

Federal Highway Administration

FINDING OF NO SIGNIFICANT IMPACT

**Illinois Route 31
Illinois Route 176 to Illinois Route 120
Job No. P-91-135-99
McHenry County, Illinois**

INTRODUCTION

The Illinois Department of Transportation (IDOT) proposes to improve Illinois Route 31 (IL Route 31) between Illinois Route 176 (IL Route 176) and Illinois Route 120 (IL Route 120), a distance of 6.8 miles. The purpose of the proposed action is to improve safety, address roadway capacity and mobility, correct existing geometric deficiencies, and encourage multi-modal transportation along IL Route 31.

The Preferred Alternative as described in the Environmental Assessment (EA) meets the purpose and need of the project and minimizes impacts to the extent possible. It is comprised of three sections:

- The south section is a four-lane road with a 28-foot raised median, designed to minimize wetland impacts and avoid nearby seep wetlands while resolving project needs.
- The north section is a four-lane road with an 18-foot raised median (with a two-way left turn lane section for business access in downtown McHenry).
- The IL Route 120 intersection uses a reduced intersection footprint to avoid residential impacts and reduce business impacts.

Portions of all three sections use reduced width travel lanes to minimize impacts. Accommodations for sidewalks and shared-use paths for pedestrian and bicyclists are included, as well as features to improve water quality and benefit wildlife. Concurrence of the preferred alternative was received through the NEPA-404 Merger process.

This project is included in the Fiscal Year (FY) 2014–2019 Transportation Improvement Program (TIP) endorsed by the Metropolitan Planning Organization Policy Committee of the Chicago Metropolitan Planning Organization (CMAP). 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. The TIP number for the project is 11-00-001. Funding for subsequent phases of this project is included in IDOT's FY 2018-2023 Proposed Highway Improvement Program and includes \$5.8 million for Phase II engineering.

ENVIRONMENTAL IMPACTS

The direct result of implementing the proposed IL Route 31 improvements will result in the following impacts:

Right-of-Way: Construction of the proposed improvement will require approximately 59.63 acres of proposed right-of-way and 9.75 acres of temporary easements.

Social and Economic Resources and Environmental Justice: No groups of ethnic, racial, or religious minorities, elderly or disabled people, or low-income populations would be disproportionately affected by the proposed improvement. The proposed improvements would result in the displacement of one residential home and one commercial enterprise. Comparable replacement properties are available in the area. The project will impact parking areas or other site (non-structure) impacts of 15 commercial properties.

Agricultural Lands: The proposed improvements would convert 19.45 acres of land currently under agricultural production. Of this total, 5.26 acres of agricultural land are within urban areas, with the remaining 14.19 acres are located outside urban areas. In July 2016, the Illinois Department of Agriculture determined the project complies with IDOT's Agricultural Land Preservation Policy and Illinois' Farmland Preservation Act.

Cultural Resources: The project will have no effect on historic properties. There is one structure in the project area that is on the McHenry County Comprehensive Landmark List by the City of McHenry Landmark Commission, but this structure is not considered a historic property under Section 106 of the National Historic Preservation Act. This structure will not be impacted by the project.

Air Quality: The project conforms to the Transportation Improvement Plan. The project is not anticipated to result in changes to traffic volumes, vehicle mix, project location, or other factors that would cause an increase in MSAT impacts of the project from that of the no-build alternative. The project is exempt from project-level carbon monoxide air quality analysis because corridor traffic volumes fall below the criterion for assessment, in accordance with the IDOT-IEPA "Agreement on Microscale Air Quality Assessments for IDOT Sponsored Transportation Projects."

Noise: Forty-two common noise environments (CNEs) were studied for noise impacts in the project area. Twenty-three CNEs were found to approach, meet, or exceed the FHWA Noise Abatement Criteria, and were therefore considered to be impacted by traffic noise from the proposed project. Additionally, no traffic noise impacts were identified due to a substantial noise increase from existing noise levels. Traffic noise abatement was considered for the twenty-three impacted CNEs. It was determined that noise abatement would not be constructible for seven of the twenty-three impacted CNEs, leaving sixteen impacted CNEs that were studied for noise abatement. Fourteen noise barriers were studied to provide abatement for these sixteen impacted areas. Six of the fourteen barriers did not achieve a 5 dB(A) noise reduction and were considered not feasible. Five of the remaining seven barriers did not achieve the IDOT noise reduction design goal of 8 dB(A) and were considered not reasonable. The remaining three barriers (B4, B5, and

B14) provided the required 5 dB(A) and 8 dB(A) noise reductions, but the cost to build these barriers exceeded the IDOT allowable cost per benefitted receptor. For this reason, no barriers were determined feasible and reasonable, and no noise abatement measures were proposed for the IL Route 31 project.

The proposed project is anticipated to have traffic noise impacts, but the noise barriers studied and identified in the EA do not meet IDOT's feasibility and reasonableness criteria. Due to this, traffic noise abatement measures are not likely to be implemented based on preliminary design. If the project's final design is different from the preliminary design, IDOT will determine if revisions to the traffic noise analysis are necessary. A final decision on noise abatement will not be made until the project's final design is approved and the public involvement processes are complete.

Threatened and Endangered Species: Habitat for the northern long-eared bat (*Myotis septentrionalis*; NLEB) was found in the project area. The project area is within the NLEB white nose syndrome buffer zone as defined by the US Fish and Wildlife Service, however no known maternity roost trees or hibernacula are known to occur in the six-county area (Cook, Lake, McHenry, Kane, DuPage, and Will). A determination of "may affect, not likely to adversely affect" has been made for the NLEB in the project area.

In response to comments by federal resource agencies, additional field surveys for the eastern prairie fringed orchid (*Platanthaera leucophaea*) were conducted during its blooming season in 2012, and no plants were located in the study area. The project area contains no habitat for prairie bush clover (*Lespedeza leptostachya*), another federally-listed species that could potentially occur in McHenry County. A determination of "no effect" has been made for the prairie fringed orchid and prairie bush clover in the project area.

A determination of "no effect" has been made for the federal endangered rusty patched bumble bee (*Bombus affinis*). This project is located within "low potential zones" for the rusty patched bumble bee as identified by the USFWS (US Fish and Wildlife Service: The Rusty Patched Bumble Bee (*Bombus affinis*): Interagency Cooperation under Section 7(a)(2) of the Endangered Species Act, Voluntary Implementation Guidance (March 20, 2017). "High potential zones" are not located within the project limits; however, one "high potential zone" is located approximately a mile and a half east of the corridor near Prairie Grove, IL.

Surveys for the state-listed Blanding's turtle (*Emydoidea blandingii*) were completed, but habitat for the turtle was not found in the project area. No state-listed species were found in the project area. A state-listed Least bittern (*Ixobrychus exilis*) was observed near the project area, at Thunderbird Lake, but is not expected to be impacted by the project. There are records of the state listed yellow headed blackbird (*Xanthocephalus xanthocephalus*), black tern (*Chlidonias niger*), and common gallinule (*Gallinula galeata*) at Thunderbird Lake; these species will not be impacted by the project.

Wildlife: Terrestrial and/or aquatic wildlife crossings are proposed at nine locations. Wildlife could cross IL Route 31 under the proposed three-span bridge, embedded drainage culverts, or embedded reinforced concrete pipes provided for small mammal crossings.

Trees: The total number of trees surveyed within the IL Route 31 project area was 6,905 (5,049 trees estimated by subplots in heavily wooded areas, and 1,856 individually surveyed trees). Oak and hickory woods are an important feature of McHenry County's environment. During public involvement for this project, comments to avoid oak and hickory tree impacts were received from the public and local environmental groups. The tree survey identified 286 oak and hickory trees within the project area. The proposed limits of construction for the project are anticipated to impact approximately 5,176 trees (3,923 impacted subplot trees and 1,253 impacted individually surveyed trees), 188 of which are oaks and hickories. There will be strip impacts to two forested areas greater than 20 acres in size apiece; one forested area will incur an impact of approximately 1.7 acres, and the other forested area will incur an impact of approximately 1.3 acres. The IDOT tree mitigation policy will be followed to replace impacted trees.

Wetlands: The proposed improvements will directly impact 1.53 acres of wetlands on 20 separate wetland sites. Of these wetland impacts, 0.26 acres are classified as Advanced Identification (ADID) sites. A total of 0.65 acres of surface waters would be directly impacted by the project. The US Army Corps of Engineers (USACE) requested that reduced width roadway designs and revised alignments be studied to reduce or avoid wetland impacts. The Preferred Alternative was designed to avoid and minimize wetland impacts to the degree feasible.

Under the Programmatic Agreement between IDOT and the IDNR regarding compliance with the Interagency Wetland Policy Act (IWPA), 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 1.5:1 up to 5.5:1 for higher floristic quality wetlands under the IWPA. Wetland mitigation ratios can range from 1.5:1 to 3.0 for higher quality wetlands under Section 404 of the Clean Water Act.

The appropriate mitigation ratios and methods will be finalized during the Section 404 permit application process in the next project phase. At this time, it is estimated that 3.05 acres of wetland mitigation will be provided. IDOT will provide compensatory mitigation in an USACE approved wetland mitigation bank. Final compensatory storage will be coordinated with the USACE during Section 404 permitting and will be in compliance with the IWPA. Other mitigation options and locations will also be considered. In addition, impacts to surface waters would also be mitigated.

Floodplains: The proposed improvements will impact three regulatory floodplains, for a total of 10.04 acres of impact to 100-year floodplains. There will not be significant encroachments to the floodplain from the proposed project. The identified impacts are transverse at each floodplain crossing. The realignment of Squaw Creek constitutes a longitudinal floodplain impact east of IL Route 31; however, the stream realignment is considered a net benefit. A 100-year flood event will likely not result in overtopping of IL Route 31 for the Preferred Alternative, but will result in overflow to the east due to the lower elevation of Squaw Creek compared to the proposed IL Route 31 improvements. The modifications to avoid roadway overtopping will not adversely affect properties east of IL Route 31. Additionally, proposed depressions for water quality are proposed along the realigned Squaw Creek that, in combination with the stabilized stream banks, riffles, and pools, will slow water volume (both from roadway runoff and within the stream) and reduce soil erosion. The proposed culverts will keep water surface elevations at or below those that currently exist. Half an acre of compensatory storage will be provided west of IL Route 31 along the Unnamed Tributary to the Fox River near downtown McHenry.

Water Resources: The IL Route 31 project crosses seven streams, all of which ultimately drain to the Fox River. Thunderbird Lake, located 1,300 feet east of the proposed project, is not directly impacted. Coordination with the USACE, as well as local conservation and watershed groups, occurred to discuss environmentally sensitive areas in the project corridor, as well as best management practices (BMPs), impact avoidance, and minimization strategies.

The proposed improvements were assessed to determine its water quality impacts from pollutants in highway runoff. The pollutant loading analysis found that the unnamed tributary to the Fox River would achieve General Use Water Quality Standards with the construction of proposed BMPs. Other proposed BMPs for the project, such as the 2,112 feet of bioswales proposed adjacent to IL Route 31, will further improve the water quality and minimize pollutant concentrations to Sleepy Hollow Creek. Chloride levels are expected to remain below the General Use Water Quality standard at all receiving streams, except for the unnamed tributary to Thunderbird Lake. An infiltration trench is proposed at Outfall 10 (north of Half Mile Trail) to regulate and reduce chlorides to the unnamed tributary to Thunderbird Lake.

A previously channelized 1,800-foot section of Squaw Creek flowing parallel to the IL Route 31 corridor is proposed to be realigned to include meanders, riffles and pools, and to restore and stabilize the stream bank. Direct impacts will result due to grading, excavation, fill placement, and vegetation removal. Impacts to Squaw Creek will be mitigated in-kind on site, per 33 CFR Part 332 (Compensatory Mitigation for Losses of Aquatic Resources).

The IL Route 31 project will impact 9.78 acres of highly erodible soils. IDOT specifications for erosion control practices will be followed to minimize erosion and sedimentation of streams. A management and monitoring plan will be required for all approved BMPs by the USACE during permitting in Phase II engineering.

Special Waste: The Illinois State Geological Survey (ISGS) developed two Preliminary Environmental Site Assessments (PESAs) for the project corridor in 2012 and 2015. Several Recognized Environmental Concerns (RECs) were identified by the PESAs. The IL Route 31 improvements will require the purchase of ROW from 82 REC sites and these acquisitions cannot be avoided. Most of these sites are commercial properties and are distributed throughout the project corridor. No CERCLIS sites will be affected by the project.

If IDOT determines in Phase II that the project will not avoid impacting identified RECs and would require excavation, subsurface utility relocation, right of way purchase/easement, or building demolition at any of the identified RECs, then a Preliminary Site Investigation (PSI) will be required.

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

Indirect and Cumulative:

The project is not expected to facilitate substantial additional future land use conversion from open space to developed lands. Most undeveloped land within the IL Route 31 project study area is planned for development, and commercial uses have followed major roadway corridors. Indirect impacts to wetlands directly adjacent to the IL Route 31 project study area are anticipated to occur from continued development that already has been occurring in the project study area.

Cumulative impacts to wetlands, trees, farmland, and natural areas may occur due to the continued historical net reduction in these resources from increased land development.

Public Involvement: The IL Route 31 project was developed using the Context Sensitive Solutions (CSS) process. Public and agency involvement occurred using a collaborative approach with key stakeholders to develop a facility that fits into its surroundings and preserves key human and natural resources.

The CSS process included a January 2014 meeting with environmental groups and local, state, and federal agencies. Meeting attendees discussed the need to avoid impacts to seep wetlands, protect water quality (specifically mitigate salt splash and spray) through the use of BMPs, realign Squaw Creek, and avoid impacting oak trees where possible. Five Community Advisory Group meetings were held at project milestones to encourage information sharing and collaboration. Over twenty local agency meetings were also held with municipalities, townships, and McHenry County. Public meetings were held in September 2011 to seek input on transportation issues, concerns and needs, and in November 2012 to obtain input on the alternatives being carried forward.

A public hearing was held on February 8, 2017 from 4:00 to 7:00 p.m. at the McHenry County College Shah Center in the City of McHenry. The public hearing was conducted in an open house format with a public comment forum. Public notice was placed in the January 18 and February 1, 2017 editions of the Northwest Herald newspaper. The EA was made available for public review on the project website as well as at IDOT – District 1 office, Prairie Grove Village Hall, and the City of McHenry Public Library on January 18, 2017. The public hearing was

attended by 169 people including elected officials, local agencies and groups, businesses and local residents. A court reporter was present to transcribe verbal comments and the public comment forum. The comment period ended on March 10, 2017 and resulted in 92 comments being submitted. The most common comment topics include the following:

- Oak Grove subdivision
- Oak and hickory tree impacts
- Access
- New traffic signals
- Pedestrian and bicyclist accommodations
- General support

IDOT responded to all comments received during the public comment period through a project newsletter and/or individual coordination.

ENVIRONMENTAL COMMITMENTS

Pollinator habitat shall be incorporated into the project where practical. The Phase II landscaping and signing plans shall be developed in accordance with the current version of the FHWA publication *Pollinators and Roadsides: Best Management Practices for Managers and Decision Makers* and coordinated through the IDOT's Bureau of Maintenance/Landscaping Unit.

AGENCY FINDINGS

The following findings establish the project's adherence to applicable laws and Executive Orders 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. One low-income population and two minority populations exist in the project area.

Section 106 of the National Historic Preservation Act of 1966

The proposed action will not impact any properties listed or eligible for the National Register of Historic Places, and therefore there are "no historic properties affected" by this undertaking.

Executive Order 11988, *Floodplain Management*

The proposed improvement will involve fill in the floodplain of Sleepy Hollow Creek and the Unnamed Tributary to the Fox River. However, neither of the floodplain encroachments is considered a significant encroachment. The project will provide stormwater detention and compensatory storage to mitigate fill in all 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 1.53 acres of wetlands. Because wetlands exist on both sides of the roadway, complete avoidance was not feasible. 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. Wetland mitigation ratios can range from 1.5:1 up to 5.5:1 for higher floristic quality wetlands under the IWPA. Wetland mitigation ratios can range from 1.5:1 to 3.0 for higher quality wetlands under Section 404 of the Clean Water Act. The appropriate mitigation ratios and methods will be finalized during Phase II engineering as part of the Section 404 permit application process. The FHWA finds (1) that there is no practicable alternative to such construction, and (2) that the proposed action includes all practicable measures to minimize harm to wetlands which may result from such use.

Endangered Species Act of 1973

Threatened and endangered species are known to exist within McHenry County. 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. The project area does not include high probability zones for the rusty patched bumble bee so the project will have no effect to this species. The project will have no effect to eastern prairie fringed orchid.

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

The project will not convert any land from a Section 4(f) property to a transportation use.

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.

Date

07/24/2018


Catherine A. Batey, Division Administrator
Federal Highway Administration