FHWA-Indiana Environmental Document

CATEGORICAL EXCLUSION / ENVIRONMENTAL ASSESSMENT FORM

GENERAL PROJECT INFORMATION

Road No./County:	State Road (SR) 124 / Miami County
Designation Number(s):	1800552
Project Description/Termini:	HMA Overlay and Preventive Maintenance - From the intersection of SR 124 and SR 19 (Broadway Street) to 6.99 miles east of SR 19 at approximately 425 feet west of CR S 675 E

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

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: Susan Harrington, HNTB Corporation

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.**

	Yes	No
Does the project have a historic bridge processed under the Historic Bridges PA*?		X
If No, then:		
Opportunity for a Public Hearing Required?	X	

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

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

Notice of Entry letters were mailed to potentially affected property owners near the project area on August 12, 2020 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, pages 1-2.

The project will meet the minimum requirements described in the current *Indiana Department of Transportation (INDOT) Public Involvement Manual* which requires the project sponsor to offer the public an opportunity to submit 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: Fort Wayne

Local Name of the Facility: SR 124

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

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

PURPOSE AND NEED:

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

Need:

The need for the project is demonstrated by the existing pavement deterioration; roadway areas experiencing runoff, ponding, or flooding; and culvert deterioration.

SR 124 from SR 19 to 0.57 mile east of SR 19 was reconstructed in 2011 and SR 124 from 0.57 mile east of SR 19 to approximately 425 feet west of CR S 675 E had a chip seal surface that was placed in 2012. Both pavement sections are experiencing pavement deterioration. INDOT uses an average International Roughness Index (IRI) to quantitatively assess the smoothness of the roadway. The IRI describes how much total vertical movement a standard passenger vehicle's body would experience if driven over a 1-mile segment of the subject pavement at 50 miles per hour. A typical IRI value is 70 inches per mile (in./mi.). In 2019, the SR 124 corridor showed the following IRI values:

- SR 124 from SR 19 to 0.57 mile east of SR 19 at Wallace Avenue had an average IRI of 130.84 in./mi.
- SR 124 from 0.57 mile east of SR 19 at Wallace Avenue to approximately 425 feet west of CR S 675 E had an average IRI of 125.26 in./mi.

These IRI values indicate the surface of the roadway is in poor condition, which results in a very rough ride for users (Appendix I, pages 11-37).

From approximately 1.9 miles east of SR 19 to 2.16 miles east of SR 19 at the first bend in SR 124 near the Mississinewa River, there are drainage concerns with ditch flow encroaching onto the edge of the existing pavement, which results in water ponding on the roadway and flooding. Unnamed Tributary (UNT) 1 to Mississinewa River enters the right-of-way from an offsite forested pasture at this location and is captured in the existing roadside ditch along the south and west side of SR 124. The roadside ditch is not sufficient to carry this waterway and is restricted by multiple driveway culverts, one of which is crushed, and sedimentation in the ditch (Appendix I, pages 11-37).

In addition, there are three cross culverts in the corridor within the project limits that have a rating of 3 out of 9 indicating they are poor in condition and are in danger of failing.

Purpose:

The purpose of the project is to extend the pavement life of SR 124 a minimum of ten years. Additionally, the project will improve drainage within the area of concern along SR 124 from approximately 1.9 miles east of SR 19 to 2.16 miles east of SR 19 and maintain the existing culverts along SR 124.

PROJECT DESCRIPTION (PREFERRED ALTERNATIVE):

County: Miami Municipality: Peru

Limits of Proposed Work: From the intersection of SR 124 and SR 19 (Broadway Street) to 6.99 miles east of SR 19 at approximately 425 feet west of CR S 675 E

Total Work Length: 6.99 Mile(s) Total Work Area: 28.1 Acre(s)

	Yes[1]	No
Is an Interstate Access Document (IAD)[1] required?		X
If yes, when did the FHWA provide a Determination of Engineering and Operational Acceptability?	Date: NA	

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

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

Location:

This project is located on SR 124 in Miami County, beginning at the SR 19/SR 124 intersection in Peru, Indiana and extending east along SR 124 in a rural area approximately 425 feet west of CR S 675 E near the Miami and Wabash county line. More specifically, the project is located in Reserve No. 5 (Richardville), Reserve No. 6 (Richardville), Reserve No. 7 (Godfroy), Reserve No. 9 (Godfroy), Sections 33 and 34, Township 27 North, Range 5 East, and Section 3, Township 26 North, Range 5 East in Washington and Butler Townships (Appendix B, pages 1-9).

Existing Conditions:

SR 124 is a two-lane undivided facility that is classified as a rural, major collector within the project area. There is commercial and residential land use within the city of Peru at the west end of the project area, as well as residential, agricultural, and forested areas throughout the remainder of the project area. This segment of SR 124 is experiencing pavement deterioration and is approaching the end of the pavement's lifespan.

Within the urban section of SR 124 from SR 19 to 115 feet west of Wallace Avenue, there are existing sidewalks on the south side of SR 124 with modern curb ramps at Wabash Street, Huntington Street, and Sullivan Lane. This section of roadway and the curb ramps were reconstructed in 2011. The sidewalk continues along the north side of SR 124 and north along Wallace Avenue from the point 115 feet west of Wallace Avenue. The sidewalk and curb ramp on the north side of SR 124 at Wallace Avenue are being improved as part of the Wallace Avenue bridge over the Wabash reconstruction under DES is 1802959, Contract Number is B-41950. This contract is currently under construction.

The existing roadway typical cross section in this urban area consists of two 12-foot wide lanes with curb and gutter. There are two stop-controlled intersections along this corridor at SR 19 and Wallace Avenue in the urban section.

Within the rural section of SR 124 from Wallace Avenue to approximately 425 feet west of CR S 675 E near the Miami and Wabash county line there are no sidewalks. The existing roadway typical cross section consists of two 12-foot wide lanes with both unpaved shoulders and paved shoulders varying from one to 10 feet. Cross streets have a stop-control, but SR 124 does not.

There are drainage concerns along SR 124 from approximately 1.9 miles east of SR 19 to 2.16 miles east of SR 19 at the first bend in SR 124 near the Mississinewa River (Appendix B, pages 3, 81-82, and 92-95). The existing roadside ditch flow is restricted by sedimentation in the ditch, multiple driveway culverts one of which is crushed, and an undersized channel, which result in water ponding on the roadway and flooding. Within this section of roadway, there is one horizontal curve with a driveway at the inside radius of the curve. The driveway culvert has been damaged by

vehicles traversing over the inlet. The roadside ditch flows to the existing 32-inch metal pipe culvert, CLV-124-052-2.16, located 2.13 miles east of SR 19 which discharges to the Mississinewa River. CLV-124-052-2.16 connects to a 24-inch vitrified clay pipe which outfalls to the Mississinewa River. The vitrified clay pipe is failing and there is substantial streambank erosion and head cutting at the outfall.

There are two bridges, five large culverts ranging from 48 inches to 11.5 feet and 27 small culverts throughout the project corridor; however, only those culverts that have a rating of 3 out of 9 or below which is indicative of immediate failure are included in this project. There are three cross culverts in the project corridor that have a rating of 3 out of 9 and are poor in condition and in danger of failing that are included in this project. The three culverts are as follows:

- Existing 32-inch metal pipe culvert, CLV-124-052-2.16, located 2.13 miles east of SR 19 (Appendix B, pages 3, 82 and 94-95).
- Existing 15-inch metal pipe culvert, CLV-124-052-3.14, located under Circus Lane just north of the intersection with SR 124 approximated 3.15 miles east of SR 19 (Appendix B, pages 3, 83and 96).
- Existing 24-inch metal pipe culvert, CLV-124-052-6.49, located under SR 124 approximately 0.1 mile north of the CR 625 East crossing SR 124 or 6.49 miles east of SR 19 (Appendix B, pages 5, 90, and 97).

In the early coordination and supporting documents, an existing 24-inch metal pipe culvert, CLV-124-052-4.48, located 4.50 miles east of SR 19 was included in the project. This pipe has since been eliminated.

Preferred Alternative:

The proposed project includes application of a Hot Mix Asphalt (HMA) overlay and preventive maintenance of SR 124. The existing pavement structure on SR 124 will undergo a mill of 1.5 inches and overlay with 1.5 inches of HMA. Two to five feet of roadway shoulder widening will be completed at the inside radius of the curve approximately two miles east of SR 19 on SR 124 and the driveway at this location will be reconstructed including replacement of the driveway culvert (Appendix B, pages 3, 81-82, 94).

There are eight existing curb ramps located between SR 19 and Wallace Avenue that were investigated to ensure current American with Disabilities (ADA) standard were meet. Replacement of the ramps would only be necessary if the ramps no longer meet the ADA standards or are not compatible with the proposed HMA overlay. Curb ramp replacements are anticipated at the northeast and northwest corners of SR 124 and SR 19 (Appendix B, pages 2 and 98). The eastern end of the sidewalk 115 feet west of Wallace Avenue does not end a corner and therefore there is not a curb ramp. The receiving ramp on the north side of SR 124 at this location does not meet ADA requirements and is included in the Wallace Avenue bridge over the Wabash reconstruction under DES is 1802959, Contract Number is B-41950 that is currently under construction.

Culverts and drainage improvements include the following. Based on coordination with the INDOT District Environmental Staff on April 10, 2021, only those culverts that are being replaced as part of the project are referenced below and in the Bridge and/or Small Structure Section. Culverts and bridges in the overlay portion of the project are not included and no impacts are expected.

- Installation of a new 6 foot by 4 foot reinforced concrete box culvert crossing SR 124, 1.9 miles east of SR 19. This culvert will convey UNT 1 to the Mississinewa River from the existing roadside ditch to a newly constructed drainage channel on the north and east side of the roadway (Appendix B, pages 3, 81-85, 92-95, and 100).
- Construction of approximately 1,350 linear feet of drainage channel on the north and east side of SR 124, beginning 1.9 miles east of SR 19 and discharging to the Mississinewa River. The confluence of the drainage channel with the Mississinewa River will be armored with riprap (Appendix B, pages 3, 81-82 and 92-95).
- Replacement of an existing 15-inch metal pipe culvert located at 2.10 miles east of SR 19 at a driveway (Appendix B, pages 3, 81-82 and 94). This culvert is currently not serviceable and is being relocated due to the reconstruction of the driveway and construction of a shoulder at the driveway.
- Replacement of an existing 32-inch metal pipe culvert, CLV-124-052-2.16, located 2.13 miles east of SR 19 with a 36-inch pipe (Appendix B, pages 3, 82 and 94-95).
- Replacement of an existing 15-inch metal pipe culvert, CLV-124-052-3.14, located under Circus Lane just north

of the intersection with SR 124 (Appendix B, pages 3, 83 and 96).

- Replacement of an existing 24-inch metal pipe culvert, CLV-124-052-6.49, located under SR 124 approximately 0.1 mile north of the CR 625 East crossing SR 124 (Appendix B, pages 5, 90 and 97).

Traffic will be maintained with single lane closures utilizing a temporary signal or flagging operations for the HMA overlay and a roadway closure with a temporary detour, as required, for construction of cross culverts (Appendix B, pages 76-77). More information about Maintenance of Traffic (MOT) is included in the MOT section of this document.

By performing an HMA overlay and multiple drainage improvements, the project meets the purpose and need to extend the pavement life of SR 124 and improve drainage in the area experiencing flooding and to maintain culverts within the project area.

Logical Termini/Independent Utility:

The project has independent utility because it will provide a fully functional roadway without any additional transportation improvements required beyond the project limits. The HMA overlay portion of the project begins at SR 19 and extends to approximately 425 feet west of CR S 675 E and encompasses two pavement sections and an area of SR 124 with drainage concerns.

SR 124 begins at SR 19 and extends east to the Indiana-Ohio State Line. The beginning of SR 124 at SR 19 establishes the western project terminus. The pavement section from SR 19 east to Wallace Avenue has an IR of 130.84 indicating rough pavement. The pavement section from Wallace Avenue to approximately 425 feet west of CR S 675 E has an average IRI of 125.26 and is experiencing pavement deterioration (Appendix I, pages 14 and 20-21). The pavement section that extends from 425 feet west of SR S 675 E east to SR 13 was resurfaced in 2008 and is not in need of replacement therefore establishing the eastern logical termini for the HMA overlay.

There are drainage concerns along SR 124 from approximately 1.9 miles east of SR 19 to 2.16 miles east of SR 19 at the first bend in SR 124 near the Mississinewa River. Drainage concerns were not noted at other locations further east or west of this location.

The project termini are appropriate as they include all areas that contribute to the transportation problem and encompass a range of solutions appropriate to solving the transportation problem.

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.

Do Nothing Alternative: This alternative would allow the existing roadway and structures to remain in place with no improvements. This alternative would not involve any environmental impacts. It would result in continued deterioration of the road, which could allow development of unsafe travel conditions and likely increase costs of repair at a later date. This alternative would not meet the purpose and need of the project because it would not increase the pavement life, and the roadway would continue to deteriorate with the existing traffic. Therefore, this alternative has been discarded from further consideration.

Chip Seal Alternative: This alternative outlined in the Abbreviated Engineers Assessment and INDOT Mini-Scope (Appendix I, pages 11-37) would place another chip seal on the roadway. Roadway shoulder widening would occur to address a substandard horizontal curve and the ditch would be reconfigured to eliminate drainage issues. The proposed roadway widening and ditch regrading would require additional right-of-way. Eight curb ramps within the project area would require analysis and potential replacement in order to meet current ADA standards. This alternative would not meet the purpose and need of the project because it would not increase the pavement life and the pavement would continue to deteriorate. Therefore, this alternative has been discarded from further consideration.

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	X
It would result in serious impacts to the motoring public and general welfare of the economy.	
Other (Describe):	

ROADWAY CHARACTER:

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

Name of Roadway: SR 124 – Segment 1 (from SR 19 to Wallace Avenue)

Functional Classification: Major Collector

Current ADT: 1002 VPD (2023) Design Year ADT: 1002 VPD (2033)

Design Hour Volume (DHV): 95 Truck Percentage (%) 8.46

Designed Speed (mph): 35/45/55 Legal Speed (mph): 35/45/55

	Existing		Proposed	
Number of Lanes:	2		2	
Type of Lanes:	Through		Through	
Pavement Width:	24	ft.	24	ft.
Shoulder Width:	2	ft.	2	ft.
Median Width:	NA	ft.	NA	ft.
Sidewalk Width:	5	ft.	5	ft.

Setting:	X	Urban		Suburban		Rural
Topography:	X	Level		Rolling		Hilly

Name of Roadway: SR 124 – Segment 2 (Wallace Avenue to approximately 425 feet west of CR S 675 E)

Functional Classification: Major Collector

Current ADT: 1002 VPD (2023) Design Year ADT: 1002 VPD (2033)

Design Hour Volume (DHV): 95 Truck Percentage (%) 8.46

Designed Speed (mph): 35/45/55 Legal Speed (mph): 35/45/55

	Existing		Proposed	
Number of Lanes:	2		2	
Type of Lanes:	Through		Through	
Pavement Width:	24	ft.	24	ft.
Shoulder Width:	2-12	ft.	2-12	ft.
Median Width:	NA	ft.	NA	ft.
Sidewalk Width:	NA	ft.	NA	ft.

Setting:		Urban		Suburban	X	Rural
Topography:	X	Level		Rolling		Hilly

BRIDGES AND/OR SMALL STRUCTURE(S):

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

Structure/NBI Number(s): CV 124-052-1.94 Sufficiency Rating: NA

(Rating, Source of Information)

	Existing		Proposed	
Bridge/Structure Type:	NA		6' by 4' RCB	
Number of Spans:	NA		1	
Weight Restrictions:	NA	ton	NA	ton
Height Restrictions:	NA	ft.	NA	ft.
Curb to Curb Width:	NA	ft.	NA	ft.
Outside to Outside Width:	NA	ft.	NA	ft.
Shoulder Width:	NA	ft.	NA	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.

A new 6 foot by 4 foot reinforced concrete box culvert 42 feet in length will be installed to convey UNT 1 to Mississinewa River under SR 124 to a new drainage channel (Appendix B, pages 3, 81-82, 92-95, and 100).

Structure/NBI Number(s): NA Sufficiency Rating: NA

(Rating, Source of Information)

	Existing		Proposed	
Bridge/Structure Type:	CMP		CMP	
Number of Spans:	1		1	
Weight Restrictions:	NA	ton	NA	ton
Height Restrictions:	NA	ft.	NA	ft.
Curb to Curb Width:	NA	ft.	NA	ft.
Outside to Outside Width:	NA	ft.	NA	ft.
Shoulder Width:	NA	ft.	NA	ft.

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

The existing 15-inch driveway culvert at the inside curve along SR 124 2.10 miles east of SR 19. This culvert is a 15-inch CMP which is partially crushed and filled with sediment. This culvert will be replaced with 58 feet of 15-inch CMP (Appendix B, pages 3, 81-82 and 94) This culvert is currently not serviceable and is being relocated due to the reconstruction of the driveway and construction of a shoulder at the driveway

Structure/NBI Number(s): CV 124-052-2.16 Sufficiency Rating: 3 out of 9, Abbreviated Engineer's Assessment
(Rating, Source of Information)

	Existing		Proposed	
Bridge/Structure Type:	CMP		CMP	
Number of Spans:	1		1	
Weight Restrictions:	NA	ton	NA	ton
Height Restrictions:	NA	ft.	NA	ft.
Curb to Curb Width:	NA	ft.	NA	ft.
Outside to Outside Width:	NA	ft.	NA	ft.
Shoulder Width:	NA	ft.	NA	ft.

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

The existing 32-inch metal pipe culvert, CLV-124-052-2.16, is located 2.13 miles east of SR 19. This pipe connects to a 24 inch vitrified clay pipe and outfalls to the Mississinewa River. This pipe will be replaced with 56 feet of 36-inch CMP. The pipe outfall will be armored with riprap and the culvert will be sumped 3 inches (Appendix B, pages 3, 82 and 94-95).

Structure/NBI Number(s): CLV-124-052-3.14 Sufficiency Rating: 3 out of 9, Abbreviated Engineer's Assessment
(Rating, Source of Information)

	Existing		Proposed	
Bridge/Structure Type:	CMP		CMP	
Number of Spans:	1		1	
Weight Restrictions:	NA	ton	NA	ton
Height Restrictions:	NA	ft.	NA	ft.
Curb to Curb Width:	NA	ft.	NA	ft.
Outside to Outside Width:	NA	ft.	NA	ft.
Shoulder Width:	NA	ft.	NA	ft.

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

The existing 15-inch metal pipe culvert, CLV-124-052-3.14, is located under Circus Lane just north of the intersection with SR 124. This pipe will be replaced with 108 feet of 15-inch CMP. The pipe outfall will be armored with riprap and the culvert will not be sumped (Appendix B, pages 3, 83 and 96).

Structure/NBI Number(s): CLV-124-052-6.49 Sufficiency Rating: 3 out of 9, Abbreviated Engineer's Assessment
(Rating, Source of Information)

	Existing		Proposed	
Bridge/Structure Type:	CMP		CMP	
Number of Spans:	1		1	
Weight Restrictions:	NA	ton	NA	ton
Height Restrictions:	NA	ft.	NA	ft.
Curb to Curb Width:	NA	ft.	NA	ft.
Outside to Outside Width:	NA	ft.	NA	ft.
Shoulder Width:	NA	ft.	NA	ft.

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

The existing 24 inch metal pipe culvert, CLV-124-052-6.49, is located under SR 124 approximately 0.1 mile north of the CR 625 East crossing SR 124. This pipe will be replaced 44 feet of 24 inch CMP. The pipe outfall will be armored with riprap and the culvert will be sumped 3 inches (Appendix B, pages 5, 90, and 97).

MAINTENANCE OF TRAFFIC (MOT) DURING CONSTRUCTION:

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

Discuss closures 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. Any local concerns about access and traffic flow should be detailed as well.

The MOT plan for the project will require single lane closures utilizing a temporary signal or flagging operations for the HMA overlay and Phase III of the MOT. A closure and detour for Phase I and II of the MOT will be required to construct the culverts and drainage improvements. The closure and detours are anticipated to occur in two phases that will occur in succession as described below.

Phase I will include construction activities from 1.9 miles east of SR 19 to 2.16 miles east of SR 19 at the first bend in SR 124 near the Mississinewa River as detailed below.

- Installation of a new 6 foot by 4 foot reinforced concrete box culvert crossing SR 124, 1.9 miles east of SR 19. This culvert will convey UNT 1 to the Mississinewa River from the existing roadside ditch to a newly constructed drainage channel on the north and east side of the roadway (Appendix B, pages 3, 81-82, 92-95, and 100).
- Construction of approximately 1,350 linear feet of drainage channel on the north and east side of SR 124, beginning 1.9 miles east of SR 19 and discharging to the Mississinewa River. The confluence of the drainage channel with the Mississinewa River will be armored with riprap (Appendix B, pages 3, 81-82 and 92-95).
- Replacement of a 15-inch metal pipe culvert located at 2.10 miles east of SR 19 at a driveway (Appendix B, pages 3, 81-82 and 94). In addition, a small shoulder will be constructed at the driveway and the driveway will be reconstructed.
- Replacement of an existing 32-inch metal pipe culvert, CLV-124-052-2.16, located 2.13 miles east of SR 19 with a 36-inch pipe (Appendix B, pages 3, 82, and 94-95).

SR 124 from Wallace Avenue to CR S 300 E/Mississinewa Road will be signed for local traffic only and detoured. At this time, the duration of the closure and detour is not yet known; however, the Phase I closure and detour may be four to eight weeks due to construction of the box culvert and culvert CLV-124-052-2.16. Before or after construction of the cross culverts, traffic may be maintained with lane closures for construction of the new drainage channel and other improvements.

Phase II will include the replacement of an existing 24-inch metal pipe culvert, CLV-124-052-6.49, located under SR 124 approximately 0.1 mile north of the CR 625 East crossing SR 124 (Appendix B, pages 5, 90, and 97). SR 124 from County Road S 550 E to County Road S 625 E will be signed for local traffic only and detoured. At this time, the duration of the closure and detour is not yet known; however, the Phase II closure and detour may be two to three weeks for construction

of the pipe culvert.

The detour for Phase I and II (which will occur after Phase I) will utilize SR 13 through Wabash, and US 24 and SR 19 in Peru. The detour is approximately 29 miles long and adds approximately 22 miles to a trip through the area. Intermittent lane closures with flagging operations may still be necessary to finalize construction (Appendix B, pages 76-77).

Phase III will include the replacement of an existing 15-inch metal pipe culvert, CLV-124-052-3.14, located under Circus Lane just north of the intersection with SR 124 (Appendix B, pages 3, 83 and 96). Circus Lane will be signed for local traffic only at SR 124. At this time, it is anticipated that this pipe will be bored under Circus Lane and traffic will be maintained by flagging and lane closures.

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. This is included in this document as a firm commitment. In addition, road closure / detour expected on or about [date] signage will be placed along the project corridor at least two weeks prior to implementation of road closures. Traffic advisories will also be shared on INDOT social media as warranted.

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: $ 305,456 (2021) Right-of-Way: $ 75,000 (2022) Construction: $ 2,345,850 (2023)

Anticipated Start Date of Construction: Summer 2023

RIGHT OF WAY:

	Amount (acres)	
Land Use Impacts	Permanent	Temporary
Residential	0	0
Commercial	0	0
Agricultural	2.0	0
Forest	0.4	0
Wetlands	0	0
Other: Existing Road	0	0
Other:		
TOTAL	2.4	0

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

The existing right-of-way width varies throughout the project but averages approximately 50 feet and has a minimum width of approximately 22 feet from existing edge-of-pavement.

The project requires approximately 2.4 acres of new permanent right-of-way that will be acquired, predominantly from agricultural lands or forested areas along the Mississinewa River from 1.9 miles east of SR 19 to 2.16 miles east of SR 19. The project will not require temporary right-of-way. The project requires 1.0 acre of re-acquisition of apparent existing right-of-way from two locations (Appendix B, pages 81-83, 90, and 92-97).

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

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

SECTION A - EARLY COORDINATION:

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

Early coordination letters were sent on December 11, 2020, March 16, 2021, and April 15, 2021 (Appendix C, pages 1-7). The early coordination letter submitted on April 15, 2021 was an update to include details on small drainage structures included in project. As this re-coordination was focused on drainage improvements it was submitted only to natural resource agencies and a shortened time frame for response was requested.

Agency	Date Sent	Date Response Received	Appendix
Miami County Sheriff	December 11, 2020	No Response Received	NA
Miami County Commissioner	December 11, 2020	No Response Received	NA
Miami County Soil & Water Conservation	December 11, 2020	No Response Received	NA
Miami County Surveyor's Office	December 11, 2020	No Response Received	NA
Miami County Highway Dept.	December 11, 2020	No Response Received	NA
Miami County Local Emergency Planning Committee	December 11, 2020	No Response Received	NA
Wabash County Sheriff	December 11, 2020	No Response Received	NA
Wabash County Highway Dept.	December 11, 2020	No Response Received	NA
Wabash County Emergency Management Agency	December 11, 2020	No Response Received	NA
Peru Stormwater Coordinator/Peru Utilities	December 11, 2020 & March 16, 2021	December 16-17, 2020 & March 17, 2021	C, pages 30-36
Peru Community Schools	December 11, 2020	No Response Received	NA
Peru Police Dept.	December 11, 2020	No Response Received	NA
Peru Mayor	December 11, 2020	No Response Received	NA
INDOT Fort Wayne District	December 11, 2020 & March 16, 2021	December 18, 2020	C, page 26
INDOT Cultural Resources Office	December 11, 2020	No Response Received	NA
IDNR Division of Oil and Gas	December 11, 2020	January 8, 2021	C, page 10
Indiana Geological and Water Survey (via web form)	December 11, 2020	February 16, 2021	C, page 16
INDOT Office of Aviation	December 11, 2020	December 14, 2020	C, page 27
Indiana Department of Natural Resources	December 11, 2020 & March 16, 2021	January 8, 2021 & April 14, 2021	C, pages 11-14 and 40-43
IDEM Groundwater Section	December 11, 2020	December 31, 2020	C, page 15
IDEM Office of Land Quality	December 11, 2020	January 22, 2021	E, pages 14-19
IDEM (via web form)	December 11, 2020	December 29, 2020	C, pages 17-25
INDOT Utilities and Railroads	December 11, 2020	No Response Received	NA
IDNR Forestry	December 11, 2020 & March 16, 2021	No Response Received	NA
Natural Resources Conservation Service	December 11, 2020	January 13, 2021	C, page 28-29
US Army Corps of Engineers – Louisville District Regulatory Brach	December 11, 2020 & March 16, 2021	No Response Received	NA
National Parks Service	December 11, 2020	No Response Received	NA
US Department of Housing and Urban Development	December 11, 2020	No Response Received	NA
Federal Highway Administration	December 11, 2020 & March 16, 2021	No Response Received	NA
US Fish and Wildlife Service	December 11, 2020 & March 16, 2021	December 14, 2020, March 26, 2021	C, pages 8-9 and 38-39
Frances Slocum Trail Riders, Inc.	December 11, 2020	No Response Received	NA
Miami County Floodplain Administrator	March 24, 2021	March 26, 2021	C, page 37
US Army Corps of Engineers – Chicago District Engineering Branch	April 15, 2021	No Response Received	NA

USACE - Chicago District - Lake Mississinewa	April 15, 2021	No Response Received	NA
Mississinewa Lake	April 15, 2021	No Response Received	NA

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

SECTION B – ECOLOGICAL RESOURCES:

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

Total stream(s) in project area: 2,305 Linear feet Total impacted stream(s): 1387 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 1 to Wabash River	Riverine, intermittent, streambed, seasonally flooded (R4SBC)	60	0	- Identified in RFI as likely Waters of the US; however, this stream is located within HMA overlay only section and therefore was not delineated in Waters Report. Within the HMA overlay only section, no work will occur beyond the existing pavement and therefore the areas outside of the pavement were not investigated for the presence of waters of the U.S. and will not be impacted. - Likely Jurisdictional waterway -Appendix E, page 7
Mississinewa River	Riverine, lower perennial, unconsolidated bottom, permanently flooded (R2UBH)	455	0	- Identified in RFI and in Waters Report - Flows along SR 124 east of the project area - Ordinary high water mark (OHWM) 143 feet wide by 3 feet deep - Jurisdictional waterway - Navigable River and Outstanding River for Indiana - Noted as impaired for polychlorinated biphenyls (PCBs) in fish tissue - Appendix E, page 7 and Appendix F, pages 25-26
UNT 1 to Mississinewa River	Riverine, ephemeral (R6)	1,352	1,352	- Not identified as part of RFI but identified in Waters Report - Flows into the investigated area from a partially wooded pasture area to the south of SR 124, approximately 1.95 miles east of the intersection of SR 124 and Wallace Avenue - OHWM 3 feet wide by 1 foot deep - Non-jurisdictional waterway - Appendix F, page 25
UNT 2 to Mississinewa River	Riverine, intermittent, streambed (R4SBC)	241	0	- Identified in RFI and in Waters Report - Flows into the investigated from the agricultural area to the east of Circus Lane - OHWM 2.5 feet wide by 8 inches deep - Jurisdictional waterway - Appendix E, page 7 (noted as UNT to Mississinewa River) and Appendix F, page 26
UNT 2 to Wabash River	Riverine, unknown perennial, unconsolidated bottom, permanently flooded (R5UBH)	60	0	- Identified in RFI as likely Waters of the US; however, this stream is located within HMA overlay only section and therefore was not delineated in Waters Report. Within the HMA overlay only section, no work will occur beyond the existing pavement and therefore the areas outside of the pavement were not investigated for the presence of waters of the U.S. and will not be impacted. - Noted as impaired for *E. coli*, nutrients, and PCBs in fish tissue. - Appendix E, page 7
UNT 1 to Asher Branch	Riverine, ephemeral (R6)	77	35	- Not identified as part of RFI but identified in Waters Report

				- Originates at pipe outlet for CLV-124-052-6.49, located under SR 124 0.1 mile north of CR 625 East - OHWM 1-1.5 foot wide by 2 feet deep - Non-jurisdictional waterway - Appendix F, page 28
UNT 2 to Asher Branch	Riverine, intermittent, streambed, seasonally flooded (R4SBC)	60	0	-- Identified in RFI as likely Waters of the US; however, this stream is located within HMA overlay only section and therefore was not delineated in Waters Report. Within the HMA overlay only section, no work will occur beyond the existing pavement and therefore the areas outside of the pavement were not investigated for the presence of waters of the U.S. and will not be impacted. - Appendix E, page 7 (noted as UNT to Asher Branch of Wabash River)

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 subject to federal or state jurisdiction. Discuss measures to avoid, minimize, and mitigate if impacts will occur.

Based on the desktop review, the aerial map of the project area (Appendix B, pages 2-5), and the RFI report (Appendix E, pages 3 and 11), there are 46 streams, rivers, watercourse or other jurisdictional features within the 0.5 mile search radius. There are five rivers and streams mapped within the project area, which were confirmed by the site visit on October 20, 2020 by HNTB. Additionally, two other streams and a roadside ditch were identified during the site visit.

A *Waters of the U.S. Determination / Wetland Delineation Report* was approved by INDOT Ecology and Waterway Permitting Office on February 1, 2021. Please refer to Appendix F, pages 1-32 for the *Waters of the U.S. Determination / Wetland Delineation Report*. It was determined there were two likely and two unlikely jurisdictional waterways within the investigated areas and one roadside ditch (RSD). The U.S. Army Corps of Engineers (USACE) approved this determination on March 22, 2021.

As part of the project scoping, it was determined that the wetland delineation and waters investigated area for the overall project would be limited to areas where modifications during construction would result in expansion into non-impervious areas, since work to overlay the roadway would not extend beyond the existing edge of the pavement. Therefore, field investigation for *Waters of the U.S. Determination / Wetland Delineation Report* was completed only in areas where earth disturbing activities were anticipated beyond the existing edge of pavement. The field investigation area encompassed the area required for construction access and completion of both the drainage improvements and the culvert replacements. The investigated areas are illustrated with a yellow dashed line on relevant graphics (Appendix F, pages 25-28). The full extent of the project area where the HMA overlay will occur was investigated for other resources.

Permanent impacts resulting from the project include relocation of 1,352 feet of UNT 1 to Mississinewa River and 35 linear feet of permanent impacts to UNT 1 to Asher Branch due to the culvert replacement and streambed armoring. Temporary impacts to 1,352 linear feet of UNT 1 to Mississinewa River and 77 linear feet of UNT 1 to Asher Branch may occur from pump arounds during construction. For additional discussion of each waterway see below.

Within the investigated areas, the Mississinewa River is both a navigable river and is included on the Indiana list of Outstanding Rivers. No other streams or rivers within the project area are listed as Federal, Wild and Scenic Rivers; State Natural, Scenic, and Recreational Rivers; Outstanding Rivers for Indiana; navigable waterways; or National Rivers Inventory waterways.

Mississinewa River

Mississinewa River is a riverine, lower perennial, unconsolidated bottom, permanently flooded (R2UBH) resource. Approximately 455 linear feet of the Mississinewa River flows through the investigated area in total. The OHWM of Mississinewa River where it meets UNT 1 is approximately 143 feet wide by 3 feet deep. Where UNT 2 flows into Mississinewa River, the OHWM is estimated to be approximately 295 feet wide by 3 feet deep. According to the U.S. Geological Survey (USGS) StreamStats website, the drainage area of Mississinewa River where it flows through the investigated area is approximately 816 square miles. This feature is a jurisdictional feature. Based on a qualitative assessment, this resource is an excellent-quality feature based on its flow and on its well-developed riparian corridor.

A new ditch outfall for UNT 1 to Mississinewa River will be constructed; however, the outfall will be above the OHWM and

therefore there will be no permanent or temporary impacts to the Mississinewa River. A Construction in a Floodway permit is anticipated for the Mississinewa River; however, a Section 404 Department of the Army Permit and a Section 401 Water Quality Certification are not anticipated.

Mississinewa River is listed as impaired for polychlorinated biphenyls (PCBs) in fish tissue. Exposure to PCBs in fish tissue is considered low, assuming workers are not eating biota surrounding or associated with the water body. Workers will be informed. No sediment or soil disturbance is anticipated.

UNT 1 to Mississinewa River

UNT 1 to Mississinewa River (UNT 1) is an ephemeral stream feature that flows into the investigated area from a partially wooded pasture area to the south of SR 124, approximately 1.95 miles east of the intersection of SR 124 and Wallace Avenue. UNT 1 is not mapped as a USGS blueline stream, nor is it noted on the National Hydrography Flowlines layer. UNT 1 flows along the south side of SR 124 until the road curves to the southeast, at which point it drains into a structure under SR 124 and continues northeast until it drains into the Mississinewa River. Where UNT 1 flows out of the pipe structure on the north side of SR 124, a pipe failure has occurred (Appendix B, photos 50-51, pages 47-48).

Approximately 1,352 feet of this feature was evaluated as part of this investigation. This stream feature appears to be a partially excavated channel that drains stormwater from the agricultural property to the south of SR 124 via sheet flow and roadside ditches. The average OHWM of UNT 1 to Mississinewa is 3 feet wide by 1 foot deep. According to the classification codes developed by Cowardin et al. (1979), this stream feature would be classified as a riverine, ephemeral (R6) resource. This feature is not a jurisdictional feature. Based on a qualitative assessment, this resource is a poor-quality feature based on lack of development and lack of instream cover.

Approximately 1,352 feet of UNT 1 to Mississinewa River will be relocated within the project limits from the roadside ditch on the south side of SR 124 to a newly constructed ditch on the north side of SR 124. Temporary impacts to 1,352 linear feet of UNT 1 to Mississinewa River may occur from pump arounds during construction. UNT 1 to Mississinewa River is an ephemeral channel and therefore not a waterway that would be regulated by the USACE. A Construction in a Floodway permit is anticipated for the portion of the relocation of UNT 1 to the Mississinewa River that is within the floodway of the Mississinewa River; however, a Section 404 Department of the Army Permit and a Section 401 Water Quality Certification are not anticipated.

UNT 2 to Mississinewa River

UNT 2 to Mississinewa River (UNT 2) is an intermittent stream feature that flows into the investigated area from the agricultural area to the east of Circus Lane. UNT 2 drains National Wetlands Inventory (NWI) Wetland 5, as well as RSD 1 to the Mississinewa River. UNT 2 is mapped as a USGS blueline stream and a National Hydrography Flowline. Approximately 241 feet of this feature was evaluated as part of this investigation. The OHWM of UNT 2 is 2.5 feet wide by 8 inches deep. According to the classification codes developed by Cowardin et al. (1979), this stream feature would be classified as a riverine, intermittent, streambed (R4SBC). UNT 2 is jurisdictional feature. Based on a qualitative assessment, this resource is a poor-quality feature based on lack of development and lack of flow.

UNT 2 to Mississinewa River was identified as a receiving water for Roadside Ditch 1 (RSD 1). There will be no permanent or temporary impacts to this waterway, and no permits are anticipated.

UNT 1 to Asher Branch

UNT 1 to Asher Branch is an ephemeral stream feature that originates from a small structure under SR 124, near the boundary of Wetland A. Approximately 77 feet of this feature was evaluated as part of this investigation. UNT 1 to Asher Branch is not mapped as a USGS blueline stream, nor is it noted on the National Hydrography Flowlines layer. The OHWM of UNT 1 to Asher Branch is approximately 1-1.5 feet wide by 2 feet deep. According to the classification codes developed by Cowardin et al. (1979), this stream feature would be classified as a riverine, ephemeral (R6) resource. Due to its ephemeral nature, UNT 1 to Asher Branch is not a jurisdictional feature. Based on a qualitative assessment, this resource is a poor-quality feature based on its lack of development, low quality vegetation, and lack of flow.

The small structure under SR 124 will be replaced. The headwater of the UNT 1 to Asher Branch will be impacted by the culvert replacement and streambed armoring. It is estimated that 35 linear feet of stream impacts will occur at the culvert outlet. Temporary impacts to 77 linear feet of UNT 1 to Asher Branch may occur from pump arounds during construction.

UNT 1 to Asher Branch is an ephemeral channel and therefore not a waterway that would be regulated by the USACE. No permits are anticipated for this culvert replacement.

Roadside Ditch (RSD) 1

One roadside drainage feature, RSD 1, was observed within the survey area. East of Circus Lane, RSD 1 is a vegetated roadside ditch that transitions to a riprap lined ditch as it approaches the culvert under Circus Lane. West of Circus Lane, RSD 1 intersects UNT 2 to Mississinewa River. RSD 1 is approximately 244 feet long within the investigated area.

The small structure under Circus Lane will be replaced. The RSD 1 will be impacted by the culvert replacement and scour protection at the culvert outlet. It is estimated that 112 linear feet of RSD 1 will be impacted by the culvert replacement including 5 feet of riprap for scour protection at the culvert outlet. RSD 1 is not a stream and is not regulated by the USACE. No permits are anticipated for this culvert replacement.

Early Coordination

USFWS responded on December 14, 2020 with recommendations to avoid or minimize impacts to riparian and stream habitat (Appendix C, pages 8-9). The recommendations include measures to restrict below low-water work in streams and minimize impacts, span the active stream channel, restrict channel work to the minimum necessary for installation of the stream crossing structure, minimize the extent of hard armor (riprap) in bank stabilization by using bioengineering techniques, 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), and evaluate wildlife crossings under bridge/culverts projects in appropriate situations.

IDNR DFW responded on January 8, 2021 with recommendations to avoid or minimize impacts to streams and fish and wildlife habitat (Appendix C, pages 11-14). Recommendations included both permanent and temporary measures to minimize impacts and limit disturbance. The recommendations include to maintain fish and wildlife passage through a crossing structure; to span the entire channel width; to minimize and contain within the project limits in channel disturbance and the clearing of trees and brush; to not work in the waterway from April 1 through June 30 without the prior written approval of the Division of Fish and Wildlife; to not excavate in the low flow area except for the placement of piers, foundations, and riprap, or removal of the old structure; to not construct any temporary runarounds, access bridges, causeways, cofferdams, diversions, or pump rounds; to operate equipment used to replace the bridge from the existing roadway; to avoid heavy equipment entering the river for construction of the new ditch and outfall, and standard sediment and erosion control commitments.

An automated letter was generated from IDEM's website on December 29, 2020 (Appendix C, pages 17-25). This letter contains recommendations pertaining to sediment and erosion control, permitting requirements, and restrictions regarding disturbance of vegetation.

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

Open Water Feature(s)	Presence	Impacts Yes	Impacts No
Reservoirs			
Lakes	X		X
Farm Ponds			
Retention/Detention Basin			
Storm Water Management Facilities			
Other:			

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 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, pages 3 and 11), there are seven open water features within the 0.5 mile search radius. There is one lake mapped within the project area. That

number was confirmed by the site visit on October 20, 2020 by HNTB; however, the lake is outside the construction limits and the field investigation area and will not be impacted.

A *Waters of the U.S. Determination / Wetland Delineation Report* was approved by INDOT Ecology and Waterway Permitting Office on February 1, 2021. Please refer to Appendix F, pages 1-32 for the *Waters of the U.S. Determination / Wetland Delineation Report*. No open water features were identified, and this determination was approved by the USACE on March 22, 2021.

	Presence	Impacts Yes	Impacts No
Wetlands	X	X	

Total wetland area: 0.03 Acre(s) Total wetland area impacted: 0.01 Acre(s)

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

Wetland No.	Classification	Total Size (Acres)	Impacted Acres	Comments (i.e. location, likely Water of the US, appendix reference)
Wetland A	palustrine, emergent, persistent, temporarily flooded (PEM1A)	0.03	0.01	- Not jurisdictional – Waters of the State - Fringe wetland developed due to the concentration of drainage from the surrounding agricultural fields and from SR 124 at the headwater of UNT 1 to Asher Branch - Not mapped as an NWI wetland - Appendix F, page 28

Wetlands (*Mark all that apply*)	Documentation	ESD Approval Dates
Wetland Determination		
Wetland Delineation	X	**February 1, 2021**
USACE Isolated Waters Determination	X	**March 22, 2021**

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;	X
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 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, pages 3 and 11), there are 25 wetland features within the 0.5 mile search radius. According to the RFI report, there is one wetland mapped within or adjacent to the project area. That number was confirmed by the site visit on October 20, 2020 by HNTB.

A *Waters of the U.S. Determination / Wetland Delineation Report* was approved by INDOT Ecology and Waterway Permitting Office on February 1, 2021. Please refer to Appendix F, pages 1-32 for the *Waters of the U.S. Determination / Wetland Delineation Report*. The report indicated nine NWI wetlands were mapped within investigated area, and one wetland was identified during the site visit on October 20, 2020 by HNTB. It was determined that the identified wetland was likely non-jurisdictional. The USACE confirmed this determination on March 22, 2021.

As part of the project scoping, it was determined that the wetland delineation and waters investigated area for the overall project would be limited to areas where modifications during construction would result in expansion into non-impervious areas, since work to overlay the roadway would not extend beyond the existing edge of the pavement. Therefore, field investigation for *Waters of the U.S. Determination / Wetland Delineation Report* was completed only in areas where earth disturbing activities were anticipated beyond the existing edge of pavement. The field investigation area encompassed the area required for construction access and completion of both the drainage improvements and the culvert replacements. The investigated areas are illustrated with a yellow dashed line on relevant graphics (Appendix F, pages 25-28). The full extent of the project area where the HMA overlay will occur was investigated for other resources.

Approximately 0.01 acre of Wetland A will be impacted by the replacement of the existing 24-inch metal pipe culvert, CLV-124-052-6.49. Wetland A is located at the outfall of the existing culvert. All practicable measures to minimize harm to wetlands which may be reasonably foreseeably impacted by the project have been incorporated. An isolated wetland permit will be required, and mitigation is not anticipated. Based upon the above considerations, it has been determined that there is no practicable alternative to the proposed new construction in wetlands and that the proposed action includes all practicable measures to minimize harm to wetlands which may result from such use.

One wetland was identified as part of this project that will be impacted. This wetland is at the outlet of an existing 24-inch metal pipe culvert, CLV-124-052-6.49. Due to the location of the wetland, the Do Nothing Alternative is the only alternative that would completely avoid impacts to Wetland A. The Do Nothing Alternative was discarded from further consideration as it did not meet the project purpose and need.

Early Coordination

USFWS responded on March 26, 2021 with recommendations to avoid or minimize impacts to wetlands and recommendations for wetland mitigation and habitat restoration (Appendix C, pages 38-39).

IDNR DFW responded on January 8, 2021 with recommendations for minimization of impacts to wetlands, wetland mitigation, and habitat restoration (Appendix C, pages 11-14).

An automated letter was generated from IDEM's website on December 29, 2020 (Appendix C, pages 17-25). This letter contains recommendations pertaining to permitting requirements and restrictions regarding disturbance of vegetation.

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

	Presence	Impacts	
		Yes	NO
Terrestrial Habitat	X	X	

Total terrestrial habitat in project area: 2.4 Acre(s) Total tree clearing: 0.71 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 October 20, 2020 by HNTB, and the aerial map of the project area (Appendix B, pages 2-5), there are four types of habitat present: maintained lawn, vegetated right-of-way, agricultural land including both row crops and pasture, and forested riparian habitat. The urban area between SR 19 and Wallace Avenue is predominately residential and commercial properties with maintained lawn. Between Wallace Avenue and the end of the project, the project is predominately agricultural land uses with scattered large lots and farmsteads with maintained lawn, as well as scattered wooded riparian areas. The project will require a total of approximately 2.4 acres of habitat disturbance, of which 0.71 acre of tree clearing will occur to the wooded riparian habitat. Dominant vegetation within the riparian habitat consisted of sugar maple (*Acer saccharum*), hackberry (*Celtis occidentalis*), Japanese honeysuckle (*Lonicera japonica*), and amur honeysuckle (*Lonicera maackii*). Vegetated right-of-way is comprised of tall fescue (*Schedonorus arundinaceus*) and Kentucky bluegrass (*Poa pratensis*). Avoidance alternatives are not practicable because of the construction of the drainage outfall to the Mississinewa River. Terrestrial habitat impacts will likely require mitigation through the Construction in a Floodway (CIF) permitting process and mitigation has been incorporated during

the Section 7 consultation process.

Early Coordination

USFWS responded on December 14, 2020 with recommendations to avoid or minimize impacts to terrestrial habitat (Appendix C, pages 8-9). These recommendations included limiting tree clearing and understory vegetation to within the construction zone boundaries, as well as implementing temporary erosion and sediment control methods within areas of disturbed soil.

USFWS responded on March 26, 2021 with recommendations to avoid or minimize impacts to forested riparian habitat (Appendix C, pages 38-39). This includes mitigation for the loss of riparian trees as close to the project impact site as possible and in accordance with woodland mitigation guidelines of IDNR contained in their Information Bulletin #17.

IDNR DFW responded on January 8, 2021 with recommendations to avoid or minimize impacts to terrestrial habitat (Appendix C, pages 11-14). These recommendations included post-construction revegetation measures, mitigation plans for riparian habitat impacts, and clearing restriction of any trees suitable for the Indiana bat or Northern Long-eared bat roosting during the active season.

An automated letter was generated from IDEM's website on December 29, 2020 (Appendix C, pages 17-25). This letter contains recommendations pertaining to permitting requirements and restrictions regarding disturbance of vegetation.

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	X	
Section 7 informal consultation completed (IPaC cannot be completed)		X
Section 7 formal consultation Biological Assessment (BA) required		X

Determination Received for Listed Bats from USFWS: NE [ ] NLAA [ ] LAA [X]

Other Species not included in IPaC	**Yes**	**No**
Additional federal species found in project area (based on IPaC species list)		X
State species (not bird) found in project area (based upon consultation with IDNR)	X	

Migratory Birds	**Yes**	**No**
Known usage or presence of birds (i.e. nests)		X
State bird species based upon coordination with IDNR		X

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

Based on a desktop review and the RFI report (Appendix E, page 6) completed by HNTB on March 2, 2020, the IDNR Miami County Endangered, Threatened and Rare (ETR) Species List has been checked. According to the IDNR-DFW early coordination response letter dated January 8, 2021 and March 16, 2021 (Appendix C, pages 11-14 and 40-41), the Natural Heritage Program's Database has been checked. Two managed lands and seven species are documented within one-half mile of the project area. Frances Slocum State Forest managed by IDNR and the Mississinewa Emergency Spillway managed by the USACE are both within one-half mile of the project area. Coordination with USACE Section 408 Coordinator and Lake Mississinewa occurred on April 15, 2021 via USPS and email (Appendix C, pages 5-7). No response was received. For reference to further discussions of the managed lands noted in the IDNR letter see the 4(f) section of this document.

According to the IDNR Natural Heritage Database, there are three federal & state endangered mussel species documented in the Wabash River. These species include the rayed bean (*Villosa fabalis*), the snuffbox (*Epioblasma*

triquetra), and the clubshell (*Pleurobema clava*). The rayed bean (*Villosa fabalis*) and the snuffbox (*Epioblasma triquetra*) are also documented in the Mississinewa River. The Mississinewa River also includes one state endangered mussel species, the round hickorynut (*Obovaria subrotunda*), and two state species concern mussel species, the kidneyshell (*Ptychobranchus fasciolaris*) and the wavyrayed lampmussel (*Lampsilis fasciola*). Additionally, the American badger (*Taxidea taxus*) is a state special concern species documented within one-half mile of the project area. IDNR responded "As long as standard erosion control measures are implemented along the roadway near the Wabash River and Mississinewa River, we do not foresee any impacts to the mussel species above as a result of this project. Also, impacts to the American badger or its preferred habitat are unlikely as a result of this project."

An early coordination letter was sent via email to IDNR on December 11, 2020, to and to USACE Section 408 Coordinator and Lake Mississinewa via USPS and email on April 15, 2021 (Appendix C, pages 5-7). No response was received with regards to managed lands or species noted on the managed lands.

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 43-48). The project is within range of the federally endangered Indiana bat (*Myotis sodalis*) and the federally threatened northern long-eared bat (NLEB) (*Myotis septentrionalis*). No additional species were generated in the IPaC species list other than the Indiana bat and northern long-eared bat.

The project qualified and completed *Limited Formal Programmatic Consultation* for the Indiana bat and northern long-eared bat (NLEB) due to tree clearing from 100 to 300 feet from the existing roadway. Culvert inspections occurred on October 20, 2020 for culverts that will be replaced within the project limits and no bats or signs of bats were found in any of the structures within the project area (Appendix C, pages 64-73). According to the INDOT Bridge and Drainage Asset Viewer which identifies all INDOT drainage structures, no birds or bats have been identified in any of the 27 small culverts associated with the HMA overlay portion of the project; however, as these culverts are less than 36 inch in diameter they are not included in BIAS and inspection forms are not available. According to the bridge and culvert inspection reports for the remaining five large culverts and two bridges no birds or bats have been identified within these structures (Appendix C, pages 74-83). An effect determination key was completed on March 25, 2021, and based on the responses provided, the project was found to "may affect, and is likely to adversely affect" the Indiana bat and/or the NLEB (Appendix C, pages 49-63). Proposed impacts have been minimized and cannot be avoided due to construction of a new ditch and outfall to the Mississinewa River.

No work will be completed for the two bridges within the project limits. For reference see the paving exceptions noted in Appendix B, pages 80 and 83. All bridges and structures within the limits of the proposed project where milling and HMA overlay will occur will be investigated for the presence of bats and birds no earlier than two years prior to the start of construction. This has been included as a firm commitment in this document. 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 verified the effect finding and submitted to USFWS on March 26, 2021. On April 5, 2021, USFWS issued a concurrence letter with the "may affect, and is likely to adversely affect" finding (Appendix C, pages 84-87). The findings include the commitment to implement the following Avoidance and Minimization Measures (AMMs): Tree Removal AMM 1: Modify all phases/aspects of the project (e.g., temporary work areas, alignments) to avoid tree removal; Lighting AMM 1: Direct temporary lighting away from suitable habitat during the active season; Tree Removal AMM 3: Ensure tree removal is limited to that specified in project plans and ensure that contractors understand clearing limits and how they are marked in the field (e.g., install bright colored flagging/fencing prior to any tree clearing to ensure contractors stay within clearing limits); and 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. AMMs and/or commitments are included as firm commitments in the *Environmental Commitments* section of this document.

Additionally, a "Reinitiation Notice" is required if: more than 0.08 acre of suitable habitat is to be cleared; new information about listed species is encountered; the project is modified in a manner that causes an effect to the listed species; or a new species or critical habitat is listed that the project may affect. These requirements, and the AMMs from the Project Submittal Form, are included as firm commitments for this project.

INDOT shall satisfy the compensatory mitigation requirements of the formal consultation with USFWS through one of the conservation options outlined on page 41 of the May 20, 2016 *Programmatic Biological Opinion for Transportation Projects in the Range of the Indiana bat and NLEB*. The amount to be paid to the Range-wide In-lieu Fee Program, to be administered by The Conservation Fund, shall be *$1,308.30*. This amount was determined by the Habitat Block Method. The area of suitable habitat to be cleared, multiplied by the mitigation ratio for inactive season tree clearing for *Miami County*, and the compensatory price per acre; (0.08 acre * 1.75 * $9,345.00 = $1,308.30).

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	**Yes**	**No**
Project located within the Potential Karst Features Area of Indiana		X
Karst features identified within or adjacent to the project area		X
Oil/gas or exploration/abandoned wells identified in the project area	X	

Date Karst Study/Report reviewed by INDOT EWPO (if applicable): NA

Discuss if project is located in Potential Karst Features Area of Indiana 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. Describe if any impacts will occur to any karst features. Include discussion of karst study/report was completed and results. (Karst investigation must comply with the current Karst MOU and coordinated and reviewed by INDOT EWPO)

Based on a desktop review, the project is located outside the designated karst region of Indiana as outlined in the October 13, 1993 Karst Memorandum of Understanding (MOU). According to the topo map of the project area (Appendix B, pages 6-9) and the RFI report (Appendix E, pages 3 and 11), there no karst features identified within or adjacent to the project area. In the early coordination response dated February 16, 2021, the Indiana Geological and Water Survey (IGWS) did not indicate that karst features exist in the project area (Appendix C, page 16). The IGWS response indicated that there is high liquefaction potential and that the project is within a floodway. There is high potential for bedrock resources, as well as sand and gravel resources. There are also petroleum exploration wells and abandoned industrial mineral quarries in the area (Appendix E, pages 4 and 12). These features will not be affected because these features are outside the project boundaries. Response from IGWS was communicated with the designer on February 16, 2021. No impacts are expected.

The RFI report identified 22 petroleum wells located within the 0.5 mile search radius. Two of the wells are mapped adjacent to the project area. IDNR Oil and Gas Division responded to early coordination on January 8, 2021, indicating that there are no known oil and gas wells “within the scope of the project area” (Appendix C, page 10).

SECTION C – OTHER RESOURCES

	Presence	**Impacts**	
Drinking Water Resources		**Yes**	**No**
Wellhead Protection Area(s)			
Source Water Protection Area(s)			
Water Well(s)	X		X
Urbanized Area Boundary	X	X	
Public Water System(s)	X		X

	Yes	**No**

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

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

Sole Source Aquifer (SSA)

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

Wellhead Protection Area and Source Water Area

In an early coordination letter dated December 31, 2020 IDEM stated the project is not located within a wellhead area or Source Water Area (Appendix C, page 15). No impacts are expected.

Water Wells

The Indiana Department of Natural Resources Water Well Record Database website (https://www.in.gov/dnr/water/3595.htm) was accessed on April 7, 2021 by HNTB. Ten drinking water wells were noted on properties adjacent to SR 124. Wells are generally located at the side or rear of the properties or more than 50 feet from the edge of pavement. No wells are located within the existing or proposed right-of-way. The features will not be affected because the HMA overlay would not disturb the existing wells and no other earth disturbing activities will occur in the vicinity of the wells. Therefore, no impacts are expected. Should it be determined during the right-of-way phase that these wells will be affected, a cost to cure will likely be included in the appraisal to restore the wells.

Urban Area Boundary

Based on a desktop review of the Urban Area boundary by HNTB on April 7, 2021 this project is located in an Urban Area Boundary (UAB). An early coordination letter was sent on December 11, 2020, to Peru Utilities. The MS4 coordinator responded that INDOT should have their own MS4 requirements and asked to be included on future coordination and copied on the Stormwater Pollution Prevention Plan (SWPPP) (Appendix C, page 32). Peru Utilities was also included in the preliminary field check meeting. A SWPPP will be prepared for the project and Rule 5 Construction Sediment and Erosion Control permit will be obtained for the project. Copies of the SWPPP will be provided to the City of Peru and Peru Utilities for review.

Public Water System

Based on a desktop review, a site visit on October 20, 2020 by HNTB, the aerial map of the project area (Appendix B, pages 2-5), a portion of this project is located in Peru where there is a public water system. The public water system will not be affected because the depth of excavation will not impact water lines. An early coordination letter was sent on date December 11, 2020 to Peru Utilities. Although Peru Utilities responded on December 17, 2020, no specific comments regarding public water system were included (Appendix C, pages 30-32). Peru Utilities responded on March 17, 2021 with concerns regarding relocation of above ground electric utilities but did not express any concerns regarding public water system (Appendix C, pages 33-36).

Indiana Department of Transportation

County Miami Route SR 124 Des. No. 1800552

Floodplains	Presence	Impacts Yes	Impacts No
Project located within a regulated floodplain	X	X	
Longitudinal encroachment	X	X	
Transverse encroachment			
Homes located in floodplain within 1000' up/downstream from project			

If applicable, indicate the Floodplain Level?

Level 1 [ ] Level 2 [ ] Level 3 [ ] Level 4 [ ] Level 5 [X]

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

Based on a desktop review of The Indiana Department of Natural Resources Indiana Floodway Information Portal website (http://dnrmaps.dnr.in.gov/appsphp/fdms) by HNTB on March 23, 2021, and the RFI report (Appendix E, pages 3 and 11), this project is located in a regulatory floodplain as determined from approved IDNR floodplain maps (Appendix F, page 18). An early coordination letter was sent on March 24, 2021 to the local Floodplain Administrator. The floodplain administrator responded on March 26, 2021 but did not have any comments on the project (Appendix C, page 37). This project qualifies as a Category 5 per the current INDOT CE Manual, which states: There will be no substantial impacts on natural and beneficial floodplain values; there will be no substantial change in flood risks; and there will be no substantial increase in potential for interruption or termination of emergency service or emergency evaluation routes; therefore, it has been determined that this encroachment is not substantial. A hydraulic design study that addresses various structure size alternatives will be completed during the preliminary design phase. A summary of this study will be included with the Field Check Plans.

Farmland	Presence	Impacts Yes	Impacts No
Agricultural Lands	X	X	
Prime Farmland (per NRCS)	X	X	

Total Points (from Section VII of CPA-106/AD-1006*) **151**

**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 October 20, 2020 by HNTB, and the aerial map of the project area (Appendix B, pages 2-5), the project will convert 2.1 acres of farmland as defined by the Farmland Protection Policy Act. An early coordination letter was sent on December 11, 2020, to Natural Resources Conservation Services (NRCS). Coordination with NRCS resulted in a score of 151 on the AD 1006 Form (Appendix C, pages 28-29). The NRCS-CPA 106 indicated 1.56 acres of prime and unique farmland will be impacted and the proposed project will acquire approximately 2.1 acres of active farmland. NRCS's threshold score for significant impacts to farmland that result in the consideration of alternatives is 160. Since this project score is less than the threshold, no significant loss of prime, unique, statewide, or local important farmland will result from this project. No alternatives other than those previously discussed in this document will be investigated without reevaluating impacts to prime farmland.

SECTION D – CULTURAL RESOURCES

	Category(ies) and Type(s)	INDOT Approval Date(s)	NA
Minor Projects PA	B-1, B-9	April 16, 2021	

Full 106 Effect Finding

No Historic Properties Affected [ ] No Adverse Effect [ ] Adverse Effect [ ]

Eligible and/or Listed Resources Present

NRHP Building/Site/District(s) [X] Archaeology [X] NRHP Bridge(s) [ ]

Documentation Prepared (mark all that apply)		ESD Approval Date(s)	SHPO Approval Date(s)
APE, Eligibility and Effect Determination			
800.11 Documentation			
Historic Properties Report or Short Report			
Archaeological Records Check and Assessment			
Archaeological Phase Ia Survey Report	X	April 16, 2021	
Archaeological Phase Ic Survey Report			
Other:			

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

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 April 16, 2021 the INDOT Cultural Resource Office (CRO) determined that this project falls within the guidelines of Category B, Types 1 and 9 under the Minor Projects Programmatic Agreement (Appendix D, pages 1-20). Category B-1 includes replacement, repair, or installation of curbs, curb ramps, or sidewalks, including when such projects are associated with roadway work such as surface replacement, reconstruction, rehabilitation, or resurfacing projects, including overlays, shoulder treatments, pavement repair, seal coating, pavement grinding, and pavement marking. Category B-9 includes installation, replacement, repair, lining, or extensions of culverts and other drainage structures.

Francis Godfroy Cemetery is located within 100 feet of the project area and is noted as an individually eligible above ground resource in the MPPA documentation (Appendix D, page 5). Coordination with INDOT CRO has occurred. Although construction will occur adjacent to the cemetery, no earth disturbing activities will occur within 100 feet of the cemetery and no Cemetery Development Plan is required. This was confirmed with INDOT CRO on July 12, 2021 (Appendix D, page 26). This property is a Section 4(f) resource as it is on or determined eligible for listing on the NRHP.

With regard to above-ground resources, an INDOT Cultural Resources historian who meets the Secretary of the Interior's Professional Qualification Standards as per 36 CFR Part 61 performed a desktop review, checking the Indiana Register of Historic Sites and Structures (State Register) and National Register of Historic Places (NRHP) lists for Miami and Wabash County. One listed resource is located immediately adjacent to the HMA portion of the project area only: NR-0644, Francis Godfroy Cemetery, 1812, listed in 1984 under Criteria A and B.

The Indiana Historic Sites and Structures Inventory (IHSSI) and NRHP information for Miami and Wabash County are available in the Indiana State Historic Architectural and Archaeological Research Database (SHAARD) and the Indiana Historic Buildings, Bridges, and Cemeteries Map (IHBBCM). The Miami County Interim Report (1998; Washington, Peru, Butler, and Erie Township) of the Indiana Historic Sites and Structures Inventory (IHSSI) was also consulted. An INDOT-

CRO historian reviewed the SHAARD online map and checked it against the Interim Report hard-copy maps. Five resources rated higher than “contributing” are located immediately adjacent to the HMA portion of the project area only:

- IHSSI# 103-507-34320, House, 225 E. Riverside St., Colonial Revival, c. 1875/1945, rated “Notable;”
- IHSSI# 103-079-47004, L. Cole Farm, Colonial Revival, c. 1915, rated “Notable;”
- IHSSI# 103-504-45005, Ben Wallace Farm, Italianate, c. 1870, rated “Notable;”
- IHSSI# 103-537-47(001-018), Godfroy-Cole Rural Historic District;
- IHSSI# 103-537-47001, Francis Godfroy Cemetery, c. 1812-Present, rated “Outstanding.”

According to the IHSSI rating system, generally properties rated "contributing" do not possess the level of historical or architectural significance necessary to be considered individually NHRP-eligible, although they would contribute to a historic district. If they retain material integrity, properties rated “notable” might possess the necessary level of significance after further research. Properties rated “outstanding” usually possess the necessary level of significance to be considered NHRP- eligible if they retain material integrity. These properties are potential Section 4(f) resources as they are notable or outstanding properties potentially eligible for listing on the NRHP.

Between December 8, 2020, and March 11, 2021, Cultural Resource Analysts, Inc., personnel conducted a Phase Ia archaeological reconnaissance for the proposed project. Archaeological reconnaissance was performed in these areas of the proposed construction, as well as within existing right-of-way in the vicinity of previously reported sites mapped near the overlay and drainage improvement areas. The survey area encompasses a total of approximately 5.32 ha (13.14 acres) of existing right-of-way, residential lawns, commercial lawns, and agricultural fields. The survey area was investigated in its entirety with screened shovel testing, bucket augering, intensive pedestrian survey, and visual inspection of obviously disturbed areas. Prior to initiating the fieldwork, a records review was conducted utilizing data from the Indiana Division of Historic Preservation and Archaeology. In total, 13 previously recorded sites are situated within, or in close proximity to, the current survey and hot mix asphalt overlay and drainage improvement areas. The records search also showed that portions of the survey area were previously investigated during investigations completed in 1984, 1993, 2011, and 2020. The previously surveyed areas were reinvestigated during the current survey.

As a result of the current survey, eight sites were documented. Site 12Mi159 and the portions of Sites 12Mi123, 12Mi143, 12Mi170, 12Mi175, and 12Mi897 within the survey area are recommended not eligible for listing in the NRHP. No further work is recommended within the survey area for these sites.

The NRHP eligibility of Site 12Mi222, a house/trading post associated with Francis Godfroy and a historic Miami occupation, could not be assessed with the data collected during the current investigation. Avoidance of this site is recommended. Project disturbances in the vicinity of Site 12Mi222 are limited to the existing pavement and therefore no further work is recommended at this location. Site 12Mi222 will be included on the project plans to be avoided.

Site 12Mi896 is a lithic scatter of indeterminate temporal/cultural affiliation and a historic farmstead with a mid-nineteenth- through twentieth-century component. The NRHP eligibility of the site could not be assessed with the data derived from the current investigation. It is recommended that a portion of the site that includes the footprint of a former residence be avoided or subjected to a Phase II NHRP assessment. Construction activities associated with the relocation of UNT 1 to Mississinewa River, driveway culvert replacement and the shoulder widening and new driveway at this site are outside the footprint of the former residence. The footprint of the former residence will be included on the project plans to be avoided. No additional work appears warranted at the remaining areas within the site’s recorded boundary (Appendix D, pages 21-25).

A firm commitment has been included in this CE document to mark sites (12Mi222 & 12Mi896) on plan maps as "environmentally sensitive-do not disturb". These sites are to be avoided by all construction activities. This project will be flagged for a future quality assurance review to ensure that these commitments are maintained.

This report recommended archaeological clearance for the project and was approved by INDOT CRO on April 16, 2021. 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

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

	Evaluations Prepared
Programmatic Section 4(f)	
"De minimis" Impact	
Individual Section 4(f)	
Any exception included in 23 CFR 774.13	

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, pages 2-5), the RFI report (Appendix E, pages 2 and 10), and early coordination response from IDNR (Appendix C, page 11) there are 14 recreational facilities, trails, or managed lands which are potential 4(f) resources located within the 0.5 mile search radius. One recreational facility, one recreational trail, two managed lands, one archaeological site, and one NRHP listed cemetery are located within or adjacent to the project area and are discussed below. According to additional research and the site visit on October 20, 2020 by HNTB, that number was confirmed. Unless discussed below no Section 4(f) use will occur.

According to the IDNR-DFW early coordination response letter dated January 8, 2021 and March 16, 2021 (Appendix C, pages 11-14 and 40-41), the Natural Heritage Program's Database has been checked. Two managed lands are documented within one-half mile of the project area. Frances Slocum State Forest managed by IDNR and the Mississinewa Emergency Spillway managed by the USACE are both within one-half mile of the project area. The Frances Slocum State Forest is located generally south and west of the project area with the closest point being approximately 640 feet west of the SR 124 at County Road S 625 E. SR 124 bisects the Mississinewa Spillway just west of County Road S 675 E approximately 425 feet east of the project terminus. See below for further discussion.

Recreational Facility

The Frances Slocum Trail Riders, Inc., is a private recreational campground mapped as a recreational facility. This campground is not a Section 4(f) resource as it is privately owned. This campground is located adjacent to the project area and no right-of-way will be required from this parcel. An early coordination letter and project mapping was sent via email to the Owners/Managers of the Frances Slocum Trail Riders, Inc. on December 11, 2020 (Appendix C, pages 1-4). No response was received. This campground is not a Section 4(f) resource, no right-of-way will be acquired from this

property, and no Section 4(f) use is expected.

Recreational Trail

The nearest recreational trail, River Walkway Park Trail, is located approximately 0.07 mile northwest of the project area on the north side of the Wabash River. This trail is owned and operated by the City of Peru Parks Department. This trail is an eight-foot wide paved walkway along the Wabash River between Holman Street to Broadway/SR 19 and is part of the River Walkway Park (Appendix F, page 3). An early coordination letter and project mapping was sent to the City of Peru on December 11, 2020 (Appendix C, pages 1-4). No response was received. This trail is a Section 4(f) resource because it is a publicly owned recreational facility and open to the public; however, no right-of-way will be acquired from this property and no Section 4(f) use is expected.

Managed Lands

The Mississinewa Emergency Spillway is located 425 feet east of the project termini on the east side of County Road S 675 E and is noted as a managed land. The Mississinewa Emergency Spillway is a publicly owned property that is part of the a larger Mississinewa Lake. Mississinewa Lake operates as a unit with the J. Edward Roush and Salamonie lakes to reduce flood stages in the Upper Wabash Basin. Mississinewa Lake was designed and built by the USACE and both the Miami and Frances Slocum state recreation areas (SRA) are associated with this property. Lake Mississinewa is a Section 4(f) property; however, the purpose of the Emergency Spillway is not recreational and there are no trails or recreational resources associated with the spillway. However, there is the potential for passive recreation use of this area as part of the Mississinewa Reservoir recreational area. Coordination with USACE Section 408 Coordinator and Lake Mississinewa occurred on April 15, 2021 via USPS and email (Appendix C, pages 5-7). No response was received. The Mississinewa Lake property is a Section 4(f) resource as it is a publicly owned recreational area; however, no right-of-way will be acquired from this property and no Section 4(f) use is expected.

The Frances Slocum State Forest also noted as the Frances Slocum State Recreation Area is located generally south and west of the project area with the closest point being approximately 640 feet west of the SR 124 at County Road S 625 E. This area is noted with a bridle trail, hiking, hunting and fishing opportunities and is part of the larger Mississinewa Lake recreational area. Frances Slocum State Forest is Section 4(f) property; as it is a publicly owned recreational area; however, no right-of-way will be acquired from this property and no Section 4(f) use is expected.

Cultural Resources

With regards to cultural resource sites eligible and/or listed on the NRHP, eight archaeological sites were documented within the project area in the Phase Ia Archaeological Reconnaissance for Proposed Road Improvements along SR 124 from SR 19 to approximately 425 feet west of CR S 675 E in Miami County, Indiana. Of these, two sites could not be fully evaluated, and avoidance of the sites was recommended. For further discussion of these site see the Cultural Resources section. No right-of-way will be acquired from the historic property boundary for these sites and no Section 4(f) use is expected. A firm commitment has been included in this CE document to mark sites (12Mi222 & 12Mi896) on plan maps as "environmentally sensitive-do not disturb". These sites are to be avoided by all construction activities.

With regard to above-ground resources, an INDOT Cultural Resources historian who meets the Secretary of the Interior's Professional Qualification Standards identified one listed resource located immediately adjacent to the HMA portion of the project area: NR-0644, Francis Godfroy Cemetery, 1812, listed in 1984 under Criteria A and B.

The IHSSI and NRHP information for Miami and Wabash County are available in the SHAARD and the IHBBCM. The Miami County Interim Report (1998; Washington, Peru, Butler, and Erie Township) of the IHSSI was also consulted. An INDOT-CRO historian identified five resources rated higher than "contributing" located immediately adjacent to the HMA portion of the project area as sites that usually possess the necessary level of significance to be considered NHRP-eligible:

IHSSI# 103-507-34320, House, 225 E. Riverside St., Colonial Revival, c. 1875/1945, rated "Notable;"

IHSSI# 103-079-47004, L. Cole Farm, Colonial Revival, c. 1915, rated "Notable;"

IHSSI# 103-504-45005, Ben Wallace Farm, Italianate, c. 1870, rated "Notable;"

IHSSI# 103-537-47(001-018), Godfroy-Cole Rural Historic District;

IHSSI# 103-537-47001, Francis Godfroy Cemetery, c. 1812-Present, rated “Outstanding.”

For further discussion of these site see the Cultural Resources section. No right-of-way will be acquired from the historic property boundary for these sites and no Section 4(f) use is expected.

Section 6(f) Involvement	Presence	Use	
		Yes	No
Section 6(f) Property	☐	☐	☐

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

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 seven grants for one property (Miami State Recreation Area, Mississinewa Reservoir) in Miami County (Appendix I, page 10). The Mississinewa Reservoir Emergency Spillway is located within or adjacent to the project area. Project impacts in this area include mill and overlay of existing pavement only, with no property acquisition. Therefore, there will be no impacts to 6(f) resources.

SECTION F – Air Quality

STIP/TIP and Conformity Status of the Project	Yes	No
Is the project in the most current STIP/TIP?	X	
Is the project located in an MPO Area?		X
Is the project in an air quality non-attainment or maintenance area?		X
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)?		

Location in STIP: Appendix H, page 1

Name of MPO (if applicable): NA

Location in TIP (if applicable): NA

Level of MSAT Analysis required?

Level 1a [X] Level 1b [ ] Level 2 [ ] Level 3 [ ] Level 4 [ ] Level 5 [ ]

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

This project is included in the Fiscal Year (FY) 2020-2024 Statewide Transportation Improvement Program (STIP) (Appendix H, page 1).

This project is located in Miami County, which is currently in attainment for all criteria pollutants according to IDEM Office of Air Quality (https://www.in.gov/idem/airquality/files/nonattainment_county_list.pdf). Therefore, the conformity procedures of 40 CFR Part 93 do not apply.

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

SECTION G - NOISE

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

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

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

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

SECTION H – COMMUNITY IMPACTS

Regional, Community & Neighborhood Factors	Yes	No
Will the proposed action comply with the local/regional development patterns for the area?	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 located in the City of Peru and rural areas of Miami County. The proposed project will require acquisition of approximately 2.4 acres of new permanent right-of-way from agricultural and wooded lands. The right-of-way acquisition is not anticipated to have a substantial impact on the tax base or property values. The project will not result in substantial impacts to community cohesion, there will be no relocations, and the project will not divide existing neighborhoods or change community access. There may be temporary inconveniences associated with construction, such as increased travel times, construction, noise, and fugitive dust. However, these will cease upon completion of construction activities.

According to the Fairs and Festivals website (www.fairsandfestivals.net), the Indiana Festivals website (https://www.indianafestivals.org/), the Miami County Tourism, Miami County, Indiana website (enjoymiamicounty.org), accessed on April 7, 2021 by HNTB, there are multiple regularly scheduled festivals and reoccurring events located within Peru and Miami County including the Cole Porter Festival (June), the Miami county 4-H Fair (June), the Circus City Festival & Circus Hall of Fame (July), Miami Days at the Pillars (August), Mississinewa 1812 (October), Octoberfest (October), and the Quigley Jazz Jam Fest (November).

The project includes a phased maintenance of traffic plan that allows for traffic to be maintained with single lane closures utilizing a temporary signal or flagging operations for the HMA overlay. For the construction of cross culverts, a roadway closure with a temporary detour will be required. Detours will be clearly marked and should not substantially impair travel routes to these fairs and festivals as the closure will be two to three weeks per crossing for the pipe culverts and four to eight weeks for the box culverts. Access to individual properties will be maintained, but typical delays in construction zones with reduced speeds and potential restrictions can be expected during construction of the project. Road closure / detour expected on or about [date] signage will be placed along the project corridor at least two weeks prior to implementation of road closures. Traffic advisories will also be shared on INDOT social media as warranted.

The City of Peru's most recent Americans with Disabilities (ADA) transition/accessibility implementation plan was adopted in 2020 (https://www.cityofperu.org/egov/documents/1601477106_82871.pdf). The project will be designed in accordance with the plan and all applicable ADA requirements.

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.

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, pages 2-5), and the RFI report (Appendix E, pages 2 and 10), there are two cemeteries, one school, 10 recreational facilities, one pipeline, one railroad, two trails, and two managed lands located within 0.5 mile of the project. One recreational facility, one railroad, one cemetery, one

recreational trail, and two managed lands are located within or adjacent to the project area and are discussed below. That number was confirmed by the site visit on October 20, 2020 by HNTB. Unless discussed below no impact will occur.

Recreational Facility

The Frances Slocum Trail Riders is a private campground noted as a recreational facility. This campground is located adjacent to the project area. An early coordination letter and project mapping was sent via email to Mrs. Jamie and Mr. Ron McFarland, Owners/Managers, Frances Slocum Trail Riders, Inc. on December 11, 2020 (Appendix C, pages 1-4). No response was received.

Railroad One unknown former railroad crosses the project area. Coordination with INDOT Utilities and Railroads occurred (Appendix C, pages 1-4). No response was received.

Cemetery

Francis Godfroy Cemetery is located within 100 feet of the project area and is noted as an individually eligible above ground resource in the MPPA documentation (Appendix D, page 5). Coordination with INDOT CRO has occurred. Although construction will occur adjacent to the cemetery, no earth disturbing activities will occur within 100 feet of the cemetery and no Cemetery Development Plan is required. This was confirmed with INDOT CRO on July 12, 2021 (Appendix D, page 26).

Recreational Trail

The nearest recreational trail, River Walkway Park Trail, is located approximately 0.07 mile northwest of the project area on the north side of the Wabash River terminating on the western side of SR 19 (Appendix F, page 3). This trail is owned and operated by the City of Peru Parks Department. This trail is an eight foot wide paved walkway along the Wabash River between Holman Street to Broadway/SR 19 and is part of the River Walkway Park (Appendix F, page 3). An early coordination letter and project mapping was sent to the City of Peru on December 11, 2020 (Appendix C, pages 1-4). No response was received. No impact is expected.

Managed Lands

The Mississinewa Emergency Spillway lies adjacent to the project area and is noted as a managed land. The Frances Slocum State Forest is also noted adjacent to the project area. Coordination with USACE Section 408 Coordinator and Lake Mississinewa occurred on April 15, 2021 via USPS and email (Appendix C, pages 5-7). No response was received. During the closure and detour access to the Mississinewa Lake recreational areas will be limited to access from SR 13 to the east or SR 19 to the west. The project sponsor will notify the Mississinewa Reservoir and associated recreational areas at least two weeks prior to any construction that would block or limit access. This is included in this document as a firm commitment. In addition, road closure / detour expected on or about [date] signage will be placed along the project corridor at least two weeks prior to implementation of road closures. Traffic advisories will also be shared on INDOT social media as warranted. The closures/lane restrictions will pose a temporary inconvenience to traveling motorists; however, no significant delays are anticipated, and all inconveniences and delays will cease upon project completion.

Airports

Although not located within 0.5 mile of the project, there is one public-use airport, the Mississinewa Reservoir Airport, located 2.34 miles away from the project. This airport is for use by sea planes only. Coordination with INDOT Aviation occurred. On December 14, 2020 INDOT Aviation indicated they found no issues with the any surrounding airspace or public use airports (Appendix C, page 27).

The proposed project in the vicinity of these facilities will be limited to the HMA overlay. No right-of-way will be acquired from any of these facilities. Therefore, no impacts are expected. Access to all properties will be maintained during construction.

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

Environmental Justice (EJ) (Presidential EO 12898)	**Yes**	**No**
During the development of the project were EJ issues identified?		X
Does the project require an EJ analysis?	X	
If YES, then:		
Are any EJ populations located within the project area?	X	
Will the project result in adversely high and disproportionate impacts to EJ populations?		X

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 and adverse effect on EJ populations and explain your reasoning. If yes, describe actions to avoid, minimize and mitigate these effects.

Under FHWA Order 6640.23A, FHWA and the project sponsor, as a recipient of funding from FHWA, are responsible to ensure that their programs, policies, and activities do not have a disproportionately high and adverse effect on minority or low-income populations. Per the current INDOT Categorical Exclusion Manual, an Environmental Justice (EJ) Analysis is required for any project that has two or more relocations or 0.5 acre of additional permanent right-of-way. The project will require acquisition of 2.4 acres of permanent right-of-way and no relocations. Therefore, an EJ Analysis is required.

Potential EJ impacts are detected by locating minority and low-income populations relative to a reference population to determine if populations of EJ concern exists and whether there could be disproportionately high and adverse impacts to them. The reference population may be a county, city or town and is called the community of comparison (COC). In this project, the COC is Miami County. The community that overlaps the project area is called the affected community (AC). In this project, the AC is Census Tracts 9525, 9526, and 9527. An AC has a population of concern for EJ if the population is more than 50% minority or low-income or if the low-income or minority population is 125% of the COC. Data from the 2019 American Community Survey (5-year estimate data) was obtained from the US Census Bureau Website https://data.census.gov on March 25, 2021 by HNTB. The data collected for minority and low-income populations within the AC are summarized in the below table and Appendix I, pages 1-9.

Table 1: Minority and Low-Income Data (American Community Survey, 2019)

	COC: Miami County	AC 1: Census Tract 9525	AC 2: Census Tract 9526	AC 3: Census Tract 9527
Percent Minority	11.3%	22.0%	5.5%	1.9%
125% of COC	14.1%	AC > 125% COC	AC > 125% COC	AC > 125% COC
EJ Population of Concern		Yes	No	No
Percent low-income	15.3%	33.8%	11.1%	12.8%
125% of COC	19.1%	AC > 125% COC	AC > 125% COC	AC > 125% COC
EJ Population of Concern		Yes	No	No

Census Tract 9525 has a percent minority of 22.0%, which is below 50% but is above the 125% COC threshold. Therefore, Census Tract 9525 contains minority populations of EJ concern.

Census Tract 9525 has a percent low-income of 33.8%, which is below 50% but is above the 125% COC threshold. Therefore, Census Tract 9525 contain low-income populations of EJ concern.

Census Tract 9526 has a percent minority of 5.5%, which is below 50% and is below the 125% COC threshold. Therefore, Census Tract 9526 does not contain minority populations of EJ concern.

Census Tract 9526 has a percent low-income of 11.1%, which is below 50% and is below the 125% COC threshold. Therefore, Census Tract 9526 does not contain low-income populations of EJ concern.

Census Tract 9527 has a percent minority of 1.9%, which is below 50% and is below the 125% COC threshold. Therefore, Census Tract 9527 does not contain minority populations of EJ concern.

Census Tract 9527 has a percent low-income of 12.8%, which is below 50% and is below the 125% COC threshold. Therefore, Census Tract 9527 does not contain low-income populations of EJ concern.

Conclusion: The proposed project includes application of a HMA overlay and preventive maintenance of SR 124, including curb ramp construction and drainage improvements. In addition, three existing cross culverts and one driveway culvert in the corridor will be replaced in kind and one new cross culvert and drainage channel will be constructed. Overall, the

project will require 2.4 acres of new right-of-way and no relocations. However, the portion of the project that will occur in AC1 – Census Tract 9525, where minority and low income EJ populations were identified, will not require any acquisition of new right-of-way. There will be no changes in access to residential or community properties, and the identified populations of EJ concern are not expected to experience a disproportionately high and adverse impact from the project.

On April 19, 2021, INDOT ESD indicated that they had reviewed the project information and EJ analysis (Appendix I, page 1). INDOT ESD stated, "With the information provided, the project may require minimal right-of-way, require no relocations, and would not disrupt community cohesion or create a physical barrier. With the information provided, INDOT-ESD 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."

Relocation of People, Businesses or Farms	**Yes**	**No**
Will the proposed action result in the relocation of people, businesses or farms?		X
Is a BIS or CSRS required?		X

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

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

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

SECTION I – HAZARDOUS MATERIALS & REGULATED SUBSTANCES

Hazardous Materials & Regulated Substances (Mark all that apply)	**Documentation**
Red Flag Investigation (RFI)	X
Phase I Environmental Site Assessment (Phase I ESA)	
Phase II Environmental Site Assessment (Phase II ESA)	
Design/Specifications for Remediation required?	

Date RFI concurrence by INDOT SAM (if applicable): April 16, 2021

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 April 15, 2021 by HNTB (Appendix E, pages 5 and 13). Two Resource Conservation and Recovery Act (RCRA) Generator/ Treatment, Storage & Disposal (TSD) sites, one State Cleanup Site, 13 Underground Storage Tank (UST) sites, one Voluntary Remediation Program (VRP) site, seven Leaking Underground Storage (LUST) Sites, one tire waste site, four Brownfields sites, eight National Pollutant Discharge Elimination System (NPDES) Facilities, and 21 NPDES Pipe Locations are located within 0.5 mile of the project area. Unless discussed below no impact will occur.

One LUST site is located is located within the project limits and could potentially affect this project. The Former Buck's Live Bait & Sports Goods (14 Wallace Row, Peru, IN 46970, AI ID# 44595) is located adjacent to the project area in the northwest corner of Wallace Row and SR 124. According to the IDEM Virtual File Cabinet (VFC), a Limited Subsurface Investigation Report was requested on May 26, 2017 due to petroleum contaminants detected during closure activities which were completed on May 17, 1990. No additional documentation was available in the VFC after this request. If excavation occurs in this area, proper handling, removal, and disposal of soil and/or groundwater may be necessary.

One NPDES facility, Ken Combs Storage Units (9 West Riverside Drive, Peru, IN 46970, AI# 118132/INR10N409), is

located 0.02 mile southwest of SR 19 and Riverside Drive. The permit is still effective and will be terminated on March 6, 2022. An early coordination letter and project mapping was sent via USPS to Ken Combs on May 4, 2021. No response was received.

Six NPDES pipe locations, all property of Peru Utilities Wastewater Treatment Plant - Benton Street/East Canal Street Combined Sewer Overflow, are located adjacent to the project area. Coordination with Peru Utilities was completed as part of the early coordination process. Peru Utilities indicated INDOT should have their own MS4 requirements and asked to be included on future coordination and copied on the Stormwater Pollution Prevention Plan (SWPPP) (Appendix C, page 32). Peru Utilities was also included in the preliminary field check meeting. A SWPPP will be prepared for the project and Rule 5 Construction Sediment and Erosion Control permit will be obtained for the project. Copies of the SWPPP will be provided to the City of Peru and Peru Utilities for review.

Part IV – Permits and Commitments

PERMITS CHECKLIST

Permits (mark all that apply)	**Likely Required**
Army Corps of Engineers (404/Section10 Permit)	
Nationwide Permit (NWP)	
Regional General Permit (RGP)	
Individual Permit (IP)	
Other	
IN Department of Environmental Management (401/Rule 5)	
Nationwide Permit (NWP)	
Regional General Permit (RGP)	
Individual Permit (IP)	
Isolated Wetlands	
Rule 5	X
Other	
IN Department of Natural Resources	
Construction in a Floodway	X
Navigable Waterway Permit	
Other	
Mitigation Required	X
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 Rule 5 Sediment and Erosion Control Permit will be required, as greater than 0.9 acre of earth disturbing activity will occur.

An IDNR Construction in a Floodway Permit will be required due to construction of the new drainage ditch to the Mississinewa River. Mitigation is anticipated for removal of trees within the floodway.

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

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

ENVIRONMENTAL COMMITMENTS

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

Firm:

1. If the scope of work or permanent or temporary right-of-way amounts change, the INDOT Environmental Services Division (ESD) and the INDOT District Environmental Section will be contacted immediately. (INDOT ESD and INDOT District)
2. It is the responsibility of the project sponsor to notify school corporations, emergency services, the Mississinewa Reservoir/State Park including the Miami State Recreation Area and the Frances Slocum State Forest/Recreation Area and the Frances Slocum State Forest at least two weeks prior to any construction that would block or limit

access. (INDOT ESD)

3. Concerning nutrient impairment and Impaired Biotic Communities (IBC), Best Management Practices (BMPs) will be used to avoid further degradation to the UNT 2 to Wabash. (INDOT SAM)
4. UNT 2 to Wabash is listed for *E. coli*. Workers who are working in or near water with *E. coli* should take care to wear appropriate PPE, observe proper hygiene procedures, including regular hand washing, and limit personal exposure. (INDOT SAM)
5. Mississinewa River and UNT 2 to the Wabash River are impaired for PCBs in fish tissue. Exposure to PCBs in fish tissue is considered low, assuming workers are not eating biota surrounding or associated with the water body. Workers will be informed. If there will be sediment and/or soils disturbed by construction, additional investigation may be necessary. Coordination with INDOT ESD SAM will occur. (INDOT SAM)
6. Any work in a wetland area within right-of-way or in borrow/waste areas is prohibited unless specifically allowed in the U.S. Army Corps of Engineers permit. (INDOT ESD)
7. A “Reinitiation Notice” is required if: more than 0.08 acre of trees are to be cleared; the amount or extent of incidental take of Indiana bat and/or northern long-eared bat is exceeded; new information about listed species is encountered; new species is listed or critical habitat designated that the project may affect; the project is modified in a manner that causes an effect to the listed species; or, new information reveals that the project may affect listed species or critical habitat in a manner not considered in the BO or the project information. (USFWS)
8. Contractors must take care when handling dead or injured bats (regardless of species), and any other federally listed species that are found at the Project site in order to preserve biological material in the best possible condition and protect the handler from exposure to diseases, such as rabies. Project personnel are responsible for ensuring that any evidence about determining the cause of death or injury is not unnecessarily disturbed. Reporting the discovery of dead or injured listed species is required in all cases to enable the Service to determine whether the level of incidental take exempted by the BO is exceeded, and to ensure that the terms and conditions are appropriate and effective. Parties finding a dead, injured, or sick specimen of any bat (regardless of species), or other endangered or threatened species, must promptly notify the USFWS Bloomington Field Office at (812) 334-4261. (USFWS)
9. The INDOT Project Manager will assure that $1,308.30 of Preliminary Engineering funds will be allocated to the Rangewide In-Lieu Fee Program, administered by The Conservation Fund, to resolve formal consultation under the Rangewide Programmatic (0.08 acre X 1.75 x $9,345 = $1,308.30). Payment shall be in process for Ready for Contracts (RFC) date. (INDOT-ESD, USFWS)
10. TREE REMOVAL AMM 1: Modify all phases/aspects of the project (e.g., temporary work areas, alignments) to avoid tree removal. (USFWS)
11. LIGHTING AMM 1: Direct temporary lighting away from suitable habitat during the active season. (USFWS)
12. TREE REMOVAL AMM 3: Ensure tree removal is limited to that specified in project plans and ensure that contractors understand clearing limits and how they are marked in the field (e.g., install bright colored flagging/fencing prior to any tree clearing to ensure contractors stay within clearing limits). (USFWS)
13. 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)
14. The Former Buck’s Live Bait & Sports Goods (14 Wallace Row, Peru, IN 46970, AI ID# 44595) is located adjacent to the project area in the northwest corner of Wallace Row and SR 124. If excavation occurs in this area, proper handling, removal, and disposal of soil and/or groundwater may be necessary. (INDOT SAM)
15. Provide City of Peru and Peru Utilities for copies of the SWPPP and Rule 5 application for comments. (Peru Utilities)
16. Sites (12Mi222 & 12Mi896) on plan maps must be marked as "environmentally sensitive-do not disturb". These sites are to be avoided by all construction activities. (INDOT CRO)
17. In addition to implementing standard erosion control measures to minimize impacts to mussel species, there should

also be no heavy equipment used in the river for construction of the new ditch and outfall. (IDNR)

18. USFWS Bridge/Structure Assessment shall take place no earlier than two (2) years prior to the start of construction. If construction will begin after October 20, 2022 (or the date of inspection, plus 2 years), 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."

For Further Consideration:

19. The loss of riparian trees should be mitigated as close to the project impact site as possible, preferably along the Mississinewa River or the nearby Wabash River. See the woodland mitigation guidelines of the Indiana Department of Natural Resources contained in their Information Bulletin #17 (http://www.in.gov/legislative/iac/20200527-IR-312200284NRA.xml.pdf) which states that the mitigation ratio for non-wetland floodway forest losses of more than 1 acre is to be 2:1 (2 acres replanted for every acre destroyed), planted as close to the impact site as possible; loss of less than an acre is to be mitigated at a 1:1 ratio or 5 trees for each lost tree of 10 inches dbh or greater. If any of the woodland that would be removed is forested wetland, the mitigation ratio is 4:1. This tree replacement requirement is not related to any mitigation needed for potential impact to the Indiana bat or northern long-eared bat under the range-wide programmatic informal consultation process. (USFWS)
20. Restrict below low-water work in streams to placement of culverts, piers, pilings and/or footings, shaping of the spill slopes around the bridge abutments, and placement of riprap. (USFWS)
21. Culverts should span the active stream channel, should be either embedded or a 3-sided or open-arch culvert, and be installed where practicable on an essentially flat slope. When an open-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)
22. 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)
23. Avoid all work within the inundated part of the stream channel 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)
24. 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)
25. For purposes of maintaining fish and wildlife passage through a crossing structure, the Environmental Unit recommends bridges rather than culverts and bottomless culverts rather than box or pipe culverts. Crossings should: span the entire channel width (a minimum of 1.2 times the OHWM width); maintain the natural stream substrate within the structure; have a minimum openness ratio (height x width / length) of 0.25; and have stream depth, channel width, and water velocities during low-flow conditions that are approximate to those in the natural stream channel. Banklines should be restored within box and pipe structures to allow for wildlife passage above the ordinary highwater mark. (IDNR)
26. The new, replacement, or rehabbed structure, and any bank stabilization under the structure, should not create conditions that are less favorable for wildlife passage under the structure compared to the current conditions. If feasible, a larger bridge or culvert opening can allow for the movement of wildlife under the roadway in order to minimize wildlife/vehicle collisions. (IDNR)
27. Riprap must not be placed in the active thalweg channel or placed in the streambed in a manner that precludes fish or aquatic organism passage (riprap must not be placed above the existing streambed elevation). Riprap may be used only at the toe of the sideslopes up to the ordinary high water mark (OHWM). The banks above the OHWM

must be restored, stabilized, and revegetated using geotextiles and a mixture of grasses, sedges, wildflowers, shrubs, and trees native to Eastern Indiana and specifically for stream bank/floodway stabilization purposes as soon as possible upon completion. (IDNR)

28. Impacts to non-wetland forest of one (1) acre or more should be mitigated at a minimum 2:1 ratio. If less than one acre of non-wetland forest is removed in a rural setting, replacement should be at a 1:1 ratio based on area. Impacts to non-wetland forest under one (1) acre in an urban setting should be mitigated by planting five trees, at least 2 inches in diameter-at-breast height (dbh), for each tree which is removed that is 10" dbh or greater (5:1 mitigation based on the number of large trees) or by using the 1:1 replacement ratio based on area depending on the type of habitat impacted. (IDNR)
29. Do not excavate in the low flow area except for the placement of piers, foundations, and riprap, or removal of the old structure. (IDNR)
30. Do not construct any temporary runarounds, access bridges, causeways, cofferdams, diversions, or pumparounds. (IDNR)
31. Do not cut any trees suitable for Indiana bat or Northern Long-eared bat roosting (greater than 5 inches dbh, living or dead, with loose hanging bark, or with cracks, crevices, or cavities) from April 1 through September 30. (IDNR)
32. Design for the new ditch outfall should minimize impacts to the riparian woodland along the river. (USFWS)
33. Use minimum average 6 inch graded riprap stone extended below the normal water level to provide habitat for aquatic organisms in the voids. (IDNR)

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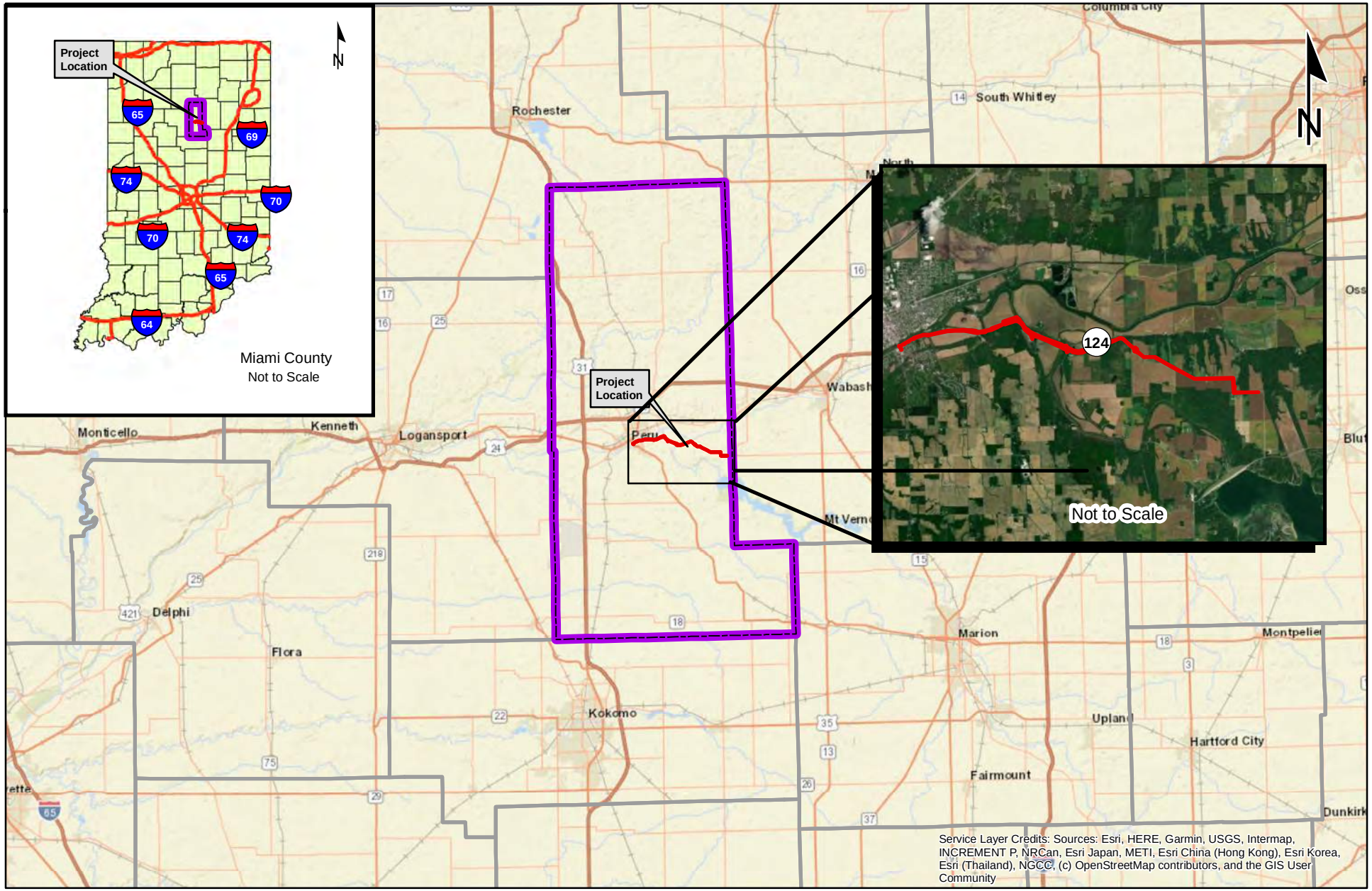
APPENDIX A: INDOT SUPPORTING DOCUMENTATION

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 Impacts[3]	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 Impacts[3]	No adverse impacts to wetlands	< 0.1 acre	-	< 1.0 acre	≥ 1.0 acre
Right-of-way[5]	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 • **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.

APPENDIX B: GRAPHICS



Project Area

Miami County

0 4.5 9 Miles

Figure 1: Project Location Map

SR 124

HMA Overlay & Preventative Maintenance Miami County, Indiana

Des. No. 1593227

1 in = 9 miles

HNTB

Graphics created by HNTB Corporation (2021)

Project Area
PLSS Section
Map Index Page
Current Extent

0 500 1,000 Feet

Figure 2: Project Aerial Map

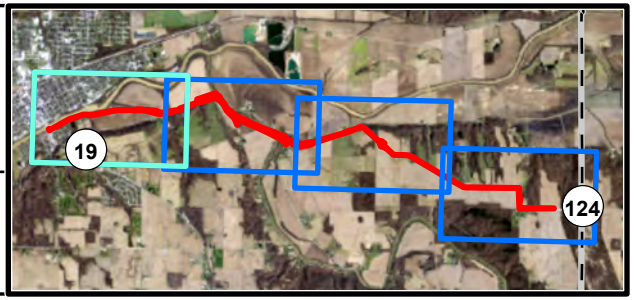
SR 124
HMA Overlay & Preventative Maintenance
Miami County, Indiana

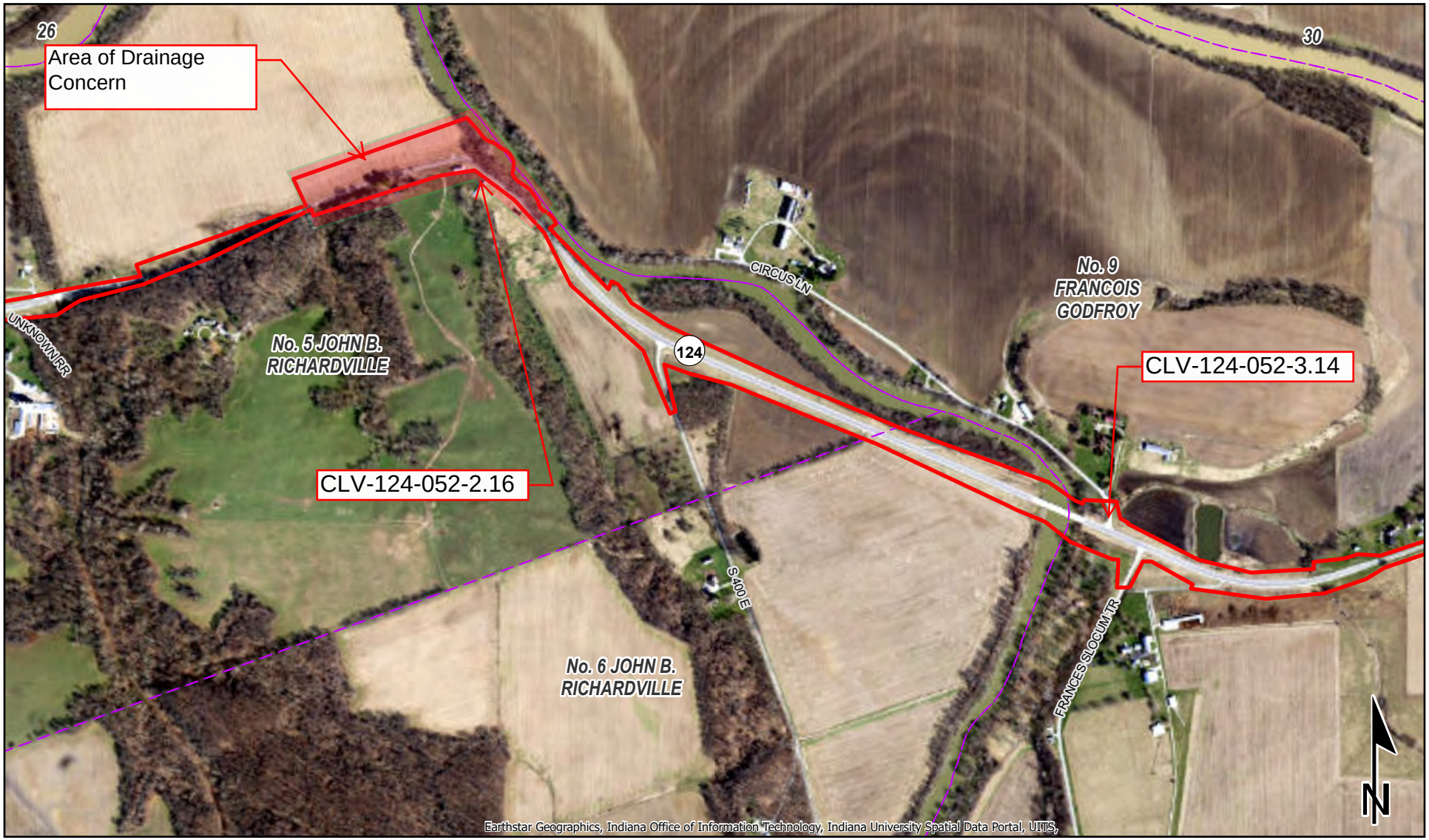
Des. No. 1800552

1 inch = 1,000 ft

HNTB

Graphics created by HNTB Corporation (2021)





Project Area
PLSS Section
Map Index Page
Current Extent

0 500 1,000 Feet

Figure 2: Project Aerial Map

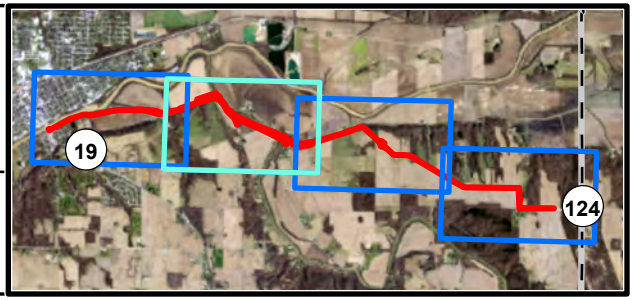
SR 124
HMA Overlay & Preventative Maintenance
Miami County, Indiana

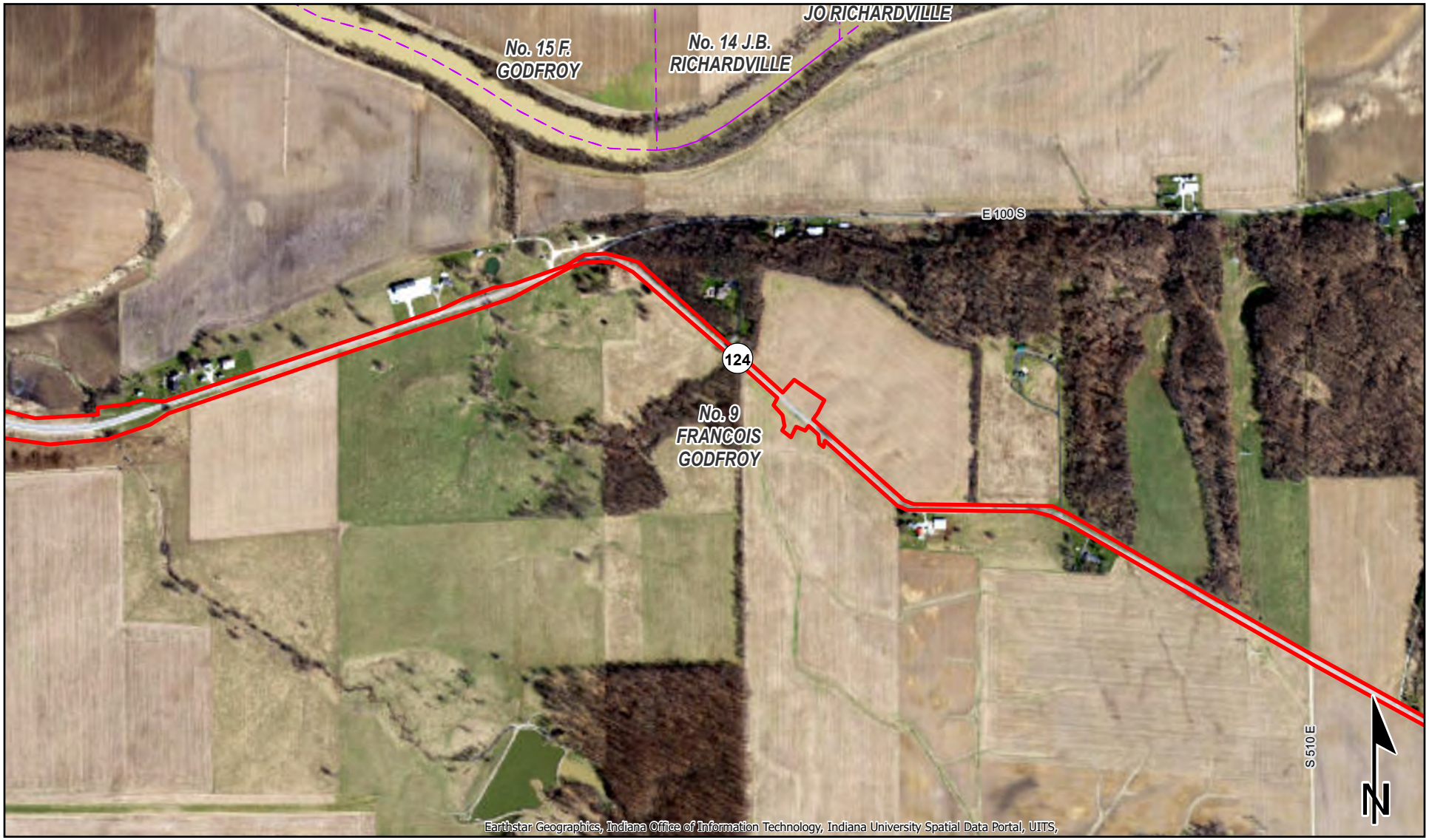
Des. No. 1800552

1 inch = 1,000 ft

HNTB

Graphics created by HNTB Corporation (2021)





Project Area
PLSS Section
Map Index Page
Current Extent

0 500 1,000
Feet

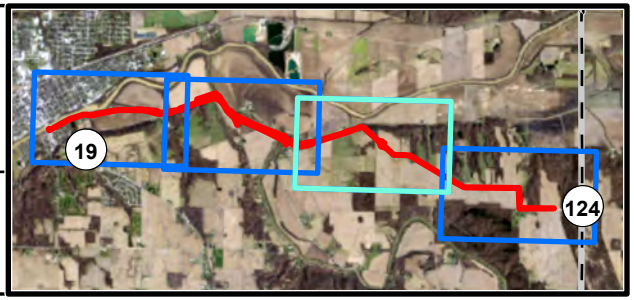
Figure 2: Project Aerial Map

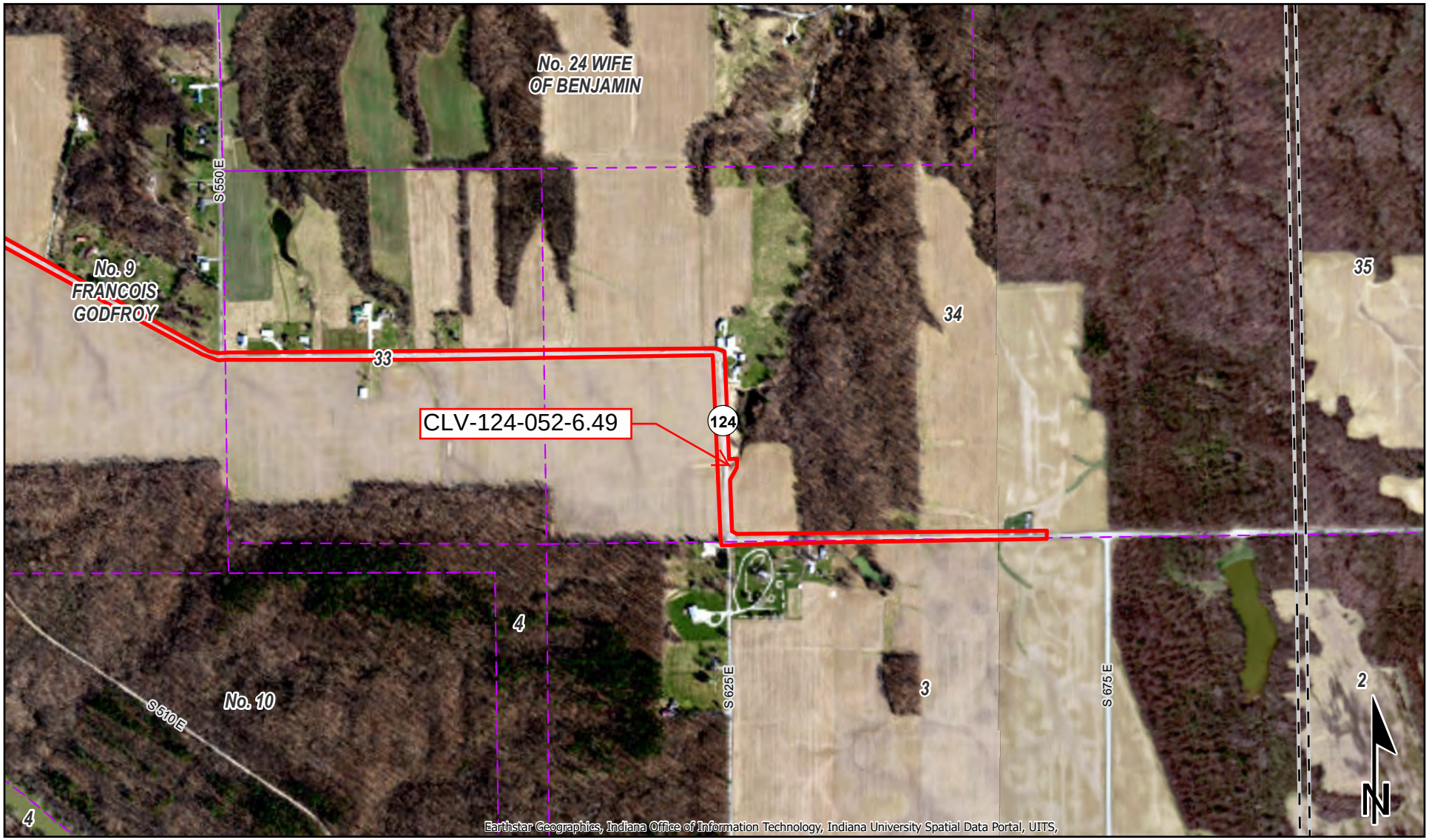
SR 124
HMA Overlay & Preventative Maintenance
Miami County, Indiana

Des. No. 1800552

1 inch = 1,000 ft

HNTB
Graphics created by HNTB Corporation (2021)





Project Area
PLSS Section
Map Index Page
Current Extent

0 500 1,000
Feet

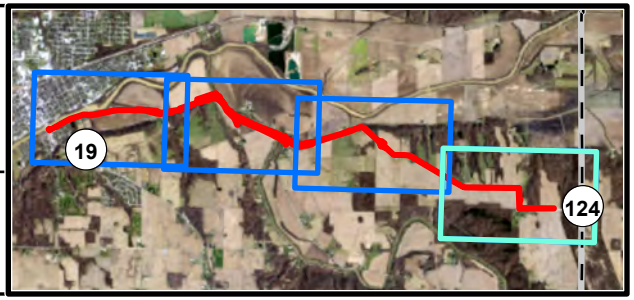
Figure 2: Project Aerial Map

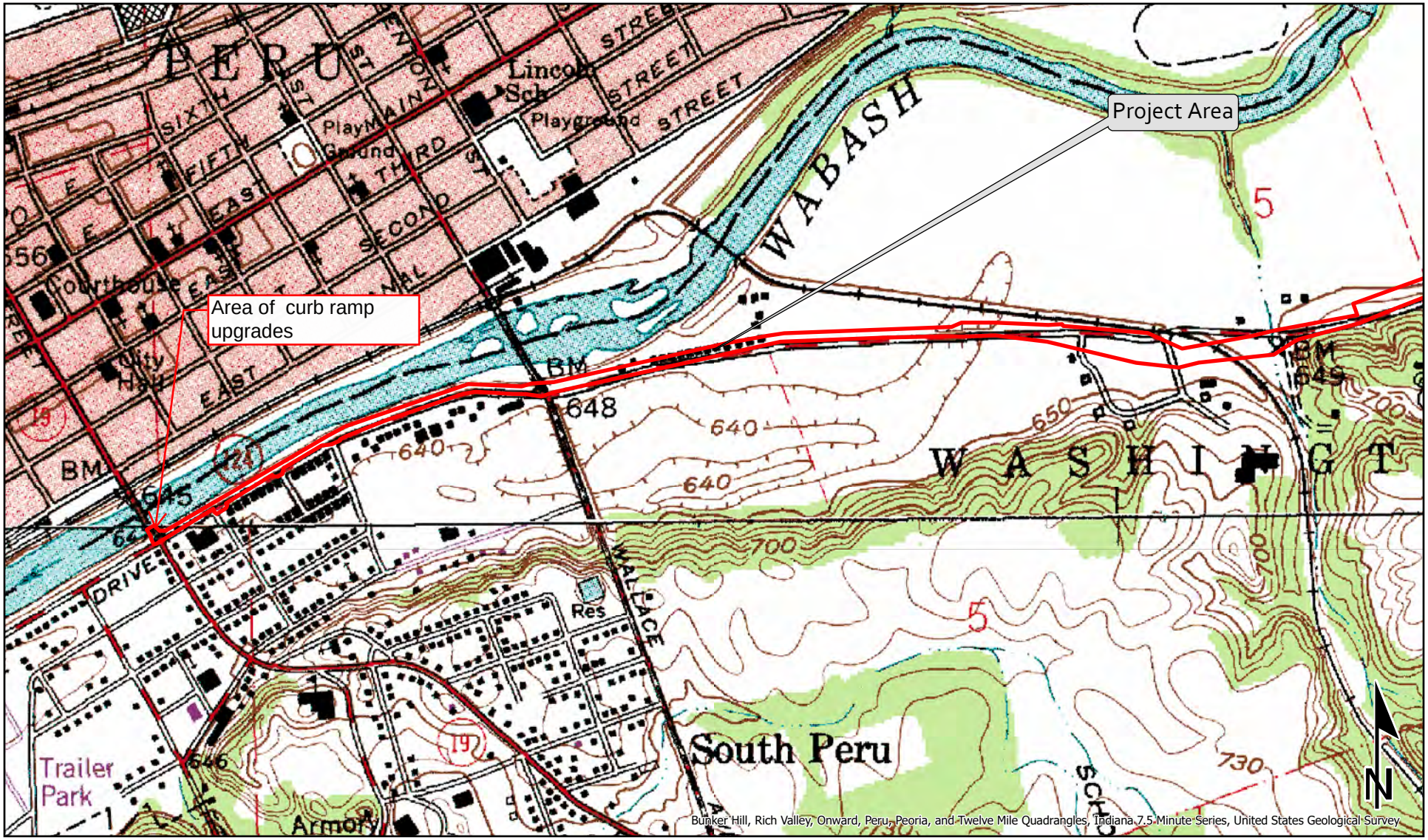
SR 124
HMA Overlay & Preventative Maintenance
Miami County, Indiana

Des. No. 1800552

1 inch = 1,000 ft

HNTB
Graphics created by HNTB Corporation (2021)





Project Area

Map Index Page

Current Extent

0 1,000 Feet

Figure 3: USGS 7.5 Minute Topographic Map

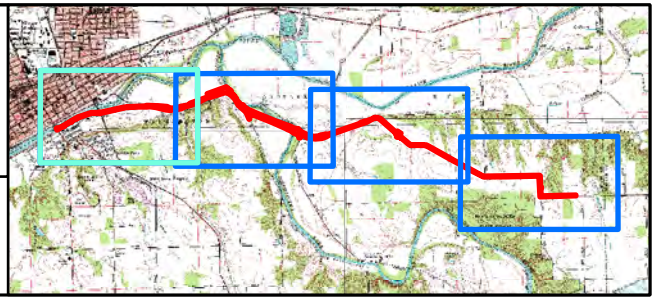
SR 124
Preventative Maintenance Project
Miami County, Indiana

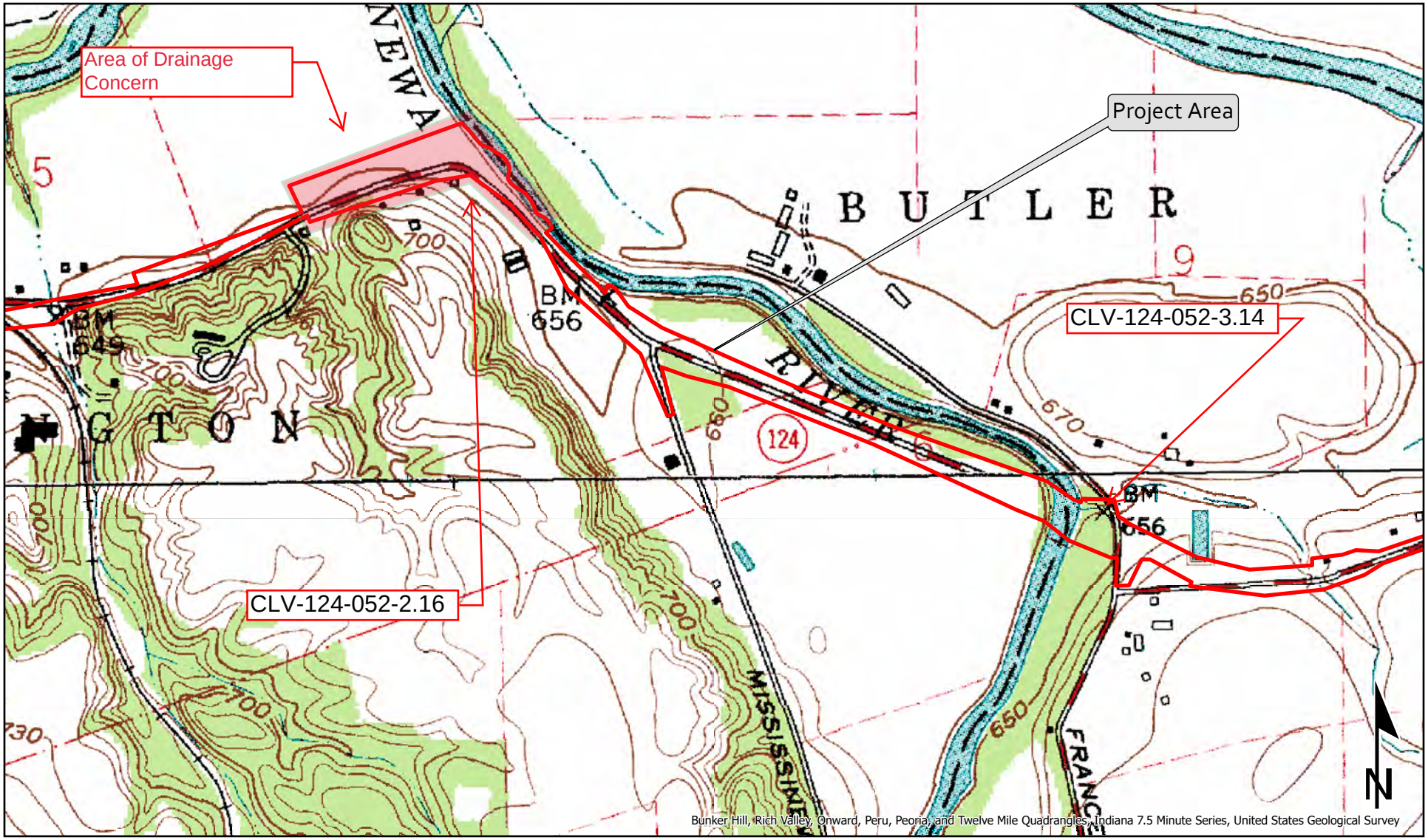
Des. No. 1800552

1 inch =1,000 ft

HNTB

Graphics created by HNTB Corporation (2021)





Project Area
Map Index Page
Current Extent

0 1,000 Feet

Figure 3: USGS 7.5 Minute Topographic Map

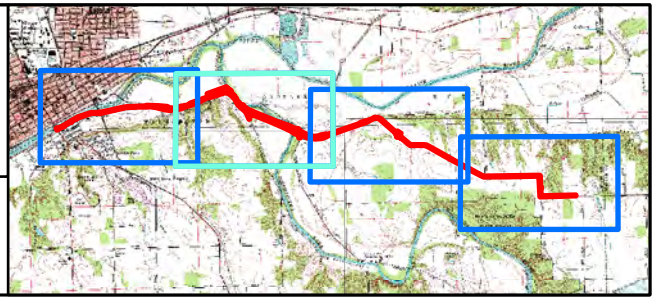
SR 124
Preventative Maintenance Project
Miami County, Indiana

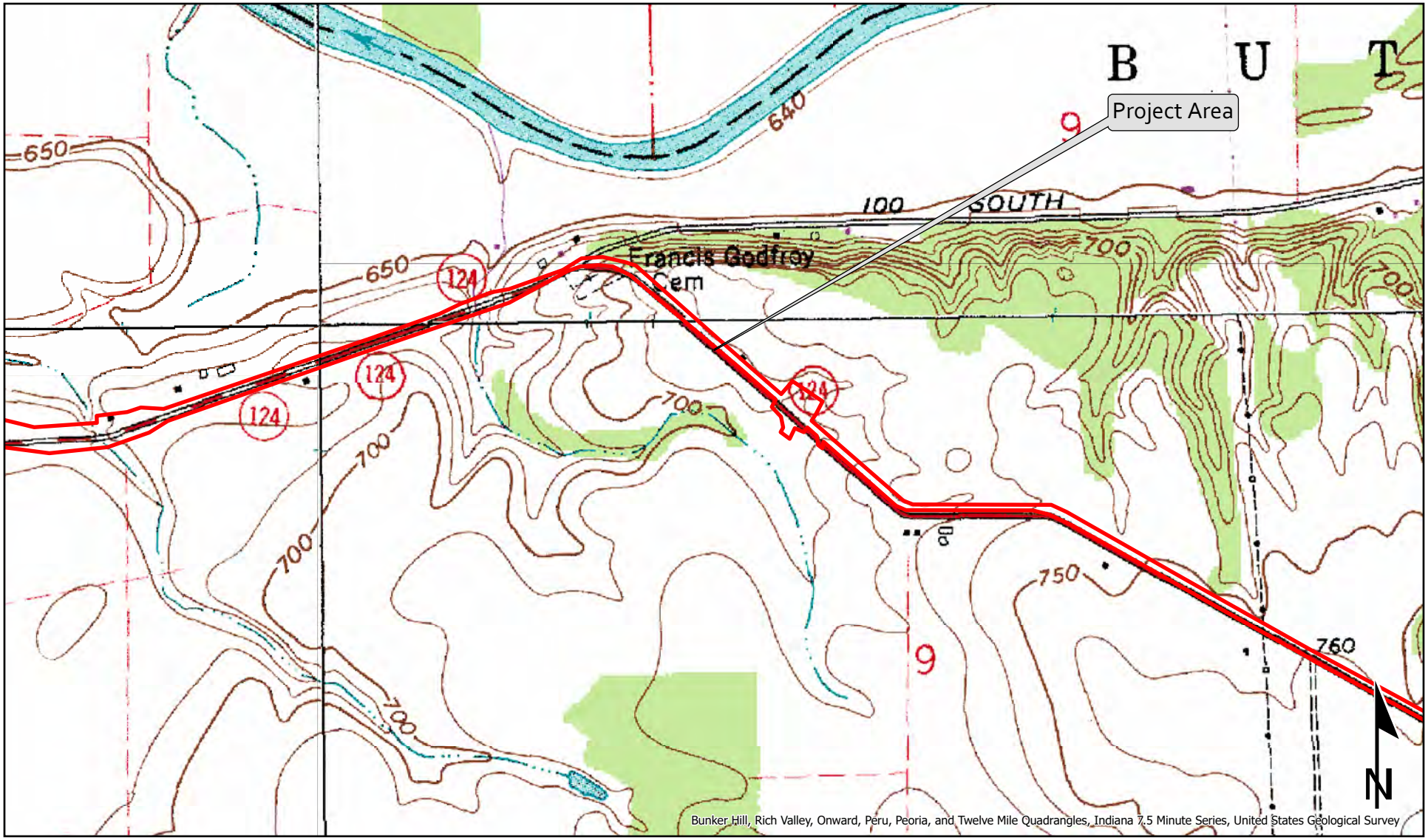
Des. No. 1800552

1 inch =1,000 ft

HNTB

Graphics created by HNTB Corporation (2021)





Project Area
Map Index Page
Current Extent

0 1,000 Feet

Figure 3: USGS 7.5 Minute Topographic Map

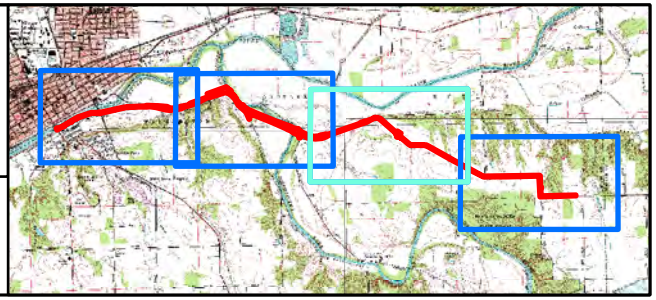
SR 124
Preventative Maintenance Project
Miami County, Indiana

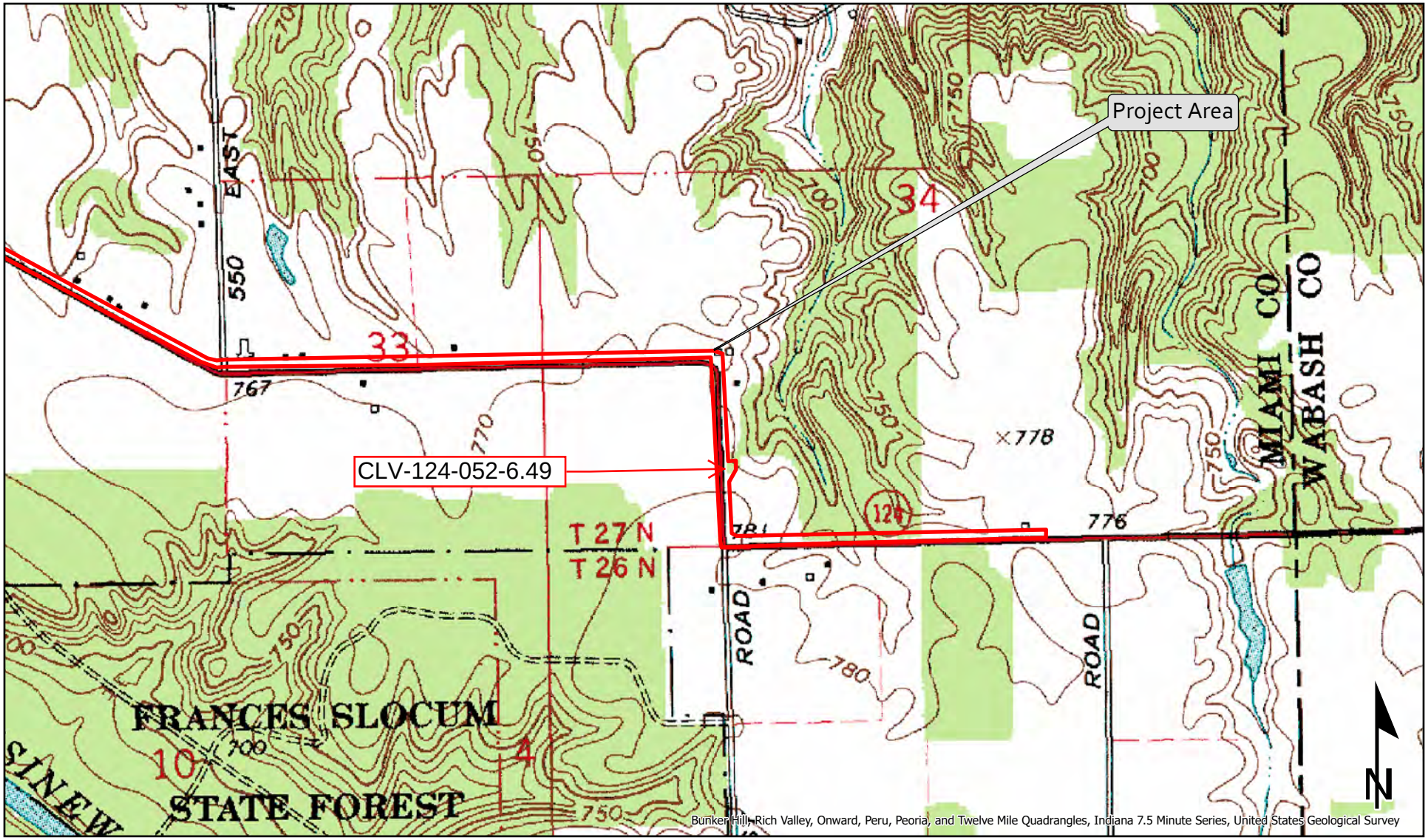
Des. No. 1800552

1 inch =1,000 ft

HNTB

Graphics created by HNTB Corporation (2021)





Project Area
Map Index Page
Current Extent

0 1,000 Feet

Figure 3: USGS 7.5 Minute Topographic Map

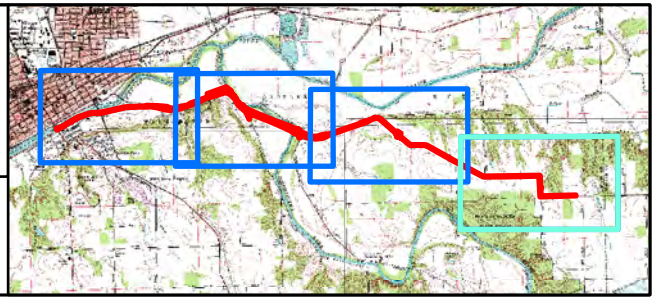
SR 124
Preventative Maintenance Project
Miami County, Indiana

Des. No. 1800552

1 inch =1,000 ft

HNTB

Graphics created by HNTB Corporation (2021)



Investigated Area
Project Area
Map Index Page
Current Extent
County Boundaries
Data Points

Photo Location
Roadside Ditch 1
Delineated Streams
Delineated Wetlands

0 100 200 Feet

Photo Location Map

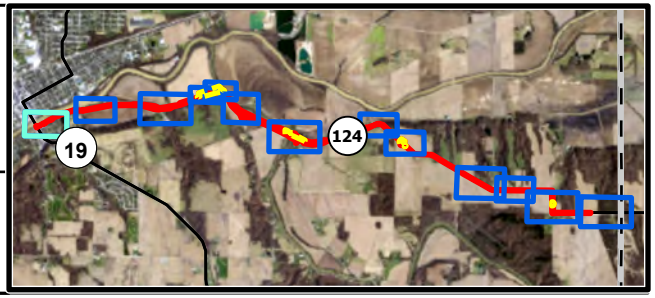
SR 124
Preventative Maintenance Project
Miami County, Indiana

Des. No. 1800552

1 inch = 200 ft

HNTB

Graphics created by HNTB Corporation (2021)



Investigated Area
Project Area
Map Index Page
Current Extent
County Boundaries
Data Points
Photo Location
Roadside Ditch 1
Delineated Streams
Delineated Wetlands
0 100 200 Feet

Photo Location Map

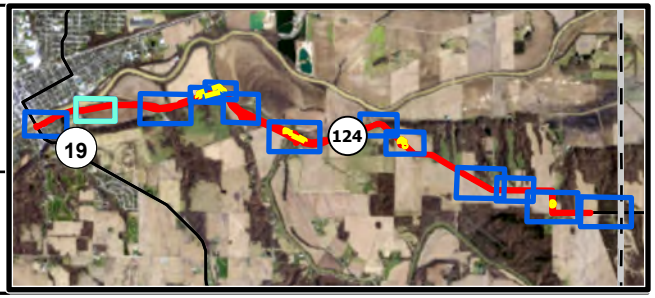
SR 124
Preventative Maintenance Project
Miami County, Indiana

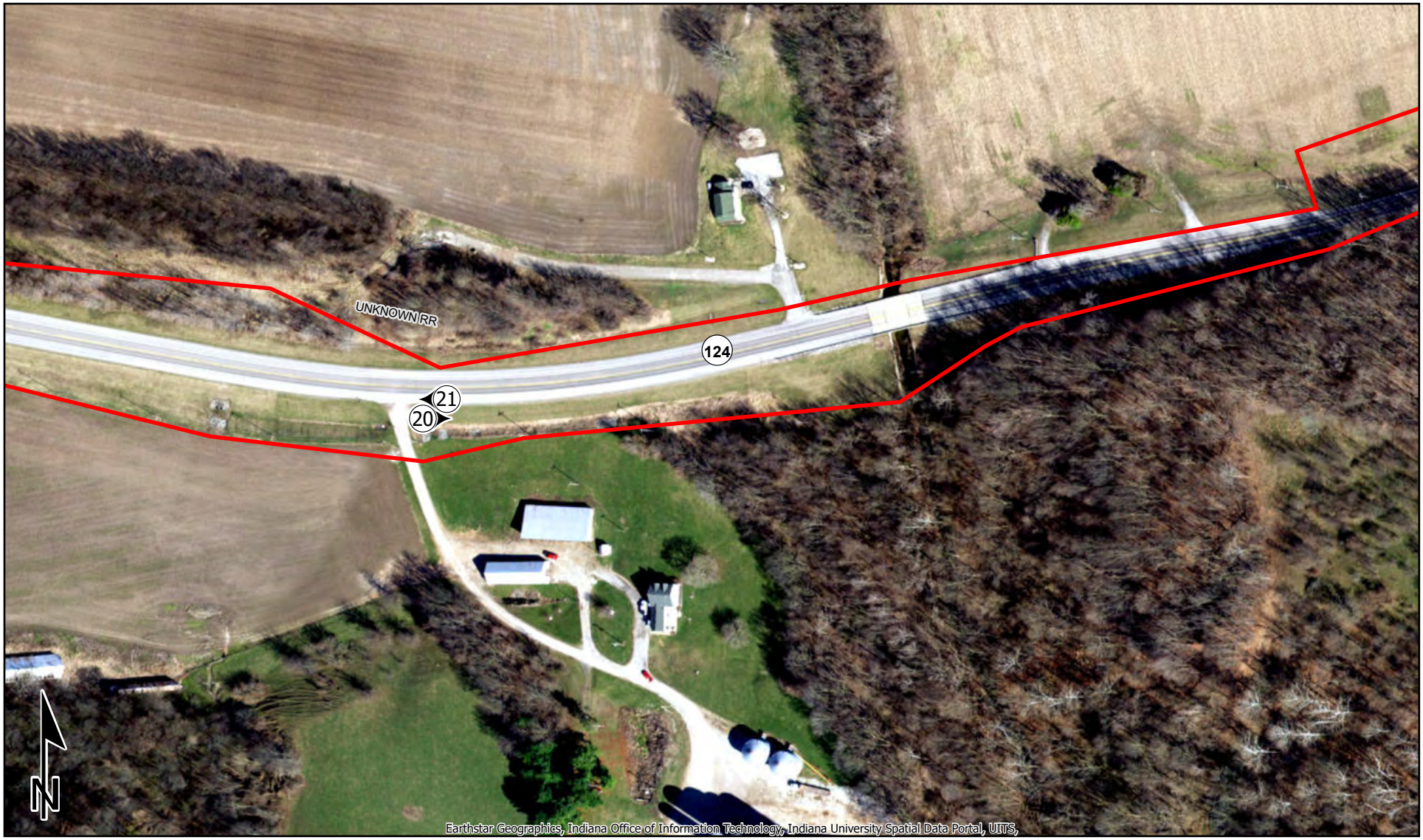
Des. No. 1800552

1 inch = 200 ft

HNTB

Graphics created by HNTB Corporation (2021)





Investigated Area
Project Area
Map Index Page
Current Extent
County Boundaries
Data Points
Photo Location
Roadside Ditch 1
Delineated Streams
Delineated Wetlands
0 100 200 Feet

Photo Location Map

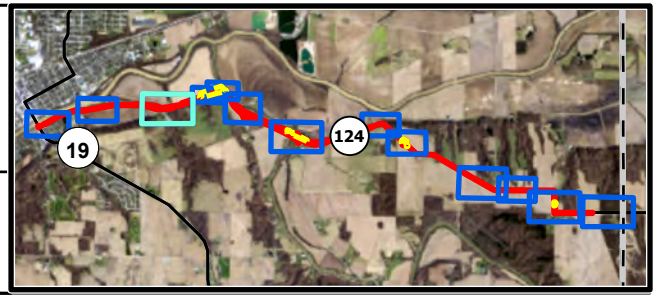
SR 124
Preventative Maintenance Project
Miami County, Indiana

Des. No. 1800552

1 inch = 200 ft

HNTB

Graphics created by HNTB Corporation (2021)



Investigated Area
Project Area
Map Index Page
Current Extent
County Boundaries
Data Points
Photo Location
Roadside Ditch 1
Delineated Streams
Delineated Wetlands
0 50 100 Feet

Photo Location Map

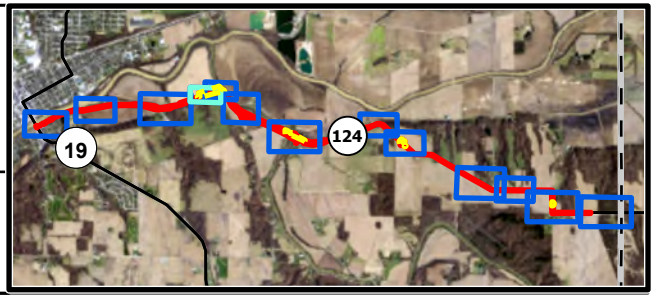
SR 124
Preventative Maintenance Project
Miami County, Indiana

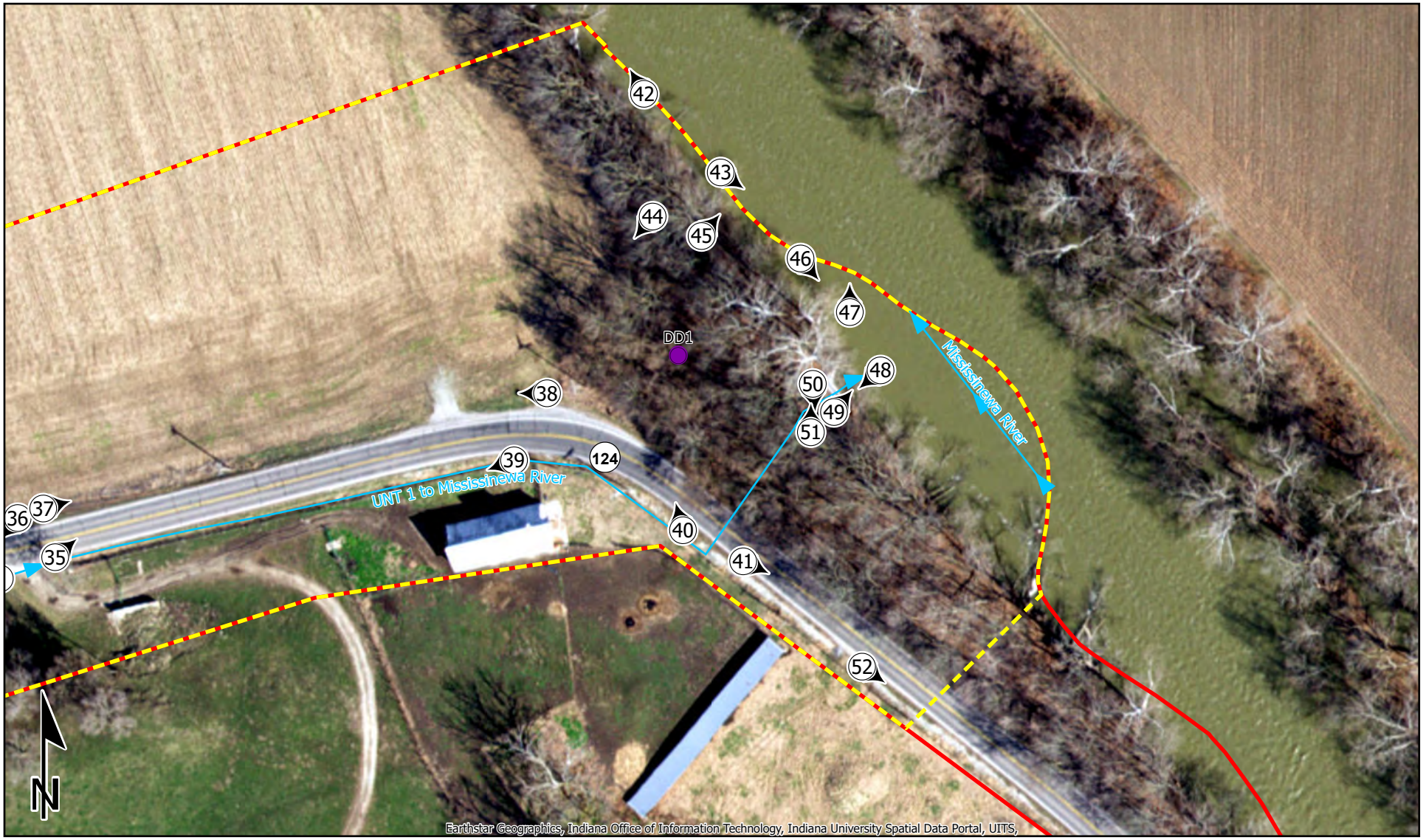
Des. No. 1800552

1 inch = 100 ft

HNTB

Graphics created by HNTB Corporation (2021)





Investigated Area
Project Area
Map Index Page
Current Extent
County Boundaries
Data Points
Photo Location
Roadside Ditch 1
Delineated Streams
Delineated Wetlands
0 50 100 Feet

Photo Location Map

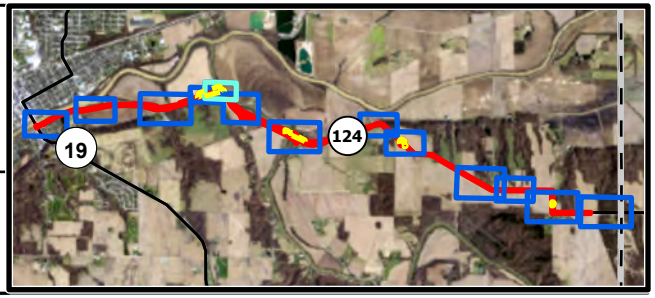
SR 124
Preventative Maintenance Project
Miami County, Indiana

Des. No. 1800552

1 inch = 100 ft

HNTB

Graphics created by HNTB Corporation (2021)



Investigated Area
Project Area
Map Index Page
Current Extent
County Boundaries
Data Points

Photo Location
Roadside Ditch 1
Delineated Streams
Delineated Wetlands

0 150 300 Feet

Photo Location Map

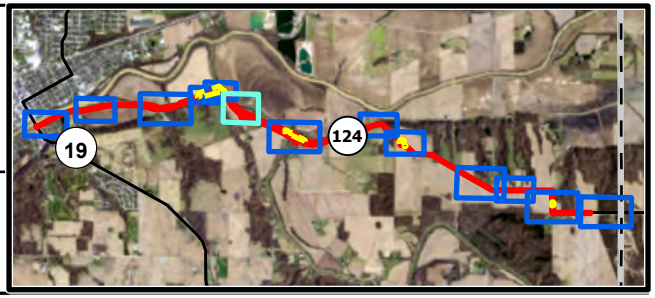
SR 124
Preventative Maintenance Project
Miami County, Indiana

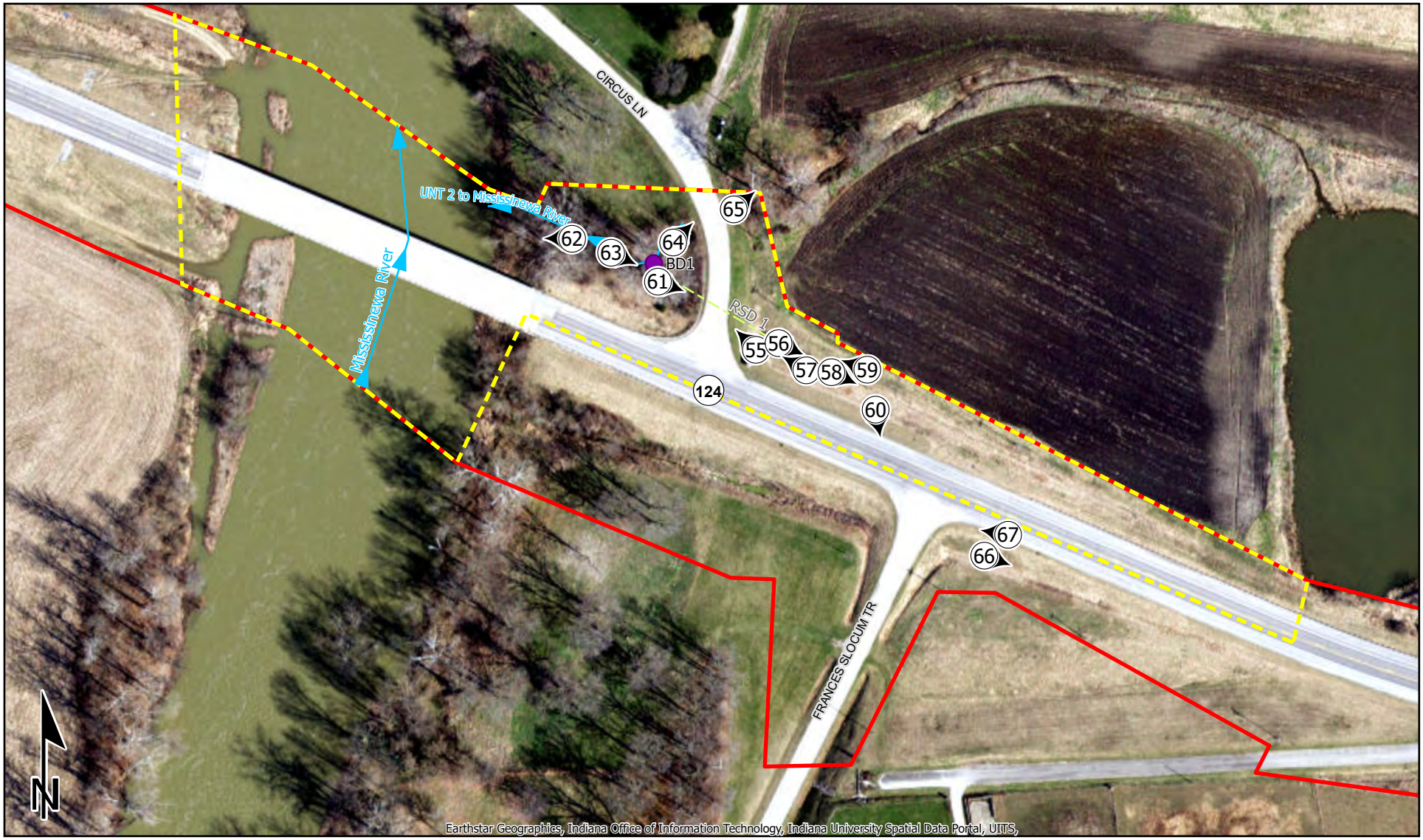
Des. No. 1800552

1 inch = 300 ft

HNTB

Graphics created by HNTB Corporation (2021)





Investigated Area
Project Area
Map Index Page
Current Extent
County Boundaries
Data Points
Photo Location
Roadside Ditch 1
Delineated Streams
Delineated Wetlands
0 75 150 Feet

Photo Location Map

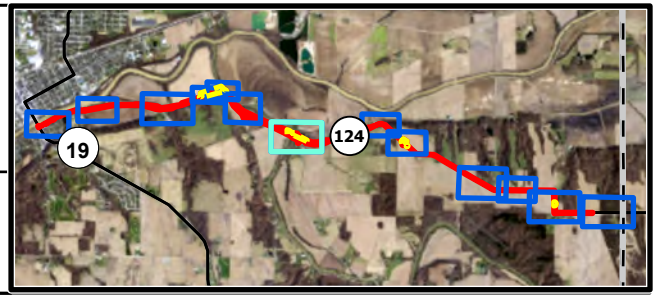
SR 124
Preventative Maintenance Project
Miami County, Indiana

Des. No. 1800552

1 inch = 150 ft

HNTB

Graphics created by HNTB Corporation (2021)



Investigated Area
Project Area
Map Index Page
Current Extent
County Boundaries
Data Points
Photo Location
Roadside Ditch 1
Delineated Streams
Delineated Wetlands
0 75 150 Feet

Photo Location Map

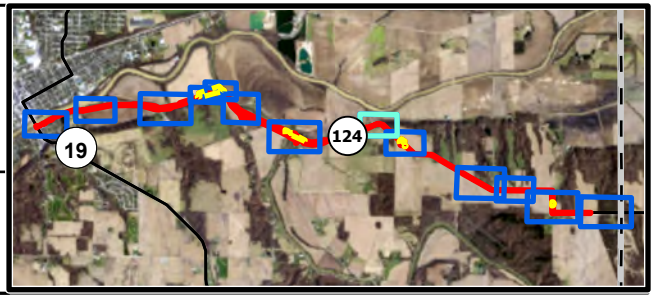
SR 124
Preventative Maintenance Project
Miami County, Indiana

Des. No. 1800552

1 inch = 150 ft

HNTB

Graphics created by HNTB Corporation (2021)



Investigated Area
Project Area
Map Index Page
Current Extent
County Boundaries
Data Points
Photo Location
Roadside Ditch 1
Delineated Streams
Delineated Wetlands
0 75 150
Feet

Photo Location Map

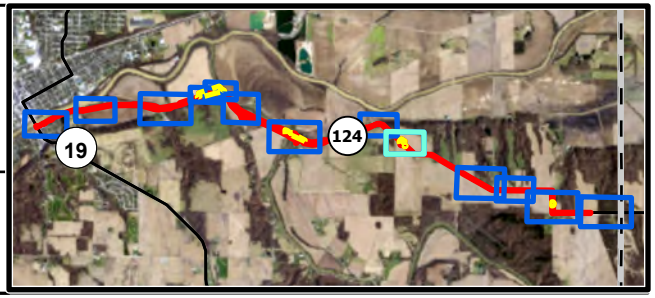
SR 124
Preventative Maintenance Project
Miami County, Indiana

Des. No. 1800552

1 inch = 150 ft

HNTB

Graphics created by HNTB Corporation (2021)



Investigated Area
Project Area
Map Index Page
Current Extent
County Boundaries
Data Points

Photo Location
Roadside Ditch 1
Delineated Streams
Delineated Wetlands

0 125 250 Feet

Photo Location Map

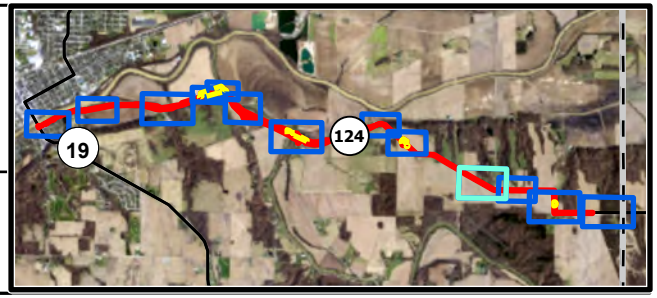
SR 124
Preventative Maintenance Project
Miami County, Indiana

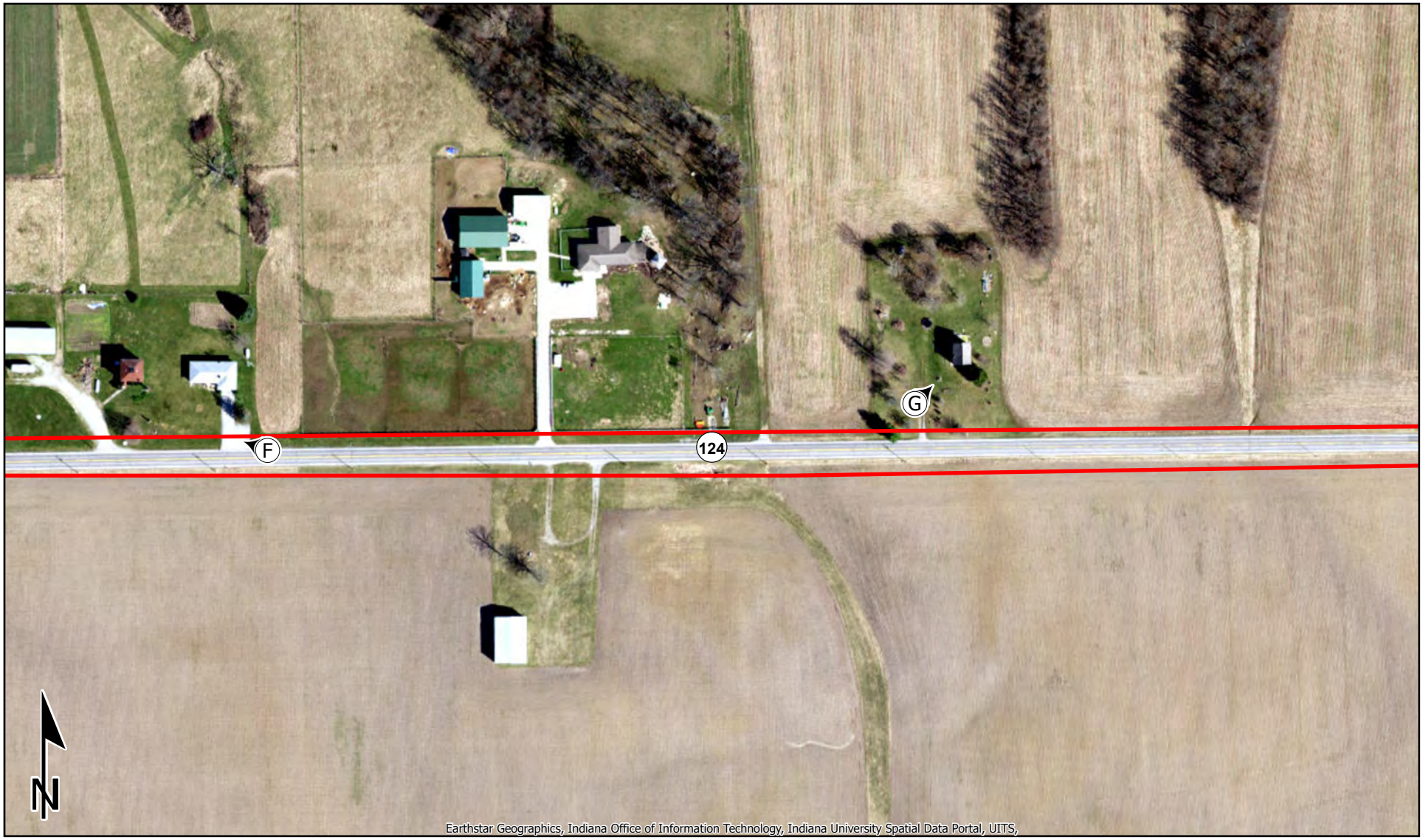
Des. No. 1800552

1 inch = 250 ft

HNTB

Graphics created by HNTB Corporation (2021)





Investigated Area
Project Area
Map Index Page
Current Extent
County Boundaries
Data Points
Photo Location
Roadside Ditch 1
Delineated Streams
Delineated Wetlands
0 100 200 Feet

Photo Location Map

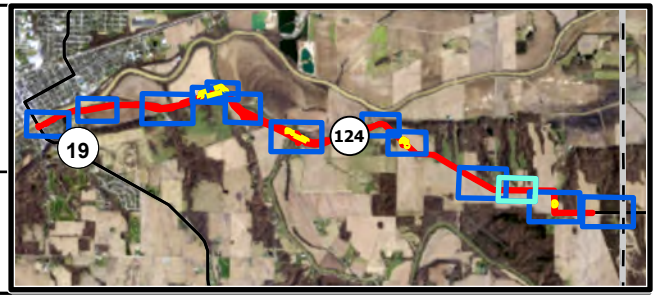
SR 124
Preventative Maintenance Project
Miami County, Indiana

Des. No. 1800552

1 inch = 200 ft

HNTB

Graphics created by HNTB Corporation (2021)



Investigated Area
Project Area
Map Index Page
Current Extent
County Boundaries
Data Points
Photo Location
Roadside Ditch 1
Delineated Streams
Delineated Wetlands
0 50 100 Feet

Photo Location Map

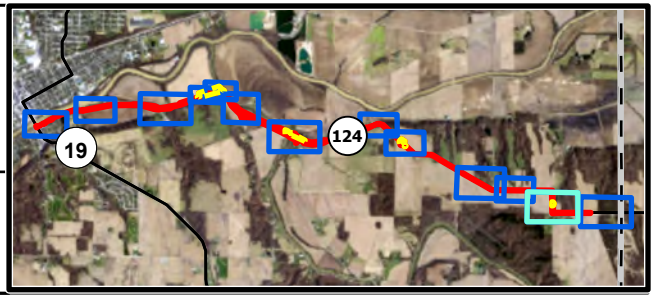
SR 124
Preventative Maintenance Project
Miami County, Indiana

Des. No. 1800552

1 inch = 100 ft

HNTB

Graphics created by HNTB Corporation (2021)



Investigated Area
Project Area
Map Index Page
Current Extent
County Boundaries
Data Points
Photo Location
Roadside Ditch 1
Delineated Streams
Delineated Wetlands
0 125 250 Feet

Photo Location Map

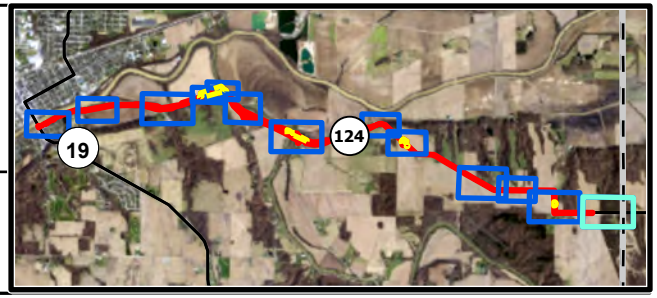
SR 124
Preventative Maintenance Project
Miami County, Indiana

Des. No. 1800552

1 inch = 250 ft

HNTB

Graphics created by HNTB Corporation (2021)



1. Looking north towards the intersection of State Road (SR) 19 and SR 124 from Franklin Street

2. Looking northwest along SR 19 from Franklin Street

3. Looking southeast to intersection of SR 124 and SR 19 from bridge

4. Looking northeast along SR 124 from SR 19 intersection

5. Looking northwest to SR 19 bridge over Mississinewa River

6. Looking southwest down SR 124 towards SR 19 intersection

7. Looking northeast along SR 124 from intersection with Wabash Street

8. Looking southwest along SR 124 from Huntington Street

9. Looking norheast along 124 from Huntington Street

10. Looking southwest along SR 124 and to intersection with Sullivan Lane

11. Looking northeast to Sullivan Lane intersection with SR 124

12. Looking east towards SR 124 intersection with Wallace Avenue

13. Looking southwest to the SR 124 approach to Wallace Avenue

14. Looking northwest along Wallace Avenue from SR 124 intersection

15. Looking southeast down Wallace Avenue from SR 124

16. Looking north to intersection of Wallace Avenue and SR 124

17. Looking east along SR 124 from Wallace Avenue intersection

18. Looking west along SR 124

19. Looking east along SR 124

20. Looking east along SR 124 towards bridge

21. Looking west along SR 124

22. Looking northeast along SR 124 along roadside ditch on north side of road

23. Looking southwest along SR 124

24. Looking northeast along south side of SR 124 at roadside drainage from driveway

25. Looking northeast from data point CD1 in roadside drainage

26. Looking southwest along SR 124 roadside

27. Looking south to UNT 1 to Mississinewa River

28. Looking northeast along UNT 1 to Mississinewa River

29. Looking southwest along SR 124 and UNT 1 to Mississinewa River from south side

30. Looking northeast along UNT 1 to Mississinewa River and SR 124 from south roadside

31. Looking southwest to riprap stabilization

32. Looking southwest along SR 124 from north side

33. Looking northeast to SR 124 from where roadside slope meets agricultural field

34. Looking southwest down UNT 1 to Mississinewa River and SR 124

35. Looking northeast along UNT 1 to Mississinewa River and SR 124

36. Looking southwest along SR 124 on north roadside

37. Looking northeast along SR 124 from north roadside

38. Looking west along SR 124

39. Looking southwest along UNT 1 to Mississinewa river and SR 124 from culvert under SR 124

40. Looking northwest to culvert draining UNT 1 to Mississinewa River under SR 124

41. Looking southeast along riprap roadside ditch

42. Looking northwest along Mississinewa River

43. Looking southeast along Mississinewa River

44. Looking southwest towards SR 124 from floodplain of Mississinewa River

45. Looking northeast to Mississinewa River from floodplain east of cornfield

46. Looking southeast along Mississinewa River

47. Looking north upstream Mississinewa River to where UNT 1 drains to river

48. Looking southwest towards pipe failure and UNT 1 from bank of Mississinewa River

49. Looking northeast from UNT 1 to drainage to Mississinewa River

50. Looking south to culvert draining UNT 1 to Mississinewa River

51. Looking north at failed pipe conveying UNT 1 to Mississinewa River

52. Looking southeast along SR 124

53. Looking east along SR 124 from 300 East

54. Looking west along SR 124 from 300 East

55. Looking northwest towards culvert COID 19925, conveying RSD 1 under Circus Lane

56. Looking southeast from within RSD 1, adjacent to Circus Lane culvert (COID 19925)

57. Looking northwest towards Circus Lane and culvert COID 19925 from RSD 1, looking towards riprap lined portion of ditch

58. Looking southeast along RSD 1

59. Looking northwest towards RSD 1 and SR 124 intersection with Circus Lane

60. Looking south towards Frances Slocum Trail

61. Looking east towards Circus Lane culvert COID 19925 from where RSD 1 intersects UNT 2 to Mississinewa River

62. Looking west towards Mississinewa River from UNT 2 to Mississinewa River

63. Looking southeast along UNT 2 to Mississinewa River and intersection with RSD 1

64. Looking northeast to bridge over UNT 2 to Mississinewa River

65. Looking northeast upstream UNT 2 to Mississinewa River from Circus Lane

66. Looking southeast along SR 124 from Francis Slocum Trail

67. Looking northwest towards intersection with Francis Slocum Trail

68. Looking northwest to culvert COID 19871, located at shovel

69. Looking southeast along SR 124 to culvert COID 19871, located at shovel

70. Looking northeast to culvert COID 19871 under SR 124

71. Looking southwest to culvert COID 19871 under SR 124

72. Looking southeast along SR 124 at culvert

73. Looking north at downstream end of culvert under SR 124

74. Looking south at culvert under SR 124

75. Looking southeast along SR 124 towards culvert

76. Looking northwest along SR 124

77. Looking southeast along SR 124

78. Looking east along SR 124

79. Looking northwest along SR 124 from 550 East

80. Looking north along SR 124 from 625 East

81. Looking east along SR 124 from 625 East

82. Looking northwest to field draining to culvert COID 19871

83. Looking south to culvert COID 19871

84. Looking northeast from SR 124 roadside towards UNT 1 to Asher Branch

85. Looking west to culvert COID 19871 from UNT 1 to Asher Branch and Wetland A

86. Looking south to Frances Slocum Trail Riders Campground

87. Looking west along SR 124 from 675 East

88. Looking east along SR 124 from 675 East

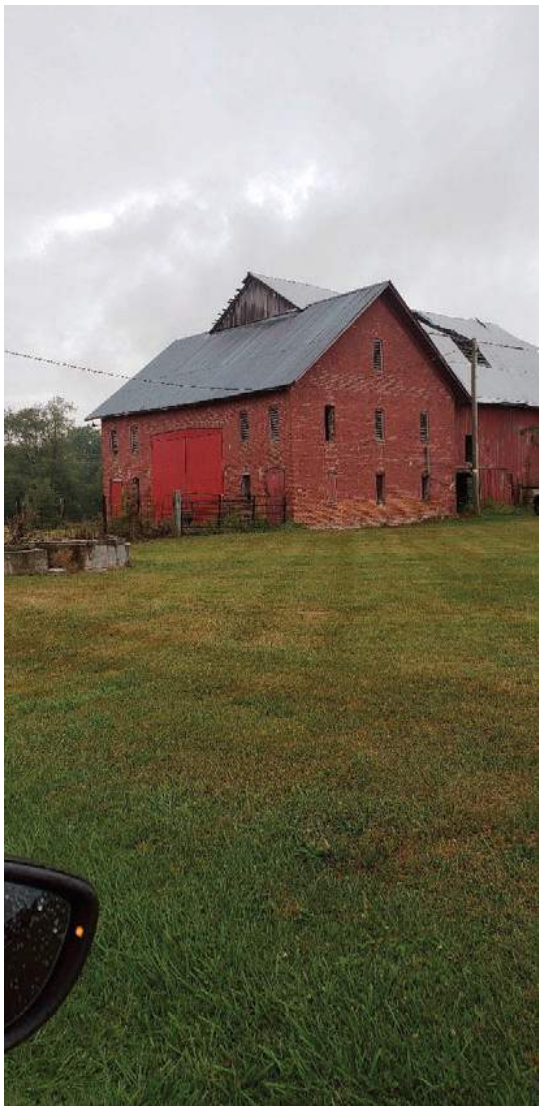
89. Looking west along SR 124 from the county line between Miami County and Wabash County

A. Looking northeast at stone retaining wall on SR 124

C. Looking northeast at above ground petroleum storage tanks

B. Looking northeast to 5746 SR 124 which is a 2 story brick house undergoing renovation

D. Looking northwest to 2 story brick Italianate resi dential structure



E. Looking northwest at brick barn with wood addition

G. Looking southeast at Francis Godfrey Cemetery

F. Looking northwest to stone structure on Francis Godfrey homestead site

H. SR 124 looking north at culvert to be replaced

PROJECT	DESIGNATION
180055200ST2	1800552
CONTRACT	
R-41121	

CULVERT ASSETS		
DES. NO.	CULVERT ASSET ID	WORK TYPE
1800552	CV 124-052-01.94	NEW SMALL STRUCTURE

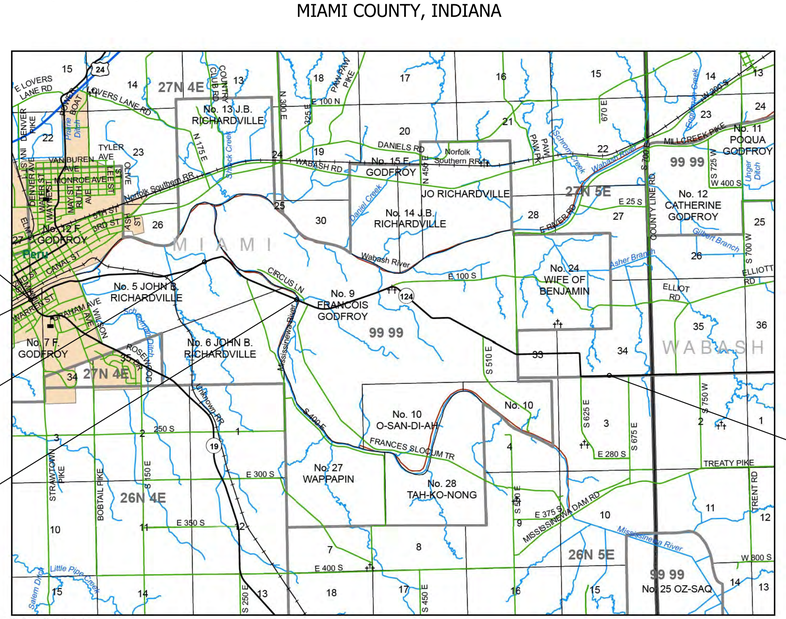
INDIANA DEPARTMENT OF TRANSPORTATION

ROAD PLANS

ROUTE: SR 124 FROM: RP 0+0 TO: RP 7+1

PROJECT NO. 180055200ST2 P.E.
180055200ST2 R/W
180055200ST2 CONST.

HMA OVERLAY, PREVENTIVE MAINTENANCE ON SR 124
FROM SR 19 TO 7.32 MILES EAST OF SR 19.
RESERVE NO. 7 (GODFROY) & RESERVE NO. 5 AND NO. 6 (RICHARDVILLE), 99, 99, WASHINGTON TOWNSHIP.
RESERVE NO. 9 (GODFROY), 99, 99; SECTIONS 33 & 34, T-27-N, R-5-E; SECTION 3, T-26-N, R-5-E; BUTLER TOWNSHIP.
MIAMI COUNTY, INDIANA



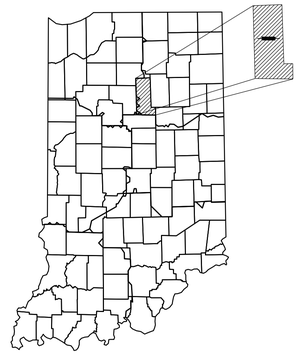
SCALE: 1" = 4,000'

TRAFFIC DATA

A.A.D.T.	(2023)	1002 V.P.D.
A.A.D.T.	(2033)	1002 V.P.D.
D.H.V	(2033)	95 V.P.H.
DIRECTIONAL DISTRIBUTION		46.00 %
TRUCKS		8.46 % A.A.D.T.
		6.51 % D.H.V.

DESIGN DATA

DESIGN SPEED	35/45/55 M.P.H.
PROJECT DESIGN CRITERIA	PARTIAL 3R (NON-FREEWAY)
FUNCTIONAL CLASSIFICATION	MAJOR COLLECTOR
RURAL/URBAN	RURAL
TERRAIN	LEVEL
ACCESS CONTROL	NONE



PROJECT LOCATION SHOWN BY
Miami

LATITUDE: N 40°44'52" LONGITUDE: W 86°0'23"

GROSS LENGTH: 6.989 MI.
NET LENGTH: 6.880 MI.
MAX. GRADE: N/A %

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

PLANS PREPARED BY: Susan E. Lewis 317-233-2081 PHONE NUMBER

CERTIFIED BY: _____ DATE

RECOMMENDED FOR LETTING: _____ INDIANA DEPARTMENT OF TRANSPORTATION DATE

DESIGNATION	
1800552	
SHEETS	
1 of 54	
CONTRACT	PROJECT
R-41121	180055200ST2

Plot: 4/1/2021 3:26 PM

File: pw:\\indot-pw.bentley.com:indot-pw-01\Documents\Fort Wayne\1800552\Design\MS\Sht_Title_2D
Model:RD_Title Sheet

UTILITIES

PERU UTILITIES (WATER, SEWER, AND ELECTRIC)
MICHAEL WALSH
335 EAST CANAL STREET
P.O. BOX 67
PERU, INDIANA 46970-0067
(765) 473-6681 EXT. 1135
mwalsh@peruutilities.com

NIPSCO GAS
DEAN GARRETT
801 E. 86TH AVENUE
MERRILLVILLE, IN 46410
(219) 647-6260
dagarrett@nisource.com

AT&T
DAVID SMITH
116 E. TAYLOR ST.
KOKOMO, IN 46901
765.454.5021
ds8383@att.com

811 Know what's below. Call before you dig.

INDIANA UNDERGROUND
1-800-382-5544 OR CALL 811
24 HOURS A DAY 7 DAYS A WEEK

GENERAL NOTES

ALL MAILBOX APPROACHES ALONG MAINLINE TO BE MILLED AND RESURFACED.

DO NOT DISTURB MAILBOXES.

INDEX

SHEET NO.	DRAWINGS INDEX
1	TITLE
2	INDEX AND GENERAL NOTES
3 - 4	TYPICAL CROSS SECTIONS
5 - 9	LOCATION CONTROL ROUTE SURVEY PLATS
10 - 11	PLAT NO. 1
12 - 13	MAINTENANCE OF TRAFFIC
14 - 27	PLAN SHEETS - HMA OVERLAY
28 - 30	PLAN AND PROFILE SHEETS - STA. 1078+00 TO 1096+00 LINE "A"
31	PLAN AND PROFILE SHEET - LINE "T-1-A"
32	PLAN AND PROFILE SHEET - LINE "T-2-A"
33	PLAN AND PROFILE SHEET - LINE "T-3-A"
34	PLAN AND PROFILE SHEET - LINE "T-4-A"
35	CURB RAMP DETAILS
36	PATCHING DETAILS
37	GENERAL PLAN
38	PATCHING TABLES
39	MISCELLANEOUS TABLES
40 - 41	APPROACH TABLES
42	ROAD SUMMARY
43 - 52	CROSS SECTIONS - STA. 1080+00 TO 1095+00 LINE "A"
53 - 54	CROSS SECTIONS - STA. 15+84 TO 16+76 LINE "T-1-A"

REVISIONS

SHEET NO.	DATE	REVISED

Plot: 4/1/2021 3:26 PM

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE

DESIGNED: SL MAR 2021 | DRAWN: SL MAR 2021

CHECKED: AKB MAR 2021 | CHECKED: AKB MAR 2021

INDIANA
DEPARTMENT OF TRANSPORTATION

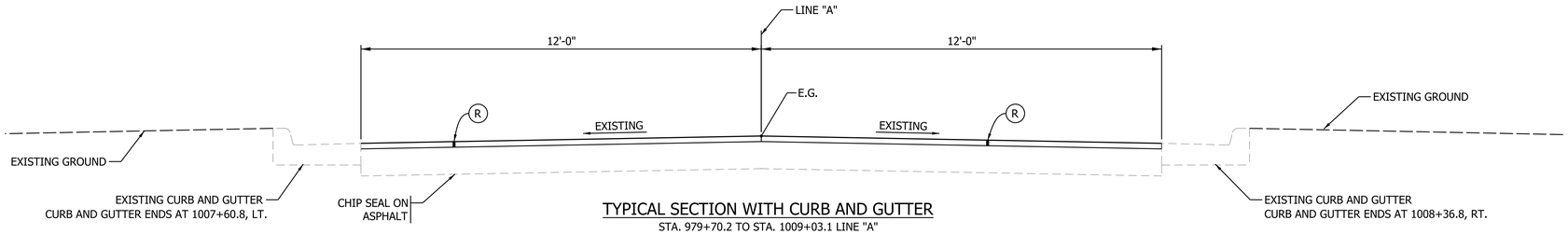
INDEX SHEET

SCALE	BRIDGE FILE
NONE	N/A
	DESIGNATION
	1800552
	SHEETS
	2 of 54
CONTRACT	PROJECT
R-41121	180055200ST2

File: pw:\\indot-pw.bentley.com:indot-pw-01\Documents\Fort Wayne\1800552\Design\MS\Sht_Index_2D
Model:RD_Index Sheet

LEGEND

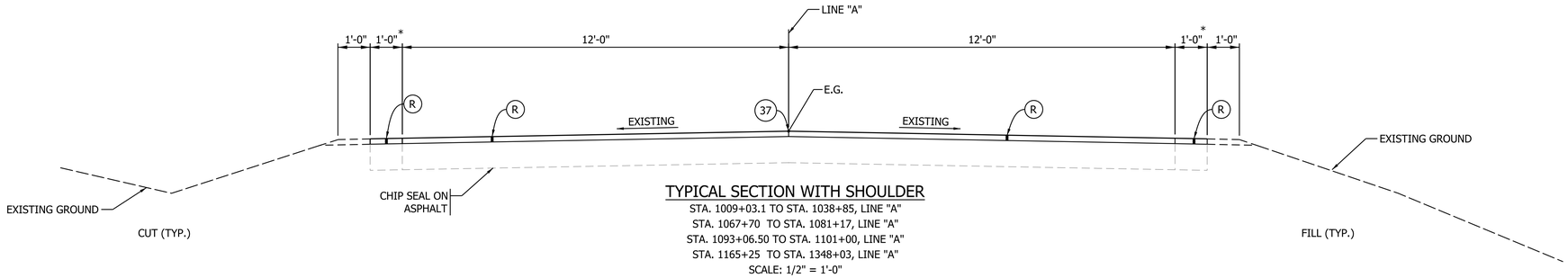
- (L) HMA FOR WIDENING, TYPE B
- (M) HMA FOR STRUCTURE INSTALLATION, TYPE B
- (O) COMPACTED AGGREGATE, NO. 53
- (R) MILLING, ASPHALT, 1.5" 165 #/SYD QC/QA-HMA, 2, 64, SURFACE, 9.5 mm
- (37) MILLED HMA CORRUGATIONS, SINUSOIDAL



TYPICAL SECTION WITH CURB AND GUTTER

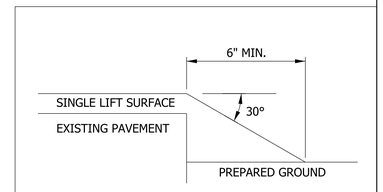
STA. 979+70.2 TO STA. 1009+03.1 LINE "A"
SCALE: 1/2" = 1'-0"

PAVING EXCEPTIONS
STA. 979+00 TO STA. 979+70.2 LINE "A"
STA. 1060+71.6 TO STA. 1061+49.5 LINE "A"
STA. 1138+84.2 TO STA. 1143+10.6 LINE "A"

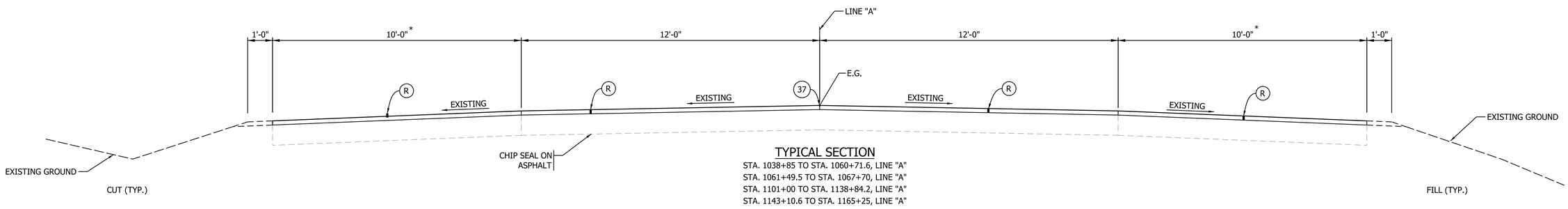


TYPICAL SECTION WITH SHOULDER

STA. 1009+03.1 TO STA. 1038+85, LINE "A"
STA. 1067+70 TO STA. 1081+17, LINE "A"
STA. 1093+06.50 TO STA. 1101+00, LINE "A"
STA. 1165+25 TO STA. 1348+03, LINE "A"
SCALE: 1/2" = 1'-0"



SAFETY EGDE FOR HMA PAVEMENT
NOT TO SCALE



TYPICAL SECTION

STA. 1038+85 TO STA. 1060+71.6, LINE "A"
STA. 1061+49.5 TO STA. 1067+70, LINE "A"
STA. 1101+00 TO STA. 1138+84.2, LINE "A"
STA. 1143+10.6 TO STA. 1165+25, LINE "A"
SCALE: 1/2" = 1'-0"

* SEE APPROACH TABLE FOR SHOULDER WIDTHS

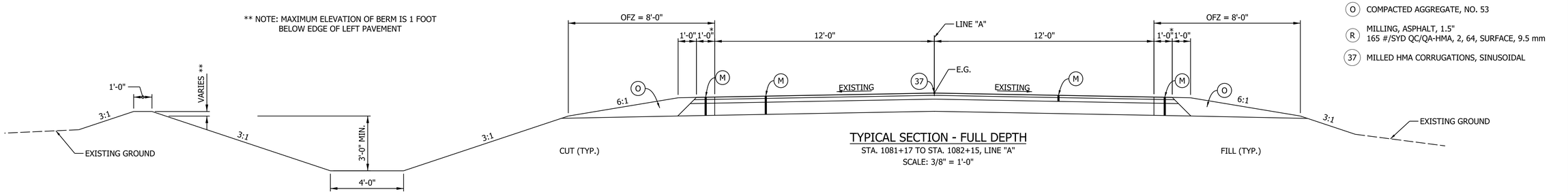
RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE		INDIANA DEPARTMENT OF TRANSPORTATION	SCALE: AS NOTED
DESIGNED: SL JAN 2021	DRAWN: SL JAN 2021	TYPICAL CROSS SECTIONS (OVERLAY)	DESIGNATION: 1800552
CHECKED: AKB MAR 2021	CHECKED: MAR 2021		SHEETS: 3 54
			CONTRACT: R-41121 PROJECT: 180055200ST2

Plot: 4/1/2021 3:27 PM
File: pw:\\indot-pw.bentley.com:indot-pw-01\Documents\Fort Wayne\1800552\Design\MS\Sht_Typical_2D
Model:RD_Detail Sheet - Overlay

LEGEND

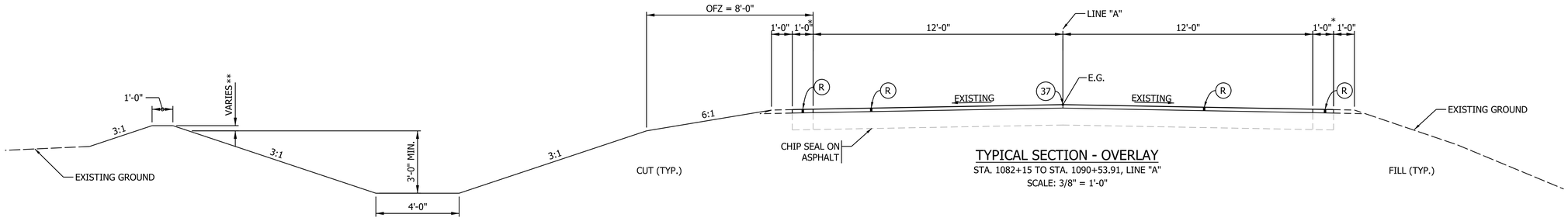
- (L) HMA FOR WIDENING, TYPE B
- (M) HMA FOR STRUCTURE INSTALLATION, TYPE B
- (O) COMPACTED AGGREGATE, NO. 53
- (R) MILLING, ASPHALT, 1.5" 165 #/SYD QC/QA-HMA, 2, 64, SURFACE, 9.5 mm
- (37) MILLED HMA CORRUGATIONS, SINUSOIDAL

** NOTE: MAXIMUM ELEVATION OF BERM IS 1 FOOT BELOW EDGE OF LEFT PAVEMENT



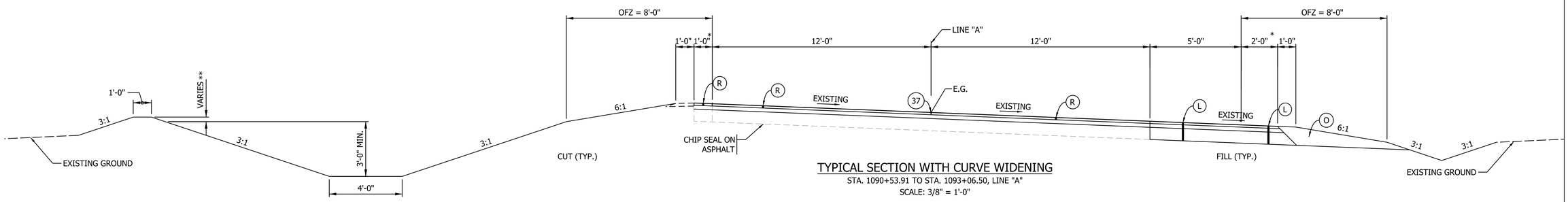
TYPICAL SECTION - FULL DEPTH

STA. 1081+17 TO STA. 1082+15, LINE "A"
SCALE: 3/8" = 1'-0"



TYPICAL SECTION - OVERLAY

STA. 1082+15 TO STA. 1090+53.91, LINE "A"
SCALE: 3/8" = 1'-0"



TYPICAL SECTION WITH CURVE WIDENING

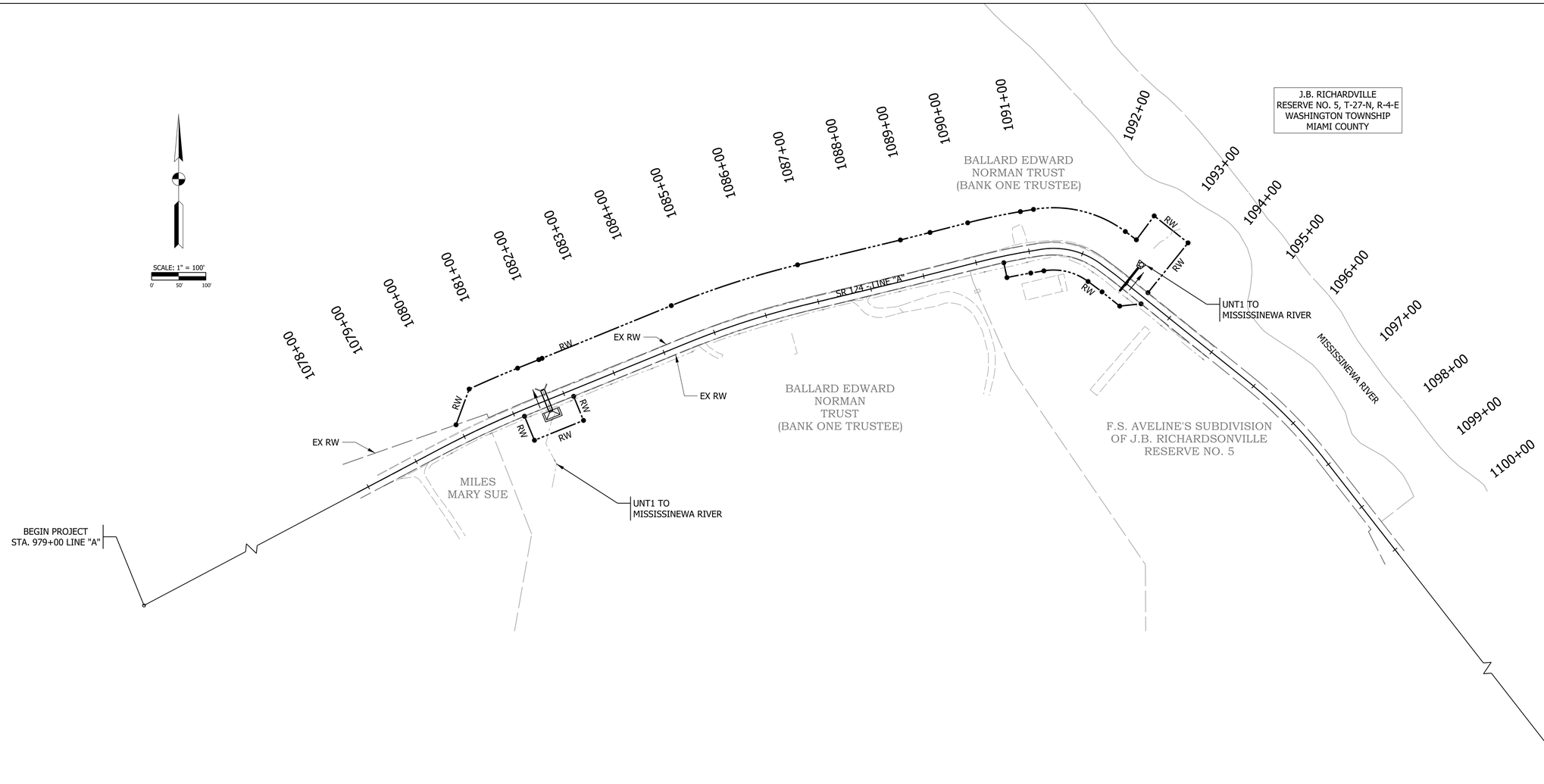
STA. 1090+53.91 TO STA. 1093+06.50, LINE "A"
SCALE: 3/8" = 1'-0"

* SEE APPROACH TABLE FOR SHOULDER WIDTHS

Plot: 4/1/2021 3:27 PM

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE	INDIANA DEPARTMENT OF TRANSPORTATION	SCALE: AS NOTED
DESIGNED: SL JAN 2021 / DRAWN: SL JAN 2021 / CHECKED: AKB MAR 2021 / CHECKED: MAR 2021	TYPICAL CROSS SECTIONS (DRAINAGE CORRECTION AND CURVE WIDENING)	DESIGNATION: 1800552 / SHEETS: 4 | 54 / CONTRACT: R-41121 / PROJECT: 180055200ST2

File: pw:\\indot-pw.bentley.com:indot-pw-01\Documents\Fort Wayne\1800552\Design\MS\Sht_Typical_2D
Model:RD_Detail Sheet - Drainage Correction



		RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE	INDIANA DEPARTMENT OF TRANSPORTATION	SCALE	BRIDGE FILE
				1" = 100'	N/A
					DESIGNATION
					1800552
		DESIGNED: SL MAR 2021 / DRAWN: SL MAR 2021	PLAT NO. 1		SHEETS
					10 of 54
		CHECKED: AKB MAR 2021 / CHECKED: AKB MAR 2021		CONTRACT	PROJECT
				R-41121	180055200ST2

Plot: 4/1/2021 3:31 PM

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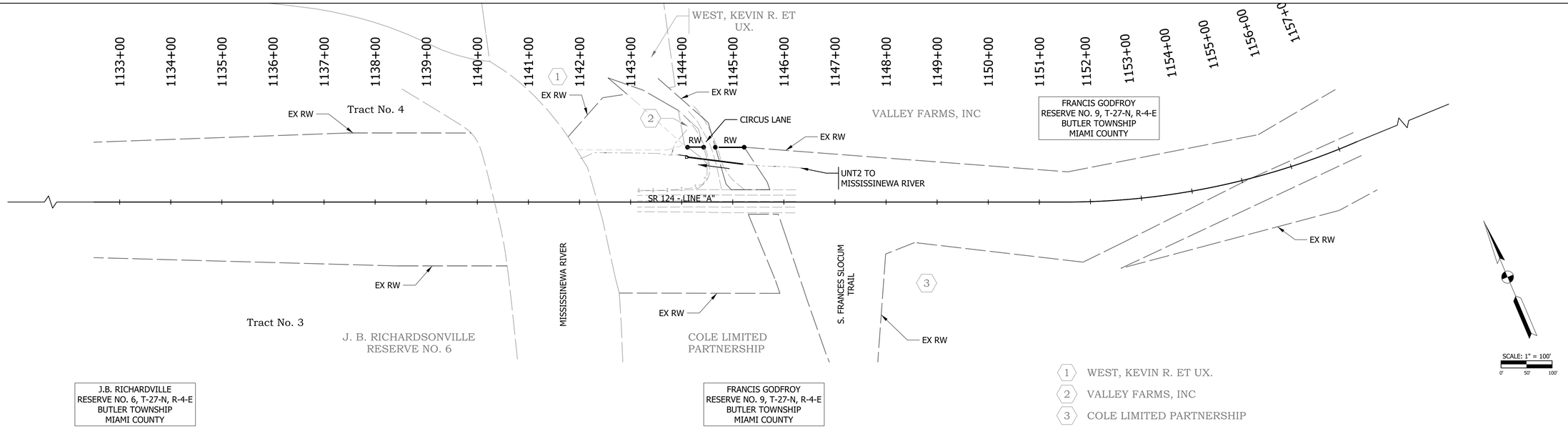
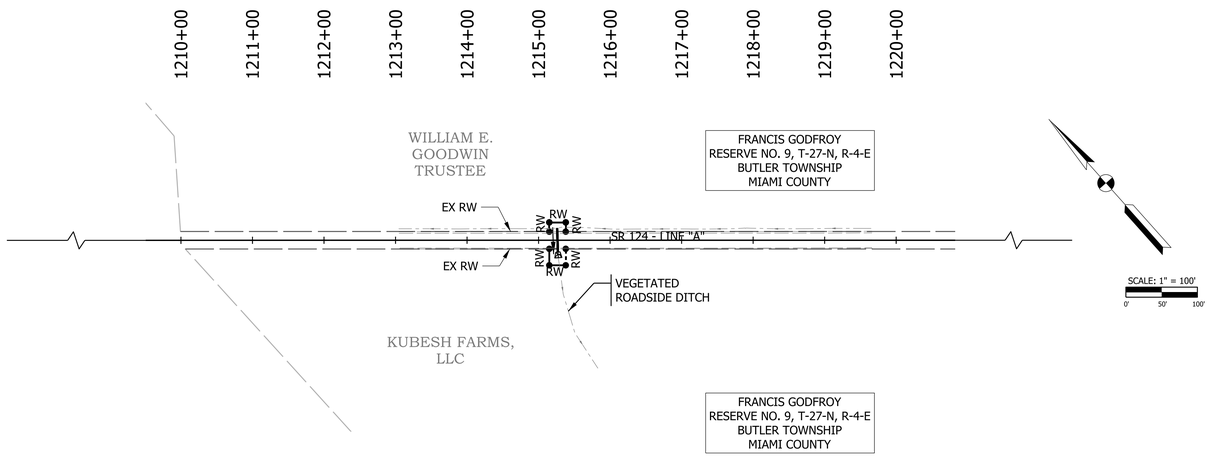
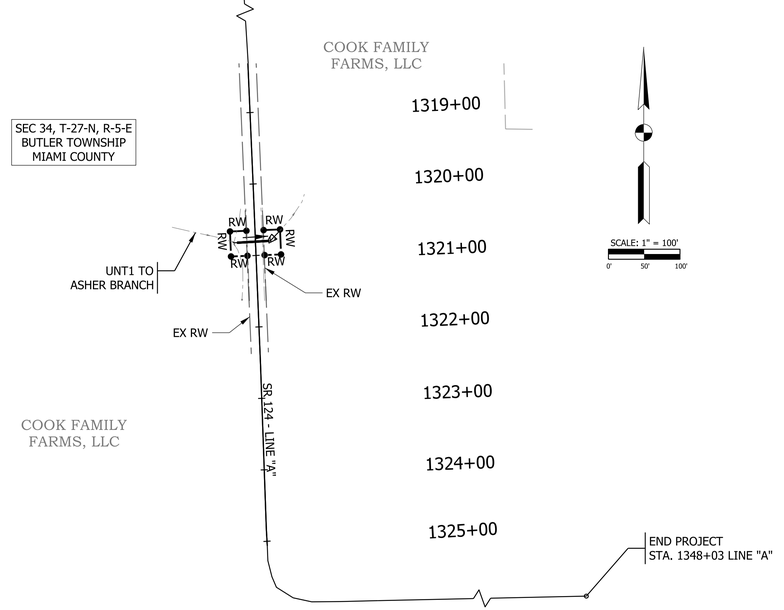
Model:RD_Plat Sheet_1



Structure eliminated from project - will be removed from plans at Stage 3





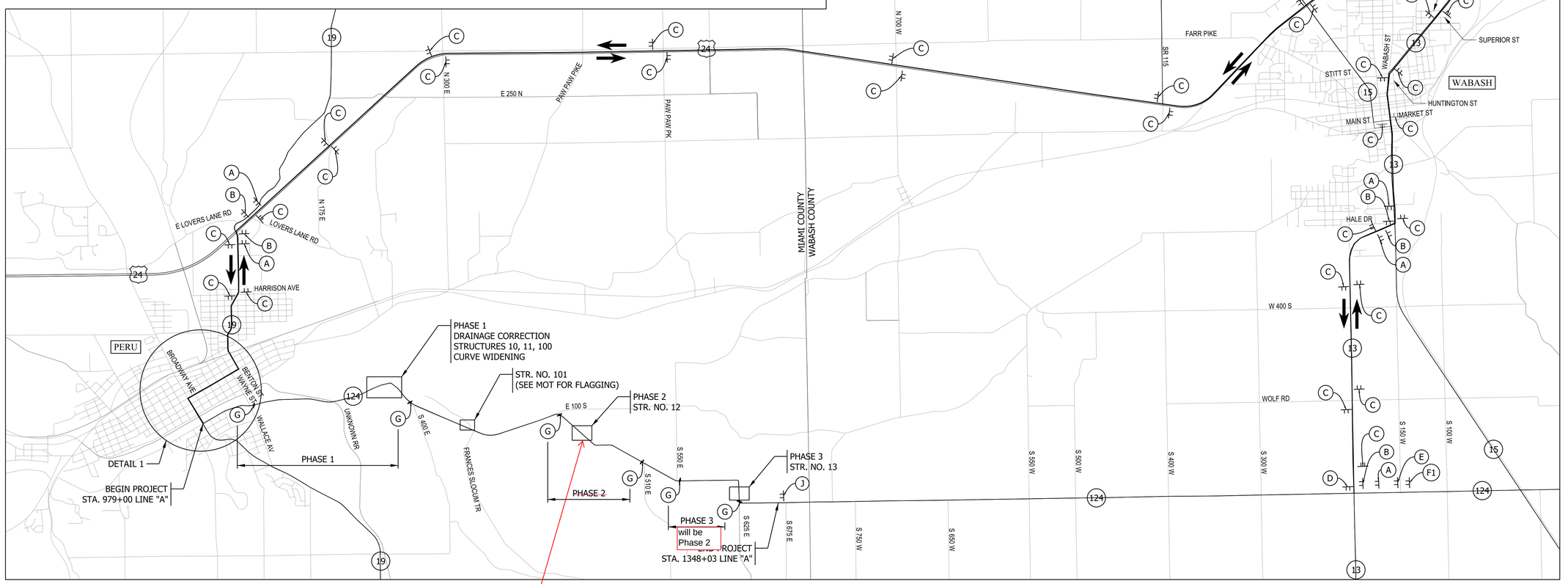
RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE		INDIANA DEPARTMENT OF TRANSPORTATION	SCALE: 1" = 100' / BRIDGE FILE: N/A
DESIGNED: SL MAR 2021	DRAWN: SL MAR 2021	PLAT NO. 1	DESIGNATION: 1800552
CHECKED: AKB MAR 2021	CHECKED: AKB MAR 2021		SHEETS: 11 of 54
			CONTRACT: R-41121 / PROJECT: 180055200ST2

Plot: 4/1/2021 3:31 PM

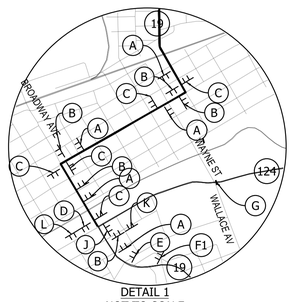
File: pw:\\indot-pw.bentley.com:indot-pw-01\Documents\Fort Wayne\1800552\Design\MS\Sht_Plat No 1_2D.dgn
Model:RD_Plat Sheet_2

LEGEND

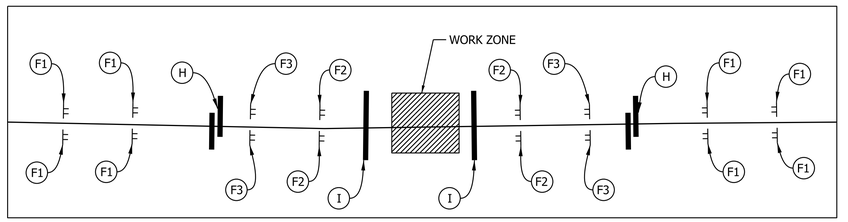
- (A) Advanced Turn Detour Route Marker Assembly
- (B) Directional Detour Route Marker Assembly
- (C) Confirming Detour Route Marker Assembly
- (D) End Detour Route Marker Assembly
- (E) Detour Ahead (XW20-2)
- (F1) Road Closed Ahead (XW20-3)
- (F2) Road Closed 500 FT (XW20-3)
- (F3) Road Closed 1000 FT (XW20-3)
- (G) Road Closure Sign Assembly (R11-3) & (XM4-10 R or L) with Type III-B Barricade
- (H) Road Closure Sign Assembly (R11-2) with Type III-B Barricade
- (I) Road Closure Sign Assembly (R11-2) with Type III-A Barricade
- (J) Road Closed On or After ____ (XG20-5)
- (K) No Right Turn Symbol (R3-1)
- (L) No Left Turn Symbol (R3-2)



Culvert eliminated from project - will be removed at Stage 3 -



DETAIL 1
NOT TO SCALE



PHASE 1- 3 SIGN DETAILS
NOT TO SCALE

STATE DETOUR
SR 19, US 24 AND SR 13

NOTES:
SEE STD. DWGS. E 801-TCDT-01 TO E 801-TCDT-04 FOR
ADDITIONAL INFORMATION ON DETOUR ROUTE MARKER ASSEMBLIES.

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE

DESIGNED: SL MAR 2021 | DRAWN: SL MAR 2021

CHECKED: AKB MAR 2021 | CHECKED: AKB MAR 2021

INDIANA
DEPARTMENT OF TRANSPORTATION

MAINTENANCE OF TRAFFIC
(DETOUR)

SCALE	BRIDGE FILE
1" = 3000'	N/A
	DESIGNATION
	1800552
	SHEETS
	12 of 54
CONTRACT	PROJECT
R-41121	180055200ST2

Plot: 3/29/2021 8:59 AM

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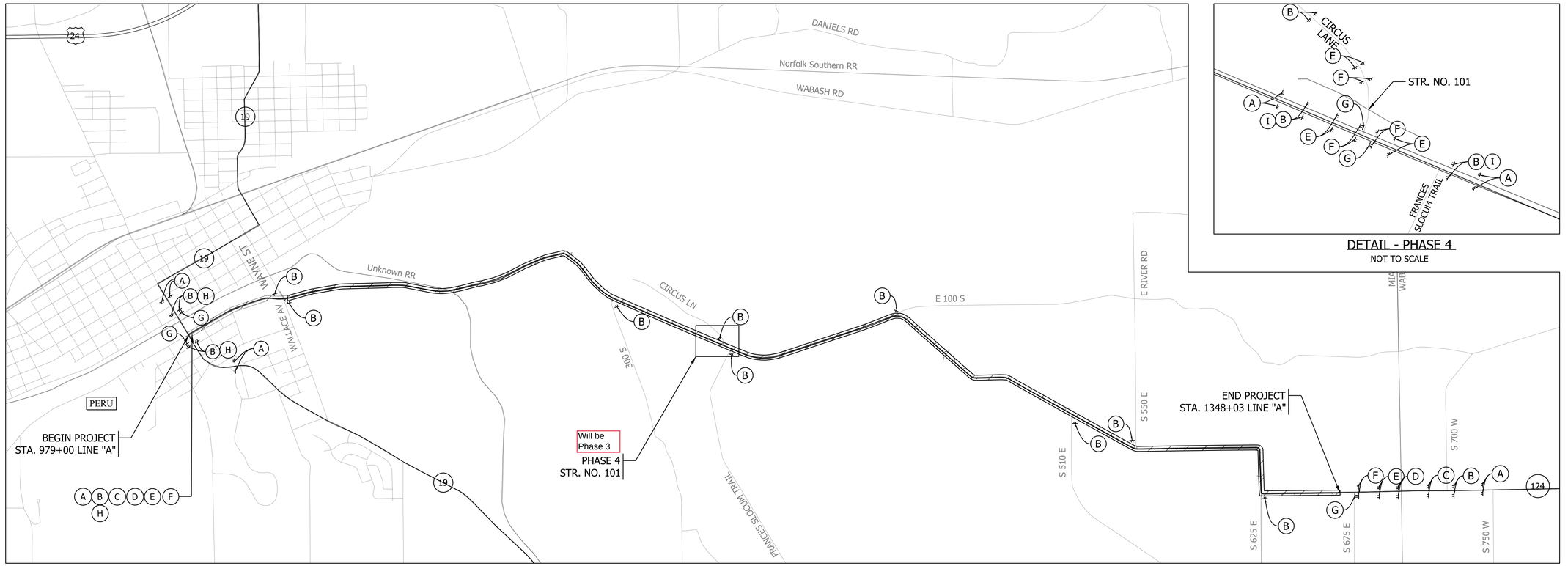
Model: MOT Detour



DETAIL - PHASE 4

NOT TO SCALE

PHASE 5
HMA OVERLALY

LEGEND FOR FLAGGING OPERATION

- (A) WORKSITE ADDED PENALTY (XW2-6)
- (B) ROAD CONSTRUCTION AHEAD (XW20-1)
- (C) ROAD CONSTRUCTION NEXT _ MILES (XG20-1)
- (D) ROAD CONSTRUCTION 1500 FT (XW20-1)
- (E) ONE LANE AHEAD (XW20-4)
- (F) FLAGGER SYMBOL (XW20-7)
- (G) END ROAD CONSTRUCTION (XG20-2)
- (H) INDIANA SR 124 (M1-5)
- (I) CIRCUS LANE (M1-6)
- WORK ZONE - PHASE 5

MAINTENANCE OF TRAFFIC

Sign Message (SYMBOL)	Sign Number	PH 1	PH 2	PH 3	PH 4	PH 5	Qty	Unit
WORKSITE ADDED PENALTY	XW2-6	-	-	-	4	6	6	EACH
ROAD CONSTRUCTION AHEAD	XW20-1	-	-	-	6	15	15	EACH
ROAD CONSTRUCTION NEXT __ MILES	XG20-1	-	-	-	0	4	4	EACH
ROAD CONSTRUCTION 1500 FT	XW20-1	-	-	-	0	4	4	EACH
ONE LANE AHEAD	XW20-4	-	-	-	6	4	6	EACH
FLAGGER SYMBOL	XW20-7	-	-	-	6	4	6	EACH
END CONSTRUCTION	XG20-2	-	-	-	2	3	3	EACH
DETOUR AHEAD	XW20-2	2	2	2	-	-	2	EACH
ROAD CLOSED AHEAD	XW20-3	18	18	18	-	-	18	EACH
ROAD CLOSED ON OR AFTER (DATE)	XG20-5	2	2	2	-	-	2	EACH
ROAD CLOSED	R11-2	4	4	4	-	-	4	EACH
ROAD CLOSED - LOCAL TRAFFIC ONLY	R11-3	2	2	2	-	-	2	EACH
				CONSTRUCTION SIGN, TYPE A			**72**	**EACH**
INDIANA SR 124	MI-5	-	-	-	0	4	4	EACH
CIRCUS LANE	M1-6	-	-	-	4	0	4	EACH
DETOUR (_ ARROW)	XM4-10(_)	2	2	2	-	-	2	EACH
NO RIGHT TURN SYMBOL	R3-1	1	1	1	-	-	1	EACH
NO LEFT TURN SYMBOL	R3-2	1	1	1	-	-	1	EACH
				CONSTRUCTION SIGN, TYPE B			**12**	**EACH**
ADVANCE TURN DETOUR ROUTE MARKER ASSEMBLY	-	12	12	12	-	-	12	EACH
DIRECTIONAL DETOUR ROUTE MARKER ASSEMBLY	-	12	12	12	-	-	12	EACH
CONFIRMING DETOUR ROUTE MARKER ASSEMBLY	-	38	38	38	-	-	38	EACH
END DETOUR ROUTE MARKER ASSEMBLY	-	2	2	2	-	-	2	EACH
				DETOUR ROUTE MARKER ASSEMBLY			**64**	**EACH**
ROAD CLOSURE SIGN ASSEMBLY	-	6	6	6	-	-	**6**	**EACH**
TYPE III-A BARRICADE	-	48	48	48	-	-	**48**	**LFT**
TYPE III-B BARRICADE	-	96	96	96	-	-	**96**	**LFT**

NOTE:
SEE STANDARD DRAWING E 801-TCFO-01 FOR FLAGGER OPERATIONS.

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE

DESIGNED: SL MAR 2021 | DRAWN: SL MAR 2021

CHECKED: AKB MAR 2021 | CHECKED: AKB MAR 2021

INDIANA
DEPARTMENT OF TRANSPORTATION

MAINTENANCE OF TRAFFIC
(FLAGGING OPERATION)

SCALE	BRIDGE FILE
1" = 1500'	N/A
	DESIGNATION
	1800552
	SHEETS
	13 of 54
CONTRACT	PROJECT
R-41121	180055200ST2

Plot: 3/29/2021 8:59 AM

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Model:MOT Overlay