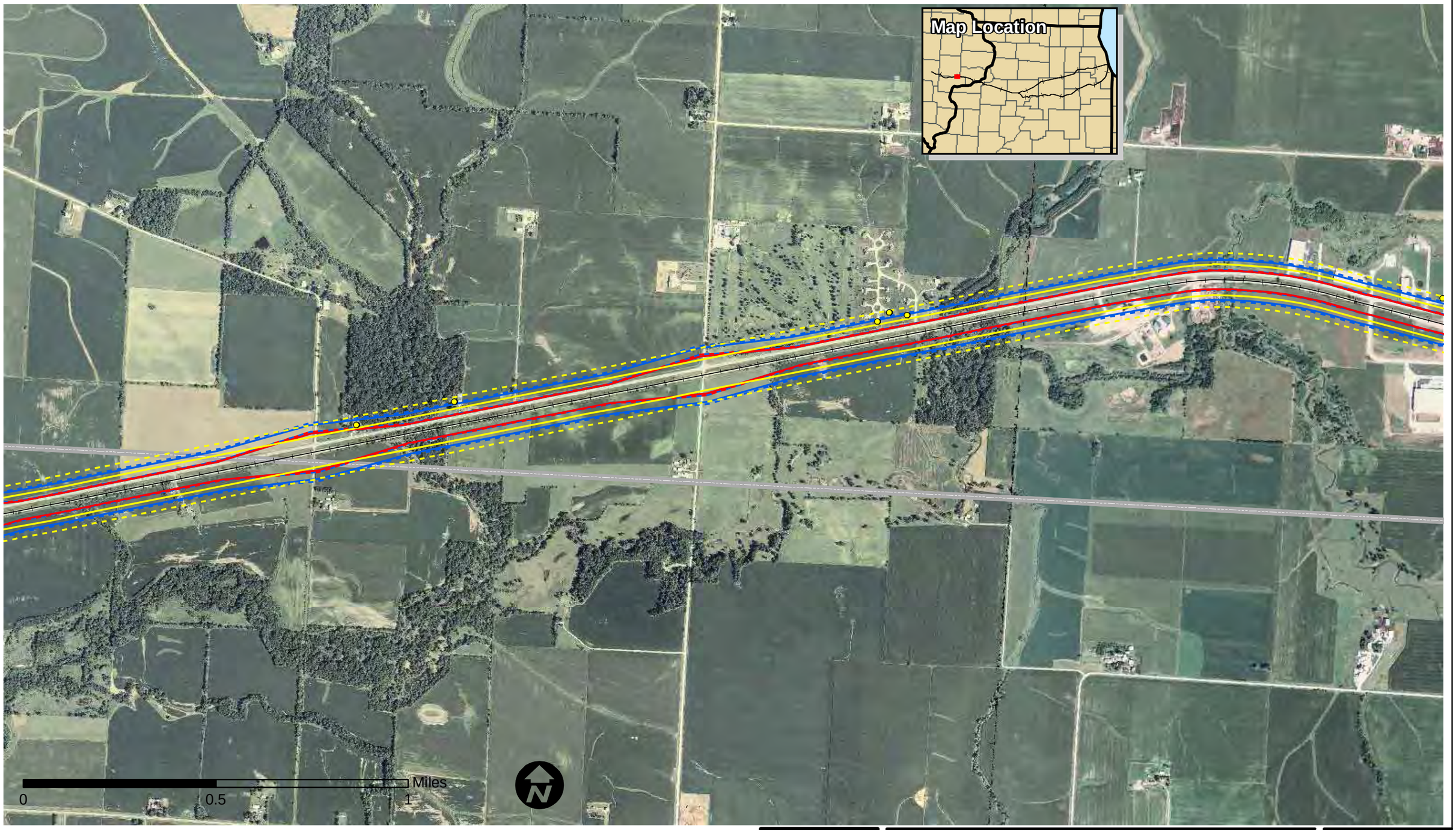

Vibration Impacts

- Vibration Impact - Future

Noise Impacts

- Moderate - Future
- Severe - Future

Noise Contours

- Moderate Level - Existing
- Moderate Level - Future
- Severe Level - Existing
- Severe Level - Future

Vibration Contours

- Existing Contour
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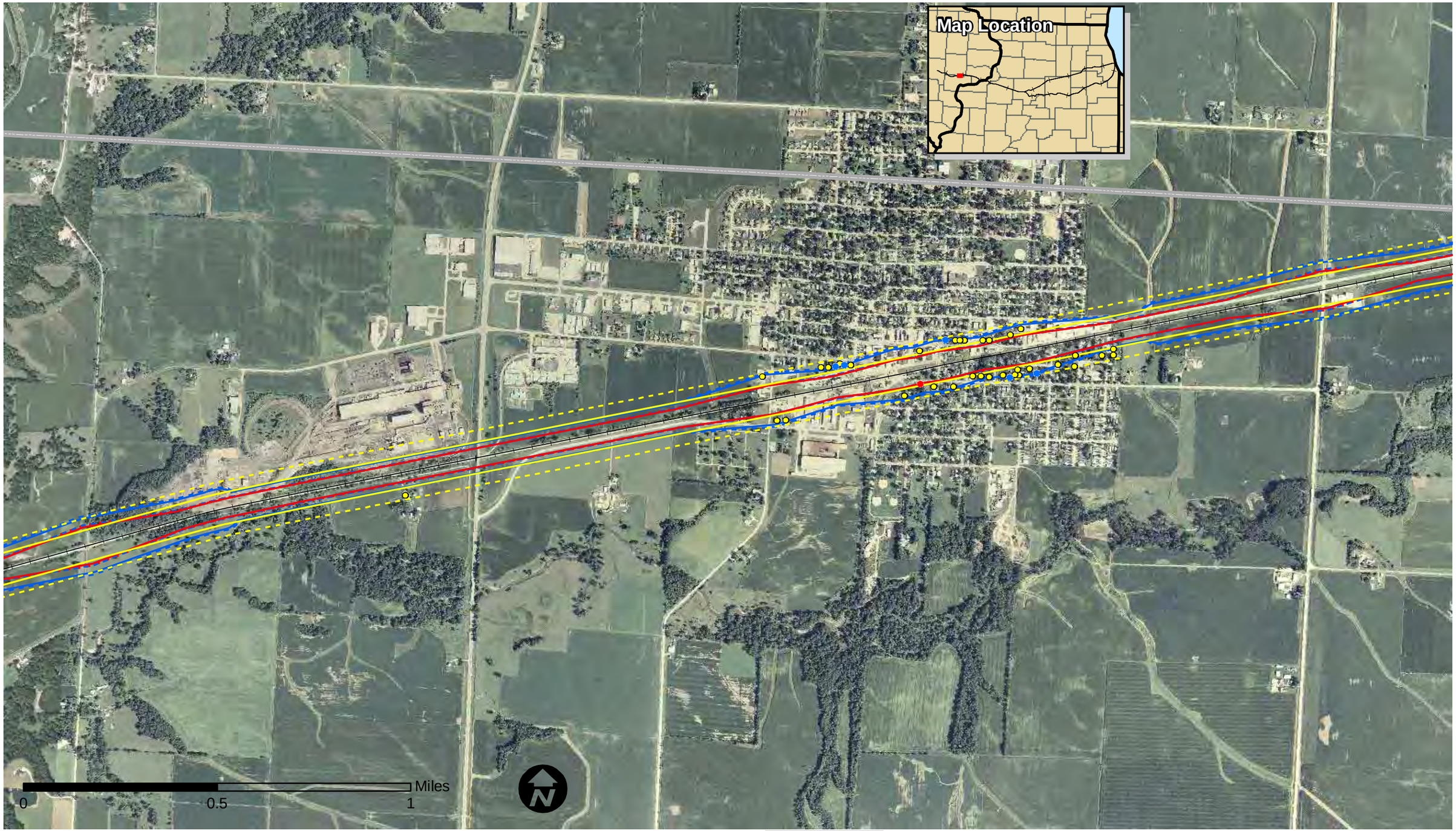

Vibration Impacts

- Vibration Impact - Future

Noise Impacts

- Moderate - Future
- Severe - Future

Noise Contours

- Moderate Level - Existing
- Moderate Level - Future
- Severe Level - Existing
- Severe Level - Future

Vibration Contours

- Existing Contour
- Future Contour
- County Boundary

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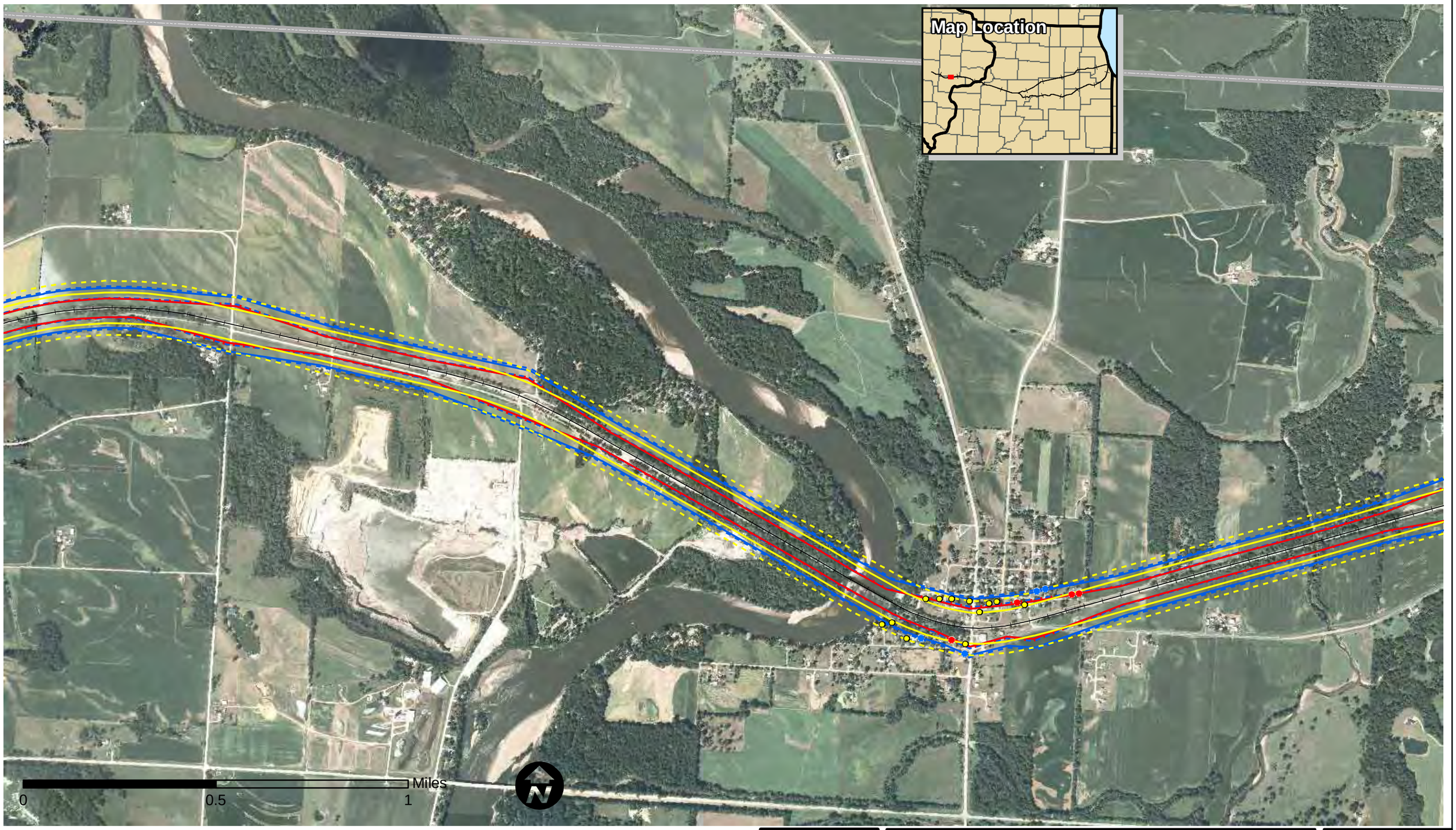

Vibration Impacts
- Vibration Impact - Future

Noise Impacts
- Moderate - Future
- Severe - Future

Noise Contours
- Moderate Level - Existing
- Moderate Level - Future
- Severe Level - Existing
- Severe Level - Future

Vibration Contours
- Existing Contour
- Future Contour

- County Boundary

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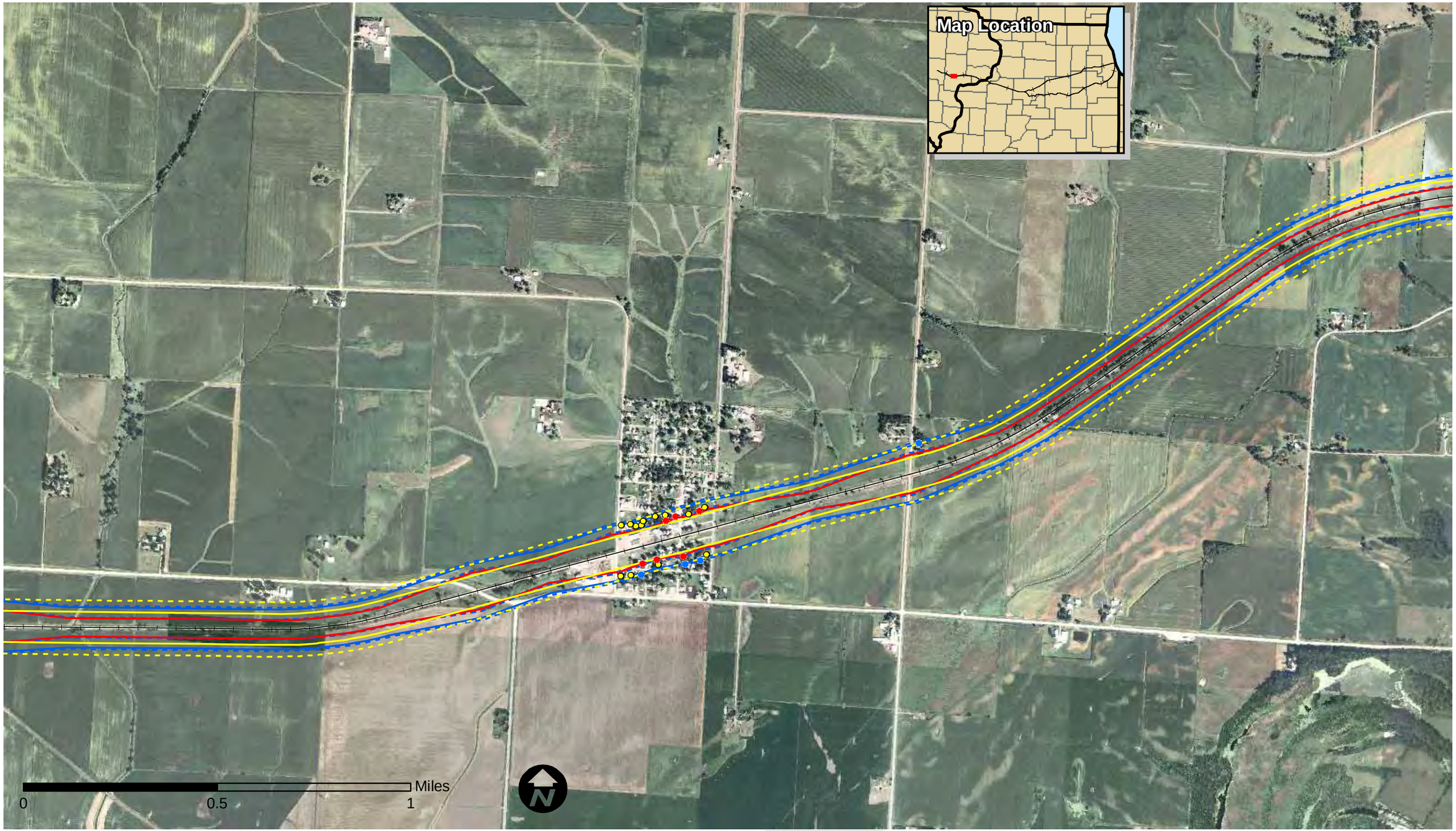

Vibration Impacts
- Vibration Impact - Future

Noise Impacts
- Moderate - Future
- Severe - Future

Noise Contours
- Moderate Level - Existing
- Moderate Level - Future
- Severe Level - Existing
- Severe Level - Future

Vibration Contours
- Existing Contour
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County Boundary

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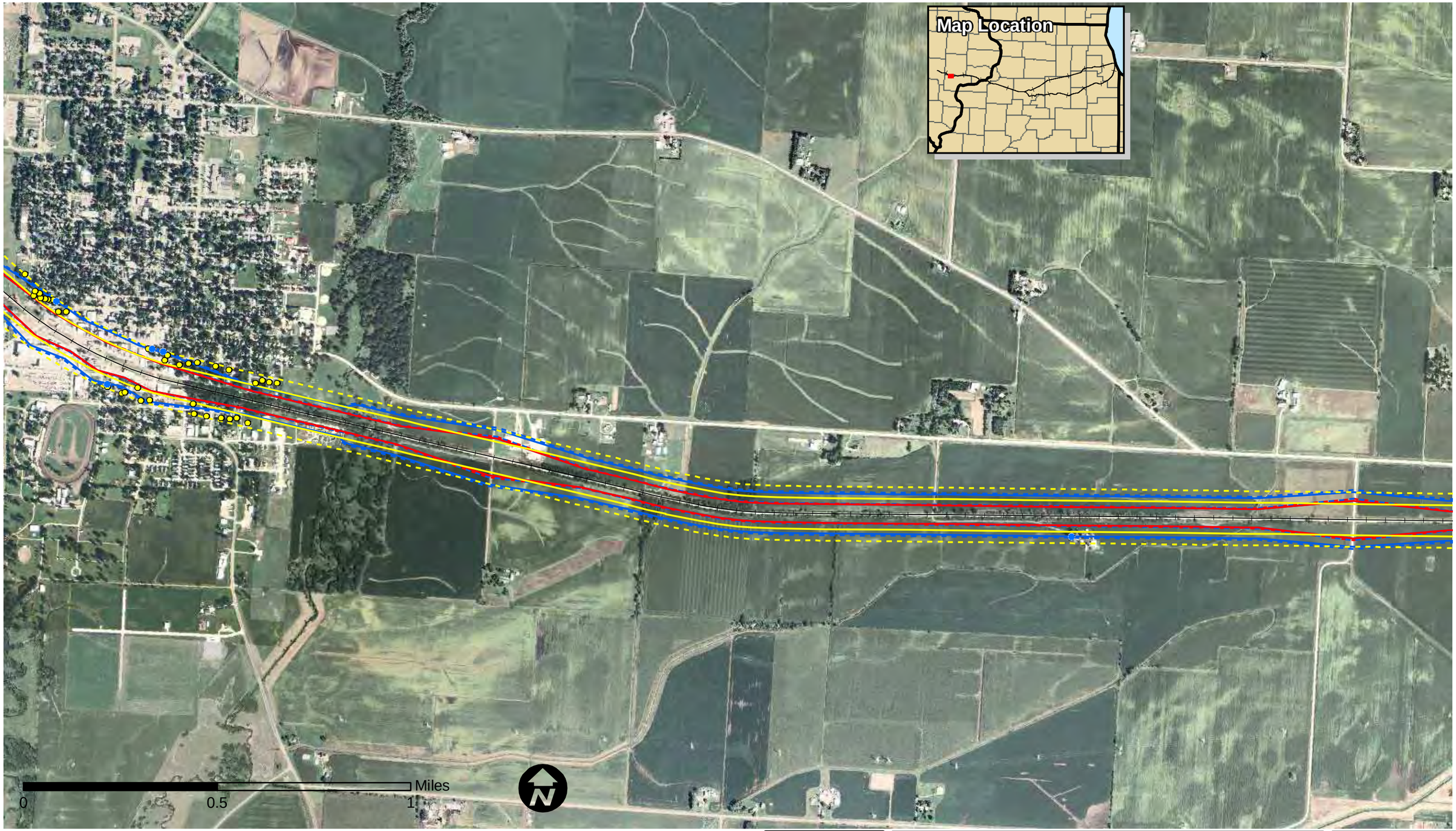

Vibration Impacts

- Vibration Impact - Future

Noise Impacts

- Moderate - Future
- Severe - Future

Noise Contours

- Moderate Level - Existing
- Moderate Level - Future
- Severe Level - Existing
- Severe Level - Future

Vibration Contours

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Vibration Impacts
- Vibration Impact - Future

Noise Impacts
- Moderate - Future
- Severe - Future

Noise Contours
- Moderate Level - Existing
- Moderate Level - Future
- Severe Level - Existing
- Severe Level - Future

Vibration Contours
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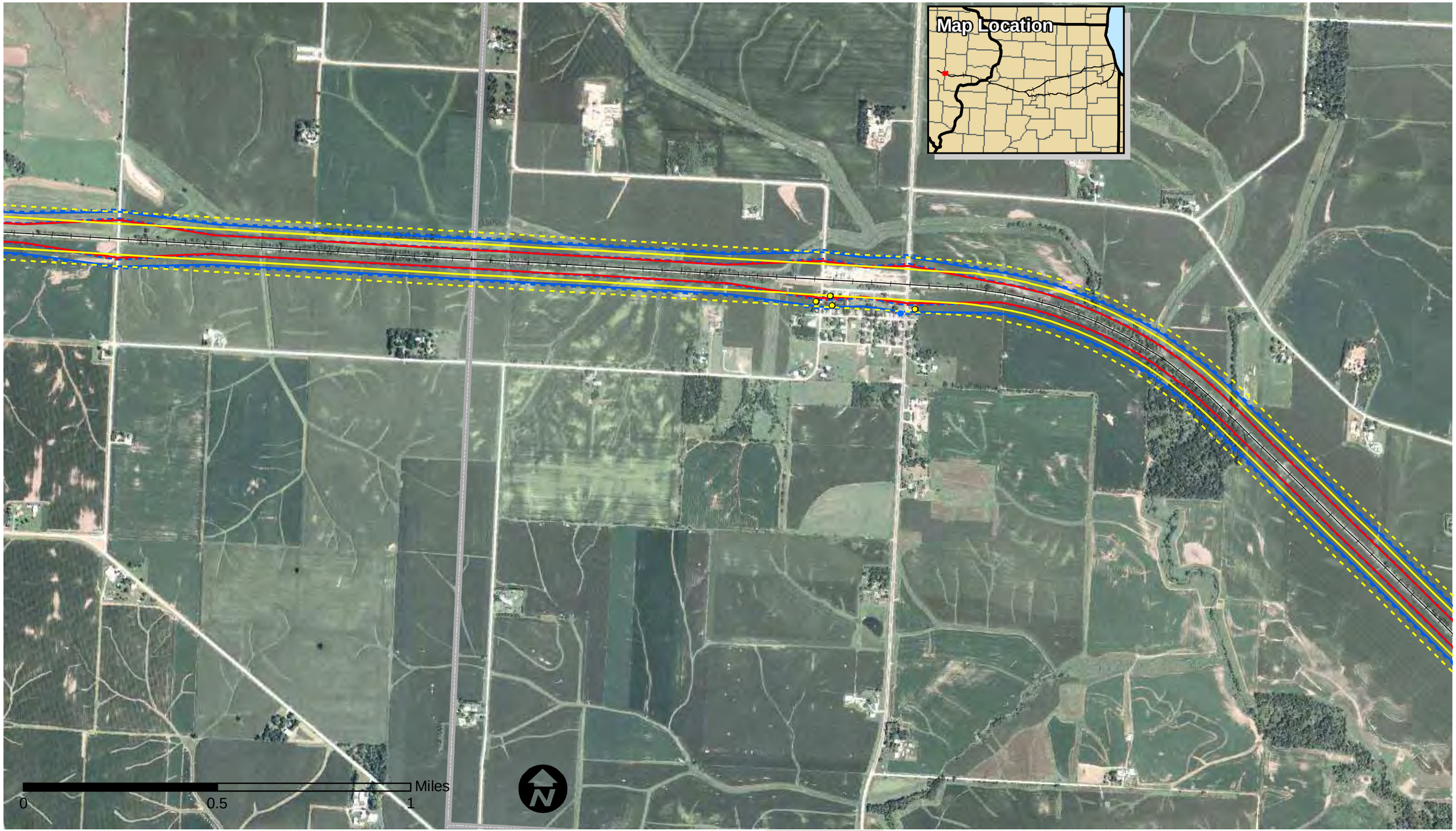

Vibration Impacts
- Vibration Impact - Future

Noise Impacts
- Moderate - Future
- Severe - Future

Noise Contours
- Moderate Level - Existing
- Moderate Level - Future
- Severe Level - Existing
- Severe Level - Future

Vibration Contours
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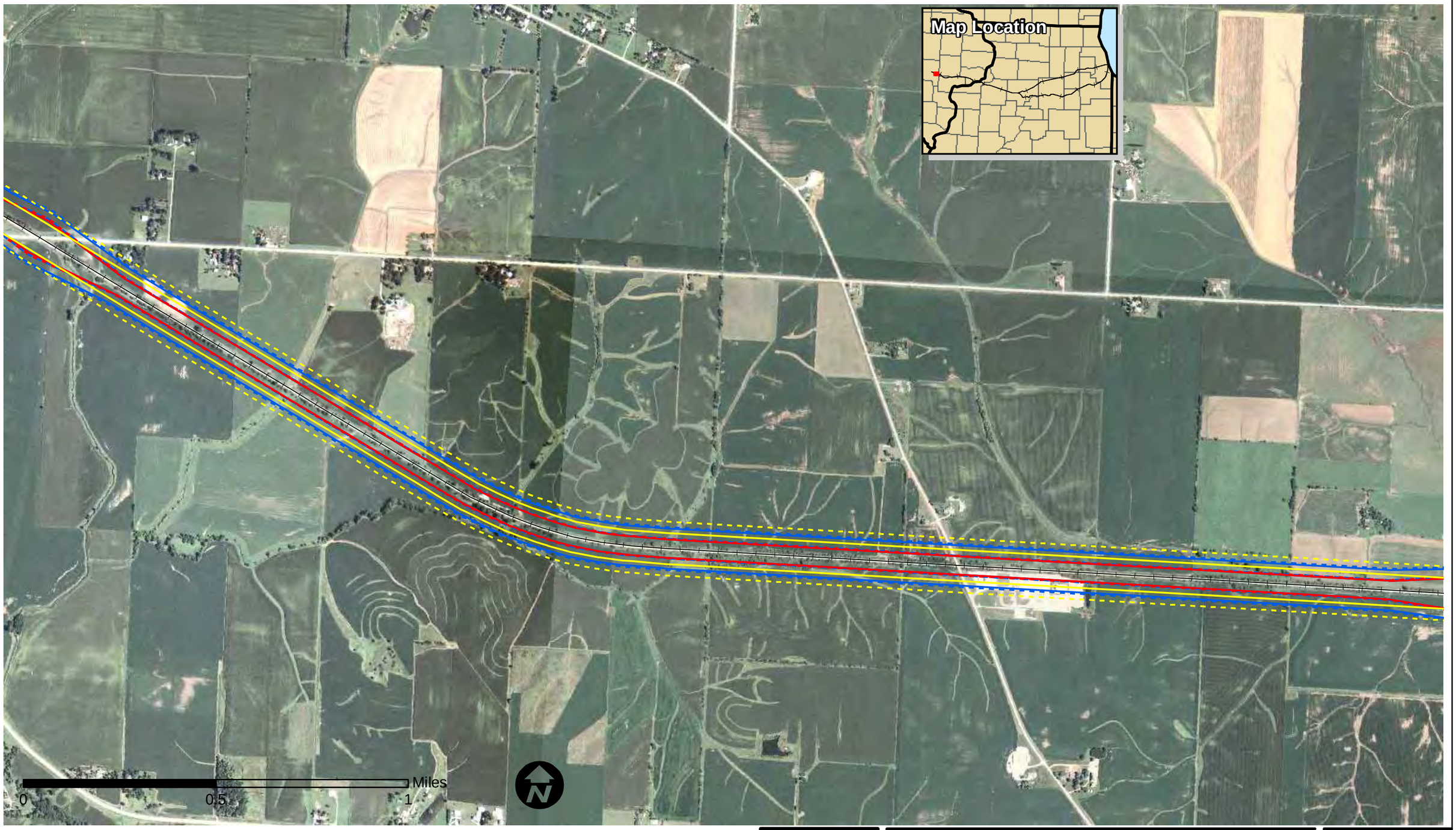

Vibration Impacts
- Vibration Impact - Future

Noise Impacts
- Moderate - Future
- Severe - Future

Noise Contours
- Moderate Level - Existing
- Moderate Level - Future
- Severe Level - Existing
- Severe Level - Future

Vibration Contours
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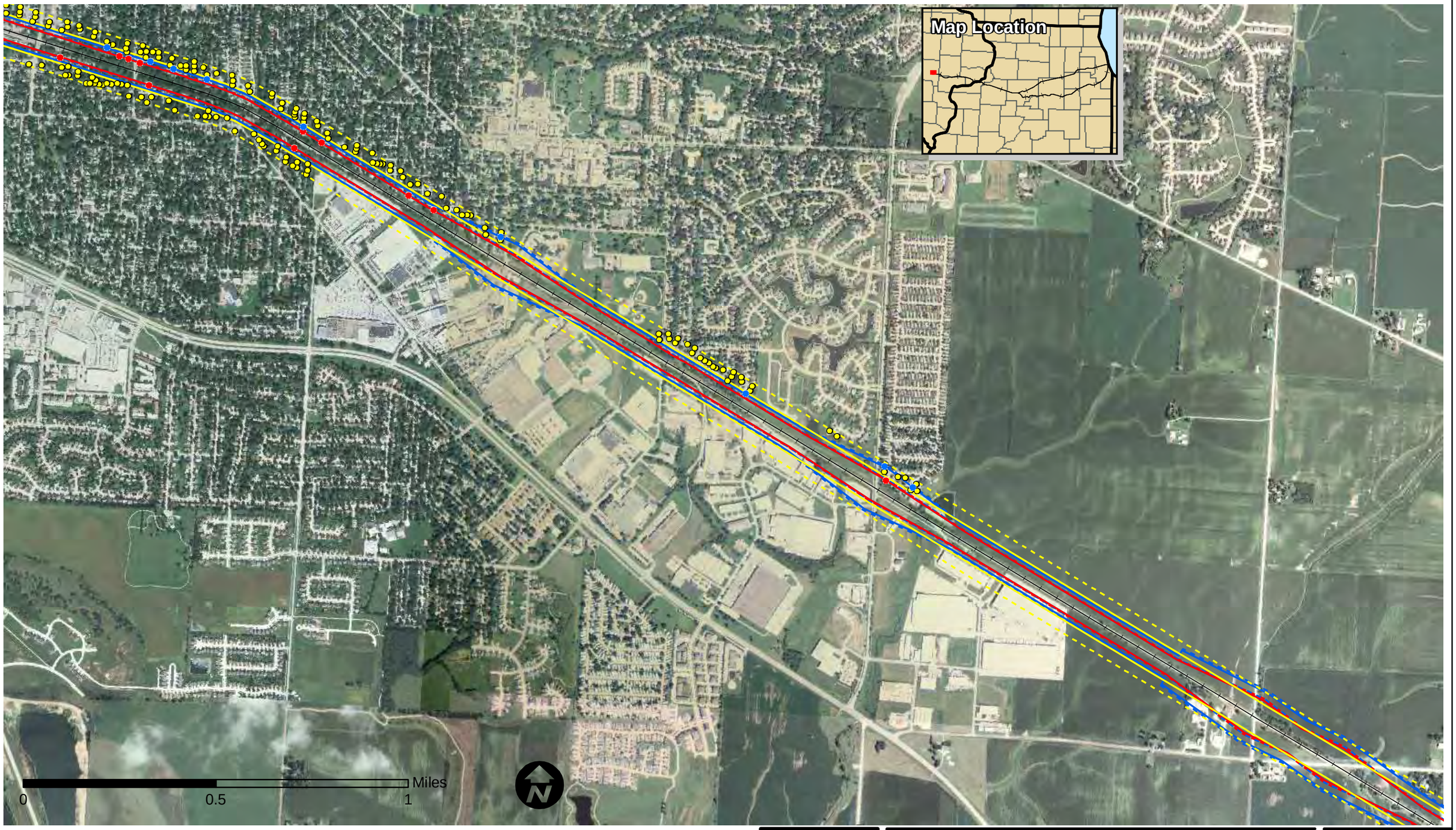

Vibration Impacts

- Vibration Impact - Future

Noise Impacts

- Moderate - Future
- Severe - Future

Noise Contours

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Noise Impacts
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Noise Contours
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APPENDIX D
HAZARDOUS MATERIAL SITES

CONTENTS

Table D-1 Route A Alternative - Hazardous Material Sites by Community

Table D-2 Route B Alternative - Hazardous Material Sites by Community

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Table D-1
Route A Alternative
Hazardous Material Sites by Community

City	State	EPA Sites[a,b]			State Remediation Sites[b]
		Total	Superfund	*RCRA*	
Wyanet	IL	2	0	2	3
Sheffield	IL	14	1	5	1
Mineral	IL	3	0	0	1
Atkinson	IL	5	0	1	1
Geneseo	IL	41	0	4	5
East Moline	IL	12	0	9	5
Moline	IL	24	1	16	10
Illinois subtotal		***101***	***2***	***37***	***26***
Davenport	IA	19	1	14	12
Walcott	IA	13	0	5	1
Durant	IA	22	0	7	2
Wilton	IA	14	0	3	2
Atalissa	IA	2	0	0	0
West Liberty	IA	8	0	5	1
Iowa City	IA	9	0	5	0
Iowa subtotal		***87***	***1***	***39***	***18***
Total		**188**	**3**	**76**	**44**

Sources:

U.S. Environmental Protection Agency. June 8, 2009. Facility Registration System. Accessed August, 27, 2009. http://www.epa.gov/enviro/html/fii/fii_query_java.html

Illinois Environmental Protection Agency. May 15, 2003. Remediation Sites. Accessed August 18, 2009. http://maps.epa.state.il.us/website/remediation/.

Iowa Department of Natural Resources. Undated. Iowa DNR Interactive Mapping - LUST Sites. Accessed August 18, 2009. http://programs.iowadnr.gov/ims/website/lust_sites/viewer.htm.

Notes:

[a] Superfund and RCRA sites are a subset of EPA sites

[b] Sites within approximately 500 feet (either side) of railroad line

Table D-2
Route B Alternative
Hazardous Material Sites by Community

City	State	EPA Sites[a,b]			State Remediation Sites[b]
		Total	*Superfund*	*RCRA*	
Joliet	IL	21	1	15	6
Minooka	IL	5	0	4	2
Morris	IL	9	0	2	2
Seneca	IL	5	0	0	3
Marseilles	IL	8	0	4	5
Ottawa	IL	19	0	12	6
Utica	IL	3	0	1	2
La Salle	IL	4	0	1	6
Peru	IL	8	1	4	0
Spring Valley	IL	3	0	1	1
Depue	IL	0	0	0	2
Bureau	IL	0	0	0	1
Tiskilwa	IL	8	0	1	3
Wyanet	IL	2	0	2	3
Sheffield	IL	14	1	5	1
Mineral	IL	3	0	0	1
Atkinson	IL	5	0	1	1
Geneseo	IL	41	0	4	5
East Moline	IL	12	0	9	5
Moline	IL	24	1	16	10
Illinois subtotal		***194***	***4***	***82***	***65***
Davenport	IA	19	1	14	12
Walcott	IA	13	0	5	1
Durant	IA	22	0	7	2
Wilton	IA	14	0	3	2
Atalissa	IA	2	0	0	0
West Liberty	IA	8	0	5	1
Iowa City	IA	9	0	5	0
Iowa subtotal		***87***	***1***	***39***	***18***
Total		**281**	**5**	**121**	**83**

Sources:

U.S. Environmental Protection Agency. June 8, 2009. Facility Registration System. Accessed August, 27, 2009. http://www.epa.gov/enviro/html/fii/fii_query_java.html

Illinois Environmental Protection Agency. May 15, 2003. Remediation Sites. Accessed August 18, 2009. http://maps.epa.state.il.us/website/remediation/.

Iowa Department of Natural Resources. Undated. Iowa DNR Interactive Mapping - LUST Sites. Accessed August 18, 2009. http://programs.iowadnr.gov/ims/website/lust_sites/viewer.htm.

Notes:

[a] Superfund and RCRA sites are a subset of EPA sites

[b] Sites within approximately 500 feet (either side) of railroad line

APPENDIX E
CULTURAL RESOURCES

CONTENTS

Figure E.1 Historic Properties within one-half mile of Rail Corridor

Table E-1 Historic Property and Potentially Historic Property Within 620 feet of Project Alignment

FRA Letters to SHPOs and Tribes

SHPO and Tribal Response Letters

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FIGURE E.1
HISTORIC PROPERTIES WITHIN ONE-HALF MILE OF RAIL CORRIDOR

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Historic Properties in Illinois
Historic Properties in Iowa
Railroad
Interstate
Chicago
County
State

Iowa Department of Transportation
Iowa Connections
Get on Board
Illinois Department of Transportation

Historic Properties within one-half mile of rail corridor

Chicago to Iowa City Intercity Passenger Rail Service

DATE
September 2009

FIGURE
E.1

Map Document: (\\mspe-gis-file\GISProj\134_oma\115305_CHI-IC\map_docs\mxd\Figure3_10_Cultural.mxd) 9/14/2009 --csers

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TABLE E-1
HISTORIC PROPERTY AND POTENTIALLY HISTORIC PROPERTY WITHIN 620 FEET OF PROJECT ALIGNMENT

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Table E-1
Historic Property and Potentially Historic Property Within 620 feet of Project Alignment

Site Number	State	County	Site Name	Site Type	Status
Preferred Alternative and Route B Alternative					
675	IA	Johnson	Grocery	Building(s)	Not evaluated
678	IA	Johnson	703 East Bowery Street	Building(s)	Not evaluated
1010	IA	Johnson	806 Clark Street	Building(s)	NRHP listing
1012	IA	Johnson	816 Clark Street	Building(s)	NRHP listing
1013	IA	Johnson	823 Clark Street	Building(s)	NRHP listing
1015	IA	Johnson	830 Clark Street	Building(s)	Not evaluated
1044	IA	Johnson	Delta Delta Delta House	Building(s)	Not evaluated
1045	IA	Johnson	520 North Clinton Street	Building(s)	Not evaluated
1046	IA	Johnson	Dey House	Building(s)	Not evaluated
1074	IA	Johnson	Paine House	Building(s)	Not evaluated
1401	IA	Johnson	630 North Dodge Street	Building(s)	NRHP listing
1402	IA	Johnson	Conroy, Joanne, House	Building(s)	NRHP listing
1403	IA	Johnson	707 North Dodge Street	Building(s)	NRHP listing
1404	IA	Johnson	715 North Dodge Street	Building(s)	NRHP listing
1405	IA	Johnson	720 North Dodge Street	Building(s)	NRHP listing
1406	IA	Johnson	Prizler House	Building(s)	NRHP listing
1407	IA	Johnson	727 North Dodge Street	Building(s)	NRHP listing
1408	IA	Johnson	802 North Dodge Street	Building(s)	NRHP listing
1413	IA	Johnson	828 North Dodge Street	Building(s)	NRHP listing
1525	IA	Johnson	602 North Dubuque Street	Building(s)	Not evaluated
1527	IA	Johnson	612 North Dubuque Street	Building(s)	Not evaluated
1529	IA	Johnson	616 North Dubuque Street	Building(s)	Not evaluated
1531	IA	Johnson	629 North Dubuque Street	Building(s)	Not evaluated
1532	IA	Johnson	Sigma Nu Fraternity Building	Building(s)	Not evaluated
1533	IA	Johnson	Gamma Sigma Phi Epsilon Fraternity	Building(s)	Not evaluated
1534	IA	Johnson	Sigma Chi Fraternity	Building(s)	Not evaluated
1536	IA	Johnson	Sigma Alpha Epsilon Fraternity	Building(s)	Not evaluated
1537	IA	Johnson	Phi Kappa Sigma Fraternity	Building(s)	Not evaluated
1538	IA	Johnson	720 North Dubuque Street	Building(s)	Not evaluated
1539	IA	Johnson	Kappa Sigma Fraternity	Building(s)	Not evaluated
1540	IA	Johnson	Phi Delta Theta Fraternity	Building(s)	Not evaluated
1542	IA	Johnson	Beta Theta Phi	Building(s)	Not evaluated
1712	IA	Johnson	520 North Gilbert Street	Building(s)	Not evaluated
1715	IA	Johnson	606 North Gilbert Street	Building(s)	Not evaluated
1717	IA	Johnson	614 North Gilbert Street	Building(s)	Not evaluated
1721	IA	Johnson	629 North Gilbert Street	Building(s)	Not evaluated
1723	IA	Johnson	711 North Gilbert Street	Building(s)	Not evaluated
1726	IA	Johnson	715 North Gilbert Street	Building(s)	NRHP listing
1727	IA	Johnson	718 North Gilbert Street	Building(s)	NRHP listing
1730	IA	Johnson	824 North Gilbert Street	Building(s)	NRHP listing
1732	IA	Johnson	828 North Gilbert Street	Building(s)	NRHP listing
1757	IA	Johnson	Close House	Building(s)	NRHP listing
1788	IA	Johnson	629 North Governor Street	Building(s)	NRHP listing
1865	IA	Johnson	627 South Governor Street	Building(s)	Not evaluated
1867	IA	Johnson	633 South Governor Street	Building(s)	Not evaluated
1868	IA	Johnson	635 South Governor Street	Building(s)	Not evaluated

Table E-1
Historic Property and Potentially Historic Property Within 620 feet of Project Alignment

Site Number	State	County	Site Name	Site Type	Status
1870	IA	Johnson	638 South Governor Street	Building(s)	Not evaluated
1871	IA	Johnson	640 South Governor Street	Building(s)	Not evaluated
1872	IA	Johnson	641 South Governor Street	Building(s)	Not evaluated
1873	IA	Johnson	645 South Governor Street	Building(s)	Not evaluated
1874	IA	Johnson	649 South Governor Street	Building(s)	Not evaluated
1875	IA	Johnson	650 South Governor Street	Building(s)	Not evaluated
1878	IA	Johnson	654 South Governor Street	Building(s)	Not evaluated
1879	IA	Johnson	655 South Governor Street	Building(s)	Not evaluated
1883	IA	Johnson	670 South Governor Street	Building(s)	Not evaluated
1884	IA	Johnson	676 South Governor Street	Building(s)	Not evaluated
2118	IA	Johnson	610 North Johnson Street	Building(s)	Not evaluated
2119	IA	Johnson	611 North Johnson Street	Building(s)	NRHP listing
2120	IA	Johnson	Barns-Crowley House	Building(s)	NRHP listing
2121	IA	Johnson	616 North Johnson Street	Building(s)	NRHP listing
2122	IA	Johnson	617 North Johnson Street	Building(s)	NRHP listing
2123	IA	Johnson	619 North Johnson Street	Building(s)	NRHP listing
2124	IA	Johnson	Cilek, Lorada E., House	Building(s)	NRHP listing
2125	IA	Johnson	624 North Johnson Street	Building(s)	NRHP listing
2126	IA	Johnson	628 North Johnson Street	Building(s)	NRHP listing
2157	IA	Johnson	McConnell, Joseph, House	Building(s)	Not evaluated
2161	IA	Johnson	Kirkwood House	Building(s)	NRHP listing
2200	IA	Johnson	533 North Linn Street	Building(s)	NRHP listing
2274	IA	Johnson	713 North Lucas Street	Building(s)	NRHP listing
2275	IA	Johnson	722 North Lucas Street	Building(s)	NRHP listing
2276	IA	Johnson	727 North Lucas Street	Building(s)	NRHP listing
2301	IA	Johnson	809 Maggard Street	Building(s)	Not evaluated
2306	IA	Johnson	821 Maggard Street	Building(s)	Not evaluated
2307	IA	Johnson	827 Maggard Street	Building(s)	Not evaluated
2604	IA	Johnson	803 Roosevelt Street	Building(s)	Not evaluated
2607	IA	Johnson	815 Roosevelt Street	Building(s)	Not evaluated
2609	IA	Johnson	816 Roosevelt Street	Building(s)	Not evaluated
2611	IA	Johnson	822 Roosevelt Street	Building(s)	Not evaluated
2613	IA	Johnson	826 Roosevelt Street	Building(s)	Not evaluated
2615	IA	Johnson	838 Roosevelt Street	Building(s)	Not evaluated
2616	IA	Johnson	839 Roosevelt Street	Building(s)	Not evaluated
2635	IA	Johnson	1011 Sheridan Avenue	Building(s)	Not evaluated
2636	IA	Johnson	1014 Sheridan Avenue	Building(s)	Not evaluated
2637	IA	Johnson	1021 Sheridan Avenue	Building(s)	Not evaluated
2638	IA	Johnson	1027 Sheridan Avenue	Building(s)	Not evaluated
2639	IA	Johnson	1111 Sheridan Avenue	Building(s)	Not evaluated
2640	IA	Johnson	1115 Sheridan Avenue	Building(s)	Not evaluated
2641	IA	Johnson	1120 Sheridan Avenue	Building(s)	Not evaluated
2642	IA	Johnson	1122 Sheridan Avenue	Building(s)	Not evaluated
2643	IA	Johnson	1126 Sheridan Avenue	Building(s)	Not evaluated
2645	IA	Johnson	1203 Sheridan Avenue	Building(s)	Not evaluated
2646	IA	Johnson	1204 Sheridan Avenue	Building(s)	Not evaluated
2647	IA	Johnson	1210 Sheridan Avenue	Building(s)	Not evaluated

Table E-1
Historic Property and Potentially Historic Property Within 620 feet of Project Alignment

Site Number	State	County	Site Name	Site Type	Status
2648	IA	Johnson	1211 Sheridan Avenue	Building(s)	Not evaluated
2649	IA	Johnson	1214 Sheridan Avenue	Building(s)	Not evaluated
2650	IA	Johnson	1220 Sheridan Avenue	Building(s)	Not evaluated
2651	IA	Johnson	1221 Sheridan Avenue	Building(s)	Not evaluated
2652	IA	Johnson	1224 Sheridan Avenue	Building(s)	Not evaluated
2654	IA	Johnson	1228 Sheridan Avenue	Building(s)	Not evaluated
2655	IA	Johnson	1231 Sheridan Avenue	Building(s)	Not evaluated
2658	IA	Johnson	710 South Summit Street	Building(s)	NRHP listing
2659	IA	Johnson	715 South Summit Street	Building(s)	NRHP listing
2660	IA	Johnson	718 South Summit Street	Building(s)	NRHP listing
2661	IA	Johnson	725 South Summit Street	Building(s)	NRHP listing
2662	IA	Johnson	730 South Summit Street	Building(s)	NRHP listing
2663	IA	Johnson	733 South Summit Street	Building(s)	NRHP listing
2664	IA	Johnson	802 South Summit Street	Building(s)	NRHP listing
2665	IA	Johnson	803 South Summit Street	Building(s)	NRHP listing
2667	IA	Johnson	Powers, Jamie, House	Building(s)	NRHP listing
2669	IA	Johnson	818 South Summit Street	Building(s)	NRHP listing
2709	IA	Johnson	705 South Summit Street	Building(s)	NRHP listing
2710	IA	Johnson	709 South Summit Street	Building(s)	NRHP listing
2778	IA	Johnson	620 North Van Buren Street	Building(s)	NRHP listing
2779	IA	Johnson	621 North Van Buren Street	Building(s)	NRHP listing
2780	IA	Johnson	622 North Van Buren Street	Building(s)	NRHP listing
2781	IA	Johnson	630 North Van Buren Street	Building(s)	NRHP listing
2790	IA	Johnson	Vogt House	Building(s)	NRHP listing
2888	IA	Johnson	Chicago, Rock Island & Pacific Passenger Station	Building(s)	NRHP listing
2918	IA	Johnson	Jenn and Potter House and Garage	Building(s)	Not evaluated
2919	IA	Johnson	Gilmore House and Garage	Building(s)	Not evaluated
2920	IA	Johnson	Peterson House and Garage	Building(s)	Not evaluated
2921	IA	Johnson	Yagla House	Building(s)	Not evaluated
2922	IA	Johnson	Cleveland House	Building(s)	Not evaluated
2923	IA	Johnson	Bullard House	Building(s)	Not evaluated
3003	IA	Johnson	Adams Trust House	Building(s)	Not evaluated
5519	IA	Scott	The Castle	Building(s)	Not evaluated
2439	IA	Scott	Mairet, Ruth E., House	Building(s)	Not evaluated
4479	IA	Scott	2306 Pacific Street	Building(s)	Not evaluated
4481	IA	Scott	2312 Pacific Street	Building(s)	Not evaluated
4483	IA	Scott	2316 Pacific Street	Building(s)	Not evaluated
4485	IA	Scott	2322 Pacific Street	Building(s)	Not evaluated
4487	IA	Scott	2326 Pacific Street	Building(s)	Not evaluated
4477	IA	Scott	2302 Pacific Street	Building(s)	Not evaluated
4473	IA	Scott	2222 Pacific Street	Building(s)	Not evaluated
4475	IA	Scott	2226 Pacific Street	Building(s)	Not evaluated
4480	IA	Scott	2311 Pacific Street	Building(s)	Not evaluated
4482	IA	Scott	2315 Pacific Street	Building(s)	Not evaluated
4484	IA	Scott	2321 Pacific Street	Building(s)	Not evaluated
4486	IA	Scott	2325 Pacific Street	Building(s)	Not evaluated
4476	IA	Scott	2301 Pacific Street	Building(s)	Not evaluated

Table E-1
Historic Property and Potentially Historic Property Within 620 feet of Project Alignment

Site Number	State	County	Site Name	Site Type	Status
4478	IA	Scott	2305 Pacific Street	Building(s)	Not evaluated
4472	IA	Scott	2221 Pacific Street	Building(s)	Not evaluated
4474	IA	Scott	2252 Pacific Street	Building(s)	Not evaluated
595	IA	Scott	Ebeling, Henry, House	Building(s)	NRHP listing
411	IA	Scott	0 West 4th Street	Building(s)	Not evaluated
448	IA	Scott	1426 West 4th Street	Building(s)	Not evaluated
1709	IA	Scott	St. Mary's Roman Catholic Church Complex	District	NRHP listing
1712	IA	Scott	St. Mary's Roman Catholic Church Complex--St. Mary's Church	Building(s)	NRHP listing
1710	IA	Scott	St. Mary's Roman Catholic Church Complex--Rectory	Building(s)	NRHP listing
443	IA	Scott	1400 West 4th Street	Building(s)	Not evaluated
444	IA	Scott	1400 West 4th Street	Building(s)	Not evaluated
1711	IA	Scott	St. Mary's Roman Catholic Church Complex--Convent	Building(s)	NRHP listing
5029	IA	Scott	St. Mary's Roman Catholic Church Complex--Parish School	Building(s)	NRHP listing
408	IA	Scott	Hose Station # Seven	Building(s)	Not evaluated
442	IA	Scott	Hose Station #7	Building(s)	NRHP listing
407	IA	Scott	1332 West 4th Street	Building(s)	Not evaluated
441	IA	Scott	Fennern, Henry P., House	Building(s)	NRHP listing
440	IA	Scott	1330 West 4th Street	Building(s)	Not evaluated
438	IA	Scott	Commercial Building	Building(s)	Not evaluated
437	IA	Scott	1304 West 4th Street	Building(s)	Not evaluated
505	IA	Scott	Littig Brothers/Mengel and Klindt/Eagle Brewery	Building(s)	NRHP listing
590	IA	Scott	Walter-Gimbel House	Building(s)	NRHP listing
589	IA	Scott	Paustian, Henry, House	Building(s)	NRHP listing
436	IA	Scott	1228 West 4th Street	Building(s)	Not evaluated
435	IA	Scott	1224 West 4th Street	Building(s)	Not evaluated
433	IA	Scott	1217 West 4th Street	Building(s)	Not evaluated
2187	IA	Scott	St. Joseph's Rectory/St. Kunigunde Church	Building(s)	Not evaluated
2188	IA	Scott	St. Joseph's Church	Building(s)	NRHP listing
537	IA	Scott	St. Joseph's Catholic Church	Building(s)	NRHP listing
503	IA	Scott	Heinz, Bonaventura, House (second)	Building(s)	NRHP listing
588	IA	Scott	St. Joseph's Convent	Building(s)	Not evaluated
5192	IA	Scott	Saint Joseph's School	Building(s)	Not evaluated
502	IA	Scott	Heinz, Bonaventura, House (first)	Building(s)	Unknown
431	IA	Scott	1122 West 4th Street	Building(s)	Not evaluated
430	IA	Scott	1105 West 4th Street	Building(s)	Not evaluated
429	IA	Scott	Saengerfest Halle	Building(s)	NRHP listing
428	IA	Scott	Hackner's Incorporated	Building(s)	Not evaluated
2651	IA	Scott	621 Vine Street	Building(s)	NRHP listing
2652	IA	Scott	625 Vine Street	Building(s)	NRHP listing
2653	IA	Scott	629 Vine Street	Building(s)	NRHP listing
2650	IA	Scott	517 Vine Street	Building(s)	NRHP listing
586	IA	Scott	Hamann, Ferdinand, Saloon	Building(s)	NRHP listing
427	IA	Scott	Beenck Apartments	Building(s)	Not evaluated
584	IA	Scott	928 West 6th Street	Building(s)	NRHP listing
585	IA	Scott	929 West 6th Street	Building(s)	NRHP listing
583	IA	Scott	924 West 6th Street	Building(s)	NRHP listing
500	IA	Scott	Ruhl, Lucas, House	Building(s)	NRHP listing

Table E-1
Historic Property and Potentially Historic Property Within 620 feet of Project Alignment

Site Number	State	County	Site Name	Site Type	Status
582	IA	Scott	923 West 6th Street	Building(s)	NRHP listing
499	IA	Scott	Randolph, Joseph, House	Building(s)	NRHP listing
498	IA	Scott	918 West 5th Street	Building(s)	NRHP listing
580	IA	Scott	916 West 6th Street	Building(s)	NRHP listing
581	IA	Scott	917 West 6th Street	Building(s)	NRHP listing
497	IA	Scott	916 West 5th Street	Building(s)	NRHP listing
496	IA	Scott	912 West 5th Street	Building(s)	NRHP listing
579	IA	Scott	913 West 6th Street	Building(s)	NRHP listing
578	IA	Scott	907 West 6th Street	Building(s)	NRHP listing
495	IA	Scott	Otten, John G., House	Building(s)	NRHP listing
577	IA	Scott	904 West 6th Street	Building(s)	NRHP listing
576	IA	Scott	903 West 6th Street	Building(s)	NRHP listing
2667	IA	Scott	614 Warrant Street	Building(s)	NRHP listing
2669	IA	Scott	629 Warren Street	Building(s)	NRHP listing
2671	IA	Scott	Dohrman, Henry, House	Building(s)	NRHP listing
2662	IA	Scott	510 Warren Street	Building(s)	NRHP listing
2664	IA	Scott	518 Warren Street	Building(s)	NRHP listing
2665	IA	Scott	520 Warren Street	Building(s)	NRHP listing
2666	IA	Scott	613 Warren Street	Building(s)	NRHP listing
2668	IA	Scott	617 Warren Street	Building(s)	NRHP listing
2670	IA	Scott	625 Warren Street	Building(s)	NRHP listing
2663	IA	Scott	513 Warren Street	Building(s)	NRHP listing
575	IA	Scott	830 West 6th Street	Building(s)	NRHP listing
494	IA	Scott	832 West 5th Street	Building(s)	NRHP listing
574	IA	Scott	826 West 6th Street	Building(s)	NRHP listing
573	IA	Scott	824 West 6th Street	Building(s)	NRHP listing
493	IA	Scott	826 West 5th Street	Building(s)	NRHP listing
572	IA	Scott	820 West 6th Street	Building(s)	NRHP listing
492	IA	Scott	822 West 5th Street	Building(s)	NRHP listing
571	IA	Scott	Burrage House	Building(s)	NRHP listing
426	IA	Scott	Commercial Building	Building(s)	Not evaluated
491	IA	Scott	818 West 5th Street	Building(s)	NRHP listing
570	IA	Scott	814 West 5th Street	Building(s)	NRHP listing
490	IA	Scott	816 West 5th Street	Building(s)	NRHP listing
569	IA	Scott	Hellerich, John, House	Building(s)	NRHP listing
568	IA	Scott	Commercial Building	Building(s)	NRHP listing
489	IA	Scott	810 West 5th Street	Building(s)	NRHP listing
488	IA	Scott	806 West 5th Street	Building(s)	NRHP listing
567	IA	Scott	802 West 6th Street	Building(s)	NRHP listing
1374	IA	Scott	614 Brown Street	Building(s)	NRHP listing
566	IA	Scott	Goettsch House	Building(s)	NRHP listing
487	IA	Scott	802 West 5th Street	Building(s)	NRHP listing
1372	IA	Scott	Commercial Building	Building(s)	NRHP listing
1373	IA	Scott	518 Brown Street	Building(s)	NRHP listing
1375	IA	Scott	Petersen-Hanssen House	Building(s)	NRHP listing
425	IA	Scott	Commercial Building	Building(s)	Not evaluated
1371	IA	Scott	511 Brown Street	Building(s)	NRHP listing

Table E-1
Historic Property and Potentially Historic Property Within 620 feet of Project Alignment

Site Number	State	County	Site Name	Site Type	Status
486	IA	Scott	Schriebel, George, House	Building(s)	NRHP listing
565	IA	Scott	Ochs, Francis, House	Building(s)	NRHP listing
564	IA	Scott	Andressen, H. H., House	Building(s)	NRHP listing
485	IA	Scott	726 West 5th Street	Building(s)	NRHP listing
563	IA	Scott	723 West 6th Street	Building(s)	NRHP listing
484	IA	Scott	724 West 5th Street	Building(s)	NRHP listing
483	IA	Scott	720 West 5th Street	Building(s)	NRHP listing
562	IA	Scott	717 West 6th Street	Building(s)	NRHP listing
482	IA	Scott	716 West 5th Street	Building(s)	NRHP listing
561	IA	Scott	Rothschild, Emanuel, House	Building(s)	NRHP listing
560	IA	Scott	711 West 6th Street	Building(s)	NRHP listing
559	IA	Scott	708 West 6th Street	Building(s)	NRHP listing
481	IA	Scott	710 West 5th Street	Building(s)	NRHP listing
1832	IA	Scott	618 Gaines Street	Building(s)	Not evaluated
1835	IA	Scott	Richmond House	Building(s)	NRHP listing
1837	IA	Scott	630 Gaines Street	Building(s)	NRHP listing
1830	IA	Scott	614 Gaines Street	Building(s)	Not evaluated
1831	IA	Scott	Witt, Henning, House	Building(s)	NRHP listing
1826	IA	Scott	518 Gaines Street	Building(s)	NRHP listing
1827	IA	Scott	520 Gaines Street	Building(s)	NRHP listing
1828	IA	Scott	522 Gaines Street	Building(s)	NRHP listing
558	IA	Scott	705 West 6th Street	Building(s)	NRHP listing
1823	IA	Scott	510 Gaines Street	Building(s)	NRHP listing
1825	IA	Scott	514 Gaines Street	Building(s)	NRHP listing
1836	IA	Scott	627 Gaines Street	Building(s)	NRHP listing
1833	IA	Scott	619 Gaines Street	Building(s)	NRHP listing
1834	IA	Scott	623 Gaines Street	Building(s)	NRHP listing
1824	IA	Scott	511 Gaines Street	Building(s)	NRHP listing
557	IA	Scott	Clausen, Frederick (Fritz) George, House	Building(s)	NRHP listing
480	IA	Scott	Ruch, John, House	Building(s)	NRHP listing
556	IA	Scott	Lorenzen, Jens, House	Building(s)	NRHP listing
555	IA	Scott	Lischer, Henry, House	Building(s)	NRHP listing
479	IA	Scott	Hahn, Wulff, House	Building(s)	NRHP listing
554	IA	Scott	Hageboech, Gustav, House	Building(s)	NRHP listing
553	IA	Scott	619 West 6th Street	Building(s)	NRHP listing
478	IA	Scott	Bahls, John, House	Building(s)	NRHP listing
552	IA	Scott	613 West 6th Street	Building(s)	NRHP listing
477	IA	Scott	610 West 5th Street	Building(s)	NRHP listing
551	IA	Scott	Vacant Lot	Building(s)	NRHP listing
420	IA	Scott	Commercial Building	Building(s)	Not evaluated
476	IA	Scott	606 West 5th Street	Building(s)	NRHP listing
412	IA	Scott	McKnight's	Building(s)	Not evaluated
475	IA	Scott	Hartmann, Friedrich, House	Building(s)	NRHP listing
2709	IA	Scott	624 Western Ave	Building(s)	NRHP listing
2706	IA	Scott	520 Western Ave	Building(s)	NRHP listing
2708	IA	Scott	Petersen, Lavinius W., House	Building(s)	NRHP listing
2703	IA	Scott	508 Western Ave	Building(s)	NRHP listing

Table E-1
Historic Property and Potentially Historic Property Within 620 feet of Project Alignment

Site Number	State	County	Site Name	Site Type	Status
2705	IA	Scott	514 Western Ave	Building(s)	NRHP listing
5488	IA	Scott	Bi-Centennial Center	Building(s)	Not evaluated
2710	IA	Scott	625 Western Ave	Building(s)	NRHP listing
2707	IA	Scott	529 Western Ave	Building(s)	NRHP listing
2704	IA	Scott	509 Western Ave	Building(s)	NRHP listing
550	IA	Scott	Hirschel, A. J. and H. O. Seiffert House	Building(s)	NRHP listing
549	IA	Scott	528 West 6th Street	Building(s)	NRHP listing
418	IA	Scott	Haak, Ferd - Victor Animatograph Company	Building(s)	Not evaluated
548	IA	Scott	521 West 6th Street	Building(s)	NRHP listing
474	IA	Scott	518 West 5th Street	Building(s)	NRHP listing
417	IA	Scott	Greyhound Press	Building(s)	Not evaluated
547	IA	Scott	514 West 6th Street	Building(s)	NRHP listing
473	IA	Scott	514 West 5th Street	Building(s)	NRHP listing
545	IA	Scott	Lambrite-Iles-Petersen House	Building(s)	NRHP listing
546	IA	Scott	Decker, W. H., House	Building(s)	NRHP listing
544	IA	Scott	Matthey, Dr. Heinrich E., House	Building(s)	NRHP listing
2587	IA	Scott	512 Scott Street	Building(s)	NRHP listing
2592	IA	Scott	625 Scott Street	Building(s)	NRHP listing
410	IA	Scott	Glass Company	Building(s)	Not evaluated
2588	IA	Scott	Kurmeier, Henry, House	Building(s)	NRHP listing
2589	IA	Scott	Mattrey, Dr. Henry, Stables	Building(s)	NRHP listing
543	IA	Scott	Mueller, Edward C., House	Building(s)	NRHP listing
416	IA	Scott	Scott County Jail	Building(s)	Not evaluated
472	IA	Scott	424 West 5th Street	Building(s)	NRHP listing
542	IA	Scott	421 West 6th Street	Building(s)	NRHP listing
471	IA	Scott	420 West 5th Street	Building(s)	NRHP listing
470	IA	Scott	418 West 5th Street	Building(s)	NRHP listing
469	IA	Scott	416 West 5th Street	Building(s)	NRHP listing
540	IA	Scott	Claussen-Mueller House	Building(s)	NRHP listing
468	IA	Scott	412 West 5th Street	Building(s)	NRHP listing
467	IA	Scott	408 West 5th Street	Building(s)	NRHP listing
2496	IA	Scott	Ruser, William, House	Building(s)	NRHP listing
466	IA	Scott	402 West 5th Street	Building(s)	NRHP listing
541	IA	Scott	Steffen, August, Sr., House	Building(s)	NRHP listing
2492	IA	Scott	526 Ripely Street	Building(s)	NRHP listing
2493	IA	Scott	Mueller, Christian, House	Building(s)	NRHP listing
2489	IA	Scott	512 Ripley Street	Building(s)	NRHP listing
2487	IA	Scott	Scott County Jail	Building(s)	NRHP listing
2497	IA	Scott	633 Ripley Street	Building(s)	NRHP listing
2494	IA	Scott	Struck-Richter House	Building(s)	NRHP listing
2495	IA	Scott	Best, Louis P., House	Building(s)	NRHP listing
2490	IA	Scott	Apartment Building	Building(s)	NRHP listing
2491	IA	Scott	517 Ripley Street	Building(s)	NRHP listing
2488	IA	Scott	Apartment Building	Building(s)	NRHP listing
465	IA	Scott	Automotive Garage	Building(s)	NRHP listing
538	IA	Scott	Frahm, Henry, House	Building(s)	NRHP listing
415	IA	Scott	Walsh Flats/Langworth Building	Building(s)	NRHP listing

Table E-1
Historic Property and Potentially Historic Property Within 620 feet of Project Alignment

Site Number	State	County	Site Name	Site Type	Status
406	IA	Scott	Langworth, Warren, Inc.	Building(s)	Not evaluated
1886	IA	Scott	Raphael, Jacob, Building	Building(s)	NRHP listing
1885	IA	Scott	Union Electric Telephone and Telegraph	Building(s)	NRHP listing
1884	IA	Scott	Frahm, Mathias and Sons' Brewery: Ice House	Building(s)	Not evaluated
5487	IA	Scott	Police Headquaters	Building(s)	Not evaluated
519	IA	Scott	Barrows, Edward S., House	Building(s)	NRHP listing
414	IA	Scott	Davenport City Hall	Building(s)	NRHP listing
518	IA	Scott	Stewart, J.W., House	Building(s)	NRHP listing
413	IA	Scott	Frey Apartments	Building(s)	Not evaluated
2138	IA	Scott	Davenport Commercial Club	Building(s)	Not evaluated
2139	IA	Scott	American Telephone and Telegraph Company Building	Building(s)	NRHP listing
4051	IA	Scott	St. Anthony's Catholic Church Complex: St. Anthony's Catholic Church	Building(s)	NRHP listing
4052	IA	Scott	St. Anthony's Catholic Church Complex: St. Anthony's School	Building(s)	NRHP listing
5524	IA	Scott	Ambulance Barn	Building(s)	Not evaluated
4053	IA	Scott	St. Anthony's Catholic Church Complex: St. Anthony's Rectory	Building(s)	NRHP listing
42	IA	Scott	St. Anthony's Catholic Church Complex	District	NRHP listing
517	IA	Scott	Webb House	Building(s)	Not evaluated
464	IA	Scott	City Market	Building(s)	NRHP listing
515	IA	Scott	Kimball-Stevenson House	Building(s)	NRHP listing
1284	IA	Scott	Young, Colonel Joseph, Block	Building(s)	NRHP listing
1285	IA	Scott	Wupperman Block/I.O.O.F. Hall	Building(s)	NRHP listing
1286	IA	Scott	Old City Hall	Building(s)	NRHP listing
1287	IA	Scott	Cook, Clarissa C., Library/Blue Ribbon News Building	Building(s)	NRHP listing
1280	IA	Scott	Forrest, John, Block Building	Building(s)	NRHP listing
1281	IA	Scott	Democrat Building	Building(s)	NRHP listing
1282	IA	Scott	Hibernia Hall	Building(s)	NRHP listing
1283	IA	Scott	Worley, Philip, House	Building(s)	NRHP listing
5024	IA	Scott	United States Post Office and Court House	Building(s)	NRHP listing
2380	IA	Scott	Burtis Opera House	Building(s)	Not evaluated
402	IA	Scott	Burtis-Kimball House Hotel	Building(s)	Unknown
2403	IA	Scott	Chicago, Rock Island, and Pacific Railroad Elevated Track	Structure	NRHP listing
520	IA	Scott	Bettendorf, W.P., House	Building(s)	Not evaluated
5460	IA	Scott	Sickles, Preston and Nutting Company Building	Building(s)	NRHP listing
5457	IA	Scott	Matthews Building	Building(s)	NRHP listing
5458	IA	Scott	National Biscuit Company	Building(s)	NRHP listing
5459	IA	Scott	Smith Brothers and Burdick Company	Building(s)	NRHP listing
5454	IA	Scott	Sieg Iron Company (First Building)	Building(s)	NRHP listing
5455	IA	Scott	Kerker Paper Box Company	Building(s)	NRHP listing
5453	IA	Scott	Chicago, Rock Island, and Pacific Railroad Elevated Rail Bed	Structure	NRHP listing
5448	IA	Scott	Davenport Paper Box Company	Building(s)	NRHP listing
5449	IA	Scott	Ewert and Richter Express and Storage Company (West Building)	Building(s)	NRHP listing
5450	IA	Scott	Ewert and Richter Express and Storage Company (East Building)	Building(s)	NRHP listing
5451	IA	Scott	Neu, Vincent J., Auto Dealership	Building(s)	NRHP listing
1984	IA	Scott	Newhall, Lucian, House	Building(s)	NRHP listing
5456	IA	Scott	Sieg Iron Company (Second Building)	Building(s)	NRHP listing
1983	IA	Scott	Chicago, Rock Island and Pacific Railroad Freight Station	Building(s)	NRHP listing
5452	IA	Scott	Halligan Coffee Company	Building(s)	NRHP listing

Table E-1
Historic Property and Potentially Historic Property Within 620 feet of Project Alignment

Site Number	State	County	Site Name	Site Type	Status
5222	IA	Scott	Crescent Macaroni and Cracker Company Building	Building(s)	NRHP listing
5223	IA	Scott	Crescent Warehouse Historic District	District	NRHP listing
227	IA	Scott	Ditzen Apothecary	Building(s)	Not evaluated
229	IA	Scott	Commercial Building	Building(s)	Not evaluated
230	IA	Scott	Building	Building(s)	Not evaluated
403	IA	Scott	Bettendorf Metal Wheel Company	Building(s)	Not evaluated
2104	IA	Scott	Phoenix Bridge	Structure	Not evaluated
211	IA	Scott	Centennial Bridge		Not evaluated
644	IA	Muscatine	Second Knights of Pythias Hall and Opera House	Building(s)	NRHP listing
648	IA	Muscatine	Wilton Candy Kitchen	Building(s)	NRHP listing
649	IA	Muscatine	Chicago, Rock Island, & Pacific Railroad - Wilton Depot	Building(s)	NRHP listing
670	IA	Muscatine	209 East 3rd Street	Building(s)	Not evaluated
671	IA	Muscatine	205 East 3rd Street	Building(s)	Not evaluated
672	IA	Muscatine	203 East 3rd Street	Building(s)	Not evaluated
673	IA	Muscatine	Grocery Store	Building(s)	NRHP listing
674	IA	Muscatine	I.O.O.F. Lodge Building	Building(s)	NRHP listing
675	IA	Muscatine	Citizen's Savings Bank	Building(s)	NRHP listing
676	IA	Muscatine	Boot and Shoe Store and Sewing Machine Shop	Building(s)	NRHP listing
677	IA	Muscatine	Furniture Store	Building(s)	NRHP listing
678	IA	Muscatine	Furniture Store	Building(s)	NRHP listing
679	IA	Muscatine	Drug Store	Building(s)	NRHP listing
680	IA	Muscatine	Bank and I.O.O.F. Hall	Building(s)	NRHP listing
681	IA	Muscatine	West Liberty State Bank	Building(s)	NRHP listing
682	IA	Muscatine	First Knights of Pythias Hall/Opera House	Building(s)	NRHP listing
683	IA	Muscatine	Hardware Store	Building(s)	NRHP listing
684	IA	Muscatine	Boot & Shoe Store	Building(s)	NRHP listing
685	IA	Muscatine	Millinery Shop	Building(s)	NRHP listing
686	IA	Muscatine	Barber Shop	Building(s)	NRHP listing
687	IA	Muscatine	Grocery Store	Building(s)	NRHP listing
688	IA	Muscatine	Grocery and Auto Repair Shop	Building(s)	NRHP listing
689	IA	Muscatine	Lumber Yard	Building(s)	NRHP listing
690	IA	Muscatine	West Liberty Co-operative Creamery Company	Building(s)	NRHP listing
691	IA	Muscatine	Commercial Building	Building(s)	Not evaluated
695	IA	Muscatine	Evans, P.R./Schafer Grain Company Elevator and Office	Building(s)	NRHP listing
696	IA	Muscatine	Office Building	Building(s)	NRHP listing
697	IA	Muscatine	Auto Garage	Building(s)	NRHP listing
698	IA	Muscatine	Tire/Liquor Store	Building(s)	NRHP listing
699	IA	Muscatine	Masonic Temple	Building(s)	NRHP listing
700	IA	Muscatine	Masonic Temple/Schooley Furniture Store	Building(s)	NRHP listing
701	IA	Muscatine	West Liberty Fire Station and City Hall	Building(s)	NRHP listing
702	IA	Muscatine	Bakery Shop	Building(s)	NRHP listing
703	IA	Muscatine	Agricultural Implement Store	Building(s)	NRHP listing
704	IA	Muscatine	Grocery Store	Building(s)	NRHP listing
705	IA	Muscatine	Tailor/Dry Cleaning Store	Building(s)	NRHP listing
706	IA	Muscatine	Grocery Store/Hardware Warehouse	Building(s)	NRHP listing
707	IA	Muscatine	Movie Theater	Building(s)	NRHP listing
708	IA	Muscatine	Restaurant	Building(s)	NRHP listing

Table E-1
Historic Property and Potentially Historic Property Within 620 feet of Project Alignment

Site Number	State	County	Site Name	Site Type	Status
709	IA	Muscatine	319 North Spencer Street	Building(s)	NRHP listing
710	IA	Muscatine	Auto Garage	Building(s)	NRHP listing
711	IA	Muscatine	Sheet Metal/Tin Shop	Building(s)	NRHP listing
712	IA	Muscatine	314 North Spencer Street	Building(s)	Not evaluated
713	IA	Muscatine	214 East 3rd Street	Building(s)	Not evaluated
714	IA	Muscatine	210 East 3rd Street	Building(s)	Not evaluated
716	IA	Muscatine	Commercial Building	Building(s)	NRHP listing
717	IA	Muscatine	Commercial Building	Building(s)	NRHP listing
718	IA	Muscatine	Dry Goods & Millinery Shop	Building(s)	NRHP listing
719	IA	Muscatine	Drugstore	Building(s)	NRHP listing
720	IA	Muscatine	Grocery Store	Building(s)	NRHP listing
721	IA	Muscatine	Unknown Block Building	Building(s)	NRHP listing
722	IA	Muscatine	Meat Market	Building(s)	NRHP listing
723	IA	Muscatine	Bakery Shop	Building(s)	NRHP listing
724	IA	Muscatine	Burkhart, G., Building	Building(s)	NRHP listing
725	IA	Muscatine	Jewelry Store	Building(s)	NRHP listing
726	IA	Muscatine	Chesebrough Building	Building(s)	NRHP listing
727	IA	Muscatine	Iowa State Bank and Trust Company	Building(s)	NRHP listing
731	IA	Muscatine	114 East 4th Street	Building(s)	NRHP listing
732	IA	Muscatine	108 East 4th Street	Building(s)	NRHP listing
733	IA	Muscatine	106 East 4th Street	Building(s)	NRHP listing
734	IA	Muscatine	True Value Hardware	Building(s)	NRHP listing
735	IA	Muscatine	118 West 4th Street	Building(s)	NRHP listing
740	IA	Muscatine	316 North Spencer Street	Building(s)	Not evaluated
744	IA	Muscatine	West Liberty Commercial Historic District	District	NRHP listing
879	IA	Muscatine	Castle, The	Building(s)	Not evaluated
925	IA	Muscatine	Chicago, Rock Island, and Pacific Railroad -- West Liberty Depot	Building(s)	Not evaluated
784	IL	Rock Island		Multicomponent scatter	NRHP listing
37	IL	Rock Island	John Deer Mound Group	Mound group	Not evaluated
417	IL	Rock Island	1126 15th St., East Moline	Building(s)	Not evaluated
418	IL	Rock Island	1128 15th St., East Moline	Building(s)	Not evaluated
419	IL	Rock Island	1501 13th St., East Moline	Building(s)	Not evaluated
421	IL	Rock Island	13th St. and 18th Ave., East Moline	Building (church)	Not evaluated
420	IL	Rock Island	821 1st St., Silvis	Building(s)	Not evaluated
Preferred Alternative					
24	IL	Bureau	Rabe Site	Prehistoric scatter	Not evaluated
19	IL	Bureau	W.H. Brown Site #1	Prehistoric village	Not evaluated
20	IL	Bureau	W.H. Brown Site #2	Prehistoric scatter	Not evaluated
35	IL	Bureau		Archaic/Woodland scatter	Not evaluated
34	IL	Bureau		Archaic scatter	Not evaluated
205	IL	La Salle	Branch Site	Building(s)	Not evaluated
311	IL	La Salle		Historic scatter	Not evaluated
85	IL	Kendall		Paleo/Archaic scatter	Not evaluated
911	IL	Kendall		Prehistoric scatter	Not evaluated
115	IL	Kendall	Beecher Road	Structure	Not evaluated
114	IL	Kendall	Beecher Road	Archaic scatter	Not evaluated
121	IL	Kendall		Prehistoric scatter	Not evaluated

Table E-1
Historic Property and Potentially Historic Property Within 620 feet of Project Alignment

Site Number	State	County	Site Name	Site Type	Status
38	IL	Kendall		Archaic scatter	Not evaluated
34	IL	Kendall		Prehistoric scatter	Not evaluated
214	IL	DuPage		Prehistoric scatter	Not evaluated
213	IL	DuPage		Multicomponent	Not evaluated
293	IL	DuPage		Prehistoric scatter	Not evaluated
Route B Alternative					
61	IL	Bureau		Woodland scatter	Not evaluated
75	IL	Bureau	Bosnich 3	Prehistoric scatter	Not evaluated
238	IL	Bureau	Potential Mound	Prehistoric mound	HSRPA Burial Law
236	IL	Bureau	Loceyville Townsite	Historic scatter	Not evaluated
199	IL	Bureau		Historic feature	Not evaluated
233	IL	La Salle		Historic feature	Not evaluated
665	IL	La Salle	Bierbaum	Prehistoric burial	Not evaluated
1072	IL	La Salle		Woodland scatter	Not evaluated
269	IL	La Salle		Prehistoric scatter	Not evaluated
270	IL	La Salle		Prehistoric scatter	Not evaluated
243	IL	La Salle		Prehistoric scatter	Not evaluated
244	IL	La Salle		Prehistoric scatter	Not evaluated
210	IL	La Salle	Shaver Site	Prehistoric scatter	Not evaluated
221	IL	La Salle	Rat Run Site	Prehistoric scatter	Not evaluated
434	IL	Will	Birds Bridge	Prehistoric	Not evaluated
1541	IL	Will		Woodland scatter	Not evaluated
59	IL	Will		Prehistoric scatter	Not evaluated
64	IL	Will	Gougar Site	Multicomponent	Not evaluated
87	IL	Will		Prehistoric scatter	Not evaluated
77	IL	Will		Prehistoric scatter	Not evaluated
283	IL	Will		Prehistoric scatter	Not evaluated
282	IL	Will		Prehistoric scatter	Not evaluated
638	IL	Will		Archaic scatter	Not evaluated
2814	IL	Will		Prehistoric scatter	Not evaluated
2813	IL	Will		Prehistoric scatter	Not evaluated
2268	IL	Will		Historic scatter	Not evaluated
679	IL	Cook		Prehistoric scatter	Not evaluated
218	IL	Cook		Prehistoric scatter	Not evaluated
237	IL	Cook	Hickory Street	Prehistoric scatter	Not evaluated
206	IL	Cook	Yankee Woods SE	Prehistoric scatter	Not evaluated
620	IL	Cook		Prehistoric scatter	Not evaluated
236	IL	Cook		Prehistoric scatter	Not evaluated
235	IL	Cook	St. Mihiel Pond (southwest)	Prehistoric scatter	Not evaluated
147	IL	Cook		Multicomponent	Not evaluated

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FRA LETTERS TO SHPOS AND TRIBES

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U.S. Department
of Transportation

**Federal Railroad
Administration**

1200 New Jersey Avenue SE
Washington DC 20590

August 24, 2009

Ms. Barbara Mitchell
Deputy State Historic Preservation Officer
State Historical Society of Iowa
Department of Cultural Affairs
600 East Locust
Des Moines, IA 50319

Re: Chicago to Iowa City Intercity Passenger Rail Service Project – NEPA and NHPA Consultation

Dear Ms. Mitchell:

For the purpose of complying with the National Environmental Policy Act (NEPA) and Section 106 of the National Historic Preservation Act (NHPA), the Federal Railroad Administration (FRA), in cooperation with the Iowa Department of Transportation and Illinois Department of Transportation, is initiating consultation for the preparation of a Tier 1 (programmatic or service level) environmental assessment (EA) for the Chicago to Iowa City Intercity Passenger Rail Service Project. With this letter, we invite the Iowa State Historic Preservation Office (Iowa SHPO) to participate in this consultation effort, which will advise our NEPA and NHPA compliance processes.

This project, which is part of the Midwest Regional Rail Initiative, proposes to add passenger rail service between Chicago, Illinois and Iowa City, Iowa. The Project would utilize existing rail lines to expand passenger rail service between Chicago, Illinois and Wyanet, Illinois, and introduce passenger rail service between Wyanet, Illinois and Iowa City, Iowa. It would include two-round trip passenger trains per day traveling at speeds up to 79 miles per hour (mph) and does not include "high-speed" (110 mph) passenger service.

The proposed passenger rail service would cross the Mississippi River from Moline, Illinois to Davenport, Iowa on the Arsenal Bridge. This bridge is owned by the U.S. Army Corps of Engineers. Work on this bridge, if any, would be limited to track and/or tie replacement. Two alternatives have been identified between Chicago, Illinois and Wyanet, Illinois, but only one rail line exists that connects Wyanet, Illinois to Iowa City, Iowa. These alternatives are shown in the attached figure.

The Tier 1 EA is identified by FRA as an essential first step in the development of an intercity passenger rail corridor. The focus of the Tier 1 EA will be on establishing purpose and need, estimating ridership, selecting the preferred route, identifying the station stops, specifying the service levels, defining the type of operations, and identifying the logical next phases. The specific construction activities would be evaluated in subsequent Tier 2

NEPA documents. In order to inform the EA, NHPA activities at this first stage will focus on identification of previously inventoried historic properties and any places for which the Iowa SHPO has specific knowledge that you share with us at this time. Rest assured that FRA will incorporate this information into the Tier 1 EA in a way that is appropriate to the resource. Treating sensitive information confidentially is important during this entire effort.

In Iowa, the Project, as currently envisioned by the recently completed Amtrak feasibility study, would take place entirely within the existing rail line right-of-way and would consist of replacement of about 30 miles of jointed rail with continuous welded rail (CWR). Track upgrades would also be done, which would consist of track resurfacing, tie replacement, and ballast compacting. All of this work would be completed using track mounted equipment operating from the rail. Some work would be done outside of the rail, and would include minor ditching, bridge and culvert work. In some areas, shoulder work would be done to support higher speeds through a curve.

This Tier 1 EA is needed to complete a Track 2 application for a High-Speed Intercity Rail (HSIPR) Program grant. On April 16, 2009, President Obama, together with Vice President Biden and Secretary of Transportation LaHood, announced a new vision for developing high-speed rail in America. They called for a collaborative effort among the Federal Government, States, railroads, and other key stakeholders to help transform America's transportation system through a national network of high-speed rail corridors. In implementing the HSIPR program the FRA builds on the President's "Vision for High-Speed Rail" (available on FRA's Web site) by detailing the application requirements and procedures for obtaining funding for high-speed and intercity passenger rail projects under the American Recovery and Reinvestment Act of 2009 (ARRA) and the Department of Transportation Appropriations Acts of 2008 and 2009 (FY 2008/2009 DOT Appropriations Acts), while laying the foundation for a longer-term program to establish a network of high-speed rail corridors.

As a part of this early coordination, we are inviting the Iowa SHPO to consult under NEPA and Section 106 of the NHPA. Any comments and information you supply during the consultation process will be used to determine if the proposed improvements may have impacts that warrant further consideration and are consistent with future long-term development plans within the study corridor. Your comments will be incorporated into the environmental planning process and Environmental Assessment document as appropriate. Because this effort is part of an ARRA grant application, we are operating under an accelerated schedule. We ask that you advise FRA of the Iowa SHPO's intention to consult under NEPA and Section 106 of the NHPA for this project no later than September 4, 2009.

The enclosed information should help you understand the nature of the project and the location of the proposed railway improvement. If you have any questions about the project please contact Tamara Nicholson at the Iowa Department of Transportation at 515.239.1052

or Tamara.nicholson@dot.iowa.gov, or I can be reached at 202.493.6396 or wendy.messenger@dot.gov.

FRA thanks you in advance for your prompt review and response to our request for consultation and comments.

Sincerely,

Wendy L. Messenger
Environmental Protection Specialist
Federal Railroad Administration

Enclosures:
Project Description
Map of Project Limits

cc:
Tamara Nicholson – Iowa Department of Transportation
Janet Vine – Iowa Department of Transportation
Will Sharp – HDR Engineering Inc.

U.S. Department
of Transportation

**Federal Railroad
Administration**

1200 New Jersey Avenue, SE
Washington DC 20590

August 24, 2009

Mr. John P. Froman
Chief
The Peoria Tribe of Indians of Oklahoma
118 S. Eight Tribes Trails
P.O. Box 1527
Miami, OK 74355

Re: Chicago to Iowa City Intercity Passenger Rail Service Project – NEPA and NHPA Consultation

Dear Mr. Froman:

For the purpose of complying with the National Environmental Policy Act (NEPA) and Section 106 of the National Historic Preservation Act (NHPA), the Federal Railroad Administration, in cooperation with the Iowa Department of Transportation and Illinois Department of Transportation, is initiating consultation for the preparation of a Tier 1 (programmatic or service level) environmental assessment (EA) for the Chicago to Iowa City Intercity Passenger Rail Service Project. With this letter we invite the Peoria Tribe of Indians of Oklahoma to participate in this consultation effort, which will advise our NEPA and NHPA compliance processes.

This Project, which is part of the Midwest Regional Rail Initiative, proposes to add passenger rail service between Chicago, Illinois and Iowa City, Iowa. The Project would utilize existing rail lines to expand passenger rail service between Chicago, Illinois and Wyanet, Illinois, and introduce passenger rail service between Wyanet, Illinois and Iowa City, Iowa. It would include two-round trip passenger trains per day traveling at speeds up to 79 miles per hour (mph) and does not include "high-speed" (110 mph) passenger service.

The proposed passenger rail service would cross the Mississippi River from Moline, Illinois to Davenport, Iowa on the Arsenal Bridge. This bridge is owned by the U.S. Army Corps of Engineers. Work on this bridge, if any, would be limited to track and/or tie replacement. Two alternatives have been identified between Chicago, Illinois and Wyanet, Illinois, but only one rail line exists that connects Wyanet, Illinois to Iowa City, Iowa. These alternatives are shown in the attached figure.

The Tier 1 EA is identified by FRA as an essential first step in the development of an intercity passenger rail corridor. The focus of the Tier 1 EA will be on establishing purpose and need, estimating ridership, selecting the preferred route, identifying the station stops, specifying the service levels, defining the type of operations, and identifying the logical next phases. The specific construction activities would be evaluated in subsequent Tier 2 NEPA documents. In

order to inform the EA, NHPA activities at this first stage will focus on identification of previously inventoried historic properties and any resources for which you have specific, special knowledge that you can share with us at this time. Rest assured that FRA will incorporate this information into the Tier 1 EA in a way that is appropriate to the resource. Treating sensitive information confidentially is important during this entire effort

The recently completed Amtrak feasibility study outlines the work planned for the proposed project. Except for a location one mile southwest of Wyanet, Illinois, construction activities would take place entirely within the existing rail line right-of-way. At that Wyanet location, existing tracks are currently grade-separated. Since currently there is no connection between the tracks, a connection track would be constructed to allow straightaway train movements. The connection would be designed to accommodate a train speed of 50 mph and would require acquisition of approximately 7 acres of right-of-way (ROW). In specific other locations, the project calls for replacement of jointed rail with continuous welded rail (CWR). Track upgrades would also be done throughout, which would consist of track resurfacing, tie replacement, and ballast compacting. All of this work would be completed using track mounted equipment operating from the rail. Some work would be done outside of the rail, and would include minor ditching, bridge and culvert work. In some areas, shoulder work would be done to support higher speeds through a curve.

This Tier 1 EA is needed to complete a Track 2 application for a High-Speed Intercity Rail (HSIPR) Program grant. On April 16, 2009, President Obama, together with Vice President Biden and Secretary of Transportation LaHood, announced a new vision for developing high-speed rail in America. They called for a collaborative effort among the Federal Government, States, railroads, and other key stakeholders to help transform America's transportation system through a national network of high-speed rail corridors. In implementing the HSIPR program the FRA builds on the President's "Vision for High-Speed Rail" (available on FRA's Web site) by detailing the application requirements and procedures for obtaining funding for high-speed and intercity passenger rail projects under the American Recovery and Reinvestment Act of 2009 (ARRA) and the Department of Transportation Appropriations Acts of 2008 and 2009 (FY 2008/2009 DOT Appropriations Acts), while laying the foundation for a longer-term program to establish a network of high-speed rail corridors

As a part of this early coordination, we are inviting the Peoria Tribe of Indians of Oklahoma to consult under NEPA and Section 106 of the NHPA. Any comments and information you supply during the consultation process will be used to determine if the proposed improvements may have impacts that warrant further consideration and are consistent with future long-term development plans within the study corridor. Your comments will be incorporated into the environmental planning process and Tier 1 EA as appropriate. Because this effort is part of an ARRA grant application, we are operating under an accelerated schedule. We ask that you advise FRA of the intention of the Peoria Tribe of Indians of Oklahoma to consult under NEPA and Section 106 of the NHPA for this project no later than September 4, 2009.

The enclosed information should help you understand the nature of the project and the location of the proposed railway improvement. If you have any questions about the project please contact Tamara Nicholson at the Iowa Department of Transportation at 515.239.1052 or Tamara.nicholson@dot.iowa.gov, or I can be reached at 202.493.6396 or wendy.messenger@dot.gov.

FRA thanks you in advance for your prompt review and response to our request for consultation and comments.

Sincerely,

Wendy L. Messenger

Wendy L. Messenger
Environmental Protection Specialist
Federal Railroad Administration

Enclosures:
Project Description
Map of Project Limits

cc:
Will Sharp – HDR Engineering Inc
Barbara Stevens – Illinois Department of Transportation
Janet Vine – Iowa Department of Transportation

PROJECT DESCRIPTION:
CHICAGO TO IOWA CITY
INTERCITY PASSENGER RAIL SERVICE

Nine Mid-West states, under the Midwest Regional Rail Initiative (MWRRI) have been actively developing an improved and expanded passenger rail system in the Midwest. As a result of the MWRRI and the national high-speed rail initiative, numerous corridors were identified with Chicago, Illinois as the hub.

The Chicago to Iowa City Intercity Passenger Rail Service Project (Project) is one part of the vision established by the MWRRI to expand existing service and develop new regional passenger rail service to help meet future travel demands in the Midwest. The Project would expand and create a rail transportation alternative to automobile, bus, and air travel between Chicago and Iowa City, Iowa.

MWRRI is currently considering two Build Alternatives and a No-Build Alternative. Both Build Alternatives would provide two-round trip passenger trains per day traveling at speeds of up to 79 mph. Both Build Alternatives include track upgrade, installation of a wayside signal system and remote control switches, and provision of station facilities at Geneseo, Illinois, the Quad Cities and Iowa City.

The Route A Alternative (Chicago to Wyanet to Quad Cities to Iowa City) is the preferred alternative. It consists of using the tracks of three rail carriers: Amtrak (0.8 miles), BNSF (110.1 miles), and IAIS (107.4 miles) to provide passenger rail service between Chicago and Iowa City, Iowa. Alternative Route A would expand existing passenger rail service between Chicago, and Wyanet, Illinois, and introduce passenger rail service between Wyanet and Iowa City. The Route A Alternative requires the construction of less than one mile of track near Wyanet to provide a connection between the BNSF and the IAIS lines.

The Route B Alternative consists of using the tracks of five rail carriers: Amtrak (0.8 miles), CN (1.4 miles), Metra/Rock Island District (38.5 miles), CSXT (54.3 miles), and IAIS (130.2 miles) to provide passenger rail service between Chicago and Iowa City, Iowa. The Project would provide two-round trip passenger trains per day traveling at speeds of up to 79 mph. There is currently no passenger rail service on any of the Route B Alternative track. Station facilities are proposed for Joliet, Illinois; Morris, Illinois; and La Salle, Illinois. A connection track would not be required near Wyanet, as the existing IAIS track continues both east and west of Wyanet. However, more track would need to be upgraded than the Route A Alternative.

The No-build Alternative would consist of operating the current track with the present level of maintenance and no appreciable change to the current track configuration or operating conditions. The No-build Alternative is retained for detailed analysis to allow equal comparison to the Route A and Route B alternatives and to help decision-makers and the public understand the consequences of taking no action.

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10 5 0 10 20 Miles

Scale

Legend

- Existing AMTRAK Station
- Proposed AMTRAK Station
- Route A Alternative
- Route B Alternative
- Routes A & B Alternative

IAIS - Iowa Interstate Railroad
NIRC - Northeast Illinois Rail Corp.

Source: Feasibility Study on Proposed Amtrak Service
Quad Cities to Chicago - January 7, 2008
Chicago to Iowa City - April 18, 2008

HDR

Potential Intercity Passenger Rail Routes, Chicago to Quad Cities and Iowa City

Chicago to Iowa City Intercity Passenger Rail Service

DATE
August 2009

FIGURE
1

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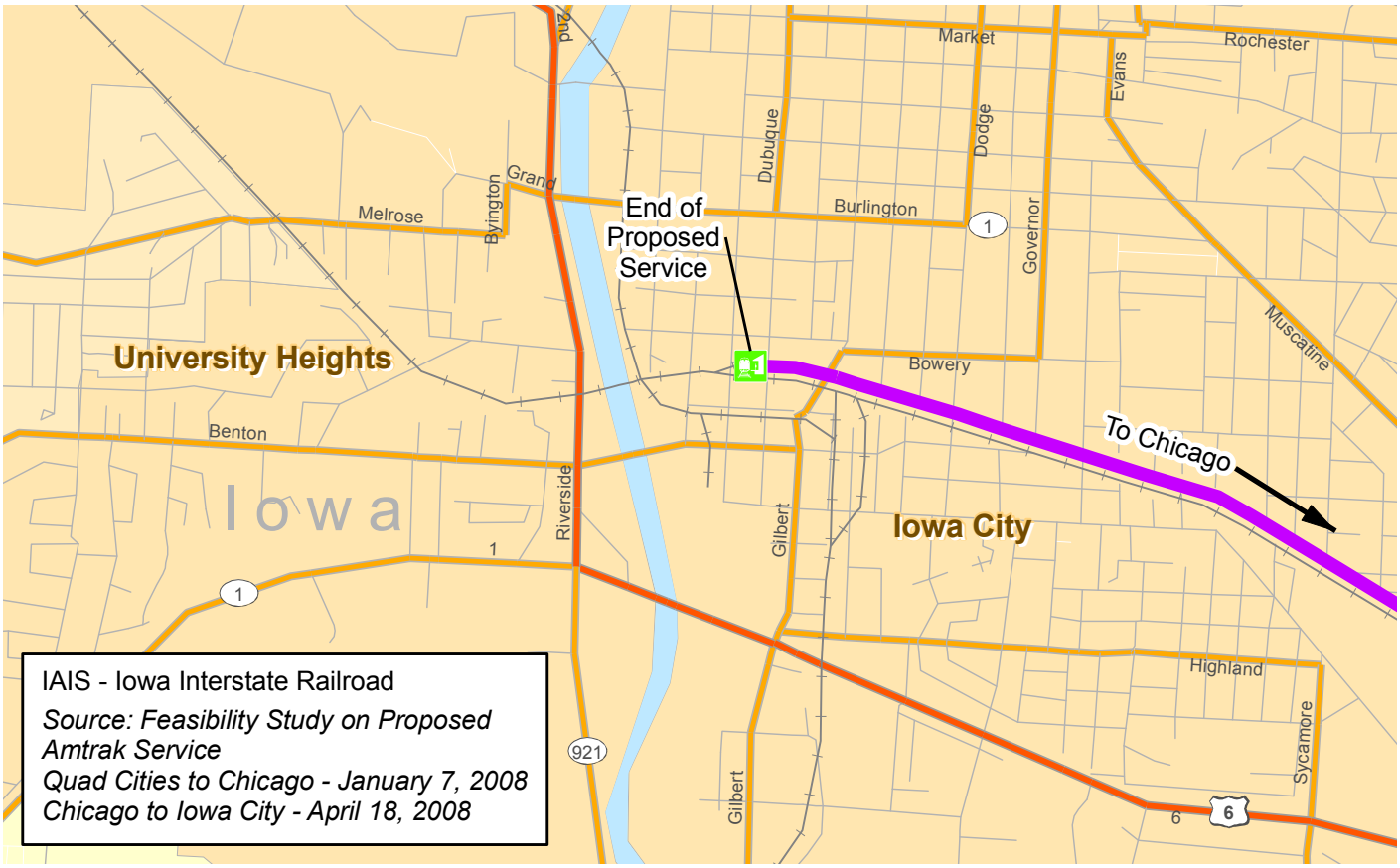

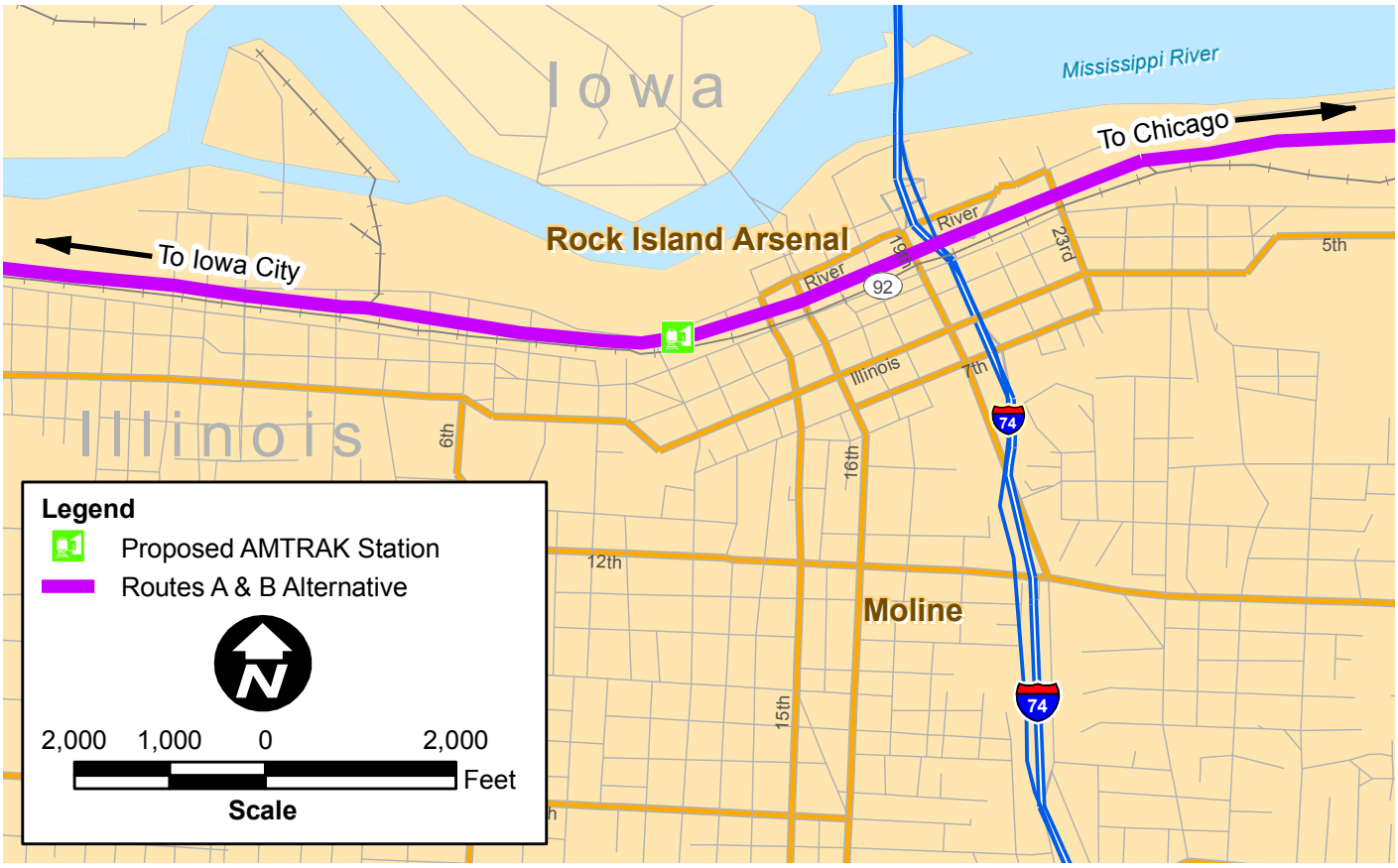

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HDR

Proposed Station Locations

Chicago to Iowa City Intercity Passenger Rail Service

DATE
August 2009

FIGURE
2

Tribal Consultation Mailing List

Mr. Wilfrid Cleveland
President
Ho-Chunk Nation
P.O. Box 667
Black River Falls, WI 54615

Cc: Ms. Suzette La Mere, Ho-Chunk Nation

Mr. Louis DeRoin
Chairperson
Iowa Tribe of Kansas and Nebraska
3345 Thrasher Road #B
White Cloud, KS 66097-4028

Mr. Lawrence P. Murray
Chairperson
Iowa Tribe of Oklahoma
R1, Box 721
Perkins, OK 74059

Mr. John Shalton
Otoe-Missouria Tribe
RR 1, Box 61
Red Rock, OK 74651

Cc: Barbara Childs-Walton – Otoe-Missouria Tribe

Mr. Homer Bear, Jr.
Chairman
Sac and Fox Nation of Mississippi in Iowa
349 Meskwaki Road
Tama, IA 52339-9629

Cc: Mr. Johnathon Buffalo, Sac and Fox Nation of Mississippi in Iowa

Mr. John Blackhawk
Tribal Chairperson
Winnebago Tribe of Nebraska
Box 687
Winnebago, NE 68071

Mr. Matthew Wesaw
Chairperson
Pokagon Band of Potawatomi Indians
58620 Sink Road
Dowagiac, MI 49047

Mr. Steve Ortiz
Prairie Band Potawatomi Nation
Government Center
16281 Q Road
Mayetta, KS 66509

Ms. Twen Barton
Chairperson
Sac and Fox Nation of Missouri
305 N. Main Street
Reserve, KS 66454

Cc: Deanne Bahr - Sac and Fox Nation of Missouri

Ms. Kay Rhoads
Principal Chief
Sac and Fox Nation of Oklahoma
Route 2, Box 246
Stroud, OK 74079

Cc: Sandra Massey - Sac and Fox Nation of Oklahoma

Mr. Kenneth Meshigaud
Chairperson
Hannahville Indian Community
N14911 Hannahville Boulevard Road
Wilson, MI 49896

Mr. John A. Barrett
Chairperson
Citizen Potawatomi Nation
1601 S. Gordon Cooper Drive
Shawnee, OK 74801

Mr. Phillip Shopodock
Chairperson
Forest County Potawatomi
P.O. Box 340
Crandon, WI 54520

Mr. John P. Froman
Chief
The Peoria Tribe of Indians of Oklahoma
118 S. Eight Tribes Trails
P.O. Box 1527
Miami, OK 74355

SHPO AND TRIBAL RESPONSE LETTERS

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Illinois Historic
Preservation Agency

FAX (217) 782-8161

1 Old State Capitol Plaza • Springfield, Illinois 62701-1512 • www.illinois-history.gov

Various Counties
Chicago to Iowa City
Intercity Passenger Rail Service, Tier 1 EA
Chicago to Wyanet to Quad Cities to Iowa City
IHPA Log #013082009

September 1, 2009

Barbara Stevens
Illinois Department of Transportation
2300 S. Dirksen Parkway
Springfield, IL 62764

Dear Ms. Stevens:

We are in receipt of your project proposal dated August 20, 2009, concerning your Environmental Review Procedures for the Midwest Regional Rail Initiative Program.

Your proposal summary is acceptable to the Illinois Historic Preservation Agency provided that once individual sites are approved they will be submitted for review.

In order to review possible project effects on cultural resources for purposes of the National Historic Preservation Act, the following information must be provided to this office:

1. Description of proposed undertaking.
2. Name of managing, funding, or licensing agency (state or federal).
3. Name of satellite agencies involved in project (state & federal).
4. Project address(es) - street, municipality, and county.
5. Street map of project location.
6. Current photos of all standing structures within the project area (no xerox).

If you have any questions, please contact me at 217/785-5027.

Thank you for this opportunity to comment.

Sincerely,

Anne E. Haaker

Anne E. Haaker
Deputy State Historic
Preservation Officer

RECEIVED
SEP 02 2009
ENVIRONMENT
SECTION

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STATE HISTORICAL SOCIETY of IOWA

A Division of the Iowa Department of Cultural Affairs

September 3, 2009

In reply refer to:
R&C#: 090800080

Janet Vine, NEPA Document Manager
Iowa Department of Transportation
800 Lincoln Way
Ames, IA 50010

RE: FRA – JOHNSON, CEDAR, MUSCATINE, AND SCOTT COUNTIES – MIDWEST REGIONAL RAIL INITIATIVE – ARRA STIMULUS FUNDS – PROPOSED CHICAGO TO IOWA CITY INTERCITY PASSENGER RAIL SERVICE PROJECT – EARLY AGENCY COORDINATION FOR TIER 1 ENVIRONMENTAL ASSESSMENT PREPARATION

Dear Ms. Vine,

Thank you for notifying our office about the above referenced proposed project. We understand that this project will be a federal undertaking for the Federal Railroad Administration (FRA) and will need to comply with Section 106 of the National Historic Preservation Act and with the National Environmental Policy Act. We also note that we have not received any notice from the Federal Railroad Administration about this undertaking.

We understand that the intent of the Federal Railroad Administration is to initiate and conduct a tiered environmental assessment process. Based on the information provided regarding the undertaking, it is unclear at this time whether this proposed undertaking would potentially affect any historic properties. We understand that the purpose of the Tier 1 does not involve consultation regarding the specific construction activities or about the potential historic properties that may be affected by the specific construction activities. We understand that those consultations will occur as part of the Tier 2 NEPA documents and perhaps in separate Section 106 consultation documents.

However, our office is aware that the rail segment from Davenport to Iowa City was one of the earliest railroad lines constructed in the state of Iowa. It appears that the location of this rail line has not changed very much since its original construction in 1855. We are also aware that two significant historic events occurred on this rail line segment. On March 10, 1859, John Brown and his contingent of men and freedom seekers boarded a boxcar on an eastbound train at West Liberty and left the state of Iowa for the last time at Davenport on their way to Chicago and eventually Canada. This was John Brown's last trip through Iowa prior to the raid at Harpers Ferry. Also, this line was used by the Mormons during their exodus from the state of Illinois to transport many people to Iowa City. Upon reaching Iowa City (which was then the end of the rail line during that time period), the Mormon families began on the Mormon Handcart Expedition which headed westward eventually leading to their new home in Utah.

We look forward to consulting with you and the Federal Railroad Administration on the Area of Potential Effect for this proposed project and whether this project will affect any significant historic properties under 36 CFR Part 800.4. We will need the following types of information for our review:

- The Area of Potential Effect (APE) for this project needs to be adequately defined (36 CFR Part 800.16 (d)).
- Information on what types of cultural resources are or may be located in the APE (36 CFR Part 800.4)
- The significance of the historic properties in the APE in consideration of the National Register of Historic Places Criteria.
- A determination from the responsible federal agency of the undertaking's effects on historical properties within the APE (36 CFR Part 800.5).

Also, the responsible federal agency will need to identify and contact all potential consulting parties that may have an interest in historic properties within the project APE (36 CFR 36 Part 800.2 (c)).

Please reference the Review and Compliance Number provided above in all future submitted correspondence to our office for this project. We look forward to further consulting with you and the Federal Railroad Administration on this project. Should you have any questions please contact me at the number below.

Sincerely,

Douglas W. Jones

Douglas W. Jones, Archaeologist
State Historic Preservation Office
State Historical Society of Iowa
(515) 281-4358

cc: Barbara Mitchell, Iowa Deputy State Historic Preservation Officer
Randall Faber, Office of Environmental Services, IDOT, Ames
Ralph Christian, Historian, State Historical Society of Iowa
Daniel Higginbottom, Archaeologist, State Historical Society of Iowa
Wendy L. Messenger, Environmental Protection Specialist, Federal Railroad Administration
Will Sharp, HDR Engineering, Inc.
Tamara Nicholson, IDOT, Ames
Jerome Thompson, Iowa State Historic Preservation Officer

APPENDIX F
COORDINATION LETTERS

CONTENTS

Written Coordination

Coordination Letter Sent by Iowa and Illinois DOTs

Agency Correspondence

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WRITTEN COORDINATION

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RESOLUTION NO. 914

A RESOLUTION SUPPORTING PASSENGER RAIL SERVICE BETWEEN THE QUAD CITIES AND CHICAGO

WHEREAS, the greater Quad City region has been without passenger rail service for over a quarter of a century; and,

WHEREAS, the proposed addition of Amtrak service between Chicago and the Quad Cities has the potential to create up to 825 jobs, increase household income up to $16 million per year, and increase property values up to $77 million in the area; and,

WHEREAS, the proposed route for Chicago to Quad Cities rail includes the Iowa-Interstate tracks which pass through the center of Geneseo's business district; and,

WHEREAS, the proposed route for Chicago to Quad Cities rail includes a possible station location in Geneseo; and,

WHEREAS, the greater Quad City area and the City of Geneseo would experience economic growth and enhanced quality of life from the availability of passenger rail service.

NOW, THEREFORE, BE IT RESOLVED BY THE CITY COUNCIL OF THE CITY OF GENESEO, ILLINOIS:

SECTION I: That the aforesaid recitals in the preamble to this Resolution shall be and are hereafter made a part of this Resolution.

SECTION II: That the City of Geneseo offers its full support for the effort to restore passenger rail service between the Quad Cities and Chicago.

Passed by the City Council of the City of Geneseo on this 8th Day of September, 2009 and approved by the Mayor September 9, 2009.

Patrick Eberhardt

PATRICK EBERHARDT
MAYOR FOR THE CITY OF GENESEO

Tracy A. Kotecki (seal)

TRACY A. KOTECKI
CITY CLERK

AYES: 6 DEENER, EWERT, SCHMID, SPENSLEY, VAN DER LEEST & WEST.
NAYS: 0
ABSTAIN: 0
ABSENT: 2 Kennett and Peterson.

City of Geneseo City Hall
101 S. State Street
Geneseo, IL 61254
309.944.6419 FAX 309.944.8254

Memorandum **March 2, 2001**

From: **Tim Long**
To: **Larry Meyer, Chair**
Community Development Board Members

RE: **6. Executive Session, Consideration of Real Estate.**
Feldman/ Red Mill railroad frontage properties

Board Action

Don Feldman has stated his willingness to donate the parcels owned by the Red Mill which are located along the Iowa Interstate Railroad tracks, and has requested a statement from the City Council that it would accept the parcels as-is, having the values as reported by Hertz Appraisal Services of $8,500 (east tract) and $27,500 (west tract).

Consideration and discussion may be undertaken in a closed session. Any decision of the Board to recommend Council action must be taken in open session. The Board, after considering our legal liabilities, and the general guidelines of the Comprehensive Land Use Plan for development in the Central Business District, may recommend the City Council state an advisory resolution of its interest to accept the parcels as a donation to the City; or, may request further information and fact-finding; or, may take no action.

Summary

The possibility of passenger rail service on the former Rock Island Line continues to improve, and this is a logical and workable place for a scheduled stop. The Comprehensive Plan also recommends this area as "public open space" (map, p. 43). According to Feldman, in order for him to start a process to gain a tax advantage for the donation of the land, he needs assurance that the City would accept the donation and acknowledge it as having the value stated in the appraisals.

Several technical issues should be resolved prior to open Council acknowledgment of the request, including title search, consideration of future liability, and the "binding-ness" of a Council statement of acceptance of the parcels. There has not been sufficient time to review this issue with the City Attorney. I am requesting Board consideration (again) of the policy question of obtaining the property for public use, which may be given as a matter of consensus within closed session, allowing me to proceed with answering the "technical" issues.

City of Geneseo City Hall
101 S. State Street
Geneseo, IL 61254
309.944.6419 FAX 309.944.8254

Memorandum **April 5, 2001**

From: **Tim Long**
To: **Mayor LeSage, City Council members**

RE: **Feldman/ Red Mill railroad frontage properties**

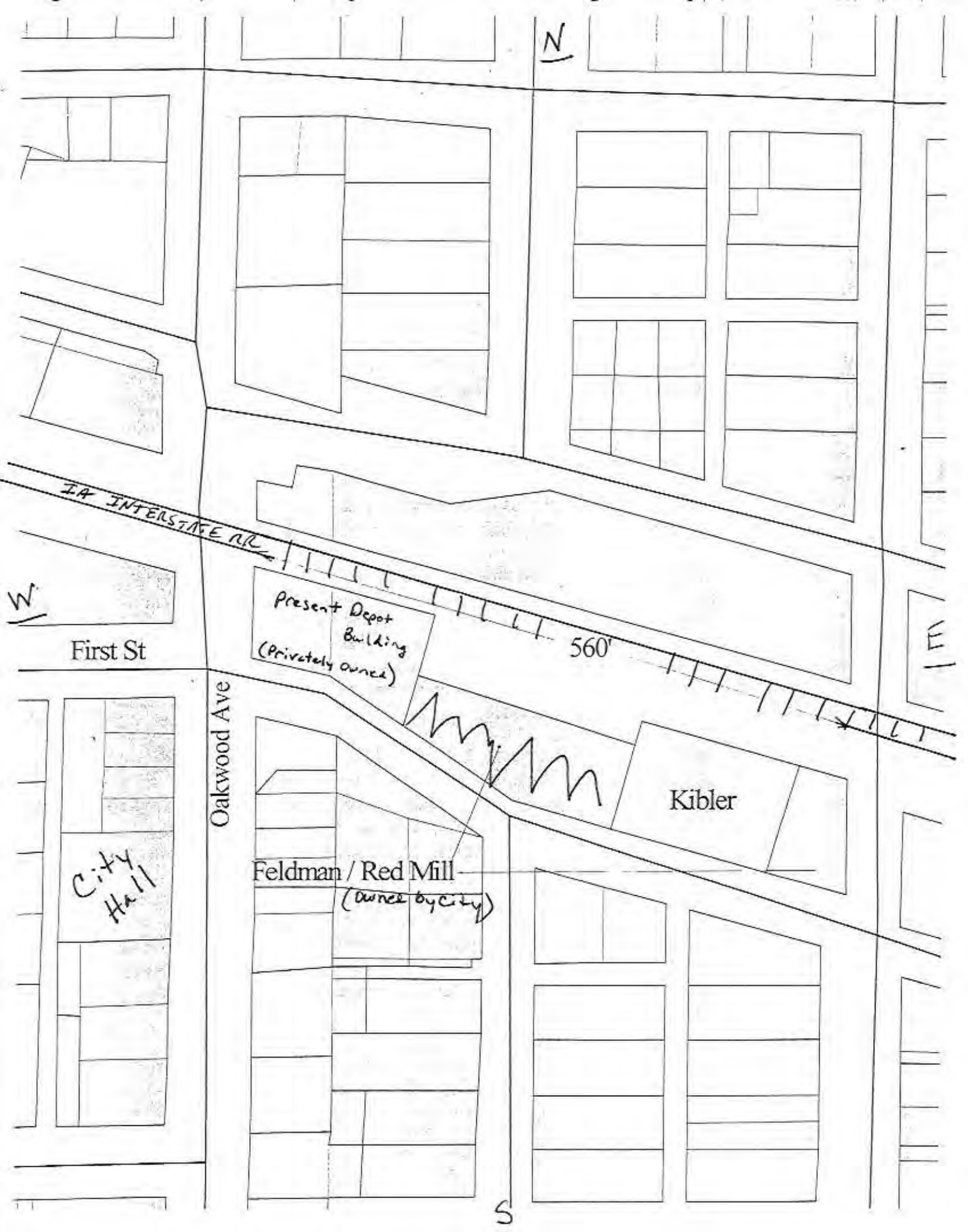
Council Action

Don Feldman has stated his willingness to donate the parcels owned by the Red Mill which are located along the Iowa Interstate Railroad tracks, and has requested a statement from the City Council that it would accept the parcels as-is, having the values as reported by Hertz Appraisal Services of $8,500 (east tract) and $27,500 (west tract). The Board recommended that the City Council accept these two parcels for preservation of open space and to assure the potential for a future passenger rail stop in Geneseo.

Council action to accept these parcels would be in the form of a motion and vote to direct the City Attorney to prepare the legal documents necessary for the City to accept the dedication of the property at the value stated in the appraisal, and to indicate its acceptance of the donation. The actual acceptance of the property would be by formal Council action following the preparation of the legal documents The City Council may also request further information and fact-finding; or, may take no action.

Summary

The possibility of passenger rail service on the former Rock Island Line continues to improve, and this is a logical and workable place for a scheduled stop. The Comprehensive Plan also recommends this area as "public open space" (map, p. 43). According to Feldman, in order for him to start a process to gain a tax advantage for the donation of the land, he needs assurance that the City would accept the donation and acknowledge it as having the value stated in the appraisals.


N
IA INTERSTATE RR
W
First St
Present Depot Building (Privately owned)
560'
E
Oakwood Ave
Kibler
City Hall
Feldman / Red Mill
(owned by City)
S

Bi-State
Regional Commission
Serving local governments in Muscatine and Scott Counties, Iowa;
Henry, Mercer and Rock Island Counties, Illinois.

OFFICERS:
CHAIR
Don Welvaert

VICE-CHAIR
Mike Freemire

SECRETARY
Larry Minard

TREASURER
Pat Ripperger

MUNICIPAL REPRESENTATIVES:
City of Davenport
Bill Gluba, Mayor
Nathan Brown, Alderman
Gene Meeker, Alderman
Hap Volz, Citizen

City of Rock Island
Dennis Pauley, Mayor
Chuck Austin, Councilman

City of Moline
Don Welvaert, Mayor
Gary Brown, Alderman

City of Bettendorf
Mike Freemire, Mayor

City of East Moline
John Thodos, Mayor

City of Muscatine
Dick O'Brien, Mayor

City of Kewanee
Bruce Tossell, Mayor

City of Silvis, Villages of Andalusia, Carbon Cliff, Coal Valley, Cordova, Hampton, Hillsdale, Milan, Oak Grove, Port Byron, and Rapids City
Ken Williams, Mayor, Carbon Cliff

Cities of Aledo, Colona, Galva, Geneseo; Villages of Alpha, Andover, Atkinson, Cambridge, New Boston, Orion, Sherrard, Viola, Windsor, and Woodhull
Danny McDaniel, Mayor, Colona

Cities of Blue Grass, Buffalo, Eldridge, LeClaire, Long Grove, McCausland, Princeton, Riverdale, Walcott, West Liberty, and Wilton
Paul Barnes, Mayor, Blue Grass

COUNTY REPRESENTATIVES:
Henry County
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Jo Anne Hillman, Member
Pat Ripperger, Member

Mercer County
Tom Harris, Chairman

Muscatine County
Wayne Shoultz, Chair
Esther Dean, Member

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John Malvik, Member
Tom Rockwell, Member
Elizabeth Sherwin, Citizen

Scott County
Tom Sunderbruch, Vice Chair
Chris Gallin, Member
Larry Minard, Member
Celia Rangel, Citizen

PROGRAM REPRESENTATIVES:
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Cheryl Goodwin
Ralph H. Heninger
Nathaniel Lawrence
Bill Stoermer
Jim Tank
Rory Washburn

Executive Director
Denise Bulat

September 8, 2009

Ms. Nancy Richardson, Director
Iowa Department of Transportation
800 Lincoln Way
Ames, Iowa 50010

Dear Director Richardson:

The Bi-State Regional Commission supports the ARRA grant application of the Iowa and Illinois Departments of Transportation to fund passenger rail service from Chicago to Iowa City via the Quad Cities. The establishment of passenger rail service is one of our top transportation priorities and has been an identified priority in the long range transportation plans for the metropolitan area and Region 9 Transportation Area since the mid 1990's. In fact the Bi-State Regional Commission was instrumental in providing information and support to the initial Midwest Rail Initiative Study which identified the Quad City route on the Iowa Interstate Railroad as the most efficient route to travel from Chicago to Omaha. In addition, the Bi-State Regional Commission has joined the Quad Cities Passenger Rail Coalition, which includes thousands of supporters from both the public and private sectors who are advocates for this service.

Maintaining and improving rail infrastructure for passenger service is seen as a vital economic development tool for the Bi-State Region and the Midwest. The Bi-State Regional Commission appreciates the work of Amtrak to study this service which identified 111,000 riders annually would use the service between Chicago and the Quad Cities and another 76,000 riders annually would use service if the destination was extended to Iowa City.

The Iowa and Illinois Departments of Transportation partnership with Amtrak and private railroads along with the development of passenger rail programs and plans has positioned them for immediate implementation of passenger rail service from Chicago to Iowa City via the Quad Cities. The ARRA grant request is crucial to this implementation.

Bi-State Regional Commission supports investment in rail passenger service and infrastructure improvements through the ARRA grant.

Sincerely,

Don Welvaert

Don Welvaert, Chair
Bi-State Regional Commission

1504 Third Avenue, P.O. Box 3368, Rock Island, Illinois 61204-3368
Phone (309) 793-6300, Fax (309) 793-6305
E-mail: info@bistateonline.org • Website: www.bistateonline.org

Printed on Recycled Paper

A PART OF QUAD CITIES USA

Dear Quad Cities Passenger Rail Coalition:

We take this opportunity to express our full support for implementing passenger rail service between the Quad Cities and Chicago. The economic, environmental, and quality of life benefits of passenger rail service make it an important priority for the entire Quad City region.

Quad City leaders will work together with the Quad Cities Passenger Rail Coalition ("QC Rail") as a unified voice for our region to once again have direct passenger rail service to Chicago. As a thriving metropolitan area encompassing Illinois and Iowa communities of nearly 400,000 residents, we believe the growing Quad City region will provide an ample supply of rail passengers, while serving as an important link to possible continued routes into Iowa. Passenger rail service will improve business along the entire corridor and provide access to higher education facilities located in the Quad Cities, including Western Illinois University, Augustana College, St. Ambrose University, and Palmer College of Chiropractic.

Quad City local government leaders recognize the leadership of U.S. Senator Dick Durbin along with the State of Illinois' and Amtrak's commitment to expand intercity passenger rail service. We encourage federal legislators to support the Passenger Rail Investment and Improvement Act, which will help advance Amtrak's operations. We have also supported funding the Rail Relocation and Improvement Program provisions in SAFETEA-LU, which will fund needed capital improvements for rail infrastructure.

Through the efforts of QC Rail, Quad City leaders are eager to work with Amtrak, Illinois Department of Transportation, and state and federal officials to make passenger rail service a reality once again in the Quad Cities.

Sincerely,

Mike Freemire, Mayor
City of Bettendorf

Edwin Winborn, Mayor
City of Davenport

John Thodos, Mayor
City of East Moline

Duane Dawson, President
Village of Milan

Don Welvaert, Mayor
City of Moline

Mark Schwiebert, Mayor
City of Rock Island

Lyle Lohse, Mayor
City of Silvis

James Bohnsack, Chair
Rock Island County

James Hancock, Chair
Scott County

DB/sr
intergov\ltr\qcrail support.wpd

QC PASSENGER RAIL COALITION

Illinois Quad City Chamber of Commerce

Support for Passenger Rail in the Quad Cities

Over 1100 area individuals have joined the Quad Cities Passenger Rail Coalition since May 2007. The majority of coalition members are residents from the Illinois and Iowa Quad City region and the Chicago metro area. QC Rail has even received the attention of residents in Pennsylvania, Virginia, Oregon, Colorado, Missouri, Minnesota, Florida, and Wisconsin who would like to see the Quad Cities have passenger rail connection with Chicago.

In addition, the following organizations have adopted resolutions supporting passenger rail between the Quad Cities and Chicago:

Groups/Organizations

- Barjan, LLC
- Bettendorf Chamber of Commerce
- Bettendorf City Council
- Bi-State Regional Commission
- Davenport City Council
- East Moline City Council
- Illinois Quad City Chamber of Commerce
- Midwest High Speed Rail Association
- Moline City Council
- Muscatine County Board of Supervisors
- Quad City Development Group
- Quad Cities Convention and Visitors Bureau
- Rock Island City Council
- Rock Island County Board
- Scott County Board of Supervisors
- Silvis City Council
- Young Professionals Network (YPN) of the Quad Cities

Local Elected Officials

- Rock Island County Chairman, Jim Bohnsack
- Scott County Chairman, James Hancock
- Mayor of Bettendorf, Mike Freemire
- Mayor of Davenport, Ed Winborn
- Mayor East Moline, John Thodos
- Mayor of Milan, Duane Dawson
- Mayor of Moline, Don Welvaert
- Mayor of Rock Island, Mark Schwiebert
- Mayor of Silvis, Lyle Lohse

City of Davenport, Iowa

RESOLUTION

Whereas: The federal government is giving strong consideration to the expansion of national passenger rail service as a viable means of safe and efficient transportation; and

Whereas: The State of Illinois has contributed substantial investment to expand the operation and capital expenses associates with passenger rail service, making Illinois the 2nd largest state supporter of intercity passenger rail service in 2006; and

Whereas: Amtrak has experienced a substantial increase in the amount of passenger traffic along existing routes in the State of Illinois; and

Whereas: The State of Illinois is exploring the expansion of passenger rail service, including a feasibility study being conducted by Amtrak to examine the implementation of passenger rail service between Chicago and the Quad Cities; and

Whereas: The implementation of passenger rail service between the Quad Cities and Chicago has been identified as a regional priority by the Illinois Quad City Chamber of Commerce's economic growth strategy, Blueprint 2010l; and

Whereas: Passenger rail service from the Quad Cities to Chicago will provide an important transportation connection and allow for economic and quality of life benefits for the Quad Cities; and

Whereas: The Quad Cities Passenger Rail Coalition was created to serve as an advocacy group representing the Quad City region to promote the implementation of passenger rail service between the Quad Cities and Chicago.

Now, Therefore, We, Edwin G. Winborn, Mayor, and the City Council of the City of Davenport, Iowa hereby supports the implementation of passenger rail service between the Quad Cities and Chicago and encourages area residents to advocate their support for passenger rail by joining the Quad Cities Passenger Rail Coalition.

Edwin G. Winborn, Mayor

Jackie E. Holecek, CMC, Deputy City Clerk

DavenportOne

Chamber of Commerce • Economic Development • Downtown Partnership

RESOLUTION SUPPORTING PASSENGER RAIL

Whereas, the federal government is giving strong consideration to the expansion of national passenger rail service as a viable means of safe and efficient transportation, and;

Whereas, the State of Illinois has contributed substantial investment to expand the operation and capital expenses associated with passenger rail service, making Illinois the 2nd largest state supporter of intercity passenger rail service in 2006, and;

Whereas, Illinois and Iowa are exploring the expansion of passenger rail service, including a feasibility study being conducted by Amtrak to examine the implementation of passenger rail service between Chicago and the Quad Cities, Quad Cities and Iowa City/Des Moines and;

Whereas, the Quad Cities Passenger Rail Coalition was created to serve as an advocacy group representing the Quad City region to promote the implementation of passenger rail service between the Quad Cities and Chicago, and.

Whereas, the implementation of passenger rail service between the Quad Cities and Chicago will allow for great economic and quality of life benefits for the over 400,000 residents in the Iowa and Illinois Quad Cities, now therefore

Let it be resolved that DavenportOne hereby supports the implementation of passenger rail service between the Quad Cities and Chicago, and

Let it be further resolved that DavenportOne encourages its members and area residents to advocate their support for passenger rail by joining the Quad Cities Passenger Rail Coalition.

Jim Russell
Chairman of the Board

Tara England Barney
President & CEO

130 W. 2nd Street • Davenport, Iowa 52801 • ph. 563.322.1706 • fax: 563.322.7804 • www.davenportone.com

Johnson County Council of Governments
410 E Washington St Iowa City, Iowa 52240

December 7, 2007

Nancy Richardson, Director
Iowa DOT
800 Lincoln Way
Ames, IA 50010

Re: Passenger Rail

Dear Ms. Richardson:

While there are many unanswered questions regarding the capital and operations costs of AMTRAK service into Iowa, the Johnson County Council of Governments (JCCOG) is fully supportive of efforts to plan for extending additional AMTRAK service from Chicago to the Quad Cities, Iowa City and Des Moines We are aware there is a study being completed to quantify capital costs and operations costs for AMTRAK service on the Iowa Interstate Railroad line This service would be consistent with the Midwest Regional Rail Initiative, of which JCCOG has been a past supporter

Passenger Rail will be an increasingly important option for our country Passenger rail is a viable alternative to highway and air travel for medium range trips between 200-500 miles in distance. AMTRAK ridership has set a new record with 25,847,531 passengers in FY07 Ridership is increasing on Midwest passenger trains also; on the Chicago-St Louis line for example, ridership is up by 55.8 percent for state-owned trains, with a total of 477,888 passengers in FY07 Expanding service from Chicago to Iowa City and Des Moines will provide a viable transportation alternative for many regional travelers

JCCOG's interest in passenger rail is not just tied to AMTRAK In 2006, a passenger rail feasibility study was completed to identify capital and operating costs for passenger rail service between Iowa City and Cedar Rapids. With an estimated $18 million capital investment in track, equipment and stations, passenger rail service could start between Iowa City, Coralville and North Liberty. This service has the potential to reduce congestion, provide an alternative transportation mode for commuters as well as visitors, foster economic development around stations, and potentially forestall the need to create additional capacity on area streets and highways.

JCCOG is supportive of passenger rail efforts whether they be regional AMTRAK service, or local passenger rail. We are aware of the financial and logistic challenges involved in creating additional passenger rail service in Iowa; it is important passenger rail funding programs do not come at the expense of other local mass transit programs we depend on We encourage you to begin discussing the creation of a passenger rail capital and operations funding program as one of the first steps necessary to bring plans into reality.

Sincerely,

Regenia Bailey, JCCOG Chairperson

Wpdata/jccogadmin/mem/passrail-11-13-07 doc

Illinois Quad City Chamber of Commerce

Passenger Rail Resolution

WHEREAS, the federal government is giving strong consideration to the expansion of national passenger rail service as a viable means of safe and efficient transportation; and

WHEREAS, the State of Illinois has contributed substantial investment to expand the operation and capital expenses associated with passenger rail service, making Illinois the 2nd largest state supporter of intercity passenger rail service in 2006; and

WHEREAS, Amtrak has experienced a substantial increase in the amount of passenger traffic along existing routes in the State of Illinois; and

WHEREAS, the State of Illinois is exploring the expansion of passenger rail service, including a feasibility study being conducted by Amtrak to examine the implementation of passenger rail service between Chicago and the Quad Cities; and

WHEREAS, the implementation of passenger rail service between the Quad Cities and Chicago has been identified as a regional priority by the Illinois Quad City Chamber of Commerce's economic growth strategy, Blueprint 2010; and

WHEREAS, the implementation of passenger rail service between the Quad Cities and Chicago will allow for great economic and quality of life benefits for the over 400,000 residents in the Illinois and Iowa Quad Cities; and

WHEREAS, passenger rail service from Chicago will provide an important transportation connection in the Quad Cities with the possibility of extending future routes into Iowa; and

WHEREAS, the Quad Cities Passenger Rail Coalition was created to serve as an advocacy group representing the Quad City region to promote the implementation of passenger rail service between the Quad Cities and Chicago.

NOW, THEREFORE, BE IT RESOLVED by the Board of Directors of the Illinois Quad City Chamber of Commerce in Moline, Illinois, that the Board expresses its support for the implementation of passenger rail service between the Quad Cities and Chicago.

BE IT FURTHER RESOLVED that the Illinois Quad City Chamber of Commerce encourages members and area residents to advocate their support for passenger rail by joining the Quad Cities Passenger Rail Coalition.

622 19th Street ■ Moline, IL ■ Phone: (309) 757-5416 ■ Fax: (309) 757-5435 ■ www.quadcitychamber.com

Whereas, the federal government is giving strong consideration to the expansion of national passenger rail service as a viable means of safe and efficient transportation, and;

Whereas, the State of Illinois has contributed substantial investment to expand the operation and capital expenses associated with passenger rail service, making Illinois the 2nd largest state supporter of intercity passenger rail service in 2006, and;

Whereas, Illinois and Iowa are exploring the expansion of passenger rail service, including a feasibility study being conducted by Amtrak to examine the implementation of passenger rail service between Chicago and the Quad Cities, Quad Cities and Iowa City/Des Moines, and;

Whereas, the Quad Cities Passenger Rail Coalition was created to serve as an advocacy group representing the Quad City region to promote the implementation of passenger rail service between the Quad Cities and Chicago, and;

Whereas, the Quad Cities is a frequent tourist destination with over 1 million visitors annually. Centrally located, the Quad Cities is at the crossroads of several major interstates (I-80, I-74, I-88), provides access to the Mississippi River, and the Quad City International Airport (Illinois' 3rd largest airport) continues to experience record-setting passenger rates, and;

Whereas, the implementation of passenger rail service between the Quad Cities and Chicago will allow for great economic and quality of life benefits for the over 400,000 residents in the Iowa and Illinois Quad Cities, now therefore

Let it be resolved that the Quad City Convention and Visitors Bureau hereby supports the implementation of passenger rail service between the Quad Cities and Chicago, and

Let it be further resolved that Quad City Convention and Visitors Bureau encourages its members and area residents to advocate their support for passenger rail by joining the Quad Cities Passenger Rail Coalition.

D. Joseph Taylor

Joe Taylor
President/CEO
Quad City Convention and Visitors Bureau

Whereas, the federal government is giving strong consideration to the expansion of national passenger rail service as a viable means of safe and efficient transportation, and;

Whereas, the State of Illinois has contributed substantial investment to expand the operation and capital expenses associated with passenger rail service, making Illinois the 2nd largest state supporter of intercity passenger rail service in 2006, and;

Whereas, Amtrak has experienced a substantial increase in the amount of passenger traffic along existing routes in the State of Illinois, and;

Whereas, Illinois and Iowa are exploring the expansion of passenger rail service, including a feasibility study being conducted by Amtrak to examine the implementation of passenger rail service between Chicago and the Quad Cities, Quad Cities and Iowa City/Des Moines and;

Whereas, passenger rail service from the Quad Cities to Chicago will provide an important transportation connection and allow for great economic and quality of life benefits for the Quad Cities, and;

Whereas, the Quad Cities Passenger Rail Coalition was created to serve as an advocacy group representing the Quad City region to promote the implementation of passenger rail service between the Quad Cities and Chicago, now therefore

Let it be resolved that the Quad City Development Group hereby supports the implementation of passenger rail service between the Quad Cities and Chicago, and

Let it be further resolved that the Quad City Development Group encourages its members and area residents to advocate their support for passenger rail by joining the Quad Cities Passenger Rail Coalition.

John Gardner
President/CEO

Approved by QCDG Board of Directors
8/3/07

THE COUNTY AUDITOR'S SIGNATURE CERTIFIES THAT THIS RESOLUTION HAS BEEN FORMALLY APPROVED BY THE BOARD OF SUPERVISORS ON

_____.
DATE

_____
SCOTT COUNTY AUDITOR

RESOLUTION

SCOTT COUNTY BOARD OF SUPERVISORS

JULY 26, 2007

SUPPORT FOR THE IMPLEMENTATION OF PASSENGER RAIL SERVICE BETWEEN THE QUAD CITIES AND CHICAGO

Whereas, the federal government is giving strong consideration to the expansion of national passenger rail service as a viable means of safe and efficient transportation, and;

Whereas, the State of Illinois has contributed substantial investment to expand the operation and capital expenses associated with passenger rail service, making Illinois the 2nd largest state supporter of intercity passenger rail service in 2006, and;

Whereas, Amtrak has experienced a substantial increase in the amount of passenger traffic along existing routes in the State of Illinois, and;

Whereas, the State of Illinois is exploring the expansion of passenger rail service, including a feasibility study being conducted by Amtrak to examine the implementation of passenger rail service between Chicago and the Quad Cities, and;

Whereas, passenger rail service from Chicago will provide an important transportation connection in the Quad Cities with the possibility of extending future routes into Iowa, and;

Whereas, the implementation of passenger rail service between the Quad Cities and Chicago will allow for great economic and quality of life benefits for the over 400,000 residents in the Iowa and Illinois Quad Cities, and;

Whereas, the Quad Cities Passenger Rail Coalition was created to serve as an advocacy group representing the Quad City region to promote the implementation of passenger rail service between the Quad Cities and Chicago, now therefore

BE IT RESOLVED BY the Scott County Board of Supervisors as follows:

Section 1. That the Scott County Board of Supervisors hereby supports the implementation of passenger rail service between the Quad Cities and Chicago, and encourages area residents to advocate their support for passenger rail by joining the Quad Cities Passenger Rail Coalition.

Section 2. This resolution shall take effect immediately.

RESOLUTION #07-16-07-01
SUPPORTING PASSENGER RAIL SERVICE

WHEREAS, the federal government is giving strong consideration to the expansion of national passenger rail service as a viable means of safe and efficient transportation; and

WHEREAS, the State of Illinois has contributed substantial investment to expand the operation and capital expenses associated with passenger rail service; and

WHEREAS, Amtrak has experienced a substantial increase in the amount of passenger traffic; and

WHEREAS, the States of Illinois and Iowa are exploring the expansion of passenger rail service, including a feasibility study being conducted by Amtrak to examine the implementation of passenger rail service between Chicago and the Quad Cities (with eventual service to Iowa City and Des Moines); and

WHEREAS, passenger rail service from the Quad Cities to Chicago will provide an important transportation connection and allow for economic and quality of life benefits for the entire area; and

WHEREAS, a passenger rail coalition was created to serve as an advocacy group representing the Quad City region to promote the implementation of passenger rail service between the Quad Cities and Chicago;

NOW, THEREFORE, BE IT HEREBY RESOLVED that the Muscatine County Board of Supervisors supports the implementation of passenger rail service between the Quad Cities and Chicago; and

LET IT BE FURTHER RESOLVED that the Muscatine County Board of Supervisors encourages area residents to advocate their support for passenger rail and the Quad City Area Long Range Transportation Plan by joining the Quad Cities Passenger Rail Coalition.

PASSED AND APPROVED this 16th day of July, 2007.

ATTEST:

Leslie A. Soule, Auditor

Kas Kelly, Chair
Muscatine County Board of Supervisors

Bi-State
Regional Commission
Serving local governments in Muscatine and Scott Counties, Iowa;
Henry, Mercer and Rock Island Counties, Illinois.

OFFICERS:
CHAIR
Dick O'Brien

VICE-CHAIR
Don Welvaert

SECRETARY
Tom Nicholson

TREASURER
Mike Freemire

MUNICIPAL REPRESENTATIVES:
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Ed Winborn, Mayor
Charles Brooks, Alderman
Brian Dumas, Alderman
Hap Volz, Citizen

City of Rock Island
Mark W. Schwiebert, Mayor
Chuck Austin, Councilman

City of Moline
Don Welvaert, Mayor
Kent Breecher, Alderman

City of Bettendorf
Mike Freemire, Mayor

City of East Moline
John Thodos, Mayor

City of Muscatine
Dick O'Brien, Mayor

City of Kewanee
Bruce Tossell, Mayor

City of Silvis; Villages of
Andalusia, Carbon Cliff,
Coal Valley, Cordova, Hampton,
Hillsdale, Milan, Oak Grove,
Port Byron, and Rapids City
Ken Williams, Mayor, Carbon Cliff

Cities of Aledo, Colona, Galva,
Geneseo; Villages of Alpha,
Andover, Atkinson, Cambridge,
New Boston, Orion, Sherrard,
Viola, Windsor, and Woodhull
Danny McDaniel, Mayor, Colona

Cities of Blue Grass, Buffalo,
Eldridge, LeClaire,
Long Grove, McCausland,
Princeton, Riverdale, Walcott,
West Liberty, and Wilton
Vernon Spring, Mayor, LeClaire

COUNTY REPRESENTATIVES:
Henry County
Tom Nicholson, Chairman
Jo Anne Hillman, Member
Pat Ripperger, Member

Mercer County
Tom Harris, Chairman

Muscatine County
Kas Kelly, Chair
Esther Dean, Member

Rock Island County
Jim Bohnsack, Chairman
John Malvik, Member
Tom Rockwell, Member
Elizabeth Sherwin, Citizen

Scott County
Tom Sunderbruch, Vice Chair
Chris Gallin, Member
Larry Minard, Member
Celia Rangel, Citizen

PROGRAM REPRESENTATIVES:
Carl Becker
Ralph H. Heninger
Nathaniel Lawrence
Jim Tank
Rory Washburn
Tim Wilkinson
Thomas A. Wilson

Executive Director
Denise Butler

RESOLUTION
SUPPORTING PASSENGER RAIL SERVICE

WHEREAS, the federal government is giving strong consideration to the expansion of national passenger rail service as a viable means of safe and efficient transportation; and

WHEREAS, the State of Illinois has contributed substantial investment to expand the operation and capital expenses associated with passenger rail service; and

WHEREAS, Amtrak has experienced a substantial increase in the amount of passenger traffic; and

WHEREAS, the States of Illinois and Iowa are exploring the expansion of passenger rail service, including a feasibility study being conducted by Amtrak to examine the implementation of passenger rail service between Chicago and the Quad Cities (with eventual service to Iowa City and Des Moines); and

WHEREAS, the implementation of passenger rail service between the Quad Cities and Chicago has been identified as a transportation priority by the Bi-State Regional Commission in the Quad City Area Long Range Transportation Plans since 1995; and

WHEREAS, passenger rail service from the Quad Cities to Chicago will provide an important transportation connection and allow for economic and quality of life benefits for the Quad Cities; and

WHEREAS, a passenger rail coalition was created to serve as an advocacy group representing the Quad City region to promote the implementation of passenger rail service between the Quad Cities and Chicago;

NOW THEREFORE BE IT RESOLVED that the Bi-State Regional Commission hereby supports the implementation of passenger rail service between the Quad Cities and Chicago; and

LET IT BE FURTHER RESOLVED that the Bi-State Regional Commission encourages area residents to advocate their support for passenger rail and the Quad City Area Long Range Transportation Plan by joining the Quad Cities Passenger Rail Coalition.

PASSED, APPROVED AND ADOPTED this 27th day of June 2007.

Chair, Dick O'Brien

economic\CEDS\resolution

1504 Third Avenue, P.O. Box 3368, Rock Island, Illinois 61204-3368
Phone (309) 793-6300, Fax (309) 793-6305
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A PART OF

THE greater DES MOINES partnership

BOARD RESOLUTION

MIDWEST BUSINESS COALITION FOR PASSENGER RAIL

WHEREAS, the Greater Des Moines Partnership's Transit 2030 Task Force is committed to making Greater Des Moines a world-class metropolitan community that will move on a world-class transportation system by 2030;

WHEREAS, the Midwest Business Coalition for Passenger Rail represents business groups in the nine-state Midwest region that believe that effective passenger rail is vital to our economy, mobility and quality of life;

WHEREAS, the Midwest Business Coalition for Passenger Rail is committed to working with the Iowa Interstate Railroad, Amtrak, public officials, and other interested parties to expand passenger rail service from Chicago to Des Moines to Omaha;

WHEREAS, 56 chambers of commerce and economic development organizations across Illinois, Indiana, Iowa, Michigan, Minnesota, Missouri, Ohio, and Wisconsin are currently members of the Midwest Business Coalition for Passenger Rail, including the Cedar Rapids Area Chamber of Commerce, Iowa City Area Chamber of Commerce, and Marion Chamber of Commerce that are also located on the proposed route expansion in Iowa;

WHEREAS, there are no membership costs associated with joining the Midwest Business Coalition for Passenger Rail;

BE IT RESOLVED, that the Greater Des Moines Partnership shall become a member of the Midwest Business Coalition for Passenger Rail.

Friday, June 22, 2007

Jim Cownie
Board Chair
Greater Des Moines Partnership

Martha Willits
President and CEO
Greater Des Moines Partnership

The Partnership Building • 700 Locust St. • Suite 100
Des Moines, IA 50309 • tel 515-286-4950 • fax 515-286-4974
www.desmoinesmetro.com

Quad City Audubon Society
Resolution in Support of Passenger Rail between Chicago and the Quad Cities
Adopted June 6, 2007

Whereas there exist significant cultural, educational, recreational, and business reasons for travel between Chicago and the Quad Cities,

Whereas carbon dioxide emissions from private vehicles in the United States account for a significant percentage of world wide greenhouse gas emissions that contribute to global warming,

Whereas global warming is already having a negative impact on wildlife populations including bird populations in North America and elsewhere on the planet,

Whereas global warming ultimately threatens to alter wildlife habitat and ecosystems beyond the capacity of wildlife to adapt,

Whereas protection of wildlife-sustaining habitat is integral to the Mission of the Quad City Audubon Society,

Whereas passenger rail transportation between the Quad Cities and Chicago would reduce the amount of automobile traffic and consequently reduce carbon dioxide emissions which contribute to global warming,

Therefore be it resolved that the Quad City Audubon Society supports the development and implementation of passenger rail between the Quad Cities and Chicago.

RESOLUTION NO. 116-07

WHEREAS, the federal government is giving strong consideration to the expansion of national passenger rail service as a viable means of safe and efficient transportation, and;

WHEREAS, the State of Illinois has contributed substantial investment to expand the operation and capital expenses associated with passenger rail service, making Illinois the 2nd largest state supporter of intercity passenger rail service in 2006, and;

WHEREAS, Amtrak has experienced a substantial increase in the amount of passenger traffic along existing routes in the State of Illinois, and;

WHEREAS, the State of Illinois is exploring the expansion of passenger rail service, including a feasibility study being conducted by Amtrak to examine the implementation of passenger rail service between Chicago and the Quad Cities, and;

WHEREAS, the implementation of passenger rail service between the Quad Cities and Chicago has been identified as a regional priority by the Illinois Quad City Chamber of Commerce's economic growth strategy, Blueprint 2010, and;

WHEREAS, passenger rail service from the Quad Cities to Chicago will provide an important transportation connection and allow for economic and quality of life benefits for the Quad Cities, and;

WHEREAS, the Quad Cities Passenger Rail Coalition was created to serve as an advocacy group representing the Quad City region to promote the implementation of passenger rail service between the Quad Cities and Chicago, now therefore

NOW THEREFORE BE IT RESOLVED that the Bettendorf City Council hereby supports the implementation of passenger rail service between the Quad Cities and Chicago, and

LET IT BE FURTHER RESOLVED that the Bettendorf City Council encourages area residents to advocate their support for passenger rail by joining the Quad Cities Passenger Rail Coalition.

PASSED, APPROVED AND ADOPTED this 5th day of June, 2007.

Mayor Michael J. Freemire

Attest:

City Clerk Decker P. Ploehn

young professionals network
quad cities

YPN Resolution Supporting Passenger Rail

Whereas, the federal government is giving strong consideration to the expansion of national passenger rail service as a viable means of safe and efficient transportation, and;

Whereas, the State of Illinois has contributed substantial investment to expand the operation and capital expenses associated with passenger rail service, making Illinois the 2nd largest state supporter of intercity passenger rail service in 2006, and;

Whereas, Amtrak has experienced a substantial increase in the amount of passenger traffic along existing routes in the State of Illinois, and;

Whereas, the State of Illinois is exploring the expansion of passenger rail service, including a feasibility study being conducted by Amtrak to examine the implementation of passenger rail service between Chicago and the Quad Cities, and;

Whereas, the implementation of passenger rail service between the Quad Cities and Chicago has been identified as a regional priority by the Illinois Quad City Chamber of Commerce's economic growth strategy, Blueprint 2010, and;

Whereas, passenger rail service from the Quad Cities to Chicago will provide an important transportation connection and allow for economic and quality of life benefits for the Quad Cities, and;

Whereas, the economic and quality of life benefits from passenger rail service will enhance the efforts to attract and retain young professionals in the Quad Cities, and;

Whereas, the Quad Cities Passenger Rail Coalition was created to serve as an advocacy group representing the Quad City region to promote the implementation of passenger rail service between the Quad Cities and Chicago, now therefore

Let it be resolved that the Young Professionals Network of the Quad Cities hereby supports the implementation of passenger rail service between the Quad Cities and Chicago, and

Let it be further resolved that the Young Professionals Network of the Quad Cities encourages members and area young professionals to advocate their support for passenger rail by joining the Quad Cities Passenger Rail Coalition.

Approved by the YPN Creative Council on Wednesday, May 23, 2007.

Paul Rumler, Director
Young Professionals Network of the Quad Cities

Resolution of Support

Whereas, the federal government is giving strong consideration to the expansion of national passenger rail service as a viable means of safely and efficiently moving people via its AMTRAK system, and

Whereas, the State of Illinois has contributed substantial investment to augment the operation and capital expenses associated with this contemplated expansion, and

Whereas, in light of this investment there has been a substantial increase in the amount of passenger traffic along existing lines, and

Whereas, the extension of higher-speed passenger rail service between the Chicago metro area and other locations in the state is being considered there, and

Whereas, studies have sown that a high-speed passenger rail connection to the Quad Cities would be the most economical extension of said service as well as the route most likely to attract the most passengers, and

Whereas, an advocacy group known as QC Rail has been established to advocate on behalf of such a connection,

BE IT RESOLVED, that the Bettendorf Chamber of Commerce supports wholeheartedly the concept of high-speed passenger rail service between Chicago and the Quad Cities, and

BE IT FURTHER RESOLVED, that it encourages all citizens and interested parties in indicate their support for this effort by joining the QC Rail Coalition.

APPROVED THIS DAY, MAY 20, 2007, by the Board of Directors of the Bettendorf Chamber of Commerce

Kim Guy

Kim Guy, Chairman of the Board

MIDWEST
HIGH SPEED RAIL
ASSOCIATION

P.O. Box 805877 Chicago, IL 60680
773-334-6758

For Immediate Release May 11, 2007

Contact: Rick Harnish
Executive Director
Midwest High Speed Rail Association

Office: 773-334-6758
Cell: 312-339-0116
www.midwesthsr.org

Midwest High Speed Rail Association Applauds QC Rail Coalition

The Midwest High Speed Rail Association would like to applaud Rock Island County Chairman Jim Bohnsack and the Illinois Quad City Chamber of Commerce for creating the Quad Cities Passenger Rail Coalition.

The coalition will help build a stronger connection to Chicago and the entire Midwest economy by advocating for fast and dependable trains.

The Illinois General Assembly is currently reviewing proposals for new service to the Quad Cities, Decatur, Rockford and Peoria, as well as, continued expansion of existing routes.

"Local residents and business leaders need to tell the General Assembly that modern trains are a high-priority," said Richard Harnish, Executive Director of the Midwest High Speed Rail Association. "The Quad Cites Passenger Rail Coalition will get that message across."

"Rapidly rising gas prices are straining personal and business travel budgets," said Harnish. "Only fast trains can simultaneously reduce travel expenses while reducing the trip times to Chicago."

"In addition to reducing travel expenses, fast trains will strengthen the downtown business districts making the Quad Cities a more attractive place to live and do business," added Harnish.

Rising energy costs are also straining the state and federal highway funds. Highway construction costs have increased more than 30% over the last three years, while revenues have remained flat. A substantial "revenue enhancement" will be necessary just to maintain our existing highways.

"A statewide network of fast trains, well integrated with local transit, will stretch the state's transportation dollar," said Harnish. "Residents of the Quad Cities should tell Springfield to include modern trains in any upcoming capital program."

Go to http://www.midwesthsr.org/il_fastTrack.htm for more information on passenger train proposals in Illinois.

The Midwest High Speed Rail Association is a member-supported non-profit educational organization promoting the development of fast, frequent and dependable train service connecting the entire Midwest. Our members include business leaders, mayors and individuals that want the option of traveling by train.

Iowa Department of Transportation

800 Lincoln Way, Ames, Iowa 50010 515-239-1111
FAX: 515-239-1120

April 3, 2007

Mr. Mike Franke
Senior Director
National Passenger Rail Corporation-Amtrak
525 West Van Buren St., Suite 200
Chicago, Illinois 60607

Dear Mr. Franke:

On February 20, 2007, the Illinois Department of Transportation requested Amtrak conduct a feasibility study to resume service between Chicago and the Quad Cities. The feasibility study would include potential routes, capital needs and associated ridership and cost estimates on a route that has not seen service since the demise of the former Rock Island Railroad in 1980. The Iowa Department of Transportation respectfully requests that the study be extended to include service to Iowa City, Iowa.

Both Iowa and Illinois are partners in the Midwest Regional Rail Initiative (MWRRI), the nine-state effort to plan and develop a passenger rail system hubbed in Chicago to serve the major metropolitan areas in the Midwest. The proposed route for the MWRRI would serve Chicago, Quad Cities and Iowa City before extending west to Des Moines and Omaha, Nebraska. The proposed feasibility study is an important first step for establishing service on this route and the potential development of the MWRRI.

Please let me know if there are any costs associated with the conduct of this study extension. I look forward to working with you. If you have any questions, please contact John Hey at 515-239-1653.

Sincerely,

Nancy J. Richardson
Director

NJR:ckw

cc: George Weber, Illinois DOT
Neil Volmer, Director, Planning, Programming and Modal Division, Iowa DOT
John Hey, Modal Division, Iowa DOT

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COORDINATION LETTERS SENT
BY IOWA AND ILLINOIS DOTS

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Iowa Department of Transportation

800 Lincoln Way, Ames, Iowa 50010 515-239-1225
FAX# 515-239-1726

August 17, 2009

Mr. Mark Schenkelburg
Environmental Specialist
Federal Aviation Administration
901 Locust Street
Airports Division, ACE-615B
Kansas City, MO 64106

Re: Chicago to Iowa City Intercity Passenger Rail Service Project - Environmental Assessment

Dear Mr. Schenkelburg:

For the purpose of complying with the National Environmental Policy Act (NEPA), the Federal Railroad Administration, in cooperation with the Iowa Department of Transportation and Illinois Department of Transportation, is initiating the preparation of a Tier 1 (programmatic or service level) environmental assessment (EA) for the Chicago to Iowa City Intercity Passenger Rail Service Project. This project, which is part of the Midwest Regional Rail Initiative, proposes to add passenger rail service between Chicago, Illinois and Iowa City, Iowa. The Project would utilize existing rail lines to expand passenger rail service between Chicago, Illinois and Wyanet, Illinois, and introduce passenger rail service between Wyanet, Illinois and Iowa City, Iowa. It would include two-round trip passenger trains per day travelling at speeds up to 79 miles per hour (mph) and does not include "high-speed" (110 mph) passenger service.

The proposed passenger rail service would cross the Mississippi River from Moline, Illinois to Davenport, Iowa on the Arsenal Bridge. This bridge is owned by the U.S. Army Corps of Engineers. Work on this bridge, if any, would be limited to track and/or tie replacement. Two alternatives have been identified between Chicago, Illinois and Wyanet, Illinois, but only one rail line exists that connects Wyanet, Illinois to Iowa City, Iowa. These alternatives are shown in the attached figure.

The Tier 1 EA is identified by FRA as an essential first step in the development of a intercity passenger rail corridor. The focus of the Tier 1 EA will be on establishing purpose and need, estimating ridership, selecting the preferred route, identifying the station stops, specifying the service levels, defining the type of operations, and identifying the logical next phases. The specific construction activities would be evaluated in subsequent Tier 2 NEPA documents.

In Iowa, all work as currently envisioned by the recently completed Amtrak feasibility study would take place entirely within the existing rail line corridor and would consist of replacement of about 30 miles of jointed rail with continuous welded rail (CWR). Track upgrades would also be done, which would consist of track resurfacing, tie replacement, and ballast compacting. All of this work would be completed using track mounted equipment

operating from the rail. Some work would be done outside of the rail, and would include minor ditching, bridge and culvert work. In some areas, shoulder work would be done to support higher speeds through a curve.

As a part of early coordination, we are soliciting comments from your agency regarding the proposed project as it relates to your agency's area of expertise with Iowa's resources. The comments and material you supply will be used to determine if the proposed improvements may have impacts that warrant further consideration and are consistent with future long-term development plans within the study corridor.

Your comments will be incorporated into the environmental planning process and Environmental Assessment document as appropriate. We ask that you provide your agency's comments to us no later than September 4, 2009.

This Tier 1 EA is needed to complete a Track 2 application for a High-Speed Intercity Rail (HSIPR) Program grant. On April 16, 2009, President Obama, together with Vice President Biden and Secretary of Transportation LaHood, announced a new vision for developing high-speed rail in America. They called for a collaborative effort among the Federal Government, States, railroads, and other key stakeholders to help transform America's transportation system through a national network of high-speed rail corridors. This notice builds on this "Vision for High-Speed Rail" (available on FRA's Web site) by detailing the application requirements and procedures for obtaining funding for high-speed and intercity passenger rail projects under the American Recovery and Reinvestment Act of 2009 (ARRA) and the Department of Transportation Appropriations Acts of 2008 and 2009 (FY 2008/2009 DOT Appropriations Acts), while laying the foundation for a longer-term program to establish a network of high-speed rail corridors.

The enclosed information should help you understand the nature of the project and the location of the proposed railway improvement. Because this effort is part of an ARRA grant application, we are operating under an accelerated schedule and would appreciate a response by September 4, 2009. If you have any questions about the project please contact me at 515-239-1467, or by email at janet.vine@dot.iowa.gov.

The Iowa DOT thanks you in advance for your prompt review and response to our request for comments.

Sincerely,

Janet Vine

Janet Vine
Iowa Department of Transportation
NEPA Document Manager

Enclosures:
Purpose and Need
Potential Routes Map
Proposed Station Map

cc: Barbara Stevens – Illinois Department of Transportation
Will Sharp – HDR Engineering Inc.

PURPOSE AND NEED

Nine Midwest states, under the Midwest Regional Rail Initiative (MWRRI) have been actively developing an improved and expanded passenger rail system in the Midwest. As a result of the MWRRI and the national high-speed rail initiative, numerous corridors were identified with Chicago, Illinois as the hub.

Between 1996 and 2004, the MWRRI in the Midwest was refined from a series of individual corridors into a transportation plan known as the Midwest Regional Rail System . Numerous studies were completed for bus service integration into the system; financial, economic, market and transportation analysis; infrastructure and capital costs, operating costs; and institutional and organizational issues. These efforts culminated in 2004 when the MWRRI issued the *Midwest Regional Rail System Executive Report* (Transportation Economics & Management Systems, Inc. 2004b) and the *MWRRI Project Notebook* (Transportation Economics & Management Systems, Inc. 2004a).

With full implementation of the MWRRI (estimated 2025), it would encompass approximately 3,000 route miles in the sponsor states; provide approximately 90 percent of the Midwest region's population within an hour's ride of a rail station and/or 30 minutes of a feeder bus station; and attract approximately 13.6 million passengers (Transportation Economics & Management Systems, Inc. 2004b). Since 2004 work has progressed on the various corridors. In 2006, Chapter 11, Benefit Cost and Economic Analysis, of the *MWRRI Project Notebook* was updated (Transportation Economics & Management Systems 2006).

The Chicago to Iowa City Intercity Passenger Rail Service Project is one part of the vision established by the MWRRI to expand existing and develop new regional passenger rail service to help meet future travel demands in the Midwest. The Project would expand and create a rail transportation alternative to automobile, bus, and air by:

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

Many communities between Chicago and Iowa City have experienced rapid growth since 2000 and have seen increased congestion on roadways (Franke et. al 2008a and Franke et. al 2008b). There is a need to reduce this congestion and the effects of further population growth over the long term.

In addition, the University of Iowa and nationally recognized hospitals are located in Iowa City, Iowa and approximately 20 percent of the University of Iowa student body, approximately 30,000 students, is from Illinois. The Quad Cities area offers numerous tourist attractions including the Mississippi River, river boating, riverboat casinos, the Rock Island Arsenal as well as museums and other cultural attractions (Franke et. al 2008b). Approximately 60 percent of the visitors to the Quad Cities are from the Chicago

area (Franke et. al 2008a). The passenger rail service will fulfill a need for a transportation alternative to and from these areas while relieving congestion on existing infrastructure.

ALTERNATIVES

Four alternatives were considered: the No-Build Alternative, Route A (Amtrak-BNSF-IAIS), Route B (Amtrak -CN- Metra/Rock Island-CSXT-IAIS), and an alternative route through Chicago to New Lenox to Metra/Rock Island. An alternative route from Chicagothrough New Lenox that would require taking public park land was dismissed from further consideration; the No-Build, Route A, and Route B alternatives were retained for detailed study.

2.1 NO-BUILD ALTERNATIVE

The No-build Alternative would consist of operating the current track, with the present level of maintenance and no appreciable change to the current track configuration or operating conditions. The No-build Alternative would not meet the purpose and need of the project because it would not result in practical, attractive passenger service schedules. Travel times would not decrease, frequency of service would not increase, reliability of service would not improve, and amenities to improve passenger ride quality and comfort would not improve. Passenger rail service would not provide an attractive alternative to highway or air line travel, and congestion of these modes of transportation in the Chicago to Quad Cities and Iowa City area would continue.

The No-build Alternative was retained for detailed analysis to allow equal comparison to the Route A and Route B alternatives, and to help decision-makers and the public understand the consequences of taking no action.

2.2 PREFERRED ALTERNATIVE (ROUTE A – AMTRAK-BNSF-IAIS)

The Amtrak feasibility study indicated that the Route A Alternative (Chicago to Wyanet to Quad Cities to Iowa City) would be the preferred alternative because of existing Amtrak service on the portion of this line from Chicago to Wyanet and lower capital improvement requirements than Alternative Route B. The Preferred Alternative consists of using the tracks of three rail carriers: Amtrak (0.8 miles), BNSF (110.1 miles), and IAIS (107.4 miles) to provide passenger rail service between Chicago and Iowa City, Iowa. The Project would provide two-round trip passenger trains per day travelling at speeds of up to 79 mph. The Chicago to Wyanet route segment is currently utilized by Amtrak as part of the California Zephyr and Southwest Chief passenger service routes. The maximum speed for passenger rail service on the Chicago to Wyanet route segment is currently 79 mph. The Project would expand existing passenger rail service between Chicago, Illinois and Wyanet, Illinois, and introduce passenger rail service between Wyanet, Illinois and Iowa City, Iowa, where there is currently no passenger rail service provided.

The Project would include track upgrade, construction of a connection track, installation of a wayside signal system and remote control switches, and provision of station facilities at Geneseo, the Quad Cities and Iowa City.

2.3 ROUTE B ALTERNATIVE (AMTRAK-CN-METRA/ROCK ISLAND DISTRICT-CSXT-IAIS)

The Route B Alternative consists of using the tracks of five rail carriers: Amtrak (0.8 miles), CN (1.4 miles), Metra/Rock Island District (38.5 miles), CSXT (54.3 miles), and IAIS (130.2 miles) to provide passenger rail service between Chicago and Iowa City, Iowa. The Project would provide two-round trip passenger trains per day travelling at speeds of up to 79 mph. There is currently no passenger rail service on any of the Route B Alternative track.

The Project would include track upgrade, installation of a wayside signal system and remote control switches, and provision of station facilities at the Geneseo, the Quad Cities and Iowa City. Station facilities are also proposed for Joliet, Morris, and La Salle. A connection track would not be required near Wyanet, as the existing IAIS track continues both east and west of Wyanet; however, more track would need to be upgraded than the Route A Alternative.

REFERENCES

Franke, M.W., R.P. Hoffman, and B.E. Hillblom. 2008a. Executive Summary: Feasibility Report on Proposed Amtrak Service, Quad Cities-Chicago.

Franke, M.W., R.P. Hoffman, and B.E. Hillblom. 2008b. Executive Summary: Feasibility Study on Proposed Amtrak Service from Chicago to Iowa City, Iowa, via Quad Cities (An addendum to December 5, 2007 Feasibility Report on Proposed Amtrak Service, Quad Cities-Chicago.

Transportation Economics & Management Systems, Inc. 2004a. Midwest Regional Rail Initiative Project Notebook

Transportation Economics & Management Systems, Inc. 2004b. Midwest Regional Rail System Executive Report.

Transportation Economics & Management Systems, Inc. 2006. Midwest Regional Rail Initiative Project Notebook – Chapter 11, Replacement for June 2004 version.

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10 5 0 10 20 Miles

Scale

Legend

- Existing AMTRAK Station
- Proposed AMTRAK Station
- Route A Alternative
- Route B Alternative
- Routes A & B Alternative

IAIS - Iowa Interstate Railroad
NIRC - Northeast Illinois Rail Corp.

Source: Feasibility Study on Proposed Amtrak Service
Quad Cities to Chicago - January 7, 2008
Chicago to Iowa City - April 18, 2008

HDR

Potential Intercity Passenger Rail Routes, Chicago to Quad Cities and Iowa City

Chicago to Iowa City Intercity Passenger Rail Service

DATE
August 2009

FIGURE
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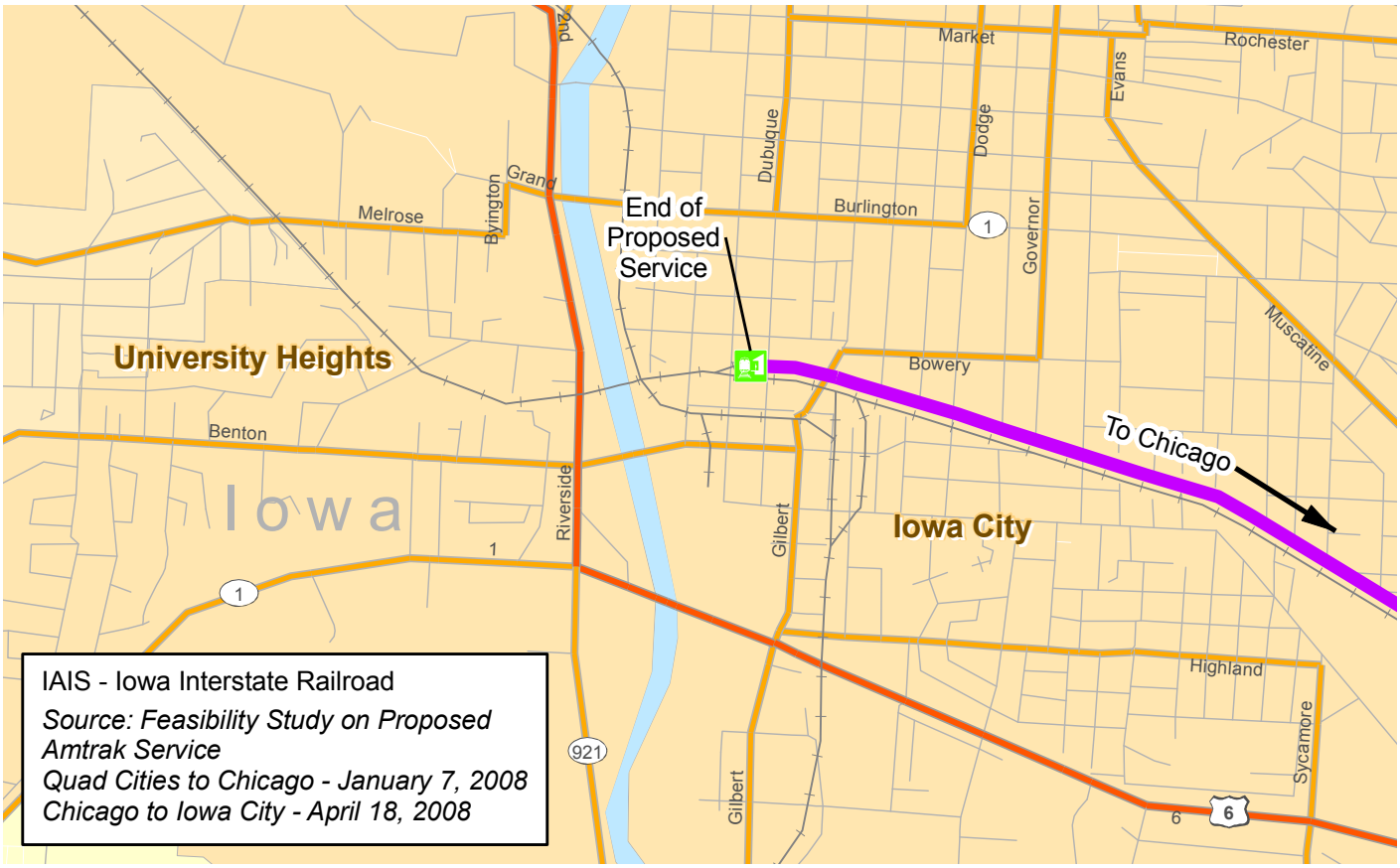

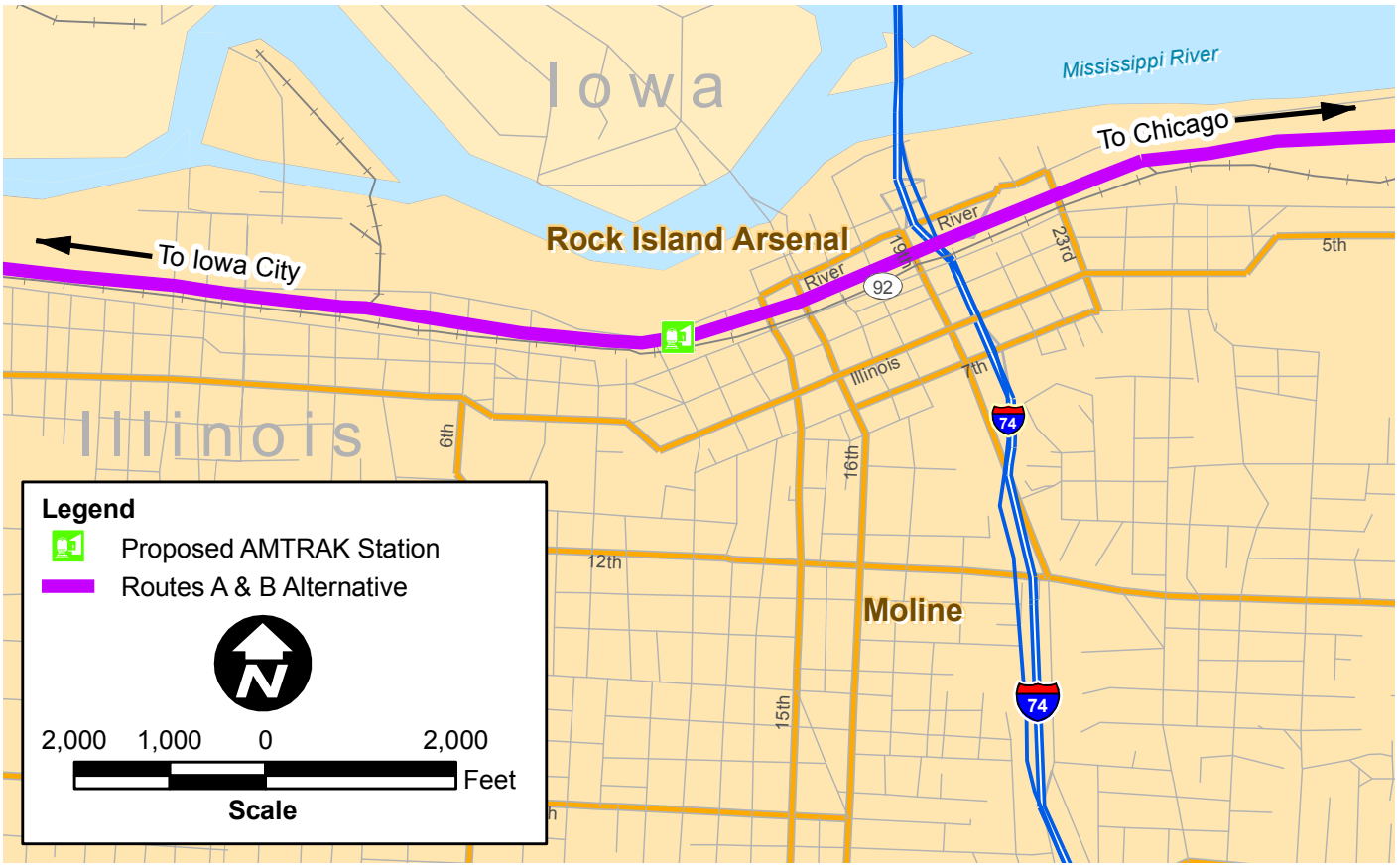

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HDR

Proposed Station Locations

Chicago to Iowa City Intercity Passenger Rail Service

DATE
August 2009

FIGURE
2

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Iowa Agency Coordination Distribution List

Name	JobTitle	Agency	Address1	Address2	City	State	PostalCode	Phone	Fax
Mr. Mark Schenkelburg	Environmental Specialist	Federal Aviation Administration	901 Locust Street	Airports Division, ACE-615B	Kansas City	MO	64106		
Mr. Dick Hainje	Regional Director	Federal Emergency Management Agency	9221 Ward Parkway	Suite 300	Kansas City	MO	64114-3372		
Lubin Quinones	Iowa Division Administrator	Federal Highway Administration	105 6th Street		Ames	IA	50010	(515)-233-7300	
Mr. Darrell Tisor	Regional Administrator	Federal Railroad Administration	901 Locust Street	Suite 464	Kansas City	MO	64106	(816)329-3840	
Ms. Joan Roeseler		Federal Transit Administration	901 Locust Street	Suite 404	Kansas City	MO	64106	(816)329-3920	
Ms. Christine Spackman**	Environmental Services Division	Iowa Department of Natural Resources	502 East 9th Street		Des Moines	IA	50319		
Ms. Kathleen Moench	Section 6(f) Funds Coordinator	Iowa Department of Natural Resources	502 East 9th Street		Des Moines	IA	50319		
Nick Chevance	Environmental Coordinator Planning and Compliance Office	National Park Service	601 Riverfront Drive		Omaha	NE	68102-4226	(402)221-7285	
Ms. Barbara Mitchell	Deputy SHPO	State Historical Society of Iowa	Department of Cultural Affairs	600 East Locust	Des Moines	IA	50319		
District Engineer***		U.S. Army Corps of Engineers	Clock Tower Building		Rock Island	IL	61201		
District Engineer		U.S. Army Corps of Engineers	190th 5th Street East		St. Paul	MN	55101-1638		
Kayla Echert-Uptmor	Omaha District Planning Division	U.S. Army Corps of Engineers	Attention: CENWO-PM-A	1616 Capital Ave.	Omaha	NE	68102-4901		
Ms. Martha Chieply	Omaha District Regulatory Division	U.S. Army Corps of Engineers	ATtention: CENWO-OD-R	12565 W Center Road	Omaha	NE	68144-3869		
Roger Wiebusch	Commander (OBR)	U.S. Coast Guard	1222 Spruce Street		St. Louis	MO	63103		
Mr. Richard Sims	State Conservationist	U.S. Department of Agriculture	Natural Resource Conservation Service	210 Walnut Street	Des Moines	IA	50309		
Mr. James P. Ryan	Supervisory Project Manager	U.S. Department of Housing and Urban Development	210 Walnut	Room 239	Des Moines	IA	50309-4015	(515)284-4015	
Mr. Andrew Boeddeker*	HUD Regional Office	U.S. Department of Housing and Urban Development	400 State Avenue	Gateway Tower II	Kansas City	KS	66101-2406	(913)551-5582	
Mr. Robert F. Stewart	Office of Environmental Policy & Compliance	U.S. Department of Interior	P.O. Box 25007 (D-108)	Denver Federal Center	Denver	CO	80225-0007	(303)445-2500	(303)445-6320
Willie R. Taylor	Director, Office of Environmental Policy and Compliance	U.S. Department of Interior	Main Interior Building, MS 2340	1849 C Street NW	Washington	DC	20440		
Mr. Joe Cothern	National Environmental Policy Act Team	U.S. Environmental Protection Agency	901 North 5th Street		Kansas City	KS	66101		
Mr. Richard C. Nelson	Field Supervisor	U.S. Fish and Wildlife Service	1511 47th Avenue		Moline	IL	61265		
Mr. Steve Anschutz		U.S. Fish and Wildlife Service	203 W 2nd St		Grand Island	NE	68801		

*HUD is contacted at the regional office to determine if there are housing projects in the area that have HUD funding. The KS contact will provide information on Public Housing and the Des Moines contact will provide information on the Multi-family Housing projects. The Iowa Department of Economic Development or the larger municipalities could be contacted for information on Community Block Grant projects.

** Need to submit 5 copies for distribution related to wetlands, water quality, air quality, regulated materials, and floodplains.

***For written correspondence send to district engineer; in Rock Island District - for email/phone correspondence contact Neal Johnson or assigned project contact.

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Illinois Department of Transportation
2300 South Dirksen Parkway / Springfield, Illinois / 62764

August 19, 2009

Ms. Janet M. Odeshoo
Deputy Regional Administrator
Federal Emergency Management Agency, Region V
536 South Clark St., 6th Floor
Chicago, IL 60605

Dear Ms. Odeshoo:

The Illinois Department of Transportation (IDOT), in cooperation with the Federal Railroad Administration (FRA) and Iowa Department of Transportation (Iowa DOT), is initiating the information gathering phase of the Environmental Assessment (EA) for the proposed improvements included in Chicago to Iowa City Intercity Passenger Rail Service Project. Because the project may affect your area of expertise, your facilities, or your activities or programs, we are seeking your comments on this project.

This project, which is part of the Midwest Regional Rail Initiative, proposes to add passenger rail service between Chicago, Illinois and Iowa City, Iowa. The project would expand passenger rail service between Chicago, Illinois and Wyanet, Illinois, and introduce passenger rail service between Wyanet, Illinois and Iowa City, Iowa. It would include two-round trip passenger trains per day travelling at speeds up to 79 miles per hour (mph) and does not include "high-speed" (110 mph) passenger service.

The proposed passenger rail service would cross the Mississippi River from Moline, Illinois to Davenport, Iowa on the Arsenal Bridge. This bridge is owned by the U.S. Army Corps of Engineers. Work on this bridge, if any, would be limited to track and/or tie replacement. Two alternatives have been identified between Chicago, Illinois and Wyanet, Illinois, but only one rail line exists that connects Wyanet, Illinois to Iowa City, Iowa. These alternatives are shown in the attached figure.

In Illinois, the project would consist of replacement of about Four (4) miles of jointed rail with continuous welded rail (CWR). Track upgrades would also be done, which would consist of track resurfacing, tie replacement, and ballast compacting. All of this work would be done from the rail. Some work would be done outside of the rail, and would include minor ditching, bridge and culvert work. In some areas, shoulder work would be done to support higher speeds through a curve.

The work would also include construction of a new connection between the Burlington Northern Santa Fe (BNSF) and Iowa Interstate Railroad (IAIS) tracks about One (1) mile southwest of Wyanet. Presently, there is no connection between these tracks, and the new connection would be needed to allow passenger rail traffic to move efficiently from the IAIS track to the BNSF track. About Seven (7) acres of new right-of-way would be required to make this connection. Please note that should Illinois DOT and FRA select the BNSF corridor as the preferred route, the Wyanet connection will be the subject of a separate Tier 2 NEPA evaluation.

The comments and material you supply will be used to determine if the proposed improvements may have impacts that warrant further consideration and are consistent with future long-term development plans within the study corridor. Your comments will be incorporated into the environmental planning process and Environmental Assessment document as appropriate. We ask that you provide your agency's comments to us no later than September 4, 2009.

The Tier 1 EA is identified by FRA as an essential first step in the development of an intercity passenger rail corridor. The focus of the Tier 1 EA will be on establishing purpose and need, estimating ridership, selecting the preferred route, identifying the station stops, specifying the service levels, defining the type of operations, and identifying the logical next phases. The specific construction activities would be evaluated in subsequent Tier 2 NEPA documents.

This Tier 1 EA is needed to complete a Track 2 application for a High-Speed Intercity Rail Program (HSIRP) grant. On April 16, 2009, President Obama, together with Vice President Biden and Secretary of Transportation LaHood, announced a new vision for developing high-speed rail in America. They called for a collaborative effort among the Federal Government, States, railroads, and other key stakeholders to help transform America's transportation system through a national network of high-speed rail corridors. This notice builds on this "Vision for High-Speed Rail" (available on FRA's Web site) by detailing the application requirements and procedures for obtaining funding for high-speed and intercity passenger rail projects under the American Recovery and Reinvestment Act of 2009 (ARRA) and the Department of Transportation Appropriations Acts of 2008 and 2009 (FY 2008/2009 DOT Appropriations Acts), while laying the foundation for a longer-term program to establish a network of high-speed rail corridors.

The enclosed information should help you understand the nature of the project and location of the proposed railway improvement. Because this effort is part of an ARRA grant application, we are operating under an accelerated schedule and would appreciate a response by September 4, 2009.

If you have any questions about the project, please contact Ms. Barbara Stevens at (217) 785-4245, or by email at Barbara.Stevens@Illinois.gov.

The Illinois Department of Transportation thanks you in advance for your prompt review and response to our request for comments.

Sincerely,

Barbara H. Stevens

Barbara H. Stevens
Environment Section Chief

Enclosures:
Project Description
Map of Project Limits

cc: Janet Vine – Iowa Department of Transportation
Will Sharp – HDR Engineering Inc.

PURPOSE AND NEED

Nine Midwest states, under the Midwest Regional Rail Initiative (MWRRI) have been actively developing an improved and expanded passenger rail system in the Midwest. As a result of the MWRRI and the national high-speed rail initiative, numerous corridors were identified with Chicago, Illinois as the hub.

Between 1996 and 2004, the MWRRI in the Midwest was refined from a series of individual corridors into a transportation plan known as the Midwest Regional Rail System . Numerous studies were completed for bus service integration into the system; financial, economic, market and transportation analysis; infrastructure and capital costs, operating costs; and institutional and organizational issues. These efforts culminated in 2004 when the MWRRI issued the *Midwest Regional Rail System Executive Report* (Transportation Economics & Management Systems, Inc. 2004b) and the *MWRRI Project Notebook* (Transportation Economics & Management Systems, Inc. 2004a).

With full implementation of the MWRRI (estimated 2025), it would encompass approximately 3,000 route miles in the sponsor states; provide approximately 90 percent of the Midwest region's population within an hour's ride of a rail station and/or 30 minutes of a feeder bus station; and attract approximately 13.6 million passengers (Transportation Economics & Management Systems, Inc. 2004b). Since 2004 work has progressed on the various corridors. In 2006, Chapter 11, Benefit Cost and Economic Analysis, of the *MWRRI Project Notebook* was updated (Transportation Economics & Management Systems 2006).

The Chicago to Iowa City Intercity Passenger Rail Service Project is one part of the vision established by the MWRRI to expand existing and develop new regional passenger rail service to help meet future travel demands in the Midwest. The Project would expand and create a rail transportation alternative to automobile, bus, and air by:

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

Many communities between Chicago and Iowa City have experienced rapid growth since 2000 and have seen increased congestion on roadways (Franke et. al 2008a and Franke et. al 2008b). There is a need to reduce this congestion and the effects of further population growth over the long term.

In addition, the University of Iowa and nationally recognized hospitals are located in Iowa City, Iowa and approximately 20 percent of the University of Iowa student body, approximately 30,000 students, is from Illinois. The Quad Cities area offers numerous tourist attractions including the Mississippi River, river boating, riverboat casinos, the Rock Island Arsenal as well as museums and other cultural attractions (Franke et. al 2008b). Approximately 60 percent of the visitors to the Quad Cities are from the Chicago

area (Franke et. al 2008a). The passenger rail service will fulfill a need for a transportation alternative to and from these areas while relieving congestion on existing infrastructure.

ALTERNATIVES

Four alternatives were considered: the No-Build Alternative, Route A (Amtrak-BNSF-IAIS), Route B (Amtrak -CN- Metra/Rock Island-CSXT-IAIS), and an alternative route through Chicago to New Lenox to Metra/Rock Island. An alternative route from Chicagothrough New Lenox that would require taking public park land was dismissed from further consideration; the No-Build, Route A, and Route B alternatives were retained for detailed study.

2.1 NO-BUILD ALTERNATIVE

The No-build Alternative would consist of operating the current track, with the present level of maintenance and no appreciable change to the current track configuration or operating conditions. The No-build Alternative would not meet the purpose and need of the project because it would not result in practical, attractive passenger service schedules. Travel times would not decrease, frequency of service would not increase, reliability of service would not improve, and amenities to improve passenger ride quality and comfort would not improve. Passenger rail service would not provide an attractive alternative to highway or air line travel, and congestion of these modes of transportation in the Chicago to Quad Cities and Iowa City area would continue.

The No-build Alternative was retained for detailed analysis to allow equal comparison to the Route A and Route B alternatives, and to help decision-makers and the public understand the consequences of taking no action.

2.2 PREFERRED ALTERNATIVE (ROUTE A – AMTRAK-BNSF-IAIS)

The Amtrak feasibility study indicated that the Route A Alternative (Chicago to Wyanet to Quad Cities to Iowa City) would be the preferred alternative because of existing Amtrak service on the portion of this line from Chicago to Wyanet and lower capital improvement requirements than Alternative Route B. The Preferred Alternative consists of using the tracks of three rail carriers: Amtrak (0.8 miles), BNSF (110.1 miles), and IAIS (107.4 miles) to provide passenger rail service between Chicago and Iowa City, Iowa. The Project would provide two-round trip passenger trains per day travelling at speeds of up to 79 mph. The Chicago to Wyanet route segment is currently utilized by Amtrak as part of the California Zephyr and Southwest Chief passenger service routes. The maximum speed for passenger rail service on the Chicago to Wyanet route segment is currently 79 mph. The Project would expand existing passenger rail service between Chicago, Illinois and Wyanet, Illinois, and introduce passenger rail service between Wyanet, Illinois and Iowa City, Iowa, where there is currently no passenger rail service provided.

The Project would include track upgrade, construction of a connection track, installation of a wayside signal system and remote control switches, and provision of station facilities at Geneseo, the Quad Cities and Iowa City.

2.3 ROUTE B ALTERNATIVE (AMTRAK-CN-METRA/ROCK ISLAND DISTRICT-CSXT-IAIS)

The Route B Alternative consists of using the tracks of five rail carriers: Amtrak (0.8 miles), CN (1.4 miles), Metra/Rock Island District (38.5 miles), CSXT (54.3 miles), and IAIS (130.2 miles) to provide passenger rail service between Chicago and Iowa City, Iowa. The Project would provide two-round trip passenger trains per day travelling at speeds of up to 79 mph. There is currently no passenger rail service on any of the Route B Alternative track.

The Project would include track upgrade, installation of a wayside signal system and remote control switches, and provision of station facilities at the Geneseo, the Quad Cities and Iowa City. Station facilities are also proposed for Joliet, Morris, and La Salle. A connection track would not be required near Wyanet, as the existing IAIS track continues both east and west of Wyanet; however, more track would need to be upgraded than the Route A Alternative.

REFERENCES

Franke, M.W., R.P. Hoffman, and B.E. Hillblom. 2008a. Executive Summary: Feasibility Report on Proposed Amtrak Service, Quad Cities-Chicago.

Franke, M.W., R.P. Hoffman, and B.E. Hillblom. 2008b. Executive Summary: Feasibility Study on Proposed Amtrak Service from Chicago to Iowa City, Iowa, via Quad Cities (An addendum to December 5, 2007 Feasibility Report on Proposed Amtrak Service, Quad Cities-Chicago.

Transportation Economics & Management Systems, Inc. 2004a. Midwest Regional Rail Initiative Project Notebook

Transportation Economics & Management Systems, Inc. 2004b. Midwest Regional Rail System Executive Report.

Transportation Economics & Management Systems, Inc. 2006. Midwest Regional Rail Initiative Project Notebook – Chapter 11, Replacement for June 2004 version.

Legend

- Existing AMTRAK Station
- Proposed AMTRAK Station
- Route A Alternative
- Route B Alternative
- Routes A & B Alternative

10 5 0 10 20 Miles

Scale

IAIS - Iowa Interstate Railroad
NIRC - Northeast Illinois Rail Corp.

Source: Feasibility Study on Proposed Amtrak Service
Quad Cities to Chicago - January 7, 2008
Chicago to Iowa City - April 18, 2008

HDR

Potential Intercity Passenger Rail Routes, Chicago to Quad Cities and Iowa City

Chicago to Iowa City Intercity Passenger Rail Service

DATE
August 2009

FIGURE
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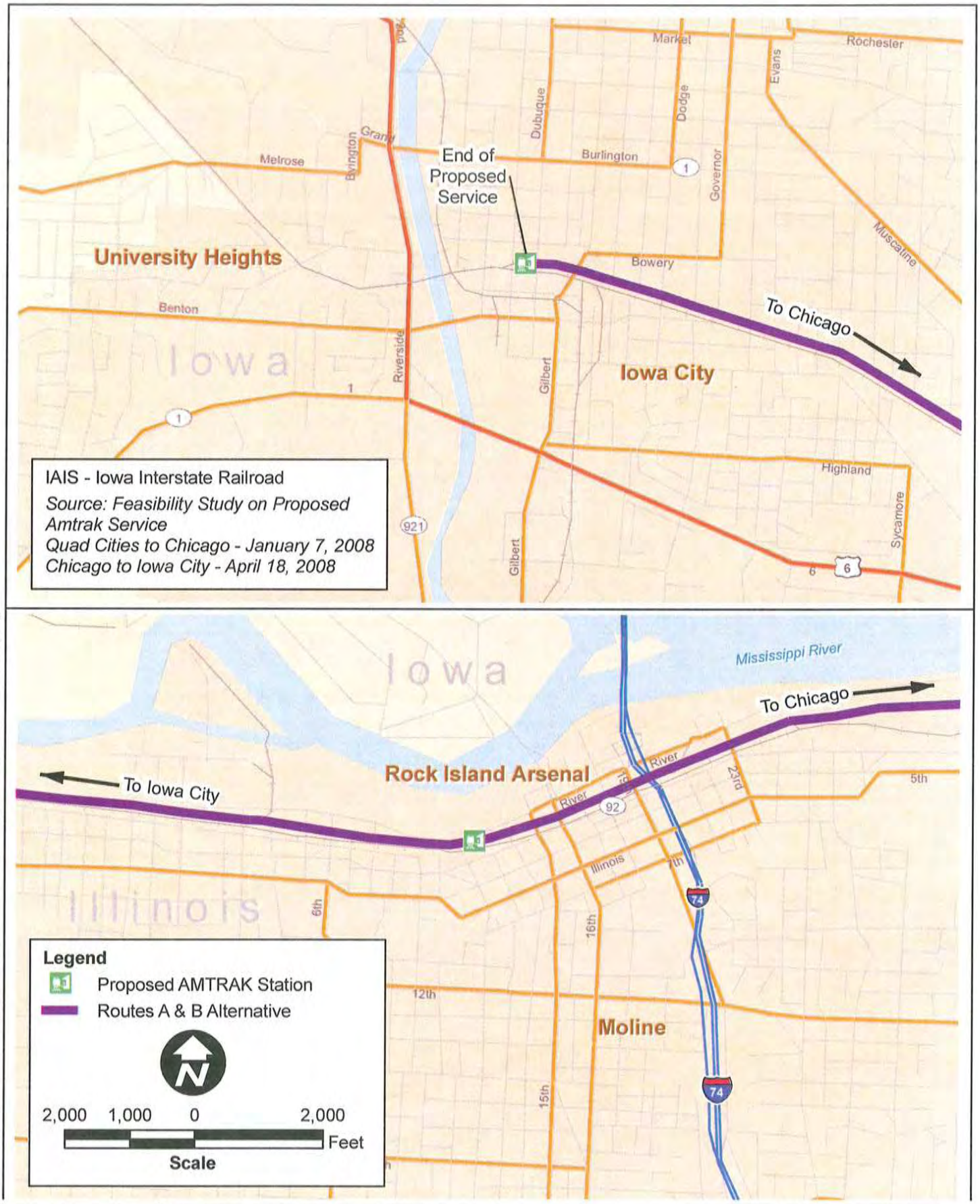

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HDR

Proposed Station Locations

Chicago to Iowa City Intercity Passenger Rail Service

DATE
August 2009

FIGURE
2

Illinois Agency Coordination Distribution List

Name	JobTitle	Agency	Address1	Address2	City	State	PostalCode
		Federal Aviation Administration					
Ms. Janet M. Odeshoo	Deputy Regional Administrator	Federal Emergency Management Agency, Region V	536 South Clark St., 6th Floor		Chicago	IL	60605
Mr. Norman Stoner	Illinois Division Administrator	Federal Highway Administration	3250 Executive Park Drive		Springfield	IL	62703
Marisol R. Simon	Regional Administrator	Federal Transit Administration, Region V	200 West Adam Street, Suite 320		Chicago	IL	60606
Ms. Maggie Cole		Illinois Department of Natural Resources	2050 W. Stearns Road		Bartlett	IL	60103
Mr. Steve Hamer		Illinois Department of Natural Resources	One Natural Resources Way		Springfield	IL	62702
Nick Chevance	Environmental Coordinator Planning and Compliance Office	National Park Service	601 Riverfront Drive		Omaha	NE	68102-4226
Ms. Anne Haaker	Deputy State Historical Preservat	State Historical Society of Illinois	#1 Old State Capital Plaza		Springfield	IL	62701-1507
Mr. Ron Abrant		U.S. Army Corps of Engineers	Chicago District	111 North Canal Street, 6th Floor	Chicago	IL	60606-7206
Donna Jones		U.S. Army Corps of Engineers	Rock Island District- Regulatory Br	Clock Tower Bldg, P O Box 2004	Rock Island	IL	61201
Wayne Hannel		U.S. Army Corps of Engineers	Rock Island District- Regulatory Br	Clock Tower Bldg, P O Box 2004	Rock Island	IL	61204
Roger Wiebusch		U.S. Coast Guard, Bridge Office	Eight Coast Guard District	1222 Spruce Street Suite 2. 107F	St. Louis	MO	63103-2832
Rear Admiral Peter V. Neffenger	Commander	U.S. Coast Guard	Ninth Coast Guard District	1240 East 9th Street	Cleveland	OH	44199-2060
Mr. William Gradle	State Conservationist	U.S. Department of Agriculture	2118 W. Park Court		Champaign	IL	61821
Ms. Beverly Bishop	Deputy Regional Director	U.S. Department of Housing and Urban Dev	Office of Regional Director, Ralph	77 West Jackson Boulevard	Chicago	IL	60604-3507
Willie R. Taylor	Director, Office of Environmental Policy and Compliance	U.S. Department of Interior	Main Interior Building, MS 2340	1849 C Street NW	Washington	DC	20440
Mr. Douglas P. Scott	Director	Illinois Environmental Protection Agency	P.O. Box 19276		Springfield	IL	62794-9276
Mr. Ken Westlake	National Environmental Policy Act Team	U.S. Environmental Protection Agency, Reg	77 West Jackson Blvd.		Chicago	IL	60604
Shawn Cirton		U.S. Fish and Wildlife Service	Chicago Field Office	1250 S. Grove Ste. 103	Barrington	IL	60010
Terry Savka		Illinois Deparment of Agriculture	Bureau of Land and Water Resourc	State Fairgrounds, P.O. Box 19281	Springfield	IL	62794-9281

Yellow highlighting indicates agencies contacted by both Iowa and Illinois DOTs

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AGENCY CORRESPONDENCE

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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 5
77 WEST JACKSON BOULEVARD
CHICAGO, IL 60604-3590

SEP 2 2 2009

REPLY TO THE ATTENTION OF:

E-19J

Barbara Stevens
Environment Section Chief
Illinois Department of Transportation
2300 South Dirksen Parkway
Springfield, Illinois 62764

RE: Scoping Comments on the proposed Chicago to Iowa City Intercity Passenger Rail Service Project

Dear Ms. Stevens:

In accordance with our responsibilities under the National Environmental Policy Act (NEPA) and Section 309 of the Clean Air Act, and in anticipation of reviewing future NEPA documentation for the Chicago to Iowa City Intercity Passenger Rail Service Project, U.S. Environmental Protection Agency (EPA) has reviewed the information provided on August 19, and September 17, 2009, regarding this project.

The President's "Vision for High Speed Rail" (HSR) calls for applications from states to develop a new generation of rail service for our country. This proposal by the Illinois Department of Transportation (IDOT) and Iowa Department of Transportation (Iowa DOT) is presented as a Track 2 project according to the Federal Railroad Administration (FRA) protocols published at 74 FR 29900. No previous NEPA documentation has been developed for this corridor. The current NEPA documentation is comparable to the first level in a tiered NEPA process, having a broad scope of large or general considerations for possible impacts. More site-specific details are to be addressed in a future second level analysis.

This proposal is for a current maximum speed operation, 79 miles per hour maximum, starting in downtown Iowa City just east of the Iowa River, passing through the Quad Cities crossing the Mississippi River and ending at the Union Station in Chicago. Two alternative routes are being considered for the segment from Wyanet, Illinois to Union Station in downtown Chicago. These alternative routes would be along existing rail right-of-way, but one alternative would require constructing a connection between the existing Iowa Interstate Railroad (IAIS) and the existing Burlington Northern Santa Fe Railroad (BNSF) lines. When the final route is determined, it is expected to provide a single-track line of service from Iowa City, Iowa, to Wyanet, Illinois and varied trackage into Chicago. The BNSF route is currently utilized by Amtrak for other route services and would require little modification except for constructing the connection to the IAIS at Wyanet. The other alternative from Wyanet to Chicago would run on Chessie Southern Express (CSX) track which directly connects to the IAIS in Wyanet, then on Metra-Rock Island service track to existing Canadian National Railway Company track, and

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finally Amtrak into the station. This alternative would require more extensive track upgrades and associated work. It would also provide Amtrak service along a corridor currently not served by intercity passenger rail.

EPA reviewed the materials provided and offers the following comments consistent with the issues NEPA addresses, which are a project's Purpose and Need, Alternatives, Environmental Impacts, and Mitigation of Unavoidable Impacts.

PURPOSE AND NEED

The Purpose and Need for this HSR project is comparable to and consistent with goals of the FRA funding program for a Track 2 program seeking to establish a passenger service corridor that may eventually upgrade to HSR service.

ALTERNATIVES

Typical of these HSR proposals, the rights of way are predominantly existing rail corridors with some modifications that may incorporate abandoned or out-of-service tracks. Any new railway for needed connections, to avoid certain impacts, and for new station sites should be located and planned so as to have minimal impacts. Except for certain concerns noted below under "Environmental Impacts," the station-specific sites, alternative rail corridors and significant river crossing constructions will be the subject of second tier level NEPA documentation.

ENVIRONMENTAL IMPACTS

Generally, impacts are anticipated to be minimal because the work will be in previously disturbed railroad rights of way. However, all impacts to the human and natural environment need to be considered for this level one NEPA document to determine if further analysis is warranted. We discuss here only certain topics that we anticipate warrant possible analysis. Specific project aspects or alternatives may call for analysis of additional issues to determine whether significant impacts are likely to result from the project's implementation.

AIR QUALITY AND AIR TOXICS

One of the public benefits of rail service is lower emissions. NEPA documentation should discuss air quality non-attainment and maintenance areas where construction, operations and maintenance facility emissions are included in state conformity budgets. Outside such areas, it is appropriate to specify the best management practices (BMP) that will be followed to reduce emissions, particularly of diesel-related air toxics. If railbed and ballast will be disturbed, the potential for dust aeration of possible hazardous or toxic materials should be indicated and specific BMP proposed. Please provide modeling estimates for the emissions savings this proposal will provide, such as annual trips in the horizon year that have moved from auto, airplane and other modes. Higher speed efficiencies and new fuel technologies for trains could

also result in air quality benefits, including reductions in greenhouse gases and the region's contributions to global climate change.

WATER QUALITY, SURFACE WATERS, AND WETLANDS

Water quality will mostly be considered during construction of the HSR project, so BMP to reduce siltation and run-off impacts, particularly at hazardous spill locations, should be itemized. If right of way widening or track realignments are needed, please document efforts at reducing impacts to surface waters and wetlands by aligning the corridor so that impacts to these resources are avoided or minimized. The proposed connection in Wyanet and the Quad Cities Mississippi River crossing are proposed to function at the current 79 mph maximum speeds, but impacts from required modifications for higher speed operations should be considered in these alignments. In many locations, the existing rights of way run either immediately adjacent to or right through the middle of a surface water body or wetland. Please discuss how these sensitive locations will be protected from spills and derailments through rail design and maintenance practices.

ENVIRONMENTAL JUSTICE

The federal government is taking a further look at how projects it supports may impact environmental justice (EJ) populations. While public transportation such as this HSR project generally benefits these groups, the NEPA document should discuss station locations, rail yards, emergency service interruptions or delays, economic benefits or losses, and noise considerations in relation to environmental justice neighborhoods. We recommend applying the concept of disproportionate impact to EJ communities at a local scale.

INDIRECT AND CUMULATIVE IMPACTS

Shifting passenger trips to rail from other modes may have positive indirect impacts that should be presented in this NEPA document. These may include time and cost savings, resources spared, reduction of accidents and related health benefits. Cumulative impacts should likewise be enumerated. One area that should specifically be addressed in both contexts is impacts to other rail services, local commuter and freight rail.

NOISE

The NEPA document should discuss whether higher speed trains generate different noise impacts than current rail service, (e.g., frequency, duration, and intensity of anticipated noise impacts). These impacts would again be key to note for EJ communities.

HISTORIC, CULTURAL AND ARCHEOLOGICAL RESOURES

Perhaps the most prevalent impact to historic structures for these HSR projects will be the use of old train stations, but bridges may also need to be evaluated in these corridors. Early communication with the State Historic Preservation Offices in Illinois and Iowa, and with local historic groups would be prudent in deciding if and how to incorporate such landmarks or

potentially listed landmarks in the scheme of HSR. The level one NEPA documentation should address potential impacts to historic and archeological resources. Native American tribes with potential interest in the areas to be affected by the project should be contacted and their interest solicited.

THREATENED AND ENDANGERED SPECIES

The potential for impacts to Federal and State-listed threatened and endangered species should be documented. If there is a substantial increase in the daily number of trains passing through habitat areas, or if train speeds are substantially increased above the present speeds, then an analysis of potentials for individual takings should be addressed. Although there is not much information on this subject, current studies by the Illinois Natural History Survey may be helpful in considering this issue.

MITIGATION OF UNAVOIDABLE IMPACTS

A HSR proposal may have some rigid constraints due to existing rights of way and shared use. Impacts should be clearly discussed along with efforts to avoid or minimize those impacts. Mitigation of unavoidable impacts should be discussed in the level one NEPA document, with specific commitments and anticipated mitigation ratios as appropriate. Follow-up measures, such as adaptive management and long-term maintenance, should also be discussed.

PROJECT SPECIFIC IMPACTS

There may be specific impacts this project would have within the urban centers of Iowa City, the Quad Cities and Chicago, due to at-grade crossings, near-by schools and sensitive population centers or institutions, and freight and commuter train interactions. Please include a discussion of these concerns in the level one NEPA document.

Thank you for the opportunity to review the preliminary information for this project. We look forward to receiving the next level of detail information as this project proceeds. If you have any questions on our comments, please contact me or Norm West of my staff, by phone at (312) 353-5692 or by e-mail at: west.norman@epa.gov.

Sincerely,

Kenneth A. Westlake
Chief, NEPA Implementation Section
Office of Enforcement and Compliance Assurance

Fields of Opportunities

STATE OF IOWA

CHESTER J. CULVER, GOVERNOR
PATTY JUDGE, LT. GOVERNOR

DEPARTMENT OF NATURAL RESOURCES
RICHARD A. LEOPOLD, DIRECTOR

RECEIVED
SEP 21 2009
OFFICE OF LOCATION & ENVIRONMENT

September 17, 2009

Janet Vine
Iowa Department of Transportation
800 Lincoln Way
Ames, IA 50010

Dear Ms. Vine:

This letter is in response to the August 17th letter concerning the Chicago to Iowa City Rail project. After a cursory review by our program staff, we have the following comments. You are welcome to visit our offices and conduct a more thorough review of our records.

Water Quality

Any proposed placement of dredged or fill material into waters of the United States (including jurisdictional wetlands) requires Department of the Army authorization. When detailed plans are available, please complete and submit the enclosed application packet to the Rock Island District Corps of Engineers and Iowa Department of Natural Resources for processing (enclosure).

An electronic copy of the application form and instructions may be obtained on the Corps of Engineer's website: http://www.mvr.usace.army.mil. Click on "Obtain a Permit?" in the center of the first screen; then click on "Application Forms" in the left column on the second screen; and then "Iowa Fillable Form" and "Cover Letter" on the third screen.

We would ask that Best Management Practices be used to control erosion and protect water quality near the project. Every effort should be made to avoid impacting any water of the United States.

Contaminated Sites

The larger cities are likely to have several contaminated sites in addition to contamination that may be related to the railroad activities along the project area so we will wait to provide site specific information during the next stage of their environmental assessment. If you would like additional information, please contact Tami Rice at 515-281-4420 or by email at tami.rice@dnr.iowa.gov.

Underground Storage Tanks

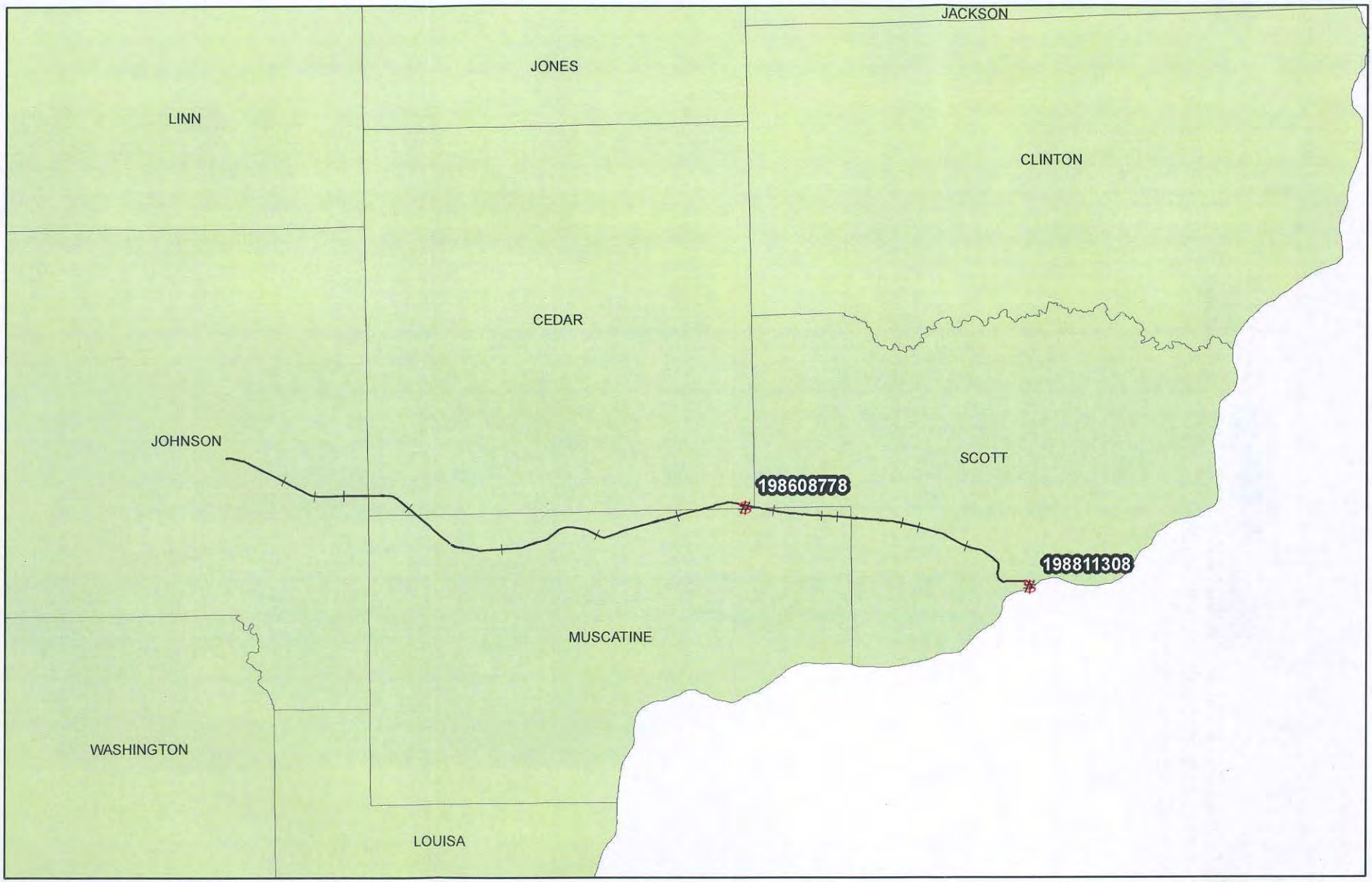
A search of tank sites within 200 ft of the project area turned up quite a few tank sites around this project, but most of the tank sites are closed. There were only two sites that were either active or temporarily closed which are shown on the attached map. A complete list of all the sites returned is also attached.

It is our policy that companies and their consultants conduct their own review for these sites. If you need advice for locating relevant information, please call me at (515)281-7276.

Sincerely,

Christine Spackman
Business Assistance Coordinator

Attachments



Chicago to Iowa City Intercity Passenger Rail Service Project

Active or Temporarily Closed UST Sites
Within 200 Feet of Project Area

0 5 10 Miles

Legend

- UST Sites
- Proposed Rail Service
- County

Registration	Status	Facility Name	Address	City	COUNTY	LONG	LAT
198608940	Regulated Tanks - Removed/Filled in Place	Twin-State Engineering & Chem Co	737 EAST LINCOLN	Walcott	Scott	-90.76568	41.58495
199517827	Regulated Tanks - Removed/Filled in Place	Jaguar Alley	429 E. 3RD STREET	Davenport	Scott	-90.56924	41.52234
198603145	Regulated Tanks - Removed/Filled in Place	Wilson Chevy Amc Jeep	510 5TH ST	Durant	Cedar	-90.91305	41.60087
198811308	Regulated Tanks - Temporarily Closed	Cigarette Oasis	402 E SECOND	Davenport	Scott	-90.56941	41.52156
198605431	Regulated Tanks - Removed/Filled in Place	Walcott Ford	140 E LINCOLN ST	Walcott	Scott	-90.77312	41.58546
198913706	Regulated Tanks - Removed/Filled in Place	Durant Tool & Fabricating Inc	404 5TH AVE	Durant	Cedar	-90.91454	41.60116
197910570	Regulated Tanks - Removed/Filled in Place	Former Wilson Chevy	409 FIFTH	Durant	Cedar	-90.91329	41.60091
198710456	Regulated Tanks - Removed/Filled in Place	Scott Cnty	416 W 4TH ST	Davenport	Scott	-90.57953	41.52407
198603748	Regulated Tanks - Removed/Filled in Place	West Liberty Oil Co	210 W 3RD ST	West Liberty	Muscatine	-91.26600	41.57082
198610015	Non-Regulated Hoist Oil Tanks - Active	Former Crop Mate Co	SW CORNER W RAILRO	Wilton	Muscatine	-91.02060	41.58731
198600010	Regulated Tanks - Removed/Filled in Place	Eastern Iowa Light & Pwr Coop	734 5th St	Wilton	Muscatine	-91.00756	41.58971
198608778	Regulated Tanks - Removed/Filled in Place	Knudsen Standard Svc Sta	601 5TH	Durant	Cedar	-90.91128	41.60057
198604870	Regulated Tanks - Removed/Filled in Place	City of West Liberty	106 W 2ND ST	West Liberty	Muscatine	-91.26376	41.56875
198602722	Regulated Tanks - Removed/Filled in Place	Wilton Municipal Light & Pwr	220 W 3RD ST	Wilton	Muscatine	-91.01933	41.58795
198608017	Regulated Tanks - Removed/Filled in Place	Firestone Real Estate Bk-62	301 E THIRD ST	Davenport	Scott	-90.56997	41.52219
198811424	Regulated Tanks - Removed/Filled in Place	Not Known	209 LIBERTY ST	Wilton	Muscatine	-91.02381	41.58647
198916273	Regulated Tanks - Removed/Filled in Place	Trede Elec	713 4TH STREET	Durant	Cedar	-90.91003	41.59927
198601536	Regulated Tanks - Removed/Filled in Place	Durant Municipal Elec Plant	601 4TH ST	Durant	Cedar	-90.91201	41.59989
199517792	Regulated Tanks - Removed/Filled in Place	Durant Fndry	1202 4TH STREET	Durant	Cedar	-90.90275	41.59837
198602696	Regulated Tanks - Removed/Filled in Place	Not Known	128 WEST LINCOLN	Walcott	Scott	-90.77535	41.58596
198602917	Regulated Tanks - Removed/Filled in Place	Not Known	1208 4TH ST	Durant	Cedar	-90.90223	41.59830
198916364	Regulated Tanks - Removed/Filled in Place	Farmers Grain & Lbr Co	RTE 2 "SUNBURG"	Durant	Cedar	-90.90707	41.59991

U.S. Department of Homeland Security

United States Coast Guard

Commander
Eighth Coast Guard District

1222 Spruce Street
St. Louis, MO 63103-2832
Staff Symbol: (dwb)
Phone: 314-269-2381
Fax: 314-269-2737
Email:david.h.studt@uscg.mil

16591.1/482.9 UMR
September 4, 2009

Ms. Barbara Stevens
Environment Section Chief
Illinois Department of Transportation
2300 South Dirksen Parkway
Springfield, IL 62764

Subj: PROPOSED CHICAGO–IOWA CITY INTERCITY PASSENGER RAIL SERVICE, MILE 482.91, UPPER MISSISSIPPI RIVER

Dear Ms. Stevens:

Please refer to your letter of August 19, 2009. The Eighth District Coast Guard Bridge Branch has jurisdiction over navigable waterways in the project area.

Route A does not appear to cross any river until it reaches the Mississippi River. However Route B appears to cross the Illinois Waterway at several locations, but they were not identified in your letter. Please review and advise this office of the proposed crossings of the Illinois River. Both proposed routes will cross the Mississippi River on the Rock Island Railroad and Highway Drawbridge at mile 482.9. This drawbridge also crosses Lock 15. The drawbridge is required to open on demand for vessels which requires an approaching train to stop. The impact of drawbridge operations should be included in the environmental assessment for this project. If the other crossings on the Illinois River require drawbridges they will need to be addressed as well.

This response is intended for both Illinois and Iowa DOTs. Please direct any questions to Mr. David Studt at the above number.

Sincerely,

ROGER K. WIEBUSCH
Bridge Administrator
By direction of the District Commander

Copy: Ms. Janet Vine, IADOT, Ames, IA

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ILLINOIS ENVIRONMENTAL PROTECTION AGENCY

1021 North Grand Avenue East, P.O. Box 19276, Springfield, Illinois 62794-9276 • (217) 782-2829
James R. Thompson Center, 100 West Randolph, Suite 11-300, Chicago, IL 60601 • (312) 814-6026

PAT QUINN, GOVERNOR DOUGLAS P. SCOTT, DIRECTOR

217-782-0547

September 3, 2009

Ms. Barbara H. Stevens
Environment Section Chief
ILL Dept. of Transportation
2300 South Dirksen Parkway
Springfield, Illinois 62764

Dear Ms. Stevens:

RE: Passenger Rail Service Project between Chicago and Iowa City

Thank you for the opportunity to review the proposed Environmental Assessment for the Passenger Rail Service Project between Chicago and Iowa City, Iowa.

The Agency has no objections to the project; however a permit may be required from the Division of Water Pollution Control. If more than once acre is disturbed during construction, a construction site activity stormwater NPDES permit will also be required from the Division of Water Pollution Control. For concerns, you may contact Al Keller, 217-782-0610.

Solid and hazardous waste must be properly disposed of or recycled.

Sincerely,

Lisa Bonnett
Acting Deputy Director

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DEPARTMENT OF THE ARMY
ROCK ISLAND DISTRICT, CORPS OF ENGINEERS
CLOCK TOWER BUILDING – P.O. BOX 2004
ROCK ISLAND, ILLINOIS 61204-2004

REPLY TO
ATTENTION OF:

September 2, 2009

Planning, Programs, and
Project Management Division

SEE DISTRIBUTION LIST

I received your letters dated August 19, 2009, addressed to Ms Donna Jones and Mr. Wayne Hannel of our Regulatory Branch, concerning the proposed Chicago to Iowa City Intercity Passenger Rail Service Project traversing Illinois and into Iowa. Rock Island District Corps of Engineers staff reviewed the information you provided and have the following comments:

1. Your proposal does not involve Rock Island District administered land; therefore, no further Rock Island District real estate coordination is necessary. If the project proposes to use the rail line that crosses the Government Bridge, you will need to contact Mr. Jerry Sescher of the US Army Garrison- Rock Island Arsenal. You can reach him by calling 309/782-2550 or 782-2381. He may be reached by e-mail at: jerome.f.sechser@us.army.mil.

2. Any proposed placement of dredged or fill material into waters of the United States (including jurisdictional wetlands) requires Department of the Army authorization under Section 404 of the Clean Water Act. We require additional details of your project before we can make a final determination of permit requirements. When detailed plans are available, please complete and submit an application packet to the Rock Island District for processing. Application packets can be found on line at: http://www2.mvr.usace.army.mil/Regulatory/.

Any work located in Will and Cook County, Illinois, should be coordinated with the Chicago District Corps of Engineers Regulatory Branch. Mr. Mitch Isoe is the Chief and he may be reached by calling 312/846-5525.

3. The Responsible Federal Agency should coordinate with Ms. Anne Haaker the Illinois State Historic Preservation Officer, 1 Old State Capitol Plaza, Springfield, Illinois 62704 to determine impacts to historic properties in Illinois. They should also coordinate with Ms. June Strand, Iowa Historic Preservation Agency, ATTN: Review and Compliance Program, State Historical Society of Iowa, 600 East Locust, State Historic Building, Des Moines, Iowa 50319 to determine impacts to historic properties in Iowa.

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4. The Rock Island Field Office of the U.S. Fish and Wildlife Service should be contacted to determine if any federally-listed endangered species are being impacted and, if so, how to avoid or minimize impacts. The Rock Island (County) Field Office address is: 1511 - 47th Avenue, Moline, Illinois 61265. Mr. Rick Nelson is the Field Supervisor. You can reach him by calling 309/757-5800.

5. The Iowa Emergency Management Division should be contacted to determine if the proposed project may impact areas designated as floodway in Iowa. Mr. John Wagman is the Iowa State Hazard Mitigation Team Leader. His address is: 7105 NW 70th Ave., Camp Dodge-Bldg. W4, Johnston, Iowa 50131. You can reach him by calling 515/725-3231. You should also contact the Illinois Emergency Management Agency to determine if the proposed project may impact areas designated as floodway in Illinois. Mr. Ron Davis is the Illinois State Hazard Mitigation Officer. His address is: 1035 Outer Park, 1st Floor, Springfield, Illinois 62704. You can reach him by calling 217/782-8719.

6. If your proposal includes the building of a train station in downtown Moline, there appears to be many LUST (leaking underground storage tank) and SRP (site remediation program) cleanup sites within the vicinity of the proposed rail location. This would indicate that a Phase I and/or II environmental site assessment may be required depending on the selected location.

No other concerns surfaced during our review. Thank you for the opportunity to comment on your proposal. If you need more information, please call Mr. Randy Kraciun of our Economic and Environmental Analysis Branch, telephone 309/794-5174.

You may find additional information about the Corps' Rock Island District on our website at **http://www.mvr.usace.army.mil** . To find out about other Districts within the Corps, you may visit: **http://www.usace.army.mil/about/Pages/Locations.aspx**.

Sincerely,

Dorene A. Ballman

for: Kenneth A. Barr
Chief, Economic and Environmental
Analysis Branch

DISTRIBUTION LIST

Ms. Janet Vine
NEPA Document Manager
Iowa Department of Transportation
800 Lincoln Way
Ames, Iowa 50010

Ms. Barbara H. Stevens
Environmental Section Chief
Illinois Department of Transportation
2300 South Dirksen Parkway
Springfield, Illinois 62764

Stevens, Barbara H

From: West.Norman@epamail.epa.gov
Sent: Tuesday, September 01, 2009 10:12 AM
To: Stevens, Barbara H; will.sharp@hdrinc.com
Cc: Westlake.Kenneth@epamail.epa.gov
Subject: Chicago to Iowa City RR environmental scoping

Good morning,

I am a NEPA reviewer in the Upper Midwest Region 5 of the U.S.EPA. We received your request for scoping information regarding the proposed passenger rail service from Chicago, IL to Iowa City, IA. Although a tier 2 environmental document is planned for later details, this tier 1 review needs additional information to adequately assess the goals it intends to achieve, i.e specifically selecting the preferred alternative, identifying station stops, and identifying logical next steps. Because the preferred alternative is already named in the materials provided, it appears one of the key reasons for NEPA considerations is being ignored, the comparing of environmental impacts for each alternative.

May I request a proposal map for the connection between the BNSF Rail Company and the Iowa Interstate Railroad in Wyanet, IL. The description provided specifies seven acres would be impacted, so at least a corridor is apparently identified at this time. It would be helpful if the provided map includes resources which might be impacted by construction of this rail connection.

Thank you,
Norm West

312-353-5692

STATE OF ILLINOIS

ILLINOIS COMMERCE COMMISSION
TRANSPORTATION DIVISION / RAIL SAFETY SECTION

Michael E. Stead — *Rail Safety Program Administrator*

August 28, 2009

Ms. Barbara H. Stevens
Environment Section Chief
Bureau of Design and Environment
Illinois Department of Transportation
2300 S. Dirksen Parkway
Springfield, IL 62764

Dear Ms. Stevens:

This is in response to your letter dated August 19, 2009, with which you requested comments on the proposed project to provide Intercity Passenger Rail Service to the Quad Cities area where maximum train speeds will be increased up to 79 mph. Thank you for providing Illinois Commerce Commission (ICC) staff with an opportunity to provide comments on the proposed project. The ICC is committed to public safety and believes that the risk and severity of train/vehicle collisions and train derailments increases as train speeds and train volumes increase.

Our records indicate the Iowa Interstate Railroad, Ltd. (IAIS) operates freight trains with a maximum speed of 40 mph east of Colona, and 25 mph west of Colona, within the proposed corridor. The BNSF Railway Company (BNSF) also operates freight trains, and Amtrak operates passenger trains, through the proposed corridor with maximum passenger train speeds of 79 mph.

We recommend that all highway-rail grade crossings along the IAIS corridor be reviewed for potential safety improvements, including the elimination of redundant crossings. For existing IAIS grade crossings currently equipped with automatic flashing light signals and gates, we recommend upgrading the warning systems with constant warning time circuitry if not presently equipped. For existing IAIS grade crossings currently equipped with automatic flashing light signals only, we recommend those locations be upgraded with the addition of gates and constant warning time circuitry. For existing IAIS grade crossings currently equipped only with Crossbuck warning and YIELD signs, we recommend a diagnostic review be performed to determine if the crossings can be closed or if the installation of automatic flashing light signals and gates and constant warning time circuitry is warranted. The Commission's FY 2010-2014 Crossing Safety Improvement Program 5-Year Plan includes projects to install automatic warning devices (flashing light signals and gates; constant warning time circuitry) at four crossings in the IAIS corridor that are currently equipped with only Crossbucks and YIELD signs. The locations are noted below:

527 E. Capitol Avenue, Springfield, IL 62701
Telephone [217] 782-7660 Fax [217] 524-4637
www.icc.illinois.gov

- Broadway Street in Colona (AAR/DOT #606 978Y, railroad milepost 169.72)
- Hazelwood Rd. near Geneseo (AAR/DOT #606 970H, railroad milepost 161.76)
- 1650E near Geneseo (AAR/DOT #606 958B, railroad milepost 157.02)
- 1700E near Geneseo (AAR/DOT #606 957U, railroad milepost 156.52)

Along the BNSF corridor, we recommend a diagnostic review be performed at all crossings equipped only with Crossbuck warning and YIELD signs. A determination needs to be made whether the crossings should be closed, or if the installation of automatic flashing light signals and gates and constant warning time circuitry is warranted. Our records indicate that all other public grade crossings located along this segment of track are currently equipped with automatic flashing light signals and gates, designed to accommodate maximum train speeds of 79 mph.

In addition, our records show that pedestrian-rail and private highway-rail grade crossings currently exist on this corridor. We recommend that each of these crossings also be reviewed for possible safety improvements because of the increased train speeds and rail traffic.

Thank you again for the opportunity to comment on this proposed project. It is my understanding that these comments will be incorporated into the environmental planning process and Environmental Assessment document as appropriate. If you have any questions, or need additional information, please contact me at (217) 557-1285 or mstead@icc.illinois.gov.

Very truly yours,

Michael E. Stead
Rail Safety Program Administrator

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United States Department of Agriculture

NRCS
Natural Resources Conservation Service
210 Walnut Street, Room 693
Des Moines, IA 50309-2180

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OFFICE OF LOCATION & ENVIRONMENT

August 28, 2009

Ms. Janet Vine
NEPA Document Manager
Iowa Department of Transportation
800 Lincoln Way
Ames, IA 50010

Dear Ms. Vine:

Thank you for the opportunity to comment on the replacement of a total of 30 miles of jointed rail within the existing rail line corridor in Johnson, Cedar, Muscatine, and Scott Counties, Iowa. Please take into account any erosion which may occur in any work done within or outside the existing rail.

If we can be of any further assistance, feel free to contact me at 515-323-2223, or by email at john.myers@ia.usda.gov.

Sincerely,

John Myers
State Resource Conservationist

cc: David White, District Conservationist, NRCS, Fairfield, IA
Teresa Reed, District Conservationist, NRCS, Tipton, IA
Paul Viner, District Conservationist, NRCS, Davenport, IA

United States Department of Agriculture

NRCS

Natural Resources Conservation Service
2118 W. Park Court
Champaign, IL 61821-2986
(217) 353-6600
FAX 217-353-6678

www.il.nrcs.usda.gov

August 26, 2009

Ms. Barbara H. Stevens
Environment Section Chief
Illinois Department of Transportation
2300 South Dirksen Parkway
Springfield, IL 62764

Re: Tier 1 Environmental Assessment – Chicago to Iowa City Intercity Passenger Rail Service

Dear Ms. Stevens:

I have reviewed the proposed improvements relative to impacts to the effect of this action on any prime agricultural land.

In Illinois, the proposed improvements would consist of replacement of approximately 4 miles of jointed rail, ballast compacting, tract resurfacing and tie replacement. Most of this work would be done from the rail. Some work, such as minor ditching, bridge, and culvert work, would be done outside of the rail.

Also, the focus of the Tier 1 Environmental Assessment (EA) will be on establishing purpose and need for the project. Any specific construction activities would be evaluated in a Tier 2 assessment.

I would expect this project to have no significant impacts on prime agricultural lands in Illinois.

Thank you for the opportunity to comment.

Sincerely,

ACTING FOR
WILLIAM J. GRADLE
State Conservationist

cc:
Robert L. McLeese, State Soil Scientist, USDA-NRCS, Champaign, Illinois

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OFFICE OF LOCATION & ENVIRONMENT

U.S. Department
Of Transportation

**Federal Aviation
Administration**

Central Region
Iowa, Kansas
Missouri, Nebraska

901 Locust
Kansas City, Missouri 64106-2325

August 25, 2009

Ms. Janet Vine
Iowa Department of Transportation
NEPA Document Manager
800 Lincoln Way
Ames, IA 50010

Re: Chicago to Iowa City Intercity Passenger Rail Service Project - Environmental Assessment

Dear Ms. Vine:

Your letter of August 17, 2009 was addressed to Mark Schenkelburg. Please address future correspondence to

Mr. Glenn Helm
Environmental Specialist
Federal Aviation Administration, ACE-611F
901 Locust St.
Kansas City, MO 64106

The Federal Aviation Administration (FAA) reviews other federal agency environmental documents from the perspective of the FAA's area of responsibility; that is, whether the proposal will have effects on aviation and other FAA responsibilities. We generally do not provide comments from an environmental standpoint. Therefore, we have reviewed the material furnished with your letter concerning the above referenced project, and have no comments regarding environmental matters.

Airspace Considerations

The project may require formal notice and review from an airspace standpoint. The requirements for this notice may be found at: http://oeaaa.faa.gov under "Who Needs to File" at the bottom of the main page. You need to know where the public-use and military airports are in the project area in order to judge whether a project requires airspace review.

If you don't know if your project is near a public-use airport, select the "Circle Search for Airports" tab on the left side of the page. Then select "A specific location" and enter a circle radius of 4 miles and your project's latitude and longitude.

If you determine that formal notice is required, follow instructions on the main page for e-filing your proposal with the FAA. Advisory Circular 70/7460-2K states that notification is to be submitted 30 days prior construction. Given the time required to conduct an aeronautical study, we recommend a 60-day notification to accommodate the review process and issue our determination letter.

More information on this process may be found at:
http://www.faa.gov/airports/central/engineering/part77/

If you have questions, please contact me at glenn.helm@faa.gov or 816-329-2617.

Sincerely,

Glenn Helm
Environmental Specialist

APPENDIX G
PRELIMINARY FARMLAND CONVERSION IMPACT RATING FORM

CONTENTS

USDA Form AD-1006 (10-83) Farmland Conversion Impact Rating Form

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U.S. Department of Agriculture

FARMLAND CONVERSION IMPACT RATING

PART I ***(To be completed by Federal Agency)***	Date Of Land Evaluation Request 9/22/09
Name Of Project Chicago-Iowa City Intercity Passenger Rail	Federal Agency Involved Federal Railroad Administration
Proposed Land Use Railroad Connection	County And State Bureau County, Illinois
PART II ***(To be completed by NRCS)***	Date Request Received By NRCS

Does the site contain prime, unique, statewide or local important farmland? ***(If no, the FPPA does not apply -- do not complete additional parts of this form).***	Yes ☐	No ☐	Acres Irrigated / Average Farm Size
Major Crop***(s)***	Farmable Land In Govt. Jurisdiction Acres: %		Amount Of Farmland As Defined in FPPA Acres: %
Name Of Land Evaluation System Used	Name Of Local Site Assessment System		Date Land Evaluation Returned By NRCS

PART III ***(To be completed by Federal Agency)***	Alternative Site Rating			
	Site A	Site B	Site C	Site D
A. Total Acres To Be Converted Directly	7.0			
B. Total Acres To Be Converted Indirectly	2.0			
C. Total Acres In Site	9.0	0.0	0.0	0.0
PART IV ***(To be completed by NRCS)*** Land Evaluation Information				
A. Total Acres Prime And Unique Farmland				
B. Total Acres Statewide And Local Important Farmland				
C. Percentage Of Farmland In County Or Local Govt. Unit To Be Converted				
D. Percentage Of Farmland In Govt. Jurisdiction With Same Or Higher Relative Value				
PART V ***(To be completed by NRCS)*** Land Evaluation Criterion Relative Value Of Farmland To Be Converted ***(Scale of 0 to 100 Points)***	0	0	0	0

PART VI ***(To be completed by Federal Agency)*** Site Assessment Criteria ***(These criteria are explained in 7 CFR 658.5(b)***	Maximum Points				
1. Area In Nonurban Use	15				
2. Perimeter In Nonurban Use	10				
3. Percent Of Site Being Farmed	4				
4. Protection Provided By State And Local Government	20				
5. Distance From Urban Builtup Area	5				
6. Distance To Urban Support Services	10				
7. Size Of Present Farm Unit Compared To Average	10				
8. Creation Of Nonfarmable Farmland	10				
9. Availability Of Farm Support Services	5				
10. On-Farm Investments	1				
11. Effects Of Conversion On Farm Support Services	0				
12. Compatibility With Existing Agricultural Use	0				
TOTAL SITE ASSESSMENT POINTS	90	0	0	0	0
PART VII ***(To be completed by Federal Agency)***					
Relative Value Of Farmland ***(From Part V)***	TBD	0	0	0	0
Total Site Assessment ***(From Part VI above or a local site assessment)***	90	0	0	0	0
TOTAL POINTS ***(Total of above 2 lines)***	TBD	0	0	0	0

Site Selected:	Date Of Selection	Was A Local Site Assessment Used? Yes ☐ No ☐

Reason For Selection:

Preliminary

(See Instructions on reverse side) **Form AD-1006 (10-83)**

This form was electronically produced by National Production Services Staff

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