FHWA-Indiana Environmental Document

CATEGORICAL EXCLUSION / ENVIRONMENTAL ASSESSMENT FORM

General Project Information

Road No./County:	State Road (SR) 42/Clay and Owen Counties
Designation Number(s):	Des 2200184
Project Description/Termini:	Curve corrections project along SR 42 from 6.00 miles east of SR 59 (reference post (RP) 17 + 38) to 2.20 miles west of SR 243 (RP 25 + 14).

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

Approval

INDOT DE Signature and Date

INDOT ESD Signature and Date

FHWA Signature and Date

Release for Public Involvement

BNE 4/29/2026
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: Christian Radcliff, SJCA Inc.

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

Part I – Public Involvement

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

	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 Survey letters were mailed to potentially affected property owners near the project area on February 14, 2022 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 Survey letter is included in Appendix G, page 1.

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

Public Controversy on Environmental Grounds

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

At this time, there is no substantial public controversy concerning impacts to the community or to natural resources.

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

Sponsor of the Project: INDOT INDOT District: Crawfordsville

Local Name of the Facility: SR 42

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 this project is due to the existing curves not providing desirable maneuverability for vehicular traffic, especially large trucks. This is primarily due to the existing pavement width being inadequate. The existing pavement includes 10-foot-wide travel lanes with no shoulders. While the minimum requirements for this type of roadway per the Indiana Design Manual (IDM) are 12-foot-wide travel lanes with six-foot-wide usable shoulders (minimum two-foot paved shoulders), crash data indicates that there are no known safety concerns at the curves that would warrant a full reconstruction to meet these established standards. However, the existing curves do not provide the desired wheel paths for large vehicles such as trucks, and they require a substantial reduction in

speed for all vehicles to safely navigate each curve. Advisory speed limits have been posted at each curve to notify motorists of the tight turn radii and the potential for driving off of the roadway due to higher speeds. The design speed of SR 42 in the vicinity of the project curves varies between 50 and 55 miles per hour (mph), and advisory speed limits are posted at each curve that vary between 15 and 30 mph.

Purpose:
The purpose of this project is to improve the maneuverability of the curves within the project area by addressing the inadequate turn radii, pavement width, and shoulder width at each curve, thereby providing a large enough wheel path for motorists, particularly large trucks, to navigate each curve.

PROJECT DESCRIPTION (PREFERRED ALTERNATIVE):

County: Clay and Owen Municipality: N/A

Limits of Proposed Work: Along SR 42 at various locations from 6.00 miles east of SR 59 to 2.20 miles west of SR 243.

Total Work Length: 0.589* Mile(s) Total Work Area: 8.91* Acre(s)

**Combined length and area of all curve correction locations.*

	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:	

[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.

INDOT and the Federal Highway Administration (FHWA) intend to proceed with a curve correction project on SR 42.

Location:
The project occurs at 10 curves along SR 42, starting 6.00 miles east of SR 59 and extending to approximately 2.20 miles west of SR 243 in Clay and Owen Counties, Indiana. The project occurs in the Cataract, Center Point, and Poland US Geological Survey (USGS) quadrangles and within Jackson Township, Clay County, and Jackson Township, Owen County. The table below describes the curves and their locations. Note that the curves were labeled numerically from 1 through 10 in early documents but were subsequently renamed to Shoulder Widening (SW) 1 through 7.

Curve Name	Location	Length	Nearest Roadway	Section (S), Township (T), Range (R)	Culvert
Curve 1 (SW 1 on plans)	39.44147, -87.01541	600 feet	SR 42 & CR 500 E	S 36, T 12 North, R 6 West & S 31, T 12 North, R 5 West	N/A
Curve 2 (SW 1 on plans)	39.44086, -87.01526				
Curve 3 (SW 2 on plans)	39.44420, -87.00037	300 feet	SR 42 & Boy Scout Rd	S 30, T 12 North, R 5 West & S 31, T 12 North, R 5 West	CLV-86918
Curve 4 (SW 3 on plans)	39.44407, -86.97014	545 feet	SR 42, east of Candlestick Corner	S 28, T 12 North, R 5 West & S 33, T 12 North, R 5 West	N/A
Curve 5 (SW 3 on plans)	39.44423, -86.96898				
Curve 6 (SW 4 on plans)	39.44777, -86.91405	940 feet	SR 42, east of CR 830 W	S 25, T 12 North, R 5 West	N/A
Curve 7 (SW 4 on plans)	39.44736, -86.91214		SR 42, west of Owl Hollow Rd		
Curve 8 (SW 5 on plans)	39.45409, -86.90120	355 feet	SR 42, west of Fertig Rd	S 30, T 12 North, R 4 West	N/A

Curve 9 (SW 6 on plans)	39.45410, -86.89365	315 feet	SR 42, east of Fertig Rd	S 30, T 12 North, R 4 West	CLV-86932
Curve 10 (SW 7 on plans)	39.45207, -86.88189	380 feet	SR 42 & Lakeview Dr	S 29, T 12 North, R 4 West	N/A

A project location map, topographic map, and aerial imagery map are located in Appendix B, pages 1 to 9.

Existing Conditions:
The existing roadway of SR 42 is a rural major collector roadway that consists of two east-west travel lanes, one in each direction, that are approximately 10 feet in width and no shoulders are present. The speed limit along SR 42 typically varies between 50 and 55 miles per hour (mph); however, the curves have reduced speed advisories posted due to their tight turn radii and insufficient wheel path area. The advisory speed limits for each curve vary between 15 mph and 30 mph. The curves lack sufficient pavement widths, shoulder widths, and turn radii for large vehicles. All vehicles must reduce speeds to safely navigate the curves. No sidewalks or guardrails are present within the project area. Two structures are present within the project area. The first structure, CLV 86918, is a 15-inch corrugated metal pipe (CMP) located at Curve 3 (SW 2) and carries roadside drainage under SR 42. The second structure, CLV 86932, is a 15-inch CMP located at Curve 9 (SW 6) and carries roadside drainage under SR 42, where it outlets to UNT 1 to Cagles Mill Lake (see the Streams, Rivers, Watercourses & Other Jurisdictional Features section of this Categorical Exclusion (CE) document).

Two roads intersect curves within the project area:

- CR 500 E is a rural minor collector roadway that intersects Curves 1 and 2 (SW 1). It provides two lanes of vehicular traffic, one northbound and one southbound, that are approximately 9 feet in width. There are no shoulders, medians, or sidewalks along this roadway, which provides a total pavement width of 18 feet. There is no posted speed limit on this roadway.
- Boy Scout Road is a rural minor collector roadway that intersects Curve 3 (SW 2). It provides two lanes of vehicular traffic, one northbound and one southbound, that are approximately 11 feet in width. There are no shoulders, medians, or sidewalks along this roadway, which provides a total pavement width of 22 feet. There is no posted speed limit on this roadway.

Various public and private utilities are present within the project area, including underground water lines and gas lines, overhead electric lines, and overhead and buried communications lines.

The land use in the vicinity of the project area consists of agricultural fields, forested areas, and low-density residential properties and commercial lots.

Preferred Alternative:
The preferred alternative is to reconstruct the curves within the project area to provide an improved wheel path for larger vehicles at each curve. Each curve will be reconstructed to provide a widened roadway with a minimum of 12-foot-wide travel lanes and four-foot-wide shoulders (three feet minimum paved, with minimum one-foot-wide gravel). Portions of the curves will include larger shoulders as needed to meet turn radius criteria. The existing pavement will be removed, new full depth pavement will be installed at each curve location, and private drive approaches and approach roadways will be reconstructed to tie into the new pavement. Roadside ditches within the project area will be reconstructed as needed to accommodate the grading for the reconstructed roadway and to provide adequate drainage. The structure at Curve 3 (SW 2) will be replaced with a 23-inch by 14-inch reinforced concrete pipe (RCP). The structure at Curve 9 (SW 6) will be replaced with an 18-inch diameter RCP. Three new culverts that are each 15 inches in diameter will be installed at Curves 6 and 7 (SW 4) at driveways that will be reconstructed. New guardrail will be installed at Curve 9 (SW 6) near one of these structures.

Approximately 5.08 acre of permanent right of way (ROW) will be required to construct this project. Permanent ROW acquisition will be required at each curve. Approximately 0.0264 acre of temporary ROW will be required for access at Curve 7 (SW 4) for drive reconstruction and grading. The maintenance of traffic (MOT) plan will include temporary closures of SR 42 near each curve during construction. The official detour route will utilize SR 59, I-70, and SR 243, and will be approximately 20.5 miles in length. Local detour routes utilizing adjacent county roads will be available. The closure and detours for each curve are anticipated to last for approximately four weeks, with the overall construction for this project lasting approximately 8 months.

The total project length will be 0.589 mile, with construction starting at RP 17 + 38 to RP 25 + 14 along SR 42
.
Permanent impacts to streams will occur for this project and will total approximately 214 linear feet, and temporary impacts will total approximately 40 linear feet. See the Streams, Rivers, and Other Watercourses section for more information. Impacts to Wetlands will be required and will total approximately 0.04 acre of permanent impacts and 0.01 acre of temporary impacts. See the Wetlands

section for additional information. Permits for impacts to streams and wetlands will be required. Mitigation is not anticipated to be required; however, this will be determined during the permitting phase. Approximately 1.60 acres of tree clearing will occur for this project, and an additional 3.17 acres of roadside grasses and forbs will be disturbed. Mitigation for impacts to terrestrial habitat are not anticipated to be required.

Various utilities are within the project area, including overhead electric and communications lines, and underground water, gas, and communication lines. Utility relocations will be required for this project and are discussed in the Public Facilities section of this document.

Purpose and Need Review/Logical Termini/Independent Utility:
The proposed improvements to the curves within the project area will improve the maneuverability of the curves within the project area by addressing the inadequate turn radii, pavement width, and shoulder width at each curve, thereby providing a large enough wheel path for motorists, particularly large trucks, to navigate each curve. Therefore, it addresses the purpose and need of the project.

The termini for each curve extends far enough east and west of the curves to taper the widened pavement down to tie into the narrower pavement outside of the project limits. Limits extend far enough off of the pavement to accommodate grading for roadway slopes and ditches and also to accommodate the small structure replacements. Therefore, this project has logical termini. This project does not require any other projects to serve a functional use to the public; therefore, it has independent utility.

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
This alternative would not require the use of any funding, would not impact any streams, wetlands, or terrestrial habitat, and would not require the acquisition of ROW. However, this alternative would not meet the purpose and need of the project because it will not improve maneuverability at each curve, address the inadequate turn radii, pavement width, and shoulder width at each curve, thereby providing a large enough wheel path for motorists, particularly large trucks, to navigate each curve. Therefore, this alternative was discarded.

Full Roadway Reconstruction
This alternative involves a complete reconstruction of portions of SR 42 to realign the curves and curve approaches to address the tight turn radii along SR 42. The full roadway reconstruction would allow for these curves to be reconstructed to meet the design standards in the IDM of 12-foot-wide travel lanes with six-foot-wide usable shoulders (minimum two-foot paved shoulders). This alternative addresses the purpose and need of the project by improving maneuverability and addressing the inadequate turn radii, pavement width, and shoulder width at each curve, thereby providing a large enough wheel path for motorists, particularly large trucks, to navigate each curve. This alternative would require additional ROW, would impact more terrestrial habitat, streams, and wetlands, and would likely include additional utility relocation. Additionally, crash data within the project area does not indicate a safety concern that would warrant a complete reconstruction of the curves. Therefore, this alternative was discarded.

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;	**X**
It would not correct existing deteriorated conditions and maintenance problems; or	
It would result in serious impacts to the motoring public and general welfare of the economy.	
Other (Describe):	

ROADWAY CHARACTER:

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

Name of Roadway: SR 42
Functional Classification: Rural Major Collector
Current ADT: 3,638 VPD (2026) Design Year ADT: 4,343 VPD (2046)
Design Hour Volume (DHV): 337 Truck Percentage (%) 17.06
Designed Speed (mph): 55 Legal Speed (mph): Varies; 50 to 55, Between 15 and 30 at curves

	Existing		Proposed	
Number of Lanes:	2		2	
Type of Lanes:	Asphalt through travel lanes		Asphalt through travel lanes	
Pavement Width:	20	ft.	Varies; 30 feet to 33.5 feet	ft.
Shoulder Width:	0	ft.	Varies; 3 feet to 6.5 feet	ft.
Median Width:	N/A	ft.	N/A	ft.
Sidewalk Width:	N/A	ft.	N/A	ft.

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

Name of Roadway: CR 500 E
Functional Classification: Rural Minor Collector
Current ADT: N/A VPD (2026) Design Year ADT: N/A VPD (2026)
Design Hour Volume (DHV): N/A Truck Percentage (%) N/A
Designed Speed (mph): N/A Legal Speed (mph): Not posted

	Existing		Proposed	
Number of Lanes:	2		2	
Type of Lanes:	Asphalt through travel lanes		Asphalt through travel lanes	
Pavement Width:	18	ft.	18	ft.
Shoulder Width:	N/A	ft.	N/A	ft.
Median Width:	N/A	ft.	N/A	ft.
Sidewalk Width:	N/A	ft.	N/A	ft.

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

Indiana Department of Transportation

County Clay and Owen Route SR 42 Des. No. 2200184

Name of Roadway Boy Scout Road
Functional Classification: Rural Minor Collector
Current ADT: N/A VPD (2026) Design Year ADT: N/A VPD (2026)
Design Hour Volume (DHV): N/A Truck Percentage (%) N/A
Designed Speed (mph): N/A Legal Speed (mph): Not posted

	Existing		Proposed	
Number of Lanes:	2		2	
Type of Lanes:	Asphalt through travel lanes		Asphalt through travel lanes	
Pavement Width:	22	ft.	22	ft.
Shoulder Width:	N/A	ft.	N/A	ft.
Median Width:	N/A	ft.	N/A	ft.
Sidewalk Width:	N/A	ft.	N/A	ft.

Setting:		Urban		Suburban	X	Rural
Topography:		Level	X	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): CLV 86918 Sufficiency Rating: 6 (Lowest barrel rating)
(Rating, Source of Information)

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

Structure/NBI Number(s): CLV 86932 Sufficiency Rating: 3 (Lowest barrel rating)
(Rating, Source of Information)

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

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

Two small culverts are present within the project area. The first small culvert, CLV 86918, is a 15-inch corrugated metal pipe (CMP) that is 40 feet long located at Curve 3 (SW 2) and carries roadside drainage under SR 42. Its lowest barrel condition rating in the most recent inspection was 6 (satisfactory) out of 9 (excellent). This small culvert will be replaced with a 67-foot-long, 23-inch by 14-inch elliptical RCP with two end sections (Note: This is also referred to as Str. 10 on the project plans). The second small culvert, CLV 86932, is a 15-inch CMP that is 39-feet-long located at Curve 9 (SW 6) and carries roadside drainage under SR 42, where it outlets to UNT 1 to Cagles Mill Lake. Its lowest barrel condition rating in the most recent inspection was 3 (serious condition) out of 9 (excellent). This small culvert will be replaced by a 54-foot-long RCP that is 18 inches in diameter with two end sections (Note: This is also referred to as Str. 11 on the project plans). Neither small culvert is considered historic, nor does either have qualities like wood, stone, or brick elements, that suggest potential historic significance.

Three new culverts that are each 15 inches in diameter will be installed at Curves 6 and 7 (SW 4) at driveways that will be reconstructed. No additional small structures or culverts are located within the project area, and no additional small structure will be installed as part of this project.

MAINTENANCE OF TRAFFIC (MOT) DURING CONSTRUCTION:

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

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

The MOT for the project will require a closure at each curve and a detour route. The official detour route will utilize SR 59, I-70, and SR 243, and will be approximately 20.5 miles in length. Local detour routes that utilize the adjacent county roads will be available. The closure and detours for each curve are anticipated to last for approximately four weeks, with the overall construction for this project lasting approximately 8 months.

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: $ 600,000 (2025) (STIP) Right-of-Way: $ 80,000 (2026) (TIP) Construction: $ 1,300,000 (2027) (TIP)

Anticipated Start Date of Construction: Spring 2028

RIGHT OF WAY:

Land Use Impacts	Amount (acres) Permanent	Temporary
Residential	2.00	0.0264
Commercial	0.22	0.00
Agricultural	1.46	0.00
Forest	1.40	0.00
TOTAL	5.08	0.0264

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 ROW limits are at the edge of pavement for each curve within the project area. The typical width of the existing ROW within the project area varies between 20 and 25 feet in width.

The project requires approximately 5.08 acres of permanent ROW from residential, commercial, agricultural, and forested properties. The typical permanent ROW widths will vary, ranging between 25 feet to 70 feet in width. The project requires approximately 0.0264 acre of temporary ROW, which will come from a residential property. Approximately 0.402 acre of ROW will be required from a historic property that is afforded protections under Section 4(f). This acquisition will constitute a *de minimis* use of this property. Please see the Section 4(f) section of this CE document for additional information.

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 October 30, 2024 (Appendix C, pages 1 and 2). Additional coordination occurred with the US Fish and Wildlife Service (USFWS) on June 17, 2025 (Appendix C, pages 27 to 29).

Agency	Date Sent	Date Response Received	Appendix
Indiana Department of Natural Resources (IDNR) Division of State Parks	October 30, 2024	October 31, 2024	Appendix C, page 5
Indiana Geological and Water Survey (IGWS)	October 30, 2024 (Accessed online)	November 5, 2024 (Accessed online)	Appendix C, pages 6 to 19
IDNR Division of Fish and Wildlife (DFW)	October 30, 2024	November 22, 2024	Appendix C, pages 20 to 22
Natural Resource Conservation Service (NRCS)	October 30, 2024	December 20, 2024	Appendix C, pages 23 to 25
USFWS	June 17, 2025	June 18, 2025	Appendix C, page 30

USFWS Information for Planning and Consultation (IPaC) Online Coordination – Official Species List	March 11, 2026 (Accessed online)	March 11, 2026 (Accessed online)	Appendix C, pages 31 to 44
USFWS Information for Planning and Consultation (IPaC) Online Coordination – Concurrence Letter	June 16, 2025 (Accessed online)	June 20, 2026 (Accessed online)	Appendix C, pages 45 to 57
IDEM Groundwater Section	October 30, 2024 (Accessed online)	October 30, 2024 (Accessed online)	N/A
FHWA	October 30, 2024	No response received	N/A
US Department of Housing and Urban Development (HUD)	October 30, 2024	No response received	N/A
National Park Service (NPS)	October 30, 2024	No response received	N/A
INDOT Crawfordsville District Environmental Manager	October 30, 2024	No response received	N/A
INDOT Project Manager	October 30, 2024	No response received	N/A
IDNR Oil and Gas Division	October 30, 2024	No response received	N/A
US Army Corps of Engineers (USACE)	October 30, 2024	No response received	N/A
Clay County Commissioners	October 30, 2024	No response received	N/A
Clay County Council	October 30, 2024	No response received	N/A
Clay County Highway Department	October 30, 2024	No response received	N/A
Clay County Surveyor	October 30, 2024	No response received	N/A
Clay County Emergency Management Agency	October 30, 2024	No response received	N/A
Clay County Sherriff's Office	October 30, 2024	No response received	N/A
Clay County Soil and Water Conservation District	October 30, 2024	No response received	N/A
Clay Community Schools	October 30, 2024	No response received	N/A
Owen County Commissioners	October 30, 2024	No response received	N/A
Owen County Council	October 30, 2024	No response received	N/A
Owen County Highway Department	October 30, 2024	No response received	N/A
Owen County Surveyor	October 30, 2024	No response received	N/A
Owen County Emergency Management Agency	October 30, 2024	No response received	N/A
Owen County Sherriff's Office	October 30, 2024	No response received	N/A
Owen County Soil and Water Conservation District	October 30, 2024	No response received	N/A
Spencer-Owen Community Schools	October 30, 2024	No response received	N/A
Terre Haute Area Metropolitan Planning Organization (THAMPO)	October 30, 2024	No response received	N/A

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			
Navigable Waterways			

Total stream(s) in project area: 438 Linear feet Total impacted stream(s): 214 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 Ahlmeyer Branch	R4SBC; intermittent	342	164	UNT 1 to Ahlmeyer Branch is a poor quality intermittent stream that flows from east to west on the north side of SR 42 at Curves 4 and 5 (SW 3) (Appendix F, pages 4 and 44). UNT 1 to Ahlmeyer Branch is likely jurisdictional under the authority of the USACE due to its relatively permanent flow, presence of an OHWM and defined bed and bank, and eventual connectivity to a navigable waterway.
UNT 2 to Ahlmeyer Branch	R4SBC; intermittent	45	0	UNT 2 to Ahlmeyer Branch is a poor quality intermittent stream that flows from northeast to southwest on the north side of SR 42 at Curves 4 and 5 (SW 3) (Appendix F, pages 4, 5, and 44). UNT 2 to Ahlmeyer Branch is likely jurisdictional under the authority of the USACE due to its relatively permanent flow, presence of an OHWM and defined bed and bank, and eventual connectivity to a navigable waterway.
UNT 1 to Cagles Mill Lake	R4SBC; ephemeral	51	50	UNT 1 to Cagles Mill Lake is a poor quality ephemeral stream that flows from south to north starting at the outlet of the structure (CLV 86932) that runs below SR 42 at Curve 9 (SW 6) (Appendix F, pages 5 and 47). UNT 1 to Cagles Mill Lake is likely jurisdictional under the authority of the USACE due to the presence of an OHWM and defined bed and bank and eventual connectivity to a navigable waterway.

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

Based on the desktop review, the aerial map of the project area, and the RFI report (Appendix E, pages 3 and 9 to 11) there are 65 streams, rivers, watercourses or other jurisdictional features within the 0.5-mile search radius. There are no streams, rivers, watercourses, or other jurisdictional features within or adjacent to the project area. That number was updated to three by the site visits on August 29, 2023, August 30, 2023, September 19, 2023, and October 11, 2024 by SJCA Inc.

No Federal, Wild and Scenic Rivers; State Natural, Scenic, and Recreational Rivers; Outstanding Rivers for Indiana; navigable waterways or National Rivers Inventory waterways are present in the project area.

A *Waters of the U.S. Determination / Wetland Delineation Report* was approved by INDOT Ecology, Waterway Permitting, and Stormwater Office on April 21, 2025. Please refer to Appendix F, pages 1 to 59 for the *Waters of the U.S. Determination / Wetland Delineation Report*. It was determined that three likely jurisdictional streams are present within the investigated area for the project.

No roadside ditches (RSDs) were identified within the investigated area. The USACE makes all final determinations regarding jurisdiction.

UNT 1 to Ahlmeyer Branch is a poor quality intermittent stream that flows from east to west on the north side of SR 42 at Curves 4 and 5 (SW 3) (Appendix F, pages 4 and 44). Approximately 342 linear feet of UNT 1 to Ahlmeyer Branch are present within the investigated area. UNT 1 to Ahlmeyer is characterized by low flow velocity, no riffle/run complexes, no pools, low in stream cover, high canopy cover, and a silt substrate, and has an OHWM width of one foot and an OHWM depth of 0.25 foot. UNT 1 to Ahlmeyer Branch is likely jurisdictional under the authority of the USACE due to its relatively permanent flow, presence of an OHWM and defined bed and bank, and eventual connectivity to a navigable waterway. Approximately 164 linear feet of permanent impacts will occur to UNT 1 to Ahlmeyer Branch due to grading. The stream will be realigned slightly to follow a flow path along the new ditch line along the roadway after construction. Approximately 40 linear feet of temporary impacts will occur to UNT 1 to Ahlmeyer Branch for construction access and temporary erosion and sediment control measures. Impacts to UNT 1 to Ahlmeyer Branch have been avoided where possible, and disturbance to this feature has been minimized to the greatest extent practicable. Mitigation is not anticipated to be required but will be determined during the permitting phase.

UNT 2 to Ahlmeyer Branch is a poor quality intermittent stream that flows from northeast to southwest on the north side of SR 42 at Curves 4 and 5 (SW 3) (Appendix F, pages 4, 5, and 44). UNT 2 to Ahlmeyer Branch is characterized by low flow velocity, no riffle/run complexes, no pools, low in stream cover, high canopy cover, and a silt substrate, and has an OHWM width of two feet and an OHWM depth of 0.25 foot. Approximately 45 linear feet of UNT 2 to Ahlmeyer Branch are present within the investigated area. UNT 2 to Ahlmeyer Branch is likely jurisdictional under the authority of the USACE due to its relatively permanent flow, presence of an OHWM and defined bed and bank, and eventual connectivity to a navigable waterway. No permanent or temporary impacts to UNT 2 to Ahlmeyer Branch will occur as the realigned curve and the related grading will not extend into the vicinity of this stream.

UNT 1 to Cagles Mill Lake is a poor quality ephemeral stream that flows from south to north starting at the outlet of the structure (CLV 86932) that runs below SR 42 at Curve 9 (SW 6) (Appendix F, pages 5 and 47). UNT 1 to Cagles Mill Lake is characterized by no flow velocity, no riffle/run complexes, no pools, moderate in stream cover, high canopy cover, and a silt substrate, and has an OHWM width of 3.5 feet and an OHWM depth of 0.25 foot. Approximately 51 linear feet of UNT 1 to Cagles Mill Lake are present within the investigated area. UNT 1 to Cagles Mill Lake is likely jurisdictional under the authority of the USACE due to the presence of an OHWM and defined bed and bank and eventual connectivity to a navigable waterway. Approximately 50 linear feet of impacts will occur to UNT 1 to Cagles Mill Lake due to the structure replacement at Curve 9 (SW 6) (CLV 86932) and the proposed riprap for erosion control. No temporary impacts to UNT 1 to Cagles Mill Lake will occur. Impacts to UNT 1 to Cagles Mill Lake have been avoided where possible, and disturbance to this feature has been minimized to the greatest extent practicable. Mitigation is not anticipated to be required but will be determined during the permitting phase.

A total of 214 linear feet of permanent stream impacts are anticipated, and approximately 40 linear feet of temporary impacts will occur to streams. A Section 404 permit with USACE and a Section 401 permit with IDEM will be required for impacts to streams.

IDNR DFW responded on November 22, 2024 with recommendations about structure types and sizing, riprap sizing for erosion control, and construction means and methods to reduce impacts to aquatic habitat (Appendix C, pages 20 to 22). All applicable recommendations are included in the Environmental Commitments section of this CE document.

Open Water Feature(s)	**Presence**	**Impacts**	
		Yes	**No**
Reservoirs			
Lakes			
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 likely subject to federal or state jurisdiction. Discuss measures to avoid, minimize, and mitigate if impacts will occur.

Based on the desktop review, the aerial map of the project area, and the RFI report (Appendix E, pages 3 and 9 to 11) there are no open water features within the 0.5-mile search radius. There are no open water features within or adjacent to the project area, which was confirmed by the site visits on August 29, 2023, August 30, 2023, September 19, 2023, and October 11, 2024 by SJCA Inc. Therefore, no impacts are expected.

A *Waters of the U.S. Determination / Wetland Delineation Report* was approved by INDOT Ecology, Waterway Permitting, and Stormwater Office on April 21, 2025. Please refer to Appendix F, pages 1 to 59 for the *Waters of the U.S. Determination / Wetland Delineation Report*. It was determined that no open water features are within the investigated area. The USACE makes all final determinations regarding jurisdiction.

	Presence	Impacts Yes	Impacts No
Wetlands	X	X	

Total wetland area: 0.271 Acre(s) Total wetland area impacted: 0.04 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 1	PEM1A (Emergent)	0.021	0.0102	Wetland 1 is a poor quality emergent wetland within the ditch near the south side of SR 42 at the western terminus of Curves 1 and 2 (SW 1) (Appendix F, pages 5, 6, and 42). Wetland 1 was determined to not likely be jurisdictional under the authority of the USACE; however, INDOT is asking USACE to take jurisdiction over this feature.
Wetland 2	PEM1A (Emergent)	0.024	0.01310	Wetland 2 is a poor quality emergent wetland within the ditch near the north side of SR 42 at Curve 3 (SW 2) and at the outlet of CLV 86918 (Appendix F, pages 6 and 43). Wetland 2 was determined to not likely be jurisdictional under the authority of the USACE; however, INDOT is asking USACE to take jurisdiction over this feature.
Wetland 3	PEM1A (Emergent)	0.226+	0.0167	Wetland 3 is an average quality emergent wetland south of SR 42 at Curves 4 and 5 (SW 3) (Appendix F, pages 6 and 44). Wetland 3 is likely jurisdictional under the authority of the USACE due to its connectivity to Ahlmeyer Branch. Wetland 3 likely extends beyond the investigated area.

Wetlands (*Mark all that apply*)	Documentation	ESD Approval Dates
Wetland Determination	X	**April 21, 2025**
Wetland Delineation	X	**April 21, 2025**
USACE Isolated Waters Determination		

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

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

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

Based on the desktop review, the aerial map of the project area (Appendix B, pages 3 to 9), and the RFI report (Appendix E, pages 3 and 9 to 11) there are 44 wetlands within the 0.5-mile search radius. There are no wetlands within or adjacent to the project area. That number was updated to three by the site visits on August 29, 2023, August 30, 2023, September 19, 2023, and October 11, 2024 by SJCA Inc.

A *Waters of the U.S. Determination / Wetland Delineation Report* was approved by INDOT Ecology, Waterway Permitting, and Stormwater Office on April 21, 2025. Please refer to Appendix F, pages 1 to 59 for the *Waters of the U.S. Determination / Wetland Delineation Report*. It was determined that three wetlands are present within the investigated area. The USACE makes all final determinations regarding jurisdiction.

Wetland 1 is a poor quality emergent wetland within the ditch near the south side of SR 42 at the western terminus of Curves 1 and 2 (SW 1) (Appendix F, pages 5, 6, and 42). Wetland 1 was determined to not likely be jurisdictional under the authority of the USACE; however, INDOT is asking USACE to take jurisdiction over this feature. Permanent impacts to Wetland 1 will total 0.0102 acre due to the shoulder and roadway widening and associated grading. Temporary impacts of 0.0003 acre to Wetland 1 will occur for construction access. Complete avoidance of these impacts would not allow for construction in this area. Impacts have been minimized to the greatest extent practicable. Mitigation for impacts to wetlands is not anticipated but will be determined during the permitting process.

Wetland 2 is a poor quality emergent wetland within the ditch near the north side of SR 42 at Curve 3 (SW 2) and at the outlet of CLV 86918 (Appendix F, pages 6 and 43). Wetland 2 was determined to not likely be jurisdictional under the authority of the USACE; however, INDOT is asking USACE to take jurisdiction over this feature. Permanent impacts to Wetland 2 will total 0.0131 acre due to the shoulder and roadway widening and associated grading. Temporary impacts to Wetland 2 will total 0.0021 acre for temporary construction access. Complete avoidance of these impacts would not allow for construction in this area. Impacts have been minimized to the greatest extent practicable. Mitigation for impacts to wetlands is not anticipated but will be determined during the permitting process.

Wetland 3 is an average quality emergent wetland south of SR 42 at Curves 4 and 5 (SW 3) (Appendix F, pages 6 and 44). Wetland 3 is likely jurisdictional under the authority of the USACE due to its connectivity to Ahlmeyer Branch. Permanent impacts to Wetland 3 will total 0.0167 acre due to the pavement and shoulder widening and associated grading. Temporary impacts to Wetland 3 totaling 0.0087 acre will occur for construction access. Complete avoidance of these impacts would not allow for construction in this area. Impacts have been minimized to the greatest extent practicable. Mitigation for impacts to wetlands is not anticipated but will be determined during the permitting process.

A Section 404 permit with USACE and a Section 401 permit with IDEM will be required for these impacts.

No other early coordination responses were received regarding wetland impacts. 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: 8.91 Acre(s) Total tree clearing: 1.60 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, site visits on August 29, 2023, August 30, 2023, September 19, 2023, and October 11, 2024 by SJCA Inc., and the aerial map of the project area (Appendix B, pages 3 to 9), there is terrestrial habitat present in the form of roadside grasses and forbs, mesic forests, and pockets of meadows. Roadside grasses and forbs in the project area are dominated by Kentucky bluegrass (*Poa pratensis*), yellow foxtail (*Setaria faberi*), tall fescue (*Schedonorus arundinaceus*), Johnson grass (*Sorghum halapense*), yellow nutsedge (*Cyperus esculentus*), reed canary grass (*Phalaris arundinacea*), switchgrass (*Panicum virgatum*), and annual ragweed (*Ambosia artemisiifolia*). These species are common along roadsides and disturbed areas. Mesic forested areas were dominated by pin oak (*Quercus palustris*), sugar maple (*Acer saccharum*), black willow (*Salix nigra*), ironwood (*Carpinus caroliniana*), sassafras (*Sassafras albidum*), sycamore (*Platanus occidentalis*), American elm (*Ulmus americanana*), and boxelder (*Acer negundo*). The meadows present typically consisted of American bugleweed (*Lycopus americanus*) and common boneset (*Eupatorium perfoliatum*), with reed canary grass (*Phalaris arundinacea*) and switchgrass (*Panicum virgatum*) found throughout. This project will involve curve corrections and roadway and shoulder widening that may extend into these terrestrial habitats. Approximately 1.60 acres of tree clearing will occur, and 3.17 acres of additional terrestrial habitat disturbance will occur to the roadside grasses and forbs. Impacts to terrestrial habitat have been avoided where possible. Where avoidance was not possible, impacts have been minimized by only extending the construction limits as far as is required to complete the necessary roadside

grading. Mitigation for impacts from tree clearing is not anticipated. A Construction Stormwater General Permit (CSGP) will be required due to soil disturbance exceeding 1.0 acre in area.

IDNR DFW responded on November 22, 2024 with recommendations to reduce impacts to terrestrial habitat by revegetating all disturbed areas after construction, to reduce impacts to trees and brush, and to mitigate for any impacts as needed (Appendix C, pages 20 to 22). 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 [X] LAA [ ]

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, pages 1 to 14), completed by SJCA Inc. on October 28, 2024, the IDNR Clay and Owen County Endangered, Threatened and Rare (ETR) Species Lists have been checked. According to the IDNR-DFW early coordination response letter dated November 22, 2024 (Appendix C, pages 20 to 22), the Natural Heritage Program's Database has been checked and the state endangered round hickorynut (*Obovaria subrotunda*), state special concern badger (*Taxidea taxus*), and state threatened starry campion moth (*Hadena ectypa*) have been documented within 0.5 mile of the project area. No critical habitat was identified as being within 0.5 mile of the project area. The IDNR DFW indicated that they do not anticipate any impacts to the round hickorynut or the badger as a result of this project. The IDNR DFW did not comment on the potential for impacts to the starry campion moth; however, the starry campion moth uses various species in the genus *Silene* as host plants. No species in the genus *Silene* were documented during the site visits by SJCA Inc. An INDOT 0.5-mile bat review occurred on January 6, 2025. No capture sites, roosting sites, or hibernacula were identified within the 0.5 mile search radius.

Project information was submitted through the USFWS's Information for Planning and Consultation (IPaC) portal, and an official species list was generated on March 11, 2026 (Appendix C, pages 31 to 44). The project is within range of the federally endangered Indiana bat (*Myotis sodalis*), long-eared bat (NLEB) (*Myotis septentrionalis*), and proposed endangered tricolored bat (*Perimyotis subflavus*).

The project qualifies for the *Programmatic Biological Opinion/Conference Opinion for Transportation Projects in the Range of the Indiana Bat, Northern Long-Eared Bat, and Tricolored Bat*, dated December 2024, between FHWA, Federal Railroad Administration (FRA), Federal Transit Administration (FTA), and USFWS. An effect determination key was completed on June 16, 2025, and based on the responses provided, the project was found to "May Affect, Not Likely to Adversely Affect" the Indiana bat, NLEB, and tricolored bat (Appendix C, pages 45 to 57). INDOT reviewed and verified the effect finding on June 20, 2025, and requested USFWS's review of the finding. No response was received from USFWS within the 14-day review period; therefore, it was concluded they concur with the finding. AMMs were issued for this project which include ensuring that all workers are aware of the AMMs, directing temporary lighting away from suitable bat habitat, and conducting tree clearing in a way that is not likely to adversely impact bats. Avoidance and Minimization Measures (AMMs) covering GAMM1, LAMM1, and TRTAMMs 1, 2, and 3 are included as firm commitments in the Environmental Commitments section of this document.

Small culvert work will occur, but all existing culverts are less than 36 inches in diameter. Therefore, per current USFWS guidance, no inspections were required.

The official species list generated from IPaC indicated four other species present within the project area. The federally endangered gray bat (*Myotis grisescens*), the experimental population whooping crane (*Grus americana*), the proposed federally endangered salamander mussel (*Simpsonaias ambigua*), and the proposed federally threatened monarch butterfly (*Danaus plexippus*) are all found within the project area. As experimental population species, the whooping crane is not given any statutory protection under the Endangered Species Act. As proposed for inclusion on the list of federally endangered and threatened species, salamander mussel and monarch butterfly would have Section 7 requirements if the project would jeopardize the species or if the project would impact any USFWS listed critical habitat. The official species list states that no critical habitat overlaps with the project area; therefore, no impacts are expected for these additional species. The gray bat required further coordination with USFWS to determine whether any impacts will occur to this species. A standard coordination letter was prepared and submitted for INDOT review on June 17, 2025. INDOT reviewed the standard consultation letter and submitted to USFWS for review on June 17, 2025. On June 18, 2025, USFWS issued a concurrence letter with the "May Affect – Not Likely to Adversely Affect)" finding (Appendix C, page 30). Avoidance and Minimization Measures (AMMs) were determined to be necessary. These AMMs are consistent with the AMMs required for the bat species whose determination was made using IPaC, which is described in the paragraph below. These AMMs will become firm commitments and will minimize impacts to the gray bat.

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

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

Based on a desktop review and the Indiana Karst Region map, the project is located in the designated Indiana Karst Region as outlined in the most current *Protection of Karst Features during Project Development and Construction*. According to the topographic map of the project area (Appendix B, page 2), the RFI report (Appendix E, pages 3 and 9 to 11), and the IGWS automated response letters, there are no karst features identified within or adjacent to the project area. In the early coordination response on November 5, 2024, the IGWS did not indicate that karst features exist in the project area (Appendix C, pages 6 to 19). The IGWS responses indicated that there is moderate liquefaction potential and high bedrock resource potential at Curves 1 and 2 (SW 1); high liquefaction potential, presence of a floodplain within 0.5 mile, high bedrock resource potential, low sand and gravel resource potential, abandoned industrial mineral sites within 0.5 mile, and petroleum exploration wells near Curve 3 (SW 2); high liquefaction potential, presence of a floodplain within 0.5 mile, high bedrock resource potential, high sand and gravel resource potential, and petroleum exploration wells near Curves 4 and 5 (SW 3); high liquefaction potential, high bedrock resource potential, and high sand and gravel resource potential near Curves 6 and 7 (SW 4); moderate liquefaction potential, presence of a floodplain within 0.5 mile, high bedrock resource potential, and high sand and gravel resource potential near Curve 8 (SW 5); moderate liquefaction potential, presence of a floodplain within 0.5 mile, high bedrock resource potential, and high sand and gravel resource potential near Curve 9 (SW 6); and moderate liquefaction potential, presence of a floodplain within 0.5 mile, high bedrock resource potential, and high sand and gravel resource potential near Curve 10 (SW 7) (Appendix C, pages 6 to 19). The response from IGWS has been communicated to the designer on March 10, 2025. No impacts are expected.

The IDNR Oil and Gas Division was contacted on October 30. 2024, and they responded on March 13, 2025 and stated that all known oil and gas wells in the vicinity of the project have been plugged. There is one plugged oil well that is near the construction area for Curve 3 (SW 2), located approximately 100 feet from the edge of pavement and 60 feet from the construction limits. IDNR Oil and Gas Division stated that if the top plug, unexpected voids, steel piping, or other subsurface structures are encountered during excavation, that coordination with IDNR Oil and Gas Division would be necessary (Appendix C, page 26). This is included as a firm commitment in the Environmental Commitments section of this CE document. The location of this well has been conveyed to the project designers. No impacts to this well are anticipated.

SECTION C – OTHER RESOURCES

Drinking Water Resources	Presence	Impacts Yes	Impacts No
Wellhead Protection Area(s)			
Source Water Protection Area(s)			
Water Well(s)	X		X
Urbanized Area Boundary			
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:
The project is located in Clay and Owen Counties, which is not located within the area of the St. Joseph Sole Source Aquifer, the only legally designated sole source aquifer in the state of Indiana. Therefore, the FHWA/EPA/INDOT Sole Source Aquifer Memorandum of Understanding (MOU) is not applicable to this project, a detailed groundwater assessment is not needed, and no impacts are expected.

Wellhead Protection and Source Water Areas:
The IDEM Wellhead Proximity Determinator website (https://www.in.gov/idem/cleanwater/information-about/groundwater-monitoring-and-source-water-protection/wellhead-protection-program/source-water-proximity-determination-tool/) was accessed on February 25, 2025 by SJCA Inc. This project is not located within a Wellhead Protection Area or Source Water Area. No impacts are expected.

Water Wells:
The IDNR Water Well Record Database website (https://www.in.gov/dnr/water/ground-water-wells/water-well-record-database/) was accessed on February 25, 2025 by SJCA Inc. There are water wells mapped approximately 250 feet northeast of the construction area of Curves 1 and 2 (SW 1), approximately 150 feet north of the construction area at the western terminus of Curves 6 and 7 (SW 4), and approximately 50 feet south of the construction area of the eastern terminus of Curves 6 and 7 (SW 4). No impacts to these wells are expected because the construction limits for this project are not anticipated to extend into the areas where these wells are mapped. Should it be determined during the ROW phase that these wells will be affected, a cost to cure will likely be included in the appraisal to restore the wells. All abandoned wells shall be backfilled in accordance with the 312 IAC 13-10-2 and Standard Specification 202.02. A commitment has been added to reduce potential impacts to the well located 50 feet south of the eastern terminus of Curves 6 and 7 (SW 4).

Urban Area Boundary:
Based on a desktop review of INDOT's Functional Classification and Urban Area Boundary map (https://www.in.gov/indot/resources/maps/functional-classification-and-urban-area-boundary/) by SJCA Inc. on February 25, 2025 this project is not located in an Urban Area Boundary. No impacts are expected.

Public Water System:
Based on a desktop review, site visits on August 29, 2023, August 30, 2023, September 19, 2023, and October 11, 2024 by SJCA Inc., the aerial map of the project area (Appendix B, pages 3 to 9), and the project plans (Appendix B, pages 22 to 62), this project is located where there is a public water system. The public water system will be affected because public water lines will require relocation to accommodate construction. Coordination between the design engineer and the public water utility are ongoing. Complete avoidance of the public water system would not allow for the full depth reconstruction of the curves or for the replacement of the structures. Impacts to this utility will be minimized to the greatest extent practicable. Temporary disruptions to the public water facility are anticipated; however, permanent disruptions are not anticipated.

Floodplains	**Presence**	**Impacts** Yes	No
Project located within a regulated floodplain			
Longitudinal encroachment			
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 ☐

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

The IDNR Indiana Floodway Information Portal website (https://www.in.gov/dnr/water/surface-water/indiana-floodplain-mapping/indiana-floodplain-information-portal/) was accessed on February 25, 2025 by SJCA Inc. This project is not located in a regulatory floodplain as determined from approved IDNR floodplain maps (Appendix F, pages 60 to 66). Therefore, it does not fall within the guidelines for the implementation of 23 CFR 650, 23 CFR 771, and 44 CFR. No impacts are expected.

IDNR DFW responded to early coordination on November 22, 2024, stating that formal approval by the IDNR Division of Water is not required for this project (Appendix C, pages 20 to 24),

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

Total Points (from Section VII of CPA-106/AD-1006*) **143 (Clay) 135 (Owen)**

**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.

The NRCS Web Soil Survey was reviewed by SJCA Inc. on March 11, 2026 identifying prime farmland in the project limits. Therefore, farmland is present as defined by the Farmland Protection Policy Act.

Based on a desktop review, site visits on August 29, 2023, August 30, 2023, September 19, 2023, and October 11, 2024 by SJCA Inc., the aerial map of the project area (Appendix B, pages 3 to 9), and the project plans, the project will convert 1.46 acres of farmland as defined by the Farmland Protection Policy Act. An early coordination letter was sent on October 30, 2024, to NRCS. Coordination with NRCS resulted in a score of 143 in Clay County and 135 in Owen County on the NRCS AD 1006 Form (Appendix C, pages 23 to 25). The ROW amounts in the NRCS AD 1006 Forms do not match the ROW in the ROW table because they are separated by county and were estimates during the early coordination phase. The ROW amounts in the table have been revised to match the actual amount of ROW from agricultural land as design has proceeded. 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)	N/A
Minor Projects PA	**Category B, Types 3 and 4, Category A, Type 4**	**March 27, 2026**	

Full 106 Effect Finding

No Historic Properties Affected ☐ No Adverse Effect ☐ Adverse Effect ☐

Eligible and/or Listed Resources Present

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

Documentation Prepared (mark all that apply)		**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**	**March 27, 2026**	**N/A**
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 March 27, 2026 the INDOT Cultural Resource Office (CRO) determined that this project falls within the guidelines of Category B, Types 3 and 4, and Category A, Type 4 under the Minor Projects Programmatic Agreement, (Appendix D, pages 1 to 6). Category B, Type 3 projects include construction of added travel, turning, or auxiliary lanes, and shoulder widening. Category B, Type 4 projects include installing new safety appurtenances, such as guardrails, barriers, glare screens, and crash attenuators. Category A, Type 4 projects include roadway work, including surface replacement, reconstruction, rehabilitation, or resurfacing where repair or installing of curb ramps or sidewalks are not required. One IHSSI documented historic property was identified in the project area with a rating higher than "Contributing". This is the John and Hanna Ahlemeyer Farm located in the project area of Curve 5 (SW 3), which was rated "Notable". Approximately 0.402 acre of permanent ROW will be acquired from this property. INDOT CRO indicated that the minimal amount of permanent ROW required from the John and Hanna Ahlemeyer Farm property will be considered a *de minimis* Section 4(f) use of this historic property. Please refer to the Section 4(f) section of this CE document for additional information.

A Phase 1a Archaeology Report was prepared for this project to document the presence of potential archaeological resources within the project area. The Phase 1a Archaeology Report documented one new archaeology site that was determined to not be eligible for inclusion in the National Register of Historic Places, and that the project should continue as proposed, but additional archaeology investigations may be required if the project footprint is expanded (Appendix D, pages 7 to 8). 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	X		X
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 NRHP	X	X	

	Evaluations Prepared
Programmatic Section 4(f)	
"De minimis" Impact	X
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 3 to 9), and the RFI report (Appendix E, pages 2 and 6 to 8), there is one potential 4(f) resource, Cagles Mill Lake, located within the 0.5-mile search radius. According to additional research, the IDNR State Parks website (https://www.in.gov/dnr/state-parks/parks-lakes/cagles-mill-lake-lieber-and-cataract-falls-sra/), the approved MPPA determination (Appendix D, pages 1 to 6), and by the site visits on August 29, 2023, August 30, 2023, September 19, 2023, and October 11, 2024 by SJCA Inc., the property above and the John and Hanna Ahlemeyer Farm, were identified within or adjacent to the project area.

Cagles Mill Lake is a publicly owned property that contains the Lieber and Cataract Falls State Recreation Areas. This property is open year-round for recreational activities, and the entire property has recreational qualities that are open for public use. Therefore, it is afforded protections under Section 4(f). The project area is nearest to this project at Curve 9 (SW 6) and is immediately adjacent to the proposed ROW limits. The project activities at this location will not extend into the Cagles Mill Lake property, either temporarily or permanently. Project activities will not indirectly impact the recreational qualities of Cagle Mill Lake, nor will it restrict public access. The project will not use this resource by taking permanent ROW and will not indirectly use the resource in such a way that the protected activities, features, or attributes that qualify a resource for protection under Section 4(f) are substantially impaired. Therefore, no 4(f) use is expected.

One historic Section 4(f) property was identified in the approved MPPA on March 27, 2026 (Appendix D, pages 1 to 6). John and Hanna Ahlemeyer Farm, (Indiana Historic Sites and Structures Inventory (IHSSI)# 021-519-25014, 7650 E SR 42), is rated as "notable" and is eligible for listing in the National Register of Historic Places (NRHP). This property is located at the far southeast end of Curve 5 (SW 3). No unusual features were located adjacent to the resource, and the thick tree cover screens this site from the project area. However, approximately 0.402 acre of permanent ROW acquisition is anticipated for slope and curve correction from this property.

According to the *Memorandum of Understanding between FHWA, Indiana Division, the Indiana State Historic Preservation Officer*

(SHPO), and INDOT Regarding Section 4(f) of the U.S. Department of Transportation Act of 1966 and Notification Requirements of Intent to Make De Minimis Determinations for Historic Resources, this MOU satisfies the notification requirements specified in 23 CFR 774. There is no potential for impact to the characteristics that make these resources National Register-eligible, and no mitigation measures are expected; therefore, INDOT and FHWA consider the taking of this minimal amount of permanent and temporary ROW as a *de minimis* 4(f) use of these historic properties. No commitments are required for this *de minimis* use.

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 two properties in Clay County and 12 properties in Owen County (Appendix I, page 1). None of these properties are located within or adjacent to the project area. Cataract Falls State Recreation Area is associated with Cagles Mill Lake; however, according to the IDNR State Parks website (https://www.in.gov/dnr/state-parks/parks-lakes/cagles-mill-lake-lieber-and-cataract-falls-sra/#Maps), this property is not within or adjacent to the project area. Therefore, there will be no impacts to 6(f) resources.

An early coordination letter was sent to the IDNR Division of State Parks on October 30, 2024. The IDNR Division of State Parks responded on October 31, 2024 and stated that this project will not impact an LWCF site (Appendix C, page 5).

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: Initial (Appendix H, page 1)

Name of MPO (if applicable): N/A

Location in TIP (if applicable): N/A

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.

STIP/TIP:
This project is included in the Fiscal Year (FY) 2026-2030 Statewide Transportation Improvement Program (STIP) (Appendix H, page 3).

Nonattainment area/maintenance area:
This project is located in Clay and Owen Counties, which is currently in attainment for all criteria pollutants according to the Environmental Protection Agency (EPA) Geen Book (https://www.epa.gov/green-book). Therefore, the conformity procedures of 40 CFR Part 93 do not apply.

MSAT Level 1a Analysis:
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: _____

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.

This project meets the local and regional development patterns because it aims to improve the rideability along this portion of SR 42. This project is not expected to negatively impact community cohesion or local property values or the tax base. This project will have a net positive effect on the local community as it will improve mobility along SR 42 within the project limits.

Clay County does not have a comprehensive plan available for public viewing on the internet. Owen County has a comprehensive plan dated December 5, 2022 (https://owencountycompplan.wordpress.com/wp-content/uploads/2022/12/adopted-owen-county-comprehensive-plan-2022-12.5.2022-reduced.pdf). The plan outlines strategies for maintaining and improving existing local transportation facilities, making fiscally responsible decisions regarding improvements, and maintaining access for agricultural

properties. This project is aligned with the goals of the comprehensive plan because it aims to maintain an existing roadway facility and to maintain access for residents in the vicinity of the project area.

Clay County has a draft Americans with Disabilities Act (ADA) Transition Plan (https://thrivewestcentral.com/wp-content/uploads/2025/01/Clay-County-ADA-Transition-for-Public-Comment.pdf) dated 2025, and Owen County has an ADA Transition Plan (https://www.owencounty.in.gov/_files/ugd/86fea8_2e8d019839b44bbb899a402195e516b8.pdf) dated February 21, 2023. The ADA Transition Plans identify areas within Clay and Owen Counties that are insufficient for ADA compliance and require updates. This project does not involve any pedestrian facilities and will not affect any buildings that require ADA compliance; therefore, the project is aligned with the goals of the Clay and Owen County ADA Transition Plans.

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 3 to 9), and the RFI report (Appendix E, pages 2 and 6 to 8), there are three cemeteries, one recreational facility, one pipeline, and one managed land located within the 0.5 mile of the project. There is one public facility within or adjacent to the project area. That number was confirmed by the site visit on August 29, 2023, August 30, 2023, September 19, 2023, and October 11, 2024 by SJCA Inc. Cagles Mill Lake is adjacent to the project area at Curve 9 (SW 6) but is beyond the limits of the proposed construction and proposed permanent ROW limits. No work will occur within this facility, and no indirect impacts, such as restrictions for access, will occur as a result of the project. Therefore, no impacts are expected. Access to all properties will be maintained during construction.

The IDNR Division of State Parks responded on October 31, 2024 and stated that no impacts to LWCF properties will occur as a result of this project (Appendix C, page 5; See Section 6(f) section above). The IDNR DFW responded on November 22, 2024 and stated that Cagles Mill Lake is within 0.5 mile of the project area, but did not issue any recommendations (Appendix C, page 5). All applicable recommendations are included in the Environmental Commitments section of this CE document.
It is the responsibility of the project sponsor to notify school corporations and emergency services at least two weeks prior to any construction that would block or limit access.

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

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

This analysis was performed for this project prior to the issuance of recent federal Executive Orders (EO) from January 2025, including EO 14154, EO 14148, and EO 14173. As such, this analysis is included for transparency but is no longer applicable to the impacts analysis for federal projects and this impact was not considered in the federal decision.

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 ROW. The project will require no relocations and greater than 0.5 acre of additional permanent ROW. Therefore, an EJ Analysis is required.

Potential EJ impacts are detected by locating minority and low-income populations relative to a reference population to determine if populations of EJ concern 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 COCs are Clay County, Indiana, and Owen County, Indiana. The community that overlaps the project area is called the affected community (AC). In this project, the ACs are Census Tract 405, Clay County, Indiana, and Census Tract 9556, Owen County, Indiana. An AC has a population of concern for EJ if the population is more than 50% minority or low-income or if the low-income or minority population is

125% of the COC. Data from the US Census Bureaus for 2023 was obtained on December 13, 2024 by SJCA Inc. The data collected for minority and low-income populations within the AC are summarized in the table below.

Table: Minority and Low-Income Data

	COC 1 – Clay County, Indiana	COC 2 – Owen County, Indiana	AC-1 - Census Tract 405, Clay County, Indiana	AC-2 - Census Tract 9556, Owen County, Indiana
Percent Minority	5.7%	4.8%	1.8%	5.6%
125% of COC	7.1%	6.0%	AC < 125% COC	AC < 125% COC
EJ Population of Concern			No	No
Percent Low-Income	10.7%	11.9%	8.9%	21.5%
125% of COC	13.3%	14.9%	AC < 125% COC	AC > 125% COC
EJ Population of Concern			No	Yes

AC-1, Census Tract 405, has a percent minority of 1.8%, which is below 50% and is below the 125% COC threshold. AC-2, Census Tract 9556, has a percent minority of 5.6%, which is below 50% and is below the 125% COC threshold. Therefore, neither AC-1 nor AC-2 contains a minority population of EJ concern.

AC-1. Census Tract 405, has a percent low-income of 8.9%, which is below 50% and is below the 125% COC threshold. AC-2, Census Tract 9556, has a percent low-income of 21.5%, which is below 50% but is above the 125% threshold of COC-2. Therefore, AC-2 has a low-income population of EJ concern.

The project will require a total of 4.71 acres of permanent ROW. Note: ROW amounts have been updated since the initial EJ Analysis was prepared; however, updates were not made due to the aforementioned EOs. All ROW acquisition will be immediately adjacent to the existing roadway. No relocations will occur, no changes in community cohesion will occur, and no permanent barriers will be created that would exclude low income or minority populations. The Maintenance of Traffic (MOT) is anticipated to consist of a detour that utilizes SR 59, Interstate 70 (I-70), and SR 243 which will extend approximately 20.5 miles in length. Local detour routes will be available that will utilize the county roads adjacent to SR 42 during the closures at each curve. Local detour routes will be available in phases as construction at each curve is completed. Access to all properties will be retained through the official detour route to access SR 42 and local detour routes to access individual properties along SR 42. All motorists using this portion of SR 42 will require the use of a detour; therefore, no disproportionately high impacts will occur to low-income or minority populations.

INDOT reviewed the EJ Analysis and stated on December 20, 2024 that they do not consider the impacts associated with this project as causing a disproportionately high and adverse effect on minority and/or low income populations of EJ concern relative to non-EJ populations in accordance with the provisions of Executive Order 12898 and FHWA Order 6640.23a. No further EJ Analysis is required (Appendix I, page 9).

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): **October 28, 2024**

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 Geographic Information Systems (GIS) and available public records, the RFI was completed on October 28, 2024 by SJCA Inc. and INDOT SAM provided their concurrence on October 28, 2024 (Appendix E, pages 1 to 14). No sites with hazardous material concerns (hazmat sites) or sites involved with regulated substances were identified in or within 0.5 mile of the project area. Further investigation for hazardous material concerns or regulated substances is not required at this time.

Part IV – Permits and Commitments

PERMITS CHECKLIST

Permits (mark all that apply)	**Likely Required**
Army Corps of Engineers (404/Section10 Permit)	
Nationwide Permit (NWP)	X
Regional General Permit (RGP)	
Individual Permit (IP)	
Other	
IN Department of Environmental Management (401/Rule 5)	
Nationwide Permit (NWP)	X
Regional General Permit (RGP)	
Individual Permit (IP)	
Isolated Wetlands	
CSGP	X
Other	
IN Department of Natural Resources	
Construction in a Floodway	
Navigable Waterway Permit	
Other	
Mitigation Required	
US Coast Guard Section 9 Bridge Permit	
Others (Please discuss in the discussion below)	

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

A Section 404 nationwide permit (NWP) with USACE and a Section 401 NWP with IDEM will be required for impacts to streams and wetlands within the project area. A Construction Stormwater General Permit (CSGP) with IDEM will be required for soil disturbance exceeding 1.0 acre. A Construction in a Floodway permit with IDNR will not be required as this project will not cause any impacts within a regulated floodway. Mitigation is not anticipated to be required but will be determined during the permitting phase.

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 ROW amounts change, the INDOT Environmental Services Division (ESD) and the INDOT District Environmental Section will be contacted immediately. (INDOT ESD and INDOT Crawfordsville District)
2. It is the responsibility of the project sponsor to notify school corporations and emergency services at least two weeks prior to any construction that would block or limit access. (INDOT ESD)
3. GAMM1: Ensure all operators, employees, and contractors working in areas of Indiana bat, NLEB, or TCB suitable habitat are aware of all Transportation Agency environmental commitments, including all applicable AMMs. (USFWS)
4. LAMM1: Direct temporary lighting away from suitable habitat during the active season. (USFWS)
5. TRTAMM1: Modify all phases/aspects of the project (e.g., temporary work areas, alignments) to the extent practicable to avoid tree removal/trimming in excess of what is required to implement the project safely. (USFWS)
6. TRTAMM2: Ensure tree removal/trimming 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 removal/trimming to ensure contractors stay within clearing limits. (USFWS)
7. TRTAMM3: Ensure tree removal/trimming is limited to the inactive season, occurs within 100 ft of the road/rail surface, and is outside of documented habitat for the Indiana bat, NLEB, and TCB. (USFWS and IDNR DFW)
8. An oil or gas well is located approximately 100 feet from the edge of pavement and 60 feet from the construction limits at Curve 3 (SW 2). This oil or gas well, Indiana Geological Survey (IGS) ID #117628, was plugged from total depth to 175 feet with cement, 175 feet to 30 feet with rotary mud, and 30 feet to three feet with cement. If the top plug, an unexpected void, steel piping, or other subsurface structures are encountered during project excavation, the IDNR Oil and Gas Division will be contacted for coordination and assessment of impacts. (IDNR Oil and Gas Division)
9. One water well is mapped approximately 50 feet from the terminus of Curves 6 and 7 (SW 4). No water wells were identified during survey of the project area. If a well is accidentally discovered during construction, the well must be either avoided or properly abandoned. Coordination with the property owner is required. All well abandonment activities must be completed by an Indiana Licensed Well Driller in accordance with 312 IAC 13-10 and Standard Specification 202.02. Regardless of whether the well is abandoned by the contractor or the property owner, a record of well abandonment, including the well driller's license number, must be provided to the INDOT Project Manager once the well has been abandoned. (INDOT Crawfordsville District)

For Further Consideration:

1. If box or pipe culverts are used, the bottoms should be buried a minimum of 6" or 20% of the culvert height/pipe diameter (whichever is greater) up to a maximum of 2' below the stream bed elevation to allow a natural streambed to form within or under the crossing structure. If a box culvert cannot be over-sized and countersunk, natural substrate ledges which are above the low flow water elevation and at least 1-3 feet wide for terrestrial wildlife passage need to be installed along the sides of the culvert opening. Crossings should: Span the entire channel width (a minimum of 1.2 times the ordinary high-water mark width); Maintain the natural stream substrate within the structure; 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 DFW)
2. The new, replacement, or rehabbed structure, and any bank stabilization under it, should not create conditions that are less favorable for wildlife passage under the structure compared to the current conditions. When determining an appropriate bridge or culvert size, consider whether wildlife/vehicle collisions are a concern at the crossing site. If feasible, a larger bridge or culvert opening can allow for the movement of wildlife under the roadway to minimize wildlife/vehicle collisions. (IDNR DFW)
3. Impacts to non-wetland forest of one (1) acre or more in a rural or urban area should be mitigated at a minimum 2:1 ratio based on area of impact. Impacts to non-wetland forest under one (1) acre but at least 0.10 acre in a rural or urban area should be mitigated at a minimum 1:1 ratio based on area of impact. Impacts under 0.10 acre in a rural area typically do not

require mitigation or additional plantings beyond seeding and stabilizing disturbed areas, though there are exceptions for high quality habitat sites. Impacts under 0.10 acre in an urban area should be mitigated by replacing each mature tree (trees that are 10 inches diameter at breast height (DBH)) with two trees of 3-gallon stock or larger. Seeding and stabilizing disturbed areas is required regardless of the impact amount and location.The mitigation site should be located in the floodway, downstream of the one (1) square mile drainage area of that stream (or another stream within the 8-digit HUC, preferably as close to the impact site as possible) and adjacent to existing forested riparian habitat. (IDNR DFW)

4. Do not excavate in the low flow area except for the placement of piers, foundations, and riprap, or removal of the old structure. (IDNR DFW)
5. Do not construct any temporary runarounds, access bridges, causeways, cofferdams, diversions, or pumparounds. (IDNR DFW)
6. Use minimum average 6-inch graded riprap stone extended below the normal water level to provide habitat for aquatic organisms in the voids. (IDNR DFW)

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Appendix A

INDOT Supporting Documentation

Categorical Exclusion Level Thresholds

	PCE	Level 1	Level 2	Level 3	Level 4[1]
Section 106	Falls within guidelines of Minor Projects PA	"No Historic Properties Affected"	"No Adverse Effect"	-	"Adverse Effect" Or Historic Bridge involvement[2]
Stream 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[6]	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[7])	"Not likely to Adversely Affect" (With any AMMs or commitments)	-	"Likely to Adversely Affect"	Project does not fall under Species Specific Programmatic[8]
Threatened/Endangered Species (Any other species)*	[redacted] "No Effect"	"Not likely to Adversely Affect"	-	-	"Likely to Adversely Affect"
Environmental Justice	No disproportionately high and adverse impacts	-	-	-	[redacted]
Sole Source Aquifer	No Detailed Groundwater Assessment	-	-	-	Detailed Groundwater Assessment
Floodplain	No Substantial Impacts	-	-	-	Substantial Impacts
Section 4(f) Impacts	None	-	-	-	Any[10]
Section 6(f) Impacts	None	-	-	-	Any
Permanent Traffic Alteration	None	-	-	-	Any
Noise Analysis Required	No	-	-	-	Yes
Air Quality Analysis Required	No	-	-	-	Yes[11]
Approval Level • **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

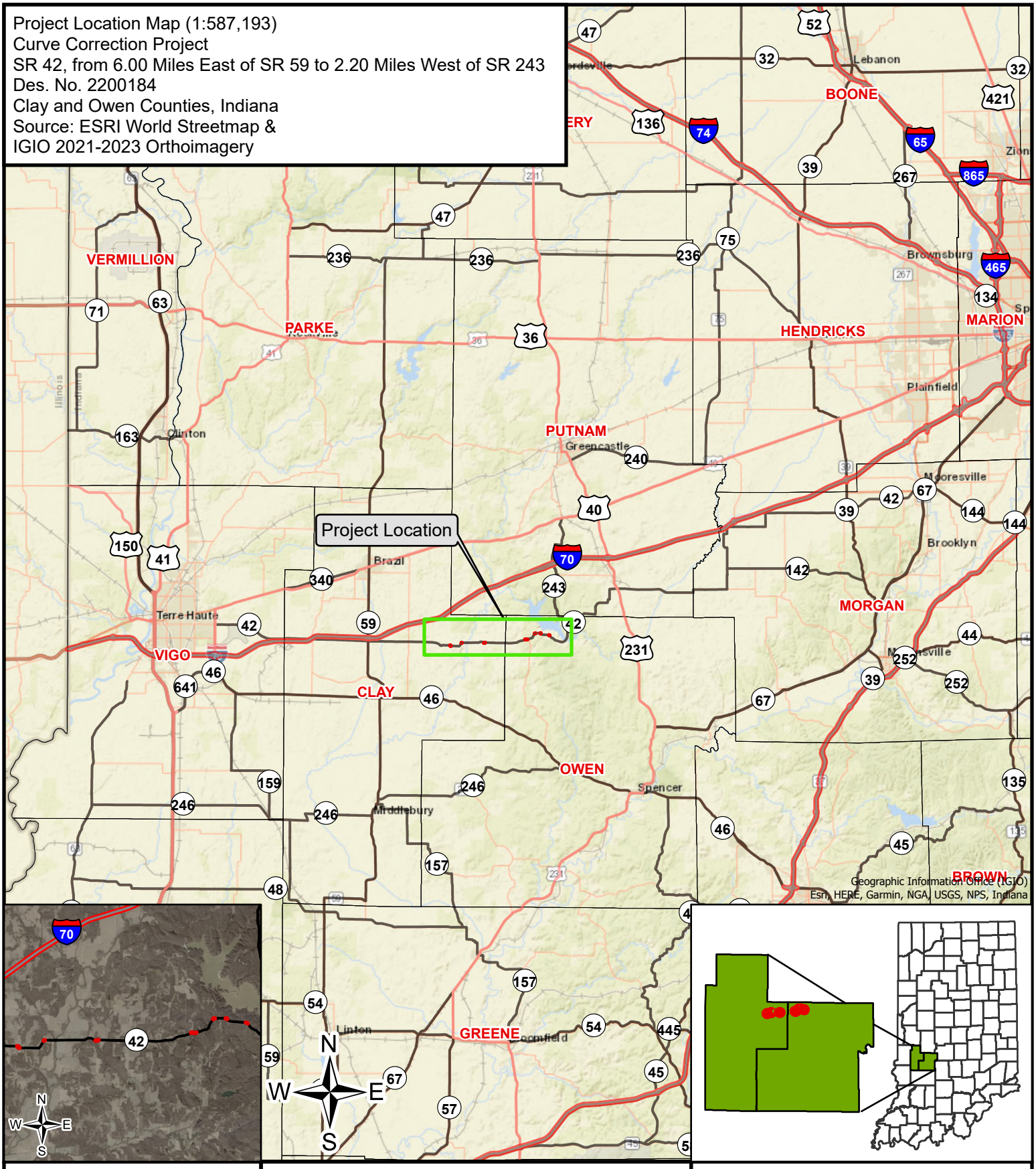
[1] Coordinate with INDOT Environmental Services Division. INDOT will then coordinate with the appropriate FHWA Environmental Specialist.
[2] Any involvement with a bridge processed under the Historic Bridge Programmatic Agreement.
[3] Total permanent impacts to streams (linear feet) and wetlands (acres).
[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] If any relocations are within an area with a known or suspected Environmental Justice (EJ) or disadvantaged population, or has greater than 5 relocations, a conversation with FHWA, through INDOT ESD, is needed to confirm NEPA classification and outreach plan for the project.
[7] Avoidance and Mitigation Measures (AMMs) determined by the IPAC determination key to be required that are not tree AMMs, bridge AMMs, or structure AMMs.
[8] Projects that do not fall under a Species Specific Programmatic and results in a "Likely to Adversely Affect". Other findings can be processed as a lower-level CE.
[9] Potential for causing a disproportionately high and adverse impact.
[10] Section 4(f) use resulting in an Individual, Programmatic, or *de minimis* evaluation. The only exception is a *de minimis* evaluation for historic properties (Effective January 2, 2020). If a historic property *de minimis* and no other use, mark the *None* column.
[11] Hot Spot Analysis and/or MSAT Quantitative Emission Analysis.
* Includes the threatened/endangered species critical habitat
Note: Substantial public or agency controversy may require a higher-level NEPA document.

Des 2200184 CE-2

Appendix B

Graphics

Project Location Map (1:587,193)
Curve Correction Project
SR 42, from 6.00 Miles East of SR 59 to 2.20 Miles West of SR 243
Des. No. 2200184
Clay and Owen Counties, Indiana
Source: ESRI World Streetmap &
IGIO 2021-2023 Orthoimagery



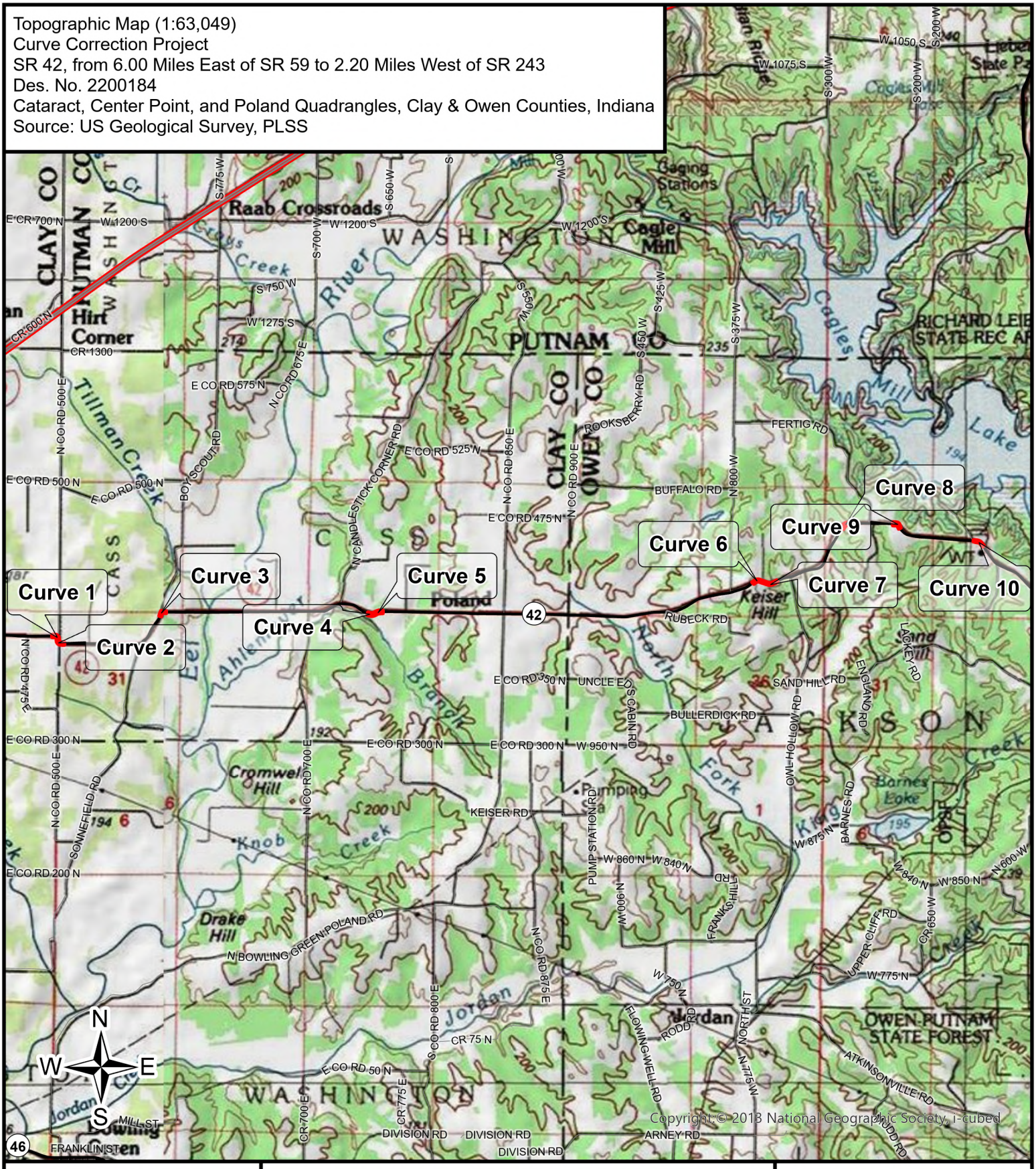
0 5 10 Miles

Project Location
Project County

SJCA

Author: Taylor Gabrysiak
10/21/2024

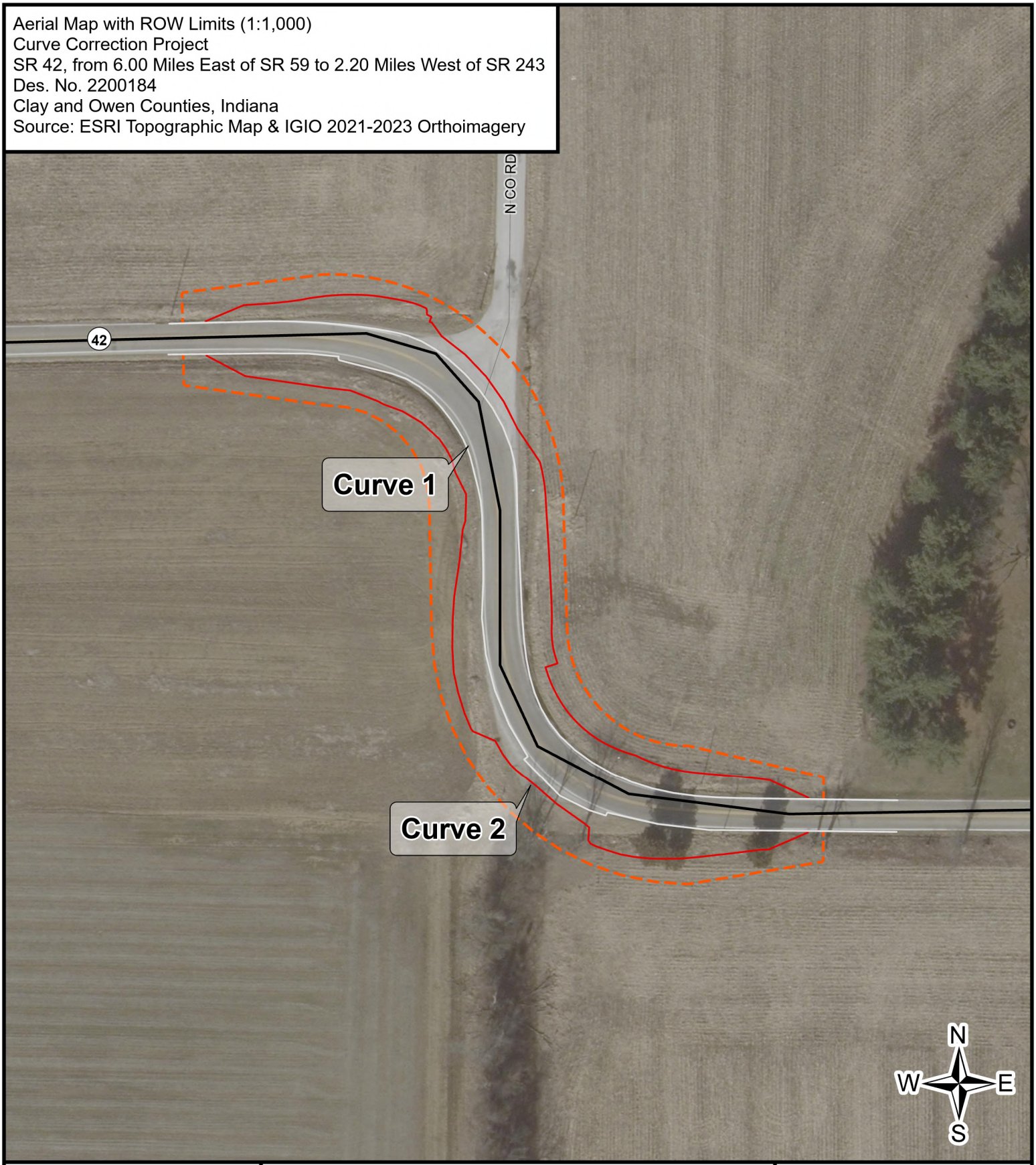
Topographic Map (1:63,049)
Curve Correction Project
SR 42, from 6.00 Miles East of SR 59 to 2.20 Miles West of SR 243
Des. No. 2200184
Cataract, Center Point, and Poland Quadrangles, Clay & Owen Counties, Indiana
Source: US Geological Survey, PLSS



SJCA

Author: Taylor Gabrysiak
10/21/2024

Aerial Map with ROW Limits (1:1,000)
Curve Correction Project
SR 42, from 6.00 Miles East of SR 59 to 2.20 Miles West of SR 243
Des. No. 2200184
Clay and Owen Counties, Indiana
Source: ESRI Topographic Map & IGIO 2021-2023 Orthoimagery



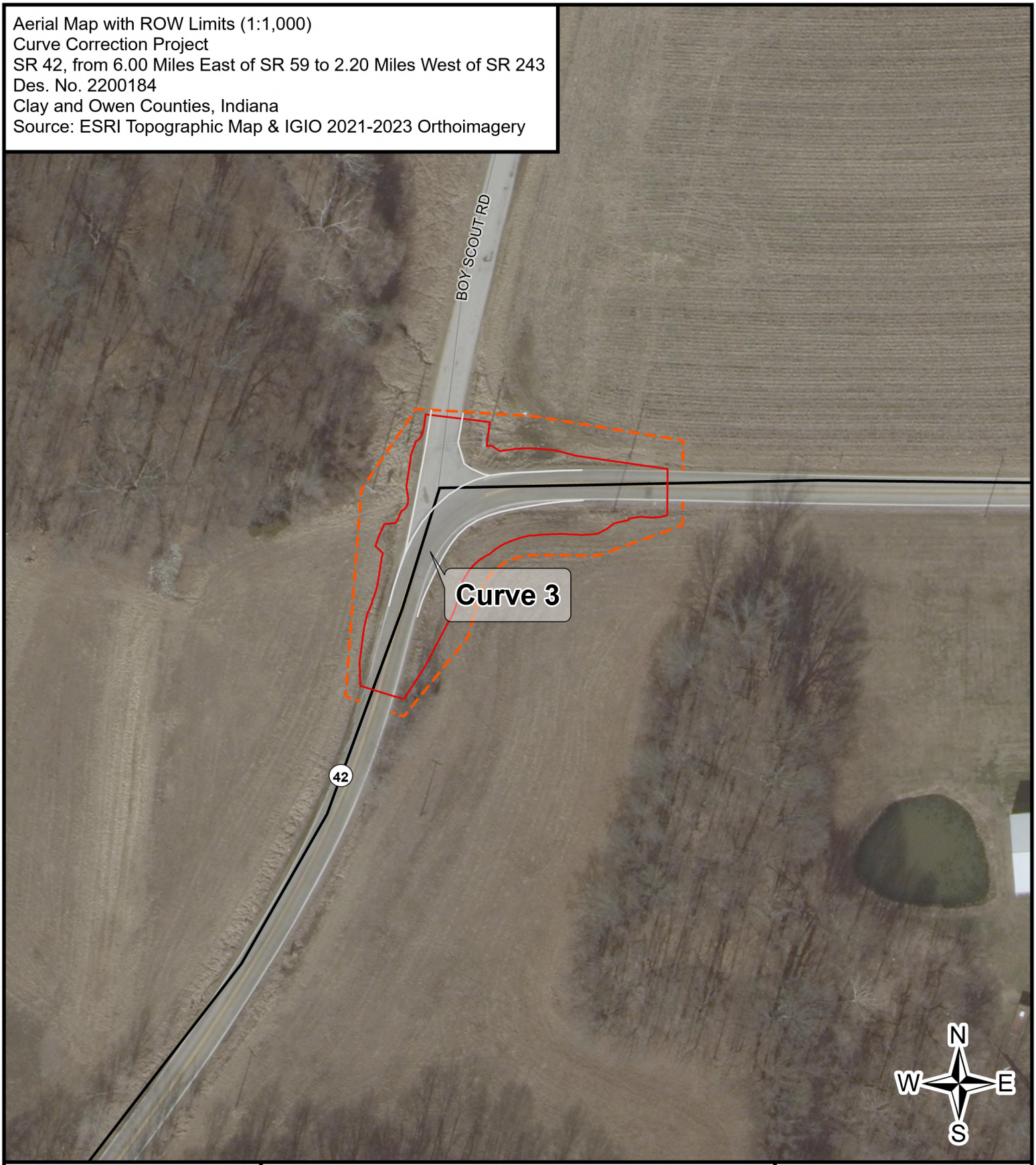
0 65 130 Feet

Construction Limits
Proposed R/W
Edge of Pavement

SJCA

Author: Taylor Gabrysiak
11/22/2024

Aerial Map with ROW Limits (1:1,000)
Curve Correction Project
SR 42, from 6.00 Miles East of SR 59 to 2.20 Miles West of SR 243
Des. No. 2200184
Clay and Owen Counties, Indiana
Source: ESRI Topographic Map & IGIO 2021-2023 Orthoimagery



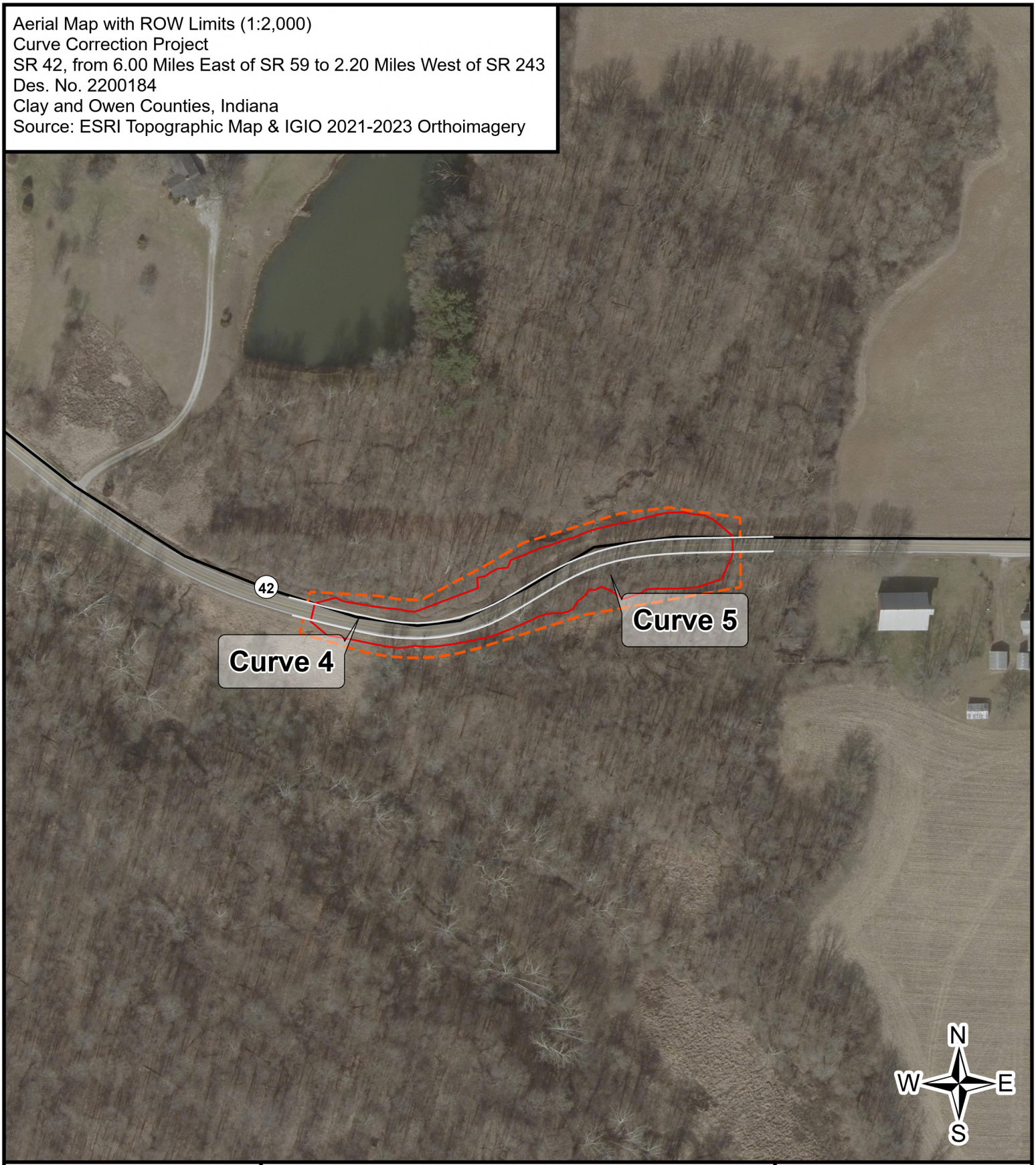
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Construction Limits
Proposed R/W
Edge of Pavement

SJCA

Author: Taylor Gabrysiak
11/22/2024

Aerial Map with ROW Limits (1:2,000)
Curve Correction Project
SR 42, from 6.00 Miles East of SR 59 to 2.20 Miles West of SR 243
Des. No. 2200184
Clay and Owen Counties, Indiana
Source: ESRI Topographic Map & IGIO 2021-2023 Orthoimagery



0 130 260 Feet

Construction Limits
Proposed R/W
Edge of Pavement

SJCA

Author: Taylor Gabrysiak
11/22/2024

Aerial Map with ROW Limits (1:2,000)
Curve Correction Project
SR 42, from 6.00 Miles East of SR 59 to 2.20 Miles West of SR 243
Des. No. 2200184
Clay and Owen Counties, Indiana
Source: ESRI Topographic Map & IGIO 2021-2023 Orthoimagery



0 130 260 Feet

Construction Limits
Proposed R/W
Edge of Pavement

SJCA

Author: Taylor Gabrysiak
11/22/2024

Aerial Map with ROW Limits (1:1,000)
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SR 42, from 6.00 Miles East of SR 59 to 2.20 Miles West of SR 243
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Clay and Owen Counties, Indiana
Source: ESRI Topographic Map & IGIO 2021-2023 Orthoimagery



0 65 130 Feet

Construction Limits
Proposed R/W
Edge of Pavement

SJCA

Author: Taylor Gabrysiak
11/22/2024

Aerial Map with ROW Limits (1:1,000)
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SR 42, from 6.00 Miles East of SR 59 to 2.20 Miles West of SR 243
Des. No. 2200184
Clay and Owen Counties, Indiana
Source: ESRI Topographic Map & IGIO 2021-2023 Orthoimagery



0 65 130 Feet

Construction Limits
Proposed R/W
Edge of Pavement

SJCA

Author: Taylor Gabrysiak
11/22/2024

Aerial Map with ROW Limits (1:1,000)
Curve Correction Project
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Des. No. 2200184
Clay and Owen Counties, Indiana
Source: ESRI Topographic Map & IGIO 2021-2023 Orthoimagery



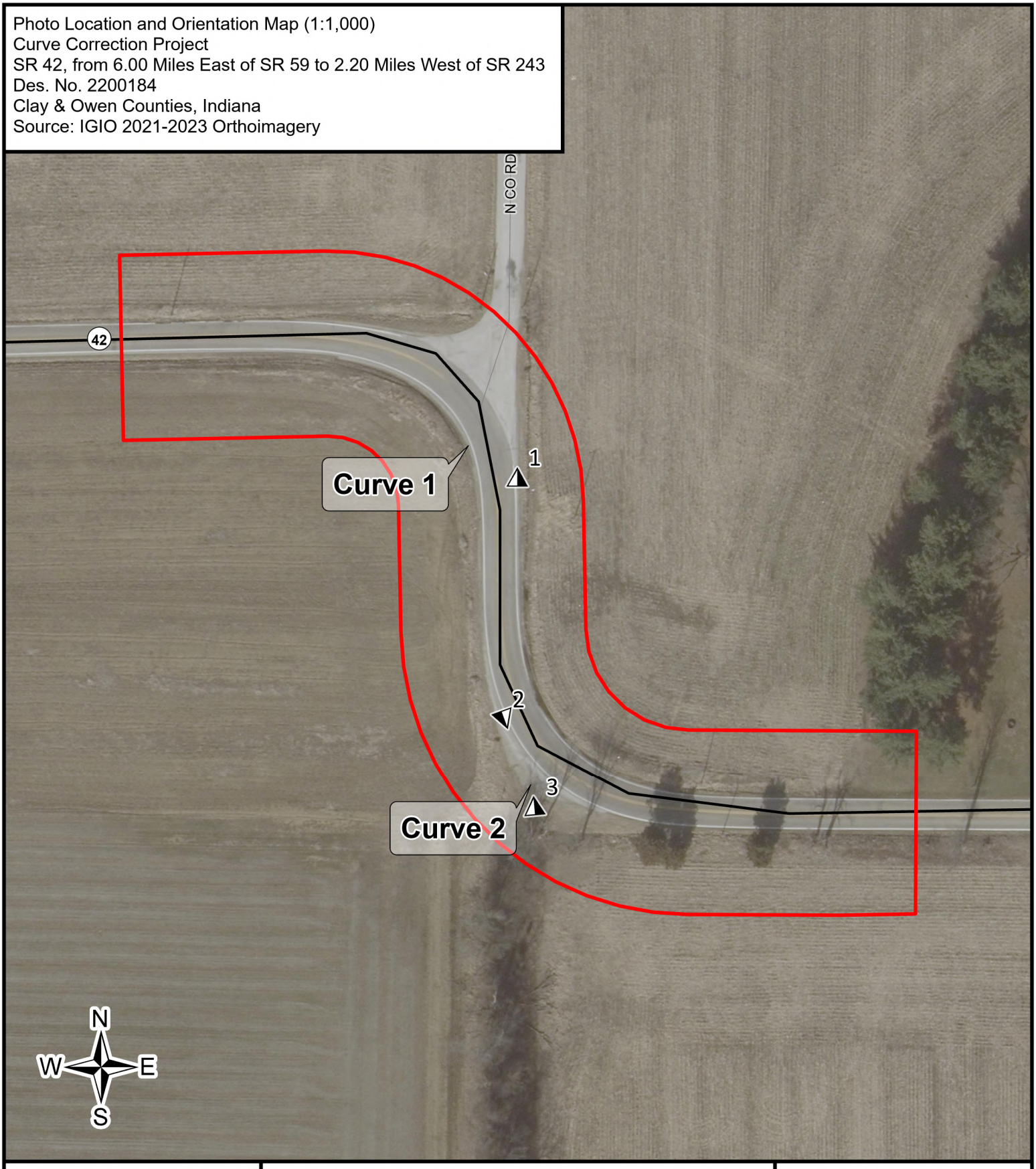
0 65 130 Feet

Construction Limits
Proposed R/W
Edge of Pavement

SJCA

Author: Taylor Gabrysiak
11/22/2024

Photo Location and Orientation Map (1:1,000)
Curve Correction Project
SR 42, from 6.00 Miles East of SR 59 to 2.20 Miles West of SR 243
Des. No. 2200184
Clay & Owen Counties, Indiana
Source: IGIO 2021-2023 Orthoimagery



0 0.01 0.02 Miles

Photo Location
Project Location

SJCA
Author: Taylor Gabrysiak
10/30/2024

Photo Location and Orientation Map (1:1,000)
Curve Correction Project
SR 42, from 6.00 Miles East of SR 59 to 2.20 Miles West of SR 243
Des. No. 2200184
Clay & Owen Counties, Indiana
Source: IGIO 2021-2023 Orthoimagery



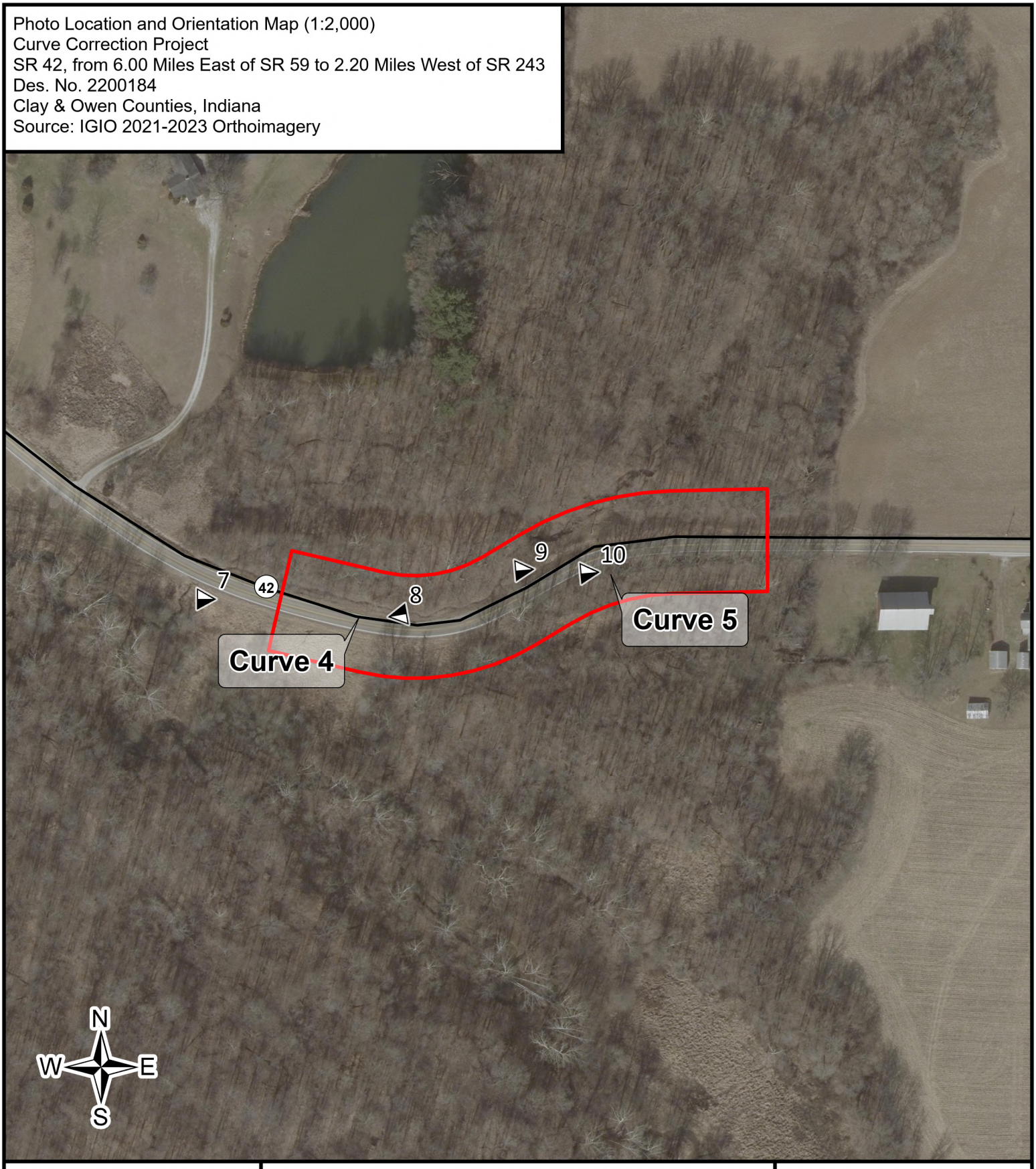
0 0.01 0.02 Miles

Photo Location
Project Location

SJCA

Author: Taylor Gabrysiak
10/30/2024

Photo Location and Orientation Map (1:2,000)
Curve Correction Project
SR 42, from 6.00 Miles East of SR 59 to 2.20 Miles West of SR 243
Des. No. 2200184
Clay & Owen Counties, Indiana
Source: IGIO 2021-2023 Orthoimagery



0 0.02 0.04 Miles

Photo Location
Project Location

SJCA
Author: Taylor Gabrysiak
10/30/2024

Photo Location and Orientation Map (1:2,000)
Curve Correction Project
SR 42, from 6.00 Miles East of SR 59 to 2.20 Miles West of SR 243
Des. No. 2200184
Clay & Owen Counties, Indiana
Source: IGIO 2021-2023 Orthoimagery



0 0.02 0.04 Miles

Photo Location
Project Location

SJCA
Author: Taylor Gabrysiak
10/30/2024

Photo Location and Orientation Map (1:1,000)
Curve Correction Project
SR 42, from 6.00 Miles East of SR 59 to 2.20 Miles West of SR 243
Des. No. 2200184
Clay & Owen Counties, Indiana
Source: IGIO 2021-2023 Orthoimagery



0 0.01 0.02 Miles

Photo Location
Project Location

SJCA
Author: Taylor Gabrysiak
10/30/2024

Photo Location and Orientation Map (1:1,000)
Curve Correction Project
SR 42, from 6.00 Miles East of SR 59 to 2.20 Miles West of SR 243
Des. No. 2200184
Clay & Owen Counties, Indiana
Source: IGIO 2021-2023 Orthoimagery



0 0.01 0.02 Miles

Photo Location
Project Location

SJCA
Author: Taylor Gabrysiak
10/30/2024

Photo Location and Orientation Map (1:1,000)
Curve Correction Project
SR 42, from 6.00 Miles East of SR 59 to 2.20 Miles West of SR 243
Des. No. 2200184
Clay & Owen Counties, Indiana
Source: IGIO 2021-2023 Orthoimagery



0 0.01 0.02 Miles

Photo Location
Project Location

SJCA
Author: Taylor Gabrysiak
10/30/2024



Photo 1. Located at curve one, facing north from the intersection of SR 42 and North County Road 500 East. (08/31/2023)



Photo 2. Located at curve two, facing southeast from the eastbound lane of SR 42. (08/31/2023)



Photo 3. Located at curve two, facing northwest from the roadside of the eastbound lane of SR 42. (08/31/2023)



Photo 4. Located at curve three, facing northeast from the westbound lane of SR 42. (08/31/2023)



Photo 5. Located at curve three, facing east from the intersection of SR 42 and Boy Scout Road. (08/31/2023)



Photo 6. Located at curve three, facing west at the intersection of SR 42 and Boy Scout Road looking at the inlet of CLV 86918. (08/31/2023)



Photo 7. Located at curve four, facing northeast from the eastbound lane of SR 42, looking towards the project area. (08/31/2023)



Photo 8. Located at curve four, facing southwest from the westbound lane of SR 42. (08/31/2023)



Photo 9. Located at curve five, facing east from the roadside of the westbound lane of SR 42. (08/31/2023)



Photo 10. Located at curve five, facing east from the eastbound lane of SR 42. (08/31/2023)



Photo 11. Located at curve six, facing southwest from the roadside of the westbound lane of SR 42. (10/02/2023)



Photo 12. Located at curve seven, facing east from the eastbound lane of SR 42. (10/02/2023)



Photo 13. Located at curve seven, facing southwest from the eastbound lane of SR 42. (10/02/2023)



Photo 14. Located at curve eight, facing northeast from the roadside of the westbound lane of SR 42. (10/02/2023)



Photo 15. Located at curve eight, facing southwest from the roadside of the westbound lane of SR 42. (10/02/2023)



Photo 16. Located at curve nine, facing northwest from the roadside of the westbound lane of SR 42. (10/02/2023)



Photo 17. Located at curve nine, looking at CLV 86932. (10/02/2023)



Photo 18. Located at curve nine, facing east from the roadside of the westbound lane of SR 42. (10/02/2023)



Photo 19. Located at curve ten, facing east from the roadside of the westbound lane of SR 42. (10/02/2023)



Photo 20. Located at curve ten, facing northwest from the roadside of the westbound lane of SR 42. (10/02/2023)

PROJECT	DESIGNATION
2200184	2200184
CONTRACT	BRIDGE FILE
R-45322	N/A

STRUCTURE	TYPE	SPAN AND SKEW	STATION
CLV-86918	Small Structure Replacement	23" Span x 14" Rise x 67'-0" Long Skew 25° Rt.	872+30.00 "S-SR42-HMA"
CLV-86932	Small Structure Replacement	18" Dia x 60'-0" Long Skew 16° Lt.	1189+65.00 "S-SR42-HMA"

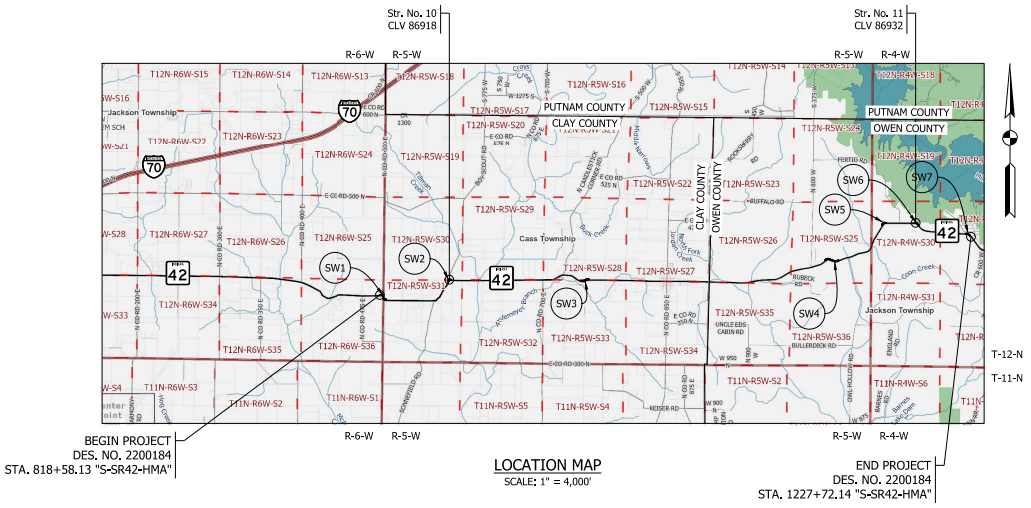
INDIANA DEPARTMENT OF TRANSPORTATION

ROAD PLANS

ROUTE: S.R. 42 FROM RP: 17+38 TO 25+14

PROJECT NO. 2200184 P.E.
2200184 R/W
2200184 CONST.

DES NO. 2200184 - CURVE CORRECTION AT MULTIPLE LOCATIONS
ON S.R. 42 LOCATED FROM 6.01 MILES EAST OF S.R. 59 TO 2.22 MILES WEST OF S.R. 243 IN
SECTION 36, T-12-N, R-6-W, JACKSON TOWNSHIP, CLAY COUNTY,
SECTION 28, 30, 31, AND 33 T-12-N, R-5-W, JACKSON TOWNSHIP, CLAY COUNTY,
SECTION 25, T-12-N, R-5-W, JACKSON TOWNSHIP, OWEN COUNTY,
SECTION 29 AND 30, T-12-N, R-4-W, JACKSON TOWNSHIP, OWEN COUNTY, INDIANA



BEGIN PROJECT
DES. NO. 2200184
STA. 818+58.13 "S-SR42-HMA"

LOCATION MAP
SCALE: 1" = 4,000'

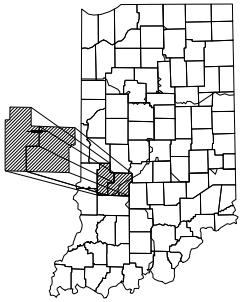
END PROJECT
DES. NO. 2200184
STA. 1227+72.14 "S-SR42-HMA"

TRAFFIC DATA

A.A.D.T.	2026	3,638 V.P.D.
A.A.D.T.	2046	4,343 V.P.D.
D.H.V	2046	337 V.P.H.
DIRECTIONAL DISTRIBUTION		49.53 %
TRUCKS		17.06 % A.A.D.T.
		8.08 % D.H.V.

DESIGN DATA - DES. NO. 2200184

DESIGN SPEED	Varies (See Index)
PROJECT DESIGN CRITERIA	3R (Non-Freeway)
FUNCTIONAL CLASSIFICATION	State Collector
RURAL/URBAN	Rural
TERRAIN	Rolling
ACCESS CONTROL	None



PROJECT LOCATION SHOWN BY
CLAY AND OWEN COUNTY

BEGIN DES. NO. 2200184
LATITUDE: 39°26'30.3" N LONGITUDE: 87°00'58.7" W
END DES. NO. 2200184
LATITUDE: 39°27'06.5 N LONGITUDE: 86°52'53.0" W

DES. NO. 2200184
ROADWAY LENGTH: 0.589 MI.
TOTAL LENGTH: 0.589 MI.
MAX. GRADE: (MATCH EXISTING) %

HUC Slate Run-Eel River: 051202030704
HUC North Fork Jordan Creek: 051202030703
HUC Cagle Mill Lake-Mill Creek: 051202030512

Plans Prepared By:
SJCA
9102 North Meridian Street, Suite 200, Indianapolis, IN 46260
Phone: (317) 566-0629

INDIANA DEPARTMENT OF TRANSPORTATION
STANDARD SPECIFICATIONS DATED 2024
TO BE USED WITH THESE PLANS.

STAGE 2 PLANS NOT FOR CONSTRUCTION

PLANS PREPARED BY: SJCA, INC. (317) 566-0629 PHONE NUMBER

CERTIFIED BY: DATE

RECOMMENDED FOR LETTING: INDIANA DEPARTMENT OF TRANSPORTATION DATE

BRIDGE FILE	
N/A	
DESIGNATION	
2200184	
SURVEY BOOK	
ELECTRONIC	1 of 108
CONTRACT	PROJECT
R-45322	2200184

Plot: 1/12/2026 10:03:28 AM
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Model: Title

UTILITIES

CATARACT LAKE WATER CORP
Teresa Gilbrech
6090 State Road 42
Poland, IN 47868
(765) 795-3288
cataractlakewater@yahoo.com

CENTERPOINT ENERGY (SOUTH)
(Formerly Vectren) - GAS - DISTRIBUTION
Steven Neal
600 Industrial Dr
Franklin, IN 46131
(317) 718-3657
steven.neal@centerpointenergy.com

CENTERPOINT ENERGY (SOUTH)
(Formerly Vectren) - GAS - TRANSMISSION
Nick Dearing
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Greenfield, IN 46140
(765) 648-3246
nicholas.dearing@centerpointenergy.com

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ENDEAVOR COMMUNICATIONS
Jason Lotz
2 S. West St.
Cloverdale, IN 46120
(765) 795-5554
jlotz@weendeavor.com

DUKE ENERGY - ELECTRIC -DISTRIBUTION
Don McDuffy
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Noblesville, IN 46062
(317) 776-5320
del-dline-coord@duke-energy.com

DUKE ENERGY - ELECTRIC - TRANSMISSION
Zach Boston
1000 E Main St (WP 922)
Plainfield, IN 46168
(317) 838-1053
del-tline-coord@duke-energy.com

INDOT ITS
Jonathan Sutterer
8620 East 21st St
Indianapolis, IN 46219
(317) 473-3930
jsutterer@indot.in.gov

SOUTH CENTRAL INDIANA REMC
Mark Sadler
300 Morton Avenue
Martinsville, IN 46151
(765) 352-4727
marksa@scremc.com

UTILITIES DISTRICT OF WESTERN INDIANA REMC
David Patterson
1666 West State Road 54
Bloomfield, IN 47424
(812) 384-4446
dpatterson@udwfremc.com

VERIZON
Chris Reed
720 W Henry St
Indianapolis, IN 46225
(317) 408-3971

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

REVISIONS

SHEET NO.	DATE	REVISED

GENERAL NOTES

INDEX

SHEET NO.	SUBJECT
1	TITLE
2	INDEX
3 - 6	TYPICAL SECTIONS
7 - 13	PLAT NO. 1
14 - 16	MAINTENANCE OF TRAFFIC
17	GEOMETRIC DATA
18 - 45	CONSTRUCTION DETAILS
46 - 47	SUPERELEVATION DETAILS
48 - 49	GENERAL PLANS
50 - 65	EROSION CONTROL
66 - 67	SUMMARY OF QUANTITIES
68 - 108	CROSS SECTIONS

STAGE 2 PLANS NOT FOR CONSTRUCTION

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE

DESIGNED: SMR | DRAWN: SMR

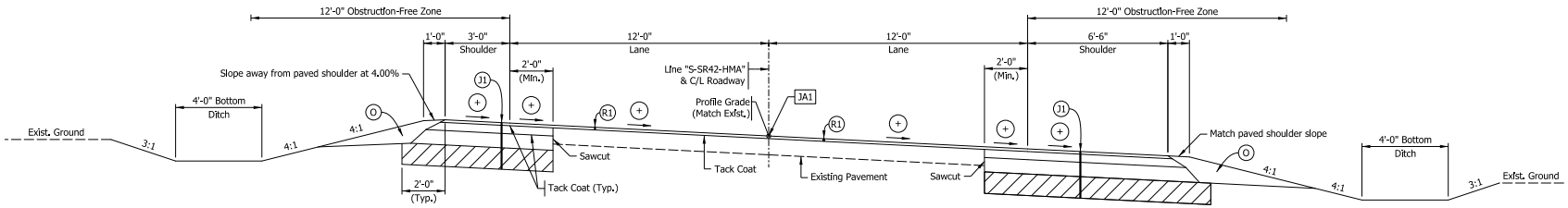
CHECKED: KCH / RA | CHECKED: KCH / RA

INDIANA DEPARTMENT OF TRANSPORTATION

INDEX

HORIZONTAL SCALE	BRIDGE FILE
N/A	N/A
VERTICAL SCALE	DESIGNATION
N/A	2200184
SURVEY BOOK	
ELECTRONIC	2 of 108
CONTRACT	PROJECT
R-45322	2200184

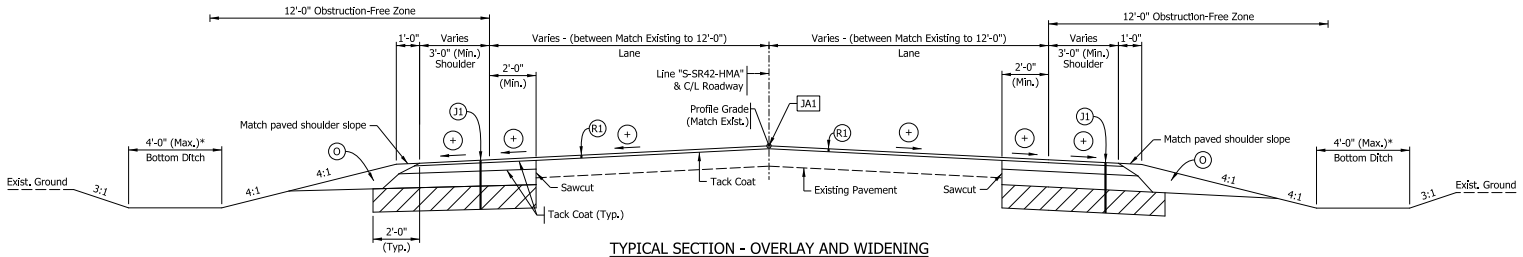
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Model: Index



TYPICAL SECTION - OVERLAY AND WIDENING

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

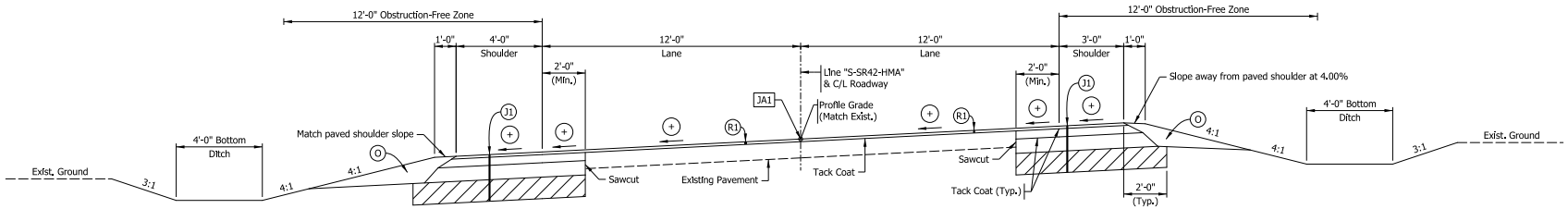
Sta. 819+32.57 "S-SR42-HMA" to Sta. 821+05.51 "S-SR42-HMA"
Sta. 871+61.14 "S-SR42-HMA" to Sta. 872+25.67 "S-SR42-HMA"
Sta. 872+33.67 "S-SR42-HMA" to Sta. 872+68.03 "S-SR42-HMA"



TYPICAL SECTION - OVERLAY AND WIDENING

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

Sta. 821+05.51 "S-SR42-HMA" to Sta. 821+88.50 "S-SR42-HMA"
Sta. 961+31.74 "S-SR42-HMA" to Sta. 961+86.19 "S-SR42-HMA"
Sta. 1121+93.83 "S-SR42-HMA" to Sta. 1125+38.79 "S-SR42-HMA"



TYPICAL SECTION - OVERLAY AND WIDENING

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

Sta. 821+88.50 "S-SR42-HMA" to Sta. 823+77.15 "S-SR42-HMA"

NOTE TO REVIEWER
Pavement Design is pending and will be updated for next submittal.

LEGEND

- JA1 Joint Adhesive required for Surface
- JA2 Joint Adhesive required for Surface and Intermediate layers at longitudinal joints
- J1 Widening with HMA, Type C consisting of 165 lbs/syd QC/QA-HMA, 3, 58H, Surface, 9.5 mm on 275 lbs/syd QC/QA-HMA, 3, 58H, Intermediate, 19.0 mm on 880 lbs/syd QC/QA-HMA, 3, 58S, Base, 25.0 mm on Subgrade Treatment Type IC on Geotextile for Pavement Type 2B
- K1 HMA Patching Full Depth, Type C consisting of 165 lbs/syd QC/QA-HMA, 3, 58H, Surface, 9.5 mm on 275 lbs/syd QC/QA-HMA, 3, 58H, Intermediate, 19.0 mm on 880 lbs/syd QC/QA-HMA, 3, 58S, Base, 25.0 mm on Subgrade Treatment Type IC on Geotextile for Pavement Type 2B
- O Variable Depth Compacted Aggregate, No. 53 (12.5" max. depth)
- R1 165 lbs/syd QC/QA - HMA, 3, 58H, Surface, 9.5mm on Milling, Asphalt, 2"
- R2 165 lbs/syd QC/QA-HMA, 3, 58H, Surface, 9.5mm on Variable Depth 275 lbs/syd QC-QA-HMA, 3, 58H, Intermediate, 19.0 mm on Transition Milling
- T Transition, Milling
- Limits of Subgrade Treatment
- + Cross Slope varies, see Superelevation Diagrams, Construction Details, or Cross Sections for additional cross slope information.

STAGE 2 PLANS NOT FOR CONSTRUCTION

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE

DESIGNED: KCH | DRAWN: KCH/SMR

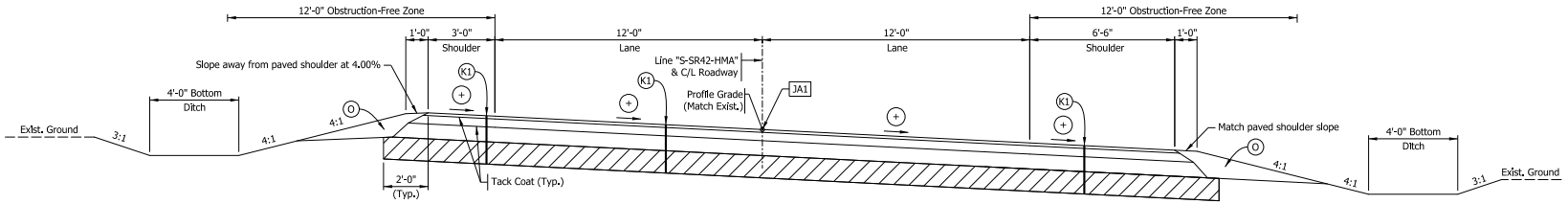
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INDIANA DEPARTMENT OF TRANSPORTATION

TYPICAL SECTIONS

HORIZONTAL SCALE	BRIDGE FILE
3/8" = 1'-0"	N/A
VERTICAL SCALE	DESIGNATION
3/8" = 1'-0"	2200184
SURVEY BOOK	
ELECTRONIC	3 of 108
CONTRACT	PROJECT
R-45322	2200184

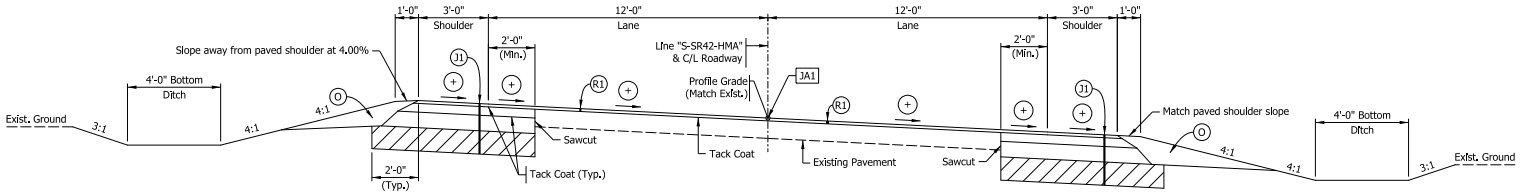
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Model: TypSec-02



TYPICAL SECTION - FULL DEPTH OVER STRUCTURE

Scale: $\frac{3}{8}$" = 1'-0"

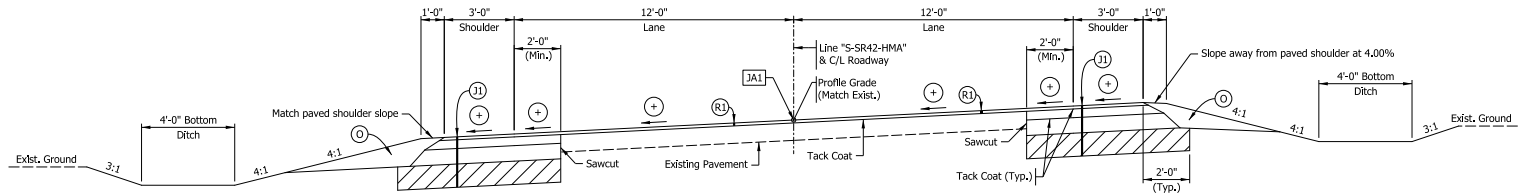
Sta. 872+25.67 "S-SR42-HMA" to Sta. 872+33.67 "S-SR42-HMA"



TYPICAL SECTION - OVERLAY AND WIDENING

Scale: $\frac{3}{8}$" = 1'-0"

Sta. 961+86.19 "S-SR42-HMA" to Sta. 963+54.29 "S-SR42-HMA"
Sta. 1119+97.74 "S-SR42-HMA" to Sta. 1121+93.83 "S-SR42-HMA"
Sta. 1167+90.01 "S-SR42-HMA" to Sta. 1169+91.36 "S-SR42-HMA"
Sta. 1190+35.80 "S-SR42-HMA" to Sta. 1191+07.86 "S-SR42-HMA"
Sta. 1224+68.89 "S-SR42-HMA" to Sta. 1226+95.77 "S-SR42-HMA"



TYPICAL SECTION - OVERLAY AND WIDENING

Scale: $\frac{3}{8}$" = 1'-0"

Sta. 959+43.07 "S-SR42-HMA" to Sta. 961+31.74 "S-SR42-HMA"
Sta. 1125+38.79 "S-SR42-HMA" to Sta. 1127+82.89 "S-SR42-HMA"

LEGEND

- JA1 — Joint Adhesive required for Surface
- JA2 — Joint Adhesive required for Surface and Intermediate layers at longitudinal joints
- J1 — Widening with HMA, Type C consisting of 165 lbs/syd QC/QA-HMA, 3, 58H, Surface, 9.5 mm on 275 lbs/syd QC/QA-HMA, 3, 58H, Intermediate, 19.0 mm on 880 lbs/syd QC/QA-HMA, 3, 58S, Base, 25.0 mm on Subgrade Treatment Type IC on Geotextile for Pavement Type 2B
- K1 — HMA Patching Full Depth, Type C consisting of 165 lbs/syd QC/QA-HMA, 3, 58H, Surface, 9.5 mm on 275 lbs/syd QC/QA-HMA, 3, 58H, Intermediate, 19.0 mm on 880 lbs/syd QC/QA-HMA, 3, 58S, Base, 25.0 mm on Subgrade Treatment Type IC on Geotextile for Pavement Type 2B
- O — Variable Depth Compacted Aggregate, No. 53 (12.5" max. depth)
- R1 — 165 lbs/syd QC/QA - HMA, 3, 58H, Surface, 9.5mm on Milling, Asphalt, 2"
- R2 — 165 lbs/syd QC/QA-HMA, 3, 58H, Surface, 9.5mm on Variable Depth 275 lbs/syd QC-QA-HMA, 3, 58H, Intermediate, 19.0 mm on Transition Milling
- T — Transition, Milling
- Limits of Subgrade Treatment
- + — Cross Slope varies, see Superelevation Diagrams, Construction Details, or Cross Sections for additional cross slope information.

STAGE 2 PLANS NOT FOR CONSTRUCTION

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE

DESIGNED: SMR DRAWN: SMR

CHECKED: MH CHECKED: MH

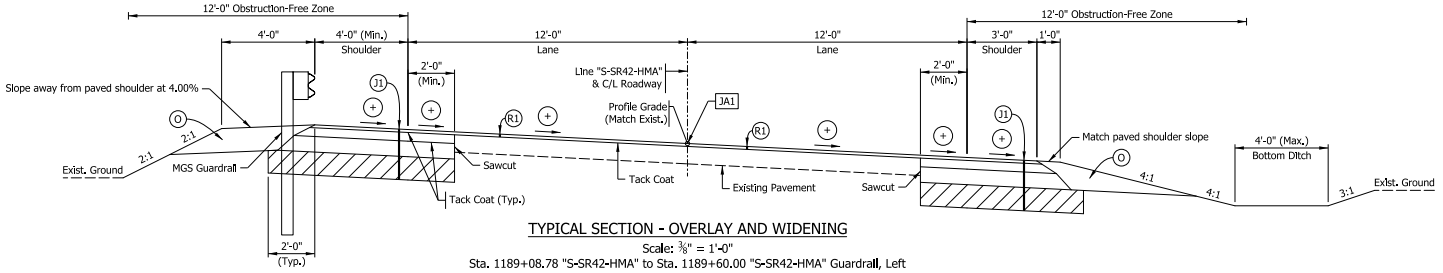
INDIANA DEPARTMENT OF TRANSPORTATION

TYPICAL SECTIONS

HORIZONTAL SCALE	BRIDGE FILE
$\frac{3}{8}$" = 1'-0"	N/A
VERTICAL SCALE	DESIGNATION
$\frac{3}{8}$" = 1'-0"	2200184
SURVEY BOOK	
ELECTRONIC	4 of 108
CONTRACT	PROJECT
R-45322	2200184

Plot: 1/12/2026 10:03:24 AM

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Model: TypSec-03

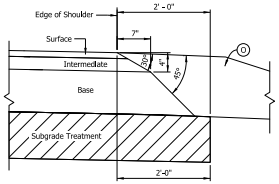


TYPICAL SECTION - OVERLAY AND WIDENING

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

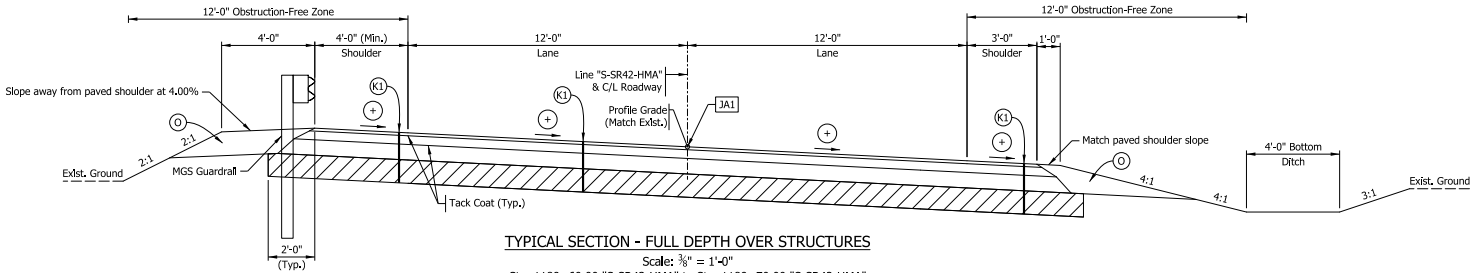
Sta. 1189+08.78 "S-SR42-HMA" to Sta. 1189+60.00 "S-SR42-HMA" Guardrail, Left

Sta. 1189+70.00 "S-SR42-HMA" to Sta. 1190+35.80 "S-SR42-HMA" Guardrail, Left



SAFETY EDGE DETAIL

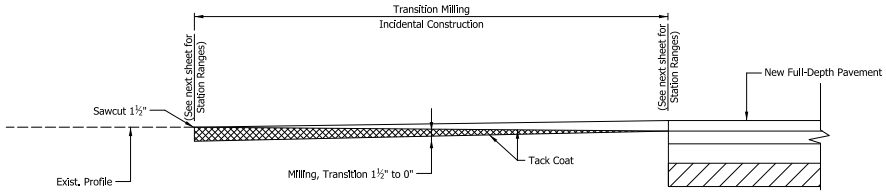
Not to Scale



TYPICAL SECTION - FULL DEPTH OVER STRUCTURES

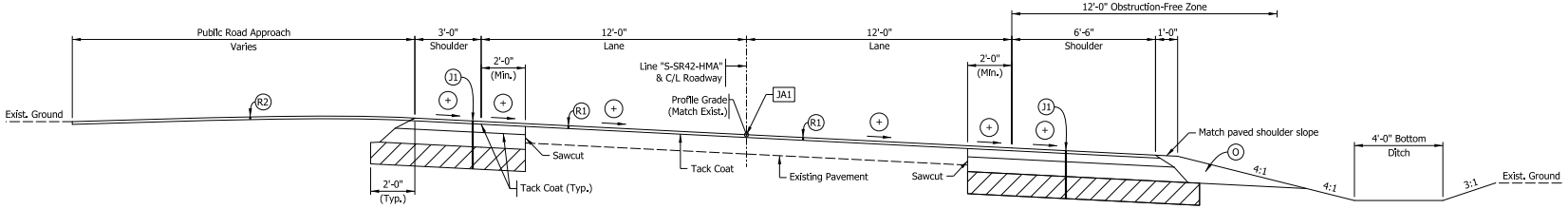
Scale: 3/8" = 1'-0"

Sta. 1189+60.00 "S-SR42-HMA" to Sta. 1189+70.00 "S-SR42-HMA"



TRANSITION MILLING DETAIL

Not to Scale



TYPICAL SECTION - PUBLIC ROAD APPROACH

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

Sta. 819+90.89 "S-SR42-HMA" to Sta. 820+83.80 "S-SR42-HMA"

Sta. 871+81.07 "S-SR42-HMA" to Sta. 872+45.35 "S-SR42-HMA"

LEGEND

- JA1 Joint Adhesive required for Surface
- JA2 Joint Adhesive required for Surface and Intermediate layers at longitudinal joints
- J1 Widening with HMA, Type C consisting of 165 lbs/syd QC/QA-HMA, 3, 58H, Surface, 9.5 mm on 275 lbs/syd QC/QA-HMA, 3, 58H, Intermediate, 19.0 mm on 880 lbs/syd QC/QA-HMA, 3, 58S, Base, 25.0 mm on Subgrade Treatment Type IC on Geotextile for Pavement Type 2B
- K1 HMA Patching Full Depth, Type C consisting of 165 lbs/syd QC/QA-HMA, 3, 58H, Surface, 9.5 mm on 275 lbs/syd QC/QA-HMA, 3, 58H, Intermediate, 19.0 mm on 880 lbs/syd QC/QA-HMA, 3, 58S, Base, 25.0 mm on Subgrade Treatment Type IC on Geotextile for Pavement Type 2B
- O Variable Depth Compacted Aggregate, No. 53 (12.5" max. depth)
- R1 165 lbs/syd QC/QA - HMA, 3, 58H, Surface, 9.5mm on Milling, Asphalt, 2"
- R2 165 lbs/syd QC/QA-HMA, 3, 58H, Surface, 9.5mm on Variable Depth 275 lbs/syd QC-QA-HMA, 3, 58H, Intermediate, 19.0 mm on Transition Milling
- T Transition, Milling
- Limits of Subgrade Treatment
- + Cross Slope varies, see Superelevation Diagrams, Construction Details, or Cross Sections for additional cross slope information.

STAGE 2 PLANS NOT FOR CONSTRUCTION

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE

DESIGNED: SMR DRAWN: SMR

CHECKED: MH CHECKED: MH

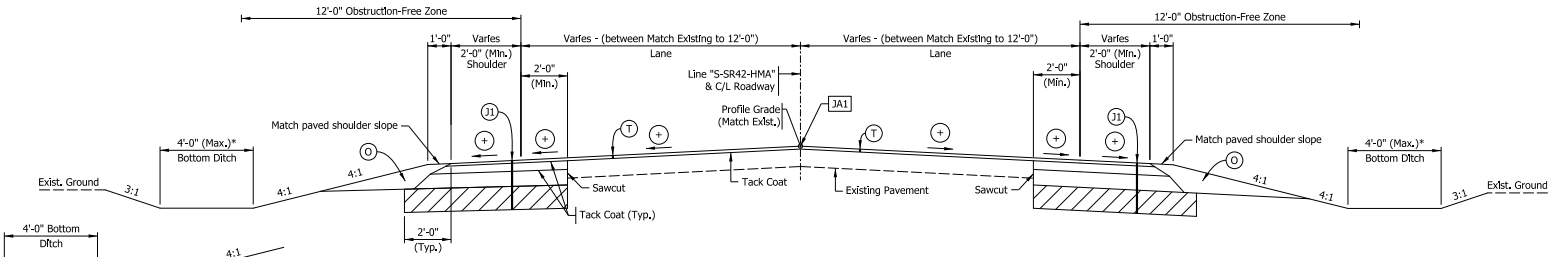
INDIANA DEPARTMENT OF TRANSPORTATION

TYPICAL SECTIONS

HORIZONTAL SCALE	BRIDGE FILE
AS NOTED	N/A
VERTICAL SCALE	DESIGNATION
AS NOTED	2200184
SURVEY BOOK	
ELECTRONIC	5 of 108
CONTRACT	PROJECT
R-45322	2200184

Plot: 1/12/2026 10:03:34 AM

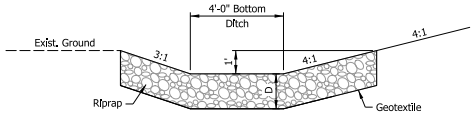
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Model: TypSec-04



INCIDENTAL CONSTRUCTION TYPICAL SECTION - TRANSITION, MILLING

Scale: $\frac{3}{8}$" = 1'-0"

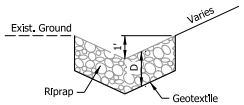
Sta. 818+80.00 "S-SR42-HMA" to Sta. 819+32.57 "S-SR42-HMA"
Sta. 823+77.15 "S-SR42-HMA" to Sta. 824+30.00 "S-SR42-HMA"
Sta. 871+10.00 "S-SR42-HMA" to Sta. 871+61.14 "S-SR42-HMA"
Sta. 872+68.03 "S-SR42-HMA" to Sta. 873+30.00 "S-SR42-HMA"
Sta. 958+90.00 "S-SR42-HMA" to Sta. 959+43.07 "S-SR42-HMA"
Sta. 963+54.29 "S-SR42-HMA" to Sta. 964+10.00 "S-SR42-HMA"
Sta. 1119+50.00 "S-SR42-HMA" to Sta. 1119+97.74 "S-SR42-HMA"
Sta. 1127+82.89 "S-SR42-HMA" to Sta. 1128+40.00 "S-SR42-HMA"
Sta. 1167+40.00 "S-SR42-HMA" to Sta. 1167+90.01 "S-SR42-HMA"
Sta. 1169+91.36 "S-SR42-HMA" to Sta. 1170+45.00 "S-SR42-HMA"
Sta. 1188+95.00 "S-SR42-HMA" to Sta. 1189+46.93 "S-SR42-HMA"
Sta. 1191+07.86 "S-SR42-HMA" to Sta. 1191+60.00 "S-SR42-HMA"
Sta. 1224+15.00 "S-SR42-HMA" to Sta. 1224+68.89 "S-SR42-HMA"
Sta. 1226+95.77 "S-SR42-HMA" to Sta. 1227+45.00 "S-SR42-HMA"



*RIPRAP FLAT BOTTOM DITCH DETAIL

Not to Scale
(For locations, see Profile Sheets)

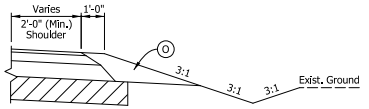
Revetment or Uniform Riprap	D=18"
Class 1 Riprap	D=24"



*RIPRAP V-DITCH DETAIL

Not to Scale
(For locations, see Profile Sheets)

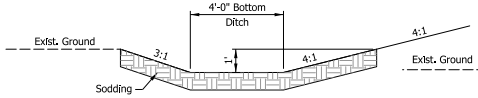
Revetment or Uniform Riprap	D=18"
Class 1 Riprap	D=24"



*V-DITCH SECTION

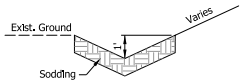
Scale: $\frac{3}{8}$" = 1'-0"

Sta. 871+10 "S-SR42-HMA" to Sta. 871+88 "S-SR42-HMA", Left
Sta. 872+38 "S-SR42-HMA" to Sta. 872+50 "S-SR42-HMA", Left
Sta. 1119+25 "S-SR42-HMA" to Sta. 1124+12 "S-SR42-HMA", Left
Sta. 1119+25 "S-SR42-HMA" to Sta. 1128+02 "S-SR42-HMA", Right
Sta. 1223+90 "S-SR42-HMA" to Sta. 1227+00 "S-SR42-HMA", Right
Sta. 1227+00 "S-SR42-HMA" to Sta. 1227+50 "S-SR42-HMA", Left



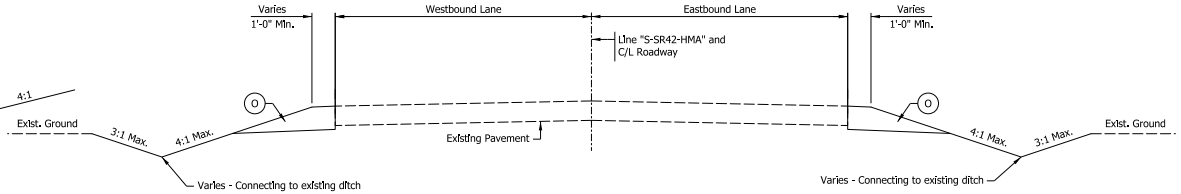
*SODDING FLAT BOTTOM DITCH DETAIL

Not to Scale
(For locations, see Profile Sheets)



*SODDING V-DITCH DETAIL

Not to Scale
(For locations, see Profile Sheets)



INCIDENTAL TYPICAL SECTION - AGGREGATE SHOULDERS

Scale: $\frac{3}{8}$" = 1'-0"

Sta. 818+55 "S-SR42-HMA" to Sta. 818+80 "S-SR42-HMA"
Sta. 824+30 "S-SR42-HMA" to Sta. 824+55 "S-SR42-HMA"
Sta. 870+85 "S-SR42-HMA" to Sta. 871+10 "S-SR42-HMA"
Sta. 873+30 "S-SR42-HMA" to Sta. 873+55 "S-SR42-HMA"
Sta. 958+65 "S-SR42-HMA" to Sta. 958+90 "S-SR42-HMA"
Sta. 964+10 "S-SR42-HMA" to Sta. 964+35 "S-SR42-HMA"
Sta. 1119+25 "S-SR42-HMA" to Sta. 1119+50 "S-SR42-HMA"
Sta. 1128+40 "S-SR42-HMA" to Sta. 1128+65 "S-SR42-HMA"
Sta. 1167+15 "S-SR42-HMA" to Sta. 1167+40 "S-SR42-HMA"
Sta. 1170+45 "S-SR42-HMA" to Sta. 1170+70 "S-SR42-HMA"
Sta. 1188+70 "S-SR42-HMA" to Sta. 1188+95 "S-SR42-HMA"
Sta. 1191+60 "S-SR42-HMA" to Sta. 1191+85 "S-SR42-HMA"
Sta. 1223+90 "S-SR42-HMA" to Sta. 1224+15 "S-SR42-HMA"
Sta. 1227+45 "S-SR42-HMA" to Sta. 1227+70 "S-SR42-HMA"

LEGEND

- JA1 — Joint Adhesive required for Surface
- JA2 — Joint Adhesive required for Surface and Intermediate layers at longitudinal joints
- J1 — Widening with HMA, Type C consisting of 165 lbs/syd QC/QA-HMA, 3, 58H, Surface, 9.5 mm on 275 lbs/syd QC/QA-HMA, 3, 58H, Intermediate, 19.0 mm on 880 lbs/syd QC/QA-HMA, 3, 58S, Base, 25.0 mm on Subgrade Treatment Type IC on Geotextile for Pavement Type 2B
- K1 — HMA Patching Full Depth, Type C consisting of 165 lbs/syd QC/QA-HMA, 3, 58H, Surface, 9.5 mm on 275 lbs/syd QC/QA-HMA, 3, 58H, Intermediate, 19.0 mm on 880 lbs/syd QC/QA-HMA, 3, 58S, Base, 25.0 mm on Subgrade Treatment Type IC on Geotextile for Pavement Type 2B
- O — Variable Depth Compacted Aggregate, No. 53 (12.5" max. depth)
- R1 — 165 lbs/syd QC/QA - HMA, 3, 58H, Surface, 9.5mm on Milling, Asphalt, 2"
- R2 — 165 lbs/syd QC/QA-HMA, 3, 58H, Surface, 9.5mm on Variable Depth 275 lbs/syd QC-QA-HMA, 3, 58H, Intermediate, 19.0 mm on Transition Milling
- T — Transition, Milling
- Limits of Subgrade Treatment
- + — Cross Slope varies, see Superelevation Diagrams, Construction Details, or Cross Sections for additional cross slope information.

STAGE 2 PLANS NOT FOR CONSTRUCTION

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE

DESIGNED: SMR DRAWN: SMR

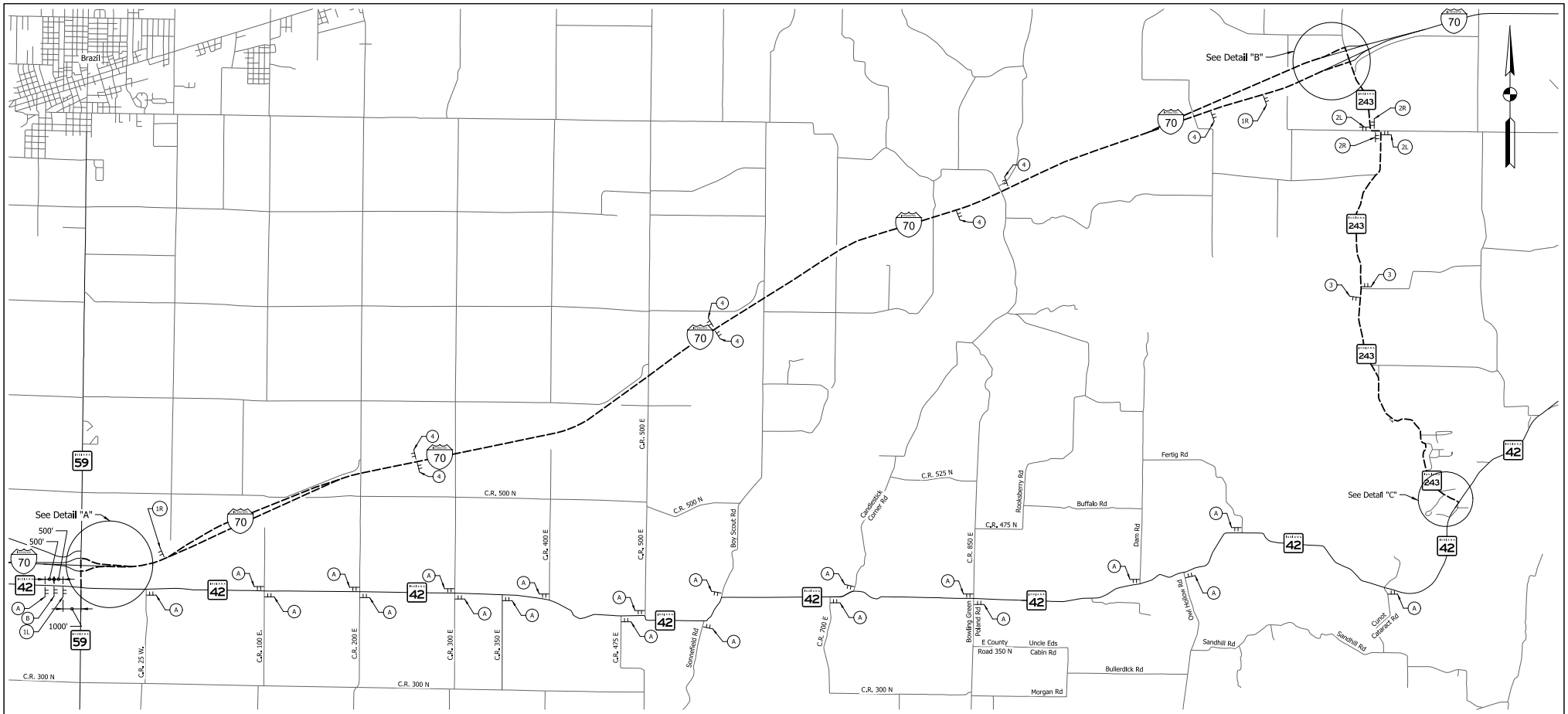
CHECKED: MH CHECKED: MH

INDIANA DEPARTMENT OF TRANSPORTATION

TYPICAL SECTIONS

HORIZONTAL SCALE	BRIDGE FILE
$\frac{3}{8}$" = 1'-0"	N/A
VERTICAL SCALE	DESIGNATION
$\frac{3}{8}$" = 1'-0"	2200184
SURVEY BOOK	
ELECTRONIC	6 of 108
CONTRACT	PROJECT
R-45322	2200184

Plot: 1/12/2026 10:03:35 AM
File: H:\Projects\2021\Engineering\21EN034_SR_42_HMA_OVERLAY_SJCA\CAD\Sheets\21EN034_TypicalSections.dgn
Model: TypSec-05



DETOUR ROUTE MARKER ASSEMBLY LEGEND

DETOUR / EAST / INDIANA 42	M4-8 24" x 12"	DETOUR / EAST / INDIANA 42	M4-8 24" x 12"	DETOUR / EAST / INDIANA 42	M4-8 24" x 12"	DETOUR / EAST / INDIANA 42	M4-8 24" x 12"	DETOUR / EAST / INDIANA 42	M4-8 24" x 12"	DETOUR / EAST / INDIANA 42	M4-8 30" x 15"	DETOUR / EAST / INDIANA 42	M4-8 30" x 15"	END DETOUR / EAST / INDIANA 42	M4-8a 24" x 18"	END DETOUR / EAST / INDIANA 42	M4-8a 24" x 18"
	M3-2 or M3-4 (EAST/WEST) 24" x 12"		M3-2 or M3-4 (EAST/WEST) 24" x 12"		M3-2 or M3-4 (EAST/WEST) 24" x 12"		M3-2 or M3-4 (EAST/WEST) 24" x 12"		M3-2 or M3-4 (EAST/WEST) 24" x 12"		M3-2 or M3-4 (EAST/WEST) 30" x 15"		M3-2 or M3-4 (EAST/WEST) 30" x 15"		M3-2 or M3-4 (EAST/WEST) 24" x 12"		M3-2 or M3-4 (EAST/WEST) 24" x 12"
	M1-5 24" x 24"		M1-5 24" x 24"		M1-5 24" x 24"		M1-5 24" x 24"		M1-5 24" x 24"		M1-5 36" x 36"		M1-5 36" x 36"		M1-5 24" x 24"		M1-5 24" x 24"
	M5-1 (L) 21" x 15"		M5-1 (R) 21" x 15"		M6-1 (L) 21" x 15"		M6-1 (R) 21" x 15"		M6-3 21" x 15"		M6-3 30" x 21"		M6-2 30" x 21"		M6-1 (L) 21" x 15"		M6-1 (R) 21" x 15"
1L		1R		2L		2R		3		4		5		6L		6R	

TWO ROAD CLOSURE NOTICE SIGNS XG20-5 REQUIRED (ONE AT EACH END) PLACED AT SITE A MINIMUM OF 14 DAYS PRIOR TO ROAD CLOSURE

NOTES

1. Detour Route Marker Assemblies shall be in accordance with Standard Drawing 801-TCDT-04. Sign spacing shall be in accordance with Standard Drawing 801-TCDT-01.
2. Type B Construction Warning Lights shall be used with all signs located on barricades. Type A Construction Warning Lights shall be used on all other construction signs.
3. Access to all drives and field entrances shall be maintained during construction.
4. Contractor may utilize phased construction to construct shorter segments. Local traffic may utilize unofficial detours as needed. Contractor to adjust signs and sign messages accordingly.

LEGEND

- (A) "ROAD CLOSED AHEAD" - W20-3 - 36" x 36"
- (B) "DETOUR AHEAD" - W20-2 - 36" x 36"
- (C) Type III-A Barricades - 36 Lft Required
- (D) Road Closure Sign Assembly with "ROAD CLOSED" - R11-2 - 48" x 30"
- Construction Sign
- Detour Route

STAGE 2 PLANS NOT FOR CONSTRUCTION

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE

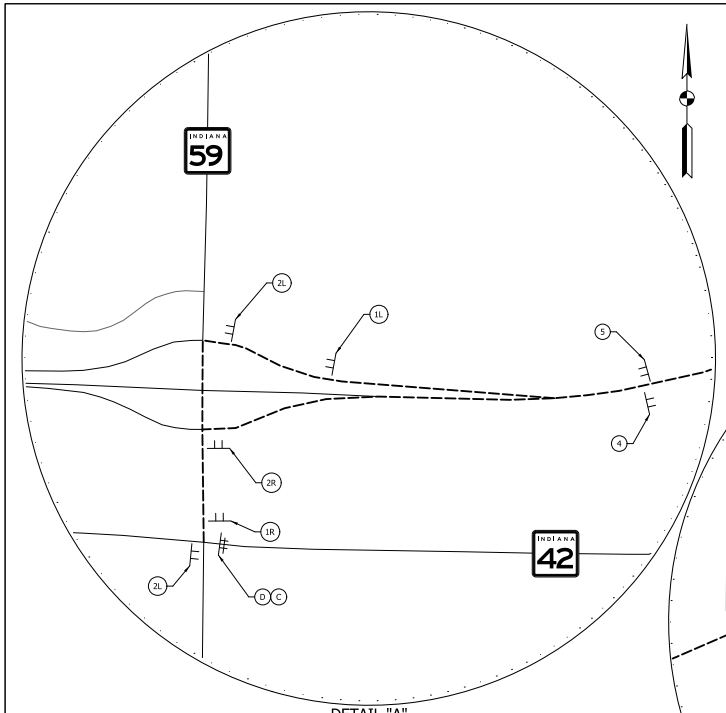
DESIGNED: SMR DRAWN: SMR CHECKED: KCH/RA CHECKED: KCH/RA

INDIANA DEPARTMENT OF TRANSPORTATION

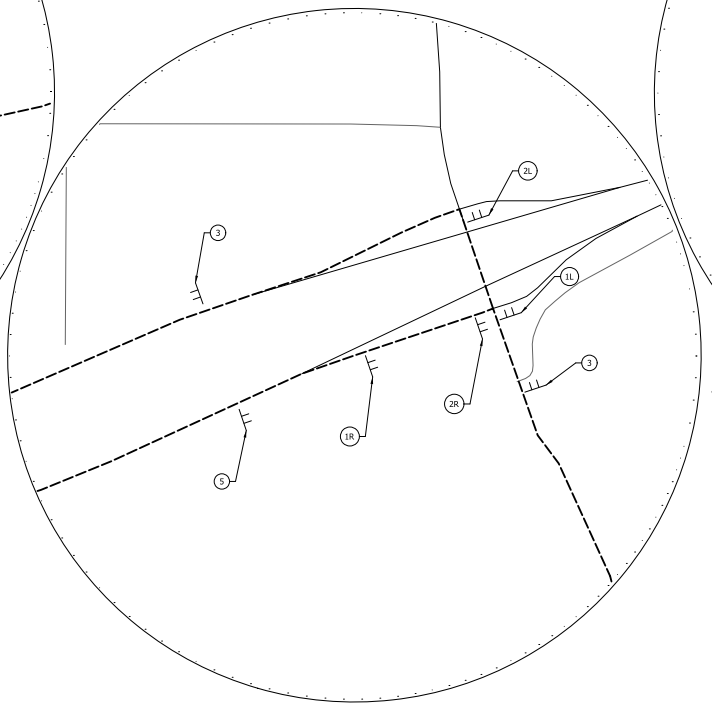
MAINTENANCE OF TRAFFIC DETOUR ROUTE

HORIZONTAL SCALE	BRIDGE FILE
1" = 3200'	N/A
VERTICAL SCALE	DESIGNATION
N/A	2200184
SURVEY BOOK	
ELECTRONIC	14 of 108
CONTRACT	PROJECT
R-45322	2200184

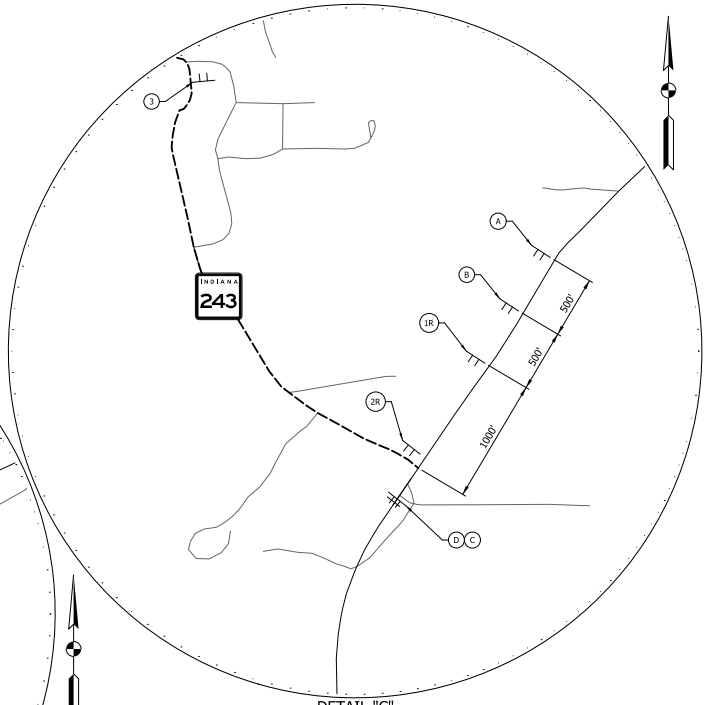
Plot: 1/12/2026 10:03:55 AM
File: H:\Projects\2021\Engineering\21EN034_SR_42_HMA_OVERLAY_SJCA\CAD\Sheets\21EN034_Detour_Route.dgn
Model: Sheet 1



DETAIL "A"
1" = 500'



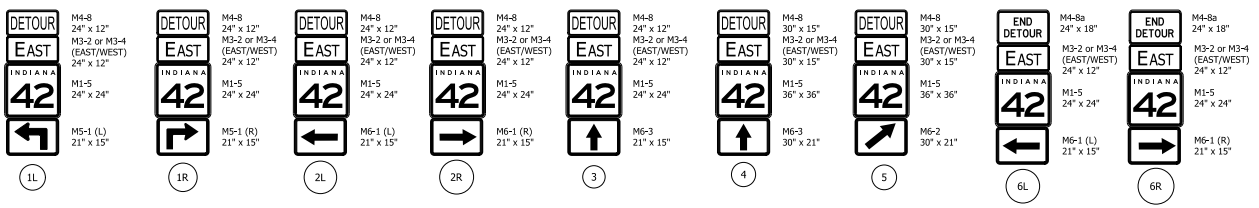
DETAIL "B"
1" = 500'



DETAIL "C"
1" = 500'

MAINTENANCE OF TRAFFIC QUANTITIES				
ITEM	DESCRIPTION	SIZE	QTY	UNIT
Construction Sign, A			35	EACH
XG20-5	Road Closure Notice Sign	60" X 36"	2	
XW20-3	Road Closed Ahead	48" x 48"	29	
XW20-2	Detour Ahead	48" x 48"	2	
XW20-1-A	Road Work Ahead	48" x 48"	2	
Road Closure Sign Assembly			8	EACH
Barricades, III-A	24 Lft. per Location		96	LFT
Barricades, III-B	24 Lft. per Location		48	LFT
Detour Route Marker Assembly			33	EACH

DETOUR ROUTE MARKER ASSEMBLY LEGEND



NOTES

1. Detour Route Marker Assemblies shall be in accordance with Standard Drawing 801-TCDT-04. Sign spacing shall be in accordance with Standard Drawing 801-TCDT-01.
2. Type B Construction Warning Lights shall be used with all signs located on barricades. Type A Construction Warning Lights shall be used on all other construction signs.
3. Access to all drives and field entrances shall be maintained during construction.
4. Contractor may utilize phased construction to construct shorter segments. Local traffic may utilize unofficial detours as needed. Contractor to adjust signs and sign messages accordingly.

LEGEND

- (A) "ROAD CLOSED AHEAD" - W20-3 - 36" x 36"
- (B) "DETOUR AHEAD" - W20-2 - 36" x 36"
- (C) Type III-A Barricades - 36 Lft Required
- (D) Road Closure Sign Assembly with "ROAD CLOSED" - R11-2 - 48" x 30"
- Construction Sign
- Detour Route

STAGE 2 PLANS NOT FOR CONSTRUCTION

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE

DESIGNED: SMR DRAWN: SMR

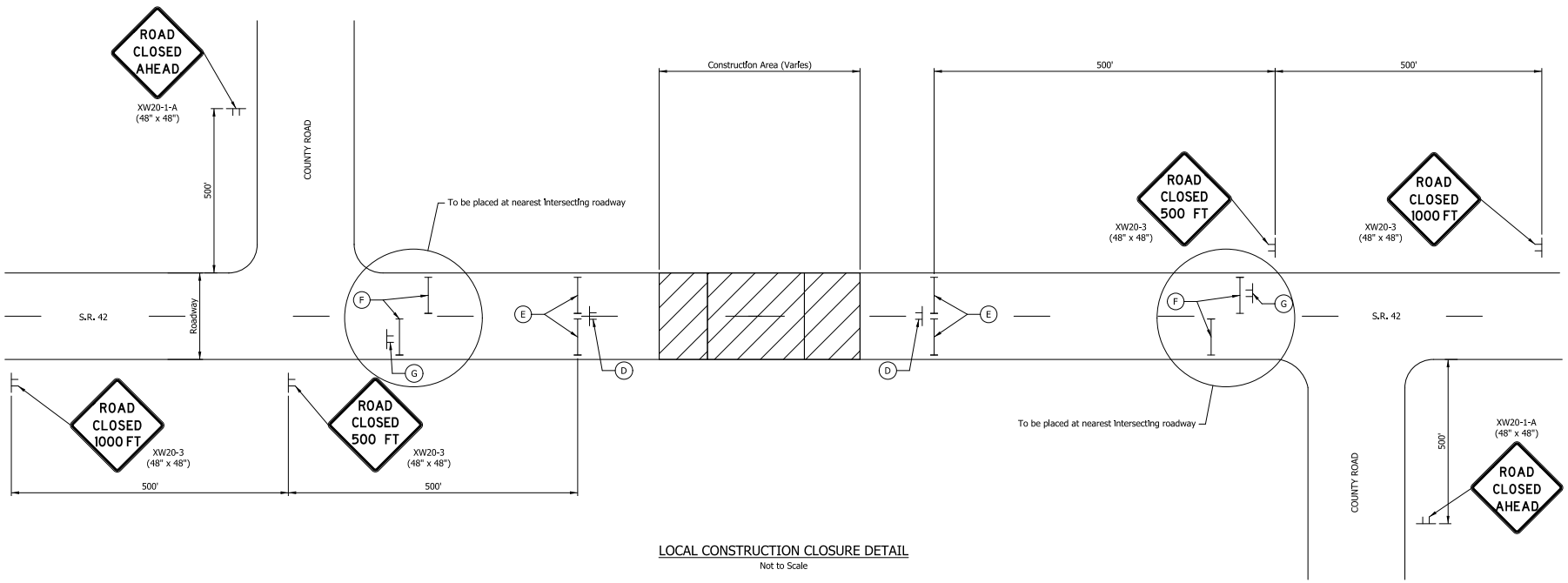
CHECKED: KCH/RA CHECKED: KCH/RA

INDIANA
DEPARTMENT OF TRANSPORTATION

MAINTENANCE OF TRAFFIC
DETOUR ROUTE DETAILS

HORIZONTAL SCALE	BRIDGE FILE
AS NOTED	N/A
VERTICAL SCALE	DESIGNATION
N/A	2200184
SURVEY BOOK	
ELECTRONIC	15 of 108
CONTRACT	PROJECT
R-45322	2200184

Plot: 1/12/2026 10:03:55 AM
File: H:\Projects\2021\Engineering\21EN034_SR_42_HMA_OVERLAY_SJCA\CAD\Sheets\21EN034_Detour_Route.dgn
Model: Sheet 2



LOCAL CONSTRUCTION CLOSURE DETAIL

Not to Scale

LEGEND

- (D) Road Closure Sign Assembly with "ROAD CLOSED" - R11-2 - 48" x 30"
- (E) Type III-A Barricades - 12 Lft each
- (F) Type III-B Barricades - 12 Lft each
- (G) Road Closure Sign Assembly with "ROAD CLOSED X MILES AHEAD LOCAL TRAFFIC ONLY" - R11-3 - 60" x 30"
- Construction Sign

STAGE 2 PLANS NOT FOR CONSTRUCTION

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE

DESIGNED: HA DRAWN: HA

CHECKED: GAH CHECKED: GAH

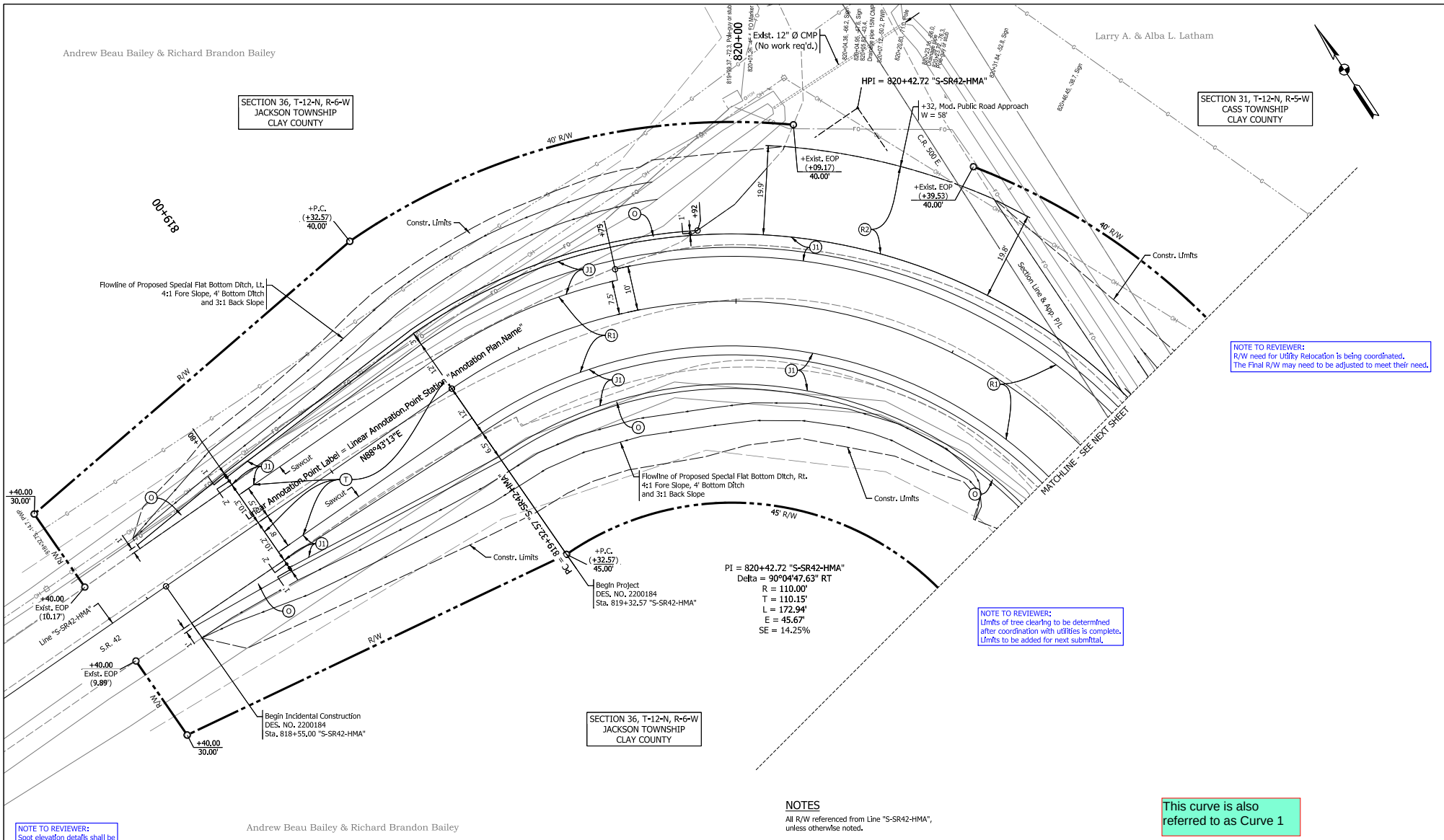
INDIANA DEPARTMENT OF TRANSPORTATION

MAINTENANCE OF TRAFFIC

HORIZONTAL SCALE	BRIDGE FILE
NOT TO SCALE	N/A
VERTICAL SCALE	DESIGNATION
N/A	2200184
SURVEY BOOK	
ELECTRONIC	16 of 108
CONTRACT	PROJECT
R-45322	2200184

Plot: 1/12/2026 10:03:57 AM

File: H:\Projects\2021\Engineering\21EN034_SR_42_HMA_OVERLAY_SJCA\CAD\Sheets\21EN034_MOT_Closure.dgn
Model: MOT SHEET



LEGEND

- (J1) Full-Depth HMA Pavement for Shoulder Widening (See Typical Sections)
- (K1) Full-Depth HMA Pavement for Lane Widening (See Typical Sections)
- (O) Compacted Aggregate, No. 53 (See Typical Sections)
- (R1) HMA Milling and Overlay (See Typical Sections)
- (R2) HMA Milling and Overlay for Approaches (See Typical Sections)
- (D) Compacted Aggregate, No. 53 (for drives) (depth = 10" max.)
- (T) Transition, Milling

STAGE 2 PLANS NOT FOR CONSTRUCTION

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER _____ DATE

DESIGNED: KCH | DRAWN: KCH / HA

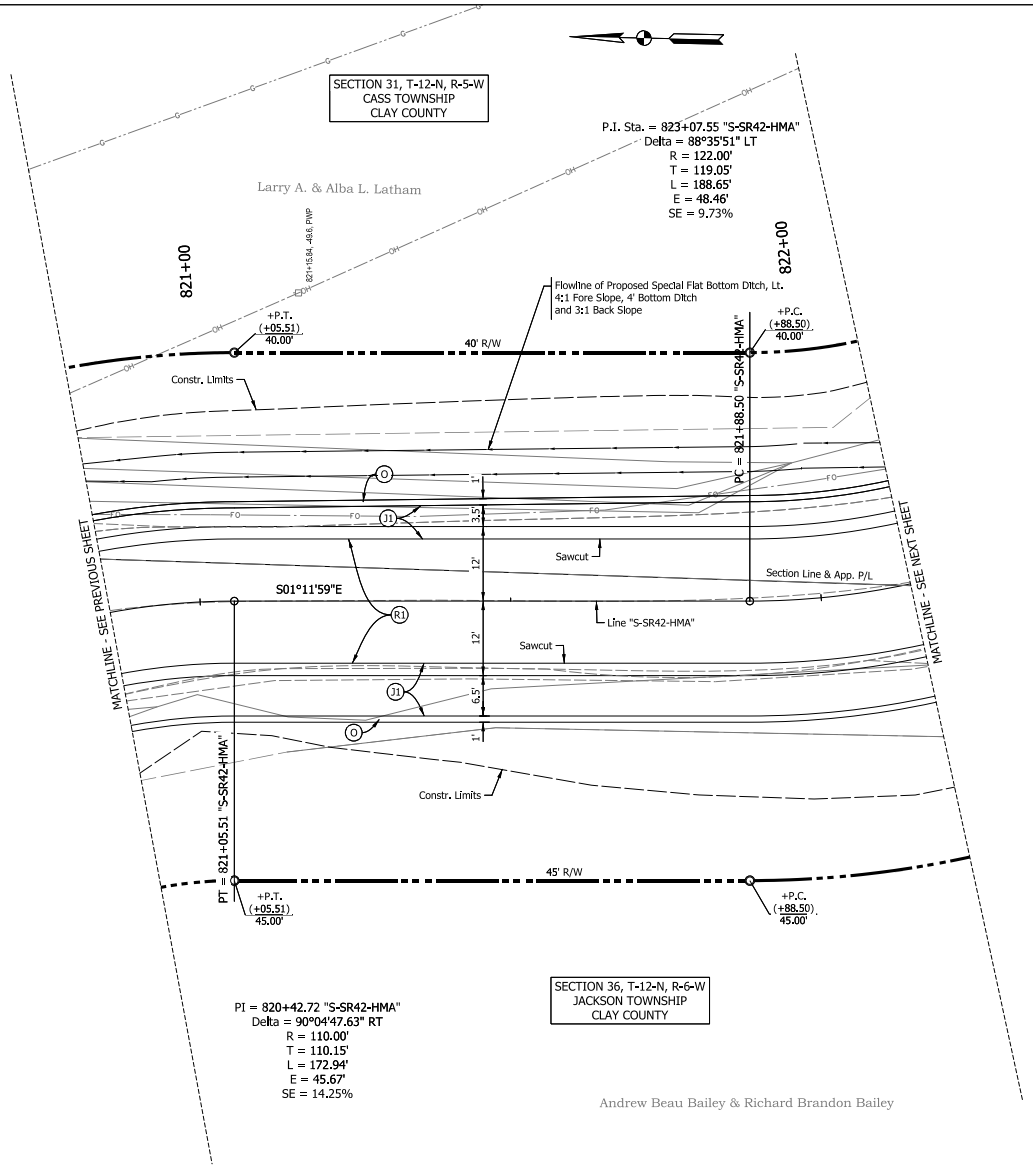
CHECKED: MAH | CHECKED: MAH

INDIANA
DEPARTMENT OF TRANSPORTATION

PLAN SHEET
CURVE SW1 (PI 820+43 AND PI 823+08)

HORIZONTAL SCALE	BRIDGE FILE
1" = 10'	N/A
VERTICAL SCALE	DESIGNATION
N/A	2200184
SURVEY BOOK	
ELECTRONIC	18 of 108
CONTRACT	PROJECT
R-45322	2200184

Plot: 3/12/2026 10:04:06 AM
File: H:\Projects\2021\Engineering\21EN034_SR_42_HMA_OVERLAY_SJCA\CAD\Sheets\21EN034_CurveDet_82043-82308.dgn
Model: ConstrDetail_Curve_01



This curve is also referred to as Curve 1

LEGEND

- (J1) Full-Depth HMA Pavement for Shoulder Widening (See Typical Sections)
- (K1) Full-Depth HMA Pavement for Lane Widening (See Typical Sections)
- (O) Compacted Aggregate, No. 53 (See Typical Sections)
- (R1) HMA Milling and Overlay (See Typical Sections)
- (R2) HMA Milling and Overlay for Approaches (See Typical Sections)
- (D) Compacted Aggregate, No. 53 (for drives) (depth = 10" max.)
- (T) Transition, Milling

STAGE 2 PLANS NOT FOR CONSTRUCTION

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE

DESIGNED: KCH | DRAWN: KCH / HA

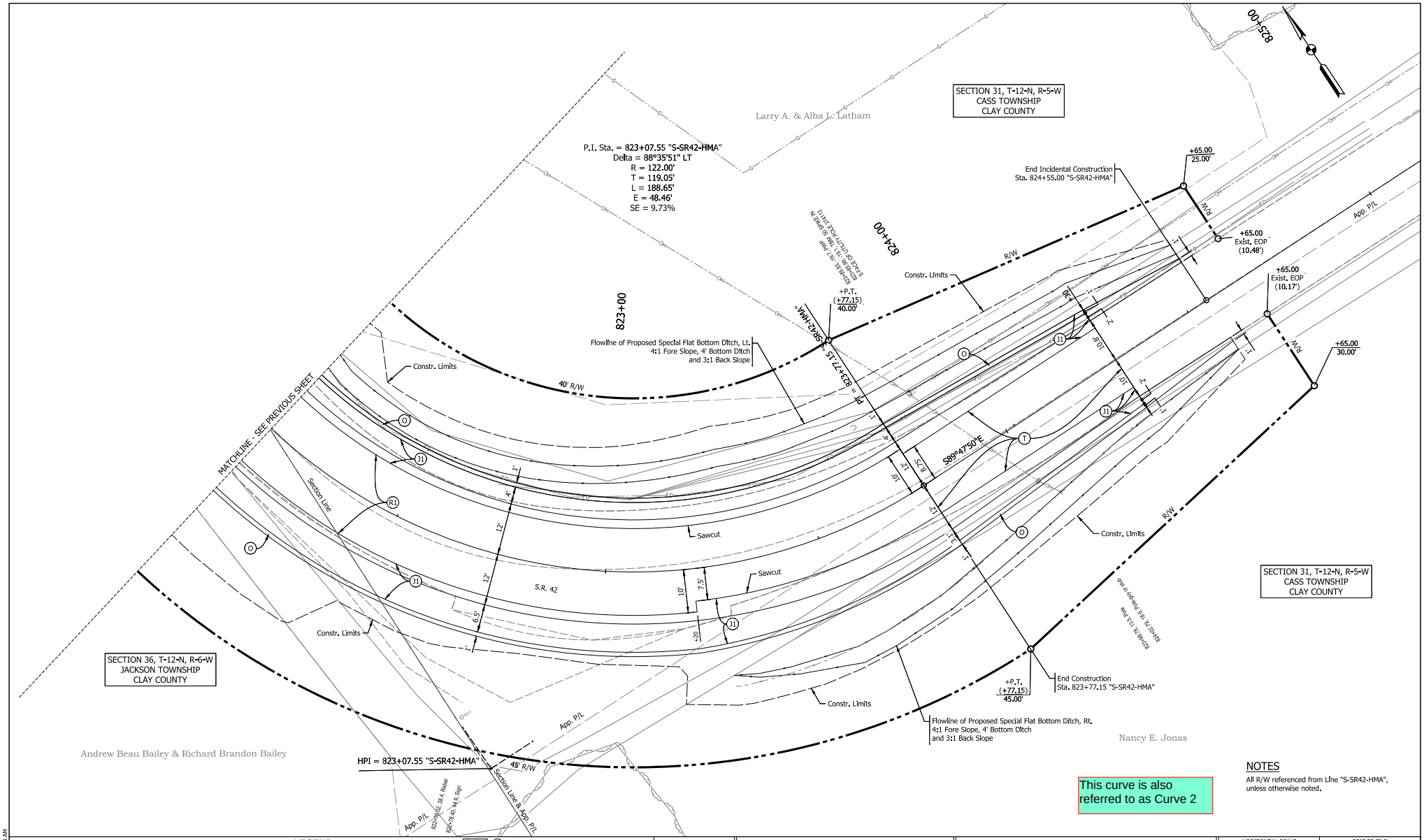
CHECKED: MAH | CHECKED: MAH

INDIANA
DEPARTMENT OF TRANSPORTATION

PLAN SHEET
CURVE SW1 (PI 820+43 AND PI 823+08)

HORIZONTAL SCALE	BRIDGE FILE
1" = 10'	N/A
VERTICAL SCALE	DESIGNATION
N/A	2200184
SURVEY BOOK	
ELECTRONIC	20 of 108
CONTRACT	PROJECT
R-45322	2200184

Plot: 3/12/2026 10:04:07 AM
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Model: ConstrDetail_Curve_01a



LEGEND

- (J1) Full-Depth HMA Pavement for Shoulder Widening (See Typical Sections)
- (K1) Full-Depth HMA Pavement for Lane Widening (See Typical Sections)
- (O) Compacted Aggregate, No. 53 (See Typical Sections)
- (R1) HMA Milling and Overlay (See Typical Sections)
- (R2) HMA Milling and Overlay for Approaches (See Typical Sections)
- (D) Compacted Aggregate, No. 53 (for drives) (depth = 10" max.)
- (T) Transition, Milling

STAGE 2 PLANS NOT FOR CONSTRUCTION

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER _____ DATE

DESIGNED: KCH | DRAWN: KCH / HA

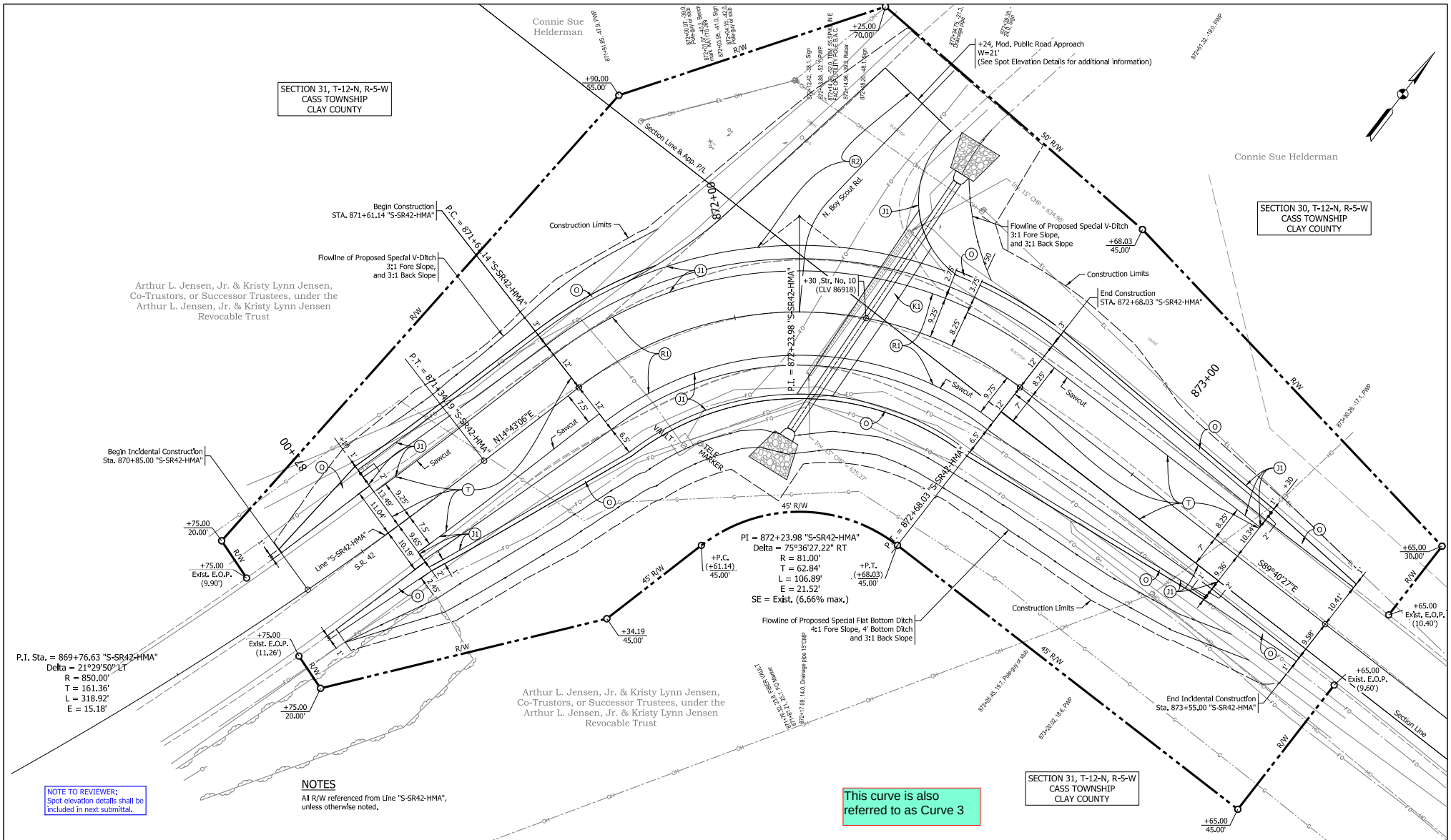
CHECKED: MAH | CHECKED: MAH

INDIANA
DEPARTMENT OF TRANSPORTATION

PLAN SHEET
CURVE SW1 (PI 820+43 AND PI 823+08)

HORIZONTAL SCALE	BRIDGE FILE
1" = 10'	N/A
VERTICAL SCALE	DESIGNATION
N/A	2200184
SURVEY BOOK	
ELECTRONIC	22 of 108
CONTRACT	PROJECT
R-45322	2200184

Plot: 3/12/2026 10:04:08 AM
File: H:\Projects\2021\Engineering\21EN034_SR_42_HMA_OVERLAY_SJCA\CAD\Sheets\21EN034_CurveDet_82043-82308.dgn
Model: ConstrDetail_Curve_01b



LEGEND

- (J1) Full-Depth HMA Pavement for Shoulder Widening (See Typical Sections)
- (K1) Full-Depth HMA Pavement for Lane Widening (See Typical Sections)
- (O) Compacted Aggregate, No. 53 (See Typical Sections)
- (R1) HMA Milling and Overlay (See Typical Sections)
- (R2) HMA Milling and Overlay for Approaches (See Typical Sections)
- (D) Compacted Aggregate, No. 53 (for drives) (depth = 10" max.)
- (T) Transition, Milling

STAGE 2 PLANS NOT FOR CONSTRUCTION

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER _____ DATE

DESIGNED: KCH DRAWN: KCH / HA

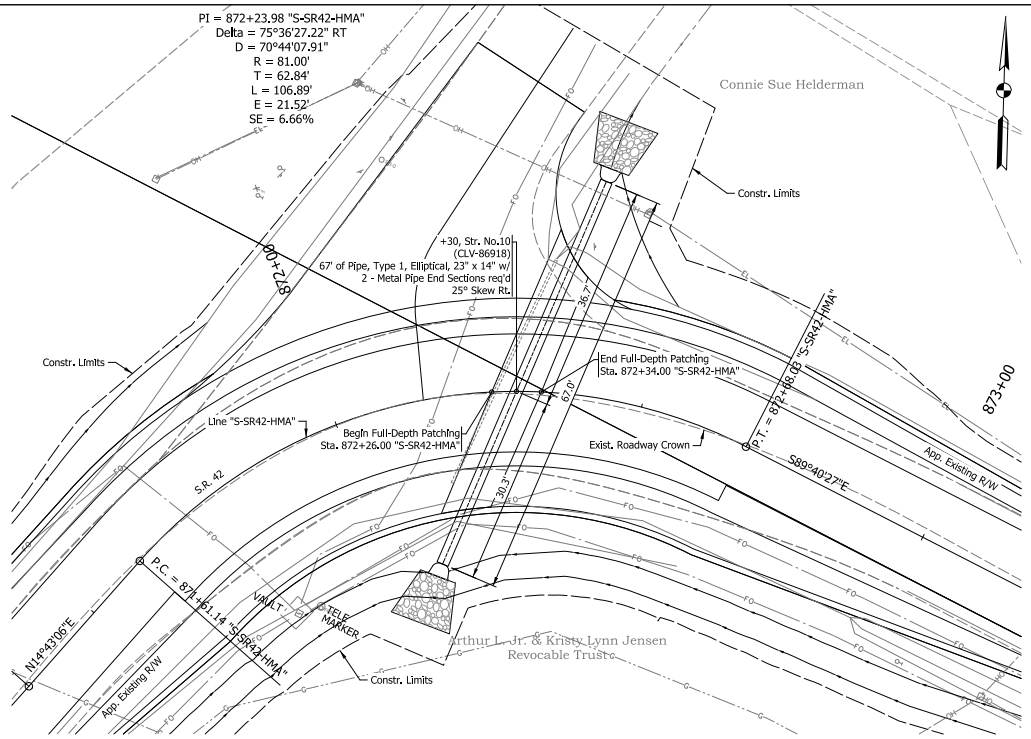
CHECKED: SG CHECKED: SG

INDIANA DEPARTMENT OF TRANSPORTATION

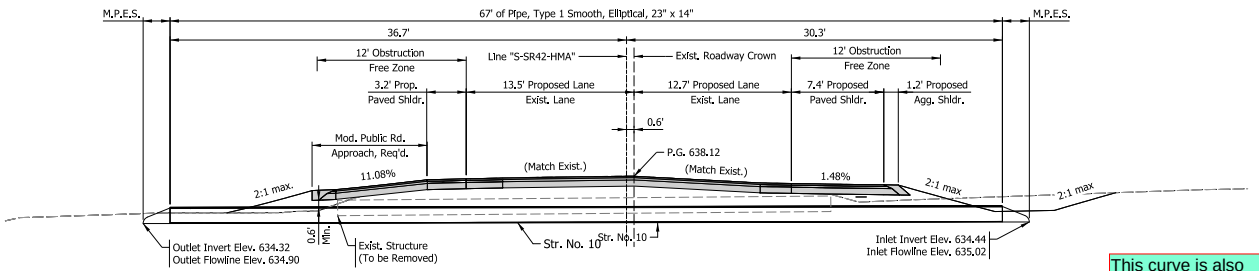
PLAN SHEET
CURVE SW2 (PI 872+24)

HORIZONTAL SCALE	BRIDGE FILE
1" = 10'	N/A
VERTICAL SCALE	DESIGNATION
N/A	2200184
SURVEY BOOK	
ELECTRONIC	24 of 108
CONTRACT	PROJECT
R-45322	2200184

Plot: 3/12/2026 10:04:12 AM
File: H:\Projects\2021\Engineering\21EN034_SR_42_HMA_OVERLAY_SJCA\CAD\Sheets\21EN034_CurveDet_87224.dgn
Model: ConstrDetail_Curve_02



PLAN
Scale: 1" = 10'



SECTION ALONG STRUCTURE AND DITCH CENTERLINE
Scale: 1" = 5'

HYDRAULIC DATA

Drainage Area	1.37 acres
Design Discharge (Q50)	1.55 cfs
Design Discharge (Q100)	1.69 cfs
Proposed Backwater (Q100)	0.85 ft
Proposed Avg. Velocity (Q50)	3.04 ft/sec
Proposed Headwater Elev. (Q100)	635.93 ft
Proposed Headwater Elev. (Q50)	635.84 ft
Proposed Outlet Flowline Elev.	634.90 ft
Proposed Minimum Low Str. Elev.	635.49 ft
Proposed Roadway Serviceability Elev.	636.64 ft
Proposed Sump	7 in

This curve is also referred to as Curve 3

NOTES

Contractor shall verify the existing flowline elevation to set the appropriate sump depth.

STAGE 2 PLANS NOT FOR CONSTRUCTION

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE

DESIGNED: RA DRAWN: KCH/RA

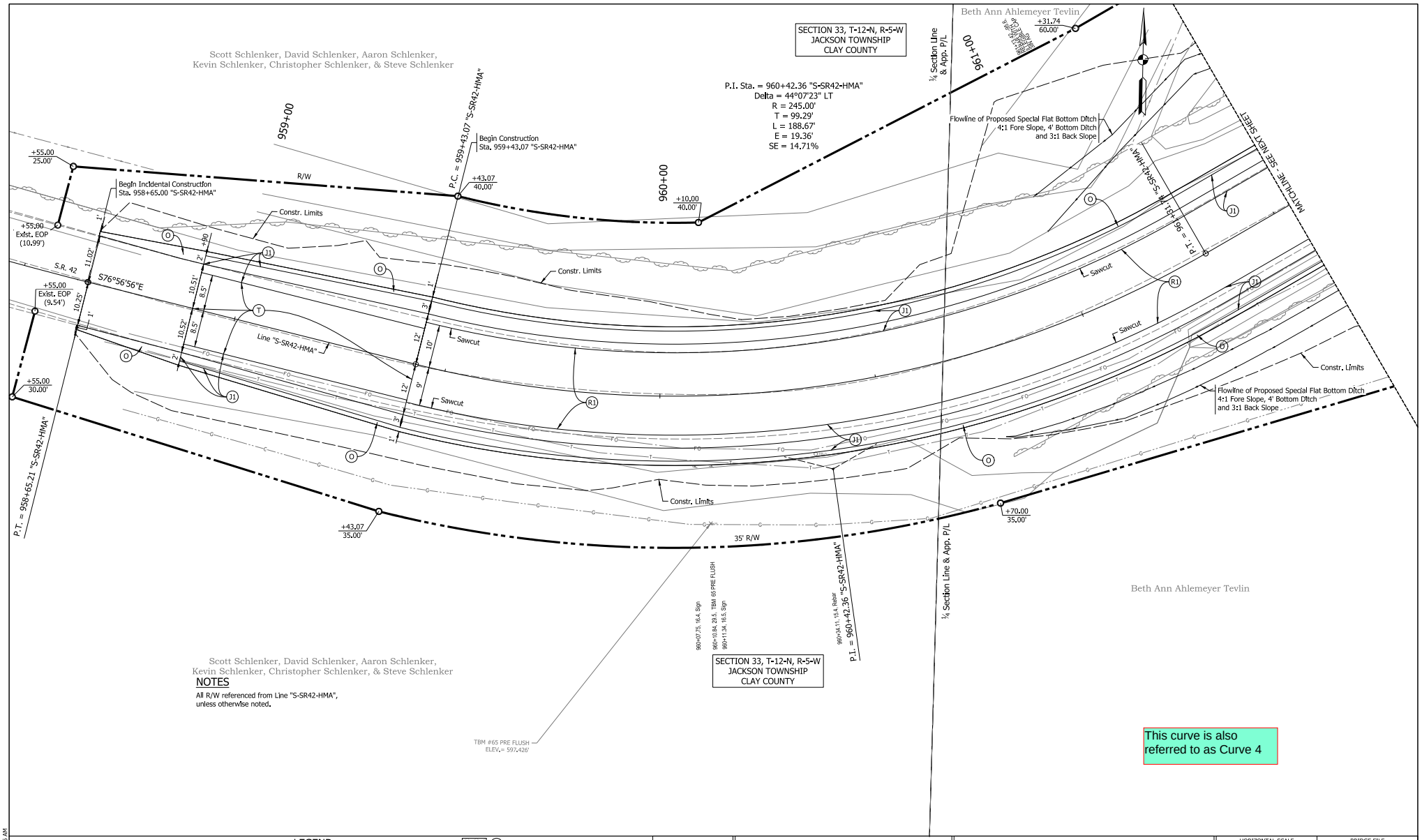
CHECKED: SRM CHECKED: MDP

INDIANA
DEPARTMENT OF TRANSPORTATION

GENERAL PLAN
CURVE SW2 (PI 872+24) STR. NO. 10
(STR. CLV-86918)

HORIZONTAL SCALE	BRIDGE FILE
AS NOTED	N/A
VERTICAL SCALE	DESIGNATION
AS NOTED	2200184
SURVEY BOOK	SHEETS
ELECTRONIC	48 of 108
CONTRACT	PROJECT
R-45322	2200184

Plot: 1/12/2026 10:04:57 AM
File: H:\Projects\2021\Engineering\21EN034_SR_42_HMA_OVERLAY_SJCA\CAD\Sheets\21EN034_GenPlan_CLV86918.dgn
Model: GenPlan



NOTES

All R/W referenced from Line "S-SR42-HMA", unless otherwise noted.

This curve is also referred to as Curve 4

LEGEND

- (J1) Full-Depth HMA Pavement for Shoulder Widening (See Typical Sections)
- (K1) Full-Depth HMA Pavement for Lane Widening (See Typical Sections)
- (O) Compacted Aggregate, No. 53 (See Typical Sections)
- (R1) HMA Milling and Overlay (See Typical Sections)
- (R2) HMA Milling and Overlay for Approaches (See Typical Sections)
- (D) Compacted Aggregate, No. 53 (for drives) (depth = 10" max.)
- (T) Transition, Milling

STAGE 2 PLANS NOT FOR CONSTRUCTION

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER _____ DATE

DESIGNED: KCH | DRAWN: KCH / HA

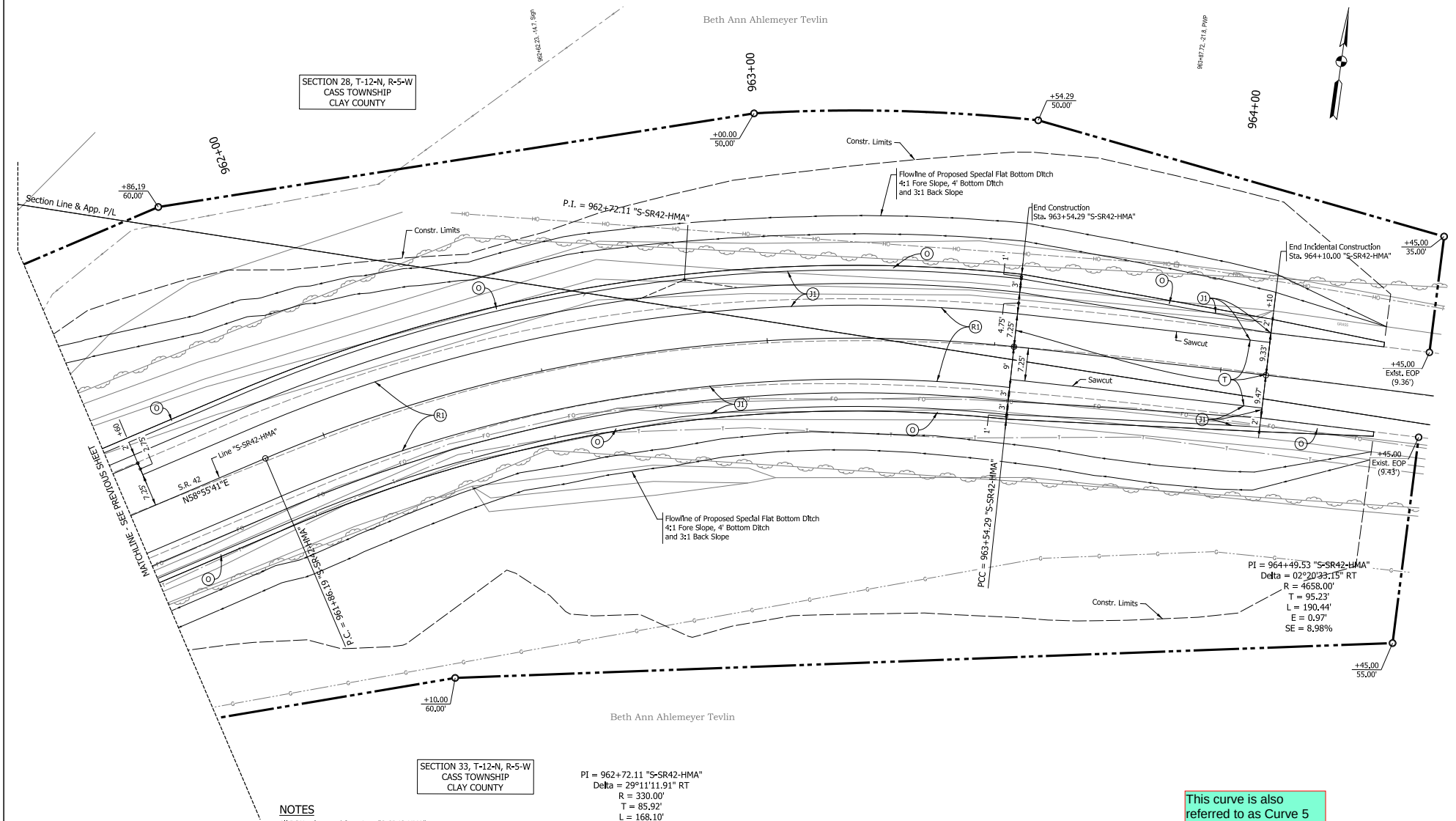
CHECKED: MAH | CHECKED: MAH

INDIANA
DEPARTMENT OF TRANSPORTATION

PLAN SHEET
CURVE SW3 (PI 960+42 AND PI 962+72)

HORIZONTAL SCALE	BRIDGE FILE
1" = 10'	N/A
VERTICAL SCALE	DESIGNATION
N/A	2200184
SURVEY BOOK	
ELECTRONIC	26 of 108
CONTRACT	PROJECT
R-45322	2200184

Plot: 3/12/2026 10:04:16 AM
File: H:\Projects\2021\Engineering\21EN034_SR_42_HMA_OVERLAY_SJCA\CAD\Sheets\21EN034_CurveDet_96042-96272.dgn
Model: ConstrDetail_Curve_03



This curve is also referred to as Curve 5

NOTES

All R/W referenced from Line "S-SR42-HMA", unless otherwise noted.

LEGEND

- (J1) Full-Depth HMA Pavement for Shoulder Widening (See Typical Sections)
- (K1) Full-Depth HMA Pavement for Lane Widening (See Typical Sections)
- (O) Compacted Aggregate, No. 53 (See Typical Sections)
- (R1) HMA Milling and Overlay (See Typical Sections)
- (R2) HMA Milling and Overlay for Approaches (See Typical Sections)
- (D) Compacted Aggregate, No. 53 (for drives) (depth = 10" max.)
- (T) Transition, Milling

STAGE 2 PLANS NOT FOR CONSTRUCTION

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE

DESIGNED: KCH DRAWN: KCH / HA

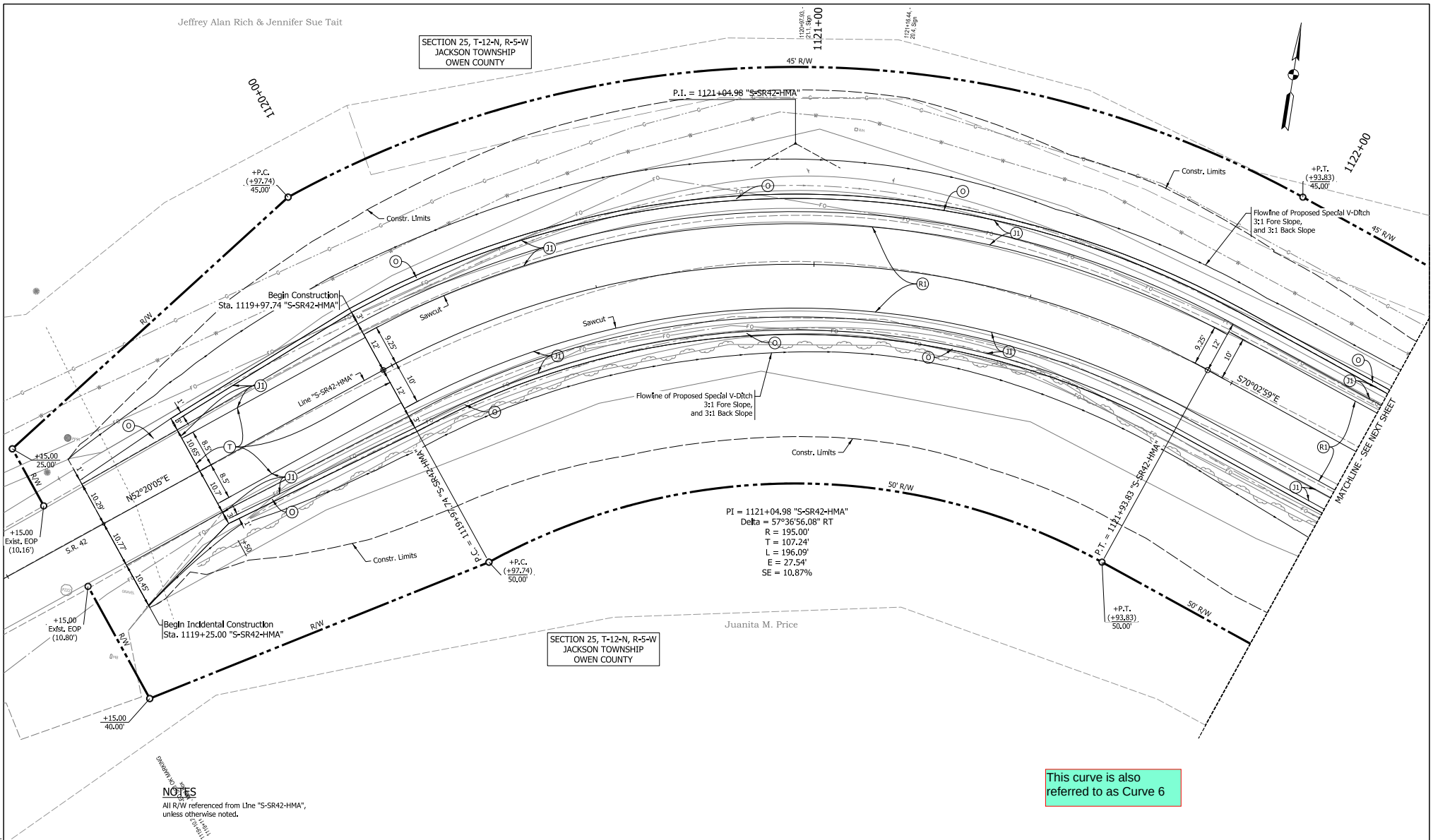
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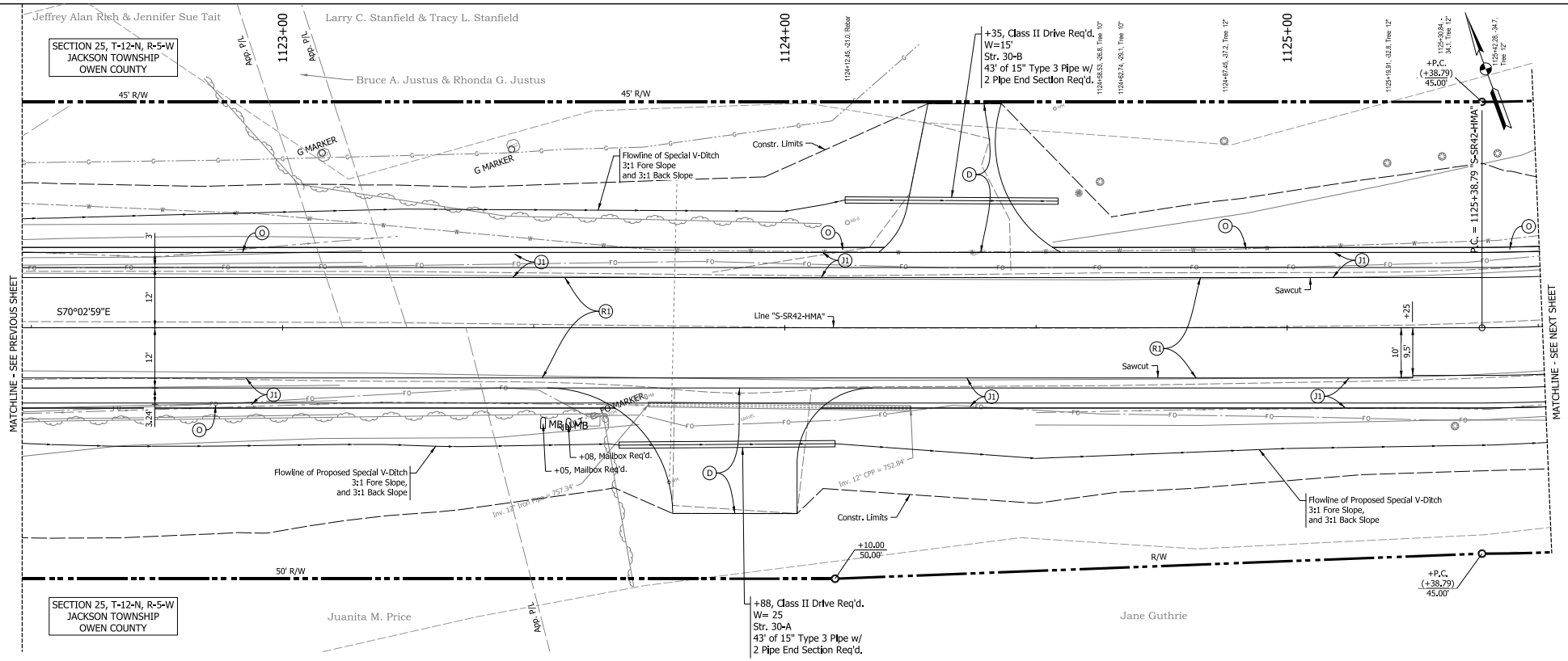
INDIANA
DEPARTMENT OF TRANSPORTATION

PLAN SHEET
CURVE SW3 (PI 960+42 AND PI 962+72)

HORIZONTAL SCALE	BRIDGE FILE
1" = 10'	N/A
VERTICAL SCALE	DESIGNATION
N/A	2200184
SURVEY BOOK	
ELECTRONIC	28 of 108
CONTRACT	PROJECT
R-45322	2200184

Plot: 3/12/2026 10:04:17 AM
File: H:\Projects\2021\Engineering\21EN034_SR_42_HMA_OVERLAY_SJCA\CAD\Sheets\21EN034_CurveDet_96042-96272.dgn
Model: ConstrDetail_Curve_03a


Jeffrey Alan Rich & Jennifer Sue Tait
SECTION 25, T-12-N, R-5-W
JACKSON TOWNSHIP
OWEN COUNTY
1121+00
1120+00
1122+00
45' R/W
P.I. = 1121+04.98 "S-SR42-HMA"
+P.C. (+97.74) 45.00'
+P.T. (+93.83) 45.00'
Constr. Limits
Flowline of Proposed Special V-Ditch 3:1 Fore Slope, and 3:1 Back Slope
Begin Construction Sta. 1119+97.74 "S-SR42-HMA"
Sawcut
Line "S-SR42-HMA"
R/W
J1
R1
O
T
9.25'
12'
10'
S70°02'59"E
N52°20'05"E
10.29'
10.77'
10.45'
8.5'
10.65'
10.7'
+15.00 25.00'
+15.00 Exist. EOP (10.16')
+15.00 Exist. EOP (10.80')
+15.00 40.00'
S.R. 42
Begin Incidental Construction Sta. 1119+25.00 "S-SR42-HMA"
P.C. = 1119+97.74 "S-SR42-HMA"
+P.C. (+97.74) 50.00'
+P.T. (+93.83) 50.00'
P.T. = 1121+93.83 "S-SR42-HMA"
50' R/W
PI = 1121+04.98 "S-SR42-HMA"
Delta = 57°36'56.08" RT
R = 195.00'
T = 107.24'
L = 196.09'
E = 27.54'
SE = 10.87%
Juanita M. Price
SECTION 25, T-12-N, R-5-W
JACKSON TOWNSHIP
OWEN COUNTY
MATCHLINE - SEE NEXT SHEET
NOTES
All R/W referenced from Line "S-SR42-HMA", unless otherwise noted.
This curve is also referred to as Curve 6
LEGEND
J1 Full-Depth HMA Pavement for Shoulder Widening (See Typical Sections)
K1 Full-Depth HMA Pavement for Lane Widening (See Typical Sections)
O Compacted Aggregate, No. 53 (See Typical Sections)
R1 HMA Milling and Overlay (See Typical Sections)
R2 HMA Milling and Overlay for Approaches (See Typical Sections)
D Compacted Aggregate, No. 53 (for drives) (depth = 10" max.)
T Transition, Milling
STAGE 2 PLANS NOT FOR CONSTRUCTION
RECOMMENDED FOR APPROVAL
DESIGN ENGINEER
DATE
DESIGNED: KCH
DRAWN: KCH / HA
CHECKED: MAH
CHECKED: MAH
INDIANA DEPARTMENT OF TRANSPORTATION
PLAN SHEET
CURVE SW4 (PI 1121+05 AND PI 1126+68)
HORIZONTAL SCALE 1" = 10'
BRIDGE FILE N/A
VERTICAL SCALE N/A
DESIGNATION 2200184
SURVEY BOOK
ELECTRONIC 30 of 108
CONTRACT R-45322
PROJECT 2200184
Plot: 3/12/2026 10:04:23 AM
File: H:\Projects\2021\Engineering\21EN034_SR_42_HMA_OVERLAY_SJCA\CAD\Sheets\21EN034_CurveDet_112105-11266&.dgn
Model: ConstrDetail_Curve_04



This curve is also referred to as Curve 6

LEGEND

- (J1) Full-Depth HMA Pavement for Shoulder Widening (See Typical Sections)
- (K1) Full-Depth HMA Pavement for Lane Widening (See Typical Sections)
- (O) Compacted Aggregate, No. 53 (See Typical Sections)
- (R1) HMA Milling and Overlay (See Typical Sections)
- (R2) HMA Milling and Overlay for Approaches (See Typical Sections)
- (D) Compacted Aggregate, No. 53 (for drives) (depth = 10" max.)
- (T) Transition, Milling

STAGE 2: PLANS NOT FOR CONSTRUCTION

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER _____ DATE

DESIGNED: KCH | DRAWN: KCH / HA

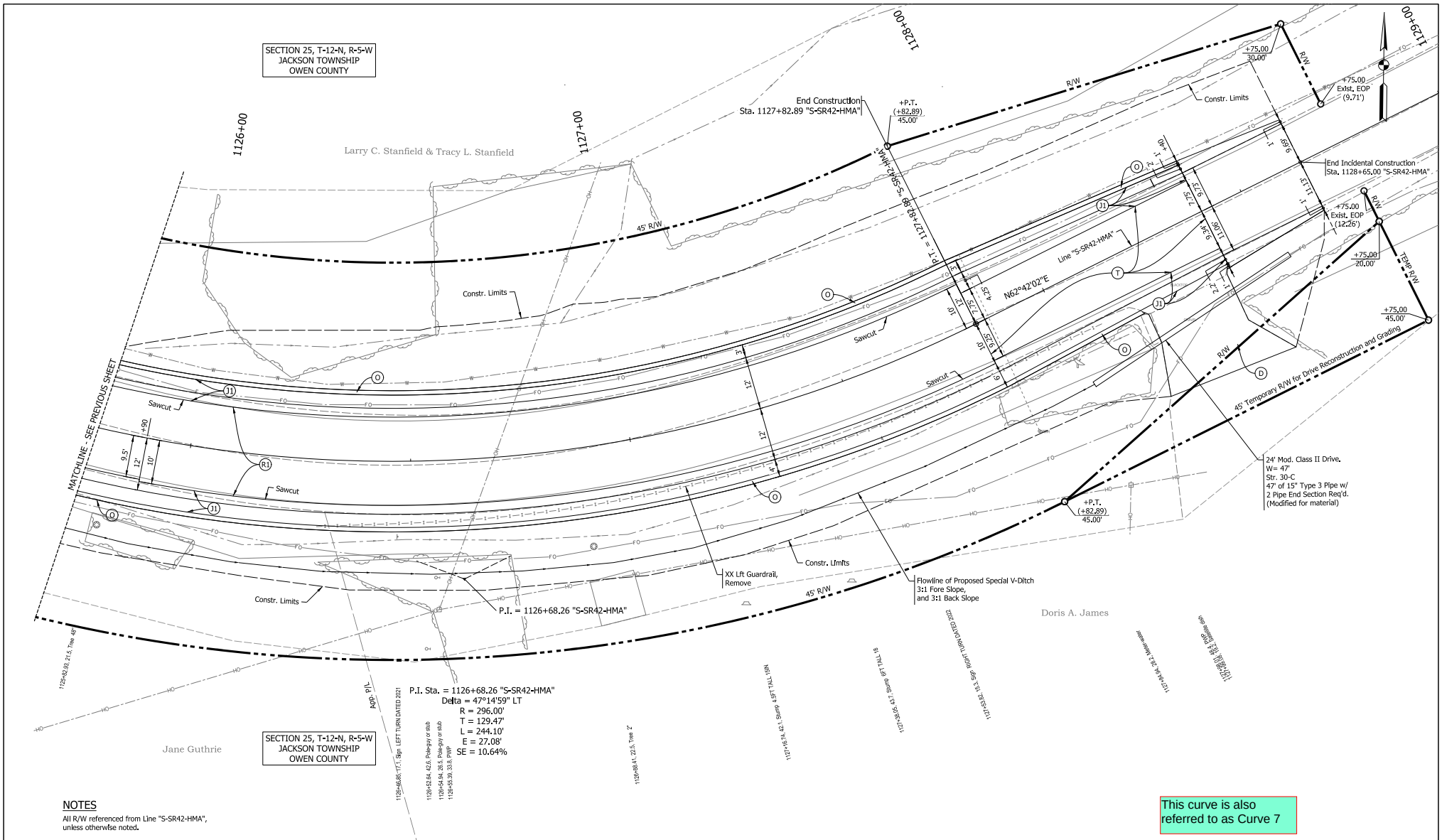
CHECKED: MAH | CHECKED: MAH

INDIANA
DEPARTMENT OF TRANSPORTATION

PLAN SHEET
CURVE SW4 (PI 1121+05 AND PI 1126+68)

HORIZONTAL SCALE	BRIDGE FILE
1" = 10'	N/A
VERTICAL SCALE	DESIGNATION
N/A	2200184
SURVEY BOOK	
ELECTRONIC	32 of 108
CONTRACT	PROJECT
R-45322	2200184

Plot: 3/12/2026 10:04:24 AM
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Model: ConstrDetail_Curve_04-B



NOTES

All R/W referenced from Line "S-SR42-HMA", unless otherwise noted.

This curve is also referred to as Curve 7

LEGEND

- (J1) Full-Depth HMA Pavement for Shoulder Widening (See Typical Sections)
- (K1) Full-Depth HMA Pavement for Lane Widening (See Typical Sections)
- (O) Compacted Aggregate, No. 53 (See Typical Sections)
- (R1) HMA Milling and Overlay (See Typical Sections)
- (R2) HMA Milling and Overlay for Approaches (See Typical Sections)
- (D) Compacted Aggregate, No. 53 (for drives) (depth = 10" max.)
- (T) Transition, Milling

STAGE 2 PLANS NOT FOR CONSTRUCTION

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER _____ DATE

DESIGNED: KCH | DRAWN: KCH / HA

CHECKED: MAH | CHECKED: MAH

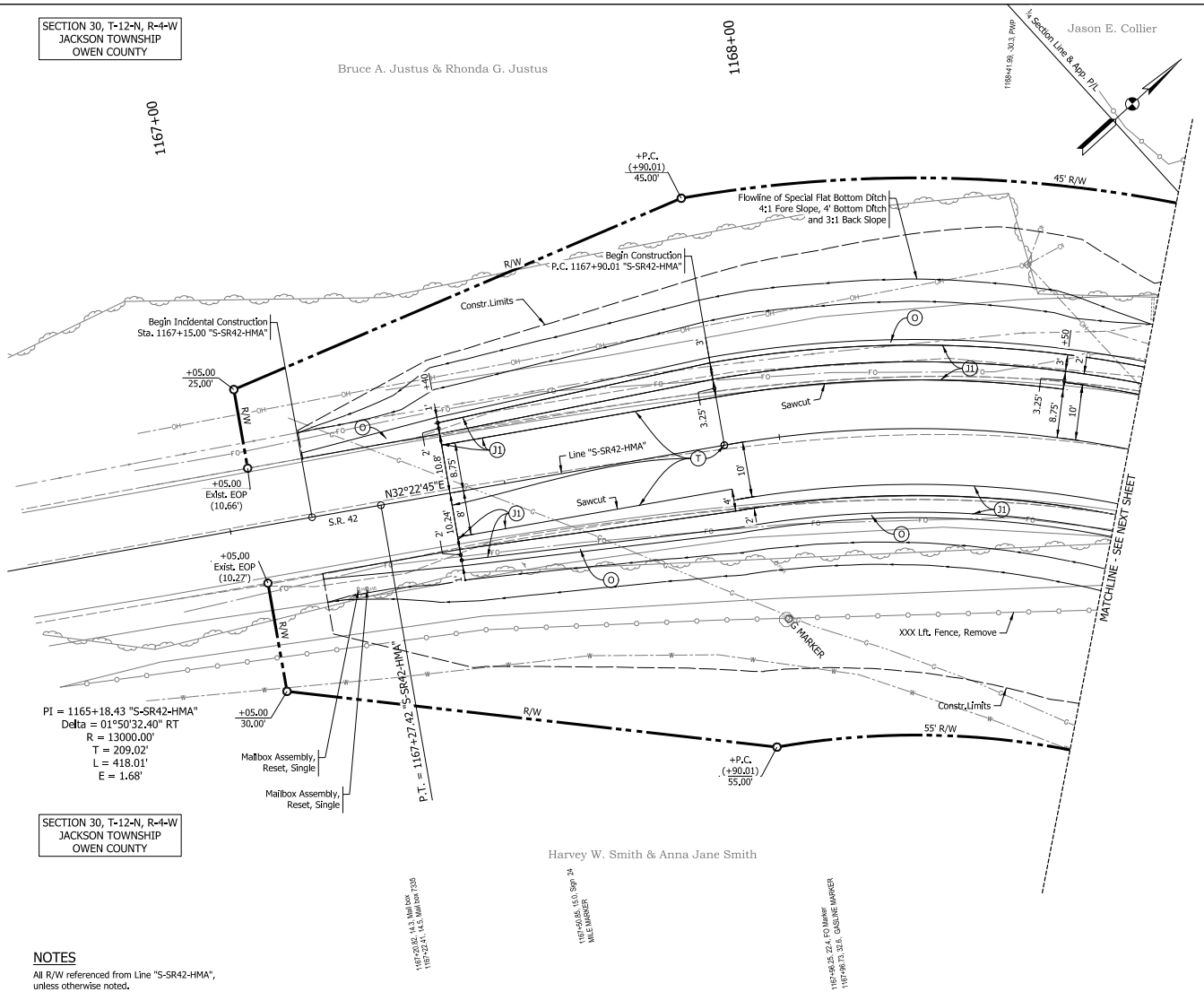
INDIANA
DEPARTMENT OF TRANSPORTATION

PLAN SHEET
CURVE SW4 (PI 1121+05 AND PI 1126+68)

HORIZONTAL SCALE	BRIDGE FILE
1" = 10'	N/A
VERTICAL SCALE	DESIGNATION
N/A	2200184
SURVEY BOOK	
ELECTRONIC	34 of 108
CONTRACT	PROJECT
R-45322	2200184

Plot: 3/12/2026 10:04:24 AM

File:H:\Projects\2021\Engineering\21EN034_SR_42_HMA_OVERLAY_SJCA\CAD\Sheets\21EN034_CurveDet_112105-11266&.dgn
Model:ConstrDetail_Curve_04-C



NOTES

All R/W referenced from Line "S-SR42-HMA", unless otherwise noted.

NOTE TO REVIEWER:
Existing fence within the Proposed R/W limits to be removed and included in quantities. This will be discussed during R/W Purchasing and may be changed with future submittal.

This curve is also referred to as Curve 8

LEGEND

- (J1) Full-Depth HMA Pavement for Shoulder Widening (See Typical Sections)
- (K1) Full-Depth HMA Pavement for Lane Widening (See Typical Sections)
- (O) Compacted Aggregate, No. 53 (See Typical Sections)
- (R1) HMA Milling and Overlay (See Typical Sections)
- (R2) HMA Milling and Overlay for Approaches (See Typical Sections)
- (D) Compacted Aggregate, No. 53 (for drives) (depth = 10" max.)
- (T) Transition, Milling

STAGE 2 PLANS NOT FOR CONSTRUCTION

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE

DESIGNED: KCH DRAWN: KCH / HA

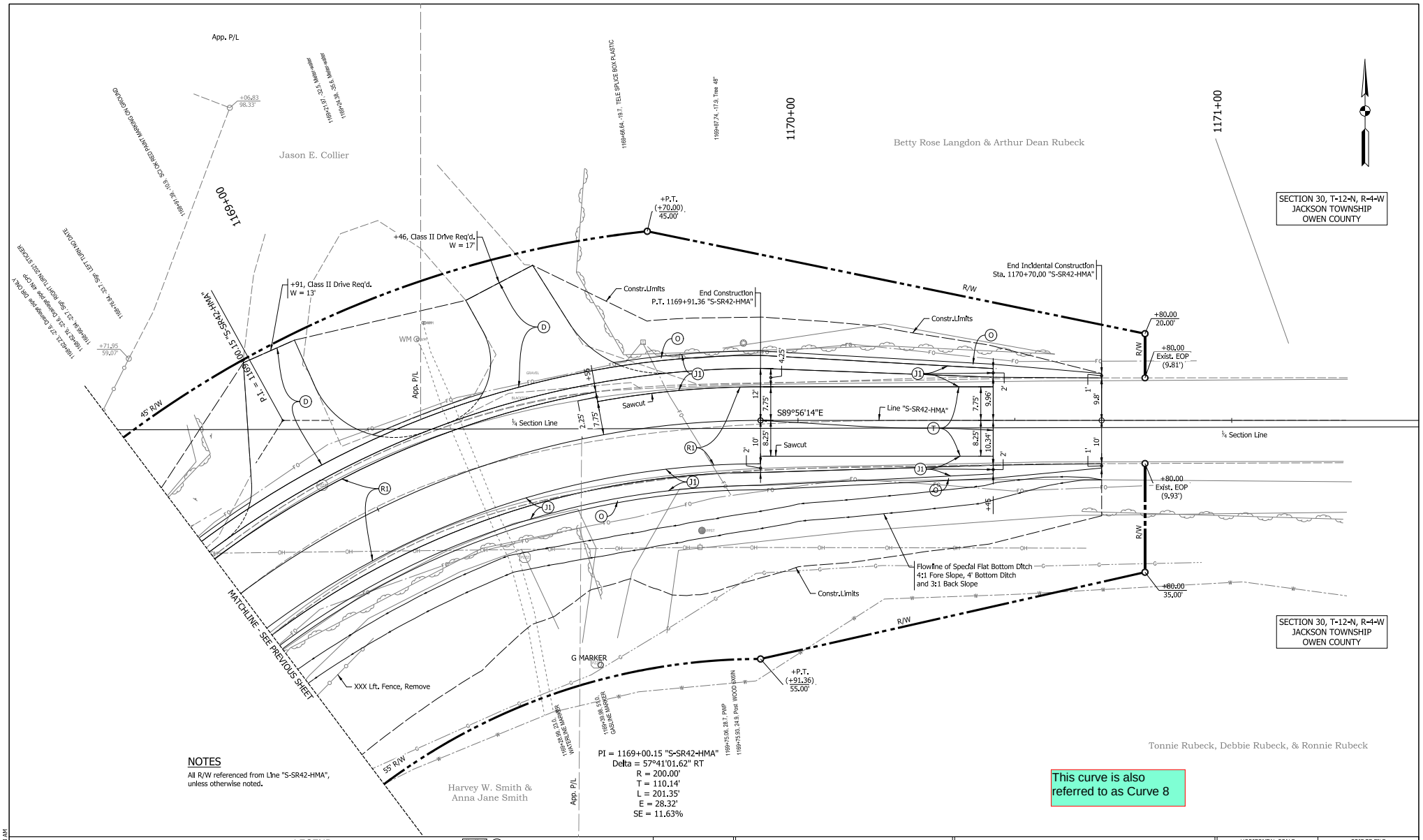
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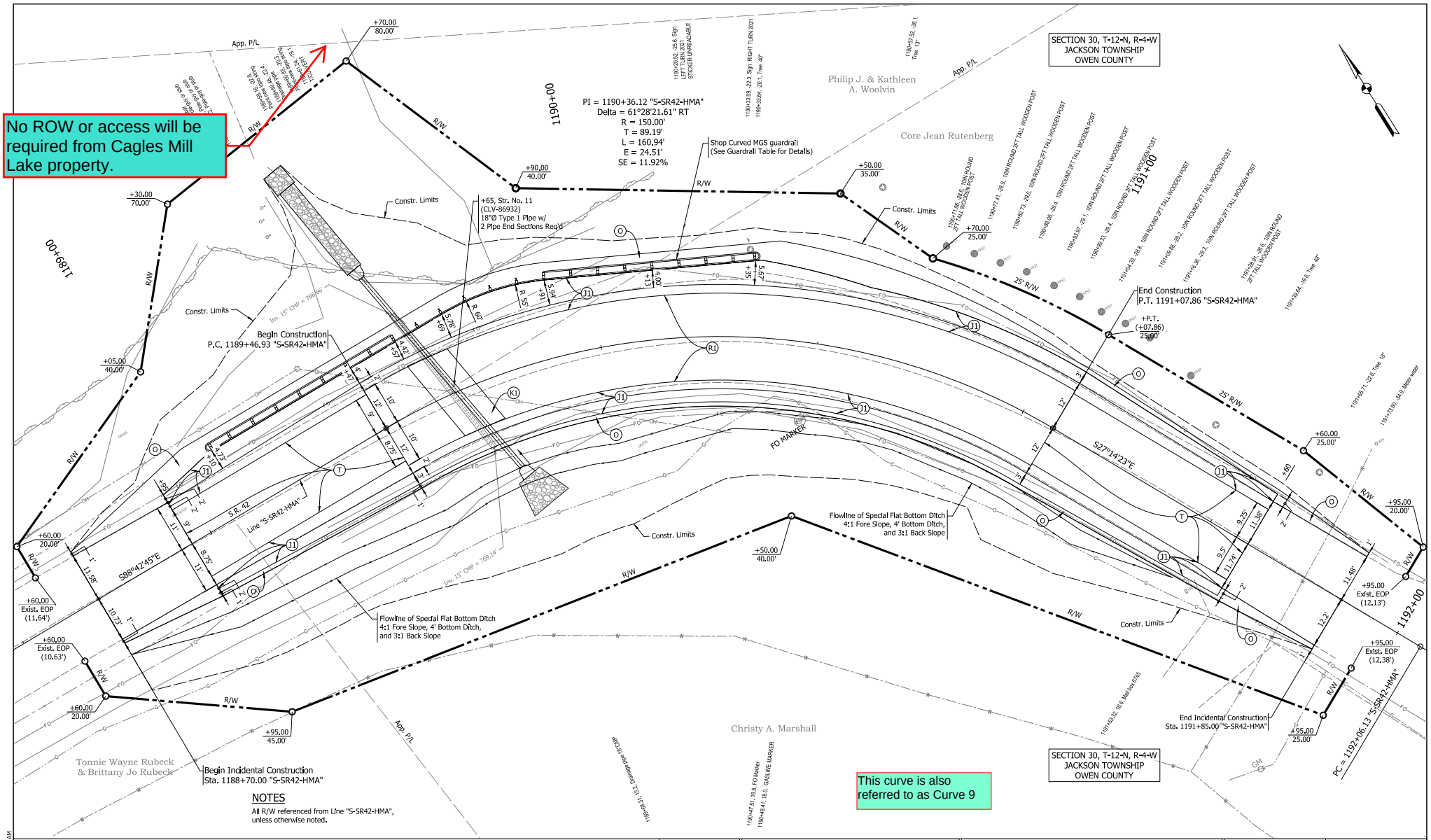
INDIANA DEPARTMENT OF TRANSPORTATION

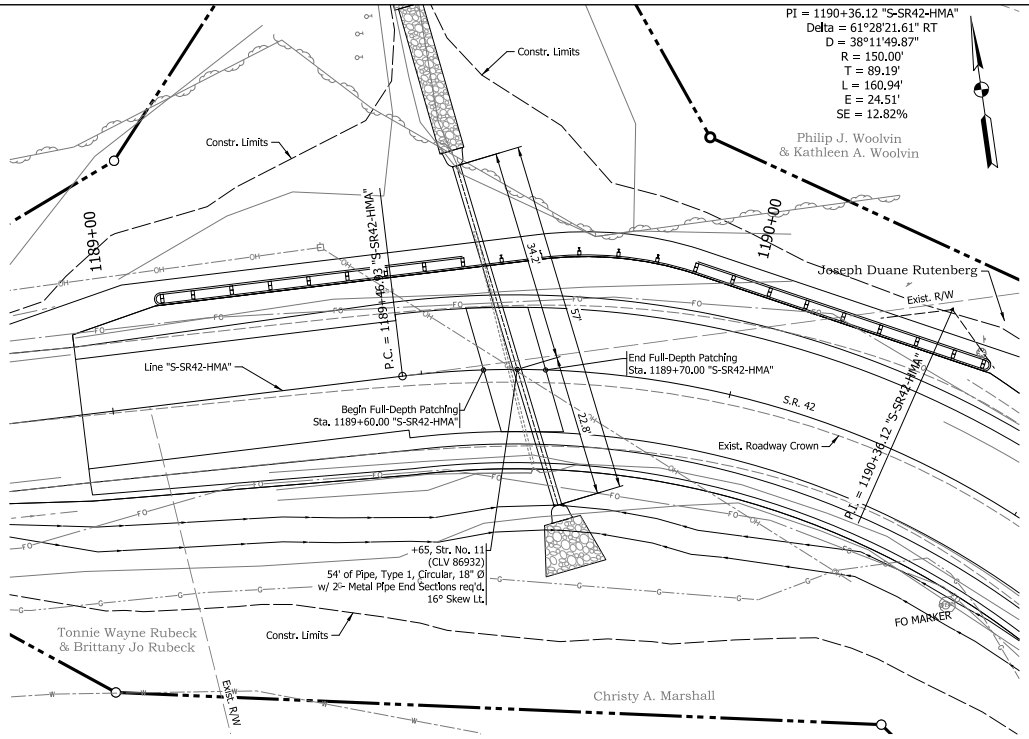
PLAN SHEET
CURVE SW5 (PI 1169+00)

HORIZONTAL SCALE	BRIDGE FILE
1" = 10'	N/A
VERTICAL SCALE	DESIGNATION
N/A	2200184
SURVEY BOOK	
ELECTRONIC	36 of 108
CONTRACT	PROJECT
R-45322	2200184

Plot: 3/12/2026 10:04:33 AM
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Model: ConstrDetail_Curve_06

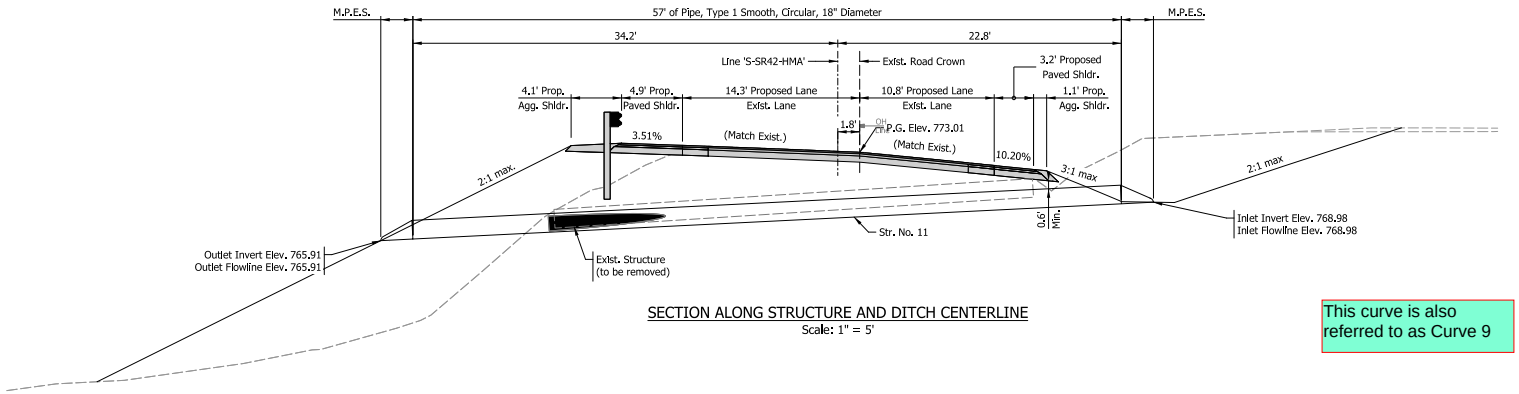

App. P/L
Jason E. Collier
Betty Rose Langdon & Arthur Dean Rubeck
1169+00
1170+00
1171+00
SECTION 30, T-12-N, R-4-W
JACKSON TOWNSHIP
OWEN COUNTY
+P.T.
(+70.00)
45.00'
+46, Class II Drive Req'd.
W = 17'
+91, Class II Drive Req'd.
W = 13'
P.I. = 1169+00.15 "S-SR42-HMA"
45° R/W
Constr.Limits
End Construction
P.T. 1169+91.36 "S-SR42-HMA"
End Incidental Construction
Sta. 1170+70.00 "S-SR42-HMA"
R/W
+80.00
20.00'
+80.00
Exist. EOP
(9.81')
S89°56'14"E
Line "S-SR42-HMA"
¼ Section Line
Sawcut
+80.00
Exist. EOP
(9.93')
Flowline of Special Flat Bottom Ditch
4:1 Fore Slope, 4' Bottom Ditch
and 3:1 Back Slope
+80.00
35.00'
MATCHLINE SEE PREVIOUS SHEET
XXX Lft. Fence, Remove
G MARKER
+P.T.
(+91.36)
55.00'
55' R/W
Harvey W. Smith &
Anna Jane Smith
Tonnie Rubeck, Debbie Rubeck, & Ronnie Rubeck
PI = 1169+00.15 "S-SR42-HMA"
Delta = 57°41'01.62" RT
R = 200.00'
T = 110.14'
L = 201.35'
E = 28.32'
SE = 11.63%
This curve is also
referred to as Curve 8
NOTES
All R/W referenced from Line "S-SR42-HMA",
unless otherwise noted.
LEGEND
J1 Full-Depth HMA Pavement for Shoulder Widening (See Typical Sections)
K1 Full-Depth HMA Pavement for Lane Widening (See Typical Sections)
O Compacted Aggregate, No. 53 (See Typical Sections)
R1 HMA Milling and Overlay (See Typical Sections)
R2 HMA Milling and Overlay for Approaches (See Typical Sections)
D Compacted Aggregate, No. 53 (for drives) (depth = 10" max.)
T Transition, Milling
STAGE 2 PLANS NOT FOR CONSTRUCTION
RECOMMENDED FOR APPROVAL
DESIGN ENGINEER
DATE
DESIGNED: KCH
DRAWN: KCH / HA
CHECKED: MAH
CHECKED: MAH
INDIANA
DEPARTMENT OF TRANSPORTATION
PLAN SHEET
CURVE SW5 (PI 1169+00)
HORIZONTAL SCALE 1" = 10'
VERTICAL SCALE N/A
BRIDGE FILE N/A
DESIGNATION 2200184
SURVEY BOOK
ELECTRONIC 38 of 108
CONTRACT R-45322
PROJECT 2200184
Plot: 3/12/2026 10:04:38 AM
File:H:\Projects\2021\Engineering\21EN034_SR_42_HMA_OVERLAY_SJCA\CAD\Sheets\21EN034_CurveDet_116900.dgn
Model:ConstrDetail_Curve_06b


No ROW or access will be required from Cagles Mill Lake property.
PI = 1190+36.12 "S-SR42-HMA"
Delta = 61°28'21.61" RT
R = 150.00'
T = 89.19'
L = 160.94'
E = 24.51'
SE = 11.92%
Shop Curved MGS guardrail (See Guardrail Table for Details)
+65, Str. No. 11 (CLV-86932) 18"Ø Type 1 Pipe w/ 2 Pipe End Sections Req'd
Begin Construction P.C. 1189+46.93 "S-SR42-HMA"
End Construction P.T. 1191+07.86 "S-SR42-HMA"
Begin Incidental Construction Sta. 1188+70.00 "S-SR42-HMA"
End Incidental Construction Sta. 1191+85.00 "S-SR42-HMA"
PC = 1192+06.13 "S-SR42-HMA"
SECTION 30, T-12-N, R-4-W JACKSON TOWNSHIP OWEN COUNTY
Philip J. & Kathleen A. Woolvin
Core Jean Rutenberg
Christy A. Marshall
Tonnie Wayne Rubeck & Brittany Jo Rubeck
Constr. Limits
Flowline of Special Flat Bottom Ditch 4:1 Fore Slope, 4' Bottom Ditch, and 3:1 Back Slope
S88°42'45"E
S27°14'23"E
S.R. 42
Line "S-SR42-HMA"
FO MANKER
NOTES
All R/W referenced from Line "S-SR42-HMA", unless otherwise noted.
This curve is also referred to as Curve 9
LEGEND
J1 Full-Depth HMA Pavement for Shoulder Widening (See Typical Sections)
K1 Full-Depth HMA Pavement for Lane Widening (See Typical Sections)
O Compacted Aggregate, No. 53 (See Typical Sections)
R1 HMA Milling and Overlay for Mainline (See Typical Sections)
R2 HMA Milling and Overlay for Approaches (See Typical Sections)
STAGE 2: PLANS NOT FOR CONSTRUCTION
RECOMMENDED FOR APPROVAL
DESIGN ENGINEER
DATE
DESIGNED: KCH
DRAWN: KCH / HA
CHECKED: MAH
CHECKED: MAH
INDIANA DEPARTMENT OF TRANSPORTATION
PLAN SHEET
CURVE SW6 (PI 1190+36)
HORIZONTAL SCALE 1" = 10'
VERTICAL SCALE N/A
BRIDGE FILE N/A
DESIGNATION 2200184
SURVEY BOOK
ELECTRONIC 40 of 108
CONTRACT R-45322
PROJECT 2200184
Plot: 3/12/2026 10:04:41 AM
File: H:\Projects\2021\Engineering\21EN034_SR_42_HMA_OVERLAY_SJCA\CAD\Sheets\21EN034_CurveDet_119036.dgn
Model: ConstrDetail_Curve_07



PLAN

Scale: 1" = 10'



SECTION ALONG STRUCTURE AND DITCH CENTERLINE

Scale: 1" = 5'

This curve is also referred to as Curve 9

HYDRAULIC DATA

Drainage Area	1.12 acres
Design Discharge (Q50)	2.44 cfs
Design Discharge (Q100)	2.69 cfs
Proposed Backwater (Q100)	3.10 ft
Proposed Avg. Velocity (Q50)	8.90 ft/sec
Proposed Headwater Elev. (Q100)	769.84 ft
Proposed Headwater Elev. (Q50)	769.79 ft
Proposed Outlet Flowline Elev.	765.91 ft
Proposed Minimum Low Str. Elev.	768.16 ft
Proposed Roadway Serviceability Elev.	771.43 ft
Proposed Sump	0 in

STAGE 2 PLANS NOT FOR CONSTRUCTION

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE

DESIGNED: RA DRAWN: KCH/RA

CHECKED: SRM CHECKED: MDP

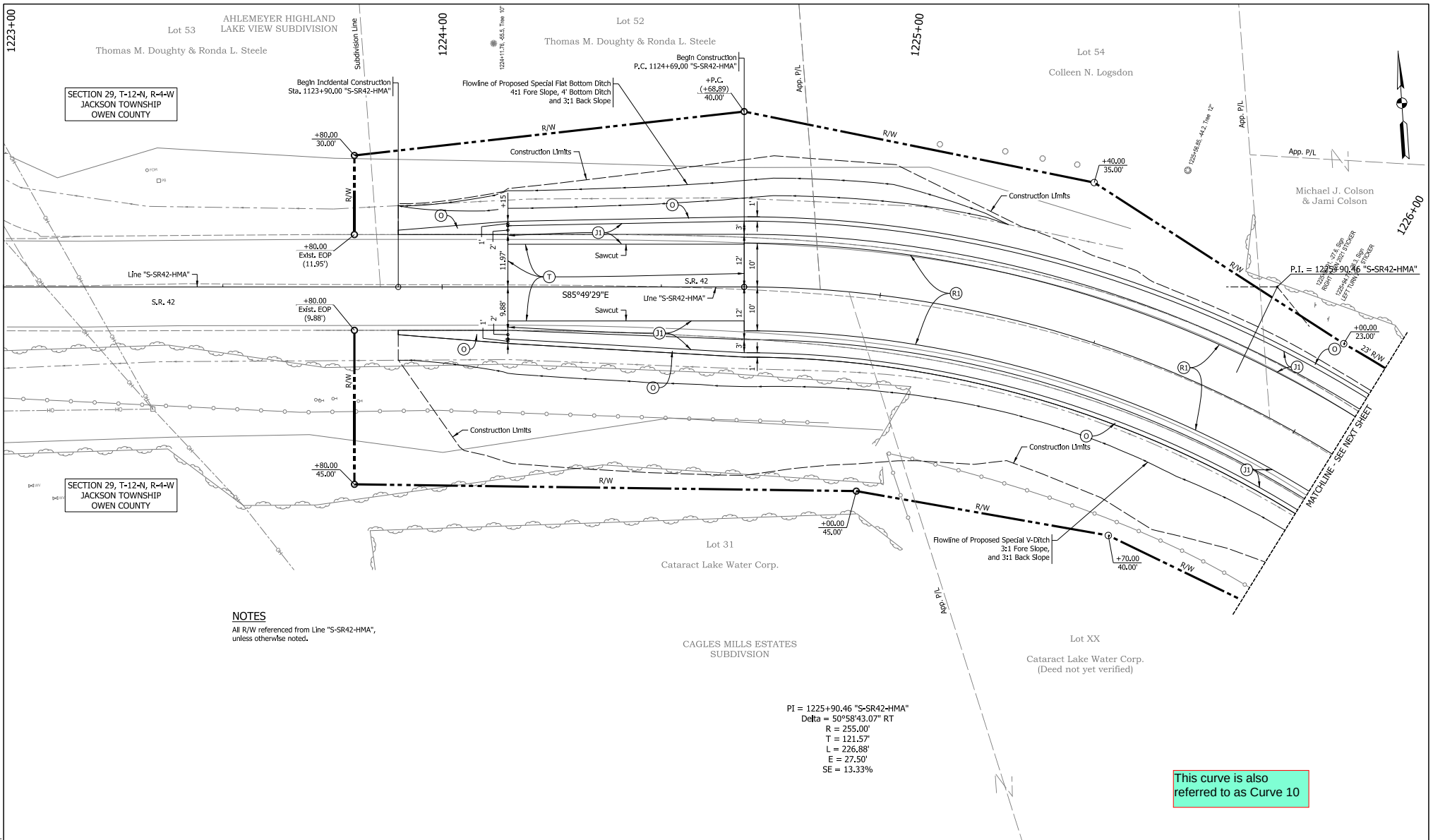
INDIANA
DEPARTMENT OF TRANSPORTATION

GENERAL PLAN
CURVE SW6 (PI 1190+36) STR. NO. 11
(STR. CLV-86932)

HORIZONTAL SCALE	BRIDGE FILE
AS NOTED	N/A
VERTICAL SCALE	DESIGNATION
N/A	2200184
SURVEY BOOK	SHEETS
ELECTRONIC	49 of 108
CONTRACT	PROJECT
R-45322	2200184

Plot: 1/12/2026 10:05:01 AM

File: H:\Projects\2021\Engineering\21EN034_SR_42_HMA_OVERLAY_SJCA\CAD\Sheets\21EN034_GenPlan_CLV86932.dgn
Model: GenPlan



NOTES

All R/W referenced from Line "S-SR42-HMA", unless otherwise noted.

PI = 1225+90.46 "S-SR42-HMA"
Delta = 50°58'43.07" RT
R = 255.00'
T = 121.57'
L = 226.88'
E = 27.50'
SE = 13.33%

This curve is also referred to as Curve 10

LEGEND

- (J1) Full-Depth HMA Pavement for Shoulder Widening (See Typical Sections)
- (K1) Full-Depth HMA Pavement for Lane Widening (See Typical Sections)
- (O) Compacted Aggregate, No. 53 (See Typical Sections)
- (R1) HMA Milling and Overlay (See Typical Sections)
- (R2) HMA Milling and Overlay for Approaches (See Typical Sections)
- (D) Compacted Aggregate, No. 53 (for drives) (depth = 10" max.)
- (T) Transition, Milling

STAGE 2: PLANS NOT FOR CONSTRUCTION

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER _____ DATE

DESIGNED: KCH | DRAWN: KCH / HA

CHECKED: MAH | CHECKED: MAH

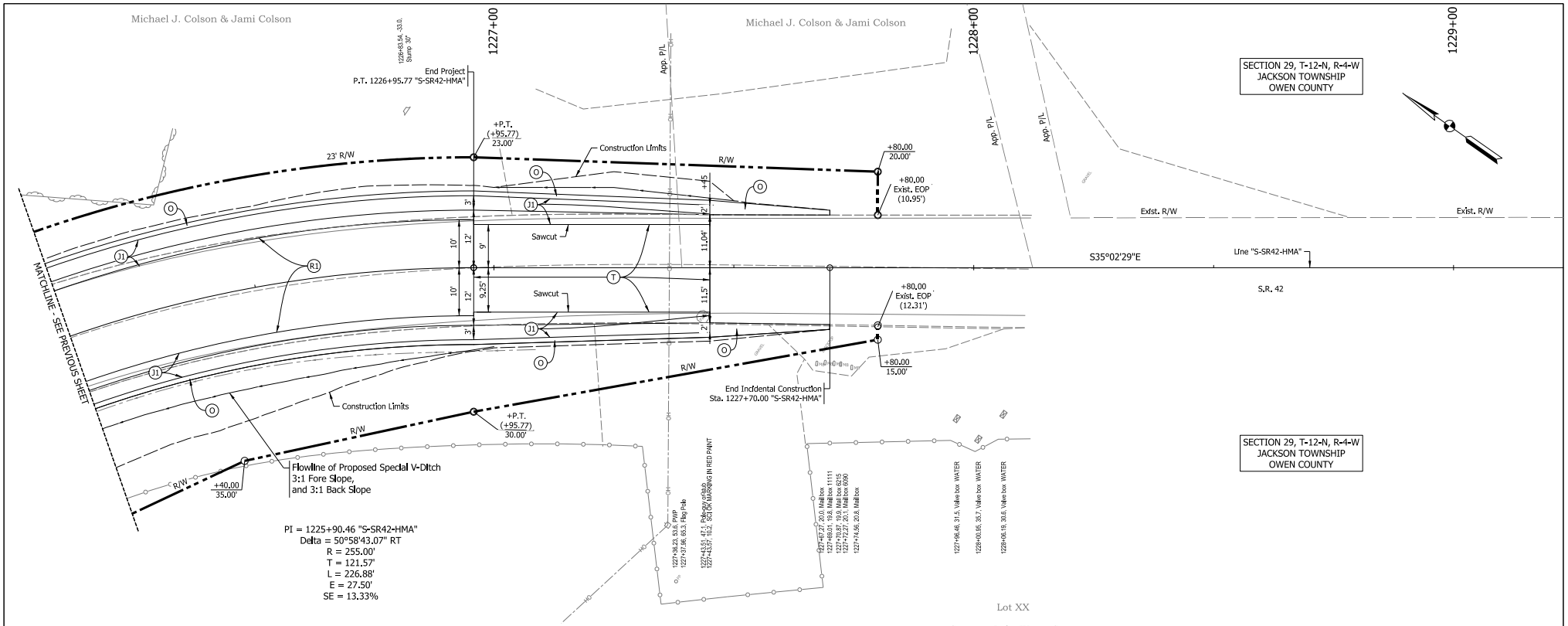
INDIANA
DEPARTMENT OF TRANSPORTATION

PLAN SHEET
CURVE SW7 (PI 1225+90)

HORIZONTAL SCALE	BRIDGE FILE
1" = 10'	N/A
VERTICAL SCALE	DESIGNATION
N/A	2200184
SURVEY BOOK	
ELECTRONIC	42 of 108
CONTRACT	PROJECT
R-45322	2200184

Plot: 3/12/2026 10:04:44 AM

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Model: ConstrDetail_Curve_08



NOTES

All R/W referenced from Line "S-SR42-HMA", unless otherwise noted.

This curve is also referred to as Curve 10

LEGEND

- (J1) Full-Depth HMA Pavement for Shoulder Widening (See Typical Sections)
- (K1) Full-Depth HMA Pavement for Lane Widening (See Typical Sections)
- (O) Compacted Aggregate, No. 53 (See Typical Sections)
- (R1) HMA Milling and Overlay (See Typical Sections)
- (R2) HMA Milling and Overlay for Approaches (See Typical Sections)
- (D) Compacted Aggregate, No. 53 (for drives) (depth = 10" max.)
- (T) Transition, Milling

STAGE 2 PLANS NOT FOR CONSTRUCTION

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE

DESIGNED: KCH DRAWN: KCH / HA

CHECKED: MAH CHECKED: MAH

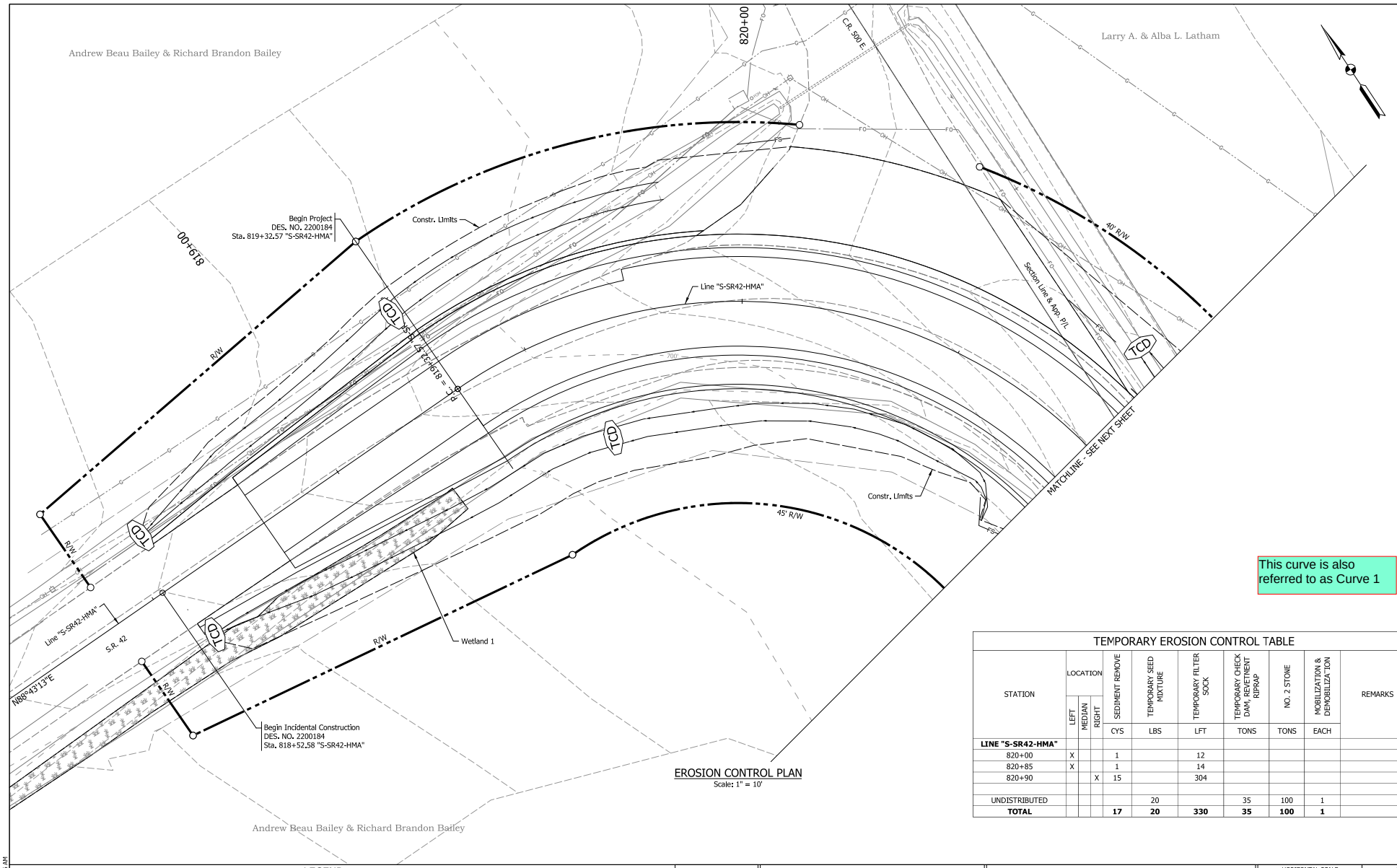
INDIANA
DEPARTMENT OF TRANSPORTATION

PLAN SHEET
CURVE SW7 (PI 1225+90)

HORIZONTAL SCALE	BRIDGE FILE
1" = 10'	N/A
VERTICAL SCALE	DESIGNATION
N/A	2200184
SURVEY BOOK	
ELECTRONIC	44 of 108
CONTRACT	PROJECT
R-45322	2200184

Plot: 1/12/2026 10:04:45 AM

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Model: ConstrDetail_Curve_08a



This curve is also referred to as Curve 1

TEMPORARY EROSION CONTROL TABLE

STATION	LOCATION			SEDIMENT REMOVE	TEMPORARY SEED MIXTURE	TEMPORARY FILTER SOCK	TEMPORARY CHECK DAM, REVETMENT RIPRAP	NO. 2 STONE	MOBILIZATION & DEMOBILIZATION	REMARKS
	LEFT	MEDIAN	RIGHT	CYS	LBS	LFT	TONS	TONS	EACH	
LINE "S-SR42-HMA"										
820+00	X			1		12				
820+85	X			1		14				
820+90			X	15		304				
UNDISTRIBUTED					20		35	100	1	
TOTAL				**17**	**20**	**330**	**35**	**100**	**1**	

LEGEND

- TCD - Temporary Check Dam
- FS - Filter Sock
- Wetland
- Vegetated Erosion Control Blanket
- Riprap
- Cofferdam

STAGE 2 PLANS NOT FOR CONSTRUCTION

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE

DESIGNED: DSR DRAWN: DSR

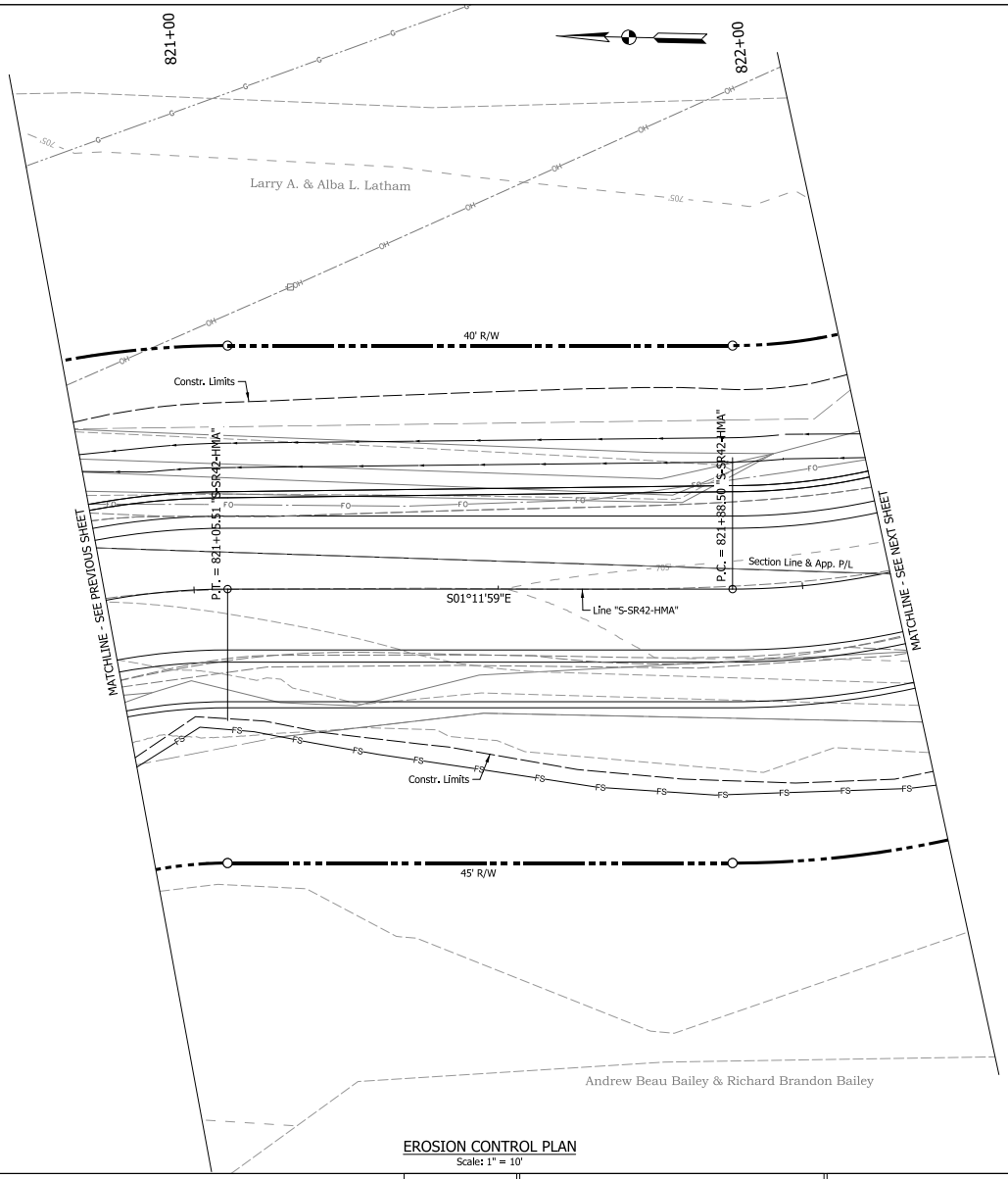
CHECKED: MAH CHECKED: KCH

INDIANA
DEPARTMENT OF TRANSPORTATION

EROSION CONTROL
CURVE SW1 (PI 820+43 AND PI 823+08)

HORIZONTAL SCALE	BRIDGE FILE
AS NOTED	N/A
VERTICAL SCALE	DESIGNATION
N/A	2200184
SURVEY BOOK	
ELECTRONIC	50 of 108
CONTRACT	PROJECT
R-45322	2200184

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Model: Erosion_Control_Curve_01



This curve is also referred to as Curve 1

EROSION CONTROL PLAN
Scale: 1" = 10'

LEGEND

- TCD - Temporary Check Dam
- FS - Filter Sock
- Wetland
- Vegetated Erosion Control Blanket
- Riprap
- Cofferdam

STAGE 2 PLANS NOT FOR CONSTRUCTION

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE

DESIGNED: DSR DRAWN: DSR

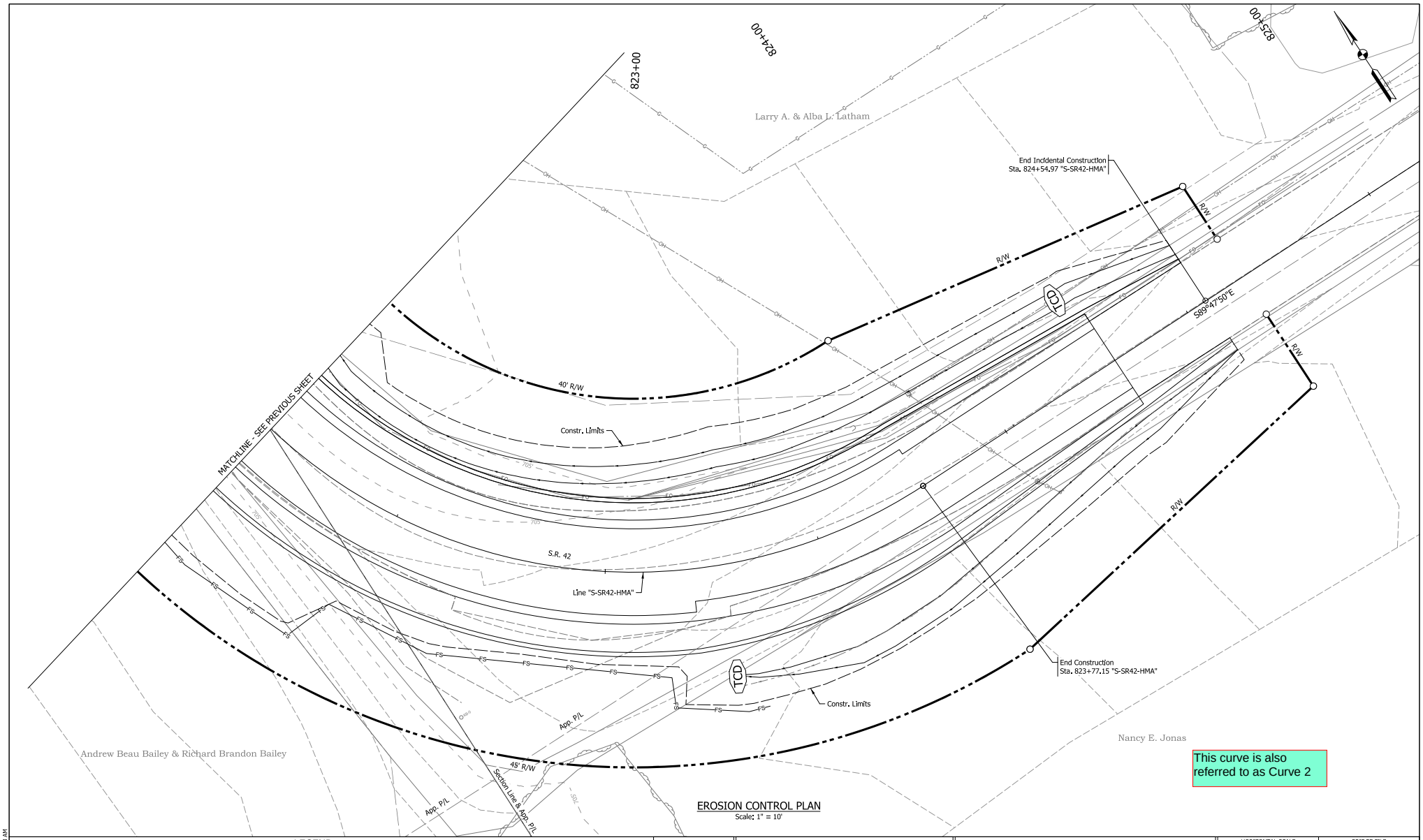
CHECKED: MAH CHECKED: KCH

INDIANA
DEPARTMENT OF TRANSPORTATION

EROSION CONTROL
CURVE SW1 (PI 820+43 AND PI 823+08)

HORIZONTAL SCALE	BRIDGE FILE
AS NOTED	N/A
VERTICAL SCALE	DESIGNATION
N/A	2200184
SURVEY BOOK	
ELECTRONIC	51 of 108
CONTRACT	PROJECT
R-45322	2200184

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Model: Erosion_Control_Curve_01a



EROSION CONTROL PLAN
Scale: 1" = 10'

LEGEND

- TCD - Temporary Check Dam
- FS - Filter Sock
- Wetland
- Vegetated Erosion Control Blanket
- Riprap
- Cofferdam

STAGE 2: PLANS NOT FOR CONSTRUCTION

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE

DESIGNED: DSR DRAWN: DSR

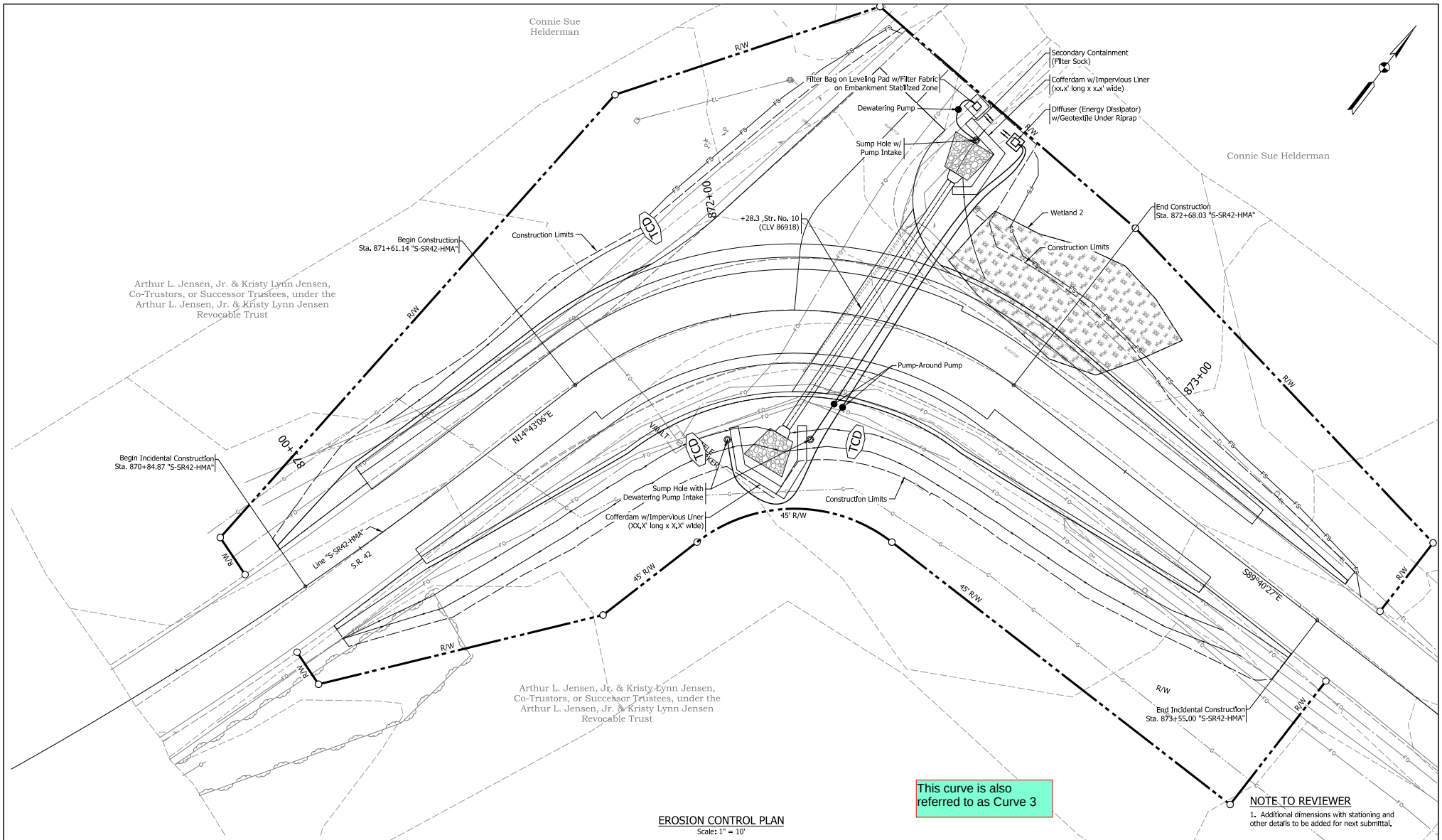
CHECKED: MAH CHECKED: KCH

INDIANA
DEPARTMENT OF TRANSPORTATION

EROSION CONTROL
CURVE SW1 (PI 820+43 AND PI 823+08)

HORIZONTAL SCALE	BRIDGE FILE
AS NOTED	N/A
VERTICAL SCALE	DESIGNATION
N/A	2200184
SURVEY BOOK	
ELECTRONIC	52 of 108
CONTRACT	PROJECT
R-45322	2200184

Plot: 3/12/2026 10:05:18 AM
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Model: Erosion_Control_Curve_01b



This curve is also referred to as Curve 3

EROSION CONTROL PLAN
Scale: 1" = 10'

NOTE TO REVIEWER
1. Additional dimensions with stationing and other details to be added for next submittal.

LEGEND

TCD - Temporary Check Dam	- Vegetated Erosion Control Blanket
FS - Filter Sock	- Riprap
- Wetland	- Cofferdam

STAGE 2 PLANS NOT FOR CONSTRUCTION

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE

DESIGNED: DSR DRAWN: DSR

CHECKED: MAH CHECKED: KCH

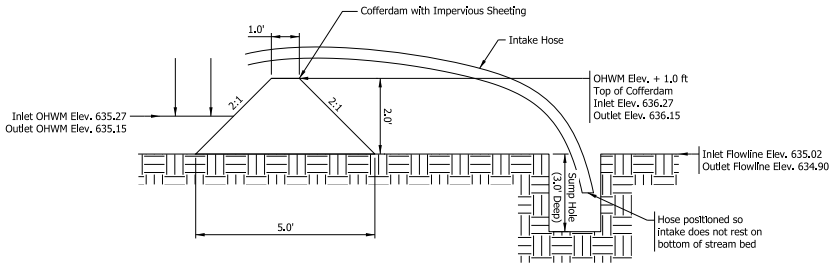
INDIANA DEPARTMENT OF TRANSPORTATION

EROSION CONTROL CURVE SW2 (PI 872+24)

HORIZONTAL SCALE	BRIDGE FILE
AS NOTED	N/A
VERTICAL SCALE	DESIGNATION
N/A	2200184
SURVEY BOOK	
ELECTRONIC	53 of 108
CONTRACT	PROJECT
R-45322	2200184

Plot: 3/12/2026 10:05:21 AM
File: H:\Projects\2021\Engineering\21EN034_SR_42_HMA_OVERLAY_SJCA\CAD\Sheets\21EN034_Erosion Control_87224.dgn
Model: Erosion_Control_Curve_02

TEMPORARY EROSION CONTROL TABLE										
STATION	LOCATION			SEDIMENT REMOVE	TEMPORARY SEED MIXTURE	TEMPORARY FILTER SOCK	TEMPORARY CHECK DAM, REVETMENT RIPRAP	NO. 2 STONE	MOBILIZATION & DEMOBILIZATION	REMARKS
	LEFT	MEDIAN	RIGHT	CYS	LBS	LFT	TONS	TONS	EACH	
LINE "S-SR42-HMA"										
871+95	X			4		73				
872+50	X			7		136				
UNDISTRIBUTED					20		15	100	1	
TOTAL				**10**	**20**	**209**	**15**	**100**	**1**	



COFFERDAM/SUMP HOLE
WORK AREA
Not to Scale

NOTES

1. Any areas in addition to those called out, left undisturbed for a period exceeding 7 days shall be required to have Temporary Seeding.
2. All disturbed areas shall be permanently Seeded in accordance with INDOT Standard Specifications as soon as possible upon completion of work in that area.
3. Erosion Control Blankets will be used on all slopes steeper than 3:1.
4. Pump Around operation shall remain in place until all work in the channel is complete including Channel Stabilization and Wingwall Installation.
5. Refer to Standard Drawings 205-TECD, 205-TEC1, 205-TECP for Erosion Control measures.

STAGE 2 PLANS NOT FOR CONSTRUCTION

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE

DESIGNED: DSR DRAWN: DSR

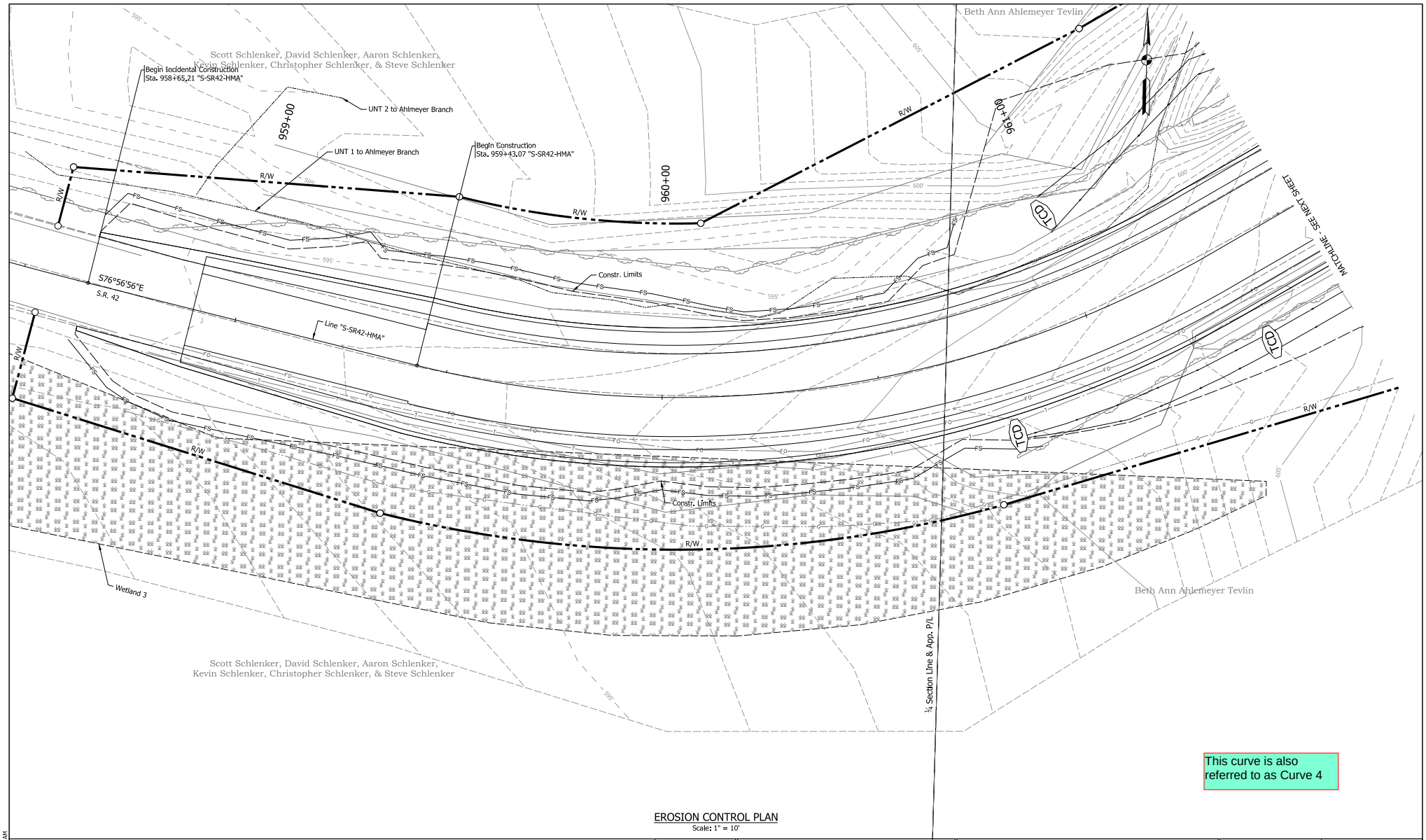
CHECKED: MAH CHECKED: KCH

INDIANA
DEPARTMENT OF TRANSPORTATION

EROSION CONTROL
CURVE SW2 (PI 872+24)

HORIZONTAL SCALE	BRIDGE FILE
AS NOTED	N/A
VERTICAL SCALE	DESIGNATION
N/A	2200184
SURVEY BOOK	
ELECTRONIC	54 of 108
CONTRACT	PROJECT
R-45322	2200184

Plot: 1/12/2026 10:05:21 AM
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Model: Erosion_Control_Curve_02b



This curve is also referred to as Curve 4

EROSION CONTROL PLAN
Scale: 1" = 10'

LEGEND

- TCD - Temporary Check Dam
- FS - Filter Sock
- Wetland
- Vegetated Erosion Control Blanket
- Riprap
- Cofferdam

STAGE 2 PLANS NOT FOR CONSTRUCTION

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE

DESIGNED: DSR DRAWN: DSR

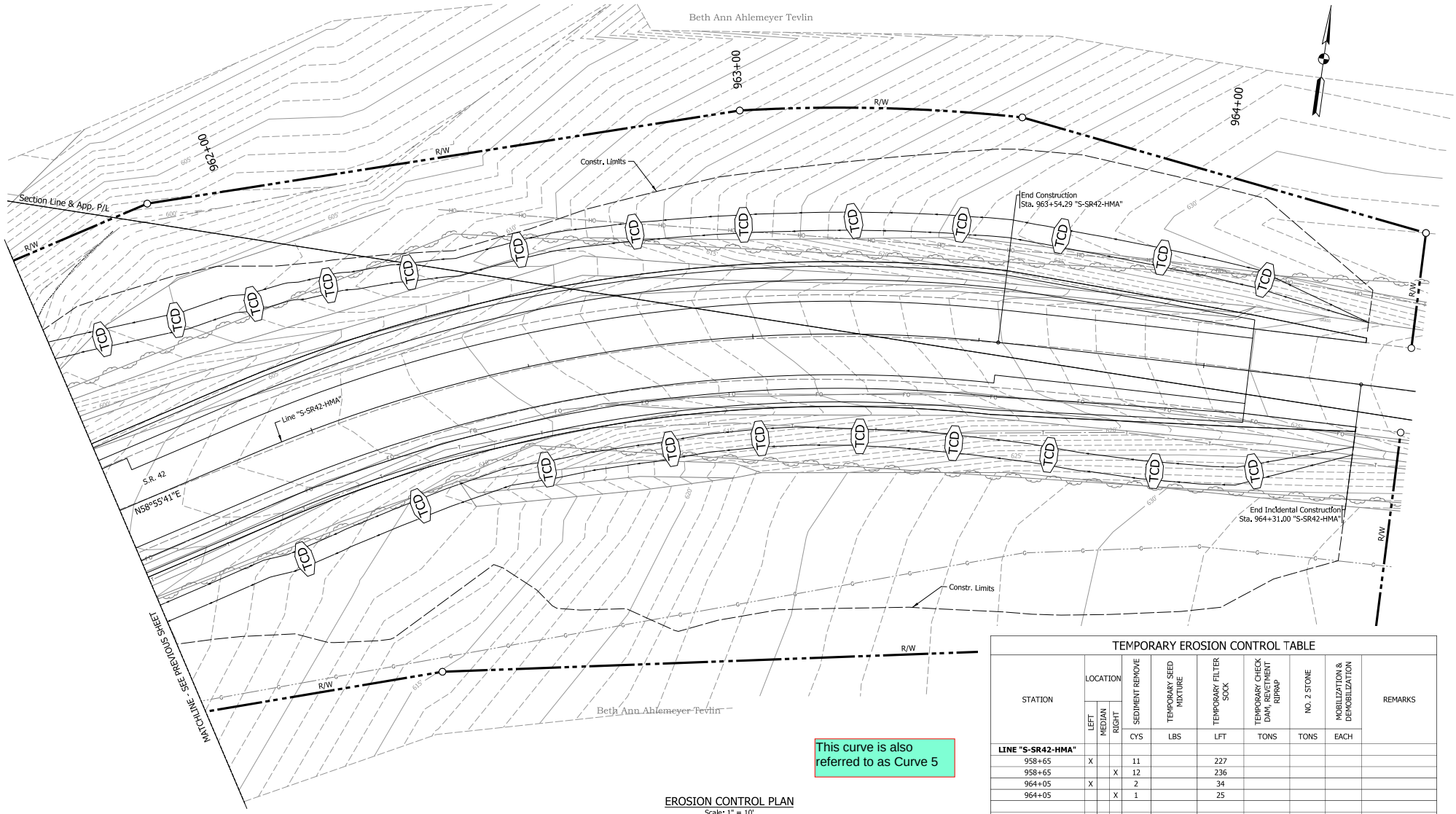
CHECKED: MAH CHECKED: KCH

INDIANA
DEPARTMENT OF TRANSPORTATION

EROSION CONTROL
CURVE SW3 (PI 960+42 AND PI 962+72)

HORIZONTAL SCALE	BRIDGE FILE
AS NOTED	N/A
VERTICAL SCALE	DESIGNATION
N/A	2200184
SURVEY BOOK	
ELECTRONIC	55 of 108
CONTRACT	PROJECT
R-45322	2200184

Plot: 3/12/2026 10:05:24 AM
File: H:\Projects\2021\Engineering\21EN034_SR_42_HMA_OVERLAY_SJCA\CAD\Sheets\21EN034_Erosion Control_96042-96272.dgn
Model: Erosion_Control_Curve_03



This curve is also referred to as Curve 5

EROSION CONTROL PLAN
Scale: 1" = 10'

TEMPORARY EROSION CONTROL TABLE

STATION	LOCATION			SEDIMENT REMOVE	TEMPORARY SEED MIXTURE	TEMPORARY FILTER SOCK	TEMPORARY CHECK DAM, REVETMENT RIPRAP	NO. 2 STONE	MOBILIZATION & DEMOBILIZATION	REMARKS
	LEFT	MEDIAN	RIGHT	CYS	LBS	LFT	TONS	TONS	EACH	
LINE "S-SR42-HMA"										
958+65	X			11		227				
958+65			X	12		236				
964+05	X			2		34				
964+05			X	1		25				
UNDISTRIBUTED					20		130	100	1	
TOTAL				**26**	**20**	**522**	**130**	**100**	**1**	

LEGEND

- TCD - Temporary Check Dam
- FS - Filter Sock
- Wetland
- Vegetated Erosion Control Blanket
- Riprap
- Cofferdam

STAGE 2 PLANS NOT FOR CONSTRUCTION

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE

DESIGNED: DSR DRAWN: DSR

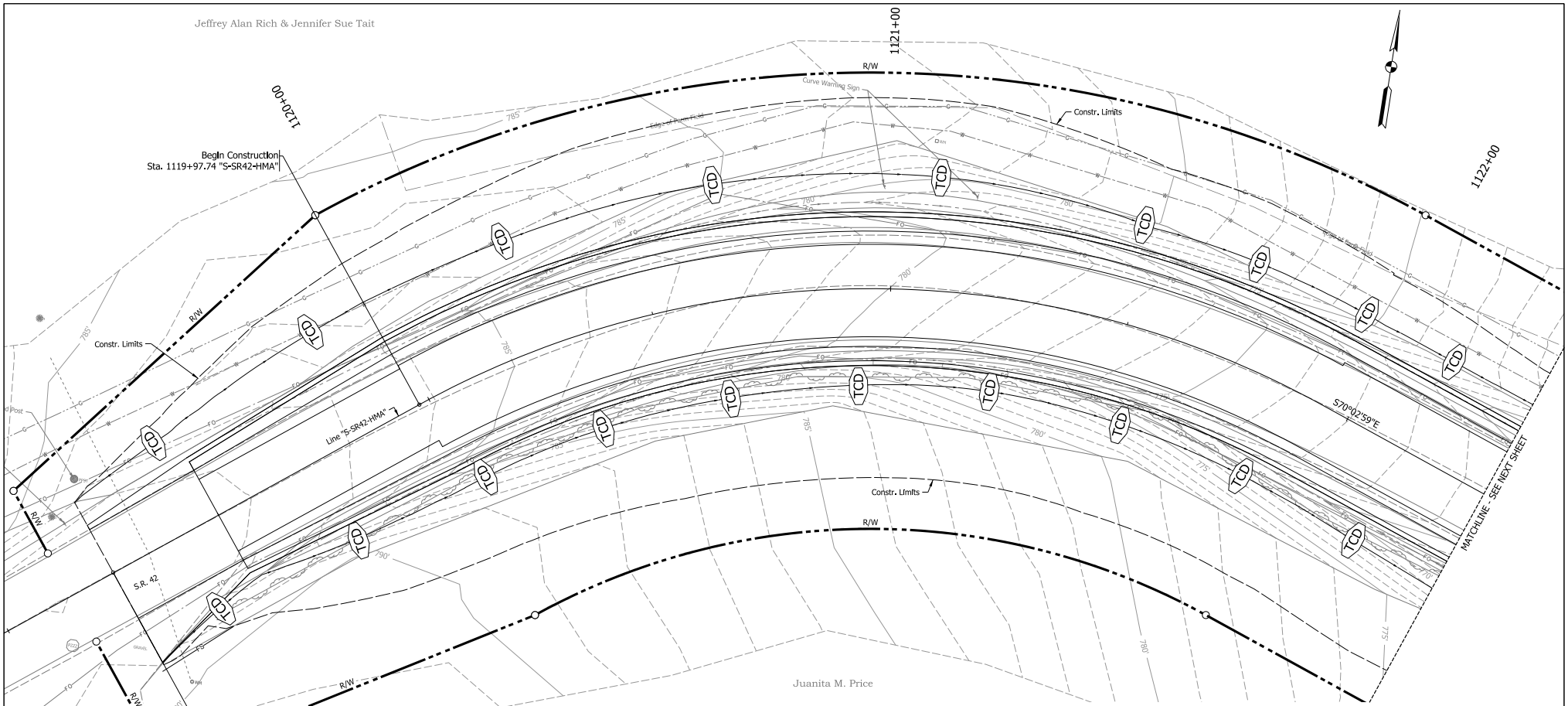
CHECKED: MAH CHECKED: KCH

INDIANA
DEPARTMENT OF TRANSPORTATION

EROSION CONTROL
CURVE SW3 (PI 960+42 AND PI 962+72)

HORIZONTAL SCALE	BRIDGE FILE
AS NOTED	N/A
VERTICAL SCALE	DESIGNATION
N/A	2200184
SURVEY BOOK	
ELECTRONIC	56 of 108
CONTRACT	PROJECT
R-45322	2200184

Plot: 1/12/2026 10:05:25 AM
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Model: Erosion_Control_Curve_03a



This curve is also referred to as Curve 6

TEMPORARY EROSION CONTROL TABLE

STATION	LOCATION LEFT	LOCATION MEDIAN	LOCATION RIGHT	SEDIMENT REMOVE CYS	TEMPORARY SEED MIXTURE LBS	TEMPORARY FILTER SOCK LFT	TEMPORARY CHECK DAM, REVETMENT RIPRAP TONS	NO. 2 STONE TONS	MOBILIZATION & DEMOBILIZATION EACH	REMARKS
LINE "S-SR42-HMA"										
1119+30			X	1		18				
1124+51	X			20		398				
UNDISTRIBUTED					20		245	100	1	
TOTAL				**21**	**20**	**416**	**245**	**100**	**1**	

EROSION CONTROL PLAN
Scale: 1" = 10'

LEGEND

- TCD - Temporary Check Dam
- FS - Filter Sock
- Wetland
- Vegetated Erosion Control Blanket
- Riprap
- Cofferdam

STAGE 2: PLANS NOT FOR CONSTRUCTION

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE

DESIGNED: DSR DRAWN: DSR

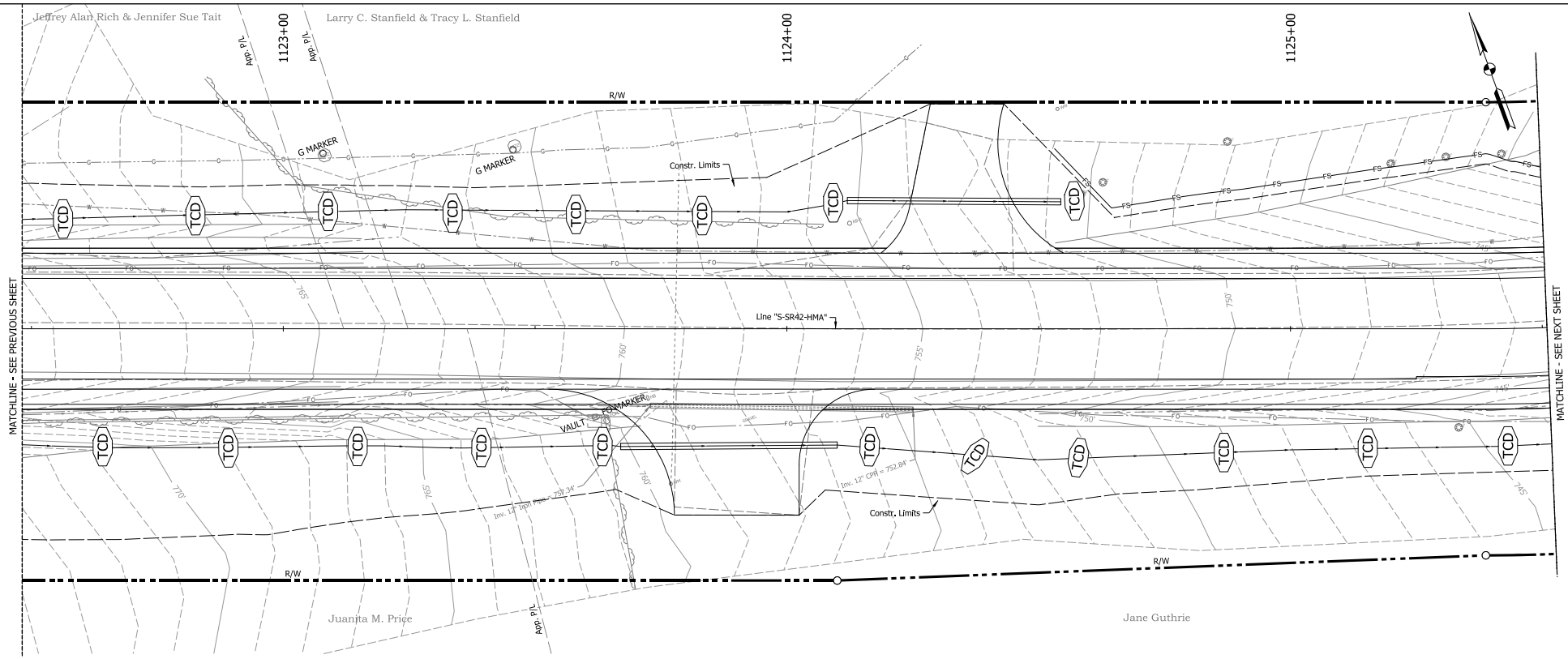
CHECKED: MAH CHECKED: KCH

INDIANA
DEPARTMENT OF TRANSPORTATION

EROSION CONTROL
CURVE SW4 (PI 1121+05 AND PI 1126+68)

HORIZONTAL SCALE	BRIDGE FILE
AS NOTED	N/A
VERTICAL SCALE	DESIGNATION
N/A	2200184
SURVEY BOOK	
ELECTRONIC	57 of 108
CONTRACT	PROJECT
R-45322	2200184

Plot: 1/12/2026 10:05:28 AM
File: H:\Projects\2021\Engineering\21EN034_SR_42_HMA_OVERLAY_SJCA\CAD\Sheets\21EN034_Erosion Control_112105-112668.dgn
Model: Erosion_Control_Curve_04



This curve is also referred to as Curve 6

EROSION CONTROL PLAN

Scale: 1" = 10'

LEGEND

- TCD - Temporary Check Dam
- FS — FS — - Filter Sock
- Wetland
- Vegetated Erosion Control Blanket
- Riprap
- Cofferdam

STAGE 2 PLANS NOT FOR CONSTRUCTION

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE

DESIGNED: DSR DRAWN: DSR

CHECKED: MAH CHECKED: KCH

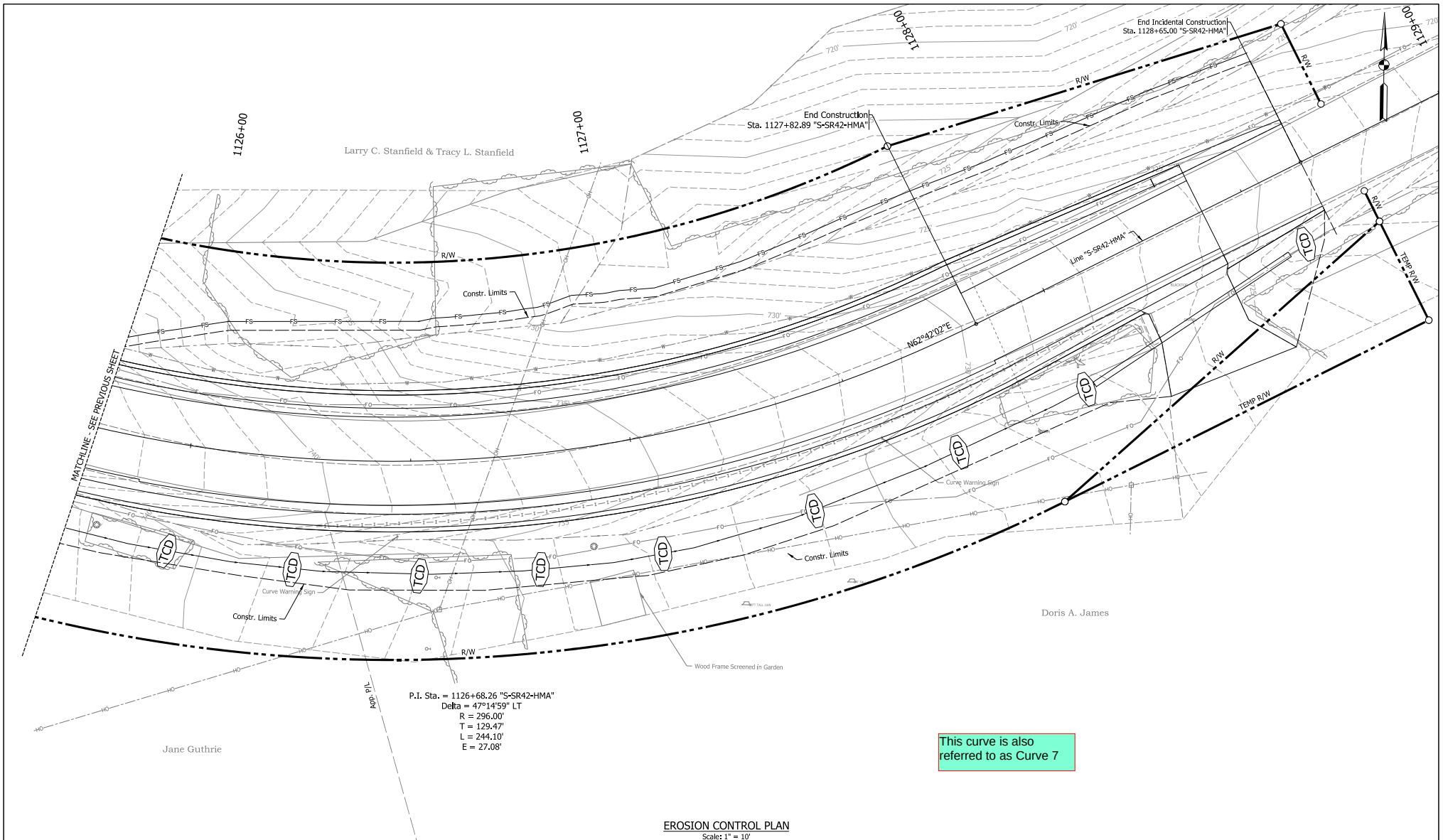
INDIANA
DEPARTMENT OF TRANSPORTATION

EROSION CONTROL
CURVE SW4 (PI 1121+05 AND PI 1126+68)

HORIZONTAL SCALE	BRIDGE FILE
AS NOTED	N/A
VERTICAL SCALE	DESIGNATION
N/A	2200184
SURVEY BOOK	
ELECTRONIC	58 of 108
CONTRACT	PROJECT
R-45322	2200184

Plot: 3/12/2026 10:05:30 AM

File: H:\Projects\2021\Engineering\21EN034_SR_42_HMA_OVERLAY_SJCA\CAD\Sheets\21EN034_Erosion Control_112105-112668.dgn
Model: Erosion_Control_Curve_04-B



EROSION CONTROL PLAN
Scale: 1" = 10'

LEGEND

TCD - Temporary Check Dam	- Vegetated Erosion Control Blanket
FS - Filter Sock	- Riprap
- Wetland	- Cofferdam

STAGE 2: PLANS NOT FOR CONSTRUCTION

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE

DESIGNED: DSR DRAWN: DSR

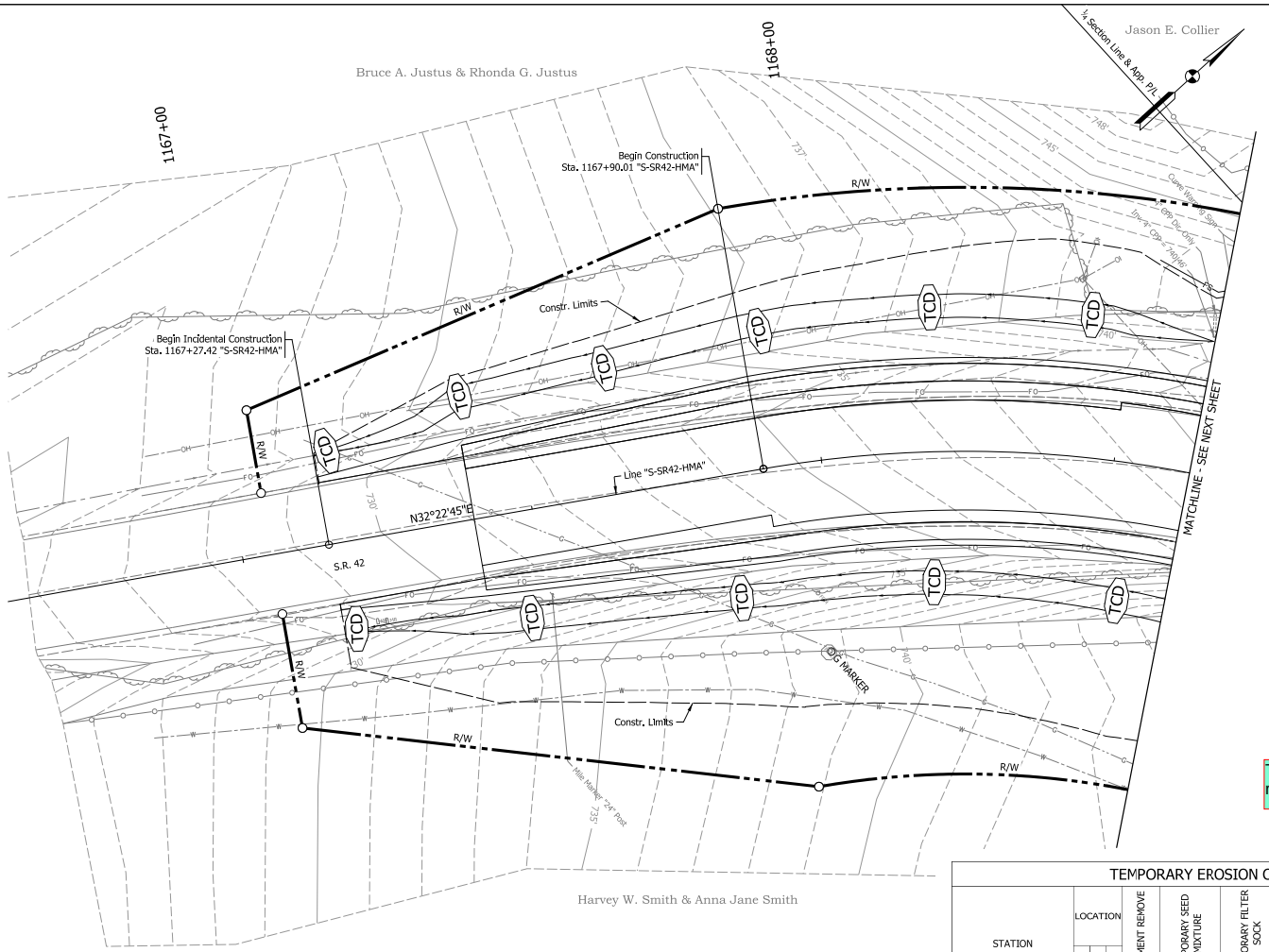
CHECKED: MAH CHECKED: KCH

INDIANA
DEPARTMENT OF TRANSPORTATION

EROSION CONTROL
CURVE SW4 (PI 1121+05 AND PI 1126+68)

HORIZONTAL SCALE	BRIDGE FILE
AS NOTED	N/A
VERTICAL SCALE	DESIGNATION
N/A	2200184
SURVEY BOOK	
ELECTRONIC	59 of 108
CONTRACT	PROJECT
R-45322	2200184

Plot: 3/12/2026 10:05:30 AM
File: H:\Projects\2021\Engineering\21EN034_SR_42_HMA_OVERLAY_SJCA\CAD\Sheets\21EN034_Erosion Control_112105-112668.dgn
Model: Erosion_Control_Curve_04-C



This curve is also referred to as Curve 8

TEMPORARY EROSION CONTROL TABLE

STATION	LOCATION			SEDIMENT REMOVE	TEMPORARY SEED MIXTURE	TEMPORARY FILTER SOCK	TEMPORARY CHECK DAM, REVETMENT RIPRAP	NO. 2 STONE	MOBILIZATION & DEMOBILIZATION	REMARKS
	LEFT	MEDIAN	RIGHT	CYS	LBS	LFT	TONS	TONS	EACH	
LINE "S-SR42-HMA"										
1168+50	X			2		46				
1169+00	X			2		35				
1169+45	X			7		139				
UNDISTRIBUTED					20		65	100	1	
TOTAL				**11**	**20**	**220**	**65**	**100**	**1**	

EROSION CONTROL PLAN
Scale: 1" = 10'

LEGEND

- TCD - Temporary Check Dam
- FS - Filter Sock
- Wetland
- Vegetated Erosion Control Blanket
- Riprap
- Cofferdam

STAGE 2 PLANS NOT FOR CONSTRUCTION

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE

DESIGNED: DSR DRAWN: DSR

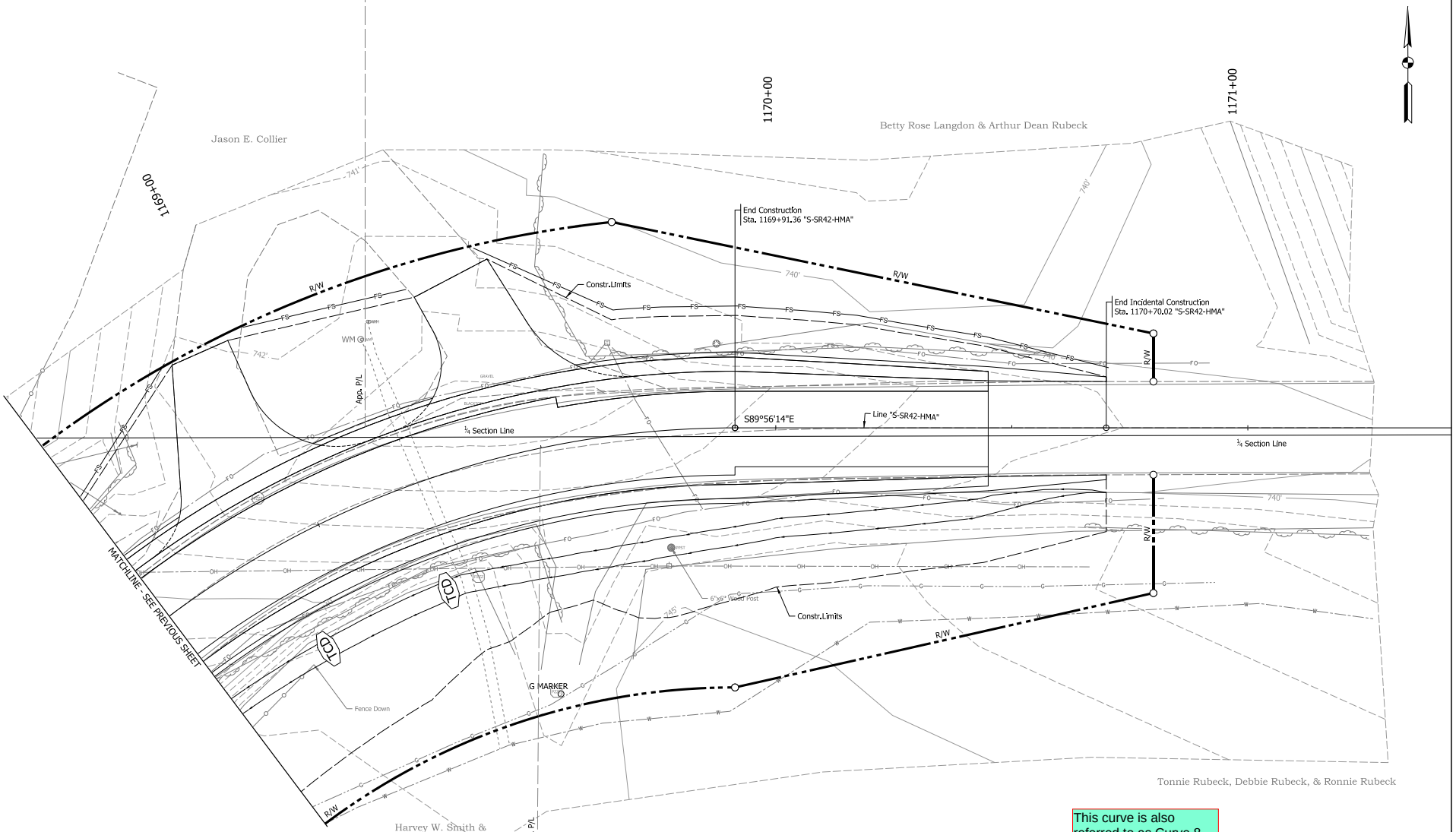
CHECKED: MAH CHECKED: KCH

INDIANA
DEPARTMENT OF TRANSPORTATION

EROSION CONTROL
CURVE SW5 (PI 1169+00)

HORIZONTAL SCALE	BRIDGE FILE
AS NOTED	N/A
VERTICAL SCALE	DESIGNATION
N/A	2200184
SURVEY BOOK	
ELECTRONIC	60 of 108
CONTRACT	PROJECT
R-45322	2200184

Plot: 1/12/2026 10:05:33 AM
File: H:\Projects\2021\Engineering\21EN034_SR_42_HMA_OVERLAY_SJCA\CAD\Sheets\21EN034_Erosion Control_116900.dgn
Model: Erosion_Control_Curve_06



EROSION CONTROL PLAN
Scale: 1" = 10'

LEGEND

- TCD - Temporary Check Dam
- FS — - Filter Sock
- Wetland
- Vegetated Erosion Control Blanket
- Riprap
- Cofferdam

STAGE 2 PLANS NOT FOR CONSTRUCTION

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE

DESIGNED: DSR DRAWN: DSR

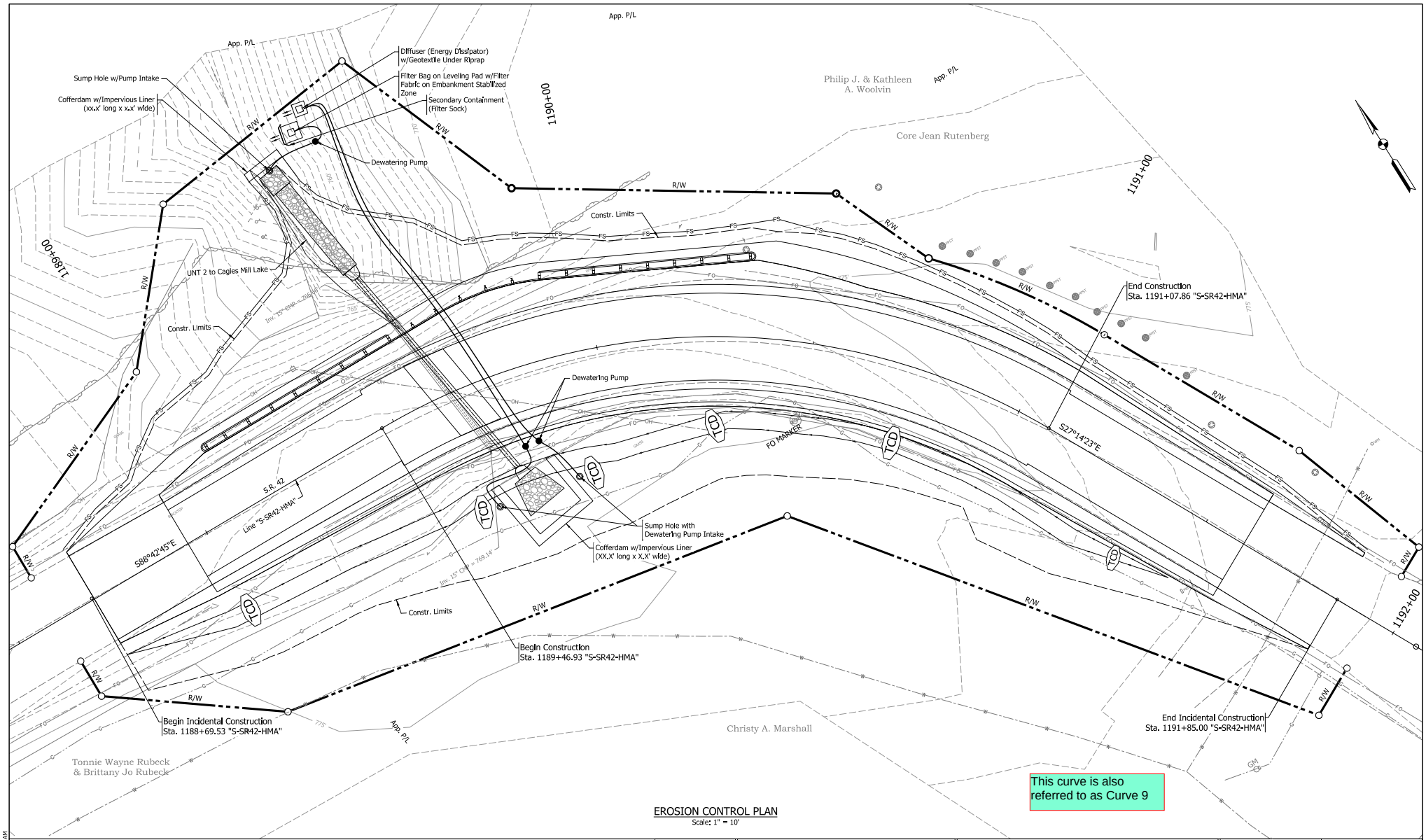
CHECKED: MAH CHECKED: KCH

INDIANA
DEPARTMENT OF TRANSPORTATION

EROSION CONTROL
CURVE SW5 (PI 1169+00)

HORIZONTAL SCALE	BRIDGE FILE
AS NOTED	N/A
VERTICAL SCALE	DESIGNATION
N/A	2200184
SURVEY BOOK	
ELECTRONIC	61 of 108
CONTRACT	PROJECT
R-45322	2200184

Plot: 3/12/2026 10:05:34 AM
File: H:\Projects\2021\Engineering\21EN034_SR_42_HMA_OVERLAY_SJCA\CAD\Sheets\21EN034_Erosion Control_116900.dgn
Model: Erosion_Control_Curve_06b



EROSION CONTROL PLAN
Scale: 1" = 10'

LEGEND

- TCD - Temporary Check Dam
- FS - Filter Sock
- Wetland
- Vegetated Erosion Control Blanket
- Riprap
- Cofferdam

STAGE 2 PLANS NOT FOR CONSTRUCTION

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE

DESIGNED: DSR DRAWN: DSR

CHECKED: MAH CHECKED: KCH

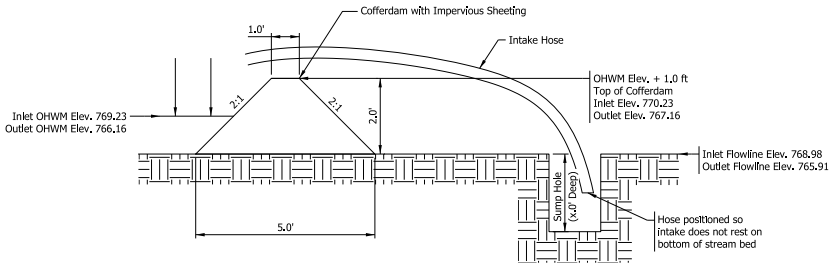
INDIANA DEPARTMENT OF TRANSPORTATION

EROSION CONTROL CURVE SW6 (PI 1190+36)

HORIZONTAL SCALE	BRIDGE FILE
AS NOTED	N/A
VERTICAL SCALE	DESIGNATION
N/A	2200184
SURVEY BOOK	
ELECTRONIC	62 of 108
CONTRACT	PROJECT
R-45322	2200184

Plot: 3/12/2026 10:05:37 AM
File: H:\Projects\2021\Engineering\21EN034_SR_42_HMA_OVERLAY_SJCA\CAD\Sheets\21EN034_Erosion Control_119036.dgn
Model: Erosion_Control_Curve_07

TEMPORARY EROSION CONTROL TABLE											
STATION	LOCATION			SEDIMENT REMOVE	TEMPORARY SEED MIXTURE	TEMPORARY FILTER SOCK	TEMPORARY CHECK DAM, REVETMENT RIPRAP	NO. 2 STONE	MOBILIZATION & DEMOBILIZATION	REMARKS
	LEFT	MEDIAN	RIGHT	CYS	LBS	LFT	TONS	TONS	EACH	
LINE "S-SR42-HMA"										
1188+70	X			5		106				
1189+50	X			14		277				
UNDISTRIBUTED					20		65	100	1	
TOTAL				**19**	**20**	**383**	**65**	**100**	**1**	



COFFERDAM/SUMP HOLE
WORK AREA
Not to Scale

NOTES

1. Any areas in addition to those called out, left undisturbed for a period exceeding 7 days shall be required to have Temporary Seeding.
2. All disturbed areas shall be permanently Seeded in accordance with INDOT Standard Specifications as soon as possible upon completion of work in that area.
3. Erosion Control Blankets will be used on all slopes steeper than 3:1.
4. Pump Around operation shall remain in place until all work in the channel is complete including Channel Stabilization and Wingwall Installation.
5. Refer to Standard Drawings 205-TECD, 205-TEC1, 205-TECP for Erosion Control measures.

STAGE 2: PLANS NOT FOR CONSTRUCTION

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE

DESIGNED: DSR | DRAWN: DSR

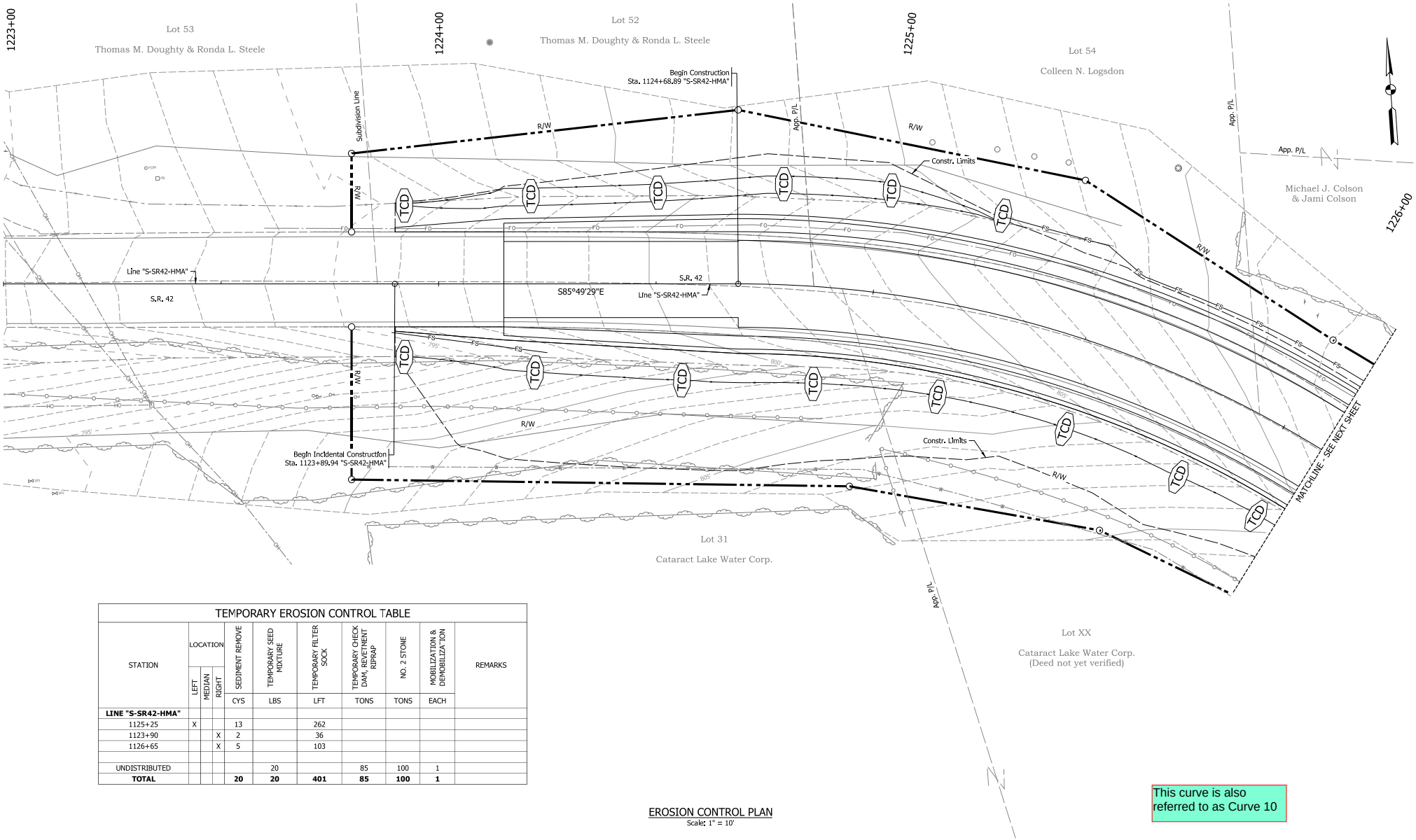
CHECKED: MAH | CHECKED: KCH

INDIANA
DEPARTMENT OF TRANSPORTATION

EROSION CONTROL
CURVE SW6 (PI 1190+36)

HORIZONTAL SCALE	BRIDGE FILE
AS NOTED	N/A
VERTICAL SCALE	DESIGNATION
N/A	2200184
SURVEY BOOK	
ELECTRONIC	63 of 108
CONTRACT	PROJECT
R-45322	2200184

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Model: Erosion_Control_Curve_07b



TEMPORARY EROSION CONTROL TABLE

STATION	LOCATION			SEDIMENT REMOVE	TEMPORARY SEED MIXTURE	TEMPORARY FILTER SOCK	TEMPORARY CHECK DAM, REVETMENT RIPRAP	NO. 2 STONE	MOBILIZATION & DEMOBILIZATION	REMARKS
	LEFT	MEDIAN	RIGHT	CYS	LBS	LFT	TONS	TONS	EACH	
LINE "S-SR42-HMA"										
1125+25	X			13		262				
1123+90			X	2		36				
1126+65			X	5		103				
UNDISTRIBUTED					20		85	100	1	
TOTAL				**20**	**20**	**401**	**85**	**100**	**1**	

EROSION CONTROL PLAN
Scale: 1" = 10'

This curve is also referred to as Curve 10

LEGEND

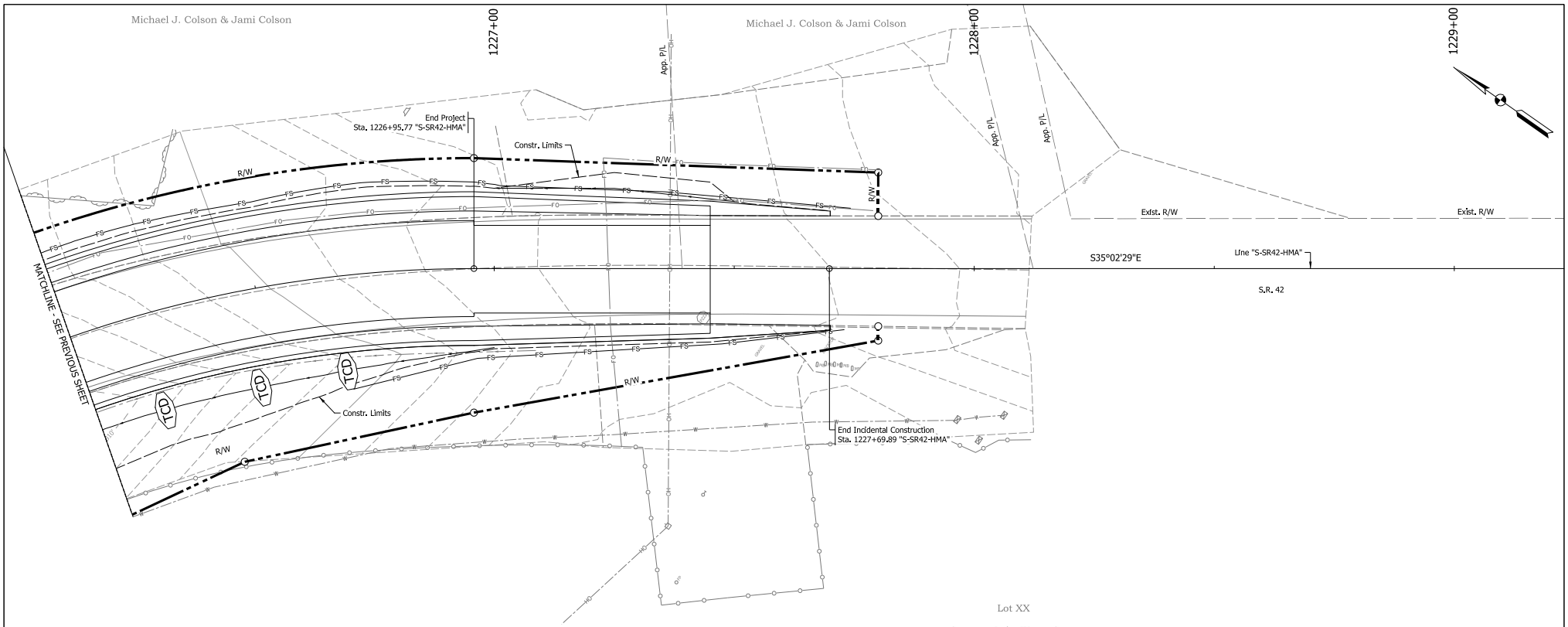
- TCD - Temporary Check Dam
- FS - Filter Sock
- Wetland
- Vegetated Erosion Control Blanket
- Riprap
- Cofferdam

AS NOTED
N/A

DSR
MAH

DSR
KCH

EROSION CONTROL
CURVE SW7 (PI 1225+90)



This curve is also referred to as Curve 10

EROSION CONTROL PLAN
Scale: 1" = 10'

LEGEND

- TCD - Temporary Check Dam
- FS - Filter Sock
- Wetland
- Vegetated Erosion Control Blanket
- Riprap
- Cofferdam

STAGE 2: PLANS NOT FOR CONSTRUCTION

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE

DESIGNED: DSR DRAWN: DSR

CHECKED: MAH CHECKED: KCH

INDIANA
DEPARTMENT OF TRANSPORTATION

EROSION CONTROL
CURVE SW7 (PI 1225+90)

HORIZONTAL SCALE	BRIDGE FILE
AS NOTED	N/A
VERTICAL SCALE	DESIGNATION
N/A	2200184
SURVEY BOOK	
ELECTRONIC	65 of 108
CONTRACT	PROJECT
R-45322	2200184

Plot: 1/12/2026 10:05:43 AM
File: H:\Projects\2021\Engineering\21EN034_SR_42_HMA_OVERLAY_SJCA\CAD\Sheets\21EN034_Erosion Control_122590.dgn
Model: Erosion_Control_Curve_08a

Des 2200184 CE-2

Appendix C

Early Coordination

INDIANA DEPARTMENT OF TRANSPORTATION

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

PHONE: (855) 463-6848
FAX: (855) INDOT4U

Eric Holcomb, Governor
Michael Smith, Commissioner

Sample early coordination letter - Graphics and photos from Appendix B were attached.

October 30, 2024

RE: Des. No. 2200184, State Road (SR) 42, from 6.00 Miles East of SR 59 to 2.20 Miles West of SR 243, Curve Correction Project, Clay and Owen Counties, Indiana

Environmental Reviewer,

The Indiana Department of Transportation (INDOT) and the Federal Highway Administration (FHWA) intend to proceed with a curve correction project along SR 42, from 6.00 miles east of SR 59 to 2.20 miles west of SR 243, in Clay and Owen Counties, Indiana. This letter is part of the early coordination phase of the environmental review process. We are requesting comments from your area of expertise regarding any possible effects associated with this project. **Please use the above designation number and description in your reply**. We will incorporate your comments into a study of the project's environmental impacts.

The project is located along SR 42, in Jackson, Cass, and Jackson Townships, in Clay and Owen Counties, Indiana. Please see the table below for location information specific to each curve. This section of SR 42 is an east-west Rural Major Collector with two nine-foot-wide lanes with no shoulders.

The proposed scope of work involves lane and shoulder widening at ten curves within the project area. Grading will be required beyond the existing roadway to install a v-ditch to move water away from the roadway. Two culverts within the project area, CLV 86918 (within the limits of the curve correction of Curve 3) and CLV 86932 (within the limits of the curve correction of Curve 9) will be replaced. The culverts are not listed in iTAMS. Guardrail will be added at Owl Hollow Road. The anticipated maximum excavation depth will extend between one and six feet below ground surface (bgs) for lane expansion, slope grading and ditch construction. No work will occur below the Ordinary High Water Mark (OHWM). The Maintenance of Traffic (MOT) is anticipated to consist of a detour that utilizes SR 59, Interstate 70 (I-70), and SR 243 which will extend approximately 20.5 miles in length. Temporary and permanent right-of-way (ROW) are anticipated for this project. No lighting or signal work is anticipated for this project. Tree trimming and/or removal is anticipated for this project. Construction is anticipated to begin in spring of 2027.

Curve Name	Location	Roadway	Section (S) Township (T) Range (R)	Culvert
Curve 1	39.44147, -87.01541	SR 42 & CR 500 E	S 36 T 12 North R 6 West & S 31 T 12 North R 5 West	N/A
Curve 2	39.44086, -87.01526	SR 42 & CR 500 E	S 36 T 12 North R 6 West & S 31 T 12 North R 5 West	N/A
Curve 3	39.44420, -87.00037	SR 42 & Boy Scout Rd	S 30 T 12 North R 5 West & S 31 T 12 North R 5 West	CLV-042-011-18.43 (CLV-86918)
Curve 4	39.44407, -86.97014	SR 42, east of Candlestick Corner	S 33 T 12 North R 5 West	N/A
Curve 5	39.44423, -86.96898	SR 42, east of Candlestick Corner	S 28 T 12 North R 5 West & S 33 T 12 North R 5 West	N/A
Curve 6	39.44777, -86.91405	SR 42, east of CR 830 W	S 25 T 12 North R 5 West	N/A
Curve 7	39.44736, -86.91214	SR 42, west of Owl Hollow Rd	S 25 T 12 North R 5 West	N/A
Curve 8	39.45409, -86.90120	SR 42, west of Fertig Rd	S 30 T 12 North R West	N/A
Curve 9	39.45410, -86.89365	SR 42, east of Fertig Rd	S 30 T 12 North R West	CLV-042-060-24.42 (CLV-86932)
Curve 10	39.45207, -86.88189	SR 42 & Lakeview Dr	S 29 T 12 North R West	N/A

The project is located in a rural area surrounded by agricultural properties, with some residential properties and forested parcels featured throughout. The Managed Land, Cagles Mill Lake, is located near the project area of Curve 9. The project is expected to qualify for the application of the US Fish and Wildlife Service (USFWS) range-wide programmatic informal consultation for the Indiana bat and northern long-eared bat and project information will be provided to the USFWS for review separately. SJCA Inc. will investigate the site for archaeological and historic resources for compliance with Section 106 and will send findings to INDOT Cultural Resources staff and the State Historic Preservation Officer for review and concurrence. A Waters of the U.S./Wetland Delineation report will be completed.

Please provide your response within thirty (30) calendar days from the date of this letter. However, should you find that an extension to the response time is necessary, a reasonable amount may be granted upon request. If you have any questions regarding this matter, please feel free to contact Taylor Gabrysiak, SJCA Inc., tgabrysiak@sjcainc.com, or the INDOT Project Manager, Jessica Conkright, at jconkright@indot.in.gov. Thank you in advance for your input.

Sincerely,

Taylor Gabrysiak

Taylor Gabrysiak
GIS Specialist
SJCA Inc.

Attachments:
Early Coordination Recipient List
Project Maps
Photo Location Map and Site Photographs

The following agencies received Early Coordination Letters:

Federal Highway Administration
Crawfordsville District, Kari Carmany-George
kcarmanygeorge@dot.gov

Indiana Geological and Water Survey
Online Submission
https://igws.indiana.edu/eAssessment
(Accessed November 05, 2024)

IDNR Environmental Coordinator
environmentalreview@dnr.in.gov

IDEM Groundwater Section
Wellhead Proximity Determinator Website
https://www.in.gov/idem/cleanwater/pages/wellhead/
(Accessed November 05, 2024)

U.S. Department of Housing & Urban Development
Chicago Regional Office
Field Environmental Officer, Erik Sandstedt
Erik.R.Sandstedt@hud.gov

National Park Service
Midwest Regional Office
Mwro_compliance@nps.gov

INDOT Crawfordsville District
Environmental Section Manager, Brock Ervin
BErvin@indot.IN.gov

INDOT Project Manager, Jessica Conkright
jconkright@indot.IN.gov

Field Supervisor USFWS
Bloomington Indiana Field Office
robin_mcwilliams@fws.gov

IDNR Division of State Parks
ahurst@dnr.in.gov

IDNR Oil and Gas Division
Beth Hernly
bhernly@dnr.IN.gov
Christy Cook
ccook@dnr.IN.gov

Natural Resources Conservation Service
State Conservationist
John.allen@usda.gov

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

Clay County Commissioners Office
Bryan Allender
bryan.allender@frontier.com
Marty Heffner
heffnerm@frontier.com
Paul Sinders
psinders@gmail.com

Clay County Council
Jason Thomas
Jason.c.thomas@att.net
Larry Moss
larry@franow.com

Clay County Highway Department
Brad Stultz, Director
Justin Lewicki, Permit Specialist
stultzb@claycountyin.gov
lewickij@claycountyin.gov

Clay County Surveyor
Vernon Maesch
maeschv@claycountyin.gov

Clay County Emergency Management Agency
Director, Rob Gambill
clayema@claycountyin.gov

Clay County Sherriff's Office
Bryson Swearingen
swearingenb@claycountyin.gov

Clay County Soil and Water Conservation District
Jennifer Craeger
jennifer.creager@in.nacdnet.net

Clay Community Schools, Transportation Supervisor
Tom Metz
metztho@clay.k12.in.us

Owen County Commissioners, District 3
Steve Carrell
Steve.carrell@owencounty.in.gov

Owen County Council
Gary Burton
Gary.burton@owencounty.in.gov

Owen County Highway Department
Owcohwy3@yahoo.com

Owen County Surveyor
Amy Meier
Amy.meier@owencounty.in.gov

Owen County Emergency Management Agency
Jack White
jack.white@owencounty.in.gov

Owen County Sherriff's Office
sheriff@owencounty.in.gov

Owen County Soil and Water Conservation District
owenswcd@gmail.com

Spencer-Owen Community Schools
Director of Transportation, Matt Floyd
mfloyd@socs.k12.in.us

Terre Haute Area Metropolitan Planning
Organization jweir@terrehauteedc.com

Taylor Gabrysiak

From: Hurst, Allen A <AHurst@dnr.IN.gov>
Sent: Thursday, October 31, 2024 11:50 AM
To: Taylor Gabrysiak
Subject: RE: Early Coordination - Des 2200184 SR 42 Curve Correction, Clay and Owen Counties, IN

Categories: ACTION

Des No 2200184
Description: SR 42 Curve Correction Project, in Clay and Owen Counties, Indiana

The project as submitted will not impact a Land & Water Conservation Fund (LWCF) site or a Designated Natural, Scenic, or Recreational River.

Allen Hurst
Trails Coordinator
Indiana Department of Natural Resources
Division of State Parks
317-232-4070
ahurst@dnr.in.gov
www.dnr.IN.gov

Please let us know about the quality of our service by taking this brief customer survey.

From: Taylor Gabrysiak <tgabrysiak@sjcainc.com>
Sent: Wednesday, October 30, 2024 4:51 PM
To: Hurst, Allen A <AHurst@dnr.IN.gov>
Subject: Early Coordination - Des 2200184 SR 42 Curve Correction, Clay and Owen Counties, IN

EXTERNAL EMAIL: This email was sent from outside your organization. Exercise caution when clicking links, opening attachments or taking further action, before validating its authenticity.

Good afternoon,

Please see the attached **Early Coordination for Des. No. 2200184 SR 42 Curve Correction Project, in Clay and Owen Counties, Indiana.** Your response is kindly requested within thirty (30) days of the date of this letter. Please reach out with any questions you have about the attached document or project specifics.

Key takeaways:

- Curve 9 abuts the Managed Land: Cagles Mill Lake
- Funding from INDOT and FHWA
- 10 curves along SR 42 will receive lane and shoulder widening
- 2 culverts along SR 42 will be replaced
- Maintenance of Traffic is anticipated to be a detour consisting of SR 59, I-70, and SR 243
- Temporary and Permanent right-of-way are anticipated to be acquired
- Tree trimming/removal is anticipated
- Construction is anticipated to begin spring 2027

Curves 1 and 2

Organization and Project Information

Organization Name: SJCA Inc

First Name: Taylor

Last Name: Gabrysiak

Phone: (765) 524-6571

Email: tgabrysiak@sjcainc.com

Address Line 1: 1028 Virginia Ave, Suite 201

City: Indianapolis

State: IN

Zip: 46203

Project Title: SR 42, Curve Correction Project, Clay Co - Curves 1 & 2

Destination ID: 2200184

Project Description: The Indiana Department of Transportation (INDOT) and the Federal Highway Administration (FHWA) intend to proceed with a curve correction project along SR 42, from 6.00 miles east of SR 59 to 2.20 miles west of SR 243, in Clay and Owen Counties, Indiana. The proposed scope of work involves lane and shoulder widening at two curves within the project area.

Environmental Assessment Report

Geological Hazards:

1. Moderate liquefaction potential

Mineral Resources:

1. Bedrock Resource: High Potential

Disclaimer:

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

This information was furnished by Indiana Geological Survey

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

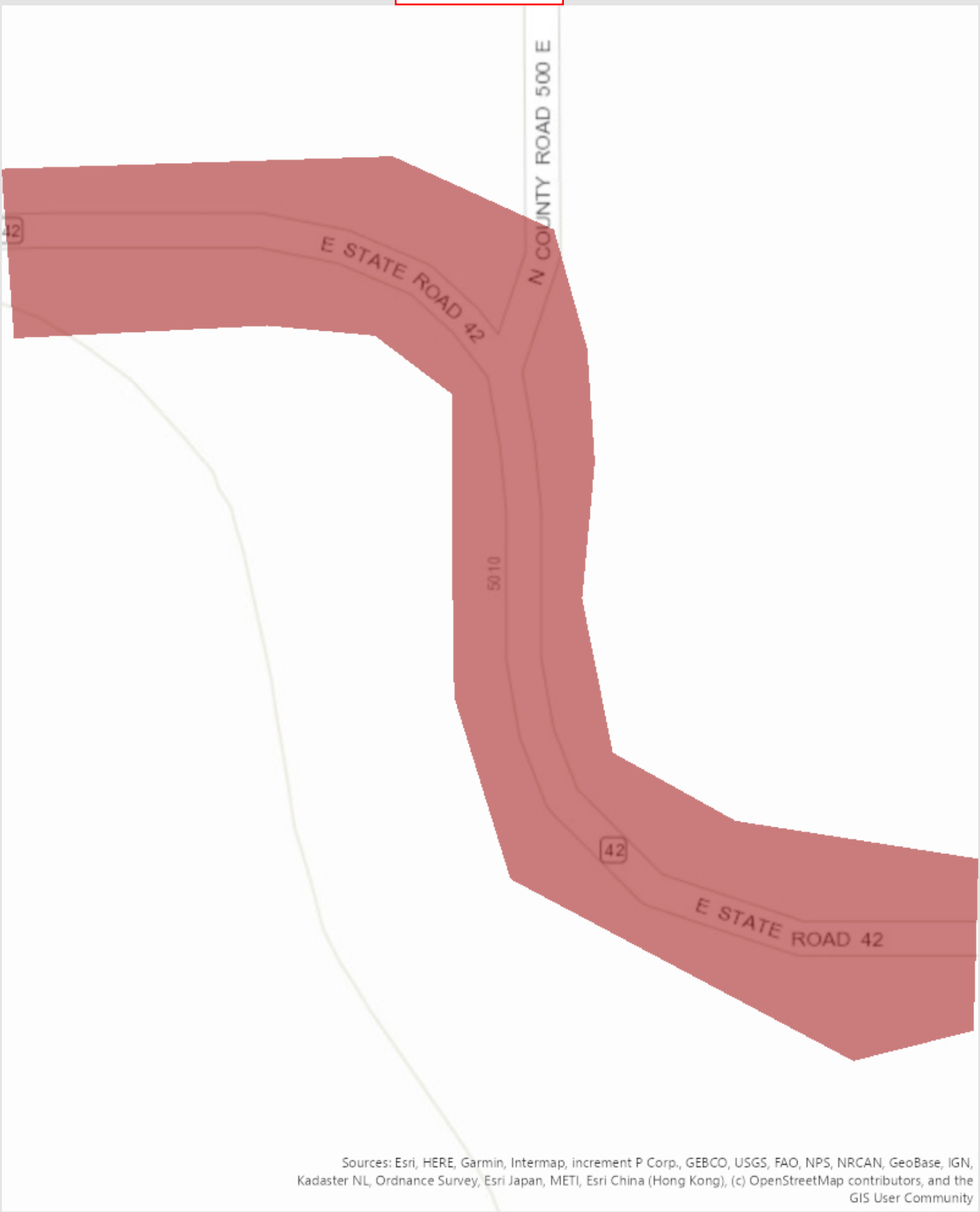
Email: IGSEnvir@indiana.edu

Phone: (812) 855-7428

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Curves 1 and 2



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Curve 3

Organization and Project Information

Organization Name: SJCA Inc

First Name: Taylor

Last Name: Gabrysiak

Phone: (765) 524-6571

Email: tgabrysiak@sjcainc.com

Address Line 1: 1028 Virginia Ave, Suite 201

City: Indianapolis

State: IN

Zip: 46203

Destination Id: 2200184

Project Title: SR 42, Curve Correction Project, Clay Co - Curve 3

Project Description: The Indiana Department of Transportation (INDOT) and the Federal Highway Administration (FHWA) intend to proceed with a curve correction project along SR 42, from 6.00 miles east of SR 59 to 2.20 miles west of SR 243, in Clay and Owen Counties, Indiana. The proposed scope of work involves lane and shoulder widening of a curve within the project area.

Environmental Assessment Report

Geological Hazards:

1. 1% Annual Chance Flood Hazard
2. High liquefaction potential

Mineral Resources:

1. Bedrock Resource: High Potential
2. Sand and Gravel Resource: Low Potential

Active or abandoned mineral resources extraction sites:

1. Abandoned Industrial Minerals Sand Gravel Pits
2. Petroleum Exploration Wells

Disclaimer:

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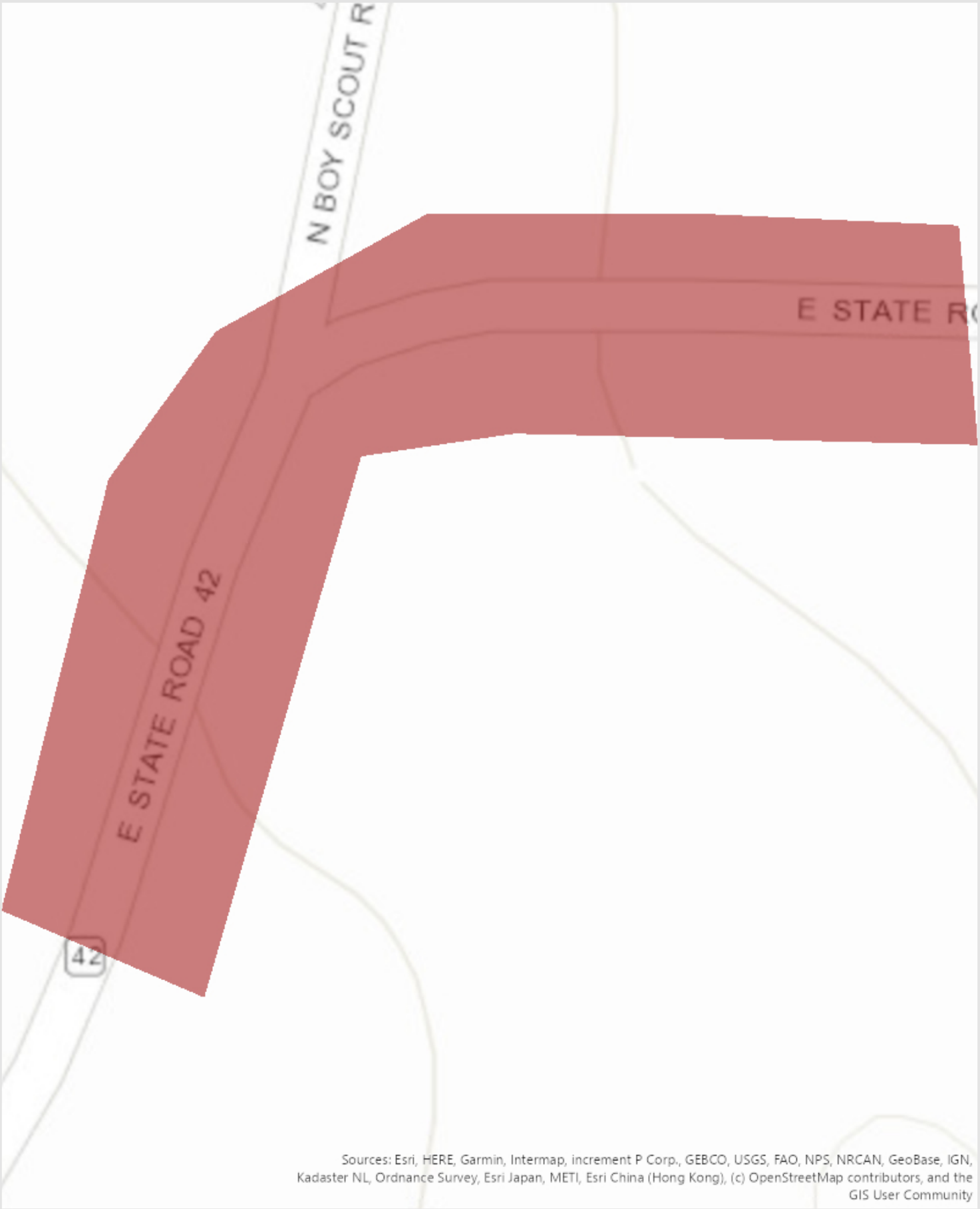
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Curve 3



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Curves 4 and 5

Organization and Project Information

Organization Name: SJCA Inc

First Name: Taylor

Last Name: Gabrysiak

Phone: (765) 524-6571

Email: tgabrysiak@sjcainc.com

Address Line 1: 1028 Virginia Ave, Suite 201

City: Indianapolis

State: IN

Zip: 46203

Destination Id: 2200184

Project Title: SR 42, Curve Correction Project, Clay Co - Curves 4 & 5

Project Description: The Indiana Department of Transportation (INDOT) and the Federal Highway Administration (FHWA) intend to proceed with a curve correction project along SR 42, from 6.00 miles east of SR 59 to 2.20 miles west of SR 243, in Clay and Owen Counties, Indiana. The proposed scope of work involves lane and shoulder widening.

Environmental Assessment Report

Geological Hazards:

1. 1% Annual Chance Flood Hazard
2. High liquefaction potential

Mineral Resources:

1. Bedrock Resource: High Potential
2. Sand and Gravel Resource: High Potential

Active or abandoned mineral resources extraction sites:

1. Petroleum Exploration Wells

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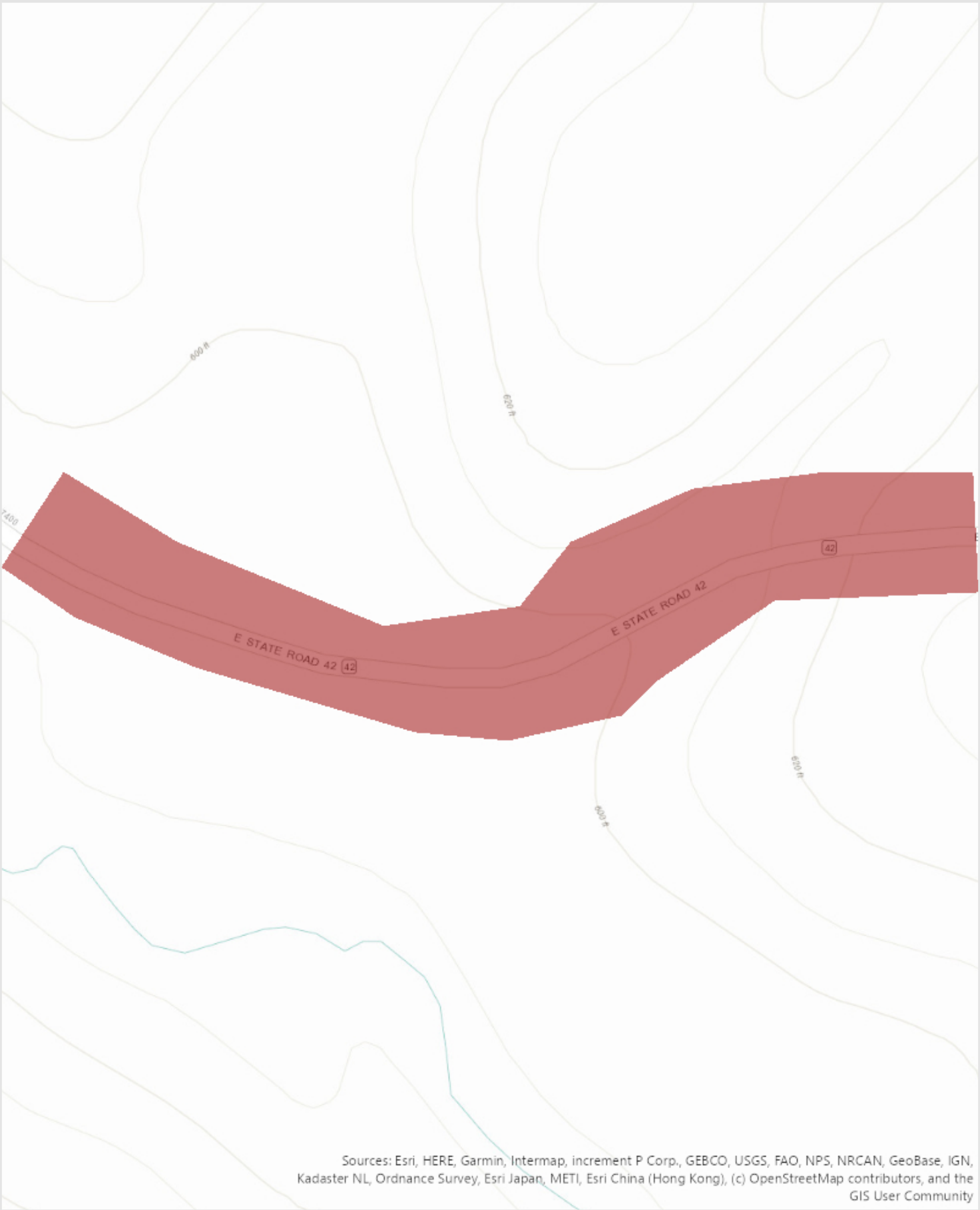
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Curves 4 and 5



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Curves 6 and 7

Organization and Project Information

Organization Name: SJCA Inc

First Name: Taylor

Last Name: Gabrysiak

Phone: (765) 524-6571

Email: tgabrysiak@sjcainc.com

Address Line 1: 1028 Virginia Ave, Suite 201

City: Indianapolis

State: IN

Zip: 46203

Destination Id: 2200184

Project Title: SR 42, Curve Correction Project, Owen Co - Curves 6 & 7

Project Description: The Indiana Department of Transportation (INDOT) and the Federal Highway Administration (FHWA) intend to proceed with a curve correction project along SR 42, from 6.00 miles east of SR 59 to 2.20 miles west of SR 243, in Clay and Owen Counties, Indiana. The proposed scope of work involves lane and shoulder widening.

Environmental Assessment Report

Geological Hazards:

1. High liquefaction potential

Mineral Resources:

1. Bedrock Resource: High Potential
2. Sand and Gravel Resource: High Potential

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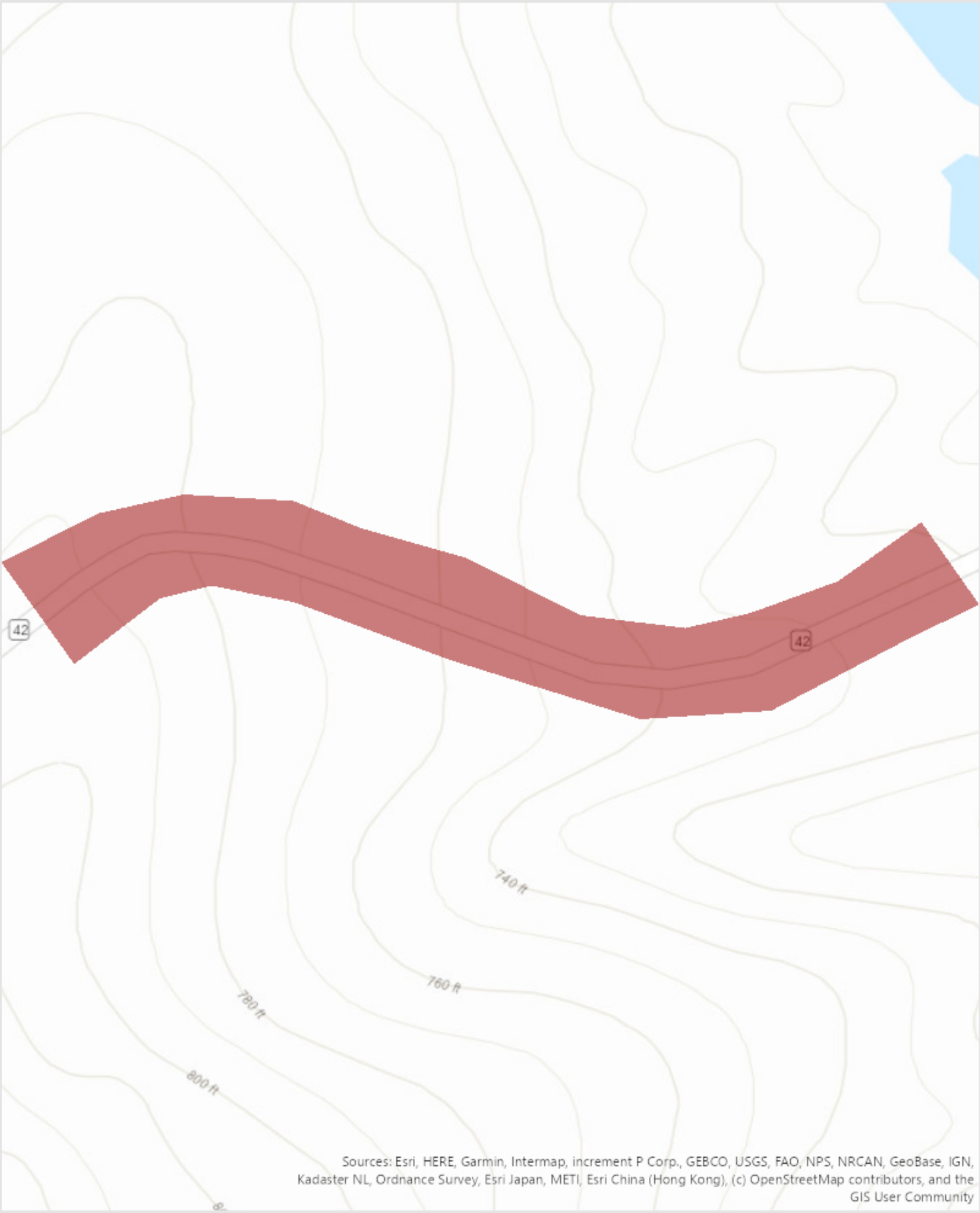
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Curves 6 and 7



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Curve 8

Organization and Project Information

Organization Name: SJCA Inc

First Name: Taylor

Last Name: Gabrysiak

Phone: (765) 524-6571

Email: tgabrysiak@sjcainc.com

Address Line 1: 1028 Virginia Ave, Suite 201

City: Indianapolis

State: IN

Zip: 46203

Destination Id: 2200184

Project Title: SR 42, Curve Correction Project, Owen Co - Curve 8

Project Description: The Indiana Department of Transportation (INDOT) and the Federal High-way Administration (FHWA) intend to proceed with a curve correction project along SR 42, from 6.00 miles east of SR 59 to 2.20 miles west of SR 243, in Clay and Owen Counties, Indiana. The proposed scope of work involves lane and shoulder widening.

Environmental Assessment Report

Geological Hazards:

1. 1% Annual Chance Flood Hazard
2. Moderate liquefaction potential

Mineral Resources:

1. Bedrock Resource: High Potential
2. Sand and Gravel Resource: High Potential

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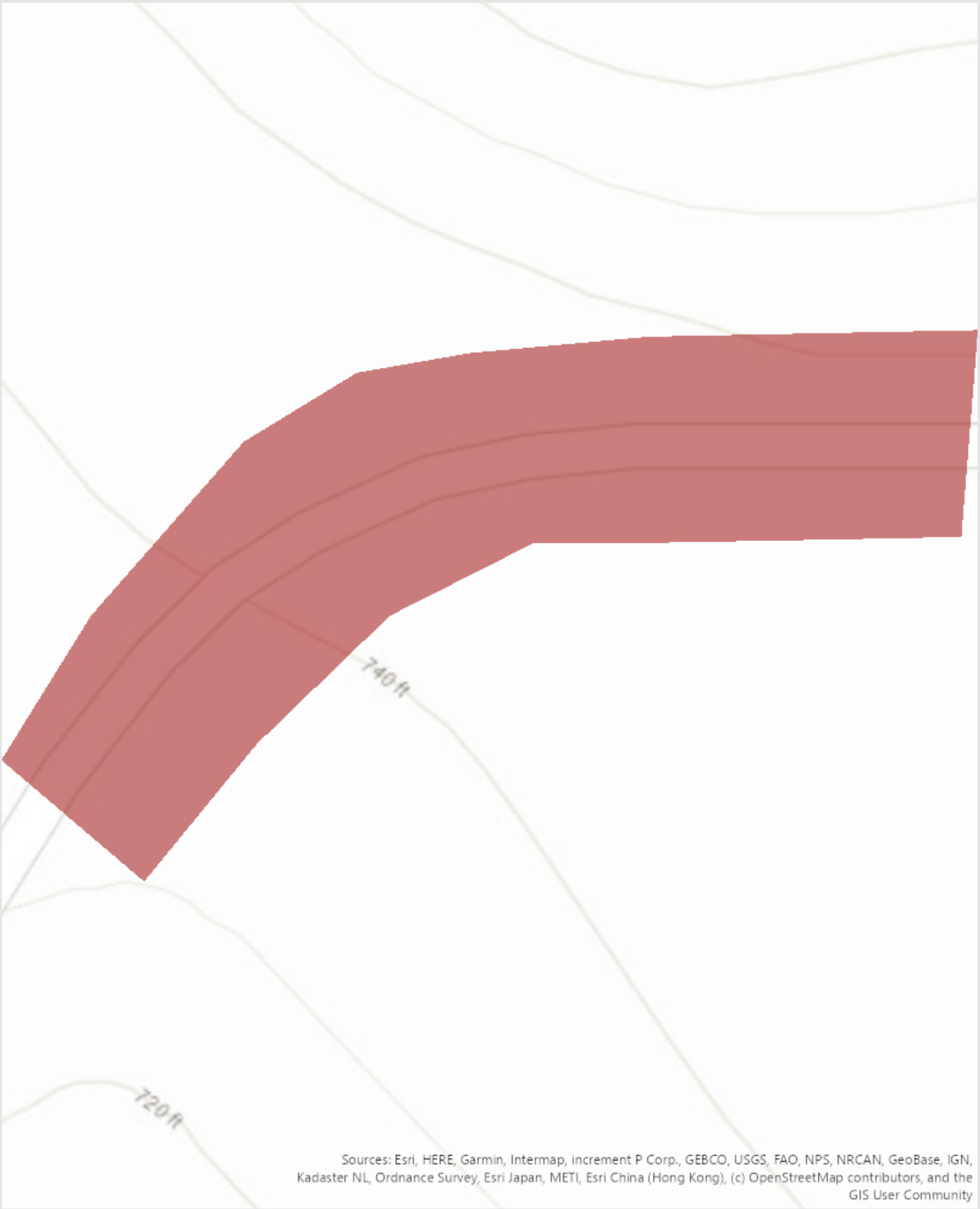
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Curve 8



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Curve 9

Organization and Project Information

Organization Name: SJCA Inc

First Name: Taylor

Last Name: Gabrysiak

Phone: (765) 524-6571

Email: tgabrysiak@sjcainc.com

Address Line 1: 1028 Virginia Ave, Suite 201

City: Indianapolis

State: IN

Zip: 46203

Destination Id: 2200184

Project Title: SR 42, Curve Correction Project, Owen Co - Curve 9

Project Description: The Indiana Department of Transportation (INDOT) and the Federal Highway Administration (FHWA) intend to proceed with a curve correction project along SR 42, from 6.00 miles east of SR 59 to 2.20 miles west of SR 243, in Clay and Owen Counties, Indiana. The proposed scope of work involves lane and shoulder widening.

Environmental Assessment Report

Geological Hazards:

1. 1% Annual Chance Flood Hazard
2. Moderate liquefaction potential

Mineral Resources:

1. Bedrock Resource: High Potential
2. Sand and Gravel Resource: High Potential

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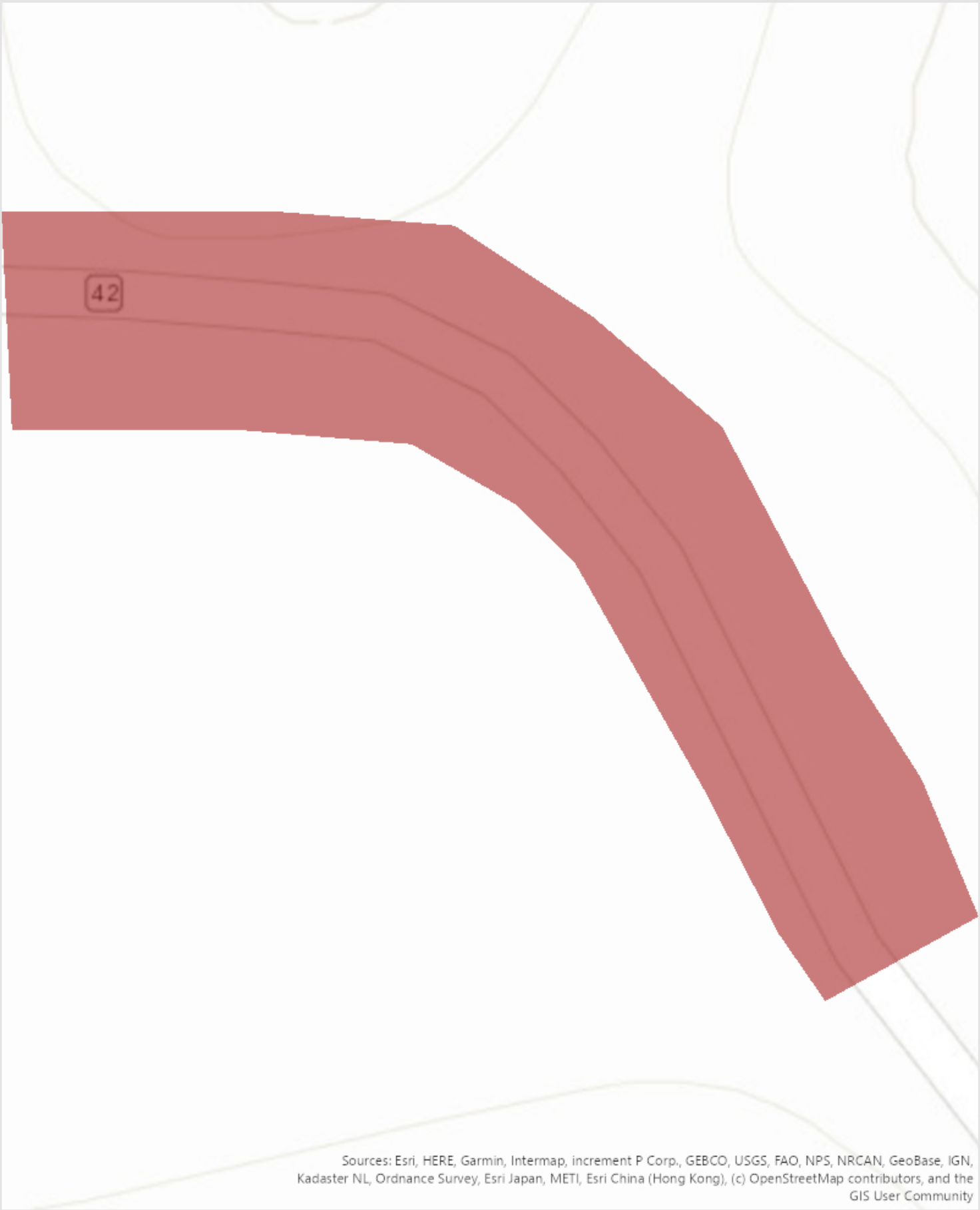
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Curve 9



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Curve 10

Organization and Project Information

Organization Name: SJCA Inc

First Name: Taylor

Last Name: Gabrysiak

Phone: (765) 524-6571

Email: tgabrysiak@sjcainc.com

Address Line 1: 1028 Virginia Ave, Suite 201

City: Indianapolis

State: IN

Zip: 46203

Destination Id: 2200184

Project Title: SR 42, Curve Correction Project, Owen Co - Curve 10

Project Description: The Indiana Department of Transportation (INDOT) and the Federal Highway Administration (FHWA) intend to proceed with a curve correction project along SR 42, from 6.00 miles east of SR 59 to 2.20 miles west of SR 243, in Clay and Owen Counties, Indiana. The proposed scope of work involves lane and shoulder widening.

Environmental Assessment Report

Geological Hazards:

1. 1% Annual Chance Flood Hazard
2. Moderate liquefaction potential

Mineral Resources:

1. Bedrock Resource: High Potential
2. Sand and Gravel Resource: High Potential

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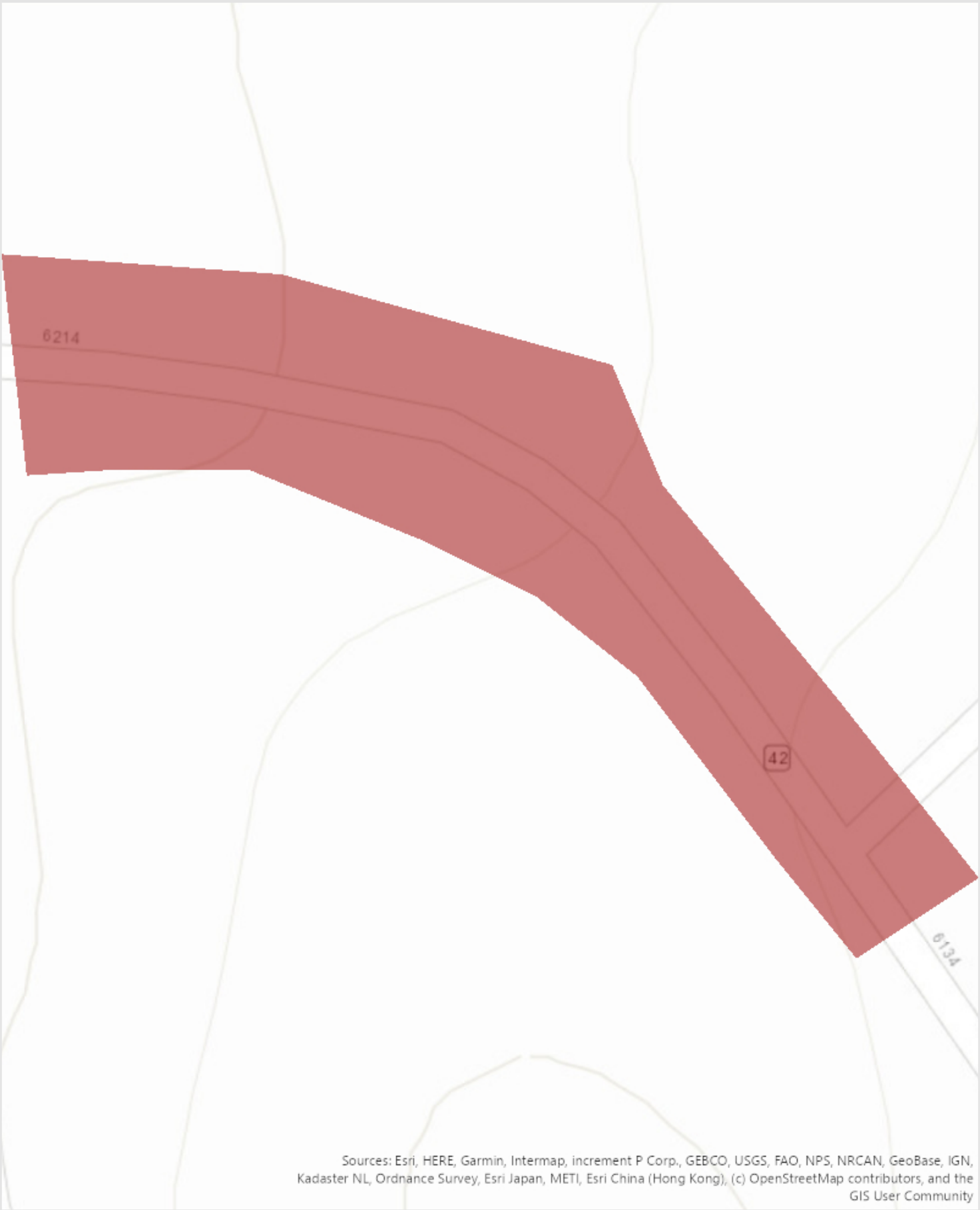
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Phone: (812) 855-7428

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Curve 10



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THIS IS NOT A PERMIT

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

DNR#: ER-26960

Request Received: October 30, 2024

Requestor:
Taylor Gabrysiak
SJCA, Inc.
9102 North Meridian Street, Suite 200
Indianapolis, IN 46260

Project:
SR 42 curve correction at ten locations, including two small structure (CLV 86918 & CLV 86932) replacements, from 6.00 miles east of SR 59 to 2.20 miles west of SR 243; Des #2200184

County/Site Info: Clay, Owen Counties

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

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

Regulatory Assessment:
Formal approval by the Department of Natural Resources under the regulatory programs administered by the Division of Water is not required for this project.

Natural Heritage Database:
The Natural Heritage Program's data have been checked. Cagles Mill Lake has been documented within .5 mile of the project area, as well as the State endangered Round Hickorynut (*Obovaria subrotunda*), the State special concern Badger (*Taxidea taxus*), and the State threatened Starry Campion Moth (*Hadena ectypa*).

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

A) Heritage Species
The Division of Fish and Wildlife does not anticipate any significant impacts to the Round Hickorynut due to this project.

Badgers are a wide-ranging species that prefer an open, prairie-type habitat, with Indiana being at the eastern edge of their natural range. The range of the Badger continues to expand as a result of land-use changes from forest to farmland and open pastureland. Impacts to the Badger or its preferred habitat are unlikely as a result of this project.

B) Crossing Structures

For purposes of maintaining fish and wildlife passage through a crossing structure, the Environmental Unit recommends bridges rather than culverts and bottomless culverts rather than box or pipe culverts. Wide culverts are better than narrow culverts, and culverts with shorter through lengths are better than culverts with longer through lengths. If box or pipe culverts are used, the bottoms should be buried a minimum of 6" or 20% of the culvert height/pipe diameter (whichever is greater) up to a maximum of 2' below the stream bed elevation to allow a natural streambed to form within or under the crossing structure. If a box culvert cannot be over-sized and countersunk, natural substrate ledges which are above the low flow water elevation and at least 1-3' wide for terrestrial wildlife passage need to be installed along the sides of the culvert opening. Crossings should:

- Span the entire channel width (a minimum of 1.2 times the ordinary high-water mark width);
- Maintain the natural stream substrate within the structure; 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.

Culvert dimensions should not result in a narrower channel or bank full width through the structure than in the channel upstream or downstream of the structure. Low-flow depth and flow velocity should approximate those in the natural stream channel. To ensure fish and wildlife passage for structures that do not span the ordinary high-water mark (OHWM), ensure that the flowline (i.e. streambed elevation, width, and gradient) is maintained from the inlet to the outlet and is composed of natural substrate. Culvert width and gradient should be appropriate for the site conditions so that flows do not scour out stream substrate material, placed or naturally accumulated, from the culvert. Sump depth should be appropriate for the erodibility of the soil (i.e. deeper sump in more erodible soils/streambed substrate).

The new, replacement, or rehabbed structure, and any bank stabilization under it, should not create conditions that are less favorable for wildlife passage under the structure compared to the current conditions. When determining an appropriate bridge or culvert size, consider whether wildlife/vehicle collisions are a concern at the crossing site. If feasible, a larger bridge or culvert opening can allow for the movement of wildlife under the roadway to minimize wildlife/vehicle collisions.

C) Riprap Aprons

Any riprap placed at the culvert's outlet/inlet needs to:

- Be installed at grade (or countersunk then backfilled with native material). The slope of the riprap should match the stream's gradient.
- Be mixed with smaller stone and fines to match the existing stream substrate particle distribution and provide impermeability of the riprap apron/substrate so the flow doesn't percolate through the voids below the riprap apron's surface.

D) Riparian Habitat

We recommend a mitigation plan be developed (and submitted with the permit application, if required) for any unavoidable habitat impacts that will occur. The DNR's Habitat Mitigation Guidelines (and plant lists) can be found online at: https://www.in.gov/nrc/files/IB-17.pdf.

Impacts to non-wetland forest of one (1) acre or more in a rural or urban area should be mitigated at a minimum 2:1 ratio based on area of impact. Impacts to non-wetland forest under one (1) acre but at least 0.10 acre in a rural or urban area should be mitigated at a minimum 1:1 ratio based on area of impact. Impacts under 0.10 acre in a rural area typically do not require mitigation or additional plantings beyond seeding and stabilizing disturbed areas, though there are exceptions for high quality habitat sites. Impacts under 0.10 acre in an urban area should be mitigated by replacing each mature tree removed (trees that are 10" diameter-at-breast height (dbh)) with two trees of 3-gallon stock or larger. Seeding and stabilizing disturbed areas is required regardless of the impact amount and location.

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

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

1. Revegetate all bare and disturbed areas that are not currently mowed and maintained with a mixture of grasses, sedges, and wildflowers native to Southern Indiana and specifically for stream bank/floodway stabilization purposes as soon as possible upon completion; turf-type grasses (including low-endophyte, friendly endophyte, and endophyte free tall fescue but excluding all other varieties of tall fescue) may be used in currently mowed areas only. A native herbaceous seed mixture must include at least 5 species of grasses and sedges and 5 species of wildflowers.
2. Minimize and contain within the project limits inchannel disturbance and the clearing of trees and brush.
3. Do not work in the waterway from April 1 through June 30 without the prior written approval of the Division of Fish and Wildlife.
4. Do not cut any trees suitable for Indiana Bat or Northern Long-eared Bat roosting (3 inches or greater diameter-at-breast height, living or dead, with loose hanging bark, or with cracks, crevices, or cavities) from April 1 through September 30.
5. Do not excavate in the low flow area except for the placement of piers, foundations, and riprap, or removal of the old structure.
6. Do not construct any temporary runarounds, access bridges, causeways, cofferdams, diversions, or pumparounds.
7. Use minimum average 6-inch graded riprap stone extended below the normal water level to provide habitat for aquatic organisms in the voids.
8. Do not use broken concrete as riprap.
9. Underlay the riprap with a bedding layer of well graded aggregate or a geotextile to prevent piping of soil underneath the riprap.
10. Minimize the movement of resuspended bottom sediment from the immediate project area.
11. Do not deposit or allow construction/demolition materials or debris to fall or otherwise enter the waterway. Any incidental fallen material or debris in the waterway must be removed within 24 hours using best management practices, particularly lifting material out of the waterway and not dragging it across the streambed whenever possible.
12. Appropriately designed measures for controlling erosion and sediment must be implemented to prevent sediment from entering the waterbody or leaving the construction site; maintain these measures until construction is complete and all disturbed areas are stabilized.
13. Seed and protect all disturbed streambanks and slopes not protected by other methods that are 3:1 or steeper with erosion control blankets that are heavy-duty, biodegradable, and net free or that use loose-woven / Leno-woven netting to minimize the entrapment and snaring of small-bodied wildlife such as snakes and turtles (follow manufacturer's recommendations for selection and installation); seed and apply mulch on all other disturbed areas.

Contact Staff:
Our agency appreciates this opportunity to be of service. Please contact me at RVanVoorhis@dnr.IN.gov or (317) 232-8163 if we can be of further assistance.

Rachel Van Voorhis **Date:** November 22, 2024
Rachel Van Voorhis
Environmental Coordinator
Division of Fish and Wildlife

United States Department of Agriculture

Farm Production and Conservation

Natural Resources Conservation Service

Indiana State Office
6013 Lakeside Boulevard
Indianapolis, Indiana 46278
317-295-5800

December 20, 2024

Taylor Gabrysiak
SJCA Inc.
9102 N. Meridian Street, Suite 200
Indianapolis, Indiana 46260
lrogers@sjcainc.com

Dear Taylor Gabrysiak:

The proposed State Road (SR) 42, from 6.00 miles East of SR 59 to 2.20 miles West of SR 243, Curve Correction Project in Clay and Owen Counties, Indiana, (Des No 2200184) as referred to in your letter received on October 30, 2024, will cause a conversion of prime farmland.

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

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

Sincerely,

JOHN ALLEN

Digitally signed by JOHN ALLEN
Date: 2024.12.30 09:23:20 -05'00'

JOHN ALLEN
State Soil Scientist

Enclosers

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U.S. Department of Agriculture

FARMLAND CONVERSION IMPACT RATING

PART I *(To be completed by Federal Agency)*	Date Of Land Evaluation Request 11/22/2024
Name of Project DES2200184_SR42_Curve Corr (Clay Pc	Federal Agency Involved Federal Highway Administration
Proposed Land Use Right-of-Way	County and State Clay County, IN
PART II *(To be completed by NRCS)*	Date Request Received By NRCS 01/02/2025 / Person Completing Form: JRA

Does the site contain Prime, Unique, Statewide or Local Important Farmland? *(If no, the FPPA does not apply - do not complete additional parts of this form)*	YES ☑ NO ☐	Acres Irrigated	Average Farm Size 348 ac
Major Crop(s) Corn	Farmable Land In Govt. Jurisdiction Acres: 185144 % 80	Amount of Farmland As Defined in FPPA Acres: 16664 % 72	
Name of Land Evaluation System Used LESA	Name of State or Local Site Assessment System	Date Land Evaluation Returned by NRCS	

PART III *(To be completed by Federal Agency)*	Alternative Site Rating Site A	Site B	Site C	Site D
A. Total Acres To Be Converted Directly	2.15			
B. Total Acres To Be Converted Indirectly	0			
C. Total Acres In Site	2.15			
PART IV *(To be completed by NRCS)* Land Evaluation Information				
A. Total Acres Prime And Unique Farmland	1.64			
B. Total Acres Statewide Important or Local Important Farmland	0.00			
C. Percentage Of Farmland in County Or Local Govt. Unit To Be Converted	0.001			
D. Percentage Of Farmland in Govt. Jurisdiction With Same Or Higher Relative Value	93			
PART V (To be completed by NRCS) Land Evaluation Criterion Relative Value of Farmland To Be Converted (Scale of 0 to 100 Points)	66			

PART VI *(To be completed by Federal Agency)* Site Assessment Criteria *(Criteria are explained in 7 CFR 658.5 b. For Corridor project use form NRCS-CPA-106)*	**Maximum Points**	Site A	Site B	Site C	Site D
1. Area In Non-urban Use	(15)	15			
2. Perimeter In Non-urban Use	(10)	20			
3. Percent Of Site Being Farmed	(20)	17			
4. Protection Provided By State and Local Government	(20)	0			
5. Distance From Urban Built-up Area	(15)	7			
6. Distance To Urban Support Services	(15)	10			
7. Size Of Present Farm Unit Compared To Average	(10)	1			
8. Creation Of Non-farmable Farmland	(10)	0			
9. Availability Of Farm Support Services	(5)	3			
10. On-Farm Investments	(20)	5			
11. Effects Of Conversion On Farm Support Services	(10)	0			
12. Compatibility With Existing Agricultural Use	(10)	0			
TOTAL SITE ASSESSMENT POINTS	160	77	0	0	0
PART VII ***(To be completed by Federal Agency)***					
Relative Value Of Farmland *(From Part V)*	100	66	0	0	0
Total Site Assessment *(From Part VI above or local site assessment)*	160	77	0	0	0
TOTAL POINTS ***(Total of above 2 lines)***	260	143	0	0	0

Site Selected: A	Date Of Selection 01/09/2024	Was A Local Site Assessment Used? YES ☐ NO ☒

Reason For Selection:

The existing roadway curves require correction to reduce crashes and traffic incidents due to problems with visibility and pavement deterioration.

Name of Federal agency representative completing this form: Taylor Gabrysiak	Date: 01/09/2025

(See Instructions on reverse side) **Form AD-1006 (03-02)**

U.S. Department of Agriculture

FARMLAND CONVERSION IMPACT RATING

PART I *(To be completed by Federal Agency)*	Date Of Land Evaluation Request 02/19/2025
Name of Project DES2200184_SR42_Curve Corr (Owen F	Federal Agency Involved Federal Highway Administration
Proposed Land Use Right of way	County and State Owen County, IN
PART II *(To be completed by NRCS)*	Date Request Received By NRCS 01/02/2025 JRA / Person Completing Form:

Does the site contain Prime, Unique, Statewide or Local Important Farmland? *(If no, the FPPA does not apply - do not complete additional parts of this form)*	YES ☑ NO ☐	Acres Irrigated	Average Farm Size 175 ac
Major Crop(s) Corn	Farmable Land In Govt. Jurisdiction Acres: 165193 % 67	Amount of Farmland As Defined in FPPA Acres: 10772 % 43	
Name of Land Evaluation System Used LESA	Name of State or Local Site Assessment System	Date Land Evaluation Returned by NRCS	

PART III *(To be completed by Federal Agency)*	Alternative Site Rating Site A	Site B	Site C	Site D
A. Total Acres To Be Converted Directly	2.83			
B. Total Acres To Be Converted Indirectly	0			
C. Total Acres In Site	2.83			
PART IV *(To be completed by NRCS)* Land Evaluation Information				
A. Total Acres Prime And Unique Farmland	0.80			
B. Total Acres Statewide Important or Local Important Farmland	0.00			
C. Percentage Of Farmland in County Or Local Govt. Unit To Be Converted	<0.001			
D. Percentage Of Farmland in Govt. Jurisdiction With Same Or Higher Relative Value	22			
PART V (To be completed by NRCS) Land Evaluation Criterion Relative Value of Farmland To Be Converted (Scale of 0 to 100 Points)	78			

PART VI *(To be completed by Federal Agency)* Site Assessment Criteria *(Criteria are explained in 7 CFR 658.5 b. For Corridor project use form NRCS-CPA-106)*	Maximum Points	Site A	Site B	Site C	Site D
1. Area In Non-urban Use	(15)	14			
2. Perimeter In Non-urban Use	(10)	7			
3. Percent Of Site Being Farmed	(20)	5			
4. Protection Provided By State and Local Government	(20)	0			
5. Distance From Urban Built-up Area	(15)	15			
6. Distance To Urban Support Services	(15)	10			
7. Size Of Present Farm Unit Compared To Average	(10)	0			
8. Creation Of Non-farmable Farmland	(10)	0			
9. Availability Of Farm Support Services	(5)	3			
10. On-Farm Investments	(20)	3			
11. Effects Of Conversion On Farm Support Services	(10)	0			
12. Compatibility With Existing Agricultural Use	(10)	0			
TOTAL SITE ASSESSMENT POINTS	160	0	0	0	0
PART VII ***(To be completed by Federal Agency)***					
Relative Value Of Farmland *(From Part V)*	100	78	0	0	0
Total Site Assessment *(From Part VI above or local site assessment)*	160	57	0	0	0
TOTAL POINTS ***(Total of above 2 lines)***	260	135	0	0	0

Site Selected: A	Date Of Selection 02/19/2025	Was A Local Site Assessment Used? YES ☐ NO ☒

Reason For Selection:

The existing roadway curves require correction to reduce crashes and traffic incidents due to problems with visibility and pavement deterioration.

Name of Federal agency representative completing this form: Taylor Gabrysiak	Date: 02/19/2025

(See Instructions on reverse side) **Form AD-1006 (03-02)**

Taylor Gabrysiak

From: Brower, Jocelyne <JoBrower@dnr.IN.gov>
Sent: Thursday, March 13, 2025 6:28 AM
To: Taylor Gabrysiak; Massing, Jessica
Subject: FW: Early Coordination - Des 2200184 SR 42 Curve Correction, Clay and Owen Counties, IN
Attachments: Early Coordination Des 2200184 SR 42 Curve Correction 10.30.2024.pdf; og-117628_117628_PAR_05092019.pdf

This is the first time you received an email from this sender (JoBrower@dnr.IN.gov). Exercise caution when clicking links, opening attachments or taking further action, before validating its authenticity.

Secured by Check Point

Good morning,

In reviewing the early coordination letter attached, it appears that all known Oil/Gas wells in the project area have been plugged.
Please note on curve 3, IGS ID 117628 which appears to be in proximity to the work area. The well was plugged from TD to 175 with cement, 175 to 30 with rotary mud, and 30 to 3 with cement.



If you encounter the top plug or an unexpected void, steel piping, or other subsurface structures during your project excavation, please contact our office for coordination and assessment.

Thank you,

Jocelyne Brower
Orphan Well Program Manager
Indiana Department of Natural Resources
Division of Reclamation
Oil & Gas Program
463-304-1804
jobrower@dnr.IN.gov
www.dnr.IN.gov

INDIANA DEPARTMENT OF TRANSPORTATION

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

PHONE: (855) 463-6848

Mike Braun, Governor
Lyndsay Quist, Commissioner

June 17, 2025

Robin McWilliams-Munson
U.S. Fish and Wildlife Service
Bloomington Field Office
620 South Walker Street
Bloomington, Indiana 46403

Re: Standard Consultation for the gray bat
Des. No. 2200184
SR 42 Curve Corrections Project; From 6.00 miles east of SR 59 to 2.20 miles west of SR 243, Clay and Owen Counties, Indiana

Dear Ms. McWilliams-Munson:

The Indiana Department of Transportation (INDOT), is acting on behalf of Federal Highway Administration (FHWA), and submitting this letter for standard consultation for the gray bat (*Myotis grisescens*).

Existing Project Conditions

The project occurs in Clay and Owen Counties, Indiana, along 10 curves that require corrections. The project area is rural in nature, consisting primarily of agricultural, forested, and interspersed residential parcels. Various mapped streams and rivers and Cagles Mill Lake are in the vicinity of the project; however, none of these larger mapped water bodies are within the immediate project area. Three smaller, unmapped streams, and three wetlands, were identified within the immediate project area as part of the Waters of the US investigation. Habitat for the gray bat within the project area is limited to the riparian areas in the vicinity of these smaller streams. The project is not within a Karst area.

Proposed Improvements

The project includes correcting each of the curves to allow for a more favorable turning radius, particularly for larger vehicles such as trucks. The existing roadway does not meet the minimum standards for lane or shoulder widths. Each curve is posted for a substantial reduction in speed to allow motorists to slow down to safely navigate the curves. The path of each curve will be modified slightly, and the roadway will be widened to accommodate wider lanes and shoulders to meet the minimum design criteria. Two culverts will be replaced within the project area; the existing culverts are 15 inches and 18 inches in diameter.

Permanent and temporary right-of-way (ROW) are anticipated to be required for this project. The current estimates indicate that approximately 5.082 acre of permanent ROW and 0.026 acre of temporary ROW will be required for this project.

The maintenance of traffic (MOT) for the project will require a closure at each curve and a detour route. The official detour route will utilize SR 59, I-70, and SR 243, and will be approximately 20.5

miles in length. Local detour routes will be available for local traffic that utilizes the adjacent county roads. The closure and detours for each curve are anticipated to last for approximately four weeks, with the overall construction for this project lasting approximately 8 months.

Coordination Completed

A check into the USFWS database by INDOT staff occurred on September 5, 2024 and indicated that no bats hibernation, roosting, or capture sites are within 0.5 mile of the project area. The IPaC species list for this project, dated May 16, 2025 indicated that the project occurs within the range of the federally endangered Indiana bat (*Myotis sodalis*), northern long-eared bat (*Myotis septentrionalis*), and the gray bat, the proposed federally endangered tricolored bat (*Perimyotis subflavus*) and salamander mussel (*Simpsonaias ambigua*), the proposed federally threatened monarch butterfly (*Danaus plexippus*), and the experimental population whooping crane (*Grus americana*).

Coordination for the Indiana bat, northern long-eared bat, and tricolored bat is ongoing and will be completed through IPaC. The determination is pending for these other species; however, it is anticipated that they will receive a determination of "May affect, not likely to adversely affect".

As experimental population species, the whooping crane is not given any statutory protection under the Endangered Species Act. As proposed for inclusion on the list of federally endangered and threatened species, the tricolored bat, salamander mussel, and monarch butterfly would have Section 7 requirements if the project would jeopardize the species or if the project would impact any USFWS listed critical habitat. The official species list states that no critical habitat overlaps with the project area; therefore, no impacts are expected for these additional species.

Existing Gray Bat Habitat and Assessment of Suitable Habitat

The preferred year-round habitat of gray bats is caves or cave-like structures. Per the USFWS, summer gray bat colonies have been documented using dams, mines, quarries, concrete box culverts and the undersides of bridges. Gray bats are also known to use trees in a limited manner, primarily during migration and foraging.

The project area is rural in nature, consisting primarily of agricultural, forested, and interspersed residential parcels. Habitat for the gray bat within the project area is limited to the riparian areas in the vicinity of these smaller streams. Forested habitat is present within and adjacent to the project area and is dominated by pin oak (*Quercus palustris*) and sugar maple (*Acer saccharum*), which are greater than 3 inches diameter at breast height. The project is not within a Karst area.

Various mapped streams and rivers and Cagles Mill Lake are in the vicinity of the project; however, none of these larger water bodies are within the immediate project area. Three smaller, unmapped streams, and three wetlands, were identified within the immediate project area as part of the Waters of the US investigation. The riparian and forested areas near these streams and wetlands are suitable foraging habitat for gray bats.

There are no caves or karst features in or near the project area. While tree removal is necessary, all work will occur within 100 feet of the road. Per the IPaC Tree AMMs, all tree clearing and trimming will occur during the inactive bat season (October 1 through March 31). Temporary lighting for nighttime work, if necessary, will have a negligible effect on any gray bats that may be present.

Impacts

Impacts will occur to existing gray bat habitat via tree clearing. Approximately 1.6 acres of tree clearing will occur in the vicinity of the project. The primary location of tree clearing will be at Curves 4 and 5, Curves 6 and 7, Curve 8, and Curve 9. See the attached graphics for the locations of each of these curves. The dominant species to be removed will be pin oak (*Quercus palustris*) and sugar maple (*Acer saccharum*). Impacts to streams delineated in the Waters of the US Report will occur and may temporarily disturb foraging habitat for gray bats. Temporary lighting will be used during both the active and inactive seasons for bats. No permanent lighting will be installed for this project.

Commitments

The following commitments are proposed as Avoidance and Minimization Measures (AMMs) to reduce potential impacts to the Indiana bat and tricolored bat. These AMMs are a result of the determination made in IPaC and will also reduce the likelihood of impacts to the gray bat (*Myotis grisescens*).

General AMM 1. Ensure all operators, employees, and contractors working in areas of Indiana bat, NLEB, or TCB suitable habitat are aware of all Transportation Agency environmental commitments, including all applicable AMMs.

Lighting AMM 1. Direct temporary lighting away from suitable habitat during the active season.

Tree Removal/Trimming AMM 1. Modify all phases/aspects of the project (e.g., temporary work areas, alignments) to the extent practicable to avoid tree removal/trimming in excess of what is required to implement the project safely.

Tree Removal/Trimming AMM 2. Ensure tree removal/trimming 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 removal/trimming to ensure contractors stay within clearing limits).

Tree Removal/Trimming AMM 3. Ensure tree removal/trimming is limited to the inactive season, occurs within 100 ft of the road/rail surface, and is outside of documented habitat for the Indiana bat, NLEB, and TCB.

Conclusion

Based on the USFWS Species List, the IDNR DFW early coordination response letter, reviews of the project plans, and site visits to determine the presence, quality, and quantity of suitable habitat for the federally endangered gray bat (*Myotis grisescens*), and the proposed AMMs to reduce the likelihood of impacts to all bat species, the FHWA has determined the proposed project has an effect finding of "May Affect – Not Likely to Adversely Affect" for the federally endangered gray bat (*Myotis grisescens*).

The FHWA is requesting USFWS concurrence with this project "May Affect – Not Likely to Adversely Affect" determination.

Please contact Christian Radcliff (cradcliff@sjcainc.com) or the INDOT Project Manager, Jessica Conkright (jconkright@indot.in.gov) if you have any questions or require additional information. We appreciate your attention to this project.

Attachments: Graphics, IPaC Species List

Wanda Walling

From: McWilliams, Robin <robin_mcwilliams@fws.gov>
Sent: Wednesday, June 18, 2025 1:48 PM
To: Christian Radcliff
Cc: Ervin, Brock; Wanda Walling; jconkright@indot.in.gov
Subject: Re: [EXTERNAL] Des 2200184 SR 42 Curve Corrections Section 7 Coordination

Dear All,

The Service concurs the project is not likely to adversely affect the gray bat. Please let me know if you have any other questions.

Sincerely,
Robin

Robin McWilliams Munson
Fish and Wildlife Biologist/Transportation Liaison
U.S. Fish and Wildlife Service
Indiana Ecological Services Field Office
620 South Walker Street
Bloomington, IN 47403
Robin_McWilliams@fws.gov
***NEW* 812-902-1752**

Mon-Thurs 8:30-4:30p

From: Christian Radcliff <cradcliff@sjcainc.com>
Sent: Tuesday, June 17, 2025 4:38 PM
To: McWilliams, Robin <robin_mcwilliams@fws.gov>
Cc: Ervin, Brock <bervin@indot.in.gov>; Wanda Walling <wwalling@sjcainc.com>; jconkright@indot.in.gov <jconkright@indot.in.gov>
Subject: [EXTERNAL] Des 2200184 SR 42 Curve Corrections Section 7 Coordination

This email has been received from outside of DOI - Use caution before clicking on links, opening attachments, or responding.

Hi Robin,

Please see attached for INDOT's letter requesting a review of impacts to the Gray Bat for this project. Please let me know if you have any questions about the scope of this project.

Thanks!

Christian Radcliff

United States Department of the Interior

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

In Reply Refer To: 03/11/2026 15:48:08 UTC
Project Code: 2025-0037501
Project Name: State Road (SR) 42 Curve Corrections Project (Des 2200184)

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

To Whom It May Concern:

The purpose of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 et seq.), is to provide a means whereby threatened and endangered species and the ecosystems upon which they depend may be conserved. Under sections 7(a)(1) and 7(a)(2) of the Act and its implementing regulations (50 CFR 402 et seq.), Federal agencies are required to utilize their authorities to carry out programs for the conservation of threatened and endangered species and to determine whether projects may affect threatened and endangered species and/or designated critical habitat.

The enclosed species list identifies threatened, endangered, proposed, and candidate species, as well as proposed and final designated critical habitat, that may occur within the boundary of your proposed project and may be affected by your proposed project. The species list fulfills the requirements of the U.S. Fish and Wildlife Service (Service) under section 7(c) of the Act.

New information based on updated surveys, changes in the abundance and distribution of species, changed habitat conditions, or other factors could change this list. Please note that under 50 CFR 402.12(e) of the regulations implementing section 7 of the Act, the accuracy of this species list should be verified after 90 days. You can complete this verification formally or informally or request an updated list by visiting the IPaC website at regular intervals during project planning and implementation.

Please use the species list provided and visit the U.S. Fish and Wildlife Service's Region 3 Section 7 Technical Assistance website at Midwest Section 7 Technical Assistance | U.S. Fish & Wildlife Service. This website contains step-by-step instructions to help you determine if your project will have an adverse effect on listed species and to lead you through the Section 7 process.?

We appreciate your concern for threatened and endangered species. Federal agencies should include conservation of threatened and endangered species into their project planning to further

the purposes of the Act. Please include the Consultation Code in the header of this letter with any request for consultation or correspondence about your project that you submit to our office.

Other Trust Resources and Activities?

Bald and Golden Eagles?- Although the bald eagle has been removed from the endangered species list, this species and the golden eagle are protected by the Bald and Golden Eagle Act and the Migratory Bird Treaty Act. It is the responsibility of the project proponent to survey the area for any migratory bird nests. If there is an eagle nest on-site while work is on-going, eagles may be disturbed. We recommend avoiding and minimizing disturbance to eagles whenever practicable. If you cannot avoid eagle disturbance, you may seek a?permit. A?nest take permit?is always required for removal, relocation, or obstruction of an eagle nest. For communication and wind energy projects, please refer to additional guidelines below.?

Migratory Birds?- The Migratory Bird Treaty Act (MBTA) prohibits the taking, killing, possession, transportation, and importation of migratory birds, their eggs, parts, and nests, except when specifically authorized by the Service. The Service has the responsibility under the MBTA to proactively prevent the mortality of migratory birds whenever possible and we encourage implementation of?recommendations that minimize potential impacts to migratory birds. Such measures include clearing forested habitat outside the nesting season (generally March 1 to August 31) or conducting nest surveys prior to clearing to avoid injury to eggs or nestlings.?

Communication Towers?- Construction of new communications towers (including radio, television, cellular, and microwave) creates a potentially significant impact on migratory birds, especially some 350 species of night-migrating birds. However, the Service has developed? voluntary guidelines for minimizing impacts.?

Transmission Lines?- Migratory birds, especially large species with long wingspans, heavy bodies, and poor maneuverability can also collide with power lines. In addition, mortality can occur when birds, particularly hawks, eagles, kites, falcons, and owls, attempt to perch on uninsulated or unguarded power poles. To minimize these risks, please?refer to?guidelines? developed by the Avian Power Line Interaction Committee and the Service. Implementation of these measures is especially important along sections of lines adjacent to wetlands or other areas that support large numbers of raptors and migratory birds.?

Wind Energy?- To minimize impacts to migratory birds and bats, wind energy projects should follow the Service’s?Wind Energy Guidelines. In addition, please refer to the Service's?Eagle Conservation Plan Guidance, which provides guidance for conserving bald and golden eagles in the course of siting, constructing, and operating wind energy facilities.

Attachment(s):

- Official Species List
- Bald & Golden Eagles
- Migratory Birds
- Wetlands

OFFICIAL SPECIES LIST

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

This species list is provided by:

Indiana Ecological Services Field Office
620 South Walker Street
Bloomington, IN 47403-2121
(812) 334-4261

PROJECT SUMMARY

Project Code: 2025-0037501
Project Name: State Road (SR) 42 Curve Corrections Project (Des 2200184)
Project Type: Road/Hwy - Maintenance/Modification
Project Description: The Indiana Department of Transportation (INDOT) and the Federal Highway Administration (FHWA) intend to proceed with a curve corrections project involving the section of SR 42 located from 6.01 miles east of SR 59 to 2.22 miles west of SR 243 in Owen and Clay County, Indiana. This existing section of SR 42 is an east-west rural major collector with two nine-foot-wide lanes with no shoulders. The proposed scope of work involves lane and shoulder widening at 10 curves within the project area. Grading will be required beyond the existing roadway to install a v-ditch to move water away from the roadway. Two culverts within the project area, CLV 86918 (within the limits of the curve correction of Curve 3) and CLV 86932 (within the limits of the curve correction of Curve 9) will be replaced. The Maintenance of Traffic (MOT) is anticipated to consist of a detour that utilizes SR 59, Interstate 70 (I-70), and SR 243 which will extend approximately 20.5 miles in length. Suitable habitat is within and adjacent to several of the curve corrections within the project area in the form of forested roadsides. Approximately 1.60 acres of tree clearing is anticipated, and all tree clearing will be completed within 100 feet of the existing roadway. Per the USFWS official species list, the project is within the range of the gray bat. Due to greater than 0.5 acre of tree clearing. Therefore, informal coordination for the gray bat was conducted with USFWS. The USFWS concurs that the project is not likely to adversely affect the gray bat on June 18, 2025. No permanent lighting is planned; however, temporary lighting may be used during construction. A review of the USFWS database by INDOT Greenfield District on September 5, 2024 did not indicate the presence of endangered bat species in or within 0.5 mile of the project area. Both of the existing structures are 15 inches in diameter; therefore, no formal bat inspection was conducted of either of the structures. Construction is anticipated to begin in spring of 2027.

Project Location:

The approximate location of the project can be viewed in Google Maps: https://www.google.com/maps/@39.4442051,-86.96937974984203,14z



Counties: Clay and Owen counties, Indiana

ENDANGERED SPECIES ACT SPECIES

There is a total of 7 threatened, endangered, or candidate species on this species list.

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

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries[1], as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

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

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

MAMMALS

NAME	STATUS
Gray Bat *Myotis grisescens* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/6329	Endangered
Indiana Bat *Myotis sodalis* There is **final** critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/5949	Endangered
Northern Long-eared Bat *Myotis septentrionalis* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/9045	Endangered
Tricolored Bat *Perimyotis subflavus* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/10515	Proposed Endangered

BIRDS

NAME	STATUS
Whooping Crane *Grus americana* Population: Eastern Migratory NEP - U.S.A. (AL, AR, FL, GA, IL, IN, IA, KY, LA, MI, MN, MS, MO, NC, OH, SC, TN, VA, WI, WV) No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/758	Experimental Population, Non-Essential

CLAMS

NAME	STATUS
Salamander Mussel *Simpsonaias ambigua* There is **proposed** critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/6208	Proposed Endangered

INSECTS

NAME	STATUS
Monarch Butterfly *Danaus plexippus* There is **proposed** critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/9743	Proposed Threatened

CRITICAL HABITATS

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

YOU ARE STILL REQUIRED TO DETERMINE IF YOUR PROJECT(S) MAY HAVE EFFECTS ON ALL ABOVE LISTED SPECIES.

BALD & GOLDEN EAGLES

Bald and Golden Eagles are protected under the Bald and Golden Eagle Protection Act [2] and the Migratory Bird Treaty Act (MBTA) [1]. Any person or organization who plans or conducts activities that may result in impacts to Bald or Golden Eagles, or their habitats, should follow appropriate regulations and consider implementing appropriate avoidance and minimization measures, as described in the various links on this page.

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

There are Bald Eagles and/or Golden Eagles in your project area.

Measures for Proactively Minimizing Eagle Impacts
For information on how to best avoid and minimize disturbance to nesting bald eagles, please review the National Bald Eagle Management Guidelines. You may employ the timing and activity-specific distance recommendations in this document when designing your project/ activity to avoid and minimize eagle impacts. For bald eagle information specific to Alaska, please refer to Bald Eagle Nesting and Sensitivity to Human Activity.

The FWS does not currently have guidelines for avoiding and minimizing disturbance to nesting Golden Eagles. For site-specific recommendations regarding nesting Golden Eagles, please consult with the appropriate Regional Migratory Bird Office or Ecological Services Field Office.

If disturbance or take of eagles cannot be avoided, an incidental take permit may be available to authorize any take that results from, but is not the purpose of, an otherwise lawful activity. For assistance making this determination for Bald Eagles, visit the Do I Need A Permit Tool. For assistance making this determination for golden eagles, please consult with the appropriate Regional Migratory Bird Office or Ecological Services Field Office.

Ensure Your Eagle List is Accurate and Complete
If your project area is in a poorly surveyed area in IPaC, your list may not be complete and you may need to rely on other resources to determine what species may be present (e.g. your local FWS field office, state surveys, your own surveys). Please review the Supplemental Information on Migratory Birds and Eagles, to help you properly interpret the report for your specified location, including determining if there is sufficient data to ensure your list is accurate.

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to bald or golden eagles on your list, see the "Probability of Presence Summary" below to see when these bald or golden eagles are most likely to be present and breeding in your project area.

NAME	BREEDING SEASON
Bald Eagle *Haliaeetus leucocephalus* This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities. https://ecos.fws.gov/ecp/species/1626	Breeds Sep 1 to Jul 31

PROBABILITY OF PRESENCE SUMMARY

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

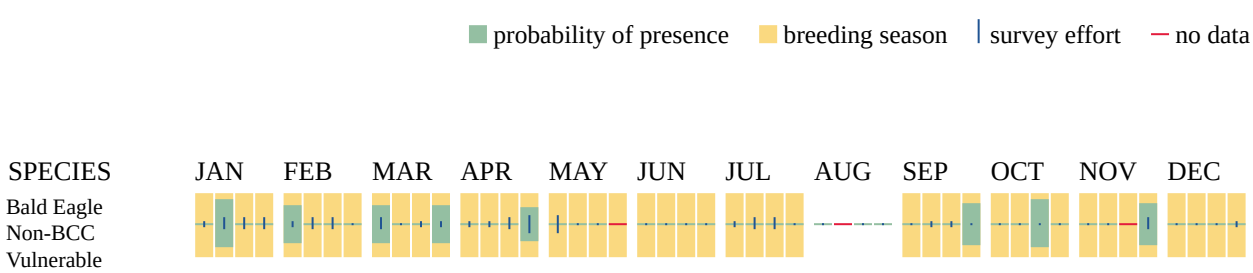
Probability of Presence (▪)

Green bars; the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during that week of the year.

Breeding Season (▪)
Yellow bars; liberal estimate of the timeframe inside which the bird breeds across its entire range.

Survey Effort (|)
Vertical black lines; the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps.

No Data (–)
A week is marked as having no data if there were no survey events for that week.



Additional information can be found using the following links:

- Eagle Management https://www.fws.gov/program/eagle-management
- Measures for avoiding and minimizing impacts to birds https://www.fws.gov/library/collections/avoiding-and-minimizing-incidental-take-migratory-birds

- Nationwide avoidance and minimization measures for birds https://www.fws.gov/sites/default/files/documents/nationwide-standard-conservation-measures.pdf
- Supplemental Information for Migratory Birds and Eagles in IPaC https://www.fws.gov/media/supplemental-information-migratory-birds-and-bald-and-golden-eagles-may-occur-project-action

MIGRATORY BIRDS

The Migratory Bird Treaty Act (MBTA) [1] prohibits the take (including killing, capturing, selling, trading, and transport) of protected migratory bird species without prior authorization by the Department of Interior U.S. Fish and Wildlife Service (Service).

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

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to migratory birds on your list, see the "Probability of Presence Summary" below to see when these birds are most likely to be present and breeding in your project area.

NAME	BREEDING SEASON
Bald Eagle *Haliaeetus leucocephalus* This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities. https://ecos.fws.gov/ecp/species/1626	Breeds Sep 1 to Jul 31
Cerulean Warbler *Setophaga cerulea* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/2974	Breeds Apr 23 to Jul 20
Chimney Swift *Chaetura pelagica* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9406	Breeds Mar 15 to Aug 25
Field Sparrow *Spizella pusilla* This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA https://ecos.fws.gov/ecp/species/9446	Breeds Mar 1 to Aug 15

NAME	BREEDING SEASON
Kentucky Warbler *Geothlypis formosa* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9443	Breeds Apr 20 to Aug 20
Prairie Warbler *Setophaga discolor* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9513	Breeds May 1 to Jul 31
Prothonotary Warbler *Protonotaria citrea* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9439	Breeds Apr 1 to Jul 31
Red-headed Woodpecker *Melanerpes erythrocephalus* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9398	Breeds May 10 to Sep 10
Rusty Blackbird *Euphagus carolinus* This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA https://ecos.fws.gov/ecp/species/9478	Breeds elsewhere
Wood Thrush *Hylocichla mustelina* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9431	Breeds May 10 to Aug 31

PROBABILITY OF PRESENCE SUMMARY

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

Probability of Presence (■)

Green bars; the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during that week of the year.

Breeding Season (■)
Yellow bars; liberal estimate of the timeframe inside which the bird breeds across its entire range.

Survey Effort (|)

Vertical black lines; the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps.

No Data (–)
A week is marked as having no data if there were no survey events for that week.



Additional information can be found using the following links:

- Eagle Management https://www.fws.gov/program/eagle-management
- Measures for avoiding and minimizing impacts to birds https://www.fws.gov/library/collections/avoiding-and-minimizing-incidental-take-migratory-birds

- Nationwide avoidance and minimization measures for birds
- Supplemental Information for Migratory Birds and Eagles in IPaC https://www.fws.gov/media/supplemental-information-migratory-birds-and-bald-and-golden-eagles-may-occur-project-action

WETLANDS

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

For more information please contact the Regulatory Program of the local U.S. Army Corps of Engineers District.

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

THERE ARE NO WETLANDS WITHIN YOUR PROJECT AREA.

IPAC USER CONTACT INFORMATION

Agency: SJCA Inc.
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City: Indianapolis
State: IN
Zip: 46203
Email cradcliff@sjcainc.com
Phone: 3175660629

LEAD AGENCY CONTACT INFORMATION

Lead Agency: Federal Highway Administration

United States Department of the Interior

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

In Reply Refer To: 06/20/2025 17:53:11 UTC
Project code: 2025-0037501
Project Name: State Road (SR) 42 Curve Corrections Project (Des 2200184)

Subject: Not Likely to Adversely Affect Concurrence verification letter for the 'State Road (SR) 42 Curve Corrections Project (Des 2200184)' project under the December 13, 2024, FHWA, FRA, FTA Programmatic Biological Opinion for Transportation Projects within the Range of the Indiana Bat, Northern Long-eared Bat, and Tricolored Bat.

To whom it may concern:

This letter records the determination of effects to federally listed (or proposed) bat species anticipated to result from the State Road (SR) 42 Curve Corrections Project (Des 2200184) (the Project). This determination is based upon information you entered into the assisted determination key (Dkey) associated with the above referenced Programmatic Biological Opinion/Conference Opinion (PBO/PCO) in the U.S. Fish and Wildlife Service's (Service) Information for Planning and Consultation (IPaC) system on the date listed above to verify that the Project may rely on the concurrence provided in the PBO/PCO to satisfy requirements under section 7(a)(2) of the Endangered Species Act of 1973 (ESA) (16 USC 1536), as amended.

Ensuring Accurate Determinations When Using IPaC:

The Service developed the IPaC system and this Dkey in accordance with the ESA and based on the PBO/PCO. All information submitted by the project proponent into IPaC must accurately represent the full scope and details of the Project.

Failure to accurately represent or implement the Project as detailed in the Dkey invalidates this letter. Answers to certain questions in the Dkey commit the project proponent to implementation of conservation measures that must be followed for the ESA determinations to remain valid. Carefully review this letter, your ESA requirements are <u>NOT</u> yet complete.

Determinations:

Based on the information you provided (Project Description shown below), you have determined that the Project is within the scope and adheres to the criteria of the PBO/PCO, including the adoption of applicable avoidance and minimization measures. Based on your IPaC submission and the PBO/PCO, the Project is consistent with the following effect determinations:

Species	Listing Status	Determination
Indiana Bat (*Myotis sodalis*)	Endangered	NLAA
Northern Long-eared Bat (*Myotis septentrionalis*)	Endangered	NLAA
Tricolored Bat (*Perimyotis subflavus*)	Proposed Endangered	NLAA

The tricolored bat is proposed for listing as endangered under the ESA, but not yet listed. For actions that may affect a proposed species, agencies cannot consult, but they can confer under the authority of section 7(a)(4) of the ESA. Such conferences can follow the procedures for a consultation and be adopted as such if the proposed species is listed. Should the tricolored bat be listed, agencies must review projects that are not yet complete, or projects with ongoing effects within the tricolored bat range that previously received a no effect or not likely to adversely affect (NLAA) determination from the key to confirm that the determination is still accurate.

The Service has 14 calendar days to notify the lead Federal action agency or designated non-federal representative if we determine that the Project does not meet the criteria for a NLAA determination under the PBO/PCO. **If the Service does <u>not</u> notify the lead Federal action agency or designated non-federal representative within that timeframe, you may proceed with the Project under the terms of the NLAA concurrence provided in the PBO/PCO**. This verification period allows Service Field Offices to apply local knowledge to implementation of the PBO, as we may identify a small subset of actions having impacts that were unanticipated. In such instances, Service Field Offices may request additional information that is necessary to verify inclusion of the proposed action under the PBO/PCO.

If the Project is modified, or new information reveals that it may affect the Indiana bat, northern long-eared bat, or tricolored bat in a manner or to an extent not considered in the PBO/PCO, further review to conclude the requirements of ESA section 7(a)(2) may be required.

For Proposed Actions that include bridge/culvert or structure removal, replacement, and/or maintenance activities:

If your initial bridge, culvert, or structure assessment failed to detect Indiana bat, northern long-eared bat, or tricolored bat use or occupancy, yet bats are later detected prior to, or during construction, promptly notify the local Service Field Office within 2 working days of the discovery. In addition, please document whether incidental take occurred, and if so, the type (i.e. kill or harm) and amount (i.e. number of individuals) and submit documentation to the local Service Field Office within 5 working days from the completion of the bridge, culvert, or structure construction (use Appendix E - Post Assessment Discovery of Bats at Bridge/Culvert or Structure Form in the User's Guide). In these instances, potential incidental take of Indiana bats, northern long-eared bats, or tricolored bats may be exempted provided that the take is reported to

the Service. In these instances, potential incidental take of Indiana bats, northern long-eared bats, or tricolored bats may be exempted provided that the take is reported to the Service.

If the Project may affect any other federally listed or proposed species and/or designated critical habitat, additional consultation between the lead Federal action agency and this Service Field Office is required for those species/designated critical habitat. If the Project has the potential to take bald or golden eagles, additional coordination with the Service under the Bald and Golden Eagle Protection Act may also be required. In either of these circumstances, please advise the lead Federal action agency to contact this Service Field Office

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

- Gray Bat *Myotis grisescens* Endangered
- Monarch Butterfly *Danaus plexippus* Proposed Threatened
- Salamander Mussel *Simpsonaias ambigua* Proposed Endangered
- Whooping Crane *Grus americana* Experimental Population, Non-Essential

PROJECT DESCRIPTION

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

NAME

State Road (SR) 42 Curve Corrections Project (Des 2200184)

DESCRIPTION

The Indiana Department of Transportation (INDOT) and the Federal Highway Administration (FHWA) intend to proceed with a curve corrections project involving the section of SR 42 located from 6.01 miles east of SR 59 to 2.22 miles west of SR 243 in Owen and Clay County, Indiana. This existing section of SR 42 is an east-west rural major collector with two nine-foot-wide lanes with no shoulders. The proposed scope of work involves lane and shoulder widening at 10 curves within the project area. Grading will be required beyond the existing roadway to install a v-ditch to move water away from the roadway. Two culverts within the project area, CLV 86918 (within the limits of the curve correction of Curve 3) and CLV 86932 (within the limits of the curve correction of Curve 9) will be replaced. The Maintenance of Traffic (MOT) is anticipated to consist of a detour that utilizes SR 59, Interstate 70 (I-70), and SR 243 which will extend approximately 20.5 miles in length. Suitable habitat is within and adjacent to several of the curve corrections within the project area in the form of forested roadsides. Approximately 1.60 acres of tree clearing is anticipated, and all tree clearing will be completed within 100 feet of the existing roadway. Per the USFWS official species list, the project is within the range of the gray bat. Due to greater than 0.5 acre of tree clearing. Therefore, informal coordination for the gray bat was conducted with USFWS. The USFWS concurs that the project is not likely to adversely affect the gray bat on June 18, 2025. No permanent lighting is planned; however, temporary lighting may be used during construction. A review of the USFWS database by INDOT Greenfield District on September 5, 2024 did not indicate the presence of endangered bat species in or within 0.5 mile of the project area. Both of the existing structures are 15 inches in diameter; therefore, no formal bat inspection was conducted of either of the structures. Construction is anticipated to begin in spring of 2027.

The approximate location of the project can be viewed in Google Maps: https://www.google.com/maps/@39.4442186,-86.96937773969606,14z



DETERMINATION KEY RESULT

Based on your answers provided, this project(s) may affect, but is not likely to adversely affect the Indiana bat, northern long-eared bat or tricolored bat, therefore, consultation with the U.S. Fish and Wildlife Service pursuant to Section 7(a)(2) of the Endangered Species Act of 1973 (ESA) (87 Stat. 884, as amended 16 U.S.C. 1531 et seq.) is required. However, also based on your answers provided, this project may rely on the concurrence provided in the Programmatic Biological Opinion/Conference Opinion for Transportation Projects in the Range of the Indiana bat, northern long-eared bat, and tricolored bat, dated December 13, 2024.

QUALIFICATION INTERVIEW

1. Which Federal Agency is the lead federal agency the action?

   A) Federal Highway Administration (FHWA)

2. Does the Action Area intersect the species list area of the Northern long-eared bat?

   Automatically answered
   Yes

3. Does the Action Area intersect the species list area of the Indiana bat?

   Automatically answered
   Yes

4. Does the Action Area intersect the species list area of the tricolored Bat (TCB)?

   Automatically answered
   Yes

5. Is the project within 0.5 miles radius of an entrance/opening to any known Indiana bat hibernaculum?

   No

6. Does your project's activities include raising the road profile above the tree canopy in documented habitat for the Indiana bat, NLEB, or TCB?

   Note: For the definition of documented habitat, refer to Appendix A: https://www.fws.gov/media/users-guide-range-wide-programmatic-consultation-indiana-bat-and-northern-long-eared-bat

   No

7. Is your project located within a karst area?

   No

8. Will the project include bridge, culvert, or structure removal, replacement, and/or alteration activities?

   Note: For definitions of bridge, culvert, and structure, refer to Appendix A: https://www.fws.gov/media/users-guide-range-wide-programmatic-consultation-indiana-bat-and-northern-long-eared-bat.

   Yes

9. Do your project's activities involve tree removal/trimming, temporary lighting, new/additional permanent lighting, ground disturbance, percussives that involves noise/vibration above existing background levels, vibrations, or slash pile burning?

   Yes

10. Is there suitable summer habitat for the Indiana bat, NLEB, or TCB within the project action area?

    Note: See the Service's summer survey guidance for current definitions of suitable habitat [https://www.fws.gov/midwest/endangered/mammals/inba/inbasummersurveyguidance.html].

    Yes

11. Have P/A surveys for the Indiana bat, NLEB, or TCB been conducted within the suitable summer habitat located within your project action area? This refers to mist-netting or acoustic surveys, not bridge assessments.

    Note: See the Service's survey guidance https://www.fws.gov/midwest/endangered/mammals/inba/inbasummersurveyguidance.html

    No

12. Will the project involve the removal or trimming of trees within suitable habitat for the Indiana bat, NLEB, or TCB?

    Yes

13. Will any tree removal or trimming occur during the bat pup season?

    Note: For more information about bat pup seasons please visit https://www.fws.gov/sites/default/files/documents/2024-10/2024_usfws_rangewide_ibat-nleb_survey_guidelines.pdf

    No

14. Will the removal or trimming of trees occur **within documented habitat** for the Indiana bat, NLEB, or TCB?

    Note: For the definition of documented habitat, refer to Appendix A: https://www.fws.gov/media/users-guide-range-wide-programmatic-consultation-indiana-bat-and-northern-long-eared-bat

    No

15. Will all tree removal or trimming occur within 100 feet of the road or rail surface?

    Yes

16. Does your project include activities involving the temporary or permanent exclusion of Indiana bats, NLEBs, or TCBs from a bridge/culvert or structure?

    Note: exclusion is conducted to deny bats' entry or reentry into a bridge/culvert or structure. To be effective and to avoid harming bats, it should be done according to established standards.

    No

17. Does your project involve the use of temporary lighting within Indiana bat, NLEB, or TCB suitable habitat?

    Note: For the definition of lighting, refer to Appendix A: https://www.fws.gov/media/users-guide-range-wide-programmatic-consultation-indiana-bat-and-northern-long-eared-bat

    Yes

18. Will the use of temporary lighting be conducted during the Indiana bat, NLEB, or TCB active season?

    Yes

19. Will temporary lighting be directed away from Indiana bat, NLEB, or TCB suitable habitat)?

    Yes

20. Will the project substantially increase baseline light conditions via the use of permanent lighting (replacement or new/additional) in suitable habitat.

    No

21. Will your project include percussive activities?

    Note: Refer to Stressor #2 Noise/Vibration on page 109 of the PBO/PCO.

    No

22. Will the project include **bridge** removal, replacement, and/or alteration activities?

    No

23. Does the project include **culvert** removal, replacement, and/or alteration activities?

    Yes

24. Does the culvert equal or exceed 23 feet (7.0 meters) in length?

    Yes

25. Are the interior dimensions of the culvert less than 3 ft. in diameter/height?

    Yes

26. Does the project include **structure** removal, replacement, and/or alteration activities?

    No

27. Will the project involve the removal or trimming of more than 20 acres of Indiana bat, NLEB, or TCB suitable habitat per 5-mile section of road/rail?

    No

28. Will the removal or trimming of trees occur within 0.5 miles of a known Indiana bat, NLEB, or TCB hibernaculum?

    No

29. Will the removal or trimming of these trees occur during the active season?

    No

30. Will the removal or trimming of trees occur **beyond 100 feet** of the existing road/rail surfaces?

    No

31. Does the Action Area intersect the species list area of the Indiana bat?

    Automatically answered
    Yes

32. Does the Action Area intersect the species list area of the tricolored Bat (TCB)?

    Automatically answered
    Yes

33. Does the Action Area intersect the species list area of the northern long-eared bat (NLEB)?

    Automatically answered
    Yes

PROJECT QUESTIONNAIRE

1. Have you made a No Effect determinations for all other species included on the FWS IPaC generated species list?

   Yes

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

   No

3. How many acres of trees are proposed for removal/trimming **outside of documented habitat** for the Indiana bat, NLEB, or TCB within 100 feet of the existing road/rail surfaces during the inactive season (NLAA)?

   Note: If described as number of trees, multiply by 0.09 to convert to acreage and enter that number.

   1.6

4. How many acres of trees are proposed for removal/trimming **outside of documented habitat** for the Indiana bat, NLEB, or TCB within 100 feet of the existing road/rail surfaces during the active season **(outside the pup season and not between Dec 15th-Feb 15th in Zone 1 of the NLEB and TCB YR active areas)** (LAA)?

   Note: If described as number of trees, multiply by 0.09 to convert to acreage and enter that number.

   0

5. How many acres of trees are proposed for removal/trimming **outside of documented habitat** for the Indiana bat, NLEB, or TCB within 100 feet of the existing road/rail surfaces during the pup season **(trees must be <9 in DBH, and not between Dec 15th-Feb 15th in Zone 1 of the NLEB and TCB YR active areas)** (LAA)?

   Note: If described as number of trees, multiply by 0.09 to convert to acreage and enter that number.

   0

6. How many acres of trees are proposed for removal/trimming **either outside or within documented habitat** for the Indiana bat, NLEB, or TCB between 100-300 feet of the

existing road/rail surface during the inactive season (LAA)? Note: If described as number of trees, multiply by 0.09 to convert to acreage and enter that number.

0

7. How many acres of trees are proposed for removal/trimming **either outside or within documented habitat** for the Indiana bat, NLEB, or TCB between 100-300 feet of the existing road/rail surfaces during the active season **(outside the pup season, and not between Dec 15-Feb 15 in Zone 1 of the NLEB and TCB YR active areas)** (LAA)?

   Note: If described as number of trees, multiply by 0.09 to convert to acreage and enter that number.

   0

8. How many acres of trees are proposed for removal/trimming **either outside or within documented habitat** for the Indiana bat, NLEB, or TCB beyond 300 feet of the existing road/rail surfaces during the inactive season (LAA)?

   Note: If described as number of trees, multiply by 0.09 to convert to acreage and enter that number.

   0

9. How many acres of trees are proposed for removal/trimming **either outside or within documented habitat** for the Indiana bat, NLEB, or TCB beyond 300 feet of the existing road/rail surfaces during the active season **(outside the pup season, and not between Dec 15th-Feb 15th in Zone 1 of the NLEB and TCB YR active areas)** (LAA)?

   Note: If described as number of trees, multiply by 0.09 to convert to acreage and enter that number.

   0

AVOIDANCE AND MINIMIZATION MEASURES (AMMS)

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

GAMM1

Ensure all operators, employees, and contractors working in areas of Indiana bat, NLEB, or TCB suitable habitat are aware of all Transportation Agency environmental commitments, including all applicable AMMs.

LAMM1

Direct temporary lighting away from suitable habitat during the active season

TRTAMM1

Modify all phases/aspects of the project (e.g., temporary work areas, alignments) to the extent practicable to avoid tree removal/trimming in excess of what is required to implement the project safely.

TRTAMM2

Ensure tree removal/trimming 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 removal/trimming to ensure contractors stay within clearing limits

TRTAMM3

Ensure tree removal/trimming is limited to the inactive season, occurs within 100 ft of the road/rail surface, and is outside of documented habitat for the Indiana bat, NLEB, and TCB

DETERMINATION KEY DESCRIPTION: FHWA, FRA, FTA PROGRAMMATIC CONSULTATION FOR TRANSPORTATION PROJECTS AFFECTING IBAT, NLEB, OR TCB

This key was last updated in IPaC on May 30, 2025. Keys are subject to periodic revision.

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

This decision key should only be used to verify project applicability with the Service's Programmatic Biological Opinion/Conference Opinion for Transportation Projects in the Range of the Indiana bat, northern long-eared bat, and tricolored bat, dated December 13, 2024. The programmatic consultation limited transportation activities that may affect the covered bat species and addresses situations that are both likely and not likely to adversely affect the covered bat species. This decision key will assist in identifying the effect of a specific project/activity and the applicability of the programmatic consultation. The programmatic consultation is not intended to cover all types of transportation actions. Activities outside the scope of the programmatic consultation, or that may affect ESA-listed species other than the Indiana bat, northern long-eared bat, or tricolored bat, or their designated critical habitat, may require additional ESA Section 7 consultation.

IPAC USER CONTACT INFORMATION

Agency: Indiana Department of Transportation
Name: Robabeh Asadpour
Address: 41 West 300 North
City: Crawfordsville
State: IN
Zip: 47933
Email rasadpour@indot.in.gov
Phone: 7653615621

LEAD AGENCY CONTACT INFORMATION

Lead Agency: Federal Highway Administration

Des 2200184 CE-2

Appendix D

Section 106 of the NHPA

SECTION 1

The submittal of this form is only required for projects where Category B applies. Projects qualifying under Category A do not require submittal of this form. SECTION 2 (for Conditions of Category B-1 for curb/sidewalk) or SECTION 3 (for Conditions of Category B-9 for drainage structures) may be required as determined by INDOT-Cultural Resources Office (INDOT-CRO) review. INDOT-CRO will notify applicants if the Minor Projects PA does not apply.

Part I: Project Information-Completed by Applicant (Consultant/PM/Project Sponsor/INDOT District Staff) *

**A qualified professional historian (QP) is not required to complete Part I. INDOT-CRO staff will be responsible for completion of Part II.*

Original Submission Date: June 19, 2025 **Amended Submission Date*:**

Consult with INDOT-CRO to determine whether an amendment is required. For revisions/updates to original form, please detail in applicable sections below.* ***Please use red font to distinguish the revisions/updates.*

Submitted By (Provide Name and Firm/Organization): Aimee Adamson, SJCA Inc. 1028 Virginia Ave., Ste 201 Indianapolis, IN 46203 (317) 566-0629, aadamson@sjcainc.com

Project Designation Number: 2200184

Route Number: State Road (SR) 42

Feature crossed (if applicable):

City/Township: Jackson and Cass **County:** Owen & Clay

Project Description: Des. No. 2200184 is a curve correction project from SR 59 in Clay County to SR 243 in Owen County. SR 42 is a Rural Major Collector. Existing lane width varies between 9 feet to 11 feet, and existing shoulder width varying between 0 to 1.5 feet. Curve 1 and 2 are located near SR 42 and CR 500 E, Curve 3 is near SR 42 and Boy Scout Road, Curve 4 and 5 are near SR 42 and East of Candlestick Corner Rd., Curve 6 is at SR 42 and east of CR 830 W, CR 7 is at SR 42 west of Owl Hollow Rd., Curve 8 is located at SR 42 west of Fertig Rd., Curve 9 is located at SR 42 east of Fertig Road, and Curve 10 is at SR 42 and Lakeview Drive.

The purpose of this project is to reduce run off road crashes, opposite direction sideswipe crashes, and other run off road incidents. To reduce the amount of edge of pavement deterioration, improve visibility, and improve driving navigation issues due to narrow roadway at sharp curve locations.

The need for this project can be seen in its current condition, which includes small lanes with various sharp curves that make it difficult for vehicles to negotiate curves, resulting in run-road crashes or encroachment into the opposing lane. Vegetation is also causing poor sight distance on many of the curves. Two culvert pipes along SR 42 are in poor to fair condition, with danger of failing.

The project proposes to correct seven specific locations and 10 individual curves with pavement widening and curve corrections (B3). There are two culverts that are proposed to be replaced within the project area. Guardrail will be added at Owl Hollow Road (B4). Two culverts will be replaced as part of this project (B9). CLV-042-011-18.43 and CLV-042-060-24.42 are both 15-inch Corrugated Metal Pipe (CMP). CLV-042-011-18.43 will be replaced with a 23-inch by 14-inch elliptical metal pipe. CLV-042-060-24.42 will be replaced with an 18-inch metal pipe.

Curve Name	Location	Culvert	Approximate Right-of-Way
Curve 1	SR 42 & CR 500 E	N/A	0.7721 acres permanent
Curve 2	SR 42 & CR 500 E	N/A	

Curve 3	SR & Boy Scout Road	CLV-042-011-18.43 (CLV-86918)	0.4254 acres permanent
Curve 4	SR 42, East of Candlestick Corner	N/A	1.0175 acres permanent
Curve 5	SR 42, East of Candlestick Corner	N/A	
Curve 6	SR 42, East of CR 830 W	N/A	1.4824 acres permanent; 0.0264 temporary
Curve 7	SR 42, west of Owl Hollow Road	N/A	
Curve 8	SR 42, west of Fertig Road	N/A	0.5694 acres permanent
Curve 9	SR 42, east of Ferig Road	CLV-042-060-24.42 (CLV-86932)	0.4348 acres permanent
Curve 10	SR 42 & Lakeview Drive	N/A	0.3806 acres permanent

If the project includes any curb, curb ramp, or sidewalk work, please specify the location(s) of such work: N/A

For bridge or small structure projects, please list feature crossed, structure number, NBI number, and structure type: CLV-042-011-18.43 (CLV-86918), 15-inch Corrugated Metal Pipe (CMP); CLV-042-060-24.42 (CLV-86932), 18-inch CMP.

For bridge projects, is the bridge included in INDOT's Historic Bridge Inventory (https://www.in.gov/indot/2531.htm)?

☐ **Yes** ☐ **No**

If yes, did the inventory determine the bridge eligible for or listed in the National Register of Historic Places? Please provide page # of entry in Historic Bridge Inventory.

☐ **Yes** ☐ **No**

Inventory Page #_____

Will there be right-of-way acquisition as part of this project?

☒ **Yes** ☐ **No**

If yes was checked above, please check all that apply:

☒ **Permanent** ☒ **Temporary** ☐ **Reacquisition**

If applicable, identify right-of-way acquisition locations in text below and in attached mapping. Please specify how much (both temporary and permanent) and indicate what activities are included in the proposed right-of-way: Approximately 5.0822 acres of right-of-way is expected for curve correction and 0.0264 of temporary right-of-way.

	Amount (acres)	
Land Use Impacts	Permanent	Temporary
Curve 1 & 2	0.7721	
Curve 3	0.4254	
Curve 4 & 5	1.0175	
Curve 6 & 7	1.4824	0.0264
Curve 8	0.5694	
Curve 9	0.4348	
Curve 10	0.3806	
Total	**5.0822**	**0.0264**

Is there *any* potential for additional temporary right-of-way to be needed later for purposes such as access, staging, etc.?
☐ **Yes** ☒ **No**

Archaeology (check one):

☐ **All proposed activities are presumed to occur in previously disturbed soils.***
**INDOT-CRO will notify you if project area incudes undisturbed soils and requires an archaeological reconnaissance.*

☒ **Project takes place in undisturbed soils and the archaeology report is included with the submission.***
** If an archaeology report is required, the Minor Projects PA Form will not be finalized until the report is reviewed and approved by INDOT-CRO. For INDOT-sponsored projects, INDOT-CRO may be able to complete the archaeological investigation. If you would like to request that INDOT-CRO complete an archaeological investigation, please contact the INDOT-CRO Archaeology Team Lead. See CRM Pt. 1 Ch. 3 for current contact information.*

Please specify all applicable categories and condition(s) (INDOT will highlight applicable conditions in yellow**):**

B-3. Construction of added travel, turning, or auxiliary lanes (e.g., bicycle, truck climbing, acceleration and deceleration lanes) and shoulder widening under the following conditions ***[BOTH Condition A, which pertains to Archaeological Resources, and Condition B, which pertains to Above-Ground Resources, must be satisfied]***:

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

Condition B (Above-Ground Resources)
Work does not occur adjacent to or within a National Register-listed or National Register-eligible district or individual above-ground resource.

B-4. Installation of new safety appurtenances, including but not limited to, guardrails, barriers, glare screens, and crash attenuators, under the following conditions ***[BOTH Condition A, which pertains to Archaeological Resources, and Condition B, which pertains to Above-Ground Resources, must be satisfied]***:

Condition A (Archaeological Resources)
One of the two conditions listed below must be met *(EITHER Condition i or Condition ii must be satisfied)*:
i. Work occurs in previously disturbed soils; *OR*
ii. Work occurs in undisturbed soils and an archaeological investigation conducted by the applicant and reviewed by INDOT Cultural Resources Office determines that no National Register-listed or potentially National Register-eligible archaeological resources are present within the project area. If the archaeological investigation locates National Register-listed or potentially National Register-eligible archaeological resources, then full Section 106 review will be required. Copies of any archaeological reports prepared for the project will be provided to the DHPA and any archaeological

site form information will be entered directly into the SHAARD by the applicant. The archaeological reports will also be available for viewing (by Tribes only) on IN SCOPE.

Condition B (Above-Ground Resources)
Work does not occur adjacent to or within a National Register-listed or National Register-eligible district or individual above-ground resource.

Check ☐ if SECTION 2: Minor Projects PA Category B-1, Condition B-ii Submission is included.

Check ☐ if SECTION 3: Minor Projects PA Category B-9, Condition B-i-c-2 or B-ii-b-3 Submission is included.

Part II: Completed by INDOT-CRO

Information reviewed (please check all that apply):

General project location map ☒ USGS map ☒ Aerial photograph ☒ Soil survey data ☒

General project area photos ☒ Archaeology Reports ☒ Historic Property Reports ☐

Indiana Historic Buildings, Bridges, and Cemeteries Map/Interim Report ☒

Bridge inspection information/iTAMS ☐ Historic Bridge Inventory Database ☐
SHAARD ☒ SHAARD GIS ☒ Streetview Imagery ☒ County GIS Data/Property Cards ☒

Other (please specify): Project information provided by SJCA, dated 11/27/2024 and 6/19/2025, on file at INDOT-CRO;

Smith, Galen K.
2026 A Phase Ia Archaeological Reconnaissance for the Proposed State Road 42 Curve Correction Project, 6.00 miles east of State Road 59 to 2.20 miles west of State Road 243, Jackson and Cass Townships, Owen and Clay Counties, Indiana (INDOT Des. No. 2200184). Archaeological report prepared by SCJA for INDOT, Crawfordsville District. Document on file at INDOT-CRO.

Are there any commitments associated with this project? If yes, please explain and include in the Additional Comments Section below. Yes ☐ No ☒

Does the project result in a de minimis impact to a Section 4(f) protected historic resource? If yes, please explain in the Additional Comments Section below. Yes ☒ No ☐

Additional Comments:

<u>Above-ground Resources</u>

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 (National Register) lists for Clay and Owen County. No listed resources are located immediately adjacent to the project area, a distance that serves as an adequate potential area of effects.

The Indiana Historic Sites and Structures Inventory (IHSSI) and National Register information for Clay and Owen 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 *Clay County Interim Report* (1997; Jackson and Cass Township) and *Owen County Interim Report* (1994; Jackson Township) was also consulted. The INDOT-CRO historian reviewed the IHBBCM, which contains the most up-to-date survey information. One (1) IHSSI documented resources rated higher than "Contributing" is located near the project area:

- IHSSI# 021-519-25014, John and Hanna Ahlemeyer Farm, T-Plan, c. 1880, rated "Notable"

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 National Register-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 National Register- eligible if they retain material integrity.

The INDOT-CRO historian reviewed structures adjacent to the project area utilizing online aerials, street-view photography, and the Clay and Owen County GIS websites. The project area consists of seven (7) separate locations and are located along a two-lane highway in a rural setting. The project areas are, primarily, surrounded by woodland and agricultural fields. The adjacent building stock consists of late nineteenth to late twentieth century residential buildings. Only one (1) location is adjacent to a potentially National Register-eligible resource. The

farm, located at 7650 E. SR 42, is documented (IHSSI# 021-519-25014) with a "Notable" rating. While there will be project activities occurring on the parcel, the project area is within a thick woodland and will be screened from the buildings documents as part of IHSSI# 021-519-25014. Therefore, IHSSI# 021-519-25014 is not considered adjacent to the project area for the purposes of this MPPA Determination. None of the structures adjacent to the remaining project area locations appear to possess either the age or significance/integrity required to be considered National Register-eligible.

In regard to CLV-042-011-18.43 and CLV-042-060-24.42, these 18-inch CMP are utilized for drainage under the road and is considered in service of SR 42 and is considered Category A-4 work and were not reviewed by INDOT-CRO.

Section 4(f) de minimis information

Approximately 0.402 acre of permanent ROW is anticipated to be acquired from the extreme northwest corner of 7650 E. SR 42 (IHSSI# 021-519-25014; John and Hanna Ahlemeyer Farm) rated "Notable" per the IHSSI. This corner has a thick tree cover and will screen the project from the curve correction. This ROW is needed to correct the steep slope next to the roadway by flattening it to enhance safety and slight lines. **INDOT and FHWA, therefore, considers the taking of this minimal amount of ROW from the property as a *de minimis* 4(f) use of the historic property.**

Based on the available information, as summarized above, no above-ground concerns exist.

Archaeological Resources

An INDOT CRO archaeologist who meets the Secretary of the Interior's Professional Qualification Standards as per 36 CFR Part 61 reviewed the proposed project area, conducted a desktop review, and prepared an archaeological assessment. According to SHAARD, no archaeological sites have been previously recorded within or adjacent to the proposed project area.

A 4.4-hectare (10.7-acre) survey area covering an area larger than the anticipated project limits was examined through a combination of systematic shovel probing, pedestrian survey, and visual confirmation of disturbed and excessively wet areas. One new archaeological site (12Ow607) was recorded as a result of the survey. Site 12Ow607 is a nondiagnostic precontact isolated find that lacks information potential. The site may extend beyond the survey area; therefore, the site remains unassessed for listing in the National Register of Historic Places. No further work is recommended within the proposed project area.

There are no archaeological concerns provided that the project scope and footprint do not change.

Accidental Discovery: If any archaeological artifacts or human remains are uncovered during construction, demolition, or earth moving activities, construction within 100 feet of the discovery will be stopped, and INDOT-CRO and the Indiana Department of Natural Resources-Division of Historic Preservation and Archaeology (IDNR-DHPA) will be notified immediately.

INDOT-CRO staff reviewer(s): Clint Kelly and Dawn Alexander

INDOT Approval Date: March 27, 2026

Amendment Approval Date (if applicable):

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



A Phase Ia Archaeological Reconnaissance for the Proposed State Road 42 Curve Correction Project, 6.01 Miles East of State Road 59 to 2.22 Miles West of State Road 243, Jackson and Cass Townships, Owen and Clay Counties, Indiana (INDOT Des. No. 2200184)

Archaeological Report

Lead Agency: Federal Highway Administration

June 19, 2025

Prepared for:
Indiana Department of Transportation-Crawfordsville District
41 West 300 North
Crawfordsville, IN 47933

SJCA

Galen K. Smith, M.A.Archaeologist, QP
SJCA, Inc.
9102 North Meridian Street, Suite 200
Indianapolis, Indiana 46260

p. 317.566.0629 f. 866.422.2046 e. ksmith@sjcainc.com

ABSTRACT

The Indiana Department of Transportation (INDOT)-Crawfordsville District contracted SJCA, Inc. (SJCA) to conduct a Phase Ia archaeological reconnaissance for the proposed State Road (SR) 42 Curve Correction Project, in Jackson and Cass Townships, Owen and Clay counties, Indiana (Indiana Department of Transportation [INDOT] Des. No. 2200184).

The project is divided between seven curve correction areas (CCA's) along an approximately 6.1 kilometer ([km] 3.8 mile [mi.]) stretch of SR 42 in Clay and Owen counties. The overall proposed project is in Section 36, Township 12 North, Range 6 West, Sections 25, 28, 30, 31, 33, Township 12 North, Range 5 West, and Section 30, Township 12 North, Range 4 West on the USGS 1957 (1986 ed.) Centerpoint, Indiana, and 1956 (1980 ed.) Poland, Indiana quadrangles (7.5' topographic maps).

The project footprint is the land to be impacted by direct ground disturbance (project area). SJCA surveyed a larger area (survey area) totaling 4.4 hectares ([ha] 10.7 acres [ac.]) to account for flexibility in design changes. The smaller project footprint will be encompassed within this larger survey area.

The literature review identified 87 archaeological sites and 15 previous cultural resources investigations within a 1.6-km (1.0 mi.) radius (study area) of the survey area. No cemeteries or National Register of Historic Places (NRHP) listed resources have been inventoried in or within 30.5 meters ([m] 100.0 feet [ft.]) of the survey area.

The Phase Ia reconnaissance survey was conducted between October 14 and 16, 2024, and involved a combination of visual walkover, pedestrian survey, and shovel probe testing. A visual walkover was conducted within previously disturbed and excessively wet areas. The remainder of the survey area outside existing disturbance and with poor surface visibility (less than 30%) was shovel probed.

The field survey identified one new archaeological site (12OW607), an unidentified precontact isolated find recommended as not eligible for listing in the NRHP. No further work is recommended for portions of the site within the survey area. If the project footprint changes and extends further to the north, an additional Phase Ia survey will be needed to further define the site boundary.

It should be noted that if any precontact or historic archaeological artifacts or human remains are uncovered during construction, demolition, or earthmoving activities, state law (Indiana Code 14-21-1-27 and -29) requires the discovery be reported to the Indiana Department of Natural Resources, Division of Historic Preservation and Archaeology (IDNR-DHPA) and INDOT Cultural Resources Office (CRO) within two business days. Be advised that adherence to Indiana Code 14-21-1-27 and -29 does not obviate the need to adhere to applicable federal statutes and regulations, including but not limited to 36 C.F.R. Part 800.

Des 2200184 CE-2

Appendix E

Red Flag Investigation

INDIANA DEPARTMENT OF TRANSPORTATION

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

PHONE: (855) 463-6848
(855) INDOT4U

Eric Holcomb, Governor
Michael Smith, Commissioner

Date: October 28, 2024

To: Site Assessment & Management (SAM)
Environmental Policy Office - Environmental Services Division (ESD)
Indiana Department of Transportation (INDOT)
100 N Senate Avenue, Room N758-ES
Indianapolis, IN 46204

Repeat maps have been removed from this RFI Report.

From: Taylor Gabrysiak
SJCA Inc.
9102 N Meridian Street, Suite 200
Indianapolis, IN 46260
tgabrysiak@sjcainc.com

Re: HYBRID RED FLAG INVESTIGATION
DES 2200184, State Project
Curve Correction Project
State Road (SR) 42, from 6.00 Miles East of SR 59 to 2.20 Miles West of SR 243
Clay and Owen Counties, Indiana

PROJECT DETAILS

The Indiana Department of Transportation (INDOT) and the Federal Highway Administration (FHWA) intend to proceed with a curve correction project along SR 42, from 6.00 miles east of SR 59 to 2.20 miles west of SR 243. This project will consist of lane and shoulder widening at ten (10) curves within the project area. Grading will be required beyond the existing roadway to install a v-ditch to move water away from the roadway. Two culverts within the project area, CLV 86918 (within the limits of the curve correction of Curve 3) and CLV 86932 (within the limits of the curve correction of Curve 9) will be replaced. The culverts are not listed in iTAMS. No work will occur below the Ordinary High Water Mark (OHWM).

Curve Number	Location	Depth of Excavation (feet below ground surface (ft-bgs))
Curve 1	39.44147, -87.01541	1-6 ft-bgs
Curve 2	39.44086, -87.01526	1-6 ft-bgs
Curve 3	39.44420, -87.00037	1-6 ft-bgs
Curve 4	39.44407, -86.97014	1-6 ft-bgs
Curve 5	39.44423, -86.96898	1-6 ft-bgs
Curve 6	39.44777,	1-6 ft-bgs

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	-86.91405	
Curve 7	39.44736, -86.91214	1-6 ft-bgs
Curve 8	39.45409, -86.90120	1-6 ft-bgs
Curve 9	39.45410, -86.89365	1-6 ft-bgs
Curve 10	39.45207, -86.88189	1-6 ft-bgs

Structure Number	**Depth of Excavation (feet below ground surface (ft-bgs))**
CLV 86918	1-6 ft-bgs
CLV 86932	1-6 ft-bgs

Bridge Work Included in Project: Yes ☐ No ☒ Structure #(s) _____

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

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

Culvert Work Included in Project: Yes ☒ No ☐ Structure #(s) See Table Above

Proposed right of way: Temporary ☒ # Acres >0.5 Permanent ☒ # Acres >0.5, Not Applicable ☐

Type and proposed depth of excavation: Excavation will be required for lane expansion, slope grading and ditch construction, and is anticipated to extend between one (1) and six (6) ft-bgs.

Maintenance of traffic (MOT): The MOT will consist of a detour that utilizes SR 59, Interstate 70 (I-70), and SR 243 that will be approximately 20.5 miles in length.

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

State Project: ☒ LPA: ☐

Any other factors influencing recommendations: N/A

INFRASTRUCTURE TABLE AND SUMMARY

Infrastructure Indicate the number of items of concern found within the 0.5 mile search radius. If there are no items, please indicate N/A:			
Religious Facilities	**N/A**	Recreational Facilities	**1**
Airports[1]	**N/A**	Pipelines	**2**
Cemeteries	**3**	Railroads	**N/A**
Hospitals	**N/A**	Trails	**N/A**
Schools	**N/A**	Managed Lands	**1**

[1]In order to complete the required airport review, a review of public-use airports within 3.8 miles (20,000 feet) is required.

Explanation:

Curve 9:

Managed Lands: One (1) managed land, Cagles Mill Lake, is located within the project area of Curve 9. Coordination with Indiana Department of Natural Resources (IDNR), Division of State Parks, will occur.

WATER RESOURCES TABLE AND SUMMARY

Water Resources Indicate the number of items of concern found within the 0.5 mile search radius. If there are no items, please indicate N/A:			
Karst Springs	**N/A**	NWI – Wetlands	**44**
Canal Structures – Historic	**N/A**	Lakes	**30**
NPS NRI Listed	**N/A**	Floodplain – DFIRM	**2**
IDEM 303d Listed Streams and Lakes (Impaired)	**7**	Cave Entrance Density	**N/A**
Rivers and Streams	**65**	Sinkhole Areas	**N/A**
Canal Routes – Historic	**N/A**	Sinking-Stream Basins	**N/A**

Direct coordination with INDOT ESD Ecology, Waterway Permitting, and Stormwater will occur on all water resources except for the IDEM 303d Listed Streams and Lakes (Impaired).

Explanation: No water resources were identified within or adjacent to the project area.

MINING AND MINERAL EXPLORATION TABLE AND SUMMARY

Mining/Mineral Exploration Indicate the number of items of concern found within the 0.5 mile search radius. If there are no items, please indicate N/A:			
Petroleum Wells	**4**	Mineral Resources	**N/A**
Mines – Surface	**N/A**	Mines – Underground	**N/A**

Explanation:

Curve 3:

Petroleum Wells: One (1) petroleum well is located adjacent to the project area of Curve 3. Coordination with IDNR Oil and Gas Division will occur.

HAZARDOUS MATERIAL CONCERNS TABLE AND SUMMARY

Hazardous Material Concerns Indicate the number of items of concern found within the 0.5 mile search radius. If there are no items, please indicate N/A:			
Superfund	**N/A**	Open Dump Waste Sites	**N/A**
RCRA Generator/ TSD	**N/A**	Restricted Waste Sites	**N/A**
RCRA Corrective Action Sites	**N/A**	Waste Transfer Stations	**N/A**
State Cleanup Sites	**N/A**	Tire Waste Sites	**N/A**
Septage Waste Sites	**N/A**	Landfill Boundaries	**N/A**
Underground Storage Tank (UST) Sites	**N/A**	Confined Feeding Operations (CFO)	**N/A**

Voluntary Remediation Program	**N/A**	Brownfields	**N/A**
Construction Demolition Waste	**N/A**	Notice of Contamination Sites	**N/A**
Solid Waste Landfill	**N/A**	Institutional Controls	**N/A**
Infectious/Medical Waste Sites	**N/A**	NPDES Facilities	**N/A**
Leaking Underground Storage (LUST) Sites	**N/A**	NPDES Pipe Locations	**N/A**
Manufactured Gas Plant Sites	**N/A**		

Unless otherwise noted, site specific details presented in this section were obtained from documents reviewed on the Indiana Department of Environmental Management (IDEM) Virtual File Cabinet (VFC).

Explanation: No hazardous material concerns were identified within the 0.5 mile search radius.

ECOLOGICAL INFORMATION SUMMARY

The Clay County and Owen County listing of the Indiana Natural Heritage Data Center information on endangered, threatened, or rare (ETR) species and high quality natural communities is provided at https://www.in.gov/dnr/nature-preserves/files/np_clay.pdf and https://www.in.gov/dnr/nature-preserves/files/np_owen.pdf. A preliminary review of the Indiana Natural Heritage Database by INDOT ESD did indicate the presence of ETR species within the 0.5 mile search radius. Coordination with USFWS and IDNR will occur.

A review of the USFWS database did not indicate the presence of endangered bat species in or within 0.5 mile of the project area. The project area is located in a rural area surrounded by agricultural properties, with some residential properties and forested parcels featured throughout. Additional investigation to confirm the presence or absence of bats in the structure will be necessary. The range-wide programmatic consultation for the Indiana Bat and Northern Long-Eared Bat will be completed according to the most recent "Using the USFWS'S IPaC System for Listed Bat Consultation for INDOT Projects."

Evidence of Birds in Bridge Report: Yes ☐ No ☐ N/A ☒
*If yes, further coordination with INDOT ESD Ecology, Waterway Permitting, and Stormwater Office (EWPSO) may be necessary.

RECOMMENDATIONS SECTION

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

INFRASTRUCTURE:

Curve 9:

Managed Lands: One (1) managed land, Cagles Mill Lake, is located within the project area of Curve 9. Coordination with Indiana Department of Natural Resources (IDNR), Division of State Parks, will occur.

WATER RESOURCES: N/A

MINING/MINERAL EXPLORATION:

Curve 3:

Petroleum Wells: One (1) petroleum well is located adjacent to the project area of Curve 3. Coordination with IDNR Oil and Gas Division will occur.

HAZARDOUS MATERIAL CONCERNS: N/A

ECOLOGICAL INFORMATION: Coordination with USFWS and IDNR will occur. Additional investigation to confirm the presence or absence of bats in the structure will be necessary. The range-wide programmatic consultation for the Indiana Bat and Northern Long-Eared Bat will be completed according to the most recent "Using the USFWS's IPaC System for Listed Bat Consultation for INDOT Projects".

Prepared by: Taylor Gabrysiak (Signature)
Taylor Gabrysiak
GIS Specialist
SJCA Inc.

Christian Radcliff

QA/QC Completed by: _____ (Signature)
Christian Radcliff
Environmental Project Manager and Permitting Specialist
SJCA Inc.

Shelby O'Neal Digitally signed by Shelby O'Neal Date: 2024.10.28 08:50:20 -04'00'

INDOT ESD concurrence: _____ (Signature)

Graphics:

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

SITE LOCATION: YES

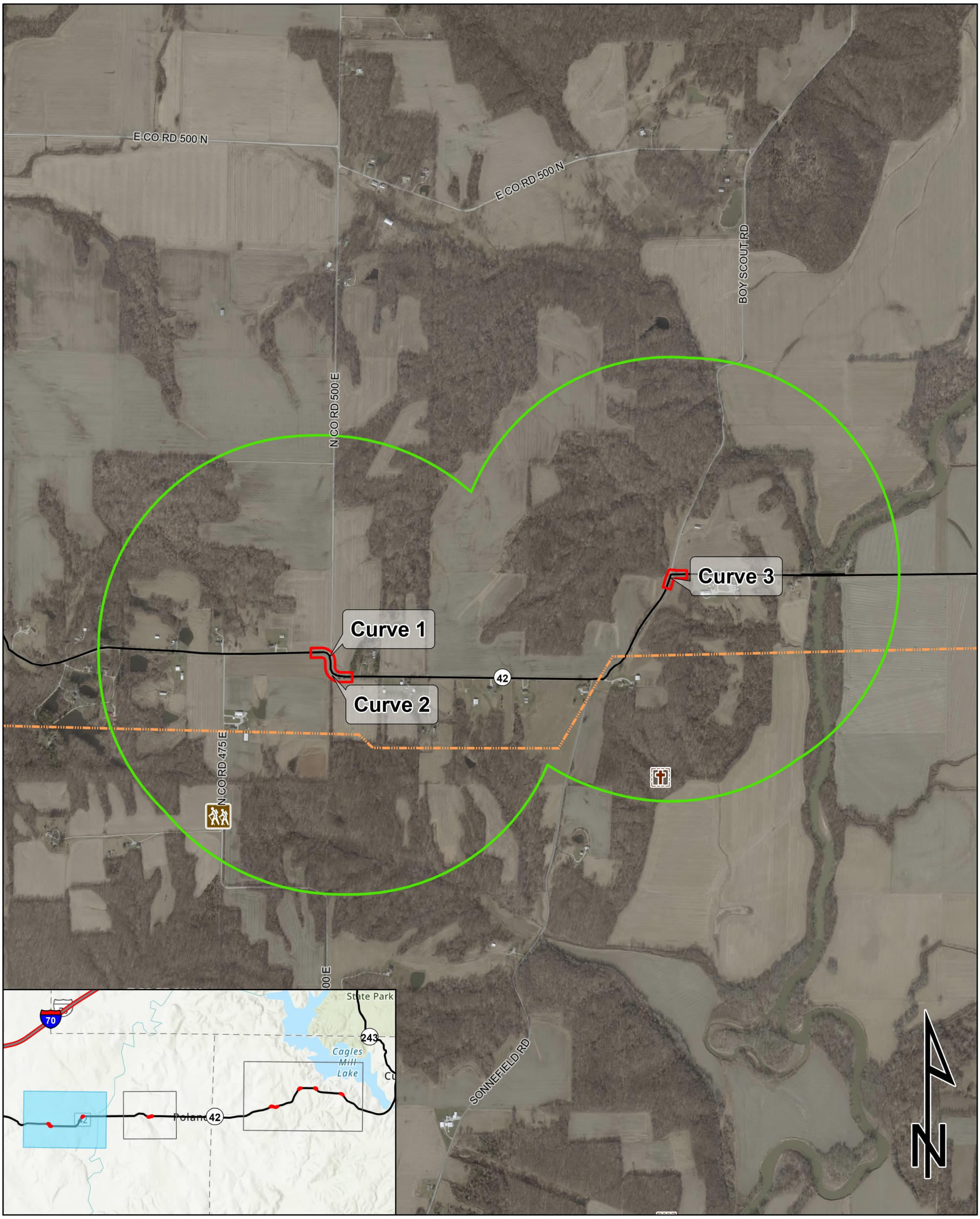
INFRASTRUCTURE: YES

WATER RESOURCES: YES

MINING/MINERAL EXPLORATION: YES

HAZARDOUS MATERIAL CONCERNS: N/A

Red Flag Investigation - Infrastructure
SR 42, from 6.00 Miles East of SR 59 to 2.20 Miles West of SR 243
Des. No. 2200184, Curve Correction Project
Clay & Owen Counties, Indiana



0 0.13 0.25 0.5 Miles

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

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

Author: Taylor Gabrysiak 10/11/2024

- Religious Facility
- Airport
- Cemeteries
- Hospital
- School
- Recreation Facility
- Pipeline
- Railroad
- Trails
- Managed Lands
- County Boundary
- Project Area
- Half Mile Radius
- Toll
- Interstate
- State Route
- US Route
- Local Road

Red Flag Investigation - Infrastructure
SR 42, from 6.00 Miles East of SR 59 to 2.20 Miles West of SR 243
Des. No. 2200184, Curve Correction Project
Clay & Owen Counties, Indiana



0 0.07 0.15 0.3 Miles

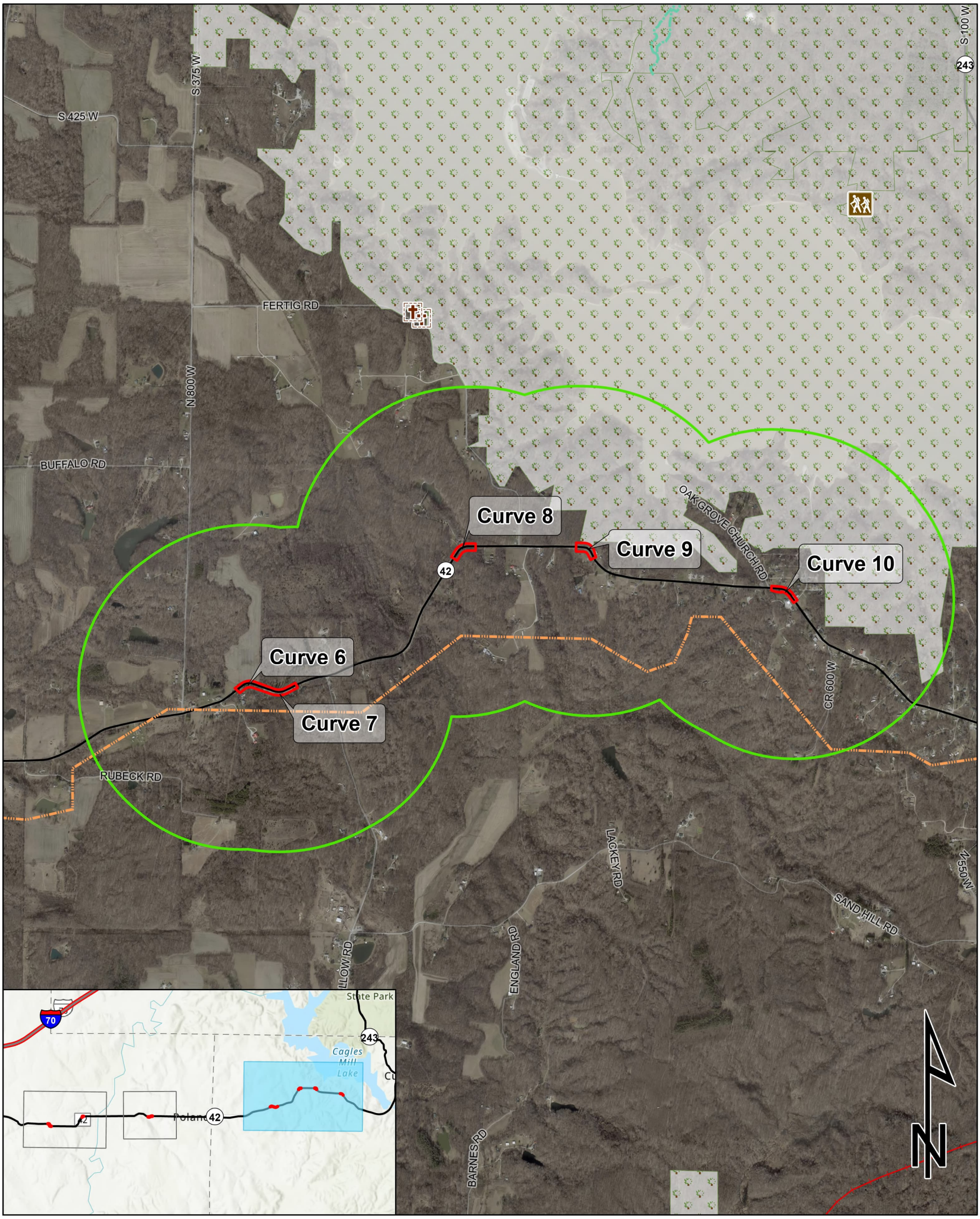
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Author: Taylor Gabrysiak 10/11/2024

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Red Flag Investigation - Infrastructure
SR 42, from 6.00 Miles East of SR 59 to 2.20 Miles West of SR 243
Des. No. 2200184, Curve Correction Project
Clay & Owen Counties, Indiana



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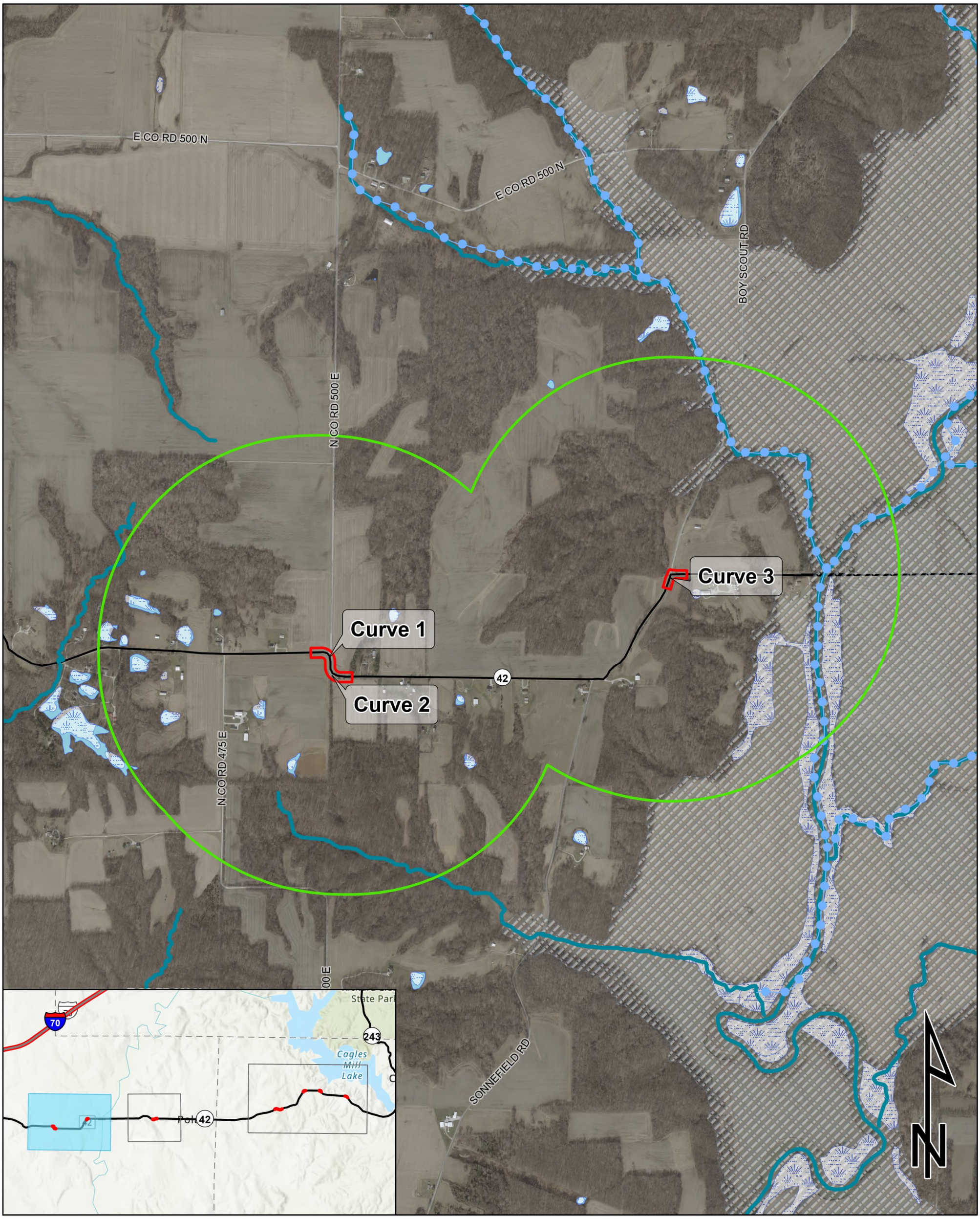
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Red Flag Investigation - Water Resources
SR 42, from 6.00 Miles East of SR 59 to 2.20 Miles West of SR 243
Des. No. 2200184, Curve Correction Project
Clay & Owen Counties, Indiana



0 0.13 0.25 0.5 Miles

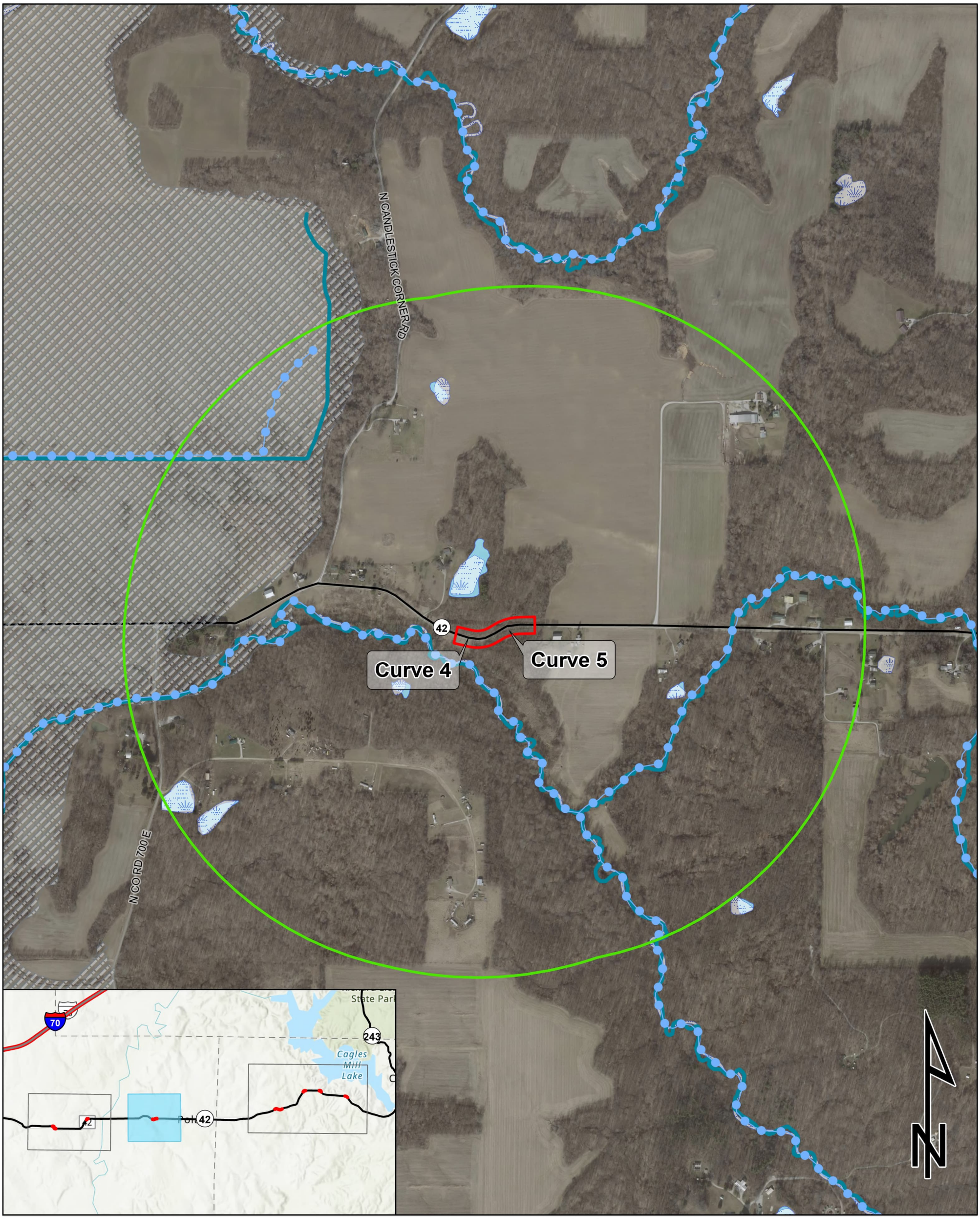
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Orthophotography - Obtained from Indiana Map Framework Data (www.indianamap.org)
Map Projection: UTM Zone 16 N **Map Datum:** NAD83

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

Author: Taylor Gabrysiak 10/11/2024

- Karst Spring
- Impaired_Stream_Lake
- NPS NRI listed
- River
- Canal Structure - Historic
- Canal Route - Historic
- Wetlands
- Lake
- Floodplain - DFIRM
- Cave Entrance Density
- Sinkhole Area
- Sinking-Stream Basin
- County Boundary
- Project Area
- Half Mile Radius
- Toll
- Interstate
- State Route
- US Route
- Local Road

Red Flag Investigation - Water Resources
SR 42, from 6.00 Miles East of SR 59 to 2.20 Miles West of SR 243
Des. No. 2200184, Curve Correction Project
Clay & Owen Counties, Indiana



0 0.07 0.15 0.3 Miles

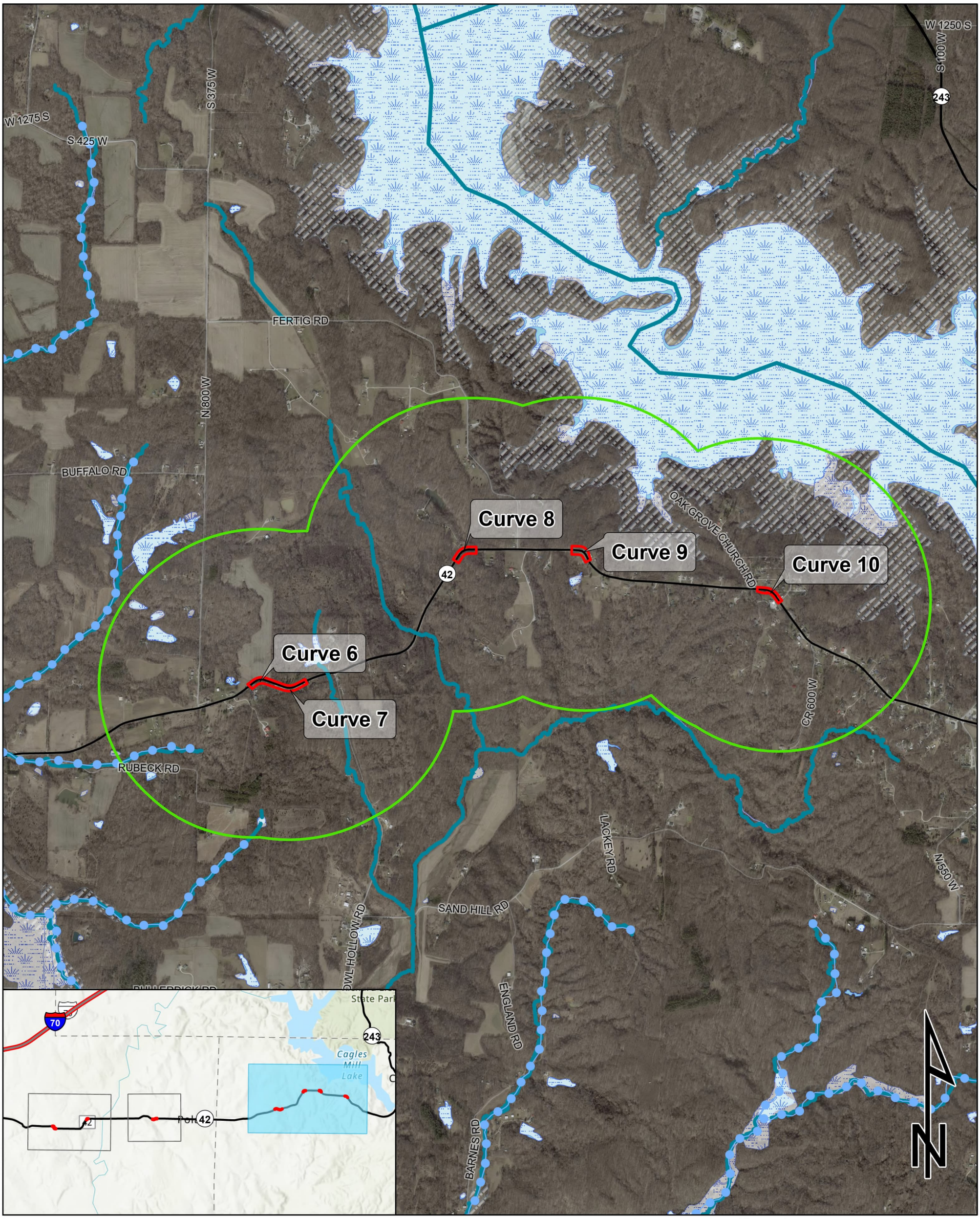
Sources:
Non Orthophotography Data - Obtained from the State of Indiana Geographical Information Office Library
Orthophotography - Obtained from Indiana Map Framework Data (www.indianamap.org)
Map Projection: UTM Zone 16 N **Map Datum:** NAD83

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Author: Taylor Gabrysiak 10/11/2024

- Karst Spring
- Impaired_Stream_Lake
- NPS NRI listed
- River
- Canal Structure - Historic
- Canal Route - Historic
- Wetlands
- Lake
- Floodplain - DFIRM
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- Sinking-Stream Basin
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- Half Mile Radius
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- Interstate
- State Route
- US Route
- Local Road

Red Flag Investigation - Water Resources
SR 42, from 6.00 Miles East of SR 59 to 2.20 Miles West of SR 243
Des. No. 2200184, Curve Correction Project
Clay & Owen Counties, Indiana



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

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

Author: Taylor Gabrysiak 10/11/2024

Red Flag Investigation - Mining and Mineral Exploration
SR 42, from 6.00 Miles East of SR 59 to 2.20 Miles West of SR 243
Des. No. 2200184, Curve Correction Project
Clay & Owen Counties, Indiana



0 0.1 0.2 0.4 Miles

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

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

Author: Taylor Gabrysiak 10/11/2024

- Oil and Gas Wells
- Mineral Resources
- Mine - Surface
- Mine - Underground
- County Boundary
- Project Area
- Half Mile Radius
- Toll
- Interstate
- State Route
- US Route
- Local Road

Red Flag Investigation - Mining and Mineral Exploration
SR 42, from 6.00 Miles East of SR 59 to 2.20 Miles West of SR 243
Des. No. 2200184, Curve Correction Project
Clay & Owen Counties, Indiana



0 0.05 0.1 0.2 Miles

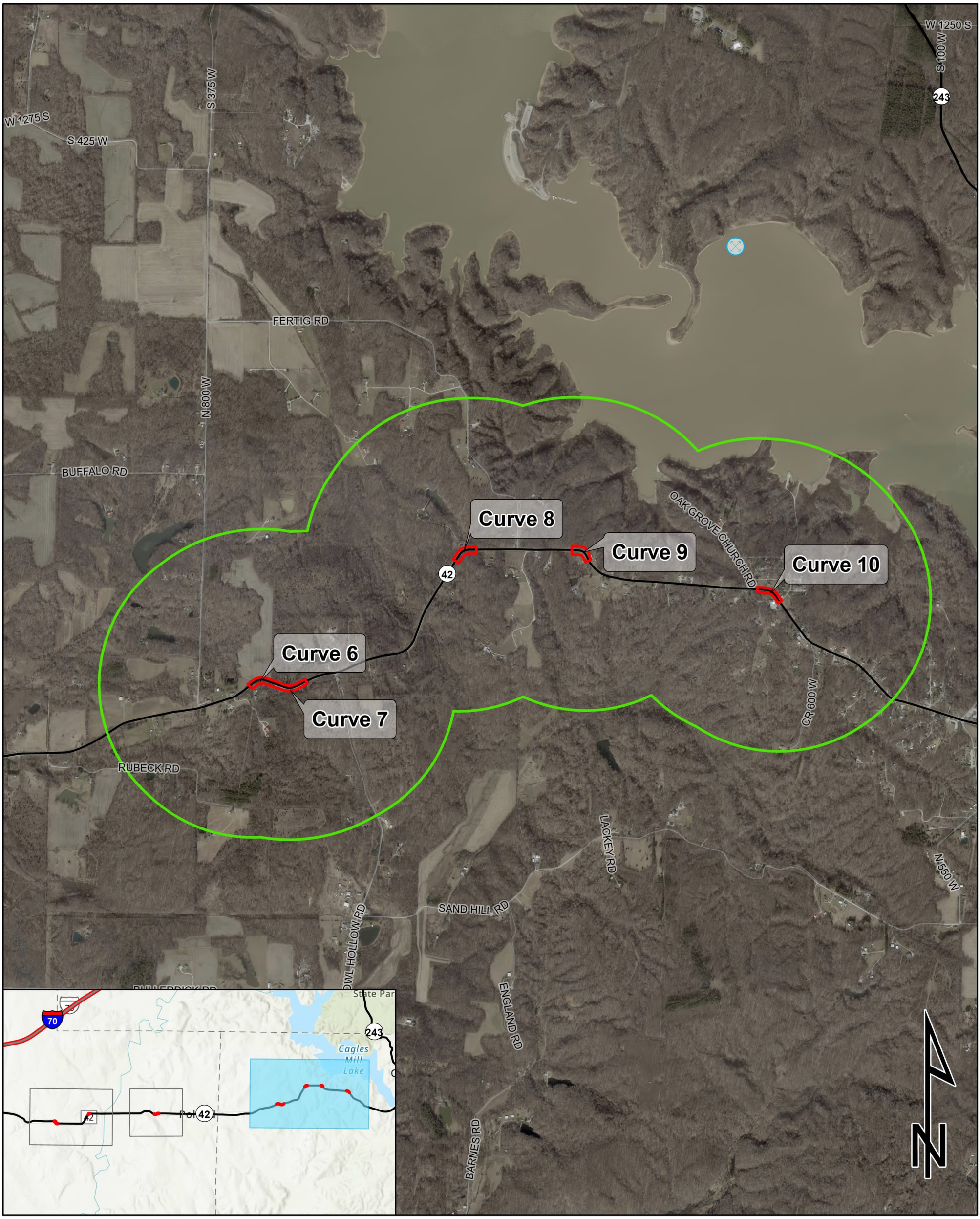
Sources:
Non Orthophotography Data - Obtained from the State of Indiana Geographical Information Office Library
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Author: Taylor Gabrysiak 10/11/2024

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Red Flag Investigation - Mining and Mineral Exploration
SR 42, from 6.00 Miles East of SR 59 to 2.20 Miles West of SR 243
Des. No. 2200184, Curve Correction Project
Clay & Owen Counties, Indiana



0 0.15 0.3 0.6 Miles

Sources:
Non Orthophotography Data - Obtained from the State of Indiana Geographical Information Office Library
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Author: Taylor Gabrysiak 10/11/2024

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Des 2200184 CE-2

Appendix F

Water Resources

Scott Stippich

4/21/2025

Waters Report
SR 42 from 6.00 Miles East of SR 59 to 2.20 Miles West of SR 243
Clay and Owen Counties, Indiana
Curve Corrections Project
Des No. 2200184

Waters Report Excerpt - repeat maps, site photos, and data sheets have been removed.

Prepared by Christian Radcliff, SJCA Inc.
cradcliff@sjcainc.com, (317) 566-0629
Report Completed on: March 7, 2025

Dates of Field Reconnaissance: August 29, 2023, August 30, 2023, September 19, 2023, October 11, 2024

Site Location:
Section 36, Township 12 North, Range 6 West
Sections 25, 28, 30, 31, and 33, Township 12 North, Range 5 West
Sections 29 and 30, Township 12 North, Range 4 West
Center Point and Poland 1:24,000 Quadrangles
Clay and Owen Counties, Indiana
Project beginning (Curves 1 and 2) latitude and longitude: 39.44147, -87.01541
Project center latitude and longitude (Curves 4 and 5): 39.44423, -86.96898
Project end latitude and longitude (Curve 10): Longitude: 39.45207, -86.88189

Hydrologic Unit Codes (HUC):
Slate Run – Eel River, 12-Digit HUC: 051202030704
North Fork Jordan Creek, 12-Digit HUC: 051202030703
Cagle Mill Lake – Mill Creek, 12-Digit HUC: 051202030512

Project Description

The Indiana Department of Transportation (INDOT), with funding from the Federal Highway Administration (FHWA), intends to proceed with a curve corrections project on SR 42, Designation Number (Des. No.) 2200184, from 6.00 miles east of State Road (SR) 59 to 2.20 miles west of SR 243 in Clay and Owen Counties, Indiana. The project involves the corrections of 10 curves. Work off of the existing roadway will be required for each curve for grading, slope stabilization, and construction of the realigned curves. Two small structures, one at Curve 3 and one at Curve 9, will be replaced as part of the curve corrections. The investigated area included the roadsides near each of the curves to be corrected, which includes the construction area for the project and proposed right of way. Table 1 below describes the curves and small structures.

Table 1: Curves and small structures within investigated area

Curve Name	Location	Roadway	Section (S), Township (T), Range (R)	Culvert
Curve 1	39.44147, -87.01541	SR 42 & CR 500 E	S 36, T 12 North, R 6 West & S 31, T 12 North, R 5 West	N/A
Curve 2	39.44086, -87.01526	SR 42 & CR 500 E	S 36, T 12 North, R 6 West & S 31, T 12 North, R 5 West	N/A
Curve 3	39.44420, -87.00037	SR 42 & Boy Scout Rd	S 30, T 12 North, R 5 West & S 31, T 12 North, R 5 West	CLV-042-011-18.43 (CLV-86918)
Curve 4	39.44407, -86.97014	SR 42, east of Candlestick Corner	S 33, T 12 North, R 5 West	N/A
Curve 5	39.44423, -86.96898	SR 42, east of Candlestick Corner	S 28, T 12 North, R 5 West & S 33, T 12 North, R 5 West	N/A
Curve 6	39.44777, -86.91405	SR 42, east of CR 830 W	S 25, T 12 North, R 5 West	N/A
Curve 7	39.44736, -86.91214	SR 42, west of Owl Hollow Rd	S 25, T 12 North, R 5 West	N/A
Curve 8	39.45409, -86.90120	SR 42, west of Fertig Rd	S 30, T 12 North, R 4 West	N/A
Curve 9	39.45410, -86.89365	SR 42, east of Fertig Rd	S 30, T 12 North, R 4 West	CLV-042-060-24.42 (CLV-86932)
Curve 10	39.45207, -86.88189	SR 42 & Lakeview Dr	S 29, T 12 North, R 4 West	N/A

Desktop Review

Topography: The topography within the investigated area is generally flat, with slopes from the roadside down to the adjacent lots along SR 42.

Existing Land-Use: Land use in the vicinity of the investigated area is primarily agricultural fields, forested tracts, and interspersed residential properties near Curve 10.

Soils: According to the Soil Survey Geographic (SSURGO) Database for Clay and Owen Counties, Indiana, the project area does contain soil areas with nationally listed hydric soils. Soils mapped within the investigated area include:

Table 2: Hydric soil ratings within investigated area

Soil Unit Name	Symbol	NRCS Hyrdic Soils Category (Area IN021, Clay County)	SSURGO Hydric Rating (%)
Bloomfield loamy fine sand, 25 to 50 percent slopes	BmF	Non-hydric	0
Iva silt loam, 0 to 2 percent slopes	IvA	Predominantly non-hydric	5
Muren silt loam, 2 to 6 percent slopes	MuB2	Predominantly non-hydric	3
Pike silt loam, 2 to 6 percent slopes, eroded	PkB2	Non-hydric	0
Princeton fine sandy loam, 6 to 12 percent slopes	PnC	Non-hydric	0
Shoals silt loam, 0 to 2 percent slopes,	Sh	Predominantly non-hydric	6

frequently flooded very brief duration			
Soil Unit Name	**Symbol**	**NRCS Hyrdic Soils Category (IN119, Owen County)**	**SSURGO Hydric Rating (%)**
Ava silt loam, 2 to 6 percent slopes, eroded	AloB2	Non-hydric	0
Hickory-Chetwynd loams, 35 to 70 percent slopes	HesG	Non-hydric	0
Otwell silt loam, 12 to 18 percent slopes, severely eroded	OmkD3	Non-hydric	0
Pike silt loam, 2 to 6 percent slopes, eroded	PlfB2	Non-hydric	0
Solsberry silt loam, 6 to 12 percent slopes, eroded	SneC2	Non-hydric	0
Solsberry silt loam, 6 to 12 percent slopes, severely eroded	SneC3	Non-hydric	0
Solsberry silt loam, 12 to 18 percent slopes, severely eroded	SneD3	Non-hydric	0
Vigo silt loam, 0 to 2 percent slopes	VdgA	Predominantly non-hydric	5

National Wetland Inventory (NWI) Information: According to the NWI map, no features are mapped within the investigated area. The nearest mapped features are classified as PUBGh (palustrine, unconsolidated bottom, intermittently exposed, diked/impounded), PFO1A (palustrine, forested, temporarily flooded), R2UBH (riverine, lower perennial, unconsolidated bottom, permanently flooded), and PSS1/EM1Ah (palustrine, scrub-shrub, broad-leaved deciduous/emergent, persistent, temporarily flooded, diked/impounded).

Table 3: NWI features mapped near the investigated area

Curve	NWI Feature Type	Location
Curves 1 and 2	PUBGh	0.15 mile southwest of Curves 1 and 2
Curve 3	PUBGh	0.04 mile southeast of Curve 3
Curves 4 and 5	PFO1A	0.02 mile south of Curves 4 and 5
	PUBGh	0.05 mile north of Curves 4 and 5
Curves 6 and 7	PUBGh	0.05 mile west of Curves 6 and 7
	PUBGh	0.06 mile northeast of Curves 6 and 7
Curve 8	R2UBH	0.27 mile southwest of Curve 8
Curve 9	PUBGh	0.05 mile southwest of Curve 9
Curve 10	PSS1/EM1Ah	0.36 mile northeast of Curve 10

Hydrology: According to the attached Floodplain Map, all curves are outside of Indiana Department of Natural Resources (IDNR) mapped floodplains. According to watershed data provided by the Indiana Department of Environmental Management (IDEM), the project area is located in the Slate Run – Eel River, North Fork Jordan Creek, and Cagle Mill Lake – Mill Creek, sub-watersheds (see attached Watershed Map). According to the US Geological Survey (USGS) topographic map, no perennial (solid) or intermittent (dashed) stream lines are present in the investigated area. Based on the National Hydrography Dataset (NHD) (see attached NHD Flowlines Map), one unclassified flowline is present within the investigated area at Curves 4 and 5. This unclassified flowline corresponds to UNT 1 to Ahlmeyer Branch. During rain events, roadway runoff travels along the base of the sloped roadsides of SR 42.

Field Survey

Site Conditions: According to the US Army Corps of Engineers' (USACE) Antecedent Precipitation Tool and weatherunderground.com, the following conditions were present on the site during the site visits:

- August 29, 2023: Normal conditions; temperature was in the low 80s
- August 30, 2023 Normal conditions; temperature was in the mid 70s
- September 19, 2023: Normal conditions; temperature was in the high 70s
- October 11, 2024: Normal conditions; temperature was in the low 80s

Site Analysis: The investigated area primarily consisted of facultative upland (FACU), facultative (FAC), and facultative wetland (FACW) grasses. Pockets of obligate wetland (OBL) grasses and forbs were identified within the boundaries of delineated wetlands, and sections FACU and FACW forested vegetation were identified. These vegetative communities are common along disturbed roadsides and within immature mesic forests of the region. Please refer to the attached Wetland Determination Data Forms and *Table 5: Sample Point and Wetland Summary Table* for details of dominant species within the area.

Stream Features

Three streams, two unmapped and one mapped on the NHD flowline map (see above), were observed within the investigated area during the field visit.

UNT 1 to Ahlmeyer Branch is an intermittent stream that flows from east to west on the north side of SR 42 at Curves 4 and 5. The stream appears to start beyond the northern limits of the investigated area, then flows beyond the western limits of the investigated area. The stream is not shown on the USGS topographic map, is shown on the NHD map as an unclassified flowline, and is not shown on the NWI map. UNT 1 to Ahlmeyer Branch exhibited an Ordinary High Water Mark (OHWM) width of 1 foot, and an OHWM depth of 0.25 foot. UNT 1 to Ahlmeyer is characterized by low flow velocity, no riffle/run complexes, no pools, low in stream cover, high canopy cover, and a silt substrate. UNT 1 to Ahlmeyer is considered to be a poor-quality stream due to these attributes. Approximately 342 linear feet of UNT 1 to Ahlmeyer Branch are present within the investigated area. According to the USGS Streamstats application, UNT 1 to Ahlmeyer Branch has an upstream drainage area of 0.037 square mile. UNT 1 to Ahlmeyer Branch would likely have a Cowardin classification of R4SBC (riverine, intermittent, seasonally flooded). UNT 1 to Ahlmeyer Branch drains into Ahlmeyer Branch, which has eventual connectivity to the White River via Coon Creek, North Fork Jordan Creek, Jordan Creek, and the Eel River. The White River is a navigable waterway within the USACE Louisville District and is jurisdictional under the authority of the USACE. Therefore, UNT 1 to Ahlmeyer Branch is likely jurisdictional under the authority of the USACE due to its relatively permanent flow, presence of an OHWM and defined bed and bank, and eventual connectivity to a navigable waterway. Photos of UNT 1 to Ahlmeyer Branch can be found in photos 45 and 49 – 53 of the attached photo key.

UNT 2 to Ahlmeyer Branch is an intermittent stream that flows from northeast to southwest on the north side of SR 42 at Curves 4 and 5. The stream appears to start beyond the northern limits of the investigated area and drains into UNT 1 to Ahlmeyer Branch. The stream is not shown on the USGS topographic map, the NHD map, or the NWI map. UNT 2 to Ahlmeyer Branch exhibited an Ordinary High Water Mark (OHWM) width of 2 feet, and an OHWM depth of 0.25 foot. UNT 2 to Ahlmeyer Branch is characterized by low flow velocity, no riffle/run complexes, no pools, low in stream cover, high canopy cover, and a silt substrate. UNT 2 to Ahlmeyer Branch is considered to be a poor-quality stream due to these attributes. Approximately 45 linear feet of UNT 2 to Ahlmeyer Branch are present within the investigated area. UNT 2 to Ahlmeyer Branch is not mapped on the USGS Streamstats application. UNT 2 to Ahlmeyer Branch would likely have a Cowardin classification of R4SBC (riverine, intermittent, seasonally flooded). UNT 2 to Ahlmeyer Branch drains into UNT 1 to Ahlmeyer

Branch (see above), which is likely a jurisdictional water feature due to its eventual connectivity to the White River, which is jurisdictional under the authority of the USACE. UNT 2 to Ahlmeyer Branch is likely jurisdictional under the authority of the USACE due to its relatively permanent flow, presence of an OHWM and defined bed and bank, and eventual connectivity to a navigable waterway. Photos of UNT 2 to Ahlmeyer Branch can be found in photos 45 – 48 of the attached photo key.

UNT 1 to Cagles Mill Lake is an ephemeral stream that flows from south to north starting at the outlet of the structure that runs below SR 42 at Curve 9. The stream is not shown on the USGS topographic map, the NHD map, or the NWI map. Measured outside the influence of the structure, UNT 1 to Cagles Mill Lake exhibited an Ordinary High Water Mark (OHWM) width of 3.5 feet, and an OHWM depth of 0.25 foot. UNT 1 to Cagles Mill Lake is characterized by no flow velocity, no riffle/run complexes, no pools, moderate in stream cover, high canopy cover, and a silt substrate. UNT 1 to Cagles Mill Lake is considered to be a poor-quality stream due to these attributes. Approximately 51 linear feet of UNT 1 to Cagles Mill Lake are present within the investigated area. UNT 2 to Cagles Mill Lake is not mapped on the USGS Streamstats application. UNT 1 to Cagles Mill Lake would likely have a Cowardin classification of R4SBC (riverine, intermittent, seasonally flooded). UNT 1 to Cagles Mill Lake drains eventually into the White River via Cagles Mill Lake, Mill Creek, and the Eel River. The White River is a navigable waterway within the USACE Louisville District and is jurisdictional under the authority of the USACE. UNT 1 to Cagles Mill Lake is likely jurisdictional under the authority of the USACE due to the presence of an OHWM and defined bed and bank and eventual connectivity to a navigable waterway. Photos of UNT 1 to Cagles Mill Lake can be found in photos 97 – 100 of the attached photo key.

Table 4: Stream summary table

Stream Name	Photos	Latitude/Longitude	OHMW Width (ft)	OHWM Depth (ft)	USGS Blue line?	Functional riffles/pools?	Likely Water of the US?	Dominant Substrate?	Quality	Length of Stream in Investigated Area?	Upstream drainage area (sq mi)
UNT 1 to Ahlmeyer Branch	45, 49-55	39.444111 -86.969760	1	0.25	No; intermittent	None	Yes	Silt	Poor	342	0.037
UNT 2 to Ahlmeyer Branch	45-48	39.444206 -86.970225	2	0.25	No; intermittent	None	Yes	Silt	Poor	45	N/A*
UNT 1 to Cagles Mill Lake	97-100	39.454287 -86.893942	3.5	0.25	No; ephemeral	None	Yes	Silt	Poor	51	N/A*

*Drainage area is assumed to be less than 1 square mile

Wetland Features

Three unmapped wetland features were identified in the field visit.

Wetland 1 (SP1 and associated upland point, SP2) is present within the ditch near on the south side of SR 42 at Curves 1 and 2 and collects stormwater runoff and runoff from the adjacent farm field. It is likely that Wetland 1 formed as a result of the grading to construct SR 42 and is seasonally flooded. The Cowardin classification of Wetland 1 is likely PEM1A (palustrine, emergent, persistent, temporarily flooded). Approximately 0.021 acre of Wetland 1 are present within the investigated area, and the boundaries of Wetland 1 are defined by the slopes of the ditch and related shifts in soil conditions to nonhydric soils. Wetland 1 is contained entirely within the investigated area. Wetland 1 is poor quality due to its lack of biodiversity, lack of habitat for wetland flora and fauna, and the presence of roadside and agricultural runoff. Wetland 1 appears to be isolated from other water features because it is not adjacent to any other likely jurisdictional water resources. Therefore, it is not likely to be considered a

jurisdictional resource under the authority of the USACE. However, INDOT is asking that USACE take jurisdiction over this resource. Please refer to photos 2 – 7 and 9 – 10 in the attached photo key for images of Wetland 1.

SP3 was taken on the north side of SR 42 at Curves 1 and 2 due to the presence of hydrophytic vegetation. This sample point met the conditions for hydrophytic vegetation and wetland hydrology, but it did not meet any hydric soil criteria. This location appears to collect runoff for brief durations but not long enough to develop hydric soil. The presence of dominant hydrophytic vegetation is due to the dominant species, reed canary grass (*Phalaris arundinacea*), being invasive and forming dense colonies in disturbed areas such as along roadsides. SP3 is shown in the attached photo log in photos 11 – 13.

SP4 was taken within a ditch on the east side of SR 42 at Curve 3 due to the geomorphology of that immediate area. This sample point met the secondary indicator of Geomorphic Position for wetland hydrology, but it did not meet any hydric soil criteria or hydrophytic vegetation criteria. This location appears to collect runoff for brief durations but not long enough to develop wetland conditions. SP4 is shown in the attached photo log in photos 21 – 24.

Wetland 2 (SP5 and associated upland point, SP6) is present within a depression on the north side of SR 42 near Curve 3 and collects stormwater runoff and runoff from the adjacent farm field. It is likely that Wetland 2 formed as a result of the grading to construct SR 42 and is seasonally flooded. The Cowardin classification of Wetland 2 is likely PEM1A (palustrine, emergent, persistent, temporarily flooded). Approximately 0.024 acre of Wetland 2 are present within the investigated area, and the boundaries of Wetland 2 are defined by the slopes of the depression and related shifts in soil conditions to nonhydric soils. Wetland 2 is contained entirely within the investigated area. Wetland 2 is poor quality due to its lack of biodiversity, lack of habitat for wetland flora and fauna, and the presence of roadside and agricultural runoff. Wetland 2 appears to be isolated from other water features because it is not adjacent to any other likely jurisdictional water resources. Therefore, it is not likely to be considered a jurisdictional resource under the authority of the USACE. However, INDOT is asking that USACE take jurisdiction over this resource. Please refer to photos 26 – 29, 31, and 33 in the attached photo key for images of Wetland 2.

Wetland 3 (SP7 and associated upland point, SP8) is present south of SR 42 near Curves 4 and 5 and collects stormwater runoff. It is likely that Wetland 3 formed as a result of the grading to construct SR 42 and from seasonal flooding from Ahlmeyer Branch. The Cowardin classification of Wetland 3 is likely PEM1A (palustrine, emergent, persistent, temporarily flooded). Approximately 0.226 acre of Wetland 3 are present within the investigated area, and the boundaries of Wetland 3 appear to continue beyond the investigated area to the west and south. The shifts in vegetation and soil conditions define the boundaries to the north. Wetland 3 is average quality due to its moderate biodiversity, presence of habitat for wetland flora and fauna, and likely large size due to extending beyond the investigated area. Wetland 3 appears to connect to Ahlmeyer Branch, which has eventual connectivity to the White River via Coon Creek, North Fork Jordan Creek, Jordan Creek, and the Eel River. The White River is a navigable waterway and is jurisdictional under the authority of the USACE. Therefore, Wetland 3 is likely to be considered a jurisdictional resource under the authority of the USACE. Please refer to photos 37 – 40, 42 – 44, and 57 – 61 in the attached photo key for images of Wetland 3.

SP9 was taken on the north side of SR 42 at Curve 6 due to the presence of hydrophytic vegetation and the geomorphology of the immediate area. This sample point did not meet the conditions for hydrophytic vegetation, hydric soils, or wetland hydrology. This location appears to collect runoff for brief durations to support some hydrophytic vegetation, but not long enough to develop wetland conditions. SP9 is shown in the attached photo log in photos 65 – 67.

Table 5: Sample Point and Wetland Summary Table

Wetland ID	Type	Acreage	Quality	Photo IDs	Associated Structure ID	Likely WOTUS?	Sample Point ID (SP)	Lat/Long	Dominant Vegetation	Hydrophytic Vegetation?	Hydric Soil Indicator(s)	Hydrology Indicator(s)	Within Wetland?	Notes
Wetland 1	PEM1A	0.021	Poor	2 to 7	N/A	Yes*	SP 1	39.441616, -87.015895	Yellow foxtail (*Setaria pumila, FAC*), yellow nutsedge (*Cyperus esculentus, FACW*)	Yes	F8	D2, D5	Yes	Emergent ditch wetland point near Curves 1 and 2. Wetland 1 is contained entirely within the investigated area.
				8 to 10	N/A		SP2	39.441579, -87.015893	Yellow foxtail (*Setaria pumila, FAC)* , common ragweed (*Ambrosia artemisiifolia* , FACU)	No	N/A	N/A	No	Associated upland point to SP1.
N/A	N/A	N/A	N/A	11 to 12	N/A	N/A	SP3	39.441676, -87.015518	Reed canary grass (*Phalaris arundinacea,* FACW)	Yes	N/A	D2, D5	No	Suspected wetland point near Curves 1 and 2 that did not meet hydric soil indicators.
N/A	N/A	N/A	Poor	21 to 24	N/A	N/A	SP4	39.443953, -87.000416	Sugar maple (*Acer saccharum,* FACU), shagbark hickory (*Carya ovata,* FACU), switchgrass (*Panicum virgatum,* FAC)	No	N/A	D2	No	Suspected wetland point near Curve 3 that did not meet any wetland indicators.
Wetland 2	PEM1A	0.024	Poor	26 to 29	N/A	Yes*	SP5	39.444406, -87.000198	Barnyard grass (*Echinochloa crus-galli,* FACW)	Yes	F8	A1, B4, D2, D5	Yes	Emergent ditch wetland point near Curve 3. Wetland 2 is contained entirely within the investigated area.
				30 to 33			SP6	39.444456, -87.000201	Switchgrass (*Panicum virgatum,* FAC)	Yes	N/A	D2	No	Associated upland point to SP 5.
Wetland 3	PEM1A	0.226	Average	36 to 40	N/A	Yes	SP7	39.444020, -86.970324	Green ash (*Fraxinus pennsylvanica,* FACW), switchgrass (*Panicum virgatum,* FAC), reed canary grass (*Phalaris arundinacea,* FACW)	Yes	S5	D2, D5	Yes	Emergent ditch wetland point near Curves 4 and 5. Wetland 3 extends beyond the limits of the investigated area.
				41 to 44			SP8	39.444039, -86.970273	Switchgrass (*Panicum virgatum* , FAC), reed canary grass (*Phalaris arundinacea,* FACW)	Yes	N/A	D5	No	Associated upland point to SP7.
N/A	N/A	N/A	N/A	65 to 67	N/A	N/A	SP9	39.447847, -86.914239	Barnyard grass (*Echinochloa crus-galli* , FACW)	No	N/A	D5	No	Suspected wetland point near Curve 6 that did not meet any wetland indicators.

*INDOT is asking USACE to take jurisdiction over these features

Open Water Features

No open water bodies were identified within or adjacent to the investigated area in the desktop review. The field visit confirmed that no open water features are within the investigated area.

Other Water Features and Roadside Ditches (RSDs)

The investigated area was assessed for the presence of other water features. Other water features include RSDs, areas that do not have an OHWM but have concentrated flow, historic drainage, and other unusual drainage features. These features may be considered jurisdictional if they exhibit a Significant Nexus to a Traditionally Navigable Waterway. No other water features were identified within the investigated area.

Ecology and Wildlife Crossings

During the field investigation on August 29, 2023, August 30, 2023, September 19, 2023, and October 11, 2024, the existing structures and surrounding area were inspected for bats, birds, evidence of bats or birds, and any other evidence that the structures have been used for other wildlife crossings. Wildlife crossings include level areas with natural substrate above the OHWM of streams and water features, which could include evidence (droppings, nests, tracks, etc.) of wildlife use under the structure. No bats or birds or evidence of bats or birds were observed in the structures or in the vicinity, and these structures are not likely to serve as a wildlife crossing as they are both approximately 15 inches in diameter and are partially buried. The surrounding fields and forested areas are likely used as wildlife habitat for a variety of species.

Conclusions

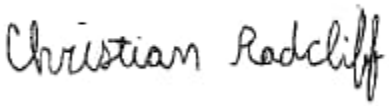
The investigated area included the area where construction will occur off of the roadway, which is at the location of the 10 curves and two small structure replacements. Three streams, UNT 1 to Ahlmeyer Branch, UNT 2 to Ahlmeyer Branch, and UNT 1 to Cagles Mill Lake, and three wetlands, Wetlands 1, 2, and 3, were identified during the site investigation. Wetlands 1 and 2 are likely isolated water features; however, INDOT is asking USACE to take jurisdiction over these resources. Wetland 3 likely has connectivity to Ahlmeyer Branch beyond the investigated area, which has eventual connectivity to the White River, which is a traditionally navigable waterway. Therefore, based on its attributes and connectivity, Wetland 3 is a likely Water of the U.S. and is likely jurisdictional under the authority of the USACE. All streams have eventual connectivity to the White River and are likely jurisdictional resources. The site investigation did not identify any additional water features.

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

Acknowledgement

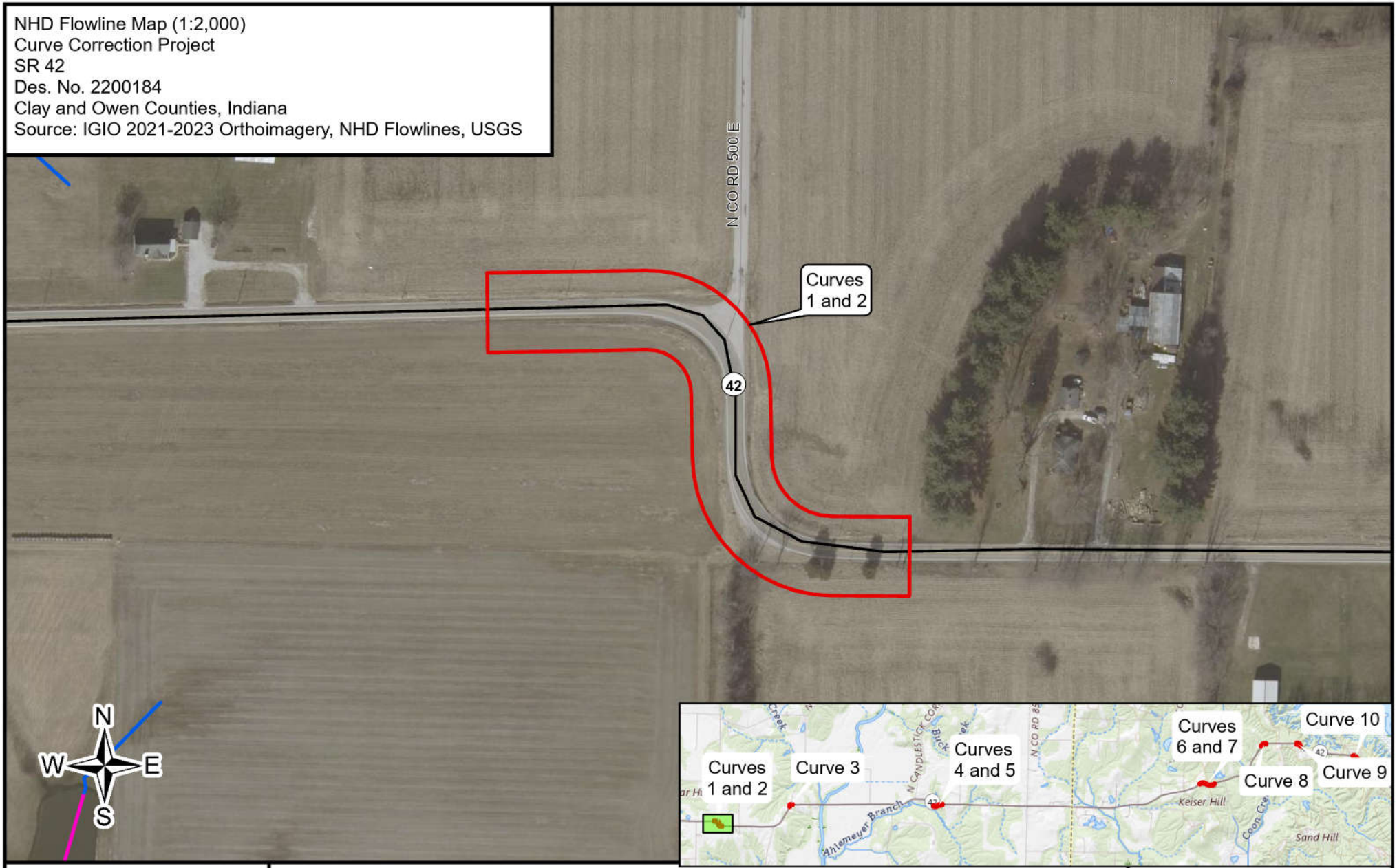
This waters determination has been prepared based on the best available information, interpreted in the light of the investigator's training, experience, and professional judgement in conformance with the *1987 Corps of Engineers Wetlands Delineation Manual*, the appropriate regional supplement, the *USACE Jurisdictional Determination Form Instructional Guidebook*, and other appropriate agency guidelines.

Christian Radcliff



Environmental Project Manager and Permitting Specialist
Date: March 7, 2025

NHD Flowline Map (1:2,000)
Curve Correction Project
SR 42
Des. No. 2200184
Clay and Owen Counties, Indiana
Source: IGIO 2021-2023 Orthoimagery, NHD Flowlines, USGS

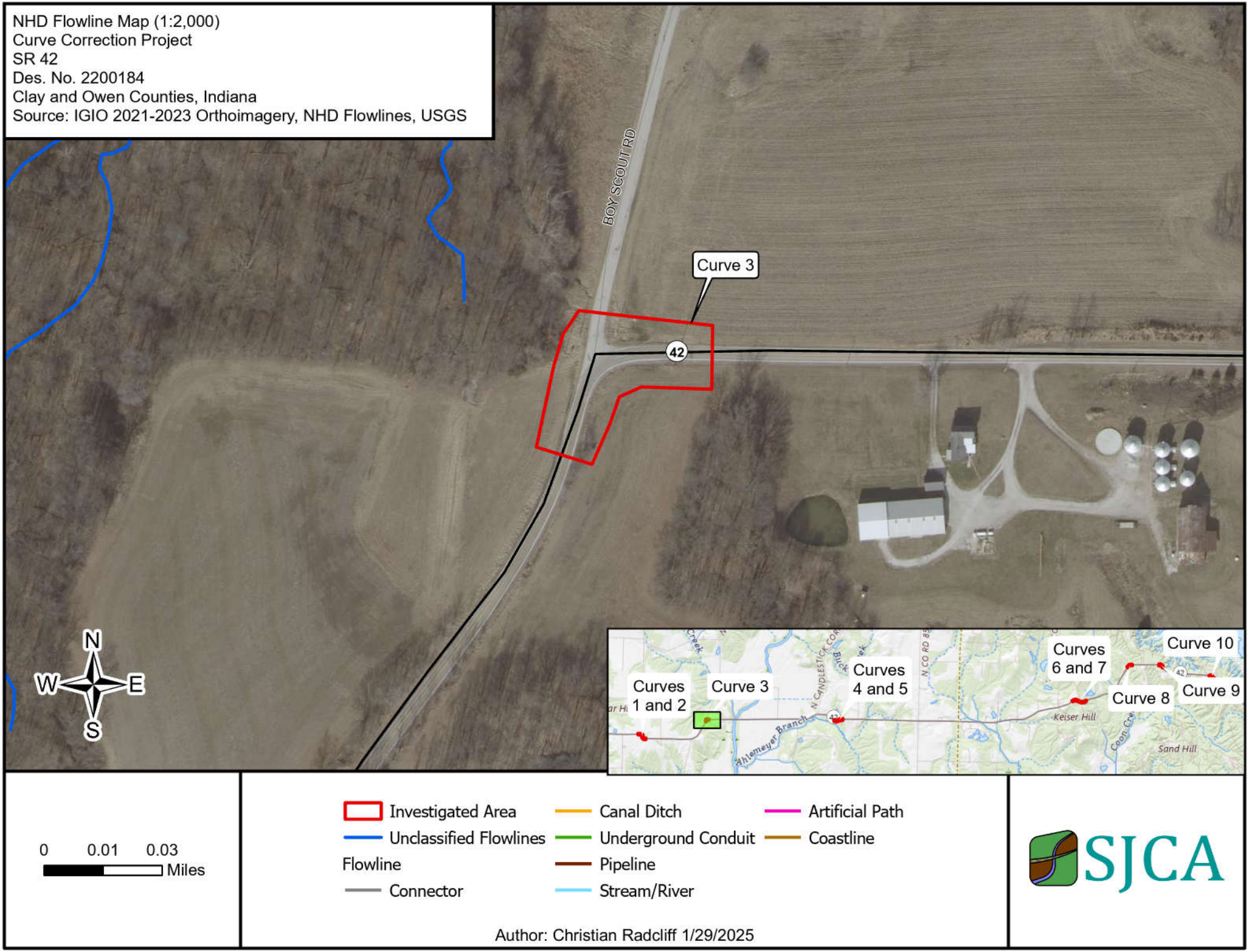


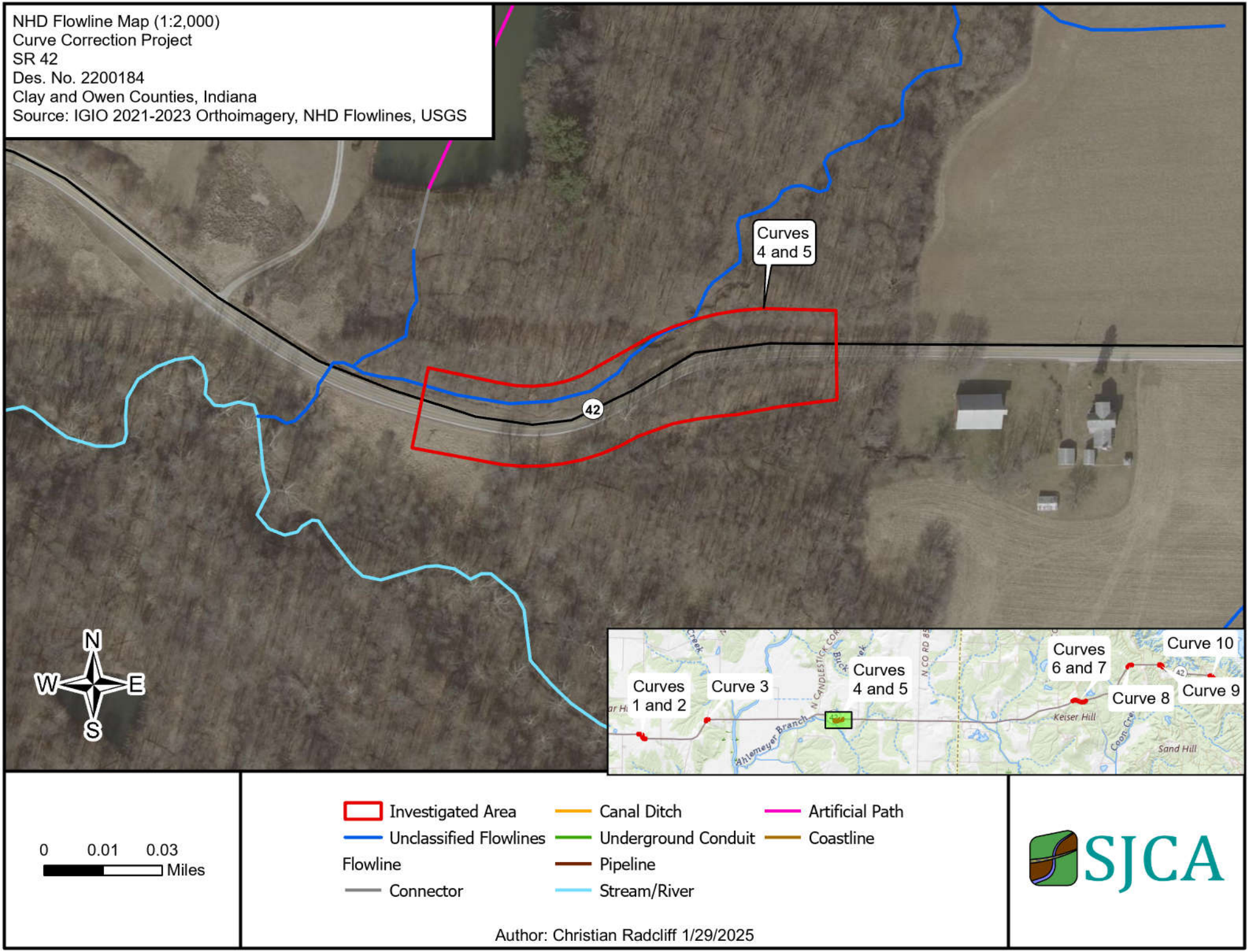
0 0.01 0.03 Miles

Investigated Area
Unclassified Flowlines
Flowline
Connector
Canal Ditch
Underground Conduit
Pipeline
Stream/River
Artificial Path
Coastline

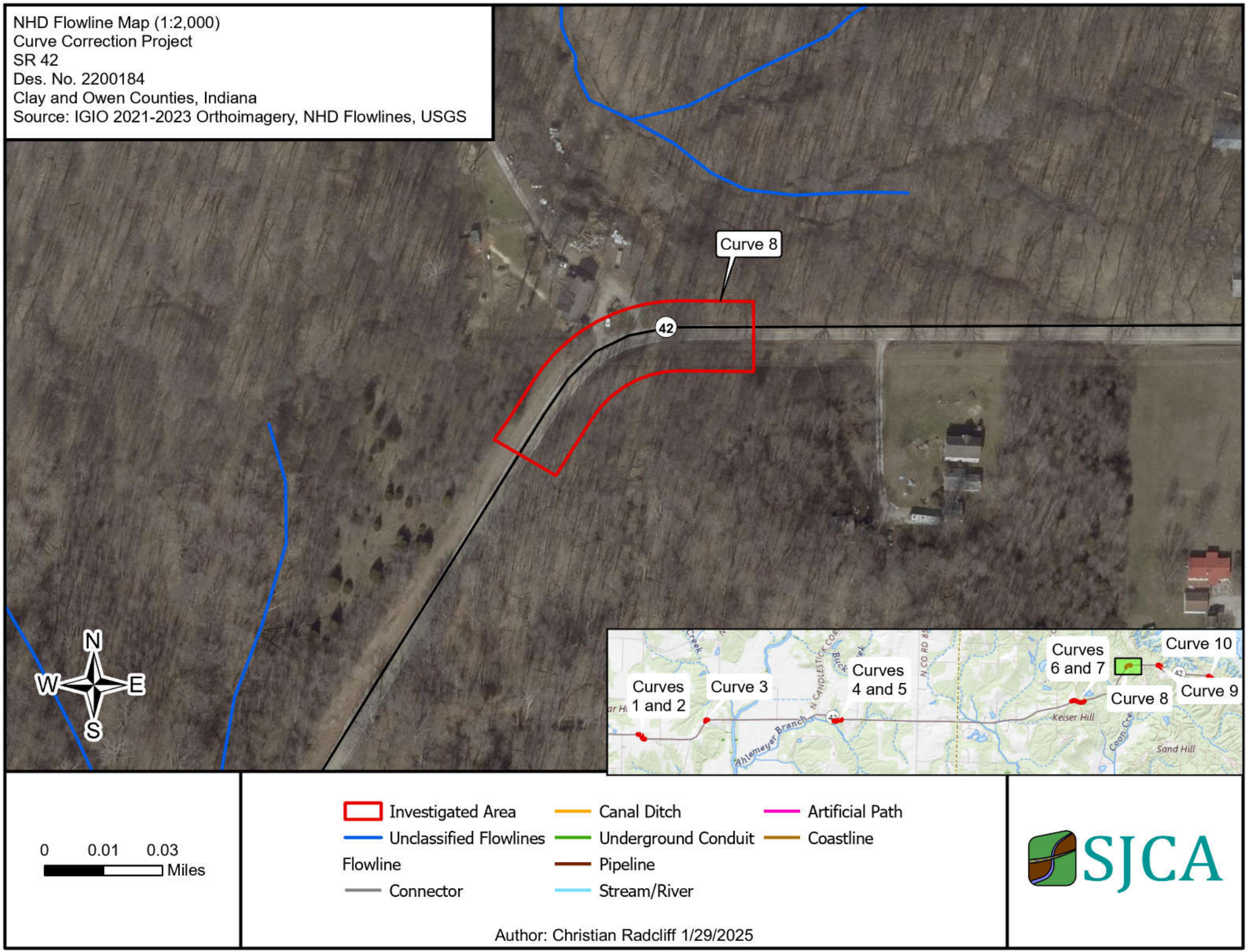
Author: Christian Radcliff 1/29/2025

SJCA


NHD Flowline Map (1:2,000)
Curve Correction Project
SR 42
Des. No. 2200184
Clay and Owen Counties, Indiana
Source: IGIO 2021-2023 Orthoimagery, NHD Flowlines, USGS
BOY SCOUT RD
Curve 3
42
N
W
E
S
Curves 1 and 2
Curve 3
Curves 4 and 5
Curves 6 and 7
Curve 8
Curve 9
Curve 10
Keiser Hill
Sand Hill
0 0.01 0.03
Miles
Investigated Area
Unclassified Flowlines
Flowline
Connector
Canal Ditch
Underground Conduit
Pipeline
Stream/River
Artificial Path
Coastline
Author: Christian Radcliff 1/29/2025
SJCA


NHD Flowline Map (1:2,000)
Curve Correction Project
SR 42
Des. No. 2200184
Clay and Owen Counties, Indiana
Source: IGIO 2021-2023 Orthoimagery, NHD Flowlines, USGS
Curves 4 and 5
42
N
W
E
S
Curves 1 and 2
Curve 3
Curves 4 and 5
Curves 6 and 7
Curve 8
Curve 9
Curve 10
Keiser Hill
Sand Hill
0 0.01 0.03
Miles
Investigated Area
Unclassified Flowlines
Flowline
Connector
Canal Ditch
Underground Conduit
Pipeline
Stream/River
Artificial Path
Coastline
Author: Christian Radcliff 1/29/2025
SJCA


NHD Flowline Map (1:2,000)
Curve Correction Project
SR 42
Des. No. 2200184
Clay and Owen Counties, Indiana
Source: IGIO 2021-2023 Orthoimagery, NHD Flowlines, USGS
Curves 6 and 7
42
N
W
E
S
Curves 1 and 2
Curve 3
Curves 4 and 5
Curves 6 and 7
Curve 8
Curve 9
Curve 10
Keiser Hill
Sand Hill
0 0.01 0.03
Miles
Investigated Area
Unclassified Flowlines
Flowline
Connector
Canal Ditch
Underground Conduit
Pipeline
Stream/River
Artificial Path
Coastline
SJCA
Author: Christian Radcliff 1/29/2025


NHD Flowline Map (1:2,000)
Curve Correction Project
SR 42
Des. No. 2200184
Clay and Owen Counties, Indiana
Source: IGIO 2021-2023 Orthoimagery, NHD Flowlines, USGS
Curve 8
42
N
W
E
S
Curves 1 and 2
Curve 3
Curves 4 and 5
Curves 6 and 7
Curve 8
Curve 9
Curve 10
Keiser Hill
Sand Hill
0 0.01 0.03
Miles
Investigated Area
Unclassified Flowlines
Flowline
Connector
Canal Ditch
Underground Conduit
Pipeline
Stream/River
Artificial Path
Coastline
Author: Christian Radcliff 1/29/2025
SJCA

NHD Flowline Map (1:2,000)
Curve Correction Project
SR 42
Des. No. 2200184
Clay and Owen Counties, Indiana
Source: IGIO 2021-2023 Orthoimagery, NHD Flowlines, USGS



0 0.01 0.03 Miles

Investigated Area
Unclassified Flowlines
Flowline
Connector
Canal Ditch
Underground Conduit
Pipeline
Stream/River
Artificial Path
Coastline

Author: Christian Radcliff 1/29/2025

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NHD Flowline Map (1:2,000)
Curve Correction Project
SR 42
Des. No. 2200184
Clay and Owen Counties, Indiana
Source: IGIO 2021-2023 Orthoimagery, NHD Flowlines, USGS

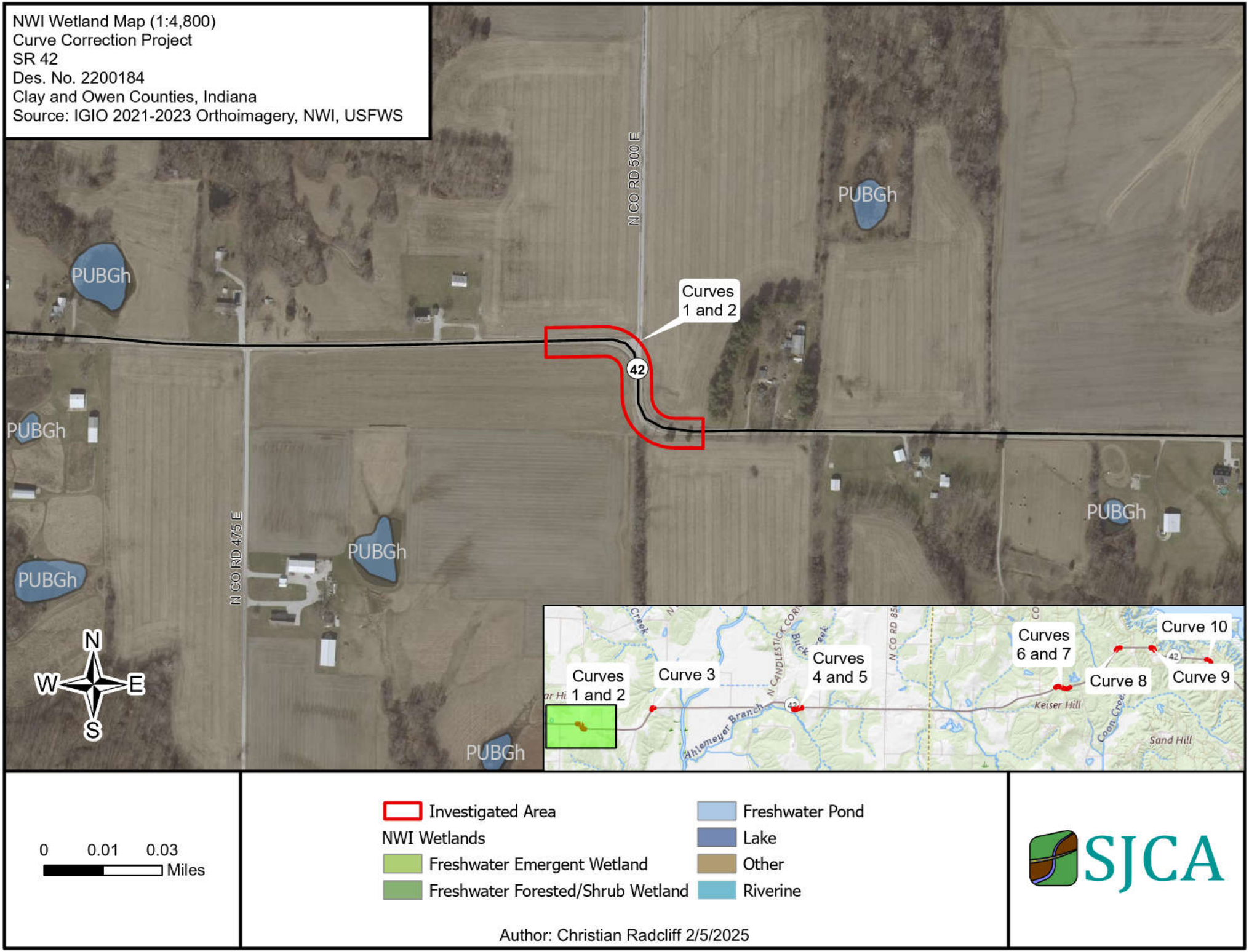


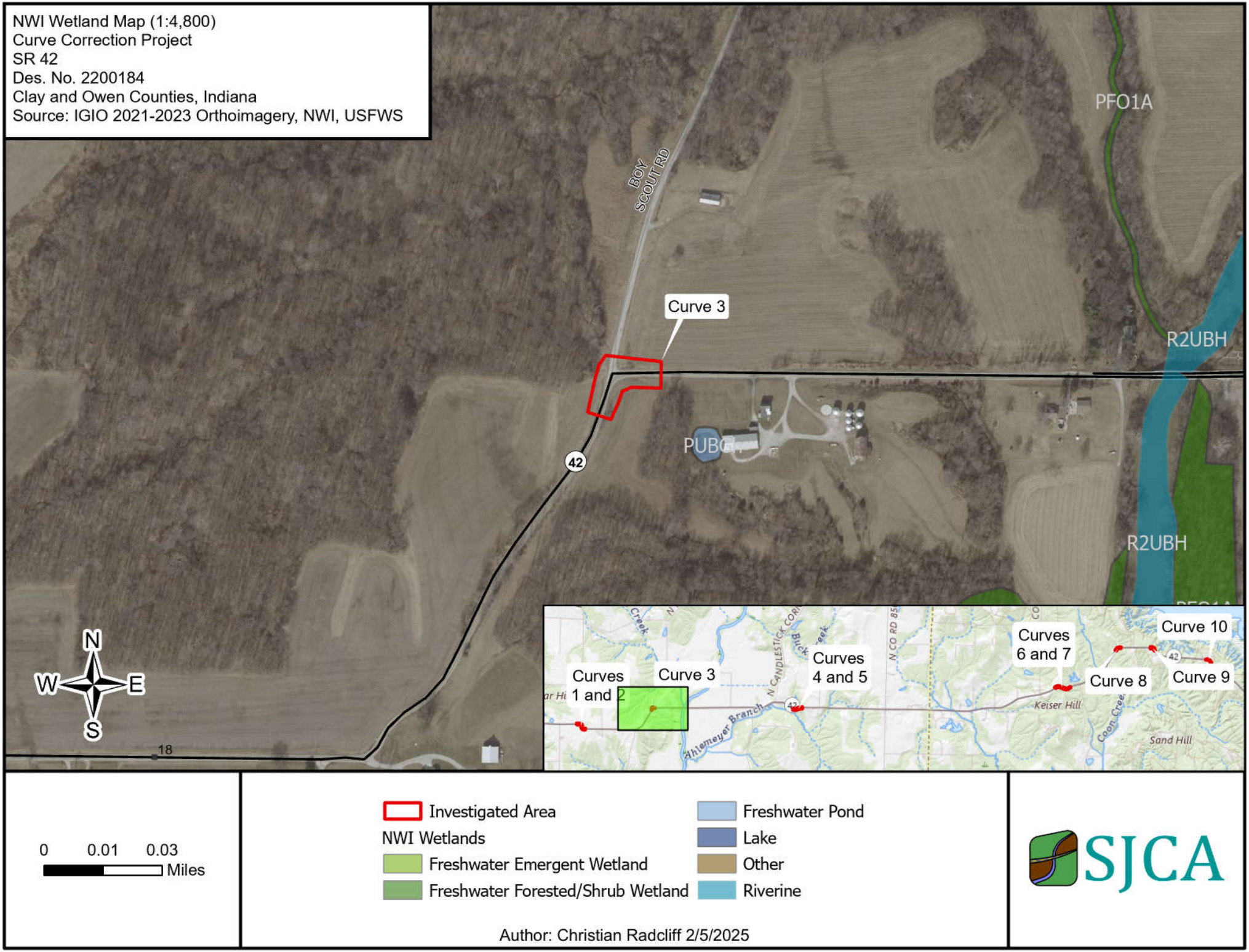
0 0.01 0.03 Miles

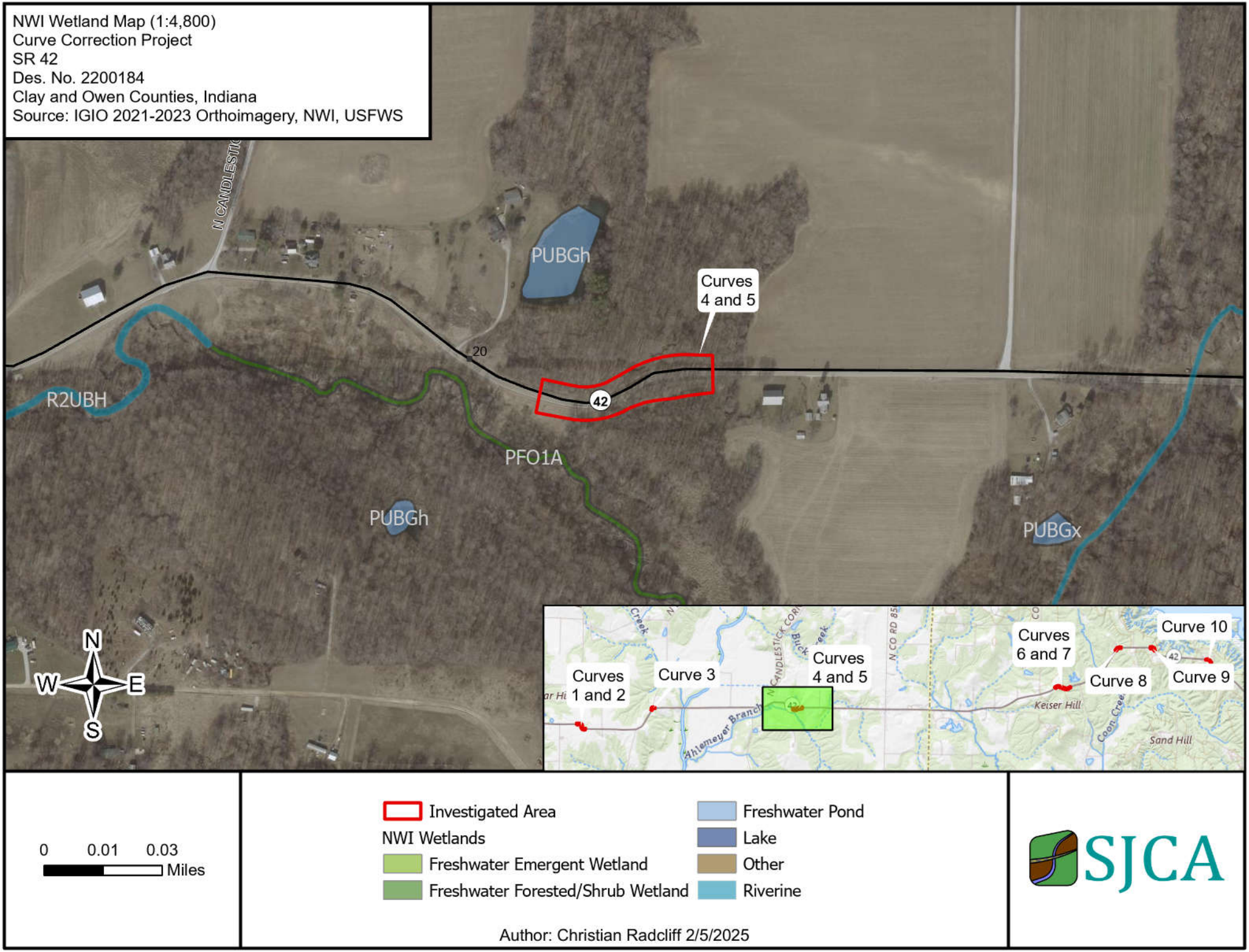
Investigated Area
Unclassified Flowlines
Flowline
Connector
Canal Ditch
Underground Conduit
Pipeline
Stream/River
Artificial Path
Coastline

SJCA

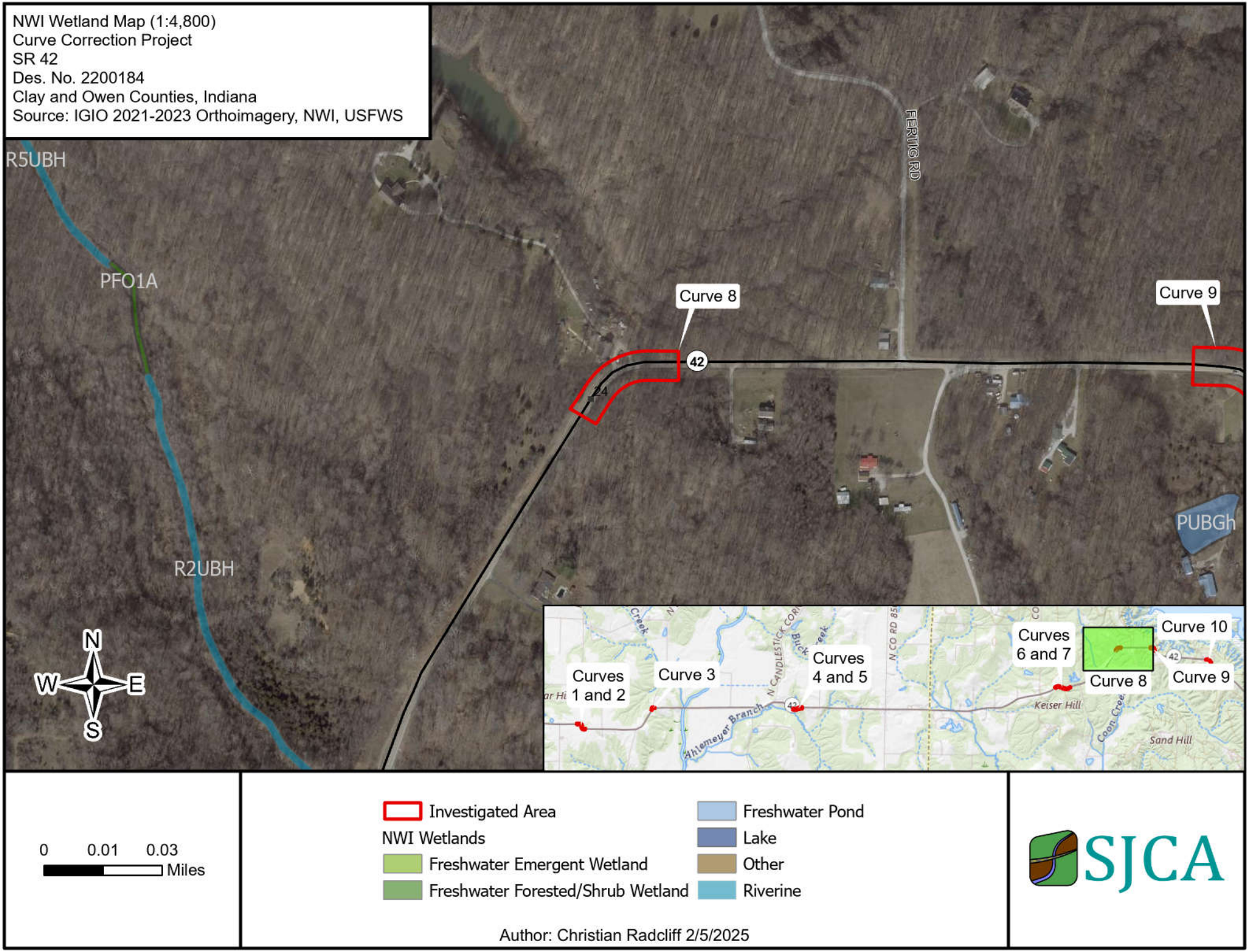
Author: Christian Radcliff 1/29/2025

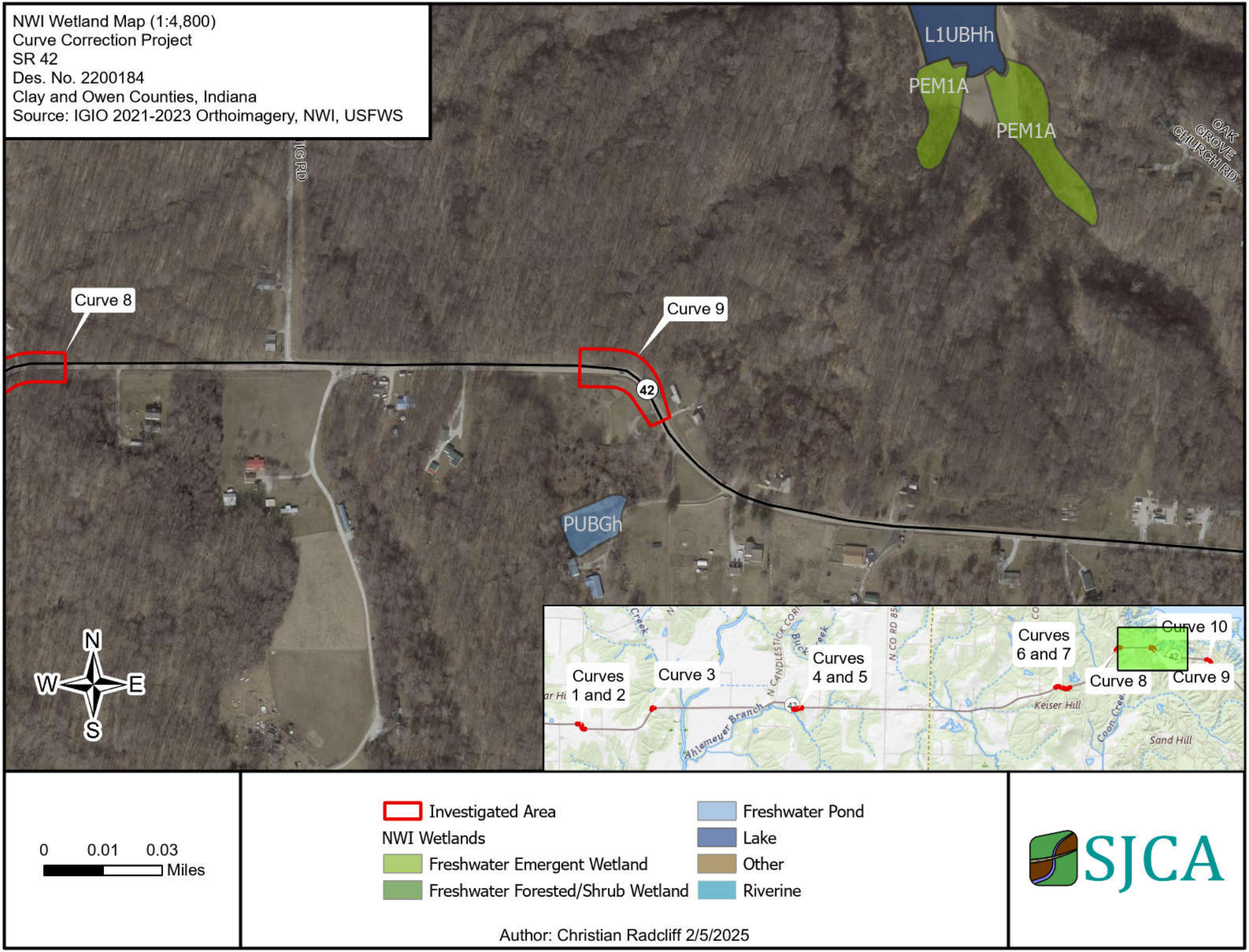

NWI Wetland Map (1:4,800)
Curve Correction Project
SR 42
Des. No. 2200184
Clay and Owen Counties, Indiana
Source: IGIO 2021-2023 Orthoimagery, NWI, USFWS
N CO RD 500 E
N CO RD 475 E
PUBGh
Curves 1 and 2
42
N
W
E
S
Curves 1 and 2
Curve 3
Curves 4 and 5
Curves 6 and 7
Curve 8
Curve 9
Curve 10
Keiser Hill
Sand Hill
Ahlemeyer Branch
0 0.01 0.03
Miles
Investigated Area
NWI Wetlands
Freshwater Emergent Wetland
Freshwater Forested/Shrub Wetland
Freshwater Pond
Lake
Other
Riverine
Author: Christian Radcliff 2/5/2025
SJCA

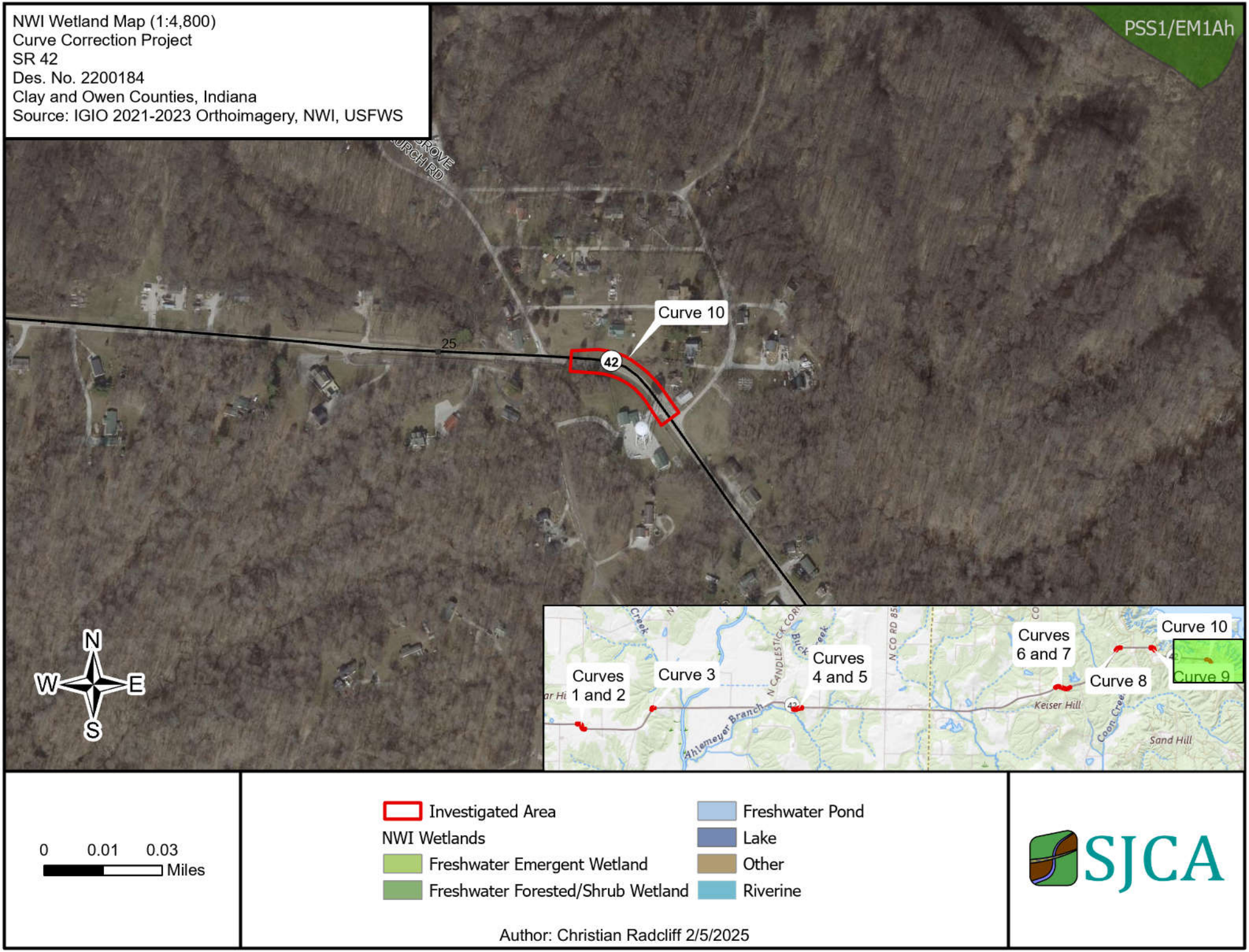

NWI Wetland Map (1:4,800)
Curve Correction Project
SR 42
Des. No. 2200184
Clay and Owen Counties, Indiana
Source: IGIO 2021-2023 Orthoimagery, NWI, USFWS
PFO1A
BOY SCOUT RD
Curve 3
R2UBH
PUBG
42
R2UBH
N
W
E
S
18
Curves 1 and 2
Curve 3
Curves 4 and 5
Curves 6 and 7
Curve 8
Curve 9
Curve 10
Keiser Hill
Sand Hill
Ahlemeyer Branch
0 0.01 0.03
Miles
Investigated Area
NWI Wetlands
Freshwater Emergent Wetland
Freshwater Forested/Shrub Wetland
Freshwater Pond
Lake
Other
Riverine
Author: Christian Radcliff 2/5/2025
SJCA

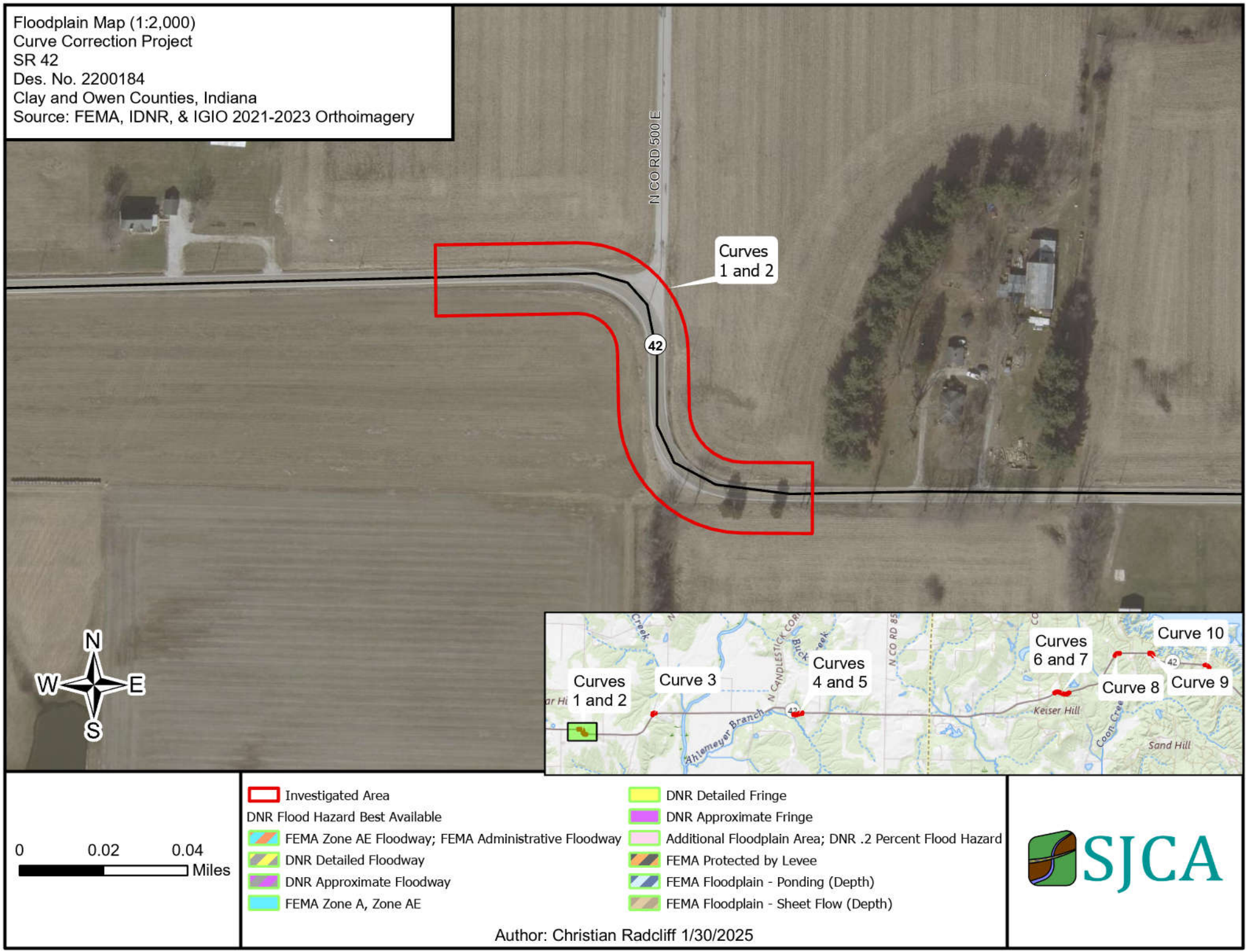

NWI Wetland Map (1:4,800)
Curve Correction Project
SR 42
Des. No. 2200184
Clay and Owen Counties, Indiana
Source: IGIO 2021-2023 Orthoimagery, NWI, USFWS
N CANDLESTICK
PUBGh
Curves 4 and 5
20
42
R2UBH
PFO1A
PUBGh
PUBGx
N
W
E
S
Curves 1 and 2
Curve 3
Curves 4 and 5
Curves 6 and 7
Curve 8
Curve 9
Curve 10
Keiser Hill
Sand Hill
0 0.01 0.03
Miles
Investigated Area
NWI Wetlands
Freshwater Emergent Wetland
Freshwater Forested/Shrub Wetland
Freshwater Pond
Lake
Other
Riverine
Author: Christian Radcliff 2/5/2025
SJCA

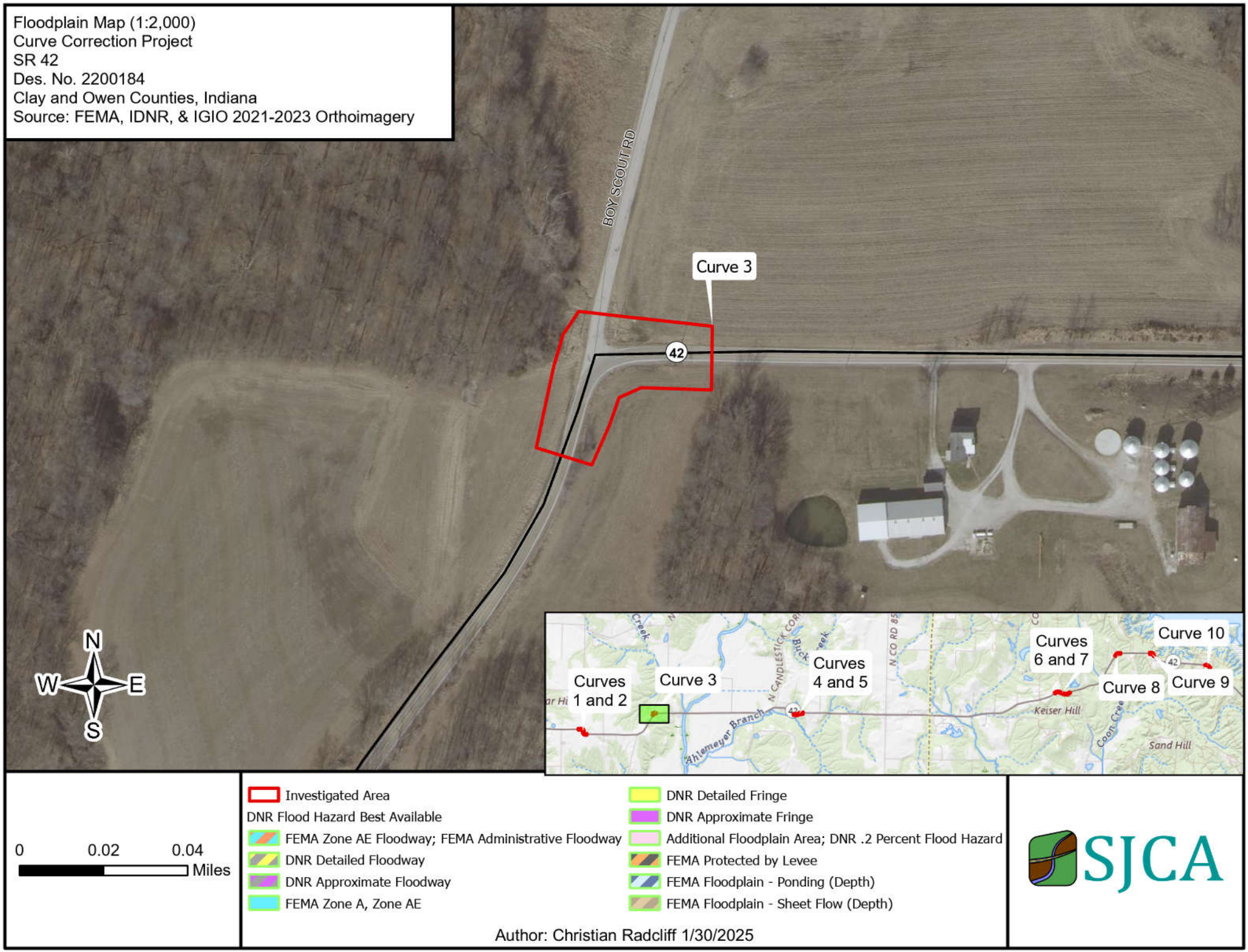

NWI Wetland Map (1:4,800)
Curve Correction Project
SR 42
Des. No. 2200184
Clay and Owen Counties, Indiana
Source: IGIO 2021-2023 Orthoimagery, NWI, USFWS
R5UBH
PUBGh
R5UBH
Curves 6 and 7
PUBGh
42
N 600 W
23
R2UBH
OWL HOLLOW R
R4SBC
N
W
E
S
Curves 1 and 2
Curve 3
Curves 4 and 5
Curves 6 and 7
Curve 8
Curve 9
Curve 10
Keiser Hill
Sand Hill
Ahlemeyer Branch
N CANDLESTICK CORNER
N CO RD 85
0 0.01 0.03
Miles
Investigated Area
NWI Wetlands
Freshwater Emergent Wetland
Freshwater Forested/Shrub Wetland
Freshwater Pond
Lake
Other
Riverine
Author: Christian Radcliff 2/5/2025
SJCA


NWI Wetland Map (1:4,800)
Curve Correction Project
SR 42
Des. No. 2200184
Clay and Owen Counties, Indiana
Source: IGIO 2021-2023 Orthoimagery, NWI, USFWS
R5UBH
PFO1A
R2UBH
PUBGh
FERTIG RD
Curve 8
Curve 9
42
24
N
W
E
S
Curves 1 and 2
Curve 3
Curves 4 and 5
Curves 6 and 7
Curve 8
Curve 9
Curve 10
Keiser Hill
Sand Hill
Ahlemeyer Branch
0 0.01 0.03
Miles
Investigated Area
NWI Wetlands
Freshwater Emergent Wetland
Freshwater Forested/Shrub Wetland
Freshwater Pond
Lake
Other
Riverine
Author: Christian Radcliff 2/5/2025
SJCA


NWI Wetland Map (1:4,800)
Curve Correction Project
SR 42
Des. No. 2200184
Clay and Owen Counties, Indiana
Source: IGIO 2021-2023 Orthoimagery, NWI, USFWS
L1UBHh
PEM1A
PEM1A
OAK GROVE CHURCH RD
1G RD
Curve 8
Curve 9
42
PUBGh
N
W
E
S
Curves 1 and 2
Curve 3
Curves 4 and 5
Curves 6 and 7
Curve 8
Curve 9
Curve 10
Keiser Hill
Sand Hill
Ahlemeyer Branch
N CANDLESTICK CORNER
N CO RD 85
0 0.01 0.03
Miles
Investigated Area
NWI Wetlands
Freshwater Emergent Wetland
Freshwater Forested/Shrub Wetland
Freshwater Pond
Lake
Other
Riverine
Author: Christian Radcliff 2/5/2025
SJCA

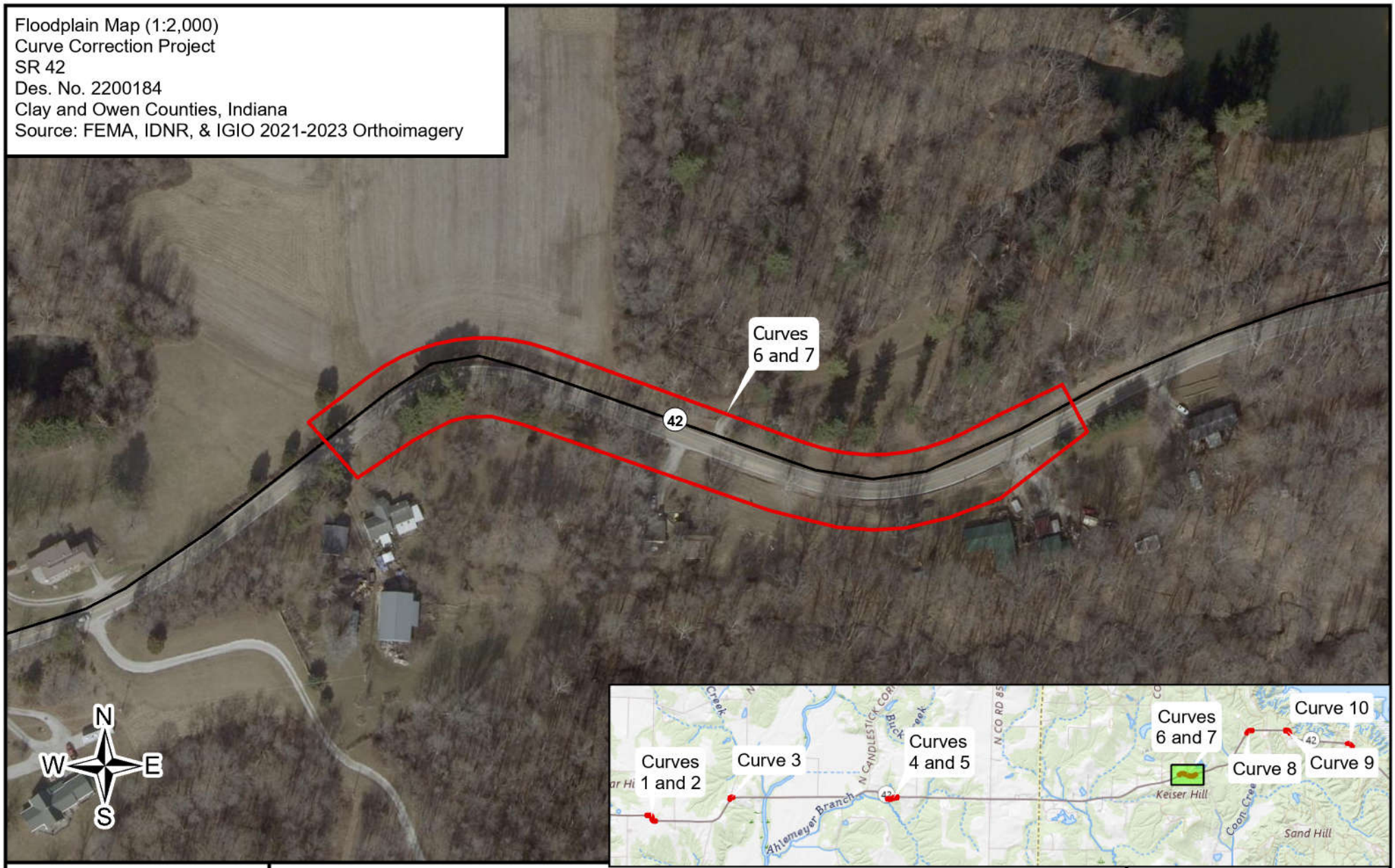

NWI Wetland Map (1:4,800)
Curve Correction Project
SR 42
Des. No. 2200184
Clay and Owen Counties, Indiana
Source: IGIO 2021-2023 Orthoimagery, NWI, USFWS
PSS1/EM1Ah
Curve 10
25
42
N
W
E
S
Curves 1 and 2
Curve 3
Curves 4 and 5
Curves 6 and 7
Curve 8
Curve 9
Curve 10
Keiser Hill
Sand Hill
Ahlemeyer Branch
0 0.01 0.03
Miles
Investigated Area
NWI Wetlands
Freshwater Emergent Wetland
Freshwater Forested/Shrub Wetland
Freshwater Pond
Lake
Other
Riverine
Author: Christian Radcliff 2/5/2025
SJCA


Floodplain Map (1:2,000)
Curve Correction Project
SR 42
Des. No. 2200184
Clay and Owen Counties, Indiana
Source: FEMA, IDNR, & IGIO 2021-2023 Orthoimagery
N CO RD 500 E
Curves 1 and 2
42
N
W
E
S
Curves 1 and 2
Curve 3
Curves 4 and 5
Curves 6 and 7
Curve 8
Curve 9
Curve 10
Keiser Hill
Sand Hill
Ahlemeyer Branch
0
0.02
0.04
Miles
Investigated Area
DNR Flood Hazard Best Available
FEMA Zone AE Floodway; FEMA Administrative Floodway
DNR Detailed Floodway
DNR Approximate Floodway
FEMA Zone A, Zone AE
DNR Detailed Fringe
DNR Approximate Fringe
Additional Floodplain Area; DNR .2 Percent Flood Hazard
FEMA Protected by Levee
FEMA Floodplain - Ponding (Depth)
FEMA Floodplain - Sheet Flow (Depth)
Author: Christian Radcliff 1/30/2025
SJCA


Floodplain Map (1:2,000)
Curve Correction Project
SR 42
Des. No. 2200184
Clay and Owen Counties, Indiana
Source: FEMA, IDNR, & IGIO 2021-2023 Orthoimagery
BOY SCOUT RD
Curve 3
42
N
W
E
S
Curves 1 and 2
Curve 3
Curves 4 and 5
Curves 6 and 7
Curve 8
Curve 9
Curve 10
Keiser Hill
Sand Hill
Ahlemeyer Branch
0
0.02
0.04
Miles
Investigated Area
DNR Flood Hazard Best Available
FEMA Zone AE Floodway; FEMA Administrative Floodway
DNR Detailed Floodway
DNR Approximate Floodway
FEMA Zone A, Zone AE
DNR Detailed Fringe
DNR Approximate Fringe
Additional Floodplain Area; DNR .2 Percent Flood Hazard
FEMA Protected by Levee
FEMA Floodplain - Ponding (Depth)
FEMA Floodplain - Sheet Flow (Depth)
Author: Christian Radcliff 1/30/2025
SJCA


Floodplain Map (1:2,000)
Curve Correction Project
SR 42
Des. No. 2200184
Clay and Owen Counties, Indiana
Source: FEMA, IDNR, & IGIO 2021-2023 Orthoimagery
Curves 4 and 5
42
N
W
E
S
Curves 1 and 2
Curve 3
Curves 4 and 5
Curves 6 and 7
Curve 8
Curve 9
Curve 10
Keiser Hill
Sand Hill
Ahlemeyer Branch
0
0.02
0.04
Miles
Investigated Area
DNR Flood Hazard Best Available
FEMA Zone AE Floodway; FEMA Administrative Floodway
DNR Detailed Floodway
DNR Approximate Floodway
FEMA Zone A, Zone AE
DNR Detailed Fringe
DNR Approximate Fringe
Additional Floodplain Area; DNR .2 Percent Flood Hazard
FEMA Protected by Levee
FEMA Floodplain - Ponding (Depth)
FEMA Floodplain - Sheet Flow (Depth)
Author: Christian Radcliff 1/30/2025
SJCA

Floodplain Map (1:2,000)
Curve Correction Project
SR 42
Des. No. 2200184
Clay and Owen Counties, Indiana
Source: FEMA, IDNR, & IGIO 2021-2023 Orthoimagery

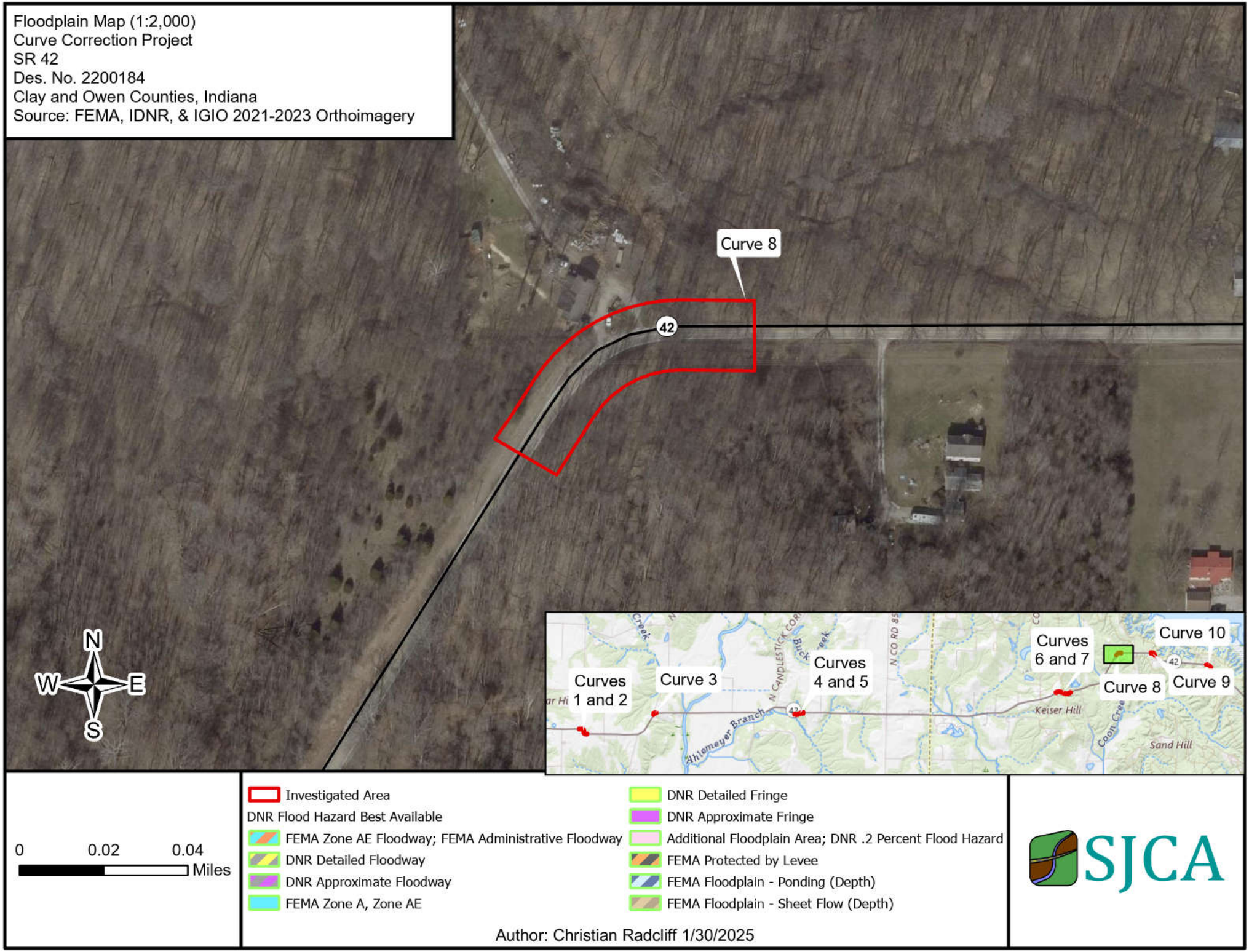


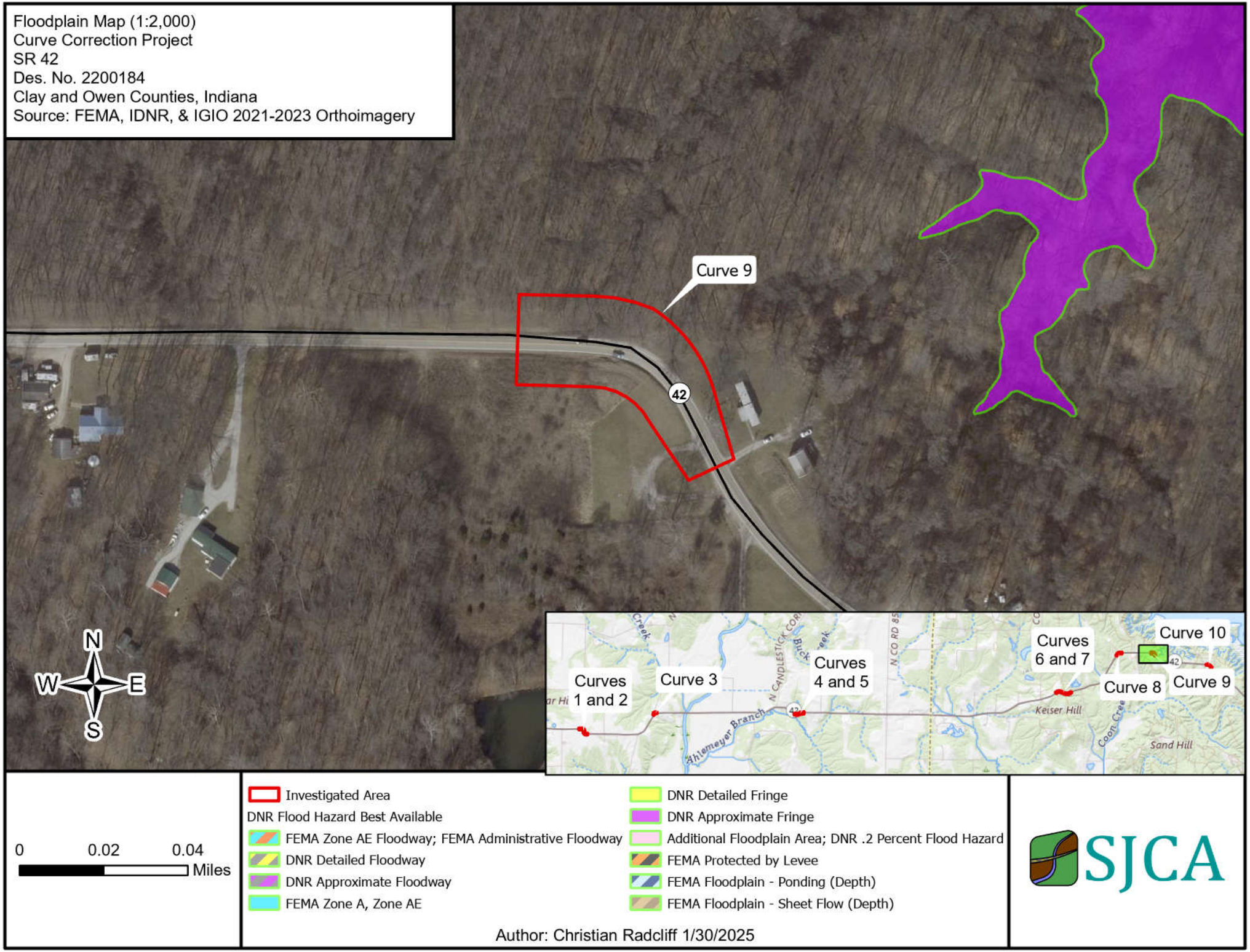
0 0.02 0.04 Miles

Investigated Area
DNR Flood Hazard Best Available
FEMA Zone AE Floodway; FEMA Administrative Floodway
DNR Detailed Floodway
DNR Approximate Floodway
FEMA Zone A, Zone AE
DNR Detailed Fringe
DNR Approximate Fringe
Additional Floodplain Area; DNR .2 Percent Flood Hazard
FEMA Protected by Levee
FEMA Floodplain - Ponding (Depth)
FEMA Floodplain - Sheet Flow (Depth)

Author: Christian Radcliff 1/30/2025

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Floodplain Map (1:2,000)
Curve Correction Project
SR 42
Des. No. 2200184
Clay and Owen Counties, Indiana
Source: FEMA, IDNR, & IGIO 2021-2023 Orthoimagery
Curve 8
42
N
W
E
S
Curves 1 and 2
Curve 3
Curves 4 and 5
Curves 6 and 7
Curve 8
Curve 9
Curve 10
Keiser Hill
Sand Hill
Ahlemeyer Branch
0
0.02
0.04
Miles
Investigated Area
DNR Flood Hazard Best Available
FEMA Zone AE Floodway; FEMA Administrative Floodway
DNR Detailed Floodway
DNR Approximate Floodway
FEMA Zone A, Zone AE
DNR Detailed Fringe
DNR Approximate Fringe
Additional Floodplain Area; DNR .2 Percent Flood Hazard
FEMA Protected by Levee
FEMA Floodplain - Ponding (Depth)
FEMA Floodplain - Sheet Flow (Depth)
Author: Christian Radcliff 1/30/2025
SJCA


Floodplain Map (1:2,000)
Curve Correction Project
SR 42
Des. No. 2200184
Clay and Owen Counties, Indiana
Source: FEMA, IDNR, & IGIO 2021-2023 Orthoimagery
Curve 9
42
N
W
E
S
Curves 1 and 2
Curve 3
Curves 4 and 5
Curves 6 and 7
Curve 8
Curve 9
Curve 10
Keiser Hill
Sand Hill
Ahlemeyer Branch
0
0.02
0.04
Miles
Investigated Area
DNR Flood Hazard Best Available
FEMA Zone AE Floodway; FEMA Administrative Floodway
DNR Detailed Floodway
DNR Approximate Floodway
FEMA Zone A, Zone AE
DNR Detailed Fringe
DNR Approximate Fringe
Additional Floodplain Area; DNR .2 Percent Flood Hazard
FEMA Protected by Levee
FEMA Floodplain - Ponding (Depth)
FEMA Floodplain - Sheet Flow (Depth)
Author: Christian Radcliff 1/30/2025
SJCA

Floodplain Map (1:2,000)
Curve Correction Project
SR 42
Des. No. 2200184
Clay and Owen Counties, Indiana
Source: FEMA, IDNR, & IGIO 2021-2023 Orthoimagery

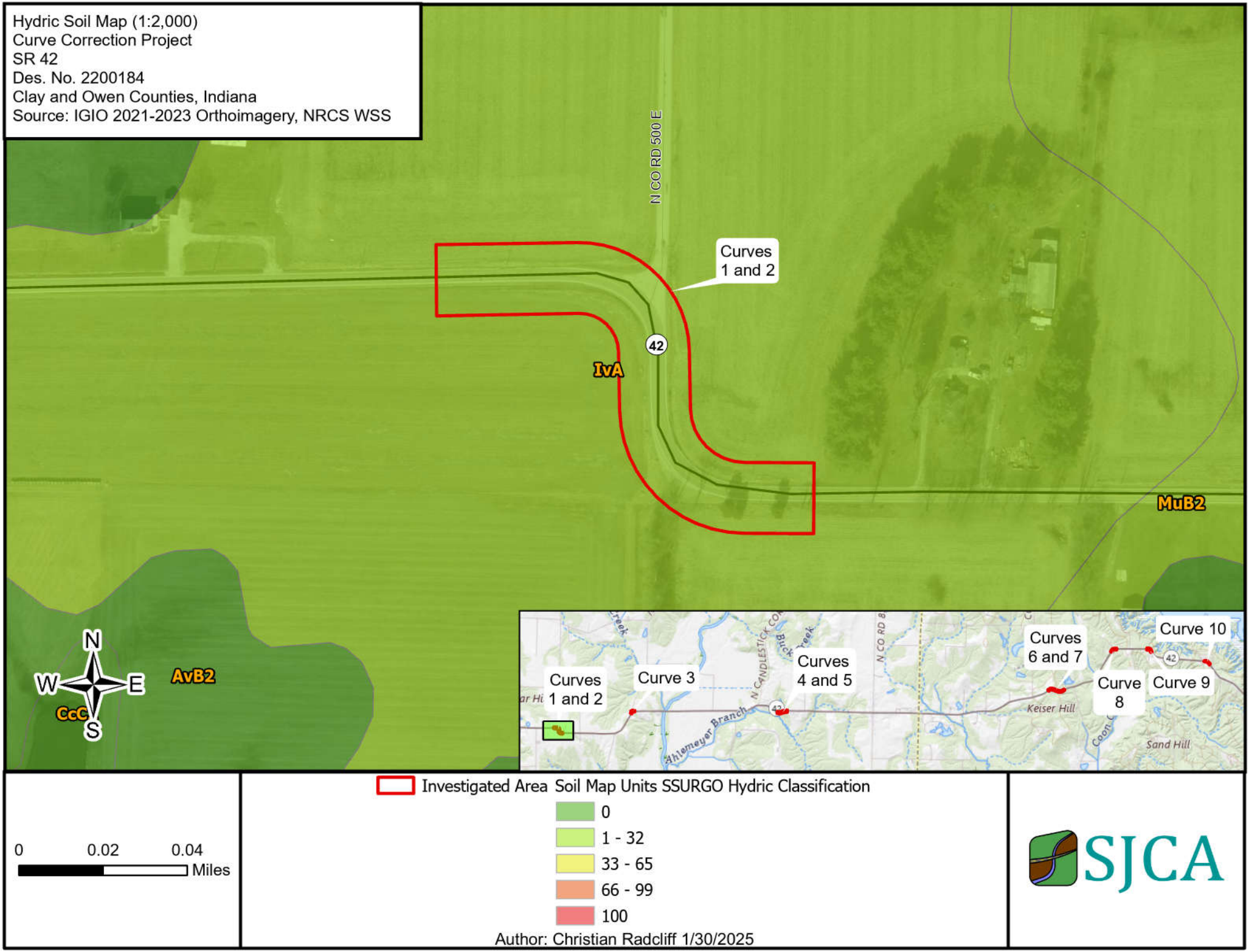


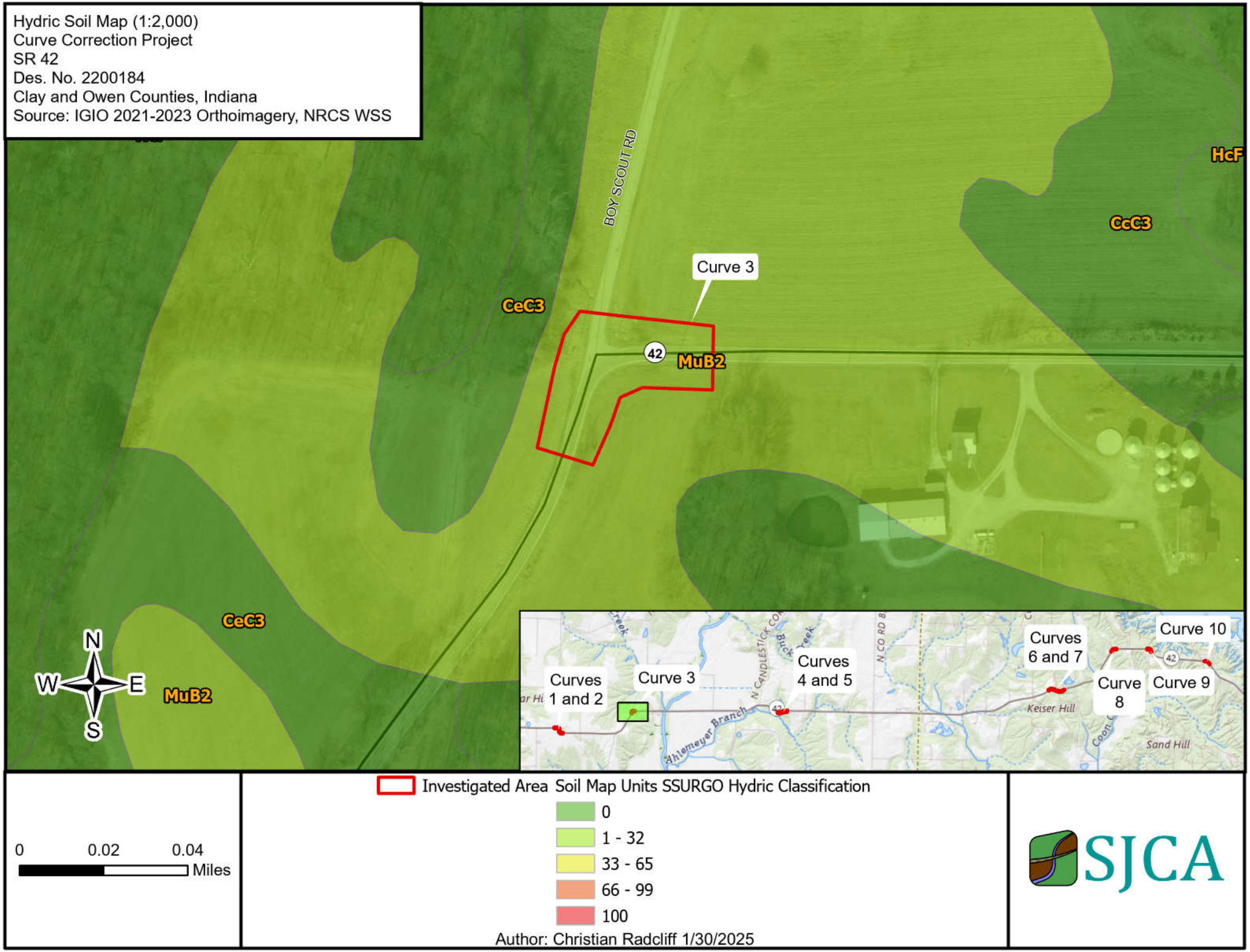
0 0.02 0.04 Miles

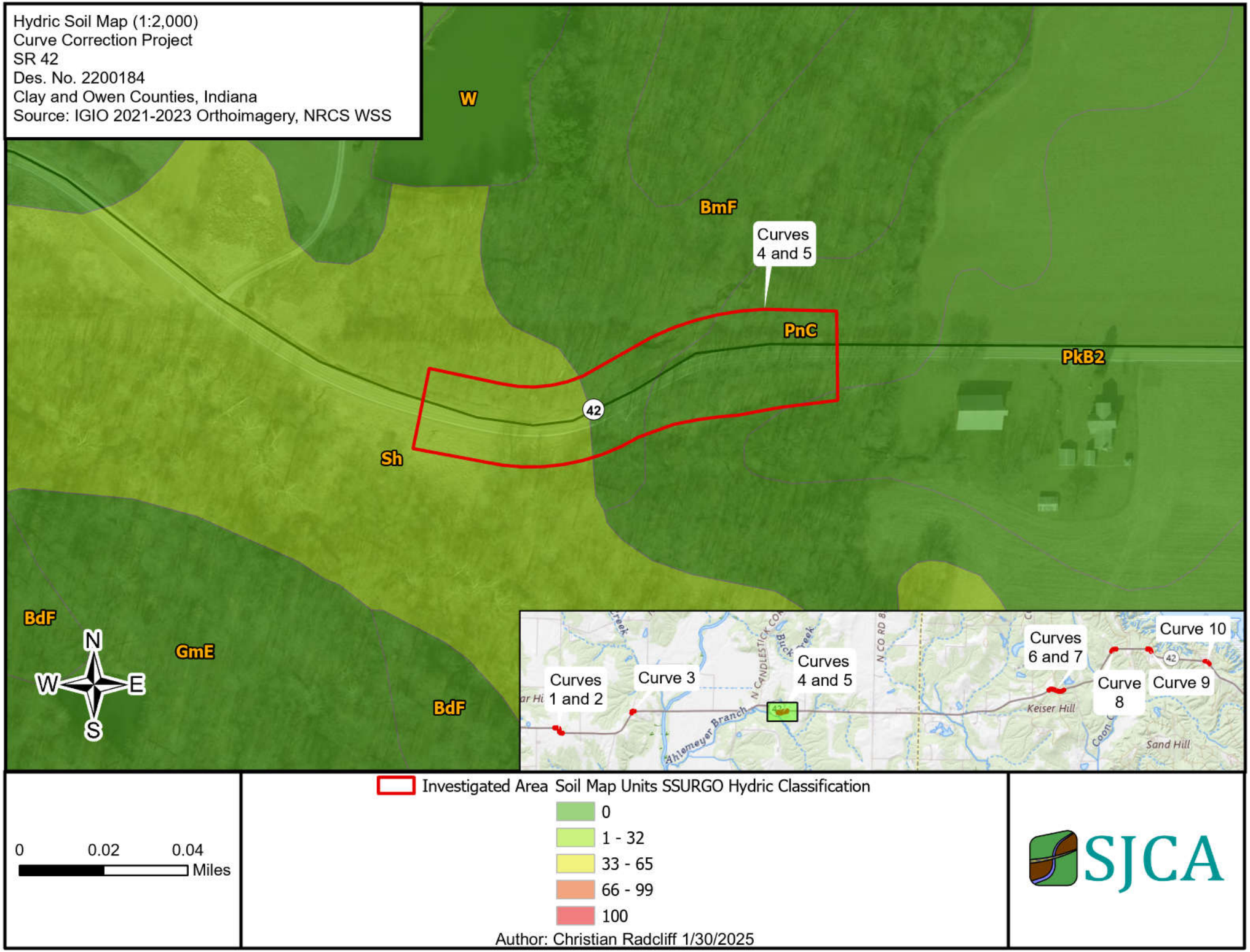
- Investigated Area
- DNR Flood Hazard Best Available
- FEMA Zone AE Floodway; FEMA Administrative Floodway
- DNR Detailed Floodway
- DNR Approximate Floodway
- FEMA Zone A, Zone AE
- DNR Detailed Fringe
- DNR Approximate Fringe
- Additional Floodplain Area; DNR .2 Percent Flood Hazard
- FEMA Protected by Levee
- FEMA Floodplain - Ponding (Depth)
- FEMA Floodplain - Sheet Flow (Depth)

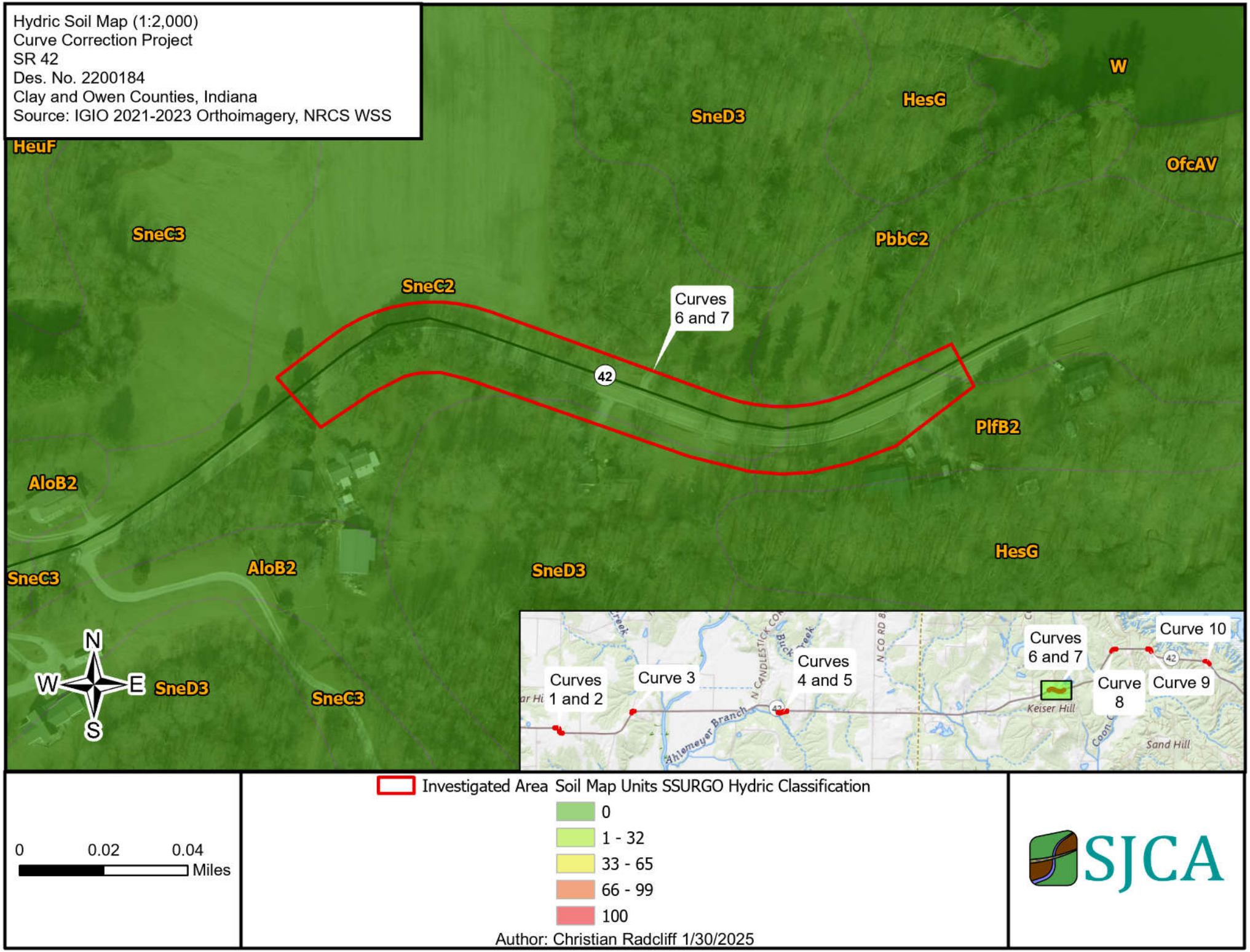
Author: Christian Radcliff 1/30/2025

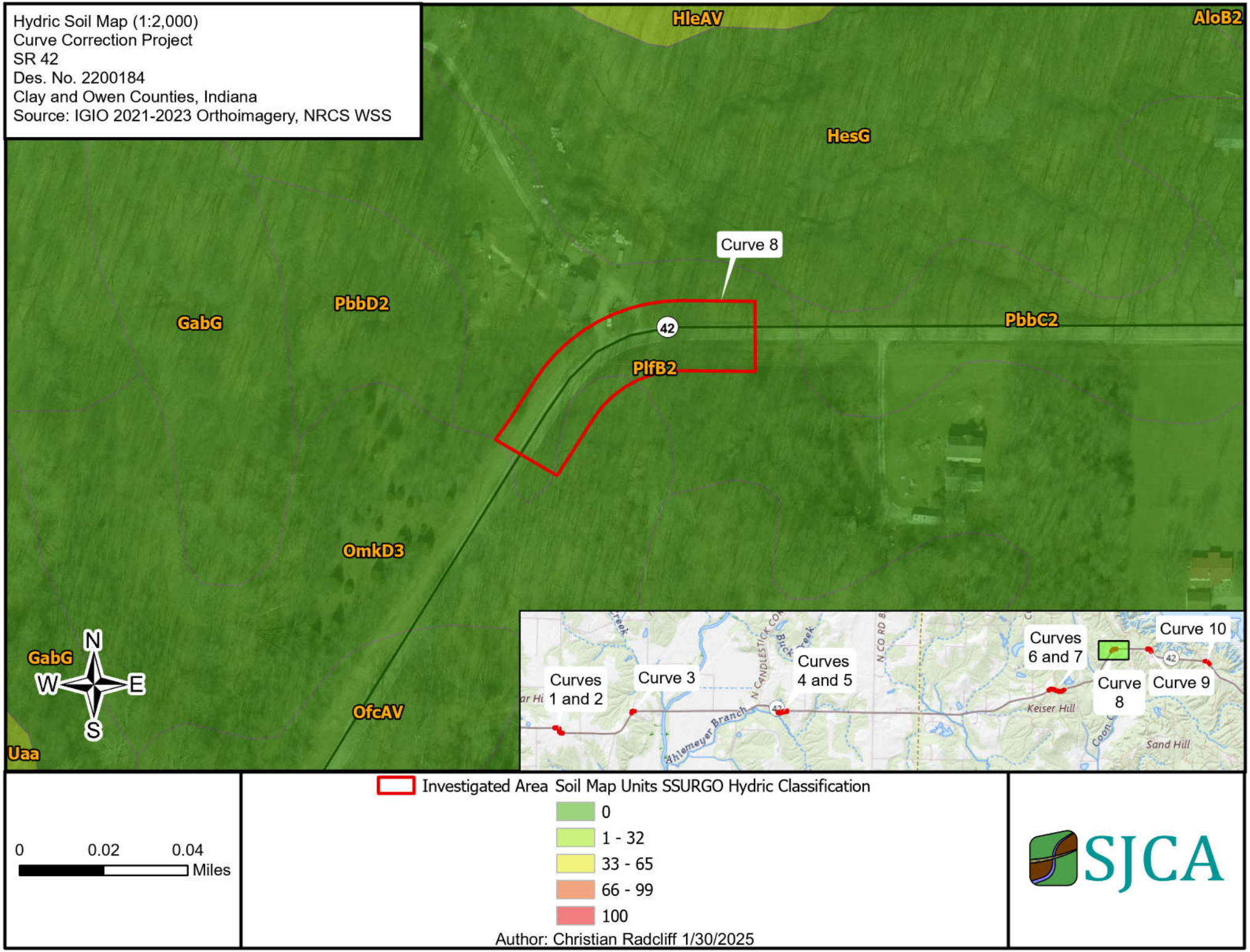
SJCA

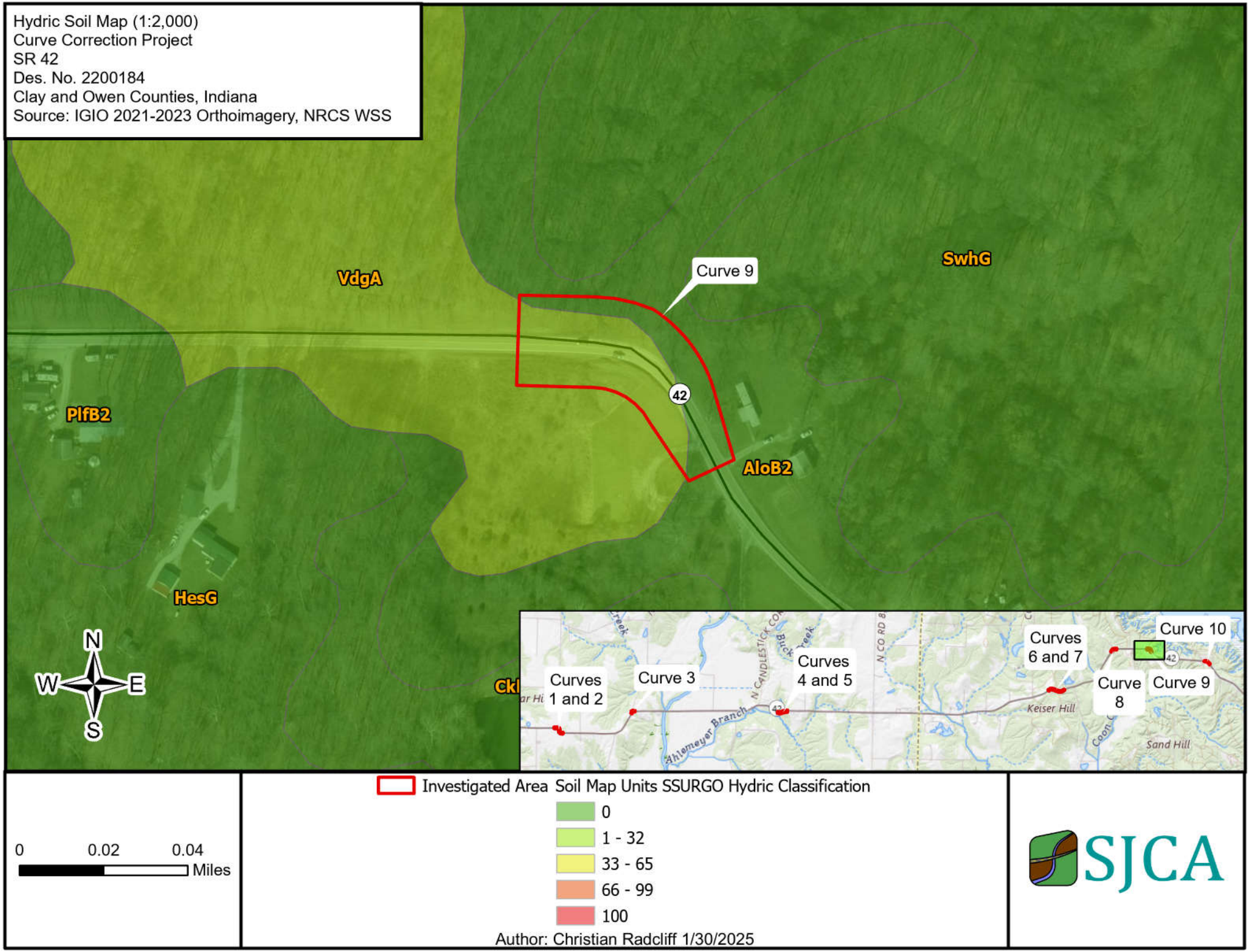

Hydric Soil Map (1:2,000)
Curve Correction Project
SR 42
Des. No. 2200184
Clay and Owen Counties, Indiana
Source: IGIO 2021-2023 Orthoimagery, NRCS WSS
N CO RD 500 E
Curves 1 and 2
42
IvA
MuB2
AvB2
CcC
N
W
E
S
Curves 1 and 2
Curve 3
Curves 4 and 5
Curves 6 and 7
Curve 8
Curve 9
Curve 10
Keiser Hill
Sand Hill
Ahlemeyer Branch
Investigated Area
Soil Map Units SSURGO Hydric Classification
0
1 - 32
33 - 65
66 - 99
100
0
0.02
0.04
Miles
Author: Christian Radcliff 1/30/2025
SJCA

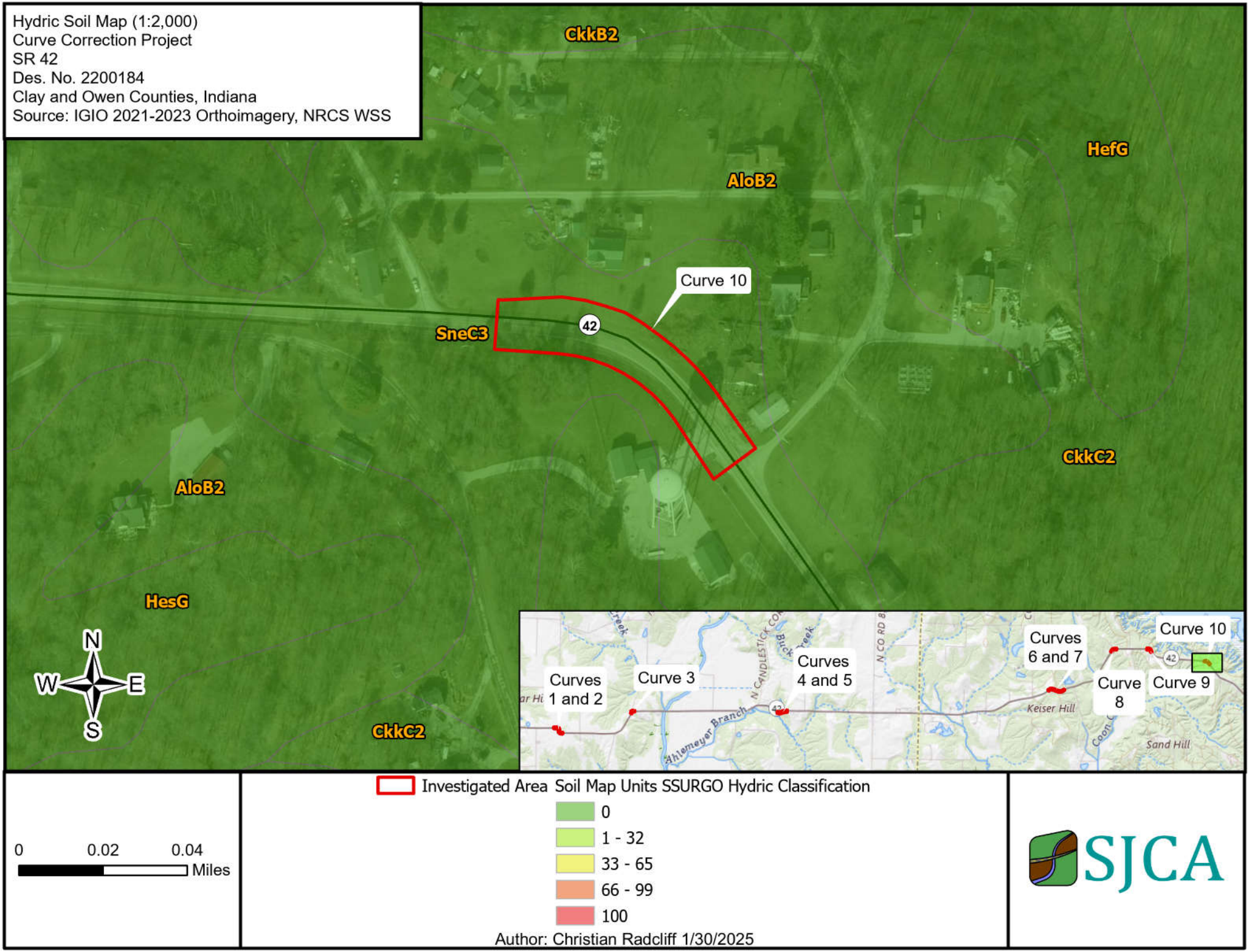

Hydric Soil Map (1:2,000)
Curve Correction Project
SR 42
Des. No. 2200184
Clay and Owen Counties, Indiana
Source: IGIO 2021-2023 Orthoimagery, NRCS WSS
BOY SCOUT RD
HcF
CcC3
Curve 3
CeC3
42
MuB2
CeC3
MuB2
N
W
E
S
Curves 1 and 2
Curve 3
Curves 4 and 5
Curves 6 and 7
Curve 8
Curve 9
Curve 10
Keiser Hill
Sand Hill
Ahlemeyer Branch
Investigated Area
Soil Map Units SSURGO Hydric Classification
0
1 - 32
33 - 65
66 - 99
100
0
0.02
0.04
Miles
Author: Christian Radcliff 1/30/2025
SJCA


Hydric Soil Map (1:2,000)
Curve Correction Project
SR 42
Des. No. 2200184
Clay and Owen Counties, Indiana
Source: IGIO 2021-2023 Orthoimagery, NRCS WSS
W
BmF
Curves 4 and 5
PnC
PkB2
42
Sh
BdF
GmE
BdF
N
W
E
S
Curves 1 and 2
Curve 3
Curves 4 and 5
Curves 6 and 7
Curve 8
Curve 9
Curve 10
Keiser Hill
Sand Hill
Ahlemeyer Branch
Investigated Area
Soil Map Units SSURGO Hydric Classification
0
1 - 32
33 - 65
66 - 99
100
0
0.02
0.04
Miles
Author: Christian Radcliff 1/30/2025
SJCA


Hydric Soil Map (1:2,000)
Curve Correction Project
SR 42
Des. No. 2200184
Clay and Owen Counties, Indiana
Source: IGIO 2021-2023 Orthoimagery, NRCS WSS
W
HesG
SneD3
HeuF
OfcAV
SneC3
PbbC2
SneC2
Curves 6 and 7
42
PlfB2
AloB2
HesG
AloB2
SneC3
SneD3
SneD3
SneC3
N
W
E
S
Curves 1 and 2
Curve 3
Curves 4 and 5
Curves 6 and 7
Curve 8
Curve 9
Curve 10
Keiser Hill
Sand Hill
Ahlemeyer Branch
Investigated Area
Soil Map Units SSURGO Hydric Classification
0
1 - 32
33 - 65
66 - 99
100
0
0.02
0.04
Miles
Author: Christian Radcliff 1/30/2025
SJCA


Hydric Soil Map (1:2,000)
Curve Correction Project
SR 42
Des. No. 2200184
Clay and Owen Counties, Indiana
Source: IGIO 2021-2023 Orthoimagery, NRCS WSS
HleAV
AloB2
HesG
Curve 8
PbbD2
GabG
PbbC2
42
PlfB2
OmkD3
GabG
OfcAV
Uaa
N
W
E
S
Curves 1 and 2
Curve 3
Curves 4 and 5
Curves 6 and 7
Curve 8
Curve 9
Curve 10
Keiser Hill
Sand Hill
Ahlemeyer Branch
Investigated Area
Soil Map Units SSURGO Hydric Classification
0
1 - 32
33 - 65
66 - 99
100
0
0.02
0.04
Miles
Author: Christian Radcliff 1/30/2025
SJCA


Hydric Soil Map (1:2,000)
Curve Correction Project
SR 42
Des. No. 2200184
Clay and Owen Counties, Indiana
Source: IGIO 2021-2023 Orthoimagery, NRCS WSS
VdgA
SwhG
Curve 9
42
PlfB2
AloB2
HesG
Ckl
N
W
E
S
Curves 1 and 2
Curve 3
Curves 4 and 5
Curves 6 and 7
Curve 8
Curve 9
Curve 10
Keiser Hill
Sand Hill
Ahlemeyer Branch
Investigated Area
Soil Map Units SSURGO Hydric Classification
0
1 - 32
33 - 65
66 - 99
100
0
0.02
0.04
Miles
Author: Christian Radcliff 1/30/2025
SJCA

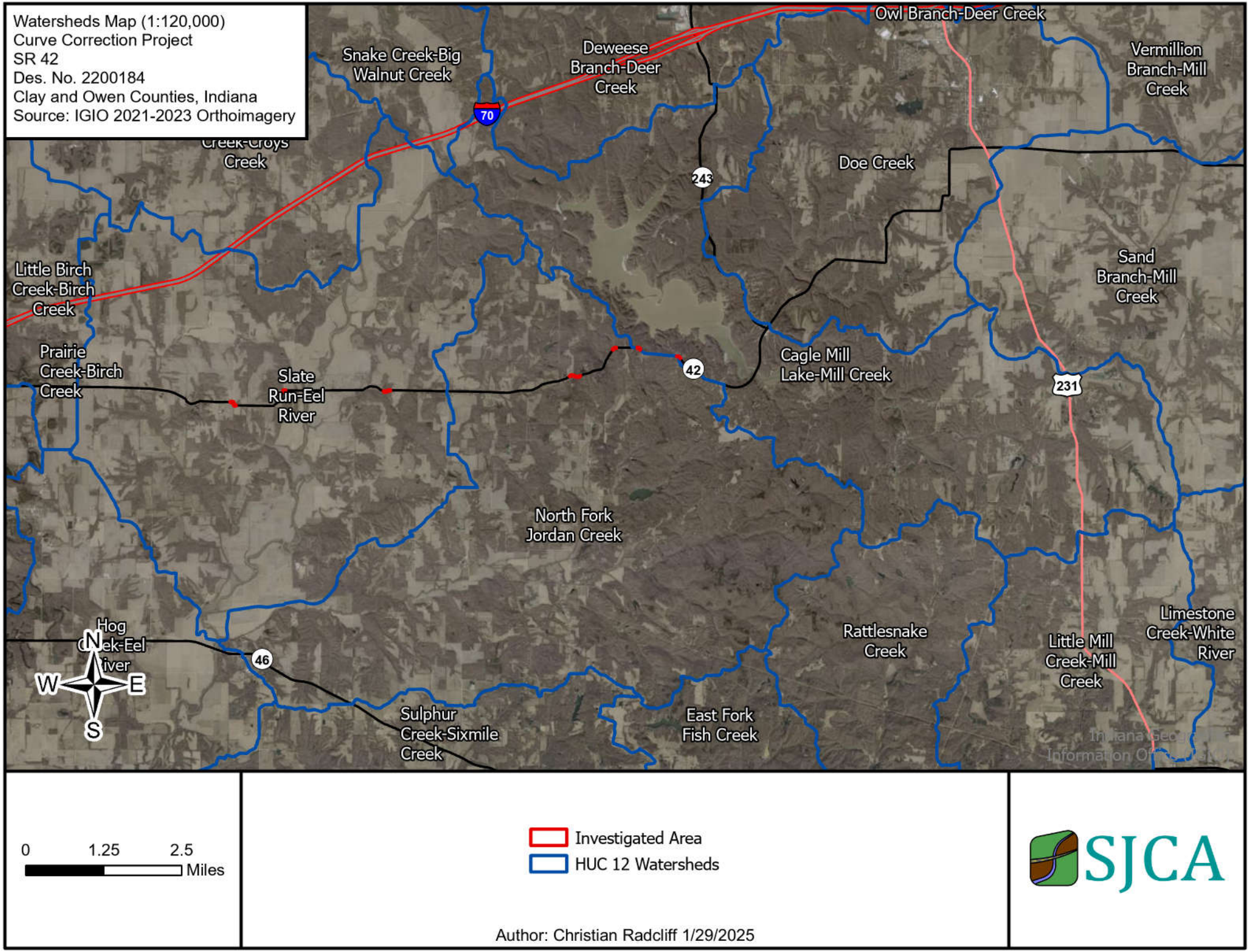

Hydric Soil Map (1:2,000)
Curve Correction Project
SR 42
Des. No. 2200184
Clay and Owen Counties, Indiana
Source: IGIO 2021-2023 Orthoimagery, NRCS WSS
CkkB2
HefG
AloB2
Curve 10
42
SneC3
CkkC2
AloB2
HesG
CkkC2
N
W
E
S
Curves 1 and 2
Curve 3
Curves 4 and 5
Curves 6 and 7
Curve 8
Curve 9
Curve 10
Keiser Hill
Sand Hill
Ahlemeyer Branch
Investigated Area
Soil Map Units SSURGO Hydric Classification
0
1 - 32
33 - 65
66 - 99
100
0
0.02
0.04
Miles
Author: Christian Radcliff 1/30/2025
SJCA

Hydric Rating by Map Unit

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
BmF	Bloomfield loamy fine sand, 25 to 50 percent slopes	0	0.3	3.6%
IvA	Iva silt loam, 0 to 2 percent slopes	5	1.7	19.1%
MuB2	Muren silt loam, 2 to 6 percent slopes, eroded	3	0.7	7.9%
PkB2	Pike silt loam, 2 to 6 percent slopes, eroded	0	0.0	0.2%
PnC	Princeton fine sandy loam, 6 to 12 percent slopes	0	0.8	8.5%
Sh	Shoals silt loam, 0 to 2 percent slopes, frequently flooded, very brief duration	6	0.6	7.0%
Subtotals for Soil Survey Area			**4.1**	**46.4%**
Totals for Area of Interest			**8.9**	**100.0%**

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
AloB2	Ava silt loam, 2 to 6 percent slopes, eroded	0	0.3	3.9%
HesG	Hickory-Chetwynd loams, 35 to 70 percent slopes	0	0.0	0.5%
OmkD3	Otwell silt loam, 12 to 18 percent slopes, severely eroded	0	0.1	1.4%
PlfB2	Pike silt loam, 2 to 6 percent slopes, eroded	0	1.3	14.9%
SneC2	Solsberry silt loam, 6 to 12 percent slopes, eroded	0	1.5	16.8%
SneC3	Solsberry silt loam, 6 to 12 perecent slopes, severely eroded	0	0.7	8.0%
SneD3	Solsberry silt loam, 12 to 18 percent slopes, severely eroded	0	0.1	1.4%
VdgA	Vigo silt loam, 0 to 2 percent slopes	5	0.6	6.9%

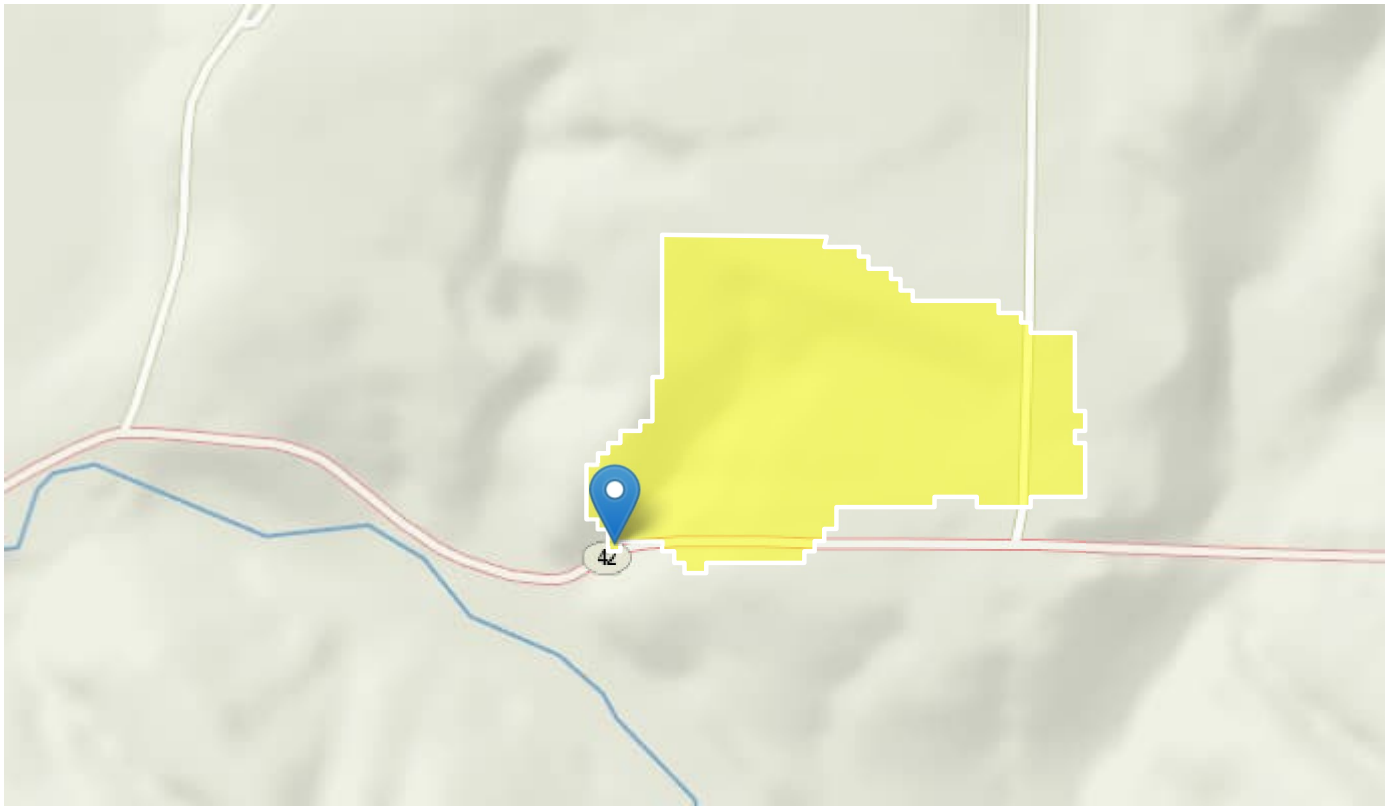
Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
Subtotals for Soil Survey Area			**4.8**	**53.6%**
Totals for Area of Interest			**8.9**	**100.0%**


Watersheds Map (1:120,000)
Curve Correction Project
SR 42
Des. No. 2200184
Clay and Owen Counties, Indiana
Source: IGIO 2021-2023 Orthoimagery
Owl Branch-Deer Creek
Snake Creek-Big Walnut Creek
Deweese Branch-Deer Creek
Vermillion Branch-Mill Creek
Creek-Croys Creek
Doe Creek
Little Birch Creek-Birch Creek
Sand Branch-Mill Creek
Prairie Creek-Birch Creek
Slate Run-Eel River
Cagle Mill Lake-Mill Creek
North Fork Jordan Creek
Hog Creek-Eel River
Rattlesnake Creek
Limestone Creek-White River
Little Mill Creek-Mill Creek
Sulphur Creek-Sixmile Creek
East Fork Fish Creek
70
243
42
231
46
N
W
E
S
0
1.25
2.5
Miles
Investigated Area
HUC 12 Watersheds
Author: Christian Radcliff 1/29/2025
SJCA

StreamStats Report

UNT 1 to Ahlmeyer Branch

Region ID: IN
Workspace ID: IN20250131182803786000
Clicked Point (Latitude, Longitude): 39.44431, -86.96915
Time: 2025-01-31 13:28:29 -0500

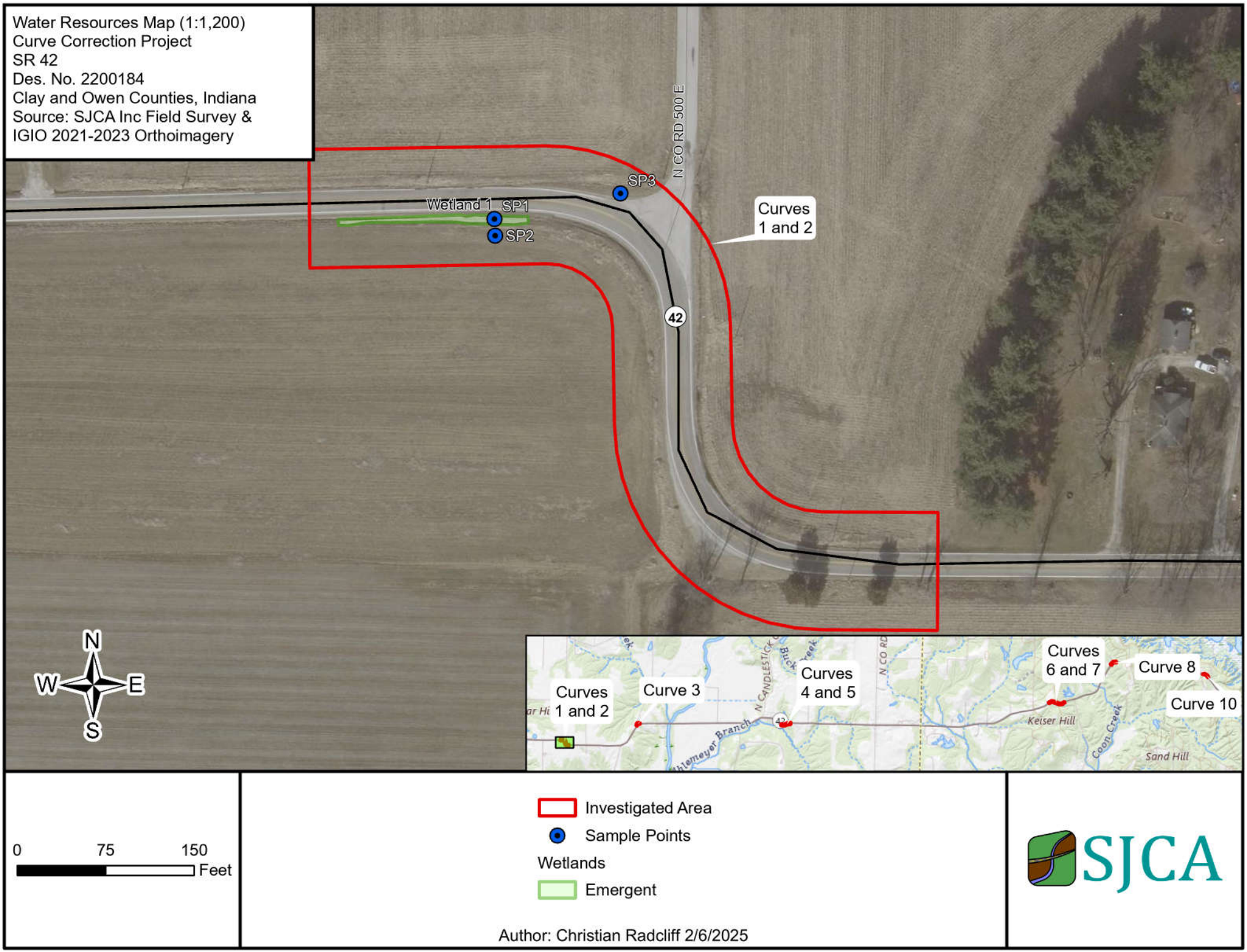


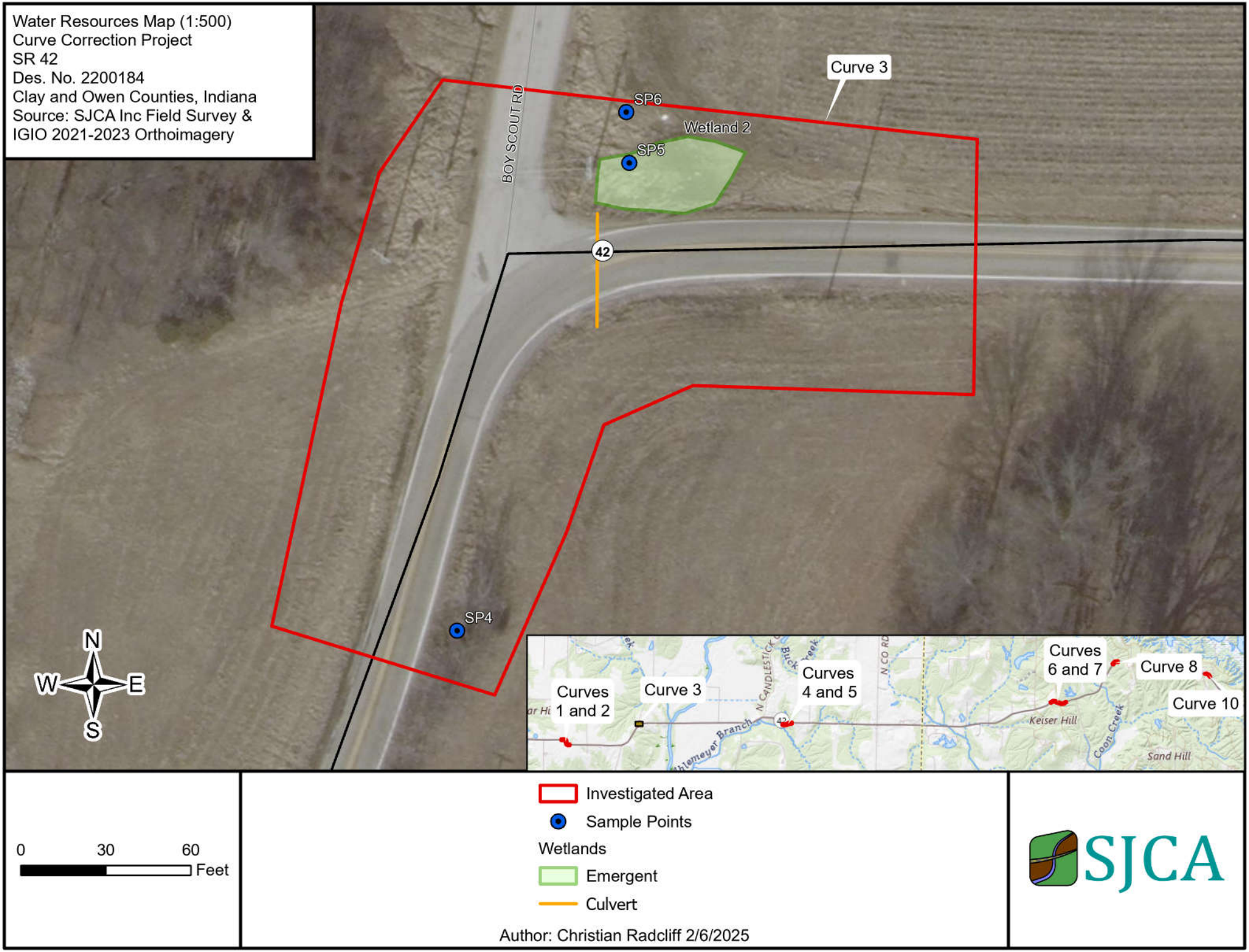
Collapse All

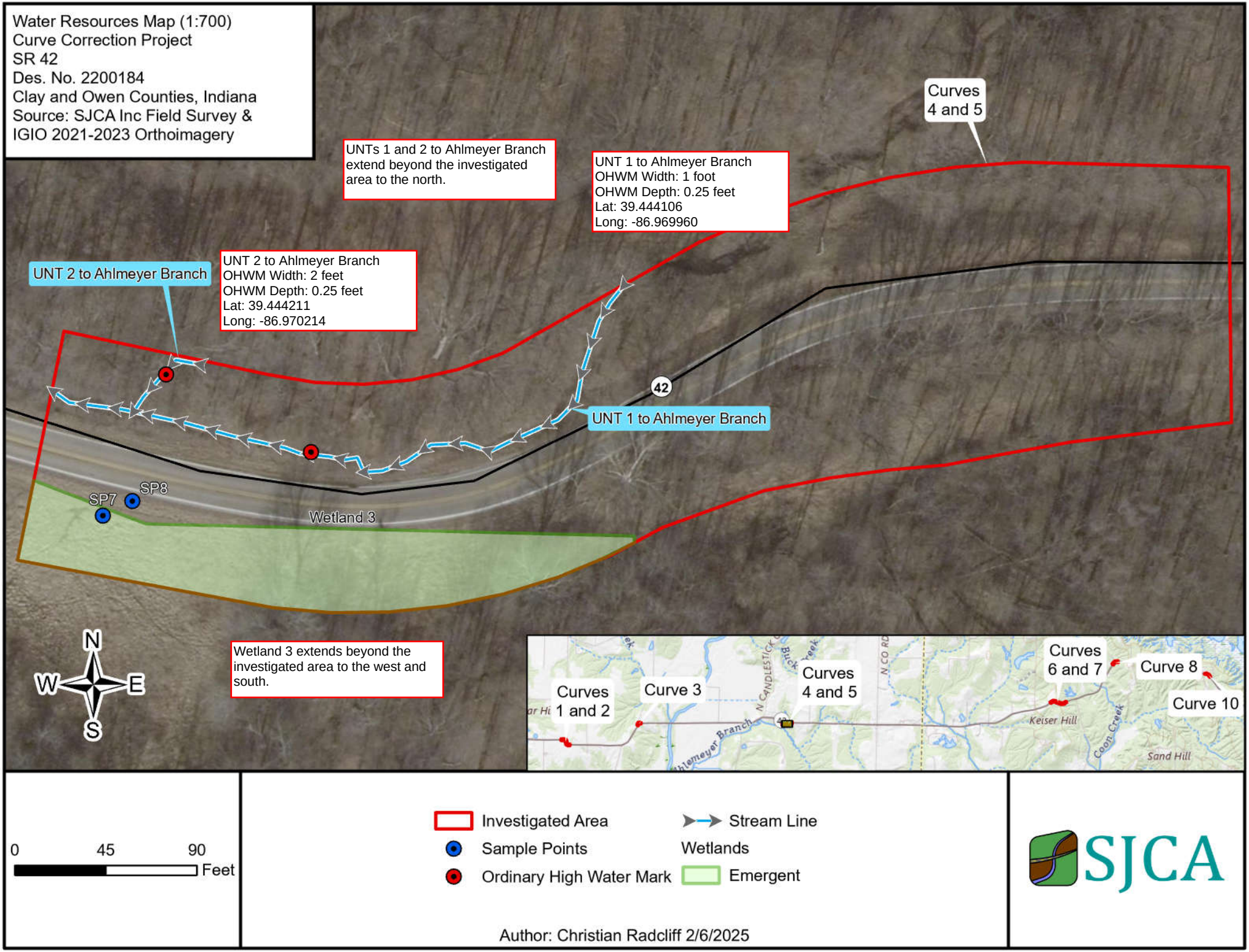
Basin Characteristics

Parameter Code	Parameter Description	Value	Unit
DRNAREA	Area that drains to a point on a stream	0.037	square miles

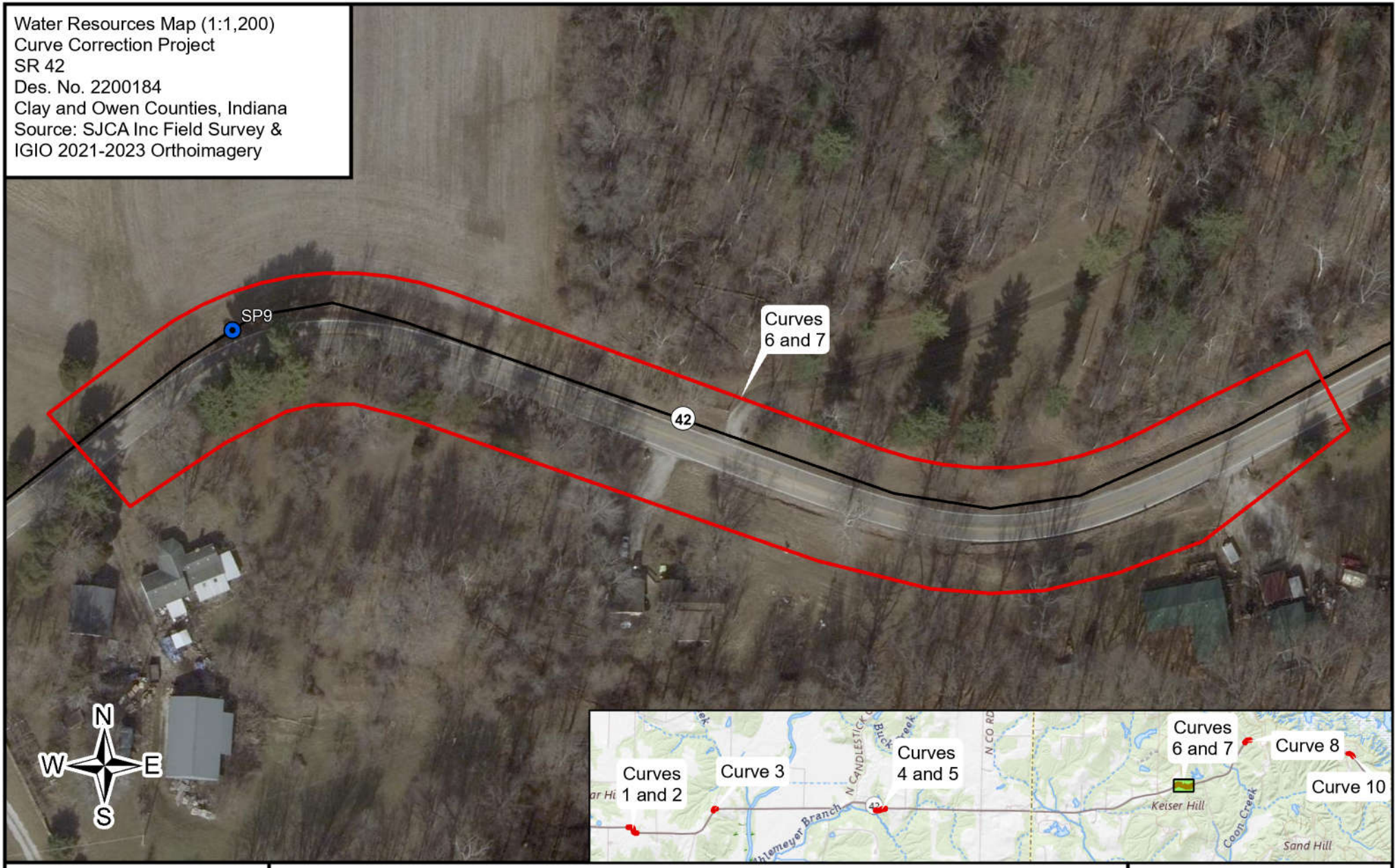
USGS Data Disclaimer: Unless otherwise stated, all data, metadata and related materials are considered to satisfy the quality standards relative to the purpose for which the data were collected. Although these data and associated metadata have been reviewed for accuracy and completeness and approved for release by the U.S. Geological Survey (USGS), no warranty expressed or implied is made regarding the display or utility of the data for other purposes, nor on all computer systems, nor shall the act of distribution constitute any such warranty.


Water Resources Map (1:1,200)
Curve Correction Project
SR 42
Des. No. 2200184
Clay and Owen Counties, Indiana
Source: SJCA Inc Field Survey &
IGIO 2021-2023 Orthoimagery
N CO RD 500 E
SP3
Wetland 1
SP1
SP2
Curves
1 and 2
42
N
W
E
S
Curves
1 and 2
Curve 3
Curves
4 and 5
Curves
6 and 7
Curve 8
Curve 10
Keiser Hill
Sand Hill
0
75
150
Feet
Investigated Area
Sample Points
Wetlands
Emergent
Author: Christian Radcliff 2/6/2025
SJCA


Water Resources Map (1:500)
Curve Correction Project
SR 42
Des. No. 2200184
Clay and Owen Counties, Indiana
Source: SJCA Inc Field Survey &
IGIO 2021-2023 Orthoimagery
Curve 3
SP6
Wetland 2
SP5
BOY SCOUT RD
42
SP4
N
W
E
S
Curves 1 and 2
Curve 3
Curves 4 and 5
Curves 6 and 7
Curve 8
Curve 10
Keiser Hill
Sand Hill
0
30
60
Feet
Investigated Area
Sample Points
Wetlands
Emergent
Culvert
Author: Christian Radcliff 2/6/2025
SJCA


Water Resources Map (1:700)
Curve Correction Project
SR 42
Des. No. 2200184
Clay and Owen Counties, Indiana
Source: SJCA Inc Field Survey &
IGIO 2021-2023 Orthoimagery
Curves 4 and 5
UNTs 1 and 2 to Ahlmeyer Branch extend beyond the investigated area to the north.
UNT 1 to Ahlmeyer Branch
OHWM Width: 1 foot
OHWM Depth: 0.25 feet
Lat: 39.444106
Long: -86.969960
UNT 2 to Ahlmeyer Branch
UNT 2 to Ahlmeyer Branch
OHWM Width: 2 feet
OHWM Depth: 0.25 feet
Lat: 39.444211
Long: -86.970214
42
UNT 1 to Ahlmeyer Branch
SP7
SP8
Wetland 3
N
W
E
S
Wetland 3 extends beyond the investigated area to the west and south.
Curves 1 and 2
Curve 3
Curves 4 and 5
Curves 6 and 7
Curve 8
Curve 10
Keiser Hill
Sand Hill
0
45
90
Feet
Investigated Area
Sample Points
Ordinary High Water Mark
Stream Line
Wetlands
Emergent
SJCA
Author: Christian Radcliff 2/6/2025

Water Resources Map (1:1,200)
Curve Correction Project
SR 42
Des. No. 2200184
Clay and Owen Counties, Indiana
Source: SJCA Inc Field Survey &
IGIO 2021-2023 Orthoimagery



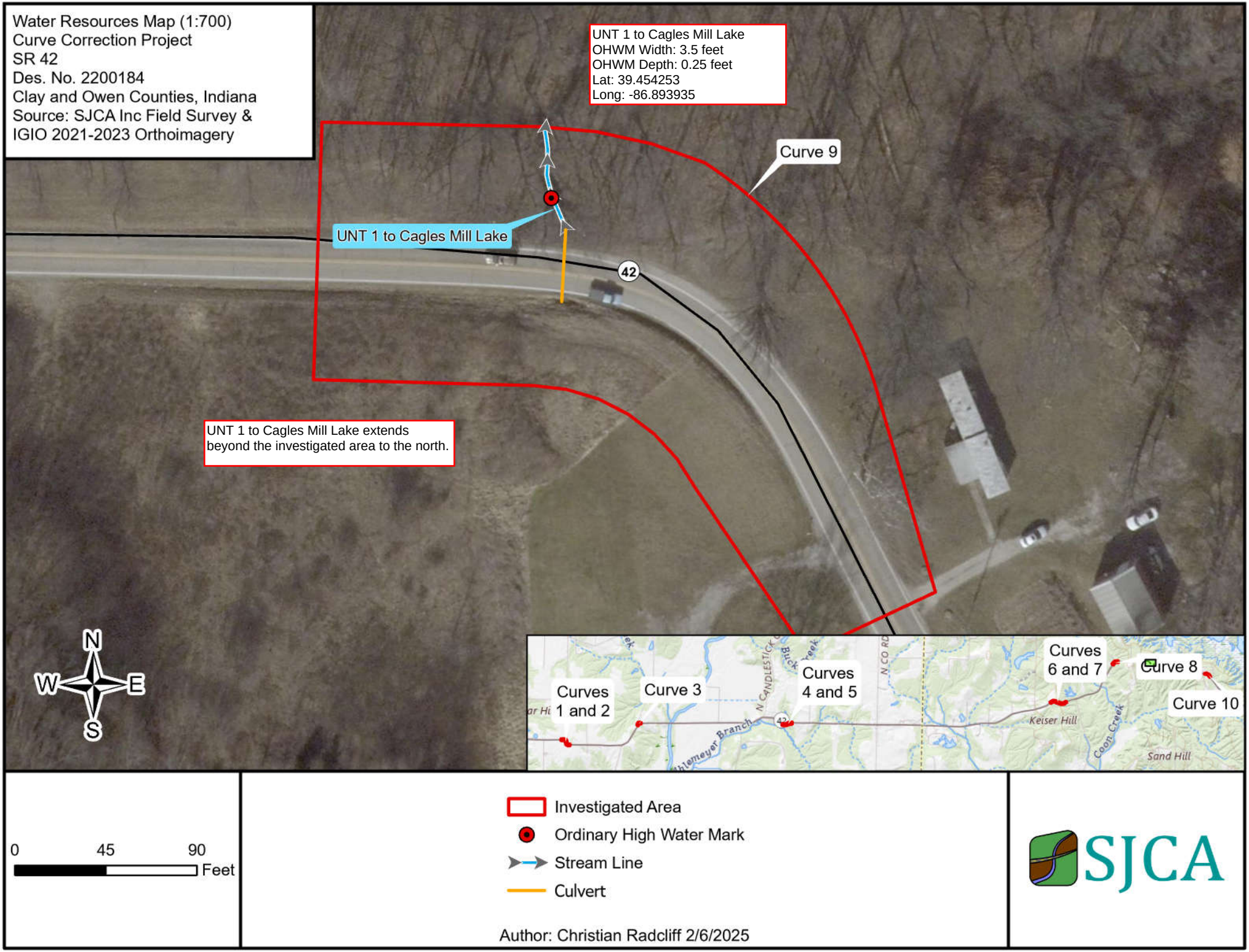
0 75 150 Feet

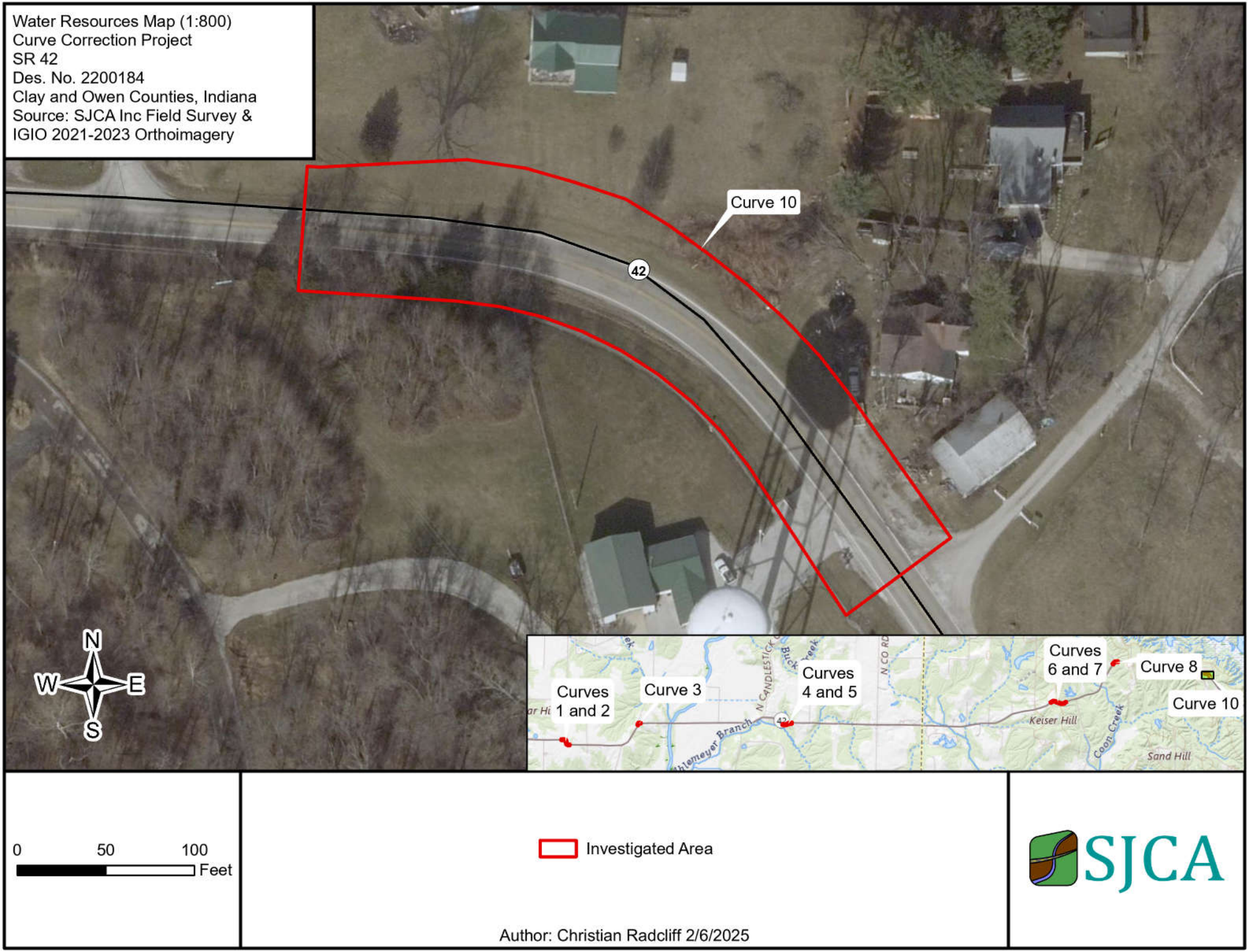
Investigated Area
Sample Points

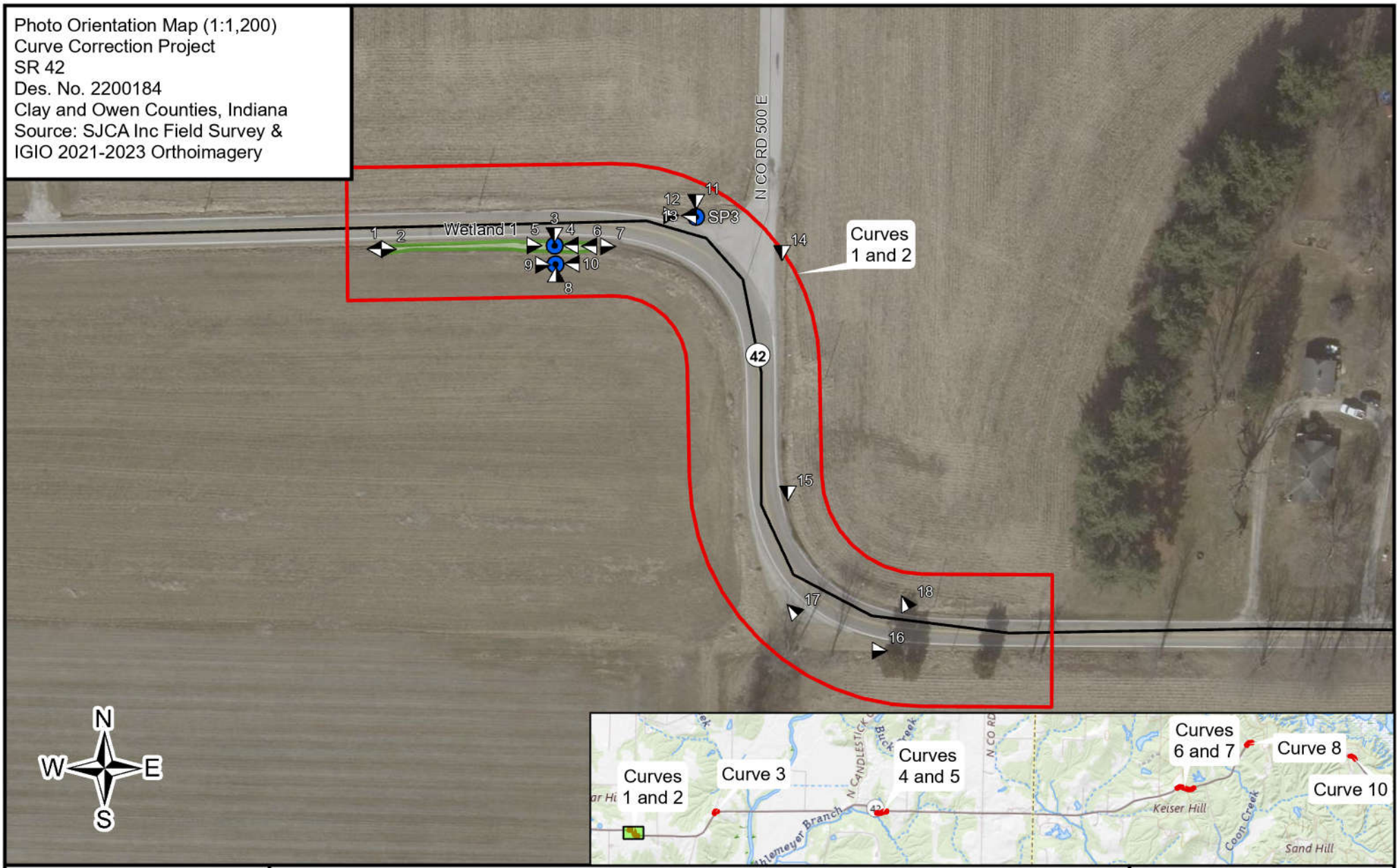
Author: Christian Radcliff 2/6/2025

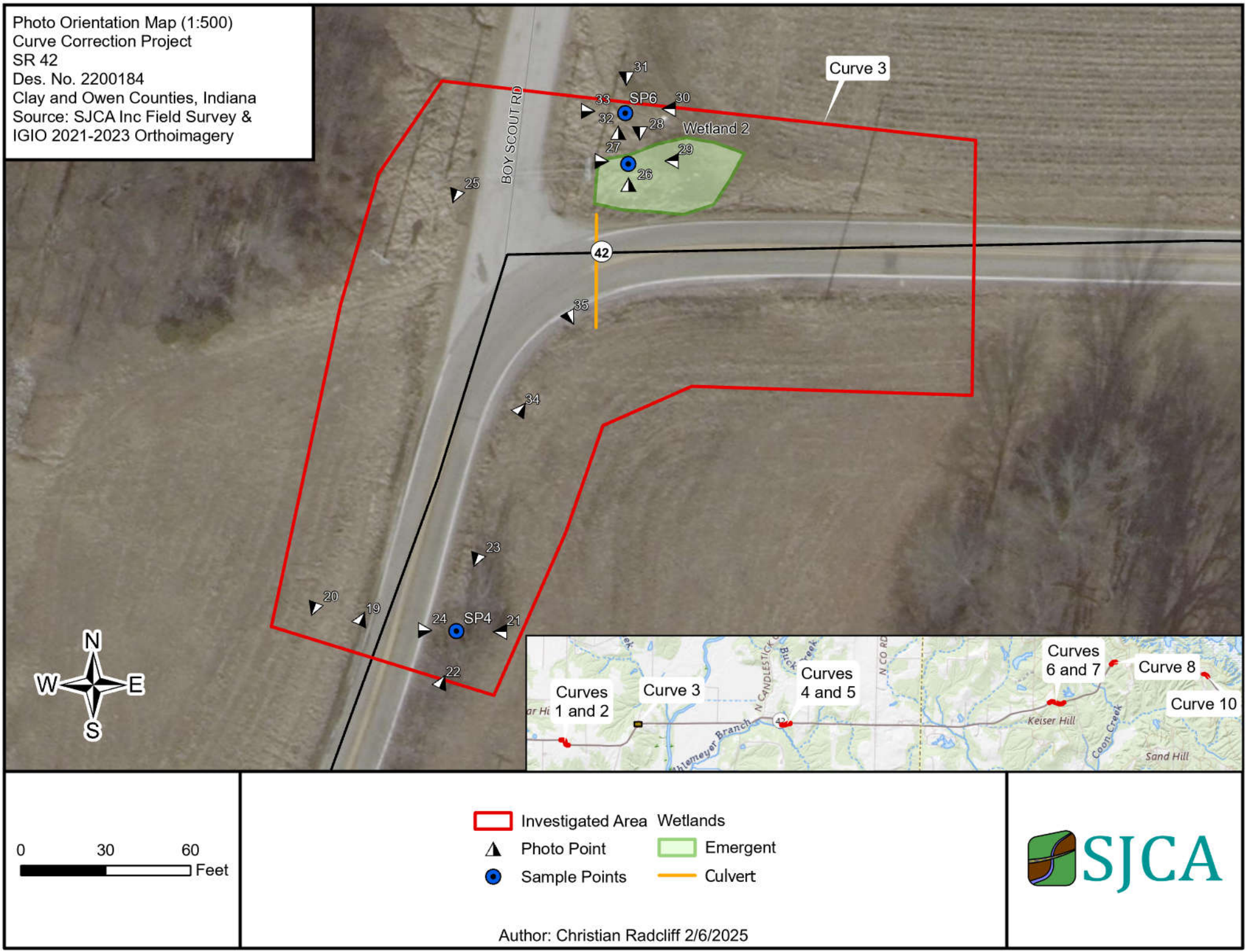
SJCA

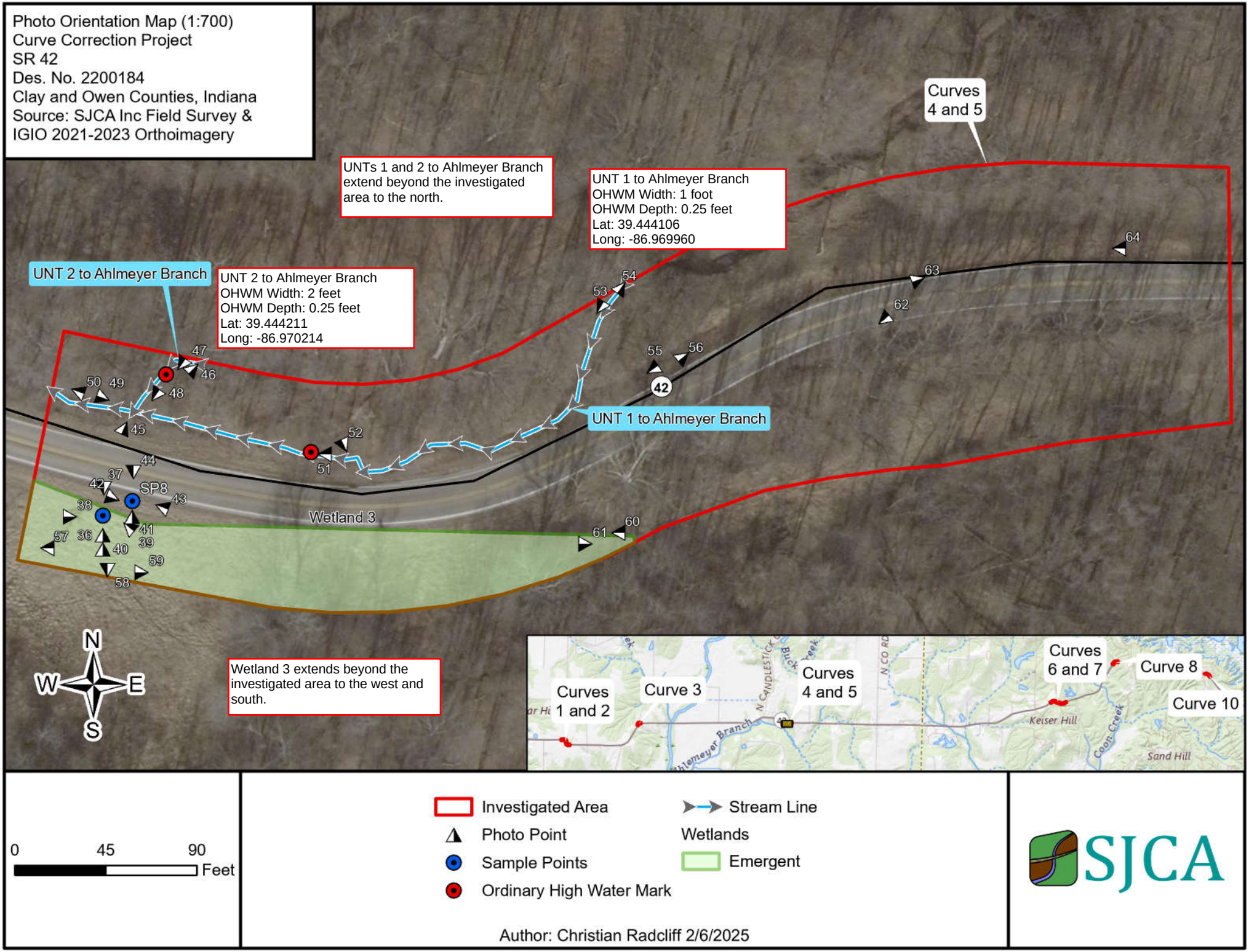

Water Resources Map (1:600)
Curve Correction Project
SR 42
Des. No. 2200184
Clay and Owen Counties, Indiana
Source: SJCA Inc Field Survey &
IGIO 2021-2023 Orthoimagery
Curve 8
42
N
W
E
S
Curves 1 and 2
Curve 3
Curves 4 and 5
Curves 6 and 7
Curve 8
Curve 10
Keiser Hill
Sand Hill
0
37.5
75
Feet
Investigated Area
Author: Christian Radcliff 2/6/2025
SJCA


Water Resources Map (1:700)
Curve Correction Project
SR 42
Des. No. 2200184
Clay and Owen Counties, Indiana
Source: SJCA Inc Field Survey &
IGIO 2021-2023 Orthoimagery
UNT 1 to Cagles Mill Lake
OHWM Width: 3.5 feet
OHWM Depth: 0.25 feet
Lat: 39.454253
Long: -86.893935
Curve 9
UNT 1 to Cagles Mill Lake
42
UNT 1 to Cagles Mill Lake extends
beyond the investigated area to the north.
N
W
E
S
Curves
1 and 2
Curve 3
Curves
4 and 5
Curves
6 and 7
Curve 8
Curve 10
Keiser Hill
Sand Hill
0
45
90
Feet
Investigated Area
Ordinary High Water Mark
Stream Line
Culvert
Author: Christian Radcliff 2/6/2025
SJCA


Water Resources Map (1:800)
Curve Correction Project
SR 42
Des. No. 2200184
Clay and Owen Counties, Indiana
Source: SJCA Inc Field Survey &
IGIO 2021-2023 Orthoimagery
Curve 10
42
N
W
E
S
Curves 1 and 2
Curve 3
Curves 4 and 5
Curves 6 and 7
Curve 8
Curve 10
Keiser Hill
Sand Hill
Coon Creek
0
50
100
Feet
Investigated Area
Author: Christian Radcliff 2/6/2025
SJCA


Photo Orientation Map (1:1,200)
Curve Correction Project
SR 42
Des. No. 2200184
Clay and Owen Counties, Indiana
Source: SJCA Inc Field Survey &
IGIO 2021-2023 Orthoimagery
N CO RD 500 E
Wetland 1
SP3
Curves 1 and 2
42
N
W
E
S
Curves 1 and 2
Curve 3
Curves 4 and 5
Curves 6 and 7
Curve 8
Curve 10
Keiser Hill
Sand Hill
0 75 150 Feet
Investigated Area
Photo Point
Sample Points
Wetlands
Emergent
Author: Christian Radcliff 2/6/2025
SJCA


Photo Orientation Map (1:500)
Curve Correction Project
SR 42
Des. No. 2200184
Clay and Owen Counties, Indiana
Source: SJCA Inc Field Survey &
IGIO 2021-2023 Orthoimagery
Curve 3
BOY SCOUT RD
Wetland 2
SP6
SP4
42
N
W
E
S
Curves 1 and 2
Curve 3
Curves 4 and 5
Curves 6 and 7
Curve 8
Curve 10
Keiser Hill
Sand Hill
0
30
60
Feet
Investigated Area
Photo Point
Sample Points
Wetlands
Emergent
Culvert
Author: Christian Radcliff 2/6/2025
SJCA


Photo Orientation Map (1:700)
Curve Correction Project
SR 42
Des. No. 2200184
Clay and Owen Counties, Indiana
Source: SJCA Inc Field Survey &
IGIO 2021-2023 Orthoimagery
Curves 4 and 5
UNTs 1 and 2 to Ahlmeyer Branch extend beyond the investigated area to the north.
UNT 1 to Ahlmeyer Branch
OHWM Width: 1 foot
OHWM Depth: 0.25 feet
Lat: 39.444106
Long: -86.969960
UNT 2 to Ahlmeyer Branch
UNT 2 to Ahlmeyer Branch
OHWM Width: 2 feet
OHWM Depth: 0.25 feet
Lat: 39.444211
Long: -86.970214
UNT 1 to Ahlmeyer Branch
Wetland 3
SP8
Wetland 3 extends beyond the investigated area to the west and south.
N
W
E
S
Curves 1 and 2
Curve 3
Curves 4 and 5
Curves 6 and 7
Curve 8
Curve 10
Keiser Hill
Sand Hill
0
45
90
Feet
Investigated Area
Photo Point
Sample Points
Ordinary High Water Mark
Stream Line
Wetlands
Emergent
Author: Christian Radcliff 2/6/2025
SJCA

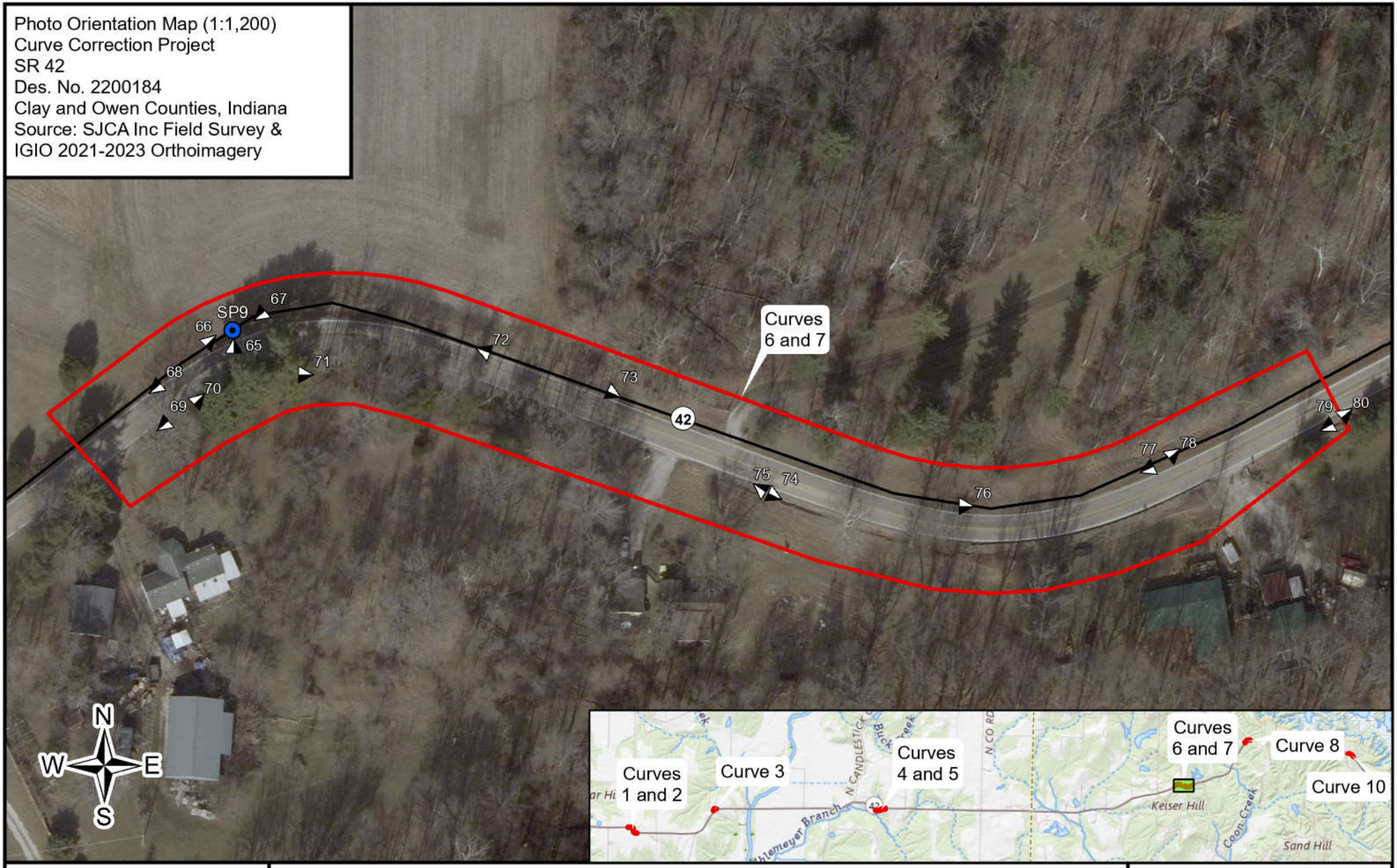
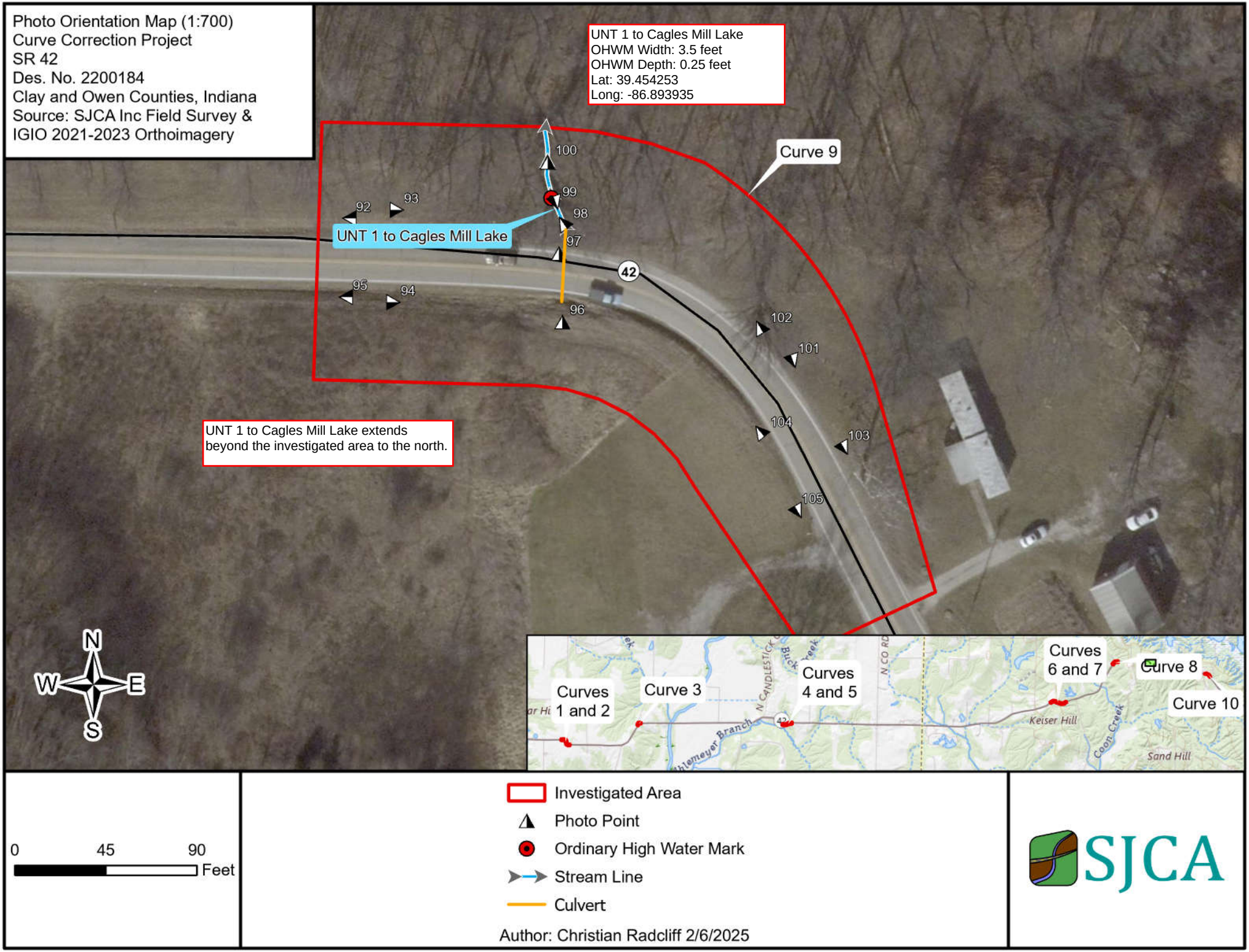
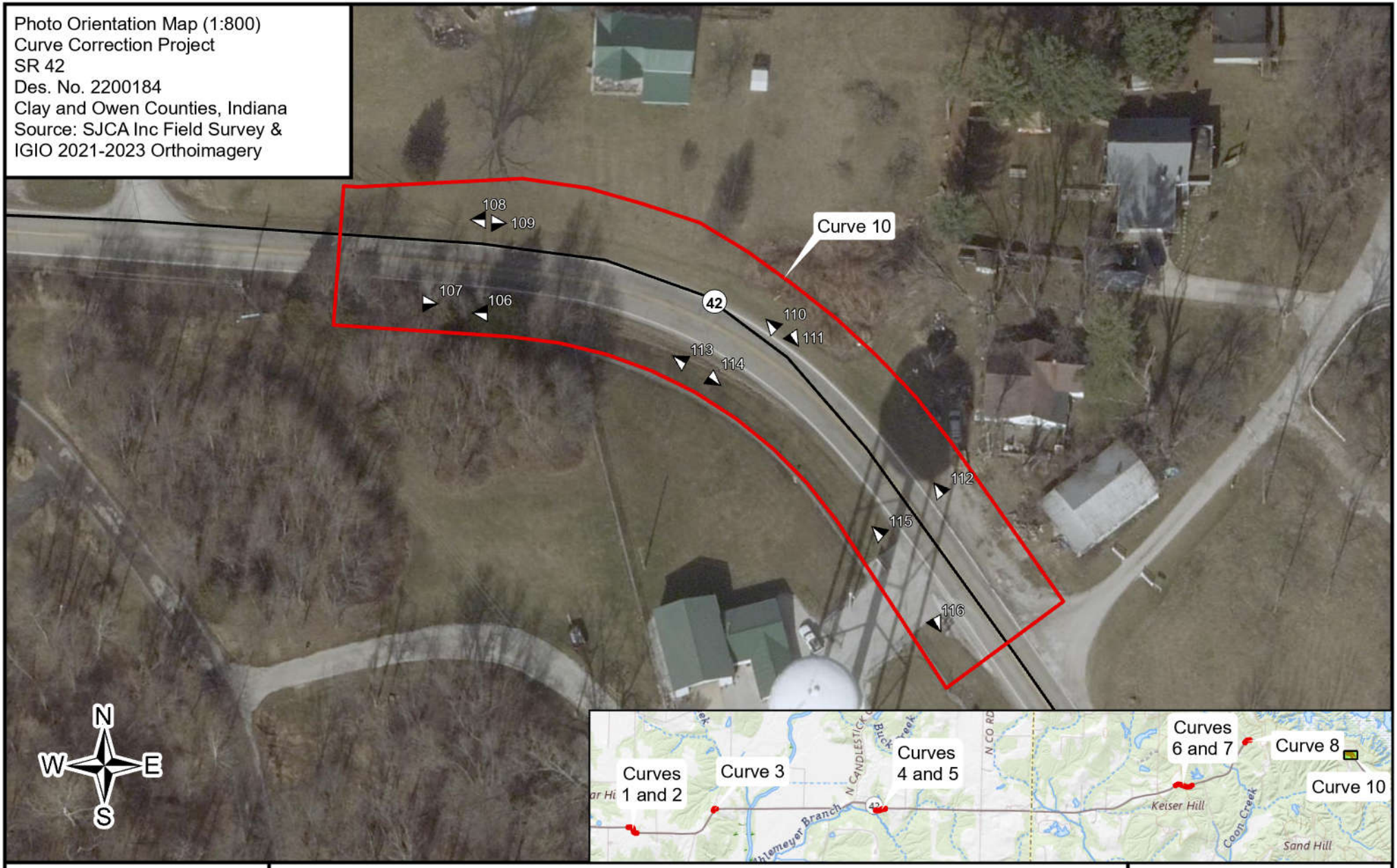

Photo Orientation Map (1:1,200)
Curve Correction Project
SR 42
Des. No. 2200184
Clay and Owen Counties, Indiana
Source: SJCA Inc Field Survey &
IGIO 2021-2023 Orthoimagery
SP9
65
66
67
68
69
70
71
72
73
74
75
76
77
78
79
80
42
Curves
6 and 7
N
W
E
S
Curves
1 and 2
Curve 3
Curves
4 and 5
Curves
6 and 7
Curve 8
Curve 10
Keiser Hill
Sand Hill
Coon Creek
Investigated Area
Photo Point
Sample Points
0
75
150
Feet
Author: Christian Radcliff 2/6/2025
SJCA


Photo Orientation Map (1:600)
Curve Correction Project
SR 42
Des. No. 2200184
Clay and Owen Counties, Indiana
Source: SJCA Inc Field Survey &
IGIO 2021-2023 Orthoimagery
Curve 8
81
82
83
84
85
86
87
88
89
90
91
42
N
W
E
S
Curves 1 and 2
Curve 3
Curves 4 and 5
Curves 6 and 7
Curve 8
Curve 10
Keiser Hill
Sand Hill
0
37.5
75
Feet
Investigated Area
Photo Point
Author: Christian Radcliff 2/6/2025
SJCA


Photo Orientation Map (1:700)
Curve Correction Project
SR 42
Des. No. 2200184
Clay and Owen Counties, Indiana
Source: SJCA Inc Field Survey &
IGIO 2021-2023 Orthoimagery
UNT 1 to Cagles Mill Lake
OHWM Width: 3.5 feet
OHWM Depth: 0.25 feet
Lat: 39.454253
Long: -86.893935
Curve 9
UNT 1 to Cagles Mill Lake
UNT 1 to Cagles Mill Lake extends
beyond the investigated area to the north.
92
93
94
95
96
97
98
99
100
101
102
103
104
105
42
N
W
E
S
Curves
1 and 2
Curve 3
Curves
4 and 5
Curves
6 and 7
Curve 8
Curve 10
Keiser Hill
Sand Hill
0
45
90
Feet
Investigated Area
Photo Point
Ordinary High Water Mark
Stream Line
Culvert
Author: Christian Radcliff 2/6/2025
SJCA



Author: Christian Radcliff 2/6/2025

SJCA

PRELIMINARY JURISDICTIONAL DETERMINATION FORM

BACKGROUND INFORMATION

A. REPORT COMPLETION DATE FOR PRELIMINARY JURISDICTIONAL DETERMINATION (JD): March 7, 2025

B. NAME AND ADDRESS OF PERSON REQUESTING PRELIMINARY JD:

Christian Radcliff, SJCA Inc
9102 N Meridian St, Suite 200
Indianapolis, IN 46260

C. DISTRICT OFFICE, FILE NAME, AND NUMBER: CENAP-OP-R-_____

D. PROJECT LOCATION(S) AND BACKGROUND INFORMATION:

The Indiana Department of Transportation (INDOT), with funding from the Federal Highway Administration (FHWA), intends to proceed with a curve corrections project on SR 42, Designation Number (Des. No.) 2200184, from 6.00 miles east of State Road (SR) 59 to 2.20 miles west of SR 243 in Clay and Owen Counties, Indiana. The project involves the corrections of 10 curves. Work off of the existing roadway will be required for each curve for grading, slope stabilization, and construction of the realigned curves. Two small structures, one at Curve 3 and one at Curve 9, will be replaced as part of the curve corrections. The investigated area included the roadsides near each of the curves to be corrected, which includes the construction area for the project and proposed right of way.

(USE THE ATTACHED TABLE TO DOCUMENT MULTIPLE WATERBODIES AT DIFFERENT SITES)

State: IN County: Clay and Owe City: N/A
Center coordinates of site (lat/long in degree decimal format):
Lat. 39.44423 , Long. -86.96898

Universal Transverse Mercator: 4366054.49 m N, 502588.72 m E, Zone 16S

Name of nearest waterbody: Ahlmeyer Branch
Identify (estimate) amount of waters in the review area:
Non-wetland waters: 438 linear feet, Various width (ft) and/or 0.014 acres.
Cowardin Class: R5UBH
Stream Flow: Ephemeral, Intermittent
Wetlands: Wetlands 1, 2, 3
Cowardin Class: PEM1A
Name of any water bodies on the site that have been identified as Section 10 waters:
Tidal: ___
Non-Tidal: ___

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

☐ Office (Desk) Determination. Date: _____
☐ Field Determination. Date(s): _____

1. The Corps of Engineers believes that there may be jurisdictional waters of the United States on the subject site, and the permit applicant or other affected party who requested this preliminary JD is hereby advised of his or her option to request and obtain an approved jurisdictional determination (JD) for that site. Nevertheless, the permit applicant or other person who requested this preliminary JD has declined to exercise the option to obtain an approved JD in this instance and at this time.

2. In any circumstance where a permit applicant obtains an individual permit, or a Nationwide General Permit (NWP) or other general permit verification requiring "pre-construction notification" (PCN), or requests verification for a non-reporting NWP or other general permit, and the permit applicant has not requested an approved JD for the activity, the permit applicant is hereby made aware of the following: (1) the permit applicant has elected to seek a permit authorization based on a preliminary JD, which does not make an official determination of jurisdictional waters; (2) that the applicant has the option to request an approved JD before accepting the terms and conditions of the permit authorization, and that basing a permit authorization on an approved JD could possibly result in less compensatory mitigation being required or different special conditions; (3) that the applicant has the right to request an individual permit rather than accepting the terms and conditions of the NWP or other general permit authorization; (4) that the applicant can accept a permit authorization and thereby agree to comply with all the terms and conditions of that permit, including whatever mitigation requirements the Corps has determined to be necessary; (5) that undertaking any activity in reliance upon the subject permit authorization without requesting an approved JD constitutes the applicant's acceptance of the use of the preliminary JD, but that either form of JD will be processed as soon as is practicable; (6) accepting a permit authorization (e.g., signing a proffered individual permit) or undertaking any activity in reliance on any form of Corps permit authorization based on a preliminary JD constitutes agreement that all wetlands and other water bodies on the site affected in any way by that activity are jurisdictional waters of the United States, and precludes any challenge to such jurisdiction in any administrative or judicial compliance or enforcement action, or in any administrative appeal or in any Federal court; and (7) whether the applicant elects to use either an approved JD or a preliminary JD, that JD will be processed as soon as is practicable. Further, an approved JD, a proffered individual permit (and all terms and conditions contained therein), or individual permit denial can be administratively appealed pursuant to 33 C.F.R. Part 331, and that in any administrative appeal, jurisdictional issues can be raised (see 33 C.F.R. 331.5(a)(2)). If, during that administrative appeal, it becomes necessary to make an official determination whether CWA jurisdiction exists over a site, or to provide an official delineation of jurisdictional waters on the site, the Corps will provide an approved JD to accomplish that result, as soon as is practicable.
This preliminary JD finds that there *"may be"* waters of the United States on the subject project site, and identifies all aquatic features on the site that could be affected by the proposed activity, based on the following information:

SUPPORTING DATA:

Data reviewed for preliminary JD (check all that apply - checked items should be included in case file and, where checked and requested, appropriately reference sources below):

- ☑ Maps, plans, plots or plat submitted by or on behalf of the applicant/consultant: Project Maps, January 2025
- ☑ Data sheets prepared/submitted by or on behalf of the applicant/consultant.
  - ☐ Office concurs with data sheets/delineation report.
  - ☐ Office does not concur with data sheets/delineation report.
- ☐ Data sheets prepared by the Corps: _____
- ☐ Corps navigable waters' study: _____
- ☑ U.S. Geological Survey Hydrologic Atlas: _____
  - ☐ USGS NHD data.
  - ☑ USGS 8 and 12 digit HUC maps.
- ☑ U.S. Geological Survey map(s). Cite scale & quad name: 12k, Center Point and Poland Quadrangl
- ☑ USDA Natural Resources Conservation Service Soil Survey. Citation: 2025 Web Soil Survey Map
- ☑ National wetlands inventory map(s). Cite name: 2025 USFWS NWI Map
- ☐ State/Local wetland inventory map(s): _____
- ☑ FEMA/FIRM maps: 2024 IDNR INFIP Map
- ☐ 100-year Floodplain Elevation is: (National Geodetic Vertical Datum of 1929)
- ☑ Photographs: ☑ Aerial (Name & Date): 2021-2023 Orthoimagery
  ☑ Other (Name & Date): Site Photos, 8/29/2023, 8/30/2023, 9/19/2023, and 10/11/2024
- ☐ Previous determination(s). File no. and date of response letter:
- ☐ Other information (please specify):

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

Christian Radcliff March 7, 2025

_____	_____
Signature and date of Regulatory Project Manager (REQUIRED)	Signature and date of person requesting preliminary JD (REQUIRED, unless obtaining the signature is impracticable)

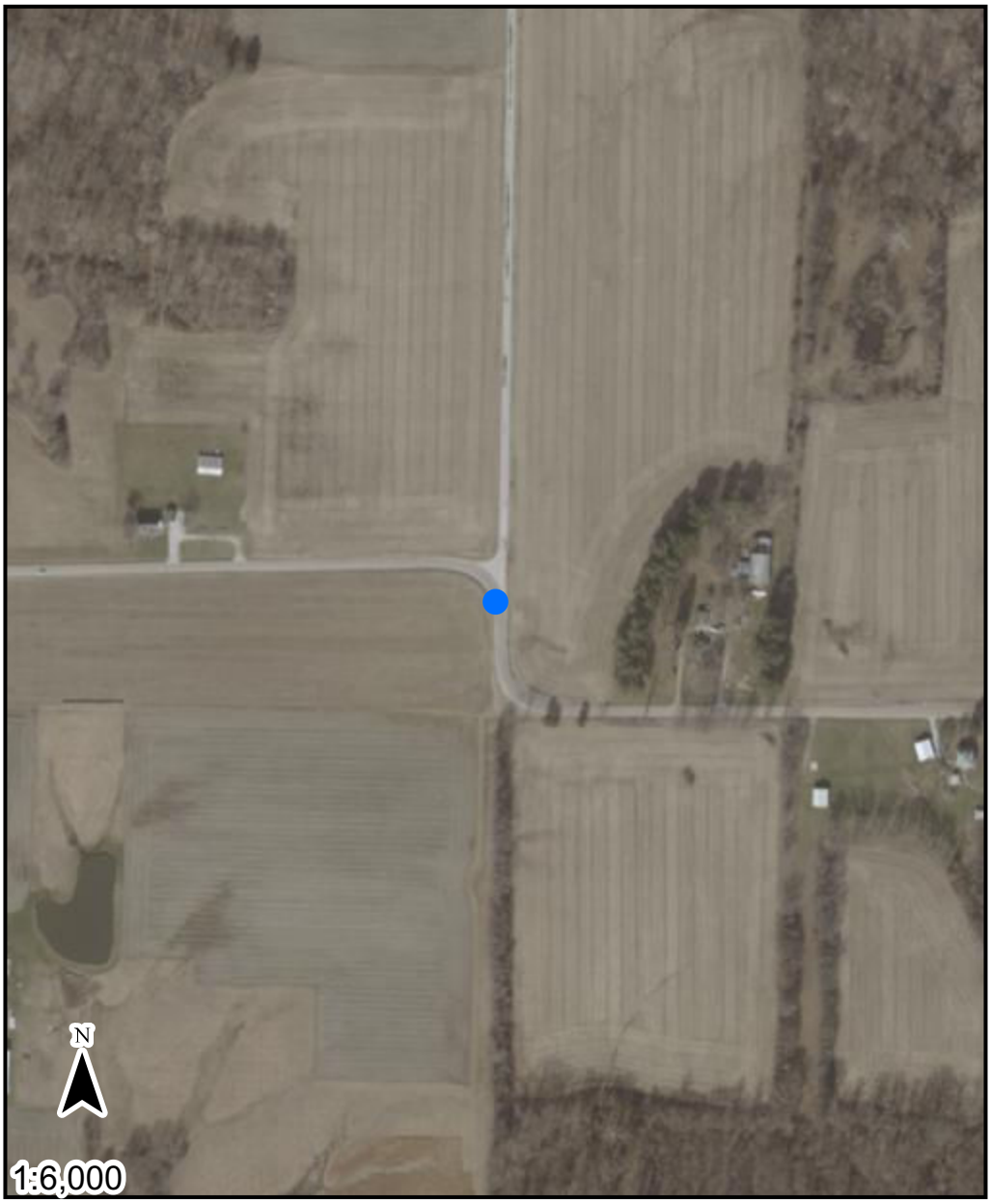
TABLE OF AQUATIC RESOURCES IN REVIEW AREA WHICH "MAY BE" SUBJECT TO REGULATORY JURISDICTION.

Site number	Latitude (decimal degrees)	Longitude (decimal degrees)	Cowardin Class	Estimated amount of aquatic resource in review area	Class of aquatic resource
Wetland 1	39.441616	-87.015895	PEM1A	0.021 acre	Wetland (Section 404)
Wetland 2	39.444406	-87.000198	PEM1A	0.024 acre	Wetland (Section 404)
Wetland 3	39.444020	-86.970324	PEM1A	0.226 acre	Wetland (Section 404)
UNT 1 to Ahlmeyer Branch	39.444111	-86.969760	R5UBH	342 feet/0.008 acre	Stream (Section 404)
UNT 2 to Ahlmeyer Branch	39.444206	-86.970225	R5UBH	45 feet/0.002 acre	Stream (Section 404)
UNT 1 to Cagles Mill Lake	39.454287	-86.893942	R5UBH	51 feet/0.004 acre	Stream (Section 404)

Curves 1 and 2

Floodplain Analysis & Regulatory Assessment (FARA)

Indiana Department of Natural Resources



Point of Interest

Base Flood Elevation Point

POI

Not Mapped

FPA Jurisdictions

RGB

Red: Band_1

Green: Band_2

Blue: Band_3

Long: **-87.01538358802144**

Lat: **39.44144290969263**

The information provided below is based on the point of interest shown in the map above.

County: **Clay**

Stream Name: **Tillman Creek**

Approximate Ground Elevation: **703.6 feet (NAVD88)**

Base Flood Elevation: **Not Available**

Drainage Area: **Not Available**

Best Available Flood Hazard Zone: **Not Mapped**

National Flood Hazard Zone: **Not Mapped**

Is a Flood Control Act permit from the DNR needed for this location? **See following pages**

Is a local floodplain permit needed for this location? **Contact your local Floodplain Administrator-**

Floodplain Administrator: **Rob Gambill, EMA Director**

Community Jurisdiction: **Clay County, County proper**

Phone: **(812) 448-8400**

Email: **rgambill@claycountyin.gov**

US Army Corps of Engineers District: **Louisville**

Date Generated: 5/20/2025

Curve 3

Floodplain Analysis & Regulatory Assessment (FARA)

Indiana Department of Natural Resources



- Point of Interest
- Base Flood Elevation Point
- POI
- DNR Approximate Fringe
- Not Mapped
- FPA Jurisdictions

RGB

- Red: Band_1
- Green: Band_2
- Blue: Band_3

Long: **-87.00035996334488**

Lat: **39.44436256897245**

The information provided below is based on the point of interest shown in the map above.

County: **Clay**

Stream Name: **Tillman Creek**

Approximate Ground Elevation: **637.4 feet (NAVD88)**

Base Flood Elevation: **Not Available**

Drainage Area: **Not Available**

Best Available Flood Hazard Zone: **Not Mapped**

National Flood Hazard Zone: **Not Mapped**

Is a Flood Control Act permit from the DNR needed for this location? **See following pages**

Is a local floodplain permit needed for this location? **Contact your local Floodplain Administrator-**

Floodplain Administrator: **Rob Gambill, EMA Director**

Community Jurisdiction: **Clay County, County proper**

Phone: **(812) 448-8400**

Email: **rgambill@claycountyin.gov**

US Army Corps of Engineers District: **Louisville**

Date Generated: 5/20/2025

Curves 4 and 5

Indiana Department of Natural Resources

Floodplain Analysis & Regulatory Assessment (FARA)



Point of Interest

Base Flood Elevation Point

POI

Not Mapped

FPA Jurisdictions

RGB

Red: Band_1

Green: Band_2

Blue: Band_3

Long: **-86.96946091680219**

Lat: **39.444322800336195**

The information provided below is based on the point of interest shown in the map above.

County: **Clay**

Stream Name:
Ahlemeyer Branch

Approximate Ground Elevation: **603.1 feet (NAVD88)**

Base Flood Elevation: **Not Available**

Drainage Area: **Not Available**

Best Available Flood Hazard Zone: **Not Mapped**

National Flood Hazard Zone: **Not Mapped**

Is a Flood Control Act permit from the DNR needed for this location? **See following pages**

Is a local floodplain permit needed for this location? **Contact your local Floodplain Administrator-**

Floodplain Administrator: **Rob Gambill, EMA Director**

Community Jurisdiction: **Clay County, County proper**

Phone: **(812) 448-8400**

Email: **rgambill@claycountyin.gov**

US Army Corps of Engineers District: **Louisville**

Date Generated: 5/20/2025

Curves 6 and 7

Floodplain Analysis & Regulatory Assessment (FARA)

Indiana Department of Natural Resources



Point of Interest

Base Flood Elevation Point

POI

Not Mapped

FPA Jurisdictions

RGB

Red: Band_1

Green: Band_2

Blue: Band_3

Long: **-86.91298432116533**

Lat: **39.447716361504256**

The information provided below is based on the point of interest shown in the map above.

County: **Owen**

Stream Name: **Unnamed Tributary**

Approximate Ground Elevation: **756.7 feet (NAVD88)**

Base Flood Elevation: **Not Available**

Drainage Area: **Not Available**

Best Available Flood Hazard Zone: **Not Mapped**

National Flood Hazard Zone: **Not Mapped**

Is a Flood Control Act permit from the DNR needed for this location? **See following pages**

Is a local floodplain permit needed for this location? **Contact your local Floodplain Administrator-**

Floodplain Administrator: **Suzanne Simmerman, Administrator, Building Department**

Community Jurisdiction: **Owen County, County proper**

Phone: **(812) 829-5017**

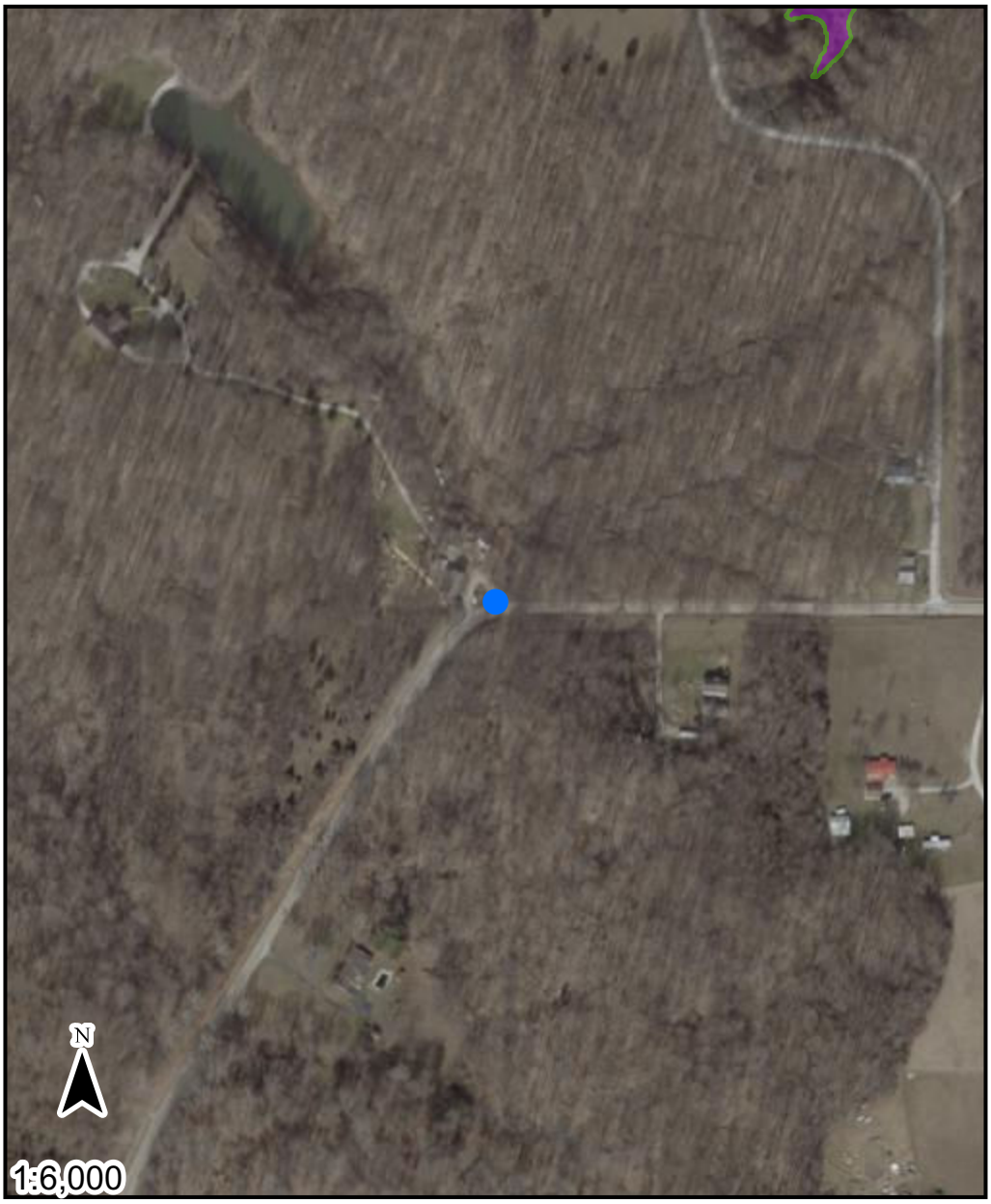
Email: **Suzanne.Simmerman@owencounty.in.gov**

US Army Corps of Engineers District: **Louisville**

Date Generated: 5/20/2025

Curve 8

Floodplain Analysis & Regulatory Assessment (FARA)



Point of Interest

Base Flood Elevation Point

POI

DNR Approximate Fringe

Not Mapped

FPA Jurisdictions

RGB

Red: Band_1

Green: Band_2

Blue: Band_3

Long: **-86.90109677081132**

Lat: **39.45424452325692**

The information provided below is based on the point of interest shown in the map above.

County: **Owen**

Stream Name:
Unnamed Tributary

Approximate Ground Elevation: **743.9 feet (NAVD88)**

Base Flood Elevation: **Not Available**

Drainage Area: **Not Available**

Best Available Flood Hazard Zone: **Not Mapped**

National Flood Hazard Zone: **Not Mapped**

Is a Flood Control Act permit from the DNR needed for this location? **See following pages**

Is a local floodplain permit needed for this location? **Contact your local Floodplain Administrator-**

Floodplain Administrator: **Suzanne Simmerman, Administrator, Building Department**

Community Jurisdiction: **Owen County, County proper**

Phone: **(812) 829-5017**

Email: **Suzanne.Simmerman@owencounty.in.gov**

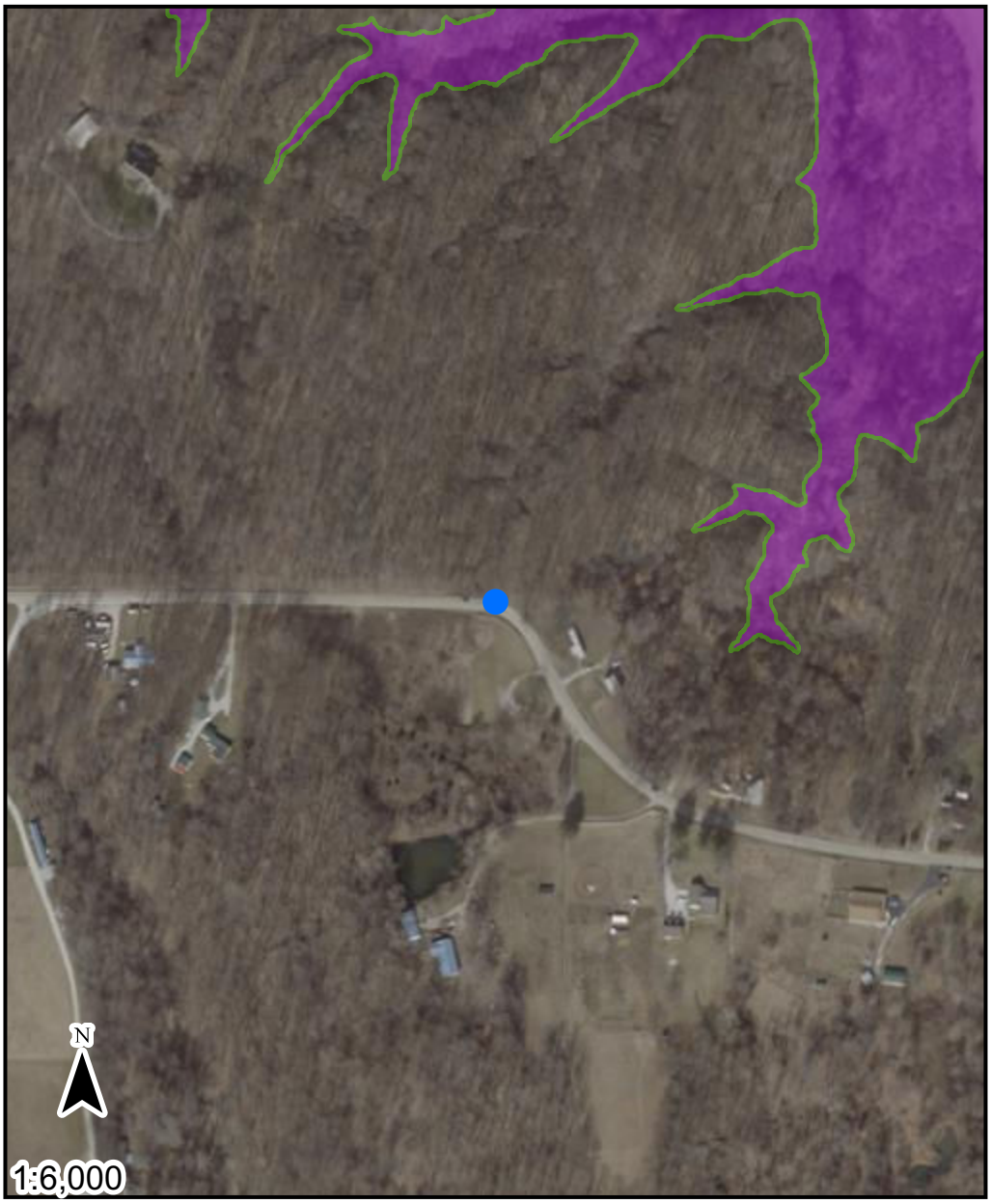
US Army Corps of Engineers District: **Louisville**

Date Generated: 5/20/2025

Curves 9

Floodplain Analysis & Regulatory Assessment (FARA)

Indiana Department of Natural Resources



Point of Interest

Base Flood Elevation Point

POI

DNR Approximate Fringe

Not Mapped

FPA Jurisdictions

RGB

Red: Band_1

Green: Band_2

Blue: Band_3

Long: **-86.89380116229084**

Lat: **39.45417825057861**

The information provided below is based on the point of interest shown in the map above.

County: **Owen**

Stream Name: **Coon Creek**

Approximate Ground Elevation: **774.2 feet (NAVD88)**

Base Flood Elevation: **662.0 Feet (NAVD88)**

Drainage Area: **Not Available**

Best Available Flood Hazard Zone: **Not Mapped**

National Flood Hazard Zone: **Not Mapped**

Is a Flood Control Act permit from the DNR needed for this location? **See following pages**

Is a local floodplain permit needed for this location? **Contact your local Floodplain Administrator-**

Floodplain Administrator: **Suzanne Simmerman, Administrator, Building Department**

Community Jurisdiction: **Owen County, County proper**

Phone: **(812) 829-5017**

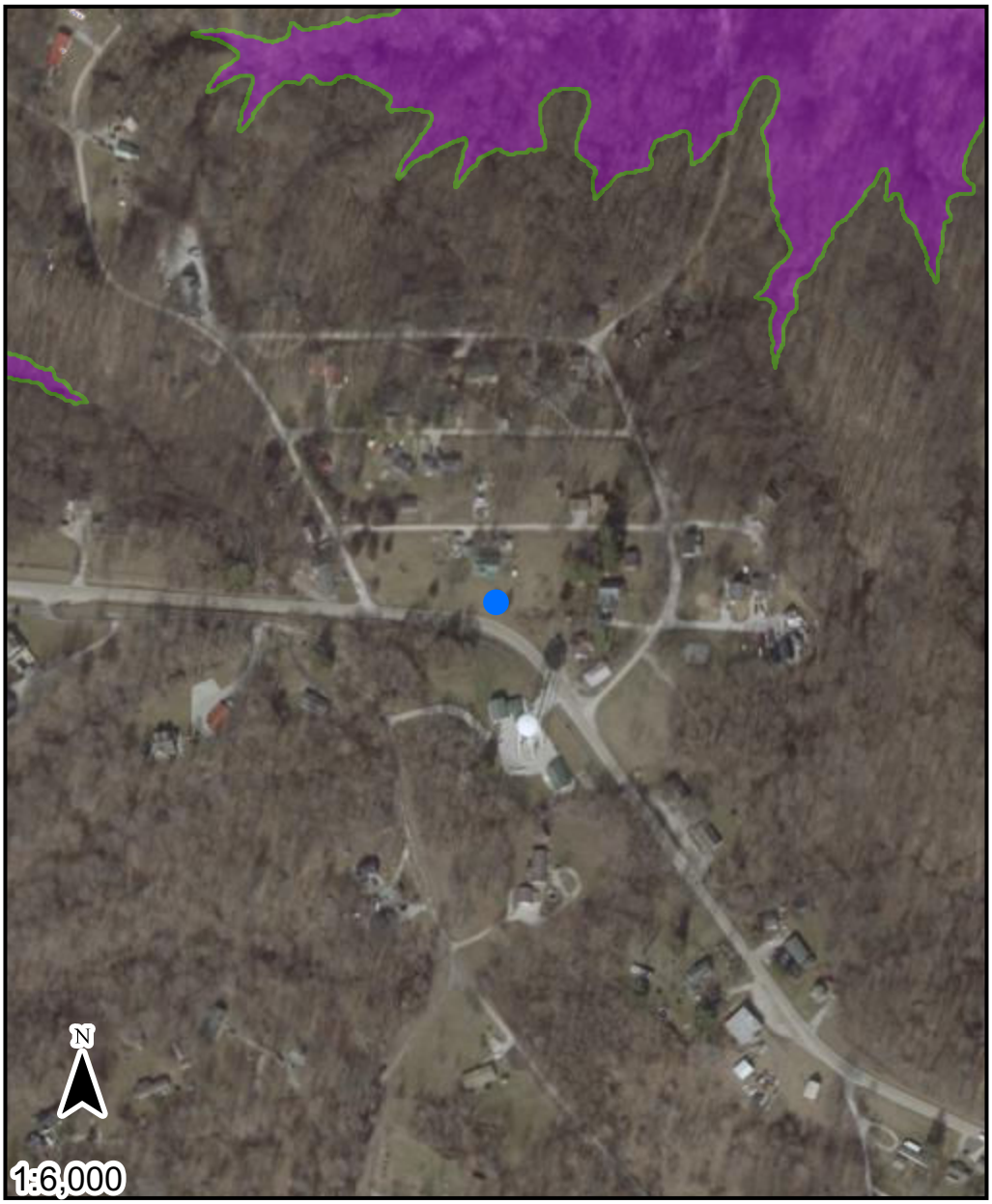
Email: **Suzanne.Simmerman@owencounty.in.gov**

US Army Corps of Engineers District: **Louisville**

Date Generated: 5/20/2025

Curve 10

Floodplain Analysis & Regulatory Assessment (FARA)



Point of Interest

Base Flood Elevation Point

POI

DNR Approximate Fringe

Not Mapped

FPA Jurisdictions

RGB

Red: Band_1

Green: Band_2

Blue: Band_3

Long: **-86.88195652728108**

Lat: **39.452322589971004**

The information provided below is based on the point of interest shown in the map above.

County: **Owen**

Stream Name: **Coon Creek**

Approximate Ground Elevation: **809.2 feet (NAVD88)**

Base Flood Elevation: **664.0 Feet (NAVD88)**

Drainage Area: **Not Available**

Best Available Flood Hazard Zone: **Not Mapped**

National Flood Hazard Zone: **Not Mapped**

Is a Flood Control Act permit from the DNR needed for this location? **See following pages**

Is a local floodplain permit needed for this location? **Contact your local Floodplain Administrator-**

Floodplain Administrator: **Suzanne Simmerman, Administrator, Building Department**

Community Jurisdiction: **Owen County, County proper**

Phone: **(812) 829-5017**

Email: **Suzanne.Simmerman@owencounty.in.gov**

US Army Corps of Engineers District: **Louisville**

Date Generated: 5/20/2025

Des 2200184 CE-2

Appendix G

Public Involvement

Appendix G will be updated after the completion of public involvement.

Sample Notice of Survey letter

Certified MBE, State of Indiana; City of Indianapolis INDOT Certified DBE

Job #21EN034

NOTICE OF SURVEY

February 14th, 2022

RE: PROJECT: State Road 42
Culvert Replacement & Curb Ramp Reconstruction Project
Clay and Owen Counties

Dear Property Owner:

Our information indicates that you own or occupy property near this proposed Project. Culvert Replacement & Curb Ramp Reconstruction Project. Our employees will be doing a survey of the project area in the near future. It may be necessary for them to come onto your property to complete this work. This is allowed by Indiana Code IC 8-23-7-26. They will show you their identification, if you are available, before coming onto your property. If you have sold this property, or someone else occupies it, please let us know the name and address of the new owner or current occupant so we can contact them about the survey.

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

The survey work will include mapping the location of features such as buildings, trees, fences, and drives, and obtaining ground elevations. This work is necessary for the proper planning and design of the Culvert Replacement & Curb Ramp Reconstruction Project. Please be assured of our sincere desire to cause you as little inconvenience as possible during the survey. If any problems do occur, please contact our field crew, or contact me at the phone number or address shown below.

We do appreciate your input regarding any issues that this project may encounter during the design phase. Included with this notice is a short questionnaire that you can fill out and return to us in the enclosed self-addressed stamped envelope. Thank you, in advance, for your participation in this process.

Sincerely,

SJCA Inc.

Corey A. Chenault

Corey A. Chenault
Survey Crew Coordinator
CChenault@SJCAinc.com

Des 2200184 CE-2

Appendix H

Air Quality

Federal Transit Administration
Region V
200 West Adams St., Suite 320
Chicago, IL 60606-5253

U.S. Department of Transportation

Federal Highway Administration
Indiana Division
575 N. Pennsylvania St., Rm 254
Indianapolis, IN 46204-1576

August 28, 2025

Ms. Lyndsay Quist
Commissioner
Indiana Department of Transportation
100 N Senate Ave. N955
Indianapolis, IN 46204

SUBJECT: Indiana FY2026-2030 STIP Approval and Associated Federal Planning Finding

Dear Ms. Quist:

The Federal Highway Administration (FHWA) and the Federal Transit Administration (FTA) have completed our review of the FY2026-2030 Indiana Statewide Transportation Improvement Program (INSTIP), which was submitted by the Indiana Department of Transportation (INDOT) request letter dated June 6, 2025.

Based on our review of the information provided, certifications of the Statewide and Metropolitan transportation planning processes for and within the state of Indiana, and our participation in those transportation planning processes (including planning certification reviews conducted in Transportation Management Areas), FHWA and FTA are jointly approving the FY2026-2030 STIP, including the Metropolitan Planning Organization (MPO) Transportation Improvement Programs (TIPs) incorporated into the STIP by reference, subject to the corrective action identified in the attached Federal Planning Finding (FPF) report. FHWA and FTA consider the projects in the 5th year for informational purposes only, and our approval does not exceed four years per 23 CFR 450.220(c).

FHWA and FTA are required under 23 CFR 450.220(b) to document and issue an FPF in conjunction with the approval of the FY2026-2030 STIP. At a minimum, the FPF verifies that the development of the STIP is consistent with the provisions of both the Statewide and Metropolitan transportation planning requirements. FHWA and FTA find that the Indiana FY2026-2030 STIP substantially meets the transportation planning requirements and are approving the STIP subject to the corrective action outlined in the FPF. This approval is effective August 22, 2025, and is given with the understanding that an eligibility determination of individual projects for funding must be met, and INDOT must ensure the satisfaction of all administrative and statutory requirements, as well as address the corrective actions outlined in the attached report.

If you have questions or need additional information concerning our approval and the FPF, please contact Ms. Erica Tait of the FHWA Indiana Division at (317) 226-7481, or by email at erica.tait@dot.gov, or Mr. Anthony Greep of the FTA Region 5 Office at (312) 353-2866, or by email at anthony.greep@dot.gov.

Sincerely,

KELLEY BROOKINS

Digitally signed by KELLEY BROOKINS
Date: 2025.08.27 08:09:52 -05'00'

Kelley Brookins
Regional Administrator
FTA Region V

Sincerely,



Digitally signed by CHRISTOPHER J HALL
Date: 2025.08.28 10:04:48 -05'00'

Christopher J. Hall
Interim Division Administrator
FHWA Indiana Division

Indiana Department of Transportation (INDOT)

State Preservation and Local Initiated Projects FY 2026 - 2030

SPONSOR	CONTRACT # / LEAD DES	PROJECT GROUP #	STIP NAME	ROUTE	WORK TYPE	DISTRICT	MILES	FEDERAL CATEGORY	Toal Cost of Project*	PROGRAM	PHASE	FEDERAL	MATCH	2026	2027	2028	2029	2030
Performance Measure Impacted: Pavement Condition																		
Location: From 0.23 mile E of SR 340 W jct to SR 340 E jct																		
Comments:Include DES 2000877, 2100192																		
Indiana Department of Transportation	44401 / 2200792	1	Init.	I 70	HMA Overlay, Preventive Maintenance	Crawfordsville	10.546	NHPP	$17,599,552.00	Road Construction	CN	$14,599,090.80	$1,622,121.20		$16,221,212.00			
Performance Measure Impacted: Pavement Condition																		
Location: From 0.38 mile E of SR 641 to 0.48 mile W of SR 59																		
Comments:Include DES 2200792																		
Indiana Department of Transportation	45046 / 2301165	2	Init.	SR 59	Small Structures & Drains Construction	Crawfordsville	11.77	STBG	$6,676,700.00	Bridge Construction	CN	$2,540,129.60	$635,032.40		$20,000.00	$3,155,162.00		
										Bridge ROW	RW	$304,000.00	$76,000.00		$380,000.00			
Performance Measure Impacted: Safety																		
Location: From SR 48 to 0.14 mile S of SR 157																		
Comments:Include DES 2301165, 2301166, 2301167, 2301171, 2301176																		
Indiana Department of Transportation	45059 / 2300936	2	Init.	SR 340	Small Structure Replacement	Crawfordsville	.1	STBG	$835,533.00	Bridge ROW	RW	$8,000.00	$2,000.00	$10,000.00				
										Bridge Construction	CN	$648,426.40	$162,106.60		$10,000.00	$800,533.00		
Performance Measure Impacted: Bridge Condition																		
Location: At 0.96 mile E US 40 W jct																		
Comments:Include DES 2300936																		
Indiana Department of Transportation	45322 / 2200184		Init.	SR 42	Curve Correction	Crawfordsville	7.76	STBG	$2,683,879.00	Safety Construction	CN	$1,203,103.20	$300,775.80			$1,503,879.00		
										Safety ROW	RW	$64,000.00	$16,000.00	$80,000.00				
Performance Measure Impacted: Safety																		
Location: From 6.00 mile E of SR 59 to 2.20 mile W of SR 243																		
Comments:Include DES 2200184																		

Clay County Total

Federal: $60,590,534.48 Match :$10,014,267.60 2026: $45,136,113.09 2027: $20,009,115.00 2028: $5,459,574.00 2029: 2030:

Report Created:8/12/2025 1:01:17PM

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

Des 2200184 CE-2

Appendix I

Additional Studies and Information

Land and Water Conservation Fund (LWCF) County Property List for Indiana (Last Updated April 2025)

ProjectNumber	SubProjectCode	County	Property
1800336	1800336	Clay	Forest Park
1800369	1800369I	Clay	Harmony Community Park
1800007	1800007	Owen	McCormick's Creek State Park
1800022	1800022	Owen	McCormick's Creek State Park
1800049	1800049	Owen	McCormick's Creek State Park
1800161	1800161I	Owen	McCormick's Creek State Park
1800171	1800171G	Owen	McCormick's Creek State Park
1800312	1800312H	Owen	McCormick's Creek State Park
1800363	1800363R	Owen	McCormick's Creek State Park
1800378	1800378C	Owen	McCormick's Creek State Park
1800413	1800413N	Owen	McCormick's Creek State Park
1800431	1800431	Owen	McCormick's Creek State Park
1800584	1800584	Owen	McCormick's Creek State Park
1800626	1800626B	Owen	Cataract Falls SRA

*Park names may have changed. If acquisition of publically owned land or impacts to publically owned land is anticipated, coordination with Indiana State Parks, Community Grants & Trails Section, should occur.

This analysis was performed for this project prior to the issuance of recent federal Executive Orders (EO) from January 2025, including EO 14154, EO 14148, and EO 14173. As such, this analysis is included for transparency but is no longer applicable to the impacts analysis for federal projects and this impact was not considered in the federal decision.

State Road (SR) 42 Curve Corrections, Owen and Clay County, Indiana
Des. No. 2200184

EJ Analysis

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

Potential EJ impacts are detected by locating minority and low-income populations relative to a reference population to determine if populations of EJ concern exist and whether there could be disproportionately high and adverse impacts to them. The reference population may be a county, city, or town and is called the community of comparison (COC). In this project, the COCs are Owen County and Clay County. The community that overlaps the project area is called the affected community (AC). In this project, the ACs are Census Tract 405 in Clay County and Census Tract 9556 in Owen County. An AC has a population of concern for EJ if the population is more than 50% minority or low-income or if the low-income or minority population is 125% of the COC. Data from the U.S. Census Bureau for 2023 was obtained on December 13, 2024 by SJCA Inc. The data collected for minority and low-income populations within the ACs are summarized in the table below.

Table: Minority and Low-Income Data

	COC 1 – Clay County, Indiana	COC 2 – Owen County, Indiana	AC-1 - Census Tract 405, Clay County, Indiana	AC-2 - Census Tract 9556, Owen County, Indiana
Percent Minority	5.7%	4.8%	1.8%	5.6%
125% of COC	7.1%	6.0%	AC < 125% COC	AC < 125% COC
EJ Population of Concern			No	No
Percent Low-Income	10.7%	11.9%	8.9%	21.5%
125% of COC	13.3%	14.9%	AC < 125% COC	AC > 125% COC
EJ Population of Concern			No	Yes

AC-1, Census Tract 405, has a percent minority of 1.8%, which is below 50% and is below the 125% COC threshold. AC-2, Census Tract 9556, has a percent minority of 5.6%, which is below 50% and is below the 125% COC threshold. Therefore, neither AC-1 nor AC-2 contains a minority population of EJ concern.

AC-1. Census Tract 405, has a percent low-income of 8.9%, which is below 50% and is below the 125% COC threshold. AC-2, Census Tract 9556, has a percent low-income of 21.5%, which is below 50% but is above the 125% threshold of COC-2. Therefore, AC-2 has a low-income population of EJ concern.

Conclusion

The project will require a total of 4.71 acres of permanent ROW. All ROW acquisition will be immediately adjacent to the existing roadway. No relocations will occur, no changes in community cohesion will occur, and no permanent barriers will be created that would exclude low income or minority populations. The Maintenance of Traffic (MOT) is anticipated to consist of a detour that utilizes SR 59, Interstate 70 (I-70), and SR 243 which will extend approximately 20.5 miles in length. Local detour routes will be available that will utilize the county roads adjacent to SR 42 during the closures at each curve. Local detour routes will be available in phases as construction at each curve is completed. Access to all properties will be retained through the official detour route to access SR 42 and local detour routes to access individual properties along SR 42. All motorists using this portion of SR 42 will require the use of a detour; therefore, no disproportionately high impacts will occur to low-income or minority populations.

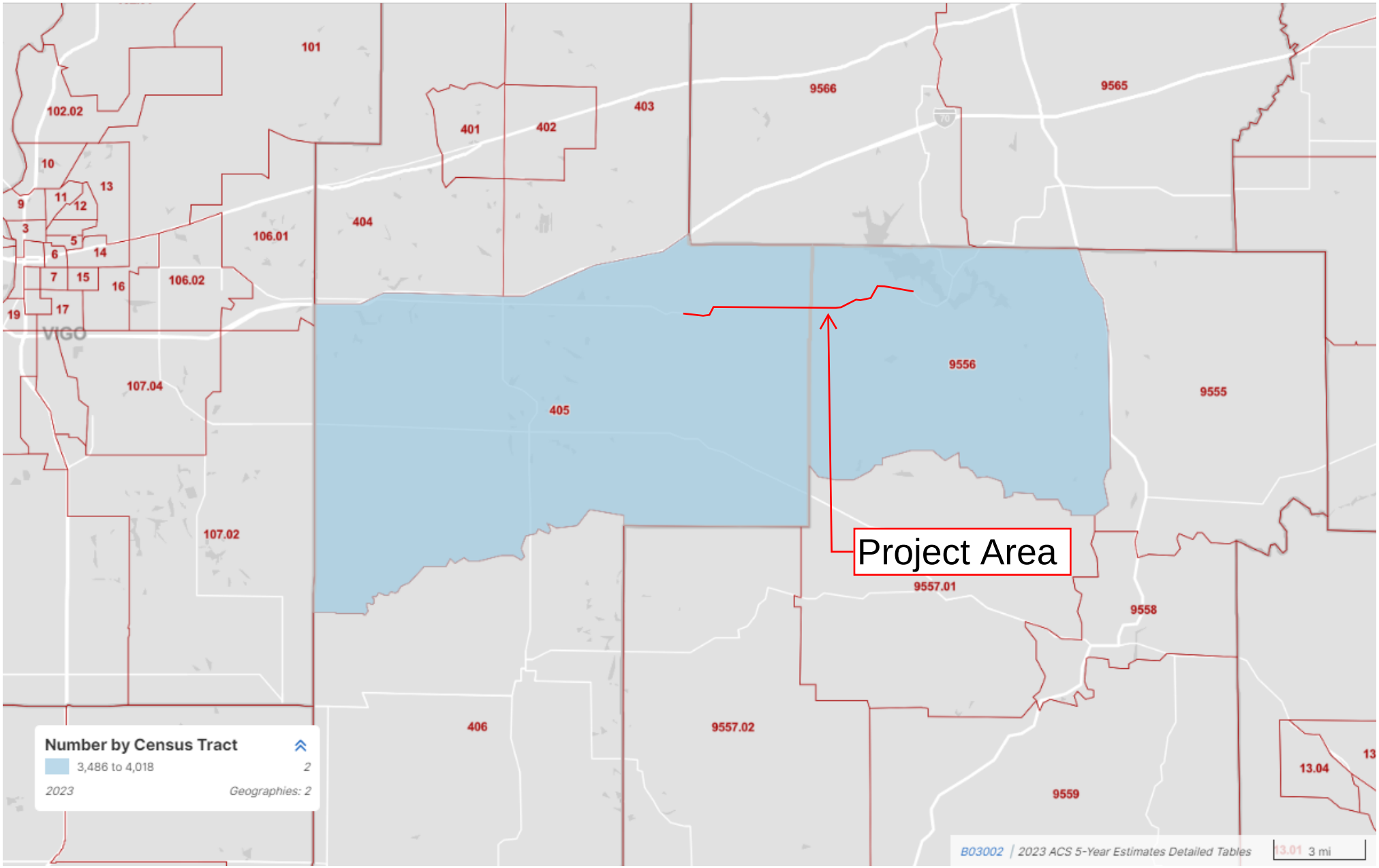
Environmental Justice Analysis for SR 42 Curve Corrections (Des 2200184)

		COC-1	AC-1	COC-2	AC-2
		Clay County, Indiana	Census Tract 405, Clay County, Indiana	Owen County, Indiana	Census Tract 9556, Owen County, Indiana
	LOW-INCOME				
B 17001001	Population for whom poverty status is determined: Total	25,744	4,018	21,048	3,480
B 17001002	Population for whom poverty status is determined:Income in past 12 months below poverty	2,744	357	2,504	749
	Percent Low-Income	**10.7%**	**8.9%**	**11.9%**	**21.5%**
	125 Percent of COC	**13.3%**	**AC<125% COC**	**14.9%**	**AC>125% COC**
	Potential Low-Income EJ Impact?		**No**		**Yes**
	MINORITY				
B 03002001	Total population: Total	26,431	4,018	21,434	3,486
B 03002002	Total population: Not Hispanic or Latino	25,935	3,983	21,121	3,484
B 03002003	Total population: Not Hispanic or Latino; White alone	24,937	3,944	20,400	3,292
B 03002004	Total population: Not Hispanic or Latino; Black or African American alone	81	6	121	94
B 03002005	Total population: Not Hispanic or Latino; American Indian and Alaska Native alone	1	0	13	0
B 03002006	Total population: Not Hispanic or Latino; Asian alone	60	0	118	19
B 03002007	Total population: Not Hispanic or Latino; Native Hawaiian and Other Pacific Islander alone	21	0	0	0
B 03002008	Total population: Not Hispanic or Latino; Some other race alone	40	0	42	0
B 03002009	Total population: Not Hispanic or Latino; Two or more races	795	33	427	79
B 03002010	Total population: Hispanic or Latino	496	35	313	2
B 03002011	Total population: Hispanic or Latino; White alone	175	5	72	2
B 03002012	Total population: Hispanic or Latino; Black or African American alone	0	0	0	0
B 03002013	Total population: Hispanic or Latino; American Indian and Alaska Native alone	2	0	8	0
B 03002014	Total population: Hispanic or Latino; Asian alone	0	0	0	0
B 03002015	Total population: Hispanic or Latino; Native Hawaiian and Other Pacific Islander alone	0	0	0	0
B 03002016	Total population: Hispanic or Latino; Some other race alone	114	0	18	0
B 03002017	Total population: Hispanic or Latino; Two or more races	205	30	215	0
	Number Non-White/Minority (P007001-P007003)	**1,494**	**74**	**1,034**	**194**
	Percent Non-White/Minority	**5.7%**	**1.8%**	**4.8%**	**5.6%**
	125 Percent of COC	**7.1%**	**AC<125% COC**	**6.0%**	**AC<125% COC**
	Potential Minority EJ Impact?		**No**		**No**

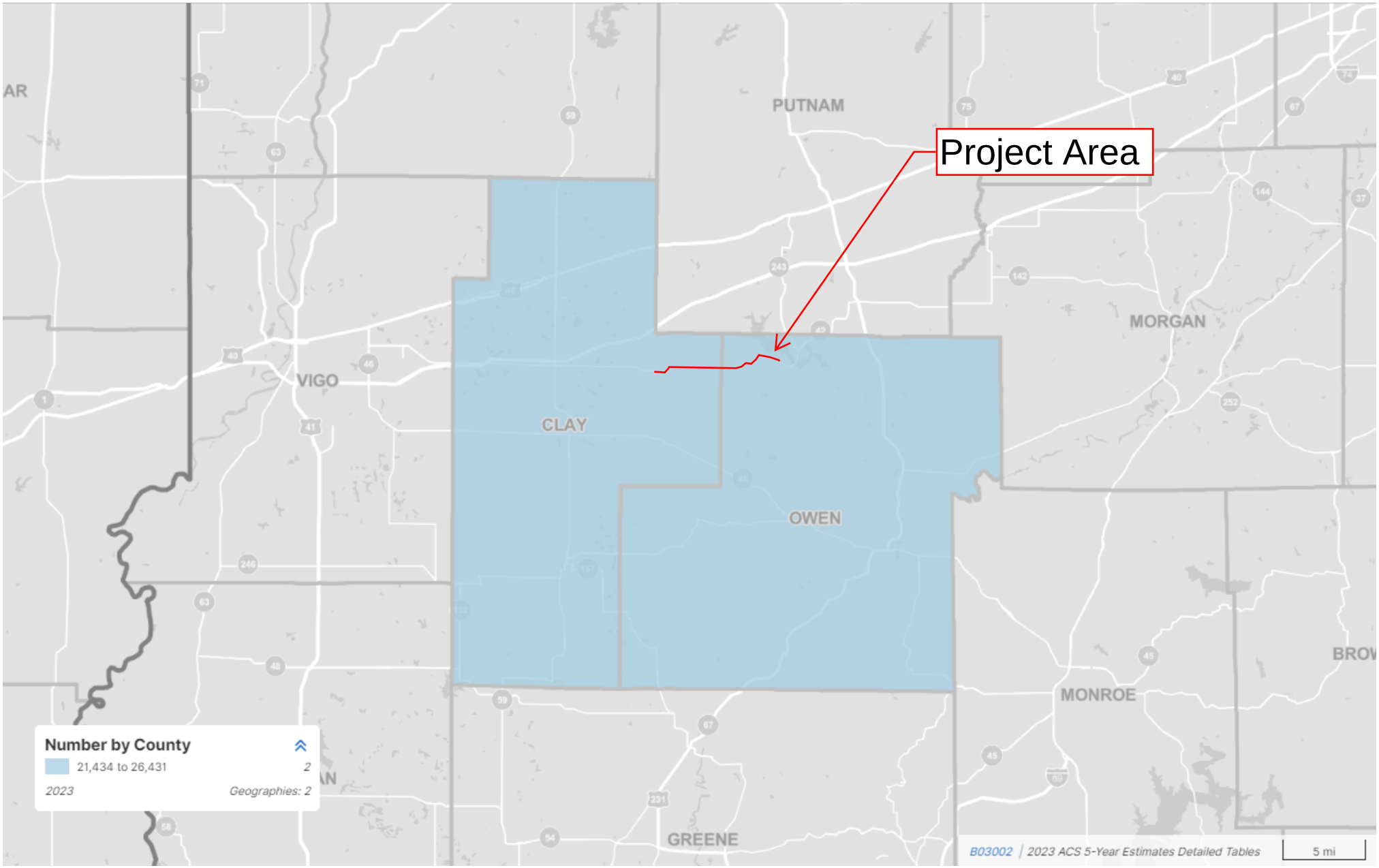
Affect Communities (AC) Map

Clay County
AC 1: Census Tract 405

Owen County
AC 2: Census Tract 9556



Communities of Comparion (COC) Map
COC-1: Clay County
COC-2: Owen County



Poverty Status in the Past 12 Months by Sex by Age

Note: This is a modified view of the original table produced by the U.S. Census Bureau. This download or printed version may have missing information from the original table.

Label	Clay County, Indiana		Owen County, Indiana		Census Tract 405; Clay County; Indiana		Census Tract 9556; Owen County; Indiana	
	Estimate	Margin of Erroı	Estimate	Margin of Er	Estimate	Margin of Error	Estimate	Margin of Error
Total:	25,744	±178	21,048	±135	4,018	±412	3,480	±391
Income in the past 12 months below poverty level:	2,744	±609	2,504	±664	357	±151	749	±365
Income in the past 12 months at or above poverty level:	23,000	±665	18,544	±680	3,661	±395	2,731	±324

Hispanic or Latino Origin by Race

Note: This is a modified view of the original table produced by the U.S. Census Bureau. This download or printed version may have missing information from the original table.

Label	Clay County, Indiana	Owen County, Indiana	Census Tract 405; Clay County; Indiana	Census Tract 9556; Owen County; Indiana
	Estimate	Estimate	Estimate	Estimate
Total:	26,431	21,434	4,018	3,486
Not Hispanic or Latino:	25,935	21,121	3,983	3,484
White alone	24,937	20,400	3,944	3,292
Black or African American alone	81	121	6	94
American Indian and Alaska Native alone	1	13	0	0
Asian alone	60	118	0	19
Native Hawaiian and Other Pacific Islander a	21	0	0	0
Some other race alone	40	42	0	0
Two or more races:	795	427	33	79
Two races including Some other race	196	88	6	42
Two races excluding Some other race, a	599	339	27	37
Hispanic or Latino:	496	313	35	2
White alone	175	72	5	2
Black or African American alone	0	0	0	0
American Indian and Alaska Native alone	2	8	0	0
Asian alone	0	0	0	0
Native Hawaiian and Other Pacific Islander a	0	0	0	0
Some other race alone	114	18	0	0
Two or more races:	205	215	30	0
Two races including Some other race	173	190	30	0
Two races excluding Some other race, a	32	25	0	0

Wanda Gaines

From: Fair, Terri <TFair@indot.IN.gov>
Sent: Friday, December 20, 2024 1:54 PM
To: Wanda Gaines
Subject: SR 42 Curve Corrections, Des. 2200184, EJ Analysis
Attachments: EJ Analysis_SR 42_Des 2200184.pdf

INDOT-Environmental Services Division (ESD) has reviewed the project information along with the Environmental Justice (EJ) Analysis for the above referenced project. With the information provided, the project may require right-of-way, requires 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.

Call Application Report Project (Mini Scope)

FORM VERSION: 11/7/2014 FORM VERSION BY: Andrew Fitzgerald, PTOE, PE

Draft date	2/8/2024	District:	*CRAWFORDSVILLE*	**SCORE:**	
DES:		Sub-District:	Crawfordsville		
Proposed FY:	2027	Asset Group:	SAFETY		
Work Type:	Curve Correction	Work Category:	Other Project Type		

Project Location

Route:	SR 42	City/Town:			County 1	Clay			County 2	Owen	
RP Start:	17+38			Latitude Start:			Longitude Start:				
RP End:	25+14			Latitude End:			Longitude End:				
AADT FY:	2020	AADT:	914		% Trucks:	3.0%					
Length (mi):	7.76	# Lanes:	2		Lane Mi:						
Func. Class:	Major Collector				Area:	Rural	NHS:	No			
Str. #	N/A	NBI #:	N/A	Bridge / Culvert: Length (FT) / Width (FT):		N/A	Bridge Area (SFT):	N/A	Year Built:	N/A	
Location Description:	Various curves along SR 42 in Clay and Owen County, from 6.00 mi E of SR 59 to 2.20 mi W of SR 243.										

SEE IT: WHAT IS THE CURRENT AND PROJECTED CONDITION AND WHY IS THIS A PROBLEM (FOCUS ON THE PROBLEM):

SR 42 is a two lane major collector with 10 ft lanes and no shoulders. There are various sharp curves on this route that make it difficult for vehicles to navigate the curve, which can result in run off the road crashes or encroachment into the opposing lanes. Currently, there is vegetation that is causing poor sight distance on many of the curves. The curves at the following locations are of particular interest.

- Fertig Road in Owen County-West Curve
- Fertig Road in Owen County-East Curve
- Lakeview Drive in Owen County - West Curve
- CR 830 W in Owen County- East Curve
- Owl Hollow Road in Owen County-West Curve
- Boyscout Road in Clay County-Curve
- CR 500 E in Clay County- Curve
- Candlestick Corner Road in Clay County-East Curve □

INSERT ONE OR TWO PICTURES OF PRIMARY PROBLEM:

DATE AND TYPE OF LAST MAJOR TREATMENT:							DATE:		
PROJECT CONDITION RATINGS:		LOS:		Crash Rate:			Icc:		
Wearing Surface:	NA	Deck:	NA	Bridge/Culvert Super:	NA		Substructure (Bridge/ Culvert):	NA	
Type I Culverts/ pipes:	NA	Bridge Scour:	NA	Bridge Paint:	NA		Culvert	NA	
IRI: N/A	PCR: N/A		RUT:	N/A	Friction #:	NA	Other:	N/A	

INTENT/ PURPOSE OF PROJECT (INITIAL STATEMENT OF ESSENTIAL PROJECT PURPOSE:

The purpose of this project is to reduce the incidence of run off the road crashes, opposite direction sideswipe crashes, and run off the road events that are non-crashes.

Completed FULL SCOPE:	NA	KPI Delta:		KPI UNIT:	

OWN IT: Alternatives

PRELIMINARY ALTERNATIVES THAT ARE CONTEMPLATED (ANALYSED) WITH COSTS:

1. Do nothing.
2. Shoulder widening at select curves. Approximately 6' widening each side of the roadway for the entire length of the radius of the curve in addition to approximtely 50' additional length on the each end of curve. Existing pavement width is approximately 20' (two 10' travel lanes). Guardrail will be replaced at Owl Hollow Road (West Curve). The following small culverts are anticipated to be affected by the widening; they might be replaced or lengthened.

- CLV-86918. Small culvert at Boy Scout Road.
- CLV-86920. Small culvert under SR 42 that is approximately 1100 ft east of Candlestick Corner Road.
- CLV-86927. Small culvert under SR 42 that is approximately 900 ft east of CR 830 W.
- CLV-97881. Small culvert under SR 42 that is approximately 700 ft west of Fertig Road.
- CLV-86932. Small culvert under SR 42 that is approximately 1100 ft east of Fertig Road.
-

outside limits

outside limits and not in the list

Alternative 1 does not meet the need and purpose of the project. **Alternative 2 is the recommended alternative.**

CON
The el lanes.

We received guidance that the intent of the project was to widen the pavement matching the cross slope of the existing pavement. The intent was not to rebuild the existing lanes. Superelevation correction will result in reconstruction of the lanes and that will not meet the safety criteria- partial 3R.

SECONDARY CONSIDERATIONS OR GOALS WITH COSTS:

- The two curves between CR 830 W and Owl Hollow Road only have 170 ft between the widening. Connecting the widening areas at each curve would result in better continuity.
- An on-site field meeting will need to be conducted to determine whether the existing super-elevation for the curves needs to be adjusted with the widening work.
- Drainage structures within the limits of each widening will need to be adjusted, such as lengthened, or replaced. Existing drainage patterns should be perpetuated. Hydraulic design work is anticipated to be needed.
- Utility investigation is needed. Utilities that need to be relocated must be identified and a plan made for their relocation.
- Right of way acquirement is needed. Minimum width of right of way should be to the obstruction free zone or to the horizontal sight line, whichever is wider. Additional width and length may be needed beyond those criteria in case of utility relocation. It is desirable to purchase right of way along the full frontage of each property impacted since most of SR 42 does not have acquired right of way. This will allow for better opportunity for utility relocation and allow maintence to better clear dead tree hazards. Uniform widths are desirable throughout, depending on proximity of fixed assets. Right of way markers should be installed.

Attach extra sheets as necessary to fully describe the alternatives.

Will Further Analysis/Assessment be required beyond this form?	YES

SOLVE IT: Project Recommendations and Costs

QUANTIFIABLE PRIMARY GOAL(S) OF PROJECT (WHAT ARE WE PURCHASING SUCH AS CONDITION, SERVICE LIFE, LOS, OR CRF):

Estimated Total Project Costs:		$2,545,000.00		COMMENTS
Right of Way Purchase (RW1):	YES	COST:	$120,000.00	Right of way acquirement may be more than 0.5 acre.
Right of Way Services (RW2):		COST:		
Preliminary Engineering 1 (PE1):	YES	COST:	$425,000.00	Assumed to be 25% of Construction Cost
Preliminary Engineering 2 (PE2):		COST:		
Maintenance of Traffic:	YES	COST:		Cost included in the construction estimate
Railroad PE (RR1):	NO	COST:		
Railroad PE (RR2):	NO	COST:		
Environmental Study:		COST:		
Utilities PE (UT1):		COST:		
Utilities CN (UT2):		COST:		Utility relocations may be necessary. Designer to determine in conjunction with CPM.
Construction (CN):	YES	COST:	$2,000,000	Funding to be provided through Safety Systemic
Construction Engineering (CE):		COST:		
Relinquishment Payment (RQP):		COST:		
Other Considerations:		COST:		

Other Projects within Limits

DES:	FY:	Work Type:	Location:
DES:	FY:	Work Type:	Location:
DES:	FY:	Work Type:	Location:

Miscellaneous Notes

ANTCIPATED NUMBER OF CONSTRUCTION SEASONS TO COMPLETE(1, 2 or 3 seasons):		1 FY
ANTCIPATED NUMBER OF YEARS TO COMPLETE DESIGN (1, 2 or 3 fiscal years):		1

CALL HISTORY:

Attachments

Pictures			Asset Team Scoring Sheet:		Mobility History:		
Spreadsheets (calcs):			Engineer Assessment:				
Solution Schematic:			Bridge/Culvert Inspection Report:				
Cost Calculations:			Accident History:				
Location Map:			Pathway Data:				

Additional Comments

Other items relevant to the project not specifically listed elsewhere.

Report Prepared By and Approved By

	Report Prepared By and Approved By:	Title:	Signature
Prepared by:	Menna Noureldin	Assistant Traffic Engineer	Menna Noureldin 2/8/2024
Prepared by:	Tim Watson	District Traffic Engineer	Timothy M Watson 2/8/2024
Approval by:	Mike Eubank	Systems Asset Manager	Michael L. Eubank 2/29/2024

NOTE: Any changes require a re-submittal of Call Application Report.

FORM VERSION: 11/7/2014 FORM VERSION BY: Andrew Fitzgerald, PTOE, PE