

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

Road No./County:	Brickyard Road/Queen Street / Martin County
Designation Number(s):	1902785
Project Description/Termini:	Bridge Project / 0.04 mile north of US 50

	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

ADWP February 20, 2023

Certification of Public Involvement

INDOT Consultant Services Signature and Date

INDOT DE/ESD Reviewer Signature and Date: _____

Name and Organization of CE/EA Preparer: _____

Elayna Stoner / Metric Environmental

Indiana Department of Transportation

County Martin

Route Brickyard Road (Queen Street/CR 13)

Des. No. 1902785

Part I – Public Involvement

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

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

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

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

Notice of Entry letters were mailed to potentially affected property owners near the project area on September 9, 2020, notifying them about the project and that individuals responsible for land surveying and field activities might be seen in the area. A sample copy of the Notice of Entry letter is provided in Appendix G, page G-1.

A legal notice to interested parties for proposals for the rehabilitation and reuse, or the storage and future reuse of the bridge was published in the *Indianapolis Star* on January 26, 2021, and the notice was published on January 27, 2021, in *The Shoals News*. The advertisement was also included on the Indiana Department of Transportation (INDOT) Historic Bridges Marketing Program website (Appendix D, page D-76). Signs were posted at the bridge site on February 3, 2021 (Appendix D, page D-78). To date no interested parties have come forward to take ownership of Martin County Bridge 58. The marketing period will end when the public hearing comment period ends. The text of the legal notices and the affidavits of publication are provided in Appendix D, pages D-71 to D-74.

To meet the public involvement requirements of Section 106, a legal notice of Federal Highway Administration-Indiana Division’s (FHWA’s) finding of “No Historic Properties Affected” was published in *The Shoals News* on December 1, 2021, 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 after 30 days on December 31, 2021. No comments or responses were received. The legal notice and the affidavit of publication are provided in Appendix D, page D-83.

Pursuant to the Historic Bridge Programmatic Agreement (HBPA), a public hearing for the project is required. A legal notice for the public hearing will appear in a local publication contingent upon the release of this document for public involvement. All consulting parties originally invited to participate will be notified of the hearing per the procedures of the HBPA. The Section 106 process will be complete after the public hearing is held and the *Public Involvement* section of this document is updated per the outcome of that public hearing.

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.

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

Sponsor of the Project: Martin County INDOT District: Vincennes
Local Name of the Facility: Brickyard Road (Queen Street/CR 13)

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

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

Indiana Department of Transportation

County Martin

Route Brickyard Road (Queen Street/CR 13)

Des. No. 1902785

PURPOSE AND NEED:

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

The need for this project is due to the deteriorated physical condition and reduced load capacity of the existing bridge. The November 2019 Bridge Inspection Report noted the superstructure to be in fair condition (rated 5 out of 9) and the substructure to be in fair condition (rated 5 out of 9) including stone block section loss, steel truss members with section loss, and overall deterioration of the structure. The deck (rated 6 out of 9) is an open steel grid over the truss main span which has some bent members. The deck consists of concrete on the stone arch spans. The sufficiency rating for the bridge is 48.7 out of a possible 100 points. To be eligible for replacement, the bridge must have a sufficiency rating of less than 50. Excerpts from the Bridge Inspection Report are provided in Appendix D, pages D-104 to D-116.

The bridge is posted for a 14 ton weight limit which is below the legal load limit of 27 tons for a HS-15 Load Rating Vehicle, per INDOT design standards. Secondary concerns include the clear roadway width across the bridge (11 ft.- 8 inches) being narrower than the approaching roadway (16 ft.) and the bridge railing not meeting current safety standards. The roadway width across the bridge requires posting as a One Lane Bridge. The existing bridge railing is a w-beam guardrail attached to the steel grid deck and is not a crash-tested configuration. Due to its inadequate lane width for current traffic demands the bridge is considered functionally obsolete. Brickyard Road/Queen Street is a primary response route for local Emergency Medical Services (EMS); however, the weight restrictions and narrow roadway geometry prohibit the bridge from being used by emergency service providers and requires the use of a 3.65 mile detour route for EMS vehicles.

The purpose of the project is to provide a bridge condition rating of 7 out of 9, indicating good condition at this crossing.

PROJECT DESCRIPTION (PREFERRED ALTERNATIVE):

County: Martin

Municipality: N/A

Limits of Proposed Work: The proposed improvement limits will extend approximately 155 ft. south and 700 ft. north along Brickyard Road/Queen Street, including the bridge length of 207 ft. for a total project length of 1,062 ft.

Total Work Length: 0.177 mile Mile(s)

Total Work Area: 3.0 Acre(s)

Is an Interstate Access Document (IAD)¹ required?

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

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

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

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

Martin County with oversight from INDOT and the Federal Highway Administration (FHWA) propose to address the deteriorated condition of the existing bridge that carries Brickyard Road/Queen Street over Boggs Creek in Martin County, Indiana. The project is located on Brickyard Road, approximately 0.04 mile north of United States (US) 50 in Martin County. Specifically, the project is located in Section 20, Township 3 North, Range 4 West of the Loogootee, Indiana 7.5-minute United States Geological Survey (USGS) topographic quadrangle (Appendix B, page B-2).

Brickyard Road consists of a Local Road and is classified as a Low-Volume local rural road. Low Volume Roads are generally classified as rural roadways that have less than 400 vehicles per day. The existing cross-section provides one 9 ft. travel lane in each direction bordered by 2-3 ft. shoulders. The approach roadway width at the bridge is 18 ft. There are no guardrails, curbs or sidewalks. The posted speed on Brickyard Road is 35 miles per hour (mph). Land use in the vicinity of the project consists of wooded riparian land (Appendix B, page B-3).

Martin County Bridge No. 58 (National Bridge Inventory No. (NBI) 51-00029) is a three-span structure, consisting of stone arch approach spans and a steel Warren deck truss in the middle span. The bridge was originally constructed in 1848 as a stone arch but was demolished by a flood event and reconstructed in 1913.

A new deck and railings were installed, and abutment repairs completed in 1996. The stone masonry arches were patched in 2018. The bridge is 150 ft.-4 inches in length with a clear roadway width of 11 ft -8 inches. The bridge carries one 16 ft. wide travel lane and the approach roadway is also 16 ft. in width. There is no approach guardrail and no guardrail on the bridge structure. The bridge is supported on stone abutments and stone piers. The bridge is currently posted for a 14 ton weight limit. This bridge is classified as a Non-Select Historic Bridge in the December 2010 *Indiana Historic Bridge Inventory*.

Alternatives Analysis Process

Per the terms of the “Programmatic Agreement Regarding Management and Preservation of Indiana’s Historic Bridges” (Historic Bridges Programmatic Agreement (HBPA)), the FHWA will satisfy its Section 106 responsibilities involving “Select” and “Non-Select” bridges through the Project Development Process (PDP) of the Historic Bridges PA (Stipulation III).

Martin County Bridge 58, a historic property, has been classified as a Non-Select Bridge by the INDOT *Historic Bridge Inventory*, and thus, the procedures outlined in Stipulation III.B of the Historic Bridges PA has been followed to determine the preferred alternative that meets the purpose and need of the project. The various alternatives shall be evaluated based on whether the alternative is feasible and prudent. Prudence of projects involving Non-Select bridges on low-volume roads should be assessed based on cost-effectiveness and other criteria as noted in the Indiana Design Manual (IDM 412-5.04(02)). If the bridge rehabilitation cost is greater than 40% of the replacement cost, then replacement is warranted. A Historic Bridge Alternatives Analysis (HBAA 3/11/2021) was prepared for the project to evaluate the required alternatives. Excerpts of the HBAA are provided in Appendix D, pages D-84 to D-103.

Preferred Alternative

Alternative E: Relocation of Existing Bridge and New Bridge on Current Alignment

The preferred alternative will provide a new bridge structure across Boggs Creek on the existing roadway alignment. The existing truss bridge will be replaced with a three-span, continuous composite Prestressed Concrete Bulb-T bridge that will be 166 ft. in length. The bridge will have an out-to-out deck width of 28 ft. - 6 inches, a clear roadway width of 28 ft. and will provide two, 10 ft. travel lanes bordered by 4 ft. paved shoulders. The bridge will be constructed on a new substructure consisting of integral concrete end bents with wingwalls at the north and south approaches and two, concrete piers supporting the new bridge spans. New reinforced concrete approach slabs (20 ft - 6 inches) will be installed at each approach of Brickyard Road. New crash rated guardrails will be installed on the bridge in addition to new, approach guardrails along Brickyard Road. The approach roadway will provide two, 10 ft. travel lanes with a clear roadway width of 28 ft. The travel lanes will be bordered by 4 ft. paved shoulders and 3 ft. - 5 inch compact aggregate shoulders behind the guardrail.

The project will also replace two existing driveway pipes on Brickyard Road, north of the bridge crossing. The driveway pipes with outlet aprons will be installed to maintain roadside drainage. Small Structure No. 201 is located on the west side of Brickyard Road, approximately 610 ft. north of the bridge crossing. The new pipe will consist of a 15 inch pipe that will be approximately 36 ft. in length. Small Structure No. 202 is located on the west side of Brickyard Road, approximately 630 ft. north of the bridge crossing. The new pipe will consist of a 15 inch pipe that will be approximately 42 ft. in length. The pipes convey roadside drainage south to Boggs Creek. Riprap will be installed at the outlet of both new pipes. No stream impacts will result from the installation of new pipes.

Riprap will be installed along the northern and southern banks of Boggs Creek around the bridge substructure units for scour protection. Approximately 150 linear feet of permanent impacts to Boggs Creek will result from the placement of riprap for erosion control. In addition, there will be approximately 150 linear feet of temporary impacts from the use of temporary cofferdams to construct the new bridge piers. There is not adequate existing right-of-way present and as a result, approximately 0.32 acre of right-of-way will be re-acquired as part of the project. In addition, approximately 3.00 acres of new, additional permanent right-of-way will be required to complete the project.

Alternate E is prudent and feasible and provides an opportunity to preserve the bridge. If no organization or private parties come forward to fund the relocation and rehabilitation, Alternative F will become the preferred feasible and prudent alternative. If an organization or private party comes forward to fund the relocation and rehabilitation, this document will be updated to cover the impacts to the site where the bridge will be moved.

The limits of the preferred alternate will extend approximately 155 ft. south and 700 ft. north along Brickyard Road, including the bridge length of 207 ft. for a total project length of 1,062 ft. (0.177 mile). The preferred alternative will meet the purpose and need of the project by providing a structure with a capacity of 15 tons minimum. The project termini are logical because they encompass only the area necessary to install the new bridge and tie the improvements into the existing roadway for a smooth transition. The project has independent utility as its construction does not depend on the completion of a secondary project.

Design plans are provided in Appendix B, pages B-5 to B-12.

Brickyard Road will be closed to traffic during construction and a detour will be necessary. The detour will utilize US 50, SR 231, Main Street and Queen Street. Additional details are discussed in the *Maintenance of Traffic* Section of this CE document. The project letting is scheduled for Winter 2024 and construction is anticipated to begin in Spring 2025.

OTHER ALTERNATIVES CONSIDERED:

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

Additional details regarding each alternative can be found in the HBAA located in Appendix D, pages D-84 to D-103. The estimated costs of alternatives included herein are consistent with the costs provided in the text of the HBAA document. The Alternatives Analysis Comparison Table provided in the HBAA document was inaccurate and the revised version of the Alternatives Analysis Comparison Table is provided in Appendix D, page D-97.

Alternative A: Do Nothing/No Build

This alternate would not directly affect the historic significance of the bridge but would allow for the continued deterioration of the bridge. As the bridge deteriorates the load capacity would decrease and require a lower load posting. Additionally, the structure may be closed at some time in the future due to deterioration and potential failure. This alternative would not require the expenditure of funds and would have no environmental impact. Although this alternative is feasible it is not prudent to allow the bridge to continue to deteriorate. This alternative does not meet the purpose and need of the project and for the reasons described above, it was discarded from further consideration.

Alternative B1: Rehabilitation for Continued Vehicular Use Meeting Secretary of Interior's Standards for Rehabilitation

This alternative would rehabilitate the existing structure for continued one lane vehicular use. This alternative would rehabilitate the existing bridge to a standard that meets the Secretary of Interior's Standards (SOIS) for Rehabilitation. This alternative would include cleaning and painting the existing truss. Based on deterioration and load capacity, thirteen members of each truss would be replaced in kind. The stone arches would be repaired and rebuilt by replacing deteriorated stones. The fill in the arches would be removed and replaced with fill that meets current design standards. The bearings supporting the truss would be replaced with appropriate bearings that meet current design standards. The steel grid deck would be replaced with a new steel grid deck. The concrete deck on the stone arch approach spans would be replaced with a concrete structural slab. Structural materials would be replaced in-kind, and the integrity of the bridge would be retained. Where stone is replaced or patched, replacement stones would be of a similar material and color. Where steel members are replaced, the new members would be constructed of similar shape and size as the existing members. The bridge's existing alignment and skew would not be altered, and the bridge would not be widened. The truss would be removed from the supports, disassembled, repaired off site, and reassembled and set into place on the repaired foundations.

These repairs would improve the condition of the truss and improve the load capacity to 24 tons (HS-15) but is less than the 27 tons required in the Indiana Design Manual (IDM). The load rating for the EV-2, equivalent load rating vehicle to the county's largest emergency vehicle, would increase to 23 tons. It is less than the required 29 tons to carry the county's in-use vehicles. This alternative does not address the substandard clear roadway, the substandard bridge railing, and does not achieve the necessary load capacity. This option also does not replace the substandard railing because the railing is attached to the steel grid deck and there is not a crash tested railing available for this configuration with the steel grid deck. The use of a concrete deck and standard railing to meet standards is not proposed because it would lower the load rating capacity of the rehabilitated condition. A Level 1 Design Exception for the structural capacity would be required, and Level 2 Design Exceptions for the shoulder width, the clear roadway width, and the railing would be required. The estimated cost of Alternate B1 is approximately \$2,053,900.00, which is 128% of the cost of Alternative F. This alternate is feasible, but it is not prudent because it does not meet the purpose and need of the project. For these reasons, this alternative was discarded from further consideration.

Alternate B2: Rehabilitation for Continued Vehicular Use NOT Meeting Secretary of Interior's Standards for Rehabilitation

This alternative would rehabilitate the existing structure for continued vehicular use and provide load capacity and geometry meeting the project goals. This alternative would include cleaning and painting the existing truss. Replacement of sixteen truss members in-kind and six members with larger members would increase the load rating of the structure to meet the criteria listed in the IDM and county emergency vehicles. A total of twenty-two members of the truss's twenty-seven total members would be replaced.

The steel grid deck and the concrete deck on the approach spans would be replaced with a reinforced concrete structural slab along the full bridge length. The bridge clear roadway width would be 16 ft. This slab would allow the existing railing to be replaced with a crash-tested bridge rail and allow increased roadway width across the bridge. New concrete approach slabs would be constructed. The stone arches would be cleaned and repaired by replacing deteriorated stones and rebuilt. The fill in the arches would be removed and replaced with fill that meets current design standards. The bearings supporting the truss would be replaced with appropriate bearings that meet current design standards. This alternative would require significant replacement of original truss members. The amount of member replacement is anticipated to result in an adverse impact to the historic nature of the bridge. The estimated cost of Alternative B2 is approximately \$2,191,900.00 which is 137% of the cost of Alternate F; however, the bridge would continue to have insufficient width and load capacity. Although Alternate B2 is feasible it is not prudent because it does not meet the purpose and need of the project. For these reasons, this alternative was discarded from further consideration.

Alternative C1: Rehabilitation for Continued Vehicular Use (1-way pair option) Meeting Secretary of Interior's Standards for Rehabilitation

This alternative would rehabilitate the existing structure for continued vehicular use, for one lane of traffic, in the same manner as outlined in Alternative B1. It also proposes the construction of a new one-lane bridge on an adjacent alignment downstream to carry the opposing lane of traffic, thus creating a one-way pair. The length of the new bridge would be similar to the existing bridge. The rehabilitation of the existing structure would be the same as proposed in Alternative B1. The new bridge would carry one lane of traffic and be designed to meet all current structural and geometric design criteria. The new structure would be placed to the west (downstream) of the existing structure. The limited distance between the new bridge and US 50 does not allow enough distance for the new one-way alignment to merge back into the existing alignment. This alternative would require the intersection of Brickyard Road and US 50 to be reconstructed and would result in greater environmental impacts. The Level 1 and Level 2 Design Exceptions noted for the existing bridge in Alternative B1 would still be required for this alternative since the existing bridge does not meet the criteria for a one lane bridge. The estimated total cost of this alternative is approximately \$3,108,700.00 which is 194% of the cost of Alternative F. This alternative would not improve the load carrying capacity of the existing bridge to the minimum of 15 tons. This alternative is feasible, but not prudent because it does not meet the purpose and need of the project. For these reasons, this alternative was discarded from further consideration.

Alternative C2: Rehabilitation for Continued Vehicular Use (1-way pair option) Not Meeting Secretary of Interior's Standards for Rehabilitation

This alternative proposes to rehabilitate the existing structure for continued vehicular use, for one lane of traffic, in the same manner as outlined in Alternative B2. It also proposes the construction of a new one-lane bridge on an adjacent alignment to carry the opposing lane of traffic, thus creating a one-way pair. The rehabilitation of the existing structure would be the same as proposed in Alternative B2 and the new, proposed one-lane bridge would meet the same design parameters as described in Alternative C1. This alternative would also require the reconstruction of the Brickyard Road and US 50 intersection and would result in greater environmental impacts. The estimated cost of Alternative C2 is approximately \$3,111,700.00 which is 195% of the cost of Alternate F. This alternative is feasible, but not prudent because it does not meet the purpose and need of the project. For these reasons, this alternative was discarded from further consideration.

Alternative D: Bypass (non-vehicular use) / Build New Bridge

This alternative would rehabilitate the existing bridge for non-vehicular use and build an adjacent bypass bridge that meets all required design criteria. Although the existing bridge would not be preserved for continued vehicular traffic, it would remain in place with repairs including cleaning and painting of the truss, limited truss member repairs, and replacement of damaged arch stones. No truss members would be replaced as a part of this alternative. To achieve this objective, all replacement procedures would maintain and/or restore the historic elements of the structure as closely as possible. The proposed repairs would preserve the life of the existing structure but would not increase the structural capacity. The repairs are anticipated to keep the bridge available for non-vehicular use for approximately 25 years. Brickyard Road would be realigned to the west (downstream) to bypass the existing bridge. This alternative would require the intersection of Brickyard Road and US 50 to be reconstructed which would increase the right-of-way costs and also result in additional wetland impacts and increased costs for wetland mitigation. Once rehabilitated and permanently closed to vehicle traffic, inspection requirements would no longer be applicable. Alternative D is feasible and as it meets the purpose and need of the project by providing a new structurally sufficient bridge for vehicular traffic. The estimated cost for this alternative is approximately \$2,971,700.00 which is 186% of the cost of Alternative F. This alternative would meet the purpose and need of the project; however, this alternative is prudent only if a responsible party assumes ownership of the bridge and maintains the bridge for perpetuity. To date no interested party has been identified to take ownership of Martin County Bridge 58 as required for this alternate.

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Alternative E: Relocation of Historic Bridge and a New Bridge on Current Alignment

Alternative E would relocate the historic bridge and a new bridge that meets all applicable design criteria would be built on the current alignment. The existing bridge would not be destroyed; however, a responsible party must come forward and fund the relocation and rehabilitation of the bridge. The existing structure would be disassembled and reassembled at a new location. The existing truss bridge would be replaced with a new bridge on the existing alignment and would meet all applicable design criteria. The estimated cost of this alternative is approximately \$3,039,900.00 which is 191% of the cost of Alternative F. The bridge has been advertised for the minimum six-month marketing period but to date, no interested party has come forward. The opportunity to relocate and reuse the bridge will remain viable until the public hearing requirements for this project have concluded. As a result, this alternative is still feasible. This alternative would meet the purpose and need of the project; however, this alternative is prudent only if a responsible party assumes ownership of the bridge and maintains the bridge for perpetuity. To date no interested party has been identified to take ownership of Martin County Bridge 58 as required for this alternate.

Alternative F: Demolition of Historic Bridge and a New Bridge on Current Alignment

Alternative F would demolish the existing truss bridge and a new bridge that meets all applicable design criteria would be built on the current alignment. There would be no bridge relocation process included as part of this alternative. If Alternative F is chosen as the preferred alternative, the cost would be approximately \$1,594,900.00 which includes the cost to construct the new bridge and demolish the existing bridge. Impacts to the historic bridge would be mitigated through the stipulations outlined within the Historic Bridges Programmatic Agreement (HBPA) process. This alternative is both feasible and prudent as it meets the purpose and need of the project by providing a new, structurally sufficient bridge at the project site.

The anticipated cost for Alternative F has increased to approximately \$2,300,000. This cost increase compared to the estimated cost in the HBAA is a result of project design advances including bridge hydraulics, geotechnical recommendations for the bridge foundations, pavement design, and inflation. These additional design considerations and associated cost increases are applicable to all required alternative options provided herein. The estimated project cost of \$3,330,900.00 listed on page 9 of this document includes the construction and construction inspection costs and is not necessarily a direct correlation of costs as illustrated in the Statewide Transportation Improvement Program (STIP) and the HBAA. The \$3,330,900.00 cost estimate represents the 80% federal funding match requested by Martin County for the construction and construction inspection phases of the project.

Alternate E is prudent and feasible and provides an opportunity to preserve the bridge. If no interested party comes forward to fund the relocation, Alternative F will become the preferred feasible and prudent alternative. The State Historic Preservation Office (SHPO) requested that photo documentation of the bridge be conducted consistent with the *Historic Bridges PA: Attachment B-Standard Treatment Approach for Historic Bridges*. This will apply regardless of whether Alternative E or F is chosen as the preferred alternative.

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

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

X
X

ROADWAY CHARACTER:

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

Name of Roadway	<u>Brickyard Road</u>			
Functional Classification:	<u>Low-Volume Local Rural Road</u>			
Current ADT:	<u>260</u>	VPD (2025)	Design Year ADT:	<u>320</u>
Design Hour Volume (DHV):	<u>N/A</u>	Truck Percentage (%)		<u>N/A</u>
Designed Speed (mph):	<u>35</u>	Legal Speed (mph):		<u>35</u>

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	Existing		Proposed	
Number of Lanes:	2		2	
Type of Lanes:	10 ft. travel lanes		10 ft. travel lanes	
Pavement Width:	18	ft.	28	ft.
Shoulder Width:	2-3	ft.	4.0	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

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): Martin County Bridge No. 58 (NBI No. 5100029) Sufficiency Rating: 48.7 out of 100
 2019 Bridge Inspection Report

	Existing		Proposed	
Bridge/Structure Type:	Warren deck truss		Continuous Composite Prestressed Concrete Bulb-T	
Number of Spans:	3		3	
Weight Restrictions:	14 (posted)	ton	36	ton
Height Restrictions:	N/A	ft.	N/A	ft.
Curb to Curb Width:	11.67	ft./in	28	ft.
Outside to Outside Width:	12	ft.	28.5	ft./in
Shoulder Width:	0	ft.	4	ft.

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

The preferred alternative will provide a new bridge structure across Boggs Creek on the existing roadway alignment. The existing truss bridge will be replaced with a three-span, continuous composite Prestressed Concrete Bulb-T bridge that will be 166 ft. in length. The bridge will have an out-to-out deck width of 28 ft. - 6 inches, a clear roadway width of 28 ft. and will provide two, 10 ft. travel lanes bordered by 4 ft. paved shoulders and 3 ft. - 5 inch compact aggregate shoulders behind the guardrail. The bridge will be constructed on a new substructure consisting of integral concrete end bents with wingwalls at the north and south approaches and two, concrete piers supporting the new bridge spans. New, reinforced concrete approach slabs (20 ft - 6 inches) will be installed at each approach of Brickyard Road. New crash rated guardrails will be installed on the bridge in addition to new, approach guardrails along Brickyard Road. The proposed improvement limits will extend approximately 155 ft. south and 700 ft. north along Brickyard Road, including the bridge length of 207 ft. for a total project length of 1,062 ft. (0.177 mile).

The project will also replace two existing driveway pipes on Brickyard Road, north of the bridge crossing. Small Structure No. 201 is located on the west side of Brickyard Road, approximately 610 ft. north of the bridge crossing. The new pipe will consist of a 15 inch pipe that will be approximately 36 ft. in length. Small Structure No. 202 is located on the west side of Brickyard Road, approximately 630 ft. north of the bridge crossing. The new pipe will consist of a 15 inch pipe that will be approximately 42 ft. in length. Riprap will be installed at the outlet of both new pipes. The pipes convey roadside drainage south to Boggs Creek. No stream impacts will result from the installation of new pipes. Riprap will be installed along the northern and southern banks of Boggs Creek around the end bents and piers for scour protection. Approximately 150 linear feet of permanent impacts to Boggs Creek will result from the placement of riprap for erosion control. In addition, there will be approximately 150 linear feet of temporary impacts from the use of temporary cofferdams to construct the new bridge piers.

There will be no temporary crossings of Boggs Creek; however, temporary construction access entrances will be installed on the north and south sides of the bridge crossing. The temporary entrances will consist of stone overlaid geotextiles per INDOT standards. The temporary access entrances are anticipated to be in place for approximately 180 days.

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The temporary entrances will be removed once construction is complete, and the banks of Boggs Creek will be restored to preconstruction conditions and seeded per INDOT Standard Specifications.

MAINTENANCE OF TRAFFIC (MOT) DURING CONSTRUCTION:

	Yes	No
Is a temporary bridge proposed?		X
Is a temporary roadway proposed?		X
Will the project involve the use of a detour or require a ramp closure? (describe below)	X	
Provisions will be made for access by local traffic and so posted.	X	
Provisions will be made for through-traffic dependent businesses.	X	
Provisions will be made to accommodate any local special events or festivals.	X	
Will the proposed MOT substantially change the environmental consequences of the action?		X
Is there substantial controversy associated with the proposed method for MOT?		X
Will the project require a sidewalk, curb ramp, and/or bicycle lane closure? (describe below)		X
Provisions will be made for access by pedestrians and/or bicyclist and so posted (describe below).		X

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.

Traffic will not be maintained on Brickyard Road during construction and a detour will be necessary. The detour will utilize US 50, SR 231, Main Street and Queen Street in downtown Loogootee. The detour will add approximately 3.65 additional travel miles. The detour will be in place for approximately 10 months. The construction 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. The MOT plan sheet is provided in Appendix B, page B-7.

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

ESTIMATED PROJECT COST AND SCHEDULE:

Engineering: \$91,060.00 (2021) Right-of-Way: \$57,600.00 (2023) Construction: \$3,330,900.00 (2025)

Anticipated Start Date of Construction: Spring 2025

RIGHT OF WAY:

Land Use Impacts	Amount (acres)	
	Permanent	Temporary
Residential	0.00	0.00
Commercial	0.00	0.00
Agricultural	0.00	0.00
Wooded	2.75	0.00
Wetlands	0.25	0.00
Other:	0.00	0.00
TOTAL	3.00	0.00

Describe both Permanent and Temporary right-of-way limits along Brickyard Road 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 right-of-way limits along Brickyard Road extend approximately 9 ft. east and west of the centerline (edge of the existing roadway). There is not adequate existing right-of-way present and as a result, approximately 0.32 acre of right-of-way will be re-acquired for the project. In addition, approximately 3.00 acre of new, additional permanent right-of-way will be required to complete the project. The permanent right-of-way is needed to construct the new bridge and reconstruct the roadway approaches.

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The additional permanent right-of-way consists of 2.75 acre of wooded land adjacent to Boggs Creek in addition to approximately 0.25 acre of wetland (0.1 acre of scrub/shrub and 0.04 acre of forested wetland in the northwest quadrant and approximately 0.11 acre of forested wetland in the northeast quadrant of the crossing). The proposed maximum permanent right-of-way limits will extend approximately 80 ft. east and west of the centerline of Brickyard Road. No temporary right-of-way will be necessary for construction access. Plan sheets are provided in Appendix B, pages B-5 to B-12.

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.

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

SECTION A – EARLY COORDINATION:

List the date(s) coordination was sent and all resource agencies that were contacted as a part of the development of this Environmental Study. Also, include the date of their response or indicate that no response was received.

Early coordination letters were sent on February 23, 2021 (Appendix C, pages C-1 to C-2) unless otherwise noted below. A copy of the early coordination letter is provided in Appendix C, pages C-1 to C-2.

Agency	Date Sent	Response Received	Appendix
Indiana Department of Natural Resources- Division of Fish and Wildlife (IDNR-DFW)	February 23, 2021	March 25, 2021	C-4 to C-6
U.S. Fish and Wildlife Service (USFWS) Bloomington Field Office	February 23, 2021	No Response	
US Army Corps of Engineers	February 23, 2021	No Response	
Indiana Geological and Water Survey	February 23, 2021	February 23, 2021	C-27 to C-28
Indiana Department of Environmental Management, Wellhead Protection Proximity	February 23, 2021	Auto Response	
INDOT, Office of Aviation	February 23, 2021	February 25, 2021	C-30
INDOT, Project Manager	February 23, 2021	No Response	
Hoosier National Forest	February 23, 2021	February 25, 2021	C-31
U.S. Department of Housing and Urban Development	February 23, 2021	No Response	
U.S. National Park Service	February 23, 2021	No Response	
Natural Resources Conservation Service	January 31, 2022	February 2, 2022	C-32
Martin County Highway Department	February 23, 2021	No Response	
Martin County Surveyor	February 23, 2021	No Response	
Martin County Emergency Management	February 23, 2021	February 23, 2021	C-29
Martin County Commissioners	February 23, 2021	No Response	
Martin County Floodplain Administrator	February 23, 2021	No Response	

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

SECTION B – ECOLOGICAL RESOURCES:

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

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Total stream(s) in project area: 375 Linear feet Total impacted stream(s): 150 Linear feet

Stream Name	Classification	Total Size in Project Area (linear feet)	Impacted linear feet	Comments (i.e. location, flow direction, likely Water of the US, appendix reference)
Boggs Creek	Perennial	375	150	Likely Jurisdictional Water of the U.S

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 a desktop review, the aerial photograph (Appendix B-3) of the project area, and the water resources map in the Red Flag Investigation report (RFI) (Appendix E, page E-2), there are eight streams within the 0.5 search radius. There is one stream within or adjacent to the project area, which was confirmed by the site visit on September 15, 2020, by Metric Environmental.

A *Waters of the U.S. Determination / Wetland Delineation Report* was prepared by Metric Environmental on February 2, 2021. Please refer to Appendix F for the *Waters of the U.S. Determination / Wetland Delineation Report*. It was determined that one likely jurisdictional waterway is present within or adjacent to the project area. The U.S. Army Corps of Engineers (USACE) makes all final determinations regarding jurisdiction.

Boggs Creek

Boggs Creek flows from northeast to southwest and flows south into the East Fork White River, which flows into the White River, a Section 10 Traditional Navigable Waterway (TNW). Boggs Creek is associated with a solid blue line on the USGS topographic map, indicating it is likely a perennial waterway. Since Boggs Creek is a perennial stream, exhibiting connection to a TNW, it should be considered a jurisdictional Water of the U.S. The ordinary high water mark (OHWM) is 68 ft. wide and 6 ft. in depth. The dominant stream substrate consisted of cobble and gravel and, functional riffles and pools were observed. Vegetation observed along the streambanks included common button bush (*Cephalanthus occidentalis*), American elm (*Ulmus americana*), and Virginia wild rye (*Elymus virginicus*). Boggs Creek is classified as an average quality stream.

Boggs 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 PPE, observe proper hygiene procedures, including regular hand washing, and limit personal exposure. This has been included as a firm commitment in the *Environmental Commitments* section of this CE document.

Four roadside ditches (RSD) were identified within the project area. RSD 1 is located along the east side of Brickyard Road/Queen Street, north of the bridge crossing. RSD 2 and 3 are located along the west side of Brickyard Road/Queen Street, north of the bridge crossing. RSD 4 is located along the east side of Wetland C, in the northeast quadrant of Boggs Creek and the bridge crossing. These features consisted of riprap and vegetated drainage swales consisting of field brome (*Bromus arvensis*) and black walnut (*Juglans nigra*). No OHWM was observed in these features, so they are likely non-jurisdictional.

Riprap will be installed along the northern and southern banks of Boggs Creek around the end bents and piers for scour protection. Approximately 150 linear feet (0.15 acre) of permanent impacts to Boggs Creek will result from the placement of riprap for erosion control. In addition, there will be approximately 150 linear feet (0.15 acre) of temporary impacts from the use of temporary cofferdams to construct the new bridge piers. The permanent and temporary stream impacts will require an IDEM Section 401 Water Quality Certification permit and a Section 404 permit from the USACE. Mitigation will likely be required as the permanent wetland impacts combined with the permanent stream impacts to Boggs Creek are approximately 0.24 acre. Mitigation will be completed via the IDNR In Lieu Fee mitigation program during the permitting process.

The IDNR-DFW responded on March 25, 2021, with recommendations to minimize waterway impacts including bank stabilization measures, methods for riprap placement, and the minimization of in-channel disturbance (Appendix C, pages C-4 to C-6). All applicable IDNR recommendations are provided in the *Environmental Commitments* section of this CE document.

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Open Water Feature(s)

- Reservoirs
- Lakes
- Farm Ponds
- Retention/Detention Basin
- Storm Water Management Facilities
- Other: _____

Presence

Yes

Impacts

No

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

Based on the desktop review, the aerial map of the project area, and the RFI report (Appendix E, page E-2) there are six 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 visit on September 15, 2020, by Metric Environmental. Therefore, no impacts are expected.

A *Waters of the U.S. Determination / Wetland Delineation Report* was prepared by Metric Environmental on February 2, 2021. Please refer to Appendix F for the *Waters of the U.S. Determination / Wetland Delineation Report*. It was determined that no open water feature(s) are present within or adjacent to the project area. The USACE makes all final determinations regarding jurisdiction.

Wetlands

Presence

X

Impacts

Yes

X

No

--

Total wetland area: 2.184 Acre(s)

Total wetland area impacted: 0.09 Acre(s)

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

Wetland No.	Classification	Total Size (Acres)	Impacted Acres	Comments (i.e. location, likely Water of the US, appendix reference)
Wetland A	PFO1A	0.596	0.01	Likely Jurisdictional Water of the U.S
Wetland B	PSS1A	1.204	0.03	Likely Jurisdictional Water of the U.S
Wetland C	PFO1A	0.384	0.05	Likely Jurisdictional Water of the U.S

Wetlands (Mark all that apply)

- Wetland Determination
- Wetland Delineation
- USACE Isolated Waters Determination

Documentation

X
X

ESD Approval Dates

N/A
N/A

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

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

X

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

Based on the desktop review, the aerial map of the project area, and the RFI report (Appendix E, page E-2) there are forty-four (44) wetlands within the 0.5-mile search radius.

There are three wetlands within or adjacent to the project area. That number was confirmed by the site visit on September 15, 2020, by Metric Environmental. A *Waters of the U.S. Determination / Wetland Delineation Report* was prepared by Metric Environmental on February 2, 2021. Please refer to Appendix F for the *Waters of the U.S. Determination / Wetland Delineation Report*. It was determined that three (3) likely jurisdictional wetlands are present within or adjacent to the project area. The USACE makes all final determinations regarding jurisdiction.

Wetland A

Wetland A is classified as a Palustrine, Forested Broad-leaved Deciduous, Temporarily Flooded (PFO1A) wetland and is located within the floodplain of Boggs Creek. Due to its location within the floodplain of Boggs Creek, Wetland A likely receives flood waters and drainage on a consistent basis during rain events. Based on topography, it can be deduced that water drains south into Wetland B, which flows into Boggs Creek, a jurisdictional Water of the U.S. Therefore, Wetland A should be considered a jurisdictional Water of the U.S. The wetland is located adjacent to Brickyard Road, row crop, and forest, and likely receives run-off from the adjacent paved roads and agricultural fields. The dominant vegetation included silver maple (*Acer saccharinum*), red maple (*Acer rubrum*) and black walnut (*Juglans nigra*) in the tree stratum. This wetland can support an average amount of wildlife or aquatic habitat and is considered average quality.

Wetland B

Wetland B is classified as a Palustrine scrub-shrub Broad-Leaved Deciduous, Seasonally Flooded (PSS1C) wetland and is located within the floodplain of Boggs Creek, east of Brickyard Road. This wetland did contain unknown species of snags, but due to the dominant vegetation being a native, scrubshrub species of buttonbush (*Cephalanthus occidentalis*), Wetland B is classified as a PSS1C wetland. Due to its location within a floodplain, Wetland B likely receives flood waters and drainage on a consistent basis during rain events. Based on topography, it can be deduced that water drains south into Boggs Creek, a jurisdictional Water of the U.S. Therefore, Wetland B should be considered a jurisdictional Water of the U.S. The wetland is located adjacent to Brickyard Road and forested wetland, and likely receives run-off from the adjacent paved roads. These factors contribute to the conclusion that Wetland B can support a moderate amount of wildlife or aquatic habitat and is considered average quality.

Wetland C

This wetland is located within the floodplain of Boggs Creek, adjacent to Brickyard Road. Wetland C is classified as a PFO1A wetland. A small patch of area without trees is present within the northern portion of the wetland but is still surrounded by trees and had canopy. Since this area is still mostly shaded by canopy; it is included within the PFO1A portion of the wetland. The dominant vegetation included sweet gum (*Liquidambar styraciflua*), eastern cottonwood (*Populus deltoides*), and common hackberry (*Celtis occidentalis*) in the tree stratum; common buttonbush (*cephalanthus occidentalis*) in the sapling/shrub stratum; and climbing nightshade (*Solanum dulcamara*) in the herb stratum. Due to its location within a floodplain, Wetland C likely receives flood waters and drainage on a consistent basis during rain events. Based on topography, it can be deduced that water drains south via roadside Ditch 4 (RSD 4) into Boggs Creek, a jurisdictional waterway. Therefore, Wetland C should be considered a jurisdictional Water of the U.S. These factors contribute to the conclusion that Wetland C can support a moderate amount of wildlife or aquatic habitat and is considered average quality.

There will be approximately 0.01 acre of permanent impacts to Wetland A; 0.03 acre of permanent impact to Wetland B; and 0.05 acre of permanent impact to Wetland C due to bridge construction activities. A total of approximately 0.09 acre of permanent wetland impacts will result from construction of the new bridge. There will be no temporary impacts to the wetlands. Specialized fencing and "Do not Disturb" signs will be installed along the construction boundaries to avoid any additional permanent or temporary impacts to the wetlands. This avoidance and minimization measure to protect the wetlands has been included as a firm commitment in the *Environmental Commitments* section of this CE document.

The wetland impacts will require an IDEM Section 401 Water Quality Certification permit and a Section 404 permit from the USACE. Mitigation will likely be required as the permanent wetland impacts combined with the permanent stream impacts to Boggs Creek are approximately 0.24 acre. Mitigation will be completed via the IDNR In Lieu Fee mitigation program during the permitting process. The disturbed areas of Wetland A, Wetland B and Wetland C will be seeded according to INDOT standard specifications. The permanent wetland impacts will require an IDEM Section 401 Water Quality Certification permit and a Section 404 permit from the USACE.

The IDNR-DFW responded on March 25, 2021 with recommendations to avoid or minimize impacts to wetlands and that permanent or temporary wetland impacts will require the appropriate Section 401/404 permits (Appendix C, pages C-4 to C-6). All applicable IDNR recommendations are provided in the *Environmental Commitments* section of this CE document.

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

Total terrestrial habitat in project area: 3.0 Acres

Total tree clearing: 1.73 Acres

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, a site visit on September 15, 2020 by Metric Environmental, and the aerial photograph of the project area (Appendix B, page B-3) there is wooded riparian land located adjacent to the project site.

Approximately 3.0 acres of terrestrial disturbance (including 1.73 acre of tree removal) will be conducted along the east and west sides of Brickyard Road to conduct the proposed project. Species of trees that will be removed include silver maple (*Acer saccharinum*), red maple (*Acer rubrum*) and black walnut (*Juglans nigra*), sweet gum (*Liquidambar styraciflua*), eastern cottonwood (*Populus deltoides*), and common hackberry (*Celtis occidentalis*). The disturbed areas will be stabilized, graded and re-vegetated per INDOT standard specifications. All efforts to minimize terrestrial impacts were considered during the design phase of the project. The construction limits have been reduced to the extent that is practical to build the project while implementing the required design standards and limiting terrestrial disturbance. Mitigation for tree removal within the floodplain of Boggs Creek is likely for the IDNR Construction in a Floodway permit.

The IDNR-DFW responded on March 25, 2021, with recommendations to minimize terrestrial impacts including revegetating all bare and disturbed areas with a mixture of sedges, wildflowers, native hardwood trees, shrubs and native grasses (excluding all varieties of tall fescue and other non-native plants) as soon as possible upon project completion. The IDNR also recommended that appropriately designed measures for controlling erosion and sediment must be implemented to prevent sediment from leaving the construction area and maintaining these measures until construction is complete and all disturbed areas are stabilized (Appendix C, pages C-4 to C-6). All applicable agency recommendations are provided in the *Environmental Commitments* section of this document.

Protected Species

Federally Listed Bats

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

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

Determination Received for Listed Bats from USFWS: NE NLAA LAA

Other Species not included in IPaC

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

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

Migratory Birds

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

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

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, page E-4), completed by Metric Environmental on March 17, 2022, the IDNR Martin County Endangered, Threatened and Rare (ETR) Species List has been checked. According to the IDNR-DFW early coordination response letter dated March 25, 2021 (Appendix C, pages C-4 to C-6), the Natural Heritage Program's Database has been checked and no threatened, endangered or rare species have been reported within 0.5 mile of the project site. An INDOT 0.5-mile bat review occurred on September 22, 2020. No endangered bat species were identified within the search radius.

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Project information was submitted through the USFWS’s Information for Planning and Consultation (IPaC) portal, and an official species list was generated (Appendix C, pages C-21 to C-26). 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*) is listed on the species list as a candidate species and no additional coordination is needed at this time. No additional federally endangered species were generated in the IPaC species list other than the Indiana bat and northern long-eared bat.

The project qualifies for the *Range-wide Programmatic Informal Consultation for the Indiana bat and northern long-eared bat (NLEB)*, dated May 2016 (revised February 2018), between FHWA, Federal Railroad Administration (FRA), Federal Transit Administration (FTA), and USFWS. A bridge inspection occurred on September 21, 2020; one live, brown bat was identified along the southwest side of the bridge. A follow-up visit was conducted on June 28, 2021, and no bats were observed. An effect determination key was completed on January 11, 2022, and based on the responses provided, the project was found to “*Not Likely to Adversely Affect (NLAA)*” the Indiana bat and/or the NLEB (Appendix C, pages C-7 to C-20). INDOT reviewed and verified the effect finding on January 11, 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 the finding.

Avoidance and Minimization Measures (AMMs) include directing temporary lighting away from suitable habitat, restricting tree clearing to what that specified in the plans, applying time of year restrictions for tree removal and temporary lighting, and ensuring all operators and contractors are aware of all environmental commitments and AMMs. The AMMs are included as firm commitments in the *Environmental Commitments* section of this document.

Martin County Bridge 58 over Boggs 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 is included as firm commitment in the *Environmental Commitments* section of this document.

The IDNR-DFW responded on March 25, 2021 and recommended the bridge should be monitored for bird nesting activity prior to construction. If any bird nests with eggs or young are found on the existing structures, do not work on the bridges from March 15 through September 7. If construction is planned during this time and active nests are present, prior approval from the USDA is required (Appendix C, pages C-4 to C-6). This is included as firm commitment in the *Environmental Commitments* section of this document.

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

Geological and Mineral Resources

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

Yes	No
X	
	X
X	

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

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

Based on a desktop review and the Indiana Karst Region map, the project is located within 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, page B-2), the RFI report (Appendix E, page E-2) there are no karst features identified within or adjacent to the project area.

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In the early coordination response dated February 23, 2021, the Indiana Geological and Water Survey (IGWS) did not indicate that karst features exist in the project area (Appendix C, pages C-27 to C-28).

The IGWS did identify geological hazards including a high liquefaction potential, a 1% annual flood chance, a high potential for bedrock and sand/gravel resources. In addition, there are two documented abandoned mineral resource extraction sites including petroleum extraction wells. On January 27, 2023, Metric Environmental coordinated with the IDNR Oil and Gas Division to confirm the wells had been properly abandoned. According to the IDNR Oil and Gas Division the dry wells were abandoned in 1979 and based on the depth of the wells beneath the ground surface, no impact is expected. Should these wells be encountered during construction, coordination with the IDNR Oil and Gas Division will occur. This has been included a firm environmental commitment in the *Environmental Commitments* section of this CE.

Abandoned gravel pits are also documented within the search radius. The aforementioned geological features will not be affected because scope of work will not involve deep excavation (i.e., greater than 15 feet below ground surface). Response from IGWS has been communicated with the designer on February 23, 2021. No impacts are expected.

SECTION C – OTHER RESOURCES

	<u>Presence</u>	<u>Impacts</u>	
		<u>Yes</u>	<u>No</u>
Drinking Water Resources			
Wellhead Protection Area(s)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Source Water Protection Area(s)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Water Well(s)	X	<input type="checkbox"/>	X
Urbanized Area Boundary	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Public Water System(s)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Is the project located in the St. Joseph Sole Source Aquifer (SSA):		Yes	No
If Yes, is the FHWA/EPA SSA MOU Applicable?		<input type="checkbox"/>	X
If Yes, is a Groundwater Assessment Required?		<input type="checkbox"/>	<input type="checkbox"/>

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 Martin County, which is not located within the area of the St. Joseph Sole Source Aquifer, the only legally designated sole source aquifer in the state of Indiana. Therefore, the FHWA/EPA Sole Source Aquifer Memorandum of Understanding (MOU) is not applicable to this project. Therefore, a detailed groundwater assessment is not needed, and no impacts are expected.

The Indiana Department of Environmental Management’s Wellhead Proximity Determinator website (<http://www.in.gov/idem/cleanwater/pages/wellhead/>) was accessed on January 3, 2021, by Metric Environmental. This project is not located within a Wellhead Protection or Source Water Protection Area. No impacts are expected.

The Indiana Department of Natural Resources Water Well Record Database website (<https://www.in.gov/dnr/water/3595.htm>) was accessed on January 3, 2021, by Metric Environmental. Seven drinking water wells are mapped within 0.5 mile of the project area. The wells are associated with the residential parcels located to the southwest and southeast of the project site. The wells will not be affected because of their distance from the project site and there being no excavation deeper than approximately 15 ft. Therefore, no impacts are expected. Should it be determined during the right-of-way phase that wells are affected, a cost to cure will likely be included in the appraisal to restore the wells.

Based on a desktop review of the INDOT MS4 website (<https://entapps.indot.in.gov/MS4/>) by Metric Environmental on January 3, 2021, and the RFI report, this project is not located within an Urban Area Boundary. No impact is expected.

Based on a desktop review, a site visit on September 15, 2020, by Metric Environmental, a review of the aerial photograph (Appendix B, page B-3) no public water systems were identified. Therefore, no impacts are expected.

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Floodplains

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

Presence

Impacts

Yes	No
X	
	X

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.

Based on a desktop review of the Indiana Department of Natural Resources Indiana Floodway Information Portal website (<http://dnrmmaps.dnr.in.gov/appsphp/fdms/>) by Metric Environmental on January 15, 2021, and the RFI report, this project is located in a regulatory floodplain as determined from approved IDNR floodplain maps (Appendix F, page F-14). An early coordination letter was sent on February 23, 2021, to the local Floodplain Administrator for Martin County. The floodplain administrators did not respond within the 30-day time frame. Mitigation is likely for the IDNR Construction in a Floodway Permit.

This project qualifies as a Category 4 project which involves the replacement of existing drainage structures on essentially the same alignment, per the current *INDOT CE Manual*, which states:

There are no homes located within the base floodplain within 1,000 ft. upstream, and there are no homes located within the base floodplain within 1,000 ft. downstream. The proposed structure will have an effective capacity such that backwater surface elevations are not expected to significantly increase. As a result, there will be no significant adverse impacts on natural and beneficial floodplain values; no significant change in flood risks; and no significant increase in potential for interruption or termination of emergency service or emergency evacuation routes. Therefore, it has been determined that this encroachment is not significant. A hydraulic design study that addresses various structure size alternates was completed by HWC Engineering during the preliminary design phase. A summary of this study will be included with the Field Check Plans.

Farmland

- Agricultural Lands
- Prime Farmland (per NRCS)

Presence

Impacts

Yes	No
X	
X	

X
X

Total Points (from Section VII of CPA-106/AD-1006*) **131**
**If 160 or greater, see CE Manual for guidance.*

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

Based on a desktop review, a site visit on September 15, 2020, by Metric Environmental, and the aerial photograph of the project area (Appendix B, page B-3) the project will convert approximately 0.002 acre of farmland as defined by the Farmland Protection Policy Act. This estimate differs from the amount of acquired right-of-way categorized as farmland, due to the definition of prime farmland by the Farmland Protection Policy Act. Prime farmland is defined by soil type and not the current land use. An early coordination letter was sent on January 31, 2022, to the Natural Resources Conservation Service (NRCS). Coordination with NRCS resulted in a score of 131 on the AD 1006 Form (Appendix C, page C-33). 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

Full 106 Effect Finding

No Historic Properties Affected No Adverse Effect Adverse Effect

Eligible and/or Listed Resources Present

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

Documentation Prepared (mark all that apply)

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

ESD Approval Date(s)

November 17, 2021
November 17, 2021
May 20, 21, 2021
June 1, 2021
June 1, 2021

SHPO Approval Date(s)

November 29, 2021
November 29, 2021
June 1, 2021
June 15, 2021
June 15, 2021

Memorandum of Agreement (MOA)

MOA Signature Dates (List all signatories)

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

Per the terms of the ‘‘Programmatic Agreement Regarding Management and Preservation of Indiana’s Historic Bridges’’ (Historic Bridges PA), the Federal Highway Administration-Indiana Division (FHWA) will satisfy its Section 106 responsibilities involving ‘‘Select’’ and ‘‘Non-Select’’ bridges through the Project Development Process (PDP) of the Historic Bridges PA (Stipulation III).

Martin County Bridge 58 has been classified as a Non-Select Bridge by the INDOT Historic Bridge Inventory, and thus, the procedures outlined in Stipulation III.B of the Historic Bridges PA will be followed to fulfill FHWA’s Section 106 responsibilities for the bridge. Therefore, the finding for this project only applies to other resources located within the APE and not Martin County Bridge 58. This document will satisfy the Section 106 responsibilities for other resources located in the APE.

Area of Potential Effects

Qualified professionals working for Metric Environmental and meeting the Secretary of the Interior’s Professional Qualifications Standards defined an Area of Potential Effect. The Area of Potential Effects (APE) is ‘‘the geographic area or areas within which an undertaking may directly or indirectly cause alterations in the character or use of historic properties, if any such properties exist. The area of potential effects is influenced by the scale and nature of an undertaking and may be different for different kinds of effects caused by the undertaking’’ [36 CFR § 800.16(d)]. The APE for aboveground resources was drawn sufficiently large to encompass potential impacts including visual, physical, and traffic-related impacts that may result from the undertaking, whichever alternative is selected. The established Area of Potential Effects (APE) encompasses a 0.125 mile radius from Martin County Bridge No. 58. The APE for archaeology is represented by the project area, which consists of all proposed existing right-of-way that was archaeologically investigated. A map of the APE can be found in Appendix D, page D-12.

Coordination with Consulting Parties:

Section 106 of the National Historic Preservation Act requires federal agencies to take into account the effects of their undertakings on historic properties. In accordance with 36 CFR 800.2(c), individuals and groups with a demonstrated interest in the undertaking were invited to participate in efforts to identify historic properties potentially affected by the undertaking, assess its effects, and seek ways to avoid, minimize or mitigate any adverse effects on historic properties. The Indiana State Historic Preservation Officer is housed in the Indiana Department of Natural Resources, Division of Historic Preservation and Archaeology (SHPO/DNR-DHPA) and is automatically considered a consulting party for federally funded transportation projects due to its mandated or designated role as specified in 36 C.F.R. § 800.2. In addition to the SHPO, the parties listed below were invited to participate as consulting parties for this undertaking.

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Invited Consulting Party	Accepted/Decline Invitation
Indiana Landmarks, Southern Regional Office	No Response—Declined
Martin County Highway Superintendent	No Response—Declined
Martin County Genealogical Society	No Response—Declined
Martin County Historical Society	No Response—Declined
Martin County Historian	No Response—Declined
Martin County Commissioner	Accepted
Martin County Commissioner	Accepted
Martin County Commissioner	Accepted
Dr. Jim Cooper	No Response—Declined
Historic Spans Task Force	No Response—Declined
Historic Bridge Foundation	No Response—Declined
Historicbridges.org	Accepted
Hoosier Historic Bridges	No Response - Declined
Eastern Shawnee Tribe of Oklahoma	No Response
Miami Tribe of Oklahoma	Accepted
Peoria Tribe of Indians Oklahoma	No Response
Pokagon Band of Potawatomi	No Response
Shawnee Tribe	No Response
Delaware Tribe of Indians, Oklahoma	No Response

A hard copy of the Early Coordination Letter (ECL) was sent to the SHPO on November 19, 2020, and the other non-Tribal consulting parties received it via email (Appendix D, pages D-40 to D-42). On November 19, 2020, the INDOT-CRO also emailed the ECL to Tribal consulting parties. All parties were requested to indicate whether they agreed or did not agree to participate as a consulting party within thirty (30) days of receipt of the invitation. It was noted that if the invited consulting party did not reply, they would not be considered a consulting party and would not receive further information about the undertaking unless the scope changed.

In a letter dated November 30, 2020, the SHPO acknowledged receipt of the ECL and noted they were not aware of any further stakeholders who should be invited to be consulting parties (Appendix D, pages D-51 to D-52). In an email dated December 2, 2020, (Appendix D, page D-53) the Martin County Commissioners were acknowledged as consulting parties. The letter from the Miami Tribe of Oklahoma dated December 15, 2020 (Appendix D, page D-54) offered no objection to the project but stated that "if any human remains or Native American cultural items falling under the Native American Graves Protection and Repatriation Act (NAGPRA) or archaeological evidence is discovered during any phase of this project, the Miami Tribe requests immediate consultation with the entity of jurisdiction for the location of discovery." No other responses were received from invited tribes. In an email dated November 19, 2020, Historicbridges.org accepted the invitation to participate as a consulting party (Appendix D, page D-50).

Archaeology:

Pursuant to 36 CFR § 800.4(b), a Qualified Professional Archaeologist with Metric Environmental prepared an Archaeological Short Report (ASR) for the project. The ASR was prepared by Megan Copenhaver and Sydney Heidenreich under the supervision of Samuel Snell (Copenhaver and Heidenreich, 6/1/21). A literature review of the SHAARD database indicated that there are seven previously recorded archaeological sites within 1.0 miles of the project, all of which are located over 2,443 ft. from the project area. There are no cemeteries within 1.0 miles of the project. On April 9, 2021, Metric staff conducted field work that included a visual inspection, pedestrian survey, and the excavation of shovel test probes. Limestone block abutment remnants associated with the existing Martin County Bridge. No. 58 and part of the corresponding construction of Brickyard Road were discovered. The remnants were not considered to be archaeologically significant and were considered not eligible for the National Register of Historic Places (NRHP). No additional archaeological resources were identified as a result of the investigation. The ASR recommended the project be allowed to proceed with no additional work. Excerpts of the ASR are provided in Appendix D, pages D-38 to D-39. The INDOT-CRO distributed the report to consulting parties on June 1, 2021 (Appendix D, page D-66). In a letter dated June 15, 2021, the SHPO concurred with the opinion of the archaeologist that no further archaeological investigations are necessary (Appendix D, pages D-68 to D-69). No other comments regarding the archaeological report were received.

Historic Properties:

Pursuant to 36 CFR § 800.4(b), personnel with Metric Environmental, who meet the Secretary of the Interior's Professional Qualification Standards as per 36 CFR Part 61, reviewed the Indiana State Historic Architectural and Archaeological Research Database (SHAARD), Indiana Historic Buildings, Bridges, and Cemeteries Map (IHBBM), NRHP database, Indiana Bridge Inspection Application System (BIAS), Indiana Historic Bridges Inventory, the INDOT-Cultural Resources Office (CRO) Public Web Map App, and the Indiana Historical Bureau's Historic Markers database. The Indiana Historic Sites and Structures Inventory (IHSSI) for Martin County was also reviewed.

Additionally, a field survey was conducted on October 24, 2020, to identify and evaluate any historic resources present. One NRHP eligible resource is situated within the proposed APE: Martin County Bridge No. 58, which was determined eligible for the NRHP per the 2010 *Indiana Historic Bridge Inventory*. The bridge is eligible under Criterion C for its representation of an early or distinctive phase in bridge construction, design, or engineering, and it retains historic integrity necessary to convey its engineering significance. The classification of bridges into "Select" or "Non-Select," as part of the Historic Bridges PA, also resulted in the determination of Martin County Bridge No. 58 as a "Non-Select" bridge because it is not considered an excellent example of its type and/or it is not suitable for preservation. There are no other resources listed in or eligible for listing in the NRHP nor in the Indiana Register of Historic Sites and Structures within the proposed APE of this project.

A Historic Property Short Report (HPSR) (Garrard and Hudziak, 5/20/2021) was developed and provided recommendations concerning the historic significance of the properties within the APE. Excerpts of the HPSR are provided in Appendix D, pages D-34 to D-36. The INDOT-CRO released the HPSR for consulting party review on May 20 and 21, 2021. In a letter dated June 1, 2021, the SHPO acknowledged receipt of the HPSR and that the FHWA is satisfying its Section 106 responsibilities for the NRHP-eligible Martin County Bridge No. 58 following the procedures outlined in Stipulation III.B of the Indiana Historic Bridges PA (Appendix D, pages D-61 to D-62). The SHPO agreed with the HPSR's proposed APE and recommendations that there are no other historic properties listed or eligible for inclusion in the NRHP with the project's APE. No other comments regarding the HPSR were received.

Documentation Findings:

Per the terms of the "Programmatic Agreement Regarding Management and Preservation of Indiana's Historic Bridges" (Historic Bridges PA), the Federal Highway Administration-Indiana Division (FHWA) will satisfy its Section 106 responsibilities involving "Select" and "Non-Select" bridges through the Project Development Process (PDP) of the Historic Bridges PA (Stipulation III). Martin County Bridge No. 58 is classified as a "Non-Select" bridge by the *Indiana Historic Bridge Inventory* and thus, the procedures outlined in Stipulation III. of the Historic Bridges PA will be followed to fulfill FHWA's Section 106 responsibilities.

Per the terms of the Historic Bridge PA, the finding for this project only applies to other resources located within the APE and not Martin County Bridge No. 58. Regarding other resources in the project area, INDOT, on behalf of the FHWA, has determined a "No Historic Properties Affected" finding is appropriate because no other properties listed in or eligible for listing in the National Register are present within the APE. On November 17, 2021, the INDOT-CRO, on behalf of the FHWA approved the APE and issued a "No Historic Properties Affected" finding for this project (Appendix D, Page D-1 to D-9). Following this finding, the effect documentation was provided to the SHPO for a 30-day review and comment period. On November 29, 2021, the Indiana SHPO responded and concurred with the "No Historic Properties Affected" finding (Appendix D, Page D-81 to D-82). No additional responses were received.

Public Involvement:

In accordance with 36 CFR 800.2(d), 800.3(e), and 800.6(a)(4), the views of the public were sought regarding the effect of the proposed project. A legal notice was published in the *Shoals News* on December 1, 2021 with a 30-day comment period. The 30-day deadline for comments was December 31, 2021. No comments were received by the 30-day deadline. A copy of the publisher's affidavit is provided in Appendix D, page D-83.

The HBAA was sent out to CPs on March 1, 2021. No responses were received from any of the participating consulting parties. The SHPO responded with their concurrence of the HBAA on April 1, 2021 (Appendix D, Pages D-121 to D-122). SHPO has determined that photo documentation of the bridge is required consistent with the *Historic Bridges PA: Attachment B- Standard Treatment Approach for Historic Bridges*. The documentation shall be produced in keeping with the applicable photographic standards of the *Indiana DNR-Division of Historic Preservation and Archaeology Minimum Architectural Documentation*. One CD or DVD of the documentation shall be provided to the Indiana State Archives and one CD or DVD shall be provided to at least one local public or not-for-profit organization that agrees to retain the CD or DVD permanently and make it available to the public.

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In accordance with the HBPA, Stipulation III.B.2, a legal notice to interested parties for proposals for the rehabilitation and reuse, or the storage and future reuse of the bridge was published. On January 26, 2021, a legal notice to interested parties was published in the *Indianapolis Star* on January 26, 2021, and the notice was published on January 27, 2021, in *The Shoals News*. The advertisement was also included on the Indiana Department of Transportation (INDOT) Historic Bridges Marketing Program website (Appendix D, page D-76). Signs were posted at the bridge site on February 3, 2021 (Appendix D, pages D-78 to D-80). To date no interested parties have come forward to take ownership of Martin County Bridge 58. The marketing period will end when the public hearing comment period ends. The text of the legal notices and the affidavits of publication are provided in Appendix D, pages D-71 to D-74.

Pursuant to the Historic Bridge Programmatic Agreement (PA), a public hearing for the project is required. A legal notice for the public hearing will appear in a local publication contingent upon the release of this document for public involvement. All consulting parties originally invited to participate will be notified of the hearing per the procedures of the HBPA. The Section 106 process will be complete after the public hearing is held and the *Public Involvement* section of this document is updated per the outcome of that public hearing.

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

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

Evaluations Prepared

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

Based on a desktop review, the aerial photograph of the project area (Appendix B, page B-3), and the RFI report (Appendix E, page E-2) there are no Section 4(f) resources located within the 0.5 mile search radius. According to additional research and the site visit conducted on September 15, 2020, by Metric Environmental, it was determined that Martin County Bridge 58 is located within the project area. Martin County Bridge 58, a historic property, has been classified as a Non-Select Bridge by the INDOT *Historic Bridge Inventory* and is considered a Section 4(f) resource.

The Section 4(f) statute places restrictions on the use of land from historic sites for highway improvements but makes no mention of historic bridges or highways that are already serving as transportation facilities. FHWA therefore, determined that Section 4(f) will only apply when a historic bridge is demolished, or if the historic quality for which the facility was determined eligible for the NRHP is substantially affected by the proposed improvements.

This resource is used for transportation purposes. Martin County Bridge 58 will be evaluated through the *Programmatic Section 4(f) Evaluation and Approval for FHWA Projects that Necessitate the Use of Historic Bridges*. The proposed bridge project qualifies for the programmatic Section 4(f) evaluation and approval for FHWA projects that necessitate the use of a historic bridge when the project meets the following criteria:

1. The bridge is to be replaced or rehabilitated with Federal funds.
2. The project will require the use of a historic bridge structure which is on or is eligible for listing on the NRHP.
3. The bridge is not a National Historic Landmark.
4. The FHWA Division Administrator determines that the facts of the project match those set forth by the investigation of the appropriate Alternatives, Findings, and Mitigation.
5. Agreement among the FHWA, the SHPO, and the ACHP has been reached through procedures pursuant to Section 106 of the NHPA.

The Martin County Bridge 58 bridge project meets these criteria. To apply the Historic Bridge Programmatic Section 4(f) Evaluation, three alternatives that avoid any use of the historic bridge must be examined: do nothing, build a new structure at a different location without affecting the historic integrity of the historic bridge, and rehabilitate the historic bridge without affecting the historic integrity of the structure. The Indiana Historic Bridges PA requires a more extensive alternatives analysis evaluating additional alternatives. Per the terms Historic Bridges PA, FHWA will satisfy its Section 106 responsibilities involving "Select" and "Non-Select" bridges through the PDP of the Historic Bridges PA (Stipulation III).

Martin County Bridge 58 has been classified as a Non-Select Bridge by the INDOT Historic Bridge Inventory, and thus, the procedures outlined in Stipulation III.B of the Historic Bridges PA will be followed to fulfill FHWA's Section 106 responsibilities for the bridge. The alternatives described in this document are based on the guidance for writing a historic bridge Section 4(f) alternatives analysis, produced by HWC Engineering. Per the guidance, alternatives A, B1, B2, C1, C2, D1, D2, E, and F must be analyzed in consecutive order until a feasible and prudent alternative has been determined which also results in the least amount of harm to the protected resource. A feasible alternative is one that is possible to engineer, design, and build, and a prudent alternative is one that does not present significantly unique or unusual factors (e.g. cost; social, economic, or environmental impacts; community disruption). Once a feasible and prudent alternative has been determined, the remaining alternatives do not need to be analyzed. A Historic Bridge Alternative Analysis (HBAA) was developed for the project in March 2021. Excerpts of the HBAA are provided in Appendix D, pages D-84 to D-103. The estimated costs of alternatives included herein are consistent with the costs provided in the text of the HBAA document. The Alternatives Analysis Comparison Table provided in the HBAA document was inaccurate and the revised version of the Alternatives Analysis Comparison Table is provided in Appendix D, page D-97.

Alternative A: Do Nothing/No Build

This alternate would not directly affect the historic significance of the bridge but would allow for the continued deterioration of the bridge. As the bridge deteriorates the load capacity would decrease and require a lower load posting. Additionally, the structure may be closed at some time in the future due to deterioration and potential failure. This alternative would not require the expenditure of funds and would have no environmental impact. Although this alternative is feasible it is not prudent to allow the bridge to continue to deteriorate. This alternative does not meet the purpose and need of the project and for the reasons described above, it was discarded from further consideration.

Alternative B1: Rehabilitation for Continued Vehicular Use Meeting Secretary of Interior's Standards for Rehabilitation

This alternative would rehabilitate the existing structure for continued one lane vehicular use. This alternative would rehabilitate the existing bridge to a standard that meets the Secretary of Interior's Standards (SOIS) for Rehabilitation. This alternative would include cleaning and painting the existing truss. Based on deterioration and load capacity, thirteen members of each truss would be replaced in kind. The stone arches would be repaired and rebuilt by replacing deteriorated stones. The fill in the arches would be removed and replaced with fill that meets current design standards. The bearings supporting the truss would be replaced with appropriate bearings that meet current design standards. The steel grid deck would be replaced with a new steel grid deck. The concrete deck on the stone arch approach spans would be replaced with a concrete structural slab. Structural materials would be replaced in-kind and the integrity of the bridge would be retained. Where stone is replaced or patched, replacement stones would be of a similar material and color. Where steel members are replaced, the new members would be constructed of similar shape and size as the existing members. The bridge's existing alignment and skew would not be altered, and the bridge would not be widened. The truss would be removed from the supports, disassembled, repaired off site, and reassembled and set into place on the repaired foundations. These repairs would improve the condition of the truss and improve the load capacity to 24 tons (HS-15) but is less than the 27 tons required in the Indiana Design Manual (IDM).

The load rating for the EV-2, equivalent load rating vehicle to the county's largest emergency vehicle, would increase to 23 tons. It is less than the required 29 tons to carry the county's in-use vehicles.

This alternative does not address the substandard clear roadway, the substandard bridge railing, and does not achieve the necessary load capacity. This option also does not replace the substandard railing because the railing is attached to the steel grid deck and there is not a crash tested railing available for this configuration with the steel grid deck. The use of a concrete deck and standard railing to meet standards is not proposed because it would lower the load rating capacity of the rehabilitated condition. A Level 1 Design Exception for the structural capacity would be required, and Level 2 Design Exceptions for the shoulder width, the clear roadway width, and the railing would be required. The estimated cost of Alternate B1 is approximately \$2,053,900.00, which is 128% of the cost of Alternative F. This alternate is feasible, but it is not prudent because it does not meet the purpose and need of the project. For these reasons, this alternative was discarded from further consideration.

Alternate B2: Rehabilitation for Continued Vehicular Use NOT Meeting Secretary of Interior's Standards for Rehabilitation

This alternative would rehabilitate the existing structure for continued vehicular use and provide load capacity and geometry meeting the project goals. This alternative would include cleaning and painting the existing truss. Replacement of sixteen truss members in-kind and six members with larger members would increase the load rating of the structure to meet the criteria listed in the IDM and county emergency vehicles. A total of twenty-two members of the truss's twenty-seven total members would be replaced. The steel grid deck and the concrete deck on the approach spans would be replaced with a reinforced concrete structural slab along the full bridge length. The bridge clear roadway width would be 16 ft. This slab would allow the existing railing to be replaced with a crash-tested bridge rail and allow increased roadway width across the bridge. New concrete approach slabs would be constructed. The stone arches would be cleaned and repaired by replacing deteriorated stones and rebuilt. The fill in the arches would be removed and replaced with fill that meets current design standards. The bearings supporting the truss would be replaced with appropriate bearings that meet current design standards. This alternative would require significant replacement of original truss members. The amount of member replacement is anticipated to result in an adverse impact to the historic nature of the bridge. The estimated cost of Alternative B2 is approximately \$2,191,900.00 which is 137% of the cost of Alternate F; however, the bridge would continue to have insufficient width and load capacity. Although Alternate B2 is feasible it is not prudent because it does not meet the purpose and need of the project. For these reasons, this alternative was discarded from further consideration.

Alternative C1: Rehabilitation for Continued Vehicular Use (1-way pair option) Meeting Secretary of Interior's Standards for Rehabilitation

This alternative would rehabilitate the existing structure for continued vehicular use, for one lane of traffic, in the same manner as outlined in Alternative B1. It also proposes the construction of a new one-lane bridge on an adjacent alignment downstream to carry the opposing lane of traffic, thus creating a one-way pair. The length of the new bridge would be similar to the existing bridge. The rehabilitation of the existing structure would be the same as proposed in Alternative B1. The new bridge would carry one lane of traffic and be designed to meet all current structural and geometric design criteria. The new structure would be placed to the west (downstream) of the existing structure. The limited distance between the new bridge and US 50 does not allow enough distance for the new one-way alignment to merge back into the existing alignment. This alternative would require the intersection of Brickyard Road and US 50 to be reconstructed and would result in greater environmental impacts. The Level 1 and Level 2 Design Exceptions noted for the existing bridge in Alternative B1 would still be required for this alternative since the existing bridge does not meet the criteria for a one lane bridge. The estimated total cost of this alternative is approximately \$3,108,700.00 which is 194% of the cost of Alternative F. This alternative would not improve the load carrying capacity of the existing bridge to the minimum of 15 tons. This alternative is feasible, but not prudent because it does not meet the purpose and need of the project. For these reasons, this alternative was discarded from further consideration.

Alternative C2: Rehabilitation for Continued Vehicular Use (1-way pair option) Not Meeting Secretary of Interior's Standards for Rehabilitation

This alternative proposes to rehabilitate the existing structure for continued vehicular use, for one lane of traffic, in the same manner as outlined in Alternative B2. It also proposes the construction of a new one-lane bridge on an adjacent alignment to carry the opposing lane of traffic, thus creating a one-way pair. The rehabilitation of the existing structure would be the same as proposed in Alternative B2 and the new, proposed one-lane bridge would meet the same design parameters as described in Alternative C1. This alternative would also require the reconstruction of the Brickyard Road and US 50 intersection and would result in greater environmental impacts. The estimated cost of Alternative C2 is approximately \$3,111,700.00 which is 195% of the cost of Alternate F. This alternative is feasible, but not prudent because it does not meet the purpose and need of the project. For these reasons, this alternative was discarded from further consideration.

Alternative D: Bypass (non-vehicular use) / Build New Bridge

This alternative would rehabilitate the existing bridge for non-vehicular use and build an adjacent bypass bridge that meets all required design criteria. Although the existing bridge would not be preserved for continued vehicular traffic, it would remain in place with repairs including cleaning and painting of the truss, limited truss member repairs, and replacement of damaged arch stones. No truss members would be replaced as a part of this alternative. To achieve this objective, all replacement procedures would maintain and/or restore the historic elements of the structure as closely as possible. The proposed repairs would preserve the life of the existing structure but would not increase the structural capacity. The repairs are anticipated to keep the bridge available for non-vehicular use for approximately 25 years. Brickyard Road would be realigned to the west (downstream) to bypass the existing bridge. This alternative would require the intersection of Brickyard Road and US 50 to be reconstructed which would increase the right-of-way costs and also result in additional wetland impacts and increased costs for wetland mitigation. Once rehabilitated and permanently closed to vehicle traffic, inspection requirements would no longer be applicable. Alternative D is feasible and as it meets the purpose and need of the project by providing a new structurally sufficient bridge for vehicular traffic. The estimated cost for this alternative is approximately \$2,971,700.00 which is 186% of the cost of Alternative F. This alternative would meet the purpose and need of the project; however, this alternative is prudent only if a responsible party assumes ownership of the bridge and maintains the bridge for perpetuity. To date no interested party has been identified to take ownership of Martin County Bridge 58 as required for this alternate.

Alternative E: Relocation of Historic Bridge and a New Bridge on Current Alignment

Alternative E would relocate the historic bridge and a new bridge that meets all applicable design criteria would be built on the current alignment. The existing bridge would not be destroyed; however, a responsible party must come forward and fund the relocation and rehabilitation of the bridge. The existing structure would be disassembled and reassembled at a new location. The existing truss bridge would be replaced with a new bridge on the existing alignment and would meet all applicable design criteria. The estimated cost of this alternative is approximately \$3,039,900.00 which is 191% of the cost of Alternative F. The bridge has been advertised for the minimum six-month marketing period but to date, no interested party has come forward. The opportunity to relocate and reuse the bridge will remain viable until the public hearing requirements for this project have concluded. As a result, this alternative is still feasible. This alternative would meet the purpose and need of the project; however, this alternative is prudent only if a responsible party assumes ownership of the bridge and maintains the bridge for perpetuity. To date no interested party has been identified to take ownership of Martin County Bridge 58 as required for this alternate.

Alternative F: Demolition of Historic Bridge and a New Bridge on Current Alignment

Alternative F would demolish the existing truss bridge and a new bridge that meets all applicable design criteria would be built on the current alignment. There would be no bridge relocation process included as part of this alternative. If Alternative F is chosen as the preferred alternative, the cost would be approximately \$1,594,900.00 which includes the cost to construct the new bridge and demolish the existing bridge. Impacts to the historic bridge would be mitigated through the stipulations outlined within the Historic Bridges Programmatic Agreement (HBPA) process. This alternative is both feasible and prudent as it meets the purpose and need of the project by providing a new, structurally sufficient bridge at the project site.

The anticipated cost for Alternative F has increased to approximately \$2,300,000. This cost increase compared to the estimated cost in the HBAA is a result of project design advances including bridge hydraulics, geotechnical recommendations for the bridge foundations, pavement design, and inflation. These additional design considerations and associated cost increases are applicable to all required alternative options provided herein. The estimated project cost of \$3,330,900.00 listed on page 9 of this document includes the construction and construction inspection costs and is not necessarily a direct correlation of costs as illustrated in the Statewide Transportation Improvement Program (STIP) and the HBAA. The \$3,330,900.00 cost estimate represents the 80% federal funding match requested by Martin County for the construction and construction inspection phases of the project.

Alternate E is prudent and feasible and provides an opportunity to preserve the bridge. If no interested party comes forward to fund the relocation, Alternative F will become the preferred feasible and prudent alternative. The State Historic Preservation Office (SHPO) requested that photo documentation of the bridge be conducted consistent with the *Historic Bridges PA: Attachment B-Standard Treatment Approach for Historic Bridges*. This will apply regardless of whether Alternative E or F is chosen as the preferred alternative.

The programmatic Section 4(f) evaluation and approval may be used only for projects where the FHWA Division Administrator, in accordance with this evaluation, ensures that the proposed action includes all possible planning to minimize harm. The project has considered all appropriate measures to minimize harm and mitigate for adverse impacts or effects on Martin County Bridge 58, including development of the initial alternative analysis.

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Alternate E is prudent and feasible and provides an opportunity to preserve the bridge. If no organization or private parties come forward to fund the relocation, Alternative F will become the preferred feasible and prudent alternative. Alternative F would result in demolition of Martin County Bridge 58; therefore, the required photo documentation as described below, will mitigate for the adverse effect to the bridge. This will apply regardless of whether Alternative E or F is the chosen as the preferred alternative.

The HBAA was sent out to CPs on March 1, 2021. No responses were received from any of the participating consulting parties. The SHPO responded with their concurrence of the HBAA on April 1, 2021 (Appendix D, Pages D-121 to D-122).

The SHPO letter stated “If no responsible party steps forward to fund the relocation of this bridge, we understand that demolition of the bridge will occur. As a result, pursuant to the Indiana Historic Bridges PA, we request that this bridge be photographically documented prior to commencement of the project by a qualified professional historian, architectural historian, or architect. Please provide overall views of the bridge and representative photographs of its deck, abutments, piers, along with any additional character defining features”. The photo documentation of the bridge will be conducted consistent with the *Historic Bridges PA: Attachment B- Standard Treatment Approach for Historic Bridges*.

The documentation shall be produced in keeping with the applicable photographic standards of the *Indiana DNR–Division of Historic Preservation and Archaeology Minimum Architectural Documentation*. One CD or DVD of the documentation shall be provided to the Indiana State Archives and one CD or DVD shall be provided to at least one local public or not-for-profit organization that agrees to retain the CD or DVD permanently and make it available to the public. These are firm commitments and are discussed in the *Environmental Commitments* section of this document. Pursuant to the Programmatic Section 4(f) Evaluation and Approval for FHWA projects that necessitate the use of historic bridges, the preferred alternative, Alternative F, will result in a use of the historic bridge. The FHWA signature of this Level 4 Categorical Exclusion will act as FHWA concurrence of this Programmatic Section 4(f) evaluation for Martin County Bridge 58.

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 U.S. Land and Water Conservation Fund Act of 1965 established the Land and Water Conservation Fund (LWCF), which was created to preserve, develop, and assure accessibility to outdoor recreation resources. Section 6(f) of this Act prohibits conversion of lands purchased with LWCF monies to a non-recreation use. A review of Section 6(f) properties on the INDOT ESD website revealed three properties in Martin County that have received LWCF funding (Appendix I, page I-1). None of these properties are located within or adjacent to the project area. Therefore, there will be no impacts to 6(f) resources.

SECTION F – Air Quality

STIP/TIP and Conformity Status of the Project

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

Yes	No
X	
	X
	X

Location in STIP:

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Name of MPO (if applicable):

Location in TIP (if applicable):

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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, page H-1). Once the preferred alternative has been determined based on the outcome of the public hearing, the project description will be updated in the STIP, in addition to the estimated cost of construction, if required. Any necessary modifications to the STIP will be completed before the Request for Contract (RFC).

This project is located in Martin County, which is currently in attainment for all criteria pollutants according to the EPA Nonattainment/Maintenance Status List located at https://www3.epa.gov/airquality/greenbook/anayo_in.html. 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?	<input type="checkbox"/>	<input checked="" type="checkbox"/>

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 *Indiana Department of Transportation Traffic Noise Analysis Procedure*, this action does not require a formal noise analysis.

SECTION H – COMMUNITY IMPACTS

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

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

The U.S. Department of Housing and Urban Development (HUD) was consulted as part of the early coordination process regarding possible regional, community or neighborhood factors associated with this project. No response was received. On August 21, 2021, Metric conducted an on-line review of the Indiana Festivals website (<http://www.indianafestivals.org>). There are no events identified within or near the project area that would be potentially impacted during construction of the project. No impact is expected.

The Americans with Disabilities Act (ADA) requires a transition plan by local and state governments. Such a plan includes how the government will remove barriers to accessibility over time for persons with disabilities, such as installing curb ramps at intersections, making a web site accessible for persons with low vision, ensuring public meetings are fully accessible to persons with disabilities and other related issues.

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Martin County has an approved ADA transition plan; however, the proposed project does not include ADA design components. This project will not change the general development patterns, population density, or residential or commercial growth rate of the project area. Furthermore, there will be no permanent impacts to community cohesion, local mobility, access, pedestrian or motorist safety or emergency services as a result of the project. The project will not have any adverse impacts on the local tax base or property values.

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, a review of the aerial photograph of the project area (Appendix B, page B-3), and the RFI report (Appendix E, page E-2), there are no public facilities located within the 0.5 mile search radius. The site visit conducted on September 15, 2020, by Metric Environmental confirmed that there are no public facilities located within or adjacent to the project area, therefore, no impacts are expected. Access to all properties will be maintained during construction.

The Martin County Emergency Management Agency provided comment and support for the project in correspondence dated July 17, 2019 (Appendix D, page D-118) and February 23, 2021 (Appendix C, page C-29). The Martin County Emergency Management Agency provides a fire and rescue unit facility located approximately 0.5 mile from the project bridge; however, due to the deteriorated condition of the bridge, it cannot support larger emergency response vehicles. This requires larger emergency response vehicles to use an alternate route, increasing emergency response times.

The INDOT, Office of Aviation responded to early coordination on February 25, 2021, stating there are no issues with surrounding airspace; however, if any object will exceed 200 ft. in height coordination with the Federal Aviation Administration (FAA) will be required (Appendix C, page C-30).

The Hoosier National Forest responded to early coordination on February 25, 2021, stating there are no National Forest System lands located within or adjacent to the project area and no further coordination is necessary (Appendix C, page C-31).

One pipeline owned by Marathon Pipeline Company crosses the project area. Based on coordination with Marathon Pipeline Company, the pipeline is not located within the project area. No impact is expected.

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

	Yes	No
Environmental Justice (EJ) (Presidential EO 12898)		
During the development of the project were EJ issues identified?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Does the project require an EJ analysis?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
If YES, then:		
Are any EJ populations located within the project area?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Will the project result in adversely high and disproportionate impacts to EJ populations?	<input type="checkbox"/>	<input checked="" type="checkbox"/>

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

Under FHWA Order 6640.23A, FHWA and the project sponsor, as a recipient of funding from FHWA, are responsible to ensure that their programs, policies, and activities do not have a disproportionately high and adverse effect on minority or low-income populations. Per the current INDOT *Categorical Exclusion Manual*, an Environmental Justice (EJ) Analysis is required for any project that has two or more relocations or 0.5 acre of additional permanent right-of-way. The project will require approximately 3.0 acres of new, additional permanent right-of-way, but there will be no relocations. Therefore, an EJ Analysis is required.

Potential EJ impacts are detected by locating minority and low-income populations relative to a reference population to determine if populations of EJ concern exists and whether there could be disproportionately high and adverse impacts to them. The reference population may be a county, city or town and is called the community of comparison (COC). In this project, the COC is Martin County. The community that overlaps the project area is called the affected community (AC).

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In this project, the AC is Census Tract 9502 in Martin County. An AC has a population of concern for EJ if the population is more than 50% minority or low-income or if the low-income or minority population is 125% of the COC. Data from the 2019 American Community Survey (ACS) 5 year estimates was obtained from the US Census Bureau on October 30, 2021, by Metric Environmental. The data collected for minority and low-income populations within the AC and COC are summarized in the table below.

	Martin County, Indiana COC	Census Tract 9502 Martin County, Indiana AC
US Census 2019 American Community Survey 5 year Estimates		
LOW-INCOME		
Total Population: Total	9,884	3,659
Population for whom poverty status is determined	1,156	446
Percent Low-Income (2019 below poverty level)		
	11.70%	12.19%
125 Percent of COC (125 x COC Percent Low-Income)	14.62%	AC < 125% COC
Low-Income EJ Impact		No
MINORITY		
Total Population: Total	10,212	3,716
Not Hispanic or Latino	10,095	3,709
White alone	9,910	3,672
Black or African American alone	77	11
American Indian and Alaska Native alone	33	9
Asian alone	18	10
Native Hawaiian and Other Pacific Islander alone	0	0
Some other race alone	0	0
Two or more races	57	7
Hispanic or Latino	117	7
Number Non-white/minority		
	302	44
Percent Non-white/Minority	2.96%	1.18%
125 Percent of COC (125 x COC Percent Non-white/Minority)	3.70%	AC < 125% COC
Minority EJ Impact		No

The AC, Census Tract 9502 has a percent minority of 1.18% which is below 50% and is below the 125% COC threshold. Therefore, the AC is not a minority population of EJ concern. Census Tract 9502 has a 12.19% low-income population which is below 50% and below the 125% COC threshold. Therefore, the AC is not considered a low-income population of EJ concern. No further environmental justice analysis is warranted. The U.S. Census Bureau data is provided in Appendix I, pages I-2 to I-3.

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 be necessary to complete the proposed project.

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SECTION I – HAZARDOUS MATERIALS & REGULATED SUBSTANCES

Documentation

Hazardous Materials & Regulated Substances (Mark all that apply)

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

Date RFI concurrence by INDOT SAM (if applicable): March 17, 2022

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

Based on a review of GIS and available public records, and a RFI completed by Metric Environmental on March 17, 2022, and INDOT-SAM Unit provided their concurrence on March 17, 2022 (Appendix E, page E-5). No sites with hazardous material concerns (hazmat sites) or sites involved with regulated substances were identified in or within 0.5 mile of the project area. Further investigation for hazardous material concerns or regulated substances is not required at this time.

Part IV – Permits and Commitments

PERMITS CHECKLIST

Permits (mark all that apply)

Likely Required

Army Corps of Engineers (404/Section10 Permit)

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

IN Department of Environmental Management (401/Rule 5)

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

IN Department of Natural Resources

Construction in a Floodway	X
Navigable Waterway Permit	
Other	

Mitigation Required

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

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

The project will require a Rule 5 permit due to the disturbance of more than 1.0 acre of land. The project will also require an IDEM Section 401 Water Quality Certification permit and an Army Corps Section 404 permit for the permanent and temporary impacts to Boggs Creek and Wetlands A, B and C. Mitigation will likely be required as the permanent wetland impacts combined with the permanent stream impacts to Boggs Creek are approximately 0.24 acre. Mitigation will be completed via the IDNR In Lieu Fee mitigation program during the permitting process. An IDNR Construction in a Floodway permit will also likely be required. Floodway mitigation is likely required and will be determined during the permitting process.

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Applicable recommendations provided by resource agencies are included in the Environmental Commitments section of this document. If permits are found to be necessary, the conditions of the permit will be requirements of the project and will supersede these recommendations. It is the responsibility of the project sponsor to identify and obtain all required permits.

ENVIRONMENTAL COMMITMENTS

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

Firm:

1. If the scope of work or permanent or temporary right-of-way amounts change, the INDOT Environmental Services Division (ESD) and the INDOT District Environmental Section will be contacted immediately. (INDOT ESD)
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. 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)
4. Lighting AMM 1: Direct temporary lighting away from suitable habitat during the active season. (USFWS)
5. Tree Removal AMM 1: Modify all phases/aspects of the project (e.g., temporary work areas, alignments) to the extent practicable to avoid tree removal in excess of what is required to implement the project safely. (USFWS)
6. Tree Removal AMM 2: Apply time of year restrictions (April 1 through September 30) 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 and IDNR-DFW)
7. Tree Removal AMM 3: Ensure tree removal is limited to that specified in project plans. Install bright colored flagging/fencing prior to any tree clearing to ensure contractors stay within clearing limits. Ensure that contractors understand clearing limits and how they are marked in the field. (USFWS)
8. 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 at any time of the year. (USFWS)
9. Hibernacula AMM 1: For projects located within karst areas, on-site personnel will use best management practices. Secondary containment measures, or other standard spill prevention and countermeasures to avoid impacts to possible hibernacula. Where practicable, a 300 foot buffer will be employed to separate fueling areas and other major containment risk activities from caves, sinkholes, losing streams, in springs in karst topography. (USFWS)
10. Pursuant to the Indiana Historic Bridges PA, this bridge must be photographically documented prior to the approval of the Environmental Consultation Form (ECF) by a qualified professional historian, architectural historian, or architect. Provide overall views of the bridge and representative photographs of its deck, abutments, piers, along with any additional character defining features. The documentation shall be produced in keeping with the applicable photographic standards of the *Indiana DNR–Division of Historic Preservation and Archaeology Minimum Architectural Documentation*. One CD or DVD of the documentation shall be provided to the Indiana State Archives and one CD or DVD shall be provided to at least one local public or not-for-profit organization that agrees to retain the CD or DVD permanently and make it available to the public. (IDNR-SHPO)
11. Specialized fencing and “Do not Disturb” signs will be installed along the construction boundaries to avoid any additional permanent or temporary impacts to wetlands A, B and C. The wetland areas will also be marked as “Do not Disturb” on the plan sheets with instructions to the contractor to adhere to the established construction limits and avoid any activities beyond those limits. (INDOT ESD)
12. Boggs 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 PPE, observe proper hygiene procedures, including regular hand washing, and limit personal exposure. (INDOT ESD)

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13. There are two documented active or abandoned mineral resource extraction sites including petroleum extraction wells in the project area. Should these wells be encountered during construction, coordination with the IDNR Oil and Gas Division will occur. (INDOT ESD)
14. Martin County Bridge 58 over Boggs 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. (INDOT ESD)
15. The IDNR-DFW responded on March 25, 2021 and recommended the bridge should be monitored for bird nesting activity prior to construction. If any bird nests with eggs or young are found on the existing structures, do not work on the bridges from March 15 through September 7. If construction is planned during this time and active nests are present, prior approval from the USDA is required. (IDNR-DFW)

For Further Consideration:

16. Do not excavate in the low flow area except for the placement of piers, foundations, and riprap, or removal of the old structure. (IDNR-DFW)
17. Do not construct any temporary runarounds, access bridges, causeways, cofferdams, diversions, or pump-arounds. (IDNR-DFW)
18. Use minimum average 6 inch graded riprap stone extended below the normal water level to provide habitat for aquatic organisms in the voids. (IDNR-DFW)
19. 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 inches dbh or greater (5:1 mitigation based on the number of large trees). (IDNR-DFW)
20. Riprap or other hard bank stabilization materials should only be used at the toe of slopes up to the ordinary high water mark (OHWM) with the exception of areas directly under bridges. 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 Central Indiana and specifically for stream bank/floodway stabilization purposes as soon as possible upon completion. (IDNR-DFW)
21. The new, replacement, or rehabbed structure should not create conditions that are less favorable for wildlife passage under the structure compared to the current conditions. (IDNR-DFW)

APPENDICES

APPENDIX A: INDOT Supporting Documentation

- CE Threshold Chart A-1

APPENDIX B: Graphics

- Project Location Map B-1
- USGS Topographic Map B-2
- Aerial Photograph B-3
- Ground Level Photographs B-4
- Project Design Plans B-5

APPENDIX C: Early Coordination

- Sample Early Coordination Letter C-1
- Early Coordination Recipients List C-3
- IDNR-DFW Response C-4
- USFWS Concurrence Verification C-7
- USFWS Official Species List C-21
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APPENDIX D: Section 106 of the National Historic Preservation Act

- No Historic Properties Effected Finding D-1
- Area of Potential Effect Map D-12
- Project Design Plans D-13
- HBAA Excerpts and Ground Level Photos D-20
- Historic Properties Report Excerpts D-34
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- Historicbridges.org Response D-50
- SHPO Response to Early Coordination D-51
- Miami Tribe of Oklahoma Early Coordination Response D-54
- SHPO Approval of HPR D-61
- SHPO Approval of Archaeological Report D-68
- Bridge Marketing Publishers Notice D-71
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APPENDIX E: Red Flag and Hazardous Materials

- Red Flag Investigation, INDOT Approval E-5
- Red Flag Maps E-6

APPENDIX F: Water Resources

- Waters Determination Report F-1
- Exhibit 4 - NWI Wetland Inventory Map F-14
- Exhibit 6 - Waters Delineation Map F-16
- Site Photographs F-18
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APPENDIX G: Public Involvement

- Example Notice of Survey Letter G-1
- Bridge Marketing Notice G-2

APPENDIX H: Air Quality

- FY 2022-2026 INDOT STIP Project List H-1

APPENDIX I: Additional Studies

- LWCF Listing for Martin County I-1
- Environmental Justice Documentation I-2

**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	-	-
Relocations	None	-	-	< 5	≥ 5
Threatened/Endangered Species (Species Specific Programmatic for Indiana bat & northern long eared bat)*	“No Effect”, “Not likely to Adversely Affect” (With select AMMs ⁶)	“Not likely to Adversely Affect” (With any AMMs or commitments)	-	“Likely to Adversely Affect”	Project does not fall under Species Specific Programmatic ⁷
Threatened/Endangered Species (Any other species)*	Falls within guidelines of USFWS 2013 Interim Policy or “No Effect”	“Not likely to Adversely Affect”	-	-	“Likely to Adversely Affect”
Environmental Justice	No disproportionately high and adverse impacts	-	-	-	Potential ⁸
Sole Source Aquifer	No Detailed Groundwater Assessment	-	-	-	Detailed Groundwater Assessment
Floodplain	No Substantial Impacts	-	-	-	Substantial Impacts
Section 4(f) Impacts	None	-	-	-	Any ⁹
Section 6(f) Impacts	None	-	-	-	Any
Permanent Traffic Alteration	None	-	-	-	Any
Noise Analysis Required	No	-	-	-	Yes
Air Quality Analysis Required	No	-	-	-	Yes ¹⁰
Approval Level	Concurrence by DE or ESD	DE or ESD	DE or ESD	DE and/or ESD	DE and/or ESD; and FHWA
<ul style="list-style-type: none"> • District Env. (DE) • Env. Serv. Div. (ESD) • 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 Avoidance and Mitigation Measures (AMMs) determined by the IPAC determination key to be required that are not tree AMMs, bridge AMMs, or structure AMMs.

⁷ 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.

⁸ Potential for causing a disproportionately high and adverse impact.

⁹ 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.

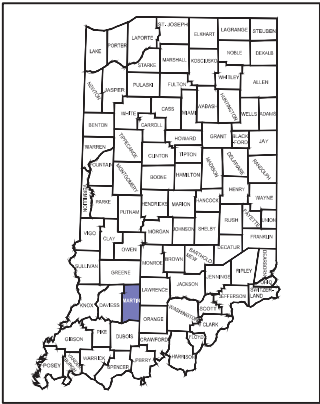
¹⁰ Hot Spot Analysis and/or MSAT Quantitative Emission Analysis.

* Includes the threatened/endangered species critical habitat

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



APPENDIX B:

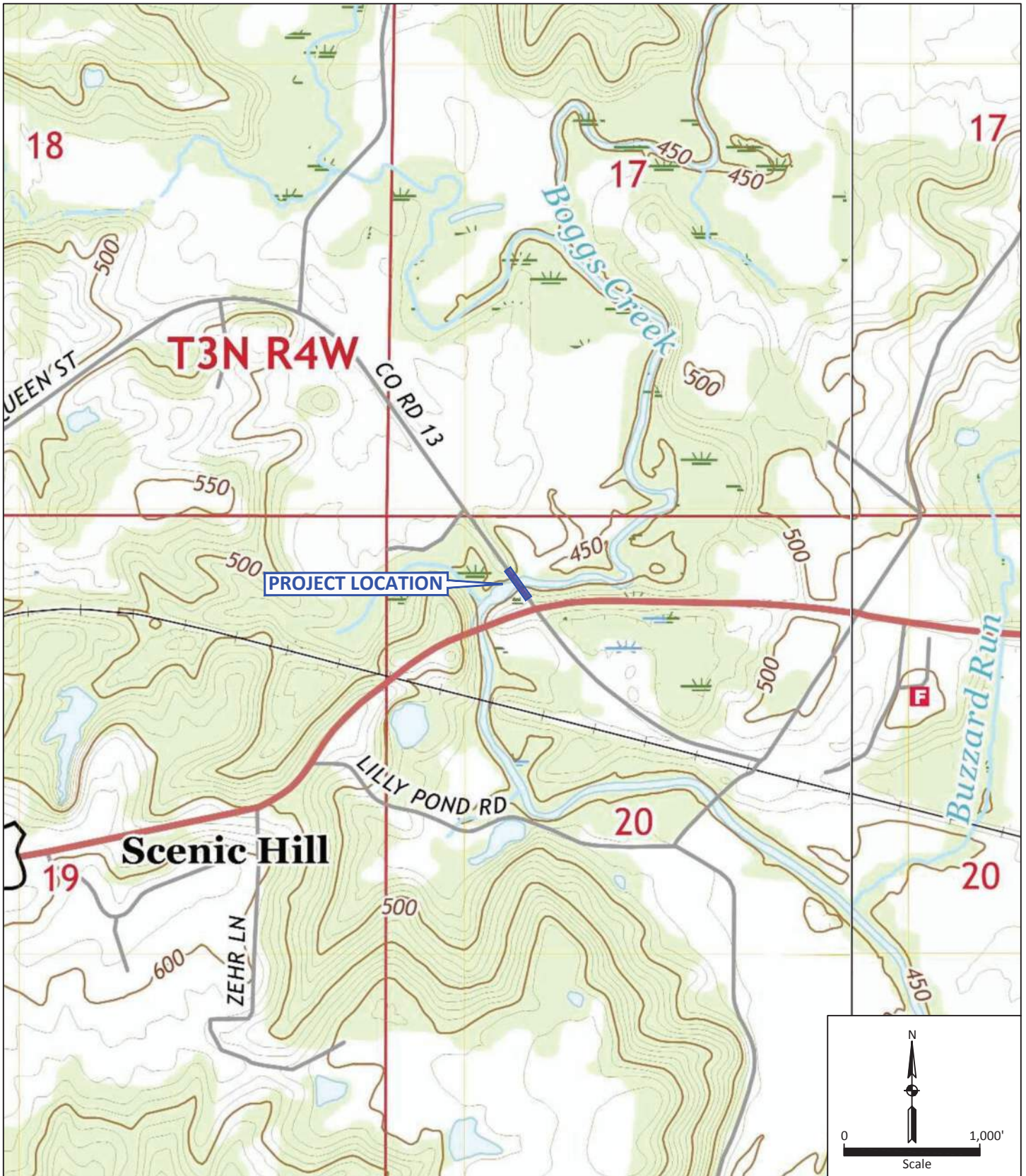
Graphics



P:\2020\20-0077 - HVC-Martin County- Bridge 58 Project\5 - Deliverables\Exhibits\EC\Location Map.dwg


Source: <http://maps.indiana.edu/>

<p>Project Location Map</p> <p>Bridge Project Brickyard Road over Boggs Creek Martin County, Indiana Des. No. 1902785</p>	<p>All locations approximate</p> <div style="text-align: center;">  Not to Scale </div>	 <p>Drawn by: <u>ILJ</u></p> <p>Checked by: <u>XX</u></p> <p>Approved by: <u>XX</u></p>
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P:\2020\20-0077 - HWC-Martin County - Bridge 58 Project\5 - Deliverables\Exhibits\EC\Topo Map.dwg

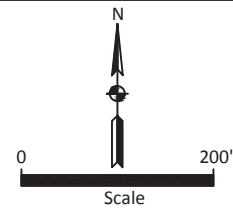
Source: <https://ngmdb.usgs.gov/topoview/viewer/#12/39.5378/-86.2918>

<p>USGS Topographic Map</p> <p>Bridge Project Brickyard Road over Boggs Creek Martin County, Indiana Des. No. 1902785</p>	<p>All locations approximate Base map; 2019 Loogootee, IN 7.5 Minute Quadrangle</p>	 <p>Drawn by: <u>ILJ</u> Checked by: <u>SC</u> Approved by: <u>JRP</u></p>
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Source: <https://martin.elevatemaps.io/#extent=3011210.2202901524,3007710.2202901524,1252613.5406795938,1250931.2490129273,2245>

<p>2019 Aerial Photograph</p> <p>Bridge Project Brickyard Road over Boggs Creek Martin County, Indiana Des. No. 1902785</p>	<p>Note: All locations are approximate</p>	 <p>Drawn by: <u>ILJ</u></p> <p>Checked by: <u>SC</u></p> <p>Approved by: <u>JRP</u></p>
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1. View looking north along Brickyard Road toward Project Site



2. View looking south along Brickyard Road toward Project Site



3. View of southern stone abutment



4. View looking east/upstream along Boggs Creek toward bridge crossing

SITE PHOTOGRAPHS 10/22/2021

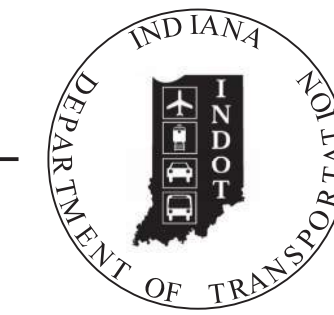
Bridge Project
Des. No. 1902785
Brickyard Road over Boggs Creek
Martin County, Indiana



PROJECT	DESIGNATION
1902785	1902785
CONTRACT	BRIDGE FILE
B-42807	51-00058

STRUCTURE INFORMATION				
STRUCTURE	TYPE	SPAN AND SKEW	OVER	STATION
51-00058	Continuous Composite Prestressed Concrete Bulb-T Beam Bridge	3 Spans: 50'-0", 64'-0", 50'-0"; 0°0'0" Skew	Boggs Creek	12+52.00 Line "A"

INDIANA DEPARTMENT OF TRANSPORTATION



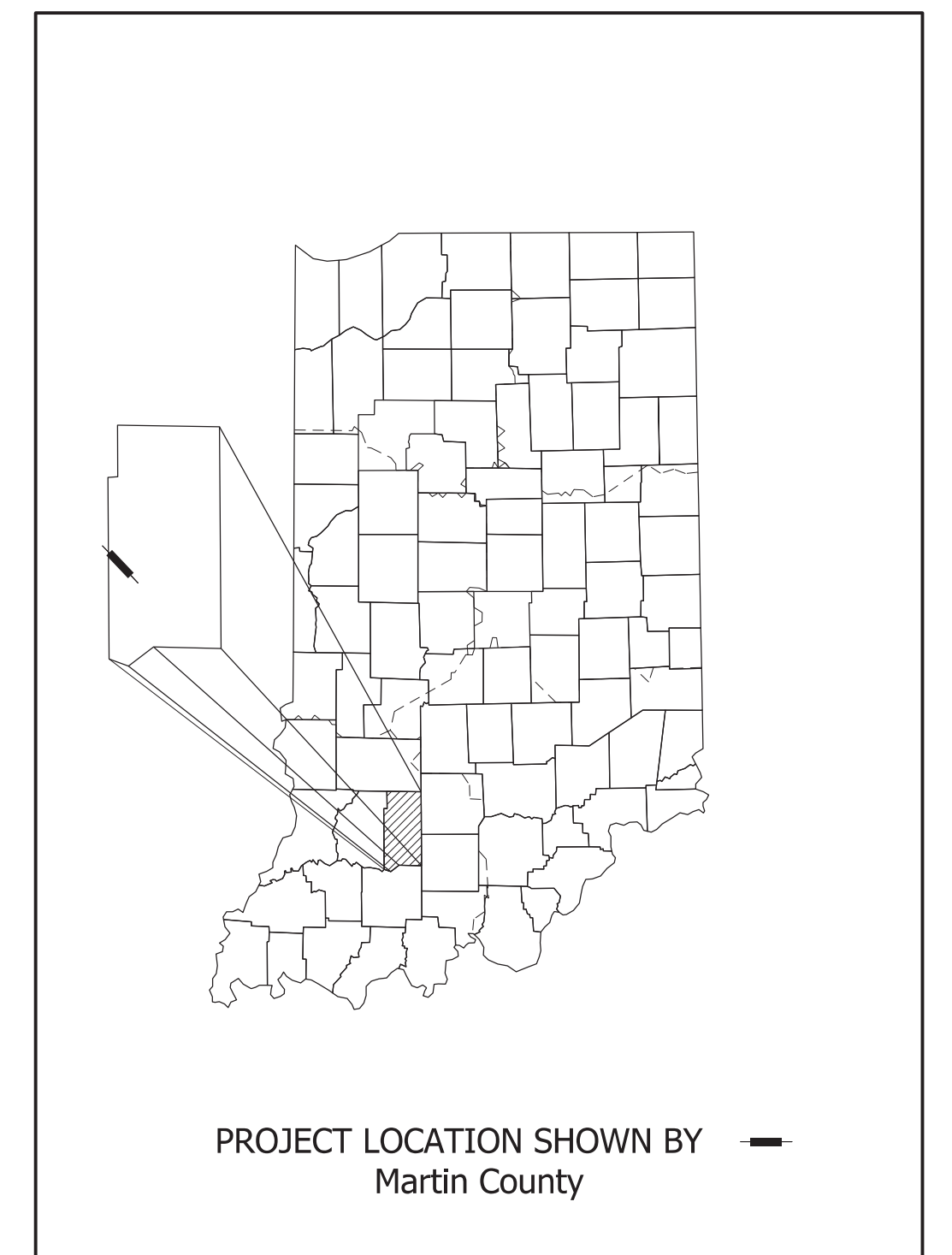
BRIDGE PLANS FOR SPANS OVER 20 FEET ROUTE: BRICKYARD ROAD

PROJECT NO. 1902785 P.E.
1902785 R/W
1902785 CONST.

Bridge Replacement on Brickyard Road over Boggs Creek
Located 0.04 Miles North of US 50
Section 20, T-3-N, R-4-W, Center Township, Martin County, Indiana

TRAFFIC DATA		
A.A.D.T. (2025)		260 V.P.D.
A.A.D.T. (2045)		320 V.P.D.
D.H.V (2045)		N/A V.P.H.
DIRECTIONAL DISTRIBUTION		50 %
TRUCKS		1% A.A.D.T. N/A D.H.V.

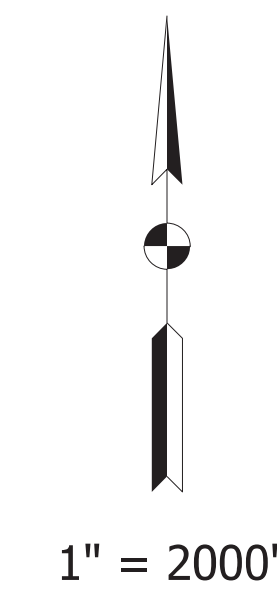
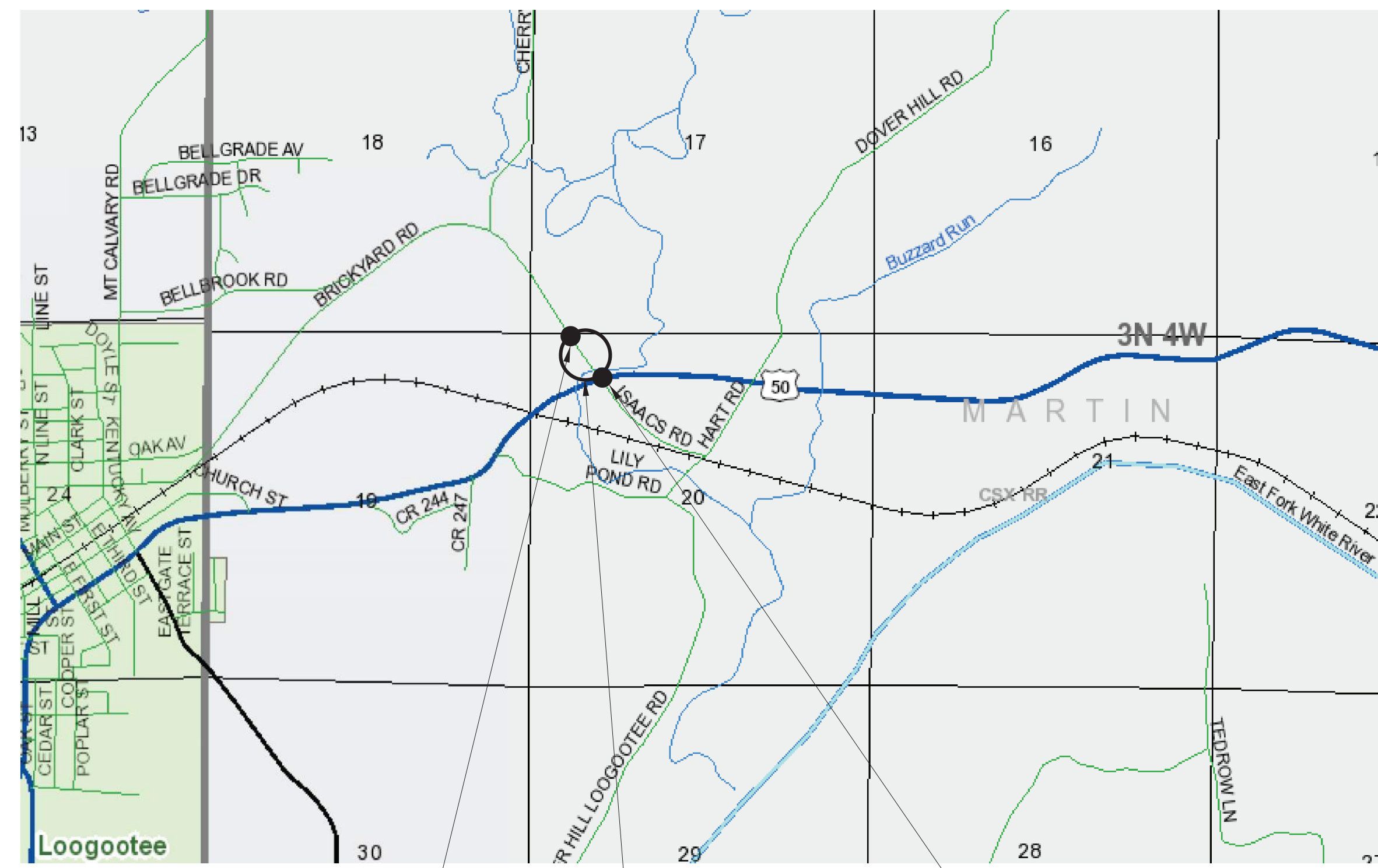
DESIGN DATA	
DESIGN SPEED	35 M.P.H.
PROJECT DESIGN CRITERIA	3R (NON-FREEWAY)
FUNCTIONAL CLASSIFICATION	LOCAL ROAD
RURAL/URBAN	RURAL
TERRAIN	LEVEL
ACCESS CONTROL	NONE



LATITUDE: 38° 41' 06" N LONGITUDE: 86° 53' 01" W

BRIDGE LENGTH:	0.031 MI.
ROADWAY LENGTH:	0.146 MI.
TOTAL LENGTH:	0.177 MI.
MAX. GRADE:	2.347 %

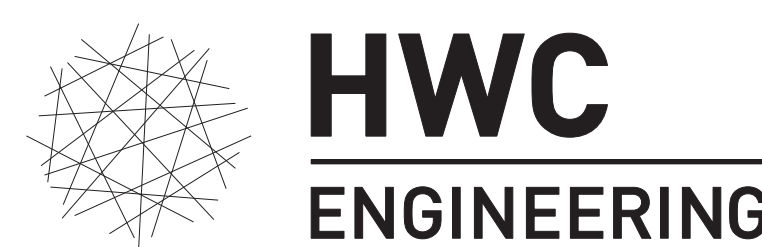
HUC: 051202081103



NOTE TO REVIEWER
ANY QUANTITIES THAT ARE NOT COMPLETED WILL BE PROVIDED IN FUTURE SUBMISSION

End Project Des. No. 1902785 Sta. 19+50.00, Line "A"
Structure 51-00058 over Boggs Creek Sta. 12+52.00, Line "A"
Begin Project Des. No. 1902785 Sta. 10+17.38, Line "A"

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

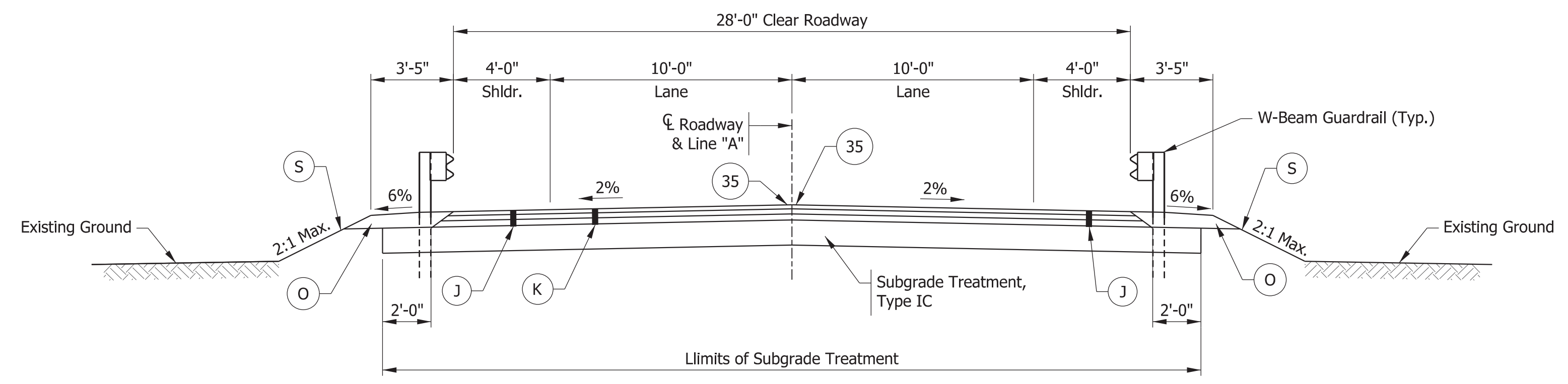


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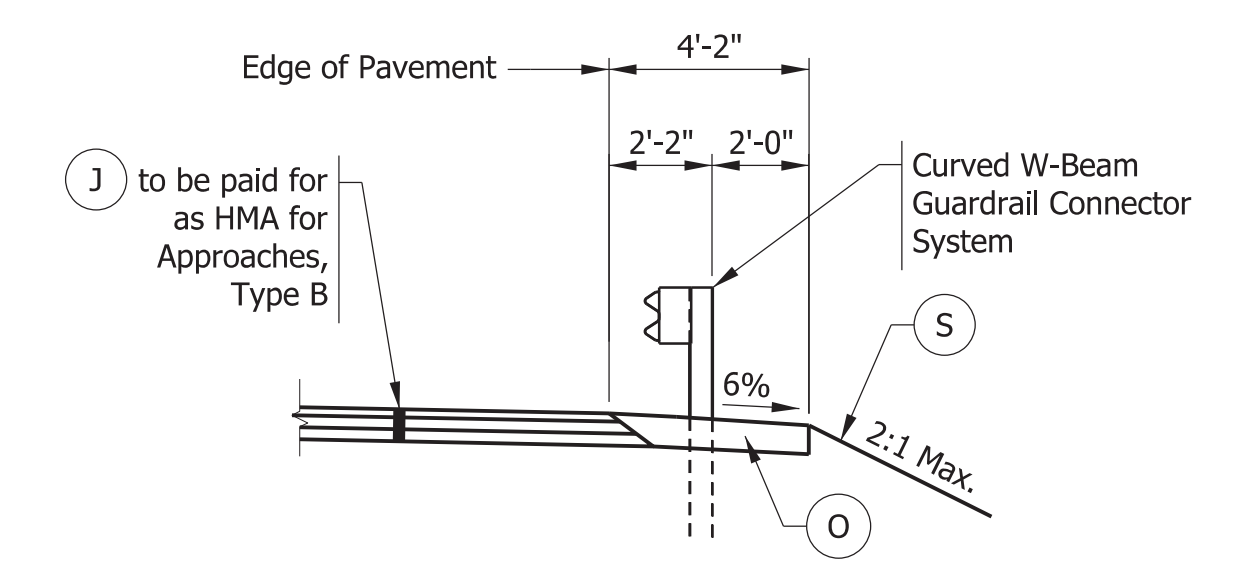
STAGE 2
PLANS
12/2021

PLANS PREPARED BY: HWC Engineering (317) 347-3663 PHONE NUMBER
CERTIFIED BY: _____ DATE
APPROVED FOR LETTING: _____ DATE
INDIANA DEPARTMENT OF TRANSPORTATION

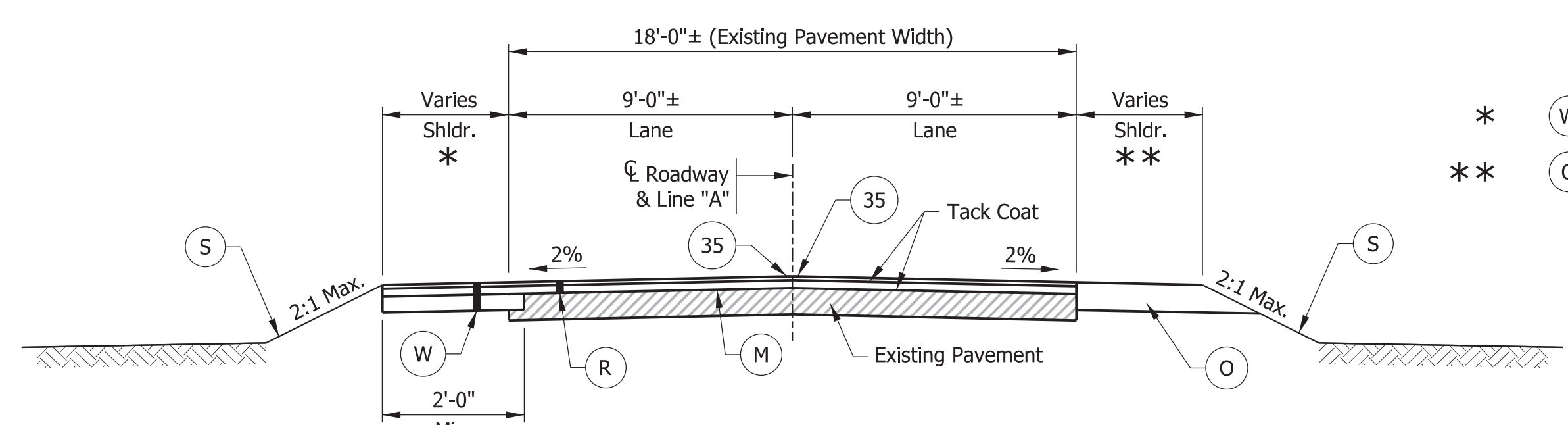
BRIDGE FILE	
51-00058	
DESIGNATION	
1902785	
REVISION	SHEETS
N/A	1 of 23
CONTRACT	PROJECT
B-42807	1902785



TYPICAL FULL DEPTH ROADWAY SECTION
 Scale: 1/4" = 1'-0"
 Sta. 11+22.00 to Sta. 11+48.50
 Sta. 13+55.50 to Sta. 19+50.00

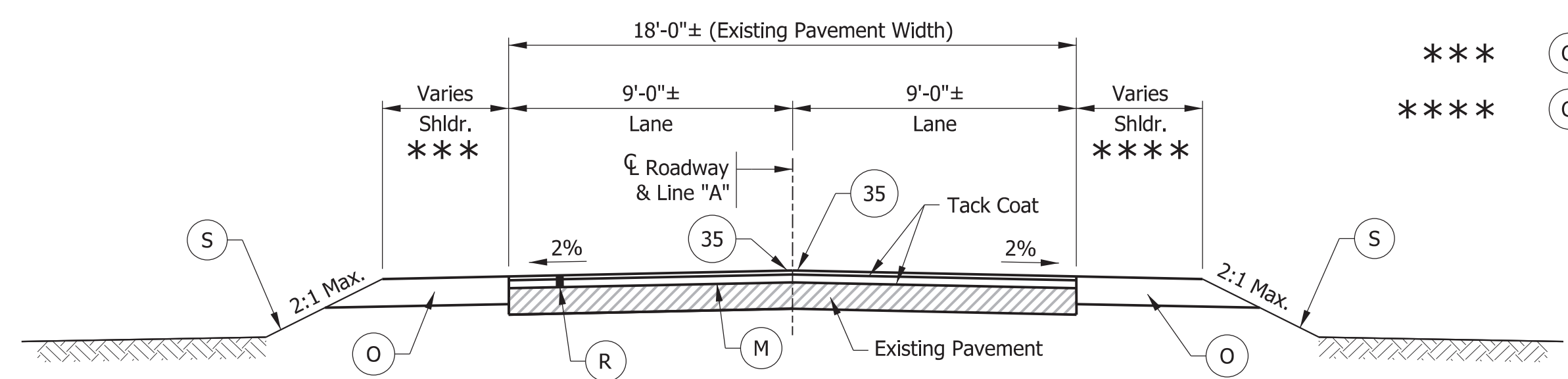


PUBLIC ROAD APPROACH SECTION WITH GUARDRAIL
 Scale: 1/4" = 1'-0"



INCIDENTAL SECTION
 Scale: 1/4" = 1'-0"
 Sta. 19+50.00 to Sta. 19+80.00

- * (W) Varies: 6'-0" @ Sta. 19+50.00 to 3'-8" @ Sta. 19+80.00
- ** (O) Varies: 4'-0" @ Sta. 19+50.00 to 2'-10" @ Sta. 19+80.00



INCIDENTAL SECTION
 Scale: 1/4" = 1'-0"
 Sta. 19+80.00 to Sta. 20+25.00

- *** (O) Varies: 3'-8" @ Sta. 19+80.00 to 1'-0" @ Sta. 20+25.00
- **** (O) Varies: 2'-10" @ Sta. 19+80.00 to 1'-0" @ Sta. 20+25.00

LEGEND

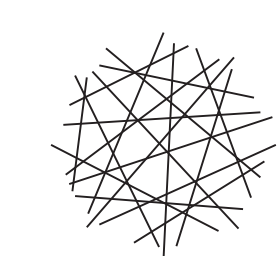
- (J) (K) 220 lb/syd QC/QA-HMA, 2, 64, Surface 9.5 mm on 275 lb/syd QC/QA-HMA, 2, 64, Intermediate 19.0 mm on 330 lb/syd QC/QA-HMA, 2, 64, Base 19.0 mm on Subgrade Treatment, Type IC
- (M) Transition Milling
- (O) Variable-Depth Compacted Aggregate No. 53
- (R) 220 lb/syd QC/QA-HMA, 2, 64, Surface 9.5 mm on Variable-depth QC/QA-HMA, 2, 64, Intermediate 12.0 mm (Layer Thickness shall be in accordance with Std. Specifications)
- (S) Mulched Seeding, R and Erosion Control Blankets (See Erosion Control Plan)
- (W) Shoulder Widening (see notes 1 & 2): 220 lb/syd QC/QA-HMA, 2, 64, Surface 9.5 mm on 330 lb/syd QC/QA-HMA, 2, 64, Intermediate 19.0 mm on Subgrade Treatment, Type II
- (35) Line, Paint, Solid, Yellow, 4 in.

NOTES

1. Shoulder Widening in Incidental Construction area will require encroachment into existing roadway to achieve desirable taper into existing aggregate shoulder.
2. Shoulder Widening Surface material to be paid with Mainline Surface material.

Note to Reviewer: Pavement Design to be coordinated with Geotech

PLOT: 3/21/2022 9:46:09 AM



HWC
ENGINEERING

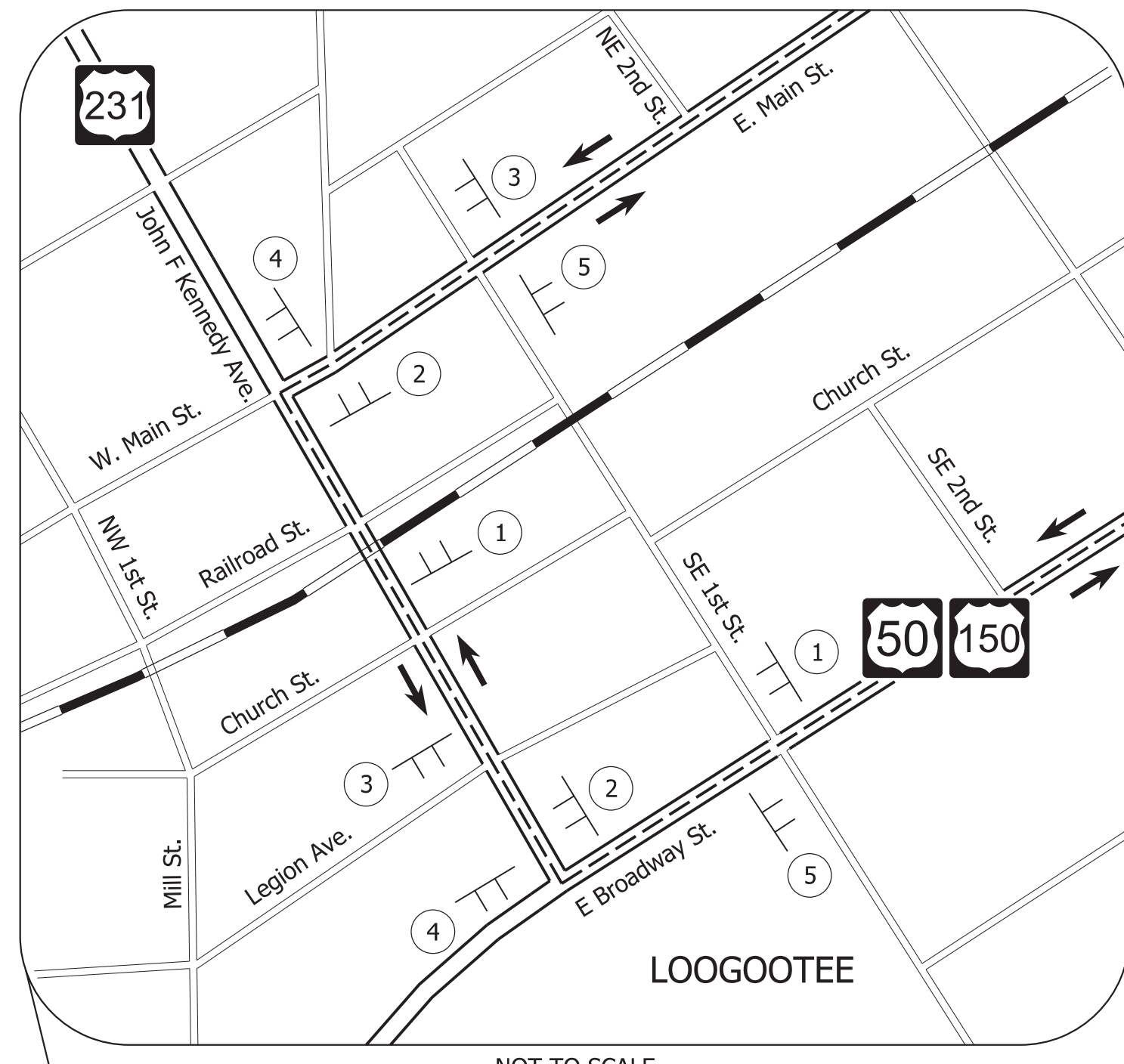
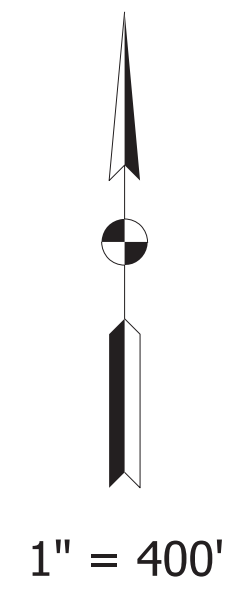
INDIANAPOLIS - TERRE HAUTE
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STAGE 2
 PLANS
 12/2021

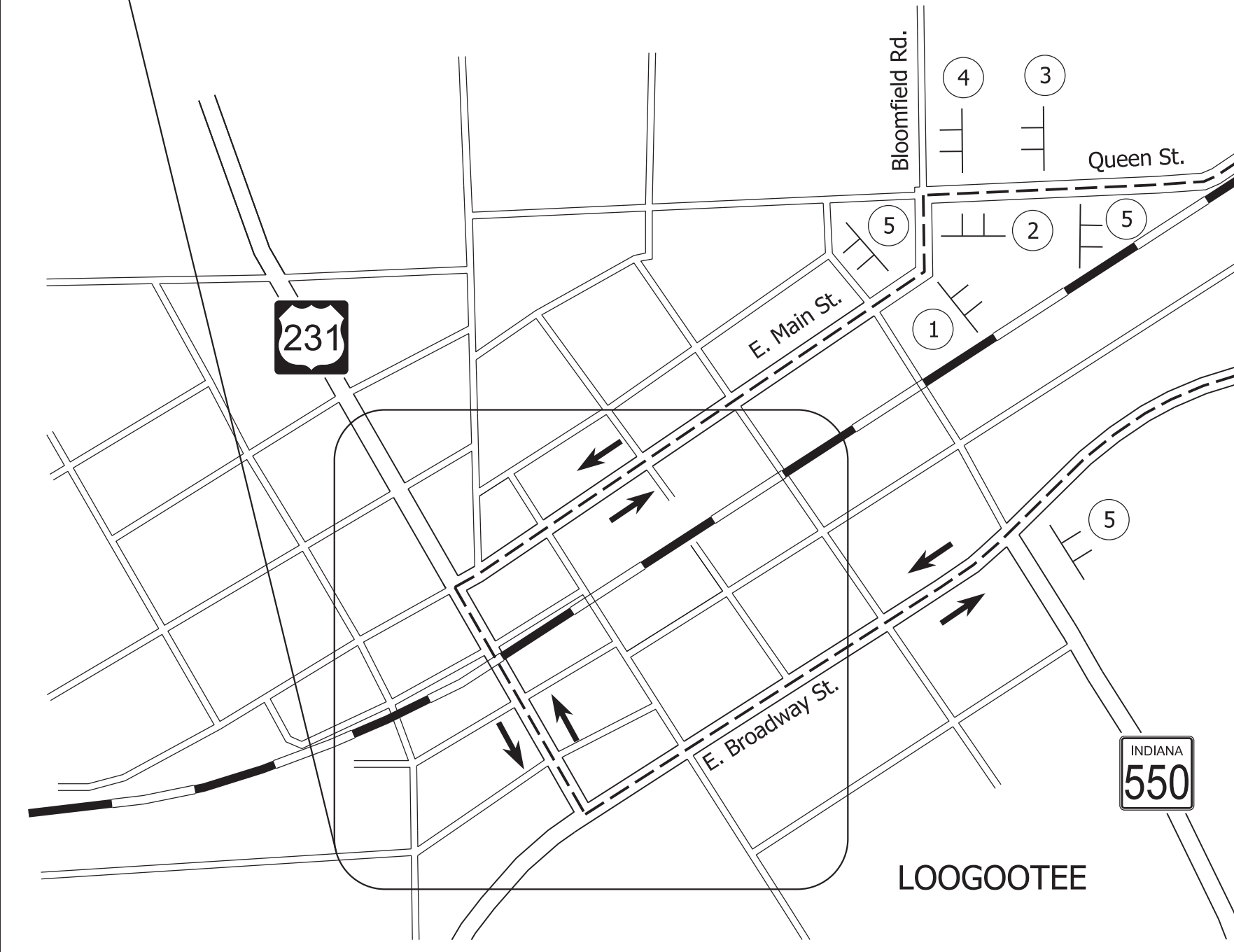
RECOMMENDED FOR APPROVAL	DESIGN ENGINEER	DATE
DESIGNED: AJ	12/2021	DRAWN: AJ
CHECKED: DMH	12/2021	CHECKED: JI
		12/2021

INDIANA DEPARTMENT OF TRANSPORTATION	
TYPICAL CROSS SECTIONS	

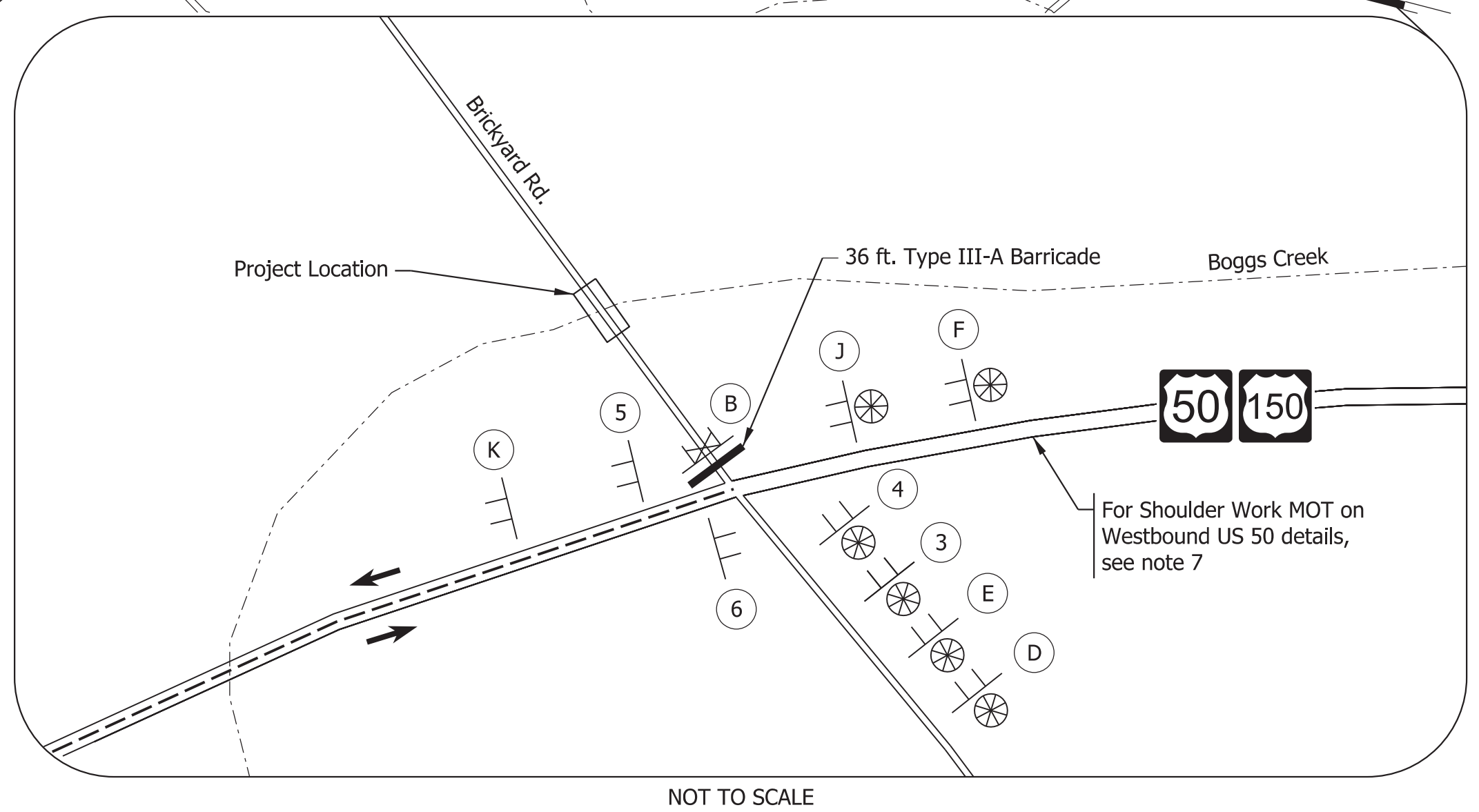
SCALE	BRIDGE FILE
AS NOTED	S1-00058
	DESIGNATION
	1902785
SURVEY BOOK	SHEETS
N/A	3 of 23
CONTRACT	PROJECT
B-42807	1902785



NOT TO SCALE



MAINTENANCE OF TRAFFIC DETOUR PLAN



NOT TO SCALE

LEGEND

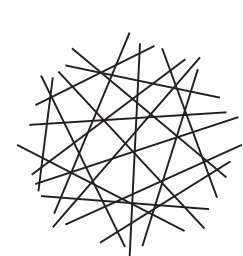
- Route of Detour Traffic
- Railroad
- Construction Sign or Detour Assembly and Supports with Low Intensity Construction Warning Light, Type A

- Typical Sign Standard (Detour Route Marker Assembly)
- Typical Sign Standard (Road Closure Assembly)
- Standard Type III-A Barricade as Required
- Standard Type III-B Barricade as Required
- Detour Traffic Arrows

NOTES

1. Detour signage shall be placed in accordance with INDOT Specifications. For additional details, see Standard Drawing E-801-TCDT-01.
2. Advanced notice of closure (XG20-5 signs) shall be placed at least 14 days prior to start of construction.
3. For Detour Assemblies, additional sign information and quantities, see sheet 6.
4. Directional Detour signs assemblies shall be located 100 ft. to 200 ft. in advance of all required turns within the Detour limits.
5. Confirming Detour sign assemblies shall be located 200 ft. after all required turns as well as not be spaced by more than 3 miles within the Detour limits.
6. Detour signage locations may not be shown to scale and should be confirmed in the field by Contractor.
7. Shoulder Work closure will be required on Westbound US 50 for Public Road Approach Construction. For additional MOT information, see Standard Drawing E 801-TCLC-07.

PLOT: 3/25/2022 9:34:33 AM



HWC
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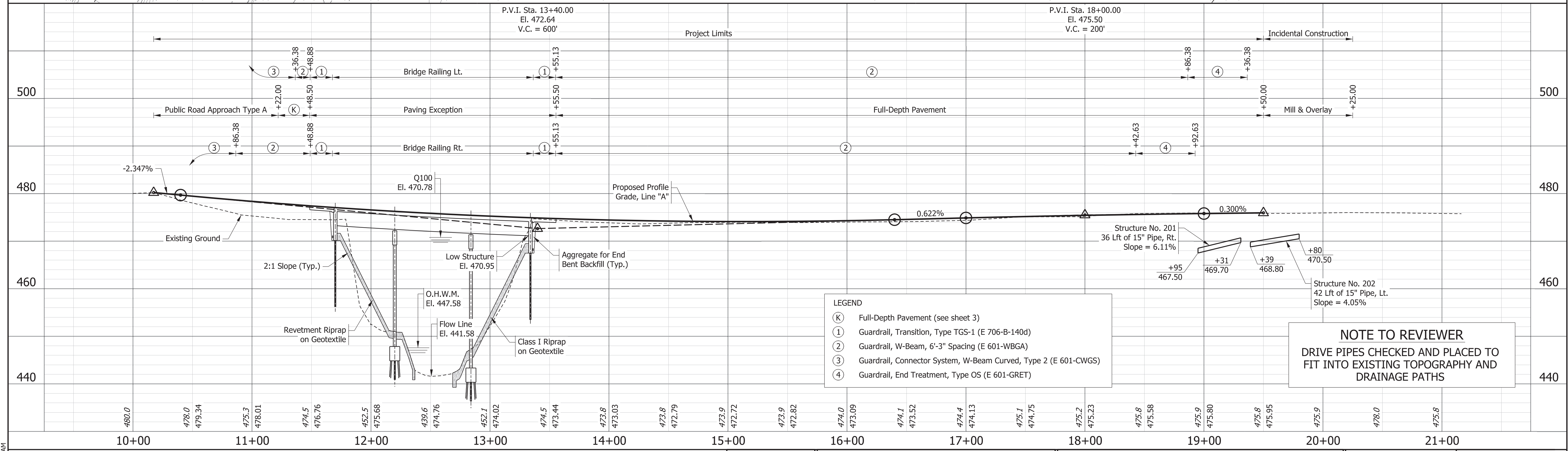
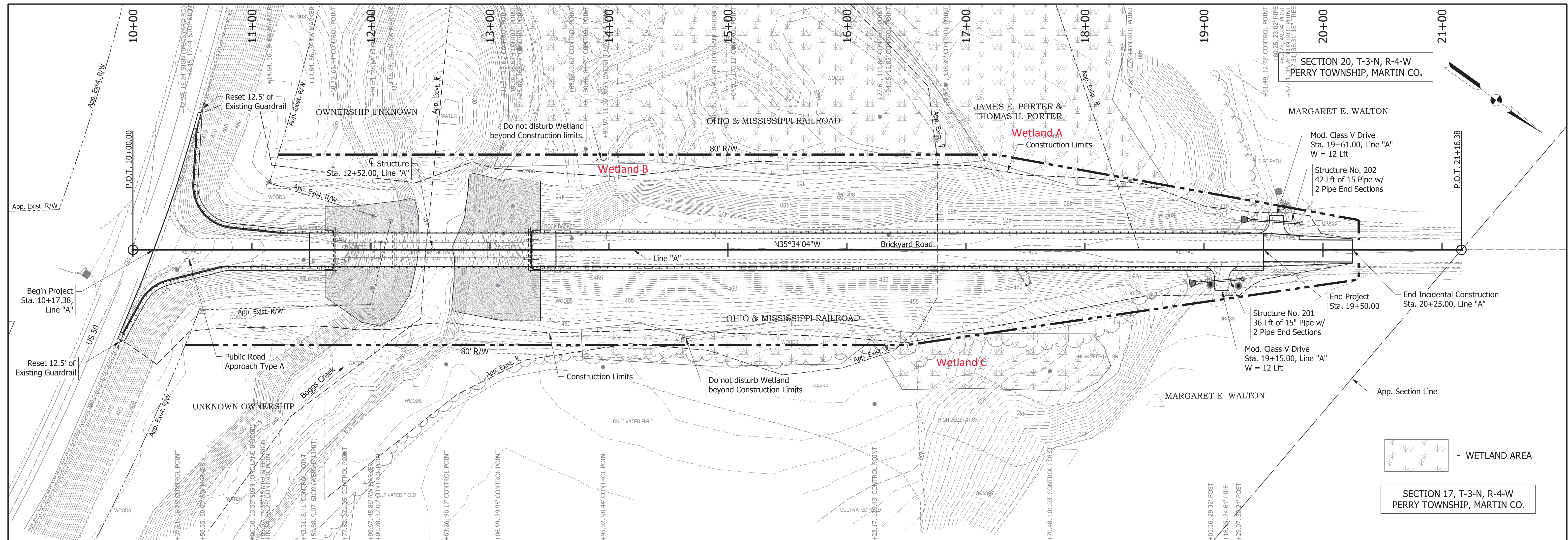
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LAFAYETTE - MUNCIE - NEW ALBANY
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STAGE 2
PLANS
12/2021

RECOMMENDED FOR APPROVAL	DESIGN ENGINEER	DATE
DESIGNED: AJ	12/2021	DRAWN: AJ
CHECKED: DMH	12/2021	CHECKED: JI
		12/2021

INDIANA DEPARTMENT OF TRANSPORTATION	
MAINTENANCE OF TRAFFIC	

SCALE	BRIDGE FILE
AS NOTED	S1-00058
	DESIGNATION
	1902785
SURVEY BOOK	SHEETS
N/A	5 of 23
CONTRACT	PROJECT
B-42807	1902785



LEGEND

- (K) Full-Depth Pavement (see sheet 3)
- (1) Guardrail, Transition, Type TGS-1 (E 706-B-140d)
- (2) Guardrail, W-Beam, 6'-3" Spacing (E 601-WBGA)
- (3) Guardrail, Connector System, W-Beam Curved, Type 2 (E 601-CWGS)
- (4) Guardrail, End Treatment, Type OS (E 601-GRET)

NOTE TO REVIEWER
 DRIVE PIPES CHECKED AND PLACED TO FIT INTO EXISTING TOPOGRAPHY AND DRAINAGE PATHS

NOTE TO REVIEWER
 REFERENCE TIES AND BENCHMARK INFORMATION TO BE INCLUDED IN FUTURE SUBMISSION

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STAGE 2 PLANS
 12/2021

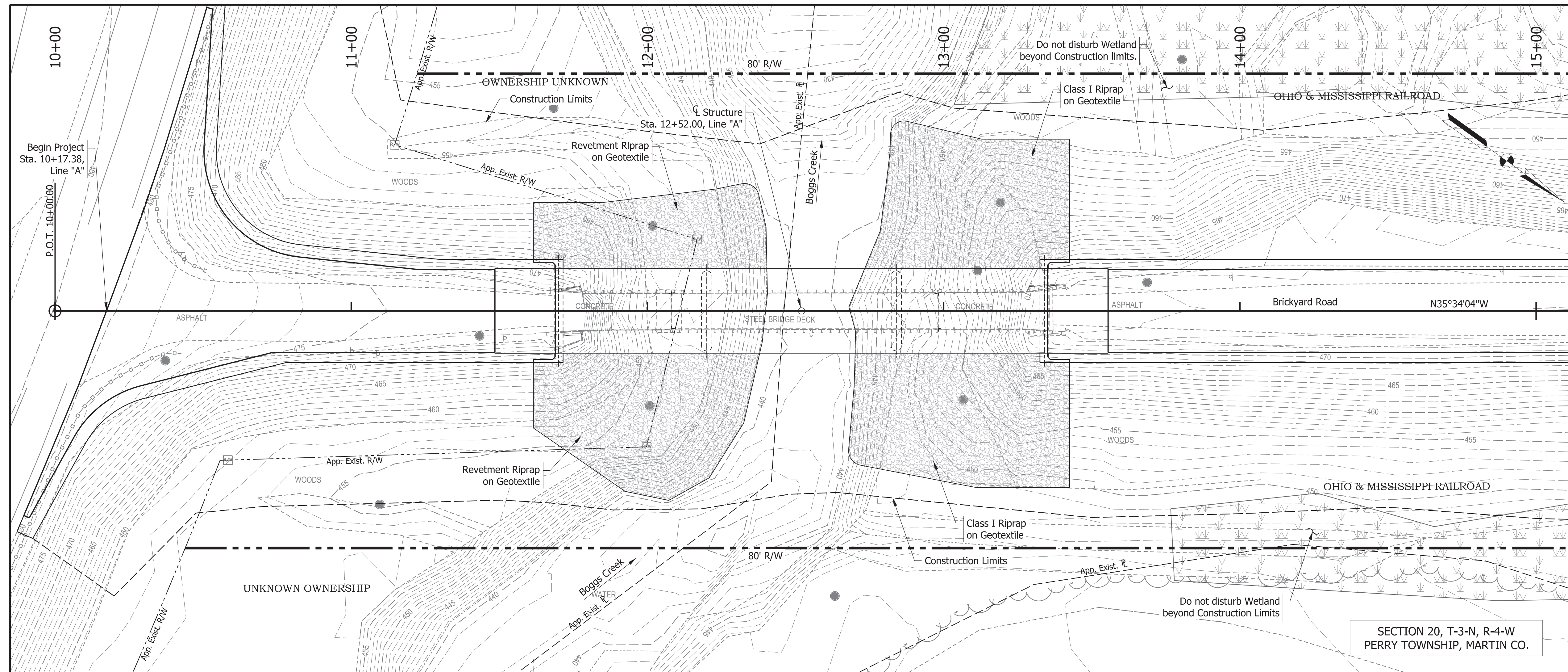
DESIGNED: AJ	12/2021	DRAWN: AJ	12/2021
CHECKED: DMH	12/2021	CHECKED: JI	12/2021

INDIANA DEPARTMENT OF TRANSPORTATION
PLAN & PROFILE

HORIZONTAL SCALE	BRIDGE FILE
1" = 40'	S1-00058
VERTICAL SCALE	DESIGNATION
1" = 10'	1902785
SURVEY BOOK	SHEETS
N/A	7 of 23
CONTRACT	PROJECT
B-42807	1902785

PLOT: 4/7/2022 9:58:19 AM

W:\Martin County\2020-110 Martin Co- Bridge 58\Design\CAD\07 - Sht Plan and Profile.dgn



EXISTING STRUCTURE
 Existing Structure is a 150.4 ft. 3-span Bridge consisting of Stone Arch approach spans and a Steel Warren deck truss in the center span with a Clear Roadway width of 11.7 ft. Existing Structure to be removed.

HYDRAULIC DATA

Drainage Area Upstream	86.00	sq mi
Q100 Discharge Upstream	10100	cfs
Q500 Discharge Upstream	13200	cfs
Proposed Q100 Headwater Elevation	470.75	ft
Existing Q100 Headwater Elevation	471.30	ft
Proposed Q100 Elevation	470.78	ft
Existing Q100 Elevation	470.78	ft
Proposed Q100 Backwater	0.11	ft
Existing Q100 Backwater	0.66	ft
Proposed Gross Waterway Area Opening Below Q100	3587.96	sq ft
Existing Gross Waterway Area Opening Below Q100	1627.95	sq ft
Proposed Q100 Average Velocity	3.11	ft/sec
Existing Q100 Average Velocity	3.10	ft/sec
Proposed Q100 Road Overflow Area	0.00	sft
Existing Q100 Road Overflow Area	0.00	sft
Proposed Low Structure Elevation	470.95	ft
Existing Low Structure Elevation	460.37	ft
Proposed Skew to Flowline of Waterway	0	deg
Existing Skew to Flowline of Waterway	0	deg

HYDRAULIC SCOUR DATA

	Q100	Q500
Discharge	10100 cfs	13200 cfs
Elevation	470.78 ft	473.06 ft
Contraction Scour Depth	7.38 ft	10.61 ft
Pier Scour Depth	5.53 ft	6.01 ft
Total Scour Depth	12.91 ft	16.62 ft
Flow Line Elevation	441.58 ft	441.58 ft
Low Scour Elevation	428.67 ft	424.96 ft
Maximum Velocity	4.60 ft/sec	5.56 ft/sec
D50 (Assumed)	0.01 mm	0.01 mm

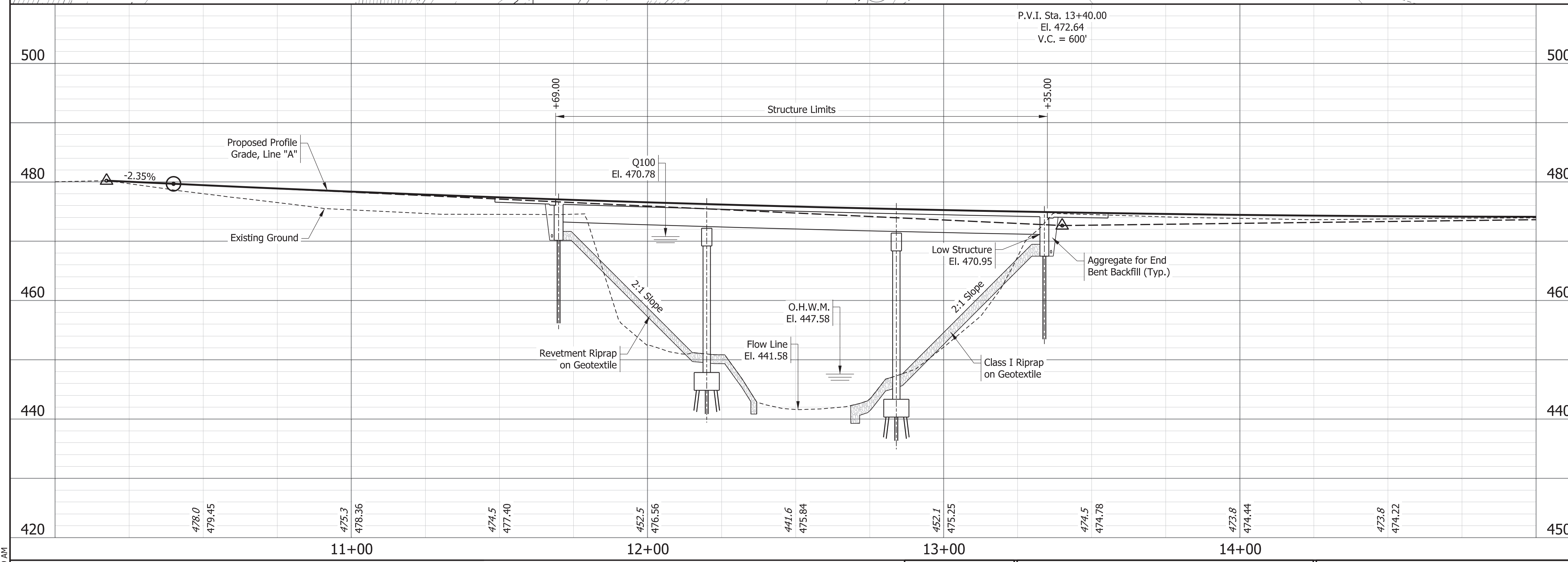
EARTHWORK TABULATION

Fill +20%	XXX	Cys
Common Excavation	XXX	Cys
Usable Waterway Excavation (70%)	XXX	Cys
Surplus/Waste	XXX	Cys
Wet Excavation	XXX	Cys
Waterway Excavation	XXX	Cys
Foundation Excavation Unclassified	XXX	Cys
Benching (Estimated)	XXX	Cys

NOTE TO REVIEWER
 DEPTHS OF PIER FOUNDATIONS, PILES, AND GEOTEXTILE TYPES TO BE DETERMINED UPON GEOTECH INVESTIGATION



CONTINUOUS COMPOSITE PRESTRESSED CONCRETE 36" x 49" BULB-TEE BEAM BRIDGE
 3 SPANS: 50'-0", 64'-0", 50'-0"
 28'-0" CLEAR ROADWAY; NO SKEW
 BRICKYARD ROAD OVER BOGGS CREEK
 MARTIN COUNTY, IN



420 478.0 479.45 475.3 478.36 474.5 477.40 452.5 476.56 441.6 475.84 452.1 475.25 474.5 474.78 473.8 474.44 473.8 474.22 450

11+00 12+00 13+00 14+00

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STAGE 2 PLANS 12/2021

DESIGNED: AJ	12/2021	DRAWN: AJ	12/2021
CHECKED: DMH	12/2021	CHECKED: JI	12/2021

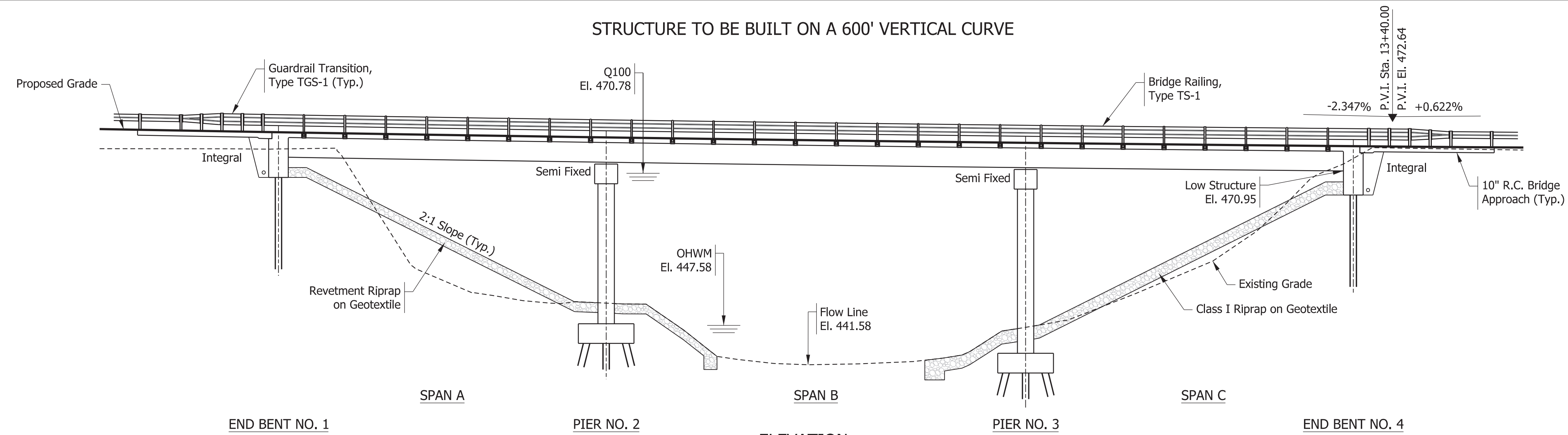
INDIANA DEPARTMENT OF TRANSPORTATION
 LAYOUT

HORIZONTAL SCALE	BRIDGE FILE
1" = 20'	51-00058
VERTICAL SCALE	DESIGNATION
1" = 5'	1902785
SURVEY BOOK	SHEETS
N/A	12 of 23
CONTRACT	PROJECT
B-42807	1902785

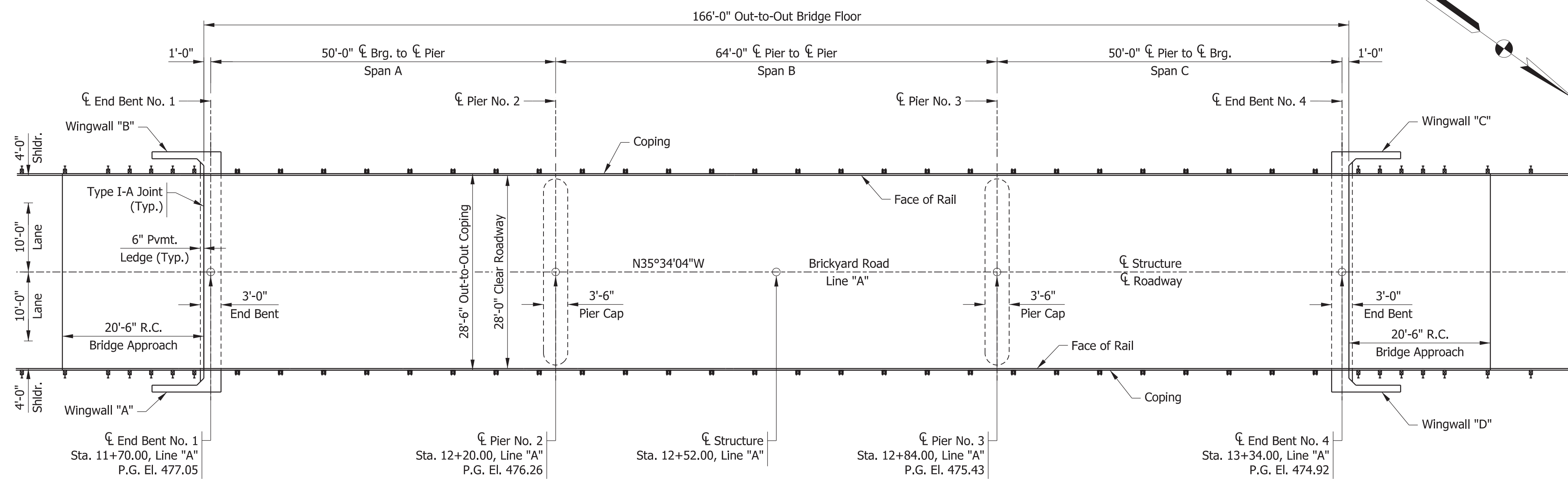
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W:\Martin County\2020-110 Martin Co- Bridge 58\Design\CAD\12 - Sht Layout.dgn

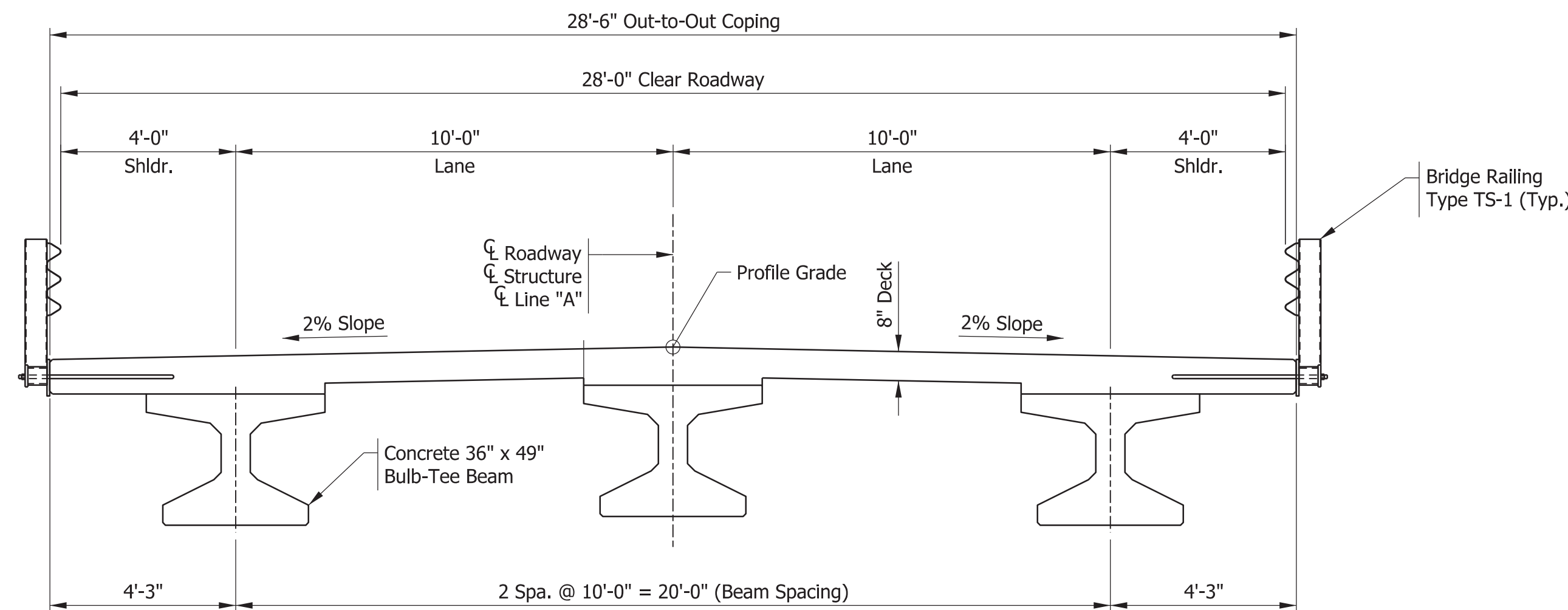
STRUCTURE TO BE BUILT ON A 600' VERTICAL CURVE



ELEVATION
Scale: 3/32" = 1'-0"



PLAN
Scale: 3/32" = 1'-0"



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

NOTE TO REVIEWER
USE OF A 3 BEAM SYSTEM AND TS-1 RAILING DOCUMENTATION INCLUDED IN DgnComps File.

GENERAL NOTES

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

Chamfered edges shall be 1" unless noted otherwise.

Clean and Surface Seal concrete areas including Concrete Bridge Railings, Sidewalks, and exposed top and vertical portions of End Bents, Wingwalls and Piers. Concrete Bridge Deck and Approach Slabs do not require Surface Seal per INDOT Design Memo 21-12 and INDOT Standard Specification 702-R-691.

DESIGN DATA

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

DEAD LOAD
Actual weight plus 35 psf for future wearing surface.

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

CONCRETE
Class C $f_c = 4,000$ psi
Class B $f_c = 3,000$ psi
Class A $f_c = 3,500$ psi

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

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

DECK FALSEWORK LOADS
Designed for 15 psf for permanent metal stay-in-place deck forms, removable deck forms, and 2 ft. exterior walkway.

CONSTRUCTION LIVE LOAD
Designed for 20 psf 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
4,500 lb distributed over 10 ft. along the coping.

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

SEISMIC PARAMETERS
Site Class: C
PGA: 0.10
 S_{SI} : 0.13
Seismic Zone: 1

CONTINUOUS COMPOSITE PRESTRESSED
CONCRETE 36" x 49" BULB-TEE BEAM BRIDGE
3 SPANS: 50'-0", 64'-0", 50'-0"
28'-0" CLEAR ROADWAY; NO SKEW
BRICKYARD ROAD OVER BOGGS CREEK
MARTIN COUNTY, IN

PLOT: 3/21/2022 10:15:52 AM

W:\Martin County\2020-110 Martin Co- Bridge 58\Design\CAD\13 - General Plan.dgn



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LAFAYETTE - MUNCIE - NEW ALBANY
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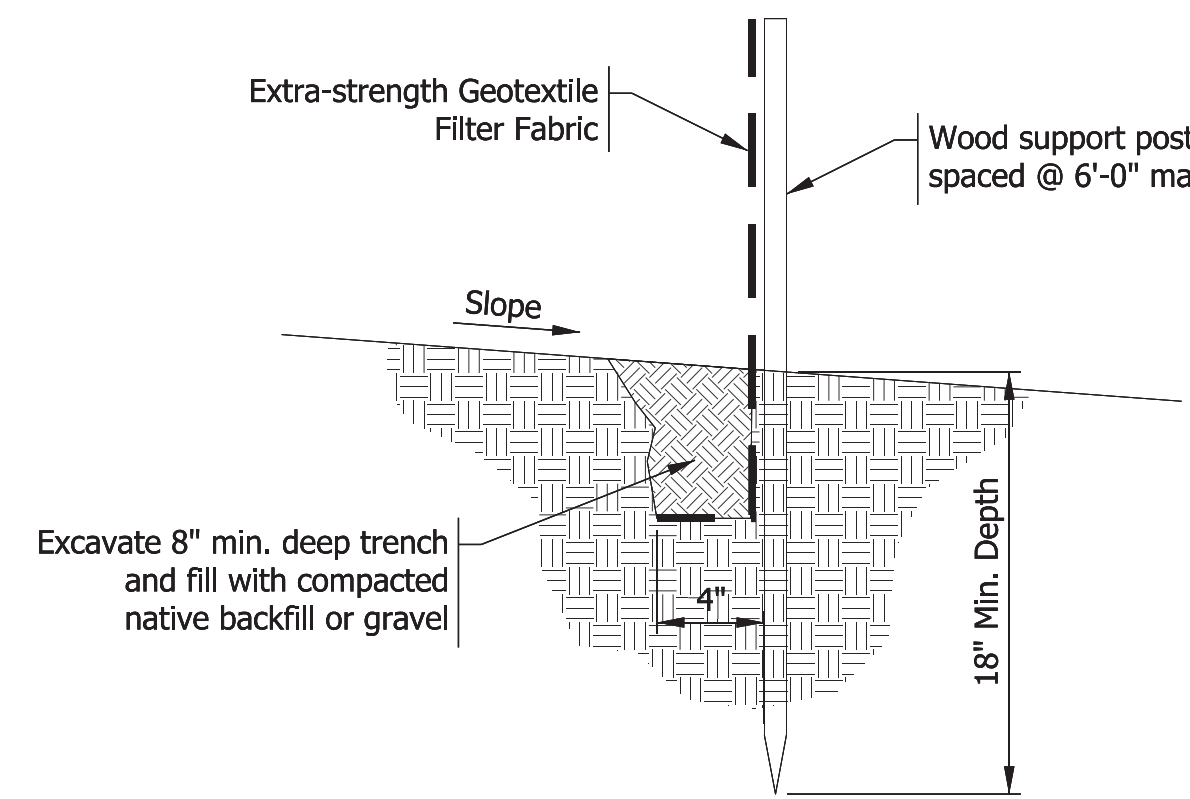
STAGE 2
PLANS
12/2021

RECOMMENDED FOR APPROVAL	DESIGN ENGINEER	DATE
DESIGNED: AJ	12/2021	DRAWN: AJ
CHECKED: DMH	12/2021	CHECKED: JI
		12/2021

INDIANA
DEPARTMENT OF TRANSPORTATION

GENERAL PLAN

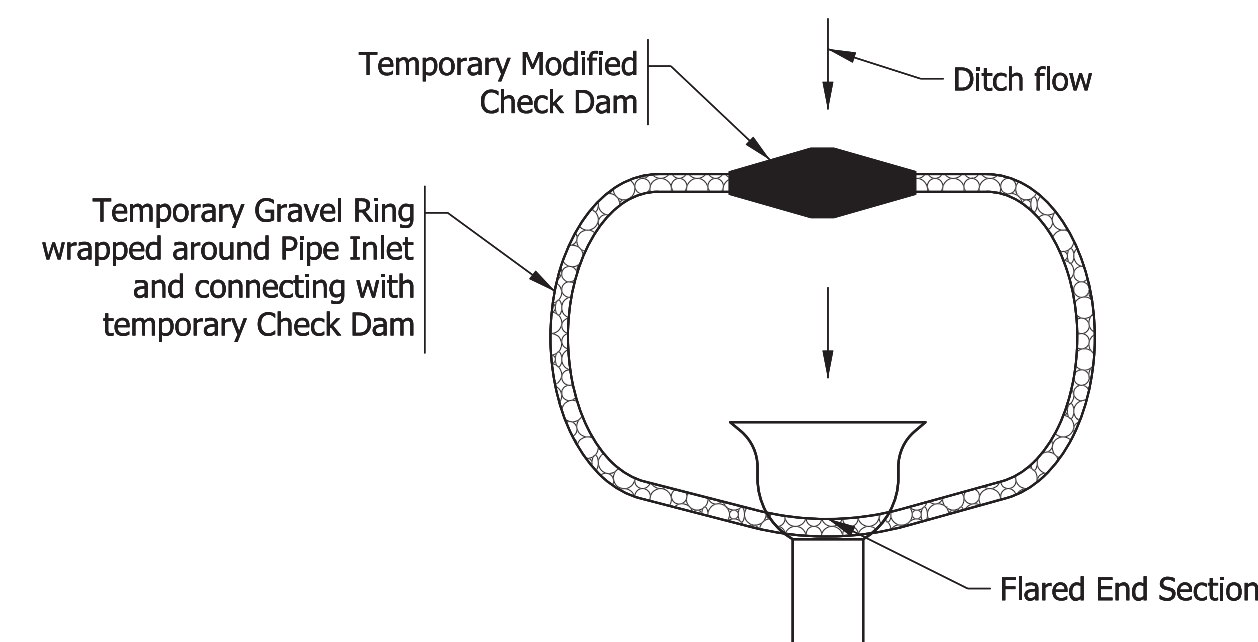
SCALE	BRIDGE FILE
AS NOTED	S1-00058
	DESIGNATION
	1902785
SURVEY BOOK	SHEETS
N/A	13 of 23
CONTRACT	PROJECT
B-42807	1902785



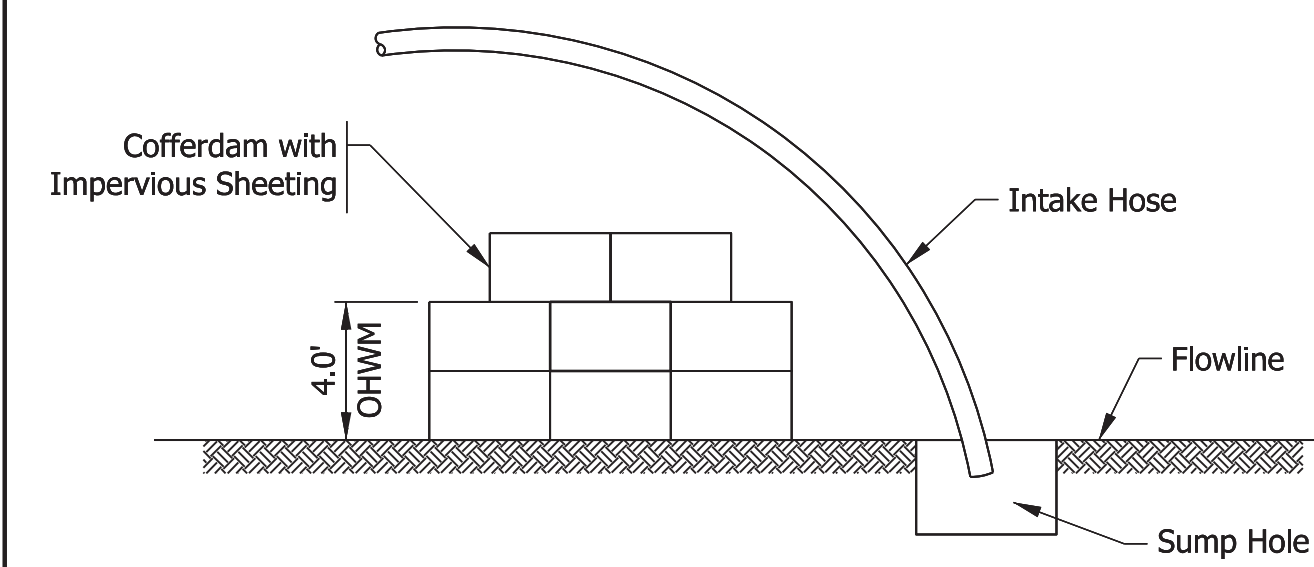
TYPICAL SECTION
SILT FENCE DETAIL
 Not to Scale

PRACTICE 3.74 - SILT FENCE (MAINTENANCE REQUIREMENTS)

1. Inspect the silt fence periodically and after each storm event, and make necessary repairs immediately. Replace damaged or sagged portion of the fence.
2. Remove deposited sediment when it reaches half the height of the silt fence, or causes appreciable bulging.
3. When the contributing drainage area has been stabilized, remove the silt fence, other construction material and deposited sediment, and dispose of properly. Bring the disturbed area to grade and stabilize the area.



TEMPORARY INLET PROTECTION
 Not to Scale



COFFERDAM / SUMP HOLE WORK AREA DETAIL
 Not to Scale

PLOT: 3/21/2022 10:10:00 AM



INDIANAPOLIS - TERRE HAUTE
 LAFAYETTE - MUNCIE - NEW ALBANY
 www.hwcengineering.com

STAGE 2
 PLANS
 12/2021

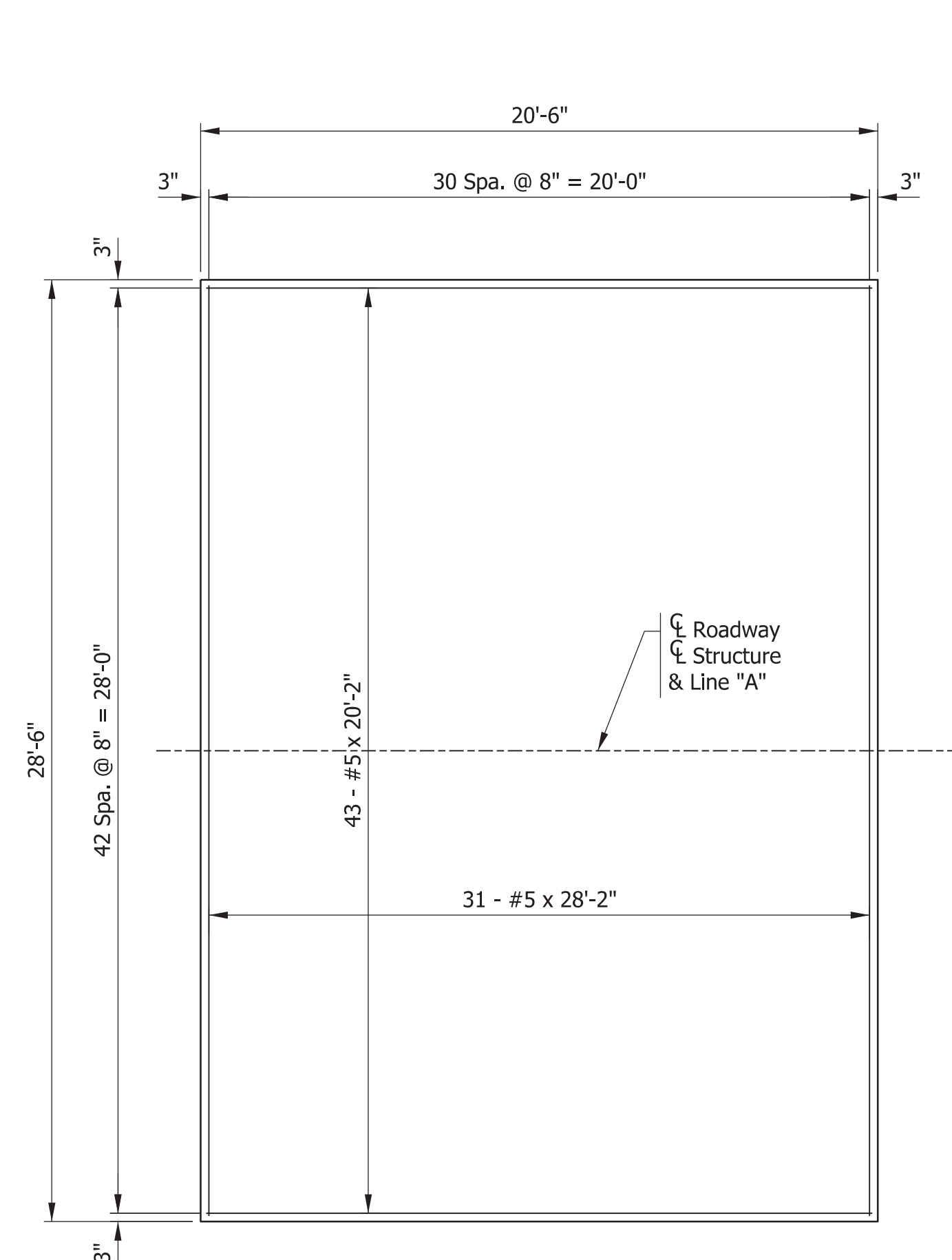
RECOMMENDED FOR APPROVAL		DESIGN ENGINEER		DATE	
DESIGNED: AJ	12/2021	DRAWN: AJ	12/2021		
CHECKED: DMH	12/2021	CHECKED: JI	12/2021		

INDIANA
 DEPARTMENT OF TRANSPORTATION

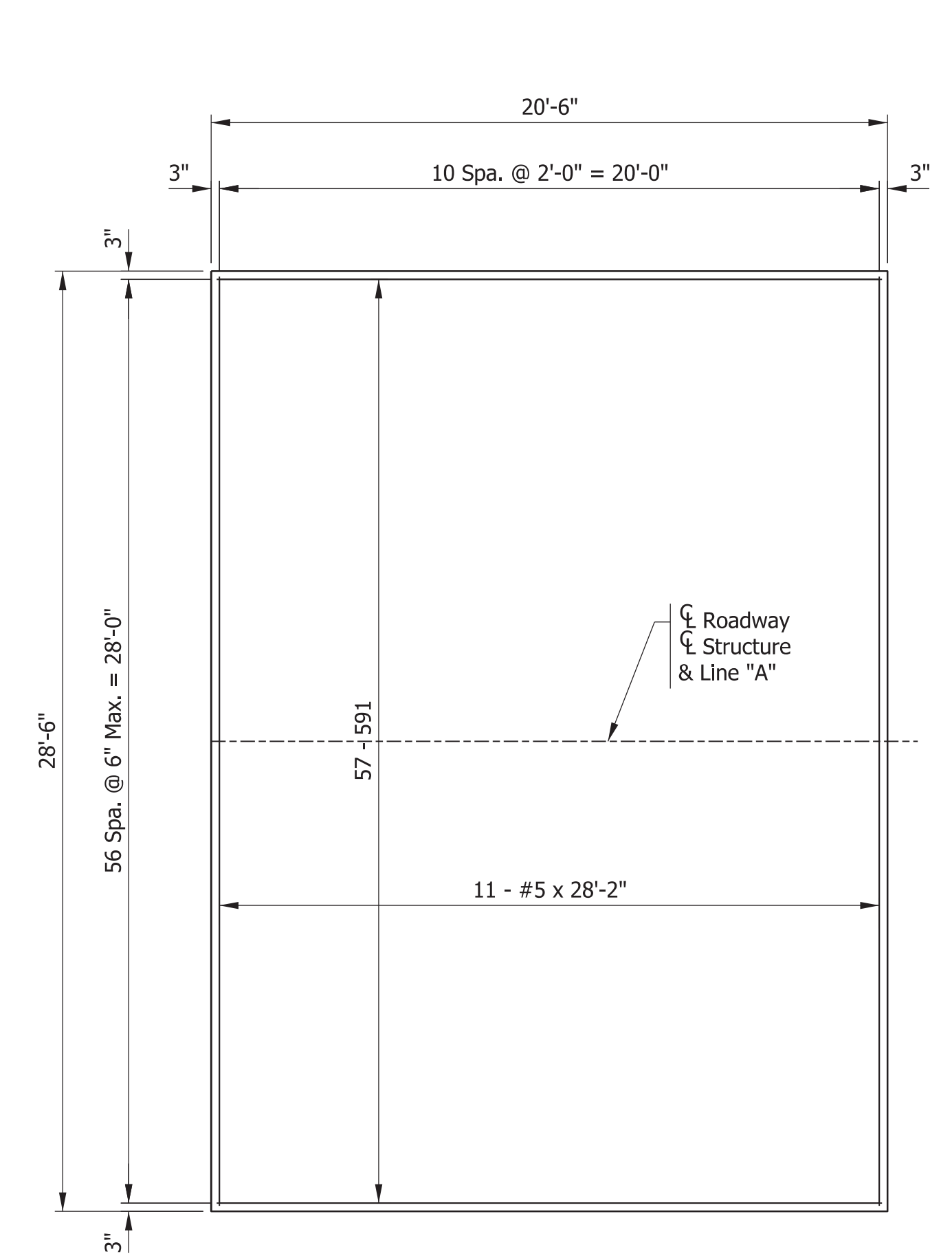
EROSION CONTROL

SCALE	BRIDGE FILE
1" = 20'	S1-00058
	DESIGNATION
	1902785
SURVEY BOOK	SHEETS
N/A	10 of 23
CONTRACT	PROJECT
B-42807	1902785

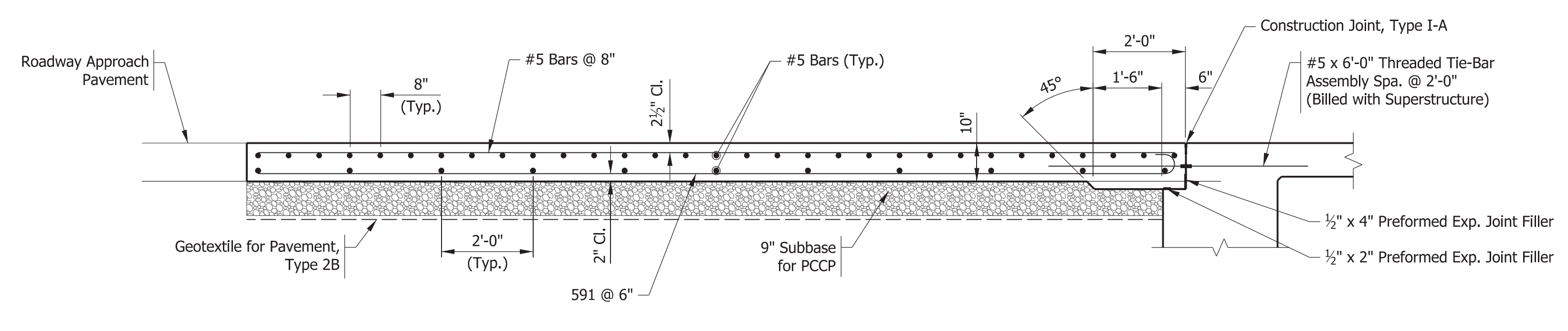
BILL OF MATERIALS			
R.C. BRIDGE APPROACH			
END BENT NO. 1			
EPOXY-COATED REINFORCING BARS			
SIZE & MARK	NO. OF BARS	LENGTH (FT - IN)	WEIGHT (LBS)
591	57	20' - 9"	
#5	42	28' - 2"	
#5	43	20' - 2"	
Total #5			3372
Total Epoxy-Coated Reinforcing Bars			3372
CONCRETE			
RCBA, 10"			64.9 Sys
MISCELLANEOUS			
9" Subbase for PCCP			15.8 Cys
Geotextile for Pavement, Type 2B			63.3 Sys



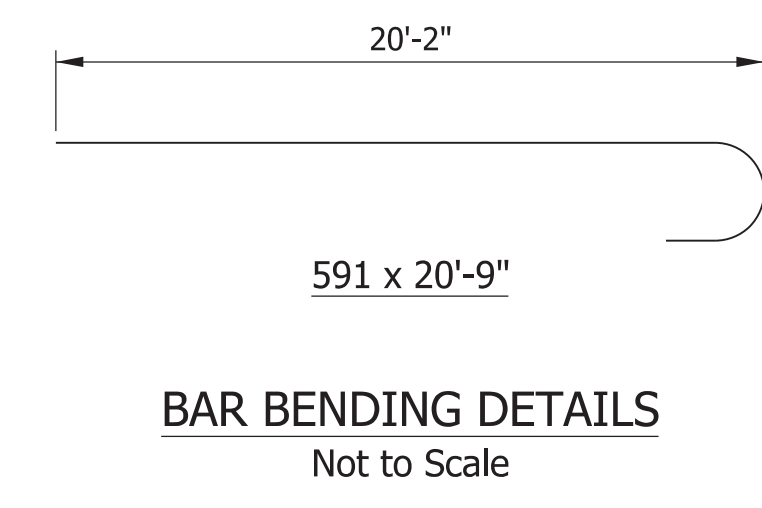
TYPICAL APPROACH SLAB PLAN
SHOWING TOP REINFORCEMENT
Scale: 1/4" = 1'-0"



TYPICAL APPROACH SLAB PLAN
SHOWING BOTTOM REINFORCEMENT
Scale: 1/4" = 1'-0"



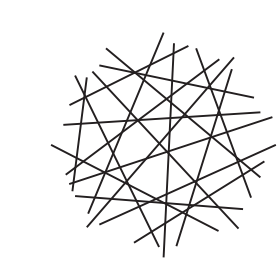
SECTION THROUGH APPROACH
Scale: 1/2" = 1'-0"



NOTES

- For Reinforcing Bar Notes, see Standard Drawing E 703-BRST-01.
- All Approach Slab Reinforcing Bars shall be Epoxy-Coated.
- For additional Approach Slab Information, see Standard Drawing E 609-RCBA-01 thru -04.
- For Joint Type I-A details, see Standard Drawing E 609-BRJT-01.

PLOT: 3/21/2022 10:13:08 AM



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STAGE 2
PLANS
12/2021

RECOMMENDED FOR APPROVAL	DESIGN ENGINEER	DATE
DESIGNED: AJ	12/2021	DRAWN: AJ
CHECKED: DMH	12/2021	CHECKED: JI
		12/2021

INDIANA DEPARTMENT OF TRANSPORTATION	
APPROACH SLAB DETAILS	

SCALE	BRIDGE FILE
AS NOTED	S1-00058
	DESIGNATION
	1902785
SURVEY BOOK	SHEETS
N/A	9 of 23
CONTRACT	PROJECT
B-42807	1902785

APPENDIX C: Early Coordination



Sample Early Coordination Letter

February 23, 2021

{See Attached List}

Re: Early Coordination Designation Number (Des. No.) 1902785
Bridge Project, Martin County Bridge #51-00058, National Bridge Inventory #5100029
Queen Street (Brickyard Road) Bridge over Boggs Creek
Martin County, Indiana

Dear Agency:

The Indiana Department of Transportation (INDOT) and Federal Highway Administration (FHWA) intend to proceed with a project involving the aforementioned bridge in Martin County. This letter is part of the early coordination phase of the environmental review process. We are requesting comments from your area of expertise regarding any possible environmental effects associated with this project. **Please use the above designation 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 Brickyard Road, approximately 0.04 mile north of United States (US) 50 in Martin County. Specifically, the project is located in Section 20, Township 3 North, Range 4 West of the Loogootee, Indiana 7.5-minute United States Geological Survey (USGS) topographic quadrangle. The existing non-select bridge is a steel truss bridge, which was constructed in 1848 and reconstructed in 1913. A new deck and railing were installed in 1996. Brickyard Road is classified as Rural-Local. A typical cross section of Brickyard Road on the bridge consists of one 11 feet (ft.) - 8 inches wide through-lane. Guardrails/concrete barriers are present; however, no curbs or sidewalks are provided in either direction. The posted speed limit on Brickyard Road is 35 miles per hour (mph).

The existing single-span structure is 150.4 feet long with a clear roadway width of 11.8 ft. The need for this project is evident by the deteriorating condition and limited load capacity of the existing structure. The Bridge Inspection Report, dated November 20, 2019, noted deficiencies in the superstructure and substructure including stone block section loss, steel truss members with section loss, and overall deterioration of the structure. The superstructure and substructure were rated 5 out of 9 indicating fair condition. The deck is an open steel grid over the truss main span which has some bent members. The deck consists of concrete on the stone arch spans. The deck was rated 6 out of 9 indicating satisfactory condition. The sufficiency rating for the bridge is 48.7 (out of a possible 100 points). The bridge is posted for a 14-ton weight limit.

Secondary concerns include the clear roadway width 11.8 ft. across the bridge being narrower than the approaching roadway of 16 ft. and the bridge railing not meeting current safety standards. The roadway width across the bridge requires posting for One Lane Bridge. The existing bridge railing is a w-beam guardrail attached to the steel grid deck and is not a crash-tested configuration.

The preferred alternative for the project is to either find a project sponsor to come forward and assume responsibility for relocation and rehabilitation of the existing bridge or demolish the existing bridge and replace with a new bridge. The truss and stone arches will be rehabilitated. The new bridge will consist of two travel lanes with a clear roadway width of 24 ft. along the same alignment. The approach to US 50 will be widened to accommodate the wider bridge and current standards for turning radii. Brickyard Road work will extend 600 ft. north of the new bridge to the end of the wooded area where it will transition into the existing roadway. Guardrails will be installed along the entire corridor to help minimize impacts to any adjoining wetland area. Additional right of way may be required. The goal is to achieve 7 out of 9 for the bridge elements and an emergency vehicle load rating of 29 tons.

One mapped stream, Boog Creek, is within the project limits. Metric Environmental will perform waters of the US determination/delineation and coordinate with INDOT Ecology and Waterways Permitting Office (EWPO) to prepare a Waters Determination Report and submit the appropriate Clean Water Act permit applications.

This project will require full Section 106 with Historic Bridge Alternatives Analysis and Bridge Marketing. Metric will prepare the required Consulting Parties Early Coordination Letter, Phase Ia Archaeology, Historic Property Report, and Finding of Effect as required and submit documentation to the Indiana Department of Transportation Cultural Resources Office and the Indiana Department of Natural Resources (IDNR) Division of Historic Preservation and Archaeology (DHPA) State Historic Preservation Officer (SHPO) for review and concurrence. The designer, HWC Engineering, will prepare the Historic Bridge Alternatives Analysis. The bridge will be advertised in two primary newspapers of general circulation and signs will be posted at the project site to alert the public that the bridge is available for relocation and re-use. The advertisement must be posted 6 months prior to the public hearing that will be conducted for the project. If after the public hearing, no interested parties have come forth, the bridge can be demolished.

This project qualifies for the application of the USFWS range-wide programmatic informal consultation for the Indiana bat and northern long-eared bat and project information will be submitted through USFW's Information for Planning and Consultation (IPaC) separately.

Should we not receive your response within thirty (30) calendar days from the date of this letter, it will be assumed that your agency believes that there will be no adverse effects incurred as a result of the proposed project. However, should you find that an extension to the response time is necessary, a reasonable amount may be granted upon request. If you have any questions regarding this matter, please feel free to contact Susan Castle, Senior Consultant, Metric Environmental, at 317.608.2730, or SusanC@MetricEnv.com, 6971 Hillside Court, Indianapolis, Indiana 46250 or Brian Malone, Project Manager, INDOT Vincennes District, at BMalone@indot.in.gov or 812.836.2112. Thank you in advance for your input.

Sincerely,



Susan K. Castle
Senior Scientist

Metric Environmental, LLC

cc: File No. 20-0077
David Hagley, HWC Eng. PM dhagley@hwcengineering.com
Brian Malone, INDOT PM bmalone@indot.in.gov

Attachments: Location Map, USGS Topographic Map, 2019 Aerial Photograph, NRCS Soils Map, NRCS Soils Map Legend, National Wetlands Inventory Map, and Flood Insurance Rate Map

Letter Attachments are provided in Appendix B of this Document

Federal Highway Administration
Vincennes District
k.carmanygeorge@dot.gov

Indiana Geological and Water Survey
<https://igws.indiana.edu/eAssessment>

Indiana Department of Natural Resources
Division of Fish and Wildlife
environmentalreview@dnr.in.gov

Regional Environmental Coordinator
Midwest Regional Office, National Park Service
Mwro_Compliance@nps.gov

IDEM Wellhead Proximity Determinator
<https://www.in.gov/idem/cleanwater/pages/wellhead/>

Field Environmental Officer
Chicago Regional Office
US Department of Housing & Urban Development
Melanie.H.Castillo@hud.gov

INDOT Project Manager
BMalone@indot.in.gov

Hoosier National Forest
US Forest Service
kamick@fs.fed.us

INDOT Office of Aviation
JCourtade@indot.in.gov

U.S. Fish and Wildlife Service (USFWS)
Bloomington Field Office
robin_mcwilliams@fws.gov

US Army Corps of Engineers
Louisville District, Indianapolis Regulatory Office,
RegulatoryApplicationsLRL@usace.army.mil

Natural Resources Conservation Service
rick.neilson@in.usda.gov

Martin County Highway Department
lpadgett@martincounty.in.gov

Martin County Surveyor
nhoffman@martincounty.in.gov

Martin County Commissioners
District 2
pgeorge@martincounty.in.gov

District 3
asummers@martincounty.in.gov

District 1
croush@martincounty.in.gov

Martin County Emergency Management
mwolf@martincounty.in.gov

Martin County Floodplain Administrator
nhoffman@martincounty.in.gov

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

DNR #: ER-23480

Request Received: February 23, 2021

Requestor: Metric Environmental
Susan Castle
6971 Hillside Court
Indianapolis, IN 46250

Project: Queen Street (Brickyard Road) bridge (#51-00058; NBI #5100029) replacement over Boggs Creek, about 0.04 mile north of US 50; Des #1902785

County/Site info: Martin

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

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

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

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

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

1) Crossing Structure:

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.

2) Bank Stabilization & Wildlife Passage:

Facilitating wildlife movement under roads, especially large and high-speed 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. Maintaining or improving wildlife passage ability under roads means less wildlife crossing traffic lanes and consequently reduced driving hazards.

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

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 addition of scour protection materials could impair wildlife passage under the bridge compared to current conditions. A level area of natural ground under the structure is ideal for wildlife passage. If channel clearing will result in a flat bench area above the normal water level under the structure, this area should allow wildlife passage and should remain free of riprap and other similar materials that can impair wildlife passage.

Minimize the use of riprap and use alternative erosion protection materials whenever possible. Riprap must not be placed in the active thalweg channel or placed in the streambed in a manner that precludes fish or aquatic organism passage (riprap must not be placed above the existing streambed elevation). Where riprap must be used, we recommend placing only enough riprap to provide stream bank toe protection, such as from the toe of the bank up to the ordinary high water mark (OHWM). The banks above the OHWM should be restored, stabilized, and revegetated using geotextiles and a mixture of grasses, sedges, wildflowers, shrubs, and trees native to the area and specifically for stream bank/floodway stabilization purposes as soon as possible upon completion. Where hard armoring is needed, wildlife passage can be facilitated by using a smooth-surfaced material instead of riprap, such as articulated concrete block mats, fabric-formed concrete mats or other similar smooth-surfaced materials as these materials will not impair wildlife movement.

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

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

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

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

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

4) Nesting Birds:

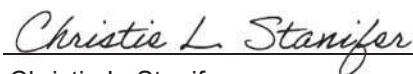
Monitor the bridge for bird nesting activity prior to construction. If any bird nests with eggs or young are found on the existing structures, do not work on the bridges from March 15 through September 7. If construction is planned during this time and active nests are present, prior approval from the USDA must be secured by contacting: Wildlife Services State Director, USDA Wildlife Services, 901 W. State Street, W. Lafayette, IN 47907; (765) 494-6229; request Form 37 and any other required documentation and follow the USDA's instructions.

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

1. Revegetate all bare and disturbed areas with a mixture of native grasses, sedges, wildflowers, and also native hardwood trees and shrubs if any woody plants are disturbed during construction as soon as possible upon completion. Do not use any varieties of Tall Fescue or other non-native plants, including prohibited invasive species (see 312 IAC 18-3-25).
2. Minimize and contain within the project limits inchannel disturbance and the clearing of trees and brush.
3. Do not work in the waterway from April 1 through June 30 without the prior written approval of the Division of Fish and Wildlife.
4. Do not cut any trees suitable for Indiana bat or Northern Long-eared bat roosting (greater than 5 inches dbh, living or dead, with loose hanging bark, or with cracks, crevices, or cavities) from April 1 through September 30.
5. Do not excavate in the low flow area except for the placement of piers, foundations, and riprap, or removal of the old structure.
6. Do not construct any temporary runarounds, access bridges, causeways, cofferdams, diversions, or pumparounds.
7. Use minimum average 6 inch graded riprap stone extended below the normal water level to provide habitat for aquatic organisms in the voids.
8. Plant native hardwood trees along the top of the bank and right-of-way to replace the vegetation destroyed during construction.
9. 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.
10. 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, 2021



United States Department of the Interior



FISH AND WILDLIFE SERVICE

Indiana Ecological Services Field Office

620 South Walker Street

Bloomington, IN 47403-2121

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

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

In Reply Refer To:

January 11, 2022

Consultation code: 03E12000-2022-I-0698

Event Code: 03E12000-2022-E-03381

Project Name: Des. 1902785, Bridge Project, Brickyard Road over Boggs Creek, Martin County, Indiana

Subject: Concurrence verification letter for the 'Des. 1902785, Bridge Project, Brickyard Road over Boggs Creek, Martin County, Indiana' 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. 1902785, Bridge Project, Brickyard Road over Boggs Creek, Martin County, Indiana** (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. 1902785, Bridge Project, Brickyard Road over Boggs Creek, Martin County, Indiana

Description

The Indiana Department of Transportation (INDOT), with funding from Federal Highway Administration (FHWA) intends to proceed with a bridge project (Bridge Number 51-00058) on Brickyard Road over Boggs Creek, located 0.04 mile north of US 50, Martin County, Indiana (Des. No. 1902785).

The preferred alternative is to replace the existing structure with a new wider structure of similar length that would meet current design and safety standards. The project would extend along Brickyard Road for approximately 250 feet south and 700 north beyond each end of the existing structure to accommodate approach work.

Maintenance of Traffic is anticipated to require full road closure and use county-maintained roads as a detour. Use of US 50 will remain unimpeded. Currently, it is anticipated that less than 0.5 acre of new permanent and less than 0.5 acre of temporary Right-of-Way will be required for project construction.

There is suitable summer habitat located within the project area. It is anticipated that approximately 1.73 acres of trees will be removed from the project area to remove and replace the bridge. The dominant tree species to be removed are mixed maple species (*Acer* sp.), black walnut (*Juglans nigra*), eastern cottonwood (*Populus deltoides*), and common hackberry (*Celtis occidentalis*). The trees will be removed within 100 feet from the edge of the roadway during the inactive season 2024.

According to the Bridge Inspection Report, dated November 20, 2019, no evidence of bats was seen or heard under the structure. A Metric Environmental biologist holding a Section 10 Recovery Permit for bats (Jason Damm; Permit Number TE-81936D-0) completed an inspection of the bridge on September 21, 2020. During the visit, one live big brown bat (*Eptesicus fuscus*) was visibly identified along the southwest side of the structure. No guano was visible. A follow-up visit was conducted on June 28, 2021. During the second visit, no bats or guano were seen.

Based on consultation with INDOT Vincennes District, September 22, 2020, a review of the U.S. Fish and Wildlife Service (USFWS) database did not indicate the presence of endangered bat species in or within 0.5 mile of the project area.

Temporary lighting may be required during construction. No new permanent lighting will be required.

The project is planned to begin in fall 2024 (Letting in November 2024) and be completed by Fall 2025. Tree clearing is planned to occur between December 2024 through April 2025, and will be concluded ahead of the inactive season deadline.

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?

Yes

8. Will the project include *any* type of activity that could impact a **known** hibernaculum^[1], or impact a karst feature (e.g., sinkhole, losing stream, or spring) that could result in effects to a **known** hibernaculum?

[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

9. 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

10. 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

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

No

12. 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

13. 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

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

Yes

15. 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

16. 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

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

Yes

18. 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

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

Yes

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

No

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

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

Yes

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

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

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

Yes

SUBMITTED DOCUMENTS

- 20-0077 Bat Bridge Inspection Form 28June2021.pdf <https://ecos.fws.gov/ipac/project/S7O3UEJP5JE67CF2JLH7LQFFUA/projectDocuments/108674523>
- 20-0077 Bat Bridge Inspection Form.pdf <https://ecos.fws.gov/ipac/project/S7O3UEJP5JE67CF2JLH7LQFFUA/projectDocuments/108674524>

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

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

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

No

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

No

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

No

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

Yes

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

Yes

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

No

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

Yes

35. Will the activities that use percussives (**not including tree removal/trimming or bridge/structure work**) and/or increase noise levels above existing traffic/background levels be conducted *during* the active season^[1]?

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

No

36. 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

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

No

38. Are the project activities that use percussives (not including tree removal/trimming or bridge/structure work) and/or increase noise levels above existing traffic/background levels consistent with a No Effect determination in this key?

Automatically answered

Yes, because the activities are within 300 feet of the existing road/rail surface, greater than 0.5 miles from a hibernacula, and conducted during the inactive season

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 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.

40. 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.

41. 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

42. **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

43. Hibernacula AMM 1

Will the project ensure that on-site personnel will use best management practices^[1], secondary containment measures, or other standard spill prevention and countermeasures to avoid impacts to possible hibernacula?

[1] Coordinate with the appropriate Service Field Office on recommended best management practices for karst in your state.

Yes

44. Hibernacula AMM 1

Will the project ensure that, where practicable, a 300 foot buffer will be employed to separate fueling areas and other major containment risk activities from caves, sinkholes, losing streams, and springs in karst topography?

Yes

45. 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

46. 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

47. 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

48. **Lighting AMM 1**

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

Yes

Project Questionnaire

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

N/A

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

N/A

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

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

1.73

4. Please describe the proposed bridge work:

The preferred alternative is to replace the existing structure with a new wider structure of similar length that would meet current design and safety standards. The project would extend along Brickyard Road for approximately 250 feet south and 700 north beyond each end of the existing structure to accommodate approach work.

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

The project is planned to begin in fall 2024 (Letting in November 2024) and be completed by Fall 2025. Tree clearing is planned to occur between December 2024 through April 2025, and will be concluded ahead of the inactive season deadline.

6. Please enter the date of the bridge assessment:

September 21, 2020; June 28, 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.

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.

HIBERNACULA AMM 1

For projects located within karst areas, on-site personnel will use best management practices, secondary containment measures, or other standard spill prevention and countermeasures to avoid impacts to possible hibernacula. Where practicable, a 300 foot buffer will be employed to separate fueling areas and other major containment risk activities from caves, sinkholes, losing streams, and springs in karst topography.

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 April 22, 2021. 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.



United States Department of the Interior



FISH AND WILDLIFE SERVICE

Indiana Ecological Services Field Office

620 South Walker Street

Bloomington, IN 47403-2121

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

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

In Reply Refer To:

January 11, 2022

Consultation Code: 03E12000-2022-SLI-0698

Event Code: 03E12000-2022-E-03342

Project Name: Des. 1902785, Bridge Project, Brickyard Road over Boggs Creek, Martin County, Indiana

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

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

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

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

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

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

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

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

Attachment(s):

- Official Species List

Official Species List

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

This species list is provided by:

Indiana Ecological Services Field Office

620 South Walker Street

Bloomington, IN 47403-2121

(812) 334-4261

Project Summary

Consultation Code: 03E12000-2022-SLI-0698
Event Code: Some(03E12000-2022-E-03342)
Project Name: Des. 1902785, Bridge Project, Brickyard Road over Boggs Creek, Martin County, Indiana
Project Type: TRANSPORTATION
Project Description: The Indiana Department of Transportation (INDOT), with funding from Federal Highway Administration (FHWA) intends to proceed with a bridge project (Bridge Number 51-00058) on Brickyard Road over Boggs Creek, located 0.04 mile north of US 50, Martin County, Indiana (Des. No. 1902785).

The preferred alternative is to replace the existing structure with a new wider structure of similar length that would meet current design and safety standards. The project would extend along Brickyard Road for approximately 250 feet south and 700 north beyond each end of the existing structure to accommodate approach work.

Maintenance of Traffic is anticipated to require full road closure and use county-maintained roads as a detour. Use of US 50 will remain unimpeded. Currently, it is anticipated that less than 0.5 acre of new permanent and less than 0.5 acre of temporary Right-of-Way will be required for project construction.

There is suitable summer habitat located within the project area. It is anticipated that approximately 1.73 acres of trees will be removed from the project area to remove and replace the bridge. The dominant tree species to be removed are mixed maple species (*Acer* sp.), black walnut (*Juglans nigra*), eastern cottonwood (*Populus deltoides*), and common hackberry (*Celtis occidentalis*). The trees will be removed within 100 feet from the edge of the roadway during the inactive season 2024.

According to the Bridge Inspection Report, dated November 20, 2019, no evidence of bats was seen or heard under the structure. A Metric Environmental biologist holding a Section 10 Recovery Permit for bats (Jason Damm; Permit Number TE-81936D-0) completed an inspection of the bridge on September 21, 2020. During the visit, one live big brown bat (*Eptesicus fuscus*) was visibly identified along the southwest side of the structure. No guano was visible. A follow-up visit was conducted on June 28, 2021. During the second visit, no bats or guano were seen.

Based on consultation with INDOT Vincennes District, September 22, 2020, a review of the U.S. Fish and Wildlife Service (USFWS) database did not indicate the presence of endangered bat species in or within 0.5

mile of the project area.

Temporary lighting may be required during construction. No new permanent lighting will be required.

The project is planned to begin in fall 2024 (Letting in November 2024) and be completed by Fall 2025. Tree clearing is planned to occur between December 2024 through April 2025, and will be concluded ahead of the inactive season deadline.

Project Location:

Approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/@38.68544275,-86.8839894256332,14z>



Counties: Martin 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.

Organization and Project Information

Project ID: 20-0077
Des. ID: 1902785
Project Title: Bridge Project
Name of Organization: Metric Environmental, LLC
Requested by: Susan Castle

Environmental Assessment Report

1. Geological Hazards:
 - 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:
 - Petroleum Exploration Wells
 - Abandoned Industrial Minerals Sand Gravel Pits

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

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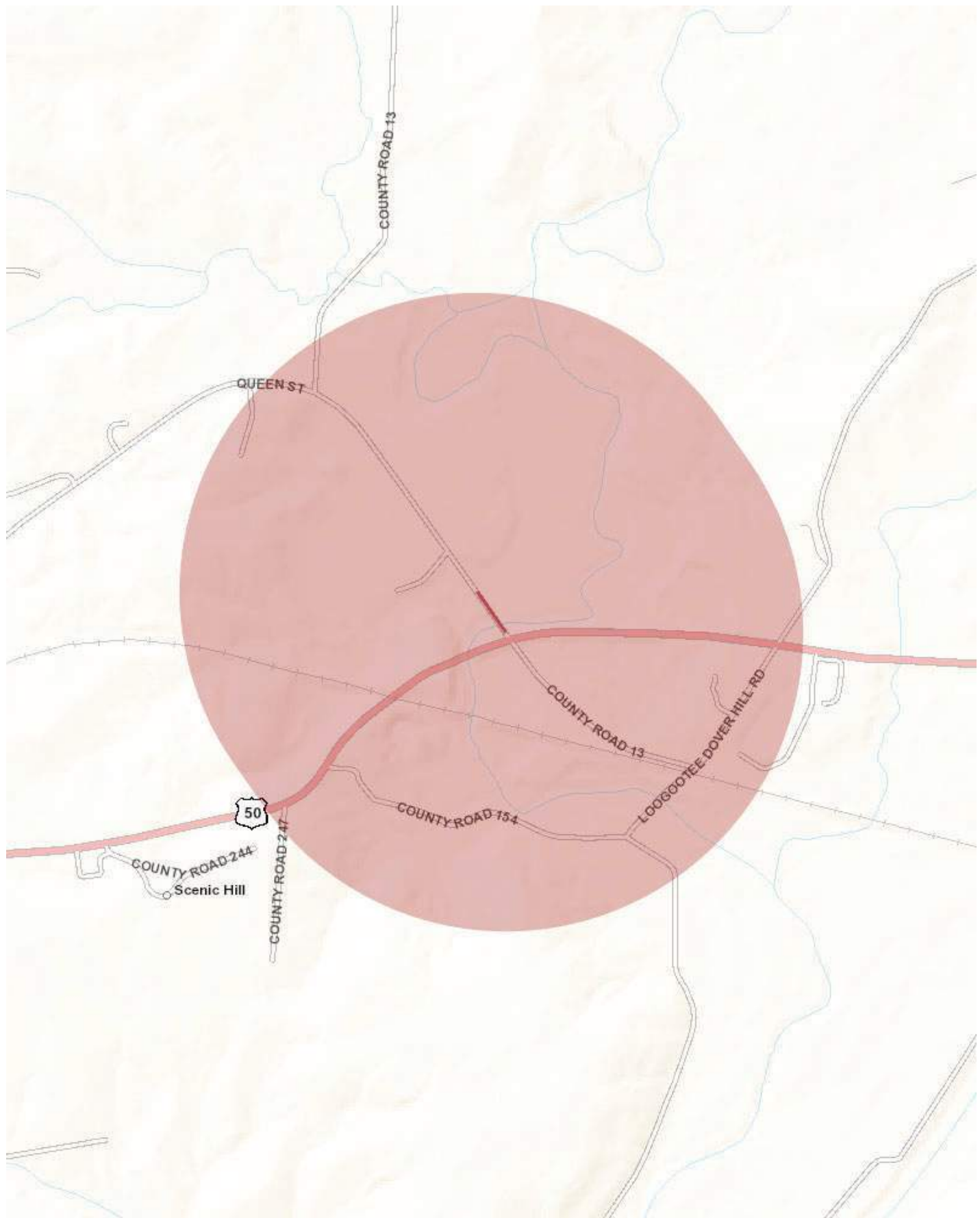
This information was furnished by Indiana Geological Survey

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

Email: IGSEnvir@indiana.edu

Phone: 812 855-7428

Date: February 23, 2021



Susan Castle

Subject: FW: Agency Early Coordination, Bridge Project, Queen Street (Brickyard Road) over Boggs Creek, Martin County, Indiana

From: Andy Ringwald <aringwald@martincounty.in.gov>

Sent: Tuesday, February 23, 2021 6:52 PM

To: Susan Castle <susanc@metricenv.com>

Subject: Re: Agency Early Coordination, Bridge Project, Queen Street (Brickyard Road) over Boggs Creek, Martin County, Indiana

Martin County EMA has no objections or concerns regarding this project. In fact we fully support it.

Andrew L Ringwald

Deputy Director, Martin County Emergency Management
812-486-5235

On Tue, Feb 23, 2021 at 1:28 PM Susan Castle <susanc@metricenv.com> wrote:

Dear Interested Agency,

Metric Environmental is preparing the Categorical Exclusion document for the above referenced project.

The attached 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.

Should we not receive your response within thirty (30) calendar days from the date of this letter, it will be assumed that your agency believes that there will be no adverse effects incurred as a result of the proposed project.

Thank you very much

Susan Castle
NEPA Senior Scientist



Phone: 317.608.2730

Mobile: 317.379.3649

6971 Hillsdale Court, Indianapolis, IN 46250

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Susan Castle

Subject: FW: Agency Early Coordination, Bridge Project, Queen Street (Brickyard Road) over Boggs Creek, Martin County, Indiana

From: Courtade, Julian <JCourtade@indot.IN.gov>

Sent: Thursday, February 25, 2021 8:25 AM

To: Susan Castle <susanc@metricenv.com>

Subject: RE: Agency Early Coordination, Bridge Project, Queen Street (Brickyard Road) over Boggs Creek, Martin County, Indiana

Susan –

I reviewed the Early Coordination Letter and found no issues with any surrounding airspace or public-use airports. This is due to the project meeting the required glideslope criteria from the nearest public-use facility according to 14 CFR Part 77 – Safe, efficient use, and preservation of the navigable airspace.

If any object will exceed 200 ft in height regardless of location, the object will need to be airspaced with the FAA 45 days prior to construction through the OEAAA portal below.

<https://oeaaa.faa.gov/oeaaa/external/searchAction.jsp>

Please let me know if you have any questions!

Thanks,

Julian L. Courtade

Chief Airport Inspector

100 North Senate Ave, N758-MM

Indianapolis, IN 46204

Cell: (317) 954-7385

Email: jcourtade@indot.in.gov



Susan Castle

Subject: FW: [EXTERNAL: Suspicious Link]Agency Early Coordination, Bridge Project, Queen Street (Brickyard Road) over Boggs Creek, Martin County, Indiana

From: Amick, Kevin -FS <kevin.amick@usda.gov>

Sent: Thursday, February 25, 2021 5:36 PM

To: Susan Castle <susanc@metricenv.com>

Subject: RE: [EXTERNAL: Suspicious Link]Agency Early Coordination, Bridge Project, Queen Street (Brickyard Road) over Boggs Creek, Martin County, Indiana

Ms. Castle,

Because the project (Des. No. 1902785) is not located on or adjacent to National Forest System lands, the Hoosier NF has no concerns regarding this project. Thank you for the opportunity to review this project.



Kevin Amick
Environmental Coordinator
Forest Service
Hoosier National Forest

p: 812-276-4746

f: 812-279-3423

kevin.amick@usda.gov

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Bedford, IN 47421

www.fs.fed.us



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February 2, 2022

Elayna Stoner
Metric Environmental
6971 Hillsdale Court
Indianapolis, Indiana 46250
elaynas@metricenv.com

Dear Ms. Stoner:

The proposed project to proceed with bridge improvements on Brickyard Road over Boggs Creek in Martin County, Indiana (Des No 1902785), as referred to in your letter received January 31, 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-1106. 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: 2022.02.03 15:00:40
-05'00'

JOHN ALLEN
Acting State Soil Scientist

Enclosures

FARMLAND CONVERSION IMPACT RATING

PART I (To be completed by Federal Agency)		Date Of Land Evaluation Request				
Name of Project DES1902785 Bridge58 Repl		Federal Agency Involved				
Proposed Land Use		County and State Martin County, Indiana				
PART II (To be completed by NRCS)		Date Request Received By NRCS 1/31/2022		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 239 ac	
Major Crop(s) Corn	Farmable Land In Govt. Jurisdiction Acres: 110236 % 51	Amount of Farmland As Defined in FPPA Acres: 61061 % 28				
Name of Land Evaluation System Used LESA	Name of State or Local Site Assessment System	Date Land Evaluation Returned by NRCS 2/2/2022				
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		XXX				
B. Total Acres To Be Converted Indirectly		XXX				
C. Total Acres In Site		XXX				
PART IV (To be completed by NRCS) Land Evaluation Information						
A. Total Acres Prime And Unique Farmland		1.88				
B. Total Acres Statewide Important or Local Important Farmland		0.00				
C. Percentage Of Farmland in County Or Local Govt. Unit To Be Converted		0.002				
D. Percentage Of Farmland in Govt. Jurisdiction With Same Or Higher Relative Value		47				
PART V (To be completed by NRCS) Land Evaluation Criterion Relative Value of Farmland To Be Converted (Scale of 0 to 100 Points)		78				
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	Site D
1. Area In Non-urban Use		(15)	10			
2. Perimeter In Non-urban Use		(10)	8			
3. Percent Of Site Being Farmed		(20)	5			
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)	5			
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)	5			
10. On-Farm Investments		(20)	0			
11. Effects Of Conversion On Farm Support Services		(10)	0			
12. Compatibility With Existing Agricultural Use		(10)	10			
TOTAL SITE ASSESSMENT POINTS		160	53	0	0	0
PART VII (To be completed by Federal Agency)						
Relative Value Of Farmland (From Part V)		100	78	0	0	0
Total Site Assessment (From Part VI above or local site assessment)		160	53	0	0	0
TOTAL POINTS (Total of above 2 lines)		260	131	0	0	0
Site Selected: Site A		Date Of Selection 2/23/2022		Was A Local Site Assessment Used? YES <input type="checkbox"/> NO <input checked="" type="checkbox"/>		
Reason For Selection: This project received a total point value of less than 160. No other alternatives will be considered without evaluating the effects upon farmland.						
Name of Federal agency representative completing this form:					Date:	

(See Instructions on reverse side)

APPENDIX D:
Section 106 Documentation

**FEDERAL HIGHWAY ADMINISTRATION'S
SECTION 4(F) COMPLIANCE REQUIREMENTS (for historic properties) AND
SECTION 106 FINDINGS AND DETERMINATIONS
AREA OF POTENTIAL EFFECTS
ELIGIBILITY DETERMINATIONS
EFFECT FINDING
MARTIN COUNTY BRIDGE NO. 58 (NBI NO. 5100029) PROJECT
PERRY TOWNSHIP, MARTIN COUNTY, INDIANA
DES. NO.: 1902785**

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

The Area of Potential Effects (APE) encompasses a 0.125-mile radius from Martin County Bridge No. 58. The APE for archaeology is represented by the project area, which consists of all proposed existing right of way that was archaeologically investigated. A map of the APE can be found in Appendix A.

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

Martin County Bridge No. 58 was previously determined eligible for inclusion in the National Register of Historic Places (NRHP) under Criterion C by the *Indiana Historic Bridge Inventory* because it represents an early or distinctive phase in bridge construction, design, or engineering, and it retains historic integrity necessary to convey its engineering significance. This bridge is also categorized as a “Non-Select” bridge within the *Indiana Historic Bridge Inventory*.

There are no other properties listed in, or eligible for listing in, the NRHP within the APE of this project.

EFFECT FINDING

Per the terms of the “Programmatic Agreement Regarding Management and Preservation of Indiana’s Historic Bridges” (Historic Bridges PA), the Federal Highway Administration—Indiana Division (FHWA) will satisfy its Section 106 responsibilities involving “Select” and “Non-Select” bridges through the Project Development Process (PDP) of the Historic Bridges PA (Stipulation III). Martin County Bridge No. 58 has been classified as a Non-Select Bridge by the *Indiana Historic Bridge Inventory* and, thus, the procedures outlined in Stipulation III.B of the Historic Bridges PA will be followed to fulfill FHWA’s Section 106 responsibilities for the bridge.

Therefore, the finding for this project only applies to other resources located within the APE and not Martin County Bridge No. 58. This document will satisfy the Section 106 responsibilities for other resources located in the APE. Regarding other resources located in the project area, the Indiana

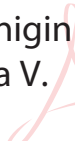
Department of Transportation (INDOT), acting on FHWA's behalf has determined a "No historic properties affected" finding is appropriate for this undertaking.

INDOT respectfully requests the SHPO provide written concurrence with the Section 106 determination of effect.

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

Martin County Bridge No. 58 - This resource is used for transportation purposes. Martin County Bridge No. 58 will be evaluated through the *Programmatic Section 4(f) Evaluation and Approval for FHWA Projects that Necessitate the Use of Historic Bridges*.

Susan R. Branigin
for Anuradha V.
Kumar



Digitally signed by Susan
R. Branigin for Anuradha V.
Kumar
Date: 2021.11.17 08:38:24
-05'00'

Anuradha V. Kumar, for FHWA
Manager
INDOT Cultural Resources Office

Approved Date

**FEDERAL HIGHWAY ADMINISTRATION
DOCUMENTATION OF SECTION 106 FINDING OF
NO HISTORIC PROPERTIES AFFECTED
SUBMITTED TO THE STATE HISTORIC PRESERVATION OFFICER
PURSUANT TO 36 CFR SECTION 800.11[d]
MARTIN COUNTY BRIDGE NO. 58 (NBI NO. 5100029) PROJECT
PERRY TOWNSHIP, MARTIN COUNTY, INDIANA
DES. NO.: 1902785**

1. DESCRIPTION OF THE UNDERTAKING

A) Project Description

Martin County, with funding from the Federal Highway Administration (FHWA) and administrative oversight from the Indiana Department of Transportation (INDOT), proposes to proceed with the replacement of Martin County Bridge No. 58 (NBI No. 5100029) carrying Brickyard Road (County Road [CR] 13) over Boggs Creek in Perry Township, Martin County, Indiana. The project would extend approximately 250 feet (ft) south and 700 ft north beyond the respective approach on each end of the existing structure along Brickyard Road, and approximately 100 ft east and 200 ft west of the centerline of Brickyard Road for the entire length of the project. The project can be found on the Loogootee, Indiana 7.5-minute series United States Geological Survey (USGS) Topographic Quadrangle map in Section 20, Township 3 North, Range 4 West. See Appendix A for maps of the project location and Appendix B for project plans.

Federal-aid highway construction projects qualify as “undertakings” as defined in CFR 800.16(y) and are subject to a Section 106 review as per Section 106 of the National Historic Preservation Act of 1966. Federal-aid funds will be used for planning and/or construction of the proposed rest area improvements; thus, a Section 106 review is applicable.

Martin County Bridge No. 58 is a three-span structure consisting of stone arch approach spans and a steel Warren deck truss in the middle span that carries Brickyard Road over Boggs Creek. The bridge was constructed in 1848 and reconstructed after a severe flood in 1913 destroyed most of the bridge. In 1996, a new open grid metal deck and railings were installed, and abutment repairs were made. In 2018, the stone masonry arches were patched with a thin layer of concrete. The bridge length is 150.4 ft with a roadway width of 11.7 ft. The bridge is supported on stone abutments and stone piers. The structure is eligible for the National Register of Historic Places (NRHP), but it is classified as a “Non-Select” bridge in the 2010 *Indiana Historic Bridge Inventory*.

The need for this project is due to the deteriorated condition and load capacity of the existing structure. Data used to substantiate this need comes from a 2018 bridge inspection report that

identified structural deficiencies of the existing bridge. The report noted minor section loss and corrosion in the trusses, section loss and deteriorated stone, and cracked concrete facing in areas of previous patching repairs. Safety concerns, such as steep bank slopes, a load limit below legal requirements, bridge railing that does not meet current standards, and its narrow deck width that allows for a single vehicular lane, were also documented. Due to its inadequate lane width for current traffic demands the bridge is considered functionally obsolete. The bridge report rated the deck's condition as satisfactory and the superstructure and substructures' conditions as fair and gives the structure an overall sufficiency rating of 48.7 out of a possible score of 100. The purpose of the project is to provide higher condition ratings for the superstructure, substructure, and deck, and improve structural capacity at this crossing. Construction letting for the project is expected to begin in November 2024.

Because Martin County Bridge 58 is a "Non-Select" bridge, the FHWA is satisfying its Section 106 responsibilities following the procedures outlined in Stipulation III.B of the Historic Bridges PA. Per Stipulation III.B., a Historic Bridge Alternatives Analysis (HBAA) was completed on March 1, 2021 and distributed to the Division of Historic Preservation and Archaeology (DHPA; which serves as the Indiana State Historic Preservation Officer [SHPO]) and consulting parties for review and comment. The recommended preliminary preferred alternative in the HBAA is Alternative E or F, the relocation and/or replacement of the existing structure for continued vehicular use, in that each are considered to be feasible and prudent options while satisfying the purpose and need. The bridge can be relocated if a sponsor is found. The DHPA concurred with the recommendations of the HBAA on April 1, 2021; the conclusion section of the HBAA is presented in Appendix C and the full document is located for viewing in IN SCOPE (<http://erms.indot.in.gov/Section106Documents/>).

The Area of Potential Effects (APE) includes all locations where the project may result in disturbance of the ground; all locations from which elements of the project may be visible or audible; all locations where activity may result in changes in traffic patterns, land use, or public access; and all areas where there may be direct or indirect effects due to elements of the project. The APE for archaeology is represented by the project area which consists of all proposed or existing right of way that was archaeologically investigated. For above-ground structures the APE was defined as encompassing a 0.125-mile radius from the Martin County Bridge No. 58. Aerial maps of the APE are located in Appendix A and project site photographs are located in Appendix D.

2. EFFORTS TO IDENTIFY HISTORIC PROPERTIES

A) Above Ground Investigation

To determine the presence of historic properties within the project's APE, a short-format historic property short report (HPSR) was prepared by Karen Garrard under the supervision of Candace Hudziak of Metric Environmental, LLC (Garrard and Hudziak, 5/20/2021). Hudziak is an architectural

historian who meets the Secretary of the Interior’s Professional Qualification Standards pursuant to 36 CFR Section 800.4(b).

Garrard conducted a literature review by examining the Indiana State Historic Architectural and Archaeological Research Database (SHAARD), Indiana Historic Buildings, Bridges, and Cemeteries Map (IHBBM), NRHP database, Indiana Bridge Inspection Application System (BIAS), Indiana Historic Bridges Inventory, the INDOT-Cultural Resources Office (CRO) Public Web Map App, and the Indiana Historical Bureau’s Historic Markers database. The results of the Indiana Historic Sites and Structures Inventory (IHSSI) for Martin County, whose dataset was compiled in 2011, were also reviewed.

Additionally, a field survey was conducted on October 24, 2020, for the project.

One NRHP-eligible resource is situated within the proposed APE: Martin County Bridge No. 58, which was determined eligible for the NRHP per the 2010 *Indiana Historic Bridge Inventory*. The bridge is eligible under Criterion C for its representation of an early or distinctive phase in bridge construction, design, or engineering, and it retains historic integrity necessary to convey its engineering significance. The classification of bridges into “Select” or “Non-Select,” as part of the Historic Bridges PA, also resulted in the determination of Martin County Bridge No. 58 as a “Non-Select” bridge because it is not considered an excellent example of its type and/or it is not suitable for preservation.

There are no other resources listed in or eligible for listing in the NRHP nor in the Indiana Register of Historic Sites and Structures within the proposed APE of this project.

The management summary and conclusion sections of the HPSR are presented in Appendix E. The INDOT-Cultural Resources Office (CRO) determined that the HPSR was suitable for distribution to consulting parties; the HPSR was distributed to consulting parties for review and comment on May 20 and 21, 2021.

B) Archaeological Survey

An Archaeological Short Report (ASR) was prepared by Megan Copenhaver and Sydney Heidenreich of Metric Environmental, LLC, under the supervision of Samuel Snell (Copenhaver and Heidenreich, 6/1/21). Snell is an archaeologist who meets the Secretary of the Interior’s Professional Qualification Standards pursuant to 36 CFR Section 800.4(b). A literature review of the SHAARD database indicated that there are seven previously recorded archaeological sites within 1.0 miles of the project, all of which are located over 2,443 ft from the project area. There are no cemeteries within 1.0 miles of the project.

On April 9, 2021, Metric staff conducted field work that included a visual inspection, pedestrian survey, and the excavation of shovel test probes. Limestone block abutment remnants associated with the existing Martin County Bridge. No. 58 and part of the corresponding construction of Brickyard road were discovered. The remnants were not considered to be archaeologically significant and were considered not eligible for the NRHP. No additional archaeological resources were identified as a result of the investigation. The ASR recommended the project be allowed to proceed with no additional work.

The ASR’s results and recommendations are presented in Appendix F. The INDOT- CRO determined that the report was suitable for distribution to consulting parties for review and comment; the report was distributed to consulting parties on June 1, 2021.

C) Consultation

1. Consulting Party Invitation

Per 36 CFR 800.2(c)(1) the Federal agency fulfilling the Section 106 requirements is statutorily obligated to involve stakeholders in consultation. Per Section 101 (b)(3) of the National Historic Preservation Act of 1966, the SHPO is responsible for consulting on federal undertakings that may affect historic properties.

In addition to the SHPO, the parties listed below were invited to participate as consulting parties for this undertaking:

Invited Consulting Party	Accepted/Decline Invitation
Indiana Landmarks Southern Regional Office	No Response—Declined
Martin County Highway Superintendent	No Response—Declined
Martin County Genealogical Society	No Response—Declined
Martin County Historical Society	No Response—Declined
Martin County Historian	No Response—Declined
Martin County Commissioner	Accepted
Martin County Commissioner	Accepted
Martin County Commissioner	Accepted
Dr. Jim Cooper	No Response—Declined
Historic Spans Task Force	No Response—Declined
Historic Bridge Foundation	No Response—Declined
Historicbridges.org	Accepted
Hoosier Historic Bridges	No Response - Declined
Eastern Shawnee Tribe of Oklahoma	No Response
Miami Tribe of Oklahoma	Accepted

Peoria Tribe of Indians Oklahoma	No Response
Pokagon Band of Potawatomi	No Response
Shawnee Tribe	No Response
Delaware Tribe of Indians, Oklahoma	No Response

A hard copy of the Early Coordination Letter (ECL) was sent to the SHPO on November 19, 2020, and the other non-Tribal consulting parties received it via email. On November 19, 2020, the INDOT-CRO also emailed the ECL to Tribal consulting parties. All parties were requested to indicate whether they agreed or did not agree to participate as a consulting party within thirty (30) days of receipt of the invitation. It was noted that if the invited consulting party did not reply, they would not be considered a consulting party and would not receive further information about the undertaking unless the scope changed.

In an email dated November 19, 2020, Historicbridges.org accepted the invitation to participate as a consulting party.

In a letter dated November 30, 2020, the SHPO acknowledged receipt of the ECL and noted they were not aware of any further stakeholders who should be invited to be consulting parties.

In an email dated December 2, 2020, the Martin County Commissioners were acknowledged as consulting parties.

In a letter dated December 15, 2020, the Miami Tribe of Oklahoma accepted the invitation to be a consulting party and stated that if any human remains or Native American artifacts are discovered during the project their office should be notified immediately.

No other replies were received. All consulting parties' correspondence is in Appendix G.

2. Consultation Regarding the Area of Potential Effects and National Register of Historic Places Eligibility

On May 20 and 21, 2021, requests to review the HPSR were sent to the SHPO and consulting parties via IN SCOPE (<http://erms.indot.in.gov/Section106Documents/>). The SHPO was sent digital and hard copies of the report. Recipients of this review request were asked to provide comments within 30 days.

In a letter dated June 1, 2021, the SHPO acknowledged receipt of the HPSR and that the FHWA is satisfying its Section 106 responsibilities for the NRHP-eligible Martin County Bridge No. 58 following the procedures outlined in Stipulation III.B of the Indiana Historic Bridges PA. The SHPO agreed with

the HPSR's proposed APE and recommendations that there are no other historic properties listed or eligible for inclusion in the NRHP with the project's APE. No other comments regarding the HPSR were received.

On June 1, 2021, requests to review the ASR were sent to the SHPO and consulting parties via IN SCOPE (<http://erms.indot.in.gov/Section106Documents/>). The SHPO was sent digital and hard copies of the report. Recipients of this review request were asked to provide comments within 30 days.

In a letter dated June 15, 2021, the SHPO concurred with the opinion of the archaeologist that no further archaeological investigations are necessary. The SHPO recommended INDOT to put forth a finding. No other comments regarding the archaeological report were received.

All consulting parties' correspondence is in Appendix G.

Martin County Bridge No. 58 is being marketed for rehabilitation and reuse, or for the salvage of elements of the bridge by an interested party, in accordance with the Historic Bridge PA. An advertisement was placed in the *Indianapolis Star* newspaper on January 26, 2021, in *The Shoals News* on January 27, 2021, and on the INDOT Historic Bridges Marketing Program website on February 2, 2021, and signs advertising the bridge for reuse were placed at the project site on February 3, 2021. The INDOT-CRO also notified Indiana Landmarks via email of the advertisement on the INDOT Historic Bridges Marketing Program website on February 2, 2021. To date no interested parties have come forward to take ownership of Martin County Bridge No. 58. The marketing period will end when the public hearing comment period ends (see Appendix H for marketing documentation).

Pursuant to the Historic Bridge PA, the SHPO has requested that Martin County Bridge No. 58 bridge be documented according to the "Indiana DNR – Division of Historic Preservation and Archaeology Minimum Architectural Documentation Standards." Digital, color photographs, a photo log that corresponds to the photographs, a photo key, and an overview thumbnail sheet will be compiled for SHPO review and approval. Any additional drawings or historic bridge plans will also be accepted by SHPO review and approval. Upon SHPO approval, this documentation will be provided to a public or not-for-profit organization that is willing to accept a copy of this documentation and make it available to the public.

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

4. BASIS FOR FINDING

The SHPO concurred with the proposed APEs and NRHP eligibility recommendations of both the project historian and the archaeologist. The SHPO also acknowledged that the FHWA is satisfying its Section 106 responsibilities for the NRHP-eligible Martin County Bridge No. 58 following the procedures outlined in Stipulation III.B of the Indiana Historic Bridges PA. No other consulting parties provided comment on the proposed APEs and NRHP eligibility recommendations of both the project historian and archaeologist.

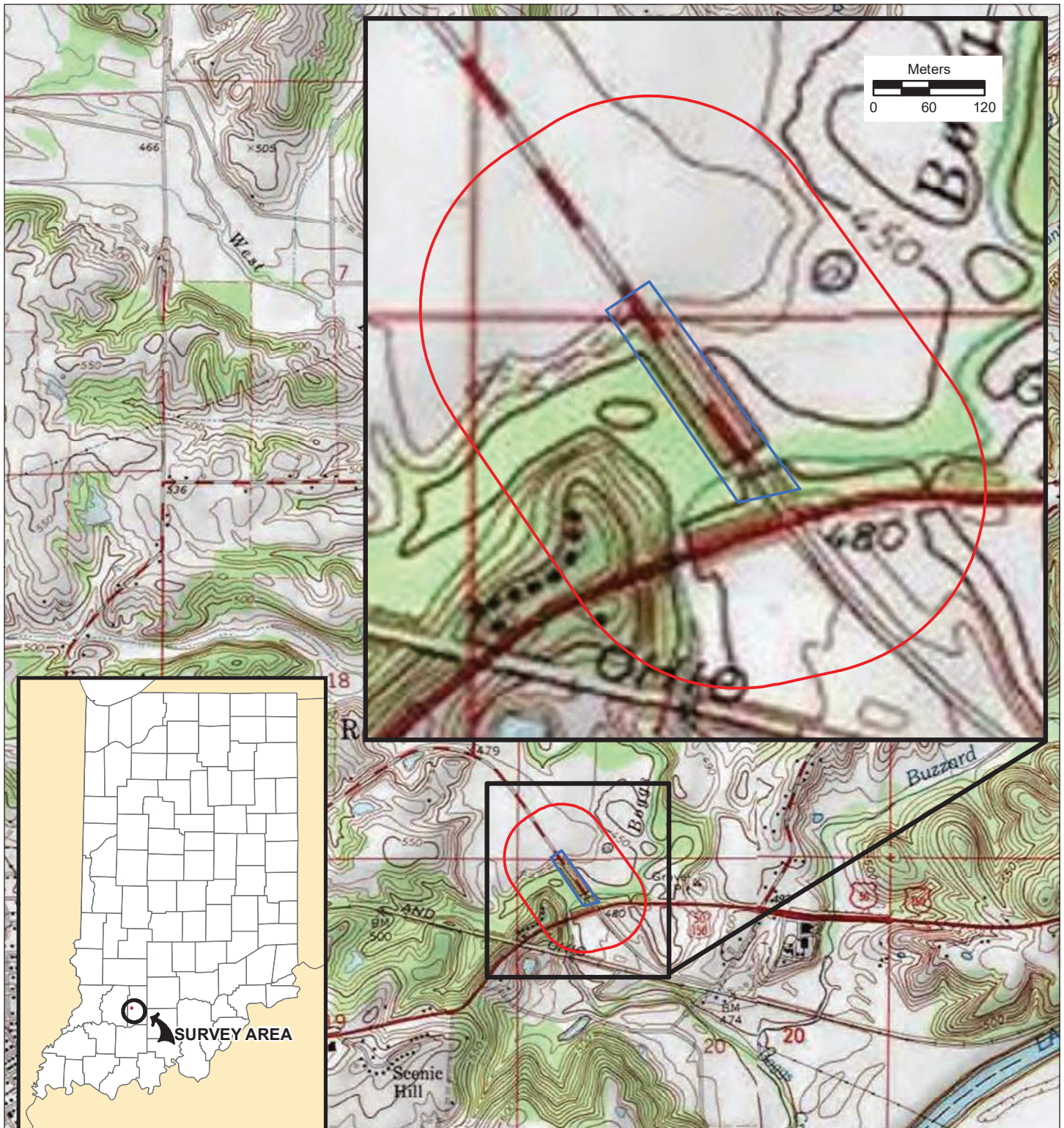
Since no other historic properties are present within the APE, a finding of “no historic properties affected” has been made for this undertaking.

INDOT’s Findings, made on behalf of the FHWA, and supporting 800.11[d] documentation are hereby provided to the SHPO for a final 30-day comment period. Views of the public are being concurrently sought through publication of the Findings in a locally available, widely circulated newspaper. This document will be revised if necessary if public comment warrants it.

APPENDICES

- A. Project Location Maps and APE
- B. Project Information and Plans
- C. Historic Bridge Alternatives Analysis Conclusions
- D. Project Site Photographs and Key Maps
- E. Historic Property Short Report Management Summary and Conclusion
- F. Archaeology Short Report Results and Recommendations
- G. Consulting Parties’ Correspondence
- H. Bridge Marketing Documentation

APPENDIX A: Project Location Maps and APE



- Proposed APE
- Project Area

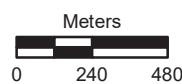
Figure 1. Survey area on a portion of the 1961 Loogootee, IN, 7.5 Minute Quadrangle
 Replacement of Bridge #58
 Brickyard Road (CR 13) over Boggs Creek
 Perry Township, Martin County, Indiana
 Des. No.1902785
 Metric Project No.20-0077
 Map Date: 03/11/2021

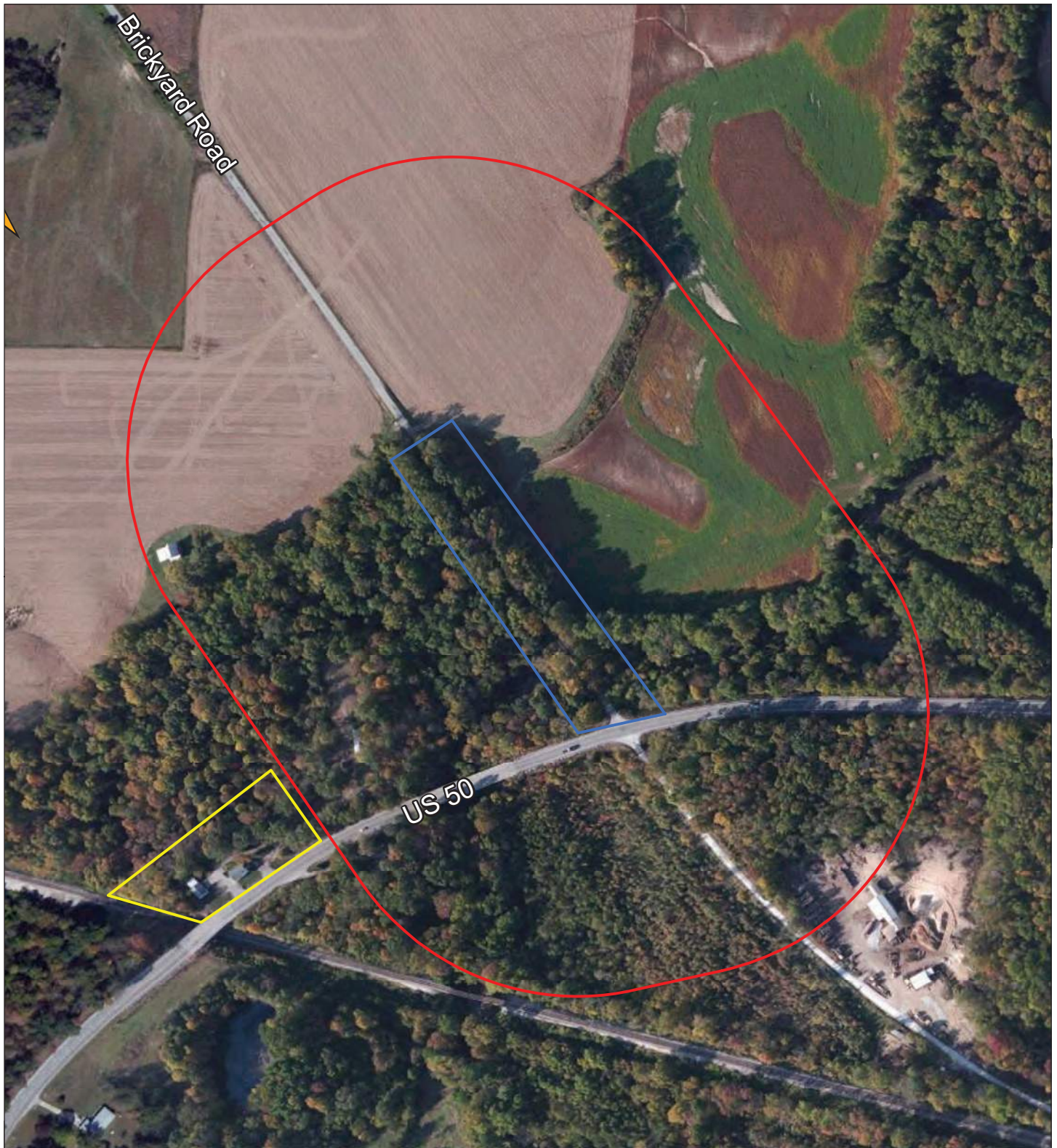
Service Layer Credits: Copyright:© 2013 National Geographic Society, i-cubed

All Locations Approximate
 1961 Basemap



1 cm = 240 m





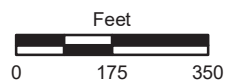
- Proposed APE
- Project Area □ Shady Nook Motel / IHSSI 101-367-05035

Figure 2. Project area and APE on an aerial photograph
 Replacement of Bridge #58
 Brickyard Road (CR 13) over Boggs Creek
 Perry Township, Martin County, Indiana
 Des. No.1902785
 Metric Project No.20-0077
 Map Date: 03/22/2021

All Locations Approximate
 2013 Basemap
 Service Layer Credits: Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community



1 inch = 350 feet



PROJECT	DESIGNATION
1902785	1902785
CONTRACT	BRIDGE FILE
B-42807	S1-00058

STRUCTURE INFORMATION				
STRUCTURE	TYPE	SPAN AND SKEW	OVER	STATION
S1-00058	Continuous Composite Prestressed Concrete Bulb-T Beam Bridge	3 Spans 50'-0", 64'-0", 50'-0"; 0°0'0" Skew	Boggs Creek	12+52.00 Line "A"

INDIANA DEPARTMENT OF TRANSPORTATION



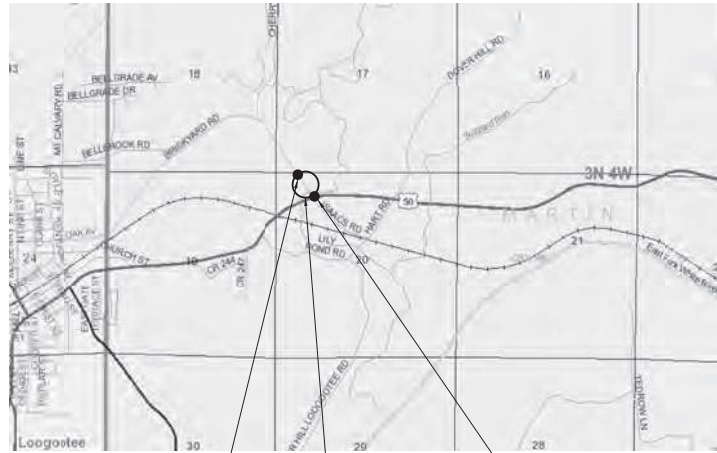
BRIDGE PLANS

FOR SPANS OVER 20 FEET

ROUTE: BRICKYARD ROAD

PROJECT NO. 1902785 P.E.
1902785 R/W
1902785 CONST.

Bridge Replacement on Brickyard Road over Boggs Creek
Located 0.04 Miles North of US 50
Section 20, T-3-N, R-4-W, Center Township, Martin County, Indiana



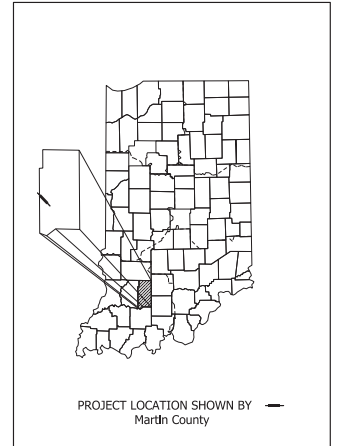
NOTE TO REVIEWER
ANY QUANTITIES THAT ARE NOT
COMPLETED WILL BE PROVIDED IN
FUTURE SUBMISSION

End Project
Des. No. 1902785
Sta. 19+50.00, Line "A"

Structure S1-00058
over Boggs Creek
Sta. 12+52.00, Line "A"

Begin Project
Des. No. 1902785
Sta. 10+17.38, Line "A"

TRAFFIC DATA		
A.A.D.T. (2025)		260 V.P.D.
A.A.D.T. (2045)		330 V.P.D.
D.H.V. (2045)		N/A V.P.H.
DIRECTIONAL DISTRIBUTION		50 %
TRUCKS		1% A.A.D.T. N/A D.H.V.
DESIGN DATA		
DESIGN SPEED		35 M.P.H.
PROJECT DESIGN CRITERIA		3R (NON-FREEWAY)
FUNCTIONAL CLASSIFICATION		LOCAL ROAD
RURAL/URBAN		RURAL
TERRAIN		LEVEL
ACCESS CONTROL		NONE



LATITUDE: 38° 41' 06" N LONGITUDE: 86° 53' 01" W

BRIDGE LENGTH: 0.031 MI.
ROADWAY LENGTH: 0.146 MI.
TOTAL LENGTH: 0.177 MI.
MAX. GRADE: 2.347 %

HUC: 051202081103

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



INDIANAPOLIS - TERRE HAUTE
LAFAYETTE - MUNCIE - NEW ALBANY
www.hwcengineering.com

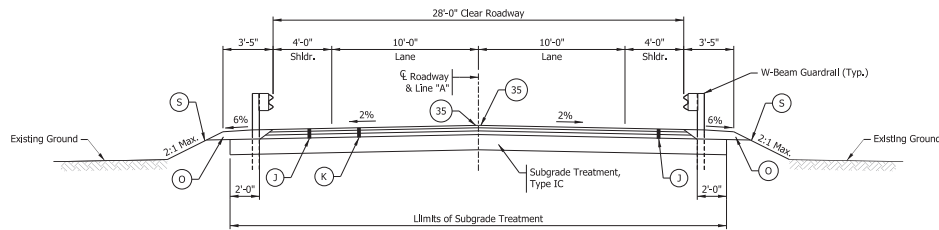
STAGE 1
PLANS
8/2021

PLANS PREPARED BY: HWC Engineering (317) 347-3663 PHONE NUMBER

CERTIFIED BY: DATE

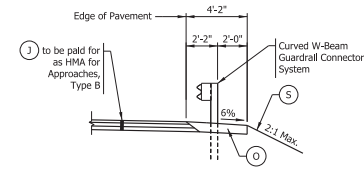
APPROVED FOR LETTING: INDIANA DEPARTMENT OF TRANSPORTATION DATE

BRIDGE FILE	
S1-00058	
DESIGNATION	1902785
SHEETS	
REVISION	1 of 17
N/A	
CONTRACT	PROJECT
B-42807	1902785



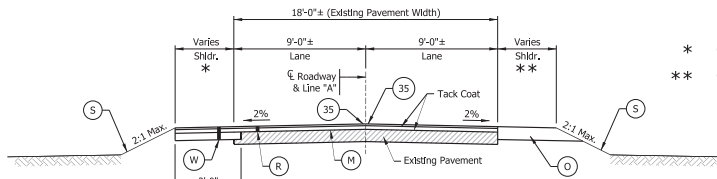
TYPICAL FULL DEPTH ROADWAY SECTION

Scale: 1/4" = 1'-0"
Sta. 11+22.00 to Sta. 11+48.50
Sta. 13+55.50 to Sta. 19+50.00



PUBLIC ROAD APPROACH SECTION WITH GUARDRAIL

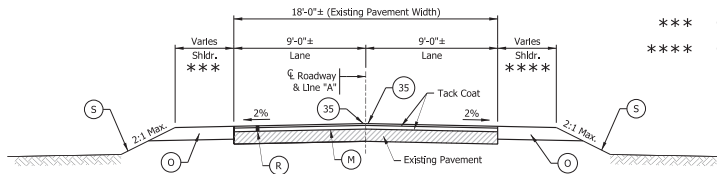
Scale: 1/4" = 1'-0"



INCIDENTAL SECTION

Scale: 1/4" = 1'-0"
Sta. 19+50.00 to Sta. 19+80.00

- * (W) Varies: 6'-0" @ Sta. 19+50.00 to 3'-8" @ Sta. 19+80.00
- ** (O) Varies: 4'-0" @ Sta. 19+50.00 to 2'-10" @ Sta. 19+80.00



INCIDENTAL SECTION

Scale: 1/4" = 1'-0"
Sta. 19+80.00 to Sta. 20+25.00

- *** (O) Varies: 3'-8" @ Sta. 19+80.00 to 1'-0" @ Sta. 20+25.00
- *** (O) Varies: 2'-10" @ Sta. 19+80.00 to 1'-0" @ Sta. 20+25.00

LEGEND

- (J)(K) 220 lb/syd QC/QA-HMA, 2, 64, Surface 9.5 mm on 330 lb/syd QC/QA-HMA, 2, 64, Intermediate 19.0 mm on Subgrade Treatment, Type IC
- (M) Transition Milling
- (O) Variable-Depth Compacted Aggregate No. 53
- (R) 220 lb/syd QC/QA-HMA, 2, 64, Surface 9.5 mm on Variable-depth QC/QA-HMA, 2, 64, Intermediate 12.0 mm (Layer Thickness shall be in accordance with Std, Specifications)
- (S) Mulched Seeding, R and Erosion Control Blankets (See Erosion Control Plan)
- (W) Shoulder Widening (see notes 1 & 2): 220 lb/syd QC/QA-HMA, 2, 64, Surface 9.5 mm on 330 lb/syd QC/QA-HMA, 2, 64, Intermediate 19.0 mm on Subgrade Treatment, Type II
- (35) Line, Paint, Solid, Yellow, 4 in.

NOTES

1. Shoulder Widening In Incidental Construction area will require encroachment into existing roadway to achieve desirable taper into existing aggregate shoulder.
2. Shoulder Widening Surface material to be paid with Mainline Surface material.

Note to Reviewer: Pavement Design to be coordinated with Geotech

PLOT: 8/21/2021 3:15:26 PM



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STAGE 1
PLANS
8/2021

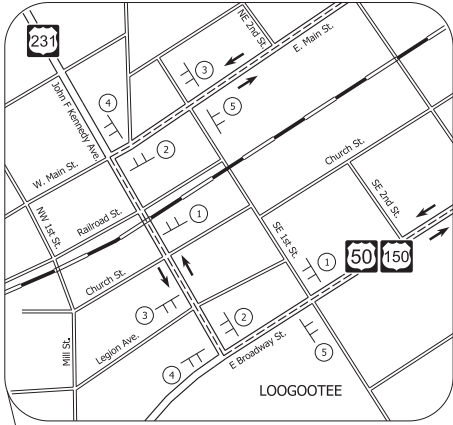
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DESIGNED BY: AJ	8/2021	DRAWN BY: AJ
8/2021	8/2021	
CHECKED BY: DMH	8/2021	CHECKED BY: JI
	8/2021	

INDIANA
DEPARTMENT OF TRANSPORTATION

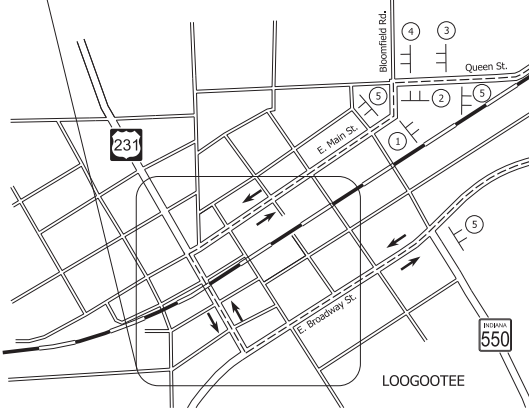
TYPICAL CROSS SECTIONS

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AS NOTED	SI-00258
	DESIGNATION
	1902785
SURVEY BOOK	SHEETS
N/A	3 of 17
CONTRACT	PROJECT
19-43867	1902785

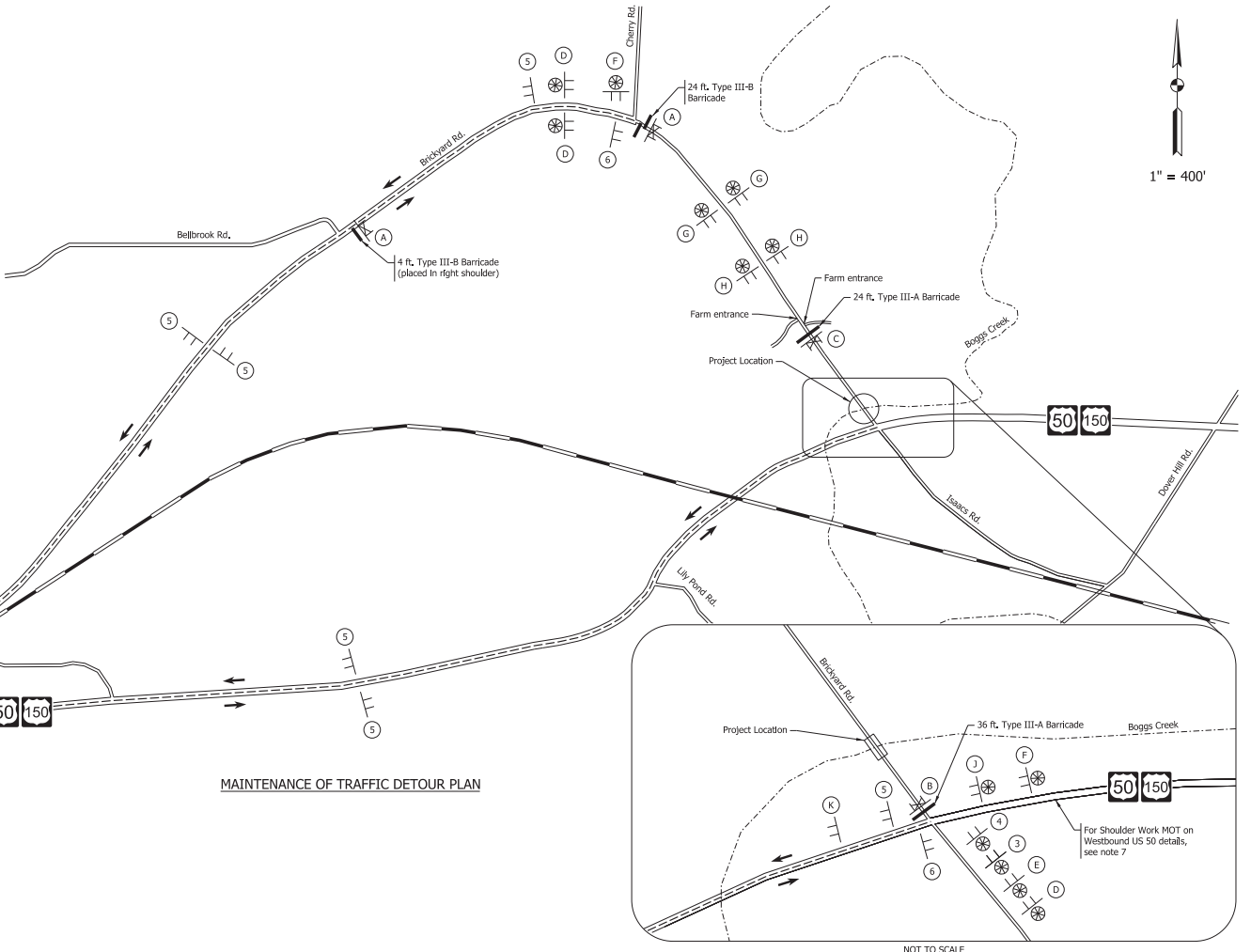
W:\Marin County\2020-110 Marin Co- Bridge 58\Design\CAD\03 - Sht Typical Cross Sections.dgn



NOT TO SCALE



LOGGOTEE



MAINTENANCE OF TRAFFIC DETOUR PLAN

NOT TO SCALE

LEGEND

- Route of Detour Traffic
- Railroad
- Construction Sign or Detour Assembly and Supports with Low Intensity Construction Warning Light, Type A

- Typical Sign Standard (Detour Route Marker Assembly)
- Typical Sign Standard (Road Closure Assembly)
- Standard Type III-A Barricade as Required
- Standard Type III-B Barricade as Required
- Detour Traffic Arrows

NOTES

1. Detour signage shall be placed in accordance with INDOT Specifications. For additional details, see Standard Drawing E-801-TCDD-01.
2. Advanced notice of closure (XG20-5 signs) shall be placed at least 14 days prior to start of construction.
3. For Detour Assemblies, additional sign information and quantities, see sheet 5.
4. Directional Detour signs assemblies shall be located 100 ft. to 200 ft. in advance of all required turns within the Detour Limits.
5. Confirming Detour sign assemblies shall be located 200 ft. after all required turns as well as not be spaced by more than 3 miles within the Detour Limits.
6. Detour signage locations may not be shown to scale and should be confirmed in the field by Contractor.
7. Shoulder Work closure will be required on Westbound US 50 for Public Road Approach Construction. For additional MOT Information, see Standard Drawing E 801-TCLC-07.

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STAGE 1
PLANS
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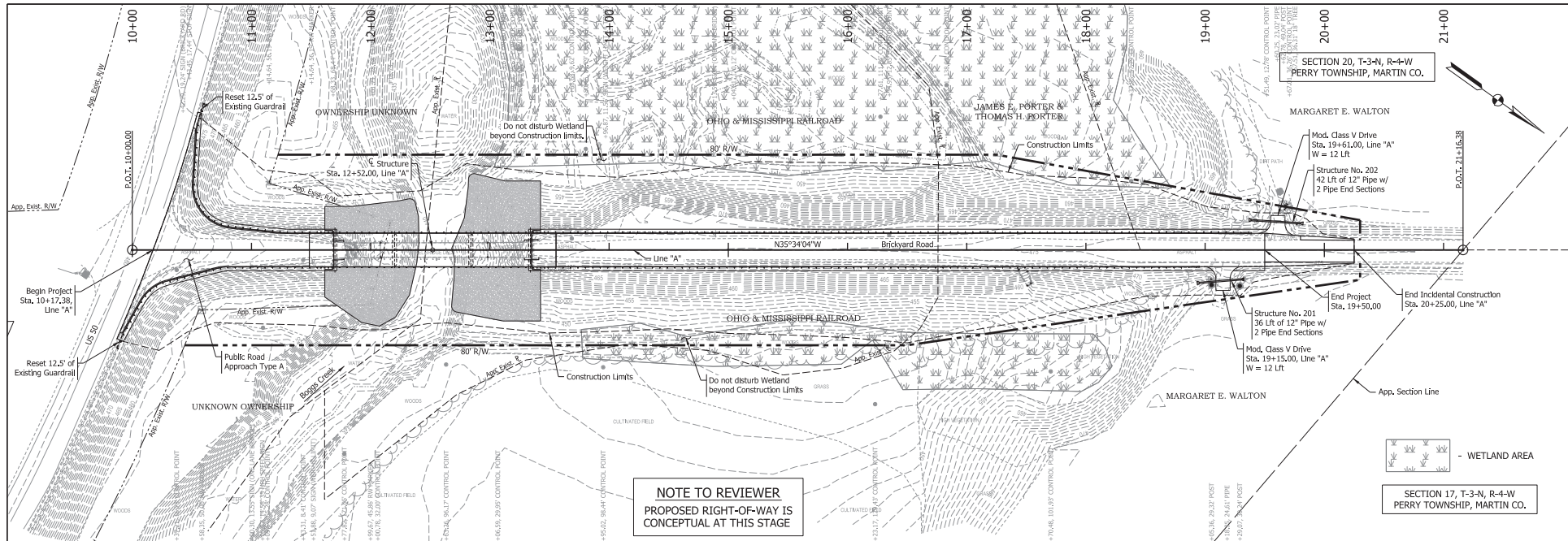
RECOMMENDED FOR APPROVAL	DESIGN ENGINEER	DATE
DESIGNED BY: AJ	8/2021	DRAWN BY: AJ
CHECKED BY: DMH	8/2021	CHECKED BY: JL
		8/2021

INDIANA
DEPARTMENT OF TRANSPORTATION

MAINTENANCE OF TRAFFIC

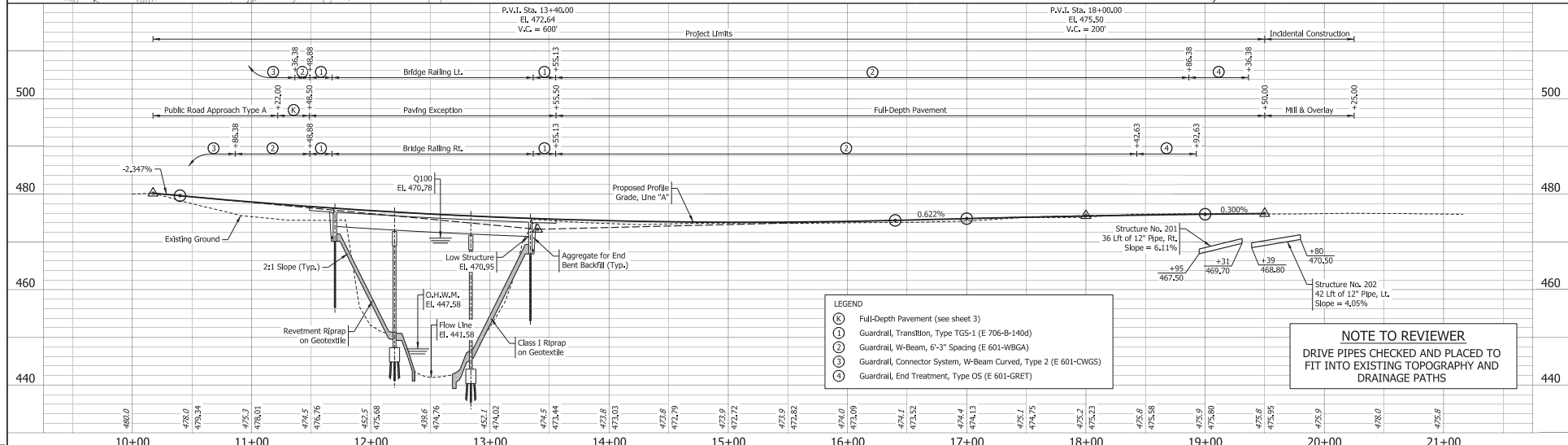
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AS NOTED	SI-00258
	DESIGNATION
	1902785
SURVEY BOOK	SHEETS
N/A	4 of 17
CONTRACT	PROJECT
B-43807	1902785

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NOTE TO REVIEWER
 PROPOSED RIGHT-OF-WAY IS
 CONCEPTUAL AT THIS STAGE

SECTION 17, T-3-N, R-4-W
 PERRY TOWNSHIP, MARTIN CO.



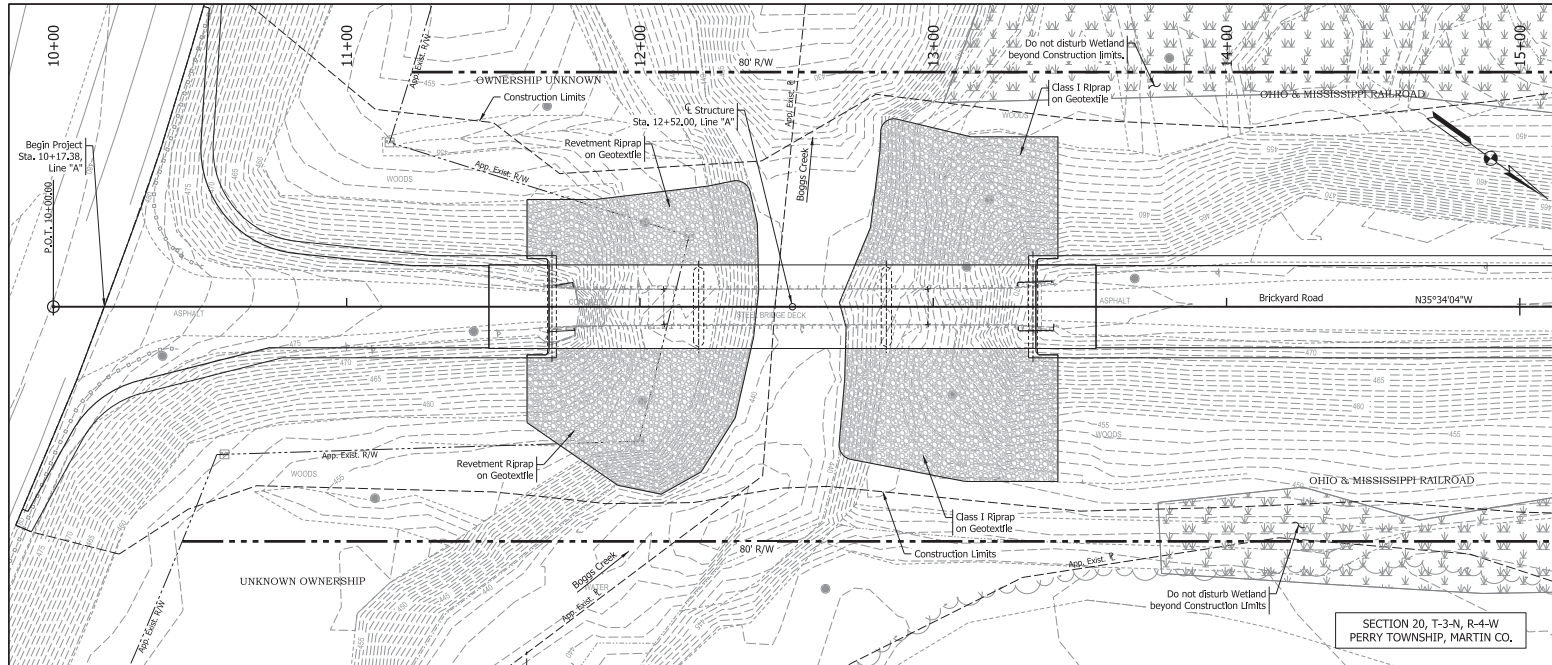
LEGEND

- ⊙ Full-Depth Pavement (see sheet 3)
- ① Guardrail, Transition, Type TGS-1 (E 706-B-140d)
- ② Guardrail, W-Beam, 6'-3" Spacing (E 601-WBGA)
- ③ Guardrail, Connector System, W-Beam Curved, Type 2 (E 601-CWGS)
- ④ Guardrail, End Treatment, Type 05 (E 601-GRET)

NOTE TO REVIEWER
 DRIVE PIPES CHECKED AND PLACED TO
 FIT INTO EXISTING TOPOGRAPHY AND
 DRAINAGE PATHS

<p>NOTE TO REVIEWER REFERENCE TIES AND BENCHMARK INFORMATION TO BE INCLUDED IN FUTURE SUBMISSION</p>		INDIANAPOLIS - TERRE HAUTE LAFAYETTE - MUNCIE - NEW ALBANY www.hwcengineering.com	STAGE 1 PLANS 8/2021	RECOMMENDED FOR APPROVAL _____	DESIGN ENGINEER _____ DATE _____	INDIANA DEPARTMENT OF TRANSPORTATION PLAN & PROFILE	HORIZONTAL SCALE 1" = 40'	BRIDGE FILE S1-00158
				DESIGNED BY: AJ 8/2021 DRAWN BY: AJ 8/2021	CHECKED BY: DMH 8/2021 CHECKED BY: JJ 8/2021		VERTICAL SCALE 1" = 10'	DESIGNATION 1902785
				SHEETS N/A 6 of 17				PROJECT B-13867 1902785

PLOT: 9/17/2021 9:58:34 AM
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EXISTING STRUCTURE
 Existing Structure is a 150.4 ft. 3-span Bridge consisting of Stone Arch approach spans and a Steel Warren deck truss in the center span with a Clear Roadway width of 11.7 ft. Existing Structure to be removed.

HYDRAULIC DATA

Drainage Area Upstream	86.00	sq mi
Q100 Discharge Upstream	10100	cfs
Q500 Discharge Upstream	13200	cfs
Proposed Q100 Headwater Elevation	470.75	ft
Existing Q100 Headwater Elevation	471.30	ft
Proposed Q100 Elevation	470.78	ft
Existing Q100 Elevation	470.78	ft
Proposed Q100 Backwater	0.11	ft
Existing Q100 Backwater	0.66	ft
Proposed Gross Waterway Area Opening Below Q100	3587.96	sq ft
Existing Gross Waterway Area Opening Below Q100	1627.95	sq ft
Proposed Q100 Average Velocity	3.11	ft/sec
Existing Q100 Average Velocity	3.10	ft/sec
Proposed Q100 Road Overflow Area	0.00	sq ft
Existing Q100 Road Overflow Area	0.00	sq ft
Proposed Low Structure Elevation	470.95	ft
Existing Low Structure Elevation	460.37	ft
Proposed Skew to Flowline of Waterway	0	deg
Existing Skew to Flowline of Waterway	0	deg

HYDRAULIC SCOUR DATA

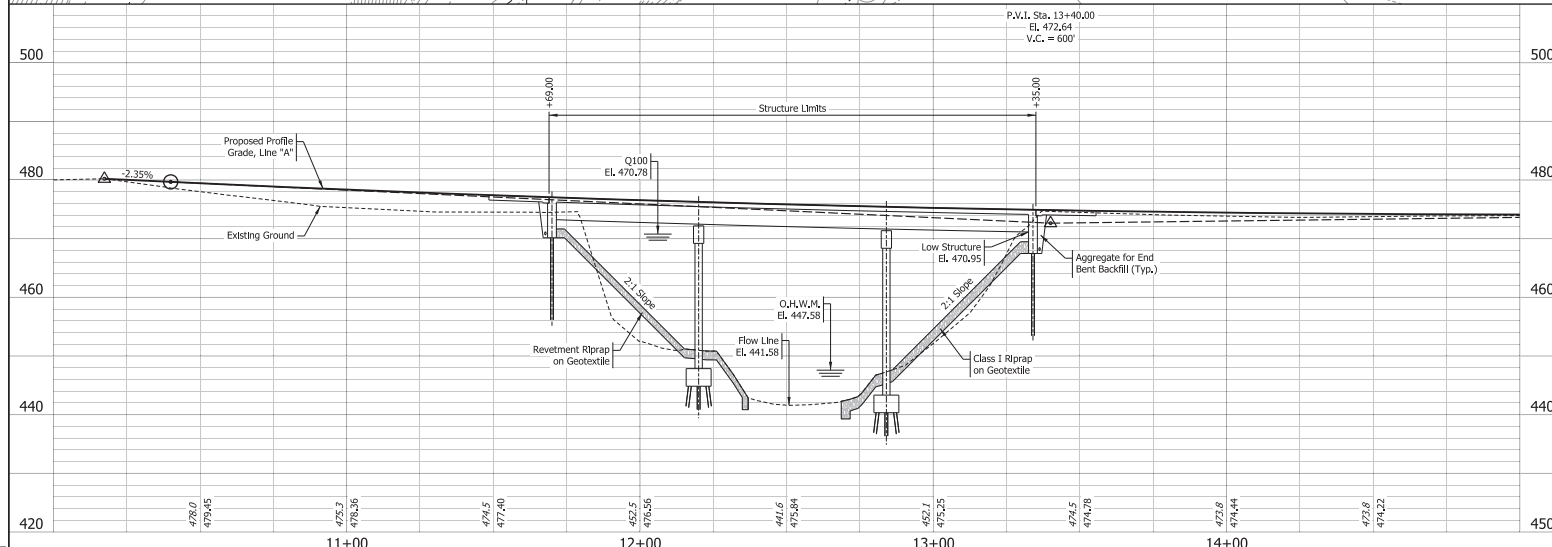
	Q100	Q500
Discharge	10100 cfs	13200 cfs
Elevation	470.78 ft	473.06 ft
Contraction Scour Depth	7.38 ft	10.61 ft
Pier Scour Depth	5.53 ft	6.01 ft
Total Scour Depth	12.91 ft	16.62 ft
Flow Line Elevation	441.58 ft	441.58 ft
Low Scour Elevation	428.67 ft	424.96 ft
Maximum Velocity	4.60 ft/sec	5.56 ft/sec
D50 (Assumed)	0.01 mm	0.01 mm

EARTHWORK TABULATION

Fill + 20%	XXXX	Cys
Common Excavation	XXXX	Cys
Usable Waterway Excavation (70%)	XXXX	Cys
Surplus/Waste	XXXX	Cys
Wet Excavation	XXXX	Cys
Waterway Excavation	XXXX	Cys
Foundation Excavation Unclassified	XXXX	Cys
Benching (Estimated)	XXXX	Cys

NOTE TO REVIEWER
 DEPTHS OF PIER FOUNDATIONS, PILES, AND GEOTEXTILE TYPES TO BE DETERMINED UPON GEOTECH INVESTIGATION

CONTINUOUS COMPOSITE PRESTRESSED CONCRETE 36" x 49" BULB-TEE BEAM BRIDGE
 3 SPANS: 50'-0", 64'-0", 50'-0"
 28'-0" CLEAR ROADWAY; NO SKEW
 BRICKYARD ROAD OVER BOGGS CREEK
 MARTIN COUNTY, IN



478.0	479.45	475.7	478.36	474.5	477.40	474.5	476.56	441.6	475.84	452.7	475.25	474.5	474.78	473.8	474.44	473.8	474.22
11+00		12+00		13+00		14+00											

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STAGE 1 PLANS 8/2021

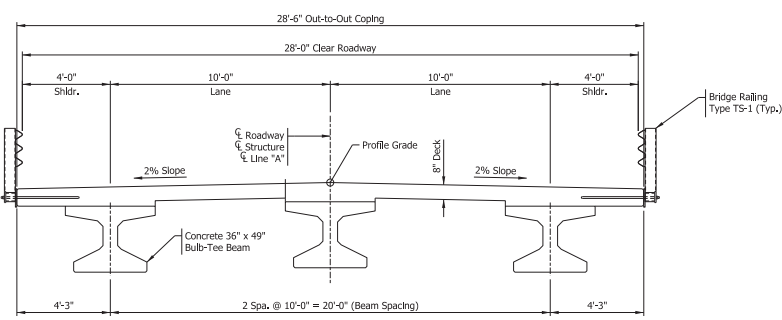
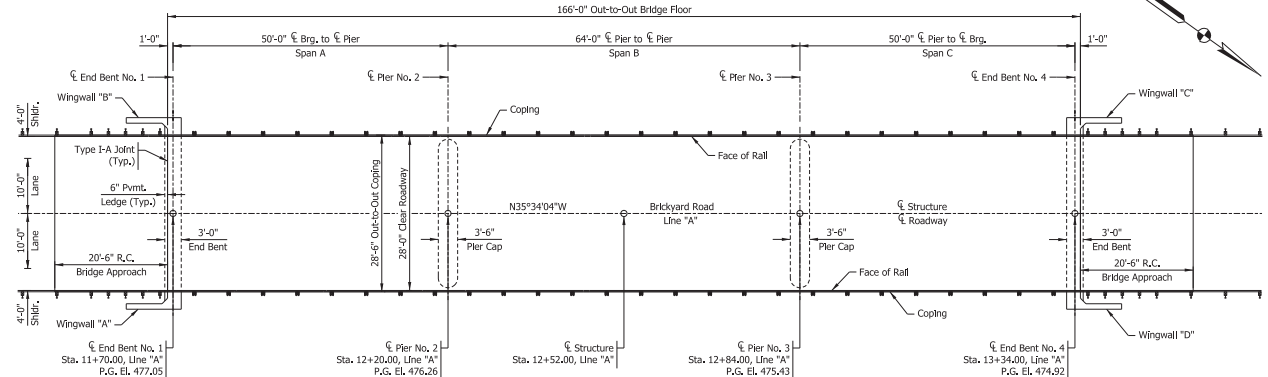
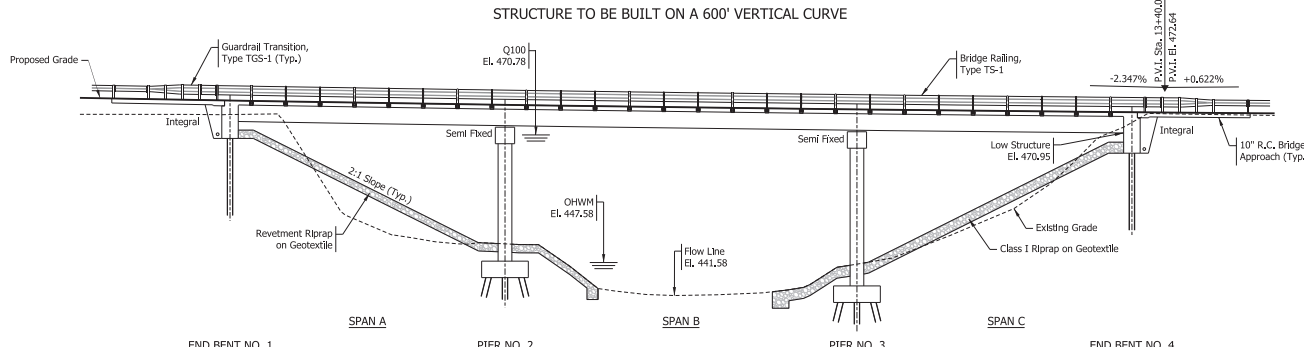
DESIGNED BY: AJ	8/2021	DRAWN BY: AJ	8/2021
CHECKED BY: DMH	8/2021	CHECKED BY: JJ	8/2021

INDIANA DEPARTMENT OF TRANSPORTATION
 LAYOUT

HORIZONTAL SCALE	BRIDGE FILE
1" = 20'	S1-00258
VERTICAL SCALE	DESIGNATION
1" = 5'	1902785
SURVEY BOOK	SHEETS
N/A	7 of 17
CONTRACT	PROJECT
B-43867	1902785

PL011-9/17/2021 - 9:55:21 AM

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NOTE TO REVIEWER
USE OF A 3 BEAM SYSTEM AND TS-1 RAILING DOCUMENTATION INCLUDED IN DgnComps File.

GENERAL NOTES

Reinforcing steel cover shall be $2\frac{1}{2}''$ in top and $1''$ minimum in bottom of floor slab, $3''$ in footings, except bottom steel which shall be $4''$, and $2''$ in all other parts unless noted otherwise.

Chamfered edges shall be $1''$ unless noted otherwise.

Clean and Surface Seal concrete areas including Concrete Bridge Railings, Sidewalks, and exposed top and vertical portions of End Bents, Wingwalls and Piers. Concrete Bridge Deck and Approach Slabs do not require Surface Seal per INDOT Design Memo 21-12 and INDOT Standard Specification 702-R-691.

DESIGN DATA

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

DEAD LOAD
Actual weight plus 35 psf for future wearing surface.

FLOOR SLAB
Designed with a $7\frac{1}{2}''$ minimal structural depth plus $\frac{1}{2}''$ sacrificial wearing surface.

CONCRETE

Class C	$f_c = 4,000$ psi
Class B	$f_c = 3,000$ psi
Class A	$f_c = 3,500$ psi

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

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

DECK FALSEWORK LOADS
Designed for 15 psf for permanent metal stay-in-place deck forms, removable deck forms, and 2 ft. exterior walkway.

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

FINISHING MACHINE LOAD
4,500 lb distributed over 10 ft. along the coping.

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

SEISMIC PARAMETERS

Site Class	C
PGA	0.10
S_{DS}	0.13
Seismic Zone	1

CONTINUOUS COMPOSITE PRESTRESSED CONCRETE 36" x 49" BULB-TEE BEAM BRIDGE
3 SPANS: 50'-0", 64'-0", 50'-0"
28'-0" CLEAR ROADWAY; NO SKEW
BRICKYARD ROAD OVER BOGGS CREEK
MARTIN COUNTY, IN

PLOT: 8/17/2021 8:14:53 AM
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8/2021

RECOMMENDED FOR APPROVAL	DESIGN ENGINEER	DATE
DESIGNED: AJ	8/2021	DRAWN: AJ
CHECKED: DMH	8/2021	CHECKED: JJ

INDIANA DEPARTMENT OF TRANSPORTATION	
GENERAL PLAN	

SCALE	BRIDGE FILE
AS NOTED	SI-00258
	DESIGNATION
	1902785
SURVEY BOOK	SHEETS
N/A	8 of 17
CONTRACT	PROJECT
B-43867	1902785

APPENDIX C: Historic Bridge Alternatives Analysis Conclusions

Historic Bridge Alternatives Analysis

DESIGNATION NUMBER: 1902785

BRIDGE NUMBER: 51-00058

NBI NUMBER: 5100029



ROUTE IDENTIFICATION AND FEATURE CROSSED: Brickyard Road (aka Queen Street)
over Boggs Creek

PROJECT LOCATION: 0.04 miles North of US 50
COUNTY: Martin

PREPARED BY:

Jacob Isenburg, PE
HWC Engineering
135 N. Pennsylvania St., Suite 2800
Indianapolis, IN 46204
DATE: 1/29/2021

David M. Hagley, Jr., PE
HWC Engineering
135 N. Pennsylvania St., Suite 2800
Indianapolis, IN 46204

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



or limited vehicular access in a park setting. The relocation site would be selected in coordination with the staff of the State Historic Preservation Office, Martin County Commissioners, and Section 106 consulting parties.

Alternative F: Demolition of Existing Bridge & Build New Structure

This alternative is similar to Alternate E, in that it would attempt to find a project sponsor to come forward and assume responsibility for relocation and rehabilitation of the existing structure, as in Alternate E. However, if no project sponsor is found, the bridge would be demolished and removed, and a new bridge constructed. The new structure would be the same as in Alternate E.

The estimated cost of construction in year 2025 (adjusted for inflation) is \$1,493,000, right-of-way cost of \$30,900; and wetland mitigation cost of \$71,000. The estimated total cost of this alternate is \$1,594,900.

V. Minimization and Mitigation

A Section 4(f) analysis for historic properties must explore possible efforts to minimize and mitigate unavoidable impacts. A discussion of minimization and mitigation efforts for the preliminary preferred alternative is provided below:

A. Minimization

All project build alternatives have been developed to minimize the amount of right-of-way, tree clearing, and impacts to Boggs Creek. The analysis of the various proposed build alternatives was also developed in a manner to minimize impacts to the existing bridge, but also meet the project goals.

B. Bridge Marketing

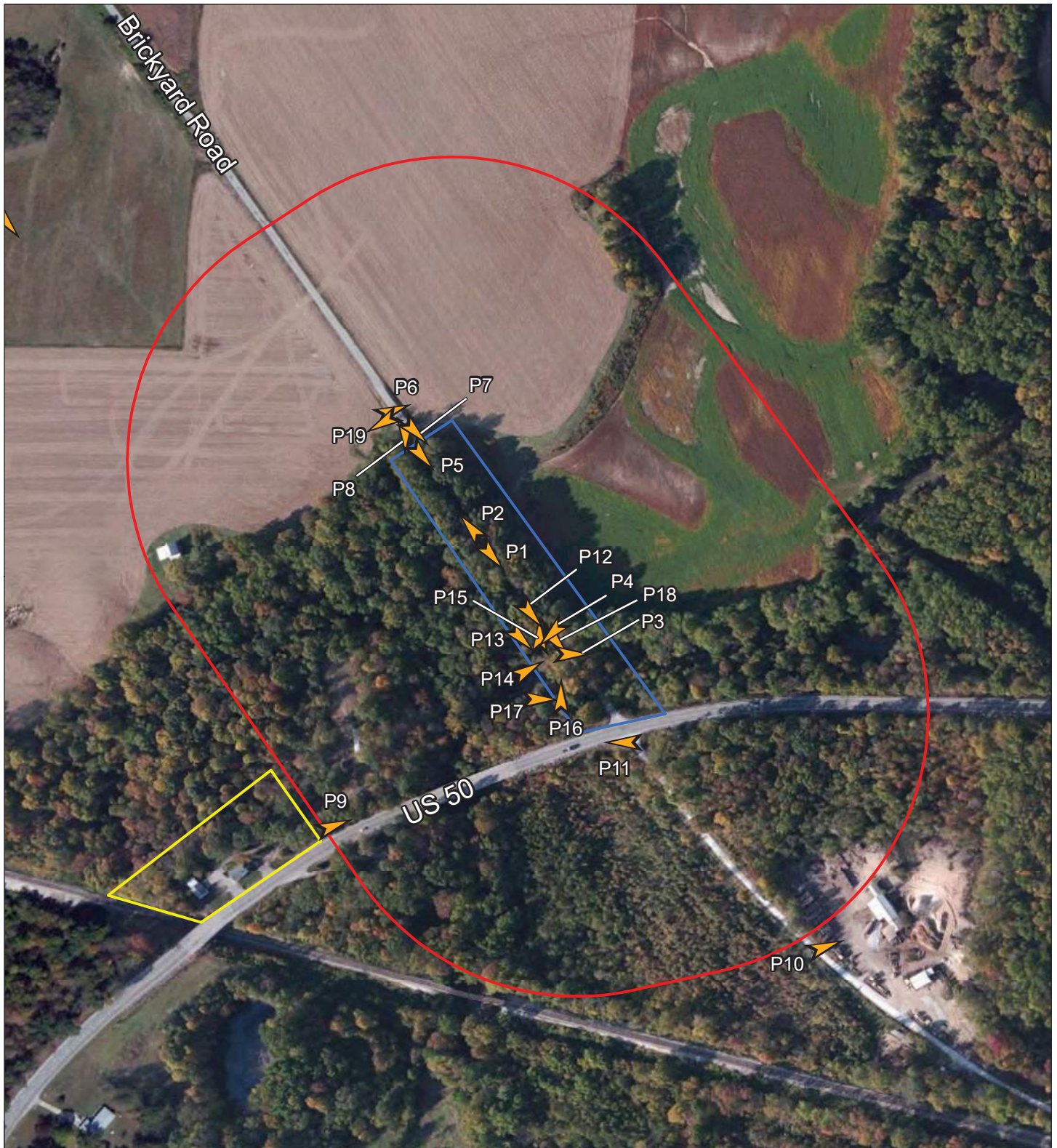
Marketing will be undertaken according to Section II.B.2 of the Historic Bridge PA. Marketing efforts will include INDOT's marketing website, public notices, and signs at each approach to the bridge.

C. Mitigation

Martin County would consult with SHPO regarding photo documentation, if required per the Historic Bridge PA.

VI. Preliminary Preferred Alternative

The preliminary preferred alternative is Alternative E or F, the Relocation and/or Replacement of Existing Structure for Continued Vehicular, in that each are feasible and prudent options while satisfying the purpose & need. The bridge can be relocated if a sponsor is found.



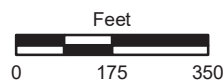
- Proposed APE ➤ Photograph Location
- Project Area □ Shady Nook Motel / IHSSI 101-367-05035

Figure 1. Project area and APE on an aerial photograph
 Replacement of Bridge #58
 Brickyard Road (CR 13) over Boggs Creek
 Perry Township, Martin County, Indiana
 Des. No.1902785
 Metric Project No.20-0077
 Map Date: 03/22/2021

All Locations Approximate
 2013 Basemap
 Service Layer Credits: Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community



1 inch = 350 feet



Project Site Photographs



Photo 1. View along Brickyard Road taken from the northern side of Boggs Creek and showing Martin County Bridge No. 58, facing southeast



Photo 2. View along Brickyard Road taken from the northern side of Boggs Creek, facing northwest



Photo 3. View from Martin Bridge No. 58, facing east

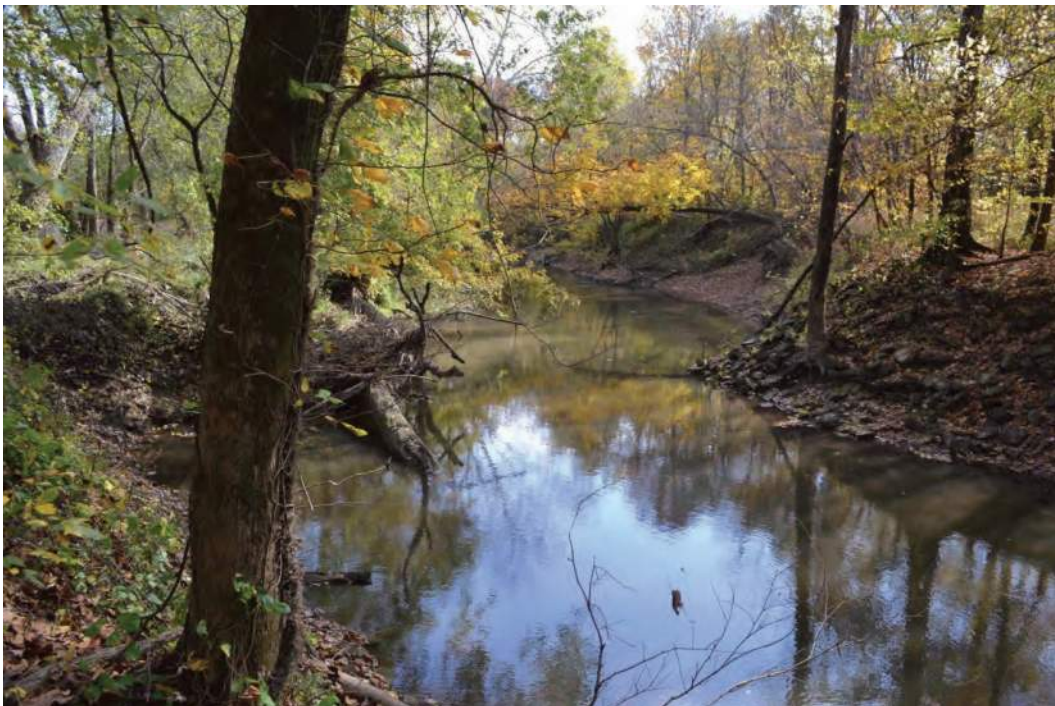


Photo 4. View from Martin Bridge No. 58, facing southwest



Photo 5. View towards Martin County Bridge 58 taken from Brickyard Road at the northern edge of the wooded area, facing southeast



Photo 6. View showing agricultural fields in northern portion of the proposed APE from Brickyard Road, facing east-northeast



Photo 7. Wooded area east of Brickyard Road and north of Boggs Creek, facing southeast

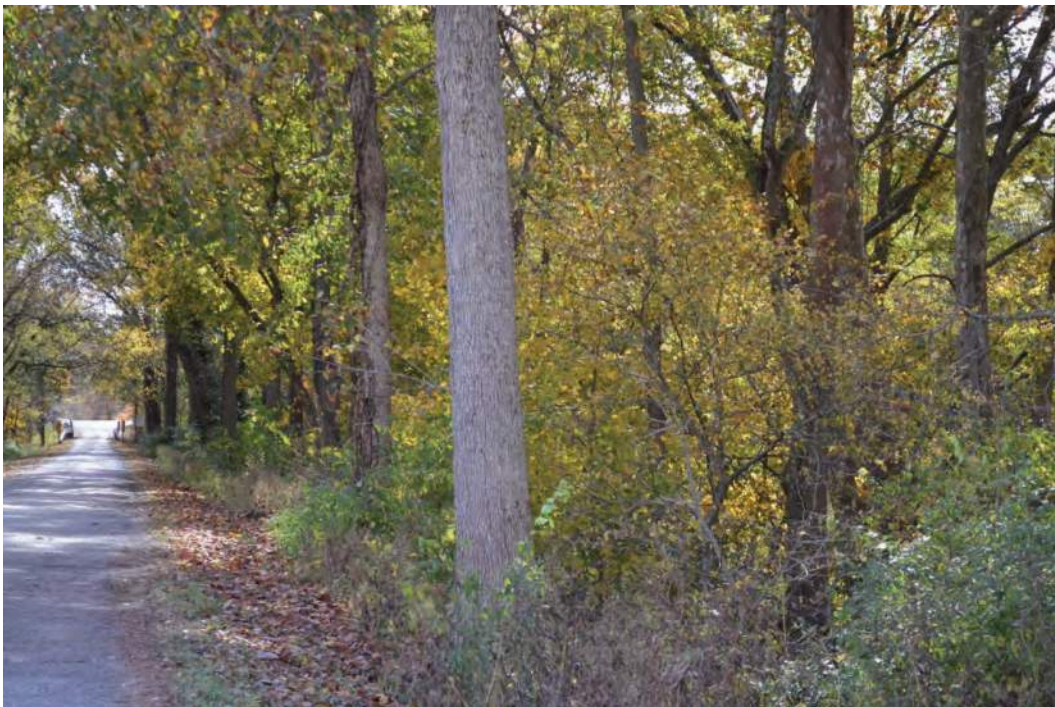


Photo 8. Wooded area west of Brickyard Road and north of Boggs Creek, facing south



Photo 9. View east taken at the limits of the proposed APE and showing the US Highway 50 bridge over Boggs Creek (NBI No. 018380), facing east



Photo 10. Metal corrugated storage buildings at 2439 Isaacs Road, facing east-northeast

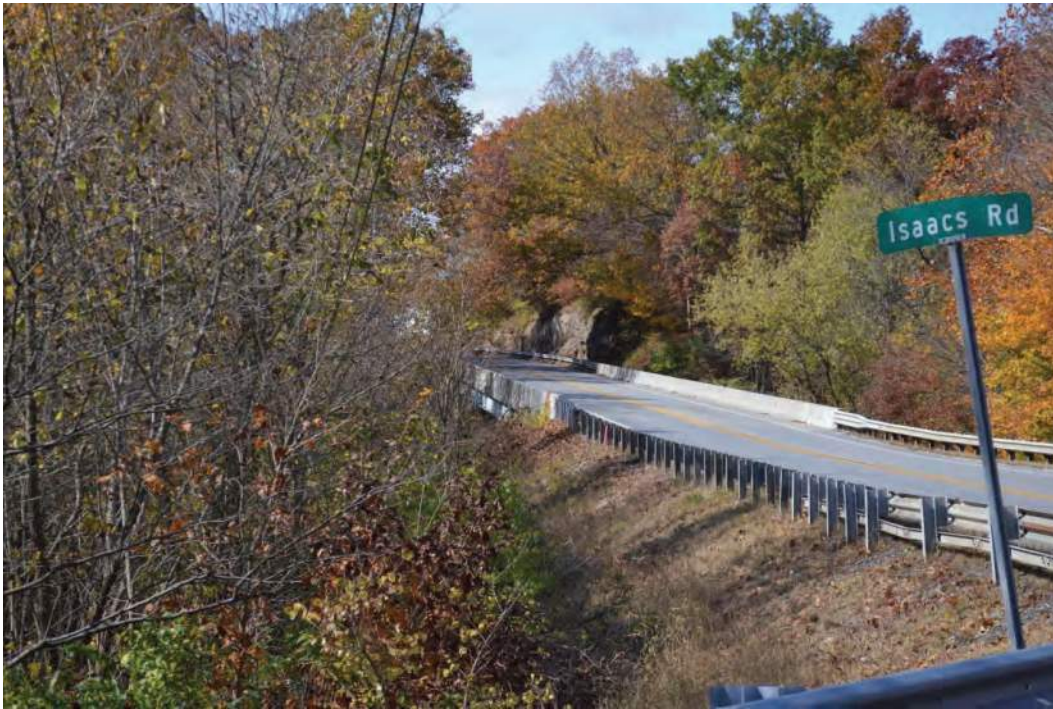


Photo 11. View along US Highway 50 from Isaacs Road, facing west



Photo 12. Martin County Bridge No. 58, facing southeast

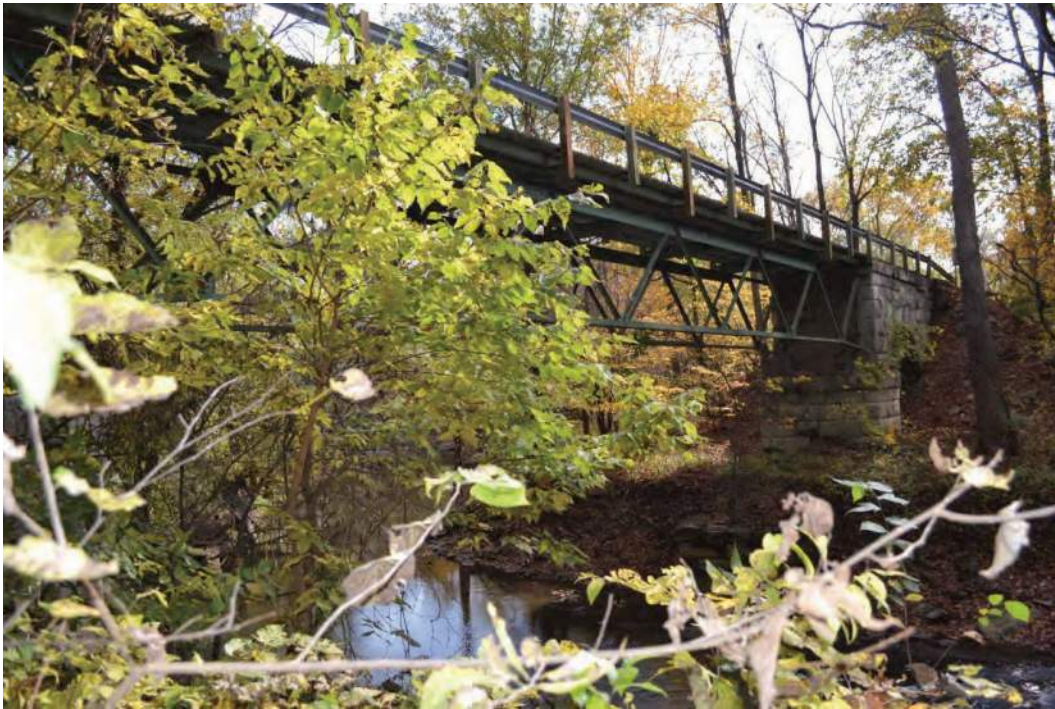


Photo 13. Martin County Bridge No. 58, facing southeast



Photo 14. Martin County Bridge No. 58, facing northeast



Photo 15. Martin County Bridge No. 58, facing north and up



Photo 16. Martin County Bridge No. 58, northern footer, facing north



Photo 17. Martin County Bridge No. 58, detail of southern footer, facing east

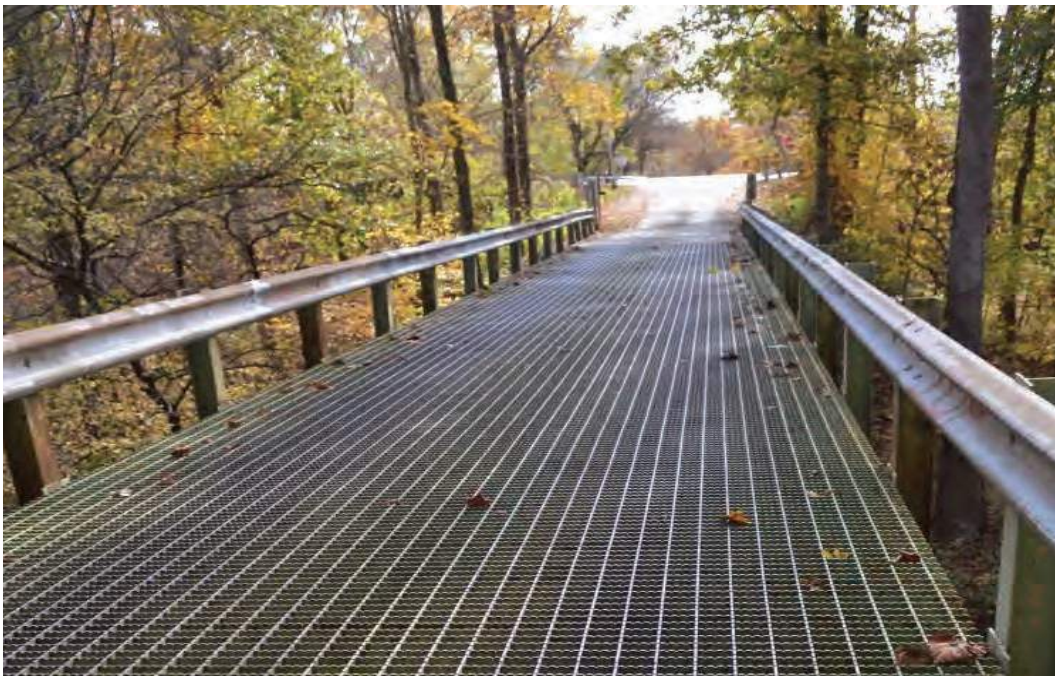


Photo 18. Martin County Bridge No. 58, facing southeast



Photo 19. View showing small c.1940 barn and agricultural fields west of Brickyard Road, facing southwest

APPENDIX E: Historic Properties Short Report Management Summary and Conclusions

HISTORIC PROPERTY SHORT REPORT

MARTIN COUNTY BRIDGE NO. 58 (NBI NO. 5100029) CARRYING
BRICKYARD ROAD (CR 13) OVER BOGGS CREEK PROJECT
DES: 1902785
PERRY TOWNSHIP, MARTIN COUNTY, INDIANA

PREPARED FOR:

HWC Engineering
135 N. Pennsylvania, Suite 2800
Indianapolis, Indiana 46204

LEAD AGENCY:

FEDERAL HIGHWAY ADMINISTRATION

Prepared by:

Karen Garrard, Ph.D.



Complex Environment. Creative Solutions.

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Indianapolis, IN 46256
Telephone: 317.400.1633
www.metricenv.com

Candace Hudziak

Candace Hudziak, M.A.

Architectural Principal Investigator
candaceh@metricenv.com

May 20, 2021

MANAGEMENT SUMMARY

This report documents the identification and evaluation efforts for properties included in the proposed Area of Potential Effects (APE) for the Martin County Bridge No. 58 (NBI No. 5100029) carrying Brickyard Road (County Road 13) over Boggs Creek project in Perry Township, Martin County, Indiana. Above-ground resources located within the proposed APE were identified and evaluated in accordance with Section 106, National Historic Preservation Act (NHPA) of 1966, as amended, and the regulations implementing Section 106 (36 CFR Part 800).

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

An APE for the project has been proposed for the purpose of this undertaking that encompasses a 0.125-mile radius from Martin County Bridge No. 58.

One NRHP-eligible resource is situated within the proposed APE, Martin County Bridge No. 58, which was determined eligible for the NRHP per the Indiana Historic Bridge Inventory. The bridge is eligible under Criterion C because it represents an early or distinctive phase in bridge construction, design, or engineering, and it retains historic integrity necessary to convey its engineering significance. The classification of bridges into “Select” or “Non-Select” as part of the “Programmatic Agreement Regarding Management and Preservation of Indiana’s Historic Bridges” (Historic Bridges PA) also resulted in the determination that Martin Bridge No. 58 is a “Non-Select” bridge because it was not considered an excellent example and/or it is not suitable for preservation.

There are no other resources listed in, or eligible for listing in, the NRHP nor the Indiana Register of Historic Sites and Structures within the proposed APE of this project.

Because Martin County Bridge 58 is a “Non-Select” bridge, the FHWA is satisfying its Section 106 responsibilities following the procedures outlined in Stipulation III.B of the Historic Bridges PA. Per Stipulation III.B., a Historic Bridge Alternatives Analysis was completed March 1, 2021, and received Division of Historic Preservation and Archaeology concurrence April 1, 2021; the document is located for viewing in IN SCOPE at <http://erms.indot.in.gov/Section106Documents/>.

CONCLUSIONS

One NRHP-eligible resource is situated within the proposed APE: Martin County Bridge No. 58, which was determined eligible for the NRHP per the 2010 Indiana Historic Bridge Inventory. The bridge is eligible under Criterion C for its representation of an early or distinctive phase in bridge construction, design, or engineering, and it retains historic integrity necessary to convey its engineering significance. The classification of bridges into “Select” or “Non-Select,” as part of the Historic Bridges PA, also resulted in the determination of Martin County Bridge No. 58 as a “Non-Select” bridge because it is not considered an excellent example of its type and/or it is not suitable for preservation.

There are no other resources listed in or eligible for listing in the NRHP nor in the Indiana Register of Historic Sites and Structures within the proposed APE of this project.

Because Martin County Bridge 58 is a “Non-Select” bridge, the FHWA is satisfying its Section 106 responsibilities following the procedures outlined in Stipulation III.B of the Historic Bridges PA. Per Stipulation III.B., a Historic Bridge Alternatives Analysis was completed March 1, 2021 and received DHPA concurrence April 1, 2021; the document is located in IN SCOPE at <http://erms.indot.in.gov/Section106Documents/>.

APPENDIX F: Archaeology Short Report Recommendations

ARCHAEOLOGICAL SHORT REPORT

PHASE IA ARCHEAOLOGICAL SURVEY FOR THE MARTIN COUNTY
BRIDGE NO. 58 (NBI NO. 5100029) CARRYING BRICKYARD ROAD
(CR 13) OVER BOGGS CREEK PROJECT, DES. NO. 1902785,
PERRY TOWNSHIP, MARTIN COUNTY, INDIANA

PREPARED FOR:

HWC ENGINEERING
135 N. PENNSYLVANIA, SUITE 2800
INDIANAPOLIS, INDIANA 46204

LEAD AGENCY:

FEDERAL HIGHWAY ADMINISTRATION

Prepared by:

Megan Copenhaver and Sydney Heidenreich



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A handwritten signature in black ink that reads "Samuel P. Snell".

Samuel P. Snell, MS, RPA
Archaeological Principal Investigator

sams@metricenv.com

June 1, 2021

underlain by a dark yellowish brown (10YR4/6) slightly mottled with light yellowish brown (10YR6/4) clay subsoil. STP 3 filled with water and could not be completed. The agricultural field in the northernmost portion of Area 2 was pedestrian surveyed at 5 m (16.4 ft) intervals and had a surface visibility of 30 to 50 percent.

Area 3 was located south of Boggs Creek and west of Brickyard Road and consisted of steep road grade slope, a large drainage ditch, wooded areas, modern dumping, and the bed and bank of Boggs Creek (Figures 13 and 14). No STPs were attempted in this area.

Area 4 was located south of Boggs Creek and east of Brickyard Road and consisted of steep road grade slope, wooded areas, and the bed and bank of Boggs Creek (Figures 13 and 15). Two negative STPs were excavated along a single transect in this area. These STPs displayed similar soil profiles of a dark grayish brown (10YR4/2) extending 19-23 cm (7.5-9.1 in) below ground surface and underlain by a dark yellowish brown (10YR4/5) slightly mottled with light yellowish brown (10YR6/4) clay subsoil.

No significant archaeological resources were identified as a result of this investigation. In addition, despite the project's floodplain setting, it is anticipated that only minor impacts will occur to intact soils other than within the footprint of proposed bridge components. If any buried cultural surfaces are present, there is a very low probability that potential impacts would occur. No further archaeological work is recommended for the project.

RECOMMENDATIONS

Records check (*Check all that apply.*)

- No archaeological investigation is recommended before the project is allowed to proceed because the records check has determined that the project area does not have the potential to contain archaeological resources.
- A Phase Ia archaeological reconnaissance is recommended.
- A cemetery development plan may be required under Indiana Code 14-21-1-26.5 because project ground disturbance will be within 100 feet of a cemetery.

Phase Ia archaeological reconnaissance (*Check all that apply.*)

- It is recommended that the project be allowed to proceed as planned because the Phase Ia archaeological reconnaissance has located no archaeological sites within the project area and/or previously recorded sites that were investigated warrant no additional investigation.
- It is recommended that Phase Ic archaeological subsurface reconnaissance be conducted before the project is allowed to proceed. The Phase Ia archaeological reconnaissance has determined that the project area includes landforms which have the potential to contain buried archaeological deposits.

Other recommendations / commitments

In the unlikely event that archaeological deposits or human remains are encountered during the construction phase of the project, all work must cease within 30 m (100 ft) of the find and archaeologists from the Indiana Department of Historic Preservation and Archaeology and the Indiana Department of Transportation-Cultural Resources Office will be notified.

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

REQUIRED ATTACHMENTS

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

Other attachments

References cited (*See short report instructions for required references to be consulted.*)

Adams, William Richard

1946 Archaeology Survey of Martin County. (AR-51-00214). Indiana Historical Bureau, Indianapolis, IN.

Baltz, Christopher J. and Cheryl Ann Munson

1989 Archaeological Site Data Base Enhancement III, Coalfields of Southwestern Indiana: Clay, Daviess, Dubois, Gibson, Greene, Knox, Martin, Pike, Spencer, Sullivan, and Warrick Counties, Also Crawford, Lawrence, Posey, and Vanderburgh Counties. (AR-11-00518). Glenn A. Black Laboratory of Archaeology Indiana University, Bloomington, IN.

Brant and Fuller

1892 Plat Book of Martin County, Indiana. Brant and Fuller, Madison, WI.

Brine, Albert H., Randall L. Guendling, and John T. Dorwin



INDIANA DEPARTMENT OF TRANSPORTATION

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

PHONE: (317) 296-0799

Eric Holcomb, Governor
Joe McGuinness, Commissioner

November 19, 2020

This letter was sent to the listed parties.

RE: Martin County Bridge No. 58 Project
Perry Township, Martin County, Indiana
Des. No. 1902785/NBI No. 5100029

Dear Consulting Party (see attached list),

Martin County, with funding from the Federal Highway Administration (FHWA) and administrative oversight from the Indiana Department of Transportation (INDOT), proposes to proceed with a project for Martin County Bridge No. 58 carrying Brickyard Road over Boggs Creek (Des. No. 1902785). Metric Environmental, LLC. is under contract with HWC Engineering, on behalf of Martin County, to advance the environmental documentation for the referenced project.

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

The proposed undertaking is on Brickyard Road over Boggs Creek east of the city of Loogootee in Martin County, Indiana. It is within Perry Township, Loogootee USGS Topographic Quadrangle, Section 20, Township 3N, Range 4W.

Martin County Bridge No. 58 (NBI No. 5100029) is a three-span structure consisting of stone arch approach spans and a steel Warren deck truss in the middle span that carries Brickyard Road over Boggs Creek. The bridge was constructed in 1848 and reconstructed after a severe flood in 1913 destroyed most of the bridge. In 1996 a new open grid metal deck and railings were installed, and abutment repairs were made. In 2018 the stone masonry arches were patched with a thin layer of concrete. The bridge length is 150.4 ft. long with a roadway width of 11.7 ft. The bridge is supported on stone abutments and stone piers. The structure is eligible for the National Register of Historic Places, but it is classified as a "Non-Select" bridge in the 2010 *Indiana Historic Bridge Inventory*.

The purpose of the project is to provide a crossing over Boggs Creek that meets current load bearing and safety standards, including railings. The need for this project is due to the deteriorated condition and load capacity of the existing structure. Data used to substantiate this need comes from a 2018 bridge inspection report that identified structural deficiencies of the existing bridge. The report noted minor section loss and corrosion in the trusses, section loss and deteriorated stone, and cracked concrete facing in areas of previous patching repairs. Safety concerns, such as steep bank slopes, a load limit below legal requirements, bridge railing that does not meet current standards, and its

narrow deck width that allows for a single vehicular lane, were also documented. Due to its inadequate lane width for current traffic demands the bridge is considered functionally obsolete. The bridge report rated the deck's condition as satisfactory and the superstructure and substructures' conditions as fair, and gives the structure an overall sufficiency rating of 44.1 out of a possible score of 100.

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

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

Per the terms of the "Programmatic Agreement Regarding Management and Preservation of Indiana's Historic Bridges" (Historic Bridges PA), the FHWA-Indiana Division will satisfy its Section 106 responsibilities involving "Select" and "Non-Select" bridges through the Project Development Process (PDP) of the Historic Bridges PA (Stipulation III). Because Martin County Bridge No. 58 is a "Non-Select" bridge, the procedures outlined in Stipulation III.B. of the Historic Bridges PA will be followed to fulfill FHWA's Section 106 responsibilities for the project. (A copy of the Historic Bridges PA can be downloaded here: <http://www.in.gov/indot/2530.htm>).

The Area of Potential Effects (APE) is the area in which the proposed project may cause alterations in the character or use of historic resources. At this time, no cultural resource investigations have occurred; however, the results of cultural resource identification and evaluation efforts, both above-ground and archaeological, will be forthcoming. Consulting parties will receive notification when these reports are completed.

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

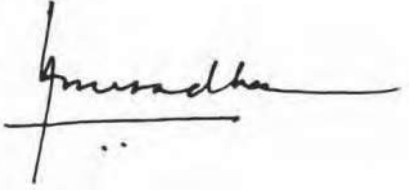
For questions concerning specific project details, you may contact Candy Hudziak of Metric Environmental, LLC. at 317.443.4123 or candaceh@metricenv.com. All future responses regarding the proposed project should be forwarded to Metric Environmental, LLC at the following address:

Candy Hudziak
Architectural Historian
Metric Environmental, LLC.
6971 Hillside Court

Indianapolis, Indiana 46250
candaceh@metricenv.com

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

Sincerely,

A handwritten signature in black ink, appearing to read "Anuradha", with a horizontal line underneath and a vertical line extending downwards from the start of the signature.

Anuradha V. Kumar, Manager
Cultural Resources Office
Environmental Services

Enclosures:

Consulting Parties List
Project Location Maps

Consulting Parties List:

State Historic Preservation Office
402 W Washington Street, W299
Indianapolis, IN 46204

Indiana Landmarks
Southern Regional Office
Laura Renwick, Community Preservation
Specialist
911 State St
New Albany, IN 47150
lrenwick@indianalandmarks.org

Martin County Highway Superintendent
Leo Padgett
10753 Sherfick School Rd
Shoals, IN 47581
lpadgett@martincounty.in.gov

Martin County Genealogical Society
Lynda Smith
PO Box 45
Shoals, IN 47581
lsmith7@pop3.concentric.net

Martin County Historical Society
Bill Greene, President
PO Box 564
Shoals, IN 47581
historical@frontier.com

Martin County Historian
Nancy Baker
409 Capital Ave.
Shoals, IN 47581
njb2@outlook.com

Martin County Commissioners
PO Box 600
Shoals, IN 47581

- Paul George
Martin County Commissioner
pgeorge@martincounty.in.gov
- Dan Gregory
Martin County Commissioner
Dgregory60@frontier.com
- Kevin Boyd
Martin County Commissioner
kevinbyd@frontier.com

Dr. Jim Cooper
629 E Seminary Street
Greencastle, IN 46135
jlcooper@ccrtc.com

Historic Spans Task Force
5868 Croton Circle
Indianapolis, IN 46254
IndianaBridges@sbcglobal.net

Historic Bridge Foundation
Kitty Henderson
PO Box 66245
Austin, TX 78766
kitty@historicbridgefoundation.com

Historicbridges.org
Nathan Holth
2767 Eastway Drive
Okemos, MI 48864
nathan@historicbridges.org

Hoosier Historic Bridges
Tony Dillon
208 N 17th Street
New Castle, IN 47362
spansaver@hotmail.com

Tribal List:

Eastern Shawnee Tribe of Oklahoma
Miami Tribe of Oklahoma
Peoria Tribe of Indians Oklahoma
Pokagon Band of Potawatomi
Indians Shawnee Tribe
Delaware Tribe of Indians, Oklahoma

From: [Kennedy, Mary](#)
To: thpo@estoo.net; [Diane Hunter](#); "jpappenfort@peoriatribe.com"; "Matthew.Bussler@pokagonband-nsn.gov"; tonya@shawnee-tribe.com; lheady@delawaretribe.org
Cc: [Allen, Michelle \(FHWA\)](#); [Miller, Shaun \(INDOT\)](#); [Candace Hudziak](#)
Subject: FHWA Project: Martin County Bridge No. 58 Project, Perry Township, Martin County, Indiana (Des. No. 1902785)-ECL
Date: Thursday, November 19, 2020 9:40:59 AM
Attachments: [image006.png](#)
[image007.png](#)
[image012.png](#)
[image001.png](#)
[MartinCoBridge58_Des1902785_ECL_2020-11-19.pdf](#)

External Message: *This message originated outside of Metric Environmental.
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Des. No.: 1902785
Project Description: Bridge Project
Location: Martin County Bridge No. 58 carrying Brickyard Road over Boggs Creek, Perry Township, Martin County, Indiana

Martin County, with funding from the Federal Highway Administration and administrative oversight from the Indiana Department of Transportation (INDOT), proposes to proceed with the Martin County Bridge No. 58 Project (Des. No. 1902785).

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

IN State Historic Preservation Officer
402 W Washington Street, Room W274
Indianapolis, IN 46204

Indiana Landmarks
Southern Regional Office
Laura Renwick, Community Preservation Specialist
911 State St
New Albany, IN 47150
lrenwick@indianalandmarks.org

-
Martin County Highway Superintendent
Leo Padgett
10753 Sherfick School Rd
Shoals, IN 47581
lpadgett@martincounty.in.gov

Martin County Genealogical Society
Lynda Smith
PO Box 45
Shoals, IN 47581
Ljsmith7@pop3.concentric.net

Martin County Historical Society
Bill Greene, President
PO Box 564
Shoals, IN 47581
historical@frontier.com

Martin County Historian
Nancy Baker
409 Capital Ave.

Shoals, IN 47581
njb2@outlook.com

Martin County Commissioners
PO Box 600
Shoals, IN 47581

- Paul George
Martin County Commissioner
pgeorge@martincounty.in.gov

- Dan Gregory
Martin County Commissioner
Dgregory60@frontier.com

- Kevin Boyd
Martin County Commissioner
kevinbyd@frontier.com

Dr. Jim Cooper
629 E Seminary Street
Greencastle, IN 46135
jlcooper@ccrtc.com

Historic Spans Task Force
5868 Croton Circle
Indianapolis, IN 46254
IndianaBridges@sbcglobal.net

Historic Bridge Foundation
Kitty Henderson
PO Box 66245
Austin, TX 78766
kitty@historicbridgefoundation.com

Historicbridges.org
Nathan Holth
2767 Eastway Drive
Okemos, MI 48864
nathan@historicbridges.org

Hoosier Historic Bridges
Tony Dillon
208 N 17th Street
New Castle, IN 47362
spansaver@hotmail.com

-
Tribal List:

Eastern Shawnee Tribe of Oklahoma
Miami Tribe of Oklahoma
Peoria Tribe of Indians Oklahoma
Pokagon Band of Potawatomi Indians
Shawnee Tribe
Delaware Tribe of Indians, Oklahoma

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

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

Consulting parties have thirty (30) calendar days from receipt of this information to review and provide comment. Tribal consulting parties may enter the process at any time and are encouraged to respond to this notification with any comments or concerns at their earliest convenience. Tribal contacts may contact Shaun Miller at smiller@indot.in.gov or

317-233-6795 or Michelle Allen at FHWA at michelle.allen@dot.gov or 317-226-7344.

Thank you in advance for your input,

Mary E. Kennedy

Historic Bridge Specialist

100 N. Senate Ave., Room N758-ES
Indianapolis, IN 46204

Email: mkennedy@indot.in.gov

Cell: 317-694-3607*

*Please note new phone number!



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

From: [Candace Hudziak](#)
To: [Slider, Chad \(DNR; Irenwick@indianalandmarks.org; lpadgett@martincounty.in.gov; Ljsmith7@pop3concentric.net; historical@frontier.com; njb2@outlook.com; pgeorge@martincounty.in.gov; dgregory60@frontier.com; kevinbyd@frontier.com; jlcooper@crtc.com; indianabridges@sbcglobal.net; kitty@historicbridgefoundation.com; nathan@historicbridges.org; spansaver@hotmail.com](#)
Cc: [Branigin, Susan; Kennedy, Mary; Miller, Shaun \(INDOT; Kumar, Anuradha; Luella Beth Hillen; Sam Snell](#)
Subject: FHWA Project: Martin County Bridge No. 58 Project, Perry Township, Martin County, Indiana (Des. No. 1902785)
Date: Thursday, November 19, 2020 9:32:00 AM
Attachments: [image001.png](#)
[image002.png](#)
[image003.png](#)
[image004.png](#)
[image005.png](#)
[MartinCoBridge58_Des1902785_ECL_2020-11-19.pdf](#)

Des. No.: 1902785

Project Description: Bridge Project

Location: Martin County Bridge No. 58 carrying Brickyard Road over Boggs Creek, Perry Township, Martin County, Indiana

Martin County, with funding from the Federal Highway Administration and administrative oversight from the Indiana Department of Transportation (INDOT), proposes to proceed with the Martin County Bridge No. 58 Project (Des. No. 1902785).

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

IN State Historic Preservation Officer
402 W Washington Street, Room W274
Indianapolis, IN 46204

Indiana Landmarks
Southern Regional Office
Laura Renwick, Community Preservation Specialist
911 State St
New Albany, IN 47150
Irenwick@indianalandmarks.org

Martin County Highway Superintendent
Leo Padgett
10753 Sherfick School Rd
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lpadgett@martincounty.in.gov

Martin County Genealogical Society
Lynda Smith
PO Box 45
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Ljsmith7@pop3.concentric.net

Martin County Historical Society
Bill Greene, President

PO Box 564
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historical@frontier.com

Martin County Historian

Nancy Baker

409 Capital Ave.

Shoals, IN 47581

njb2@outlook.com

Martin County Commissioners
PO Box 600
Shoals, IN 47581

- Paul George
Martin County Commissioner
pgeorge@martincounty.in.gov

- Dan Gregory
Martin County Commissioner
Dgregory60@frontier.com

- Kevin Boyd
Martin County Commissioner
kevinbyd@frontier.com

Dr. Jim Cooper
629 E Seminary Street
Greencastle, IN 46135
jlcooper@ccrtc.com

Historic Spans Task Force
5868 Croton Circle
Indianapolis, IN 46254
IndianaBridges@sbcglobal.net

Historic Bridge Foundation
Kitty Henderson
PO Box 66245
Austin, TX 78766
kitty@historicbridgefoundation.com

Historicbridges.org
Nathan Holth
2767 Eastway Drive

Okemos, MI 48864
nathan@historicbridges.org

Hoosier Historic Bridges
Tony Dillon
208 N 17th Street
New Castle, IN 47362
spansaver@hotmail.com

Tribal List:

Eastern Shawnee Tribe of Oklahoma
Miami Tribe of Oklahoma
Peoria Tribe of Indians Oklahoma
Pokagon Band of Potawatomi Indians
Shawnee Tribe
Delaware Tribe of Indians, Oklahoma

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

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

Consulting parties have thirty (30) calendar days from receipt of this information to review and provide comment. Tribal consulting parties may enter the process at any time and are encouraged to respond to this notification with any comments or concerns at their earliest convenience. Tribal contacts may contact Shaun Miller at smiller@indot.in.gov or 317-233-6795 or Michelle Allen at FHWA at michelle.allen@dot.gov or 317-226-7344.

Thank you in advance for your input,

Candace Hudziak
Senior Project Manager

Phone: 317.643.1633 Email: candaceh@metricenv.com
6971 Hillside Court, Indianapolis, IN 46250



www.metricenv.com

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INDIANAPOLIS | GARY | CINCINNATI

From: [Nathan Holth](#)
To: [Candace Hudziak](#); [Kennedy, Mary](#)
Subject: Re: FHWA Project: Martin County Bridge No. 58 Project, Perry Township, Martin County, Indiana (Des. No. 1902785)
Date: Thursday, November 19, 2020 11:46:51 PM
Attachments: [image001.png](#)
[image002.png](#)
[image003.png](#)
[image004.png](#)
[image005.png](#)

Please include me as a Consulting Party for this project.

Thanks,
Nathan Holth

=====

Nathan Holth
Author/ Photographer/Webmaster
-----HistoricBridges.org-----
"Promoting the Preservation Of Our Transportation Heritage"

269-264-4364
nathan@historicbridges.org
www.historicbridges.org

=====

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=====



November 30, 2020

Candy Hudziak
Metric Environmental, LLC
6971 Hillside Court
Indianapolis, Indiana 46250

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

Re: Early coordination letter for the Martin County Bridge No. 58 carrying Brickyard Road over
Boggs Creek, Perry Township, Martin County, Indiana (Des. No. 1902785; DHPA No. 26743)

Dear Ms. Hudziak:

Pursuant to Section 106 of the National Historic Preservation Act of 1966, as amended (54 U.S.C. § 306108), implementing regulations at 36 C.F.R. Part 800, the “Programmatic Agreement Among the Federal Highway Administration, the Indiana Department of Transportation, the Indiana State Historic Preservation Officer, and the Advisory Council on Historic Preservation Regarding the Management and Preservation of Indiana’s Historic Bridges” (“Indiana Historic Bridges PA”), and the “Programmatic Agreement (PA) Among the Federal Highway Administration, the Indiana Department of Transportation, the Advisory Council on Historic Preservation and the Indiana State Historic Preservation Officer Regarding the Implementation of the Federal Aid Highway Program In the State of Indiana,” the staff of the Indiana State Historic Preservation Officer (“Indiana SHPO”) has reviewed your INDOT’s November 19, 2020 early coordination letter, received by our office the same day for the aforementioned project.

We are not aware of any parties who should be invited to participate in the Section 106 consultation on this federal undertaking, beyond those whom INDOT already has invited. In your next regular correspondence on this project, please advise us as to which of the invited consulting parties has accepted the invitation.

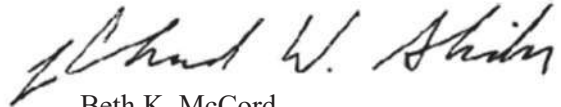
We look forward to reviewing the proposed area of potential effects and the reports on investigations of above-ground cultural resources and archaeological resources that the early coordination letter indicated will be forthcoming. Per the terms of the Indiana Historic Bridges PA, FHWA will satisfy its Section 106 responsibilities involving “Select” and “Non-Select” bridges through the Project Development Process. Martin County Bridge No. 58 is a “Non-Select” bridge, so the procedures outlined in Stipulation III.B of the Indiana Historic Bridges PA will be followed.

The Indiana SHPO staff’s archaeological reviewer for this project is Beth McCord, and the structures reviewer is Danielle Kauffmann. However, if you have a question about the Section 106 process, please contact initially the INDOT Cultural Resources staff members who are assigned to this project.

Candy Hudziak
November 30, 2020
Page 2

In all future correspondence about the Martin County Bridge No. 58 carrying Brickyard Road and Boggs Creek in Perry Township, Martin County (Des. No. 1902785), please refer to DHPA No. 26743.

Very truly yours,



Beth K. McCord
Deputy State Historic Preservation Officer

BKM:DMK:dmk

emc: Anuradha Kumar, INDOT
Shaun Miller, INDOT
Susan Branigin, INDOT
Mary Kennedy, INDOT
Anthony Ross, INDOT
Candy Hudziak, Metric Environmental, LLC
Beth McCord, DNR-DHPA
Danielle Kauffmann, DNR-DHPA

From: [_acob Isenburg](#)
To: [Candace Hudziak](#)
Cc: [Tim Hunt](#)
Subject: RE: Bridge 58
Date: Wednesday, December 2, 2020 9:09:17 AM

Thanks Candy.

Jacob Isenburg, PE
Structural Department Manager
HWC Engineering
Direct: 317-981-1254
www.hwcengineering.com

From: Candace Hudziak <candaceh@metricenv.com>
Sent: Wednesday, December 2, 2020 9:07 AM
To: Jacob Isenburg <jisenburg@hwcengineering.com>
Subject: RE: Bridge 58

No they don't. I'll consider this correspondence between us as their acceptance of the invitation to be consulting parties to the project, which just means they'll receive correspondence and reports for the project.

Candy Hudziak
Senior Project Manager

Metric Environmental, LLC
Certified DBE/MBE/SBE Company
Phone: 317.400.1633
Mobile: 317.443.4123
Email: candaceh@metricenv.com

From: Jacob Isenburg <jisenburg@hwcengineering.com>
Sent: Wednesday, December 2, 2020 8:59 AM
To: Candace Hudziak <candaceh@metricenv.com>
Subject: FW: Bridge 58

Candy,

Does the county commissioners and highway department need to respond to the EC letter since they are the project sponsors?

Thanks,
Jacob Isenburg, PE
Structural Department Manager
HWC Engineering
Direct: 317-981-1254
www.hwcengineering.com

From: Tim Hunt <thunt@hwcengineering.com>
Sent: Wednesday, December 2, 2020 8:00 AM
To: Jacob Isenburg <jisenburg@hwcengineering.com>
Subject: Bridge 58

Jacob, at last night's Commissioners meeting they provided me this INDOT notification to the Environmental phase beginning and requested if they need to provide any written response. I assumed that their response would be that they are unaware of any environmental issues and or items at this location, but wanted to run it through you first. If you could draft a quick reply to INDOT I will have Terri put on County letterhead and have the county attorney sign and return. Thanks T



Miami Tribe of Oklahoma

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



Via email: smiller@indot.in.gov

December 15, 2020

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

Re: Des. No. 1902785; Martin County Bridge No. 58 Project, Perry Township, Martin County, Indiana – Comments of the Miami Tribe of Oklahoma

Dear Mr. Miller:

Aya, kikwehsitoole – I show you respect. The Miami Tribe of Oklahoma, a federally recognized Indian tribe with a Constitution ratified in 1939 under the Oklahoma Indian Welfare Act of 1936, respectfully submits the following comments regarding Des. No. 1902785.

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

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

Respectfully,

Diane Hunter
Tribal Historic Preservation Officer



INDIANA DEPARTMENT OF TRANSPORTATION

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

PHONE: (317) 296-0799

Eric Holcomb, Governor
Joe McGuinness, Commissioner

May 20, 2021

This letter was sent to the listed parties.

RE: Martin County Bridge No. 58 (NBI No. 5100029) Project
Perry Township, Martin County, Indiana
Des. No. 1902785/DHPA No. 26743

Dear Consulting Party (see attached list),

Martin County, with funding from the Federal Highway Administration and administrative oversight from the Indiana Department of Transportation (INDOT), proposes to proceed with a project for Martin County Bridge No. 58 (NBI No. 5100029) carrying Brickyard Road over Boggs Creek (Des. No. 1902785).

This letter is part of the Section 106 review process for this project. Section 106 of the National Historic Preservation Act requires federal agencies to take into account the effects of their undertakings on historic and archaeological properties. We are requesting comments from you regarding the possible effects of this project. Please use the above Des. Number and project description in your reply and your comments will be incorporated into the formal environmental study.

A Section 106 early coordination letter was distributed on November 19, 2020. On November 19, 2020, Nathan Holth of HistoricBridges.org replied that their organization would like to participate as a consulting party. On December 2, 2020, the three Martin County Commissioners were confirmed as a consulting party. In a letter dated December 15, 2020, the Miami Tribe of Oklahoma accepted the invitation to serve as a consulting party and requested they be notified if any human remains or Native American cultural items falling under the Native American Graves Protection and Repatriation Act or archaeological evidence is discovered during any phase of this project.

The proposed undertaking is on Brickyard Road over Boggs Creek east of the city of Loogootee in Martin County, Indiana. It is within Perry Township, Loogootee USGS Topographic Quadrangle, Section 20, Township 3N, Range 4W.

Martin County Bridge No. 58 (NBI No. 5100029) is a three-span structure consisting of stone arch approach spans and a steel Warren deck truss in the middle span that carries Brickyard Road over Boggs Creek. The bridge was constructed in 1848 and reconstructed after a severe flood in 1913 destroyed most of the bridge. In 1996 a new open grid metal deck and railings were installed, and abutment repairs were made. In 2018 the stone masonry arches were patched with a thin layer of concrete. The bridge length is 150.4 ft long with a roadway width of 11.7 ft. The bridge is supported on stone abutments and stone piers. The structure is eligible for the National Register of Historic Places, but it is classified as a "Non-Select" bridge in the 2010 *Indiana Historic Bridge Inventory*.

The need for this project is due to the deteriorated condition and load capacity of the existing structure. Data used to substantiate this need comes from a 2018 bridge inspection report that identified structural deficiencies of the existing bridge. The report noted minor section loss and corrosion in the trusses, section loss and deteriorated stone, and cracked concrete facing in areas of previous patching repairs. Safety concerns, such as steep bank slopes, a load limit below legal requirements, bridge railing that does not meet current standards, and its narrow deck width that allows for a single vehicular lane, were also documented. Due to its inadequate lane width for current traffic demands the bridge is considered functionally obsolete. The bridge report rated the deck's condition as satisfactory and the superstructure and substructures' conditions as fair and gives the structure an overall sufficiency rating of 48.7 out of a possible score of 100. The purpose of the project is to provide a crossing over Boggs Creek that meets current load bearing and safety standards, including railings.

Because Martin County Bridge 58 is a "Non-Select" bridge, the FHWA is satisfying its Section 106 responsibilities following the procedures outlined in Stipulation III.B of the Historic Bridges PA. Per Stipulation III.B., a Historic Bridge Alternatives Analysis (HBAA) was completed on March 1, 2021 and distributed to the Division of Historic Preservation and Archaeology (DHPA; which serves as the Indiana State Historic Preservation Officer [SHPO]) and consulting parties for review and comment. The DHPA concurred with the recommendations of the HBAA on April 1, 2021; the document is located for viewing in IN SCOPE at <http://erms.indot.in.gov/Section106Documents/> (the Des. No. is the most efficient search term, once in IN SCOPE).

Metric Environmental, LLC, is under contract with HWC Engineering, on behalf of the Martin County, to advance the environmental documentation for the referenced project.

In accordance with 36 CFR 800.2 (c), you were invited to become a consulting party as part of the Section 106 process, or you are hereby invited to become a consulting party as part of the Section 106 process. Entities that have previously accepted consulting party status—as well as additional entities that are currently being invited to become consulting parties—are identified in the attached list.

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

The Area of Potential Effects (APE) is the area in which the proposed project may cause alterations in the character or use of historic resources. The APE contains no resources listed in the National Register of Historic Places (NRHP).

A historian who meets the Secretary of the Interior's Professional Qualification Standards identified and evaluated above-ground resources within the APE for potential eligibility for the NRHP. As a result of the historic property identification and evaluation efforts, no above-ground resources are recommended as eligible for listing in the NRHP.

The Historic Property Report is available for review in IN SCOPE at <http://erms.indot.in.gov/Section106Documents/> (the Des. No. is the most efficient search term, once in IN SCOPE). You are invited to review this document and to respond with comments on any historic resource impacts incurred as a result of this project so that an environmental report can be completed. We also welcome your related opinions and other input to be considered in the preparation of the

environmental document. If you prefer a hard copy of this material, please respond to this email with your request as soon as you can.

With regard to archaeological resources, an archaeologist who meets the Secretary of the Interior's Professional Qualification Standards conducted a Phase I archaeological investigation for the project. The results of the investigation are forthcoming. Consulting parties will receive notification when the report is completed.

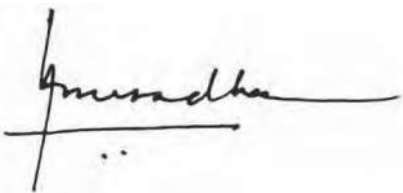
Please review the information and comment within thirty (30) calendar days of receipt. If you indicate that you do not desire to be a consulting party, or if you do not respond, you will not be included on the list of consulting parties for this project. If we do not receive your response in the time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

For questions concerning specific project details, you may contact Candy Hudziak of Metric Environmental, LLC, at 317.443.4123 or candaceh@metricenv.com. All future responses regarding the proposed project should be forwarded to Metric Environmental, LLC, at the following address:

Candy Hudziak
Architectural Historian
Metric Environmental, LLC
6971 Hillside Court
Indianapolis, Indiana 46250
candaceh@metricenv.com

Tribal contacts may contact Shaun Miller at smiller@indot.in.gov or 317-416-0876 or Kari Carmany-George at FHWA at K.CarmanyGeorge@dot.gov or 317-226-5629.

Sincerely,



Anuradha V. Kumar, Manager
Cultural Resources Office
Environmental Services

Distribution List (in addition to the SHPO):

Miami Tribe of Oklahoma

Martin County Commissioners
PO Box 600
Shoals, IN 47581

- Paul George, Martin County Commissioner
pgeorge@martincounty.in.gov
- Dan Gregory, Martin County Commissioner
Dgregory60@frontier.com
- Kevin Boyd, Martin County Commissioner
kevinbyd@frontier.com

Historicbridges.org
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Okemos, MI 48864
nathan@historicbridges.org

From: [Karen_garrard](#)
To: [McCord, Beth K](#); [DKauffman@dnr.IN.gov](#); [Kennedy, Mary](#); [smiller@indot.IN.gov](#); [Kumar, Anuradha](#); [Branigin, Susan](#); [nathan@historicbridges.org](#); [pgeorge@martincounty.in.gov](#); [Dgregory60@frontier.com](#); [kevinbyd@frontier.com](#)
Cc: [Susan Castle](#); [Luella Beth Hillen](#); [Sam Snell](#); [Candace Hudziak](#); [acob Isenburg](#)
Subject: FHWA Project: Des. No. 1902785; HPR; Martin County Bridge No. 58 Project, Martin County, Indiana
Date: Thursday, May 20, 2021 4:26:00 PM
Attachments: [MartinCityBridgeNo58_Des1902785_HPRdistltr_2021-05-20.pdf](#)
[image001.png](#)

Des. No.: 1902785

Project Description: Bridge Project

Location: Martin County Bridge No. 58 carrying Brickyard Road over Boggs Creek, Perry Township, Martin County, Indiana

Martin County, with funding from the Federal Highway Administration and administrative oversight from the Indiana Department of Transportation (INDOT), proposes to proceed with the Martin County Bridge No. 58 (NBI No. 5100029) Project (Des. No. 1902785). The Section 106 Early Coordination Letter for this project was originally distributed on November 18, 2020.

As part of Section 106 of the National Historic Preservation Act, a Historic Property Short Report has been prepared and is ready for review and comment by consulting parties.

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

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Thank you in advance for your input,



Karen N. Garrard, PhD, RPA

Senior Project Manager / Archaeological Principal Investigator

O 513.399.8482

M 513.687.5831

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From: [Miller, Shaun \(INDOT\)](#)
To: [Diane Hunter](#)
Cc: [Kennedy, Mary](#); [Karen Arrard](#); [Carmany-George, Karstin \(FHWA\)](#)
Subject: FHWA Project: Des. No. 1902785; HPR; Martin County Bridge No. 58 Project, Martin County, Indiana
Date: Friday, May 21, 2021 9:50:21 AM
Attachments: [MartinCityBridgeNo58_Des1902785_HPRdistlr_2021-05-20.pdf](#)

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Des. No.: 1902785

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Thank you in advance for your input,

Shaun Miller
INDOT, Cultural Resources Office
Archaeology Team Lead
(317)416-0876



June 1, 2021

Candy Hudziak
Architectural Historian
Metric Environmental, LLC
6971 Hillside Court
Indianapolis, Indiana 46250

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

Re: Historic property short report (Garrard/Hudziak, 5/20/2021) for the Martin County Bridge
No. 58 carrying Brickyard Road over Boggs Creek, Perry Township, Martin County, Indiana
(Des. No. 1902785; DHPA No. 26743)

Dear Hudziak:

Pursuant to Section 106 of the National Historic Preservation Act of 1966, as amended (54 U.S.C. § 306108), implementing regulations at 36 C.F.R. Part 800, the “Programmatic Agreement Among the Federal Highway Administration, the Indiana Department of Transportation, the Indiana State Historic Preservation Officer, and the Advisory Council on Historic Preservation Regarding the Management and Preservation of Indiana’s Historic Bridges” (“Indiana Historic Bridges PA”), and the “Programmatic Agreement (PA) Among the Federal Highway Administration, the Indiana Department of Transportation, the Advisory Council on Historic Preservation and the Indiana State Historic Preservation Officer Regarding the Implementation of the Federal Aid Highway Program In the State of Indiana,” the staff of the Indiana State Historic Preservation Officer (“Indiana SHPO”) has reviewed your May 21, 2021 review request submittal form, which enclosed the aforementioned historic property short report (“HPSR”; Garrard/Hudziak, 5/20/2021), received by our office the same day for this project.

The proposed area of potential effects (“APE”) appears to be of adequate size to encompass the geographic area in which direct and indirect effects of a project of this nature could occur.

Martin County Bridge No. 58 was previously determined eligible for inclusion in the National Register of Historic Places (“NRHP”) as part of the *Indiana Historic Bridge Inventory*. Since this bridge is also categorized as a “Non-Select” bridge within the *Indiana Historic Bridge Inventory*, FHWA will satisfy Section 106 responsibilities following the procedures outlined in Stipulation III.B of the Indiana Historic Bridges PA. As a result, we agree with the conclusions of the HPSR that there are no other historic properties listed or eligible for inclusion in the NRHP located within the project’s APE.

As INDOT’s May 21, 2021 distribution letter indicates, the report on Phase I archaeological investigations is forthcoming. We look forward to reviewing and commenting on that report when it becomes available.

The Indiana SHPO staff’s archaeological reviewer for this project is Beth McCord, and the structures reviewer is Danielle Kauffmann. However, if you have a question about the Section 106 process, please contact initially the INDOT Cultural Resources staff members who are assigned to this project.

Candy Hudziak
June 1, 2021
Page 2

In all future correspondence about the Martin County Bridge No. 58 In Perry Township, Martin County (Des. No. 1902785), please continue to refer to DHPA No. 26743.

Very truly yours,



Beth K. McCord
Deputy State Historic Preservation Officer

BKM:DMK:dmk

emc: Kari Carmany-George FHWA
Anuradha Kumar, INDOT
Shaun Miller, INDOT
Mary Kennedy, INDOT
Susan Branigin, INDOT
Nathan Holth, historicbridges.org
Martin County Commissioners
Candy Hudziak, Metric Environmental, LLC
Danielle Kauffmann, DNR-DHPA
Beth McCord, DNR-DHPA



INDIANA DEPARTMENT OF TRANSPORTATION

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

PHONE: (317) 296-0799

Eric Holcomb, Governor
Joe McGuinness, Commissioner

June 1, 2021

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Perry Township, Martin County, Indiana
Des. No. 1902785/DHPA No. 26743

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satisfactory and the superstructure and substructures' conditions as fair and gives the structure an overall sufficiency rating of 48.7 out of a possible score of 100. The purpose of the project is to provide a crossing over Boggs Creek that meets current load bearing and safety standards, including railings.

Because Martin County Bridge 58 is a "Non-Select" bridge, the FHWA is satisfying its Section 106 responsibilities following the procedures outlined in Stipulation III.B of the Historic Bridges PA. Per Stipulation III.B., a Historic Bridge Alternatives Analysis (HBAA) was completed on March 1, 2021 and distributed to the Division of Historic Preservation and Archaeology (SHPO) and consulting parties for review and comment. The DHPA concurred with the recommendations of the HBAA on April 1, 2021; the document is located for viewing in IN SCOPE at <http://erms.indot.in.gov/Section106Documents/> (the Des. No. is the most efficient search term, once in IN SCOPE).

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The Area of Potential Effects (APE) is the area in which the proposed project may cause alterations in the character or use of historic resources. The APE contains no resources listed in the National Register of Historic Places (NRHP).

A historian who meets the Secretary of the Interior's Professional Qualification Standards identified and evaluated above-ground resources within the APE for potential eligibility for the NRHP. As a result of the historic property identification and evaluation efforts, no above-ground resources are recommended as eligible for listing in the NRHP.

With regard to archaeological resources, an archaeologist who meets the Secretary of the Interior's Professional Qualification Standards did not identify any sites within the project area. As a result of these efforts, no further work is recommended.

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

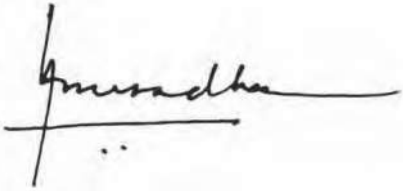
Please review the information and comment within thirty (30) calendar days of receipt. If you indicate that you do not desire to be a consulting party, or if you do not respond, you will not be included on the list of consulting parties for this project. If we do not receive your response in the time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

For questions concerning specific project details, you may contact Candy Hudziak of Metric Environmental, LLC, at 317.443.4123 or candaceh@metricenv.com. All future responses regarding the proposed project should be forwarded to Metric Environmental, LLC, at the following address:

Candy Hudziak
Architectural Historian
Metric Environmental, LLC
6971 Hillsdale Court
Indianapolis, Indiana 46250
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Sincerely,



Anuradha V. Kumar, Manager
Cultural Resources Office
Environmental Services

Distribution List (in addition to the SHPO):

Miami Tribe of Oklahoma

Martin County Commissioners
PO Box 600
Shoals, IN 47581

- Paul George, Martin County Commissioner
pgeorge@martincounty.in.gov
- Dan Gregory, Martin County Commissioner
Dgregory60@frontier.com
- Kevin Boyd, Martin County Commissioner
kevinbyd@frontier.com

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Okemos, MI 48864
nathan@historicbridges.org

From: [Korzeniewski, Patricia](#)
To: [thpo@estoo.net](#); [Diane Hunter](#); [lpappenfort@peoriatribe.com](#); [matthew.bussler@pokagonband-nsn.gov](#); [tonya@shawnee-tribe.com](#); [lheady@delawaretribe.org](#)
Cc: [Miller, Shaun \(INDOT\)](#); [Kennedy, Mary](#); [Korzeniewski, Patricia](#); [Karen Arrard](#); [Carmany-George, Karstin \(FHWA\)](#)
Subject: FHWA (LPA) Project: Martin County Bridge No. 58 Project, Perry Township, Martin County, Indiana (Des. No. 1902785) Archaeology Report
Date: Tuesday, June 1, 2021 1:57:05 PM
Attachments: [MartinCityBridgeNo58_Des1902785_PhaseIaDistlr_2021-6-01.pdf](#)

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Des. No.: 1902785

Project Description: Bridge Project

Location: Martin County Bridge No. 58 carrying Brickyard Road over Boggs Creek, Perry Township, Martin County, Indiana

Martin County, with funding from the Federal Highway Administration and administrative oversight from the Indiana Department of Transportation (INDOT), proposes to proceed with the Martin County Bridge No. 58 (NBI No. 5100029) Project (Des. No. 1902785). The Section 106 Early Coordination Letter for this project was originally distributed on November 19, 2020.

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Thank you in advance for your input,

Patricia Jo Korzeniewski
Archaeologist and Environmental Manager
INDOT, Cultural Resources Office
100 North Senate Avenue, N758-ES
Indianapolis, Indiana 46204
PKorzeniewski@indot.in.gov
1-317-416-4377

From: [Karen Garrard](#)
To: [Kennedy, Mary](#); smiller@indot.IN.gov; [Kumar, Anuradha](#); [Branigin, Susan](#); nathan@historicbridges.org; pgeorge@martincounty.in.gov; Dgregory60@frontier.com; kevinbyd@frontier.com; [Kauffmann, Danielle M](#); [McCord, Beth K](#)
Cc: [Susan Castle](#); [Luella Beth Hillen](#); [Sam Snell](#); [Candace Hudziak](#); [Jacob Isenburg](#)
Subject: FHWA Project: Martin County Bridge No. 58 Project, Perry Township, Martin County, Indiana (Des. No. 1902785) Historic Property Report and Archaeology Report
Date: Tuesday, June 1, 2021 1:40:00 PM
Attachments: [image001.png](#)
[MartinCtyBridgeNo58_Des1902785_PhaseIaDistltr_2021-6-01.pdf](#)

Des. No.: 1902785

Project Description: Bridge Project

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Karen N. Garrard, PhD, RPA

Senior Project Manager / Archaeological Principal Investigator

O 513.399.8482

M 513.687.5831

810 Plum Street
Cincinnati, OH 45202
www.metricenv.com



June 15, 2021

Candy Hudziak
Architectural Historian
Metric Environmental, LLC
6971 Hillside Court
Indianapolis, Indiana 46250

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

Re: Archaeological short report (Copenhaver/Heidenrich, 6/1/2021) for the Martin County
Bridge No. 58 carrying Brickyard Road over Boggs Creek, Perry Township, Martin County,
Indiana (Des. No. 1902785; DHPA No. 26743)

Dear Ms. Hudziak:

Pursuant to Section 106 of the National Historic Preservation Act of 1966, as amended (54 U.S.C. § 306108), implementing regulations at 36 C.F.R. Part 800, the “Programmatic Agreement Among the Federal Highway Administration, the Indiana Department of Transportation, the Indiana State Historic Preservation Officer, and the Advisory Council on Historic Preservation Regarding the Management and Preservation of Indiana’s Historic Bridges” (“Indiana Historic Bridges PA”), and the “Programmatic Agreement (PA) Among the Federal Highway Administration, the Indiana Department of Transportation, the Advisory Council on Historic Preservation and the Indiana State Historic Preservation Officer Regarding the Implementation of the Federal Aid Highway Program In the State of Indiana,” the staff of the Indiana State Historic Preservation Officer (“Indiana SHPO”) has reviewed your June 1, 2021 review request submittal form, which enclosed the aforementioned archaeological short report, received by our office the same day for this project.

As previously indicated, Martin County Bridge No. 58 was previously determined eligible for inclusion in the National Register of Historic Places (“NRHP”) as part of the *Indiana Historic Bridge Inventory*. Since this bridge is also categorized as a “Non-Select” bridge within the *Indiana Historic Bridge Inventory*, FHWA will satisfy Section 106 responsibilities following the procedures outlined in Stipulation III.B of the Indiana Historic Bridges PA. As a result, we agree with the conclusions of the HPSR that there are no other historic properties listed or eligible for inclusion in the NRHP located within the project’s APE.

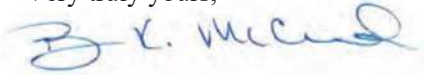
Regarding archaeology, based on the submitted information and the documentation available to the staff of the Indiana SHPO, we have not identified any currently known archaeological resources listed in or eligible for inclusion in the NRHP within the proposed project area. We concur with the opinion of the archaeologist, as expressed in the submitted archaeological short report (Copenhaver/Heidenrich, 6/1/2021), that no further archaeological investigations appear necessary.

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

The Indiana SHPO staff's archaeological reviewer for this project is Beth McCord, and the structures reviewer is Danielle Kauffmann. However, if you have a question about the Section 106 process, please contact initially the INDOT Cultural Resources staff members who are assigned to this project.

In all future correspondence about the Martin County Bridge No. 58 In Perry Township, Martin County (Des. No. 1902785), please continue to refer to DHPA No. 26743.

Very truly yours,



Beth K. McCord
Deputy State Historic Preservation Officer

BKM:DMK:dmk

emc: Kari Carmany-George FHWA
Anuradha Kumar, INDOT
Shaun Miller, INDOT
Mary Kennedy, INDOT
Susan Branigin, INDOT
Nathan Holth, historicbridges.org
Martin County Commissioners
Candy Hudziak, Metric Environmental, LLC
Danielle Kauffmann, DNR-DHPA
Beth McCord, DNR-DHPA

APPENDIX H: Bridge Marketing Documentation

The Indianapolis Star

130 South Meridian Street
Indianapolis, IN 46225
Marion County, Indiana

Federal Id: 06-1032273

HWC ENGINEERING

Account #:INI-46397

Order #:0004568020

of Affidavits: 2

Total Amount of Claim:\$78.22

This is not an invoice

HWC ENGINEERING
ATTN Lisa
135 N PENNSYLVANIA ST STE 2800
INDIANAPOLIS, IN 46204

PUBLISHER'S AFFIDAVIT

STATE OF WISCONSIN,
County Of Brown } **SS:**

Personally appeared before me, a notary public in and for said county and state, the undersigned

I, being duly sworn, say that I am a clerk for THE INDIANAPOLIS NEWSPAPERS a DAILY STAR newspaper of general circulation printed and published in the English language in the city of INDIANAPOLIS in the state of INDIANA and county of MARION, and that the printed matter attached hereto is a true copy, which was duly published in said paper for 1 times., the dates of publication being as follows:

The insertion being on the 01/26/2021

Newspaper has a website and this public notice was posted in the same day as it was published in the newspaper.

Pursuant to the provisions and penalties of Ch. 155, Acts 1953,

I hereby certify that the foregoing account is just and correct, that the amount claimed is legally due, after allowing all just credits, and that no part of the same has been paid.

Martha Stinchart

Date: Jan. 26, 20 21 Title: Clerk

Subscribed and sworn to before me this 26 day of January, 2021

Shelly Hora

Notary Public

Notary Expires:

8-25-23

SHELLY HORA
Notary Public
State of Wisconsin

To: INDIANAPOLIS

STAR

(Governmental Unit)

County, Indiana

Indianapolis, IN

62 lines, 2 columns wide equals 124 equivalent lines at \$0.63 per line @ 1 days, \$78.22

Website Publication \$0

Acct #:INI-46397
Ad #: 0004568020

Charge for proof(s) of publication \$0.00

DATA FOR COMPUTING COST

Width of single column 9.5 ems

Number of insertions 1

Size of type 7 point

TOTAL AMOUNT OF CLAIM

\$78.22

Claim No. _____ Warrant No. _____
IN FAVOR OF
The Indianapolis Star
Indianapolis, IN
Marion County
130 S. Meridian St. Indianapolis, IN 46225

I have examined the within claim and hereby certify as follows:

That it is in proper form.

This it is duly authenticated as required by law.

That it is based upon statutory authority.

That it is apparently (correct)
(incorrect)

\$ _____
On Account of Appropriation For

FED. ID
#06-1032273

Allowed _____, 20____

In the sum of \$ _____

I certify that the within claim is true and correct; that the services there-in itemized and for which charge is made were ordered by me and were necessary to the public business.

Public Notice

Designation No. 1902785

Martin County is announcing the potential availability of Bridge 58 carrying Brickyard Road over Boggs Creek near Loogootee to interested responsible parties. The bridge is eligible for the National Register of Historic Places and has been determined "Non-Select" per the Programmatic Agreement Regarding the Management and Preservation of Indiana's Historic Bridges (https://www.in.gov/indot/files/Historic_Bridge_ProgrammaticAgreement.pdf). The status of this bridge is currently "pending," which means that its future is currently unknown as the Section 106 historic review process is ongoing. Depending on the outcome of Section 106 consultation, interested parties may be able to acquire the bridge.

The bridge is a three-span structure and is 150 feet 4 inches long with a clear roadway width of 11'-8". The bridge consists of an 86' long Steel Warren Deck Truss main span and 2 - 32' long stone arch approach spans. The deck is in satisfactory condition. The superstructure (truss and stone arches) is in fair condition with minor section loss and corrosion. The substructure (stone foundations) is in fair condition with deteriorated stones and section loss. A photo and general information about the bridge can be viewed at the following website: <http://www.in.gov/indot/2532.htm>. Additional information about the bridge is available for review by contacting the person listed below.

Martin County is now accepting proposals for the rehabilitation and reuse, or the storage and future reuse of the bridge. Proposals will also be accepted for the salvage of elements of the bridge. Any proposals should be received within the next six months. Funding of any rehabilitation, reuse, storage, dismantling, reconstruction, salvage, etc. of this bridge would be the responsibility of the new owner. Interested parties should submit a written proposal for reuse to the address below as soon as possible:

Name: Jacob Isenburg
Organization: HWC Engineering
Address: 135 N. Pennsylvania Street, Suite 2800, Indianapolis, IN 46204
E-mail: jisenburg@hwcengineering.com
Phone: 317-347-3663

INI - 1/26/2021 - 0004568020

hspaxip

PROOF OF PUBLICATION

State of Indiana, Martin County, SS:

The Shoals News

Stephen A. Deckard, Publisher
P.O. Box 240
Shoals, Indiana 47581-0240

**PUBLIC NOTICE
DESIGNATION NO. 1902785**

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Organization: HWC Engineering
Address: 135 N. Pennsylvania Street,
Suite 2800, Indianapolis, IN 46204
E-mail: jisenburg@hwcengineering.com
Phone: 317-347-3663 Jan. 27c
hspxlp

COS

Stephen A. Deckard, being duly sworn, upon his oath, says that he is Publisher of THE SHOALS NEWS, a newspaper of general circulation, printed and published at Shoals, in the State and County aforesaid, and that the annexed notice was published in the said newspaper on the following dates, to-wit:

January 27, 20021
_____, 200_____
_____, 200_____
_____, 200_____
_____, 200_____

Stephen A. Deckard, Publisher

Subscribed and sworn to before me this

27th day of JANUARY, 20021

Joyanne Deckard
Joyanne Deckard, Notary Public

My Commission Expires September 30, 2025
County: Martin

From: Kennedy, Mary MKENNEDY@indot.IN.gov>
Sent: Tuesday, February 2, 2021 12:42 PM
To: Jacob Isenburg <jisenburg@hwcengineering.com>
Cc: David Hagley <dhagley@hwcengineering.com>
Subject: RE: Des. 1902785 - Martin 58 Historic Bridge advertising

Hi Jacob,

The bridge has been posted to our website today.

Main page: <https://www.in.gov/indot/2532.htm>

Direct link to Martin 58: <https://www.in.gov/indot/4204.htm>

Mary E. Kennedy

Historic Bridge Specialist

100 N. Senate Ave., Room N758-ES

Indianapolis, IN 46204

Email: mkennedy@indot.in.gov

Phone: 317-694-3607

Core work hours: 8:00 AM-2:45 PM Mon-Thurs



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



Location:	County	Road	Over	Number	Other Location Information
	Martin	Brickyard Rd (aka Queen St)	Boggs Creek	58	0.04 miles north of US 50 near Loogootee, Indiana

Owner	Length	Width	Year Built	Type
Martin Co.	150'-4" (32', 86', 32')	12'	c. 1848; 1913	Steel Warren Deck Truss with Stone Arch approach spans
Builder:	unknown		Status:	Pending

From: Kennedy, Mary <MKENNEDY@indot.IN.gov>
Sent: Tuesday, February 2, 2021 12:45 PM
To: Mark Dollase (MDollase@indianalandmarks.org) <MDollase@indianalandmarks.org>; Mindi Woolman <MWoolman@indianalandmarks.org>
Cc: Jacob Isenburg <jisenburg@hwcengineering.com>; Southern Regional Office <south@indianalandmarks.org>
Subject: Martin County Bridge No. 58, Des. No. 1902785

Mark & Mindi:

Here's a bridge that INDOT has placed on our historic bridge marketing website. Per the Historic Bridges PA, Stipulation III.B.2.c, we are providing it for your information as well.

Regards,

Mary E. Kennedy

Historic Bridge Specialist

100 N. Senate Ave., Room N758-ES
Indianapolis, IN 46204

Email: mkennedy@indot.in.gov

Phone: 317-694-3607

Core work hours: 8:00 AM-2:45 PM Mon-Thurs



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

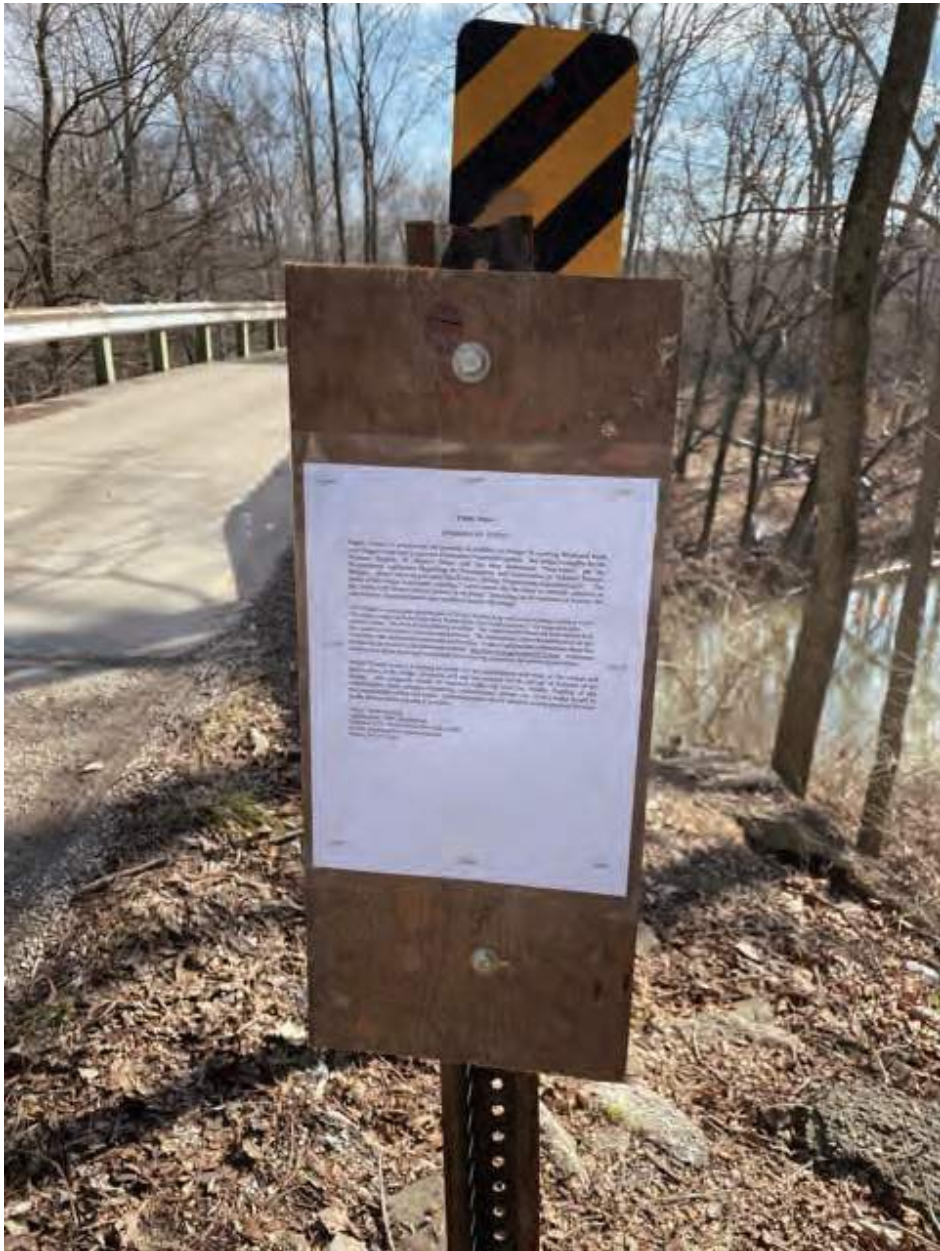
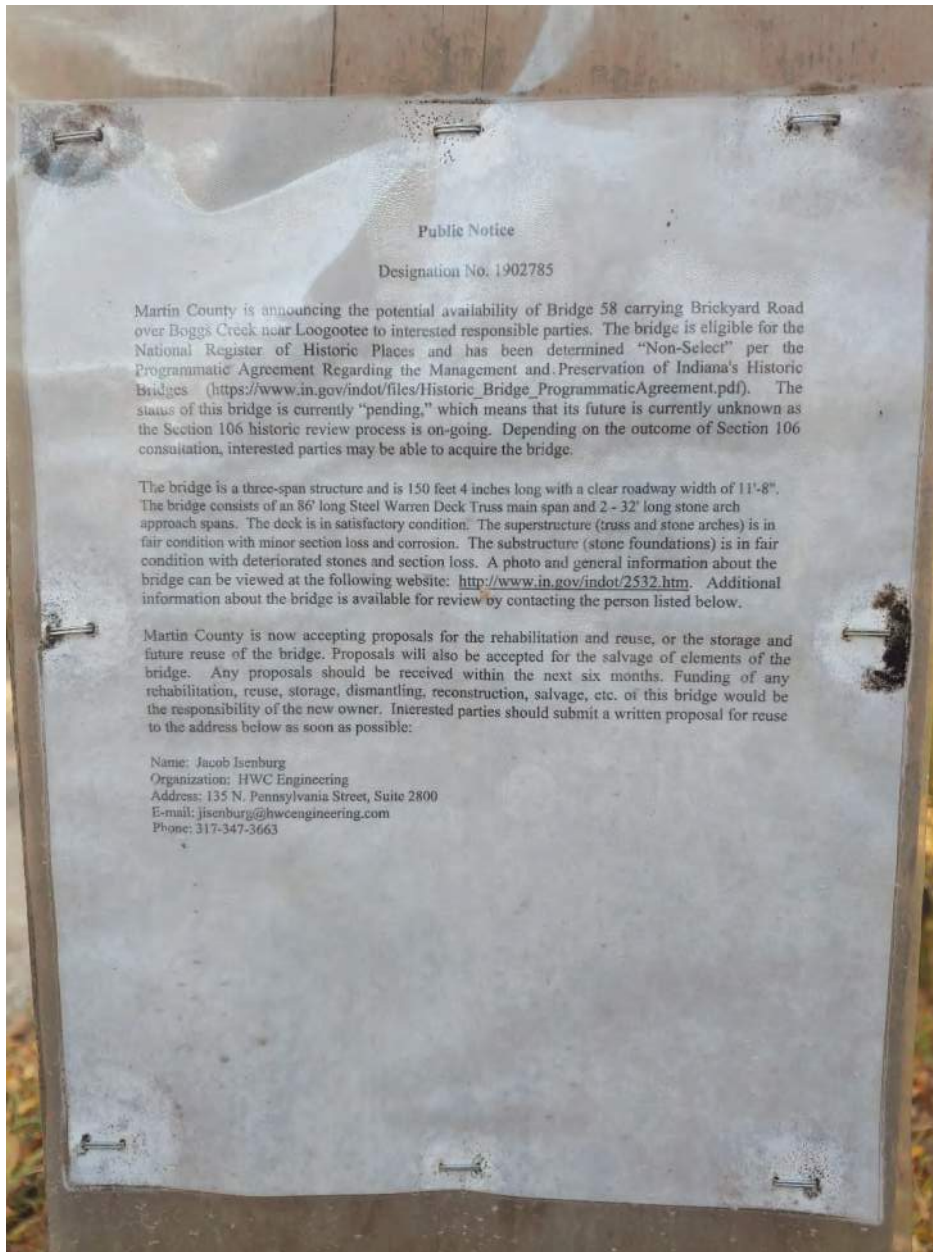


Photo date: 2/3/2021



Photo date: 2/3/2021



Public Notice

Designation No. 1902785

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Martin County is now accepting proposals for the rehabilitation and reuse, or the storage and future reuse of the bridge. Proposals will also be accepted for the salvage of elements of the bridge. Any proposals should be received within the next six months. Funding of any rehabilitation, reuse, storage, dismantling, reconstruction, salvage, etc. of this bridge would be the responsibility of the new owner. Interested parties should submit a written proposal for reuse to the address below as soon as possible:

Name: Jacob Isenburg
Organization: HWC Engineering
Address: 135 N. Pennsylvania Street, Suite 2800
E-mail: jisenburg@hwcengineering.com
Phone: 317-347-3663

Close-up up of Bridge Public Notice; Photo taken: 11/05/2021.



November 29, 2021

Candace Hudziak
Architectural Historian
Metric Environmental, LLC
6958 Hillside Court
Indianapolis, Indiana 46250

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

Re: Indiana Department of Transportation’s finding of “no historic properties affected” on behalf
of the Federal Highway Administration for the Martin County Bridge No. 58 carrying
Brickyard Road over Boggs Creek project (Des. No. 1902785; DHPA No. 26743)

Dear Ms. Hudziak:

Pursuant to Section 106 of the National Historic Preservation Act of 1966, as amended (54 U.S.C. § 306108), implementing regulations at 36 C.F.R. Part 800, the “Programmatic Agreement Among the Federal Highway Administration, the Indiana Department of Transportation, the Indiana State Historic Preservation Officer, and the Advisory Council on Historic Preservation Regarding the Management and Preservation of Indiana’s Historic Bridges” (“Indiana Historic Bridges PA”), and the “Programmatic Agreement (PA) Among the Federal Highway Administration, the Indiana Department of Transportation, the Advisory Council on Historic Preservation and the Indiana State Historic Preservation Officer Regarding the Implementation of the Federal Aid Highway Program In the State of Indiana,” the staff of the Indiana State Historic Preservation Officer (“Indiana SHPO”) has reviewed your November 17, 2021 submission, which enclosed INDOT’s finding and supporting documentation, received by our office the same day for this project in Perry Township, Martin County.

As previously indicated, Martin County Bridge No. 58 was previously determined eligible for inclusion in the National Register of Historic Places (“NRHP”) as part of the *Indiana Historic Bridge Inventory*. Since this bridge is also categorized as a “Non-Select” bridge within the *Indiana Historic Bridge Inventory*, FHWA will satisfy Section 106 responsibilities following the procedures outlined in Stipulation III.B of the Indiana Historic Bridges PA.

Also as previously indicated, regarding archaeology, based on the submitted information and the documentation available to the staff of the Indiana SHPO, we have not identified any currently known archaeological resources listed in or eligible for inclusion in the NRHP within the proposed project area. We concur with the opinion of the archaeologist, as expressed in the submitted archaeological short report (Copenhaver/Heidenrich, 6/1/2021), that no further archaeological investigations appear necessary.

Accordingly, we concur with INDOT’s November 17, 2021, Section 106 finding of “No Historic Properties Affected” on behalf of FHWA for this federal undertaking.

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

The Indiana SHPO staff's archaeological reviewer for this project is Beth McCord, and the structures reviewer is Danielle Kauffmann. However, if you have a question about the Section 106 process, please contact initially the INDOT Cultural Resources staff members who are assigned to this project.

In all future correspondence about the Martin County Bridge No. 58 carrying Brickyard Road over Boggs Creek project in Martin County (Des. No. 1902785), please refer to DHPA No. 26743.

Very truly yours,



Beth K. McCord
Deputy State Historic Preservation Officer

BKM:DMK:dmk

emc: Kari Carmany-George, FHWA
Anuradha Kumar, INDOT
Shaun Miller, INDOT
Susan Branigin, INDOT
Mary Kennedy, INDOT
Nathan Holth, historicbridges.org
Martin County Commissioners
Candace Hudziak, Metric Environmental, LLC
Danielle Kauffmann, DNR-DHPA
Beth McCord, DNR-DHPA

PROOF OF PUBLICATION

State of Indiana, Martin County, SS:

The Shoals News

Stephen A. Deckard, Publisher
P.O. Box 240
Shoals, Indiana 47581-0240

PUBLIC NOTICE
Des. No. 1902785

Martin County, with funding from the Federal Highway Administration (FHWA), and administrative oversight from the Indiana Department of Transportation (INDOT), is planning to proceed with the replacement Martin County Bridge No. 58 (NBI No. 5100029) carrying Brickyard Road (County Road 13) over Boggs Creek in Perry Township, Martin County, Indiana.

Martin County Bridge No. 58 was previously determined eligible for inclusion in the National Register of Historic Places (NRHP). Since this bridge is also categorized as a "Non-Select" bridge within the *Indiana Historic Bridge Inventory*, the FHWA is satisfying its Section 106 of the National Historic Preservation Act of 1966 responsibilities following the procedures outlined in Stipulation III.B of the Historic Bridges Programmatic Agreement. Per Stipulation III.B of the HBPA, Martin County will hold a public hearing for the project prior to completion of National Environmental Policy Act (NEPA) studies. The hearing will be advertised at a later date.

No other properties listed in, or eligible for listing in, the NRHP will be impacted by the project. The Indiana Department of Transportation (INDOT), on behalf of the FHWA, has issued a "No Historic Properties Affected" finding for the project. The finding for this project only applies to the other resources located within the APE and not Martin County Bridge No. 58. In accordance with the National Historic Preservation Act, the views of the public are being sought regarding the effect of the proposed project on the historic elements as per 36 CFR 800.2 (d), 800.3 (e) and 800.6 (a)(4). Pursuant to 36 CFR 800.6 (a)(4), the documentation specified in 36 CFR 800.11 (d) is available for inspection at Metric Environmental, LLC. The documentation can also be viewed electronically by accessing INDOT's Section 106 document posting website IN SCOPE at <http://erms.indot.in.gov/Section106Documents>. Persons with limited internet access may request project information to be mailed to them. Please contact Karen Garrard, phone — 513-399-8482, e-mail — kareng@metricenv.com.

Cos

Stephen A. Deckard, being duly sworn, upon his oath, says that he is Publisher of THE SHOALS NEWS, a newspaper of general circulation, printed and published at Shoals, in the State and County aforesaid, and that the annexed notice was published in the said newspaper on the following dates, to-wit:

Dec. 1, 20021
_____, 200____
_____, 200____
_____, 200____
_____, 200____
_____, 200____
Stephen A. Deckard, Publisher

Subscribed and sworn to before me this

15th day of December, 20021
Joyanne Deckard
Joyanne Deckard, Notary Public

My Commission Expires September 30, 2025
County: Martin

Historic Bridge Alternatives Analysis

DESIGNATION NUMBER: 1902785

BRIDGE NUMBER: 51-00058

NBI NUMBER: 5100029



ROUTE IDENTIFICATION AND FEATURE CROSSED: Brickyard Road (aka Queen Street)
over Boggs Creek

PROJECT LOCATION: 0.04 miles North of US 50
COUNTY: Martin

PREPARED BY:

Jacob Isenburg, PE
HWC Engineering
135 N. Pennsylvania St., Suite 2800
Indianapolis, IN 46204
DATE: 1/29/2021

David M. Hagley, Jr., PE
HWC Engineering
135 N. Pennsylvania St., Suite 2800
Indianapolis, IN 46204

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



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I. Existing Structure Data

A. Identification/History

Bridge No.: 51-00058

Project Location: 0.04 miles north of US 50, Martin County, Vincennes District

Designation No.: 1902785

Year Built: 1848

Years Reconstructed/Repaired: 1913; 1996; 2018

Most Recent Field Inspection Date: 11/20/2019 (Routine & Fracture Critical)

Average Daily Traffic (ADT)/Year of ADT: 240 VPD / 2017

Percentage of Commercial Vehicles: 1%

Low Volume Road?: Yes – ADT < 400 vpd

Functional Classification: Rural Local

National Highway System: Not on the NHS

Detour Length: 3.65 Miles

Load Rating: HS-15 Inventory Rating = 18 Tons; H-Rating = 14 Tons (Posted) (See Appendix C for depiction of H and HS vehicle configurations)

Sufficiency Rating: 48.7

National Register of Historic Places Status: Eligible

Historic Bridge Prioritization Status: Non-Select

Historic Character Defining Features: This bridge is a one lane three span bridge, consisting of stone arch approach spans on each end with a steel deck truss middle span. According to the Indiana Historic Bridge Inventory, this bridge “...is distinctive because it exemplifies an uncommon highway bridge type in Indiana.” And “Stone arch approach spans provide a highly unusual and distinctive variation in the design of the overall structure.” It is one of six or fewer examples within a district of the Indiana Department of Transportation.

B. Structure/Dimensions

Surface Type: Steel Open Grid Deck (main Span); Concrete (Approach Spans)

Out to Out of Copings: 12’-0”

Out to Out of Bridge Floor: 150’-4”

Clear Roadway Width: 11’-8”

Number of Lanes on Structure: 1 Lane

Skew: 0°

Type of Superstructure: Stone Arch (Approach Spans); Steel Warren Deck Truss (Main Span)

Spans: 3

Type of Substructure/Foundation: Stone Abutments

Seismic Zone: Zone 1

C. Appurtenances

Clear Roadway Width: 16'-0"

Approach Roadway Pavement Width: 16'-0" (Paved Width)

Surface Type: Asphalt

Guardrail: None

Guardrail End Treatment: None

II. Existing Conditions

Martin County Bridge No. 58 is a three-span structure, consisting of stone arch approach spans and a steel Warren deck truss in the middle span that carries Brickyard Road (aka Queen Street) over Boggs Creek. The bridge was originally constructed in 1848 as a stone arch which was then washed out and reconstructed in 1913. A new deck and railings were installed and abutment repairs completed in 1996. The stone masonry arches were patched in 2018. The bridge is 150.4 feet long with a clear roadway width of 11.7 feet. The bridge is supported on stone abutments and stone piers. This structure is classified as a Non-Select Historic Bridge in the December 2010 *Indiana Historic Bridge Inventory*.

One primary document referenced in this Alternatives Analysis to describe the existing condition of the bridge is the November 11, 2019 *Bridge Inspection Report*. This report is the official report prepared to satisfy the NBIS (National Bridge Inspection Standards) requirement to inventory and inspect the bridge every two years and report on its condition. This report does not include the results of a detailed inspection of the bridge but provides appraisal and condition ratings on the various elements of the bridge, approach roadway and stream channel.

The above report is included in the Appendix C for reference.

The bridge is currently posted for a 14 Ton weight limit based on the H design truck configuration. See Appendix C

Weight restrictions and narrow cross-sectional geometries prohibit the bridge from being used by emergency service providers and agricultural equipment. Letters of support for this project are included in Appendix I.

According to the *2019 Bridge Inspection Report*, the structure has a Sufficiency Rating of 48.7 (out of a possible 100) and the deck geometry (NBI Item 68) is rated at 2 (out of 9), which is described as "Basically intolerable requiring high priority of replacement" in the *FHWA Recording and Coding Guide for the Structure Inventory and Appraisal of the Nation's Bridges (FHWA Report No. : FHWA-PD-96-001)*.

A. Bridge Deck

Based on the *2019 Bridge Inspection Report*, the deck is in satisfactory condition with a rating of 6 (out of a possible score of 9). The report notes recent undermining of the

concrete deck on the approach spans that was repaired in 2018. The steel grid deck on the main span is noted to have bent members along the center of the deck.

B. Superstructure

Based on the *2019 Bridge Inspection Report*, the superstructure condition is reported as fair condition with a rating of 5 (out of a possible score of 9) and is indicated as having minor section loss/corrosion. The stone arch approach spans and spandrel wall have had concrete patching repairs in 2018. However, deteriorated stones with moderate section loss still remain in some areas. The south arch concrete repair facing is cracked with exposed steel reinforcement.

The middle span is a Warren deck truss that is in fair condition as indicated in the 2019 fracture critical inspection report. Minor section loss, pitting, and pack rust of the truss members was documented (See Appendix C).

C. Substructures and Foundations

Based on the *2019 Bridge Inspection Report*, the stone abutments and arches have concrete patching with deteriorated stones with section loss still present and some open joints between the stones. The substructures are in fair condition with a rating of 5 (out of a possible score of 9).

D. Approaches

The approaches are tangent with a slight grade running uphill to the south as it approaches US 50. The intersection with US 50 is just south (approximately 175 Feet) of the bridge.

The 16 ft wide approaches do not meet the minimum width of 18 ft as required in the *AASHTO Guidelines for Geometric Design of Very Low-Volume Local Roads (VLVLR)*. There are no approach guardrails, approach guardrail ends, or transitions as noted in the inspection report item 36A - D.

E. Crash Data

Crash Data was received for US 50 for the years 2017-20 from the INDOT State Database. There are six accidents near the intersection of Brickyard Road (aka Queen Street) and US 50. Local road accident data is kept in hard file only. Local knowledge of an additional accident in the area, that occurred January 17, 2018, was found in the local newspaper archives and Martin County Sheriff's Department Records. A review of the notes does not indicate that the bridge is a contributing factor to the accidents. The crash information is in Appendix D.

G. Hydraulics

The existing bridge hydraulics were preliminarily checked and found the existing bridge is has approximately 0.66 feet of backwater. Per Indiana Design Manual chapter 203-

3.02(01), the existing backwater is acceptable and must not be increased with proposed improvements.

H. Wetlands

A wetland survey and Waters of the US Report was completed in September 2020. The wetlands survey identified wetlands to the east and west of the roadway on the north side of the bridge site. Refer to Appendix A for a map of the wetlands identified near the project.

III. Purpose and Need

The need for this project is due to the deteriorated condition and limited load capacity of the existing structure, as outlined in the inspection report and load rating calculations. Brickyard Road (aka Queen Street) is a response route for local Emergency Medical Services (EMS); however, the road cannot provide full service to all EMS vehicles in service due to the current bridge condition and requires the use of a 3.65-mile detour route.

The *2019 Bridge Inspection Report* noted deficiencies in the superstructure (rated 5 out of 9) and substructure (rated 5 out of 9) including stone block section loss, steel truss members with section loss, and overall deterioration of the structure. The deck (rated 6 out of 9) is a open steel grid over the truss main span which has some bent members. The deck consists of concrete on the stone arch spans. The sufficiency rating for the bridge is 48.7 (out of a possible 100 points). The bridge is posted for a 14-ton weight limit.

Secondary concerns include the clear roadway width across the bridge (11'-8") being narrower than the approaching roadway (16'-0") and the bridge railing not meeting current safety standards. The roadway width across the bridge requires posting for One Lane Bridge. The existing bridge railing is a w-beam guardrail attached to the steel grid deck and is not a crash-tested configuration.

The needs for this project are summarized as:

- Limited load capacity
- Existing structure condition ratings
- Secondary needs are
 - 1-lane roadway geometry across bridge
 - Bridge railing not meeting crash standards

The purpose of this project is to address items below as follows:

PRIMARY PROJECT GOALS			
Item	Existing condition	Goal Condition	Reference
Superstructure Condition Rating	5 out of 9 (fair)	≥ 7 out of 9 (good)	FHWA-PD-96-001
Substructure Condition Rating	5 out of 9 (fair)	≥ 7 out of 9 (good)	FHWA-PD-96-001



PRIMARY PROJECT GOALS			
Item	Existing condition	Goal Condition	Reference
Deck Condition Rating	6 out of 9 (satisfactory)	≥ 7 out of 9 (good)	FHWA-PD-96-001
AASHTO Vehicle Load Rating	18 Tons (HS-15)	27 Tons (HS-15)	IDM Fig. 412-2A
Emergency Vehicle Load Rating	17 Tons (EV-2)	29 Tons (EV-2)	INDOT Bridge Inspection Manual (Chapter 3)

Secondary Project Goals			
Item	Existing condition	Goal Condition	Reference
Bridge Clear Roadway Width	11'-8"	16'-0" minimum	IDM Fig. 412-2B
Bridge Railing	w-beam (not crash tested)	Test Level 2 compliant system	IDM 412-5.03

IV. Alternatives

Alternative A: Do Nothing/No Build

The No Build/Do Nothing alternative means that no funds would be expended because no action would occur regarding Martin County Bridge No. 58. This alternate would not directly affect the historic significance in the short term but would allow for the continued deterioration of the existing structure.

A consideration of the “No Build/Do Nothing” alternative is that as the bridge deteriorates further the load capacity would decrease and require a lower load posting. Additionally, the structure may need to be closed at some time in the future due to continued deterioration and potential failure.

Another consideration of this alternative is the increased travel time and slower response time of emergency vehicles from the Martin County Fire & Rescue EMA facility 0.5 mile east of the project area on US 50 (see Appendix A). The detour route is approximately 3.65 miles, which increases response time by as much as 6 minutes for emergency vehicles. See Appendix G for the Detour User Cost Analysis.

This alternative does not provide the County with a long term reliably safe or functionally sufficient roadway across Boggs Creek and is therefore not a prudent alternative.



Alternative B1: Rehabilitation for Continued Vehicular Use Meeting Secretary of Interior’s Standards for Rehabilitation

This alternative proposes to rehabilitate the existing structure for continued one lane vehicular use. The project length for this alternative would be approximately 1000 feet.

Cleaning and painting of the existing truss would be done. Based on deterioration and load capacity, thirteen members of each truss would be replaced (see Appendix F) in kind with 50 ksi steel.

The stone arches would be repaired by replacing deteriorated stones and rebuilt. The fill in the arches would be removed and replaced with fill that meets current design standards. The bearings supporting the truss would be replaced with appropriate bearings that meet current design standards (i.e. elastomeric bearings). Riprap would be placed around the substructure for scour protection.

The steel grid deck would be replaced with a new steel grid deck. The concrete deck on the stone arch approach spans would be replaced with a concrete structural slab.

Structural materials would be replaced in-kind and the integrity of the bridge would be retained. Where stone is replaced or patched, replacement stones would be of a similar material and color. Where steel members are replaced, the new members would be constructed of similar shape and size as the existing members. (See Appendix F for replacement members). The bridge’s existing alignment and skew would not be altered. The bridge would not be widened. The truss would be removed from the supports, disassembled, and repaired in a shop. It would be reassembled and set into place on the repaired foundations.

These repairs would improve the condition of the truss and improve the load capacity to 24 tons (HS-15) but is less than the 27 tons required in the IDM Figure 412-2A. The load rating for the EV-2, equivalent load rating vehicle to the county’s largest emergency vehicle, will increase to 23 tons. It is less than the required 29 tons to carry the county’s in-use vehicle.

This option does not address the substandard clear roadway, the substandard railing, and does not achieve the necessary load capacity.

This option also does not replace the substandard railing because, the railing is attached to the steel grid deck and there is not a crash tested railing (TL-2) available for this configuration with the steel grid deck. The use of a concrete deck and standard railing to meet standards is not proposed because it would lower the load rating capacity of the rehabilitated condition mentioned above in this section.

A summary of the key design elements & Project Goals is shown below:

ALTERNATIVE B1 - SUMMARY OF KEY DESIGN ELEMENTS					
Design Element	Design Manual Section	Minimum Criteria	Existing Condition	Proposed Condition	Design Exception Required
Structural Capacity	Figure 412-2A	27 tons (HS-15)	18 Tons (HS-15)	24 Tons (HS-15)	Yes

ALTERNATIVE B1 - SUMMARY OF KEY DESIGN ELEMENTS					
Design Element	Design Manual Section	Minimum Criteria	Existing Condition	Proposed Condition	Design Exception Required
Local Emergency Vehicles Load Rating	INDOT Bridge Inspection Manual (Chapter 3)	29 Tons (EV-2)	17 Tons (EV-2)	23 Tons (EV-2)	N/A
Clear Roadway Width	Figure 412-2B	16' - 0"	11' - 8"	11' - 8"	*Yes
Railing	412-3.01(03)	TL-2	Non-Std	Non-Std	*Yes

* Level 2 Design Exception

The estimated cost of construction in year 2025 (adjusted for inflation) is \$1,952,000, right-of-way cost of \$30,900, and wetland mitigation cost of \$71,000. The estimated total cost of this alternate is \$2,053,900.

A Level 1 Design Exception for the structural capacity will be required, and Level 2 Design Exceptions for the shoulder width, the clear roadway width, and the railing would be required.

This alternate is feasible, but not prudent because it does not meet the purpose and need.

Alternate B2: Rehabilitation for Continued Vehicular Use NOT Meeting Secretary of Interior's Standards for Rehabilitation

This alternative proposes to rehabilitate the existing structure for continued vehicular use and provide load capacity and geometry meeting the project goals. The project length for this alternative would be approximately 1000 feet.

Cleaning and painting of the existing truss would be done. Replacement of 16 truss members in-kind with 50 ksi steel and 6 members with larger members in 50 ksi steel (See Appendix F for replacement members) would increase the load rating of the structure to meet the criteria listed in the IDM Figure 412-2A and county emergency vehicles. A total of 22 members of the truss's 27 total members would be replaced.

The steel grid deck and the concrete deck on the approach spans would be replaced with a reinforced concrete structural slab along the full bridge length. The bridge clear roadway width would be 16 feet. This slab would allow the existing railing to be replaced with a crash-tested TS-1 bridge rail and allow increased roadway width across the bridge. New concrete approach slabs would be constructed.

The stone arches would be cleaned and repaired by replacing deteriorated stones and rebuilt. The fill in the arches would be removed and replaced with fill that meets current design standards. The bearings supporting the truss would be replaced with appropriate



bearings that meet current design standards. Riprap would be placed around the substructure for scour protection.

A summary of the key design elements is shown below:

ALTERNATIVE B2 - SUMMARY OF KEY DESIGN ELEMENTS					
Design Element	Design Manual Section	Minimum Criteria	Existing Condition	Proposed Condition	Design Exception Required
Structural Capacity (HS-15)	Figure 412-2A	27 tons	18 Tons	28 Tons	No
Load Capacity to Carry Local Emergency Vehicles	INDOT Bridge Inspection Manual (Chapter 3)	29 Tons (EV-2)	17 Tons (EV-2)	30 Tons (EV-2)	No
Clear Roadway Width	Fig. 412-2B	16' – 0"	11' – 8"	16' – 0"	No
Railing	412-3.01(03)	TL-2	Non-Std	TL-2	No

The estimated cost of construction in year 2025 (adjusted for inflation) is \$2,090,000, right-of-way cost of \$30,900, and wetland mitigation cost of \$71,000. The estimated total cost of this alternate is \$2,191,900.

Level 1 Design Exceptions would not be required for this alternate. This alternative however does require significant replacement of original truss members. The amount of member replacement is anticipated to result in adverse impacts to the historic nature of the bridge.

This alternate is feasible but is not prudent because of the adverse impacts to the bridge and a cost that exceeds the cost of replacement.

**Alternative C1: Rehabilitation for Continued Vehicular Use (1-way pair option)
Meeting Secretary of Interior’s Standards for Rehabilitation**

This alternative proposes to rehabilitate the existing structure for continued vehicular use, for one lane of traffic, in the same manner as outlined in Alternative B1. It also proposes the construction of a new one-lane bridge on an adjacent alignment downstream to carry the opposing lane of traffic, thus creating a one-way pair. The length of the new bridge would be similar to the existing bridge. The project length for this alternative would be approximately 1000 feet.



The rehabilitation of the existing structure is the same as proposed in Alternative B1.

The new bridge would carry one lane of traffic and be designed to meet all current structural and geometric design criteria (10' lane and 2' shoulders) per IDM Figure 55-3D. See the Proposed Bridge Typical Section in Appendix F. The new structure would be placed to the west (downstream) of the existing structure. The limited distance between the new bridge and US 50 does not allow enough distance for the new one-way alignment to merge back into the existing alignment. Therefore, the intersection of Brickyard Road with US 50 would require reconstruction. The construction of the new structure is anticipated to impact the adjoining wetlands and require mitigation.

The Level 1 and Level 2 Design Exceptions noted for the existing bridge in Alternative B1 would still be required for this alternative since the existing bridge does not meet the criteria for a one lane bridge.

The estimated cost of construction in year 2025 (adjusted for inflation) is \$2,921,000, right-of-way cost of \$35,500, and wetland mitigation cost of \$152,200. The estimated total cost of this alternate is \$3,108,700.

This alternate is feasible but, not prudent because it does not meet the purpose and need.

Alternative C2: Rehabilitation for Continued Vehicular Use (1-way pair option) Not Meeting Secretary of Interior's Standards for Rehabilitation

This alternative proposes to rehabilitate the existing structure for continued vehicular use, for one lane of traffic, in the same manner as outlined in Alternative B2. It also proposes the construction of a new one-lane bridge on an adjacent alignment to carry the opposing lane of traffic, thus creating a one-way pair. The project length for this alternative would be approximately 1000 feet.

The rehabilitation of the existing structure is the same as proposed in Alternative B2. The new one-lane bridge is the same as Alternative C1. The construction of the new structure would require the reconstruction of the intersection of US 50. Wetland impacts and mitigation are anticipated the same as Alternative C1.

The estimated cost of construction in year 2025 (adjusted for inflation) is \$2,924,000, right-of-way cost of \$35,500; and wetland mitigation cost of \$152,500. The estimated total cost of this alternate is \$3,111,700.

This alternate is feasible but, not prudent because of the adverse impacts to the existing bridge and additional costs.

Alternative D: Bypass (non-vehicular use)/Build New Structure

This alternative proposes that a new bridge be constructed to meet all the required structural and geometric design criteria to carry Brickyard Road (aka Queen Street). The roadway would be realigned to bypass the existing bridge to the west (downstream). The new bridge would carry two lanes of traffic and be designed to meet all current structural and geometric design criteria (9' lanes and 2' shoulders) per IDM Figure 55-3D. See the Proposed Bridge Typical Section in Appendix F. The existing bridge would be left in place

with repairs to preserve the structure. Although the existing bridge would not be preserved for continued vehicular traffic, it would remain in place and be available for non-vehicular use. The project length for this alternative would be approximately 1000 feet minimum.

Repairs would be made to preserve the existing bridge. This would include a cleaning and painting of the truss, limited truss member repairs, and replacement of damaged arch stones. No truss members would be replaced as a part of this alternative.

These repairs would preserve the life of the existing structure but would not increase the structural capacity. These repairs may keep the bridge available for non-vehicular use for 25 years.

The construction of the new structure would require the reconstruction of the intersection of US 50. Wetland mitigation would be required.

The estimated cost of construction in year 2025 (adjusted for inflation) is \$2,784,000, right-of-way cost of \$35,500; and wetland mitigation cost of \$152,200. The estimated total cost of this alternate is \$2,971,700.

This alternative is feasible and meets the purpose and need of by providing a new structurally sufficient, and hydraulically adequate structure that would be a safe and efficient bridge for Brickyard Road (aka Queen Street) to cross over Boggs Creek. There are no existing trail systems or plans for one that would utilize the existing structure at its current location. For a Non-Select bridge, this alternative is prudent only if a responsible party other than the owner comes forward to fund the rehabilitation and maintenance of the bridge.

Alternative E: Relocation of Historic Bridge & Build New Structure

This alternative proposes to relocate the existing historic structure and rehabilitate it at a new location and construct a new bridge over Boggs Creek to carry vehicular traffic on Brickyard Road (aka Queen Street).

The existing structure would be disassembled, transported, and reassembled at a new location. The truss and stone arches would be rehabilitated according to the proposed usage of the relocated bridge. If the bridge is intended for further vehicular use in the new location, then a rehabilitation as discussed in Alternative B1 would be used. If the relocated bridge will not carry vehicles, then the rehabilitation will be as discussed in Alternative D.

The new structure would carry two lanes of traffic and be designed to meet all current structural and geometric design criteria (9' lanes and 2' shoulders) per IDM Figure 55-3D.

The estimated cost of construction in year 2025 (adjusted for inflation) is \$2,938,000, right-of-way cost of \$30,900; and wetland mitigation cost of \$71,000. The estimated total cost of this alternate is \$3,039,900.

This alternative is feasible and prudent if a new owner/location of the existing bridge is found. A project sponsor would be required to take ownership of the bridge and would then be responsible for its preservation and maintenance to make this alternative prudent. Ideally, if the existing bridge is relocated, the intention would be to use it for pedestrian use

or limited vehicular access in a park setting. The relocation site would be selected in coordination with the staff of the State Historic Preservation Office, Martin County Commissioners, and Section 106 consulting parties.

Alternative F: Demolition of Existing Bridge & Build New Structure

This alternative is similar to Alternate E, in that it would attempt to find a project sponsor to come forward and assume responsibility for relocation and rehabilitation of the existing structure, as in Alternate E. However, if no project sponsor is found, the bridge would be demolished and removed, and a new bridge constructed. The new structure would be the same as in Alternate E.

The estimated cost of construction in year 2025 (adjusted for inflation) is \$1,493,000, right-of-way cost of \$30,900; and wetland mitigation cost of \$71,000. The estimated total cost of this alternate is \$1,594,900.

V. Minimization and Mitigation

A Section 4(f) analysis for historic properties must explore possible efforts to minimize and mitigate unavoidable impacts. A discussion of minimization and mitigation efforts for the preliminary preferred alternative is provided below:

A. Minimization

All project build alternatives have been developed to minimize the amount of right-of-way, tree clearing, and impacts to Boggs Creek. The analysis of the various proposed build alternatives was also developed in a manner to minimize impacts to the existing bridge, but also meet the project goals.

B. Bridge Marketing

Marketing will be undertaken according to Section II.B.2 of the Historic Bridge PA. Marketing efforts will include INDOT's marketing website, public notices, and signs at each approach to the bridge.

C. Mitigation

Martin County would consult with SHPO regarding photo documentation, if required per the Historic Bridge PA.

VI. Preliminary Preferred Alternative

The preliminary preferred alternative is Alternative E or F, the Relocation and/or Replacement of Existing Structure for Continued Vehicular, in that each are feasible and prudent options while satisfying the purpose & need. The bridge can be relocated if a sponsor is found.

Alternatives Analysis Comparison – Des. 1902785

Description	Meets Purpose and Need?	Construction Cost (2025)	ROW Cost	Estimated Mitigation Cost*	Total Cost	Feasible & Prudent
A - No Build	No	N/A	N/A	N/A	N/A	Feasible, not prudent
B1 - Rehabilitation for Continued Vehicular Use (1 lanes of traffic) Meeting the Secretary of the Interior's Standards for Rehabilitation	No	\$1,952,000	\$30,900	\$71,000	\$2,053,900	Feasible, not prudent
B2 - Rehabilitation for Continued Vehicular Use (1 lanes of traffic) Not Meeting the Secretary of the Interior's Standards for Rehabilitation	No	\$2,090,000	\$30,900	\$71,000	\$2,191,900	Feasible, not prudent
C1 - Rehabilitation for Continued Vehicular Use (one-way pair option, 1-lane of traffic each direction) Meeting the Secretary of the Interior's Standards for Rehabilitation	No	\$2,921,000	\$35,500	\$152,200	\$3,108,700	Feasible, not prudent
C2 - Rehabilitation for Continued Vehicular Use (one-way pair option, 1-lane of traffic each direction) Not Meeting the Secretary of the Interior's Standards for Rehabilitation	No	\$2,924,000	\$35,500	\$152,200	\$3,111,700	Feasible, not prudent
D- Bypass (Non-Vehicular Use)/New Bridge Structure	Yes	\$2,784,000	\$35,500	\$152,200	\$2,971,700	Feasible, not prudent
E – Relocation of Historic Bridge/ New Bridge	Yes	\$2,938,000	\$30,900	\$71,000	\$3,039,900	Feasible & Prudent
F – Replacement of Historic Bridge	Yes	\$1,493,000	\$30,900	\$71,000	\$1,594,900	Feasible & Prudent

*Mitigation cost is conservatively estimated using available wetland boundary information shown in Appendix A.

All Photos taken on 03/22/2019
unless noted otherwise.



Photo 1: Looking North along Brickyard Road at the approach to Bridge 58.



Photo 2: Looking South along Brickyard Road at the approach to Bridge 58.

All Photos taken on 03/22/2019
unless noted otherwise.



Photo 3: Looking South at US 50 intersection from Bridge 58 south approach.



Photo 4: Looking east (upstream) at Boggs Creek from bridge.

All Photos taken on 03/22/2019
unless noted otherwise.



Photo 5: Looking west (downstream) at Boggs Creek from bridge.



Photo 6: Looking southeast at west truss and south stone arch.

All Photos taken on 03/22/2019
unless noted otherwise.



Photo 7: Looking south at steel grid deck.



Photo 8: West side of South Stone Arch (typical stone condition).

All Photos taken on 03/22/2019
unless noted otherwise.



Photo 9: Typical Stone Condition of inside of arches (note: concrete patching).



Photo 10: Typical Bottom chord & Diagonal Connection.

All Photos taken on 03/22/2019
unless noted otherwise.



Photo 13: North Approach (Looking North).

Bridge Inspection Report

51-00058
BRICKYARD ROAD
over
BOGGS CREEK



Inspection Date: 11/20/2019

Inspected By: Chris O'Brien

Inspection Type(s): Routine
Fracture Critical

Inspector: Chris O'Brien
Inspection Date: 11/20/2019

Asset Name: 51-00058
Facility Carried: BRICKYARD ROAD

Bridge Inspection Report

POSTED ONE LANE BRIDGE AND 14 TONS.

STRUCTURAL REHAB IN 1996: NEW DECK, BRIDGE RAIL, AND ABUTMENT REPAIRS. STONE MASONRY PATCHING REPAIRS COMPLETED IN 2018 AND PERFORMING WELL. REPAIRS SHOULD EXTEND LIFE OF BRIDGE BY A FEW MORE YEARS AND WERE A GREAT SOLUTION.

TRUSS IS IN FAIR CONDITION. STONE ARCH APPROACH SPANS AND SPANDREL WALLS ARE IN NOW IN FAIR CONDITION FOLLOWING 2018 REPAIRS. LARGE HOLES IN SPANDREL WALLS AND ARCH HAVE BEEN PATCHED WITH CONCRETE. SOME DETERIORATED STONES WITH SECTION LOSS STILL REMAIN IN AREAS, BUT NOTHING SERIOUS THAT WILL IMMEDIATELY AFFECT STRUCTURAL STABILITY. ISOLATED EXPOSED STEEL IN SOUTH ARCH. STONE DETERIORATION APPEARS TO BE LIMITING FACTOR FOR BRIDGE LIFE EXPECTANCY. GABION BASKETS HAVE BEEN PLACED AT APPROACH CORNERS. 2 INCH MISALIGNMENT OF BOTTOM CHORD OF WEST TRUSS AT NORTH END. BRIDGE IS CONSIDERED HISTORICALLY NON-SELECT. BRIDGE RAIL APPEARS HIGH AND DOES NOT MEET CURRENT STANDARDS.

RECOMMEND REPLACING BRIDGE WITH TWO LANE STRUCTURE.

NO MAINTENANCE RECOMMENDATIONS AT THIS TIME.

Inspector: Chris O'Brien
 Inspection Date: 11/20/2019

Asset Name: 51-00058
 Facility Carried: BRICKYARD ROAD

Bridge Inspection Report

IDENTIFICATION

(1) STATE CODE:	185 - Indiana	(12) BASE HIGHWAY NETWORK:	0
(8) STRUCTURE:	5100029	(13A) INVENTORY ROUTE:	
(5 A-B-C-D-E) INV. ROUTE:	1 - 4 - 2 - 00000 - 0	(13B) SUBROUTE NUMBER:	
(2) HIGHWAY AGENCY DISTRICT:	06 - Vincennes	(16) LATITUDE:	38.68509
(3) COUNTY CODE:	051 - MARTIN	(17) LONGITUDE:	-86.88370
(4) PLACE CODE:	00000 - N/A	(98) BORDER	
(6) FEATURES INTERSECTED:	BOGGS CREEK	A) STATE NAME:	
(7) FACILITY CARRIED:	BRICKYARD ROAD	B) PERCENT	%
(9) LOCATION:	0.04 N OF US 50	(99) BORDER BRIDGE STRUCT. NO:	
(11) MILEPOINT:	0000.000		

STRUCTURE TYPE AND MATERIAL

(43) STRUCTURE TYPE, MAIN:		(45) NUMBER OF SPANS IN MAIN 001 UNIT:	
A) KIND OF MATERIAL/DESIGN:	3 - Steel	(46) NUMBER OF APPROACH SPANS:	0002
B) TYPE OF DESIGN/CONSTR:	09 - Truss - Deck	(107) DECK STRUCTURE TYPE:	3 - Open Grating
(44) STRUCTURE TYPE, APPROACH SPANS:		(108) WEARING SURFACE/PROT SYS:	
A) KIND OF MATERIAL/DESIGN:	8 - Masonry	A) WEARING SURFACE:	0 - None
B) TYPE OF DESIGN/CONSTR:	11 - Arch - Deck	B) DECK MEMBRANE:	0 - None
		C) DECK PROTECTION:	0 - None

AGE OF SERVICE

(27) YEAR BUILT:	1848	(28) LANES:	
(106) YEAR RECONSTRUCTED:	1913	A) ON BRIDGE:	01
(42) TYPE OF SERVICE:		B) UNDER BRIDGE:	00
A) ON BRIDGE:	1 - Highway	(29) AVERAGE DAILY TRAFFIC:	000430
B) UNDER BRIDGE:	5 - Waterway	(30) YEAR OF AVERAGE DAILY TRAFFIC:	2007
		(109) AVERAGE DAILY TRUCK TRAFFIC:	00 %
		(19) BYPASS DETOUR LENGTH:	003 MI

Inspector: Chris O'Brien
 Inspection Date: 11/20/2019

Asset Name: 51-00058
 Facility Carried: BRICKYARD ROAD

Bridge Inspection Report

GEOMETRIC DATA

(48) LENGTH OF MAX SPAN: 0086.0 FT	(35) STRUCTURE FLARED: 0 - No flare
(49) STRUCTURE LENGTH: 00150.4 FT	(10) INV RTE, MIN VERT CLEARANCE: 99.99 FT
(50) CURB/SIDEWALK WIDTHS:	(47) TOT HORIZ CLEARANCE: 011.7 FT
A) LEFT 00.0 FT	(53) VERT CLEAR OVER BR RDWY: 99.99 FT
B) RIGHT: 00.0 FT	(54) MIN VERTICAL UNDERCLEARANCE:
(51) BRDG RDWY WIDTH CURB-TO-CURB: 011.7 FT	A) REFERENCE FEATURE: N
(52) DECK WIDTH, OUT-TO-OUT: 012.0 FT	B) MIN VERT UNDERCLEAR: 0 FT
(32) APPROACH ROADWAY 016.0 FT	(55) LATERAL UNDERCLEARANCE RIGHT:
(33) BRIDGE MEDIAN: 0 - No median	A) REFERENCE FEATURE: N
(34) SKEW: 00 DEG	B) MIN LATERAL UNDERCLEAR: 000.0 FT
	(56) MIN LATERAL UNDERCLEAR ON LEFT: 000.0 FT

INSPECTIONS

(90) INSPECTION DATE: 11/20/2019	(91) DESIGNATED INSPECTION FREQUENCY: 24 MONTHS
(92) CRITICAL FEATURE INSPECTION:	(93) CRITICAL FEATURE INSPECTION DATE:
A) FRACTURE CRITICAL REQUIRED/FREQUENCY: Y 24	A) FRACTURE CRITICAL DATE: 11/20/2019
B) UNDERWATER INSPECTION REQUIRED/FREQUENCY: N	B) UNDERWATER INSP DATE:
C) OTHER SPECIAL INSPECTION REQUIRED/FREQUENCY: N	C) OTHER SPECIAL INSP DATE:

CONDITION

(58) DECK: 6 - Satisfactory Condition (minor deterioration)	(60) SUBSTRUCTURE: 5 - Fair Condition (minor section loss)
(58.01) WEARING SURFACE: 6 - Satisfactory Condition	(61) CHANNEL/CHANNEL PROTECTION: 7 - Bank protection needs minor repairs
(59) SUPERSTRUCTURE: 5 - Fair Condition (minor section loss)	(62) CULVERTS: N - Not Applicable

CONDITION COMMENTS

(58) DECK: 6 - Satisfactory Condition (minor deterioration)
 Comments:
 STEEL GRID MAIN SPAN WITH BENT MEMBERS ALONG CENTERLINE AND CONCRETE APPROACH SPANS. UNDERMINE OF CONCRETE APPROACH SPANS HAS BEEN REPAIRED.
 Material:
 OPEN STEEL GRID DECK, CONCRETE

(58.01) WEARING SURFACE: 6 - Satisfactory Condition
 Comments:
 APPROACH SPANS SMOOTH
 Material:
 STEEL GRID, CONCRETE

Inspector: Chris O'Brien
 Inspection Date: 11/20/2019

Asset Name: 51-00058
 Facility Carried: BRICKYARD ROAD

Bridge Inspection Report

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

Comments:

TRUSS IS IN FAIR CONDITION WITH MINOR SECTION LOSS/CORROSION. STONE ARCH APPROACH SPANS AND SPANDREL WALLS NOW IN FAIR CONDITION DUE TO 2018 CONCRETE PATCHING REPAIRS. SOME DETERIORATED STONES WITH SECTION LOSS STILL REMAIN IN AREAS. SOUTH ARCH CONCRETE FACING IS CRACKED WITH EXPOSED STEEL.

Material:

STEEL DECK TRUSS, STONE ARCH APPROACHES

(60) SUBSTRUCTURE: 5 - Fair Condition (minor section loss)

Comments:

CONCRETE PATCHING REPAIRS IN 2018. SOME DETERIORATED STONES WITH SECTION LOSS REMAIN. SOME OPEN JOINTS.

Material:

STONE ABUTMENTS

(61) CHANNEL/CHANNEL PROTECTION: 7 - Bank protection needs minor repairs

Comments:

OLD STONE PIERS IN CHANNEL

Material:

NATURAL

(62) CULVERTS: N - Not Applicable

Comments:

LOAD RATING AND POSTING

(31) DESIGN LOAD:	0 - Unknown	(66) INVENTORY RATING:	18
(70) BRIDGE POSTING	3 - 10.0-19.9% below legal loads (6-10 tons)	(65) INVENTORY RATING METHOD: 1 - Load Factor (LF)	
(41) STRUCTURE OPEN/POSTED/CLOSED:	P - Posted for Load	(66B) INVENTORY RATING (H):	13
(64) OPERATING RATING:	30	(66C) TONS POSTED :	14
(63) OPERATING RATING METHOD:	1 - Load Factor (LF)	(66D) DATE POSTED/CLOSED:	01-MAY-98

APPRAISAL

SUFFICIENCY RATING:	48.7	(36) TRAFFIC SAFETY FEATURE:	
STATUS:	2	36A) BRIDGE RAILINGS:	0
(67) STRUCTURAL EVALUATION:	5	36B) TRANSITIONS:	0
(68) DECK GEOMETRY:	2	36C) APPROACH GUARDRAIL:	0
(69) UNDERCLEARANCES, VERTICAL & HORIZONTAL:	N	36D) APPROACH GUARDRAIL ENDS:	0

(71) WATERWAY ADEQUACY: 7 - Slight Chance of Overtopping Bridge

Comments:

APPEARS ADEQUATE

Inspector: Chris O'Brien
 Inspection Date: 11/20/2019

Asset Name: 51-00058
 Facility Carried: BRICKYARD ROAD

Bridge Inspection Report

(72) APPROACH ROADWAY ALIGNMENT: 6 - Equal to present minimum criteria

Comments:
 RISE TO BRIDGE AT NORTH END, INTERSECTION SOUTH

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

Comments:
 NO SCOUR ISSUES NOTED.

CLASSIFICATION

(20) TOLL:	3 - On Free Road	(21) MAINT. RESPONSIBILITY:	02 - County Highway Agency
(22) OWNER:	02 - County Highway Agency	(26) FUNCTIONAL CLASS OF INVENTORY RTE:	09 - Rural - Local
(37) HISTORICAL SIGNIFICANCE:	2 - Eligible for National Register	(100) STRAHNET HIGHWAY:	Not a STRAHNET route
(101) PARALLEL STRUCTURE:	N - No parallel structure	(102) DIRECTION OF TRAFFIC:	One lane bridge for 2-way traffic
(103) TEMPORARY STRUCTURE:		(104) HIGHWAY SYSTEM OF INVENTORY ROUTE:	0 - Structure/Route is NOT on NHS
(105) FEDERAL LANDS HIGHWAYS:	0-Not Applicable	(110) DESIGNATED NATIONAL NETWORK:	Inventory route not on network
(112) NBIS BRIDGE LENGTH:	Yes		

NAVIGATION DATA

(38) NAVIGATION CONTROL:	0 - No navigation control on waterway (bridge permit not required)	(39) NAVIGATION VERTICAL CLEAR:	000.0 FT
(111) PIER OR ABUTMENT PROTECTION:		(116) MINIMUM NAVIGATION VERT. CLEARANCE, VERT. LIFT BRIDGE:	FT
		(40) NAV HORIZONTAL CLEARANCE:	0000.0 FT

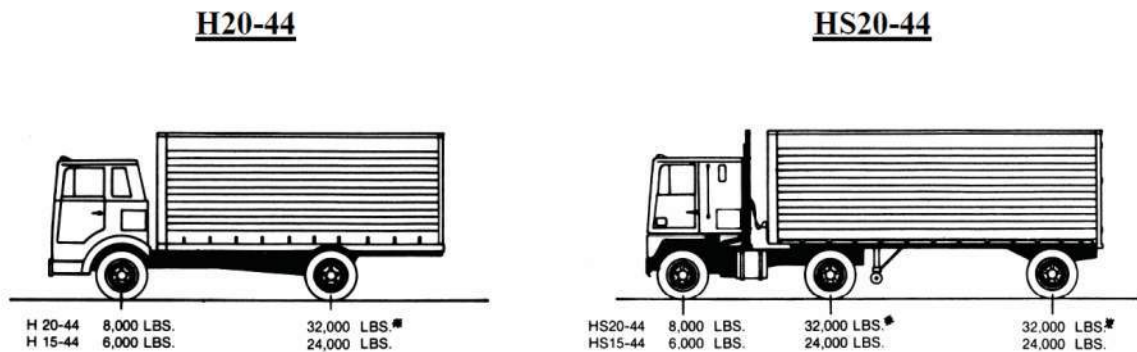
PROPOSED IMPROVEMENTS

(75A) TYPE OF WORK:	31 - Replacement - Load/Geometry	(95) ROADWAY IMPROVEMENT COST:	\$ 000500
(75B) WORK DONE BY:	1 - Work to be done by contract	(96) TOTAL PROJECT COST:	\$ 001200
(76) LENGTH OF IMPROVEMENT:	000168 FT	(97) YR OF IMPROVEMENT COST EST:	2019
(94) BRIDGE IMPROVEMENT COST:	\$ 000700	(114) FUTURE AVG DAILY TRAFFIC:	000455
		(115) YR OF FUTURE ADT:	2032

LOAD RATING DESIGN VEHICLE INFORMATION

Recently, INDOT has recategorized rating vehicles into Design, Legal, and Permit vehicle categories. The H15, H20, HS15, and HS20 trucks typically used in the past are in the Design vehicle category. The AASHTO Type, Special Hauling (SU), and recently added emergency vehicle (EV) truck configurations represent the Legal vehicle category.

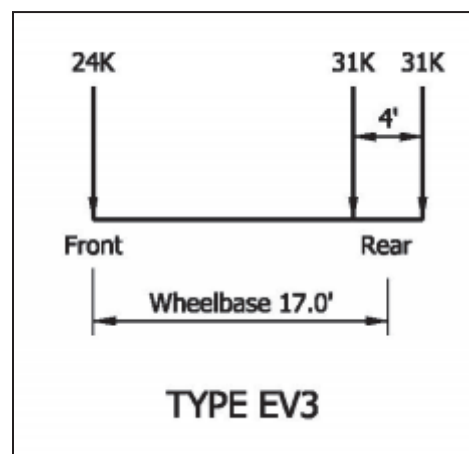
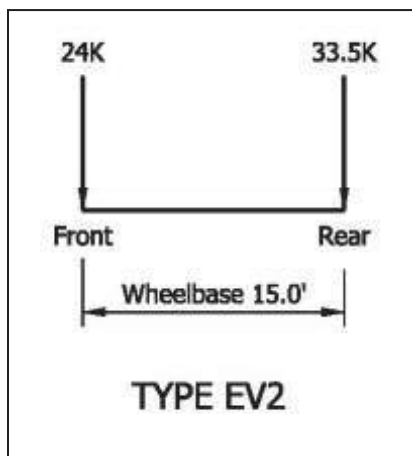
The figure below shows the H and HS design truck configurations. Current INDOT policy gives the option of posting for the lowest rated vehicle from the list of H15, H20, HS15, HS20, AASHTO legal loads, special hauling vehicles, and posting for the most critical vehicle or posting at 80% of H20 Inventory (whichever has lower tons value).



Part 3 of the INDOT Bridge Inspection Manual discusses in greater detail Load Rating and Load Posting. It also contains exhibits of all vehicle configurations for Indiana Legal Loads. It can be found at the following link:

https://www.in.gov/dot/div/contracts/standards/bridge/inspector_manual/Part3.pdf

With the passage of the FAST Act by Congress in 2016, emergency vehicle configurations were added to the load rating and load posting requirements. The figures below show the vehicle configurations for the EV2 and EV3 loading. Due to the configuration of the EV vehicles, it is possible that a bridge is passing all design and legal vehicle configurations but not the EV vehicle.



Inspector: Chris O'Brien
Inspection Date: 11/20/2019

Asset Name: 51-00058
Facility Carried: BRICKYARD ROAD

Bridge Inspection Report



PHOTO 1

Description Alignment Looking North (14 Tons, One Lane Bridge)



PHOTO 2 Elevation

Description West Elevation

Inspector: Chris O'Brien
Inspection Date: 11/20/2019

Asset Name: 51-00058
Facility Carried: BRICKYARD ROAD

Bridge Inspection Report



PHOTO 3

Description Span A: Underside of Arch



PHOTO 4

Description Southwest Spandrel Wall

Inspector: Chris O'Brien
Inspection Date: 11/20/2019

Asset Name: 51-00058
Facility Carried: BRICKYARD ROAD

Bridge Inspection Report



PHOTO 5

Description Span C: Arch



PHOTO 6

Description Alignment Looking South (One Lane Bridge)

Inspector: Chris O'Brien
Inspection Date: 11/20/2019

Asset Name: 51-00058
Facility Carried: BRICKYARD ROAD

Bridge Inspection Report



PHOTO 7

Description Alignment Looking South (14 Tons)

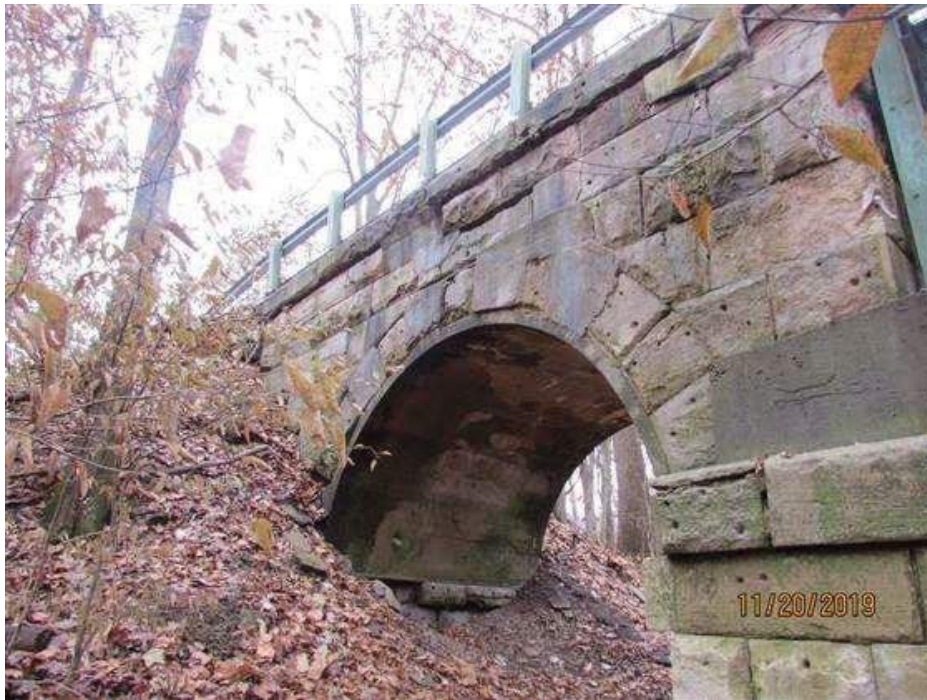


PHOTO 8

Description Southeast Spandrel Wall

Inspector: Chris O'Brien
Inspection Date: 11/20/2019

Asset Name: 51-00058
Facility Carried: BRICKYARD ROAD

Bridge Inspection Report



PHOTO 9

Description Top of Deck/Wearing Surface



PHOTO 10

Description Span B: Truss

Inspector: Chris O'Brien
Inspection Date: 11/20/2019

Asset Name: 51-00058
Facility Carried: BRICKYARD ROAD

Bridge Inspection Report



PHOTO 11

Description Bottom of Floor



PHOTO 12

Description West Coping

APPENDIX I

Letters of Support