



Indiana Department of Transportation

County Franklin

Route SR 252

Des. No. 1600492

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 [X] No
If No, then: Opportunity for a Public Hearing Required? [X] [ ]

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

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

Remarks: Notice of Entry letters were mailed to potentially affected property owners near the project area on July 11, 2017 notifying them about the project and that individuals responsible for land surveying and field activities may be seen in the area. Notice of Entry letters were mailed out again on February 4, 2020 notifying potentially affected property owners that personnel would be in the field for archaeological investigations. A sample copy of both Notice of Entry letters are included in Appendix C, page 1.
The project will meet the requirements described in the current Indiana Department of Transportation (INDOT) Public Involvement Manual which requires the project sponsor to offer the public an opportunity to submit comment and/or request 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 Will the project involve substantial controversy concerning community and/or natural resource impacts? [ ] Yes [X] No

Remarks: 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: Indiana Department of Transportation INDOT District: Seymour
Local Name of the Facility: SR 252 over Branch to Big Cedar Creek Bridge

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

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

PURPOSE AND NEED:

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

The project is needed due to existing deterioration including longitudinal cracking and spalling as identified in INDOT's Bridge Inspection Report dated January 9, 2020.
The purpose of this project is to provide a structurally and hydraulically sound structure that allows traffic to travel over Branch to Big Cedar Creek.

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<b>PROJECT DESCRIPTION (PREFERRED ALTERNATIVE):</b>
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County: Franklin Municipality: N/A

Limits of Proposed Work: Centered at 39.413541°N, -84.901889°W, approximately 206 linear feet northwest and 58 linear feet southeast of center

Total Work Length: 264 Feet Total Work Area: 1 Acre(s)

Is an Interchange Modification Study / Interchange Justification Study (IMS/IJS) required? If yes, when did the FHWA grant a conditional approval for this project?	<table border="1" style="margin-left: auto; margin-right: auto; border-collapse: collapse;"> <tr> <td style="padding: 2px 10px;"><b>Yes<sup>1</sup></b></td> <td style="padding: 2px 10px;"><b>No</b></td> </tr> <tr> <td style="text-align: center; width: 50px;"><input type="checkbox"/></td> <td style="text-align: center; width: 50px;"><input checked="" type="checkbox"/></td> </tr> <tr> <td colspan="2" style="padding: 2px 10px;">Date: _____</td> </tr> </table>	<b>Yes<sup>1</sup></b>	<b>No</b>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Date: _____	
<b>Yes<sup>1</sup></b>	<b>No</b>						
<input type="checkbox"/>	<input checked="" type="checkbox"/>						
Date: _____							

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

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

The project is located on SR 252 over Branch to Big Cedar Creek, 6.19 miles east of US 52 in Springfield Township, Franklin County, centered at 39.4113514, -84.901889. The project is in Section 29, Township 9N, and Range 1W in the Whitcomb Quadrangle.

SR 252 is a major rural collector two-lane roadway, with one lane headed westbound and one lane headed eastbound. Each lane is 11 feet wide with varying shoulder widths of 1 foot or less in the project area. The existing SR 252 bridge, structure number 252-24-06008C, is a box beam structure that carries SR 252 over Branch to Big Cedar Creek. The project area is surrounded by residential properties and forested areas. There is a private drive located southeast of the structure and Sleepy Hollow Road located adjacent to the structure. Unnamed Tributary 2 (UNT-2), UNT-3, UNT-4, and UNT-5 are roadside waterways that flow into Branch to Big Cedar Creek. UNT-2 is located on the northeast quadrant of the bridge and flows through an existing 24" corrugated metal pipe. UNT-3 flows west through a 48" corrugated metal pipe that is 64 feet in length. UNT-4 flows east through a 15" corrugated metal pipe. UNT-5 flows southeast into UNT-4.

The project includes replacing the existing box beam superstructure with an 18" thick reinforced concrete slab. The new deck will provide 30'-10" clear roadway. The out-to-out coping will increase from 30'-0" to 31'-2". The project also includes the installation of new bridge railing, guardrail, and end treatments. The existing abutment vertical cracks and wingwall faces will be repaired with epoxy injection and wingwall spalls and exposed rebar will be repaired with concrete patching. New reinforced concrete bridge approach slabs will be constructed at each end of the structure. The approach roadway will be milled and resurfaced within the project limits. The existing profile grade will be maintained. Full depth Hot Mix Asphalt (HMA) will be provided to widen the shoulders to the new guardrail. The existing 48" corrugated metal pipe southeast of the structure will be replaced with a new 48" Type 3 pipe in a reconstructed ditch with Class 1 riprap for scour protection. The private drive approach in the southeast quadrant will be replaced with a new modified Type 2 drive approach. The existing 15" corrugated metal pipe will be removed in the northwest quadrant and the ditch will be reconstructed to tie into the roadway side slopes. Replacing the superstructure will provide a structurally sound bridge and will allow the passage of traffic, meeting the purpose and need of the project.

The project is anticipated to permanently impact 392 linear feet of stream and 0.02 acre of wetland. Impacts will be mitigated through the Indiana Department of Natural Resources (IDNR) In-Lieu fee program.

The project will use a detour route to maintain traffic during construction. Refer to the MOT section of this document for more information.

<b>OTHER ALTERNATIVES CONSIDERED:</b>
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This is page 3 of 20 Project name: SR 252 Superstructure Replacement Date: June 16, 2020



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Structure/NBI Number(s): 252-24-06008C / 030800 Sufficiency Rating: 60.1, INDOT Bridge Inspection Report dated 1/9/2020  
 (Rating, Source of Information)

	Existing		Proposed
Bridge Type:	Box Beam		Reinforced concrete slab
Number of Spans:	1		1
Weight Restrictions:	N/A	ton	
Height Restrictions:	N/A	ft.	
Curb to Curb Width:	28.3	ft.	30.1
Outside to Outside Width:	30.1	ft.	31.2
Shoulder Width:	1.8-Varies	ft.	4-Varies
Length of Channel Work:			72

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

Remarks: The existing bridge, structure # 252-24-06008C and National Bridge Inventory (NBI) number 030800, is a prestressed box beam bridge over Branch to Big Cedar Creek. The bridge was originally built in 1965 and reconstructed in 1980. The bridge was classified as not eligible for historical significance. The bridge is 26 feet in length and the deck has a 30' 1" width out to out coping. INDOT Inspection Report dated January 9, 2020 stated there are cracks and spalls on the underside of the box beams. The deck received an overall condition rating of 6 (satisfactory) with minor deterioration, the wearing surface received an overall condition rating of 6, and the superstructure received an overall rating of 4 (poor) with advanced deterioration.

The project will replace the superstructure. New bridge railing, guardrail, and end treatments will be installed. The existing abutment will be maintained and vertical cracks in the abutment and wingwall faces will be repaired with epoxy injection. Wingwalls spalls and exposed rebar will be repaired with concrete patching. New reinforced concrete bridge approach slabs will be constructed at each end of the structure.

**Yes**     
  **No**     
  **N/A**

Will the structure be rehabilitated or replaced as part of the project?  
*If the proposed action has multiple bridges or small structures, this section should be filled out for each structure.*

**MAINTENANCE OF TRAFFIC (MOT) DURING CONSTRUCTION:**

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

Remarks: The MOT for the project will require a detour route. The planned detour will use US 52, I-74, Ohio 128, Ohio 126, and SR 252 (Appendix B, page 15). The project will be constructed in a bundled contract, #39400, with the SR 252 bridge over Big Cedar Creek which will also use the same detour route.

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

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### ESTIMATED PROJECT COST AND SCHEDULE:

Engineering: \$ \_\_\_\_\_ (20--) Right-of-Way: \$ 25,000 (2020) Construction: \$ 1,715,624\* (2021)

Anticipated Start Date of Construction: Spring 2021

Date project incorporated into STIP July 2, 2019  
\*Bundled with Des 1593049

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

If yes,

Name of MPO N/A

Location of Project in TIP N/A

Date of incorporation by reference into the STIP N/A

### RIGHT OF WAY:

Land Use Impacts	Amount (acres)	
	Permanent	Temporary
Residential	0.59	0.05
Commercial	0.00	0.00
Agricultural	0.00	0.00
Forest	0.00	0.00
Wetlands	0.00	0.00
Other (Existing roadway pavement):	0.21	0.00
Other:	0.00	0.00
<b>TOTAL</b>	<b>0.80</b>	<b>0.05</b>

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

Remarks:

There is no existing right-of-way (ROW) within the project limits; therefore, the project requires ROW. The project requires approximately 0.21 acre of existing roadway reacquisition. The project also requires approximately 0.59 acre of permanent ROW from residential properties (0.26 acre north of the existing roadway and 0.33 acre south of the existing roadway). All together the project requires a total of approximately 0.80 acre of permanent ROW. The project also requires approximately 0.05 acre of temporary ROW from a residential property on the south side of the project.

If the scope of work or permanent or temporary 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 – ECOLOGICAL RESOURCES**

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

Remarks: Based on a desktop review, a site visit conducted on April 25, 2019 by Michael Baker International (Michael Baker), the aerial map of the project area (Appendix B, page 1), and the water resources map in the RFI report (Appendix E, page 9), there are eight streams located within the 0.5 mile search radius. Two waterways are located within the project area according to the maps. A *Waters of the U.S. Determination/Wetland Delineation Report* was completed and approved by the INDOT Ecology and Waterway Permitting Office on September 18, 2019. Please refer to Appendix F, page 1 for the *Waters of the U.S. Determination/Wetland Delineation Report*. It was determined that there are five (5) jurisdictional waterways– Branch to Big Cedar Creek, unnamed tributary 2 (UNT-2), UNT-3, UNT-4, and UNT-5 located within the project area. The U.S. Army Corps of Engineers (USACE) makes all final determinations regarding jurisdiction. No Federal, Wild, Scenic Rivers; State Natural, Scenic, and Recreational Rivers; Outstanding Rivers for Indiana; navigable waterways or National Rivers Inventory waterways are present in the project area.

***Branch to Big Cedar Creek***  
Branch to Big Cedar Creek is a perennial blue-line stream within the study area according to the USGS 1:24,000 scale topographic map and is classified as a riverine unknown perennial unconsolidated bottom permanently flooded (R5UBH). Branch to Big Cedar Creek is approximately 109 linear feet in length within the study area and has an average OHWM of 20 feet wide and a depth of 5 inches. The stream substrate was primarily cobble-gravel. The riparian land included a forested buffer. Stream cover within the study area was moderate. Branch to Big Cedar Creek is a jurisdictional waterway because it flows southwest into the Big Cedar Creek, a jurisdictional waterway, approximately 0.18 miles from the project area.

***Unnamed Tributary 2 Branch to Big Cedar Creek (UNT-2)***  
UNT-2 was not identified on the USGS or USFWS NWI map. UNT-2 is located north of SR 252 and east of the bridge structure. UNT-2 is approximately 148 linear feet within the project area flows northwest via a pipe culvert under a roadway, Sleepy Hollow Road, that outlets into Branch to Big Cedar Creek. UNT- 2 has an average OHWM that is approximately 3.5 feet wide and a depth of 1 inch. The riparian corridor consists of mowed grass and pavement. The quality is poor because it has no riffles and pools and no canopy cover. UNT-2 is a jurisdictional waterway because it displayed an OHWM and flows directly into Branch to Big Cedar Creek. UNT-2 flows through an existing 48” corrugated metal pipe that is 64 feet in length.

***Unnamed Tributary 3 Branch to Big Cedar Creek (UNT-3)***  
UNT-3 is located south of SR 252 and east of the bridge structure. UNT-3 is identified as an NHD intermittent stream but was not identified on the USFWS NWI map. UNT-3 is approximately 182 linear feet within the project area, has an average OHWM of approximately 6 feet wide, and is 2 inches deep. The riparian corridor consists of gravel, pavement, and mowed grass. The quality is poor within the project limits because it has no riffles or pools and no canopy cover. UNT-3 is a jurisdictional waterway because it displayed an OHWM and flows directly into Branch to Big Cedar Creek. UNT-3 flows through an existing 24” corrugated metal pipe that is 60 feet in length.

***Unnamed Tributary 4 Branch to Big Cedar Creek (UNT-4)***  
UNT-4 is located north of SR 252, west of the bridge structure. UNT-4 was not identified on any maps. UNT-4 appears to be an ephemeral stream and becomes a roadside ditch. UNT-4 is approximately 129 linear feet within the project, has an average OHWM of approximately 1 foot, and is less than 1 inch deep. The riparian corridor consists of grass. The quality is poor because there are no riffles and pools and no cover. UNT-4 is a jurisdictional waterway because it

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displayed an OHWM and flows directly into Branch to Big Cedar Creek. UNT-4 flows through an existing 15" corrugated metal pipe that is 20 feet in length.

***Unnamed Tributary 5 Branch to Big Cedar Creek (UNT-5)***

UNT-5 is located north of SR 252 and appears to start as an ephemeral stream. UNT-5 was not identified on any maps. UNT-5 is approximately 124 linear feet within the project area, has an average OHWM of 3.5 feet, and did not have any water at the time of the site visit. The quality is poor within the project limits. UNT-5 is a jurisdictional waterway.

The project will permanently impact a total of 392 linear feet of stream. Approximately 65 linear feet of Branch to Big Cedar Creek will be impacted with embankment protection with Class 1 and Class 2 riprap. Approximately 164 linear feet of UNT-3 will be impacted due to the replacement of the existing 48" corrugated metal pipe and driveway work. Approximately 129 linear feet of UNT-4 will be impacted with the removal of the existing 15" corrugated metal pipe and regrading for extended shoulders and guardrail. Approximately 34 linear feet of UNT-5 will be impacted with the extension of the roadway shoulders and the placement of new guardrail. Two new roadside ditches will be constructed, one south of the existing location of UNT-3 and one north of the existing location of UNT-4 and UNT-5. These new roadside ditches will total approximately 327 linear feet.

Early Coordination letters were sent on February 6, 2019 to USACE, the Indiana Department of Environmental Management (IDEM), IDNR, and the United States Fish and Wildlife Service (USFWS). USACE did not respond. IDEM generated an automatic response (Appendix C, page 39). IDNR responded on March 7, 2019 with recommendations to avoid and minimize impacts to fish, wildlife, and botanical resources to the greatest extent possible, and compensate for impacts (Appendix C, page 31). The USFWS responded on February 27, 2019 with recommendations to minimize impacts (Appendix C, page 8). All applicable IDNR and USFWS recommendations are included in the Environmental Commitments section of this CE document.

**Other Surface Waters**

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

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

Remarks: Based on a desktop review, a site visit conducted by Michael Baker on April 25, 2019, the aerial map of the project area (Appendix B, page 1), and the water resource map in the RFI report (Appendix E, page 9) there are three lakes within the 0.5 mile search radius. No other surface waters are present within the project area, therefore, no impacts are expected.

**Wetlands**

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

Total wetland area: 0.02 acre(s) Total wetland area impacted: 0.02 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
Wetland 1	Emergent	0.02	0.02	Impacts are due to grading, the placement of guardrail, and reconstruction of roadway shoulders.



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**Documentation**

**ES Approval Dates**

**Wetlands (Mark all that apply)**

Wetland Determination	<input checked="" type="checkbox"/>
Wetland Delineation	<input checked="" type="checkbox"/>
USACE Isolated Waters Determination	<input type="checkbox"/>
Mitigation Plan	<input type="checkbox"/>

<b>September 18, 2019</b>
<b>September 18, 2019</b>

**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;	<input type="checkbox"/>
Substantially increased project costs;	<input type="checkbox"/>
Unique engineering, traffic, maintenance, or safety problems;	<input checked="" type="checkbox"/>
Substantial adverse social, economic, or environmental impacts, or	<input type="checkbox"/>
The project not meeting the identified needs.	<input checked="" type="checkbox"/>

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

Remarks: Based on a review of the National Wetlands Inventory (NWI) online mapper (<https://www.fws.gov/wetlands/data/Mapper.html>), a site visit conducted on April 25, 2019 by Michael Baker, the aerial map of the project area (Appendix B, page 1), and the water resources map in the RFI report (Appendix E, page 9), there are seven wetlands located within the 0.5 mile search radius. There is one wetland located adjacent to the project area. A *Waters of the U.S. Determination/Wetland Delineation Report* was completed for the project and approved by the INDOT Ecology and Waterway Permitting Office on August 30, 2019. Please refer to Appendix F, page 1 for the *Waters of the U.S. Determination/Wetland Delineation Report*. It was determined that one wetland, Wetland 1, is located within or adjacent to the project area. The USACE makes all final determinations regarding jurisdiction.

Wetland 1 is located north of SR 252, west of the bridge structure. Wetland 1 is an emergent wetland that is approximately 0.02 acres. The dominant vegetation was reed canary grass (*Phalaris arundinacea*) and soft rush (*Juncus effuses*). The soil was identified as 0-11 inches 10YR 3/2 with 10% 10YR 5/6 redox sandy clay loam and 11-20 inches 10YR 3/1 sandy clay loam. Hydrology was present with surface water, a high water table, and saturation. Wetland 1 is classified as poor quality because there is not a diverse, high quality plant community. Wetland 1 is a jurisdictional wetland because it connects with UNT-4 which connects with Branch to Big Cedar Creek.

The project will permanently impact 0.02 acre due to grading for roadway shoulder construction and the placement of guardrail.

Early Coordination letters were sent on February 6, 2019 to USACE, IDEM, IDNR, and USFWS. USACE did not respond. IDEM generated an automatic response (Appendix C, page 39). IDNR responded on March 7, 2019 recommending coordination with the IDEM 401 program and USACE 404 program (Appendix C, page 31). All applicable IDNR recommendations are included in the Environmental Commitments section of this CE document.

	<b><u>Presence</u></b>	<b><u>Impacts</u></b>	
		<b>Yes</b>	<b>No</b>
<b>Terrestrial Habitat</b>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Unique or High Quality Habitat	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

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

Remarks: Based on a desktop review, a site visit conducted April 25, 2019 by Michael Baker, and the aerial map of the project area (Appendix B, page 1) there is forested habitat within and adjacent to the project area. The project will remove approximately two trees that have a dbh of over 4 inches.

Early Coordination letters were sent on February 6, 2019 to USACE, IDEM, IDNR, and USFWS. IDNR responded on March 7, 2019 recommending a mitigation for unavoidable impacts (Appendix C, page 31). USFWS responded that the project is within the range of the Indiana bat (*Myotis sodalists*) and northern long-eared bat (*Myotis septentrionalis*) and should follow the new Indiana bat/northern long-eared bat programmatic consultation process if applicable. All applicable IDNR and USFWS recommendations are included in the Environmental Commitments section of this CE

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document.

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

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

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

Remarks: Based on a desktop review, the project is located outside the designated karst region of Indiana as outlined in the October 13, 1993 Memorandum of Understanding (MOU). According to the topo map of the project area (Appendix B, page 2) and the RFI report (Appendix E, page 1) there are no karst features identified within or adjacent to the project area. In the early coordination response, IGS did not indicate that karst features exist in the project area (Appendix C, page 36). No impacts are expected.

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

Is Section 7 formal consultation required for this action?  **Yes**  **No**

Remarks: Based on a desktop review and the RFI report (Appendix E, page 1) completed by Michael Baker on August 21, 2019, the IDNR Franklin County Endangered, Threatened, and Rare (ETR) Species List has been checked and is included in Appendix E, page 11. The highlighted species on the list reflect the federal and state identified ETR species within the county. According to the IDNR-DFW early coordination response letter dated March 7, 2019 (Appendix C, page 31), the Natural Heritage Program's Database has been checked and 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. No critical habitat was identified.

Project information was submitted through the USFWS's Information for Planning and Consultation (IPaC) portal, and an official species list was generated (Appendix C, page 10). The project is within the range of the federally endangered Indiana bat (*Myotis sodalis*) and the federally threatened northern long-eared bat (NLEB) (*Myotis septentrionalis*). No additional species were found within or adjacent to the project area other than the Indiana bat and NLEB bat.

The project qualifies for the *Range-wide Programmatic Informal Consultation for the Indiana bat and NLEB*, dated May 2016 (revised February 2018), between FHWA, Federal Railroad Administration (FRA), Federal Transit Administration (FTA), and USFWS. An effect determination key was completed on February 11, 2020, and based on the responses provided, the project was found to have a "may effect-not likely to adversely affect" to the Indiana bat and/or the NLEB (Appendix C, page 16). INDOT reviewed and verified the effect finding on March 4, 2020 and requested USFWS's review of the finding (Appendix C, page 26). No response was received from USFWS within the 14-day review period; therefore, it was concluded they concur with the finding. Avoidance and Mitigation Measures (AMMs) are included in the firm commitments in the *Environmental Commitments* section 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 the project plans are changed, USFWS will be contacted for consultation.

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**SECTION B – OTHER RESOURCES**

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

If a SSA is present, answer the following:

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

Remarks: Sole Source Aquifer  
 The project is located in Franklin 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. Therefore a detailed groundwater assessment is not needed and no impacts are expected.

Wellhead Protection Area and Source Water  
 The Indiana Department of Environmental Management’s Wellhead Proximity Determinator website (<http://www.in.gov/idem/cleanwater/pages/wellhead/>) was accessed on August 30, 2019 by Michael Baker. This project is not located within a Wellhead Protection Area or Source Water Area. No impacts are expected.

Water Wells  
 The Indiana Department of Natural Resources Water Well Record Database website (<https://www.in.gov/dnr/water/3595.htm>) was accessed on August 30, 2019 by Michael Baker. No wells are located near this project. Therefore, no impacts are expected.

Urban Area Boundary  
 Based on a desktop review of the INDOT MS4 website (<https://entapps.indot.in.gov/MS4>) by Michael Baker on August 30, 2019, and the RFI report; this project is not located in an Urban Area Boundary location. No impacts are expected.

Public Water System  
 Based on a desktop review, a site visit on April 25, 2019 by Michael Baker and the aerial map of the project area (Appendix B, page 1) no public water systems were identified. Therefore, no impacts are expected.

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

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

Remarks: The IDNR Indiana Floodway Information Portal website (<https://dnrmmaps.dnr.in.gov/appsphp/fdms/>) was accessed on August 30, 2019 by Michael Baker. This project is not located in a regulatory floodplain as determined from approved IDNR floodplain maps (Appendix F, page 13). Therefore, it does not fall within the guidelines for the implementation of 23 CFR 650, 23 CFR 771, and 44 CFR. No impacts are expected.

Presence                      Impacts

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**Farmland**

Agricultural Lands	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Prime Farmland (per NRCS)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

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

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

Remarks: Based on a desktop review, a site visit conducted on April 25, 2019, the aerial map of the project area (Appendix B, page 1), there is no land that meets the definition of farmland under the Farmland Protection Policy Act (FPPA) within or adjacent to the project area. The requirements of FPPA do not apply to this project; therefore, no impacts are expected. An early coordination letter was sent on February 6, 2019 to Natural Resources Conservation Services (NRCS) and they responded on February 13, 2019 stating the project will not cause a conversion of prime farmland (Appendix C, page 44).

**SECTION C – CULTURAL RESOURCES**

	Category	Type	INDOT Approval Dates	N/A
Minor Projects PA Clearance	A B B	3 4 12	March 27, 2019	<input type="checkbox"/>

Eligible and/or Listed  
Resource Present

**Results of Research**

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

**Project Effect**

No Historic Properties Affected  No Adverse Effect  Adverse Effect

Documentation  
Prepared

**Documentation** (mark all that apply)

		ES/FHWA Approval Date(s)	SHPO Approval Date(s)
Historic Properties Short Report	<input type="checkbox"/>		
Historic Property Report	<input type="checkbox"/>		
Archaeological Records Check/ Review	X	August 30, 2019 & March 27, 2020	
Archaeological Phase Ia Survey Report	X	August 30, 2019 & March 27, 2020	
Archaeological Phase Ic Survey Report	<input type="checkbox"/>		
Archaeological Phase II Investigation Report	<input type="checkbox"/>		
Archaeological Phase III Data Recovery	<input type="checkbox"/>		
APE, Eligibility and Effect Determination	<input type="checkbox"/>		
800.11 Documentation	<input type="checkbox"/>		

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

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

Remarks: On March 27, 2020 the INDOT Cultural Resource Office (CRO) determined that this project falls within the guidelines of Category A, Type 3, Category B, Type 4, and Category B, Type 12 under the Minor Projects Programmatic Agreement (Appendix D, page 1). Category A, Type 3 is the replacement repair, lining, or extension of culverts and other drainage structures in previously disturbed soils and do not exhibit stone or brick structures or parts therein. Category B, Type 4 is the installations of new safety appurtenances, including but not limited to, guardrails, barriers, glare screens, and crash attenuators. Category B, 12 is the replacement, widening, or raising the elevation of the superstructure on existing bridges, and bridge replacement projects. An archeological record check and Phase IA Field Reconnaissance was completed on August 30, 2019 and an addendum was completed on March 27, 2020 (Appendix D, page 81). The archeological reconnaissance identified the presence of one archaeological site (12Fr0547) that consisted of a mixed historic scatter that contained material from the 1800's -1900's. Site 12Fr0547 did not appear eligible for inclusion to the National Register of Historic Places (NRHP) or the Indiana Register of Historic Sites and Structures (IRHSS). No further archaeological assessment is recommended for this site (Appendix D, page 130). No further consultation is required. This completes Section 106 process and the responsibilities of the FHWA under Section 106 have been fulfilled.

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

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

**Parks & Other Recreational Land**

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

Presence


Use

Yes	No

Evaluations Prepared

- Programmatic Section 4(f)\*
- "De minimis" Impact\*
- Individual Section 4(f)


FHWA Approval date

**Wildlife & Waterfowl Refuges**

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

Presence


Use

Yes	No

Evaluations Prepared

- Programmatic Section 4(f)\*
- "De minimis" Impact\*
- Individual Section 4(f)


FHWA Approval date

**Historic Properties**

- Sites eligible and/or listed on the NRHP

Presence

Use

Yes	No

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**Evaluations  
Prepared**

Programmatic Section 4(f)\*  
"De minimis" Impact\*  
Individual Section 4(f)


**FHWA  
Approval date**

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

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

Remarks:

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

Based on a desktop review, a site visit conducted on April 25, 2019, the aerial map of the project area (Appendix B, page 1), and the RFI report (Appendix E, page 1), there are no 4(f) resources located within the 0.5 mile search radius. 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 proposed alternatives that satisfy the requirements of Section 6(f). Discuss any Section 6(f) involvement.*

Remarks:

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

A review of 6(f) properties on the Land and Water Conservation Fund (LWCF) website at <https://www.lwcfcoalition.com/tools> revealed a total of three properties in Franklin County (Appendix I, page 1). None of these properties are located within or adjacent to the project area. Therefore, there will be no impacts to 6(f) resources as a result of this project.

**SECTION E – Air Quality**

**Air Quality**

**Conformity Status of the Project**

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



If YES, then:

Is the project in the most current MPO TIP?



Is the project exempt from conformity?



If the project is NOT exempt from conformity, then:

Is the project in the Transportation Plan (TP)?



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



Level of MSAT Analysis required?

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

Remarks: The Fiscal Year (FY) 2020-2024 Statewide Transportation Program (STIP) is listed based on lead Des. number in the contract. The lead Des. number for this contract is Des. 1593049. The FY 2020-2024 STIP includes Des. 1593049 by reference with the contract number B-39400 (Appendix H, page 1).

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

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

### SECTION F - NOISE

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

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

Remarks: 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.

### SECTION G – COMMUNITY IMPACTS

**Regional, Community & Neighborhood Factors** Yes  No

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 remarks box)

Remarks: This is a minor project which will not change the use of the area or result in any substantial impacts to the community. The detour will cause temporary inconveniences.

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

Remarks: Indirect impacts are effects which are caused by the action and are later in time or farther removed in distance, but are still reasonably foreseeable. Indirect effects may include growth inducing effects and other effects related to induced changes in the pattern of land use, population density, or growth rate. Cumulative impacts affect the environment which result from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency or person undertakes such actions.

This project is a minor project and will not affect land use or population growth.

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### Public Facilities & Services

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

**Yes**       **No**

Remarks: Based on a desktop review, a site visit conducted on April 25, 2019 by Michael Baker, the aerial map of the project area (Appendix B, page 1), and the RFI report (Appendix E, page 1) there are no public facilities within the 0.5 mile search radius. There are no public facilities within or adjacent to the project area. Access to all properties will be maintained during construction. Therefore, no impacts are expected.

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?  **Yes**       **No**

Does the project require an EJ analysis?  **Yes**       **No**

If YES, then:

Are any EJ populations located within the project area?  **Yes**       **No**

Will the project result in adversely high or disproportionate impacts to EJ populations?  **Yes**       **No**

Remarks: 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 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 right-of-way. The project will require the purchase of approximately 0.80 acres of permanent ROW. Therefore, an EJ Analysis is required.

Potential EJ impacts are detected by locating minority and low-income populations relative to 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, city, or town and is called the community of comparison (COC). In this project the COC is Franklin County. The community that overlaps the project area is called the affected community (AC). In this project, the AC is Block Group 2 for minority data (AC-M1) and Census Tract 9696 (AC-L1) for low-income data (Block Group 2 data was not available for low-income). 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 Bureau 2013-2017 American Community Survey was obtained from the US Census Bureau Website <https://factfinder.census.gov/> on January 28, 2020 by Michael Baker (Appendix I, page 1). That data collected for minority and low-income populations within the AC are summarized in the below tables.

<b>Table 1: Minority Data for Census Tract (2013-2017 American Community Survey)</b>		
	COC	AC-M1
	Franklin County	Block Group 2
Total Population	22,835	1,661
Minority Population (Non-white)	374	11
Percent Minority	1.64%	0.66%
125% of COC	2.05%	<b>AC&lt;125% COC</b>
Minority Population of EJ Concern?		<b>No</b>

<b>Table 2: Low-Income for Franklin County (2013-2017 American Community Survey)</b>		
	COC	AC-L1
	Franklin County	Census Tract 9696
Total Population	22,751	6,242
Low Income (below poverty level) Population	2,248	396



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Percent Low-Income (below poverty level)	9.90%	6.30%
125% of COC	12.35%	<b>AC&lt;125% COC</b>
Low Income Population of Concern?		<b>No</b>

AC-M1, Block Group 2, has a percent minority of 0.66% which is below 50% and is below the 125% COC threshold. Therefore, the AC does not contain a minority population of EJ concern.

AC-L1, Census Tract 9696, has a percent low-income of 6.30% which is below 50% and is below the 125% COC threshold. Therefore, the AC does not contain a low-income population of EJ concern.

The census data sheets, map, and calculations can be found Appendix I. 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 Business Information Survey (BIS) required?  
 Is a Conceptual Stage Relocation Study (CSRS) required?  
 Has utility relocation coordination been initiated for this project?

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

Number of relocations:      Residences: \_\_\_\_\_ Businesses: \_\_\_\_\_ Farms: \_\_\_\_\_ Other: \_\_\_\_\_

*If a BIS or CSRS is required, discuss the results in the remarks box.*

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

### SECTION H – HAZARDOUS MATERIALS & REGULATED SUBSTANCES

#### Hazardous Materials & Regulated Substances (Mark all that apply)

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

#### Documentation

X

	No	Yes/ Date
<b>ES Review of Investigations</b>		August 22, 2019

*Include a summary of findings for each investigation.*

Remarks: 
 Based on a review of GIS and available public records, a RFI was approved on August 22, 2019 by INDOT Environmental Services (Appendix E, page 1). No sites with hazardous material concerns (hazmat sites) or sites involved with regulated substances were identified in or within the 0.5 mile of the project area. Further investigation for hazardous material concerns or regulated substances is not required at this time.  
  
 The segment of Branch to Big Cedar Creek within the project area is listed as an impaired stream for E. coli. Workers who are working in or near water with E. coli should take care to wear appropriate PPE, observe proper hygiene procedures, including regular hand washing, and limit personal exposure.

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### SECTION I – PERMITS CHECKLIST

Permits (mark all that apply)

Likely Required

**Army Corps of Engineers (404/Section10 Permit)**

Individual Permit (IP)	<input type="checkbox"/>
Nationwide Permit (NWP)	<input type="checkbox"/>
Regional General Permit (RGP)	<input checked="" type="checkbox"/>
Pre-Construction Notification (PCN)	<input type="checkbox"/>
Other	<input type="checkbox"/>
Wetland Mitigation required	<input type="checkbox"/>
Stream Mitigation required	<input type="checkbox"/>

**IDEM**

Section 401 WQC	<input checked="" type="checkbox"/>
Isolated Wetlands determination	<input type="checkbox"/>
Rule 5	<input type="checkbox"/>
Other	<input type="checkbox"/>
Wetland Mitigation required	<input type="checkbox"/>
Stream Mitigation required	<input type="checkbox"/>

**IDNR**

Construction in a Floodway	<input type="checkbox"/>
Navigable Waterway Permit	<input type="checkbox"/>
Lake Preservation Permit	<input type="checkbox"/>
Other	<input type="checkbox"/>
Mitigation Required	<input type="checkbox"/>

**US Coast Guard Section 9 Bridge Permit**

**Others (Please discuss in the remarks box below)**

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

Remarks:

All applicable recommendations provided by 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. Permits that are anticipated for this project include a USACE 404 and IDEM 401 Regional Permit (RGP).

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

### SECTION J- ENVIRONMENTAL COMMITMENTS

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

Remarks:

**Firm:**

1. If the scope of work or permanent or temporary right-of-way amounts change, the INDOT Environmental Services Division (ESD) and the INDOT District Environmental Section will be contacted immediately. (INDOT)
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)
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 April 25, 2021, an inspection of the structure by a qualified individual, must be performed. Inspection of the structure should check for the 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 District Environmental Manger must be contacted immediately. (INDOT)
4. Branch to Big Cedar Creek is listed as an impaired stream for E. coli. Workers who are working in or near water with E. coli should take care to wear appropriate PPE, observe proper hygiene procedures, including regular hand washing, and limit personal exposure. (INDOT)

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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 April 1<sup>st</sup> through September 30<sup>th</sup> 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)
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)

**For Further Consideration:**

11. Restrict below low-water work in streams to placement of culverts, piers, pilings and/or footings, shaping of the spill slopes around the bridge abutments, and placement of riprap. (USFWS)
12. Minimize the extent of hard armor (riprap) in bank stabilization by using bioengineering techniques whenever possible. If riprap is utilized for bank stabilization, extend it below low-water elevation to provide aquatic habitat. (USFWS)
13. Avoid all work within the inundated part of the stream channel (in perennial streams and larger intermittent streams) during fish spawning season (April 1 through June 30), except for work within sealed structures such as caissons or cofferdams that were installed prior to the spawning season. No equipment shall be operated below the Ordinary High Water Mark during this time unless the machinery is within caissons or on the cofferdams. (USFWS)
14. Evaluate wildlife crossings under bridge/culvert projects in appropriate situations. Suitable crossings include flat areas below bridge abutments with suitable ground cover, high water shelves in culverts, amphibian tunnels and diversion fencing. (USFWS)
15. The new, replacement, or rehabbed structure should not create conditions that are less favorable for wildlife passage under the structure compared to the current conditions. (IDNR)
16. Use minimum average 6 inch graded riprap stone extended below the normal water level to provide habitat for aquatic organisms in the voids. (IDNR)
17. The project design should avoid inclusion of a cofferdam, if possible. Such features result in impacts to the stream and surrounding habitat. If a cofferdam is deemed critical for the construction to occur, justification should be provided with any permit application, if required. (IDNR)
18. 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. (IDNR)
19. Bridge maintenance activities shall be restricted to the period between November 1 and March 1 to avoid summer roosting period for most bats in the central part of the State. However, some endangered bats could use a bridge to roost between November and March. No matter when work is proposed, the bridge must be inspected for the presence of bats. If there is no evidence of active bat use, work can proceed. If there is evidence of active bat use, work must not occur until either the bats leave the structure for the season or a separate permit is issued to remove the bats. (IDNR)

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### SECTION K- EARLY COORDINATION

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

Remarks:

Agency Name	Date Sent	Date Response Received	Appendix, Page #
U.S. Fish and Wildlife Service (USFWS)- Bloomington Field Office	February 6, 2019	February 27, 2019	Appendix C, C8-C9
Indiana Department of Natural Resources (IDNR)-Division of Fish and Wildlife	February 6, 2019	March 7, 2019	Appendix C, C31-C35
Indiana Geological Survey (IGS)	February 6, 2019	February 6, 2019	Appendix C, C36-C38
US Development of Housing & Urban Development	February 6, 2019	No Response	
Indiana Department of Environmental Management (IDEM)	February 6, 2019	February 6, 2019 (automated)	Appendix C, C39-C43
Natural Resources Conservation Service (NRCS)	February 6, 2019	February 13, 2019	Appendix C, C44
Franklin County Highway	February 6, 2019	No Response	
Franklin County Surveyor	February 6, 2019	No Response	
National Park Service	February 6, 2019	No Response	
United States Army Corps of Engineers (USACE)- Louisville District	February 6, 2019	No Response	

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\*This section will be updated after the opportunity for a public hearing is advertised.

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Appendix A  
INDOT Supporting Documentation

## Categorical Exclusion Level Thresholds

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

<sup>1</sup>Coordinate with INDOT Environmental Services. INDOT will then coordinate with the appropriate FHWA Environmental Specialist.

<sup>2</sup>Any involvement with a bridge processed under the Historic Bridge Programmatic Agreement.

<sup>3</sup>Permanent and/or temporary right-of-way.

<sup>4</sup>AMMs = Avoidance and Mitigation Measures.

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

<sup>6</sup>Potential for causing a disproportionately high and adverse impact.

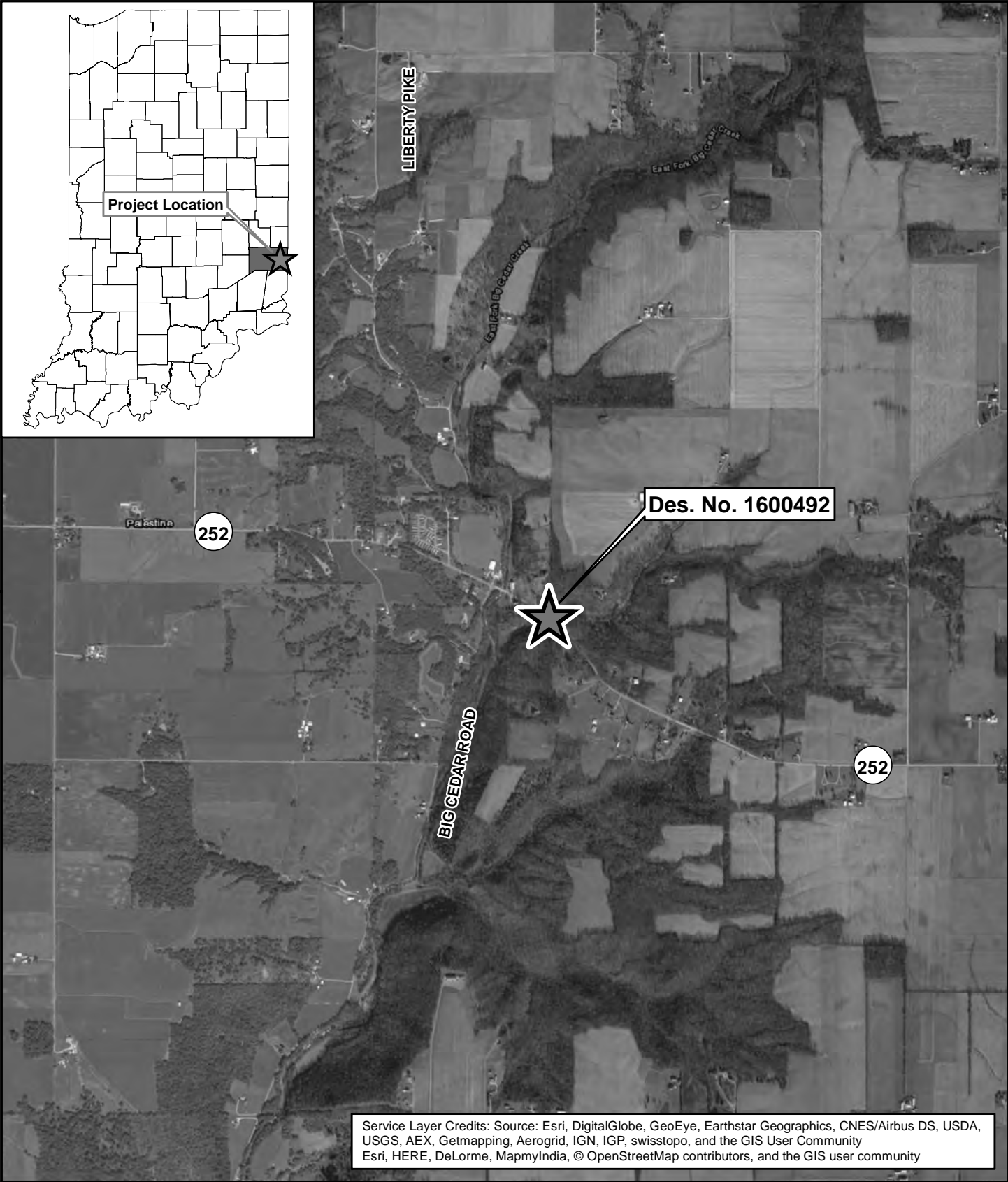
<sup>7</sup>Hot Spot Analysis and/or MSAT Quantitative Emission Analysis.

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

# Appendix B


## Graphics





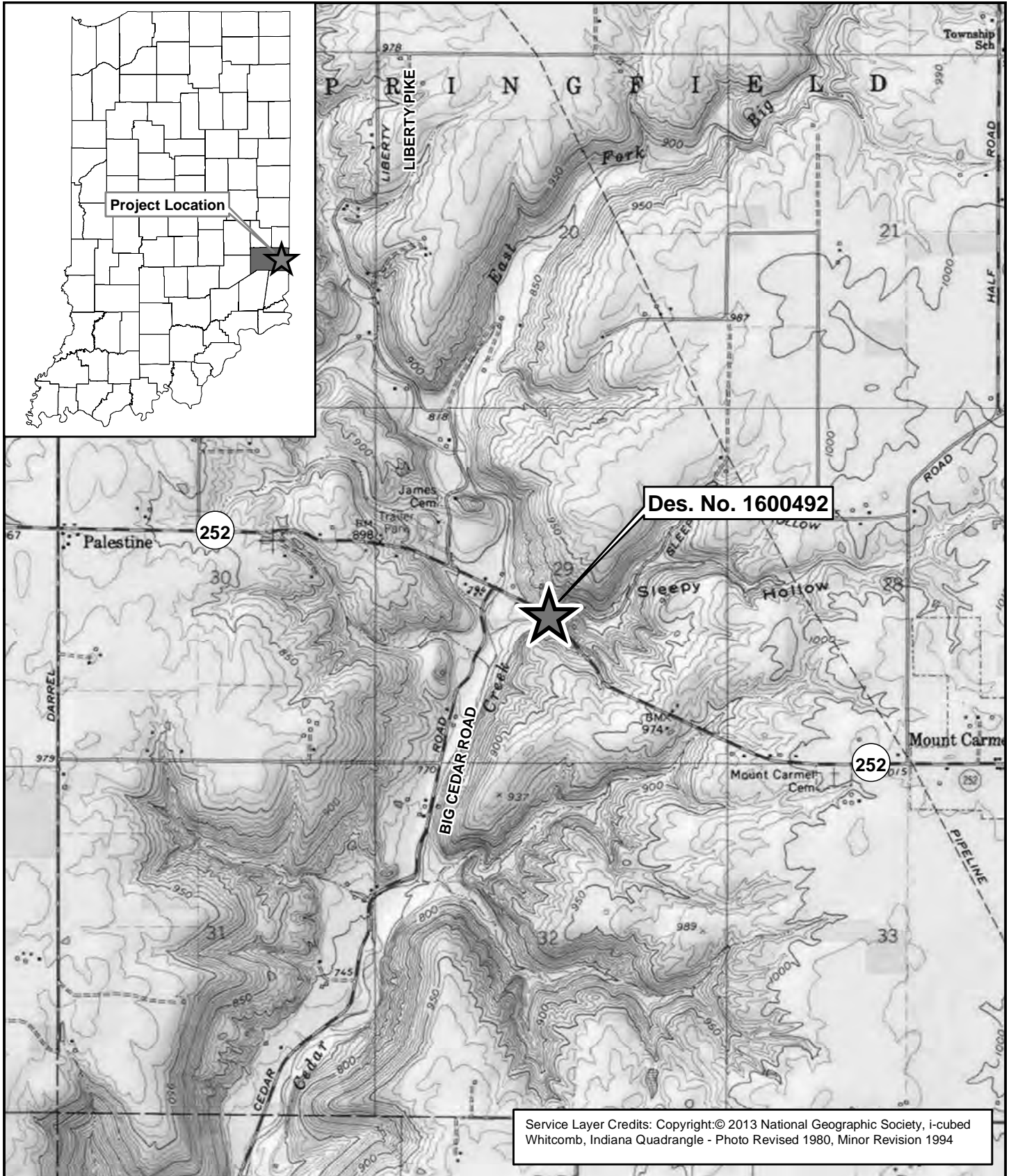
**Legend**

 Project Location

0 1,000 2,000  
 Feet



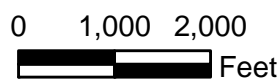
**SR 252 Over Branch Big Cedar Creek  
 Superstructure Replacement  
 Springfield Twp, Franklin Co., Indiana  
 Des. No. 1600492  
 Aerial Project Location Map**



Service Layer Credits: Copyright:© 2013 National Geographic Society, i-cubed  
Whitcomb, Indiana Quadrangle - Photo Revised 1980, Minor Revision 1994

**Legend**

 Project Location



SR 252 Over Branch Big Cedar Creek  
Superstructure Replacement  
Springfield Twp, Franklin Co., Indiana  
Des. No. 1600492

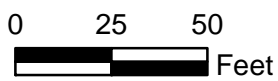
**USGS Project Location Map**



Service Layer Credits: Indiana Office of Information Technology, Indiana University Spatial Data Portal, UITS, Woolpert Inc. Field Delineated Resources, 2019

**Legend**

- Study Area - SR 252
- Data Point
- Culvert
- Surveied Stream and Flow
- Wetland



SR 252 Over Branch Big Cedar Creek  
 Superstructure Replacement  
 Springfield Twp, Franklin Co., Indiana  
 Des. No. 1600492  
 Field Identified Resources



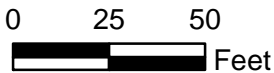
Service Layer Credits: Indiana Office of Information Technology, Indiana University Spatial Data Portal, UITS, Woolpert Inc. Field Delineated Resources, 2019

**Legend**

- Study Area - SR 252     **Surveyed Stream and Flow**    Wetland
- **Data Point**     **Culvert**



Photo Number and Direction



**SR 252 Over Branch Big Cedar Creek  
 Superstructure Replacement**  
 Springfield Twp, Franklin Co., Indiana  
 Des. No. 1600492  
**Photo Log**

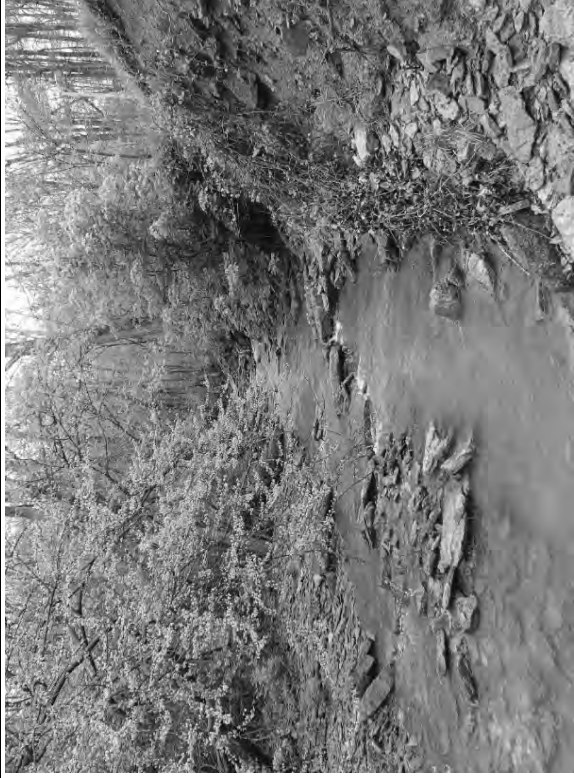


Photo 1: Facing northeast/upstream at stream, Branch to Big Cedar Creek



Photo 2: Facing southwest/downstream at Branch to Big Cedar Creek flowing beneath roadway



Photo 3: Facing northwest at Data Point 1 (DP1) location



Photo 4: DP1 Soil



Photo 5: Facing northwest/downstream at UNT-2 culvert outlet (Confluence with Branch to Big Cedar Creek)



Photo 6: Facing southeast/upstream at stream UNT-2 flowing within roadside ditch



Photo 7: Facing northwest/downstream at UNT-2



Photo 8: Facing southeast/upstream at UNT-3



Photo 9: Facing northwest/downstream at UNT-3



Photo 10: Facing northwest at Data Point 2 (DP2)



Photo 11: DP2 soil



Photo 12: Facing southwest/downstream at Branch to Big Cedar Creek from roadway



Photo 13: Facing east at Data Point 3 (DP3)



Photo 14: DP3 Soil



Photo 15: Facing northeast/upstream at UNT-4



Photo 16: Facing southeast/downstream at UNT-4 flowing within roadside ditch





Photo 17: Facing northwest across wetland W-01 (Shovel marking soil test location)



Photo 18: Facing southeast across wetland W-01 (Shovel marking soil test location)



Photo 19: W-01 soil



Photo 20: Facing southeast at wetland W-01 upland soil sample location (W-01UP)



Photo 21: W-01UP soils



Photo 22: Facing north/upstream at UNT-5

# INDIANA DEPARTMENT OF TRANSPORTATION



PROJECT	DESCRIPTION
1600492	1600492
CONTRACT	BRIDGE FILE
B-39400	252-24-66008 D

STRUCTURE	TYPE	SPAN AND SKEW	OVER	STATION
252-24-66008 D	REINFORCED CONCRETE SLAB	1 SPAN: 24'-6" 30'-0" SKEW RT.	BRANCH OF BIG CEDAR CREEK	34+47.27 LINE "A"

### KTN PROJECT INFORMATION

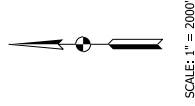
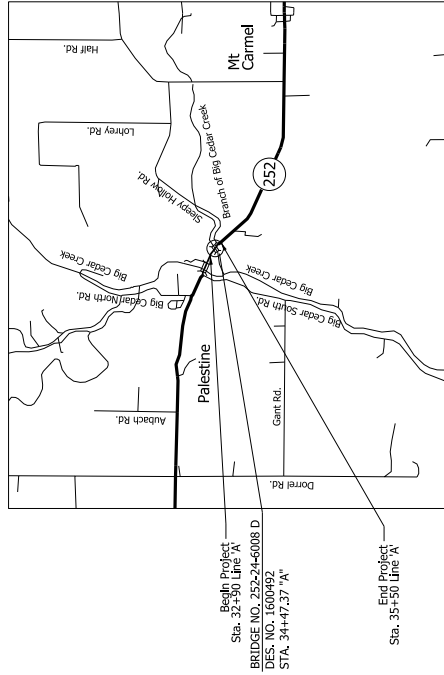
DESIGNATION	PROJECT DESCRIPTION
1593049	SR 252 OVER BIG CEDAR CREEK DECK REPLACEMENT (LEAD)
1600492	SR 252 OVER BRANCH OF BIG CEDAR CREEK SUPERSTRUCTURE REPLACEMENT

## BRIDGE REHABILITATION PLANS

FOR SPANS OVER 20 FEET

ROUTE: SR 252 AT: 06+19  
 PROJECT NO. 1600492 P.E.  
 1600492 R/W  
 1600492 CONST.

Bridge Superstructure Replacement on SR 252 over Branch of Big Cedar Creek located approximately 6.19 miles east of US 52 in Section 29, T-9-N, R-1-W, Springfield Township, Franklin County, Indiana.

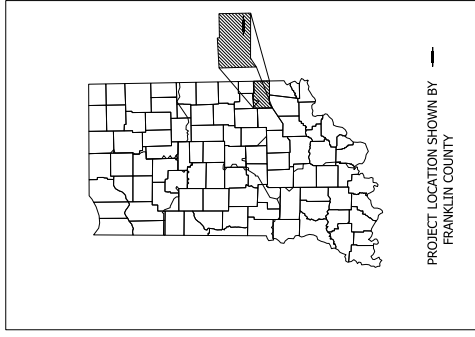


### TRAFFIC DATA

A.A.D.T.	(2031)	1,640 V.P.D.
A.A.D.V.	(2041)	1,550 V.P.O.
D.A.V.	(2041)	181 V.P.H.
DIRECTIONAL DISTRIBUTION		46.69 %
TRUCKS		1.27 % A.A.D.T.
		1.27 % D.A.V.

### DESIGN DATA

DESIGN SPEED	55 M.P.H.
PROJECT DESIGN CRITERIA	(R) (NON-FREWAY)
DESIGN LIFE	STATE CONTROL
ROADWAY CLASSIFICATION	URBAN
ROADWAY SURFACE	LEVEL
TERRAIN	NONE
ACCESS CONTROL	NONE



LATITUDE: 39° 24' 49" N	LONGITUDE: 84° 54' 07" W
BRIDGE LENGTH: 0.005 MI.	
ROADWAY LENGTH: 0.045 MI.	
TOTAL LENGTH: 0.050 MI.	
MAX. GRADE: 2.30 %	

HUC: 050800030800

### LOCATION MAP

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

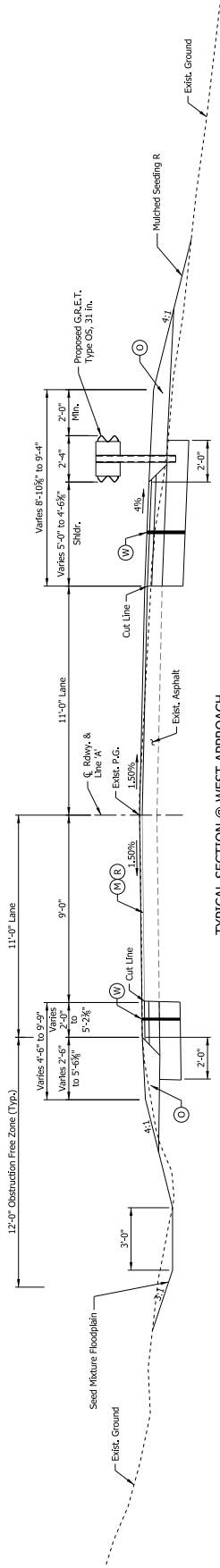
BRIDGE FILE	1600492
DESIGNATION	1600492
SHEETS	1 of 21
SURVEY BOOK	
CONTRACT	B-39400
PROJECT	1600492

PLANS PREPARED BY:	Michael Baker International, Inc.	317-463-8430	PHONE NUMBER
CERTIFIED BY:			DATE
APPROVED FOR LETTING:			DATE

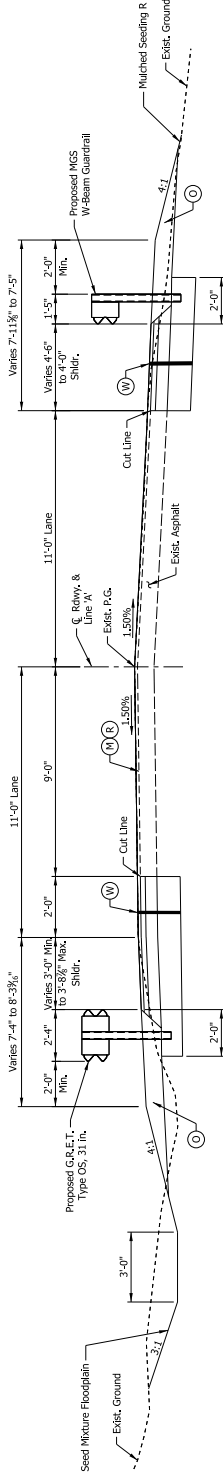
Michael Baker International, Inc.  
 3815 River Crossing Parkway, Suite 20  
 Indianapolis, IN 46240  
 Tel: 317-463-8430 Fax: 317-463-8410  
 www.mbakernl.com



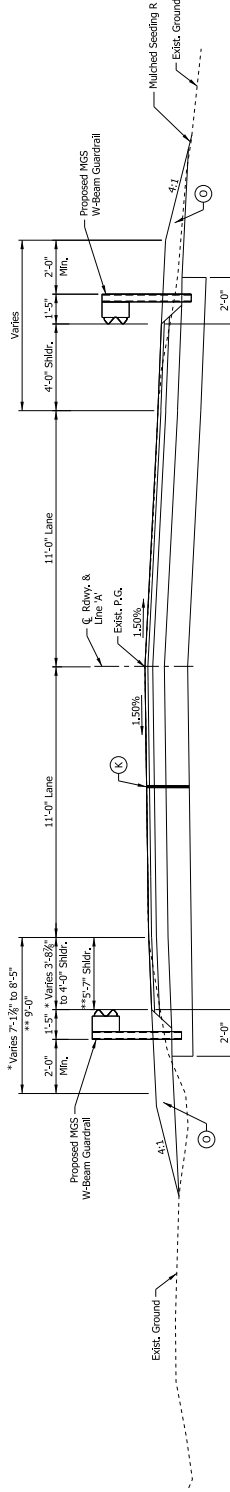




TYPICAL SECTION @ WEST APPROACH  
STA. 33+90.00 TO STA. 33+54.93



TYPICAL SECTION @ WEST APPROACH  
STA. 33+94.00 TO STA. 33+98.00



TYPICAL FULL DEPTH SECTION  
\* STA. 33+98.83 TO STA. 34+02.83  
\*\* STA. 34+88.63 TO STA. 34+92.63

LEGEND

- (K) Full Depth HMA: 165#/Sy's CC/QA-HMA 3, 64, Surface 9.5mm on Intermediate 19.0mm on Subgrade Treatment, Type IC
- (L) Milling, Asphalt 1 1/2"
- (M) Compacted Aggregate, No. 53
- (N) 165#/Sy's CC/QA-HMA 3, 64, Surface 9.5mm
- (O) Milling, Asphalt 1 1/2"
- (P) 165#/Sy's CC/QA-HMA 3, 64, Surface 9.5mm on Intermediate 19.0mm on Subgrade Treatment, Type IC
- (Q) Milling, Asphalt 1 1/2"
- (R) 165#/Sy's CC/QA-HMA 3, 64, Surface 9.5mm
- (S) Milling, Asphalt 1 1/2"
- (T) 165#/Sy's CC/QA-HMA 3, 64, Intermediate 19.0mm on Subgrade Treatment, Type IC

NOTES

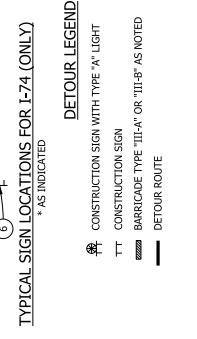
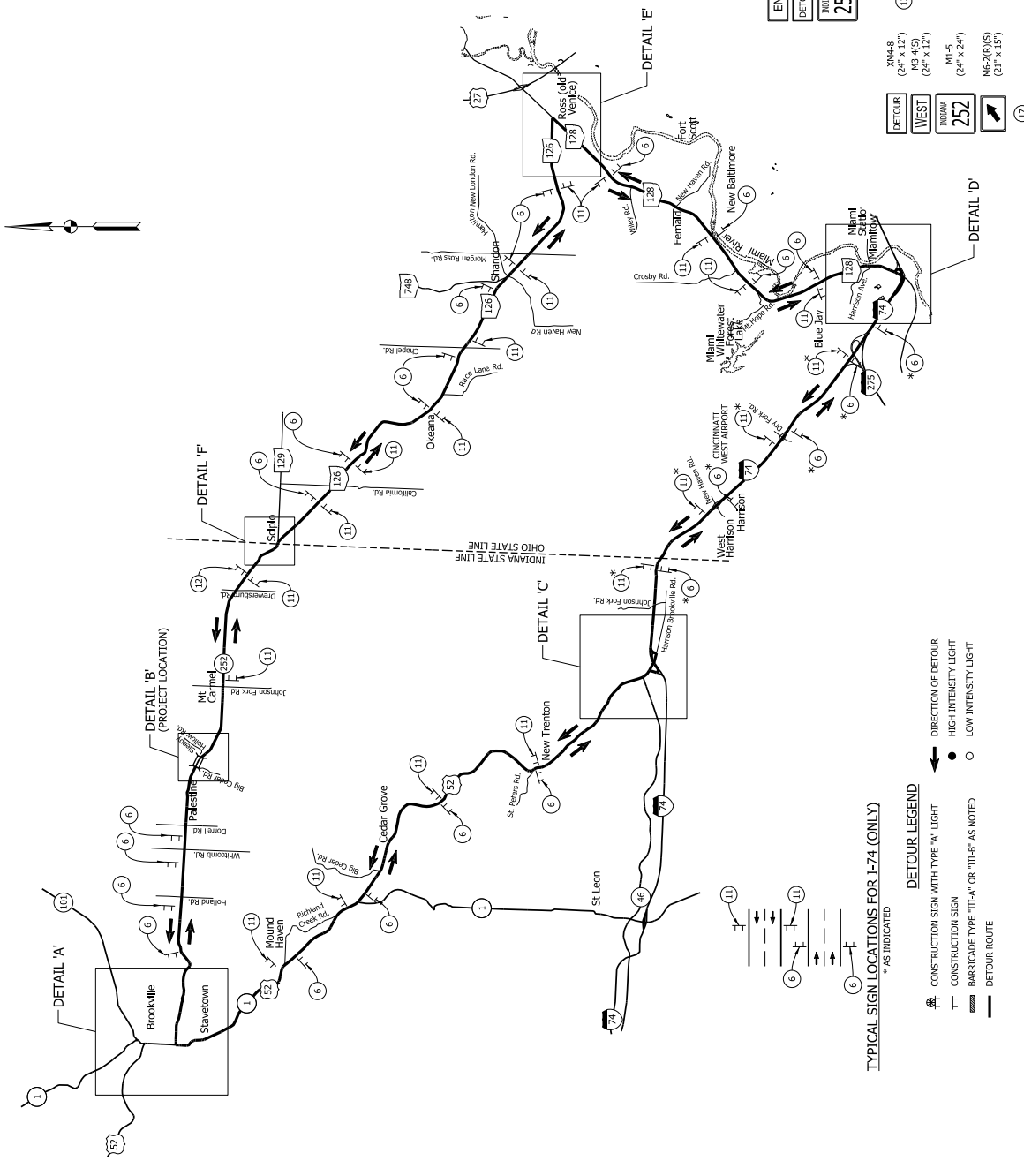
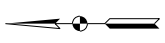
1. For additional details, see sheets 10 thru 14.

DATE	REVISION	INDIANA DEPARTMENT OF TRANSPORTATION	BRIDGE FILE 34-100-000 DESIGNATION 1600492
DESIGNED: _____	CHEKED: _____	TYPICAL CROSS SECTIONS	SURVEY BOOK PROJECT B-39480
DRAWN: _____	CHEKED: _____		
DESIGNER: _____	CHEKED: _____		SHEETS 5 OF 21
RECOMMENDED FOR APPROVAL	DATE		CONTRACT 1600492

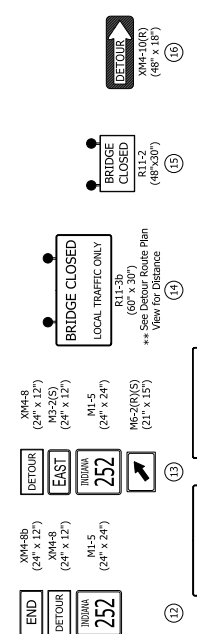
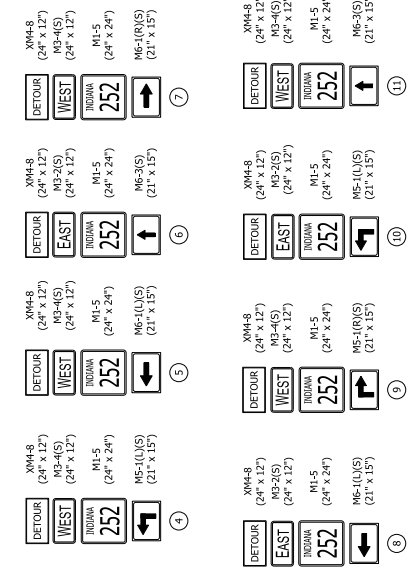
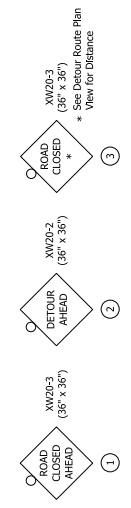


### MAINTENANCE OF TRAFFIC QUANTITIES

- 1 LSKM
- 10 EACH
- CONSTRUCTION SIGN TYPE A
- 1 EACH
- CONSTRUCTION SIGN TYPE B
- 4 EACH
- CONSTRUCTION SIGN TYPE C
- 4 EACH
- ROAD CLOSURE SIGN ASSEMBLY
- 105 EACH
- DETOUR ROUTE MARKER ASSEMBLY
- 48 LFT
- TYPE III-A BARRICADE
- 24 LFT



- #### DETOUR LEGEND
- CONSTRUCTION SIGN WITH TYPE 'A' LIGHT
  - HIGH INTENSITY LIGHT
  - CONSTRUCTION SIGN
  - LOW INTENSITY LIGHT
  - BARRICADE TYPE 'III-A' OR 'III-B' AS NOTED
  - DETOUR ROUTE



- #### NOTES:
1. Driveway access to remain open at all times.
  2. Refer to INDOT Standard Drawings E 801-TCD7, E 801-TCSN, E 801-TCL0 for further details of Traffic Control Signs.
  3. See sheet 8 for Details 'A' thru 'F'.

DATE	REVISION	DESIGN ENGINEER	DATE
		DRAWN: JLR	
		CHECKED: CDS	
		DESIGNED: JPD	
		CHECKED: CDS	
INDIANA DEPARTMENT OF TRANSPORTATION			
MAINTENANCE OF TRAFFIC - DETOUR			
HORIZONTAL SCALE AS SHOWN		BRIDGE FILE 1500492	
VERTICAL SCALE 1" = 600'		DESIGNATION 1500492	
SURVEY BOOK		SHEETS	
		OF 21	
		PROJECT	
		CONTRACT	
		B-3940	
		1500492	





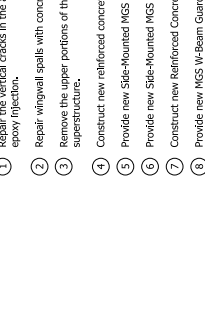




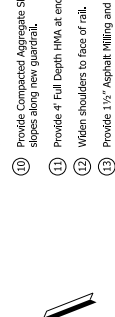




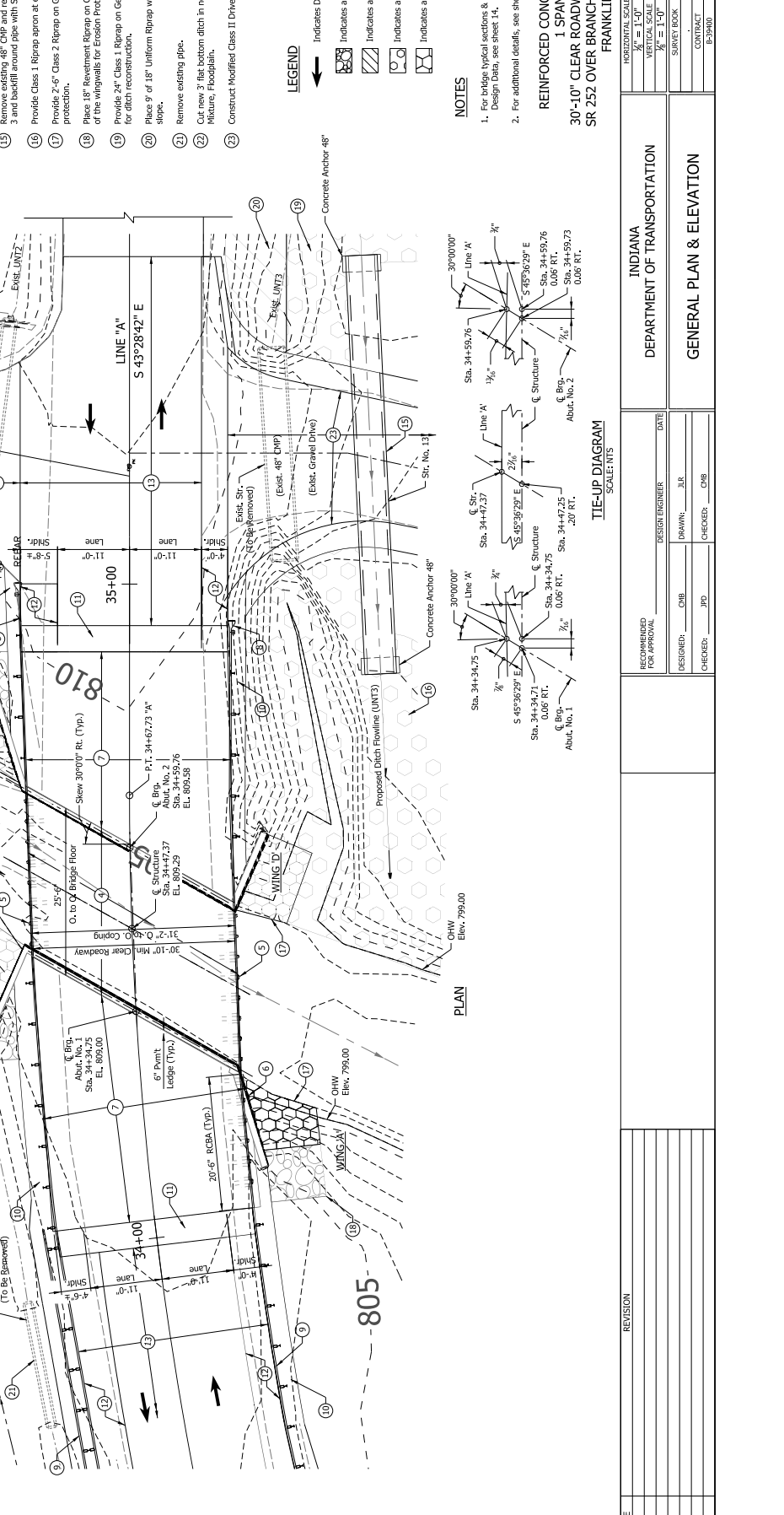
**STRUCTURE BUILT ON A 2-30% GRADE**



**ELEVATION**



**PLAN**



**LEGEND**

- 1 Repair the vertical cracks in the abutment and wingwall faces with epoxy injection.
- 2 Repair wingwall spalls with concrete patching.
- 3 Remove the upper portions of the wingwalls to accommodate the new superstructure.
- 4 Construct new reinforced concrete slab superstructure.
- 5 Provide new Side-Mounted MGS W-Beam Bridge Railing.
- 6 Provide new Side-Mounted MGS W-Beam Railing.
- 7 Construct new Reinforced Concrete Approach Slabs.
- 8 Provide new MGS W-Beam Guardrail and Guardrail End Treatment (P&T) for MGS Terminal, 1'-2".
- 9 Provide a new MGS W-Beam Guardrail and End Treatment Type OS, 31".
- 10 Provide Compacted Aggregate Shoulders with Linear Grading for side slopes along new guardrail.
- 11 Provide 4" Full Depth HMA at ends of approach slabs.
- 12 Widen shoulders to face of rail.
- 13 Provide 1 1/2" Asphalt Milling and HMA Resurface.
- 14 Provide Approach Milling and HMA Resurface at the intersection of Sleepy Hollow Road.
- 15 Remove existing 48" CIP and replace with 6" of new 48" Pipe, Type 3 and backfill around pipe with Structure Backfill Type 1.
- 16 Provide Class 1 Riprap apron at end of new 48" Pipe Type 3.
- 17 Provide 2'-6" Class 2 Riprap on Geotextile, Type IA for embankment protection.
- 18 Place 18" Reinforced Riprap on Geotextile, Type IA around the ends of the wingwalls for Erosion Protection.
- 19 Provide 24" Class 1 Riprap on Geotextiles, Type IA for ditch reconstruction.
- 20 Place 9' of 18" Uniform Riprap with Geotextile, Type IA on roadside slopes.
- 21 Remove existing pipe.
- 22 Cut new 3" flat bottom ditch in northwest quadrant and place Seed Mixture, Floodplain.
- 23 Construct Modified Class II Drives Wa 18', L= 50'

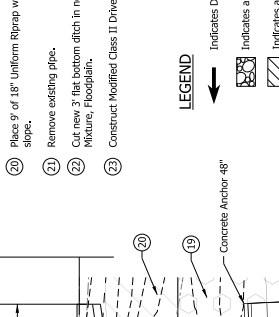
**LEGEND**

- Indicates Direction of Traffic Flow
- ▨ Indicates area of Retention Riprap
- ▧ Indicates area of Uniform Riprap
- ▩ Indicates area of Class 1 Riprap
- Indicates area of Class 2 Riprap

**NOTES**

1. For bridge typical sections & General Notes and Design Data, see sheet 14.
2. For additional details, see sheets 10 & 11.

**TIE-UP DIAGRAM**  
SCALE: NTS



**INDIANA**  
DEPARTMENT OF TRANSPORTATION

RECOMMENDED FOR APPROVAL	DESIGN ENGINEER	DATE
DESIGNED BY	DRAWN BY	CHECKED BY
CHECKED BY	APP. BY	CHECKED BY

**GENERAL PLAN & ELEVATION**

HORIZONTAL SCALE	BRIDGE FILE
VERTICAL SCALE	PROJECT NO.
SCALE = 1" = 1'-0"	SECTION
SURVEY BOOK	SHEETS
DATE	OF
PROJECT	21
CONTRACT	13
PROJECT	1500492

REINFORCED CONCRETE SLAB BRIDGE  
1 SPAN: 24'-6"  
30'-10" CLEAR ROADWAY; SKEW 30°00' RT.  
SR 252 OVER BRANCH OF BIG CEDAR CREEK  
FRANKLIN COUNTY

**GENERAL NOTES**

Reinforcing steel cover shall be 2 1/2" in top and 1" minimum in bottom of floor slab, and 2" in all other parts, unless noted.  
 All exposed faces and tops of abutment and wingwalls, face of coping and underside of the deck slab from the face of coping to the drip bead, and bridge approaches to be surface sealed.  
 Existing bridge elevations shall be checked by the contractor to ensure proper fit of new concrete to existing concrete.  
 Contractor shall check all dimensions and conditions in the field and report any discrepancies to the engineer and assume responsibility for their correctness and the fit of the new part to the old.

**DESIGN DATA**

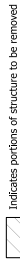
Bridge superstructure designed for HL-93 loading in accordance with AASHTO Standard Specifications for Highway Bridges, 8th edition, 2017.

Original substructure designed for HS-20 loading with impact and distribution of loads in accordance with AASHTO Standard Specifications for Highway Bridges, 8th edition, 1991.

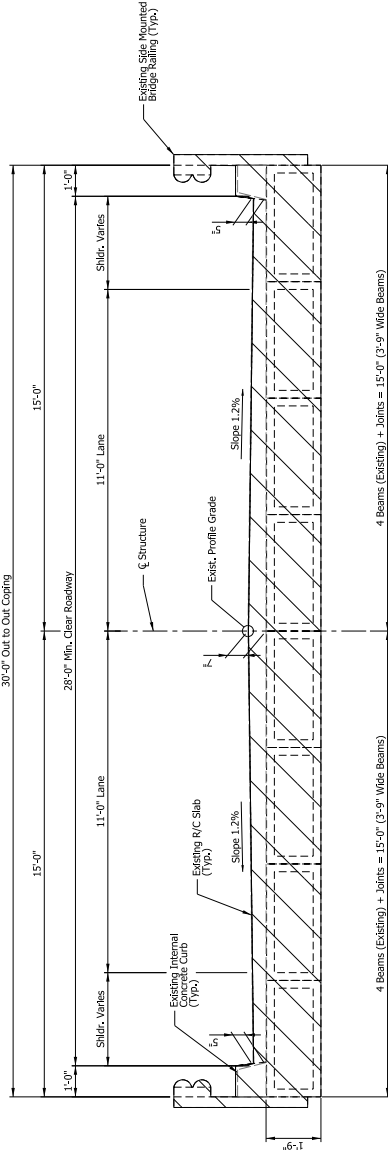
Dead Load designed for actual weight plus 35 lb/ft<sup>2</sup> composite load for future wearing surface.

**Unit stresses:**

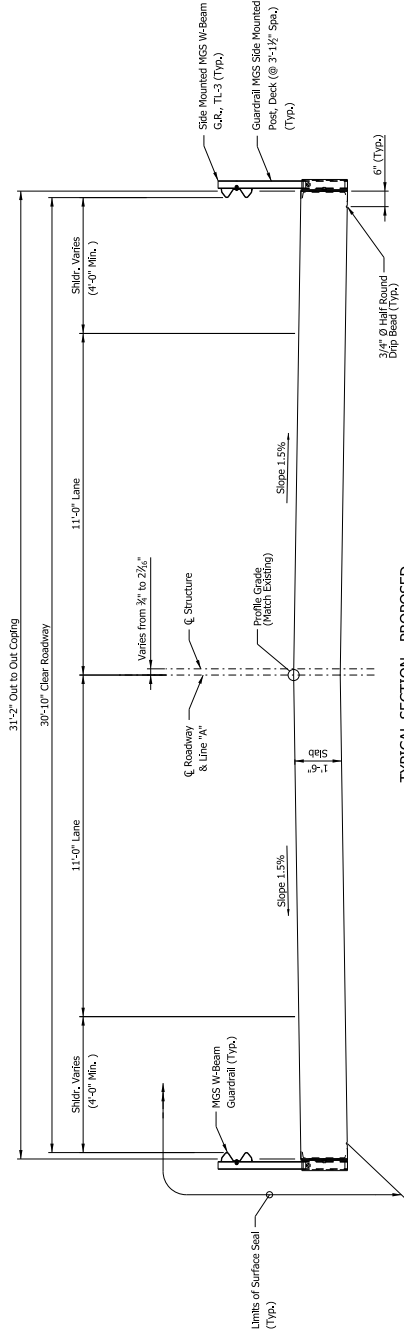
Class "C" concrete:  $F_c = 4,000$  psi  
 Class "A" concrete:  $F_c = 3,500$  psi  
 Reinforcing steel:  $F_y = 60,000$  psi  
 $F_t = 40,000$  psi (original)



Indicates portions of structure to be removed



**TYPICAL SECTION - EXISTING**



**TYPICAL SECTION - PROPOSED**

**REINFORCED CONCRETE SLAB BRIDGE**  
 1 SPAN: 24'-6"  
 30'-10" CLEAR ROADWAY; SKEW 30°00" RT.  
 SR 252 OVER BRANCH OF BIG CEDAR CREEK  
 FRANKLIN COUNTY

HORIZONTAL SCALE	BRIDGE FILE
VERTICAL SCALE	DESIGNATION
1" = 1'-0"	1600492
SURVEY BOOK	SHEETS
PROJECT	OF 21
CONTRACT	PROJECT
B-39480	1600492

INDIANA	DEPARTMENT OF TRANSPORTATION
GENERAL PLAN - TYPICAL SECTIONS	

RECOMMENDED FOR APPROVAL	DATE
DESIGNER: _____	DESIGN ENGINEER: _____
CHECKER: _____	DRAWN: _____
_____	CHECKED: _____

DATE	REVISION

# Appendix C

## Early Coordination



February 6, 2019

«Title1» «First\_Name» «Last\_Name»  
«Title»  
«Company\_Name»  
«Address\_Line\_1»  
«Address\_Line\_2»  
«City», «State» «ZIP\_Code»

Re: Des. No.: 1600492, Bridge Project on State Road 252 Over Sleepy Hallow Creek in Franklin County, Indiana.

Dear «Title1» «Last\_Name»:

The Indiana Department of Transportation (INDOT) and Federal Highway Administration (FHWA) intends to proceed with a project involving the aforementioned Bridge project in Franklin County. This letter is part of the early coordination phase of the environmental review process. We are requesting comments from your area of expertise regarding any possible environmental effects associated with this project. **Please use the above designation numbers and description in your reply.** We will incorporate your comments into a study of the project's environmental impacts.

This project pertains to a bridge on State Road (SR) 252 over Sleepy Hallow Creek, a Branch of Big Cedar Creek in Springfield Township of Franklin County, Indiana. The project is located 6.19 miles east of US 52 at INDOT Reference Post (RP) 06+19. This section of SR 252 is classified as a two-lane *Rural Major Collector*, with a speed limit of 55 miles per hour. The structure number of the bridge involved is 252-24-06008 D. The structure was built in 1965 and is not associated with any event or person of significance, therefore is not eligible for inclusion in Indiana's listing of historic structures as of the time. The paved shoulder width is approximately 2'-0" in the vicinity of the bridge. There is no approach guardrail although side mounted guardrail is currenting in place as bridge railing. The railing is in satisfactory condition with minor corrosion along the top of the guardrail. The railing does not meet INDOT's Current performance criteria. Existing beams have spalls with exposed strand located on the bottom of beams, along with corrosion of the midspan tension rod. Scour protection is present immediately adjacent to the abutments and wingwalls, but the banks of the creek have minimal erosion protection.

The proposed recommendations for the project include replacing the box beam superstructure with a new reinforced concrete bridge. New approach slabs will be provided along with a new bridge railing and approach guardrail. The shoulder along the roadway on the northwest quadrant will require a retaining wall along side of the ditch or the ditch will be piped and filled. The existing property lines go to the centerline of the roadway. INDOT will need to reacquire Right-of-way. The project will use a detour route to maintain traffic during construction. The detour will use the following route: US 52 to I-74 to Ohio 128 to Ohio 126 to SR 252. INDOT will make any interstate coordination. The project will be constructed in a bundled contract with the SR 252 bridge over Big Cedar Creek which will also use the same detour route. The construction of the bridges will need to be coordinated as to not close both structures at the same time.

Land use in the vicinity of the project is agricultural and residential. The project is located within two ecoregions; the Loamy High Lime Till Plains of the Eastern Corn Belt Plains and Northern Bluegrass of the Interior Plateau. A Waters of the U.S. Report will be completed and submitted to INDOT Ecology and Permits Office for review, along with wetland determinations and a biological assessment in order to identify any ecological recourse that may be present in the project area. This project qualifies for the application of the USFWS range-wide programmatic informal consultation for the Indiana bat and northern long-eared bat and



USFWS project information form will be provided to USFWS for review separately. If right-of-way is determined to need acquisition INDOT Cultural Resources Office will be notified with the proper information necessary. This project is outside of any known Metropolitan Area.

Should we not receive your response **within thirty (30) calendar days** from the date of this letter, it will be assumed that your agency feels that there will be no adverse effects incurred as a result of the proposed project. However, should you find that an extension to the response time is necessary, a reasonable amount may be granted upon request. If you have any questions regarding this matter, please feel free to contact Mary Pusti, Environmental Associate, Michael Baker International, Inc., (317) 663.8114, [Mary.Pusti@mbakerintl.com](mailto:Mary.Pusti@mbakerintl.com) or J. Patrick Duncan , Project Manager, Michael Baker International, Inc., (317) 663.8222, [JDuncan@mbakerintl.com](mailto:JDuncan@mbakerintl.com). Thank you in advance for your input.

Sincerely,



Mary Pusti  
Environmental Associate  
Michael Baker International, Inc.

XXX/XXX  
Attachment-  
Agency Early Coordination Recipient List  
Maps (Location, Aerial, Topographic)  
Photographs

**The following agencies received Early Coordination Letters:**

Field Environmental Officer  
Chicago Regional Office  
US Department of Housing and Urban Development  
Metcalf Federal Building  
77 West Jackson Boulevard, Room 2401  
Chicago, IL 60604  
(Electronic Coordination)

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

State Conservationist  
Natural Resources Conservation Service  
6013 Lakeside Blvd.  
Indianapolis, IN 46278  
(Electronic Coordination)

Environmental Coordinator  
Indiana Department of Natural Resources  
Division of Fish and Wildlife  
Room W264, IGC South  
402 West Washington Street  
Indianapolis, IN 46204-2641  
(Electronic Coordination)

Indiana Geological Survey  
611 North Walnut Grove  
Bloomington, IN 47405  
(Electronic Coordination)

INDOT – Office of Public Involvement  
Public Hearings Manager  
(Electronic Coordination)

Field Supervisor  
U.S. Fish & Wildlife Service  
Bloomington Field Office  
620 South Walker St.  
Bloomington, IN 47403  
(Electronic Coordination)

Federal Highway Administration  
Room 254, Federal Office Building  
575 North Pennsylvania Street  
Indianapolis, IN 46204  
(Electronic Coordination)

Indiana Department of Environmental Management  
(Electronic Coordination)

Chief, Groundwater Section  
Indiana Department of Environmental Management  
100 N. Senate Avenue  
Indianapolis, IN 46204  
(Electronic Coordination)

Franklin County Highway  
Department Secretary  
1360 Fairfield Avenue  
Brookville, IN, 47012

Franklin County Surveyor  
1010 Franklin Ave  
Brookville, IN, 47012

**From:** [McWilliams, Robin](#)  
**To:** [Pusti, Mary](#)  
**Subject:** EXTERNAL: Re: [EXTERNAL] Des. Nos.: 1600492, Bridge Project on State Road 252 Over Sleepy Hallow Creek in Franklin County, Indiana.  
**Date:** Wednesday, February 27, 2019 12:35:46 PM

---

Dear Mary,

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

These comments have been prepared under the authority of the Fish and Wildlife Coordination Act (16 U.S.C. 661 et. seq.) and are consistent with the intent of the National Environmental Policy Act of 1969, the Endangered Species Act of 1973, and the U. S. Fish and Wildlife Service's Mitigation Policy.

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

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

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

Sincerely,  
Robin McWilliams Munson

**Standard Recommendations:**

1. Do not clear trees or understory vegetation outside the construction zone boundaries. **(This restriction is not related to the "tree clearing" restriction for potential Indiana Bat habitat.)**
2. Restrict below low-water work in streams to placement of culverts, piers, pilings and/or footings, shaping of the spill slopes around the bridge abutments, and placement of riprap.

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

3. Restrict channel work and vegetation clearing to the minimum necessary for installation of the stream crossing structure.
4. Minimize the extent of hard armor (riprap) in bank stabilization by using bioengineering techniques whenever possible. If rip rap is utilized for bank stabilization, extend it below low-water elevation to provide aquatic habitat.
5. Implement temporary erosion and sediment control methods within areas of disturbed soil. All

disturbed soil areas upon project completion will be vegetated following INDOT's standard specifications.

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

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

Robin McWilliams Munson

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

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

On Wed, Feb 6, 2019 at 10:42 AM Pusti, Mary <[Mary.Pusti@mbakerintl.com](mailto:Mary.Pusti@mbakerintl.com)> wrote:

Greetings,

Please see the attached Early Coordination Letter for a Roadway project that is to take place on State Road 252 in Franklin County, Indiana. We are requesting comments from your area of expertise regarding any possible environmental effects associated with this project. Please use the above designation numbers and description in your reply. We will incorporate your comments into a study of the project's environmental impacts.

Thank you,

Mary Pusti

**Mary Pusti** | Environmental Associate | Michael Baker International  
3815 River Crossing Parkway, Suite 20 | Indianapolis, IN 46240 | [O] 317-663-8114  
[Mary.Pusti@mbakerintl.com](mailto:Mary.Pusti@mbakerintl.com) | [www.mbakerial.com](http://www.mbakerial.com)



## 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 11, 2020

Consultation Code: 03E12000-2019-SLI-1025

Event Code: 03E12000-2020-E-03550

Project Name: Des 1600492, SR 252 Bridge over Branch Big Cedar Creek (Sleepy Hollow)  
Superstructure Replacement

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

To Whom It May Concern:

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

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

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

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

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

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

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

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

Attachment(s):

- Official Species List

# Official Species List

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

This species list is provided by:

**Indiana Ecological Services Field Office**

620 South Walker Street

Bloomington, IN 47403-2121

(812) 334-4261

## Project Summary

Consultation Code: 03E12000-2019-SLI-1025

Event Code: 03E12000-2020-E-03550

Project Name: Des 1600492, SR 252 Bridge over Branch Big Cedar Creek (Sleepy Hollow) Superstructure Replacement

Project Type: BRIDGE CONSTRUCTION / MAINTENANCE

Project Description: The Indiana Department of Transportation (INDOT) and the Federal Highway Association (FHWA) propose a project on SR 252, 6.19 miles east of US 52 in Springfield Township of Franklin County, Indiana. The project is a bridge superstructure replacement of the existing box beam, structure #252-24-06008C, with a new reinforced concrete slab bridge. The proposed deck will provide 30'-10" clear roadway and the out-to-out coping will increase from 30'-0" to 31'-2". Additional work includes new side mounted bridge railings, approach slabs, guardrails, and end treatments (west side) and a modified treatment (east side, where space is limited). Full depth HMA overlay will be provided to widen the shoulders to the face of the proposed guardrail. The existing 48" corrugated metal pipe, located southeast of the structure, will be replaced with a new 48" Type 3 pipe in a reconstructed ditch. Approximately 0.80 acre of new permanent right-of-way (ROW) will be acquired for the project, approximately 0.19 acre include the area of existing roadway pavement. The project will also require approximately 0.05 acre of temporary ROW. Approximately 2-3 trees are anticipated to be removed as part of this project. These trees will be removed outside of active season.

A Bridge Assessment Form was completed on April 25, 2019. No bats were present. A review of the USFWS database was conducted on June 3, 2019 and did not indicate the presence of endangered bat species in or within 0.5 mile of the project area. Additional investigation to confirm the presence or absence of bats in or on any culverts, bridges or structures affected by the project will be necessary. 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".

Project Location:

Approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/place/39.41353372973602N84.90199024659078W>





Counties: Franklin, IN

## Endangered Species Act Species

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

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

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries<sup>1</sup>, 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 <b>final</b> critical habitat for this species. Your location is outside the critical habitat. Species profile: <a href="https://ecos.fws.gov/ecp/species/5949">https://ecos.fws.gov/ecp/species/5949</a> Species survey guidelines: <a href="https://ecos.fws.gov/ipac/guideline/survey/population/1/office/31440.pdf">https://ecos.fws.gov/ipac/guideline/survey/population/1/office/31440.pdf</a>	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"> <li>▪ 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 <a href="http://www.fws.gov/midwest/endangered/mammals/nleb/index.html">www.fws.gov/midwest/endangered/mammals/nleb/index.html</a></li> </ul> Species profile: <a href="https://ecos.fws.gov/ecp/species/9045">https://ecos.fws.gov/ecp/species/9045</a>	Threatened

## Critical habitats

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



## United States Department of the Interior



### FISH AND WILDLIFE SERVICE

Indiana Ecological Services Field Office

620 South Walker Street

Bloomington, IN 47403-2121

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

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

In Reply Refer To:

March 04, 2020

Consultation Code: 03E12000-2019-I-1025

Event Code: 03E12000-2020-E-04418

Project Name: Des 1600492, SR 252 Bridge over Branch Big Cedar Creek (Sleepy Hollow)  
Superstructure Replacement

Subject: Concurrence verification letter for the 'Des 1600492, SR 252 Bridge over Branch Big Cedar Creek (Sleepy Hollow) Superstructure Replacement' project under the revised February 5, 2018, FHWA, FRA, FTA Programmatic Biological Opinion for Transportation Projects within the Range of the Indiana Bat and Northern Long-eared Bat.

To whom it may concern:

The U.S. Fish and Wildlife Service (Service) has received your request to verify that the **Des 1600492, SR 252 Bridge over Branch Big Cedar Creek (Sleepy Hollow) Superstructure Replacement** (Proposed Action) may rely on the concurrence provided in the February 5, 2018, FHWA, FRA, FTA Programmatic Biological Opinion for Transportation Projects within the Range of the Indiana Bat and Northern Long-eared Bat (PBO) to satisfy requirements under Section 7(a)(2) of the Endangered Species Act of 1973 (ESA) (87 Stat. 884, as amended; 16 U.S.C 1531 *et seq.*).

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

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

Service Field Offices may request additional information that is necessary to verify inclusion of the proposed action under the PBO.

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

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

## Project Description

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

### Name

Des 1600492, SR 252 Bridge over Branch Big Cedar Creek (Sleepy Hollow) Superstructure Replacement

### Description

The Indiana Department of Transportation (INDOT) and the Federal Highway Association (FHWA) propose a project on SR 252, 6.19 miles east of US 52 in Springfield Township of Franklin County, Indiana. The project is a bridge superstructure replacement of the existing box beam, structure #252-24-06008C, with a new reinforced concrete slab bridge. The proposed deck will provide 30'-10" clear roadway and the out-to-out coping will increase from 30'-0" to 31'-2". Additional work includes new side mounted bridge railings, approach slabs, guardrails, and end treatments (west side) and a modified treatment (east side, where space is limited). Full depth HMA overlay will be provided to widen the shoulders to the face of the proposed guardrail. The existing 48" corrugated metal pipe, located southeast of the structure, will be replaced with a new 48" Type 3 pipe in a reconstructed ditch.

Approximately 0.80 acre of new permanent right-of-way (ROW) will be acquired for the project, approximately 0.19 acre include the area of existing roadway pavement. The project will also require approximately 0.05 acre of temporary ROW. Approximately 2-3 trees are anticipated to be removed as part of this project. These trees will be removed outside of active season.

A Bridge Assessment Form was completed on April 25, 2019. No bats were present. A review of the USFWS database was conducted on June 3, 2019 and did not indicate the presence of endangered bat species in or within 0.5 mile of the project area. Additional investigation to confirm the presence or absence of bats in or on any culverts, bridges or structures affected by the project will be necessary. 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".

## 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<sup>[1]</sup>?

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

**Automatically answered**

Yes

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

[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<sup>[1]</sup> 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<sup>[1]</sup>?

[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<sup>[1]</sup>?

[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<sup>[1]</sup> summer habitat for Indiana Bat or NLEB **within** the project action area<sup>[2]</sup>? (includes any trees suitable for maternity, roosting, foraging, or travelling habitat)

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

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

*Yes*

9. Will the project remove *any* suitable summer habitat<sup>[1]</sup> 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<sup>[1][2]</sup> been conducted<sup>[3][4]</sup> **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**<sup>[1][2]</sup>?

[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 triangulation/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<sup>[1]</sup>?

[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**<sup>[1][2]</sup>?

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

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

*No*

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

*Yes*

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

*B) During the inactive season*

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

*Yes*

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

*No*

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

*No*

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

*Yes*

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

No

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

No

24. Does the project include slash pile burning?

No

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

Yes

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

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

Yes

27. Has a bridge assessment<sup>[1]</sup> been conducted **within** the last 24 months<sup>[2]</sup> 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**

- *2019.0425.Bridge Assessment Form.pdf* <https://ecos.fws.gov/ipac/project/CUR4A4QUDNEXNC3UYEJDEZRA6U/projectDocuments/16626514>

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

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

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

No

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

No

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

No

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

Yes

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

Yes

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

No

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

No

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

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

Yes

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

No

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

**Automatically answered**

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

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

**Automatically answered**

*Yes, because the tree removal/trimming that occurs outside of the 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.*

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

**Automatically answered**

*Yes, because the tree removal/trimming that occurs outside of the 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.*

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

**Automatically answered**

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

**41. General AMM 1**

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

Yes

**42. Tree Removal AMM 1**

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

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

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

Yes

**43. Tree Removal AMM 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

**44. Tree Removal AMM 4**

Can the project avoid cutting down/removal of *all* (1) **documented**<sup>[1]</sup> Indiana bat or NLEB roosts<sup>[2]</sup> (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

**45. 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<sup>[1]</sup> 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.

*0.01*

4. Please describe the proposed bridge work:

*Superstructure Replacement*

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

*Spring 2021*

6. Please enter the date of the bridge assessment:

*April 25, 2019*

## Avoidance And Minimization Measures (AMMs)

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

### GENERAL AMM 1

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

**LIGHTING AMM 1**

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

**TREE REMOVAL AMM 1**

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

**TREE REMOVAL AMM 2**

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

**TREE REMOVAL AMM 3**

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

**TREE REMOVAL AMM 4**

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

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

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

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

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



**From:** [Dye, David](#)  
**To:** [Jack, Laura](#)  
**Subject:** RE: EXTERNAL: RE: 1600492 SR 252 Bridge over Branch IPaC  
**Date:** Wednesday, March 4, 2020 12:01:14 PM  
**Attachments:** [image001.png](#)  
[image002.png](#)  
[image003.png](#)  
[image004.png](#)  
[image005.png](#)  
[image006.png](#)

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Hi Laura,

I have reviewed and submitted this determination to USFWS for their 14-day review period.

Let me know if you have any additional questions.

**David Dye**

***Environmental Section Manager***

185 Agrico Lane  
Seymour, IN 47274

**Office:** (812) 524-3723

**Email:** [ddye@indot.in.gov](mailto:ddye@indot.in.gov)



---

**From:** Jack, Laura <[Laura.Jack@mbakerintl.com](mailto:Laura.Jack@mbakerintl.com)>  
**Sent:** Tuesday, February 11, 2020 11:20 AM  
**To:** Dye, David <[DDYE@indot.IN.gov](mailto:DDYE@indot.IN.gov)>  
**Subject:** RE: EXTERNAL: RE: 1600492 SR 252 Bridge over Branch IPaC

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

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Hi David,

That worked, thank you. I have updated the evaluation and it is ready for your review.

Thanks,

**Laura Jack** | Environmental Scientist  
200 West Adams St., Suite 1800 | Chicago, IL 60606 | [O] 312-575-3902  
[laura.jack@mbakerintl.com](mailto:laura.jack@mbakerintl.com) | [www.MBakerintl.com](http://www.MBakerintl.com)



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

DNR #: ER-21227

Request Received: February 6, 2019

**Requestor:** Michael Baker International  
Mary Pusti  
3815 River Crossing Parkway, Suite 20  
Indianapolis, IN 46240

**Project:** SR 252 bridge replacements over Big Cedar Creek (Des #1593049) and over UNT Big Cedar Creek (Des #1600492)

**County/Site info:** Franklin

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:** These proposals will require the formal approval of our agency for construction in a floodway pursuant to the Flood Control Act (IC 14-28-1), unless it qualifies for a bridge exemption (see enclosure). Please include a copy of this letter with the permit application if the project does not meet the bridge exemption criteria.

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

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

1) Stream Crossing:

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

2) Bank Stabilization & Wildlife Passage:

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. Minimize the use of riprap and use alternative erosion protection materials whenever possible. Riprap must not be placed in the active thalweg channel or placed in the streambed in a manner that precludes fish or aquatic organism passage (riprap must not be placed above the existing streambed elevation). Where riprap must be used, we recommend placing only enough riprap to

Attachments: A - Bridge Exemption Criteria

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provide stream bank toe protection, such as from the toe of the bank up to the ordinary high water mark (OHWM). The banks above the OHWM must be restored, stabilized, and revegetated using geotextiles and a mixture of grasses, sedges, wildflowers, shrubs, and trees native to the area and specifically for stream bank/floodway stabilization purposes as soon as possible upon completion.

While hard armoring alone (e.g. riprap or glacial stone) may be needed in certain instances, soft armoring and bioengineering techniques should be considered first. In many instances, one or more methods are necessary to increase the likelihood of vegetation establishment. Combining vegetation with most bank stabilization methods can provide additional bank protection and help reduce impacts upon fish and wildlife. 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.

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>.

**3) 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 Floodway Habitat Mitigation guidelines (and plant lists) can be found online at: <http://www.in.gov/legislative/iac/20190130-IR-312190041NRA.xml.pdf>.

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

**4) Wetland Habitat:**

Due to the presence or potential presence of wetland habitat on site, 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. Impacts to wetland habitat should be mitigated at the appropriate ratio according to the 1991 INDOT/IDNR/USFWS Memorandum of Understanding.

**5) Cofferdams:**

The project design should avoid inclusion of a cofferdam, if possible. Such features result in impacts to the stream and surrounding habitat. If a cofferdam is deemed critical for the construction to occur, justification should be provided with any permit application, if required. Any proposed dewatering should be detailed using the following guidelines:

- a. Dewatering should be limited to one streambank or side of the creek (at the bridge construction site) at a time so at least half of the creek is always flowing naturally. On larger streams, both sides can be dammed at once as long as the center of the channel is allowed to flow naturally.
- b. Do not dewater directly into the stream. Dewater into a sediment bag, into a roll off box, and onto a riprap apron or similar system.
- c. Cofferdam materials and methods can vary. Self-contained and encapsulated materials and methods are recommended. Anything filled with water is better than soil-filled where there is a potential for leaking or failure of the system due to length of use or accidents.

Attachments: A - Bridge Exemption Criteria

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d. Dewatering pumps should incorporate filters or bypasses to avoid injuring or killing fish and other aquatic organisms.

6) Nesting Birds/Roosting Bats:

Repairs to the bridge could affect any nesting birds or roosting bats. Cliff and Barn Swallows, among other species, often nest on the underside of road bridges and many bat species roost in expansion joints and other concrete crevices on road bridges. Survey the bridges 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 nests complete their nesting cycle (to fledging) or fail (by natural causes).

The Division of Fish and Wildlife (DFW) recommends bridge maintenance activities be restricted to the period between November 1 and March 1 to avoid the summer roosting period for most bats in the central part of the State. However, some endangered bats could use a bridge to roost between November and March. No matter when work is proposed, the bridge must be inspected for the presence of bats. If there is no evidence of active bat use, work can proceed. If there is evidence of active bat use, work must not occur until either the bats leave the structure for the season or a separate permit is issued to remove the bats. Please contact Linnea Petercheff (lpetercheff@dnr.in.gov) regarding permits to handle bats. If bats are present, a more formal survey to determine what species are present may be required.

The DFW recommends consulting with the State Mammologist or the US Fish and Wildlife Service before scheduling a bridge maintenance, repair, or replacement project where evidence of bat use of the structure has been observed. Information about bat use of transportation structures as well as avoidance and exclusion measures can be found at <https://www.batcon.org/pdfs/bridges/BatsBridges2.pdf> and <https://www.whitenosesyndrome.org/mmedia-education/acceptable-management-practices-for-bat-species-inhabiting-transportation-infrastructure>.

The additional measures listed below should be implemented to avoid, minimize, or compensate for impacts to fish, wildlife, and botanical resources:

1. Revegetate all bare and disturbed areas that will not be mowed and maintained with a mixture of grasses, sedges, and wildflowers native to Central Indiana and specifically for stream bank/floodway stabilization purposes as soon as possible upon completion; turf-type grasses (including low-endophyte, friendly endophyte, and endophyte free tall fescue but excluding all other varieties of tall fescue) may be used in regularly mowed areas only.
2. Minimize and contain within the project limits inchannel disturbance and the clearing of trees and brush.
3. Do not work in the waterway from April 1 through June 30 without the prior written approval of the Division of Fish and Wildlife.
4. Do not cut any trees suitable for Indiana bat or Northern Long-eared bat roosting (greater than 3 inches dbh, living or dead, with loose hanging bark, or with cracks, crevices, or cavities) from April 1 through September 30.
5. Do not excavate in the low flow area except for the placement of piers, foundations, and riprap, or removal of the old structure.
6. Operate equipment used to replace the bridge from the existing roadway.
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. Do not use broken concrete as riprap.
9. Underlay the riprap with a bedding layer of well graded aggregate or a geotextile to prevent piping of soil underneath the riprap.
10. Minimize the movement of resuspended bottom sediment from the immediate

Attachments: A - Bridge Exemption Criteria

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project area.

11. Do not deposit or allow demolition/construction materials or debris to fall or otherwise enter the waterway.

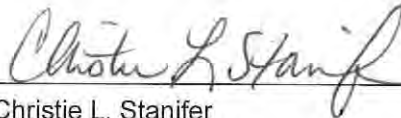
12. Appropriately designed measures for controlling erosion and sediment must be implemented to prevent sediment from entering the stream or leaving the construction site; maintain these measures until construction is complete and all disturbed areas are stabilized.

13. Seed and protect all disturbed streambanks and slopes not protected by other methods that are 3:1 or steeper with erosion control blankets that are heavy-duty, biodegradable, and net free or that use loose-woven / Leno-woven netting to minimize the entrapment and snaring of small-bodied wildlife such as snakes and turtles (follow manufacturer's recommendations for selection and installation); seed and apply mulch on all other disturbed areas.

**Contact Staff:**

Christie L. Stanifer, Environ. Coordinator, Fish & Wildlife

Our agency appreciates this opportunity to be of service. Please contact the above staff member at (317) 232-4080 if we can be of further assistance.



**Date:** March 7, 2019

---

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

Attachments: A - Bridge Exemption Criteria

The Flood Control Act (IC 14-28-1) contains a provision (Section 22), which exempts certain bridge projects from its permitting requirement. Specifically, the Act states:

A permit is not required for "a construction or reconstruction project on a state or county highway bridge in a rural area that crosses a stream having an upstream drainage area of not more than fifty (50) square miles..."

Therefore, in order for a bridge project to be exempt, it must:

- be a state or county highway department project;
- be a bridge;
- be located in a rural area; and
- cross a stream having an upstream drainage area of less than 50 square miles.

The initial criterion is very specific - the structure must be a state or county highway department project.

The second requirement mandates that the project be a bridge (for this provision, the Department of Natural Resources considers a culvert to be a bridge). Projects such as bank protection, spoil disposal, borrow pits, etc. are not automatically exempt. Anyone proposing to undertake a non-bridge related activity should consult with the Division of Water's Technical Services Section staff at 317-232-4160 (or toll free at 1-877-928-3755) regarding the applicability of the exemption prior to initiating work.

The third criterion states that the project must be located in a rural area. The phrase "rural area" is defined as an area:

- where the lowest floor elevation, including a basement, of any residential, commercial, or industrial building impacted by the project is at least 2 feet above the 100 year flood elevation with the project in place;
- located outside the corporate boundaries of a consolidated or an incorporated city or town; and
- located outside of the territorial authority for comprehensive planning (generally, a 2 mile planning buffer around a city or town).

The final criterion limits the exemption to a project crossing a stream having an upstream drainage area of less than 50 square miles. The drainage area includes all land area contributing to runoff above the project site and is determined from the United States Geological Survey 7½ minute series quadrangle maps. The Department of Natural Resources will determine the drainage area upon written request.

This exemption has been grossly misunderstood and liberally applied in the past. As a result, the Department of Natural Resources is taking a firm stance on future violations. If challenged, it will be the responsibility of the person claiming the exemption to prove to the Department that all 4 criteria have been satisfied. Failure to do so will result in the Department initiating litigation with the potential for the imposition of fines in amounts up to \$10,000 per day.

Note: This exemption only applies to the Flood Control Act. If a bridge is to be constructed over a navigable waterway, or over or near a public freshwater lake, a permit will be required.



## Organization and Project Information

**Project ID:**

**Des. ID:** 1600492

**Project Title:** Bridge Project on State Road 252 Over Sleepy Hallow Creek

**Name of Organization:** Michael Baker International

**Requested by:** Mary Pusti

## Environmental Assessment Report

### 1. Geological Hazards:

- Moderate liquefaction potential
- 1% Annual Chance Flood Hazard

### 2. Mineral Resources:

- Bedrock Resource: Low 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](http://maps.indiana.edu))

## DISCLAIMER:

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

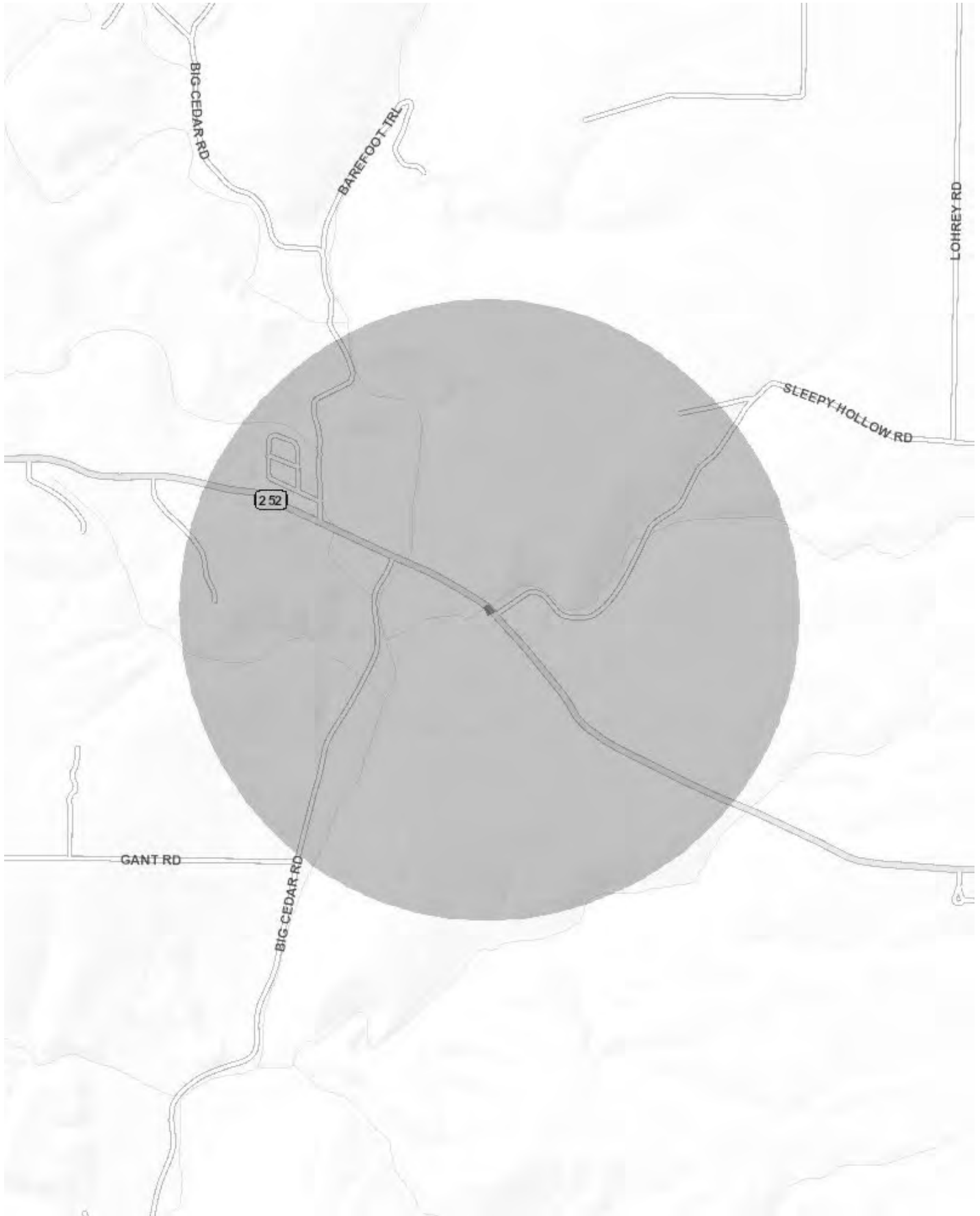
This information was furnished by Indiana Geological Survey

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

Email: [IGSEnvir@indiana.edu](mailto:IGSEnvir@indiana.edu)

Phone: 812 855-7428

Date: February 06, 2019





# Metadata:

- [https://maps.indiana.edu/metadata/Geology/Seismic\\_Earthquake\\_Liquefaction\\_Potential.html](https://maps.indiana.edu/metadata/Geology/Seismic_Earthquake_Liquefaction_Potential.html)
- [https://maps.indiana.edu/metadata/Geology/Industrial\\_Minerals\\_Sand\\_Gravel\\_Resources.html](https://maps.indiana.edu/metadata/Geology/Industrial_Minerals_Sand_Gravel_Resources.html)
- [https://maps.indiana.edu/metadata/Hydrology/Floodplains\\_FIRM.html](https://maps.indiana.edu/metadata/Hydrology/Floodplains_FIRM.html)
- [https://maps.indiana.edu/metadata/Geology/Bedrock\\_Geology.html](https://maps.indiana.edu/metadata/Geology/Bedrock_Geology.html)



# Indiana Department of Environmental Management

*We Protect Hoosiers and Our Environment.*

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

Indiana Department of Transportation

185 Agrico Lane  
Seymour, IN 47274

Michael Baker International  
Mary Pusti  
3815 River Crossing Parkway  
Suite 120  
Indianapolis, IN 46240

Date

To Engineers and Consultants Proposing Roadway Construction Projects:

RE: This project pertains to a bridge on State Road (SR) 252 over Sleepy Hallow Creek, a Branch of Big Cedar Creek in Springfield Township of Franklin County, Indiana. The project is located 6.19 miles east of US 52 at INDOT Reference Post (RP) 06+19. This section of SR 252 is classified as a two-lane Rural Major Collector, with a speed limit of 55 miles per hour. The structure number of the bridge involved is 252-24-06008 D. The proposed recommendations for the project include replacing the box beam superstructure with a new reinforced concrete bridge. New approach slabs will be provided along with a new bridge railing and approach guardrail. The shoulder along the roadway on the northwest quadrant will require a retaining wall alongside of the ditch or the ditch will be piped and filled. The existing property lines go to the centerline of the roadway. INDOT will need to reacquire Right-of-way. The project will use a detour route to maintain traffic during construction. The detour will use the following route: US 52 to I-74 to Ohio 128 to Ohio 126 to SR 252. INDOT will make any interstate coordination. The project will be constructed in a bundled contract with the SR 252 bridge over Big Cedar Creek which will also use the same detour route. The construction of the bridges will need to be coordinated as to not close both structures at the same time. Land use in the vicinity of the project is agricultural and residential. The project is located within two ecoregions; the Loamy High Lime Till Plains of the Eastern Corn Belt Plains and Northern Bluegrass of the Interior Plateau. A Waters of the U.S. Report will be completed and submitted to INDOT Ecology and Permits Office for review, along with wetland determinations and a biological assessment in order to identify any ecological recourse that may be present in the project area. This project qualifies for the application of the USFWS range-wide programmatic informal consultation for the Indiana bat and northern long-eared bat and USFWS project information form will be provided to USFWS for review separately. If right-of-way is determined to need acquisition INDOT Cultural Resources Office will be notified with the proper information necessary. This project is outside of any known Metropolitan Area.

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

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

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

## WATER AND BIOTIC QUALITY

1. Section 404 of the Clean Water Act requires that you obtain a permit from the U.S. Army Corps of Engineers (USACE) before discharging dredged or fill materials into any wetlands or other waters, such as rivers, lakes, streams, and ditches. Other activities regulated include the relocation, channelization, widening, or other such alteration of a stream, and the mechanical clearing (use of heavy construction equipment) of wetlands. Thus, as a project owner or sponsor, it is your responsibility to ensure that no wetlands are disturbed without the proper permit. Although you may initially refer to the U.S. Fish and Wildlife Service National Wetland Inventory maps as a means of identifying potential areas of concern, please be mindful that those maps do not depict jurisdictional wetlands regulated by the USACE or the Department of Environmental Management. A valid jurisdictional wetlands determination can only be made by the USACE, using the 1987 Wetland Delineation Manual.

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

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

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

2. In the event a Section 404 wetlands permit is required from the USACE, you also must obtain a Section 401 Water Quality Certification from the IDEM Office of Water Quality Wetlands Program. To learn more about the Wetlands Program, visit: <http://www.in.gov/idem/4384.htm> (<http://www.in.gov/idem/4384.htm>).
3. If the USACE determines that a wetland or other water body is isolated and not subject to Clean Water Act regulation, it is still regulated by the state of Indiana. A State Isolated Wetland permit from IDEM's Office of Water Quality (OWQ) is required for any activity that results in the discharge of dredged or fill materials into isolated wetlands. To learn more about isolated wetlands, contact the OWQ Wetlands Program at 317-233-8488.
4. If your project will involve over a 0.5 acre of wetland impact, stream relocation, or other large-scale alterations to water bodies such as the creation of a dam or a water diversion, you should seek additional input from the OWQ Wetlands Program staff. Consult the Web at: <http://www.in.gov/idem/4384.htm> (<http://www.in.gov/idem/4384.htm>) for the appropriate staff contact to further discuss your project.
5. Work within the one-hundred year floodway of a given water body is regulated by the Department of Natural Resources, Division of Water. The Division issues permits for activities regulated under the following statutes:
  - IC 14-26-2 Lakes Preservation Act 312 IAC 11
  - IC 14-26-5 Lowering of Ten Acre Lakes Act No related code
  - IC 14-28-1 Flood Control Act 310 IAC 6-1
  - IC 14-29-1 Navigable Waterways Act 312 IAC 6
  - IC 14-29-3 Sand and Gravel Permits Act 312 IAC 6
  - IC 14-29-4 Construction of Channels Act No related code

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

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

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

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

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

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

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

Regardless of the size of your project, or which agency you work with to meet storm water requirements, IDEM recommends that appropriate structures and techniques be utilized both during the construction phase, and after completion of the project, to minimize the impacts associated with storm water runoff. The use of appropriate planning and site development and appropriate storm water

quality measures are recommended to prevent soil from leaving the construction site during active land disturbance and for post construction water quality concerns. Information and assistance regarding storm water related to construction activities are available from the Soil and Water Conservation District (SWCD) offices in each county or from IDEM.

7. For projects involving impacts to fish and botanical resources, contact the Department of Natural Resources - Division of Fish and Wildlife (317/232-4080) for addition project input.
8. For projects involving water main construction, water main extensions, and new public water supplies, contact the Office of Water Quality - Drinking Water Branch (317-308-3299) regarding the need for permits.
9. For projects involving effluent discharges to waters of the State of Indiana, contact the Office of Water Quality - Permits Branch (317-233-0468) regarding the need for a National Pollutant Discharge Elimination System (NPDES) permit.
10. For projects involving the construction of wastewater facilities and sewer lines, contact the Office of Water Quality - Permits Branch (317-232-8675) regarding the need for permits.

## AIR QUALITY

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

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

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

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

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

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

The U.S. EPA further recommends that all homes (and apartments within three stories of ground level) be tested for radon. If in-home radon levels are determined to be 4 pCi/L, or higher, EPA recommends a follow-up test. If the second test confirms that radon levels are 4 pCi/L, or higher, EPA recommends the installation of radon-reduction measures. (For a list of qualified radon testers and radon mitigation (or reduction) specialists visit: [http://www.in.gov/isdh/regsvcs/radhealth/pdfs/radon\\_testers\\_mitigators\\_list.pdf](http://www.in.gov/isdh/regsvcs/radhealth/pdfs/radon_testers_mitigators_list.pdf) ([http://www.in.gov/isdh/regsvcs/radhealth/pdfs/radon\\_testers\\_mitigators\\_list.pdf](http://www.in.gov/isdh/regsvcs/radhealth/pdfs/radon_testers_mitigators_list.pdf).) It also is recommended that radon reduction measures be built into all new homes, particularly in areas like Indiana that have moderate to high predicted radon levels.

To learn more about radon, radon risks, and ways to reduce exposure visit:

<http://www.in.gov/isdh/regsvcs/radhealth/radon.htm>  
(<http://www.in.gov/isdh/regsvcs/radhealth/radon.htm>), <http://www.in.gov/idem/4145.htm>  
(<http://www.in.gov/idem/4145.htm>), or <http://www.epa.gov/radon/index.html>  
(<http://www.epa.gov/radon/index.html>).

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

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

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

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

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

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

4. With respect to lead-based paint removal: IDEM encourages all efforts to minimize human exposure to lead-based paint chips and dust. IDEM is particularly concerned that young children exposed to lead can suffer from learning disabilities. Although lead-based paint abatement efforts are not mandatory, any abatement that is conducted within housing built before January 1, 1978, or a child-occupied facility is required to comply with all lead-based paint work practice standards, licensing and notification requirements. For more information about lead-based paint removal visit: <http://www.in.gov/isdh/19131.htm> (<http://www.in.gov/isdh/19131.htm>).
5. Ensure that asphalt paving plants are permitted and operate properly. The use of cutback asphalt, or asphalt emulsion containing more than seven percent (7%) oil distillate, is prohibited during the months April through October. See 326 IAC 8-5-2, Asphalt Paving Rule (<http://www.ai.org/legislative/iac/T03260/A00080.PDF>) (<http://www.ai.org/legislative/iac/T03260/A00080.PDF>).
6. If your project involves the construction of a new source of air emissions or the modification of an existing source of air emissions or air pollution control equipment, it will need to be reviewed by the IDEM Office of Air Quality (OAQ). A registration or permit may be required under 326 IAC 2 (View at: [www.ai.org/legislative/iac/t03260/a00020.pdf](http://www.ai.org/legislative/iac/t03260/a00020.pdf)) (<http://www.ai.org/legislative/iac/t03260/a00020.pdf>.) New sources that use or emit hazardous air pollutants may be subject to Section 112 of the Clean Air Act and corresponding state air regulations governing hazardous air pollutants.
7. For more information on air permits visit: <http://www.in.gov/idem/4223.htm> (<http://www.in.gov/idem/4223.htm>), or to initiate the IDEM air permitting process, please contact the Office of Air Quality Permit Reviewer of the Day at (317) 233-0178 or OAMPROD atdem.state.in.us.

## LAND QUALITY

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

1. If the site is found to contain any areas used to dispose of solid or hazardous waste, you need to contact the Office of Land Quality (OLQ) at 317-308-3103.
2. All solid wastes generated by the project, or removed from the project site, need to be taken to a properly permitted solid waste processing or disposal facility. For more information, visit <http://www.in.gov/idem/4998.htm> (<http://www.in.gov/idem/4998.htm>).
3. If any contaminated soils are discovered during this project, they may be subject to disposal as hazardous waste. Please contact the OLQ at 317-308-3103 to obtain information on proper disposal procedures.
4. If PCBs are found at this site, please contact the Industrial Waste Section of OLQ at 317-308-3103 for information regarding management of any PCB wastes from this site.
5. If there are any asbestos disposal issues related to this site, please contact the Industrial Waste Section of OLQ at 317-308-3103 for information regarding the management of asbestos wastes (Asbestos removal is addressed above, under Air Quality).
6. If the project involves the installation or removal of an underground storage tank, or involves contamination from an underground storage tank, you must contact the IDEM Underground Storage Tank program at 317/308-3039. See: <http://www.in.gov/idem/4999.htm> (<http://www.in.gov/idem/4999.htm>).

## FINAL REMARKS

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

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

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

## Signature(s) of the Applicant

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

### Project Description

This project pertains to a bridge on State Road (SR) 252 over Sleepy Hallow Creek, a Branch of Big Cedar Creek in Springfield Township of Franklin County, Indiana. The project is located 6.19 miles east of US 52 at INDOT Reference Post (RP) 06+19. This section of SR 252 is classified as a two-lane Rural Major Collector, with a speed limit of 55 miles per hour. The structure number of the bridge involved is 252-24-06008 D. The proposed recommendations for the project include replacing the box beam superstructure with a new reinforced concrete bridge. New approach slabs will be provided along with a new bridge railing and approach guardrail. The shoulder along the roadway on the northwest quadrant will require a retaining wall alongside of the ditch or the ditch will be piped and filled. The existing property lines go to the centerline of the roadway. INDOT will need to reacquire Right-of-way. The project will use a detour route to maintain traffic during construction. The detour will use the following route: US 52 to I-74 to Ohio 128 to Ohio 126 to SR 252. INDOT will make any interstate coordination. The project will be constructed in a bundled contract with the SR 252 bridge over Big Cedar Creek which will also use the same detour route. The construction of the bridges will need to be coordinated as to not close both structures at the same time. Land use in the vicinity of the project is agricultural and residential. The project is located within two ecoregions; the Loamy High Lime Till Plains of the Eastern Corn Belt Plains and Northern Bluegrass of the Interior Plateau. A Waters of the U.S. Report will be completed and submitted to INDOT Ecology and Permits Office for review, along with wetland determinations and a biological assessment in order to identify any ecological recourse that may be present in the project area. This project qualifies for the application of the USFWS range-wide programmatic informal consultation for the Indiana bat and northern long-eared bat and USFWS project information form will be provided to USFWS for review separately. If right-of-way is determined to need acquisition INDOT Cultural Resources Office will be notified with the proper information necessary. This project is outside of any known Metropolitan Area.

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

Date: 01/21/2020

Signature of the INDOT  
Project Engineer or Other Responsible Agent Nicole Carter

Date: 10/10/2019

Signature of the  
For Hire Consultant Mary Pusti

Mary Pusti

February 13, 2019

Mary Pusti  
Michael Baker International Inc.  
3815 River Crossing Parkway, Suite 20  
Indianapolis, Indiana 46240

Dear Ms. Pusti:

The proposed project to make multiple improvements to the bridge carrying State Road 252 over Sleepy Hallow Creek in Franklin County, Indiana (Des No. 1600492) as referred to in your letter received February 6, 2019 will not cause a conversion of prime farmland.

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

Sincerely,

JERRY RAYNOR  
State Conservationist

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Helping People Help the Land.



USDA is an equal opportunity provider and employer.

Appendix D  
Section 106 Documentation



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

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**Date:** 3/27/20

**Project Designation Number:** 1600492

**Route Number:** SR 252

**Project Description:** Bridge Rehabilitation Project 6.19 mi E US 52 over Branch of Big Cedar Creek

The existing adjacent box beam superstructure will be replaced with an 18” thick reinforced concrete slab bridge. The proposed deck will provide 30’-10” clear roadway. The out-to-out coping will increase from 30’-0” to 31’-2”. Raised pavement markers will not be provided on the new bridge deck. New MASH compliant side mounted bridge railing will be provided. New MGS guardrail and end treatments will be provided. The existing abutment will be maintained. Repair the vertical cracks in the abutment and wingwall faces with epoxy injection. Repair any wingwalls spalls and exposed rebar with concrete patching. The wing corners adjacent to the proposed slab will be cut back and reconstructed to allow for the 6” widening on each side. New reinforced concrete bridge approach slabs will be constructed at each end of the structure. The approach roadway will be milled and resurfaced within the project limits. The existing profile grade will be maintained. Full depth HMA will be provided to widen the shoulders to the face of the proposed guardrail. The existing 48 corrugated metal pipe southeast of the structure will be replaced with a new 48” Type 3 pipe in a reconstructed ditch. Class 1 riprap is required in the ditch for scour protection. The drive in the southeast quadrant will be replaced with a new modified Type 2 drive. The ditch in the northwest quadrant will be reconstructed to tie in the roadway side slopes. The project requires approximately 0.80 acre of permanent right-of-way and 0.05 acre of temporary right-of-way.

**Feature crossed (if applicable):** Branch of Big Cedar Creek

**Township:** Springfield Township

**City/County:** Franklin County

**Information reviewed (please check all that apply):**

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

**Other (please specify):** SHAARD GIS; SHAARD; online street-view images; Indiana Historic Building, Bridges, and Cemeteries (IHBBC) map; County GIS data; Bridge Inspection Application System (BIAS); 2010 INDOT-sponsored Historic Bridge Inventory (HBI); project information provided by Michael Baker International, Inc. on May 15, 2019;

Korzeniewski, Patricia J.

2019 An Archeological Records Check and Phase Ia Field Reconnaissance Report: Small Structure Replacement on State Road 252 over Branch of Big Cedar Creek, 6.19 mi east US 52, Springfield Township, Franklin County, Indiana (Des. No. 1600492). Report on file, INDOT Cultural Resources Office, Indianapolis, In.

2020 An Addendum Archeological Records Check and Phase Ia Field Reconnaissance Report: Small Structure Replacement on State Road 252 over Branch of Big Cedar Creek, 6.19 mi east US 52, Springfield Township, Franklin County, Indiana (Des. No. 1600492). Report on file, INDOT Cultural Resources Office, Indianapolis, In.

### **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 first performed a desktop review, checking the Indiana Register of Historic Sites and Structures (State Register) and National Register of Historic Places (National Register) lists for Franklin County. No listed resources are present within 0.25 mile of the project area, a distance that would serve as an adequate area of potential effects (APE) given the scope of the project and the surrounding terrain.

The *Franklin County Interim Report* (2011; Springfield Township Scattered Sites) of the Indiana Historic Sites and Structures Inventory (IHSSI) was also consulted. The National Register & IHSSI information is available in the Indiana State Historic Architectural and Archaeological Research Database (SHAARD) and the Indiana Historic Buildings, Bridges, and Cemeteries map. The SHAARD information was checked against the Interim Report hard copy maps. No IHSSI sites are recorded within 0.25 mile of the project.

The area surrounding the project is rural and heavily wooded, but multiple residential properties are also present; the typology is hilly. In total, twenty-one (21) properties are within 0.25 mile of the project area. However, due to the dense tree coverage from mature deciduous trees and the typology, only six (6) properties will have a viewshed of the project. Additionally, the other fifteen (15) properties were all constructed prior to 1974 and will not be 50 years old by the time of project letting in 2021.

The three (3) properties on the south side of SR 252 (5144 SR 252; 5156 SR 252; 5160 SR 252) were constructed in the late-twentieth and early-twenty-first centuries according to the county property card records. They will not be 50 years old by the time of project letting and are not considered potentially eligible to the National Register. Another house located on the north side of the road at 5157 SR 252 was constructed in 1981 according to the property card record. This house is set back from the roadway on the hillside amidst mature deciduous trees, but a c. 1900 barn associated with the house is present adjacent to the roadway. While the barn would be considered a "contributing" building to the property, neither the property nor the barn (individually) possess enough integrity or cultural significance to be National Register eligible.



- A-3. Replacement, repair, lining, or extension of culverts and other drainage structures in previously disturbed soils and do not exhibit stone or brick structures or parts therein; and
- B-4. Installation of new safety appurtenances, including but not limited to, guardrails, barriers, glare screens, and crash attenuators, under the following conditions [BOTH Condition A, which pertains to Archaeological Resources, and Condition B, which pertains to Above-Ground Resources, must be satisfied]:

**Condition A (Archaeological Resources)**

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

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

**Condition B (Above-Ground Resources)**

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

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

**Condition A (Archaeological Resources)**

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

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

**Condition B (Above-Ground Resources)**

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

- i. Work does not occur adjacent to or within a National Register-listed or National Register-eligible district or individual above-ground resource; *AND*
- ii. With regard to the subject bridge, at least one of the conditions listed below is satisfied (*AT LEAST one of the conditions a, b or c, must be fulfilled*):
  - a. The latest Historic Bridge Inventory identified the bridge as non-historic (see <http://www.in.gov/indot/2531.htm>);
  - b. The bridge was built after 1945, and is a common type as defined in Section V. of the *Program Comment Issued for Streamlining Section 106 Review for Actions Affecting Post-1945 Concrete and Steel Bridges* issued by the Advisory Council on Historic Preservation on November 2, 2012 for so long as that Program Comment remains in effect *AND* the considerations listed in Section IV of the Program Comment do not apply;
  - c. The bridge is part of the Interstate system and was determined not eligible for the National Register under the Section 106 Exemption Regarding Effects to the Interstate Highway System adopted by the Advisory Council on Historic Preservation on March 10, 2005, for so long as that Exemption remains in effect.

**If no, please explain:**

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

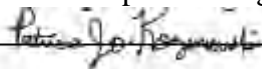
**INDOT Cultural Resources staff reviewer(s):** Kelyn Alexander and Patricia Jo Korzeniewski

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

An Archeological Records Check and Phase IA Field Reconnaissance Report:  
 Small Structure Replacement on State Road 252 over Branch of Big Cedar Creek  
 6.19 mi east of US 52 in Springfield Township,  
 Franklin County, Indiana (Des. No. 1600492)

Prepared by:

Patricia Jo Korzeniewski  
 Principal Investigator



August 30, 2019



Prepared for:

Nicole Curry, Project Manager  
 Indiana Department of Transportation Seymour District

**Cultural Resources Office  
 Environmental Services  
 Indiana Department of Transportation  
 100 North Senate Avenue, N642  
 Indianapolis, Indiana 46204  
 (317) 233-2093**

## MANAGEMENT SUMMARY

In response to a request from the Indiana Department of Transportation, Seymour District, an archaeological records check and Phase Ia field reconnaissance has been completed for a Small Structure Replacement on SR 252 over Branch of Big Cedar Creek, 6.91 miles east of US 52 in Springfield Township, Franklin County Indiana. (INDOT Des. No. 1600492). The proposed project area includes approximately 0.35 acre of new right-of-way (r/w). However, the total survey area expanded total maximum length of 94 m (307 ft.) and 28 m (92 ft.) wide encompassing 0.6 acres.

The objective of this archaeological investigation was to locate, record, and assess all archaeological historic and prehistoric resources within the project area pursuant to Section 106 of the National Historic Preservation Act (NHPA) of 1966, as stipulated by 36 CFR Part 800 and the Indiana Historic Preservation Act (IC 14-21-1). All archaeological resources were evaluated with respect to the criteria set forth under Section 101 (National Register of Historic Places [NRHP]) of the NHPA and IC 14-21-1-9 (Indiana Register of Historic Sites and Structures [IRHSS]). The archaeological investigation was performed under the supervision of personnel from the Indiana Department of Transportation, Cultural Resources Office (INDOT, CRO) who meet the Secretary of Interior's Professional Qualification Standards as per 36 CFR Part 61.

The archaeological records check for this project was conducted by Patricia Jo Korzeniewski beginning on June 12, 2019. No archaeological sites have been recorded within a 1 mile (5280 ft.) radius of the survey area and none have been recorded within the proposed survey limits. The proposed project area has not been subject to a previous archaeological reconnaissance. No recorded cemeteries are within 30 m (100 ft.) of the project corridor.

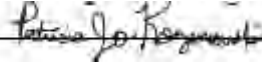
Patricia Korzeniewski and KayLee Blum of INDOT, CRO conducted a Phase Ia field reconnaissance of the survey area on June 21, 2019 & June 25, 2019. The survey area was subject to both pedestrian survey and 18 shovel tests in accordance with IDNR, DHPA *Draft Indiana Archaeological Guidelines* (2008) and the *INDOT, Cultural Resources Manual* (2014). The archaeological reconnaissance identified the presence of one archaeological site (12Fr0547) that consisted of a historic scatter that dates from 1884 to 1948 that likely represents a razed cabin that was occupied by the Hyde family. Site 12Fr0547 is a scatter of historic materials from a cabin that was razed sometime in the early 2000s and does not have the potential to provide important information about local or regional prehistory. Therefore, it is not recommended eligible for inclusion in the National Register of Historic Places or for further work. The soil characteristics observed during the shovel tests indicated a low potential for archaeological deposits, and further work is not recommended within the survey area. It is recommended that the project be allowed to proceed as planned without additional archaeological investigation.

In the unlikely event that archaeological deposits or human remains are encountered during the construction phase of the project, all construction activities must cease and an archaeologist from IDNR, DHPA and INDOT, CRO must be notified

An Addendum Archeological Records Check and Phase IA Field  
Reconnaissance Report: Small Structure Replacement on State Road 252 over  
Branch of Big Cedar Creek 6.19 miles east of US 52 in Springfield Township,  
Franklin County, Indiana (Des. No. 1600492)

Prepared by

Patricia Jo Korzeniewski  
Principal Investigator



March 27, 2020



Prepared for:  
Nicole Curry, Project Manager  
Indiana Department of Transportation Seymour District

Cultural Resources Office Environmental Services

Indiana Department of Transportation 100 North Senate Avenue, N642  
Indianapolis, Indiana 46204

(317) 233-2093



# MANAGEMENT SUMMARY

In response to a request from the Indiana Department of Transportation, Seymour District, an addendum archaeological records check and Phase Ia field reconnaissance has been completed for a Small Structure Replacement on SR 252 over Branch of Big Cedar Creek, 6.91 miles east of US 52 in Springfield Township, Franklin County Indiana. (INDOT Des. No. 1600492). Korzeniewski (2019) examined approximately 0.6 acres of existing and new r/w; however, proposed r/w has increased to 1.0 acres necessitating additional fieldwork.

A second reconnaissance of the survey area was completed on February 12, 2020 by Patricia Korzeniewski and David Moffat. The survey area was subject to pedestrian survey, visual inspection and an additional twenty-two shovel tests in accordance with IDNR, DHPA *Guidebook for Indiana Historic Sites and Structures Inventory-Archaeological Sites* (2019) and the *INDOT, Cultural Resources Manual* (2014). The archaeological reconnaissance relocated and expanded the boundaries of site (12Fr0547). The site consists of a historic scatter that dates from 1884 to 1948 that likely represents a razed cabin that was occupied by the Hyde family. Site 12Fr0547 is a scatter of historic materials from a cabin that was razed sometime in the early 2000's and does not have the potential to provide important information about local or regional prehistory. Therefore, it is not recommended eligible for inclusion in the National Register of Historic Places or for further work. The soil characteristics observed during the shovel tests indicated a low potential for archaeological deposits. It is recommended that the project be allowed to proceed as planned without additional archaeological investigation.

In the unlikely event that archaeological deposits or human remains are encountered during the construction phase of the project, all construction activities must cease and an archaeologist from IDNR, DHPA and INDOT, CRO must be notified

Appendix E  
Red Flag Investigation



# INDIANA DEPARTMENT OF TRANSPORTATION

100 North Senate Avenue  
Room N642  
Indianapolis, Indiana 46204

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

**Eric Holcomb, Governor**  
**Joe McGuinness,**  
**Commissioner**

Date: August 22, 2019

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

From: Laura Jack  
Michael Baker International  
200 W Adams Street, Suite 2800  
Chicago, IL 60606  
Laura.Jack@mbakerintl.com

Re: RED FLAG INVESTIGATION  
DES #1600492, State Project  
Replace Superstructure  
SR 252, Bridge over Branch Big Cedar Creek (Sleepy Hollow), 6.19 miles E US 52  
Franklin County, Indiana

## PROJECT DESCRIPTION

Brief Description of Project: The proposed state project is located 6.19 miles east of US 52 in Springfield Township of Franklin County, Indiana. The project is a bridge superstructure replacement of the existing box beam with a new reinforced concrete slab bridge. Following the superstructure replacement, new side mounted bridge railings, approach slabs, guardrails, and end treatments (west side) and a modified treatment (east side, where space is limited). Resurfacing with an HMA wedge and level treatment will extend an additional 120' from each approach to tie in with existing pavement. The roadway shoulder in the southeast quadrant will either have a retaining wall along the ditch or the ditch replaced with a drain pipe and filled in. New right-of-way will be acquired for the project.

Bridge and/or Culvert Project: Yes  No  Structure # 252-24-06008 C

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

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

Proposed right of way: Temporary  # Acres \_\_\_ Permanent  Anticipated to be approx. 0.52 acres, Not Applicable

Type of excavation: Excavation will occur at the location of the superstructure to install the new concrete slab bridge, approximately 1.5 feet to 6 feet deep for work at the drive location

Maintenance of traffic: Detour Route

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

State Project:  LPA:

Any other factors influencing recommendations: N/A

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

**INFRASTRUCTURE TABLE AND SUMMARY**

<b>Infrastructure</b>			
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	<b>N/A</b>	Recreational Facilities	<b>N/A</b>
Airports <sup>1</sup>	<b>N/A</b>	Pipelines	<b>N/A</b>
Cemeteries	<b>1</b>	Railroads	<b>N/A</b>
Hospitals	<b>N/A</b>	Trails	<b>N/A</b>
Schools	<b>N/A</b>	Managed Lands	<b>N/A</b>

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

Cemeteries: One (1) cemetery, James Cemetery, is located within the 0.5 mile search radius. James cemetery is located approximately 0.39 mile northwest of the project area. No impact is expected.

**WATER RESOURCES TABLE AND SUMMARY**

<b>Water Resources</b>			
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	<b>1</b>	Canal Routes - Historic	<b>N/A</b>
Karst Springs	<b>N/A</b>	NWI - Wetlands	<b>7</b>
Canal Structures – Historic	<b>N/A</b>	Lakes	<b>3</b>
NPS NRI Listed	<b>N/A</b>	Floodplain - DFIRM	<b>1</b>
NWI-Lines	<b>7</b>	Cave Entrance Density	<b>N/A</b>
IDEM 303d Listed Streams and Lakes (Impaired)	<b>7</b>	Sinkhole Areas	<b>N/A</b>
Rivers and Streams	<b>8</b>	Sinking-Stream Basins	<b>N/A</b>

NWI Points: One (1) NWI Point is located within the 0.5 mile search radius. The NWI Point is approximately 0.13 mile southeast of the project area. No impact is expected.

NWI Lines: Seven (7) NWI line segments are located within the 0.5 mile search radius. The closest NWI line is approximately 0.13 mile northwest from the project area. No impact is expected.

IDEM 303d Listed Streams and Lakes (Impaired): Seven (7) 303d Listed stream segments are located within the 0.5 mile search radius. The nearest segment, Branch to Big Cedar Creek, is located within the project area and is listed as impaired for E. coli; work within the creek is anticipated, therefore, workers who are working in or near water with E. coli should take care to wear appropriate PPE, observe proper hygiene procedures, including regular hand washing, and limit personal exposure.

Rivers and Streams: Eight (8) stream segments are located within the 0.5 mile search radius. Sleepy Hollow creek (*aka. Branch to Big Cedar Creek*) is located within the project area. A Waters of the US Report will be prepared and coordination with INDOT ES Ecology and Waterway Permitting will occur.

Wetlands: Seven (7) wetlands are located within the 0.5 mile search radius. The nearest wetland is approximately 0.04 mile north of the project area and is listed as a freshwater pond. No impact is expected.

Lakes: Three (3) lakes are located within the 0.5 mile search radius. The nearest lake is located approximately 0.04 mile northwest of the project area. No impact is expected.

Floodplain: One (1) floodplain is located within the 0.5 mile search radius. The floodplain is located approximately 0.08 miles west of the project area. No Impact is expected.

**URBANIZED AREA BOUNDARY SUMMARY**

N/A

**MINING AND MINERAL EXPLORATION TABLE AND SUMMARY**

<b>Mining/Mineral Exploration</b>			
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

No mining/mineral exploration items are located within the 0.5 mile search radius.

**HAZARDOUS MATERIAL CONCERNS TABLE AND SUMMARY**

<b>Hazardous Material Concerns</b>			
Indicate the number of items of concern found within the 0.5 mile search radius. If there are no items, please indicate N/A:			
Superfund	N/A	Manufactured Gas Plant Sites	N/A
RCRA Generator/ TSD	N/A	Open Dump Waste Sites	N/A
RCRA Corrective Action Sites	N/A	Restricted Waste Sites	N/A
State Cleanup Sites	N/A	Waste Transfer Stations	N/A
Septage Waste Sites	N/A	Tire Waste Sites	N/A
Underground Storage Tank (UST) Sites	N/A	Confined Feeding Operations (CFO)	N/A
Voluntary Remediation Program	N/A	Brownfields	N/A
Construction Demolition Waste	N/A	Institutional Controls	N/A
Solid Waste Landfill	N/A	NPDES Facilities	1
Infectious/Medical Waste Sites	N/A	NPDES Pipe Locations	1
Leaking Underground Storage (LUST) Sites	N/A	Notice of Contamination Sites	N/A

NPDES Facilities: One (1) NPDES facility is located within the 0.5 mile search radius. The facility, Big Cedar MHP, LLC is located at 8126 Big Cedar Road, approximately 0.25 mile northwest of the project area. No impact is expected.

NPDES Pipe Locations: One (1) NPDES pipe is located within the 0.5 mile search radius. The pipe is located 0.45 mile northwest of the project area and has an external outfall extending to Big Cedar Creek (see above). No impact is expected.

## **ECOLOGICAL INFORMATION SUMMARY**

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

A review of the USFWS database did not indicate the presence of endangered bat species in or within 0.5 mile of the project area. The project area is located in a rural area that includes residential, farmland, and forested areas. The January 18, 2019, inspection report for Bridge #252-24-06008 C states that no evidence of bats was seen or heard under (or on) the bridge. The range-wide programmatic consultation for the Indiana Bat and Northern Long-eared Bat will be completed according to the most recent "Using the USFWS's IPaC System for Listed Bat Consultation for INDOT Projects".

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

## **RECOMMENDATIONS SECTION**

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

INFRASTRUCTURE: N/A

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

One (1) wetland is located adjacent to the project area.

One (1) stream, Branch to Big Cedar Creek, flows through the project area.

The presence of an impaired stream will require proper handling:

The segment of Branch to Big Cedar Creek within the project area is listed as an impaired stream for E. coli. Workers who are working in or near water with E. coli should take care to wear appropriate PPE, observe proper hygiene procedures, including regular hand washing, and limit personal exposure.

URBANIZED AREA BOUNDARY: N/A

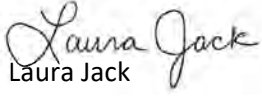
MINING/MINERAL EXPLORATION: N/A

HAZMAT CONCERNS: N/A

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

INDOT Environmental Services concurrence: \_\_\_\_\_ (Signature)

Prepared by:

  
Laura Jack

Environmental Scientist  
Michael Baker International

**Graphics:**

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

SITE LOCATION: YES

INFRASTRUCTURE: YES

WATER RESOURCES: YES

URBANIZED AREA BOUNDARY: N/A

MINING/MINERAL EXPLORATION: N/A

HAZMAT CONCERNS: YES

Red Flag Investigation -Project Location  
 SR 252, Bridge over Branch Big Cedar Creek, 6.19 mi E US 52  
 Des. No. 1600492, Replace Superstructure  
 Franklin County, Indiana



State of Indiana

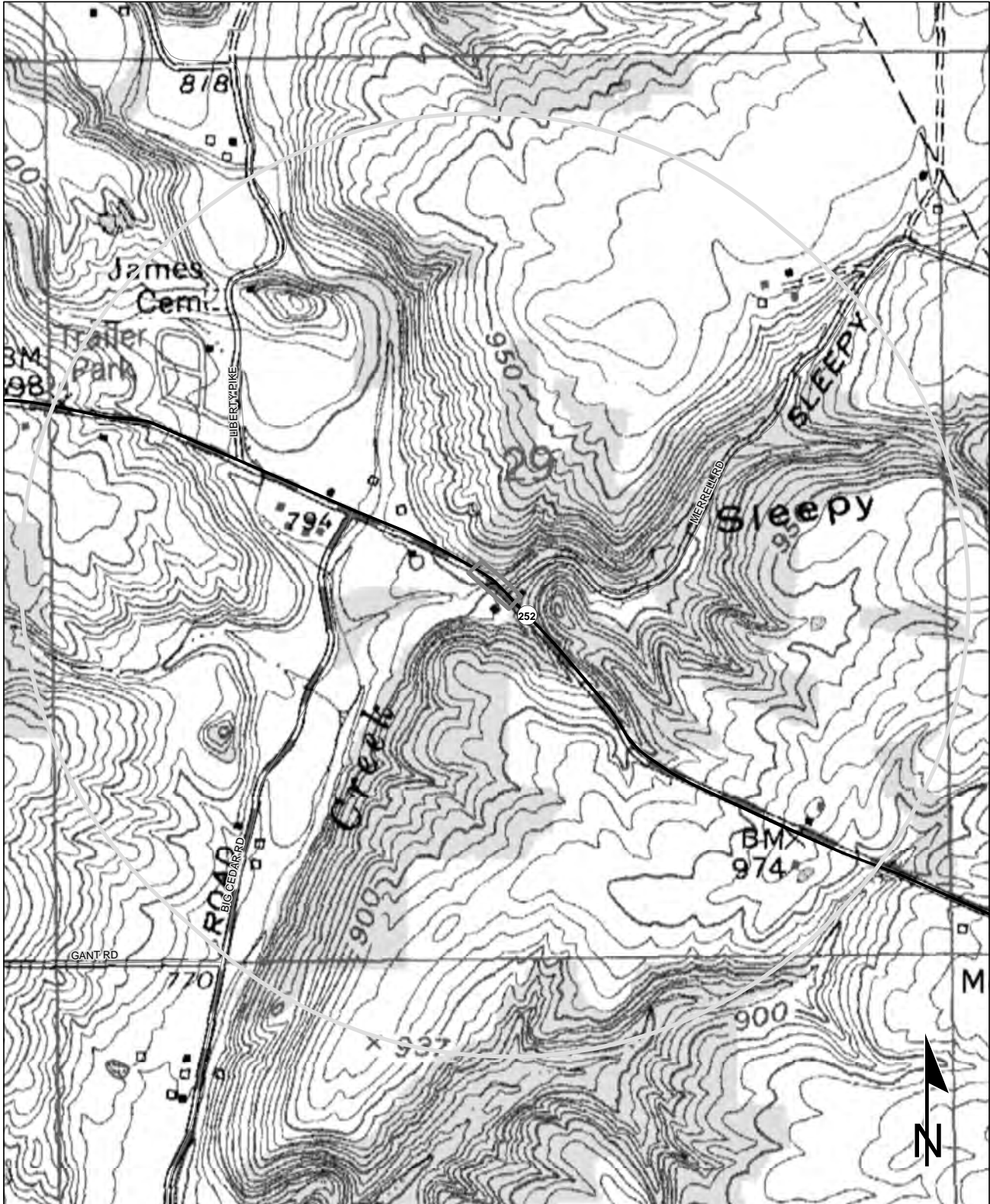
Sources: 25 12.5 0 25 Miles  
**Non Orthophotography** - Obtained from the State of Indiana Geographical Information Office Library  
**Orthophotography** - Obtained from Indiana Map Framework Data (www.indianamap.org)  
**Map Projection:** UTM Zone 16 N **Map Datum:** NAD83

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

	Project Area		Toll		US
	County Boundary		Interstate		



Red Flag Investigation - Site Location  
SR 252, Bridge Over Branch Big Cedar Creek, 6.19 mi E US 52  
Des. No. 1600492, Replace Superstructure  
Franklin County, Indiana



Sources: 0.1 0.05 0 0.1 Miles  
**Non Orthophotography**  
**Data** - Obtained from the State of Indiana Geographical Information Office Library  
**Orthophotography** - Obtained from Indiana Map Framework Data (www.indianamap.org)  
**Map Projection:** UTM Zone 16 N **Map Datum:** NAD83  
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WHITCOMB QUADRANGLE  
INDIANA  
7.5 MINUTE SERIES  
(TOPOGRAPHIC)

Red Flag Investigation - Infrastructure  
 SR 252, Bridge Over Branch Big Cedar Creek, 6.19 mi E US 52  
 Des. No. 1600492, Replace Superstructure  
 Franklin County, Indiana



State of Indiana

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

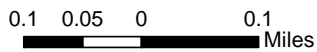
Red Flag Investigation - Water Resources  
 SR 252, Bridge Over Branch Big Cedar Creek, 6.19 mi E US 52  
 Des. No. 1600492, Replace Superstructure  
 Franklin County, Indiana



State of 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](http://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.**




Red Flag Investigation - Hazardous Material Concerns  
 SR 252, Bridge Over Branch Big Cedar Creek, 6.19 mi E US 52  
 Des. No. 1600492, Replace Superstructure  
 Franklin County, Indiana



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

0.1 0.05 0 0.1  
 Miles

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

Des. No. 1600492

**Sources:**

**Non Orthophotography**

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

**Orthophotography** - Obtained from Indiana Map Framework Data ([www.indianamap.org](http://www.indianamap.org))

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

Indiana County Endangered, Threatened and Rare Species List

County: Franklin

Species Name	Common Name	FED	STATE	GRANK	SRANK
<b>Mollusk: Bivalvia (Mussels)</b>					
Ptychobranhus fasciolaris	Kidneyshell		SSC	G4G5	S2
<b>Insect: Coleoptera (Beetles)</b>					
Cicindela marginipennis	Cobblestone Tiger Beetle	C	SE	G2	S1
<b>Insect: Lepidoptera (Butterflies &amp; Moths)</b>					
Polygonia progne	Gray Comma		SR	G5	S2
<b>Fish</b>					
Clinostomus elongatus	Redside Dace		SE	G3G4	S1
Etheostoma variatum	Variagate Darter		SE	G5	S1
<b>Amphibian</b>					
Cryptobranchus alleganiensis alleganiensis	Eastern Hellbender	C	SE	G3G4T3T4	S1
<b>Bird</b>					
Aimophila aestivalis	Bachman's Sparrow			G3	SXB
Haliaeetus leucocephalus	Bald Eagle		SSC	G5	S2
Pandion haliaetus	Osprey		SE	G5	S1B
Setophaga magnolia	Magnolia Warbler			G5	SNA
<b>Mammal</b>					
Taxidea taxus	American Badger		SSC	G5	S2
<b>Vascular Plant</b>					
Acalypha deamii	Mercury		SR	G4?	S2
Cypripedium calceolus var. parviflorum	Small Yellow Lady's-slipper		SR	G5	S2
Gentiana alba	Yellow Gentian		SR	G4	S2
Lilium canadense	Canada Lily		SR	G5	S2
Onosmodium hispidissimum	Shaggy False-gromwell		SE	G4G5T4	S1
Rubus centralis	Illinois Blackberry		SE	G2?Q	S1
Rubus deamii	Deam Dewberry		SX	G4?	SX
Scutellaria parvula var. parvula	Small Skullcap		SE	G4T4	S1
Viburnum molle	Softleaf Arrow-wood		SR	G5	S2
Waldsteinia fragarioides	Barren Strawberry		SR	G5	S2
Zizia aptera	Golden Alexanders		SR	G5	S2
<b>High Quality Natural Community</b>					
Barrens - bedrock limestone	Limestone Glade		SG	G4	S2S3
Forest - upland mesic Bluegrass	Bluegrass Mesic Upland Forest			GNR	S3
<b>Other Significant Feature</b>					
Geomorphic - Nonglacial Erosional Feature - Water Fall and Cascade	Water Fall and Cascade			GNR	SNR

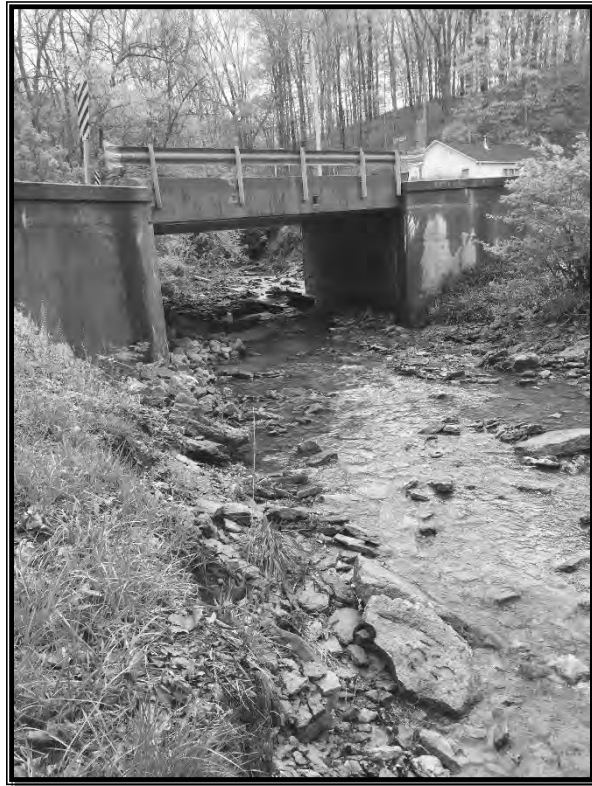
Indiana Natural Heritage Data Center  
Division of Nature Preserves  
Indiana Department of Natural Resources  
This data is not the result of comprehensive county surveys.

Fed: LE = Endangered; LT = Threatened; C = candidate; PDL = proposed for delisting  
State: SE = state endangered; ST = state threatened; SR = state rare; SSC = state species of special concern; SX = state extirpated; SG = state significant; WL = watch list  
GRANK: Global Heritage Rank: G1 = critically imperiled globally; G2 = imperiled globally; G3 = rare or uncommon globally; G4 = widespread and abundant globally but with long term concerns; G5 = widespread and abundant globally; G? = unranked; GX = extinct; Q = uncertain rank; T = taxonomic subunit rank  
SRANK: State Heritage Rank: S1 = critically imperiled in state; S2 = imperiled in state; S3 = rare or uncommon in state; G4 = widespread and abundant in state but with long term concern; SG = state significant; SH = historical in state; SX = state extirpated; B = breeding status; S? = unranked; SNR = unranked; SNA = nonbreeding status unranked

# Appendix F

## Water Resources

**Waters Report  
Superstructure Replacement  
SR 252 over Branch Big Cedar Creek  
6.19 Miles East of US 52  
Springfield Township, Franklin County, Indiana  
INDOT Designation Number 1600492  
Bridge File No. 252-24-06008**



***Prepared for:***  
Indiana Department of Transportation

***Prepared by:***  
Michael Baker International  
3815 River Crossing Parkway, Suite 20  
Indianapolis, Indiana 46240

September 3, 2019

**WATERS REPORT**  
**Superstructure Replacement**  
**SR 252 over Branch Big Cedar Creek**  
**6.19 Miles East of US 52**  
**Springfield Township, Franklin County, Indiana**  
**INDOT Designation Number 1600492**  
**Bridge File No. 252-24-06008**  
Prepared by: Laura Jack, Environmental Scientist  
Contact Information: [laura.jack@mbakerintl.com](mailto:laura.jack@mbakerintl.com), 312-575-3902  
Michael Baker International  
September 3, 2019

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## **I: Project Information**

### **Fieldwork Dates:**

Fieldwork for this report was conducted on April 25, 2019 by Michael Baker International (Michael Baker).

### **Contributors:**

Laura Jack, Environmental Scientist  
Shane Stauffer (WPIT), Environmental Associate  
Debra White (PWS), Senior Environmental Project Manager

### **Project Location:**

Superstructure Replacement  
SR 252 over Branch Big Cedar Creek  
6.19 mi E of US 52  
Section 29, T 9N, R 1W, Springfield Township  
USGS Whitcomb Quadrangle  
Franklin County, Indiana  
Latitude/Longitude: 39.413514, -84.901889

### **Project Description:**

The proposed state project is located on SR 252, 6.19 miles east of US 52 in Springfield Township of Franklin County, Indiana. The project is a bridge superstructure replacement of an existing box beam, structure #252-24-06008, that carries SR 252 over Branch to Big Cedar Creek (as referenced to by INDOT), with a new reinforced concrete slab bridge. The superstructure replacement includes new side mounted bridge railings, approach slabs, guardrails, and end treatments (west side) and a modified treatment (east side, where space is limited). Resurfacing with an HMA wedge and level treatment will extend an additional 120' from each approach to tie in with existing pavement. The roadway shoulder in the southeast quadrant will either have a retaining wall along the ditch or the ditch replaced with a drain pipe and filled in. New right-of-way will be acquired for the project.

## **II: Office Evaluation**

### **Methodology:**

A desktop review of the study area was conducted to identify potential waters of the US and waters of the State (streams, wetlands, ponds, etc.). This included a review of historic and recent aerial photography for any areas with a water signature or a sharp change in vegetation. Any such areas were flagged for follow-up in the field. United States Geological Survey (USGS) topographic mapping, National Wetlands Inventory (NWI) mapping and Natural Resources Conservation Service (NRCS) mapped soil units were also reviewed.



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### **USGS Mapping:**

The USGS 7.5-minute series Whitcomb Quadrangle topographic map was reviewed, which identified one perennial (solid blue-line) and one intermittent (dashed blue-line) stream within the study area (pgs. A3-A4). One of the streams is located within the same proximity as Branch to Big Cedar Creek and the other appears to be an unnamed tributary (UNT) to Branch to Big Cedar Creek.

### **NWI and Floodplain Mapping:**

During a review of the NWI dataset, no NWI wetland areas were identified within the study area. One riverine area was identified on the NWI mapping and appears to be Branch to Big Cedar Creek. No wetlands were identified. The National Hydrography Dataset (NHD) located two water resources within the study area (pg. A8). These water resources appear to be Branch to Big Cedar Creek and an unnamed tributary (UNT) to Branch to Big Cedar Creek.

The Digital Flood Insurance Rate Map (DFIRM) identified the project area is not within the 100-year floodplain. (pg. A6).

The Indiana HUC Finder (<https://www.in.gov/idem/cleanwater/pages/huc/>) was used to determine that the project is located within the Big Cedar Creek watershed (HUC 12-digit 050800030803).

### **Mapped Soil Units:**

NRCS classifies soil types as follows: hydric (100%), predominantly hydric (66-99%), partially hydric (33-65%), predominantly non-hydric (1-32%), and not hydric (0%). According to the Soil Survey Geographic (SSURGO) database for Franklin County, Indiana, the study area is located within the Gessie loam (Ge), 0 to 2 percent slopes, frequently flooded, brief duration. Genesee silt loam is identified as not hydric within the study area with a 0% chance of meeting the hydric soil criteria (pg. A7).

## **III: Field Reconnaissance**

### **Methodology:**

Michael Baker conducted a field investigation on April 25, 2019, to determine the presence of streams, wetlands, and other water resources within the study area. The entire study area, as well as the immediate surroundings, were reviewed for resources via a walking survey. All areas flagged during desktop analysis were reviewed and documented. When observed, features located adjacent to, but outside of, the study area were noted. A resource map showing all identified features is attached for reference (pgs. A9).

Photographs were taken throughout the study area, and specifically for each feature identified. Selected photographs are included within this report for reference (pgs. B2-B7). The photos have been keyed to photo-orientation map (pg. B1).

The ordinary high-water marks (OHWMs) of any identified streams were obtained using a measuring tape. A hand-held Global Positioning System (GPS) unit (Trimble Geoexplorer 7000 Series) was used to map these resources.

If wetlands were identified, vegetation, soil, and hydrology data were collected using the methods described in the *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Midwest Region (Version 2.0)* (USACE 2010). Wetland indicator statuses for plants were obtained from *The National Wetland Plant List* (Lichvar 2016). When present, data forms for each wetland were prepared, and a visual assessment of each wetland's quality and function was conducted. A hand-held GPS unit (Trimble Geoexplorer 7000 Series) was used to map the boundary of any identified wetlands, as well as

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the locations of any data points, recorded. If wetlands were not present, data points were recorded documenting upland areas.

### **Streams:**

A field investigation on April 25, 2019 resulted in the identification of five jurisdictional streams totaling approximately 691 linear feet within the study area. These features are summarized in the Stream Resources Table (Table 1). No other features exhibiting an OHWM were observed within the study area. No waterways are listed on the Federal Wild and Scenic River, State Natural, and Recreation River, or on the Indiana Register's Listing of Outstanding Rivers and Streams, nor are any located within two miles of any such resources.

#### **Branch to Big Cedar Creek**

The location of Branch to Big Cedar Creek within the study area, as indicated by the NWI and NHD map, was confirmed in the field. Branch to Big Cedar Creek is a perennial blue-line stream within the study area according to the USGS 1:24,000 scale topographic map and is classified as a riverine unknown perennial unconsolidated bottom permanently flooded (R5UBH) feature based on the classification codes defined by Cowardin et al (1979). Branch to Big Cedar Creek is approximately 109 linear feet within the study area and has an average OHWM of 20 feet wide and a depth of 5 inches. The stream substrate was primarily cobble-gravel. The riparian land included a forested buffer. Stream cover within the study area was moderate.

Branch to Big Cedar Creek flows southwest into the Big Cedar Creek approximately 0.18 miles from the project area. Big Cedar Creek eventually flows south into the Whitewater River, approximately 5.37 miles south of the confluence of Branch to Big Cedar Creek with Big Cedar Creek. The Whitewater River is a traditional navigable waterway; therefore, Branch to Big Cedar Creek is likely a water of the US.

Per the USGS StreamStats online application (<https://water.usgs.gov/osw/streamstats/Indiana.html>), Branch to Big Cedar Creek has an upstream drainage area of approximately 1.809 square miles at the project location (pg. A10).

#### **Unnamed Tributary 2 Branch to Big Cedar Creek (UNT-2)**

UNT-2 was not identified on the USGS or USFWS NWI map. UNT-2 is located north of SR 252 and east of the bridge structure. UNT-2 is approximately 148 linear feet within the project area flows northwest via a pipe culvert under a roadway, Sleepy Hollow Road, that outlets into Branch to Big Cedar Creek. UNT-2 has an average OWHM that is approximately 3.5 feet wide and a depth of 1 inch. The riparian corridor consists of mowed grass and pavement. The quality would be considered poor because it has no riffles and pools and no canopy cover. UNT-2 is likely a jurisdictional waterway because it displayed an OHWM and flows directly into Branch to Big Cedar Creek.

#### **Unnamed Tributary 3 Branch to Big Cedar Creek (UNT-3)**

UNT-3 is located south of SR 252 and east of the bridge structure. UNT-3 is identified as an NHD intermittent stream but was not identified on the USFWS NWI map. UNT-3 is approximately 182 linear feet within the project area, has an average OHWM of approximately 6 feet wide, and is 2 inches deep. The riparian corridor consists of gravel, pavement, and mowed grass. The quality would be considered poor within the project limits because it has no riffles or pools and no canopy cover. UNT-3 is likely a jurisdictional waterway because it displayed an OHWM and flows directly into Branch to Big Cedar Creek.

**Unnamed Tributary 4 Branch to Big Cedar Creek (UNT-4)**

UNT-4 is located north of SR 252, west of the bridge structure. UNT-4 was not identified on any maps. UNT-4 appears to be an ephemeral stream and becomes a roadside ditch. UNT-4 is approximately 129 linear feet within the project, has an average OHWM of approximately 1 foot, and is less than 1 inch deep. The riparian corridor consists of grass. The quality would be considered poor because there are no riffles and pools and no cover. UNT-4 is likely a jurisdictional waterway because it displayed an OHWM and flows directly into Branch to Big Cedar Creek.

**Unnamed Tributary 5 Branch to Big Cedar Creek (UNT-5)**

UNT-5 is located north of SR 252 and appears to start as an ephemeral stream. UNT-5 was not identified on any maps. UNT-5 is approximately 124 linear feet within the project area, has an average OHWM of 3.5 feet, and did not have any water at the time of the site visit. The quality would be considered poor within the project limits.

**Table 1- Stream Resources**

<b>Water Feature Name</b>	<b>Photos</b>	<b>Lat/Long</b>	<b>Average OHWM Width and Depth</b>	<b>USGS Blue-line?</b>	<b>USGS Blue-Line Type</b>	<b>Riffles? Pools?</b>	<b>Quality</b>	<b>Substrate</b>	<b>Likely Water of the US</b>
Branch Big Cedar Creek	1,2,3,5,10,12	39.413530/-84.901972	20ft. wide 5 in. deep	Yes	Perennial	Yes	Good	Cobble/Gravel	Yes
UNT-2 to Branch Big Cedar Creek	5,6,7	39.413479/-84.901787	3.5 ft. wide 1 in. deep	No	N/A	No	Poor	Silt/sand	Yes
UNT-3 to Branch Big Cedar Creek	8,9	39.413414/-84.901941	6 ft. wide 2 in. deep	Yes	Intermittent	No	Poor	Gravel	Yes
UNT-4 Branch Big Cedar Creek	15,16	39.413597/-84.901945	1 ft. wide, 1in. deep	No	N/A	No	Poor	Silt/sand	Yes
UNT-5 Branch to Big Cedar Creek	22	39.413970/-84.902635	3.5 ft. wide, 1 in. deep	No	N/A	No	Poor	Gravel/silt	Yes

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## Wetlands:

Michael Baker investigated for the presence of wetlands on April 25, 2019. Sampling locations were determined using wetland vegetation, visual indications of hydrology, and NRCS hydric soil mapping. Data points were taken at five locations and data sheets are attached (pgs. C1-C10). Data points collected during the field reconnaissance are summarized in Table 2. One wetland was identified within the study area (Table 3).

**Table 2 - Data Point Summary Table**

Data Point	Vegetation	Soils	Hydrology	Wetland
DP-1	No	No	No	No
DP-2	No	No	No	No
DP-3	No	No	No	No
W-01	Yes	Yes	Yes	Yes
W-01UP	No	No	No	No

### Wetland 1

Wetland 1 is located north of SR 252, west of the bridge structure. Wetland 1 was not identified on any maps. Wetland 1 is an emergent wetland that is approximately 0.02 acres. One data point, W-01, was taken within Wetland 1 (pgs. C7-C8). The dominant vegetation was reed canary grass (*Phalaris arundinacea*) and soft rush (*Juncus effuses*). The soil was identified as 0-11 inches 10YR 3/2 with 10% 10YR 5/6 redox sandy clay loam and 11-20 inches 10YR 3/1 sandy clay loam which meets the hydric soil indicator Depleted Matrix (F3). Hydrology was present with surface water, a high water table, and saturation. Wetland 1 would be classified as a poor quality because there was not a diverse, high quality plant community. Wetland 1 would likely be a jurisdictional wetland because it connects with UNT-4 which connects with Branch to Big Cedar Creek.

**Table 3 - Wetland Summary Table**

Wetland Name	Photos	Lat/Long	Type	Total Area (acres)	Quality	Likely Water of the US
Wetland 1	17, 18, 19, 20	39.413673/ -84.902064	Emergent	0.02	Poor	Yes

## IV: Conclusions

Based on the field investigation of April 25, 2019, the study area contains five waterways, Branch to Big Cedar Creek, UNT-2, UNT-3, UNT-4, UNT-5, totaling 691 linear feet. These waterways are all likely Waters of the U.S. that would fall under the jurisdiction of the U.S. Army Corps of Engineers (USACE).

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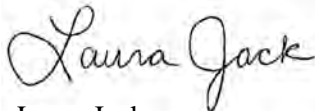
One wetland approximately 0.02 acres was identified within the study area and is likely a Waters of the U.S. No other likely waters of the US or waters of the State were identified.

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

A preliminary jurisdictional determination (pre-JD) form is attached to the end of this report (pgs. D1-D3).

## **V: 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.



Laura Jack  
Environmental Scientist  
Michael Baker International

## **VI: References**

Federal Geographic Data Committee. 2013. *Classification of Wetlands and Deepwater Habitats of the United States*. FGDC-STD-004-2013. Second Edition. Wetlands Subcommittee, Federal Geographic Data Committee and U.S. Fish and Wildlife Service, Washington, DC.

Lichvar, R.W., D.L. Banks, W.N. Kirchner, and N.C. Melvin. 2016. *The National Wetland Plant List: 2016 Wetland Ratings*. Phytoneuron 2016-30: 1-17. Published 28 April 2016. ISSN 2153 733X.

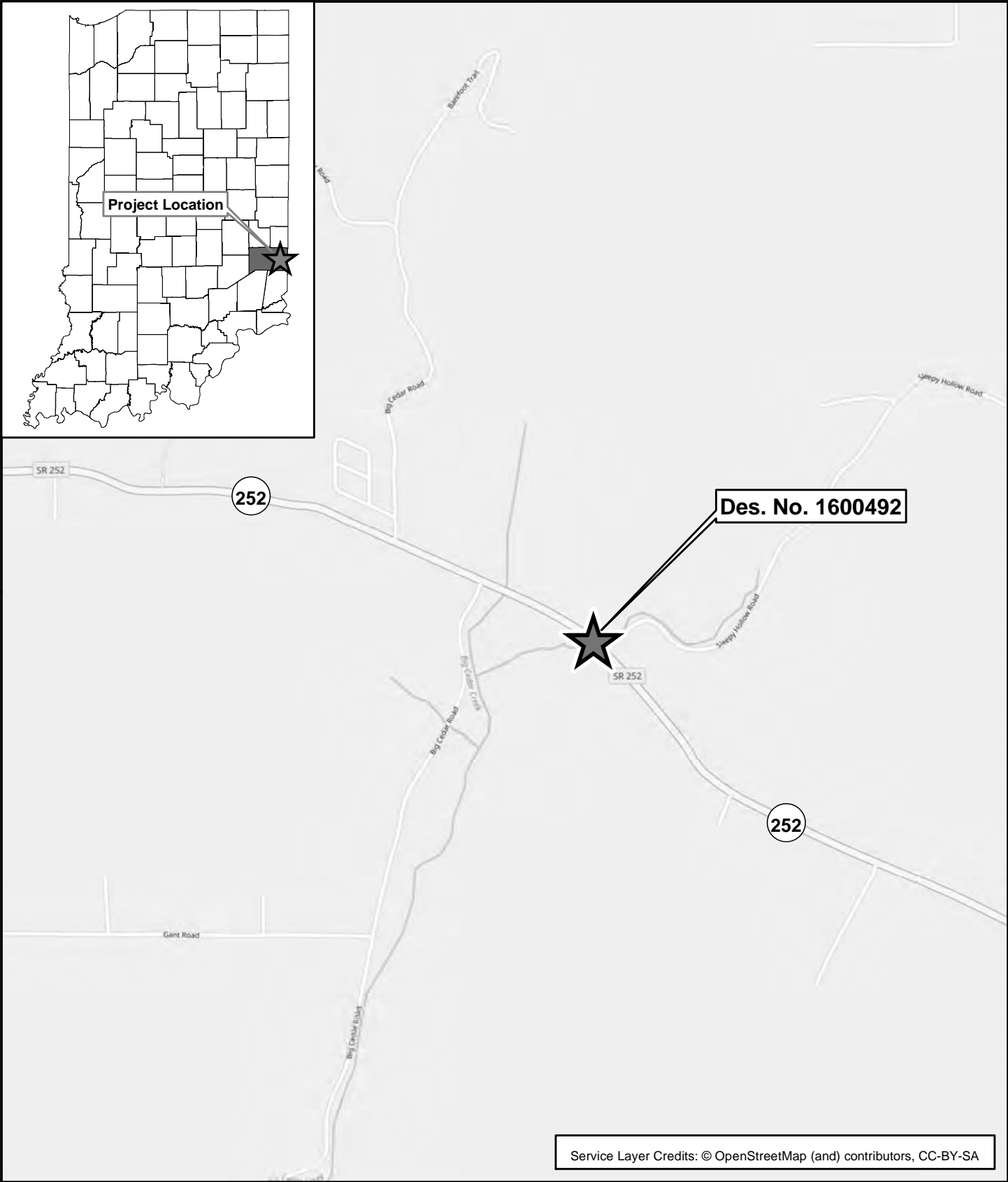
U. S. Army Corps of Engineers. 2010. *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Midwest Region (Version 2.0)*, ed. J. S. Wakeley, R. W. Lichvar, and C. V. Noble. ERDC/EL TR-10-16. Vicksburg, MS: U.S. Army Engineer Research and Development Center.

Environmental Laboratories. 1987. *Corps of Engineers Wetland Delineation Manual*, Technical Report Y-87-1, U.S. Army Engineer Waterway Experiment Station, Vicksburg, Mississippi.

USDA, NRCS. 2017. The PLANTS Database (<http://plants.usda.gov>, 4 December 2017). National Plant Data Team, Greensboro, NC 27401-4901 USA.

## **VII: Supporting Documentation**


Exhibits A1-A12  
Site Photograph Log and Photographs B1-B7  
Wetland Determination Data Forms C1-10  
Preliminary JD Form D1-D3



Service Layer Credits: © OpenStreetMap (and) contributors, CC-BY-SA

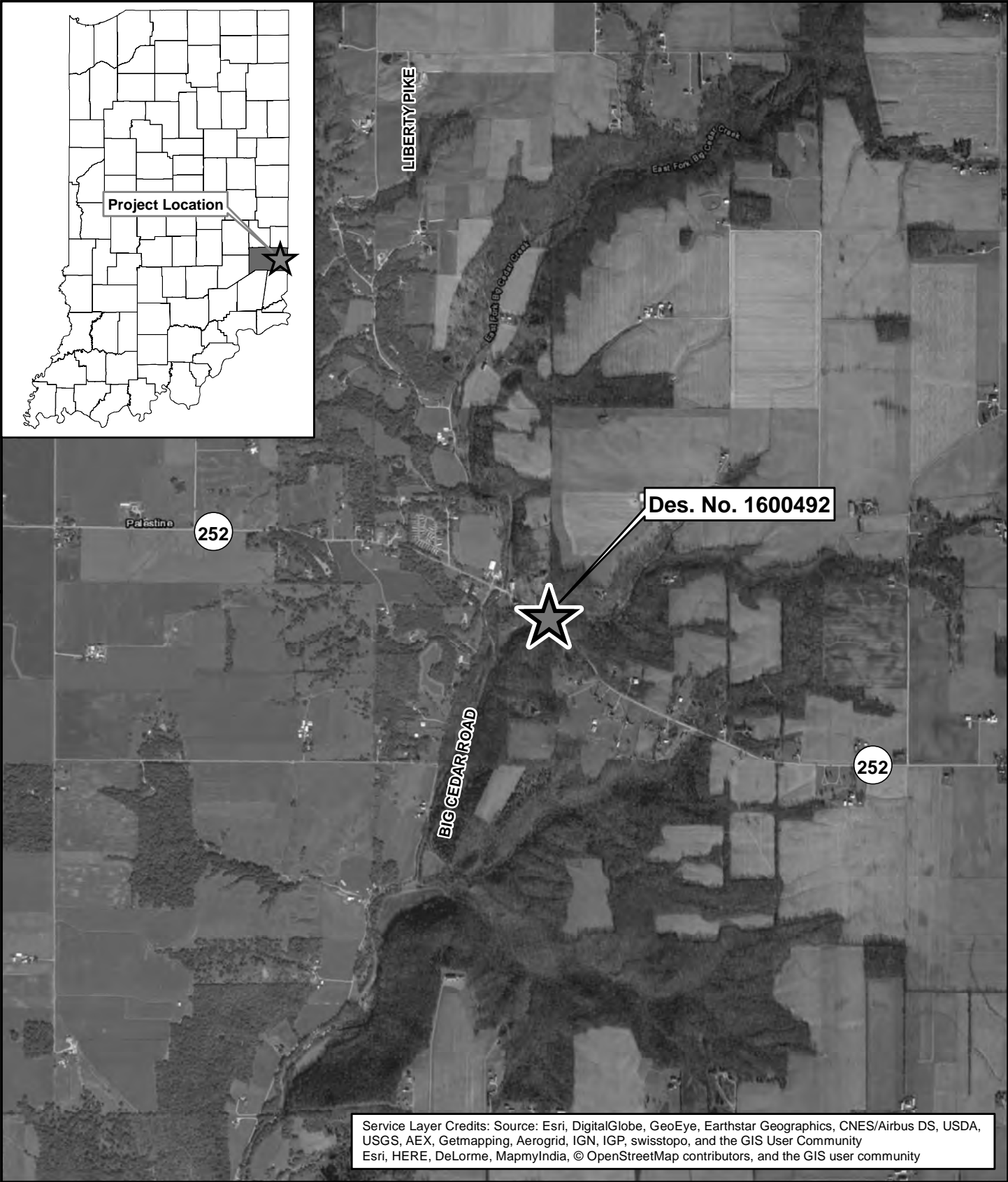
**Legend**

 Project Location

0 500 1,000  
 Feet




**SR 252 Over Branch Big Cedar Creek  
 Superstructure Replacement  
 Springfield Twp, Franklin Co., Indiana  
 Des. No. 1600492  
 Project Location Map**



Service Layer Credits: Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community  
 Esri, HERE, DeLorme, MapmyIndia, © OpenStreetMap contributors, and the GIS user community

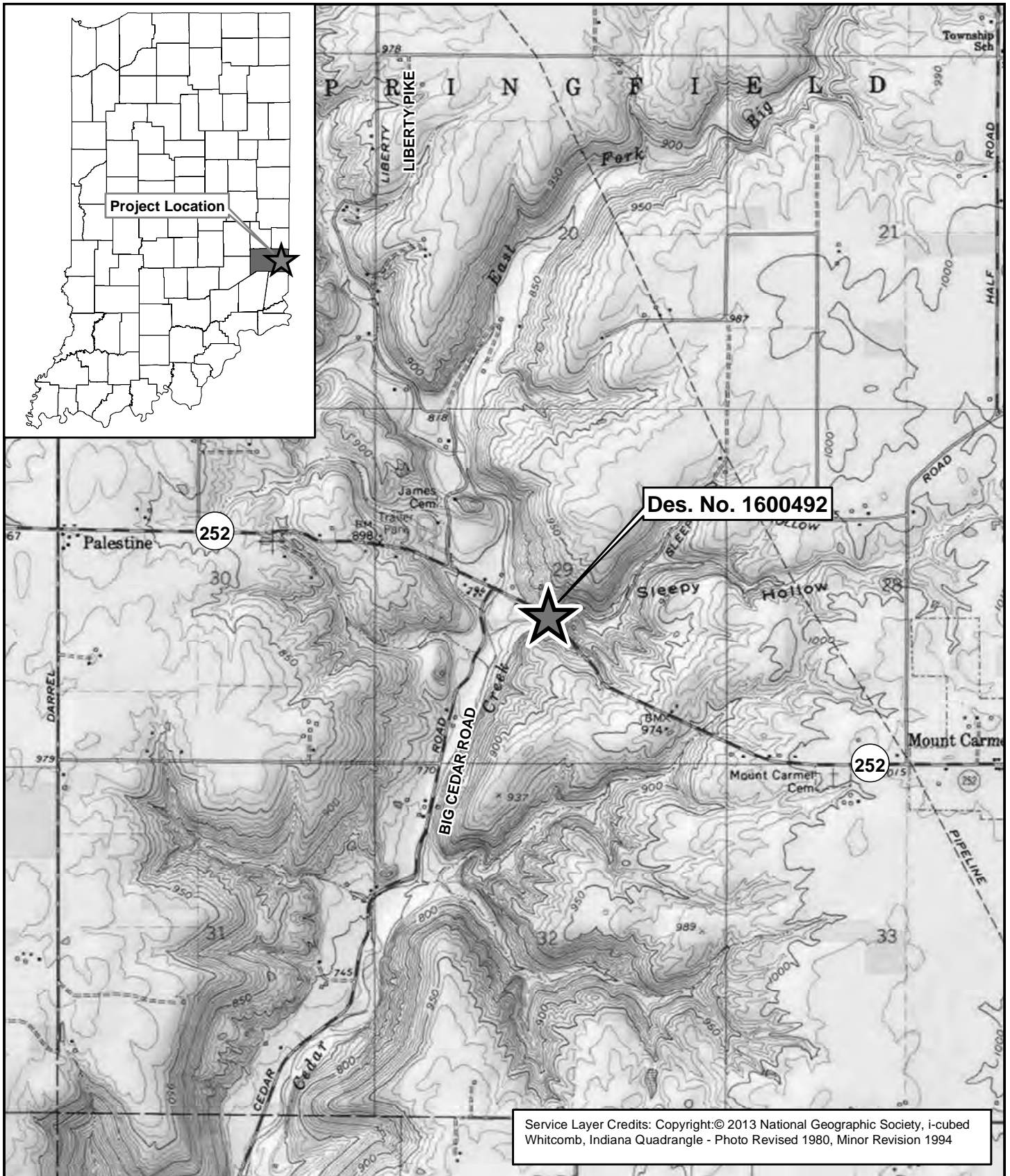
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 Project Location

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 Feet



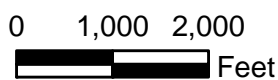
**SR 252 Over Branch Big Cedar Creek  
 Superstructure Replacement  
 Springfield Twp, Franklin Co., Indiana  
 Des. No. 1600492  
 Aerial Project Location Map**



Service Layer Credits: Copyright:© 2013 National Geographic Society, i-cubed  
Whitcomb, Indiana Quadrangle - Photo Revised 1980, Minor Revision 1994

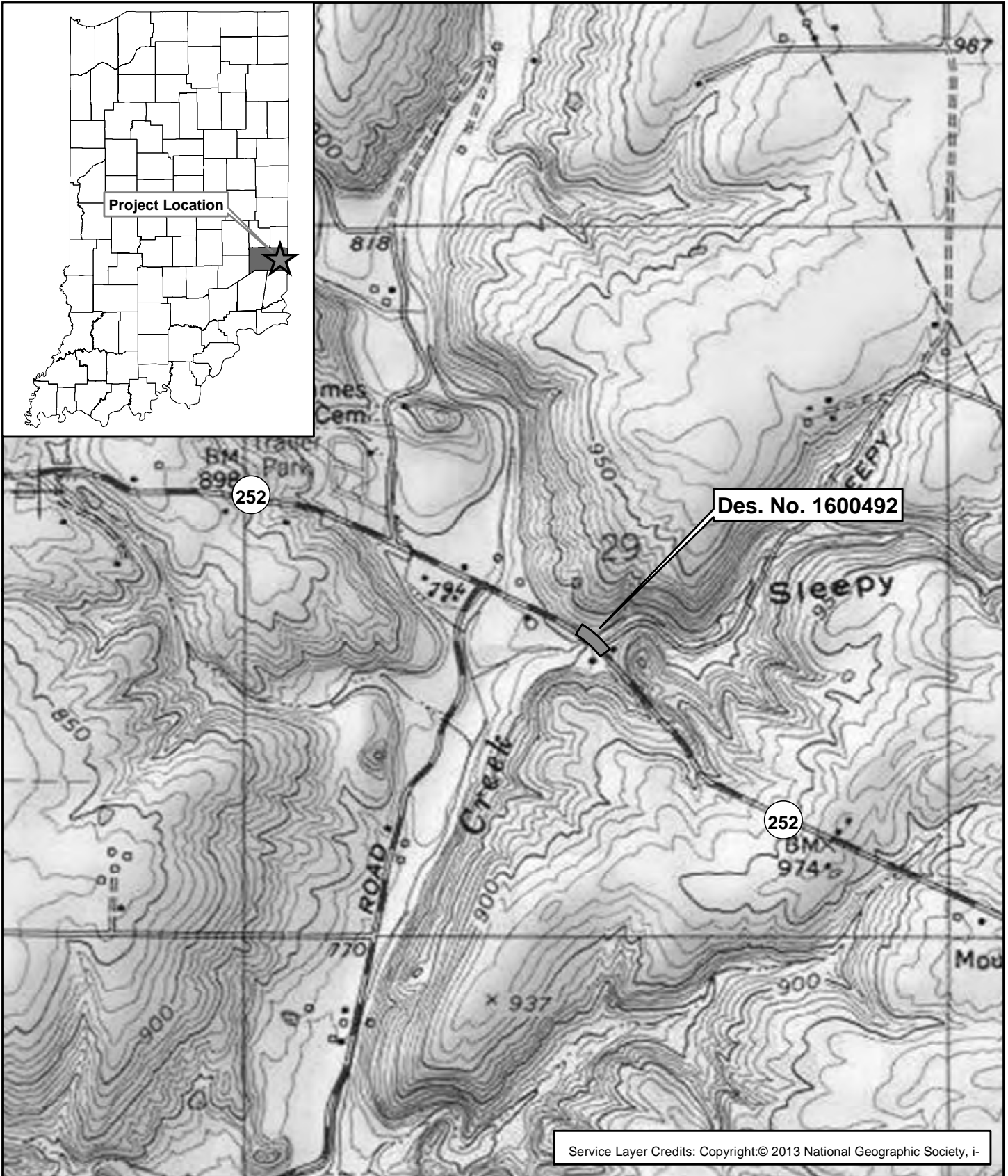
**Legend**

 Project Location



SR 252 Over Branch Big Cedar Creek  
Superstructure Replacement  
Springfield Twp, Franklin Co., Indiana  
Des. No. 1600492  
USGS Project Location Map

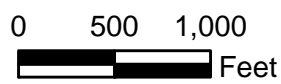




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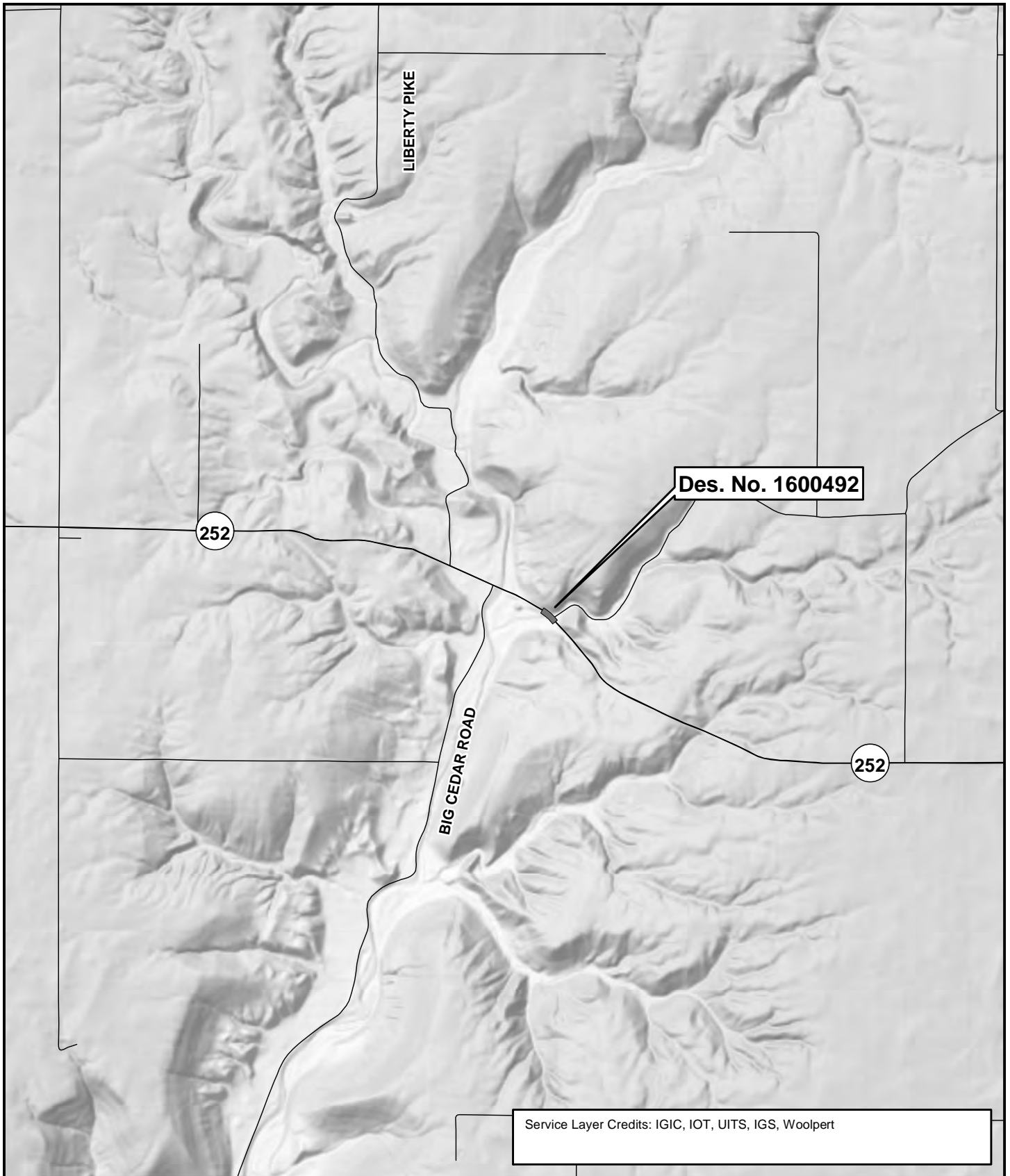
**Legend**

 Study Area - SR 252



**SR 252 Over Branch Big Cedar Creek  
Superstructure Replacement  
Springfield Twp, Franklin Co., Indiana  
Des. No. 1600492**

**USGS Study Area Map**



**Legend**

**LiDAR Color Hillshade (2011-2013)**  Study Area SR - 252

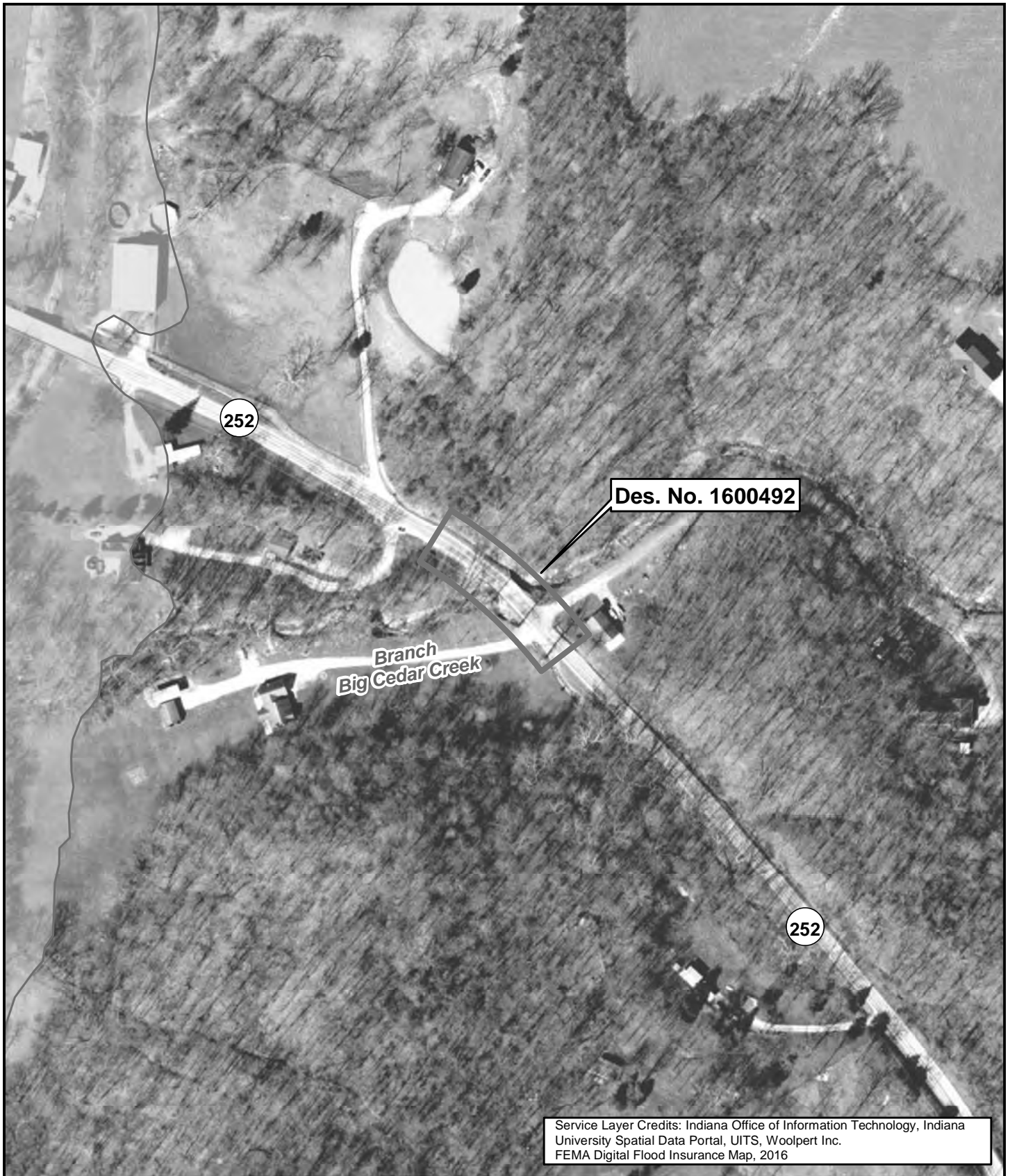
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Low : 247

0 1,000 2,000  
 Feet





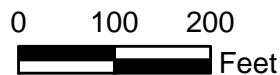
**SR 252 Over Branch Big Cedar Creek  
 Superstructure Replacement  
 Springfield Twp, Franklin Co., Indiana  
 Des. No. 1600492  
 LIDAR Color Hillshade**



Service Layer Credits: Indiana Office of Information Technology, Indiana University Spatial Data Portal, UITs, Woolpert Inc.  
 FEMA Digital Flood Insurance Map, 2016

**Legend**

-  Study Area - SR 252
-  100-Year Floodplain



**SR 252 Over Branch Big Cedar Creek  
 Superstructure Replacement  
 Springfield Twp, Franklin Co., Indiana  
 Des. No. 1600492  
 FEMA Floodplain Map**



Service Layer Credits: Indiana Office of Information Technology, Indiana University Spatial Data Portal, UITS, Woolpert Inc. National Resource Conservation Service Soils, 2017

**Legend**

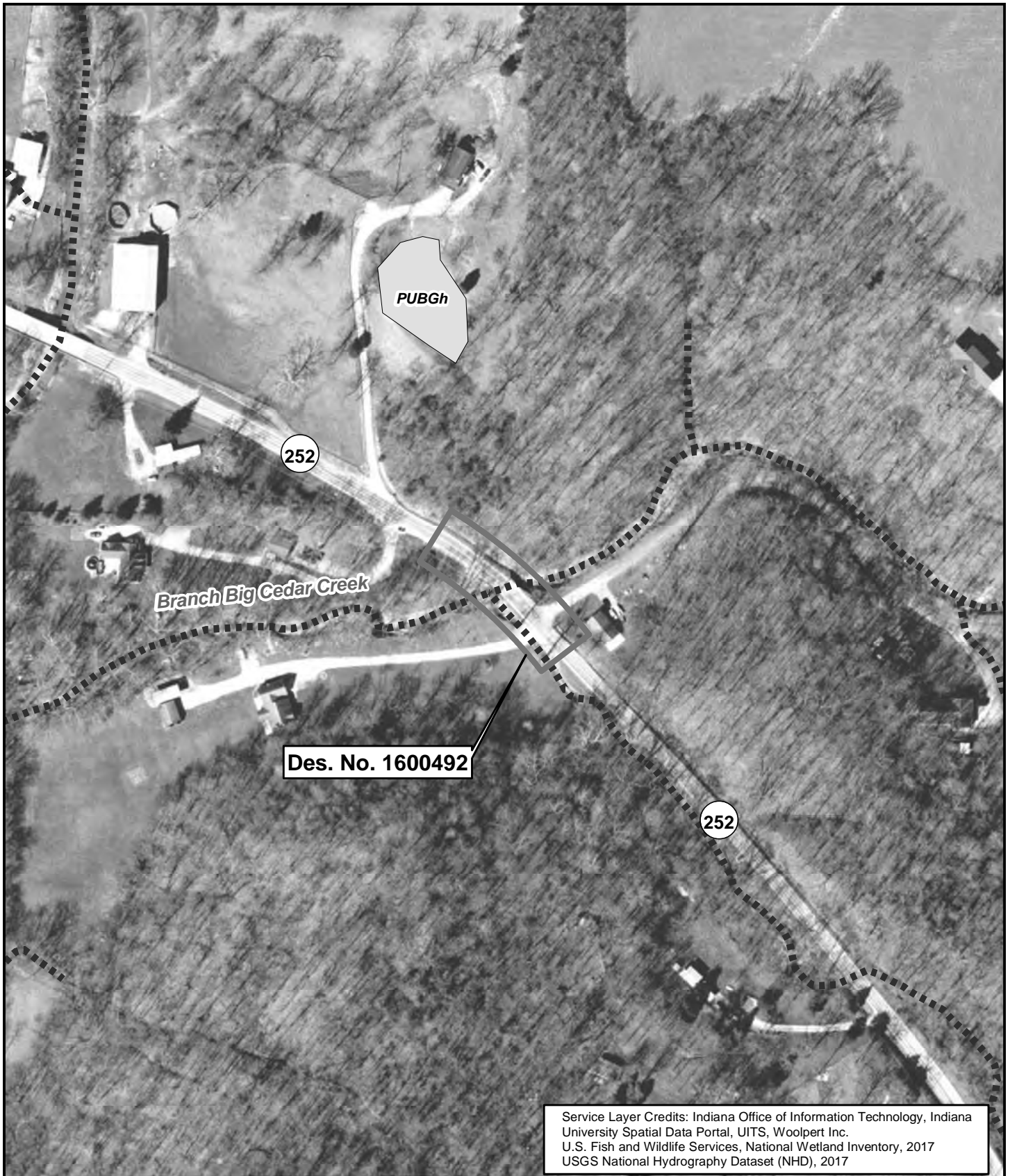
**NRCS Soils**

Ge - Gessie Loam

Study Area - SR 252



**SR 252 Over Branch Big Cedar Creek  
Superstructure Replacement  
Springfield Twp, Franklin Co., Indiana  
Des. No. 1600492  
NRCS Soils Map**




Service Layer Credits: Indiana Office of Information Technology, Indiana University Spatial Data Portal, UIITS, Woolpert Inc.  
 U.S. Fish and Wildlife Services, National Wetland Inventory, 2017  
 USGS National Hydrography Dataset (NHD), 2017

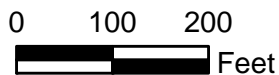
**Legend**

**NWI Wetlands**  Study Area - SR 252

 Freshwater Pond

**NHD Flowline**

 Stream/River



**SR 252 Over Branch Big Cedar Creek  
 Superstructure Replacement  
 Springfield Twp, Franklin Co., Indiana  
 Des. No. 1600492  
 Water Resources**



Service Layer Credits: Indiana Office of Information Technology, Indiana University Spatial Data Portal, UITs, Woolpert Inc. Field Delineated Resources, 2019

**Legend**

- Study Area - SR 252
  - Data Point
  - Culvert
  - Surveyed Stream and Flow
  - Wetland
- 0 25 50 Feet



SR 252 Over Branch Big Cedar Creek  
 Superstructure Replacement  
 Springfield Twp, Franklin Co., Indiana  
 Des. No. 1600492  
 Field Identified Resources

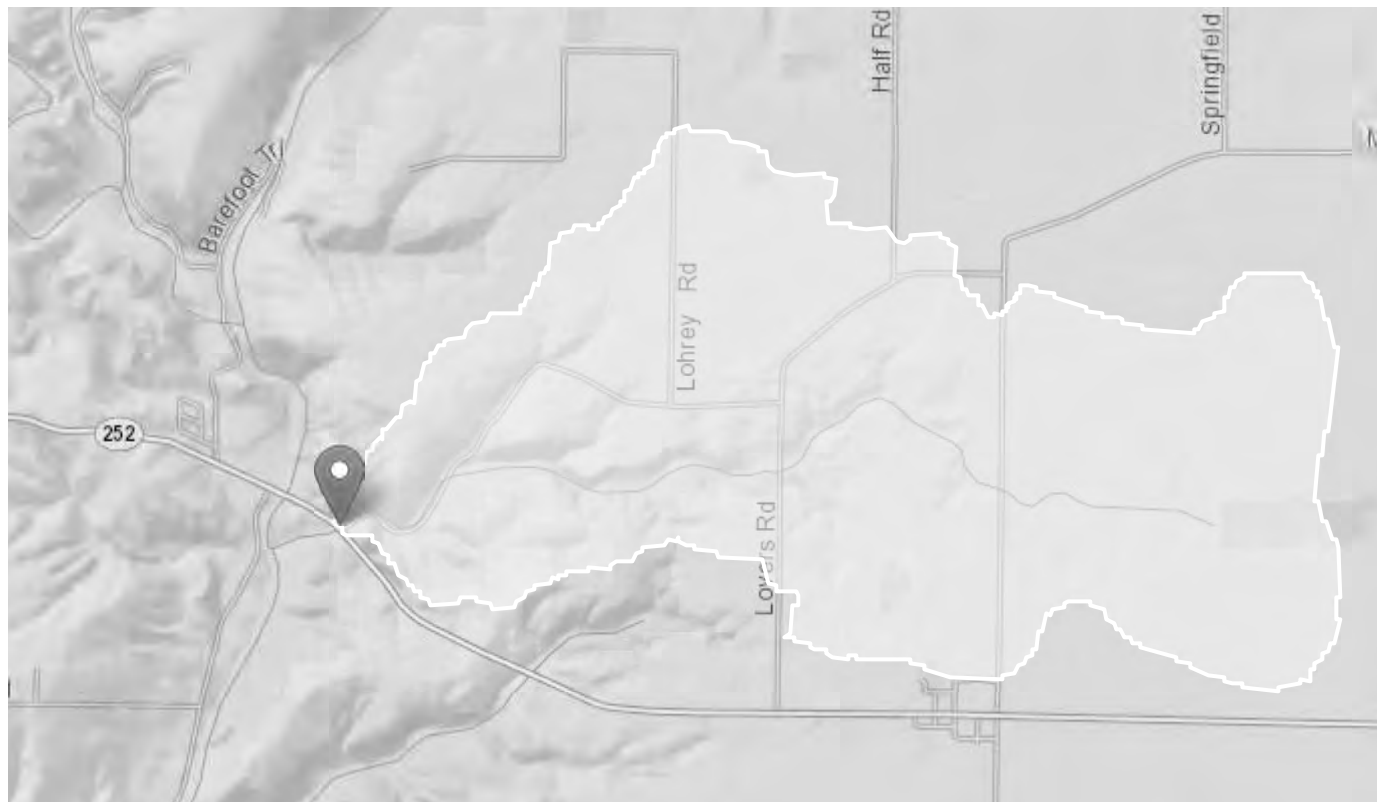
# StreamStats Report

Region ID: IN

Workspace ID: IN20190613173827836000

Clicked Point (Latitude, Longitude): 39.41344, -84.90191

Time: 2019-06-13 12:38:43 -0500



## Basin Characteristics

Parameter Code	Parameter Description	Value	Unit
DRNAREA	Area that drains to a point on a stream	1.809	square miles
BFREGNO	BFREGNO	1566	dimensionless
BSLDEM10M	Mean basin slope computed from 10 m DEM	3.76	percent
CONTA	Area that contributes flow to a point on a stream	1.809	square miles
CSL10_85	Change in elevation divided by length between points 10 and 85 percent of distance along main channel to basin divide - main channel method not known	64.1	feet per mi

Parameter Code	Parameter Description	Value	Unit
HIGHREG	HIGHREG	1007	dimensionless
INSINKHOLE	Percent Sinkhole drainage area per basin from Indiana Geological Survey.	0	percent
INSINKING	Percent Sinking stream drainage area from Indiana Geological Survey.	0	percent
K1INDNR	Average hydraulic conductivity (ft/d) for the top 70 ft of unconsolidated deposits from InDNR well database.	6	ft per day
K2INDNR	Average hydraulic conductivity (ft/d) for the full depth of unconsolidated deposits from InDNR well database.	8	ft per day
LAT_OUT	Latitude of Basin Outlet	39.4135	degrees
LC01FOREST	Percentage of forest from NLCD 2001 classes 41-43	14.7	percent
LC11DEV	Percentage of developed (urban) land from NLCD 2011 classes 21-24	4.4	percent
LC11IMP	Average percentage of impervious area determined from NLCD 2011 impervious dataset	0.21	percent
LOWREG	Low Flow Region Number	1729	dimensionless
QSSPERMTHK	Index of the permeability of surficial Quaternary sediments computed as in SIR 2014-5177	25	dimensionless
ST2INDNR	Average transmissivity (ft <sup>2</sup> /d) for the full depth of unconsolidated deposits within 1000 ft of stream channel from InDNR well database.	1752	square feet per day
T2INDNR	Average transmissivity (ft <sup>2</sup> /d) for the full depth of unconsolidated deposits from InDNR well database.	1817	square feet per day
URBAN	Percentage of basin with urban development	0.1	percent
WETLAND	Percentage of Wetlands	0.41	percent

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Application Version: 4.3.1

**WETLAND DETERMINATION DATA FORM – Midwest Region**

Project/Site: Trib to Big Cedar City/County: Franklin Sampling Date: 04-26-19  
 Applicant/Owner: INDOT State: IN Sampling Point: DP1  
 Investigator(s): S.Stauffer WPIT, D. White PWS Section, Township, Range: S- 29,T-9N, R-1W  
 Landform (hillslope, terrace, etc.): Mowed Roadside Local relief (concave, convex, none): none  
 Slope (%): 0-3 Lat: 39.413487 Long: -84.901758 Datum: NAD83  
 Soil Map Unit Name: Ge: Gessie loam, sandy substratum, occasionally flooded NWI or WWI classification: NA

Are climatic / hydrologic conditions on the site typical for this time of year? Yes  No  (If no, explain in Remarks.)  
 Are Vegetation , Soil , or Hydrology  significantly disturbed? Are "Normal Circumstances" present? Yes  No   
 Are Vegetation , Soil , or Hydrology  naturally problematic? (If needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Hydric Soil Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	<b>Is the Sampled Area within a Wetland?</b> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Remarks:	

**VEGETATION – Use scientific names of plants.**

<u>Tree Stratum</u> (Plot size: <u>30ft</u> )	Absolute % Cover	Dominant Species?	Indicator Status	
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
				_____ = Total Cover
<u>Sapling/Shrub Stratum</u> (Plot size: <u>15ft</u> )	Absolute % Cover	Dominant Species?	Indicator Status	
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
				_____ = Total Cover
<u>Herb Stratum</u> (Plot size: <u>5ft</u> )	Absolute % Cover	Dominant Species?	Indicator Status	
1. <u>Lolium perenne</u>	30	Y	FACU	
2. <u>Taraxacum officinale</u>	20	Y	FACU	
3. <u>Trifolium repens</u>	20	Y	FACU	
4. <u>Plantago major</u>	15	N	FAC	
5. <u>Lamium purpureum</u>	15	N	NI	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
10. _____	_____	_____	_____	
				100 = Total Cover
<u>Woody Vine Stratum</u> (Plot size: _____ )	Absolute % Cover	Dominant Species?	Indicator Status	
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
				_____ = Total Cover

**Dominance Test worksheet:**  
 Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)  
 Total Number of Dominant Species Across All Strata: 3 (B)  
 Percent of Dominant Species That Are OBL, FACW, or FAC: 0 (A/B)

**Prevalence Index worksheet:**  
 Total % Cover of: Multiply by:  
 OBL species 0 x 1 = 0  
 FACW species 0 x 2 = 0  
 FAC species 15 x 3 = 45  
 FACU species 70 x 4 = 280  
 UPL species 0 x 5 = 0  
 Column Totals: 85 (A) 325 (B)  
 Prevalence Index = B/A = 3.82

**Hydrophytic Vegetation Indicators:**  
 Dominance Test is >50%  
 Prevalence Index is ≤3.0<sup>1</sup>  
 Morphological Adaptations<sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)  
 Problematic Hydrophytic Vegetation<sup>1</sup> (Explain)

<sup>1</sup>Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Hydrophytic Vegetation Present?** Yes  No

Remarks: (Include photo numbers here or on a separate sheet.)

**SOIL**

Sampling Point: DP1

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-6	10YR 3/3	100					SltClyLm	
6	Rock Refusal							
<sup>1</sup> Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. <sup>2</sup> Location: PL=Pore Lining, M=Matrix.								
<b>Hydric Soil Indicators:</b>						<b>Indicators for Problematic Hydric Soils<sup>3</sup>:</b>		
<input type="checkbox"/> Histosol (A1)			<input type="checkbox"/> Sandy Gleyed Matrix (S4)			<input type="checkbox"/> Coast Prairie Redox (A16)		
<input type="checkbox"/> Histic Epipedon (A2)			<input type="checkbox"/> Sandy Redox (S5)			<input type="checkbox"/> Iron-Manganese Masses (F12)		
<input type="checkbox"/> Black Histic (A3)			<input type="checkbox"/> Stripped Matrix (S6)			<input type="checkbox"/> Other (Explain in Remarks)		
<input type="checkbox"/> Hydrogen Sulfide (A4)			<input type="checkbox"/> Loamy Mucky Mineral (F1)			<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.		
<input type="checkbox"/> Stratified Layers (A5)			<input type="checkbox"/> Loamy Gleyed Matrix (F2)					
<input type="checkbox"/> 2 cm Muck (A10)			<input type="checkbox"/> Depleted Matrix (F3)					
<input type="checkbox"/> Depleted Below Dark Surface (A11)			<input type="checkbox"/> Redox Dark Surface (F6)					
<input type="checkbox"/> Thick Dark Surface (A12)			<input type="checkbox"/> Depleted Dark Surface (F7)					
<input type="checkbox"/> Sandy Mucky Mineral (S1)			<input type="checkbox"/> Redox Depressions (F8)					
<input type="checkbox"/> 5 cm Mucky Peat or Peat (S3)								
<b>Restrictive Layer (if observed):</b>								
Type: _____								
Depth (inches): _____						Hydric Soil Present? Yes _____ No <u>X</u>		
Remarks:								

**HYDROLOGY**

Wetland Hydrology Indicators:		
Primary Indicators (minimum of one is required; check all that apply)	Secondary Indicators (minimum of two required)	
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Surface Soil Cracks (B6)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Aquatic Fauna (B13)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> True Aquatic Plants (B14)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> FAC-Neutral Test (D5)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Gauge or Well Data (D9)	
<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Other (Explain in Remarks)	
<b>Field Observations:</b>		
Surface Water Present? Yes _____ No <u>X</u>	Depth (inches): _____	<b>Wetland Hydrology Present? Yes _____ No <u>X</u></b>
Water Table Present? Yes _____ No <u>X</u>	Depth (inches): _____	
Saturation Present? (includes capillary fringe) Yes _____ No <u>X</u>	Depth (inches): _____	
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks:		

**WETLAND DETERMINATION DATA FORM – Midwest Region**

Project/Site: Trib to Big Cedar City/County: Franklin Sampling Date: 04-26-19  
 Applicant/Owner: INDOT State: IN Sampling Point: DP2  
 Investigator(s): S.Stauffer WPIT, D. White PWS Section, Township, Range: S-29, T-9N, R-1W  
 Landform (hillslope, terrace, etc.): Mowed Lawn Local relief (concave, convex, none): none  
 Slope (%): 0-5 Lat: 39.413429 Long: -84.902054 Datum: NAD83  
 Soil Map Unit Name: Ge: Gessie loam, sandy substratum, occasionally flooded NWI or WWI classification: NA

Are climatic / hydrologic conditions on the site typical for this time of year? Yes  No  (If no, explain in Remarks.)  
 Are Vegetation , Soil , or Hydrology  significantly disturbed? Are "Normal Circumstances" present? Yes  No   
 Are Vegetation , Soil , or Hydrology  naturally problematic? (If needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Hydric Soil Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	<b>Is the Sampled Area within a Wetland?</b> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Remarks:	

**VEGETATION – Use scientific names of plants.**

<u>Tree Stratum</u> (Plot size: <u>30ft</u> )	Absolute % Cover	Dominant Species?	Indicator Status		
1. <u>Planatus occidentalis</u>	10	Y	FACW	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A)  Total Number of Dominant Species Across All Strata: <u>4</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>25.00</u> (A/B)	
2. _____					
3. _____					
4. _____					
5. _____					
<u>10</u> = Total Cover				<b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: _____ OBL species <u>0</u> x 1 = <u>0</u> FACW species <u>10</u> x 2 = <u>20</u> FAC species <u>10</u> x 3 = <u>30</u> FACU species <u>80</u> x 4 = <u>320</u> UPL species <u>0</u> x 5 = <u>0</u> Column Totals: <u>100</u> (A) <u>370</u> (B)  Prevalence Index = B/A = <u>3.70</u>	
<u>Sapling/Shrub Stratum</u> (Plot size: <u>15ft</u> )	Absolute % Cover	Dominant Species?	Indicator Status		
1. _____					
2. _____					
3. _____					
4. _____					
5. _____					
_____ = Total Cover					
<u>Herb Stratum</u> (Plot size: <u>5ft</u> )	Absolute % Cover	Dominant Species?	Indicator Status		
1. <u>Lolium perenne</u>	30	Y	FACU	<b>Hydrophytic Vegetation Indicators:</b> <input type="checkbox"/> Dominance Test is >50% <input type="checkbox"/> Prevalence Index is ≤3.0 <sup>1</sup> <input type="checkbox"/> Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.	
2. <u>Trifolium pratense</u>	20	Y	FACU		
3. <u>Trifolium repens</u>	20	Y	FACU		
4. <u>Plantago major</u>	10	N	FAC		
5. <u>Taraxacum officinale</u>	10	N	FACU		
6. _____					
7. _____					
8. _____					
9. _____					
10. _____					
<u>90</u> = Total Cover					
<u>Woody Vine Stratum</u> (Plot size: _____ )	Absolute % Cover	Dominant Species?	Indicator Status		
1. _____				<b>Hydrophytic Vegetation Present?</b> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
2. _____					
_____ = Total Cover					

Remarks: (Include photo numbers here or on a separate sheet.)

**SOIL**

Sampling Point: DP2

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-8	10YR 3/2	100					SltClyLm	
8-20	10YR 4/3	100					Sandy Loam	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains.      <sup>2</sup>Location: PL=Pore Lining, M=Matrix.

<b>Hydric Soil Indicators:</b> <input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) <input type="checkbox"/> 2 cm Muck (A10) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> 5 cm Mucky Peat or Peat (S3)	<input type="checkbox"/> Sandy Gleyed Matrix (S4) <input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Loamy Mucky Mineral (F1) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input type="checkbox"/> Depleted Matrix (F3) <input type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8)	<b>Indicators for Problematic Hydric Soils<sup>3</sup>:</b> <input type="checkbox"/> Coast Prairie Redox (A16) <input type="checkbox"/> Iron-Manganese Masses (F12) <input type="checkbox"/> Other (Explain in Remarks)
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<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

<b>Restrictive Layer (if observed):</b> Type: _____ Depth (inches): _____	<b>Hydric Soil Present?</b> Yes _____    No <u>  X  </u>
---	--

Remarks:

**HYDROLOGY**

<b>Wetland Hydrology Indicators:</b>		
Primary Indicators (minimum of one is required; check all that apply) <input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> True Aquatic Plants (B14) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Gauge or Well Data (D9) <input type="checkbox"/> Other (Explain in Remarks)	Secondary Indicators (minimum of two required) <input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present?    Yes _____    No <u>  X  </u> Depth (inches): _____ Water Table Present?        Yes _____    No <u>  X  </u> Depth (inches): _____ Saturation Present?         Yes _____    No <u>  X  </u> Depth (inches): _____ (includes capillary fringe)		<b>Wetland Hydrology Present?</b> Yes _____    No <u>  X  </u>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks:		

**WETLAND DETERMINATION DATA FORM – Midwest Region**

Project/Site: Trib to Big Cedar City/County: Franklin Sampling Date: 04-26-19  
 Applicant/Owner: INDOT State: IN Sampling Point: DP3  
 Investigator(s): S.Stauffer WPIT, D. White PWS Section, Township, Range: S-29, T-9N, R-1W  
 Landform (hillslope, terrace, etc.): Mowed Lawn Local relief (concave, convex, none): none  
 Slope (%): 0-5 Lat: 39.413530 Long: -84.902179 Datum: NAD83  
 Soil Map Unit Name: Ge: Gessie loam, sandy substratum, occasionally flooded NWI or WWI classification: NA

Are climatic / hydrologic conditions on the site typical for this time of year? Yes  No  (If no, explain in Remarks.)  
 Are Vegetation , Soil , or Hydrology  significantly disturbed? Are "Normal Circumstances" present? Yes  No   
 Are Vegetation , Soil , or Hydrology  naturally problematic? (If needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Hydric Soil Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	<b>Is the Sampled Area within a Wetland?</b> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Remarks:	

**VEGETATION – Use scientific names of plants.**

Tree Stratum (Plot size: <u>30ft</u> )	Absolute % Cover	Dominant Species?	Indicator Status	
1. <u>Aesculus glabra</u>	5	Y	FAC	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A)  Total Number of Dominant Species Across All Strata: <u>5</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>40.00</u> (A/B)
2. <u>Planatus occidentalis</u>	5	Y	FACW	
3. _____				
4. _____				
5. _____				
<u>10</u> = Total Cover				<b>Prevalence Index worksheet:</b> Total % Cover of:      Multiply by: OBL species <u>0</u> x 1 = <u>0</u> FACW species <u>5</u> x 2 = <u>10</u> FAC species <u>15</u> x 3 = <u>45</u> FACU species <u>80</u> x 4 = <u>320</u> UPL species <u>0</u> x 5 = <u>0</u> Column Totals: <u>100</u> (A) <u>375</u> (B)  Prevalence Index = B/A = <u>3.75</u>
Sapling/Shrub Stratum (Plot size: <u>15ft</u> )	Absolute % Cover	Dominant Species?	Indicator Status	
1. _____				
2. _____				
3. _____				
4. _____				
5. _____				
_____ = Total Cover				
Herb Stratum (Plot size: <u>5ft</u> )	Absolute % Cover	Dominant Species?	Indicator Status	<b>Hydrophytic Vegetation Indicators:</b> <input type="checkbox"/> Dominance Test is >50% <input type="checkbox"/> Prevalence Index is ≤3.0 <sup>1</sup> <input type="checkbox"/> Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
1. <u>Lolium perenne</u>	30	Y	FACU	
2. <u>Taraxacum officinale</u>	25	Y	FACU	
3. <u>Rosa multiflora</u>	20	Y	FACU	
4. <u>Plantago major</u>	10	N	FAC	
5. <u>Thlaspi arvense</u>	5	N	FACU	
6. _____				
7. _____				
8. _____				
9. _____				
10. _____				
<u>90</u> = Total Cover				
Woody Vine Stratum (Plot size: _____ )	Absolute % Cover	Dominant Species?	Indicator Status	<b>Hydrophytic Vegetation Present?</b> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
1. _____				
2. _____				
_____ = Total Cover				

Remarks: (Include photo numbers here or on a separate sheet.)

**SOIL**

Sampling Point: DP3

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-5	10YR 3/3	100					SltClyLm	
5	Rock Refusal							
<sup>1</sup> Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. <sup>2</sup> Location: PL=Pore Lining, M=Matrix.								
<b>Hydric Soil Indicators:</b>						<b>Indicators for Problematic Hydric Soils<sup>3</sup>:</b>		
<input type="checkbox"/> Histosol (A1)			<input type="checkbox"/> Sandy Gleyed Matrix (S4)			<input type="checkbox"/> Coast Prairie Redox (A16)		
<input type="checkbox"/> Histic Epipedon (A2)			<input type="checkbox"/> Sandy Redox (S5)			<input type="checkbox"/> Iron-Manganese Masses (F12)		
<input type="checkbox"/> Black Histic (A3)			<input type="checkbox"/> Stripped Matrix (S6)			<input type="checkbox"/> Other (Explain in Remarks)		
<input type="checkbox"/> Hydrogen Sulfide (A4)			<input type="checkbox"/> Loamy Mucky Mineral (F1)			<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.		
<input type="checkbox"/> Stratified Layers (A5)			<input type="checkbox"/> Loamy Gleyed Matrix (F2)					
<input type="checkbox"/> 2 cm Muck (A10)			<input type="checkbox"/> Depleted Matrix (F3)					
<input type="checkbox"/> Depleted Below Dark Surface (A11)			<input type="checkbox"/> Redox Dark Surface (F6)					
<input type="checkbox"/> Thick Dark Surface (A12)			<input type="checkbox"/> Depleted Dark Surface (F7)					
<input type="checkbox"/> Sandy Mucky Mineral (S1)			<input type="checkbox"/> Redox Depressions (F8)					
<input type="checkbox"/> 5 cm Mucky Peat or Peat (S3)								
<b>Restrictive Layer (if observed):</b>								
Type: _____								
Depth (inches): _____						Hydric Soil Present? Yes _____ No <u>X</u>		
Remarks:								

**HYDROLOGY**

Wetland Hydrology Indicators:		
Primary Indicators (minimum of one is required; check all that apply)	Secondary Indicators (minimum of two required)	
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Surface Soil Cracks (B6)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Aquatic Fauna (B13)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> True Aquatic Plants (B14)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> FAC-Neutral Test (D5)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Gauge or Well Data (D9)	
<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Other (Explain in Remarks)	
<b>Field Observations:</b>		
Surface Water Present? Yes _____ No <u>X</u>	Depth (inches): _____	Wetland Hydrology Present? Yes _____ No <u>X</u>
Water Table Present? Yes _____ No <u>X</u>	Depth (inches): _____	
Saturation Present? Yes _____ No <u>X</u>	Depth (inches): _____	
(includes capillary fringe)		
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks:		

**WETLAND DETERMINATION DATA FORM – Midwest Region**

Project/Site: Trib to Big Cedar City/County: Franklin Sampling Date: 04-26-19  
 Applicant/Owner: INDOT State: IN Sampling Point: W-01  
 Investigator(s): S.Stauffer WPIT, D. White PWS Section, Township, Range: S-29, T-9N, R-1W  
 Landform (hillslope, terrace, etc.): Depression Local relief (concave, convex, none): concave  
 Slope (%): 0-5 Lat: 39.413726 Long: -84.902136 Datum: NAD83  
 Soil Map Unit Name: Ge: Gessie loam, sandy substratum, occasionally flooded NWI or WWI classification: NA

Are climatic / hydrologic conditions on the site typical for this time of year? Yes  No  (If no, explain in Remarks.)  
 Are Vegetation , Soil , or Hydrology  significantly disturbed? Are "Normal Circumstances" present? Yes  No   
 Are Vegetation , Soil , or Hydrology  naturally problematic? (If needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Hydric Soil Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	<b>Is the Sampled Area within a Wetland?</b> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Remarks:	

**VEGETATION – Use scientific names of plants.**

Tree Stratum (Plot size: 30ft )	Absolute % Cover	Dominant Species?	Indicator Status	
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
_____ = Total Cover				
Sapling/Shrub Stratum (Plot size: 15ft )				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
_____ = Total Cover				
Herb Stratum (Plot size: 5ft )				
1. <i>Phalaris arundinacea</i>	60	Y	FACW	
2. <i>Juncus effusus</i>	20	Y	OBL	
3. <i>Lysimachia nummularia</i>	10	N	FACW	
4. <i>Ranunculus repens</i>	5	N	FAC	
5. <i>Microstegium vimineum</i>	5	N	FAC	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
10. _____	_____	_____	_____	
100 = Total Cover				
Woody Vine Stratum (Plot size: _____ )				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
_____ = Total Cover				

**Dominance Test worksheet:**  
 Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)  
 Total Number of Dominant Species Across All Strata: 2 (B)  
 Percent of Dominant Species That Are OBL, FACW, or FAC: 100.00 (A/B)

**Prevalence Index worksheet:**  
 Total % Cover of: Multiply by:  
 OBL species 20 x 1 = 20  
 FACW species 70 x 2 = 140  
 FAC species 10 x 3 = 30  
 FACU species 0 x 4 = 0  
 UPL species 0 x 5 = 0  
 Column Totals: 100 (A) 190 (B)  
 Prevalence Index = B/A = 1.90

**Hydrophytic Vegetation Indicators:**  
 Dominance Test is >50%  
 Prevalence Index is ≤3.0<sup>1</sup>  
 Morphological Adaptations<sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)  
 Problematic Hydrophytic Vegetation<sup>1</sup> (Explain)

<sup>1</sup>Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
---

Remarks: (Include photo numbers here or on a separate sheet.)





**WETLAND DETERMINATION DATA FORM – Midwest Region**

Project/Site: Trib to Big Cedar City/County: Franklin Sampling Date: 04-26-19  
 Applicant/Owner: INDOT State: IN Sampling Point: W-01UP  
 Investigator(s): S.Stauffer WPIT, D.White PWS Section, Township, Range: S-29,T-9N, R-1W  
 Landform (hillslope, terrace, etc.): Mowed Roadside Local relief (concave, convex, none): none  
 Slope (%): 0-5 Lat: 39.413702 Long: -84.902013 Datum: NAD83  
 Soil Map Unit Name: Ge: Gessie loam, sandy substratum, occasionally flooded NWI or WWI classification: NA

Are climatic / hydrologic conditions on the site typical for this time of year? Yes  No  (If no, explain in Remarks.)  
 Are Vegetation , Soil , or Hydrology  significantly disturbed? Are "Normal Circumstances" present? Yes  No   
 Are Vegetation , Soil , or Hydrology  naturally problematic? (If needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Hydric Soil Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	<b>Is the Sampled Area within a Wetland?</b> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Remarks:	

**VEGETATION – Use scientific names of plants.**

<u>Tree Stratum</u> (Plot size: <u>30ft</u> )	Absolute % Cover	Dominant Species?	Indicator Status	
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
_____ = Total Cover				
<u>Sapling/Shrub Stratum</u> (Plot size: <u>15ft</u> )	Absolute % Cover	Dominant Species?	Indicator Status	
1. <u>Lonicera canadensis</u>	5	Y	FACU	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
5 = Total Cover				
<u>Herb Stratum</u> (Plot size: <u>5ft</u> )	Absolute % Cover	Dominant Species?	Indicator Status	
1. <u>Lolium perenne</u>	40	Y	FACU	
2. <u>Cirsium vulgare</u>	15	Y	FACU	
3. <u>Taraxacum officinale</u>	15	Y	FACU	
4. <u>Conium maculatum</u>	10	N	FACW	
5. <u>Alliaria petiolata</u>	10	N	FAC	
6. <u>Trifolium repens</u>	5	N	FACU	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
10. _____	_____	_____	_____	
95 = Total Cover				
<u>Woody Vine Stratum</u> (Plot size: _____ )	Absolute % Cover	Dominant Species?	Indicator Status	
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
_____ = Total Cover				

**Dominance Test worksheet:**  
 Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)  
 Total Number of Dominant Species Across All Strata: 4 (B)  
 Percent of Dominant Species That Are OBL, FACW, or FAC: 0 (A/B)

**Prevalence Index worksheet:**  
 Total % Cover of: \_\_\_\_\_ Multiply by: \_\_\_\_\_  
 OBL species 0 x 1 = 0  
 FACW species 10 x 2 = 20  
 FAC species 10 x 3 = 30  
 FACU species 80 x 4 = 320  
 UPL species 0 x 5 = 0  
 Column Totals: 100 (A) 370 (B)  
 Prevalence Index = B/A = 3.70

**Hydrophytic Vegetation Indicators:**  
 Dominance Test is >50%  
 Prevalence Index is ≤3.0<sup>1</sup>  
 Morphological Adaptations<sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)  
 Problematic Hydrophytic Vegetation<sup>1</sup> (Explain)

<sup>1</sup>Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
---

Remarks: (Include photo numbers here or on a separate sheet.)

**SOIL**

Sampling Point: W-01UP

<b>Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)</b>								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-20	10YR 3/3	100					SluClyLm	

**Appendix 2 - PRELIMINARY JURISDICTIONAL DETERMINATION (PJD) FORM**

**BACKGROUND INFORMATION**

**A. REPORT COMPLETION DATE FOR PJD:** September 3, 2019

**B. NAME AND ADDRESS OF PERSON REQUESTING PJD:** Laura Jack, Michael Baker International 3815 River Crossing Parkway, Suite 20 Indianapolis, IN 46240

**C. DISTRICT OFFICE, FILE NAME, AND NUMBER:**

**D. PROJECT LOCATION(S) AND BACKGROUND INFORMATION:**

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

State: **IN** County/parish/borough: **Franklin** City:

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

Lat.: **39.413514** Long.: **-84.901889**

Universal Transverse Mercator: **16N**

Name of nearest waterbody: **Branch to Big Cedar Creek**

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

Office (Desk) Determination. Date:

Field Determination. Date(s):

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

Site number	Latitude (decimal degrees)	Longitude (decimal degrees)	Estimated amount of aquatic resource in review area (acreage and linear feet, if applicable)	Type of aquatic resource (i.e., wetland vs. non-wetland waters)	Geographic authority to which the aquatic resource "may be" subject (i.e., Section 404 or Section 10/404)
Branch to Big Cedar Cree	39.413514	-84.901889	109 lf, 0.05 acre	Non-wetland	Section 404
UNT-2	39.413530	-84.901787	148 lf, 0.01 acre	Non-wetland	Section 404
UNT-3	39.413414	-84.901941	182 lf, 0.02 acre	Non-wetland	Section 404
UNT-4	39.413597	-84.901945	129 lf, 0.002 acre	Non-wetland	Section 404
UNT-5	39.413970	-84.902635	124 lf, 0.01 acre	Non-wetland	Section 404
Wetland 1	39.413673	-84.902064	0.02 acre	Wetland	Section 404

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

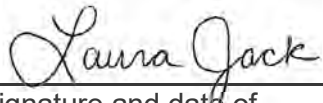
**SUPPORTING DATA. Data reviewed for PJD (check all that apply)**

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

- Maps, plans, plots or plat submitted by or on behalf of the PJD requestor:  
Map: Aerial map, USGS Topo map, Water Resource map
- Data sheets prepared/submitted by or on behalf of the PJD requestor.
  - Office concurs with data sheets/delineation report.
  - Office does not concur with data sheets/delineation report. Rationale: \_\_\_\_\_
- Data sheets prepared by the Corps: \_\_\_\_\_
- Corps navigable waters' study: \_\_\_\_\_
- U.S. Geological Survey Hydrologic Atlas: 2017 USGS NHD
  - USGS NHD data.
  - USGS 8 and 12 digit HUC maps.
- U.S. Geological Survey map(s). Cite scale & quad name: Whitcomb
- Natural Resources Conservation Service Soil Survey. Citation: NRCS 2017
- National wetlands inventory map(s). Cite name: USFWS NWI 2017
- State/local wetland inventory map(s): \_\_\_\_\_
- FEMA/FIRM maps: FEMA Digital Flood Insurance Map 2016
- 100-year Floodplain Elevation is: \_\_\_\_\_.(National Geodetic Vertical Datum of 1929)
- Photographs:  Aerial (Name & Date): ESRI Aerial Photography  
or  Other (Name & Date): Field Photographs taken 4/25/2019
- Previous determination(s). File no. and date of response letter: \_\_\_\_\_
- Other information (please specify): \_\_\_\_\_

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

\_\_\_\_\_  
Signature and date of  
Regulatory staff member  
completing PJD

  
\_\_\_\_\_  
Signature and date of  
person requesting PJD  
(REQUIRED, unless obtaining  
the signature is impracticable)<sup>1</sup>

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

**From:** [Kang, Li](#)  
**To:** [Jack, Laura](#)  
**Cc:** [Curry, Nicole](#)  
**Subject:** EXTERNAL: SR252Des 1600492 WOTUS Report final approval  
**Date:** Wednesday, September 18, 2019 10:46:12 AM

---

Laura,

The above referenced project Waters Report (September 3, 2019) has been approved. If you have any questions please let me know.

Thanks,

Li Kang  
INDOT-ESD  
317-232-6766

Appendix G  
Public Involvement





July 11, 2017

## Notice of Survey

RE: SR 252 over Branch of Big Cedar

Dear Property Owner,

Certified Engineering, Inc. has been selected by INDOT for field survey of the above referenced project. Our information indicates that you own property near the above proposed roadway project. Certified Engineering, Inc. will be performing a survey of the project area in the near future. It may be necessary for representatives from Certified Engineering, Inc. to enter your property to complete this work. This is permitted by law per Indiana Code (IC) 8-23-7-26. Anyone performing this type of work has been instructed to identify him or herself, if you are available, before they enter your property. If you no longer own this property or it is currently occupied by someone else, please let us know the name of the new owner or occupant so that we can contact them about the survey.

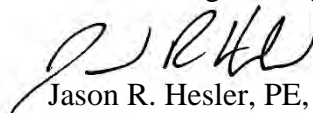
At this stage, we generally do not know what effect, if any, the project may eventually have on your property. If we later determine that your property is involved, you will be contacted with additional information.

The survey is needed for this roadway project. Please be assured of our sincere desire to cause you as little inconvenience as possible during this survey.

If any problems do occur, please contact Jason Hesler of Certified Engineering, Inc. at (317) 546-1599 or at 3939 Millersville Road, Indianapolis, Indiana 46205. Thank you in advance for your cooperation.

Sincerely,

Certified Engineering, Inc.



Jason R. Hesler, PE, PLS

«Owner»  
«owner\_address»  
«owner\_city\_state\_zip»

RE: Des. No. 1600492  
SR 252 over Branch to Big Cedar Creek Superstructure Replacement

**Notice of Entry for Investigation**  
February 4, 2020

Dear «owner»,

The Indiana Department of Transportation (INDOT) and Federal Highway Administration (FHWA) have a proposed superstructure replacement at SR 252 over Branch to Big Cedar Creek. The project is located 6.19 miles east of US 52 in Franklin County, Indiana.

Our information indicates that you own property near the above proposed transportation project. Representatives of the Indiana Department of Transportation (INDOT) will be conducting environmental surveys of the project area in the near future. It may be necessary for them to enter onto your property to complete this work. This is permitted under Indiana Code § 8-23-7-26. Anyone performing this type of work has been instructed to identify him or herself to you, if you are available, before they enter your property. If you no longer own this property or it is currently occupied by someone else, please let us know the name of the new owner or occupant so that we can contact them about the survey.

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

If any problems do occur, please contact the field crew or contact the INDOT Project Manager, Nicole Carter at 812-524-3970, email: [ncarter@indot.in.gov](mailto:ncarter@indot.in.gov) or Consultant Project Manager, Patrick Duncan at 317-663-8222, email: [jduncan@mbakerintl.com](mailto:jduncan@mbakerintl.com).

Please be aware that Indiana Code § 8-23-7-27 and 28 provides that you may seek compensation from INDOT for damages occurring to your property (land or water) that result from INDOT’s entry for the purposes mentioned above in Indiana Code § 8-23-7-26. In this case, a basic procedure that may be followed is for you and/or an INDOT employee or representative to present an account of the damages to one of the two above named INDOT staff or representative. They will check the information and forward it to the appropriate person at INDOT who will contact you to discuss the situation and compensation.

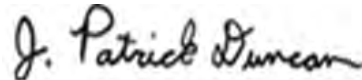
In addition, you may contact Kathy Heistand, INDOT Real Estate Director, at [kheistand@indot.in.gov](mailto:kheistand@indot.in.gov). The Real Estate Director can provide you with a form to request compensation for damages. After filling out the form, you can return it to the Real Estate Director for consideration, and the Real Estate Director may be contacted if you have questions regarding the matter, rights, and procedures.

If you are not satisfied with the compensation that INDOT determines is owed you, Indiana Code § 8-23-7-8 provides the following:

The amount of damages shall be assessed by the county agricultural extension educator of the county in which the land or water is located and two (2) disinterested residents of the county, one (1) appointed by the aggrieved party and one (1) appointed by the department. A written report of the assessment of the damages shall be mailed to the aggrieved party and the department by first class United States mail. If either the department or the aggrieved party is not satisfied with the assessment of damages, either or both may file a petition, not later than fifteen (15) days after receiving the report, in the circuit or superior court of the county in which the land or water is located.

We thank you in advance for your cooperation.

Sincerely,



Patrick Duncan, PE  
Consultant Project Manager

Attachments



# INDIANA DEPARTMENT OF TRANSPORTATION

100 North Senate Avenue  
Room N642  
Indianapolis, Indiana 46204

**Eric J. Holcomb, Governor**  
**Joe McGuinness,**  
**Commissioner**

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

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

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

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

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

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



[www.in.gov/dot/](http://www.in.gov/dot/)  
**An Equal Opportunity Employer**

# Appendix H

## Air Quality

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

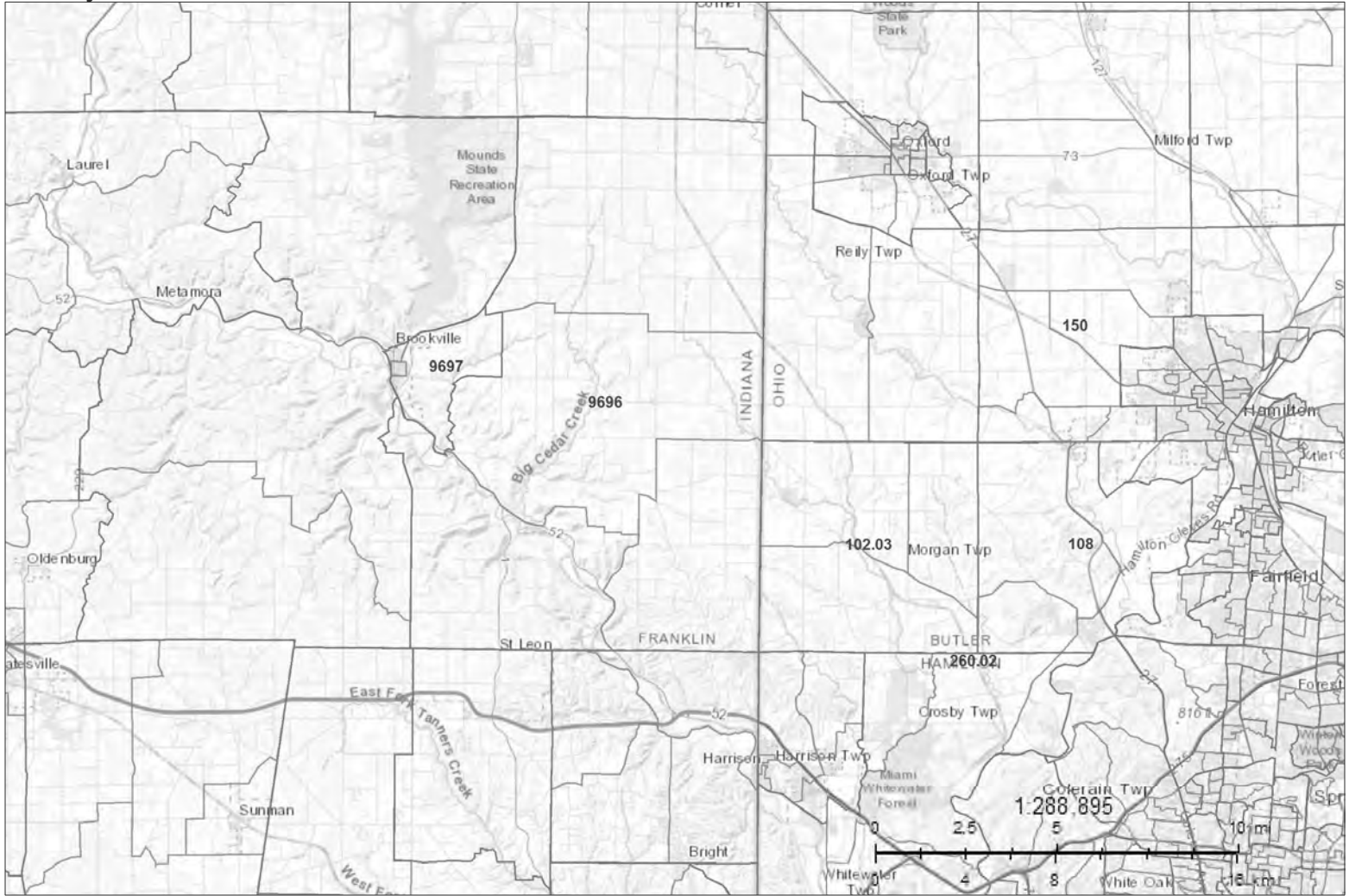
SPONSOR	CONTR ACT # / LEAD DES	STIP NAME	ROUTE	WORK TYPE	LOCATION	DISTRICT	MILES	FEDERAL CATEGORY	Estimated Cost left to Complete Project*	PROGRAM	PHASE	FEDERAL	MATCH	2020	2021	2022	2023	2024
Franklin County	1800899	Init.	IR 1010	HMA Overlay, Preventive Maintenance	St. Mary's Road between Brookville town limits to Levee Road- 1.5 miles	Seymour	1.5	ISTPBG		Group IV Program	CN	\$788,536.00	\$0.00			\$788,536.00		
Franklin County	35242 / 1286897	Init.	SR 46	Bridge Replacement, Concrete	1.22 miles W of SR 229 over Lagniey Creek on SR-46	Seymour	0	ISTPBG		Bridge Construction	CN	\$1,709,506.40	\$427,376.60	\$2,136,883.00				
Franklin County	38175 / 1500205	Init.	VA VARI	Bridge Inspections	Countywide Bridge Inspection and Inventory Program for Cycle Years 2018-2021	Seymour	0	ISTPBG		Local Funds	PE	\$0.00	\$22,875.43	\$2,340.78	\$17,685.71	\$2,848.94		
Franklin County	38820 / 1500020	Init.	US 52	Small Structure Replacement	Over Unnamed Trib to Whitewater River 4.77 miles E of the E SR 1 Junction	Seymour	0	NIHPP		Bridge Construction	CN	\$475,746.40	\$118,936.60	\$594,683.00				
Indiana Department of Transportation	39400 / 1593049	Init.	SR 252	Bridge Deck Replacement	6.03 miles E of US 52, over Big Cedar Creek	Seymour	0	ISTPBG		Bridge Construction	CN	\$1,372,499.20	\$343,124.80		\$1,715,624.00			
Indiana Department of Transportation	39426 / 1593017	Init.	US 52	HMA Overlay, Preventive Maintenance	SR 1 to 174	Seymour	8.881	NIHPP		Road Construction	CN	\$1,629,050.40	\$407,262.60	\$2,036,313.00				
Indiana Department of Transportation	40055 / 1601977	Init.	SR 1	Bridge Painting	0.31 mile S of US 52, over Whitewater River	Seymour	0	NIHPP		Bridge Construction	CN	\$717,330.40	\$79,332.60	\$896,663.00				
Indiana Department of Transportation	40431 / 1700195	Init.	US 52	Slide Correction	0.1 mile S. of SR 252	Seymour	.05	NIHPP		Bridge Consulting	PE	\$64,000.00	\$16,000.00	\$80,000.00				
Indiana Department of Transportation	40432 / 1701378	Init.	SR 1	Bridge Replacement, Concrete	0.12 mile N of SR 101 at Bullers Run	Seymour	0	NIHPP		Road Construction	CN	\$5,094,703.20	\$1,273,675.60		\$6,368,379.00			
Indiana Department of Transportation	40441 / 1602283	Init.	US 52	Small Structure Replacement	At 1.84 miles E of SR 229	Seymour	0	ISTPBG		Road ROW	RW	\$540,000.00	\$135,000.00	\$675,000.00				
Indiana Department of Transportation	40447 / 1602283	Init.	US 52	Small Structure Replacement	At 1.84 miles E of SR 229	Seymour	0	ISTPBG		Bridge Construction	CN	\$2,178,387.20	\$544,596.80	\$2,722,984.00				
Indiana Department of Transportation	40448 / 1602283	Init.	US 52	Small Structure Replacement	At 1.84 miles E of SR 229	Seymour	0	ISTPBG		Bridge Consulting	PE	\$68,800.00	\$17,200.00	\$86,000.00				
Indiana Department of Transportation	40449 / 1602283	Init.	US 52	Small Structure Replacement	At 1.84 miles E of SR 229	Seymour	0	ISTPBG		Bridge ROW	RW	\$32,000.00	\$6,000.00	\$40,000.00				
Indiana Department of Transportation	40450 / 1602283	Init.	US 52	Small Structure Replacement	At 1.84 miles E of SR 229	Seymour	0	ISTPBG		Bridge Construction	CN	\$665,626.60	\$166,381.40	\$831,907.00				
Indiana Department of Transportation	40451 / 1602283	Init.	US 52	Small Structure Replacement	At 1.84 miles E of SR 229	Seymour	0	ISTPBG		Bridge ROW	RW	\$8,000.00	\$2,000.00	\$10,000.00				

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

Appendix I  
Environmental Justice Analysis Documentation



EJ analysis



Legend

Your Selections

No Legend

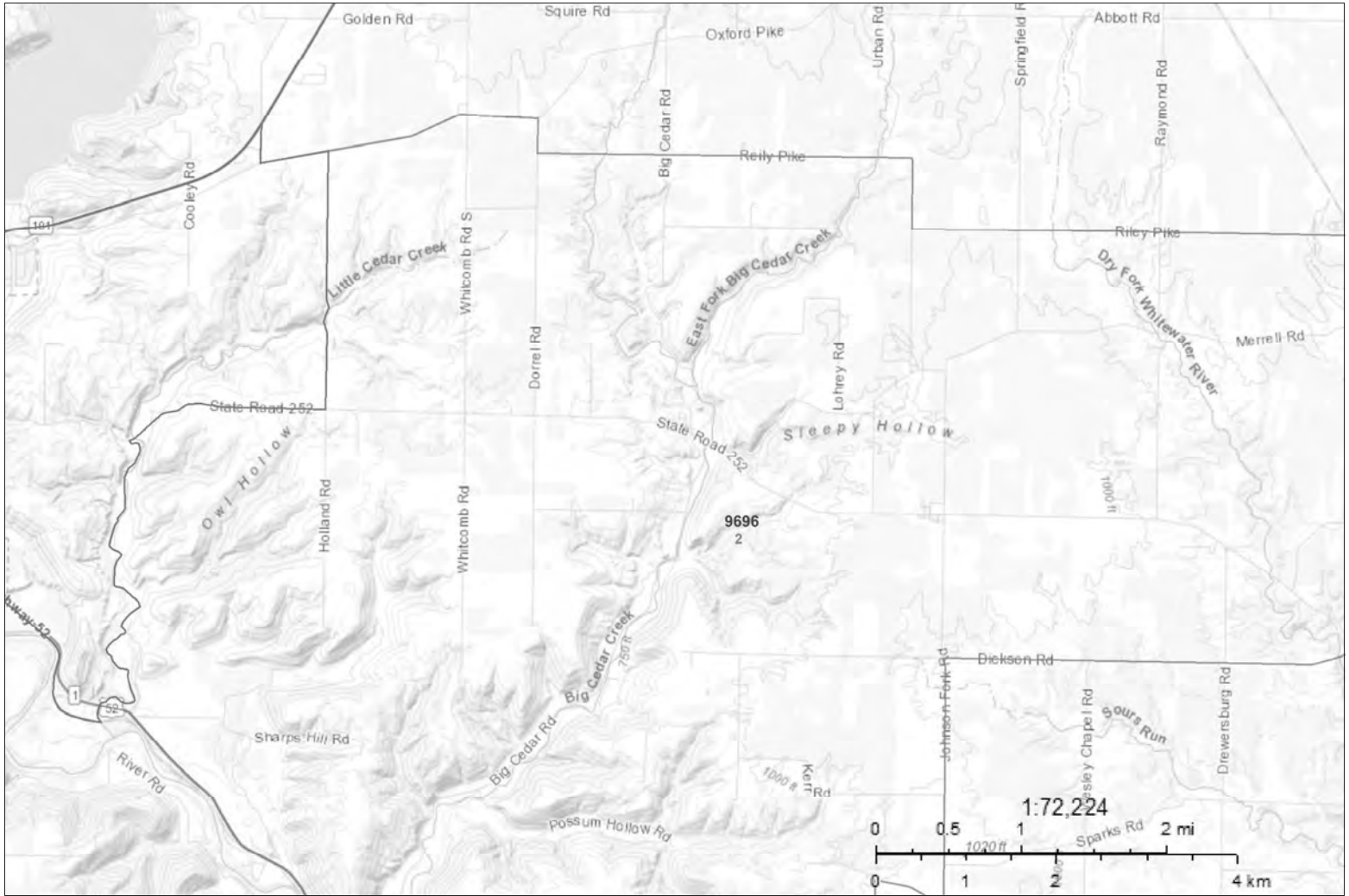
Selection Results

No Legend

2018 Boundaries

- Census Tract
- Block Group





**Legend**

**Your Selections**

No Legend

**Selection Results**

No Legend

**2018 Boundaries**

- Census Tract
- Block Group

B17001: POVERTY STATUS IN THE  
2013-2017 American Community Survey 5-

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

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

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

	Franklin County, Indiana		Census Tract 9696,	
	Estimate	Margin of	Estimate	Margin of
Total:	22,751	+/-35	6,242	+/-406
Income in the past 12 months below	2,248	+/-454	396	+/-194
Male:	924	+/-220	173	+/-106
Under 5 years	51	+/-34	1	+/-2
5 years	47	+/-40	0	+/-16
6 to 11 years	107	+/-79	4	+/-4
12 to 14 years	18	+/-17	1	+/-4
15 years	9	+/-12	7	+/-11
16 and 17 years	33	+/-26	0	+/-16
18 to 24 years	85	+/-49	0	+/-16
25 to 34 years	146	+/-79	48	+/-63
35 to 44 years	49	+/-33	0	+/-16
45 to 54 years	130	+/-58	18	+/-28
55 to 64 years	117	+/-67	36	+/-40
65 to 74 years	23	+/-27	0	+/-16
75 years and over	109	+/-85	58	+/-81
Female:	1,324	+/-282	223	+/-117
Under 5 years	76	+/-52	5	+/-8
5 years	29	+/-36	1	+/-2
6 to 11 years	126	+/-78	8	+/-11
12 to 14 years	56	+/-50	0	+/-16
15 years	11	+/-11	0	+/-16
16 and 17 years	21	+/-28	16	+/-27
18 to 24 years	169	+/-86	0	+/-16
25 to 34 years	258	+/-98	42	+/-53
35 to 44 years	70	+/-45	0	+/-16
45 to 54 years	106	+/-46	21	+/-25
55 to 64 years	121	+/-68	57	+/-55
65 to 74 years	40	+/-26	0	+/-16
75 years and over	241	+/-110	73	+/-96
Income in the past 12 months at or	20,503	+/-451	5,846	+/-444
Male:	10,491	+/-238	3,036	+/-255
Under 5 years	593	+/-34	137	+/-81
5 years	189	+/-120	59	+/-62
6 to 11 years	771	+/-155	309	+/-105
12 to 14 years	568	+/-139	183	+/-86
15 years	195	+/-85	94	+/-76
16 and 17 years	302	+/-83	18	+/-27
18 to 24 years	851	+/-49	225	+/-104
25 to 34 years	1,011	+/-74	343	+/-104

35 to 44 years	1,332	+/-33	341	+/-100
45 to 54 years	1,538	+/-58	349	+/-89
55 to 64 years	1,564	+/-66	533	+/-96
65 to 74 years	1,052	+/-27	343	+/-63
75 years and over	525	+/-85	102	+/-44
Female:	10,012	+/-276	2,810	+/-297
Under 5 years	518	+/-52	171	+/-81
5 years	121	+/-68	8	+/-12
6 to 11 years	748	+/-153	316	+/-115
12 to 14 years	457	+/-155	65	+/-50
15 years	134	+/-72	12	+/-20
16 and 17 years	327	+/-75	51	+/-49
18 to 24 years	710	+/-86	216	+/-102
25 to 34 years	874	+/-94	208	+/-98
35 to 44 years	1,357	+/-69	462	+/-118
45 to 54 years	1,519	+/-46	394	+/-95
55 to 64 years	1,515	+/-70	455	+/-108
65 to 74 years	1,060	+/-59	351	+/-72
75 years and over	672	+/-112	101	+/-54

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

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

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

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

1. An '\*\*\*' entry in the margin of error column indicates that either no sample observations or too few sample observations were available to compute a standard error and thus the margin of error. A statistical test is not appropriate.

2. An '-' entry in the estimate column indicates that either no sample observations or too few sample observations were available to compute an estimate, or a ratio of medians cannot be calculated because one or both of the median estimates falls in the lowest interval or upper interval of an open-ended distribution.

3. An '-' following a median estimate means the median falls in the lowest interval of an open-ended distribution.

4. An '+' following a median estimate means the median falls in the upper interval of an open-ended distribution.

5. An '\*\*\*\*' entry in the margin of error column indicates that the median falls in the lowest interval or upper interval of an open-ended distribution. A statistical test is not appropriate.

6. An '\*\*\*\*\*' entry in the margin of error column indicates that the estimate is controlled. A statistical test for sampling variability is not appropriate.

7. An 'N' entry in the estimate and

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

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

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

	Franklin County, Indiana		Census Tract 9696.		Block Group 1, Census		Block Group 2, Census	
	Estimate	Margin of	Estimate	Margin of	Estimate	Margin of	Estimate	Margin of
Total:	22,835	*****	6,322	+/-405	1,198	+/-301	1,661	+/-225
Not Hispanic or Latino:	22,585	*****	6,186	+/-443	1,198	+/-301	1,655	+/-226
White alone	22,461	+/-78	6,159	+/-450	1,198	+/-301	1,650	+/-226
Black or African American alone	49	+/-46	24	+/-30	0	+/-11	0	+/-11
American Indian and Alaska Native	0	+/-21	0	+/-16	0	+/-11	0	+/-11
Asian alone	63	+/-64	0	+/-16	0	+/-11	5	+/-9
Native Hawaiian and Other Pacific	0	+/-21	0	+/-16	0	+/-11	0	+/-11
Some other race alone	0	+/-21	0	+/-16	0	+/-11	0	+/-11
Two or more races:	12	+/-15	3	+/-5	0	+/-11	0	+/-11
Two races including Some other race	0	+/-21	0	+/-16	0	+/-11	0	+/-11
Two races excluding Some other	12	+/-15	3	+/-5	0	+/-11	0	+/-11
Hispanic or Latino:	250	*****	136	+/-139	0	+/-11	6	+/-10
White alone	139	+/-137	31	+/-50	0	+/-11	0	+/-11
Black or African American alone	0	+/-21	0	+/-16	0	+/-11	0	+/-11
American Indian and Alaska Native	6	+/-10	0	+/-16	0	+/-11	6	+/-10
Asian alone	0	+/-21	0	+/-16	0	+/-11	0	+/-11
Native Hawaiian and Other Pacific	0	+/-21	0	+/-16	0	+/-11	0	+/-11
Some other race alone	35	+/-48	35	+/-48	0	+/-11	0	+/-11
Two or more races:	70	+/-94	70	+/-94	0	+/-11	0	+/-11
Two races including Some other race	70	+/-94	70	+/-94	0	+/-11	0	+/-11
Two races excluding Some other	0	+/-21	0	+/-16	0	+/-11	0	+/-11

Data are based on a sample and are

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

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

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

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

Explanation of Symbols:

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

Appendix J  
Additional Studies



