

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

Road No./County:	State Road (SR) 163 / Vermillion County
Designation Number(s):	1701589
Project Description/Termini:	SR 163 over Brouilletts Creek Bridge Project / from approximately 460 feet west of the center of the bridge to 440 feet east of the center of the bridge.

	Categorical Exclusion, Level 2 – Required Signatories: INDOT DE and/or INDOT ESD
	Categorical Exclusion, Level 3 – Required Signatories: INDOT ESD
X	Categorical Exclusion, Level 4 – Required Signatories: INDOT ESD and FHWA
	Environmental Assessment (EA) – Required Signatories: INDOT ESD and FHWA
	Additional Investigation (AI) – The proposed action included a design change from the original approved environmental document. Required Signatories must include the appropriate environmental approval authority

Approval

_____	_____
INDOT DE Signature and Date	INDOT ESD Signature and Date

FHWA Signature and Date	

Release for Public Involvement

_____	_____
INDOT DE Initials and Date	INDOT ESD Initials and Date

Certification of Public Involvement

INDOT Consultant Services Signature and Date

INDOT DE/ESD Reviewer Signature and Date: _____

Name and Organization of CE/EA Preparer: _____

Jennifer Graf - Parsons Transportation Group

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

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Part I – Public Involvement

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

Does the project have a historic bridge processed under the Historic Bridges PA*?	Yes	No
	<input checked="" type="checkbox"/>	<input type="checkbox"/>
If No, then:		
Opportunity for a Public Hearing Required?	<input type="checkbox"/>	<input type="checkbox"/>

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

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

Notice of Entry letters were mailed to potentially affected property owners near the project area on May 10, 2018, and October 8, 2019, notifying them about the project and that individuals responsible for land surveying and field activities may be seen in the area. Sample copies of the Notice of Entry letters are included in Appendix G-1 to G-4.

A *Public Involvement Plan* (PIP) was prepared by Parsons, and the Indiana Department of Transportation (INDOT) concurred with the plan on January 11, 2022. The purpose of the PIP is to establish goals and strategies for engaging with the public and key stakeholders in accordance with the current INDOT *Project Development Public Involvement Procedures Manual*. A copy of the PIP is included in Appendix G-5 to G-13.

To meet the public involvement requirements of Section 106, a legal notice of the Federal Highway Administration’s (FHWA’s) finding of “No Historic Properties Affected” was published in the *Tribune Star* and *Indianapolis Star* on April 2, 2022, offering the public an opportunity to submit comment pursuant to 36 CFR 800.2(d), 800.3(e), and 800.6(a)(4). The public comment period closed 30 days later on May 2, 2022 and no comments were received from the public. The text of the public notice and the affidavit of publication appear in Appendix D-118 to D-129.

Pursuant to the Historic Bridge Programmatic Agreement (PA), a public hearing is required. A legal notice will appear in a local publication contingent upon the release of this document for public involvement. This document will be revised after the public involvement requirements are fulfilled.

Public Controversy on Environmental Grounds

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

At this time, there is no substantial public controversy concerning impacts to the community or to natural resources. Two local officials have expressed concern about the preferred alternative providing one lane on the bridge instead of two lanes. During the public hearing, and 30-day public comment period, members of the public will have the opportunity to provide their comments about the project. All public comments will be considered and incorporated into this document along with the sponsor’s responses to each comment.

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

Sponsor of the Project: INDOT Local Name of the Facility: SR 163 INDOT District: Crawfordsville

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

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

PURPOSE AND NEED:

Need: The need for the project is due to the deteriorating condition and non-standard lane and shoulder widths of the existing structure, the SR 163 over Brouilletts Creek bridge in Vermillion County, Indiana, INDOT Bridge No. 163-83-01393A (National Bridge Inventory [NBI] No. 28420). This was documented in the project's September 15, 2021, Historical Bridge Alternatives Analysis (HBAA) and Section 106 Effect Finding documentation dated March 8, 2022 (Appendix D-137 and D-3, respectively). The INDOT Structure Inventory & Appraisal (SI&A) condition rating is also provided, where available, for reference. The SI&A ratings are based on FHWA's Recording and Coding Guide for the Structure Inventory and Appraisal of the Nation's Bridges, which established a numerical rating system from 0 (Failed Condition) to 9 (Excellent Condition).

This 175-foot single-span steel truss bridge on vertical abutments was originally constructed from 1932-1933 and rehabilitated in 1979. Recent inspections have found the bridge substructure and foundations to be in poor condition (INDOT SI&A rating 4 out of 9) with cracking wingwalls and advanced spalling. The superstructure was noted to be in fair condition (INDOT SI&A rating 5 out of 9) with rusted members, section loss, and a bent bracing. Additionally, substantial long-term damage to and erosion of the stream bank were noted. The bridge was originally designed with an H20 structural capacity (20-ton truck), but currently has a load rating of H15 (15 tons) (Appendix D-132). Based on guidance from INDOT, as a 2-lane rural collector on the state highway system, the bridge should currently accommodate an HS-15 design vehicle (27 tons). The existing bridge does not meet current design standards for load rating, lane width, and shoulder width. The existing bridge provides two 11-foot lanes with 1-foot shoulders, for a total clear roadway width of 24 feet. INDOT design criteria for 2-lane rural collector roadways that are on the state highway system indicate a minimum 2-foot shoulder is required and based on the approach roadway width (24 feet), the minimum clear roadway width required for two lanes of traffic is 28 feet. Additionally, INDOT requires a minimum clear roadway of 30 feet for a two-lane bridge. These geometric deficiencies have led to numerous vehicle-bridge collisions, resulting in damage to the bridge's railing and end post.

Based on the approved Hydraulic Letter for Bridges dated July 2, 2021, the proposed bridge rehabilitation is scour critical and countermeasures are needed (Appendix I-3 to I-4).

Purpose: The purpose of the project is to maintain a crossing of SR 163 over Brouilletts Creek with an overall condition of at least 7 out of 9 (good condition), provide a minimum HS-15 (27 tons) load rating, and improve the shoulder width to improve safety and protect the bridge. Achieving these goals should extend the remaining life of the structure by a minimum of 30 years.

PROJECT DESCRIPTION (PREFERRED ALTERNATIVE):

County: Vermillion Municipality: N/A

Limits of Proposed Work: Along SR 163 from approximately from 460 feet west of the center of the bridge to 440 feet east of the center of the bridge over Brouilletts Creek.

0.17 Mile Total Work Area: 0.81 Acre

This is page 3 of 29 Project name: SR 163 over Brouilletts Creek Bridge Project Date: October 6, 2022

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Is an Interstate Access Document (IAD)¹ required?
 If yes, when did the FHWA provide a Determination of Engineering and Operational Acceptability?

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

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

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

Location: INDOT, with funding from FHWA, intends to proceed with a bridge project on SR 163 over Brouilletts Creek in Vermillion County, Indiana (Appendix B-1). Specifically, the project is located in the United States Geological Survey (USGS) Topographic Saint Bernice and Clinton Quadrangle Maps, in Sections 10, 11, 14, and 15 of Township 14 North, Range 10 West (Appendix B-2). The closest community is Blanford, Indiana, located approximately 1-mile west of the study area.

Existing Conditions: The project is located in a rural setting along a section of SR 163 that is classified as a Major Rural Collector. This section of SR 163 has two 12-foot wide travel lanes, one in each direction, with 2-foot outside shoulders and guardrail. There are no bicycle or pedestrian facilities along this section of SR 163. The posted speed limit is 55 miles per hour (mph). SR 163 is oriented east to west, and Brouilletts Creek flows northwest to southeast through the project area. Land adjacent to the bridge consists of maintained right-of-way (ROW), forest areas, and row crop fields. County Road (CR) 170 W abuts the northeastern project limits and was included in the initial project study area shown on the exhibits in Appendix B-1 to B-6. This initial study area was selected to cover the range of alternatives developed for the project, which are described in the Other Alternatives Considered section of this document. Existing conditions are shown on the aerial photographs and project photographs in Appendix B-4 to B-8.

The existing bridge, INDOT Bridge No. 163-83-01393 A, is deteriorating, and does not meet current design standards for lane width or shoulder width. This structure is a 175-foot single-span Parker steel through truss bridge on vertical abutments with no skew. This bridge has one 11-foot travel lane in each direction with 1-foot outside shoulders, for a total clear roadway width of 24 feet. It has aluminum barrier rail mounted on steel posts connected to outside stringers and to truss vertical posts. There are no sidewalks on the bridge or approaches.

Preferred Alternative: Rehabilitation for Continued Vehicular Use - One-Way Operation: This project was initiated in 2017 and at that time, a bridge replacement was under consideration for the preferred alternative. Early coordination conducted in 2019 presented a bridge replacement alternative and comments received are provided in Appendix C. See the Early Coordination section of this document. Through the Section 106 process, the bridge was determined eligible for inclusion in the National Register of Historic Places (NRHP) on April 27, 2020. It was determined eligible under Criterion C, as a good example of a Parker through truss designed by the Indiana State Highway Commission (ISHC) and built by the Vincennes Bridge Company. The bridge was also determined to be "Select" per the parameters of the *Indiana Historic Bridge Inventory*. As a result, this project followed the Historic Bridge PA and a HBAA was completed for the project, which identified a new preferred alternative in 2021. Based on the relatively low volume of existing traffic (existing 2020 traffic was 1,803 vehicles per day [vpd] and forecasted 2032 traffic was 2,640 vpd) and the bridge's loading and horizontal clearance consideration, a one-way operation was selected as the preferred alternative.

The preferred alternative will rehabilitate the existing structure to address the structural condition and reduce the roadway to a single lane. The primary elements of the rehabilitation include increasing the load capacity to HS-15 (27-tons), replacing the bridge deck with a narrower deck, replacing all bridge railing, and placing riprap at both abutments. The bridge will have one 11 foot wide travel lane with 4.2 foot wide shoulders and 1.4 foot wide concrete railings. A signal and stop bar will be installed approximately 100 feet from either end of the bridge to maintain bi-directional travel. The SR 163 bridge approaches will have two 11 foot wide travel lanes, 4.5 foot wide shoulders, and guardrails. No work along CR 170 W is proposed. Preliminary plans are provided in Appendix B-9 to B-15. This alternative is Alternative 3 presented in the HBAA (Appendix D-140 to D-143).

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Rehabilitation of the existing bridge will require the use of heavy equipment and possibly the placement of temporary supports as structural members are replaced. This will require clearing and grading to provide access. Due to the need to relocate utilities, tree clearing outside of the proposed construction limits will be conducted under this contract. This area is labeled on the plan set as "Limits of Tree Clearing for Utility Relocation" (Appendix B-12). All disturbed areas will be planted with a standard seed mix following completion of the construction activities.

Per the approved Hydraulic Letter for Bridges dated July 2, 2021, the proposed bridge is scour critical (Appendix I-3 to I-4). Therefore, the placement of Class 1 riprap is proposed at both bridge abutments (Appendix B-13). Class 1 riprap will also be extended upstream of the bridge along the west bank as armoring, where bank erosion is threatening Abutment No. 1.

The proposed project will occur almost entirely within the existing ROW. Approximately 0.36-acre of permanent new ROW will be acquired (Appendix B-11). The proposed maintenance of traffic (MOT) includes a full bridge closure for approximately eight months, and an official detour using SR 163, SR 71, US 36, and SR 63 will be provided (Appendix B-10).

The project will impact approximately 435 linear feet of Brouilletts Creek and its floodway and unnamed tributary (UNT) 1 to Brouilletts Creek, due to the need for scour protection. Additionally, it will impact approximately 1.15 acres of terrestrial habitat, including up to 1.0 acre of trees, which will be cleared to provide access and relocate utilities. All tree clearing will occur within 100 feet of SR 163. Impacts to the historic bridge are being processed under the *Programmatic Agreement Regarding Management and Preservation of Indiana's Historic Bridges* (Historic Bridges PA), see the Cultural Resources section for further discussion.

The preferred alternative will meet the purpose and need of the project by providing a crossing of SR 163 over Brouilletts Creek with an overall condition of at least 7 out of 9 (good condition), providing a minimum HS-15 (27 tons) load rating, and improving the shoulder width to improve safety and protect the bridge. Achieving these goals should extend the remaining life of the structure by a minimum of 30 years.

Logical Termini/Independent Utility: Project limits along SR 163 are from approximately from 460 feet west of the center of the bridge over Brouilletts Creek to 440 feet east of the center of the bridge. These limits are rational end points because they include the areas that will be impacted by the project and connect to the existing infrastructure. This project is a reasonable expenditure even if no additional transportation improvements in the area are made, and it should not restrict consideration of alternatives for other reasonably foreseeable transportation improvements. Therefore, this project meets FHWA criteria for independent utility and logical termini (www.environment.fhwa.dot.gov/legislation/nepa/guidance_project_termini.aspx).

OTHER ALTERNATIVES CONSIDERED:

Four alternatives, including the preferred alternative, described above, were evaluated for this project, which is documented in the HBAA dated September 15, 2021 (Appendix D-130 to D-168). A summary is provided below.

No Build Alternative: This alternative means that no federal funds will be expended and that no action would occur. The bridge would continue to deteriorate, and there would be no impacts to resources, including streams. The no build alternative requires no design or construction; therefore, it is a feasible alternative. However, the no build alternative would not address the deteriorating structure, load capacity, or geometric deficiencies of the SR 163 bridge over Brouilletts Creek. Therefore, the no build alternative does not meet the project's purpose and need, and is not a prudent alternative. This alternative is Alternative 1 presented in the HBAA (Appendix D-138).

Rehabilitation for Continued Vehicle Use – Two-Way Operation: This alternative proposes a major rehabilitation of the existing structure to address the structural condition and would retain two-way traffic (two lanes) on the bridge. The improvements would meet the *Secretary of the Interior's Standards for Rehabilitation*. Structural materials would be replaced using modern steel that replicates the dimensions of the existing members, maintaining the aesthetic and engineering integrity of replaced portions of the truss. Rivets would be replaced with round-headed bolts or bolt caps to retain visual similarity. Rehabilitation of the existing bridge would require the use of heavy equipment and the placement of temporary supports as structural members are replaced. This would require clearing and grading to provide access. This alternative is feasible to engineer, design, and build. It would extend the service life of the bridge

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and provide adequate load capacity. However, shoulder and clear roadway widths would not be improved; in fact, they would be further reduced by the addition of crash-tested rails, potentially exacerbating the existing safety issues. Therefore, this alternative does not meet the project's purpose and need, and is not a prudent alternative. This alternative is Alternative 2 presented in the HBAA (Appendix D-138 to D-140).

Rehabilitation for Continued Vehicular Use – One-Way Pair: This alternative proposes a major rehabilitation of the existing structure to address the structural condition and construction of a new parallel structure to the south. The existing bridge would carry westbound traffic and the new bridge would carry eastbound traffic. The new bridge would be designed to carry two lanes of traffic should the existing bridge need to be taken out of service in the future. This alternative would impact wetlands, streams, forested floodway, likely habitat for protected bat species, and potentially the Spangler Cemetery. The improvements described above would meet the *Secretary of the Interior's Standards for Rehabilitation*. Structural materials would be replaced using modern steel that replicates the dimensions of the existing members, maintaining the aesthetic and engineering integrity of replaced portions of the truss. Rivets would be replaced with round-headed bolts or bolt caps to retain visual similarity. This alternative does meet the project's purpose and need, but construction of a new parallel bridge would have greater environmental impacts compared to the other alternatives. Therefore, this alternative was dismissed. This alternative is Alternative 4 presented in the HBAA (Appendix D-143 to D-145).

The No Build Alternative is not feasible, prudent or practicable because (Mark all that apply)

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

ROADWAY CHARACTER:

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

Name of Roadway: SR 163
 Functional Classification: Major Rural Collector
 Current ADT: 1,969 VPD (2021) Design Year ADT: 1,969 VPD (2041)
 Design Hour Volume (DHV): 167 Truck Percentage (%): 3.4
 Designed Speed (mph): 55 Legal Speed (mph): 55

	Existing	Proposed
Number of Lanes:	2	1
Type of Lanes:	Through	Through
Pavement Width:	26.0 ft.	20.0 ft.
Shoulder Width:	2.0 ft.	4.5 ft.
Median Width:	N/A ft.	N/A ft.
Sidewalk Width:	N/A ft.	N/A ft.

Setting: Urban Suburban Rural
 Topography: Level Rolling Hilly

CR 170 W abuts the northeast project area and was included in the initial study area (Appendix B-1 to B-6). However, under the preferred alternative it is located adjacent to the project area and no work is proposed that directly impacts CR 170 W.

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BRIDGES AND/OR SMALL STRUCTURE(S):

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

Structure/NBI Number(s): 163-83-01393 A / 28420

Sufficiency Rating: 42/100 INDOT Bridge Inspection Report 10/14/21 (Appendix I-5)
(Rating, Source of Information)

	Existing		Proposed	
Bridge/Structure Type:	Steel Truss Bridge		Steel Truss Bridge	
Number of Spans:	1		1	
Weight Restrictions:	15	ton	27	ton
Height Restrictions:	14.8	ft.	14.8	ft.
Curb to Curb Width:	24.0	ft.	19.3	ft.
Outside to Outside Width:	25.0	ft.	22.3	ft.
Shoulder Width:	1	ft.	4.2	ft.

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

INDOT Bridge No. 163-83-01393 A (NBI No. 28420) is a 175-foot single-span Parker steel through truss bridge on vertical abutments that was originally constructed in 1932 and rehabilitated in 1979. This bridge has one 11-foot lane in each direction with 1-foot shoulders on each side, for a total clear roadway width of 24 feet. It has aluminum barrier rail mounted on steel posts connected to outside stringers and to truss vertical posts. There are no sidewalks on the bridge or approaches. This bridge is eligible for the NRHP under Criterion C as a good example of a Parker through truss designed by the ISHC and built by the Vincennes Bridge Company. It is also a "Select" per the parameters of the *Indiana Historic Bridge Inventory*. See the Cultural Resources section for further discussion.

The recommended alternative proposes a major rehabilitation of the existing structure to address the structural condition and reduce the roadway to a single lane. The primary elements of the rehabilitation include increasing the load capacity to HS-15 (27-tons), replacing the 25 foot wide bridge deck wide with a narrower 22.3 foot wide deck, replacing all bridge railing, and placing riprap at both abutments. Typical sections of the existing and proposed bridge dimensions are provided in Appendix B-15. The proposed bridge will have one 11-foot wide travel lane with 4.2-foot wide shoulders on both sides and 1.3-foot wide concrete railings. A signal and stop bar will be installed approximately 100 feet from either end of the bridge to maintain bi-directional travel.

The improvements described above would meet *The Secretary of the Interior's Standards for Rehabilitation*. Structural materials would be replaced using modern steel that replicates the dimensions and look of the existing members, thus maintaining the aesthetic and engineering integrity of replaced portions of the truss. For example, bolts that look like rivets would be used in the rehabilitation.

Per the approved Hydraulic Letter for Bridges dated July 2, 2021, the proposed bridge is scour critical (Appendix I-3 to I-4). Therefore, the placement of Class 1 riprap is proposed at both bridge abutments and along the western bank as armoring to correct the erosion problem (Appendix B-12). This will impact a total of approximately 435 linear feet of Brouillets Creek and UNT 1 to Brouillets Creek, see the Streams, Rivers, Watercourses, and Other Jurisdictional Features section for further discussion.

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MAINTENANCE OF TRAFFIC (MOT) DURING CONSTRUCTION:

	Yes	No
Is a temporary bridge proposed?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Is a temporary roadway proposed?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Will the project involve the use of a detour or require a ramp closure? (describe below)	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Provisions will be made for access by local traffic and so posted.	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Provisions will be made for through-traffic dependent businesses.	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Provisions will be made to accommodate any local special events or festivals.	<input 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"/>
Will the project require a sidewalk, curb ramp, and/or bicycle lane closure? (describe below)	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Provisions will be made for access by pedestrians and/or bicyclist and so posted (describe below).	<input type="checkbox"/>	<input checked="" type="checkbox"/>

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

The MOT for the project will require a full roadway closure for approximately eight months. An official detour using SR 163, SR 71, US 36, and SR 63 will be provided for motorists (Appendix B-10). This detour is approximately 21 miles in length.

Access to drives will be maintained at all times. 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.

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

Early coordination letters were sent to the Vermillion County Sheriff's Department, Vermillion County Commissioners, Vermillion County Surveyor, Vermillion County Highway Clerk, Vermillion County Emergency Management, West Central Indiana Economic Development District, South Vermillion Community School Corporation, Clinton City Police Department, and Black Diamond Fire Department on December 2, 2019 and February 24, 2022, (Appendix C-1 to C-6). No comments regarding the proposed MOT were received.

ESTIMATED PROJECT COST AND SCHEDULE:

Engineering: \$ N/A Right-of-Way*: N/A Construction: \$ 3,603,578 (2025)

Anticipated Start Date of Construction: Summer 2024

Information provided from approved STIP (2022-2026) (Appendix H-1)

*Right-of-Way will be purchased with State Funds.

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RIGHT OF WAY:

Land Use Impacts	Amount (acres)		
	Permanent	Temporary	Reacquisition
Residential	0.0	0.0	0.0
Commercial	0.0	0.0	0.0
Agricultural	0.0	0.0	0.0
Forest	0.36	0.0	1.26
Wetlands	0.0	0.0	0.0
Other:	0.0	0.0	0.0
Other:	0.0	0.0	0.0
TOTAL	0.36	0.0	1.26

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

The existing apparent ROW consists of maintained side slopes and forested floodplain areas adjacent to the bridge and approaches. The existing apparent ROW is approximately 35 to 60 feet wide from the roadway centerline, and ranges from 35 to 75 feet wide from the centerline at the bridge (Appendix B-11).

The project requires approximately 0.36 acre of new permanent ROW. Additionally, approximately 1.26 acres of land will be required as existing apparent ROW. This land is considered apparent ROW because it is already in a transportation use as roadway side slopes. The proposed ROW is shown on the project plans (Appendix B-11). The project does not require any temporary ROW.

The proposed permanent ROW consists of forested floodplain areas adjacent to the bridge and approaches. The proposed new ROW will be approximately 60 to 90 feet wide from the centerline of the roadway and bridge (Appendix B-12).

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

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

SECTION A - EARLY COORDINATION:

Early coordination letters (ECLs) were sent on December 2, 2019 and February 24, 2022 (Appendix C-1 to C-6). When this project was initiated in 2017, a bridge replacement was under consideration, which was reflected in the 2019 ECLs. On April 27, 2020, the bridge was determined eligible for inclusion in the NRHP through the Section 106 process (Appendix D-41 to D-42). Therefore, this project followed the Historic Bridge PA, see the Cultural Resources section for further discussion. Following completion of the HBAA, new early coordination letters were issued in 2022 to reflect the changes in the proposed scope of work.

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<u>Agency</u>	<u>Date Sent</u>	<u>Date Response Received</u>	<u>Appendix</u>
FHWA	12/2/2019 2/24/2022	12/2/2019	C-13 to C-14
Indiana Department of Natural Resources - Division of Fish and Wildlife (IDNR-DFW)	12/2/2019 2/24/2022	1/7/2021 3/25/2022	C-7 to C-12
Indiana Geological and Water Survey (IGWS)*	12/2/2019 2/24/2022	12/2/2019 2/24/2022	C-15 to C-17
Indiana Department of Environmental Management (IDEM)*	12/2/2019 2/24/2022	12/2/2019	N/A
National Park Service	12/2/2019 2/24/2022	No response received	N/A
US Department of Housing and Urban Development	12/2/2019 2/24/2022	No response received	N/A
Natural Resources Conservation Service (NRCS)	12/2/2019 2/24/2022	3/14/2022	C-20 to C-22
US Fish and Wildlife Service (USFWS)	12/2/2019 2/24/2022	12/4/2019	C-23 to C-24
US Army Corps of Engineers (USACE)	12/2/2019 2/24/2022	No response received	N/A
US Coast Guard	2/24/2022	No response received	N/A
INDOT Crawfordsville District Office	12/2/2019 2/24/2022	No response received	N/A
INDOT Public Hearings Manager	12/2/2019	No response received	N/A
INDOT Central Office	2/24/2022	No response received	N/A
Vermillion County Sheriff's Department	2/24/2022	No response received	N/A
Vermillion County Commissioners	12/2/2019 2/24/2022	No response received	N/A
Vermillion County Surveyor	12/2/2019 2/24/2022	3/1/2022	C-18 to C-19
Vermillion County Highway Clerk	12/2/2019 2/24/2022	No response received	N/A
Vermillion County Emergency Management	2/24/2022	No response received	N/A
West Central Indiana Economic Development District	12/2/2019 2/24/2022	No response received	N/A
South Vermillion Community School Corporation	12/2/2019 2/24/2022	No response received	N/A
Clinton City Police Department	2/24/2022	No response received	N/A
Black Diamond Fire Department	2/24/2022	No response received	N/A
Vermillion County Floodplain Administrator	2/24/2022	No response received	N/A

*Electronic coordination (The IDEM electronic-coordination letter was omitted per recent INDOT guidance)

All applicable recommendations from comments received in 2022 for the current preferred alternative are included in the Environmental Commitments section of this CE document.

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SECTION B – ECOLOGICAL RESOURCES:

Streams, Rivers, Watercourses & Other Jurisdictional Features

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

Presence

X

Impacts

Yes	No
X	

Total stream(s) in project area: 2,851 Linear feet Total impacted stream(s): 435 Linear feet

Stream Name	Classification	Total Size in Study Area (linear feet)	Impacted linear feet	Comments (i.e. location, flow direction, likely Water of the US, appendix reference)
Brouilletts Creek	Perennial	427	295	Under SR 163, flows southeast, likely a water of the US (Appendix B-5).
UNT 1 to Brouilletts Creek	Intermittent	733	140	East of Brouilletts Creek and north of SR 163, flows west under CR 170 into Brouilletts Creek, likely a water of the US (Appendix B-5 to B-6).
UNT 2 to Brouilletts Creek	Ephemeral	183	0	East of Brouilletts Creek, north of SR 163, and west of CR 170, flows south into UNT 1, likely a water of the US (Appendix B-5).
UNT 3 to Brouilletts Creek	Intermittent	510	0	East of Brouilletts Creek, north of SR 163, and west of CR 170, flows south into UNT 1, likely a water of the US (Appendix B-5).
UNT 4 to Brouilletts Creek	Ephemeral	241	0	East of CR 170 and north of SR 163, flows northwest into UNT 1, likely a water of the US (Appendix B-6).
UNT 5 to Brouilletts Creek	Ephemeral	757	0	East of Brouilletts Creek and north of SR 163, flows south under SR 163 and west, likely a water of the US (Appendix B-6).

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

Based on the desktop review, the aerial map of the project area (Appendix B-4 to B-6), and the Red Flag Investigation (RFI) report (Appendix E-1 to E-11), there are 12 NWI lines and 17 streams, rivers, watercourses or other jurisdictional features within the 0.5-mile search radius. There are five streams, rivers, watercourses, or other jurisdictional features within or adjacent to the project area. That number was determined to be six by the site visits on October 22 and 25, 2019 by Parsons.

A *Waters of the US (WOTUS) Report* was approved by INDOT Ecology and Waterway Permitting Office (EWPO) on November 27, 2019. Please refer to Appendix F-3 for the *WOTUS Report*. It was determined that there are six likely jurisdictional streams totaling 2,851 linear feet within the study area. The USACE makes all final determinations regarding jurisdiction.

Brouilletts Creek originates north of the study area and flows to the southeast under SR 163, ultimately draining into the Wabash River. Approximately 427 feet of this stream lies within the study area. Brouilletts Creek exhibited an average ordinary high-water mark (OHWM) of 83 feet wide and 36 inches deep within the study area. Brouilletts Creek is listed as impaired for E. coli in IDEM's 303(d) List of Impaired waters (Appendix E-4).

UNT 1 to Brouilletts Creek begins northeast of the study area and flows west, under CR 170 West approximately 95 feet north of its intersection with SR 163. The stream then flows along the north side of SR 163 before discharging into Brouilletts Creek under the SR 163 bridge. Approximately 733 linear feet of UNT 1 to Brouilletts Creek lies within the study area. UNT 1 to Brouilletts Creek exhibited a 7-foot wide and 11-inch deep OHWM within the study area. It is classified as a good-quality intermittent stream.

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UNT 2 to Brouilletts Creek begins north of the study area. It flows south through a row-crop field and forested riparian corridor before discharging into UNT 1 to Brouilletts Creek, approximately 55 feet north of SR 163. Approximately 183 linear feet of UNT 2 to Brouilletts Creek lies within the study area. UNT 2 to Brouilletts Creek exhibited a 2.3-foot wide and 5-inch deep OHWM within the study area. Based on field observations, this stream is likely ephemeral in nature and is classified as a poor-quality stream.

UNT 3 to Brouilletts Creek begins north of the study area and flows south alongside CR 170 West. It discharges into UNT 1 to Brouilletts Creek near the intersection of CR 170 West and SR 163. Approximately 510 linear feet of UNT 3 to Brouilletts Creek lies within the study area. UNT 3 to Brouilletts Creek exhibited a 6.6-foot wide and 5-inch deep OHWM within the study area. It is classified as a poor-quality intermittent stream.

UNT 4 to Brouilletts Creek begins within the study area at the end of a concrete-lined roadside ditch on the north side of SR 163. UNT 4 to Brouilletts Creek flows northwest before discharging into UNT 1 to Brouilletts Creek on the east side of CR 170 West. Approximately 241 linear feet of UNT 4 to Brouilletts Creek lies within the study area. UNT 4 to Brouilletts Creek exhibited a 4-foot wide and 3-inch deep OHWM within the study area. Based on field observations, this stream is likely ephemeral, and it is classified as a poor-quality stream.

UNT 5 to Brouilletts Creek begins northeast of the study area. It flows south under SR 163 approximately 700 feet east of CR 170 West before turning west. Approximately 757 linear feet of UNT 5 to Brouilletts Creek lies within the study area. UNT 5 to Brouilletts Creek exhibited a 2-foot wide and 3-inch deep OHWM within the study area. Based on field observations, this stream is likely ephemeral, and it is classified as a poor-quality stream.

None of the documented streams are listed as a *Federal Wild and Scenic River*, a *State Natural, Scenic and Recreational River*, or on the Indiana Register's listing of *Outstanding Rivers and Streams*, nor are they located within two miles of any such resource. Additionally, Brouilletts Creek is not listed in the *Nationwide Rivers Inventory*, nor is it classified as a navigable waterway.

Non-Jurisdictional Features: Seven roadside ditches (RSD) totaling approximately 5,105 linear feet within the study area were investigated for potential water resources. The RSDs lacked an OHWM and wetland characteristics. Therefore, they were considered to be non-jurisdictional features.

This project will impact approximately 295 linear feet of Brouilletts Creek, and approximately 140 linear feet of UNT 1 to Brouilletts Creek. These impacts will result from the placement of Class 1 riprap for scour protection (Appendix B-12). Impacts to Brouilletts Creek cannot be avoided because it crosses the project area and the proposed bridge is scour critical per the approved Hydraulic Letter for Bridges dated July 2, 2021 (Appendix I-3 to I-4). Therefore, the placement of Class 1 riprap is proposed at both bridge abutments and along the western bank as armoring to correct the erosion problem (Appendix B-13). The project will likely require an IDEM 401 Water Quality and an USACE Section 404 Regional General Permit before impacting resources. An IDNR Construction in a Floodway (CIF) Permit will also be required. Mitigation for stream impacts exceeding 300 linear feet is anticipated. The sections of the UNTs and Brouilletts Creek outside the construction limits will not be impacted and will be labeled "Do Not Disturb" on the plans (Appendix B-12).

The IDNR-DFW's early coordination response discussed the CIF permit requirement and riparian habitat mitigation (Appendix C-7 to C-9). IDNR-DFW stated the new or rehabilitated structures, and any bank stabilization measures, should not create conditions that are less favorable for wildlife habitat. Based on the permit requirements and proposed scour countermeasures, a wildlife passage will be included in the design for permit approvals. Additionally, IDNR-DFW recommended that a mitigation plan be developed for any unavoidable habitat impacts that will occur, and that this plan be submitted with the permit applications.

An early coordination response was received from the Vermillion County Surveyor on March 1, 2022. The Vermillion County Surveyor's response discussed an upcoming project involving UNT 1 to Brouilletts Creek within and upstream of the project area and requested further project details (Appendix C-18). A response was sent to the Vermillion County Surveyor on March 9, 2022, that provided an overview of the proposed stream work. Further coordination with the Vermillion County Surveyor will occur, including providing copies of Stage 3 plans, and Section 401/404 and floodway permits.

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

Open Water Feature(s)	<u>Presence</u>	<u>Impacts</u>	
		Yes	No
Reservoirs	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Lakes	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Farm Ponds	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Retention/Detention Basin	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Storm Water Management Facilities	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Other: _____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Based on the desktop review, the aerial map of the project area (Appendix B-4 to B-6), and the RFI report (Appendix E-1 to E-11) there are 17 open water features within the 0.5-mile search radius. There are no open water features within or adjacent to the project area, which was confirmed by the site visits on October 22 and 25, 2019 by Parsons. Therefore, no impacts are expected.

Responses to early coordination did not contain recommendations applicable to open water features.

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

Total wetland area: 0.17 Acre Total wetland area impacted: 0.00 Acre

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

Wetland No.	Classification	Total Size (Acres)	Impacted Acres	Comments (i.e. location, likely Water of the US, appendix reference)
Wetland 1	Forested	0.036	0.0	Wetland 1 is located within the floodplain of Brouilletts Creek along its western bank, approximately 100 feet north of SR 163. Wetland 1 is likely a water of the US (Appendix B-5).
Wetland 2	Forested	0.075	0.0	Wetland 2 is located within the floodplain of Brouilletts Creek, approximately 40 feet south of SR 163. Wetland 2 is likely a water of the US (Appendix B-5).
Wetland 3	Forested	0.069	0.0	Wetland 3 is located along the western portion of UNT 5 to Brouilletts Creek, approximately 40 feet south of SR 163. Wetland 3 is likely a water of the US (Appendix B-6).

<u>Wetlands (Mark all that apply)</u>	<u>Documentation</u>	<u>ESD Approval Dates</u>
Wetland Determination	<input checked="" type="checkbox"/>	November 27, 2019
Wetland Delineation	<input checked="" type="checkbox"/>	November 27, 2019
USACE Isolated Waters Determination	<input type="checkbox"/>	

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

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

Describe all wetlands identified adjacent or within the project area. Include whether or not impacts (both permanent and temporary)

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will occur to the features identified. Include if features are likely subject to federal or state jurisdiction. Discuss measures to avoid, minimize, and mitigate if impacts will occur.

Based on the desktop review, the aerial map of the project area (Appendix B-4 to B-6), and the RFI report (Appendix E-1 to E-11) there are 28 wetlands within the 0.5-mile search radius. There are two wetlands within or adjacent to the project area. That number was updated to three by site visits on October 22 and 25, 2019 by Parsons.

A *WOTUS Report* was approved by INDOT EWPO on November 27, 2019. Please refer to Appendix F-3 to F-20 for the *WOTUS Report*. It was determined that there are three wetlands within the project area that are likely waters of the US. The USACE makes all final determinations regarding jurisdiction.

Wetland 1 is a forested wetland that is approximately 0.036 acre (60 linear feet) in size. It is located within the floodplain of Brouilletts Creek along its western bank, approximately 100 feet north of SR 163. Wetland 1 is classified as an average quality wetland. Wetland 1 is connected to Brouilletts Creek. Based on this connectivity, Wetland 1 is likely a water of the US.

Wetland 2 is a forested wetland that is approximately 0.075 acre (135 linear feet) in size. It is located within the floodplain of Brouilletts Creek, approximately 40 feet south of SR 163. Wetland 2 is classified as an average quality wetland. Wetland 2 is connected to Brouilletts Creek. Based on this connectivity, Wetland 2 is likely a water of the US.

Wetland 3 is a forested wetland that is approximately 0.069 acre (138 linear feet) in size. It is located along the western portion of UNT 5 to Brouilletts Creek, approximately 40 feet south of SR 163. Wetland 3 is classified as an average quality wetland. Wetland 2 is connected to UNT 5 to Brouilletts Creek. Based on this connectivity, Wetland 3 is likely a water of the US.

All three wetlands are outside of the construction limits and will be avoided by construction. The wetlands are shown on plan sheets with "Do Not Disturb" notes (Appendix B-12). The portions of Wetland 2 within ROW will be signed and demarcated in the field, this is included in the Environmental Commitments section of the document. Therefore, no impacts are expected.

Responses to early coordination did not contain recommendations applicable to wetlands.

	<u>Presence</u>	<u>Impacts</u>	
Terrestrial Habitat	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> NO
Total terrestrial habitat in project area: <u>1.15</u> Acre		<input checked="" type="checkbox"/>	<input type="checkbox"/>
		Total tree clearing: <u>~1.0</u> Acre	

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

Based on a desktop review, site visits on October 22 and 25, 2019 by Parsons, and the aerial map of the project area (Appendix B-4 to B-6), there are maintained grassy ROW and riparian forest habitats within the project area. Corn fields are adjacent to the project area. The tree stratum is dominated by silver maple (*Acer saccharinum*), ash-leaf maple (*Acer negundo*), black walnut (*Juglans nigra*), American elm (*Ulmus americana*), and eastern cottonwood (*Populus deltoides*). The sapling/shrub stratum is dominated by silver maple, green ash (*Fraxinus pennsylvanica*), Amur honeysuckle (*Lonicera maackii*), and common paw paw (*Asimina triloba*). The herbaceous stratum is dominated by Canadian wood-nettle (*Laportea canadensis*), annual ragweed (*Ambrosia artemisiifolia*), poison ivy (*Toxicodendron radicans*), and great ragweed (*Ambrosia trifida*). The woody vine stratum was dominated by Virginia creeper (*Parthenocissus quinquefolia*).

Due to the need to provide a temporary access road for construction and relocate utilities, approximately 1.15 acres of terrestrial habitat will be impacted and total tree clearing will be up to 1.0-acre. Impacts to terrestrial habitat are unavoidable because the trees are located immediately adjacent to the bridge and roadway approaches. Mitigation will be implemented for disturbed riparian habitat at a 1:1 ratio. Additionally, implementation of INDOT Standard Specifications for revegetation of disturbed areas will promote re-establishment of similar ground cover in the areas

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temporarily impacted by construction equipment access. As discussed in the Protected Species section of this document, the Avoidance and Minimizations Measures (AMMs) for this project include Tree Removal AMMs 1, 2, 3, and 4. The proposed mitigation and AMMs are included as firm commitments in the Environmental Commitments section of this document.

IDNR-DFW's response to early coordination discussed mitigation requirements for non-wetland forest removal and recommendations to revegetate all bare and disturbed areas, and to maintain wildlife passage (Appendix C-7 to C-9).

Protected Species

Federally Listed Bats

	Yes	No
Information for Planning and Consultation (IPaC) determination key completed	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Section 7 informal consultation completed (IPaC cannot be completed)	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Section 7 formal consultation Biological Assessment (BA) required	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Determination Received for Listed Bats from USFWS: NE NLAA LAA

Other Species not included in IPaC

	Yes	No
Additional federal species found in project area (based on IPaC species list)	<input type="checkbox"/>	<input checked="" type="checkbox"/>
State species (not bird) found in project area (based upon consultation with IDNR)	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Migratory Birds

	Yes	No
Known usage or presence of birds (i.e. nests)	<input checked="" type="checkbox"/>	<input type="checkbox"/>
State bird species based upon coordination with IDNR	<input type="checkbox"/>	<input checked="" type="checkbox"/>

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

Based on a desktop review and the RFI report (Appendix E-1 to E-11), approved by INDOT SAM on January 25, 2019 and concurred on a re-evaluation on February 8, 2022, the IDNR Vermillion Endangered, Threatened and Rare (ETR) Species List has been checked and is provided at https://www.in.gov/dnr/nature-preserves/files/np_Vermillion.pdf. According to the IDNR-DFW early coordination response letter dated March 25, 2022 (Appendix C-7 to C-9), the Natural Heritage Program's Database has been checked and three mussel species have been documented in Brouillets Creek within 0.5-mile of the project area; round hickorynut (*Obovaria subrotunda*), kidneyshell (*Ptychobranchnus fasciolaris*), and little spectaclecase (*Villosa lienosa*). The IDNR-DFW stated as long as standard erosion control measures are implemented, they do not foresee any impacts to the three mussel species as a result of the project. An INDOT 0.5-mile bat review occurred on February 3, 2022. There are no documented sites within 0.5-mile of the project.

Project information was submitted through the USFWS's Information for Planning and Consultation (IPaC) portal, and an official species list was generated (Appendix C-25 to C-39). The project is within range of the federally endangered Indiana bat (*Myotis sodalis*) and the federally threatened northern long-eared bat (NLEB) (*Myotis septentrionalis*). The Monarch butterfly (*Danaus plexippus*) was listed in IPaC as a candidate species and at this time there is no guidance. The project is not anticipated to significantly impact the Monarch or its habitat. The official species list identified the probable presence of several protected bird species: American golden-plover (*Pluvialis dominica*), bald eagle (*Haliaeetus leucocephalus*), Kentucky warbler (*Oporornis formosus*), red-headed woodpecker (*Melanerpes erythrocephalus*), and wood thrush (*Hylocichla mustelina*). The bald eagle is protected under the Bald and Golden Eagle Act. The project is not expected to impact the bald eagle. The other protected bird species are addressed below.

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. A bridge inspection occurred on October 14, 2021 and no evidence of bats was reported (Appendix C-55 to C-56). An effect determination key was completed on June 30, 2022, and based on the responses provided, the project was found to "Not Likely to Adversely Affect" the Indiana bat and/or the NLEB (Appendix C-40 to C-54). INDOT reviewed and verified the effect finding on June 30, 2022 and requested USFWS's review of the finding. No response was received from USFWS within the 14-day review period; therefore, it was concluded they concur with

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the finding. The AMMs for this project are General AMM 1, Lighting AMMs 1 and 2, and Tree Removal AMMs 1, 2, 3, and 4. AMMs and/or commitments are included as firm commitments in the Environmental Commitments section of this document.

INDOT Bridge No. 163-83-01393 A (NBI No. 28420) along SR 163 over Brouilletts Creek and the project’s surrounding habitat is conducive for use (i.e. nests) by a bird species protected under the Migratory Bird Treaty Act (MBTA). Prior to the start of nesting season (May 1) the structure must be inspected for birds or signs of birds. If birds or signs of birds are found during the inspection avoidance and minimization measures must be implemented prior to the start of and during the nesting season. Nests without eggs or young should be removed prior to construction during the non-nesting season (September 8 – April 30) and during the nesting season if no eggs or young are present. Nests with eggs or young cannot be removed or disturbed during the nesting season (May 1 – September 7). Nests with eggs or young should be screened or buffered from active construction. Details of the required procedures are outlined in the “Potential Migratory Bird on Structure” USP/RSP.

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

Geological and Mineral Resources

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

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

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

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

Based on a desktop review and the Indiana Karst Region map, the project is located outside the designated Indiana Karst Region as outlined in the most current *Protection of Karst Features during Project Development and Construction*. According to the topo map of the project area (Appendix B-2), and the RFI report (Appendix E-1 to E-11) there are no karst features identified within or adjacent to the project area. In their early coordination response on February 24, 2022, IGWS did not indicate that karst features exist in the project area (Appendix C-15 to C-17). Their response noted that the project area has potential mine subsidence issues, a high liquefaction potential, a high potential for bedrock resources, a high potential for sand and gravel resources, a 1% annual chance flood hazard, and that there are documented active mineral resources extraction sites in the area. The response from IGWS has been communicated with the designer on February 24, 2022. No impacts are expected.

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SECTION C – OTHER RESOURCES

Drinking Water Resources

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

Presence

X

Impacts

Yes	No
	X

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

Yes	No
	X

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

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

The Indiana Department of Environmental Management’s Wellhead Proximity Determinator website (<http://www.in.gov/idem/cleanwater/pages/wellhead/>) was accessed on February 9, 2022, by Parsons. This project is not located within a Wellhead Protection Area or Source Water Area. No impacts are expected.

The IDNR Water Well Record Database website (<https://www.in.gov/dnr/water/3595.htm>) was accessed on February 9, 2022, by Parsons. No wells are located near this project. Therefore, no impacts are expected.

Based on a desktop review of <https://entapps.indot.in.gov/MS4/> by Parsons on February 18, 2022, this project is not located in an Urban Area Boundary. No impacts are expected.

Based on a desktop review, site visits on October 22 and 25, 2019 by Parsons, and the aerial map of the project area (Appendix B-4 to B-6), this project is located where there is a public water system. A water line is located underground approximately 15 feet north of SR 163 and crosses under Brouilletts Creek. Coordination with utility companies to identify potential conflicts and relocations has been initiated. The water line will be relocated to the north by the utility company outside of the construction limits. There will be no disruption in service during the water line relocation. Utility coordination will continue through the duration of the project. Therefore, no impacts are expected.

Floodplains

- Project located within a regulated floodplain
- Longitudinal encroachment
- Transverse encroachment
- Homes located in floodplain within 1000’ up/downstream from project

Presence

X
X

Impacts

Yes	No
X	
X	

If applicable, indicate the Floodplain Level?

Level 1 Level 2 Level 3 Level 4 Level 5

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

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Based on a desktop review of IDNR Indiana Floodway Information Portal website (<http://dnrmaps.dnr.in.gov/appsphp/fdms/>) by Parsons on February 9, 2022, and the RFI report, this project is located in a regulatory floodplain and floodway as determined from approved IDNR floodplain maps (Appendix F-1). An early coordination letter was sent on February 24, 2022, to the local Floodplain Administrator. The floodplain administrator did not respond within the 30-day time frame. This project qualifies as a Category 3 per the current INDOT CE Manual, which states:

The modifications to drainage structures included in this project will result in an insubstantial change in their capacity to carry flood water. This change could cause a minimal increase in flood heights and flood limits. These minimal increases will not result in any substantial adverse impacts on the natural and beneficial floodplain values; they will not result in substantial change in flood risks or damage; and they do not have substantial potential for interruption or termination of emergency service or emergency routes; therefore, it has been determined that this encroachment is not substantial.

An IDNR CIF Permit will be required. IDNR-DFW's response to early coordination discussed this permit requirement (Appendix C-7 to C-9).

Farmland	<u>Presence</u>	<u>Impacts</u>	
		<u>Yes</u>	<u>No</u>
Agricultural Lands	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Prime Farmland (per NRCS)	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Total Points (from Section VII of CPA-106/AD-1006*)	<u>102</u>		
<i>*If 160 or greater, see CE Manual for guidance.</i>			

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

Based on a desktop review, a site visit on October 22 and 25, 2019 by Parsons, and the aerial map of the project area (Appendix B-4 to B-6), the project will convert 0.32-acre of farmland as defined by the Farmland Protection Policy Act. An early coordination letter was sent on February 24, 2022, to NRCS. Coordination with NRCS resulted in a score of 102 on the Farmland Conversion Impact Rating form AD-1006 (Appendix C-22). NRCS's threshold score for significant impacts to farmland that result in the consideration of alternatives is 160. Since this project score is less than the threshold, no significant loss of prime, unique, statewide, or local important farmland will result from this project. No alternatives other than those previously discussed in this document will be investigated without reevaluating impacts to prime farmland.

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SECTION D – CULTURAL RESOURCES

Minor Projects PA	Category(ies) and Type(s)	INDOT Approval Date(s)	N/A
	<input type="text"/>	<input type="text"/>	<input type="text"/>
Full 106 Effect Finding			
No Historic Properties Affected	<input checked="" type="checkbox"/>	No Adverse Effect	<input type="checkbox"/>
		Adverse Effect	<input type="checkbox"/>
Eligible and/or Listed Resources Present			
NRHP Building/Site/District(s)	<input type="checkbox"/>	Archaeology	<input type="checkbox"/>
		NRHP Bridge(s)	<input checked="" type="checkbox"/>
Documentation Prepared (mark all that apply)			
APE, Eligibility and Effect Determination	<input checked="" type="checkbox"/>	ESD Approval Date(s)	SHPO Approval Date(s)
800.11 Documentation	<input checked="" type="checkbox"/>	March 23, 2020	April 27, 2020
Historic Properties Short Report	<input checked="" type="checkbox"/>	March 28, 2022	April 14, 2022
Historic Properties Short Report Addendum	<input checked="" type="checkbox"/>	March 23, 2020	April 27, 2020
Archaeological Records Check and Assessment	<input type="checkbox"/>	December 31, 2020	January 21, 2021
Archaeological Phase Ia Survey Report	<input checked="" type="checkbox"/>		
Archaeological Phase Ic Survey Report	<input type="checkbox"/>	January 19, 2022	February 21, 2022
Other: Historic Bridge Alternatives Analysis	<input checked="" type="checkbox"/>		
Other: Historic Bridge "Select"/Non-"Select" Analysis	<input checked="" type="checkbox"/>	October 4, 2021	November 22, 2021
Other: Reclassification Memo	<input checked="" type="checkbox"/>	May 20, 2020 and January 7, 2021	January 21, 2021
Other: Photographic Documentation	<input checked="" type="checkbox"/>	January 27, 2022	February 21, 2022
		June 9, 2022	June 20, 2022
Memorandum of Agreement (MOA)	<input type="text"/>	MOA Signature Dates (List all signatories)	
		<input type="text"/>	

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

This project is following the Project Development Process (PDP) of the Historic Bridges PA. INDOT Bridge No. 163-83-01393 A is a "Select" bridge and FHWA will satisfy its Section 106 responsibilities involving "Select" and "Non-Select" bridges by following this PDP. A copy of the Historic Bridges PA can be downloaded here: <http://www.in.gov/indot/2530.htm>.

Area of Potential Effect (APE): The APE for this project was drawn to include the land that might be physically and visually impacted by the project. Visibility is low on the north, south, and east sides of the bridge due to dense tree lines and the curve of the roadway as it approaches the bridge from the east. The APE expands further on the west side of the bridge due to clearer views across agricultural fields. The APE includes in its entirety, the archaeological survey area encompassing approximately 3.11 acres of all existing and proposed ROW required for the undertaking. A map of the APE is provided in Appendix D-13 to D-15.

Coordination with Consulting Parties: A Section 106 early coordination letter was distributed on December 19, 2019, inviting the following organizations to be consulting parties for the project (Appendix D-34 to D-35). Responses accepting the invitation to participate in the Section 106 process for this project were received from the SHPO, Indiana Landmarks Western Regional Office, Historic Bridges Task Force, HistoricBridges.org, and Miami Tribe of Oklahoma. No other responses were received within the 30-day response period. As described in the narrative following the table, others joined consultation later in the process.

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Invited Organization	Reply	Date Response Received
SHPO	Yes	January 6, 2020
Vermillion County Commissioners	No response received	
Vermillion County Historian	No response received	
Vermillion County Highway Department	No response received	
Vermillion County Historical Society	No response received	
Indiana Landmarks Western Regional Office	Yes	January 20, 2020
James Cooper, Bridge Historian	No response received	
Historic Spans Task Force	Yes	August 5, 2020
Historic Hoosier Bridges	Yes	December 1, 2021
Historicbridges.org	Yes	July 29, 2020
Historic Bridge Foundation	No response received	
West Central Indiana Economic Development District, Inc.	No response received	
Eastern Shawnee Tribe of Oklahoma	Yes	December 30, 2021
Miami Tribe of Oklahoma	Yes	January 7, 2020
Peoria Tribe of Indians of Oklahoma	No response received	
Pokagon Band of Potawatomi Indians	No response received	
Delaware Tribe of Indians, Oklahoma	No response received	
Forest County Potawatomi Community	No response received	

In their responses, the SHPO stated that they were not aware of any other consulting parties to invite; Indiana Landmarks stated the NRHP eligibility of the bridge should be reevaluated and recommended rehabilitation in place for continued vehicular use; and the Miami Tribe of Oklahoma offered no objection to the project, and they are not currently aware of existing documentation directly linking a specific Miami cultural or historic site to the project site.

Archaeology: The archaeologists at ASC Group, Inc., who meet the Secretary of the Interior's Professional Qualification Standards as per CFR Part 61, completed a Phase Ia archaeological records check and reconnaissance survey for the project. The archaeological records check was conducted on November 20, 2019 and November 24, 2021. The field survey was conducted on November 26, 2019 and no sites were discovered within the project area. The records check identified the Spangler Cemetery located to the east of the survey area. This cemetery has a date range of 1811 to the present and is assigned Indiana Historic Sites and Structures Inventory number 165-120-25012. Construction limits for the preferred alternative do not extend east of CR 170 W, which is approximately 800 feet from the cemetery. Information from the investigations was presented in an Archaeological Short Report (ASR) dated December 14, 2021 and the project was recommended to proceed as planned (Appendix D-27). The ASR was submitted to INDOT-CRO December 9, 2021 and approved on January 19, 2022. The ASR was distributed to the consulting parties on January 24, 2022 and to Tribes on January 26, 2022.

The Eastern Shawnee Tribe of Oklahoma responded on January 27, 2022, indicating the proposed project would have no adverse effect or endangerment to known sites of interest to the tribe (Appendix D-90). The SHPO responded on February 21, 2022, agreeing with the conclusions of the archaeological report and that no further archaeological investigations appear necessary at the proposed project area (Appendix D-91 to D-93). The SHPO also noted that portions of the proposed project area appear to lie immediately adjacent to Spangler Cemetery and if ground disturbing activities will be within 100 feet of this cemetery, a cemetery development plan will be required. The Eastern Shawnee Tribe of Oklahoma responded again on March 3, 2022, reiterating previous comments expressed about the project (Appendix D-94).

Historic Properties: In 2009, the Indiana Historic Bridge Inventory determined Bridge No. 163-83-01393A was not eligible for listing in the NRHP under any criteria. The bridge was re-evaluated for this project in order to see if the determination from the Indiana Historic Bridge Inventory held true with the passage of time. A Historic Property Short Report (HPSR) dated March 23, 2020 was prepared by INDOT (Appendix D-22 to D-26). The report recommended that SR 163 over Brouilletts Creek Bridge (Structure No. 163-83-01393 A) is eligible for listing in the NRHP under Criterion C for its engineering significance, as a rare example of its type within its region and as an example of a structure built

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by a significant Indiana firm, the Vincennes Bridge Company. The consulting parties were notified on April 2, 2020 that that HPSR was available in INDOT's public Section 106 Consultation and Outreach portal, IN SCOPE, for review and comment. The SHPO concurred with the eligibility recommendation in correspondence dated April 27, 2020 (Appendix D-41 to D-42). No other consulting parties provided comments on the HPSR.

A Historic Bridge "Select"/"Non-Select" Analysis dated May 20, 2020 was prepared, which recommended the bridge as "Non-Select". The analysis concluded that based on Bridge No. 163-83-01393A being assigned a "Low" Eligibility score of 3 in the HPSR, and a "Medium" Condition score of 37, the bridge was determined to be "Non-Select". On May 26, 2020, the report was distributed to all originally invited consulting parties in order to request a dual review of the project per 312 IAC 20-4-11.5. The SHPO disagreed with the "Non-Select" recommendation and requested the eligibility score be reevaluated in a letter dated June 22, 2020 (Appendix D-48 to D-50). The SHPO contacted the consulting parties requesting their comments on the Historic Bridge "Select"/"Non-Select" Analysis. A representative of HistoricBridges.org responded on July 29, 2020, agreeing with SHPO and requesting to become a consulting party on the project. A representative of the Historic Spans Task Force responded on August 5, 2020, requesting further discussion on the bridge integrity issue and to become a consulting party on the project. No other responses were received on the Historic Bridge "Select"/"Non-Select" Analysis.

As a result of the consulting parties' comments, INDOT reexamined the NRHP eligibility assessment for the bridge and prepared an HPSR addendum dated December 31, 2020. The HPSR addendum assigned 5 points to Bridge No. 163-83-01393A as its Eligibility score, which is "Medium". Subsequently, a revised Historic Bridge "Select"/"Non-Select" Analysis was prepared dated January 7, 2021, which recommended the bridge as "Select". This recommendation was based on the revised Eligibility score of "Medium" and a "Medium" Condition score. The HPSR addendum and updated Historic Bridge "Select"/"Non-Select" Analysis were distributed to consulting parties on January 8, 2021. In a letter dated January 21, 2021, SHPO concurred with the conclusions of the revised reports and the ultimate determination that the bridge is "Select" (Appendix D-60). No other responses were received on the revised Historic Bridge "Select"/"Non-Select" Analysis.

In accordance with the Historic Bridges PA, the HBAA dated September 15, 2021, was prepared for the project (Appendix D-130 to D-168). To aid in the examination of alternatives to be included in the HBAA, INDOT on March 22, 2021, invited consulting parties to a meeting to discuss viable options that should be examined in the HBAA document (Appendix D-64 to D-67). A virtual meeting was held on April 7, 2021, and a meeting summary was distributed on April 13, 2021 (Appendix D-96 to D-100). Four alternatives were evaluated in detail in the HBAA and Alternative 3- Rehabilitation for Continued Vehicular Use-One-Way Operation was identified as the preferred alternative (Appendix D-76 to D-78). The three alternatives dismissed from further consideration are discussed in the Other Alternatives section of this document. The HBAA was provided to consulting parties on November 1, 2021, for review and comment (Appendix D-73 to D-75). The SHPO provided comments in a letter dated November 22, 2021, which support the recommendation of Alternative 3 as the preferred alternative (Appendix D-76 to D-78). The SHPO requested photo documentation of the bridge and that it be sent to their office and a local not-for-profit organization that is willing to accept it (Appendix D-77). No other comments were received on the HBAA.

On November 29, 2021, following the process outlined in Stipulation II.C. of the Historic Bridge PA, INDOT sent notification of the request to re-classify the bridge to a NRHP eligible "Select" Bridge to the Task Group and consulting parties (Appendix D-79 and D-80). A public notice was published in two newspapers on December 3, 2021, the *Terre Haute Tribune Star* and the *Indianapolis Star* (Appendix D-118 to D-129). The notice requested comments by the close of business on January 3, 2022. A representative of Historic Hoosier Bridges provided comments in an email dated December 1, 2021, in which he thanked INDOT for the work to reclassify the bridge given that "the remaining pool of state highway design Parker trusses are especially vulnerable" (Appendix D-81). The Eastern Shawnee Tribe of Oklahoma responded on December 30, 2021, indicating the proposed project would have no adverse effect or endangerment to known sites of interest to the tribe (Appendix D-82). No other comments were received on the request to re-classify the bridge. The SHPO provide comments in support of the bridge reclassification in earlier correspondence dated January 21, 2020 (Appendix D-60 to D-62).

The reclassification memo was signed by INDOT on January 27, 2022, by SHPO on February 21, 2022, and by FHWA on February 24, 2022, finalizing Bridge 163-83-01393 A's reclassification as a "Select" Bridge. A copy of the memo is in Appendix D-115 to D-117.

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INDOT prepared photographic documentation of INDOT Bridge No. 163-83-01393 A and submitted it to SHPO on June 9, 2022 (Appendix D-173 to D-185). The SHPO approved the photographic documentation of INDOT Bridge No. 163-83-01393 A in a letter dated June 20, 2022 (Appendix D-186 and D-187). The SHPO stated that the photographic documentation of INDOT Bridge No. 163-83-01393 A will be added to the State Historic Architectural and Archaeological Database (SHAARD) and a copy submitted to the Indiana State Archives. This documentation was also submitted to the Clinton Public Library on June 24, 2022, which is a local not-for-profit organization (Appendix D-188).

Documentation Findings: The “No Historic Properties Affected” finding and supporting 800.11(e) documentation was prepared by INDOT CRO and submitted to SHPO and other consulting parties for a 30-day review on March 28, 2022. The SHPO concurred with the finding of “No Historic Properties Affected” in correspondence dated April 14, 2022 (Appendix D-169 and D-170). The SHPO also noted that after receiving the 30%, 60%, and 90% final bridge plans for this rehabilitation, they will decide whether it is appropriate to issue a Director’s Letter of Clearance for this project, indicating compliance with Indiana Code 14-21-1-18. The Eastern Shawnee Tribe of Oklahoma responded on March 31, 2022, indicating the proposed project would have no adverse effect or endangerment to known sites of interest to the Tribe. A representative of Historic Hoosier Bridges replied on March 31, 2022, that he applauds the effort to reclassify the bridge to “Select” category and to elevate its NRHP status (Appendix D-172).

Per Attachment B of the Historic Bridges PA, three plan reviews are required to be submitted to SHPO and consulting parties for a 30-day comment period, 30% plans, 60% plans, and final plans for this project before ready for contracts (RFC). Pursuant to Section 11.5(f) of the rule governing dual review, at the conclusion of the SHPO’s review of the final plans, it is anticipated that the Division of Historic Preservation and Archaeology’s (DHPA) Division Director would issue a letter of clearance exempting this project from obtaining a Certificate of Approval under IC 14-21-1-18. The plan reviews have not been completed and the letter has not been issued. They are included in the Environmental Commitments section of this CE document.

Public Involvement: To meet the public involvement requirements of Section 106, a legal notice of FHWA’s finding of “No Historic Properties Affected” was published in the *Terre Haute Tribune Star* and the *Indianapolis Star* on April 2, 2022, offering the public an opportunity to submit comment pursuant to 36 CFR 800.2(d), 800.3(e), and 800.6(a)(4). The public comment period closed 30 days later on May 2, 2022 and no comments were received from the public. The text of the public notice and the affidavit of publication appear in Appendix D-118 to D-129.

Pursuant to the Historic Bridge PA, a public hearing is required. A legal notice will appear in a local publication contingent upon the release of this document for public involvement. All originally invited consulting parties will be notified of the public hearing. This document will be revised after the public involvement requirements are fulfilled.

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

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

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Evaluations Prepared

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

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

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

Based on a desktop review, the aerial map of the project area (Appendix B-4 to B-6), Section 106 Documentation (Appendix D) and the RFI report (Appendix E-1 to E-11), there is one potential Section 4(f) resource located within the 0.5-mile search radius. According to additional research, Section 106 Documentation, and by the site visits on October 22 and 25, 2019, by Parsons, there is one Section 4(f) resource located within or adjacent to the project area, the historic INDOT Bridge No. 163-83-01393 A (NBI No. 28420), on SR 163 over Brouilletts Creek. This bridge is currently used for transportation purposes. The preferred alternative will provide a major rehabilitation of the bridge to address the structural condition and reduce the roadway to a single lane without affecting the historic integrity of the bridge. A proposed action will "use" a bridge that is on or eligible for inclusion on the NRHP when the action will impair the historic integrity of the bridge either by rehabilitation or demolition. Rehabilitation that does not impair the historic integrity of the bridge, as determined by procedures implementing Section 106, is not subject to Section 4(f). Therefore, there will be no use of Section 4(f) resources.

Section 6(f) Involvement

Presence

Use

Section 6(f) Property

Yes

No

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

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

A review of Section 6(f) properties on the INDOT ESD website revealed a total of four properties in Vermillion County (Appendix I-1). None of these properties are located within or adjacent to the project area. Therefore, there will be no impacts to Section 6(f) resources.

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SECTION F – Air Quality

STIP/TIP and Conformity Status of the Project

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

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

Location in STIP: FY 2022-2026 INDOT STIP Initial (Appendix H-1)

Name of MPO (if applicable): _____

Location in TIP (if applicable): _____

Level of MSAT Analysis required?

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

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

This project is included in the Fiscal Year (FY) 2022-2026 Statewide Transportation Improvement Program (STIP) (Appendix H-1).

This project is located in Vermillion County, which is currently in attainment for all criteria pollutants according to https://www.in.gov/idem/airquality/files/nonattainment_county_list.pdf. 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 G - NOISE

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

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

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

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

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SECTION H – COMMUNITY IMPACTS

Regional, Community & Neighborhood Factors

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

Yes	No
X	
	X
	X
	X
X	

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

This project will reduce the current two-lane bridge to a single lane. Based on the traffic analyses, there is relatively low-volume existing (2021) traffic (1,969 vpd) and the same forecasted traffic (1,969 vpd in 2041) provides the opportunity to adequately serve future demand via a single travel lane (Appendix D-141). Therefore, the lane reduction and added traffic lights should not significantly impact travel times or local/regional development patterns for the area. There are no residences or businesses within the project area. The proposed project is not expected to impact the surrounding community or cause economic impacts to the surrounding area. The project is not anticipated to result in substantial impacts to community cohesion because it will not change access to properties within the area or divide existing communities. Therefore, the project will have no negative impacts to the community or local economy.

The Indianafestivals.org website was accessed on June 7, 2022 by Parsons. There are no festivals in Vermillion County that will be affected by the project.

Vermillion County has an approved Americans with Disabilities Act (ADA) Transition Plan. However, there are no pedestrian facilities located within the project area and no pedestrian facilities are proposed for the project. Pedestrian access is not part of the purpose or need of the project; therefore, the Vermillion County ADA Transition Plan is not applicable to this project.

Public Facilities and Services

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

Based on a desktop review, the aerial map of the project area (Appendix B-4 to B-6), and the RFI report (Appendix E-1 to E-11), there are six cemeteries located within the 0.5-mile of the project. There is one cemetery adjacent to the study area. That number was confirmed by the site visits on October 22 and 25, 2019 by Parsons. Spangler Cemetery is adjacent to the east end of the study area. Construction limits for the project do not extend east of County Road 170, which is approximately 800 feet from the cemetery. Therefore, no impacts are expected. Access to all properties will be maintained during construction.

Utilities in the project area include electric lines, water lines, and gas lines located along the north side of SR 163. Telephone utility conduits are located along the south side of SR 163. Coordination with utility companies to identify potential conflicts and relocations has been initiated and will continue through the duration of the project (Appendix I-2). The utilities will be relocated outside of the construction limits and up to 1.0-acre of trees will be cleared to provide access and relocate these utilities. There will not be any disruption to service during the relocations.

Early coordination letters were sent to the Vermillion County Sheriff's Department, Vermillion County Commissioners, Vermillion County Surveyor, Vermillion County Highway Clerk, Vermillion County Emergency Management, West Central Indiana Economic Development District, South Vermillion Community School Corporation, Clinton City Police Department, and Black Diamond Fire Department on December 2, 2019 and February 24, 2022, (Appendix C-1 to C-6). One response was received from the Vermillion County Surveyor on March 1, 2022; no other agencies provided

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comments. The Vermillion County Surveyor's response discussed an upcoming project involving UNT 1 to Brouilletts Creek within and upstream of the project area and requested further project details (Appendix C-18). A response was sent to the Vermillion County Surveyor on March 9, 2022 that provided an overview of the proposed stream work. Further coordination with the Vermillion County Surveyor will occur before RFC, including providing copies of Stage 3 plans, and Section 401/404 and floodway permits.

The project may pose a temporary inconvenience to traveling motorists (including school buses and emergency services) during construction due to the proposed road closure and detour route; however, no significant delays are anticipated and the road closure will cease upon project completion. The project will reduce the number of travel lanes on the bridge from two to one. The bridge will have one 11-foot wide travel lane, 4.2-foot wide shoulders, and 1.4-foot wide concrete railings. A signal and stop bar will be installed approximately 100 feet from either end of the bridge to maintain bi-directional travel. This lane reduction may pose a minor inconvenience to motorists, but it will provide safer travel conditions.

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

Does the project require an EJ analysis?

If YES, then:

Are any EJ populations located within the project area?

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

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

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

Under FHWA Order 6640.23A, FHWA and the project sponsor, as a recipient of funding from FHWA, are responsible to ensure that their programs, policies, and activities do not have a disproportionately high and adverse effect on minority or low-income populations. This project will have no relocations and will require less than 0.5 acre of additional permanent right-of-way; therefore, an EJ analysis is not required per the current INDOT *Categorical Exclusion Manual*.

Relocation of People, Businesses or Farms

Will the proposed action result in the relocation of people, businesses or farms?

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

Is a BIS or CSRS required?

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

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

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

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SECTION I – HAZARDOUS MATERIALS & REGULATED SUBSTANCES

Hazardous Materials & Regulated Substances (Mark all that apply)

Documentation

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

Date RFI concurrence by INDOT SAM (if applicable): January 25, 2019

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

Based on a review of GIS and available public records, the RFI was completed on January 25, 2019, by Parsons and INDOT SAM provided their concurrence on January 25, 2019 (Appendix E-1 to E-11). Additionally, INDOT Site Assessment and Management (SAM) concurred with the re-evaluation of the approved RFI on February 8, 2022. There are two solid waste landfills located within 0.5-mile of the project area. There is one National Pollutant Discharge Elimination System (NPDES) facility located within 0.5-mile of the project area. None of the hazmat sites identified will impact the project. Further investigation for hazardous material concerns is not required at this time.

Part IV – Permits and Commitments

PERMITS CHECKLIST

Permits (mark all that apply)

Likely Required

Army Corps of Engineers (404/Section10 Permit)

Nationwide Permit (NWP)	<input checked="" type="checkbox"/>
Regional General Permit (RGP)	<input type="checkbox"/>
Individual Permit (IP)	<input type="checkbox"/>
Other	<input type="checkbox"/>

IN Department of Environmental Management (401/Rule 5)

Nationwide Permit (NWP)	<input type="checkbox"/>
Regional General Permit (RGP)	<input checked="" type="checkbox"/>
Individual Permit (IP)	<input type="checkbox"/>
Isolated Wetlands	<input type="checkbox"/>
Rule 5	<input type="checkbox"/>
Other	<input type="checkbox"/>

IN Department of Natural Resources

Construction in a Floodway	<input checked="" type="checkbox"/>
Navigable Waterway Permit	<input type="checkbox"/>
Other	<input type="checkbox"/>

Mitigation Required

US Coast Guard Section 9 Bridge Permit	<input checked="" type="checkbox"/>
Others (Please discuss in the discussion below)	<input type="checkbox"/>

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

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An IDEM 401 Water Quality and an USACE Section 404 Regional General Permit will be required for permanent and temporary impacts to Brouilletts Creek and UNT 1 to Brouilletts Creek.

An IDNR CIF Permit will be required. IDNR-DFW's response to early coordination discussed this permit requirement (Appendix C-7 to C-9).

This project is anticipated to disturb more than 1.0-acre of land; therefore, an IDEM Construction Stormwater General Permit is required. No other permits are required.

Riparian habitat mitigation is anticipated at a 1:1 ratio. IDNR-DFW's response to early coordination discussed mitigation requirements for non-wetland forest (Appendix C-7 to C-9).

Applicable recommendations provided by resource agencies are included in the Environmental Commitments section of this document. The conditions of the permits will be requirements of the project and will supersede these recommendations.

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

ENVIRONMENTAL COMMITMENTS

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

Firm:

- 1) If the scope of work or permanent or temporary right-of-way amounts change, the INDOT Environmental Services Division (ESD) and the INDOT District Environmental Section will be contacted immediately. (INDOT ESD and INDOT District)
- 2) It is the responsibility of the project sponsor to notify school corporations and emergency services at least two weeks prior to any construction that would block or limit access. (INDOT ESD)
- 3) USFWS Bridge/Structure Assessment shall take place no earlier than two years prior to the start of construction. If construction will begin after October 14, 2023, an inspection of the structure by a qualified individual, must be performed. Inspection of the structure should check for presence of bats/bat indicators and/or presence of birds. The results of the inspection must indicate no signs of bats or birds. If signs of bats or birds are documented during this inspection, the INDOT District Environmental Manager must be contacted immediately. (INDOT ESD)
- 4) General AMM 1: Ensure all operators, employees, and contractors working in areas of known or presumed bat habitat are aware of all FHWA/FRA/FTA (Transportation Agencies) environmental commitments, including all applicable AMMs. (USFWS)
- 5) Lighting AMM 1: Direct temporary lighting away from suitable habitat during the active season. (USFWS)
- 6) Lighting AMM 2: When installing new or replacing existing permanent lights, use downward-facing, full cut-off lens lights (with same intensity or less for replacement lighting); or for those transportation agencies using the BUG system developed by the Illuminating Engineering Society, be as close to 0 for all three ratings with a priority of "uplight" of 0 and "backlight" as low as practicable. (USFWS)
- 7) Tree Removal AMM 1: Modify all phases/aspects of the project (e.g., temporary work areas, alignments) to avoid tree removal in excess of what is required to implement the project safely. (USFWS)
- 8) Tree Removal AMM 2: Apply time of year restrictions for tree removal when bats are not likely to be present, or limit tree removal to 10 or fewer trees per project at any time of year within 100 feet of existing road/ rail surface and outside of documented roosting/foraging habitat or travel corridors; visual emergence survey must be conducted with no bats observed. (USFWS, IDNR-DFW)

Indiana Department of Transportation

County Vermillion

Route SR 163

Des. No. 1701589

- 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-mile of roosts, or documented foraging habitat any time of year. (USFWS)
- 11) Brouillets Creek is listed as impaired for E. coli. Workers who are working in or near water with E. coli should take care to wear appropriate personal protective equipment (PPE), observe proper hygiene procedures, including regular hand washing, and limit personal exposure. (INDOT SAM)
- 12) INDOT Bridge No. 163-83-01393A (NBI No. 28420) has shown evidence of use (i.e. nests) by a bird species protected under the Migratory Bird Treaty Act (MBTA) during the (date) inspection. Avoidance and minimization measures must be implemented prior to the start of and during the nesting season. Nests without eggs or young should be removed prior to construction during the non-nesting season (September 8 – April 30) and during the nesting season if no eggs or young are present. Nests with eggs or young cannot be removed or disturbed during the nesting season (May 1 – September 7). Nests with eggs or young should be screened or buffered from active construction. Details of the required procedures are outlined in the “Potential Migratory Bird on Structure USP”. (INDOT ESD)
- 13) Per the Historic Bridges PA, three plan reviews are required to be submitted to SHPO and consulting parties for a 30-day comment period, 30% plans, 60% plans, and final plans before RFC. (INDOT CRO)
- 14) Per Indiana Code 14-21-1-18, a Director’s Letter of Clearance from the DHPA is required for this project before RFC. (INDOT CRO)
- 15) Further coordination with the Vermillion County Surveyor will occur prior to RFC, including providing copies of Stage 3 plans, and Section 401/404 and floodway permits. (INDOT ESD)
- 16) A wildlife passage will be included in the design. (IDNR-DFW)
- 17) Wetland 2 is labeled Do Not Disturb on project plans. The portions of Wetland 2 within existing right-of-way will be demarcated in the field prior to tree clearing and construction activities. (INDOT ESD)

For Further Consideration:

- 18) 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). Riprap may be used only at the toe of the sideslopes 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 Vermillion County and specifically for stream bank/floodway stabilization purposes as soon as possible upon completion. (IDNR-DFW)
- 19) Do not construct any temporary runarounds, access bridges, causeways, cofferdams, diversions, or pumparounds. (IDNR-DFW)
- 20) Impacts to non-wetland forest of 1-acre or more should be mitigated at a minimum 2:1 ratio. If less than 1-acre of non-wetland forest is removed in a rural setting, replacement should be at a 1:1 ratio based on area. Impacts to nonwetland forest under 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 inches dbh or greater (5:1 mitigation based on the number of large trees). (IDNR-DFW)
- 21) Use minimum average 6-inch graded riprap stone extended below the normal water level to provide habitat for aquatic organisms in the voids. (IDNR-DFW)

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Appendix A

INDOT Supporting Documentation

Categorical Exclusion Level Thresholds

	PCE	Level 1	Level 2	Level 3	Level 4 ¹
Section 106	Falls within guidelines of Minor Projects PA	"No Historic Properties Affected"	"No Adverse Effect"	-	"Adverse Effect" Or Historic Bridge involvement ²
Stream Impacts³	No construction in waterways or water bodies	< 300 linear feet of stream impacts	≥ 300 linear feet of stream impacts	-	USACE Individual 404 Permit ⁴
Wetland Impacts³	No adverse impacts to wetlands	< 0.1 acre	-	< 1.0 acre	≥ 1.0 acre
Right-of-way⁵	Property acquisition for preservation only or none	< 0.5 acre	≥ 0.5 acre	-	-
Relocations⁶	None	-	-	< 5	≥ 5
Threatened/Endangered Species (Species Specific Programmatic for Indiana bat & northern long eared bat)⁸	"No Effect", "Not likely to Adversely Affect" (With select AMMs ⁷)	"Not likely to Adversely Affect" (With any AMMs or commitments)	-	"Likely to Adversely Affect"	Project does not fall under Species Specific Programmatic ⁸
Threatened/Endangered Species (Any other species)⁸	Falls within guidelines of USFWS 2013 Interim Policy or "No Effect"	"Not likely to Adversely Affect"	-	-	"Likely to Adversely Affect"
Environmental Justice	No disproportionately high and adverse impacts	-	-	-	Potential ⁹
Sole Source Aquifer	No Detailed Groundwater Assessment	-	-	-	Detailed Groundwater Assessment
Floodplain	No Substantial Impacts	-	-	-	Substantial Impacts
Section 4(f) Impacts	None	-	-	-	Any ¹⁰
Section 6(f) Impacts	None	-	-	-	Any
Permanent Traffic Alteration	None	-	-	-	Any
Noise Analysis Required	No	-	-	-	Yes
Air Quality Analysis Required	No	-	-	-	Yes ¹¹
Approval Level	Concurrence by				
<ul style="list-style-type: none"> • District Env. (DE) • Env. Serv. Div. (ESD) • FHWA 	DE or ESD	DE or ESD	DE or ESD	DE and/or ESD	DE and/or ESD; and FHWA

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

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

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

⁴ US Army Corps of Engineers Individual 404 Permit

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

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

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

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

⁹ Potential for causing a disproportionately high and adverse impact.

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

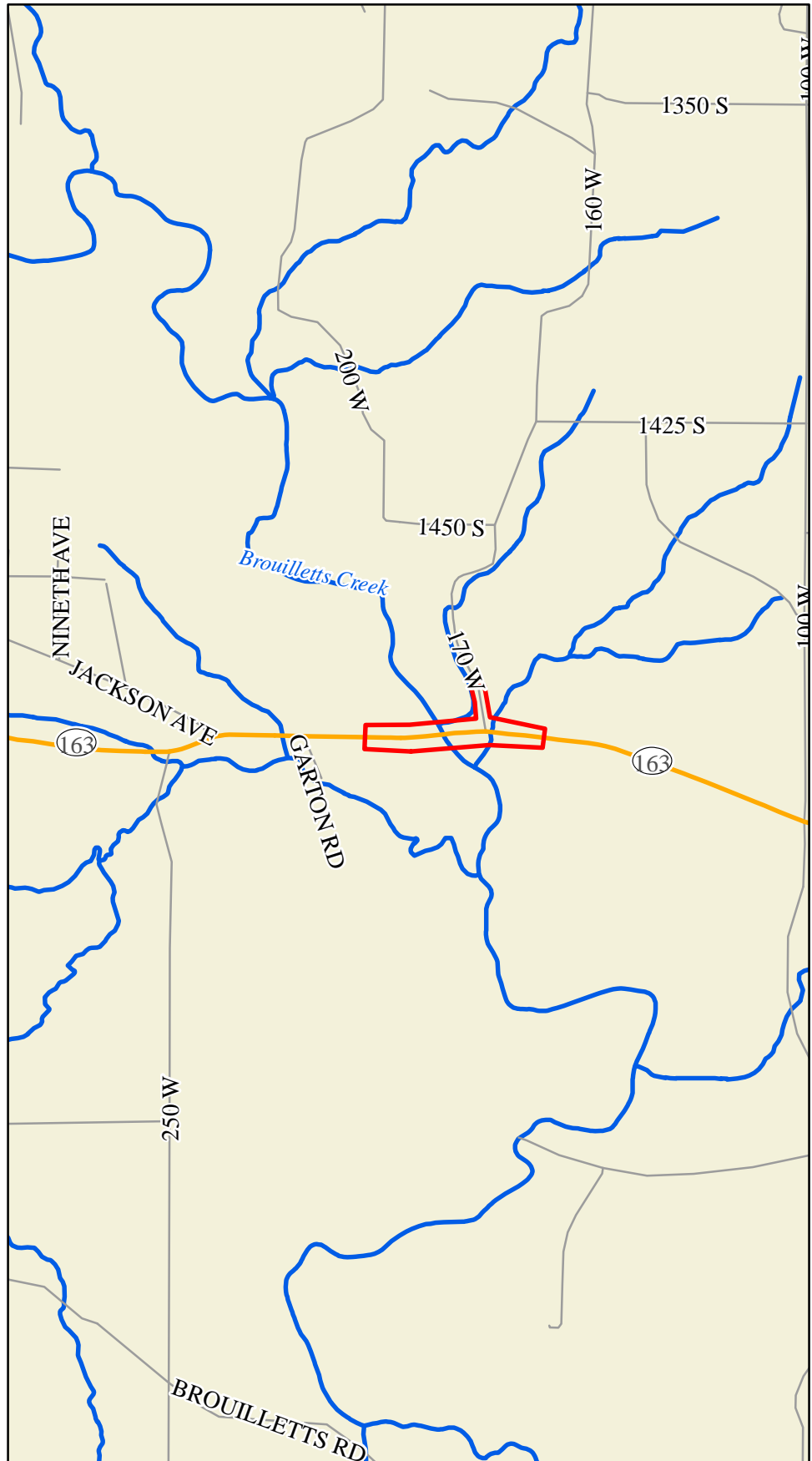
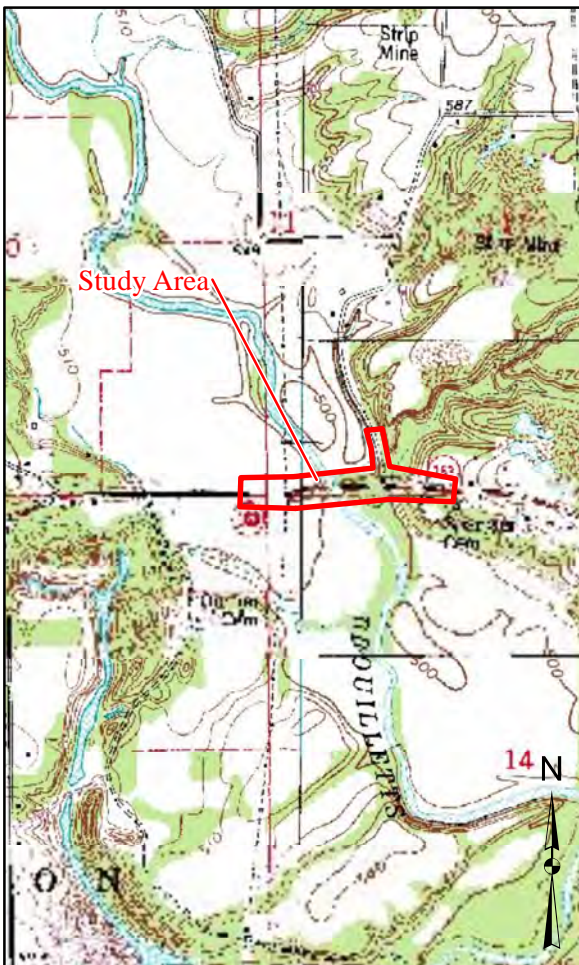
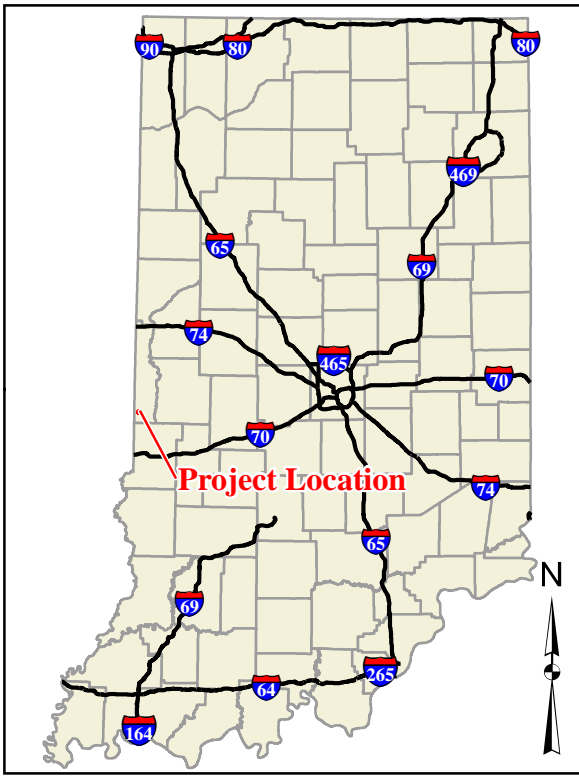
¹¹ Hot Spot Analysis and/or MSAT Quantitative Emission Analysis.

* Includes the threatened/endangered species critical habitat

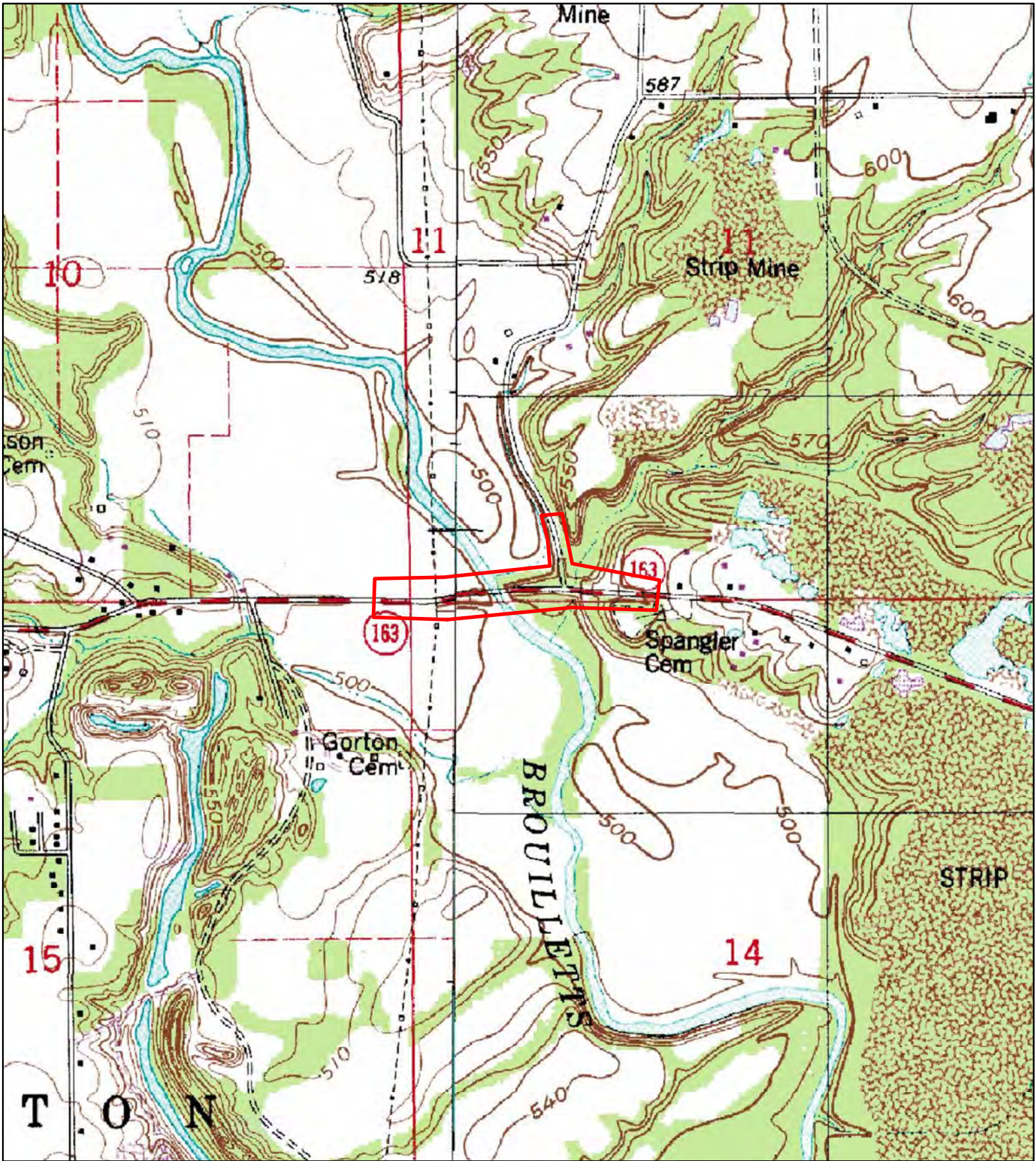
Note: Substantial public or agency controversy may require a higher-level NEPA document.


Appendix B

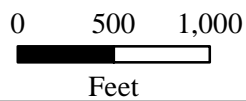
Graphics



<ul style="list-style-type: none"> Study Area Streams and Rivers Incorporated Areas 		<p>0 1,000 2,000</p> <p>Feet</p>	<p>SR 163 over Brouillets Creek Bridge Project Vermillion County, Indiana Project Location</p>
<p>Sources: <u>Non Orthophotography Data</u> - Obtained from the State of Indiana Geographical Information Office Library <u>Orthophotography</u> - Obtained from Indiana Map Framework Data (www.indianamap.org)</p>		<p>Des. 1701589 Date: 11/8/2019</p>	



 Study Area



Sources:
 Non Orthophotography Data -
 Obtained from the State of Indiana Geographical
 Information Office Library
 Orthophotography -
 Obtained from Indiana Map
 Framework Data (www.indianamap.org)

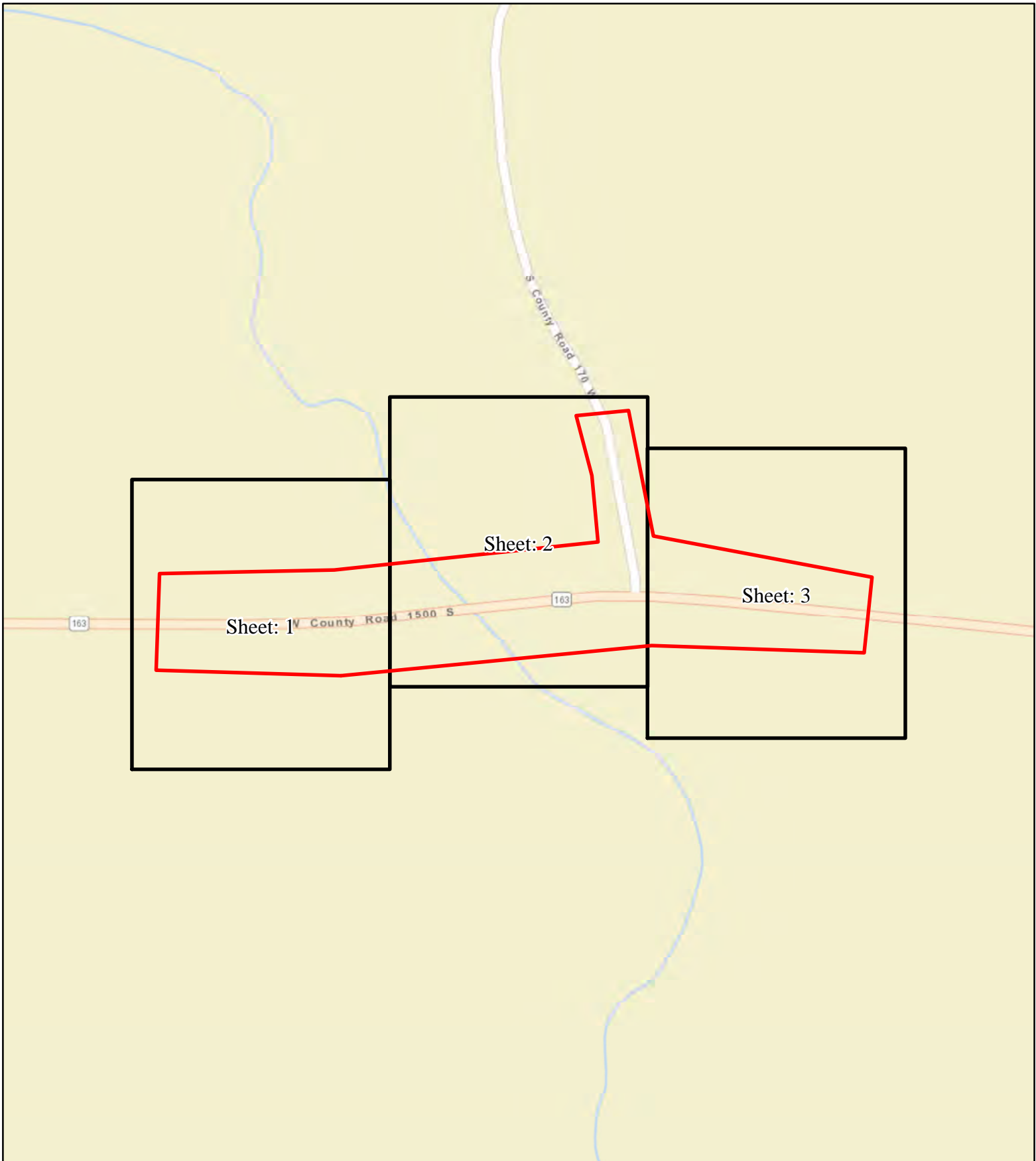
SR 163 over Brouillets Creek
 Bridge Project
 Vermillion County, Indiana
 USGS Topographic

Des. 1701589

Date: 11/1/2019

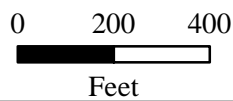


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 Study Area

 Index



Sources:
Non Orthophotography Data -
 Obtained from the State of Indiana Geographical
 Information Office Library
Orthophotography -
 Obtained from Indiana Map
 Framework Data (www.indianamap.org)

**SR 163 over Brouillets Creek
 Bridge Project
 Vermillion County, Indiana
 Aerial and Field Identified Resources
 Map Index**

Des. 1701589

Date: 10/31/2019


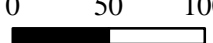








PARSONS



<ul style="list-style-type: none"> Study Area Data Point (IN) Data Point (OUT) Erosion Features Delineated Stream Potential Stream 	<ul style="list-style-type: none"> Waters of the U.S. Parcels <p style="text-align: center;">0 50 100 Feet</p>	 <small>Sources: Non Orthophotography Data - Obtained from the State of Indiana Geographical Information Office Library Orthophotography - Obtained from Indiana Map Framework Data (www.indianamap.org)</small>	<p>S.R. 163 over Brouilletts Creek Bridge Replacement Vermillion County, Indiana Field Identified Resources Sheet: 1 of 3</p> <p>Des. 1701589 Date: 11/8/2019</p>
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<ul style="list-style-type: none"> Study Area ● Data Point (IN) ● Data Point (OUT) Erosion Features ▶▶ Delineated Stream ▶▶ Potential Stream 	<ul style="list-style-type: none"> ⋈ Waters of the U.S. Parcels <div style="text-align: center;">  </div> <div style="text-align: center;"> <p>0 50 100</p>  <p>Feet</p> </div>	<p style="text-align: center;">Sources: <u>Non Orthophotography Data</u> - Obtained from the State of Indiana Geographical Information Office Library <u>Orthophotography</u> - Obtained from Indiana Map Framework Data (www.indianamap.org)</p>	<p style="text-align: center;">S.R. 163 over Brouillets Creek Bridge Replacement Vermillion County, Indiana Field Identified Resources Sheet: 2 of 3</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%; padding: 2px;">Des. 1701589</td> <td style="width: 50%; padding: 2px;"></td> </tr> <tr> <td style="padding: 2px;">Date: 11/8/2019</td> <td style="padding: 2px;"></td> </tr> </table>	Des. 1701589		Date: 11/8/2019	
Des. 1701589							
Date: 11/8/2019							





<ul style="list-style-type: none"> ▭ Study Area ● Data Point (IN) ● Data Point (OUT) — Erosion Features ↔ Delineated Stream ↔ Potential Stream 	<ul style="list-style-type: none"> ↔ Waters of the U.S. ▭ Parcels <p style="text-align: center;">0 50 100 Feet</p>	 <p>Sources: Non Orthophotography Data - Obtained from the State of Indiana Geographical Information Office Library Orthophotography - Obtained from Indiana Map Framework Data (www.indianamap.org)</p>	<p>S.R. 163 over Brouillets Creek Bridge Replacement Vermillion County, Indiana Field Identified Resources Sheet: 3 of 3</p> <p>Des. 1701589 Date: 11/8/2019</p> 
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Photo 1 – View of SR 163 facing east (10/22/2019).



Photo 2 – View of a row-crop field facing west (10/22/2019).



Photo 3 – View of the SR 163 bridge over Brouilletts Creek facing northwest (10/22/2019).

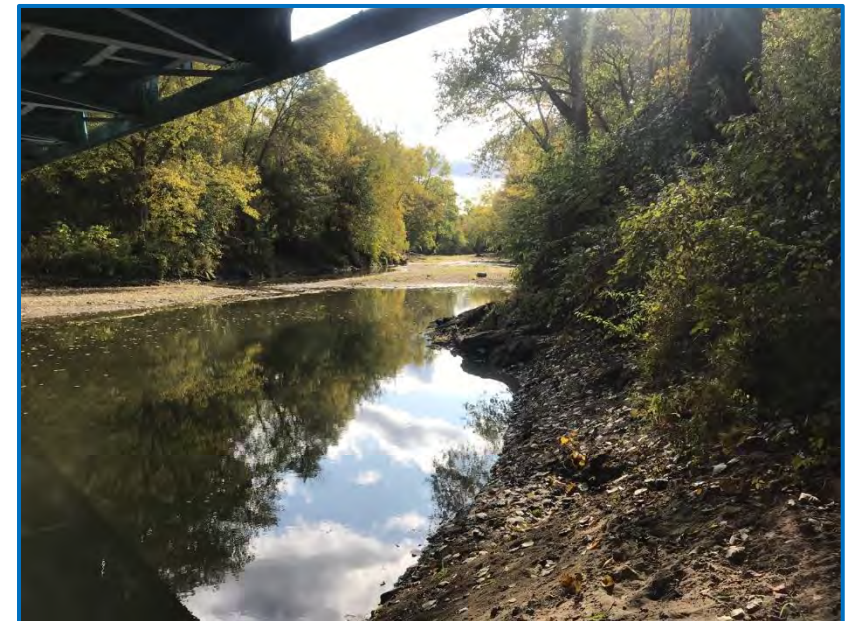


Photo 4 – View downstream of Brouilletts Creek facing east (10/22/2019).



Photo 5 – View downstream of UNT 1 to Brouilletts Creek facing west (10/22/2019).



Photo 6 – View of CR 170 West facing north (10/22/2019).



Photo 7 – View of Wetland 2 facing southeast (10/25/2019).

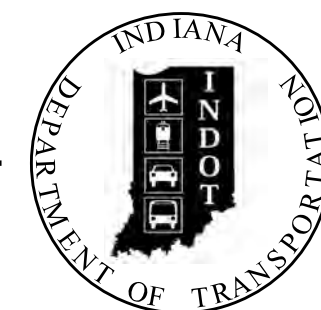


Photo 8 – View of the hilltop within Spangler Cemetery facing east (10/22/2019).

PROJECT 1701589	DESIGNATION 1701589
CONTRACT B-43591	BRIDGE FILE 163-83-01393B

STRUCTURE INFORMATION				
STRUCTURE	TYPE	SPAN AND SKEW	OVER	STATION
163-83-01393B	Steel Through Truss Bridge	1 Span: 175'-0"	Brouillets Creek	99+82.00 Line "A"

INDIANA DEPARTMENT OF TRANSPORTATION



BRIDGE REHABILITATION PLANS

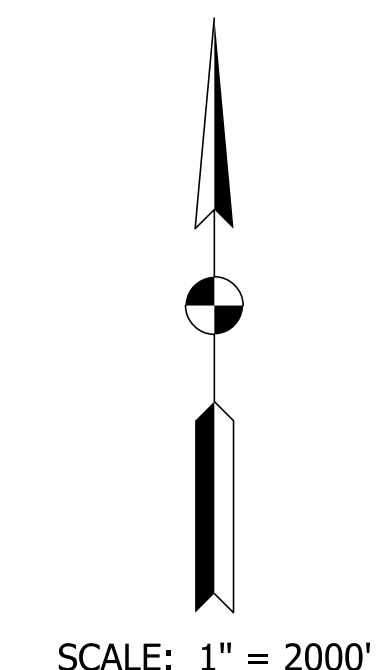
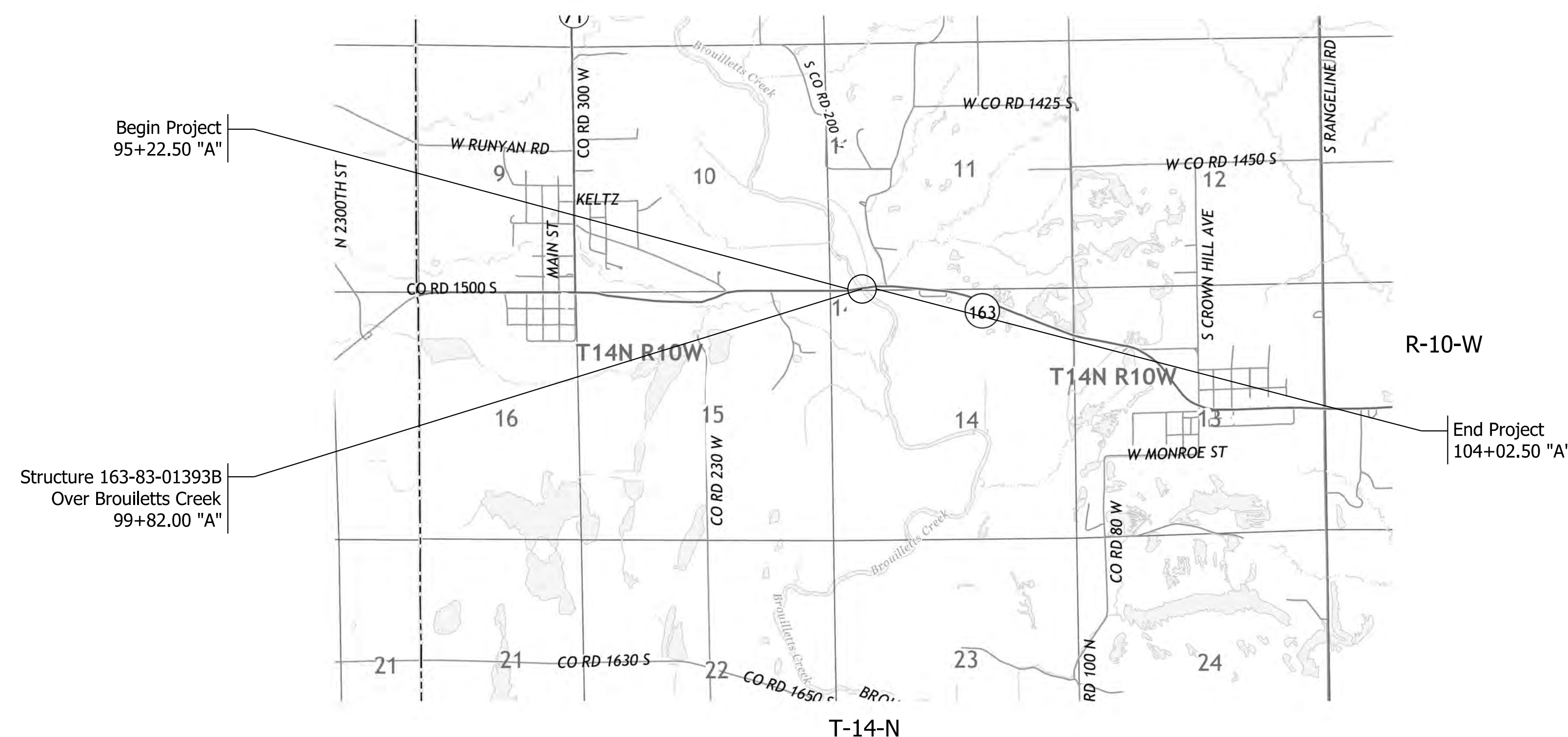
FOR SPANS OVER 20 FEET

Excerpts

ROUTE: SR 163 AT: RP 1+82

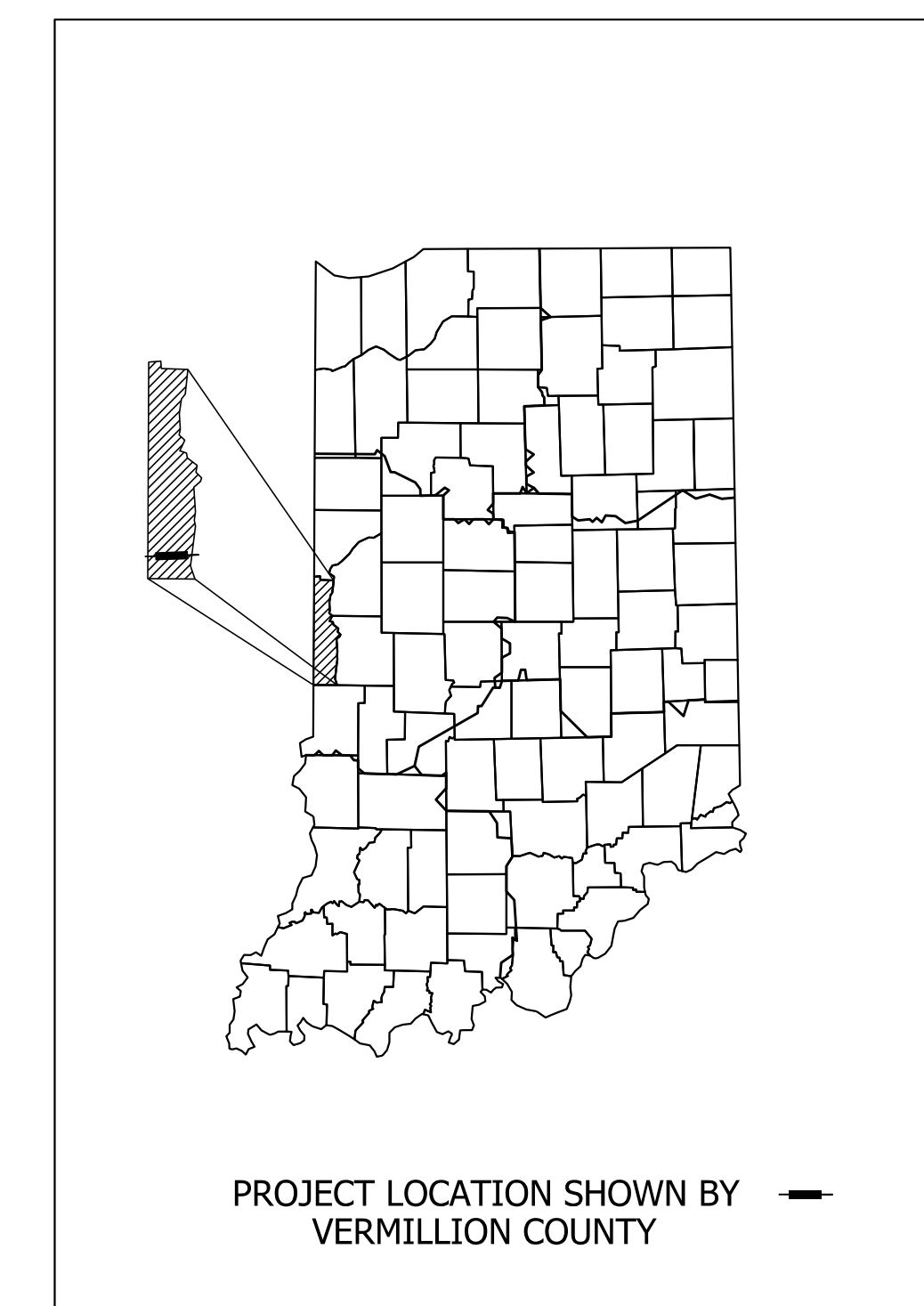
PROJECT NO. ~~1701589 P.E.~~
 1701589 R/W
~~1701589 CONST.~~

Bridge Rehabilitation on SR 163 over Brouillets Creek
 Located 1.18 Miles East of SR 71
 Section 11, T-14-N, R-10-W, Clinton Township, Vermillion County, Indiana



TRAFFIC DATA		
A.A.D.T. (2021)		1,969 V.P.D.
A.A.D.T. (2041)		1,969 V.P.D.
D.H.V. (2041)		167 V.P.H.
DIRECTIONAL DISTRIBUTION		49.62%
TRUCKS		3.40% A.A.D.T. 4.19% D.H.V.

DESIGN DATA		
DESIGN SPEED		55 M.P.H.
PROJECT DESIGN CRITERIA		3R (Non-Freeway)
FUNCTIONAL CLASSIFICATION		Major Collector
RURAL/URBAN		Rural
TERRAIN		Rolling
ACCESS CONTROL		None



LATITUDE: 39° 39' 55" N	LONGITUDE: 87° 29' 56" W
BRIDGE LENGTH: _____	0.033 MI.
ROADWAY LENGTH: _____	0.134 MI.
TOTAL LENGTH: _____	0.167 MI.
MAX. GRADE: _____	0.61 %
HUC: 05120111020020	

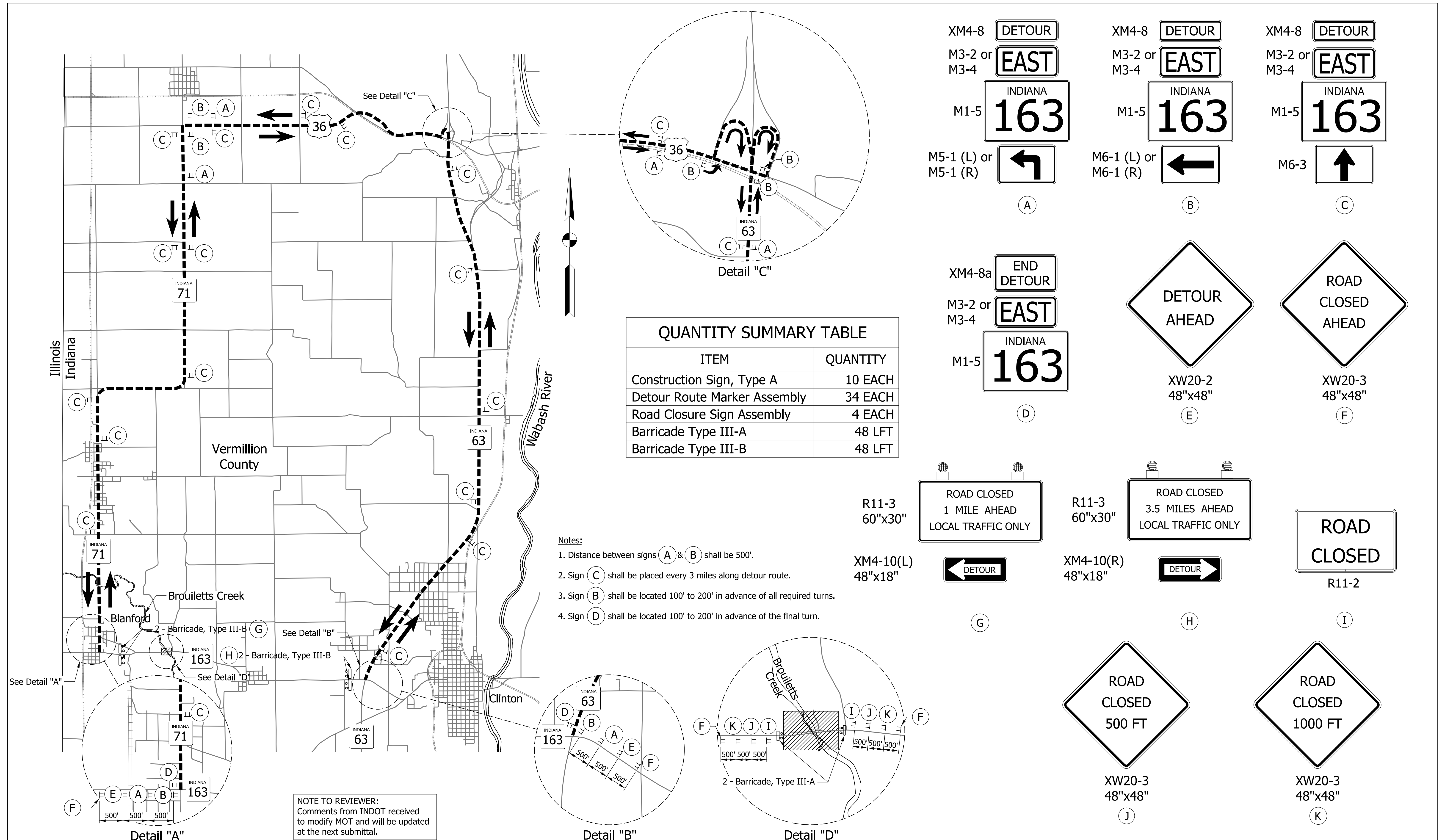
INDIANA DEPARTMENT OF TRANSPORTATION
 STANDARD SPECIFICATIONS DATED 2022
 TO BE USED WITH THESE PLANS.

PARSONS
 101 W. Ohio St., Suite 2121
 Indianapolis, IN 46204
 Bus (317) 616-1000
 Fax (317) 616-1033

PLANS PREPARED BY: PARSONS 317-616-1000 PHONE NUMBER
 CERTIFIED BY: _____ DATE
 APPROVED FOR LETTING: INDIANA DEPARTMENT OF TRANSPORTATION DATE

BRIDGE FILE	
163-83-01393B	
DESIGNATION	
1701589	
SURVEY BOOK	SHEETS
ELECTRONIC	1 of 13
CONTRACT	PROJECT
B-43591	1701589

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 17-DEC-2021



QUANTITY SUMMARY TABLE

ITEM	QUANTITY
Construction Sign, Type A	10 EACH
Detour Route Marker Assembly	34 EACH
Road Closure Sign Assembly	4 EACH
Barricade Type III-A	48 LFT
Barricade Type III-B	48 LFT

- Notes:**
- Distance between signs (A) & (B) shall be 500'.
 - Sign (C) shall be placed every 3 miles along detour route.
 - Sign (B) shall be located 100' to 200' in advance of all required turns.
 - Sign (D) shall be located 100' to 200' in advance of the final turn.

NOTE TO REVIEWER:
Comments from INDOT received to modify MOT and will be updated at the next submittal.

XM4-8 DETOUR
M3-2 or M3-4 EAST
M1-5 INDIANA 163
M5-1 (L) or M5-1 (R) ←

(A)

XM4-8 DETOUR
M3-2 or M3-4 EAST
M1-5 INDIANA 163
M6-1 (L) or M6-1 (R) ←

(B)

XM4-8 DETOUR
M3-2 or M3-4 EAST
M1-5 INDIANA 163
M6-3 ↑

(C)

XM4-8a END DETOUR
M3-2 or M3-4 EAST
M1-5 INDIANA 163

(D)

ROAD CLOSED AHEAD
XW20-2 48"x48"

(E)

ROAD CLOSED AHEAD
XW20-3 48"x48"

(F)

R11-3 60"x30"
ROAD CLOSED 1 MILE AHEAD LOCAL TRAFFIC ONLY
← DETOUR

(G)

R11-3 60"x30"
ROAD CLOSED 3.5 MILES AHEAD LOCAL TRAFFIC ONLY
DETOUR →

(H)

ROAD CLOSED
R11-2

(I)

ROAD CLOSED 500 FT
XW20-3 48"x48"

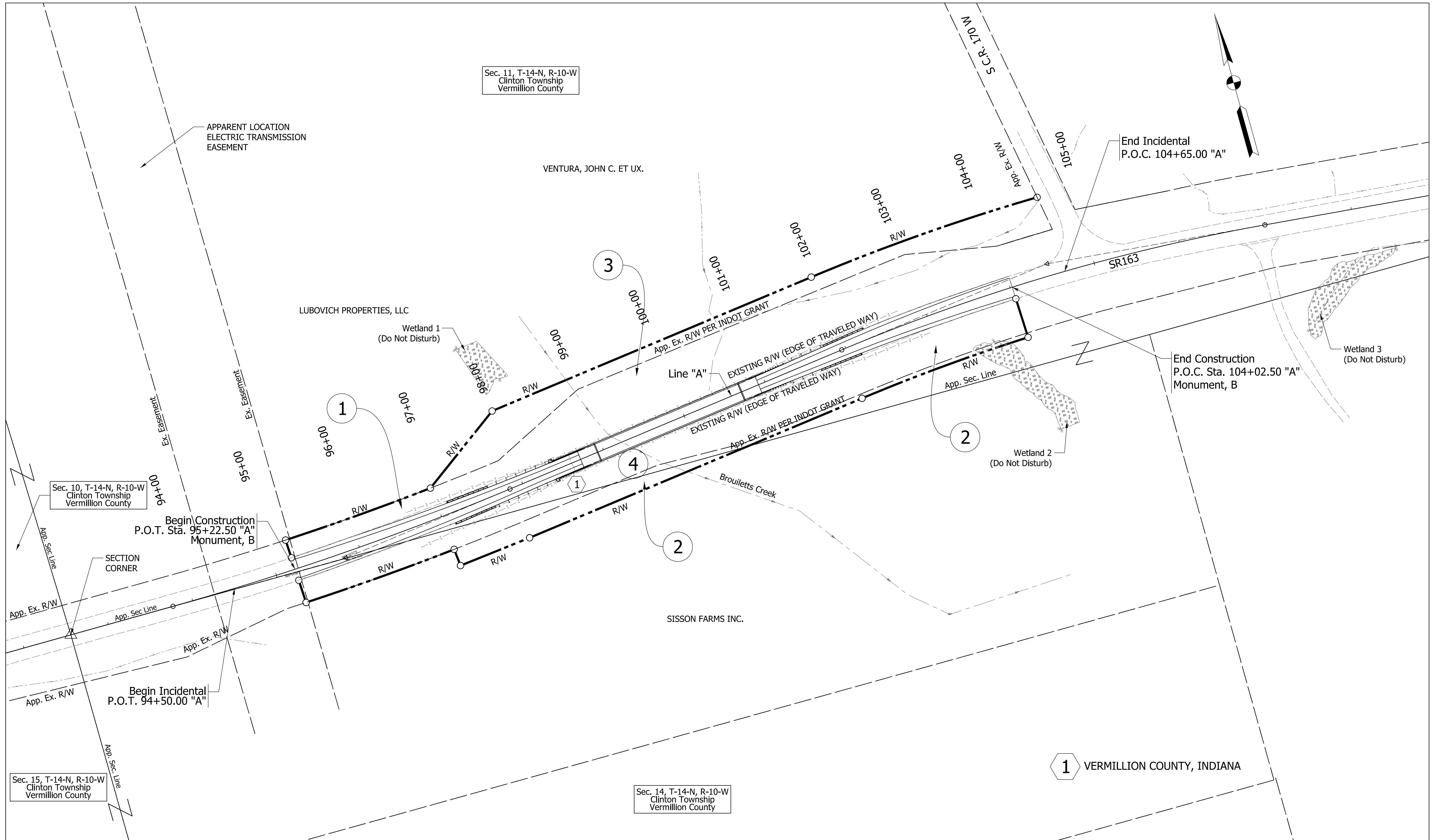
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ROAD CLOSED 1000 FT
XW20-3 48"x48"

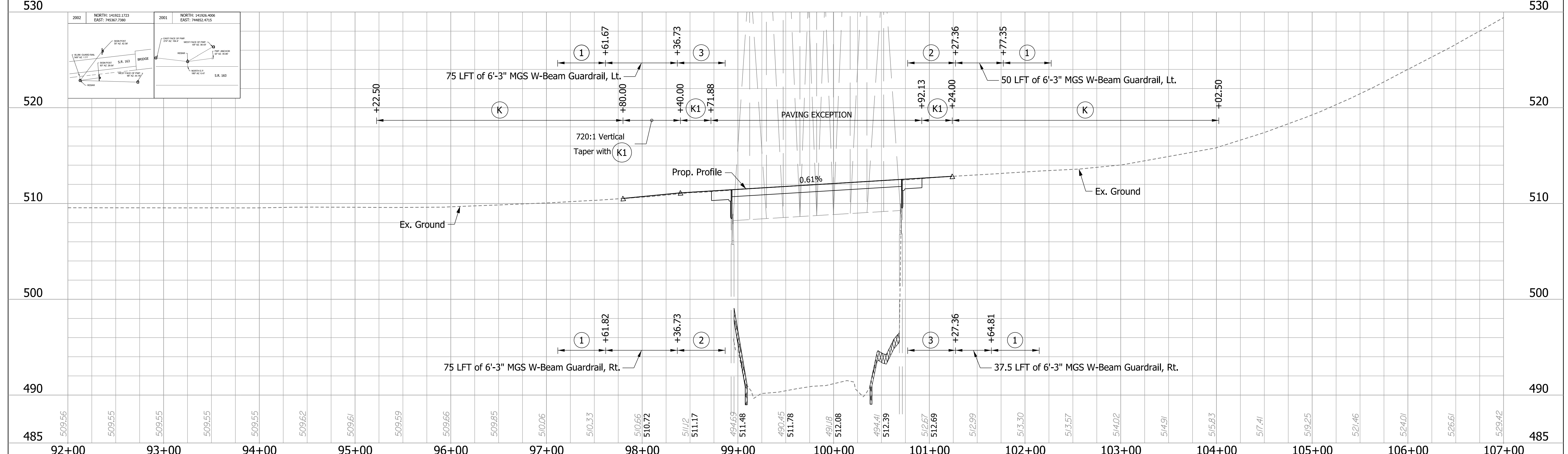
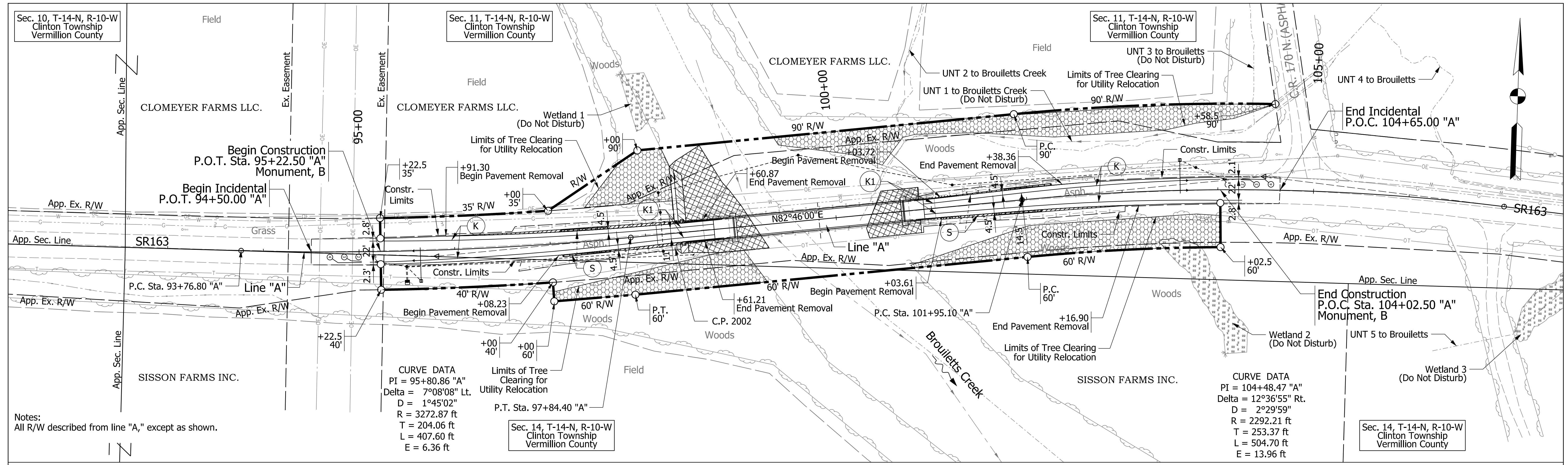
(K)

<p>LEGEND</p> <p>Construction Sign Construction Zone</p> <p>Low Intensity Flashing Yellow Light Traffic Flow</p> <p>Barricade, Type III-A or III-B</p>	<p>RECOMMENDED FOR APPROVAL _____</p> <p>DESIGN ENGINEER _____ DATE _____</p> <p>DESIGNED: KAP DRAWN: SJC</p> <p>CHECKED: CAC CHECKED: CAC</p>	<p>INDIANA DEPARTMENT OF TRANSPORTATION</p> <p>MAINTENANCE OF TRAFFIC DETOUR ROUTE</p>	<p>HORIZONTAL SCALE N.T.S.</p> <p>VERTICAL SCALE N/A</p> <p>SURVEY BOOK ELECTRONIC</p> <p>CONTRACT B-43591</p>	<p>BRIDGE FILE 163-83-01393B</p> <p>DESIGNATION 1701589</p> <p>SHEETS 5 of 19</p> <p>PROJECT 1701589</p>
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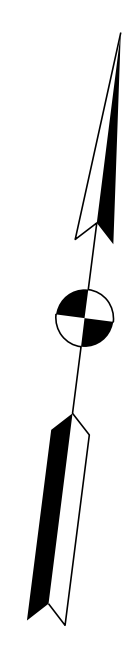
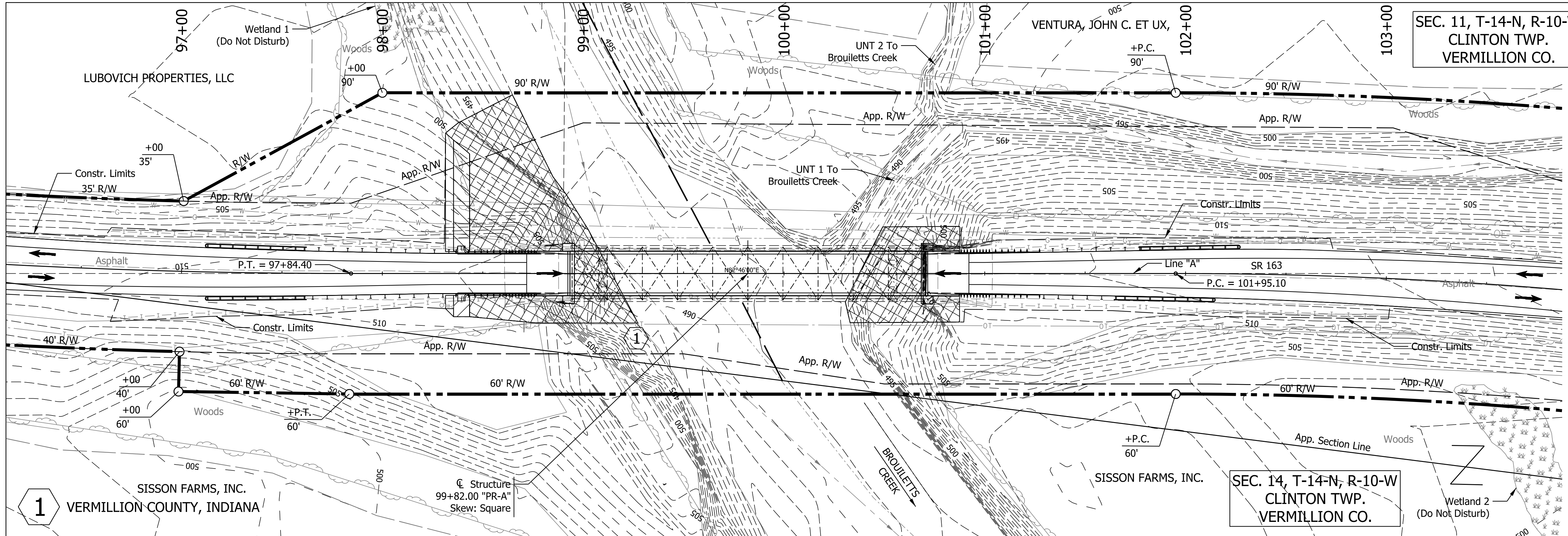


RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER _____ DATE _____ DESIGNED: NGH DRAWN: SJC CHECKED: KAP CHECKED: KAP	INDIANA DEPARTMENT OF TRANSPORTATION		HORIZONTAL SCALE 1" = 50'	BRIDGE FILE 163-83-01393B
	PLAT NO. 1		VERTICAL SCALE N/A	DESIGNATION 1701589
			SURVEY BOOK ELECTRONIC	SHEETS 7 of 13
			CONTRACT B-43591	PROJECT 1701589



LEGEND Pavement Removal Tree Clearing Removal Mill 1.5 inches, then 165 lbs/syd QC/QA - HMA, 3, 64, Surface, 9.5mm Transition mill up to 1.5 inches, then 165 lbs/syd QC/QA - HMA, 3, 64, Surface, 9.5mm Guardrail End Treatment, Type OS, 31 in. MGS Guardrail Transition MGS without Curb MGS Guardrail Transition MGS with Curb Saw Cut	RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER _____ DATE _____ DESIGNED: NHG DRAWN: SJC CHECKED: KAP CHECKED: KAP	INDIANA DEPARTMENT OF TRANSPORTATION PLAN & PROFILE SHEET LINE "A"	HORIZONTAL SCALE 1" = 50' BRIDGE FILE 163-83-01393B VERTICAL SCALE 1" = 5' DESIGNATION 1701589 SURVEY BOOK ELECTRONIC CONTRACT B-43591	SHEETS 1 of 1 PROJECT 1701589
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pww://VANVA01PWINT01.Parsons.com:Indiana State/Documents/Crawfordsville/Big 4 Bridge Replacements/SR163 Brouillets Creek/CADD/Roadway/Sheets/SR163_RD_Sht_PP_01.dgn



EXISTING STRUCTURE

The existing structure (163-83-01393A) is a single span steel truss bridge built in 1932 with a span of 175'-0" with a 24'-0" min. clear roadway reinforced concrete deck. Existing bridge deck to be replaced.

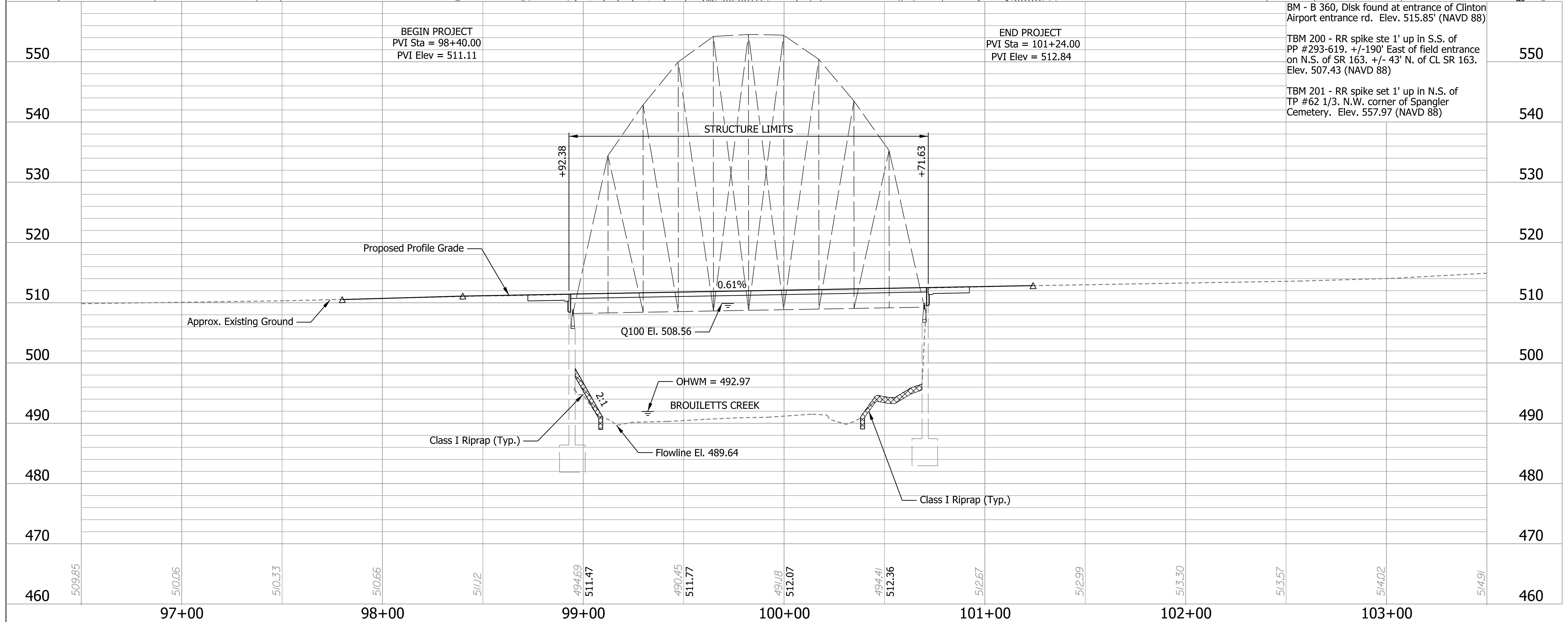
HYDRAULIC DATA

Drainage Area	= 269 Sq. Mi.
Design Discharge, Q100	= 16,000 Cfs.
Q100 Elev.	= 508.56 Ft.
Velocity at Q100	= 6.61 Ft./S.
Scour Depth (Contraction)	= 46.6 Ft.
Scour Depth (Total)	= 46.6 Ft.
Low Scour Elev.	= 443.04 Ft.

EARTHWORK TABULATION

Fill + 25%	= TBD Cys.
Common Excavation	= TBD Cys.
Unsuitable Material	= TBD Cys.
Borrow	= TBD Cys.
Benching (Estimated)	= TBD Cys.

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



NOTES:

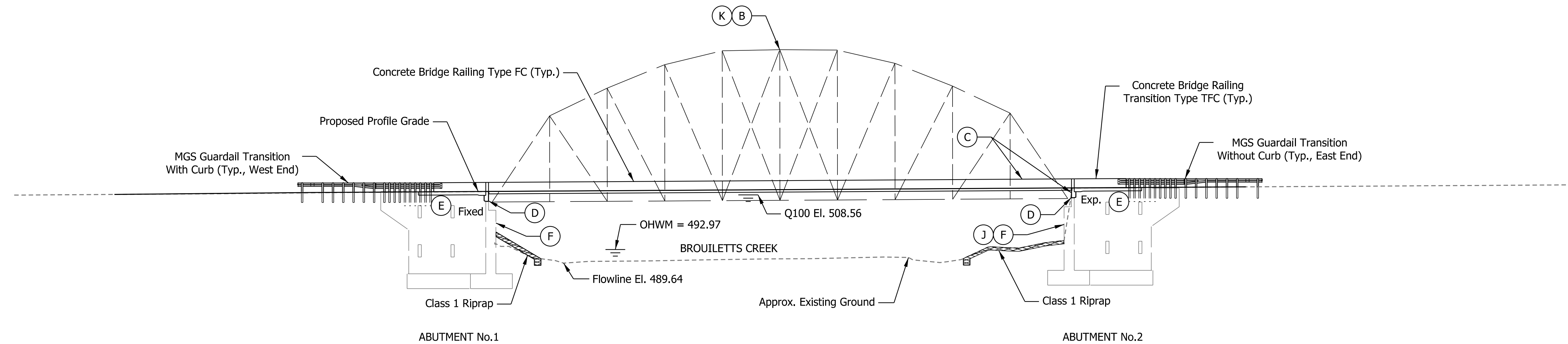
- For R/W and Additional information see Roadway Plan & Profile sheets.
- For Utility Contacts see Index Sheet No.2.
- Cross-Hatched areas indicate limits of Class 1 riprap on geotextile. (Est. Riprap Qty. = 739 Tons) (Est. Geotextile Qty. = 680 Sys.)
- Hatched areas indicate limits of revetment riprap for riprap drainage turnouts on geotextile. (Est. Riprap Qty. = 48 Tons) (Est. Geotextile Qty. = 64 Sys.)

STEEL THROUGH TRUSS BRIDGE
 1 SPAN: 175'-0"
 19'-4" CLEAR ROADWAY: SKEW: Square
 SR 163 OVER BROUILLETTS CREEK
 VERMILLION COUNTY

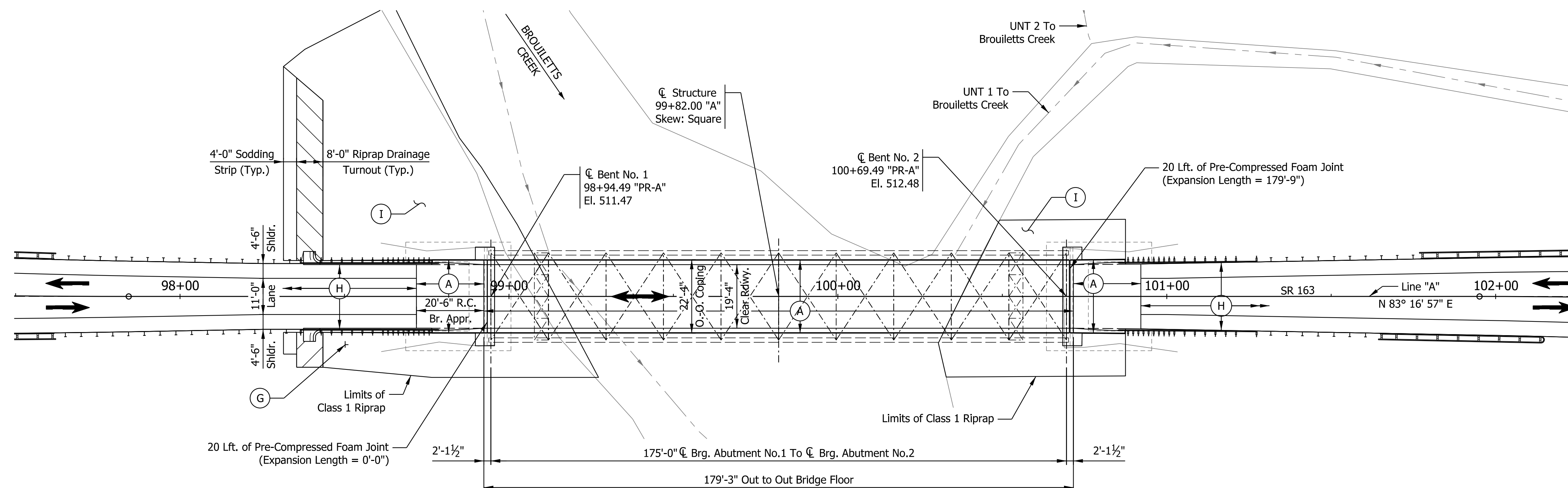
550	BEGIN PROJECT PVI Sta = 98+40.00 PVI Elev = 511.11	END PROJECT PVI Sta = 101+24.00 PVI Elev = 512.84	BM - B 360, Disk found at entrance of Clinton Airport entrance rd. Elev. 515.85' (NAVD 88)	550
540			TBM 200 - RR spike set 1' up in S.S. of PP #293-619. +/- 190' East of field entrance on N.S. of SR 163. +/- 43' N. of CL SR 163. Elev. 507.43 (NAVD 88)	540
530			TBM 201 - RR spike set 1' up in N.S. of TP #62 1/3. N.W. corner of Spangler Cemetery. Elev. 557.97 (NAVD 88)	530
520				520
510				510
500				500
490				490
480				480
470				470
460				460

RECOMMENDED FOR APPROVAL	DESIGN ENGINEER	DATE	INDIANA DEPARTMENT OF TRANSPORTATION	HORIZONTAL SCALE	BRIDGE FILE
	ZMR	ALF		1" = 30'	163-83-01393B
DESIGNED:	ZMR	DRAWN:	LAYOUT	VERTICAL SCALE	DESIGNATION
CHECKED:	BFK	CHECKED:		1" = 10'	1701589
				SURVEY BOOK	SHEETS
			ELECTRONIC	9 of 13	
			CONTRACT	PROJECT	
			B-43591	1701589	

STRUCTURE BUILT TO A 0.61% GRADE



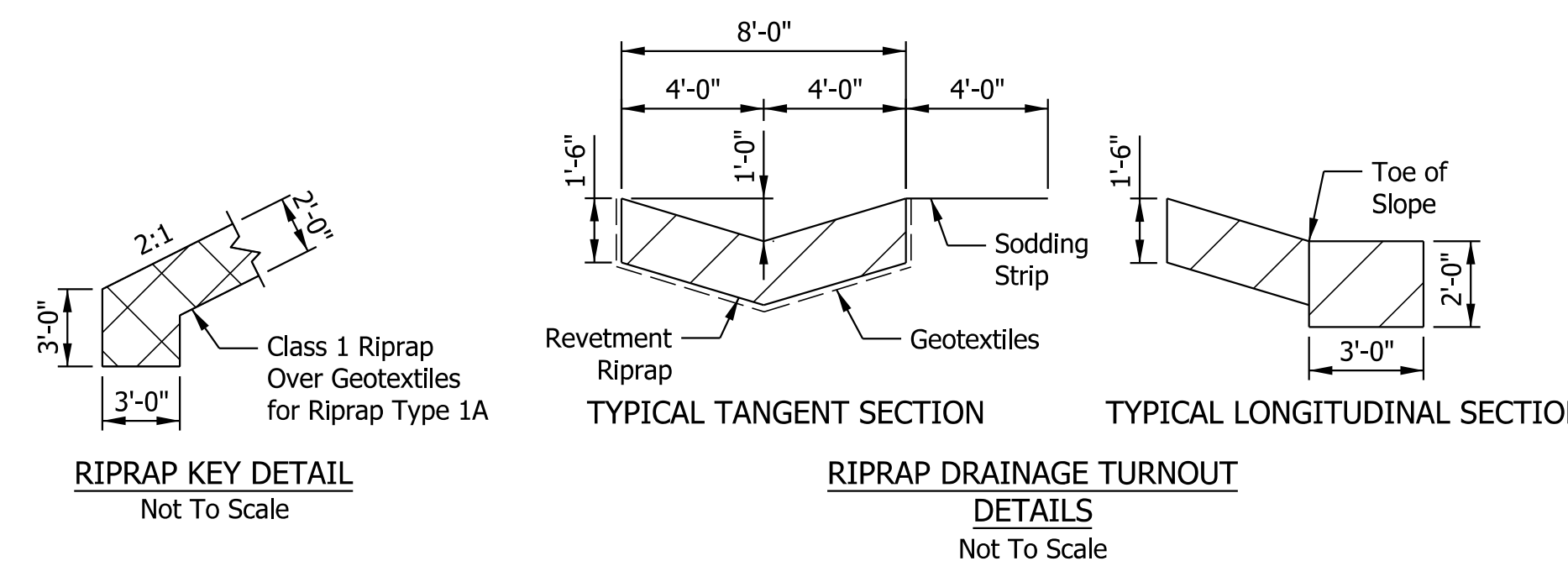
ELEVATION



PLAN

LEGEND

- (A) Remove and replace existing reinforcing concrete bridge deck, bridge railing, Type BS (EB1) and SS (EB2) joints, reinforced concrete bridge approach slabs, and approach slab transitions.
- (B) Disassemble, replace, repair, and clean, steel truss members as shown on superstructure details.
- (C) Surface seal all new exposed concrete on railing and end bents.
- (D) Remove and replace portion of existing concrete mudwall.
- (E) Remove and replace portion of existing wingwalls.
- (F) Patch and epoxy seal concrete substructure units.
- (G) Place new "RP" sign (indicating "1+82")
- (H) Mill 1 1/2" and transition Roadway Approaches (See Typical Longitudinal Approach Section).
- (I) Place Class 1 riprap around both abutments and the west upstream bank.
- (J) Place 8" concrete facing around the abutments below the bridge seats, extending 2 feet below existing ground. (Approx. Qty. = 1070 sq. ft.)
- (K) Clean and Paint entire structure and bearings.



GENERAL NOTES

Reinforcing steel covering shall be 2 1/2" in Top and 1" min. In bottom of floor slabs, 3" in footing except bottom steel which shall be 4", and 2" in all other parts, unless noted.

All New Reinforcement Shall be Epoxy Coated.

Surface Seal Shall be Applied to the Approach Slabs, All Exposed Surfaces of New Concrete Railings, Top of Bridge Deck, Deck Copings, and Underside of Bridge Deck to Exterior Beams.

DESIGN DATA

Designed for HS-20 Loading, in accordance with AASHTO Standard Specifications for Highway Bridges, 17th Edition, 2013, and its subsequent interims.

DEAD LOAD

Actual weight plus 35 psf. of future wearing surface and 15 psf for SIP Metal deck forms.

FLOOR SLAB

Designed with a 7 1/2" structural depth, and a 1/2" integral wearing surface.

DESIGN STRESSES

CONCRETE

Class "C" Concrete f_c = 4,000 p.s.i.

REINFORCING STEEL

Grade 60 f_y = 60,000 p.s.i.

CONSTRUCTION LOADING

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

DECK FALSEWORK LOADS

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

CONSTRUCTION LIVE LOAD

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

FINISHING MACHINE LOAD

4500 lb distributed over 10-ft along the coping.

WIND LOAD

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

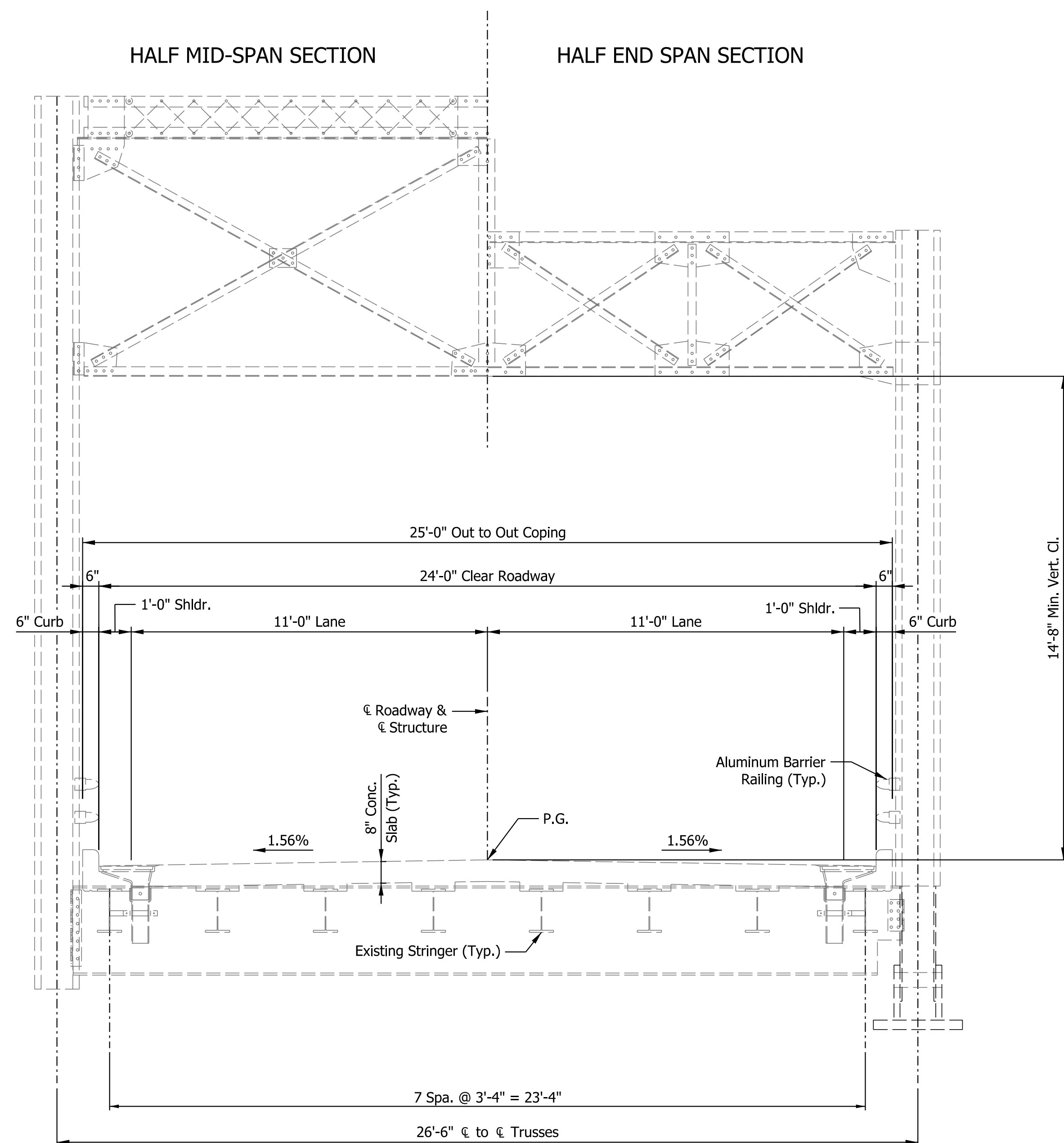
SEISMIC DESIGN DATA

Seismic Performance Zone Zone TBD
Acceleration Coefficient (S_{D1}) TBD
Seismic Soil Profile Type Site Class TBD

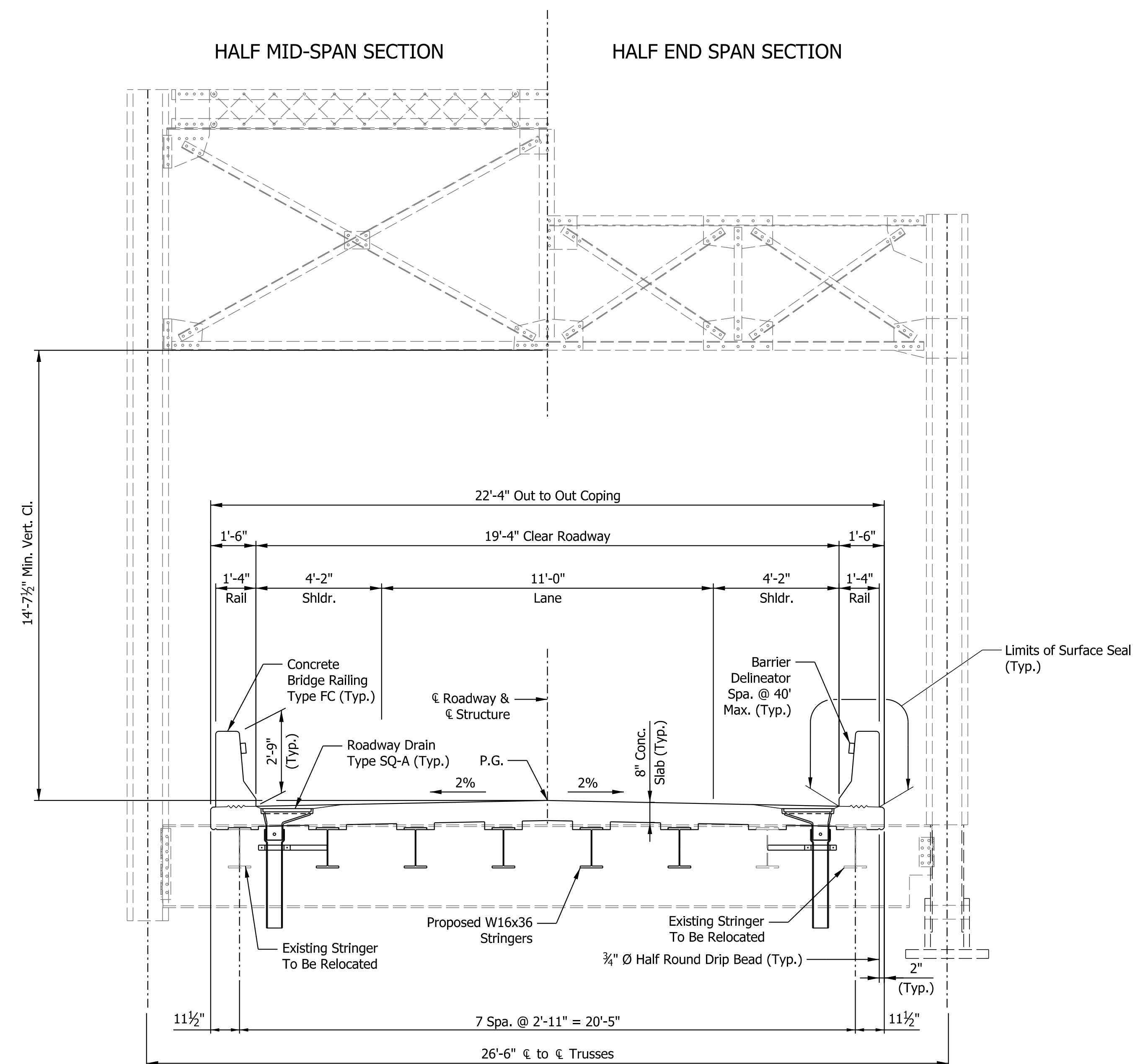
STEEL THROUGH TRUSS BRIDGE
1 SPAN: 175'-0"
19'-4" CLEAR ROADWAY: SKEW: Square
SR 163 OVER BROUILLETS CREEK
VERMILLION COUNTY

RECOMMENDED FOR APPROVAL	DESIGN ENGINEER		DATE		INDIANA DEPARTMENT OF TRANSPORTATION	HORIZONTAL SCALE	BRIDGE FILE
	DESIGNED: ZMR		DRAWN: ALF			1" = 20'	163-83-01393B
CHECKED: BFK	CHECKED: BFK				GENERAL PLAN	VERTICAL SCALE	DESIGNATION
						1" = 20'	1701589
					SHEETS	SURVEY BOOK	
						ELECTRONIC 10 of 13	
						CONTRACT	
						B-43591 1701589	

pw://VANVA01PWINT01.parsons.com:Indiana State/Documents/Crawfordsville/Big 4 Bridge Replacements/SR163 Brouillets Creek/CADD/Bridge/Sheets/SR163_BR_General Plan.01 17-DEC-2021



EXISTING TYPICAL SECTION



PROPOSED TYPICAL SECTION

STEEL THROUGH TRUSS BRIDGE
 1 SPAN: 175'-0"
 19'-4" CLEAR ROADWAY: SKEW: Square
 SR 163 OVER BROUILETT'S CREEK
 VERMILLION COUNTY

RECOMMENDED FOR APPROVAL	DESIGN ENGINEER	DATE
DESIGNED: ZMR	DRAWN: EWM	
CHECKED: BFK	CHECKED: BFK	

INDIANA
 DEPARTMENT OF TRANSPORTATION

GENERAL PLAN

HORIZONTAL SCALE	BRIDGE FILE
3/8" = 1'-0"	163-83-01393B
VERTICAL SCALE	DESIGNATION
3/8" = 1'-0"	1701589
SURVEY BOOK	SHEETS
ELECTRONIC	11 of 13
CONTRACT	PROJECT
B-43591	1701589

pw://VANVA01PWINT01.parsons.com:Indiana State/Documents/Crawfordsville/Big 4 Bridge Replacements/SR163 Brouillets Creek/CADD/Bridge/Sheets/SR163_BR_General Plan.02
 17-DEC-2021

Appendix C

Early Coordination



INDIANA DEPARTMENT OF TRANSPORTATION

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

PHONE: (855) 463-6848

Eric Holcomb, Governor
Michael Smith, Commissioner

February 24, 2022

Sample Early Coordination
Letter, Updated 2022

«First» «Last_Name»
«Title_»
«Agency»
«Mailing_1»
«Mailing_2»
«City», «State» «Zip»

Re: Early Coordination Letter, Des. 1701589, State Road (SR) 163 over Brouilletts Creek Bridge Project, 1.18 miles east of SR 71, Vermillion County, Indiana

Dear «Sal» «Last_Name»,

The Indiana Department of Transportation (INDOT), with federal funding, intends to proceed with a project involving the aforementioned bridge structure in Vermillion County (Attachments, page 1). This letter is part of the early coordination phase of the environmental review process. We are requesting comments from your area of expertise regarding any possible environmental effects associated with this project. **Please use the above designation number and description in your reply.** We will incorporate your comments into a study of the project's environmental impacts.

The project is located on SR 163 approximately 1.18 miles east of SR 71. The closest community is Blanford, Indiana, approximately one mile west of the study area. SR 163 is oriented east to west, and Brouilletts Creek flows northwest to southeast through the study area. The site setting is rural. Land use in the project area consists of maintained right-of-way, forest, and row crop fields.

The need for the project is due to the deteriorating condition and non-standard lane and shoulder widths of the existing structure, INDOT Structure 163-83-01393 A (National Bridge Inventory [NBI] No. 28420). This 175-foot single-span steel truss bridge on vertical abutments was originally constructed in 1932 and rehabilitated in 1979. Recent inspections have found the bridge substructure to be in poor condition. The bridge does not meet the current HS-15 (27-ton truck) load rating design standards. Additionally, the existing bridge does not meet current design standards for lane width or shoulder width. These geometric deficiencies have led to numerous collisions, resulting in damage to the bridge's railing and end post. The purpose of the project is to:

- extend the life of the structure by a minimum of 30 years,
- provide a minimum HS-15 load rating, and
- improve the clear roadway width of the bridge to improve safety and protect the bridge.

This project was initially proposed in 2019 and early coordination letters were distributed in December 2019. At that time, the proposed project would replace the existing bridge (INDOT Structure Number 163-83-01393A) with a new three-span prestressed concrete bulb-tee beam structure. However, through the Section 106 process the existing bridge was determined eligible for inclusion in the National Register of Historic Places (NRHP) in April 2020 and was identified as "Select" under the Indiana Historic Bridge Programmatic Agreement (Historic Bridge PA). The Historic Bridge PA stipulates that the Federal Highway Administration (FHWA) will not consider demolition to be a prudent alternative for any Federal-aid project involving a Select Bridge. Therefore, replacement of the existing bridge was no longer a viable alternative for this project.

In 2021, A Historic Bridge Alternatives Analysis was conducted to identify a preliminary preferred alternative for the SR 163 bridge project over Brouilletts Creek in accordance with the Historic Bridge PA. During the development of alternatives, INDOT convened a meeting on April 7, 2021, with the Indiana Department of Natural Resources' Division of Historic Preservation and Archaeology (DHPA), the State Historic Preservation Officer for Indiana, and other Section 106 consulting parties for the project. During this meeting, a range of conceptual alternatives were reviewed that

included those specified in the Historic Bridge PA, as well as several others considered for similar projects throughout the United States. Based on the feedback received from the meeting participants, four alternatives were analyzed in detail and a preliminary preferred alternative was identified for the project.

The preliminary preferred alternative proposes a major rehabilitation of the existing structure to address the structural condition and reduce the roadway to a single lane. A signal and stop bar would be installed approximately 100 feet from either end of the bridge. This alternative would be expected to extend the remaining life of the structure by approximately 30 years.

Approximately 0.36-acre of permanent right-of-way would be required for this project. During construction, the maintenance of traffic would occur under a full roadway closure, and a detour would be provided along SR 63, US 36, SR 71, and SR 163. Access to drives would be maintained at all times. Construction is anticipated to begin in the Summer of 2024.

Parsons environmental staff conducted a waters investigation to determine the presence of jurisdictional streams and wetlands and prepared a *Waters of the US Report*. Parsons identified six likely jurisdictional streams and three wetlands within the study area. All applicable permits will be applied for and acquired before construction can begin. Parsons will continue to work in coordination with INDOT Ecology and Waterway Permitting Office (EWPO) to determine the presence and impacts to ecological resources.

This project is within the range of the federally endangered Indiana bat (*Myotis sodalis*) and federally threatened northern long-eared bat (*Myotis septentrionalis*). The Indiana Bat and Northern Long-eared Bat Range-Wide Standard Informal Programmatic Consultation is anticipated to be applied to this project. Project information was uploaded to the United States Fish and Wildlife Service's (USFWS) Information for Planning and Consultation (IPaC) website to identify if any species listed or proposed to be listed may be present in the area of the proposed action. An Official Species List was generated and no critical habitats, and no other species, other than aforementioned bats, were listed as threatened or endangered. Less than 0.25-acre of tree clearing or trimming is anticipated as part of this project.

Regarding Section 106 of the National Preservation Act, this project will follow INDOT's Historic Bridge Project Development Process. Coordination with INDOT's Cultural Resources Office (CRO) will continue throughout the project development process.

Please provide your response within thirty (30) calendar days from the date of this letter. 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 me at (317) 616-4686 or via email at Angela.Mamukoyumi@parsons.com, or the INDOT Project Manager, Sara Heck at (765) 361-5231 or via email at SHeck@indot.in.gov. Thank you in advance for your input.

Sincerely,



Angela Mamukuyomi
Administrative Assistant
Parsons

Attachments –
Maps/Graphics (Location, Topographic, Project Photographs)

Graphics intentionally
omitted refer to Appendix B.

The following agencies received Early Coordination Letters:

Federal Highway Administration
Federal Office Building
575 N Pennsylvania Street, Room 254
Indianapolis, IN 46204

Environmental Policy Manager
INDOT Central Office
100 N. Senate Avenue, Rm N758-ES
Indianapolis, IN 46204

Indiana Geological and Water Survey
611 N Walnut Grove
Bloomington, IN 47405
(Electronic Coordination)

Environmental Coordinator
Indiana Department of Natural Resources
Division of Fish and Wildlife
402 W Washington Street, Room W273
Indianapolis, IN 46204

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

Field Environmental Officer
Chicago Regional Office
US Department of Housing & Urban Development
Metcalfe Fed. Bldg.
77 W Jackson Blvd. Room 2401
Chicago, IL 60604

State Conservationist
Natural Resources Conservation Service
6013 Lakeside Boulevard
Indianapolis, IN 46278

US Army Corps of Engineers
Louisville District, Indianapolis Regulatory Office
Indianapolis, IN 46216

Commander, Eighth Coast Guard District
Attn: Bridge Branch
1222 Spruce Street, Rm 2.102D
St Louis, MO 63103-2832

INDOT Crawfordsville District
41 W 300 N
Crawfordsville, IN 47933

Field Supervisor
US Fish and Wildlife Service
Bloomington Indiana Field Office
620 South Walker Street
Bloomington, Indiana 47403

Vermillion County Surveyor
Vermillion County Courthouse, PO Box 280
Newport, IN 47966

Vermillion County Highway Clerk
PO Box 7
Newport, IN 47966

Executive Director
West Central Indiana Economic Development District,
Inc.
2800 Poplar Street, STE 9A
Terre Haute, IN 47803

Vermillion County Commissioners
Vermillion County Courthouse, PO Box 190
Newport, IN 47966

Section Chief, Wetlands and Stormwater Programs
Indiana Department of Environmental Management
100 N Senate Avenue
Indianapolis, IN 46204

Superintendent
South Vermillion Community School Corporation
800 W Wildcat Drive
Clinton, IN 47842

Clinton City Police Department
259 Vine Street
Clinton, Indiana 47842

Black Diamond Fire Department
501 W Washington Street
Clinton, IN 47842

Vermillion County Sheriff's Department
1888 S SR 63
Hillsdale, IN 47854

Director
Vermillion County Emergency Management
259 Vine Street
Clinton, IN 47842

Floodplain Administrator
Vermillion County
Vermillion County Courthouse
Newport, IN 47966

December 2, 2019

Sample of initial ECL sent
December 2, 2019

«First_Name» «Last_Name»
«Organization»
«Department»
«Street_Address»
«City_State_Zip»

Re: Des. No.: 1701589
Description: SR 163 over Brouilletts Creek Bridge Replacement
1.18 miles east of SR 71
Vermillion County, Indiana

Dear «Salutation» «Last_Name»,

The Indiana Department of Transportation (INDOT) proposes a bridge replacement project on SR 163 over Brouilletts Creek in Vermillion County, Indiana. Specifically, the project is located in the Saint Bernice and Clinton Quadrangles, in Sections 10, 11, 14, and 15 of Township 14 North, Range 10 West (39.665375°, -87.498879°). Environmental analysis is being conducted for this project. The project is funded, in part, by the Federal Highway Administration (FHWA). This letter is part of the early coordination phase of the environmental review process. We are requesting comments from your area of expertise regarding any possible environmental effects associated with this project. Please use the above designation number and description in your reply. We will incorporate your comments into a study of the project’s environmental impacts.

Purpose and Need: The need for the project is due to the deteriorating condition of the existing structure, INDOT Structure 163-83-01393 A. This 175-foot single-span steel truss bridge on vertical abutments was originally constructed in 1932 and upgraded in 1979. In the October 15, 2018 Bridge Inspection Report, the bridge was given a sufficiency rating of 49.3. The substructure was rated 4, poor condition with cracking wingwalls and advanced spalling. The superstructure was rated 5, fair condition with rusted members, section loss, and a bent bracing. Additionally, major damage to and erosion of the stream bank was noted. The purpose of the project is to provide a sufficient crossing of SR 163 over Brouilletts Creek.

Existing Conditions: This section of SR 163 has two 12-foot travel lanes, one in each direction, with 2-foot shoulders. SR 163 is oriented generally east-west and Brouilletts Creek flows from the northwest to the southeast through the study area. The project is located along a rural section of SR 163. Spangler Cemetery is located southeast of the project area. Land adjacent to the bridge consists of maintained right-of-way, trees, and row crop fields.

Proposed Project: The proposed project will replace the existing structure with a three-span prestressed concrete bulb-tee beam bridge. The new bridge will be approximately 275 feet long and 36.3 feet wide. The existing profile will be raised less than 6 feet. An unnamed tributary (UNT) to Brouilletts Creek will be partially realigned and a concrete box culvert beneath CR 170 West will be replaced. Guardrail will be upgraded and extended. Work will occur along a private drive and CR 170 West. Riprap scour protection and drainage turnouts will be added. Approximately 0.72 acre of permanent right-of-way will be acquired. During construction, the SR 163 bridge over Brouilletts Creek will be closed. Traffic will be maintained with a detour using SR 71, US 36, and SR 63. Work may occur year-round starting in the summer of 2021.



Environmental Concerns: The USGS 7.5-minute quadrangle topographical map depicts Brouilletts Creek as a perennial stream (solid blue line) (Attachments: Page 2). Parsons environmental staff conducted waters investigations to determine the presence of jurisdictional streams and wetlands. Parsons identified six likely jurisdictional streams and three wetlands within the study area, draft findings are depicted on the attached GIS-Based Water Resources map (Attachments: Pages 3 to 5). A *Waters of the US Report* is being prepared. All applicable permits will be applied for and acquired before construction can begin. Parsons will continue to work in coordination with INDOT Ecology and Waterway Permitting Office (EWPO) to determine the presence and impacts to ecological resources.

This project is within the range of the federally endangered Indiana bat (*Myotis sodalis*) and federally threatened northern long-eared bat (*Myotis septentrionalis*). The Indiana bat and Northern Long-eared Bat Range-wide Programmatic Informal Consultation is anticipated to be applied to this project. Project information was uploaded to the United States Fish and Wildlife Services' (USFWS) Information for Planning and Consultation (IPaC) website to identify if any species listed or proposed to be listed may be present in the area of the proposed action (Consultation code: 03E12000-2019-SLI-0444). The required IPaC System for Listed Bat Consultation will be completed to confirm this finding. Less than one acre of tree trimming/clearing is anticipated.

Regarding Section 106 of the National Historic Preservation Act, the Minor Projects Programmatic Agreement (MPPA) Category B-12 is anticipated to apply to this project. Additionally, a cemetery development plan may be required per IC 14-21-1-26.5. Coordination with INDOT's Cultural Resources Office (CRO) will occur.

Please respond with your comments on any environmental impacts associated with this project. **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. The Project Manager, Melissa Patton, can be contacted at (765) 361-5697 or via email at mpatton@indot.in.gov. If you have any questions regarding this matter, please contact me at (317) 616-1021 or via e-mail at Keaton.Veldkamp@parsons.com. Thank you in advance for your input.

Sincerely,



Keaton Veldkamp
Associate Environmental Planner
Parsons

Attachments: Graphics

Graphics intentionally omitted refer to Appendix B.

Sent on December 2, 2019
unless otherwise noted.

The following agencies received Early Coordination Letters:

Federal Highway Administration
Federal Office Building
575 N. Pennsylvania St., Room 254
Indianapolis, IN 46204

U.S. Army Corps of Engineers Louisville District
ATTN: CELRL-RDN
P.O. Box 59
Louisville, KY 40201

Manager, Public Hearings
Indiana Department of Transportation
100 N. Senate Avenue, Rm. 642
Indianapolis, IN 46204

Field Environmental Officer
Chicago Regional Office
US Department of Housing & Urban Development
Metcalf Fed. Bldg., Room 2401
77 W. Jackson Blvd.
Chicago, IL 60604

INDOT Crawfordsville District
41 W. 300 N.
Crawfordsville, IN 47933

Vermillion County Surveyor
Courthouse, P.O. Box 280
Newport, IN 47966

Field Supervisor
U.S. Fish and Wildlife Service
Bloomington Indiana Field Office
620 S. Walker St.
Bloomington, Indiana 47403-2121

Vermillion County Highway Clerk
P.O. Box 7
Newport, IN 47966

Environmental Coordinator
Indiana Department of Natural Resources
Division of Fish and Wildlife
Room W264, IGC South
402 W. Washington St.
Indianapolis, IN 46204

Executive Director
West Central Indiana Economic Development District,
Inc.
2800 Poplar St., STE 9A
Terre Haute, IN 47803

State Conservationist
Natural Resources Conservation Service
6013 Lakeside Blvd.
Indianapolis, IN 46278

Superintendent
South Vermillion Community School Corporation
800 W. Wildcat Dr.
Clinton, IN 47842

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

Vermillion County Commissioners
Courthouse, P.O. Box 190
Newport, IN 47966

Indiana Geological and Water Survey
420 N. Walnut St.
Bloomington, IN 47404
(Electronic Coordination)

A copy of the 2019 IGWS
electronic letter was
intentionally omitted. Refer to
the 2022 IGWS letter.

Indiana Department of Environmental Management
100 N. Senate Ave.
Indianapolis, IN 46204
(Electronic Coordination)

A copy of the 2019
IDEM electronic letter
was intentionally
omitted per current
INDOT Guidance.

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

DNR #: ER-22043-1

Request Received: February 24, 2022

Requestor: Parsons
Angela Mamukuyomi
101 West Ohio Street, Suite 2121
Indianapolis, IN 46204

Project: SR 163 bridge (#163-83-01393 A) rehabilitation (originally replacement) over Brouilletts Creek, about 1.18 miles east of SR 71; Des #1701589

County/Site info: Vermillion

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

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

Regulatory Assessment: This proposal will require the formal approval of our agency for construction in a floodway, pursuant to the Flood Control Act (IC 14-28-1), unless it qualifies under the INDOT and IDNR Memorandum of Understanding for Maintenance Activity Exemption, dated March 1997. Please include a copy of this letter with the permit application, if required.

Natural Heritage Database: The Natural Heritage Program's data have been checked. The mussel species below have been documented in Brouilletts Creek within 1/2 mile of the project area.

1. Round Hickorynut (*Obovaria subrotunda*); state endangered
2. Kidneyshell (*Ptychobranchus fasciolaris*); state special concern
3. Little Spectaclecase (*Villosa lienosa*); state special concern

Fish & Wildlife Comments: As long as standard erosion control measures are implemented, we do not foresee any impacts to the mussel species above as a result of this project.

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

1) Bridge Repairs:

Maintaining or improving wildlife movement under roads is a priority concern for the Division of Fish & Wildlife for the ecological health of wildlife populations in terms of movement and dispersal, habitat connectivity, and to avoid unnecessary wildlife mortality on roads. Facilitating wildlife passage ability under roads means less wildlife crossing traffic lanes and consequently reduced driving hazards. We encourage improving fish and wildlife passage conditions, when possible.

Bank lines must be maintained or restored under the structure to allow for wildlife passage above the ordinary high water mark. All wildlife passage designs must include a smooth level pathway a minimum of 1-2 feet in width composed of natural substrate (soil, sand, gravel, etc.) or compacted aggregate fill over riprap (#2, #53, #73, etc.) tied into existing elevations both upstream and downstream.

There are a number of techniques and materials for incorporating wildlife passage into

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

the design of a crossing structure. Coordination with a Regional Environmental Biologist to address wildlife passage issues before submitting a permit application (if required) is encouraged to avoid delays in the permitting process. The following links are good resources to consider in the design of stream crossing structures to maintain fish and wildlife passage: <http://www.fs.fed.us/wildlifecrossings/library/>, https://roadeology.ucdavis.edu/files/content/projects/DOT-FHWA_Wildlife_Crossing_Structures_Handbook.pdf, https://www.fs.fed.us/biology/nsaec/fishxing/aop_pdfs.html, <https://www.fhwa.dot.gov/engineering/hydraulics/pubs/11008/hif11008.pdf>.

2) Bank Stabilization:

Some form of bank and/or streambed stabilization is almost always needed with the construction, repair, replacement, or modification of a stream channel or crossing structure. For streambank stabilization and erosion control, regrading to a stable slope (2:1 or shallower) and establishing native vegetation along the banks are typically the most effective techniques. A variety of methods to accomplish this include: planting plugs, whips, container stock, seeding, and live stakes. In addition to vegetation establishment, some additional level of bioengineered bank stabilization may be needed under certain circumstances (inability to regrade to a stable slope, flow velocities that exceed the limits of vegetation alone, etc.). Combining vegetation with any of the following bank stabilization methods can provide additional bank protection while not compromising benefits to fish, wildlife, and botanical resources: geotextiles (erosion control blankets and/or turf reinforcement mats that are heavy-duty, biodegradable, and net free or that use loose-woven / Leno-woven netting to minimize the entrapment and snaring of small-bodied wildlife such as snakes and turtles), vegetated geogrids or soil lifts, fiber rolls, glacial stone, or riprap. Information about bioengineering techniques can be found at the following link to a USDA/NRCS document that outlines many different bioengineering techniques for streambank stabilization: <http://directives.sc.egov.usda.gov/17553.wba>.

Riprap or other hard bank stabilization materials should be used only at the toe of the sideslopes up to the ordinary high water mark (OHWM) with the exception of areas directly under bridges for instance. The banks above the OHWM should be restored, stabilized, and revegetated using geotextiles and a mixture of grasses, sedges, wildflowers, shrubs, and trees native to Central Indiana and specifically for stream bank/floodway stabilization purposes as soon as possible upon completion. For streambed stabilization or scour protection, riprap or other stabilization materials should not be placed in the active stream channel above the existing streambed or flowline elevation unless specifically designed and installed for grade control and aquatic organism passage. This is to prevent obstructions to the movement of aquatic organisms upstream and downstream.

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 Habitat Mitigation Guidelines (and plant lists) can be found online at: <http://iac.iga.in.gov/iac/20200527-IR-312200284NRA.xml.pdf>.

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

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

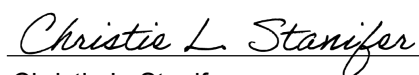
under 0.10 acre in an urban area may still involve the replacement of large diameter trees but typically do not require any additional mitigation or additional plantings beyond seeding and stabilizing disturbed areas. There are exceptions for high quality habitat sites however.

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 are not currently 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 currently mowed areas only. A native herbaceous seed mixture must include at least 5 species of grasses and sedges and 5 species of wildflowers.
2. Minimize and contain within the project limits inchannel disturbance and the clearing of trees and brush.
3. Do not work in the waterway from April 1 through June 30 without the prior written approval of the Division of Fish and Wildlife.
4. Do not cut any trees suitable for Indiana bat or Northern Long-eared bat roosting (greater than 5 inches dbh, living or dead, with loose hanging bark, or with cracks, crevices, or cavities) from April 1 through September 30.
5. Do not construct any temporary runarounds, access bridges, causeways, cofferdams, diversions, or pumparounds.
6. Use minimum average 6 inch graded riprap stone extended below the normal water level to provide habitat for aquatic organisms in the voids.
7. Do not use broken concrete as riprap.
8. Underlay the riprap with a bedding layer of well graded aggregate or a geotextile to prevent piping of soil underneath the riprap.
9. Minimize the movement of resuspended bottom sediment from the immediate project area.
10. Do not deposit or allow construction/demolition materials or debris to fall or otherwise enter the waterway.
11. 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.
12. Seed and protect all disturbed streambanks and slopes not protected by other methods that are 3:1 or steeper with erosion control blankets that are heavy-duty, biodegradable, and net free or that use loose-woven / Leno-woven netting to minimize the entrapment and snaring of small-bodied wildlife such as snakes and turtles (follow manufacturer's recommendations for selection and installation); seed and apply mulch on all other disturbed areas.

Contact Staff:

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



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

Date: March 25, 2022

THIS IS NOT A PERMIT

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

DNR #: ER-22043

Request Received: December 2, 2019

Requestor: Parsons
Keaton Veldkamp
101 West Ohio Street, Suite 2121
Indianapolis, IN 46204

Project: SR 163 bridge (#163-83-01393 A) replacement over Brouilletts Creek, CR 170 West small structure replacement over UNT Brouilletts Creek and UNT realignment, about 1.18 miles east of SR 71; Des #1701589

County/Site info: Vermillion

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

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

Regulatory Assessment: This proposal will require the formal approval for construction in a floodway under the Flood Control Act, IC 14-28-1. Please submit a copy of this letter with the permit application.

Natural Heritage Database: The Natural Heritage Program's data have been checked. The state endangered Round Hickorynut (*Obovaria subrotunda*), and the Kidneyshell (*Ptychobranthus fasciolaris*) and Little Spectaclecase (*Villosa lienosa*), both state species of special concern, have been documented in Brouilletts Creek within 1/2 mile of the project area.

Fish & Wildlife Comments: As long as standard erosion control measures are implemented, we do not foresee any impacts to the mussel species above as a result of this project.

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

1) Stream Crossing Design:

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

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

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

2) Bank Stabilization:

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

Riprap or other hard bank stabilization materials should be used only at the toe of the sideslopes up to the ordinary high water mark (OHWM) with the exception of areas directly under bridges for instance. The banks above the OHWM should be restored, stabilized, and revegetated using geotextiles and a mixture of grasses, sedges, wildflowers, shrubs, and trees native to Central Indiana and specifically for stream bank/floodway stabilization purposes as soon as possible upon completion. For streambed stabilization or scour protection, riprap or other stabilization materials should not be placed in the active stream channel above the existing streambed or flowline elevation. This is to prevent obstructions to the movement of aquatic organisms upstream and downstream.

3) Riparian Habitat:

We recommend a mitigation plan be developed (and submitted with the permit application) 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"

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

dbh or greater (5:1 mitigation based on the number of large trees) or by using the 1:1 replacement ratio based on area depending on the type of habitat impacted (individual canopy tree removal in an urban streetscape or park-like environment versus removal of habitat supporting a tree canopy, woody understory, and herbaceous layer). Impacts under 0.10 acres may still involve the replacement of large diameter trees but typically do not require any additional mitigation or additional plantings beyond seeding and stabilizing disturbed areas. There are exceptions for high quality habitat sites however.

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 are not currently 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 currently 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 5 inches dbh, living or dead, with loose hanging bark, or with cracks, crevices, or cavities) from April 1 through September 30.
5. Do not construct any temporary runarounds, access bridges, causeways, cofferdams, diversions, or pumparounds.
6. Use minimum average 6 inch graded riprap stone extended below the normal water level to provide habitat for aquatic organisms in the voids.
7. Do not use broken concrete as riprap.
8. Underlay the riprap with a bedding layer of well graded aggregate or a geotextile to prevent piping of soil underneath the riprap.
9. Minimize the movement of resuspended bottom sediment from the immediate project area.
10. Do not deposit or allow demolition/construction materials or debris to fall or otherwise enter the waterway.
11. 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.
12. Seed and protect all disturbed streambanks and slopes not protected by other methods that are 3:1 or steeper with erosion control blankets that are heavy-duty, biodegradable, and net free or that use loose-woven / Leno-woven netting to minimize the entrapment and snaring of small-bodied wildlife such as snakes and turtles (follow manufacturer's recommendations for selection and installation); seed and apply mulch on all other disturbed areas.

Contact Staff:

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



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

Date: January 7, 2020

Veldkamp, Keaton

From: Dirks, Robert (FHWA) <Robert.Dirks@dot.gov>
Sent: Tuesday, December 3, 2019 3:45 PM
To: Veldkamp, Keaton
Subject: [EXTERNAL] FW: Early Coordination, Des. No. 1701589, SR 163 over Brouilletts Creek, Vermillion County

FYI. Start reading from the bottom.

Robert Dirks

Planning and Environmental Specialist
Federal Highway Administration - Indiana Division
575 N. Pennsylvania St., #254
Indianapolis, Indiana 46204
robert.dirks@dot.gov
317-226-7492 phone
317-294-5511 cell

From: Kennedy, Mary [mailto:MKENNEDY@indot.IN.gov]
Sent: Tuesday, December 3, 2019 9:22 AM
To: Dirks, Robert (FHWA) <Robert.Dirks@dot.gov>
Cc: Allen, Michelle (FHWA) <michelle.allen@dot.gov>; Branigin, Susan <SBranigin@indot.IN.gov>; Patton, Melissa <MPatton@indot.IN.gov>; Bales, Ronald <rbales@indot.IN.gov>; McMullen, Kenneth B <KMcmullen@indot.IN.gov>
Subject: RE: Early Coordination, Des. No. 1701589, SR 163 over Brouilletts Creek, Vermillion County

Taking a closer look at this one, the database indicates it was built by the Vincennes Bridge Company, which was identified as a significant bridge builder in Indiana. This should have assigned the bridge 3 points for significance, but I don't see that it was in the inventory (I don't know why it was not?). Deductions are made for integrity issues – not sure if anything major has been changed on this one without looking into it further. A bridge only needs to have 1 point to be eligible. I think we would have some parties pressing us to make this one eligible. It is in the western region of Indiana Landmarks and they have been active on several historic bridge projects in recent years.

From: Kennedy, Mary
Sent: Tuesday, December 03, 2019 8:37 AM
To: Dirks, Robert (FHWA) <Robert.Dirks@dot.gov>
Cc: Allen, Michelle (FHWA) <michelle.allen@dot.gov>; Branigin, Susan <SBranigin@indot.IN.gov>; Patton, Melissa <MPatton@indot.IN.gov>; Bales, Ronald <rbales@indot.IN.gov>; McMullen, Kenneth B <KMcmullen@indot.IN.gov>
Subject: RE: Early Coordination, Des. No. 1701589, SR 163 over Brouilletts Creek, Vermillion County

Hi Robert,

Thank you for sending this information. This bridge was determined not to be NRHP eligible in the Historic Bridge Inventory. We have not seen anything related to Section 106 yet, so I don't know if the intent is to send in an MPPA determination (B-12 is for bridge replacements). Given the sensitivity with truss bridges, we can always have this one go through full Section 106, however, to be as transparent as possible. Let us know what you think.

Mary E. Kennedy

Historic Bridge Specialist

100 N. Senate Ave., Room N642-ES
Indianapolis, IN 46204

Office: (317) 232-5215

Email: mkennedy@indot.in.gov



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[\[youtube.com\]](https://www.youtube.com)



[\[entapps.indot.in.gov\]](https://entapps.indot.in.gov)



[\[in.gov\]](https://www.in.gov)

****Updated guidance for historic bridge projects can be found in the links below:**

[Overview-Indiana Historic Bridges Program \[in.gov\]](#)

[Historic Bridge Project Development Process \[in.gov\]](#)

[Procedures for Public Hearings under the Historic Bridges PA \[in.gov\]](#)

***For the latest updates from INDOT's Cultural Resources Office, subscribe to the Environmental Services listserv: <https://www.in.gov/indot/3217.htm> [in.gov]**

From: Dirks, Robert (FHWA) [<mailto:Robert.Dirks@dot.gov>]

Sent: Monday, December 02, 2019 4:40 PM

To: Kennedy, Mary <MKENNEDY@indot.IN.gov>

Subject: FW: Early Coordination, Des. No. 1701589, SR 163 over Brouilletts Creek, Vermillion County

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

Is this a select bridge? I'm a little surprised they called a truss bridge a "bridge replacement" in the ECL.

Robert Dirks

Planning and Environmental Specialist
Federal Highway Administration - Indiana Division
575 N. Pennsylvania St., #254
Indianapolis, Indiana 46204
robert.dirks@dot.gov
317-226-7492 phone
317-294-5511 cell

From: Veldkamp, Keaton [<mailto:Keaton.Veldkamp@parsons.com>]

Sent: Monday, December 2, 2019 4:29 PM

To: Dirks, Robert (FHWA) <Robert.Dirks@dot.gov>

Subject: Early Coordination, Des. No. 1701589, SR 163 over Brouilletts Creek, Vermillion County

RE: SR 163 over Brouilletts Creek Bridge Replacement
Vermillion County, Indiana
Des. No. 1701589

Mr. Dirks,

Please see the attached early coordination letter for this project.

Thank you,

Keaton Veldkamp

Associate Environmental Planner
101 West Ohio Street, Suite 2121 - Indianapolis, IN 46204
Keaton.Veldkamp@parsons.com P: 317.616.1021



Organization and Project Information

Project ID:
Des. ID:
Project Title: SR 163 Over Brouillettes CK
Name of Organization: Parsons
Requested by: Angela Mamukuyomi

Environmental Assessment Report

1. Geological Hazards:
 - Potential Mine Subsidence ([CMIS](#))
 - High liquefaction potential
 - 1% Annual Chance Flood Hazard
2. Mineral Resources:
 - Bedrock Resource: High Potential
 - Sand and Gravel Resource: High Potential
3. Active or abandoned mineral resources extraction sites:
 - Underground Coal Mines
 - Surface Coal Mines

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

The 2019 electronic letter was omitted to avoid duplication.

DISCLAIMER:

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

This information was furnished by Indiana Geological Survey

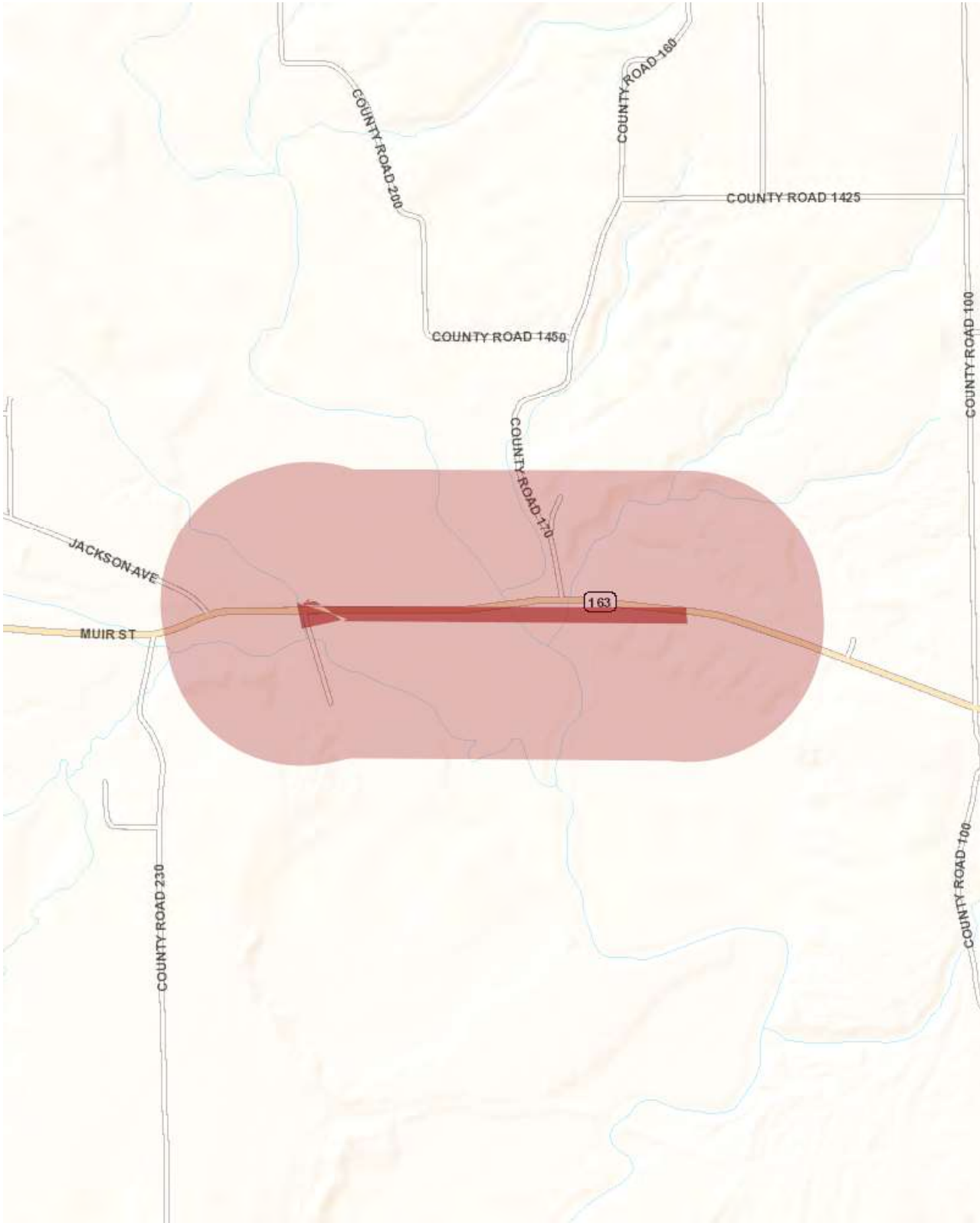
Address: 1001 E. 10th St., Bloomington, IN 47405

Email: IGSEnvir@indiana.edu

Phone: 812 855-7428

Date: February 24, 2022







Metadata:

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

Port, Juliet [US-US]

From: Mamukuyomi, Angela [US-US]
Sent: Tuesday, March 1, 2022 9:50 AM
To: Veldkamp, Keaton [US-US]
Subject: FW: [EXTERNAL] Re: Des. No. 701589 SR 163 Brouilletts ECL Early Coordination Letter

Follow Up Flag: Follow up
Flag Status: Flagged

Keaton,

Please see email below.

From: Ronald Mack <ronald.mack@vermillioncounty.in.gov>
Sent: Tuesday, March 1, 2022 9:34 AM
To: Mamukuyomi, Angela [US-US] <Angela.Mamukuyomi@parsons.com>
Cc: Kurt Hill <hillfamfarms@gmail.com>; WESCH LAW FIRM P.C. Joel Wesch <joelwesch@weschlawfirm.com>; Tyler Smith <Tylersmith1315@gmail.com>; Bryan Noggle <nogglex@sbcglobal.net>; Brent Morgan <bmmorgan@icloud.com>; Tim Yocum <tim.yocum@vermillioncounty.in.gov>; Ronald Dunavan <ronalddunavan@gmail.com>; Britton Luther <britton.luther@vermillioncounty.in.gov>

Dear Ms. Mamukuyomi,

I am in receipt of your letter dated February 24, 2022 discussing anticipated work to repair and preserve the suspension bridge on Hwy. 163 over Brouilletts Creek. While we have little concern regarding the actual work to the bridge and highway proper, the drawings provided indicate there will be some work in the water way / creek and approach to Hwy. 163 off Co. Rd. 170 West, from the north.

Our County Highway Crews were in the preliminary stages preparing to dredge or otherwise clean out the creek running north along Co. Rd. 170 West to enhance the drainage off the road & adjoining properties- most likely doing so running all the way north along the road to the box culvert that crosses under Co. Rd. 170 West, running east. It would not be prudent for Vermillion County to go through all this work if INDOT is going to perform work that may affect our desired outcome.

I am hoping, at this early point in the project, that you can provide more detailed information regarding the work anticipated in and along the approach to Hwy. 163 off Co. Rd. 170 West, especially work that will be done in the creek (distance upstream that clearing, dredging / modifications will occur, bank stabilization, etc.).

Thank you in advance for providing your prompt response.

Sincerely,

Ronald A. Mack
Vermilion County Surveyor
Vermillion County Courthouse - Rm. 206
P.O. Box 280
225 Main Street
Newport, IN 47966

Veldkamp, Keaton [US-US]

From: Veldkamp, Keaton [US-US]
Sent: Wednesday, March 9, 2022 11:09 AM
To: ronald.mack@vermillioncounty.in.gov
Cc: hillfamfarms@gmail.com; joelwesch@weschlawfirm.com; Kahn, Brad [US-US]; Graf, Jennifer [US-US]; Tylersmith1315@gmail.com; nogglex@sbcglobal.net; bmmorgan@icloud.com; tim.yocum@vermillioncounty.in.gov; ronaldunavan@gmail.com; britton.luther@vermillioncounty.in.gov
Subject: FW: [EXTERNAL] Re: Des. No. 701589 SR 163 Brouilletts ECL Early Coordination Letter
Attachments: FW: [EXTERNAL] Re: Des. No. 701589 SR 163 Brouilletts ECL Early Coordination Letter

SR 163 over Brouilletts Creek Bridge Project
Vermillion County
Des. No. 1701589

Good afternoon Ronald,

Thank you for your inquiry about the upcoming SR 163 bridge project. The mapping we included with the early coordination letter illustrated the study area of the Water's Report investigation which was based on a previous scope of work at this location. Since then, the overall footprint of the project has shrunk and is more localized around the SR 163 bridge. The only stream work proposed is within Brouilletts Creek. There is no work anticipated along the creek in question from its confluence with Brouilletts Creek back to the culvert under CR 170 and beyond. Within Brouilletts Creek, we are anticipating the placement of riprap along the east and west banks.

Please let us know if you have any additional questions or would like any more information.

Thanks,

Keaton Veldkamp
Environmental Planner
101 West Ohio Street, Suite 2121 - Indianapolis, IN 46204
Keaton.Veldkamp@parsons.com P: 317.616.1021

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March 14, 2022

Angela Mamukuyomi
Parsons
101 West Ohio Street, Suite 2121
Indianapolis, Indiana 46204

Dear Ms. Mamukuyomi:

The proposed project to make small structure improvements on State Road 163 over Brouilletts Creek in Vermillion County, Indiana, (Des. No. 1701589) as referred to in your letter received February 24, 2022, will cause a conversion of prime farmland.

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

If you need additional information, please contact John Allen at 317-295-5859 or john.allen@usda.gov.

Sincerely,

JOHN ALLEN Digitally signed by JOHN ALLEN
Date: 2022.03.15 07:30:51 -04'00'

JOHN ALLEN
Acting State Soil Scientist

Enclosures

Veldkamp, Keaton [US-US]

From: Veldkamp, Keaton [US-US]
Sent: Tuesday, April 19, 2022 3:20 PM
To: Allen, John - NRCS, Indianapolis, IN
Cc: Graf, Jennifer [US-US]
Subject: 1701589 SR 163 over Brouilletts Creek Bridge Project NRCS 1006 Form
Attachments: 17010589 SR 163 NRCS 1006 Form.pdf

SR 163 over Brouilletts Creek Bridge Project
Vermillion County
Des. No. 1701589

Hi John,

Thank you for your response to our early coordination letter. Please find the completed NRCS 1006 Form for the project attached.

Please let us know if you have any questions.

Thanks,

Keaton Veldkamp
Environmental Planner
101 West Ohio Street, Suite 2121 - Indianapolis, IN 46204
Keaton.Veldkamp@parsons.com P: 317.616.1021

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FARMLAND CONVERSION IMPACT RATING

PART I (To be completed by Federal Agency)		Date Of Land Evaluation Request 2/23/2022			
Name of Project SR 163 over Brouilletts Creek		Federal Agency Involved FHWA			
Proposed Land Use Transportation		County and State Vermillion County, Indiana			
PART II (To be completed by NRCS)		Date Request Received By NRCS 2/24/22		Person Completing Form: JRA	
Does the site contain Prime, Unique, Statewide or Local Important Farmland? <i>(If no, the FPPA does not apply - do not complete additional parts of this form)</i>		YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>		Acres Irrigated _____ Average Farm Size 435 ac	
Major Crop(s) Corn		Farmable Land In Govt. Jurisdiction Acres: 145525 % 87		Amount of Farmland As Defined in FPPA Acres: 130354% 78	
Name of Land Evaluation System Used LESA		Name of State or Local Site Assessment System _____		Date Land Evaluation Returned by NRCS 3/14/22	
PART III (To be completed by Federal Agency)		Alternative Site Rating			
		Site A	Site B	Site C	Site D
A. Total Acres To Be Converted Directly		0.36			
B. Total Acres To Be Converted Indirectly		0.00			
C. Total Acres In Site		0.36			
PART IV (To be completed by NRCS) Land Evaluation Information					
A. Total Acres Prime And Unique Farmland		0.32			
B. Total Acres Statewide Important or Local Important Farmland		0.00			
C. Percentage Of Farmland in County Or Local Govt. Unit To Be Converted		<0.001			
D. Percentage Of Farmland in Govt. Jurisdiction With Same Or Higher Relative Value		94			
PART V (To be completed by NRCS) Land Evaluation Criterion Relative Value of Farmland To Be Converted (Scale of 0 to 100 Points)		58			
PART VI (To be completed by Federal Agency) Site Assessment Criteria <i>(Criteria are explained in 7 CFR 658.5 b. For Corridor project use form NRCS-CPA-106)</i>		Maximum Points	Site A	Site B	Site C
1. Area In Non-urban Use		(15)	14		
2. Perimeter In Non-urban Use		(10)	10		
3. Percent Of Site Being Farmed		(20)	0		
4. Protection Provided By State and Local Government		(20)	0		
5. Distance From Urban Built-up Area		(15)	5		
6. Distance To Urban Support Services		(15)	10		
7. Size Of Present Farm Unit Compared To Average		(10)	5		
8. Creation Of Non-farmable Farmland		(10)	0		
9. Availability Of Farm Support Services		(5)	0		
10. On-Farm Investments		(20)	0		
11. Effects Of Conversion On Farm Support Services		(10)	0		
12. Compatibility With Existing Agricultural Use		(10)	0		
TOTAL SITE ASSESSMENT POINTS		160	44	0	0
PART VII (To be completed by Federal Agency)					
Relative Value Of Farmland (From Part V)		100	58	0	0
Total Site Assessment (From Part VI above or local site assessment)		160	44	0	0
TOTAL POINTS (Total of above 2 lines)		260	102	0	0
Site Selected: A		Date Of Selection 4/19/2022		Was A Local Site Assessment Used? YES <input type="checkbox"/> NO <input checked="" type="checkbox"/>	
Reason For Selection: The selected site meets the project's purpose and need.					
Name of Federal agency representative completing this form:					Date:

(See Instructions on reverse side)

Veldkamp, Keaton

From: McWilliams, Robin <robin_mcwilliams@fws.gov>
Sent: Wednesday, December 4, 2019 5:07 PM
To: Veldkamp, Keaton
Subject: Re: [EXTERNAL] Early Coordination, Des. No. 1701589, SR 163 over Brouilletts Creek, Vermillion County

Follow Up Flag: Follow up
Flag Status: Flagged

Dear Mr. Veldkamp,

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 Mon, Dec 2, 2019 at 4:36 PM Veldkamp, Keaton <Keaton.Veldkamp@parsons.com> wrote:

RE: SR 163 over Brouilletts Creek Bridge Replacement

Vermillion County, Indiana

Des. No. 1701589

Ms. McWilliams,

Please see the attached early coordination letter for this project.



United States Department of the Interior



FISH AND WILDLIFE SERVICE
Indiana Ecological Services Field Office
620 South Walker Street
Bloomington, IN 47403-2121
Phone: (812) 334-4261 Fax: (812) 334-4273

In Reply Refer To:

June 30, 2022

Project Code: 2022-0003724

Project Name: Des. 1701589 SR 163 over Brouilletts Creek Bridge Project

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

To Whom It May Concern:

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

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

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

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

determine if your project will have an adverse effect on listed species and will help lead you through the Section 7 process. For all **wind energy projects and projects that include installing towers that use guy wires or are over 200 feet in height**, please contact this field office directly for assistance, even if no federally listed plants, animals or critical habitat are present within your proposed project or may be affected by your proposed project.

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

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

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

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

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

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

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

We appreciate your concern for threatened and endangered species. The Service encourages Federal agencies to include conservation of threatened and endangered species into their project planning to further the purposes of the Act. **Please include the Consultation Code in the header of this letter with any request for consultation or correspondence about your project that you submit to our office.**

Attachment(s):

- Official Species List
- Migratory Birds
- Wetlands

Official Species List

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

This species list is provided by:

Indiana Ecological Services Field Office

620 South Walker Street
Bloomington, IN 47403-2121
(812) 334-4261

Project Summary

Project Code: 2022-0003724
Event Code: None
Project Name: Des. 1701589 SR 163 over Brouilletts Creek Bridge Project
Project Type: Road/Hwy - Maintenance/Modification
Project Description: The Indiana Department of Transportation (INDOT) is planning a bridge project on SR 163 over Brouilletts Creek, 1.18 miles east of SR 71, in Vermillion County, Indiana (Des. 1701589). This 175-foot single-span steel truss bridge, INDOT Structure 163-83-01393 A (National Bridge Inventory [NBI] No. 28420), on vertical abutments was originally constructed in 1932 and rehabilitated in 1979. Recent inspections have found the bridge substructure to be in poor condition. The bridge does not meet the current HS-15 (27-ton truck) load rating design standards. Additionally, the existing bridge does not meet current design standards for lane width or shoulder width. These geometric deficiencies have led to numerous collisions, resulting in damage to the bridge's railing and end post. The bridge is eligible for inclusion in the National Register of Historic Places (NHRP) and is identified as 'Select' under the Indiana Historic Programmatic Agreement (Historic Bridge PA). Project termini are approximately 550 feet west to 500 feet east of the current bridge.

This section of SR 163 has two 12-foot travel lanes, one in each direction, with 2-foot shoulders. SR 163 is oriented generally east-west and Brouilletts Creek flows from the northwest to the southeast through the study area. The project is located along a rural section of SR 163. Spangler Cemetery is located southeast of the project area. Land adjacent to the bridge consists of maintained right-of-way, trees, and row crop fields.

The preliminary identified preferred alternative proposes a major rehabilitation of the existing structure to address the structural condition and reduce the roadway to a single lane. A signal and stop bar would be installed approximately 100 feet from either end of the bridge. Riprap scour protection will be added. Approximately 0.36 acre of permanent right-of-way will be acquired. During construction, the maintenance of traffic would occur under a full roadway closure, and a detour would be provided along SR 63, US 36, SR 71, and SR 163. Access to drives would be maintained at all times. Construction is anticipated to begin in Summer of 2024.

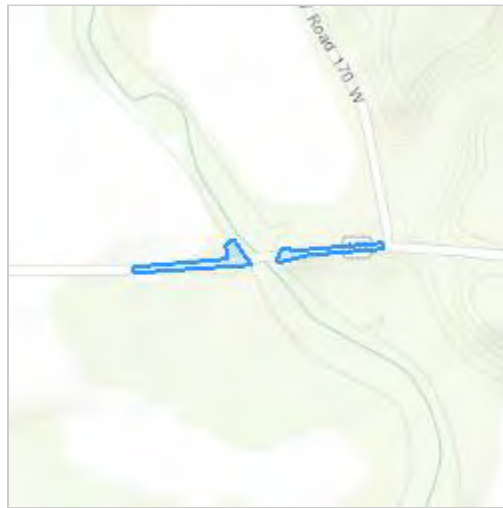
Suitable summer habitat exists within and adjacent to the project area along SR 163 and Brouilletts Creek. Up to 1.0 acre of tree clearing/trimming is anticipated to allow for construction access. All tree clearing will occur within 100 feet of existing pavement. Tree trimming/clearing

will be limited to the inactive season. The primary tree species observed within the project area were silver maple (*Acer saccharinum*), sugar maple (*Acer saccharum*), box elder (*Acer negundo*), American sycamore (*Platanus occidentalis*), American elm (*Ulmus americana*), eastern cottonwood (*Populus deltoides*), hackberry (*Celtis occidentalis*), and black walnut (*Juglans nigra*). The contractor will likely use temporary lighting during construction. No permanent lighting exists within the project area.

A review of the USFWS GIS database for Indiana bat and northern long-eared bat roosting, hibernacula, and capture sites was conducted for Des. 1701598 on February 3, 2022. There are no documented sites within a half mile of the project area. The existing structure was inspected for bats on October 14, 2021, and no evidence for bats was reported. The bridge will be re-inspected prior to the start of construction. Mitigation for this project is not anticipated.

Project Location:

Approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/@39.66542715,-87.49805917979032,14z>



Counties: Vermillion County, Indiana

Endangered Species Act Species

There is a total of 3 threatened, endangered, or candidate species on this species list.

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

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries¹, as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

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

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

Mammals

NAME	STATUS
Indiana Bat <i>Myotis sodalis</i> There is final critical habitat for this species. The location of the critical habitat is not available. Species profile: https://ecos.fws.gov/ecp/species/5949	Endangered
Northern Long-eared Bat <i>Myotis septentrionalis</i> No critical habitat has been designated for this species. This species only needs to be considered under the following conditions: <ul style="list-style-type: none">▪ Incidental take of the NLEB is not prohibited here. Federal agencies may consult using the 4(d) rule streamlined process. Transportation projects may consult using the programmatic process. See www.fws.gov/midwest/endangered/mammals/nleb/index.html Species profile: https://ecos.fws.gov/ecp/species/9045	Threatened

Insects

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

Critical habitats

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

Migratory Birds

Certain birds are protected under the Migratory Bird Treaty Act¹ and the Bald and Golden Eagle Protection Act².

Any person or organization who plans or conducts activities that may result in impacts to migratory birds, eagles, and their habitats should follow appropriate regulations and consider implementing appropriate conservation measures, as described [below](#).

-
1. The [Migratory Birds Treaty Act](#) of 1918.
 2. The [Bald and Golden Eagle Protection Act](#) of 1940.
 3. 50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)

The birds listed below are birds of particular concern either because they occur on the [USFWS Birds of Conservation Concern \(BCC\) list](#) or warrant special attention in your project location. To learn more about the levels of concern for birds on your list and how this list is generated, see the FAQ [below](#). This is not a list of every bird you may find in this location, nor a guarantee that every bird on this list will be found in your project area. To see exact locations of where birders and the general public have sighted birds in and around your project area, visit the [E-bird data mapping tool](#) (Tip: enter your location, desired date range and a species on your list). For projects that occur off the Atlantic Coast, additional maps and models detailing the relative occurrence and abundance of bird species on your list are available. Links to additional information about Atlantic Coast birds, and other important information about your migratory bird list, including how to properly interpret and use your migratory bird report, can be found [below](#).

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to migratory birds on your list, click on the PROBABILITY OF PRESENCE SUMMARY at the top of your list to see when these birds are most likely to be present and breeding in your project area.

NAME	BREEDING SEASON
American Golden-plover <i>Pluvialis dominica</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds elsewhere
Bald Eagle <i>Haliaeetus leucocephalus</i> This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities. https://ecos.fws.gov/ecp/species/1626	Breeds Oct 15 to Aug 31

NAME	BREEDING SEASON
Kentucky Warbler <i>Oporornis formosus</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds Apr 20 to Aug 20
Red-headed Woodpecker <i>Melanerpes erythrocephalus</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds May 10 to Sep 10
Wood Thrush <i>Hylocichla mustelina</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds May 10 to Aug 31

Probability Of Presence Summary

The graphs below provide our best understanding of when birds of concern are most likely to be present in your project area. This information can be used to tailor and schedule your project activities to avoid or minimize impacts to birds. Please make sure you read and understand the FAQ "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

Probability of Presence (■)

Each green bar represents the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during a particular week of the year. (A year is represented as 12 4-week months.) A taller bar indicates a higher probability of species presence. The survey effort (see below) can be used to establish a level of confidence in the presence score. One can have higher confidence in the presence score if the corresponding survey effort is also high.

How is the probability of presence score calculated? The calculation is done in three steps:

1. The probability of presence for each week is calculated as the number of survey events in the week where the species was detected divided by the total number of survey events for that week. For example, if in week 12 there were 20 survey events and the Spotted Towhee was found in 5 of them, the probability of presence of the Spotted Towhee in week 12 is 0.25.
2. To properly present the pattern of presence across the year, the relative probability of presence is calculated. This is the probability of presence divided by the maximum probability of presence across all weeks. For example, imagine the probability of presence in week 20 for the Spotted Towhee is 0.05, and that the probability of presence at week 12 (0.25) is the maximum of any week of the year. The relative probability of presence on week 12 is $0.25/0.25 = 1$; at week 20 it is $0.05/0.25 = 0.2$.
3. The relative probability of presence calculated in the previous step undergoes a statistical conversion so that all possible values fall between 0 and 10, inclusive. This is the probability of presence score.

Breeding Season (■)

Yellow bars denote a very liberal estimate of the time-frame inside which the bird breeds across its entire range. If there are no yellow bars shown for a bird, it does not breed in your project area.

Survey Effort (|)

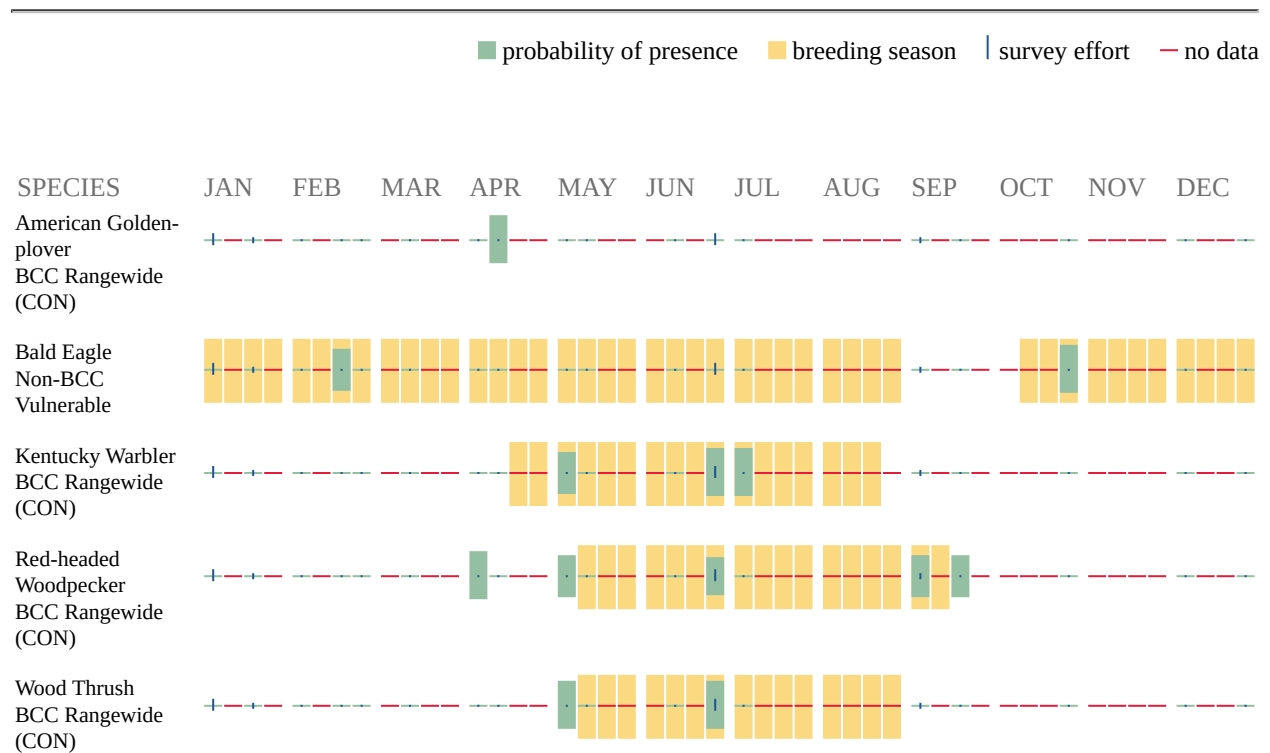
Vertical black lines superimposed on probability of presence bars indicate the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps. The number of surveys is expressed as a range, for example, 33 to 64 surveys.

No Data (-)

A week is marked as having no data if there were no survey events for that week.

Survey Timeframe

Surveys from only the last 10 years are used in order to ensure delivery of currently relevant information. The exception to this is areas off the Atlantic coast, where bird returns are based on all years of available data, since data in these areas is currently much more sparse.



Additional information can be found using the following links:

- Birds of Conservation Concern <https://www.fws.gov/program/migratory-birds/species>
- Measures for avoiding and minimizing impacts to birds <https://www.fws.gov/library/collections/avoiding-and-minimizing-incident-take-migratory-birds>
- Nationwide conservation measures for birds <https://www.fws.gov/sites/default/files/documents/nationwide-standard-conservation-measures.pdf>

Migratory Birds FAQ

Tell me more about conservation measures I can implement to avoid or minimize impacts to migratory birds.

[Nationwide Conservation Measures](#) describes measures that can help avoid and minimize impacts to all birds at any location year round. Implementation of these measures is particularly important when birds are most likely to occur in the project area. When birds may be breeding in the area, identifying the locations of any active nests and avoiding their destruction is a very helpful impact minimization measure. To see when birds are most likely to occur and be breeding in your project area, view the Probability of Presence Summary. [Additional measures](#) or [permits](#) may be advisable depending on the type of activity you are conducting and the type of infrastructure or bird species present on your project site.

What does IPaC use to generate the migratory birds potentially occurring in my specified location?

The Migratory Bird Resource List is comprised of USFWS [Birds of Conservation Concern \(BCC\)](#) and other species that may warrant special attention in your project location.

The migratory bird list generated for your project is derived from data provided by the [Avian Knowledge Network \(AKN\)](#). The AKN data is based on a growing collection of [survey, banding, and citizen science datasets](#) and is queried and filtered to return a list of those birds reported as occurring in the 10km grid cell(s) which your project intersects, and that have been identified as warranting special attention because they are a BCC species in that area, an eagle ([Eagle Act](#) requirements may apply), or a species that has a particular vulnerability to offshore activities or development.

Again, the Migratory Bird Resource list includes only a subset of birds that may occur in your project area. It is not representative of all birds that may occur in your project area. To get a list of all birds potentially present in your project area, please visit the [AKN Phenology Tool](#).

What does IPaC use to generate the probability of presence graphs for the migratory birds potentially occurring in my specified location?

The probability of presence graphs associated with your migratory bird list are based on data provided by the [Avian Knowledge Network \(AKN\)](#). This data is derived from a growing collection of [survey, banding, and citizen science datasets](#).

Probability of presence data is continuously being updated as new and better information becomes available. To learn more about how the probability of presence graphs are produced and how to interpret them, go to the Probability of Presence Summary and then click on the "Tell me about these graphs" link.

How do I know if a bird is breeding, wintering, migrating or present year-round in my project area?

To see what part of a particular bird's range your project area falls within (i.e. breeding, wintering, migrating or year-round), you may refer to the following resources: [The Cornell Lab of Ornithology All About Birds Bird Guide](#), or (if you are unsuccessful in locating the bird of interest there), the [Cornell Lab of Ornithology Neotropical Birds guide](#). If a bird on your migratory bird species list has a breeding season associated with it, if that bird does occur in your

project area, there may be nests present at some point within the timeframe specified. If "Breeds elsewhere" is indicated, then the bird likely does not breed in your project area.

What are the levels of concern for migratory birds?

Migratory birds delivered through IPaC fall into the following distinct categories of concern:

1. "BCC Rangewide" birds are [Birds of Conservation Concern](#) (BCC) that are of concern throughout their range anywhere within the USA (including Hawaii, the Pacific Islands, Puerto Rico, and the Virgin Islands);
2. "BCC - BCR" birds are BCCs that are of concern only in particular Bird Conservation Regions (BCRs) in the continental USA; and
3. "Non-BCC - Vulnerable" birds are not BCC species in your project area, but appear on your list either because of the [Eagle Act](#) requirements (for eagles) or (for non-eagles) potential susceptibilities in offshore areas from certain types of development or activities (e.g. offshore energy development or longline fishing).

Although it is important to try to avoid and minimize impacts to all birds, efforts should be made, in particular, to avoid and minimize impacts to the birds on this list, especially eagles and BCC species of rangewide concern. For more information on conservation measures you can implement to help avoid and minimize migratory bird impacts and requirements for eagles, please see the FAQs for these topics.

Details about birds that are potentially affected by offshore projects

For additional details about the relative occurrence and abundance of both individual bird species and groups of bird species within your project area off the Atlantic Coast, please visit the [Northeast Ocean Data Portal](#). The Portal also offers data and information about other taxa besides birds that may be helpful to you in your project review. Alternately, you may download the bird model results files underlying the portal maps through the [NOAA NCCOS Integrative Statistical Modeling and Predictive Mapping of Marine Bird Distributions and Abundance on the Atlantic Outer Continental Shelf](#) project webpage.

Bird tracking data can also provide additional details about occurrence and habitat use throughout the year, including migration. Models relying on survey data may not include this information. For additional information on marine bird tracking data, see the [Diving Bird Study](#) and the [nanotag studies](#) or contact [Caleb Spiegel](#) or [Pam Loring](#).

What if I have eagles on my list?

If your project has the potential to disturb or kill eagles, you may need to [obtain a permit](#) to avoid violating the Eagle Act should such impacts occur.

Proper Interpretation and Use of Your Migratory Bird Report

The migratory bird list generated is not a list of all birds in your project area, only a subset of birds of priority concern. To learn more about how your list is generated, and see options for identifying what other birds may be in your project area, please see the FAQ "What does IPaC use to generate the migratory birds potentially occurring in my specified location". Please be aware this report provides the "probability of presence" of birds within the 10 km grid cell(s) that overlap your project; not your exact project footprint. On the graphs provided, please also look carefully at the survey effort (indicated by the black vertical bar) and for the existence of the "no

data" indicator (a red horizontal bar). A high survey effort is the key component. If the survey effort is high, then the probability of presence score can be viewed as more dependable. In contrast, a low survey effort bar or no data bar means a lack of data and, therefore, a lack of certainty about presence of the species. This list is not perfect; it is simply a starting point for identifying what birds of concern have the potential to be in your project area, when they might be there, and if they might be breeding (which means nests might be present). The list helps you know what to look for to confirm presence, and helps guide you in knowing when to implement conservation measures to avoid or minimize potential impacts from your project activities, should presence be confirmed. To learn more about conservation measures, visit the FAQ "Tell me about conservation measures I can implement to avoid or minimize impacts to migratory birds" at the bottom of your migratory bird trust resources page.

Wetlands

Impacts to [NWI wetlands](#) and other aquatic habitats may be subject to regulation under Section 404 of the Clean Water Act, or other State/Federal statutes.

For more information please contact the Regulatory Program of the local [U.S. Army Corps of Engineers District](#).

Please note that the NWI data being shown may be out of date. We are currently working to update our NWI data set. We recommend you verify these results with a site visit to determine the actual extent of wetlands on site.

RIVERINE

- [Riverine](#)

IPaC User Contact Information

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Lead Agency Contact Information

Lead Agency: Federal Highway Administration



United States Department of the Interior



FISH AND WILDLIFE SERVICE
Indiana Ecological Services Field Office
620 South Walker Street
Bloomington, IN 47403-2121
Phone: (812) 334-4261 Fax: (812) 334-4273

In Reply Refer To:

June 30, 2022

Project code: 2022-0003724

Project Name: Des. 1701589 SR 163 over Brouilletts Creek Bridge Project

Subject: Concurrence verification letter for the 'Des. 1701589 SR 163 over Brouilletts Creek Bridge Project' 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. 1701589 SR 163 over Brouilletts Creek Bridge Project** (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.

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

- Monarch Butterfly *Danaus plexippus* Candidate

Project Description

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

Name

Des. 1701589 SR 163 over Brouilletts Creek Bridge Project

Description

The Indiana Department of Transportation (INDOT) is planning a bridge project on SR 163 over Brouilletts Creek, 1.18 miles east of SR 71, in Vermillion County, Indiana (Des. 1701589). This 175-foot single-span steel truss bridge, INDOT Structure 163-83-01393 A (National Bridge Inventory [NBI] No. 28420), on vertical abutments was originally constructed in 1932 and rehabilitated in 1979. Recent inspections have found the bridge substructure to be in poor condition. The bridge does not meet the current HS-15 (27-ton truck) load rating design standards. Additionally, the existing bridge does not meet current design standards for lane width or shoulder width. These geometric deficiencies have led to numerous collisions, resulting in damage to the bridge's railing and end post. The bridge is eligible for inclusion in the National Register of Historic Places (NHRP) and is identified as 'Select' under the Indiana Historic Programmatic Agreement (Historic Bridge PA). Project termini are approximately 550 feet west to 500 feet east of the current bridge.

This section of SR 163 has two 12-foot travel lanes, one in each direction, with 2-foot shoulders. SR 163 is oriented generally east-west and Brouilletts Creek flows from the northwest to the southeast through the study area. The project is located along a rural section of SR 163. Spangler Cemetery is located southeast of the project area. Land adjacent to the bridge consists of maintained right-of-way, trees, and row crop fields.

The preliminary identified preferred alternative proposes a major rehabilitation of the existing structure to address the structural condition and reduce the roadway to a single lane. A signal and stop bar would be installed approximately 100 feet from either end of the bridge. Riprap scour protection will be added. Approximately 0.36 acre of permanent right-of-way will be acquired. During construction, the maintenance of traffic would occur under a full roadway closure, and a detour would be provided along SR 63, US 36, SR 71, and SR 163. Access to drives would be maintained at all times. Construction is anticipated to begin in Summer of 2024.

Suitable summer habitat exists within and adjacent to the project area along SR 163 and Brouilletts Creek. Up to 1.0 acre of tree clearing/trimming is anticipated to allow for construction access. All tree clearing will occur within 100 feet of existing pavement. Tree trimming/clearing will be limited to the inactive season. The primary tree species observed within the project area were silver maple (*Acer saccharinum*), sugar maple (*Acer saccharum*), box elder (*Acer negundo*), American sycamore (*Platanus occidentalis*), American elm (*Ulmus americana*), eastern cottonwood (*Populus deltoides*), hackberry (*Celtis occidentalis*), and black walnut (*Juglans nigra*). The contractor will likely use temporary lighting during construction. No permanent lighting exists within the project area.

A review of the USFWS GIS database for Indiana bat and northern long-eared bat roosting, hibernacula, and capture sites was conducted for Des. 1701598 on February 3, 2022. There are no documented sites within a half mile of the project area. The existing structure was inspected for bats on October 14, 2021, and no evidence for bats was reported. The bridge will be re-inspected prior to the start of construction. Mitigation for this project is not anticipated.

Determination Key Result

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

Qualification Interview

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

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

Automatically answered

Yes

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

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

Automatically answered

Yes

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

A) *Federal Highway Administration (FHWA)*

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

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

No

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

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

No

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

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

No

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

No

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

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

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

Yes

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

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

Yes

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

No

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

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

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

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

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

No

12. Does the project include activities **within documented Indiana bat habitat**^{[1][2]}?

[1] Documented roosting or foraging habitat – for the purposes of this consultation, we are considering documented habitat as that where Indiana bats and/or NLEB have actually been captured and tracked using (1) radio telemetry to roosts; (2) radio telemetry 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^[1]?

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

B) During the inactive season

15. Does the project include activities **within documented NLEB habitat**^{[1][2]}?

[1] Documented roosting or foraging habitat – for the purposes of this consultation, we are considering documented habitat as that where Indiana bats and/or NLEB have actually been captured and tracked using (1) radio telemetry to roosts; (2) radio telemetry 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

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

Yes

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

B) During the inactive season

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

Yes

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

No

20. Are *all* trees that are being removed clearly demarcated?
Yes
21. Will the removal of habitat or the removal/trimming of trees include installing new or replacing existing **permanent** lighting?
No
22. Does the project include wetland or stream protection activities associated with compensatory wetland mitigation?
No
23. Does the project include slash pile burning?
No
24. Does the project include *any* bridge removal, replacement, and/or maintenance activities (e.g., any bridge repair, retrofit, maintenance, and/or rehabilitation work)?
Yes
25. Is there *any* suitable habitat^[1] for Indiana bat or NLEB **within** 1,000 feet of the bridge? (includes any trees suitable for maternity, roosting, foraging, or travelling habitat)

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

Yes

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

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

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

Yes

SUBMITTED DOCUMENTS

- *SR 163 Brouilletts INDOT Bridge Inspection 10.14.21.pdf* <https://ipac.ecosphere.fws.gov/project/M4IPUAZARFFTJL5KIRUHAKNFWQ/projectDocuments/109503540>

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

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

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

No

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

No

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

No

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

Yes

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

Yes

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

Yes

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

Yes

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^[1] in excess of what is required to implement the project safely?

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

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

Yes

43. **Tree Removal AMM 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**^[1] Indiana bat or NLEB roosts^[2] (that are still suitable for roosting), (2) trees **within** 0.25 miles of roosts, and (3) documented foraging habitat any time of year?

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

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

Yes

45. **Lighting AMM 1**

Will *all* **temporary** lighting be directed away from suitable habitat during the active season?

Yes

46. **Lighting AMM 2**

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

[1] Refer to [Fundamentals of Lighting - BUG Ratings](#)

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

Yes

47. **Lighting AMM 2**

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

Yes

Project Questionnaire

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

N/A

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

N/A

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

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

1.0

4. Please describe the proposed bridge work:

The preliminary identified preferred alternative proposes a major rehabilitation of the existing structure to address the structural condition and reduce the roadway to a single lane. A signal and stop bar would be installed approximately 100 feet from either end of the bridge. Riprap scour protection will be added.

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

Year-round starting Summer of 2024

6. Please enter the date of the bridge assessment:

October 14, 2021

Avoidance And Minimization Measures (AMMs)

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

LIGHTING AMM 1

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

TREE REMOVAL AMM 2

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

LIGHTING AMM 2

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

TREE REMOVAL AMM 3

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

TREE REMOVAL AMM 4

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

GENERAL AMM 1

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

TREE REMOVAL AMM 1

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

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

This key was last updated in IPaC on January 26, 2022. Keys are subject to periodic revision.

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

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

IPaC User Contact Information

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Zip: 47933
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Bridge Inspection Report

163-83-01393 A
SR 163
over
BROUILLETTS CREEK

Excerpt



Inspection Date: 10/14/2021

Inspected By: Melvin Hughes

Inspection Type(s): Routine

Both approach slabs have cracking and the east has a spall that has been filled with crumb rubber.

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

1 - Steel Beams	5 - Fair Condition – areas of light rust and minor peeling	2002
-----------------	--	------

Comments:

This bridge is last painted light blue under contract B-26086.
Paint has areas where it is losing its ability to protect the steel in the rusted areas.

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

Bats: seen or heard under structure? * N

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

BRIDGE Culvert Geometry:

Barrel Length:

Height:

Width:

APPENDIX D: Bridge/Structure Assessment Form

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

DOT Project # 1701589	Water Body Brouilletts Creek	Date/Time of Inspection 10/22/19 12:00 PM	Within 1,000ft of suitable bat habitat (circle one) Yes No
--------------------------	---------------------------------	--	---

Route	County	Federal Structure ID
SR 163	Vermillion	163-83-01393 A

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

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

Areas Inspected (Check all that apply)

As safely as feasibly possible.

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

Last Revised May 31, 2017

Vertical surfaces on concrete I-beams	X						
---------------------------------------	---	--	--	--	--	--	--

Evidence of Bats (Circle all that apply) Presence of one or more indicators is sufficient evidence that bats may be using the structure.

None

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

- Live ___ number seen
- Dead ___ number seen

Photo documentation Y/N

Audible

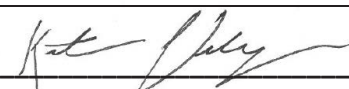
Guano

Odor Y/N

Photo documentation Y/N

Staining definitively from bats

Photo documentation Y/N

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

DOT Bat Assessment Form Instructions

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

Last Revised June 2017



Photo 1 – View of the SR 163 bridge abutment facing northwest (10/23/19).



Photo 2 – View of the SR 163 bridge over Brouilletts Creek northeast (10/23/19).



Photo 3 – View of the SR 163 bridge over Brouilletts Creek facing west (10/23/19).



Photo 4 – View of the SR 163 bridge abutment facing east (10/23/19).

APPENDIX D: Bridge/Structure Assessment Form

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

DOT Project # 1701589	Water Body UNT 1 to Brouilletts Creek	Date/Time of Inspection 10/22/19 2:00 PM	Within 1,000ft of suitable bat habitat (circle one) Yes No
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Route	County	Federal Structure ID
SR 163	Vermillion	N/A

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

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

Areas Inspected (Check all that apply)

As safely as feasibly possible.

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

Last Revised May 31, 2017

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

None

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

- Live ___ number seen
- Dead ___ number seen

Photo documentation Y/N

Audible

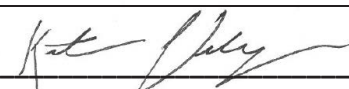
Guano

Odor Y/N

Photo documentation Y/N

Staining definitively from bats

Photo documentation Y/N

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

DOT Bat Assessment Form Instructions

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2. Any bridge/structure suspected of providing habitat for any species of bat will be removed from work schedules until such time that the DOT has coordinated with the USFWS. Additional studies may be undertaken by the DOT to determine what species may be utilizing each structure identified as supporting bats prior to allowing any work to proceed.
3. Any questions should be directed to the District Environmental Manager.

Last Revised June 2017



Photo 1 – View of the culvert outlet under CR 170 W facing east (10/23/19).



Photo 2 – View of the culvert outlet under CR 170 W facing southeast (10/23/19).



Photo 3 – View inside the culvert under CR 170 W facing east (10/23/19).