

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

Road No./County:	US 231, Dubois County, Indiana
Designation Number(s):	2101215
Project Description/Termini:	Drainage Improvement Project, from 1.20 miles south of SR 64 to 0.88 mile south of SR 64

X	Categorical Exclusion, Level 2 – Required Signatories: INDOT DE and/or INDOT ESD
	Categorical Exclusion, Level 3 – Required Signatories: INDOT ESD
	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

RF

8/2/2022

Release for Public Involvement

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

Certification of Public Involvement

INDOT Consultant Services Signature and Date

INDOT DE/ESD Reviewer Signature and Date: _____

Name and Organization of CE/EA Preparer: Dan Logsdon, HNTB Corporation

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

Part I – Public Involvement

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

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

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

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

Notice of Entry letters were mailed to potentially affected property owners near the project area on September 1, 2021, notifying them about the project and that individuals responsible for land surveying and field activities may be seen in the area. A sample copy of the Notice of Entry letter is included in Appendix G, page 1.

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

Public Controversy on Environmental Grounds

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: INDOT INDOT District: Vincennes

Local Name of the Facility: US 231

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

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

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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.

This project is located on US 231, approximately 1.20 miles south of SR 64 to approximately 0.88 mile south of SR 64, in the City of Huntingburg, in Dubois County, Indiana (Appendix B, page 1).

The purpose of this project is to minimize the potential for roadway overtopping and address erosion issues on the bank slopes.

The need for this project is evident by overtopping of the roadway during heavy rain events and erosion along the side slopes of the unnamed tributary (UNT) to Bruner Creek. The roadside ditch that contains UNT to Bruner Creek, and the eight drainage structures located within the project area lack the capacity to convey stormwater during heavy rain events. The undersized ditch and culverts contribute to an increase in flow velocity, which accelerates erosion along the side slopes of UNT to Bruner Creek.

PROJECT DESCRIPTION (PREFERRED ALTERNATIVE):

County: Dubois

Municipality: Huntingburg

Limits of Proposed Work: from 1.20 miles south of SR 64 to 0.88 mile south of SR 64

Total Work Length: 0.32 Mile(s)

Total Work Area: 1.85 Acre(s)

Is an Interstate Access Document (IAD)¹ required?

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

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

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.

INDOT and the Federal Highway Administration (FHWA) intend to proceed with a drainage improvement project on US 231, approximately 1.20 miles south of SR 64 to approximately 0.88 mile south of SR 64 in Dubois County, Indiana. More specifically, the project is located in Huntingburg in Section 3, Township 3 South, Range 5 West in Patoka Township, as shown on the United States Geological Survey (USGS) 7.5 Minute Huntingburg, Indiana Quadrangle Map (Appendix B, page 2).

US 231 is classified as a suburban principal arterial road. The existing roadway is approximately 28 feet wide through the project limits with two-foot-wide paved shoulders. The posted speed limit on US 231 is 40 miles per hour (mph). Land use within the project area is primarily residential (Appendix B, page 3).

The preferred alternative will widen UNT to Bruner Creek and increase the size of driveway culverts that convey the stream parallel to US 231. Seven driveway culverts will be removed and replaced due to the relocation and widening of UNT to Bruner Creek. Existing and proposed structure information is summarized in the Bridges and/or Small Structures section of this document. Hydraulic modeling of the improvements indicates that the potential for roadway overtopping and erosion issues on the bank of slopes will be reduced.

UNT to Bruner Creek will be slightly relocated to accommodate channel widening and provide approximately six feet of separation between the stream and the roadway. The relocated channel will consist of 2:1 side slopes or flatter, improving

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upon the steep, existing side slopes that exceed 2:1. The proposed channel width varies, but it will be approximately one to four feet wider than the existing channel at the base of the side slopes in most locations.

The Maintenance of Traffic (MOT) plan for this project will be accomplished in three phases. US 231 will remain open to traffic with some restrictions (Appendix B, pages 17-20). Temporary closures of driveways along US 231 will be needed to replace driveway culverts. Additional MOT information is located in the Maintenance of Traffic section of this document.

The preferred alternative of widening UNT to Bruner Creek and increasing the size of driveway culverts meets the purpose and need of the project because the improvements will minimize the potential for roadway overtopping during heavy rain events and address erosion issues on the bank slopes of the UNT to Bruner Creek.

The project termini are considered logical because they are rational end points for a drainage improvement project and are of sufficient length to address drainage and erosion concerns. This project has independent utility because it is a stand-alone project that will reduce overtopping of US 231 and address erosion control concerns along the banks of UNT to Bruner Creek, without depending on any other projects to be completed. Design plans can be found in Appendix B, pages 13-33.

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.

Fully Enclosed Stream

This alternative would require enclosing the existing stream where it becomes parallel to the road and adding inlets to capture flow within the project limits. Preliminary analysis showed that enclosing the stream in this location would require a 14 foot span by 4 foot rise reinforced concrete box and would only work if there were additional downstream improvements to the storm sewer. This alternative does not meet the purpose and need of the project; therefore, this alternative was eliminated from further consideration.

Increase Downstream System Capacity

This alternative would increase the downstream enclosed system flow capacity. It was determined that this alternative was not feasible due to increased cost and impacts along the project area. Increasing the flow through the storm system would increase the risk of flooding in the receiving channel along the south side of 2nd Avenue. This alternative alone would not alleviate upstream flooding due to constrictions caused by residential driveway culverts within the stream. This alternative does not meet the purpose and need of the project; therefore, this alternative was eliminated from further consideration.

Stream and Driveway Culvert Widening with Detention Basin

This alternative would require widening the existing stream, increasing the size of driveway culverts, adding open detention to intercept some of the offsite flow on the east side of US 231, as well as improving an existing storage area along the west side of the road and the intersection at 4th Avenue. This alternative would meet the purpose and need of the project, but it would result in increased right-of-way (ROW) acquisition and increased utility costs; therefore, this alternative was eliminated from further consideration.

Stream and Driveway Culvert Widening, Detention Basin, and Underground Detention Culvert

This alternative would improve upon the previously discussed alternative by adding underground detention via up-sizing a portion of the trunkline of the storm sewer system entering the stream at the south end of the project. In this alternative, the driveway culverts along the stream would see only slight benefits in headwater capacity when compared to the preferred alternative. This alternative would meet the purpose and need of the project, but it would result in increased ROW acquisition and increased utility costs; therefore, this alternative was eliminated from further consideration.

No Build Alternative

The no build alternative proposes continued use of US 231 in the current condition. If selected, this alternative would result in continued occurrences of roadway overtopping during heavy rain events and worsening erosion on bank slopes. This alternative would not meet the purpose and need of the project and was therefore eliminated from further consideration.

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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>US 231</u>			
Functional Classification:	<u>Principal Arterial</u>			
Current ADT:	<u>10,100</u>	VPD (2022)	Design Year ADT:	<u>10,200</u>
				VPD (2042)
Design Hour Volume (DHV):	<u>1,020</u>	Truck Percentage (%)	<u>10</u>	
Designed Speed (mph):	<u>40</u>	Legal Speed (mph):	<u>40</u>	

	Existing	Proposed	
Number of Lanes:	2	2	
Type of Lanes:	1 through lane in each direction	1 through lane in each direction	
Pavement Width:	28	36	ft.
Shoulder Width:	4	12	ft.
Median Width:	N/A	N/A	ft.
Sidewalk Width:	N/A	N/A	ft.

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

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BRIDGES AND/OR SMALL STRUCTURE(S):

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

Structure/NBI Number(s): CLV-56076 Sufficiency Rating: N/A
 (Rating, Source of Information)

	Existing	Proposed	
Bridge/Structure Type:	Corrugated Metal Pipe	Reinforced Concrete Box (Str. No. 7)	
Number of Spans:	N/A	N/A	
Weight Restrictions:	N/A	N/A	ton
Height Restrictions:	N/A	N/A	ft.
Curb to Curb Width:	N/A	N/A	ft.
Outside to Outside Width:	2.5	2.5	ft.
Shoulder Width:	N/A	N/A	ft.

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

Seven driveway culverts will be removed and replaced due to the relocation and widening of UNT to Bruner Creek. These structures do not have INDOT asset numbers; therefore, they are identified in the existing structures table below by their corresponding plan sheet structure number. The proposed work will also require the replacement of the culvert (CLV-56076) carrying UNT 1 to UNT to Bruner Creek (UNT 1), which crosses below US 231 and outlets into UNT to Bruner Creek.

The culvert replacements will result in temporary impacts to UNT to Bruner Creek and UNT 1 due to dewatering the stream channels. The total length of culverts proposed within UNT to Bruner Creek exceeds the length of the existing culverts, which will result in additional encapsulation of the stream. Approximately eight linear feet of additional encapsulation of UNT 1 will be required due to the installation of a culvert extension. The extension is necessary to ensure UNT 1 outlets directly into UNT to Bruner Creek following the relocation and widening of the stream. Impacts to waters are discussed in greater detail in the Ecological Resources section of this document.

Existing Structures					
Structure Number	Type	Length (ft)	Height (ft)	Width (ft)	Location
Str. No. 91	Corrugated Metal Pipe	22	4	4	UNT to Bruner Creek
Str. No. 92	Reinforced Concrete Pipe	22	4	4	UNT to Bruner Creek
Str. No. 93	Reinforced Concrete Pipe	22	4	4	UNT to Bruner Creek
Str. No. 94	Reinforced Concrete Box	20	3.25	4.58	UNT to Bruner Creek
Str. No. 95	Corrugated Plastic Pipe	40	4	4	UNT to Bruner Creek
Str. No. 96	Corrugated Metal Pipe	21	4	4	UNT to Bruner Creek
Str. No. 98	Reinforced Concrete Pipe	25	1.5	1.5	UNT 1
Str. No. 99	Corrugated Metal Pipe	42	2.5	2.5	UNT 1

Proposed Structures					
Structure Number	Type	Length (ft)	Height (ft)	Width (ft)	Location
Str. No. 1	Reinforced Concrete Box	47	4	5	UNT to Bruner Creek
Str. No. 2	Reinforced Concrete Box	41	4	5	UNT to Bruner Creek
Str. No. 3	Reinforced Concrete Box	184	3.5	6	UNT to Bruner Creek
Str. No. 5	Reinforced Concrete Box	109	4	6	UNT to Bruner Creek
Str. No. 7	Reinforced Concrete Box	50	2.5	2.5	UNT to Bruner Creek
Str. No. 10	Reinforced Concrete Box	25	2.5	2.5	UNT 1

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*Str. Nos. 4 and 6 are a proposed castings (drains) that will provide additional infiltration into Str. No. 3 and Str. No. 5

MAINTENANCE OF TRAFFIC (MOT) DURING CONSTRUCTION:

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

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

The MOT plan for this project will be accomplished in three phases. US 231 will remain open to traffic with some restrictions (Appendix B, pages 17-20). Temporary closures of driveways along the west side of US 231 will be needed to replace driveway culverts. It is the responsibility of the contractor to ensure access to property owners during construction. This has been added as a firm commitment in the Environmental Commitments section of this CE document.

The MOT phases are summarized below:

Phase 1: Construction of the US 231 southbound shoulder will be completed. Traffic will be maintained along US 231 via the use of signage, and the southbound shoulder will be closed and block off with construction drums.

Phase 2: Construction of the US 231 northbound shoulder will be completed. Traffic will be maintained along US 231 via the use of signage, and the northbound shoulder will be closed and block off with construction drums.

Phase 3: US 231 will be closed to thru traffic for two weekend days due to the replacement of the drainage structure that crosses beneath the roadway. Access to all driveways will be maintained during construction. Traffic will be maintained via a 0.50 mile detour that will utilize East 4th Avenue and Chestnut Street in Huntingburg.

Pedestrian traffic will not be impacted by the project as no sidewalks or bicycle paths are located within the project area.

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

ESTIMATED PROJECT COST AND SCHEDULE:

Engineering: \$ 500,000 (2022) Right-of-Way: \$ 150,000 (2022) Construction: \$ 3,877,948 (2023)

Anticipated Start Date of Construction: March 2023

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RIGHT OF WAY:

Land Use Impacts	Amount (acres)	
	Permanent	Temporary
Residential	0.61	0.01
Commercial	0	0
Agricultural	0	0
Forest	0	0
Wetlands	0	0
Other:	0	0
Other:	0	0
TOTAL	0.61	0.01

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

Existing ROW north of US 231 extends 30 feet from the centerline of the roadway. Existing ROW south of US 231 varies from 25 feet to 40 feet, as measured from the centerline of the roadway. Existing ROW consists of mowed and maintained ROW (Appendix B, pages 21-24).

The project requires approximately 0.61 acre of permanent ROW along US 231, all of which is currently residential yards. The project also requires approximately 0.01 acre of temporary ROW from residential properties in order to install proposed driveway culverts. The areas used for temporary right-of-way are currently used as gravel, residential driveways. Proposed permanent ROW north of US 231 varies from 51 to 61 feet from the centerline of the roadway. Proposed temporary ROW north of US 231 varies 53 to 58 feet from the centerline of the roadway. The acquisition of permanent ROW will not be required to complete the proposed work south of US 231. Land use of permanent ROW will be maintained roadside following construction.

Advance acquisition, reacquisition or easements are not expected for this project.

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.

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

SECTION A - EARLY COORDINATION:

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

Early coordination letters were sent on October 8, 2021 and July 14, 2022 (Appendix C, pages 1-3).

Agency	Date Sent	Date Response Received	Appendix
INDOT Environmental Services, Vincennes District	October 8, 2021	October 13, 2021	Appendix C, page 4
U.S. Fish and Wildlife Service (USFWS)	October 8, 2021	October 20, 2021	Appendix C, pages 5-6
Natural Resource Conservation Services (NRCS)	October 8, 2021	November 9, 2021	Appendix C, page 7
Indiana Department of Natural Resources, Division of Oil and Gas	October 8, 2021	October 19, 2021	Appendix C, page 8
Indiana Department of Natural Resources, Division of Fish and Wildlife (IDNR DFW)	October 8, 2021 & January 28, 2022	November 5, 2021 & January 28, 2022	Appendix C, pages 9-11
Indiana Department of Environmental Management Ground Water Section	October 8, 2021	November 12, 2021	Appendix C, page 12
Indiana Department of Environmental Management (IDEM)	January 20, 2022	Response via webform January 20, 2022	Appendix C, pages 13-20
Indiana Geological and Water Survey	January 24, 2022	Response via webform January 24, 2022	Appendix C, pages 21-22
INDOT Office of Aviation	July 14, 2022	July 18, 2022	Appendix C, page 23
United States Army Corps of Engineers (USACE)	October 8, 2021	No response received	N/A
United States Department of Housing and Urban Development	October 8, 2021	No response received	N/A
Federal Highway Administration	October 8, 2021	No response received	N/A
Dubois County Surveyor's Office	October 8, 2021	No response received	N/A
Dubois County Sheriff	October 8, 2021	No response received	N/A
Dubois County Highway Department	October 8, 2021	No response received	N/A
Hoosier National Forest	October 8, 2021	No response received	N/A
Dubois County MS4 Coordinator	October 8, 2021	No response received	N/A
City of Huntingburg Mayor	October 8, 2021	No response received	N/A
Dubois County Council	October 8, 2021	No response received	N/A
Southwest Dubois School Corporation	October 8, 2021	No response received	N/A
Dubois County Emergency Management	October 8, 2021	No response received	N/A
Dubois County Board of Commissioners	October 8, 2021	No response received	N/A
City of Huntingburg Water Utilities	October 8, 2021	No response received	N/A

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

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SECTION B – ECOLOGICAL RESOURCES:

Streams, Rivers, Watercourses & Other Jurisdictional Features

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

Presence

X

Impacts

Yes	No
X	

Total stream(s) in project area: 1,438 Linear feet Total impacted stream(s): 1,100 Linear feet

Stream Name	Classification	Total Size in Project Area (linear feet)	Impacted linear feet	Comments (i.e. location, flow direction, likely Water of the US, appendix reference)
UNT to Bruner Creek	Riverine, ephemeral (R6)	1,438	1,100	UNT to Bruner Creek flows northeast through the project area, parallel to US 231, via a system of driveway culverts and open channel. This stream is likely a water of the U.S. (Appendix F, pages 13-14).
UNT 1 to UNT to Bruner Creek (UNT 1)	Riverine, ephemeral (R6)	355	100	UNT 1 flows northeast, parallel to US 231, before being captured in a corrugated metal pipe and carried beneath US 231. The stream outlets into UNT to Bruner Creek north of US 231. This stream is likely a water of the U.S. (Appendix F, pages 13-14).
UNT 2 to UNT to Bruner Creek (UNT 2)	Riverine, ephemeral (R6)	33	0	UNT 2 is located approximately 650 feet south of the project area. The stream is likely a water of the U.S. (Appendix F, pages 13-14).

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

Based on the desktop review, the aerial map of the project area, and the RFI report (Appendix E, page 8) there are ten streams, rivers, watercourse, or other jurisdictional features within the 0.5 mile search radius. There are no streams, rivers, watercourse, or other jurisdictional features within or adjacent to the project area. That number was revised to three streams by the site visit on September 20, 2021, by HNTB, and a desktop review of the National Wetlands Inventory (NWI) map (Appendix F, page 9).

A *Waters of the U.S. Determination / Wetland Delineation Report* was approved by INDOT Ecology and Waterway Permitting Office (INDOT EWPO) on January 13, 2022. Please refer to Appendix F, pages 1-12 for the *Waters of the U.S. Determination / Wetland Delineation Report*. It was determined that there are three likely jurisdictional streams within the project area. The U.S. Army Corps of Engineers (USACE) makes all final determinations regarding jurisdiction.

UNT to Bruner Creek is not noted on the USGS 7.5 Minute Huntingburg Topographic Map as a blue line feature (Appendix B, page 2). UNT to Bruner Creek exhibited 1.5 feet wide by 0.5 feet deep ordinary high-water mark (OHWM) during the site investigation. UNT to Bruner Creek is not listed as a Federal Wild and Scenic River, a State Natural, Scenic and Recreational River, Indiana Register's listing of Outstanding Rivers and Streams, navigable waterway, or a National Rivers Inventory waterway. This stream is classified as ephemeral due to the presence of water being limited to after precipitation events. Groundwater is not a source of water for the stream; runoff from rainfall is the primary source of water for streamflow.

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Approximately 1,100 linear feet of permanent impacts to UNT to Bruner Creek will occur due to relocation, which will require 1,100 linear feet of temporary impacts due to the use of a pump around. Impacts to UNT to Bruner Creek will likely require mitigation, and mitigation will be determined during permitting.

UNT 1 is not noted on the USGS 7.5 Minute Huntingburg Topographic Map as a blueline feature (Appendix B, page 2). UNT 1 exhibited a 0.5 feet wide by 0.1 feet deep OHWM during the site investigation. UNT 1 is not listed as a Federal Wild and Scenic River, a State Natural, Scenic and Recreational River, Indiana Register's listing of Outstanding Rivers and Streams, navigable waterway, or a National Rivers Inventory waterway. This stream is classified as ephemeral due to the presence of water being limited to after precipitation events. Groundwater is not a source of water for the stream; runoff from rainfall is the primary source of water for streamflow.

Approximately 150 linear feet of temporary impacts to UNT 1 to UNT to Bruner Creek will occur due to the use of a pump around. Approximately 100 linear feet of permanent impacts to UNT 1 to UNT to Bruner Creek will occur due to culvert replacement and the installation of revetment riprap for scour protection.

UNT 2 is not noted on the USGS 7.5 Minute Huntingburg Topographic Map as a blueline feature (Appendix B, page 2). UNT 2 exhibited a 1.1 feet wide by 0.4 feet deep OHWM during the site investigation. UNT 2 is not listed as a Federal Wild and Scenic River, a State Natural, Scenic and Recreational River, Indiana Register's listing of Outstanding Rivers and Streams, navigable waterway, or a National Rivers Inventory waterway. This stream is classified as ephemeral due to the presence of water being limited to after precipitation events. Groundwater is not a source of water for the stream; runoff from rainfall is the primary source of water for streamflow.

UNT 2 is located approximately 650 feet south of the project area. Therefore, no impacts are expected.

During the design phase, stream encapsulation and the placement of riprap below the OHWM were limited to the extent deemed hydraulically necessary. Through hydraulic design, the riprap footprint in the proposed UNT to Bruner Creek channel has been reduced by more than 500 linear feet when compared to the existing channel. Disturbed areas within the construction limits that will not require mowing will be seeded with a native seed mixture to enhance the quality of vegetation compared to the original condition.

USFWS responded on October 20, 2021 with recommendations pertaining to erosion and sediment control measures, bank stabilization, minimization of in-stream channel work, and evaluation of wildlife crossings (Appendix C, pages 5-6).

IDNR-DFW responded on November 5, 2021 with recommendations pertaining to erosion and sediment control measures, and bank stabilization (Appendix C, pages 9-10).

An automated letter was generated from the IDEM website on January 20, 2022 recommending appropriate storm water quality measures to be implemented during construction and after project completion (Appendix C, pages 13-20).

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

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

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

Based on the desktop review, the aerial map of the project area, and the RFI report (Appendix E, page 8) there are eight open water features within the 0.5 mile search radius. There are no open water features within or adjacent to the project

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area, which was confirmed by the site visit on September 20, 2021 by HNTB and a desktop review of the NWI map (Appendix F, page 9). No open water features are present within or adjacent to the project area, therefore, no impacts are expected.

A *Waters of the U.S. Determination / Wetland Delineation Report* was approved by INDOT EWPO on January 13, 2022. Please refer to Appendix F, pages 1-12 for the *Waters of the U.S. Determination / Wetland Delineation Report*. It was determined that there are no open waters within the project area. The USACE makes all final determinations regarding jurisdiction.

Wetlands

Presence

Impacts

Yes

No

Total wetland area: _____ Acre(s) Total wetland area impacted: _____ 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)

Wetlands (Mark all that apply)

- Wetland Determination
- Wetland Delineation
- USACE Isolated Waters Determination

Documentation

ESD Approval Dates

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

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

Describe all wetlands identified adjacent or within the project area. Include whether or not impacts (both permanent and temporary) 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 8) there are eight wetlands within the 0.5 mile search radius. There are no wetlands within or adjacent to the project area, which was confirmed by the site visit on September 20, 2021 by HNTB, and a desktop review of the NWI map (Appendix F, page 9). No wetlands are present within or adjacent to the project area, therefore, no impacts are expected.

A *Waters of the U.S. Determination / Wetland Delineation Report* was approved by INDOT EWPO on January 13, 2022. Please refer to Appendix F, pages 1-12 for the *Waters of the U.S. Determination / Wetland Delineation Report*. It was determined that there are no wetlands within the project area. The USACE makes all final determinations regarding jurisdiction.

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

Total terrestrial habitat in project area: 1.31 Acre(s) Total tree clearing: 0.54 Acre(s)

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

Based on a desktop review, a site visit on September 20, 2021 by HNTB and the aerial map of the project area (Appendix B, page 3) there is maintained roadside habitat and roadside ditch habitat. Dominant vegetation within the project area consists of tall fescue (*Schedonorus arundinaceus*) and Japanese bristle grass (*Setaria faberi*).

Approximately 1.31 acres of disturbance will occur to terrestrial habitat, including the removal of approximately 0.54 acre of trees. The dominant tree species to be removed is silver maple (*Acer saccharinum*). Due to the scope of the drainage improvements and erosion control design, avoidance alternatives are not practical. Disturbed areas within the construction limits that will not require mowing will be seeded with a native seed mixture to enhance the quality of vegetation compared to the original condition. Terrestrial habitat removal will not require mitigation.

USFWS responded on October 20, 2021 with recommendations pertaining to erosion and sediment control measures, tree and understory vegetation clearing, and evaluation of wildlife crossings (Appendix C, pages 5-6).

IDNR-DFW responded on November 5, 2021 with recommendations pertaining to post-construction revegetation measures including riparian habitat mitigation and erosion and sediment control measures (Appendix C, page 9-10).

An automated letter was generated from the IDEM website on January 20, 2022 recommending appropriate storm water quality measures to be implemented during construction and after project completion (Appendix C, pages 13-20).

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

Protected Species

Federally Listed Bats

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

Determination Received for Listed Bats from USFWS: NE NLAA LAA

Other Species not included in IPaC

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

Migratory Birds

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

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

Based on a desktop review and the RFI report (Appendix E, pages 1-10), completed by HNTB on March 21, 2022, the IDNR Dubois County Endangered, Threatened and Rare (ETR) Species List has been checked. According to the IDNR-DFW early coordination response letter dated November 5, 2021 (Appendix C, page 9-10), the Natural Heritage Program's Database has been checked and the bald eagle (*Haliaeetus leucocephalus*) has been documented within 0.5

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mile of the project area. IDNR-DFW noted that the bald eagle is no longer a state species of special concern; however, this species is still federally protected. In additional coordination completed with IDNR-DFW on January 28, 2022, INDR-DFW indicated that a bald eagle nest is located approximately two thousand feet from the project area (Appendix C, page 11). The bald eagle has been delisted for purposes of the endangered species act but continues to be protected. If a bald eagle is found, or the project is within a 660-foot buffer around a nest, coordination must occur with INDOT EWPO.

An INDOT 0.5-mile bat review occurred on September 8, 2021 (Appendix C, page 29). A review of the USFWS confidential bat database did not indicate the presence of endangered bat species in or within 0.5-mile of the project area.

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 24-29). The project is within range of the federally endangered Indiana bat (*Myotis sodalis*) and the federally threatened northern long-eared bat (NLEB) (*Myotis septentrionalis*). No additional species were generated in the IPaC species list other than the Indiana bat and NLEB.

The project qualifies for the *Range-wide Programmatic Informal Consultation for the Indiana bat and NLEB*, dated May 2016 (revised February 2018), between FHWA, Federal Railroad Administration (FRA), Federal Transit Administration (FTA), and USFWS. Inspection of the seven culverts within the project area occurred on September 20, 2021, and no evidence of use by bats or migratory birds were noted (Appendix C, pages 42-52). An effect determination key was completed on *January 19, 2022*, and based on the responses provided, the project was found to "may affect – not likely to adversely affect" the Indiana bat and/or the NLEB (Appendix C, pages 31-44). INDOT reviewed and verified the effect finding on January 19, 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. The USFWS provided Avoidance and Minimization Measures (AMMs) pertaining to temporary and permanent lighting; operator, employee, and contractor awareness of environmental commitments and AMMs while working in bat habitat area; and tree clearing. AMMs and/or commitments are included as firm commitments in the Environmental Commitments section of this document.

This precludes the need for further consultation on this project as required under Section 7 of the Endangered Species Act, as amended. If new information on endangered species at the site becomes available, or if 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): N/A

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 in 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 2) and the RFI report (Appendix E, page 8), there are no karst features identified within or adjacent to the project area. In the early coordination response dated January 24, 2022 the Indiana Geological and Water Survey (IGWS) did not indicate that karst features exist in the project area (Appendix C, pages 21-22). IGWS also stated that there are no documented geological hazards, high potential for bedrock resources, no documented sand and gravel resources, active or abandoned petroleum exploration wells, and active or abandoned surface coal mines located within the project area. According the IDNR Division of Oil and Gas early coordination response on October 19, 2021, there are no records of any oil and gas related issues that will be encountered near the project area (Appendix C, page 8). Response from IGWS has been communicated with the designer on January 24, 2022. No impacts are expected.

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SECTION C – OTHER RESOURCES

Drinking Water Resources

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

Presence

X
X

Impacts

Yes	No
	X
X	

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

Yes	No
	X

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

The project is located in Dubois 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 MOU is not applicable to this project, a detailed groundwater assessment is not needed, and no impacts are expected.

An early coordination letter was sent on October 8, 2021 to the IDEM Ground Water Section. The IDEM Ground Water Section responded on November 12, 2021, indicating the project area is not located in a wellhead protection area or source water assessment area (Appendix C, page 12). 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 26, 2022 by HNTB. No wells are located near this project. Therefore, no impacts are expected.

Based on a desktop review of the INDOT MS4 website (<https://entapps.indot.in.gov/MS4/>) HNTB on January 26, 2022 and the RFI report; this project is located in an Urban Area Boundary (UAB). An early coordination letter was sent on October 8, 2021, to the Dubois County MS4 Coordinator. The MS4 did not respond within the 30-day time frame.

Based on a desktop review, a site visit on September 20, 2021 by HNTB and the aerial map of the project area (Appendix B, page 3) this project is located where there is a public water system. The public water system will be affected because the project will require relocation of water lines. An early coordination letter was sent on October 8, 2021, to the City of Huntingburg Water Utilities. The City of Huntingburg Water Utilities did not respond within the 30-day time frame; however, coordination is ongoing with this utility to resolve to potential conflicts identified during the design phase.

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

If applicable, indicate the Floodplain Level?

Level 1 Level 2 Level 3 Level 4 Level 5

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

The Indiana Department of Natural Resources Indiana Floodway Information Portal website (<http://dnrmaps.dnr.in.gov/appsphp/fdms/>) was accessed on January 26, 2022 by HNTB. This project is not located in a regulatory floodplain as determined from approved IDNR floodplain maps (Appendix F, page 12). Therefore, it does not fall within the guidelines for the implementation of 23 CFR 650, 23 CFR 771, and 44 CFR. No impacts are expected.

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

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

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 20, 2021 by HNTB and the aerial map of the project area (Appendix B, page 3), there is no land that meets the definition of farmland under the Farmland Protection Policy Act (FPPA) within or adjacent to the project area. The requirements of the FPPA do not apply to this project; therefore, no impacts are expected. An early coordination letter was sent on October 8, 2021, to NRCS. NRCS responded on November 9, 2021, indicating the project will not cause a conversion of prime farmland (Appendix B, page 7).

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SECTION D – CULTURAL RESOURCES

Minor Projects PA	Category(ies) and Type(s) <input type="text" value="B-9"/>	INDOT Approval Date(s) <input type="text" value="January 27, 2022"/>	N/A <input type="text"/>
--------------------------	----------------------------------------------------------------------	--------------------------------------------------------------------------------	------------------------------------

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)

SHPO Approval Date(s)

X	January 27, 2022	N/A	

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.

On January 27, 2022, the INDOT Cultural Resource Office (CRO) determined that this project falls within the guidelines of Category B, Type B-9 under the Minor Projects Programmatic Agreement (Appendix D, pages 1-4).

Category B, Type 9 project include the installation, replacement, repair, lining, or extension of culverts, and other drainage structures when work occurs in undisturbed soils and an archaeological investigation conducted by the applicant and reviewed by INDOT CRO determines that no National Registered-listed or potentially National Registered-eligible archaeological resources are present within the project area.

This project falls within the guidelines of Condition B (Above-Ground Resources)

Condition ii, which includes projects that will install new culverts and other drainage structures.

- a. Work does not occur adjacent to or within a National Register-listed or National Register-eligible district or individual above-ground resource and;
- b. The subject structure exhibits the condition described below:
 1. The structure exhibits no wood, stone, or brick structures or parts therein.

An INDOT, CRO archaeologist, who met the Secretary of the Interior's Professional Qualification Standards as per 36 CFR Part 61 completed an archaeological records check and Phase Ia reconnaissance for the proposed project area. The records check found that there are no previously recorded sites mapped near the survey area. In addition, no previously conducted archaeological investigations have been recorded within or near the survey area.

The archaeological field reconnaissance examined the project area through ten shovel test probes and limited bucket auger excavation of the undisturbed areas. No buried archaeological deposits or soils consistent with deep well-drained

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alluvium were identified in the bucket augers conducted on the floodplain. No cultural materials were located, and no additional archaeological investigation is recommended (Appendix D, pages 5-6).

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

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

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

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

Section 4(f) of the 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 map of the project area (Appendix B, page 3), and the RFI report (Appendix E, page 2) there are two potential 4(f) resources, two recreational facilities, located within the 0.5 mile search radius. According to additional research, using Google Earth, and by the site visit on September 20, 2021 by HNTB, there are no Section 4(f) resources within or adjacent to the project area. Therefore, no use is expected.

Section 6(f) Involvement

Section 6(f) Property

Presence

Use

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.

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

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

SECTION F – Air Quality

STIP/TIP and Conformity Status of the Project

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

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

Location in STIP: Page 53 of 308 (Appendix H, page 1)

Name of MPO (if applicable): _____

Location in TIP (if applicable): _____

Level of MSAT Analysis required?

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

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

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

This project is located in Dubois County, which is currently in attainment for all criteria pollutants according to IDEM's Current and Historical List of Nonattainment Areas by County (<https://www.in.gov/idem/sips/nonattainment-status-of-counties/>). 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.

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SECTION G - NOISE

Noise

Yes No

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

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

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

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

Will the proposed action comply with the local/regional development patterns for the area?

Yes	No
X	

Will the proposed action result in substantial impacts to community cohesion?

	X
--	----------

Will the proposed action result in substantial impacts to local tax base or property values?

	X
--	----------

Will construction activities impact community events (festivals, fairs, etc.)?

	X
--	----------

Does the community have an approved transition plan?

X	
----------	--

If No, are steps being made to advance the community's transition plan?

--	--

Does the project comply with the transition plan? (explain in the discussion below)

X	
----------	--

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

The project is in a suburban portion of Dubois County, Indiana and will require the acquisition of 0.61 acre of permanent ROW and 0.01 acre of temporary ROW. The ROW acquisition is not anticipated to have a significant impact on tax base or property values.

The MOT plan will use phased construction. US 231 will remain open to traffic with some restrictions. Community and economic impacts realized due to the project will include increased travel time and increased emergency response time. Impacts will be temporary in nature. Local access to properties surrounding the construction limits will be maintained during the roadway closure per INDOT Standard Specification 107.08(e).

Per the 2021 Indiana Festival Guide (<https://indianafestivals.org>) accessed on January 26, 2022, there are eight scheduled festivals in Dubois County. Four festivals are located in Huntingburg, Indiana, near the project. The MOT plan may cause minor delays or inconveniences to those traveling to the Garden Gate: Jazz, Wine, & Craft Beer, Huntingburg Herbstfest, Haunted Huntingburg, and Huntingburg Christmas Stroll. The selected contractor will implement the MOT in accordance with the current Indiana Design Manual (IDM) and INDOT Standard Specifications.

Dubois County has an approved Americans with Disabilities Act (ADA) Transition Plan. However, the project is within a suburban portion of Dubois County and is not included in the ADA Transition Plan. Pedestrian traffic will not be affected by the project as no sidewalks are located within the project area.

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Public Facilities and Services

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

Based on a desktop review, the aerial map of the project area (Appendix B, page 3), and the RFI report (Appendix E, page 2) there are four public facilities, one religious facility, one airport, one cemetery, and one school, within the 0.5 mile search radius. There are no public facilities within or adjacent to the project area, which was confirmed by the site visit on September 20, 2021 by HNTB, and a desktop review of facilities within 0.5 mile of the project area on Google Earth.

Pedestrian traffic will not be impacted by the project as no sidewalks or bicycle paths are located within the project area. There are no public facilities within or adjacent to the project area, therefore, no impacts are expected. Access to all properties will be maintained during construction.

An early coordination letter was sent on July 14, 2022 to the INDOT Office of Aviation. The INDOT Office of Aviation responded on July 18, 2022, indicating that further coordination with the Federal Aviation Administration will be required if any object, obstruction, or equipment will exceed 124 feet height. This is due to the close proximity of Huntingburg Airport to the project area and the need for any obstructions within 5 miles to meet a 100:1 glideslope to the nearest runway (Appendix C, page 12). This has been added as a firm commitment in the Environmental Commitments section of this CE document.

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

Environmental Justice (EJ) (Presidential EO 12898)

During the development of the project were EJ issues identified?

Does the project require an EJ analysis?

If YES, then:

Are any EJ populations located within the project area?

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

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

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 (ROW). The project will not require relocations but will require 0.61 acre of permanent ROW. Therefore, an EJ Analysis is required.

Potential EJ impacts are detected by locating minority and low-income populations relative to a reference population to determine if populations of EJ concern exist and whether there could be disproportionately high and adverse impacts to them. The reference population may be a county, city or town and is called the community of comparison (COC). In this project, the COC is Dubois County, Indiana. The community that overlaps the project area is called the affected community (AC). In this project, the AC is Census Tract 9538. 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 2015-2019 American Community Survey was obtained from the US Census Bureau Website (<https://data.census.gov/cedsci/>) on January 26, 2022, by HNTB (Appendix I, pages 2-7). The data collected for minority and low-income populations within the AC are summarized in the below table.

Indiana Department of Transportation

County Dubois

Route US 231

Des. No. 2101215

Table: Minority and Low-Income Data, American Community Survey 5-Year Estimates, 2019		
	COC – Dubois County, Indiana	AC – Census Tract 9538
Percent Minority	11%	28%
125 Percent COC	14%	AC >125% COC
EJ Population of Concern		Yes
Percent Low-Income	9%	18%
125 Percent	11%	AC > 125% COC
EJ Population of Concern		Yes

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.

AC, Census Tract 9538, has a percent minority of 28% which is below 50% but is above the 125% COC threshold. Therefore, Census Tract 9538 has a minority population of concern.

AC, Census Tract 9538, has a percent low-income of 18% which is below 50% but is above the 125% COC threshold. Therefore, Census Tract 9538 has a low-income population of concern.

Due to the undersized channel and culverts within UNT to Bruner Creek, US 231 and the surrounding residential areas are often inundated with flood water during heavy rain events.

The preferred alternative will widen UNT to Bruner Creek and increase the size of driveway culverts that convey the stream parallel to US 231. The project will require the acquisition of approximately 0.61 acre of permanent ROW; however, the acquisition of residential properties will not be required.

The MOT (maintenance of traffic) plan will be accomplished in three phases, which will allow US 231 to remain open to traffic with some restrictions. Access to residential properties will be maintained during construction. No significant delays are anticipated, and all inconveniences and delays will cease upon project completion.

The preferred alternative for the project will result in temporary inconveniences to the non-EJ and EJ populations located within the AC as a result of MOT. ROW acquisition from EJ populations will be necessary, but the acquisition will include property that is often flooded during heavy rain. Therefore, the project will not result in a disproportionately high and adverse impact to the minority and low-income populations identified during the EJ Analysis, and the project will result in a net benefit to non-EJ and EJ populations.

The census data sheets, map, and calculations can be found in Appendix I, pages 2-7.

INDOT ESD reviewed the findings of the EJ Analysis and provided feedback on July 25, 2022. INDOT ESD stated that it would not consider the impacts associated with this project as causing a disproportionately high and adverse effect on minority and/or low-income populations of EJ concern relative to non-EJ populations in accordance with the provisions of Executive Order 12898 and FHWA Order 6640.23a. No Further EJ Analysis is required (Appendix I, page 8).

Relocation of People, Businesses or Farms

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

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

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

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

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

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SECTION I – HAZARDOUS MATERIALS & REGULATED SUBSTANCES

Hazardous Materials & Regulated Substances (Mark all that apply)

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

Documentation

X

Date RFI concurrence by INDOT SAM (if applicable): March 29, 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, a RFI was completed on March 21, 2022, by HNTB (Appendix E, pages 1-10). One RCRA Generator/TSD site, one Underground Storage Site, and four National Pollutant Discharge Elimination Systems are located within 0.5 mile of the project area. None of the hazmat sites identified will impact the project. Further investigation for hazardous material concerns is not required at this time.

Part IV – Permits and Commitments

PERMITS CHECKLIST

Permits (mark all that apply)

Likely Required

Army Corps of Engineers (404/Section10 Permit)

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

IN Department of Environmental Management

(401/Construction Stormwater General Permit (CSGP))

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

IN Department of Natural Resources

- Construction in a Floodway
- Navigable Waterway Permit
- Other

Mitigation Required

US Coast Guard Section 9 Bridge Permit

Others (Please discuss in the discussion below)

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

A USACE Section 404 Regional General Permit and an IDEM Section 401 water quality certification (WQC) Individual Permit are anticipated based on stream impacts in excess of 300 linear feet.

Indiana Department of Transportation

County Dubois

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An IDEM Construction Stormwater General Permit (CSGP) is likely required due to the amount of ground disturbance necessary for the project.

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.

Indiana Department of Transportation

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ENVIRONMENTAL COMMITMENTS

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

Firm:

1. USFWS Bridge/Structure Assessment shall take place no earlier than two (2) years prior to the start of construction. If construction will begin after 9/20/2023, an inspection of the structure by a qualified individual must be performed. Inspection of the structure should check for presence of bats/bat indicators and/or presence of birds. The results of the inspection must indicate no signs of bats or birds. If signs of bats or birds are documented during this inspection, the INDOT District Environmental Manager must be contacted immediately. (INDOT ESD)
2. If the scope of work or permanent or temporary right-of-way amounts change, the INDOT Environmental Services Division (ESD) and the INDOT District Environmental Section will be contacted immediately. (INDOT ESD and INDOT District)
3. 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)
4. It is the responsibility of the contractor to ensure access to property owners during construction. (INDOT ESD)
5. If a bald eagle nest is found within 660 feet of the project area, coordination must occur with INDOT EWPO. (INDOT ESD)
6. 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)
7. Hibernacula AMM 1: Ensure that on-site personnel will use best management practices, secondary containment measures, or other standard spill prevention and countermeasures to avoid impacts to possible hibernacula. 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. (USFWS)
8. 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)
9. Tree Removal AMM 3: Limit tree removal to that specified in project plans and ensure that contractors understand clearing limits and how they are marked in the field (e.g., install bright colored flagging/fencing prior to any tree clearing to ensure contractors stay within clearing limits). (USFWS)
10. Tree Removal AMM 4: Avoid cutting down/removal of all documented Indiana bat or NLEB roosts (that are still suitable for roosting), trees within 0.25 miles of roosts, and documented foraging habitat any time of year. (USFWS)
11. Lighting AMM 1: Direct temporary lighting away from suitable habitat during the active season (April 1 to September 30). (USFWS)
12. Further coordination with the Federal Aviation Administration will be required if any object, obstruction, or equipment will exceed 124 feet height. This is due to the close proximity of Huntingburg Airport to the project area and the need for any obstructions within 5 miles to meet a 100:1 glideslope to the nearest runway

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For Further Consideration:

1. Restrict below low-water work in streams to placement of culverts, piers, pilings and/or footings, shaping of the spill slopes around the bridge abutments, and placement of riprap. Culverts should span the active stream channel, should be either embedded or a 3-sided or open-arch culvert, and be installed where practicable on an essentially flat slope. When open-bottom culvert or arch is used in a stream, which has a good natural bottom substrate, such as gravel, cobbles and boulders, the existing substrate should be left undisturbed beneath the culvert to provide natural habitat for the aquatic community. (USFWS)
2. Minimize the extent of hard armor (riprap) in bank stabilization by using bioengineering techniques whenever possible. If riprap is utilized for bank stabilization, extend it below low-water elevation to provide aquatic habitat. (USFWS)
3. Avoid all work within the inundated part of the stream channel (in perennial streams and larger intermittent streams) during the fish spawning season (April 1 through June 30), except for work within sealed structures such as caissons or cofferdams that were installed prior to the spawning season. No equipment shall be operated below Ordinary High-Water Mark during this time unless the machinery is within the caissons or on the cofferdams. (USFWS)
4. Evaluate wildlife crossings under bridge/culverts projects in appropriate situations. Suitable crossings include flat areas below bridge abutments with suitable ground cover, high water shelves in culverts, amphibian tunnels and diversion fencing. (USFWS)
5. Impacts to non-wetland forest of one (1) acre or more should be mitigated at a minimum 2:1 ratio. If less than one acre of non-wetland forest is removed in a rural setting, replacement should be at a 1:1 ratio based on area. Impacts to non-wetland forest under one (1) acre in an urban setting should be mitigated by planting five trees, 1 inch to 2 inches in diameter-at-breast height (dbh), for each tree which is removed that is 10" dbh or greater (5:1 mitigation based on the number of large trees) or by using the 1:1 replacement ratio based on area depending on the type of habitat impacted (individual canopy tree removal in an urban streetscape or park-like environment versus removal of habitat supporting a tree canopy, woody understory, and herbaceous layer). Impacts 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. (IDNR-DFW)
6. 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 through September 30. (IDNR-DFW)

US 231 Drainage Improvements
Dubois County, Indiana
Des. No. 2101215

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Appendix A: INDOT Supporting Documentation

Categorical Exclusion Level Thresholds

	PCE	Level 1	Level 2	Level 3	Level 4 ¹
Section 106	Falls within guidelines of Minor Projects PA	“No Historic Properties Affected”	“No Adverse Effect”	-	“Adverse Effect” Or Historic Bridge involvement ²
Stream Impacts³	No construction in waterways or water bodies	< 300 linear feet of stream impacts	≥ 300 linear feet of stream impacts	-	USACE Individual 404 Permit ⁴
Wetland Impacts³	No adverse impacts to wetlands	< 0.1 acre	-	< 1.0 acre	≥ 1.0 acre
Right-of-way⁵	Property acquisition for preservation only or none	< 0.5 acre	≥ 0.5 acre	-	-
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 <ul style="list-style-type: none"> • District Env. (DE) • Env. Serv. Div. (ESD) • FHWA 	Concurrence by DE or ESD	DE or ESD	DE or ESD	DE and/or ESD	DE and/or ESD; and FHWA

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

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

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

⁴ US Army Corps of Engineers Individual 404 Permit

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

⁶ 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.

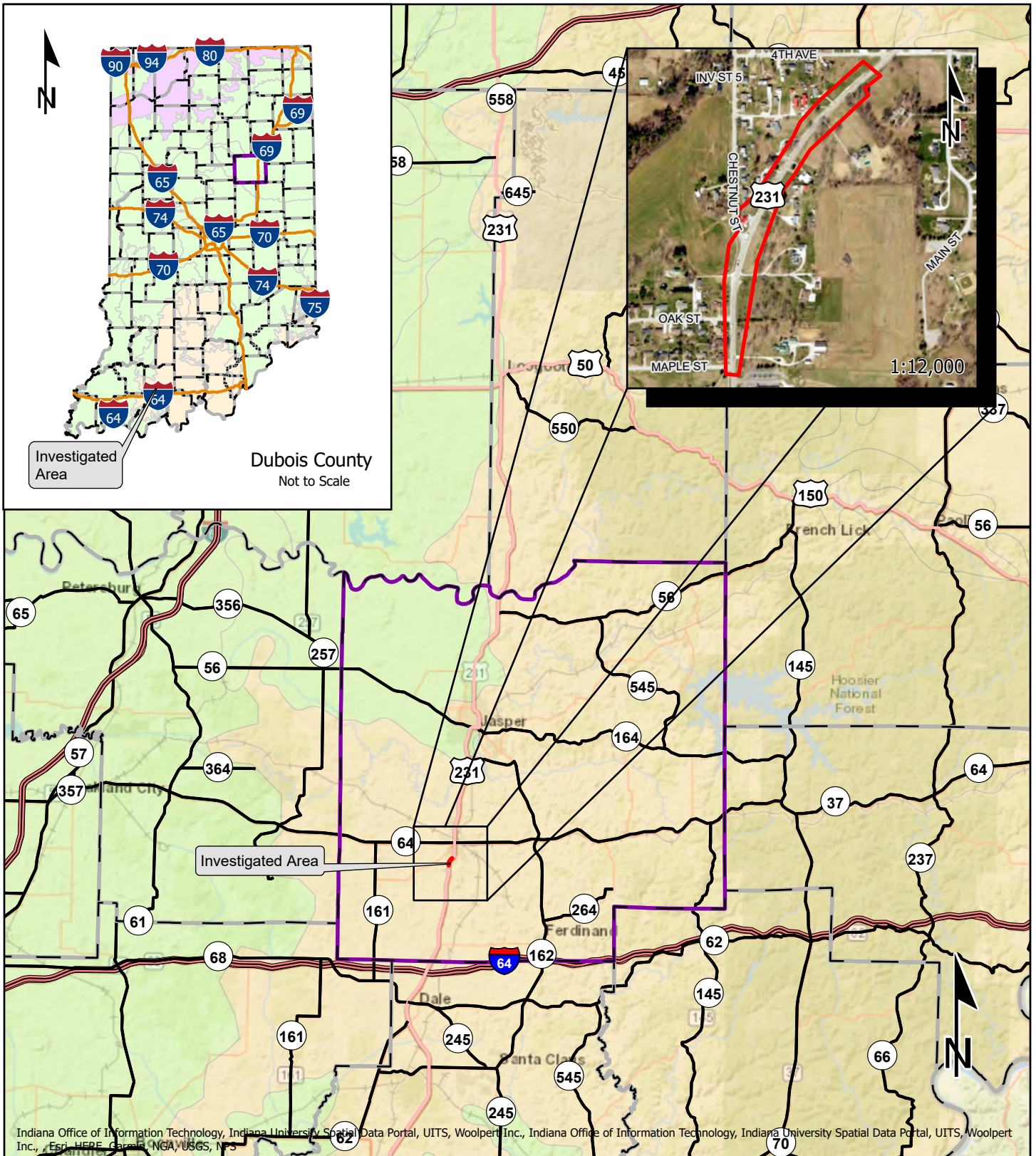
¹⁰ Hot Spot Analysis and/or MSAT Quantitative Emission Analysis.

* Includes the threatened/endangered species critical habitat

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

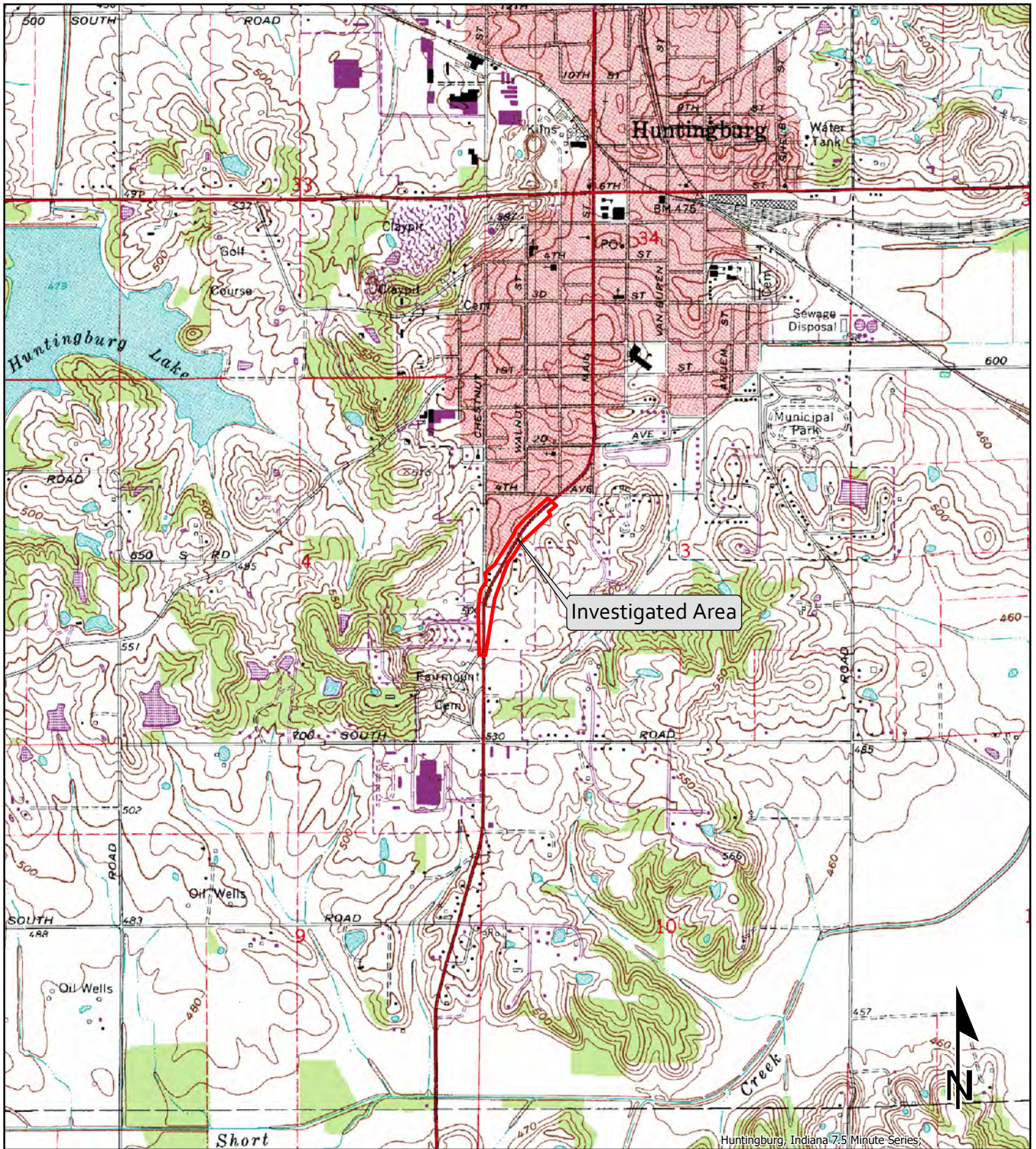
US 231 Drainage Improvements
Dubois County, Indiana
Des. No. 2101215




Appendix B: Graphics



Indiana Office of Information Technology, Indiana University Spatial Data Portal, UITS, Woolpert Inc., Indiana Office of Information Technology, Indiana University Spatial Data Portal, UITS, Woolpert Inc., Esri, HERE, Garmin, NGA, USGS, NPS




<ul style="list-style-type: none"> Investigated Area Dubois County County Boundaries 	<p>NRCS Land Resource Regions</p> <ul style="list-style-type: none"> Northeast and Northcentral Midwest Eastern Mountains and Piedmont 	<p>Project Location Map US 231 Drainage Improvements Dubois County, Indiana</p>	
<p>0 4 8 Miles</p>		<p>Des. No. 2101215</p> <p>1 inch = 8 miles</p>	<p>HNTB Graphics created by HNTB Corporation (2021)</p>

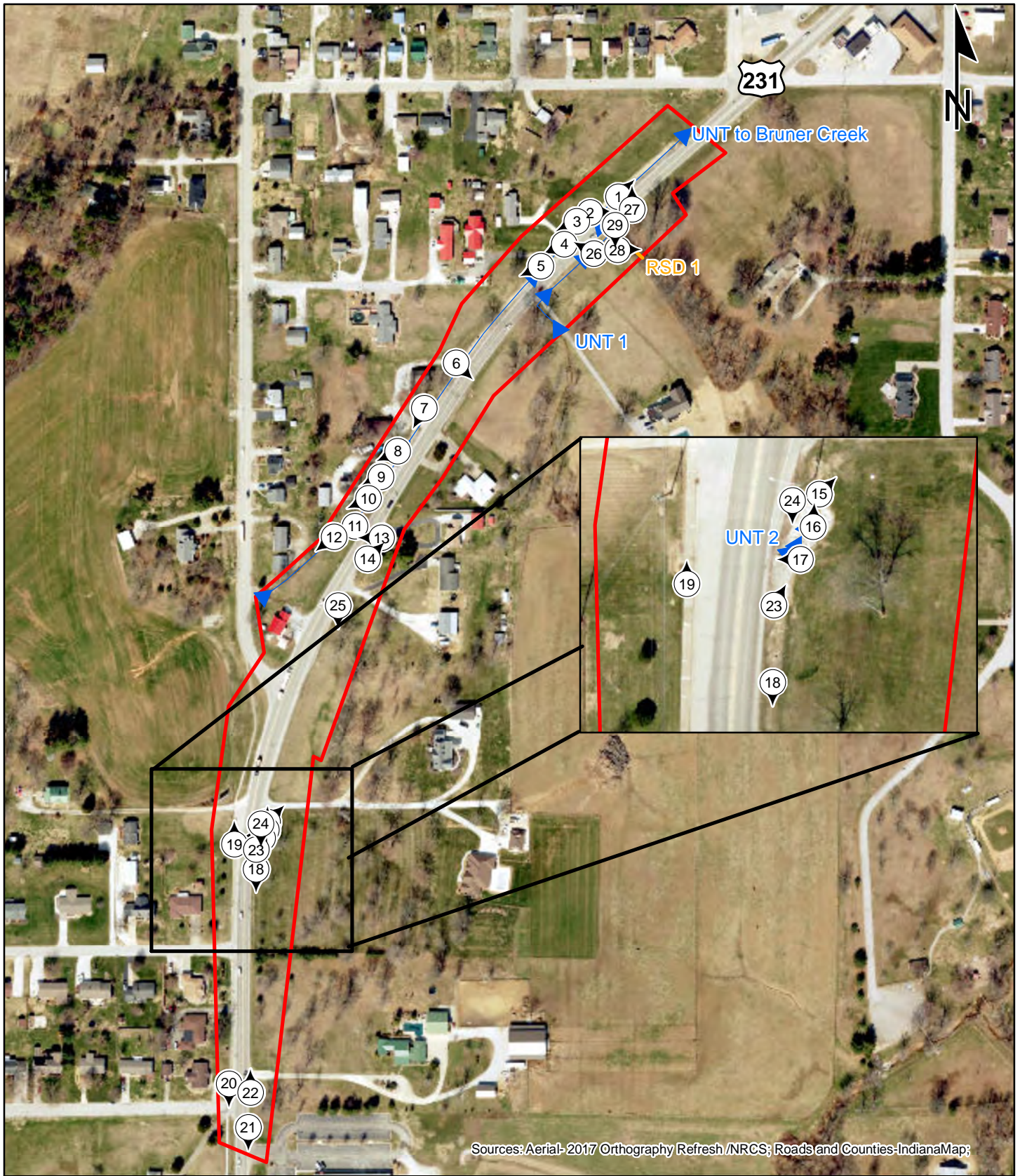


 Investigated Area	USGS (1:24,000 scale) Topographic Map	
	US 231	
	Drainage Improvements Dubois County, Indiana	
0  2,000 Feet	Des. No. 2101215	
	1 inch = 2,000 ft	Graphics created by HNTB Corporation (2021)









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

 Project Area	<h3>Project Aerial Map</h3>	
	US 231, 1.20 Miles South of SR 64 to 0.88 Mile South of SR 64 Drainage Improvement Dubois County, Indiana	
	Des. No. 2101215	
	1 inch = 300 ft	Graphics created by HNTB Corporation (2021)

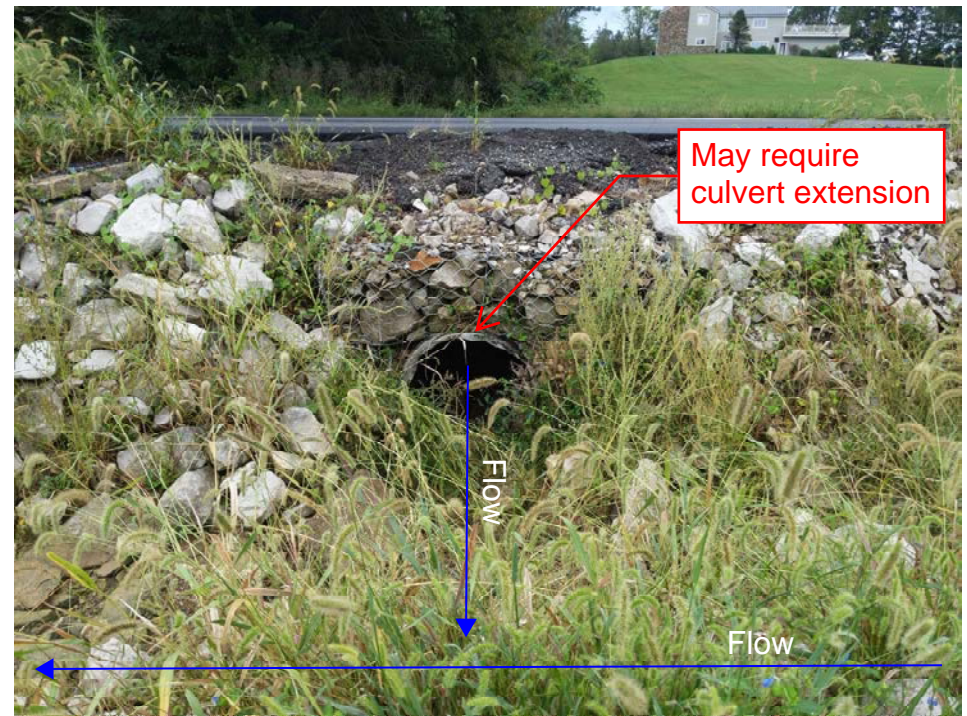


Sources: Aerial-2017 Orthography Refresh /NRCS; Roads and Counties-IndianaMap;

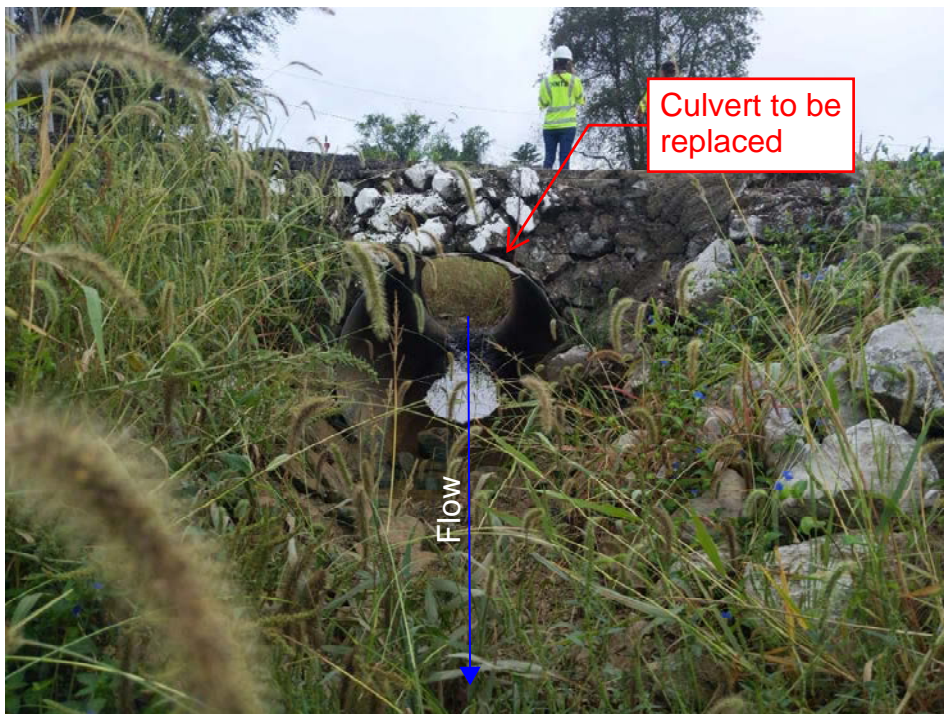
 PhotoLocations  Delineated Stream  Roadside Ditch  Investigated Area	<p>0 150 300</p>  Feet	<p>Photo Location Map US 231 Drainage Improvements Dubois County, Indiana</p>	
	<p>Des. No. 2101215</p> <p>1 inch = 300 feet</p>	 Graphics created by HNTB Corporation (2021)	



1. View of investigated area and UNT to Bruner Creek looking northeast



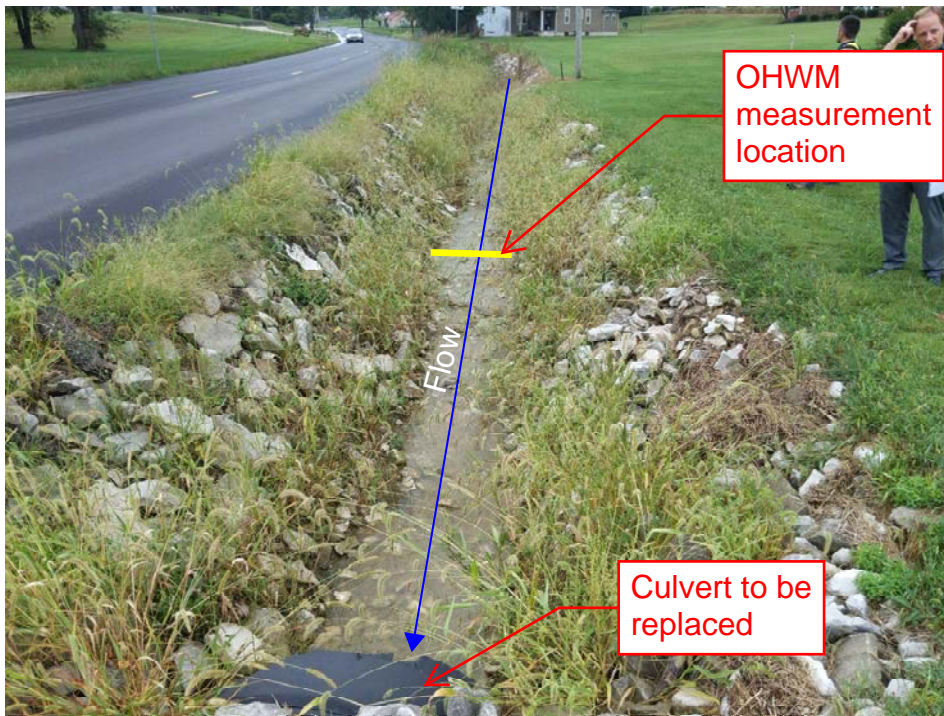
2. Looking east to confluence of UNT 1 and UNT to Bruner Creek



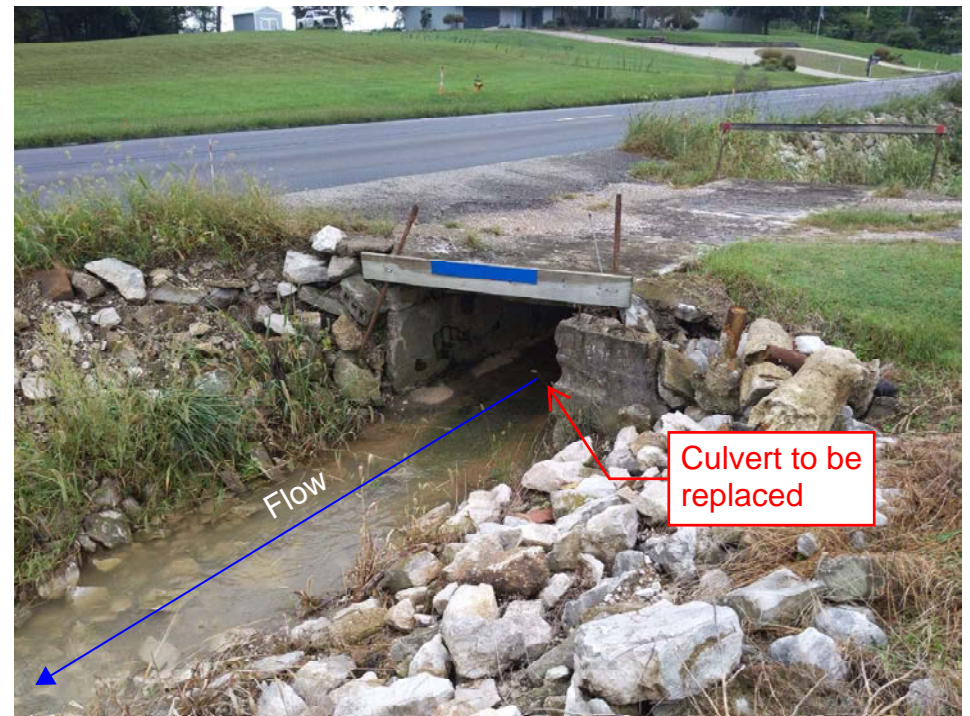
3. View of UNT to Bruner Creek and driveway culvert looking southwest



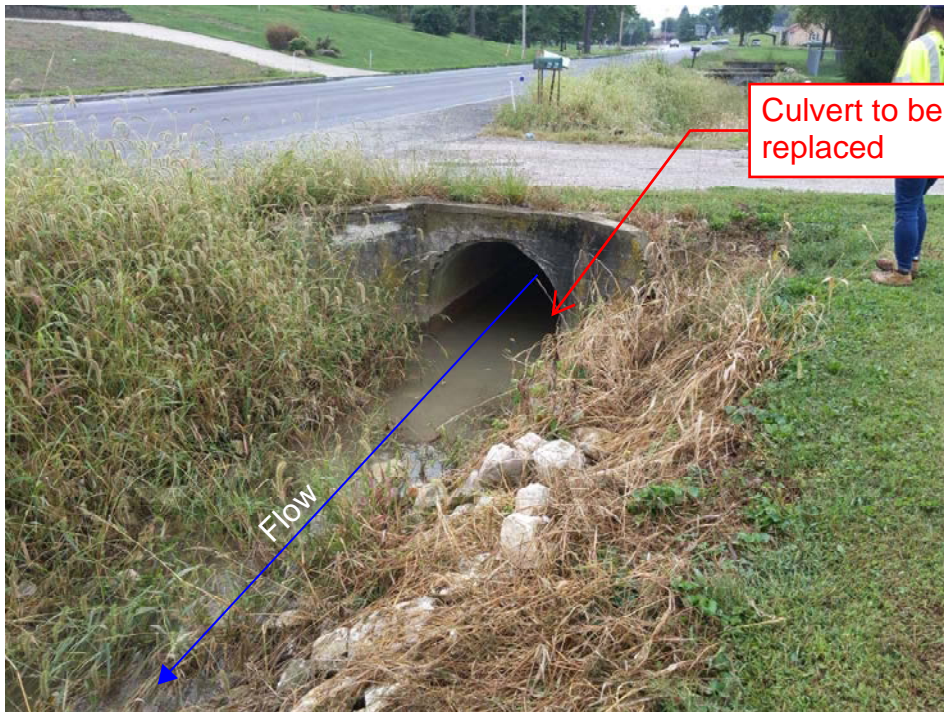
4. View of investigated area, UNT to Bruner Creek and driveway culvert looking southwest



5. View of investigated area, UNT to Bruner Creek and driveway culvert looking southwest



6. View of investigated area, UNT to Bruner Creek and driveway culvert looking southeast



7. View of investigated area, UNT to Bruner Creek and driveway culvert looking southeast



8. View of investigated area and UNT to Bruner Creek looking southwest.



9. View of investigated area, UNT to Bruner Creek and driveway culvert looking southwest



10. View of investigated area and UNT to Bruner Creek looking southwest



11. Looking southwest to UNT to Bruner Creek and driveway culvert



12. View of investigated area and UNT to Bruner Creek looking southwest



13. Looking west to drainage grate within existing right-of-way. Drainage in the investigated area is captured in open channels as well as a network of enclosed systems.



14. Investigated area looking northeast



15. Investigated area looking northeast



16. Looking north to UNT 2 and inlet to enclosed drainage system



17. View of UNT 3 and culvert that carries stream beneath US 231



18. Investigated area looking south



19. Investigated area looking north



20. Investigated area looking south



21. Investigated area looking south



22. Investigated area looking north



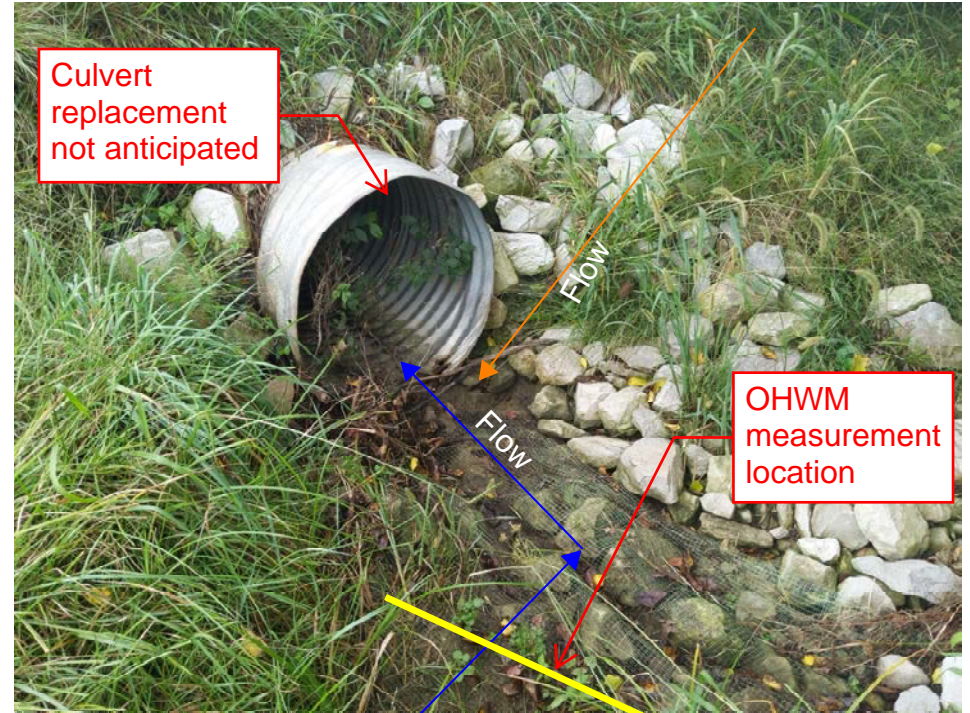
23. Looking northeast to investigated, UNT 2, and inlet to enclosed drainage system



24. Looking south to investigated area, UNT 2, and culvert carrying stream beneath US 231



25. Investigated area looking south



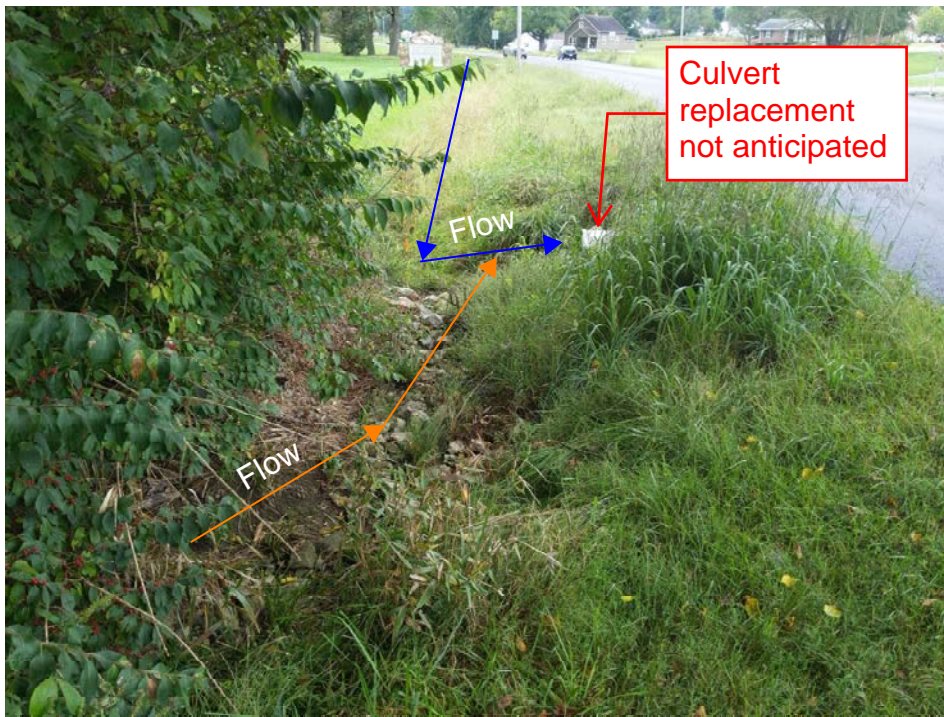
26. Looking west to confluence of UNT 1 and RSD 1



27. Investigated area looking north



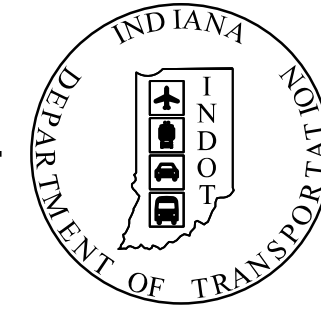
28. Investigated area and RSD 1 looking east



29. View of investigated area, UNT 1, and RSD 1 looking south

PROJECT	DESIGNATION
2101215	2101215
CONTRACT	
R-44035	

INDIANA DEPARTMENT OF TRANSPORTATION



ROAD PLANS U.S. 231

ROUTE: U.S. 231 FROM: RP 41+00 TO: RP 41+20
PROJECT NO. 2101215

P.E. 2101215
R/W 2101215
CONST. 2101215

PROJECT DESCRIPTION

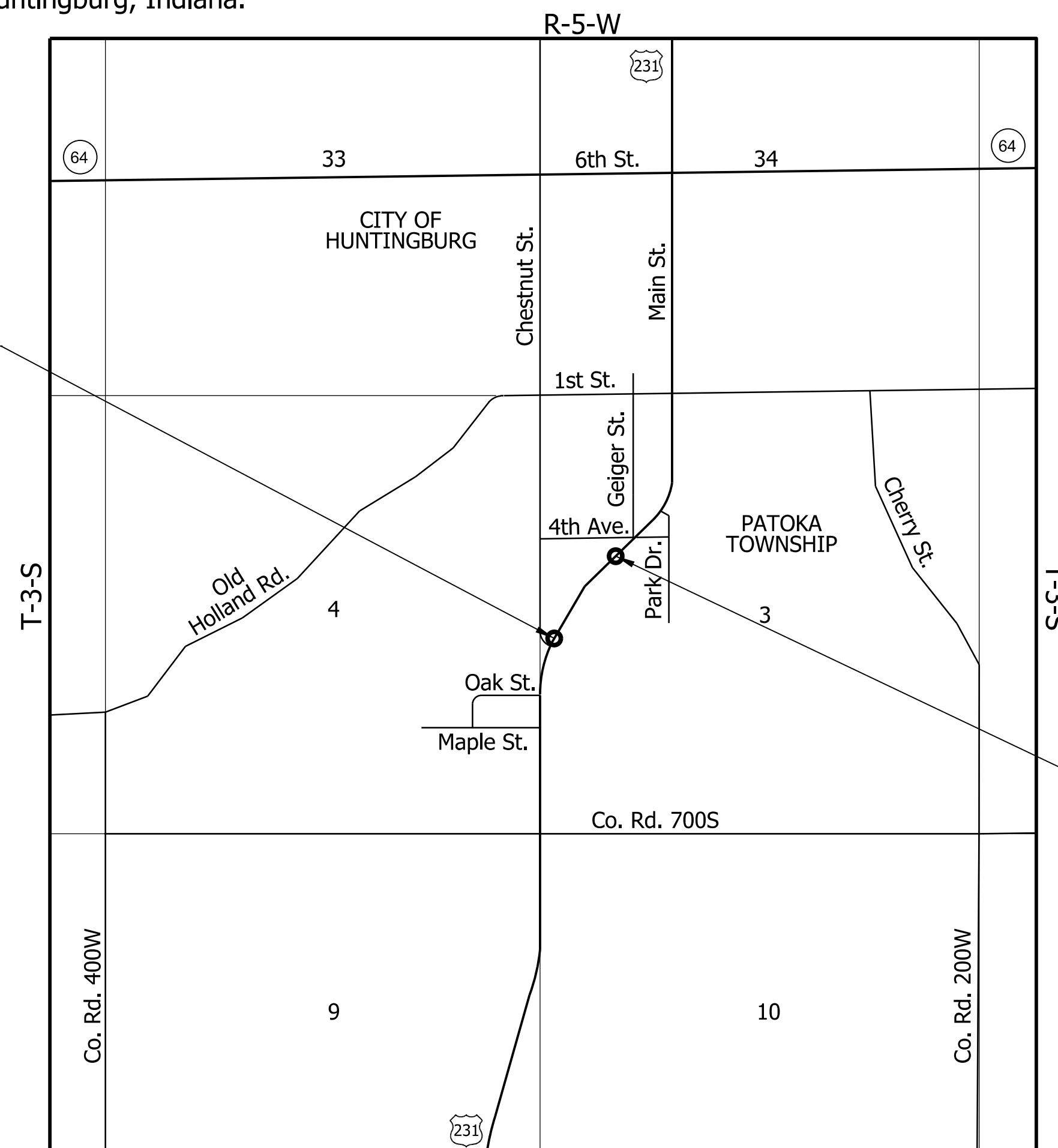
Drainage improvements and shoulder widening on US 231 from 1.20 miles South of SR 64 to 0.88 miles South of SR 64 in Section 3, T-3-S, R-5-W, Patoka Township, Dubois County, Huntingburg, Indiana.

TRAFFIC DATA U.S. 231		
A.A.D.T (2022)		10,100
A.A.D.T (2042)		10,200
D.H.V (2042)		10%
DIRECTIONAL DISTRIBUTION		50%
TRUCKS		10%
		4% of DHV

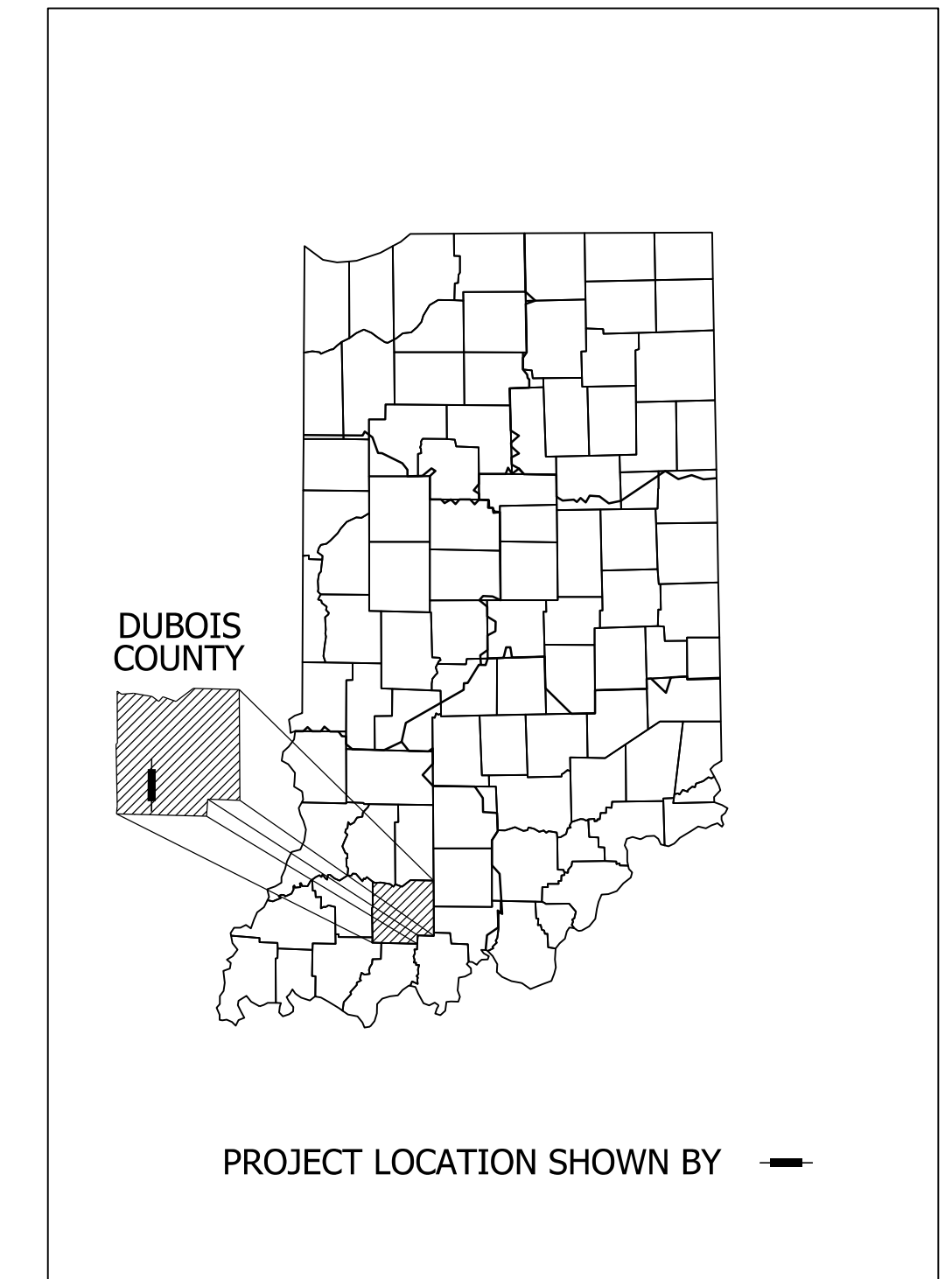
DESIGN DATA U.S. 231	
DESIGN SPEED	40 MPH
PROJECT DESIGN CRITERIA	3R (NON-FREEWAY)
FUNCTIONAL CLASSIFICATION	PRINCIPAL ARTERIAL
RURAL/URBAN	URBAN (SUBURBAN)
TERRAIN	LEVEL
ACCESS CONTROL	NONE

KIN PROJECT INFORMATION	
DESIGNATION	PROJECT DESCRIPTION
2101215	US 231 Drainage Improvements and Shoulder Widening LEAD DES
2101216	US 231 Drainage Improvements and Pavement Resurfacing KIN DES
2101219	US 231 Drainage Improvements and Pavement Resurfacing KIN DES

BEGIN CONSTRUCTION
PROJECT NO. 2101215
P.O.T. STA. 15+65
LINE "A"



END CONSTRUCTION
PROJECT NO. 2101215
P.O.T. STA. 26+35
LINE "A"



LATITUDE: 38°18'03" LONGITUDE: 86°57'20"

GROSS LENGTH: 0.20 MI.
NET LENGTH: 0.20 MI.
MAX. GRADE: 2.66%

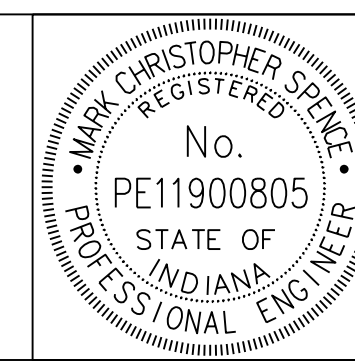
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LOCATION MAP
CITY OF HUNTINGBURG, PATOKA TOWNSHIP,
DUBOIS COUNTY

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

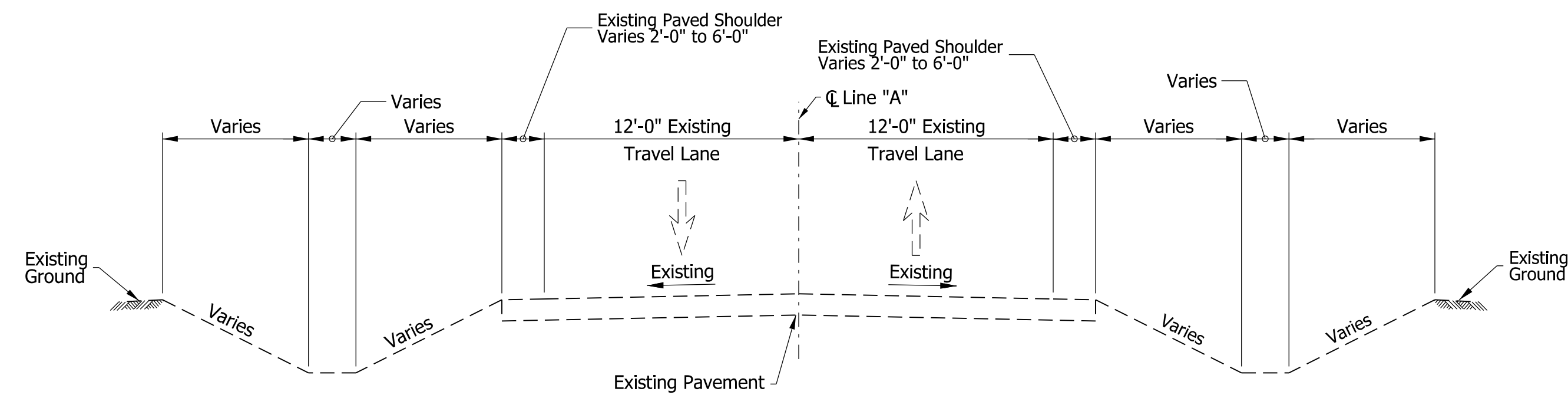


THE HNTB COMPANIES
INFRASTRUCTURE SOLUTIONS
111 MONUMENT CIRCLE
SUITE 1200
INDIANAPOLIS, IN 46204-5178



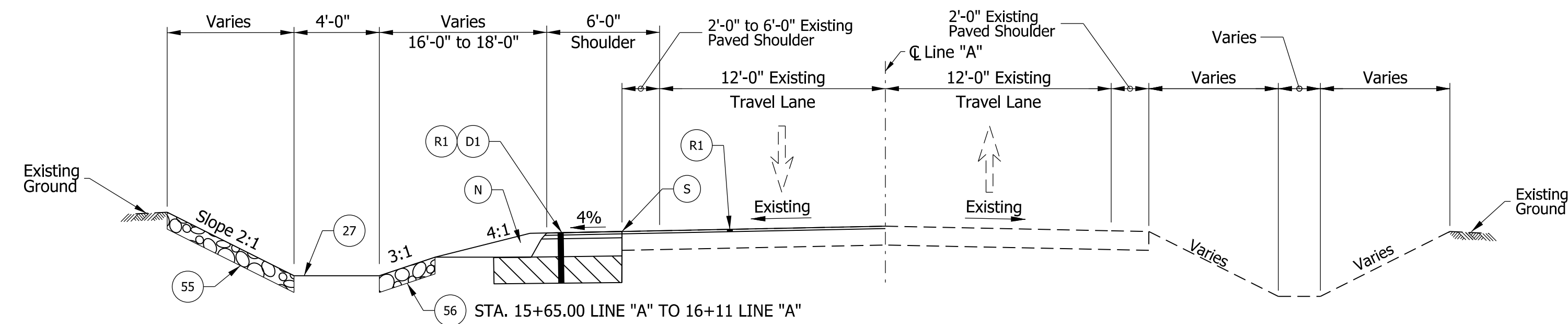
PLANS PREPARED BY: HNTB INDIANA, INC. (317) 636-4682 PHONE NUMBER
CERTIFIED BY: *Mark Spink* 06-14-2022 DATE
APPROVED FOR LETTING: _____ INDIANA DEPARTMENT OF TRANSPORTATION DATE

DESIGNATION	
2101215	
SURVEY BOOK	SHEETS
ELECTRONIC	1 of 34
CONTRACT	PROJECT
R-44035	2101215



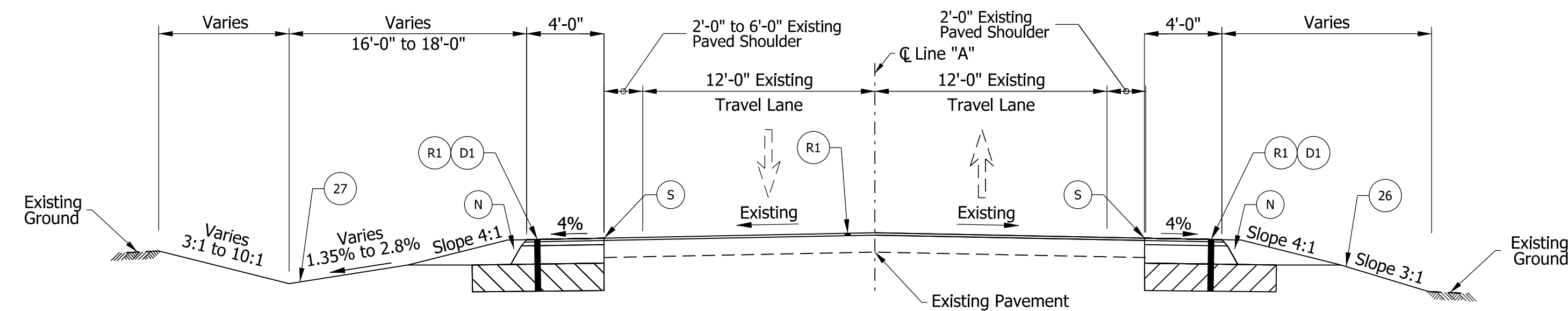
EXISTING TYPICAL SECTION US 231

STA. 15+65 LINE "A" TO STA. 26+35 LINE "A"



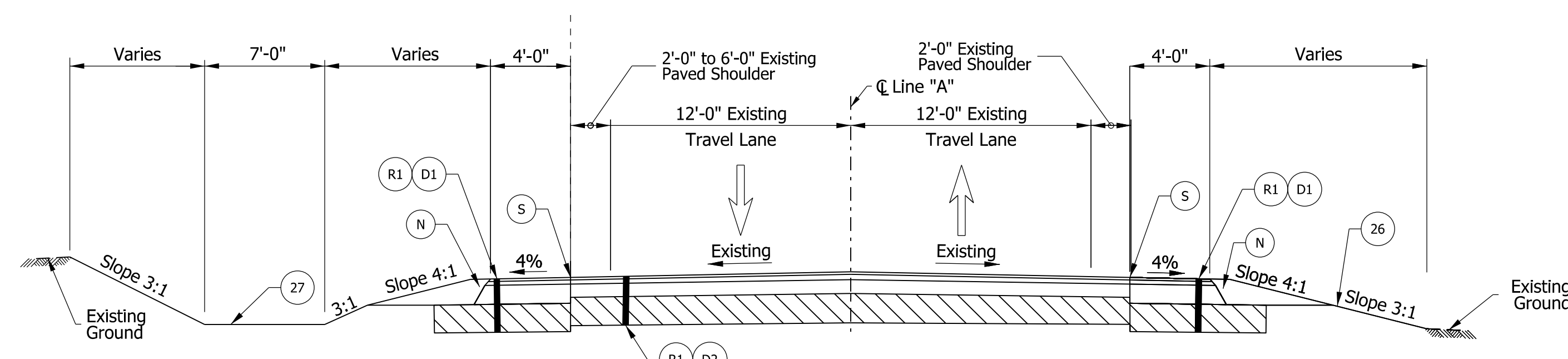
PROPOSED TYPICAL SECTION US 231

STA. 15+65.00 LINE "A" TO 21+50.00 LINE "A"



STA. 18+01.28 LINE "A" TO 19+85.00 LINE "A"
STA. 22+50.00 LINE "A" TO 23+56.00 LINE "A"

STA. 21+50.00 LINE "A" TO 23+92.00 LINE "A"

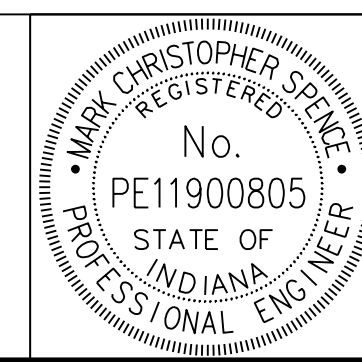


STA. 19+85.00 LINE "A" TO 22+67.00 LINE "A"
STA. 23+56.00 LINE "A" TO 26+35.00 LINE "A"

STA. 23+92.00 LINE "A" TO 24+16.00 LINE "A"

Legend

- (R1) 165#/Syd. QC/QA-HMA, 4, 76, Surface, 9.5 mm on Milling, Asphalt, 1 1/2 In.
- (D1) Widening with HMA, Type D, consisting of: 440#/Syd. HMA Intermediate, Type D, on 1265 #/Syd. HMA Base, Type D, on Subgrade Treatment, Type IC, on Geotextile for Pavement, Type 1A
- (D2) 440#/Syd. QC/QA-HMA, 3, 70, Intermediate, 19.0 mm, on 880#/Syd. QC/QA-HMA, 3, 64, Base, 25.00 mm, on Subgrade Treatment, Type IC, on Geotextile for Pavement, Type 1A
- (N) Compacted Aggregate, No. 53
- (S) Sawcut (No Direct Pay)
- (26) Mulched Seeding, U, on Plant Growth Layer
- (27) Sodding, on Plant Growth Layer
- (55) Riprap, Revetment
- (56) Riprap, Uniform



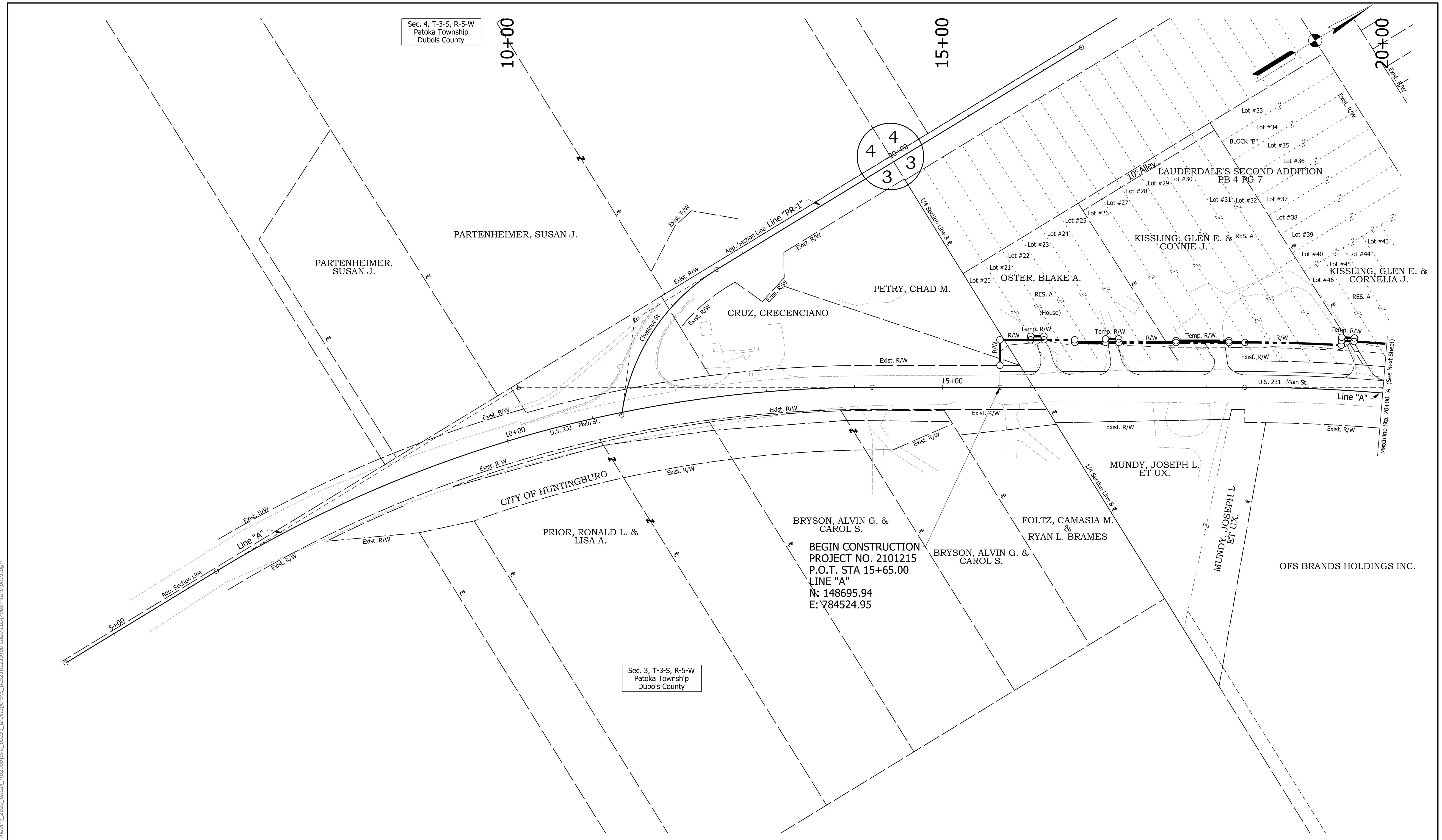
RECOMMENDED FOR APPROVAL	<i>Mark Spick</i>	DESIGN ENGINEER	DATE
			06-14-2022
DESIGNED:	RPW	DRAWN:	RPW
CHECKED:	JMB	CHECKED:	JMB

INDIANA DEPARTMENT OF TRANSPORTATION

TYPICAL CROSS SECTIONS LINE "A"

HORIZONTAL SCALE	BRIDGE FILE
N/A	N/A
VERTICAL SCALE	DESIGNATION
N/A	2101215
SURVEY BOOK	SHEETS
ELECTRONIC	5 of 34
CONTRACT	PROJECT
R-44035	2101215

jshemanski
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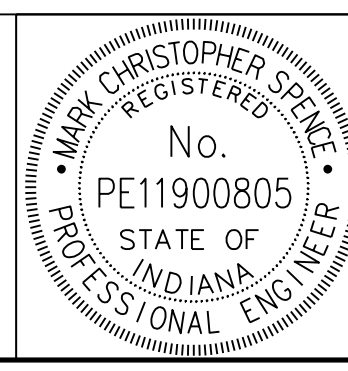


Sec. 4, T-3-S, R-5-W
Patoka Township
Dubois County

Sec. 3, T-3-S, R-5-W
Patoka Township
Dubois County

BEGIN CONSTRUCTION
PROJECT NO. 2101215
P.O.T. STA 15+65.00
LINE "A"
N: 148695.94
E: 784524.95

jshemanski
 6/15/2022 10:56:45 am
 model-sheet1
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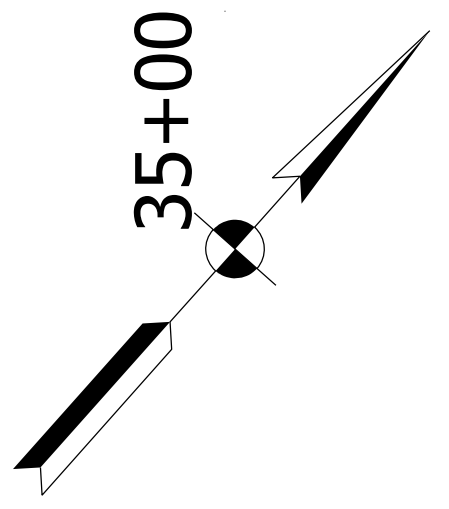
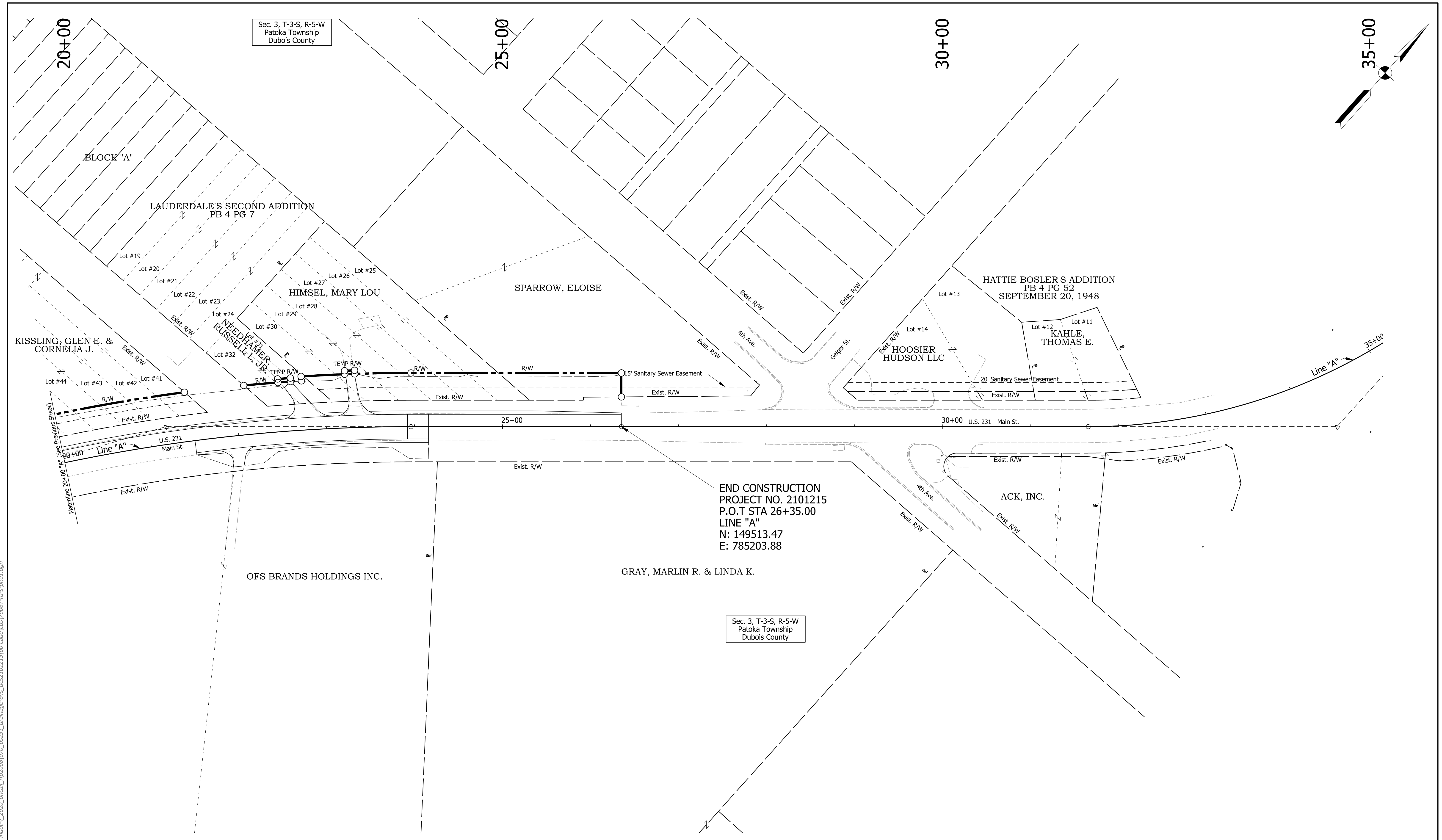


RECOMMENDED FOR APPROVAL	<i>Mark Spick</i>	DESIGN ENGINEER	06-14-2022	DATE
DESIGNED:	RPW	DRAWN:	RPW	
CHECKED:	JMB	CHECKED:	JMB	

INDIANA
DEPARTMENT OF TRANSPORTATION

PLAT NO. 1

HORIZONTAL SCALE	BRIDGE FILE
1"=50'	N/A
VERTICAL SCALE	DESIGNATION
N/A	2101215
SURVEY BOOK	SHEETS
ELECTRONIC	3 of 34
CONTRACT	PROJECT
R-44035	2101215

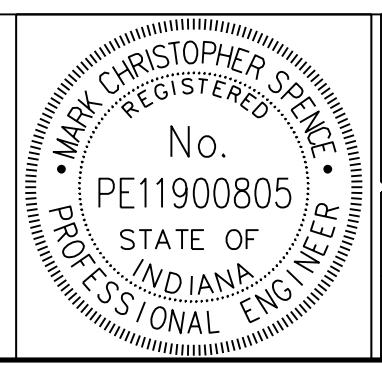


Sec. 3, T-3-S, R-5-W
Patoka Township
Dubois County

Sec. 3, T-3-S, R-5-W
Patoka Township
Dubois County

END CONSTRUCTION
PROJECT NO. 2101215
P.O.T STA 26+35.00
LINE "A"
N: 149513.47
E: 785203.88

jshemanski
 6/15/2022 10:56:47 am
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RECOMMENDED FOR APPROVAL	<i>Mark Spick</i>	DESIGN ENGINEER	06-14-2022	DATE
DESIGNED:	RPW	DRAWN:	RPW	
CHECKED:	JMB	CHECKED:	JMB	

INDIANA
DEPARTMENT OF TRANSPORTATION

PLAT NO. 1

HORIZONTAL SCALE	BRIDGE FILE
1"=50'	N/A
VERTICAL SCALE	DESIGNATION
N/A	2101215
SURVEY BOOK	SHEETS
ELECTRONIC	4 of 34
CONTRACT	PROJECT
R-44036	2101215