

Federal Highway Administration

FINDING OF NO SIGNIFICANT IMPACT

for

Illinois Route 47 (FAP 326)
from Reed Road to U.S. Route 14
McHenry County, Illinois

INTRODUCTION

The Illinois Department of Transportation (IDOT) proposes to reconstruct and widen Illinois Route 47 between Reed Road and U.S. Route 14 (approximately 8 miles long). The purpose of the proposed action is to provide an improved transportation system for IL 47 from Reed Road to US 14. Improvements to this route are needed to address vehicular and pedestrian safety, enhance traffic mobility and capacity, and facilitate planned economic growth.

The Preferred Alternative meets the purpose and need, while resulting in the fewest impacts. It includes the addition of shoulders, grass and raised barrier medians, turning and through lanes for improved mobility, capacity, and safety. Accommodations for sidewalk and shared-use path to support pedestrians and cyclists movements are also incorporated into the Preferred Alternative. The improved facility is expected to facilitate the efficient movement of goods, employees, and customers to support planned economic growth. The proposed improvements also include water quality features, such as, bioswales and/or native plantings and ditch modifications, which provide filtration for improved water quality. This project is included in the FY 2010 - 2015 TIP endorsed by the Metropolitan Planning Organization Policy Committee of the CMAP for the region in which the project is located. Projects in the TIP are considered to be consistent with GO TO 2040, the 2040 regional transportation plan endorsed by CMAP. The project is within the fiscally constrained portion of the plan.

ENVIRONMENTAL IMPACTS

The direct result of implementing these improvements will result in the following impacts:

Right-of-Way: Construction of the proposed improvement will require approximately 138 acres of proposed right-of-way and 3 acres of temporary easements.

Displacements: The proposed improvements would result in the displacement of three residential homes and two commercial enterprises.

Agricultural Lands: The proposed improvements would convert 91.6 acres of land currently under agricultural production. Due to the fact that the land that is currently under agricultural production is committed to urban development, and the proposed improvements received a LESA site assessment score of 162, it has been determined that the farmland impacts are not substantial.

Cultural Resources: The project will have no effect on historic properties. There are four archaeological properties within the study area. None of the structures within the study area were deemed eligible for listing on the National Register.

Air Quality: A Pre-Screen carbon monoxide analysis was completed for the project. The results indicated that the worst-case receptors are less than the 8-hour average National Ambient Air Quality Standard for carbon monoxide. Since the project is an expanded add lanes highway project, it does not generate a significant increase in the number of diesel vehicles. It has been determined that the project would not cause or contribute to any new localized PM2.5 or PM10 violations or increase the frequency or severity of any PM2.5 or PM10 violations. The USEPA has determined that such projects meet the Clean Air Act's requirements without any further Hot-Spot analysis.

Noise: There were three representative receptors from three common noise environments (CNEs) for the Build (2040) improvement that were determined to approach, meet, or exceed the FHWA Noise Abatement Criteria, and therefore warranted consideration of traffic noise abatement. Of these three, only one remained viable since the receptors for the other two CNEs will be acquired based on preliminary engineering and right of way requirements for the Build Alternative geometrics. Thus, these receptors were removed from any Design Year (2040) traffic noise impact. For the representative receptor for the remaining CNE that exceeds FHWA Noise Abatement Criteria (CNE 16), the evaluated wall met the feasibility criterion but did not stand the test of reasonableness for the noise reduction design goal and cost effectiveness criteria.

Threatened and Endangered Species: No federally-listed species are anticipated to be impacted by the proposed improvements. The northern long-eared bat (*Myotis septentrionalis*) was listed as Threatened on April 2, 2015 by the USFWS. A "may affect, not likely to adversely affect" determination has been made for the species.

In response to comments by federal resource agencies, additional field surveys for the Eastern Prairie Fringed Orchid (*Platanthaera leucophaea*) were conducted in June and July of 2015; none were located.

The Iowa darter (*Etheostoma exile*), a state-listed species, are known to exist within the Kishwaukee River. In order to avoid impacts to this species, in-stream work will be restricted from April 1st through June 15th of any construction year.

Wetlands: The proposed improvements will impact a total of 25.63 acres of wetlands. The proposed improvements were designed to avoid and minimize the amount of wetland impacts to the greatest extent practicable. Through the alternatives evaluation process, the Preferred Alternative was selected because it had the least number of wetland impacts. Once the Preferred Alternative was selected, the design was further refined in order to minimize impacts. For example, at the crossing of the Kishwaukee River headwaters, retaining walls are proposed to reduce wetland impacts by 0.7 acres. The median in the project corridor was narrowed from 50 feet to 30 feet between Rainsford Drive and Hercules Road to reduce wetland impacts by two acres.

For those wetland impacts that cannot be avoided, compensatory mitigation must be provided. Mitigation ratios are determined by both the USACE and the IDNR. The USACE mitigation ratios are a minimum of 1.5 for every 1.0 acre of impact for low quality wetlands and 3.0 acres or higher for every 1.0 acre of impact for high quality aquatic resources or ADID wetlands.

Under the Programmatic Agreement that IDOT has with the IDNR for compliance with the Interagency Wetland Policy Act, mitigation ratios are determined based on whether or not the mitigation is provided within the watershed basin of the impacted wetland as well as the quality of the wetlands impacted. Wetland mitigation ratios can range from 1.5 to 1.0 up to 5.5 to 1.0 for higher quality wetlands.

Compensatory mitigation for the unavoidable wetland impacts will be provided. The appropriate mitigation ratios and methods will be finalized during Phase II design engineering during the Section 404 permit application process. At this time, it is estimated that either 67.4 acres (in basin mitigation) or 74.64 acres (out of basin mitigation) of wetland mitigation will be provided. IDOT will provide compensatory mitigation in an approved wetland mitigation bank in coordination with the USACE and IDNR. Other mitigation options and locations will also be considered. In addition, impacts to Waters of the U.S. would also be mitigated.

Floodplains: The proposed improvements will impact five regulatory floodplains. These include the waterways of the Tributary to the South Branch of the Kishwaukee River (2.81 acres), Kishwaukee Creek (2.13 acres), Kishwaukee River (7.86 acres), Intermittent Tributary to Kishwaukee River (4.69 acres), and an unnamed Tributary of the Kishwaukee River (1.34 acres) for a total floodplain impact of 18.83 acres.

Compensatory storage will be provided at a 1:1 ratio for fill in the floodplain. Stormwater detention storage will also be provided to meet McHenry County requirements of maintaining the allowable release rate at 0.15 cubic feet per second/acre for the added impervious area for the 100-year storm event.

Water Resources: Coordination with the U.S. Army Corps of Engineers (USACE) to discuss compensatory storage and the first flush of rain capture occurred after the release of the Environmental Assessment. Additional BMPs could be included throughout the corridor to reach an average first flush capture of 1.20 inches for the project. The 1.25-inch first flush capture for High Quality Aquatic Resources (HQARs) was met at both Kishwaukee River crossings. There was only one watershed outlet, Kishwaukee Creek near STA. 440+00, where a minimum of 1.0-inch capture rate could not be achieved. This location includes conflicts with existing wetlands and floodplains which made it prohibitive to provide additional infiltration storage to capture the first flush.

Special Waste: The ISGS performed three PESAs for the project corridor. The third PESA, ISGS #1789V, dated October 30, 2013, covered the entire project corridor and incorporated results of the earlier documents. Several Recognized Environmental Concerns (RECs) were identified through the assessment. Per PESA #1789V, 32 properties were identified with RECs. The PESA was validated by IDOT District One Environmental Studies Unit on March 10, 2016.

Based on the results from the various PESAs, if the Phase II determines that the project will require excavation, subsurface utility relocation, right of way purchase/easement, or building demolition at any of the identified RECs, then a Preliminary Site Investigation will be required.

Special Lands: There are no Section 4(f), Section 6(f) or OSLAD lands within the study area.

Indirect and Cumulative: The project will likely facilitate future land use conversion from open space to developed lands. Future development would have the potential to create additional

edge effects at the perimeter of the wetland and upland resources. The extent of resources affected by the edge effect could continue to move inward due to the cumulative effect of potential future development in the project corridor. The potential future development could also reduce the amount of open space along the corridor. In accordance with local and federal requirements, potential indirect and cumulative impacts to natural resources are anticipated to be minimal.

Public Involvement: The public hearing was held on Thursday, March 12, 2015 at the Huntley Recreation Center, 12015 Mill Street, Huntley, IL from 4 – 7 PM. The public hearing was conducted in an open house format with a public comment forum, which started at 6:00 p.m. A court reporter was present to transcribe oral comments during the public hearing. Attendees could sign-up for the public comment forum to publicly speak their comments, which were documented by the court reporter.

The project comment period was open from February 19, 2015 to March 26, 2015. Throughout the public comment period, hard copies of the EA were available for public review at IDOT – District 1 offices as well as the Huntley and Woodstock public libraries. The EA was also available on the project website.

The hearing was attended by 84 people including County Board members, local governmental bodies, businesses, media outlets, and local residents. Within the comment period, 10 comment forms, 13 emails, 7 letters were received. In addition, three individuals spoke during the public comment forum and nine individuals spoke with the court reporter during the hearing. These comment methods resulted in 158 comments submitted during the public comment period. The topics include the following:

- Access management
- Alternative routes during construction
- Concerns about increased traffic noise
- Constructability
- Environmental Assessment documentation
- Environmental impacts
- Expected growth accommodations
- Funding
- General support for the project
- Mailing List Interest
- Pedestrian/bicycle accommodations
- Preferred Alternative Design
- Property acquisition
- Signalized intersection considerations
- Transit accommodations
- Wildlife crossings

IDOT responded to all comments received during the public comment period.

ENVIRONMENTAL COMMITMENTS

Wildlife crossings under IL 47 are recommended and will be further studied during the final engineering design. Proposed crossing locations are presented in Table 4-8 of the EA and the Errata.

In order to avoid impacts to the state threatened Iowa darter (*Etheostoma exile*), no in stream work shall be conducted from April 1 through June 15 of any construction year at the following locations:

- Site 1: Kishwaukee River at IL 47, approximately 200 feet to 600 feet south of Dieckman Road
- Site 2: Kishwaukee River at IL 47, approximately 650 feet north of Foster/Union Road

In order to minimize potential impacts to the northern long-eared bat tree removal will be restricted from April 1st through September 30th.

Bioswales will be installed along the outside ditches where feasible and practical. They will be installed in locations immediately upstream of surface water resources, such as streams and wetlands. Other BMPs will be installed in the vegetated medians where appropriate.

Accidental spills of hazardous materials and wastes during construction or operation of the transportation system require special response measures. Occurrences will be handled in accordance with local government response procedures. Refueling, storage of fuels, or maintenance of construction equipment will not be allowed within 100 feet of wetlands or water bodies to avoid accidental spills impacting these resources.

AGENCY FINDINGS

The following findings establish the project's adherence to applicable laws intended to protect sensitive environmental and socioeconomic resources.

Relocation Assistance and Real Property Acquisition Policies Act of 1970, as amended

The acquisition of these properties would be accomplished in accordance with the Uniform *Relocation Assistance and Real Property Acquisition Act (Uniform Act)*, as amended, and the *IDOT Land Acquisition Procedure Manual*, as applicable. Under the Uniform Act, in addition to just compensation, displaced residents are entitled to benefits to minimize hardships of relocation such as acquisition and relocation assistance designed to help residents and businesses with reimbursement claims and the lease or purchase of new locations. Relocation advisory assistance would be provided to owners and renters of displaced properties.

Executive Order 12898, *Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations*

The project does not result in disproportionately high or adverse human health or environmental effects on minority or low-income populations. It has been determined that this project is not located within or through identified minority and/or low income areas, or adjacent to minority and/or low income neighborhood communities.

Section 106 of the National Historic Preservation Act of 1966

There are four archaeological sites within the study area and there are no properties listed or eligible for the National Register of Historic Places. No impacts are anticipated to the archaeological sites.

Federal Executive Order 11988, *Floodplain Management*

Compensatory storage will be provided at a 1:1 ratio for fill in the floodplain. The project will provide stormwater detention and compensatory storage to mitigate fill in all of the floodplains in the project corridor. Impacts from the loss of floodplain will not result in increased flood risks due to the incorporation of detention and compensatory storage. Natural and beneficial values, such as wildlife habitat and water quality functions, will not be substantially impacted because these values are already minimized due to the presence of the existing road. The proposed roadway improvements will not promote incompatible floodplain development any more than currently exists.

Section 176(c) of the Clean Air Act Amendments of 1990

The project's design concept and scope are consistent with the project information used for the TIP conformity analysis. Therefore, this project conforms to the existing State Implementation Plan and the transportation-related requirements of the 1990 Clean Air Act Amendments.

Federal Executive Order 11990, *Protection of Wetlands*

The project will impact 25.77 acres of wetlands. Because wetlands exist on both sides of the roadway, complete avoidance was not feasible. However, the Preferred Alternative was designed to minimize impacts to wetlands where feasible. Mitigation for these impacts will be based on the Programmatic Agreement that IDOT has with the IDNR for compliance with the Interagency Wetland Protection Act. Mitigation ratios are determined based on whether or not the mitigation is provided within the watershed basin of the impacted wetland as well as the quality of the wetlands impacted. Wetland mitigation ratios can range from 1.5 to 1.0 up to 5.5 to 1.0 for higher quality wetlands.

Endangered Species Act of 1973

Threatened and endangered species are known to exist within McHenry County. Based on coordination with the Illinois Department of Natural Resources, the Iowa Darter, a state-threatened species, was found to exist within the project limits. In order to avoid impacts to the Iowa darter, no in stream work shall be conducted in the Kishwaukee River from April 1 through June 15.

The northern long-eared bat was listed as Threatened on April 2, 2015 by the USFWS. A "may affect, not likely to adversely affect" determination has been made for the species. Tree removal will be restricted from April 1 to September 30.

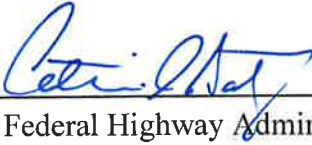
Section 4(f) of the U.S.DOT Act of 1966

The project will have no effect on Section 4(f) protected land.

CONCLUSION

The Federal Highway Administration (FHWA) has determined that the project will not have a significant impact on the human environment. This Finding of No Significant Impact (FONSI) is based on the attached Environmental Assessment which has been independently evaluated by the FHWA and determined to adequately and accurately discuss the need, environmental issues, and impacts of the proposed project and appropriate mitigation measures. It provides sufficient evidence and analysis for determining that an Environmental Impact Statement is not required. The FHWA takes full responsibility for the accuracy, scope, and content of the attached Environmental Assessment.

August 18, 2016
Date


For Federal Highway Administration