

Indiana Department of Transportation

County Jackson Route SR 250 Des. No. 1801015

Note: Refer to the most current INDOT CE Manual, guidance language, and other ESD resources for further guidance regarding any section of this form.

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 <input type="checkbox"/>	No <input checked="" type="checkbox"/>
If No, then: Opportunity for a Public Hearing Required?	<input checked="" type="checkbox"/>	<input type="checkbox"/>

*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.

Notice of Entry letters were mailed to potentially affected property owners near the project area on October 9, 2019 notifying them about the project and that individuals responsible for land surveying and field activities may be seen in the area. A sample copy of the Notice of Entry letter is included in Appendix G, Page 1.

The project will meet the minimum requirement described in the current *Indiana Department of Transportation (INDOT) Project Development Public Involvement Procedures Manual* which requires the project sponsor to offer the public an opportunity to submit comments and/or requests a public hearing. Therefore, a legal notice will appear in a local publication contingent upon the release of this document for public involvement. This document will be revised after the public involvement requirements are fulfilled.

Public Controversy on Environmental Grounds

Discuss public controversy concerning community and/or natural resource impacts, including what is being done during the project to minimize impacts.

No Controversy

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

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

Sponsor of the Project: INDOT INDOT District: Seymour

Local Name of the Facility: SR 250

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

*If other is selected, please identify the funding source: _____

PURPOSE AND NEED:

The need should describe the specific transportation problem or deficiency that the project will address. The purpose should describe the goal or objective of the project. The solution to the traffic problem should NOT be discussed in this section.

Need: INDOT has identified the need to address the deteriorated condition of the culvert on SR 250 over UNT to Rider Ditch. According to the INDOT Abbreviated Engineer's Report dated February 2020, the structure was found to have efflorescence between beams, staining between box beam joints, scour on the north side of the structure, and drift debris throughout the culvert. The structure had a condition rating of 5 on a scale of 0 ("failed") and 9 ("excellent") which indicates the structure is in "fair" condition (Appendix I, Pages 7-51).

Purpose: The purpose of this project is to construct a hydraulically and structurally adequate structure while improving the overall condition rating to a 9, and to provide the necessary geometric criteria for the roadway including adequate scour protection.

This is page 2 of 22 Project name: Small Structure Replacement on SR 250 Date: August 19, 2022

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PROJECT DESCRIPTION (PREFERRED ALTERNATIVE):

County: Jackson Municipality: N/A

Limits of Proposed Work: Proposed limits are approximately 90 feet west and 110 feet east of the centerline of the proposed structure with approximately 80 feet of incidental construction to the west and 155 feet of incidental construction to the east for a total length of 455 feet.

Total Work Length: 0.085 Mile(s) Total Work Area: 0.58 Acre(s)

Is an Interstate Access Document (IAD)¹ required?

Yes ¹	No
<input type="checkbox"/>	<input checked="" type="checkbox"/>

 If yes, when did the FHWA provide a Determination of Engineering and Operational Acceptability?

Date:

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

Describe location of project including township, range, city, county, roads, etc. Existing conditions should include current conditions, current deficiencies, roadway description, surrounding features, etc. Preferred alternative should include the scope of work, anticipated impacts, and how the project will meet the Purpose and Need. Logical termini and independent utility also need discussed.

Location:

The Federal Highway Administration (FHWA) and INDOT propose to proceed with a small structure replacement project in Jackson County, Indiana. The project is located on SR 250, 0.79-mile east of SR 11. More specifically, the project is located in Sections 20 and 29 of Township 5 north and Range 6 east as shown on the US Geological Survey 7.5' Tampico, Indiana Topographic Quadrangle (Appendix B, Page 2).

Existing Conditions:

The existing structure consists of a single-span prestressed concrete box beam culvert, spanning 18.5 feet with a rise of 3 feet. It is approximately 40 feet wide (along the skew) and skewed approximately 45-degrees left to the roadway. The perpendicular span is 13 feet. There is existing cover of approximately 6 inches (consisting of asphalt pavement) between the top of the structure and the existing surface of the roadway. The minimal cover consists entirely of asphalt (Appendix I, Pages 7-51). The original installation date is unknown. The existing drainage through the project is conveyed by an unnamed tributary (UNT) to Rider Ditch. The stream flows from northwest to southeast underneath SR 250. The current land use primarily consists of pasture and agricultural land with some undeveloped wooded areas (Appendix I, Pages 7-51). The structure was inspected by INDOT in February 2020, and on November 1, 2021, and was found to have leaking with efflorescence between the box beams, staining between the box beam joints, scour on the north side of the structure, and drift throughout the culvert (Appendix I, Page 7, and Appendix I, Page 52).

SR 250 is classified as a Rural Major Collector roadway at this location and has a posted design speed limit of 55 miles-per-hour (MPH). SR 250 in the project area consists of asphalt and is 20 feet wide, containing two travel lanes, one in each direction, that are 10 feet wide with no paved shoulders. The usable shoulders, which consist of compacted aggregate and earth, are approximately 1-2-feet wide. The total approach roadway width is approximately 22 feet. The only guardrail at the site is located on the structure, with 17 feet on each side of the structure (Appendix I, Pages 7-51).

Preferred Alternative:

The preferred alternative consists of constructing a new structure on the existing roadway horizontal alignment with approximately the same vertical alignment. The replacement structure will be a single span under fill precast four-sided reinforced concrete box under fill with wingwalls and headwalls. The replacement structure will have a perpendicular span of 14 feet, a rise of 4 feet, overall length of 62 feet, and will be built on a 45-degree left skew to the roadway to minimize the structure length and channel realignment at each end of the structure. The ends of the structure and wingwalls will be protected with revetment riprap. The roadway will contain two asphalt travel lanes, one in each direction, that are 10 feet wide with usable asphalt shoulders that are 4 feet wide. (Appendix B, Page 10). A total of 0.51 acre of permanent right-of-way (ROW) will be acquired in order to construct the culvert replacement. Approximately 0.06 acre of trees will be removed.

The maintenance of traffic (MOT) plan for the project will require a full road closure and a detour route utilizing SR 11, US 50, and I-65. The detour length is approximately 18.8 miles. The maximum road closure time is anticipated to be 45 calendar days to minimize traffic disruption. Temporary lighting may be used during construction. No permanent lighting will be installed (Appendix B, Page 11).

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Logical Termini/Independent Utility: The termini were chosen to minimize the overall impacts to the surrounding environment, while including limits to incorporate the INDOT design criteria and consideration of roadway geometrics. The project is considered to provide independent utility as the completion will not dictate the outcome of any other projects in the surrounding area. Construction of this project could commence without impacting, affecting, or influencing any neighboring projects. Please refer to Appendix B for maps depicting the project area (Pages B-1- B-4), photographs of the project area (Pages B5-B8 and F18-F32), and preliminary plans (Page B-9).

OTHER ALTERNATIVES CONSIDERED:

Provide a header for each alternative. Describe all discarded alternatives, including the No Build Alternative. Explain why each discarded alternative was not selected. Make sure to state how each alternative meets or does not meet the Purpose and Need and why.

No Build/Do Nothing

The no-build alternative would require the existing small structure to remain in place with no improvements. The small structure will continue to deteriorate and eventually fail, which would likely require the roadway to be closed until a replacement small structure could be constructed. Since this alternative does not meet the purpose and need of the project, it was dismissed from further consideration. No other alternatives were considered.

The No Build 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):

X

ROADWAY CHARACTER:

If the proposed action includes multiple roadways, complete and duplicate for each roadway.

Name of Roadway	<u>SR 250</u>			
Functional Classification:	<u>Major Collector</u>			
Current ADT:	<u>1,084</u>	VPD (2022)	Design Year ADT:	<u>1,318</u>
Design Hour Volume (DHV):	<u>150</u>	Truck Percentage (%)	<u>16.72</u>	VPD (2042)
Designed Speed (mph):	<u>55</u>	Legal Speed (mph):	<u>55</u>	

	Existing		Proposed	
Number of Lanes:	2		2	
Type of Lanes:	Travel Lanes		Travel Lanes	
Pavement Width:	Approx 20	ft.	Approx. 20	ft.
Shoulder Width:	Approx. 1-2	ft.	Approx 1-2	ft.
Median Width:	N/A	ft.	N/A	ft.
Sidewalk Width:	N/A	ft.	N/A	ft.

Setting:	<input type="checkbox"/>	Urban	<input type="checkbox"/>	Suburban	<input checked="" type="checkbox"/>	Rural
Topography:	<input checked="" type="checkbox"/>	Level	<input type="checkbox"/>	Rolling	<input type="checkbox"/>	Hilly

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BRIDGES AND/OR SMALL STRUCTURE(S):

If the proposed action includes multiple structures, complete and duplicate for each bridge and/or small structure. Include both existing and proposed bridge(s) and/or small structure(s) in this section.

Structure/NBI Number(s): CV 250-036-09.30 Sufficiency Rating: N/A
 (Rating, Source of Information)

Bridge/Structure Type:	Existing		Proposed	
	Prestressed Concrete Box Beams		Reinforced Concrete Box	
Number of Spans:	1		1	
Weight Restrictions:	N/A	ton	N/A	ton
Height Restrictions:	N/A	ft.	N/A	ft.
Curb to Curb Width:	N/A	ft.	N/A	ft.
Outside to Outside Width:	N/A	ft.	N/A	ft.
Shoulder Width:	N/A	ft.	N/A	ft.

Describe impacts and work involving bridge(s), culvert(s), pipe(s), and small structure(s). Provide details for small structure(s): structure number, type, size (length and dia.), location and impacts to water. Use a table if the number of small structures becomes large. If the table exceeds a complete page, put it in the appendix and summarize the information below with a citation to the table.

The project involves the replacement of INDOT structure #CV 250-036-09.30, located on SR 250, 0.79-mile east of SR 11. The existing small structure consists of a single span prestressed concrete box beam culvert that is approximately 40 feet long (along the skew) and skewed approximately 45-degrees left to the roadway. The perpendicular span is 13 feet. There is existing cover of approximately 6 inches between the top of structure and the existing surface of the roadway.

The current structure will be replaced on the existing roadway horizontal alignment and approximately the same vertical alignment. The replacement structure will be a single span under-fill precast four-sided reinforced concrete box. Wingwalls and 1-foot-tall headwalls will be utilized. The ends of the structure and wingwalls will be protected with revetment riprap.

Approximately 360 feet of UNT to Rider Ditch will be impacted (0.08-acre). Permanent impacts to waterways will include approximately 0.187 acre to all three wetlands within the project area due to tree clearing, roadway embankment reconstruction, and channel reconstruction, as well as 0.085 acre of impacts to UNT to Rider Ditch, due to installation of the new culvert, the placement of riprap over geotextiles on channel banks at the inlet and outlet of the new structure, and the reconstruction of channel banks. Temporary impacts to UNT Rider Ditch include placing pump rounds for new construction to maintain a dry working area for construction access. All temporary impacts will be related to the sandbag placement for dewatering and will occur during excavation and the box installation. Temporary impacts will include 10 linear feet, 0.0012 acre.

No other structures are involved with this project.

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 below)	<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 checked="" type="checkbox"/>	<input type="checkbox"/>
Provisions will be made to accommodate any local special events or festivals.	<input type="checkbox"/>	<input checked="" 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"/>
Will the project require a sidewalk, curb ramp, and/or bicycle lane closure? (describe below)	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Provisions will be made for access by pedestrians and/or bicyclist and so posted (describe below).	<input type="checkbox"/>	<input checked="" type="checkbox"/>

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Discuss closures, detours, and/or facilities (if any) that will be provided for maintenance of traffic. Any known impacts from these temporary measures should be quantified to the extent possible, particularly with respect to properties such as Section 4(f) resources and wetlands. Discuss any pedestrian/bicycle closures. Any local concerns about access and traffic flow should be detailed as well.

The MOT for the project will require SR 250 to be closed at the project area and a detour route utilizing SR 11, US 50, and I-65 will be posted. Total detour length is approximately 18.8 miles (Appendix B, Page 11).

The road 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. In accordance with the current INDOT Design Manual and Standard Specifications, 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.

ESTIMATED PROJECT COST AND SCHEDULE:

Engineering: \$ 1,047,200 (2022-2023) Right-of-Way: \$ 120,000 (2021) Construction: \$ 4,113,448 (2023)

Anticipated Start Date of Construction: Fall 2023

RIGHT OF WAY:

Land Use Impacts	Amount (acres)	
	Permanent	Temporary
Residential	0.083	0.000
Commercial	0.000	0.000
Agricultural	0.295	0.000
Forest	0.132	0.000
Wetlands	0.000	0.000
Other:	0.000	0.000
Other:	0.000	0.000
TOTAL	0.510	0.000

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, reacquisition or easements, either known or suspected, and their impacts on the environmental analysis should be discussed.

Existing ROW on SR 250 at this section of roadway measures to be approximately 10 feet from the centerline. The current land use of the proposed permanent ROW is residential, agricultural, and forest.

The project requires approximately 0.51 acre of permanent ROW and no temporary ROW is required. The current land use of the proposed permanent ROW is residential, agricultural, and forest. (Appendix B, Page 12).

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

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

SECTION A - EARLY COORDINATION:

List the date(s) coordination was sent and all resource 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.

Early Coordination Letters were sent on June 23, 2021 (Appendix C, Pages 1-4)

<u>Agency</u>	<u>Date Sent</u>	<u>Date Response Received</u>	<u>Appendix</u>
Indiana Department of Natural Resource, Division of Fish and Wildlife (IDNR, DFW)	6/23/2021	6/23/2021	C, 6-8
Federal Highway Administration	6/23/2021	N/A	N/A
Environmental Section Manager, Seymour District	6/23/2021	N/A	N/A
Project Manager, INDOT Seymour District	6/23/2021	N/A	N/A
Indiana Geological and Water Survey (IGWS)	6/23/2021	6/23/2021	C, 9-10
Natural Resources Conservation Service (NRCS)	6/23/2021	6/23/2021	C, 11
Indiana Department of Environmental Management, Ground Water Section	6/23/2021	6/23/2021	C, 5
U.S. Army Corps of Engineers (USACE)	6/23/2021	N/A	N/A
Midwest Regional Office	6/23/2021	N/A	N/A
Hoosier National Forest	6/23/2021	N/A	N/A
U.S. Department of Housing and Urban Development	6/23/2021	N/A	N/A
Jackson County Emergency Management	6/23/2021	N/A	N/A
Jackson County Surveyor	6/23/2021	N/A	N/A
Jackson County Commissioners	6/23/2021	N/A	N/A
Jackson County Highway Superintendent	6/23/2021	N/A	N/A
Jackson County Health Department	6/23/2021	N/A	N/A

All applicable recommendations are included in the Environmental Commitments section of this CE document

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SECTION B – ECOLOGICAL RESOURCES:

Streams, Rivers, Watercourses & Other Jurisdictional Features

- Federal Wild and Scenic Rivers
- State Natural, Scenic or Recreational Rivers
- Nationwide Rivers Inventory (NRI) listed
- Outstanding Rivers List for Indiana
- Navigable Waterways

Presence

X

Impacts

Yes	No
X	

Total stream(s) in project area: 540 Linear feet Total impacted stream(s): 360 Linear feet

Stream Name	Classification	Total Size in Project Area (linear feet)	Impacted linear feet	Comments (i.e. location, flow direction, likely Water of the US, appendix reference)
UNT to Rider Ditch	Intermittent	540	360	UNT to Rider Ditch flows from northwest to southeast through the project area under SR 250 through the existing structure. Likely be considered as a jurisdictional Waters of the US (Appendix F, Page 1).

Describe all streams, rivers, watercourses and other jurisdictional features adjacent or within the project area. Include whether or not impacts (both permanent and temporary) will occur to the features identified. Include if the streams or rivers are listed on any federal or state lists for Indiana. Include if features are likely subject to federal or state jurisdiction. Discuss measures to avoid, minimize, and mitigate if impacts will occur.

Presence, with impacts
 Based on the desktop review, the aerial map of the project area, and the RFI report (Appendix E, Pages 1-6) there are six streams within the 0.5 mile search radius. There is one stream within the project area. That number was confirmed during the site visit on May 2, 2022, by BLN Staff. There are no Federal, Wild and Scenic Rivers; State Natural, Scenic, and Recreational Rivers; Outstanding Rivers for Indiana; navigable waterways or National Rivers Inventory (NRI) waterways present in the project area. Therefore, no impacts are expected.

Waters Report
 A Waters of the U.S. Determination/Wetland Delineation Report was approved by INDOT Ecology and Waterway Permitting Office on June 27, 2022. Please refer to Appendix F, Page 1 for the Waters of the U.S. Determination/Wetland Delineation Report. It was determined that one (1) likely jurisdictional waterway, UNT to Rider Ditch, is located within the project area. The USACE makes all final determinations regarding jurisdiction.

UNT to Rider Ditch is mapped as a USGS blue line stream on the Tampico, Indiana USGS 7.5 minute Topographic Quadrangle. UNT to Rider Ditch flows from northwest to southeast through the project area under SR 250 through the existing structure. According to Stream Stats (<https://streamstats.usgs.gov/ss/>), the delineated upstream drainage area of UNT to Rider Ditch from the project area is 0.235 square mile.

UNT to Rider Ditch exhibited a defined bed and bank and three (3) ordinary high-water marks (OHWM) were recorded for this stream in different parts of the investigated area due to widely varying observations. OHWM 1 was taken in the northwestern portion of the investigated area and measured 1-foot wide by 0.4 foot deep. OHWM 2 was taken slightly northwest of the small structure and measured 1.5 feet wide by 4 feet deep. OHWM 3 was taken in the southeast portion of the investigated area where UNT to Rider Ditch presents as a roadside ditch and measured 4 feet wide by 0.25 feet deep. UNT to Rider Ditch exhibited pools but no riffles and a substrate of mud/silt. UNT to Rider Ditch would be classified as an intermittent stream with a Cowardin of R4SBC and a quality of fair based on the observation during field work. Because UNT to Rider Ditch flows to Rider Ditch which eventually flows to the White River, a section 10 Traditionally Navigable Waterway, it is considered Waters of the U.S.

Approximately 360 linear feet (0.085 acre) of permanent impacts will occur to UNT to Rider Ditch due to installing the new structure, placing riprap over geotextiles on channel banks at the inlet and outlet of the new structure, and reconstructed channel banks. Temporary impacts will occur to UNT to Rider Ditch due to cofferdams and a dewatering system to remove the existing structure. These measures will be removed from the channel after construction. Construction limits have been reduced to minimize impacts. The proposed structure will be built on a 45-degree left skew to the roadway to minimize the structure length and channel realignment at the end of the structure. The project will use best management practices for temporary and permanent erosion control measures during construction to minimize temporary impacts. Restoration includes grading to match existing contours and stabilizing slopes by planting INDOT Mulched Seeding R. Mitigation will likely be required and will be determined during permitting.

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Based on coordination with the INDOT Ecology and Waterway Permitting staff, a 404 Regional General Permit (RGP) and 401 Individual Permit (IP) will be required for impacts UNT to Rider Ditch.

Early Coordination

The IDNR-DFW responded on June 23, 2021, with several recommendations to avoid or minimize impacts to fish, wildlife, and botanical resources. Applicable recommendations include minimizing the use and placement of rip rap, minimizing in channel disturbance, minimizing movement of resuspended bottom sediment, and controlling erosion and preventing sediment from entering the stream. Please refer to Appendix C, Pages 6-8 for the IDNR, DFW response letter.

The project falls under the category of “Programmatic Coordination” per the USFWS Interim Policy for the Review of Highway Transportation Projects in Indiana dated May 29, 2013 (Interim Policy). Applicable recommendations from the Interim Policy include implementing erosion and sediment control measures, limiting stream and channel work, and minimizing use of riprap. All applicable agency recommendations are included in the Environmental Commitments section of this CE document.

Open Water Feature(s)	Presence	Impacts	
		Yes	No
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"/>
Retention/Detention Basin	<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"/>

Describe all open water feature(s) identified adjacent or within the project area. Include whether or not impacts (both permanent and temporary) will occur to the features identified. Include if features are likely subject to federal or state jurisdiction. Discuss measures to avoid, minimize, and mitigate if impacts will occur.

No presence, no impact

Based on the desktop review, the aerial map of the project area and the RFI report (Appendix E, Pages 1-6), there are no open water features within the 0.5 mile search radius. There are no open water features within or adjacent to the project area, which was confirmed during the site visit on May 2, 2022, by BLN Staff. Therefore, no impacts are expected.

Waters Report

A Waters of the U.S. Determination Report was approved by the INDOT Ecology and Waterway Permitting Office on June 27, 2021 (Appendix F, Page 1). It was determined that no open water features are located within the project area. No impacts to open water features will occur. The USACE makes all final determinations regarding jurisdiction.

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

Total wetland area: 1.169 Acre(s) Total wetland area impacted: 0.187 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 (i.e. location, likely Water of the US, appendix reference)
Wetland A	PEM (0.154 acre), PFO (0.057 acre)	0.211	0.030	38.851470 N, 85.885603 W, likely Water of the US, (Appendix F, Page 5).
Wetland B	PEM (0.053 acre), PFO (0.298 acre)	0.351	0.073	38.851521 N, 85.884895 W, likely Water of the US, (Appendix F, Page 5).
Wetland C	PEM	0.607	0.084	38.851254 N, 85.884891 W, likely Water of the US, (Appendix F, Page 5).

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Documentation

ESD Approval Dates

Wetlands (Mark all that apply)

Wetland Determination	X
Wetland Delineation	
USACE Isolated Waters Determination	

June 27, 2022

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.	X

Describe all wetlands identified adjacent or within the project area. Include whether or not impacts (both permanent and temporary) will occur to the features identified. Include if features are likely subject to federal or state jurisdiction. Discuss measures to avoid, minimize, and mitigate if impacts will occur.

Presence, with impacts greater than one acre

Based on a desktop review, the aerial map of the project area, and the RFI report (Appendix E Pages 1-6), several mapped wetlands are located within the 0.5-mile search radius. There are three (3) wetlands present within or adjacent to the project area. That number was confirmed by the site visit on May 2, 2022 by BLN staff, the National Wetlands Inventory (NWI) online mapper (<https://www.fws.gov/wetlands/data/Mapper.html>), and the USGS topographic map (Appendix B Page 2).

Waters Report

A Waters of the U.S. Determination / Wetland Delineation Report was approved on June 27, 2022. Please refer to Appendix F, Page 1 for the Waters of the U.S. Determination / Wetland Delineation Report. There were three (3) wetlands identified in the project area during the field investigation.

Wetland A is on the north side of SR 250, west of UNT to Rider Ditch. Wetland A was delineated for a total of 0.211 acre. The wetland is a mixture of emergent, scrub shrub, and forested. Wetland A extends both west and north beyond the investigated area. It is average quality with native vegetation. Because Wetland A drains to UNT to Rider Ditch, which flows to Rider Ditch, which eventually flows to the White River, a section 10 Traditionally Navigable Waterway, it would likely be considered a Water of the U.S.

Wetland B is on the north side of SR 250, east of UNT to Rider Ditch. Wetland B was delineated for a total of 0.351 acre. The wetland is a mixture of emergent, scrub shrub, and forested. Wetland B extends north beyond the investigated area. It is average quality with native vegetation. Because Wetland B drains to UNT to Rider Ditch, which flows to Rider Ditch, which eventually flows to the White River, a section 10 Traditionally Navigable Waterway, it would likely be considered a Water of the U.S.

Wetland C is on the south side of SR 250, west of S 825 E. Wetland C is located south of UNT to Rider Ditch and was delineated for a total of 0.607 acre. Wetland C is emergent with a small portion slightly underneath tree cover of the forested area south of the investigated area. Wetland C extends both west and south beyond the investigated area. A portion of the wetland exhibits roadside ditch characteristics and extends from beyond the western limits of the investigated area to the small structure. It is average quality, with native vegetation, but with a portion of the wetland located within a mowed area. Because Wetland C drains to UNT to Rider Ditch, which flows to Rider Ditch, which eventually flows to the White River, a section 10 Traditionally Navigable Waterway, it would likely be considered a Water of the U.S.

Approximately 0.187 acre of permanent impacts to all three wetlands will occur due to tree clearing, roadway embankment reconstruction, and channel reconstruction. Based on coordination with the INDOT Ecology and Waterway Permitting staff, a 404 RGP and 401 IP permit will be required due to impacts to the wetlands. Mitigation will be needed to compensate for the wetland impacts.

Early Coordination

The IDNR-DFW responded on June 23, 2021, with several recommendations to avoid or minimize impacts to fish, wildlife, and botanical resources. Applicable recommendations include minimizing the use and placement of rip rap, minimizing in channel disturbance, minimizing movement of resuspended bottom sediment, and controlling erosion and preventing sediment from entering the stream. Please refer to Appendix C, Pages 6-8 for the IDNR, DFW response letter.

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The project falls under the category of “Programmatic Coordination” per the USFWS Interim Policy for the Review of Highway Transportation Projects in Indiana dated May 29, 2013 (Interim Policy). Applicable recommendations from the Interim Policy include implementing erosion and sediment control measures, limiting stream and channel work, and minimizing use of riprap.

All applicable agency recommendations are included in the Environmental Commitments section of this CE document.

	<u>Presence</u>	<u>Impacts</u>	
Terrestrial Habitat	<input type="checkbox"/>	<u>Yes</u>	<u>NO</u>
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Total terrestrial habitat in project area: 0.427 Acre(s) Total tree clearing: 0.06 Acre(s)

Describe types of terrestrial habitat (i.e. forested, grassland, farmland, lawn, etc) adjacent or within the project area. Include whether or not impacts will occur to habitat identified. Include total terrestrial habitat impacted and total tree clearing that will occur. Discuss measure to avoid, minimize, and mitigate if impacts will occur.

Presence, with impacts

Based on a desktop review, a site visit on May 2, 2022 by BLN staff, the aerial map of the project area (Appendix B, Page 3) the project is located in a rural setting with agricultural, residential, and forest areas surrounding. Please refer to Appendix B, Pages 5-8 and Appendix F, Pages 18- 32 for photographs of the project area.

Several crayfish burrows were observed at the site. Although not observed, it is likely that mice, rabbits, squirrels, and snakes are in the area surrounding the project. The dominant vegetation in the project area consisted of broadleaf cattails (*Typha latifolia*), Kentucky bluegrass (*Poa pratensis*), and tall fescue (*Schedonorus arundinaceus*). This project will impact less than 0.5 acre of herbaceous stratum vegetation to access the structure. Avoidance is not possible because permanent disturbance is necessary to access the structure. Disturbed areas will be reseeded following construction. Approximately 0.06 acre of tree trimming will be required.

The project falls under the category of “Programmatic Coordination” per the USFWS Interim Policy. Applicable recommendations from the Interim Policy including implementing erosion and sediment control measures.

Early Coordination

IDNR, DFW responded on August 5, 2021, with several recommendations to avoid or minimize impacts to terrestrial habitat (Appendix C, Pages 6-8). These recommendations included developing a mitigation plan for any unavoidable habitat impacts as well as recommendations regarding the actual mitigation site and coordinating with the applicable agencies regarding a wetland delineation plan. All applicable recommendations are included in the Environmental Commitments section of this CE document.

Protected Species

Federally Listed Bats

Information for Planning and Consultation (IPaC) determination key completed
 Section 7 informal consultation completed (IPaC cannot be completed)
 Section 7 formal consultation Biological Assessment (BA) required

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

Determination Received for Listed Bats from USFWS: NE NLAA LAA

Other Species not included in IPaC

Additional federal species found in project area (based on IPaC species list)
 State species (not bird) found in project area (based upon consultation with IDNR)

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

Migratory Birds

Known usage or presence of birds (i.e. nests)
 State bird species based upon coordination with IDNR

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

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Discuss IDNR coordination and species identified. Describe USFWS Section 7 consultation and determination received for Indiana bat and northern long-eared bat impacts. Discuss if other federally listed species were identified. If so, include consultation that has occurred and the determination that was received. Discuss if migratory birds have been observed and any impacts.

Based on a desktop review, the RFI report (Appendix E, Page 1-6), the Jackson County IDNR County Endangered, Threatened and Rare (ETR) Species List has been checked. According to the INDR, DFW early coordination response letter dated July 23, 2021, the Natural Heritage Program’s Database has been checked and found no plant or animal species reported in the project vicinity (Appendix C, Pages 6-8). An INDOT 0.5 mile bat review occurred on May 25, 2021 and 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. No critical habitats for any on the species mentioned below were identified.

Bats, Programmatic Informal Consultation (i.e.IPaC) -Not Likely to Adversely Affect

Project information was submitted through the USFWS’s Information for Planning and Consultation (IPaC) portal, and an official species list was generated (Appendix C, Pages 13-18). The project is within range of the federally endangered Indiana bat (*Myotis sodalis*) and the federally threatened northern long-eared bat (NLEB) (*Myotis septentrionalis*). No additional species were generated in the IPaC species list other than the Indiana bat and northern long-eared bat.

The project qualifies for the Range-wide Programmatic Informal Consultation for the Indiana bat and northern long-eared bat (NLEB), dated May 2016 (revised February 2018), between FHWA, Federal Railroad Administration (FRA), Federal Transit Administration (FTA), and USFWS. A culvert inspection occurred on 5/4/2022 and the assessment results indicated no evidence of bats or birds. An effect determination key was completed on July 12, 2022 by BLN Staff, and based on the responses provided, the project was found to have “may affect–not likely to adversely affect” the Indiana bat and/or the NLEB (Appendix C, pages 19-31). No response was received from USFWS within the 14-day review period; therefore, it was concluded they concur with the finding. Avoidance and Minimization Measures (AMMs) (Lighting AMM 1, General AMM 1, Tree Removal AMMs 1 through 4 and Hibernacula AMM 1) commitments are included as firm commitments in the Environmental Commitments section of this document.

INDOT Structure Number CV 250-036-09.30 over UNT to Rider Ditch has not shown evidence of use (i.e. nests) by a bird species protected under the Migratory Bird Treaty Act (MBTA) during the May 24, 2022 inspection. However, due to the presence of UNT to Rider Ditch, the structure and surrounding habitat is conducive for use (i.e., nests) by a bird species protected under the Migratory Bird Treaty Act (MBTA). Prior to the start of nesting season (May 1), the structure must be inspected for birds or signs of birds. If birds or signs of birds are found during the inspection avoidance and minimization measures must be implemented prior to the start of and during the nesting season. Nests without eggs or young should be removed prior to construction during the non-nesting season (September 8 – April 30) and during the nesting season if no eggs or young are present. Nests with eggs or young cannot be removed or disturbed during the nesting season (May 1 – September 7). Nests with eggs or young should be screened or buffered from active construction. Details of the required procedures are outlined in the Migratory Bird Protection Reoccurring Special Provision (RSP). This firm commitment is included in the Environmental Commitments of this 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 the site becomes available, or if project plans are changed, USFWS will be contacted for consultation.

Geological and Mineral Resources

- Project located within the Indiana Karst Region
- Karst features identified within or adjacent to the project area
- Oil/gas or exploration/abandoned wells identified in the project area

Yes	No
X	
	X
	X

Date Karst Evaluation reviewed by INDOT EWPO (if applicable): _____

Discuss if project is located in the Indiana Karst Region and if any karst features have been identified in the project area (from RFI). Discuss response received from IGWS coordination. Discuss if any mines, oil/gas, or exploration/abandoned wells were identified and if impacts will occur. Include discussion of karst study/report was completed and results. (Karst investigation must comply with the current Protection of Karst Features during Planning and Construction guidance and coordinated and reviewed by INDOT EWPO)

Inside karst area; no presence

Based on a desktop review and the Indian Karst Region map, the project is located inside the designated Indiana Karst Region as outlined in the July 15, 2021 Protection of Karst Features during Project Development and Construction. According to the topo map of the project area (Appendix B, Page 2) and the RFI report (Appendix E, Pages 1-6) there are no karst features identified within or adjacent to the project area. In the early coordination response dated June 23, 2021, the Indiana Geological and Water Survey (IGWS) did not indicate that karst features exist in the project area (Appendix C, Pages 9-10) Their response stated that there is moderate potential for encountering bedrock resources, low potential for sand and gravel resources in the area, and active and/or abandoned mineral resource extraction sites have not been documented in the area. Response from IGWS has been communicated to the designer on June 23, 2021. No impacts are expected.

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SECTION C – OTHER RESOURCES

Drinking Water Resources

- Wellhead Protection Area(s)
- Source Water Protection Area(s)
- Water Well(s)
- Urbanized Area Boundary
- Public Water System(s)

Presence

X

Impacts

Yes	No
	X

- Is the project located in the St. Joseph Sole Source Aquifer (SSA):
- If Yes, is the FHWA/EPA SSA MOU Applicable?
- If Yes, is a Groundwater Assessment Required?

Yes	No
	X

Check the appropriate boxes and discuss each topic below. Provide details about impacts and summarize resource-specific coordination responses and any mitigation commitments. Reference responses in the Appendix.

Sole Source Aquifer

Outside of Sole Source Aquifer (SSA)

The project is located in Jackson 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/EPA Sole Source Aquifer Memorandum of Understanding (MOU) is not applicable to this project, a detailed groundwater assessment is not needed, and no impacts are expected.

Wellhead Protection Area and Source Water

Not located in a Wellhead Protection Area or Source Water Area

The Indiana Department of Environmental Management’s Wellhead Proximity Determinator website (<http://www.in.gov/idem/cleanwater/pages/wellhead/>) was accessed on August 23, 2021 by BLN Staff. The project is not located within a Wellhead Protection Area or Source Water Assessment Area. In an early coordination letter dated July 16, 2021, IDEM stated the project is not located within wellhead area (Appendix C, Page 5). No impacts are expected.

Water Wells

Wells present, no impacts

The Indiana Department of Natural Resources Water Wells Record Database website (<https://www.in.gov/dnr/water/3595.htm>) was accessed on July 26, 2021, by BLN Staff. The nearest well is 0.08-mile east of the project area. The feature will not be affected by the scope of the small structure replacement. Therefore, no impacts are expected. Should it be determined during the right-of-way phase that these wells will be affected, a cost to cure will likely be included in the appraisal to restore the wells.

Urban Area Boundary

Not in an Urban Area Boundary

Based on a desktop review of INDOT’s MS4 website (<https://entapps.indot.in.gov/MS4/>) by BLN Staff on July 26, 2021, this project is not located in an Urban Area Boundary. No impacts are expected.

Public Water System

Not in a Public water System Location

Based on a desktop review, a site visit on October 29, 2020 by BLN Staff, the aerial photograph of the project area (Appendix B, Page 3) no public water systems were identified. Therefore, no impacts are expected

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Floodplains

	<u>Presence</u>	<u>Impacts</u>	
		<u>Yes</u>	<u>No</u>
Project located within a regulated floodplain	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Longitudinal encroachment	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Transverse encroachment	<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"/>

If applicable, indicate the Floodplain Level?

Level 1 Level 2 Level 3 Level 4 Level 5

Use the IDNR Floodway Information Portal to help determine potential impacts. Include floodplain map in appendix. Discuss impacts according to the classification system. If encroachment on a flood plain will occur, coordinate with the Local Flood Plain Administrator during design to insure consistency with the local flood plain planning.

Based on a desktop review of the Indiana Department of Natural Resources Indiana Floodway Information Portal website (<http://dnrmmaps.dnr.in.gov/appsphp/fdms/>) by BLN Staff on July 26, 2021, and the RFI report (Appendix E, Page 1-6), this project is located in a regulatory floodplain as determined from approved IDNR floodplain maps (Appendix F, Page 12). An early coordination letter was sent on July 26, 2021 to the local Floodplain Administrator. The floodplain administrator did not respond within the 30-day time frame. This project qualifies as a Category 4 per the current INDOT CE Manual, which states, 0 homes are located within the base floodplain within 1,000 feet upstream and 0 homes are located within the base floodplain within 1,000 feet downstream. The proposed structure will have an effective capacity such that backwater surface elevations are not expected to substantially increase. As a result, there will be no substantial adverse impacts on natural and beneficial floodplain values; there will be no substantial change in flood risks; and there will be no substantial increase in potential for interruption or termination of emergency service or emergency evacuation routes; therefore, it has been determined that this encroachment is not substantial. A hydraulic design study that addresses various structure size alternatives was completed during the preliminary design phase. A summary of this study was included with the Field Check Plans.

Farmland

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

Total Points (from Section VII of CPA-106/AD-1006*) 78

**If 160 or greater, see CE Manual for guidance.*

Discuss existing farmland resources in the project area, impacts that will occur to farmland, and mitigation and minimization measures considered.

Presence, score under 160
Based on a desktop review, a site visit on May 2, 2022 by BLN Staff, and the aerial map of the project area (Appendix B, Page 3), the project will convert 0.05 acre of farmland as defined by the Farmland Protection Policy Act. An early coordination letter was sent on June 23, 2021 to Natural Resources Conservation Service (NRCS). Coordination with NRCS resulted in a score of 78 on the (NRCS-CPA-106 Form (Appendix C, Page 12). Even though the total permanent ROW is 0.51 acre, much of that is residential or unfarmable areas-so impact to farmland has been reduced to 0.05 acre. 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 this project. No alternatives other than those previously discussed in this document will be investigated without reevaluating impacts to prime farmland.

SECTION D – CULTURAL RESOURCES

	<u>Category(ies) and Type(s)</u>	<u>INDOT Approval Date(s)</u>	<u>N/A</u>
Minor Projects PA	B-9	February 13, 2020	<input type="checkbox"/>

Full 106 Effect Finding

No Historic Properties Affected No Adverse Effect Adverse Effect

This is page 14 of 22 Project name: Small Structure Replacement on SR 250 Date: August 19, 2022

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Eligible and/or Listed Resources Present

NRHP Building/Site/District(s) Archaeology NRHP Bridge(s)

Documentation Prepared (mark all that apply)

APE, Eligibility and Effect Determination
 800.11 Documentation
 Historic Properties Report or Short Report
 Archaeological Records Check and Assessment
 Archaeological Phase Ia Survey Report
 Archaeological Phase Ic Survey Report
 Other:

	ESD Approval Date(s)	SHPO Approval Date(s)
X	February 6, 2020	

Memorandum of Agreement (MOA)

MOA Signature Dates (List all signatories)

If the project falls under the MPPA, describe the category(ies) that the project falls under and any approval dates. If the project requires full Section 106, use the headings provided. The completion of the Section 106 process requires that a Legal Notice be published in local newspapers. Please indicate the publication date, name of the paper(s) and the comment period deadline. Include any further Section 106 work which must be completed at a later date, such as mitigation from a MOA or avoidance commitments.

Minor Project PA Category B projects

On February 13, 2020, the INDOT Cultural Resource Office (CRO) determined that this project falls within the guidelines of Category B, Type 9 under the Minor Projects Programmatic Agreement (Appendix D, Pages 1-3). Category B-9 covers installation, replacement, repair, lining, or extension of culverts and other drainage structures.

An archaeological records check and Phase Ia reconnaissance survey of the project area was conducted for the project. The records check found that the project area had not been previously examined for archaeological resources and that no previously recorded sites have been identified within or adjacent to it. No archaeological sites were identified, and no further investigation is recommended. The report was reviewed by INDOT Cultural Resources Office and they concurred with the evaluations and recommendations made on February 13, 2020. Therefore, there are no archaeological concerns. Please see Appendix D, Page 4.

No further consultation is required. This completes the 106 process and the responsibilities of the FHWA under Section 106 have been fulfilled.

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

	<u>Presence</u>	<u>Use</u>	
		Yes	No
Parks and Other Recreational Land			
Publicly owned park	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Publicly owned recreation area	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Other (school, state/national forest, bikeway, etc.)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Wildlife and Waterfowl Refuges			
National Wildlife Refuge	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
National Natural Landmark	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
State Wildlife Area	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
State Nature Preserve	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Historic Properties			
Site eligible and/or listed on the NRHP	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

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Evaluations Prepared

Programmatic Section 4(f)	<input type="checkbox"/>
“De minimis” Impact	<input type="checkbox"/>
Individual Section 4(f)	<input type="checkbox"/>
Any exception included in 23 CFR 774.13	<input type="checkbox"/>

Discuss Programmatic Section 4(f) and “de minimis” Section 4(f) impacts in the discussion below. Individual Section 4(f) documentation must be included in the appendix and summarized below. Discuss proposed alternatives that satisfy the requirements of Section 4(f). FHWA has identified various exceptions to the requirement for Section 4(f) approval. Refer to 23 CFR § 774.13 - Exceptions.

No presence, no impact

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, recreation areas, wildlife/waterfowl refuges, and NRHP eligible or listed historic properties regardless of ownership. Lands subject to this law are considered Section 4(f) resources.

Based on a desktop review, the aerial photograph of the project area (Appendix B, Page 3) and the RFI report (Appendix E, Pages 1-6) there are no potential 4(f) resources located within the 0.5-mile search radius. According to the site visit on May 2, 2022, there are no Section 4(f) resources within or adjacent to the project area. Therefore, no use is expected.

Section 6(f) Involvement

Presence

Use

Yes

No

Section 6(f) Property

Discuss Section 6(f) resources present or not present. Discuss if any conversion would occur as a result of this project. If conversion will occur, discuss the conversion approval.

No presence, no impact

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 6(f) properties on the Land and Water Conservation Fund (LWCF) on INDOT’S Environmental Policy Page (<https://www.in.gov/indot/engineering/environmental-policy/>) revealed a total of six properties in Jackson County (Appendix I, Page 6). None of these properties are located within or adjacent to the project area. Therefore, there will be no impacts to 6(f) resources.

SECTION F – Air Quality

STIP/TIP and Conformity Status of the Project

- Is the project in the most current STIP/TIP?
- Is the project located in an MPO Area?
- Is the project in an air quality non-attainment or maintenance area?
- If Yes, then:
 - Is the project in the most current MPO TIP?
 - Is the project exempt from conformity?
- If No, then:
 - Is the project in the Transportation Plan (TP)?
 - Is a hot spot analysis required (CO/PM)?

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

Location in STIP:

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Name of MPO (if applicable):

N/A

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Location in TIP (if applicable): N/A

Level of MSAT Analysis required?

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

Describe if the project is listed in the STIP and if it is in a TIP. Describe the attainment status of the county(ies) where the project is located. Indicate whether the project is exempt from a conformity determination. If the project is not exempt, include information about the TP and TIP. Describe if a hot spot analysis is required and the MSAT Level.

STIP/TIP

Project Bundled in Contract

The FY 2022-2026 STIP is listed based on the lead Des number in the contract. The lead Des number for this contract is Des 1800276. The FY 2022-2026 STIP includes Des number 1801015 by reference with the contract number B-41445. (Appendix H, Page 1)

Attainment Status

Nonattainment/maintenance area, exempt project

This project is located in Jackson County, which is currently a maintenance area for Ozone, under the 1997 Ozone 8-hour standard, which was revoked in 2015 but is being evaluated for conformity due to the February 16, 2018, South Coast Air Quality Management District V. Environmental Protection Agency, Et. Al. Decision. The project's design concept and scope are accurately reflected in the State Implementation Plan (SIP). Therefore, the conformity requirements of 40 CFR 93 have been met.

MSAT

MSAT Level 1b Analysis

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.

SECTION G - NOISE

Noise

Yes No

Is a noise analysis required in accordance with FHWA regulations and INDOT's traffic noise policy?

Date Noise Analysis was approved/technically sufficient by INDOT ESD: N/A

Describe if the project is a Type I or Type III project. If it is a Type I project, describe the studies completed to date and if noise impacts were identified. If noise impacts were identified, describe if abatement is feasible and reasonable and include a statement of likelihood.

Type III project

This project is a Type III project. In accordance with 23 CFR 772 and the current Indiana Department of Transportation Traffic Noise Analysis Procedure, this action does not require a formal noise analysis.

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SECTION H – COMMUNITY IMPACTS

Regional, Community & Neighborhood Factors

- Will the proposed action comply with the local/regional development patterns for the area?
- Will the proposed action result in substantial impacts to community cohesion?
- Will the proposed action result in substantial impacts to local tax base or property values?
- Will construction activities impact community events (festivals, fairs, etc.)?
- Does the community have an approved transition plan?
If No, are steps being made to advance the community’s transition plan?
- Does the project comply with the transition plan? (explain in the discussion below)

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

Discuss how the project complies with the area’s local/regional development patterns; whether the project will impact community cohesion; and impact community events. Discuss how the project conforms with the ADA Transition Plan.

The project is not anticipated to impact the tax base for the area or result in division of the community. There are no long-term, foreseeable economic impacts from the project. Early coordination letters were sent to the Jackson County Drainage Board, Jackson County Council, Jackson County Commissioners, Jackson County Surveyor, and the on June 23, 2021. Please refer to Appendix C, Pages 1-4 for an example of the Early Coordination Letter that was sent to agencies. No responses were received from any of the above listed recipients.

As required by the Americans with Disabilities Act (ADA), Jackson County has developed an ADA Transition Plan. As proposed, SR 250 is a rural highway that does not include any ADA components within the project area. There are no existing sidewalks or other pedestrian facilities adjacent to the project area or within the project limits. There are no sidewalks or other pedestrian facilities included in the design; however, the project complies with local development patterns for the area. No sidewalks or pedestrian facilities for the project are included in the ADA transition plan.

Public Facilities and Services

Discuss what public facilities and services are present in the project area and impacts (such as MOT) that will occur to them. Include how the impacts have been minimized and what coordination has occurred. Some examples of public facilities and services include health facilities, educational facilities, public and private utilities, emergency services, religious institutions, airports, transportation or public pedestrian and bicycle facilities.

No presence, no impact

Based on a desktop review, the aerial photograph of the project area (Appendix B Page 3), and the RFI report (Appendix E, Page 1-6) there are no public facilities within the 0.5 mile search radius. That number was confirmed by a site visit on May 2, 2022, by BLN Staff. There are no public facilities within or adjacent to the project area, therefore, no impacts are expected. Access to all properties will be maintained during construction.

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 and 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"/>

Indicate if EJ issues were identified during project development. If an EJ analysis was not required, discuss why. If an EJ analysis was required, describe how the EJ population was identified. Include if the project has a disproportionately high or adverse effect on EJ populations and explain your reasoning. If yes, describe actions to avoid, minimize and mitigate these effects.

EJ Analysis, No EJ Populations

Under FHWA Order 6640.23A, FHWA and the project sponsor, as a 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 Manual, an Environmental Justice (EJ) Analysis is required for any project that has two or more relocations or 0.5 acre of additional permanent ROW. The project will require 0.51 acre of permanent ROW. 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 exists and whether there could be disproportionately high and adverse impacts to them. The reference population may be a county,

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city or town and is called the community of comparison (COC). In this project, the COC is Jackson County. The community that overlaps the project area is called the affected community (AC). In this project, the AC is Census Tracts. 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 US Census, 2020 was obtained from the US Census database on July 6, 2022, by BLN Environmental Staff. The data collected for minority and low-income populations within the AC are summarized in the below table.

Table: Minority and Low-Income Data (US Census, 2020)			
	COC - Jackson County	AC - Census Tract 9675.02	AC - Census Tract 9682
Percent Minority	13%	14%	3%
125% of COC	16%	AC < 125% COC	AC < 125% COC
EJ Population of Concern		No	No
Percent Low-Income	14%	13%	9%
125% of COC	18%	AC < 125% COC	AC < 125% COC
EJ Population of Concern		No	No

Conclusion

AC-1, Block Group Y, Census Tract Z has a percent minority of 14% which is below 50% and is below the 125% COC threshold. AC-2, Block Group W, Census Tract X has a percent minority of 3% which is below 50% and is below the 125% COC threshold. Therefore, both AC's do not contain minority populations of EJ concern. AC-1, Block Group Y, Census Tract Z has a percent low-income of 13% which is below 50% and is below the 125% COC threshold. AC-2, Block Group W, Census Tract X has a percent low-income of 9% which is below 50% and is below the 125% COC threshold. Therefore, both AC's do not contain low-income populations of EJ concern.

The census data sheets, map, and calculations can be found in Appendix (I). The EJ analysis did not identify a minority population of concern or a low-income population of concern in the AC. No further environmental justice analysis is warranted.

Relocation of People, Businesses or Farms

Will the proposed action result in the relocation of people, businesses or farms?
Is a BIS or CSRS required?

Yes	No
	X
	X

Number of relocations: Residences: 0 Businesses: 0 Farms: 0 Other: 0

Discuss any relocations that will occur due to the project. If a BIS or CSRS is required, discuss the results in the discussion below.

No Relocations

No relocations of people, businesses, or farms will take place as a result of this project.

Indiana Department of Transportation

County Jackson

Route SR 250

Des. No. 1801015

SECTION I – HAZARDOUS MATERIALS & REGULATED SUBSTANCES

Hazardous Materials & Regulated Substances (Mark all that apply)

- Red Flag Investigation (RFI)
- Phase I Environmental Site Assessment (Phase I ESA)
- Phase II Environmental Site Assessment (Phase II ESA)
- Design/Specifications for Remediation required?

Documentation

X

Date RFI concurrence by INDOT SAM (if applicable): February 22, 2022

Include a summary of the potential hazardous material concerns found during review. Discuss in depth sites found within, directly adjacent to, or ones that could impact the project area. Refer to current INDOT SAM guidance. If additional documentation (special provisions, pay quantities, etc.) will be needed, include in discussion. Include applicable commitments.

No presence

Based on a review of GIS and available public records, the RFI was completed on February 16, 2022 by BLN Staff and INDOT SAM provided their concurrence on February 22, 2022 (Appendix E, Pages 1-6). No sites with hazardous material concerns (hazmat sites) or sites involved with regulated substances were identified in or within 0.5 mile of the project area. Further investigation for hazardous material concerns or regulated substances is not required at this time.

Part IV – Permits and Commitments

PERMITS CHECKLIST

Permits (mark all that apply)

Likely Required

Army Corps of Engineers (404/Section10 Permit)

- Nationwide Permit (NWP)
- Regional General Permit (RGP)
- Individual Permit (IP)
- Other

IN Department of Environmental Management (401/Rule 5)

- Nationwide Permit (NWP)
- Regional General Permit (RGP)
- Individual Permit (IP)
- Isolated Wetlands
- Rule 5
- Other

IN Department of Natural Resources

- Construction in a Floodway
- Navigable Waterway Permit
- Other

Mitigation Required

- US Coast Guard Section 9 Bridge Permit
- Others (Please discuss in the discussion below)

List the permits likely required for the project and summarize why the permits are needed, including permits designated as "Other."

A Construction in a Floodway permit is not required as the project is located in a rural area and the drainage area is less than 50-square miles.
A 404 RGP and 401 IP will be required due to impacts to existing wetlands and UNT Rider Ditch.

Indiana Department of Transportation

County Jackson Route SR 250 Des. No. 1801015

Applicable recommendations provided by resource agencies are included in the Environmental Commitments section of this 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.

ENVIRONMENTAL COMMITMENTS

List all commitments and include the name of agency/organization requesting/requiring the commitment(s). Listed commitments should be numbered.

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 Seymour 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) USFWS Bridge/Structure Assessment shall take place no earlier than two (2) years prior to the start of construction. If construction will begin after May 4, 2024, an inspection of the structure by a qualified individual, must be performed. Inspection of the structure should check for presence of bats/bat indicators and/or presence of birds. The results of the inspection must indicate no signs of bats or birds. If signs of bats or birds are documented during this inspection, the INDOT Seymour District Environmental Manager must be contacted immediately (INDOT ESD).
- 4) Structure (#250-036-09.30) has not shown evidence of use (i.e., nests) by a bird species protects under the Migratory Bird Treaty Act (MBTA). Prior to the start of nesting season (May 1), the structure must be inspected for birds or signs of birds. If birds are found during the inspection, avoidance and minimization measures must be implemented prior to the start of and during the nesting season. Nests without eggs or young should be removed prior to construction during the non-nesting season (September 8-April 30) and during nesting season if no eggs or young are present. Nests with eggs or young cannot be removed or disturbed during the nesting season (May 1- September 7). Nests with eggs or young should be screened or buffered from active construction. Details of the required procedures are outlined in the "Potential Migratory Bird on Structure" RSP (INDOT EWPO).
- 5) 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).
- 6) Lighting AMM 1: Direct temporary lighting away from suitable habitat during the active season (USFWS).
- 7) Tree Removal AMM 1: Modify all phases/aspects of the project (e.g., temporary work areas, alignments) to avoid tree removal (USFWS).
- 8) 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 (USFWS - IDNR).
- 9) 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).
- 10) 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 (USFWS).

Indiana Department of Transportation

County Jackson

Route SR 250

Des. No. 1801015

For Further Consideration:

11) Impacts to non-wetland forest of one (1) acre or more should be mitigated at a minimum 2:1 ratio. If less than one (1) acre of non-wetland forest is removed in a rural setting, replacement should be at a 1:1 ratio based on area. Impacts to non-wetland forest under one (1) acre in an urban setting should be mitigated by planting five trees, at least 2 inches in diameter at breast height (dbh), for each tree which is removed that is greater than 10" dbh or greater (5:1 mitigation based on the number of large trees) or by using the 1:1 replacement ratio based on area depending on the type of habitat impacted (individual canopy tree removal in an urban streetscape or park-like environment versus removal of habitat supporting a tree canopy, woody understory, and herbaceous layer) (IDNR-DFW).

12) A native riparian forest mitigation plan should use at least 5 canopy trees and 5 understory trees or shrubs selected from the Woody Riparian Vegetation list or an approved equal. Additionally, native herbaceous seed mixture should be planted consisting of at least 10 species of grasses, sedges, and wildflowers selected from the Herbaceous Riparian Vegetation list or an approved equal (IDNR-DFW).

13) 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 current conditions. A level area of natural ground under the structure is ideal for wildlife passage. If channel clearing will result in a flat bench area above the normal water level under the structure, this area should allow wildlife passage and should remain free of riprap and other similar materials that can impair wildlife passage. If hard armoring is needed, wildlife passage can be facilitated by using a smooth-surfaced armoring material instead of riprap, such as articulated concrete block mats, fabric-formed concrete mats, or other similar smooth-surfaced material instead of riprap, such as articulated concrete, block mats, fabric-formed concrete mats, or other similar smooth-surfaced material (IDNR-DFW).

14) Survey the bridge for any bird nests prior to construction. Nest surveys should occur between May 7 and September 7, which denotes the main nesting season for most bird species. If nests are found with eggs, chicks, or parents actively attending to the nest (building the nest and visiting often), then repairs should be put on hold until the nest complete their nesting cycle (to fledgling) or fail (by natural causes) (IDNR-DFW).

15) Do not excavate in the low flow area except for the placement of piers, foundations, and riprap, or removal of the old structure (IDNR-DFW).

16) Do not construct any temporary runarounds, access bridges, causeways, cofferdams, diversions, or pumparounds (IDNR-DFW).

17) Operate equipment used to replace the bridge from the existing roadway (IDNR-DFW).

18) 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).

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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 Impacts³	No construction in waterways or water bodies	< 300 linear feet of stream impacts	≥ 300 linear feet of stream impacts	-	USACE Individual 404 Permit ⁴
Wetland Impacts³	No adverse impacts to wetlands	< 0.1 acre	-	< 1.0 acre	≥ 1.0 acre
Right-of-way⁵	Property acquisition for preservation only or none	< 0.5 acre	≥ 0.5 acre	-	-
Relocations⁶	None	-	-	< 5	≥ 5
Threatened/Endangered Species (Species Specific Programmatic for Indiana bat & northern long eared bat)*	"No Effect", "Not likely to Adversely Affect" (With select AMMs ⁷)	"Not likely to Adversely Affect" (With any AMMs or commitments)	-	"Likely to Adversely Affect"	Project does not fall under Species Specific Programmatic ⁸
Threatened/Endangered Species (Any other species)*	Falls within guidelines of USFWS 2013 Interim Policy or "No Effect"	"Not likely to Adversely Affect"	-	-	"Likely to Adversely Affect"
Environmental Justice	No disproportionately high and adverse impacts	-	-	-	Potential ⁹
Sole Source Aquifer	No Detailed Groundwater Assessment	-	-	-	Detailed Groundwater Assessment
Floodplain	No Substantial Impacts	-	-	-	Substantial Impacts
Section 4(f) Impacts	None	-	-	-	Any ¹⁰
Section 6(f) Impacts	None	-	-	-	Any
Permanent Traffic Alteration	None	-	-	-	Any
Noise Analysis Required	No	-	-	-	Yes
Air Quality Analysis Required	No	-	-	-	Yes ¹¹
Approval Level					
<ul style="list-style-type: none"> • District Env. (DE) • Env. Serv. Div. (ESD) • FHWA 	Concurrence by DE or ESD	DE or ESD	DE or ESD	DE and/or ESD	DE and/or ESD; and FHWA

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

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

³ Total permanent impacts to streams (linear feet) and wetlands (acres).

⁴ US Army Corps of Engineers Individual 404 Permit

⁵ Total permanent and temporary right-of-way. This does not include reacquisition of existing apparent right-of-way.

⁶ If any relocations are within an area with a known or suspected Environmental Justice (EJ) or disadvantaged population, or has greater than 5 relocations, a conversation with FHWA, through INDOT ESD, is needed to confirm NEPA classification and outreach plan for the project.

⁷ Avoidance and Mitigation Measures (AMMs) determined by the IPAC determination key to be required that are not tree AMMs, bridge AMMs, or structure AMMs.

⁸ Projects that do not fall under a Species Specific Programmatic and results in a "Likely to Adversely Affect". Other findings can be processed as a lower-level CE.

⁹ Potential for causing a disproportionately high and adverse impact.

¹⁰ Section 4(f) use resulting in an Individual, Programmatic, or *de minimis* evaluation. The only exception is a *de minimis* evaluation for historic properties (Effective January 2, 2020). If a historic property *de minimis* and no other use, mark the *None* column.

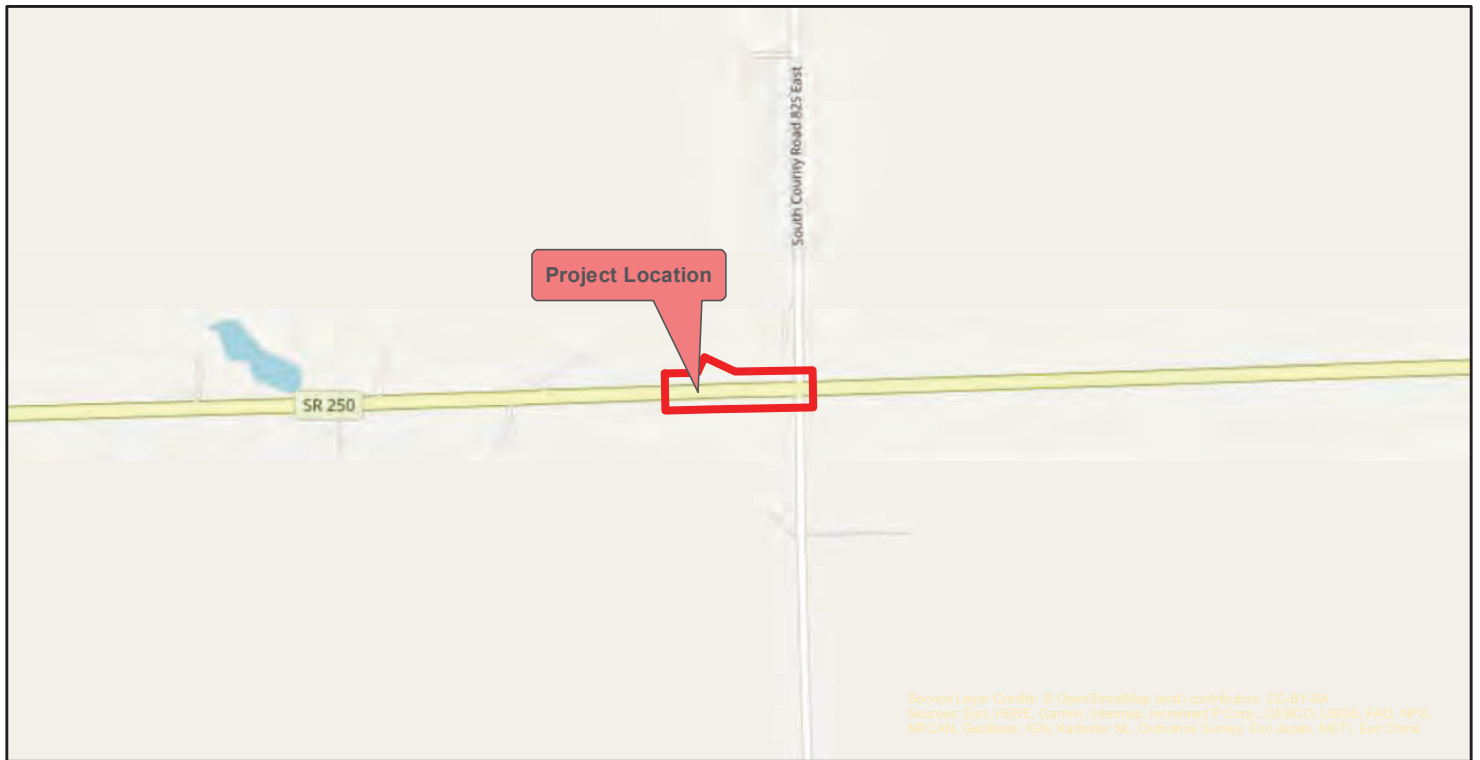
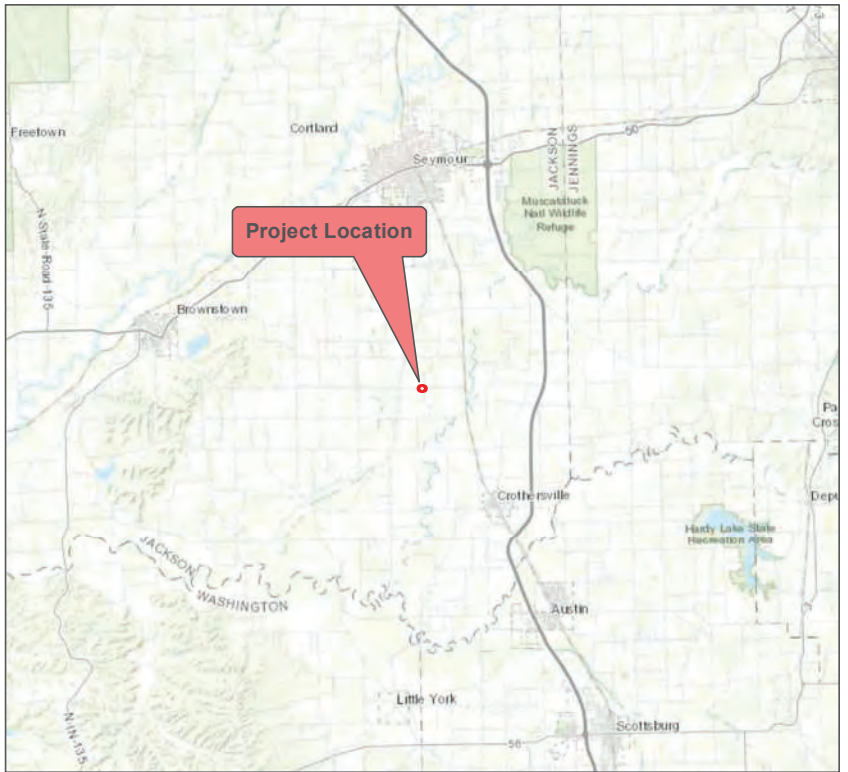
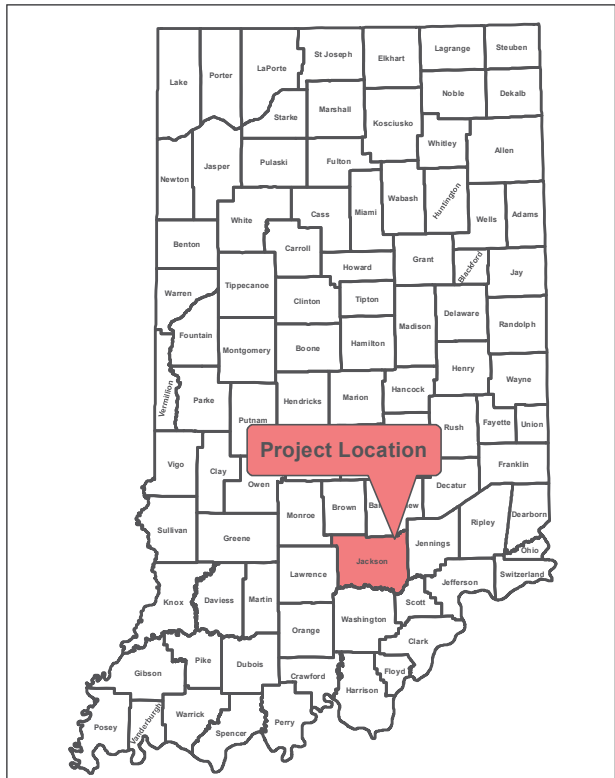
¹¹ Hot Spot Analysis and/or MSAT Quantitative Emission Analysis.

* Includes the threatened/endangered species critical habitat

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

Appendix B:

Graphics



Service Layer Credits: © OpenStreetMap (and) contributors, CC-BY-SA
 Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China

Source: Indiana MAP
 1:12,000
 1 inch = 1,000 feet

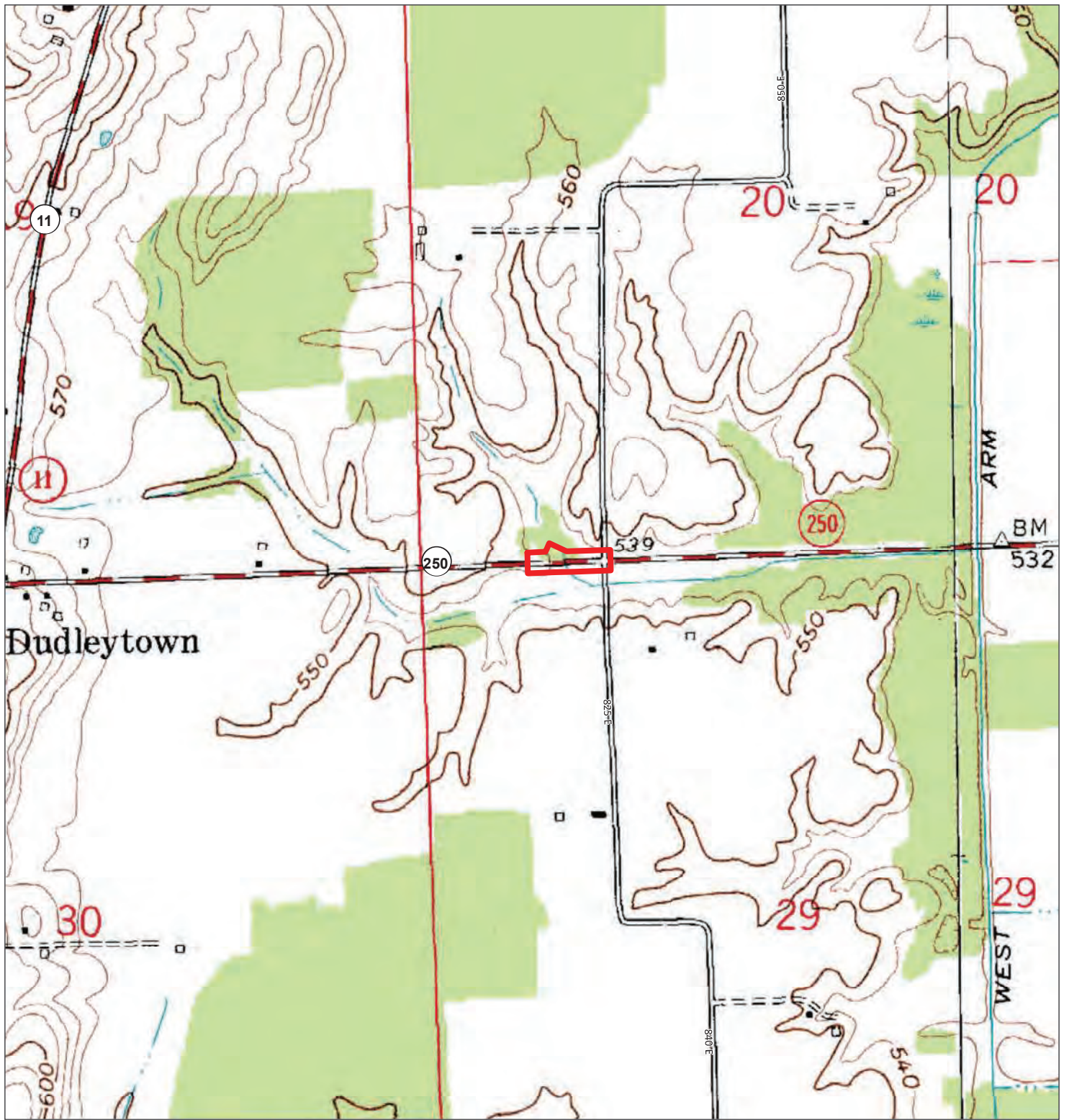


Legend

- Project Location
- Project County
- County Boundary

Figure 1: Project Location Map
 Author: Hillary Shaffer
 Small Structure Project
 SR 250 over UNT to Rider Ditch
 Jackson County, Indiana
 Des. No. 1801015

May 18, 2022



Source: U.S. Geological Survey

1:12,000

1 in = 1,000 ft



Legend

Project Location

Figure 2: USGS Topographic Map
 Author: Hillary Shaffer
 Tampico Quadrangle - 7.5 Minute Series
 Small Structure Project
 SR 250 over UNT to Rider Ditch
 Jackson County, Indiana
 Des. No. 1801015

May 18, 2022




Source: BLN Field Investigation

1:1,200

1 in = 100 ft



Legend

 Investigated Area


 Photos

Figure 11: Aerial and Photo Location and Orientation Map
 Small Structure Replacement
 SR 250 over UNT to Rider Ditch
 Jackson County, Indiana
 Des. No. 1801015
 Author: Peyton Sinnet

August 16, 2022



Photo 1: Looking west on SR 250 at the existing structure.



Photo 2: Existing structure on SR 250 over UNT to Rider Ditch.



Photo 3: Looking east on the north side of SR 250.



Photo 4: Looking east on the south side of SR 250.



Photo 5: Looking west on the south side of SR 250.



Photo 6: Looking west on the north side of SR 250.



Photo 7: Looking west at UNT to Rider Ditch.



Photo 8: Looking west at north roadside of SR 250.



Photo 9: Looking northwest at UNT to Rider Ditch.

PROJECT	DESIGNATION
1800276	1801015
CONTRACT	BRIDGE FILE
B-41445	CV 250-036-09.30

INDIANA DEPARTMENT OF TRANSPORTATION



STRUCTURE	TYPE	SPAN AND SKEW	OVER	STATION
CV 250-036-09.30	PRECAST REINFORCED CONCRETE BOX	SINGLE SPAN 14'-0" SKEW: 45° Lt.	UNNAMED TRIBUTARY TO RIDER DITCH	± STRUCTURE STA. 103+10.00 "A"

KIN PROJECT INFORMATION	
DESIGNATION	PROJECT DESCRIPTION
1800276	Bridge Replacement for Structure 250-36-06490C (Lead)
1800265	Bridge Rehabilitation for Structure 039-88-06207A
1800266	Bridge Rehabilitation for Structure 039-36-06061A
1801014	Small Structure Replacement for Structure CV 031-036-44.30
1801015	Small Structure Replacement for Structure CV 250-036-09.30
1802992	Small Structure Replacement for Structure CV 250-036-03.40

ROAD PLANS

SMALL STRUCTURE REPLACEMENT

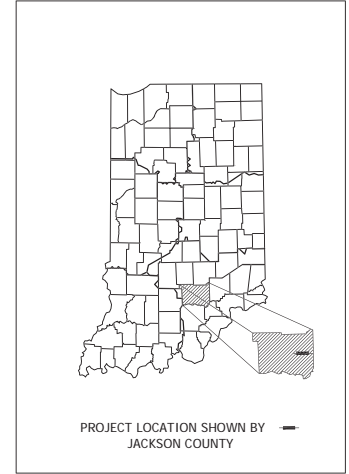
ROUTE: SR 250 OVER UNNAMED TRIBUTARY TO RIDER DITCH AT: RP 9+30

PROJECT NO. 1801015 P.E.
1801015 R/W
1801015 CONST.

Small Structure Replacement on SR 250 over Unnamed Tributary to Rider Ditch
Located 0.79 Miles East of SR 11 in
Sections 20 and 29, T-5-N, R-6-E, Washington Township, Jackson County, Indiana

TRAFFIC DATA	
A.A.D.T. (2022)	1084 V.P.D.
A.A.D.T. (2042)	1318 V.P.D.
D.H.V (2042)	150 V.P.H.
DIRECTIONAL DISTRIBUTION	45.77 %
TRUCKS	16.72 % A.A.D.T. 10.87 % D.H.V.

DESIGN DATA	
DESIGN SPEED	55 M.P.H.
PROJECT DESIGN CRITERIA	3R (NON-FREEWAY)
FUNCTIONAL CLASSIFICATION	MAJOR COLLECTOR
RURALSURBAN	RURAL
TERRAIN	LEVEL
ACCESS CONTROL	NONE



LATITUDE: 38°51'05.00" N LONGITUDE: 85°53'05.70" W

BRIDGE LENGTH:	0.00	MI.
ROADWAY LENGTH:	0.072	MI.
TOTAL LENGTH:	0.072	MI.
MAX. GRADE:	0.94	%

HUC 12: 051202070704
HUC 14: 05120207090010

PROJECT LOCATION
Begin Project-Sta.102+00.00 "A"
End Project-Sta.104+20.00 "A"



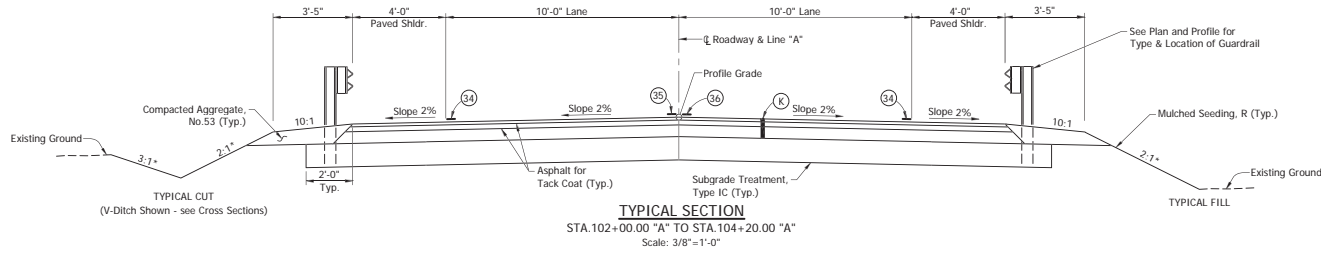
LOCATION MAP
SCALE: 1:24000

INDIANA DEPARTMENT OF TRANSPORTATION
STANDARD SPECIFICATIONS DATED 2022
TO BE USED WITH THESE PLANS.

PLANS PREPARED BY: **BLN**
BEAM-LONGEST-NEFF
8320 CRAIG STREET | INDIANAPOLIS, IN 46250
317.849.5832 | 1.317.841.4080 | WWW.B-L-N.COM

PLANS PREPARED BY: BEAM, LONGEST & NEFF, LLC (317)849-5832 PHONE NUMBER
CERTIFIED BY: _____ DATE
APPROVED FOR LETTING: _____ INDIANA DEPARTMENT OF TRANSPORTATION DATE

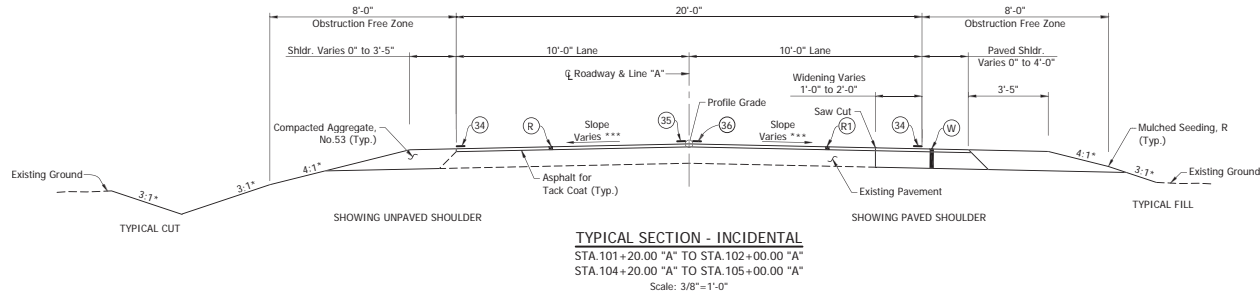
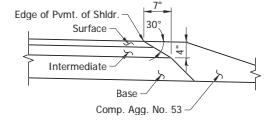
BRIDGE FILE	
CV 250-036-09.30	
DESIGNATION	
1801015	
SHEETS	
DRAWING NO.	1 of 20
PROJECT	
CONTRACT	B-41445
PROJECT	1800276



LEGEND

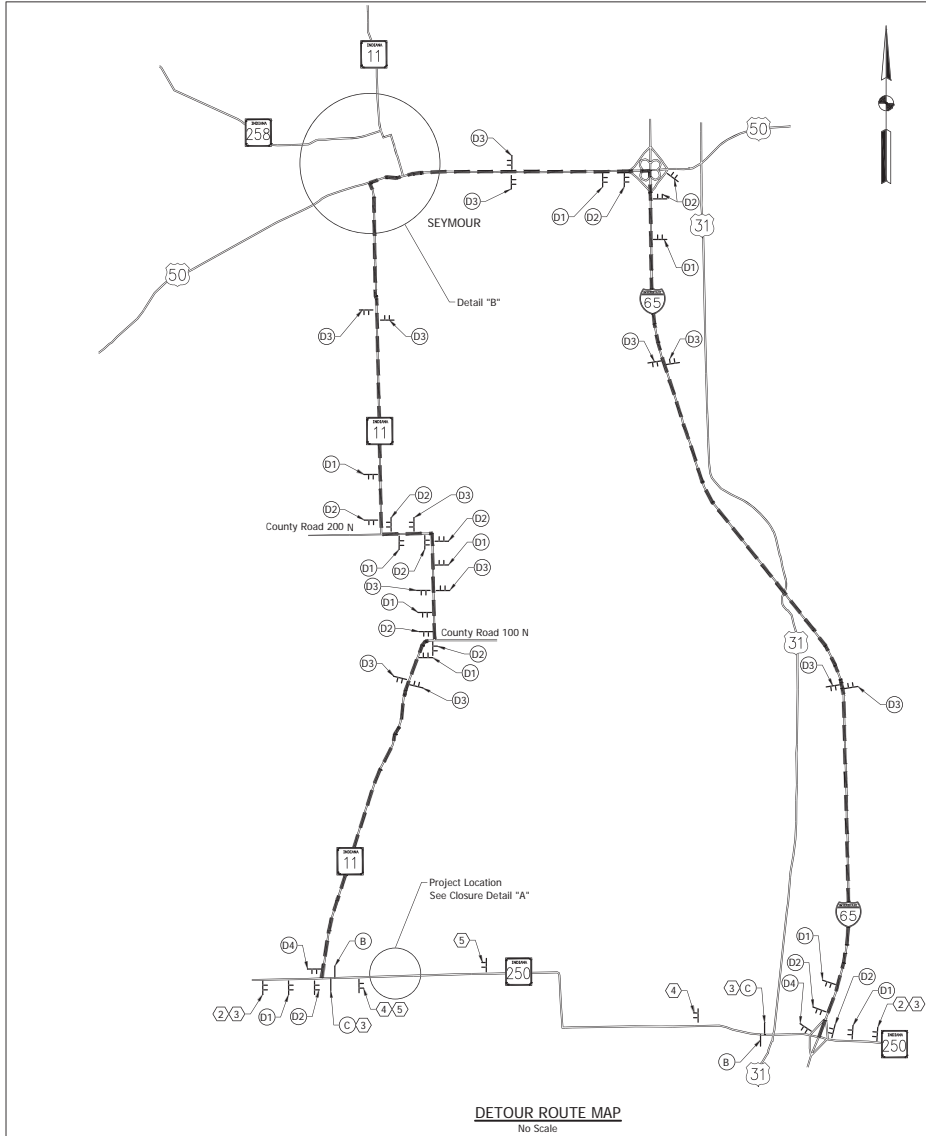
- (K) 165#/Syd OC/OA-HMA, 3, 64, Surface, 9.5 mm on 275#/Syd OC/OA-HMA, 2, 64, Intermediate, 19.0 mm on 660#/Syd OC/OA-HMA, 2, 64, Base, 25.0 mm
- (W) Widening with HMA, Type C 165#/Syd OC/OA-HMA, 3, 64, Surface, 9.5 mm on 275#/Syd OC/OA-HMA, 2, 64, Intermediate, 19.0 mm on 660#/Syd OC/OA-HMA, 2, 64, Base, 25.0 mm
- (R) Milling Asphalt 1 1/2 in. and 165#/Syd OC/OA-HMA, 3, 64, Surface, 9.5 mm
- (RT) Transition Milling and 165#/Syd OC/OA-HMA, 3, 64, Surface, 9.5 mm 275#/Syd OC/OA-HMA, 2, 64, Intermediate, 19.0 mm on
- (34) Line, Paint, Solid, White, 4"
- (35) Line, Paint, Solid, Yellow, 4"
- (36) Line, Paint, Broken, Yellow, 4"

NOTE TO REVIEWER:
 This pavement design is preliminary and based on similar projects. A final pavement design will be performed.

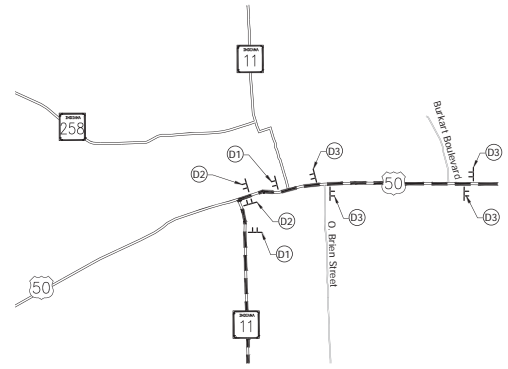


Notes:
 The pavement safety edge is not required in locations of guardrail; however, the Contractor has the option to construct the pavement safety edge within these limits if it chooses.
 * See Cross Sections for Slopes
 ** Safety Edge (30°) applicable to Surface and Intermediate layers only.
 *** Taper 2% to Match Existing

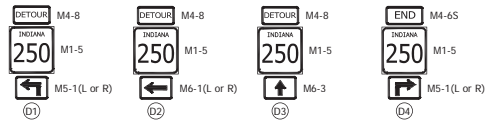
RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER _____ DATE _____	INDIANA DEPARTMENT OF TRANSPORTATION TYPICAL CROSS SECTIONS		HORIZONTAL SCALE	BRIDGE FILE
			AS NOTED	CV 250-038-99-30
			VERTICAL SCALE	DESIGNATION
			AS NOTED	1801015
DESIGNED: AJC	DRAWN: MEN	DRAWING NO.	SHEETS	
CHECKED: SJM	CHECKED: AJC	3	of 20	
		CONTRACT	PROJECT	
		B-41445	1800276	



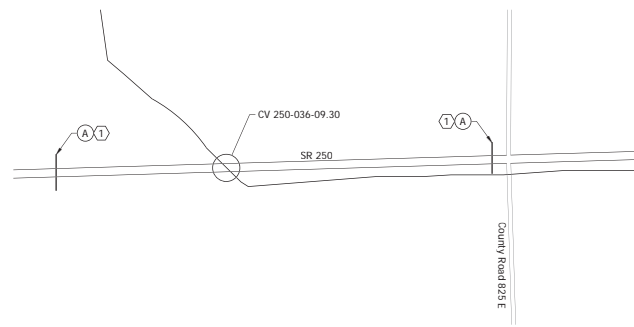
DETOUR ROUTE MAP
No Scale



DETAIL "B"
No Scale



DETOUR ROUTE MARKER ASSEMBLIES
No Scale



CLOSURE DETAIL "A"
No Scale

- LEGEND**
- (A) Barricade Type III-A & Road Closure Sign Assembly
 - (B) Barricade Type III-B
 - (C) Barricade Type III-B & Road Closure Sign Assembly
 - (D) Detour Route Marker Assembly
1. Advance Turn
 2. Directional
 3. Confirming
 4. End

..L Construction Sign and Support

CONSTRUCTION SIGNS TYPE "A"

- ① R11-2 Road Closed
- ② XW20-2 Detour Ahead
- ③ R11-4 Road Closed to Thru Traffic
- ④ XG20-5 SR 250 Closed on or After xx/xx/xxxx
- ⑤ XW20-3 Road Closed Ahead

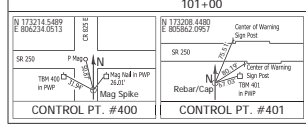
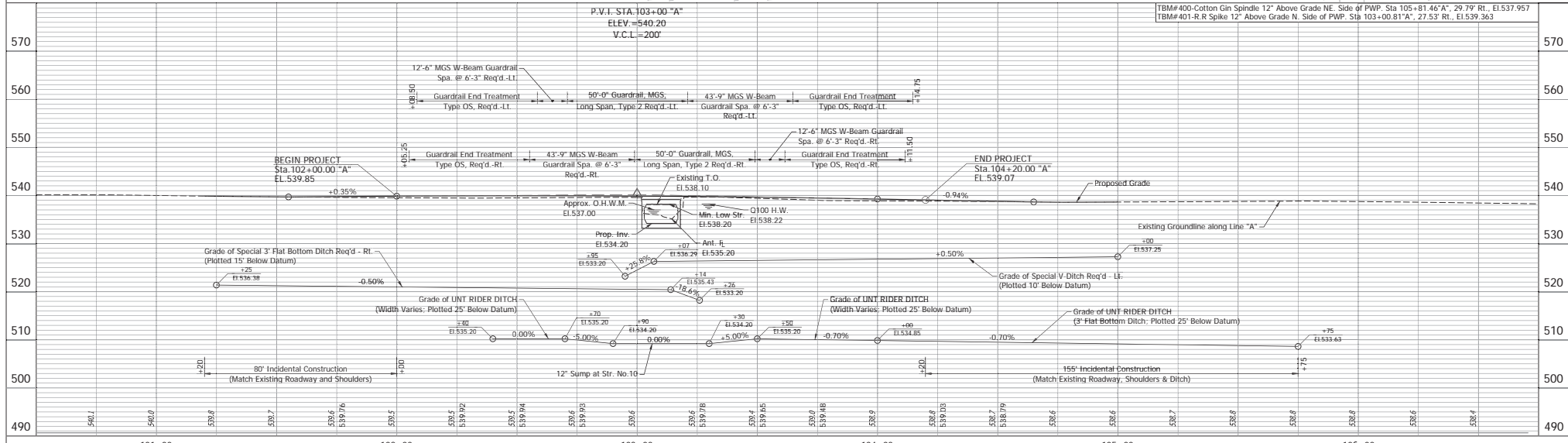
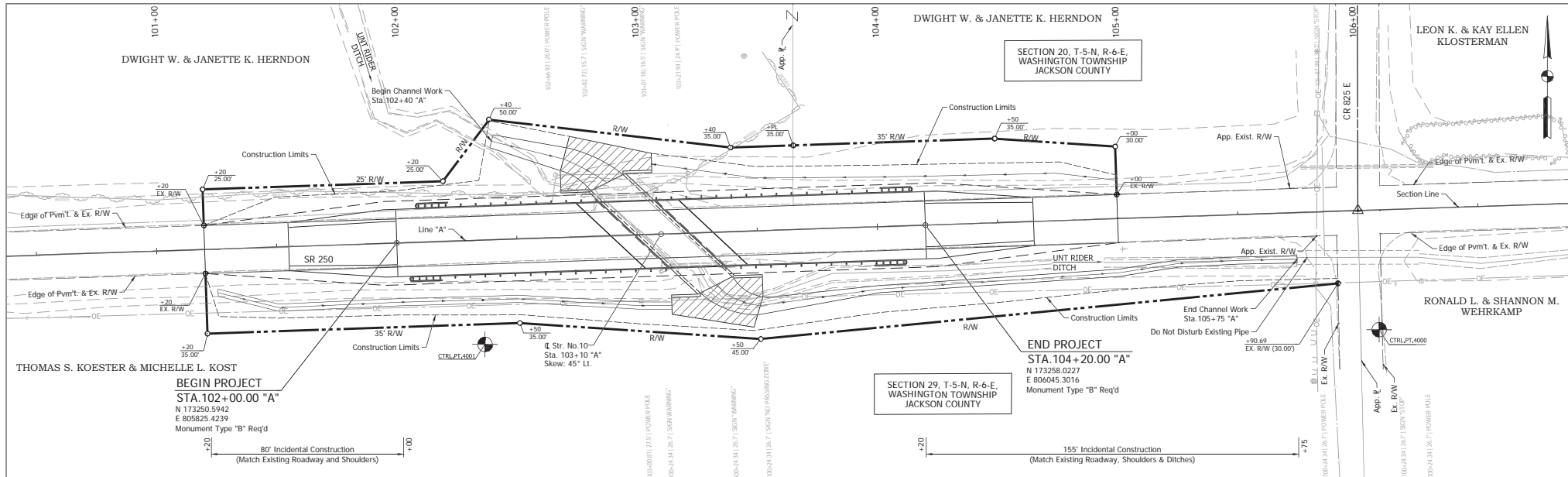
NOTES:
All signs, lights and barricades shall be in accordance with current INDOT Standards and the Manual on Uniform Traffic Control Devices.

All XC20-5 shall be installed a minimum of 14 days prior to closing road.

MAINTENANCE OF TRAFFIC QUANTITIES

ITEM	QUANTITY
Barricade Type III-A	XX Lft.
Barricade Type III-B	XX Lft.
Road Closure Sign Assembly	XX Ea.
Construction Signs Type "A"	XX Ea.
Detour Route Marker Assembly	XX Ea.

RECOMMENDED FOR APPROVAL	DESIGN ENGINEER	DATE	INDIANA DEPARTMENT OF TRANSPORTATION	HORIZONTAL SCALE	BRIDGE FILE
	DESIGNED: AJC	DRAWN: MEN		NO SCALE	CV 250-036-09-30
	CHECKED: SJM	CHECKED: AJC		VERTICAL SCALE	DESIGNATION
				NO SCALE	1801015
			MAINTENANCE OF TRAFFIC	DRAWING NO.	SHEETS
					5 of 20
				CONTRACT	PROJECT
				B-41445	1800276

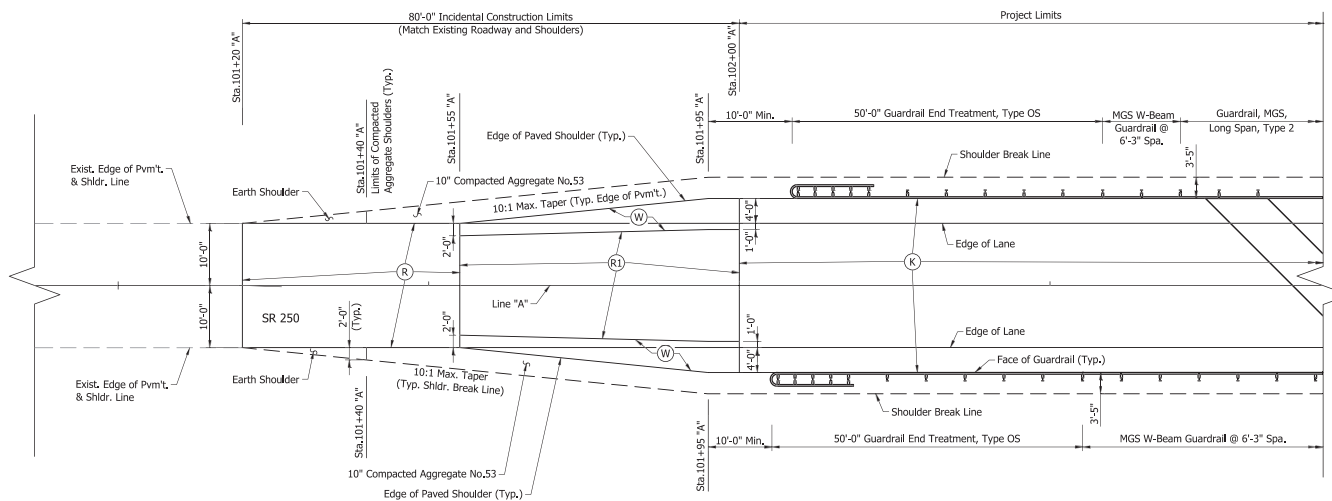


RECOMMENDED FOR APPROVAL	DESIGN ENGINEER	DATE
DESIGNED: AJC	DRAWN: MEN	
CHECKED: SJM	CHECKED: AJC	

INDIANA
DEPARTMENT OF TRANSPORTATION

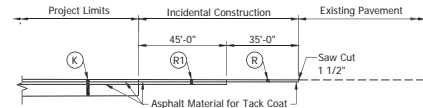
PLAN AND PROFILE
LINE "A"

HORIZONTAL SCALE 1" = 20'	BRIDGE FILE CV 250-038-09-30
VERTICAL SCALE 1" = 10'	DESIGNATION 1801015
DRAWING NO.	SHEETS 6 of 20
CONTRACT B-41445	PROJECT 1800276

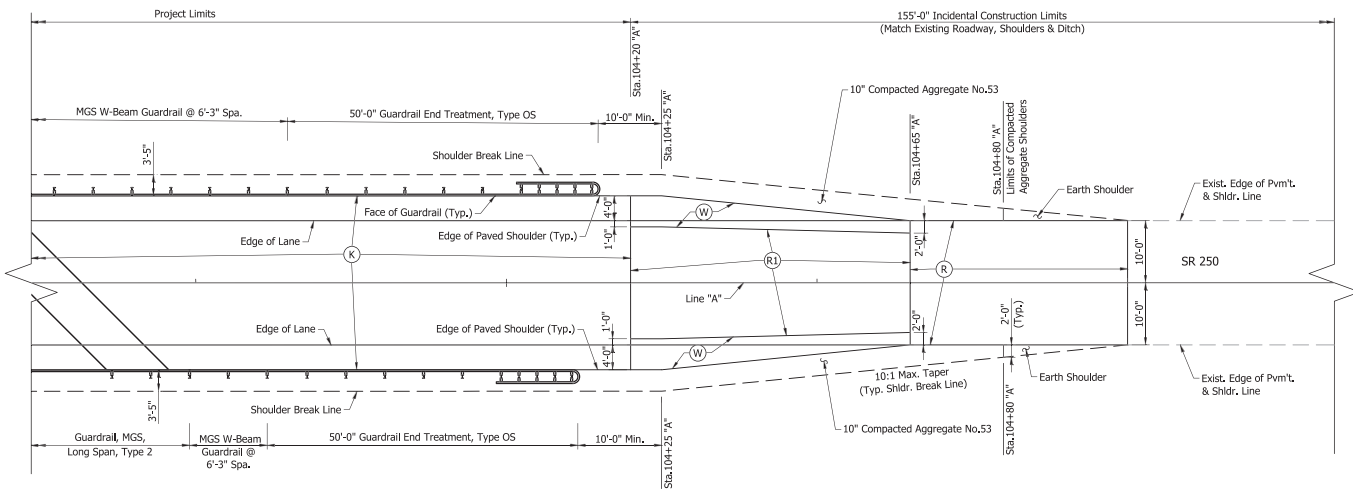


SHOULDER AND GUARDRAIL DETAILS
(REQ'D. @ BEGINNING OF PROJECT)
Scale: 1"=10'

- LEGEND**
- (K) 165#/Syd CC/OA-HMA, 3, 64, Surface, 9.5 mm on 275#/Syd CC/OA-HMA, 2, 64, Intermediate, 19.0 mm on 660#/Syd CC/OA-HMA, 2, 64, Base, 25.0 mm
 - (W) Widening with HMA, Type C
165#/Syd CC/OA-HMA, 3, 64, Surface, 9.5 mm on 275#/Syd CC/OA-HMA, 2, 64, Intermediate, 19.0 mm on 660#/Syd CC/OA-HMA, 2, 64, Base, 25.0 mm
 - (R) Milling Asphalt 1 1/2 in. and 165#/Syd CC/OA-HMA, 3, 64, Surface, 9.5 mm
 - (R1) Transition Milling, and 165#/Syd CC/OA-HMA, 3, 64, Surface, 9.5 mm 275#/Syd CC/OA-HMA, 2, 64, Intermediate, 19.0 mm



MATCHING EXISTING PAVEMENT - LINE "A"
(REQ'D. @ BEGINNING AND END OF PROJECT)
No Scale



SHOULDER AND GUARDRAIL DETAILS
(REQ'D. @ END OF PROJECT)
Scale: 1"=10'

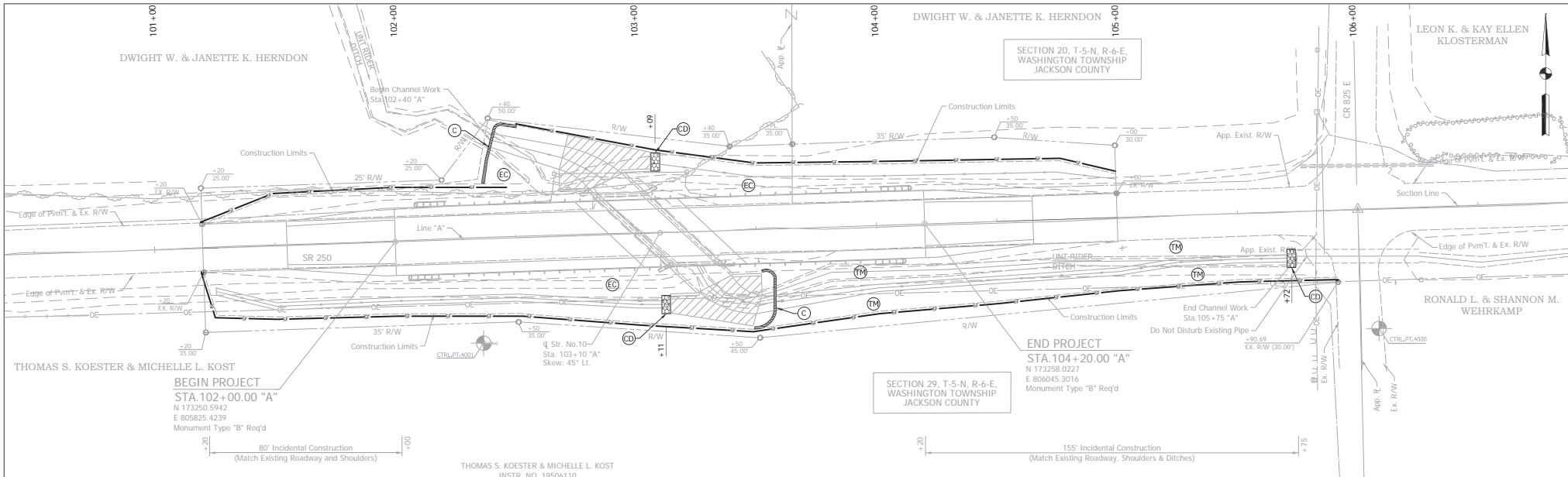
Notes:
For Plan and Profile, see SH.6.
For Guardrail, MGS, Long Span, Type 2, see Std.Dwg.E 601-MGSA-08

RECOMMENDED FOR APPROVAL	DESIGN ENGINEER	DATE
DESIGNED: AJC	DRAWN: MEN	
CHECKED: SJM	CHECKED: AJC	

INDIANA
DEPARTMENT OF TRANSPORTATION

CONSTRUCTION LAYOUT DETAILS

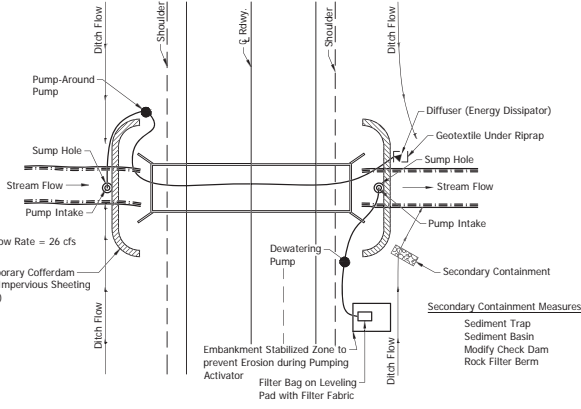
HORIZONTAL SCALE	BRIDGE FILE
AS NOTED	CV 250-038-99-30
VERTICAL SCALE	DESIGNATION
AS NOTED	1801015
DRAWING NO.	SHEETS
	7 of 20
CONTRACT	PROJECT
B-41445	1800276



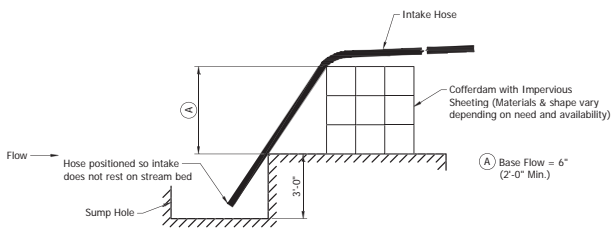
THOMAS S. KOESTER & MICHELLE L. KOST
BEGIN PROJECT
 STA. 102+00.00 "A"
 N 173250.5942
 E 805825.4239
 Monument Type "B" Req'd

END PROJECT
 STA. 104+20.00 "A"
 N 173258.0227
 E 806045.3016
 Monument Type "B" Req'd

THOMAS S. KOESTER & MICHELLE L. KOST
 INSTR. NO. 19506110



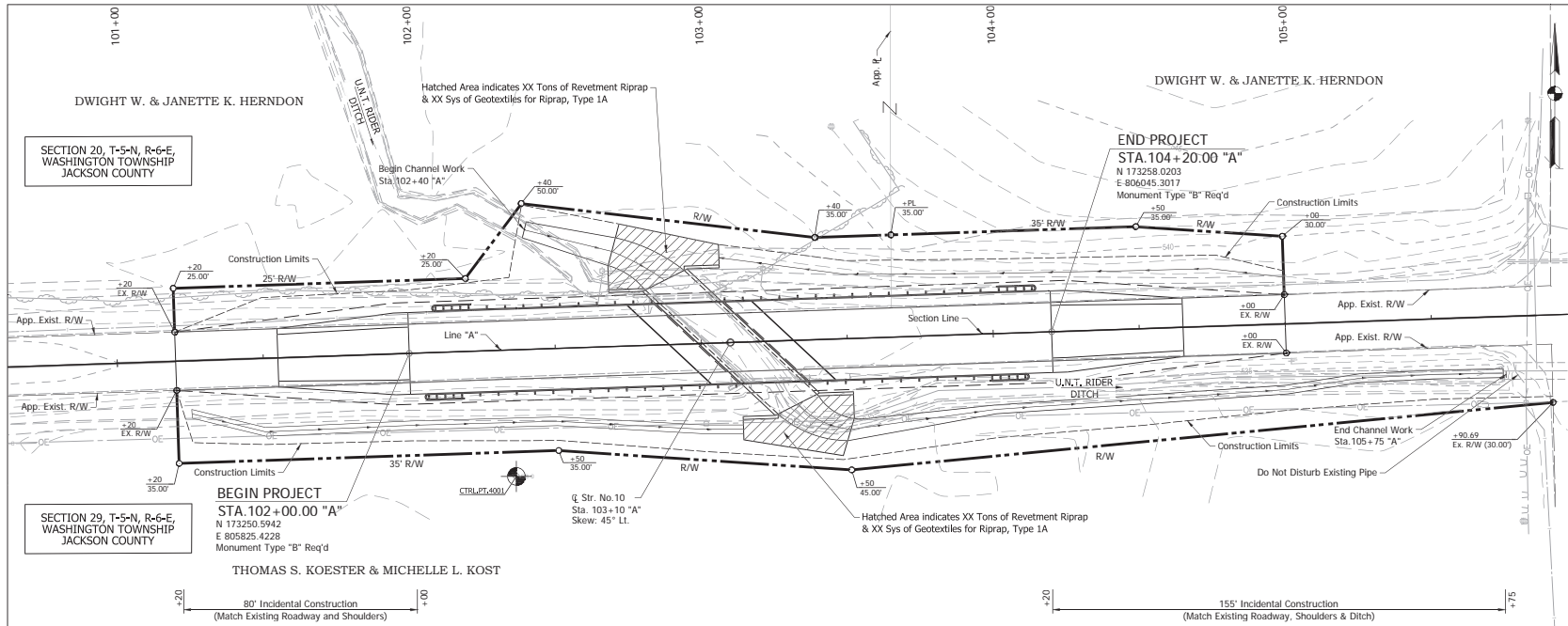
PUMP AROUND AND DEWATERING DETAILS
 Detail For Illustration Purposes Only
 No Scale



COFFERDAM/SUMP HOLE WORK AREA
 Detail For Illustration Purposes Only
 No Scale

- LEGEND**
- SF— Temporary Silt Fence
 - (C) Temporary Cofferdam with Impervious Sheetpiling
 - (CD) Temporary Check Dam
 - (EC) Manufactured Surface Protection Product/Erosion Control Blanket (All slopes Steeper than 3:1)
Install on Rdwy Embankment side slopes at: Sta. 101+20 "A" Lt. & Rt. to Sta. 105+00 "A" Lt.
 - (TM) Permanent Turf Reinforcement Mat
Install on Channel Side Slopes at: Sta. 103+30 "A" Rt. to Sta. 105+75 "A" Rt.
- Note:**
- Temporary Check Dams shall be one of the following:
1. Temporary Check Dam, Traversable
 2. Temporary Check Dam, Reversible
 3. Temporary Check Dam, Modified
- Temporary Check Dam, Traversable shall only be used when a check dam is required to be placed within 23' from the edge of the MOT or Design travel lane.
- For Temporary Check Dam Details, see Std. Dwg. E205-TECD-06-08

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER _____ DATE _____ DESIGNED: AJC DRAWN: MEN CHECKED: SJM CHECKED: AJC	INDIANA DEPARTMENT OF TRANSPORTATION EROSION CONTROL LINE "A"	HORIZONTAL SCALE	BRIDGE FILE
		1"=20'	CV 250-038-09-30
		VERTICAL SCALE	DESIGNATION
		NONE	1801015
		DRAWING NO.	SHEETS
		B-41445	8 of 20
		CONTRACT	PROJECT
		B-41445	1800276



EXISTING STRUCTURE
Existing Structure is a Single Span Prestressed Concrete Box Beam Small Structure (18'-0") with a 28'-0" Clear Roadway. (To Be Removed)

EARTHWORK SUMMARY

Common Excavation	xxxx Cys
Usable Common Excavation (xx%)	xxxx Cys
Fill + 20%	xxxx Cys
Waterway Excavation	xx Cys
Usable Waterway Excavation (50%)	xx Cys
Borrow/Waste	xxx Cys

The estimated quantities for Benching are xxx Cys for Cut and xxx Cys for Fill and are not included in the Earthwork Summary.

HYDRAULIC DATA

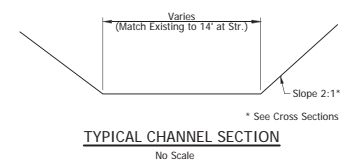
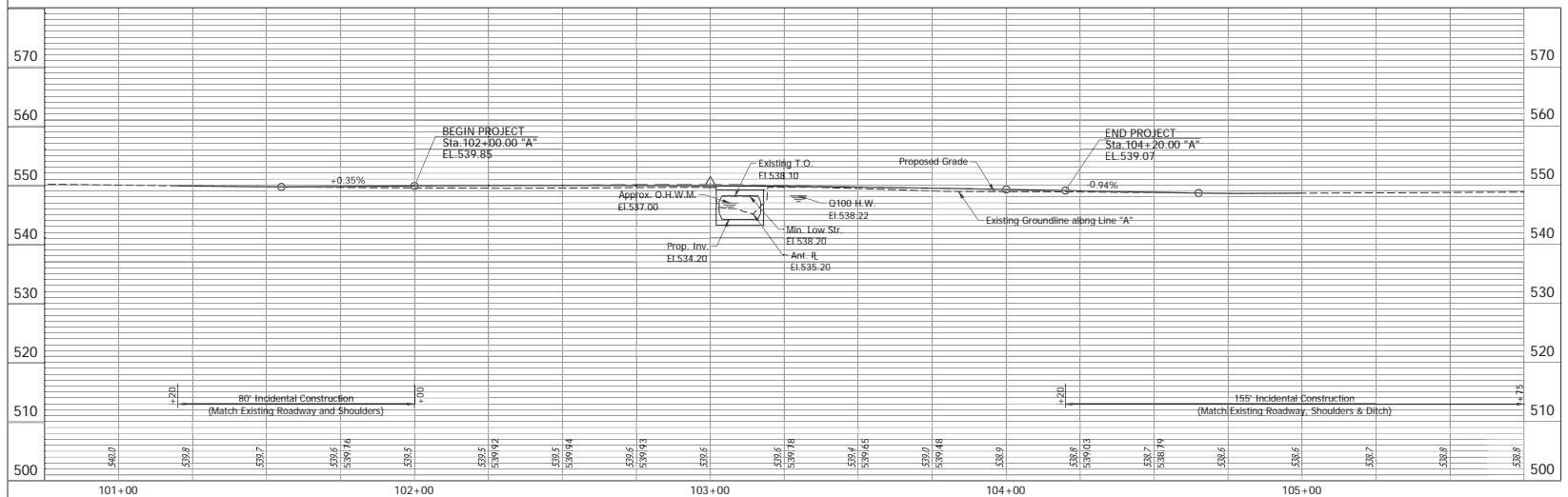
Drainage Area	0.316 Sq Mi
Design Discharge, Q100	261.2 cfs
High Water Elevation, Q100	EL.538.22

Existing Culvert

Waterway Area below Q100	
Net Area thru Culvert	39.0 Sft
Gross Area thru Culvert	39.0 Sft
Area over Road, Q100	0.00 Sft
Velocity thru Culvert, Q50	3.72 ft/sec
Backwater, Q100	1.04 ft
Low Structure Elevation	EL.538.20

Proposed Culvert

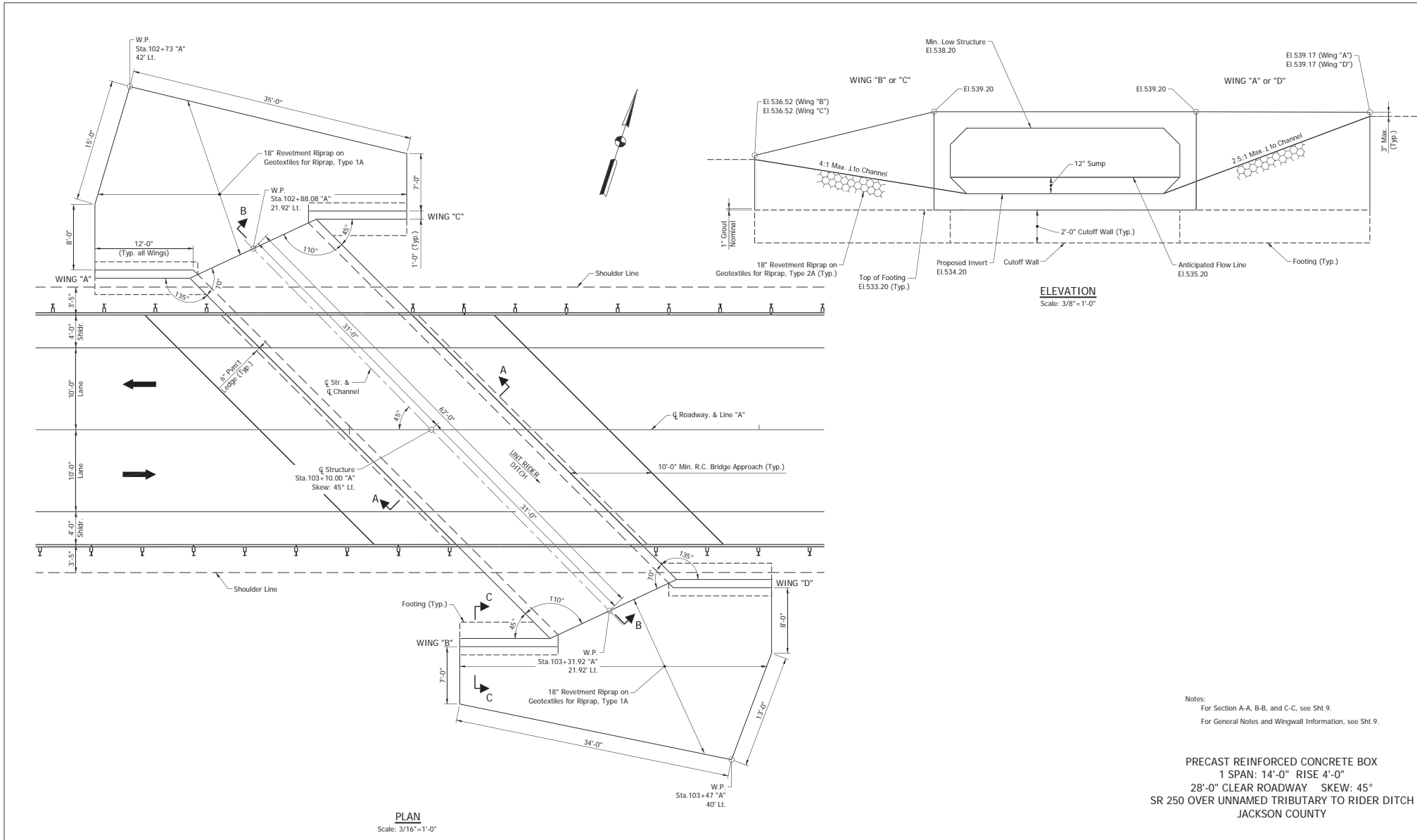
Waterway Area below Q100	
Net Area thru Culvert	41.0 Sft
Provided Gross Area thru Culvert	41.0 Sft
Area over Road, Q100	0.00 Sft
Velocity thru Culvert, Q10	3.50 ft/sec
Backwater, Q100	1.01 ft
Proposed Low Structure Elevation	EL.538.20
Skew	45° LT
Flowline Elevation (@ Upstream Coping)	EL.535.20



Note:
For Ditch Grades and Guardrail Limits, see Plan & Profile, Sht. 6.
All R/W on this sheet described from Line "A", except as noted.

PRECAST REINFORCED CONCRETE BOX
1 SPAN: 14'-0" RISE 4'-0"
28'-0" CLEAR ROADWAY SKEW: 45°
SR 250 OVER UNNAMED TRIBUTARY TO RIDER DITCH
JACKSON COUNTY

DESIGNED: AJC	DRAWN: MEN	INDIANA DEPARTMENT OF TRANSPORTATION	HORIZONTAL SCALE	BRIDGE FILE
CHECKED: SJM	CHECKED: AJC		1" = 30'	CV 250-038-99-30
		LAYOUT LINE "A"	VERTICAL SCALE	DESIGNATION
			1" = 10'	1801015
			DRAWING NO.	SHEETS
			CONTRACT	11 of 20
			B-41445	PROJECT
				1800276



Notes:
 For Section A-A, B-B, and C-C, see Sht. 9.
 For General Notes and Wingwall Information, see Sht. 9.

PRECAST REINFORCED CONCRETE BOX
 1 SPAN: 14'-0" RISE 4'-0"
 28'-0" CLEAR ROADWAY SKEW: 45°
 SR 250 OVER UNNAMED TRIBUTARY TO RIDER DITCH
 JACKSON COUNTY

RECOMMENDED FOR APPROVAL: _____ DESIGN ENGINEER: _____ DATE: _____ DESIGNED: AJC DRAWN: MEN CHECKED: SJM CHECKED: AJC	INDIANA DEPARTMENT OF TRANSPORTATION		HORIZONTAL SCALE	BRIDGE FILE
			AS NOTED	CV 250-036-99-30
			VERTICAL SCALE	DESIGNATION
			AS NOTED	1801015
GENERAL PLAN		DRAWING NO.	SHEETS	
			12	of 20
		CONTRACT	PROJECT	
		B-41445	1800276	

GENERAL NOTES

Reinforcing steel covering in footings and base slab shall be 3" in the top and sides and 4" in the bottom. All other parts to be 2" unless otherwise noted.

Alternate Cast-in-Place Wingwalls may be substituted for the Precast Wingwall shown in Section C-C.

Contractor shall verify the existing flowline elevation to set appropriate sump depth. (12" Sump)

Wingwalls to be set on outside of the ends of the precast four-sided structure. The minimum width for the wingwall footing shall be 3'-0".

The exposed faces of wingwalls to be sealed in accordance with Article 702.21 of the Specifications. The surface seal shall be applied in the shop for precast concrete elements. (Estimated Quantity = XXX Sft.)

All joints, exterior vertical surfaces, and the exterior top horizontal surface of the precast concrete box structure shall be covered in their entirety with a water proofing membrane. See the special provisions.

The Contractor shall excavate the soft or wet soils below the proposed structure and replace the unsuitable material. If the depth of excavation exceeds 1 foot, the contractor shall contact the INDOT Office of Geotechnical Services.

DESIGN DATA

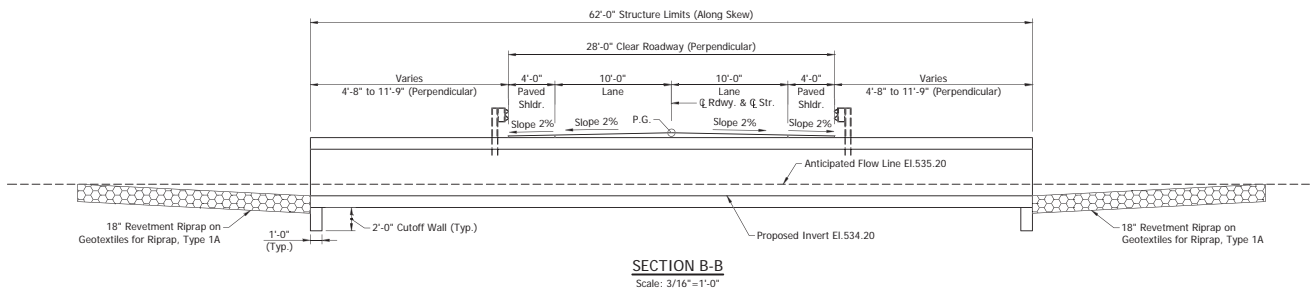
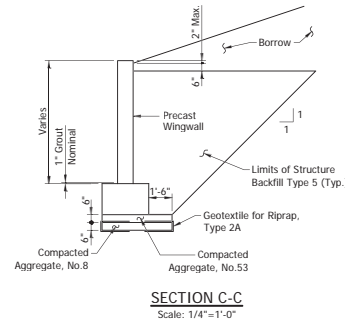
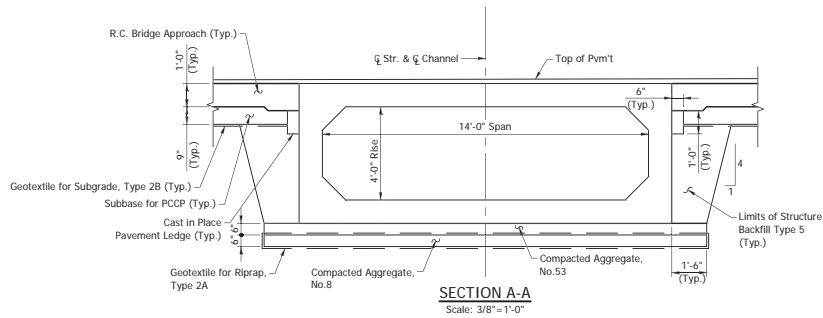
LIVE LOAD: Designed for HL-93 loading in accordance with AASHTO LRFD Bridge Design Specifications, Eighth Edition, 2011.

DEAD LOAD: Actual weight plus 35 psf (composite) for future wearing surface.

DESIGN STRENGTHS: To be in accordance with AASHTO LRFD Bridge Design Specifications, Eighth Edition, 2017.

CONCRETE:
 Class "A": $f'_c = 3500$ psi
 Class "B": $f'_c = 3000$ psi
 Class "C": $f'_c = 4000$ psi

REINFORCING STEEL:
 Grade 60: $f_y = 60,000$ psi



WINGWALL INFORMATION		
	AREAS	LENGTH
Wing "A"	71.9 Sft.	12'-0"
Wing "B"	56.0 Sft.	12'-0"
Wing "C"	56.0 Sft.	12'-0"
Wing "D"	71.9 Sft.	12'-0"

SOIL PARAMETERS FOR FOOTING/WINGWALL DESIGN	
Bearing Resistance Factor (ϕ_b)	0.45
Nominal Bearing Resistance (q_p)	3550 psf
Factored Bearing Resistance (q_p)	1600 psf
Angle of Friction Between Wingwall Footing and Foundation Soil (δ)	0
Ultimate Cohesion of Foundation Soil (C)	650 psf
Ultimate Adhesion Between Footings & Foundation Soil (C_u)	390 psf
Unit Weight of Backfill Material	130 pcf
Friction Angle Between Wall and Backfill (δ)	20

Notes:
 For Plan & Elevation, see SHt. 8.

PRECAST REINFORCED CONCRETE BOX
 1 SPAN: 14'-0" RISE 4'-0"
 28'-0" CLEAR ROADWAY SKEW: 45°
 SR 250 OVER UNNAMED TRIBUTARY TO RIDER DITCH
 JACKSON COUNTY

RECOMMENDED FOR APPROVAL	DESIGN ENGINEER	DATE	INDIANA DEPARTMENT OF TRANSPORTATION	HORIZONTAL SCALE	BRIDGE FILE
	AS NOTED	AS NOTED		AS NOTED	CV 250-038-09-30
DESIGNED: AJC	DRAWN: MEN		GENERAL PLAN	VERTICAL SCALE	DESIGNATION
CHECKED: SJM	CHECKED: AJC			AS NOTED	1801015
				DRAWING NO.	SHEETS
				CONTRACT	13 of 20
				B-41445	PROJECT
					1800276

Appendix C:

Early Coordination



INDIANA DEPARTMENT OF TRANSPORTATION

100 North Senate Avenue
Room N642
Indianapolis, Indiana 46204

PHONE: (317) 233-6795

Eric J. Holcomb, Governor
Joe McGuinness, Commissioner

June 23, 2021

Early Coordination Agency

Sample Early Coordination Letter

Re: Early Coordination Letter, Des. No. 1801015, Small Structure Replacement Project over Unnamed Tributary to Rider Ditch on SR 250, in Washington Township, Jackson County, Indiana.

Dear Early Coordination Agency:

The Indiana Department of Transportation (INDOT) and the Federal Highway Administration (FHWA) intends to proceed with a project involving the referenced culvert (#250-036-09.30) in Jackson County, Indiana. This letter is part of the early coordination phase of the environmental review process. As the agent for INDOT, Beam, Longest, and Neff (BLN), we are requesting you review the enclosed information and provide comments from your area of expertise regarding any possible environmental effects associated with this project. **Please use the referenced designation numbers and description in your reply.** We will incorporate your comments into a study of the project's environmental impacts.

This project is located on State Road (SR) 250, 0.79 mile east of SR 11, east of Dudleytown in Jackson County, Indiana. The existing SR 250 roadway facility is classified as a Major Collector and is not part of the National Highway System and not on the National Truck Network. The posted speed limit is 55 mph. This project is located within a rural area in level terrain.

The existing approach roadway is 20 feet wide, containing two asphalt travel lanes that are 10 feet wide. There are no paved shoulders. The usable shoulders, which consist of compacted aggregate and earth, are approximately 1-2 feet wide. The total approach roadway width is approximately 24 feet. The only guardrail at the site is located on the structure, with 17 feet on each side of the structure.

The existing small structure consists of a single span prestressed concrete box beam small structure, spanning 18.5 feet with a rise of 3 feet. The existing structure is approximately 40 feet long (along the skew) and skewed approximately 45 degrees left to the roadway. The perpendicular span is 13 feet. There is existing cover of approximately 6 inches between the top of the structure and the existing surface of the roadway. The minimal cover consists entirely of asphalt. The existing prestressed concrete box beams are rated in fair condition and the substructure is rated in good condition according to the 2019 INDOT inspection report. There is leaking with efflorescence between the box beams and there is a scour hole at the inlet. The remainder of the structure is in satisfactory to good condition.

The proposed project consists of the construction of a new precast reinforced concrete box single span structure on the existing alignment with minimum road reconstruction. The roadway would consist of two 10-foot lanes and 4-foot wide usable shoulders. The lanes will consist of asphalt and the usable shoulders will consist of 2 feet of paved width and 2 feet of compacted aggregate width.

The preferred method of traffic maintenance would be to have a road closure and an official detour route utilizing SR 11, US 50, and I-65 for a total length of approximately 18.8 miles. The road is anticipated to be closed for a short period of time to minimize traffic disruption. Right-of-way acquisition is anticipated for this project. Construction is anticipated to begin in Fall 2022.

Land use in the vicinity of the project is primarily residential properties and agricultural fields. No sites, structures, or historic districts that are listed on or eligible for the NRHP in the project area were identified. No publicly owned parks, other recreational facilities or wildlife refuges that would be afforded protection under Section 4(f) have been identified in the immediate project area. No potential Section 6(f) sites were identified within the project area.

Due to the proximity of the UNT to Rider Ditch, BLN will prepare a Waters of the US Report (WOUSR). The Waters of the US Report will be reviewed by the INDOT Ecology and Waterway Permitting Office. The project is anticipated to qualify for the Rangewide Programmatic Agreement for the Indiana bat and northern long-eared bat by completing the Information for Planning and Consultation (IPaC).

BLN will have Qualified Professionals (QPs) investigate the project area for archaeological and historic resources for compliance with Section 106 of the National Historic Preservation Act (NHPA). The results of this investigation will be forwarded to the Indiana State Historic Preservation Officer (IN SHPO) for review and concurrence.

Should we not receive your response **within 30 calendar days** of the date of this letter, it will be assumed that your agency has no comment on effects as a result of the proposed project. However, if an extension to the response time is necessary, a reasonable amount may be granted upon request. If you have any questions, or if we can be of any further assistance, please contact either William Fortson, INDOT Project Manager at wfortson@indot.in.gov or telephone 855-462-6848 or Aimee Cooper at acooper@b-l-n.com or telephone 317- 806-3060. Thank you for your cooperation.

Sincerely,



Aimee Cooper
Environmental Analyst
Beam, Longest, and Neff

EARLY COORDINATION MAILING LIST

<p>Federal Highway Administration Federal Office Building, Room 254 575 North Pennsylvania Street Indianapolis, Indiana 46204 Sent electronically – erica.tait@dot.gov</p>	<p>David Dye Environmental Section Manager Seymour District Indiana Department of Transportation Sent electronically – ddye@indot.in.gov</p>
<p>Indiana Geological and Water Survey 611 North Walnut Grove Bloomington, IN 47405 Sent electronically – https://igws.indiana.edu/eAssessment</p>	<p>William Fortson INDOT Seymour District Project Manager Sent electronically – wfortson@indot.in.gov</p>
<p>Environmental Coordinator Indiana Department of Natural Resources Division of Fish and Wildlife 402 West Washington Street, Rm. W273 Indianapolis, IN 46204 Sent electronically – environmentalreview@dnr.in.gov</p>	<p>Forest Supervisor Hoosier National Forest US Forest Service 811 Constitution Avenue Bedford, Indiana 47421 Sent electronically – kamick@fs.fed.us</p>
<p>Indiana Department of Environmental Management Sent electronically – https://www.in.gov/idem/5284.htm</p>	<p>State Conservationist Natural Resources Conservation Service 6013 Lakeside Boulevard Indianapolis, Indiana 46278 Sent electronically – rick.neilson@in.usda.gov</p>
<p>Regional Environmental Coordinator Midwest Regional Office National Park Service 601 Riverfront Drive Omaha, Nebraska 68102 Sent electronically – mwro_compliance@nps.gov</p>	<p>Ms. Deborah Snyder US Army Corps of Engineers, Louisville District, Indianapolis Regulatory Office, Indianapolis, IN 46216 Sent electronically – RegulatoryApplicationsLRL@usace.army.mil</p>
<p>Groundwater Section Indiana Department of Environmental Management 100 N. Senate Avenue Indianapolis, IN 46204 Sent electronically – https://www.in.gov/idem/cleanwater/pages/wellhead/</p>	<p>Jackson County Highway Department 360 S. County Rd. 25 E. Brownstown, IN 47220 Sent electronically – jwehmiller@jacksoncounty.in.gov</p>
<p>Field Environmental Officer, Chicago Regional Office US Department of Housing & Urban Development Metcalf Fed. Bldg. 77 W. Jackson Blvd. Room 2401 Chicago, IL 60604 Sent electronically – melanie.h.castillo@hud.gov</p>	<p>Jackson County Commissioners 111 S. Main Street Brownstown, IN 47220 Sent electronically – drew@drewmarkel.com auditor@jacksoncounty.in.gov</p>

Jackson County Health Department
801 West 2nd Street
Seymour, Indiana 47274

Jackson County Emergency Management
220 E. Walnut St.
Brownstown, IN 47220
Sent electronically – ema@jacksoncounty.in.gov

Daniel Brown
Jackson County Surveyor
111 South Main Street
Brownstown, IN 47220
Sent electronically – dblann@jacksoncounty.in.gov

Attachments have been removed to avoid duplication



Indiana Department of Environmental Management

We Protect Hoosiers and Our Environment.

100 N. Senate Avenue • Indianapolis, IN 46204

(800) 451-6027 • (317) 232-8603 • www.idem.IN.gov

Eric J. Holcomb
Governor

Bruno Pigott
Commissioner

July 16, 2021

66-33
Beam, Longest and Neff
Attention: Aimee Cooper
8320 Craig Street
Indianapolis, Indiana 46250

Dear Aimee Cooper,

RE: Wellhead Protection Area
Proximity Determination
Des No 1801015
Small Structure Replacement
Project over Unnamed Tributary to
Rider Ditch on SR 250, in
Washington Township,
Jackson County, Indiana

Upon review of the above referenced project site, it has been determined that the proposed project area **is not located within** a Wellhead Protection Area. The information is accurate to the best of our knowledge; however, there are in some cases a few factors that could impact the accuracy of this determination. Some Wellhead Protection Area Delineations have not been submitted, and many have not been approved by this office. In these cases we use a 3,000 foot fixed radius buffer to make the proximity determination. To find the status of a Public Water Supply System's (PWSS's) Wellhead Protection Area Delineation please visit our tracking database at <http://www.in.gov/idem/cleanwater/2456.htm> and scroll to the bottom of the page.

The project area **is not located within** a Source Water Assessment Area for a PWSS's surface water intake. The Source Water Assessment Area relates to the surface water drainage area that water could potentially flow and influence water quality for a PWSS's source of drinking water.

Note: the Drinking Water Branch has a self service feature which allows one to determine wellhead proximity without submitting the application form. Use the following instructions:

1. Go to <https://www.in.gov/idem/cleanwater/pages/wellhead/>
2. Use the search tool located in the upper left hand corner of the application to zoom to your site of interest by way of city, county, or address; or use the mouse to click on the site of interest displayed on the map.
3. Once the site of interest has been located and selected, use the print tool to create a .pdf of a wellhead protection area proximity determination response.

In the future please consider using this self service feature if it suits your needs.

If you have any additional questions please feel free to contact me at the address above or at (317) 233-9158 and aturnbow@idem.in.gov.

Sincerely,

Alisha Turnbow,
Environmental Manager
Ground Water Section, Drinking Water
Branch, Office of Water Quality

THIS IS NOT A PERMIT

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

DNR #: ER-23816

Request Received: June 23, 2021

Requestor: Beam, Longest and Neff, LLC
Aimee Cooper
8320 Craig Street
Indianapolis, IN 46250

Project: SR 250 small structure (#250-036-09.30) replacement over UNT Rider Ditch, 0.79 mile east of SR 11; Des #1801015

County/Site info: Jackson

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

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

Regulatory Assessment: This proposal may require the formal approval of our agency pursuant to the Flood Control Act (IC 14-28-1) for any proposal to construct, excavate, or fill in or on the floodway of a stream or other flowing waterbody which has a drainage area greater than one square mile. While the drainage area of the unnamed tributary that the structure is located in is less than one square mile, the drainage area a bit downstream from this location may be greater than one square mile. Please submit a copy of this letter with the permit application, if required.

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

Fish & Wildlife Comments: 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) Crossing Structures:
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; and have stream depth, channel width, and water velocities during low-flow conditions that are approximate to those in the natural stream channel.

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. From the perspective of aquatic habitat, upstream fish passage, and wildlife movement, silt/bedload accumulation within the structure is beneficial. Implement stream simulation techniques to create a stable, natural substrate within the structure with stream gradient, riffles, runs and pools, and stream substrate (sand/gravel/cobble mix) reflecting the adjacent stream segment.

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

Additional information is available in Publication No. FHWA-HIF-11-008, Federal Highway Administration, Culvert Design for Aquatic Organism Passage, October 2010 (<http://www.fhwa.dot.gov/engineering/hydraulics/pubs/11008/hif11008.pdf>). Natural cobble and boulders (or other materials as appropriate in that stream) should be placed within the structure (anchored if necessary) to protect the structure itself, provide flow diversity, roughness/energy dissipation and to accelerate streambed formation within the crossing. Culvert width and gradient should be appropriate for the site conditions so that flows do not scour out material from the culvert.

Riprap aprons or energy dissipators should be placed flush with the structure floor. Mix smaller stone and fines in with the riprap so streamflow stays at the surface instead of percolating down and leaving a dry bed. To facilitate aquatic organism passage through the structure, the riprap layer's slope at the outlet should be 20:1 while it should be 5:1 on the inlet end.

2) Wildlife Passage :

The concrete box structure proposed will eliminate wildlife passage on the banks/spill-slopes under the bridge. Culvert structures can be modified with a ledge on the inside wall built up to a level slightly above the ordinary high-water mark on one or both sides of the structure to facilitate wildlife passage. The ledge could be stone topped with several inches of #53, a concrete ledge or tall footer, or other approvable materials (in some cases a metal shelf could work).

3) Bank Stabilization:

If riprap is needed, limit its use on the channel's banks to toe protection. Do not place riprap in the bed of the channel and use alternative erosion protection materials whenever possible. If riprap is placed as toe protection, it can be extended to the ordinary high water mark (OHWM); above the OHWM up to the top of the bank, heavy duty erosion control blankets, turf reinforcement mats or a similar bioengineering method should be used and these materials should be seeded with native plants to allow a natural, vegetated stream bank to develop.

Information about bioengineering techniques can be found at <http://www.in.gov/legislative/iac/20120404-IR-312120154NRA.xml.pdf>. Also, the following is a USDA/NRCS document that outlines many different bioengineering techniques for streambank stabilization: <http://directives.sc.egov.usda.gov/17553.wba>.

4) Riparian Habitat:

We recommend a mitigation plan be developed (and submitted with the permit application, if required) for any unavoidable habitat impacts that will occur. The DNR's Habitat Mitigation Guidelines (and plant lists) can be found online at: <http://iac.iga.in.gov/iac/20200527-IR-312200284NRA.xml.pdf>.

Impacts to non-wetland forest of one (1) acre or more should be mitigated at a minimum 2:1 ratio. If less than one acre of non-wetland forest is removed in a rural setting, replacement should be at a 1:1 ratio based on area. Impacts to non-wetland forest under one (1) acre in an urban setting should be mitigated by planting five trees, at least 2 inches in diameter-at-breast height (dbh), for each tree which is removed that is 10" dbh or greater (5:1 mitigation based on the number of large trees) or by using the 1:1 replacement ratio based on area depending on the type of habitat impacted (individual canopy tree removal in an urban streetscape or park-like environment versus removal of habitat supporting a tree canopy, woody understory, and herbaceous layer). Impacts under 0.10 acre in an urban area may still involve the replacement of large diameter trees but typically do not require any additional mitigation or additional plantings beyond seeding and stabilizing disturbed areas. There are exceptions for high quality habitat sites however.

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

The mitigation site should be located in the floodway, downstream of the one (1) square mile drainage area of that stream (or another stream within the 8-digit HUC, preferably as close to the impact site as possible) and adjacent to existing forested riparian habitat.

5) Wetland Habitat:

The National Wetland Inventory maps show the presence of forested wetlands on the north side of the road and emergent wetlands on the south side of the road. We recommend contacting and coordinating with the Indiana Department of Environmental Management (IDEM) 401 program and also the US Army Corps of Engineers (USACE) 404 program. A wetland determination/delineation that has been verified by the US Army Corps of Engineers may be needed.

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 with a mixture of native grasses, sedges, wildflowers, and also native hardwood trees and shrubs if any woody plants are disturbed during construction as soon as possible upon completion. Do not use any varieties of Tall Fescue or other non-native plants, including prohibited invasive species (see 312 IAC 18-3-25).
2. Minimize and contain within the project limits inchannel disturbance and the clearing of trees and brush.
3. Do not work in the waterway from April 1 through June 30 without the prior written approval of the Division of Fish and Wildlife.
4. Do not cut any trees suitable for Indiana bat or Northern Long-eared bat roosting (greater than 5 inches dbh, living or dead, with loose hanging bark, or with cracks, crevices, or cavities) from April 1 through September 30.
5. Do not excavate in the low flow area except for the placement of piers, foundations, and riprap, or removal of the old structure.
6. Do not construct any temporary runarounds, access bridges, causeways, cofferdams, diversions, or pumpharounds.
7. Use minimum average 6 inch graded riprap stone extended below the normal water level to provide habitat for aquatic organisms in the voids.
8. 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.
9. Seed and protect all disturbed streambanks and slopes not protected by other methods that are 3:1 or steeper with erosion control blankets that are heavy-duty, biodegradable, and net free or that use loose-woven / Leno-woven netting to minimize the entrapment and snaring of small-bodied wildlife such as snakes and turtles (follow manufacturer's recommendations for selection and installation); seed and apply mulch on all other disturbed areas.

Contact Staff:

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

Christie L. Stanifer

Date: July 23, 2021

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

Organization and Project Information

Project ID:
Des. ID: 1801015
Project Title: SR 250 over UNT to Rider Ditch
Name of Organization: Beam, Longest, and Neff
Requested by: Aimee Cooper

Environmental Assessment Report

1. Geological Hazards:
 - High liquefaction potential
 - 1% Annual Chance Flood Hazard
2. Mineral Resources:
 - Bedrock Resource: Moderate 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.

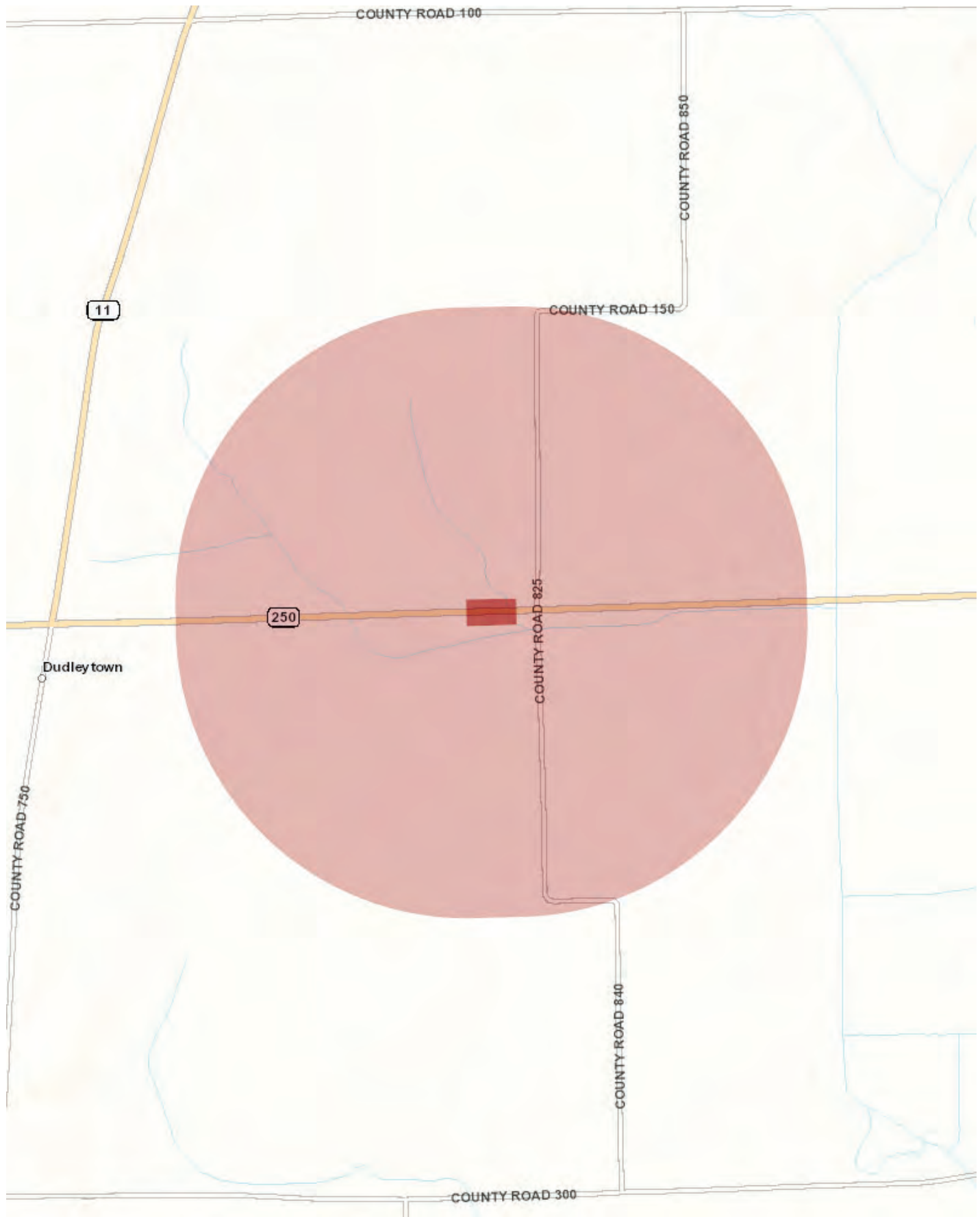
This information was furnished by Indiana Geological Survey

Address: 1001 E. 10th St., Bloomington, IN 47405

Email: IGSEnvir@indiana.edu

Phone: 812 855-7428

Date: June 23, 2021





July 22, 2021

Aimee Cooper
Beam, Longest and Neff, L.L.C.
8320 Craig Street
Indianapolis, Indiana 46250
acooper@b-l-n.com

Dear Ms. Cooper:

The proposed project to replace the small structure along State Road 250 over an unnamed tributary to Rider Ditch in Jackson County, Indiana (Des. No. 1801015), as referred to in your letter received June 23, 2021, will cause a conversion of prime farmland.

The attached packet of information is for your use competing 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 John Allen at 317-295-5859.

Sincerely,

RICK NEILSON
State Soil Scientist

Enclosures

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

PART I (To be completed by Federal Agency)		3. Date of Land Evaluation Request 6/23/21	4. Sheet 1 of 1
1. Name of Project Des #1801015 SR 250 over UNT to Rider Ditch		5. Federal Agency Involved FHWA	
2. Type of Project Small Structure Replacement		6. County and State Jackson County, IN	
PART II (To be completed by NRCS)		1. Date Request Received by NRCS 6/23/21	2. Person Completing Form JRA
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 checked="" type="checkbox"/> NO <input type="checkbox"/>		4. Acres Irrigated Average Farm Size 303	
5. Major Crop(s) Corn	6. Farmable Land in Government Jurisdiction Acres: 259,626 % 79		7. Amount of Farmland As Defined in FPPA Acres: 190,548 % 58
8. Name of Land Evaluation System Used LESA	9. Name of Local Site Assessment System		10. Date Land Evaluation Returned by NRCS 7/22/21

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	0.05
B. Total Acres Statewide And Local Important Farmland	0.00
C. Percentage Of Farmland in County Or Local Govt. Unit To Be Converted	<0.001
D. Percentage Of Farmland in Govt. Jurisdiction With Same Or Higher Relative Value	44

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)	
	78

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	0	0	0	0

PART VII (To be completed by Federal Agency)					
Relative Value Of Farmland (From Part V)	100	78	0	0	0
Total Corridor Assessment (From Part VI above or a local site assessment)	160	0	0	0	0
TOTAL POINTS (Total of above 2 lines)	260	78	0	0	0

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"/>
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5. Reason For Selection:

Signature of Person Completing this Part: _____ DATE: _____

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



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:

February 28, 2022

Project Code: 2022-0013248

Project Name: Des #1801015 SR 250 over UNT to Rider Ditch

Subject: List of threatened and endangered species that may occur in your proposed project location or may be affected by your proposed project

To Whom It May Concern:

The enclosed species list identifies threatened, endangered, proposed and candidate species, as well as proposed and final designated critical habitat, that may occur within the boundary of your proposed project and/or may be affected by your proposed project. The species list fulfills the requirements of the U.S. Fish and Wildlife Service (Service) under section 7(c) of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 *et seq.*).

New information based on updated surveys, changes in the abundance and distribution of species, changed habitat conditions, or other factors could change this list. Please feel free to contact us if you need more current information or assistance regarding the potential impacts to federally proposed, listed, and candidate species and federally designated and proposed critical habitat. Please note that under 50 CFR 402.12(e) of the regulations implementing section 7 of the Act, the accuracy of this species list should be verified after 90 days. This verification can be completed formally or informally as desired. The Service recommends that verification be completed by visiting the ECOS-IPaC website at regular intervals during project planning and implementation for updates to species lists and information. An updated list may be requested through the ECOS-IPaC system by completing the same process used to receive the enclosed list.

The purpose of the Act is to provide a means whereby threatened and endangered species and the ecosystems upon which they depend may be conserved. Under sections 7(a)(1) and 7(a)(2) of the Act and its implementing regulations (50 CFR 402 *et seq.*), Federal agencies are required to utilize their authorities to carry out programs for the conservation of threatened and endangered species and to determine whether projects may affect threatened and endangered species and/or designated critical habitat.

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.

A Biological Assessment is required for construction projects (or other undertakings having similar physical impacts) that are major Federal actions significantly affecting the quality of the human environment as defined in the National Environmental Policy Act (42 U.S.C. 4332(2) (c)). For projects other than major construction activities, the Service suggests that a biological evaluation similar to a Biological Assessment be prepared to determine whether the project may affect listed or proposed species and/or designated or proposed critical habitat. Recommended contents of a Biological Assessment are described at 50 CFR 402.12.

If a Federal agency determines, based on the Biological Assessment or biological evaluation, that listed species and/or designated critical habitat may be affected by the proposed project, the agency is required to consult with the Service pursuant to 50 CFR 402. In addition, the Service recommends that candidate species, proposed species and proposed critical habitat be addressed within the consultation. More information on the regulations and procedures for section 7 consultation, including the role of permit or license applicants, can be found in the "Endangered Species Consultation Handbook" at:

<http://www.fws.gov/endangered/esa-library/pdf/TOC-GLOS.PDF>

Migratory Birds: In addition to responsibilities to protect threatened and endangered species under the Endangered Species Act (ESA), there are additional responsibilities under the Migratory Bird Treaty Act (MBTA) and the Bald and Golden Eagle Protection Act (BGEPA) to protect native birds from project-related impacts. Any activity, intentional or unintentional, resulting in take of migratory birds, including eagles, is prohibited unless otherwise permitted by the U.S. Fish and Wildlife Service (50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)). For more information regarding these Acts see <https://www.fws.gov/birds/policies-and-regulations.php>.

The MBTA has no provision for allowing take of migratory birds that may be unintentionally killed or injured by otherwise lawful activities. It is the responsibility of the project proponent to comply with these Acts by identifying potential impacts to migratory birds and eagles within applicable NEPA documents (when there is a federal nexus) or a Bird/Eagle Conservation Plan (when there is no federal nexus). Proponents should implement conservation measures to avoid or minimize the production of project-related stressors or minimize the exposure of birds and their resources to the project-related stressors. For more information on avian stressors and recommended conservation measures see <https://www.fws.gov/birds/bird-enthusiasts/threats-to-birds.php>.

In addition to MBTA and BGEPA, Executive Order 13186: *Responsibilities of Federal Agencies to Protect Migratory Birds*, obligates all Federal agencies that engage in or authorize activities that might affect migratory birds, to minimize those effects and encourage conservation measures that will improve bird populations. Executive Order 13186 provides for the protection of both migratory birds and migratory bird habitat. For information regarding the implementation of

Executive Order 13186, please visit <https://www.fws.gov/birds/policies-and-regulations/executive-orders/e0-13186.php>.

We appreciate your concern for threatened and endangered species. The Service encourages Federal agencies to include conservation of threatened and endangered species into their project planning to further the purposes of the Act. **Please include the Consultation Code 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
- Migratory Birds
- Wetlands

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

Project Code: 2022-0013248
Event Code: None
Project Name: Des #1801015 SR 250 over UNT to Rider Ditch
Project Type: Bridge - Replacement
Project Description: Indiana Department of Transportation (INDOT) proposes a small structure replacement on State Road (SR) 250 over a culvert, 0.78 mile East of SR 11 in Jackson County, IN. The small structure consists of a single span prestressed concrete box beam small structure, spanning 18.5 feet with a rise of 3 feet. The structure is approximately 40 feet long (along the skew) and skewed approximately 45 degrees left to the roadway. The perpendicular span is 13 feet. There is cover of approximately 6 inches between the top of the structure and the surface of the roadway. The minimal cover consists entirely of asphalt. The proposed project consists of the construction of a new structure on the alignment with minimum road reconstruction. The roadway would consist of two 10-foot lanes and 4-foot wide usable shoulders. The lanes will consist of asphalt and the usable shoulders will consist of 2 feet of paved width and 2 feet of compacted aggregate width. The replacement structure will be a precast reinforced concrete box that is single spanned. Roadway reconstruction will extend 200 feet to the east and 200 feet to the west of the culvert.

Project Location:

Approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/@38.8512473,-85.885180225,14z>



Counties: Jackson County, Indiana

Endangered Species Act Species

There is a total of 3 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. The location of the critical habitat is not available. Species profile: https://ecos.fws.gov/ecp/species/5949	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

Insects

NAME	STATUS
Monarch Butterfly <i>Danaus plexippus</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/9743	Candidate

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

In Reply Refer To:

July 12, 2022

Project code: 2022-0013248

Project Name: Des #1801015 SR 250 over UNT to Rider Ditch

Subject: Concurrence verification letter for the 'Des #1801015 SR 250 over UNT to Rider Ditch' 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 July 12, 2022 to verify that the **Des #1801015 SR 250 over UNT to Rider Ditch** (Proposed Action) may rely on the concurrence provided in the February 5, 2018, FHWA, FRA, FTA Programmatic Biological Opinion for Transportation Projects within the Range of the Indiana Bat and Northern Long-eared Bat (PBO) to satisfy requirements under Section 7(a)(2) of the Endangered Species Act of 1973 (ESA) (87 Stat. 884, as amended; 16 U.S.C 1531 *et seq.*).

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

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

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

The following species may occur in your project area and **are not** covered by this determination:

- Monarch Butterfly *Danaus plexippus* Candidate

Project Description

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

Name

Des #1801015 SR 250 over UNT to Rider Ditch

Description

Indiana Department of Transportation (INDOT) proposes a small structure replacement on State Road (SR) 250 over a culvert, 0.78 mile East of SR 11 in Jackson County, IN. The small structure consists of a single span prestressed concrete box beam small structure, spanning 18.5 feet with a rise of 3 feet. The structure is approximately 40 feet long (along the skew) and skewed approximately 45 degrees left to the roadway. The perpendicular span is 13 feet. There is cover of approximately 6 inches between the top of the structure and the surface of the roadway. The minimal cover consists entirely of asphalt. The project consists of the construction of a new structure on the alignment with minimum road reconstruction. The roadway will consist of two 10-foot lanes and 4-foot wide usable shoulders. The lanes will consist of asphalt and the usable shoulders will consist of 2 feet of paved width and 2 feet of compacted aggregate width. The replacement structure will be a precast reinforced concrete box that is single-spanned. Roadway reconstruction will extend 200 feet to the east and 200 feet to the west of the culvert.

Tree clearing will occur in the amount of 0.06 acres. No new permanent lighting will be installed, but temporary lighting may be needed. Construction is anticipated to occur in Spring or Summer of 2023.

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 [User's Guide for the Range-wide Programmatic Consultation for Indiana Bat and Northern Long-eared Bat](#).

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

No

20. Are *all* trees that are being removed clearly demarcated?
Yes
21. Will the removal of habitat or the removal/trimming of trees include installing new or replacing existing **permanent** lighting?
No
22. Does the project include wetland or stream protection activities associated with compensatory wetland mitigation?
No
23. Does the project include slash pile burning?
No
24. Does the project include *any* bridge removal, replacement, and/or maintenance activities (e.g., any bridge repair, retrofit, maintenance, and/or rehabilitation work)?
Yes
25. 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

26. 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

- *Des 1801015 Bat Inspection 05.04.22.pdf* <https://ipac.ecosphere.fws.gov/project/UXALYCE3WVGADBFJU3CNOTBIRU/projectDocuments/114918447>

27. 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

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

No

29. 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

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

Yes

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

Yes

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

No

33. 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

34. 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

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

No

36. 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

37. 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 Indiana bat's 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.

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 NLEB's 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 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

40. **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

41. **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

42. **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

43. **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

44. **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.

0.06

4. Please describe the proposed bridge work:

Indiana Department of Transportation (INDOT) proposes a small structure replacement on State Road (SR) 250 over a culvert, 0.78 mile East of SR 11 in Jackson County, IN. The small structure consists of a single span prestressed concrete box beam small structure, spanning 18.5 feet with a rise of 3 feet. The structure is approximately 40 feet long (along the skew) and skewed approximately 45 degrees left to the roadway. The perpendicular span is 13 feet. There is cover of approximately 6 inches between the top of the structure and the surface of the roadway. The minimal cover consists entirely of asphalt. The project consists of the construction of a new structure on the alignment with minimum road reconstruction. The roadway will consist of two 10-foot lanes and 4-foot wide usable shoulders. The lanes will consist of asphalt and the usable shoulders will consist of 2 feet of paved width and 2 feet of compacted aggregate width. The replacement structure will be a precast reinforced concrete box that is single-spanned. Roadway reconstruction will extend 200 feet to the east and 200 feet to the west of the culvert. Tree clearing will occur in the amount of 0.06 acres. No new permanent lighting will be installed, but temporary lighting may be needed.

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

Construction is anticipated to occur in Spring or Summer of 2023.

6. Please enter the date of the bridge assessment:

5.4.2022

Avoidance And Minimization Measures (AMMs)

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

TREE REMOVAL AMM 1

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

LIGHTING AMM 1

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

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.

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.

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

This key was last updated in IPaC on April 28, 2022. Keys are subject to periodic revision.

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

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

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

General Information		
Date of Inspection:	Initial Inspection <input type="checkbox"/>	Temp: °F
Time of Inspection:	Follow-up Inspection <input type="checkbox"/>	Wind:
County:	Construction <input type="checkbox"/>	Precip:
Inspected by:		Sunrise: Sunset:
GPS Northing: Easting: UTM Zone: 16	Contract Number:	Anticipated Start Date for Construction:

Bridge or Culvert	Bridge or Culvert
Stream or Road Crossed:	Station:
Bridge/Culvert number:	Number of Spans:
Type of Structure: <input type="checkbox"/> Concrete box beam <input type="checkbox"/> Steel beam <input type="checkbox"/> Concrete I-beam <input type="checkbox"/> Steel girder <input type="checkbox"/> Concrete bulb tee beam <input type="checkbox"/> Steel pony truss <input type="checkbox"/> Concrete arch <input type="checkbox"/> Welded steel thru girder <input type="checkbox"/> Concrete girder <input type="checkbox"/> Concrete box culvert <input type="checkbox"/> Concrete slab <input type="checkbox"/> Concrete pipe <input type="checkbox"/> Multi-plate arch <input type="checkbox"/> Corrugated steel pipe <input type="checkbox"/> Other (list):	Material: <input type="checkbox"/> Concrete <input type="checkbox"/> Steel <input type="checkbox"/> Other (describe): Shape: <input type="checkbox"/> Box Culvert <input type="checkbox"/> Pipe <input type="checkbox"/> Arch <input type="checkbox"/> Slab <input type="checkbox"/> Other (describe)
Searched entire structure? If not, why not?	Location of bats or signs of use (w/drawing and photos):
Bats Present? <input type="checkbox"/> Seen? <input type="checkbox"/> Heard?	
In Clusters? Number of clusters:	
Number of bats in largest cluster:	
Approximate total number of bats found:	
Signs of previous bat use? <input type="checkbox"/> Guano <input type="checkbox"/> Staining <input type="checkbox"/> None	

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

Appendix D:
Section 106 of the NHPA

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

Date: 2/13/2020

Project Designation Number: 1801015

Route Number: State Road (SR) 250

Project Description: Small Structure Replacement, 0.78 mile east of SR 11

The purpose of this project is to replace the existing SR 250 concrete box culvert over an unnamed ditch. It is estimated that this box culvert was constructed between 1950 and 1970, based on photographic evidence. The proposed new structure is anticipated to be a reinforced concrete box or three-sided flat top structure (20' x 4' x 44') on the present alignment. The approaches will consist of two (2), 10-foot through lanes with 3-foot usable shoulders. It is anticipated that the approach reconstruction will extend approximately 150 feet to the west and east of the structure. Less than two (2) acres of right-of-way acquisition is anticipated.

Feature crossed (if applicable): unnamed tributary of Vernon Fork of the Muscatatuck River

Township: Washington

City/County: Seymour /Jackson 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): Bridge Inspection Application System (BIAS); Indiana State Historic Architectural and Archaeological Research Database (SHAARD); Indiana Buildings, Bridges, and Cemeteries Map website; *Jackson County Interim Report*; Arc Map GIS; Jackson County GIS (accessed via <https://jacksonin.wthgis.com>); online street-view imagery; MPPA application (including maps and photographs) sent by Beam, Longest, and Neff dated January 27th, 2020 and on file at INDOT-CRO.

Martin, Andrew & Bundy, Paul D.

2020 A Phase Ia Archaeological Survey of a Proposed SR 250 Small Structure Replacement Project in Jackson County, Indiana (INDOT Des. No.: 1801015) (CRA Contract Publication Series 19-840). Report on file at INDOT-CRO.

Results of the Records Review for Above-Ground Resources:

With regard to above-ground resources, an INDOT Cultural Resources historian who meets the Secretary of the Interior's Professional Qualification Standards as per 36 CFR Part 61 performed a desktop review, checking the Indiana Register of Historic Sites and Structures (State Register) and National Register of

Historic Places (National Register) lists for Jackson County. No listed resources are located immediately adjacent to the project area.

The Indiana Historic Sites and Structures Inventory (IHSSI) and National Register information for Jackson County are available in the Indiana State Historic Architectural and Archaeological Research Database (SHAARD) and the Indiana Historic Buildings, Bridges, and Cemeteries Map (IHBBCM). The *Jackson County Interim Report* (1988; Washington Township) of the Indiana Historic Sites and Structures Inventory (IHSSI) was also consulted. An INDOT-CRO historian reviewed the SHAARD Online Map and checked it against the Interim Report hard-copy maps. No IHSSI documented properties located immediately adjacent to the project area.

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

The INDOT-CRO historian reviewed structures adjacent to the project area utilizing online aerial, street-view photography, and the Jackson County GIS website. The project area is located a rural, agricultural setting with immediately adjacent above-ground resources consisting primarily of mid to late-twentieth century residential buildings. None of these resources appear to possess the significance or integrity required to be considered NRHP-eligible.

The most recent inspection report (J. Newton; 11/14/2019) from the Bridge Inspection Application System (BIAS) was referenced to review the culvert. The subject structure (CV # 250-036-09.30) carries SR 250 over an unnamed ditch. It is a 30-foot long concrete box culvert; its date of construction is unknown. Examination of online street view photography, BIAS photographs, and project information supplied by the consultant show that the structure does not exhibit non-modern wood, stone, or brick structures or parts therein, or a context that suggests it might have engineering or historical significance.

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

Archaeology Report Author/Date: Andrew Martin & Paul D. Bundy/February 6, 2020

Summary of Archaeology Investigation Results:

An archaeological records check and Phase Ia reconnaissance survey of the project area was conducted by Cultural Resource Analysts, Inc. (CRA) (Martin & Bundy 2020). The records check found that the project area had not been previously examined for archaeological resources and that no previously recorded sites have been identified within or adjacent to it. A 2.5 acre survey area was examined through visual inspection of disturbed areas and shovel test probing. Twenty-two shovel tests were placed within the survey area. All areas were investigated using a single shovel test transect at 15 m intervals. Shovel tests were examined for cultural materials and features. All of the shovel tests were negative. No archaeological sites were identified and no further investigation is recommended. 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 CRA (Martin & Bundy 2020). 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-9.** Installation, replacement, repair, lining, or extension of culverts and other drainage structures 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)

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)

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

- i. Work does not involve installation of a new culvert and other drainage structure, and there are no impacts to unusual features, including but not limited to historic brick or stone sidewalks, curbs or curb ramps, stepped or elevated sidewalks and retaining walls, under one of the following conditions (*Condition a, Condition b, or Condition c must be satisfied*):
 - a. The structure exhibits no wood, stone, or brick structures or parts therein; *OR*
 - b. The structure exhibits only modern wood, stone, or brick structures or parts therein; *OR*
 - c. The structure exhibits non-modern wood, stone, or brick structures or parts therein and the following conditions are met (*BOTH Condition 1 AND Condition 2 must be met*):
 1. Work does not occur adjacent to or within a National Register-listed or National Register-eligible district or individual above-ground resource; *AND*
 2. The structure lacks sufficient integrity and/or a context that suggests it might have engineering or historical significance. Under this condition, a qualified professional (meeting the Secretary of Interior's Professional Qualification standards [48 Federal Register (FR) 44716]) must prepare an analysis and justification that the structure lacks sufficient integrity and/or a context that suggests it might have engineering or historical significance. This documentation must be reviewed and approved by INDOT Cultural Resources Office.
- ii. Work involves the installation of a new culvert and other drainage structures *AND/OR* there may be impacts to unusual features, including historic brick or stone sidewalks, curbs or curb ramps, stepped or elevated sidewalks and retaining walls, under the following conditions (*BOTH Condition a and Condition b must be satisfied*):
 - a. Work does not occur adjacent to or within a National Register-listed or National Register-eligible district or individual above-ground resource; *AND*
 - b. The subject structure exhibits one of the characteristics described below (*Condition 1, Condition 2 or Condition 3 must be satisfied*):
 1. The structure exhibits no wood, stone, or brick structures or parts therein; *OR*
 2. The structure exhibits only modern wood, stone, or brick structures or parts therein; *OR*
 3. The structure exhibits non-modern wood, stone, or brick structures or parts therein but lacks sufficient integrity and/or a context that suggests it might have engineering or historical significance. Under this condition, a qualified professional (meeting the Secretary of Interior's Professional Qualification standards [48 Federal Register (FR) 44716]) must prepare an analysis and justification that the structure lacks sufficient integrity and/or a context that suggests it might have engineering or historical



INDIANA ARCHAEOLOGICAL SHORT REPORT

State Form 54566 (1-11)

INDIANA DEPARTMENT OF NATURAL RESOURCES DIVISION OF HISTORIC PRESERVATION AND ARCHAEOLOGY

402 West Washington Street, Room W274
Indianapolis, Indiana 46204-2739
Telephone Number: (317) 232-1646
Fax Number: (317) 232-0693
E-mail: dhpa@dnr.IN.gov

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

Author: Paul D. Bundy

Date (month, day, year): February 6, 2020

Project Title: A Phase Ia Archaeological Survey of a Proposed SR 250 Small Structure Replacement Project Over an Unnamed Tributary of Vernon Fork of the Muscatatuck River, 0.78 mi E of SR 11, in Jackson County, Indiana (INDOT Des. No.: 1801015) (CRA Contract Publication Series 19-840).

PROJECT OVERVIEW

Project Description:

The Indiana Department of Transportation (INDOT) has proposed a small structure replacement project for a bridge that carries SR 250 over an unnamed tributary of Vernon Fork of the Muscatatuck River, 85.0 m (278.9 ft) west of the SR 250 and S 825 E intersection, in Jackson County, Indiana (Figures 1 and 2). The project is the proposed replacement of an existing adjacent box beam structure with a new structure on the present alignment. It is anticipated that the new structure will be a reinforced concrete box or three-sided flat top structure. The approaches will consist of two 10 foot through lanes with 3 foot usable shoulders. It is anticipated that the approach reconstruction will extend approximately 150 feet to the west and east of the structure. A larger survey area was investigated to encompass any possible additional right-of-way or changes in construction plans. In total, the survey area covered approximately 1.01 ha (2.50 acres) of existing and temporary right-of-way (Figure 3).

INDOT Designation Number/ Contract Number: Des. No. 1801015 Project Number: CRA No. I19B027

DHPA Number: N/A Approved DHPA Plan Number: N/A

Prepared For: Beam, Longest, & Neff, LLC

Contact Person: Brian Shaw

Address: 8126 Castleton Road

City: Indianapolis State: IN ZIP Code: 46250

Telephone Number: (317) 849-5832 Email Address: bshaw@b-l-n.com

Principal Investigator: Andrew V. Martin, RPA 61710

Signature:

Company/Institution: Cultural Resource Analysts, Inc. (CRA)

Address: 201 Northwest Fourth Street, Suite 204

City: Evansville State: IN ZIP Code: 47708

Telephone Number: (812) 253-3009

Email Address: amartin@crai-ky.com

PROJECT LOCATION

County: Jackson

USGS 7.5' series Topographic Quadrangle: Tampico, Indiana (United States Geological Survey [USGS] 1959, Minor Revision 1994)

Civil Township: Washington

Legal Location:

S 1/4, SE 1/4, SW 1/4, SW 1/4, Section: 20 Township: 5N Range: 6E

N 1/4, NE 1/4, NW 1/4, NW 1/4, Section: 29 Township: 5N Range: 6E

1/4, 1/4, 1/4, 1/4, Section: Township: Range:

1/4, 1/4, 1/4, 1/4, Section: Township: Range:

Topographic Map Datum: NAD 1983

Grid Alignment: SW

Comments: The survey area is located approximately 85.0 m (278.9 ft) west of the SR 250 and S 825 E intersection, in Jackson County, Indiana.

Property Owner: Wehrkamp, Ronald L. & Shannon M.; Klosterman, Leon K. & Kay Ellen; Herndon, Dwight & Janette K.; Koester, Thomas S. & Michelle L.

PROJECT AREA DETAILS

Length meters: 190 feet: 623.4 Width meters: 064.0 feet: 211.0 hectares: 01.0 acres: 02.5

Natural Region: Scottsburg Lowland Section

Topography: Floodplain and Upland Flats

Soil Association: Dubois-Otwell-Peoga (IN097) (Natural Resources Conservation Service 1994)

The following soils are mapped in the survey area: Birds silt loam, 0 to 1 percent slopes (BgeAH); Otwell silt loam, 6 to 12 percent slopes, eroded and severely eroded (OmKC2 and OmKC3); and Stendal silt loam, 0 to 2 percent slopes, rarely flooded (StdAQ) (Soil Survey Staff 2020a). The soil series are classified by the amount of time it has taken them to form and the landscape position they are found on (Birkeland 1984; Soil Survey Staff 1999). This information can provide a relative age of the soils and can express the potential for buried archaeological deposits within them (Stafford 2004). The soil order and group classifications for each soil series are used to assist with determining this potential.

The Birds (Typic Fluvaquents) series is classified as Entisols (Soil Survey Staff 1999, 2020b). The Birds series is mapped on the low-lying floodplain areas in approximately 79 percent of the survey area. Entisols are found on backswamps and floodplains that can receive new deposits of alluvium at frequent intervals (Soil Survey Staff 1999:389–390) and in some conditions may have the potential to contain buried archaeological deposits. Birds series is described as poorly drained and, in this case, the soil series is mapped in a poorly drained backswamp/floodplain area, which may limit the potential for archaeological deposits.

Soils:

The Otwell (Oxyaquic Fragiudalfs) series are classified as Alfisols (Soil Survey Staff 1999, 2020b). The Otwell series is mapped in approximately 18.5 percent of the survey on gradually sloping uplands (Soil Survey Staff 2020a). These Alfisols are found on landforms formed during the Late Pleistocene or earlier (Soil Survey Staff 1999:163–165). As such, archaeological deposits would only be found on, or very near, the ground surface on landforms mapped with these Alfisols.

The Stendal (Fluventic Endoaquepts) soil series is classified as an Inceptisol and is found on landforms that formed during the late Pleistocene or Holocene time periods (Soil Survey Staff 1999:489–493, 498–501 2020b). This soil series has been mapped in approximately 2.4 percent of the survey area, on the northern edge of the survey area near the unnamed tributary. The Stendal series consists of deep, somewhat poorly drained soils on floodplains (Soil Survey Staff 2020b). Landforms mapped with the Stendal series may have deeply buried and intact archaeological deposits, depending upon the landform on which the soil series formed (e.g., sideslope compared to alluvial terrace). In this case, Stendal series soils occur within the poorly drained backswamp/floodplain area which may limit the potential for archaeological deposits in the area.

Drainage: Muscatatuck

Current Land Use:

The survey area surrounding the bridge was in use as residential yards, though low-lying areas were poorly drained and saturated and the area north of SR 250 along the stream was in mixed hardwoods (Figure 4). In the area north of SR 250 and east of S 825 E, the higher ground was in use for agricultural purposes (Figure 5).

Comments: None

RECORDS REVIEW (check all that apply) Date of Records Check (month, day, year): January 9, 2020

SHAARD database

Site Maps on file at DHPA

Previously Reported Sites within One Mile of the Project (include citations):

No previously reported archaeological sites are within 1.6 km (1.0 mi) of the survey area.

Cultural Resource Management reports, other research reports, grant reports on file at DHPA or other institutions

Previous Archaeological Studies within One Mile of the Project (include citations):

The file search indicated that there were no previous archaeological studies within 1.6 km (1.0 mi) of the survey area (Division of Historic Preservation and Archaeology [DHPA] 2020).

List other institutions: No files at other institutions were researched.

Cemetery Records

Results: There are no cemeteries within or near the survey area.

McGregor Industrial Site records (*in applicable counties*)

Results: N/A

County Interim Report

Results: No sites or structures in the Indiana Historic Sites and Structures Inventory are within, or adjacent to, the survey area (Historic Landmarks Foundation of Indiana 1988).

Historic Maps

Results: 1874 Map of Jackson County, Indiana (Cox)
1876 Illustrated Historical Atlas of the State of Indiana, Jackson County (Baskin, Forster & Company)
1878 Illustrated Historical Atlas of Jackson County, Washington Township (Randall et al.)
1900 Descriptive Atlas of Jackson County Indiana, Washington Township (American Map and Atlas Company)
1910 Map of Jackson County, Indiana, Showing Rural Delivery Service (United States Post Office Department)
1934 Atlas of Indiana, Jackson County (W.W. Hixson & Company)
1936 Map of Jackson County, Cultural (Indiana Highway Survey Commission)
circa 1950 Plat Book of the State of Indiana, Jackson County (Hixson Map Company)
1959 Tampico, Indiana, 7.5-minute series topographic quadrangle (USGS)
1961 General Highway and Transportation Map of Jackson County, Indiana (Indiana State Highway Commission)

No structures are depicted within survey area on the referenced historic maps.

Known Cultural Manifestations and/or Additional Information:

Previous research has demonstrated that archaeological sites in this region of Indiana may include components from the entire timeline of North American prehistory and history. Prehistoric periods represented in the archaeological record include Paleoindian (10,000–7500 BC), Early Archaic (8000–6000 BC), Middle Archaic (6000–3500 BC), Late Archaic (4000–1500 BC), Terminal Late Archaic (1500–700 BC), Early Woodland (1000–200 BC), Middle Woodland (200 BC–AD 600), Late Woodland (AD 500–1200), and Late Prehistoric/Mississippian (AD 1000–1650) (Jones and Johnson 2016).

A review of the archaeological records conducted using the Indiana DHPA State Historic Architectural and Archaeological Research Database (SHAARD) shows that at least 512 archaeological sites have been recorded in Jackson County (DHPA 2020). Most of the sites recorded in Jackson County have been located on the Medora (n = 89; 17.4 percent), Chestnut Ridge (n = 78; 15.2 percent), and Seymour (n = 76; 14.8 percent) topographic quadrangles. Site components represented are predominately unidentified prehistoric (n = 182; 31.4 percent) and historic (n = 154; 26.5 percent). Other commonly occurring site components are Late Archaic (n = 66; 11.4 percent) and Early Archaic (n = 58; 10.0 percent). Site types within Jackson County predominately consist of other/unspecified (n = 207; 38.7 percent) and prehistoric camps/lithic scatters (n = 194; 36.3 percent) (DHPA 2020).

FIELD INVESTIGATION: (*check all that apply*) Field Investigation Dates (*month, day, year*): January 14, 2020

Field Supervisor: Paul D. Bundy

Field Crew: N/A

Surface Visibility: Surface visibility in the survey area was less than 30 percent (see Figure 4).

Factors Affecting Visibility:

The ground surface visibility was primarily affected by mixed grasses in residential areas and mixed hardwoods and secondary growth along the creek north of SR 250. Even the agricultural field on the higher ground north and east of the road intersection had limited surface visibility due to crop chaff and vegetation (Figure 6).

Visual Walkover Pedestrian Survey Shovel Test Screened Mesh Size

Interval 5 m 10 m 15 m Other (*describe below*)

Number of Shovel Test Units Excavated:

Describe Methods:

All areas were investigated using a single shovel test transect at 15 m intervals. All shovel tests measured at least 30 cm (12 in) in diameter and extended 10 cm (4 in) into culturally sterile deposits. All fill removed was screened through 0.64 cm (0.25 in) mesh, and the sidewalls and bottoms of shovel tests were examined for cultural materials and features. Soil profiles illustrating pertinent soil horizon characteristics (i.e., color, texture, inclusion) were recorded.

Attach photographs documenting disturbances below

Describe Disturbances:

Ground surface disturbances in the survey area were primarily related to SR 250, which had road ditches and sloped edges to the corridor (see Figure 4).

Comments:

No further comments.

Results

- Archaeological records check has determined that the project area does not have the potential to contain archaeological resources.
- Archaeological records check has determined that the project area has the potential to contain archaeological resources.
- Phase Ia reconnaissance has located no archaeological resources in the project area.
- Phase Ia reconnaissance has identified landforms conducive to buried archaeological deposits.

Actual Area Surveyed hectares: acres:

Comments:

Undisturbed areas mapped as Birds silt loam were on nearly all of the low-lying areas in the floodplain covering the majority of the project area on both sides of the road (Soil Survey Staff 2020a). The soil profiles consisted of a brown (10YR 5/3) silt loam Ap-horizon to depths that extended to approximately 25.0 (9.8 in) below ground surface (bgs). The underlying Cg-horizon consisted of a light brownish gray (10YR 6/2) silty loam to silty clay loam. At this depth (or prior) shovel tests filled with water. Where possible, shovel tests were excavated to approximately 35.0 cm (13.8 in) bgs in these areas despite the issues with water. In some areas north of SR 250 along the unnamed stream, soils were completely saturated and shovel testing was more difficult with some shovel tests collapsing. The observed soils were generally consistent with the soil survey description of the Birds series (Nagel 1990:102–103; Soil Survey Staff 2020b).

Otwell silt loam is mapped on the higher ground at the western edge of the survey area and at the northeastern edge of the survey area (Soil Survey Staff 2020a). Undisturbed soil profiles revealed a brown (10YR 4/3) silt loam to approximately 25.0 cm (9.8 in) bgs, overlying a yellowish brown (10YR 5/6) silt loam to silty clay loam Bt-horizon. Shovel test profiles were generally consistent with the soil survey description (Soil Survey Staff 2020b).

Stendal silt loam is mapped in a small area north of SR 250 along the unnamed stream (Soil Survey Staff 2020a). Shovel tests in this area were similar to the Birds silt loam and very wet with a (10YR 5/3) silt loam to silt loam A-horizon to approximately 25.0 (9.8 in) bgs. Below the upper zone, shovel tests revealed a light brownish gray (10YR 6/2) to brownish yellow (10YR 6/8) silt loam to silty clay loam. The observed soils were relatively consistent with the soil survey description of the Stendal series (Soil Survey Staff 2020b; Nagel 1990:129).

Recommendation

- The archaeological records check has determined that the project area has the potential to contain archaeological resources and a Phase Ia archaeological reconnaissance is recommended.
- The archaeological records check has determined that the project area does not have the potential to contain archaeological resources and no further work is recommended before the project is allowed to proceed.
- The Phase Ia archaeological reconnaissance has located no archaeological sites within the project area and it is recommended that the project be allowed to proceed as planned.
- The Phase Ia archaeological reconnaissance has determined that the project area includes landforms which have the potential to contain buried archaeological deposits. It is recommended that Phase Ic archaeological subsurface reconnaissance be conducted before the project is allowed to proceed.
- The Phase Ia archaeological reconnaissance has determined that the project area is within 100 feet of a cemetery and a Cemetery Development Plan is required per IC-14-21-1-26.5.

Cemetery Name:

Other Recommendations/Commitments:

Shovel tests indicated the floodplain area was saturated and poorly drained with no indication of cultural deposits in shovel tests. As a result, no deep testing on the floodplain within the survey area is considered necessary.

Pursuant to IC-14-21-1, if any archaeological artifacts or human remains are uncovered during construction, demolition, or earthmoving activities, state law (Indiana Code 14-21-1-27 and 29) requires that the discovery must be reported to the Department of Natural Resources within two (2) business days. In that event, please call (317) 232-1646.

Attachments

- Figure showing project location within Indiana.
- USGS topographic map showing the project area (*1:24,000 scale*).
- Aerial photograph showing the project area, land use and survey methods.
- Photographs of the project area.
- Project plans (*if available*)

Other Attachments:

References Cited:

Comments:

Curation

Curation Facility for Project Documentation:

Attachments have been removed for relevance/duplication

Appendix E:

Red Flag and Hazardous Materials



INDIANA DEPARTMENT OF TRANSPORTATION

100 North Senate Avenue
Room N758-ES
Indianapolis, Indiana 46204

PHONE: (855) 463-6848
(855) INDOT4U

Eric Holcomb, Governor
Joe McGuinness,
Commissioner

Date: February 16, 2022

To: Site Assessment & Management (SAM)
Environmental Policy Office - Environmental Services Division (ESD)
Indiana Department of Transportation (INDOT)
100 N Senate Avenue, Room N758-ES
Indianapolis, IN 46204

From: Hillary Shaffer
Beam, Longest, and Neff, LLC
8320 Craig Street
Indianapolis, IN 46250
hshaffer@b-l-n.com

Re: RED FLAG INVESTIGATION
DES # 1801015, State Project
Small Structure Replacement
SR 250 over Culvert, 0.78 Mile East of SR 11
Jackson County, Indiana

PROJECT DESCRIPTION

Brief Description of Project: Indiana Department of Transportation (INDOT) proposes a small structure replacement on State Road (SR) 250 over a culvert, 0.78 mile East of SR 11 in Jackson County, IN. The small structure consists of a single span prestressed concrete box beam small structure, spanning 18.5 feet with a rise of 3 feet. The structure is approximately 40 feet long (along the skew) and skewed approximately 45 degrees left to the roadway. The perpendicular span is 13 feet. There is cover of approximately 6 inches between the top of the structure and the surface of the roadway. The minimal cover consists entirely of asphalt.

The proposed project consists of the construction of a new structure on the alignment with minimum road reconstruction. The roadway would consist of two 10-foot lanes and 4-foot wide usable shoulders. The lanes will consist of asphalt and the usable shoulders will consist of 2 feet of paved width and 2 feet of compacted aggregate width. The replacement structure will be a precast reinforced concrete box that is single spanned. Roadway reconstruction will extend 200 feet to the east and 200 feet to the west of the culvert.

Bridge Work Included in Project: Yes No Structure #(s) _

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).

Culvert Work Included in Project: Yes No Structure #(s) 250-036-09.30

Proposed right of way: Temporary # Acres _____ Permanent # Acres 0.51 , Not Applicable

Type and proposed depth of excavation: : Excavation up to 4 feet below grade is planned under the current structure, upstream at the edges of the channel, to install riprap, and downstream to reshape the channel banks.

Maintenance of traffic (MOT): Road will be closed and an official detour route utilizing SR 11, US 50, and I-65 will be used.

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	N/A
Cemeteries	N/A	Railroads	N/A
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-use airports within 3.8 miles (20,000 feet) is required.

Explanation: No infrastructure resources are located in the 0.5 mile search radius.

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	21
Canal Structures – Historic	N/A	Lakes	N/A
NPS NRI Listed	N/A	Floodplain - DFIRM	1
NWI-Lines	1	Cave Entrance Density	N/A
IDEM 303d Listed Streams and Lakes (Impaired)	N/A	Sinkhole Areas	N/A
Rivers and Streams	6	Sinking-Stream Basins	N/A

If unmapped water features are identified that might impact the project area, direct coordination with INDOT ESD Ecology and Waterway Permitting will occur.

Explanation:

NWI – Lines: One (1) NWI – Line is located within the 0.5 mile search radius. The NWI – Line is located approximately 0.02 mile southeast of the project area. No impact is expected.

Rivers and Streams: Six (6) stream segments are located within the 0.5 mile search radius. One (1) segment, a stream, is located within the project area. A Waters of the US Report will be prepared and coordination with INDOT ESD Ecology and Waterway Permitting will occur.

NWI – Wetlands: Twenty-one (21) NWI-wetland polygons are located within the 0.5 mile search radius. Two (2) wetland polygons are located within the project area. A Waters of the US Report will be prepared and coordination with INDOT ESD Ecology and Waterway Permitting will occur.

Floodplain -DFIRM: One (1) Floodplain polygon is located within the 0.5 mile search radius. This floodplain polygon is located within the project area. Coordination with INDOT ES Ecology and Waterway Permitting will occur.

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 and 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

Unless otherwise noted, site specific details presented in this section were obtained from documents reviewed on the Indiana Department of Environmental Management (IDEM) Virtual File Cabinet (VFC).

Explanation: No Hazardous Material Concern sites are located within the 0.5 mile search radius.

ECOLOGICAL INFORMATION SUMMARY

The Jackson County listing of the Indiana Natural Heritage Data Center information on endangered, threatened, or rare (ETR) species and high quality natural communities is provided at https://www.in.gov/dnr/nature-preserves/files/np_jackson.pdf. A preliminary review of the Indiana Natural Heritage Database by INDOT ESD did not indicate the presence of ETR species within the 0.5 mile search radius.

A review of the USFWS database did not indicated 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 and residential properties. The November 1, 2021 inspection report for Culvert #250-036-09.30 states that no evidence of bats was seen or heard in the culvert. The range-wide programmatic consultation for the Indiana Bat and Northern Long-eared Bat will be completed according to the most recent "Using the USFWS's IPaC System for Listed Bat Consultation for INDOT Projects."

RECOMMENDATIONS SECTION

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

INFRASTRUCTURE: N/A

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

- One (1) stream segment, a stream, flows through the project area.
- Two (2) wetland polygons are in the project area.
- The project area is located within a floodplain. (coordination only)

MINING/MINERAL EXPLORATION: N/A

HAZARDOUS MATERIAL CONCERNS: N/A

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

INDOT ESD concurrence: Chad Pitcher, CHMM (Signature)
Digitally signed by Chad Pitcher, CHMM
Date: 2022.02.22 09:22:29 -05'00'

Prepared by:
Hillary Shaffer
Senior Environmental Analyst
Beam, Longest, and Neff, LLC

Graphics:

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

SITE LOCATION: YES Site location map has been omitted to avoid duplication

INFRASTRUCTURE: N/A

WATER RESOURCES: YES

MINING/MINERAL EXPLORATION: N/A

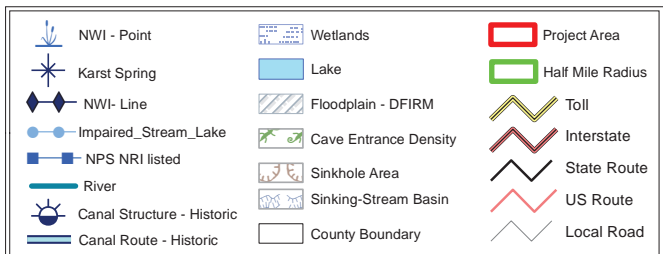
HAZARDOUS MATERIAL CONCERNS: N/A

Red Flag Investigation - Water Resources
 SR 250 over Culvert, 0.78 Mile East of SR 11
 Des. No. 1801015, Small Structure Replacement
 Jackson County, Indiana



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

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



Appendix F:

Water Resources

**Waters Report
Small Structure Replacement
State Road (SR) 250 over UNT to Rider Ditch
Jackson County, Indiana
Des. No. 1801015
CV #250-036-09.30**

Prepared by: Hillary Shaffer
hshaffer@b-l-n.com; 317-849-5832
Beam, Longest and Neff (BLN)
Completion Date: May 23, 2022

PROJECT INFORMATION

Dates of Field Reconnaissance

October 29, 2020, October 19, 2021, April 20, 2022, and May 2, 2022

Location

Sections 20 & 29, Township 5 North, Range 6 East
Tampico, Indiana Quadrangle Map
Latitude: 38.851390 North, Longitude: 85.885660 West

PROJECT DESCRIPTION

The project consists of replacing the existing culvert (#250-036-09.30) that carries SR 250 over an Unnamed Tributary (UNT) to Rider Ditch. The project is approximately 0.79 mile east of SR 11 in Jackson County (Appendix A-1).

The existing small structure consists of a single span prestressed concrete box beam culvert, spanning 18.5 feet with a rise of three feet. The existing culvert is approximately 40 feet long along the skew and approximately a 45-degree skew left to the roadway. The perpendicular span is 13 feet. An existing cover of approximately six inches is between the top of the structure and the existing surface of the roadway. The minimal cover consists entirely of asphalt. The proposed project consists of the construction of a new structure on the existing alignment with minimum road reconstruction. The roadway would consist of two 10-foot lanes and 4-foot-wide usable shoulders. The lanes will consist of asphalt, and the usable shoulders will consist of 2 feet of paved width and 2 feet of compacted aggregate width. The replacement structure will be a precast reinforced concrete box that is single spanned.

General topography in the investigated area is relatively flat. According to the United States Geological Survey (USGS) Norman Quadrangle, Indiana 7.5-minute topographic quadrangle map, the road has an elevation of approximately 539 feet above Mean Sea Level (MSL). The elevation of UNT to Rider Ditch within the investigated area is approximately 538 feet above MSL (Appendix A-2 and A-3).

DESKTOP DATA REVIEW

Soils

According to the Soil Survey Geographic (SSURGO) Database for Jackson County, Indiana, the investigated area contains soils on the national list of hydric soils (Appendix A-8) Table 1 lists the soil types located within the investigated area.

Table 1: Soil Series in Investigated area

Soil Name	Map Abbreviation	Hydric Rating
Stendal silt loam, 0 to 2 percent slopes, rarely flooded	StdAQ	5 (hydric)
Birds silt loam, 0 to 1 percent slopes, frequently flooded, brief duration	BgeAH	90 (hydric)
Otwell silt loam, 6 to 12 percent slopes, severely eroded	Omkc3	0 (not hydric)

National Wetlands Inventory (NWI) Information

Several NWI-mapped features were located within a 0.5-mile search radius. One NWI-mapped stream, UNT to Rider Ditch, and two NWI-mapped wetlands are within the investigated area. The Cowardin classification of the mapped stream is R4SBC, and the two wetlands are classified as PFO1 and EM1A.

Floodplain

A Flood Insurance Rate Map (FIRM) obtained from the Federal Emergency Management Agency (FEMA) shows that neither the investigated area is mapped within a 1% annual chance flood hazard zone (Appendix A-6).

Hydrologic Unit Code (HUC)

The investigated area is situated in the Grassy Creek – Vernon Fork Muscatatuck River watershed, which is identified by the 12-digit HUC 051202070706 (Appendix A-9).

FIELD RECONNAISSANCE

Field visits for aquatic resources was conducted by BLN staff on October 29, 2020, October 19, 2021, April 20, 2022, and May 2, 2022. No unusual circumstances were present at the time of field reconnaissance. Existing land use in the investigated area is primarily residential and wooded with surrounding agricultural fields. The investigated area extends approximately 400 feet west of the center of the culvert and continues east for approximately 900 feet along SR 250. The field investigation identified one waterway (UNT to Rider Ditch) and three wetlands (Wetland A, Wetland B, and Wetland C) within investigated area (Appendix A-10).

Streams

The investigated area was inspected for the presence of streams. Streams in the investigated area were identified and evaluated using *Methods for Assessing Habitat in Flowing Waters: Using the Qualitative Habitat Evaluation Index (QHEI)* (2006). Recommendations on the jurisdictional status of water resources within the investigated area were made based on guidance from the *US Army Corps of Engineers Jurisdictional Determination Form Instructional Guidebook* (2007).

UNT to Rider Ditch

The USGS topographic map and the National Hydrography Dataset both identify UNT to Rider Ditch as being an intermittent stream that runs through the investigated area. According to the USGS Stream Stats application, the UNT exhibits an upstream drainage area of 0.235 square mile. The stream is present for 540 linear feet within the investigated area. Three OHWM (ordinary high-water marks) were recorded for this stream in different parts of the investigated area due to widely varying observations. OHWM 1 was taken in the northwestern portion of the investigated area and measured 1 foot wide by 0.4 foot deep. OHWM 2 was taken slightly northwest of the small structure and measured 1.5 feet wide by 4 feet deep. OHWM 3 was taken in the southeast portion of the investigated area where UNT to Rider Ditch presents as a roadside ditch and measured 4 feet wide by 0.25 feet deep. UNT to Rider Ditch exhibited pools but no riffles and a substrate of mud/silt. UNT to Rider Ditch would be classified as an intermittent stream with a Cowardin of R4SBC and a quality of fair based on the observation during field work. Because UNT to Rider Ditch flows to Rider Ditch which eventually flows to the White River, a section 10 Traditionally Navigable Waterway, it is considered Waters of the U.S.

Table 2: Stream Summary

Water Feature Name	Photos	Lat/Long	OHWM Width (ft)	OHWM Depth (ft)	USGS Blue-line? Type?	Riffles ? Pools?	Quality	Substrate	Likely Water of U.S.?
UNT to Rider Ditch	5, 8, 18, 19, 20, 21, 22	38.851446 N -85.885040 W (OHWH 3)	4	0.25	Yes, intermittent	R: No P: Yes	Fair	Mud/Silt	Yes

Wetland Sample Points

The *US Army Corps of Engineers (USACE) 1987 Wetland Delineation Manual* and the *2012 Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Midwest Region (Version 2.0)* were used to determine whether wetlands were present within the investigated area. Wetland/non-wetland determinations were made using guidance and techniques provided by the *Delineation Manual* and *Regional Supplement*, including vegetation, hydrology, and soil characteristics. Sample points were taken in areas where potential wetland hydrology and/or hydrophytic vegetation were observed. The soils observed at each sample point location were compared to the hydric soil indicators presented in the *Field Indicators of Hydric Soils in the United States*.

Eight sample points were taken and are discussed below. An aerial photograph that illustrates the sample point locations and identified water resources (Figure A-9), photographs of the investigated area and sample points (Figure A-12, a photo orientation map (Figure B-1), and wetland determination data forms for the sample points (Figure C-1) are attached to this report.

Table 3: Wetland Data Point Summary

Data Point	Photos	Lat/Long	Vegetation	Soils	Hydrology	Wetland
SP1	1-2	38.8503003 N, -85.8841267 W	Yes	Yes	Yes	Yes
SP2	3-4	38.8515201 N, -85.8858574 W	Yes	Yes	Yes	Yes
SP3	5-6	38.8512958 N, -85.8844543 W	Yes	Yes	Yes	Yes
SP4	9-10	38.8513101 N, -85.8853564 W	Yes	Yes	Yes	Yes
SP5	15-16	38.8513241 N, -85.8851298 W	No	No	No	No
SP6	23-24	38.8514842 N, - 85.8846660 W	Yes	Yes	Yes	Yes
SP7	25-26	38.8513833 N, - 85.8846167 W	No	No	No	No
SP8	29-30	38.8512940 N, -85.8838586 W	No	No	No	No

Sample Point 1 (SP1)

SP1 was taken in the northwest quadrant of the investigated area in an area with standing water. Dominant vegetation at SP1 was reed canary grass (*Phalaris arundinacea*, FACW), sweet flag (*Acorus calamus*, OBL), and broadleaf cattail (*Typha latifolia*, OBL) in the herb stratum. This does meet the vegetation criterion for a positive wetland determination, passing the rapid test, dominance test, and prevalence index. The soils in the 18-inch test pit consisted of a layer of muck with a color of 10YR 2/1 from 0 to 5 inches. From 5 to 14 inches, soils consisted of silt loam with a matrix color of 10YR 3/1 (85%) with redox concentrations with a color of 10YR 4/6 (5%) in the matrix and pore linings, as well as redox depletions with a color of 2.5Y 4/1 (10%) in the matrix. From 14 to 18 inches, soils consisted of silt loam with a matrix color of 10YR 4/1 (95%) with redox concentrations with a color of 10YR 3/6 (5%) in the pore linings. This observation satisfies the hydric soil criterion for a positive wetland determination, meeting the 2-centimeter (cm) muck and redox dark surface indicators. SP1 had surface water present, drift deposits, thin muck surface, crayfish burrows, a high-water table and saturation present at 1 inch, and passed the FAC-Neutral Test. Sufficient primary and secondary hydrology indicators were observed. This observation satisfies the hydrology criterion for a positive wetland determination. Since SP1 meets all three wetland criteria, this point is confirmed as a wetland point.

Sample Point 2 (SP2)

SP2 was taken in the northwest quadrant of the investigated area. Dominant vegetation at SP2 was black raspberry (*Rubus occidentalis*, no indicator) in the sapling/shrub stratum and reed canary grass (*Phalaris arundinacea*, FACW), in the herb stratum. This does meet the vegetation criterion for a positive wetland determination, passing the rapid test, dominance test, and prevalence index. The soils in the 18-inch test pit consisted of a layer of muck with a color of 10YR 2/1 from 0 to 5 inches. From 5 to 14 inches, soils consisted of silt loam with a matrix color of 10YR 3/1 (85%) with redox concentrations with a color of 10YR 4/6 (5%) in the matrix and pore linings, as well as redox depletions with a color of 2.5Y (10%) in the matrix. From 14 to 18 inches, soils consisted of silt loam with a matrix color of 10YR 4/1 (95%) with redox concentrations with a color of 10YR 3/6 (5%) in the pore linings. This observation satisfies the hydric soil criterion for a positive wetland determination, meeting the 2-centimeter (cm) muck and redox dark surface indicators. SP 2 had surface water present, drift deposits, thin muck surface, crayfish burrows, oxidized rhizospheres on living roots, a high-water table and saturation present at 1 inch, and passed the FAC-Neutral Test. Sufficient primary and secondary hydrology indicators were observed. This observation satisfies the hydrology criterion for a positive wetland determination. Since SP2 meets all three criteria, this point is confirmed as a wetland point.

Sample Point 3 (SP3)

SP3 was taken in the southeast quadrant of the investigated area, south of SR 250. Dominant vegetation at SP3 included Kentucky bluegrass (*Poa pratensis*, FAC), needle spikerush (*Eleocharis acicularis*, OBL), and St. Augustine grass (*Stenotaphrum secundatum*, no indicator) in the herbaceous stratum. This observation met the vegetation criterion for a positive wetland determination, passing the dominance test and prevalence index. The soils in the 16-inch pit consisted of sandy clay loam with a matrix color of 10YR 4/2 (90%) from 0 to 5 inches with redox concentrations with a color of 7.5YR 4/6 (10%) in the matrix. From 5 to 9 inches, soils consisted of a silty clay loam with a matrix color of 10YR 5/1 (85%) with redox concentrations with a color of 7.5YR 4/6 (15%) in the matrix. From 9 to 16 inches, soils consisted of a silty clay loam with a matrix color of 10YR 5/1 (80%) with redox concentrations with a color of 7.5YR 4/6 (20%) in the matrix. This observation did meet the hydric soil criterion for a positive wetland determination, meeting the depleted matrix indicator.

SP3 had saturation present at 10 inches, crayfish burrows, oxidized rhizospheres on living roots, and passed the FAC-Neutral Test. This observation meets the hydrology criterion for a positive wetland determination. Since SP3 meets all three wetland criteria, this point is confirmed as a wetland point.

Sample Point 4 (SP4)

SP4 was taken in the southwest quadrant of the investigated area. Dominant vegetation at SP4 included Kentucky bluegrass (*Poa pratensis*, FAC) and bulbous bittercress (*Cardamine bulbosa*, OBL) in the herb stratum. This does meet the vegetation criterion for a positive wetland determination, passing the dominance test, and prevalence index. The soils in the test pit consisted of a silty clay loam with a matrix color of 10YR 4/2 (95%) with redox concentration with a color of 7.5YR 4/4 (5%) in the matrix from 0 to 6 inches. From 6 to 11 inches, soils consisted of a silty clay loam with a matrix color of 10YR 5/1 (90%) with redox concentrations with a color of 7.5YR 4/6 (10%) in the matrix. From 11 to 20 inches, soils consisted of a silty clay loam with a matrix color of 10YR 5/1 (80%) with redox concentrations with a color of 7.5YR 4/6 (20%) in the matrix. This observation did meet the hydric soil criterion for a positive wetland determination, meeting the depleted matrix indicator. SP 4 had saturation at the surface, water table present at 10 inches, crayfish burrows, and passed the FAC-Neutral Test. This observation meets the hydrology criterion for a positive wetland determination. Since SP4 meets all three wetland criteria, this point is confirmed as a wetland point.

Sample Point 5 (SP5)

SP5 was taken north of SR 250, west of UNT to Rider Ditch. Dominant vegetation included white ash (*Fraxinus americana*, FACU) in the tree stratum; multiflora rose (*Rosa multiflora*, FACU), red deadnettle (*Lamium purpureum*, no indicator), and cleavers (*Galium aparine*, FACU) in the herb stratum; and Japanese honeysuckle (*Lonicera japonica*, FACU) in the woody vine stratum. This observation did not meet the vegetation criterion for a positive wetland determination. The soils in the test pit consisted of a silty clay loam with a matrix color of 10YR 4/2 (100%) from 0 to 12 inches. A restrictive layer of roots was present at 12 inches. This observation did not meet the hydric soil criterion for a positive wetland determination. No primary or secondary indicators of wetland hydrology observed. This observation did not meet the hydrology criterion for a positive wetland determination. SP5 lacked hydric vegetation, hydric soil indicators and hydrology and was designated as an upland point.

Sample Point 6 (SP6)

SP6 was taken in the northeast quadrant of the investigated area. Dominant vegetation at SP6 consisted of marsh seedbox (*Ludwigia palustris*, OBL), rice cutgrass (*Leersia oryzoides*, OBL), and broadleaf cattail (*Typha latifolia*, OBL) in the herb stratum. This does meet the vegetation criterion for a positive wetland determination, passing the rapid test, dominance test, and prevalence index. From 0 to 4 inches, the soils in the test pit consisted of a silty loam with a matrix color of 2.5YR 3/1 (95%) with redox concentrations with a color of 10YR 5/6 (5%). From 5 to 11 inches, soils consisted of a sandy clay loam with a matrix color of 2.5Y 4/2 (75%) with redox concentrations with a color of 7.5YR 4/6 (25%) in the matrix and pore linings. From 11 to 16 inches, soil consisted of a sandy clay loam with a matrix color of Gley N 4/10Y (90%) with redox concentrations with a color of 10YR 3/4 (10%) in the matrix and pore linings. This observation meets the hydric soil criterion for a positive wetland determination, meeting the loamy gleyed matrix indicator. SP 6 had surface water present, saturation at the surface, true aquatic plants, and passed the FAC-Neutral Test. Sufficient primary and secondary hydrology indicators were observed. This observation meets the hydrology criterion for a positive wetland determination. SP6 had sufficient hydrology, hydric soil indicators, and hydrophytic vegetation and therefore was designated as a wetland point.

Sample Point 7 (SP7)

SP7 was taken in the northeast quadrant of the investigated area. Dominant vegetation at SP 7 included Kentucky bluegrass (*Poa pratensis*, FAC) and tall fescue (*Schedonorus arundinaceus*, FACU) in the herb stratum. This observation did not meet the vegetation criterion for a positive wetland determination. The soils in the 18-inch pit consisted of a loam with matrix colors of 10YR 4/3 (100%) from 0 to 4 inches and 2.5Y 4/4 (100%) from 4 to 18 inches). This observation did not meet the hydric soil criterion for a positive wetland determination. No primary or secondary indicators of wetland hydrology observed. This observation did not meet the hydrology criterion for a positive wetland determination. SP7 lacked hydric vegetation, hydric soil indicators and hydrology and was designated as an upland point.

Sample Point 8 (SP8)

SP8 was taken in the southeast quadrant of the investigated area. Dominant vegetation at SP8 included meadow foxtail (*Alopecurus pratensis*, FACW) and bird's-foot trefoil (*Lotus corniculatus*, FACU) in the herb stratum. This observation did not meet the vegetation criterion for a positive wetland determination. The soils in the 18-inch pit consisted of a sandy clay loam and sandy loam with a matrix color of 10YR 2.5/2 (100%) from 0 to 8 inches, and a matrix color of 10YR 4/1 (83%) with redox concentrations with a color of 7.5YR 4/6 (10%) and depletions with a color of 10YR 4/1 (7%). This observation

did not meet the hydric soil criterion for a positive wetland determination No primary or secondary indicators of wetland hydrology observed. This observation did not meet the hydrology criterion for a positive wetland determination. SP8 lacked hydric vegetation, hydric soil indicators and hydrology and was designated as an upland point.

Wetland A is on the north side of SR 250, west of UNT to Rider Ditch. Wetland A was delineated for a total of 0.211 acre. The wetland is a mixture of emergent and forested. Wetland A extends both west and north beyond the investigated area. It is average quality with native vegetation. Because Wetland A drains to UNT to Rider Ditch, which flows to Rider Ditch, which eventually flows to the White River, a section 10 Traditionally Navigable Waterway, it would likely be considered a Water of the U.S.

Wetland B is on the north side of SR 250, east of UNT to Rider Ditch. Wetland B was delineated for a total of 0.351 acre. The wetland is a mixture of emergent and forested. Wetland B extends north beyond the investigated area. It is average quality with native vegetation. Because Wetland B drains to UNT to Rider Ditch, which flows to Rider Ditch, which eventually flows to the White River, a section 10 Traditionally Navigable Waterway, it would likely be considered a Water of the U.S.

Wetland C is on the south side of SR 250, west of S 825 E. Wetland C is located south of UNT to Rider Ditch and was delineated for a total of .607 acre. Wetland C is emergent with a small portion slightly underneath tree cover of the forested area south of the investigated area. Wetland C extends both west and south beyond the investigated area. A portion of the wetland exhibits roadside ditch characteristics and extends from the beyond the western limits of the investigated area to the small structure. It is average quality, with native vegetation, but with a portion of the wetland located within a mowed area. Because Wetland C drains to UNT to Rider Ditch, which flows to Rider Ditch, which eventually flows to the White River, a section 10 Traditionally Navigable Waterway, it would likely be considered a Water of the U.S.

Table 4: Wetland Summary Table

Wetland Name	Photos	Lat/Long	Type	Total Area (acres)	Quality	Likely Water of the U.S.?
Wetland A	1, 2, 3, 4, 9, 10, 17	38.851470 N, 85.885603 W	PEM (0.154 Acre), PFO (0.057 Acre)	0.211	Average	Yes
Wetland B	15, 16, 23, 24,25, 26, 27, 28	38.851521 N, 85.884895 W	PEM (0.053 Acre), PFO (0.298 Acre)	0.351	Average	Yes
Wetland C	5, 6, 7, 10, 11, 12, 13, 14	38.851254 N, 85.884891 W	PEM	0.607	Average	Yes

Other Features

The investigated area was also surveyed for other aquatic features, including roadside ditches and open water bodies. Any features identified were evaluated for potential jurisdictional status.

Roadside Ditches

While the National Hydrography Dataset Map only shows UNT to Rider Ditch being a roadside ditch from the south end of the project culvert along the southeast quadrant of the investigated area, field reconnaissance confirmed the UNT to Rider Ditch would likely be considered a Waters of the U.S. Roadside ditches were also observed along the north and south sides of SR 250 within Wetland A Wetland B, and Wetland C. The ditches exhibited wetland characteristics and are included within the corresponding wetland areas. No additional roadside ditches were delineated within the investigated area.

Lakes/Ponds

No lakes or ponds were observed in the investigated area.

Conclusions

BLN conducted a field investigation to identify Waters of the U.S. within the investigated area on October 29, 2020, October 19, 2021, April 20, 2022 and May 2, 2022. The investigation identified one likely jurisdictional waterway (UNT to Rider Ditch) and three wetlands (Wetland A, Wetland B, and Wetland C) within the investigated area.

UNT to Rider Ditch, Wetland A, Wetland B, and Wetland C are likely Waters of the U.S. Every effort should be taken to avoid and minimize impacts to the waterways. If impacts are necessary, mitigation may be required. The INDOT Environmental Services Division should be contacted immediately if impacts will occur. The final determination of jurisdictional waters is ultimately made by USACE. This report is our best judgment based on the guidelines set forth by USACE.

Acknowledgement

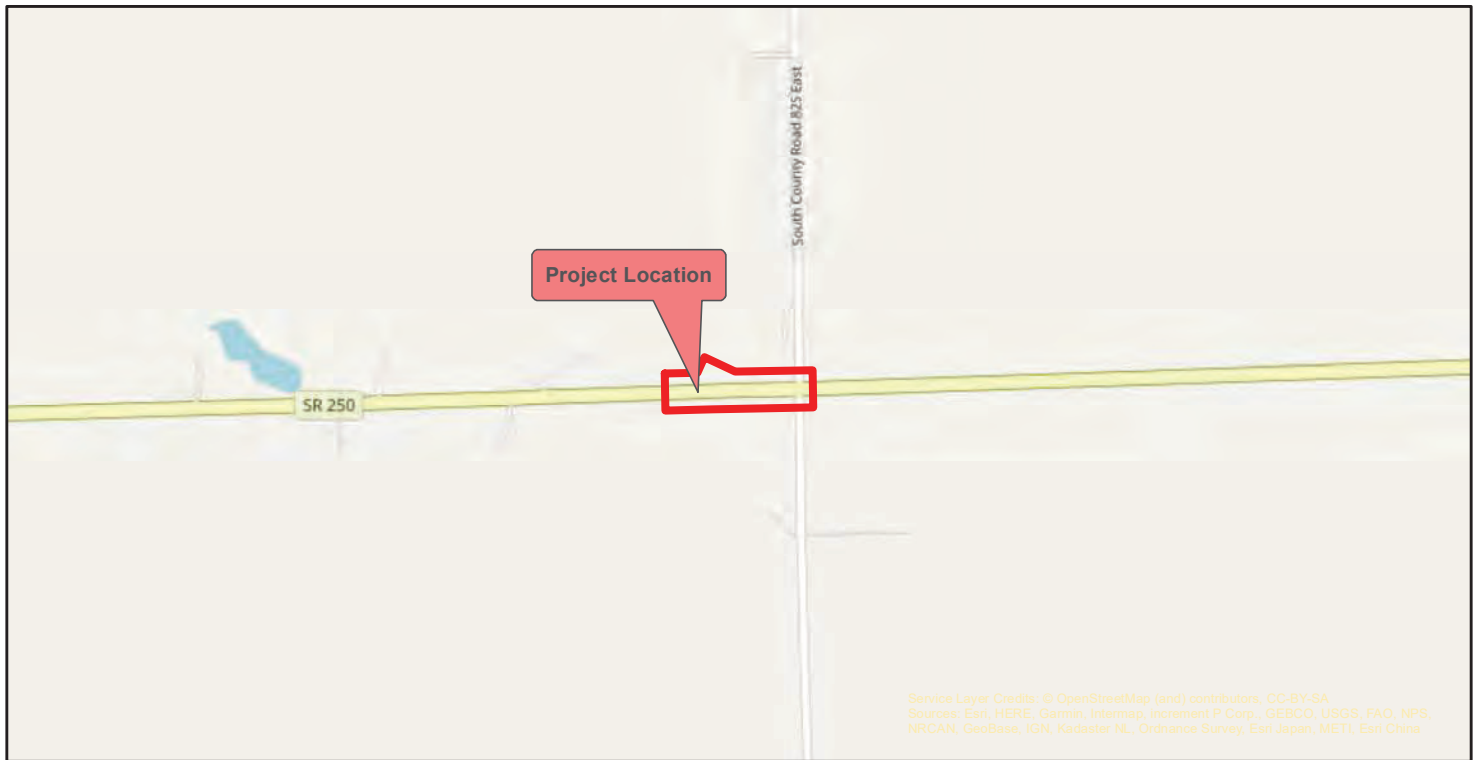
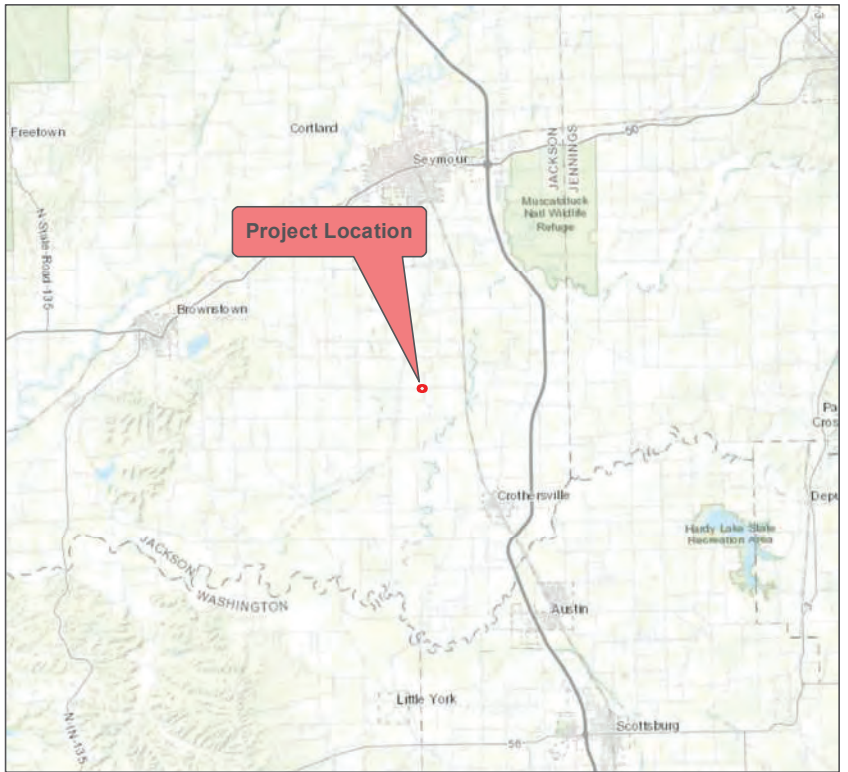
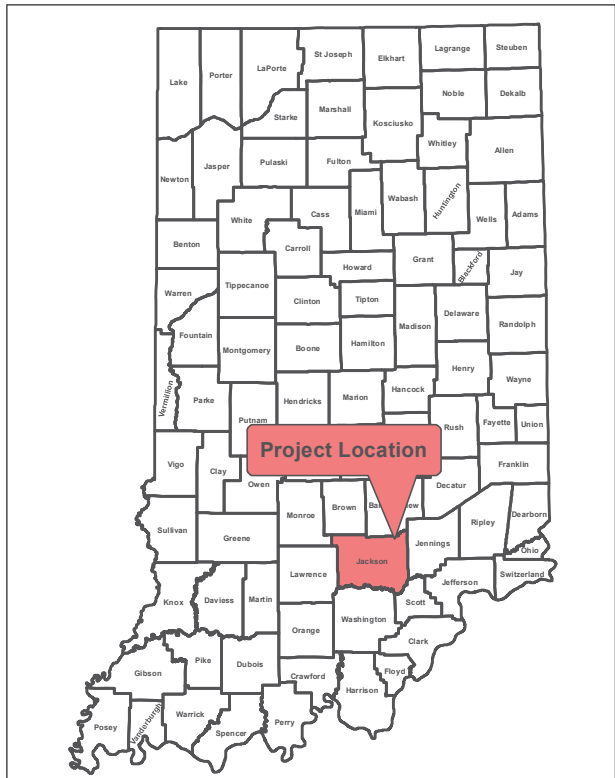
This waters determination has been prepared based on the best available information, interpreted in the light of the investigator's training, experience, and professional judgement, in conformance with the 1987 *Corps of Engineers Wetlands Delineation Manual*, the appropriate regional supplement, the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



Hillary Shaffer
Senior Environmental Analyst
Beam, Longest and Neff, LLC

Attached Documents

- Maps
- Photographs



Service Layer Credits: © OpenStreetMap (and) contributors, CC-BY-SA
 Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China



Source: Indiana MAP
 1:12,000
 1 inch = 1,000 feet

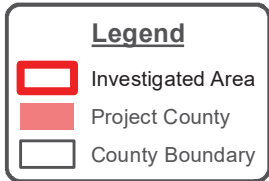
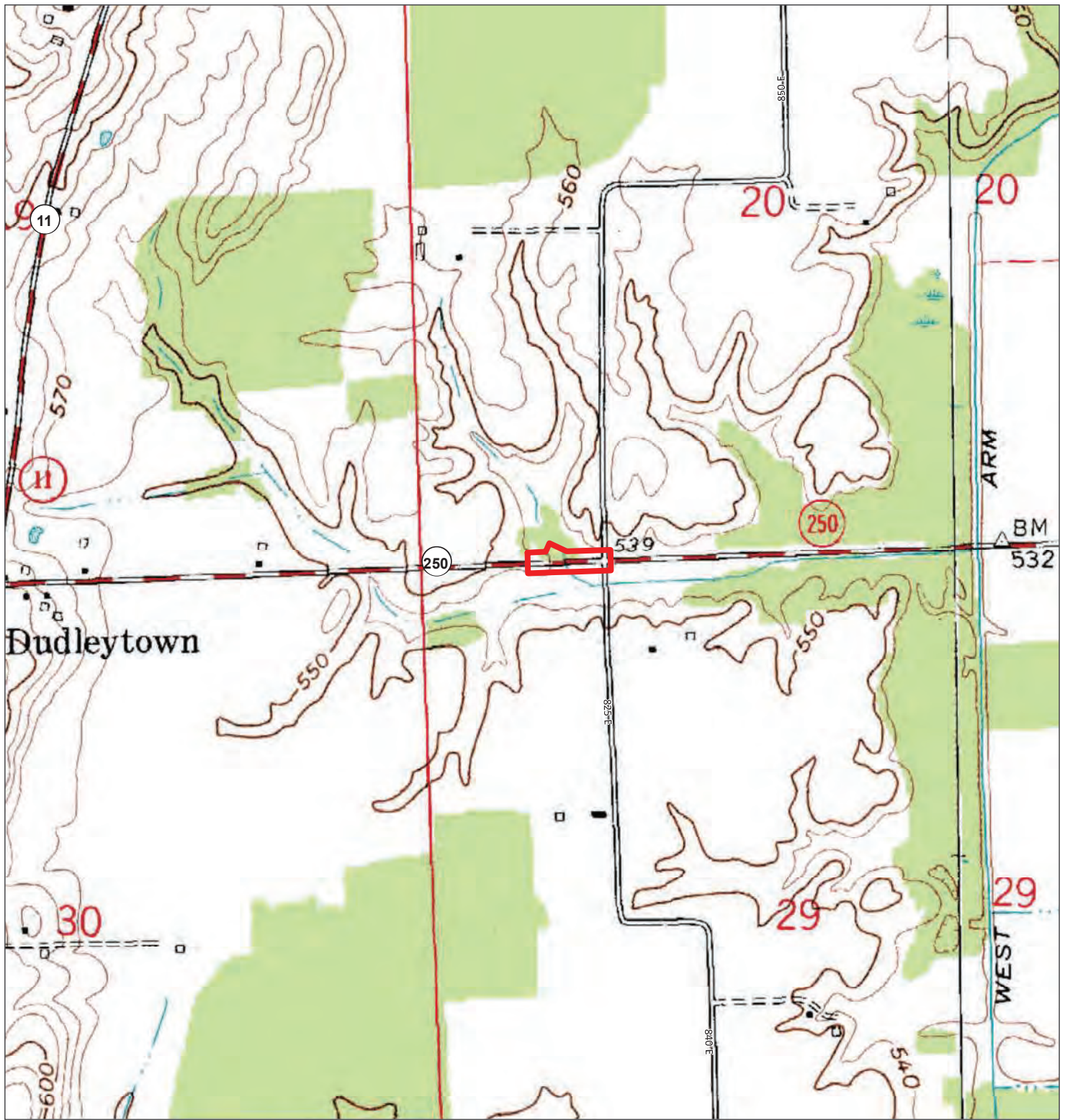


Figure 1: Project Location Map
 Author: Hillary Shaffer
 Small Structure Project
 SR 250 over UNT to Rider Ditch
 Jackson County, Indiana
 Des. No. 1801015

May 18, 2022



Source: U.S. Geological Survey

1:12,000

1 in = 1,000 ft

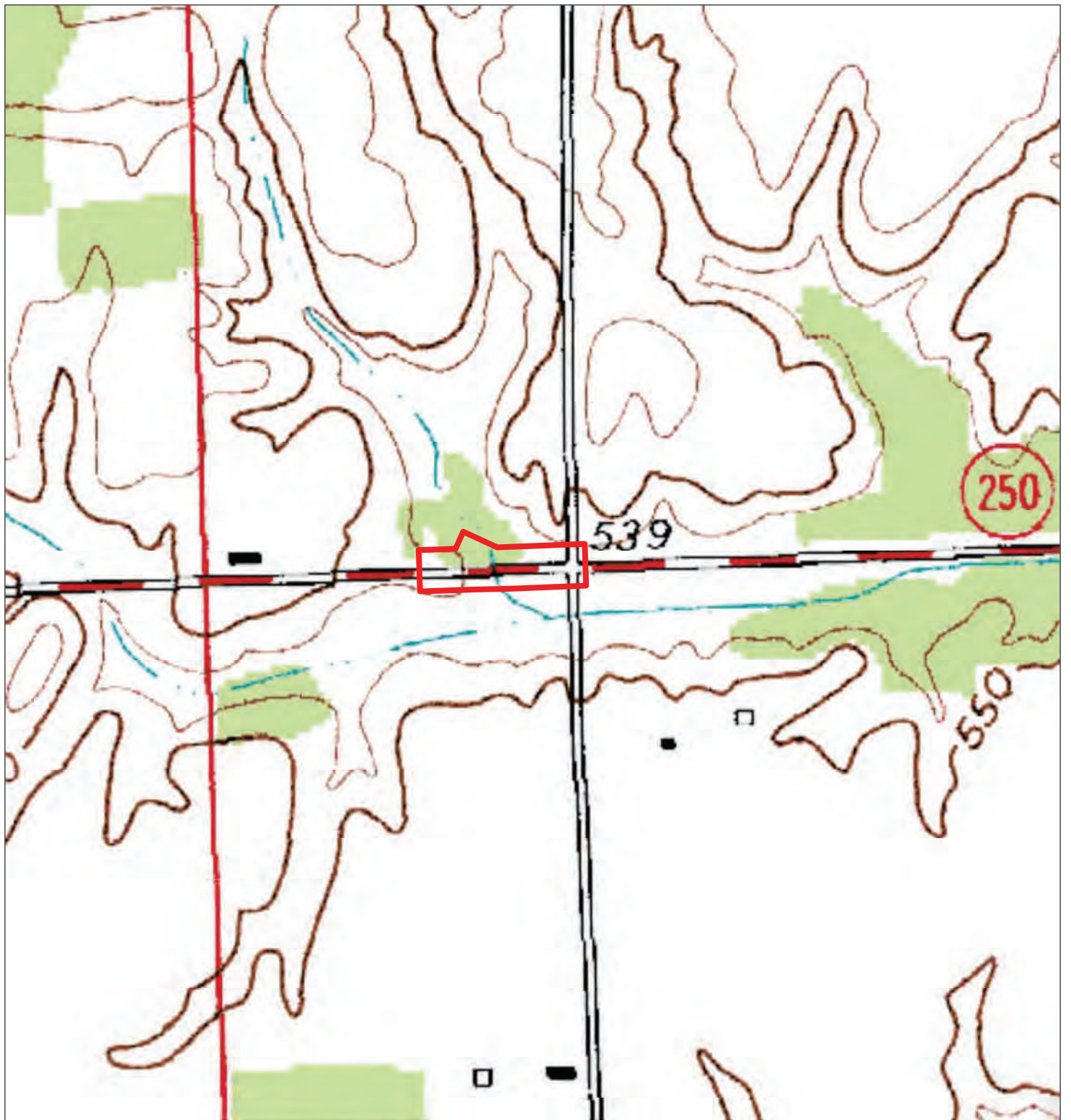


Legend

Investigated Area

Figure 2: USGS Topographic Map
 Author: Hillary Shaffer
 Tampico Quadrangle - 7.5 Minute Series
 Small Structure Project
 SR 250 over UNT to Rider Ditch
 Jackson County, Indiana
 Des. No. 1801015

May 18, 2022



Source: U.S. Geological Survey
 1:6,000
 1 in = 500 ft



Legend


 Investigated Area

Figure 3: USGS Topographic Map - Detail
 Author: Hillary Shaffer
 Tampico Quadrangle - 7.5 Minute Series
 Small Structure Project
 SR 250 over UNT to Rider Ditch
 Jackson County, Indiana
 Des. No. 1801015

May 18, 2022



National Agriculture Imagery Program (NAIP), Farm Services Agency (FSA), U. S. Department of Agriculture (USDA), UITS, Indiana Spatial Data Portal



Source: Indiana MAP
 1:1,200
 1 in = 100 ft



Legend


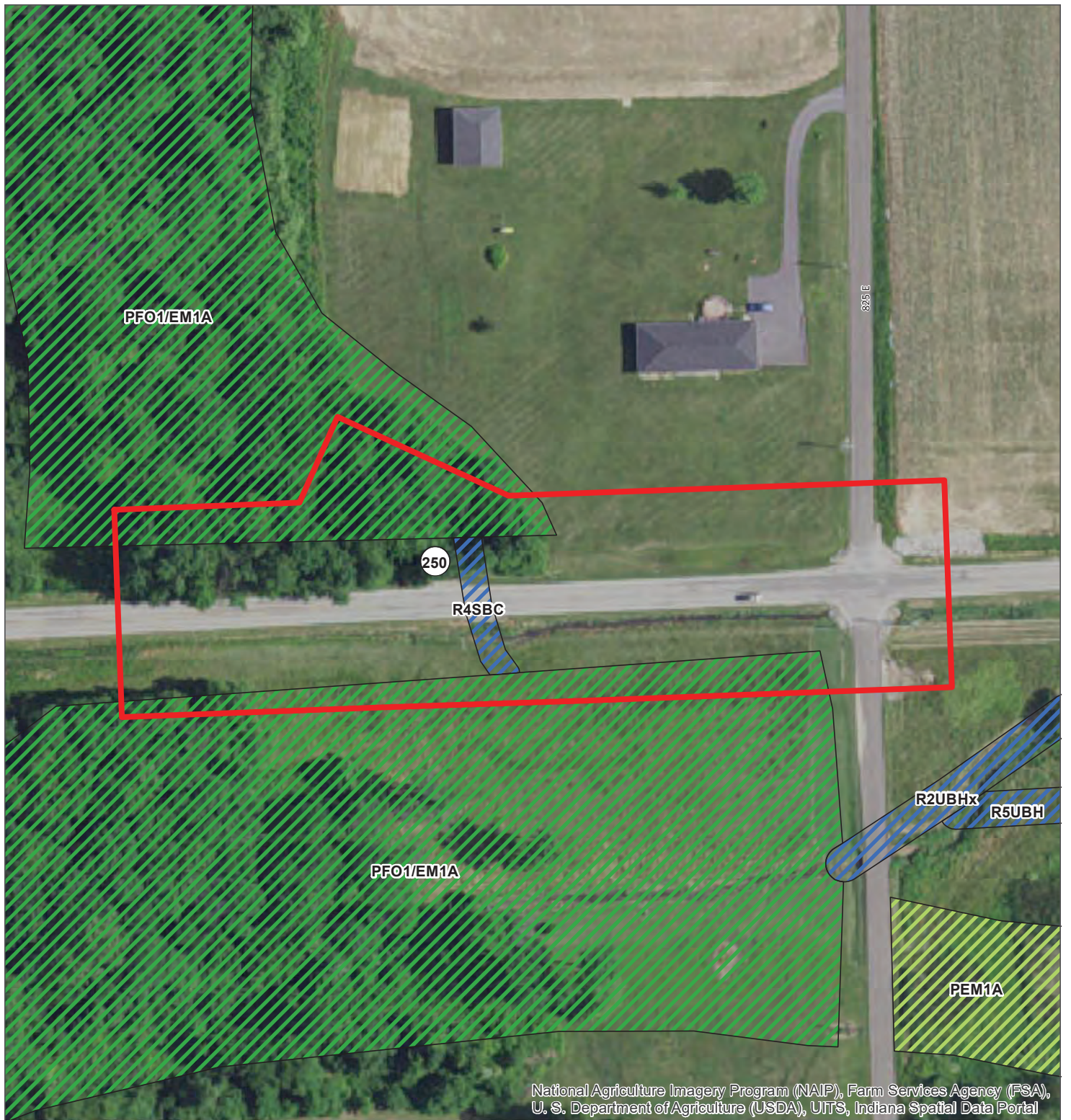
 Investigated Area

Figure 4: Aerial Photograph
 Author: Hillary Shaffer
 Small Structure Project
 SR 250 over UNT to Rider Ditch
 Jackson County, Indiana
 Des. No. 1801015

May 18, 2022



National Agriculture Imagery Program (NAIP), Farm Services Agency (FSA), U. S. Department of Agriculture (USDA), UITS, Indiana Spatial Data Portal



Source: U.S. Fish & Wildlife Service

1:1,200

1 in = 100 ft



Legend





-  Investigated Area
-  Freshwater Forested/Shrub Wetland
-  Freshwater Emergent Wetland
-  Riverine

Figure 5: National Wetlands Inventory Map

Author: Hillary Shaffer
 Small Structure Project
 SR 250 over UNT to Rider Ditch
 Jackson County, Indiana
 Des. No. 1801015

May 18, 2022