APPENDIX C: EARLY COORDINATION

The HNTB Companies
Infrastructure Solutions

111 Monument Circle
Suite 1200
Indianapolis, IN 46204-5178

Telephone (317) 636-4682
Facsimile (317) 917-5211
www.hntb.com

October 28, 2019

Karen Novak
Environmental Manger, Fort Wayne District
Indiana Department of Transportation
5333 Hatfield Rd
Fort Wayne, IN 46808

Sample Early Coordination Letter

Re: Early Coordination Letter
Des. No. 1700089
US 24 Intersection Improvements
Peru, Miami County, Indiana

Dear Mr. Novak:

The Indiana Department of Transportation (INDOT) and the Federal Highway Administration (FHWA) are proposing improvements to the intersection of US 24 and SR 19 in Miami County, Indiana. This letter is part of the early coordination phase of the environmental review process. We request comments from you within your area of expertise regarding any potential environmental or community effects associated with this proposed project. **Please use the above designation number and description in your reply.** We will incorporate your comments into a study of the project's environmental effects.

Project Location: This project is located in a rural portion of Miami County along US 24, 3.7 miles east of US 31 in Peru, Indiana. More specifically, the project is located in Sections 14, 15, 16, Township 27 North, Range 4 East in Peru Township.

Purpose and Need: The purpose of this project is to improve safety, traffic operations, and corridor mobility. The need for the project is demonstrated through the high crash rates on US 24 when compared to similar facilities in Indiana.

Existing Conditions: US 24 is a 4-lane divided highway with variable left and right-turn lanes. Each lane measures 12 feet wide with four-foot paved, inside shoulders and paved outside shoulders with varying widths of approximately 12 feet. US 24 at the location of the project is functionally classified as a Principal Arterial with a posted speed limit of 60 mph.

Proposed Project: The current proposed project will include construction of median J-turns along US 24. The US 24 and SR 19 intersection will require a median closure to divert north and south left-turn movements to the US 24 J-turns approximately 650 feet northeast and 680 feet southwest of the existing intersection. It is uncertain that southern Lovers Lane Road will be closed, but if Lovers Lane Road would be closed at US 24 this would prevent traffic from by passing the J-turn and crossing the roadway. If Lovers Land Road is not closed, the existing safety concern would be present at the US 24 and Lovers Lane Road intersection. Additional signage notifying motorists of the J-turns will be required.

Right-of-Way (ROW): Acquisition of additional right-of-way is not anticipated at this time.

Maintenance of Traffic (MOT): Specific maintenance of traffic measures are unknown at this time. If lane closures are needed, traffic will be appropriately maintained throughout construction.

Surrounding Resources: Land use in the vicinity of the project is primarily agricultural, commercial and residential.

A waters/wetland determination will be performed and possible wetlands delineation. A Waters of the US Report will summarize the findings. All applicable permits will be obtained before construction begins.

This project qualifies for the application of the USFWS range-wide programmatic informal consultation for review separately. The USFWS Information, Planning, and Consultation System (IPaC) will be utilized to determine the project's potential to affect the Indiana bat and northern long-eared bat.

Comments Request: You are asked to review this information and provide any comments you may have relative to the anticipated effects of the project on areas which you have jurisdiction or special expertise. Please send your comments to Landon Little, of HNTB Indiana, at ltlittle@hntb.com or 317-917-5328. Should we not receive your response **within thirty (30) calendar days** from the date of this letter, it will be assumed that your agency feels that there will be no adverse effects incurred as a result of the proposed project. However, should you find that an extension to the response time is necessary; a reasonable amount may be granted upon request.

If you have any questions regarding this matter, please feel free to contact Aaron Grisel, of HNTB Corporation, at tgrisel@hntb.com or 317-917-5220 or Jenny Bass, INDOT Project Manager, at jbass@indot.in.gov or 260-969-8252. Thank you in advance for your input.

Sincerely,

HNTB Indiana, Inc.

Aaron Grisel

Scientist II

Attachments: Figure 1: Project Location Map
Figure 2: Project Area Aerial
Figure 3: USGS 7.5 Minute Topographic Quad Map
Project Location Photographs

Cc: Gregg Wilkinson, Miami County Surveyor
Timothy Hunter, Miami County Sheriff
Kerry Worl, Miami County Highway Department
Alan Hunt, Miami County Commissioners
Sam Watkins, Peru Community Schools
Kristopher Marks, Miami County Emergency Management
Kurt Krauskopf, City of Peru Council
Gabriel Greer, City of Peru Mayor
Jamin Beisiegel, Miami County MS4 Stormwater Coordinator
Mary McKinney, Miami County Planning Department Floodplain Administrator
Rick Neilson, NRCS State Conservationist
Rickie Clark, Indiana Department of Transportation, Manager of Public Hearings
Karen Novak, Indiana Department of Transportation, Fort Wayne District
Greg McKay, US Army Corps of Engineers, Louisville District
Indiana Geological Survey
Indiana Department of Environmental Management
Christie Stanifer, Indiana Department of Natural Resources
Joyce Newland, Federal Highway Administration
Elizabeth McCloskey, US Fish and Wildlife Service
Jenny Bass, INDOT Project Manager
Josh Cook, HNTB Corporation

Attachments were removed to avoid duplication. Project maps can be found in Appendix B.

Landon Little

From: Taylor, Ashley <ATaylor@indot.IN.gov>
Sent: Monday, November 18, 2019 9:40 AM
To: Landon Little
Subject: RE: Early Coordination Letter Des. No. 1700089 - Intersection Improvement, US 24, Miami County

Follow Up Flag: Follow up
Flag Status: Completed

Good Morning Landon,

We have reviewed the enclosed early coordination packet and we do not have any environmental concerns regarding the project (Des. No. 1700089: Intersection Improvement at US 24 and SR 19) at this time. Therefore, we will not be providing a comment letter.

Best Regards,

Ashley Taylor
Environmental Manager II
5333 Hatfield Road
Fort Wayne, IN 46808
Office: (260) 969-8262
Email: ataylor@indot.in.gov

From: Novak, Karen
Sent: Monday, November 18, 2019 7:48 AM
To: Taylor, Ashley <ATaylor@indot.IN.gov>
Subject: FW: Early Coordination Letter Des. No. 1700089 - Intersection Improvement, US 24, Miami County

Ashley,

Please respond accordingly.

Thank You,

Karen M. Novak
Sr Environmental Mgr Supervisor
5333 Hatfield Road
Fort Wayne, IN 46808
Office: (260) 969-8302
Email: knovak@indot.in.gov

Aaron Grisel

From: in52engr <in52engr@miamicountyin.gov>
Sent: Monday, November 18, 2019 1:13 PM
To: Landon Little
Cc: Aaron Grisel; jbass@indot.in.gov; KWorl
Subject: DES 1700089 - Early Coordination
Attachments: Des 1700089 J-Turn US24-SR19.pdf

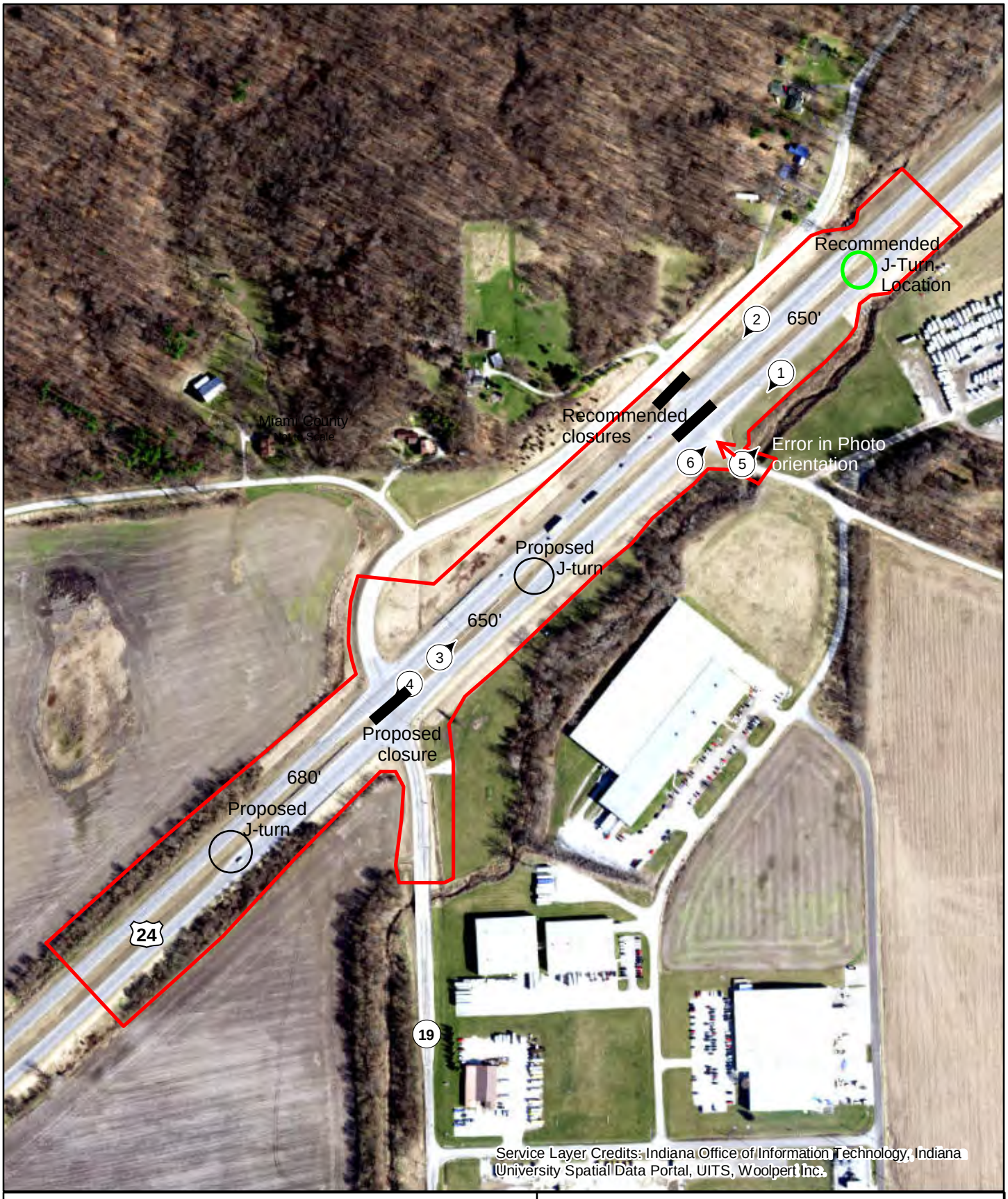
Follow Up Flag: Follow up
Flag Status: Flagged

Categories: Task List

Mr. Little;

I have reviewed the attached notice and added me comments to the document.
I recommend moving the northeast J-Turn to a location approximately 650 feet northeast of Lovers Lane to include the access for the commercial development in the project limits. This will provide for elimination of the crossover at the intersection of the south leg of Lovers Lane and increase the traffic safety for the traffic at the two intersections.

Kenneth Einselen
Miami County Highway Engineer
2180 North Mexico Road
Peru, IN 46970
765-473-7125 ext 9
765-473-8956 FAX
765-469-0721 mobile



Project Location

Photo Location

0 200 400 800 Feet

Photo Location Map
U.S. 24 at SR 19
Intersection Improvements
Miami County, Indiana

Des. No. 1700089	HNTB
1 inch = 400 feet	Graphics created by HNTB Corporation (2019)

Landon Little

From: McCloskey, Elizabeth <elizabeth_mccloskey@fws.gov>
Sent: Monday, November 18, 2019 12:41 PM
To: Landon Little
Subject: Re: [EXTERNAL] Early Coordination Letter Des. No. 1700089 - Intersection Improvement, US 24, Miami County

Follow Up Flag: Follow up
Flag Status: Completed

Good afternoon, because the proposed project will have minor impacts on natural resources, and no Federally endangered species are known to be present, the U.S. Fish and Wildlife Service will not be providing a comment letter.

Elizabeth McCloskey
U.S. Fish and Wildlife Service
Northern Indiana Suboffice
Chesterton, Indiana

On Fri, Nov 15, 2019 at 1:21 PM Landon Little <ltlittle@hntb.com> wrote:

> Dear Ms. McCloskey,
>
> Please see attached early coordination letter and supporting graphics for US 24 intersection improvement project in Miami County (Des. No. 1700089). I am sending this early coordination on behalf of Aaron Grisel. If you have any questions regarding this project, please feel free to contact Aaron or myself.
>
> Thank you,
>
> **Landon Little**
>
> Scientist
>
> Environmental Planning
>
> **Tel** (317)917-5328 **Email** ltlittle@hntb.com
>
> **HNTB CORPORATION**
>
> 111 Monument Circle, Suite 1200, Indianapolis, IN 46024 | www.hntb.com
>
> **100+ YEARS OF INFRASTRUCTURE SOLUTIONS**

USDA
United States Department of Agriculture

Natural Resources Conservation Service
Indiana State Office
6013 Lakeside Boulevard
Indianapolis, IN 46278
317-290-3200

November 21, 2019

Aaron Grisel
HNTB Corporation
111 Monument Circle, Suite 1200
Indianapolis, Indiana 46204

Dear Mr. Grisel:

The proposed project to make intersection improvements at US 24 and US 19 in Miami County, Indiana, (Des No 1700089), as referred to in your letter received October 28, 2019, will not cause a conversion of primes farmland.

If you need additional information, please contact John Allen at 317-295-5859.

Sincerely,

JERRY RAYNOR Digitally signed by JERRY RAYNOR
Date: 2019.11.22 13:24:32 -05'00'

JERRY RAYNOR
State Conservationist

Aaron Grisel

From: Landon Little
Sent: Tuesday, November 26, 2019 12:56 PM
To: Richard Connolly; Aaron Grisel
Subject: FW: Early Coordination Letter Des. No. 1700089 - Intersection Improvement, US 24, Miami County

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From: Royer, Brian <BRoyer@dnr.IN.gov>
Sent: Tuesday, November 26, 2019 12:18 PM
To: Landon Little <ltlittle@HNTB.com>
Subject: RE: Early Coordination Letter Des. No. 1700089 - Intersection Improvement, US 24, Miami County

There is a well permit # 5603 within this project area. It should have 8" casing and be filled with mud to 520' which is not considered to be plugged well. If this well is going to be in the way of construction please let me know and I can create a plugging plan and let you know what will need to be done.

Thanks,

Brian Royer
Orphan Well Manager
Indiana Department of Natural Resources
Division of Oil & Gas
Cell- 317-417-6556
www.dnr.IN.gov

** Please let us know about the quality of our service by taking this brief* customer survey.

From: Landon Little [mailto:ltlittle@HNTB.com]
Sent: Wednesday, November 20, 2019 5:20 PM
To: Royer, Brian <BRoyer@dnr.IN.gov>
Subject: Early Coordination Letter Des. No. 1700089 - Intersection Improvement, US 24, Miami County

---

Dear Mr. Royer,

Please see attached early coordination letter and supporting graphics for US 24 intersection improvement project in Miami County (Des. No. 1700089). I am sending this early coordination on behalf of Aaron Grisel. If you have any questions regarding this project, please feel free to contact Aaron or myself.

Thank you,
Landon Little
Scientist
Environmental Planning
Tel (317)917-5328 **Email** ltlittle@hntb.com

HNTB CORPORATION

THIS IS NOT A PERMIT

State of Indiana
DEPARTMENT OF NATURAL RESOURCES
Division of Fish and Wildlife
Early Coordination/Environmental Assessment

DNR #: ER-22007 **Request Received:** November 15, 2019

Requestor: HNTB Corporation
Aaron Grisel
111 Monument Circle, Suite 1200
Indianapolis, IN 46204-5178

Project: US 24 and SR 19 intersection improvements: construction of median J-turns along US 24 at about 650' northeast and 680' southwest of the existing intersection, Peru; Des #1700089

County/Site info: Miami

The Indiana Department of Natural Resources has reviewed the above referenced project per your request. Our agency offers the following comments for your information and in accordance with the National Environmental Policy Act of 1969.

If our agency has regulatory jurisdiction over the project, the recommendations contained in this letter may become requirements of any permit issued. If we do not have permitting authority, all recommendations are voluntary.

Regulatory Assessment: This proposal may require the formal approval of our agency pursuant to the Flood Control Act (IC 14-28-1) for any proposal to construct, excavate, or fill in or on the floodway of a stream or other flowing waterbody which has a drainage area greater than one square mile. Please submit more detailed plans to the Division of Water's Technical Services Section if you are unsure whether or not a permit will be required.

Natural Heritage Database: The Natural Heritage Program's data have been checked.
To date, no plant or animal species listed as state or federally threatened, endangered, or rare have been reported to occur in the project vicinity.

Fish & Wildlife Comments: The information submitted did not indicate any work within a stream. If work will take place within a stream, further coordination may be needed.

We recommend a mitigation plan be developed (and submitted with the permit application, if required) for any unavoidable habitat impacts that will occur. The DNR's Floodway Habitat Mitigation guidelines (and plant lists) can be found online at: http://www.in.gov/legislative/iac/20190130-IR-312190041NRA.xml.pdf.

Impacts to non-wetland forest of one (1) acre or more should be mitigated at a minimum 2:1 ratio. If less than one acre of non-wetland forest is removed in a rural setting, replacement should be at a 1:1 ratio based on area. Impacts to non-wetland forest under one (1) acre in an urban setting should be mitigated by planting five trees, at least 2 inches in diameter-at-breast height (dbh), for each tree which is removed that is 10" dbh or greater (5:1 mitigation based on the number of large trees).

The additional measures listed below should be implemented to avoid, minimize, or compensate for impacts to fish, wildlife, and botanical resources:
1. Revegetate all bare and disturbed areas within the project area using a mixture of grasses (excluding all varieties of tall fescue), sedges, and wildflowers native to Northern Indiana and specifically for stream bank/floodway stabilization purposes as soon as possible upon completion.
2. Do not cut any trees suitable for Indiana bat or Northern Long-eared bat roosting (greater than 5 inches dbh, living or dead, with loose hanging bark, or with cracks, crevices, or cavities) from April 1 through September 30.

THIS IS NOT A PERMIT

State of Indiana
DEPARTMENT OF NATURAL RESOURCES
Division of Fish and Wildlife
Early Coordination/Environmental Assessment

3. Appropriately designed measures for controlling erosion and sediment must be implemented to prevent sediment from entering the stream or leaving the construction site; maintain these measures until construction is complete and all disturbed areas are stabilized.
4. Seed and protect all disturbed streambanks and slopes not protected by other methods that are 3:1 or steeper with erosion control blankets that are heavy-duty, biodegradable, and net free or that use loose-woven / Leno-woven netting to minimize the entrapment and snaring of small-bodied wildlife such as snakes and turtles (follow manufacturer's recommendations for selection and installation); seed and apply mulch on all other disturbed areas.

Contact Staff: Christie L. Stanifer, Environ. Coordinator, Fish & Wildlife
Our agency appreciates this opportunity to be of service. Please contact the above staff member at (317) 232-4080 if we can be of further assistance.

Christie L. Stanifer **Date:** December 13, 2019
Christie L. Stanifer
Environ. Coordinator
Division of Fish and Wildlife

Organization and Project Information

Project ID:
Des. ID: 1700089
Project Title: US 24 Intersection Improvements
Name of Organization: HNTB Indiana, Inc.
Requested by: Aaron Grisel

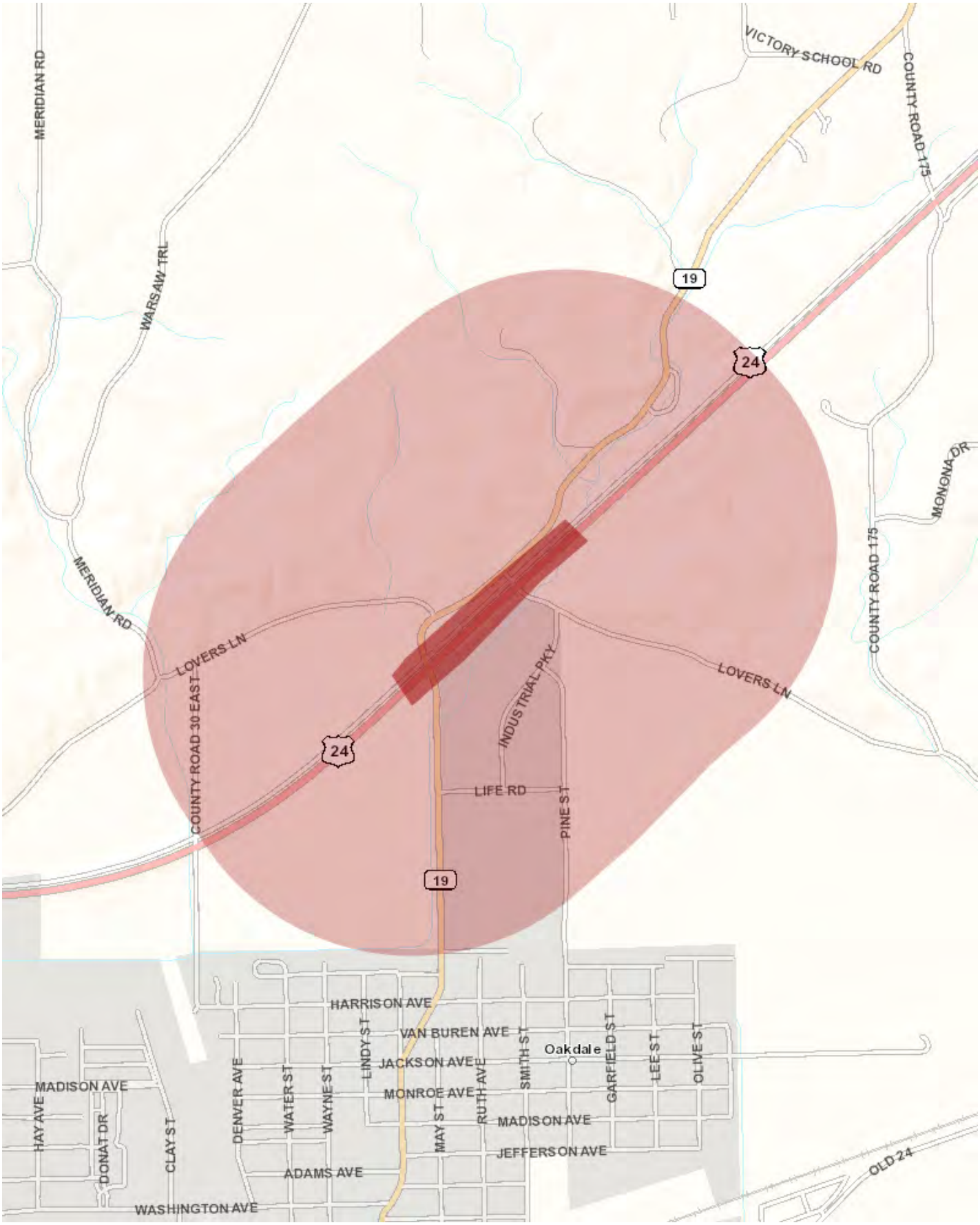
Environmental Assessment Report

1. Geological Hazards:
    - High liquefaction potential
    - Floodway
2. Mineral Resources:
    - Bedrock Resource: High Potential
    - Sand and Gravel Resource: Low Potential
3. Active or abandoned mineral resources extraction sites:
    - Petroleum Exploration Wells

*All map layers from Indiana Map (maps.indiana.edu)

This information was furnished by Indiana Geological Survey
Address: 420 N. Walnut St., Bloomington, IN 47404
Email: IGSEnvir@indiana.edu
Phone: 812 855-7428

Date: December 16, 2019



Indiana Department of Environmental Management

We Protect Hoosiers and Our Environment.

100 North Senate Avenue - Indianapolis, IN 46204
(800) 451-6027 - (317) 232-8603 - www.idem.IN.gov

INDOT
Jenny Bass
5333 Hatfield Rd
Ft. Wayne , IN 46808

HNTB Indiana, Inc.
Aaron Grisel
111 Monument Circle
Suite 1200
Indianapolis , IN 46204

Date

To Engineers and Consultants Proposing Roadway Construction Projects:

RE: The proposed project will include construction of median J-Turns along US 24. The US 24 and SR 19 intersection will require a median closure to divert north and south left-turn movements to the newly constructed J-turns. Additionally, Lovers Lane Road will be permanently closed north of US 24. Lovers Lane Road will remain open as a right-in/right-out access point south of US 24. All work will be within existing right-of-way.

This letter from the Indiana Department of Environmental Management (IDEM) serves as a standardized response to enquiries inviting IDEM comments on roadway construction, reconstruction, or other improvement projects within existing roadway corridors when the proposed scope of the project is beneath the threshold requiring a formal National Environmental Policy Act-mandated Environmental Assessment or Environmental Impact Statement. As the letter attempts to address all roadway-related environmental topics of potential concern, it is possible that not every topic addressed in the letter will be applicable to your particular roadway project.

For additional information on specific roadway-related topics of interest, please visit the appropriate Web pages cited below, many of which provide contact information for persons within the various program areas who can answer questions not fully addressed in this letter. Also please be mindful that some environmental requirements may be subject to change and so each person intending to include a copy of this letter in their project documentation packet is advised to download the most recently revised version of the letter; found at: http://www.in.gov/idem/5283.htm (http://www.in.gov/idem/5283.htm).

To ensure that all environmentally-related issues are adequately addressed, IDEM recommends that you read this letter in its entirety, and consider each of the following issues as you move forward with the planning of your proposed roadway construction, reconstruction, or improvement project:

WATER AND BIOTIC QUALITY

1. Section 404 of the Clean Water Act requires that you obtain a permit from the U.S. Army Corps of Engineers (USACE) before discharging dredged or fill materials into any wetlands or other waters, such as rivers, lakes, streams, and ditches. Other activities regulated include the relocation, channelization, widening, or other such alteration of a stream, and the mechanical clearing (use of heavy construction equipment) of wetlands. Thus, as a project owner or sponsor, it is your responsibility to ensure that no wetlands are disturbed without the proper permit. Although you may initially refer to the U.S. Fish and Wildlife Service

National Wetland Inventory maps as a means of identifying potential areas of concern, please be mindful that those maps do not depict jurisdictional wetlands regulated by the USACE or the Department of Environmental Management. A valid jurisdictional wetlands determination can only be made by the USACE, using the 1987 Wetland Delineation Manual.

USACE recommends that you have a consultant check to determine whether your project will abut, or lie within, a wetland area. To view a list of consultants that have requested to be included on a list posted by the USACE on their Web site, see USACE Permits and Public Notices (http://www.lrl.usace.army.mil/orf/default.asp) (http://www.lrl.usace.army.mil/orf /default.asp (http://www.lrl.usace.army.mil/orf/default.asp)) and then click on "Information" from the menu on the right-hand side of that page. Their "Consultant List" is the fourth entry down on the "Information" page. Please note that the USACE posts all consultants that request to appear on the list, and that inclusion of any particular consultant on the list does not represent an endorsement of that consultant by the USACE, or by IDEM.

Much of northern Indiana (Newton, Lake, Porter, LaPorte, St. Joseph, Elkhart, LaGrange, Steuben, and Dekalb counties; large portions of Jasper, Starke, Marshall, Noble, Allen, and Adams counties; and lesser portions of Benton, White, Pulaski, Kosciusko, and Wells counties) is served by the USACE District Office in Detroit (313-226-6812). The central and southern portions of the state (large portions of Benton, White, Pulaski, Kosciosko, and Wells counties; smaller portions of Jasper, Starke, Marshall , Noble, Allen, and Adams counties; and all other Indiana counties located in north-central, central, and southern Indiana) are served by the USACE Louisville District Office (502-315-6733).

Additional information on contacting these U.S. Army Corps of Engineers (USACE) District Offices, government agencies with jurisdiction over wetlands, and other water quality issues, can be found at http://www.in.gov/idem/4396.htm (http://www.in.gov/idem/4396.htm). IDEM recommends that impacts to wetlands and other water resources be avoided to the fullest extent.

2. In the event a Section 404 wetlands permit is required from the USACE, you also must obtain a Section 401 Water Quality Certification from the IDEM Office of Water Quality Wetlands Program. To learn more about the Wetlands Program, visit: http://www.in.gov/idem/4384.htm (http://www.in.gov/idem/4384.htm).

3. If the USACE determines that a wetland or other water body is isolated and not subject to Clean Water Act regulation, it is still regulated by the state of Indiana . A State Isolated Wetland permit from IDEM's Office of Water Quality (OWQ) is required for any activity that results in the discharge of dredged or fill materials into isolated wetlands. To learn more about isolated wetlands, contact the OWQ Wetlands Program at 317-233-8488.

4. If your project will involve over a 0.5 acre of wetland impact, stream relocation, or other large-scale alterations to water bodies such as the creation of a dam or a water diversion, you should seek additional input from the OWQ Wetlands Program staff. Consult the Web at: http://www.in.gov/idem/4384.htm (http://www.in.gov/idem/4384.htm) for the appropriate staff contact to further discuss your project.

5. Work within the one-hundred year floodway of a given water body is regulated by the Department of Natural Resources, Division of Water. The Division issues permits for activities regulated under the follow statutes:
    - IC 14-26-2 Lakes Preservation Act 312 IAC 11
    - IC 14-26-5 Lowering of Ten Acre Lakes Act No related code
    - IC 14-28-1 Flood Control Act 310 IAC 6-1
    - IC 14-29-1 Navigable Waterways Act 312 IAC 6
    - IC 14-29-3 Sand and Gravel Permits Act 312 IAC 6
    - IC 14-29-4 Construction of Channels Act No related code

For information on these Indiana (statutory) Code and Indiana Administrative Code citations, see the DNR Web site at: http://www.in.gov/dnr/water/9451.htm (http://www.in.gov/dnr/water/9451.htm) . Contact the DNR Division of Water at 317-232-4160 for further information.

The physical disturbance of the stream and riparian vegetation, especially large trees overhanging any affected water bodies should be limited to only that which is absolutely necessary to complete the project. The shade provided by the large overhanging trees helps maintain proper stream temperatures and dissolved oxygen for aquatic life.

6. For projects involving construction activity (which includes clearing, grading, excavation and other land disturbing activities) that result in the disturbance of one (1), or more, acres of total land area, contact the Office of Water Quality – Watershed Planning Branch (317/233-1864) regarding the need for of a Rule 5 Storm Water Runoff Permit. Visit the following Web page
    - http://www.in.gov/idem/4902.htm (http://www.in.gov/idem/4902.htm)

   To obtain, and operate under, a Rule 5 permit you will first need to develop a Construction Plan (http://www.in.gov/idem/4917.htm#constreq (http://www.in.gov/idem/4917.htm#constreq)), and as described in 327 IAC 15-5-6.5 (http://www.in.gov/legislative/iac/T03270/A00150 [PDF] (http://www.in.gov/legislative/iac/T03270/A00150.PDF), pages 16 through 19). Before you may apply for a Rule 5 Permit, or begin construction, you must submit your Construction Plan to your county Soil and Water Conservation District (SWCD) (http://www.in.gov/isda/soil/contacts/map.html (http://www.in.gov/isda/soil/contacts/map.html)).

   Upon receipt of the construction plan, personnel of the SWCD or the Indiana Department of Environmental Management will review the plan to determine if it meets the requirements of 327 IAC 15-5. Plans that are deemed deficient will require re-submittal. If the plan is sufficient you will be notified and instructed to submit the verification to IDEM as part of the Rule 5 Notice of Intent (NOI) submittal. Once construction begins, staff of the SWCD or Indiana Department of Environmental Management will perform inspections of activities at the site for compliance with the regulation.

   Please be mindful that approximately 149 Municipal Separate Storm Sewer System (MS4) areas are now being established by various local governmental entities throughout the state as part of the implementation of Phase II federal storm water requirements. All of these MS4 areas will eventually take responsibility for Construction Plan review, inspection, and enforcement. As these MS4 areas obtain program approval from IDEM, they will be added to a list of MS4 areas posted on the IDEM Website at: http://www.in.gov/idem/4900.htm (http://www.in.gov/idem/4900.htm).

   If your project is located in an IDEM-approved MS4 area, please contact the local MS4 program about meeting their storm water requirements. Once the MS4 approves the plan, the NOI can be submitted to IDEM.

   Regardless of the size of your project, or which agency you work with to meet storm water requirements, IDEM recommends that appropriate structures and techniques be utilized both during the construction phase, and after completion of the project, to minimize the impacts associated with storm water runoff. The use of appropriate planning and site development and appropriate storm water quality measures are recommended to prevent soil from leaving the construction site during active land disturbance and for post construction water quality concerns. Information and assistance regarding storm water related to construction activities are available from the Soil and Water Conservation District (SWCD) offices in each county or from IDEM.

7. For projects involving impacts to fish and botanical resources, contact the Department of Natural Resources - Division of Fish and Wildlife (317/232-4080) for addition project input.

8. For projects involving water main construction, water main extensions, and new public water supplies, contact the Office of Water Quality - Drinking Water Branch (317-308-3299) regarding the need for permits.

9. For projects involving effluent discharges to waters of the State of Indiana , contact the Office of Water Quality - Permits Branch (317-233-0468) regarding the need for a National Pollutant Discharge Elimination System (NPDES) permit.

10. For projects involving the construction of wastewater facilities and sewer lines, contact the Office of Water Quality - Permits Branch (317-232-8675) regarding the need for permits.

AIR QUALITY

The above-noted project should be designed to minimize any impact on ambient air quality in, or near, the project area. The project must comply with all federal and state air pollution regulations. Consideration should be given to the following:

1. Regarding open burning, and disposing of organic debris generated by land clearing activities; some types of open burning are allowed (http://www.in.gov/idem/4148.htm (http://www.in.gov/idem/4148.htm)) under specific conditions. You also can seek an open burning variance from IDEM.

   However, IDEM generally recommends that you take vegetative wastes to a registered yard waste composting facility or that the waste be chipped or shredded with composting on site (you must register with IDEM if more than 2,000 pounds is to be composted; contact 317/232-0066). The finished compost can then be used as a mulch or soil amendment. You also may bury any vegetative wastes (such as leaves, twigs, branches, limbs, tree trunks and stumps) onsite, although burying large quantities of such material can lead to subsidence problems, later on.

   Reasonable precautions must be taken to minimize fugitive dust emissions from construction and demolition activities. For example, wetting the area with water, constructing wind barriers, or treating dusty areas with chemical stabilizers (such as calcium chloride or several other commercial products). Dirt tracked onto paved roads from unpaved areas should be minimized.

   Additionally, if construction or demolition is conducted in a wooded area where blackbirds have roosted or abandoned buildings or building sections in which pigeons or bats have roosted for 3-5 years precautionary measures should be taken to avoid an outbreak of histoplasmosis. This disease is caused by the fungus Histoplasma capsulatum, which stems from bird or bat droppings that have accumulated in one area for 3-5 years. The spores from this fungus become airborne when the area is disturbed and can cause infections over an entire community downwind of the site. The area should be wetted down prior to cleanup or demolition of the project site. For more detailed information on histoplasmosis prevention and control, please contact the Acute Disease Control Division of the Indiana State Department of Health at (317) 233-7272.

2. The U.S. EPA and the Surgeon General recommend that people not have long-term exposure to radon at levels above 4 pCi/L. (For a county-by-county map of predicted radon levels in Indiana, visit: http://www.in.gov/idem/4145.htm (http://www.in.gov/idem/4145.htm).)

   The U.S. EPA further recommends that all homes (and apartments within three stories of ground level) be tested for radon. If in-home radon levels are determined to be 4 pCi/L, or higher, EPA recommends a follow-up test. If the second test confirms that radon levels are 4 pCi/L, or higher, EPA recommends the installation

of radon-reduction measures. (For a list of qualified radon testers and radon mitigation (or reduction) specialists visit: http://www.in.gov/isdh/regsvcs/radhealth/pdfs/radon_testers_mitigators_list.pdf (http://www.in.gov/isdh/regsvcs/radhealth/pdfs/radon_testers_mitigators_list.pdf).) It also is recommended that radon reduction measures be built into all new homes, particularly in areas like Indiana that have moderate to high predicted radon levels.

To learn more about radon, radon risks, and ways to reduce exposure visit: http://www.in.gov/isdh/regsvcs/radhealth/radon.htm (http://www.in.gov/isdh/regsvcs/radhealth/radon.htm), http://www.in.gov/idem/4145.htm (http://www.in.gov/idem/4145.htm), or http://www.epa.gov/radon/index.html (http://www.epa.gov/radon/index.html).

3. With respect to asbestos removal: all facilities slated for renovation or demolition (except residential buildings that have (4) four or fewer dwelling units and which will not be used for commercial purposes) must be inspected by an Indiana-licensed asbestos inspector prior to the commencement of any renovation or demolition activities. If regulated asbestos-containing material (RACM) that may become airborne is found, any subsequent demolition, renovation, or asbestos removal activities must be performed in accordance with the proper notification and emission control requirements.

   If no asbestos is found where a renovation activity will occur, or if the renovation involves removal of less than 260 linear feet of RACM off of pipes, less than 160 square feet of RACM off of other facility components, or less than 35 cubic feet of RACM off of all facility components, the owner or operator of the project does not need to notify IDEM before beginning the renovation activity.

   For questions on asbestos demolition and renovation activities, you can also call IDEM's Lead/Asbestos section at 1-888-574-8150.

   However, in all cases where a demolition activity will occur (even if no asbestos is found), the owner or operator must still notify IDEM 10 working days prior to the demolition, using the form found at http://www.in.gov/icpr/webfile/formsdiv/44593.pdf (http://www.in.gov/icpr/webfile/formsdiv/44593.pdf).

   Anyone submitting a renovation/demolition notification form will be billed a notification fee based upon the amount of friable asbestos containing material to be removed or demolished. Projects that involve the removal of more than 2,600 linear feet of friable asbestos containing materials on pipes, or 1,600 square feet or 400 cubic feet of friable asbestos containing material on other facility components, will be billed a fee of $150 per project; projects below these amounts will be billed a fee of $50 per project. All notification remitters will be billed on a quarterly basis.

   For more information about IDEM policy regarding asbestos removal and disposal, visit: http://www.in.gov/idem/4983.htm (http://www.in.gov/idem/4983.htm).

4. With respect to lead-based paint removal: IDEM encourages all efforts to minimize human exposure to lead-based paint chips and dust. IDEM is particularly concerned that young children exposed to lead can suffer from learning disabilities. Although lead-based paint abatement efforts are not mandatory, any abatement that is conducted within housing built before January 1, 1978 , or a child-occupied facility is required to comply with all lead-based paint work practice standards, licensing and notification requirements. For more information about lead-based paint removal visit: http://www.in.gov/isdh/19131.htm (http://www.in.gov/isdh/19131.htm).

5. Ensure that asphalt paving plants are permitted and operate properly. The use of cutback asphalt, or asphalt emulsion containing more than seven percent (7%) oil distillate, is prohibited during the months April through October. See 326 IAC 8-5-2 , Asphalt Paving Rule

(http://www.ai.org/legislative/iac/T03260/A00080.PDF (http://www.ai.org/legislative/iac/T03260/A00080.PDF)).

6. If your project involves the construction of a new source of air emissions or the modification of an existing source of air emissions or air pollution control equipment, it will need to be reviewed by the IDEM Office of Air Quality (OAQ). A registration or permit may be required under 326 IAC 2 (View at: www.ai.org/legislative/iac/t03260/a00020.pdf (http://www.ai.org/legislative/iac/t03260/a00020.pdf).) New sources that use or emit hazardous air pollutants may be subject to Section 112 of the Clean Air Act and corresponding state air regulations governing hazardous air pollutants.

7. For more information on air permits visit: http://www.in.gov/idem/4223.htm (http://www.in.gov/idem/4223.htm), or to initiate the IDEM air permitting process, please contact the Office of Air Quality Permit Reviewer of the Day at (317) 233-0178 or OAMPROD atdem.state.in.us.

LAND QUALITY

In order to maintain compliance with all applicable laws regarding contamination and/or proper waste disposal, IDEM recommends that:

1. If the site is found to contain any areas used to dispose of solid or hazardous waste, you need to contact the Office of Land Quality (OLQ)at 317-308-3103.

2. All solid wastes generated by the project, or removed from the project site, need to be taken to a properly permitted solid waste processing or disposal facility. For more information, visit http://www.in.gov/idem/4998.htm (http://www.in.gov/idem/4998.htm).

3. If any contaminated soils are discovered during this project, they may be subject to disposal as hazardous waste. Please contact the OLQ at 317-308-3103 to obtain information on proper disposal procedures.

4. If PCBs are found at this site, please contact the Industrial Waste Section of OLQ at 317-308-3103 for information regarding management of any PCB wastes from this site.

5. If there are any asbestos disposal issues related to this site, please contact the Industrial Waste Section of OLQ at 317-308-3103 for information regarding the management of asbestos wastes (Asbestos removal is addressed above, under Air Quality).

6. If the project involves the installation or removal of an underground storage tank, or involves contamination from an underground storage tank, you must contact the IDEM Underground Storage Tank program at 317/308-3039. See: http://www.in.gov/idem/4999.htm (http://www.in.gov/idem/4999.htm).

FINAL REMARKS

Should you need to obtain any environmental permits in association with this proposed project, please be mindful that IC 13-15-8 requires that you notify all adjoining property owners and/or occupants within ten days your submittal of each permit application. However, if you are seeking multiple permits, you can still meet the notification requirement with a single notice if all required permit applications are submitted with the same ten day period.

Should the scope of the proposed project be expanded to the extent that a National Environmental Policy Act Environmental Assessment (EA) or Environmental Impact Statement (EIS) is required, IDEM will actively participate in any early interagency coordination review of the project.

Meanwhile, please note that this letter does not constitute a permit, license, endorsement or any other form of approval on the part of the Indiana Department of Environmental Management regarding any project for which a copy of this letter is used. Also note that is it the responsibility of the project engineer or consultant using this letter to ensure that the most current draft of this document, which is located at http://www.in.gov/idem/5284.htm (http://www.in.gov/idem/5284.htm), is used.

Signature(s) of the Applicant

I acknowledge that the following proposed roadway project will be financed in part, or in whole, by public monies.

Project Description

The proposed project will include construction of median J-Turns along US 24. The US 24 and SR 19 intersection will require a median closure to divert north and south left-turn movements to the newly constructed J-turns. Additionally, Lovers Lane Road will be permanently closed north of US 24. Lovers Lane Road will remain open as a right-in/right-out access point south of US 24. All work will be within existing right-of-way.

With my signature, I do hereby affirm that I have read the letter from the Indiana Department of Environment that appears directly above. In addition, I understand that in order to complete that project in which I am interested, with a minimum of impact to the environment, I must consider all the issues addressed in the aforementioned letter, and further, that I must obtain any required permits.

Date: 12/17/19

Signature of the INDOT
Project Engineer or Other Responsible Agent Jenny Bass

Jenny Bass

Date: 12/17/2019

Signature of the
For Hire Consultant Aaron Grisel Digitally signed by Aaron Grisel DN: C=US, E=tgrisel@hntb.com, O="HNTB Indiana, Inc.", OU=Environmental Planning, CN=Aaron Grisel Date: 2019.12.17 13:04:03-05'00'

Aaron Grisel

Aaron Grisel

From: Jamin Beisiegel <jBeisiegel@peruutilities.com>
Sent: Tuesday, December 31, 2019 7:20 AM
To: Aaron Grisel
Subject: RE: INDOT US 24 Intersection Improvements Project Des. No. 1700089 - Wellhead Protection Area

Good Morning Aaron,

The standard spill prevention provisions in a Rule 5 permit will be sufficient, with the addition that any spills must also be reported to Peru Utilities at (765) 473-6681.

Jamin

From: Aaron Grisel <tgrisel@HNTB.com>
Sent: Tuesday, December 17, 2019 9:52 AM
To: Jamin Beisiegel <jBeisiegel@peruutilities.com>
Subject: INDOT US 24 Intersection Improvements Project Des. No. 1700089 - Wellhead Protection Area

Good Morning Jamin,

The attached Early Coordination Letter was mailed to your office on October 28, 2019 for the INDOT US 24 Intersection Improvements project on the north side of Peru. This letter was sent to you because records indicated that you were responsible for MS4 coordination within this area. However, the letter did not note that the project is within a Wellhead Protection Area under the supervision of your Water Management Division.

The reason for this email is to determine whether your office has any comments or recommendations for stormwater best management practices as it applies to the project. All project information included in the attached letter from October 28, 2019 is still consistent with the current project scope. Additionally, due to soil disturbance greater than one acre, the project will require a Stormwater Pollution Prevention Plan and corresponding erosion control measures in accordance with IDEM Rule 5 permit requirements.

If you have any questions or comments, please feel free to respond to this email or give me a call. Also, if you do not have any comments or recommendations for this project, responding to this email stating that you do not have any comments or recommendations would be very helpful.

Thanks,

Aaron Grisel
Scientist II
Environmental Planning
Tel (317) 636-4682 **Direct** (317) 917-5220

HNTB CORPORATION
111 Monument Circle, Suite 1200, Indianapolis, Indiana 46204 | www.hntb.com

Landon Little

From: Novak, Karen <KNovak@indot.IN.gov>
Sent: Monday, November 18, 2019 3:32 PM
To: Landon Little
Cc: Richard Connolly
Subject: RE: USFWS Bat Layer Check - Des. No 1700089 US 24 intersection improvement, Miami County

Follow Up Flag: Follow up
Flag Status: Flagged

Landon,

A review of the USFWS database did not indicate the presence of endangered bat species in or within 0.5 mile of the project area. The range-wide programmatic consultation for the Indiana Bat and Northern Long-eared Bat shall be completed according to the most recent "Using the USFWS's IPaC System for Listed Bat Consultation for INDOT Projects".

Thank You,

Karen M. Novak
Sr Environmental Mgr Supervisor
5333 Hatfield Road
Fort Wayne, IN 46808
Office: (260) 969-8302
Email: knovak@indot.in.gov

From: Landon Little [mailto:ltlittle@HNTB.com]
Sent: Tuesday, November 12, 2019 1:40 PM
To: Novak, Karen <KNovak@indot.IN.gov>
Cc: Richard Connolly <rconnolly@HNTB.com>
Subject: USFWS Bat Layer Check - Des. No 1700089 US 24 intersection improvement, Miami County

Hello Karen,

HNTB would like to request a check of the USFWS bat data to determine the presence of any protected bat species in the area of this INDOT US 24 at SR 19 intersection improvement project in Miami County. See attached graphics for location information. Please let me know if you need any additional information.

Thank you,
Landon Little
Scientist
Environmental Planning

INDOT Bridge/Small Structure Bat Inspection Data Sheet (Rev 4/29/2016)

General Information		
Date of Inspection: 10/19/2019 Time of Inspection: 9:00 am	Initial Inspection ☑ Follow-up Inspection ☐ Construction ☐	Temp: 40 Wind: <10 mph Precip: 0
County: Miami		
Inspected by: A. Grisel, R. Connolly		Sunrise: 7:36 Sunset: 5:19
GPS Northing: 4515144 Easting: 579817 UTM Zone: 16	Contract Number: R-42406	Anticipated Start Date for Construction: May 2020

Bridge or Culvert	Bridge or Culvert
Stream or Road Crossed: US 24	Station: 267+43
Bridge/Culvert number: 024-52-07579	Number of Spans: 3
Type of Structure: ☐ Concrete box beam ☐ Steel beam ☐ Concrete I-beam ☐ Steel girder ☐ Concrete bulb tee beam ☐ Steel pony truss ☐ Concrete arch ☐ Welded steel thru girder ☐ Concrete girder ☐ Concrete box culvert ☐ Concrete slab ☐ Concrete pipe ☐ Multi-plate arch ☑ Corrugated steel pipe ☐ Other (list):	Material: ☐ Concrete ☑ Steel ☐ Other (describe): Shape: ☐ Box Culvert ☑ Pipe ☐ Arch ☐ Slab ☐ Other (describe)
Searched entire structure? If not, why not? Yes	Location of bats or signs of use (w/drawing and photos): N/A
Bats Present? ☐ Seen? ☐ Heard? No	
In Clusters? Number of clusters: N/A	
Number of bats in largest cluster: N/A	
Approximate total number of bats found: N/A	
Signs of previous bat use? ☐ Guano ☐ Staining N/A	

If Bats Present
Date and Time Project Supervisor was notified: N/A
Name of Project Supervisor notified: N/A

For bridges and culverts, provide plan, longitudinal and cross section views as appropriate.

N/A

INDOT Bridge/Small Structure Bat Inspection Data Sheet (Rev 4/29/2016)

General Information		
Date of Inspection: 10/19/2019 Time of Inspection: 9:00 am	Initial Inspection ☑ Follow-up Inspection ☐ Construction ☐	Temp: 40 Wind: <10 mph Precip: 0 Sunrise: 7:36 Sunset: 5:19
County: Miami		
Inspected by: A. Grisel, R. Connolly		
GPS Northing: 4515144 Easting: 579817 UTM Zone: 16	Contract Number: R-42406	Anticipated Start Date for Construction: May 2020

Bridge or Culvert	Bridge or Culvert
Stream or Road Crossed: US 24	Station: 249+50
Bridge/Culvert number: S249A	Number of Spans: 1
Type of Structure: ☐ Concrete box beam ☐ Steel beam ☐ Concrete I-beam ☐ Steel girder ☐ Concrete bulb tee beam ☐ Steel pony truss ☐ Concrete arch ☐ Welded steel thru girder ☐ Concrete girder ☐ Concrete box culvert ☐ Concrete slab ☐ Concrete pipe ☐ Multi-plate arch ☑ Corrugated steel pipe ☐ Other (list):	Material: ☐ Concrete ☑ Steel ☐ Other (describe): Shape: ☐ Box Culvert ☑ Pipe ☐ Arch ☐ Slab ☐ Other (describe)
Searched entire structure? If not, why not? Yes	Location of bats or signs of use (w/drawing and photos): N/A
Bats Present? ☐ Seen? ☐ Heard? No	
In Clusters? Number of clusters: N/A	
Number of bats in largest cluster: N/A	
Approximate total number of bats found: N/A	
Signs of previous bat use? ☐ Guano ☐ Staining N/A	

If Bats Present
Date and Time Project Supervisor was notified: N/A
Name of Project Supervisor notified: N/A

For bridges and culverts, provide plan, longitudinal and cross section views as appropriate.

N/A

INDOT Bridge/Small Structure Bat Inspection Data Sheet (Rev 4/29/2016)

General Information		
Date of Inspection: 10/19/2019 Time of Inspection: 9:00 am	Initial Inspection ☑ Follow-up Inspection ☐ Construction ☐	Temp: 40 Wind: <10 mph Precip: 0 Sunrise: 7:36 Sunset: 5:19
County: Miami		
Inspected by: A. Grisel, R. Connolly		
GPS Northing: 4515144 Easting: 579817 UTM Zone: 16	Contract Number: R-42406	Anticipated Start Date for Construction: May 2020

Bridge or Culvert	Bridge or Culvert
Stream or Road Crossed: Lovers Lane Road	Station: 260+70
Bridge/Culvert number: S260A	Number of Spans: 1
Type of Structure: ☐ Concrete box beam ☐ Steel beam ☐ Concrete I-beam ☐ Steel girder ☐ Concrete bulb tee beam ☐ Steel pony truss ☐ Concrete arch ☐ Welded steel thru girder ☐ Concrete girder ☐ Concrete box culvert ☐ Concrete slab ☐ Concrete pipe ☐ Multi-plate arch ☑ Corrugated steel pipe ☐ Other (list):	Material: ☐ Concrete ☑ Steel ☐ Other (describe): Shape: ☐ Box Culvert ☑ Pipe ☐ Arch ☐ Slab ☐ Other (describe)
Searched entire structure? If not, why not? Yes	Location of bats or signs of use (w/drawing and photos): N/A
Bats Present? ☐ Seen? ☐ Heard? No	
In Clusters? Number of clusters: N/A	
Number of bats in largest cluster: N/A	
Approximate total number of bats found: N/A	
Signs of previous bat use? ☐ Guano ☐ Staining N/A	

If Bats Present
Date and Time Project Supervisor was notified: N/A
Name of Project Supervisor notified: N/A

For bridges and culverts, provide plan, longitudinal and cross section views as appropriate.

N/A

INDOT Bridge/Small Structure Bat Inspection Data Sheet (Rev 4/29/2016)

General Information		
Date of Inspection: 10/19/2019 Time of Inspection: 9:00 am	Initial Inspection ☑ Follow-up Inspection ☐ Construction ☐	Temp: 40 Wind: <10 mph Precip: 0 Sunrise: 7:36 Sunset: 5:19
County: Miami		
Inspected by: A. Grisel, R. Connolly		
GPS Northing: 4515144 Easting: 579817 UTM Zone: 16	Contract Number: R-42406	Anticipated Start Date for Construction: May 2020

Bridge or Culvert	Bridge or Culvert
Stream or Road Crossed: US 24	Station: 261+30
Bridge/Culvert number: S261A	Number of Spans: 1
Type of Structure: ☐ Concrete box beam ☐ Steel beam ☐ Concrete I-beam ☐ Steel girder ☐ Concrete bulb tee beam ☐ Steel pony truss ☐ Concrete arch ☐ Welded steel thru girder ☐ Concrete girder ☐ Concrete box culvert ☐ Concrete slab ☐ Concrete pipe ☐ Multi-plate arch ☑ Corrugated steel pipe ☐ Other (list):	Material: ☐ Concrete ☑ Steel ☐ Other (describe): Shape: ☐ Box Culvert ☑ Pipe ☐ Arch ☐ Slab ☐ Other (describe)
Searched entire structure? If not, why not? Yes	Location of bats or signs of use (w/drawing and photos): N/A
Bats Present? ☐ Seen? ☐ Heard? No	
In Clusters? Number of clusters: N/A	
Number of bats in largest cluster: N/A	
Approximate total number of bats found: N/A	
Signs of previous bat use? ☐ Guano ☐ Staining N/A	

If Bats Present
Date and Time Project Supervisor was notified: N/A
Name of Project Supervisor notified: N/A

For bridges and culverts, provide plan, longitudinal and cross section views as appropriate.

N/A

INDOT Bridge/Small Structure Bat Inspection Data Sheet (Rev 4/29/2016)

General Information		
Date of Inspection: 10/19/2019 Time of Inspection: 9:00 am	Initial Inspection ☑ Follow-up Inspection ☐ Construction ☐	Temp: 40 Wind: <10 mph Precip: 0 Sunrise: 7:36 Sunset: 5:19
County: Miami		
Inspected by: A. Grisel, R. Connolly		
GPS Northing: 4515144 Easting: 579817 UTM Zone: 16	Contract Number: R-42406	Anticipated Start Date for Construction: May 2020

Bridge or Culvert	Bridge or Culvert
Stream or Road Crossed: US 24	Station: 525+55
Bridge/Culvert number: S525A	Number of Spans: 1
Type of Structure: ☐ Concrete box beam ☐ Steel beam ☐ Concrete I-beam ☐ Steel girder ☐ Concrete bulb tee beam ☐ Steel pony truss ☐ Concrete arch ☐ Welded steel thru girder ☐ Concrete girder ☐ Concrete box culvert ☐ Concrete slab ☐ Concrete pipe ☐ Multi-plate arch ☑ Corrugated steel pipe ☐ Other (list):	Material: ☐ Concrete ☑ Steel ☐ Other (describe): Shape: ☐ Box Culvert ☑ Pipe ☐ Arch ☐ Slab ☐ Other (describe)
Searched entire structure? If not, why not? Yes	Location of bats or signs of use (w/drawing and photos): N/A
Bats Present? ☐ Seen? ☐ Heard? No	
In Clusters? Number of clusters: N/A	
Number of bats in largest cluster: N/A	
Approximate total number of bats found: N/A	
Signs of previous bat use? ☐ Guano ☐ Staining N/A	

If Bats Present
Date and Time Project Supervisor was notified: N/A
Name of Project Supervisor notified: N/A

For bridges and culverts, provide plan, longitudinal and cross section views as appropriate.

N/A

United States Department of the Interior

FISH AND WILDLIFE SERVICE
Indiana Ecological Services Field Office
620 South Walker Street
Bloomington, IN 47403-2121
Phone: (812) 334-4261 Fax: (812) 334-4273
http://www.fws.gov/midwest/Endangered/section7/s7process/step1.html

In Reply Refer To: December 06, 2019
Consultation Code: 03E12000-2020-SLI-0301
Event Code: 03E12000-2020-E-01669
Project Name: Des. No. 1700089 - US 24 and SR 19 Intersection Improvements

Subject: Updated list of threatened and endangered species that may occur in your proposed project location, and/or may be affected by your proposed project

To Whom It May Concern:

The attached species list identifies any federally threatened, endangered, proposed and candidate species that may occur within the boundary of your proposed project or may be affected by your proposed project. The list also includes designated critical habitat if present within your proposed project area or affected by your project. This list is provided to you as the initial step of the consultation process required under section 7(c) of the Endangered Species Act, also referred to as Section 7 Consultation.

Section 7 of the Endangered Species Act of 1973 requires that actions authorized, funded, or carried out by Federal agencies not jeopardize federally threatened or endangered species or adversely modify designated critical habitat. To fulfill this mandate, Federal agencies (or their designated non-federal representative) must consult with the Service if they determine their project “may affect” listed species or critical habitat.

Under 50 CFR 402.12(e) (the regulations that implement Section 7 of the Endangered Species Act) the accuracy of this species list should be verified after 90 days. This verification can be completed formally or informally. You may verify the list by visiting the ECOS-IPaC website http://ecos.fws.gov/ipac/ at regular intervals during project planning and implementation and completing the same process you used to receive the attached list. As an alternative, you may contact this Ecological Services Field Office for updates.

Please use the species list provided and visit the U.S. Fish and Wildlife Service's Region 3 Section 7 Technical Assistance website at - http://www.fws.gov/midwest/endangered/section7/s7process/index.html. This website contains step-by-step instructions which will help you

determine if your project will have an adverse effect on listed species and will help lead you through the Section 7 process.

For all **wind energy projects** and **projects that include installing towers that use guy wires or are over 200 feet in height**, please contact this field office directly for assistance, even if no federally listed plants, animals or critical habitat are present within your proposed project or may be affected by your proposed project.

Although no longer protected under the Endangered Species Act, be aware that bald eagles are protected under the Bald and Golden Eagle Protection Act (16 U.S.C. 668 *et seq.*) and Migratory Bird Treaty Act *(*16 U.S.C. 703 *et seq*), as are golden eagles. Projects affecting these species may require measures to avoid harming eagles or may require a permit. If your project is near an eagle nest or winter roost area, see our Eagle Permits website at http://www.fws.gov/midwest/midwestbird/EaglePermits/index.html to help you determine if you can avoid impacting eagles or if a permit may be necessary.

We appreciate your concern for threatened and endangered species. Please include the Consultation Tracking Number in the header of this letter with any request for consultation or correspondence about your project that you submit to our office.

Attachment(s):

- Official Species List

Official Species List

This list is provided pursuant to Section 7 of the Endangered Species Act, and fulfills the requirement for Federal agencies to "request of the Secretary of the Interior information whether any species which is listed or proposed to be listed may be present in the area of a proposed action".

This species list is provided by:

Indiana Ecological Services Field Office
620 South Walker Street
Bloomington, IN 47403-2121
(812) 334-4261

Project Summary

Consultation Code: 03E12000-2020-SLI-0301

Event Code: 03E12000-2020-E-01669

Project Name: Des. No. 1700089 - US 24 and SR 19 Intersection Improvements

Project Type: TRANSPORTATION

Project Description: The Indiana Department of Transportation (INDOT) and Federal Highway Administration (FHWA) intend to proceed with an intersection improvement project along US 24 in the Ft. Wayne District and within a rural portion of Miami County. This project is located in Peru Township along US 24, 3.7 miles east of US 31 within the incorporated limits of Peru, Indiana. The current proposed project will include construction of median J-turns along US 24. The US 24 and SR 19 intersection will require a median closure to divert north and south left-turn movements to the US 24 J-turns approximately 650 feet northeast and 680 feet southwest of the existing intersection. All work will be within the existing right-of-way. There is potentially suitable summer bat habitat located adjacent to the project area. The adjacent trees located north of SR 19 are associated with adjacent forested residential properties, and adjacent trees located south of US 24 are associated with the Prairie Ditch riparian corridor. Tree clearing will not be required for the proposed project.

The November 14, 2019 bridge inspection report for Structure No. 024-52-07579 states that no evidence of bats was seen or heard under the bridge. Four additional median drains/underdrains with diameters of ≤18” are located within the project area; however, these structures do not have an assigned INDOT structure number or inspection report. A search of the USFWS database by INDOT Fort Wayne District on November 18, 2019, did not identify any documented sites within a half mile of the project area. The October 19, 2019 bat assessments stated that no evidence of bats was seen or heard within any of the structures.

The Red Flag Investigation (RFI) was submitted to INDOT-Site Assessment & Management on November 21, 2019. The project will require new permanent lighting at the location of the J-turns, and temporary lighting may be needed during construction of the project. The project is scheduled to let in May 2020. Work is anticipated to be completed by the end of 2020.

Project Location:

Approximate location of the project can be viewed in Google Maps: https://www.google.com/maps/place/40.78070232499458N86.05833154715654W

Counties: Miami, IN

Endangered Species Act Species

There is a total of 2 threatened, endangered, or candidate species on this species list.

Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species. Note that 1 of these species should be considered only under certain conditions.

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries[1], as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area under this office's jurisdiction. Please contact the designated FWS office if you have questions.

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1. NOAA Fisheries, also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

Mammals

NAME	STATUS
Indiana Bat *Myotis sodalis* There is **final** critical habitat for this species. Your location is outside the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/5949 Species survey guidelines: https://ecos.fws.gov/ipac/guideline/survey/population/1/office/31440.pdf	Endangered
Northern Long-eared Bat *Myotis septentrionalis* No critical habitat has been designated for this species. This species only needs to be considered under the following conditions: ▪ Incidental take of the NLEB is not prohibited here. Federal agencies may consult using the 4(d) rule streamlined process. Transportation projects may consult using the programmatic process. See www.fws.gov/midwest/endangered/mammals/nleb/index.html Species profile: https://ecos.fws.gov/ecp/species/9045	Threatened

Critical habitats

THERE ARE NO CRITICAL HABITATS WITHIN YOUR PROJECT AREA UNDER THIS OFFICE'S JURISDICTION.

United States Department of the Interior

FISH AND WILDLIFE SERVICE
Indiana Ecological Services Field Office
620 South Walker Street
Bloomington, IN 47403-2121
Phone: (812) 334-4261 Fax: (812) 334-4273
http://www.fws.gov/midwest/Endangered/section7/s7process/step1.html

In Reply Refer To: December 06, 2019
Consultation Code: 03E12000-2020-I-0301
Event Code: 03E12000-2020-E-01673
Project Name: Des. No. 1700089 - US 24 and SR 19 Intersection Improvements

Subject: Concurrence verification letter for the 'Des. No. 1700089 - US 24 and SR 19 Intersection Improvements' project under the revised February 5, 2018, FHWA, FRA, FTA Programmatic Biological Opinion for Transportation Projects within the Range of the Indiana Bat and Northern Long-eared Bat.

To whom it may concern:

The U.S. Fish and Wildlife Service (Service) has received your request to verify that the **Des. No. 1700089 - US 24 and SR 19 Intersection Improvements** (Proposed Action) may rely on the concurrence provided in the February 5, 2018, FHWA, FRA, FTA Programmatic Biological Opinion for Transportation Projects within the Range of the Indiana Bat and Northern Long-eared Bat (PBO) to satisfy requirements under Section 7(a)(2) of the Endangered Species Act of 1973 (ESA) (87 Stat. 884, as amended; 16 U.S.C 1531 *et seq.*).

Based on the information you provided (Project Description shown below), you have determined that the Proposed Action is within the scope and adheres to the criteria of the PBO, including the adoption of applicable avoidance and minimization measures, and may affect, but is not likely to adversely affect (NLAA) the endangered Indiana bat (*Myotis sodalis*) and/or the threatened Northern long-eared bat (*Myotis septentrionalis*).

The Service has 14 calendar days to notify the lead Federal action agency or designated non-federal representative if we determine that the Proposed Action does not meet the criteria for a NLAA determination under the PBO. If we do not notify the lead Federal action agency or designated non-federal representative within that timeframe, you may proceed with the Proposed Action under the terms of the NLAA concurrence provided in the PBO. This verification period allows Service Field Offices to apply local knowledge to implementation of the PBO, as we may identify a small subset of actions having impacts that were unanticipated. In such instances, Service Field Offices may request additional information that is necessary to verify inclusion of the proposed action under the PBO.

For Proposed Actions that include bridge/structure removal, replacement, and/or maintenance activities: If your initial bridge/structure assessments failed to detect Indiana bats, but you later detect bats during construction, please submit the Post Assessment Discovery of Bats at Bridge/Structure Form (User Guide Appendix E) to this Service Office. In these instances, potential incidental take of Indiana bats may be exempted provided that the take is reported to the Service.

If the Proposed Action is modified, or new information reveals that it may affect the Indiana bat and/or Northern long-eared bat in a manner or to an extent not considered in the PBO, further review to conclude the requirements of ESA Section 7(a)(2) may be required. If the Proposed Action may affect any other federally-listed or proposed species, and/or any designated critical habitat, additional consultation between the lead Federal action agency and this Service Office is required. If the proposed action has the potential to take bald or golden eagles, additional coordination with the Service under the Bald and Golden Eagle Protection Act may also be required. In either of these circumstances, please contact this Service Office.

Project Description

The following project name and description was collected in IPaC as part of the endangered species review process.

Name

Des. No. 1700089 - US 24 and SR 19 Intersection Improvements

Description

The Indiana Department of Transportation (INDOT) and Federal Highway Administration (FHWA) intend to proceed with an intersection improvement project along US 24 in the Ft. Wayne District and within a rural portion of Miami County. This project is located in Peru Township along US 24, 3.7 miles east of US 31 within the incorporated limits of Peru, Indiana. The current proposed project will include construction of median J-turns along US 24. The US 24 and SR 19 intersection will require a median closure to divert north and south left-turn movements to the US 24 J-turns approximately 650 feet northeast and 680 feet southwest of the existing intersection. All work will be within the existing right-of-way. There is potentially suitable summer bat habitat located adjacent to the project area. The adjacent trees located north of SR 19 are associated with adjacent forested residential properties, and adjacent trees located south of US 24 are associated with the Prairie Ditch riparian corridor. Tree clearing will not be required for the proposed project.

The November 14, 2019 bridge inspection report for Structure No. 024-52-07579 states that no evidence of bats was seen or heard under the bridge. Four additional median drains/ underdrains with diameters of ≤18” are located within the project area; however, these structures do not have an assigned INDOT structure number or inspection report. A search of the USFWS database by INDOT Fort Wayne District on November 18, 2019, did not identify any documented sites within a half mile of the project area. The October 19, 2019 bat assessments stated that no evidence of bats was seen or heard within any of the structures.

The Red Flag Investigation (RFI) was submitted to INDOT-Site Assessment & Management on November 21, 2019. The project will require new permanent lighting at the location of the J-turns, and temporary lighting may be needed during construction of the project. The project is scheduled to let in May 2020. Work is anticipated to be completed by the end of 2020.

Determination Key Result

Based on your answers provided, this project(s) may affect, but is not likely to adversely affect the endangered Indiana bat and/or the threatened Northern long-eared bat, therefore, consultation with the U.S. Fish and Wildlife Service pursuant to Section 7(a)(2) of the Endangered Species Act of 1973 (ESA) (87 Stat. 884, as amended 16 U.S.C. 1531 *et seq.*) is required. However, also based on your answers provided, this project may rely on the concurrence provided in the revised February 5, 2018, FHWA, FRA, FTA Programmatic Biological Opinion for Transportation Projects within the Range of the Indiana Bat and Northern Long-eared Bat.

Qualification Interview

1. Is the project within the range of the Indiana bat[1]?

   [1] See Indiana bat species profile

   Automatically answered
   Yes

2. Is the project within the range of the Northern long-eared bat[1]?

   [1] See Northern long-eared bat species profile

   Automatically answered
   Yes

3. Which Federal Agency is the lead for the action?
   A) Federal Highway Administration (FHWA)

4. Are *all* project activities limited to non-construction[1] activities only? (examples of non-construction activities include: bridge/abandoned structure assessments, surveys, planning and technical studies, property inspections, and property sales)

   [1] Construction refers to activities involving ground disturbance, percussive noise, and/or lighting.

   No

5. Does the project include *any* activities that are **greater than** 300 feet from existing road/ rail surfaces[1]?

   [1] Road surface is defined as the actively used [e.g. motorized vehicles] driving surface and shoulders [may be pavement, gravel, etc.] and rail surface is defined as the edge of the actively used rail ballast.

   No

6. Does the project include *any* activities **within** 0.5 miles of a known Indiana bat and/or NLEB hibernaculum[1]?

   [1] For the purpose of this consultation, a hibernaculum is a site, most often a cave or mine, where bats hibernate during the winter (see suitable habitat), but could also include bridges and structures if bats are found to be hibernating there during the winter.

   No

7. Is the project located **within** a karst area?

   No

8. Is there *any* suitable[1] summer habitat for Indiana Bat or NLEB **within** the project action area[2]? (includes any trees suitable for maternity, roosting, foraging, or travelling habitat)

   [1] See the Service's summer survey guidance for our current definitions of suitable habitat.

   [2] The action area is defined as all areas to be affected directly or indirectly by the Federal action and not merely the immediate area involved in the action (50 CFR Section 402.02). Further clarification is provided by the national consultation FAQs.

   Yes

9. Will the project remove *any* suitable summer habitat[1] and/or remove/trim any existing trees **within** suitable summer habitat?

   [1] See the Service's summer survey guidance for our current definitions of suitable habitat.

   No

10. Does the project include activities **within documented Indiana bat habitat**[1][2]?

    [1] Documented roosting or foraging habitat – for the purposes of this consultation, we are considering documented habitat as that where Indiana bats and/or NLEB have actually been captured and tracked using (1) radio telemetry to roosts; (2) radio telemetry biangulation/triangulation to estimate foraging areas; or (3) foraging areas with repeated use documented using acoustics. Documented roosting habitat is also considered as suitable summer habitat within 0.25 miles of documented roosts.)

    [2] For the purposes of this key, we are considering documented corridors as that where Indiana bats and/or NLEB have actually been captured and tracked to using (1) radio telemetry; or (2) treed corridors located directly between documented roosting and foraging habitat.

    No

11. Does the project include activities **within documented NLEB habitat**[1][2]?

    [1] Documented roosting or foraging habitat – for the purposes of this consultation, we are considering documented habitat as that where Indiana bats and/or NLEB have actually been captured and tracked using (1) radio telemetry to roosts; (2) radio telemetry biangulation/triangulation to estimate foraging areas; or (3) foraging areas with repeated use documented using acoustics. Documented roosting habitat is also considered as suitable summer habitat within 0.25 miles of documented roosts.)

    [2] For the purposes of this key, we are considering documented corridors as that where Indiana bats and/or NLEB have actually been captured and tracked to using (1) radio telemetry; or (2) treed corridors located directly between documented roosting and foraging habitat.

    No

12. Does the project include wetland or stream protection activities associated with compensatory wetland mitigation?

    No

13. Does the project include slash pile burning?

    No

14. Does the project include *any* bridge removal, replacement, and/or maintenance activities (e.g., any bridge repair, retrofit, maintenance, and/or rehabilitation work)?

    Yes

15. Is there *any* suitable habitat[1] for Indiana bat or NLEB **within** 1,000 feet of the bridge? (includes any trees suitable for maternity, roosting, foraging, or travelling habitat)

    [1] See the Service's current summer survey guidance for our current definitions of suitable habitat.

    Yes

16. Has a bridge assessment[1] been conducted **within** the last 24 months[2] to determine if the bridge is being used by bats?

    [1] See User Guide Appendix D for bridge/structure assessment guidance

    [2] Assessments must be completed no more than 2 years prior to conducting any work below the deck surface on all bridges that meet the physical characteristics described in the Programmatic Consultation, regardless of whether assessments have been conducted in the past. Due to the transitory nature of bat use, a negative result in one year does not guarantee that bats will not use that bridge/structure in subsequent years.

    Yes

    SUBMITTED DOCUMENTS

    - *INDOT Culvert Asssessment Form_S249A.pdf https://ecos.fws.gov/ipac/project/ZCXHI6ST4RGG5GIZVVWXDRTPEU/projectDocuments/19207505*
    - *INDOT Culvert Asssessment Form_024-52-07579.pdf https://ecos.fws.gov/ipac/project/ZCXHI6ST4RGG5GIZVVWXDRTPEU/projectDocuments/19207506*
    - *INDOT Culvert Asssessment Form_S260A.pdf https://ecos.fws.gov/ipac/project/ZCXHI6ST4RGG5GIZVVWXDRTPEU/projectDocuments/19207507*
    - *INDOT Culvert Asssessment Form_S261A.pdf https://ecos.fws.gov/ipac/project/ZCXHI6ST4RGG5GIZVVWXDRTPEU/projectDocuments/19207508*
    - *INDOT Culvert Asssessment Form_S525A.pdf https://ecos.fws.gov/ipac/project/ZCXHI6ST4RGG5GIZVVWXDRTPEU/projectDocuments/19207509*

17. Did the bridge assessment detect *any* signs of Indiana bats and/or NLEBs roosting in/under the bridge (bats, guano, etc.)[1]?

    [1] If bridge assessment detects signs of *any* species of bats, coordination with the local FWS office is needed to identify potential threatened or endangered bat species. Additional studies may be undertaken to try to identify which bat species may be utilizing the bridge prior to allowing *any* work to proceed.

    Note: There is a small chance bridge assessments for bat occupancy do not detect bats. Should a small number of bats be observed roosting on a bridge just prior to or during construction, such that take is likely to occur or does occur in the form of harassment, injury or death, the PBO requires the action agency to report the take. Report all unanticipated take within 2 working days of the incident to the USFWS. Construction activities may continue without delay provided the take is reported to the USFWS and is limited to 5 bats per project.

    No

18. Will the bridge removal, replacement, and/or maintenance activities include installing new or replacing existing **permanent** lighting?

    No

19. Does the project include the removal, replacement, and/or maintenance of *any* structure other than a bridge? (e.g., rest areas, offices, sheds, outbuildings, barns, parking garages, etc.)

    No

20. Will the project involve the use of **temporary** lighting *during* the active season?

    Yes

21. Is there *any* suitable habitat **within** 1,000 feet of the location(s) where **temporary** lighting will be used?

    Yes

22. Will the project install new or replace existing **permanent** lighting?

    Yes

23. Is there *any* suitable habitat **within** 1,000 feet of the location(s) where **permanent** lighting will be installed or replaced?

    Yes

24. Does the project include percussives or other activities (**not including tree removal/ trimming or bridge/structure work**) that will increase noise levels above existing traffic/ background levels?

    No

25. Are *all* project activities that are **not associated with** habitat removal, tree removal/ trimming, bridge and/or structure activities, temporary or permanent lighting, or use of percussives, limited to actions that DO NOT cause any additional stressors to the bat species?

    Examples: lining roadways, unlighted signage , rail road crossing signals, signal lighting, and minor road repair such as asphalt fill of potholes, etc.

    Yes

26. Will the project raise the road profile **above the tree canopy**?

    No

27. Are the project activities that are not associated with habitat removal, tree removal/ trimming, bridge and/or structure activities, temporary or permanent lighting, or use of percussives consistent with a No Effect determination in this key?

    Automatically answered
    Yes, other project activities are limited to actions that DO NOT cause any additional stressors to the bat species as described in the BA/BO

28. Is the bridge removal, replacement, or maintenance activities portion of this project consistent with a No Effect determination in this key?

    Automatically answered
    Yes, because the bridge has been assessed using the criteria documented in the BA and no signs of bats were detected

29. **General AMM 1**
    Will the project ensure *all* operators, employees, and contractors working in areas of known or presumed bat habitat are aware of *all* FHWA/FRA/FTA (Transportation Agencies) environmental commitments, including all applicable Avoidance and Minimization Measures?

    Yes

30. **Lighting AMM 1**
    Will *all* **temporary** lighting be directed away from suitable habitat during the active season?

    Yes

31. **Lighting AMM 2**
    Does the lead agency use the BUG (Backlight, Uplight, and Glare) system developed by the Illuminating Engineering Society[1][2] to rate the amount of light emitted in unwanted directions?

    [1] Refer to Fundamentals of Lighting - BUG Ratings

    [2] Refer to The BUG System—A New Way To Control Stray Light

    Yes

32. **Lighting AMM 2**
    Will the **permanent** lighting be designed to be as close to 0 for all three BUG ratings as possible, with a priority of "uplight" of 0 and "backlight" as low as practicable?

    Yes

Project Questionnaire

1. Have you made a No Effect determination for *all* other species indicated on the FWS IPaC generated species list?

   N/A

2. Have you made a May Affect determination for *any* other species on the FWS IPaC generated species list?

   N/A

3. Please describe the proposed bridge work:

   Potential replacement, rehabilitation, or lengthening of structures. A final determination regarding structure work has not yet been decided.

4. Please state the timing of all proposed bridge work:

   May 2020 - December 2020

5. Please enter the date of the bridge assessment:

   10/19/19

Avoidance And Minimization Measures (AMMs)

This determination key result includes the committment to implement the following Avoidance and Minimization Measures (AMMs):

GENERAL AMM 1

Ensure all operators, employees, and contractors working in areas of known or presumed bat habitat are aware of all FHWA/FRA/FTA (Transportation Agencies) environmental commitments, including all applicable AMMs.

LIGHTING AMM 1

Direct temporary lighting away from suitable habitat during the active season.

LIGHTING AMM 2

When installing new or replacing existing permanent lights, use downward-facing, full cut-off lens lights (with same intensity or less for replacement lighting); or for those transportation agencies using the BUG system developed by the Illuminating Engineering Society, be as close to 0 for all three ratings with a priority of "uplight" of 0 and "backlight" as low as practicable.

Determination Key Description: FHWA, FRA, FTA Programmatic Consultation For Transportation Projects Affecting NLEB Or Indiana Bat

This key was last updated in IPaC on December 02, 2019. Keys are subject to periodic revision.

This decision key is intended for projects/activities funded or authorized by the Federal Highway Administration (FHWA), Federal Railroad Administration (FRA), and/or Federal Transit Administration (FTA), which may require consultation with the U.S. Fish and Wildlife Service (Service) under Section 7 of the Endangered Species Act (ESA) for the endangered **Indiana bat** (*Myotis sodalis*) and the threatened **Northern long-eared bat** (NLEB) (*Myotis septentrionalis*).

This decision key should only be used to verify project applicability with the Service's February 5, 2018, FHWA, FRA, FTA Programmatic Biological Opinion for Transportation Projects. The programmatic biological opinion covers limited transportation activities that may affect either bat species, and addresses situations that are both likely and not likely to adversely affect either bat species. This decision key will assist in identifying the effect of a specific project/activity and applicability of the programmatic consultation. The programmatic biological opinion is not intended to cover all types of transportation actions. Activities outside the scope of the programmatic biological opinion, or that may affect ESA-listed species other than the Indiana bat or NLEB, or any designated critical habitat, may require additional ESA Section 7 consultation.

APPENDIX D: SECTION 106 OF NHPA

Minor Projects PA Project Assessment Form

Date: 12/30/2019

Project Designation Number: 1700089

Route Number: United States (US) 24

Project Description: Other Intersection Improvement at SR 19

The Indiana Department of Transportation (INDOT) is proposing to reconfigure the intersection of US 24 and SR 19 (Des. No. 1700089) by constructing "J-turns" within the US 24 median approximately 650 feet northeast and 680 feet southwest of the existing intersection. The median at the intersection of US 24 and SR 19 will be closed to divert north and south movements to the J-turns. INDOT is considering the closure of Lovers Lane Road north and south of US 24 to prevent traffic from bypassing the J-turns to cross the roadway. Additional signage notifying motorists of the J-turns will be required. This project is located in a rural portion of Miami County along US 24, 3.7 miles east of US 31 in Peru, Indiana. The purpose of the project is to improve safety, traffic operations, and corridor mobility. The need for the project is demonstrated through the high crash rates on US 24 when compared to similar facilities in Indiana.

All work is expected to occur within the existing r/w of US 24.

On December 20th, INDOT-CRO emailed HNTB for clarification regarding the closure of Lover's Lane north and south of US 24, as noted in the MPPA application. HNTB responded the same day advising that while Lover's Lane would be closed between US 24 and SR 19 as noted in the MPPA submission, the decision had been made to change the scope by keeping Lover's Lane open to the south as a "right-in/ right-out." (**See attached email**)

Feature crossed (if applicable):

Township: Peru Township

City/County: Peru/Miami County

Information reviewed (please check all that apply):

General project location map ☒ USGS map ☒ Aerial photograph ☒

Written description of project area ☐ General project area photos ☐

Previously completed archaeology reports ☐ Interim Report ☒

Previously completed historic property reports ☐

Soil survey data ☒ Bridge inspection information ☐

Other (please specify): Indiana State Historic Architectural and Archaeological Research Database (SHAARD); Indiana Buildings, Bridges, and Cemeteries Map website; *Miami County Interim Report*; Miami County GIS website; Arc Map GIS; online street-view imagery; MPPA application (including maps and photographs) sent by HNTB Corporation, dated November 21st, 2019 and on file at INDOT-CRO.

Does the project appear to fall under the Minor Projects PA? yes ☒ no ☐

If yes, please specify category and number (applicable conditions are highlighted):

A-2. All work within interchanges and within medians of divided highways in previously disturbed soils.

B-3. Construction of added travel, turning, or auxiliary lanes (e.g., bicycle, truck climbing, acceleration and deceleration lanes) and shoulder widening under the following conditions ***[BOTH Condition A, which pertains to Archaeological Resources, and Condition B, which pertains to Above-Ground Resources, must be satisfied]***:

Condition A (Archaeological Resources)
One of the two conditions listed below must be met *(EITHER Condition i or Condition ii must be satisfied):*

i. Work occurs in previously disturbed soils; *OR*

ii. Work occurs in undisturbed soils and an archaeological investigation conducted by the applicant and reviewed by INDOT Cultural Resources Office determines that no National Register-listed or potentially National Register-eligible archaeological resources are present within the project area. If the archaeological investigation locates National Register-listed or potentially National Register-eligible archaeological resources, then full Section 106 review will be required. Copies of any archaeological reports prepared for the project will be provided to the DHPA and any archaeological site form information will be entered directly into the SHAARD by the applicant. The archaeological reports will also be available for viewing (by Tribes only) on INSCOPE**.**

Condition B (Above-Ground Resources)
Work does not occur adjacent to or within a National Register-listed or National Register-eligible district or individual above-ground resource.

Additional comments:
With regard to above-ground resources, an INDOT Cultural Resources historian who meets the Secretary of the Interior's Professional Qualification Standards as per 36 CFR Part 61 performed a desktop review, checking the Indiana Register of Historic Sites and Structures (State Register) and National Register of Historic Places (National Register) lists for Miami County. No listed resources are located within 0.25 mile of the project area, a distance that serves as an adequate potential area of effects.

The Indiana Historic Sites and Structures Inventory (IHSSI) and National Register information for Miami County are available in the Indiana State Historic Architectural and Archaeological Research Database (SHAARD) and the Indiana Historic Buildings, Bridges, and Cemeteries Map (IHBBCM). The *Miami County Interim Report* (1998; Peru Township) of the Indiana Historic Sites and Structures Inventory (IHSSI) was also consulted. An INDOT-CRO historian reviewed the SHAARD Online Map and checked it against the Interim Report hard-copy maps. No resources rated higher than "contributing" are located within 0.25 mile of the project area.

According to the IHSSI rating system, generally properties rated "contributing" do not possess the level of historical or architectural significance necessary to be considered individually National Register-eligible, although they would contribute to a historic district. If they retain material integrity, properties rated "notable" might possess the necessary level of significance after further research. Properties rated "outstanding" usually possess the necessary level of significance to be considered National Register-eligible, if they retain material integrity.

The INDOT-CRO historian reviewed structures adjacent to the project area utilizing online aerial, street-view photography, and the Peru County GIS website (accessed via https://miamiin.elevatemaps.io). The project area is located in a rural setting along US 24 with adjacent above-ground resources consisting of late-nineteenth to early twenty-first century residential and commercial buildings. One (1) mid-nineteenth century cemetery with a "Contributing" rating is located approximately 800 feet southeast of the project

area. Several properties are unable to be viewed through street-view photography. These resources are located within pockets of dense tree-lines that screen the properties from the project area view shed. None of the visible resources appear to possess the significance or integrity required to be considered NRHP-eligible.

Based on the available information, as summarized above, no above-ground concerns exist.

With regard to archaeological resources, the proposed project will close the intersection of US 24 and SR 19 and install J-turns to its east and west. All work will occur in the existing right-of-way of US 24 which consists of the 4-lane divided highway, filled road berm, roadside ditches, paved shoulders, and guardrail. According to SHAARD GIS, one archaeological site extends across the project area. However, this site represents a historic agricultural field and the portions within the project area have been destroyed by the construction of US 24 and SR 19. Since work is limited the shoulders and ditched median and to excavation work in previously disturbed soils, there are no archaeological concerns.

Accidental Discovery-If any archaeological artifacts or human remains are uncovered during construction, demolition, or earthmoving activities, construction in the immediate area of the find will be stopped, and the INDOT Cultural Resources Office and the Division of Historic Preservation and Archaeology will be notified immediately.

INDOT Cultural Resources staff reviewer(s): Clint Kelly and Shaun Miller

****Be sure to attach this form to the National Environmental Policy Act documentation for this project. Also, the NEPA documentation shall reference and include the description of the specific stipulation in the PA that qualifies the project as exempt from further Section 106 review.*

APPENDIX E: RED FLAG AND HAZARDOUS MATERIALS

INDIANA DEPARTMENT OF TRANSPORTATION

100 North Senate Avenue
Room N642
Indianapolis, Indiana 46204

PHONE: (317) 232-5113
FAX: (317) 233-4929

Eric Holcomb, Governor
Joe McGuinness, Commissioner

Date: December 4, 2019

To: Site Assessment & Management
Environmental Policy Office - Environmental Services Division
Indiana Department of Transportation
100 N Senate Avenue, Room N642
Indianapolis, IN 46204

From: Aaron Grisel
Ft. Wayne District
111 Monument Circle, Suite 1200
Indianapolis, IN
tgrisel@hntb.com

Re: RED FLAG INVESTIGATION
DES 1700089, State Project
Intersection Improvements
US 24
Miami County, Indiana

PROJECT DESCRIPTION

Brief Description of Project: The Indiana Department of Transportation (INDOT) is proposing an intersection improvement project (Des. No. 1700089) located on US 24, 3.7 miles east of US 31 in Peru, Indiana. The current proposed project will include construction of median J-turns along US 24. The US 24 and SR 19 intersection will require a median closure to divert north and south left-turn movements to the US 24 J-turns approximately 650 feet northeast and 680 feet southwest of the existing intersection. Additional signage notifying motorists of the J-turns will be required.

Bridge and/or Culvert Project: Yes ☐ No ☒ Structure # ___N/A_____
If this is a bridge project, is the bridge Historical? Yes ☐ No ☐ , Select ☐ Non-Select ☐
(Note: If the project involves a historical bridge, please include the bridge information in the Recommendations Section of the report).

Proposed right of way: Temporary ☐ # Acres _____ Permanent ☐ # Acres _____, Not Applicable ☒

Type of excavation: Excavation to a depth of 4feet will be required for the construction of median U-turns.

Maintenance of traffic: Specific maintenance of traffic measures are unknown at this time. If lane closures are necessary, traffic will be maintained throughout construction.

Work in waterway: Yes ☐ No ☒ Below ordinary high-water mark: Yes ☐ No ☐

State Project: ☒ LPA: ☐

Any other factors influencing recommendations: The proposed project is on an accelerated schedule. An expedited review is requested for this project by 12/3/2019.

INFRASTRUCTURE TABLE AND SUMMARY

Infrastructure Indicate the number of items of concern found within the 0.5 mile search radius. If there are no items, please indicate N/A:			
Religious Facilities	**N/A**	Recreational Facilities	**1**
Airports[1]	**N/A**	Pipelines	**2**
Cemeteries	**1**	Railroads	**1**
Hospitals	**N/A**	Trails	**2**
Schools	**N/A**	Managed Lands	**N/A**

[1]In order to complete the required airport review, a review of public airports within 3.8 miles (20,000 feet) is required.

Explanation:

- *Cemeteries*: One (1) cemetery is located within the 0.5-mile search radius. This cemetery is located approximately 0.1 mile east of the project area. No impact is expected.

- *Recreational Facilities*: One (1) recreational facility is located within the 0.5-mile search radius. This facility, the Indian Trail Campground, is located approximately 0.48 mile northeast of the project area. No impact is expected.

- *Pipelines*: Two (2) pipeline segments are located within the 0.5-mile search radius. The nearest pipeline segment, owned by Gulf Central Pipeline Company, is located approximately 0.04 mile west of the project area. Coordination with INDOT Utilities and Railroad will occur.

- *Railroads*: One (1) railroad segment is located within the 0.5-mile search radius. This segment is located approximately 0.44 mile southwest of the project area. No impact is expected.

- *Trails*: Two (2) trail segments are located within the 0.5-mile search radius. Both segments are associated with the Nickel Plate Rail Trail and are located approximately 0.44 mile southwest of the project area. No impact is expected.

WATER RESOURCES TABLE AND SUMMARY

Water Resources Indicate the number of items of concern found within the 0.5 mile search radius. If there are no items, please indicate N/A:			
NWI - Points	**N/A**	Canal Routes - Historic	**N/A**
Karst Springs	**N/A**	NWI - Wetlands	**6**
Canal Structures – Historic	**N/A**	Lakes	**1**
NPS NRI Listed	**N/A**	Floodplain - DFIRM	**8**
NWI-Lines	**N/A**	Cave Entrance Density	**N/A**

IDEM 303d Listed Streams and Lakes (Impaired)	**N/A**	Sinkhole Areas	**N/A**
Rivers and Streams	**10**	Sinking-Stream Basins	**N/A**

Explanation:

- *Rivers and Streams*: Ten (10) stream segments are located within the 0.5-mile search radius. One (1) stream segment, Prairie Ditch, is mapped within the project area. A Waters of the US Report will be prepared and coordination with INDOT ES Ecology and Waterway Permitting will occur.

- *NWI-Wetlands*: Six (6) wetlands are located within the 0.5-mile search radius. The nearest wetland is located approximately 0.05 mile north of the project area. No impact is expected.

- *Lakes*: One (1) lake is located within the 0.5-mile search radius. The mapped lake is located approximately 0.47 mile north of the project area. No impact is expected.

- *Floodplain-DFIRM*: Eight (8) floodplain polygons are located within the 0.5-mile search radius. The project area is located within two of the floodplain polygons. Coordination with INDOT ES Ecology and Waterway Permitting will occur.

URBANIZED AREA BOUNDARY SUMMARY

Explanation:

This project lies within the Peru Urbanized Area Boundary (UAB). Post construction Storm Water Quality Best Management Practices (BMPs) may need to be considered. An early coordination letter with topographic and aerial maps showing the project area should be sent to the Peru MS4 Coordinator at 335 East Canal Street P.O. Box 67, Peru, IN, 46970.

MINING AND MINERAL EXPLORATION TABLE AND SUMMARY

Mining/Mineral Exploration Indicate the number of items of concern found within the 0.5 mile search radius. If there are no items, please indicate N/A:			
Petroleum Wells	**6**	Mineral Resources	**N/A**
Mines – Surface	**N/A**	Mines – Underground	**N/A**

Explanation:

- *Petroleum Wells*: Six (6) petroleum wells are located within the 0.5-mile search radius. One (1) petroleum well is located within the project area. Coordination with IDNR Oil and Gas Division will occur.

HAZARDOUS MATERIAL CONCERNS TABLE AND SUMMARY

Hazardous Material Concerns Indicate the number of items of concern found within the 0.5 mile search radius. If there are no items, please indicate N/A:

Superfund	**N/A**	Manufactured Gas Plant Sites	**N/A**
RCRA Generator/ TSD	**N/A**	Open Dump Waste Sites	**N/A**
RCRA Corrective Action Sites	**N/A**	Restricted Waste Sites	**N/A**
State Cleanup Sites	**N/A**	Waste Transfer Stations	**N/A**
Septage Waste Sites	**N/A**	Tire Waste Sites	**N/A**
Underground Storage Tank (UST) Sites	**N/A**	Confined Feeding Operations (CFO)	**N/A**
Voluntary Remediation Program	**N/A**	Brownfields	**N/A**
Construction Demolition Waste	**N/A**	Institutional Controls	**N/A**
Solid Waste Landfill	**N/A**	NPDES Facilities	**1**
Infectious/Medical Waste Sites	**N/A**	NPDES Pipe Locations	**N/A**
Leaking Underground Storage (LUST) Sites	**N/A**	Notice of Contamination Sites	**N/A**

Explanation:

- *NPDES Facility*: One (1) NPDES Facility is located within the 0.5-mile search radius. The mapped NPDES Facility is located approximately 0.48-mile south of the project area. No impact is expected.

ECOLOGICAL INFORMATION SUMMARY

The Miami County listing of the Indiana Natural Heritage Data Center information on endangered, threatened, or rare (ETR) species and high-quality natural communities is attached with ETR species highlighted. A preliminary review of the Indiana Natural Heritage Database by INDOT Environmental Services did not indicate the presence of ETR species within the 0.5 mile search radius. Coordination with USFWS and IDNR will occur.

A review of the USFWS database did not indicate the presence of endangered bat species in or within 0.5 mile of the project area. The range-wide programmatic consultation for the Indiana Bat and Northern Long-eared Bat will be completed according to the most recent "Using the USFWS's IPaC System for Listed Bat Consultation for INDOT Projects".

An inquiry using the USFWS Information for Planning and Consulting (IPaC) website did not indicate the presence of the federally endangered species, the Rusty Patched Bumble Bee, in or within 0.5 mile of the project area. No impact is expected.

RECOMMENDATIONS SECTION

Include recommendations from each section. If there are no recommendations, please indicate N/A:

INFRASTRUCTURE:

- *Pipelines*: One (1) pipeline segment, owned by Gulf Central Pipeline Company, is located approximately 0.04 mile west of the project area. Coordination with INDOT Utilities and Railroad will occur.

WATER RESOURCES:

The presence of the following water resources will require the preparation of Waters of the US Report and coordination with INDOT ES Ecology and Waterway Permitting:

- One stream segment, Prairie Creek, flows through the project area.
- The project area is located within a floodplain (coordination only).

URBANIZED AREA BOUNDARY:

- This project lies within the Peru UAB. Post construction Storm Water Quality Best Management Practices (BMPs) may need to be considered. An early coordination letter with topographic and aerial maps showing the project area should be sent to the Peru MS4 Coordinator at 335 East Canal Street P.O. Box 67, Peru, IN, 46970.

MINING/MINERAL EXPLORATION:

- *Petroleum Wells*: One (1) petroleum well is located within the project area. Coordination with IDNR Oil and Gas Division will occur.

HAZMAT CONCERNS: N/A

ECOLOGICAL INFORMATION: Coordination with USFWS and IDNR will occur. The range-wide programmatic consultation for the Indiana Bat and Northern Long-eared Bat will be completed according to the most recent "Using the USFWS's IPaC System for Listed Bat Consultation for INDOT Projects".

INDOT Environmental Services concurrence: Marlene Mathas Digitally signed by Marlene Mathas Date: 2019.12.05 07:08:52 -05'00' (Signature)

Prepared by:
Aaron Grisel
Scientist II
HNTB Indiana, Inc.

Graphics:

A map for each report section with a 0.5 mile search radius buffer around all project area(s) showing all items identified as possible items of concern is attached. If there is not a section map included, please change the YES to N/A:

SITE LOCATION: YES

INFRASTRUCTURE: YES

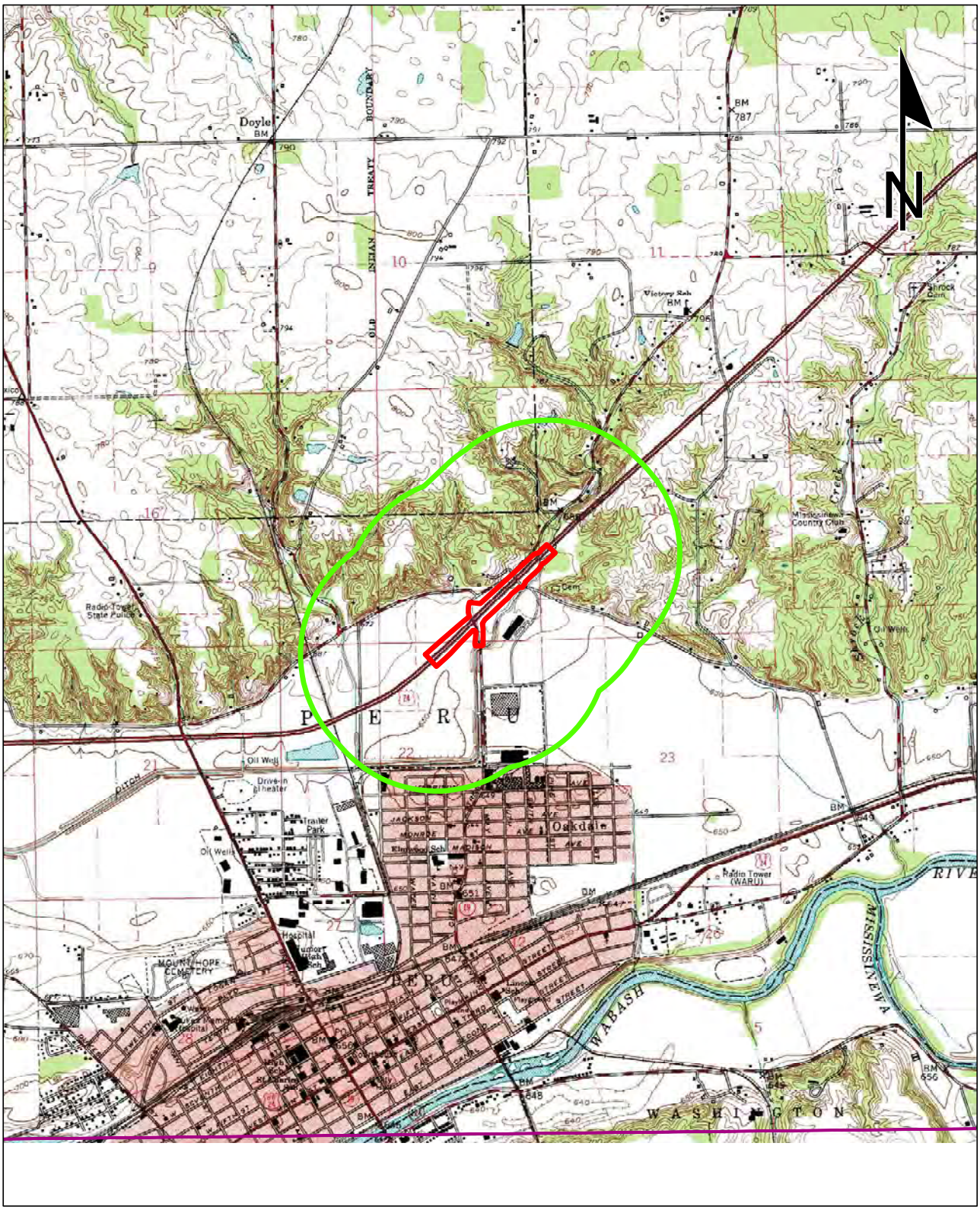
WATER RESOURCES: YES

URBANIZED AREA BOUNDARY: YES

MINING/MINERAL EXPLORATION: YES

HAZMAT CONCERNS: YES

Red Flag Investigation - Topographic
US 24
Des. No.1700089, Intersection Improvements
Miami County, Indiana



0 0.5 1 Miles

Sources:
Non Orthophotography Data - Obtained from the State of Indiana Geographical Information Office Library
Orthophotography - Obtained from Indiana Map Framework Data (www.indianamap.org)
Map Projection: UTM Zone 16 N **Map Datum:** NAD83

This map is intended to serve as an aid in graphic representation only. This information is not warranted for accuracy or other purposes.

Peru Quadrangle
USGS Topographic Map
7.5 Minute Series

Red Flag Investigation - Infrastructure
US 24
Des. No.1700089, Intersection Improvements
Miami County, Indiana

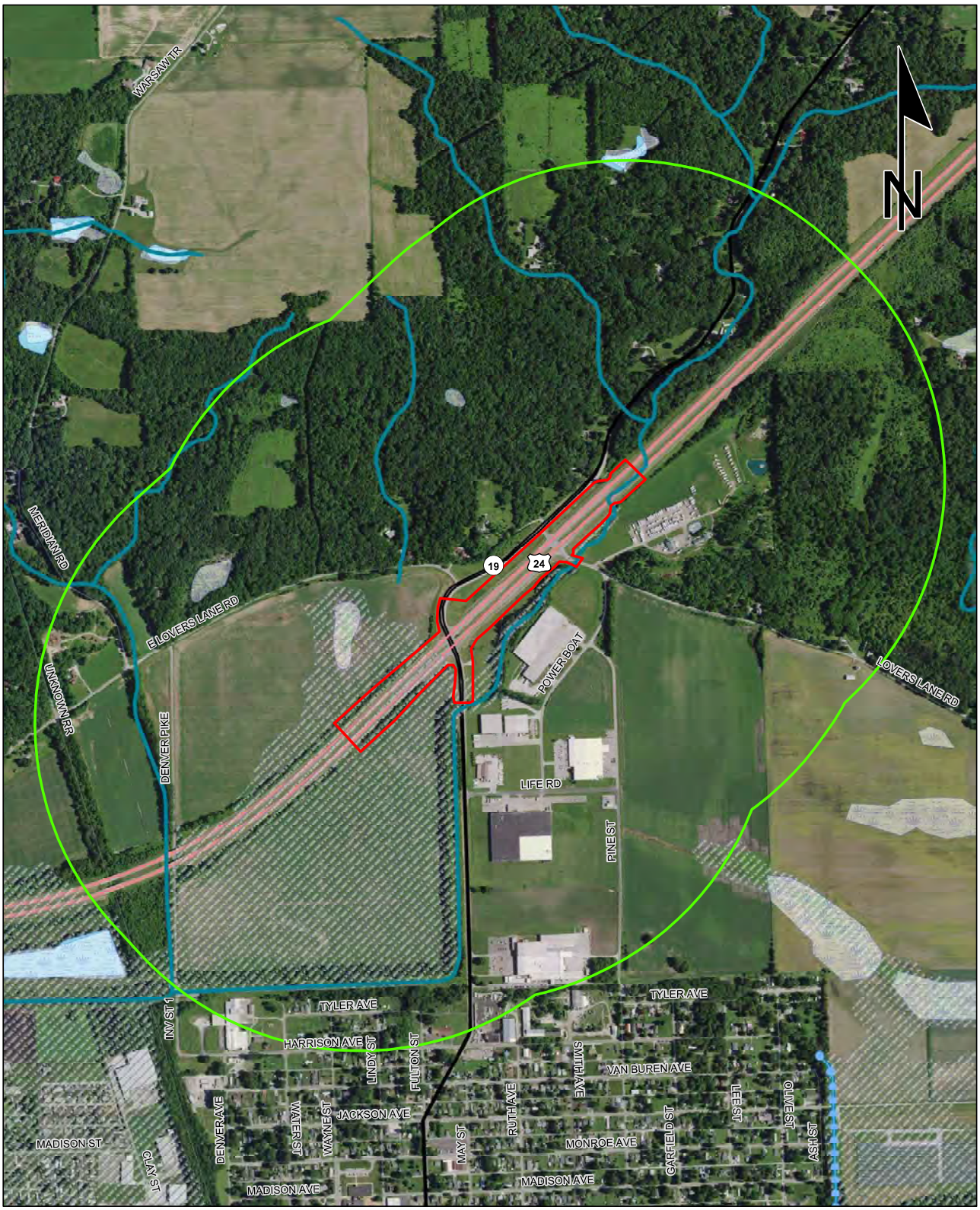
0 0.25 0.5 Miles

Sources:
Non Orthophotography Data - Obtained from the State of Indiana Geographical Information Office Library
Orthophotography - Obtained from Indiana Map Framework Data (www.indianamap.org)
Map Projection: UTM Zone 16 N **Map Datum:** NAD83

This map is intended to serve as an aid in graphic representation only. This information is not warranted for accuracy or other purposes.

- Religious Facility
- Religious Facility Indiana Map
- Airport
- Cemeteries
- Hospital
- School
- Recreation Facility
- Pipeline
- Railroad
- Trails
- Managed Lands
- County Boundary
- Project Area
- Half Mile Radius
- Interstate
- State Route
- US Route
- Local Road

Red Flag Investigation - Water Resources
US 24
Des. No.1700089, Intersection Improvements
Miami County, Indiana



0 0.25 0.5 Miles

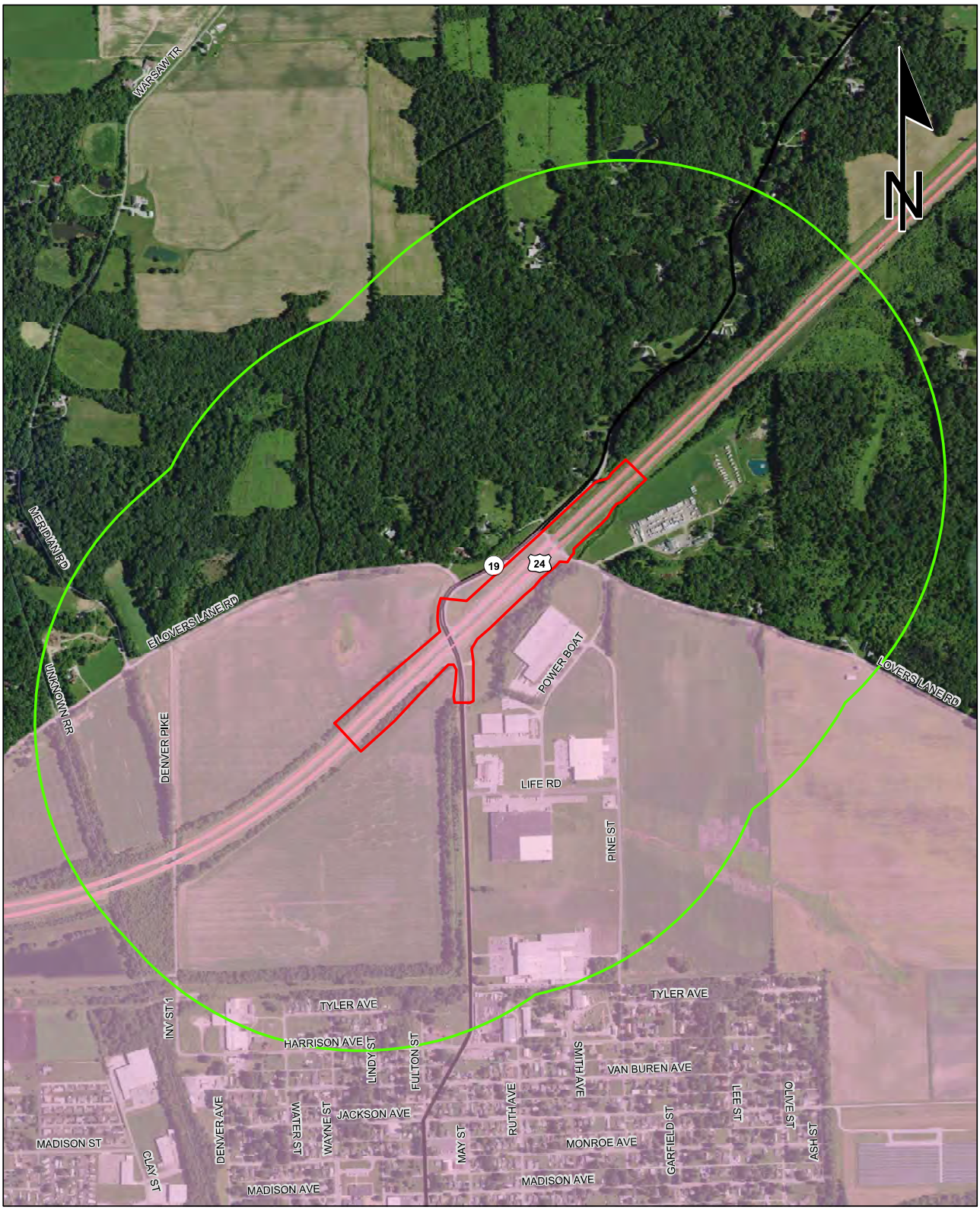
Sources:

Non Orthophotography
Data - Obtained from the State of Indiana Geographical Information Office Library
Orthophotography - Obtained from Indiana Map Framework Data (www.indianamap.org)
Map Projection: UTM Zone 16 N **Map Datum:** NAD83

This map is intended to serve as an aid in graphic representation only. This information is not warranted for accuracy or other purposes.

NWI - Point
Karst Spring
Canal Structure - Historic
NWI- Line
Stream - Impaired
NPS NRI listed
River
Canal Route - Historic
Wetlands
Lake - Impaired
Lake
Floodplain - DFIRM
Cave Entrance Density
Sinkhole Area
Sinking-Stream Basin
County Boundary
Project Area
Half Mile Radius
Interstate
State Route
US Route
Local Road

Red Flag Investigation - Urbanized Area Boundary
US 24
Des. No.1700089, Intersection Improvements
Miami County, Indiana



0 0.25 0.5 Miles

Sources:

Non Orthophotography
Data - Obtained from the State of Indiana Geographical Information Office Library
Orthophotography - Obtained from Indiana Map Framework Data (www.indianamap.org)
Map Projection: UTM Zone 16 N **Map Datum:** NAD83

This map is intended to serve as an aid in graphic representation only. This information is not warranted for accuracy or other purposes.

UAB
County Boundary
Project Area
Half Mile Radius
Toll
Interstate
State Route
US Route
Local Road

Red Flag Investigation - Mining/Mineral Exploration
US 24
Des. No.1700089, Intersection Improvements
Miami County, Indiana

0 0.25 0.5 Miles

Sources:

Non Orthophotography

Data - Obtained from the State of Indiana Geographical Information Office Library

Orthophotography - Obtained from Indiana Map Framework Data (www.indianamap.org)

Map Projection: UTM Zone 16 N **Map Datum:** NAD83

This map is intended to serve as an aid in graphic representation only. This information is not warranted for accuracy or other purposes.

- Petroleum Well
- Mine - Surface
- Mine - Underground
- Petroleum Field
- County Boundary
- Project Area
- Half Mile Radius
- Interstate
- State Route
- US Route
- Local Road

Red Flag Investigation - Hazardous Material Concerns
US 24
Des. No.1700089, Intersection Improvements
Miami County, Indiana

- Brownfield
- RCRA Corrective Action Sites
- Confined Feeding Operation
- Construction/Demolition Site
- Infectious/Medical Waste Site
- Leaking Underground Storage Tank
- Manufactured Gas Plant
- NPDES Facilites
- NPDES Pipe Locations
- Open Dump Waste Site
- RCRA Generator/TSD
- Restricted Waste Site
- Septage Waste Site
- Solid Waste Landfill
- State Cleanup Site
- Superfund
- Tire Waste Site
- Underground Storage Tank
- Voluntary Remediation Program
- Waste Transfer Station
- Institutional Controls
- County Boundary
- Project Area
- Half Mile Radius
- Interstate
- State Route
- US Route
- Local Road

0 0.25 0.5 Miles

This map is intended to serve as an aid in graphic representation only. This information is not warranted for accuracy or other purposes.

Sources:
Non Orthophotography
Data - Obtained from the State of Indiana Geographical Information Office Library
Orthophotography - Obtained from Indiana Map Framework Data (www.indianamap.org)
Map Projection: UTM Zone 16 N **Map Datum:** NAD83

Indiana County Endangered, Threatened and Rare Species List

County: Miami

Species Name	Common Name	FED	STATE	GRANK	SRANK
Mollusk: Bivalvia (Mussels)					
Epioblasma rangiana	Northern Riffleshell	LE	SE	G2	S1
Epioblasma triquetra	Snuffbox	LE	SE	G3	S1
Lampsilis fasciola	Wavyrayed Lampmussel		SSC	G5	S3
Ligumia recta	Black Sandshell			G4G5	S2
Obovaria subrotunda	Round Hickorynut	C	SE	G4	S1
Plethobasus cyphyus	Sheepnose	LE	SE	G3	S1
Pleurobema clava	Clubshell	LE	SE	G1G2	S1
Ptychobranchus fasciolaris	Kidneyshell		SSC	G4G5	S2
Quadrula cylindrica cylindrica	Rabbitsfoot	LT	SE	G3G4T3	S1
Toxolasma lividus	Purple Lilliput	C	SSC	G3Q	S2
Venustaconcha ellipsiformis	Ellipse		SSC	G4	S2
Villosa fabalis	Rayed Bean	LE	SE	G2	S1
Fish					
Moxostoma valenciennesi	Greater Redhorse		SE	G4	S2
Reptile					
Emydoidea blandingii	Blanding's Turtle	C	SE	G4	S2
Thamnophis proximus proximus	Western Ribbon Snake		SSC	G5T5	S3
Bird					
Circus hudsonius	Northern Harrier		SE	G5	S2
Haliaeetus leucocephalus	Bald Eagle		SSC	G5	S2
Mammal					
Taxidea taxus	American Badger		SSC	G5	S2
Vascular Plant					
Crataegus succulenta var. succulenta	Fleshy Hawthorn		SR	G5T5	S3
Hypericum pyramidatum	Great St. John's-wort		ST	G4	S2
Napaea dioica	Glade Mallow		ST	G4	S2
Passiflora incarnata	Purple Passion-flower		WL	G5	S3
High Quality Natural Community					
Forest - upland dry-mesic Central Till Plain	Central Till Plain Dry-mesic Upland Forest		SG	GNR	S2
Forest - upland mesic Central Till Plain	Central Till Plain Mesic Upland Forest		SG	GNR	S3
Other Significant Feature					
Geomorphic - Nonglacial Erosional Feature - Water Fall and Cascade	Water Fall and Cascade			GNR	SNR

Indiana Natural Heritage Data Center
Division of Nature Preserves
Indiana Department of Natural Resources
This data is not the result of comprehensive county surveys.

Fed: LE = Endangered; LT = Threatened; C = candidate; PDL = proposed for delisting

State: SE = state endangered; ST = state threatened; SR = state rare; SSC = state species of special concern; SX = state extirpated; SG = state significant; WL = watch list

GRANK: Global Heritage Rank: G1 = critically imperiled globally; G2 = imperiled globally; G3 = rare or uncommon globally; G4 = widespread and abundant globally but with long term concerns; G5 = widespread and abundant globally; G? = unranked; GX = extinct; Q = uncertain rank; T = taxonomic subunit rank

SRANK: State Heritage Rank: S1 = critically imperiled in state; S2 = imperiled in state; S3 = rare or uncommon in state; G4 = widespread and abundant in state but with long term concern; SG = state significant; SH = historical in state; SX = state extirpated; B = breeding status; S? = unranked; SNR = unranked; SNA = nonbreeding status unranked

APPENDIX F: WATER RESOURCES

Waters of the U.S. Report

US 24 AND SR 19, INTERSECTION IMPROVEMENTS

MIAMI COUNTY

DES. NO.
1700089

Prepared by:

HNTB

111 Monument Circle, Suite 1200

Indianapolis, IN, 46204

317.636.4682

December 30, 2019

1. PROJECT INFORMATION

Date of Field Investigation: 10/19/2019

Location

The project is located along US 24 at the SR 19 and Lovers Lane Road intersections in Miami County, Indiana (Attachment A10).

- Sections 14, 15, and 22, Township 27 N, Range 4 E
- Peru 1:24,000 Quadrangle (Attachments A11-A12)
- GPS Position: 40.77992, -86. 05912, World Geodetic System 1984 (WGS 84)

Project Description

The Federal Highway Administration (FHWA) and Indiana Department of Transportation (INDOT), Fort Wayne District are planning to proceed with an intersection improvement project at the United States Highway (US) 24 intersections with State Road (SR) 19 and Lovers Lane Road in Peru Township, Indiana. No additional right-of-way is anticipated.

2. DESKTOP RECONNAISSANCE

2.1 SOIL ASSOCIATIONS AND SERIES TYPES

According to the Soil Survey Geographic (SSURGO) Database for Miami County, Indiana, the following mapped soils series are within the US 24 project area (Attachments A15-A19).

- **Gessie silt loam (Ge)**: very deep, well drained soils that formed in calcareous, loamy alluvium on flood plains. Slope ranges from 0 to 2 percent. Gessie silt loam is not a hydric soil; however, hydric inclusions of Gessie are known within floodplains. This soil type has a hydric rating of 3%.

- **Milford silty clay (Mk)**: very deep, poorly drained and very poorly drained soils formed in lacustrine sediments. These soils are on glacial lake plains. Slope ranges from 0 to 2 percent. Milford silty clay is a hydric soil with a hydric rating of 100%.

- **Ross loam (Ro)**: very deep, well drained soils formed in loamy alluvium on flood plains and low terraces. Slope ranges from 0 to 3 percent. Ross loam is not a hydric soil; however, hydric inclusions of Ross are known within alluvial fans. This soil type has a hydric rating of 3%.

- **Shoals silt loam, 0 to 2 percent slopes, occasionally flooded (Sh)**: very deep, somewhat poorly drained soils that formed in alluvium on flood plains. Slope ranges from 0 to 2 percent. Shoals silt loam is not a hydric soil; however, hydric inclusions of Sloan are known within depressions and hydric inclusions of Shoals are known within floodplains. This soil type has a hydric rating of 8%.

- **Washtenaw silt loam (Wh)**: deep, poorly drained, slowly and moderately slowly permeable soils formed in recent alluvium and in loamy drift. Slopes range from 0 to 2 percent. Washtenaw silt loam is a hydric soil with a hydric rating of 100%.

2.2 National Wetlands Inventory

Based on the U.S. Fish and Wildlife National Wetlands Inventory (NWI) data (www.fws.gov/wetlands/Data/State-Downloads.html) there are seven wetlands mapped within a half-mile of the investigated area (Attachment A13). Within the investigated area, Prairie Ditch is mapped as a riverine, unknown perennial, unconsolidated bottom, permanently flooded (R5UBH) according to the classifications defined by Cowardin *et al.* (1979). In addition:

- One wetland within a half-mile of the investigated area is mapped as palustrine, emergent, persistent, seasonally flooded (PEM1C).
- One wetland within a half-mile of the investigated area is mapped as palustrine, emergent, persistent, temporarily flooded (PEM1A).
- Two wetlands within a half-mile of the investigated area are mapped as palustrine, unconsolidated bottom, intermittently exposed, excavated (PUBGx).
- One wetland within a half-mile of the investigated area is mapped as palustrine, unconsolidated bottom, intermittently exposed, diked/impounded (PUBGh).
- One wetland within a half-mile of the project area is mapped as palustrine, unconsolidated bottom, semi-permanently flooded (PUBF).

2.3 Hydrology

The project is within the 12-digit Hydrologic Unit Code (HUC) representing Prairie Creek – Wabash River. The 12-digit HUC code is # 051201011602 (Attachment A20).

According to the Indiana Floodplain Information Portal, the project is within the 100-year floodplain of Prairie with an approximate base flood elevation of 670.5 feet (NAVD88) (http://dnrmaps.dnr.in.gov/appsphp/fdms/).

3. Field Reconnaissance

HNTB Indiana staff performed a field review of the investigated area on October 19, 2019. The purpose was to determine the presence of waters of the U.S. within the investigated area. HNTB Indiana staff collected data during the field review to appropriately characterize the investigated area and determine the presence or absence of jurisdictional waters. The field investigation area encompassed the area required for construction access and completion of the intersection improvement work. HNTB staff photographed select features and areas of interest throughout the investigated area. A photo location map and selected photographs are included as Attachments A21-A36.

The investigated area was analyzed using the methods outlined in the Routine Determination, On-site Inspection Necessary procedure in the *Corps of Engineers Wetland Delineation Manual* (1987) and the *Regional Supplement to the Corps of Engineers Wetland Delineation Manual Midwest Region* (US Army corps of Engineers, 2010). Identification indicator status of plant species utilized the USACE 2016 Midwest Region National Wetland Plant List (http://wetland_plants.usace.army.mil/).

4. WATERS

During the October 19, 2019 field investigation for the project, two streams and one wetland were identified.

4.1 WETLANDS

One wetland was observed during the October 19, 2019 field investigation. Wetland A is a roadside wetland, formed within a depressional area, with connectivity to a jurisdictional feature via overland flow and roadside drainage. Wetland A is likely considered a Waters of the US. A data point was excavated in an area adjacent to US 24 where wetland vegetation was visibly present; however, this area was determined to be upland.

WETLAND A

Wetland A is has formed in the northeast quadrant of US 24 and SR 19 as a result of local drainage ponding in a depressional area. Topography in the area of Wetland A connects the wetland via overland to roadside ditch (RSD) 1, which provides connectivity to a jurisdictional feature, Prairie Ditch, south of the investigated area. According to the Cowardin *et al.* (1979) classification system, Wetland A is a palustrine, emergent, persistent, saturated (PEM1B) wetland of approximately 0.07 acre. Based on a qualitative analysis, Wetland A is of poor quality based on the lack of vegetative species richness and presence of invasive species.

AW1

Data point AW1 was taken within a small depressional area adjacent to US 24 and SR 19. The presence of hydrophytic vegetation resulted in the evaluation of soils and hydrology for wetland conditions. Due to the relatively homogeneous topography within the excavated channel, data point AW1 represents the entire wetland. Vegetation was limited to the herbaceous stratum and consisted of narrowleaf cattail (*Typha angustifolia* OBL). This data point passed the rapid test for hydrophytic vegetation. Soils observed within a pit excavated to a depth of 20 inches were 10YR 2/1 silty clay from 0-10 inches deep, and 10YR 2/1 silty clay with 30 percent concentrations of 10YR 4/1 within the matrix from 10-20 inches deep. This soil meets the criteria for S7 –dark surface. Primary hydrology indicators observed included saturation at 18 inches. Secondary hydrology indicators observed included geomorphic position and FAC-neutral test. Data point AW1 is within a wetland due to the presence of all three wetland indicators. Wetland determination forms for this data point are found at Attachments A1-A3.

AD1

Data point AD1 was taken adjacent to Wetland A where a distinct change in vegetation was present. Vegetation was limited to the herbaceous stratum and consisted of tall false-rye grass (*Schedonorus arundinaceus* FACU). Vegetation within this data point did not pass the dominance test for hydrophytic vegetation. Soils observed within a pit excavated to a depth of 20 inches were 10YR 3/2 silty clay throughout the profile. This soil does not meet the criteria for a hydric soil. Wetland hydrology was also not observed at this location. Data point AD1 is not within a wetland due to the lack of wetland vegetation, soil, and hydrology indicators. Wetland determination forms for this data point are found at Attachments A4-A6.

Additional Data Points

RP1

Reference Point 1 (RP-1) was taken within roadside ditch (RSD) 1 where hydrophytic vegetation was visibly present. Vegetation was limited to the herbaceous stratum and consisted of narrowleaf cattail (*Typha angustifolia* OBL), reed canary grass (*Phalaris arundinacea* FACW), tall false-rye grass (*Schedonorus arundinaceus* FACU), and field thistle (*Cirsium discolor* FACU). Vegetation within this data point passed the dominance test for hydrophytic vegetation. Soils observed within a pit excavated to a depth of 20 inches were 10YR 3/3 silt loam from 0-7 inches deep, and 10YR 3/2 silt loam from 7-20 inches deep. Small gravel and sand deposits were also noted within the soil profile consistent with roadway fill soils. This soil does not meet the criteria for a hydric soil. Hydrology available to recruit the hydrophytes is temporary in nature; therefore, wetland hydrology was also not observed at this location. Data point RP1 is not within a wetland due to the lack of wetland soil and hydrology indicators. Wetland determination forms for this data point are found at Attachments A7-A9.

Table 1: Wetland summary table

Wetland	Photo	Lat/Long	Cowardin Classification	Areas (Acre)	Quality	Water of the U.S?
A	24-27	40.78046 -86.05917	PEM1B	0.007	Poor	Yes

Table 2: Wetland Data Point Summary Table

Data Point-ID	Vegetation	Soils	Hydrology	Within a Wetland?
AW1	Yes	Yes	Yes	Yes, Wetland A
AD1	No	No	No	No
RP1	Yes	No	No	No

4.2 Streams

The field investigation resulted in the identification of two likely jurisdictional streams, Prairie Ditch and unnamed tributary (UNT) 1 to Prairie Ditch. A total of approximately 441 linear feet of stream length is within the investigated area.

Prairie Ditch

Prairie Ditch is a perennial stream feature that enters the investigated area from the north and flows southwest below US 24. Prairie Ditch is carried beneath US 24 via three, 96-inch corrugated metal pipe (CMP) structures. The full extent of Prairie Ditch within the investigated area is encapsulated, measuring 274 feet long. Prairie Ditch receives input from a wooded area north of the investigated area. The stream is noted on the USGS 7.5 Minute Peru, Indiana Topographic Map

as a perennial blue-line stream (Attachments A11-A12). According to the USGS StreamStats website, (https://water.usgs.gov/osw/streamstats/ indiana.html), Prairie Ditch drains approximately 1.84 square miles upstream of the investigated area (Attachment A20).

The average OHWM of Prairie Ditch measures 36 feet wide by 0.75 feet deep. The substrate of Prairie Ditch consists of 60 percent silt, 30 percent cobble, and 10 percent gravel. According to the classification codes developed by Cowardin et al. (1979), this stream feature would be classified as a riverine, lower perennial, cobble-gravel streambed (R2SB1). Based on a qualitative assessment, this resource is of average quality within this reach due to the perennial regime, average quality substrate, narrow riparian corridor, and absence of riffles and pools. Prairie Ditch is not a traditionally navigable waterway (TNW) within Indiana; however, it is a tributary of the Wabash River which is a navigable waterway in Miami County. Prairie Ditch is considered a Water of the US.

UNT-1 To Prairie Ditch

UNT-1 to Prairie Ditch is an ephemeral stream feature that begins in the investigated area within the US 24 median. UNT-1 to Prairie Ditch is carried beneath northbound US 24 via an 18-inch CMP structure where it receives input from roadside drainage within the median. UNT-1 to Prairie Ditch begins at the inlet of the 18-inch CMP where an OHWM and defined bed and bank were noted. UNT-1 to Prairie Ditch outlets into Prairie Ditch approximately 43 feet east of the investigated area. Approximately 167 feet of UNT-1 to Prairie Ditch is present within the investigated area. The stream is not noted on the USGS 7.5 Minute Peru, Indiana Topographic Map as a perennial blue-line stream (Attachments A11-A12). UNT-1 to Prairie Ditch is not noted within the USGS StreamStats website database (https://water.usgs.gov/osw/streamstats/ indiana.html); therefore, the drainage area of this stream is considered to be <0.01 square mile.

The average OHWM of UNT-1 to Prairie Ditch measures 10 feet wide by 0.33 feet deep. The substrate of Prairie Ditch is 100 percent silt. Based on a qualitative assessment, this resource is of poor quality within this reach due to the ephemeral regime, presence of low-quality substrate, lack of instream cover, and absence of riffles and pools. UNT-1 to Prairie Ditch is not a TNW within Indiana; however, it is a tributary of the Wabash River which is a navigable waterway in Miami County. Prairie Ditch is considered a Water of the US.

Table 3: Stream and Waterway Summary Table

Stream Name	Photo #	Lat/Long	OHWM	Quality	Substrate	USGS Blue Line	Riffles/ Pools	Waters of U.S.
Prairie Ditch	13-14	40.78309 -86.05391	36 ft. wide x 0.75 ft. deep	Average	60% silt, 20% cobble, 10% gravel	Yes	No	Yes
UNT-1 to Prairie Ditch	7-10	40.78197 -86.05538	10 ft. wide x 0.33 ft. deep	Poor	100% silt	No	No	Yes

4.3 Roadside Drainage Features

Seven constructed RSDs were identified within the investigated area totaling 8,345 linear feet. Photographs of the identified RSDs are in Attachments A21-A36. No other roadside drainage features were identified within the investigated area. Characteristics of the RSDs are summarized in Table 2.

RSD-1

RSD-1 begins north of US 24 along the toe of slope, flowing to the southwest, before reaching its confluence with RSD-4 where it turns to the south, crosses beneath US 24 via a 15-inch polyvinyl chloride (PVC) pipe, and continues to flow along the SR 19 roadway fill slope. RSD-1 outlets into Prairie Ditch outside of the investigated area. RSD-1 receives input from RSD-3 via a drop inlet within the US 24 median. Approximately 2,407 linear feet of RSD-1 lies within the investigated area. RSD-1 is vegetated channel consisting primarily of *Schedonorus arundinaceus*, tall-false rye grass. RSD-1 did not exhibit an OHWM. RSD-1 is not likely to be a jurisdictional water.

RSD-2

RSD-2 begins outside of the investigated area where it flows south through the US 24 median. RSD-2 provides input to UNT-1 to Prairie Ditch within the median where it reaches its confluence with UNT-1 to Prairie Ditch at the inlet of an 18-inch CMP structure. Approximately 913 linear feet of RSD-2 lies within the investigated area. RSD-2 is vegetated channel consisting primarily of Schedonorus arundinaceus, tall-false rye grass. RSD-2 did not exhibit an OHWM. RSD-2 is not likely to be a jurisdictional water.

RSD-3

RSD-3 is located in the US 24 median where it carries roadside drainage from the US 24 and Lovers Lane Road intersection along the median and discharges into RSD-1 via a drop inlet. Approximately 1,059 linear feet of RSD-3 lies within the investigated area. RSD-3 is vegetated channel consisting primarily of *Schedonorus arundinaceus*, tall-false rye grass. RSD-3 did not exhibit an OHWM. RSD-3 is not likely to be a jurisdictional water.

RSD-4

RSD-4 begins outside of the investigated area where it flows south of SR 19 before reaching its confluence with RSD-1. Approximately 136 linear feet of RSD-4 lies within the investigated area. RSD-4 is vegetated channel consisting primarily of *Schedonorus arundinaceus*, tall-false rye grass. RSD-4 did not exhibit an OHWM. RSD-4 is not likely to be a jurisdictional water.

RSD-5

RSD-5 is located north of US 24 where it carries roadside drainage along the SR 19 and US 24 toe of slope and discharges into a UNT to Prairie Ditch outside of the investigated area. Approximately 1,545 linear feet of RSD-5 lies within the investigated area. RSD-5 is vegetated channel consisting primarily of *Schedonorus arundinaceus*, tall-false rye grass. RSD-5 did not exhibit an OHWM. RSD-5 is not likely to be a jurisdictional water.

RSD-6

RSD-6 is located in the US 24 median where it carries roadside drainage from the US 24 and SR 19 intersection along the median and discharges into a UNT to Prairie Ditch outside of the investigated area. Approximately 1,180 linear feet of

RSD-6 lies within the investigated area. RSD-6 is vegetated channel consisting primarily of *Schedonorus arundinaceus*, tall-false rye grass. RSD-6 did not exhibit an OHWM. RSD-6 is not likely to be a jurisdictional water.

RSD-7

RSD-7 is located south of US 24 where it carries roadside drainage along the US 24 toe of slope and discharges into RSD-1. Approximately 1,105 linear feet of RSD-7 lies within the investigated area. RSD-7 is vegetated channel consisting primarily of *Schedonorus arundinaceus*, tall-false rye grass. RSD-7 did not exhibit an OHWM. RSD-7 is not likely to be a jurisdictional water.

TABLE 4: ROADSIDE DITCH SUMMARY TABLE

Feature Name	Photos	Lat/Long	USGS Blue Line?	Substrate	Likely Water of U.S.?
RSD-1	16-19, 22-23, 25, 27	40.78251 -86.05590	N	100% vegetated	N
RSD-2	15	40.78299 -86.05459	N	100% vegetated	N
RSD-3	20-21	40.78125 -86.05713	N	100% vegetated	N
RSD-4	22-23, 27	40.78068 -86.05879	N	100% vegetated	N
RSD-5	28-29	40.77859 -86.06149	N	100% vegetated	N
RSD-6	3-4	40.77881 -86.06064	N	100% vegetated	N
RSD-7	5-6	40.78075 -86.05729	N	100% vegetated	N

4.4 OPEN WATERS

Site investigations did not identify open water features within the investigated area.

5. CONCLUSION

The October 19, 2019 field review for the project identified three Waters of the US within the investigated area. Prairie Ditch and UNT-1 to Prairie Ditch are considered Waters of the U.S. due to their hydrological connectivity to a TNW, the Wabash River. Wetland A is a considered a Waters of the US due to its connectivity to a jurisdictional feature, Prairie Ditch, via overland flow and roadside drainage.

Every effort should be taken to avoid and minimize the impacts to the water resources listed above. Disturbance of a wetland or stream could result in a mitigation requirement to secure the required permits for the channel clearing and protection project. If construction exceeds the limits of the survey review area illustrated in this document, further field investigation will be needed. This report is this office's best judgment of water resources that are likely to be under federal jurisdiction, based on the guidelines set forth by the U.S. Army Corps of Engineers (USACE). The final determination of jurisdictional waters is ultimately the responsibility of the USACE. The INDOT Office of Environmental Services should be contacted immediately if impacts occur.

This waters determination has been prepared based on the best available information, interpreted in the light of the investigator's training, experience and professional judgement in conformance with the 1987 *Corps of Engineers Wetlands Delineation Manual*, the appropriate regional supplement, the USACE *Jurisdictional Determination Form Instructional Guidebook*, and other appropriate agency guidelines.

Aaron Grisel, Scientist II

PREPARERS:

HNTB Inc., Staff	Position	Contributing Effort
Aaron Grisel	Scientist II	Report Preparation Field Data Collection
Rich Connolly	Science Project Manager	Project Management Field Data Collection

Appendix 2 - PRELIMINARY JURISDICTIONAL DETERMINATION (PJD) FORM

BACKGROUND INFORMATION

A. REPORT COMPLETION DATE FOR PJD: 12/30/2019

B. NAME AND ADDRESS OF PERSON REQUESTING PJD: Aaron Grisel, 111 Monument Circle Suite 1200, Indianapolis IN, 46202; tgrisel@hntb.com

C. DISTRICT OFFICE, FILE NAME, AND NUMBER:

D. PROJECT LOCATION(S) AND BACKGROUND INFORMATION:

The Federal Highway Administration (FHWA) and Indiana Department of Transportation (INDOT), Fort Wayne District is planning to proceed with an intersection improvement project at the US 24 intersections with SR 19 and Lovers Lane Road in Peru, Indiana (Des. No. 1700089). The preferred alternative would close the US 24 and SR 19 intersection at the median and construct median U-turns northeast and southwest of the existing intersection. No additional right-of-way is anticipated.

(USE THE TABLE BELOW TO DOCUMENT MULTIPLE AQUATIC RESOURCES AND/OR AQUATIC RESOURCES AT DIFFERENT SITES)

State: IN County/parish/borough: Miami City: Peru Township

Center coordinates of site (lat/long in degree decimal format):

Lat.: 40.77992 Long.: -86.05912

Universal Transverse Mercator: Easting 579392, Northing 4514753, Zone 16S

Name of nearest waterbody: Prairie Ditch

E. REVIEW PERFORMED FOR SITE EVALUATION (CHECK ALL THAT APPLY):

☐ Office (Desk) Determination. Date:

☐ Field Determination. Date(s):

TABLE OF AQUATIC RESOURCES IN REVIEW AREA WHICH "MAY BE" SUBJECT TO REGULATORY JURISDICTION.

Site number	Latitude (decimal degrees)	Longitude (decimal degrees)	Estimated amount of aquatic resource in review area (acreage and linear feet, if applicable)	Type of aquatic resource (i.e., wetland vs. non-wetland waters)	Geographic authority to which the aquatic resource "may be" subject (i.e., Section 404 or Section 10/404)
Prairie Ditch	40.78309	-86.05391	274 feet	non-wetland	Section 404
UNT-1 to Prairie Ditch	40.78197	-86.05538	167 feet	non-wetland	Section 404
Wetland A	40.780436	-86.05917	0.007 acre	wetland	Section 404

1) The Corps of Engineers believes that there may be jurisdictional aquatic resources in the review area, and the requestor of this PJD is hereby advised of his or her option to request and obtain an approved JD (AJD) for that review area based on an informed decision after having discussed the various types of JDs and their characteristics and circumstances when they may be appropriate.

2) In any circumstance where a permit applicant obtains an individual permit, or a Nationwide General Permit (NWP) or other general permit verification requiring "pre-construction notification" (PCN), or requests verification for a non-reporting NWP or other general permit, and the permit applicant has not requested an AJD for the activity, the permit applicant is hereby made aware that: (1) the permit applicant has elected to seek a permit authorization based on a PJD, which does not make an official determination of jurisdictional aquatic resources; (2) the applicant has the option to request an AJD before accepting the terms and conditions of the permit authorization, and that basing a permit authorization on an AJD could possibly result in less compensatory mitigation being required or different special conditions; (3) the applicant has the right to request an individual permit rather than accepting the terms and conditions of the NWP or other general permit authorization; (4) the applicant can accept a permit authorization and thereby agree to comply with all the terms and conditions of that permit, including whatever mitigation requirements the Corps has determined to be necessary; (5) undertaking any activity in reliance upon the subject permit authorization without requesting an AJD constitutes the applicant's acceptance of the use of the PJD; (6) accepting a permit authorization (e.g., signing a proffered individual permit) or undertaking any activity in reliance on any form of Corps permit authorization based on a PJD constitutes agreement that all aquatic resources in the review area affected in any way by that activity will be treated as jurisdictional, and waives any challenge to such jurisdiction in any administrative or judicial compliance or enforcement action, or in any administrative appeal or in any Federal court; and (7) whether the applicant elects to use either an AJD or a PJD, the JD will be processed as soon as practicable. Further, an AJD, a proffered individual permit (and all terms and conditions contained therein), or individual permit denial can be administratively appealed pursuant to 33 C.F.R. Part 331. If, during an administrative appeal, it becomes appropriate to make an official determination whether geographic jurisdiction exists over aquatic resources in the review area, or to provide an official delineation of jurisdictional aquatic resources in the review area, the Corps will provide an AJD to accomplish that result, as soon as is practicable. This PJD finds that there *"may be"* waters of the U.S. and/or that there *"may be"* navigable waters of the U.S. on the subject review area, and identifies all aquatic features in the review area that could be affected by the proposed activity, based on the following information:

SUPPORTING DATA. Data reviewed for PJD (check all that apply)

Checked items should be included in subject file. Appropriately reference sources below where indicated for all checked items:

- ☒ Maps, plans, plots or plat submitted by or on behalf of the PJD requestor:
  Map: HNTB Indiana, Inc.
- ☐ Data sheets prepared/submitted by or on behalf of the PJD requestor.
  - ☐ Office concurs with data sheets/delineation report.
  - ☐ Office does not concur with data sheets/delineation report. Rationale: _____.
- ☐ Data sheets prepared by the Corps: _____.
- ☐ Corps navigable waters' study: _____.
- ☐ U.S. Geological Survey Hydrologic Atlas: _____.
  - ☐ USGS NHD data.
  - ☐ USGS 8 and 12 digit HUC maps.
- ☒ U.S. Geological Survey map(s). Cite scale & quad name: Peru 1:24.000 Quad.
- ☒ Natural Resources Conservation Service Soil Survey. Citation: Miami, https://websoilsurvey.sc.egov.usda.gov/App/WebSoilSurvey.aspx.
- ☒ National wetlands inventory map(s). Cite name: US Fish and Wildlife NWI.
- ☐ State/local wetland inventory map(s): _____.
- ☒ FEMA/FIRM maps: IDNR Floodplain Database.
- ☒ 100-year Floodplain Elevation is: 670.5 .(National Geodetic Vertical Datum of 1929)
- ☐ Photographs: ☒ Aerial (Name & Date): 2016 USDA/NRCS NAIP.
  or ☒ Other (Name & Date): October 19, 2019.
- ☐ Previous determination(s). File no. and date of response letter: _____.
- ☐ Other information (please specify): _____.

IMPORTANT NOTE: The information recorded on this form has not necessarily been verified by the Corps and should not be relied upon for later jurisdictional determinations.

_____	Aaron Grisel Digitally signed by Aaron Grisel DN: C=US, E=tgrisel@hntb.com, O="HNTB Indiana, Inc.", OU=Environmental Planning, CN=Aaron Grisel Date: 2019.12.23 17:38:59-05'00'
Signature and date of Regulatory staff member completing PJD	Signature and date of person requesting PJD (REQUIRED, unless obtaining the signature is impracticable)[1]

[1] Districts may establish timeframes for requestor to return signed PJD forms. If the requestor does not respond within the established time frame, the district may presume concurrence and no additional follow up is necessary prior to finalizing an action.

Aaron Grisel

From: Koehlinger, Aaron <AKoehlinger@indot.IN.gov>
Sent: Monday, January 6, 2020 3:18 PM
To: Aaron Grisel
Cc: Bass, Jenny R
Subject: Approved: Des# 1700089 Waters Report US 24 AND SR 19, INTERSECTION IMPROVEMENTS, MIAMI COUNTY
Attachments: FINAL_Waters of the U.S. Report_Des_1700089.pdf

Aaron,

Thank you for submitting the waters report for US 24 and SR 19, intersection improvements in Miami County, Designation1700089. The approved report can be found on Projectwise through this link FINAL_Waters of the U.S. Report_Des_1700089.pdf. *It is the responsibility of the Project Manager to forward a copy of this report to the Project Designer.*

The information in this report should be used by the Project Designer to determine if waters of the U.S. will be impacted by the project. Avoidance and minimization of impacts must occur *before* mitigation will be considered. If mitigation is required, the Project Manager or Project Designer must coordinate with the Ecology and Waterway Permitting Office to discuss how adequate compensatory mitigation will be provided.

The Project Manager should notify the Ecology and Waterway Permitting Office if there is any change to the project footprint presented in this report. Such changes may require additional fieldwork and submittal of an updated waters report covering areas not previously investigated. *This report is only valid for a period of five years from the date of earliest fieldwork.* If the report expires prior to waterway permit application submittal, additional fieldwork and a revised waters report will be required.

It will not be sent to the United States Army Corps of Engineers (USACE) or the Indiana Department of Environmental Management (IDEM) until the waterways permit applications are submitted to these agencies.

Aaron Koehlinger
Permitting Specialist, Ecology and Waterway Permitting
INDOT Environmental Services
100 N Senate Ave, Room 642-ES
Indianapolis, IN 46204
Office: (317)234-5268
Email: Akoehlinger@indot.IN.gov

From: Aaron Grisel [mailto:tgrisel@HNTB.com]
Sent: Monday, December 30, 2019 9:23 AM
To: Koehlinger, Aaron <AKoehlinger@indot.IN.gov>
Cc: Joshua Cook <jlcook@HNTB.com>; Richard Connolly <rconnolly@HNTB.com>; Bass, Jenny R <JBass@indot.IN.gov>
Subject: RE: Des# 1700089 comments v .1 US 24 AND SR 19, INTERSECTION IMPROVEMENTS, MIAMI COUNTY

APPENDIX G: PUBLIC INVOLVEMENT

Note: Since all project activities will occur within existing right-of-way and no permanent/temporary right-of-way will be acquired, Notice of Entry Letters were not required. This appendix will be updated with public hearing documentation and public comments following the public hearing.

APPENDIX H: AIR QUALITY

Indiana Department of Transportation (INDOT)

State Preservation and Local Initiated Projects FY 2020 - 2024

SPONSOR	CONTRACT # / LEAD DES	STIP NAME	ROUTE	WORK TYPE	LOCATION	DISTRICT	MILES	FEDERAL CATEGORY	Estimated Cost left to Complete Project*	PROGRAM	PHASE	FEDERAL	MATCH	2020	2021	2022	2023	2024
										Bridge Consulting	PE	$706,000.00	$176,500.00	$882,500.00				
										Bridge Construction	CN	$4,156,868.80	$1,039,217.20			$70,000.00		$5,126,086.00
Comments:NO MPO. DES 1900079, 1900087, 1900086, 1900234 adding PE to FY 2020, RW to FY 2022 and CN to FY 2022 into FY 2020 - 2024 STIP.																		
Indiana Department of Transportation	42368 / 1900078	A 01	US 24	Small Structure Replacement	2.83 Miles East of US 31, Carries UNT of Prairie Creek	Fort Wayne	.2	NHPP	$3,090,794.00	Bridge ROW	RW	$64,000.00	$16,000.00			$80,000.00		
										Bridge Consulting	PE	$304,000.00	$76,000.00	$380,000.00				
										Bridge Construction	CN	$1,948,635.20	$487,158.80			$45,000.00		$2,390,794.00
Comments:NO MPO. DES 1900077, 1900078, 1900230 adding PE to FY 2020, RW to FY 2022 and CN to FY 2022 into FY 2020 - 2024 STIP.																		
Indiana Department of Transportation	42369 / 1800016	A 01	SR 16	Small Structure Replacement	Carries UNT of Eel River, 3.36 Miles East of SR 19, North Junction.	Fort Wayne	.1	STPBG	$588,744.00	Bridge ROW	RW	$24,000.00	$6,000.00			$30,000.00		
										Bridge Consulting	PE	$128,000.00	$32,000.00	$160,000.00				
										Bridge Construction	CN	$318,995.20	$79,748.80			$20,000.00		$378,744.00
Comments:NO MPO. DES 1800016 adding PE to FY 2020, RW to FY 2022 and CN to FY 2022 into FY 2020 - 2024 STIP.																		
Indiana Department of Transportation	42406 / 1700089	A 07	US 24	Other Intersection Improvement	US 24 at SR 19.	Fort Wayne	.499	NHPP	$1,113,966.00	Safety Consulting	PE	$76,000.00	$19,000.00	$95,000.00				
										Safety Construction	CN	$815,172.80	$203,793.20			$1,018,966.00		
Comments:NO MPO. DES 1700089 adding PE to FY 2020 for $95,000 and CN to FY 2022 for $1,018,966.																		
Indiana Department of Transportation	42406 / 1700089	A 10	US 24	Other Intersection Improvement	US 24 at SR 19.	Fort Wayne	.499	NHPP	$1,218,966.00	Safety Consulting	PE	$160,000.00	$40,000.00	$200,000.00				
Comments:NO MPO. DES 1700089 add PE to FY 2020 for $200,000, CN to FY 2022 for $1,018,966.																		
Indiana Department of Transportation	42465 / 1383527	A 10	SR 13	Small Structure Pipe Lining	3.40 miles N of US 24, over Branch #1, Eel River	Fort Wayne	0	STBG	$382,765.00	Bridge ROW	RW	$44,000.00	$11,000.00		$55,000.00			
										Bridge Construction	CN	$288,964.00	$72,241.00		$5,000.00	$356,205.00		
Comments:NO MPO. DES 1383527 add RW to FY 2021 for $55,000, CN to FY 2021 for $5,000																		
Indiana Department of Transportation	42542 / 1800056	A 05	SR 16	Bridge Replacement, Other Construction	Bridge Over Weesau Creek, 2. 92 Miles East of US 31	Fort Wayne	.385	STBG	$992,738.00	Statewide Consulting	PE	$17,920.00	$4,480.00	$22,400.00				
										Bridge Consulting	PE	$59,408.00	$14,852.00	$74,260.00				
Comments:No MPO for DES 1800056. Adding PE to FY 2020 for $96,660.																		

Miami County Total

Federal: $97,926,207.87 Match :$24,459,973.37 2020: $24,015,744.84 2021: $19,833,736.00 2022: $10,969,688.40 2023: $52,458,103.00 2024: $15,108,909.00

 Report Created:12/17/2019 11:18:02AM

*Estimated Costs left to Complete Project column is for costs that may extend beyond the four years of a STIP. This column is not fiscally constrained and is for information purposes.

APPENDIX I: Additional Studies

INDIANA DEPARTMENT OF TRANSPORTATION
Driving Indiana's Economic Growth

Fort Wayne District
5333 Hatfield Rd
Fort Wayne, IN 46808

PHONE: 866-227-3555
FAX: 260- 471-1039

Eric Holcomb, Governor
Joe McGuinness, Commissioner

The included documentation is an excerpt of the INDOT Engineer's Report. Appendices have been removed from this report to condense the size of the document.

ENGINEER'S REPORT

DES NUMBER: 1700089

WORK CATEGORY: DISTRICT INTERSECTION IMPROVEMENT

COUNTY: MIAMI

LOCATION: US24 AT SR19

RP 80+98 TO RP 81+48

Looking East from the East Bound Shoulder (Google Earth 9/2018)

TABLE OF CONTENTS

PAGE NUMBER

ATTACHMENTS

ENGINEER'S REPORT
US24 AT SR19 IN MIAMI COUNTY
DISTRICT INTERSECTION IMPROVEMENT PROJECT

I. PURPOSE OF REPORT

The purpose of this report is to document existing conditions and provide an engineering assessment for project development, including all coordination that has been completed in preparation for this intersection improvement project. This document outlines the assessment and is intended to serve as a guide for survey, design, environmental, right-of-way, and other project activities leading to construction.

II. PROJECT LOCATION

This intersection improvement project is located at US24 and SR19 from RP 80+98 to RP 81+48 in Miami County. This project is within the Indiana Department of Transportation's Fort Wayne District, Wabash Sub-District, and Peru Unit. (See A1)

III. PROJECT NEED AND PURPOSE

The need for this project is based upon the severity of right angle crashes in spite of the overhead flashing beacon currently installed at this intersection. The purpose of the project is to eliminate right angle collisions while maintaining the ability to travel along SR19.

IV. EXISTING FACILITIES CONDITIONS

A. ROADWAY HISTORY AND PAVEMENT CONDITIONS

Last Work: FY2017, Mainline Crack Fill by INDOT Maintenance
FY2014, Asphalt Resurface, RS-33570
Typical Half Section from RS-33570 reflects the following:
Two lanes (12 feet each), variable right/left turn lanes (approximately 12 feet each), an outside paved shoulder (varies but is approximately 12 feet), an inside paved shoulder (4 feet wide), and compacted aggregate wedges beyond the shoulders (average 2 feet). (See A2)

B. ROADWAY PROFILE AND PAVEMENT INFORMATION

Functional Class: Principal Arterial - Other Freeways or Expressways
National Highway Freight Network: No
National Highway System: Yes
2019 AADT traffic forecast: 12,430
Percent Trucks from 2019 traffic forecast: 21.64%

Horizontal and Vertical Alignment at the intersection of US24 and SR19 from the As- Built Plans (Nov. 6, 1961) show a horizontal curve with a length of 4,186.67 ft with a central angle of 41°51' Lt. and a vertical curve with a length of 800 ft and an incline of 0.86%. (See A3-A6)

The pavement design process was initiated with the request of a geotechnical investigation on August 14, 2019. The investigation was assigned to Alt & Witzig Engineering Inc. and is to be completed by January 2020. The request includes coring all existing shoulders and turn lanes. (See A7-A16)

2018 Pavement Condition Data (See A17-A18)
Average International Roughness Index: 50
Average Rut Depth: 0.07 inches

C. Adjacent Land Use

From the Miami County GIS website, the adjacent properties' classes are primarily agricultural, commercial, Indiana State Property, and residential.

D. Existing Utilities, Railroads, Bridges, Small Structures, and Drainage

A Web Design Ticket was completed for utilities within the project limits. There are six utilities listed on the ticket. Utility conflicts will be verified by the Fort Wayne District Utility Coordinators. (See A19)

There is no railroad crossing within the project limits.

There is no bridge within the current project limits, but there is one bridge near the project limit's end.

RP 81+553, Bridge 024-52-07579 carrying a drainage ditch.

There is no small structure in the project limits.

There are several drainage structures consisting of small culverts (<48 inches), inlets, median drains, underdrain outlets, etc. within the project limits. These structures may need removed, lengthened, or replaced. The treatment for these drainage structures shall be determined by the project designer. (See A20)

V. Traffic Data

The Indiana Department of Transportation's Traffic Statistics Unit has provided the following traffic data. (See A21-38)

Segment 1 (Segment with highest amount of commercial traffic)
2019 Average Annual Daily Traffic (AADT) 12,430
2021 AADT 12,689
2031 AADT 13,986
2041 AADT 15,282
2041 DHV 8.19%
Commercial Vehicles
21.64% AADT
19.66% DHV

VI. Crash Data Analysis

A total of 26 crashes from January 1, 2010 thru February 23, 2019 occurred at the intersection of US24 and SR19. They involved 50 vehicles, four trailers, 34 injuries, and two fatalities. Twenty-one of these crashes were angle/turn crashes. The RoadHat 3.0 analysis is for 2010 thru 2018 returns an index of crash frequency (ICF) of -0.09 and an index of crash cost (ICC) of 1.80. (See A39)

Table 1: 2010-2019 crash data at the US 24/SR19 intersection

Year	Right Angle	Rear End	Run Off Road	Same Direction Side Swipe	Turn	Total	Property Damage Only	Non-Incapacitating	Incapacitating	Fatal
2010	0	0	1	0	3	4	1	2	1	0
2011	3	1	0	0	1	5	2	1	1	1
2012	1	0	0	1	0	2	2	0	0	0
2013	1	0	0	0	0	1	0	1	0	0
2014	3	0	0	0	0	3	1	2	0	0
2015	4	0	0	0	0	4	2	0	2	0
2016	1	0	0	0	0	1	1	0	0	0
2017	2	1	1	0	0	4	2	1	1	0
2018	1	0	0	0	0	1	1	0	0	0
2019	1	0	0	0	0	1	0	0	1	0
TOTALS	**17**	**2**	**2**	**1**	**4**	**26**	**12**	**7**	**6**	**1**

VII. Discussion of Alternatives/Identification of Proposal

The following discussion was completed by Steven Lam, INDOT Fort Wayne District Traffic Planning Engineer.

The alternatives that will be analyzed in this report are the "No Build" alternative, "Roundabout" alternative, "Signalized Restricted Crossing U-Turn" (RCUT) alternative, and the "Unsignalized Restricted Crossing U-Turn" (J-Turn) alternative.

A. No-Build Alternative

The No-Build alternative does not satisfy the project's purpose and intent since it does not address the safety issue of this intersection. Therefore, the No-Build alternative removed from consideration.

B. Roundabout Alternative

The 2019 traffic count of each approach (24 hr. interval) is located in Table 2. Since the minor road approaches, SR 19 NB and SB, account for only 9.3% of the intersection's traffic and considering the 50 mph posted speed limit, a roundabout will cause undue delay for those travelling on US 24. The roundabout is removed from consideration due to these factors.

Table 2: 2019 traffic count (24 hr. interval) of each approach at the US 24/SR19 intersection

Approach	Vehicles (Percentage of Intersection)
US 24 EB	6873 (45.0%)
US 24 WB	6975 (45.7%)
SR 19 NB	1228 (8.0%)
SR 19 SB	197 (1.3%)

C. Restricted Crossing U-Turn (RCUT) Alternative Overview

A Restricted Crossing U-Turn (RCUT) can be signalized or unsignalized. An unsignalized RCUT is also called a J-Turn. RCUTs and J-Turns have an 87% reduction in crossing conflict points according to the Proven Safety Countermeasure: Reduced Left-Turn Conflict Intersections report by Federal Highway Administration (FWHA). In that same report, various studies of RCUTs showed 35%-92% reduction of total crashes. A signal warrant analysis was performed to determine if the amount of traffic at this intersection calls for a traffic signal. The two relevant signal warrants are Warrant 1, Eight-Hour Vehicular Volume Warrant, and Warrant 2, Four-Hour Vehicular Volume Warrant. For the main intersection of the J-Turn, neither warrants 1 or 2 were met after considering right turn on red. The east median U-turn was also considered for the signal warrant analysis since it was the higher traffic median U-turn and it did not meet warrants 1 or 2 whether or not right turn on red was considered. Since this median U-turn did not meet signal warrants the lower traffic median U-turn would not either. The summary for these signal warrant analyses are shown on attachment pages A40-A57. In addition, a traffic signal on a high speed divided highway would likely increase crashes due to introducing rear end crashes from mainline vehicles needing to stop from 60 mph. A signalized RCUT is removed from consideration since a signal is not recommended based on engineering judgement. Synchro and SimTraffic will be used to analyze the unsignalized RCUT (J-Turn) and a comparison with other viable alternatives will be made.

D. J-turn with Median Closure Alternative Overview

The difference between the J-Turn with median closure alternative and the Unsignalized RCUT alternative is that mainline left turns will be restricted which reduces the two remaining crossing conflict points to zero. This further increases safety of the intersection and will be compared with the unsignalized RCUT alternative to determine the recommended alternative. With either of these alternatives, the closure of Lover's Lane should be considered for the proper operation of the RCUT or J-Turn. This will be evaluated in Section F below.

E. Viable Alternatives Comparison

The two alternatives that are viable are the unsignalized RCUT and the J-Turn with median closure. Mainline left turns account for 5.7% of intersection entering movements. In order to more closely examine the impact of closing the median, Synchro 10 and SimTraffic were used to determine the Level of Service (LOS), Delay, and Travel Time for each approach in the AM and PM peak hours. The 2019 count used for these analyses can be found on attachment pages A58-A67. This count was grown to 2030 with a growth factor of 1% for some of the analyses. For the SimTraffic analysis, five trials were run, with a duration of 30

minutes per simulation, and the average was used. The results are summarized in Tables 3 & 4. From the results, both of the viable options show a sizeable decrease in delay and travel time for the PM Peak period compared to the No-Build scenario. There's a smaller decrease for the AM Peak period. There is little difference comparing the Unsignalized RCUT and the J-Turn with Median Closure though. Delay did not change in either of the AM and PM Peak periods and travel time only increased 0.6 hours in the AM and 0.1 hours in the PM. Therefore, vehicle traffic is minimally affected by closing the median.

Table 3: Synchro Results (LOS) for 2019 Existing and 2030 No-Build (See A68-A79)

Level of Service (LOS)			
		AM Peak	PM Peak
US 24 @ SR 19	2019 Existing	A	A
	2030 No-Build	A	A
	2030 Unsignalized RCUT	A	A
	2030 J-Turn with median closure	A	A

Table 4: SimTraffic Results (Delay and Travel Time) (See A80-A95)

		Delay (hr.)		Travel Time (hr.)	
		AM Peak	PM Peak	AM Peak	PM Peak
US 24 @ SR 19	2019 Existing	0.7	4.7	9.7	16.4
	2030 No-Build	0.9	8.4	11.1	21.3
	2030 Unsignalized RCUT	0.7	1.3	10.7	15.0
	2030 J-Turn with median closure	0.7	1.3	11.3	15.1

F. Application of Recommended Alternative (Lovers Lane Closure)

The recommended alternative is the J-Turn with median closure. Due to the extra travel required for left turns from US 24 to SR 19, Lovers Lane between SR 19 and US 24 should be closed so that vehicles are not able to by-pass the median U-turn by turning left at Lovers Lane instead. If this segment of road is not closed, the safety concern could move to the US 24 and Lovers Lane intersection instead of being eliminated by the construction of a J-Turn. This intersection was counted in 2019 and the count can be found on attachment pages A58-A67. The count showed that only about 155 vehicles would be affected by this closure on a weekday. The number of vehicles is small enough that the impact to traffic due to the closure is minimal. In addition to closure of Lovers Lane, the monotube overhead structure and guardrail should be removed on both eastbound and westbound US 24. Ground mounted panel signs will be installed as a replacement for the removed signs. The flashers currently at the intersection should also be removed. These improvements in combination with the construction of the J-Turn is the recommended solution to the safety concern at this intersection and is therefore the preferred alternative.

VIII. Environmental Issues

All improvements occur in previously disturbed right-of-way, therefore no significant environmental impacts are expected. All environmental impacts will be addressed in greater detail in the Environmental Phase and addressed in the Environmental Document.

IX. Survey Requirements

The survey along US24 should begin approximately 1,200 feet West of the intersection of US24 & SR19 and end approximately 1,200 feet East of the intersection of US24 and Lover's Lane. Along mainline US24, the survey shall extend to the US24 right-of-way fence to the North and South. At the intersections of US24 and SR19 and US24 and Lover's Lane, the survey shall extend approximately 200 feet to the North and South.

X. Right-of-Way Impact

No permanent or temporary right-of-way is anticipated.

XI. Construction Traffic Maintenance

Construction of the J-turn will require phased construction with shoulder and temporary lane closures.

XII. Coordination

This project is currently scheduled in the fiscal year 2022 with a letting date of September 15, 2021. It is currently a stand-alone project with contract number R-42406. Projects may kinned at a later date.

A stakeholders meeting was conducted on September 27, 2019. This meeting was to start engaging the stakeholders in the project-development process. This allows their input to be considered during the appropriate stages of the project, and helps to gain their cooperation and support. (See A96)

> Key issues that the designer needs to consider taken from the stakeholders meeting are extra widths for farm machinery and tractor trailer tow trucks to utilize this intersection which could affect the shoulder widths.

XIII. Construction Cost Estimate

The total estimated project construction cost for the preferred alternative is $948,543. (See A97-A100)

XIV. Changes to this Engineer's Report

The Fort Wayne District Technical Services and Capital Program Management shall be consulted if deviation from the proposal is determined to be necessary during a later phase of project development. The person initiating changes shall route a memo detailing the changes including justification for the change and the estimated cost difference to the Fort Wayne District System Asset Manager, Scoping Manager, and Project Manager for concurrence.

Prepared by: _____ Date: 11/13/19

Kelly DL Ellis
Fort Wayne District Scoping Engineer
Indiana Department of Transportation

Concur: _____ Date: 11/14/19

Susan J. Doell, P.E.
Fort Wayne District Scoping Manager
Indiana Department of Transportation

_____ Date: 11/14/19

Jenny Bass
Fort Wayne District Project Manager
Indiana Department of Transportation

_____ Date: 2019.11.14 11:12:51 -05'00'

Randall P. Post, P.E.
Fort Wayne District System Asset Manager
Indiana Department of Transportation

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Eric Holcomb, Governor
Joe McGuinness, Commissioner

US 24 @ SR 19 Alternatives Amendment

The following is an addition to the Engineer's Report for DES 1700089, US 24 @ SR 19 Intersection Improvement. This section is being added because a signalized traditional intersection was considered but was not stated in the scoping report.

Signalized Traditional Intersection

A signalized traditional intersection alternative is the option of keeping the existing intersection geometry and adding a traffic signal. To evaluate the viability of a signalized intersection, a signal warrant analysis was conducted. This analysis will determine if the traffic at this intersection is high enough to consider a traffic signal. The relevant warrants are Warrant 1, Eight-Hour Vehicular Volume Warrant, and Warrant 2, Four-Hour Vehicular Volume Warrant. The summary of the signal warrant analysis can be found on attachment pages A40-A49. Neither warrant 1 nor warrant 2 was met, with or without considering right turn on red. This indicates that a traffic signal would not be recommended at this location. A traffic signal at a location that does not have the appropriate traffic volumes may cause additional safety concerns. Vehicles on US 24 would need to stop from a high rate of speed as the speed limit is 60 mph. In addition, this area of US 24 has very few stops so motorists would not be expecting to need to stop for a signal. These factors may lead to an increase in rear end crashes or running red light crashes. Due to these concerns, the signalized traditional intersection is removed from consideration.

Prepared by: Steven Lam Date: 1/21/20
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Concur: Susan J. Doell Date: 1/24/20
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Jenny Bass Date: 1/22/20
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Randall P. Post 2020.01.24 15:44:06 -05'00' Date:
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Land and Water Conservation Fund Grants: Indiana

The Park Service is finding out about more closures and conversions of federally protected parks than ever before. But no one knows just how many, so InvestigateWest compiled this database, which lists every LWCF grant between 1965 and 2011, as a starting point. Click a column header to re-sort the table. Click-shift to add a secondary sort.

RETURN TO THE PROJECT PAGE

FILTER THE LIST: Miami

Grant ID & Element	Grant Name	Sponsor	County	State	Grant Amount	Year Approved	Year Completed	Type
563 - XXX	MIAMI SRA CAMPGROUND RENOVATION	DEPT. OF NATURAL RESOURCES	MIAMI	IN	$244,560.98	2008	2012	Redevelopment

AN INVESTIGATEWEST DATA PROJECT