

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

Road No./County:	State Route (SR) 46 / Owen County
Designation Number(s):	1900370
Project Description/Termini:	SR 46/County Road (CR) 350 East intersection improvements, beginning on SR 46 at a point approximately 505 feet west of the intersection and ending at a point approximately 835 feet east of the intersection.

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

_____	_____
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: Jason A. Stone / DLZ Indiana, LLC

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

Part I – Public Involvement

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

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

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

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

Notice of Entry letters were mailed to potentially affected property owners near the project area on February 1, 2023, notifying them about the project and that individuals responsible for land surveying and field activities may be seen in the area. A sample copy of the Notice of Entry letter is included in Appendix F, 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: Seymour

Local Name of the Facility: SR 46, Concord Road and Flatwoods Road

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

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

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PURPOSE AND NEED:

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

Need:

SR 46 does not currently provide left-turn lanes at the CR 350 East intersection. Most of the crashes that have occurred at this intersection are rear-end and right-angle collisions, which is indicative of conflicts between through vehicles and turning vehicles.

According to INDOT's Road Hazard Assessment Tool (RoadHAT) Crash Data Report, 13 crashes occurred at this intersection from 2017 through 2019. Analyses determined an Index of Crash Frequency (ICF) of 1.78 and an Index of Crash Cost (ICC) of 1.90. Values greater than zero are indicators that this is likely a high-crash intersection in both frequency and severity (Appendix H, pages 6 and 7).

Purpose:

The purpose of this project is to reduce the frequency and severity of crashes at this intersection.

PROJECT DESCRIPTION (PREFERRED ALTERNATIVE):

County: Owen

Municipality: N/A

Limits of Proposed Work:

Along SR 46, from a point approximately 505 feet west of the intersection, to a point approximately 835 feet east of the intersection. Along CR 350 East, from a point approximately 100 feet south of SR 46, to a point approximately 100 feet north of SR 46.

Total Work Length: 0.3 Mile(s)

Total Work Area: 2.54 Acre(s)

Is an Interstate Access Document (IAD)¹ required?

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

Yes ¹	No
	x
Date:	

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

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

The Indiana Department of Transportation (INDOT) and the Federal Highway Administration (FHWA) intend to proceed with a project for improvement of the SR 46 intersection with CR 350 East.

Location:

This project is located on SR 46, approximately three miles east of the Town of Spencer, at the intersection with County Road 350 East, approximately one mile east of SR 43. The project is located in Sections 23, 24, 25, and 26, Township 10N, Range 3W, Washington Township, Owen County, Indiana. Project location graphics are presented as Appendix B, pages 1 – 3.

Existing Conditions:

SR 46 currently provides one 12-foot travel lane in each direction, with approximately 10-foot-wide right-turn lanes at the intersection. The shoulders vary in width throughout the project area. There is additional pavement in the southeast and northwest project quadrants for turns onto SR 46. The CR 350 East approaches to the intersection are approximately 22 to 24 feet wide, with no pavement markings (Appendix H, page 6). Overhead flashers are located at the intersection. The county road approaches are

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stop controlled with red flashers. SR 46 traffic is free flowing with amber flashers.

In addition to CR 350 East, there is one other intersecting roadway within the project area. Lindsay Court intersects the north side of SR 46, at the east project terminus. Within the project area west of the intersection, there are three residential driveways along SR 46, all on the south side of the roadway. One commercial driveway (Dollar General) is located on the north side of the roadway, just west of the west project terminus. There is one residential driveway east of the intersection, on the north side of SR 46. There is one residential Driveway along CR 350 East in the project area located south of SR 46, on the west side of the roadway. The project is located in a rural setting with commercial, residential and agricultural land uses abutting the project area. Project area photographs are presented as Appendix B, pages 4 - 6.

Preferred Alternative:

The preferred alternative will add dedicated left-turn lanes in both the eastbound and westbound directions. Widening will be done to accommodate the left-turn lanes and existing lanes will receive functional mill and overlay. The westbound through lane will be shifted north to provide room for the westbound left-turn lane. Eastbound through and right-turn only lanes will be maintained at their existing location, while the westbound right-turn lane will be eliminated due to the addition of the left-turn and new roadway alignment. The existing overhead flashers and mounting poles will be removed, and new poles and flashers will be installed (Appendix H, page 8). The county road approaches will remain stop controlled with red flashers. SR 46 will remain free flowing with amber flashers.

The existing horizontal alignment along SR 46 will be maintained. Approach work will be needed along CR 350 East to improve turning radii and sight distance. Full depth pavement reconstruction is required for the vertical alignment correction at the intersection to meet 55 mph design speed criteria. Project plan sheets are presented as Appendix B, pages 8 – 13.

The preferred alternative will meet the project purpose and need of reducing the frequency and severity of crashes at this intersection by adding dedicated left turn lanes to the SR 46 intersection approaches, which is estimated to reduce the total crashes at the intersection by 28%.

The project will not result in impacts to wetlands or waterways; therefore, IDEM Section 401/USACE 404 permitting is not anticipated to be required. The project will result in impacts to terrestrial habitat adjacent to the roadway. Refer to the *Terrestrial Habitat* section of this document for additional details. The project requires acquisition of more than 0.5 acre of new permanent right of way. Refer to the *Right of Way* section for additional details. Maintenance of traffic for the project will require a roadway closure and a detour. Refer to the *Maintenance of Traffic* section for additional details. Efforts to avoid, minimize, and/or mitigate project impacts, such as limiting the project's construction footprint to the degree practicable, have been made.

Logical Termini/Independent Utility:

The project begins along SR 46 at a point approximately 505 feet west of the intersection and ends at a point approximately 835 feet east of the intersection. The SR 46 termini are logical, as they were determined by the minimum roadway approach distance required to provide the desired lane configuration at the intersection. West of the intersection, work extends to the Dollar General driveway, where the desired lane configuration currently exists. East of the intersection, the proposed length of approach work was needed to provide an adequate lane taper. The CR 350 East termini are 100 feet north and 100 feet south of SR 46. These termini are logical as they encompass the minimum roadway approach distance needed to provide the improved turning radii and sight distance.

The project has independent utility as this project does not rely on any other project to satisfy its purpose and need.

OTHER ALTERNATIVES CONSIDERED:

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

Do Nothing Alternative:

The Do Nothing Alternative was considered. Under this alternative, no costs would be incurred and there would be no resulting impacts to environmental resources; however, this alternative was discarded from further consideration as it would not meet the project purpose and need of reducing the frequency and severity of crashes and this intersection.

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

It would not correct existing capacity deficiencies;

It would not correct existing safety hazards;

It would not correct the existing roadway geometric deficiencies;

It would not correct existing deteriorated conditions and maintenance problems; or

It would result in serious impacts to the motoring public and general welfare of the economy.

Other (Describe): It would not satisfy the project's purpose and need.

x
x

ROADWAY CHARACTER:

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

Name of Roadway	<u>SR 46</u>			
Functional Classification:	<u>Principal Arterial</u>			
Current ADT:	<u>14,000</u>	VPD (2026)	Design Year ADT:	<u>16,693</u>
Design Hour Volume (DHV):	<u>1,669</u>	Truck Percentage (%)	<u>6</u>	VPD (2046)
Designed Speed (mph):	<u>55</u>	Legal Speed (mph):	<u>55</u>	

	Existing Intersection	Proposed Intersection	
Number of Lanes:	2	2	
Type of Lanes:	One 12-foot through and one 10-foot right turn eastbound and westbound	One through-right and one left turn westbound; one through, one right turn, and one left turn eastbound	
Pavement Width (lanes):	44 ft.	46 ft.	
Shoulder Width:	0 - 4 ft.	2-4 ft.	
Median Width:	N/A ft.	N/A ft.	
Sidewalk Width:	N/A ft.	N/A ft.	

Name of Roadway	<u>CR 350E (Concord Road/Flatwoods Road)</u>			
Functional Classification:	<u>Local Road</u>			
Current ADT:	<u>1,064</u>	VPD (2026)	Design Year ADT:	<u>1,269</u>
Design Hour Volume (DHV):	<u>152</u>	Truck Percentage (%)	<u>3</u>	VPD (2046)
Designed Speed (mph):	<u>40</u>	Legal Speed (mph):	<u>40</u>	

	Existing Intersection	Proposed Intersection	
Number of Lanes:	2	2	
Type of Lanes:	One 11-foot through lane northbound and southbound	One 11-foot through lane northbound and southbound	
Pavement Width (lanes):	11 ft.	11 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:	<input type="checkbox"/> Urban	<input type="checkbox"/> Suburban	<input checked="" type="checkbox"/> Rural
Topography:	<input type="checkbox"/> Level	<input checked="" type="checkbox"/> Rolling	<input type="checkbox"/> Hilly

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BRIDGES AND/OR SMALL STRUCTURE(S):

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

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

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

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.

There is an existing 15-inch diameter corrugated metal pipe (CMP) under a residential property drive on the north side of SR 46, approximately 450 feet east of the intersection. This CMP conveys roadway ditch flow; however, there is no jurisdictional water feature present. This CMP will be removed, and a 15-inch diameter Type 3 pipe will be installed under the reestablished driveway.

No other bridges or small structures are located within the project area.

MAINTENANCE OF TRAFFIC (MOT) DURING CONSTRUCTION:

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

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

The MOT for the project will require two-way traffic to be maintained along SR 46 during the widening and reconstruction operations. Resurfacing operations along SR 46 will be conducted under a one-way moving flagger. CR 350 East will be closed, in two phases. First, the north CR 350 East intersection approach will be closed, and traffic will be routed along Mount Carmel Road, CR 450E and SR 46. This detour will add approximately 1.5 miles to through trips. Second, the south CR 350 East intersection approach will be closed, and traffic will be routed along SR 46, SR 43, Hardscrabble Road, Walden Road and CR 175S. This detour will add approximately 5.1 miles to through trips. MOT plan Sheets are provided as Appendix B, pages 9 and 10.

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. The

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proposed MOT is anticipated to be adequate to accommodate any local special events, festivals and through-traffic dependent businesses.

ESTIMATED PROJECT COST AND SCHEDULE:

Engineering: \$ 318,000.00 (2023) Right-of-Way: \$ 20,000.00 (2024) Construction: \$ 783,000.00 (2026)

Anticipated Start Date of Construction: Spring 2026

RIGHT OF WAY:

Land Use Impacts	Amount (acres)	
	Permanent	Temporary
Residential	0.55	0.19
Commercial	0.09	0
Agricultural	0	0
Forest	0	0
Wetlands	0	0
Other:	0	0
Other:	0	0
TOTAL	0.64	0.19

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 SR 46 right of way (ROW) is approximately 65 feet wide west of the CR 350 East intersection and approximately 60 feet wide east of the intersection (Appendix B, pages 11 - 13), roughly centered on the roadway. The maximum existing ROW width is approximately 65 feet. The maximum proposed ROW width is approximately 128 feet, measured just west of the intersection.

The project requires approximately 0.64 acres of new permanent ROW, consisting of 0.55 acre from residential parcels north (0.42 acre) and south (0.13 acre) of SR 46, and 0.09 acre from a commercial parcel north of the roadway. The new ROW is required for roadway widening to accommodate the proposed turning lanes as well as grading of the roadway slopes. The project also requires acquisition of approximately 0.19 acre of temporary ROW from residential parcels south of the roadway. The temporary ROW is required for grading and driveway reestablishment. The project does not require advance acquisition or easements.

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

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

SECTION A - EARLY COORDINATION:

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

Early coordination letters were sent on May 16, 2023 (Appendix C, pages 1 – 3).

Agency	Date Sent	Date Response Received	Appendix C Page #
Indiana Department of Environmental Management (IDEM)	5/16/2023	No Response	N/A
IDNR Division of Fish and Wildlife (IDNR-DFW)	5/16/2023	6/14/2023	9-10
Indiana Geological and Water Survey (IGWS, On-line)	5/16/2023	5/16/2023	4-5
Natural Resource Conservation Service (NRCS)	5/16/2023	5/17/2023	7-8
National Parks Service (NPS)	5/16/2023	No Response	N/A
US Department of Housing and Urban Development (USHUD)	5/16/2023	No Response	N/A
US Army Corps of Engineers (USACE)	5/16/2023	No Response	N/A
INDOT Aviation Section	5/16/2023	5/16/2023	6
Owen County Surveyor's Office	5/16/2023	No Response	N/A
Owen County Commissioners	5/16/2023	No Response	N/A
Owen County Highway Department	5/16/2023	No Response	N/A
Owen County Sheriff's Department	5/16/2023	No Response	N/A
Owen Valley Volunteer Fire Department	5/16/2023	No Response	N/A
Owen County Soil & Water Conservation District	5/16/2023	No Response	N/A
Owen County Emergency Management Agency	5/16/2023	No Response	N/A
Spencer-Owen Community Schools	5/16/2023	No Response	N/A

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

SECTION B – ECOLOGICAL RESOURCES:

Streams, Rivers, Watercourses & Other Jurisdictional Features

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

Presence

Impacts

Yes No

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

Total stream(s) in project area: N/A Linear feet Total impacted stream(s): N/A 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)

Describe all streams, rivers, watercourses and other jurisdictional features adjacent or within the project area. Include whether or not

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impacts (both permanent and temporary) will occur to the features identified. Include if the streams or rivers are listed on any federal or state lists for Indiana. Include if features are likely subject to federal or state jurisdiction. Discuss measures to avoid, minimize, and mitigate if impacts will occur.

Based on the desktop review, the aerial map of the project area (Appendix B, page 3), and the RFI report (Appendix E, page 2), there are three streams, rivers, watercourse, or other jurisdictional features within the 0.5-mile search radius. There are no streams, rivers, watercourse, or other jurisdictional features within or adjacent to the project area, which was confirmed by the site visit on June 6, 2023, by DLZ Indiana, LLC (DLZ). Therefore, no impacts are expected.

Open Water Feature(s)

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

Presence

x

Impacts

Yes	No
	x

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 (Appendix B, page 3), and the RFI report (Appendix E, page 2), there are ten open water lake features within the 0.5-mile search radius. The RFI noted one open water lake feature within or adjacent to the project area. That number was updated by the site visit on June 6, 2023, by DLZ. Two open water lake features are adjacent to the east project terminus.

One open water lake feature is located north of SR 46, approximately 100 feet from the east project terminus. The other open water lake feature is located south of the roadway, approximately 200 feet from the project's easterly terminus. These features are beyond the project's construction limits as well as the limits of proposed new right of way; therefore, the project has no potential to cause impacts. It was determined through coordination with the INDOT Ecology, Waterway Permitting and Stormwater Office (EWPSO) that preparation of a Waters of the U.S. Report was not warranted (Appendix C, page 12).

Wetlands

Presence

x

Impacts

Yes	No
	x

Total wetland area: N/A Acre(s) Total wetland area impacted: N/A 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)

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Wetlands (Mark all that apply)

- Wetland Determination
- Wetland Delineation
- USACE Isolated Waters Determination

Documentation

ESD Approval Dates

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

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

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

Based on the desktop review, the aerial map of the project area (Appendix B, page 3), and the RFI report (Appendix E, page 2), there are 16 wetland features within the 0.5-mile search radius. The RFI noted one wetland feature within or adjacent to the project area. That number was updated by the site visit on June 6, 2023, by DLZ. Two wetland features are adjacent to the east project terminus.

The locations of these wetlands coincide with the locations of the above-noted open water features. The wetlands are beyond the project's construction limits as well as the limits of proposed new right of way; therefore, the project has no potential to cause impacts. It was determined through coordination with the INDOT Ecology, Waterway Permitting and Stormwater Office (EWPSO) that preparation of a Waters of the U.S. Report was not warranted (Appendix C, page 12).

Terrestrial Habitat

Presence

x

Impacts

Yes	No
x	

Total terrestrial habitat in project area: 0.87 Acre(s) Total tree clearing: 0.01 Acre(s)

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

Based on a desktop review, a site visit on June 6, 2023, by DLZ and the aerial map of the project area (Appendix B, page 3), there are maintained roadside slopes and mowed lawns vegetated with grass species, agricultural fields and small clumps of trees within the project area. The project requires disturbance to approximately 0.87 acre of terrestrial habitat, consisting of approximately 0.66 acre of maintained lawn, 0.20 acre of grassed roadway slope, and approximately 0.01 acre of tree removal.

The dominant grass species present in the affected roadside slopes and lawn are smooth brome (*Bromus inermis*), giant foxtail (*Setaria faberi*) and tall fescue (*Schedonorus arundinaceus*). The dominant tree species present is silver maple (*Acer saccharinum*). The impacts to terrestrial habitat are the result of roadway widening to accommodate the proposed turning lanes as well as grading of the roadway slopes. Impacts have been minimized by keeping work contained to the area necessary for the proposed construction. These impacts are necessary to achieve the proposed construction; therefore, avoiding the impacts is not practicable. Rehabilitation of disturbed areas shall be accomplished per the current INDOT Standard Specifications. Mitigation is not anticipated to be required.

IDNR-DFW responded on June 14, 2023, with recommendations pertaining to revegetation of disturbed areas and seasonal tree clearing restrictions and minimization of tree and brush clearing (Appendix C, pages 9 and 10).

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

Protected Species

Federally Listed Bats

Information for Planning and Consultation (IPaC) determination key completed

Section 7 informal consultation completed (IPaC cannot be completed)

Section 7 formal consultation Biological Assessment (BA) required

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

Determination Received for Listed Bats from USFWS: NE NLAA LAA

Other Species not included in IPaC

Additional federal species found in project area (based on IPaC species list)

State species (not bird) found in project area (based upon consultation with IDNR)

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

Migratory Birds

Known usage or presence of birds (i.e. nests)

State bird species based upon coordination with IDNR

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

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

Based on a desktop review and the RFI report (Appendix E, page 4) completed by DLZ on May 16, 2023, the IDNR Owen County Endangered, Threatened and Rare (ETR) Species List has been checked. According to the IDNR-DFW early coordination response letter dated June 14, 2023 (Appendix C, page 9), the Natural Heritage Program’s Database has been checked. IDNR-DFW did not indicate plant or animal species listed as state or federally threatened, endangered, being reported to occur in the project vicinity. An INDOT 0.5-mile bat review occurred on December 19, 2022. The review did not indicate the presence of endangered bat species in or within 0.5 mile of the project area.

Project information was submitted through the USFWS’s Information for Planning and Consultation (IPaC) portal, and an official species list was generated (Appendix C, pages 13 - 25). The project is within range of the federally endangered Indiana bat (*Myotis sodalis*) and the federally threatened northern long-eared bat (NLEB) (*Myotis septentrionalis*). Other species were generated in the IPaC species list along with the Indiana bat and northern long-eared bat.

The official species list generated from IPaC indicated three other species present within the project area: the federal proposed endangered tricolored bat (*Perimyotis subflavus*), the experimental population whooping crane (*Grus americana*) and the federal candidate species monarch butterfly (*Danaus plexippus*). Because these species are not currently listed as threatened or endangered, no determinations of effect or further coordination are required at this time.

The project qualifies for the *Range-wide Programmatic Informal Consultation for the Indiana bat and northern long-eared bat (NLEB)*, dated May 2016 (revised February 2018), between FHWA, Federal Railroad Administration (FRA), Federal Transit Administration (FTA), and USFWS. A culvert inspection occurred on January 22, 2024 and no bats/birds or signs of bats/birds using the structure were found (Appendix C, page 26). An effect determination key was completed on January 23, 2024, and based on the responses provided, the project was found to “May Affect – Not Likely to Adversely Affect” the Indiana bat and/or the NLEB (Appendix C, pages 27 – 42). INDOT reviewed and verified the effect finding on May 12, 2023, and requested USFWS’s review of the finding. This project includes avoidance and minimization measures (AMMs) pertaining to tree removal, contractor awareness, hibernacula and lighting. AMMs and/or commitments are included as firm commitments in the *Environmental Commitments* section of this document.

USFWS Bridge/Structure Assessment are only valid for two years. If construction will begin after January 22, 2026, an inspection of the structure by a qualified individual, must be performed. Inspection of the structure should check for presence of bats/bat indicators and/or presence of birds. The results of the inspection must indicate no signs of bats or birds. If signs of bats or birds are documented during this inspection, the INDOT District Environmental Manager must be contacted immediately. This firm commitment is included in the *Environmental Commitments* section of this document.

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

Geological and Mineral Resources

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

Yes	No
x	
x	
	x

Date Karst Evaluation reviewed by INDOT EWPO (if applicable): N/A

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

Based on a desktop review and the Indiana Karst Region map, the project is located in the designated Indiana Karst Region as outlined in the most current *Protection of Karst Features during Project Development and Construction*. According to the topo map of the project area (Appendix B, page 2) and the RFI report (Appendix E, page 2), there are karst features identified within or adjacent to the project area. The RFI Water Resources graphic shows a sinkhole area located approximately 100 feet north of the project area at the closest point, along SR 46, east of the intersection. The project involves widening the SR 46 roadway approximately six feet (maximum) to the north, with associated regrading of the existing roadway slopes. Drainage patterns will not be altered. Based on the June 6, 2023, site visit, no karst features are located within the proposed construction limits or new ROW. No impacts are expected.

INDOT's Ecology and Waterway Permitting Office (EWPO) determined that *Recurring Special provision (RSP) 203-R-744*, which pertains to the definition, identification and treatment of karst features discovered within the construction limits, will be adhered to (Appendix C, page 41). Adherence to this RSP is included as a firm commitment in the *Environmental Commitments* section of this document.

In the early coordination response dated May 16, 2023, the IGWS indicated the potential presence of karst features in the project area (Appendix C, page 4).

The IGWS Environmental Assessment Report indicated the following in the general project vicinity:

- Geological Hazards: potential karst, high liquefaction potential, 1% annual chance flood hazard
- Bedrock Resources: low potential
- Sand and Gravel Resources – low potential
- Active or abandoned mineral resources extraction sites: none documented in the area.

The features will not be affected because appropriate soils investigations will be conducted to assess the soils in the project area, and the project will be designed accordingly. The project will be designed to comply with RSP 203-R-744. The project involves sign installation, a minor roadway pavement widening and restriping. The project does not include excavation at a depth which could affect geological hazards or mineral resources. Response from IGWS has been communicated to the designer on September 20, 2023. No impacts are expected.

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SECTION C – OTHER RESOURCES

Drinking Water Resources

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

Presence

x

Impacts

Yes	No
	x

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

Yes	No
	x

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

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

The Indiana Department of Environmental Management's Wellhead Proximity Determinator website (<http://www.in.gov/idem/cleanwater/pages/wellhead/>) was accessed on April 28, 2023, by DLZ. This project is not located within a Wellhead Protection Area or Source Water Area. No impacts are expected.

The Indiana Department of Natural Resources Water Well Record Database website (<https://www.in.gov/dnr/water/3595.htm>) was accessed on September 20, 2023, by DLZ. A well is located in the southwest project quadrant. The feature will not be affected because it is located outside of the project's proposed ROW and construction limits. Therefore, no impacts are expected. Should it be determined during the right-of-way phase that these wells will be affected, a cost to cure will likely be included in the appraisal to restore the wells.

Based on a desktop review of INDOT's Road Inventory and Functional Class Viewer (<https://indot.maps.arcgis.com/apps/webappviewer/index.html?id=bfe9a3dede034fb588266593246342b8>) by DLZ on September 20, 2023, this project is not located in an Urban Area Boundary. No impacts are expected.

Based on a desktop review, a site visit on June 6, 2023, by DLZ and the aerial map of the project area (Appendix B, page 3), this project is located where there is a public water system. Water mains run along SR 46 and CR 350 East within the project area. The public water system will not be negatively affected because relocation of water utilities has been planned for in the development of this project's design. No disruptions in water service are anticipated. Utility coordination has been initiated and will continue as the project is developed.

Floodplains

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

Presence

Impacts

Yes	No

If applicable, indicate the Floodplain Level?

Level 1 Level 2 Level 3 Level 4 Level 5

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

The Indiana Department of Natural Resources Indiana Floodway Information Portal website (<http://dnrmaps.dnr.in.gov/appsphp/fdms/>) was accessed on September 14, 2023, by DLZ. This project is not located in a regulatory floodplain as determined from approved IDNR floodplain maps (Appendix B, page 7). Therefore, it does not fall within the guidelines for the implementation of 23 CFR 650, 23 CFR 771, and 44 CFR. No impacts are expected.

Farmland	Presence	Impacts	
		Yes	No
Agricultural Lands	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Prime Farmland (per NRCS)	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
 Total Points (from Section VII of CPA-106/AD-1006*)	 <u>147</u>		
<i>*If 160 or greater, see CE Manual for guidance.</i>			

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

Based on a desktop review, a site visit on June 6, 2023, by DLZ and the aerial map of the project area (Appendix B, page 3), the project will convert 0.64 acre of farmland as defined by the Farmland Protection Policy Act. An early coordination letter was sent on May 16, 2023, to NRCS. Coordination with NRCS resulted in a score of 147 on the (NRCS-AD 1006 Form) (Appendix C, page 8). 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

Minor Projects PA	Category(ies) and Type(s) <input type="text" value="Category B, Types 3 and 9"/>	INDOT Approval Date(s) <input type="text" value="August 28, 2023"/>	N/A <input type="text"/>
Full 106 Effect Finding	No Historic Properties Affected <input type="checkbox"/>	No Adverse Effect <input type="checkbox"/>	Adverse Effect <input type="checkbox"/>
Eligible and/or Listed Resources Present	NRHP Building/Site/District(s) <input type="checkbox"/>	Archaeology <input type="checkbox"/>	NRHP Bridge(s) <input type="checkbox"/>

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Documentation Prepared (mark all that apply)

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

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

ESD Approval Date(s)

<input type="text"/>
<input type="text"/>
<input type="text"/>
<input type="text"/>
<input type="text"/>
<input type="text"/>
<input type="text"/>

SHPO Approval Date(s)

<input type="text"/>
<input type="text"/>
<input type="text"/>
<input type="text"/>
<input type="text"/>
<input type="text"/>
<input type="text"/>

Memorandum of Agreement (MOA)

MOA Signature Dates (List all signatories)

<input type="text"/>

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

On August 28, 2023, the INDOT Cultural Resource Office (CRO) determined that this project falls within the guidelines of Category B, Types 3 and 9 under the Minor Projects Programmatic Agreement, (Appendix D, pages 3 and 4). Category B, Type 3 projects include construction of added travel, turning, or auxiliary lanes (e.g., bicycle, truck climbing, acceleration, and deceleration lanes) and shoulder widening. Category B, Type 9 projects include installation, replacement, repair, lining, or extension of culverts and other drainage structures. An archaeological survey was required. No archaeological sites were previously recorded within the project area. No archaeological resources were documented as a result of the survey and no additional investigation was recommended (Appendix D, page 12). No further consultation is required. This completes the Section 106 process and the responsibilities of the FHWA under Section 106 have been fulfilled.

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

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

Evaluations Prepared

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

Discuss Programmatic Section 4(f) and “de minimis” Section 4(f) impacts in the discussion below. Individual Section 4(f) documentation must be included in the appendix and summarized below. Discuss proposed alternatives that satisfy the requirements of Section 4(f).

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FHWA has identified various exceptions to the requirement for Section 4(f) approval. Refer to 23 CFR § 774.13 - Exceptions.

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

Based on a desktop review, the aerial map of the project area (Appendix B, page 3) and the RFI report (Appendix E, page 2), there is one potential 4(f) resource located within the 0.5-mile search radius: McCormick's Creek State Park. According to additional research, and by the site visit on June 6, 2023, by DLZ, there are no Section 4(f) resources within or adjacent to the project area. Therefore, no use is expected.

Note that McCormick's Creek State Park is accessed from SR 46, approximately 1.2 miles west of the project area. SR 46 traffic will be maintained during construction. The project will not affect access to the State Park.

Section 6(f) Involvement

Presence

Use

Section 6(f) Property

Yes

No

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

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

A review of 6(f) properties on the INDOT ESD website revealed a total of 12 projects in two properties in Owen County (Appendix H, page 1). None of these properties are located within or adjacent to the project area. Therefore, there will be no impacts to 6(f) resources.

SECTION F – Air Quality

STIP/TIP and Conformity Status of the Project

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

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

Location in STIP: FY 2024-2028 State Preservation and Local initiated Project Listing, page 152

Name of MPO (if applicable): N/A

Location in TIP (if applicable): N/A

Level of MSAT Analysis required?

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

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

This project is included in the Fiscal Year (FY) 2024-2028 Statewide Transportation Improvement Program (STIP) (Appendix G, page 1).

This project is located in Owen County, which is currently in attainment for all criteria pollutants according to IDEM's on-line list of regulated criteria pollutants for Indiana counties (https://www.in.gov/idem/sips/files/nonattainment_county_list.pdf). Therefore, the conformity procedures of 40 CFR Part 93 do not apply.

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

SECTION G - NOISE

Noise

Yes

No

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

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

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

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

SECTION H – COMMUNITY IMPACTS

Regional, Community & Neighborhood Factors

Yes

No

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

x	
----------	--

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

	x
--	----------

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

	x
--	----------

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

	x
--	----------

Does the community have an approved transition plan?

x	
----------	--

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

--	--

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

x	
----------	--

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

The project is located in an agricultural setting with sparse residential development. No community features are present in the project area. The project is not anticipated to impact community or neighborhood cohesion, the local tax base, property values, public facilities, community centers, community plans or other important resources. No negative community impacts are anticipated.

Coordination has occurred with Owen County during the planning process. Because there are no pedestrian facilities in the project area and no new pedestrian facilities are proposed, it was determined that this project will not be affected by the Owen County Americans with Disabilities Act (ADA) Transition Plan.

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Public Facilities and Services

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

Based on a desktop review, the aerial map of the project area (Appendix B, page 3), and the RFI report (Appendix E, page 2), there are four public facilities within the 0.5-mile search radius. There are no public facilities within or adjacent to the project area, which was confirmed by the site visit on June 6, 2023, by DLZ. Therefore, no impacts are expected. Access to all properties will be maintained during construction.

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

The INDOT Office of Aviation responded on May 16, 2023 (Appendix C, page 6) indicating that no tall structure permit is required for the project if all equipment being used is under 200 feet in height. No object used for this project will exceed 200 feet in height.

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

Environmental Justice (EJ) (Presidential EO 12898)

During the development of the project were EJ issues identified?

Does the project require an EJ analysis?

If YES, then:

Are any EJ populations located within the project area?

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

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

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

Under FHWA Order 6640.23A, FHWA and the project sponsor, as a recipient of funding from FHWA, are responsible to ensure that their programs, policies, and activities do not have a disproportionately high and adverse effect on minority or low-income populations. Per the current INDOT Categorical Exclusion Manual, an Environmental Justice (EJ) Analysis is required for any project that has two or more relocations or 0.5 acre of additional permanent right-of-way. The project will not require relocations; however, the project will require acquisition of approximately 0.64 of new permanent right of way. Therefore, an EJ Analysis is required.

Potential EJ impacts are detected by locating minority and low-income populations relative to a reference population to determine if populations of EJ concern exist and whether there could be disproportionately high and adverse impacts to them. The reference population may be a county, city or town and is called the community of comparison (COC). In this project, the COC is Owen County, Indiana. The community that overlaps the project area is called the affected community (AC). In this project, the AC is comprised of Census Tracts 9558 and 9559. 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 was obtained from the US Census Bureau (<https://data.census.gov/>) on September 20, 2023, by DLZ. The data collected for minority and low-income populations within the AC are summarized in the below table.

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Table: Minority and Low-Income Data (2021 ACS Five Year Estimates)			
	COC – Owen County, Indiana	AC-1 - Census Tract 9558	AC-2 - Census Tract 9559
Percent Minority	4.30	9.48	1.80
125% of COC	5.38	AC > 125% COC	AC < 125% COC
EJ Population of Concern		Yes	No
Percent Low-Income	14.25	10.36	9.20
125% of COC	17.81	AC < 125% COC	AC < 125% COC
EJ Population of Concern		No	No

AC-1, Census Tract 9558 has a percent minority of 9.48 which is below 50% and above the 125% COC threshold. Therefore, AC-1 is a minority population of EJ concern. AC-2, Census Tract 9559 has a percent minority of 1.80 which is below 50% and below the 125% COC. Therefore, AC-2 is not a minority population of EJ concern.

AC-1, Census Tract 9558 has a percent low-income of 10.36 which is below 50% and below the 125% COC threshold. Therefore, AC-1 is not a low-income population of EJ concern. AC-2, Census Tract 9559 has a percent low-income of 9.20 which is below 50% and below the 125% COC. Therefore, AC-2 is not a low-income population of EJ concern.

Conclusion

The census data sheets, map, and calculations can be found in Appendix H. The project will require acquisition of approximately 0.64 acre of adjacent land for right of way and will not require any relocations. The required right of way consists of minor strip takes along the edges of the roadways and no community features will be impacted. Access to all abutting properties will be maintained during construction. Two lanes of SR 46 traffic will be maintained at all times during construction. CR 350 East traffic will be detoured. North of the intersection, CR 350 East traffic will be detoured utilizing Mt. Carmel Road, CR 450 East and SR 46. This detour will add approximately 1.5 miles to through trips. South of the intersection, CR 350 east traffic will be detoured utilizing South Walden Road, Hardscrabble Road, SR 43 and SR 46. This detour will add approximately 5.1 miles to through trips. The detours will affect EJ and non-EJ populations equally. Aside from short-term inconveniences during construction, the project will not disrupt community cohesion or negatively affect existing linkages between neighborhoods within or beyond the project area. Safety conditions for motorists will be improved.

INDOT-ESD has reviewed the project information along with the EJ Analysis for the above referenced project (Appendix H, page 12). With the information provided, the project may require minimal right-of-way, require no relocations, and would not disrupt community cohesion or create a physical barrier. With the information provided, INDOT-ESD would not consider the impacts associated with this project as causing a disproportionately high and adverse effect on minority and/or low-income populations of EJ concern relative to non-EJ populations in accordance with the provisions of Executive Order 12898 and FHWA Order 6640.23a. No further EJ Analysis is required.

Relocation of People, Businesses or Farms

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

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

Number of relocations: Residences: 0 Businesses: 0 Farms: 0 Other: N/A

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

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

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SECTION I – HAZARDOUS MATERIALS & REGULATED SUBSTANCES

Hazardous Materials & Regulated Substances (Mark all that apply)

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

Documentation

x

Date RFI concurrence by INDOT SAM (if applicable): May 16, 2023

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

Based on a review of GIS and available public records, the RFI was completed on May 16, 2023, by DLZ, and INDOT SAM provided their concurrence on May 16, 2023 (Appendix E, page 5). One National Pollutant Discharge Elimination System (NPDES) pipe location is located within 0.5 mile of the project area. None of the hazmat sites identified will impact the project. Further investigation for hazardous material concerns is not required at this time.

Part IV – Permits and Commitments

PERMITS CHECKLIST

Permits (mark all that apply)

Likely Required

Army Corps of Engineers (404/Section10 Permit)

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

IN Department of Environmental Management (401/Rule 5)

- Nationwide Permit (NWP)
- Regional General Permit (RGP)
- Individual Permit (IP)
- Isolated Wetlands
- Construction Stormwater General Permit
- 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."

The project will impact more than one acre of ground surface; therefore, a Construction Stormwater General Permit is likely to be required.

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Route SR 46

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

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

ENVIRONMENTAL COMMITMENTS

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

Firm:

1. If the scope of work or permanent or temporary right-of-way amounts change, the INDOT Environmental Services Division (ESD) and the INDOT District Environmental Section will be contacted immediately. (INDOT ESD and Seymour 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. Any work in a wetland area within right-of-way or in borrow/waste areas is prohibited unless specifically allowed in the U.S. Army Corps of Engineers permit. (INDOT ESD)
4. USFWS Bridge/Structure Assessment are only valid for two years. If construction will begin after January 22, 2026, an inspection of the structure by a qualified individual, must be performed. Inspection of the structure should check for presence of bats/bat indicators and/or presence of birds. The results of the inspection must indicate no signs of bats or birds. If signs of bats or birds are documented during this inspection, the INDOT District Environmental Manager must be contacted immediately. This firm commitment is included in the Environmental Commitments section of this document. (INDOT ESD)
5. The following RSP will be adhered to:
203-R-744 DISCOVERY OF KARST FEATURES WITHIN THE CONSTRUCTION LIMITS (Adopted 10-21-21)
Karst features include, but are not limited to, voids in the ground, caves, sinking streams, springs, seeps, and sinkholes. If a potential karst feature is discovered during construction, all work within 100 ft of the feature shall immediately stop and the Engineer shall be notified. The Engineer will suspend all work in this area in accordance with 104.02(b). The Engineer will notify the Department's Geotechnical Engineering Division and the Ecology and Waterway Permitting Group. The Department will provide the treatment measures to address the karst feature. The karst feature shall be protected from sedimentation runoff in accordance with 205. Work shall not resume in the area until directed by the Engineer. (INDOT EWPSO)
6. A tall structure permit is required for the project if equipment being used exceeds 200 feet in height. (INDOT Aviation Office)
7. GENERAL AMM 1 - Ensure all operators, employees, and contractors working in areas of known or presumed bat habitat are aware of all FHWA/FRA/FTA (Transportation Agencies) environmental commitments, including all applicable AMMs. (USFWS)
8. LIGHTING AMM 1 - Direct temporary lighting away from suitable habitat during the active season. (USFWS)
9. TREE REMOVAL AMM 1 - Modify all phases/aspects of the project (e.g., temporary work areas, alignments) to avoid tree removal. (USFWS)
10. TREE REMOVAL AMM 2 - Apply time of year restrictions for tree removal when bats are not likely to be present, or limit tree removal to 10 or fewer trees per project at any time of year within 100 feet of existing road/rail surface and outside of documented roosting/foraging habitat or travel corridors; visual emergence survey must be conducted with no bats observed. (USFWS and IDNR-DFW)
11. TREE REMOVAL AMM 3 - Ensure tree removal is limited to that specified in project plans and ensure that contractors understand clearing limits and how they are marked in the field (e.g., install bright colored flagging/fencing prior to any tree clearing to ensure contractors stay within clearing limits). (USFWS)
12. TREE REMOVAL AMM 4 - Do not remove documented Indiana bat or NLEB roosts that are still suitable for roosting, or trees within 0.25 miles of roosts, or documented foraging habitat any time of year. (USFWS)
13. HIBERNACULA AMM 1 - For projects located within karst areas, on-site personnel will use best management practices, secondary containment measures, or other standard spill prevention and countermeasures to avoid impacts to possible hibernacula. Where practicable, a 300 foot buffer will be employed to separate fueling areas and other major containment risk activities from caves, sinkholes, losing streams, and springs in karst topography. (USFWS)

For Further Consideration:

N/A

**Level 2 Categorical Exclusion
SR 46 Intersection Improvement Project, 1.0 Mile East of SR 43 in Owen County
Des. No. 1900370
Indiana Department of Transportation**

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APPENDIX A

INDOT Supporting Documentation



SR 46 Intersection Improvement Project
SR 46 & CR 350E, 1.0 Mile East of SR 43
Owen County, INDOT Seymour District
Des. No.: 1900370

Categorical Exclusion Level Thresholds

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

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

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

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

⁴ US Army Corps of Engineers Individual 404 Permit

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

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

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

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

⁹ Potential for causing a disproportionately high and adverse impact.

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

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

* Includes the threatened/endangered species critical habitat

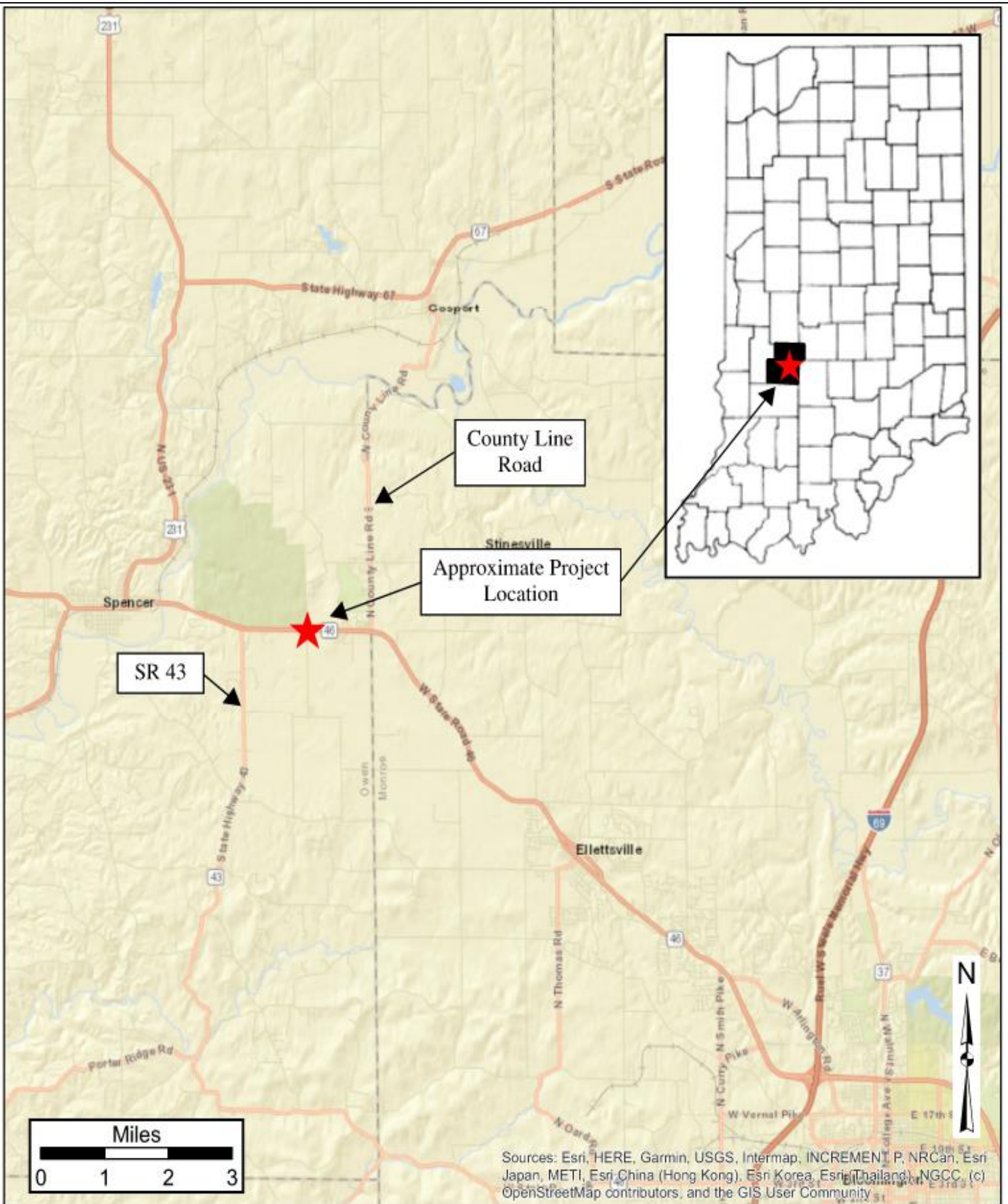
Note: Substantial public or agency controversy may require a higher-level NEPA document.

APPENDIX B

Graphics



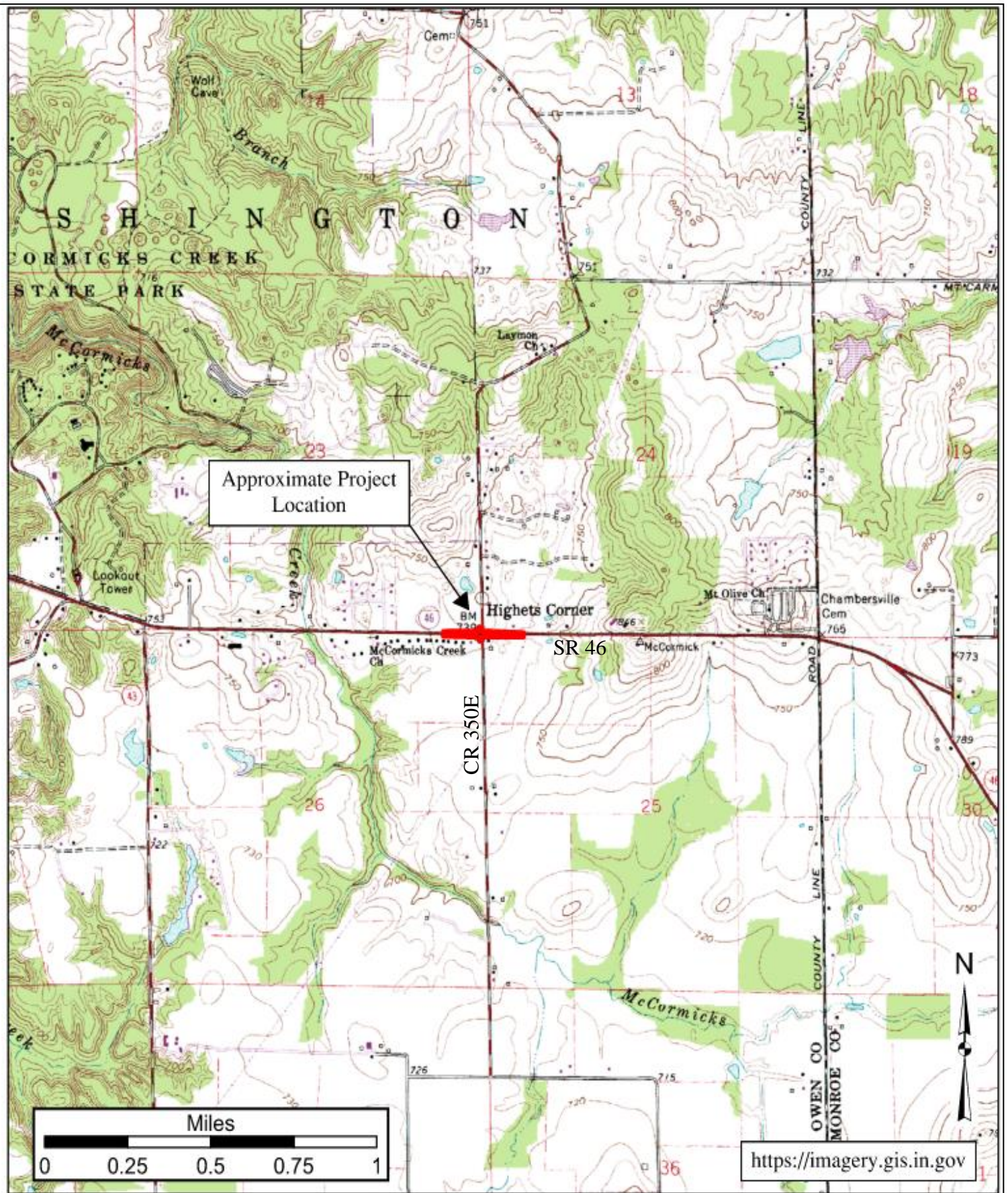
SR 46 Intersection Improvement Project
SR 46 & CR 350E, 1.0 Mile East of SR 43
Owen County, INDOT Seymour District
Des. No.: 1900370



SR 46 Intersection Improvement Project
 SR 46 & CR 350E, 1.0 Mile East of SR 43
 Owen County, INDOT Seymour District
 Des. No.: 1900370

Scale: 1" = 10,500'

Project Location



SR 46 Intersection Improvement Project
 SR 46 & CR 350E, 1.0 Mile East of SR 43
 Owen County, INDOT Seymour District
 Des. No.: 1900370

Scale: 1" = 2,000'

USGS Topographic Map



September 19, 2020 GoogleEarth Imagery



SR 46 Intersection Improvement Project
 SR 46 & CR 350E, 1.0 Mile East of SR 43
 Owen County, INDOT Seymour District
 Des. No.: 1900370

Scale: 1" = 1,075'

Aerial Photo



SR 46 Intersection Improvement Project
 SR 46 & CR 350E, 1.0 Mile East of SR 43
 Owen County, INDOT Seymour District
 Des. No.: 1900370

Scale: 1" = 250'

Aerial Photo & Photo Key



Photo 1: View looking northerly along CR 350E towards SR 46 intersection.



Photo 2: View looking southerly along CR 350E towards SR 46 intersection.



SR 46 Intersection Improvement Project
SR 46 & CR 350E, 1.0 Mile East of SR 43
Owen County, INDOT Seymour District
Des. No.: 1900370

Site Photos
4/26/2022



Photo 3: View looking easterly along SR 46 towards CR 350E intersection.

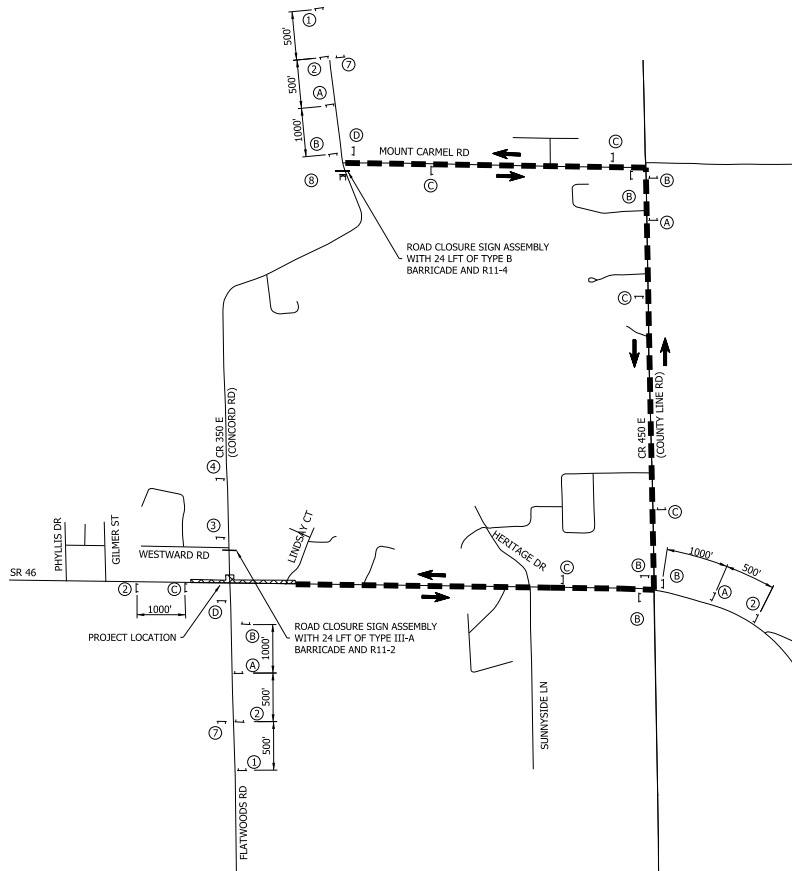


Photo 4: View looking westerly along SR 46 towards CR 350E intersection.



SR 46 Intersection Improvement Project
SR 46 & CR 350E, 1.0 Mile East of SR 43
Owen County, INDOT Seymour District
Des. No.: 1900370

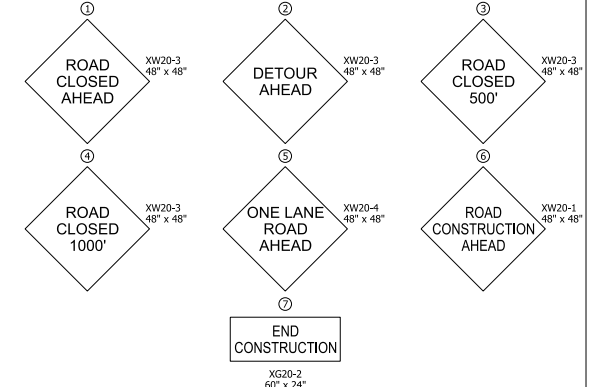
Site Photos
4/26/2022



DETOUR ROUTE MARKER ASSEMBLY

(A)	(B)
DETOUR XM4-8 24" x 12"	DETOUR XM4-8 24" x 12"
NORTH M3-1 TO M3-4 24" x 12"	NORTH M3-1 TO M3-4 24" x 12"
ROAD NAME 6" SERIES D BLACK LEGEND ON WHITE BACKGROUND	ROAD NAME 6" SERIES D BLACK LEGEND ON WHITE BACKGROUND
M5-1 (L OR R/S) 21" x 15"	M6-1S 21" x 15"
(C)	(D)
DETOUR XM4-8 24" x 12"	END XM4-6S 24" x 12"
NORTH M3-1 TO M3-4 24" x 12"	DETOUR XM4-8 24" x 12"
ROAD NAME 6" SERIES D BLACK LEGEND ON WHITE BACKGROUND	ROAD NAME 6" SERIES D BLACK LEGEND ON WHITE BACKGROUND
M6-3S 21" x 15"	M5-1 (L OR R/S) 21" x 15"

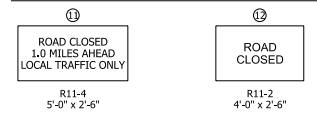
CONSTRUCTION SIGNS, TYPE "A"



CONSTRUCTION SIGNS, TYPE "B"



ROAD CLOSURE SIGN ASSEMBLIES



CONSTRUCTION SIGN SCHEDULE	
ITEM	TOTALS
TYPE 'A' SIGN	
XW20-1	EACH
XW20-3	8 EACH
XW20-4	EACH
XG20-2	2 EACH
TOTAL TYPE 'A' SIGN	10 EACH
TYPE 'B' SIGN	
XM4-10 (L)	1 EACH
XM4-10 (R)	EACH
TOTAL TYPE 'B' SIGN	1 EACH
ROAD CLOSURE SIGN ASSEMBLY	2 EACH
TYPE III-A BARRICADE	24 LFT
TYPE III-B BARRICADE	24 LFT

DETOUR ROUTE - SIGNS AND MARKERS

SCALE: Not to Scale

GENERAL NOTES

1. Exact sign locations to be field determined.
2. Contractor to erect and maintain all signs and barricades.
3. Access to all properties shall be maintained by the contractor at all times.
4. Detour route marker assemblies shall be in accordance with standard drawing E801-TCDDT-01 rural detour.
5. Type B construction warning lights shall be used with all signs located at barricades.
6. Type A construction warning lights shall be used at all other construction signs.

LEGEND

- Project Location
- Barricade
- Road Closure Sign Assembly
- Typical Construction Sign Standard
- Detour Route Marker Assembly
- Detour Route



NOT FOR CONSTRUCTION
 DLZ INDIANA, LLC

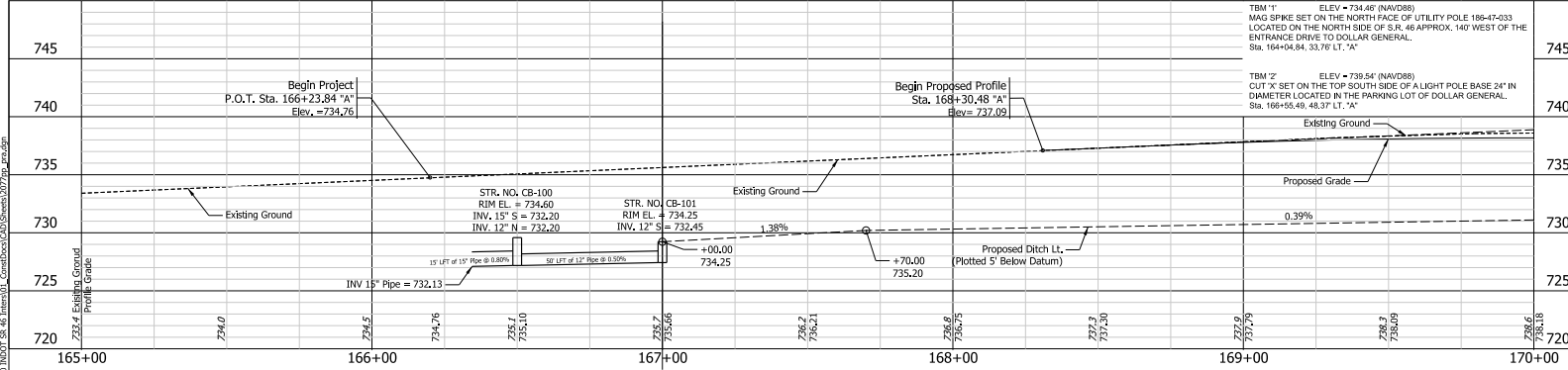
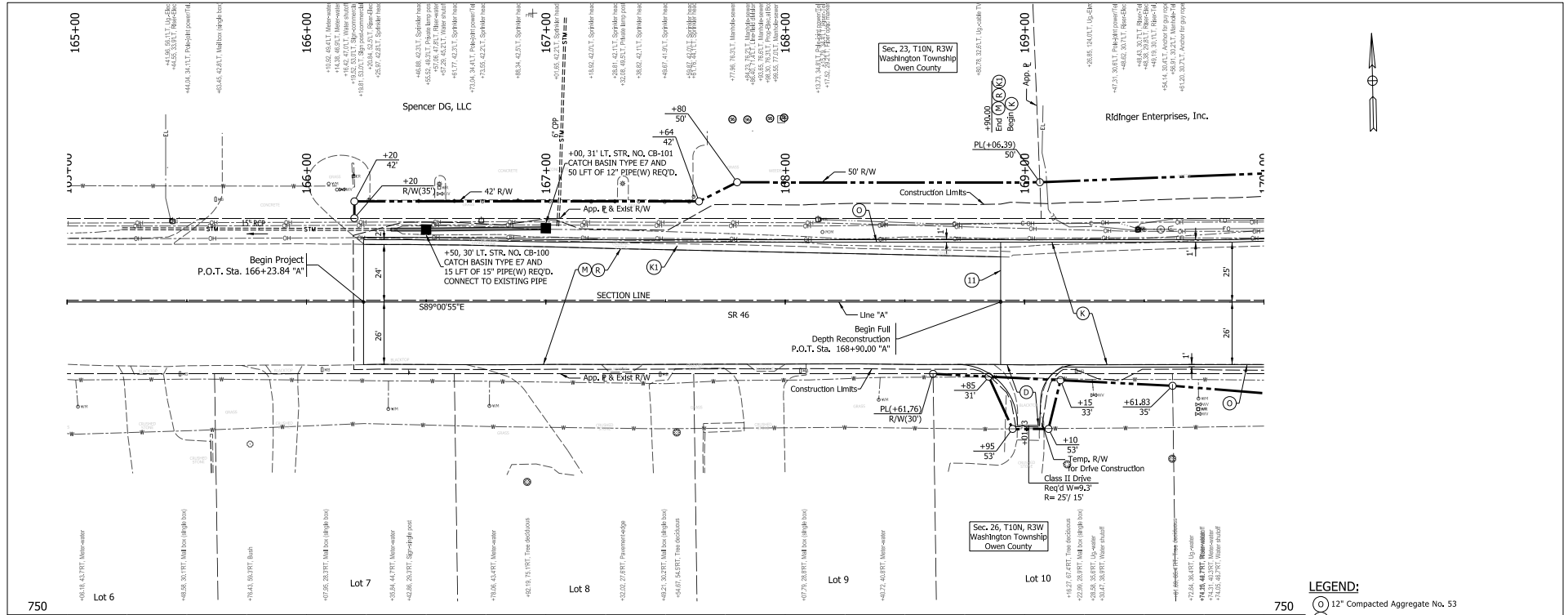
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DESIGNED: AMH 5/2023	DRAWN: DPH 5/2023	
CHECKED: FS 5/2023	CHECKED: AMH 5/2023	

INDIANA
DEPARTMENT OF TRANSPORTATION

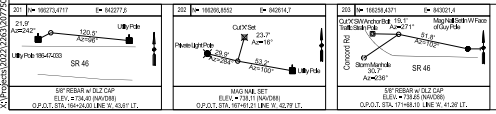
DETOUR ROUTE
PHASE 1B

SCALE	IMPROVEMENT
AS NOTED	
DESIGNATION	
1900370	
SHEETS	
10 of 35	
CONTRACT	PROJECT
R-43754	1900370

17 2023
 C:\Users\jacob.0202\OneDrive\Documents\CAD\Sheets\00779115.dgn



- LEGEND:**
- (O) 12" Compacted Aggregate No. 53
 - (D) HMA for Approaches Type B:
 - (K) HMA Pavement to be:
 - (K1) HMA Wearing to be:
 - (M) Milling, Asphalt, 2 IN.
 - (R) 220 lbs/syd QC/QA-HMA 3, 70, Surface 9.5 mm
 - (1) Sawcut
 - (26) Seed Mixture, R
 - (29) Remove
- Notes:**
- All topography described from Line "A".
 - All R/W described from Line "A" Unless Noted Otherwise.
 - Line "A" to be constructed.



NOT FOR CONSTRUCTION

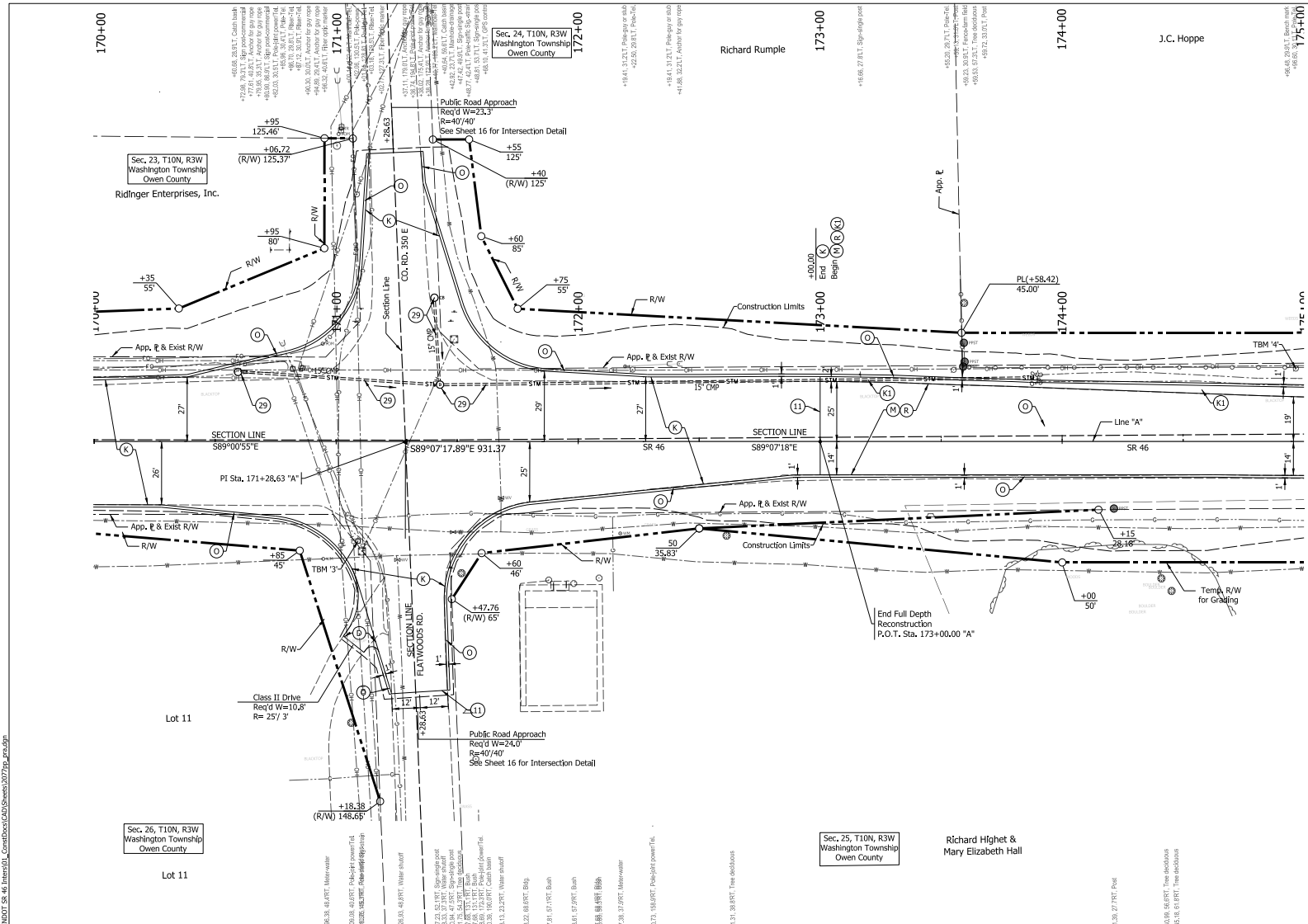
DLZ INDIANA, LLC

DESIGNED: AMH	DATE: 5/2023
CHECKED: FS	DATE: 5/2023
DRAWN: DPH	DATE: 5/2023
CHECKED: AMH	DATE: 5/2023

INDIANA DEPARTMENT OF TRANSPORTATION

PLAN AND PROFILE LINE "A"

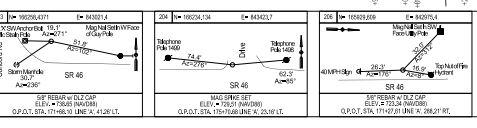
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1"=20'	1"=20'
VERTICAL SCALE	DESIGNATION
1"=2'	1900370
	SHEETS
	13 of 35
CONTRACT	PROJECT
R-43754	1900370



- LEGEND:**
- (O) 12" Compacted Aggregate No. 53
 - (D) HMA for Approaches: Type B:
165 lbs/syd Surface Type B on
275 lbs/syd Intermediate Type B on
6th Compacted Aggregate No. 53, on
Subgrade Treatment II (6in Coarse Aggregate No. 53)
 - (K) HMA Pavement to be:
220 lbs/syd QC/QA-HMA 3, 70, Surface 9.5 mm on
275 lbs/syd QC/QA-HMA 3, 70, Intermediate 19.0 mm on
880 lbs/syd QC/QA-HMA 3, 64, base 19.0 mm on
Subgrade Treatment IC on
Geotextile for Pavement Type 2B
 - (K1) HMA Widening to be:
220 lbs/syd QC/QA-HMA 3, 70, Surface 9.5 mm on
275 lbs/syd QC/QA-HMA 3, 70, Intermediate 19.0 mm on
880 lbs/syd QC/QA-HMA 3, 64, base 19.0 mm on
Subgrade Treatment IC on
Geotextile for Pavement Type 2B
 - (M) Milling, Asphalt, 2 IN.
 - (R) 220 lbs/syd QC/QA-HMA 3, 70, Surface 9.5 mm
 - (26) Seed Mixture, R
 - (29) Remove

- Notes:**
1. All topography described from Line "A".
 2. All R/W described from Line "A" Unless Noted Otherwise.
 3. Line "A" to be constructed.

4/17/2023
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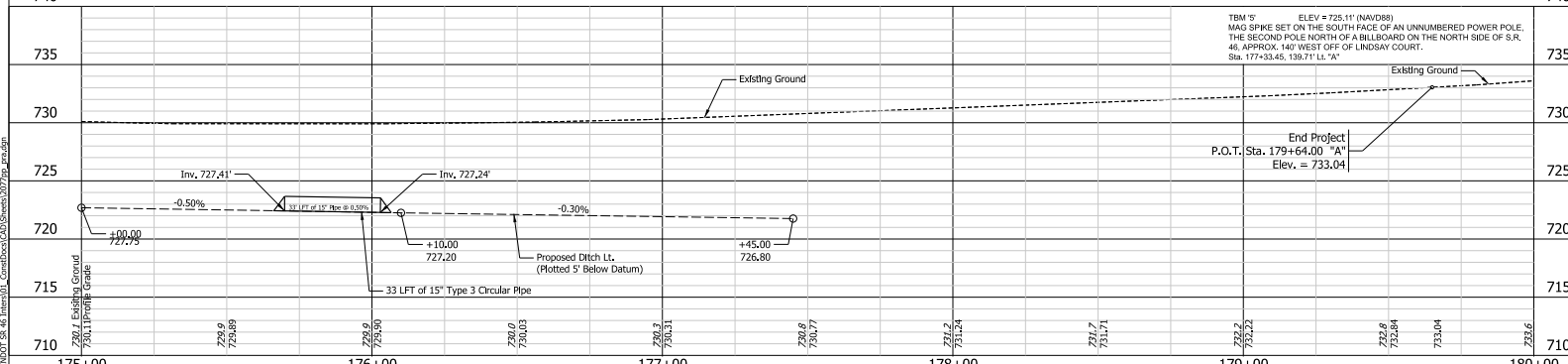
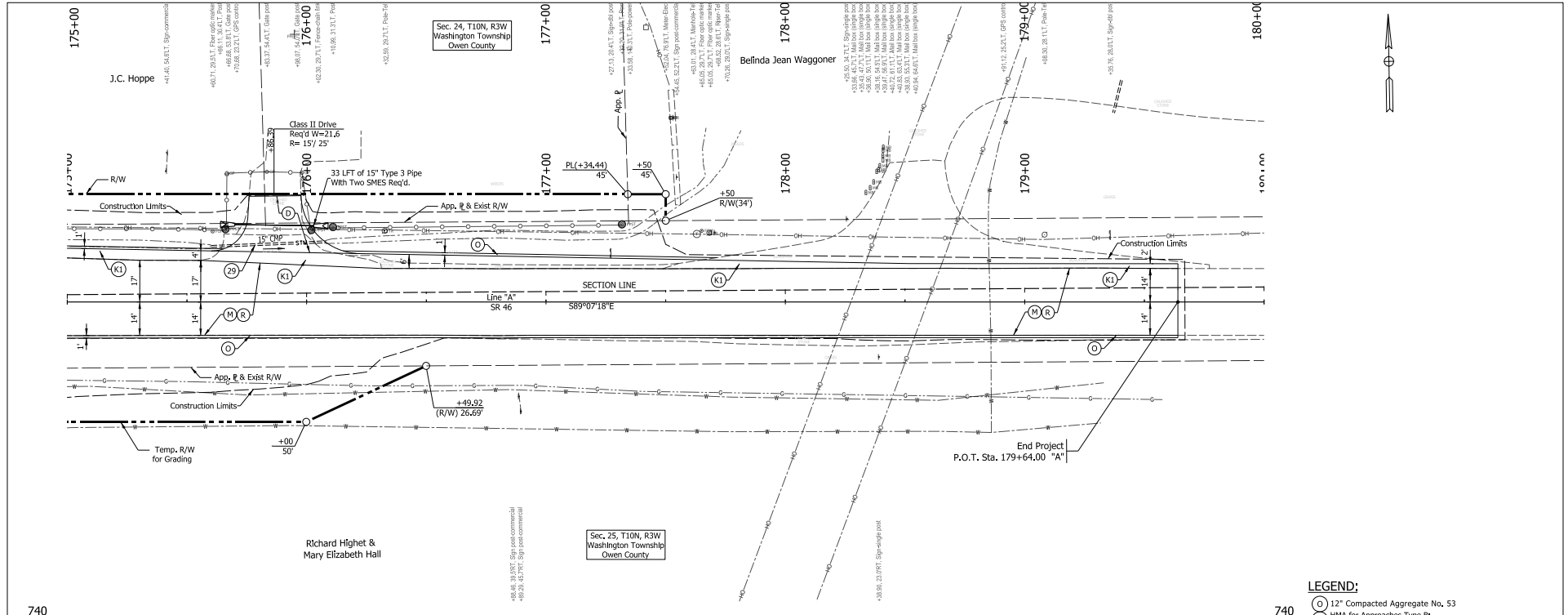


NOT FOR
 CONSTRUCTION
 DLZ INDIANA, LLC

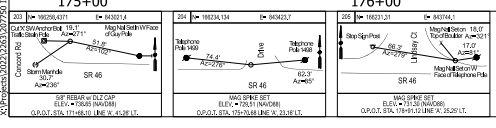
RECOMMENDED FOR APPROVAL	DESIGN ENGINEER	DATE
DESIGNED: AMH	S/2023	DRAWN: DPH
CHECKED: FS	S/2023	CHECKED: AMH

INDIANA DEPARTMENT OF TRANSPORTATION	
PLAN AND PROFILE LINE "A"	

SCALE	IMPROVEMENT
1"=20'	DESIGNATION
	1900370
	SHEETS
	14 of 35
CONTRACT	PROJECT
R-43794	1900370



- LEGEND:**
- (O) 12" Compacted Aggregate No. 53
 - (D) HMA for Approaches Type B:
 - 165 lbs/syd Surface Type B on
 - 275 lbs/syd Intermediate Type B on
 - 6in Compacted Aggregate No. 53, on
 - Subgrade Treatment II (6in Coarse Aggregate No. 53)
 - (K) HMA Pavement to be:
 - 220 lbs/syd QC/QA-HMA 3, 70, Surface 9.5 mm on
 - 275 lbs/syd QC/QA-HMA 3, 70, Intermediate 19.0 mm on
 - 880 lbs/syd QC/QA-HMA 3, 64, base 19.0 mm on
 - Subgrade Treatment IC on
 - Geotextile for Pavement Type 2B
 - (K1) HMA Widening to be:
 - 220 lbs/syd QC/QA-HMA 3, 70, Surface 9.5 mm on
 - 275 lbs/syd QC/QA-HMA 3, 70, Intermediate 19.0 mm on
 - 880 lbs/syd QC/QA-HMA 3, 64, base 19.0 mm on
 - Subgrade Treatment IC on
 - Geotextile for Pavement Type 2B
 - (M) Milling, Asphalt, 2 IN.
 - (R) 220 lbs/syd QC/QA-HMA 3, 70, Surface 9.5 mm
 - (1) Sawcut
 - (26) Seed Mixture, R
 - (29) Remove
- Notes:**
1. All topography described from Line "A".
 2. All R/W described from Line "A" Unless Noted Otherwise.
 3. Line "A" to be constructed.



NOT FOR CONSTRUCTION
DLZ INDIANA, LLC

DESIGNED: AMH	DATE: 5/2023
DRAWN: DPH	DATE: 5/2023
CHECKED: FS	DATE: 5/2023
CHECKED: AMH	DATE: 5/2023

INDIANA
DEPARTMENT OF TRANSPORTATION

PLAN AND PROFILE
LINE "A"

HORIZONTAL SCALE	IMPROVEMENT
VERTICAL SCALE	DESIGNATION
1"=5'	1900370
CONTRACT	SHEETS
R-41754	16 of 35
	PROJECT
	1900370

APPENDIX C

Early Coordination Documentation



SR 46 Intersection Improvement Project
SR 46 & CR 350E, 1.0 Mile East of SR 43
Owen County, INDOT Seymour District
Des. No.: 1900370



INDIANA DEPARTMENT OF TRANSPORTATION

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

PHONE: (855) 463-6848

Eric Holcomb, Governor
Michael Smith, Commissioner

May 16, 2023

Sample Early Coordination letter

Note: Graphics that accompanied this letter have been removed to avoid duplication. Similar graphics are provided in Appendix B.

Dear Interested Party,

Re: Early Coordination Letter, Des. No. 1900370, Intersection Improvement Project on SR 46 at CR 350 East, 1.0 Mile East of SR 43, Owen County, Indiana.

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

This project is located on SR 46 at CR 350 East, 1.0 mile east of SR 43, in Owen County. This section of SR 46 is functionally classified as a two lane Principal Arterial - Other. The existing SR 46 roadway typical section consists of two 12-foot lanes and a 10-foot right turn lane in each direction with 2-foot paved and 3-foot total usable shoulders. The apparent existing right-of-way is 60 feet in width centered on the roadway east of CR 350 East, and 65 feet in width centered on the roadway west of CR 350 East. County Road 350 East is functionally classified as a two lane rural local roadway. The existing CR 350 East approach typical section consists of two 12-foot lanes with no shoulders. The apparent existing right-of-way is 33 feet in width centered on the roadway both north and south of SR 46. Drainage is via sheet flow to roadside ditches throughout the project area.

The draft need is due to the number of crashes at the intersection. The draft purpose is to improve safety and capacity at the intersection.

The preferred alternative will add dedicated left turn lanes in both eastbound and westbound directions. Widening will be done to accommodate left turn lanes. Stopping sight distance along SR 46 will be corrected for a design speed of 55 mph. This correction will require approximately 450 feet of reconstruction of the existing lanes at the intersection. Existing lanes for the remainder of the project will require functional mill and overlay. The westbound through lane will be shifted north to provide room for the westbound left turn lane. Eastbound through and right turn only lanes will be maintained at the existing location. The westbound right turn lane will be eliminated due to the addition of the left turn lane. Approach work will be needed along CR 350 East to improve turning radii and sight distance. The existing overhead flashers located at the intersection will be maintained. The project is anticipated to require the acquisition of a minimum of 0.5 acre of both new and temporary right-of-way. The proposed method of traffic maintenance will maintain two open lanes of SR 46 at all times during roadway widening operations. CR 350 East traffic will be detoured. North of the intersection, CR 350 East traffic will be detoured utilizing Mt. Carmel Road, CR 450 East and SR 46. South of the intersection, CR 350 East traffic will be detoured utilizing South Walden Road, Hardscrabble Road, SR 43 and SR 46. The project may require the removal of up to 0.01 acre of trees. The project is anticipated to begin construction in May 2026.

Land use in the vicinity of the project is primarily residential and agricultural. Waters and wetlands determinations will be performed to identify water resources that may be present. The project is anticipated to qualify for the Rangewide Programmatic Agreement for the Indiana Bat and the Northern Long-eared Bat by completing the Information for Planning and Consultation (IPaC). Coordination will occur with INDOT Cultural Resource Office (CRO) to evaluate the project area for archaeological and historic resources and for Section 106 compliance. The results of this investigation will be forwarded to the State Historic Preservation Office (SHPO) for review and concurrence as appropriate.

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 Bradley W. Smith, DLZ Indiana, LLC, email – bwsmith@dlz.com, phone – (574) 236-4400, ext. 632, or Brad Williamson, INDOT Project Manager, email – bwilliamson@indot.in.gov, phone – (812) 524-3971. Thank you in advance for your input.

Sincerely,

Bradley W. Smith
Survey/Mapping Assistant
DLZ Indiana, LLC

Cc: FHWA, INDOT Seymour District

Enclosures:
Project Location Graphics and Photographs

The following agencies/parties received this early coordination request:

Section Chief, Wetlands and Stormwater Program
Indiana Department of Environmental Management
JTurner2@idem.in.gov
rbraun@idem.in.gov

Owen County
Soil & Water Conservation District
tammy-bingham@iaswcd.org

Environmental Coordinator
Indiana Department of Natural Resources
environmentalreview.dnr.in.gov

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

Environmental Geology Section
Indiana Geological and Water Section
(Electronic Coordination)

Superintendent
Spencer-Owen Community Schools
acline@socs.k12.in.us

State Conservationist
Natural Resource Conservation Service
john.allen@in.usda.gov

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

Field Environmental Officer
Chicago Regional Office, USHUD
erik.r.sandstedt@hud.gov

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

Owen County Surveyor
amy.meier@owencounty.in.gov

Owen County Highway Department
highway.department@owencounty.in.gov

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

Owen Valley Volunteer Fire Department
ovfd@sbcglobal.net

Owen County Commissioners
gary.burton@owencounty.in.gov
bob.curry@owencounty.in.gov
joel.lowe@owencounty.in.gov

Organization and Project Information

Project ID: 2263-2077-50
Des. ID: 1900370
Project Title: SR 46/CR 350 East Interesection Improvements
Name of Organization: DLZ Indiana, LLC
Requested by: Jason Stone

Environmental Assessment Report

1. Geological Hazards:
 - Potential Karst
 - High liquefaction potential
 - 1% Annual Chance Flood Hazard
2. Mineral Resources:
 - Bedrock Resource: Low Potential
 - Sand and Gravel Resource: Low Potential
3. Active or abandoned mineral resources extraction sites:
 - None documented in the area

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

DISCLAIMER:

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

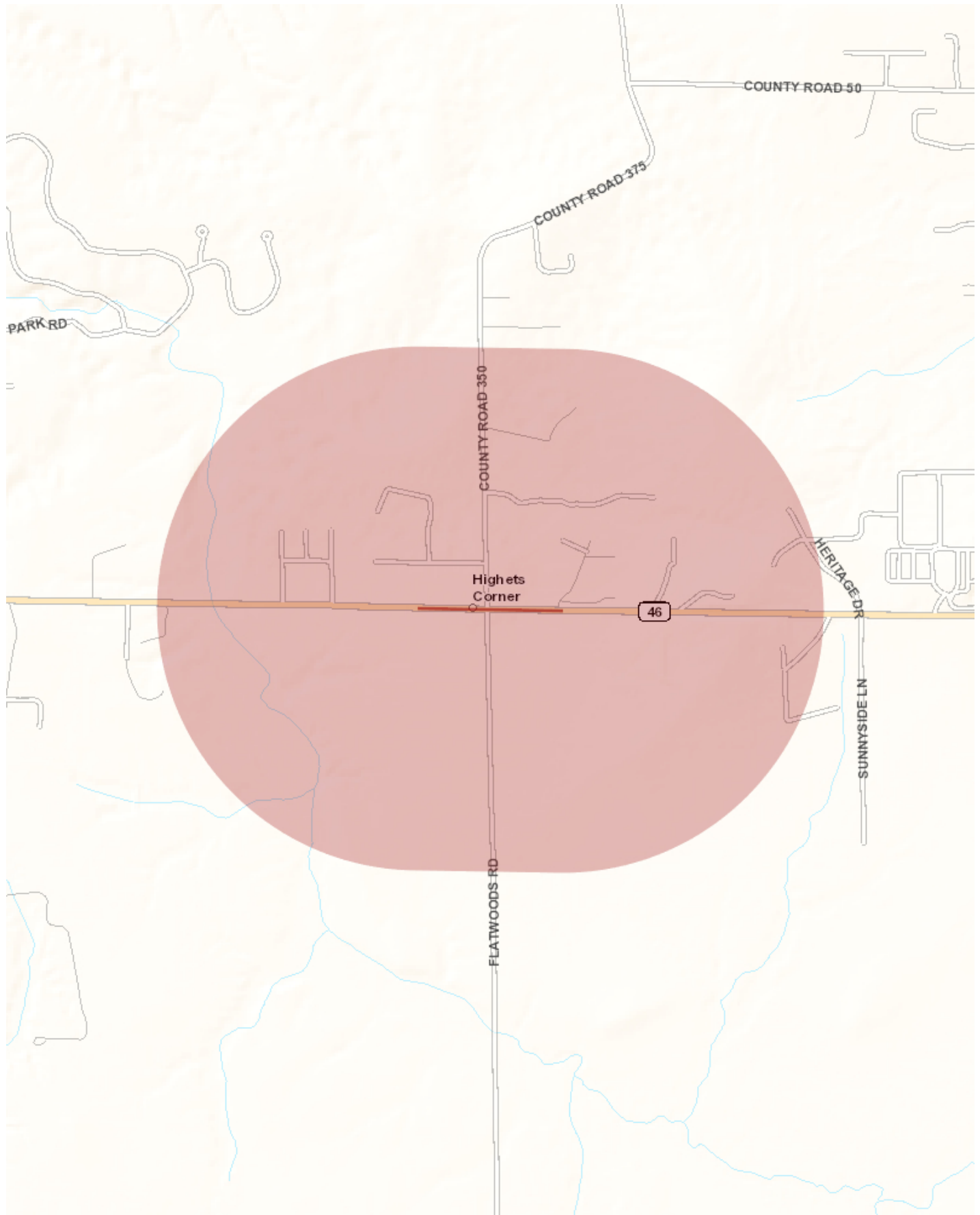
This information was furnished by Indiana Geological Survey

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

Email: IGSEnvir@indiana.edu

Phone: 812 855-7428

Date: May 16, 2023



Jason Stone

From: Lewandowski, Tyler <TLewandowski@indot.IN.gov>
Sent: Tuesday, May 16, 2023 11:14 AM
To: Jason Stone
Subject: RE: INDOT, SR 46/CR 350 East Intersection Improvements, 1.0 Mile East of SR 43 in Owen County, Des No 1900370 - Early Coordination

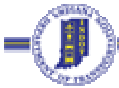
EXTERNAL: Message origin is from an external network. Use proper judgment and caution when opening attachments, clicking links, or responding to this email.

Good morning,

After review, no tall structure permit is required for the project if all equipment being used is under 200 feet in height. Please let our office know if you have any further questions.

Thank you,

Tyler Lewandowski
Project Manager
INDOT Office of Aviation
(317) 495-4875
tlewandowski@indot.in.gov
www.aviation.indot.in.gov



From: Jason Stone <jstone@dlz.com>
Sent: Tuesday, May 16, 2023 10:59 AM
To: Turner, James <JTurner2@idem.IN.gov>; Braun, Randy <RBRAUN@idem.IN.gov>; DNR Environmental Review <environmentalreview@dnr.IN.gov>; 'john.allen@in.usda.gov' <john.allen@in.usda.gov>; 'Mwro_Compliance@nps.gov' <Mwro_Compliance@nps.gov>; 'erik.r.sandstedt@hud.gov' <erik.r.sandstedt@hud.gov>; 'RegulatoryApplicationsLRL@usace.army.mil' <RegulatoryApplicationsLRL@usace.army.mil>; 'amy.meier@owencounty.in.gov' <amy.meier@owencounty.in.gov>; 'highway.department@owencounty.in.gov' <highway.department@owencounty.in.gov>; 'sheriff@owencounty.in.gov' <sheriff@owencounty.in.gov>; 'ovfd@sbcglobal.net' <ovfd@sbcglobal.net>; 'gary.burton@owencounty.in.gov' <gary.burton@owencounty.in.gov>; 'bob.curry@owencounty.in.gov' <bob.curry@owencounty.in.gov>; 'joel.lowe@owencounty.in.gov' <joel.lowe@owencounty.in.gov>; 'tammy-bingham@iaswcd.org' <tammy-bingham@iaswcd.org>; Jack White <jack.white@owencounty.in.gov>; 'acline@socs.k12.in.us' <acline@socs.k12.in.us>; Lewandowski, Tyler <TLewandowski@indot.IN.gov>
Cc: Faisal Saleem, PE, CPESC <fsaleem@dlz.com>; Brad Smith <bwsmith@dlz.com>; Williamson, Brad <BWILLIAMSON@indot.IN.gov>; Schneider, Chase <ChSchneider@indot.IN.gov>; Carpenter, Patrick (FHWA) <patrick.carpenter@dot.gov>; Schwering, Taylor <TSchwering@indot.IN.gov>
Subject: RE: INDOT, SR 46/CR 350 East Intersection Improvements, 1.0 Mile East of SR 43 in Owen County, Des No 1900370 - Early Coordination

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May 17, 2023

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

Dear Mr. Stone:

The proposed intersection improvement project on SR 46 at CR 350 East, 1.0 Mile East of SR 43 in Owen County, Indiana (Des. No. 1900370), as referred to in your letter received May 15, 2023, 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: 2023.05.17 13:22:34 -04'00'

JOHN ALLEN
State Soil Scientist

Enclosers

FARMLAND CONVERSION IMPACT RATING

PART I (To be completed by Federal Agency)		Date Of Land Evaluation Request				
Name of Project DES1900370 IntersectImprov SR46		Federal Agency Involved				
Proposed Land Use		County and State Owen County, Indiana				
PART II (To be completed by NRCS)		Date Request Received By NRCS		Person Completing Form: JRA		
Does the site contain Prime, Unique, Statewide or Local Important Farmland? <i>(If no, the FPPA does not apply - do not complete additional parts of this form)</i>		YES <input checked="" type="checkbox"/>	NO <input type="checkbox"/>	Acres Irrigated	Average Farm Size 172 ac	
Major Crop(s) Corn	Farmable Land In Govt. Jurisdiction Acres: 165348 % 67	Amount of Farmland As Defined in FPPA Acres: 107728 % 43				
Name of Land Evaluation System Used LESA	Name of State or Local Site Assessment System	Date Land Evaluation Returned by NRCS 5/17/23				
PART III (To be completed by Federal Agency)		Alternative Site Rating				
		Site A	Site B	Site C	Site D	
A. Total Acres To Be Converted Directly		0.64				
B. Total Acres To Be Converted Indirectly		0				
C. Total Acres In Site		0.64				
PART IV (To be completed by NRCS) Land Evaluation Information						
A. Total Acres Prime And Unique Farmland		0.22				
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		15				
PART V (To be completed by NRCS) Land Evaluation Criterion Relative Value of Farmland To Be Converted (Scale of 0 to 100 Points)		82				
PART VI (To be completed by Federal Agency) Site Assessment Criteria <i>(Criteria are explained in 7 CFR 658.5 b. For Corridor project use form NRCS-CPA-106)</i>		Maximum Points	Site A	Site B	Site C	Site D
1. Area In Non-urban Use		(15)	15			
2. Perimeter In Non-urban Use		(10)	10			
3. Percent Of Site Being Farmed		(20)	0			
4. Protection Provided By State and Local Government		(20)	0			
5. Distance From Urban Built-up Area		(15)	15			
6. Distance To Urban Support Services		(15)	10			
7. Size Of Present Farm Unit Compared To Average		(10)	10			
8. Creation Of Non-farmable Farmland		(10)	0			
9. Availability Of Farm Support Services		(5)	5			
10. On-Farm Investments		(20)	0			
11. Effects Of Conversion On Farm Support Services		(10)	0			
12. Compatibility With Existing Agricultural Use		(10)	0			
TOTAL SITE ASSESSMENT POINTS		160	65	0	0	0
PART VII (To be completed by Federal Agency)						
Relative Value Of Farmland (From Part V)		100	82	0	0	0
Total Site Assessment (From Part VI above or local site assessment)		160	65	0	0	0
TOTAL POINTS (Total of above 2 lines)		260	147	0	0	0
Site Selected: Site A		Date Of Selection October 24, 2023		Was A Local Site Assessment Used? YES <input type="checkbox"/> NO <input checked="" type="checkbox"/>		
Reason For Selection: The NRCS 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 +						
Name of Federal agency representative completing this form: Jason A. Stone / DLZ Indiana, LLC				Date: October 24, 2023		

(See Instructions on reverse side)

Form AD-1006 (03-02)

THIS IS NOT A PERMIT

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

DNR#: ER-25626

Request Received: May 15, 2023

Requestor:

Bradley Smith
DLZ Indiana, LLC
2211 East Jefferson Boulevard
South Bend, IN 46615

Project:

SR 46 & CR 350 East construction of a left turn lane in both directions, 1.0 miles east of SR 43; Des #1900370

County/Site Info: Owen County

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. McCormick's Creek State Park is located within 0.5 miles of the project area.

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:

1. Revegetate all bare and disturbed areas with a mixture of grasses (excluding all varieties of tall fescue) and legumes 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 regularly mowed areas only.
2. Minimize and contain within the project limits all tree and brush clearing.
3. 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.
4. 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.
5. 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 mcaffington@dnr.in.gov or (317) 233-4666 if we can be of further assistance.

Matt Buffington

Matt Buffington
Environmental Unit Supervisor
Division of Fish and Wildlife

Date: June 14, 2023

Jason Stone

From: Burskey, Jacob L <JBurskey@indot.IN.gov>
Sent: Thursday, September 21, 2023 9:53 AM
To: Jason Stone
Cc: Faisal Saleem, PE, CPESC; Haseeb A. Ghumman, PE, PTOE; Passmore, Andrew D; Curry, Jennifer
Subject: RE: INDOT, SR 46 / CR 350E Intersection improvements, Des No 1900370 - Karst Qn
Attachments: USP DISCOVERY OF KARST FEATURES.pdf

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Jason

At this time, EWPO does not recommend that a karst investigation be completed. Based off desktop review, it does not appear that the project contains surface level karst features. Additionally, the project scope is limited to minimal excavation/grading within close proximity to the roadway. No impacts are expected to any known karst features. EWPO does advise that the attached karst USP be included into the commitments and noted in the NEPA document (see attached).

Jacob Burskey
Seymour District Specialist, Ecology and Waterway Permitting Office
100 N Senate Ave, N758 – Environmental Services
Indianapolis, IN 46204-2216
Phone: 317-646-2266
Email: jburskey@indot.in.gov



From: Passmore, Andrew D <APassmore@indot.IN.gov>
Sent: Thursday, September 21, 2023 8:47 AM
To: Burskey, Jacob L <JBurskey@indot.IN.gov>; jstone@dlz.com
Cc: fsaleem@dlz.com; Haseeb A. Ghumman, PE, PTOE <hghumman@dlz.com>
Subject: FW: INDOT, SR 46 / CR 350E Intersection improvements, Des No 1900370 - Karst Qn

Jake,

Would you be able to assist with the question from Jason below?

Thanks

Drew Passmore
NEPA Review Team Lead
Environmental Services Division
Indiana Department of Transportation
Cell: (317) 439-7500

From: Burskey, Jacob L <JBurskey@indot.IN.gov>
Sent: Wednesday, July 12, 2023 2:04 PM
To: Faisal Saleem, PE, CPESC <fsaleem@dlz.com>
Cc: Haseeb A. Ghumman, PE, PTOE <hghumman@dlz.com>; Adam Hester <ahester@dlz.com>; Jason Stone <jstone@dlz.com>; Williamson, Brad <BWILLIAMSON@indot.IN.gov>; Daniel Stevens <dstevens@dlz.com>
Subject: RE: SR 46 Intersection Improvement (Des # 1900370) [Filed 12 Jul 2023 14:53]

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Faisal,

I did a quick desktop review of the area. It appears to be maintained lawns and has sloped upland topography that is not conducive to forming wetlands. I also don't see any signs of wetland vegetation. There are no NHD lines or indicators of streams in the area either. Based on upon that information, I do not see a need to include a waters investigation with the development of this project.

Jacob Burskey
Seymour District Specialist, Ecology and Waterway Permitting Office
100 N Senate Ave, N758 – Environmental Services
Indianapolis, IN 46204-2216
Phone: 317-646-2266
Email: jburskey@indot.in.gov



From: Faisal Saleem, PE, CPESC <fsaleem@dlz.com>
Sent: Wednesday, July 12, 2023 1:33 PM
To: Burskey, Jacob L <JBurskey@indot.IN.gov>
Cc: Haseeb A. Ghumman, PE, PTOE <hghumman@dlz.com>; Adam Hester <ahester@dlz.com>; Jason Stone <jstone@dlz.com>; Williamson, Brad <BWILLIAMSON@indot.IN.gov>; Daniel Stevens <dstevens@dlz.com>
Subject: RE: SR 46 Intersection Improvement (Des # 1900370)

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Good afternoon Jacob, In regards to Des # 1900370, we currently have waters report in our scope of services. Brad requested us to confirm with you if the waters report will be required for this project. Project limits include some roadside ditches.

I have included a KMZ file of the project area for your review. Please advise if we should conduct water report for this project or if it can be eliminated from scope of services.

Thank you

Faisal Saleem, PE, CPESC | Civil Engineer

317-633-4120 x229 (office)
fsaleem@dlz.com | www.dlz.com



INNOVATIVE IDEAS
EXCEPTIONAL DESIGN
UNMATCHED CLIENT SERVICE



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:

January 22, 2024

Project Code: 2023-0077837

Project Name: INDOT, SR 46/CR 350E Intersection Improvements, Des. No. 1900370

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

To Whom It May Concern:

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

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

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

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

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

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

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

<https://www.fws.gov/sites/default/files/documents/endangered-species-consultation-handbook.pdf>

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

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

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

Executive Order 13186, please visit <https://www.fws.gov/partner/council-conservation-migratory-birds>.

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

Attachment(s):

- Official Species List
- 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: 2023-0077837
Project Name: INDOT, SR 46/CR 350E Intersection Improvements, Des. No. 1900370
Project Type: Government / Municipal (Non-Military) Construction
Project Description: The Indiana Department of Transportation, with federal funding, intends to proceed with improvements to the SR 46/CR 350 East (Concord Road) intersection located 1.0 mile east of SR 43, in Owen County. This section of SR 46 is functionally classified as a two-lane Principal Arterial - Other. The existing SR 46 roadway typical section at the intersection consists of two 12-foot lanes and a 10-foot right turn lane in each direction. CR 350 East is functionally classified as a two-lane rural local roadway. The existing CR 350 East approaches are 22-24 feet wide in total. Drainage is via sheet flow to roadside ditches and swales throughout the project area. Land use in the vicinity of the project is primarily residential and agricultural.

The project need relates to the number of crashes at the intersection. The project purpose is to improve safety conditions at the intersection.

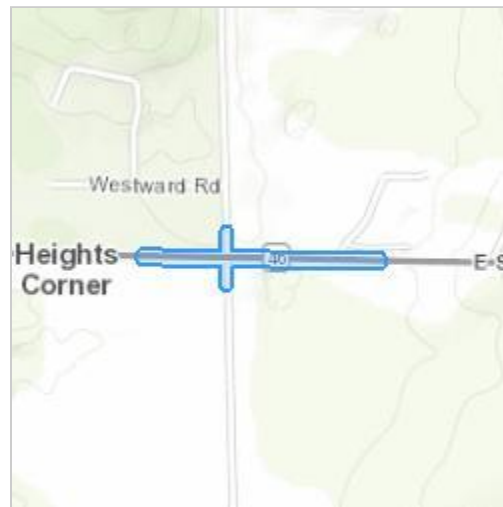
The preferred alternative will add dedicated left turn lanes to SR 46 in both eastbound and westbound directions. Widening will be done to accommodate left turn lanes and existing lanes will receive functional mill and overlay. Eastbound through lanes and right turn only lanes will be maintained in their existing locations, while the westbound right turn lane will be eliminated. Approach work will be needed along CR 350 East to improve turning radii and sight distance. Approach work will extend approximately 500 feet west, 950 feet east, and 150 feet north and south of the intersection. There is an existing 15-inch diameter corrugated metal pipe (CMP) under a residential property drive on the north side of SR 46, approximately 450 feet east of the intersection. This CMP will be removed, and a 15-inch diameter Type 3 pipe will be installed under the reestablished driveway. The project is anticipated to require the acquisition of a minimum of 0.5 acre of both new and temporary right-of-way. Two lanes of SR 46 traffic will be maintained during construction. A one-way moving flagger operation will be utilized during resurfacing of CR 350 East and Concord Road. Project letting is slated for April 2026 and construction is anticipated to begin in May 2026 and end in November 2026.

On December 19, 2022, INDOT checked the USFWS database for occurrences of bat species of concern. The review did not indicate the presence of endangered bat species in or within 0.5 mile of the project area; however, the project is located within the 10-mile MYSO hibernacula buffer. No suitable summer habitat is within the project area;

however, suitable summer habitat is present within 1,000 feet of the project area. Up to 0.01 acre of tree clearing may be required. Tree removal would occur beginning November 15 and ending March 31. All work will take place within 100 feet of the roadway. The project will not involve installation of new permanent street lighting. The existing overhead flashers located at the intersection will be maintained; however, their location may be adjusted. Temporary lighting may be used during construction. Mitigation is not anticipated to be required. Project letting is slated for April 2026 and construction is anticipated to begin in May 2026 and end in November 2026.

Project Location:

The approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/@39.28189465,-86.70286513102158,14z>



Counties: Owen County, Indiana

ENDANGERED SPECIES ACT SPECIES

There is a total of 5 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 Fisheries¹, as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

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

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

MAMMALS

NAME	STATUS
Indiana Bat <i>Myotis sodalis</i> There is final critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/5949	Endangered
Northern Long-eared Bat <i>Myotis septentrionalis</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/9045	Endangered
Tricolored Bat <i>Perimyotis subflavus</i> 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 <i>Grus americana</i> Population: U.S.A. (AL, AR, CO, FL, GA, ID, IL, IN, IA, KY, LA, MI, MN, MS, MO, NC, NM, OH, SC, TN, UT, VA, WI, WV, western half of WY) No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/758	Experimental Population, Non- Essential

INSECTS

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

CRITICAL HABITATS

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

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 Act¹ and the Migratory Bird Treaty Act².

Any person or organization who plans or conducts activities that may result in impacts to bald or golden eagles, or their habitats³, should follow appropriate regulations and consider implementing appropriate conservation measures, as described in the links below. Specifically, please review the "[Supplemental Information on Migratory Birds and Eagles](#)".

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 and/or golden eagles in your project area.

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 <i>Haliaeetus leucocephalus</i> This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities. https://ecos.fws.gov/ecp/species/1626	Breeds 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 (■)

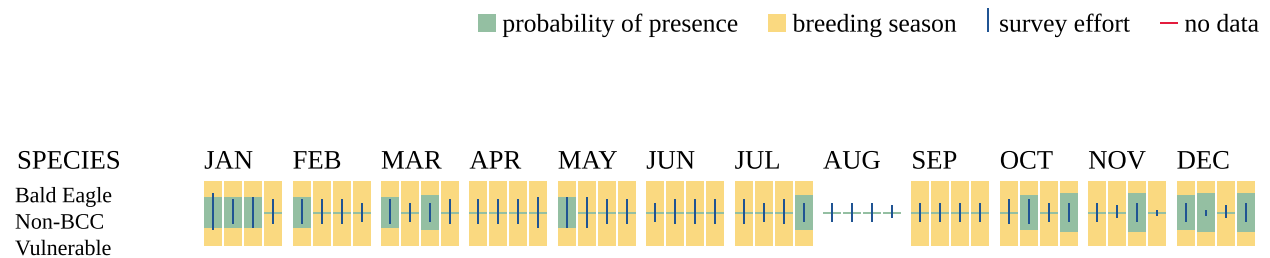
Yellow bars; liberal estimate of the timeframe inside which the bird breeds across its entire range.

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-incident-take-migratory-birds>
- Nationwide conservation 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

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

Any person or organization who plans or conducts activities that may result in impacts to migratory birds, eagles, and their habitats³ should follow appropriate regulations and consider implementing appropriate conservation measures, as described in the links below. Specifically, please review the "[Supplemental Information on Migratory Birds and Eagles](#)".

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 <i>Haliaeetus leucocephalus</i> This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities. https://ecos.fws.gov/ecp/species/1626	Breeds Sep 1 to Jul 31
Black-billed Cuckoo <i>Coccyzus erythrophthalmus</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9399	Breeds May 15 to Oct 10
Bobolink <i>Dolichonyx oryzivorus</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9454	Breeds May 20 to Jul 31
Cerulean Warbler <i>Dendroica cerulea</i> 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 <i>Chaetura pelagica</i> 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 <i>Spizella pusilla</i> 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
<p>Henslow's Sparrow <i>Ammodramus henslowii</i></p> <p>This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.</p> <p>https://ecos.fws.gov/ecp/species/3941</p>	Breeds May 1 to Aug 31
<p>Kentucky Warbler <i>Oporornis formosus</i></p> <p>This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.</p> <p>https://ecos.fws.gov/ecp/species/9443</p>	Breeds Apr 20 to Aug 20
<p>Prairie Warbler <i>Dendroica discolor</i></p> <p>This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.</p> <p>https://ecos.fws.gov/ecp/species/9513</p>	Breeds May 1 to Jul 31
<p>Prothonotary Warbler <i>Protonotaria citrea</i></p> <p>This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.</p> <p>https://ecos.fws.gov/ecp/species/9439</p>	Breeds Apr 1 to Jul 31
<p>Red-headed Woodpecker <i>Melanerpes erythrocephalus</i></p> <p>This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.</p> <p>https://ecos.fws.gov/ecp/species/9398</p>	Breeds May 10 to Sep 10
<p>Rusty Blackbird <i>Euphagus carolinus</i></p> <p>This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA</p> <p>https://ecos.fws.gov/ecp/species/9478</p>	Breeds elsewhere
<p>Wood Thrush <i>Hylocichla mustelina</i></p> <p>This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.</p> <p>https://ecos.fws.gov/ecp/species/9431</p>	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.

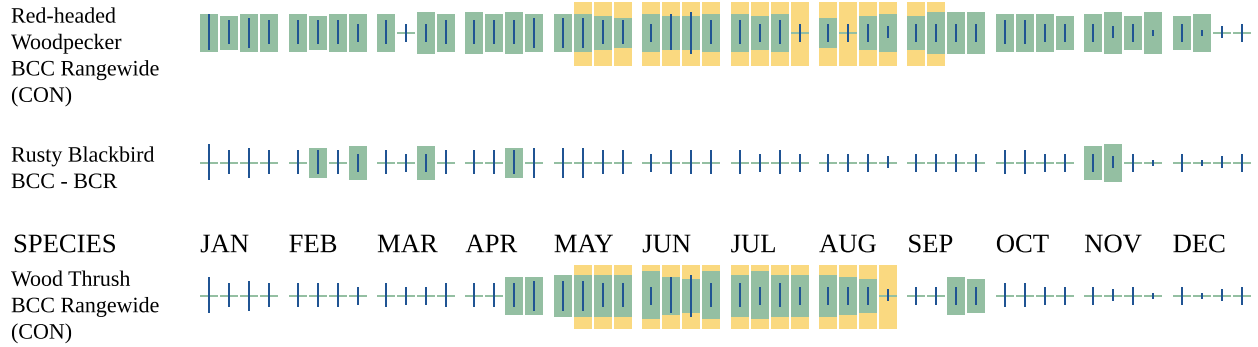
Survey Effort (|)

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-incident-take-migratory-birds>
- Nationwide conservation 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>

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.

FRESHWATER POND

- PUBGh

IPAC USER CONTACT INFORMATION

Agency: DLZ Indiana, LLC
Name: Jason Stone
Address: 2211 E Jefferson Blvd
City: South Bend
State: IN
Zip: 46615
Email: jstone@dlz.com
Phone: 5742451674

LEAD AGENCY CONTACT INFORMATION

Lead Agency: Department of Transportation

Bridge/Structure Bat Assessment Form

Date & Time of Assessment <i>1/22/2024</i> <i>12:00</i>	DOT Project Number <i>1900370</i>	Route/Facility Carried <i>Driveway on SR46</i>	County <i>Owen</i>
Federal Structure ID <i>N/A</i>	Structure Coordinates (latitude and longitude) <i>39.281951</i> <i>-86.702065</i>	Structure Height (approximate) <i>15'</i>	Structure Length <i>50' (approx.)</i>

Structure Type (check one)		Structure Material (check all that apply)		
Bridge Construction Style		Deck Material	Beam Material	End/Back Wall Material
<input type="radio"/> Cast-in-place	<input type="radio"/> Pre-stressed Girder	<input type="checkbox"/> Metal	<input type="checkbox"/> None	<input type="checkbox"/> Concrete
<input type="radio"/> Flat Slab/Box	<input type="radio"/> Steel I-beam	<input type="checkbox"/> Concrete	<input type="checkbox"/> Concrete	<input type="checkbox"/> Timber
<input type="radio"/> Truss	<input type="radio"/> Covered	<input type="checkbox"/> Timber	<input type="checkbox"/> Steel	<input type="checkbox"/> Stone/Masonry
<input type="radio"/> Parallel Box Beam	<input type="radio"/> Other:	<input type="checkbox"/> Open grid	<input type="checkbox"/> Timber	<input type="checkbox"/> Other:
		<input type="checkbox"/> Other:	<input type="checkbox"/> Other:	Creosote Evidence
Culvert Type		Culvert Material		<input type="radio"/> Yes <input checked="" type="radio"/> No
<input type="radio"/> Box	<input type="radio"/> Other Structure	<input type="checkbox"/> Metal	<input type="radio"/> Unknown	
<input checked="" type="radio"/> Pipe/Round		<input type="checkbox"/> Concrete	Notes:	
<input type="radio"/> Other:		<input type="checkbox"/> Plastic		
		<input type="checkbox"/> Stone/Masonry		
		<input type="checkbox"/> Other:		

Crossings Traversed (check all that apply)		Surrounding Habitat (check all that apply)	
<input type="checkbox"/> Bare ground	<input type="checkbox"/> Open vegetation	<input type="checkbox"/> Agricultural	<input type="checkbox"/> Grassland
<input type="checkbox"/> Rip-rap	<input type="checkbox"/> Closed vegetation	<input type="checkbox"/> Commercial	<input type="checkbox"/> Ranching
<input type="checkbox"/> Flowing water	<input type="checkbox"/> Railroad	<input type="checkbox"/> Residential-urban	<input type="checkbox"/> Riparian/wetland
<input type="checkbox"/> Standing water	Road/trail - Type:	<input type="checkbox"/> Residential-rural	<input type="checkbox"/> Mixed use
<input type="checkbox"/> Seasonal water	Other: <i>Ditch</i>	<input type="checkbox"/> Woodland/forested	<input type="checkbox"/> Other:

Areas Assessed (check all that apply)
 Check all areas that apply. If an area is not present in the structure, check the "not present" box.
 Document all bat indicators observed during the assessment. Include the species present, if known, and provide photo documentation as indicated.

Area (check if assessed)	Assessment Notes	Evidence of Bats (include photos if present)		
<input checked="" type="checkbox"/> All crevices and cracks: Bridges/culverts: rough surfaces or imperfections in concrete Other structures: soffits, rafters, attic areas	<input type="checkbox"/> Not present <i>No bat evidence</i>	<input type="checkbox"/> Visual - live #	<input type="checkbox"/> dead #	<input type="checkbox"/> Audible <input type="checkbox"/> Odor <input type="checkbox"/> Photos
<input type="checkbox"/> Concrete surfaces (open roosting on concrete)	<input checked="" type="checkbox"/> Not present	<input type="checkbox"/> Visual - live #	<input type="checkbox"/> dead #	<input type="checkbox"/> Audible <input type="checkbox"/> Odor <input type="checkbox"/> Photos
<input type="checkbox"/> Spaces between concrete end walls and the bridge deck	<input checked="" type="checkbox"/> Not present	<input type="checkbox"/> Visual - live #	<input type="checkbox"/> dead #	<input type="checkbox"/> Audible <input type="checkbox"/> Odor <input type="checkbox"/> Photos
<input type="checkbox"/> Crack between concrete railings on top of the bridge deck 	<input checked="" type="checkbox"/> Not present	<input type="checkbox"/> Visual - live #	<input type="checkbox"/> dead #	<input type="checkbox"/> Audible <input type="checkbox"/> Odor <input type="checkbox"/> Photos
<input type="checkbox"/> Vertical surfaces on concrete I-beams	<input checked="" type="checkbox"/> Not present	<input type="checkbox"/> Visual - live #	<input type="checkbox"/> dead #	<input type="checkbox"/> Audible <input type="checkbox"/> Odor <input type="checkbox"/> Photos
<input type="checkbox"/> Spaces between walls, ceiling joists	<input checked="" type="checkbox"/> Not present	<input type="checkbox"/> Visual - live #	<input type="checkbox"/> dead #	<input type="checkbox"/> Audible <input type="checkbox"/> Odor <input type="checkbox"/> Photos
<input type="checkbox"/> Weep holes, scupper drains, and inlets/pipes	<input checked="" type="checkbox"/> Not present	<input type="checkbox"/> Visual - live #	<input type="checkbox"/> dead #	<input type="checkbox"/> Audible <input type="checkbox"/> Odor <input type="checkbox"/> Photos
<input type="checkbox"/> All guiderails	<input checked="" type="checkbox"/> Not present	<input type="checkbox"/> Visual - live #	<input type="checkbox"/> dead #	<input type="checkbox"/> Audible <input type="checkbox"/> Odor <input type="checkbox"/> Photos
<input type="checkbox"/> All expansion joints	<input checked="" type="checkbox"/> Not present	<input type="checkbox"/> Visual - live #	<input type="checkbox"/> dead #	<input type="checkbox"/> Audible <input type="checkbox"/> Odor <input type="checkbox"/> Photos

Name: *Daniel J. Stevens / DLZ Indignus, LLC* Signature:



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:

January 23, 2024

Project code: 2023-0077837

Project Name: INDOT, SR 46/CR 350E Intersection Improvements, Des. No. 1900370

Subject: Concurrence verification letter for the 'INDOT, SR 46/CR 350E Intersection Improvements, Des. No. 1900370' project under the amended February 5, 2018, FHWA, FRA, FTA Programmatic Biological Opinion (dated March 23, 2023) for Transportation Projects within the Range of the Indiana Bat and Northern Long-eared Bat (NLEB).

To whom it may concern:

The U.S. Fish and Wildlife Service (Service) has received your request dated January 23, 2024 to verify that the **INDOT, SR 46/CR 350E Intersection Improvements, Des. No. 1900370** (Proposed Action) may rely on the concurrence provided in the amended February 5, 2018, FHWA, FRA, FTA Programmatic Biological Opinion (dated March 23, 2023) for Transportation Projects within the Range of the Indiana Bat and Northern Long-eared Bat (PBO) to satisfy requirements under Section 7(a)(2) of the Endangered Species Act of 1973 (ESA) (87 Stat.884, as amended; 16 U.S.C. 1531 *et seq.*).

Based on the information you provided (Project Description shown below), you have determined that the Proposed Action is within the scope and adheres to the criteria of the PBO, including the adoption of applicable avoidance and minimization measures. **At least one of the qualification interview questions indicated an activity or portion of your project is consistent with a not likely to adversely affect determination therefore, the overall determination for your project is, may affect, and is not likely to adversely affect (NLAA) the endangered Indiana bat (*Myotis sodalis*) and/or the endangered northern long-eared bat (*Myotis septentrionalis*).** Consultation with the Service pursuant to section 7(a)(2) of ESA (87 Stat. 884, as amended; 16 U.S.C. 1531 *et seq.*) is required.

The Service has 14 calendar days to notify the lead Federal action agency or designated non-federal representative if we determine that the Proposed Action does not meet the criteria for a NLAA determination under the PBO. If we do not notify the lead Federal action agency or designated non-federal representative within that timeframe, you may proceed with the Proposed Action under the terms of the NLAA concurrence provided in the PBO. This verification period

allows Service Field Offices to apply local knowledge to implementation of the PBO, as we may identify a small subset of actions having impacts that were unanticipated. In such instances, Service Field Offices may request additional information that is necessary to verify inclusion of the proposed action under the PBO.

For Proposed Actions that include bridge/culvert or structure removal, replacement, and/or maintenance activities: If your initial bridge/culvert or structure assessment documented signs of bat use or occupancy, or an assessment failed to detect Indiana bats and/or NLEBs, yet are later detected prior to, or during construction, please submit the Post Assessment Discovery of Bats at Bridge/Culvert or Structure Form (User Guide Appendix E) to this Service Office within 2 working days of any potential take. In these instances, potential incidental take of Indiana bats and/or NLEBs is covered under the Incidental Take Statement in the 2018 FHWA, FRA, FTA PBO (provided that the take is reported to the Service).

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

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

If your initial bridge/culvert or structure assessments failed to detect Indiana bats and/or NLEB use or occupancy, yet bats are later detected prior to, or during construction, please submit the Post Assessment Discovery of Bats at Bridge/Culvert or Structure Form (User Guide Appendix E) to this Service Office within 2 working days of the incident. In these instances, potential incidental take of Indiana bats and/or NLEBs may be exempted provided that the take is reported to the Service.

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

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

- Monarch Butterfly *Danaus plexippus* Candidate
- Tricolored Bat *Perimyotis subflavus* 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

INDOT, SR 46/CR 350E Intersection Improvements, Des. No. 1900370

DESCRIPTION

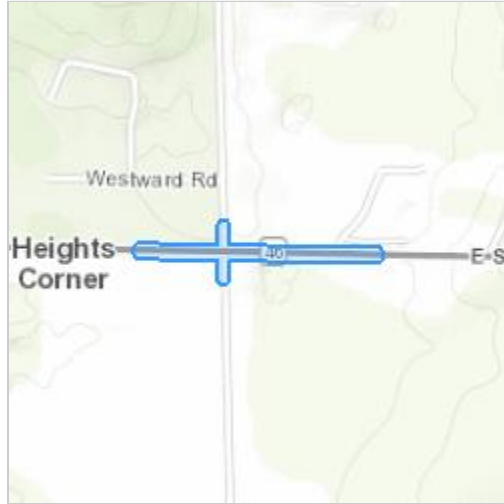
The Indiana Department of Transportation, with federal funding, intends to proceed with improvements to the SR 46/CR 350 East (Concord Road) intersection located 1.0 mile east of SR 43, in Owen County. This section of SR 46 is functionally classified as a two-lane Principal Arterial - Other. The existing SR 46 roadway typical section at the intersection consists of two 12-foot lanes and a 10-foot right turn lane in each direction. CR 350 East is functionally classified as a two-lane rural local roadway. The existing CR 350 East approaches are 22-24 feet wide in total. Drainage is via sheet flow to roadside ditches and swales throughout the project area. Land use in the vicinity of the project is primarily residential and agricultural.

The project need relates to the number of crashes at the intersection. The project purpose is to improve safety conditions at the intersection.

The preferred alternative will add dedicated left turn lanes to SR 46 in both eastbound and westbound directions. Widening will be done to accommodate left turn lanes and existing lanes will receive functional mill and overlay. Eastbound through lanes and right turn only lanes will be maintained in their existing locations, while the westbound right turn lane will be eliminated. Approach work will be needed along CR 350 East to improve turning radii and sight distance. Approach work will extend approximately 500 feet west, 950 feet east, and 150 feet north and south of the intersection. There is an existing 15-inch diameter corrugated metal pipe (CMP) under a residential property drive on the north side of SR 46, approximately 450 feet east of the intersection. This CMP will be removed, and a 15-inch diameter Type 3 pipe will be installed under the reestablished driveway. This CMP was inspected by DLZ on January 22, 2024. No birds/bats, or evidence of birds/bats were observed. The project is anticipated to require the acquisition of approximately 0.64 acre of new permanent right of way and approximately 0.19 acre of temporary right of way. Two lanes of SR 46 traffic will be maintained during construction. A one-way moving flagger operation will be utilized during resurfacing of CR 350 East and Concord Road. Project letting is slated for April 2026 and construction is anticipated to begin in May 2026 and end in November 2026.

On December 19, 2022, INDOT checked the USFWS database for occurrences of bat species of concern. The review did not indicate the presence of endangered bat species in or within 0.5 mile of the project area; however, the project is located within the 10-mile MYSO hibernacula buffer. No suitable summer habitat is within the project area; however, suitable summer habitat is present within 1,000 feet of the project area. Up to 0.01 acre of tree clearing may be required. Tree removal would occur beginning November 15 and ending March 31. All work will take place within 100 feet of the roadway. The project will not involve installation of new permanent street lighting. The existing overhead flashers located at the intersection will be maintained; however, their location may be adjusted. Temporary lighting may be used during construction. Mitigation is not anticipated to be required. Project letting is slated for April 2026 and construction is anticipated to begin in May 2026 and end in November 2026.

The approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/@39.28189465,-86.70286513102158,14z>



DETERMINATION KEY RESULT

Based on your answers provided, this project(s) may affect, but is not likely to adversely affect the endangered Indiana bat and/or the endangered northern long-eared bat, therefore, consultation with the U.S. Fish and Wildlife Service pursuant to Section 7(a)(2) of the Endangered Species Act of 1973 (ESA) (87 Stat. 884, as amended 16 U.S.C. 1531 *et seq.*) is required. However, also based on your answers provided, this project may rely on the concurrence provided in the amended February 5, 2018, FHWA, FRA, FTA Programmatic Biological Opinion (dated March 23, 2023) for Transportation Projects within the Range of the Indiana Bat and Northern Long-eared Bat.

QUALIFICATION INTERVIEW

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

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

Automatically answered

Yes

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

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

Automatically answered

Yes

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

A) *Federal Highway Administration (FHWA)*

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

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

No

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

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

No

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

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

No

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

Yes

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

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

No

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

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

[2] The action area is defined as all areas to be affected directly or indirectly by the Federal action and not merely the immediate area involved in the action (50 CFR Section 402.02). Further clarification is provided by the [User's Guide for the Range-wide Programmatic Consultation for Indiana Bat and Northern Long-eared Bat](#).

Yes

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

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

Yes

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

No

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

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

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

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

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

No

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

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

[2] For the purposes of this key, we are considering documented corridors as that where Indiana bats and/or NLEB have actually been captured and tracked to using (1) radio telemetry; or (2) treed corridors located directly between documented roosting and foraging habitat.

No

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

Yes

15. What time of year will the removal or trimming of habitat or trees **within** suitable but **undocumented Indiana bat** roosting/foraging habitat or travel corridors occur^[1]?

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

B) During the inactive season

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

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

[2] For the purposes of this key, we are considering documented corridors as that where Indiana bats and/or NLEB have actually been captured and tracked to using (1) radio telemetry; or (2) treed corridors located directly between documented roosting and foraging habitat.

No

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

Yes

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

B) During the inactive season

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

Yes

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

No

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

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

Yes

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

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

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

Yes

SUBMITTED DOCUMENTS

- *StructureAssessmentForm_1900370.pdf* <https://ipac.ecosphere.fws.gov/project/HS3EFNF2ENDKNIZU2TMSVWRIDU/projectDocuments/137363572>

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

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

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

No

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

No

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

No

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

Yes

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

Yes

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

No

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

No

35. Are *all* project activities that are **not associated with** habitat removal, tree removal/trimming, bridge and/or structure activities, temporary or permanent lighting, or use of percussives, limited to actions that DO NOT cause any additional stressors to the bat species?

Examples: lining roadways, unlighted signage, rail road crossing signals, signal lighting, and minor road repair such as asphalt fill of potholes, etc.

Yes

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

No

37. Are the project activities that are not associated with habitat removal, tree removal/trimming, bridge and/or structure activities, temporary or permanent lighting, or use of percussives consistent with a No Effect determination in this key?

Automatically answered

Yes, other project activities are limited to actions that DO NOT cause any additional stressors to the bat species as described in the BA/BO

38. Is the habitat removal portion of this project consistent with a Not Likely to Adversely Affect determination in this key?

Automatically answered

Yes, because the tree removal/trimming that occurs outside of the Indiana bat's active season occurs greater than 0.5 miles from the nearest hibernaculum, is less than 100 feet from the existing road/rail surface, includes clear demarcation of the trees that are to be removed, and does not alter documented roosts and/or surrounding summer habitat within 0.25 miles of a documented roost.

39. Is the habitat removal portion of this project consistent with a Not Likely to Adversely Affect determination in this key?

Automatically answered

Yes, because the tree removal/trimming that occurs outside of the NLEB's active season occurs greater than 0.5 miles from the nearest hibernaculum, is less than 100 feet from the existing road/rail surface, includes clear demarcation of the trees that are to be removed, and does not alter documented roosts and/or surrounding summer habitat within 0.25 miles of a documented roost.

40. Is the bridge removal, replacement, or maintenance activities portion of this project consistent with a No Effect determination in this key?

Automatically answered

Yes, because the bridge has been assessed using the criteria documented in the BA and no signs of bats were detected

41. **General AMM 1**

Will the project ensure *all* operators, employees, and contractors working in areas of known or presumed bat habitat are aware of *all* FHWA/FRA/FTA (Transportation Agencies) environmental commitments, including all applicable Avoidance and Minimization Measures?

Yes

42. **Hibernacula AMM 1**

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

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

Yes

43. **Hibernacula AMM 1**

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

Yes

44. **Tree Removal AMM 1**

Can *all* phases/aspects of the project (e.g., temporary work areas, alignments) be modified, to the extent practicable, to avoid tree removal^[1] in excess of what is required to implement the project safely?

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

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

Yes

45. **Tree Removal AMM 3**

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

Yes

46. **Tree Removal AMM 4**

Can the project avoid cutting down/removal of *all* (1) **documented**^[1] Indiana bat or NLEB roosts^[2] (that are still suitable for roosting), (2) trees **within** 0.25 miles of roosts, and (3) documented foraging habitat any time of year?

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

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

Yes

47. **Lighting AMM 1**

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

Yes

PROJECT QUESTIONNAIRE

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

N/A

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

N/A

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

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

0.01

4. Please describe the proposed bridge work:

Driveway culvert replacement.

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

May 1, 2026 through November 30, 2026.

6. Please enter the date of the bridge assessment:

January 22, 2024

AVOIDANCE AND MINIMIZATION MEASURES (AMMS)

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

HIBERNACULA AMM 1

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

TREE REMOVAL AMM 1

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

LIGHTING AMM 1

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

TREE REMOVAL AMM 2

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

TREE REMOVAL AMM 3

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

TREE REMOVAL AMM 4

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

GENERAL AMM 1

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

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

This key was last updated in IPaC on October 30, 2023. Keys are subject to periodic revision.

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

This decision key should only be used to verify project applicability with the Service's [amended February 5, 2018, FHWA, FRA, FTA Programmatic Biological Opinion \(dated March 23, 2023\) for Transportation Projects](#). The programmatic biological opinion covers limited transportation activities that may affect either bat species, and addresses situations that are both likely and not likely to adversely affect either bat species. This decision key will assist in identifying the effect of a specific project/activity and applicability of the programmatic consultation. The programmatic biological opinion is not intended to cover all types of transportation actions. Activities outside the scope of the programmatic biological opinion, or that may affect ESA-listed species other than the Indiana bat or NLEB, or any designated critical habitat, may require additional ESA Section 7 consultation.

IPAC USER CONTACT INFORMATION

Agency: Indiana Department of Transportation

Name: Erin Carleton

Address: 185 Agrico Ln

City: Seymour

State: IN

Zip: 47274

Email: ecarleton@indot.in.gov

Phone: 8125243988

LEAD AGENCY CONTACT INFORMATION

Lead Agency: Federal Highway Administration

APPENDIX D

Section 106 Documentation



SR 46 Intersection Improvement Project
SR 46 & CR 350E, 1.0 Mile East of SR 43
Owen County, INDOT Seymour District
Des. No.: 1900370

Minor Projects PA Project Submittal and Assessment Form

SECTION 1

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 applicant if the Minor Projects PA does not apply.

Part 1: 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-Cultural Resources Office (INDOT-CRO) staff will be responsible for completion of Part II.*

Original Submission Date: June 01, 2023

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):

Sydney Heidenreich
Metric Environmental, LLC
6958 Hillsdale Court
Indianapolis, IN 46250
317.981.2867
Sydneyh@metricenv.com

Project Designation Number: 1900370

Route Number: State Road 46 (SR 46)

Feature crossed (if applicable):

City/Township: Washington Township

County: Owen County

Project Description: *

**Provide a full project description—include the same level of specificity and detail as expected in the NEPA document—in order to ensure a timely review by INDOT-CRO staff. For bridge and culvert projects, include specific details on the rehab or replacement including potential changes to width, height and materials. Be sure to include the specific elements listed below as applicable.*

The proposed project is located on State Road 46 (SR 46) at the intersection with County Road 350 East (also known as Concord Road north of the intersection and Flatwoods Road south of the intersection). The project is about one mile east of SR 43, just east of the Town of Spencer, in Owen County, Indiana. The total project length on SR 46 is 1300 feet.

SR 46 is a rural arterial with two 12-foot through lanes and 10-foot right turn lanes in each direction. Concord Road and Flatwoods Road are rural local roads with two 11-foot wide travel lanes and 24-foot-wide intersection approach widths. Existing overhead flashers are located at the intersection.

The preferred alternative will add dedicated left turn lanes in both eastbound and westbound directions on SR 46. Widening will be done to accommodate left turn lanes and existing lanes will receive functional mill and overlay. The westbound through lane will be shifted north to provide room for the westbound left turn lane. This layout is expected to reduce right-of-way impacts to the properties on the south side of SR 46. Eastbound through and right turn only lanes will be maintained at the existing location, while the westbound right turn lane will be eliminated

Minor Projects PA Project Submittal and Assessment Form

due to the addition of the left turn and new roadway alignment. The existing horizontal and vertical alignment along SR 46 will be maintained. Approach work extending 250 feet on each side of the roadway will be needed on Concord Road and Flatwoods Road to improve turning radii and sight distance, and both approaches will have full depth reconstruction. The existing overhead flashers located at the intersection will be maintained. Ancillary work includes the regrading and adding of ditches along SR 46.

The primary purpose of this project is to improve intersection safety and capacity at the intersection of SR 46 and County Road 350 East (Flatwoods Road and Concord Road) in Owen County. An elementary school and a proposed subdivision are located along County Road 350 East in the proximity of the intersection. With the present traffic load only expected to increase on the side street approaches, turn lanes will be added for both eastbound and westbound traffic on SR 46. The need for this project is due to the current safety conditions of the intersection and lack of adequate turn lanes.

The two-way traffic will be maintained along SR 46 during the widening and reconstruction operations. A one-way moving flagger operation along SR 46 will be performed during resurfacing operations. Traffic will be detoured along side streets during construction. The detour of the north leg of Concord Road will extend from Mount Carmel Road to CR 450E to SR 46 with an approximate length of 2.70 miles. The detour on the south leg of Flatwoods Road will extend from CR 175 S to Walden Road to Hardscrabble Road to SR 43 to SR 46 with an approximate length of 6.2 miles.

There will be a total anticipated Right-of-Way (ROW) of 0.95 acres with 0.70 acres of permanent ROW and 0.25 acres of temporary ROW.

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

For bridge or small structure projects, please list feature crossed, structure number, NBI number, and structure type:

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

Minor Projects PA Project Submittal and Assessment Form

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:

There will be a total anticipated Right-of-Way (ROW) of 0.95 acres with 0.70 acres of permanent ROW and 0.25 acres of temporary ROW. The locations of the ROW can be seen in Figure 2.

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 includes undisturbed soils and requires an archaeological reconnaissance.*

Project takes place in undisturbed soils and the archaeology report is included in submission or will be forthcoming*

**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) (highlight applicable conditions in yellow)*:

**Include full category text, including any conditions. INDOT-CRO will finalize categories upon their review.*

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 INSCOPE.

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.

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9. Installation, replacement, repair, lining, or extension of culverts and other drainage structures under the conditions listed below [***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 INSCOPE.

Condition B (Above-Ground Resources)

One of the conditions below must be met (*EITHER Condition i or Condition ii must be satisfied*):

- i. Work does not involve installation of a new culvert and other drainage structure, and there are no impacts to unusual features, including but not limited to historic brick or stone sidewalks, curbs or curb ramps, stepped or elevated sidewalks and retaining walls, under one of the following conditions (*Condition a, Condition b, or Condition c must be satisfied*):
 - a. The structure exhibits no wood, stone, or brick structures or parts therein; *OR*
 - b. The structure exhibits only modern wood, stone, or brick structures or parts therein; *OR*
 - c. The structure exhibits non-modern wood, stone, or brick structures or parts therein and the following conditions are met (*BOTH Condition 1 AND Condition 2 must be met*):
 1. Work does not occur adjacent to or within a National Register-listed or National Register-eligible district or individual above-ground resource; *AND*
 2. The structure lacks sufficient integrity and/or a context that suggests it might have engineering or historical significance. Under this condition, a qualified professional (meeting the Secretary of Interior's Professional Qualification standards [48 Federal Register (FR) 44716]) must prepare an analysis and justification that the structure lacks sufficient integrity and/or a context that suggests it might have engineering or historical significance. This documentation must be reviewed and approved by INDOT Cultural Resources Office.
- ii. Work involves the installation of a new culvert and other drainage structures *AND/OR* there may be impacts to unusual features, including historic brick or stone sidewalks, curbs or curb ramps, stepped or elevated sidewalks and retaining walls, under the following conditions (*BOTH Condition a and Condition b must be satisfied*):
 - a. Work does not occur adjacent to or within a National Register-listed or National Register-eligible district or individual above-ground resource; *AND*
 - b. The subject structure exhibits one of the characteristics described below (*Condition 1, Condition 2 or Condition 3 must be satisfied*).
 1. The structure exhibits no wood, stone, or brick structures or parts therein; *OR*
 2. The structure exhibits only modern wood, stone, or brick structures or parts therein; *OR*
 3. The structure exhibits non-modern wood, stone, or brick structures or parts therein but lacks sufficient integrity and/or a context that suggests it might have engineering or historical significance. Under this condition, a qualified professional (meeting the Secretary of Interior's Professional Qualification standards [48 Federal Register (FR) 44716]) must prepare an analysis and justification that the structure lacks sufficient integrity and/or a context that suggests it might have engineering or historical significance. This documentation must be reviewed and approved by INDOT Cultural Resources Office.

Minor Projects PA Project Submittal and Assessment Form

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

Amendments will be shown in red font.

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/BIAS Historic Bridge Inventory Database
- SHAARD SHAARD GIS Streetview Imagery County GIS Data/Property Cards

Other (please specify):

Stevenson, Christopher and Megan Copenhaver
2023 Phase Ia Archaeological Reconnaissance Survey for the Proposed SR 46 and Concord Road/Flatwoods Drive Intersection Improvements Project, Washington Township, Owen County, Indiana (INDOT Des. No. 1900370). Metric Environmental, Indianapolis. 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:

Above-ground Resources

With regard to above-ground resources, an INDOT Cultural Resources Office (CRO) historian who meets the Secretary of the Interior's Professional Qualification Standards as per 36 CFR Part 61 performed a desktop review. Taking into account the project scope and surrounding terrain, an area of potential effects (APE) of 1/8 mile around the proposed project limits was examined.

The Indiana Register of Historic Sites and Structures (State Register), the National Register of Historic Places (National Register), and the Indiana Historic Sites and Structures Inventory (IHSSI) information for Owen County was checked by the CRO historian. The information was referenced through the Indiana State Historic

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Architectural and Archaeological Research Database (SHAARD) and the Indiana Historic Buildings, Bridges, and Cemeteries Mapping (IHBBCM).

The following framework is used when analyzing the IHSSI properties. 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. Historic districts identified in the IHSSI are usually considered eligible for the National Register.

No State or National Register properties are located along or near the project route. One IHSSI property is recorded in the southeast quadrant of the subject intersection: 119-244-35031, Hight House, SR 46, "contributing." This property consists of a hipped-roof bungalow and three outbuildings. The house has hipped-roof dormers on each façade, and an incised front porch. The outbuildings consist of a barn, chicken house, and garage. The INDOT historian agrees with the "contributing" rating from the IHSSI, and thinks it remains appropriate. The house lacks significance and is, as the IHSSI record states, a "typical early 20th century house." The remainder of the APE in the southeast quadrant of the intersection is composed of agricultural fields with one fallow area containing a small pond.

In the northeast quadrant of the subject intersection within the APE are the following properties with buildings, from west to east on the north side of SR 46:

- 3583 E State Hwy 46, former commercial property with a metal sided pole barn; now vacant & overgrown
- Mini Farms subdivision, located off Lindsay Ct. and Megan Ct., houses built from 1990s – 2010s
- 18 Lindsay Ct., altered early 20th century house with outbuildings
- 11 Adair Lane, altered late 20th century mobile home with outbuildings

In the northeast quadrant of the subject intersection within the APE are the following properties with buildings, from south to north on the east side of SR 46:

- 28 Concord Rd., c1977 ranch house; associated with property below
- 36 Concord Rd., c1970s-1990s commercial buildings for Sweet Owen Industries ARC Inc.
- 44 Concord Rd., c1966 altered split-level house; associated with property above
- 60 Concord Rd., c1960 altered ranch with an addition and outbuildings

In the northwest quadrant of the subject intersection within the APE are the following properties with buildings, from east to west on the north side of SR 46:

- 3401 E State Hwy 46, Dollar General store, built in 2022
- 3287 E State Hwy 46, rental storage units business, built 2019-2022
- 3253 E State Hwy 46, rental storage units business, built 2000-2004

North of the commercial properties listed above, along Westward Rd. within the Concord Villas subdivision, are houses built primarily c2000.

In the southwest quadrant of the subject intersection within the APE are the following properties with buildings, from east to west on the south side of SR 46:

- 45 Flatwoods Rd., c1986 split-level
- 3452 E State Hwy 46, c1962 altered ranch house
- 3430 E State Hwy 46, c1960 altered ranch house
- 3416 E State Hwy 46, c1960 altered ranch house
- 3390 E State Hwy 46, c1962 altered ranch house
- 3378 E State Hwy 46, c1964 altered ranch house

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--3356 E State Hwy 46, c1963 ranch house
--3340 E State Hwy 46, c1963 altered ranch house
--3312 E State Hwy 46, c1962 ranch house
--3286 E State Hwy 46, c1968 altered split-level
--3266 E State Hwy 46, c1965 ranch house
--3240 E State Hwy 46, c1940 altered (including additions) American Small House

The properties mentioned above were reviewed through photographs included in the online property record cards and through online street-level photography. Many of the properties lack material integrity. All of the properties lack the significance necessary to be National Register eligible. Additionally, there is no potential for a historic district within the APE.

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 Phase Ia field reconnaissance survey report completed for the project by Metric Environmental (Stevenson and Copenhaver 2023). No archaeological sites were previously recorded within the project area.

Approximately 5.6 acres were investigated via a combination of systematic shovel probing (n=50) and visual inspection of obviously disturbed areas. No archaeological resources were documented as a result of the survey and no additional investigation is recommended (Stevenson and Copenhaver 2023). Therefore, 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): Mary Kennedy and Matt Coon

INDOT Approval Date: August 28, 2023

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.*

Please attach the following to this form:

- **General Location Map.** This map should allow the INDOT-CRO reviewer to quickly locate the project.
- **Aerial photography map(s) of project area.** This map must include project limits. It may also include SHAARD data, but SHAARD data is not required.

- **If bridge or small structure project, please attach photographs of bridge or small structure.** Photographs can be found in inspection reports located in INDOT's Bridge Inspection Application System (BIAS), as well as other project documents, such as engineering assessments or mini-scopes.

Map depicting potential temporary and/or permanent right-of-way acquisitions. In the email submission to INDOT-CRO, please also include:

- **A GIS polygon shapefile or KMZ file of the project area** (shapefiles are preferred). Shapefiles should use "NAD_1983_UTM" projected coordinate system. In addition, these files should contain the following *text* attribute field: DES_NO. The project designation number should be entered in this field.
- **If the project takes place in undisturbed soils, attach the results of the archaeological investigation, if completed.** *Note: The MPPA Submission Form may be submitted before the archaeology report. INDOT-CRO staff will process the above-ground portion of the form in advance of the archaeological portion of the form. However, a completed determination form will not be returned to the applicant until after the archaeology report has been reviewed and approved by INDOT-CRO.*

ARCHAEOLOGICAL SHORT REPORT

PHASE IA ARCHAEOLOGICAL RECONNAISSANCE SURVEY FOR THE PROPOSED SR 46 AND CONCORD ROAD/FLATWOODS DRIVE INTERSECTION IMPROVEMENTS PROJECT, WASHINGTON TOWNSHIP, OWEN COUNTY, INDIANA (INDOT DES. NO. 1900370)

PREPARED FOR:

DLZ INDIANA, LLC
2211 EAST JEFFERSON BOULEVARD
SOUTH BEND, IN 46615
TELEPHONE: (574) 236-4400 EXT. 614

LEAD AGENCY:

INDIANA DEPARTMENT OF TRANSPORTATION

Prepared by

Christopher M. Stevenson, MS, RPA
and Megan Copenhaver, MA, RPA



Complex Environment. Creative Solutions.

6958 Hillsdale Court
Indianapolis, IN 46250
Telephone: 317.400.1633
www.metricenv.com

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

Samuel P. Snell, MS., RPA
Archaeological Principal Investigator
sams@metricenv.com
August 29, 2023

screen. A standard record was kept that includes soil profile, soil texture, soil color (Munsell), and presence/absence of cultural materials.

Cores / auger probes (Check all that apply)

Cores / auger probes Interval: Five (5) meters Ten (10) meters Fifteen (15) meters Other (Describe below)

The standard is screened cores / auger probes using ¼" size mesh. If cores / auger probes were not screened, or a different size mesh was utilized, an explanation must be provided in the methods below.

Describe methods.

Additional field investigation comments

The survey area was investigated in accordance with Indiana Department of Natural Resources, Division of Historic Preservation and Archaeology Guidebook (IDNR, DHPA 2022) and the INDOT Cultural Resources Manual (INDOT, CRO 2023). The survey area was subject to visual inspection and shovel testing. Any specific changes to methodology were based upon conditions encountered in the field and are further described within the following section.

RESULTS

Summary of relevant regional culture background

Cultural manifestations near the project area reflect the general sequence from Paleoindian through historic American. Within Owen County, based on the SHAARD database, there are 391 Unidentified Prehistoric, 11 Paleoindian, 1 Late Paleoindian, 1 Late Paleoindian/Early Archaic, 45 Early Archaic, 22 Middle Archaic, 47 Late Archaic, 4 Late Archaic/Early Woodland, 18 Early Woodland, 15 Middle Woodland, 44 Late Woodland, 29 Late Woodland/Mississippian, 6 Mississippian, and 75 Historic Sites (IDNR, DHPA 2021).

The Map of Owen County, Indiana Showing Rural Delivery Service (United States Post Office Department 1911), the Plat Book of Owen County, Indiana (W.W. Hixson & Company 1925), and the Map of Owen County, Cultural (Indiana Highway Survey Commission 1936) were investigated. The intersection of roads following the current alignments of SR 46, Concord Road and Flatwoods Drive are present in all of these resources. These resources show sparse historic structures within the vicinity of the current survey area.

The 1947, 1959, 1965, 1998, 2010, 2013, 2016, 2019, and 2022 Gosport, IN USGS topographic maps were investigated (United States Geological Survey 2020a). The intersection of SR 46, Concord Road, and Flatwoods Drive are present in all resources. Residential development in the southwestern quadrant of the intersection first appears in the 1965 topographic map and an increase of structures around the intersection in the 1998 topographic map.

Aerial photographs from 1939, 1946, 1954, 1958, 1967, and 1980 (Indiana Geological and Water Survey 2022); 1952, 1962, 1964, 1970, 1971, 1972, 1977 (United States Geological Survey 2020b); and Google Earth imagery 1985-2018 were investigated (Google Earth 2022). The intersection of SR 46, Concord Road, and Flatwoods Drive appear in their current alignment in all photographs. Residential development in the southwestern quadrant of the intersection is first present in the 1962 photograph and a gradual increase of structures surrounding the intersection appears throughout the later photographs.

A Dollar General store has been constructed in the northwest quadrant of the project area, but it does not show up on any aerial photography.

Records check (Check all that apply)

- The project area does not have the potential to contain archaeological resources. *Provide explanation / justification.*
- There are previously recorded archaeological resources within the project area, but those resources do not warrant additional archaeological investigation. *Provide explanation / justification.*
- The project area contains previously recorded archaeological resources that warrant additional investigation and/or the project area has the potential to contain archaeological resources. *Provide explanation / justification.*
- Based upon the records check results, a reconnaissance has been conducted.
- A cemetery is located within or adjacent to the project area.

Explanation / justification

The survey area has the potential to contain intact soils and thus has the potential to contain previously unidentified archaeological resources.

Phase 1a archaeological reconnaissance (Check all that apply)

No Phase 1a reconnaissance was conducted.

Phase 1a reconnaissance located no archaeological resources.

Previously recorded sites were in the project area.

Artifacts and/or features at a previously recorded site(s) within the project area were not discovered. List the site(s) below.

Phase 1a reconnaissance has identified landforms conducive to buried archaeological deposits. Describe below.

List sites.
NA

Describe landforms.
NA

Number of shovel probes excavated 50	Number of cores / auger probes 0
---	-------------------------------------

Describe disturbances. Attach photographs documenting disturbances.
Road grade, roadside ditch, buried utilities, recent and current construction activity.

Actual area surveyed (hectares) 2.3	Actual area surveyed (acres) 5.6
--	-------------------------------------

Explain results of fieldwork.
The survey area was initially visually inspected and divided into four sections designated as Area 1 through Area 4 (Figures 2 through 15).

Area 1 was located north of SR 46 and west of Concord Road and was comprised of a recently constructed commercial property (Dollar General), road grade, roadside ditch, buried utilities, natural slope, and terrain disturbed from recent construction activity (Figures 3 through 5). A total of six STPs were excavated along two transects in Area 1. Transect 1 was parallel to Concord Road and consisted of one STP displaying a disturbed soil profile of brown (10YR 4/3) clay mixed with yellowish brown (10YR 5/6) silty clay loam extending to 10 cm (3.9 in) with gravel fill underlain by a yellowish brown (10YR 5/6) silty clay. Visual inspection found the remainder of Transect 1 to be visibly disturbed due to buried utilities, construction road, natural slope, and terrain eroded to the subsoil on the surface, and no additional STPs were required (Figure 5). Transect 2 was parallel to SR 46 and consisted of five STPs. STPs 1 and 2 displayed similar soil profiles of brown (10YR 4/3) silty loam extending to 5-20 cm (2.0-7.9 in) underlain by yellowish brown (10YR 5/6) silty loam. STPs 3 through 5 displayed similar soil profiles of yellowish brown (10YR 5/6) subsoil eroded to the surface with some mixed gravel in STPs 4 and 5. The remainder of the area was disturbed by the construction the Dollar General store.

Area 2 was located south of SR 46 and west of Flatwoods Drive and was comprised of buried utilities (gas and two water lines), natural slope, and private driveways and yards (Figures 6 and 7). A total of twelve STPs were excavated along one transect in Area 2, parallel to SR 46. Eleven STPs displayed similar soil profiles of brown (10YR 4/3) silty clay loam extending to 5-25 cm (2.0-9.8 in) underlain by yellowish brown (10YR 5/6) silty clay loam. STP 7 displayed a layer of sod extending to 10 cm (3.9 in) underlain by yellowish brown (10YR 5/6) subsoil. It is unclear if this is factor of grading for a nearby driveway or if the soil was eroded. Visual inspection found the portion of Area 2 parallel to Flatwoods Drive to contain natural slope and buried utilities and no STPs were required (Figure 7).

Area 3 was located north of SR 46 and east of Concord Road and was comprised of road grade, roadside ditch, buried utilities, natural slope, and grass areas (Figures 8 through 10). A total of eighteen STPs were excavated along two transects in Area 3. Transect 1 was parallel to Concord Road and consisted of three STPs displaying similar soil profiles of brown (10YR 4/3) silty clay loam extending to 15-26 cm (5.9-10.2 in) underlain by yellowish brown (10YR 5/6) silty clay loam. Visual inspection found the remainder of Transect 1 to contain natural slope and buried utilities and no additional STPs were required. Transect 2 was parallel to SR 46 and consisted of fifteen STPs. STP 1 displayed eroded yellowish brown (10YR 5/6) subsoil on the surface; STPs 2 through 8, 10, 11, 12, and 14 displayed similar soil profiles of brown (10YR 4/3) or grayish brown (10YR 5/2) silty clay loam extending to 5-30 cm (2.0-11.8 in) underlain either by yellowish brown (10YR 5/6) or pale brown (10YR 6/3) silty clay loam; STP 9 displayed a disturbed soil profile of brown (10YR 4/3) silty loam extending to 10 cm (3.9 in) where a gravel fill impasse was encountered and was located near an existing gravel driveway and parking lot; and STPs 13 and 15 displayed disturbed soil profiles of brown (10YR 4/3) silty clay loam mixed with yellowish brown (10YR 5/6) and brownish yellow (10YR 8/8) clay loam. Visual inspection found the remainder of Transect 2 east of STP 15 to contain natural slope and additional STPs were not required (Figure 10).

Area 4 was located south of SR 46 and east of Flatwoods Drive and was comprised of road grade, roadside ditch, buried utilities, an overgrown/lightly wooded area, natural slope, and private driveways and yards (Figures 11 through 15). A total of fourteen STPs were excavated along two transects in Area 4. Transect 1 was parallel to SR 46 and consisted of ten STPs. STPs 1 and 4 through 10 displayed similar soil profiles of brown (10YR 4/3) or grayish brown (10YR 5/2) silty clay loam

extending to 15-33 cm (5.9-13.0 in) underlain by yellowish brown (10YR 5/6) silty clay loam; STPs 2 and 3 displayed inundated soil profiles of grayish brown (10YR 5/2) silty clay loam extending to 15-25 cm (5.9-9.8 in) where water filled the STP. There is a slope between T1P10 and the house (Figure 12). The yard in front of the house was disturbed by buried utilities. Transect 2 was parallel to Flatwoods Drive and consisted of four STPs. STPs 1, 2, and 3 displayed similar soil profiles of brown (10YR 4/3) silty clay loam extending to 15 cm (5.9 in) underlain by yellowish brown (10YR 5/6) or dark yellowish brown (10YR 4/6) silty clay loam; STP 4 displayed grayish brown (10YR 5/2) silty loam extending to 15 cm (5.9 in) underlain by pale brown (10YR 6/3) silty clay loam. There was an area of slope between T2P1 and a shed behind the house (Figure 14).

No archaeological sites were identified during this survey.

RECOMMENDATIONS

Records check (*Check all that apply*)

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

Phase 1a archaeological reconnaissance (*Check all that apply*)

- It is recommended that the project be allowed to proceed as planned because the Phase 1a archaeological reconnaissance has located no archaeological sites within the project area and/or previously recorded sites that were investigated warrant no additional investigation.
- It is recommended that Phase 1c archaeological subsurface reconnaissance be conducted before the project is allowed to proceed. The Phase 1a archaeological reconnaissance has determined that the project area includes landforms which have the potential to contain buried archaeological deposits.

Other recommendations / commitments

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

REQUIRED ATTACHMENTS

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

Other attachments

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

Baltz, Christopher J.

1984 Archaeological Reconnaissance of the Proposed Waterworks Improvements for the Beanblossom-Patricksborg Water Corporation in Owen and Monroe Counties, Indiana. Archaeological report prepared by Glenn A. Black Laboratory of Archaeology, Indiana University, Bloomington, IN.

Cox, Cameron and Mitchell Zoll

2007 Archaeological Field Reconnaissance Re-alignment of State Road 46 Des. No. 9467555 Owen and Monroe Counties, Indiana. Archaeological report prepared by Archaeological Resources Management Service, Ball State University, Muncie, IN.

Google Earth

2022 Google Earth Pro. Desktop software, <<https://www.google.com/earth/versions/#earth-pro>>, accessed January 6, 2023.

Indiana Department of Natural Resources, Division of Historic Preservation and Archaeology (IDNR, DHPA)

2021 Indiana State Historical Architectural and Archaeological Research Database (SHAARD). Electronic Document, <<https://secure.in.gov/apps/dnr/shaard/welcome.html>>, accessed January 6, 2023.

2022 Guidebook for Indiana Historic Sites and Structures Inventory – Archaeological Sites. Manuscript on file, Division of Historic Preservation and Archaeology, Indiana Department of Natural Resources, Indianapolis.

APPENDIX E

Red Flag Investigation



SR 46 Intersection Improvement Project
SR 46 & CR 350E, 1.0 Mile East of SR 43
Owen County, INDOT Seymour District
Des. No.: 1900370



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: May 16, 2023

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

From: Bradley W. Smith
DLZ Indiana, LLC
2211 East Jefferson Boulevard
South Bend, IN 46615
bwsmith@dlz.com

Re: RED FLAG INVESTIGATION
DES #1900370, State Project
Project Description: Intersection Improvement Project
SR 46 & CR 350 East Intersection, 1.0 Mile East of SR 43
Owen County, Indiana

PROJECT DESCRIPTION

Brief Description of Project: The project is for improvements to the SR 46 and CR 350 East/Flatwoods Road intersection, in Owen County, Indiana. The preferred alternative will add dedicated left turn lanes in both eastbound and westbound directions. Widening will be done to accommodate left turn lanes and existing lanes will receive functional mill and overlay. The westbound through lane will be shifted north to provide room for the westbound left turn lane. This layout is expected to reduce right of way impacts to the properties on the south side. Eastbound through and right turn only lanes will be maintained at the existing location, while the westbound right turn lane will be eliminated due to the addition of the left turn and new roadway alignment. The existing horizontal/vertical alignment along SR 46 will be maintained. Approach work will be needed along CR 350 East and Flatwoods Road to improve turning radii and sight distance. The existing overhead flashers located at the intersection will be maintained if a new traffic signal is not warranted.

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) _____

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

Type and proposed depth of excavation: Maximum anticipated depth of excavation is five (5) feet below ground surface.

Maintenance of traffic (MOT): Both lanes of traffic will remain open along SR 46 during widening. A one way moving flagger operation will be utilized during resurfacing.

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	2	Recreational Facilities	N/A
Airports ¹	N/A	Pipelines	1
Cemeteries	N/A	Railroads	N/A
Hospitals	N/A	Trails	N/A
Schools	N/A	Managed Lands	1

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

Explanation:

Religious Facilities

Two (2) Religious Facilities are located within the 0.5 mile search radius. The nearest religious facility, McCormick’s Creek United Pentecostal Church, is located approximately 0.18 mile west of the western terminus of the project area. No impact is expected.

Pipelines

One (1) Pipeline segment is located within the 0.5 mile search radius. The pipeline segment, belonging to Community Natural Gas Company, Incorporated, is located approximately 0.11 mile south of the southern CR 350 East terminus of the project area. No impact is expected.

Managed Lands

One (1) Managed Land is located within the 0.5 mile search radius. The managed land, McCormick’s Creek State Park, is located approximately 0.25 mile north of the northern CR 350 East terminus of the project area. No impact is expected.

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:			
NWI - Points	5	Canal Routes - Historic	N/A
Karst Springs	N/A	NWI - Wetlands	16
Canal Structures – Historic	N/A	Lakes	10*
NPS NRI Listed	N/A	Floodplain - DFIRM	N/A
NWI-Lines	4	Cave Entrance Density	N/A
IDEM 303d Listed Streams and Lakes (Impaired)	1	Sinkhole Areas	1
Rivers and Streams	3	Sinking-Stream Basins	N/A

If unmapped water features are identified that might impact the project area, direct coordination with INDOT ESD Ecology and Waterway Permitting will occur.

Explanation:

NWI – Points

Five (5) NWI Points are located within the 0.5 mile search radius. The nearest NWI point is located approximately 0.14 mile northeast of the northern terminus of the project area. No impact is expected.

NWI-Lines

Four (4) NWI Lines are located within the 0.5 mile search radius. The nearest NWI line is located approximately 0.33 mile southwest of the western terminus of the project area. No impact is expected.

IDEM 303d Listed Streams and Lakes (Impaired)

One (1) 303d Listed Stream segment is located within the 0.5 mile search radius. The 303d stream segment, McCormick’s Creek, is located approximately 0.33 mile southwest of the western terminus of the project area. No impact is expected.

Rivers and Streams

Three (3) River and Stream segments are located within the 0.5 mile search radius. The nearest stream segment, McCormick’s Creek, is located approximately 0.33 mile southwest of the western terminus of the project area. No impact is expected.

NWI - Wetlands

Sixteen (16) NWI Wetlands are located within the 0.5 mile search radius. The nearest wetland is located adjacent to the eastern terminus of the project area. A Waters of the US Report is recommended based on mapped features, and coordination with INDOT ESD Ecology and Waterway Permitting will occur.

Lakes*

Ten (10) Lakes, nine (9) mapped and one (1) unmapped, are located within the 0.5 mile search radius. The nearest lake is located adjacent to the eastern terminus of the project area. A Waters of the US Report is recommended based on mapped features, and coordination with INDOT ESD Ecology and Waterway Permitting will occur.

Sinkhole Areas

One (1) Sinkhole Area is located within the 0.5 mile search radius. The sinkhole area is located adjacent to the north side of the eastern half of the project area. Coordination with INDOT ESD Ecology and Waterway Permitting will occur.

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	N/A	Mineral Resources	N/A
Mines – Surface	N/A	Mines – Underground	N/A

Explanation:

No mining or mineral exploration resources were identified within the 0.5 mile search radius.

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	Manufactured Gas Plant Sites	N/A
RCRA Generator/ TSD	N/A	Open Dump Waste Sites	N/A
RCRA Corrective Action Sites	N/A	Restricted Waste Sites	N/A
State Cleanup Sites	N/A	Waste Transfer Stations	N/A
Septage Waste Sites	N/A	Tire Waste Sites	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	Institutional Controls	N/A
Solid Waste Landfill	N/A	NPDES Facilities	N/A
Infectious/Medical Waste Sites	N/A	NPDES Pipe Locations	1
Leaking Underground Storage (LUST) Sites	N/A	Notice of Contamination 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:

NPDES Pipe Locations

One (1) NPDES Pipe Location is located within the 0.5 mile search radius. The NPDES pipe is located approximately 0.36 mile northwest of the western terminus of the project area. No impact is expected.

ECOLOGICAL INFORMATION SUMMARY

The 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_owen.pdf. A preliminary review of the Indiana Natural Heritage Database by INDOT ESD did not 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 range-wide programmatic consultation for the Indiana Bat and the Northern Long-eared Bat will be completed according to the most recent “Using the USFWS’s IPaC System for Listed Bat Consultation INDOT Projects.”

RECOMMENDATIONS SECTION

Include recommendations from each section. If there are no recommendations, please indicate N/A:

INFRASTRUCTURE: N/A

WATER RESOURCES: A Waters of the US Report is recommended based on the presence of mapped features, and coordination with INDOT ESD Ecology and Waterway Permitting will occur for the following features:

- Wetlands: One (1) wetland is located adjacent to the project area.
- Lakes: One (1) lake is located adjacent to the project area.
- Sinkhole Area: One (1) sinkhole area is located adjacent to the project area.

MINING/MINERAL EXPLORATION: N/A

HAZARDOUS MATERIAL CONCERNS: N/A

ECOLOGICAL INFORMATION:

Coordination with USFWS and IDNR will occur. The range-wide programmatic consultation for the Indiana Bat and the 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."

Digitally signed by
Dariane Davis
Date: 2023.05.16 09:47:32
-04'00'

Dariane Davis _____ (Signature)

Prepared by:
Bradley W. Smith
Survey/Mapping Assistant
DLZ Indiana, LLC

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

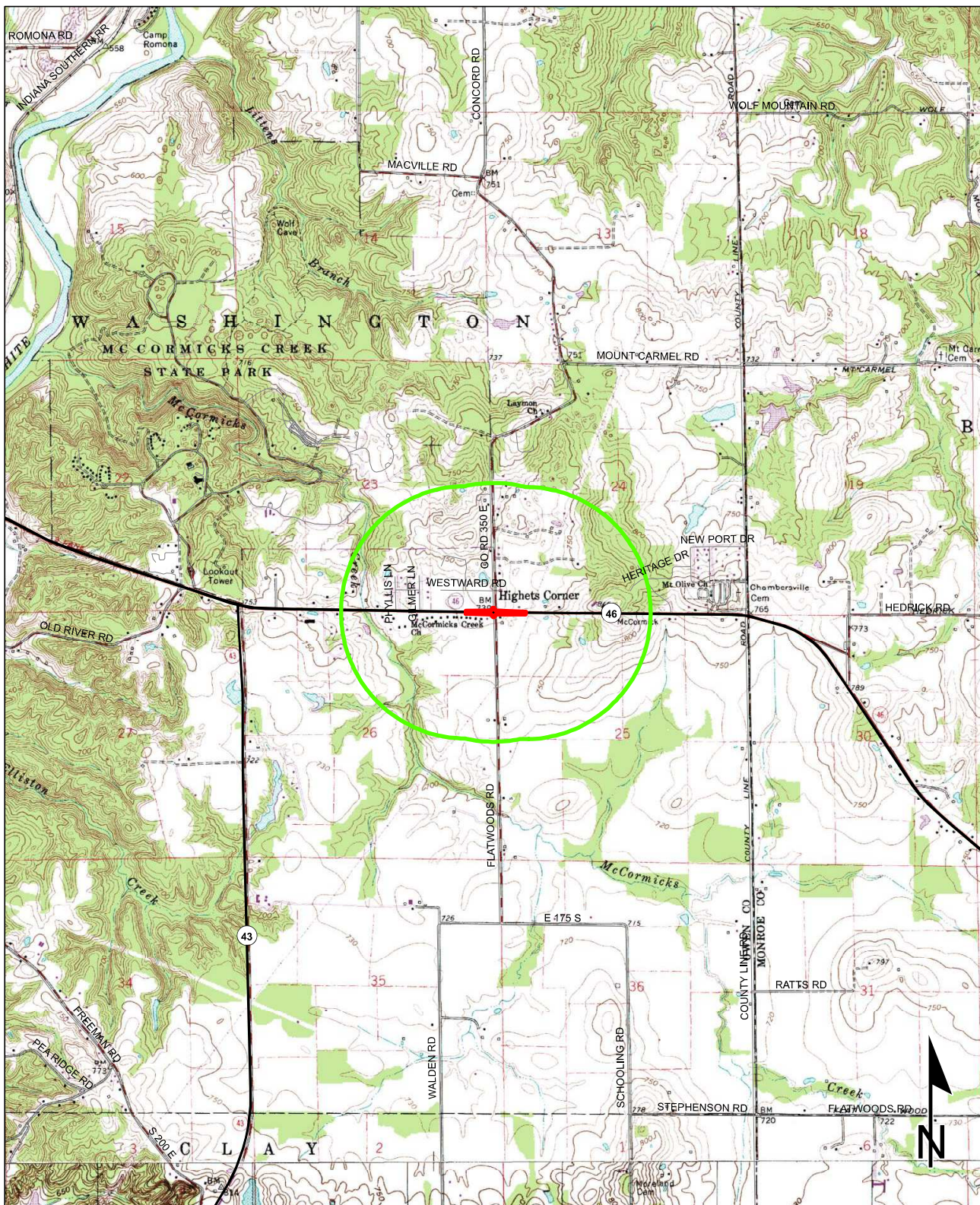
INFRASTRUCTURE: YES

WATER RESOURCES: YES

MINING/MINERAL EXPLORATION: N/A

HAZARDOUS MATERIAL CONCERNS: YES

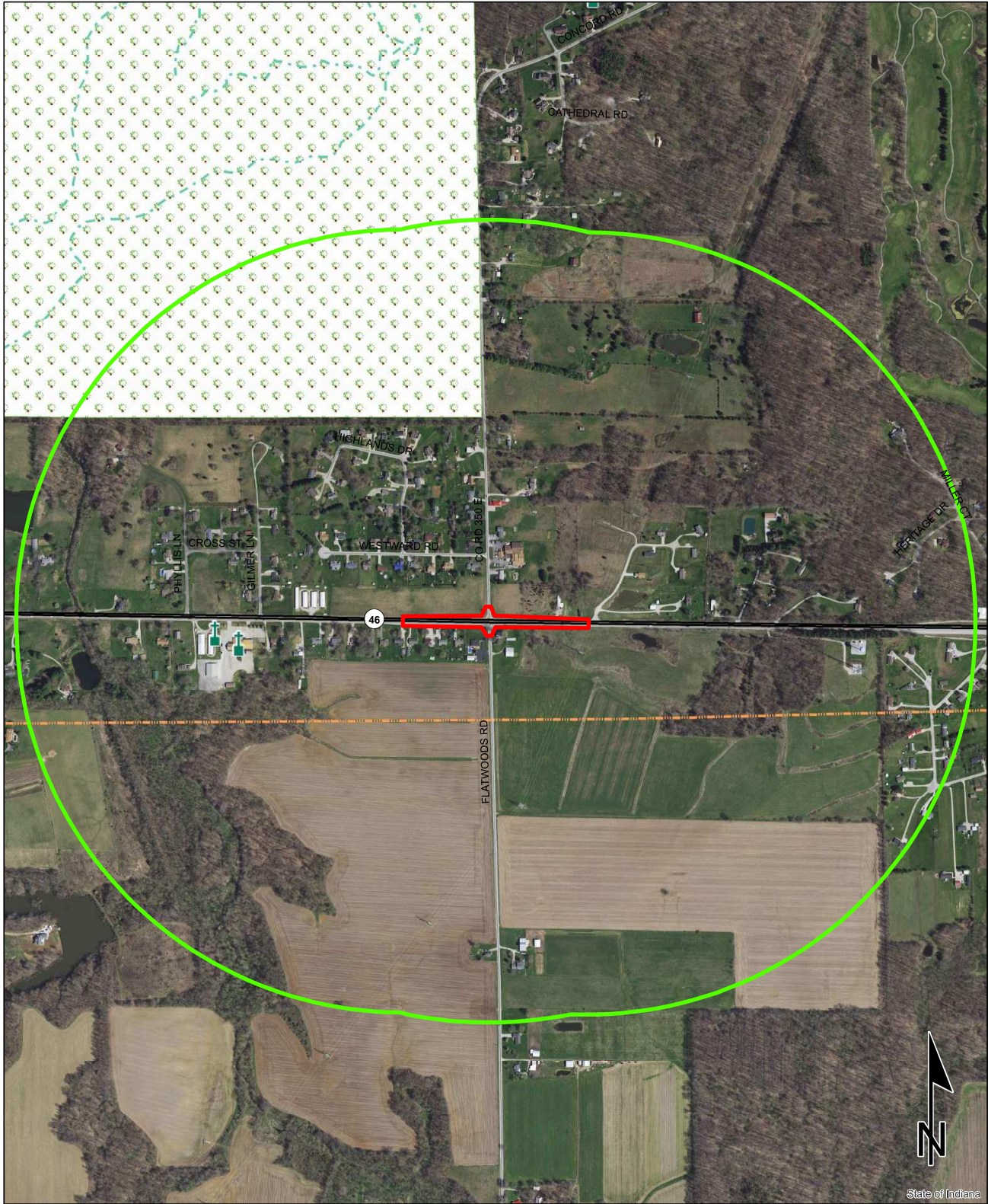
Red Flag Investigation - Site Location
SR 46 & CR 350 East Intersection, 1.0 Mile East of SR 43
Des. No. 1900370, Intersection Improvement Project
Owen County, Indiana



Sources: 0.5 0.25 0 0.5 Miles
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.

GOSPORT QUADRANGLE
INDIANA
7.5 MINUTE SERIES
(TOPOGRAPHIC)

Red Flag Investigation - Infrastructure
 SR 46 & CR 350 East Intersection, 1.0 Mile East of SR 43
 Des. No. 1900370, Intersection Improvement Project
 Owen County, Indiana



Sources: 0.15 0.075 0 0.15 Miles
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.

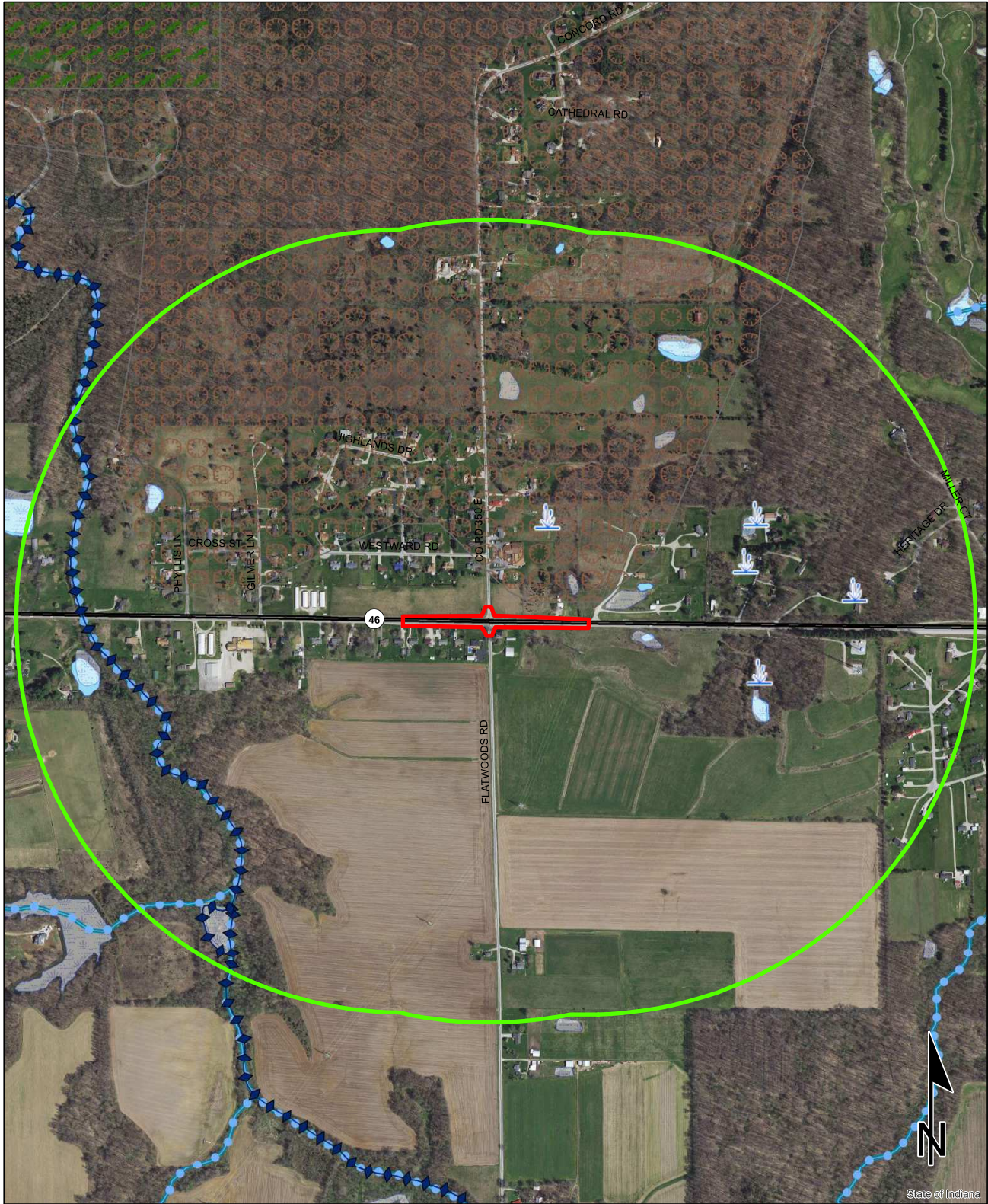
	Religious Facility		Recreation Facility		Project Area
	Airport		Pipeline		Half Mile Radius
	Cemeteries		Railroad		Toll
	Hospital		Trails		Interstate
	School		Managed Lands		State Route
			County Boundary		US Route
					Local Road

Red Flag Investigation - Water Resources

SR 46 & CR 350 East Intersection, 1.0 Mile East of SR 43

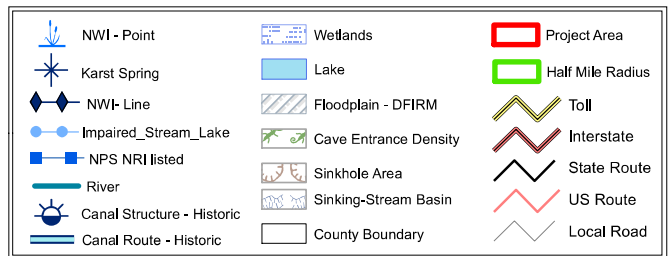
Des. No. 1900370, Intersection Improvement Project

Owen County, Indiana

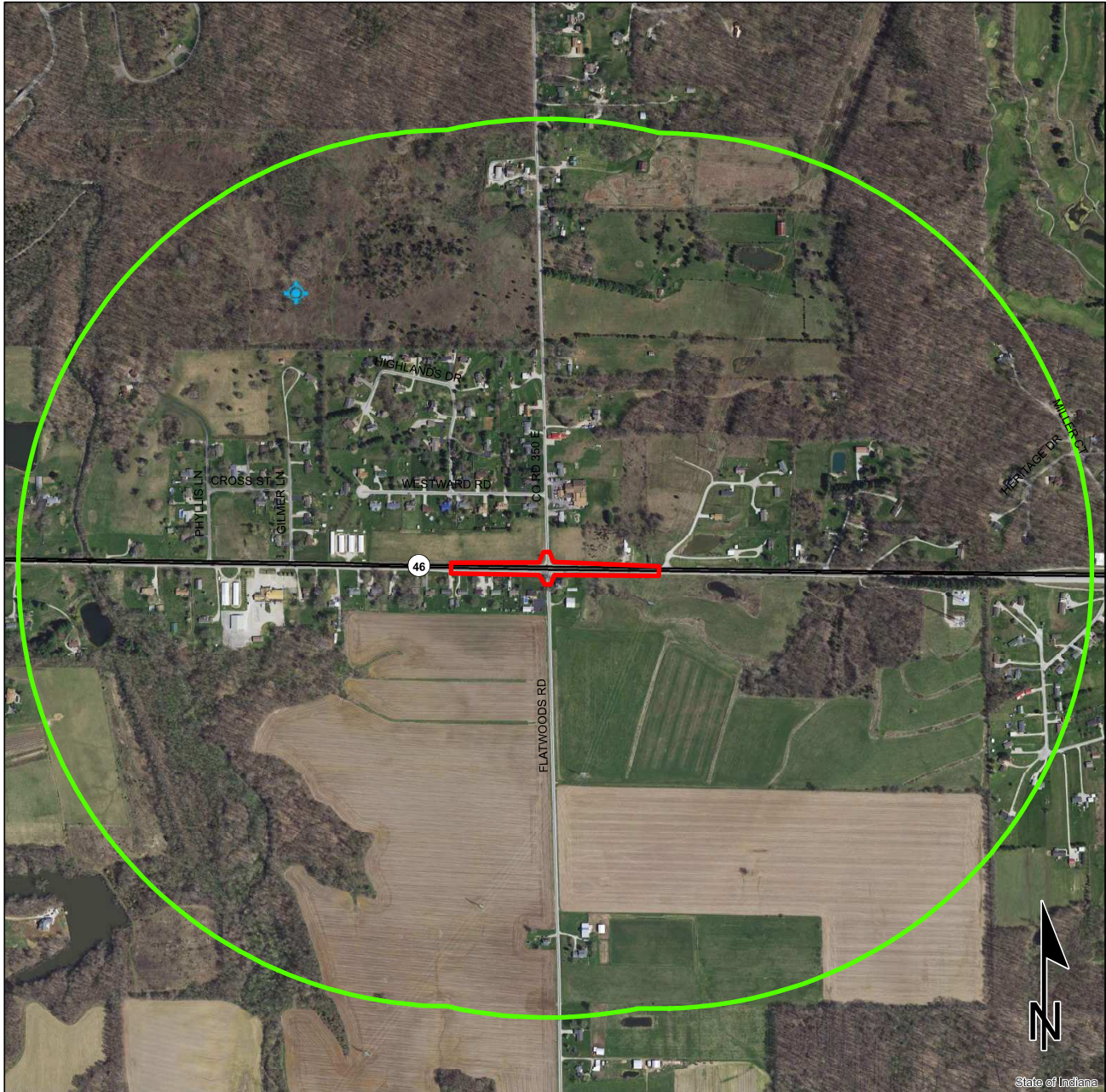


Sources:
Non Orthophotography
Data - Obtained from the State of Indiana Geographical Information Office Library
Orthophotography - Obtained from Indiana Map Framework Data (www.indianamap.org)
Map Projection: UTM Zone 16 N **Map Datum:** NAD83

This map is intended to serve as an aid in graphic representation only. This information is not warranted for accuracy or other purposes.



Red Flag Investigation - Hazardous Material Concerns
 SR 46 & CR 350 East Intersection, 1.0 Mile East of SR 43
 Des. No. 1900370, Intersection Improvement Project
 Owen County, Indiana



	Brownfield		RCRA Generator/TSD		Institutional Controls
	RCRA Corrective Action Sites		Restricted Waste Site		County Boundary
	Confined Feeding Operation Notice_of_Contamination		Septage Waste Site		Project Area
	Construction/Demolition Site		Solid Waste Landfill		Half Mile Radius
	Infectious/Medical Waste Site		State Cleanup Site		Toll
	Leaking Underground Storage Tank		Superfund		Interstate
	Manufactured Gas Plant		Tire Waste Site		State Route
	NPDES Facilities		Underground Storage Tank		US Route
	NPDES Pipe Locations		Voluntary Remediation Program		Local Road
	Open Dump Waste Site		Waste Transfer Station		

0.15 0.075 0 0.15
 Miles

This map is intended to serve as an aid in graphic representation only. This information is not warranted for accuracy or other purposes.

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

APPENDIX F

Public Involvement Documentation



SR 46 Intersection Improvement Project
SR 46 & CR 350E, 1.0 Mile East of SR 43
Owen County, INDOT Seymour District
Des. No.: 1900370



INNOVATIVE IDEAS
EXCEPTIONAL DESIGN
UNMATCHED CLIENT SERVICE

February 1, 2023

«Owner»
«Mailing_address»
«City», «State» «Zip»

Re: Survey Notice for S.R. 46 Road Rehabilitation
DLZ Project #2263-2077-50
Property Key # «Tax_ID_»
Property Address: «Property_Address» «City1»

Dear Property Owner:

Our firm has been retained by the Indiana Department of Transportation (INDOT) to prepare a survey for the road rehabilitation project of S.R. 46 at its intersection with Concord Road, Des. No. 1900370.

Our information indicates that you either own or occupy property near this proposed highway project. Our employees will be conducting 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 law in accordance with Indiana Code IC 8-23-7-26 (see attached). They will show you their identification, if you are available, before coming onto your property. If you have sold this property, or it is occupied by someone else, please let us know the name and address of the new owner or current occupant so we can contact them about the survey.

The survey work will include the location of features such as streams, wetlands, bridges, curb and gutter, buildings, trees, fences, utilities, sewer structures and drives, and obtaining ground elevations. We will also be re-establishing public street right-of-way lines by looking for and locating property irons and subdivision block corners. This survey is needed for the proper planning and design of this project.

Please be assured of our sincere desire to cause you as little inconvenience as possible during this survey. If any problems do occur, please contact our field crew or myself at the number listed below. A copy of IC-8-23-7-26 thru 28 is provided to help with your understanding of the process. In accordance with IC 8-23-7-28, any request for damages shall be made in writing to the INDOT – Seymour District – Anthony McClellan, Deputy Commissioner, 185 Agrico Lane, Seymour, IN 47274.

Sincerely,

DLZ INDIANA, LLC

Steve Jones, PS, CFedS
Survey & Right of Way Division Manager

APPENDIX G

Air Quality Documentation



SR 46 Intersection Improvement Project
SR 46 & CR 350E, 1.0 Mile East of SR 43
Owen County, INDOT Seymour District
Des. No.: 1900370

Indiana Department of Transportation (INDOT)
 State Preservation and Local Initiated Projects FY 2024 - 2028

SPONSOR	CONTR ACT # / LEAD DES	STIP NAME	ROUTE	WORK TYPE	DISTRICT	MILES	FEDERAL CATEGORY	Total Cost of Project*	PROGRAM	PHASE	FEDERAL	MATCH	2024	2025	2026	2027	2028
Indiana Department of Transportation	43295 / 2001984	Init.	SR 43	Small Structure Paved Invert	Seymour	0	STBG	\$351,000.00	Bridge ROW	RW	\$12,000.00	\$3,000.00	\$15,000.00				
									Bridge Construction	CN	\$268,800.00	\$67,200.00		\$336,000.00			
Performance Measure Impacted: Safety																	
Location: 0.80 mi S of SR 46																	
Comments: Include DES 2001984																	
Indiana Department of Transportation	43754 / 1900370	Init.	SR 46	Intersect. Improv. W/ Added Turn Lanes	Seymour	.19	NHPP	\$1,121,000.00	Safety ROW	RW	\$16,000.00	\$4,000.00	\$20,000.00				
									Safety Construction	CN	\$626,400.00	\$156,600.00		\$783,000.00			
Performance Measure Impacted: Safety																	
Location: Intersection of SR 46 and County Rd 350 E, 1 mile East of the Junction with SR 43																	
Comments: Include DES 1900370																	
Indiana Department of Transportation	44051 / 1801017	Init.	US 231	Small Structure Replacement	Seymour	0	NHPP	\$1,753,339.16	Bridge Consulting	PE	\$13,600.00	\$3,400.00			\$17,000.00		
									Bridge Construction	CN	\$945,600.00	\$236,400.00		\$1,182,000.00			
									Bridge ROW	RW	\$16,000.00	\$4,000.00	\$20,000.00				
Performance Measure Impacted: Bridge Condition																	
Location: 3.68 mi S of SR 46																	
Comments: Include DES 1801016, 1801017																	
Indiana Department of Transportation	44460 / 2200546	Init.	US 231	Small Structure Replacement	Seymour	0	NHPP	\$1,560,000.00	Bridge ROW	RW	\$12,000.00	\$3,000.00		\$15,000.00			
									Bridge Construction	CN	\$996,000.00	\$249,000.00		\$25,000.00		\$1,220,000.00	
Performance Measure Impacted: Bridge Condition																	
Location: over UNT Goose Creek, 6.34 miles S of SR 46																	
Comments: Include DES 2200546																	
Owen County Total																	
Federal: \$19,229,400.00 Match: \$4,807,600.00 2024: \$3,717,000.00 2025: \$710,000.00 2026: \$2,021,000.00 2027: \$16,558,000.00 2028: \$1,031,000.00																	

*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.

APPENDIX H

Additional Information



SR 46 Intersection Improvement Project
SR 46 & CR 350E, 1.0 Mile East of SR 43
Owen County, INDOT Seymour District
Des. No.: 1900370

Land and Water Conservation Fund (LWCF) County Property List for Indiana (Last Updated March 2022)			
ProjectNumber	SubProjectCode	County	Property
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 IDNR, Division of Outdoor Recreation, should occur.

Preliminary Road Safety Assessment (RSA) Report

SR 46 & Concord Rd-W Flatwoods Rd/CR 350 E

Recommended Treatment: Left Turn Lanes

Date of Site Visit: TBD

Tracking or DES Number: TBD

Safety Project

Proposed Fiscal Year: 2026

Score of Recommended Treatment: 82

Seymour District

Bloomington Sub-District

Owen County, Indiana

Prepared by:

Jeremeih Shaw

Traffic Investigations Engineer

INDOT Seymour District

11/18/20

Designer's note to Reviewer: Project Plans are consistent with the recommendations of RSA report. Therefore, a new Abbreviated Engineer's report has not been prepared for this project per direction from INDOT. We are utilizing the RSA report in lieu of new Abbreviated Engineer's report.

Prepared for the Indiana Department of Transportation

Traffic Engineering

Seymour District

Address: 185 Agrico Ln, Seymour, IN 47274





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Executive Summary

The purpose of this report is to document the engineering assessment phase of project development, including all coordination that has been completed in preparation for this project. This document outlines the proposal and is intended to serve as a guide for subsequent survey, design, environmental, right of way and other project activities leading to construction. The preferred alternative identified in this document is considered predecisional, pending the outcome of environmental studies. An alternative other than the preferred alternative may not be selected without consultation with the preparer of this report.

The proposed project is located on SR 46 at the intersection with County Road 350 East (W Flatwoods/Concord Rd), 1 mile east of SR 43. This is east of Spencer, Indiana in Owen County. The project would add opposing left turn lanes to SR 46 at the intersection in order to reduce crashes at this location for a cost of \$925,000.

This location has been studied as a possible candidate for project funding under the federal Highway Safety Improvement Program (HSIP) and therefore 23 U.S.C Section 409 applies.



Project Location

Table 1: Project Location Information

Location Description			
Route	SR 46	Latitude	39.281924
City	East of Spencer	Longitude	-86.703660
County	Owen	Cross Street References (From/To)	Concord Rd/ CR 350E/ W Flatwoods Rd
District	Seymour		
Sub District	Bloomington	RP From	41.27
MPO		RP To	41.46
NHS Route?	Yes	Length	~1450'
Functional Class	Other Principal Arterial	Work Type	Intersect. Improv. W/ Added Turn Lanes
Rural or Urban	Rural	Work Category	Intersection Improvement Project
Other Location Info:			

See attachments for a map showing the project location and for other pictures of the site.

Purpose and Need

The need for this project is that the number of crashes occurring at the intersection are higher than anticipated. The intersection experiences higher than expected crash frequency and crash severity (Icf = 1.78 and Icc = 1.90). There are not currently left-turn lanes on SR 46. Most of the crashes at the intersection are rear-end and right-angle collisions. There is already an overhead flashing beacon alerting drivers of the approaching intersection and a traffic signal is not warranted. The purpose of this project is to reduce the frequency and severity of crashes.

Project History

This segment of SR 46 from 0.23 mi east of US 231 to 5.67 miles east of SR 43 is scheduled to be resurfaced in 2023 under Des. 2000447. Additionally, a roundabout is being designed for SR 46 at SR 43 a mile west of this location under Des. 1800189 (provisional status).

Existing Conditions

Notes from Field Check

This project has been discussed in virtual field checks but has not had an official field check.



Near Term Alternatives

With the upcoming resurface the markings will be updated. The intersection markings could be changed with the resurface, however the length of the left turn lane on the westbound approach would not be long enough and that could cause issues.

Structure Information

There are no known structures that will be affected by this project.

Roadway Geometrics and Pavement Information

Table 2: Roadway Geometrics and Pavement Information

Lane Width	12', with 10' Rt turn lanes
Curbed	No
Paved Shoulder Width	Varies
Usable Shoulder Width	Varies
Number of lanes in each direction	1
Intersection Traffic Control	Two Way Stop
Speed Limit	55 mph
Pavement Type	Asphalt
Median Type	None
Drainage Type	Sheet flow/ditches
Sidewalks Present?	No
Bike Lanes Present?	No
Guardrail / Barriers Present	None

SR 46 has a 12-foot lane westbound and eastbound, with approximately 10-foot-wide right turn lanes at this intersection. The shoulders vary throughout the project area. There is additional pavement in the southeast and northwest quadrants of the project for turns onto SR 46. The Concord Rd approach is approximately 22 feet wide, and the W Flatwoods Rd approach is approximately 24' wide at the intersection with no pavement markings. The intersection is very close to a right angle.

Traffic Data

Table 3: Volume Information and Traffic Forecast

Representative AADT	12,516
AADT Year	2020
% Trucks	6%
DHV (%)	9.8%

Crash Data Analysis

Table 4: Crash History

ICC	1.90	Number of Crashes	13
ICF	1.78	Number of Fatal and Incapacitating Crashes	4
First Year of Crash Data	2017	Number of Non-Incapacitating Crashes	1
Last Year of Crash Data	2019	Number of Property Damage Only Crashes	8



At SR 46 & Concord/Flatwoods Rd, the Icc (Index of Crash Cost) and Icf (Index of Crash Frequency) values are much higher than expected and exceed the 1.5 threshold value (Icf = 1.78 and Icc = 1.90). The crash data revealed that crashes are increasing. None of the crashes resulted in fatalities, but 80% of the injury crashes were incapacitating. Most of the crashes at this intersection were either rear-end (31%) or right-angle collisions (23%). Sixty-two percent of the crashes occurred during dry, daylight conditions.

Table 5: Crash Patterns: Manner of Collision

<u>Manner of Collision</u>	<u>Number</u>	<u>Percent</u>
Backing Crash		
Collision With Animal (Including Deer) *	1	8%
Collision With Object in Road	1	8%
Head On (Between Motor Vehicles)		
Left Turn, Right Turn or Angle	5	38%
Opposite Direction Sideswipe		
Ran Off Road	1	8%
Rear End	4	31%
Same Direction Sideswipe	1	8%
Other		

*In almost all cases, deer crashes and other animal crashes should be removed from the analysis completely prior to completing the RoadHAT report.

Table 6: Crash Patterns: Pavement Condition Percentages

<u>Type</u>	<u>Number</u>	<u>Percent</u>	<u>Compared to a Standard Value* of:</u>
On Snowy or Icy Pavement			11.18%
On Wet Pavement	5	38%	15.49%
On Dry Pavement	8	62%	73.17%
On Other Condition Pavement			0.16%

*Standard values are based on 2014-2018 data for all state-owned facilities. Standard values are included for comparison purposes only.

Table 7: Crash Patterns: Lighting Condition Percentages

<u>Type</u>	<u>Number</u>	<u>Percent</u>	<u>Compared to a Standard Value* of:</u>
Dark (Lighted or Unlighted)	3	23%	32.76%
Dawn/Dusk	1	8%	5.49%
Daylight	8	62%	61.66%
Other			0.10%

*Standard values are based on 2014-2018 data for all state-owned facilities. Standard values are included for comparison purposes only.

Table 8: Crash Patterns: Weather Condition Percentages

<u>Type</u>	<u>Number</u>	<u>Percent</u>	<u>Compared to a Standard Value* of:</u>
Clear	8	62%	62.39%
Cloudy			18.33%
Fog (Or Smoke or Smog)			0.68%
Rain	5	38%	9.79%
Snow or Sleet			6.41%
Blowing Material			2.13%
Severe Cross Winds			0.26%



*Standard values are based on 2014-2018 data for all state-owned facilities. Standard values are included for comparison purposes only.

The RoadHAT output, crash statistics summary and crash diagrams have been included in the attachments to this report.

Community/External Stakeholder Context

Further community outreach will be done by the project manager.

Adjacent INDOT Projects

No additional 2026 projects are known in the area of this project at this time.

Other Miscellaneous Information

This project has been submitted to the safety call for projects previously but has not met the cutoff to be selected for funding. Regardless, the intersection continues to have consistently higher than anticipated crash rates. The project would also help progress on a District goal to provide left turn lanes at all intersections along SR 46.

Analysis and Alternatives

Description of Alternatives

Alternative 1 – No Build. This alternative would have no cost but would not reduce crashes at this location, and is therefore not recommended.

Alternative 2 – A conventional intersection type was selected. The minor road volumes are significantly less than SR 46 traffic volumes and other intersection design layouts described in the INDOT Intersection Decision Guide are not appropriate to this site based on traffic control devices and traffic volumes. This alternative involves shifting the lanes in both the Westbound and Eastbound directions on SR 46, and restriping the intersection to have dedicated left turn lanes, and one through/right turn lane in both the Westbound and Eastbound directions. The existing overhead flasher and poles should be removed and post mounted signs can be utilized instead. A sketch of the proposed project is provided in the appendices. Project cost is estimated to be \$806,500.

Cost Estimates (In Call Year Dollars)

Table 9: Cost Estimate Summary

Alternative	Funding Category	Estimated Cost
Alternative 1	CN	
	PE	
	Utility	



No Build	RoW	
	Total Cost	
Alternative 2	CN	\$685,000.00
	PE	\$120,000.00
	Utility	\$100,000.00
	RoW	\$20,000.00
	Total Cost	\$925,000.00

Capacity Analysis

No capacity analysis was necessary.

Preliminary Maintenance of Traffic Plan (MOT)

SR 46 should remain open during this project, however during widening work temporary traffic signals may be needed to maintain two-way traffic on one lane. McCormick’s Creek State Park is west of this location and McCormick’s Creek Elementary is located south of the project off of W Flatwoods Rd, so coordination is recommended.

The above information is preliminary and conceptual in nature. The designer of record for this project shall be responsible for the determination of MOT scheme and the full design of that scheme. The above information can be used to inform the decision making of the designer but it does not absolve the individual of the responsibility of the design.

The provisions of the Indiana Manual on Uniform Traffic Control Devices, the Indiana Design Manual and the INDOT Standard Drawings concerning the design of an MOT zone shall be adhered to. A detailed design showing the MOT layout should be included in the final set of plans. The provisions of the Interstate Highway Congestion Policy shall be followed.

Pavement and Roadway Design

The existing pavement in this location is asphalt on concrete. Widening will be required and a pavement design will be needed. The designer will consult with the INDOT Office of Pavement Engineering to determine the final pavement design. The assumed preliminary pavement design for this report consists of 12" full depth HMA on Subgrade Treatment Type ID.

Design Considerations

A 2-foot minimum shoulder should be provided adjacent to SR 46. A wider shoulder in the southwest quadrant to allow for vehicles to decelerate approaching the drives should be considered. Turn lane design follows IDM 46-4 L/M.

Table 12: Other Design Considerations

Land Survey Location	-
Civil Township	-
Federal Aid System	Yes
National Truck Network	Yes
Urban Area Boundary	-



Adjacent Land Use	Residential
--------------------------	-------------

Right-of-Way and Survey

A complete survey is needed. R/W acquisition will be required for the parcels in the NW, NE, & SE quadrants.

Utilities and Railroads

No known railroad conflicts are in the vicinity of the project. There are gas, power, and communications utilities in the NW quadrant and overhead lines N & S of the intersection. Additional pavement widening may impact utilities.

Hydraulic Recommendations

There are not any anticipated issues or impacted hydraulic structures.

Environmental and Historic Considerations

If R/W of less than 0.5ac is required, this project will require an environmental document level CE1. The Hight House on the SE quadrant is a contributing property, which may affect the CE level.

Design Criteria

The design of this project shall adhere to 3R Project, Non-Freeways standards per the Indiana Design Manual.

Recommended Alternative

The recommended alternative is Alternative 2. This involves shifting the lanes in both the Westbound and Eastbound directions on SR 46, and restriping the intersection to have dedicated left turn lanes, and one through/right turn lane in both the Westbound and Eastbound directions. Project cost is estimated to be \$925,000.

Changes to Proposal

Contact the District Traffic Engineer if deviation from this document is determined to be necessary during a later phase of project development, including but not limited to scope of work or letting changes. Any desired changes should include justification for the change and the estimated cost.



Concurrence and Approval

This document was prepared by:

Name: Jeremeih Shaw

Title: Traffic Investigations

Engineer

Date: 1/11/21

Signed:



This document was reviewed/
approved by:

Name: Damon Brown

Title: District Traffic

Engineer

Date: 1/13/21

Signed:



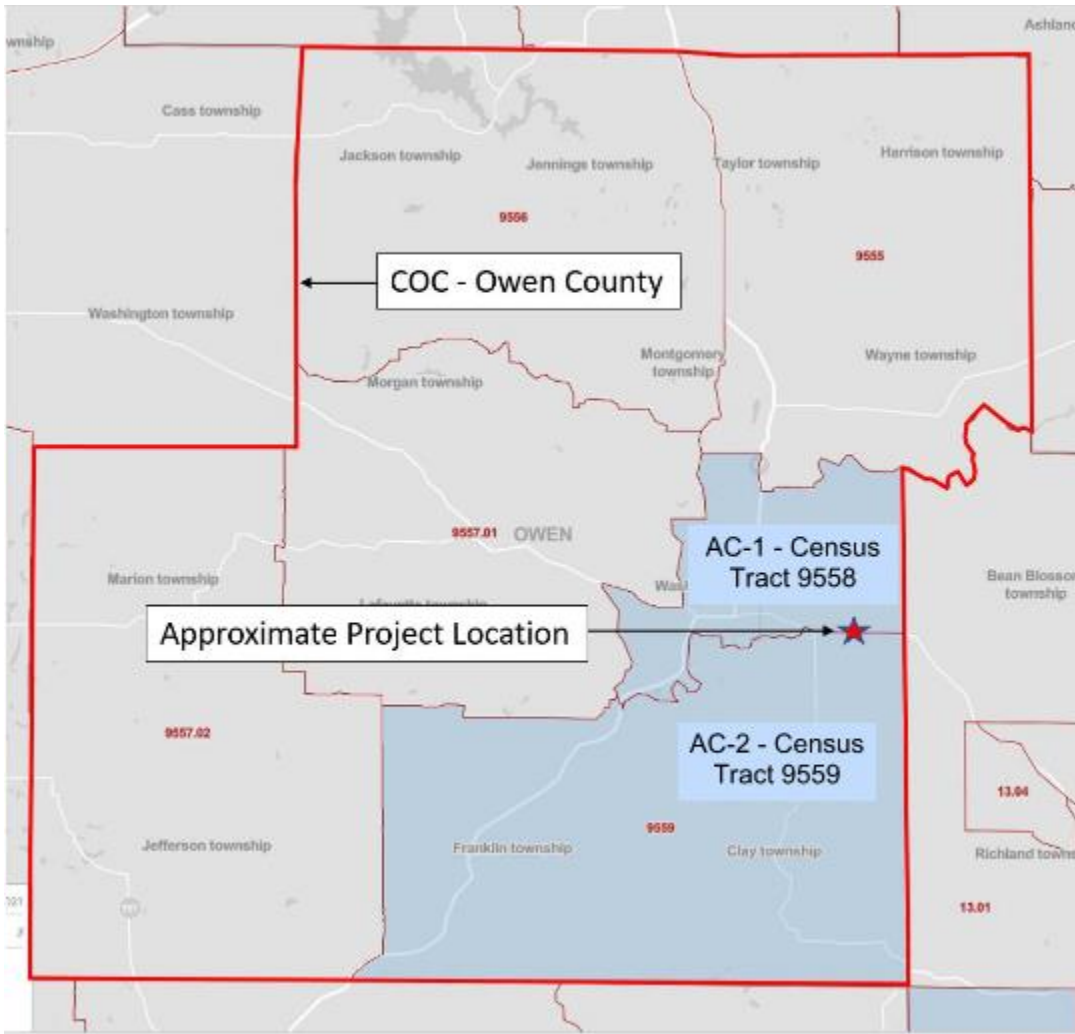
Jason Stone

From: Fair, Terri <TFair@indot.IN.gov>
Sent: Monday, November 20, 2023 5:11 PM
To: Jason Stone
Cc: Passmore, Andrew D
Subject: INDOT, SR 46 Intersection Restriping, Des No 1900370 - EJ Analysis for Review
Attachments: EJ Map and Analysis 1900370.pdf

EXTERNAL: Message origin is from an external network. Use proper judgment and caution when opening attachments, clicking links, or responding to this email.

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 minimal right-of-way, require no relocations, and would not disrupt community cohesion or create a physical barrier. With the information provided, INDOT-ESD would not consider the impacts associated with this project as causing a disproportionately high and adverse effect on minority and/or low-income populations of EJ concern relative to non-EJ populations in accordance with the provisions of Executive Order 12898 and FHWA Order 6640.23a. No further EJ Analysis is required.

Map of Owen County and Census Tracts 9558 and 9559:



Census Data Tables:

American Community Survey
B03002 | HISPANIC OR LATINO ORIGIN BY RACE
 2021: ACS 5-Year Estimates Detailed Tables | Universe: Total population

Notes | Geos | Topics | Codes | Dataset | Year | Hide | Transpose | Margin of Error | Restore | Excel | CSV | ZIP | Share | Print | Map

	COC Owen County, Indiana	AC-1 Census Tract 9558, Owen County, Ind...	AC-2 Census Tract 9559, Owen County, Ind...
Label	Estimate	Estimate	Estimate
Total:	21,280	4,072	4,612
Not Hispanic or Latino:	20,996	3,879	4,602
White alone	20,364	3,686	4,529

American Community Survey
B17001 | POVERTY STATUS IN THE PAST 12 MONTHS BY SEX BY AGE
 2021: ACS 5-Year Estimates Detailed Tables | Universe: Population for whom poverty status is determined

Notes | Geos | Topics | Codes | Dataset | Year | Hide | Transpose | Margin of Error | Restore | Excel | CSV | ZIP | Share | Print | Map

	COC Owen County, Indiana	AC-1 Census Tract 9558, Owen County, Ind...	AC-2 Census Tract 9559, Owen County, Ind...
Label	Estimate	Estimate	Estimate
Total:	20,836	4,027	4,489
Income in the past 12 months below poverty level:	2,969	417	413

Environmental Justice Analysis:

B03002: HISPANIC OR LATINO ORIGIN BY RACE - Universe: Total population			
	COC	AC-1	AC-2
Total:	21,280	4,072	4,612
White alone	20,364	3,686	4,529
% Minority	4.30%	9.48%	1.80%
125% COC	5.38%		
AC Greater than 50% or Greater than 125% COC?		Yes	No
Minority EJ Population of Concern?		Yes	No
B17001: POVERTY STATUS IN THE PAST 12 MONTHS BY SEX BY AGE			
	COC	AC-1	AC-2
Total:	20,836	4,027	4,489
Income in the past 12 months below poverty level:	2,969	417	413
% Low Income	14.25%	10.36%	9.20%
125% COC	17.81%		
AC Greater than 50% or Greater than 125% COC?		No	No
Low Income EJ Population of Concern?		No	No