Appendix C

Early Coordination

gai consultants

Indianapolis Office
201 N. Illinois Street, Suite 1700
Indianapolis, Indiana 46204

T 317.570.6800
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June 15, 2018

GAI Project No. D160355.12

Sample Early Coordination Letter

Early Coordination
Designation No. 1593276
US 421 over South Fork Wildcat Creek
Bridge Rehabilitation Project
Clinton County, Indiana

Dear «PREFIX» «LAST_NAME2»:

The Indiana Department of Transportation (INDOT), with funding and oversight from the Federal Highway Administration (FHWA), is proposing to rehabilitate the bridge carrying US 421 over South Fork Wildcat Creek (Structure No. (421)39-12-01792B), located in Clinton County, Indiana. This letter is part of the early coordination phase of the environmental review process. We are requesting comments from your area of expertise regarding any possible environmental effects associated with this 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 impacts.

This project is located approximately 2.24 miles south of SR 38 at milepoint 17.050, in Section 29, Township 21 North, Range 1 West, of Union Township, as shown on the Frankfort, Indiana USGS 7.5 Minute Topographic Map. The existing structure is a 192 ft., three-span, steel thru-truss bridge constructed in 1941 and reconstructed in 1985. The bridge is listed in the Indiana Historic Bridge Inventory (December 2010) as a select historic bridge. US 421 is functionally classified as a rural minor arterial, consisting of two 12 ft. north/south travel lanes with 5 ft. shoulders on both sides of the roadway. Apparent existing right-of-way is approximately 75 ft. to the northeast and 60 ft. to the southwest from the centerline. The need for the project comes from the deteriorated state of the bridge, which has a sufficiency rating of 46.7 out of 100 (INDOT Bridge Inspection Report, February 2017).

The proposed project involves replacing the reinforced concrete pier pedestals for spans A and C (approach spans), replacing end abutment caps, replacing end spans with new prestressed concrete box beam superstructures, removing and replacing the reinforced concrete deck on the thru-truss span and removing the existing concrete bridge railing and replacing it with new type FC concrete railing. Abutments 1 and 4 will become semi-integral and new joints will be installed at Pier 2 and Pier 3 where superstructure type changes. The project will also include installing new bridge deck drains, repairing the existing steel thru-truss (replacing steel elements in kind, replacing deteriorated rivets with bolts, attaching steel plates to areas of impact damage, and cleaning and painting the existing steel thru-truss), removing the existing approach slabs, constructing new reinforced concrete bridge approaches with type TFC concrete bridge

railing transitions, replacing existing guardrail, and adding channel scour protection. The project limits will extend approximately 570 ft. in length. The preferred method of traffic maintenance would be a road closure with an official detour route utilizing SR 26 and SR 75. It is anticipated that no permanent right-of-way will be required to complete the proposed project and temporary right-of-way will be limited to drive construction. No relocations will be necessary to complete the proposed project.

A Red Flag Investigation is currently being performed to determine items of concern within the project area. Land use in the vicinity is primarily urban residential and commercial development. A Wetland Delineation/Determination and Waters of the United States investigation will be conducted in accordance with the 1987 United States Army Corps of Engineers (USACE) *Corps of Engineers Wetlands Delineation Manual* (1987) and the *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Midwest Region* (Version 2.0, USACE, 2010) and coordinated with the INDOT Ecology & Permits Office. The Range-Wide Programmatic Informal Consultation process will be used for this project to evaluate potential impacts to the Indiana Bat, the Northern Long-Eared Bat, and Rusty Patched Bumblebee, which will involve coordination with the USFWS for review.

As the Section 106 process advances, the project area will be surveyed by individuals satisfying the *Secretary of the Interior Professional Qualification Standards* to determine an area of potential effect (APE), make recommendations on eligibility determinations and assess effects on potential historic resources. Additionally, the project area will be subjected to an archaeological reconnaissance by a qualified archaeologist. Coordination with the State Historic Preservation Officer (SHPO) and the identified consulting parties will be ongoing for the duration of the Section 106 process.

Should we not receive your response **within thirty (30) calendar days** from the date of this letter, it will be assumed that your agency or organization 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 extension may be granted upon request.

Project location maps and photo documentation are attached. If you have any questions regarding this matter, please contact me at p.killian@gaiconsultants.com or (317) 436-4844.

Sincerely,

GAI Consultants, Inc.

Paul Killian
Project Environmental Specialist

Enc.: Distrubution List~~, Project Location Maps, Photo Documentation~~

Removed to avoid duplication. Project Maps and Photos can be found in Appendix B.

US 421 over Wildcat Creek
Bridge Rehabilitation Project
Clinton County, Indiana
Des. No. 1593276

Agencies Receiving Early Coordination Packet:
Distributed on June 15, 2018

Mr. Scott Pruitt, Field Supervisor
U.S. Fish and Wildlife Service
Bloomington Field Office
620 South Walker Street
Bloomington, IN 47403-2121
Robin_mcwilliams@fws.gov
(Electronic Submittal)

Mr. Robert Dirks, Administrator
Federal Highway Administration
Indiana Division
Room 254, Federal Office Building
575 North Pennsylvania Street
Indianapolis, IN 46204

Mr. Rick Neilson
State Conservationist
Natural Resources Conservation Service
6013 Lakeside Boulevard
Indianapolis, IN 46278
Include Form: AD-1006

Indiana Geological Survey, Environmental Geology
611 North Walnut Grove
Bloomington, IN 47405
https://igws.indiana.edu/eAssessment/
(Website submittal)

Ms. Christie Stanifer,
Environmental Coordinator
Indiana Department of Natural Resources
Division of Water, Environmental Unit
environmentalreview@dnr.in.gov
(Electronic Submittal)

Office of Planning and Assessment
Indiana Department of Environmental Management
http://www.in.gov/idem/enviroreview/hwy_earlyenviroreview.html
(Website Submittal)

Wellhead Proximity Determinator website
http://idemmaps.idem.in.gov/whpa/
(Website Investigation)

Mr. Rickie Clark
Public Hearings Manager
Indiana Department of Transportation
100 North Senate Avenue, Room N642
Indianapolis, Indiana 46204
rclark@indot.in.gov
(Electronic Submittal)

Chief, Environmental Resources
Department of the Army
Louisville District, Corps of Engineers
ATTN: CEPMP-P-E
PO Box 59
Louisville, KY 40201-0059

Regional Environmental Coordinator
National Park Service
Midwest Regional Office
601 Riverfront Drive
Omaha, Nebraska 68102

Field Environmental Officer
Chicago Regional Office
U.S. Department of Housing & Urban Development
Metcalf Federal Building
77 West Jackson Boulevard, Room 2401
Chicago, IL 60604

Mr. Adam French, Development Specialist
Indiana Department of Transportation
Aviation Division
100 North Senate Avenue, Rm IGCN 955
afrench2@indot.in.gov
(Electronic Submittal)

Mr. Asfahan Kahn, Design Manager
Indiana Department of Transportation
Crawfordsville District
41 W. 300 N.
Crawfordsville, IN 47933

Mr. Steve Walls, Sr. Project Manager
Indiana Department of Transportation
41 W. 300 N.
Crawfordsville, IN 47933

Mr. Kevin Myers, Superintendent
Clinton County Highway Department
2095 Burlington Ave.
Frankfort, IN 46041

Mr. Dan Sheets
Clinton County Surveyor
165 Courthouse Square
Frankfort, IN 46041

gai consultants

Fishers Office
9998 Crosspoint Boulevard
Suite 110
Indianapolis, Indiana 46256

T 317.436.9150
F 317.436.8233

April 2, 2018

GAI Project No. D160355.12

Sample NOS Letter

Des. No. 1563276, Bridge #(421) 39-12-1792B US 421 over Wildcat Creek
Bridge Improvements, Clinton County, Indiana
Location Address: 2.24 Miles South of SR 38

Notice of Entry for Survey
Beginning April 2, 2018

Dear State of Indiana:

Our information indicates that you own or occupy property at **2462 N State Road 39** located near the above proposed transportation project. As representatives of the Indiana Department of Transportation (INDOT), GAI Consultants, Inc., or other consultants, will be conducting field and environmental surveys in the future. It may be necessary for them to enter onto your property to complete this work. This is permitted under Indiana Code § 8-23-7-26. Anyone performing this type of work has been instructed to identify himself or herself to you, if you are available, before they enter your property. If you no longer own this property or it is currently occupied by someone else, please provide us the name of the new owner or occupant and their contact information so we can contact regarding the survey.

Please read the attached notice to inform you of what the "Notice of Entry for Survey or Investigation" means. The field survey(s) may include but is/are not limited to topographic survey including the mapping of locations of features such as trees, buildings, fences and drives, and obtaining ground elevations and geotechnical investigation. The environmental survey(s) may include but is/are not limited to archaeological investigations (which may involve the survey, testing, or excavation of identified archaeological sites), identification and mapping of wetlands and waterways, taking photographs of the area (which may include infrastructure, roads, residential properties, and commercial properties), a historical review of the properties within the vicinity of the proposed project area, evaluation of land use for completion of environmental documentation and various other environmental studies. The information we obtain from such surveys and studies is necessary for the proper planning and design of this project.

It is our sincere desire to cause you as little inconvenience as possible during these surveys. If problems arise, please contact me at tjessop@gaiconsultants.com or 317.436.4854. However, please keep in mind that ***no specific information regarding this project is available at this time.*** Thank you in advance for your cooperation.

Sincerely,

GAI Consultants, Inc.

Troy Jessop, PE
Project Manager

TJ/vrh

Enc.: Indiana Department of Transportation Notice of Entry for Survey or Investigation

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
Steve Walls
41 W. 300 N
Crawfordsville , IN 47933

GAI Consultants, Inc.
Paul Killian
201 N. Illinois Street
Suite 1700
Indianapolis , IN 46204

Date

To Engineers and Consultants Proposing Roadway Construction Projects:

RE: The Indiana Department of Transportation (INDOT), with funding and oversight from the Federal Highway Administration (FHWA), is proposing to rehabilitate the bridge carrying US 421 over South Fork Wildcat Creek (Structure No. (421)39-12-01792B), located in Clinton County, Indiana. This project is located approximately 2.24 miles south of SR 38 at milepoint 17.050, in Section 29, Township 21 North, Range 1 West, of Union Township, as shown on the Frankfort, Indiana USGS 7.5 Minute Topographic Map. The existing structure is a 192 ft., three-span, steel thru-truss bridge constructed in 1941 and reconstructed in 1985. The bridge is listed in the Indiana Historic Bridge Inventory (December 2010) as a select historic bridge. US 421 is functionally classified as a rural minor arterial, consisting of two 12 ft. north/south travel lanes with 5 ft. shoulders on both sides of the roadway. Apparent existing right-of-way is approximately 75 ft. to the northeast and 60 ft. to the southwest from the centerline. The need for the project comes from the deteriorated state of the bridge, which has a sufficiency rating of 46.7 out of 100 (INDOT Bridge Inspection Report, February 2017). The proposed project involves replacing the reinforced concrete pier pedestals for spans A and C (approach spans), replacing end abutment caps, replacing end spans with new prestressed concrete box beam superstructures, removing and replacing the reinforced concrete deck on the thru-truss span and removing the existing concrete bridge railing and replacing it with new type FC concrete railing. Abutments 1 and 4 will become semi-integral and new joints will be installed at Pier 2 and Pier 3 where superstructure type changes. The project will also include installing new bridge deck drains, repairing the existing steel thru-truss (replacing steel elements in kind, replacing deteriorated rivets with bolts, attaching steel plates to areas of impact damage, and cleaning and painting the existing steel thru-truss), removing the existing approach slabs, constructing new reinforced concrete bridge approaches with type TFC concrete bridge railing transitions, replacing existing guardrail, and adding channel scour protection. The project limits will extend approximately 570 ft. in length. The preferred method of traffic maintenance would be a road closure with an official detour route utilizing SR 26 and SR 75. It is anticipated that no permanent right-of-way will be required to complete the proposed project and temporary right-of-way will be limited to drive construction. No relocations will be necessary to complete the proposed project.

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 Indiana Department of Transportation (INDOT), with funding and oversight from the Federal Highway Administration (FHWA), is proposing to rehabilitate the bridge carrying US 421 over South Fork Wildcat Creek (Structure No. (421)39-12-01792B), located in Clinton County, Indiana. This project is located approximately 2.24 miles south of SR 38 at milepoint 17.050, in Section 29, Township 21 North, Range 1 West, of Union Township, as shown on the Frankfort, Indiana USGS 7.5 Minute Topographic Map. The existing structure is a 192 ft., three-span, steel thru-truss bridge constructed in 1941 and reconstructed in 1985. The bridge is listed in the Indiana Historic Bridge Inventory (December 2010) as a select historic bridge. US 421 is functionally classified as a rural minor arterial, consisting of two 12 ft. north/south travel lanes with 5 ft. shoulders on both sides of the roadway. Apparent existing right-of-way is approximately 75 ft. to the northeast and 60 ft. to the southwest from the centerline. The need for the project comes from the deteriorated state of the bridge, which has a sufficiency rating of 46.7 out of 100 (INDOT Bridge Inspection Report, February 2017). The proposed project involves replacing the reinforced concrete pier pedestals for spans A and C (approach spans), replacing end abutment caps, replacing end spans with new prestressed concrete box beam superstructures, removing and replacing the reinforced concrete deck on the thru-truss span and removing the existing concrete bridge railing and replacing it with new type FC concrete railing. Abutments 1 and 4 will become semi-integral and new joints will be installed at Pier 2 and Pier 3 where superstructure type changes. The project will also include installing new bridge deck drains, repairing the existing steel thru-truss (replacing steel elements in kind, replacing deteriorated rivets with bolts, attaching steel plates to areas of impact damage, and cleaning and painting the existing steel thru-truss), removing the existing approach slabs, constructing new reinforced concrete bridge approaches with type TFC concrete bridge railing transitions, replacing existing guardrail, and adding channel scour protection. The project limits will extend approximately 570 ft. in length. The preferred method of traffic maintenance would be a road closure with an official detour route utilizing SR 26 and SR 75. It is anticipated that no permanent right-of-way will be required to complete the proposed project and temporary right-of-way will be limited to drive construction. No relocations will be necessary to complete the proposed project.

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: 06/15/2018

Signature of the INDOT
Project Engineer or Other Responsible Agent _____

Steve Walls

Date: 06/15/2018

Signature of the
For Hire Consultant _____

Paul Killian

INDIANA
GEOLOGICAL SURVEY

Organization and Project Information

Project ID:	INDOT
Des. ID:	1593276
Project Title:	US 421 over South Fork Wildcat Creek
Name of Organization:	GAI Consultants, Inc.
Requested by:	Paul Killian

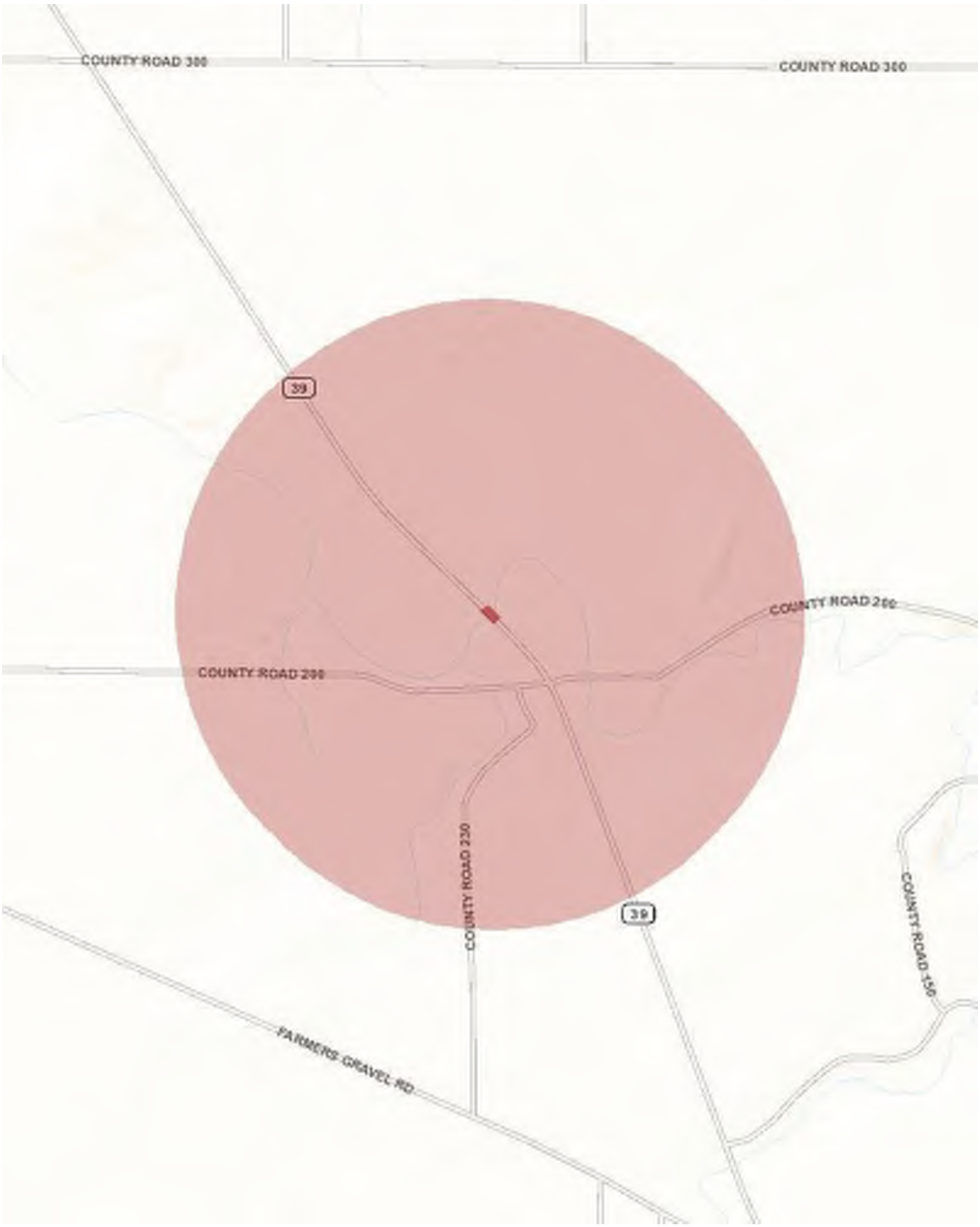
Environmental Assessment Report

1. Geological Hazards:
   - Moderate liquefaction potential
   - 1% Annual Chance Flood Hazard
2. Mineral Resources:
   - Bedrock Resource: High Potential
   - Sand and Gravel Resource: High Potential
3. Active or abandoned mineral resources extraction sites:
   - Abandoned Industrial Minerals Sand Gravel Pits

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

This information was furnished by Indiana Geological Survey
Address: 611 N. Walnut Grove Avenue, Bloomington, IN 47405-2208
Email: IGSEnvir@indiana.edu
Phone: 812 855-7428

Date: June 15, 2018



Metadata:

- https://maps.indiana.edu/metadata/Geology/Industrial_Minerals_Sand_Gravel_Pits_Abandoned.html
- https://maps.indiana.edu/metadata/Geology/Seismic_Earthquake_Liquefaction_Potential.html
- https://maps.indiana.edu/metadata/Geology/Industrial_Minerals_Sand_Gravel_Resources.html
- https://maps.indiana.edu/metadata/Hydrology/Floodplains_FIRM.html
- https://maps.indiana.edu/metadata/Geology/Bedrock_Geology.html

United States Department of Agriculture

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

June 18, 2018

Paul Killian
Project Environmental Specialist
GAI Consultants
6420 Castleway West Drive
Indianapolis, Indiana 46250

Dear Mr. Killian:

The proposed project to rehabilitate the structure carrying US 421 over South Fork Wildcat Creek in Clinton County, Indiana, (Des No. 1593276) as referred in your letter received on June 15, 2018 will not cause a conversion of prime farmland.

If you need additional information, please contact Rick Neilson at 317-295-5875.

Sincerely,

GERALD ROACH

Digitally signed by GERALD ROACH
Date: 2018.06.18 08:36:39 -04'00'

GERALD L. ROACH
Acting State Conservationist

INDIANA DEPARTMENT OF TRANSPORTATION

100 North Senate Avenue
Room N955
Indianapolis, Indiana 46204

PHONE: (317) 232-1477
FAX: (317) 232-1499

Eric Holcomb, Governor
Joe McGuinness, Commissioner

June 25, 2018

Mr. Paul Killian, Project Environmental Specialist
GAI Consultants
6420 Castleway West Drive
Indianapolis, IN 46250

Subject: Early Coordination Review (Des. No. 1593276)

Dear Mr. Killian,

In response to your request on June 15, 2018 for early coordination review of a project to rehabilitate the bridge carrying US 421 over South Fork Wildcat Creek (Structure No. (421)39-12-01792B), located in Clinton County, Indiana; the Indiana Department of Transportation, Office of Aviation has reviewed the information and provides the following:

Are there any existing or proposed public-use airports within 5 nautical miles of the project limits ***(IC 8-21-10-6)?***
The Frankfort Municipal Airport is located approximately 2.5 nautical miles south-southwest of the proposed project site.

Will an Indiana Tall Structure permit ***(IC 8-21-10-3-a)*** **and/or Noise Sensitive** ***(IC 8-21-10-3-b)*** **permit be required?**
Based upon the provided information, an Indiana Tall Structure permit would not be required unless the project involves the construction of a temporary (e.g., crane) or permanent structure that penetrates a 100:1 slope from the nearest point of the Frankfort Municipal Airport runways.

For any questions related to Indiana Tall Structure and/or Noise Sensitive permitting, please contact James Kinder at (317) 232-1485 or jkinder2@indot.in.gov.

Sincerely,

Adam French

Adam French, MPA
Chief Airport Inspector, Office of Aviation
Indiana Department of Transportation

THIS IS NOT A PERMIT

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

DNR #: ER-20644 **Request Received:** June 15, 2018

Requestor: GAI Consultants, Inc.
Paul D Killian
201 North Illinois Street, Suite 1700
Indianapolis, IN 46204

Project: US 421 bridge (#(421)39-12-01792B) rehabilitation over South Fork Wildcat Creek, about 2.24 miles south of SR 38 at MP 17.050; Project #D160355.12, Des #1593276

County/Site info: Clinton

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 will require the formal approval of our agency for construction in a floodway, pursuant to the Flood Control Act (IC 14-28-1), unless the project qualifies under the INDOT Maintenance Activity Exemption from the Flood Control and Navigable Waterways Act dated March 1997, established through a Memorandum of Understanding between INDOT and IDNR. Please include a copy of this letter with the permit application, if required.

Natural Heritage Database: The Natural Heritage Program's data have been checked.
The Kidneyshell (Ptychobranchus fasciolaris), a state species of special concern, has been documented in South Fork Wildcat Creek within the project area.

Fish & Wildlife Comments: We do not foresee any impacts to the Kidneyshell as a result of this project.

Avoid and minimize impacts to fish, wildlife, and botanical resources to the greatest extent possible, and compensate for impacts. The following are recommendations that address potential impacts identified in the proposed project area:

1) Scour Protection:
The project appears to be primarily a superstructure rehabilitation. However, adding scour protection in the channel is proposed. The rehabilitated crossing structure, and any streambed stabilization, must not create conditions that are less favorable for fish and wildlife passage when compared to current conditions. For streambed stabilization or scour protection, riprap or other stabilization materials must not be placed in the active stream channel above the existing streambed elevation (flowline). This is to prevent obstructions to the movement of aquatic organisms upstream and downstream.

2) Riparian Habitat & Channel Access:
The information submitted did not indicate how the channel would be accessed for scour protection. 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/20140806-IR-312140295NRA.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) or by using the 1:1 replacement ratio based on area depending on the type of habitat impacted (individual canopy tree removal in an urban streetscape or park-like environment versus removal of habitat supporting a tree canopy, woody understory, and herbaceous layer). Impacts under 0.10 acres typically do not require mitigation or additional plantings beyond seeding and stabilizing disturbed areas, though there are exceptions for high quality habitat sites.

3) Bank Stabilization:
Some form of bank stabilization is almost always needed with the construction, repair, replacement, or modification of a stream channel or crossing structure. For streambank stabilization and erosion control, regrading to a stable slope (2:1 or shallower) and establishing native vegetation along the banks are typically the most effective techniques. A variety of methods to accomplish this include: planting plugs, whips, container stock, seeding, and live stakes. In addition to vegetation establishment, some additional level of bioengineered bank stabilization may be needed under certain circumstances (inability to regrade to a stable slope, flow velocities that exceed the limits of vegetation alone, etc.). Combining vegetation with any of the following bank stabilization methods can provide additional bank protection while not compromising benefits to fish, wildlife, and botanical resources: geotextiles (erosion control blankets and/or turf reinforcement mats 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), vegetated geogrids or soil lifts, fiber rolls, glacial stone, or riprap. Information about bioengineering techniques can be found at http://www.in.gov/legislative/iac/20120404-IR-312120154NRA.xml.pdf. Additionally, the following is a link to a USDA/NRCS document that outlines many different bioengineering techniques for streambank stabilization:
http://directives.sc.egov.usda.gov/17553.wba.

Riprap or other hard bank stabilization materials should be used only at the toe of the sideslopes up to the ordinary high water mark (OHWM) with the exception of areas directly under bridges for instance. The banks above the OHWM should be restored, stabilized, and revegetated using geotextiles and a mixture of grasses, sedges, wildflowers, shrubs, and trees native to Central Indiana and specifically for stream bank/floodway stabilization purposes as soon as possible upon completion.

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 that will not be mowed and maintained with a mixture of grasses, sedges, and wildflowers native to Central Indiana and specifically for stream bank/floodway stabilization purposes as soon as possible upon completion; turf-type grasses (including low-endophyte, friendly endophyte, and endophyte free tall fescue but excluding all other varieties of tall fescue) may be used in regularly mowed areas only.
2. Minimize and contain within the project limits inchannel disturbance and the clearing of trees and brush.
3. Do not work in the waterway from April 1 through June 30 without the prior written approval of the Division of Fish and Wildlife.
4. Do not cut any trees suitable for Indiana bat or Northern Long-eared bat roosting (greater than 3 inches dbh, living or dead, with loose hanging bark, or with cracks, crevices, or cavities) from April 1 through September 30.
5. Do not excavate in the low flow area except for the placement of piers, foundations, and riprap, or removal of the old structure.

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

6. Do not construct any temporary runarounds, access bridges, causeways, cofferdams, diversions, or pumparounds.
7. Operate equipment used to replace the bridge from the existing roadway.
8. Use minimum average 6 inch graded riprap stone extended below the normal water level to provide habitat for aquatic organisms in the voids.
9. Do not use broken concrete as riprap.
10. Underlay the riprap with a bedding layer of well graded aggregate or a geotextile to prevent piping of soil underneath the riprap.
11. Minimize the movement of resuspended bottom sediment from the immediate project area.
12. Do not deposit or allow demolition/construction materials or debris to fall or otherwise enter the waterway.
13. 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.
14. Seed and protect disturbed stream banks 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: July 13, 2018

Christie L. Stanifer
Environ. Coordinator
Division of Fish and Wildlife

Paul Killian

From: McWilliams, Robin <robin_mcwilliams@fws.gov>
Sent: Monday, June 18, 2018 2:40 PM
To: Paul Killian
Subject: Re: [EXTERNAL] Early Coordination - US 421 over SF Wildcat Creek (Des 1593276)

Dear Mr. Killian,

This responds to your recent letter, requesting our comments on the aforementioned project.

These comments have been prepared under the authority of the Fish and Wildlife Coordination Act (l6 U.S.C. 661 et. seq.) and are consistent with the intent of the National Environmental Policy Act of l969, the Endangered Species Act of l973, and the U. S. Fish and Wildlife Service's Mitigation Policy.

The project is within the range of the Indiana bat (*Myotis sodalis*) and northern long-eared bat (*Myotis septentrionalis*) and should follow the new Indiana bat/northern long-eared bat programmatic consultation process, if applicable (*i.e*. a federal transportation nexus is established). We will review that information once it is received.

Based on a review of the information you provided, the U.S. Fish and Wildlife Service has no objections to the project as currently proposed. However, should new information arise pertaining to project plans or a revised species list be published, it will be necessary for the Federal agency to reinitiate consultation. Standard recommendations are provided below.

We appreciate the opportunity to comment at this early stage of project planning. If project plans change such that fish and wildlife habitat may be affected, please recoordinate with our office as soon as possible. If you have any questions about our recommendations, please call (812) 334-4261 x. 207.

Sincerely,
Robin McWilliams Munson

Standard Recommendations:

1. Do not clear trees or understory vegetation outside the construction zone boundaries. (**This restriction is not related to the "tree clearing" restriction for potential Indiana Bat habitat.)**

2. Restrict below low-water work in streams to placement of culverts, piers, pilings and/or footings, shaping of the spill slopes around the bridge abutments, and placement of riprap.

Culverts should span the active stream channel, should be either embedded or a 3-sided or open-arch culvert, and be installed where practicable on an essentially flat slope. When an open-bottomed culvert or arch is used in a stream, which has a good natural bottom substrate, such as gravel, cobbles and boulders, the existing substrate should be left undisturbed beneath the culvert to provide natural habitat for the aquatic community.

3. Restrict channel work and vegetation clearing to the minimum necessary for installation of the stream crossing structure.

4. Minimize the extent of hard armor (riprap) in bank stabilization by using bioengineering techniques whenever possible. If rip rap is utilized for bank stabilization, extend it below low-water elevation to provide aquatic habitat.

5. Implement temporary erosion and sediment control methods within areas of disturbed soil. All disturbed soil areas upon project completion will be vegetated following INDOT's standard specifications.

6. Avoid all work within the inundated part of the stream channel (in perennial streams and larger intermittent streams) during the fish spawning season (April 1 through June 30), except for work within sealed structures such as caissons or cofferdams that were installed prior to the spawning season. No equipment shall be operated below Ordinary High Water Mark during this time unless the machinery is within the caissons or on the cofferdams.

7. Evaluate wildlife crossings under bridge/culverts projects in appropriate situations. Suitable crossings include flat areas below bridge abutments with suitable ground cover, high water shelves in culverts, amphibian tunnels and diversion fencing.

Robin McWilliams Munson

U.S. Fish and Wildlife Service
620 South Walker Street
Bloomington, Indiana 46403
812-334-4261 x. 207 Fax: 812-334-4273

Monday, Tuesday - 7:30a-3:00p
Wednesday, Thursday - telework 8:30a-3:00p

On Fri, Jun 15, 2018 at 9:51 AM, Paul Killian <P.Killian@gaiconsultants.com> wrote:

> Ms. McWilliams-Munson,
>
> The Indiana Department of Transportation (INDOT), with funding from the Federal Highway Administration (FHWA), is proposing a rehabilitation project for the structure carrying US 421 over South Fork Wildcat Creek (Des 1593276), in Clinton County, Indiana. The attached early coordination letter describes the project in detail and provides project area mapping. Please respond within 30 days to resources within your agency's purview. ETR species review will be completed through the USFWS IPaC website and the Range-Wide Programmatic Informal Consultation for the Indiana bat and northern long-eared bat.
>
> Regards,

Paul D. Killian
Project Environmental Specialist

GAI Consultants, 201 N. Illinois Street, Suite 1700, Indianapolis, IN 46204

T 317.570.6800 **D** 317.436.4844 **M** 317.402.9904

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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: January 10, 2020
Consultation Code: 03E12000-2018-SLI-1385
Event Code: 03E12000-2020-E-02571
Project Name: US 421 over South Fork Wildcat Creek (Des 1593276)

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: 03E12000-2018-SLI-1385

Event Code: 03E12000-2020-E-02571

Project Name: US 421 over South Fork Wildcat Creek (Des 1593276)

Project Type: TRANSPORTATION

Project Description: The Indiana Department of Transportation (INDOT), with funding and oversight from the Federal Highway Administration (FHWA), is proposing to rehabilitate the bridge carrying US 421 over South Fork Wildcat Creek (Structure No. (421)39-12-01792B), located in Clinton County, Indiana. This project is located approximately 2.24 miles south of SR 38 at milepoint 17.050, in Section 29, Township 21 North, Range 1 West, of Union Township, as shown on the Frankfort, Indiana USGS 7.5 Minute Topographic Map. The proposed project involves replacing the reinforced concrete pier pedestals for spans A and C (approach spans), replacing end abutment caps, replacing end spans with new prestressed concrete box beam superstructures, removing and replacing the reinforced concrete deck on the thru-truss span and removing the existing concrete bridge railing and replacing it with new type FC concrete railing. Abutments 1 and 4 will become semi-integral and new joints will be installed at Pier 2 and Pier 3 where superstructure type changes. The project will also include installing new bridge deck drains, repairing the existing steel thru-truss (replacing steel elements in kind, replacing deteriorated rivets with bolts, attaching steel plates to areas of impact damage, and cleaning and painting the existing steel thru-truss), removing the existing approach slabs, constructing new reinforced concrete bridge approaches with type TFC concrete bridge railing transitions, replacing existing guardrail, and adding channel scour protection. The project limits will extend approximately 570 ft. in length. INDOT conducted a review of the USFWS GIS database for Indiana bat and Northern long-eared bat roosting, hibernacula and capture sites on June 18, 2018. There are no documented sites within a half mile the project area.

Project Location:

Approximate location of the project can be viewed in Google Maps: https://www.google.com/maps/place/40.316597741013915N86.54683665954644W

Counties: Clinton, 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.

---

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.

Paul Killian

From: Ford, Harlan <HFord1@indot.IN.gov>
Sent: Monday, June 18, 2018 8:56 AM
To: Paul Killian
Subject: RE: RFI - USFWS database check Des 1593276

Paul,

Des No. 1593276: 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.

Let me know if you need anything else!

Thanks,

Harlan M. Ford
Environmental Manager
41 West 300 North
Crawfordsville, IN 47933
Office: (765) 361-5277
Email: Hford1@indot.in.gov

From: Paul Killian [mailto:P.Killian@gaiconsultants.com]
Sent: Thursday, June 14, 2018 3:31 PM
To: Ford, Harlan <HFord1@indot.IN.gov>
Cc: Khan, Asfahan <akhan@indot.IN.gov>
Subject: RFI - USFWS database check Des 1593276

Hi Harlan,

Could you please check the USFWS database for the presence of listed bat species and known hibernacula within a half-mile of the US 421 over South Fork Wildcat Creek bridge rehabilitation project (Des 1593276; see attached maps and kmz)?

Thank you!

Paul D. Killian
Project Environmental Specialist

GAI Consultants, 201 N. Illinois Street, Suite 1700, Indianapolis, IN 46204
T 317.570.6800 **D** 317.436.4844 **M** 317.402.9904

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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: June 18, 2018
Consultation Code: 03E12000-2018-I-1385
Event Code: 03E12000-2018-E-04540
Project Name: US 421 over South Fork Wildcat Creek (Des 1593276)

Subject: Concurrence verification letter for the 'US 421 over South Fork Wildcat Creek (Des 1593276)' 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 dated to verify that the **US 421 over South Fork Wildcat Creek (Des 1593276)** (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, 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 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

US 421 over South Fork Wildcat Creek (Des 1593276)

Description

The Indiana Department of Transportation (INDOT), with funding and oversight from the Federal Highway Administration (FHWA), is proposing to rehabilitate the bridge carrying US 421 over South Fork Wildcat Creek (Structure No. (421)39-12-01792B), located in Clinton County, Indiana. This project is located approximately 2.24 miles south of SR 38 at milepoint 17.050, in Section 29, Township 21 North, Range 1 West, of Union Township, as shown on the Frankfort, Indiana USGS 7.5 Minute Topographic Map.
The proposed project involves replacing the reinforced concrete pier pedestals for spans A and C (approach spans), replacing end abutment caps, replacing end spans with new prestressed concrete box beam superstructures, removing and replacing the reinforced concrete deck on the thru-truss span and removing the existing concrete bridge railing and replacing it with new type FC concrete railing. Abutments 1 and 4 will become semi-integral and new joints will be installed at Pier 2 and Pier 3 where superstructure type changes. The project will also include installing new bridge deck drains, repairing the existing steel thru-truss (replacing steel elements in kind, replacing deteriorated rivets with bolts, attaching steel plates to areas of impact damage, and cleaning and painting the existing steel thru-truss), removing the existing approach slabs, constructing new reinforced concrete bridge approaches with type TFC concrete bridge railing transitions, replacing existing guardrail, and adding channel scour protection. The project limits will extend approximately 570 ft. in length. INDOT conducted a review of the USFWS GIS database for Indiana bat and Northern long-eared bat roosting, hibernacula and capture sites on June 18, 2018. There are no documented sites within a half mile the project area.

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 an 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.

   Yes

10. Will the project clear more than 20 acres of suitable habitat per 5-mile section of road/rail?

    No

11. Have presence/probable absence (P/A) summer surveys[1][2] been conducted[3][4] **within** the suitable habitat located within your project action area?

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

    [2] Presence/probable absence summer surveys conducted within the fall swarming/spring emergence home range of a documented Indiana bat hibernaculum (contact local Service Field Office for appropriate distance from hibernacula) that result in a negative finding requires additional consultation with the local Service Field Office to determine if clearing of forested habitat is appropriate and/or if seasonal clearing restrictions are needed to avoid and minimize potential adverse effects on fall swarming and spring emerging Indiana bats.

    [3] For projects within the range of either the Indiana bat or NLEB in which suitable habitat is present, and no bat surveys have been conducted, the transportation agency will assume presence of the appropriate species. This assumption of presence should be based upon the presence of suitable habitat and the capability of bats to occupy it because of their mobility.

    [4] Negative presence/probable absence survey results obtained using the summer survey guidance are valid for a minimum of two years from the completion of the survey unless new information (e.g., other nearby surveys) suggest otherwise.

    No

12. 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

13. Will the removal or trimming of habitat or trees occur **within** suitable but **undocumented Indiana bat** roosting/foraging habitat or travel corridors?

    Yes

14. What time of year will the removal or trimming of habitat or trees **within** suitable but **undocumented Indiana bat** roosting/foraging habitat or travel corridors occur[1]?

    [1] Coordinate with the local Service Field Office for appropriate dates.

    B) During the inactive season

15. 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

16. Will the removal or trimming of habitat or trees occur **within** suitable but **undocumented NLEB** roosting/foraging habitat or travel corridors?

    Yes

17. What time of year will the removal or trimming of habitat or trees **within** suitable but **undocumented NLEB** roosting/foraging habitat or travel corridors occur?

    B) During the inactive season

18. Will *any* tree trimming or removal occur **within** 100 feet of existing road/rail surfaces?

    Yes

19. Will the tree removal alter *any* **documented** Indiana bat or NLEB roosts and/or alter any surrounding summer habitat **within** 0.25 mile of a documented roost?

    No

20. Will *any* tree trimming or removal occur **between** 100-300 feet of existing road/rail surfaces?

    No

21. Are *all* trees that are being removed clearly demarcated?

    Yes

22. Will the removal of habitat or the removal/trimming of trees include installing new or replacing existing **permanent** lighting?

    No

23. Does the project include maintenance of the surrounding landscape at existing facilities (e.g., rest areas, stormwater detention basins)?

    No

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

    No

25. Does the project include slash pile burning?

    No

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

    Yes

27. 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

28. 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

    - *42139-12-1792B Fracture Critical SIA 2017.pdf https://ecos.fws.gov/ipac/project/TDX6OVDOFNB6TJQD7G3YSGUD5A/projectDocuments/12908652*

29. Did the bridge assessment detect *any* signs of bats roosting in/under the bridge (bats, guano, etc.)?

    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

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

    No

31. 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

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

    No

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

    No

34. 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

35. Are *all* project activities that are **not associated with** habitat removal, tree removal/ trimming, bridge or structure removal, replacement, and/or maintenance, lighting, or use of percussives, limited to actions that DO NOT cause any stressors to the bat species, including as described in the BA/BO (i.e. activities that do not involve ground disturbance, percussive noise, temporary or permanent lighting, tree removal/trimming, nor bridge/ structure activities)?

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

    Yes

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

    No

37. Are the project activities that are not associated with habitat removal, tree removal/ trimming, bridge removal, replacement, and/or maintenance, structure removal, replacement, and/or maintenance, and lighting, consistent with a No Effect determination in this key?

    Automatically answered

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

38. Is the habitat removal portion of this project consistent with a Not Likely to Adversely Affect determination in this key?

    Automatically answered

    Yes, because the tree removal/trimming that occurs outside of the active season occurs greater than 0.5 miles from the nearest hibernaculum, is less than 100 feet from the existing road/rail surface, includes clear demarcation of the trees that are to be removed, and does not alter documented roosts and/or surrounding summer habitat within 0.25 miles of a documented roost

39. Is the habitat removal portion of this project consistent with a Not Likely to Adversely Affect determination in this key?

    Automatically answered

    Yes, because the tree removal/trimming that occurs outside of the active season occurs greater than 0.5 miles from the nearest hibernaculum, is less than 100 feet from the existing road/rail surface, includes clear demarcation of the trees that are to be removed, and does not alter documented roosts and/or surrounding summer habitat within 0.25 miles of a documented roost

40. 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

41. **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

42. **Tree Removal AMM 1**
Can *all* phases/aspects of the project (e.g., temporary work areas, alignments) be modified, to the extent practicable, to avoid tree removal[1] in excess of what is required to implement the project safely?

Note: Tree Removal AMM 1 is a minimization measure, the full implementation of which may not always be practicable. Projects may still be NLAA as long as Tree Removal AMMs 2, 3, and 4 are implemented and LAA as long as Tree Removal AMMs 3, 5, 6, and 7 are implemented.

[1] The word "trees" as used in the AMMs refers to trees that are suitable habitat for each species within their range. See the USFWS' current summer survey guidance for our latest definitions of suitable habitat.

Yes

43. **Tree Removal AMM 2**
Can *all* tree removal activities be restricted to when Indiana bats are not likely to be present (e.g., the inactive season)[1]?

[1] Coordinate with the local Service Field Office for appropriate dates.

Automatically answered
Yes

44. **Tree Removal AMM 2**
Can *all* tree removal activities be restricted to when Northern long-eared bats are not likely to be present (e.g., the inactive season)[1]?

[1] Coordinate with the local Service Field Office for appropriate dates.

Automatically answered
Yes

45. **Tree Removal AMM 3**
Can tree removal be limited to that specified in project plans and ensure that contractors understand clearing limits and how they are marked in the field (e.g., install bright colored flagging/fencing prior to any tree clearing to ensure contractors stay within clearing limits)?

Yes

46. **Tree Removal AMM 4**
Can the project avoid cutting down/removal of *all* (1) **documented**[1] Indiana bat or NLEB roosts[2] (that are still suitable for roosting), (2) trees **within** 0.25 miles of roosts, and (3) documented foraging habitat any time of year?

[1] The word documented means habitat where bats have actually been captured and/or tracked.

[2] 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.)

Yes

47. **Lighting AMM 1**
Will *all* **temporary** lighting used during the removal of suitable habitat and/or the removal/trimming of trees within suitable habitat be directed away from suitable habitat during the active season?

Yes

Project Questionnaire

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

2. Have you made a May Affect determination for *any* other species on the FWS IPaC generated species list?
No

3. How many acres[1] of trees are proposed for removal between 0-100 feet of the existing road/rail surface?

[1] If described as number of trees, multiply by 0.09 to convert to acreage and enter that number.

0.14

4. Please describe the proposed bridge work:

   The proposed bridge work will include replacing the reinforced concrete pier pedestals for spans A and C (approach spans), replacing end abutment caps, replacing end spans with new prestressed concrete box beam superstructures, removing and replacing the reinforced concrete deck on the thru-truss span and removing the existing concrete bridge railing and replacing it with new type FC concrete railing. Abutments 1 and 4 will become semi-integral and new joints will be installed at Pier 2 and Pier 3 where superstructure type changes. The project will also include installing new bridge deck drains, repairing the existing steel thru-truss (replacing steel elements in kind, replacing deteriorated rivets with bolts, attaching steel plates to areas of impact damage, and cleaning and painting the existing steel thru-truss), removing the existing approach slabs, constructing new reinforced concrete bridge approaches with type TFC concrete bridge railing transitions, replacing existing guardrail, and adding channel scour protection. Tree clearing will be required for the construction of temporary access drives

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

   Bridge work will commence following project letting on July 10, 2019. Construction will occur between March and October. Tree clearing will occur during the inactive season and will be limited to October 1 to March 31.

Avoidance And Minimization Measures (AMMs)

These measures **were accepted** as part of this determination key result:

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.

TREE REMOVAL AMM 1

Modify all phases/aspects of the project (e.g., temporary work areas, alignments) to avoid tree removal.

TREE REMOVAL AMM 2

Apply time of year restrictions for tree removal when bats are not likely to be present, or limit tree removal to 10 or fewer trees per project at any time of year within 100 feet of existing road/rail surface and **outside of documented** roosting/foraging habitat or travel corridors; visual emergence survey must be conducted with no bats observed.

TREE REMOVAL AMM 3

Ensure tree removal is limited to that specified in project plans and ensure that contractors understand clearing limits and how they are marked in the field (e.g., install bright colored flagging/fencing prior to any tree clearing to ensure contractors stay within clearing limits).

TREE REMOVAL AMM 4

Do not remove **documented** Indiana bat or NLEB roosts that are still suitable for roosting, or trees within 0.25 miles of roosts, or
documented foraging habitat any time of year.

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

This key was last updated in IPaC on March 16, 2018. 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 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.

Paul Killian

From: Ford, Harlan <HFord1@indot.IN.gov>
Sent: Monday, June 18, 2018 3:38 PM
To: Paul Killian
Subject: RE: RFI - USFWS database check Des 1593276
Attachments: Concurrence Verification for Des No. 1593276.pdf

Paul,

I have reviewed the USFWS consistency letter for Des No's 1593276. I have no additional comments or edits at this time and I have submitted the consistency letter for concurrence verification. If any changes to the scope should occur that would change the answers provided in the determination key, the key will have to be revised and the new effect determination reviewed by district environmental staff prior to NEPA approval.

We will ask that you include the below statement as a firm commitment in the final environmental document:

If the initial bridge/structure assessment failed to detect bats but bats are later detected during construction, please submit the Post Assessment Discovery of Bats at Bridge/Structure Form to the appropriate USFWS Field Office.

The concurrence verification letter for the project is attached. USFWS has 14 days to review the finding and provide any comments. If USFWS does not provide any comments within that timeframe, you may proceed with the proposed action under the terms of the NLAA concurrence.

If you have any questions please let me know.

Thanks for your time,

Harlan M. Ford
Environmental Manager
41 West 300 North
Crawfordsville, IN 47933
Office: (765) 361-5277
Email: Hford1@indot.in.gov

From: Paul Killian [mailto:P.Killian@gaiconsultants.com]
Sent: Monday, June 18, 2018 12:39 PM
To: Ford, Harlan <HFord1@indot.IN.gov>
Subject: RE: RFI - USFWS database check Des 1593276

Harlan,

I have added you to the IPaC project. I have reached a determination of NLAA with AMMs. The record locator is: 282-12908673 and the project # is: TAILS 03E12000-2018-R-1385. Please let me know if you have any questions or comments.

Thanks,

Paul D. Killian
D 317.436.4844 **M** 317.402.9904

Appendix D

Section 106 Consultation

FEDERAL HIGHWAY ADMINISTRATION'S
SECTION 4(F) COMPLIANCE REQUIREMENTS (for historic properties) AND
SECTION 106 FINDINGS AND DETERMINATIONS
AREA OF POTENTIAL EFFECTS
ELIGIBILITY DETERMINATIONS
EFFECT FINDING
REHABILITATION OF BRIDGE NO. (421)39-12-01792B (NBI NO.: 03220)
UNION TOWNSHIP, CLINTON COUNTY, INDIANA
DES. NO.: 1593276

AREA OF POTENTIAL EFFECTS
(Pursuant to 36 CFR Section 800.4(a)(1))

Pursuant to 36 CFR 800.16(d), the Area of Potential Effects (APE) for aboveground resources generally extends one-quarter mile on each end of the Bridge No. (421)39-12-01792B (National Bridge Inventory [NBI] No. 03220) along United States (US) 421/State Road (SR) 39. The APE for archaeology is a survey area that includes construction activities and right-of-way. (See Appendix A: Maps & Plans.)

ELIGIBILITY DETERMINATIONS
(Pursuant to 36 CFR 800.4(c)(2))

There are two resources eligible for listing in the National Register of Historic Places (NRHP): **Bridge No. (421)39-12-01792B** and the **St. Luke Church & Cemetery.**

Bridge No. (421)39-12-01792B (NBI No.: 3220) – Bridge No. (421)39-12-01792B is a steel Parker pony truss structure constructed in 1941 and repaired in 1985. The simple-span bridge carries approximately 192 feet of US 421/SR 39 over the South Fork of Wildcat Creek. This bridge was listed as “Select” in the *Indiana Historic Bridge Inventory.* It was determined eligible as part of the *Inventory* under Criterion C “because it exemplifies an uncommon highway bridge type in Indiana” and because it “displays exceptional overall or main span length for its type representing an innovative design and/or construction method.”

St. Luke Church & Cemetery (IHSSI No.: 023-221-30039) – St. Luke Church & Cemetery includes a frame, central-steeple church with Gothic Revival-style details constructed around 1871 and a cemetery dating to the mid-nineteenth century. The resource is eligible under Criterion A for significance in the areas of settlement, religion, and social history in Union Township as an example of an open-country community church with ties to German heritage and historic trends in American Protestantism. It is also recommended eligible under Criterion C as demonstrating the distinctive characteristics of an open-country community gathering place. The period of significance is circa 1850 to 1970, the end of the historic period, and includes the period of use for the cemetery and construction of the church and Sunday school addition.

EFFECT FINDING

Per the terms of the "Programmatic Agreement Regarding Management and Preservation of Indiana's Historic Bridges" (Historic Bridges PA), the Federal Highway Administration -Indiana Division (FHWA) will satisfy its Section 106 responsibilities involving "Select" and "Non-Select" bridges through the Project Development Process (PDP) of the Historic Bridges PA (Stipulation III). **Bridge No. (421)39-12-01792B** has been classified as a "Select" bridge by the Indiana Department of Transportation (INDOT) Historic Bridge Inventory and, thus, the procedures outlined in Stipulation III.A of the Historic Bridges PA will be followed to fulfill FHWA's Section 106 responsibilities for the bridge. Additionally, because rehabilitation of the bridge is the preferred alternative, the standard treatment approach, described in Attachment B of the Historic Bridges PA (Standard Treatment Approach for Historic Bridges) will be followed.

Therefore, the finding for this project only applies to other resources located within the APE and not to **Bridge No. (421)39-12-01792B**. This document will satisfy the Section 106 responsibilities for other resources located within the APE.

St. Luke Church & Cemetery – No Adverse Effect

INDOT, acting on behalf of FHWA, has determined a finding of "No Adverse Effect" is appropriate for this undertaking. INDOT, acting on FHWA's behalf, respectfully requests the Indiana State Historic Preservation Officer provide written concurrence with the Section 106 determination of effect for these properties and the project's overall effect finding of "Historic Properties Affected: No Adverse Effect."

SECTION 4(F) COMPLIANCE REQUIREMENTS (for historic properties)

Bridge No. (421)39-12-01792B -- This resource is used for transportation purposes and no Section 4(f) conversion will take place with this project; therefore, no Section 4(f) evaluation must be completed for Bridge No. (421)39-12-01792B.

St. Luke Church & Cemetery - This undertaking will not convert property from the St. Luke Church & Cemetery, a Section 4(f) historic property, to a transportation use; INDOT, acting on FHWA's behalf, has determined the appropriate Section 106 finding is "No Adverse Effect;" therefore no Section 4(f) evaluation is required for the St. Luke Church & Cemetery.

Anuradha Kumar V.

Anuradha Kumar, for FHWA
Manager, INDOT Cultural Resources

11/7/2019

Approved Date

FEDERAL HIGHWAY ADMINISTRATION
DOCUMENTATION OF SECTION 106 FINDING OF
NO ADVERSE EFFECT
SUBMITTED TO THE STATE HISTORIC PRESERVATION OFFICER
PURSUANT TO 36 CFR 800.5(c)
EFFECT FINDING
REHABILITATION OF BRIDGE NO. (421)39-12-01792B (NBI NO.: 03220)
UNION TOWNSHIP, CLINTON COUNTY, INDIANA
DES. NO.: 1593276

1. DESCRIPTION OF THE UNDERTAKING

The Indiana Department of Transportation (INDOT), with funding from the Federal Highway Administration (FHWA), is proposing the rehabilitation of Clinton County Bridge No. (421)39-12-01792B (NBI No.: 3220), carrying United States (US) 421/State Road (SR) 39 over the South Fork of Wildcat Creek in Union Township, Clinton County, Indiana.

The project is located in the southeast quarter of Section 29, Township 21 North, Range 1 West of the 7.5-minute series USGS Frankfort Topographic Quadrangle. The project is more specifically located approximately 2.24 miles south of State Road (SR) 38 at Reference Point (RP) 126+17. The project area is in a rural, relatively flat setting with some vegetation along the South Fork of Wildcat Creek.

The need for this project is due to the deterioration of the existing structure, as documented in the February 13, 2017 Bridge Inspection Report. At that time, the structure was noted to have an overall sufficiency rating, the numeric value of which is indicative of the bridge sufficiency to remain in service, of 46.7 out of 100. This sufficiency rating of 46.7 indicates that the bridge is in overall “fair” condition. The three main elements of the bridge (deck, superstructure, and substructure) were evaluated on a scale ranging from “0” to “9” (“0” being a failed structure and “9” being a structure in excellent condition). The bridge deck received a rating of “6” indicating that it is in satisfactory condition with minor deterioration such as transverse cracking, shallow surface spalls, and areas of full depth patching. Both the superstructure and the substructure received a rating of “5” which indicates “fair” condition with minor section loss.

The purpose of this project is to correct the deterioration of the structure as noted on the Bridge Inspection Report. By correcting the above deficiencies, the life of the structure will be extended by approximately 25 years and will result in restoring the bridge to “good” overall condition. This will also insure a safe vehicular crossing over South Fork Wildcat Creek for motorists utilizing US 421.

The preferred alternative is rehabilitation of the bridge for continued vehicular use. This alternative would preserve as much of the existing bridge as feasible and repair the structural components necessary to extend the useful service life of the bridge.

36 CFR § 800.16(d) defines the Area of Potential Effects (APE) as the “geographic area or areas within which an undertaking may directly or indirectly cause alterations in the character or use of historic properties, if any such properties exist. The area of potential effects is influenced by the scale and nature of an undertaking and may be different for different kinds of effects caused by the undertaking.”

Per the INDOT Cultural Resource Manual, historians began with a quarter-mile buffer in all directions from the project limits. Historians then refined the APE based on topography, vegetation, and project activities to take into account properties that would experience direct or indirect impacts as a result of the undertaking. The APE includes properties along US 421/SR 39. The APE for archaeology is a survey area that includes construction activities and right-of-way. (See Appendix A: Maps & Plans.)

2. EFFORTS TO IDENTIFY HISTORIC PROPERTIES

Pursuant to 36 CFR § 800.4(b), GAI Consultants—INDOT's consultant for this project—charged Weintraut & Associates, Inc. (W&A) with identifying and evaluating historic properties.

Historians for W&A initiated identification and evaluation by reviewing the National Register of Historic Places (NRHP), the State Historical Architectural and Archaeological Research Database (SHAARD), the Indiana Historic Buildings, Bridges and Cemeteries Map (IHBBCM), the Indiana Historic Sites and Structures Inventory (IHSSI), the *Indiana Historic Bridge Inventory*, and the *Clinton County Interim Report* for previously identified properties.

Following the preliminary literature review, a historian conducted a reconnaissance-level survey on March 16, 2018. The historian photographed and documented properties that were constructed during or prior to 1970, fifty years from the letting date. The historian also took representative photographs of Non-Contributing resources within the APE. (See Appendix B: Photographs.)

In December 2018, GAI prepared a Historic Bridge Alternatives Analysis (HBAA) that recommended rehabilitation as the preferred alternative. (See Appendix C: Reports.)

A Section 106 Early Coordination Letter (ECL), sent via email and dated December 12, 2018, described the project, provided instructions for accessing the HBAA on INSCOPE, and invited the following consulting parties to join consultation: Indiana State Historic Preservation Officer (SHPO), Eastern Shawnee Tribe of Oklahoma, Miami Tribe of Oklahoma, Peoria Tribe of Indians of Oklahoma, Pokagon Band of Potawatomi Indians, Forest County Potawatomi Community, Dr. James Cooper, Historic SPANs Task Force, Clinton County Historian, Clinton County Historical Society and Museum, Clinton County Area Plan Commission, Clinton County Genealogical Society, Historic Preservationists of Clinton County, Clinton County Commissioners, Clinton County Highway Supervisor, and Indiana Landmarks-Western Regional Office. Invited consulting parties were provided instructions with accessing the ECL and HBAA via INSCOPE. The SHPO, a designated consulting party, was sent a paper copy of the HBAA. (See Appendix D: Correspondence and Appendix E: Consulting Parties.)

Indiana Landmarks—Western Regional Office accepted the invitation to join consultation on December 12, 2018, and stated it "supports rehabilitation in place for continued vehicular use." (See Appendix D: Correspondence.)

The SHPO responded to the ECL and HBAA in a letter dated January 4, 2019. SHPO stated "[w]e are not aware of anyone who should be invited to become a consulting party for the purposes of the review of this project under Section 106, beyond those whom you have already invited." Since the HBAA was undergoing dual review, SHPO included members of the Indiana Historic Preservation Review Board and "additional, potentially interested parties to the list of parties we intend to copy with our comment letters." SHPO agreed that Bridge No (421)39-12-01792B had been identified as a Select Bridge in the *Indiana Historic Bridge Inventory* and agreed the bridge is eligible under Criterion C.

SHPO also provided comments on the HBAA and asked additional questions, which are summarized in Sections 5 and 6 of this document. SHPO stated, "We look forward to receiving the reports on above-ground and archaeological investigations within the area of potential effects that INDOT indicated would be forthcoming. It would be helpful if those investigations also took into consideration any equipment or vehicle access paths that would need to be built to reach the stream during construction, as well as anticipated lay-down and staging areas." SHPO also agreed with the recommended preferred alternative of Rehabilitation for Continued Vehicular Use. (See Appendix D: Correspondence.)

The Miami Tribe representative responded to the ECL and HBAA in a letter dated January 7, 2019. The representative offered no objection to the current proposed plan, but observed the project "is located in the aboriginal homelands of the Miami Tribe." The Miami Tribe requested immediate consultation in the event that "any human remains or Native American cultural items falling under the Native Americans

Graves Protection and Repatriation Act (NAGPRA) or archaeological evidence is discovered during any phase of this project." (See Appendix D: Correspondence.)

W&A initiated archaeological identification by conducting a records review of the SHAARD database on March 29, 2019. The archaeologists then conducted a Phase Ia field reconnaissance on May 8, 2019. The reconnaissance located no archaeological resources in the project area. Archaeologists completed Phase Ia Archaeological Records Check and Field Reconnaissance Short Report (ASR) in July 2019 and recommended the project proceed as planned. INDOT-Cultural Resource Office (CRO) approved the report on July 22, 2019. (See Appendix C: Reports.)

Historians for W&A completed a Historic Property Report in July 2019 and identified Bridge No. (421)39-12-01792B (NBI No.: 3220) as previously determined eligible for listing in the NRHP. In addition, the historians recommended the St. Luke Church & Cemetery (IHSSI No.: 023-221-30039) eligible for the NRHP. INDOT-CRO approved the report on August 8, 2019. (See Appendix C: Reports.)

Consulting parties and Tribal consulting parties were notified that the HPR and ASR (Tribes only) were available for review and comment on INSCOPE via an email and letter sent August 9, 2019. The letter also described foreseeable project effects and transmitted the 60% design plans. W&A sent SHPO paper copies of all documents that same day. (See Appendix D: Correspondence.)

SHPO responded to the HPR and ASR on September 12, 2019. SHPO concurred with the APE. SHPO also concurred that the St. Luke Church & Cemetery is eligible for the NRHP under Criterion A and C and that Bridge No. (421)39-12-01792B (NBI No.: 3220) has been previously determined eligible as a Select Bridge in the *Indiana Historic Bridge Inventory*. SHPO concurred with the recommendations of the ASR that "no further archaeological investigations appear necessary at the proposed project area." SHPO also provided comments on the design plans, which are summarized in Section 6 of this document. (See Appendix D: Correspondence.)

No other comments were received regarding identification and evaluation of historic properties.

3. DESCRIBE AFFECTED HISTORIC PROPERTIES

There are two historic resources within the APE: Bridge No. (421)39-12-01792B (NBI No.: 3220) and Luke Church & Cemetery (IHSSI No.: 023-221-30039).

Bridge No. (421)39-12-01792B (NBI No.: 3220) – Bridge No. (421)39-12-01792B is a steel Parker pony truss structure flanked by two concrete approach spans. The bridge was constructed in 1941 and repaired in 1985. The simple-span bridge carries approximately 192 feet of US 421/SR 39 over the South Fork of Wildcat Creek. This bridge was listed as "Select" in the *Indiana Historic Bridge Inventory.* It was determined eligible as part of the *Inventory* under Criterion C "because it exemplifies an uncommon highway bridge type in Indiana" and because it "displays exceptional overall or main span length for its type representing an innovative design and/or construction method."

St. Luke Church & Cemetery (IHSSI No.: 023-221-30039) – St. Luke Church & Cemetery includes a frame, central-steeple church with Gothic Revival-style details constructed around 1871 and a cemetery dating to the mid-nineteenth century. The resource is eligible under Criterion A for significance in the areas of settlement, religion, and social history in Union Township as an example of an open-country community church with ties to German heritage and historic trends in American Protestantism. It is also recommended eligible under Criterion C as demonstrating the distinctive characteristics of an open-country community gathering place. The period of significance is circa 1850 to 1970, the end of the historic period, and includes the period of use for the cemetery and construction of the church and Sunday school addition.

4. DESCRIBE THE UNDERTAKING'S EFFECTS ON HISTORIC PROPERTIES

The project involves the rehabilitation of **Bridge No.: (421)39-12-01792B**. The procedures outlined in the Historic Bridges Programmatic Agreement (PA) will be followed to fulfill FHWA's Section 106 responsibilities for Bridge No.: (421)39-12-01792B and any effects to the bridge are resolved through the Historic Bridges PA Program Project Development Process (PDP).

St. Luke Church & Cemetery is the other property within the APE. This property is located more than 600 feet from the undertaking and will experience a slight change in view that will not cause an adverse effect.

5. EXPLAIN APPLICATION OF CRITERIA OF ADVERSE EFFECT -- INCLUDE CONDITIONS OR FUTURE ACTIONS TO AVOID, MINIMIZE OR MITIGATE ADVERSE EFFECTS

36 CFR § 800.5(a)(1) states: "An adverse effect is found when an undertaking may alter, directly or indirectly, any of the characteristics of a historic property that qualify the property for inclusion in the National Register in a manner that would diminish the integrity of the property's location, design, setting, materials, workmanship, feeling, or association. Consideration shall be given to all qualifying characteristics of a historic property, including those that may have been identified subsequent to the original evaluation of the property's eligibility for the National Register. Adverse effects may include reasonably foreseeable effects caused by the undertaking that may occur later in time, be farther removed in distance or be cumulative."

St. Luke Church & Cemetery
Per 36 CFR 800.5(a)(2)(i), the undertaking will cause no "physical destruction of or damage to all or part of the property."

Per 36 CFR 800.5(a)(2)(ii), there will be no "restoration, rehabilitation, repair, maintenance, stabilization, hazardous material remediation and provision of handicapped access, that is not consistent with the Secretary's Standards for the Treatment of Historic Properties (36 CFR part 68) and applicable guidelines."

Per 36 CFR 800.5(a)(2)(iii), the property will not be removed from its historic location.

Per 36 CFR 800.5(a)(2)(iv), there will not be a change "of the character of the property's use or of physical features within the property's setting."

Per 36 CFR 800.5(a)(2)(v), there will not be an "introduction of visual, atmospheric or audible elements that diminish the integrity of the property's significant historic features." A slight change in view will occur with the rehabilitation but it will not adversely affect the resource.

Per 36 CFR 800.5(a)(2)(vi), there will be no neglect or deterioration of the property.

Per 36 CFR 800.5(a)(2)(vii), there will be no "transfer, lease, or sale of the property out of Federal ownership or control."

FUTURE EFFORTS TO AVOID, MINIMIZE, AND MITIGATE
As part of efforts to avoid, minimize, and mitigate effects of this undertaking, GAI consultants prepared an HBAA. Alternative B, Rehabilitation for Continued Vehicular Use, was identified as the preferred alternative for this project. This alternative would minimize impacts by preserving as much of the existing bridge as feasible and address the structural repairs necessary to extend the useful service life of the bridge. (See Appendix C: Reports.)

The SHPO responded to the HBAA in a letter dated January 4, 2019, and agreed with the recommendation of the HBAA that Rehabilitation (Alternative B) "is both feasible and prudent, and we

believe it would be the more appropriate treatment for this historic steel pony truss bridge.'" (See Appendix D: Correspondence.)

Efforts to avoid, minimize, and mitigate effects have also occurred pursuant to the Historic Bridge PA. See "Section 6. Summary of Consulting Parties and Public Views" below for information and comments regarding bridge plan reviews and documentation.

6. SUMMARY OF CONSULTING PARTIES AND PUBLIC VIEWS

Indiana Landmarks—Western Regional Office accepted the invitation to join consultation on December 12, 2018, and stated it "supports rehabilitation in place for continued vehicular use." (See Appendix D: Correspondence.)

The SHPO responded to the ECL and HBAA in a letter dated January 4, 2019. SHPO stated "[w]e are not aware of anyone who should be invited to become a consulting party for the purposes of the review of this project under Section 106, beyond those whom you have already invited." SHPO included members of the Review Board and "additional, potentially interested parties to the list of parties we intend to copy with our comment letters." SHPO agreed that Bridge No (421)39-12-01792B had been identified as a Select Bridge in the *Indiana Historic Bridge Inventory* and agreed the bridge is eligible under Criterion C. SHPO stated, "We look forward to receiving the reports on above-ground and archaeological investigations within the area of potential effects that INDOT indicated would be forthcoming. It would be helpful if those investigations also took into consideration any equipment or vehicle access paths that would need to be built to reach the stream during construction, as well as anticipated lay-down and staging areas."

SHPO agreed that with the HBAA that Alternative B (Rehabilitation for Continued Vehicular Use) "is both feasible and prudent, and we believe it would be the more appropriate treatment for this historic steel pony truss bridge." (See Appendix D: Correspondence.)

The Miami Tribe representative responded to the ECL and HBAA in a letter dated January 7, 2019. The representative offered no objection to the current proposed plan, but observed the project "is located in the aboriginal homelands of the Miami Tribe." The Miami Tribe requested immediate consultation in the event that "any human remains or Native American cultural items falling under the Native Americans Graves Protection and Repatriation Act (NAGPRA) or archaeological evidence is discovered during any phase of this project." (See Appendix D: Correspondence.)

SHPO responded to the HPR and ASR on September 12, 2019. SHPO concurred with the APE. SHPO also concurred that the St. Luke Church & Cemetery is eligible for the NRHP under Criterion A and C and that Bridge No. (421)39-12-01792B (NBI No.: 3220) has been previously determined eligible as a Select Bridge in the Indiana Historic Bridge Inventory. (See Appendix D: Correspondence.)

SHPO acknowledged receipt of the 60% design plans and receipt of the 30% design plans with the HBBA. Regarding the 60% design plans, SHPO noted that "point no. 8 in the bridge rehabilitation key" stated that "final plans will indicate where the existing steel thru-truss will be replaced. We look forward to seeing those final plans." (See Appendix D: Correspondence.)

SHPO also requested the bridge "be documented with color, digital photography" prior to construction in accordance with relevant portions of Standard 2, Indiana DNR – Division of Historic Preservation and Archaeology Minimum Architectural Documentation Standards. Specifically, SHPO stated that "Overviews of the bridge and representative, examples of structural elements of this bridge should be documented." SHPO requested to be provided with draft photographs and a photo key for review and comment. Upon receipt of their comments, SHPO requested an archival gold CD-R or DVD-R non-rewritable disc containing the photographs and photo key be provided to the Indiana State Archives and a duplicate be provided to "at least one public or not-for-profit organization in Clinton County that will commit to retaining the CD or DVD permanently and make it accessible to the public for research." (See Appendix D: Correspondence.)

SHPO concurred with the recommendations of the ASR that “no further archaeological investigations appear necessary at the proposed project area.” (See Appendix D: Correspondence.)

No other comments were received.

A public notice of No Adverse Effect will be posted in a local newspaper and the public will be afforded thirty (30) days to respond. If appropriate, this document will be revised after the expiration of the public comment period.

Per Stipulation III.A of the Historic Bridges PA, all consulting parties will be notified of the public hearing that will be held for the project prior to completion of the National Environmental Policy Act (NEPA) studies.

APPENDIX
Appendix A: Maps & Plans (60% Completion)
Appendix B: Photographs
Appendix C: Reports
Appendix D: Correspondence
Appendix E: Consulting Parties

Appendix A of the Section 106 Document.

APPENDIX A: Maps & Plans (60% Completion)

Duplicate Maps and Plans have been removed and included in Appendix B of this CE document.

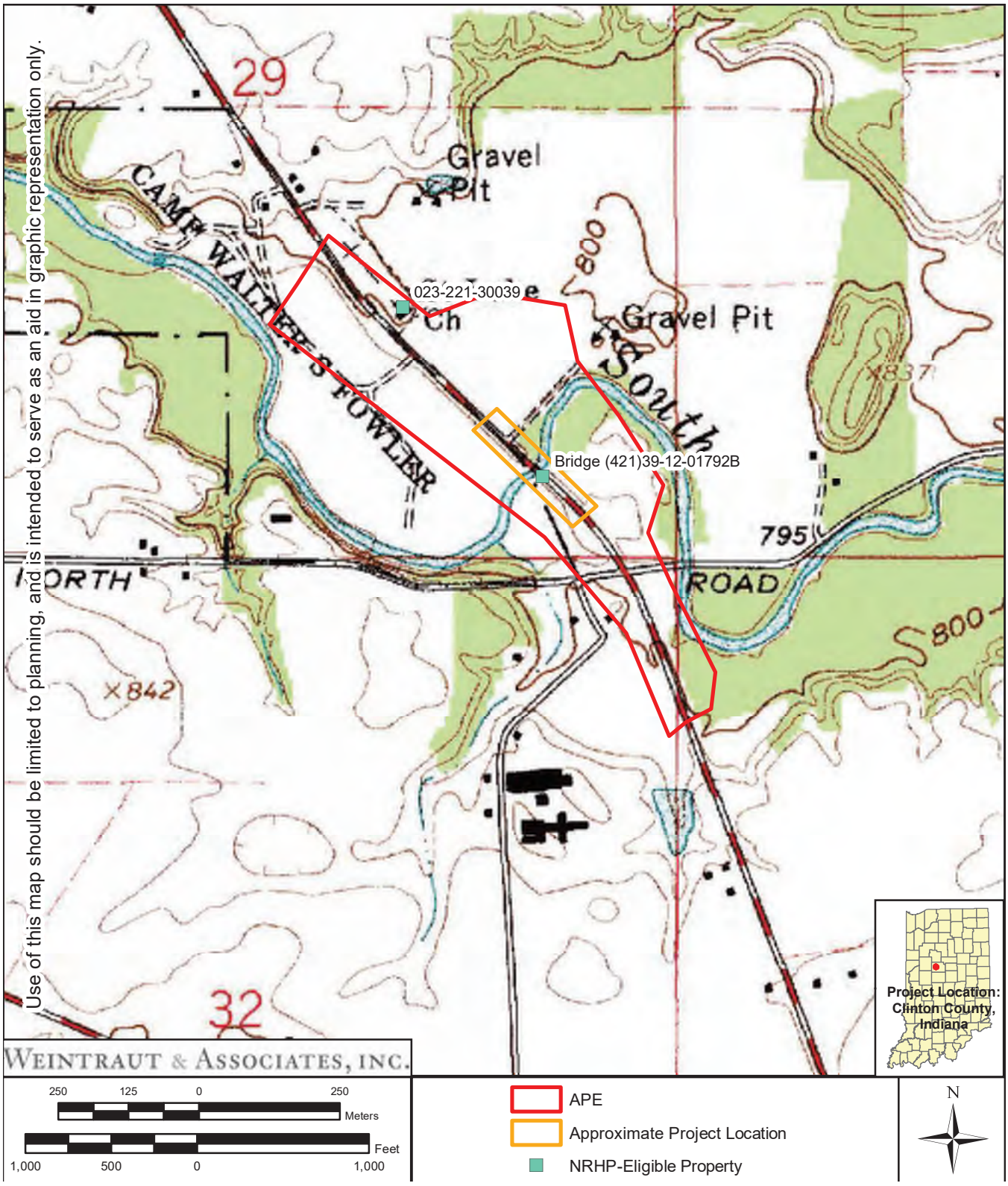


FIGURE 1. PROJECT LOCATION, APE, AND RESOURCES, AS ILLUSTRATED ON A PORTION OF THE USGS FRANKFORT, INDIANA USGS TOPOGRAPAHIC QUADRANGLE (1:24,000).

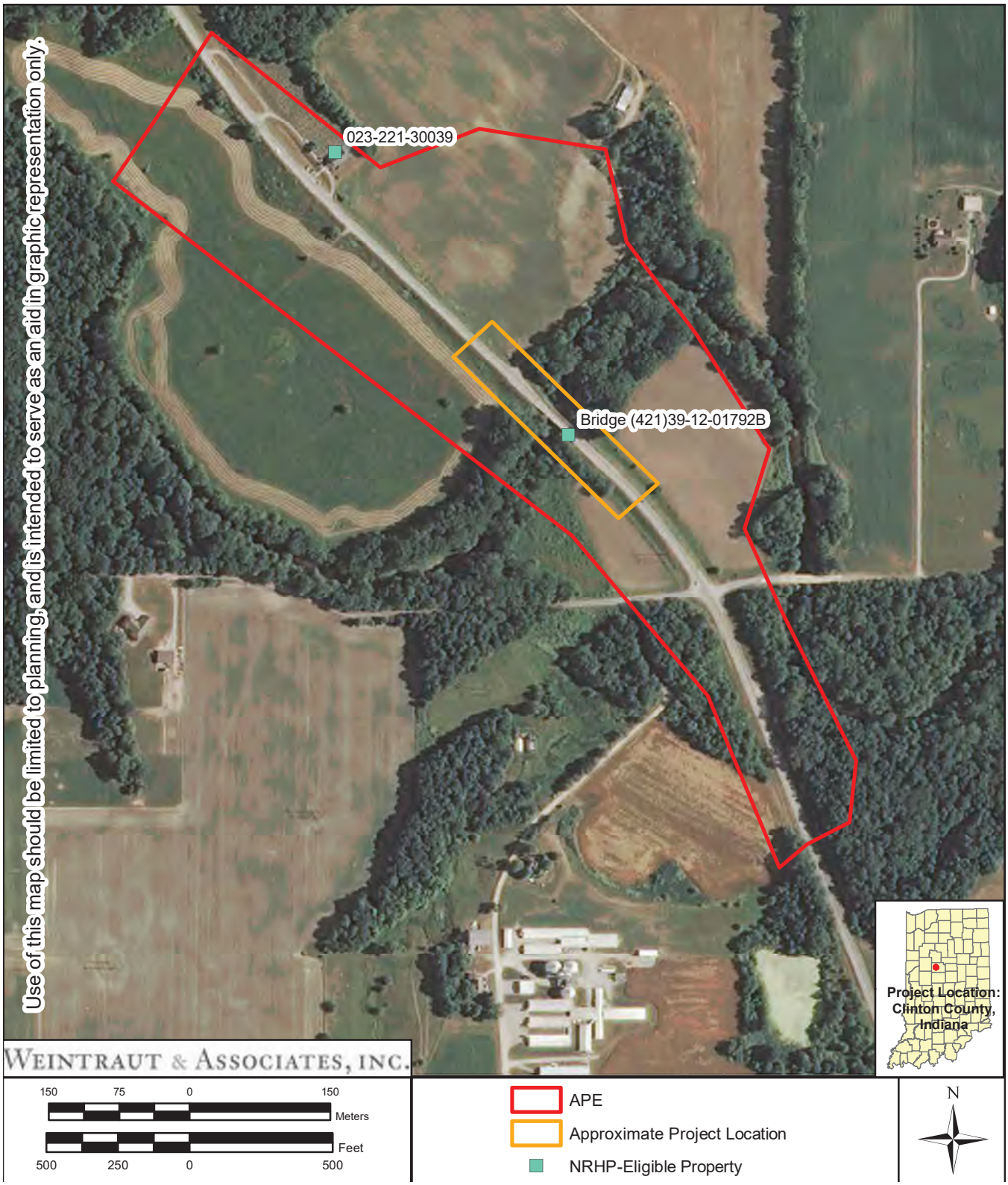
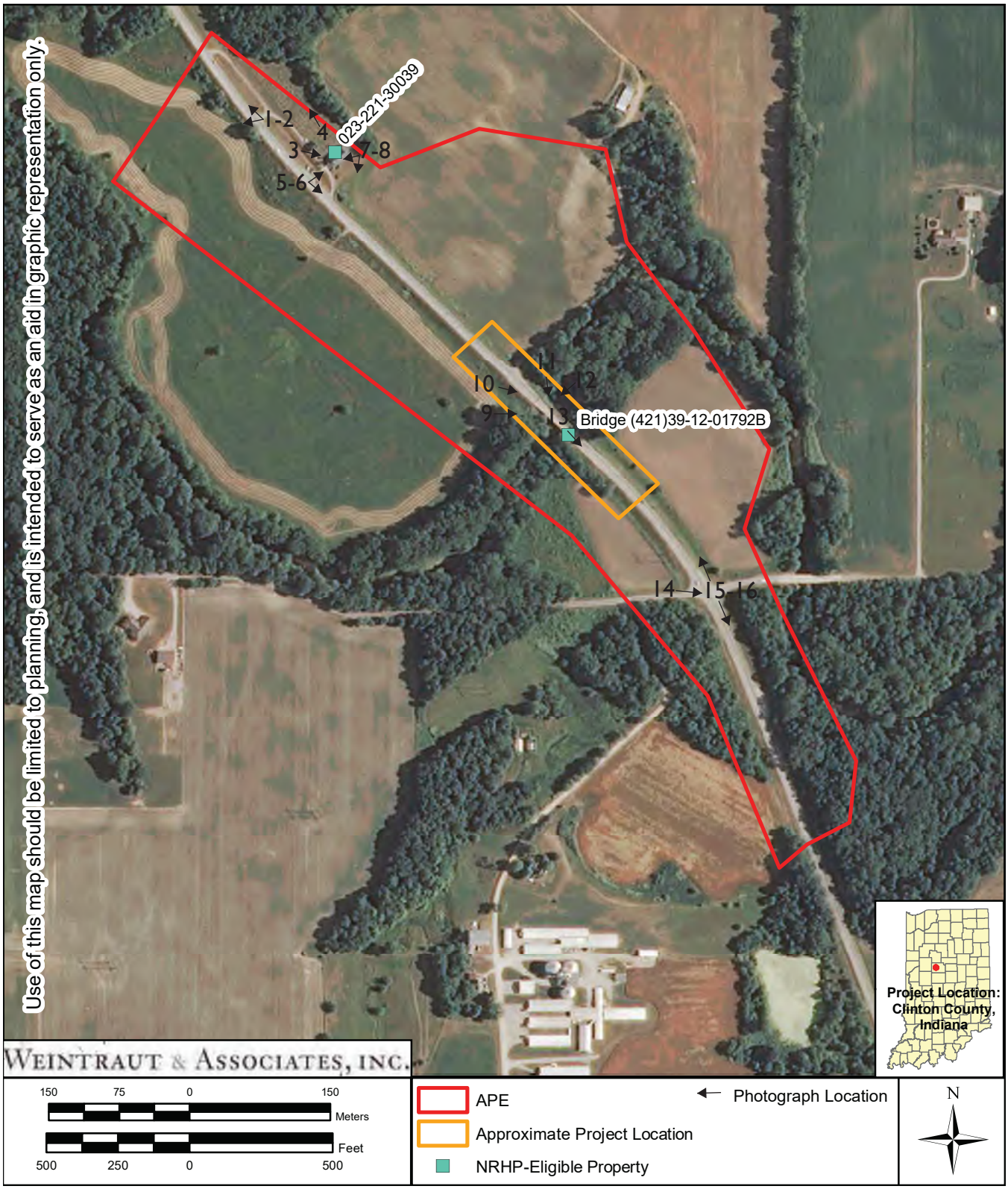


FIGURE 2. PROJECT LOCATION, APE, AND RESOURCES, AS ILLUSTRATED ON AN AERIAL PHOTOGRAPH (2012).

Appendix B of the Section 106 Document.

APPENDIX B: Photographs


Use of this map should be limited to planning, and is intended to serve as an aid in graphic representation only.
1-2
3
4
5-6
7-8
023-221-30039
9
10
11
12
13
Bridge (421)39-12-01792B
14
15
16
Project Location: Clinton County, Indiana
WEINTRAUT & ASSOCIATES, INC.
150 75 0 150
Meters
500 250 0 500
Feet
APE
Approximate Project Location
NRHP-Eligible Property
Photograph Location
N

1. Looking north-northwest to the end of the APE along US 421

2. Looking across US 421 from the St. Luke Church (023-221-30039)

3. View to the west and north elevations of the St. Luke Church (023-221-30039)

4. Looking north at the St. Luke Cemetery (023-221-30039)

5. The facade (west elevation) of St. Luke's Church (023-221-30039) is on a rise above US 421

6. View of US 421, looking south from St. Luke's Church

7. A Sunday School addition on the rear of St. Luke's (023-221-30039) was added in the 1920s

8. Looking across field to project location in distance

9. The west elevation of Bridge (421)39-12-01792B showing the central and approach spans

10. Concrete approach spans have modern concrete and w-beam rail

11. The central and approach spans rest on concrete piers

12. The view to the east elevation of the US 421 shows the central truss span

13. Looking southeast from the US 421 Bridge, view to truss

14. Looking southeast at CR 200 across US 421

15. Looking north on US 421 from CR 200, the US 421 bridge is in the distance

16. Looking south from CR 200 on US 421 to the end of the APE

Appendix C of the Section 106 Document.

APPENDIX C: Reports

HISTORIC BRIDGE ALTERNATIVES ANALYSIS

Bridge No.: (421)39-12-01792B

Des. No.: 1593276

Route Identification and Feature Crossed: US 421 over South Fork Wildcat Creek

NBI No.: 032200

Project Location: 2.24 miles south of SR 38, in Section 29, T-21-N, R-1-W, Union Township, Clinton County, Indiana

Date: December 2018

Prepared By: Paul Killian, GAI Consultants, Inc.

This bridge was evaluated by personnel from the Indiana Department of Transportation (INDOT) Bridge Design Unit, the District Office and the designer. The attached Draft Historic Bridge Alternatives Analysis has been reviewed by the INDOT Bridge Design Unit and Cultural Resources Office for thoroughness of the rehabilitation option and compliance with INDOT design policies. Concurrence by INDOT with the proposed Scope of Work does not constitute Final Approval of the Historic Bridge Alternatives Analysis. This draft HBAA may now be distributed to the historic consulting parties for review.

FHWA approval of the CE document is approval of the Historic Bridge Programmatic evaluation.

US 421 OVER SOUTH FORK WILDCAT CREEK BRIDGE - ALTERNATIVES ANALYSIS SUMMARY				
Alternative	**Meets Project Purpose & Need?**	**Total Costs**	**Other Factors**	**Feasible and Prudent?**
Do Nothing (Alternative A)	No	N/A	Deterioration of the superstructure and substructure would continue and eventually lead to the closure of the bridge after 5 years. Traffic would then be forced to use alternative routes.	This alternative is considered feasible, but is not prudent, as it does not satisfy the project's purpose and need.
Rehabilitation for Continued Vehicular Use, Two Way, Existing Concrete Arch Rehabilitation (Alternative B)	Yes	$2,153,000	A thorough analysis and repair of the bridge would be completed to extend useful service life.	This alternative is considered feasible and it meets the purpose and need. Therefore, this alternative is prudent.

Phase Ia Archaeological Records Check and Field Reconnaissance: US 421 over South Fork Wildcat Creek Bridge Rehabilitation Project in Union Township, Clinton County, Indiana Des. No.: 1593276

Prepared for
GAI &
Federal Highway Administration/
Indiana Department of Transportation

Prepared by
Colin D. Graham
Weintraut & Associates, Inc.

Principal Investigator: Craig Arnold

P.O. Box 5034
Zionsville, Indiana
(317)733-9770
(linda@weintrautinc.com)

July 2019

INDIANA ARCHAEOLOGICAL SHORT REPORT

State Form 54566 (1-11)

INDIANA DEPARTMENT OF NATURAL RESOURCES
DIVISION OF HISTORIC PRESERVATION
AND ARCHAEOLOGY
402 West Washington Street, Room W274
Indianapolis, Indiana 46204-2739
Telephone Number: (317) 232-1646
Fax Number: (317) 232-0693
E-mail: dhpa@dnr.IN.gov

Where applicable, the use of this form is recommended but not required by the Division of Historic Preservation and Archaeology.

Author: Colin D. Graham, B.A.

Date *(month, day, year):* July 15, 2019

Project Title: Phase Ia Archaeological Records Check and Field Reconnaissance: US 421 over South Fork Wildcat Creek Bridge Rehabilitation Project in Union Township, Clinton County, Indiana (Des. No.: 1593276).

PROJECT OVERVIEW

Project Description:

The Indiana Department of Transportation (INDOT), with funding from the Federal Highway Administration (FHWA), is proposing the rehabilitation of Clinton County Bridge No. (421)39-12-01792B (NBI No.: 3220), carrying US 421/State Road (SR) 39 over the South Fork of Wildcat Creek in Union Township, Clinton County, Indiana. The project is located in the southeast quarter of Section 29, Township 22 North, Range 1 West on the 7.5-minute series USGS Frankfort Topographic Quadrangle map (Figure 1). The project is more specifically located approximately 2.24 miles (mi) south of SR 38 at Reference Point (RP) 126+17. Section 106 of the National Historic Preservation Act requires federal agencies to take into account the effects of their undertakings on historic properties. The federal involvement is funding from the FHWA.

The purpose of the proposed project is to correct deficiencies of the structure and provide continued safe vehicular crossing over the South Fork of Wildcat Creek for the traffic utilizing US 421/SR 39 and to increase the service life of the structure. The need for the project is due to the advanced deterioration of the existing structure. The existing structure is a 192-foot long, three-span, steel pony truss bridge constructed in 1941 and reconstructed in 1985. Apparent existing right-of-way is approximately 75 feet (ft) to the northeast and 60 ft to the southwest from the centerline. The preferred alternative is rehabilitation of the bridge for continued vehicular use. This alternative would preserve as much of the existing bridge as feasible and repair the structural deficiencies necessary to extend the useful service life of the bridge components that will be preserved and incorporated into the rehabilitated structure.

GAI provided a survey area of approximately 3.5 acres (ac), or 1.4 hectares (ha), that is intended to encompass all temporary or permanent right-of-way required for the

rehabilitation of the project.

RESULTS

☐ Archaeological records check has determined that the project area does not have the potential to contain archaeological resources.

☐ Archaeological records check has determined that the project area has the potential to contain archaeological resources.

☒ Phase Ia reconnaissance has located no archaeological resources in the project area.

☐ Phase Ia reconnaissance has identified landforms conducive to buried archaeological deposits.

Actual Area Surveyed hectares: 1.4 acres: 3.5

Comments: A typical soil profile from the shovel test probes consisted of a very dark grayish-brown (10YR 3/2) and dark brown (10YR 3/3) silt loam that extended to an average depth of 31 cm (12 in). A plowzone was observed in several of the probes. Below this, a subsoil of brown (10YR 4/3) to dark yellowish-brown (10YR 3/6) sand loam and sand was encountered. No precontact or historic cultural materials or deposits were identified in the shovel probes.

RECOMMENDATION

☐ The archaeological records check has determined that the project area has the potential to contain archaeological resources and a Phase Ia archaeological reconnaissance is recommended.

☐ The archaeological records check has determined that the project area does not have the potential to contain archaeological resources and no further work is recommended before the project is allowed to proceed.

☒ The Phase Ia archaeological reconnaissance has located no archaeological sites within the project area and it is recommended that the project be allowed to proceed as planned.

☐ The Phase Ia archaeological reconnaissance has determined that the project area includes landforms which have the potential to contain buried archaeological deposits. It is recommended that Phase Ic archaeological subsurface reconnaissance be conducted before the project is allowed to proceed.

☐ The Phase Ia archaeological reconnaissance has determined that the project area is within 100 feet of a cemetery and a Cemetery Development Plan is required per IC-14-21-1-26.5.

Historic Property Report
Rehabilitation of Bridge No. (421)39-12-01792B (NBI No.: 03220), US 421 over South Fork Wildcat Creek
2.24 miles south of SR 38, Union Township, Clinton County, Indiana
DES No.: 1593276

Prepared for

GAI/Indiana Department of Transportation/ Federal Highway Administration

Contact for GAI: David Bourff (D.Bourff@gaiconsultants.com)

Prepared by

Weintraut & Associates, Inc.

Principal Investigator: Dr. Linda Weintraut

Authors: Bethany Natali, M.A. and Kelly Lally Molloy, M.A.

P.O. Box 5034 | Zionsville, Indiana 46077 | 317.733.9770 | (Linda@weintrautinc.com)

August 8, 2019

Management Summary

This report documents the identification and evaluation efforts for properties included in the Area of Potential Effects (APE) for the Rehabilitation of Bridge No. (421)39-12-0792B (NBI No.: 03220) in Union Township, Clinton County, Indiana. Aboveground resources located within the project APE were identified and evaluated in accordance with the Section 106, National Historic Preservation Act (NHPA) of 1966, as amended, and the regulations implementing Section 106 (36 CFR Part 800).

As a result of the NHPA, as amended, and CFR Part 800, federal agencies are required to take into account the impact of federal undertakings upon historic properties in the area of the undertaking. Historic properties include buildings, structures, sites, objects, and/or districts that are eligible for or listed in the National Register of Historic Places (NRHP). As this project is receiving funding from the Federal Highway Administration (FHWA), it is subject to a Section 106 review.

The APE contains one property that has been previously determined eligible for listing in the National Register:

- **Bridge No. (421)39-12-01792B (NBI No.: 3220) carrying US 421/SR 39 over the South Fork of Wildcat Creek**

In addition, the APE contains one property that is recommended eligible for listing in the National Register:

- **St. Luke Church & Cemetery [Indiana Historic Sites and Structures Inventory (IHSSI) Number: 023-221-30039]**

Appendix D of the Section 106 Document.

APPENDIX D: Correspondence

INDIANA DEPARTMENT OF TRANSPORTATION

100 North Senate Avenue
Room N642
Indianapolis, Indiana 46204

PHONE: (317) 234-5168

Eric Holcomb, Governor
Joe McGuinness, Commissioner

December 12, 2018

This letter was sent to the listed parties.

RE: Dual Review Project: US 421 over South Fork Wildcat Creek, Bridge Rehabilitation Project, in Union Township, Clinton County, Indiana, Des. No.: 1593276

Dear Consulting Party,

The Indiana Department of Transportation (INDOT), with funding from the Federal Highway Administration (FHWA), is proposing to rehabilitate the bridge carrying US 421 over South Fork Wildcat Creek [Structure No. (421)39-12-01792B] in Clinton County, Indiana. This project is located approximately 2.24 miles south of SR 38 at mile point 17.050, in Section 29, Township 21 North, Range 1 West, of Union Township, as shown on the Frankfort, Indiana USGS 7.5 Minute Topographic Map. Weintraut & Associates, Inc. is under contract with GAI, INDOT's environmental consultant, to advance the Section 106 documentation for the referenced project.

The existing structure is a 192 ft., three-span, steel pony truss bridge constructed in 1941 and reconstructed in 1985. The bridge is listed in the Indiana Historic Bridge Inventory (December 2010) as a "Select" historic bridge. US 421 is functionally classified as a rural minor arterial, consisting of two 12 ft. north/south travel lanes with 5 ft. shoulders on both sides of the roadway. Apparent existing right-of-way is approximately 75 ft. to the northeast and 60 ft. to the southwest from the centerline. The need for the project comes from the deteriorated state of the bridge, which has a sufficiency rating of 46.7 out of 100 (INDOT Bridge Inspection Report, February 2017).

Purpose and Need: The need for this project is due to the deterioration of the existing structure, as documented in the February 13, 2017 Bridge Inspection Report. At that time, the structure was noted to have an overall sufficiency rating, the numeric value which is indicative of the bridge sufficiency to remain in service, of 46.7 out of 100. This sufficiency rating of 46.7 indicates that the bridge is in overall "fair" condition. The three main elements of the bridge (deck, superstructure, and substructure) were evaluated on a scale ranging from "0" to "9" ("0" being a failed structure and "9" being a structure in excellent condition). The bridge deck received a rating of "6" indicating that it is in satisfactory condition with minor deterioration such as transverse cracking, shallow surface spalls, and areas of full depth patching. Both the superstructure and the substructure received a rating of "5" which indicates "fair" condition with minor section loss.

The purpose of this project is to correct the deterioration of the structure as noted on the Bridge Inspection Report. By correcting the above deficiencies, the life of the structure will be extended by approximately 25 years and will result in restoring the bridge to "good" overall condition. This will also insure a safe vehicular crossing over South Fork Wildcat Creek for motorists utilizing US 421.

Scope of Work: The proposed project involves replacing the reinforced concrete pier pedestals for spans A and C (approach spans), replacing end abutment caps, replacing end spans with new pre-stressed concrete box beam

superstructures, removing and replacing the reinforced concrete deck on the thru-truss span and removing the existing concrete bridge railing and replacing it with new type FC concrete railing. Abutments 1 and 4 will become semi-integral and new joints will be installed at Pier 2 and Pier 3 where superstructure type changes. The project will also include installing new bridge deck drains, repairing the existing steel thru truss (replacing steel elements in kind, replacing deteriorated rivets with round-headed bolts, attaching steel plates to areas of impact damage, and cleaning and painting the existing steel thru-truss), removing the existing approach slabs, constructing new reinforced concrete bridge approaches with type TFC concrete bridge railing transitions, replacing existing guardrail, and adding channel scour protection.

Right-of-Way/Maintenance of Traffic: It is anticipated that no permanent right-of-way will be required to complete the proposed project and temporary right-of-way will be limited to drive construction. No relocations will be necessary to complete the proposed project. The preferred method of traffic maintenance would be a road closure with an official detour route utilizing SR 26 and SR 75.

Section 106: Section 106 of the National Historic Preservation Act requires Federal agencies to take into account the effects of their undertakings on historic and archaeological properties. In accordance with 36 CFR 800.2(c), you are hereby requested to be a consulting party to participate in the Section 106 process. Entities that have been invited to participate in the Section 106 consultation process for this project are identified in the list below. Per 36 CFR 800.3(f), we hereby request that the Indiana State Historic Preservation Officer (SHPO) notify this office if the SHPO staff is aware of any other parties that may be entitled to be consulting parties or should be contacted as potential consulting parties for the project.

The Section 106 process involves efforts to identify historic properties potentially affected by the undertaking, assess its effects and seek ways to avoid, minimize or mitigate any adverse effects on historic properties. For more information regarding the protection of historic resources, please see the Advisory Council on Historic Preservation's guide: *Protecting Historic Properties: A Citizen's Guide to Section 106 Review* available online at http://www.achp.gov/citizensguide.pdf.

Please note that per the permanent rule issued by the Indiana Department of Natural Resources effective August 14, 2013 (312 IAC 20-4-11.5), INDOT is requesting that this project be subjected to "dual review"; that is, reviewed by the Division of Historic Preservation and Archaeology simultaneously under 54 U.S.C. 306108 (Section 106) and IC 14-21-1-18 (Indiana Preservation and Archaeology Law dealing with alterations of historic sites and structures requiring a Certificate of Approval). Pursuant to Section 11.5(f) of this rule, at the conclusion of the review process we anticipate that the Division Director would issue a letter of clearance exempting this project from obtaining a Certificate of Approval under IC 14-21-1-18. Enclosed with this letter is a detailed list of the consulting parties with contact information, including email addresses, for processing the dual review submission.

Per the terms of the "Programmatic Agreement Regarding Management and Preservation of Indiana's Historic Bridges" (Historic Bridges PA), the FHWA-Indiana Division will satisfy its Section 106 responsibilities involving "Select" and "Non-Select" bridges through the Project Development Process (PDP) of the Historic Bridges PA (Stipulation III). Because this structure is a "Select" bridge, the procedures outlined in Stipulation III.A. of the Historic Bridges PA will be followed to fulfill FHWA's Section 106 responsibilities for the bridge. (A copy of the Historic Bridges PA can be downloaded here: http://www.in.gov/indot/2530.htm).

Per Stipulation III.A.1. of the Historic Bridges PA, a Historic Bridge Alternatives Analysis (HBAA) has been prepared and is ready for review and comment by consulting parties.

The Area of Potential Effects (APE) is the area in which the proposed project may cause alterations in the character or use of historic resources. Cultural resource investigations are taking place and the results of cultural resource identification and evaluation efforts, both above-ground and archaeological, will be forthcoming. Consulting parties will receive notification when these reports are completed.

The HBAA is available for review in IN SCOPE at http://erms.indot.in.gov/Section106Documents/ (the Des. No. is the most efficient search term, once in IN SCOPE). You are invited to review this document and respond with comments on any historic resource impacts incurred as a result of this project so that an environmental report can be completed. We also welcome your related opinions and other input to be considered in the preparation of the environmental document. If you prefer a hard copy of this material, please respond to this email with your request within seven (7) days.

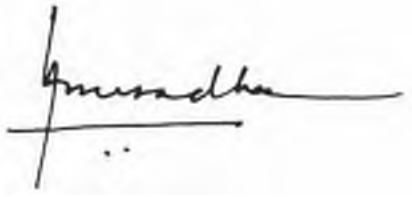
Please review the information and comment within thirty (30) calendar days of receipt. If you indicate that you do not desire to be a consulting party, or if you do not respond, you will not be included on the list of consulting parties for this project. If we do not receive your response in the time allotted, the project will proceed consistent with the proposed design and you will not receive further information about the project unless the design changes.

For questions concerning specific project details, you may contact Linda Weintraut of Weintraut & Associates, Inc., at 317-733-9770 or linda@weintrautinc.com. All future responses regarding the proposed project should be forwarded to Weintraut & Associates, Inc., at the following address:

Linda Weintraut, Ph.D.
President
Weintraut & Associates, Inc.
PO Box 5034
Zionsville, Indiana 46077
linda@weintrautinc.com.

Tribal contacts may contact Shaun Miller at smiller@indot.in.gov or 317-233-6795 or Michelle Allen at FHWA at michelle.allen@dot.gov or 317-226-7344.

Sincerely,



Anuradha V. Kumar, Manager
Cultural Resources Office
Environmental Services

Enclosures:

- Project location maps

Distribution List:

- State Historic Preservation Officer
- Eastern Shawnee Tribe of Oklahoma
- Miami Tribe of Oklahoma
- Peoria Tribe of Indians of Oklahoma
- Pokagon Band of Potawatomi Indians
- Forest County Potawatomi Community
- Dr. James Cooper
- Historic SPANs Task Force
- Clinton County Historian
- Clinton County Historical Society and Museum
- Clinton County Area Plan Commission
- Clinton County Genealogical Society
- Historic Preservationists of Clinton County
- Clinton County Commissioners
- Clinton County Highway Supervisor
- Indiana Landmarks-Western Regional Office

Des. No. 1593276; US 421 Bridge, Clinton County, Indiana

1 message

From: **Linda Weintraut** <linda@weintrautinc.com>
Date: Wed, Dec 12, 2018 at 1:32 PM
Subject: Des. No. 1593276; US 421 Bridge, Clinton County, Indiana
To: James L. Cooper <jlcooper@ccrtc.com>, Paul Brandenburg <indianabridges@sbcglobal.net>, <cchsm@geetel.net>, Tami Pelling <clintoncogensoc@gmail.com>, <swoods@clintonco.com>, <juitts@clintonco.comm>, <sshoemaker@clintonco.com>, <tmartin@clintonco.com>, <kmyers@clintonco.com>, <west@indianalandmarks.org>, <BMCcord@dnr.in.gov>, Slider, Chad <CSlider@dnr.in.gov>
Cc: Kennedy, Mary <mkennedy@indot.in.gov>, Kumar, Anuradha <akumar@indot.in.gov>, Miller, Shaun (INDOT) <smiller@indot.in.gov>, Linda Weintraut <linda@weintrautinc.com>, David Bourff <D.Bourff@gaiconsultants.com>, Matt Mason <M.Mason@gaiconsultants.com>, Mike Wenning <M.Wenning@gaiconsultants.com>, <GKLEVITSKY@indot.in.gov>, Troy Jessop <T.Jessop@gaiconsultants.com>, Walls, Steven <SWalls@indot.in.gov>, Dhpacommentsfromcro, Dnr <DDhpacommentsfromcro@dnr.in.gov>, Branigin, Susan <SBranigin@indot.in.gov>, Khan, Asfahan <akhan@indot.in.gov>

Des. No.: 1593276
Project Description: Bridge Rehabilitation
Location: US 421 over South Fork Wildcat Creek, Union Township, Clinton County Indiana

The Indiana Department of Transportation (INDOT), with funding from Federal Highway Administration (FHWA), proposes to proceed with a bridge rehabilitation project, Des. No.: 1593276.

Section 106 of the National Historic Preservation Act requires federal agencies to take into account the effects of their undertakings on historic properties. The following agencies/individuals are being invited to become consulting parties:

State Historic Preservation Officer
Eastern Shawnee Tribe of Oklahoma
Miami Tribe of Oklahoma
Peoria Tribe of Indians of Oklahoma
Pokagon Band of Potawatomi Indians
Forest County Potawatomi Community
Dr. James Cooper
Historic SPANs Task Force
Clinton County Historian
Clinton County Historical Society and Museum
Clinton County Area Plan Commission
Clinton County Genealogical Society
Historic Preservationists of Clinton County
Clinton County Commissioners
Clinton County Highway Supervisor
Indiana Landmarks-Western Regional Office

This letter is part of the early coordination phase of the environmental review process requesting comments associated with this project. We are requesting comments from your area of expertise regarding any possible environmental effects associated with this project. Please use the above Des. Number and project description in your reply and your comments will be incorporated into the formal environmental study.

Please review the letter and Historic Bridge Alternatives Analysis located in IN SCOPE at http://erms.indot.in.gov/Section106Documents/ (the Des. No. is the most efficient search term, once in IN SCOPE), and respond with your comments on any historic resource impacts incurred as a result of this project so that an environmental report can be completed. We also welcome your related opinions and other input to be considered in the preparation of the environmental document. If a hard copy of the materials is needed, please respond to this email with your request within seven (7) days.

Consulting parties have thirty (30) calendar days from receipt of this information to review and provide comment. If we do not receive a response from an invited consulting party in the time allotted, the project will proceed consistent with the proposed design. Therefore, if we do not receive a response within thirty (30) days, your agency or organization will not receive any further information on the project unless the scope of work changes.

Tribal contacts may contact Shaun Miller at smiller@indot.in.gov or 317-233-6795 or Michelle Allen at FHWA at michelle.allen@dot.gov or 317-226-7344.

Thank you in advance for your input,

--
Linda Weintraut, Ph.D.
Weintraut & Associates, Inc.
PO Box 5034
4649 Northwestern Drive
Zionsville, Indiana 46077
317.733.9770 ext. 310

FHWA Project: Des. No. 1593276; US 421 Bridge, Clinton County, Indiana

1 message

Kennedy, Mary <MKENNEDY@indot.in.gov> Thu, Dec 13, 2018 at 8:55 AM
To: "thpo@estoo.net" <thpo@estoo.net>, Diane Hunter <dhunter@miamination.com>, "lpappenfort@peoriatribe.com" <lpappenfort@peoriatribe.com>, "Matthew.Bussler@pokagonband-nsn.gov" <Matthew.Bussler@pokagonband-nsn.gov>, Allison Daniels <Allison.Daniels@fcpotawatomi-nsn.gov>
Cc: "Kumar, Anuradha" <akumar@indot.in.gov>, "Branigin, Susan" <SBranigin@indot.in.gov>, "Miller, Shaun (INDOT)" <smiller@indot.in.gov>, Linda Weintraut <linda@weintrautinc.com>, Bethany Natali <bethany@weintrautinc.com>, David Bourff <D.Bourff@gaiconsultants.com>, "Allen, Michelle (FHWA)" <michelle.allen@dot.gov>

Des. No.: 1593276
Project Description: Bridge Rehabilitation
Location: US 421 over South Fork Wildcat Creek, Union Township, Clinton County Indiana

The Indiana Department of Transportation (INDOT), with funding from Federal Highway Administration (FHWA), proposes to proceed with a bridge rehabilitation project, Des. No.: 1593276.

Section 106 of the National Historic Preservation Act requires federal agencies to take into account the effects of their undertakings on historic properties. The following agencies/individuals are being invited to become consulting parties:

State Historic Preservation Officer
Eastern Shawnee Tribe of Oklahoma
Miami Tribe of Oklahoma
Peoria Tribe of Indians of Oklahoma
Pokagon Band of Potawatomi Indians
Forest County Potawatomi Community
Dr. James Cooper
Historic SPANs Task Force
Clinton County Historian
Clinton County Historical Society and Museum
Clinton County Area Plan Commission
Clinton County Genealogical Society
Historic Preservationists of Clinton County
Clinton County Commissioners
Clinton County Highway Supervisor
Indiana Landmarks-Western Regional Office

This letter is part of the early coordination phase of the environmental review process requesting comments associated with this project. We are requesting comments from your area of expertise regarding any possible environmental effects associated with this project. Please use the above Des. Number and project description in your reply and your comments will be incorporated into the formal environmental study.

Please review the letter and Historic Bridge Alternatives Analysis located in IN SCOPE at http://erms.indot.in.gov/Section106Documents/ (the Des. No. is the most efficient search term, once in IN SCOPE), and respond with your comments on any historic resource impacts incurred as a result of this project so that an environmental report can be completed. We also welcome your related opinions and other input to be considered in the preparation of the environmental document. If a hard copy of the materials is needed, please respond to this email with your request within seven (7) days.

Consulting parties have thirty (30) calendar days from receipt of this information to review and provide comment. If we do not receive a response from an invited consulting party in the time allotted, the project will proceed consistent with the proposed design. Therefore, if we do not receive a response within thirty (30) days, your agency or organization will not receive any further information on the project unless the scope of work changes.

Tribal contacts may contact Shaun Miller at smiller@indot.in.gov or 317-233-6795 or Michelle Allen at FHWA at michelle.allen@dot.gov or 317-226-7344.

Thank you in advance for your input,

Mary E. Kennedy
Historic Bridge Specialist

Cultural Resources Office

Environmental Services

Re: Des. No. 1593276; US 421 Bridge, Clinton County, Indiana

1 message

Linda Weintraut <linda@weintrautinc.com> Wed, Dec 12, 2018 at 4:24 PM
To: eroyer@indianalandmarks.org
Cc: bethany w <bethany@weintrautinc.com>, "Bourff, David" <DBourff@chacompanies.com>, "Kennedy, Mary" <mkennedy@indot.in.gov>

We will add you to the list. Thank you for participating.

On Wed, Dec 12, 2018 at 3:54 PM Emily Royer <eroyer@indianalandmarks.org> wrote:

> Dr. Weintraut,
>
> Thank you for alerting us to the project regarding the US 421 bridge over South Fork Wildcat Creek. Indiana Landmarks' Western Regional Office is interested in acting as a consulting party for this project and supports rehabilitation in place for continued vehicular use.
>
> Best,
>
> Emily
>
> **From:** Linda Weintraut <linda@weintrautinc.com>
> **Sent:** Wednesday, December 12, 2018 1:32 PM
> **To:** Jim Cooper <jlcooper@ccrtc.com>; Paul Brandenburg <indianabridges@sbcglobal.net>; cchsm@geetel.net; Tami Pelling <clintoncogensoc@gmail.com>; swoods@clintonco.com; juitts@clintonco.comm; sshoemaker@clintonco.com; tmartin@clintonco.com; kmyers@clintonco.com; West <West@indianalandmarks.org>; BMCcord@dnr.in.gov; Slider, Chad <CSlider@dnr.in.gov>
> **Cc:** Mary Kennedy <mkennedy@indot.in.gov>; Kumar, Anuradha <akumar@indot.in.gov>; Miller, Shaun (INDOT) <smiller@indot.in.gov>; Linda Weintraut <linda@weintrautinc.com>; David Bourff <D.Bourff@gaiconsultants.com>; Matt Mason <M.Mason@gaiconsultants.com>; Mike Wenning <M.Wenning@gaiconsultants.com>; GKLEVITSKY@indot.in.gov; Troy Jessop <T.Jessop@gaiconsultants.com>; Walls, Steven <SWalls@indot.in.gov>; Dhpacommentsfromcro, Dnr <DDhpacommentsfromcro@dnr.in.gov>; Branigin, Susan <SBranigin@indot.in.gov>; Khan, Asfahan <akhan@indot.in.gov>
> **Subject:** Des. No. 1593276; US 421 Bridge, Clinton County, Indiana
>
> **Des. No.: 1593276**
> **Project Description: Bridge Rehabilitation**
> **Location: US 421 over South Fork Wildcat Creek, Union Township, Clinton County Indiana**
>
> The Indiana Department of Transportation (INDOT), with funding from Federal Highway Administration (FHWA), proposes to proceed with a bridge rehabilitation project, Des. No.: 1593276.
>
> Section 106 of the National Historic Preservation Act requires federal agencies to take into account the effects of their undertakings on historic properties. The following agencies/individuals are being invited to become consulting parties:
>
> State Historic Preservation Officer
> Eastern Shawnee Tribe of Oklahoma
> Miami Tribe of Oklahoma
> Peoria Tribe of Indians of Oklahoma
> Pokagon Band of Potawatomi Indians
> Forest County Potawatomi Community
> Dr. James Cooper
> Historic SPANs Task Force
> Clinton County Historian
> Clinton County Historical Society and Museum
> Clinton County Area Plan Commission
> Clinton County Genealogical Society
> Historic Preservationists of Clinton County
> Clinton County Commissioners
> Clinton County Highway Supervisor
> Indiana Landmarks-Western Regional Office
>
> This letter is part of the early coordination phase of the environmental review process requesting comments associated with this project. We are requesting comments from your area of expertise regarding any possible environmental effects associated with this project. Please use the above Des. Number and project description in your reply and your comments will be incorporated into the formal environmental study.
>
> Please review the letter and Historic Bridge Alternatives Analysis located in IN SCOPE at http://erms.indot.in.gov/Section106Documents/ (the Des. No. is the most efficient search term, once in IN SCOPE), and respond with your comments on any historic resource impacts incurred as a result of this project so that an environmental report can be completed. We also welcome your related opinions and other input to be considered in the preparation of the environmental document. If a hard copy of the materials is needed, please respond to this email with your request within seven (7) days.

Division of Historic Preservation & Archaeology · 402 W. Washington Street, W274 · Indianapolis, IN 46204-2739
Phone 317-232-1646 · Fax 317-232-0693 · dhpa@dnr.IN.gov · www.IN.gov/dnr/historic

January 4, 2019

Linda Weintraut, Ph.D.
Weintraut & Associates, Inc.
P.O. Box 5034
Zionsville, Indiana 46077

Federal Agency: Indiana Department of Transportation ("INDOT"), on behalf of Federal Highway Administration, Indiana Division ("FHWA")

Re: DUAL REVIEW: Early coordination letter and proposal for dual review, and the draft historic bridge alternatives analysis for the rehabilitation of the bridge (Structure No. [421]39-12-01792B) carrying US 421 over South Fork Wildcat Creek (Des. No. 1593276; DHPA No. 23309)

Dear Dr. Weintraut:

The Indiana Department of Natural Resources, Division of Historic Preservation and Archaeology ("INDNR-DHPA"), which also serves as the staff of the Indiana State Historic Preservation Officer ("Indiana SHPO"), is in receipt of Weintraut & Associates, Inc.'s review request submittal form, with enclosures, dated December 12, 2018, transmitting INDOT's proposal for a dual review, pursuant to 312 Indiana Administrative Code ("IAC") 20-4-11.5, for the aforementioned project in Union Township, Clinton County, Indiana, all of which we received December 13, 2018.

The Indiana SHPO will review the information submitted under Section 106 of the National Historic Preservation Act of 1966, as amended (54 U.S.C. § 306108), implementing regulations at 36 C.F.R. Part 800, the Indiana Historic Bridges Programmatic Agreement, as well as Indiana Code 14-21-1-18 and 312 IAC 20-4. By copy of this letter, Indiana SHPO is providing notification of the commencement of the dual review to potentially interested persons and members of the Indiana Historic Preservation Review Board ("Review Board"). Notice of the commencement will also be posted on the division's website (www.in.gov/dnr/historic/7440.htm).

We are not aware of anyone who should be invited to become a consulting party for the purposes of the review of this project under Section 106, beyond those whom you already have invited. For the purposes of Indiana Code 14-21-1-18 and 312 IAC 20-4, we have added the members of the Review Board and additional, potentially interested parties to the list of parties we intend to copy with our comment letters.

As the submission indicates, the US 421 bridge over South Fork Wildcat Creek (Bridge No. [421] 39-12-01792B; National Bridge Inventory No. 32200) has been identified as a Select Bridge in the *Indiana Historic Bridge Inventory*. We agree that the three-span, steel pony truss bridge is eligible for inclusion in the National Register of Historic Places ("NRHP") under Criterion C as a bridge that "is distinctive because it exemplifies an uncommon highway bridge type in Indiana" and "displays exceptional overall or main span length for its type representing an innovative design and/or construction method."

We note that the early coordination letter indicates that reports of cultural resource investigations for above-ground and archaeological resources are forthcoming. We look forward to receiving these for our review and comment.

We also agree with the historic bridge alternatives analysis that the Preliminary Preferred Alternative B (Rehabilitation for Continued Vehicular Use [Two Way, Existing Concrete Arch Rehabilitation] in accordance with the Secretary of Interior's Standards for Rehabilitation) is both feasible and prudent, and we believe that it would be the more appropriate treatment for this historic steel pony truss bridge.

If any prehistoric or historic archaeological artifacts or human remains are uncovered during construction, demolition, or earthmoving activities, state law (Indiana Code 14-21-1-27 and 29) requires that the discovery must be reported to the Department of Natural Resources within two (2) business days. In that event, please call (317) 232-1646. Be advised that adherence to Indiana Code 14-21-1-27 and -29 does not obviate the need to adhere to applicable federal statutes and regulations, including but not limited to 36 C.F.R. 800.

We also look forward to receiving the 30% of design plans for our review and comment.

If you have questions regarding our dual review of the aforementioned project, please contact the Indiana SHPO. Questions about archaeological issues should be directed to Wade T. Tharp at (317) 232-1650 or wtharp1@dnr.IN.gov. Questions about historic buildings or structures pertaining to this review should be directed to Danielle Kauffmann at (317) 232-0582 or dkauffmann@dnr.IN.gov.

For the benefit of those recipients of a copy of this letter who are not Section 106 consulting parties, please be aware that the documents discussed here can be found online in IN SCOPE at http://erms.indot.in.gov/Section106Documents/. From there, search by this project's designation number: 1593276.

Anyone receiving an e-mailed copy of this letter who does *not* wish to receive future copies of our correspondence about this bridge project is asked to reply to wtharp1@dnr.in.gov and dkauffmann@dnr.in.gov and so advise us.

In all future correspondence regarding the dual review of this project involving the US 421 over South Fork Wildcat Creek in Union Township, Clinton County, Indiana (Des. No. 1593276), please refer to DHPA No. 23309.

Very truly yours,

Beth K. McCord
Deputy State Historic Preservation Officer

BKM:DMK:dmk

cc: Clinton County Commissioners
Jan Beaman, Historic Preservationists of Clinton County
Kevin Myers, Clinton County Highway Superintendent

emc: Robert Dirks, FHWA
Michelle Allen, FHWA
Anuradha Kumar, INDOT
Shaun Miller, INDOT
Susan Branigin, INDOT
Mary Kennedy, INDOT
Shirley Clark, INDOT
Tommy Kleckner, Indiana Landmarks, Western Field Office
James L. Cooper, Ph.D., Professor Emeritus of History, DePauw University
Paul Brandenburg, Indiana Historic Spans Task Force
Clinton County Historical Society & Museum
Linda Weintraut, Weintraut & Associates, Inc.
David Bourff, GAI Consultants
J. Scott Keller, Review Board
Daniel Kloc, AIA, Review Board
Jason Larrison, AIA, Review Board
Joshua Palmer, AIA, Review Board
April Sievert, Ph.D., Review Board
Christopher Smith, Deputy Director, INDNR
Beth K. McCord, INDNR-DHPA
Wade T. Tharp, INDNR-DHPA
Danielle Kauffmann, INDNR-DHPA

Miami Tribe of Oklahoma

3410 P St. NW, Miami, OK 74354 ● P.O. Box 1326, Miami, OK 74355
Ph: (918) 541-1300 ● Fax: (918) 542-7260
www.miamination.com

January 7, 2019

Shaun Miller
Archaeological Team Lead
Cultural Resources Office
Indiana DOT
575 North Pennsylvania Street
Indianapolis, IN 46204

Re: Des. No. 1593276 US 421 Bridge, Clinton County, Indiana – Comments of the Miami Tribe of Oklahoma

Dear Mr. Miller:

Aya, kikwehsitoole – I show you respect. My name is Diane Hunter, and I am the Tribal Historic Preservation Officer for the Federally Recognized Miami Tribe of Oklahoma. In this capacity, I am the Miami Tribe's point of contact for all Section 106 issues.

The Miami Tribe offers no objection to the above-mentioned project at this time, as we are not currently aware of existing documentation directly linking a specific Miami cultural or historic site to the project site. However, as this site is within the aboriginal homelands of the Miami Tribe, if any human remains or Native American cultural items falling under the Native American Graves Protection and Repatriation Act (NAGPRA) or archaeological evidence is discovered during any phase of this project, the Miami Tribe requests immediate consultation with the entity of jurisdiction for the location of discovery. In such a case, please contact me at 918-541-8966 or by email at dhunter@miamination.com to initiate consultation.

The Miami Tribe accepts the invitation to serve as a consulting party to the proposed project. In my capacity as Tribal Historic Preservation Officer I am the point of contact for consultation.

Respectfully,

Diane Hunter
Tribal Historic Preservation Officer

INDIANA DEPARTMENT OF TRANSPORTATION

100 North Senate Avenue
Room N642
Indianapolis, Indiana 46204

PHONE: (317) 234-5168

Eric Holcomb, Governor
Joe McGuinness, Commissioner

August 9, 2019

This letter was sent to the listed parties.

RE: Dual Review Project: US 421 over South Fork Wildcat Creek, Bridge Rehabilitation Project, in Union Township, Clinton County, Indiana, Des. No.: 1593276; DHPA No. 23309

Dear Consulting Party,

The Indiana Department of Transportation (INDOT), with funding from the Federal Highway Administration (FHWA), proposes to proceed with the US 421 over South Fork Wildcat Creek Bridge Rehabilitation Project (Des. No.: 1593276). Weintraut & Associates, Inc. is under contract with INDOT to advance the environmental documentation for the referenced project.

This letter is part of the Section 106 review process for this project. A Section 106 early coordination letter was distributed on December 12, 2018. That letter also notified consulting parties that a Historic Bridge Alternatives Analysis (HBAA) was available for review and comment.

The HBAA document included a Preliminary Work Plan in Appendix C. It contained proposed project rehabilitation details noted on marked up existing plans sheets for the bridge. This information was intended to serve as the 30% rehabilitation plan submittal as required by the *Standard Treatment Approach for Historic Bridges* in Appendix B of the "Programmatic Agreement Regarding Management and Preservation of Indiana's Historic Bridges" (Historic Bridges PA), but inadvertently was not labeled as such. In order to demonstrate that the appropriate plan review submittals have occurred, we request that the staff of the State Historic Preservation Officer (SHPO) acknowledge in their response letter to the current information that they completed the review of the 30% plan information when they reviewed the HBAA document.

The 60% rehabilitation plans are now being submitted under this transmittal for review and comment.

The proposed undertaking is on US 421 approximately 2.24 miles south of State Road (SR) 38 at mile point 17.050 in Clinton County, Indiana. It is within Union Township, within the Frankfort, Indiana USGS 7.5 Minute Topographic Quadrangle, in Section 29, Township 21 North, Range 1 West.

Purpose and Need: The need for this project is due to the deterioration of the existing structure, as documented in the February 13, 2017 Bridge Inspection Report. At that time, the structure was noted to have an overall sufficiency rating, the numeric value which is indicative of the bridge sufficiency to remain in service, of 46.7 out of 100. This sufficiency rating of 46.7 indicates that the bridge is in overall "fair" condition. The three main elements of the bridge (deck, superstructure, and substructure) were evaluated on a scale ranging from "0" to "9" ("0" being a failed structure and "9" being a structure in excellent condition). The bridge deck received a rating of "6" indicating that it is in satisfactory condition with minor deterioration such as transverse cracking,

shallow surface spalls, and areas of full depth patching. Both the superstructure and the substructure received a rating of "5" which indicates "fair" condition with minor section loss.

The purpose of this project is to correct the deterioration of the structure as noted on the Bridge Inspection Report. By correcting the above deficiencies, the life of the structure will be extended by approximately 25 years and will result in restoring the bridge to "good" overall condition. This will also insure a safe vehicular crossing over South Fork Wildcat Creek for motorists utilizing US 421.

Scope of Work: The proposed project involves replacing the reinforced concrete pier pedestals for spans A and C (approach spans), replacing end abutment caps, replacing end spans with new pre-stressed concrete box beam superstructures, removing and replacing the reinforced concrete deck on the thru-truss span and removing the existing concrete bridge railing and replacing it with new type FC concrete railing. Abutments 1 and 4 will become semi-integral and new joints will be installed at Pier 2 and Pier 3 where superstructure type changes. The project will also include installing new bridge deck drains, repairing the existing steel thru truss (replacing steel elements in kind, replacing deteriorated rivets with round-headed bolts, attaching steel plates to areas of impact damage, and cleaning and painting the existing steel thru-truss), removing the existing approach slabs, constructing new reinforced concrete bridge approaches with type TFC concrete bridge railing transitions, replacing existing guardrail, and adding channel scour protection.

Right-of-Way/Maintenance of Traffic: It is anticipated that no permanent right-of-way will be required to complete the proposed project and temporary right-of-way will be limited to drive construction. No relocations will be necessary to complete the proposed project. The preferred method of traffic maintenance would be a road closure with an official detour route utilizing SR 26 and SR 75.

Section 106 of the National Historic Preservation Act requires federal agencies to take into account the effects of their undertakings on historic and archaeological properties. In accordance with 36 CFR 800.2 (c), you were invited to become a consulting party as part of the Section 106 process. Entities that have accepted consulting party status are identified in the attached list.

The Section 106 process involves efforts to identify historic properties potentially affected by the undertaking, assess its effects and seek ways to avoid, minimize or mitigate any adverse effects on historic properties. For more information regarding the protection of historic resources, please see the Advisory Council on Historic Preservation's guide: *Protecting Historic Properties: A Citizen's Guide to Section 106 Review* available online at https://www.achp.gov/sites/default/files/documents/2017-01/CitizenGuide.pdf.

Per the terms of the Historic Bridges PA, the FHWA-Indiana Division will satisfy its Section 106 responsibilities involving "Select" and "Non-Select" bridges through the Project Development Process (PDP) of the Historic Bridges PA (Stipulation III). Because Bridge No. (421)39-12-01792B (NBI No.: 3220) is a "Select bridge, the procedures outlined in Stipulation III.A. of the Historic Bridges PA will be followed to fulfill FHWA's Section 106 responsibilities for the project. (A copy of the Historic Bridges PA can be downloaded here: http://www.in.gov/indot/2530.htm).

Please note that per the permanent rule issued by the Indiana Department of Natural Resources effective August 14, 2013 (312 IAC 20-4-11.5), INDOT is requesting that this project be subjected to "dual review"; that is, reviewed by the Division of Historic Preservation and Archaeology simultaneously under 54 U.S.C. 306108 (Section 106) and IC 14-21-1-18 (Indiana Preservation and Archaeology Law dealing with alterations of historic sites and structures requiring a Certificate of Approval). Pursuant to Section 11.5(f) of this rule, at the conclusion of the review process we anticipate that the Division Director would issue a letter of clearance exempting this project from obtaining a Certificate of Approval under IC 14-21-1-18.

The Area of Potential Effects (APE) is the area in which the proposed project may cause alterations in the character or use of historic resources. The APE contains no resources listed in the National Register of Historic Places (NRHP). One resource, Bridge No.: (421)39-12-01792B (NBI No.: 3220), was previously determined eligible for listing in the NRHP as part of the Indiana Historic Bridge Inventory.

A historian who meets the Secretary of the Interior's Professional Qualification Standards identified and evaluated above-ground resources within the APE for potential eligibility for the NRHP. As a result of the historic property identification and evaluation efforts, St. Luke Church & Cemetery (IHSSI No.: 023-221-30039) is recommended as eligible for listing in the NRHP.

An archaeologist who meets the Secretary of the Interior's Professional Qualification Standards has conducted a survey of archaeological resources within the APE for potential eligibility for listing in the NRHP. A report of that investigation has been completed and will be distributed to the appropriate consulting parties for review. The Historic Property Report, Archaeology Short Report (Tribes Only), and 60% plans are available for review in IN SCOPE at http://erms.indot.in.gov/Section106Documents/ (the Des. No. is the most efficient search term, once in IN SCOPE). You are invited to review these documents and respond with comments on any historic resource impacts incurred as a result of this project so that an environmental report can be completed. We also welcome your related opinions and other input to be considered in the preparation of the environmental document. If you prefer a hard copy of this material, please respond to this email with your request within seven (7) days.

The procedures outlined in the Historic Bridges PA will be followed to fulfill FHWA's Section 106 responsibilities for Bridge No.: (421)39-12-01792B and any effects to the bridge are resolved through the Historic Bridges PA PDP. With regard to St. Luke Church & Cemetery, this property is located more than 600 feet from the undertaking. Project activities will result in minor visual changes from the property. An analysis of the criteria of adverse effect, as defined and described in 36 CFR 800.5(a)(1) and in 36 CFR 800.5(a)(2)(i) through (v), is found below:

Per 36 CFR 800.5(a)(2)(i), the undertaking will cause no "physical destruction of or damage to all or part of the property."

Per 36 CFR 800.5(a)(2)(ii), there will be no "restoration, rehabilitation, repair, maintenance, stabilization, hazardous material remediation and provision of handicapped access, that is not consistent with the Secretary's Standards for the Treatment of Historic Properties (36 CFR part 68) and applicable guidelines."

Per 36 CFR 800.5(a)(2)(iii), the property will not be removed from its historic location.

Per 36 CFR 800.5(a)(2)(iv), there will not be a change "of the character of the property's use or of physical features within the property's setting."

Per 36 CFR 800.5(a)(2)(v), there will not be an "introduction of visual, atmospheric or audible elements that diminish the integrity of the property's significant historic features."

Per 36 CFR 800.5(a)(2)(vi), there will be no neglect or deterioration of the property.. . . . .. … ..

Per 36 CFR 800.5(a)(2)(vii), there will be no "transfer, lease, or sale of the property out of Federal ownership or control."

Based on this analysis of adverse effects, historians do not believe the rehabilitation of Bridge No.: (421)39-12-01792B would alter, directly or indirectly, any of the characteristics of the St. Luke Church & Cemetery in a manner that would diminishes its eligibility-defining characteristics. Historians are recommending a finding of "No Adverse Effect" for this project.

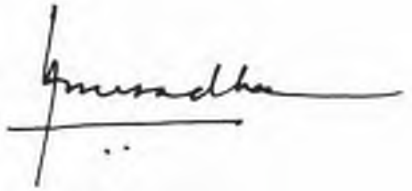
As a consulting party, you are invited to review and comment on this within thirty (30) calendar days of receipt.

For questions concerning specific project details, you may contact Linda Weintraut of Weintraut & Associates, Inc., at 317-733-9770 or linda@weintrautinc.com. All future responses regarding the proposed project should be forwarded to Weintraut & Associates, Inc., at the following address:

Linda Weintraut, Ph.D.
President
Weintraut & Associates, Inc.
PO Box 5034
Zionsville, Indiana 46077
linda@weintrautinc.com.

Tribal contacts may contact Shaun Miller at smiller@indot.in.gov or 317-233-6795 or Michelle Allen at FHWA at michelle.allen@dot.gov or 317-226-7344.

Sincerely,



Anuradha V. Kumar, Manager
Cultural Resources Office
Environmental Services

Distribution List:

- Miami Tribe of Oklahoma
- State Historic Preservation Officer
- Indiana Landmarks-Western Regional Office

Fwd: FHWA Project: Des. No. Des. No. 1593276; US 421 Bridge, Clinton County, Indiana

1 message

Linda Weintraut <linda@weintrautinc.com> Fri, Aug 9, 2019 at 2:44 PM
To: bethany w <bethany@weintrautinc.com>

---------- Forwarded message ---------
From: **Linda Weintraut** <linda@weintrautinc.com>
Date: Fri, Aug 9, 2019 at 1:53 PM
Subject: FHWA Project: Des. No. Des. No. 1593276; US 421 Bridge, Clinton County, Indiana
To: McCord, Beth K <BMCcord@dnr.in.gov>, Slider, Chad <CSlider@dnr.in.gov>, Kauffmann, Danielle M <dkauffmann@dnr.in.gov>, Tharp, Wade <wtharp1@dnr.in.gov>, <eroyer@indianalandmarks.org>
Cc: Kumar, Anuradha <akumar@indot.in.gov>, Miller, Shaun (INDOT) <smiller@indot.in.gov>, Linda Weintraut <linda@weintrautinc.com>, David Bourff <D.Bourff@gaiconsultants.com>, Matt Mason <M.Mason@gaiconsultants.com>, Mike Wenning <M.Wenning@gaiconsultants.com>, <GKLEVITSKY@indot.in.gov>, Troy Jessop <T.Jessop@gaiconsultants.com>, Walls, Steven <SWalls@indot.in.gov>, Branigin, Susan <SBranigin@indot.in.gov>, Khan, Asfahan <akhan@indot.in.gov>, Kennedy, Mary <mkennedy@indot.in.gov>

Des. No.: 1593276
Project Description: Bridge Rehabilitation
Location: US 421 over South Fork Wildcat Creek, Union Township, Clinton County, Indiana

The Indiana Department of Transportation, with funding from the Federal Highway Administration, proposes to proceed with a bridge rehabilitation project, Des. No.: 1593276. The Section 106 Early Coordination Letter and Historic Bridge Alternatives Analysis for this project were originally distributed on December 12, 2018.

As part of Section 106 of the National Historic Preservation Act, a Historic Property Report, Archaeology Short Report (Tribes Only), 60 % plans, and report transmittal letter have been prepared and are ready for review and comment by consulting parties.

Please review this documentation located in IN SCOPE at http://erms.indot.in.gov/Section106Documents/ (the Des. No. is the most efficient search term, once in IN SCOPE), and respond with any comments that you may have. If a hard copy of the materials is needed, please respond to this email with your request within seven (7) days.

Consulting parties have thirty (30) calendar days from receipt of this information to review and provide comment. Tribal contacts may contact Shaun Miller at smiller@indot.in.gov or 317-233-6795 or Michelle Allen at FHWA at michelle.allen@dot.gov or 317-226-7344.

Thank you in advance for your input,

--
Linda Weintraut, Ph.D.
Weintraut & Associates, Inc.
PO Box 5034
4649 Northwestern Drive
Zionsville, Indiana 46077
317.733.9770 ext. 310

www.weintrautinc.com

--
Linda Weintraut, Ph.D.
Weintraut & Associates, Inc.
PO Box 5034
4649 Northwestern Drive
Zionsville, Indiana 46077
317.733.9770 ext. 310

www.weintrautinc.com

Fwd: FHWA Project: Des. No. Des. No. 1593276; US 421 Bridge, Clinton County, Ind.-HPR, archaeology report, 60% plans

1 message

Linda Weintraut <linda@weintrautinc.com> Fri, Aug 9, 2019 at 3:36 PM
To: bethany w <bethany@weintrautinc.com>

---------- Forwarded message ---------
From: **Kennedy, Mary** <MKENNEDY@indot.in.gov>
Date: Fri, Aug 9, 2019 at 3:29 PM
Subject: FHWA Project: Des. No. Des. No. 1593276; US 421 Bridge, Clinton County, Ind.-HPR, archaeology report, 60% plans
To: Diane Hunter <dhunter@miamination.com>
Cc: Linda Weintraut <linda@weintrautinc.com>, Miller, Shaun (INDOT) <smiller@indot.in.gov>, Allen, Michelle (FHWA) <michelle.allen@dot.gov>, Branigin, Susan <SBranigin@indot.in.gov>

Des. No.: 1593276

Project Description: Bridge Rehabilitation

Location: US 421 over South Fork Wildcat Creek, Union Township, Clinton County, Indiana

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The Indiana Department of Transportation, with funding from the Federal Highway Administration, proposes to proceed with a bridge rehabilitation project, Des. No.: 1593276. The Section 106 Early Coordination Letter and Historic Bridge Alternatives Analysis for this project were originally distributed on December 12, 2018.

As part of Section 106 of the National Historic Preservation Act, a Historic Property Report, Archaeology Short Report (Tribes Only), 60 % plans, and report transmittal letter have been prepared and are ready for review and comment by consulting parties.

Please review this documentation located in IN SCOPE at http://erms.indot.in.gov/Section106Documents/ (the Des. No. is the most efficient search term, once in IN SCOPE), and respond with any comments that you may have. If a hard copy of the materials is needed, please respond to this email with your request within seven (7) days.

Consulting parties have thirty (30) calendar days from receipt of this information to review and provide comment. Tribal contacts may contact Shaun Miller at smiller@indot.in.gov or 317-233-6795 or Michelle Allen at FHWA at michelle.allen@dot.gov or 317-226-7344.

Thank you in advance for your input,

Mary E. Kennedy
Historic Bridge Specialist

100 N. Senate Ave., Room N642-ES

Indianapolis, IN 46204

Office: (317) 232-5215

Email: mkennedy@indot.in.gov

** Historic Property Report (HPR) guidelines can be found here

Division of Historic Preservation & Archaeology · 402 W. Washington Street, W274 · Indianapolis, IN 46204-2739
Phone 317-232-1646 · Fax 317-232-0693 · dhpa@dnr.IN.gov · www.IN.gov/dnr/historic

September 12, 2019

Linda Weintraut, Ph.D.
Weintraut & Associates, Inc.
P. O. Box 5034
Zionsville, Indiana 46077

Federal Agency: Indiana Department of Transportation ("INDOT"),
on behalf of Federal Highway Administration, Indiana Division ("FHWA")

Re: DUAL REVIEW: Historic property report (Natali/Molloy, 8/8/2019), assessment of effects, 60% rehabilitation plans, and Indiana archaeological short report (Graham, 07/15/2019), for the rehabilitation of the bridge (Structure No. [421]39-12-01792B) carrying US 421 over South Fork Wildcat Creek (Des. No. 1593276, DHPA No. 23309)

Dear Dr. Weintraut:

Pursuant to Section 106 of the National Historic Preservation Act of 1966, as amended (54 U.S.C. § 306108); implementing regulations at 36 C.F.R. Part 800; the "Programmatic Agreement Among the Federal Highway Administration, the Indiana Department of Transportation, the Indiana Historic Preservation Officer, and the Advisory Council on Historic Preservation Regarding Management and Preservation of Indiana's Historic Bridges" ("Indiana Historic Bridges PA"); and the "Programmatic Agreement (PA) Among the Federal Highway Administration, the Indiana Department of Transportation, the Advisory Council on Historic Preservation and the Indiana State Historic Preservation Officer Regarding the Implementation of the Federal Aid Highway Program In the State of Indiana"; and also pursuant to Indiana Code 14-21-1-18 and 312 Indiana Administrative Code 20-4, the staff of the Indiana State Historic Preservation Officer ("Indiana SHPO staff" or "INDNR-DHPA") has reviewed Weintraut & Associates, Inc.'s submission, with enclosures, dated August 12, 2019 and received by our office August 14, 2019, for the aforementioned project in Union Township, Clinton County, Indiana.

We would like to acknowledge that the bridge plans previously submitted in Appendix C of the December 12, 2018, Historic Bridges Alternatives Analysis, received by our office December 13, 2018, served as the 30% rehabilitation plans required by the *Standard Treatment Approach for Historic Bridges* in Appendix B of the Indiana Historic Bridges PA. We will comment on the 60% plans provided in this submission, received August 14, 2019, below.

The area of potential effects ("APE") proposed in the historic property report ("HPR"; Natali/Molloy, 8/8/2019) appears to be of appropriate size for a project of this nature. We also appreciate the maintenance of traffic plan in INDOT's letter specifying the official detour route utilizing SR 26 and SR 75.

Regarding structures, for the purposes of the Section 106 review of this federal undertaking, we agree with the conclusions of the HPR that the Saint Luke Church and Cemetery (Indiana Historic Sites and Structures Inventory # 023-221-30039) is eligible for inclusion in the National Register of Historic Places ("NRHP") under Criterion A and C.

Furthermore, as the August 2019 HPR indicates, the subject bridge, Bridge No. (421)39-12-01792B carrying US 421 over the South Fork of Wildcat Creek (NBI No. 3220) has been previously determined eligible and identified as a Select Bridge in the *Indiana Historic Bridge Inventory.* We agree that the three-span steel pony truss bridge is eligible for inclusion in the NRHP under Criterion C.

We note that the procedures within the Indiana Historic Bridges PA will be followed to fulfill FHWA's Section 106 responsibilities for the subject bridge and that the preferred alternative is "Rehabilitation for Continued Vehicular Use (Existing Pony Truss Rehabilitation)" following the Secretary of Interior's Standards for Rehabilitation. Regarding the effects on the Saint Luke Church and Cemetery, we agree with the recommendation in INDOT's August 9, 2019, letter that the proposed project will not adversely affect this historic property.

Moreover, the only comment we have regarding the 60% of design bridge plans included in this submission is to note that the plans, indicated by point no. 8 in the bridge rehabilitation key, detail that final plans will indicate where the existing steel thru-truss will be replaced. We look forward to seeing those final plans.

We also ask that the bridge be documented with color, digital photography before construction commences, in keeping with the relevant parts of Standard 2. of the "Indiana DNR – Division of Historic Preservation and Archaeology Minimum Architectural Documentation Standards." Overviews of the bridge and representative, examples of structural elements of this bridge should be documented. We request that our office be provided with a draft of the photographs, including a photo key, for our review and comment. Following our comments, we ask that an archival gold CD-R or DVD-R non-rewritable disc of the photographs, including a photo key, be sent to the Indiana State Archives and that one duplicate CD or DVD be provided to at least one public or not-for-profit organization in Clinton County that will commit to retaining the CD or DVD permanently and make it accessible to the public for research.

Additionally, based on the submitted information and the documentation available to the staff of the Indiana SHPO, we have not identified any currently known archaeological resources listed in or eligible for inclusion in the NRHP within the proposed project area; and we concur with the opinion of the archaeologist, as expressed in the Indiana archaeological short report (Graham, 07/15/2019), that no further archaeological investigations appear necessary at the proposed project area.

If any prehistoric or historic archaeological artifacts or human remains are uncovered during construction, demolition, or earthmoving activities, state law (Indiana Code 14-21-1-27 and Indiana Code 14-21-1-29) requires that the discovery be reported to INDNR-DHPA within two (2) business days. In that event, please call (317) 232-1646. Be advised that adherence to Indiana Code 14-21-1-27 and Indiana Code 14-21-1-29 does not obviate the need to adhere to applicable federal statutes and regulations, including but not limited to 36 C.F.R. Part 800.

If you have questions regarding our dual review of the aforementioned project, please contact Indiana SHPO. Questions about archaeological issues should be directed to Wade T. Tharp at (317) 232-1650 or wtharp1@dnr.IN.gov. Questions about historic buildings or structures pertaining to this review should be directed to Danielle Kauffmann at (317) 232-0582 or dkauffmann@dnr.IN.gov.

For the benefit of those recipients of a copy of this letter who are not Section 106 consulting parties, please be aware that the documents discussed here can be found online in IN SCOPE at http://erms.indot.in.gov/Section106Documents/. From there, search by this project's designation number: 1593276.

Anyone receiving an e-mailed copy of this letter who does *not* wish to receive future copies of our correspondence about this bridge project is asked to reply to dkauffmann@dnr.in.gov and wtharp1@dnr.in.gov and so advise us.

In all future correspondence regarding the dual review of this project involving the bridge (Structure No. [421]39-12-01792B) carrying US 421 over South Fork Wildcat Creek in Union Township, Clinton County, Indiana (Des. No. 1593276), please refer to DHPA No. 23309.

Very truly yours,

Beth K. McCord
Deputy State Historic Preservation Officer

BKM:DMK:WTT:wit

cc: Clinton County Commissioners
Kevin Myers, Clinton County Highway Superintendent

emc: Robert Dirks, FHWA
Michelle Allen, FHWA
Anuradha Kumar, INDOT
Shaun Miller, INDOT
Susan Branigin, INDOT
Mary Kennedy, INDOT
Shirley Clark, INDOT
Tommy Kleckner, Indiana Landmarks, Western Field Office
James L. Cooper, Ph.D., Professor Emeritus of History, DePauw University
Paul Brandenburg, Indiana Historic Spans Task Force
Clinton County Historical Society & Museum
Linda Weintraut, Weintraut & Associates, Inc.
David Bourff, GAI Consultants
J. Scott Keller, Review Board
Daniel Kloc, AIA, Review Board
Jason Larrison, AIA, Review Board
Chandler Lighty, Review Board
Joshua Palmer, AIA, Review Board
Anne Shaw Kingery, Review Board
April Sievert, Ph.D., Review Board
Christopher Smith, Deputy Director, INDNR
Beth K. McCord, INDNR-DHPA
Wade T. Tharp, INDNR-DHPA
Danielle Kauffmann, INDNR-DHPA

Appendix E of the Section 106 Document.

APPENDIX E: Consulting Parties

US 421 over Wildcat (Des. No.: 1593276) List of Consulting Parties		
Name	**Company/Organization**	**Accepted Invitation?**
Dr. James Cooper		
Paul Brandenburg	Historic SPANs Task Force	
James Miller	Clinton County Historian	
	Clinton County Historical Society and Museum	
Mark Mills	Clinton County Area Plan Commission	
	Clinton County Genealogical Society	
Jan Beaman	Historic Preservationists of Clinton County	
Steve Woods	Clinton County Commissioners	
Josh Uitts	Clinton County Commissioners	
Scott Shoemaker	Clinton County Commissioners	
Theresa Martin	Clinton County Commissioners Assistant	
Kevin Myers	Clinton County Highway Supervisor	
Emily Royer	Indiana Landmarks-Western Regional Office	✓
Beth McCord	SHPO	✓
	Eastern Shawnee Tribe of Oklahoma	
	Forest County Potawatomi Community	
	Miami Tribe of Oklahoma	✓
	Peoria Tribe of Indians of Oklahoma	
	Pokagon Band of Potawatomi Indians	

AFFP
Public Notice Des. No. 1593276

Affidavit of Publication

STATE OF IN }
COUNTY OF CLINTON } SS

Sarah Wicks, being duly sworn, says:

That she is A CUSTOMER SERVICE REP of the THE TIMES, a Daily newspaper of general circulation, printed and published in FRANKFORT, CLINTON County, IN; that the publication, a copy of which is attached hereto, was published in the said newspaper on the following dates:

November 14, 2019

Publisher's Fee: $ 59.26

That said newspaper was regularly issued and circulated on those dates.

SIGNED:

Sarah A. Wicks

Subscribed to and sworn to me this 14th day of November 2019.

Carlena Songer

Carlena Songer, Notary Public 4/10/2024

CARLENA SONGER
Notary Public
La Porte County, State of Indiana
Commission Expires April 10, 2024

60191062 61068541

Public Notice
Des. No. 1593276

The Indiana Department of Transportation (INDOT) is planning to undertake a bridge rehabilitation project, funded in part by the Federal Highway Administration. The project is located approximately 2.24 miles south of State Road (SR) 38 at Reference Point (RP) 126+17 on US 421/SR 39 over the South Fork of Wildcat Creek.

Under the preferred alternative, the proposed project would involve the rehabilitation of the bridge for continued vehicular use. This alternative would preserve as much of the existing bridge as feasible and repair the structural components necessary to extend the useful service life of the bridge.

Properties listed in or eligible for the National Register of Historic Places (NRHP) located within the Area of Potential Effects (APE) include: the St. Luke Church and Cemetery at 2193 US 421/SR 39 and Bridge No. (421)39-12-017928 carrying US 421/SR 39 over the South Fork of Wildcat Creek. The proposed action impacts properties listed in or eligible for the NRHP. INDOT, on behalf of the FHWA, has issued a "No Adverse Effect" finding for the project because the project will not diminish the integrity of the characteristics that qualify the historic properties within the APE for inclusion in the NRHP. Bridge No. (421)39-12-017928 is classified as a "Select" bridge by the INDOT Historic Bridge Inventory and, thus, the procedures outlined in Stipulation III.A. of the Historic Bridges Programmatic Agreement (HBPA) will be followed to fulfill FHWA's Section 106 responsibilities for the bridge. Per Stipulation III.A. of the HBPA, INDOT will hold a public hearing for the project prior to completion of National Environmental Policy Act (NEPA) studies. The hearing will be advertised at a later date.

In accordance with the National Historic Preservation Act, the views of the public are being sought regarding the effect of the proposed project on the historic elements as per 36 CFR 800.2(d), 800.3(e) and 800.6(a)(4). Pursuant to 36 CFR 800.4)(E)(2), the documentation specified in 36 CFR 800.11(c) is available for inspection in the offices of GAI Consultants, 201 N. Illinois Street, Suite 1700, Indianapolis, IN 46201. Additionally, this documentation can be viewed electronically by accessing INDOT's Section 106 document posting website IN SCOPE at http://erma.indot.in.gov/Section106Documents. This documentation serves as the basis for the "No Adverse Effect" finding. The views of the public on this effect finding are being sought. Please reply with any comments to Weintraut & Associates, PO Box 5034, Zionsville, Indiana, 46077; Phone: 317-733-9770; Email: linda@weintrautinc.com no later than December 16, 2019.

In accordance with the "Americans with Disabilities Act," if you have a disability for which INDOT needs to provide accessibility to the document(s) such as interpreters or readers, please contact Rickie Clark at 317-232-6601 or rclark@indot.in.gov.

November 14, 2019 hapaxlp

Linda Weintraut
Weintraut & Associates
PO Box 5034
Zionsville, IN 46077

Fwd: : FHWA Project: Des. No. 1593276, DHPA Project No.: 23309; US 421 Bridge Project, Clinton County, Indiana

1 message

Linda Weintraut <linda@weintrautinc.com> Tue, Nov 19, 2019 at 12:06 PM
To: bethany w <bethany@weintrautinc.com>

---------- Forwarded message ---------
From: **Emily Eckardt** <eeckardt@indianalandmarks.org>
Date: Tue, Nov 19, 2019 at 11:32 AM
Subject: RE: : FHWA Project: Des. No. 1593276, DHPA Project No.: 23309; US 421 Bridge Project, Clinton County, Indiana
To: Linda Weintraut <linda@weintrautinc.com>

Linda,

Thank you for sharing this information with my office. After reviewing the report, we concur with your determination of "No Adverse Effect".

Best,

Emily

From: Linda Weintraut <linda@weintrautinc.com>
Sent: Wednesday, November 13, 2019 11:06 AM
To: McCord, Beth K <bmccord@dnr.in.gov>; Slider, Chad <CSlider@dnr.in.gov>; Kauffmann, Danielle M <DKauffmann@dnr.in.gov>; Tharp, Wade <wtharp1@dnr.in.gov>; Emily Eckardt <eeckardt@indianalandmarks.org>
Cc: Kumar, Anuradha <akumar@indot.in.gov>; Miller, Shaun (INDOT) <smiller@indot.in.gov>; Mary Kennedy <mkennedy@indot.in.gov>; Branigin, Susan <sbranigin@indot.in.gov>; Walls, Steven <SWalls@indot.in.gov>; Khan, Asfahan <akhan@indot.in.gov>; David Bourff <D.Bourff@gaiconsultants.com>; Mike Wenning <m.wenning@gaiconsultants.com>; GKLEVITSKY@indot.in.gov; Troy Jessop <T.Jessop@gaiconsultants.com>; bethany w <bethany@weintrautinc.com>
Subject: : FHWA Project: Des. No. 1593276, DHPA Project No.: 23309; US 421 Bridge Project, Clinton County, Indiana

Des. No.: 1593276; DHPA No. 23309

Project Description: Bridge Rehabilitation

Location: US 421 over South Fork Wildcat Creek, Union Township, Clinton County, Indiana

The Indiana Department of Transportation (INDOT), with funding from the Federal Highway Administration (FHWA), proposes to proceed with a bridge rehabilitation project, Des. No.: 1593276.

INDOT, on behalf of FHWA, has signed a determination of "No Adverse Effect" for this Section 106 undertaking. In accordance with 36 CFR 800.4(d), you and the other consulting parties that responded to the early coordination letter are being provided the documentation for this finding. You can view the determination of "No Adverse Effect" electronically by accessing INDOT's Section 106 document posting website IN SCOPE at http://erms.indot.in.gov/Section106Documents/ (the Des. No. is the most efficient search term, once in IN SCOPE). If a hard copy of the materials is needed, please respond to this email with your request within seven (7) days.

Consulting parties have thirty (30) calendar days from receipt of this information to review and provide comment. Tribal contacts may contact Shaun Miller at smiller@indot.in.gov or 317-233-6795 or Michelle Allen at FHWA at michelle.allen@dot.gov or 317-226-7344.

Thank you in advance for your input,

--

Linda Weintraut, Ph.D.

Weintraut & Associates, Inc.

PO Box 5034

4649 Northwestern Drive

Zionsville, Indiana 46077

317.733.9770 ext. 310

www.weintrautinc.com

DNR Indiana Department of Natural Resources

Eric Holcomb, Governor
Cameron F. Clark, Director

Division of Historic Preservation & Archaeology · 402 W. Washington Street, W274 · Indianapolis, IN 46204-2739
Phone 317-232-1646 · Fax 317-232-0693 · dhpa@dnr.IN.gov · www.IN.gov/dnr/historic

December 9, 2019

Linda Weintraut, Ph.D.
Weintraut & Associates, Inc.
P. O. Box 5034
Zionsville, Indiana 46077

Federal Agency: Indiana Department of Transportation ("INDOT"),
on behalf of Federal Highway Administration, Indiana Division ("FHWA")

Re: DUAL REVIEW: INDOT's finding of "no adverse effect" on behalf of the FHWA, for the rehabilitation of the bridge (Structure No. [421]39-12-01792B) carrying US 421 over South Fork Wildcat Creek (Des. No. 1593276, DHPA No. 23309)

Dear Dr. Weintraut:

Pursuant to Section 106 of the National Historic Preservation Act of 1966, as amended (54 U.S.C. § 306108); implementing regulations at 36 C.F.R. Part 800; the "Programmatic Agreement Among the Federal Highway Administration, the Indiana Department of Transportation, the Indiana Historic Preservation Officer, and the Advisory Council on Historic Preservation Regarding Management and Preservation of Indiana's Historic Bridges" ("Indiana Historic Bridges PA"); and the "Programmatic Agreement (PA) Among the Federal Highway Administration, the Indiana Department of Transportation, the Advisory Council on Historic Preservation and the Indiana State Historic Preservation Officer Regarding the Implementation of the Federal Aid Highway Program In the State of Indiana"; and also pursuant to Indiana Code 14-21-1-18 and 312 Indiana Administrative Code 20-4, the staff of the Indiana State Historic Preservation Officer ("Indiana SHPO staff" or "INDNR-DHPA") has reviewed Weintraut & Associates, Inc.'s submission, with enclosures, dated November 13, 2019 and received by our office November 14, 2019, for the aforementioned project in Union Township, Clinton County, Indiana.

For the benefit of members of the Indiana Historic Preservation Review Board ("Review Board") and other recipients of a copy of this letter who are not Section 106 consulting parties, please be aware that a copy of the finding and documentation can be found online at IN SCOPE (http://erms.indot.in.gov/Section106Documents). From there, search by this project's designation number: 1593276.

As previously indicated, regarding structures, for the purposes of the Section 106 review of this federal undertaking, we agree that the Saint Luke Church and Cemetery (Indiana Sites and Structures Inventory #023-221-30039) and the subject bridge are the only historic properties within the area of potential effects.

Because the Indiana Historic Bridges PA takes into account the effects of projects on all historic, Select and Non-Select bridges in Indiana, a Section 106 finding in a bridge project applies only to historic properties, if any, within the APE, *other than the bridge*. Accordingly, we will comment on the federal Section 106 finding here, but we cannot issue a final comment or a director's letter of clearance regarding the project's impact on this historic, Select Bridge for the purposes of the state preservation law review until we have had the opportunity to review what would be essentially the final plans for the bridge. Once we receive the final stages of design plans, we will then comment on the project's impact on the historic bridge for state preservation law purposes.

Also as previously indicated, based on the submitted information and the documentation available to the staff of the Indiana SHPO, we have not identified any currently known archaeological resources listed in or eligible for inclusion in the National Register of Historic Places within the proposed project area; and we concur with the opinion of the archaeologist, as

expressed in the Indiana archaeological short report (Graham, 07/15/2019), that no further archaeological investigations appear necessary at the proposed project area.

If any prehistoric or historic archaeological artifacts or human remains are uncovered during construction, demolition, or earthmoving activities, state law (Indiana Code 14-21-1-27 and Indiana Code 14-21-1-29) requires that the discovery be reported to INDNR-DHPA within two (2) business days. In that event, please call (317) 232-1646. Be advised that adherence to Indiana Code 14-21-1-27 and Indiana Code 14-21-1-29 does not obviate the need to adhere to applicable federal statutes and regulations, including but not limited to 36 C.F.R. Part 800.

Accordingly, we concur with INDOT's November 7, 2019 Section 106 finding, on behalf of FHWA, of "No Adverse Effect" for this federal undertaking.

If you have questions regarding our dual review of the aforementioned project, please contact Indiana SHPO. Questions about archaeological issues should be directed to Wade T. Tharp at (317) 232-1650 or wtharp1@dnr.IN.gov. Questions about historic buildings or structures pertaining to this review should be directed to Danielle Kauffmann at (317) 232-0582 or dkauffmann@dnr.IN.gov.

Anyone receiving an e-mailed copy of this letter who does *not* wish to receive future copies of our correspondence about this bridge project is asked to reply to dkauffmann@dnr.in.gov and wtharp1@dnr.in.gov and so advise us.

In all future correspondence regarding the dual review of this project involving the bridge (Structure No. [421]39-12-01792B) carrying US 421 over South Fork Wildcat Creek in Union Township, Clinton County, Indiana (Des. No. 1593276), please refer to DHPA No. 23309.

Very truly yours,

Beth K. McCord
Deputy State Historic Preservation Officer

BKM:DMK:WTT:wtt

cc: Clinton County Commissioners
Kevin Myers, Clinton County Highway Superintendent
emc: Robert Dirks, FHWA
Michelle Allen, FHWA
Anuradha Kumar, INDOT
Shaun Miller, INDOT
Susan Branigin, INDOT
Mary Kennedy, INDOT
Shirley Clark, INDOT
Tommy Kleekner, Indiana Landmarks, Western Field Office
James L. Cooper, Ph.D., Professor Emeritus of History, DePauw University
Paul Brandenburg, Indiana Historic Spans Task Force
Clinton County Historical Society & Museum
Linda Weintraut, Weintraut & Associates, Inc.
David Bourff, GAI Consultants
J. Scott Keller, Review Board
Daniel Kloc, AIA, Review Board
Jason Larrison, AIA, Review Board
Chandler Lighty, Review Board
Joshua Palmer, AIA, Review Board
Anne Shaw Kingery, Review Board
April Sievert, Ph.D., Review Board
Christopher Smith, Deputy Director, INDNR
Beth K. McCord, INDNR-DHPA
Wade T. Tharp, INDNR-DHPA
Danielle Kauffmann, INDNR-DHPA

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: September 12, 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: Harlan Ford
GAI Consultants, Inc.
201 N. Illinois Street, Suite 1700
Indianapolis, IN 46204
H.Ford@gaiconsultants.com

Re: RED FLAG INVESTIGATION
Des No. 1593276, State Project
Project description: Bridge Rehabilitation Project
US 421 over South Fork Wildcat Creek
Clinton County, Indiana

PROJECT DESCRIPTION

Brief Description of Project: The Indiana Department of Transportation (INDOT) is planning a bridge rehabilitation project for the structure carrying US 421 over South Fork Wildcat Creek (Bridge No. (421)39-12-01792B) in Clinton County, Indiana. The project is located approximately 2.24 miles south of SR 38, specifically in Section 29, Township 21 North, Range 1 West, as shown on the Frankfort, Indiana 7.5 Minute USGS Quadrangle Map. The existing bridge is a three-span, 194 ft. long, Reinforced Concrete Girder (approach spans) and Steel Thru-Truss (main span) structure that is showing signed of deterioration. The proposed project involves replacing the reinforced concrete pier pedestals for spans A and C (approach spans), replacing end abutment caps, replacing end spans with new prestressed concrete box beam superstructures, removing and replacing the reinforced concrete deck on the thru-truss span and removing the existing concrete bridge railing and replacing it with new type FC concrete railing. Abutments 1 and 4 will become semi-integral and new joints will be installed at Pier 2 and Pier 3 where superstructure type changes. The project will also include installing new bridge deck drains and repairing the existing steel thru-truss (replacing steel elements in kind, replacing deteriorated rivets with bolts, attaching steel plates to areas of impact damage, and cleaning and painting the existing steel thru-truss). The existing approach slabs will be removed, new reinforced concrete bridge approaches with type TFC concrete bridge railing transitions will be constructed, existing guardrail will be replaced, and riprap will be added for channel scour protection.

Bridge and/or Culvert Project: Yes ☒ No ☐ Structure # (421)39-12-01792B
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 will be limited to within existing right-of-way. Excavation is anticipated to be to the full depth of the approaches and subbase and reshaping of the side slopes.
Maintenance of traffic: Traffic will be maintained via road closure with an official detour that utilizes SR 26 and SR 75.
Work in waterway: Yes ☒ No ☐ Below ordinary high water mark: Yes ☒ No ☐
State Project: ☒ LPA: ☐
Any other factors influencing recommendations: This bridge is a select historic bridge, eligible for the National Register of Historic Places under Category C.

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	**1**	Recreational Facilities	**N/A**
Airports[1]	**N/A**	Pipelines	**N/A**
Cemeteries	**1**	Railroads	**N/A**
Hospitals	**N/A**	Trails	**N/A**
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:

Religious Facilities: One (1) religious facility is located within the 0.5-mile search radius. The Saint Luke Church is approximately 0.19-mile northwest of the project area. Coordination with the Saint Luke Church will occur.

Cemeteries: One (1) cemetery is located within the 0.5-mile search radius. The nearest cemetery, CR-12-63 (Saint Luke Church) is approximately 0.20-mile northwest of the project area. Coordination with the Saint Luke Church will occur.

Airports: Although not located within the 0.5-mile search radius, one (1) public airport, the Frankfort Municipal Airport, is located within 3.8 miles (20,000 feet) of the project area. The public airport is located approximately 2.68 miles southwest of the project area; therefore, early coordination with INDOT Aviation will occur.

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	**17**
Canal Structures – Historic	**N/A**	Lakes	**2**
NPS NRI Listed	**N/A**	Floodplain - DFIRM	**1**
NWI-Lines	**9**	Cave Entrance Density	**N/A**
IDEM 303d Listed Streams and Lakes (Impaired)	**5**	Sinkhole Areas	**N/A**
Rivers and Streams	**7**	Sinking-Stream Basins	**N/A**

Explanation:
NWI Lines: Nine (9) NWI lines were identified within the 0.5-mile search radius. The nearest NWI Line intersects the project area. A Waters of the US Report will be prepared and coordination with INDOT ES Ecology and Waterway Permitting will occur.

IDEM 303d Listed Streams: Five (5) impaired streams were identified within the 0.5-mile search radius. South Fork Wildcat Creek (all five segments) is listed for E. coli, dissolved oxygen, and polychlorinated biphenyls (PCBs) in fish tissue. Workers who are working in or near water with E. coli should take care to wear appropriate personal protective equipment (PPE), observe proper hygiene procedures, including regular hand washing, and limit personal exposure. Concerning dissolved oxygen, Best Management Practices (BMPs) will be used to avoid further degradation to the stream. Exposure to PCBs in fish tissue is considered low, assuming workers are not eating biota surrounding or associated with the water body. If there will be sediment and/or soils disturbed by construction, additional investigation may be necessary. Coordination with INDOT ES will occur.

Rivers and Streams: Seven (7) stream segments were identified within the 0.5-mile search radius. The nearest stream, South Fork Wildcat Creek (three segments), intersects 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: Seventeen (17) NWI wetlands were identified within the 0.5-mile search radius. Two palustrine forested wetlands (PFO1A) intersect the project area. A Waters of the US Report will be prepared and coordination with INDOT ES Ecology and Waterway Permitting will occur.

Lakes: Two (2) lakes were identified within the 0.5-mile search radius. The nearest lake feature is located approximately 0.27 mile north of the project area. No impact is expected.

Floodplains: One (1) floodplain polygon was identified within the 0.5-mile search radius. The project area is within this floodplain polygon. A Waters of the US Report will be prepared and coordination with INDOT ES Ecology and Waterway Permitting will occur.

URBANIZED AREA BOUNDARY SUMMARY

Explanation: N/A

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	**N/A**	Mineral Resources	**N/A**
Mines – Surface	**N/A**	Mines – Underground	**N/A**

Explanation:

No Mining/Mineral Exploration resources were identified within the 0.5-mile search radius.

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	**1**
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)	**1**
Voluntary Remediation Program	**N/A**	Brownfields	**N/A**
Construction Demolition Waste	**N/A**	Institutional Controls	**N/A**
Solid Waste Landfill	**N/A**	NPDES Facilities	**N/A**
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:

Open Dump Waste Sites: One (1) open dump waste site was identified within the 0.5-mile search radius. The site, the Frankfort City Dump or Cooper Solid Fill Site, AI #6620, is located approximately 0.47 mile southeast of the project area. A review of IDEM's VFC indicated that the last time any information was documented at this site was 1994. It was suspected that the groundwater may have been contaminated with RCRA metals as a result of previous open dumping. No impact is expected.

Confined Feeding Operations (CFO): One (1) CFO was identified within the 0.5-mile search radius. The site, Millennium Agricultural Services LLC (Rothberger Farm), 1819 N CR 230 W, Frankfort, IN 46041, AI #7962, is located approximately 0.32 mile south of the project area. No impact is expected.

ECOLOGICAL INFORMATION SUMMARY

The Clinton 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 within 0.5 miles of the project area. The project is located near the Town of Frankfort in a primarily rural forested setting surrounded by agricultural fields. The February 6, 2019 Inspection report for Bridge No. (421)39-12-01792B states that no evidence of bats was seen or heard under the bridge. The range-wide programmatic consultation for the Indiana Bat and Northern Long-eared Bat will be completed according to "Using the USFWS's IPaC System for Listed Bat Consultation for INDOT Projects".

An inquiry using the USFWS Information for Planning and Consultation (IPaC) website did not indicate the presence of the federally endangered species, the Rusty Patched Bumblebee, 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:

- Religious Facilities: One (1) religious facility is located within the 0.5-mile search radius. The Saint Luke Church is approximately 0.19-mile northwest of the project area. Coordination with the Saint Luke Church will occur.

- Cemeteries: One (1) cemetery is located within the 0.5-mile search radius. The nearest cemetery, CR-12-63 (Saint Luke Church) is approximately 0.20-mile northwest of the project area. Coordination with the Saint Luke Church will occur.

- Airports: Although not located within the 0.5-mile search radius, one (1) public airport, the Frankfort Municipal Airport, is located within 3.8 miles (20,000 feet) of the project area. The public airport is located approximately 2.68 miles southwest of the project area; therefore, early coordination with INDOT Aviation will occur.

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

- Two mapped NWI wetlands are located within the project area.
- One mapped NWI line flows through the project area.
- One stream segment, South Fork Wildcat Creek, flows through the project area.
- The project area is located within a floodplain (coordination only).

In addition to the above stated Water Resource Concerns:

The nearest stream, South Fork Wildcat Creek, flows through the project area and is listed as being impaired for E. coli, dissolved oxygen, and PCBs in fish tissue. Workers who are working in or near water with E. coli should take care to wear appropriate PPE, observe proper hygiene procedures, including regular hand washing, and limit personal exposure. Concerning dissolved oxygen, BMPs will be used to avoid further degradation to the stream. Exposure to PCBs in fish tissue is considered low, assuming workers are not eating biota surrounding or associated with the water body. If there will be sediment and/or soils disturbed by construction, additional investigation may be necessary. Coordination with INDOT ES will occur.

URBANIZED AREA BOUNDARY: N/A

MINING/MINERAL EXPLORATION: N/A

HAZMAT CONCERNS: N/A

ECOLOGICAL INFORMATION: Coordination with USFWS and IDNR will be conducted. The range-wide programmatic consultation for the Indiana Bat and Northern Long-eared Bat will be completed according to “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: 2019.09.12 15:16:26 -04'00' (Signature)

Prepared by:
Harlan M. Ford
Project Environmental Specialist
GAI Consultants 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

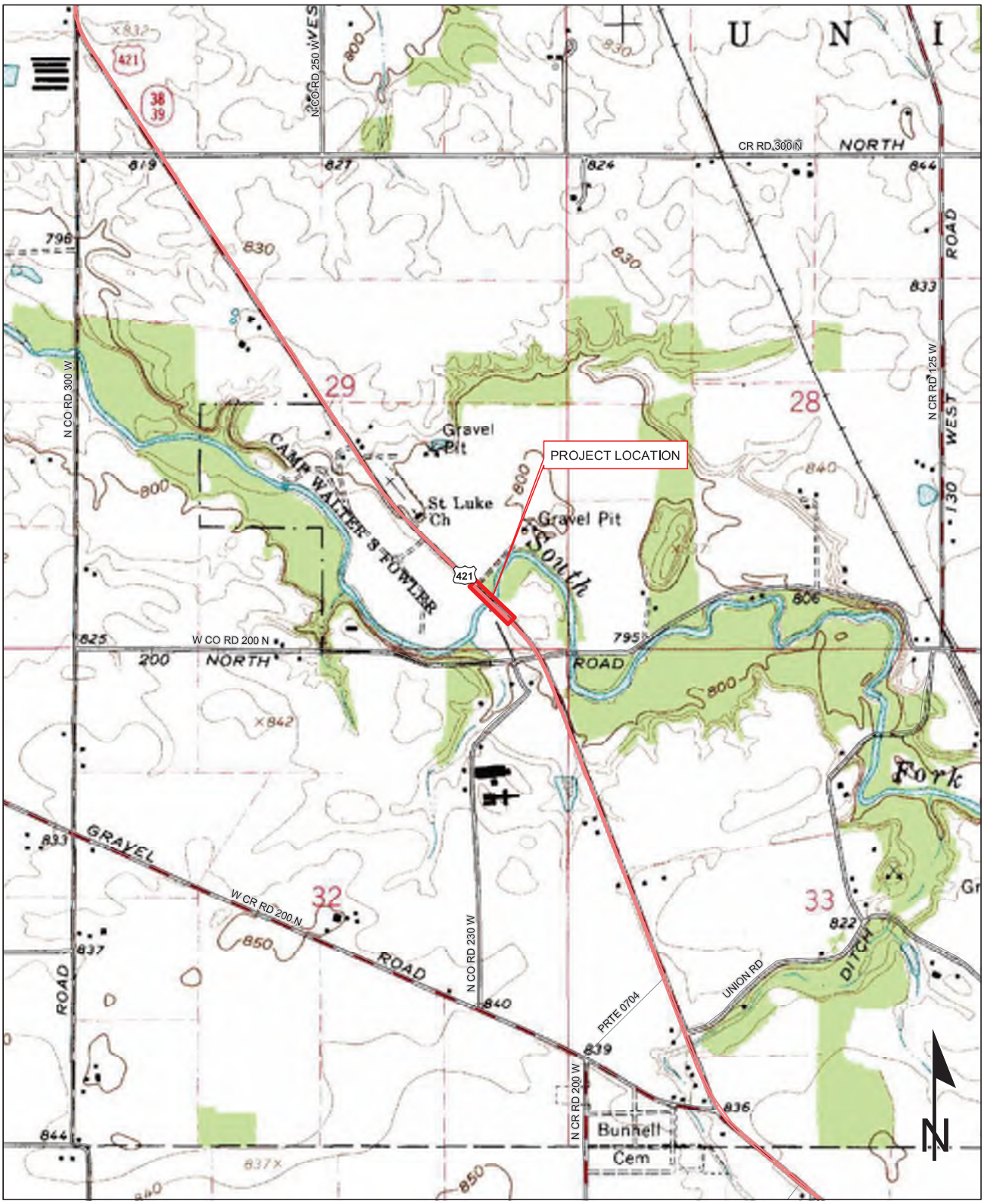
WATER RESOURCES: YES

URBANIZED AREA BOUNDARY: N/A

MINING/MINERAL EXPLORATION: N/A

HAZMAT CONCERNS: YES

Red Flag Investigation - Site Location
US 421 over South Fork Wildcat Creek, 2.24 miles S of SR 38
Des. No. 1593276, Bridge Rehabilitation
Clinton County, Indiana



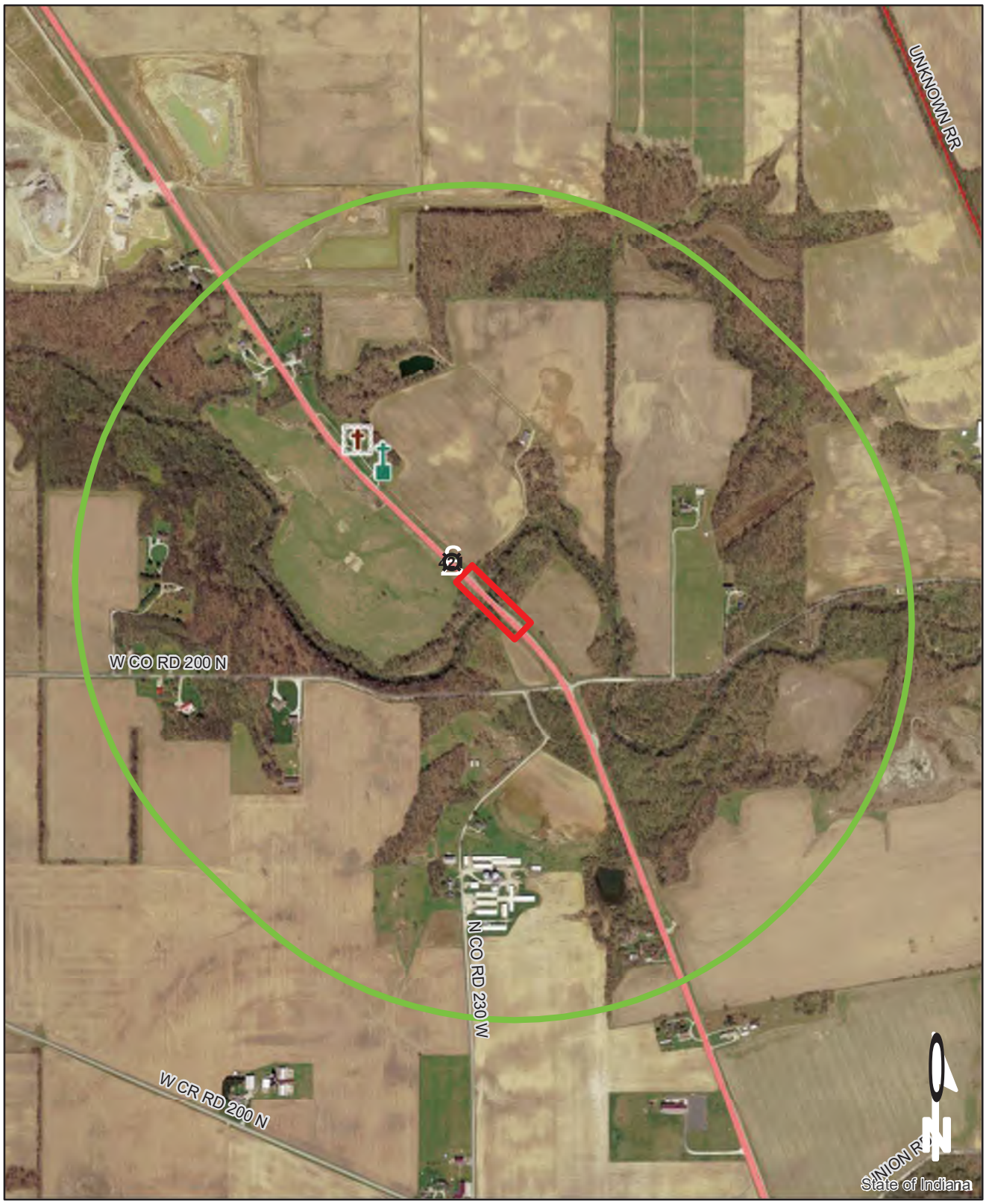
0.25 0.125 0 0.25 Miles

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.

FRANKFORT QUADRANGLE
INDIANA
7.5 MINUTE SERIES
(TOPOGRAPHIC)

Red Flag Investigation - Infrastructure
US 421 over South Fork Wildcat Creek, 2.24 miles S of SR 38
Des. No. 1593276, Bridge Rehabilitation
Clinton County, Indiana



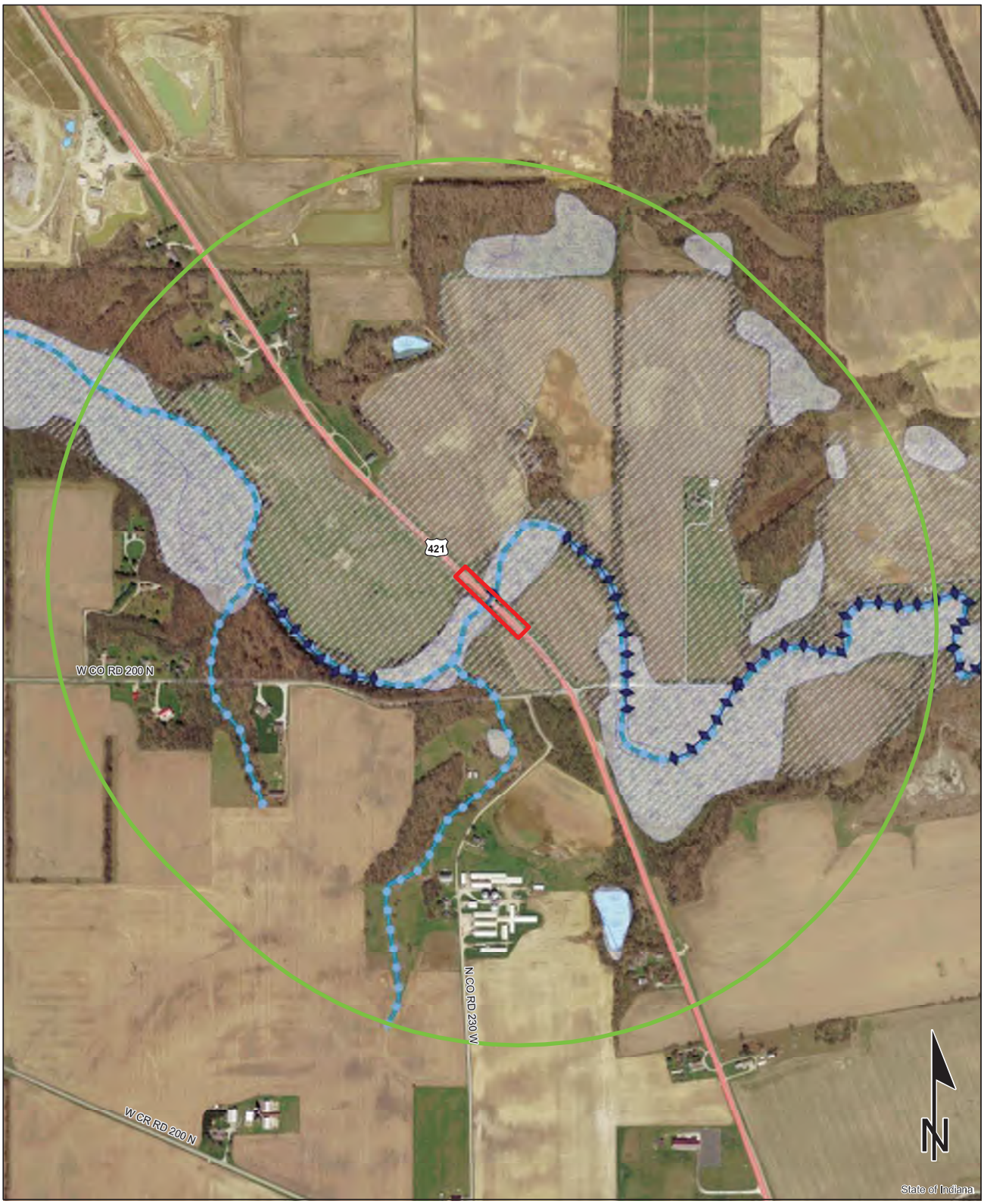
0.15 0.075 0 0.15 Miles

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

Red Flag Investigation - Water Resources
US 421 over South Fork Wildcat Creek, 2.24 miles S of SR 38
Des. No. 1593276, Bridge Rehabilitation
Clinton County, Indiana



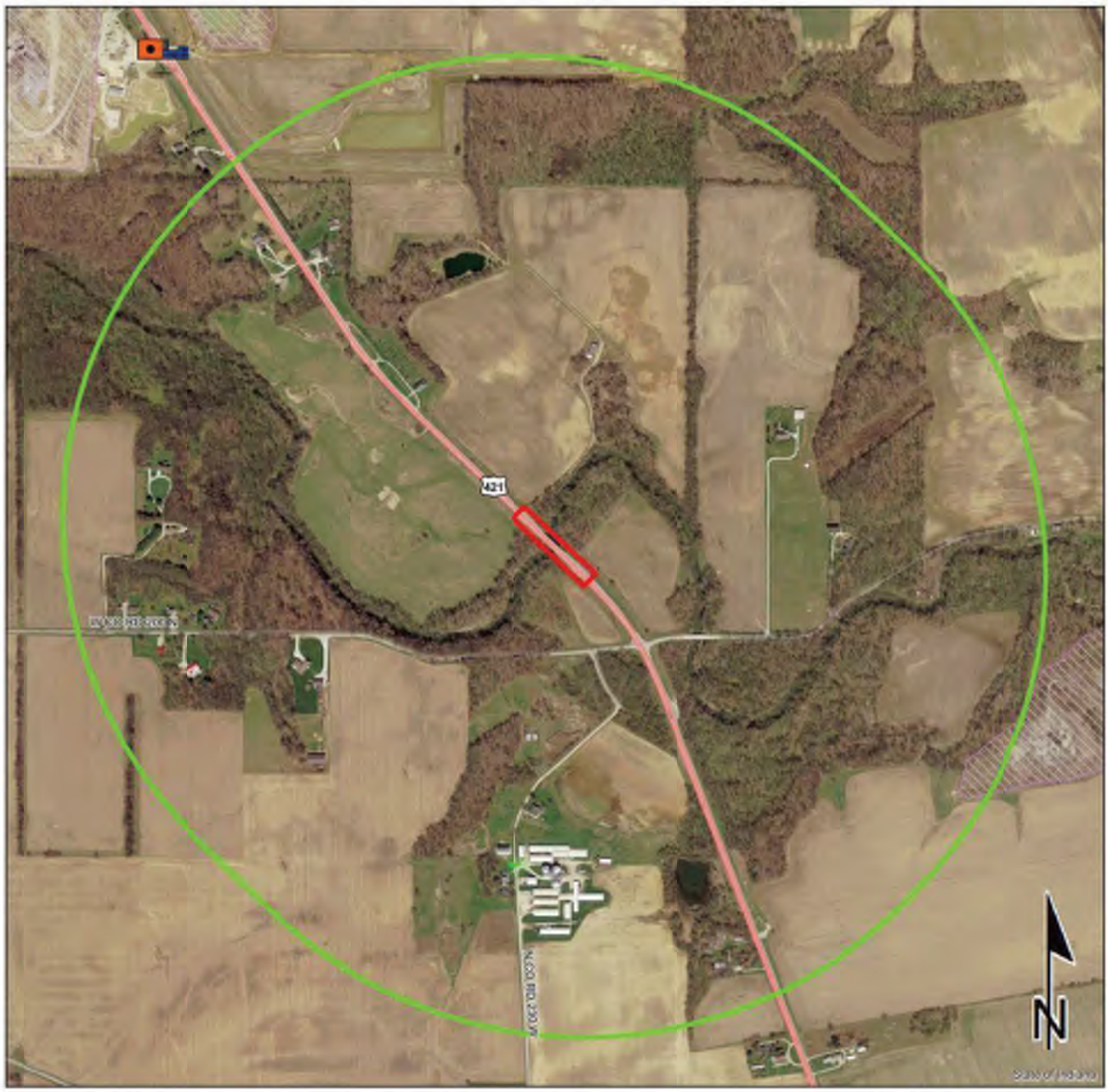
0.15 0.075 0 0.15 Miles

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

Red Flag Investigation - Hazardous Material Concerns
US 421 over South Fork Wildcat Creek, 2.24 miles S of SR 38
Des. No. 1593276, Bridge Rehabilitation
Clinton County, Indiana



- Brownfield
- RCRA Corrective Action Sites
- Confined Feeding Operation
- Notice_Of_Contamination
- 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
- Toll
- Interstate
- State Route
- US Route
- Local Road

0.15 0.075 0 0.15 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: Clinton

Species Name	Common Name	FED	STATE	GRANK	SRANK
Mollusk: Bivalvia (Mussels)					
Lampsilis fasciola	Wavyrayed Lampmussel		SSC	G5	S3
Pleurobema clava	Clubshell	LE	SE	G1G2	S1
Ptychobranchus fasciolaris	Kidneyshell		SSC	G4G5	S2
Simpsonaias ambigua	Salamander Mussel	C	SSC	G3	S2
Toxolasma lividus	Purple Lilliput	C	SSC	G3Q	S2
Bird					
Cistothorus platensis	Sedge Wren		SE	G5	S3B
Haliaeetus leucocephalus	Bald Eagle		SSC	G5	S2
Lanius ludovicianus	Loggerhead Shrike		SE	G4	S3B
Nycticorax nycticorax	Black-crowned Night-heron		SE	G5	S1B
Mammal					
Myotis sodalis	Indiana Bat	LE	SE	G2	S1
Taxidea taxus	American Badger		SSC	G5	S2
High Quality Natural Community					
Forest - flatwoods central till plain	Central Till Plain Flatwoods		SG	G3	S2
Prairie - mesic	Mesic Prairie		SG	G2	S2

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. Determination

U.S. 421 over South Fork Wildcat Creek
Bridge Rehabilitation Project
Des. No.: 1593276
Clinton County, Indiana
Asset ID #: (421)39-12-01792B

Prepared for:
Indiana Department of Transportation (INDOT)
Crawfordsville District
41 W. 300 N.
Crawfordsville, IN 47933

Prepared by:
GAI Consultants, Inc.
Indianapolis Office
201 N. Illinois Street, Suite 1700
Indianapolis, Indiana 46204

Author:

Paul D. Killian
Project Environmental Specialist

Report Completed:
November 08, 2018

INDOT EWPO Approval Date:

1.0 Introduction

The Indiana Department of Transportation (INDOT) is proposing a bridge rehabilitation project for the structure carrying U.S. 421 over South Fork Wildcat Creek (Bridge Number (421)39-12-01792B), located in Clinton County, Indiana (Figure 1). The project is located 2.24 miles south of SR 38 in **Section 29 of Township 22 North, Range 1 West, Union Township**, as shown on the Frankfort, Indiana USGS 7.5 Minute Topographic Map. The proposed project is a bridge rehabilitation project that will include scour protection. The project limits will extend approximately 570 ft. along U.S. 421.

GAI Consultants, Inc. (GAI), on behalf of INDOT, conducted wetland delineations and waterbody investigations of the project study area on April 12, 2018. GAI identified approximate boundaries of waterbodies and wetlands located within the project study area. This study area was determined in the field by GAI based upon likely work areas and impacts to regulated Waters of the U.S. as a result of construction activities. This report describes the methods and results of the environmental field survey.

2.0 Methods

Wetland delineations were conducted in accordance with the 1987 United States Army Corps of Engineers (USACE) *Corps of Engineers Wetlands Delineation Manual* (Environmental Laboratory, 1987) and the *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Midwest Region (Version 2.0)* (USACE, 2010). Wetlands were classified using the *Classification of Wetlands and Deepwater Habitats of the United States* (Cowardin et al., 1979). Classification of the indicator status of vegetation is based on *The National Wetland Plant List:* 2016 wetland ratings (Lichvar et al. 2016).

Each wetland and waterbody feature was given a unique map designation and each boundary flag location was recorded using a SX Blue II^{+} GNSS model global positioning system mapping grade unit with the capability of sub-meter accuracy. Judgmental upland and wetland soil test pits were taken within the study corridor at the discretion of the delineator to confirm the presence or absence of wetlands in areas with exhibiting wetland indicators. Wetland boundaries and other waterbody centerlines and/or perimeters were mapped including ordinary high water mark (OHWM) and top-of-bank (TOB). Waterbody data collected included general morphological characteristics, flow regime, substrate, jurisdictional connection, and significant nexus determination.

All likely jurisdictional streams, waterbodies, and wetlands were evaluated for quality using the 2018 *INDOT Waters of the United States Documentation* three tier classification system (i.e., poor, average, or excellent). Determinations of quality for streams were based on the substrate, riffle and pools, overhead cover, presence of aquatic organisms or potential habitat value, opacity, sinuosity, and riparian width. In instances where mitigation is likely to be required, federal or state aquatic endangered or threatened species are present, or the stream has a designation as a state wild or scenic river, a Headwaters Habitat Evaluation Index (HHEI) or Qualitative Habitat Evaluation Index (QHEI) is used. Wetland quality was derived from metrics in the Indiana Wetland Rapid Assessment Protocol (In-WRAP

2005) and the wetland quality descriptions on the basis of disturbance, native plant diversity and cover, and content of exotic or invasive species.

3.0 Background Information

Prior to the fieldwork, background information and existing mapping was reviewed to establish the probability and potential location of wetlands on the site. Available information from government agency documents and private sources were collected and reviewed in order to characterize the project area, as well as identify potential wetlands and other regulated features located within the project study area.

The growing season in the project area is generally between April and October in Clinton County, Indiana [United States Department of Agriculture, Natural Resource Conservation Service (USDA-NRCS)] (USDA-NRCS, 2016). Field observations were supplemented with an intensive review of United States Fish and Wildlife Service (USFWS) National Wetlands Inventory (NWI) mapping, USDA soils mapping, historical aerial photography (ArcGIS and Google Earth), and local landscape topography/morphology.

The project study area topography is mostly flat, with elevations ranging from 780 to 795 ft. Drainage patterns were identified via topographic elevation contours to drain towards South Fork Wildcat Creek. The project study area is within the Tipton Till Plain physiographic region of the Central Till Plain Region (Gray, 2000). Land use in the vicinity of the project is primarily rural agricultural fields with a forested riparian zone surrounding South Fork Wildcat Creek.

3.1 National Wetland Inventory

The USFWS' NWI Wetlands Mapper was reviewed for potential wetland locations. The NWI data of the area (Figure 4) identified three NWI wetlands intersecting the project area along South Fork Wildcat Creek. One riverine wetland (R2UBH) follows along South Fork Wildcat Creek through the project area. Two palustrine forested wetlands (PFO1A) follow along the 790 ft. contour line north and south of the bridge.

3.2 Watersheds

The project study area is found within the South Fork Wildcat Creek, 12-digit Hydrologic Unit Code (HUC12) 051201070308.

3.3 NRCS Soil Survey

The NRCS Soil Survey of Clinton County identified two soil series within the project study area (Figure 5, Table 1). One soil was identified as hydric.

Table 1. NRCS Soil Survey Area of Interest Results

Map Unit Name (Map Symbol)	Drainage Properties	Hydrology	Hydric Status
Ceresco loam (Ce)	Somewhat Poorly Drained	Occasional Flooding, No Ponding	Hydric (1-32%)
Genesee silt loam, sandy substratum, 0-2% slopes (Gn)	Well Drained	Occasional Flooding, No Ponding	Not Hydric

4.0 Results

One likely jurisdictional streams and three wetlands were identified within the study area (Figure 8).

4.1 Waterbodies

Detailed descriptions of the delineated streams and other waterbodies are discussed below. Stream features and other waterbodies are described by morphological characteristics, flow regime, substrate,

jurisdictional connection and significant nexus determination. Waterbodies identified within the project study area are represented in Table 2.

South Fork Wildcat Creek (approximately 176 feet onsite)

South Fork Wildcat Creek is a perennial, USGS Blue Line Stream, and Relatively Permanent Waterbody (RPW) that should be considered a Waters of the U.S. South Fork Wildcat Creek flows north to south through the project area and has an upstream drainage area of 75.96 square miles. South Fork Wildcat Creek has a substrate comprised primarily of sand, gravel, and cobble. South Fork Wildcat Creek has a defined bed, bank, and OHWM. The OHWM is 54 ft. wide and 2.5 ft. deep. The riparian zone is forested throughout the project area. South Fork Wildcat Creek would be considered excellent quality due to the moderate sinuosity (one outside bend within the 200 ft. that encompass the project area and one defined bend to the east), low turbidity, diversity of instream habitat and substrate, and the moderate sized riparian zone with forested wetlands contributing to water quality. The QHEI Score was 73 (see attachments), which would be on the upper end of the "Good" rating. South Fork Wildcat Creek discharges to Wildcat Creek (RPW), which discharges to the Wabash River (RPW and TNW). Due to the connection with a TNW, South Fork Wildcat Creek would be considered a Waters of the U.S.

South Fork Wildcat Creek is listed on the Indiana Register Information Bulletin #4 (16 IR 1677) as an Outstanding River for Special Protection under the following categories: State designated Scenic River (4), Outstanding Rivers (7), State Heritage Program Sites (11), Canoe Trails (13), Other Rivers (i.e., outstanding ecological, recreational, or scenic importance; 17), Outstanding Resources Waters (18), and High Quality Waters (HQW). South Fork Wildcat Creek is not a Salmonid Waters or a USACE Section 10 Waters listed as navigable.

4.2 Wetlands

Three wetland features were observed within the project boundary that appeared to meet all three USACE wetland criteria. A detailed description of the delineated features are discussed below. Completed wetland and upland determination forms from the site investigation are located in the Attachments and represent data points taken to characterize the boundary interfaces of the wetland feature. The wetland acreage includes the entire boundary as delineated in the project study area (Figure 8). Wetlands identified within the project study area are represented in Table 3.

Upland Data Point (DP-7):

DP-7 was collected as an upland proof of absence data point in the southwest quadrant of the project area due to the presence of an NWI wetland polygon mapped over the area. Vegetation was dominated by pin oak (*Quercus palustris*, FACW), American sycamore (*Celtis occidentalis*, FAC), green ash (*Fraxinus pennsylvanica*, FACW), red maple (*Acer rubrum*, FAC), tall goldenrod (*Solidago altissima*, FACU), teasel (*Dipsacus fullonum*, FACU), and Virginia wild rye (*Elymus virginicus*, FACW). DP-7 passed the dominance test, indicating the presence of hydrophytic vegetation. The soil profile was a sandy loam with a color of 10YR 4/2 (100%) from 0 to 20 inches. No redoximorphic features or other hydric soil indicators were present in the soil profile, therefore, DP-7 failed to meet the hydric soils criterion. DP-7 met the hydrology criterion with the secondary indicators of geomorphic position (D2) and FAC-neutral test (D5). By meeting only two of the three USACE criteria for wetlands, DP-7 was deemed to be upland.

Wetland A (0.085 acre within study area, PFO)

Wetland A is a likely jurisdictional, forested wetland that is located on the northeast bank of South Fork Wildcat Creek at the foot-slope of U.S. 421. Wetland A is an open-ended (extends offsite) wetland that is hydrologically connected to South Fork Wildcat Creek. Wetland A would be classified as excellent quality due to the forested classification and the function this wetland serves in adding to water quality, including as a buffer to surrounding agricultural fields. Wetland A also supports a diversity of wetland

species that have relatively high coefficients of conservatism values, while at the same time having a low prevalence of non-native invasive species. The hydrologic connection and significant nexus with South Fork Wildcat Creek would qualify Wetland A as a Waters of the U.S.

Upland Data Point (DP-1):

DP-1 was collected as an upland data point in the northeast quadrant of the project area. Vegetation was dominated by hackberry (*Celtis occidentalis*, FAC), red maple (*Acer rubrum*, FAC), and tall fescue (*Festuca arundinacea*, FACU). DP-1 passed the dominance test, therefore, indicating the presence of hydrophytic vegetation. All of the herbaceous vegetation was classified as FACU and the prevalence index indicated that the vegetative community was not comprised of species suited to saturation in the vicinity of DP-1. The soil profile was a sandy loam with a color of 10YR 4/3 (100%) from 0 to 20 inches. No redoximorphic features or other hydric soil indicators were present in the soil profile, therefore, DP-1 failed to meet the hydric soils criterion. DP-1 also failed to meet they hydrology criterion with no indicators of hydrology met. By meeting only one of the three USACE criteria for wetlands, DP-1 was deemed to be upland.

Wetland Data Point (DP-2):

Dominant vegetation included red maple (*Acer rubrum*, FAC), shellbark hickory (*Carya laciniosa*, FACW), American sycamore (*Celtis occidentalis*, FAC), tall goldenrod (*Solidago altissima*, FACU), false mermaid (*Floerkea proserpinacoides*, FACW), and river-bank grape (*Vitis riparia*, FACW). DP-2 passed the dominance test, therefore, meeting the hydrophytic vegetation criterion. The soil was a sandy loam from the surface to 20 inches, with a soil color of 10 YR 3/2 (93%), with 7.5 Y/R 5/6 (7%) distinct redox concentrations in the matrix and pore linings, thus meeting the redox dark surface (F6) hydric soil indicator. Hydrology indicators included: sediment deposits (B2), drift deposits (B3), oxidized rhizosphere (C3), geomorphic position (D2), and passed the FAC-neutral test (D5), thus meeting the wetland hydrology criterion. DP-2 met all three USACE wetland criteria and was therefore considered to be wetland.

Wetland B (0.069 acre onsite, PFO and PSS)

Wetland B is a forested wetland that has a backwater palustrine scrub/shrub finger that extends up a roadside drainage ditch on the northwest side of the project area. The quality of Wetland B would be classified as average due to the forested stature of the wetland and the function that it serves in aiding in water quality, as well as the prevalence of introduced species. Wetland B would be considered a Waters of the U.S. due to its connection and significant nexus with South Fork Wildcat Creek.

Upland Data Point (DP-3):

Vegetation at DP-3 was dominated by tall fescue (*Festuca arundinacea*, FACU) and Kentucky bluegrass (*Poa pratensis*, FAC). DP-3 passed the dominance test with 50% of the dominant species being FAC or wetter and, therefore, passed the hydrophytic vegetation criterion. The soil profile from the surface to 20 inches was a sandy loam comprised of fill material with a color of 10YR 4/3 (100%). No redoximorphic features were present within the soil profile, therefore without any hydric soils indicators, DP-3 failed to meet the hydric soils criterion. DP-3 did not have any indicators of hydrology. By meeting only one of the three wetland criteria, DP-3 was considered an upland point.

Wetland Data Point (DP-4):

Dominant vegetation at DP-4 included: red maple (*Acer rubrum*, FAC), American sycamore (*Celtis occidentalis*, FAC), tall fescue (*Festuca arundinacea*, FACU), and switchgrass (*Panicum virgatum*, FAC). DP-4 passed the hydrophytic vegetation criterion with the dominance test. The soil was a sandy loam with a color profile of 10YR 4/2 (100%) from the surface to four inches. From four inches to 20 inches, the soil had a color of 10YR 3/2 (90%) with 7.5 YR 5/6 (10%) redox concentrations in the matrix and

pore linings, thus meeting the redox dark surface indicator (F6). DP-4 passed the hydrology criterion with drift deposits (B3), oxidized rhizosphere (C3), drainage patterns (B10), and geomorphic position (D2). By meeting all three wetland criteria, DP-4 was considered a wetland point.

Wetland C (0.021 acre onsite, PFO)

Wetland C is an open ended forested wetland on the southeast bank of South Fork Wildcat Creek. The quality of Wetland C would be classified as average due to the forested stature of the wetland and the function that it serves in aiding in water quality, as well as the low to medium coefficients of conservatism of the vegetative community. Wetland B would be considered a Waters of the U.S. due to its connection and significant nexus with South Fork Wildcat Creek.

Upland Data Point (DP-5):

Vegetation at DP-5 was dominated by red maple (*Acer rubrum*, FAC) and tall fescue (*Festuca arundinacea*, FACU). DP-5 failed to meet the hydrophytic vegetation criterion, with the caveat that vegetation was disturbed surrounding DP-5 for a utility survey. The soil profile from the surface to 12 inches was a sandy loam with a color of 10YR 4/3 (100%). From 12 to 20 inches the soil had a color of 10YR 3/2 (97%) with 7.5YR 5/6 (3%) redox concentrations in the matrix. Though redoximorphic features were present within the soil profile, no hydric soils indicators were met. Therefore, DP-5 failed to meet the hydric soils criterion. DP-5 met the geomorphic position (D2) secondary indicator of hydrology. Without another indicator of hydrology, DP-5 failed to meet the hydrology criterion. None of the three wetland criteria were met, therefore, DP-4 was considered an upland point.

Wetland Data Point (DP-6):

Dominant vegetation at DP-6 included: silver maple (*Acer saccharinum*, FACW), red maple (*Acer rubrum*, FAC), American sycamore (*Celtis occidentalis*, FAC), spotted touch-me-not (*Impatiens capensis*, FACW), and tall fescue (*Festuca arundinacea*, FACU). DP-4 passed the hydrophytic vegetation criterion with the dominance test. The soil was a sandy loam with a color profile of 10YR 3/2 (95%) with 7.5 YR 5/6 (5%) redox concentrations in the matrix from the surface to 20 inches. DP-6 met the hydric soils criterion with the indicator of redox dark surface (F6). DP-6 passed the hydrology criterion with the indicators: sediment deposits (B2), drift deposits (B3), geomorphic position (D2), and FAC-neutral test (D5). By meeting all three wetland criteria, DP-6 was considered a wetland point.

4.3 Roadside Ditches and Other Drainages

All roadside ditches and other surface drainages within the study area were also evaluated for consideration as jurisdictional Waters of the U.S. with respect to the Clean Water Act Rule [40 CFR 230.3(3)(iii)]. Jurisdictional ditches must meet the definition of tributary, have an OHWM, and flow directly or indirectly through another water to a TNW. Likely jurisdictional ditches include: ditches with perennial flow; ditches with intermittent flow that drain wetlands; or ditches, regardless of flow, that are excavated in or relocate a tributary. Jurisdictional wetlands may be present within, or connected to another jurisdictional Waters of the U.S. in regard to significant nexus analysis through, non-jurisdictional ditches or surface drainages.

Roadside ditches and swales were observed in the northwest and southwest quadrants of the study area, however, none of the roadside ditches or other drainages would be considered jurisdictional or likely jurisdictional within the study area. These features were excavated in upland soils to convey upland drainage and had no defined bed and bank or flow regime to constitute a Waters of the U.S .designation.

5.0 Conclusions

Wetland delineations and stream investigations for the U.S. 421 over South Fork Wildcat Creek bridge rehabilitation project were conducted on April 12, 2018. One likely jurisdictional stream was identified

within the study area and three likely jurisdictional palustrine forested wetlands were delineated, totaling 0.175 acre on-site.

These waterways are likely Waters of the U.S. Every effort should be taken to avoid and minimize impacts to the waterway and wetlands. If impacts are necessary, then mitigation may be required. The INDOT Environmental Services Division should be contacted immediately if impacts will occur. The final determination of jurisdictional waters is ultimately made by the U.S. Army Corps of Engineers. This report is our best judgment based on the guidelines set forth by the Corps.

6.0 Acknowledgement

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 Wetland Delineation Manual*, the appropriate regional supplement, the USACE *Jurisdictional Determination Form Instructional Guidebook*, and other appropriate agency guidelines.

10/23/2018

Paul D. Killian, GAI Consultants, Inc.
Project Environmental Specialist

7.0 References

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Table 2

Waterbodies Identified within the Project Study Area

Feature Name	Photo No.	Latitude, Longitude	Type	OHWM Width (ft)	OHWM Depth (ft)	Length Within Study Area (ft)	USGS Blue-Line Stream	Riffles and Pools	Substrate	Quality	Waters of the U.S.
South Fork Wildcat Creek	3, 10, 11, 12, 13, 16,	40.316552°, -86.546788°	Per.	54.0	2.5	176	Yes	Yes	Sand, Gravel, Cobble	Excellent	Yes

Table 3

Wetlands Identified Within the Project Study Area

Feature Designation	Photo Number	Latitude	Longitude	Wetland Size (acres)*	Cowardin Classification	NWI Wetland Classification	Quality	Waters of the U.S.
Wetland A	17 to 21	40.316992°	-86.547013°	0.085+	PFO	PFO1A	Excellent	Yes
Wetland B	12 to 15	40.316794°	-86.547383°	0.069	PFO	PFO1A	Average	Yes
Wetland C	6, 7, 8, 9	40.316469°	-86.546418°	0.021	PFO	PFO1A	Average	Yes

* "+" Indicates that wetland extends off-site

Table 4

Data Point Summary Table

Data Point	Photo Number	Latitude	Longitude	Associated Wetland	Hydrophytic Vegetation	Hydric Soils	Hydrology	Wetland
DP-1	17, 20	40.317082°	-86.547136°	A	Yes	No	No	No
DP-2	17, 18, 21	40.316992°	-86.547013°	A	Yes	Yes	Yes	Yes
DP-3	14	40.316953°	-86.547494°	B	Yes	No	No	No
DP-4	14, 15	40.316794°	-86.547383°	B	Yes	Yes	Yes	Yes
DP-5	6	40.316371°	-86.546306°	C	No	No	No	No
DP-6	8, 9	40.316469°	-86.546418°	C	Yes	Yes	Yes	Yes
DP-7	3, 4	40.316316°	-86.546676°	N/A	Yes	No	Yes	No

Project Figures

Duplicate figures have been removed and included in Appendix B.

NWI Wetlands Map

US 421 over South Fork Wildcat Creek
Bridge Rehabilitation Project
Clinton County, Indiana
Des 1593276

Legend

- Study Area
- NWI Wetland
- Interstate
- US Roads
- State Roads
- Local Roads
- Railroad

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0 125 250 500 Feet

N

Service Layer Credits: INDOT
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Distribution Airbus DS

NRCS Soils Map

US 421 over South Fork Wildcat Creek
Bridge Rehabilitation Project
Clinton County, Indiana
Des 1593276

Legend

- Study Area
- Hydric
- Ceresco loam (Ce)
- Genesee silt loam (Gn)
- Interstate
- US Roads
- State Roads
- Local Roads
- Railroad

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0 125 250 500 Feet

N

Service Layer Credits: INDOT

FEMA Floodzone Map

US 421 over South Fork Wildcat Creek
Bridge Rehabilitation Project
Clinton County, Indiana
Des 1593276

Legend

- Study Area
- **Flood Hazard**
  - A
  - AE
  - X
- Interstate
- US Roads
- State Roads
- Local Roads
- Railroad

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0 125 250 500 Feet

N

Service Layer Credits: INDOT

LiDAR Map

US 421 over South Fork Wildcat Creek
Bridge Rehabilitation Project
Clinton County, Indiana
Des 1593276

Legend

Study Area

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0 125 250 500 Feet

N

Service Layer Credits: INDOT
IGIC, IOT, UITS, IGS, Woolpert

Wetland Delineation Map

US 421 over South Fork Wildcat Creek
Bridge Rehabilitation Project
Clinton County, Indiana
Des 1593276

Legend

- Study Area
- Upland Data Point
- Wetland Data Point
- Delineated Stream
- Surface Drainage
- Delineated Wetland
- Interstate
- US Roads
- State Roads
- Local Roads

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0 30 60 120 Feet

N

Service Layer Credits: INDOT
Indiana Office of Information Technology, Indiana University Spatial Data Portal, UITS, Woolpert Inc.,

Photographs

Photographs have been removed and included in Appendix B.

Wetland Determination Data Form

Project/Site: US 421 over South Fork Wildcat Creek | City/County: Clinton County | Sampling Date: 4/12/18

Applicant/Owner: INDOT | State: Indiana | Sampling Point: DP-2

Investigator: Paul Killian and David Bourff | Section, Township, Range: Section 29, T-21-N, R-W

Landform (hillslope, terrace, etc.) Footslope | Local relief (concave, convex, none): Flat

Slope (%) 0% | Lat: 40.316992° | Long: -86.547013° | Datum: NAD83

Soil Map Unit Name: Genesee silt loam (Gn) | NWI classification: PFO1A

Are climatic/hydrologic conditions on the site typical for this time of year? Yes Y No (IF no, explain in remarks.)

Are Vegetation, No soils, No or hydrology No significantly disturbed? Are "Normal Circumstances" Present? Y

Are Vegetation, No soils, No or hydrology No naturally problematic? (if needed, explain any answers in Remarks.)

Summary of Findings - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation present?	Yes	X	No	
Hydric Soil Present?	Yes	X	No	
Wetland Hydrology Present?	Yes	X	No	

Is the Sampled Area within a Wetland? **Yes X** **No**

Remarks: This data point did meet all three criteria established for wetlands according to the *1987 US Army Corps of Engineers Wetland Delineation Manual* and the *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Midwest Region (Version 2.0)*.

VEGETATION - Use scientific names of plants

Tree Stratum Plot size: 30'	Absolute % Cover	Dominant Species?	Indicator Status
Acer rubrum	25	Y	FAC
Carya laciniosa	20	Y	FACW
Celtis occidentalis	20	Y	FAC
Acer saccharinum	15	N	FACW
Fraxinus pennsylvanica	5	N	FACW
	85	= Total cover	
Sapling/Shrub Stratum Plot size: 15'			
	0	= Total cover	
Herb Stratum Plot size: 5'			
Solidago altissima	40	Y	FACU
Floerkea proserpinacoides	20	Y	FACW
Elymus riparius	15	N	FACW
Geum canadense	10	N	FAC
Iris virginica	10	N	OBL
Conium maculatum	3	N	FACW
Viola sororia	2	N	FAC
	100	= Total cover	
Woody Vine Stratum Plot size: 30'			
Vitis riparia	5	Y	FACW
Rubus allegheniensis	3	N	FACU
	8	= Total cover	

Dominance Test Worksheet:

Number of Dominant Species that are OBL, FACW, OR FAC: **5** **(A)**

Total Number of Dominant Species Across All Strata: **6** **(B)**

Percent of Dominant Species that are OBL, FACW, OR FAC: **83%** **(A/B)**

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL sepcies	10	x 1 =	10
FACW species	43	x 2 =	86
FAC species	97	x 3 =	291
FACU species	43	x 4 =	172
UPL species	0	x 5 =	0
Totals	193	(A)	559 (B)

Prevalence Index = B/A = 2.896373057

Hydrophytic Vegetation Indicators:

- Rapid Test
- X Dominance Test is >50%
- X Prevalence Index ≤ 3.0*
- Morphological Adaptations* (Provide supporting data in Remarks or on separate sheet)
- Problematic Hydrophytic Vegetation* (explain)

*Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes X** **No**

Remarks: Lichvar, R.W., et al. 2016. The National Wetland Plant List: 2016 wetland ratings. Phytoneuron 2016-30: 1-17.

SOIL Sampling Point: DP-2

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.

	Matrix Color		Redox Features					
Depth (in)	Color (moist)	%	Color (moist)	%	Type	Location	Texture	Remarks
0-20	10YR 3/2	93	7.5YR 5/6	7	C	M, PL		Sandy loam

Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked sand grains Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

	Histosol (A1)		Sandy Gleyed Matrix (S4)		Coast Prairie Redox (A16)
	Histic Epipedon (A2)		Sandy Redox (S5)		Dark Surface (S7)
	Black Histic (A3)		Stripped matrix (S6)		Iron-Mn Masses (F12)
	Hydrogen Sulfide (A4)		Loamy Mucky Mineral (F1)		Very Shallow Dark Surface (TF12)
	Stratified Layers (A5)		Loamy Gleyed Matrix (F2)		Other (Explain in Remarks)
	2 cm Muck (A10)		Depleted Matrix (F3)		
	Depleted Below Dark surface (A11)	X	Redox Dark surface (F6)		
	Thick Dark Surface (A12)		Depleted Dark Surface (F7)		
	Sandy Mucky Mineral (S1)		Redox Depressions (F8)		
	5 cm Mucky Peat or Peat (S3)				

Indicators for Problematic Hydric Soils*:

*Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic

Restrictive Layer (if observed):

Type: _____

Depth (in): _____

Hydric Soil Present? **Yes** X **No** _____

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (Minimum of one is required; check all that apply)

	Surface Water (A1)		Water Stained leaves (B9)		Surface Soil Cracks (B6)
	High Water Table (A2)		Aquatic Fauna (B13)		Drainage Patterns (B10)
	Saturation (A3)		True Aquatic Plants (B14)		Dry Season Water Table (C2)
	Water Marks (B1)		Hydrogen Sulfide Odor (C1)		Crayfish Burrows (C8)
X	Sediment Deposits (B2)	X	Oxidized Rhizospheres on Living Roots (C3)		Saturation Visible on Imagery (C9)
X	Drift Deposits (B3)		Presence of Reduced Iron (C4)		Stunted or Stressed Plants (D1)
	Algal Mat or Crust (B4)		Recent Iron Reduction in Tilled Soils (C6)	X	Geomorphic Position (D2)
	Iron Deposits (B5)		Thin Muck Surface (C7)	X	FAC-Neutral Test (D5)
	Inundation Visible on Imagery (B7)		Gauge or Well Data (D9)		
	Sparsely Veg. Concave Surface (B8)		Other (Explain in Remarks)		

Secondary Indicators (minimum of two required)

Field Observations:

Surface water Present?	Yes:	No: X	Depth:		
Water Table Present?	Yes:	No: X	Depth:	**Wetland Hydrology Present?**	
Saturation Present?	Yes:	No: X	Depth:	**Yes** X	**No**
(Includes Capillary fringe)					

Describe Recorded Data (Stream gauge, monitoring well, aerial photos, previous inspections), if available

Remarks:

Project/Site: US 421 over South Fork Wildcat Creek | City/County: Clinton County | Sampling Date: 4/12/18

Applicant/Owner: INDOT | State: Indiana | Sampling Point: DP-4

Investigator: Paul Killian and David Bourff | Section, Township, Range: Section 29, T-21-N, R-W

Landform (hillslope, terrace, etc.) Footslope | Local relief (concave, convex, none): Flat

Slope (%) 0% | Lat: 40.316794° | Long: -86.547383° | Datum: NAD83

Soil Map Unit Name: Genesee silt loam (Gn) | NWI classification: PFO1A

Are climatic/hydrologic conditions on the site typical for this time of year? Yes Y No (IF no, explain in remarks.)

Are Vegetation, No soils, No or hydrology No significantly disturbed? Are "Normal Circumstances" Present? Y

Are Vegetation, No soils, No or hydrology No naturally problematic? (if needed, explain any answers in Remarks.)

Summary of Findings - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation present?	Yes	X	No	
Hydric Soil Present?	Yes	X	No	
Wetland Hydrology Present?	Yes	X	No	

Is the Sampled Area within a Wetland? **Yes X** **No**

Remarks: This data point did meet all three criteria established for wetlands according to the *1987 US Army Corps of Engineers Wetland Delineation Manual* and the *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Midwest Region (Version 2.0)*.

VEGETATION - Use scientific names of plants

Tree Stratum Plot size: 30'	Absolute % Cover	Dominant Species?	Indicator Status
Acer rubrum	5	Y	FAC
	5	= Total cover	

Sapling/Shrub Stratum Plot size: 15'			
Platanus occidentalis	20	Y	FACW
Acer rubrum	10	Y	FAC
	30	= Total cover	

Herb Stratum Plot size: 5'			
Festuca arundinacea	35	Y	FACU
Panicum virgatum	25	Y	FAC
Lactuca serriola	15	N	FACW
Cyperus esculentus	10	N	FACW
Conium maculatum	7	N	FACW
Packera glabella	5	N	FACW
Alliaria petiolata	3	N	FAC
	100	= Total cover	

Woody Vine Stratum Plot size: 30'			
	0	= Total cover	

Dominance Test Worksheet:

Number of Dominant Species that are OBL, FACW, OR FAC: **4** **(A)**

Total Number of Dominant Species Across All Strata: **5** **(B)**

Percent of Dominant Species that are OBL, FACW, OR FAC: **80%** **(A/B)**

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL sepcies	0	x 1 =	0
FACW species	57	x 2 =	114
FAC species	43	x 3 =	129
FACU species	35	x 4 =	140
UPL species	0	x 5 =	0
Totals	135	(A)	383 (B)

Prevalence Index = B/A = 2.837037037

Hydrophytic Vegetation Indicators:

- Rapid Test
- X Dominance Test is >50%
- X Prevalence Index ≤ 3.0*
- Morphological Adaptations* (Provide supporting data in Remarks or on separate sheet)
- Problematic Hydrophytic Vegetation* (explain)

*Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes X** **No**

Remarks: Lichvar, R.W., et al. 2016. The National Wetland Plant List: 2016 wetland ratings. Phytoneuron 2016-30: 1-17.

SOIL Sampling Point: DP-4

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.

	Matrix Color		Redox Features					
Depth (in)	Color (moist)	%	Color (moist)	%	Type	Location	Texture	Remarks
0-4	10YR 4/2	100						Loam
4-20	10YR 3/2	90	7.5YR 5/6	10	C	M, PL		Sandy Loam

Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked sand grains Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

	Histosol (A1)		Sandy Gleyed Matrix (S4)		Coast Prairie Redox (A16)
	Histic Epipedon (A2)		Sandy Redox (S5)		Dark Surface (S7)
	Black Histic (A3)		Stripped matrix (S6)		Iron-Mn Masses (F12)
	Hydrogen Sulfide (A4)		Loamy Mucky Mineral (F1)		Very Shallow Dark Surface (TF12)
	Stratified Layers (A5)		Loamy Gleyed Matrix (F2)		Other (Explain in Remarks)
	2 cm Muck (A10)		Depleted Matrix (F3)		
	Depleted Below Dark surface (A11)	X	Redox Dark surface (F6)		
	Thick Dark Surface (A12)		Depleted Dark Surface (F7)		
	Sandy Mucky Mineral (S1)		Redox Depressions (F8)		
	5 cm Mucky Peat or Peat (S3)				

Indicators for Problematic Hydric Soils*:

*Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic

Restrictive Layer (if observed):

Type:

Depth (in):

Hydric Soil Present? **Yes** X **No**

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (Minimum of one is required; check all that apply)

	Surface Water (A1)		Water Stained leaves (B9)		Surface Soil Cracks (B6)
	High Water Table (A2)		Aquatic Fauna (B13)	X	Drainage Patterns (B10)
	Saturation (A3)		True Aquatic Plants (B14)		Dry Season Water Table (C2)
	Water Marks (B1)		Hydrogen Sulfide Odor (C1)		Crayfish Burrows (C8)
	Sediment Deposits (B2)	X	Oxidized Rhizospheres on Living Roots (C3)		Saturation Visible on Imagery (C9)
X	Drift Deposits (B3)		Presence of Reduced Iron (C4)		Stunted or Stressed Plants (D1)
	Algal Mat or Crust (B4)		Recent Iron Reduction in Tilled Soils (C6)	X	Geomorphic Position (D2)
	Iron Deposits (B5)		Thin Muck Surface (C7)		FAC-Neutral Test (D5)
	Inundation Visible on Imagery (B7)		Gauge or Well Data (D9)		
	Sparsely Veg. Concave Surface (B8)		Other (Explain in Remarks)		

Secondary Indicators (minimum of two required)

Field Observations:

Surface water Present?	Yes:	No: X	Depth:		
Water Table Present?	Yes:	No: X	Depth:	**Wetland Hydrology Present?**	
Saturation Present?	Yes:	No: X	Depth:	**Yes** X	**No**
(Includes Capillary fringe)					

Describe Recorded Data (Stream gauge, monitoring well, aerial photos, previous inspections), if available

Remarks:

Project/Site: US 421 over South Fork Wildcat Creek | City/County: Clinton County | Sampling Date: 4/12/18

Applicant/Owner: INDOT | State: Indiana | Sampling Point: DP-6

Investigator: Paul Killian and David Bourff | Section, Township, Range: Section 29, T-21-N, R-W

Landform (hillslope, terrace, etc.) Footslope | Local relief (concave, convex, none): Flat

Slope (%) 0% | Lat: 40.316469° | Long: -86.546418° | Datum: NAD83

Soil Map Unit Name: Genesee silt loam (Gn) | NWI classification: PFO1A

Are climatic/hydrologic conditions on the site typical for this time of year? Yes Y | No ____ (IF no, explain in remarks.)

Are Vegetation, No soils, No or hydrology No significantly disturbed? Are "Normal Circumstances" Present? Y

Are Vegetation, No soils, No or hydrology No naturally problematic? (if needed, explain any answers in Remarks.)

Summary of Findings - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation present?	Yes	X	No	
Hydric Soil Present?	Yes	X	No	
Wetland Hydrology Present?	Yes	X	No	

Is the Sampled Area within a Wetland? **Yes X** **No** ____

Remarks: This data point did meet all three criteria established for wetlands according to the *1987 US Army Corps of Engineers Wetland Delineation Manual* and the *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Midwest Region (Version 2.0)*.

VEGETATION - Use scientific names of plants

Tree Stratum Plot size: 30'	Absolute % Cover	Dominant Species?	Indicator Status
Acer saccharinum	10	Y	FACW
	10	= Total cover	

Sapling/Shrub Stratum Plot size: 15'			
Acer rubrum	10	Y	FAC
Platanus occidentalis	10	Y	FACW
	20	= Total cover	

Herb Stratum Plot size: 5'			
Impatiens capensis	50	Y	FACW
Festuca arundinacea	30	Y	FACU
Carex scoparia	10	N	FACW
Soldago rugosa	10	N	FAC
	100	= Total cover	

Woody Vine Stratum Plot size: 30'			
	0	= Total cover	

Dominance Test Worksheet:

Number of Dominant Species that are OBL, FACW, OR FAC: **4** **(A)**

Total Number of Dominant Species Across All Strata: **5** **(B)**

Percent of Dominant Species that are OBL, FACW, OR FAC: **80%** **(A/B)**

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL sepcies	0	x 1 =	0
FACW species	80	x 2 =	160
FAC species	20	x 3 =	60
FACU species	30	x 4 =	120
UPL species	0	x 5 =	0
Totals	130	(A)	340 (B)

Prevalence Index = B/A = 2.615384615

Hydrophytic Vegetation Indicators:

- Rapid Test
- X Dominance Test is >50%
- X Prevalence Index ≤ 3.0*
- Morphological Adaptations* (Provide supporting data in Remarks or on separate sheet)
- Problematic Hydrophytic Vegetation* (explain)

*Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes X** **No** ____

Remarks: Lichvar, R.W., et al. 2016. The National Wetland Plant List: 2016 wetland ratings. Phytoneuron 2016-30: 1-17.

SOIL Sampling Point: DP-6

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.

	Matrix Color		Redox Features					
Depth (in)	Color (moist)	%	Color (moist)	%	Type	Location	Texture	Remarks
0-20	10YR 3/2	95	7.5YR 5/6	5	C	M		Sandy loam

Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked sand grains Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

	Histosol (A1)		Sandy Gleyed Matrix (S4)		Coast Prairie Redox (A16)
	Histic Epipedon (A2)		Sandy Redox (S5)		Dark Surface (S7)
	Black Histic (A3)		Stripped matrix (S6)		Iron-Mn Masses (F12)
	Hydrogen Sulfide (A4)		Loamy Mucky Mineral (F1)		Very Shallow Dark Surface (TF12)
	Stratified Layers (A5)		Loamy Gleyed Matrix (F2)		Other (Explain in Remarks)
	2 cm Muck (A10)		Depleted Matrix (F3)		
	Depleted Below Dark surface (A11)	X	Redox Dark surface (F6)		
	Thick Dark Surface (A12)		Depleted Dark Surface (F7)		
	Sandy Mucky Mineral (S1)		Redox Depressions (F8)		
	5 cm Mucky Peat or Peat (S3)				

Indicators for Problematic Hydric Soils*:

*Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic

Restrictive Layer (if observed):

Type:

Depth (in):

Hydric Soil Present? **Yes** X **No**

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (Minimum of one is required; check all that apply)

	Surface Water (A1)		Water Stained leaves (B9)		Surface Soil Cracks (B6)
	High Water Table (A2)		Aquatic Fauna (B13)		Drainage Patterns (B10)
	Saturation (A3)		True Aquatic Plants (B14)		Dry Season Water Table (C2)
	Water Marks (B1)		Hydrogen Sulfide Odor (C1)		Crayfish Burrows (C8)
X	Sediment Deposits (B2)		Oxidized Rhizospheres on Living Roots (C3)		Saturation Visible on Imagery (C9)
X	Drift Deposits (B3)		Presence of Reduced Iron (C4)		Stunted or Stressed Plants (D1)
	Algal Mat or Crust (B4)		Recent Iron Reduction in Tilled Soils (C6)	X	Geomorphic Position (D2)
	Iron Deposits (B5)		Thin Muck Surface (C7)	X	FAC-Neutral Test (D5)
	Inundation Visible on Imagery (B7)		Gauge or Well Data (D9)		
	Sparsely Veg. Concave Surface (B8)		Other (Explain in Remarks)		

Secondary Indicators (minimum of two required)

Field Observations:

Surface water Present?	Yes:	No: X	Depth:		
Water Table Present?	Yes:	No: X	Depth:	**Wetland Hydrology Present?**	
Saturation Present?	Yes:	No: X	Depth:	**Yes** X	**No**
(Includes Capillary fringe)					

Describe Recorded Data (Stream gauge, monitoring well, aerial photos, previous inspections), if available

Remarks:

Upland Determination Data Form

Project/Site: US 421 over South Fork Wildcat Creek | City/County: Clinton County | Sampling Date: 4/12/18

Applicant/Owner: INDOT | State: Indiana | Sampling Point: DP-1

Investigator: Paul Killian and David Bourff | Section, Township, Range: Section 29, T-21-N, R-W

Landform (hillslope, terrace, etc.) Top of slope | Local relief (concave, convex, none): Flat

Slope (%) 0% | Lat: 40.317082° | Long: -86.547136° | Datum: NAD83

Soil Map Unit Name: Genesee silt loam (Gn) | NWI classification: N/A

Are climatic/hydrologic conditions on the site typical for this time of year? Yes Y No (IF no, explain in remarks.)

Are Vegetation, No soils, No or hydrology No significantly disturbed? Are "Normal Circumstances" Present? Y

Are Vegetation, No soils, No or hydrology No naturally problematic? (if needed, explain any answers in Remarks.)

Summary of Findings - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation present?	Yes	X	No	
Hydric Soil Present?	Yes		No	X
Wetland Hydrology Present?	Yes		No	X

Is the Sampled Area within a Wetland? **Yes** **No** **X**

Remarks: This data point did not meet all three criteria established for wetlands according to the *1987 US Army Corps of Engineers Wetland Delineation Manual* and the *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Midwest Region (Version 2.0).*

VEGETATION - Use scientific names of plants

Tree Stratum Plot size: 30'	Absolute % Cover	Dominant Species?	Indicator Status
Celtis occidentalis	10	Y	FAC
Acer rubrum	5	Y	FAC
	15	= Total cover	
Sapling/Shrub Stratum Plot size: 15'			
	0	= Total cover	
Herb Stratum Plot size: 5'			
Festuca arundinacea	80	Y	FACU
Digitaria ischaemum	10	N	FACU
Trifolium pratense	10	N	FACU
	100	= Total cover	
Woody Vine Stratum Plot size: 30'			
	0	= Total cover	

Dominance Test Worksheet:

Number of Dominant Species that are OBL, FACW, OR FAC: **2** **(A)**

Total Number of Dominant Species Across All Strata: **3** **(B)**

Percent of Dominant Species that are OBL, FACW, OR FAC: **67%** **(A/B)**

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL sepcies	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	15	x 3 =	45
FACU species	100	x 4 =	400
UPL species	0	x 5 =	0
Totals	115	(A)	445 (B)

Prevalence Index = B/A = 3.869565217

Hydrophytic Vegetation Indicators:

- Rapid Test
- **X** Dominance Test is >50%
- Prevalence Index ≤ 3.0*
- Morphological Adaptations* (Provide supporting data in Remarks or on separate sheet)
- Problematic Hydrophytic Vegetation* (explain)

*Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** **X** **No**

Remarks: Lichvar, R.W., et al. 2016. The National Wetland Plant List: 2016 wetland ratings. Phytoneuron 2016-30: 1-17.

SOIL Sampling Point: DP-1

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.

	Matrix Color		Redox Features					
Depth (in)	Color (moist)	%	Color (moist)	%	Type	Location	Texture	Remarks
0-20	10YR 4/3	100						Sandy loam

Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked sand grains Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils*:

- ___ Coast Prairie Redox (A16)
- ___ Dark Surface (S7)
- ___ Iron-Mn Masses (F12)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

*Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic

Restrictive Layer (if observed):

Type: ___

Depth (in): ___

Hydric Soil Present? **Yes** ___ **No** **X**

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (Minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Imagery (B7)
- ___ Sparsely Veg. Concave Surface (B8)
- ___ Water Stained leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Gauge or Well Data (D9)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Dry Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface water Present?	Yes: ___	No: **X**	Depth: ___
Water Table Present?	Yes: ___	No: **X**	Depth: ___
Saturation Present? (Includes Capillary fringe)	Yes: ___	No: **X**	Depth: ___

Wetland Hydrology Present? **Yes** ___ **No** **X**

Describe Recorded Data (Stream gauge, monitoring well, aerial photos, previous inspections), if available

Remarks:

Project/Site: US 421 over South Fork Wildcat Creek | City/County: Clinton County | Sampling Date: 4/12/18

Applicant/Owner: INDOT | State: Indiana | Sampling Point: DP-3

Investigator: Paul Killian and David Bourff | Section, Township, Range: Section 29, T-21-N, R-W

Landform (hillslope, terrace, etc.) Midslope | Local relief (concave, convex, none): None

Slope (%) 30% | Lat: 40.316953° | Long: -86.547494° | Datum: NAD83

Soil Map Unit Name: Genesee silt loam (Gn) | NWI classification: PFO1A

Are climatic/hydrologic conditions on the site typical for this time of year? Yes Y No (IF no, explain in remarks.)

Are Vegetation, No soils, No or hydrology No significantly disturbed? Are "Normal Circumstances" Present? Y

Are Vegetation, No soils, No or hydrology No naturally problematic? (if needed, explain any answers in Remarks.)

Summary of Findings - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation present?	Yes X	No	**Is the Sampled Area within a Wetland?**
Hydric Soil Present?	Yes	No X	**Yes** **No X**
Wetland Hydrology Present?	Yes	No X	

Remarks: This data point did not meet all three criteria established for wetlands according to the *1987 US Army Corps of Engineers Wetland Delineation Manual* and the *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Midwest Region (Version 2.0).*

VEGETATION - Use scientific names of plants

	Absolute % Cover	Dominant Species?	Indicator Status
Tree Stratum Plot size: 30'			
	0	= Total cover	
Sapling/Shrub Stratum Plot size: 15'			
	0	= Total cover	
Herb Stratum Plot size: 5'			
Festuca arundinacea	60	Y	FACU
Poa pratensis	30	Y	FAC
Digitaria ischaemum	5	N	FACU
Trifolium pratense	5	N	FACU
	100	= Total cover	
Woody Vine Stratum Plot size: 30'			
	0	= Total cover	

Dominance Test Worksheet:

Number of Dominant Species that are OBL, FACW, OR FAC: **1** **(A)**

Total Number of Dominant Species Across All Strata: **2** **(B)**

Percent of Dominant Species that are OBL, FACW, OR FAC: **50%** **(A/B)**

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL sepcies	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	30	x 3 =	90
FACU species	70	x 4 =	280
UPL species	0	x 5 =	0
Totals	100	(A)	370 (B)

Prevalence Index = B/A = 3.7

Hydrophytic Vegetation Indicators:

- Rapid Test
- **X** Dominance Test is >50%
- Prevalence Index ≤ 3.0*
- Morphological Adaptations* (Provide supporting data in Remarks or on separate sheet)
- Problematic Hydrophytic Vegetation* (explain)

*Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes X** **No**

Remarks: Lichvar, R.W., et al. 2016. The National Wetland Plant List: 2016 wetland ratings. Phytoneuron 2016-30: 1-17.

SOIL Sampling Point: DP-3

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.

	Matrix Color		Redox Features					
Depth (in)	Color (moist)	%	Color (moist)	%	Type	Location	Texture	Remarks
0-20	10YR 4/3	100						Sandy loam - fill material

Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked sand grains Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils*:

- ___ Coast Prairie Redox (A16)
- ___ Dark Surface (S7)
- ___ Iron-Mn Masses (F12)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

*Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic

Restrictive Layer (if observed):

Type: ___

Depth (in): ___

Hydric Soil Present? **Yes** ___ **No** **X**

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (Minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Imagery (B7)
- ___ Sparsely Veg. Concave Surface (B8)
- ___ Water Stained leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Gauge or Well Data (D9)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Dry Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface water Present?	Yes: ___	No: **X**	Depth: ___
Water Table Present?	Yes: ___	No: **X**	Depth: ___
Saturation Present? (Includes Capillary fringe)	Yes: ___	No: **X**	Depth: ___

Wetland Hydrology Present? **Yes** ___ **No** **X**

Describe Recorded Data (Stream gauge, monitoring well, aerial photos, previous inspections), if available

Remarks:

Project/Site: US 421 over South Fork Wildcat Creek | City/County: Clinton County | Sampling Date: 4/12/18

Applicant/Owner: INDOT | State: Indiana | Sampling Point: DP-5

Investigator: Paul Killian and David Bourff | Section, Township, Range: Section 29, T-21-N, R-W

Landform (hillslope, terrace, etc.) Footslope | Local relief (concave, convex, none): Flat

Slope (%) 0% | Lat: 40.316371° | Long: -86.546306° | Datum: NAD83

Soil Map Unit Name: Genesee silt loam (Gn) | NWI classification: PFO1A

Are climatic/hydrologic conditions on the site typical for this time of year? Yes Y | No ____ (IF no, explain in remarks.)

Are Vegetation, Yes soils, No or hydrology No significantly disturbed? Are "Normal Circumstances" Present? N

Are Vegetation, No soils, No or hydrology No naturally problematic? (if needed, explain any answers in Remarks.)

Summary of Findings - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation present?	Yes ____	No X	**Is the Sampled Area within a Wetland?**
Hydric Soil Present?	Yes ____	No X	**Yes** ____ **No X**
Wetland Hydrology Present?	Yes	No X	

Remarks: This data point did not meet all three criteria established for wetlands according to the *1987 US Army Corps of Engineers Wetland Delineation Manual* and the *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Midwest Region (Version 2.0). The area surrounding DP-5 was cleared and grubbed for utility survey.*

VEGETATION - Use scientific names of plants

	Absolute % Cover	Dominant Species?	Indicator Status
Tree Stratum Plot size: 30'			
	0	= Total cover	
Sapling/Shrub Stratum Plot size: 15'			
Acer rubrum	6	Y	FAC
	6	= Total cover	
Herb Stratum Plot size: 5'			
Festuca arundinacea	40	Y	FACU
Solidago altissima	10	N	FACU
	50	= Total cover	
Woody Vine Stratum Plot size: 30'			
	0	= Total cover	

Dominance Test Worksheet:

Number of Dominant Species that are OBL, FACW, OR FAC: **0** **(A)**

Total Number of Dominant Species Across All Strata: **2** **(B)**

Percent of Dominant Species that are OBL, FACW, OR FAC: **0%** **(A/B)**

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL sepcies	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	6	x 3 =	18
FACU species	50	x 4 =	200
UPL species	0	x 5 =	0
Totals	56	(A)	218 (B)

Prevalence Index = B/A = 3.892857143

Hydrophytic Vegetation Indicators:

- Rapid Test
- Dominance Test is >50%
- Prevalence Index ≤ 3.0*
- Morphological Adaptations* (Provide supporting data in Remarks or on separate sheet)
- Problematic Hydrophytic Vegetation* (explain)

*Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** ____ **No X**

Remarks: Lichvar, R.W., et al. 2016. The National Wetland Plant List: 2016 wetland ratings. Phytoneuron 2016-30: 1-17.

SOIL Sampling Point: DP-5

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.

	Matrix Color		Redox Features					
Depth (in)	Color (moist)	%	Color (moist)	%	Type	Location	Texture	Remarks
0-12	10YR 4/3	100						Sandy loam
12-20	10YR 3/2	97	7.5YR 5/6	3	C	M		

Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked sand grains Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils*:

- ___ Coast Prairie Redox (A16)
- ___ Dark Surface (S7)
- ___ Iron-Mn Masses (F12)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

*Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic

Restrictive Layer (if observed):

Type: ___

Depth (in): ___

Hydric Soil Present? **Yes** ___ **No** **X**

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (Minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Imagery (B7)
- ___ Sparsely Veg. Concave Surface (B8)
- ___ Water Stained leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Gauge or Well Data (D9)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Dry Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- **X** Geomorphic Position (D2)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface water Present?	Yes: ___	No: **X**	Depth: ___
Water Table Present?	Yes: ___	No: **X**	Depth: ___
Saturation Present? (Includes Capillary fringe)	Yes: ___	No: **X**	Depth: ___

Wetland Hydrology Present? **Yes** ___ **No** **X**

Describe Recorded Data (Stream gauge, monitoring well, aerial photos, previous inspections), if available

Remarks:

Project/Site: US 421 over South Fork Wildcat Creek | City/County: Clinton County | Sampling Date: 4/12/18

Applicant/Owner: INDOT | State: Indiana | Sampling Point: DP-7

Investigator: Paul Killian and David Bourff | Section, Township, Range: Section 29, T-21-N, R-W

Landform (hillslope, terrace, etc.) Footslope | Local relief (concave, convex, none): Flat

Slope (%) 0% | Lat: 40.316316° | Long: -86.546676° | Datum: NAD83

Soil Map Unit Name: Genesee silt loam (Gn) | NWI classification: PFO1A

Are climatic/hydrologic conditions on the site typical for this time of year? Yes Y | No ____ (IF no, explain in remarks.)

Are Vegetation, No soils, No or hydrology No significantly disturbed? Are "Normal Circumstances" Present? Y

Are Vegetation, No soils, No or hydrology No naturally problematic? (if needed, explain any answers in Remarks.)

Summary of Findings - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation present?	Yes	X	No	
Hydric Soil Present?	Yes		No	X
Wetland Hydrology Present?	Yes	X	No	

Is the Sampled Area within a Wetland? **Yes** ____ **No** **X**

Remarks: This data point did not meet all three criteria established for wetlands according to the *1987 US Army Corps of Engineers Wetland Delineation Manual* and the *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Midwest Region (Version 2.0).*

VEGETATION - Use scientific names of plants

Tree Stratum Plot size: 30'	Absolute % Cover	Dominant Species?	Indicator Status
Quercus palustris	15	Y	FACW
Platanus occidentalis	10	Y	FACW
Fraxinus pennsylvanica	10	Y	FACW
	35	= Total cover	

Sapling/Shrub Stratum Plot size: 15'			
Acer rubrum	20	Y	FAC
Platanus occidentalis	20	Y	FACW
	40	= Total cover	

Herb Stratum Plot size: 5'			
Solidago altissima	30	Y	FACW
Dipsacus fullonum	25	Y	FACU
Elymus virginicus	20	Y	FACW
Lactuca serriola	10	N	FACW
	85	= Total cover	

Woody Vine Stratum Plot size: 30'		
	0	= Total cover

Dominance Test Worksheet:

Number of Dominant Species that are OBL, FACW, OR FAC: **7** **(A)**

Total Number of Dominant Species Across All Strata: **8** **(B)**

Percent of Dominant Species that are OBL, FACW, OR FAC: **88%** **(A/B)**

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL sepcies	0	x 1 =	0
FACW species	115	x 2 =	230
FAC species	20	x 3 =	60
FACU species	25	x 4 =	100
UPL species	0	x 5 =	0
Totals	160	(A)	390 (B)

Prevalence Index = B/A = 2.4375

Hydrophytic Vegetation Indicators:

- Rapid Test
- **X** Dominance Test is >50%
- **X** Prevalence Index ≤ 3.0*
- Morphological Adaptations* (Provide supporting data in Remarks or on separate sheet)
- Problematic Hydrophytic Vegetation* (explain)

*Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** **X** **No** ____

Remarks: Lichvar, R.W., et al. 2016. The National Wetland Plant List: 2016 wetland ratings. Phytoneuron 2016-30: 1-17.

SOIL Sampling Point: DP-7

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.

	Matrix Color		Redox Features					
Depth (in)	Color (moist)	%	Color (moist)	%	Type	Location	Texture	Remarks
0-20	10YR 4/2	100						Sandy loam

Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked sand grains Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

	Histosol (A1)		Sandy Gleyed Matrix (S4)		Coast Prairie Redox (A16)
	Histic Epipedon (A2)		Sandy Redox (S5)		Dark Surface (S7)
	Black Histic (A3)		Stripped matrix (S6)		Iron-Mn Masses (F12)
	Hydrogen Sulfide (A4)		Loamy Mucky Mineral (F1)		Very Shallow Dark Surface (TF12)
	Stratified Layers (A5)		Loamy Gleyed Matrix (F2)		Other (Explain in Remarks)
	2 cm Muck (A10)		Depleted Matrix (F3)		
	Depleted Below Dark surface (A11)		Redox Dark surface (F6)		
	Thick Dark Surface (A12)		Depleted Dark Surface (F7)		
	Sandy Mucky Mineral (S1)		Redox Depressions (F8)		
	5 cm Mucky Peat or Peat (S3)				

Indicators for Problematic Hydric Soils*:

*Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic

Restrictive Layer (if observed):

Type: _____

Depth (in): _____

Hydric Soil Present? **Yes** _____ **No** **X**

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (Minimum of one is required; check all that apply)

	Surface Water (A1)		Water Stained leaves (B9)		Surface Soil Cracks (B6)
	High Water Table (A2)		Aquatic Fauna (B13)		Drainage Patterns (B10)
	Saturation (A3)		True Aquatic Plants (B14)		Dry Season Water Table (C2)
	Water Marks (B1)		Hydrogen Sulfide Odor (C1)		Crayfish Burrows (C8)
	Sediment Deposits (B2)		Oxidized Rhizospheres on Living Roots (C3)		Saturation Visible on Imagery (C9)
	Drift Deposits (B3)		Presence of Reduced Iron (C4)		Stunted or Stressed Plants (D1)
	Algal Mat or Crust (B4)		Recent Iron Reduction in Tilled Soils (C6)	X	Geomorphic Position (D2)
	Iron Deposits (B5)		Thin Muck Surface (C7)	X	FAC-Neutral Test (D5)
	Inundation Visible on Imagery (B7)		Gauge or Well Data (D9)		
	Sparsely Veg. Concave Surface (B8)		Other (Explain in Remarks)		

Secondary Indicators (minimum of two required)

Field Observations:

Surface water Present?	Yes:		No: X	Depth:	
Water Table Present?	Yes:		No: X	Depth:	
Saturation Present? (Includes Capillary fringe)	Yes:		No: X	Depth:	

Wetland Hydrology Present? **Yes** X **No** _____

Describe Recorded Data (Stream gauge, monitoring well, aerial photos, previous inspections), if available

Remarks:

QHEI Data Form

Qualitative Habitat Evaluation Index and Use Assessment Field Sheet

QHEI Score: 73

Stream & Location: South Fork Wildcat Creek, Clinton Co., IN **RM:** 33.6 **Date:** 04/12/18

US 421 over South Fork Wildcat Creek (Des 1593276) **Scorers Full Name & Affiliation:** Paul Killian, GAI Consultants, Inc.

River Code: ___-___-___ **STORET #:** ____ **Lat./ Long.:** (NAD 83 - decimal °) 40.316552° / -86.546788° **Office verified location** ☐

1] SUBSTRATE

Check **ONLY Two** substrate *TYPE BOXES*; estimate % or note every type present

BEST TYPES	POOL	RIFFLE	OTHER TYPES	POOL	RIFFLE
☐ ☐ BLDR /SLABS [10]			☐ ☐ HARDPAN [4]		
☐ ☐ BOULDER [9]			☐ ☐ DETRITUS [3]		5
☐ ☐ COBBLE [8]		5	☐ ☐ MUCK [2]		
☑ ☐ GRAVEL [7]		60	☐ ☐ SILT [2]		
☐ ☑ SAND [6]		30	☐ ☐ ARTIFICIAL [0]		
☐ ☐ BEDROCK [5]			(Score natural substrates; ignore sludge from point-sources)		

NUMBER OF BEST TYPES: ☑ 4 or more [2] ☐ 3 or less [0]

Check ONE (*Or 2 & average*)

ORIGIN
- ☑ LIMESTONE [1]
- ☑ TILLS [1]
- ☐ WETLANDS [0]
- ☐ HARDPAN [0]
- ☐ SANDSTONE [0]
- ☐ RIP/RAP [0]
- ☐ LACUSTURINE [0]
- ☐ SHALE [-1]
- ☐ COAL FINES [-2]

SILT / EMBEDDEDNESS

QUALITY
- ☐ HEAVY [-2]
- ☐ MODERATE [-1]
- ☑ NORMAL [0]
- ☐ FREE [1]
- ☐ EXTENSIVE [-2]
- ☐ MODERATE [-1]
- ☑ NORMAL [0]
- ☐ NONE [1]

Comments

Substrate 17 *Maximum 20*

2] INSTREAM COVER

Indicate presence 0 to 3: **0**-Absent; **1**-Very small amounts or if more common of marginal quality; **2**-Moderate amounts, but not of highest quality or in small amounts of highest quality; **3**-Highest quality in moderate or greater amounts (e.g., very large boulders in deep or fast water, large diameter log that is stable, well developed rootwad in deep / fast water, or deep, well-defined, functional pools.

0	UNDERCUT BANKS [1]	1	POOLS > 70cm [2]	0	OXBOWS, BACKWATERS [1]
1	OVERHANGING VEGETATION [1]	1	ROOTWADS [1]	1	AQUATIC MACROPHYTES [1]
2	SHALLOWS (IN SLOW WATER) [1]	0	BOULDERS [1]	3	LOGS OR WOODY DEBRIS [1]
1	ROOTMATS [1]				

AMOUNT Check ONE (*Or 2 & average*)
- ☐ EXTENSIVE >75% [11]
- ☑ MODERATE 25-75% [7]
- ☐ SPARSE 5-<25% [3]
- ☐ NEARLY ABSENT <5% [1]

Comments

Cover *Maximum 20* 15

3] CHANNEL MORPHOLOGY

Check ONE in each category (*Or 2 & average*)

SINUOSITY
- ☐ HIGH [4]
- ☑ MODERATE [3]
- ☐ LOW [2]
- ☐ NONE [1]

DEVELOPMENT
- ☐ EXCELLENT [7]
- ☑ GOOD [5]
- ☐ FAIR [3]
- ☐ POOR [1]

CHANNELIZATION
- ☑ NONE [6]
- ☐ RECOVERED [4]
- ☐ RECOVERING [3]
- ☐ RECENT OR NO RECOVERY [1]

STABILITY
- ☐ HIGH [3]
- ☑ MODERATE [2]
- ☐ LOW [1]

Comments

Channel *Maximum 20* 16

4] BANK EROSION AND RIPARIAN ZONE

Check **ONE** in each category for ***EACH BANK*** (*Or 2 per bank & average*)

River right looking downstream

EROSION

L	R	
☐	☐	NONE / LITTLE [3]
☑	☑	MODERATE [2]
☐	☐	HEAVY / SEVERE [1]

RIPARIAN WIDTH

L	R	
☑	☐	WIDE > 50m [4]
☐	☑	MODERATE 10-50m [3]
☐	☐	NARROW 5-10m [2]
☐	☐	VERY NARROW < 5m [1]
☐	☐	NONE [0]

FLOOD PLAIN QUALITY

L	R	
☐	☐	FOREST, SWAMP [3]
☐	☑	SHRUB OR OLD FIELD [2]
☐	☐	RESIDENTIAL, PARK, NEW FIELD [1]
☐	☐	FENCED PASTURE [1]
☑	☐	OPEN PASTURE, ROWCROP [0]

L	R	
☐	☐	CONSERVATION TILLAGE [1]
☐	☐	URBAN OR INDUSTRIAL [0]
☐	☐	MINING / CONSTRUCTION [0]

Indicate predominant land use(s) past 100m riparian.

Comments

Riparian *Maximum 10* 6

5] POOL / GLIDE AND RIFFLE / RUN QUALITY

MAXIMUM DEPTH Check **ONE** (*ONLY!*)
- ☐ > 1m [6]
- ☑ 0.7-<1m [4]
- ☐ 0.4-<0.7m [2]
- ☐ 0.2-<0.4m [1]
- ☐ < 0.2m [0]

CHANNEL WIDTH Check ONE (*Or 2 & average*)
- ☐ POOL WIDTH > RIFFLE WIDTH [2]
- ☑ POOL WIDTH = RIFFLE WIDTH [1]
- ☐ POOL WIDTH < RIFFLE WIDTH [0]

CURRENT VELOCITY Check ALL that apply
- ☐ TORRENTIAL [-1]
- ☐ VERY FAST [1]
- ☐ FAST [1]
- ☑ MODERATE [1]
- ☐ SLOW [1]
- ☐ INTERSTITIAL [-1]
- ☐ INTERMITTENT [-2]
- ☐ EDDIES [1]

Indicate for reach - pools and riffles.

Recreation Potential
Primary Contact
Secondary Contact
(circle one and comment on back)

Comments

Pool / Current *Maximum 12* 6

Indicate for functional riffles; Best areas must be large enough to support a population of riffle-obligate species: Check ONE (*Or 2 & average*). ☐ NO RIFFLE [metric=0]

RIFFLE DEPTH
- ☑ BEST AREAS > 10cm [2]
- ☐ BEST AREAS 5-10cm [1]
- ☐ BEST AREAS < 5cm [metric=0]

RUN DEPTH
- ☐ MAXIMUM > 50cm [2]
- ☑ MAXIMUM < 50cm [1]

RIFFLE / RUN SUBSTRATE
- ☐ STABLE (e.g., Cobble, Boulder) [2]
- ☐ MOD. STABLE (e.g., Large Gravel) [1]
- ☑ UNSTABLE (e.g., Fine Gravel, Sand) [0]

RIFFLE / RUN EMBEDDEDNESS
- ☐ NONE [2]
- ☐ LOW [1]
- ☑ MODERATE [0]
- ☐ EXTENSIVE [-1]

Comments

Riffle / Run *Maximum 8* 3

6] GRADIENT

(5.88 ft/mi)

DRAINAGE AREA

(75.96 mi²)

- ☐ VERY LOW - LOW [2-4]
- ☑ MODERATE [6-10] 10
- ☐ HIGH - VERY HIGH [10-6]

%POOL: 22 **%GLIDE:** 15 **%RUN:** 3 **%RIFFLE:** 60

Gradient *Maximum 10* 10

EPA 4520 06/16/06

A] SAMPLED REACH

Check ALL that apply

Comment RE: Reach consistency/ Is reach typical of steam?, *Recreation/* Observed - Inferred, *Other/* Sampling observations, Concerns, Access directions, etc.

METHOD

- ☐ BOAT
- ☐ WADE
- ☐ L. LINE
- ☐ OTHER

STAGE

1st -sample pass-	2nd
☐ HIGH	☐
☐ UP	☐
☐ NORMAL	☐
☐ LOW	☐
☐ DRY	☐

DISTANCE

- ☐ 0.5 Km
- ☐ 0.2 Km
- ☐ 0.15 Km
- ☑ 0.12 Km
- ☐ OTHER

_____ meters

CLARITY estimate

1st --sample pass--	2nd
☐ < 20 cm	☐
☐ 20-<40 cm	☐
☑ 40-70 cm	☐
☐ > 70 cm/ CTB	☐
☐ SECCHI DEPTH	☐

1st pass _____ cm

2nd _____ cm

CANOPY

- ☐ > 85%- OPEN
- ☑ 55%-<85%
- ☐ 30%-<55%
- ☐ 10%-<30%
- ☐ <10%- CLOSED

B] AESTHETICS

- ☐ NUISANCE ALGAE
- ☐ INVASIVE MACROPHYTES
- ☐ EXCESS TURBIDITY
- ☐ DISCOLORATION
- ☐ FOAM / SCUM
- ☐ OIL SHEEN
- ☐ TRASH / LITTER
- ☐ NUISANCE ODOR
- ☐ SLUDGE DEPOSITS
- ☐ CSOs/SSOs/OUTFALLS

C] RECREATION

	AREA	DEPTH
POOL:	☐ >100ft²	☐ >3ft

D] MAINTENANCE

Circle some & *COMMENT*

PUBLIC / PRIVATE / BOTH / NA
ACTIVE / HISTORIC / BOTH / NA
YOUNG-SUCCESSION-OLD
SPRAY / SNAG / REMOVED
MODIFIED / DIPPED OUT / NA
LEVEED / ONE SIDED
RELOCATED / CUTOFFS
MOVING-BEDLOAD-STABLE
ARMOURED / SLUMPS
ISLANDS / SCOURED
IMPOUNDED / DESICCATED
FLOOD CONTROL / DRAINAGE

E] ISSUES

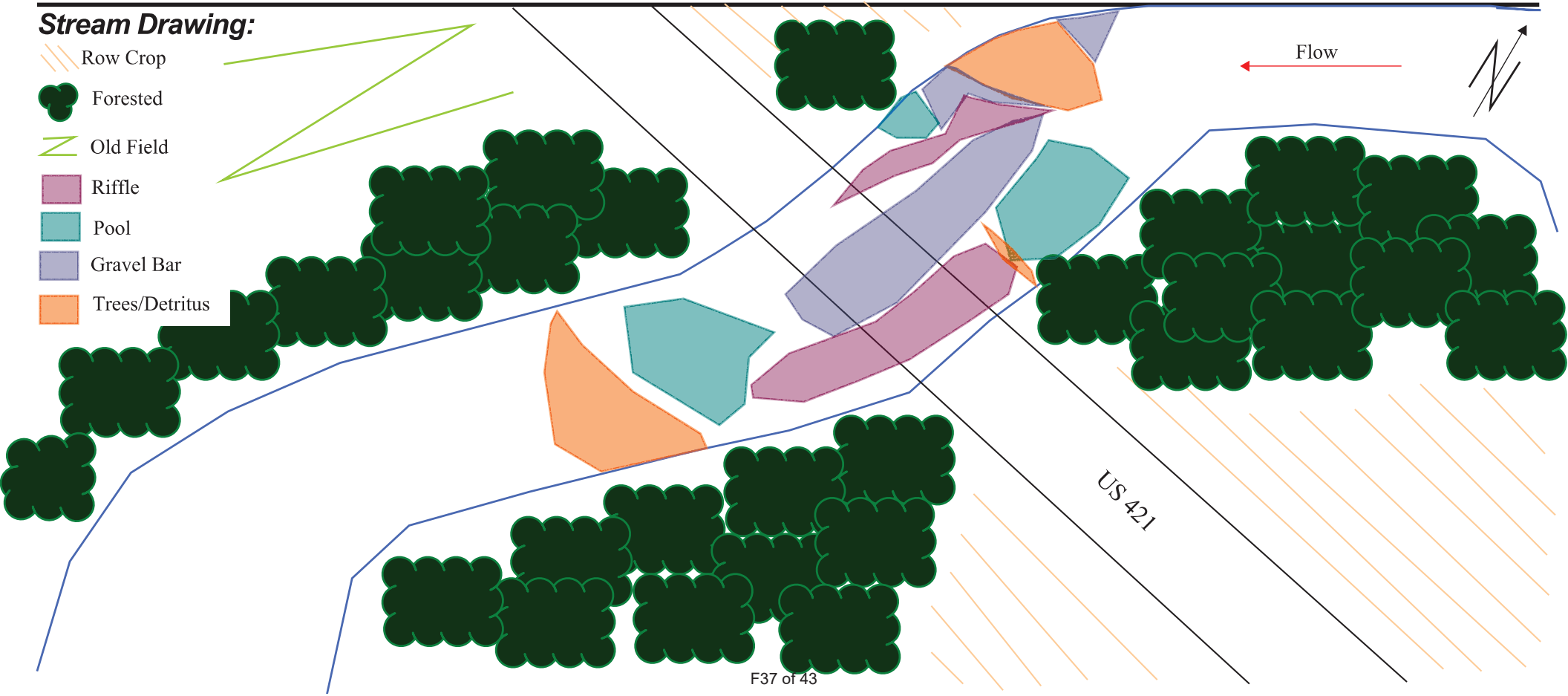
WWTP / CSO / NPDES / INDUSTRY
HARDENED / URBAN / DIRT&GRIME
CONTAMINATED / LANDFILL
BMPs-CONSTRUCTION-SEDIMENT
LOGGING / IRRIGATION / COOLING
BANK / EROSION / SURFACE
FALSE BANK / MANURE / LAGOON
WASH H_20 / TILE / H_20 TABLE
ACID / MINE / QUARRY / FLOW
NATURAL / WETLAND / STAGNANT
PARK / GOLF / LAWN / HOME
ATMOSPHERE / DATA PAUCITY

F] MEASUREMENTS

- $\bar{x}$ width
- $\bar{x}$ depth
- max. depth
- $\bar{x}$ bankfull width
- bankfull $\bar{x}$ depth
- W/D ratio
- bankfull max. depth
- floodprone x^2 width
- entrench. ratio

Legacy Tree:

Stream Drawing:



Preliminary Jurisdictional Determination Form

ATTACHMENT

PRELIMINARY JURISDICTIONAL DETERMINATION FORM

BACKGROUND INFORMATION

A. REPORT COMPLETION DATE FOR PRELIMINARY JURISDICTIONAL DETERMINATION (JD): 10/23/2018

B. NAME AND ADDRESS OF PERSON REQUESTING PRELIMINARY JD:
Paul Killian
GAI Consultants
201 N. Illinois Street, Suite 1700
Indianapolis, IN 46204

C. DISTRICT OFFICE, FILE NAME, AND NUMBER:

D. PROJECT LOCATION(S) AND BACKGROUND INFORMATION:
INDOT Des. No. 1593276. U.S. 421 over South Fork Wildcat Creek Bridge Rehabilitation Project, 2.24 miles south of SR 38. The proposed project is a bridge rehabilitation project that will include scour protection. The project limits will extend approximately 570 ft. along U.S. 421.
A total of 4 water resources were found within the investigation area: 1 stream, South Fork of Wildcat Creek and 3 palustrine wetlands.

(USE THE ATTACHED TABLE TO DOCUMENT MULTIPLE WATERBODIES AT DIFFERENT SITES)
State: Indiana County: Clinton City: Frankfort
Center coordinates of site (lat/long in degree decimal format):
Lat. 40.316546° Long. -86.546805°
Universal Transverse Mercator: NAD83
Name of nearest waterbody: South Fork Wildcat Creek
Identify (estimate) amount of waters in the review area:
Non-wetland waters: linear feet: 176 (ft) and/or acres.
Cowardin Class: R2UBH (Riverine, Lower Perennial, Unconsolidated Bottom, Permanently Flooded)
Stream Flow: Perennial
Wetlands: 0.175 acres
Cowardin Class: PFO (Palustrine Forested)
Name of any water bodies on the site that have been identified as Section 10 waters:
Tidal: None
Non-Tidal: None

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

☐ Office (Desk) Determination. Date:
☐ Field Determination. Date(s):

1. The Corps of Engineers believes that there may be jurisdictional waters of the United States on the subject site, and the permit applicant or other affected party who requested this preliminary JD is hereby advised of his or her option to request and obtain an approved jurisdictional determination (JD) for that site. Nevertheless, the permit applicant or other person who requested this preliminary JD has declined to exercise the option to obtain an approved JD in this instance and at this time.

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 approved JD for the activity, the permit applicant is hereby made aware of the following: (1) the permit applicant has elected to seek a permit authorization based on a preliminary JD, which does not make an official determination of jurisdictional waters; (2) that the applicant has the option to request an approved JD before accepting the terms and conditions of the permit authorization, and that basing a permit authorization on an approved JD could possibly result in less compensatory mitigation being required or different special conditions; (3) that 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) that 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) that undertaking any activity in reliance upon the subject permit authorization without requesting an approved JD constitutes the applicant's acceptance of the use of the preliminary JD, but that either form of JD will be processed as soon as is practicable; (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 preliminary JD constitutes agreement that all wetlands and other water bodies on the site affected in any way by that activity are jurisdictional waters of the United States, and precludes 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 approved JD or a preliminary JD, that JD will be processed as soon as is practicable. Further, an approved JD, 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, and that in any administrative appeal, jurisdictional issues can be raised (see 33 C.F.R. 331.5(a)(2)). If, during that administrative appeal, it becomes necessary to make an official determination whether CWA jurisdiction exists over a site, or to provide an official delineation of jurisdictional waters on the site, the Corps will provide an approved JD to accomplish that result, as soon as is practicable.

   This preliminary JD finds that there *"may be"* waters of the United States on the subject project site, and identifies all aquatic features on the site that could be affected by the proposed activity, based on the following information:

SUPPORTING DATA. Data reviewed for preliminary JD (check all that apply - checked items should be included in case file and, where checked and requested, appropriately reference sources below):

☒ Maps, plans, plots or plat submitted by or on behalf of the applicant/consultant: Delineation report dated July 2018.
☒ Data sheets prepared/submitted by or on behalf of the applicant/consultant.
☐ Office concurs with data sheets/delineation report.

☐ Office does not concur with data sheets/delineation report.
☐ Data sheets prepared by the Corps: .
☐ Corps navigable waters' study: .
☒ U.S. Geological Survey Hydrologic Atlas: USGS National Hydrography Dataset; U.S. Geological Survey in cooperation with U. S. Environmental Protection Agency and U.S. Forest Service; http://viewer.nationalmap.gov/viewer.
☒ USGS NHD data.
☐ USGS 8 and 12 digit HUC maps.
☒ U.S. Geological Survey map(s). Cite scale & quad name: 24K Mooresville East, IN.
☒ USDA Natural Resources Conservation Service Soil Survey. Citation: USDA NRCS Soil Survey Geographic (SSURGO) Database for Clinton County, Indiana. Available online at http://websoilsurvey.nrcs.usda.gov.
☒ National wetlands inventory map(s). Cite name: NWI accessed 2017
☐ State/Local wetland inventory map(s): .
☒ FEMA/FIRM maps: FEMA accessed 2017.
☐ 100-year Floodplain Elevation is: (National Geodectic Vertical Datum of 1929)
☒ Photographs: ☒ Aerial (Name & Date): Bing Imagery, © 2018
or ☒ Other (Name & Date): Site Photos Dated 4/12/2018.
☐ 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.

	10/23/18
Signature and date of Regulatory Project Manager (REQUIRED)	Signature and date of person requesting preliminary JD (REQUIRED, unless obtaining the signature is impracticable)

Site Number	Latitude	Longitude	Cowardin Class	Estimated Amount of Aquatic Resource in Review Area	Class of Aquatic Resource
SF Wildcat Creek	40.316552°	-86.546788°	R2UBH	176 ft.	Section Non-section 10, non-wetland
Wetland A	40.316992°	-86.547013°	PFO	0.085 acre	Non-section 10, wetland
Wetland B	40.316794°	-86.547383°	PFO	0.069 acre	Non-section 10, wetland
Wetland C	40.316469°	-86.546418°	PFO	0.021 acre	Non-section 10, wetland

From: Evans, Julie (INDOT) <JulEvans@indot.IN.gov>
Sent: Tuesday, November 20, 2018 10:23 AM
To: Paul Killian
Cc: Todd, Kristi (INDOT); Mcgill, Justus
Subject: APPROVED WATERS REPORT: 1593276
Attachments: 2018-11-20 APPROVED WATERS REPORT_1593276.pdf

Hello Paul,

Thank you for submitting the waters report for the bridge rehabilitation project (DES 1593276) at US 421 over South Fork of Wildcat Creek, Clinton County. The approved waters report is attached and can also be found on ProjectWise through this link.
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.

Thank you,

Julie Evans, MES
Environmental Manager II,
Ecology and Waterway Permitting Office
100 N. Senate Ave., N 642
Indianapolis, IN 46204-2216
Phone: 317-234-8223
Email: JulEvans@indot.IN.gov

Appendix G

Air Quality

Indiana Department of Transportation (INDOT)

State Preservation and Local Initiated Projects FY 2018 - 2021

SPONSOR	CONTRACT # / LEAD DES	STIP NAME	ROUTE	WORK TYPE	LOCATION	DISTRICT	MILES	FEDERAL CATEGORY	Estimated Cost left to Complete Project*	PROGRAM	PHASE	FEDERAL	MATCH	2018	2019	2020	2021
Clinton County	38261 / 1500231	M 02	VA VARI	Bridge Inspections	Countywide Bridge Inspection and Inventory Program for Cycle Years 2018-2021	Crawfordsville	0	STP	$435,740.00	Local Funds	PE	$0.00	$8,460.00	$7,860.00	$600.00		
										Local Bridge Program	PE	$34,440.00	$0.00	$31,440.00	$3,000.00		
Comments:No MPO - Add $31,440 federal funds and $7,860 local funds to FY 2018.																	
Clinton County	38261 / 1500231	M 06	VA VARI	Bridge Inspections	Countywide Bridge Inspection and Inventory Program for Cycle Years 2018-2021	Crawfordsville	0	STP	$310,008.00	Local Bridge Program	PE	-$78,611.55	$0.00	($34,959.20)	($2,238.40)	($41,895.20)	$481.25
										Local Funds	PE	$0.00	-$19,443.52	($8,739.80)	($409.60)	($10,473.80)	$179.68
Comments:No MPO - Reduce federal funds by $34,959.20 and local funds by $8,739.80 in FY 2018 - Reduce federal funds by $2,238.40 and local funds by $409.60 in FY 2019 - Reduce federal funds by $41,895.20 and local funds by $10,473.80 in FY 2020 - Add $481.25 federal funds and $179 .68 local funds to FY 2021.																	
Indiana Department of Transportation	38755 / 1701146	A 06	US 421	Bridge Deck Overlay	Over M Fork Wildcat Creek, 1.0 3mi N of SR 26	LaPorte	0	NHPP	$537,248.00	Bridge Construction	CN	$429,798.40	$107,449.60			$537,248.00	
										Bridge Consulting	PE	$32,000.00	$8,000.00	$40,000.00			
Comments:Amend FY18 PE and FY20 CN. No MPO																	
Indiana Department of Transportation	38762 / 1500142	Init.	US 421	Small Structure Replacement	1.50 mi S of SR 28 S Jct	Crawfordsville	0	NHPP		Bridge ROW	RW	$28,000.00	$7,000.00	$35,000.00			
										Bridge Construction	CN	$678,400.00	$169,600.00			$848,000.00	
										Bridge Consulting	PE	$36,960.00	$9,240.00	$46,200.00			
Indiana Department of Transportation	38762 / 1593276	Init.	US 421	Bridge Deck Replacement	2.24 mi S SR 38	Crawfordsville	0	NHPP		Bridge Construction	CN	$2,504,000.00	$626,000.00			$3,130,000.00	
Indiana Department of Transportation	38762 / 1593276	A 06	US 421	Bridge Deck Replacement	2.24 mi S SR 38	Crawfordsville	0	STP	$3,180,000.00	Bridge Consulting	PE	$40,000.00	$10,000.00	$50,000.00			
Comments:No MPO; Add FY18 PE $50,000																	
Indiana Department of Transportation	39578 / 0710346	Init.	I 65	Bridge Deck Overlay	SBL over Manson-Colfax Co Rd, 3.37 mi S of SR 28	Crawfordsville	0	NHPP		Bridge Construction	CN	$2,250,000.00	$250,000.00		$2,500,000.00		
Indiana Department of Transportation	39578 / 0710421	Init.	I 65	Bridge Deck Overlay	NBL over Manson-Colfax Co Rd, 3.37mi S of SR 28	Crawfordsville	0	NHPP		Bridge Construction	CN	$2,250,000.00	$250,000.00		$2,500,000.00		
Indiana Department of Transportation	39578 / 0710459	Init.	I 65	Bridge Deck Overlay	SBL BR over Little Potato Creek , 1.82 mi S of SR 28	Crawfordsville	0	NHPP		Bridge Construction	CN	$2,250,000.00	$250,000.00		$2,500,000.00		
Indiana Department of Transportation	39578 / 0710460	Init.	I 65	Bridge Deck Overlay	NBL BR over Little Potato Creek , 1.82 mi S of SR 28	Crawfordsville	0	NHPP		Bridge Construction	CN	$2,250,000.00	$250,000.00		$2,500,000.00		
Indiana Department of Transportation	39578 / 1006279	Init.	I 65	Bridge Removal	0.33 mi N of SR 28 (Abandoned RR SB)	Crawfordsville	0	NHPP		Bridge Construction	CN	$999,900.00	$111,100.00		$1,111,000.00		
										Bridge ROW	RW	$90,000.00	$10,000.00	$100,000.00			

Report Created:6/17/2019 12:31:59PM

*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 H

Additional Studies

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: Clinton

Grant ID & Element	Grant Name	Sponsor	County	State	Grant Amount	Year Approved	Year Completed	Type

AN INVESTIGATEWEST DATA PROJECT

Bridge Inspection Report

(421)39-12-01792 B
US 421
over
S FORK WILDCAT CREEK

Inspection Date: 02/13/2017

Inspected By: Melvin Hughes

Inspection Type(s): Routine

TABLE OF CONTENTS

Latitude: 40.31654

Longitude: -86.546753

02-13-2017 ~~~ A critical find was reported during the routine inspection, in span C beam 5. also a load rating was requested for spans A and C.

8/28/2015 Inspection Notes:
The subject of this report are the fracture critical members and connections only. Span B is the main span (spans A and C are approach spans) and is the only fracture-critical span of the bridge.
The inspection was performed by Nate Pfeiffer and Matt Ference and was conducted at arms-length by climbing the structure.
The National Bridge Inventory form is included for information only; only the fracture critical inspection date was changed.
It is recommended that the fracture critical inspection frequency remain at 24 months.
A load rating request was made as a result of the inspection.
(NP 8/28/2015)

XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX

Previous Notes:

The 24-month frequency special inspection was removed from this bridge due to the fact that the gusset plates are already inspected during a fracture critical inspection. This change was made with the support of Randy Strain, Bridge Inspection Area Engineer, and Merril Dougherty, State Bridge Inspection Program Manager.

IDENTIFICATION

(1) STATE CODE:	**185 - Indiana**
(8) STRUCTURE:	**032200**
(5 A-B-C-D-E) INV. ROUTE:	**1 - 2 - 1 - 00421 - 0**
(2) HIGHWAY AGENCY DISTRICT:	**01 - Crawfordsville**
(3) COUNTY CODE:	**012 - CLINTON**
(4) PLACE CODE:	**00000 - N/A**
(6) FEATURES INTERSECTED:	**S FORK WILDCAT CREEK**
(7) FACILITY CARRIED:	**US 421**
(9) LOCATION:	**02.24 S SR 38**
(11) MILEPOINT:	**0017.050**
(12) BASE HIGHWAY NETWORK:	**1**
(13A) INVENTORY ROUTE:	**0000000001**
(13B) SUBROUTE NUMBER:	**01**
(16) LATITUDE:	**40.31654**
(17) LONGITUDE:	**-86.546753**
(98) BORDER	
A) STATE NAME:	
B) PERCENT	**%**
(99) BORDER BRIDGE STRUCT. NO:	

STRUCTURE TYPE AND MATERIAL

(43) STRUCTURE TYPE, MAIN:	
A) KIND OF MATERIAL/DESIGN:	**3 - Steel**
B) TYPE OF DESIGN/CONSTR:	**10 - Truss - Thru**
(44) STRUCTURE TYPE, APPROACH SPANS:	
A) KIND OF MATERIAL/DESIGN:	**1 - Concrete**
B) TYPE OF DESIGN/CONSTR:	**02 - Stringer/Multi-beam or Girder**
(45) NUMBER OF SPANS IN MAIN UNIT:	**001**
(46) NUMBER OF APPROACH SPANS:	**0002**
(107) DECK STRUCTURE TYPE:	**1 - Concrete Cast-in-Place**
(108) WEARING SURFACE/PROT SYS:	
A) WEARING SURFACE:	**3 - Latex Concrete or similar additive**
B) DECK MEMBRANE:	**0 - None**
C) DECK PROTECTION:	**0 - None**

AGE OF SERVICE

(27) YEAR BUILT:	**1941**
(106) YEAR RECONSTRUCTED:	**1985**
(42) TYPE OF SERVICE:	
A) ON BRIDGE:	**1 - Highway**
B) UNDER BRIDGE:	**5 - Waterway**
(28) LANES:	
A) ON BRIDGE:	**02**
B) UNDER BRIDGE:	**00**
(29) AVERAGE DAILY TRAFFIC:	**005260**
(30) YEAR OF AVERAGE DAILY TRAFFIC:	**2006**
(109) AVERAGE DAILY TRUCK TRAFFIC:	**09 %**
(19) BYPASS DETOUR LENGTH:	**014 MI**

GEOMETRIC DATA

(48) LENGTH OF MAX SPAN:	**0125.0 FT**
(49) STRUCTURE LENGTH:	**00194.0 FT**
(50) CURB/SIDEWALK WIDTHS:	
A) LEFT	**00.7 FT**
B) RIGHT:	**00.7 FT**
(51) BRDG RDWY WIDTH CURB-TO-CURB:	**027.7 FT**
(52) DECK WIDTH, OUT-TO-OUT:	**029.0 FT**
(32) APPROACH ROADWAY	**034.0 FT**
(33) BRIDGE MEDIAN:	**0 - No median**
(34) SKEW:	**00 DEG**
(35) STRUCTURE FLARED:	**0 - No flare**
(10) INV RTE, MIN VERT CLEARANCE:	**99.99 FT**
(47) TOT HORIZ CLEARANCE:	**027.7 FT**
(53) VERT CLEAR OVER BR RDWY:	**99.99 FT**
(54) MIN VERTICAL UNDERCLEARANCE:	
A) REFERENCE FEATURE:	**N**
B) MIN VERT UNDERCLEAR:	**0 FT**
(55) LATERAL UNDERCLEARANCE RIGHT:	
A) REFERENCE FEATURE:	**N**
B) MIN LATERAL UNDERCLEAR:	**000.0 FT**
(56) MIN LATERAL UNDERCLEAR ON LEFT:	**00.0 FT**

INSPECTIONS

(90) INSPECTION DATE:	**02/13/2017**
(92) CRITICAL FEATURE INSPECTION:	
A) FRACTURE CRITICAL REQUIRED/FREQUENCY:	**Y 24**
B) UNDERWATER INSPECTION REQUIRED/FREQUENCY:	**N**
C) OTHER SPECIAL INSPECTION REQUIRED/FREQUENCY:	**N**
(91) DESIGNATED INSPECTION FREQUENCY:	**24 MONTHS**
(93) CRITICAL FEATURE INSPECTION DATE:	
A) FRACTURE CRITICAL DATE:	**08/28/2015**
B) UNDERWATER INSP DATE:	
C) OTHER SPECIAL INSP DATE:	**08/01/2013**

CONDITION

(58) DECK:	**6 - Satisfactory Condition (minor deterioration)**
(58.01) WEARING SURFACE:	**6 - Satisfactory Condition**
(59) SUPERSTRUCTURE:	**5 - Fair Condition (minor section loss)**
(60) SUBSTRUCTURE:	**5 - Fair Condition (minor section loss)**
(61) CHANNEL/CHANNEL PROTECTION:	**8 - Banks are protected**
(62) CULVERTS:	**N - Not Applicable**

CONDITION COMMENTS

(58) DECK: **6 - Satisfactory Condition (minor deterioration)**

Comments:
There is transverse and diagonal cracking in the deck underside with white efflorescence, but no rust staining. and areas of full depth patching. In span B there are some shallow surface spalls above the stringers upper flanges, but no rebar is exposed.Both copings are spalling.{Melvin Hughes,02-13-2017}.

(58.01) WEARING SURFACE: **6 - Satisfactory Condition**

Comments:
There is transverse, longitudinal and diagonal cracking in the deck wearing surface, along with spalling.{Melvin Hughes,02-13-2017}.

(59) SUPERSTRUCTURE: **5 - Fair Condition (minor section loss)**

Comments:
In span A, beam 1 and beam 5 are spalled with exposed rebar near pier 2. Both beams have longitudinal cracks with white efflorescence. In span C, beam 1 and beam 5 are spalled with exposed rebar near pier 3. Both beams have longitudinal cracks with white efflorescence. Also, beam 5 in span C has a large spall with exposed rebar with section loss at mid span, a critical find was reported and sketches attached to the report. The truss in span B has widespread light rusting with severe rusting and section loss at the 4 corner connections.{Melvin Hughes,02-13-2017}.

(60) SUBSTRUCTURE: **5 - Fair Condition (minor section loss)**

Comments:
Both interior piers have cracking and spalling with exposed rebar with minor section loss.{Melvin Hughes,02-13-2017}.

(61) CHANNEL/CHANNEL PROTECTION **8 - Banks are protected**

Comments:
Banks have vegetation protection.

(62) CULVERTS: **N - Not Applicable**

Comments:

LOAD RATING AND POSTING

(31) DESIGN LOAD:	**4 - H 20**	(66) INVENTORY RATING:	**27**
(70) BRIDGE POSTING	**5 - Equal to or above legal loads**	(65) INVENTORY RATING METHOD:	**1 - Load Factor (LF)**
		(66B) INVENTORY RATING (H):	**16**
(41) STRUCTURE OPEN/POSTED/CLOSED:	**A - Open**	(66D) DATE POSTED/CLOSED:	
(64) OPERATING RATING:	**57**		
(63) OPERATING RATING METHOD:	**1 - Load Factor (LF)**		

APPRAISAL

SUFFICIENCY RATING:	**46.7**	(36) TRAFFIC SAFETY FEATURE:	
STATUS:	**2**	36A) BRIDGE RAILINGS:	**0**
(67) STRUCTURAL EVALUATION:	**5**	36B) TRANSITIONS:	**0**
(68) DECK GEOMETRY:	**2**	36C) APPROACH GUARDRAIL:	**1**
(69) UNDERCLEARANCES, VERTICAL & HORIZONTAL:	**N**	36D) APPROACH GUARDRAIL ENDS:	**1**

(71) WATERWAY ADEQUACY: **7 - Slight Chance of Overtopping Bridge**

Comments:
Max H. W Elev.55.6 and is below the superstructure.
H.W. Elev. 52.3
Ave H.W. Elev. 46.2
L.W. Elev. 42.2

(72) APPROACH ROADWAY ALIGNMENT: **8 - Equal to present desirable criteria**

Comments:
No speed reduction needed when approaching the bridge at the current speed limit.

(113) SCOUR CRITICAL BRIDGES: **8 - Stable for scour conditions**

Comments:
Piles

CLASSIFICATION

(20) TOLL:	**3 - On Free Road**	(21) MAINT. RESPONSIBILITY:	**01 - State Highway Agency**
(22) OWNER:	**01 - State Highway Agency**	(26) FUNCTIONAL CLASS OF INVENTORY RTE:	**06 - Rural - Minor Arterial**
(37) HISTORICAL SIGNIFICANCE:	**2 - Eligible for National Register**	(100) STRAHNET HIGHWAY:	**Not a STRAHNET route**
(101) PARALLEL STRUCTURE:	**N - No parallel structure**	(102) DIRECTION OF TRAFFIC:	**2-way traffic**
(103) TEMPORARY STRUCTURE:		(104) HIGHWAY SYSTEM OF INVENTORY ROUTE:	**0 - Structure/Route is NOT on NHS**
(105) FEDERAL LANDS HIGHWAYS:	**0-Not Applicable**	(110) DESIGNATED NATIONAL NETWORK:	**Inventory route on National Truck Network**
(112) NBIS BRIDGE LENGTH:	**Yes**		

NAVIGATION DATA

(38) NAVIGATION CONTROL:	**0 - No navigation control on waterway (bridge permit not required)**	(39) NAVIGATION VERTICAL CLEAR:	**000.0 FT**
(111) PIER OR ABUTMENT PROTECTION:		(116) MINIMUM NAVIGATION VERT. CLEARANCE, VERT. LIFT BRIDGE:	**FT**
		(40) NAV HORIZONTAL CLEARANCE:	**0000.0 FT**

PROPOSED IMPROVEMENTS

(75A) TYPE OF WORK:	**35 - Rehabilitation - Deterioration**	(95) ROADWAY IMPROVEMENT COST:	**$ 000000**
(75B) WORK DONE BY:	**1 - Work to be done by contract**	(96) TOTAL PROJECT COST:	**$ 001087**
(76) LENGTH OF IMPROVEMENT:	**000194 FT**	(97) YR OF IMPROVEMENT COST EST:	**2006**
(94) BRIDGE IMPROVEMENT COST:	**$ 001087**	(114) FUTURE AVG DAILY TRAFFIC:	**007283**
		(115) YR OF FUTURE ADT:	**2033**

PHOTO 1 Condition

Description 02-13-2017 (421)39-12-01792 B North interior joint condition

PHOTO 2 Condition

Description 02-13-2017 (421)39-12-01792 B Northeast curb spalling

PHOTO 3 Condition

Description 02-13-2017 (421)39-12-01792 B Northeast end of guard rail has bracket broke

PHOTO 4 Condition

Description 02-13-2017 (421)39-12-01792 B Northwest curb spalling

PHOTO 5 Condition

Description 02-13-2017 (421)39-12-01792 B Pier 2 Downstream bearing bolts condition

PHOTO 6 Condition

Description 02-13-2017 (421)39-12-01792 B Pier 2 north face spalling

PHOTO 7 Condition

Description 02-13-2017 (421)39-12-01792 B Pier 2 south face cap and stem spalling

PHOTO 8 Condition

Description 02-13-2017 (421)39-12-01792 B Pier 2 south face condition

PHOTO 9 Condition

Description 02-13-2017 (421)39-12-01792 B Pier 2 west nose spalling

PHOTO 10 Condition

Description 02-13-2017 (421)39-12-01792 B Pier 3 east side spalled and beam 5 spalled with rebar exposed

PHOTO 11 Condition

Description 02-13-2017 (421)39-12-01792 B Pier 3 north face has vertical crack and spalling

PHOTO 12 Condition

Description 02-13-2017 (421)39-12-01792 B Pier 3 south face condition

PHOTO 13 Condition

Description 02-13-2017 (421)39-12-01792 B Pier 3 southwest stem spalling

PHOTO 14 Condition

Description 02-13-2017 (421)39-12-01792 B Road alignment looking north

PHOTO 15 Condition

Description 02-13-2017 (421)39-12-01792 B South back wall spalling wearing surface cracking and spalling

PHOTO 16 Condition

Description 02-13-2017 (421)39-12-01792 B South interior joint condition

PHOTO 17 Condition

Description 02-13-2017 (421)39-12-01792 B South joint and span A deck wearing surface condition

PHOTO 18 Condition

Description 02-13-2017 (421)39-12-01792 B Span A beam 1 at pier 2 spalled

PHOTO 19 Condition

Description 02-13-2017 (421)39-12-01792 B Span A beam 1 condition

PHOTO 20 Condition

Description 02-13-2017 (421)39-12-01792 B Span A beam 1 corner spalled

PHOTO 21 Condition

Description 02-13-2017 (421)39-12-01792 B Span A beam 3 has vertical crack with efflorescence

PHOTO 22 Condition

Description 02-13-2017 (421)39-12-01792 B Span A beam 5 above the south bent spalled

PHOTO 23 Condition

Description 02-13-2017 (421)39-12-01792 B Span A beam 5 and coping condition

PHOTO 24 Condition

Description 02-13-2017 (421)39-12-01792 B Span A beam 5 at the south bent condition

PHOTO 25 Condition

Description 02-13-2017 (421)39-12-01792 B Span A beam 5 corner spalling along the east side

PHOTO 26 Condition

Description 02-13-2017 (421)39-12-01792 B Span A beam 5 corner spalling near south bent

PHOTO 27 Condition

Description 02-13-2017 (421)39-12-01792 B Span A beam 5 lenght of spall

PHOTO 28 Condition

Description 02-13-2017 (421)39-12-01792 B Span A beam 5 spalling with rebar exposed

PHOTO 29 Condition

Description 02-13-2017 (421)39-12-01792 B Span A deck underside condition

PHOTO 30 Condition

Description 02-13-2017 (421)39-12-01792 B Span A deck underside has transverse cracking with efflorescence

PHOTO 31 Condition

Description 02-13-2017 (421)39-12-01792 B Span A full depth patching

PHOTO 32 Condition

Description 02-13-2017 (421)39-12-01792 B Span B deck wearing surface condition looking north

PHOTO 33 Condition

Description 02-13-2017 (421)39-12-01792 B Span B truss span underside condition

PHOTO 34 Condition

Description 02-13-2017 (421)39-12-01792 B Span C beam 1 above pier 3 condition

PHOTO 35 Condition

Description 02-13-2017 (421)39-12-01792 B Span C beam 1 at the north bent condition

PHOTO 36 Condition

Description 02-13-2017 (421)39-12-01792 B Span C beam 1 at the north bent looking southeast

PHOTO 37 Condition

Description 02-13-2017 (421)39-12-01792 B Span C beam 1 corner spall measurement

PHOTO 38 Condition

Description 02-13-2017 (421)39-12-01792 B Span C beam 1 corner spalling on the west or downstream side

PHOTO 39 Condition

Description 02-13-2017 (421)39-12-01792 B Span C beam 1 east face

PHOTO 40 Condition

Description 02-13-2017 (421)39-12-01792 B Span C beam 3 east side has vertical crack with efflorescence

PHOTO 41 Condition

Description 02-13-2017 (421)39-12-01792 B Span C beam 5 at pier 3 rebar exposed

PHOTO 42 Condition

Description 02-13-2017 (421)39-12-01792 B Span C beam 5 east side spalling at pier 3

PHOTO 43 Condition

Description 02-13-2017 (421)39-12-01792 B Span C beam 5 spalling on west side at pier 3

PHOTO 44 Condition

Description 02-13-2017 (421)39-12-01792 B Span C beam 5 spalling on west side

PHOTO 45 Condition

Description 02-13-2017 (421)39-12-01792 B Span C beam 5 west side rebar exposed

PHOTO 46 Condition

Description 02-13-2017 (421)39-12-01792 B Span C deck underside transverse cracking with efflorescence

PHOTO 47 Condition

Description 02-13-2017 (421)39-12-01792 B Span C deck wearing surface spalled at joint

PHOTO 48 Condition

Description 02-13-2017 (421)39-12-01792 B Span C wearing surface and north joint condition

PHOTO 49 Condition

Description 02-13-2017 (421)39-12-01792 B Span C wearing surface has longitudinal cracking

PHOTO 50 Condition

Description 02-13-2017 (421)39-12-01792 B Span C wearing surface spalling and cracking at joint and north back wall spalling

PHOTO 51 Condition

Description 02-13-2017 (421)39-12-01792 B Span C wearing surface spalling at joint above pier 3

PHOTO 52 Condition

Description 02-13-2017 (421)39-12-01792 B Transverse and diagonal cracking in the deck wearing surface

PHOTO 53 Condition

Description 02-13-2017 (421)39-12-01792 B U4 L5 Upstream has rust hole in web

PHOTO 54 Condition

Description 02-13-2017 (421)39-12-01792 B U7 L7 Upstream rust hole in web

PHOTO 55 Condition

Description 02-13-2017 (421)39-12-01792 B Unwanted trees around bridge

PHOTO 56 Condition

Description 02-13-2017 (421)39-12-01792 B Wearing surface spalling at the south interior joint

PHOTO 57 Condition

Description 02-13-2017 (421)39-12-01792 B West profile looking northeast

PHOTO 58 Condition

Description 02-13-2017 (421)39-12-01792 B West truss condition looking north

PHOTO 59 Condition

Description Span C wearing surface has transverse cracking

Date Reported: 11/17/2015

Priority: Green - 3

Work Code: Bearing Repair

Deficiency Description:

NE & NW truss bearings have no anchor bolts attaching the bottom plates to the bridge seat.

Work Description:

Date Repairs Completed:

Maintenance Comments:

Stage: Open

PHOTO 1 Description

Date Reported: 02/13/2017
Priority: Grey - 4
Work Code: Deck Patch

Deficiency Description:
The deck wearing surface and back walls along joints are spalling; at this time there is about 7 SFT total spall.

Work Description:

Date Repairs Completed:

Maintenance Comments:

Stage: Open

PHOTO 1 Description 02-13-2017 (421)39-12-01792 B South back wall spalling wearing surface cracking and spalling

Stage: Open

PHOTO 2 Description 02-13-2017 (421)39-12-01792 B South joint and span A deck wearing surface condition

Stage: Open

PHOTO 3 Description 02-13-2017 (421)39-12-01792 B Span C deck wearing surface spalled at joint

Stage: Open

PHOTO 4 Description 02-13-2017 (421)39-12-01792 B Span C wearing surface spalling and cracking at joint and north back wall spalling

Stage: Open

PHOTO 5 Description 02-13-2017 (421)39-12-01792 B Span C wearing surface spalling at joint above pier 3

Stage: Open

PHOTO 6 Description 02-13-2017 (421)39-12-01792 B Wearing surface spalling at the south interior joint

Date Reported: 02/13/2017

Priority: Grey - 4

Work Code: Guardrail / Barrier Wall Repair

Deficiency Description:
Guard rail bracket broke at the north parapet walls.

Work Description:

Date Repairs Completed:

Maintenance Comments:

Stage: Open

PHOTO 1 Description 02-13-2017 (421)39-12-01792 B Northeast end of guard rail has bracket broke

Miscellaneous Asset Data - Asset # (421)39-12-01792 B

Bats: seen or heard under structure? N **Birds/swallows/nests seen? Empty nests present?** Y - Birds and/or Nests Visible

Scour POA? **Inv Type** U - US Route **Inv #** 421 **Reference Post** 126 **Offset** 0.8121

Joints

Location: Transverse Interior **Type:** B **Rating (Lowest Rated Joint):** 4

There is spalling forming in the deck along the S and N transverse joints and all four joints are leaking.

Paint

Rating 4 **Paint Year** 1987

There are many areas with heavy rust and no paint protection.

Paint Color: Green. Contract#: M 16732

Asset Type Has Changed

Original RP Data Source Roads & Highways

RP 126 Offset 0.8121

Critical Finding

(421)39-12-01792 B Inspection Due Date 02/22/2017 Stage Due Date: 02/22/2017 Completed Date:

CRITICAL FINDING

Data Entry By:	Melvin Hughes	Entry Date	02/13/2017
Team Leader Reporting	Hughes, Melvin	Team Leader #	IN000238-2021-ATL-F
Structure #	(421)39-12-01792 B	NBI	032200
Facility Carried:	US 421	Feature Intersected:	S Fork of Wildcat Creek
Location	02.24 miles S SR 38	County	Clinton
Date of Finding	02/13/2017	Notification Date	02/13/2017

Description of Issue: Beam 5 in span C has severe spalling with rebar exposed. this is an outside beam.

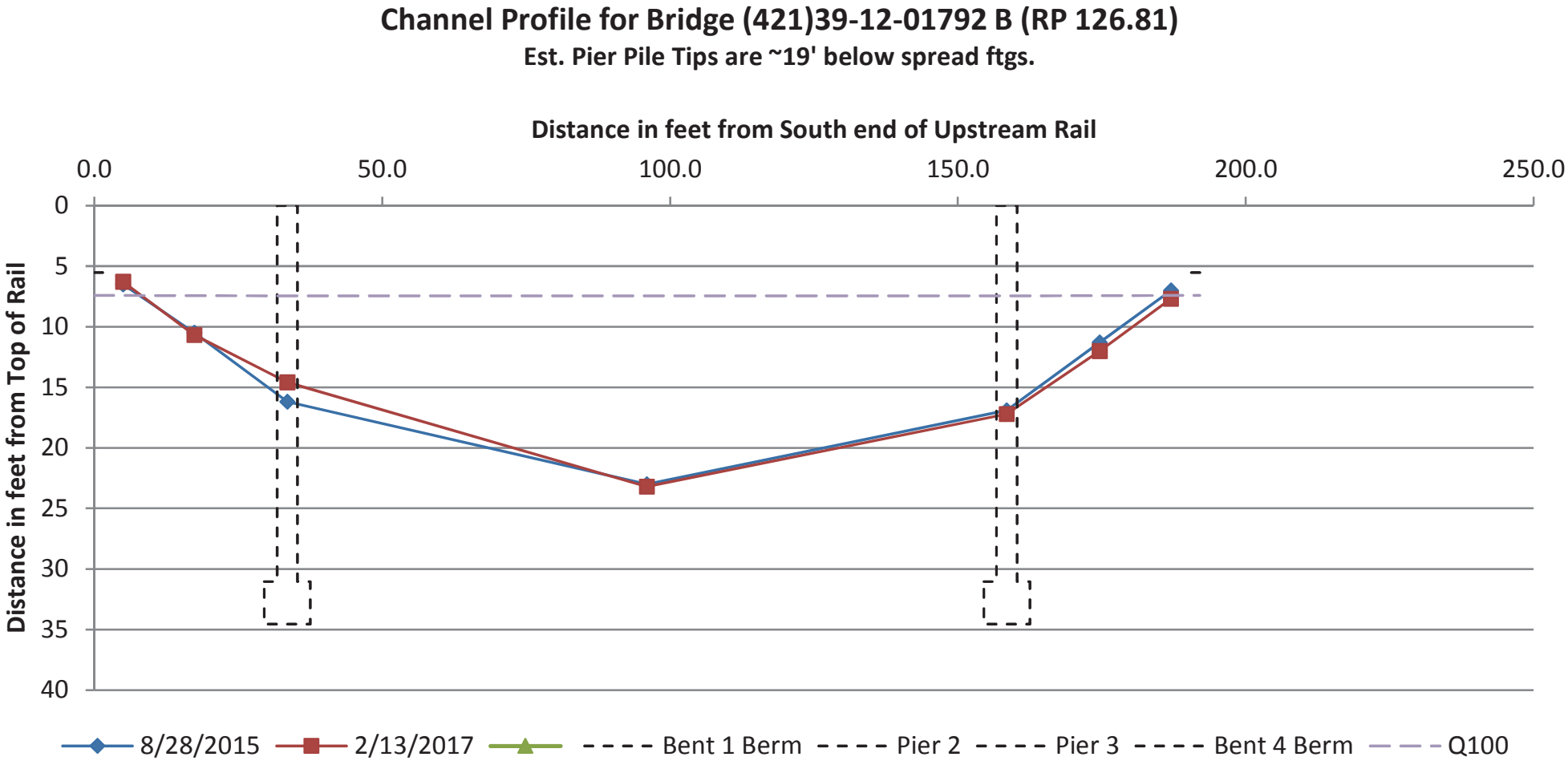
Inspector Recommended Action: Load rating.

Submit to State Program Manager through WorkFlow.

Actions Taken
(By Whom/When)

Close Out Documentation

Date Closed by State Program Manager in BIAS


Channel Profile for Bridge (421)39-12-01792 B (RP 126.81)
Est. Pier Pile Tips are ~19' below spread ftgs.
Distance in feet from South end of Upstream Rail
0.0
50.0
100.0
150.0
200.0
250.0
Distance in feet from Top of Rail
0
5
10
15
20
25
30
35
40
8/28/2015
2/13/2017
Bent 1 Berm
Pier 2
Pier 3
Bent 4 Berm
Q100

(421) 39-12-01792B

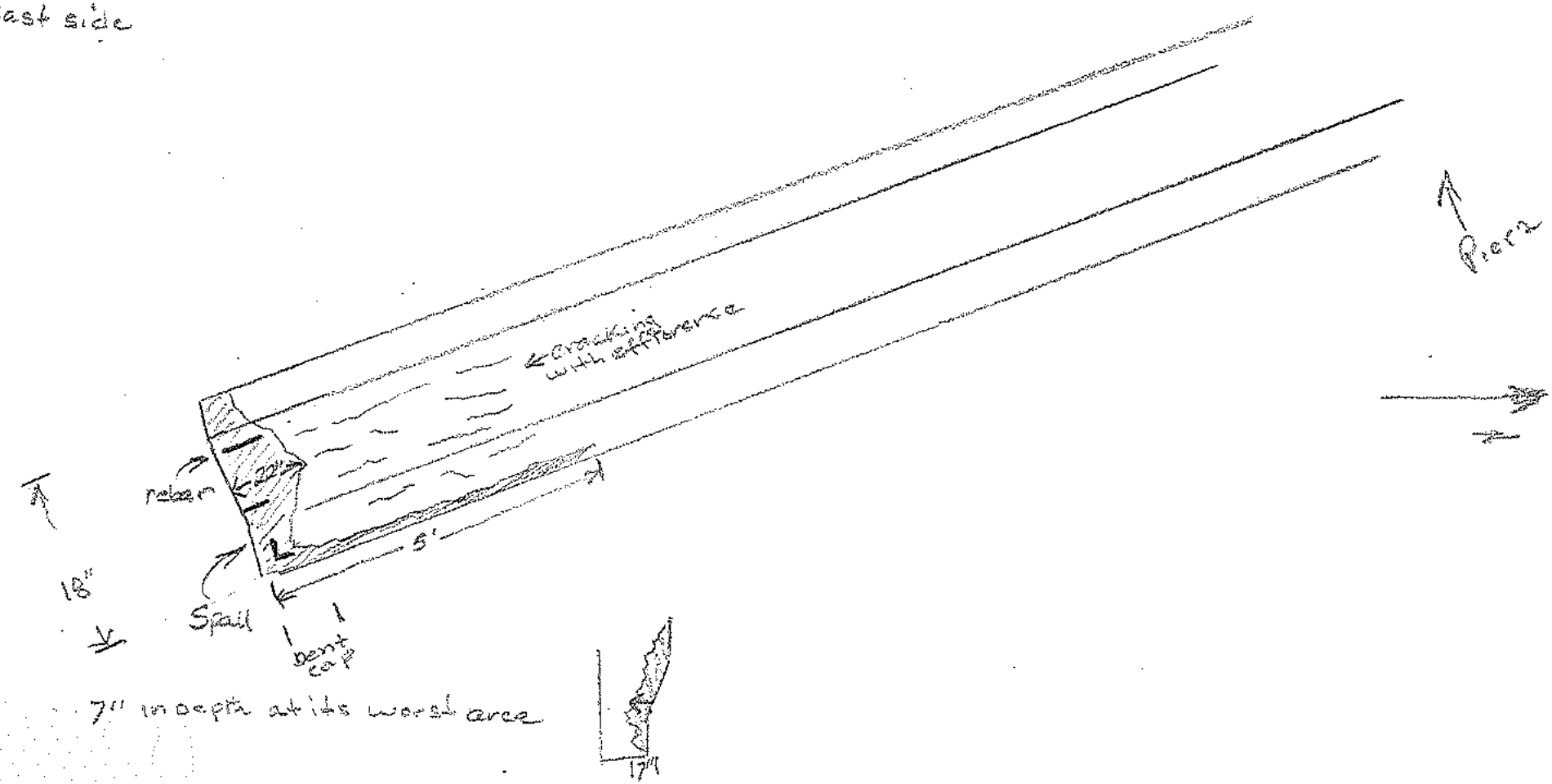
NBI# 032200

2-13-2017

Span A

Beam E At South bank

east side



Sounded spalled area with hammer on beam end and sounds hollow.

Not to scale

(421) 39-12-01792 B

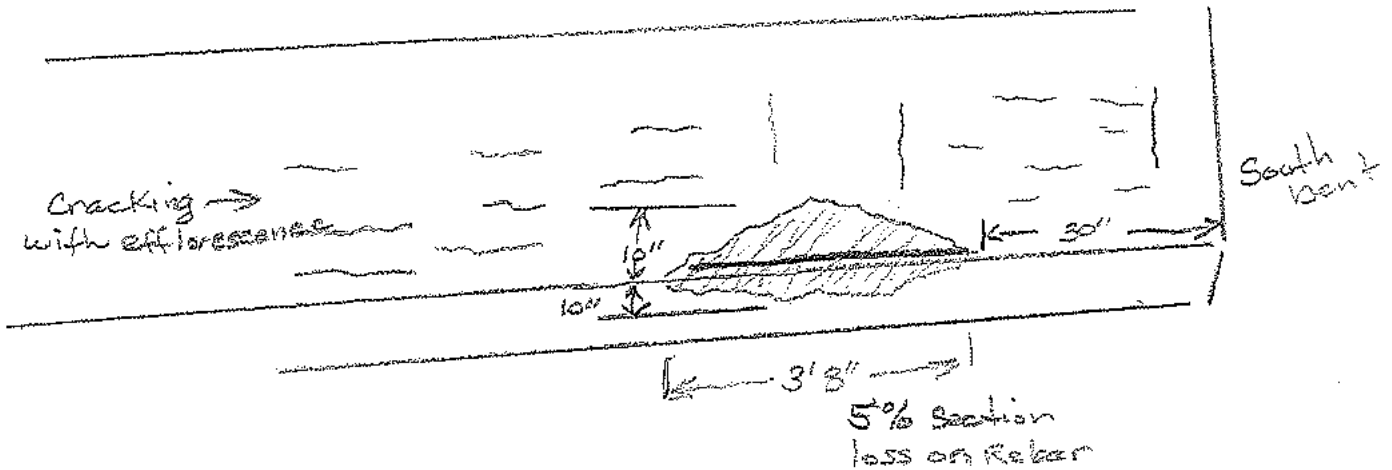
NBI # 032200

2-13-2017

Span A

Beam 5 At South bent

West side



Pier 2

(421) 39-12-01792B

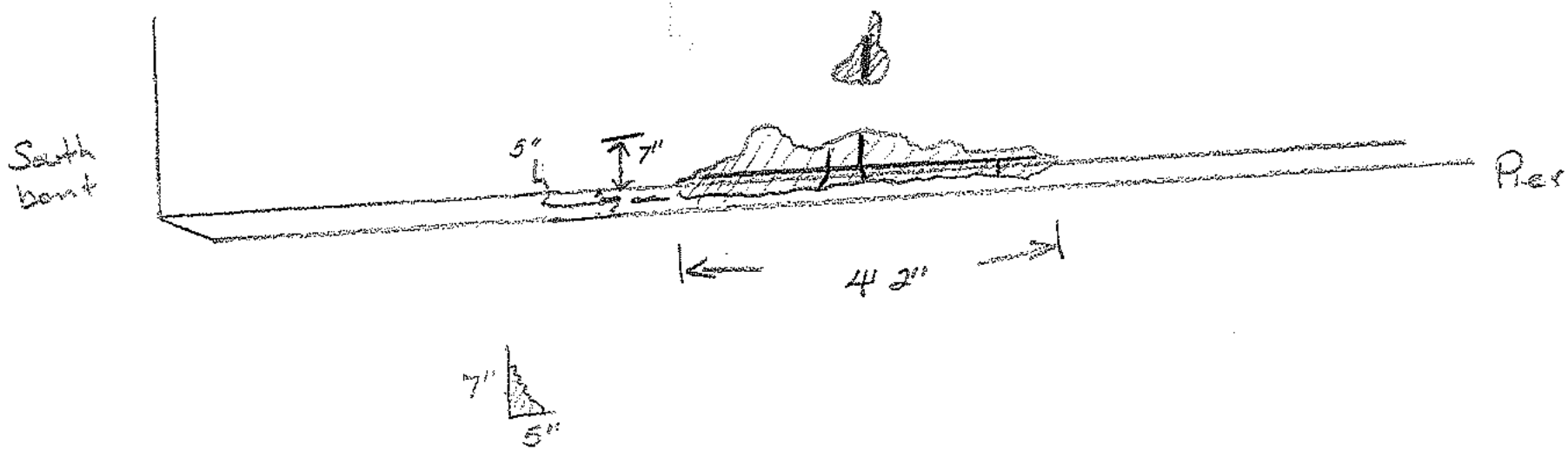
NBIS# 032200

2-13-2017

Span A

Beam 1 mid span

East side



(421) 39-12-01792 B

NBI # 032200

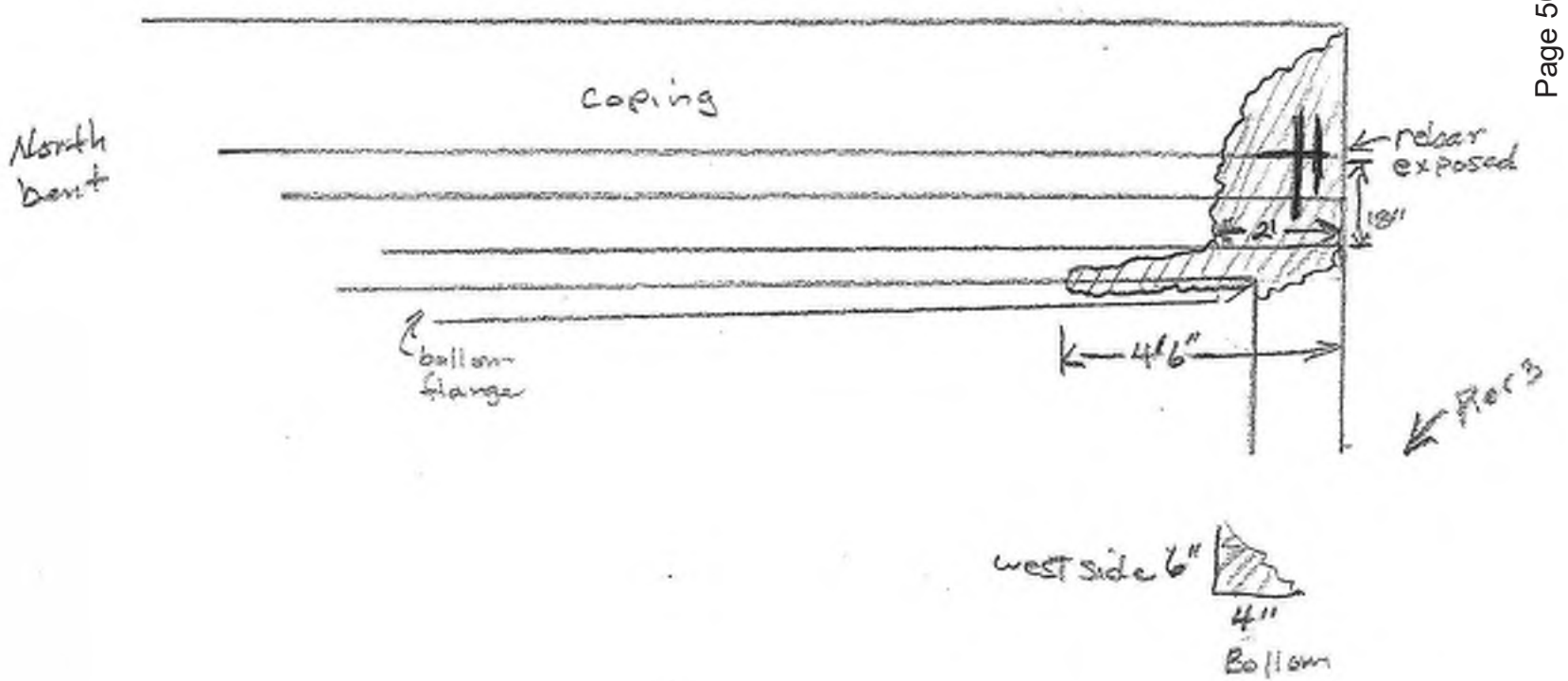
2-13-2017

Span C

Beam 1 At North bent

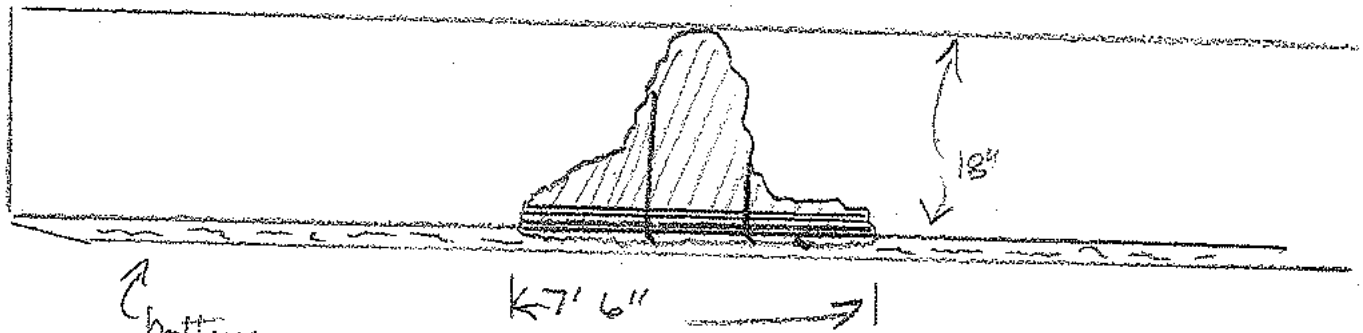
2

(421) 39-12-01792B
NBI# 032200
2-13-2017
Spane
beam 1 at pier 3



2

(421) 39-12-01792B
NBI # 032200
2-13-2017
Span 2
beam 5 midspan
west side



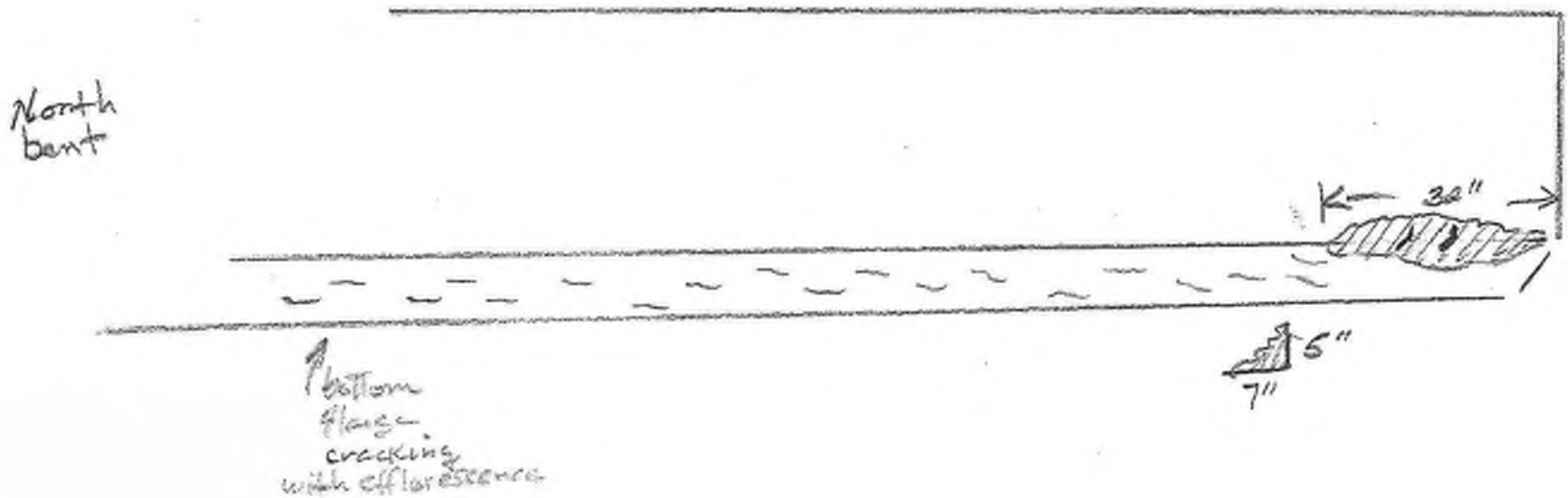
North bent

bottom has longitudinal cracking with efflorescence the length of Beam.

west 18"
side

11"
Bottom

(421) 39-12-01792 B
NBI # 032200
2-13-2017
Span c
beam 5 at pier 3
west side



(421) 39-12-01792 B

NBI #032200

2-13-2017

Span C

beam 5 at pier 3

east side