

Indiana Department of Transportation

County White County

Route US 421

Des. No. 1700103

**FHWA-Indiana Environmental Document
CATEGORICAL EXCLUSION / ENVIRONMENTAL ASSESSMENT FORM
GENERAL PROJECT INFORMATION**

Road No./County:	US 421/White County
Designation Number:	1700103
Project Description/Termini:	Bridge Project located along US 421 over Hoagland Ditch in White County. From the center of the Bridge No. 421-91-00889 A, the project limits extend along US 421 to a point 250 feet north and 300 feet south for a total distance of 550 feet.

After completing this form, I conclude that this project qualifies for the following type of Categorical Exclusion (FHWA must review/approve if Level 4 CE):

X	Categorical Exclusion, Level 2 – The proposed action meets the criteria for Categorical Exclusion Manual Level 2 - table 1, CE Level Thresholds. Required Signatories: ESM (Environmental Scoping Manager)
	Categorical Exclusion, Level 3 – The proposed action meets the criteria for Categorical Exclusion Manual Level 3 - table 1, CE Level Thresholds. Required Signatories: ESM, ES (Environmental Services Division)
	Categorical Exclusion, Level 4 – The proposed action meets the criteria for Categorical Exclusion Manual Level 4 - table 1, CE Level Thresholds. Required Signatories: ESM, ES, FHWA
	Environmental Assessment (EA) – EAs require a separate FONSI. Additional research and documentation is necessary to determine the effects on the environment. Required Signatories: ES, FHWA

Note: For documents prepared by or for Environmental Services Division, it is not necessary for the ESM of the district in which the project is located to release for public involvement or sign for approval.

Approval _____
 ESM Signature _____ Date _____ ES Signature _____ Date _____

 FHWA Signature _____ Date _____

Release for Public Involvement

_____ N/A _____ REB _____ 6-2-2020
 ESM Initials _____ Date _____ ES Initials _____ Date _____

Certification of Public Involvement

_____ Office of Public Involvement _____ Date _____

Note: Do not approve until after Section 106 public involvement and all other environmental requirements have been satisfied.

INDOT ES/District Env.
 Reviewer Signature: _____ Date: _____

Name and Organization of CE/EA
 Preparer: Chris Kunkel/Lochmueller Group

Indiana Department of Transportation

County White County

Route US 421

Des. No. 1700103

Part I - PUBLIC INVOLVEMENT

Every Federal action requires some level of public involvement, providing for early and continuous opportunities throughout the project development process. The level of public involvement should be commensurate with the proposed action.

Does the project have a historic bridge processed under the Historic Bridges PA*? Yes No
If No, then: Opportunity for a Public Hearing Required? X

*A public hearing is required for all historic bridges processed under the Historic Bridges Programmatic Agreement between INDOT, FHWA, SHPO, and the ACHP.

Discuss what public involvement activities (legal notices, letters to affected property owners and residents (i.e. notice of entry), meetings, special purpose meetings, newspaper articles, etc.) have occurred for this project.

Remarks: Notice of Entry
Notice of Entry letters were mailed to potentially affected property owners within the project area on August 20, 2018...
Public Involvement:
The project will meet the minimum requirements described in the current INDOT Public Involvement Manual...

Public Controversy on Environmental Grounds
Will the project involve substantial controversy concerning community and/or natural resource impacts? Yes No X

Remarks: At this time, there is no substantial public controversy concerning impacts to the community or to natural resource.

Part II - General Project Identification, Description, and Design Information

Sponsor of the Project: Indiana Department of Transportation (INDOT) INDOT District: LaPorte
Local Name of the Facility: US 421

Funding Source (mark all that apply): Federal X State X Local Other*

*If other is selected, please identify the funding source: N/A

PURPOSE AND NEED:

Describe the transportation problem that the project will address. The solution to the traffic problem should NOT be discussed in this section. (Refer to the CE Manual, Section IV.B.2. Purpose and Need)

Need:
The need for the project stems from the deteriorated state of the structure. During field inspections completed by INDOT in May of 2019 (Appendix J, J2 to J28), deep spalling with rebar was observed along the barrel of the arch of the bridge...

Indiana Department of Transportation

County White County

Route US 421

Des. No. 1700103

channel of Hoagland Ditch. The culvert present on the west side of the bridge has undermining. The superstructure has a condition rating of 5, which is considered “fair” and the substructure has a condition rating of 6, which is considered “satisfactory.” The channel has a condition rating of 6, which indicates widespread minor damage. Condition ratings range from 0 to 9, with 0 indicating a failing structural component and 9 indicating a new component with no structural deficiencies noted.

Purpose:

The purpose of the project is to provide a crossing structure where the condition of its components are at a rating of at least 8, which is considered to be in “very good condition.”

PROJECT DESCRIPTION (PREFERRED ALTERNATIVE):

County: White Municipality: N/A

Limits of Proposed Work: From the center of the Bridge No. 421-91-00889 A, the project limits extend along US 421 to a point 250 feet north and 300 feet south for a total distance of 550 feet.

Total Work Length: 0.10 Mile(s) Total Work Area: 1.27 Acre(s)

	Yes¹	No
Is an Interchange Modification Study / Interchange Justification Study (IMS/IJS) required?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
If yes, when did the FHWA grant a conditional approval for this project?	Date: <input style="width: 100%;" type="text"/>	

¹If an IMS or IJS is required; a copy of the approved CE/EA document must be submitted to the FHWA with a request for final approval of the IMS/IJS.

In the remarks box below, describe existing conditions, provide in detail the scope of work for the project, including the preferred alternative. Include a discussion of logical termini. Discuss any major issues for the project and how the project will improve safety or roadway deficiencies if these are issues.

The Federal Highway Administration (FHWA) and the INDOT LaPorte District intend to proceed with a federal-aid project to replace the bridge carrying US 421 over Hoagland Ditch (Bridge No. 421-91-00889 A (National Bridge Inventory No. 32370)) in White County, Indiana. The new structure will be assigned Bridge No. 421-91-10323.

Location:

The project is located along US 421, approximately 3.50 miles south of SR 16. Specifically, the project is located in Honey Creek Township within Section 4, Township 27 North, Range 4 West, as depicted on the Monon, Indiana USGS Quadrangle (Appendix B, B2).

Existing Conditions:

Within the project area, US 421 is functionally classified as a principal arterial. The roadway typical cross section consists of two 12-foot wide travel lanes (one in each direction) with 5-foot wide paved shoulders on either side of the roadway. The posted speed limit of US 421 within the project area is 55 miles per hour.

Bridge No. 421-91-00889 A is a single span, earth-filled, reinforced concrete arch bridge built in 1929 and reconstructed in 1960 with a 60-foot clear span and a 41-foot clear roadway width. The existing structure has two 12-foot wide travel lanes and 8.5-foot wide usable shoulders on either side with concrete railings. During INDOT inspections in April of 2018, deep spalling with rebar was observed along the barrel of the arch of the bridge and both widening joints have shallow spalling with exposed rebar. There was also horizontal cracks with efflorescence observed along the substructure of the bridge. Although well-vegetated, slumping was also observed along the banks of the channel of Hoagland Ditch. Within the project area, there is also a 20-foot wide gravel field entrance drive in the northwest quadrant and an approximately 11-foot wide gravel field entrance drive in the southwest quadrant.

This is page 3 of 22 Project name: US 421 over Hoagland Ditch – Bridge Replacement Date: May 27, 2020

Indiana Department of Transportation

County White County

Route US 421

Des. No. 1700103

Adjacent land use is rural with farm fields surrounding the project area with a railroad adjacent to the project area to the east (Appendix B, B3).

Preferred Alternative:

The project will replace the existing bridge with a new single-span, composite prestressed concrete bulb-tee beam bridge with a span of 96 feet and a clear roadway width of 41 feet. The new bridge will be referred to by a new structure number: 421-91-10323. The project will also involve full depth pavement replacement on the approaches for 130 feet north and 180 feet south of the bridge. The project will also involve milling 1.5 inches of pavement and applying a 1.5-inch thick hot mix asphalt (HMA) overlay to the approach pavement for 50 feet to the north and south outside of the full depth replacement area. Approach roadway pavement will also be widened from 35 feet to 41 feet. All guardrail will be replaced with guardrail that meets current design standards.

A field entrance drive in the southwest quadrant will be removed and a new 24-foot wide and 25-foot long entrance drive will be constructed approximately 80 feet west of the existing drive. A new 40-foot long pipe with a 15-inch diameter will be installed to convey drainage beneath the new entrance drive in the southwest quadrant. The field entrance drive in the northwest quadrant of the project area will be removed and a new 88-foot long and 24-foot wide compacted aggregate entrance drive will be constructed approximately 75 feet north of the existing drive. The existing 60-inch wide corrugated metal pipe in the northwest quadrant of the project area underneath the existing field entrance drive will be removed. Additionally, a new 41-foot long pipe with a 60-inch diameter will be added underneath the new entrance drive in the northwest quadrant to convey an unnamed tributary (UNT) to Hoagland Ditch. The UNT to Hoagland Ditch will also be realigned to the west of its existing alignment along the west side of US 421. This realignment will involve the construction of a new ditch line approximately 17 feet west of the existing ditch line for UNT to Hoagland Ditch. The existing ditch line will be filled and graded to accommodate the new ditch line of UNT to Hoagland Ditch. New riprap will be placed around each new end bent. Additionally, riprap will be placed in each quadrant of the bridge for drainage turnouts that will be 16 feet long by 8 feet wide in the southwest quadrant, 25 feet long by 8 feet wide in the southeast quadrant, 38 feet long by 8 feet wide in the northeast quadrant, and 22 feet long by 8 feet wide in the northwest quadrant. There will also be 6-inch drainage pipes installed along the back face of each end bent that will outlet onto the spill slope on the downstream side of the bridge.

Including incidental construction, the total length of the project along US 421 is 550 feet. Please refer to Appendix B for maps depicting the project area (B1 to B4), photographs of the project area (B5 to B14), and the Preliminary Design Plans (B15 to B25).

The termini of the project provide the logical beginning and end point necessary to complete the bridge replacement and to transition the roadway project back to the existing approaches. The project is independent of any other action and able to be constructed without relying on the completion of any other project.

Every effort to avoid, minimize, and/or mitigate project impacts will be made.

Maintenance of Traffic (MOT):

The MOT will require the full closure of US 421, the detour will utilize US 24, SR 39, and SR 16 (Appendix B, B19). Please refer to the *Maintenance of Traffic* section of this document for full details. The MOT will be implemented per the *Indiana Design Manual* guidelines.

Right-of-Way

The proposed project will require the acquisition of 0.53 acre of permanent right-of-way and 0.25 acre of temporary right-of-way (Appendix B, B3 and B18). No relocations will be required.

Purpose and Need:

This project meets the purpose and need by improving the condition of the bridge to at least an 8. With the replacement of the bridge, the condition rating of all components will be 9, which represents a new structure with no deficiencies.

Indiana Department of Transportation

 County White County

 Route US 421

 Des. No. 1700103

OTHER ALTERNATIVES CONSIDERED:

Describe all discarded alternatives, including the Do-Nothing Alternative and an explanation of why each discarded alternative was not selected.

Bridge Rehabilitation: This alternative would involve repairing the existing bridge along US 421 over Hoagland Ditch. Rehabilitation is not feasible due to the condition of both the substructure and superstructure of the bridge. Patching the existing structure would not likely meet the purpose and need of bringing the condition ratings of the structure components to at least an 8. Therefore, this alternative was discarded from further consideration.

Do Nothing Alternative: This alternative involved no improvements to Bridge No 421-91-00889 A. While this alternative eliminates costs and any environmental impacts, it would not have met the objectives of the purpose and need of the project. Therefore, this alternative was discarded from further consideration.

The Do Nothing Alternative is not feasible, prudent or practicable because (Mark all that apply):

- It would not correct existing capacity deficiencies;
- It would not correct existing safety hazards;
- It would not correct the existing roadway geometric deficiencies;
- It would not correct existing deteriorated conditions and maintenance problems; or
- It would result in serious impacts to the motoring public and general welfare of the economy.
- Other (Describe)

<input type="checkbox"/>
<input type="checkbox"/>
<input type="checkbox"/>
<input checked="" type="checkbox"/>
<input type="checkbox"/>
<input type="checkbox"/>

ROADWAY CHARACTER:

US 421:

Functional Classification:	<u>Principal Arterial</u>				
Current ADT:	<u>4,778</u>	VPD (2022)	Design Year ADT:	<u>4,778</u>	VPD (2042)
Design Hour Volume (DHV):	<u>408</u>	Truck Percentage (%)	<u>24</u>		
Designed Speed (mph):	<u>55</u>	Legal Speed (mph):	<u>55</u>		

Existing	Proposed
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Number of Lanes:	2		2	
Type of Lanes:	Through lanes		Through lanes	
Pavement Width:	30	ft.	41	ft.
Shoulder Width:	5	ft.	4.8 - 9.5	ft.
Median Width:	N/A	ft.	N/A	ft.
Sidewalk Width:	N/A	ft.	N/A	ft.

Setting: Urban Suburban Rural
 Topography: Level Rolling Hilly

If the proposed action has multiple roadways, this section should be filled out for each roadway.

DESIGN CRITERIA FOR BRIDGES:

Structure/NBI Number(s):	Old Structure No.: 421-91-00889 A New Structure No.: 421-91-10323 NBI No.: 032370	Sufficiency Rating:	83.9, INDOT Bridge Inspection Report (4/25/2018) (Rating, Source of Information)
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Indiana Department of Transportation

County White County

Route US 421

Des. No. 1700103

Existing Proposed

Bridge Type:	Reinforced Concrete Arch	Prestressed Concrete Beam
Number of Spans:	1	1
Weight Restrictions:	N/A	N/A
Height Restrictions:	N/A	N/A
Curb to Curb Width:	41	41
Outside to Outside Width:	44.2	44
Shoulder Width:	8.5	8.5
Length of Channel Work:	8.5	98

Describe bridges and structures; provide specific location information for small structures.

Remarks: The proposed project will replace Bridge No. 421-91-00889A, a reinforced concrete filled arch bridge that carries US 421 over Hoagland Ditch, with a prestressed concrete bulb-tee beam bridge. The new bridge will be assigned Bridge No. 421-91-10323. The proposed project will impact a total of 98 linear feet of Hoagland Ditch and 250 feet of UNT to Hoagland Ditch (Appendix B, B3). Please refer to *Streams, Rivers, Watercourses & Jurisdictional Ditches* under Section A, *Ecological Resources* for a more detailed discussion of the impacts. No other structures will be impacted

Will the structure be rehabilitated or replaced as part of the project? Yes No N/A
If the proposed action has multiple bridges or small structures, this section should be filled out for each structure.

MAINTENANCE OF TRAFFIC (MOT) DURING CONSTRUCTION:

	Yes	No
Is a temporary bridge proposed?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Is a temporary roadway proposed?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Will the project involve the use of a detour or require a ramp closure? (describe in remarks)	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Provisions will be made for access by local traffic and so posted.	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Provisions will be made for through-traffic dependent businesses.	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Provisions will be made to accommodate any local special events or festivals.	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Will the proposed MOT substantially change the environmental consequences of the action?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Is there substantial controversy associated with the proposed method for MOT?	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Remarks: The MOT will require the closure of US 421 throughout construction. A marked detour utilizing US 24, SR 39, and SR 16 will be established (Appendix B, B19). The detour will be approximately 24.5 miles, for an added travel length of approximately 32.5 miles. Access to all drives will be maintained during construction. The detour is expected to last approximately 6 months. The MOT will be implemented per the *Indiana Design Manual* guidelines.

The closure will pose a temporary inconvenience to traveling motorists (including school buses and emergency services); however, no significant delays are anticipated, and all inconveniences will cease upon project completion. Delays will occur during construction but will cease upon project completion.

ESTIMATED PROJECT COST AND SCHEDULE:

Engineering: \$ 208,450 (2019/2021) Right-of-Way: \$ 100,000 (2021) Construction: \$ 2,389,942* (2021/2022)

Indiana Department of Transportation

County White County

Route US 421

Des. No. 1700103

Anticipated Start Date of Construction: Spring 2022

Date project incorporated into STIP September 5, 2017*

*Programmed into FY 2018-2021 STIP. Cost programmed into the FY 2021-2024 STIP include costs for the other projects in the contract.

Is the project in an MPO Area? **Yes** **No**

If yes,

Name of MPO N/A

Location of Project in TIP N/A

Date of incorporation by reference into the STIP N/A

RIGHT OF WAY:

Land Use Impacts	Amount (acres)	
	Permanent	Temporary
Residential	0.00	0.00
Commercial	0.00	0.00
Agricultural	0.53	0.00
Forest	0.00	0.00
Wetlands	0.00	0.00
Other: Railroad	0.00	0.25
Other:	0.00	0.00
TOTAL	0.53	0.25

Describe both Permanent and Temporary right-of-way and describe their current use. Typical and Maximum right-of-way widths (existing and proposed) should also be discussed. Any advance acquisition or reacquisition, either known or suspected, and there impacts on the environmental analysis should be discussed.

Remarks:

Within the project area, the typical existing ROW extends 30 feet from the roadway centerline on both sides of the road, for a width of 60 feet, with the maximum being 45 feet from the centerline along the west side of US 421. The maximum existing ROW width is 75 feet. The new ROW along US 421 will extend approximately 55 to 100 feet west of US 421 centerline. The ROW limits east of the centerline will remain the same. The new total right-of-way width within the project area will be from 85 feet to 130 feet (Appendix B, B3 and B18).

The project requires approximately 0.53 acre of permanent ROW from agricultural land use. The project also requires approximately 0.25 acres of temporary ROW from railroad land use.

If the scope of work or permanent or temporary right-of-way amounts change, the INDOT Environmental Services Division (ESD) and the INDOT District Environmental Section will be contacted immediately.

Indiana Department of Transportation

County White County

Route US 421

Des. No. 1700103

Part III – Identification and Evaluation of Impacts of the Proposed Action

SECTION A – ECOLOGICAL RESOURCES

	<u>Presence</u>	<u>Impacts</u>	
		<u>Yes</u>	<u>No</u>
Streams, Rivers, Watercourses & Jurisdictional Ditches	X	X	
Federal Wild and Scenic Rivers			
State Natural, Scenic or Recreational Rivers			
Nationwide Rivers Inventory (NRI) listed			
Outstanding Rivers List for Indiana			
Navigable Waterways			

Remarks:

Based on a desktop review, site visits on September 26, 2018 and March 28, 2019 by Lochmueller Group, the aerial map of the project area (Appendix B, B3), the USGS topographic map (Appendix B, B2), and the water resources map of the Red Flag Investigation (RFI) report (Appendix E, E8) there are seven streams, rivers, watercourses, and/or jurisdictional ditches located within the 0.5 mile search radius. There are two streams present within or adjacent to the project area.

A Waters of the U.S. Determination Report was approved by INDOT Ecology and Waterway Permitting Office on April 4, 2019 (Appendix F, F25). Please refer to Appendix F, page F1 to F24 for the *Waters of the U.S. Determination Report*. It was determined that Hoagland Ditch was identified flowing west to east through the project area and UNT to Hoagland Ditch was identified flowing north to south through the project area. Hoagland Ditch and UNT to Hoagland Ditch are likely Waters of the U.S. due to their well-defined ordinary high-water mark (OHWM) and the hydrologic connection to the Wabash River, a Traditionally Navigable Water. Hoagland Ditch flows east to the Tippecanoe River which flows to the Wabash River, approximately 39.5 river miles downstream of the project area. According to the USGS (1:24,000 scale) topographic map, Hoagland Ditch is a mapped perennial stream and UNT to Hoagland Ditch is mapped as an intermittent stream. Hoagland Ditch has an OHWM of 29 feet, 1 inch wide and 1 foot, 7 inches deep at this crossing. The UNT to Hoagland Ditch has an OHWM of 4 feet, 11 inches wide and 3.5 inches deep. Neither Hoagland Ditch nor UNT to Hoagland Ditch are listed as a Federal Wild and Scenic River, a State Natural, Scenic, and Recreational River or as an Indiana Department of Natural Resources (IDNR) Outstanding River. The U.S. Army Corp of Engineers (USACE) makes all final determinations regarding jurisdiction.

Approximately 98 linear feet (0.07 acre below OHWM) of Hoagland Ditch and 250 linear feet (0.03 acre below OHWM) of UNT to Hoagland Ditch flow within the project area. Of the 250 linear feet, 75 feet is encapsulated by a 60-inch diameter corrugated metal pipe and is considered previously impacted. New impacts to UNT to Hoagland Ditch will equal 175 feet (0.02 acre below OHWM). Impacts to the channel of Hoagland Ditch will result from access activities, vegetation clearing, riprap placement, and excavation to remove the existing structure. Impacts to UNT to Hoagland Ditch will result from vegetation clearing, riprap placement, excavation to remove the existing 60-inch diameter structure, and channel realignment activities. Approximately 250 feet of UNT to Hoagland Ditch will be filled and a new channel will be constructed approximately 17 feet west of the existing channel. The length of the new channel will be 253 from the point where it diverges from the existing channel. Approximately 41 feet of this new channel will be encapsulated by a new 60-inch pipe that will be installed underneath the new field entrance in the northwest quadrant. The new channel width will be 10 feet and will have 3:1 slopes up the banks. Because of the total permanent impacts to likely “Waters of the U.S.”, an Indiana Department of Environmental Management (IDEM) Section 401 Water Quality Certification (WQC) and a USACE Section 404 Regional General Permit (RGP) will be required. These impacts will total 273 linear feet (0.09 acre below OHWM). Since impacts are below the threshold to require mitigation of 300 linear feet (0.1 acre), mitigation is not anticipated to be required.

Indiana Department of Transportation

County White County

Route US 421

Des. No. 1700103

Early coordination information was sent to the USACE, U.S. Fish and Wildlife Service (USFWS), and the IDNR – Division of Fish and Wildlife (IDNR DFW) on February 6, 2019 (Appendix C, C1 to C4). The USACE did not respond to early coordination.

The USFWS responded on April 29, 2019 stating that due to the limited scope of the project, they will not be providing an official response letter (Appendix C, C14).

The IDNR DFW responded on March 7, 2019 with recommendations to limit impacts to streams in the vicinity of the project (Appendix C, C11 to C13). These recommendations include minimizing the use of riprap for bank stabilization, utilizing time of year restrictions on stream work, minimizing the movement of resuspended bottom sediment, and preventing any disturbed sediment from entering the waterway. All applicable IDNR DFW recommendations are included in the *Environmental Commitments* section of this CE document.

An automated letter was generated from the Indiana Department of Environmental Management (IDEM) website on January 22, 2020 (Appendix C, C40 to C47). Applicable recommendations from the Proposed Roadway Letter include coordinating with appropriate agencies with regards to stream impacts and limiting stream disturbance.

Other Surface Waters

- Reservoirs
- Lakes
- Farm Ponds
- Detention Basins
- Storm Water Management Facilities
- Other: _____

	<u>Presence</u>	<u>Impacts</u>	
		<u>Yes</u>	<u>No</u>
Reservoirs	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Lakes	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Farm Ponds	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Detention Basins	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Storm Water Management Facilities	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Other:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Remarks:

Based on a desktop review, site visits on September 26, 2018 and March 28, 2019 by Lochmueller Group, the aerial map of the project area (Appendix B, B3), the USGS topographic map (Appendix B, B2), and the water resource map in the RFI report (Appendix E, E8), there are no other surface waters within the 0.5 mile search radius. No other surface waters are present within the project area; therefore, no impacts are expected.

The USACE did not respond to the early coordination letter. The USFWS responded on April 29, 2019 stating that due to the limited scope of the project, they will not be providing an official response letter (Appendix C, C14). The IDNR DFW responded on March 7, 2019 but did not provide any recommendations relating to open water features (Appendix C, C11 to C13).

An automated letter was generated from the IDEM website on January 22, 2020 (Appendix C, C40 to C47). No recommendations related to open water features apply as there are no open water feature impacts associated with this project.

Wetlands

	<u>Presence</u>	<u>Impacts</u>	
		<u>Yes</u>	<u>No</u>
Wetlands	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Total wetland area: N/A acre(s) Total wetland area impacted: N/A acre(s)

(If a determination has not been made for non-isolated/isolated wetlands, fill in the total wetland area impacted above.)

Wetland No.	Classification	Total Size (Acres)	Impacted Acres	Comments
N/A	N/A	N/A	N/A	N/A

Indiana Department of Transportation

County White County

Route US 421

Des. No. 1700103

Documentation

ES Approval Dates

Wetlands (Mark all that apply)

Wetland Determination
 Wetland Delineation
 USACE Isolated Waters Determination
 Mitigation Plan

X

April 4, 2019

Improvements that will not result in any wetland impacts are not practicable because such avoidance would result in (Mark all that apply and explain):

- Substantial adverse impacts to adjacent homes, business or other improved properties;
- Substantially increased project costs;
- Unique engineering, traffic, maintenance, or safety problems;
- Substantial adverse social, economic, or environmental impacts, or
- The project not meeting the identified needs.

Measures to avoid, minimize, and mitigate wetland impacts need to be discussed in the remarks box.

Remarks:

Based on a review of the National Wetlands Inventory (NWI) on-line mapper (<https://www.fws.gov/wetlands/data/Mapper.html>) (Appendix F, F10), site visits on September 26, 2018 and March 28, 2019 by Lochmueller Group, the USGS topographic map (Appendix B, B2), and the water resource map of the RFI report (Appendix E, E8), there are five wetlands located within the 0.5 mile search radius. There are no wetlands present within or adjacent to the project area.

A *Waters of the U.S. Determination Report* was approved by the INDOT Ecology and Waterway Permitting Office on April 4, 2019 (Appendix F, F25). Please refer to Appendix F, pages F1 to F24 for the *Waters of the U.S. Determination Report*. It was determined that no wetland features exist within the project area. Therefore, no impacts are expected. The USACE makes all final determinations regarding jurisdiction.

The USACE did not respond to the early coordination letter. The USFWS responded on April 29, 2019 stating that due to the limited scope of the project, they will not be providing an official response letter (Appendix C, C14). The IDNR DFW responded on March 7, 2019 but did not provide any recommendations relating to wetland features (Appendix C, C11 to C13).

An automated letter was generated from the IDEM website on January 22, 2020 (Appendix C, C40 to C47). No recommendations related to wetland features apply as there are no wetland feature impacts associated with this project.

Presence

Impacts

Terrestrial Habitat

Unique or High Quality Habitat

X

Yes	No
X	

Use the remarks box to identify each type of habitat and the acres impacted (i.e. forested, grassland, farmland, lawn, etc).

Remarks:

Based on a desktop review, site visits on September 26, 2018 and March 28, 2019 by Lochmueller Group, and the aerial map of the project area (Appendix B, B3), there is maintained roadside, agricultural field, and some forested habitat within the project area. The dominant species include tall fescue (*Schedonorus arundinaceus*), reed canary grass (*Phalaris arundinacea*), rice cutgrass (*Leersia oryzoides*), scouring rush horsetail (*Equisetum hyemale*), and common milkweed (*Asclepias syriaca*). This project involves approximately 0.72 acre of ground disturbance. This will involve the clearing of five trees along the east side of US 421 south of Hoagland Ditch. Approximately, 0.20 acre of habitat would be considered forested, 0.23 acre would be considered maintained roadside and 0.29 acre would be considered agricultural. The avoidance of terrestrial habitat is not feasible because the proposed footprint is required to replace the bridge, which, as stated in the *Purpose and Need*

Indiana Department of Transportation

County White County

Route US 421

Des. No. 1700103

section of this document, is the preferred alternative that will meet the purpose and need of this project. Since the project will involve less than 1.0 acre of ground disturbance, no IDEM Rule 5 Permit will be require.

The USFWS responded on April 29, 2019 stating that due to the limited scope of the project, they will not be providing an official response letter (Appendix C, C14). The IDNR DFW responded on March 7, 2019 with recommendations pertaining to terrestrial habitat impacts (Appendix C, C11 to C13). These recommendations include keeping conditions favorable for wildlife crossing under the structure, revegetating all bare and disturbed areas, and minimizing clear of trees and brush to be within project limits. All applicable agency recommendations are included in the *Environmental Commitments* section of this CE document.

An automated letter was generated from the IDEM website on January 22, 2020 (Appendix C, C40 to C47). Applicable recommendations from the Proposed Roadway Letter include coordinating with appropriate agencies with regards to impacts to terrestrial habitat.

If there are high incidences of animal movements observed in the project area, or if bridges and other areas appear to be the sole corridor for animal movement, consideration of utilizing wildlife crossings should be taken.

Karst

	Yes	No
Is the proposed project located within or adjacent to the potential Karst Area of Indiana?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Are karst features located within or adjacent to the footprint of the proposed project?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
If yes, will the project impact any of these karst features?	<input type="checkbox"/>	<input type="checkbox"/>

Use the remarks box to identify any karst features within the project area. (Karst investigation must comply with the Karst MOU, dated October 13, 1993)

Remarks: Based on a desktop review, the proposed project is located outside the designated karst region of Indiana, as outlined in the October 13, 1993 Memorandum of Understanding (MOU). According to the topographic map of the project area (Appendix B, B2) and the water resources map of the RFI report (Appendix E, E8), there are no karst features identified within or adjacent to the project area. In the early coordination response, the Indiana Geological Survey (IGS) did not indicate that karst features may exist in the project area (Appendix C, C5 to C7). The coordination response did mention that there is a high potential for liquefaction and encountering bedrock resources, and a low potential for encountering sand and gravel resources. The response from IGS has been communicated with the designer on January 22, 2020. No impacts are expected.

Threatened or Endangered Species

	<u>Presence</u>	<u>Impacts</u>	
		Yes	No
Within the known range of any federal species	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Any critical habitat identified within project area	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Federal species found in project area (based upon informal consultation)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
State species found in project area (based upon consultation with IDNR)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

	Yes	No
Is Section 7 formal consultation required for this action?	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Remarks: Based on a desktop review and the RFI report completed by Lochmueller Group on June 21, 2019, the IDNR White County Endangered, Threatened, and Rare (ETR) Species List has been checked and is included in Appendix E, pages E9 to E10. The highlighted species on the list reflect the federal and state identified ETR species located within the county. According to the IDNR DFW early coordination response dated March 7, 2019 (Appendix C, C12 to C14), the Natural Heritage Program's Database has been checked. To date, no plant or animal species listed as state or federally threatened, endangered, or rare have been reported to occur in the project vicinity.

Indiana Department of Transportation

County White County

Route US 421

Des. No. 1700103

Project information was submitted through the USFWS’s Information for Planning and Consultation (IPaC) portal, and an official species list was generated (Appendix C, C15 to C20). The project is within the range of the federally endangered Indiana bat (*Myotis sodalis*) and the federally threatened northern long-eared bat (NLEB) (*Myotis septentrionalis*). No additional species were found within or adjacent to the project area, other than the Indiana bat and NLEB.

The project qualifies for the *Range-wide Programmatic Informal Consultation* for the Indiana bat and NLEB, dated May 2016 (revised February 2018), between FHWA, Federal Railroad Administration (FRA), Federal Transit Administration (FTA), and USFWS. An effect determination key was completed on November 4, 2019, and based on the responses provided, the project was found to “May Affect, Not Likely to Adversely Affect” the Indiana bat and/or the NLEB. INDOT reviewed and verified the effect finding on November 4, 2019 and requested USFWS’s review of the finding (Appendix C, C21 to C36). No response was received from USFWS within the 14-day review period; therefore, it was concluded that they concur with the finding. Avoidance and Mitigation Measures (AMMs) are included as firm commitments in the *Environmental Commitments* section of this CE document.

This precludes the need for further consultation on this project as required under Section 7 of the Endangered Species Act, as amended. If new information on endangered species at this site becomes available, or if project plans are changed, USFWS will be contacted for consultation.

SECTION B – OTHER RESOURCES

Drinking Water Resources	Presence	Impacts	
		Yes	No
Wellhead Protection Area	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Public Water System(s)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Residential Well(s)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Source Water Protection Area(s)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Sole Source Aquifer (SSA)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

If a SSA is present, answer the following:

	Yes	No
Is the Project in the St. Joseph Aquifer System?	<input type="checkbox"/>	<input type="checkbox"/>
Is the FHWA/EPA SSA MOU Applicable?	<input type="checkbox"/>	<input type="checkbox"/>
Initial Groundwater Assessment Required?	<input type="checkbox"/>	<input type="checkbox"/>
Detailed Groundwater Assessment Required?	<input type="checkbox"/>	<input type="checkbox"/>

Remarks: The project is located in White County, which is not located within the area of the St. Joseph Sole Source Aquifer, the only legally designated sole source aquifer in the state of Indiana. Therefore, the *FHWA/United States Environmental Protection Agency Sole Source Aquifer Memorandum of Understanding* is not applicable to this project. Therefore, a detailed groundwater assessment is not needed, and no impacts are expected.

The IDEM Wellhead Proximity Determinator website (<http://www.in.gov/idem/cleanwater/pages/wellhead/>) was accessed on January 27, 2020 by Lochmueller Group. This project is not located within a Wellhead Protection Area or Source Water Area.

The IDNR Water Well Web Record Database website (<https://www.in.gov/dnr/water/3595.htm>) was accessed on January 27, 2020 by Lochmueller Group. No wells are located near the project area. Therefore, no impacts are anticipated.

Indiana Department of Transportation

County White County

Route US 421

Des. No. 1700103

Based on a desktop review of the INDOT MS4 website (<https://entapps.indot.in.gov/MS4/>) by Lochmueller Group on October 28, 2019, and the RFI report; this project is not located within an Urban Area Boundary location. No impacts are expected.

Based on a desktop review, site visits on September 26, 2018 and March 28, 2019 by Lochmueller Group, and the aerial map of the project area (Appendix B, B3), this project is not located where there will be public water system impacts. Therefore, no impacts are expected.

Flood Plains	<u>Presence</u>	<u>Impacts</u>	
		Yes	No
Longitudinal Encroachment	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Transverse Encroachment	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Project located within a regulated floodplain	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Homes located in floodplain within 1000' up/downstream from project	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Discuss impacts according to classification system described in the "Procedural Manual for Preparing Environmental Studies".

Remarks: The Indiana Department of Natural Resources Indiana Floodway Information Portal website (<http://dnrmaps.dnr.in.gov/appsphp/fdms/>) was accessed on October 28, 2019 by Lochmueller Group. This project is not located in a regulatory floodplain as determined from approved IDNR floodplain maps (Appendix F, F11). Therefore, it does not fall within the guidelines for the implementation of 23 CFR 650, 23 CFR 771, and 44 CFR. No impacts are expected.

Farmland	<u>Presence</u>	<u>Impacts</u>	
		Yes	No
Agricultural Lands	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Prime Farmland (per NRCS)	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Total Points (from Section VII of CPA-106/AD-1006* 154
**If 160 or greater, see CE Manual for guidance.*

See CE Manual for guidance to determine which NRCS form is appropriate for your project.

Remarks: Based on a desktop review, site visits on September 26, 2018 and March 28, 2019 by Lochmueller Group and the aerial map of the project area (Appendix B, B3), the project will convert 0.29 acre of farmland as defined by the Farmland Protection Policy Act. An early coordination letter was sent on February 6, 2019 to the Natural Resources Conservation Service (NRCS). Coordination with NRCS resulted in a score of 154 on the NRCS-CPA-106 Form (Appendix C, C9 to C10). NRCS's threshold score for significant impacts to farmland that result in the consideration of alternatives is 160. Since this project score is less than the threshold, no significant loss of prime, unique, statewide, or local important farmland will result from the project. No alternatives, other than those previously discussed in this document, will be investigated without re-evaluating impacts to prime farmland.

SECTION C – CULTURAL RESOURCES

	Category	Type	INDOT Approval Dates	N/A
Minor Projects PA Clearance	B	10 & 12	December 4, 2019	<input type="checkbox"/>

Eligible and/or Listed
Resource Present

Results of Research

Archaeology	<input type="checkbox"/>
NRHP Buildings/Site(s)	<input type="checkbox"/>
NRHP District(s)	<input type="checkbox"/>
NRHP Bridge(s)	<input type="checkbox"/>

Indiana Department of Transportation

County White County

Route US 421

Des. No. 1700103

Project Effect

No Historic Properties Affected No Adverse Effect Adverse Effect

Documentation Prepared

Documentation (mark all that apply)

	ES/FHWA Approval Date(s)	SHPO Approval Date(s)
Historic Properties Short Report		
Historic Property Report		
Archaeological Records Check/ Review		
Archaeological Phase Ia Survey Report	December 4, 2019	N/A
Archaeological Phase Ic Survey Report		
Archaeological Phase II Investigation Report		
Archaeological Phase III Data Recovery		
APE, Eligibility and Effect Determination		
800.11 Documentation		

Memorandum of Agreement (MOA) **MOA Signature Dates** (List all signatories)

Describe all efforts to document cultural resources, including a detailed summary of the Section 106 process, using the categories outlined in the remarks box. The completion of the Section 106 process requires that a Legal Notice be published in local newspapers. Please indicate the publication date, name of paper(s) and the comment period deadline. Likewise include any further Section 106 work which must be completed at a later date, such as mitigation or deep trenching.

Remarks: On December 4, 2019 the INDOT Cultural Resources Office (CRO) determined that this project falls within the guidelines of Category B, Types 10 and 12 under the Minor Projects Programmatic Agreement, (Appendix D, D1 to D5). The project types in Category B are:

10. Slide corrections, slope repairs, and other erosion control measures, in undisturbed soils where an archaeological investigation was performed and found no National Registered for Historic Places (NRHP)-listed or potentially NRHP-eligible sites are present within the project area and work does not occur adjacent to or within a NRHP listed or eligible district or individual resource.
12. Replacement, widening, or raising the elevation of the superstructure on existing bridges, and bridge replacement projects (when both the superstructure and substructure are removed) in undisturbed soils where an archaeological investigation was performed and found no National Registered for Historic Places (NRHP)-listed or potentially NRHP-eligible sites are present within the project area, work does not occur adjacent to or within a NRHP listed or eligible district or individual resource, and the latest Historic Bridge Inventory identified the bridge as non-historic.

An Archaeological Phase Ia Short Report was completed for this project by Louis Bubb, MA, on November 26, 2019. No archaeological sites were encountered within the survey area. No further consultation is required. This completes the Section 106 process and the responsibilities of the FHWA under Section 106 have been fulfilled.

Indiana Department of Transportation

County White County

Route US 421

Des. No. 1700103

SECTION D – SECTION 4(f) RESOURCES/ SECTION 6(f) RESOURCES

Section 4(f) Involvement (mark all that apply)

Parks & Other Recreational Land

- Publicly owned park
- Publicly owned recreation area
- Other (school, state/national forest, bikeway, etc.)

Presence

Use

Yes	No

Evaluations
Prepared

- Programmatic Section 4(f)*
- “De minimis” Impact*
- Individual Section 4(f)

FHWA
Approval date

--

Wildlife & Waterfowl Refuges

- National Wildlife Refuge
- National Natural Landmark
- State Wildlife Area
- State Nature Preserve

Presence

Use

Yes	No

Evaluations
Prepared

- Programmatic Section 4(f)*
- “De minimis” Impact*
- Individual Section 4(f)

FHWA
Approval date

--

Historic Properties

- Sites eligible and/or listed on the NRHP

Presence

--

Use

Yes	No

Evaluations
Prepared

- Programmatic Section 4(f)*
- “De minimis” Impact*
- Individual Section 4(f)

FHWA
Approval date

--

**FHWA approval of the environmental document also serves as approval of any Section 4f Programmatic and/or De minimis evaluation(s) discussed below.*

Discuss Programmatic Section 4(f) and “de minimis” Section 4(f) impacts in the remarks box below. Individual Section 4(f) documentation must be separate Draft and Final documents. For further discussions on Programmatic, “de minimis” and Individual Section 4(f) evaluations please refer to the “Procedural Manual for the Preparation of Environmental Studies”. Discuss proposed alternatives that satisfy the requirements of Section 4(f).

Remarks:

Section 4(f) of the U.S. Department of Transportation Act of 1966 prohibits the use of certain public and historic lands for federally funded transportation facilities unless there is no feasible and prudent alternative. The law applies to significant publicly owned parks, recreational areas, wildlife/waterfowl refuges, and NRHP eligible or listed historical properties regardless of ownership. Lands subject to this law are considered Section 4(f) resources.

Based on a desktop review, site visits on September 26, 2018 and March 28, 2019 by Lochmueller Group, the aerial map of the project area (Appendix B, B3), and the RFI report (Appendix E, E7) there are no Section 4(f)

Indiana Department of Transportation

County White County

Route US 421

Des. No. 1700103

resources within the 0.5 miles search radius. There are no Section 4(f) resources within or adjacent to the project area. Therefore, no impacts are expected.

Section 6(f) Involvement

Presence

Use

Yes

No

Section 6(f) Property

Discuss proposed alternatives that satisfy the requirements of Section 6(f). Discuss any Section 6(f) involvement.

Remarks:

The U.S. Land and Water Conservation Fund Act of 1965 established the Land and Water Conservation Fund (LWCF) which was created to preserve, develop, and assure accessibility to outdoor recreation resources. Section 6(f) of this Act prohibits conversion of lands purchased with LWCF monies to a non-recreation use.

A review of Section 6(f) property on the INDOT Environmental Policy website at (<https://www.in.gov/indot/2523.htm>) revealed a total of two properties represented by three records in White County (Appendix J, J1). None of these properties are located within or adjacent to the project area. Therefore, there will be no impacts to Section 6(f) resources as a result of this project.

SECTION E – Air Quality

Air Quality

Conformity Status of the Project

Is the project in an air quality non-attainment or maintenance area?

Yes

No

If YES, then:

Is the project in the most current MPO TIP?

Is the project exempt from conformity?

If the project is NOT exempt from conformity, then:

Is the project in the Transportation Plan (TP)?

Is a hot spot analysis required (CO/PM)?

Level of MSAT Analysis required?

Level 1a Level 1b Level 2 Level 3 Level 4 Level 5

Remarks:

The FY 2020-2024 STIP is listed based on the lead DES number in the contract, which is the DES. Number for this project, 1700103. The FY 2020-2024 STIP includes DES number 1700103 by reference with the contract number 42245 (Appendix H, H1 to H3).

This project is located within White County, which is currently in attainment for all criteria pollutants according to the IDEM website (<https://www.in.gov/idem/airquality/2339.htm>). Therefore, the conformity procedures of 40 CFR Part 93 do not apply.

This project is of a type qualifying as a categorical exclusion (Group 1) under 23 CFR 771.117(c), or exempt under the Clean Air Act conformity rule under 40 CFR 93.126, and as such, a Mobile Source Air Toxics analysis is not required.

Indiana Department of Transportation

County White County

Route US 421

Des. No. 1700103

SECTION F – NOISE

Noise **Yes** **No**
 Is a noise analysis required in accordance with FHWA regulations and INDOT's traffic noise policy?

	No	Yes/ Date
ES Review of Noise Analysis	<input type="checkbox"/>	<input type="checkbox"/>

Remarks: This is a Type III project. In accordance with 23 CFR 772 and the current *INDOT Traffic Noise Analysis Procedure*, this action does not require a formal noise analysis.

SECTION G – COMMUNITY IMPACTS

	Yes	No
Regional, Community & Neighborhood Factors		
Will the proposed action comply with the local/regional development patterns for the area?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Will the proposed action result in substantial impacts to community cohesion?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Will the proposed action result in substantial impacts to local tax base or property values?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Will construction activities impact community events (festivals, fairs, etc.)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Does the community have an approved transition plan?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
If No, are steps being made to advance the community's transition plan?	<input type="checkbox"/>	<input type="checkbox"/>
Does the project comply with the transition plan? (explain in the remarks box)	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Remarks: The project will ultimately be beneficial to local business and properties due to the improved conditions of the roadway along this stretch of US 421. Overall, the negative impacts to property owners and local businesses within the project area will consist primarily of short-term construction impacts. No relocations are expected. Property owners will be provided access throughout the duration of the project to reduce impacts as much as possible. The project is not anticipated to result in substantial impacts to community cohesion, because it will not change access to properties within the area. The proposed project is not expected to impact the surrounding community or cause economic impacts to the surrounding area. Therefore, this project will have minimal or no negative impacts to the community or local economy.

According to the Fairs and Festivals website (www.indianafestivals.org) accessed on January 27, 2020 by Lochmueller Group there are no fairs and festivals scheduled within 10 miles of the project.

The MOT may pose delays and temporary inconveniences to traveling motorists (including school buses and emergency services); however, all inconveniences will cease upon project completion. The MOT for the project is not anticipated to impact access to community events. The project sponsor will be responsible for contacting school districts and emergency services at least two weeks prior to any construction activities that would limit access. This is included as a firm commitment in the *Environmental Commitments* section of this CE document.

The Americans with Disabilities Act (ADA) Transition Plan for White County, Indiana was approved and implemented on September 16, 2013. The project will comply with the published ADA Transition Plan and will not create any additional barriers to access because no pedestrian facilities currently exist within the project area and no new pedestrian facilities are proposed.

Indirect and Cumulative Impacts **Yes** **No**
 Will the proposed action result in substantial indirect or cumulative impacts?

Remarks: Indirect impacts are effects which are caused by the action and are later in time or farther removed in distance but are still reasonably foreseeable. Indirect effects may include growth inducing effects and other effects

Indiana Department of Transportation

County White County

Route US 421

Des. No. 1700103

related to induced changes in the pattern of land use, population density, or growth rate. Cumulative impacts affect the environment which result from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency or person undertakes such other actions.

This project will not add substantial capacity to the existing roadway network or provide additional access to any currently undeveloped area. Therefore, the project is not expected to increase development in the area or result in substantial indirect or cumulative impacts.

Public Facilities & Services

Will the proposed action result in substantial impacts on health and educational facilities, public and private utilities, emergency services, religious institutions, airports, public transportation or pedestrian and bicycle facilities? *Discuss how the maintenance of traffic will affect public facilities and services.*

Yes	No
<input type="checkbox"/>	<input checked="" type="checkbox"/>

Remarks:

Based on a desktop review, site visits on September 26, 2018 and March 28, 2019 by Lochmueller Group, the aerial map of the project area (Appendix B, B3), and the RFI report (Appendix E, E7) there is a communication line and an electrical line within the project area. Utility coordination has begun and will continue throughout the project to ensure that impacts to the utilities are minimal. Access to all properties will be maintained during construction. Therefore, no impacts are expected.

Early coordination information was sent to INDOT Utilities and Railroad, North White School Corporation, White County Board of Commissioners, White County Council, White County Highway Department, White County Sheriff's Department, Monon Volunteer Fire Department, and Honey Creek Township Volunteer Fire Department on February 6, 2019 (Appendix C, C1 to C4). None of the above listed agencies responded to the early coordination letter.

It is the responsibility of the project sponsor to notify school corporations and emergency services at least two weeks prior to any construction that would block or limit access.

Environmental Justice (EJ) (Presidential EO 12898)

During the development of the project were EJ issues identified?

Does the project require an EJ analysis?

If YES, then:

Are any EJ populations located within the project area?

Will the project result in adversely high or disproportionate impacts to EJ populations?

Yes	No
<input type="checkbox"/>	<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>

Remarks:

Under FHWA Order 6640.23A, FHWA and the project sponsor, as recipient of funding from FHWA, are responsible to ensure that their programs, policies, and activities do not have a disproportionately high and adverse effect on minority or low-income populations. Per the current INDOT *Categorical Exclusion Preparation Manual*, an Environmental Justice (EJ) Analysis is required for any project that has two or more relocations or 0.5 acre of additional permanent right-of-way. This project will require a total of 0.53 acre of permanent right-of-way. Therefore, an EJ analysis is required.

Potential EJ impacts are detected by locating minority and low-income populations relative to a reference population to determine if populations of EJ concern exist and whether there could be disproportionately high and adverse impacts to them. The reference population may be a county, city, or town and is called the community of comparison (COC). In this project, the COC is White County. The community that overlaps the project limits is called the affected community (AC). In this project, there are 2 AC's. AC 1 is Census Tract 9583 and AC 2 is Census Tract 9584.

An AC has a population of concern for EJ if the population is more than 50% minority or low-income or if the low-income or minority population is 125% of the COC. Data from the American Community Survey (ACS) 5-Year Estimate was obtained from the U.S. Census Bureau website (<https://factfinder.census.gov/>) on January

Indiana Department of Transportation

County White County

Route US 421

Des. No. 1700103

SECTION H – HAZARDOUS MATERIALS & REGULATED SUBSTANCES

Hazardous Materials & Regulated Substances (Mark all that apply)

	<u>Documentation</u>
Red Flag Investigation	<input checked="" type="checkbox"/>
Phase I Environmental Site Assessment (Phase I ESA)	<input type="checkbox"/>
Phase II Environmental Site Assessment (Phase II ESA)	<input type="checkbox"/>
Design/Specifications for Remediation required?	<input type="checkbox"/>

	No	Yes/ Date
ES Review of Investigations	<input type="checkbox"/>	June 21, 2019

Include a summary of findings for each investigation.

Remarks: Based on a review of GIS and available public records, a RFI was approved on June 21, 2019 by INDOT Site Assessment and Management (Appendix E, E1 to E10). No sites with hazardous material concerns or sites involved with regulated substances were identified in or within 0.5 mile of the project area. Further investigation for hazardous materials or regulated substances is not required at this time.

SECTION I – PERMITS CHECKLIST

Permits (mark all that apply) Likely Required

Army Corps of Engineers (404/Section 10 Permit)	
Individual Permit (IP)	<input type="checkbox"/>
Nationwide Permit (NWP)	<input type="checkbox"/>
Regional General Permit (RGP)	<input checked="" type="checkbox"/>
Pre-Construction Notification (PCN)	<input type="checkbox"/>
Other	<input type="checkbox"/>
Wetland Mitigation required	<input type="checkbox"/>
Stream Mitigation required	<input type="checkbox"/>
IDEM	
Section 401 WQC	<input checked="" type="checkbox"/>
Isolated Wetlands determination	<input type="checkbox"/>
Rule 5	<input type="checkbox"/>
Other	<input type="checkbox"/>
Wetland Mitigation required	<input type="checkbox"/>
Stream Mitigation required	<input type="checkbox"/>
IDNR	
Construction in a Floodway	<input type="checkbox"/>
Navigable Waterway Permit	<input type="checkbox"/>
Lake Preservation Permit	<input type="checkbox"/>
Other	<input type="checkbox"/>
Mitigation Required	<input type="checkbox"/>
US Coast Guard Section 9 Bridge Permit	
Others (Please discuss in the remarks box below)	
	<input type="checkbox"/>

Remarks: A total of 273 linear feet (0.09 acre below the OHWM) of Hoagland Ditch and UNT to Hoagland Ditch will be impacted by the project. Impacts will be limited to the portion of the creek within the construction limits of the project. A USACE Section 404 RGP and IDEM Section 401 WQC will be required due to the impacts to Hoagland Ditch and UNT to Hoagland Ditch. A formal jurisdictional determination has not yet been made by the USACE, which will be required during the permitting phase.

Indiana Department of Transportation

County White County

Route US 421

Des. No. 1700103

Mitigation is required when cumulative stream and wetland impacts meet or exceed 300 linear feet or 0.1 acre below the ordinary high water mark. Due to the cumulative impacts of 273 linear feet and 0.09 acre, mitigation will not be required for the USACE Section 404 RGP and the IDEM Section 401 WQC.

Applicable recommendations are included in the *Environmental Commitments* section of this CE document. If permits are found to be necessary, the conditions of the permit will be requirements of the project and will supersede these recommendations.

It is the responsibility of the project sponsor to identify and obtain all required permits.

SECTION J- ENVIRONMENTAL COMMITMENTS

The following information should be provided below: List all commitments, name of agency/organization requesting the commitment(s), and indicating which are firm and which are for further consideration. The commitments should be numbered.

Remarks:

Firm:

1. If the scope of work or permanent or temporary right-of-way amounts change, the INDOT Environmental Services Division (ESD) and the INDOT District Environmental Section will be contacted immediately. (INDOT ESD and INDOT District)
2. It is the responsibility of the project sponsor to notify school corporations and emergency services at least two weeks prior to any construction that would block or limit access. (INDOT ESD)
3. Any work in a wetland area within right-of-way or in borrow/waste areas is prohibited unless specifically allowed in the U.S. Army Corps of Engineers permit. (INDOT ESD)
4. 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. (USFWS)
5. LIGHTING AMM 1: Direct temporary lighting away from suitable habitat during the active season. (USFWS)
6. TREE REMOVAL AMM 1: Modify all phases/aspects of the project (e.g., temporary work areas, alignments) to avoid tree removal. (USFWS)
7. 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.
8. 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). (USFWS)
9. 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.

For Further Consideration:

10. The new, replacement, or rehabbed structure should not create conditions that are less favorable for wildlife passage under the structure compared to the current conditions. (IDNR DFW)
11. 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. (IDNR DFW)
12. Do not construct any temporary runarounds, access bridges, causeways, cofferdams, diversions, or pumparounds. (IDNR DFW)

This is page 21 of 22 Project name: US 421 over Hoagland Ditch – Bridge Replacement Date: May 27, 2020

Indiana Department of Transportation

County White County

Route US 421

Des. No. 1700103

13. Use minimum average 6-inch graded riprap stone extended below the normal water level to provide habitat for aquatic organisms in the voids. (IDNR DFW)
14. Avoid all work within the inundated part of the stream channel 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. (USFWS)
15. 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. (USFWS)
16. Minimize the extent of hard armor (riprap) in bank stabilization by using bioengineering techniques whenever possible. If riprap is utilized for bank stabilization, extend it below low-water elevation to provide aquatic habitat. (USFWS)
17. 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. (USFWS)

SECTION K- EARLY COORDINATION

Please list the date coordination was sent and all agencies that were contacted as a part of the development of this Environmental Study. Also, include the date of their response or indicate that no response was received. INDOT and FHWA are automatically considered early coordination participants and should only be listed if a response is received.

Remarks: Early coordination with the regulatory agencies was completed on February 6, 2019 (Appendix C, C1 to C4). If no response was received, it was assumed the agency did not feel the project will result in substantial impacts. The following agencies/individuals were contacted during the coordination phase.

	Agency	Date of Response(s)
1.	USACE, Louisville District	No Response
2.	USFWS, Northern Indiana Suboffice	April 29, 2019
3.	USDA, NRCS	February 13, 2019
4.	National Park Service, Midwest Regional Office	No Response
5.	U.S. Department of Housing and Urban Development	No Response
6.	FHWA, Indiana Division	No Response
7.	IDNR, Division of Fish and Wildlife	March 7, 2019
8.	Indiana Geological Survey (electronic submission)	February 7, 2019
9.	INDOT, Office of Public Involvement	February 7, 2019
10.	INDOT, Environmental Services	No Response
11.	INDOT, LaPorte District Project Manager	No Response
12.	INDOT, LaPorte District Environmental Scoping Manager	No Response
13.	INDOT, Utilities and Railroads	No Response
14.	IDEM (electronic submission)	January 22, 2020
15.	White County Board of Commissioners	No Response
16.	White County, Honey Creek Township Trustee	No Response
17.	White County Highway Department	No Response
18.	White County Surveyor's Office	No Response
19.	White County Emergency Management Agency	No Response
20.	White County Sheriff's Department	No Response
21.	White County Council	No Response
22.	North White School Corporation	No Response
23.	Monon Volunteer Fire Department	No Response
24.	Honey Creek Townships Volunteer Fire Department	No Response

Appendix A: INDOT Supporting Documentation

Threshold Chart.....A1

Appendix B: Graphics

General Location Map.....B1
USGS Monon, Indiana Quadrangle Topographic Map.....B2
Project Aerial (2018).....B3
Photo Location Map (2018).....B4
Site Photographs.....B5-B14
Preliminary Plan Sheets.....B15-B25

Appendix C: Early Coordination

Sample Early Coordination Letter (February 6, 2019).....C1-C4
Indiana Geological Survey
Electronic Response (February 7, 2019).....C5-C7
Indiana Department of Transportation (INDOT), Office of Public Involvement
Response Email (February 7, 2019).....C8
Natural Resources Conservation Service
Response Letter (February 13, 2019).....C9
Completed NRCS-CPA-106 Form.....C10
Indiana Department of Natural Resources (IDNR), Division of Fish and Wildlife
Response Letter (March 7, 2019).....C11-C13
United States Fish and Wildlife Service
Response Email (April 29, 2019).....C14
IPaC Official Species List (April 6, 2020).....C15-C20
IPaC Concurrence Verification Letter (November 4, 2019).....C21-C36
Bridge/Structure Assessment Form (March 28, 2019).....C37-C38
Indiana Department of Environmental Management
Electronic Response (January 22, 2020).....C39-C46

Appendix D: Section 106 of the National Historic Preservation Act (NHPA)

INDOT Cultural Resources Office (CRO) MPPA Concurrence Email.....D1
MPPA Project Assessment Form.....D2-D5

Appendix E: Red Flag Investigation

Red Flag Investigation.....E1-E10

Appendix F: Water Resources

Waters of the U.S. Determination Report.....F1-F8
Water Resources Map.....F9
NWI Wetlands Map.....F10
FEMA Floodplain Map.....F11
USGS StreamStats Map.....F12
Soil Survey.....F13-F17
Wetland Data Sheets.....F18-F20
Preliminary Jurisdictional Determination.....F21-F24
INDOT Ecology and Waterway Permitting approval email.....F25

Appendix G: Public Involvement

Notice of Survey.....G1-G2
INDOT Notice of Survey Attachment.....G3

Appendix H: Air Quality

Relevant pages from the INDOT 2020-2024 STIP.....H1
Relevant pages from the INDOT 2018-2021 STIP.....H2-H3

Appendix I: Environmental Justice (EJ) Analysis

EJ Analysis Map.....	I1
Data Calculation Table.....	I2
Population Data.....	I3-I7

Appendix J: Other Information

Land and Water Conservation Fund Grants: White County, Indiana.....	J1
INDOT Bridge Inspection Report	J2-J28

Categorical Exclusion

Appendix A

INDOT Supporting Documentation

Categorical Exclusion Level Thresholds

	PCE	Level 1	Level 2	Level 3	Level 4 ¹
Section 106	Falls within guidelines of Minor Projects PA	“No Historic Properties Affected”	“No Adverse Effect”	-	“Adverse Effect” Or Historic Bridge involvement ²
Stream Impacts	No construction in waterways or water bodies	< 300 linear feet of stream impacts	≥ 300 linear feet of stream impacts	-	Individual 404 Permit
Wetland Impacts	No adverse impacts to wetlands	< 0.1 acre	-	< 1 acre	≥ 1 acre
Right-of-way³	Property acquisition for preservation only or none	< 0.5 acre	≥ 0.5 acre	-	-
Relocations	None	-	-	< 5	≥ 5
Threatened/Endangered Species (Species Specific Programmatic for Indiana bat & northern long eared bat)	“No Effect”, “Not likely to Adversely Affect” (Without AMMs ⁴ or with AMMs required for all projects ⁵)	“Not likely to Adversely Affect” (With any other AMMs)	-	“Likely to Adversely Affect”	Project does not fall under Species Specific Programmatic
Threatened/Endangered Species (Any other species)	Falls within guidelines of USFWS 2013 Interim Policy	“No Effect”, “Not likely to Adversely Affect”	-	-	“Likely to Adversely Affect”
Environmental Justice	No disproportionately high and adverse impacts	-	-	-	Potential ⁶
Sole Source Aquifer	Detailed Assessment Not Required	-	-	-	Detailed Assessment
Floodplain	No Substantial Impacts	-	-	-	Substantial Impacts
Coastal Zone Consistency	Consistent	-	-	-	Not Consistent
National Wild and Scenic River	Not Present	-	-	-	Present
New Alignment	None	-	-	-	Any
Section 4(f) Impacts	None	-	-	-	Any
Section 6(f) Impacts	None	-	-	-	Any
Added Through Lane	None	-	-	-	Any
Permanent Traffic Alteration	None	-	-	-	Any
Coast Guard Permit	None	-	-	-	Any
Noise Analysis Required	No	-	-	-	Yes
Air Quality Analysis Required	No	-	-	-	Yes ⁷
Approval Level	Concurrence by INDOT District Environmental or Environmental Services	Yes	Yes	Yes	Yes
<ul style="list-style-type: none"> • District Env. Supervisor • Env. Services Division • FHWA 				Yes	Yes

¹Coordinate with INDOT Environmental Services. INDOT will then coordinate with the appropriate FHWA Environmental Specialist.

²Any involvement with a bridge processed under the Historic Bridge Programmatic Agreement.

³Permanent and/or temporary right-of-way.

⁴AMMs = Avoidance and Mitigation Measures.

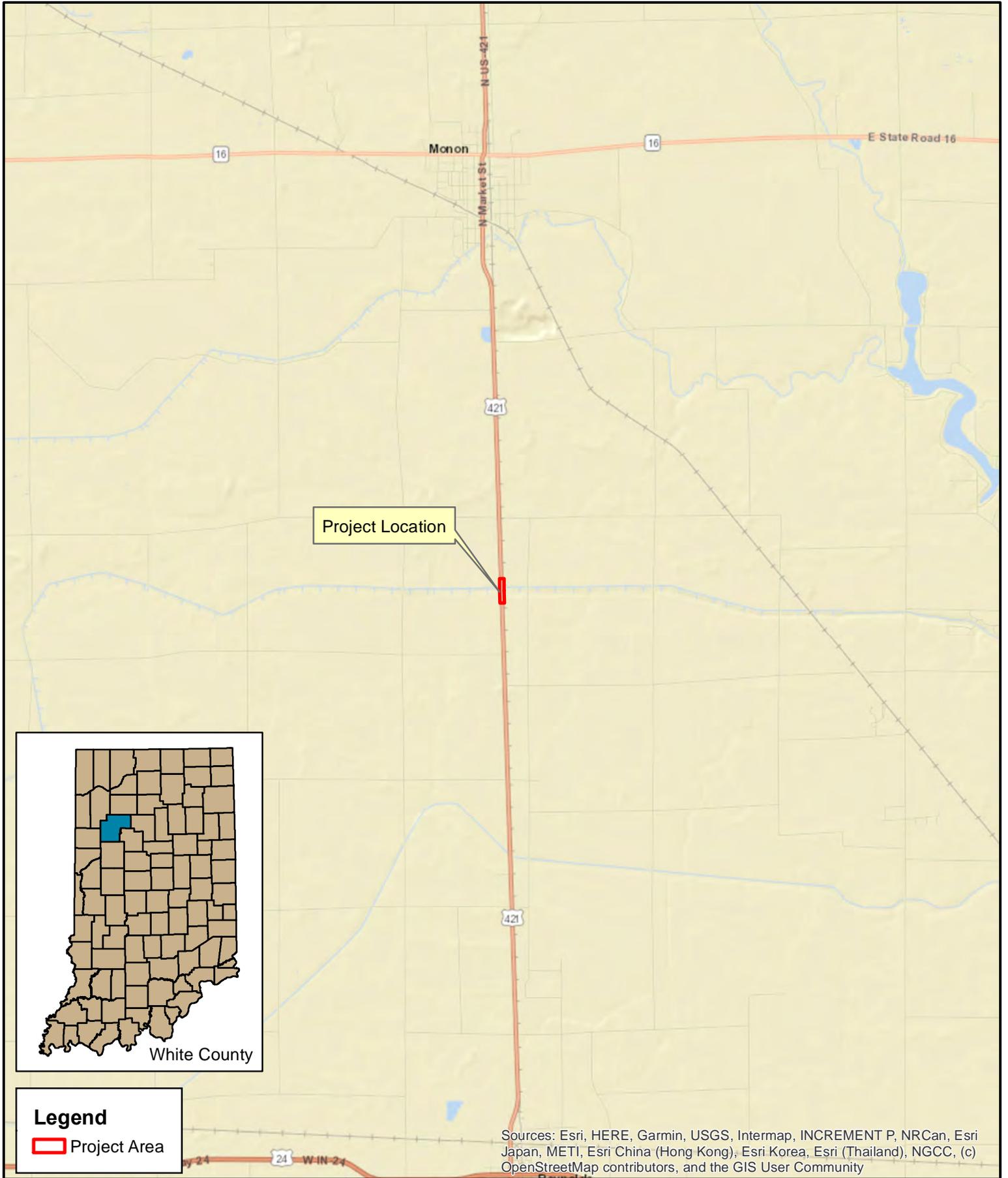
⁵AMMs determined by the IPAC decision key to be needed that are listed in the USFWS *User’s Guide for the Range-wide Programmatic Consultation for Indiana bat and Northern long-eared bat* as “required for all projects”.

⁶Potential for causing a disproportionately high and adverse impact.

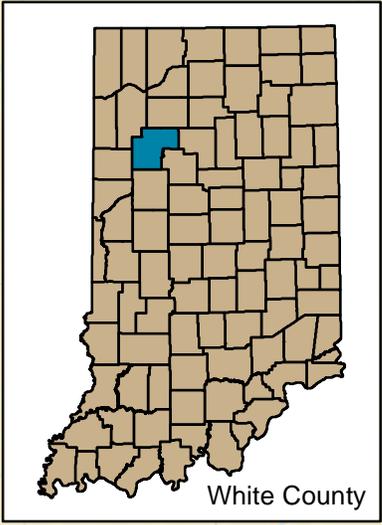
⁷Hot Spot Analysis and/or MSAT Quantitative Emission Analysis.

*Substantial public or agency controversy may require a higher-level NEPA document.

Categorical Exclusion
Appendix B
Graphics



Project Location



Legend
 Project Area

Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community



LOCHMUELLER GROUP
 3502 Woodview Trace, Suite 150
 Indianapolis, IN 46268
 Phone: (317) 222-3880
 Fax: (317) 222-3881

Project Location Map
Des. No. 1700103

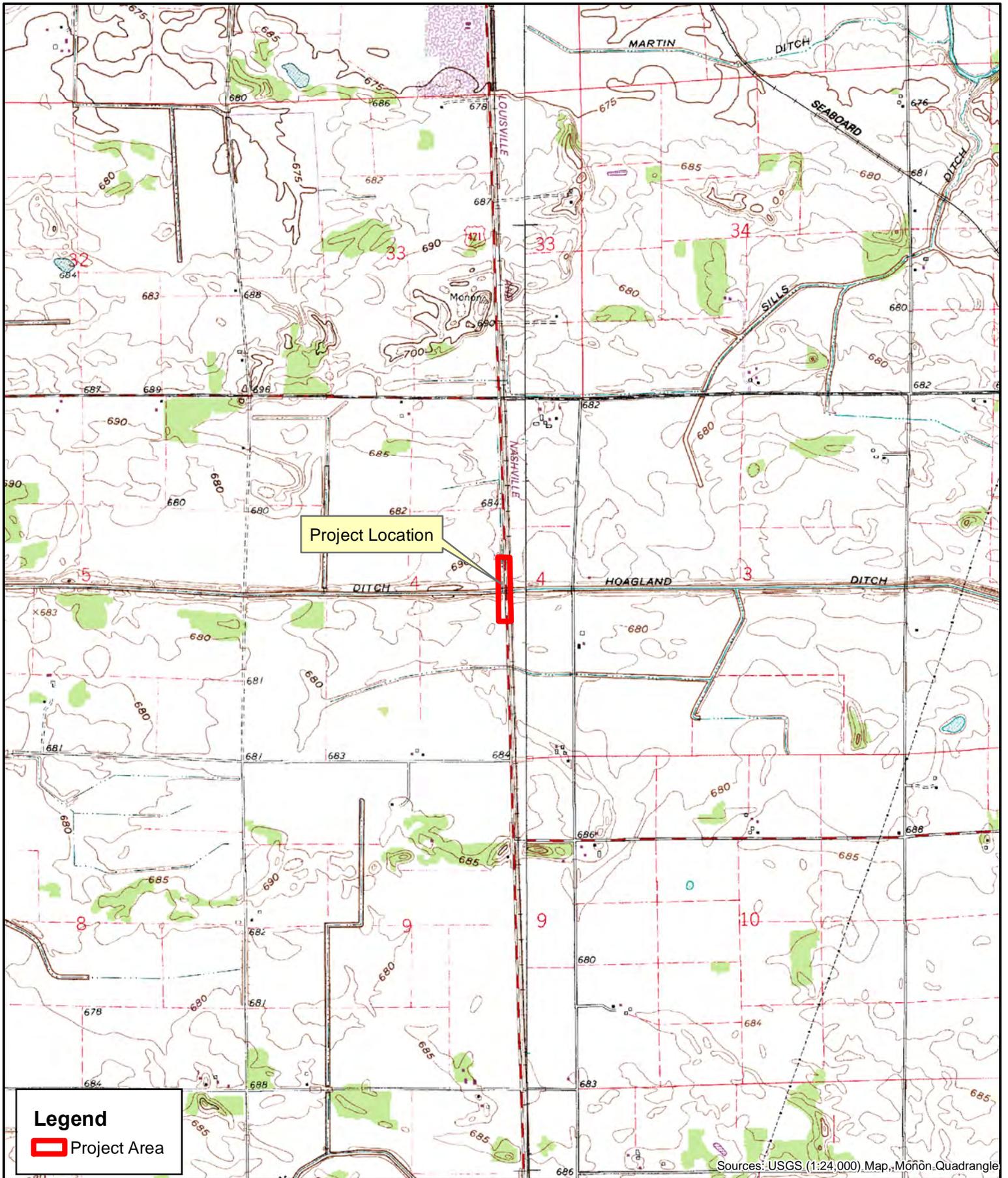


0 0.5 1 Miles



County: White
 Township: Honey Creek
 State: Indiana

US 421 Bridge Replacement
 US 421; 3.5 mile south of SR 16
 Created: 1/22/2020, C Kunkel

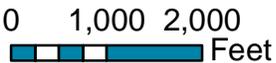


Legend
 Project Area

USGS Quadrangle
Monon Quadrangle
Des. No. 1700103

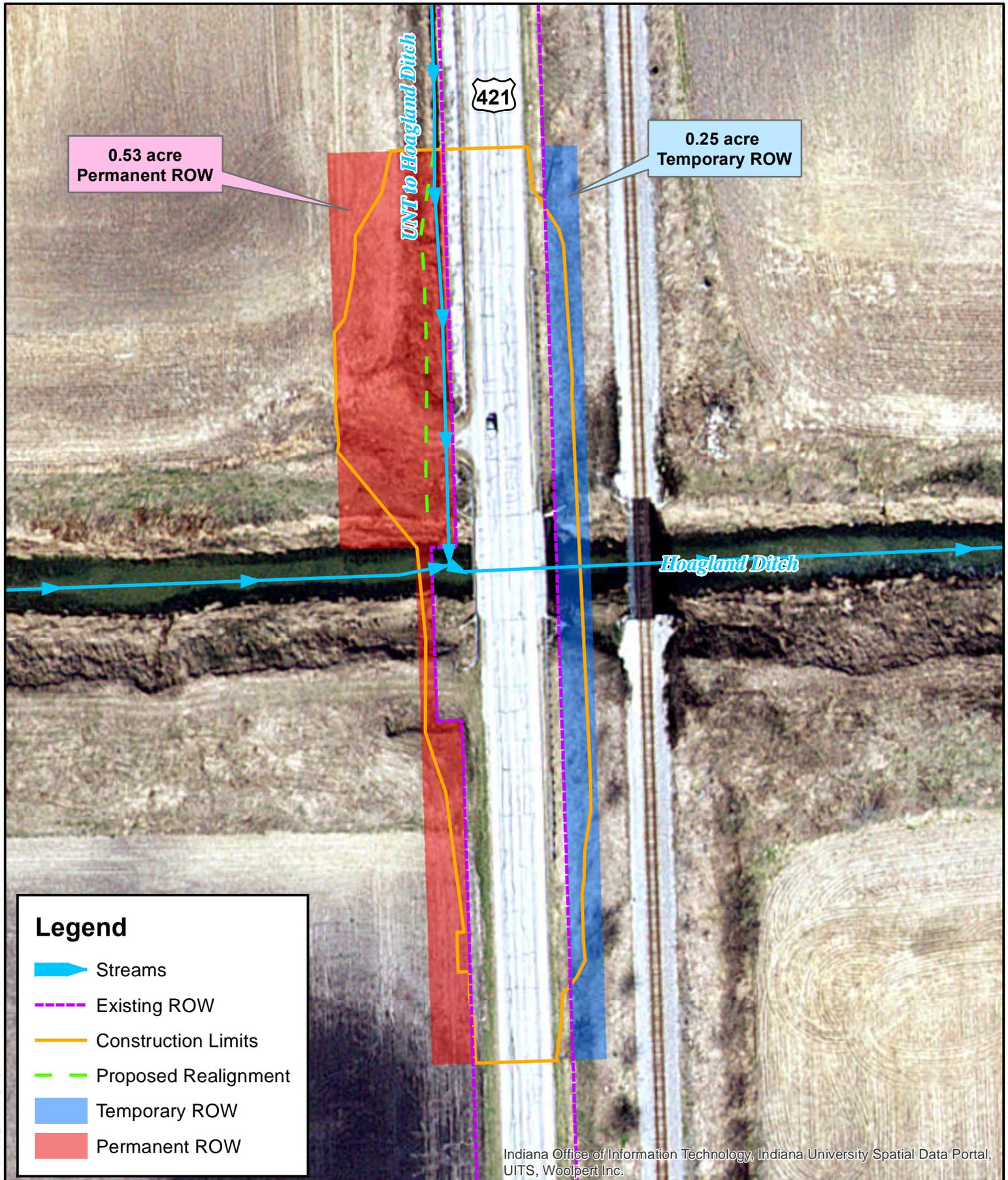
County: White
 Township: Honey Creek
 State: Indiana

LOCHMUELLER GROUP
 3502 Woodview Trace, Suite 150
 Indianapolis, IN 46268
 Phone: (317) 222-3880
 Fax: (317) 222-3881



US 421 Bridge Replacement
 US 421; 3.5 mile south of SR 16
 Created: 2/4/2020, C Kunkel

S:\2017\17-03\1700103\Map\Map\MXD\Des.1700103_Topo.mxd



Indiana Office of Information Technology, Indiana University Spatial Data Portal, UITS, Woolpert Inc.

Legend

-  Streams
-  Existing ROW
-  Construction Limits
-  Proposed Realignment
-  Temporary ROW
-  Permanent ROW

Project Aerial (2018)

Des. No. 1700103

County: White
 Township: Honey Creek
 State: Indiana

LOCHMUELLER GROUP
 3502 Woodview Trace, Suite 150
 Indianapolis, IN 46268
 Phone: (317) 222-3880
 Fax: (317) 222-3881



US 421 Bridge Project
 US 421, 3.50 mi S of SR 16
 Created: 4/6/2020, C. Kunkel

S:\2017\17-0372\IBD\Enviro\Mapa\MXD\IBD_1700103_A_ProjectAerial.mxd



1. Looking south along west side of US 421



2. Looking north along west side of US 421



3. Looking northeast at bridge area and Hoagland Ditch



4. Looking northeast toward bridge to be replaced.



5. Looking south at right bank of Hoagland Ditch upstream of bridge



6. Looking west (upstream) along Hoagland Ditch



7. looking north at left bank of Hoagland Ditch upstream of bridge



8. Looking west (upstream) along Hoagland Ditch from bridge deck



9. Looking east (downstream) along Hoagland Ditch toward railroad bridge



10. Looking south at right bank of Hoagland Ditch downstream of bridge



11. Looking north at left bank of Hoagland downstream of bridge



12. Looking east (downstream) along Hoagland Ditch toward railroad bridge



13. Looking northwest at culvert that conveys UNT to Hoagland Ditch



14. Looking southeast at bridge area



15. Looking south from field entrance



16. Looking east across US 421



17. Looking southwest at culvert under field entrance conveying UNT to Hoagland Ditch



18. Looking north (upstream) along UNT to Hoagland Ditch



19. Looking south along west side of US 421



20. Looking north along west side of US 421

PROJECT	DESIGNATION
1700103	1700103
CONTRACT	BRIDGE FILE
B-42245	421-91-10323

STRUCTURE INFORMATION				
STRUCTURE	TYPE	SPAN AND SKEW	OVER	STATION
421-91-10323	Composite Prestressed Concrete Bulb-Tee Beam Bridge	1 Span: 96'-0" Skew: 0°	Hoagland Ditch	784+00.15 Line "A"

KIN PROJECT INFORMATION					
DESIGNATION	Work Type	Route	PROJECT DESCRIPTION		
			Location	Feature Crossed	County
1700044	Small Structure Pipe Lining	US 231	2.34 mi N of SR 14	Comer Ditch	Jasper County
1700046	Small Structure Pipe Lining	US 231	0.87 mi N of SR 110	Schatzley Ditch	Jasper County
1700103 (LEAD)	Bridge Replacement, Concrete	US 421	3.50 mi S of SR 16	Hoagland Ditch	White County
1700123	Small Structure New	SR 14	1.50 mi E of US 231	UNT to Oliver Ditch	Jasper County
1701329	Small Structure Replacement	SR 49	4.60 mi S of SR 10	Barnard Ditch	Jasper County
1701475	Small Structure Replacement	US 231	at CR 400N	Bruner Ditch	Jasper County
1701493	Small Structure Replacement	SR 114	2.09 mi W of Jct of US 421	Rosendall Ditch	Jasper County
1701506	Small Structure Replacement	SR 14	0.73 mi E of US 231	Jungels-Lakin Ditch	Jasper County
1701508	Small Structure Replacement	SR 14	1.07 mi W of US 231	Lakin, Ross Ditch	Jasper County
1701512	Small Structure Replacement	SR 114	1.09 mi E of Jct of US 231	School House Ditch	Jasper County

Stage 2
March 1, 2020

Additional Right-of-Way
required for this project

INDIANA DEPARTMENT OF TRANSPORTATION



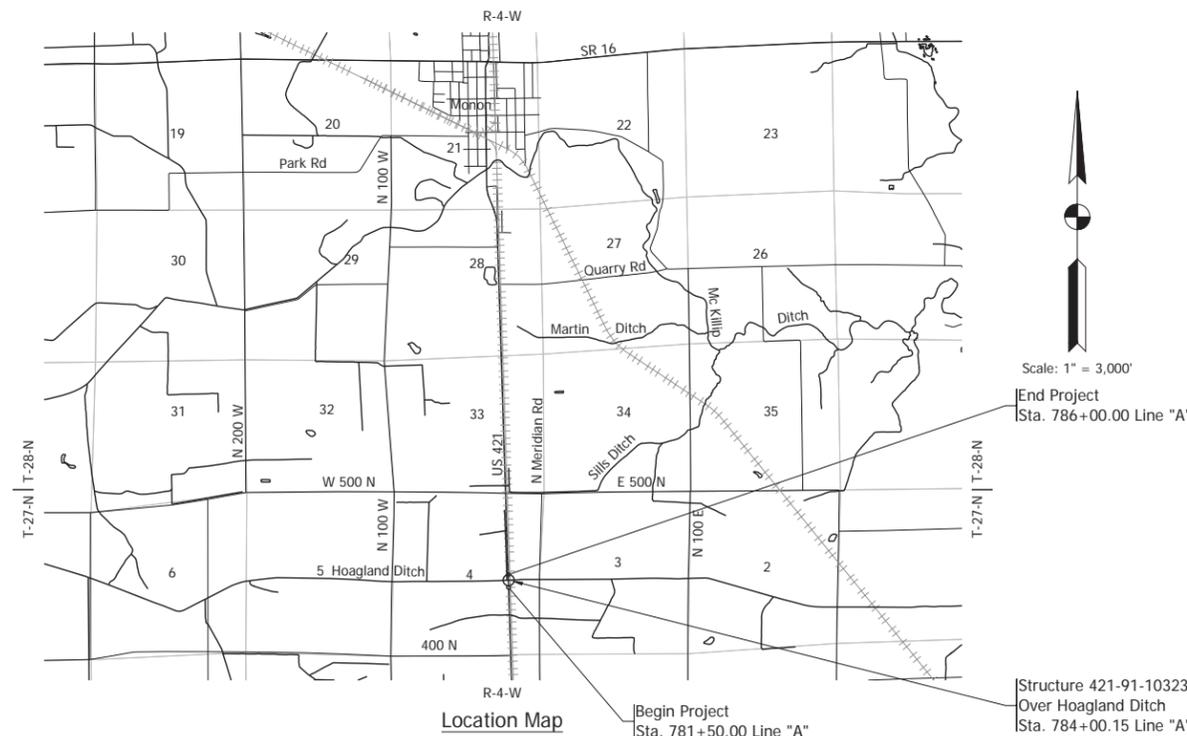
BRIDGE PLANS

FOR SPANS OVER 20 FEET

ROUTE: US 421 AT: RP 172+23

PROJECT NO. 1700103 P.E.
1700103 R/W
1700103 CONST.

Bridge Replacement on US 421 over Hoagland Ditch
Located 3.50 Miles South of SR 16
Section 4, T-27-N, R-4-W, Honey Creek Township, White County



TRAFFIC DATA	
US 421	
A.A.D.T. (2022)	4,778 V.P.D.
A.A.D.T. (2042)	4,778 V.P.D.
D.H.V. (2042)	408 V.P.H.
DIRECTIONAL DISTRIBUTION	48% NB / 52% SB
TRUCKS	24% A.A.D.T. 19% D.H.V.

DESIGN DATA	
DESIGN SPEED	55 M.P.H.
PROJECT DESIGN CRITERIA	3R (NON-FREEWAY)
FUNCTIONAL CLASSIFICATION	PRINCIPAL ARTERIAL
RURAL/URBAN	RURAL
TERRAIN	LEVEL
ACCESS CONTROL	NONE



LATITUDE: 40° 49' 01" LONGITUDE: -86° 52' 34"

BRIDGE LENGTH:	0.018	MI.
ROADWAY LENGTH:	0.069	MI.
TOTAL LENGTH:	0.087	MI.
MAX. GRADE:	0.26	%

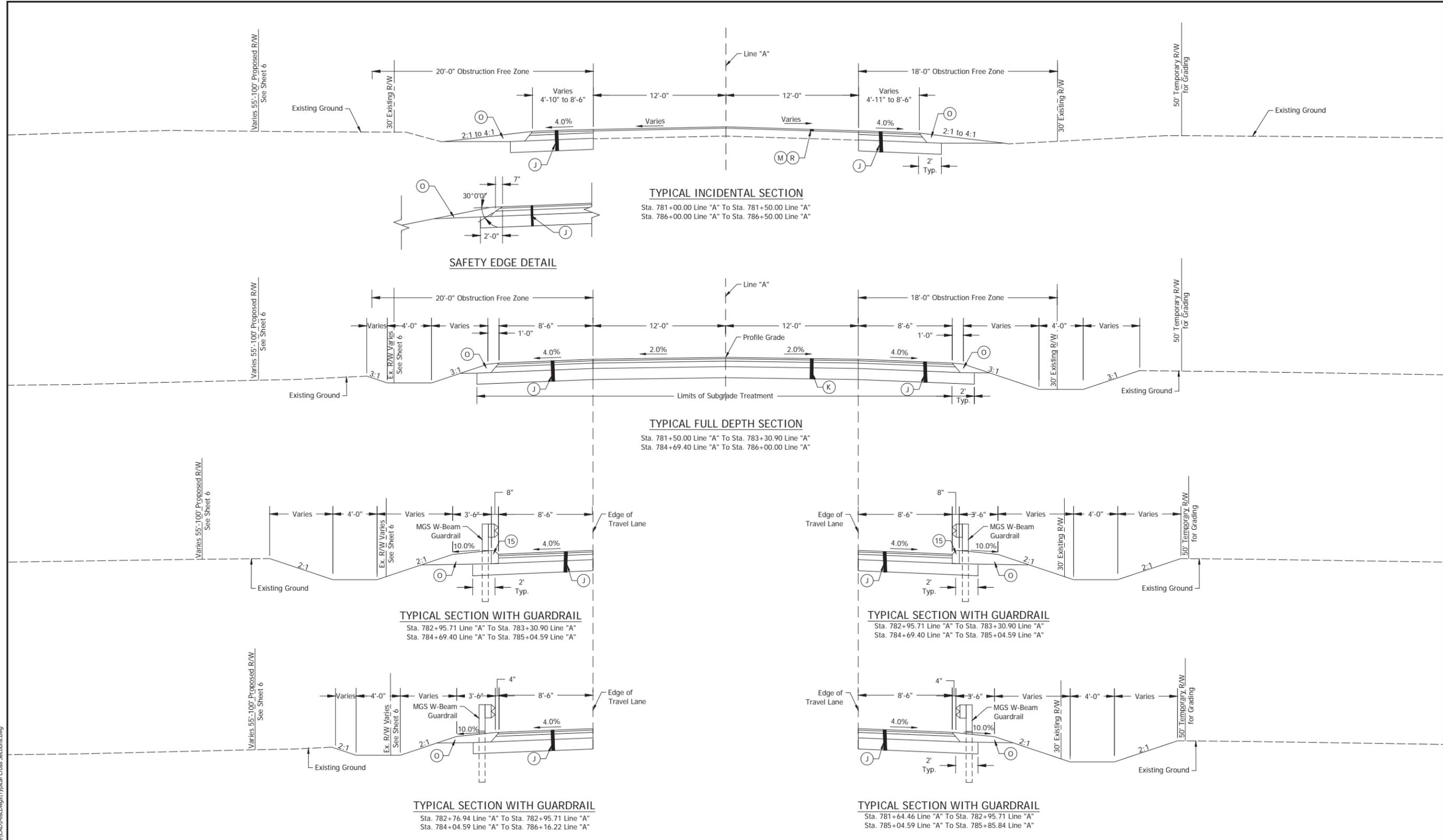
HUC 12: 051201061205
HUC 14: 05120106120080

INDIANA DEPARTMENT OF TRANSPORTATION
STANDARD SPECIFICATIONS DATED 2020
TO BE USED WITH THESE PLANS



PLANS PREPARED BY: Lochmueller Group, Inc. (574) 334-5460 PHONE NUMBER	BRIDGE FILE	
	421-91-10323	
CERTIFIED BY: _____ DATE _____	DESIGNATION	
	1700103	
APPROVED FOR LETTING: _____ DATE _____ INDIANA DEPARTMENT OF TRANSPORTATION	SURVEY BOOK	SHEET
	ELECTRONIC	1 of 15
	CONTRACT	PROJECT
	B-42245	1700103

Date: Feb. 24, 2020, 11:55am User Name: MWall
File: S:_2017\217-0371_LBD\Bridges\CAD\Misc\Drawings\Title Sheet.dwg



(J) Pavement Section will be determined upon completion of Geotechnical Report

(K) Pavement Section will be determined upon completion of Geotechnical Report

(O) Compacted Aggregate, No. 53

(M) Milling, Asphalt, 1 1/2"

(R) 165 LB/SYS QC/QA HMA, 3, 64, Surface, 9.5mm

(15) Curb, Concrete, Type B

RECOMMENDED FOR APPROVAL _____ DATE: / /

DESIGNED: MDV DRAWN: MDV

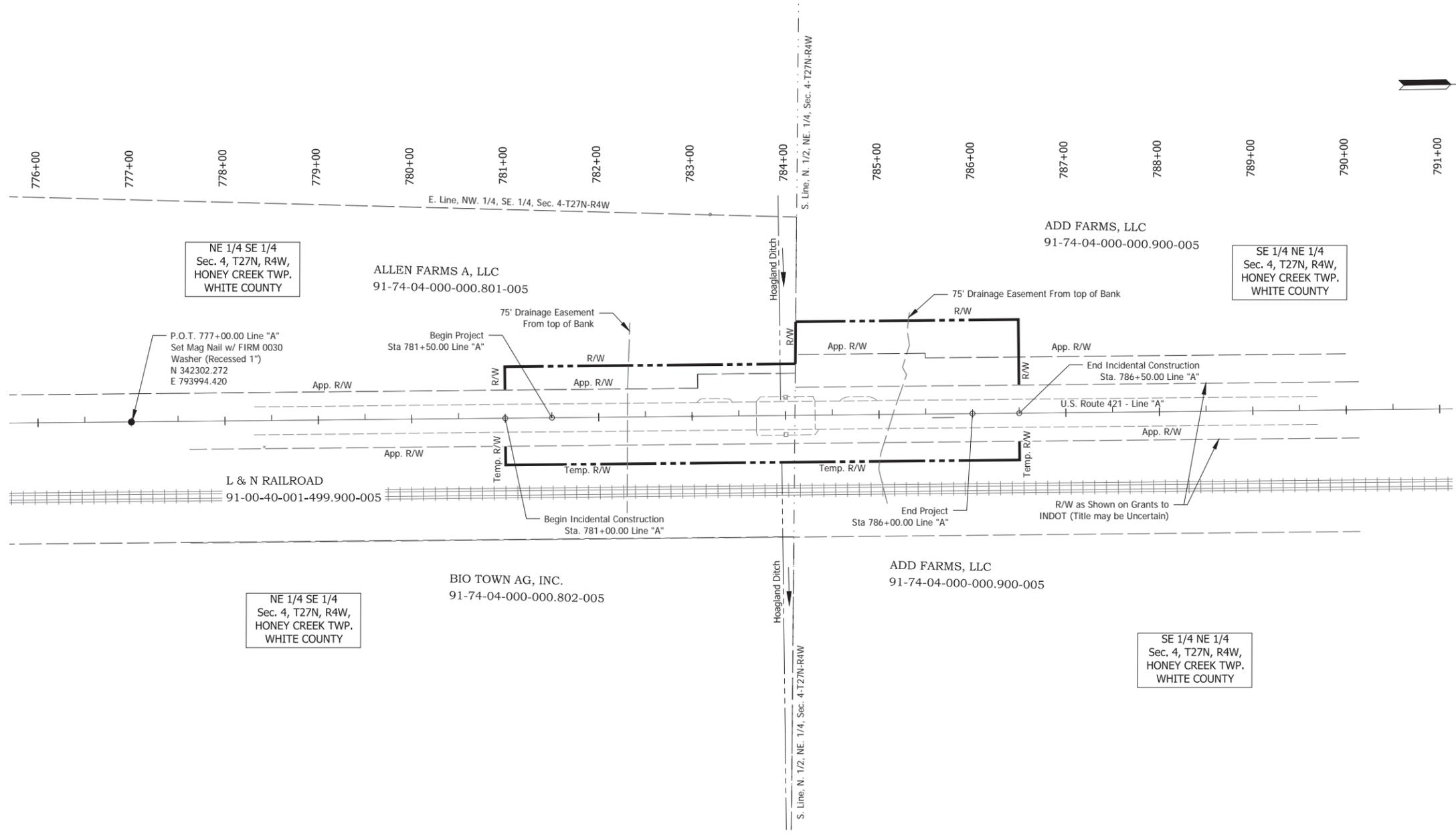
CHECKED: JAM CHECKED: JAM

INDIANA DEPARTMENT OF TRANSPORTATION

TYPICAL CROSS SECTIONS

HORIZONTAL SCALE	BRIDGE FILE
1/4" = 1'-0"	421-91-10323
VERTICAL SCALE	DESIGNATION
1/4" = 1'-0"	1700103
SURVEY BOOK	SHEET
ELECTRONIC	3 of 15
CONTRACT	PROJECT
B-42245	1700103

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Date: Feb 24, 2020, 11:55am User Name: M104
File: S:\2017\1217-4272\1\BDD\bridge\CAD\misc\dwg\Plat No. 1.dwg

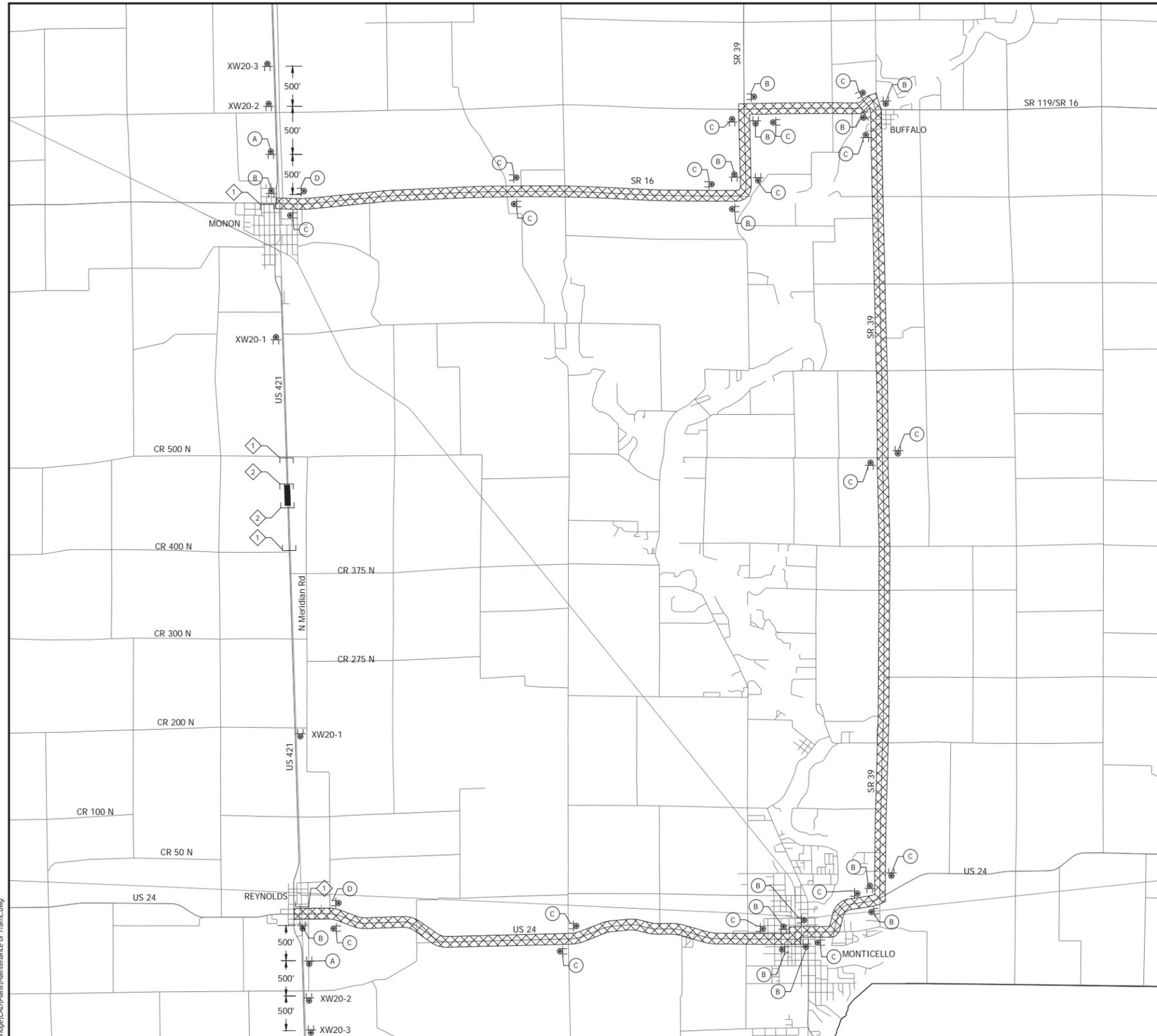
RECOMMENDED FOR APPROVAL _____	DESIGN ENGINEER _____	DATE _____
DESIGNED: MDV	DRAWN: NG	
CHECKED: JAW	CHECKED: EJJ	

INDIANA
DEPARTMENT OF TRANSPORTATION

PLAT NO. 1

HORIZONTAL SCALE	BRIDGE FILE
1" = 60'	421-91-10323
VERTICAL SCALE	DESIGNATION
N/A	1700103
SURVEY BOOK	SHEET
ELECTRONIC	4 of 15
CONTRACT	PROJECT
B-42245	1700103

Date: Feb 24, 2020, 11:55am User Name: MWall
File: S:_2017\217-0371_LBD\Bridges\CD\Plans\Maintenance of Traffic.dwg

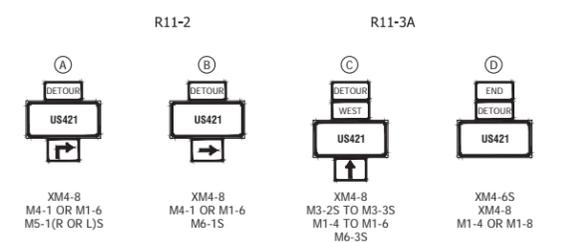


CONSTRUCTION SIGN SCHEDULE				
SIGN NO.	DESCRIPTION	SIZE (IN)	TYPE	QUANTITY
R11-2	"ROAD CLOSED" SIGN	48 x 30	(1)	2
R11-3A	"ROAD CLOSED XX MILES AHEAD" SIGN	60 x 30	(1)	4
XM4-10 (L or R)	"DETOUR" SIGN	48 x 18	(1)	2
XW20-1	"ROAD CONSTRUCTION AHEAD" SIGN	48 x 48	A	2
XW20-2	"DETOUR AHEAD" SIGN	48 x 48	A	2
XW20-3	"ROAD CLOSED AHEAD" SIGN	48 x 48	A	2
TOTAL TYPE "A" SIGNS				6

Detour Route Marker Assemblies: 36 Req'd
 Road Closure Sign Assemblies: 6 Req'd
 Type III-A Barricades: 48 Lft.
 Type III-B Barricades: 48 Lft.

(1) Included with road closure sign assembly.

LEGEND



- 1 ROAD CLOSURE SIGN ASSEMBLY W/ TYPE III-B BARRICADE (12 LFT.) AND R11-3A AND XM4-10 (L OR R)
- 2 ROAD CLOSURE SIGN ASSEMBLY W/ TYPE III-A BARRICADE (24 LFT.) AND R11-2

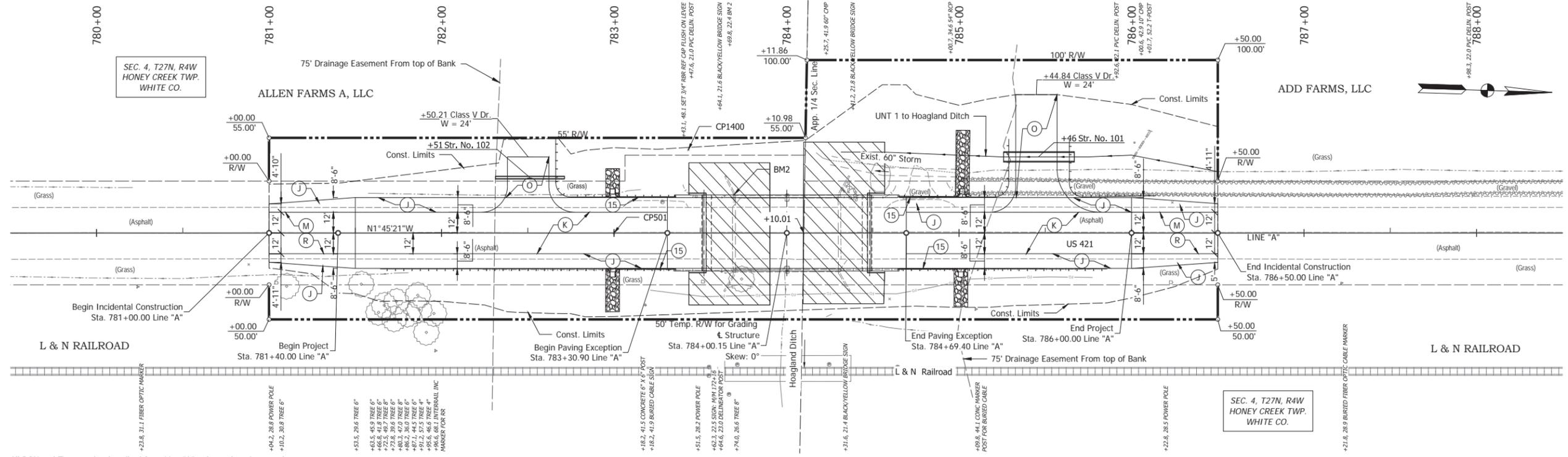
■ CONSTRUCTION ZONE
 ▨ DETOUR ROUTE

GENERAL NOTES

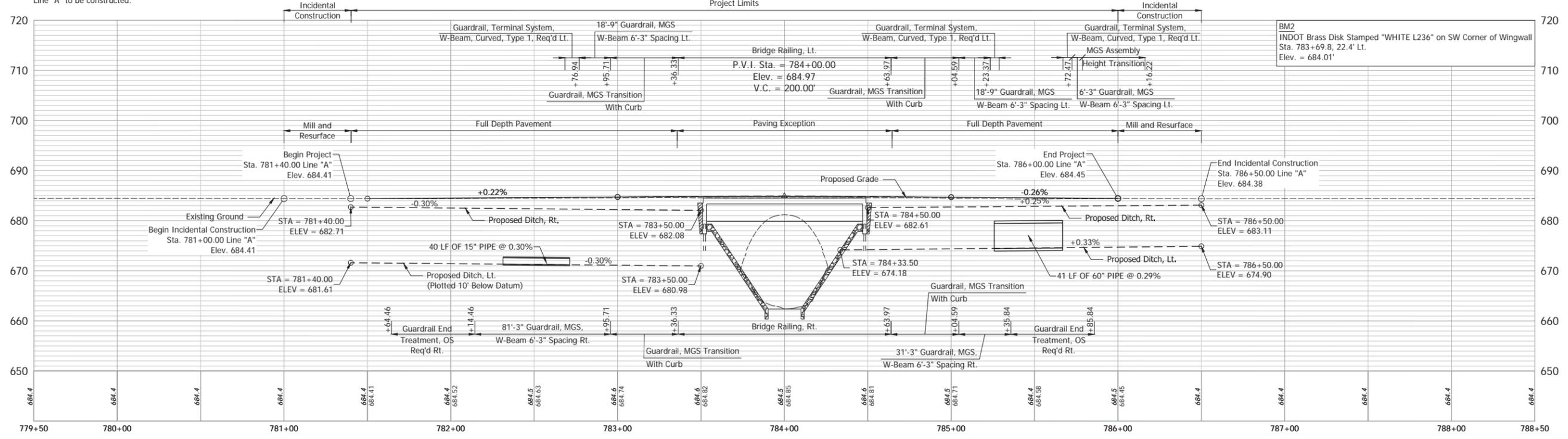
- All maintenance of traffic devices, signs and pavement markings shall conform to the latest edition of the Indiana MUTCD.
- See INDOT Std. Dwg. 801-TCDD-01 for sign spacing requirements and additional notes.
- See INDOT Std. Dwg. 801-TCLG-01 for standard notes.
- The cost of R11-2, R11-4 and XM4-10 (R or L) shall be included in the cost of the road closure sign assembly.
- Type B construction warning lights shall be used with all signs located on barricades. Type A construction warning lights shall be used on all other construction signs.



RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER _____ DATE _____	INDIANA DEPARTMENT OF TRANSPORTATION		HORIZONTAL SCALE 1" = 1000'	BRIDGE FILE 421-91-10323
	MAINTENANCE OF TRAFFIC		VERTICAL SCALE 1" = 1000'	DESIGNATION 1700103
DESIGNED: _____ MDV _____ DRAWN: _____ MDV _____			SURVEY BOOK	SHEET
CHECKED: _____ JAW _____ CHECKED: _____ JAW _____			ELECTRONIC	5 of 15
			CONTRACT B-42245	PROJECT 1700103



All R/W and Topography described from Line "A" unless otherwise noted. See Sheet 2 for survey reference ties. Line "A" to be constructed.



Date: Feb 24, 2020, 11:55am User Name: MWall File: S:_2017\217-0372\BID\Bridges\CD\Plans\Plan and Profile.dwg

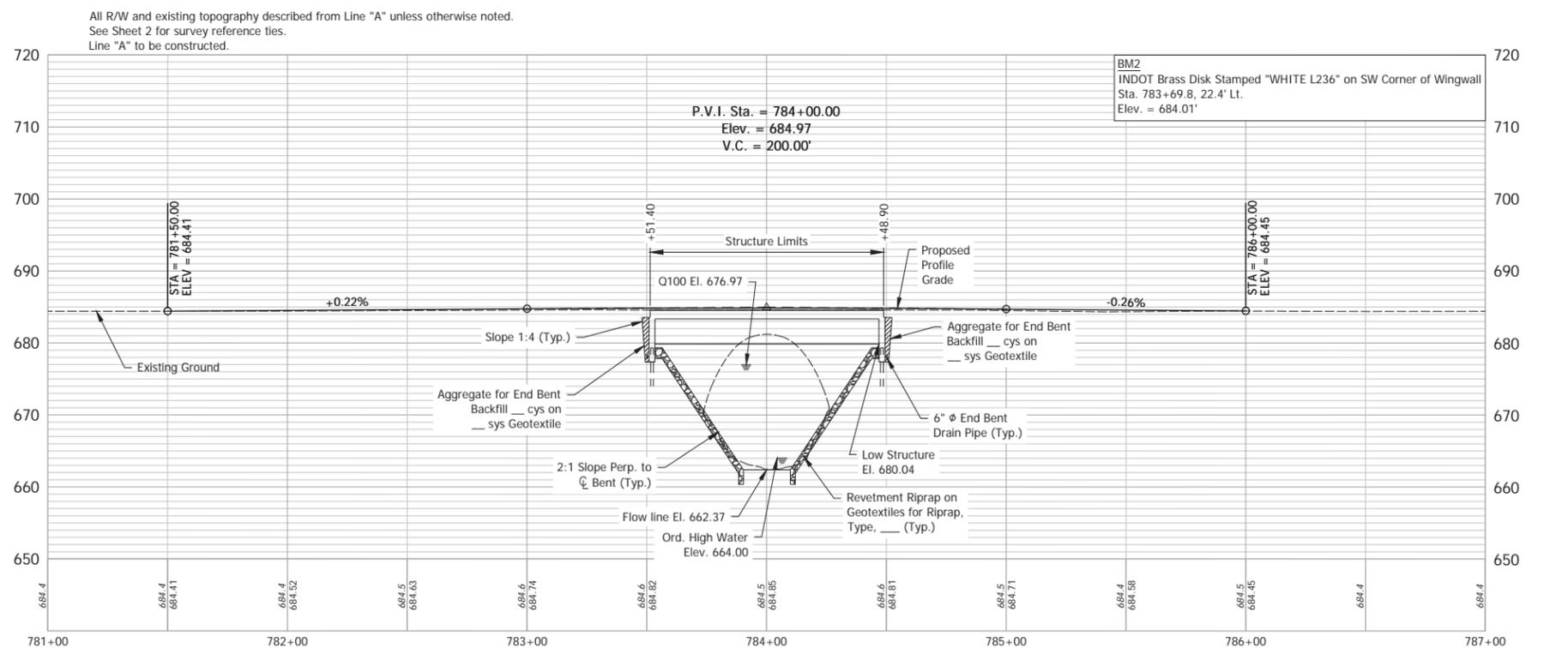
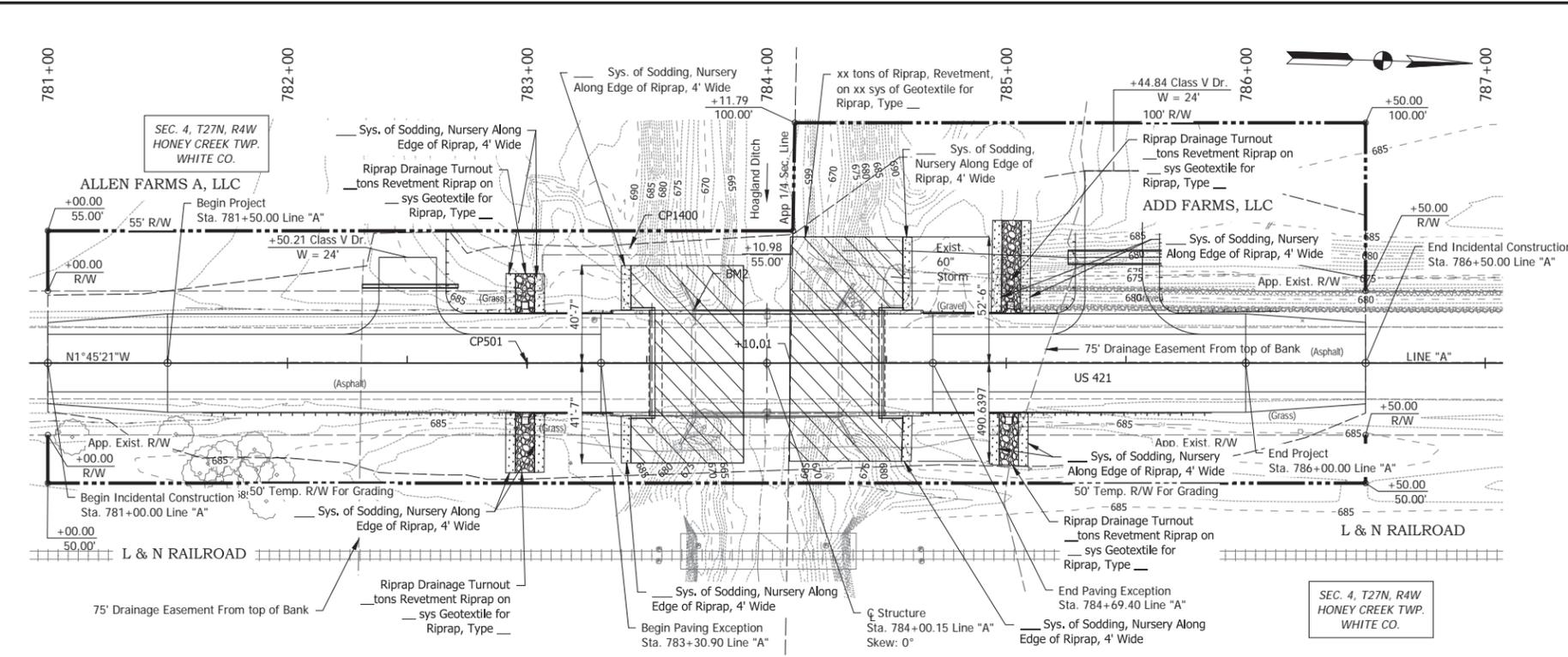
- (J) Pavement Section will be determined upon completion of Geotechnical Report
- (M) Milling, Asphalt, 1 1/2"
- (R) 165 LB/SYS QC/QA HMA, 3, 64, Surface, 9.5mm
- (O) Compacted Aggregate, No. 53
- (K) Pavement Section will be determined upon completion of Geotechnical Report
- (15) Curb, Concrete, Type B

RECOMMENDED FOR APPROVAL	DESIGN ENGINEER	DATE
DESIGNED: MDV	DRAWN: MDV/ NG	
CHECKED: JAW	CHECKED: JAW	

INDIANA DEPARTMENT OF TRANSPORTATION

PLAN AND PROFILE LINE "A"

HORIZONTAL SCALE	BRIDGE FILE
1" = 30'	421-91-10323
VERTICAL SCALE	DESIGNATION
1" = 10'	1700103
SURVEY BOOK	SHEET
ELECTRONIC	6 of 15
CONTRACT	PROJECT
B-42245	1700103



Date: Feb. 24, 2020, 2:41pm User Name: MVoil
 File: S:_2017\217-03721_IBD\Bridges\CAD\Plans\Layout.dwg

EXISTING STRUCTURE

The existing structure, 421-91-00889 A, is a single span reinforced concrete filled arch bridge, built in 1929 and widened in 1960, with a 60' span and 41' clear roadway. Existing structure to be removed.

HYDRAULIC DATA

Drainage Area	71.74 SQ. MI.
Q100 Discharge	2,200.00 CFT./SEC.
Q100 Elevation	676.97 M.S.L.
Q100 Backwater	0.00 FT.
Q100 Velocity	3.17 FT./SEC.
Proposed Waterway Opening, Below Q100	694.60 SFT.
Low Structure Elevation	680.04 M.S.L.
Skew	0°00'00"
Existing Waterway Opening	545.70 SFT.
Existing Low Structure Elevation	681.08 M.S.L.
Existing Backwater	0.11 FT.

HYDRAULIC SCOUR DATA

Q100 Discharge	2,200.00 CFT./SEC.
Q100 Elevation	676.97 M.S.L.
Q100 Scour Velocity	3.87 FT./SEC.
Q100 Contraction Scour Depth	1.09 FT.
Q100 Total Scour Depth	1.09 FT.
Q100 Low Scour Elevation	661.28 M.S.L.
Q500 Discharge	2,860 CFT./SEC.
Q500 Elevation	679.00 M.S.L.
Q500 Scour Velocity	4.10 FT./SEC.
Q500 Contraction Scour Depth	1.06 FT.
Q500 Total Scour Depth	1.06 FT.
Q500 Low Scour Elevation	661.31 M.S.L.

EARTHWORK TABULATION

FILL	___ cys
FILL + 15%	___ cys
COMMON EXCAVATION	___ cys
USABLE WATERWAY EXCAVATION	___ cys
BORROW	___ cys
TOTAL WATERWAY EXCAVATION	___ cys
EXCAVATION FOUNDATION UNCLASSIFIED	___ cys
BENCHING (Estimated)	___ cys

No direct payment for Benching. Benching will not be paid for as Common Excavation.

NOTES

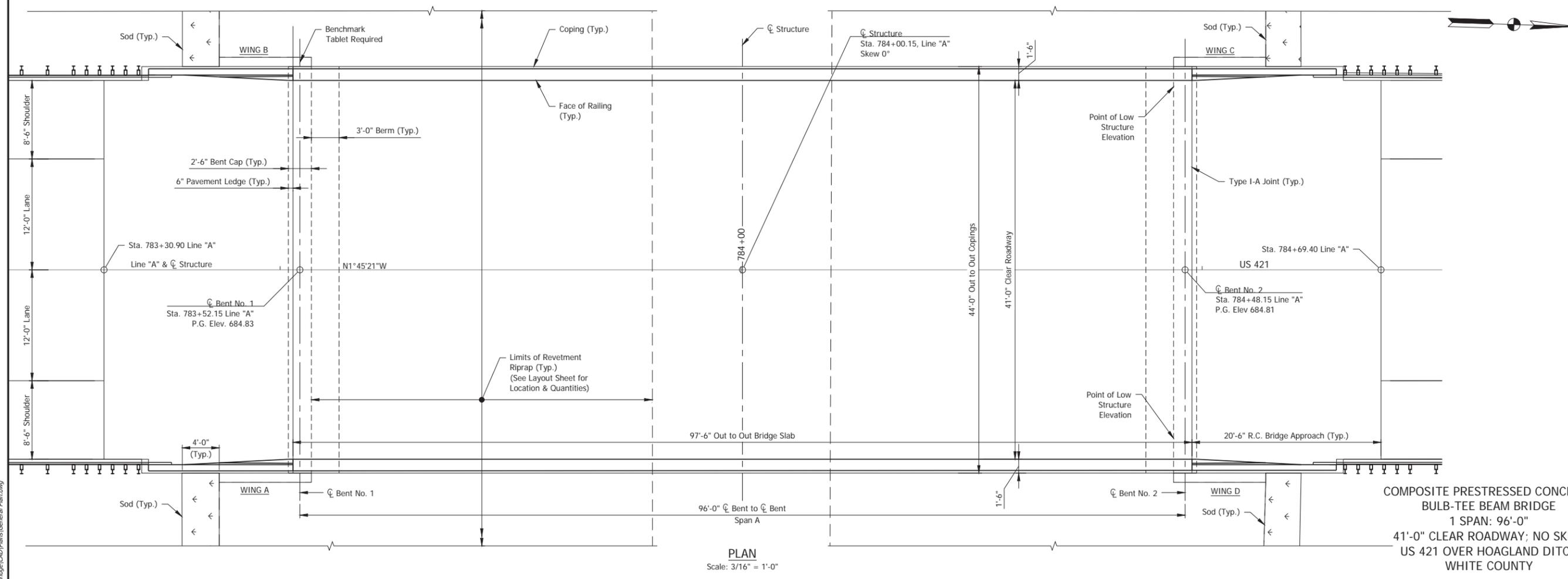
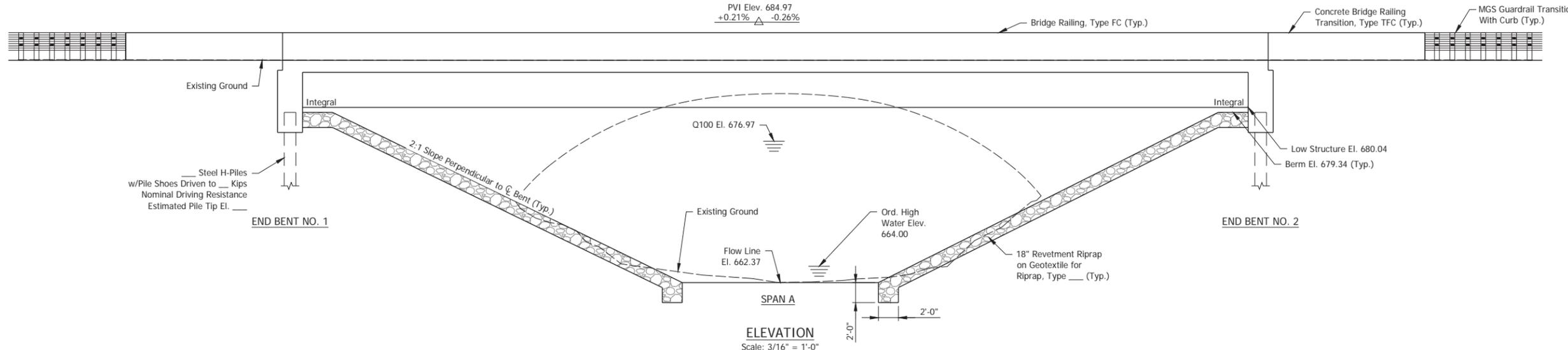
- See Plan and Profile Sheet for approach work, incidental construction and additional details.
- M.S.L. = Mean Sea Level
- See Sheet 2 for utility owners and survey reference ties.

**COMPOSITE PRESTRESSED CONCRETE
BULB-TEE BEAM BRIDGE**
 1 SPAN: 96'-0"
 41'-0" CLEAR ROADWAY; NO SKEW
 US 421 OVER HOAGLAND DITCH
 WHITE COUNTY

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER _____ DATE _____	INDIANA DEPARTMENT OF TRANSPORTATION		HORIZONTAL SCALE	BRIDGE FILE
			1" = 30'	421-91-10323
DESIGNED: E.J.G. DRAWN: D.J.G./N.G. CHECKED: ACS CHECKED: E.J.G.	LAYOUT		VERTICAL SCALE	DESIGNATION
			1" = 10'	1700103
			SURVEY BOOK	SHEET
			ELECTRONIC	7 of 15
			CONTRACT	PROJECT
			B-42245	1700103

STRUCTURE TO BE BUILT ON A 200' VERTICAL CURVE

PVI Sta. 784+00.00
 PVI Elev. 684.97
 +0.21% Δ -0.26%



COMPOSITE PRESTRESSED CONCRETE
 BULB-TEE BEAM BRIDGE
 1 SPAN: 96'-0"
 41'-0" CLEAR ROADWAY; NO SKEW
 US 421 OVER HOAGLAND DITCH
 WHITE COUNTY

Date: Feb. 24, 2020, 11:56am User Name: Mjoll
 File: S:_2017\1217-0371_LBD\Bridges\CD\Plans\General Plan.dwg

RECOMMENDED FOR APPROVAL	DESIGN ENGINEER	DATE
DESIGNED: E.J.G.	DRAWN: D.J.G./N.G.	
CHECKED: ACS	CHECKED: E.J.G.	

INDIANA
 DEPARTMENT OF TRANSPORTATION

GENERAL PLAN

HORIZONTAL SCALE	BRIDGE FILE
As Noted	421-91-10323
VERTICAL SCALE	DESIGNATION
As Noted	1700103
SURVEY BOOK	SHEET
ELECTRONIC	8 of 15
CONTRACT	PROJECT
B-42245	1700103

GENERAL NOTES

Reinforcing steel cover shall be 2 1/2" in top and 1" minimum in bottom of floor slab, 3" in footings, except bottom steel which shall be 4", and 2" in all other parts, unless noted.

DESIGN DATA

Designed for HL-93 loading, in accordance with AASHTO LRFD Bridge Design Specifications, Eighth Edition, 2017, and subsequent interims.

DEAD LOAD

Actual weight plus 35 lb/ft² for future wearing surface and 15 lb/ft² for permanent metal deck forms.

FLOOR SLAB

Designed with a 7 1/2" structural depth plus 1/2" sacrificial wearing surface.

DESIGN STRESSES

CONCRETE

Class C f_c = 4000 psi
 Class B f_c = 3000 psi
 Class A f_c = 3500 psi

REINFORCING STEEL

Grade 60 f_y = 60,000 psi

CONSTRUCTION LOADING

The exterior girder has been checked for strength, deflection, and overturning using the construction loads shown below. Cantilever overhang brackets were assumed for support of the deck overhang past the edge of the exterior girder. The finishing machine was assumed to be supported 6 in. outside the vertical coping form. The top overhang brackets were assumed to be located 6 in. past the edge of the vertical coping form. The bottom overhang brackets were assumed to be braced against the intersection of the girder bottom flange and web.

DECK FALSEWORK LOADS

Designed for 15 lb/ft² for permanent metal stay-in-place deck forms, removable deck forms, and 2-ft exterior walkway.

CONSTRUCTION LIVE LOAD

Designed for 20 lb/ft² extending 2-ft past the edge of coping and 75 lb/ft vertical force applied at a distance of 6 in. outside the face of coping over a 30-ft length of the deck centered with the finishing machine.

FINISHING-MACHINE LOAD

4500 lb distributed over 10 ft along the coping.

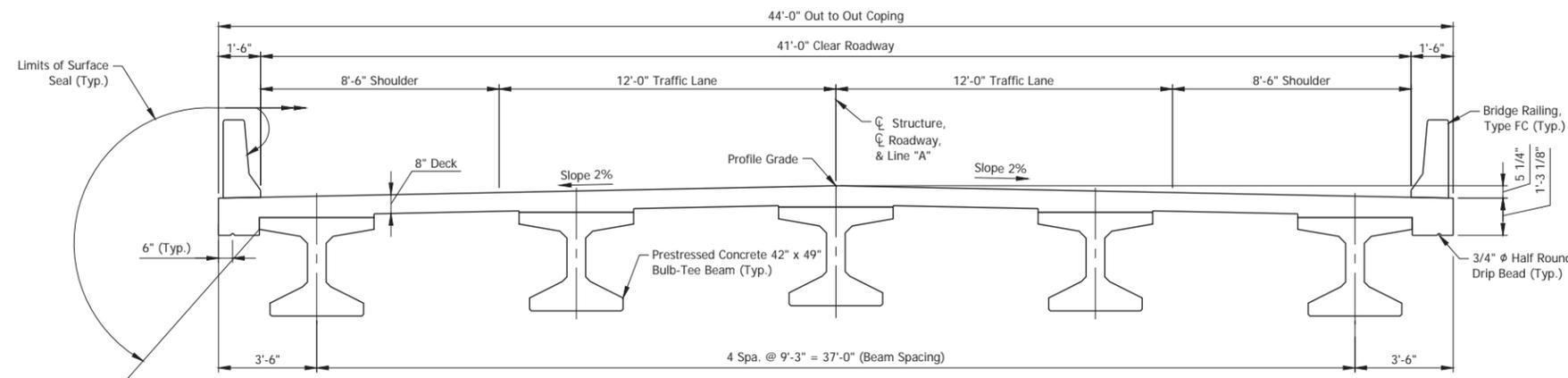
WIND LOAD

Designed for 70 mph horizontal wind loading in accordance with LRFD 3.8.1.

SEISMIC DESIGN LOAD

Seismic Design Category x
 Acceleration Coefficient xx
 Seismic Soil Profile Type Class x

COMPOSITE PRESTRESSED CONCRETE
 BULB-TEE BEAM BRIDGE
 1 SPAN: 96'-0"
 41'-0" CLEAR ROADWAY; NO SKEW
 US 421 OVER HOAGLAND DITCH
 WHITE COUNTY



TYPICAL SECTION
 Scale: 3/8" = 1'-0"

Date: Feb 24, 2020, 11:56am User Name: MWall
 File: S:_2017\217-0371_LBD\Bridge\CAD\Plans\General Plan.dwg

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER _____ DATE ____/____/____	INDIANA DEPARTMENT OF TRANSPORTATION	HORIZONTAL SCALE	BRIDGE FILE
		As Noted	421-91-10323
DESIGNED: E.J.G. DRAWN: D.J.G./N.G. CHECKED: ACS CHECKED: E.J.G.	GENERAL PLAN	VERTICAL SCALE	DESIGNATION
		As Noted	1700103
		SURVEY BOOK	SHEET
		ELECTRONIC	9 of 15
		CONTRACT	PROJECT
		B-42245	1700103

Categorical Exclusion
Appendix C
Early Coordination



February 6, 2019

Sample Early
Coordination Letter

Re: Des. No. 1700103
Bridge Replacement, Concrete
US 421 over Hoagland Ditch, 3.5 miles south of SR 16
White County, Indiana

Dear :

The Federal Highway Administration (FHWA) and the Indiana Department of Transportation (INDOT), LaPorte District propose to proceed with a project (Des. No. 1700103) which involves replacing the existing bridge (Bridge No. 421-91-00889 A) carrying US 421 over Hoagland Ditch. The existing bridge is an earth-filled concrete arch bridge. The proposed project would replace the existing bridge with a new bridge. This letter is part of the early coordination phase of the environmental review process requesting comments associated with these projects. Please use the above Des. No. and project description in your reply, and your comments will be incorporated into the formal environmental study. Your cooperation in this endeavor is appreciated.

Project Location and Existing Conditions

The proposed project is located in White County, 3.5 miles south of SR 16. Specifically, the project is located in Section 4, Township 27 North, and Range 4 West in Honey Creek Township as depicted on the Monon U.S. Geological Survey (USGS) Quadrangle. Adjacent land use consists of agricultural fields. Please see attachments for maps and photographs of the proposed project area.

US 421 is classified as rural minor arterial within the project area. The typical section of US 421 is two 12-foot wide travel lanes with 5-foot paved shoulders. The existing bridge is a single span, earth-filled, reinforced concrete arch bridge built in 1929 and reconstructed in 1960 with a 60-foot clear span and a 41-foot clear roadway width. The existing structure has two 12-foot travel lanes and 8.5-foot shoulders.

Purpose and Need

The need for this project stems from the deteriorating condition of the existing structure. During routine inspections in April 2018, the superstructure was in fair condition and exhibited deep spalling with exposed rebar on the underside of the arch at both abutments. Also, both widening joints have shallow spalling with exposed rebar. The substructure was in satisfactory condition

3502 Woodview Trace, Suite 150
Indianapolis, Indiana 46268
PHONE: 317.222.3878 • TOLL FREE: 800.423.7422

and exhibited horizontal cracking with efflorescence with minor deterioration. The channel needs minor repairs with minor slumping.

The purpose of the project is to restore the structural integrity of this bridge to an improved condition and to provide improved safe passage for motorists.

Proposed Project

This project is in the preliminary planning stages but will likely include a replacement of the bridge in-kind. The project will likely include the installation of new riprap along Hoagland Ditch within the project area for scour protection. The proposed typical cross-section of US 421 over Hoagland Ditch will have two 12-foot travel lanes and 8.5-shoulders on both sides of the roadway. The total length of the project along US 421 will be a maximum 1,000 feet.

The Maintenance of Traffic (MOT) has not been finalized but will likely require the closure of US 421 within the project area. A detour route utilizing US 24, SR 39, and SR 16 will be established. The MOT will be implemented per the *Indiana Design Manual* guidelines.

Right-of-Way (ROW)

The amount of ROW acquisition required for this project is not known at this time, but it is anticipated that up to 1 acre will be required. No tree clearing is anticipated to occur.

Environmental Resources

A Red Flag Investigation (RFI) was performed for a 0.5-mile radius of the project area. Several "Red Flags" were identified within the 0.5-mile search radius; however, not all will be impacted. The CSX Railroad crosses through the project area. One pipeline, owned by the Northern Indiana Public Service Co., is located 0.23 mile east of the project area. One stream, Hoagland Ditch, runs through the project area. Due to the proximity of water resources to the project area, a *Waters of the U.S. Determination Report* will be prepared and coordination with INDOT Environmental Services Ecology and Waterway Permitting will occur. No additional "Red Flags" are mapped within the immediate vicinity of the project.

Section 106

The National Register of Historic Places (NRHP) and the Indiana Register of Historic Sites and Structures (State Register) were checked using the State Historic Architectural and Archaeological Research Database (SHAARD) and the Indiana Historic Buildings, Bridges, and Cemeteries Map (IHBBM). No properties on either list were identified within or near the project area. The *White County Interim Report* (1993), which includes the Indiana Historic Sites and Structures Inventory (IHSSI) for the county, was also examined. No previously inventoried resources were recorded in the vicinity of the project area. No cemeteries were noted within the project area. The *Indiana Historic Bridge Inventory Volume 2: Listing of Historic and Non-Historic Bridges* (February 2009) by Mead & Hunt was reviewed. The subject bridge is listed as HB-3124 and a Contributing resource, but is not considered eligible for listing in the NRHP. No bridges eligible for listing in the NRHP were identified within the project area. A virtual review of the area at ground level was conducted via Google Earth Street View, and no potentially Contributing above-ground resources

were noted within, or near, the project area. It is anticipated that this project may qualify for the Minor Projects Programmatic Agreement (MPPA), Categories A-9 and B-12, and as such should not require full Section 106 review.

Range-wide Informal Programmatic Consultation

White County is within the range of the federally endangered Indiana bat (*Myotis sodalis*) and the federally threatened northern long-eared bat (*Myotis septentrionalis*). Land use in the vicinity of the project is rural with agricultural fields surrounding the project area. The project appears to fall under the Range-wide Programmatic Informal Consultation process. Completion of the appropriate determination key through the U.S. Fish and Wildlife Service's (USFWS) Information for Planning and Consultation (IPaC) portal will occur. If a determination of "Not Likely to Adversely Affect," or "Likely to Adversely Affect" is reached then additional consultation with the USFWS will occur through INDOT.

Early Coordination

This letter is part of the early coordination review process. You are asked to review this information and provide any comments you may have relative to anticipated impacts of the project on areas in which you have jurisdiction or special expertise. We will incorporate your comments into a study of the project's environmental impacts. To facilitate the development of this project, you are asked to reply within **30 days** of receipt of this letter. If no response is received by that date, it will be assumed you have no comments at the present time.

If you have any questions regarding this project, please feel free to contact me at 317-222-3880 or at RHook@lochgroup.com. Additionally, should you want to contact the sponsor of this project, INDOT LaPorte District, please contact the Project Manager, Mr. Tim Hoffa, at (219) 325-7582 or at thoffa@indot.in.gov.

Thank you in advance for your input.

Sincerely,



Ruth Hook, CPESC, CESSWI
Environmental Biologist
Lochmueller Group, Inc.

Attachments:

- General Location Map
- USGS Topographical, Monon Quadrangle Map
- Red Flag Investigation Maps

Removed to avoid duplication; see Appendix B and Appendix E

- Photo Location Map and Photographs

Removed to avoid duplication; see Appendix B

Distribution List:

- USFWS, Northern Indiana Suboffice (electronic submission)
- Natural Resources Conservation Service, Indianapolis Office
- U.S. Army Corps of Engineers, Louisville District
- U.S. Housing and Urban Development
- Federal Highway Administration, Indiana Division
- National Park Service
- Indiana Department of Natural Resources (IDNR), Division of Fish and Wildlife (electronic submission)
- Indiana Department of Environmental Management (IDEM) (electronic submission)
- INDOT, Office of Public Involvement (electronic submission)
- INDOT, Environmental Services (electronic submission)
- INDOT, LaPorte District
- INDOT, Project Manager
- INDOT, Utilities and Railroads
- Indiana Geological Survey (electronic submission)
- White County Highway Department
- White County Board of Commissioners
- White County Council
- White County, Honey Creek Township Trustee
- White County Surveyor's Office
- White County Emergency Management Agency
- White County Sheriff's Department
- North White School Corporation
- Monon Volunteer Fire Department
- Honey Creek Township Volunteer Fire Department

Organization and Project Information

Project ID:
Des. ID: 1700103
Project Title: US 421 Bridge Replacement
Name of Organization: Lochmueller Group
Requested by: Ruth Hook

Environmental Assessment Report

1. Geological Hazards:
 - High liquefaction potential
2. Mineral Resources:
 - Bedrock Resource: High Potential
 - Sand and Gravel Resource: Low Potential
3. Active or abandoned mineral resources extraction sites:
 - None documented in the area

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

DISCLAIMER:

This document was compiled by Indiana University, Indiana Geological Survey, using data believed to be accurate; however, a degree of error is inherent in all data. This product is distributed "AS-IS" without warranties of any kind, either expressed or implied, including but not limited to warranties of suitability to a particular purpose or use. No attempt has been made in either the design or production of these data and document to define the limits or jurisdiction of any federal, state, or local government. The data used to assemble this document are intended for use only at the published scale of the source data or smaller (see the metadata links below) and are for reference purposes only. They are not to be construed as a legal document or survey instrument. A detailed on-the-ground survey and historical analysis of a single site may differ from these data and this document.

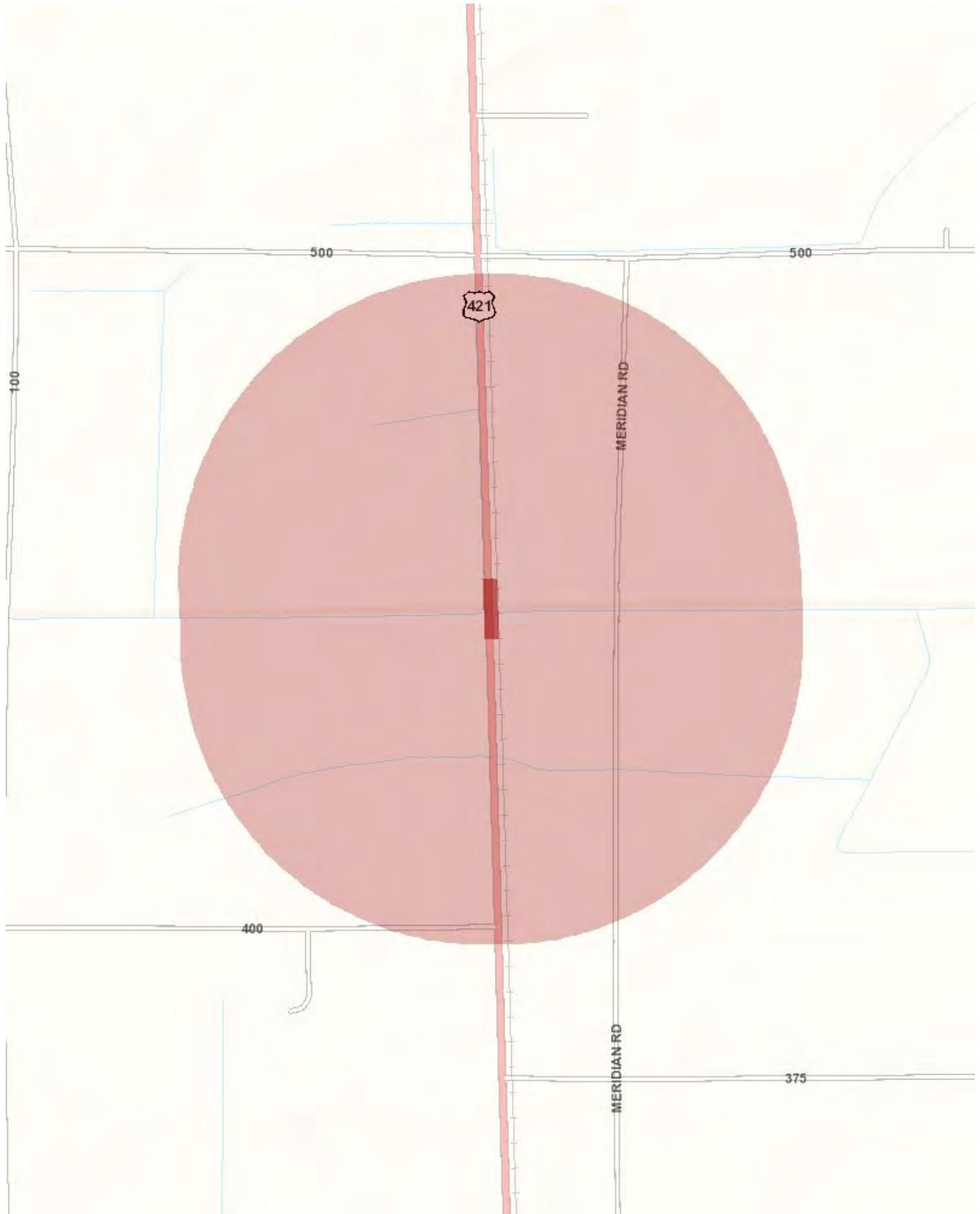
This information was furnished by Indiana Geological Survey

Address: 420 N. Walnut St., Bloomington, IN 47404

Email: IGSEnvir@indiana.edu

Phone: 812 855-7428

Date: February 07, 2019



Metadata:

- 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/Geology/Bedrock_Geology.html

Kunkel, Chris

From: Wright, Mary <MWRIGHT@indot.IN.gov>
Sent: Thursday, February 7, 2019 8:21 AM
To: Kunkel, Chris
Subject: RE: US 421 Bridge Replacement (Des. No. 1700103) Early Coordination

Early Coordination and Creating a Public Involvement Plan (PIP)

We have received your early coordination notification packet for the above referenced project(s). Our office prefers to be notified at the early coordination stage in order to encourage early and ongoing public involvement aside from the specific legal requirements as outlined in our Public Involvement Manual <http://www.in.gov/indot/2366.htm>. Seeking the public's understanding of transportation improvement projects early in the project development stage can allow the opportunity for the public to express their concerns, comments, and to seek buy-in. Early coordination is the perfect opportunity to examine the proposed project and its impacts to the community along with the many ways and or tools to inform the public of the improvements and seek engagement. A good public involvement plan, or PIP, should consider the type, scope, impacts, and the level of public awareness that should, or could, be implemented. In other words, although there are cases where no public involvement is legally required, sometimes it is simply the right thing to do in order to keep the public informed.

The public involvement office is always available to provide support and resources to bolster any public involvement activities you may wish to implement or discuss. Please feel free to contact our office anytime should you have any questions or concerns. Thank you for notifying our office about your proposed project. We trust you will not only analyze the appropriate public involvement required, but also consider the opportunity to do go above and beyond those requirements in creating a good PIP.

Rickie Clark, Manager
100 North Senate Avenue, Room N642
Indianapolis, IN 46204
Phone: 317-232-6601
Email: rclark@indot.in.gov

Mary Wright, Hearing Examiner
Phone: 317-234-0796
Email: mwright@indot.in.gov

From: Kunkel, Chris [mailto:CKunkel@lochgroup.com]
Sent: Wednesday, February 06, 2019 4:12 PM
To: Clark, Rickie <RCLARK@indot.IN.gov>; Wright, Mary <MWRIGHT@indot.IN.gov>
Cc: Hook, Ruth <RHook@lochgroup.com>
Subject: US 421 Bridge Replacement (Des. No. 1700103) Early Coordination

Good afternoon,

Please see the attached early coordination letter and associated attachments for the Bridge Replacement Project in White County, Indiana.

Please contact us should you have any questions regarding this project.

February 13, 2019

Ruth Hook
Lochmueller Group, Inc.
3502 Woodview Trace, Suite 150
Indianapolis, Indiana 46268

Dear Ms. Hook:

The proposed project to replace the bridge that carries US 421 over Hoagland Ditch in White County, Indiana, (Des No 1700103), as referred to in your letter received February 6, 2019, will cause a conversion of prime farmland.

The attached packet of information is for your use completing Parts VI and VII of the AD-1006. After Completion, the federal funding agency needs to forward one copy to NRCS for our records.

If you need additional information, please contact Daniel Phillips at 317-295-5871.

Sincerely,

JERRY RAYNOR Digitally signed by JERRY
RAYNOR
Date: 2019.02.15 11:39:36 -05'00'

JERRY RAYNOR
State Conservationist

Enclosures



**FARMLAND CONVERSION IMPACT RATING
FOR CORRIDOR TYPE PROJECTS**

PART I (To be completed by Federal Agency)		3. Date of Land Evaluation Request	4. Sheet 1 of _____
1. Name of Project		5. Federal Agency Involved	
2. Type of Project		6. County and State	
PART II (To be completed by NRCS)		1. Date Request Received by NRCS	2. Person Completing Form
3. Does the corridor contain prime, unique statewide or local important farmland? (If no, the FPPA does not apply - Do not complete additional parts of this form). YES <input type="checkbox"/> NO <input type="checkbox"/>		4. Acres Irrigated Average Farm Size	
5. Major Crop(s)	6. Farmable Land in Government Jurisdiction Acres: _____ % _____		7. Amount of Farmland As Defined in FPPA Acres: _____ % _____
8. Name Of Land Evaluation System Used	9. Name of Local Site Assessment System		10. Date Land Evaluation Returned by NRCS

PART III (To be completed by Federal Agency)	Alternative Corridor For Segment			
	Corridor A	Corridor B	Corridor C	Corridor D
A. Total Acres To Be Converted Directly				
B. Total Acres To Be Converted Indirectly, Or To Receive Services				
C. Total Acres In Corridor				

PART IV (To be completed by NRCS) Land Evaluation Information				
A. Total Acres Prime And Unique Farmland				
B. Total Acres Statewide And Local Important Farmland				
C. Percentage Of Farmland in County Or Local Govt. Unit To Be Converted				
D. Percentage Of Farmland in Govt. Jurisdiction With Same Or Higher Relative Value				

PART V (To be completed by NRCS) Land Evaluation Information Criterion Relative value of Farmland to Be Serviced or Converted (Scale of 0 - 100 Points)				
--	--	--	--	--

PART VI (To be completed by Federal Agency) Corridor Assessment Criteria (These criteria are explained in 7 CFR 658.5(c))		Maximum Points			
1. Area in Nonurban Use		15			
2. Perimeter in Nonurban Use		10			
3. Percent Of Corridor Being Farmed		20			
4. Protection Provided By State And Local Government		20			
5. Size of Present Farm Unit Compared To Average		10			
6. Creation Of Nonfarmable Farmland		25			
7. Availability Of Farm Support Services		5			
8. On-Farm Investments		20			
9. Effects Of Conversion On Farm Support Services		25			
10. Compatibility With Existing Agricultural Use		10			
TOTAL CORRIDOR ASSESSMENT POINTS		160			

PART VII (To be completed by Federal Agency)					
Relative Value Of Farmland (From Part V)		100			
Total Corridor Assessment (From Part VI above or a local site assessment)		160			
TOTAL POINTS (Total of above 2 lines)		260			

1. Corridor Selected:	2. Total Acres of Farmlands to be Converted by Project:	3. Date Of Selection:	4. Was A Local Site Assessment Used? YES <input type="checkbox"/> NO <input type="checkbox"/>
-----------------------	---	-----------------------	--

5. Reason For Selection:

Signature of Person Completing this Part: Chris Kunkel | DATE _____

NOTE: Complete a form for each segment with more than one Alternate Corridor

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

DNR #: ER-21233

Request Received: February 6, 2019

Requestor: Lochmueller Group Inc
Ruth Hook
3502 Woodview Trace, Suite 150
Indianapolis, IN 46268

Project: US 421 bridge (#421-91-00889 A) replacement over Hoagland Ditch, 3.5 miles south of SR 16; Des #1700103

County/Site info: White

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 for construction in a floodway under the Flood Control Act, IC 14-28-1. Please submit a copy of this letter with the permit application.

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

Fish & Wildlife Comments: 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) Stream Crossing:

For purposes of maintaining fish and wildlife passage through a crossing structure, the Environmental Unit recommends bridges rather than culverts and bottomless culverts rather than box or pipe culverts. Wide culverts are better than narrow culverts, and culverts with shorter through lengths are better than culverts with longer through lengths. If box or pipe culverts are used, the bottoms should be buried a minimum of 6" (or 20% of the culvert height/pipe diameter, whichever is greater up to a maximum of 2') below the stream bed elevation to allow a natural streambed to form within or under the crossing structure. Crossings should: span the entire channel width (a minimum of 1.2 times the OHWM width); maintain the natural stream substrate within the structure; have a minimum openness ratio (height x width / length) of 0.25; and have stream depth, channel width, and water velocities during low-flow conditions that are approximate to those in the natural stream channel. Banklines should be restored within box and pipe structures to allow for wildlife passage above the ordinary highwater mark.

The new, replacement, or rehabbed structure, and any bank stabilization under the structure, should not create conditions that are less favorable for wildlife passage under the structure compared to the current conditions. The Division of Fish and Wildlife would like to emphasize the importance of wildlife passage issues and transportation infrastructure projects. The following is a good place to start in terms of resources to consider in the design of stream crossing structures:
<http://www.fs.fed.us/wildlifecrossings/library/>.

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

The following are recommended resources for designing and constructing stream crossings for maintenance of instream habitat and aquatic organism passage:
https://www.fs.fed.us/biology/nsaec/fishxing/aop_pdfs.html;
<https://www.fhwa.dot.gov/engineering/hydraulics/pubs/11008/hif11008.pdf>.

2) 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. For streambed stabilization or scour protection, riprap or other stabilization materials should not be placed in the active stream channel above the existing streambed or flowline elevation. This is to prevent obstructions to the movement of aquatic organisms upstream and downstream.

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 construct any temporary runarounds, access bridges, causeways, cofferdams, diversions, or pumparounds.
5. Use minimum average 6 inch graded riprap stone extended below the normal water level to provide habitat for aquatic organisms in the voids.
6. Do not use broken concrete as riprap.
7. Underlay the riprap with a bedding layer of well graded aggregate or a geotextile to

THIS IS NOT A PERMIT

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

- prevent piping of soil underneath the riprap.
- 8. Minimize the movement of resuspended bottom sediment from the immediate project area.
 - 9. Do not deposit or allow demolition/construction materials or debris to fall or otherwise enter the waterway.
 - 10. 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.
 - 11. Seed and protect all disturbed streambanks and slopes not protected by other methods that are 3:1 or steeper with erosion control blankets that are heavy-duty, biodegradable, and net free or that use loose-woven / Leno-woven netting to minimize the entrapment and snaring of small-bodied wildlife such as snakes and turtles (follow manufacturer's recommendations for selection and installation); seed and apply mulch on all other disturbed areas.

Contact Staff:

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



Date: March 7, 2019

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

Kunkel, Chris

From: McCloskey, Elizabeth <elizabeth_mccloskey@fws.gov>
Sent: Monday, April 29, 2019 12:58 PM
To: Kunkel, Chris
Subject: Re: [EXTERNAL] FW: US 421 Bridge Replacement (Des. No. 1700103) Early Coordination

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

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

On Fri, Apr 26, 2019 at 1:11 PM Kunkel, Chris <CKunkel@lochgroup.com> wrote:

Hi Elizabeth,

I'm emailing you because it appears that I emailed Robin the early coordination letter for this project back in February when this should have gone to you. I apologize for that. Please see the attached early coordination letter and associated attachments for this project in White County. Let us know if you have any questions or comments about this project. Thank you!

Chris Kunkel

Environmental Biologist

Lochmueller Group

317.334.6818 (direct) | 317.677.5132 (mobile)

CKunkel@lochgroup.com

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From: Kunkel, Chris
Sent: Wednesday, February 6, 2019 4:07 PM
To: 'scott_pruitt@fws.gov' <scott_pruitt@fws.gov>; 'McWilliams, Robin' <robin_mcwilliams@fws.gov>
Cc: Hook, Ruth <RHook@lochgroup.com>
Subject: US 421 Bridge Replacement (Des. No. 1700103) Early Coordination



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:

April 06, 2020

Consultation Code: 03E12000-2020-SLI-0144

Event Code: 03E12000-2020-E-05488

Project Name: US 421 Bridge Replacement (Des. No. 1700103)

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

To Whom It May Concern:

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

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

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

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

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

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

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

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

Attachment(s):

- Official Species List

Official Species List

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

This species list is provided by:

Indiana Ecological Services Field Office

620 South Walker Street

Bloomington, IN 47403-2121

(812) 334-4261

Project Summary

Consultation Code: 03E12000-2020-SLI-0144

Event Code: 03E12000-2020-E-05488

Project Name: US 421 Bridge Replacement (Des. No. 1700103)

Project Type: BRIDGE CONSTRUCTION / MAINTENANCE

Project Description: The Federal Highway Administration (FHWA) and the Indiana Department of Transportation (INDOT), LaPorte District propose to proceed with a project (Des. No. 1700103) which involves replacing the existing bridge (Bridge No. 421-91-00889 A) carrying US 421 over Hoagland Ditch. The existing bridge is an earth-filled concrete arch bridge. The proposed project would replace the existing bridge with a new bridge. The proposed project is located in White County, 3.5 miles south of SR 16. Specifically, the project is located in Section 4, Township 27 North, and Range 4 West in Honey Creek Township as depicted on the Monon U.S. Geological Survey (USGS) Quadrangle. Adjacent land use consists of agricultural fields. US 421 is classified as rural minor arterial within the project area. The typical section of US 421 is two 12-foot wide travel lanes with 5-foot paved shoulders. The existing bridge is a single span, earth-filled, reinforced concrete arch bridge built in 1929 and reconstructed in 1960 with a 60-foot clear span and a 41-foot clear roadway width. The existing structure has two 12-foot travel lanes and 8.5-foot shoulders. The proposed project will replace the existing bridge with a new single-span, composite prestressed concrete bulb-tee beam bridge with a span of 96 feet and a clear roadway width of 41 feet. The project will also involve full depth pavement replacement for 130 feet north and 190 feet south of the bridge. Beyond that, milling and overlay the approach pavement for 50 feet to the north and 30 feet to the south will also take place. Riprap will be placed around each new end bent and in each quadrant of the bridge new riprap will be placed as drainage turnouts. The acquisition of approximately 0.78 acre of new permanent right-of-way will be required. It appears that 5 trees will need to be removed. All tree clearing activities will occur outside of the bat active season. No permanent lighting is proposed as part of this project. Temporary lighting may be required if night work occurs. The total project length is 550 feet along US 421. All project work will occur within 30 feet of the existing roadway.

Suitable summer bat habitat is located within or adjacent to the project area along the south side of US 421.

Project work is expected to begin in Spring 2022.

The Red Flag Investigation for the project was performed for a 0.5 mile radius of the project area on June 21, 2019. As part of this RFI, INDOT LaPorte District checked the USFWS database for the presence of endangered or threatened bat species or their hibernacula within 0.5 miles of the project area. No documented habitat or hibernacula were found.

Lochmueller Group conducted a field investigation of the project area and inspection of the bridge for the evidence or presence of bats in the structure on September 26, 2018. No evidence of bats was observed during the field investigation.

Project Location:

Approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/place/40.8172678694671N86.87622853121431W>



Counties: White, 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 Fisheries¹, 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 <i>Myotis sodalis</i> 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 <i>Myotis septentrionalis</i> No critical habitat has been designated for this species. This species only needs to be considered under the following conditions: <ul style="list-style-type: none"> ▪ Incidental take of the NLEB is not prohibited here. Federal agencies may consult using the 4(d) rule streamlined process. Transportation projects may consult using the programmatic process. See www.fws.gov/midwest/endangered/mammals/nleb/index.html Species profile: https://ecos.fws.gov/ecp/species/9045	Threatened

Critical habitats

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



United States Department of the Interior



FISH AND WILDLIFE SERVICE

Indiana Ecological Services Field Office

620 South Walker Street

Bloomington, IN 47403-2121

Phone: (812) 334-4261 Fax: (812) 334-4273

<http://www.fws.gov/midwest/Endangered/section7/s7process/step1.html>

In Reply Refer To:

November 04, 2019

Consultation Code: 03E12000-2020-I-0144

Event Code: 03E12000-2020-E-00892

Project Name: US 421 Bridge Replacement (Des. No. 1700103)

Subject: Concurrence verification letter for the 'US 421 Bridge Replacement (Des. No. 1700103)' 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 Bridge Replacement (Des. No. 1700103)** (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 Bridge Replacement (Des. No. 1700103)

Description

The Federal Highway Administration (FHWA) and the Indiana Department of Transportation (INDOT), LaPorte District propose to proceed with a project (Des. No. 1700103) which involves replacing the existing bridge (Bridge No. 421-91-00889 A) carrying US 421 over Hoagland Ditch. The existing bridge is an earth-filled concrete arch bridge. The proposed project would replace the existing bridge with a new bridge. The proposed project is located in White County, 3.5 miles south of SR 16. Specifically, the project is located in Section 4, Township 27 North, and Range 4 West in Honey Creek Township as depicted on the Monon U.S. Geological Survey (USGS) Quadrangle. Adjacent land use consists of agricultural fields. US 421 is classified as rural minor arterial within the project area. The typical section of US 421 is two 12-foot wide travel lanes with 5-foot paved shoulders. The existing bridge is a single span, earth-filled, reinforced concrete arch bridge built in 1929 and reconstructed in 1960 with a 60-foot clear span and a 41-foot clear roadway width. The existing structure has two 12-foot travel lanes and 8.5-foot shoulders. The proposed project will replace the existing bridge with a new single-span, composite prestressed concrete bulb-tee beam bridge with a span of 96 feet and a clear roadway width of 41 feet. The project will also involve full depth pavement replacement for 130 feet north and 190 feet south of the bridge. Beyond that, milling and overlay the approach pavement for 50 feet to the north and 30 feet to the south will also take place. Riprap will be placed around each new end bent and in each quadrant of the bridge new riprap will be placed as drainage turnouts. The acquisition of approximately 0.78 acre of new permanent right-of-way will be required. It appears that 5 trees will need to be removed. All tree clearing activities will occur outside of the bat active season. No permanent lighting is proposed as part of this project. Temporary lighting may be required if night work occurs. The total project length is 550 feet along US 421. All project work will occur within 30 feet of the existing roadway.

Suitable summer bat habitat is located within or adjacent to the project area along the south side of US 421.

Project work is expected to begin in Spring 2022.

The Red Flag Investigation for the project was performed for a 0.5 mile radius of the project area on June 21, 2019. As part of this RFI, INDOT LaPorte District checked the USFWS database for the presence of endangered or threatened bat species or their hibernacula within 0.5 miles of the project area. No documented habitat or hibernacula were found.

Lochmueller Group conducted a field investigation of the project area and inspection of the bridge for the evidence or presence of bats in the structure on September 26, 2018. No evidence of bats was observed during the field investigation.

Determination Key Result

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

Qualification Interview

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

[1] See [Indiana bat species profile](#)

Automatically answered

Yes

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

[1] See [Northern long-eared bat species profile](#)

Automatically answered

Yes

3. Which Federal Agency is the lead for the action?

A) Federal Highway Administration (FHWA)

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

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

No

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

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

No

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

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

No

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

No

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

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

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

Yes

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

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

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 wetland or stream protection activities associated with compensatory wetland mitigation?

No

24. Does the project include slash pile burning?

No

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

Yes

26. 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

27. 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

- *BridgeStructureAssessment_2019-03-28.pdf* <https://ecos.fws.gov/ipac/project/FFEIUI5WTJACZNR3O576UVQ5KM/projectDocuments/18956695>

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

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

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

No

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

No

30. 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

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

Yes

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

Yes

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 and/or structure activities, temporary or permanent lighting, or use of percussives, limited to actions that DO NOT cause any additional stressors to the bat species?

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

Yes

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 and/or structure activities, temporary or permanent lighting, or use of percussives consistent with a No Effect determination in this key?

Automatically answered

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

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

48. **Lighting AMM 1**

Will *all* **temporary** lighting 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?

N/A

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

N/A

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.

0.45

4. Please describe the proposed bridge work:

The entire bridge structure will be removed and replaced. The approach roadway will be replaced to full depth and milled and overlaid as discussed in the project description.

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

The bridge work will likely occur in the Spring of 2022

6. Please enter the date of the bridge assessment:

March 28, 2019

Avoidance And Minimization Measures (AMMs)

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

GENERAL AMM 1

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

LIGHTING AMM 1

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

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.

APPENDIX D: Bridge/Structure Assessment Form

This form will be completed and submitted to the District Environmental Manager by the Contractor prior to conducting any work below the deck surface either from the underside; from activities above that bore down to the underside; from activities that could impact expansion joints; from deck removal on bridges; or from structure demolition for bridges/structures within 1000 feet of suitable bat habitat.

DOT Project # 1700103	Water Body Hoagland Ditch	Date/Time of Inspection March 28, 2019 11:00 AM	Within 1,000ft of suitable bat habitat (circle one) <div style="text-align: center;"> Yes No </div>
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Route	County	Federal Structure ID
US 421	White County	BIAS: 421-91-00889 A NBI: 032370

If the bridge/structure is 1,000 feet or more from suitable bat habitat (e.g., an urban or agricultural area without suitable foraging habitat or corridors linking the bridge to suitable foraging habitat), check box and STOP HERE. No assessment required.

Please submit to the U.S. Fish and Wildlife Service.

Areas Inspected (Check all that apply)

Bridges		Culverts/Other Structures		Summary Info (circle all that apply)			
All vertical crevices sealed at the top and 0.5-1.25" wide & ≥4" deep	X	Crevices, rough surfaces or imperfections in concrete		Human disturbance or traffic under bridge/in culvert or at the structure	High	Low	None
All crevices >12" deep & not sealed	X	Spaces between walls, ceiling joists		Possible corridors for netting	None/poor	Marginal	Excellent
All guardrails	X						
All expansion joints	X						
Spaces between concrete end walls and the bridge deck	X						

Last Revised May 31, 2017

Vertical surfaces on concrete I-beams	X						
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Evidence of Bats (Circle all that apply) Presence of one or more indicators is sufficient evidence that bats may be using the structure.

None

Visual (e.g. survey, thermal, emergent etc.)

- Live __ number seen
- Dead __ number seen

Photo documentation Y/N

Guano

Odor Y/N

Photo documentation Y/N

Staining definitively from bats

Photo documentation Y/N

Audible

Assessment Conducted By: <u>Chris Kunkel</u> Signature(s): <u><i>Chris Kunkel</i></u>
District Environmental Use Only: Date Received by District Environmental Manager: _____

DOT Bat Assessment Form Instructions

1. Assessments must be completed no more than 2 years prior to conducting any work below the deck surface on all bridges, regardless of whether assessments have been conducted in the past.
2. Any bridge/structure suspected of providing habitat for any species of bat will be removed from work schedules until such time that the DOT has coordinated with the USFWS. Additional studies may be undertaken by the DOT to determine what species may be utilizing each structure identified as supporting bats prior to allowing any work to proceed.
3. Any questions should be directed to the District Environmental Manager.

Last Revised June 2017



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 - LaPorte District
Bradon Downing
315 E Boyd Blvd
LaPorte , IN 46350

Lochmueller Group
Chris Kunkel
3502 Woodview Trace
Suite 150
Indianapolis , IN 46268

Date

To Engineers and Consultants Proposing Roadway Construction Projects:

RE: The Federal Highway Administration (FHWA) and the Indiana Department of Transportation (INDOT), LaPorte District propose to proceed with a project (Des. No. 1700103) which involves replacing the existing bridge (Bridge No. 421-91-00889 A) carrying US 421 over Hoagland Ditch. The existing bridge is an earth-filled concrete arch bridge. The proposed project would replace the existing bridge with a new bridge. The proposed project is located in White County, 3.5 miles south of SR 16. Specifically, the project is located in Section 4, Township 27 North, and Range 4 West in Honey Creek Township as depicted on the Monon U.S. Geological Survey (USGS) Quadrangle. Adjacent land use consists of agricultural fields. US 421 is classified as rural minor arterial within the project area. The typical section of US 421 is two 12-foot wide travel lanes with 5-foot paved shoulders. The existing bridge is a single span, earth-filled, reinforced concrete arch bridge built in 1929 and reconstructed in 1960 with a 60-foot clear span and a 41-foot clear roadway width. The existing structure has two 12-foot travel lanes and 8.5-foot shoulders. This project is in the preliminary planning stages but will likely include a replacement of the bridge in-kind. The project will likely include the installation of new riprap along Hoagland Ditch within the project area for scour protection. The proposed typical cross-section of US 421 over Hoagland Ditch will have two 12-foot travel lanes and 8.5-foot shoulders on both sides of the roadway. The total length of the project along US 421 will be a maximum 1,000 feet. The Maintenance of Traffic (MOT) has not been finalized but will likely require the closure of US 421 within the project area. A detour route utilizing US 24, SR 39, and SR 16 will be established. The MOT will be implemented per the Indiana Design Manual guidelines. The amount of ROW acquisition required for this project is not known at this time, but it is anticipated that up to 1 acre will be required. No tree clearing is anticipated to occur. A Red Flag Investigation (RFI) was performed for a 0.5-mile radius of the project area. Several "Red Flags" were identified within the 0.5-mile search radius; however, not all will be impacted. The CSX Railroad crosses through the project area. One pipeline, owned by the Northern Indiana Public Service Co., is located 0.23 mile east of the project area. One stream, Hoagland Ditch, runs through the project area. Due to the proximity of water resources to the project area, a Waters of the U.S. Determination Report will be prepared and coordination with INDOT Environmental Services Ecology and Waterway Permitting will occur. No additional "Red Flags" are mapped within the immediate vicinity of the 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>) 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, Kosciusko, 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:
 - o IC 14-26-2 Lakes Preservation Act 312 IAC 11
 - o IC 14-26-5 Lowering of Ten Acre Lakes Act No related code
 - o IC 14-28-1 Flood Control Act 310 IAC 6-1
 - o IC 14-29-1 Navigable Waterways Act 312 IAC 6
 - o IC 14-29-3 Sand and Gravel Permits Act 312 IAC 6
 - o 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
 - o <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 it is 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 Federal Highway Administration (FHWA) and the Indiana Department of Transportation (INDOT), LaPorte District propose to proceed with a project (Des. No. 1700103) which involves replacing the existing bridge (Bridge No. 421-91-00889 A) carrying US 421 over Hoagland Ditch. The existing bridge is an earth-filled concrete arch bridge. The proposed project would replace the existing bridge with a new bridge. The proposed project is located in White County, 3.5 miles south of SR 16. Specifically, the project is located in Section 4, Township 27 North, and Range 4 West in Honey Creek Township as depicted on the Monon U.S. Geological Survey (USGS) Quadrangle. Adjacent land use consists of agricultural fields. US 421 is classified as rural minor arterial within the project area. The typical section of US 421 is two 12-foot wide travel lanes with 5-foot paved shoulders. The existing bridge is a single span, earth-filled, reinforced concrete arch bridge built in 1929 and reconstructed in 1960 with a 60-foot clear span and a 41-foot clear roadway width. The existing structure has two 12-foot travel lanes and 8.5-foot shoulders. This project is in the preliminary planning stages but will likely include a replacement of the bridge in-kind. The project will likely include the installation of new riprap along Hoagland Ditch within the project area for scour protection. The proposed typical cross-section of US 421 over Hoagland Ditch will have two 12-foot travel lanes and 8.5-foot shoulders on both sides of the roadway. The total length of the project along US 421 will be a maximum 1,000 feet. The Maintenance of Traffic (MOT) has not been finalized but will likely require the closure of US 421 within the project area. A detour route utilizing US 24, SR 39, and SR 16 will be established. The MOT will

be implemented per the Indiana Design Manual guidelines. The amount of ROW acquisition required for this project is not known at this time, but it is anticipated that up to 1 acre will be required. No tree clearing is anticipated to occur. A Red Flag Investigation (RFI) was performed for a 0.5-mile radius of the project area. Several "Red Flags" were identified within the 0.5-mile search radius; however, not all will be impacted. The CSX Railroad crosses through the project area. One pipeline, owned by the Northern Indiana Public Service Co., is located 0.23 mile east of the project area. One stream, Hoagland Ditch, runs through the project area. Due to the proximity of water resources to the project area, a Waters of the U.S. Determination Report will be prepared and coordination with INDOT Environmental Services Ecology and Waterway Permitting will occur. No additional "Red Flags" are mapped within the immediate vicinity of the 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: 1/23/2020

Signature of the INDOT
Project Engineer or Other Responsible Agent Bradon Downing

Bradon Downing

Date: 01/22/2020

Signature of the
For Hire Consultant Chris Kunkel

Chris Kunkel

Categorical Exclusion

Appendix D

**Section 106 of the National Historic
Preservation Act (NHPA)**

Blad, Hannah

From: Coon, Matthew <mcoon@indot.IN.gov>
Sent: Wednesday, December 4, 2019 12:55 PM
To: Blad, Hannah
Cc: louis bubb; Downing, Bradon C; Murray, Bridgette M; Miller, Shaun (INDOT); Alexander, Kelyn; Quigg, Gary
Subject: RE: US 421 Bridge Replacement Project - Des1700103 - MPPA Submission Form and Archaeology Report
Attachments: Minor Projects PA determination form_B-10_B-12_Des1700103.pdf

Hannah,

Thank you for the submittal. We have completed our review of the materials and have determined that Categories B-10 and B-12 of the MPPA are applicable, and therefore no further Section 106 work is necessary. The completed determination form is attached for use in the CE document.

The revised archaeological report has been reviewed and approved by INDOT-CRO. Please forward one hard copy of the report to DHPA, indicating in the cover letter that the project qualified as a Minor Project and therefore the report is for their records only and no formal review is required under Section 106. In addition, we ask that a copy of the DHPA submittal letter be sent to INDOT-CRO c/o Matt Coon during the time of submission and that the archaeological report be posted to IN SCOPE.

Please keep in mind that if the scope of the project or the project limits should change, our office will need to re-examine the information to determine whether the MPPA still applies. Please don't hesitate to contact us should you have any questions or need additional information. Thank you.

Sincerely,

Matt Coon
Archaeologist, Cultural Resources Office
INDOT Environmental Services
100 N. Senate Avenue, Room N642
Indianapolis, IN 46204
Phone: 317.233.2083

From: Blad, Hannah [mailto:HBlad@lochgroup.com]
Sent: Monday, December 02, 2019 8:44 AM
To: Coon, Matthew <mcoon@indot.IN.gov>
Cc: louis bubb <louisbubb@gmail.com>; Downing, Bradon C <BDowning1@indot.IN.gov>; Murray, Bridgette M <BMurray@indot.IN.gov>; Miller, Shaun (INDOT) <smiller@indot.IN.gov>; Alexander, Kelyn <KAlexander3@indot.IN.gov>; Quigg, Gary <GQuigg@lochgroup.com>
Subject: RE: US 421 Bridge Replacement Project - Des1700103 - MPPA Submission Form and Archaeology Report

**** This is an EXTERNAL email. Exercise caution. DO NOT open attachments or click links from unknown senders or unexpected email. ****

Matt,

Attached is a revised copy of the archaeology report. To clarify the relationship between the survey limits and the project area, the survey limits were set prior to us knowing the project limits and the survey limits were meant to

Minor Projects PA Project Assessment Form – Category B Projects with Archaeology Work

Date: 12/4/2019

Project Designation Number: 1700103

Route Number: US 421

Project Description: Bridge Project over Hoagland Ditch, 3.50 mi S of SR 16

The typical section of US 421 is two (2) 12-foot wide travel lanes with 5-foot paved shoulders. The existing bridge (Structure No. 421-91-00889 A; NBI No. 032370) is a single span, earth-filled, reinforced concrete arch bridge built in 1929 and reconstructed in 1960 with a 60-foot clear span and a 41-foot clear roadway width. The existing structure has two (2) 12-foot travel lanes and 8.5-foot shoulders. The proposed project will replace the existing bridge with a new single-span, composite prestressed concrete bulb-tee beam bridge with a span of 96 feet and a clear roadway width of 41 feet. The project will also involve full depth pavement replacement for 130 feet north and 190 feet south of the bridge. Beyond that, milling and overlay of the approach pavement will also take place for 50 feet to the north and 30 feet to the south. Riprap will be placed around each new end bent and in each quadrant of the bridge new riprap will be placed as drainage turnouts. The total length of the project along US 421 will be 550 feet. The acquisition of approximately 0.78 acre of new permanent right-of-way will be required. The maintenance of traffic will require the full closure of US 421, the detour will utilize US 24, SR 39, SR 119, and SR 16.

Feature crossed (if applicable): Hoagland Ditch

Township: Honey Creek

City/County: White County

Information reviewed (please check all that apply):

- General project location map USGS map Aerial photograph Interim Report
- Written description of project area General project area photos Soil survey data
- Previously completed historic property reports Previously completed archaeology reports
- Bridge Inspection Information

Other (please specify): SHAARD GIS; SHAARD; online street-view imagery; Indiana Historic Building, Bridges, and Cemeteries (IHBBC) map; Bridge Inspection Application System (BIAS); County GIS data (accessed via <https://whitein.elevatemaps.io/>); 2010 INDOT-sponsored *Historic Bridge Inventory* (HBI); project information provided by Lochmueller Group, Inc., dated 10/31/2019 and on file at INDOT-CRO;

Culver, Emily and Louis Bubb
2019 Archaeological Field Reconnaissance for the Proposed Replacement of the Bridge Carrying US 421 over Hoagland Ditch (Des. 1700103) in Honey Creek Township, White County, Indiana. 106 Consulting, Deer Park, OH.

Results of the Records Review for Above-Ground Resources:

With regard to above-ground resources, an INDOT-Cultural Resources Office (CRO) historian, who meets the Secretary of the Interior’s Professional Qualification Standards as per 36 CFR Part 61, first performed a desktop review, checking the Indiana Register of Historic Sites and Structures (State Register) and National Register of Historic Places (National Register) lists for White County. No listed resources are present within 0.25 mile of the project area, a distance that would serve as an adequate area of potential effects (APE) given the scope of the project and the surrounding terrain.

The *White County Interim Report* (1994; Honey Creek Township) of the Indiana Historic Sites and Structures Inventory (IHSSI) was also consulted. The National Register & IHSSI information is available in the Indiana State Historic Architectural and Archaeological Research Database (SHAARD) and the Indiana Historic Buildings, Bridges, and Cemeteries (IHBBC) map. The SHAARD information was checked against the Interim Report hard copy maps. No IHSSI sites are recorded within 0.25 mile of the project.

Land surrounding the project area is rural with agricultural fields present and a railroad bridge running parallel east of the subject bridge; the typology is primarily flat. Two (2) properties are present within 0.25 mile of the project area. One will not be 50 years old or older by the time of project letting in 2021. The other property, a residential house, was constructed in the mid-twentieth century. However, there is no evidence that this property possesses the cultural significance to be considered potentially eligible to the National Register.

The subject bridge (#421-91-00889 A; NBI #32370) is a reinforced concrete arch bridge built in 1929 and reconstructed in 1960. The bridge length is 62 feet and the deck width, out-to-out, is 44.2 feet. The INDOT *Historic Bridge Inventory* determined that this bridge is not eligible for listing in the National Register (Volume 2, Section 2, page 1098).

Based on the available information, as summarized above, no above-ground concerns exist as long as the project scope does not change.

Archaeology Report Author/Date:

Emily Culver and Louis Bubb/November 26, 2019

Summary of Archaeology Investigation Results:

An archaeological records check and Phase Ia reconnaissance survey of the project area were conducted by a qualified professional archaeologist from 106 Consulting (Culver and Bubb 2019). The records check found that no previous surveys have covered any portion of the project area, and no previously recorded sites have been identified within or adjacent to the project area. A 4.6 acre survey area was examined through a combination of pedestrian survey, systematic shovel probing, and visual inspection of disturbed areas. The eastern side of the survey area consisted of a disturbed railroad corridor, ditch, and previously disturbed R/W and was investigated by visual inspection. The western side was investigated by a combination of pedestrian survey in an agricultural field and shovel probing (n=8) in a grassy area adjacent to an agricultural field. No archaeological resources were identified as a result of the investigations. The report was reviewed by INDOT Cultural Resources personnel who meet the Secretary of the Interior’s Professional Qualification Standards as per 36 CFR Part 61. It is our opinion that the report is acceptable, and we concur with the evaluations and recommendations made by 106 Consulting (Culver and Bubb 2019). Therefore, there are no archaeological concerns.

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

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

B-10. Slide corrections, slope repairs, and other erosion control measures, in undisturbed soils under the conditions listed below [**BOTH Condition A, which pertains to Archaeological Resources, and Condition B, which pertains to Above-Ground Resources, must be satisfied**]:

Condition A (Archaeological Resources)

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

Condition B (Above-Ground Resources)

Work does not occur adjacent to or within a National Register-listed or National Register-eligible district or individual above-ground resource.

B-12. Replacement, widening, or raising the elevation of the superstructure on existing bridges, and bridge replacement projects (when both the superstructure and substructure are removed), under the following conditions [**BOTH Condition A, which pertains to Archaeological Resources, and Condition B, which pertains to Above-Ground Resources, must be satisfied**]:

Condition A (Archaeological Resources)

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

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

Condition B (Above-Ground Resources)

The conditions listed below must be met (*BOTH Condition i and Condition ii must be satisfied*)

- i. Work does not occur adjacent to or within a National Register-listed or National Register-eligible district or individual above-ground resource; AND
- ii. With regard to the subject bridge, at least one of the conditions listed below is satisfied (*AT LEAST one of the conditions a, b or c, must be fulfilled*):
 - a. The latest Historic Bridge Inventory identified the bridge as non-historic (see <http://www.in.gov/indot/2531.htm>);
 - b. The bridge was built after 1945, and is a common type as defined in Section V. of the Program Comment Issued for Streamlining Section 106 Review for Actions Affecting Post-1945 Concrete and Steel Bridges issued by the Advisory Council on Historic Preservation on November 2, 2012 for so long as that Program Comment remains in effect AND the considerations listed in Section IV of the Program Comment do not apply;
 - c. The bridge is part of the Interstate system and was determined not eligible for the National Register under the Section 106 Exemption Regarding Effects to the Interstate Highway

System adopted by the Advisory Council on Historic Preservation on March 10, 2005, for so long as that Exemption remains in effect.

If no, please explain:

Additional comments: If any archaeological artifacts or human remains are uncovered during construction, demolition, or earth moving activities, construction in the immediate area of the find will be stopped, and the INDOT Cultural Resources Office and the Division of Historic Preservation and Archaeology will be notified immediately.

INDOT Cultural Resources staff reviewer(s): Kelyn Alexander and Matt Coon

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

Categorical Exclusion
Appendix E
Red Flag Investigation
& 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: June 21, 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: Ruth Hook
3502 Woodview Trace, Suite 150
Indianapolis, IN
rhook@lochgroup.com

Re: RED FLAG INVESTIGATION
Des. No. 1700103, State Project
Bridge Replacement
US 421 over Hoagland Ditch – Structure # 421-91-00889 A
White County, Indiana

PROJECT DESCRIPTION

Brief Description of Project: The Indiana Department of Transportation (INDOT), LaPorte District proposes to proceed with a bridge replacement project on US 421, 3.5 miles south of SR 16 in White County, Indiana (Des. No. 1700103). The proposed project would involve replacing the existing structure (bridge # 421-91-00889 A), which carries US 421 over Hoagland Ditch. The existing structure is a 44.2 foot wide, 62-foot long concrete bridge. The proposed project would replace the existing structure. The project is located in Honey Creek Township in Section 4, Township 27 North, and Range 4 West as depicted on the Monon U.S. Geological Survey (USGS) Quadrangle. It is anticipated that permanent right-of-way will be required as part of this project. Specific amounts are not know at this time but area not anticipated to exceed 1.0 acre.

Bridge and/or Culvert Project: Yes No Structure # 421-091-00889 A

If this is a bridge project, is the bridge Historical? Yes No , Select Non-Select

(Note: If the project involves a historical bridge, please include the bridge information in the Recommendations Section of the report).

Proposed right of way: Temporary # Acres _____ Permanent # Acres 1.0*, Not Applicable

Type of excavation: Excavation is anticipated to occur to remove the existing structure, construct the new structure, and install riprap along the banks of Hoagland Ditch. Specific excavation depth and extent is not known at this time; however, depth is not expected to exceed 10 feet.

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Maintenance of traffic: The maintenance of traffic will include the closure of US 421. A detour utilizing US 421, SR 39 and SR 16 will likely be established. Signs, barrels, and flashing signals will be placed along US 421 to notify travelers of the detour ahead. The MOT will be implemented per the *Indiana Design Manual* guidelines.

Work in waterway: Yes No Below ordinary high water mark: Yes No

State Project: LPA:

Any other factors influencing recommendations: N/A

INFRASTRUCTURE TABLE AND SUMMARY

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

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

Explanation:

Pipelines: One (1) pipeline is located within the 0.5 mile search radius. The pipeline, owned by the Northern Indiana Public Service Co., is located 0.23 mile east of the project area. No impact is expected.

Railroads: One (1) railroad is located within the 0.5 mile search radius. The CSX railroad crosses through the project area. Coordination with INDOT Utilities and Railroads 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	5
Canal Structures – Historic	N/A	Lakes	N/A
NPS NRI Listed	N/A	Floodplain - DFIRM	N/A
NWI-Lines	2	Cave Entrance Density	N/A
IDEM 303d Listed Streams and Lakes (Impaired)	N/A	Sinkhole Areas	N/A
Rivers and Streams	7	Sinking-Stream Basins	N/A

Explanation:

NWI-Lines: Two (2) NWI-lines are located within the 0.5 mile search radius. One (1) NWI-line, representing Hoagland Ditch, crosses through the project area. A Waters of the U.S. Report will be prepared and coordination with INDOT ES Ecology and Waterway Permitting will occur.

Rivers and Streams: Seven (7) streams are located within the 0.5 mile search radius. Two (2) stream, Hoagland Ditch and an unnamed tributary (UNT) to Hoagland Ditch, are within the project area. A Waters of the U.S. Report will be prepared and coordination with INDOT ES Ecology and Waterway Permitting will occur.

NWI-Wetlands: Five (5) NWI-wetlands are located within the 0.5 mile search radius. The nearest wetland is located 0.1 mile east of the project area. No impact is expected.

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 or mineral exploration resources are located 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	N/A
RCRA Corrective Action Sites	N/A	Restricted Waste Sites	N/A
State Cleanup Sites	N/A	Waste Transfer Stations	N/A
Septage Waste Sites	N/A	Tire Waste Sites	N/A
Underground Storage Tank (UST) Sites	N/A	Confined Feeding Operations (CFO)	N/A
Voluntary Remediation Program	N/A	Brownfields	N/A
Construction Demolition Waste	N/A	Institutional Controls	N/A
Solid Waste Landfill	N/A	NPDES Facilities	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: No hazardous material concerns are located within the 0.5 mile search radius.

ECOLOGICAL INFORMATION SUMMARY

The White 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 endangered species. Coordination with USFWS and IDNR will occur.

A review of the USFWS database did not indicate the presence of endangered bat species in or within 0.5 mile of the project area. The project area is located in a rural area surrounded by farm fields. The May 16, 2019, inspection report for Bridge #421-91-00889 A states that no evidence of bats was seen or heard under or in 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 Bumble Bee, in or within 0.5 mile of the project area. No impact is expected.

RECOMMENDATIONS SECTION

INFRASTRUCTURE: One (1) CSX railroad crosses through the project area. Coordination with INDOT Utilities and Railroads will occur.

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

- One (1) NWI-line, Hoagland Ditch, runs through the project area.
- Two (2) streams, Hoagland Ditch and a UNT to Hoagland Ditch, run through the project area.

URBANIZED AREA BOUNDARY: N/A

MINING/MINERAL EXPLORATION: N/A

HAZMAT CONCERNS: N/A

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

INDOT Environmental Services concurrence:

 Digitally signed by Ronald Bales
Date: 2019.06.21 14:33:08 -04'00'

(Signature)

Prepared by:



Ruth Hook, CPESC, CESSWI
Environmental Biologist
Lochmueller Group

Graphics:

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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

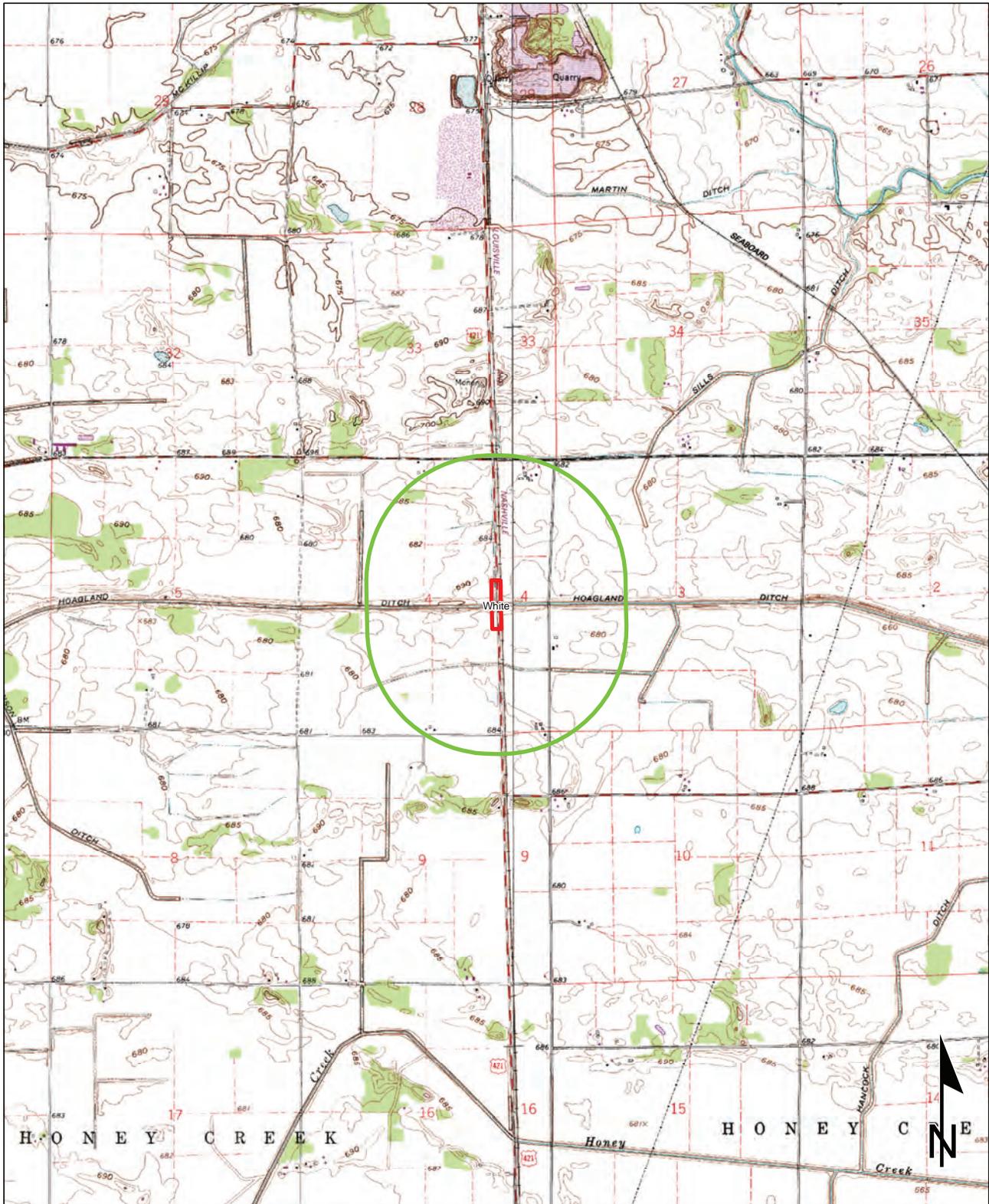
MINING/MINERAL EXPLORATION: N/A

HAZMAT CONCERNS: N/A

Additional Attachments:

White County Endangered, Threatened, and Rare Species List

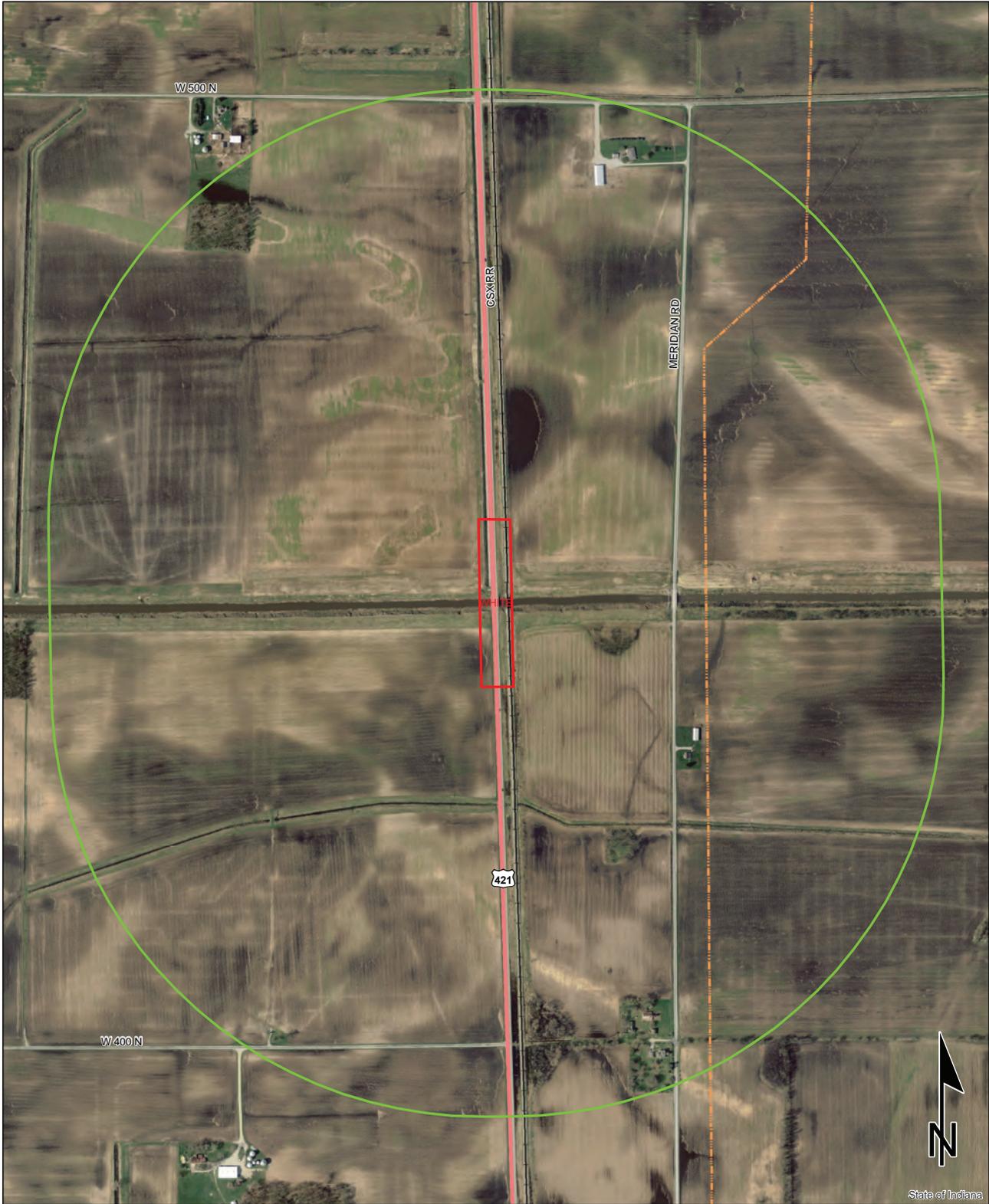
Red Flag Investigation - Site Location
 US 241, 3.5 miles south of SR 16
 Des. No.1700103 , Bridge Replacement Project
 White County, Indiana



Sources: 0.5 0.25 0 0.5 Miles
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.

**MONON QUADRANGLE
 INDIANA
 7.5 MINUTE SERIES
 (TOPOGRAPHIC)**

Red Flag Investigation - Infrastructure
 US 241, 3.5 mi S of SR 16
 Des. No. 1700103, Bridge Replacement
 White County, Indiana



State of Indiana

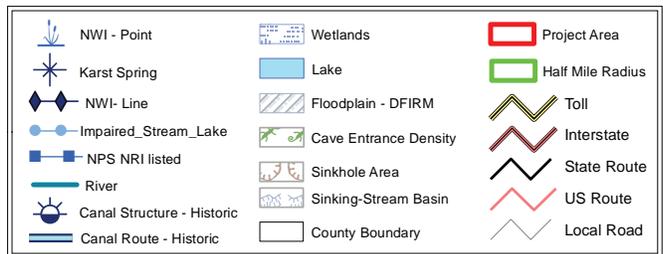
Sources: 0.1 0.05 0 0.1 Miles
Non Orthophotography
Data - Obtained from the State of Indiana Geographical Information Office Library
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Map Projection: UTM Zone 16 N **Map Datum:** NAD83
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	Religious Facility		Recreation Facility		Project Area
	Airport		Pipeline		Half Mile Radius
	Cemeteries		Railroad		Toll
	Hospital		Trails		Interstate
	School		Managed Lands		State Route
			County Boundary		US Route
					Local Road

Red Flag Investigation - Water Resources
 US 241, 3.5 mi S of SR 16
 Des. No. 1700103, Bridge Replacement
 White County, Indiana



Sources: 0.1 0.05 0 0.1 Miles
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
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Indiana County Endangered, Threatened and Rare Species List

State ETR
Federal ETR

County: White

Species Name	Common Name	FED	STATE	GRANK	SRANK
Crustacean: Ostracoda					
Pseudocandona jeanneli	Jeannel's Cave Ostracod		SE	G2	S1
Mollusk: Bivalvia (Mussels)					
Cyprogenia stegaria	Eastern Fanshell Pearlymussel	LE	SE	G1Q	S1
Epioblasma torulosa rangiana	Northern Riffleshell	LE	SE	G2T2	S1
Epioblasma triquetra	Snuffbox	LE	SE	G3	S1
Fusconaia subrotunda	Longsolid	C	SE	G3	SX
Lampsilis fasciola	Wavyrayed Lampmussel		SSC	G5	S3
Obovaria subrotunda	Round Hickorynut	C	SE	G4	S1
Plethobasus cyphus	Sheepnose	LE	SE	G3	S1
Pleurobema clava	Clubshell	LE	SE	G1G2	S1
Pleurobema cordatum	Ohio Pigtoe		SSC	G4	S2
Pleurobema pyramidatum	Pyramid Pigtoe		SE	G2G3	SX
Ptychobranhus fasciolaris	Kidneyshell		SSC	G4G5	S2
Quadrula cylindrica cylindrica	Rabbitsfoot	LT	SE	G3G4T3	S1
Simpsonaias ambigua	Salamander Mussel	C	SSC	G3	S2
Toxolasma lividus	Purple Lilliput	C	SSC	G3Q	S2
Villosa fabalis	Rayed Bean	LE	SE	G2	S1
Insect: Lepidoptera (Butterflies & Moths)					
Boloria selene nebraskensis	The Nebraska Silver Bordered Fritillary		SE	G5T3T4	S1
Euphyes bimacula	Two-spotted Skipper		ST	G4	S2
Lethe eurydice fumosus	Smoky-eyed Brown		ST	G5T3T4	S1S2
Insect: Odonata (Dragonflies & Damselflies)					
Enallagma divagans	Turquoise Bluet		SR	G5	S3
Fish					
Etheostoma tippecanoe	Tippecanoe Darter	C	SSC	G3G4	S3
Percina evides	Gilt Darter		SE	G4	S1
Amphibian					
Lithobates pipiens	Northern Leopard Frog		SSC	G5	S2
Reptile					
Clemmys guttata	Spotted Turtle	C	SE	G5	S2
Emydoidea blandingii	Blanding's Turtle	C	SE	G4	S2
Kinosternon subrubrum subrubrum	Eastern Mud Turtle		SE	G5T5	S2
Terrapene ornata ornata	Ornate Box Turtle		SE	G5T5	S1
Bird					
Ammodramus henslowii	Henslow's Sparrow		SE	G4	S3B
Bartramia longicauda	Upland Sandpiper		SE	G5	S3B
Chlidonias niger	Black Tern		SE	G4G5	S1B
Circus hudsonius	Northern Harrier		SE	G5	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

Indiana County Endangered, Threatened and Rare Species List

County: White

Species Name	Common Name	FED	STATE	GRANK	SRANK
Cistothorus palustris	Marsh Wren		SE	G5	S3B
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					
Geomys bursarius	Plains Pocket Gopher		SSC	G5	S2
Spermophilus franklinii	Franklin's Ground Squirrel		SE	G5	S2
Taxidea taxus	American Badger		SSC	G5	S2
Vascular Plant					
Berberis canadensis	American Barberry		SE	G3	S1
Besseyia bullii	Kitten Tails		SE	G3	S1
Camassia angusta	Wild Hyacinth		SE	G5?Q	S1
Carex conoidea	Prairie Gray Sedge		ST	G5	S1
Carex eburnea	Ebony Sedge		SR	G5	S2
Carex straminea	Straw Sedge		ST	G5	S2
Cirsium hillii	Hill's Thistle		SE	G3	S1
Crataegus pedicellata	Scarlet Hawthorn		ST	G5	S2
Eleocharis wolfii	Wolf Spikerush		SR	G3G5	S2
Eurybia furcata	Forked Aster		SR	G3	S2
Gentiana puberulenta	Downy Gentian		ST	G4G5	S2
Melampyrum lineare	American Cow-wheat		SR	G5	S2
Melanthium virginicum	Virginia Bunchflower		SE	G5	S1
Oenothera perennis	Small Sundrops		SR	G5	S2
Oryzopsis racemosa	Black-fruit Mountain-ricegrass		SR	G5	S2
Panicum leibergii	Leiberg's Witchgrass		ST	G4	S2
Platanthera leucophaea	Prairie White-fringed Orchid	LT	SE	G2G3	S1
Polytaenia nuttallii	Prairie Parsley		SE	G5	S1
Prenanthes aspera	Rough Rattlesnake-root		SR	G4?	S2
Scutellaria parvula var. australis	Southern Skullcap		WL	G4T4?	S2
Viola pedatifida	Prairie Violet		ST	G5	S2
High Quality Natural Community					
Prairie - dry-mesic	Dry-mesic Prairie		SG	G3	S2
Prairie - mesic	Mesic Prairie		SG	G2	S2
Prairie - sand mesic	Mesic Sand Prairie		SG	GNR	SNR
Prairie - sand wet	Wet Sand Prairie		SG	G3	S3
Prairie - sand wet-mesic	Wet-mesic Sand Prairie		SG	G1?	S2
Savanna - sand dry	Dry Sand Savanna		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

Categorical Exclusion
Appendix F
Water Resources

Waters of the U.S. Determination Report
US 421 over Hoagland Ditch Bridge Replacement
3.5 mi S of SR 16
White County, Indiana
Des. No. 1700103



April 4, 2019

Prepared By:



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Indianapolis, IN, 46268
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Prepared For:

INDOT – LaPorte District
315 E Boyd Blvd.
LaPorte, Indiana 46350

Waters of the U.S. Determination Report
US 421 over Hoagland Ditch – Bridge Replacement
3.5 mi S of SR 16
White County, Indiana
Des. No. 1700103

Table of Contents

Date of Waters Investigation	1
Location.....	1
Project Description	1
National Wetlands Inventory (NWI)	1
Streams	2
Soils	2
Hydrology.....	2
Field Reconnaissance	2
Wetland Analysis.....	2
Stream Analysis.....	3
Conclusions	4
Preparers.....	5

Tables

Table 1: Wetland Data Point Summary.....	3
Table 2: Stream Summary Table	4

Attachments

General Location Map.....	A1
USGS Topographic Map	Removed to avoid duplication; see Appendix B
USGS Topographic Map (Zoomed).....	A3
Water Resources Map.....	A4
USFWS NWI Map	A5
FEMA FIRMETTE.....	A6
USGS StreamStats Map.....	A7
USDA Soil Map, White County	A8
Photo Location Map.....	A13
Project Photos.....	Removed to avoid duplication; see Appendix B
Wetland Data Sheet and Photos.....	A40
Preliminary Jurisdictional Determination Form.....	A43



Waters of the U.S. Determination Report
US 421 over Hoagland Ditch – Bridge Replacement
3.50 mi S of SR 16
White County, Indiana
Des. No. 1700103

Date of Waters Investigations

September 26, 2018 and March 28, 2019

Location

The project is located along US 421, 3.5 miles south of SR 16 outside of Oxford, Indiana (Attachment A1).

- White County, Honey Creek Township, Indiana
- Section 4, Township 27 North, Range 4 West
- Monon 1:24,000 United States Geological Survey (USGS) Quadrangle (Attachment A2 and A3)

Project Description

The Federal Highway Administration and the INDOT – LaPorte District propose to proceed with a bridge replacement project in northwestern White County, Indiana (Des. No. 1700103). The proposed project will involve the replacement of the existing concrete arch bridge No. 421-91-00889 A that carries US 421 over Hoagland Ditch with a new bridge. The maintenance of traffic may require the closure of US 421. If a road closure is required, a detour will be established.

National Wetlands Inventory (NWI)

Based on the U.S. Fish and Wildlife National Wetlands Inventory (NWI) data (www.fws.gov/wetlands/Data/State-Downloads.html), one wetland polygon representing the channels of Hoagland Ditch and an unnamed tributary (UNT) to Hoagland Ditch is within the survey area. This wetland is a riverine, lower perennial, unconsolidated bottom, semi-permanently flooded, excavated (R2UBFx) resource according to the classification codes in Cowardin *et al* (1979) (Attachment A5). In addition to this wetland polygon, there are ten wetlands mapped within 0.5 mile of the project area:

- One palustrine, emergent, persistent, temporarily flooded (PEM1A) wetland, located 0.21 mile east.
- One palustrine, emergent, persistent, temporarily flooded, farmed (PEM1Af) wetland, located adjacent to the northern limits of the project area.
- Two palustrine, emergent, persistent, seasonally flooded (PEM1C) wetlands. The nearest located 0.10 mile east.
- One palustrine, forested, broad-leaved deciduous, temporarily flooded (PFO1A) wetland, located 0.21 mile southeast.
- One palustrine, forested/scrub-shrub, broad-leaved deciduous, seasonally flooded (PFO1/SS1C) wetland, located 0.40 mile south.
- One palustrine, scrub-shrub, broad-leaved deciduous, seasonally flooded (PSS1C) wetland, located 0.40 mile south.
- One riverine, lower perennial, unconsolidated bottom, permanently flooded, excavated (R2UBHx) resource, located 0.47 mile northwest.
- One additional R2UBFx resource, representing Hoagland Ditch crosses the project area.



- One riverine, unknown perennial, unconsolidated bottom, semi-permanently flooded, excavated (R5UBFx) resource, representing a UNT to Hoagland Ditch is within the project area.

Streams

HYDROGRAPHY_HIGHRES_FLOWLINE_NHD_USGS: Streams, Rivers, Canals, Ditches, Artificial Paths, Coastlines, Connectors, and Pipelines in Watersheds of Indiana (U. S. Geological Survey, 1:24,000, Line Shapefile) and the Monon 1:24,000 scale USGS topographic map indicate that Hoagland Ditch is a blueline feature flowing east through the project area. Additionally, a UNT to Hoagland Ditch is an intermittent blueline feature that flows south, parallel with the west side of US 421, within the project area (Attachments A2 and A3).

Soils

The Soil Survey Geographic (SSURGO) database for White County includes the following mapped soil series within the US 421 Bridge Replacement project (Attachments A8-A12).

- **Gilford fine sandy loam (Gf):** This is a very deep, poorly to very poorly drained soil formed in loamy over sandy sediments on outwash plains, glacial drainage channels, near-shore zones, and floodplain steps. Slopes range from 0 to 2 percent. Gilford fine sandy loam is considered a hydric soil with a hydric rating of 100.

Hydrology

According to the Indiana Floodplain Information Portal (<http://dnrmapping.dnr.in.gov/appsphp/fdms/>) and available FEMA floodplain maps (Attachment A6), the project does not cross a 100-year floodplain or regulated floodway. The base floodplain elevation is 677.44. According to the USGS StreamStats Website (<https://water.usgs.gov/osw/streamstats/indiana.html>) Hoagland Ditch and UNT to Hoagland Ditch share a watershed with a drainage area of 71.7 square miles (Attachment A7). The 12-digit Hydrologic Unit Code (HUC) for the entirety of the project area is #051201061205 which identifies the Hoagland Bay-Hoagland Ditch Watershed.

Field Reconnaissance

Lochmueller Group conducted a field review for streams and wetlands within the survey area for the US 421 Bridge Replacement Project on September 26, 2018 and a stream assessment on March 28, 2019. Two streams, Hoagland Ditch and UNT to Hoagland Ditch, and no wetlands were identified within the survey area. One negative data point was taken. No roadside ditches with a defined ordinary high water mark (OHWM) were observed. Identified features from the field reconnaissance can be seen in Attachments A14 to A39.

Wetland Analysis

Wetland determinations were conducted in accordance with the *U.S. Army Corps of Engineers Wetland Delineation Manual (1987)* and the *Regional Supplement of the Corps of Engineers Wetland Delineation Manual: Midwest Region 2.0 (2010)*. The September 2018 field investigation did not result in the identification of any wetlands.

Data Point 1

This data point was taken within a topographic depression between US 421 and the railroad near the southern terminus of the project. Dominant vegetation was limited to the herbaceous stratum and was



dominated by rice cutgrass (*Leersia oryzoides*, OBL). One hundred percent of the dominant species at this data point were obligate; therefore, the data point passes the rapid test for hydrophytic vegetation. Soil within a pit excavated to a depth of 20 inches consisted entirely of 10 YR 2/1 (100%) clay loam. The soil does not meet any indicators for hydric soil. The secondary hydrology indicator Geomorphic Position (D2) was observed and the dominant vegetation passed the FAC-Neutral Test (D5). Therefore, wetland hydrology was met. Data Point 1 failed to meet the criteria for hydric soils; therefore, can be considered upland. The data form prepared for this data point is included as Attachments A36 to A37.

Table 1: Wetland Data Point Summary

Data Point	Hydrophytic vegetation?	Hydric soils?	Hydrology Indicators?	Wetland
DP1	Yes	No	Yes	No

Stream Analysis

The September 2018 and March 2019 field investigation for the US 421 Bridge Replacement Project resulted in the evaluation of two jurisdictional streams (Hoagland Ditch and UNT to Hoagland Ditch).

Hoagland Ditch

Hoagland Ditch is a stream feature that flows from west to east within the survey area. Approximately 195 feet of this feature was evaluated as part of this field investigation. This feature appears to be a constructed channel, conveying agricultural drainage from the surrounding area. Hoagland Ditch is a perennial feature characterized by a wide, deep channel. Hoagland Ditch has a silt, gravel, and cobble substrate with no riffle or pools present. The riparian corridor was narrow within the generally rural, agricultural area and consisted of herbaceous coverage dominated by reed canary grass and rice cut grass along the banks. No instream cover or erosion was observed. One culvert that conveys UNT to Hoagland Ditch outlets into the Hoagland Ditch just upstream of the bridge to be replaced. The ordinary high water mark (OHWM) was 29 feet 1 inch wide by 1 foot 7 inches deep. Fish were seen swimming in the water at the time of the field investigation. This resource is a poor quality, perennial resource based on the substrate, flow regime, and constructed nature. Hoagland Ditch is a riverine, lower perennial, unconsolidated bottom, semi-permanently flooded, excavated (R2UBFx) stream according to the classification by Cowardin *et al* (1979). Within White County, Hoagland Ditch is considered a legal drain. Ditch is likely to be a Water of the US due to hydrologic connectivity to the Wabash River, a traditionally navigable waterway (TNW), via the Tippecanoe River.

UNT to Hoagland Ditch

UNT to Hoagland Ditch is a stream feature that flows from north to south on the west side of US 421 and outlets into Hoagland Ditch within the survey area. Approximately 484 feet of this feature was evaluated as part of this field investigation. Slow flowing water was present in the channel at the time of the field investigation. UNT to Hoagland Ditch appears to be a constructed drainage ditch, conveying drainage from the agricultural field to the west and roadside drainage from US 421 to the east. UNT to Hoagland Ditch is an intermittent feature characterized by a deep, narrow channel that meanders within the constructed banks. UNT to Hoagland Ditch has a muck substrate with no pools or riffles. The OHWM was 4 feet 11 inches wide by 3.5 inches deep. Vegetation in the channel and on the banks was limited to scouring rush horsetail (*Equisetum hyemale*), reed canary grass (*Phalaris arundinacea*), and common milkweed



(*Asclepias syriaca*). This resource is a poor quality, intermittent resource based on the constructed nature and the absence of pools or riffles. UNT to Hoagland Ditch is a constructed feature, which contributes to the steep banks, wide OHWM, and lack of sinuosity. UNT to Hoagland Ditch is a riverine, intermittent, streambed (R4SB) feature according to the classification by Cowardin *et al* (1979). UNT to Hoagland Ditch is likely to be a Water of the US due to hydrologic connectivity to the Wabash River, a TNW, via the Tippecanoe River and Hoagland Ditch.

Table 2: Stream Summary Table

Stream	Photos	Lat/Long	OHWM	USGS Blueline?	Substrate	Riffles? Pools?	Quality	Water of the U.S.?
Hoagland Ditch	15-22, 39-42	40.8173° -86.8766°	29' 1" wide x 1' 7" deep	Yes	Silt, Gravel and Cobble	No	Poor	Yes
UNT to Hoagland Ditch	19, 23, 26-27, 29-30, 42, 44-51	40.8177° -86.8765°	4' 11" wide x 3.5" deep	Yes	Muck	No	Poor	Yes

Conclusions

The September 2018 and March 2019 field review for the US 421 Bridge Replacement Project identified two stream features, Hoagland Ditch and UNT to Hoagland Ditch, within the investigation area. No wetland features were identified within the survey area. Hoagland Ditch and UNT to Hoagland Ditch are considered to be jurisdictional due to their connectivity to the Wabash River, a TNW, via the Tippecanoe River.

Every effort should be taken to avoid and minimize the impacts to the water resources listed above. Disturbance of a wetland or stream could result in a mitigation requirement to secure the required permits for the bridge replacement project. If construction exceeds the limits of the survey review area illustrated in this document, further field investigation will be needed. This report is this office’s best judgment of water resources that are likely to be under federal jurisdiction, based on the guidelines set forth by the USACE. The final determination of jurisdictional waters is ultimately the responsibility of the USACE.

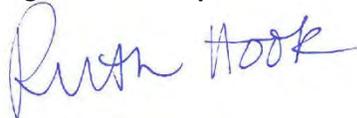
This waters determination has been prepared based on the best available information, interpreted in the light of the investigator’s training, experience and professional judgement in conformance with the 1987 *Corps of Engineers Wetlands Delineation Manual*, the appropriate regional supplement, the USACE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



Preparers

Lochmueller Group, Inc. Staff	Position	Contributing Effort
Ruth Hook, CPESC, CESSWI	Environmental Biologist	Field Data Collection Report Preparation
Chris Kunkel	Environmental Biologist	Field Data Collection Report Preparation

Signature of Preparer:

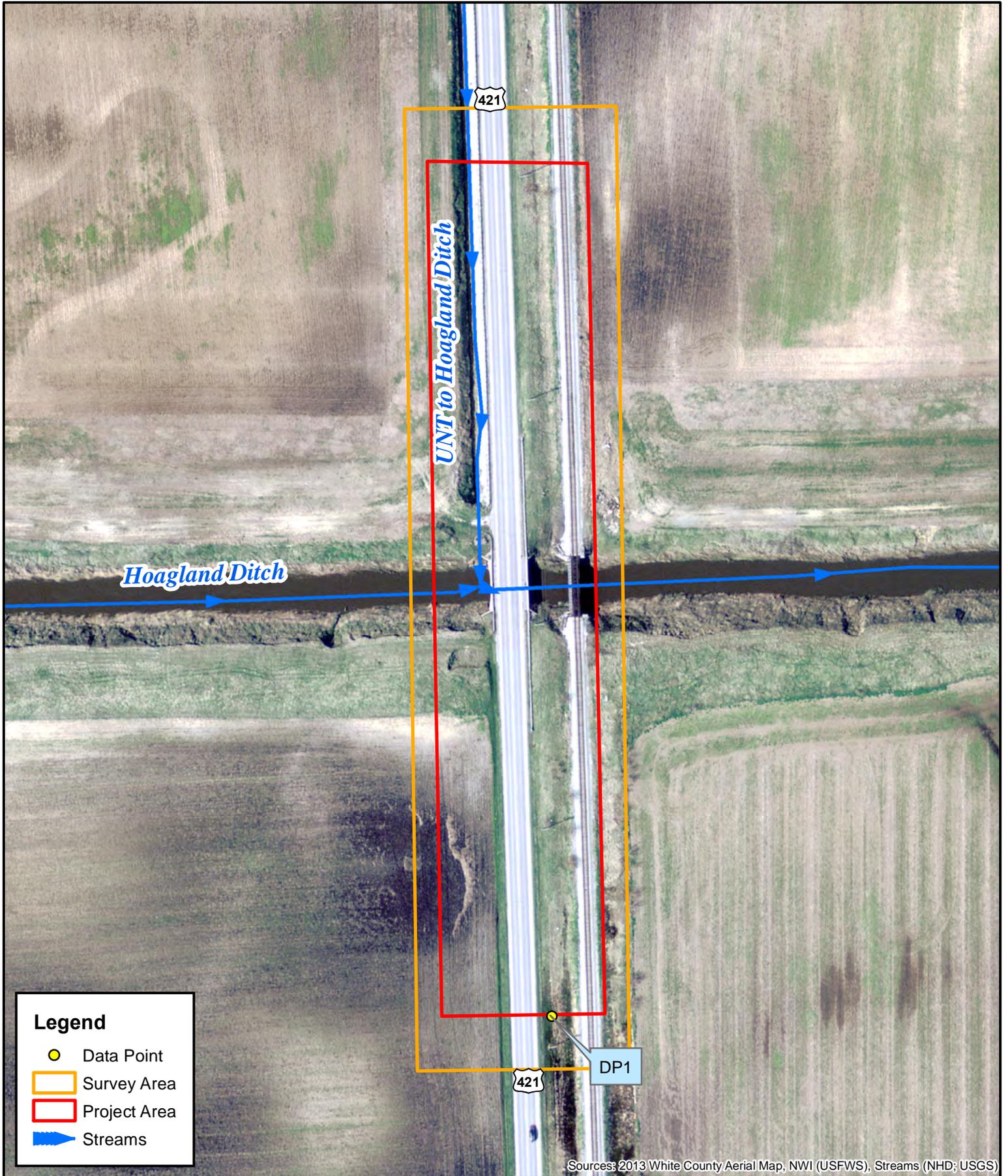


Ruth Hook, CPESC, CESSWI



ATTACHMENTS





Legend

- Data Point
- Survey Area
- Project Area
- ▶ Streams

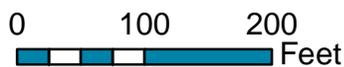
Sources: 2013 White County Aerial Map, NWI (USFWS), Streams (NHD; USGS)



3502 Woodview Trace, Suite 150
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 Phone: (317) 222-3880
 Fax: (317) 222-3881

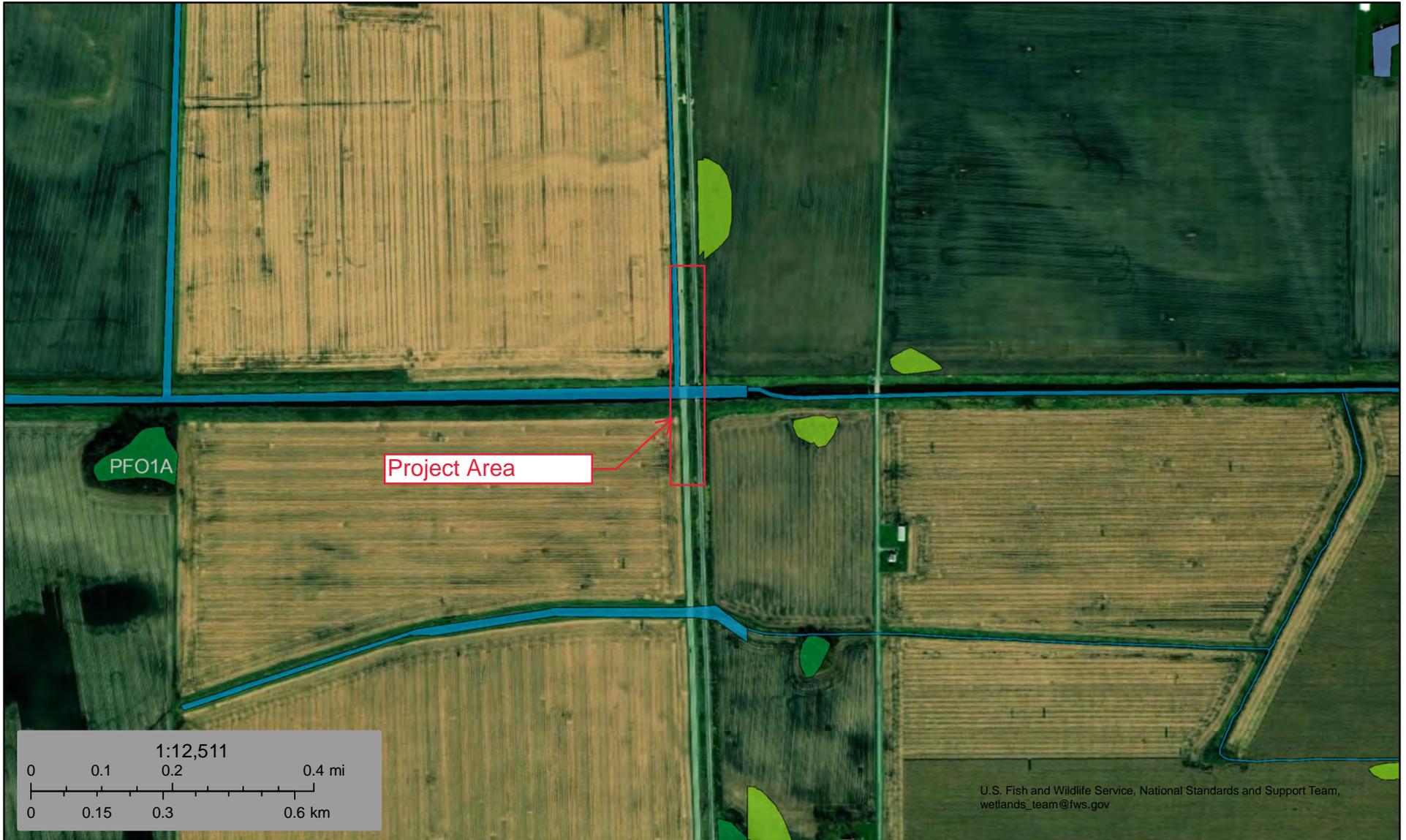
Water Resource Map
 Des. No. 1700103
Waters of the U.S. Report

County: White Quadrangle: Monon
 Township: Honey Creek
 State: Indiana



US 421 over Hoagland Ditch
 Bridge Replacement - 3.5 mi S of SR 16
 Created: 11/27/2018, CKunkel

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U.S. Fish and Wildlife Service, National Standards and Support Team,
wetlands_team@fws.gov

August 22, 2018

Wetlands

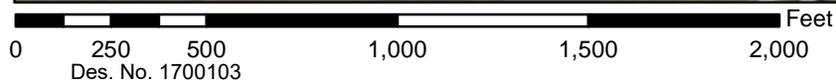
- | | | |
|--|---|--|
|  Estuarine and Marine Deepwater |  Freshwater Emergent Wetland |  Lake |
|  Estuarine and Marine Wetland |  Freshwater Forested/Shrub Wetland |  Other |
| |  Freshwater Pond |  Riverine |

This map is for general reference only. The US Fish and Wildlife Service is not responsible for the accuracy or currentness of the base data shown on this map. All wetlands related data should be used in accordance with the layer metadata found on the Wetlands Mapper web site.

National Flood Hazard Layer FIRMette



40°49'14.90"N



Legend

SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR FIRM PANEL LAYOUT

- | | | |
|------------------------------------|--|--|
| SPECIAL FLOOD HAZARD AREAS | | Without Base Flood Elevation (BFE)
<i>Zone A, V, A99</i> |
| | | With BFE or Depth <i>Zone AE, AO, AH, VE, AR</i> |
| | | Regulatory Floodway |
| OTHER AREAS OF FLOOD HAZARD | | 0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile <i>Zone X</i> |
| | | Future Conditions 1% Annual Chance Flood Hazard <i>Zone X</i> |
| | | Area with Reduced Flood Risk due to Levee. See Notes. <i>Zone X</i> |
| | | Area with Flood Risk due to Levee <i>Zone D</i> |
| OTHER AREAS | | NO SCREEN Area of Minimal Flood Hazard <i>Zone X</i> |
| | | Effective LOMRs |
| | | Area of Undetermined Flood Hazard <i>Zone D</i> |
| GENERAL STRUCTURES | | Channel, Culvert, or Storm Sewer |
| | | Levee, Dike, or Floodwall |
| OTHER FEATURES | | 20.2 Cross Sections with 1% Annual Chance Water Surface Elevation |
| | | 17.5 |
| | | Coastal Transect |
| | | Base Flood Elevation Line (BFE) |
| | | Limit of Study |
| | | Jurisdiction Boundary |
| | | Coastal Transect Baseline |
| | | Profile Baseline |
| | | Hydrographic Feature |
| MAP PANELS | | Digital Data Available |
| | | No Digital Data Available |
| | | Unmapped |



The pin displayed on the map is an approximate point selected by the user and does not represent an authoritative property location.

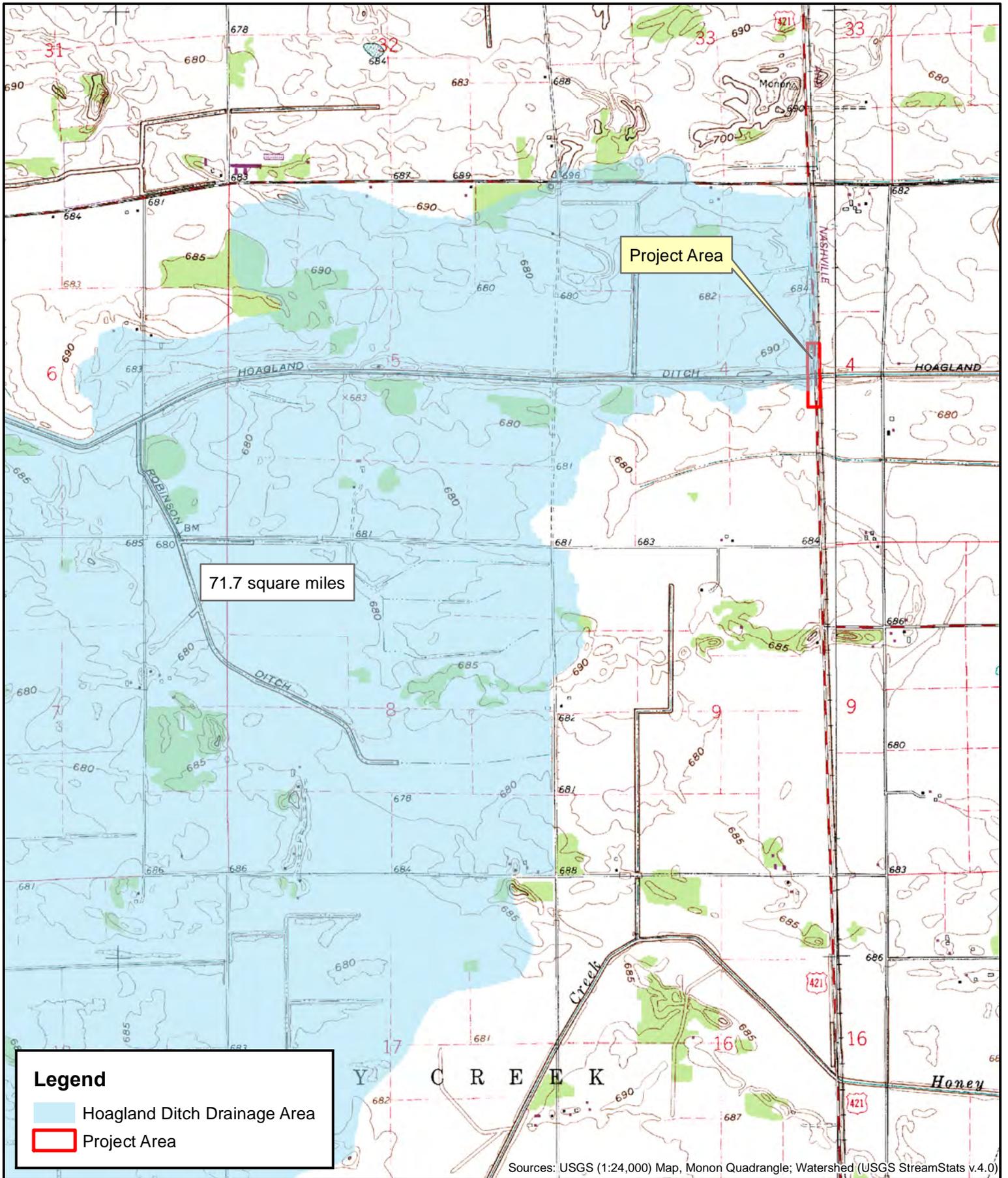
This map complies with FEMA's standards for the use of digital flood maps if it is not void as described below. The basemap shown complies with FEMA's basemap accuracy standards

The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on **11/21/2018 at 1:08:55 PM** and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time.

This map image is void if the one or more of the following map elements do not appear: basemap imagery, flood zone labels, legend, scale bar, map creation date, community identifiers, FIRM panel number, and FIRM effective date. Map images for unmapped and unmodernized areas cannot be used for regulatory purposes.

86°52'15.80"W

40°48'47.67"N



Sources: USGS (1:24,000) Map, Monon Quadrangle; Watershed (USGS StreamStats v.4.0)

Legend

- Hoagland Ditch Drainage Area
- Project Area

LOCHMUELLER GROUP

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 Fax: (317) 222-3881

USGS StreamStats Map
 Des. No. 1700103
Waters of the U.S. Report

0 1,000 2,000
 Feet

County: White Quadrangle: Monon
 Township: Honey Creek
 State: Indiana

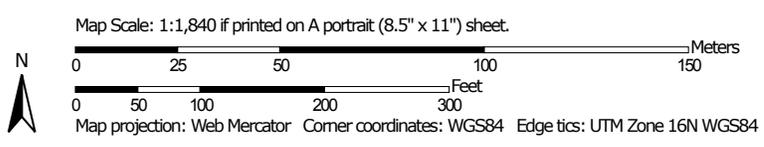
US 421 over Hoagland Ditch
 Bridge Replacement - 3.5 mi S of SR 16
 Created: 11/27/2018, CKunkel

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Soil Map—White County, Indiana
(Des. No. 1700103 - US 421 over Hoagland Ditch)



Soil Map may not be valid at this scale.



MAP LEGEND

Area of Interest (AOI)

 Area of Interest (AOI)

Soils

 Soil Map Unit Polygons

 Soil Map Unit Lines

 Soil Map Unit Points

Special Point Features



Blowout



Borrow Pit



Clay Spot



Closed Depression



Gravel Pit



Gravelly Spot



Landfill



Lava Flow



Marsh or swamp



Mine or Quarry



Miscellaneous Water



Perennial Water



Rock Outcrop



Saline Spot



Sandy Spot



Severely Eroded Spot



Sinkhole



Slide or Slip



Sodic Spot



Spoil Area



Stony Spot



Very Stony Spot



Wet Spot



Other



Special Line Features

Water Features



Streams and Canals

Transportation



Rails



Interstate Highways



US Routes



Major Roads



Local Roads

Background



Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:20,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: White County, Indiana
Survey Area Data: Version 22, Oct 2, 2017

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Nov 7, 2010—Dec 26, 2016

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
Gf	Gilford fine sandy loam	4.6	100.0%
Totals for Area of Interest		4.6	100.0%

Report—Hydric Soil List - All Components

Hydric Soil List - All Components--IN181-White County, Indiana					
Map symbol and map unit name	Component/Local Phase	Comp. pct.	Landform	Hydric status	Hydric criteria met (code)
Gf: Gilford fine sandy loam	Gilford	85	Depressions on outwash plains, depressions on lake plains	Yes	2
	Sebewa	5	Depressions on outwash plains	Yes	2
	Granby	5	Depressions on outwash plains, depressions on till plains	Yes	2
	Adrian-Drained	5	Depressions on outwash plains, depressions on lake plains, depressions on till plains	Yes	1,2,3

Data Source Information

Soil Survey Area: White County, Indiana
Survey Area Data: Version 22, Oct 2, 2017

Hydric Rating by Map Unit

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
Gf	Gilford fine sandy loam	100	4.6	100.0%
Totals for Area of Interest			4.6	100.0%

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: US 421 over Hoagland Ditch Bridge Replacement City/County: White County Sampling Date: 09/26/2018
 Applicant/Owner: Indiana Department of Transportation - LaPorte District State: IN Sampling Point: DP 1
 Investigator(s): R. Hook/C. Kunkel Section, Township, Range: Section 4, T27N, R4W
 Landform (hillside, terrace, etc.): _____ Local relief (concave, convex, none): flat
 Slope (%): 0-1 Lat: 40.8159 Long: -86.8761 Datum: NAD83
 Soil Map Unit Name: Gilford fine sandy loam NWI classification: N/A

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)
 Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____
 Are Vegetation _____, Soil _____, or Hydrology _____ 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 <u>X</u> No _____ Hydric Soil Present? Yes _____ No <u>X</u> Wetland Hydrology Present? Yes <u>X</u> No _____	Is the Sampled Area within a Wetland? Yes _____ No <u>X</u>
Remarks: The data point was taken in the ROW between the roadway and railroad. No primary indicators of hydrology and soils appear to be brown and dry for the entire 20 inches.	

VEGETATION – Use scientific names of plants.

Tree Stratum	(Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status																																	
1. _____					Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A) Total Number of Dominant Species Across All Strata: <u>1</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100.0%</u> (A/B)																																
2. _____																																					
3. _____																																					
4. _____																																					
5. _____																																					
=Total Cover																																					
Sapling/Shrub Stratum	(Plot size: _____)				Prevalence Index worksheet: <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="text-align: right;">Total % Cover of:</td> <td></td> <td style="text-align: right;">Multiply by:</td> <td></td> </tr> <tr> <td>OBL species</td> <td style="text-align: center;"><u>95</u></td> <td>x 1 =</td> <td style="text-align: center;"><u>95</u></td> </tr> <tr> <td>FACW species</td> <td style="text-align: center;"><u>0</u></td> <td>x 2 =</td> <td style="text-align: center;"><u>0</u></td> </tr> <tr> <td>FAC species</td> <td style="text-align: center;"><u>0</u></td> <td>x 3 =</td> <td style="text-align: center;"><u>0</u></td> </tr> <tr> <td>FACU species</td> <td style="text-align: center;"><u>1</u></td> <td>x 4 =</td> <td style="text-align: center;"><u>4</u></td> </tr> <tr> <td>UPL species</td> <td style="text-align: center;"><u>0</u></td> <td>x 5 =</td> <td style="text-align: center;"><u>0</u></td> </tr> <tr> <td>Column Totals:</td> <td style="text-align: center;"><u>96</u> (A)</td> <td></td> <td style="text-align: center;"><u>99</u> (B)</td> </tr> <tr> <td colspan="2">Prevalence Index = B/A =</td> <td></td> <td style="text-align: center;"><u>1.03</u></td> </tr> </table>	Total % Cover of:		Multiply by:		OBL species	<u>95</u>	x 1 =	<u>95</u>	FACW species	<u>0</u>	x 2 =	<u>0</u>	FAC species	<u>0</u>	x 3 =	<u>0</u>	FACU species	<u>1</u>	x 4 =	<u>4</u>	UPL species	<u>0</u>	x 5 =	<u>0</u>	Column Totals:	<u>96</u> (A)		<u>99</u> (B)	Prevalence Index = B/A =			<u>1.03</u>
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OBL species	<u>95</u>	x 1 =	<u>95</u>																																		
FACW species	<u>0</u>	x 2 =	<u>0</u>																																		
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FACU species	<u>1</u>	x 4 =	<u>4</u>																																		
UPL species	<u>0</u>	x 5 =	<u>0</u>																																		
Column Totals:	<u>96</u> (A)		<u>99</u> (B)																																		
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5. _____																																					
=Total Cover																																					
Herb Stratum	(Plot size: <u>5 feet</u>)				Hydrophytic Vegetation Indicators: <input checked="" type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> 2 - Dominance Test is >50% <input type="checkbox"/> 3 - Prevalence Index is ≤3.0 ¹ <input type="checkbox"/> 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.																																
1. <u>Leersia oryzoides</u>		<u>95</u>	Yes	OBL																																	
2. <u>Asclepias syriaca</u>		<u>1</u>	No	FACU																																	
3. <u>Aster</u>		<u>1</u>	No																																		
4. _____																																					
5. _____																																					
6. _____																																					
7. _____																																					
8. _____																																					
9. _____																																					
10. _____																																					
=Total Cover				<u>97</u>																																	
Woody Vine Stratum	(Plot size: _____)				Hydrophytic Vegetation Present? Yes <u>X</u> No _____																																
1. _____																																					
2. _____																																					
=Total Cover																																					
Remarks: (Include photo numbers here or on a separate sheet.)																																					

SOIL

Sampling Point: DP 1

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-20	10YR 2/1	100					Loamy/Clayey	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:	Indicators for Problematic Hydric Soils ³ :
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Coast Prairie Redox (A16)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Iron-Manganese Masses (F12)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Red Parent Material (F21)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Very Shallow Dark Surface (F22)
<input type="checkbox"/> Stratified Layers (A5)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> 2 cm Muck (A10)	
<input type="checkbox"/> Depleted Below Dark Surface (A11)	
<input type="checkbox"/> Thick Dark Surface (A12)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	
<input type="checkbox"/> 5 cm Mucky Peat or Peat (S3)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	
<input type="checkbox"/> Sandy Redox (S5)	
<input type="checkbox"/> Stripped Matrix (S6)	
<input type="checkbox"/> Dark Surface (S7)	
<input type="checkbox"/> Loamy Mucky Mineral (F1)	
<input type="checkbox"/> Loamy Gleyed Matrix (F2)	
<input type="checkbox"/> Depleted Matrix (F3)	
<input type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Redox Depressions (F8)	

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed): Type: _____ Depth (inches): _____	Hydric Soil Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
---	---

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:	Primary Indicators (minimum of one is required; check all that apply)	Secondary Indicators (minimum of two required)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Surface Soil Cracks (B6)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Aquatic Fauna (B13)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> True Aquatic Plants (B14)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input checked="" type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Thin Muck Surface (C7)	<input checked="" type="checkbox"/> FAC-Neutral Test (D5)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Gauge or Well Data (D9)	
<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Other (Explain in Remarks)	

Field Observations: Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Saturation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ (includes capillary fringe)	Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
---	---

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

Remarks:



DP1-pit



DP1-profile

Appendix 2 - PRELIMINARY JURISDICTIONAL DETERMINATION (PJD) FORM

BACKGROUND INFORMATION

A. REPORT COMPLETION DATE FOR PJD:

B. NAME AND ADDRESS OF PERSON REQUESTING PJD: R. Hook; 3502 Woodview Trace, Suite 150, Indianapolis, IN 46268

C. DISTRICT OFFICE, FILE NAME, AND NUMBER:

D. PROJECT LOCATION(S) AND BACKGROUND INFORMATION:

The Indiana Department of Transportation (INDOT), LaPorte District proposes to proceed with a bridge replacement project on US 421, 3.5 miles south of SR 16 in White County, Indiana (Des. No. 1700103). The proposed project would involve replacing the existing bridge (No. 421-91-00889 A), which conveys US 421 over Hoagland Ditch. The existing bridge is a 44.2 foot wide, 62-foot long concrete bridge. The proposed project would replace the existing concrete arch bridge with a new bridge. The project is located in Honey Creek Township in Section 4, Township 27 North, and Range 4 West of the Monon U.S. Geological Survey (USGS) Quadrangle.

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

State: **Indiana** County/parish/borough: **White County** City: **near Monon**

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

Lat.: **40.817264** Long.: **-86.876309**

Universal Transverse Mercator:

Name of nearest waterbody: **Hoagland Ditch**

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

Office (Desk) Determination. Date:

Field Determination. Date(s):

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

Site number	Latitude (decimal degrees)	Longitude (decimal degrees)	Estimated amount of aquatic resource in review area (acreage and linear feet, if applicable)	Type of aquatic resource (i.e., wetland vs. non-wetland waters)	Geographic authority to which the aquatic resource “may be” subject (i.e., Section 404 or Section 10/404)
Hoagland Ditch	40.8173	-86.8766	195 linear feet (0.13 acre)	non-wetland	section 404
UNT to Hoagland Ditch	40.8177	-86.8765	484 linear feet (0.05 acre)	non-wetland	section 404

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

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

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

- Maps, plans, plots or plat submitted by or on behalf of the PJD requestor:
Map: aerial maps, topo maps, water resources maps
- Data sheets prepared/submitted by or on behalf of the PJD requestor.
 - Office concurs with data sheets/delineation report.
 - Office does not concur with data sheets/delineation report. Rationale: _____
- Data sheets prepared by the Corps: _____
- Corps navigable waters' study: _____
- U.S. Geological Survey Hydrologic Atlas: _____
 - USGS NHD data.
 - USGS 8 and 12 digit HUC maps.
- U.S. Geological Survey map(s). Cite scale & quad name: 1:24,000 Monon Quadrangle
- Natural Resources Conservation Service Soil Survey. Citation: Web soil survey; 2018, websoilsurvey.sc.ego.usda.gov/
- National wetlands inventory map(s). Cite name: USFWS wetlands mapper; 2018, fws.gov/wetlands/Data/Mapper.html
- State/local wetland inventory map(s): _____
- FEMA/FIRM maps: FIRM panel: 1818C0135D, 1/8/2014
- 100-year Floodplain Elevation is: 677.4 (National Geodetic Vertical Datum of 1929)
- Photographs: Aerial (Name & Date): White County Aerial Imagery, 2013
or Other (Name & Date): Ground level photos, 9/26/2018
- 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.

Signature and date of
Regulatory staff member
completing PJD



Signature and date of
person requesting PJD
(REQUIRED, unless obtaining
the signature is impracticable)¹
04/04/2019

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

Kunkel, Chris

From: Hook, Ruth
Sent: Wednesday, January 22, 2020 7:44 AM
To: Kunkel, Chris
Subject: FW: APPROVED Waters Report for DES 1700103 - US 421 over Hoagland Ditch
Attachments: DES 1700103 Final Waters Report.pdf

Ruth Hook, CPESC, CESSWI

Environmental Biologist

Lochmueller Group

317.334.6816 (direct) | 206.999.9348 (mobile)

RHook@lochgroup.com

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From: Landry, James <JLandry@indot.IN.gov>
Sent: Thursday, April 4, 2019 2:00 PM
To: Hook, Ruth <RHook@lochgroup.com>; Hoffa, Tim <THoffa@indot.IN.gov>
Cc: Todd, Kristi (INDOT) <KTodd1@indot.IN.gov>
Subject: APPROVED Waters Report for DES 1700103 - US 421 over Hoagland Ditch

To all,

Thank you for submitting the waters report for **the US 421 over Hoagland Ditch Bridge Replacement, Designation DES 1700103**. The approved report is attached and can also be found on Projectwise through this link: [1700103 Final Waters Report](#). *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,

James Landry

Environmental Manager

INDOT - Ecology and Waterways Permitting Office

100 N. Senate Ave, Room N642

Categorical Exclusion
Appendix G
Public Involvement



RE: INDOT Designation (DES) Number: 1700103
Lochmueller Group Project Number: 217-0372-IBD
US Highway 421 over Hoagland Ditch – Bridge Replacement
White County, Indiana

Notice of Entry for Survey or Investigation
August 20, 2018

Dear Property Owner,

Our information indicates that you own property near the above proposed transportation project. Lochmueller Group has been hired by the Indiana Department of Transportation – LaPorte District and will be performing a survey of the project area in the near future. It may be necessary for representatives from Lochmueller Group or sub-consultants for Lochmueller Group to come on your property to complete this work. This is permitted by law under Indiana Code (IC) § 8-23-7-26. Anyone performing this type of work has been instructed to identify him or herself to you, if you are available, before they enter your property. If you no longer own this property, or if it is currently occupied by someone else, please let us know the name of the new owner or occupant so we can contact them about the survey.

Please read the attached notice to inform you of what the “Notice of Entry for Survey or Investigation” means. The survey work may include the identification and mapping of wetlands, archaeological investigations (which may involve the survey, testing, or excavation of identified archaeological sites), and various other environmental studies. The information we obtain for such studies is necessary for the proper planning and design of this highway project. It is our sincere desire to cause you as little inconvenience as possible during this survey.

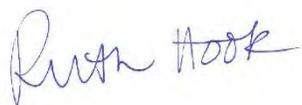
Lochmueller Group and its subcontractors will be conducting the field surveys for this project. If any problems do occur, please contact Ruth Hook via phone at 317.222.3880, e-mail at RHook@lochgroup.com, or by mail at: 3502 Woodview Trace, Suite 150, Indianapolis, Indiana 46268. You may also contact Tim Hoffa at INDOT - LaPorte via phone at 219.325.7582, e-mail at thoffa@indot.in.gov, or by mail at: INDOT – LaPorte District, 215 E Boyd Blvd, La Porte, Indiana 46350.

At this stage we generally do not know what effect, if any, this project may eventually have on your property. If we determine later that your property is involved, we will contact you with additional information.

It is our sincere desire to cause you as little inconvenience as possible during our work and we thank you in advance for your cooperation.

3502 Woodview Trace, Suite 150
Indianapolis, Indiana 46268
PHONE: 317.222.3880 • TOLL FREE: 888.830.6977

Sincerely,

A handwritten signature in blue ink that reads "Ruth Hook". The signature is written in a cursive, flowing style.

Ruth Hook
Environmental Biologist
LOCHMUELLER GROUP

Attachment: *INDOT's Notice of Entry for Survey or Investigation*



INDIANA DEPARTMENT OF TRANSPORTATION

Driving Indiana's Economic Growth

100 North Senate Avenue
Room N642
Indianapolis, Indiana 46204-2216

Eric J. Holcomb, Governor
Joe McGuinness, Commissioner

Indiana Department of Transportation Notice of Entry for Survey or Investigation Indiana Department of Transportation

If you have received a “Notice of Entry for Survey or Investigation” from INDOT or an INDOT representative, you may be wondering what it means. In the early stages of a project’s development, INDOT must collect as much information as possible to ensure that sound decisions are made in designing the proposed project. Before entering onto private property to collect that data, INDOT is required to notify landowners that personnel will be in the area and may need to enter onto their property. Indiana Code, Title 8, Article 23, Chapter 7, Section 26 deals with the department’s authority to enter onto any property within Indiana.

Receipt of a Notice of Entry for Survey or Investigation does not necessarily mean that INDOT will be buying property from you. It doesn’t even necessarily mean that the project will involve your property at all. Since the Notice of Entry for Survey or Investigation is sent out in the very early stages and since we want to collect data within AND surrounding the project’s limits more landowners are contacted than will actually fall within the eventual project limits. It may also be that your property falls within the project limits but we will not need to purchase property from you to make improvements to the roadway. Another thing to keep in mind is that when you receive a Notice of Entry for Survey or Investigation, very few specifics have been worked out and actual construction of the project may be several years in the future.

Before INDOT begins a project that requires them to purchase property from landowners, they must first offer the opportunity for a public hearing. If you were on the list of people who received a Notice of Entry for Survey or Investigation, you should also receive a notice informing you of your opportunity to request a public hearing. These notices will also be published in your local newspaper so interested individuals who are not adjacent to the project will also have the opportunity to request a public hearing. If a public hearing is to be held, INDOT will publicize the date, location, and time. INDOT will present detailed project information at the public hearing, comments will be taken from the public in spoken and written form, and question and answer sessions will be offered. Based on the feedback INDOT receives from the public, a project can be modified and improved to better serve the public.

So, if you have received a “Notice of Entry for Survey or Investigation”, remember:

1. You do not need to take any action at this time. It is merely letting you know that people in orange/lime vests are going to be in your neighborhood.
2. The project is still in its very early planning stages.
3. You will be notified of your opportunity to comment on the project at a later date.

*www.in.gov/dot/
An Equal Opportunity Employer*

Categorical Exclusion
Appendix H
Air Quality

Indiana Department of Transportation (INDOT)
 State Preservation and Local Initiated Projects FY 2020 - 2024

SPONSOR	CONTR ACT # / LEAD DES	STIP NAME	ROUTE	WORK TYPE	LOCATION	DISTRICT	MILES	FEDERAL CATEGORY	Estimated Cost left to Complete Project*	PROGRAM	PHASE	FEDERAL	MATCH	2020	2021	2022	2023	2024	
White County	42062 / 1802935	M 04	IR 5220	Bridge Deck Replacement	Lowes Road Bridge over Lake Shafer	LaPorte	.152	STBG	\$2,237,100.00	Local Funds	PE	\$0.00	-\$5,780.00	(\$5,780.00)					
Comments:No MPO-Decreasing PE funds in FY20 in the amount of \$23,120.00 federal and \$5,780.00 local.																			
Indiana Department of Transportation	42222 / 1901360	A 01	US 24	HMA Overlay, Preventive Maintenance	0.68mi E of US 421/SR 43 to 2.65mi W of SR 39 (CR 300E)	LaPorte	2.61	NHPP	\$1,470,894.00	Road Consulting	PE	\$207,744.00	\$51,936.00	\$183,940.00		\$75,740.00			
										Road Construction	CN	\$968,971.20	\$242,242.80		\$10,000.00	\$1,201,214.00			
										Bridge Consulting	PE	\$105,700.00	\$26,425.00	\$132,125.00					
										Bridge Construction	CN	\$140,546.40	\$35,136.60			\$175,683.00			
Comments:Please amend all phases into the STIP. No MPO																			
* Indiana Department of Transportation	42245 / 1700103	A 01	US 421	Bridge Replacement, Concrete	Over Hoagland Ditch, 3.50mi S of SR 16	LaPorte	0	NHPP	\$1,261,110.00	Bridge ROW	RW	\$200,000.00	\$50,000.00		\$250,000.00				
										Bridge Construction	CN	\$1,911,953.60	\$477,988.40		\$95,000.00	\$2,294,942.00			
Comments:Please amend all phases into the STIP. No MPO.																			
Indiana Department of Transportation	42254 / 1900358	A 04	SR 18	Pavement Replacement	from 0.25 mi W to 0.25 mi E of I-65	Crawfordsville	.5	STBG	\$5,088,897.00	Road Consulting	PE	\$531,015.20	\$132,753.80	\$663,769.00					
										Road Construction	CN	\$3,540,102.40	\$885,025.60					\$4,425,128.00	
Comments:PE phase for \$600,000 FY20, CN phase for \$13,247,514, No MPO																			
Indiana Department of Transportation	42601 / 1902678	A 11	I 65	Other Type Project (Miscellaneous)	From CR-100 W to US-24 interchange I-65	Crawfordsville	17.86	NHPP	\$1,145,388.00	Safety Construction	CN	\$1,030,849.20	\$114,538.80		\$1,145,388.00				
Comments:CN phase for \$1,145,388 FY21, No MPO																			

White County Total

Federal: \$35,715,725.40 Match :\$8,315,378.47 2020: \$10,076,065.00 2021: \$18,972,026.87 2022: \$5,072,044.00 2023: \$3,532,840.00 2024: \$6,378,128.00

*Project is part of a bundled contract. Programmed project costs include other projects bundled into contract 42245.

*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.

Indiana Department of Transportation (INDOT)
 State Preservation and Local Initiated Projects FY 2018 - 2021

SPONSOR	CONTR ACT # / 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
Comments:No MPO; Add \$57,415.80 FY18 PE Funds																	
Indiana Department of Transportation	40569 / 1400228	A 06	US 231	Small Structure Replacement	0.34 mi S of I-65	Crawfordsville	0	STP	\$495,922.60	Bridge Consulting	PE	\$86,016.48	\$21,504.12	\$107,520.60			
Comments:No MPO; Add FY18 PE \$107,520.60																	
Indiana Department of Transportation	40569 / 1400228	A 10	US 231	Small Structure Replacement	0.34 mi S of I-65	Crawfordsville	0	STP	\$495,922.60	Bridge ROW	RW	\$16,000.00	\$4,000.00		\$20,000.00		
										Bridge Construction	CN	\$8,000.00	\$2,000.00		\$10,000.00		
Comments:No MPO; Add FY19 ROW \$20,000.00; FY19 CN \$10,000.00																	
Indiana Department of Transportation	40569 / 1701592	A 06	SR 43	Small Structure Replacement	Over Unnamed Ditch/Creek	Crawfordsville	0	STP	\$287,820.00	Bridge Consulting	PE	\$53,136.00	\$13,284.00	\$66,420.00			
Comments:No MPO; Add FY18 PE \$66,420																	
Indiana Department of Transportation	40569 / 1701592	A 14	SR 43	Small Structure Replacement	SR 43, 1.32 mi S of SR 18 S Jct , Over UNT to Moots Creek	Crawfordsville	0	STP	\$302,320.00	Bridge Construction	CN	\$8,000.00	\$2,000.00		\$10,000.00		
										Bridge ROW	RW	\$3,600.00	\$900.00		\$4,500.00		
Comments:No MPO; Add FY19 RW \$4,500, Add FY19 CN \$10,000																	
Indiana Department of Transportation	40607 / 1700035	A 04	SR 39	Small Structure Pipe Lining	1.94 MILES S OF JCT SR 16 & SR 39	LaPorte	0	STP	\$66,437.00	Bridge ROW	RW	\$40,000.00	\$10,000.00				\$50,000.00
										Bridge Construction	PE	\$12,000.00	\$3,000.00				\$15,000.00
										Bridge Consulting	PE	\$19,654.40	\$4,913.60		\$24,568.00		
Comments:Amend FY19 PE, FY21 UT/PE and FY21 ROW phases into the current STIP. No MPO.																	
Indiana Department of Transportation	40607 / 1700036	A 04	SR 119	Small Structure Replacement	5.10mi N of SR 39/16	LaPorte	0	STP	\$847,218.00	Bridge ROW	RW	\$80,000.00	\$20,000.00				\$100,000.00
										Bridge Consulting	PE	\$138,014.40	\$34,503.60		\$172,518.00		
										Bridge Construction	PE	\$40,000.00	\$10,000.00				\$50,000.00
Comments:Amend FY19 PE, FY21 UT/PE and FY21 ROW phases into the current STIP. No MPO.																	
Indiana Department of Transportation	40607 / 1701450	A 04	US 421	Small Structure Pipe Lining	At CR 100 N SBL	LaPorte	0	NHPP	\$169,254.00	Bridge Consulting	PE	\$9,600.00	\$2,400.00		\$12,000.00		
Comments:Amend FY19 PE phase into the current STIP. No MPO.																	
Indiana Department of Transportation	40607 / 1701507	A 04	SR 39	Small Structure Pipe Lining	0.46 mi S of SR 16/39 E	LaPorte	0	STP	\$524,987.00	Bridge Consulting	PE	\$29,840.00	\$7,460.00		\$37,300.00		
Comments:Amend FY19 PE phase into the current STIP. No MPO.																	
Indiana Department of Transportation	40608 / 1700103	A 04	US 421	Bridge Replacement, Concrete	Over Hoagland Ditch, 3.50mi S of SR 16	LaPorte	0	NHPP	\$820,941.00	Bridge Consulting	PE	\$126,760.00	\$31,690.00		\$158,450.00		

*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.

Indiana Department of Transportation (INDOT)
 State Preservation and Local Initiated Projects FY 2018 - 2021

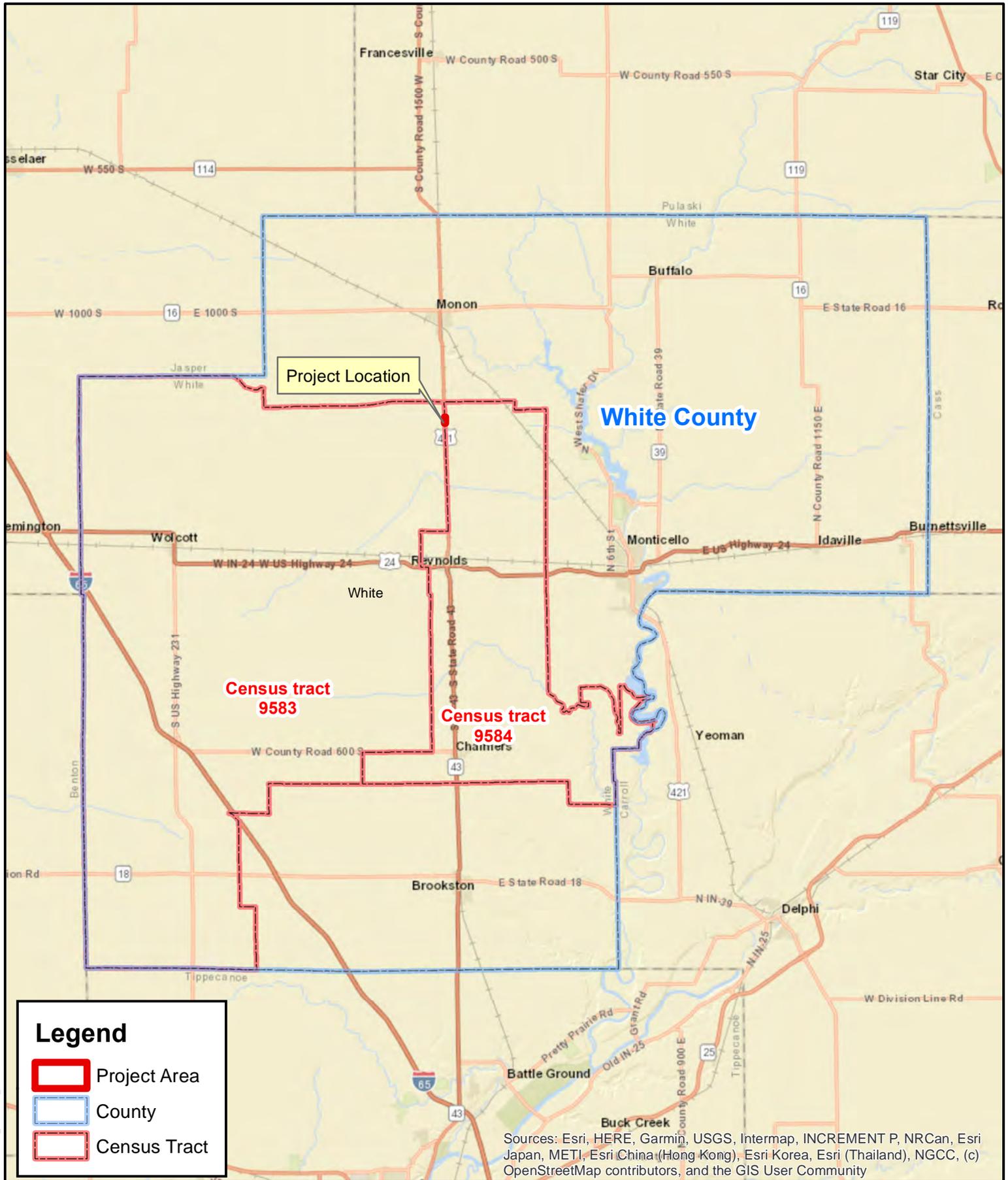
SPONSOR	CONTR ACT # / LEAD DES	STIP NAME	ROUTE	WORK TYPE	LOCATION	DISTRICT	MILES	FEDERAL CATEGORY	Estimated Cost left to Complete Project*	PROGRAM	PHASE	FEDERAL	MATCH	2018	2019	2020	2021
Indiana Department of Transportation	40608 / 1700103	A 04	US 421	Bridge Replacement, Concrete	Over Hoagland Ditch, 3.50mi S of SR 16	LaPorte	0	NHPP	\$820,941.00	Bridge ROW	RW	\$80,000.00	\$20,000.00				\$100,000.00
										Bridge Construction	PE	\$40,000.00	\$10,000.00				\$50,000.00
Comments:Amend FY19 PE, FY21 UT/PE and FY21 ROW phases into the current STIP. No MPO.																	
Indiana Department of Transportation	40778 / 1500620	A 10	I 65	Small Structure Pipe Lining	2.51 mi N of SR 18	Crawfordsville	0	NHPP	\$174,836.56	Bridge ROW	RW	\$9,000.00	\$1,000.00	\$10,000.00			
Comments:No MPO; Add FY18 ROW \$10,000.00																	
Indiana Department of Transportation	40778 / 1500621	A 10	I 65	Small Structure Pipe Lining	0.19 mi N of US 231 (NB Ramp)	Crawfordsville	0	NHPP	\$170,623.56	Bridge ROW	RW	\$9,000.00	\$1,000.00	\$10,000.00			
Comments:No MPO; Add FY18 ROW \$10,000.00																	
Indiana Department of Transportation	40957 / 1800447	A 24	I 65	Small Structure Pipe Lining	2.84 mi S of SR 18	Crawfordsville	0	NHPP	\$1,400,282.00	Bridge Construction	CN	\$1,260,253.80	\$140,028.20				\$1,400,282.00
										Bridge Consulting	PE	\$351,000.00	\$39,000.00		\$390,000.00		
										Bridge ROW	RW	\$23,400.00	\$2,600.00			\$26,000.00	
Comments:No MPO; Add FY19 PE \$390,000; Add FY20 ROW \$26,000; Add FY21 CN \$1,400,282																	
Indiana Department of Transportation	40961 / 1800519	A 24	I 65	Bridge Deck Overlay	NB over Rayman Ditch; 0.66 mi S of SR 18	Crawfordsville	0	NHPP	\$1,039,152.00	Bridge Construction	CN	\$730,036.80	\$81,115.20				\$811,152.00
										Bridge Consulting	PE	\$205,200.00	\$22,800.00		\$228,000.00		
Comments:No MPO; Add FY19 PE \$228,000; Add FY21 CN \$811,152.00																	
Indiana Department of Transportation	41198 / 1800777	A 18	SR 16	Bridge Painting	@.-TIPPECANOE-E XING, 0.02mi W of SR 39 E JCT	LaPorte	0	STP	\$903,195.00	Bridge Construction	PE	\$8,000.00	\$2,000.00			\$10,000.00	
										Bridge Consulting	PE	\$74,400.00	\$18,600.00		\$93,000.00		
										Bridge Construction	CN	\$640,156.00	\$160,039.00				\$800,195.00
Comments:Amend FY19 and FY20 PE phases and FY21 CN phase into the current STIP. No MPO.																	
Indiana Department of Transportation	41198 / 1800793	A 18	US 24	Bridge Thin Deck Overlay	@.-TIPPECANOE RIVER, 0.43mi E of US 421	LaPorte	0	NHPP	\$758,261.00	Bridge Construction	PE	\$8,000.00	\$2,000.00			\$10,000.00	
										Bridge Construction	CN	\$531,392.00	\$132,848.00				\$664,240.00
										Bridge Consulting	PE	\$67,216.80	\$16,804.20		\$84,021.00		
Comments:Amend FY19 and FY20 PE phases and FY21 CN phase into the current STIP. No MPO.																	

White County Total

Federal: \$27,877,324.24 Match :\$5,769,499.75 2018: \$10,886,168.29 2019: \$9,151,366.70 2020: \$4,643,418.00 2021: \$8,965,871.00

*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.

Categorical Exclusion
Appendix I
Environmental Justice
Analysis



Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community

Legend

-  Project Area
-  County
-  Census Tract



3502 Woodview Trace, Suite 150
 Indianapolis, IN 46268
 Phone: (317) 222-3880
 Fax: (317) 222-3881

EJ Analysis Map
 Des. No. 1700103

0 2 4 Miles



County: White
 Township: Honey Creek
 State: Indiana

US 421 Bridge Replacement
 US 421; 3.5 mile south of SR 16
 Created: 2/4/2020, C Kunkel

	COC White County, Indiana	AC 1 Census Tract 9583	AC 2 Census Tract 9584
LOW-INCOME POPULATION			
Total Population for Whom Poverty Status is Determined	23,904	2,317	2,160
Total Population Below Poverty Level	2,342	118	160
Percent Low-Income	9.8%	5.1%	7.4%
125 Percent of COC	12.2%		
AC Percent Low-Income Greater Than 125 Percent of COC?		No	No
AC Percent Low-Income Greater Than 50 Percent?		No	No
Population of EJ Concern?		No	No
MINORITY POPULATION			
Total Population	24,279	2,327	2,166
Minority Population	2,469	140	152
Percent Minority	10.2%	6.0%	7.0%
125 Percent of COC	12.7%		
AC Percent Minority Greater Than 125 Percent of COC?		No	No
AC Percent Minority Greater Than 50 Percent?		No	No
Population of EJ Concern?		No	No



B03002

HISPANIC OR LATINO ORIGIN BY RACE
Universe: Total population
2013-2017 American Community Survey 5-Year Estimates

Supporting documentation on code lists, subject definitions, data accuracy, and statistical testing can be found on the American Community Survey website in the Technical Documentation section.

Sample size and data quality measures (including coverage rates, allocation rates, and response rates) can be found on the American Community Survey website in the Methodology section.

Although the American Community Survey (ACS) produces population, demographic and housing unit estimates, it is the Census Bureau's Population Estimates Program that produces and disseminates the official estimates of the population for the nation, states, counties, cities, and towns and estimates of housing units for states and counties.

	White County, Indiana		Census Tract 9583, White County, Indiana		Census Tract 9584, White County, Indiana	
	Estimate	Margin of Error	Estimate	Margin of Error	Estimate	Margin of Error
Total:	24,279	*****	2,327	+/-156	2,166	+/-155
Not Hispanic or Latino:	22,358	*****	2,293	+/-155	2,058	+/-173
White alone	21,810	+/-21	2,187	+/-151	2,014	+/-164
Black or African American alone	103	+/-55	48	+/-45	0	+/-11
American Indian and Alaska Native alone	58	+/-64	0	+/-11	0	+/-11
Asian alone	45	+/-41	28	+/-29	5	+/-8
Native Hawaiian and Other Pacific Islander alone	0	+/-21	0	+/-11	0	+/-11
Some other race alone	0	+/-21	0	+/-11	0	+/-11
Two or more races:	342	+/-96	30	+/-29	39	+/-32
Two races including Some other race	18	+/-21	0	+/-11	17	+/-21
Two races excluding Some other race, and three or more races	324	+/-91	30	+/-29	22	+/-25
Hispanic or Latino:	1,921	*****	34	+/-23	108	+/-79
White alone	519	+/-220	12	+/-11	60	+/-70
Black or African American alone	9	+/-17	0	+/-11	0	+/-11
American Indian and Alaska Native alone	3	+/-5	3	+/-5	0	+/-11
Asian alone	0	+/-21	0	+/-11	0	+/-11
Native Hawaiian and Other Pacific Islander alone	0	+/-21	0	+/-11	0	+/-11
Some other race alone	1,322	+/-231	16	+/-16	48	+/-50
Two or more races:	68	+/-50	3	+/-5	0	+/-11

	White County, Indiana		Census Tract 9583, White County, Indiana		Census Tract 9584, White County, Indiana	
	Estimate	Margin of Error	Estimate	Margin of Error	Estimate	Margin of Error
Two races including Some other race	52	+/-48	3	+/-5	0	+/-11
Two races excluding Some other race, and three or more races	16	+/-19	0	+/-11	0	+/-11

Data are based on a sample and are subject to sampling variability. The degree of uncertainty for an estimate arising from sampling variability is represented through the use of a margin of error. The value shown here is the 90 percent margin of error. The margin of error can be interpreted roughly as providing a 90 percent probability that the interval defined by the estimate minus the margin of error and the estimate plus the margin of error (the lower and upper confidence bounds) contains the true value. In addition to sampling variability, the ACS estimates are subject to nonsampling error (for a discussion of nonsampling variability, see Accuracy of the Data). The effect of nonsampling error is not represented in these tables.

While the 2013-2017 American Community Survey (ACS) data generally reflect the February 2013 Office of Management and Budget (OMB) definitions of metropolitan and micropolitan statistical areas; in certain instances the names, codes, and boundaries of the principal cities shown in ACS tables may differ from the OMB definitions due to differences in the effective dates of the geographic entities.

Estimates of urban and rural populations, housing units, and characteristics reflect boundaries of urban areas defined based on Census 2010 data. As a result, data for urban and rural areas from the ACS do not necessarily reflect the results of ongoing urbanization.

Source: U.S. Census Bureau, 2013-2017 American Community Survey 5-Year Estimates

Explanation of Symbols:

1. An '***' entry in the margin of error column indicates that either no sample observations or too few sample observations were available to compute a standard error and thus the margin of error. A statistical test is not appropriate.
2. An '-' entry in the estimate column indicates that either no sample observations or too few sample observations were available to compute an estimate, or a ratio of medians cannot be calculated because one or both of the median estimates falls in the lowest interval or upper interval of an open-ended distribution.
3. An '-' following a median estimate means the median falls in the lowest interval of an open-ended distribution.
4. An '+' following a median estimate means the median falls in the upper interval of an open-ended distribution.
5. An '****' entry in the margin of error column indicates that the median falls in the lowest interval or upper interval of an open-ended distribution. A statistical test is not appropriate.
6. An '*****' entry in the margin of error column indicates that the estimate is controlled. A statistical test for sampling variability is not appropriate.
7. An 'N' entry in the estimate and margin of error columns indicates that data for this geographic area cannot be displayed because the number of sample cases is too small.
8. An '(X)' means that the estimate is not applicable or not available.



B17001

POVERTY STATUS IN THE PAST 12 MONTHS BY SEX BY AGE

Universe: Population for whom poverty status is determined
2013-2017 American Community Survey 5-Year Estimates

Supporting documentation on code lists, subject definitions, data accuracy, and statistical testing can be found on the American Community Survey website in the Technical Documentation section.

Sample size and data quality measures (including coverage rates, allocation rates, and response rates) can be found on the American Community Survey website in the Methodology section.

Although the American Community Survey (ACS) produces population, demographic and housing unit estimates, it is the Census Bureau's Population Estimates Program that produces and disseminates the official estimates of the population for the nation, states, counties, cities, and towns and estimates of housing units for states and counties.

	White County, Indiana		Census Tract 9583, White County, Indiana		Census Tract 9584, White County, Indiana	
	Estimate	Margin of Error	Estimate	Margin of Error	Estimate	Margin of Error
Total:	23,904	+/-117	2,317	+/-154	2,160	+/-157
Income in the past 12 months below poverty level:	2,342	+/-418	118	+/-60	160	+/-82
Male:	950	+/-218	45	+/-40	74	+/-41
Under 5 years	74	+/-48	16	+/-25	0	+/-11
5 years	26	+/-18	0	+/-11	7	+/-11
6 to 11 years	138	+/-80	2	+/-5	10	+/-14
12 to 14 years	76	+/-50	0	+/-11	0	+/-11
15 years	2	+/-3	0	+/-11	2	+/-3
16 and 17 years	9	+/-10	2	+/-4	0	+/-11
18 to 24 years	133	+/-62	0	+/-11	1	+/-4
25 to 34 years	81	+/-52	14	+/-14	9	+/-13
35 to 44 years	68	+/-40	2	+/-3	10	+/-10
45 to 54 years	95	+/-55	0	+/-11	7	+/-11
55 to 64 years	185	+/-99	7	+/-12	21	+/-24
65 to 74 years	35	+/-26	2	+/-4	7	+/-8
75 years and over	28	+/-29	0	+/-11	0	+/-11
Female:	1,392	+/-256	73	+/-28	86	+/-46
Under 5 years	134	+/-65	0	+/-11	3	+/-4
5 years	16	+/-17	0	+/-11	2	+/-3

	White County, Indiana		Census Tract 9583, White County, Indiana		Census Tract 9584, White County, Indiana	
	Estimate	Margin of Error	Estimate	Margin of Error	Estimate	Margin of Error
6 to 11 years	153	+/-66	5	+/-7	10	+/-10
12 to 14 years	69	+/-76	4	+/-6	0	+/-11
15 years	53	+/-44	3	+/-4	0	+/-11
16 and 17 years	1	+/-3	0	+/-11	0	+/-11
18 to 24 years	189	+/-62	18	+/-21	18	+/-15
25 to 34 years	273	+/-90	5	+/-7	16	+/-15
35 to 44 years	129	+/-59	8	+/-7	5	+/-8
45 to 54 years	110	+/-55	6	+/-10	8	+/-12
55 to 64 years	107	+/-46	17	+/-15	20	+/-24
65 to 74 years	84	+/-40	4	+/-4	2	+/-3
75 years and over	74	+/-37	3	+/-4	2	+/-3
Income in the past 12 months at or above poverty level:	21,562	+/-440	2,199	+/-160	2,000	+/-153
Male:	10,995	+/-256	1,119	+/-108	997	+/-95
Under 5 years	694	+/-53	55	+/-30	67	+/-30
5 years	89	+/-51	14	+/-12	7	+/-10
6 to 11 years	836	+/-116	87	+/-39	59	+/-28
12 to 14 years	370	+/-97	34	+/-16	27	+/-16
15 years	150	+/-65	4	+/-6	21	+/-17
16 and 17 years	397	+/-71	61	+/-23	24	+/-19
18 to 24 years	815	+/-74	122	+/-48	65	+/-31
25 to 34 years	1,149	+/-66	98	+/-31	78	+/-27
35 to 44 years	1,338	+/-55	130	+/-28	148	+/-36
45 to 54 years	1,511	+/-64	180	+/-57	165	+/-38
55 to 64 years	1,646	+/-119	144	+/-44	149	+/-39
65 to 74 years	1,213	+/-26	82	+/-30	119	+/-32
75 years and over	787	+/-42	108	+/-28	68	+/-25
Female:	10,567	+/-295	1,080	+/-98	1,003	+/-102
Under 5 years	569	+/-66	72	+/-26	44	+/-23
5 years	157	+/-81	5	+/-7	12	+/-14
6 to 11 years	724	+/-170	78	+/-27	90	+/-39
12 to 14 years	397	+/-102	69	+/-28	51	+/-21
15 years	141	+/-62	9	+/-10	17	+/-17
16 and 17 years	270	+/-66	34	+/-24	54	+/-24
18 to 24 years	696	+/-89	77	+/-34	36	+/-21
25 to 34 years	1,058	+/-99	99	+/-37	95	+/-31
35 to 44 years	1,177	+/-69	145	+/-30	130	+/-38
45 to 54 years	1,455	+/-60	131	+/-30	142	+/-33
55 to 64 years	1,701	+/-54	166	+/-32	159	+/-33
65 to 74 years	1,226	+/-43	86	+/-28	90	+/-28
75 years and over	996	+/-62	109	+/-32	83	+/-24

Data are based on a sample and are subject to sampling variability. The degree of uncertainty for an estimate arising from sampling variability is represented through the use of a margin of error. The value shown here is the 90 percent margin of error. The margin of error can be interpreted roughly as providing a 90 percent probability that the interval defined by the estimate minus the margin of error and the estimate plus the margin of error (the lower and upper confidence bounds) contains the true value. In addition to sampling

variability, the ACS estimates are subject to nonsampling error (for a discussion of nonsampling variability, see Accuracy of the Data). The effect of nonsampling error is not represented in these tables.

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Estimates of urban and rural populations, housing units, and characteristics reflect boundaries of urban areas defined based on Census 2010 data. As a result, data for urban and rural areas from the ACS do not necessarily reflect the results of ongoing urbanization.

Source: U.S. Census Bureau, 2013-2017 American Community Survey 5-Year Estimates

Explanation of Symbols:

1. An '***' entry in the margin of error column indicates that either no sample observations or too few sample observations were available to compute a standard error and thus the margin of error. A statistical test is not appropriate.
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7. An 'N' entry in the estimate and margin of error columns indicates that data for this geographic area cannot be displayed because the number of sample cases is too small.
8. An '(X)' means that the estimate is not applicable or not available.

Categorical Exclusion

Appendix J

Other Information

Land and Water Conservation Fund (LWCF) County Property List for Indiana (Last Updated December 2019)

ProjectNumber	SubProjectCode	County	Property
1800574	1800574	White	Altherr Park
1800605	1800605	White	Altherr Park
1800633	1800633	White	Monon Park

Please note, some of the property names are cut off on the ends due to character limits

Also, park names may have changed and is not reflected on the list.

*Various - this may include multiple sites in multiple counties and should always be included in your searches by county.

Bridge Inspection Report

421-91-00889 A
US 421
over
HOAGLAND DITCH



Inspection Date: 05/16/2019

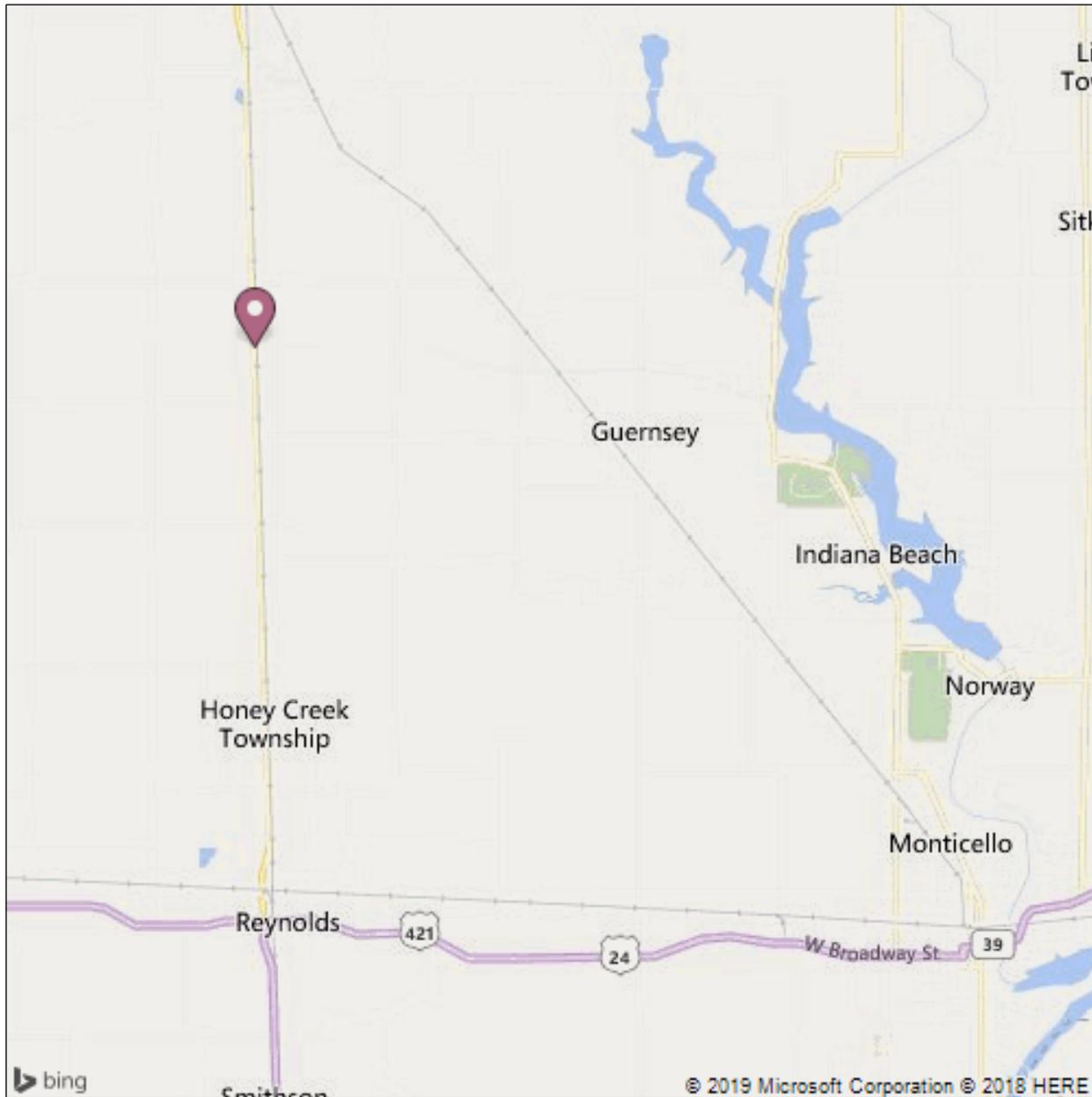
Inspected By: Amy Wines

Inspection Type(s): Routine

TABLE OF CONTENTS

	PAGE NUMBER
LOCATION MAP	3
EXECUTIVE SUMMARY	4
NATIONAL BRIDGE INVENTORY	5
ELEMENTS	9
ELEMENT CALCULATIONS	10
PICTURES	11
MISCELLANEOUS ASSET DATA	20
CHANNEL PROFILE	22
MAINTENANCE - BRIDGE	23
LOAD RATING - BRADIN	27

Bridge Inspection Report



Latitude: 40.81728
Longitude: -86.87628

Inspector: Amy Wines
Inspection Date: 05/16/2019

Asset Name: 421-91-00889 A
Facility Carried: US 421

Bridge Inspection Report

This inspection was made by Amy Wines, Cristy Burlage and Andrew Raynor on 5/16/19. There are a couple large spalls on abutment 2 with exposed rebar. There is also a culvert on the west side of the bridge that is undermining the bank.

On 4/25/2018 Crystal Garcia and Cristin Gimbel inspected 421-91-00889 A. There are minor spalls in both abutments. 4/30/2018 CLG

The RP sign was 172+16. BIAS shows the bridge at 172+23. Bridge is paved over with HMA. SPMS shows no active project for this bridge.
(NP 4/22/2016)

Bridge Inspection Report

IDENTIFICATION

(1) STATE CODE:	185 - Indiana	(12) BASE HIGHWAY NETWORK:	1
(8) STRUCTURE:	032370	(13A) INVENTORY ROUTE:	0000000001
(5 A-B-C-D-E) INV. ROUTE:	1 - 2 - 1 - 00421 - 0	(13B) SUBROUTE NUMBER:	01
(2) HIGHWAY AGENCY DISTRICT:	04 - La Porte	(16) LATITUDE:	40.81728
(3) COUNTY CODE:	091 - WHITE	(17) LONGITUDE:	-86.87628
(4) PLACE CODE:	00000 - N/A	(98) BORDER	
(6) FEATURES INTERSECTED:	HOAGLAND DITCH	A) STATE NAME:	
(7) FACILITY CARRIED:	US 421	B) PERCENT	%
(9) LOCATION:	03.50 S SR 16	(99) BORDER BRIDGE STRUCT. NO:	
(11) MILEPOINT:	0012.030		

STRUCTURE TYPE AND MATERIAL

(43) STRUCTURE TYPE, MAIN:		(45) NUMBER OF SPANS IN MAIN UNIT:	001
A) KIND OF MATERIAL/DESIGN:	1 - Concrete	(46) NUMBER OF APPROACH SPANS:	0000
B) TYPE OF DESIGN/CONSTR:	11 - Arch - Deck	(107) DECK STRUCTURE TYPE:	N - Not Applicable
(44) STRUCTURE TYPE, APPROACH SPANS:		(108) WEARING SURFACE/PROT SYS:	
A) KIND OF MATERIAL/DESIGN:	0 - Other	A) WEARING SURFACE:	N - NA
B) TYPE OF DESIGN/CONSTR:	00 - Other	B) DECK MEMBRANE:	N - NA
		C) DECK PROTECTION:	N - NA

AGE OF SERVICE

(27) YEAR BUILT:	1929	(28) LANES:	
(106) YEAR RECONSTRUCTED:	1960	A) ON BRIDGE:	02
(42) TYPE OF SERVICE:		B) UNDER BRIDGE:	00
A) ON BRIDGE:	1 - Highway	(29) AVERAGE DAILY TRAFFIC:	006819
B) UNDER BRIDGE:	5 - Waterway	(30) YEAR OF AVERAGE DAILY TRAFFIC:	2004
		(109) AVERAGE DAILY TRUCK TRAFFIC:	10 %
		(19) BYPASS DETOUR LENGTH:	002 MI

Bridge Inspection Report

GEOMETRIC DATA

(48) LENGTH OF MAX SPAN: 0060.0 FT	(35) STRUCTURE FLARED: 0 - No flare
(49) STRUCTURE LENGTH: 00062.0 FT	(10) INV RTE, MIN VERT CLEARANCE: 99.99 FT
(50) CURB/SIDEWALK WIDTHS:	(47) TOT HORIZ CLEARANCE: 041.0 FT
A) LEFT 00.3 FT	(53) VERT CLEAR OVER BR RDWY: 99.99 FT
B) RIGHT: 00.3 FT	(54) MIN VERTICAL UNDERCLEARANCE:
(51) BRDG RDWY WIDTH CURB-TO-CURB: 041.0 FT	A) REFERENCE FEATURE: N
(52) DECK WIDTH, OUT-TO-OUT: 044.2 FT	B) MIN VERT UNDERCLEAR: 0 FT
(32) APPROACH ROADWAY 030.0 FT	(55) LATERAL UNDERCLEARANCE RIGHT:
(33) BRIDGE MEDIAN: 0 - No median	A) REFERENCE FEATURE: N
(34) SKEW: 00 DEG	B) MIN LATERAL UNDERCLEAR: 000.0 FT
	(56) MIN LATERAL UNDERCLEAR ON LEFT: 00.0 FT

INSPECTIONS

(90) INSPECTION DATE: 05/16/2019	(91) DESIGNATED INSPECTION FREQUENCY: 24 MONTHS
(92) CRITICAL FEATURE INSPECTION:	(93) CRITICAL FEATURE INSPECTION DATE:
A) FRACTURE CRITICAL REQUIRED/FREQUENCY: N	A) FRACTURE CRITICAL DATE:
B) UNDERWATER INSPECTION REQUIRED/FREQUENCY: N	B) UNDERWATER INSP DATE:
C) OTHER SPECIAL INSPECTION REQUIRED/FREQUENCY: N	C) OTHER SPECIAL INSP DATE:

CONDITION

(58) DECK: N - Not Applicable	(60) SUBSTRUCTURE: 6 - Satisfactory Condition (minor deterioration)
(58.01) WEARING SURFACE: N - Not Applicable	(61) CHANNEL/CHANNEL PROTECTION: 6 - Bank slump. widespread minor damage
(59) SUPERSTRUCTURE: 5 - Fair Condition (minor section loss)	(62) CULVERTS: N - Not Applicable

CONDITION COMMENTS

(58) DECK: **N - Not Applicable**

Comments:
 No deck. Bridge is an earth-filled arch paved over with asphalt.

(58.01) WEARING SURFACE: **N - Not Applicable**

Comments:
 Structure paved over with HMA. HMA thickness at drains is close to 12 inches

(59) SUPERSTRUCTURE: **5 - Fair Condition (minor section loss)**

Comments:
 Barrel has deep spalling with exposed rebar at both abutments. Both widening joints have shallow spalling that has been patched

Inspector: Amy Wines
 Inspection Date: 05/16/2019

Asset Name: 421-91-00889 A
 Facility Carried: US 421

Bridge Inspection Report

(60) SUBSTRUCTURE: 6 - Satisfactory Condition (minor deterioration)

Comments:
 Horizontal cracking with efflorescence

(61) CHANNEL/CHANNEL PROTECTION: 6 - Bank slump. widespread minor damage

Comments:
 There is a culvert on the west side of the bridge that has undermining. All the other banks are well vegetated

(62) CULVERTS: N - Not Applicable

Comments:

LOAD RATING AND POSTING

(31) DESIGN LOAD:	4 - H 20	(66) INVENTORY RATING:	87
(70) BRIDGE POSTING	5 - Equal to or above legal loads	(65) INVENTORY RATING METHOD: 1 - Load Factor (LF)	
(41) STRUCTURE OPEN/POSTED/CLOSED:	A - Open	(66B) INVENTORY RATING (H):	49
(64) OPERATING RATING:	99	(66C) TONS POSTED :	
(63) OPERATING RATING METHOD:	1 - Load Factor (LF)	(66D) DATE POSTED/CLOSED:	

APPRAISAL

SUFFICIENCY RATING:	83.9	(36) TRAFFIC SAFETY FEATURE:	
STATUS:	0	36A) BRIDGE RAILINGS:	0
(67) STRUCTURAL EVALUATION:	5	36B) TRANSITIONS:	0
(68) DECK GEOMETRY:	5	36C) APPROACH GUARDRAIL:	0
(69) UNDERCLEARANCES, VERTICAL & HORIZONTAL:	N	36D) APPROACH GUARDRAIL ENDS:	0

(71) WATERWAY ADEQUACY: 9 - Bridge Above Flood Water Elevations

Comments:
 The plan show a high water elevation of 675.4 and a roadway elevation of 685.65

(72) APPROACH ROADWAY ALIGNMENT: 8 - Equal to present desirable criteria

Comments:
 No substantial reduction in speed is necessary for traffic to safely cross the bridge.

(113) SCOUR CRITICAL BRIDGES: 5 - Scour within limits of footing or piles

Comments:
 Spread footings with no piles (NP 4/22/2016).

Inspector: Amy Wines
Inspection Date: 05/16/2019

Asset Name: 421-91-00889 A
Facility Carried: US 421

Bridge Inspection Report

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:	02 - Rural - Principal Arterial - Other
(37) HISTORICAL SIGNIFICANCE:	5 - Not eligible	(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:	1 - Structure/Route is 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:		(95) ROADWAY IMPROVEMENT COST:	\$ 000000
(75B) WORK DONE BY:		(96) TOTAL PROJECT COST:	\$ 000000
(76) LENGTH OF IMPROVEMENT:	00000.0 FT	(97) YR OF IMPROVEMENT COST EST:	
(94) BRIDGE IMPROVEMENT COST:	\$ 000000	(114) FUTURE AVG DAILY TRAFFIC:	009444
		(115) YR OF FUTURE ADT:	2030

Inspector: Amy Wines
 Inspection Date: 05/16/2019

Asset Name: 421-91-00889 A
 Facility Carried: US 421

Bridge Inspection Report

	Environment	Total Quantity	Units	Condition State 1	Condition State 2	Condition State 3	Condition State 4
144 - Reinforced Concrete Arch	2 - Low	60	ft.	50	10	0	0
	Estimate total of 30' of deep spalling in barrel close to abutments (CS3) Estimate total of 15' of shallow spalling in barrel at widening joints (CS2)						
1080 - Delamination/Spall/Patched Area		10		0	10	0	0
215 - Reinforced Concrete Abutment	2 - Low	91	ft.	81	10	0	0
1090 - Exposed Rebar		10		0	10	0	0
330 - Metal Bridge Railing	2 - Low	120	ft.	120	0	0	0

AASHTO Bridge Elements

Structure #:	421-91-00889 A
NBI #:	032370
Calculated by:	7/26/2016

	Elements/Defects		Description	Unit	Quantity
	Element Number	Defect Number			
National Bridge Elements (NBE)					
	330		Metal Bridge Railing	LFT	120
	144		Reinforced Concrete Arch	LFT	60
	215		Reinforced Concrete Abutment	LFT	91
Bridge Management Elements (BME)					

Notes & Comments:

Arch: 60'-0" long
 Rail: 60'-0" long x 2 rails
 Bent: 22'-9" long per half bent x 2 halves x 2 bents

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Bridge Inspection Report



PHOTO 1 Condition
Description West profile



PHOTO 2 Condition
Description Abutment 1 looking south

Bridge Inspection Report



PHOTO 3 Condition
Description Top of arch looking south



PHOTO 4 Condition
Description Spalling in top of arch

Bridge Inspection Report



PHOTO 5 Condition
Description Spalling in abutment 2 6" deep by 6' t x 1' wide



PHOTO 6 Condition
Description Abutment 2 looking north

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Bridge Inspection Report



PHOTO 7 Condition
Description South joint



PHOTO 8 Condition
Description Wearing surface

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Bridge Inspection Report



PHOTO 9 Condition
Description North joint



PHOTO 10 Condition
Description South road alignment

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Bridge Inspection Report



PHOTO 11 Condition
Description North road alignment



PHOTO 12 Condition
Description East channel

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Bridge Inspection Report



PHOTO 13 Condition
Description West channel



PHOTO 14 Condition
Description Brush cut

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Bridge Inspection Report



PHOTO 15 Condition
Description Brush cut



PHOTO 16 Condition
Description Drain

Inspector: Amy Wines
Inspection Date: 05/16/2019

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Bridge Inspection Report



PHOTO 17 Condition
Description Large culvert at west side of arch



PHOTO 18 Condition
Description Add riprap at both abutments

Miscellaneous Asset Data
Asset Management

032370

Load Rating 2:

Has the dead load or the structural condition of the primary load carrying members changed since the last inspection? No

Extended Frequency:

Submittal Date:

Inspector:

INDOT Reviewer:

This bridge has been accepted into the Extended Frequency Program.

Approval Date:

Joints: * Indicate location, type, and rating of lowest rated joint.

No Joints Present N N

Comments:

Terminal Joints: *Rating of lowest rated terminal joint. N

Comments:

Concrete Slopewall: *Rating of lowest rated slopewall. N

Comments:

Bearings: * Indicate type, and rating of lowest rated bearing.

N - No Bearing(s)

Comments:

Approach Slabs: * Indicate if present & condition rating.

N - No Approach Slabs

Comments:

Paint: * Indicate if paint present , year painted & condition rating.

N - No Paint

Not Rated

Comments:

Scour Analysis: 5 **Scour Critical:** **Scour POA?**

NBI 113 Scour Comment:

Spread footings with no piles (NP 4/22/2016).

Endangered Species: * If yes, add one photo to the dropdown field

Bats: seen or heard under structure? * N

Birds/swallows/nests seen? Empty nests present? * N

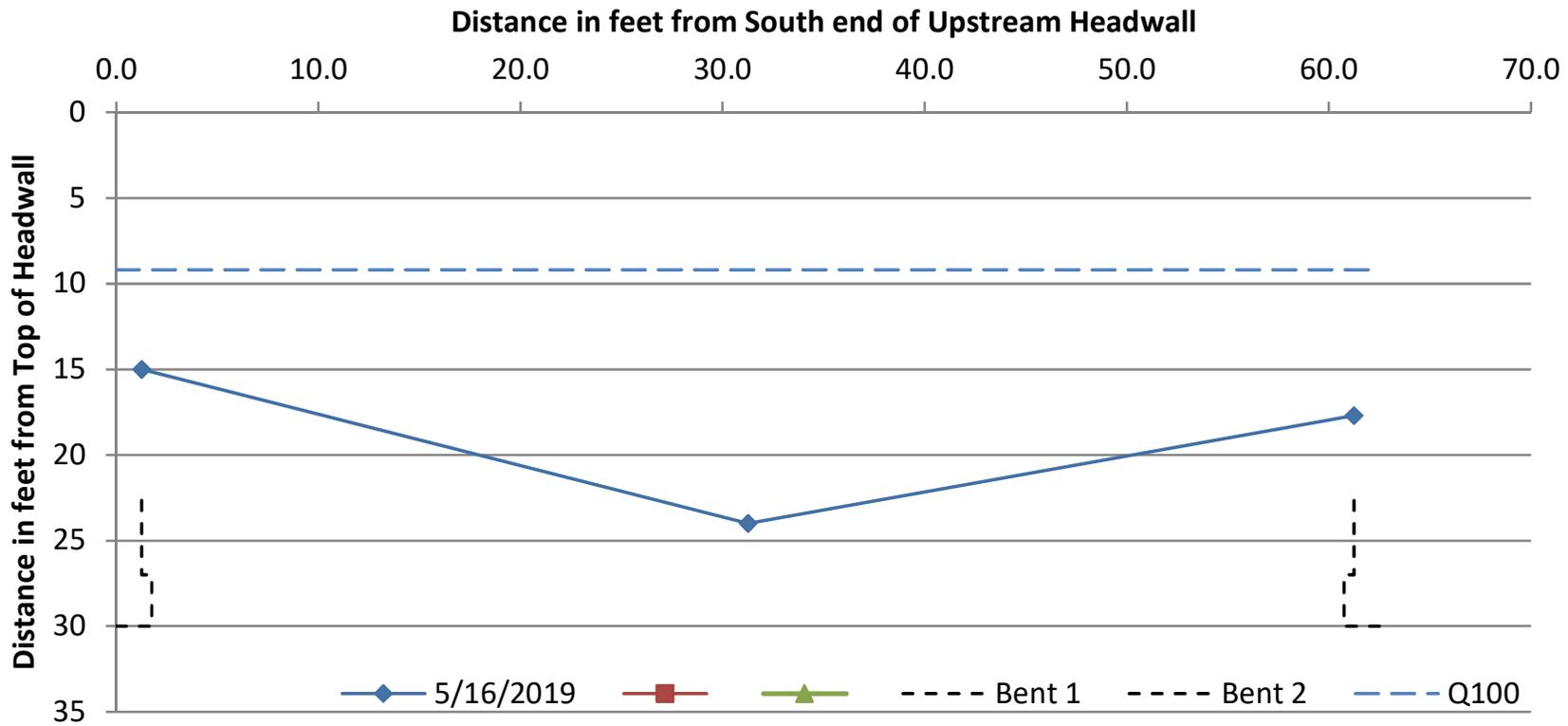
BRIDGE Culvert Geometry:

Barrel Length:

Height:

Width:

Channel Profile for Bridge 421-91-00889



Inspector: Amy Wines
Inspection Date: 05/16/2019

Asset Name: 421-91-00889 A
Facility Carried: US 421

Bridge Inspection Report

Date Reported: 05/16/2019
Priority: Green - 3
Work Code: Erosion Control / Rip Rap

Deficiency Description:
no bank protection at both abutments
Work Description:

Date Repairs Completed:
Maintenance Comments:

Stage: Open



PHOTO 1 Description East channel

Stage: Open



PHOTO 2 Description Abutment 1 looking south

Inspector: Amy Wines
Inspection Date: 05/16/2019

Asset Name: 421-91-00889 A
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Bridge Inspection Report

Stage: Open



PHOTO 3 Description Abutment 2 looking north

Stage: Open



PHOTO 4 Description Add riprap at both abutments

Inspector: Amy Wines
Inspection Date: 05/16/2019

Asset Name: 421-91-00889 A
Facility Carried: US 421

Bridge Inspection Report

Date Reported: 05/16/2019
Priority: Grey - 4
Work Code: Brush Cutting / Herbicide Spray

Deficiency Description:
trees and rush growing at structure

Work Description:

Date Repairs Completed:
Maintenance Comments:

Stage: Open



PHOTO 1 Description Brush cut

Stage: Open



PHOTO 2 Description Brush cut

Inspector: Amy Wines
Inspection Date: 05/16/2019

Asset Name: 421-91-00889 A
Facility Carried: US 421

Bridge Inspection Report

Stage: Open



PHOTO 3 Description West channel

LOAD RATING - BRADIN

Load Rating Date: 12-SEP-11

National Bridge Inventory (NBI):

(66B) INVENTORY RATING (H):	49	(31) DESIGN LOAD:	4
(65) INVENTORY RATING METHOD:	1	(70) BRIDGE POSTING:	5
(66) INVENTORY RATING:	87	(41) STRUCTURE OPEN/POSTED/CLOSED:	A
(63) OPERATING RATING METHOD:	1	(66C) TONS POSTED:	
(64) OPERATING RATING:	99	(66D) DATE POSTED/CLOSED:	

Posting Configurations:

Emergency Vehicles:

EV2: LEGAL RF:

EV3: LEGAL RF:

5-Axles:

AASHTO TYPE 3S2: LEGAL RF:

SU5: LEGAL RF:

TOLL ROAD LOADING NO. 1: ROUTINE PERMIT RF:

2-Axles:

H20-44: LEGAL RF:

ALTERNATE MILITARY: LEGAL RF:

6+-Axles:

AASHTO TYPE 3-3: LEGAL RF:

LANE TYPE: LEGAL RF:

3-Axles:

HS20: LEGAL RF: 2.75

AASHTO TYPE 3: LEGAL RF:

SU6: LEGAL RF:

SPECIAL TOLL ROAD TRUCK: ROUTINE PERMIT RF:

SU7: LEGAL RF:

4-Axles:

SU4: LEGAL RF:

TOLL ROAD LOADING NO. 2:
ROUTINE PERMIT RF:

MICHIGAN TRAIN TRUCK NO. 5: ROUTINE PERMIT RF:

MICHIGAN TRAIN TRUCK NO. 8: ROUTINE PERMIT RF:

Other Configurations:

H20-44: DESIGN RF: 2.45

NRL: LEGAL RF:

SUPERLOAD-11 AXLES: SPECIAL PERMIT RF:

SUPERLOAD-13 AXLES: SPECIAL PERMIT RF:

SUPERLOAD-14 AXLES: SPECIAL PERMIT RF:

SUPERLOAD-19 AXLES (152.5T): SPECIAL PERMIT RF:

SUPERLOAD-19 AXLES (240.045T): SPECIAL PERMIT RF: