FHWA-Indiana Environmental Document

CATEGORICAL EXCLUSION / ENVIRONMENTAL ASSESSMENT FORM

GENERAL PROJECT INFORMATION

Road No./County:	East (E) Hively Avenue (County Road (CR) 18)/Elkhart County, Indiana
Designation Number(s):	2201238
Project Description/Termini:	Bridge Replacement on E Hively Avenue/CR 18 over Yellow Creek, 0.8 mile east of United States (U.S.) 33, approximately 320 feet west and east from the center of the bridge, for a total distance of approximately 640 feet.

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

N/A
INDOT DE Initials and Date

ADWP April 10, 2026
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: Shawn Slaymon, GAI Consultants Inc. (GAI)

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

Part I – Public Involvement

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

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

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

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

Notice of Entry letters were mailed to potentially affected property owners near the project area on May 8, 2023, and December 11, 2024, 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 letters are included in Appendix G, pages G-1 to G-2.

Project Does Meet
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.

No controversy
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: Elkhart County Highway Department INDOT District: Fort Wayne

Local Name of the Facility: E Hively Avenue/CR 18

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

*If other is selected, please identify the funding source: N/A

PURPOSE AND NEED:

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

Need

The project need derives from the deteriorating structural conditions of the bridge #20-00385 (National Bridge Inventory (NBI) #2000164). According to the August 22, 2024, INDOT Bridge Inspection Report (Appendix I, pages I-2 to I-21), the bridge deck has spalled areas in top deck at the south coping that are partially filled with asphalt, resulting in a fair condition (5 out of 9). The superstructure has one hairline crack in beams 2, 3, and 5 with efflorescence and rust stains in beam 9, resulting in a fair condition (5 out of 9). The substructure has minor honeycombing and cracking, resulting in a satisfactory condition (6 out of 9). Condition ratings are based on a scale of 0-9, with 0 being failed and 9 being excellent. The existing bridge sufficiency rating is 82 out of 100. The existing bridge has a load restriction and is load posted for 17 tons. Scour condition rating was 5 out of 9. Deep scour along the west end bent has occurred with deflected sheet pile downstream. Erosion and scour along the foreslope of the southeastern approach also contribute to the degraded channel score.

Purpose

The purpose of this project is to address the deterioration, scour, and load rating in order to improve the bridge condition ratings to 7 or better, indicating “good” conditions.

PROJECT DESCRIPTION (PREFERRED ALTERNATIVE):

County: Elkhart Municipality: Concord Township

Limits of Proposed Work: Approximately 320 feet west and east from the center of the existing bridge

Total Work Length: 0.12 Mile(s) Total Work Area: 1.386 Acre(s)

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

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

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

Elkhart County Highway Department with funding from Federal Highway Administration (FHWA) intends to proceed with a bridge replacement on E Hively Avenue/CR 18 over Yellow Creek in Elkhart County, Indiana.

Location

The project is located on E Hively Avenue/CR 18 over Yellow Creek, approximately 0.8 mile east of US 33 in Elkhart County, Indiana. Specifically, the project is in Section 15 of Township 37 North, Range 5 East, on the Elkhart United States Geological Survey (USGS) 7.5 Minute Topographic Map. Project maps and ground-level photographs are provided in Appendix B, pages B-1 to B-11.

Existing Conditions

The existing non-historical adjacent prestressed concrete box beam bridge was built in 1958. The bridge (#20-00385/ NBI #2000164) does not possess significance under the National Register of Historic Places (NRHP) evaluation system. The bridge has a roadway curb-to-curb width of 35.2 feet, deck out-to-out width of 35.4 feet, a structure length of 45 feet, and an approach roadway of 27 feet. According to the August 22, 2024, INDOT Bridge Inspection Report (Appendix I, pages I-2 to I-21), the bridge deck has spalled areas in top deck at the south coping that are partially filled with asphalt, resulting in a fair condition (5 out of 9). The superstructure has one hairline crack in beams 2, 3, and 5 with efflorescence and rust stains in beam 9, resulting in a fair condition (5 out of 9). The substructure has minor honeycombing and cracking, resulting in a satisfactory condition (6 out of 9). The existing

bridge sufficiency rating is 82 out of 100. The west end bent footing is exposed due to scour. Concrete and riprap were placed for protection from scour. An existing sheet wall is located on the northeast quadrant for scour protection. The roadway has two 12-foot-wide travel lanes, one in each direction, with 5.5-foot shoulders. The posted speed limit is 45 miles per hour (mph). The existing bridge is load posted for 17 tons. The existing E Hively Avenue/CR 18 roadway facility is classified as a Minor Arterial and is not part of the National Truck Network. Land use in the project's vicinity is residential parcels with wooded lots.

Preferred Alternative
The proposed project intends to remove the existing bridge structure and approaches. The proposed structure is a single-span, 60 feet in length, spread prestressed concrete box beam bridge. The bridge width will be 56 feet, including two 12-foot travel lanes, 8-foot shoulders, and an 8-foot sidewalk for the eastbound lane and a 6-foot sidewalk for the westbound lane. In the northeast corner of the bridge the sidewalk will continue eastward to Vee Jay Street. The approach from the west and east sides of the bridge will be approximately 225 feet and consist of a Hot Mix Asphalt (HMA) overlay. Additional work will include riprap north and south of the bridge, pile driving, and riprap turnouts at the toe of the embankments. A retaining wall will be built along the southeast foreslope to address the advanced erosion and prevent further encroachment into Yellow Creek.

Permanent impacts to Yellow Creek will result from the placement of scour protection and the removal of portions of the sheet pile wall located along the channel bank in the northeast quadrant of the bridge, which will be covered by embankment riprap, for a total of 287.7 linear feet. Temporary impacts within the work zone include cofferdam installation and channel dewatering for approximately 299 linear feet. Permanent wetland impacts will result from grading and the placement of riprap for scour protection along the channel banks, totaling 0.027 acre.

Maintenance of Traffic (MOT) will require a full road closure on E Hively Avenue/CR 18 utilizing a signed detour route. Refer to the MOT section in this document for additional information. Construction is anticipated to begin in Spring 2027. Preliminary plan sheets are provided in Appendix B, pages B-12 to B-24.

Logical Termini/Independent Utility
The project demonstrates independent utility because it will improve the function of the existing bridge as a stand-alone project that does not restrict consideration of other reasonably foreseeable improvements and does not force other improvements that could have impacts. The termini were developed to minimize the overall impacts of the project while including limits to incorporate the INDOT design criteria and consideration of roadway geometrics. The project termini encompass only the area necessary to construct the bridge repairs and tie the improvements into the existing roadway for a smooth transition.

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.

Rehabilitation Alternative 1
Rehabilitation Alternative 1 consists of deck repairs, beam crack sealing, concrete patching, and installation of riprap scour protection. This alternative was considered but dismissed because it would not remove the existing 17-ton load posting or address the long-term structural limitations of the aging box beams. This option would also retain the existing geometric constraints and would not meet the project purpose and need. For these reasons, this alternative was eliminated from further consideration.

Rehabilitation Alternative 2
Rehabilitation Alternative 2 consists of a more substantial rehabilitation involving replacement of the prestressed concrete box beam superstructure while reusing the existing substructure. This alternative, with a new superstructure, could restore legal load carrying capacity. However, this option was dismissed because the deterioration exhibited at the substructure would require substantial scour protection and has exceeded its original design life. Retaining the substructure would limit the long-term performance of the structure and would not support a durable solution. This rehabilitation alternative does not fully address the project's structural and operational needs or avoids impacts comparable to the replacement alternative. For these reasons, this alternative was eliminated from further consideration.

No Build Alternative
The No Build alternative would not require the expenditure of funds and would have no impact to the environment; however, this alternative would not address the purpose and need, the bridge would continue to deteriorate, and the scour issue would not be addressed. For these reasons, this alternative was eliminated from further consideration.

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

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

ROADWAY CHARACTER:

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

Name of Roadway: E Hively Avenue/CR 18
Functional Classification: Minor Arterial
Current ADT: 4,615 VPD (2027) Design Year ADT: 5,039 VPD (2047--)
Design Hour Volume (DHV): 462 Truck Percentage (%) 10
Designed Speed (mph): 45 Legal Speed (mph): 45

	Existing		Proposed	
Number of Lanes:	2		2	
Type of Lanes:	Travel Lanes		Travel Lanes	
Pavement Width:	12	ft.	12	ft.
Shoulder Width:	5.5	ft.	8	ft.
Median Width:	0	ft.	0	ft.
Sidewalk Width:	0	ft.	8 & 6	ft.

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

BRIDGES AND/OR SMALL STRUCTURE(S):

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

Structure/NBI Number(s): #20-00385/NBI #2000164

Sufficiency Rating: 82 out of 100, August 22, 2024, INDOT Bridge Inspection Report (Appendix I, pages I-2 to I-21)
(Rating, Source of Information)

	Existing		Proposed	
Bridge/Structure Type:	Adjacent Prestressed Concrete Box Beam		Spread Prestressed Concrete Box Beam	
Number of Spans:	1		1	
Weight Restrictions:	17	ton	N/A	ton
Height Restrictions:	N/A	ft.	N/A	ft.
Curb to Curb Width:	35.2	ft.	40.0	ft.
Outside to Outside Width:	35.4	ft.	56	ft.
Shoulder Width:	5.5	ft.	8.0	ft.

Describe impacts and work involving bridge(s), culvert(s), pipe(s), and small structure(s). Provide details for small structure(s):

structure number, type, size (length and dia.), location and impacts to water. Use a table if the number of small structures becomes large. If the table exceeds a complete page, put it in the appendix and summarize the information below with a citation to the table.

The existing nonhistorical prestressed concrete box beam bridge was built in 1958. The bridge has a roadway curb-to-curb width of 35.2 feet, deck out-to-out width of 35.4 feet, a structure length of 45 feet, and an approach roadway of 27 feet. No other bridges, culverts, or small structures are within the project area.

MAINTENANCE OF TRAFFIC (MOT) DURING CONSTRUCTION:

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

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.

MOT will require a full road closure on E Hively Avenue/CR 18 utilizing CR 45 and CR 13. The detour length is 3.25 miles with a duration of approximately 6 months. (Appendix B, page B-16)

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

ESTIMATED PROJECT COST AND SCHEDULE:

Engineering: $ 590,088 (2025) Right-of-Way: $ 380,000 (2026) Construction: $ 2,480,000 (2027)

Anticipated Start Date of Construction: Spring 2027

RIGHT OF WAY:

	Amount (acres)	
Land Use Impacts	Permanent	Temporary
Residential	0.074	0
Commercial	0	0
Agricultural	0	0
Forest	1.416	0
Wetlands	0.031	0
Other:	0	0
Other:	0	0
TOTAL	1.521	0

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

and their impacts on the environmental analysis should be discussed.

The existing right-of-way (ROW) is approximately 25 feet from the centerline of the bridge, encompassing residential and forested plots.

ROW Required
The project requires approximately 1.521 acres of permanent ROW comprised of residential, forested, and wetlands. Acquired ROW will extend approximately 75 to 80 feet from the centerline to the south and 30 feet to the north. The county is utilizing an intergovernmental agreement for bank stabilization along the southern segment of Yellow Creek within the existing 75-foot drainage easement. The project does not require any temporary ROW.

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

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 (ECLs) were sent on March 10, 2025 (Appendix C, pages C-1 to C-4). The responses are provided in the table below.

Agency	Date Sent	Date Response Received	Appendix
Federal Highway Administration (FHWA)	March 10, 2025	No Response Received	N/A
Indiana Department of Environmental Management (IDEM) Groundwater Section	March 10, 2025	April 3, 2025	Appendix C, pages C-11 to C-12
U.S. Department of Housing and Urban Development (HUD)	March 10, 2025	No Response Received	N/A
National Park Service	March 10, 2025	No Response Received	N/A
Indiana Geological and Water Survey (IGWS)	March 10, 2025	March 10, 2025	Appendix C, pages C-13 to C-14
Indiana Department of Natural Resources (IDNR), Division of Fish and Wildlife (DFW)	March 10, 2025	April 9, 2025	Appendix C, pages C-5 to C-8
IDEM Wetlands and Stormwater Programs	March 10, 2025	No Response Received	N/A
U.S. Fish and Wildlife Service (USFWS)	March 10, 2025	No Response Received	N/A
Natural Resources Conservation Service (NRCS)	March 10, 2025	March 25, 2025	Appendix C, page C-9
Michiana Area Council of Governments (MACOG)	March 10, 2025	No Response Received	N/A
U.S. Coast Guard	March 10, 2025	March 14, 2025	Appendix C, page C-10
U.S. Army Corps of Engineers (USACE)	March 10, 2025	No Response Received	N/A
INDOT Fort Wayne Environmental Section	March 10, 2025	No Response Received	N/A
INDOT Fort Wayne Project Manager	March 10, 2025	No Response Received	N/A
Elkhart City Planning & Zoning Department	March 10, 2025	No Response Received	N/A
Elkhart County Commissioners	March 10, 2025	No Response Received	N/A
Elkhart County Surveyor	March 10, 2025	No Response Received	N/A

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

SECTION B – ECOLOGICAL RESOURCES:

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

Total stream(s) in project area: 327 Linear feet Total impacted stream(s): 287.7 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 U.S., appendix reference)
Yellow Creek	Perennial	327	287.7	Flows under Elkhart Bridge 385 from South to North, likely Water of the US, Appendix F, pages F-1 to F-23

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

Presence, with impacts

Based on the desktop review, the aerial map of the project area, and the Red Flag Investigation (RFI) report (Appendix E, pages E-1 to E-9), there are 21 streams within the 0.5-mile search radius. There is one stream, Yellow Creek, within the project area. That number was confirmed by the site visits on June 3, 2023, and June 6, 2025, by GAI.

Waters Report

A Waters of the U.S. Determination / Wetland Delineation Report was completed for the project on July 30, 2025. Please refer to Appendix F, pages F-1 to F-23 for the Waters of the U.S. Determination / Wetland Delineation Report. It was determined that Yellow Creek is likely considered a jurisdictional waterway. The USACE makes all final determinations regarding jurisdiction.

Yellow Creek

One stream, Yellow Creek, was identified in the project area. Yellow Creek is a perennial stream that flows south to north in the project area. Yellow Creek is shown as a USGS blue line waterway. According to the USGS Stream Stats Application, Yellow Creek has an upstream drainage area of 32.835 square miles. The stream has an average Ordinary High Water Mark (OHWM) of 12 feet by 0.8 feet. The quality of this stream would be considered average due to its shallow depth, minor sinuosity, lack of instream habitat diversity, and its silt substrate. Yellow Creek had no pools and two riffle areas within the investigation area. One is located in the northern portion of the project area. A small riffle is located within the southern portion of the project area. Yellow Creek would likely be considered a jurisdictional waterway due to its hydrological connection to Elkhart River, a Traditional Navigable Waterway (TNW).

Approximately 287.7 linear feet of permanent and 299 linear feet of temporary non-cumulative impacts will occur to Yellow Creek. Temporary impacts include the installation of cofferdams for dewatering and preventing sediment movement off-site. Section 401/404 permits will likely be required; mitigation is not likely required but will be determined during permitting.

Early Coordination

IDNR-Division of Fish & Wildlife (DFW) responded on April 9, 2025, with recommendations to avoid or minimize impacts to Yellow Creek (Appendix C, pages C-5 to C-8). IDNR-DFW recommends that no work should be done in the waterway from April 1 through June 30 without prior written approval from the IDNR-DFW. All applicable recommendations are included in the Environmental Commitments section of this CE document.

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

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

Presence, no impact
Based on the desktop review, the aerial map of the project area, and the RFI report (Appendix E, pages E-1 to E-9) there are eight open water features within the 0.5-mile search radius. There are no open water features within or adjacent to the project area. That number was confirmed by the site visit on June 3, 2023 and June 6, 2025 by GAI. No impacts are expected.

	Presence	Impacts Yes	Impacts No
Wetlands	X	X	

Total wetland area: 0.040 Acre(s) Total wetland area impacted: 0.027 Acre(s)

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

Wetland	Classification	Total Size (Acres)	Impacted Acres	Comments (i.e. location, likely Water of the US, appendix reference)
Wetland A	palustrine, forested, broad-leaved deciduous, seasonally flooded wetland (PFO1C)	0.012	0.010	Southeast side of Yellow Creek, Likely Water of the US, Appendix F, pages F-1 to F-23
Wetland B	palustrine, forested, broad-leaved deciduous, seasonally flooded wetland (PFO1C)	0.028	0.017	Northwest side of Yellow Creek, Likely Water of the US, Appendix F, pages F-1 to F-23

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

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

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

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

Presence, with impacts less than one acre
Based on the desktop review, the aerial map of the project area, and the RFI report (Appendix E, pages E-1 to E-9) there are 21 wetlands within the 0.5-mile search radius. There are two wetlands within or adjacent to the project area. That number was confirmed by the site visit on June 3, 2023 and June 6, 2025 by GAI.

Waters Report
A Waters of the U.S. Determination / Wetland Delineation Report was completed for the project on July 30, 2025. Please refer to Appendix F, pages F-1 to F-23 for the Waters of the U.S. Determination / Wetland Delineation Report. It was determined that two wetlands, Wetland A and Wetland B, are likely jurisdictional waters. USACE makes all final determinations regarding jurisdiction.

Upland Data Point (DP-1)
DP-1 was taken on the south side of CR 18 in the southwest quadrant of the investigated area. The tree stratum has Box Elder (*Acer negundo*, FAC) and Silver Maple (*Acer saccharinum*, FACW) as the dominant species. In the herb stratum, the dominant species were False Nettle (*Boehmeria cylindrica*, OBL), Hemlock (*Conium maculatum*, FACW), and Reed Canary Grass (*Phalaris arundinacea*, FACW). DP-1 met the hydrophytic vegetation criterion by passing the Dominance Test and meeting the Prevalence Index indicator. Soils were a 10YR 2/2 (100%) from 0 to 15 inches with a sandy texture. DP-1 failed to meet the hydric soil criterion. DP-1 failed to meet the wetland hydrology criterion by only meeting one secondary hydrology indicator, FAC-Neutral Test (D5). In not meeting all of the USACE criteria for wetlands, DP-1 was determined not to be within a wetland. For additional information refer to the attached Waters Report Appendix F, pages F-4 to F-5.

Wetland Data Point (DP-2)/Wetland A
Wetland A is a 0.012-acre palustrine forested (PFO) wetland that is located on the southeast side of Bridge 385 in the southern portion of the investigated area. Wetland A would be considered poor quality due to the invasive vegetation populations. Wetland A would be considered a likely jurisdictional wetland due to the proximity and hydrologic connection with Yellow Creek.

DP-2 was collected in the southern portion of the investigated area on the east side of Yellow Creek. The tree stratum has Box Elder (Acer negundo, FAC) and Silver Maple (*Acer saccharinum*, FACW) as the dominant species. In the herb stratum, the dominant species were False Nettle (*Boehmeria cylindrica*, OBL), Hemlock (*Conium maculatum*, FACW), Reed Canary Grass (*Phalaris arundinacea*, FACW), and Garlic Mustard (*Alliaria petiolata*, FAC). DP-2 met the hydrophytic vegetation criterion by passing the Dominance Test and meeting the Prevalence Index indicator. Soils were a 10YR 4/2 (96%) with 10YR 4/6 (4%) redox concentrations in the matrix from 0 to 15 inches. DP-2 met the Sandy Mucky Mineral (S1) and Sandy Redox (S5) hydric soils indicators, thus meeting the hydric soils criterion. DP-2 met the hydrology primary indicator of Saturation (A3), and the secondary indicators of Saturation Visible on Aerial Imagery (C9), Geomorphic Position (D2), and passed the FAC-Neutral Test (D5). Saturation was observed from the surface throughout the soil profile. In meeting all three of the USACE criteria for wetlands, DP-2 was determined to be within a wetland (Appendix F, page F-5).

Wetland Data Point (DP-3)/Wetland B
Wetland B is a 0.028-acre PFO wetland located on the north side of CR 18 on the west side of Yellow Creek. Wetland B would be considered poor quality due to the invasive vegetation populations. Wetland B would be considered a likely jurisdictional wetland due to the proximity and hydrologic connection with Yellow Creek.

DP-3 was collected as a representative wetland data point for Wetland B. The tree stratum has Box Elder (*Acer negundo*, FAC) and Silver Maple (*Acer saccharinum*, FACW) as the dominant species. In the herb stratum, the dominant species were False Nettle (*Boehmeria cylindrica*, OBL), Hemlock (*Conium maculatum*, FACW), and Reed Canary Grass (*Phalaris arundinacea*, FACW). DP-3 met the hydrophytic vegetation criterion by passing the Dominance Test and meeting the Prevalence Index indicator. Soils were a 10YR 4/2 (95%) with 10YR 5/6 (5%) redox concentrations in the matrix from 0 to 12 inches. DP-3 met the Sandy Mucky Mineral (S1) and Sandy Redox (S5) hydric soils indicators, thus meeting the hydric soils criterion. DP-3 met the hydrology primary indicator of sediment deposits (B2) and secondary indicators of Geomorphic Position (D2) and passed the FAC-Neutral Test (D5). In meeting all three of the USACE criteria for wetlands, DP-3 was determined to be within a wetland (Appendix F, page F-5).

Approximately 0.010 acre of Wetland A and 0.017 acre of Wetland B will be permanently impacted. Section 401/404 permits will likely be required; mitigation is likely as wetland impacts below the base flood elevation are required but will be determined during permitting.

Early Coordination
IDNR-DFW responded on April 9, 2025, with standard recommendations to avoid and mitigate the potential impact on wetlands (Appendix C, pages C-5 to C-8). All applicable recommendations are included in the Environmental Commitments section of this CE document.

County Elkhart Route E Hively Avenue/CR 18 Des. No. 2201238

	Presence	Impacts Yes	Impacts NO
Terrestrial Habitat	X	X	

Total terrestrial habitat in project area: 1.2 Acre(s) Total tree clearing: 1.008 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.

Presence, with impacts
Based on a desktop review, a site visit on June 3, 2023 and June 6, 2025 by GAI, and the aerial map of the project area (Appendix B, page B-1), there is maintained lawn and forested habitat within the project area. Impacts to this habitat will be necessary for the proposed bridge replacement. Approximately 1.008 acres of tree clearing is anticipated for the completion of this project. Dominant tree species within the project area include Box Elder (*Acer negundo*) and Silver Maple (*Acer saccharinum*). Total soil disturbance due to this project will be approximately 1.2 acres. Avoidance alternatives are not practical for this project as impacts are necessary to meet the purpose and need of the project. However, impacts have been reduced to the greatest extent practicable to complete the project. Mitigation may be required as there are tree clearing impacts below BFE but will be determined during permitting.

The IDNR-DFW responded on April 9, 2025 (Appendix C, pages C-5 to C-8) with recommendations to help avoid and/or minimize impacts to wildlife and habitat. All applicable recommendations can be found in the Environmental Commitments section of this CE document.

Protected Species

Federally Listed Bats	Yes	No
Information for Planning and Consultation (IPaC) determination key completed	X	
Section 7 informal consultation completed (IPaC cannot be completed)		X
Section 7 formal consultation Biological Assessment (BA) required		X

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

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

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

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

Based on a desktop review and the RFI report (Appendix E, pages E-1 to E-9), completed by GAI on November 28, 2023, the IDNR Elkhart County Endangered, Threatened and Rare (ETR) Species List has been checked. According to the IDNR-DFW early coordination response letter dated April 9, 2025 (Appendix C, pages C-5 to C-8), the Natural Heritage Program's Database has been checked and the State endangered Greater Redhorse (*Moxostoma valenciennesi*) and the State special concern Longnose Dace (*Rhinichthys cataractae*) have been documented within 0.5 mile of the project area. IDNR-DFW does not anticipate any significant impacts to the Greater Redhorse or Longnose Dace due to this project, but recommends avoiding using heavy equipment in the stream and implementing best management practices for sediment and erosion control. An INDOT 0.5-mile bat review occurred on September 8, 2023, did not indicate the presence of endangered bat species in or within 0.5 mile of the project area.

Bats, Programmatic Informal Consultation (i.e. IPaC) – Not Likely to Adversely Affect
Project information was submitted through the USFWS's Information for Planning and Consultation (IPaC) portal, and an official species list was generated (Appendix C, pages C-15 to C-22). The project is within range of the federally endangered Indiana bat (*Myotis sodalis*). Other species were generated in the IPaC species list along with the Indiana bat. Refer to paragraph below.

The official species list generated from IPaC indicated two other species present within the project area, Whooping Crane (*Grus americana*) and Monarch Butterfly (*Danaus plexippus*), present within the project area (Appendix C, pages C-15 to C-22). The Whooping Crane is an experimental population that is not afforded protection under the Endangered Species Act. The Monarch Butterfly is proposed threatened with no critical habitat within or adjacent to the project area. This project will not jeopardize the continued existence of the species, based on the limited scope. Therefore, no additional coordination with the USFWS regarding the Whooping Crane or Monarch Butterfly is required.

The project qualifies for the Range-wide Programmatic Informal Consultation for the Indiana bat and northern long-eared bat (NLEB), dated May 2016 (revised February 2018), between FHWA, Federal Railroad Administration (FRA), Federal Transit Administration (FTA), and USFWS. A bridge inspection occurred on August 7, 2025 by GAI and no signs of bat/birds were observed (Appendix C, page C-37). The most recent INDOT Bridge Inspection Report, August 22, 2024, showed no signs of birds/bats (Appendix I, page I-9). An effect determination key was completed on July 29, 2025, and based on the responses provided, the project was found to "Not Likely to Adversely Affect" the Indiana bat and/or the NLEB (Appendix C, pages C-23 to C-35). INDOT reviewed and verified the effect finding on August 20, 2025, and requested USFWS's review of the finding. No response was received from USFWS within the 14-day review period; therefore, it was concluded they concur with the finding. The following Avoidance and Minimization Measures (AMMs) were produced: bat habitat and environmental commitment awareness (GAMM1) and tree trimming/clearing restrictions (TRTAMM1, TRTAMM2, TRTAMM3). AMMs and/or commitments are included as firm commitments in the Environmental Commitments section of this document.

USFWS Bridge/Structure Assessments are only valid for two years. If construction will begin after August 7, 2027, an inspection of the structure by a qualified individual must be performed. Inspection of the structure should check for the presence of bats/bat indicators and/or the 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 of this document.

Migratory Birds

The bridge (20-00385/ NBI 2000164) located on E Hively Avenue and the project's surrounding habitat is conducive for use (i.e. nests) by a bird species protected under the Migratory Bird Treaty Act (MBTA). Prior to the start of nesting season (May 1), the structure must be inspected for birds or signs of birds. If birds or signs of birds are found during the inspection avoidance and minimization measures must be implemented prior to the start of and during the nesting season. Nests without eggs or young should be removed prior to construction during the non-nesting season (September 8 - April 30) and during the nesting season if no eggs or young are present. Nests with eggs or young cannot be removed or disturbed during the nesting season (May 1 - September 7). Nests with eggs or young should be screened or buffered from active construction. Details of the required procedures are outlined in the "Potential Migratory Bird on Structure" Unique Special Provision (USP)/Recurring Special Provision (RSP).

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

Geological and Mineral Resources	**Yes**	**No**
Project located within the Indiana Karst Region		X
Karst features identified within or adjacent to the project area		X
Oil/gas or exploration/abandoned wells identified in the project area		

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)

Outside karst area

Based on a desktop review and the Indiana Karst Region map, the project is located outside the designated Indiana Karst Region as outlined in the most current Protection of Karst Features during Project Development and Construction. According to the topo map of the project area (Appendix B, page B-3) and the RFI report (Appendix E, pages E-1 to E-9), there are no karst features identified within or adjacent to the project area. In the early coordination response dated March 10, 2025, the IGWS did not indicate that karst

features exist in the project area (Appendix C, pages C-13 to C-14). IGWS did indicate the project area is within a floodway with moderate liquefaction potential and high potential of sand and gravel resources. Response from IGWS has been communicated with the designer on March 10, 2025. No impacts are expected.

SECTION C – OTHER RESOURCES

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

	Yes	No
Is the project located in the St. Joseph Sole Source Aquifer (SSA):	X	
If Yes, is the FHWA/EPA SSA MOU Applicable?	X	
If Yes, is a Groundwater Assessment Required?		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.

Inside Sole Source Aquifer (SSA)
The Environmental Protection Agency's (EPA) SSA website (https://www.epa.gov/dwssa) was accessed on March 10, 2025 by GAI. The project is located in Elkhart County, which is located within the area of the St. Joseph Sole Source Aquifer, the only legally designated sole source aquifer in the state of Indiana. The FHWA/EPA/INDOT Sole Source Aquifer Memorandum of Understanding (MOU) is applicable to this project. The features will not be affected because the project will not require excavation depth greater than 10 feet or require the use of chemicals listed in the National Primary Drinking Water Regulations (40 CFR 141).

Not located in a Wellhead Protection Area or Source Water Area
In an early coordination letter dated April 3, 2025, IDEM stated the project is not located within a wellhead area or source water area (Appendix C, pages C-11 to C-12). No impacts are expected.

No wells present, no impacts
The IDNR Water Well Record Database website (https://www.in.gov/dnr/water/3595.htm) was accessed on March 10, 2025 by GAI. No wells are located near this project. Therefore, no impacts are expected.

In an Urban Area Boundary Location
Based on a desktop review of Geographic Information System (GIS) by GAI on October 1, 2024, this project is located in an Urban Area Boundary. An early coordination letter was sent on March 10, 2025 to Elkhart County. The MS4 coordinator did not respond within the 30-day time frame. The proposed project will comply with the Storm Water Quality Management Plan (SWQMP). No impacts are anticipated.

Not in a Public Water System Location
Based on a desktop review, a site visit on June 3, 2023, and June 6, 2025, by GAI, and the aerial map of the project area (Appendix B, page B-1), no public water systems were identified. Therefore, no impacts are expected.

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

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If applicable, indicate the Floodplain Level?

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

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

In floodplain

Based on a desktop review of the IDNR Indiana Floodway Information Portal website (https://www.in.gov/dnr/water/surface-water/indiana-floodplain-mapping/indiana-floodplain-information-portal/) by GAI on October 1, 2024 and the RFI report, this project is located in a regulatory floodplain as determined from approved IDNR floodplain maps (Appendix F, page F-8). An early coordination letter was sent on March 10, 2025 to the local Floodplain Administrator. The floodplain administrator did not respond within the 30-day time frame. This project qualifies as a Category 4 per the current INDOT CE Manual, as the project is a bridge replacement on existing alignment, which states one home is located within the base floodplain within 1,000 feet upstream and no homes are located within the base floodplain within 1,000 feet downstream. The proposed structure will have an effective capacity such that backwater surface elevations are not expected to substantially increase. As a result, there will be no substantial adverse impacts on natural and beneficial floodplain values; there will be no substantial change in flood risks; and there will be no substantial increase in potential for interruption or termination of emergency service or emergency evacuation routes. Therefore, it has been determined that this encroachment is not substantial. A hydraulic design study that addresses various structure size alternatives will be completed during the preliminary design phase. A summary of this study will be included with the Field Check Plans.

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

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

**If 160 or greater, see CE Manual for guidance.*

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

No presence, no impact

Based on a desktop review, a site visit on June 3, 2023 and June 6, 2025 by GAI and the aerial map of the project area (Appendix B, page B-1), there is no land that meets the definition of farmland under the Farmland Protection Policy Act (FPPA) within or adjacent to the project area. The requirements of the FPPA do not apply to this project; therefore, no impacts are expected. An early coordination letter was sent on March 10, 2025 to NRCS. NRCS responded on March 25, 2025 that the project will not cause a conversion of prime farmland (Appendix C, page C-9).

SECTION D – CULTURAL RESOURCES

	Category(ies) and Type(s)	INDOT Approval Date(s)	N/A
Minor Projects PA	B1, B12	May 13, 2025	[ ]

Full 106 Effect Finding

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

Eligible and/or Listed Resources Present

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

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Documentation Prepared (mark all that apply)		**ESD Approval Date(s)**	**SHPO Approval Date(s)**
APE, Eligibility and Effect Determination			
800.11 Documentation			
Historic Properties Report or Short Report			
Archaeological Records Check and Assessment			
Archaeological Phase Ia Survey Report			
Archaeological Phase Ic Survey Report	X	May 13, 2025	N/A
Other:			

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

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

Minor Project PA Category B projects

On May 13, 2025, the INDOT Cultural Resource Office (CRO) determined that this project falls within the guidelines of Category B, Type B1 and B12 under the Minor Projects Programmatic Agreement (Appendix D, pages D-1 to D-7).

Category B, Type 1: Replacement, repair, or installation of curbs, curb ramps, or sidewalks, including when such projects are associated with roadway work such as surface replacement, reconstruction, rehabilitation, or resurfacing projects, including overlays, shoulder treatments, pavement repair, seal coating, pavement grinding, and pavement marking.

Category B, Type 12: Replacement, widening, or raising the elevation of the superstructure on existing bridges, and bridge replacement projects (when both the superstructure and substructure are removed).

Gray & Pape, Inc. (G&P), under contract with GAI and on behalf of INDOT, conducted a Phase Ic geomorphological and geoarchaeological subsurface investigation for the proposed project between January 6 and 9, 2025. The Phase Ic investigation was initiated as a result of the findings from the Phase Ia survey, which triggered the need for additional subsurface work. The process of completing Phase 1a was halted by the discovery of the buried land surface (Ab) and proceeded to a Phase 1c. These investigations resulted in the mechanical excavation of seven backhoe trenches including three trenches in the northwestern section and four trenches in the southwestern section of the project area. Trenches were excavated in these survey areas based on the bucket auger results from the Phase Ia survey and as recommended by the Phase Ic workplan (Trader and Moffatt 2024). Trenches were excavated across the project area along the floodplain of Yellow Creek to examine the various landforms. There were no trenches placed on the northeastern section of the project area due to residential disturbances and currently occupied residences. Additionally, there were no trenches placed on the southeastern section of the project area due to the existing course of the Yellow Creek which runs parallel to CR 18 in this area, the adjacent steep creekbank, and guardrail. Based on the results of backhoe trenching, no archaeological deposits were identified or documented by G&P. Therefore, it is the opinion of G&P that the proposed project will not impact any sites listed on or eligible for inclusion in the National Register of Historic Places. No further archaeological investigations are recommended. INDOT CRO approved the Phase Ic on May 13, 2025 (Appendix D, pages D-11 to D-14).

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

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

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

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

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

No presence, no impact

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 National Register of Historic Places (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 B-1), and the RFI report (Appendix E, page E-1) there are two potential 4(f) resources located within the 0.5-mile search radius. One trail segment, Woodland Trail, is located 0.41 mile northwest of the project area. One managed land, Elkhart Environmental Center, is located 0.41 mile northwest of the project area. According to the site visit on June 3, 2023 and June 6, 2025 by GAI, there are no Section 4(f) resources within or adjacent to the project area. Therefore, no use is expected.

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

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

No presence, no impact

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 19 listings in Elkhart County (Appendix I, page I-1). None of these properties or listings is 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	Yes	No
Is the project in the most current STIP/TIP?	X	
Is the project located in an MPO Area?	X	
Is the project in an air quality non-attainment or maintenance area?		X
If Yes, then:		
Is the project in the most current MPO TIP?		
Is the project exempt from conformity?		
If No, then:		
Is the project in the Transportation Plan (TP)?	X	
Is a hot spot analysis required (CO/PM)?		X

Location in STIP: Statewide Transportation Improvement Program (STIP) 2026-2030 MACOG

Name of MPO (if applicable): MACOG

Location in TIP (if applicable): Des 2201238 on page 1 of 15

Level of MSAT Analysis required?

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

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

This project is included in the Fiscal Year (FY) 2026-2030 Michiana Area Council of Governments (MACOG) Transportation Improvement Program (TIP), which has been directly incorporated into the INDOT FY 2026-2030 STIP (Appendix H, pages H-1 to H-7).

Attainment area
This project is located in Elkhart County, which is currently in attainment for all criteria pollutants according to (https://www.in.gov/idem/sips/files/nonattainment_areas_map.pdf). Therefore, the conformity procedures of 40 CFR Part 93 do not apply.

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

SECTION G - NOISE

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

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

Type III Project
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.

There may be temporary inconveniences associated with construction such as increased travel times, possible construction noise and fugitive dust. There will be no substantial impacts on community cohesion or property values because of the project. Furthermore, no permanent or temporary economic effects are expected to result from the project. The additional ROW would not appreciably affect the properties tax base of Elkhart County. According to a review of https://www.fairsandfestivals.net/, an online resource for local fairs and festivals, there are no scheduled festivals or other public events that will be impacted as a result of the project.

As required by the Americans with Disabilities Act (ADA), Elkhart County has developed an ADA Transition Plan. The project area does not include any ADA components. There are no existing sidewalks or other pedestrian facilities adjacent to the project area or within the project limits. There are sidewalks included in the design; the project complies with local development patterns for the area. No sidewalks or pedestrian facilities for the project area are included in the current ADA transition plan.

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.

No presence, no impact

Based on a desktop review, the aerial map of the project area (Appendix B, page B-1), and the RFI report (Appendix E, page E-1) there are two public facilities within the 0.5-mile search radius. One trail segment, Woodland Trail, is located 0.41 mile northwest of the project area. One managed land, Elkhart Environmental Center, is located 0.41 mile northwest of the project area. There are no public facilities within or adjacent to the project area, which was confirmed by the site visit on June 3, 2023, and June 6, 2025 by GAI. Therefore, no impacts are expected. Access to all properties will be maintained during construction.

Prior to any traffic control that restricts access, local schools, school transportation, police, fire, and EMS will be notified so they can adjust routes and response protocols. This has been included as a firm commitment.

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

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

Due to the issuance of recent federal Executive Orders (EO) from January 2025, including EO 14154, EO 14148, and EO 14173, EO 12898 has been rescinded and this section is no longer applicable.

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

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

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

SECTION I – HAZARDOUS MATERIALS & REGULATED SUBSTANCES

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

Date RFI concurrence by INDOT SAM (if applicable): November 28, 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.

Presence, no impact
Based on a review of GIS and available public records, the RFI was completed on November 28, 2023, by GAI and INDOT SAM provided their concurrence on November 28, 2023 (Appendix E, Page E-1). One unmapped National Pollutant Discharge Elimination System (NPDES) is located within 0.5 mile of the project area. The hazmat site identified will not 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)	X
Regional General Permit (RGP)	
Individual Permit (IP)	
Other	
IN Department of Environmental Management (401/Rule 5)	
Nationwide Permit (NWP)	
Regional General Permit (RGP)	X
Individual Permit (IP)	
Isolated Wetlands	
Rule 5	X

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Permits (mark all that apply)	**Likely Required**
Other	
IN Department of Natural Resources	
Construction in a Floodway	X
Navigable Waterway Permit	
Other	
Mitigation Required	X
US Coast Guard Section 9 Bridge Permit	
Others (Please discuss in the discussion below)	

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

An IDEM RGP 401 Water Quality Certification and US Army Corps of Engineers 404 Nationwide Permit will be required due to stream and wetland impacts. An IDNR Construction in a Floodway (CIF) permit will be required due to floodplain impacts. A Construction Stormwater General Permit (CSGP), previously known as Rule 5, is anticipated as there is over an acre of land disturbance anticipated for the proposed project.

Mitigation may be required as there are wetland and tree clearing impacts below BFE, but this will be determined during permitting.

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 ESD and the INDOT District Environmental Section will be contacted immediately. (INDOT ESD and INDOT Fort Wayne 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. USFWS Bridge/Structure Assessments are only valid for two years. If construction will begin after August 7, 2027, 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.

4.GAMM1: Ensure all operators, employees, and contractors working in areas of Indiana bat, NLEB, or TCB suitable habitat are aware of all Transportation Agency environmental commitments, including all applicable AMMs. (USFWS)

5.TRTAMM1: Modify all phases/aspects of the project (e.g., temporary work areas, alignments) to the extent practicable to avoid tree removal/trimming in excess of what is required to implement the project safely. (USFWS)

6.TRTAMM2: Ensure tree removal/trimming is limited to that specified in project plans and ensure that contractors understand clearing limits and how they are marked in the field (e.g., install bright colored flagging/fencing prior to any tree removal/trimming to ensure contractors stay within clearing limits. (USFWS)

7.TRTAMM3: Ensure tree removal/trimming is limited to the inactive season, occurs within 100 feet of the road/rail surface, and is outside of documented habitat for the Indiana bat, NLEB, and TCB. (USFWS)

8.The portions of Wetland A and Wetland B not impacted by construction will be labeled "Do Not Disturb" on the project plans. (INDOT ESD)

For Further Consideration:

1. Do not construct any temporary runarounds, access bridges, causeways, cofferdams, diversions, or pumparounds. (IDNR-DFW)

2. Use minimum average 6-inch graded riprap stone extended below the normal water level to provide habitat for aquatic organisms in the voids. (IDNR-DFW)

3. If erosion control blankets are used, use heavy-duty, biodegradable, and net free or loose-woven/Leno-woven netting to minimize the entrapment and snaring of small-bodied wildlife such as snakes and turtles. (IDNR-DFW)

4. Revegetate all bare and disturbed areas that are not currently mowed and maintained with a mixture of grasses, sedges, and wildflowers native to Northern Indiana and specifically for stream bank/floodway stabilization purposes as soon as possible upon completion; turf-type grasses (including low-endophyte, friendly endophyte, and endophyte free tall fescue but excluding all other varieties of tall fescue) may be used in currently mowed areas only. A native herbaceous seed mixture must include at least 5 species of grasses and sedges and 5 species of wildflowers. 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. (IDNR-DFW)

5. The new, replacement, or rehabbed structure should not create conditions that are less favorable for wildlife passage under the structure compared to the current conditions. (IDNR-DFW)

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

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Appendix E: Red Flag and Hazardous Materials

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Appendix A

INDOT Supporting Documentation

Item	Appendix Page
Threshold Chart	A-1

Categorical Exclusion Level Thresholds

	PCE	Level 1	Level 2	Level 3	Level 4[1]
Section 106	Falls within guidelines of Minor Projects PA	"No Historic Properties Affected"	"No Adverse Effect"	-	"Adverse Effect" Or Historic Bridge involvement[2]
Stream Impacts[3]	No construction in waterways or water bodies	< 300 linear feet of stream impacts	≥ 300 linear feet of stream impacts	-	USACE Individual 404 Permit[4]
Wetland Impacts[3]	No adverse impacts to wetlands	< 0.1 acre	-	< 1.0 acre	≥ 1.0 acre
Right-of-way[5]	Property acquisition for preservation only or none	< 0.5 acre	≥ 0.5 acre	-	-
Relocations[6]	None	-	-	< 5	≥ 5
Threatened/Endangered Species (Species Specific Programmatic for Indiana bat & northern long eared bat)*	"No Effect", "Not likely to Adversely Affect" (With select AMMs[7])	"Not likely to Adversely Affect" (With any AMMs or commitments)	-	"Likely to Adversely Affect"	Project does not fall under Species Specific Programmatic[8]
Threatened/Endangered Species (Any other species)*	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 • **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

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PROJECT LOCATION



ELKHART COUNTY, INDIANA

LEGEND

Project Area

0 100 200 400 Feet

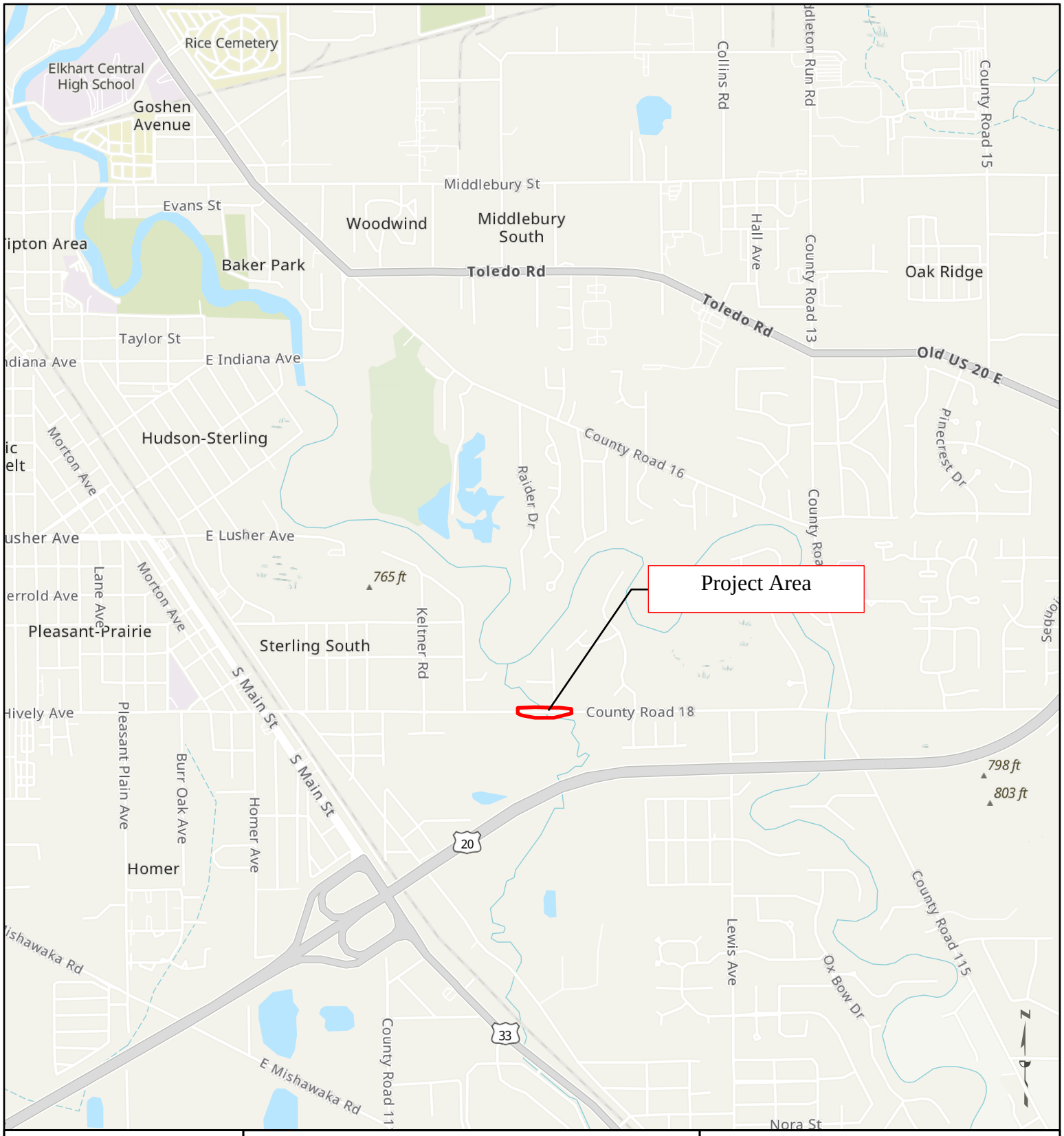
AERIAL MAP
FIGURE 1

ELKHART COUNTY BRIDGE 385
BRIDGE REPLACEMENT
DES# 2201238

DRAWN BY: SCS DATE: 7/31/2025
CHECKED: BE APPROVED: JAS

REFERENCE: WORLD IMAGERY, ESRI, ACCESSED 07/2025. COUNTY BOUNDARY,ESRI,2010.

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PROJECT LOCATION



ELKHART COUNTY, INDIANA

LEGEND

Project Area

0 1,000 3,000 5,000 Feet

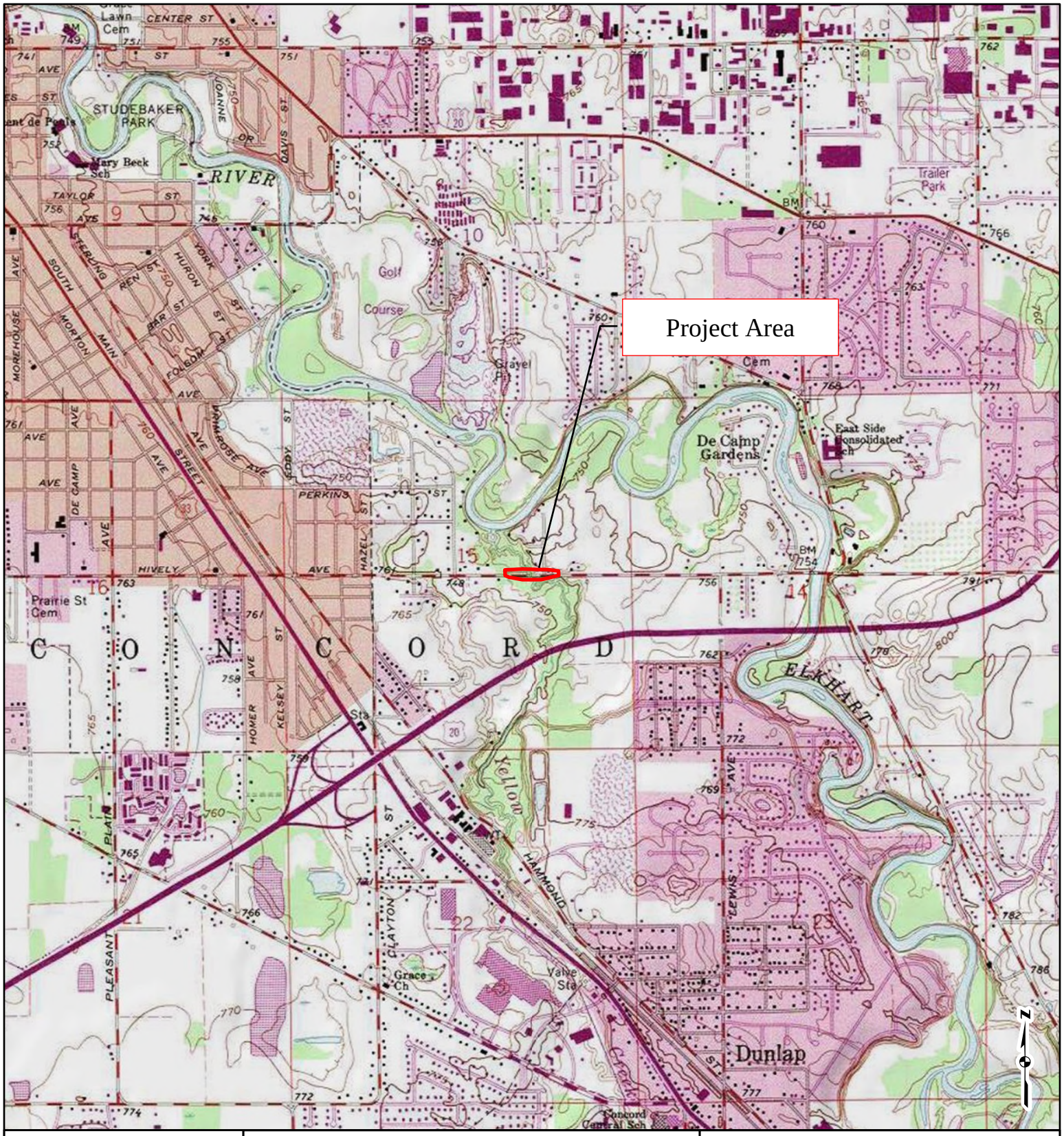
LOCATION MAP
FIGURE 2

ELKHART COUNTY BRIDGE 385
BRIDGE REPLACEMENT
DES# 2201238

DRAWN BY: SCS DATE: 7/30/2025
CHECKED: BE APPROVED: JAS

REFERENCE: WORLD IMAGERY, ESRI, ACCESSED 07/2025. COUNTY BOUNDARY,ESRI,2010.

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PROJECT LOCATION



ELKHART COUNTY, INDIANA

LEGEND

Project Area

0 1,000 3,000 5,000 Feet

USGS ELKHART
7.5 MINUTE TOPOGRAPHIC MAP
FIGURE 3

ELKHART COUNTY BRIDGE 385
BRIDGE REPLACEMENT
DES# 2201238

DRAWN BY: SCS DATE: 7/30/2025
CHECKED: BE APPROVED: JAS

REFERENCE: WORLD IMAGERY, ESRI, ACCESSED 07/2025. COUNTY BOUNDARY,ESRI,2010.

Copyright:© 2013 National Geographic Society, i-cubed

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PROJECT LOCATION



ELKHART COUNTY, INDIANA

LEGEND

Project Area

0 60 100 200 Feet

PHOTO LOCATION MAP
FIGURE 10

ELKHART COUNTY BRIDGE 385
BRIDGE REPLACEMENT
DES# 2201238

DRAWN BY: SCS DATE: 7/30/2025
CHECKED: BE APPROVED: JAS

REFERENCE: WORLD IMAGERY, ESRI, ACCESSED 07/2025. COUNTY BOUNDARY,ESRI,2010.

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Photo 1. Looking west on Hively Avenue (CR 18) toward Elkhart Bridge 385.



Photo 2. Looking northwest at east bank in foreground and west bank, in background, of Yellow Creek on north side of the bridge. Photo taken near edge of bridge.



Photo 3. Looking northwest at west bank of Yellow Creek, where a wetland is located. Photo taken from bridge.



Photo 4. Looking north downstream at Yellow Creek, with sheet pile retaining wall on east bank.

Photos taken: November 14, 2023

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Photo 5. Photo taken from bridge looking south, upstream, at Yellow Creek. Wetland was delineated within the vegetated area on the bottom left side of photo.



Photo 6. Looking south at Bridge 385. Photo taken 75’ north of Bridge 385.



Photo 7. Photo taken on northwest quadrant of Yellow Creek and Bridge 385, 75’ north of the roadway. Photo looking north with west bank in foreground.



Photo 8. Looking northeast at Yellow Creek 75’ north of Bridge 385. Existing banks with erosion and concrete chunks can be seen along Yellow Creek.

Photos taken: November 14, 2023

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Photo 9. Looking south, downstream of Yellow Creek, at the west bank on northwest quadrant. Existing vegetation can be seen overhanging banks.



Photo 10. Photo taken from west bank under Bridge 385 facing east. Sheet piling, existing exposed soils and stream bed can be seen.



Photo 11. Photo taken from west bank under Bridge 385 facing southeast. Existing exposed soils and stream bed can be seen.



Photo 12. Photo taken from west bank under Bridge 385 facing south. Existing conditions and stream can be seen.

Photos taken: November 14, 2023

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Photo 13. Looking west from the southeast bank adjacent to Bridge 385. Existing riprap and stream bed can be seen.



Photo 14. Looking east at southside roadside vegetation. Photo taken from southeast corner of Bridge 385. Stream can be seen along right side of photo.



Photo 15. Photo taken looking north, 100’ from south side of the bridge. Photo is taken looking downstream. Yellow Creek existing conditions can be seen.



Photo 16. Photo taken looking east at Yellow Creek, upstream. Photo taken 100’ from the bridge where the creek bends from east to north.

Photos taken: November 14, 2023

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Photo 17. Photo taken facing south, 100’ north of Bridge 385 taken from edge of west bank. Stream conditions can be seen.



Photo 18. Photo taken facing north, 100’ north of Bridge 385 looking downstream. Existing concrete chunks can be seen on east bank.



Photo 19. Data Point 1, upland soil sample, photo taken on southwest quadrant of Yellow Creek and Bridge 385, facing north.



Photo 20. DP 1, upland soil sample. Photo taken on southwest quadrant of Yellow Creek and Bridge 385.

Photos taken: November 14, 2023

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Photo 21. Data Point 1, upland soil sample, photo taken on southwest quadrant of Yellow Creek and Bridge 385 facing north.



Photo 22. Data point 2, wetland. Photo taken on southeast quadrant of Yellow Creek and Bridge 385, facing northwest towards bridge.



Photo 23. Data point 2, wetland, soil profile. Photo taken on southeast quadrant of Yellow Creek and Bridge 385.



Photo 24. Data point 2, wetland, soil plot and existing vegetation can be seen. Photo taken on southeast quadrant of Yellow Creek and Bridge 385, facing north,

Photos taken: November 14, 2023

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Photo 25. Data Point 3, wetland location on the northwest quadrant of Yellow Creek and Bridge 385. Photo facing southeast.



Photo 26. Data Point 3, wetland location on the northwest quadrant of Yellow Creek and Bridge 385. Photo facing southeast.



Photo 27. Data Point 3, wetland soil profile. Photo taken on northwest quadrant.

Photos taken: November 14, 2023

PROJECT	DESIGNATION
2201238	2201238
CONTRACT	BRIDGE FILE
B-44742	20-00385

STRUCTURE INFORMATION				
STRUCTURE	TYPE	SPAN AND SKEW	OVER	STATION
20-00385 A	Prestressed Concrete Box Beam	1 Span: 60'-0" Skew: 5°00' LT.	YELLOW CREEK	20+12.33 Line "PR-A"

INDIANA DEPARTMENT OF TRANSPORTATION

BRIDGE PLANS

FOR SPANS OVER 20 FEET

ROUTE: C.R. 18 AT: YELLOW CREEK

PROJECT NO. 2201238 P.E.
2201238 R/W
2201238 CONST.

Bridge Replacement on CR 18 (Hively Ave) over Yellow Creek, located 0.80 miles East of South Main Street, in Section 15, T-37-N, R-5-E, Concord Township, Elkhart County, Indiana



ELKHART COUNTY

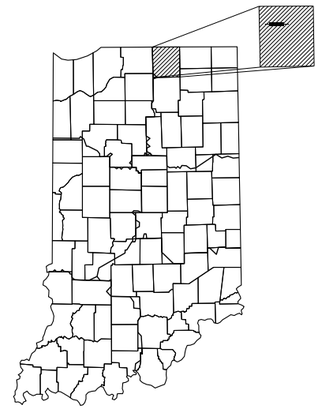
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TRAFFIC DATA

A.A.D.T. (2027)	4,615	V.P.D.
A.A.D.T. (2047)	5,039	V.P.D.
D.H.V	462	V.P.H.
DIRECTIONAL DISTRIBUTION	50	%
TRUCKS	10	% A.A.D.T.
	.%	D.H.V.

DESIGN DATA

DESIGN SPEED	45 M.P.H.
PROJECT DESIGN CRITERIA	3R (NON-FREEWAY)
FUNCTIONAL CLASSIFICATION	MINOR ARTERIAL
RURAL/URBAN	URBAN (SUBURBAN)
TERRAIN	LEVEL
ACCESS CONTROL	NONE



PROJECT LOCATION SHOWN BY ELKHART COUNTY

LATITUDE: 41°39'34.2" N LONGITUDE: 85°55'56.9" W

BRIDGE LENGTH: 0.012 MI.
ROADWAY LENGTH: 0.085 MI.
TOTAL LENGTH: 0.097 MI.
MAX. GRADE: 1.400 %

ELKHART COUNTY COMMISSIONERS

Bradley D. Rogers, President Date

Suzanne M. Weirick, Vice-President Date

Bob Barnes, Member Date

ELKHART COUNTY ENGINEER

Tim Jackson, P.E. Date

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

gai consultants

PLANS PREPARED BY: GAI Consultants Inc. (317) 436-9150 PHONE NUMBER

CERTIFIED BY: DATE

APPROVED FOR LETTING: ELKHART COUNTY HIGHWAY DEPARTMENT DATE

BRIDGE FILE
20-00385 B
DESIGNATION
2201238

SHEETS			
	1	of	26
CONTRACT	PROJECT		
B-44742	2201238		

Plot: 2/12/2026 10:54:51 AM By: GormaRR Pen: Transportation.tbl

c:\bms\gai-prod\r.gorman\dms21182\R221171.00 BR_Title Sheet.dgn

UTILITIES

ELECTRIC:	AMERICAN ELECTRIC POWER 3340 OLD US 20 E ELKHART, IN 46516 PH: (574)-296-5052 CONTACT: DONALD J SANTERRE DJSANTERRE@AEP.COM	CABLE TV:	COMCAST NORTH 815 W EDISON ROAD MISHAWAKA, IN 46545 PH: OFFICE (224) 229-5573 PH: MOBILE (574) 532-2324 CONTACT: JAY CASTELLO Jay_Castello@cable.comcast.com
FIBER OPTIC:	JMC ENGINEERS & ASSOCIATES 110 N MAIN CULVER, IN 46511 PH: OFFICE (574) 842-8830 PH: MOBILE (574) 344-0833 CONTACT: DEAN NORWICH deannorwich@jmceainc.com		FRONTIER 1503 MAGNAVOX WAY SUITE 100 FORT WAYNE, IN 46804 PH: (260) 450-7779 CONTACT: BRANDON TUCKER, EI btucker@troyergroup.com
	LUMEN NETWORK RELOCATION CONTACT: LESLIE DINGMAN relocations@lumens.com	SEWER/WATER:	ELKHART PUBLIC UTILITIES 1201 S. NAPPANEE ST ELKHART, IN 46514 PH: (574) 293-2572 EXT 2212 CONTACT: PAUL WUNDERLICH Paul.Wonderlich@coei.org
COMMUNICATION:	ELLIS ENGINEERING GROUP (EEG) 3927 CLARKS CREEK ROAD PLAINFIELD, IN 46168 PH: OFFICE (317) 406-3047 PH: MOBILE (765) 461-7136 CONTACT: CURTIS MILLER cmiller2@eegosp.com	GAS:	NIPSCO GAS (SOUTH BEND) 801 E. 86TH AVE. MERRILLVILLE, IN 46410 PH: (219) 647-6260 CONTACT: JORDAN BONTRAGER jbontrager@nisource.com

REVISIONS

SHEET NO.	DATE	REVISED

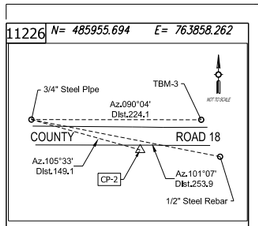
GENERAL NOTES

All earth shoulders, median areas, and cut and fill slopes shall be plain or mulch seeded except where sodding is specified.

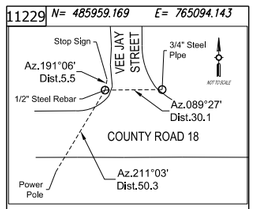
INDEX

SHEET NO.	DRAWINGS INDEX
1	TITLE SHEET
2	INDEX AND GENERAL NOTES
3	TYPICAL CROSS SECTIONS
4	PLAT NO. 1
5	MAINTENANCE OF TRAFFIC
6	SOIL BORINGS
7-8	SOIL BORINGS
9-10	PLAN AND PROFILES
11	LAYOUT
12-13	GENERAL PLAN
14	ROAD SUMMARY
15-26	CROSS SECTIONS

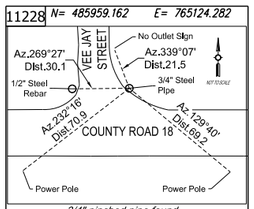
ALIGNMENT POINT & SECTION CORNER WITNESSES



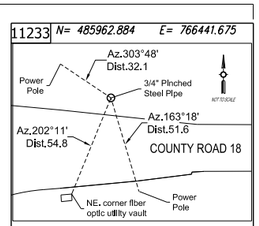
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1/2" steel rebar found
Sta. 22+36.09, Line "A", 0.00'

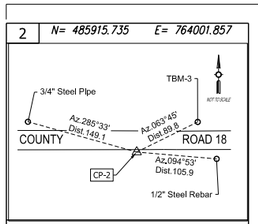


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SW. corner, E.1/2, NE. 1/4 corner, Section 15
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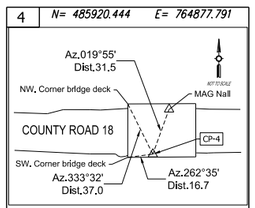


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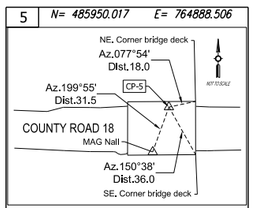
CONTROL POINT WITNESSES



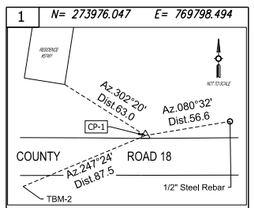
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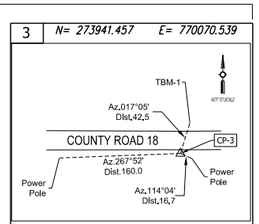
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Sta. 20+19.63, Line "A", 38.10' Right



MAG Nail set in concrete
Sta. 20+30.43, Line "A", 8.56' Right



5/8" rebar set, w/APEX Control cap
Sta. 159+84.95, Line "A", 16.82' Left



5/8" rebar set, w/APEX Control cap
Sta. 162+57.08, Line "A", 17.09' Right

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RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE

DESIGNED: JAS | DRAWN: PCR

CHECKED: KMP | CHECKED: KMP

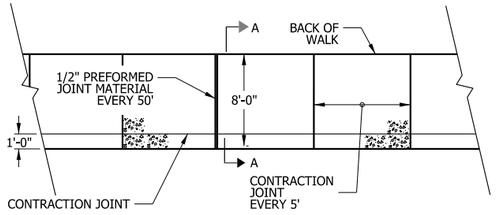
ELKHART COUNTY
HIGHWAY DEPARTMENT

INDEX SHEET

SCALE	BRIDGE FILE
N/A	20-00385 A
VERTICAL SCALE	DESIGNATION
	2201238
SURVEY BOOK	SHEETS
	2 of 26
CONTRACT	PROJECT
B-44742	2201238

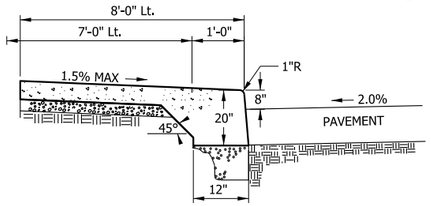
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SIDEWALK PLAN VIEW

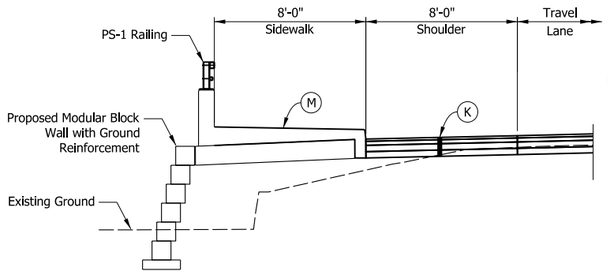
Not to Scale



SECTION A-A

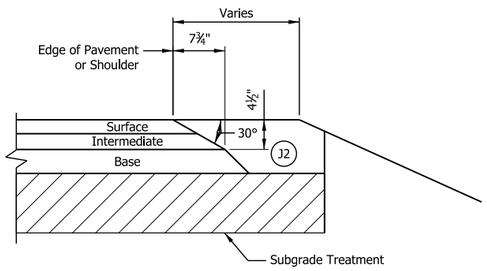
Not to Scale

CURBFACE SIDEWALK

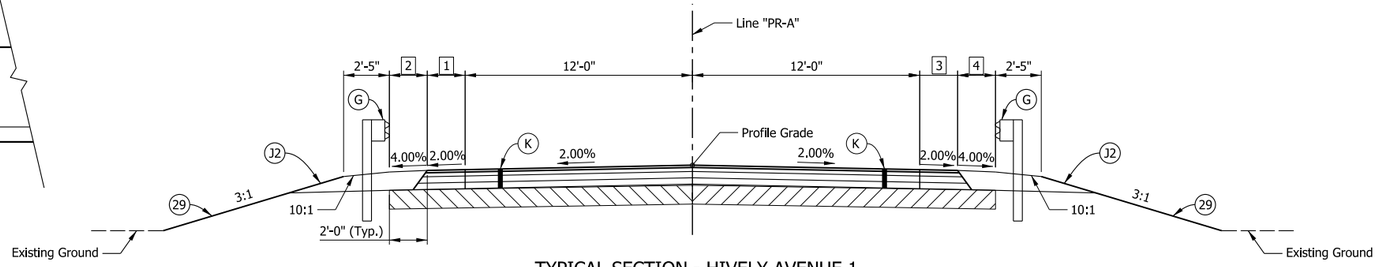


RETAINING WALL AND MOMENT SLAB SECTION LEFT

STA 20+48.71 to STA 21+15.00 "PR-A"



SAFETY EDGE ON HMA PAVEMENT RIGHT - (LEFT REVERSED)



TYPICAL SECTION - HIVELY AVENUE 1

STA 17+60.00 to STA 19+58.38 "PR-A"

1 2'-0" from 17+60.00 "PR-A" to 18+83.82 "PR-A"

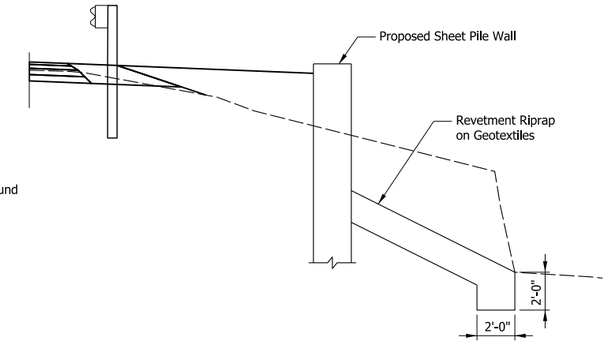
Varies from 2'-0" to 8'-0"
From 18+83.82 "PR-A" to 19+58.80 "PR-A"

2 Varies from 0'-0" to 8'-0"
From 17+74.00 "PR-A" to 19+58,38 "PR-A"

3 2'-0" from 17+60.00 "PR-A" to 18+83.82 "PR-A"

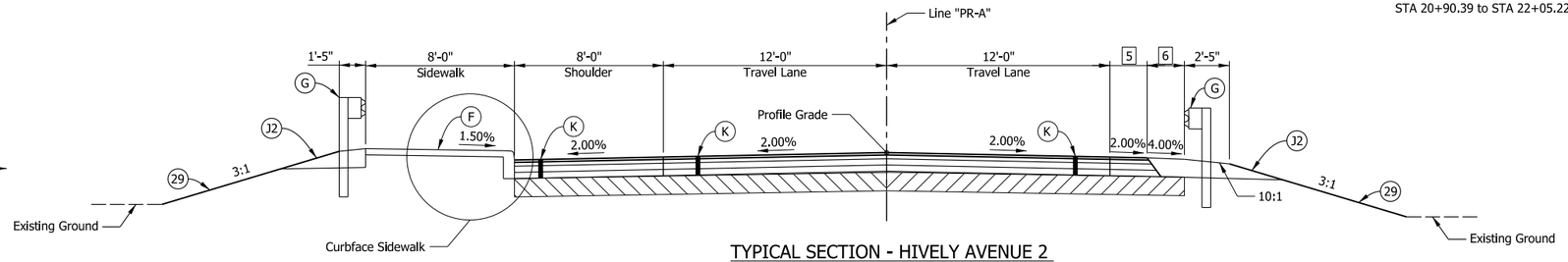
Varies from 2'-0" to 8-0"
From 18+83.82 "PR-A" to 19+58.80 "PR-A"

4 Varies from 0'-0" to 8-0"
From 17+85.10 "PR-A" to 19+58,38 "PR-A"



RETAINING WALL AND SLOPE PROTECTION SECTION RIGHT

STA 20+90.39 to STA 22+05.22 "PR-A"



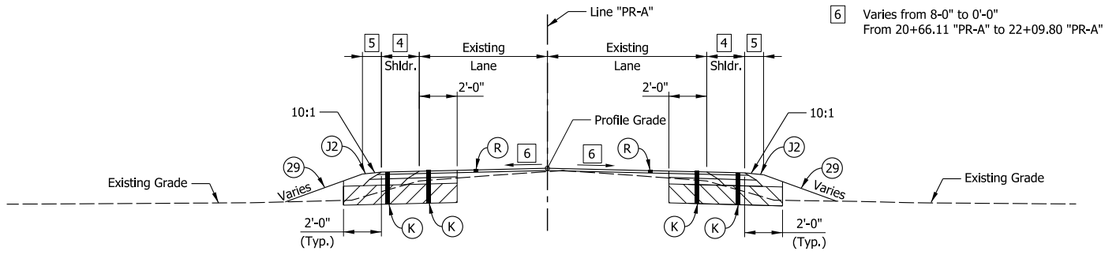
TYPICAL SECTION - HIVELY AVENUE 2

STA 20+66.11 to STA 22+70.00 "PR-A"

5 Varies from 8-0" to 2'-0"
From 20+66.11 "PR-A" to 21+40.68 "PR-A"

2'-0" from 21+40.68 "PR-A" to 22+70.00 "PR-A"

6 Varies from 8-0" to 0'-0"
From 20+66.11 "PR-A" to 22+09.80 "PR-A"



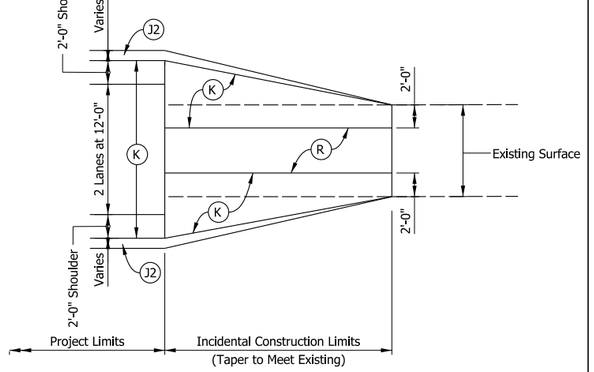
INCIDENTAL CONSTRUCTION TYPICAL SECTION

STA. 17+00.00 "PR-A" to 17+60.00 "PR-A"
STA. 22+70.00 "PR-A" to 23+30.00 "PR-A"
Scale: ¼" = 1'-0"

4 Varies from 2'-0"± to 0'
From Sta. 17+00.00 "PR-A" to 17+60.00 "PR-A"
Sta. 22+70.00 "PR-A" to 23+30.00 "PR-A"

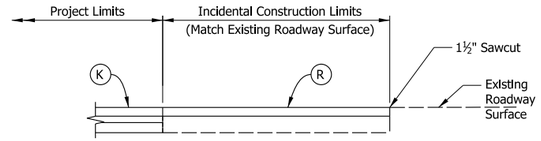
5 1'-5" within Guardrail Limits
1'-0" outside Guardrail Limits
(See Note 1)

6 Transitions from 2% to Existing
From Sta. 17+00.00 "PR-A" to 17+60.00 "PR-A"
Sta. 22+70.00 "PR-A" to 23+30.00 "PR-A"



PLAN DETAIL - MATCHING EXISTING ROADWAY

Not to Scale



ELEVATION DETAIL - MATCH EXISTING PAVEMENT

Not to Scale

NOTES

1. See Standard Drawing E 601-GRET-06 for OS End Treament Grading

LEGEND

(K) 165 #/Sys QC/QA-HMA, 3, 58H, Surface, 9.5 mm on 275 #/Sys QC/QA-HMA, 3, 58H, Intermediate, 19.0 mm on 880 #/Sys QC/QA-HMA, 3, 58H, Base, 25.0 mm on Subgrade Treatment Type IC on Geotextile for Pavement, Type 2B

(R) 165 #/Sys QC/QA-HMA, 3, 58H, Surface, 9.5mm on Milling Asphalt, 1.5 IN

(M) Moment Slab (Modified)

(J2) 6 IN. Compacted Aggregate

(29) Seeding, Type R

(F) Sidewalk, Curbface

(G) Guardrail

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RECOMMENDED FOR APPROVAL
DESIGN ENGINEER DATE

DESIGNED: JAS DRAWN: PCR

CHECKED: KMP CHECKED: KMP

ELKHART COUNTY HIGHWAY DEPARTMENT

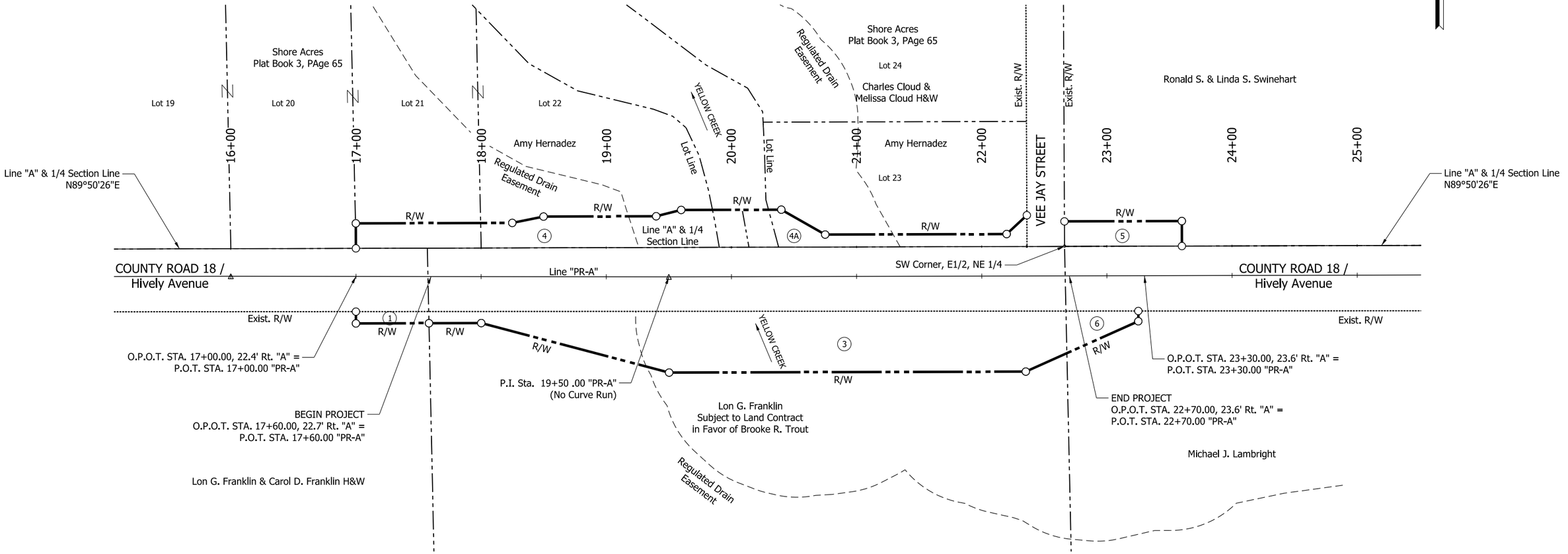
TYPICAL SECTIONS

SCALE	BRIDGE FILE
1/4" = 1'-0"	20-00385 A
VERTICAL SCALE	DESIGNATION
	2201238
SURVEY BOOK	SHEETS
	3 of 26
CONTRACT	PROJECT
B-44742	2201238

Plot:2/12/2026 10:55:52 AM By: GormaRR Pen: Transportation.tbl Model:Default

c:\bms\gai-prod\r.gorman\dms21182\R221171.00 RD_Typical Sections.dgn

SECTION 15, T37N, R5E, 2nd PM
CONCORD TOWNSHIP
ELKHART COUNTY



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RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE

DESIGNED: JAS | DRAWN: JAS

CHECKED: KMP | CHECKED: KMP

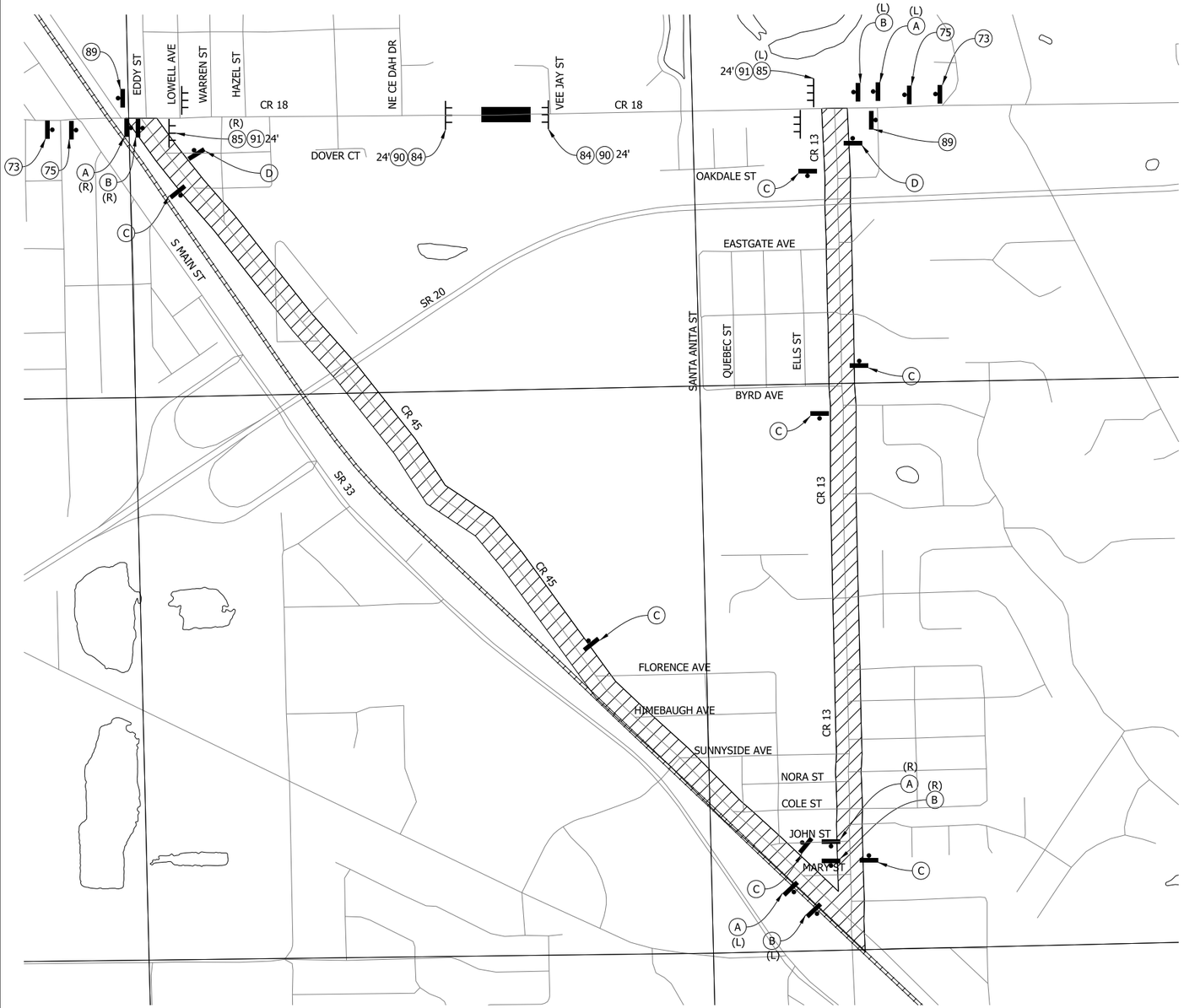
ELKHART COUNTY
HIGHWAY DEPARTMENT

PLAT NO. 1

SCALE	BRIDGE FILE
1" = 40'	20-00385 A
VERTICAL SCALE	DESIGNATION
	2201238
SURVEY BOOK	SHEETS
	4 of 26
CONTRACT	PROJECT
B-44742	2201238

Plot:2/12/2026 10:56:21 AM By: GormaRR Pen: Transportation.tbl Model:Plat No. 1

c:\bms\gai-prod\r.gorman\dms21182\R221171.00 RD_Plat No. 1.dgn



DETOUR PLAN

Scale: 1"=600'

SIGN LEGEND:

- **A** — Advance Turn Detour Route Marker Assembly
  Detour (XM4-8)
  Cardinal Direction (North, M3-1(N)) or (South, M3-3(S))
  Co Rd 700 N (D3-1)
  Advance Turn Arrow (M5-1 or M5-2) (L or R)
- **B** — Directional Detour Route Marker Assembly
  Detour (XM4-8)
  Cardinal Direction (North, M3-1(N)) or (South, M3-3(S))
  Co Rd 700 N (D3-1)
  Directional Arrow (M6-1 or M6-2) (L or R)
- **C** — Confirming Detour Route Marker Assembly
  Detour (XM4-8)
  Cardinal Direction (North, M3-1(N)) or (South, M3-3(S))
  Co Rd 700 N (D3-1)
  Directional Arrow (M6-3)
- **D** — End Detour Route Marker Assembly
  End Detour (XM4-8a)
  Cardinal Direction (North, M3-1(N)) or (South, M3-3(S))
  Co Rd 700 N (D3-1)
- **85** — Road Closure Sign Assembly
  "Road Closed to thru traffic" (R11-4)
  "Detour Arrow" (XM4-10 (L or R))

75 — DETOUR AHEAD — XW20-2 36"x36"

73 — ROAD CLOSED AHEAD — XW20-3 36"x36"

84 — ROAD CLOSED — R11-2 48"x30"

89 — END CONSTRUCTION — XG20-2 60"x24"

LEGEND

Detour Route

Closure Area

90 III-A BARRICADES

91 III-B BARRICADES

NOTES

1. Refer to INDOT Standard Drawing E 801-TCDT-01 for placement of signs and devices in a rural detour and E 801-TCDT-04 for Detour Route Marker Assembly Details.

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RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE

DESIGNED: JAS DRAWN: PCR

CHECKED: KMP CHECKED: KMP

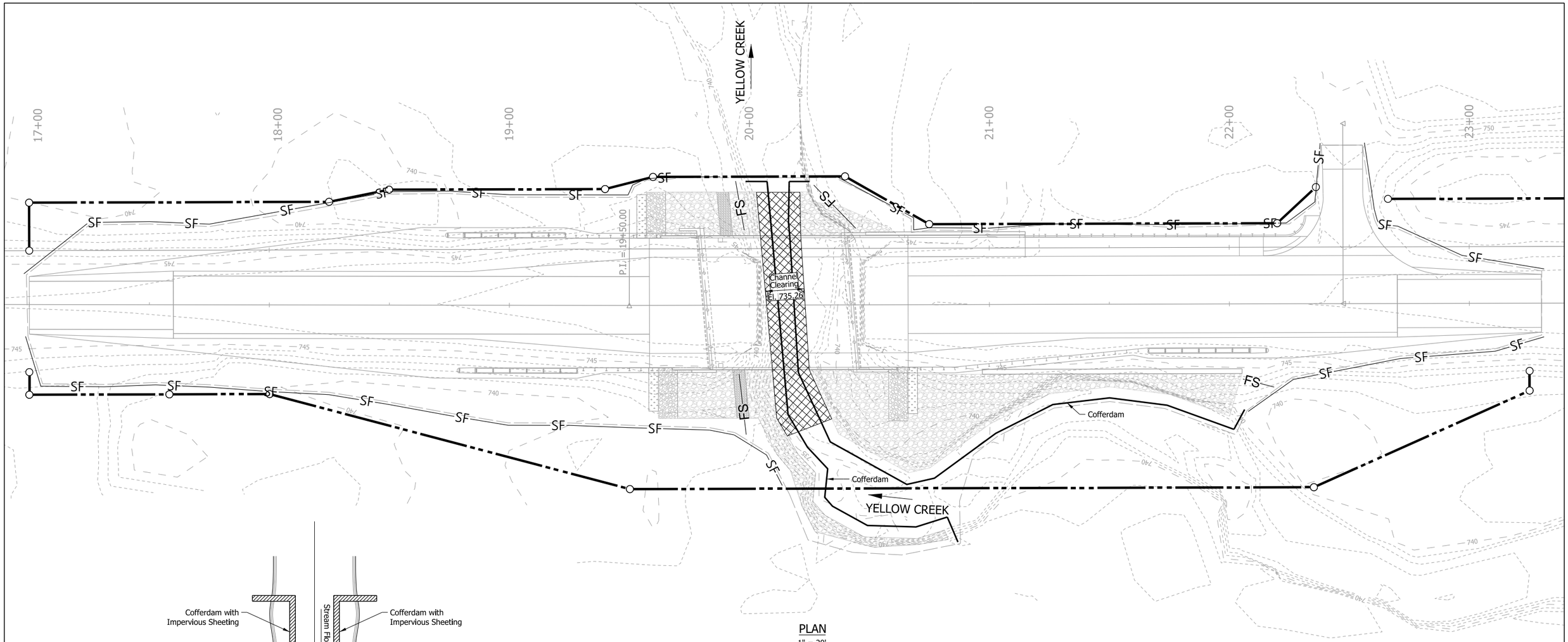
ELKHART COUNTY HIGHWAY DEPARTMENT

MAINTENANCE OF TRAFFIC

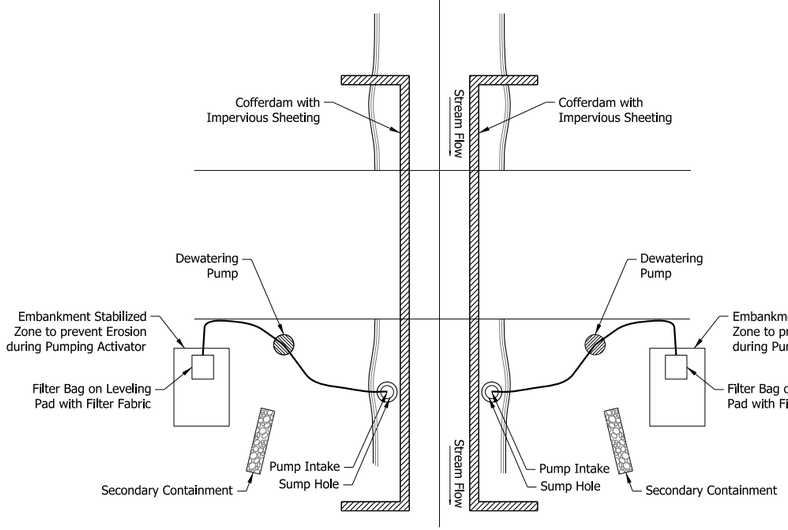
SCALE	BRIDGE FILE
	20-00385 A
VERTICAL SCALE	DESIGNATION
	2201238
SURVEY BOOK	SHEETS
	5 of 26
CONTRACT	PROJECT
B-44742	2201238

Plot:2/12/2026 10:56:38 AM By: GormaRR Pen: Transportation.tbl Model:Default

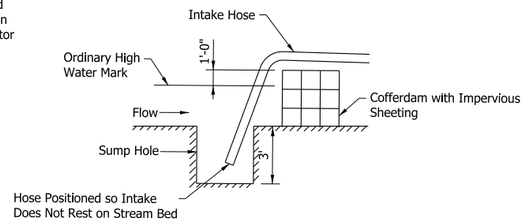
c:\bms\gai-prod\r.gorman\dms21182\R221171.00 RD_MOT.dgn



PLAN
1" = 20'



COFFERDAM DETAILS
N.T.S.



COFFERDAM / SUMP HOLE WORK AREA
N.T.S.

TEMPORARY EROSION CONTROL TABLE

FROM STATION	TO STATION	LOCATION			SILT FENCE	FILTER SOCK	TEMPORARY CHECK DAM	REMARKS
		LEFT	MEDIAN	RIGHT	LFT	LFT	TON	
Line "A-PR"								
17+00	20+13			X	302			
17+00	19+88	X			302			
22+05	23+30			X	133			
20+32	23+30	X			241			
19+96	19+96	X				21		
19+97	19+97			X		26		
20+35	20+35	X				25		
22+13	22+13			X		14		
Total					978	86		

LEGEND

FS — Filter Sock

SF — Silt Fence

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RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE

DESIGNED: RRG | DRAWN: RRG

CHECKED: KMP | CHECKED: KMP

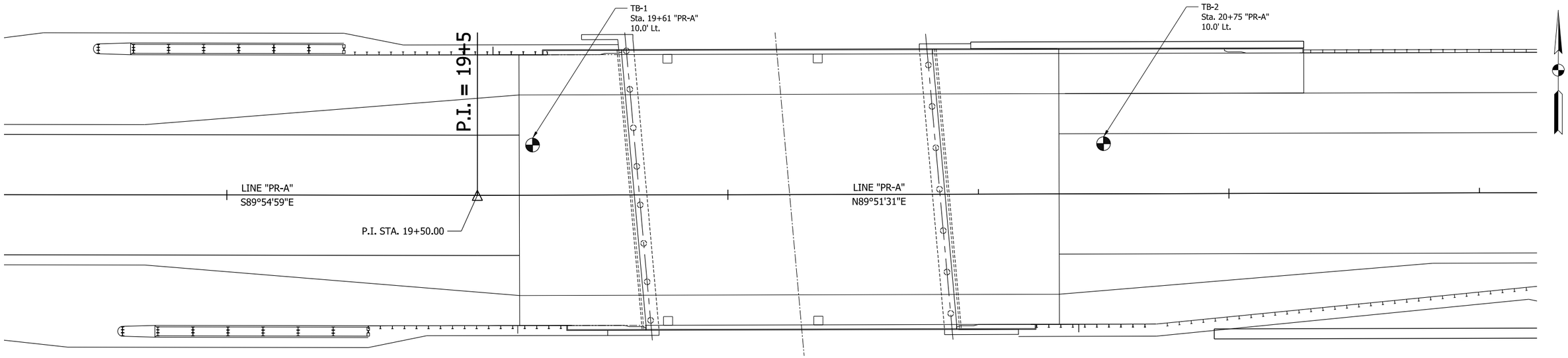
ELKHART COUNTY
HIGHWAY DEPARTMENT

EROSION CONTROL PLAN
LINE "PR-A"

SCALE	BRIDGE FILE
AS NOTED	20-00385 A
VERTICAL SCALE	DESIGNATION
	2201238
SURVEY BOOK	SHEETS
	6 of 26
CONTRACT	PROJECT
B-44742	2201238

Plot:2/12/2026 10:57:02 AM By: GormaRR Pen: Transportation.tbl Model:Erosion Control Sheet 1

c:\bms\gai-prod\r.gorman\dms21182\R221171.00 BR_Erosion Control Sheet.dgn



PLAN - BORINGS LOCATIONS

Scale: 1" = 10'-0"

LOG OF TEST BORING

BORING NO.: TB-1 | SHEET 1 OF 3 | LATITUDE: 41.65947 | LONGITUDE: -85.93263 | DATUM: WGS 84 | DATE STARTED: 08-08-24 | DATE COMPLETED: 08-07-24

CLIENT: GAI Consultants, Inc.
DES NO.: 2201238 STRUCTURE #: 20-00385B
PROJECT TYPE: Bridge Replacement
LOCATION: CR 18 over Yellow Creek
COUNTY: Elkhart PROJECT NO.: CJ235027

ELEVATION: 748.0 | STATION: 19+61 | OFFSET: 10.0 ft Left | LINE: 'PR-A' | DEPTH: 90.0 ft
BORING METHOD: Hollow Stem Auger | RIG TYPE: CME 750X | CASING DIA.: --- | CORE SIZE: ---
HAMMER: Auto | DRILLER/INSP: M.M. | TEMPERATURE: 79 °F | WEATHER: Sunny

GROUNDWATER: ▽ Encountered at 12.0 ft ▼ At completion 20.0 ft ▼ Caved in at 32.5 ft

ELEVATION	SAMPLE DEPTH	SOIL/MATERIAL DESCRIPTION	SAMPLE NUMBER	SPT per 6"	% RECOVERY	MOISTURE CONTENT	DRY DENSITY, pcf	POCKET PEN., tsf	UNCONF. COMP., tsf	ATTERBERG LIMITS LL	PL	PI	REMARKS
748.0	0.0	**Asphaltic Concrete** 0.6 **Portland Cement Concrete** 1.3											
745.0	2.5	**Sand**, very loose to loose, moist, brown, (fill), A-2-4, Lab No. 39377	SS 1	2-2-3	33								
	5.0		SS 2	3-3-3	67								
740.0	7.5		SS 3	3-4-4	17								
	8.0												
	10.0		SS 4	4-4-5	78								
	12.5	**Gravelly Sand**, loose, moist to wet below 12 ft, brown, with sand seam near 9 ft, with roots near 9.5 ft and 12.5 ft, A-2-4, Lab No. 39378	SS 5	4-3-3	78								
730.0	15.0		SS 6	5-5-5	100								
	16.0												
	17.5		SS 7	5-5-5	22								
725.0	20.0		SS 8	5-7-12	100								
	22.5	**Sand**, loose to medium dense, wet, gray, with gravelly sand seam near 20 ft, with cobbles near 25 ft and 30 ft, A-1-b, Lab No. 39383											
720.0	25.0		SS 9	10-11-10	0								
	27.5												
	30.0		SS 10	10-12-11	11								

Continued on next page

LOG OF TEST BORING

BORING NO.: TB-1 | SHEET 2 OF 3 | LATITUDE: 41.65947 | LONGITUDE: -85.93263 | DATUM: WGS 84

CLIENT: GAI Consultants, Inc.
DES NO.: 2201238 STRUCTURE #: 20-00385B
PROJECT TYPE: Bridge Replacement

ELEVATION	SAMPLE DEPTH	SOIL/MATERIAL DESCRIPTION	SAMPLE NUMBER	SPT per 6"	% RECOVERY	MOISTURE CONTENT	DRY DENSITY, pcf	POCKET PEN., tsf	UNCONF. COMP., tsf	ATTERBERG LIMITS LL	PL	PI	REMARKS
715.0	32.5	**Sand**, loose to medium dense, wet, gray, with gravelly sand seam near 20 ft, with cobbles near 25 ft and 30 ft, A-1-b, Lab No. 39383											
	33.0		SS 11	6-6-4	100								
710.0	35.0												
	37.5		SS 12	6-8-5	89					NP	NP	NP	39.5, pH = 8.9, SG = 2.70, soluble sulfate = 90 ppm
	40.0												
705.0	42.5		SS 13	6-6-8	100								
	45.0												
700.0	47.5	**Sand**, medium dense, wet, gray, with silty clay seam near 55 ft, A-2-4(0), Lab No. 39386	SS 14	19-14-12	100								
	50.0												
695.0	52.5		SS 15	11-14-8	100								
	55.0												
690.0	57.5		SS 16	9-10-9	100								
	60.0												
685.0	62.5		SS 17	9-9-8	67								
	65.0												

Continued on next page

LOG OF TEST BORING

BORING NO.: TB-1 | SHEET 3 OF 3 | LATITUDE: 41.65947 | LONGITUDE: -85.93263 | DATUM: WGS 84

CLIENT: GAI Consultants, Inc.
DES NO.: 2201238 STRUCTURE #: 20-00385B
PROJECT TYPE: Bridge Replacement

ELEVATION	SAMPLE DEPTH	SOIL/MATERIAL DESCRIPTION	SAMPLE NUMBER	SPT per 6"	% RECOVERY	MOISTURE CONTENT	DRY DENSITY, pcf	POCKET PEN., tsf	UNCONF. COMP., tsf	ATTERBERG LIMITS LL	PL	PI	REMARKS
680.0	67.5		SS 18	8-7-10	78								
	70.0	**Sand**, medium dense, wet, gray, with silty clay seam near 55 ft, A-2-4(0), Lab No. 39386											
675.0	72.5		SS 19	11-8-8	33								
	75.0												
670.0	77.5												
	79.0		SS 20	8-7-11	0								
	80.0	**Sand and Gravel**, medium dense to dense, wet, gray, with cobbles near 80 ft, (visual)											
665.0	82.5		SS 21	6-9-9	33								
	85.0												
660.0	87.5												
	90.0		SS 22	10-15-23	11								
655.0	92.5	Bottom of Boring at 90.0 ft											
	95.0												
650.0	97.5												
	100.0												
645.0	102.5												

PILE LOADING FOR GEOTECHNICAL TESTING

Support	No. 1	No. 2
Pile Size, Type, and Grade	SEC Pile 14"x0.312" with End Plates	SEC Pile 14"x0.312" with End Plates
Factored Design Load QF (Kips)	234	234
Factored Design Soil Resistance RR (Kips)	234	234
Resistance Factor	0.55	0.55
Downdrag Load DD (Kips)	0	0
Nominal Soil Resistance Rn (Kips)	426	426
Downdrag Friction Rsdd (Kips)	0	0
Scour Zone Friction Rs scour (Kips)	N/A	N/A
Nominal Driving Resistance Rndr (Kips)	426	426
Estimated Pile Tip Elevation	675	675
Verification of pile resistance to be performed per Standard Specifications 701.05 (a)		

Note: Piles should be restruck 24 hours after initial driving.

gai consultants

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE

DESIGNED: JAS | DRAWN: PCR | CHECKED: KMP | CHECKED: KMP

ELKHART COUNTY HIGHWAY DEPARTMENT

SOIL BORING

SCALE	BRIDGE FILE
AS NOTED	20-00385 A
VERTICAL SCALE	DESIGNATION
	2201238
SURVEY BOOK	SHEETS
	7 of 26
CONTRACT	PROJECT
B-44742	2201238

Plot:2/12/2026 10:57:30 AM By: GormaR Pen: Transportation.tbl Model:Soil Boring Sheet 1

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LOG OF TEST BORING

terracon

BORING NO.: TB-2
SHEET 1 OF 3
LATITUDE : 41.65947
LONGITUDE : -85.93221
DATUM : WGS 84
DATE STARTED : 08-09-24
DATE COMPLETED : 08-09-24

CLIENT : GAI Consultants, Inc.
DES NO. : 2201238 STRUCTURE #: 20-00385B
PROJECT TYPE: Bridge Replacement
LOCATION : CR 18 over Yellow Creek
COUNTY : Elkhart PROJECT NO.: CJ235027

ELEVATION : 748.0	BORING METHOD : Hollow Stem Auger	HAMMER : Auto	
STATION : 20+75	RIG TYPE : CME 750X	DRILLER/INSP : M.M.	
OFFSET : 10.0 ft Left	CASING DIA. : ---	TEMPERATURE : 79 °F	
LINE : 'PR-A'	CORE SIZE : ---	WEATHER : Rain	
DEPTH : 90.0 ft			

GROUNDWATER: Encountered at 9.0 ft At completion 10.5 ft Caved in at 22.5 ft

ELEVATION	SAMPLE DEPTH	SOIL/MATERIAL DESCRIPTION	SAMPLE NUMBER	SPT per 6"	RECOVERY	MOISTURE CONTENT	DRY DENSITY, pcf	POCKET PEN., tsf	UNCONF. COMP., tsf	ATTERBERG LIMITS LL	PL	PI	REMARKS
		Asphaltic Concrete 0.8											
		Portland Cement Concrete 1.3											
745.0	2.5	**Sand and Gravel**, loose to medium dense, moist, brown, (fill; visual)	SS 1	8-7-7	56								
	5.0		SS 2	5-5-4	56								
		6.0											
740.0	7.5	**Sand**, very loose to very dense near 9 ft, moist to wet below 9 ft, brown, with concrete near 9 ft, (fill), A-2-4, Lab No. 39377	SS 3	1-1-1	56								
			SS 4	1-50/1	56								
	10.0	10.0											
735.0	12.5	**Gravelly Sand**, very dense, wet, gray, with cobbles and cemented seam near 11 ft, A-1-b, Lab No. 39381	SS 5	21-50/3	31								
	15.0	15.0	SS 6	34-20-10	33								
730.0	17.5	**Sand**, medium dense, wet, brown, with gravelly sand seams near 6.5 ft and 24 ft, with silty clay seam near 24 ft, A-1-b, Lab No. 39383	SS 7	9-8-9	78								
	20.0		SS 8	6-8-7	67								
	22.5												
725.0		24.5	SS 9	9-8-7	78								
	25.0												
720.0	27.5	**Sandy Loam**, medium dense, wet, gray, A-2-4, Lab No. 39384											
	30.0		SS 10	7-8-8	100								

Continued on next page

LOG OF TEST BORING

terracon

BORING NO.: TB-2
SHEET 2 OF 3
LATITUDE : 41.65947
LONGITUDE : -85.93221
DATUM : WGS 84

CLIENT : GAI Consultants, Inc.
DES NO. : 2201238 STRUCTURE #: 20-00385B
PROJECT TYPE: Bridge Replacement

ELEVATION	SAMPLE DEPTH	SOIL/MATERIAL DESCRIPTION	SAMPLE NUMBER	SPT per 6"	RECOVERY	MOISTURE CONTENT	DRY DENSITY, pcf	POCKET PEN., tsf	UNCONF. COMP., tsf	ATTERBERG LIMITS LL	PL	PI	REMARKS
715.0	32.5	**Sandy Loam**, medium dense, wet, gray, A-2-4, Lab No. 39384	SS 11	7-6-9	100								
	35.0	37.0											
710.0	37.5		SS 12	6-5-5	100	18.5		2.0					
	40.0												
	42.5		SS 13	7-5-7	100	24.3		1.25					
705.0	45.0												
	47.5	**Silty Clay**, soft to stiff, moist, gray, with sandy clay loam seams near 49 ft and 59 ft, (visual)	SS 14	6-5-5	100	25.5		1.5					
700.0	50.0												
	52.5		SS 15	4-4-4	100	26.9		1.5					
695.0	55.0												
	57.5	59.5	SS 16	2-2-3	100	8.4		1.0					
690.0	60.0	**Sand**, loose to medium dense to 65 ft, dense to very dense below 65 ft, wet, gray, with sandy loam seams near 60 ft and 64 ft, with silty clay seam near 80 ft A-2-4, Lab No. 39386											
	62.5		SS 17	6-8-6	100								
685.0	65.0												

Continued on next page

LOG OF TEST BORING

terracon

BORING NO.: TB-2
SHEET 3 OF 3
LATITUDE : 41.65947
LONGITUDE : -85.93221
DATUM : WGS 84

CLIENT : GAI Consultants, Inc.
DES NO. : 2201238 STRUCTURE #: 20-00385B
PROJECT TYPE: Bridge Replacement

ELEVATION	SAMPLE DEPTH	SOIL/MATERIAL DESCRIPTION	SAMPLE NUMBER	SPT per 6"	RECOVERY	MOISTURE CONTENT	DRY DENSITY, pcf	POCKET PEN., tsf	UNCONF. COMP., tsf	ATTERBERG LIMITS LL	PL	PI	REMARKS
680.0	67.5		SS 18	15-19-20	0								
	70.0												
675.0	72.5		SS 19	29-32-22	100								
	75.0	**Sand**, loose to medium dense to 65 ft, dense to very dense below 65 ft, wet, gray, with sandy loam seams near 60 ft and 64 ft, with silty clay seam near 80 ft, A-2-4, Lab No. 39386											
670.0	77.5		SS 20	36-28-30	67								
	80.0												
665.0	82.5		SS 21	21-30-20	100								
	85.0												
660.0	87.5												
	90.0	90.0	SS 22	20-19-16	100								
655.0	92.5	Bottom of Boring at 90.0 ft											
	95.0												
650.0	97.5												
	100.0												
645.0	102.5												

EEI BORING LOG (NDOT FORMAT) LAT LONG CJ235027.GPJ IN_DOT1.GDT 10/9/24

gai consultants

RECOMMENDED FOR APPROVAL
DESIGN ENGINEER DATE

DESIGNED: JAS DRAWN: PCR
CHECKED: KMP CHECKED: KMP

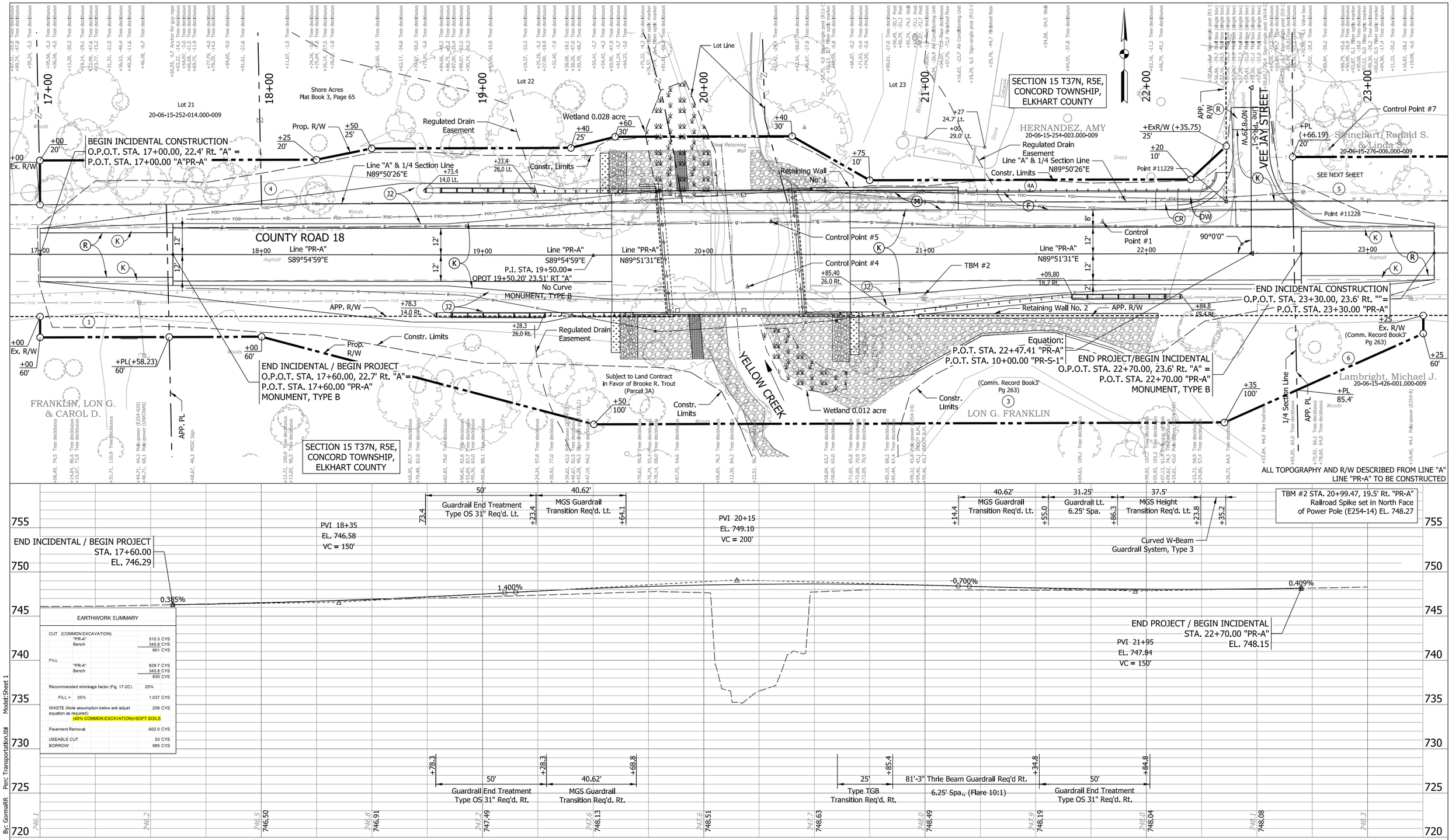
ELKHART COUNTY
HIGHWAY DEPARTMENT

SOIL BORING

SCALE	BRIDGE FILE
AS NOTED	20-00385 A
VERTICAL SCALE	DESIGNATION
	2201238
SURVEY BOOK	SHEETS
	8 of 26
CONTRACT	PROJECT
B-44742	2201238

Plot:2/12/2026 10:57:49 AM By: GormaRR Pen: Transportation.tbl Model:Soil Borings Sheet 2

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EARTHWORK SUMMARY

CUT (COMMON EXCAVATION)	
"PR-A"	515.3 CYS
Bench	345.8 CYS
	861 CYS
FILL	
"PR-A"	829.7 CYS
Bench	345.8 CYS
	830 CYS
Recommended shrinkage factor (Fig. 17-2C)	25%
FILL + 25%	1,037 CYS
WASTE (Note assumption below and adjust equation as required)	206 CYS
(40% COMMON EXCAVATION)+SOFT SOILS	
Pavement Removal	-602.0 CYS
USEABLE CUT	53 CYS
BORROW	985 CYS

LEGEND

(29) Seeding, Type R
(F) Sidewalk, Concrete
(J2) 6 IN. Compacted Aggregate
(DW) Detectable Warning Surface
(K) 165 #/Sys QC/QA-HMA, 3, 76, Surface, 9.5 mm on 220 #/Sys QC/QA-HMA, 3, 70, Intermediate, 12.5 mm on 330 #/Sys QC/QA-HMA, 3, 64, Base, 25.0 mm on 3" Compacted Aggregate, No. 53
(R) Milling Asphalt, 1.5 IN. on 165 #/SY QC/QA HMA 3, 76 Surface, 9.5mm
(D) HMA for Approaches, Type B 165 #/Sys HMA Surface, Type B on 275 #/Sys HMA Intermediate, Type B on 6" Compacted Aggregate, No. 53 Subgrade Treatment Type II
(CR) Curb Ramp, Concrete
(M) Moment Slab (Modified)

gai consultants

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE

DESIGNED: JLZ DRAWN: RRG
CHECKED: JAS CHECKED: KMP

ELKHART COUNTY
HIGHWAY DEPARTMENT

PLAN AND PROFILE
LINE "PR-A"

HORIZONTAL SCALE	BRIDGE FILE
1" = 20'	20-00385 A
VERTICAL SCALE	DESIGNATION
1" = 5'	2201238
SURVEY BOOK	SHEETS
	9 of 26
CONTRACT	PROJECT
B-44742	2201238

Model:Sheet 1
Pen: Transportation.tbl
By: GormaRR
Plot:2/12/2026 10:58:25 AM
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LON G. FRANKLIN

Subject to Land Contract
in Favor of Brooke R. Trout
(Parcel 3A)

MICHAEL J. LAMBRIGHT

AMY HERNADEZ

Lot 23

Lot 24

Lot 25

Shore Acres
Plat Book 3, Page 65

RONALD S. & LINDA S. SWINEHART

20-06-276-006.000-009

COUNTY ROAD 18

VEE JAY STREET

YELLOW CREEK

Regulate Drain
Easement

Prop. R/W

Line "PR-A"
N89°15'13"E

Line "A"
N 89°50'46"E

Line "PR-S-1"
N0°08'14"W
90°0'0"

22+00

23+00

Constr.
Limits

+35
100'

+20
10'

+25
60'

+25
App.
Ex. R/W
(60')

+60
App.
Ex. R/W

+60
20'

PL (+66.19) "A"
20'

App. Ex. R/W (+35.75) "A"
25'

Equation:
P.O.T. STA. 22+47.41 "PR-A"
P.O.T. STA. 10+00.00 "PR-S-1"

BEGIN CONSTRUCTION
STA. 10+20 "PR-S-1"

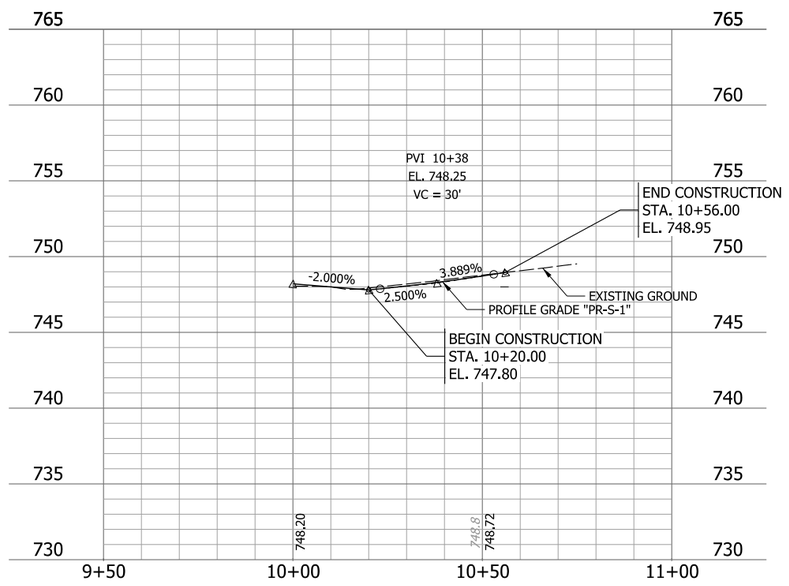
END INCIDENTAL
STA. 10+66.00 "PR-S-1"

END CONSTRUCTION
STA. 10+56.00 "PR-S-1"

SECTION 15 T37N, R5E,
CONCORD TOWNSHIP,
ELKHART COUNTY

SECTION 15 T37N, R5E,
CONCORD TOWNSHIP,
ELKHART COUNTY

ALL TOPOGRAPHY AND R/W DESCRIBED FROM LINE "A"
LINE "PR-S-1" TO BE CONSTRUCTED



gai consultants

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER _____ DATE

DESIGNED: JLZ | DRAWN: RRG

CHECKED: JAS | CHECKED: KMP

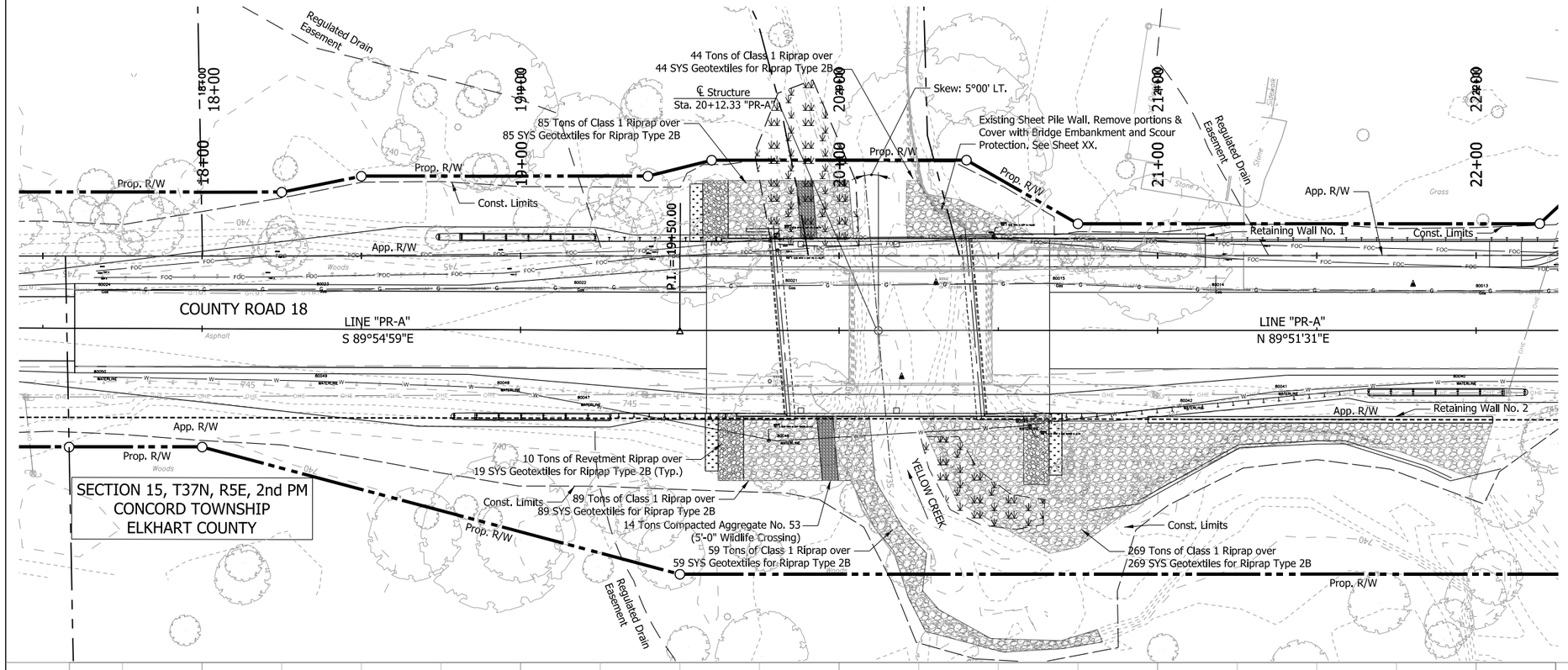
ELKHART COUNTY
HIGHWAY DEPARTMENT

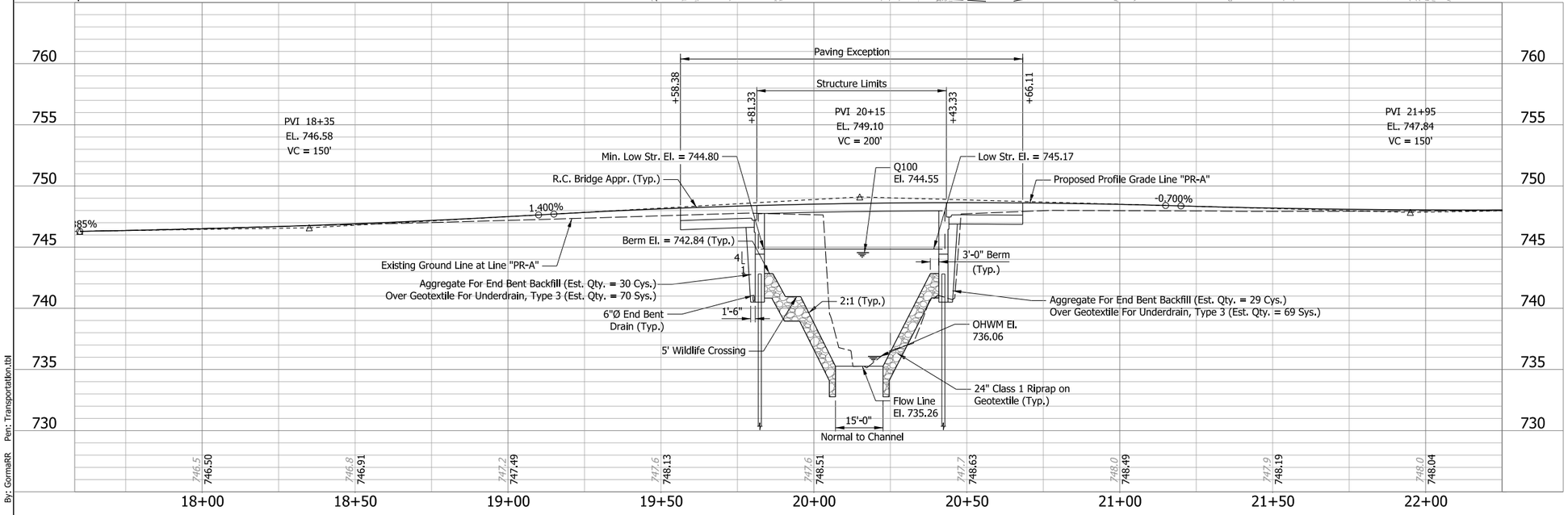
PLAN AND PROFILE
LINE "PR-S-1"

HORIZONTAL SCALE	BRIDGE FILE
1" = 20'	20-00385 A
VERTICAL SCALE	DESIGNATION
1" = 5'	2201238
SURVEY BOOK	SHEETS
	10 of 26
CONTRACT	PROJECT
B-44742	2201238

Plot:2/12/2026 10:58:33 AM By: GormaRR Pen: Transportation.tbl Model:Sheet 2

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EXISTING STRUCTURES

The existing structure (20-00385 A) is a 45' span
Prestressed Concrete Box Beam Bridge.
Existing Structure to be removed.

EARTHWORK SUMMARY

Fill + 25%	XXXX Cys.
Excavation, Common	XXXX Cys.
Excavation, Foundation, Unclassified	XX Cys.
Borrow	XX Cys.

HYDRAULIC DATA

Drainage Area	33.2	sq. mi.
Design Discharge	1,950	cfs.
Waterway Opening Required	320.0	sq.ft.
Waterway Opening Provided	339.0	sq.ft.
Q100 Elevation	744.55	ft
Existing Q100 Headwater El.	744.21	ft.
Proposed Q100 Headwater El.	744.16	ft.
Q100 Velocity Existing	5.96	ft./sec.
Q100 Velocity Proposed	6.62	ft./sec.
Existing Backwater at Q100	0.33	ft.
Proposed Backwater at Q100	0.33	ft.
Existing Road Overflow Area	0.00	sq.ft.
Proposed Road Overflow Area	0.00	sq.ft.
Existing Low Structure El.	744.80	ft.
Proposed Low Structure El.	744.80	ft.

SCOUR HYDRAULIC DATA

Q100:

Q100 Discharge	1,950	cfs.
Q100 El.	744.55	ft.
Maximum Velocity at Q100	6.82	ft/sec.
Scour Depth (Contraction	7.62	ft
Scour Depth (Total)	7.62	ft.
Low Scour El.	727.64	ft.

Q500:

Q500 Discharge	2,340	cfs.
Q500 El.	744.18	ft.
Maximum Velocity at Q500	9.04	ft/sec.
Scour Depth (Contraction	8.83	ft
Scour Depth (Total)	8.83	ft.
Low Scour El.	726.43	ft.

PRESTRESSED CONCRETE BOX BEAM BRIDGE
1 SPAN: 60'-0" SKEW: 5°00' LT
40'-0" CLEAR ROADWAY
CR 18 (HIVELY AVE.) OVER YELLOW CREEK
ELKHART COUNTY, IN

Plot: 2/12/2026 10:58:52 AM By: GormaRR Pen: Transportation.tbl

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RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE

DESIGNED: RRG DRAWN: RRG

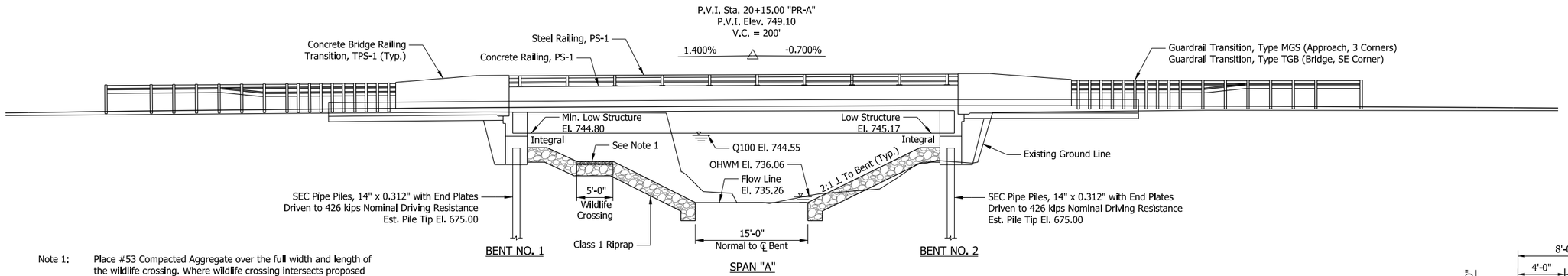
CHECKED: KMP CHECKED: KMP

ELKHART COUNTY
HIGHWAY DEPARTMENT

LAYOUT

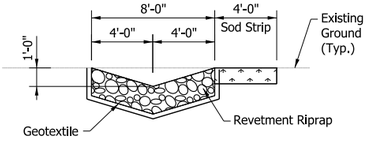
HORIZONTAL SCALE	BRIDGE FILE
1" = 20'	20-00385 A
VERTICAL SCALE	DESIGNATION
1" = 5'	2201238
DRAWING NUMBER	SHEETS
of	11 of 26
CONTRACT	PROJECT
B-44742	2201238

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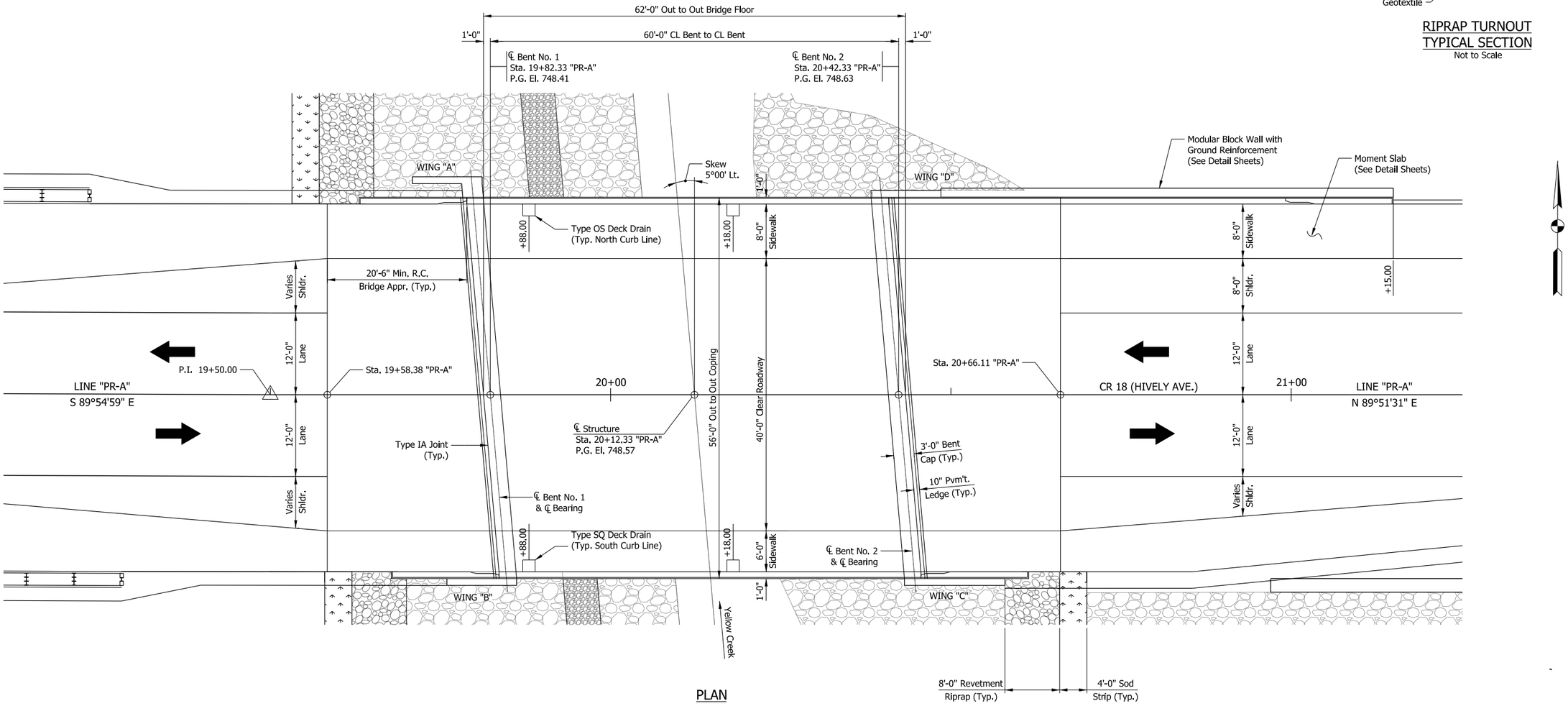


ELEVATION

Note 1: Place #53 Compacted Aggregate over the full width and length of the wildlife crossing. Where wildlife crossing intersects proposed riprap, the aggregate shall be placed to fill voids in the riprap and provide a uniform aggregate surface extending throughout the construction limits.



RIPRAP TURNOUT TYPICAL SECTION
Not to Scale



PLAN

gai consultants

RECOMMENDED FOR APPROVAL
DESIGN ENGINEER DATE

DESIGNED: JAS DRAWN: PCR
CHECKED: KMP CHECKED: RRG

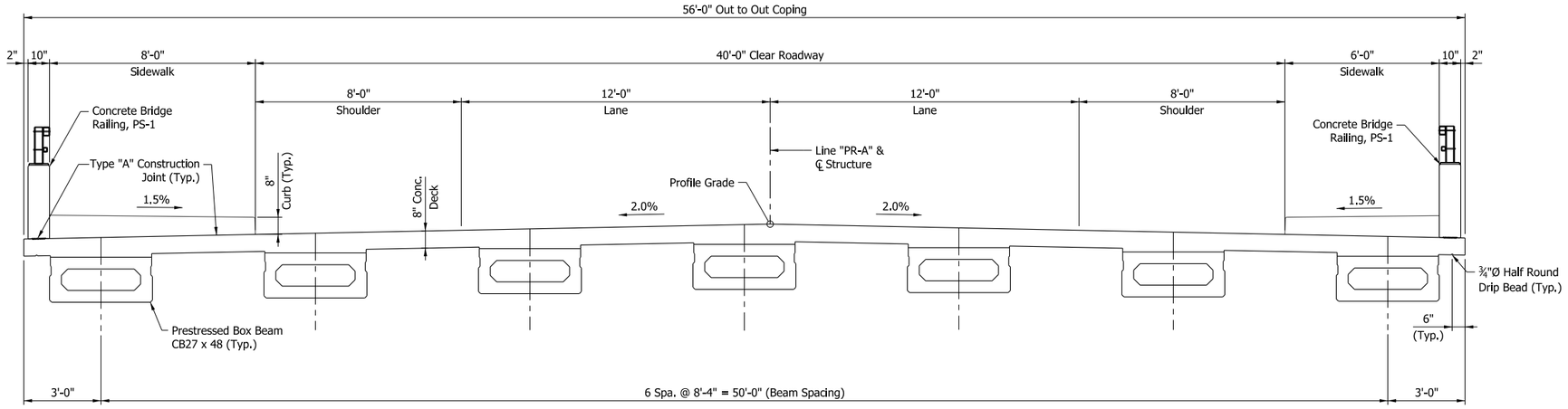
ELKHART COUNTY HIGHWAY DEPARTMENT

GENERAL PLAN

SCALE	BRIDGE FILE
1/8" = 1'-0"	20-00385 A
VERTICAL SCALE	DESIGNATION
	2201238
SURVEY BOOK	SHEETS
	12 of 26
CONTRACT	PROJECT
B-44742	2201238

Plot:2/12/2026 10:59:28 AM By: GormaRR Pen: Transportation.tbl Model:Sheet

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PROPOSED BRIDGE TYPICAL SECTION

Scale: ⅜" = 1'-0"

GENERAL NOTES

Reinforcing Steel cover shall be 2½" in top and 1" minimum in bottom of floor slab, and 2" in all other parts unless noted.

DESIGN DATA

Designed for HL-93 loading in accordance with AASHTO LRFD Bridge Design Specifications 9th Edition, 2020.

DEAD LOAD

Actual weight plus 35 psf for future wearing surface and 15 lb/ft² for permanent metal deck forms.

FLOOR SLAB

Designed with a 7½" structural depth plus a ½" sacrificial wearing surface.

DESIGN STRESSES

CONCRETE

Class "A" Concrete:	f'c = 3,500 psi
Class "C" Concrete:	f'c = 4,000 psi

REINFORCING STEEL

Grade 60	Fy = 60,000 psi

CONSTRUCTION LOADING

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

DECK FALSEWORK LOADS

Designed for 15 Lbs./Sft. for permanent metal stay-in-place deck forms, removable deck forms, and 2' exterior walkway.

CONSTRUCTION LIVE LOAD

Designed for 20 lb/ft2 extending 2 ft past the edge of coping and 75 lb/ft vertical force applied at a distance of 6 in. outside the face of coping over a 30-ft length of the deck centered with the finishing machine.

FINISHING MACHINE LOAD

4500 lb distributed over 10 ft along the coping.

WIND LOAD

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

SEISMIC DATA

SD1:	0.08
Seismic Performance Zone:	Zone 1
Acceleration Coefficient (As):	0.05
Seismic Soil Profile Type:	Site Class D

PRESTRESSED CONCRETE BOX BEAM BRIDGE
1 SPAN: 60'-0" SKEW: 5°00' LT
40'-0" CLEAR ROADWAY
CR 18 (HIVELY AVE.) OVER YELLOW CREEK
ELKHART COUNTY, IN

Plot:2/12/2026 10:59:42 AM By: GormaRR Pen: Transportation.tbl Model:Section_2 Sidewalks

gai consultants

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE

DESIGNED: JAS DRAWN: PCR

CHECKED: KMP CHECKED: RRG

ELKHART COUNTY
HIGHWAY DEPARTMENT

GENERAL PLAN

SCALE	BRIDGE FILE
As Noted	20-00385 A
VERTICAL SCALE	DESIGNATION
	2201238
SURVEY BOOK	SHEETS
	13 of 26
CONTRACT	PROJECT
B-44742	2201238

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Appendix C

Early Coordination

Item	Appendix Page
Early Coordination Example Letter	C-1 to C-2
Early Coordination Distribution List	C-3 to C-4
Early Coordination Responses	
Response – IDNR DFW	C-5 to C-8
Response – USDA NRCS	C-9
Response – DHS US Coast Guard	C-10
Response – IDEM OWQ	C-11 to C-12
Response – Indiana Geological and Water Survey	C-13 to C-14
USFWS Official Species List (IPaC)	C-15 to C-22
USFWS Consistency Letter	C-23 to C-35
GAI Bridge Bat Assessment Form	C-36

Fort Wayne Office
GAI Consultants
116 E. Berry Street, Suite 935
Fort Wayne, IN 46802

T 317.436.9145

March 10, 2025

SAMPLE EARLY COORDINATION LETTER

Early Coordination
Designation No. 2201238
Elkhart County Bridge 385 over Yellow Creek on Hively Avenue (County Road 18)
Bridge Replacement Project
Elkhart County, Indiana

Dear Interested Agency:

The Elkhart County Highway Department, with federal funding, intends to proceed with a project involving the aforementioned bridge in Elkhart 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 numbers and description in your reply.** We will incorporate your comments into a study of the project's environmental impacts.

This project is on located on Hively Avenue (CR 18), 0.8 miles east of US 33. Specifically, the project is located in Section 15, Township 37 North, Range 5 East, according to the USGS Elkhart 7.5 Minute Topographic Map. This section of Hively Avenue is a two-lane *Minor Arterial*. The existing Bridge 385 and approach consists of two 12' lanes bordered with no useable shoulder on the north side . No roadside ditch lines exist in the vicinity of the structure: roadway fore slope and adjacent property sheet flow to the waterway. The existing bridge, a 42' span, consists of a single-span cast-in-place concrete structure with an asphalt pavement riding surface constructed on the fill. In addition, there is a substandard bridge approach guardrail in all quadrants. The apparent existing right-of-way is approximately 25' on each side of the centerline throughout the project. Additional right-of-way for this project will be required.

The project scope intends to remove the existing bridge structure and approaches and replace the bridge and approach pavement. The proposed structure is a single span, 60 feet in length, prestressed concrete box beam bridge. The bridge width will be 52 feet including two 12-foot travel lanes, 8-foot shoulders and 6-foot sidewalks for both east and westbound lanes. The approach from the west and east side of the bridge will be approximately 225 feet and consist of a Hot Mix Asphalt (HMA) overlay. The bridge repairs will be performed under full closure using a detour within the Maintenance of Traffic (MOT).

Land use in the project's vicinity is residential parcels with wooded lots. GAI Consultants, Inc. will perform waters and wetlands determinations to identify water resources that may be present. The project is anticipated to qualify for the Range-wide Programmatic Agreement for the Indiana bat and northern long-eared bat by completing the Information for Planning and Consultation (IPaC). Coordination will occur with INDOT Cultural Resources 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 Officer (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 Shawn Slaymon, GAI Consultants, s.slaymon@gaiconsultants.com (317)436-9148 or Vincent DiVaccaro, Elkhart County Highway, vdivaccaro@elkcohwy.org, (574)533-0538. Thank you in advance for your input.

Fort Wayne Office
GAI Consultants
116 E. Berry Street, Suite 935
Fort Wayne, IN 46802

T 317.436.9145

Sincerely,

Shawn Slaymon
GAI Consultants
116 E. Berry Street, Suite 935
Fort Wayne, IN 46802

SS/scs

Attachments: Maps (Location, Aerial, Topographic)

Attachments have been removed to avoid duplication

Fort Wayne Office
GAI Consultants
116 E. Berry Street, Suite 935
Fort Wayne, IN 46802

T 317.436.9145

The following agencies received Early Coordination Letters:

Federal Highway Administration
Federal Office Building, Room 254
575 North Pennsylvania Street
Indianapolis, Indiana 46204
Patrick.carpenter@dot.gov

Section Chief, Groundwater Section
Indiana Department of Environmental Management
100 N. Senate Avenue
Indianapolis, IN 46204
ATurnbow@idem.IN.gov

Field Environmental Officer
Chicago Regional Office
U.S. Department of Housing and Urban Development
Metcalf Federal Building
77 West Jackson Boulevard, Room 2401
Chicago, IL 60604
erik.r.sandstedt@hud.gov

Regional Environmental Coordinator
Midwest Regional Office
National Park Service
601 Riverfront Drive
Omaha, NE 68102
Mwro_Compliance@nps.gov

Indiana Geological and Water Survey
611 North Walnut Grove
Bloomington, IN 47405
Electronic Coordination

Environmental Coordinator
Indiana Department of Natural Resources
Division of Fish and Wildlife
402 West Washington Street, Rm. W273
Indianapolis, IN 46204
environmentalreview@dnr.in.gov

Section Chief, Wetlands and Stormwater Programs
Indiana Department of Environmental Management
100 N. Senate Avenue
Indianapolis, IN 46204
JTurner2@idem.in.gov
rbraun@idem.in.gov

Field Supervisor
US Fish and Wildlife Service Bloomington
Indiana Field Office
620 South Walker Street
Bloomington, Indiana 47403
robin_mcwilliams@fws.gov

State Conservationist
Natural Resources Conservation Service
6013 Lakeside Boulevard
Indianapolis, Indiana 46278
John.allen@usda.gov

Michiana Area Council of Governments (MACOG)
227 W Jefferson Blvd. 1120 County/City Building
South Bend, Indiana 46601
macogdir@macog.com

Chief, Bridge Branch
Ninth Coast Guard District
1240 E. 9th St. - Room 2043
Cleveland, OH 44199
William.B.Stanifer@uscg.mil
Michael.o.walker2@uscg.mil

Mr. Aaron Damrill, Chief
US Army Corps of Engineers
Detroit District, Regulatory Michiana Branch
2422 Viridian Drive, Suite #200
South Bend, IN 46628
Aaron.W.Damrill@usace.army.mil
Regadmin.LRE_RegAdmin@usace.army.mil

Jessica Poiry
INDOT Fort Wayne District
Environmental Section
JPoiry@indot.in.gov

Spenser McGhee
INDOT Fort Wayne District
Project Manager
SMcGheer@indot.in.gov

Elkhart City Planning & Zoning Department
229 S. Second Street
Elkhart, Indiana 46516
Eric.Trotter@coei.org

Fort Wayne Office
GAI Consultants
116 E. Berry Street, Suite 935
Fort Wayne, IN 46802

T 317.436.9145

Elkhart County Commissioners
117 North Second Street
Goshen, Indiana 46526
ccommissioners@elkhartcounty.com

Elkhart County Surveyor
4230 Elkhart Road
Goshen, Indiana 46526
jheiliger@elkhartcounty.com

THIS IS NOT A PERMIT

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

DNR#: ER-27302

Request Received: March 10, 2025

Requestor:
Shawn Slaymon
GAI Consultants, Inc.
201 North Illinois Street, Suite 1700
Indianapolis, IN 46204

Project:
CR 18 (Hively Avenue) bridge (#385) replacement over Yellow Creek with a prestressed concrete box beam structure, 0.8 miles east of US 33; Des #2201238

County/Site Info: Elkhart 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:
This proposal will require the formal approval of our agency for construction in a floodway pursuant to the Flood Control Act (IC 14-28-1), unless it qualifies for a bridge exemption (see enclosure). Please include a copy of this letter with the permit application if the project does not meet the bridge exemption criteria.

Natural Heritage Database:
The Natural Heritage Program's data have been checked. The State endangered Greater Redhorse (*Moxostoma valenciennesi*) and the State special concern Longnose Dace (*Rhinichthys cataractae*) have been documented within .5 mile 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:

A) Heritage Species
The Division of Fish and Wildlife does not anticipate any significant impacts to the Greater Redhorse or Longnose Dace due to this project. Avoid using heavy equipment in the stream and implement best management practices for sediment and erosion control.

B) Wetlands
Due to the presence or potential presence of wetland habitat on site, we recommend contacting and coordinating with the Indiana Department of Environmental Management (IDEM) 401 program and the US Army Corps of Engineers (USACE) 404 program.

C) Pavement Rehabilitation

Pavement rehabilitation projects typically do not have a significant impact on fish, wildlife, and botanical resources if best management practices (BMPs) are in place to limit the migration of polycyclic aromatic hydrocarbons (PAHs) into local waterways. PAHs are a byproduct of asphalt and coal tar-based sealants and negatively impact aquatic systems. The use of sealants that are free of petroleum and coal tar-based products is encouraged whenever possible. Contaminated road runoff can significantly impact the aquatic environment through increased turbidity and release of sediment into the stream which can be harmful to fish and other aquatic organisms, their eggs, and their food supply. Where possible, road runoff should be directed to riprap turnouts and sediment filtration prior to entering a stream to reduce impacts to aquatic species. We recommend the use of pollutant trapping technology such as storm drain inserts to reduce the runoff of roadside pollutants where appropriate.

D) Wildlife Passage

Yellow Creek, its nearby forested riparian corridors, and surrounding forest parcels likely provide valuable resources for fish and wildlife species in this predominately residential and forested landscape. Maintaining or improving fish and wildlife passage at existing and proposed crossings is a priority for the Division of Fish and Wildlife (DFW) to reduce wildlife mortality along roadways. The DFW has outlined different requirements for different types of crossing structure impacts. For crossing replacements, the new structure must include wildlife passage appropriate for the type of replacement structure being proposed. If the existing structure is sized to accommodate white-tailed deer passage, then it should be included in the design of the new structure. Minimum structure dimensions for white-tailed deer passage are 20 feet of width clearance (overall size of the structure span) and 8 feet of height clearance measured from the ordinary high-water mark (OHWM) to the low chord elevation and where deer passage is provided. If white-tailed deer passage is not possible with the existing structure, deer passage still needs to be considered in the design and at minimum the bank lines must be restored within structures to allow for smaller wildlife passage above the OHWM. Wildlife passage designs should include a smooth level pathway preferably 3 feet wide but a minimum of 1-2 feet in width composed of natural substrate (soil, sand, gravel, etc.) or compacted aggregate fill over riprap (#2, #53, #73, etc.) tied into existing elevations both upstream and downstream. The stream crossing repairs or modifications, and any bank stabilization under or around the structure, must not create conditions that are less favorable for wildlife passage when compared to existing conditions. Upgrading wildlife passage for rehabilitated/modified structures is encouraged whenever possible to improve wildlife/vehicle safety.

There are several techniques and materials for incorporating wildlife passage into the design of a crossing structure. Coordination with a Regional Environmental Biologist to address wildlife passage issues before submitting a permit application (if required) is encouraged to avoid delays in the permitting process. The following links are good resources to consider in the design of stream crossing structures to maintain fish and wildlife passage:

https://www.fs.usda.gov/ccrc/tool/fishxing-fish-passage-learning-systems
https://www.fs.usda.gov/wildlifecrossings/library/index.php
https://www.fhwa.dot.gov/clas/ctip/wildlife_crossing_structures/
https://www.fhwa.dot.gov/engineering/hydraulics/pubs/11008/hif11008.pdf

E) Streambank Stabilization

Some form of bank stabilization is almost always needed with the construction, repair, replacement, or modification of a stream channel or crossing structure. For streambank stabilization and erosion control, regrading to a stable slope (2:1 or shallower) and establishing native vegetation along the banks are typically the most effective techniques and allow a vegetated stream bank to develop. A variety of methods to accomplish this include planting plugs, whips, container stock, seeding, and live stakes. In addition to vegetation establishment, some additional level of bioengineered bank stabilization may be needed under certain circumstances (inability to regrade to a stable slope, flow velocities that exceed the limits of vegetation alone, etc.). Combining vegetation with any of the following bank stabilization methods can provide additional bank protection while not compromising benefits to fish, wildlife, and botanical resources:

- Geotextiles (erosion control blankets and/or turf reinforcement mats 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)
- Vegetated geogrids or soil lifts, fiber rolls, glacial stone, or riprap.

Riprap or other hard bank stabilization materials should be used only at the toe of the sideslopes up to the OHWM with the exception of areas directly under bridges for instance. The banks above the OHWM should be restored, stabilized, and revegetated using geotextiles and a mixture of grasses, sedges, wildflowers, shrubs, and trees native to Northern Indiana and specifically for stream bank/floodway stabilization purposes as soon as possible upon completion. Information about bioengineering techniques can be found at the following link to a USDA/NRCS document that outlines many different bioengineering techniques for streambank stabilization: https://irrigationtoolbox.com/NEH/Part650_EngineeringFieldHandbook/H_210_650_16.pdf.

F) Riparian Habitat

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

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

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

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

1. Revegetate all bare and disturbed areas that are not currently mowed and maintained with a mixture of grasses, sedges, and wildflowers native to Northern Indiana and specifically for stream bank/floodway stabilization purposes as soon as possible upon completion; turf-type grasses (including low-endophyte, friendly endophyte, and endophyte free tall fescue but excluding all other varieties of tall fescue) may be used in currently mowed areas only. A native herbaceous seed mixture must include at least 5 species of grasses and sedges and 5 species of wildflowers.
2. Minimize and contain within the project limits inchannel disturbance and the clearing of trees and brush.
3. Do not work in the waterway from April 1 through June 30 without the prior written approval of the Division of Fish and Wildlife.
4. Do not cut any trees suitable for Indiana Bat or Northern Long-eared Bat roosting (3 inches or greater diameter-at-breast height, living or dead, with loose hanging bark, or with cracks, crevices, or cavities) from April 1 through September 30.
5. Do not excavate in the stream channel beyond the limits identified in the application. Do not excavate below proposed elevations to maintain aquatic organism passage and avoid negative modification of habitat.
6. Do not construct any temporary runarounds, access bridges, causeways, cofferdams, diversions, or pumparounds.
7. Use minimum average 6-inch graded riprap stone extended below the normal water level to provide habitat for aquatic organisms in the voids.
8. Do not use broken concrete as riprap.
9. Underlay the riprap with a bedding layer of well graded aggregate or a geotextile to prevent piping of soil underneath the riprap.
10. Minimize the movement of resuspended bottom sediment from the immediate project area.

11. Do not deposit or allow construction/demolition materials or debris to fall or otherwise enter the waterway. Any incidental fallen material or debris in the waterway must be removed within 24 hours using best management practices, particularly lifting material out of the waterway and not dragging it across the streambed whenever possible.
12. Appropriately designed measures for controlling erosion and sediment must be implemented to prevent sediment from entering the waterbody or leaving the construction site; maintain these measures until construction is complete and all disturbed areas are stabilized.
13. Seed and protect all disturbed streambanks and slopes not protected by other methods that are 3:1 or steeper with erosion control blankets that are heavy-duty, biodegradable, and net free or that use loose-woven / Leno-woven netting to minimize the entrapment and snaring of small-bodied wildlife such as snakes and turtles (follow manufacturer's recommendations for selection and installation); seed and apply mulch on all other disturbed areas.

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

Rachel Van Voorhis **Date:** April 9, 2025
Rachel Van Voorhis
Environmental Coordinator
Division of Fish and Wildlife

United States Department of Agriculture
Farm Production and Conservation
Natural Resources Conservation Service
Indiana State Office
6013 Lakeside Boulevard
Indianapolis, Indiana 46278
317-295-5800

March 25, 2025

Shawn Slaymon
GAI Consultants, Inc.
116 E. Berry Street, Suite 935
Fort Wayne, Indiana 46802

Dear Shawn Slaymon:

The proposed Bridge Replacement project in Elkhart County, Indiana (Des. No. 2201238) as referred in your letter received on March 10, 2025, will not cause a conversion of prime farmland.

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: 2025.03.25 11:50:21 -04'00'

JOHN ALLEN
State Soil Scientist

USDA is an equal opportunity provider, employer, and lender.

U.S. Department of Homeland Security
United States Coast Guard

Commander
Ninth Coast Guard District

1240 E 9th St
Cleveland, OH 44199
Staff Symbol: (dpb)
Phone: (216) 902-6086
Fax: (216) 902-6088
Email: william.b.stanifer@uscg.mil

16590
March 14, 2025
B-070/mow

Shawn Slaymon
GAI Consultants
201 N. Illinois Street, Suite 1700
Indianapolis, IN 46204

Dear Mr. Slaymon:

This letter is in response to your March 10, 2025 e-mail on behalf of the Elkhart County, Indiana Highway Department. You are requesting a jurisdictional determination under 33 C.F.R. § 2.36(a) and inquiry regarding the proposed replacement of a bridge carrying County Road 18 across Yellow Creek in Elkhart County, Indiana.

The proposed replacement does not involve a structure crossing a waterway over which the Coast Guard would exercise its jurisdiction as it pertains to its bridge permitting authorities. Due to these factors, the Coast Guard does not intend to make a navigability determination in accordance with 14 U.S.C. § 563. Absent such a determination, the Coast Guard hereby declines to assert jurisdiction under our bridge authorities on the above-described project. As such, a Coast Guard bridge permit is not required for the subject project and other associated permit conditions related to lighting, navigational clearances, etc. will not be prescribed by our office.

This decision relates only to Coast Guard bridge permitting and does not relieve the applicant of responsibility to comply with any other applicable federal, state or local laws and regulations that may apply to this project. I recommend you contact the U.S. Army Corps of Engineers Detroit District to determine whether they have any permitting requirements on the waterway. Please contact this office prior to construction of any other bridges on this waterway as this determination may change based upon future waterway usage.

If you have any questions about this matter, please contact Mr. Michael Walker at (216) 902-6087 or michael.o.walker2@uscg.mil.

Sincerely,
STANIFER.WILLIAM.B.1053987350
Digitally signed by STANIFER.WILLIAM.B.1053987350
Date: 2025.03.14 13:42:23 -04'00'
W. B. STANIFER
Chief, Bridge Branch
U. S. Coast Guard
By direction

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

100 N. Senate Avenue • Indianapolis, IN 46204
(800) 451-6027 • (317) 232-8603 • Fax (317) 233-6647 • www.idem.IN.gov

Mike Braun
Governor

Clint Woods
Commissioner

April 3, 2025

GAI Consultants
Attention: Shawn Slaymon
116 East Berry Street, Suite 935
Fort Wayne, IN 46802

Dear Shawn Slaymon:

Re: Wellhead Protection Area
Proximity Determination
Des No 2201238
Elkhart County Bridge 385 over Yellow Creek on
Hively Avenue (County Road 18)
Bridge Replacement Project
Elkhart County, Indiana

Upon review of the above referenced project site, it has been determined that the proposed project area **is not located within** a Wellhead Protection Area. The information is accurate to the best of our knowledge; however, there are in some cases a few factors that could impact the accuracy of this determination. Some Wellhead Protection Area Delineations have not been submitted, and many have not been approved by this office. In these cases, we use a 3,000-foot fixed radius buffer to make the proximity determination. To find the status of a Public Water Supply System's (PWSS's) Wellhead Protection Area Delineation please visit our tracking database at http://www.in.gov/idem/cleanwater/2456.htm and scroll to the bottom of the page.

The project area **is not located within** a Source Water Assessment Area for a PWSS's surface water intake. The Source Water Assessment Area relates to the surface water drainage area that water could potentially flow and influence water quality for a PWSS's source of drinking water.

In the future, **please consider using this self-service tool** if it suits your needs. The Drinking Water Branch has a self-service tool which allows one to determine wellhead proximity without submitting the application form. Go to https://www.in.gov/idem/cleanwater/pages/wellhead/ and use the instructions at the bottom of the page.

If you have any additional questions, please feel free to contact me at the address above or at 317-233-9158 and aturnbow@idem.in.gov.

Sincerely,

Alisha Turnbow

Alisha Turnbow,
Environmental Manager
Ground Water Section
Drinking Water Branch
Office of Water Quality

Organization and Project Information

Organization Name: GAI Consultants, Inc.

First Name: Shawn

Last Name: Slaymon

Phone: (317) 436-9148

Email: s.slaymon@gaiconsultants.com

Address Line 1: 116 E Berry St

Address Line 2: Suite 935

City: Fort Wayne

State: IN

Zip: 46802

Customer Id: INDOT DES NO 2201238

Project Title: Elkhart Bridge 385 (CR 18) over Yellow Creek

Project Description: The Elkhart County Highway Department, with federal funding, intends to proceed with a bridge replacement project involving Bridge 385 in Elkhart County. This project is on located on Hively Avenue (CR 18), 0.8 miles east of US 33. Specifically, the project is located in Section 15, Township 37 North, Range 5 East, according to the USGS Elkhart 7.5 Minute Topographic Map.

Environmental Assessment Report

Geological Hazards:

1. Floodway
2. Moderate liquefaction potential

Mineral Resources:

1. Sand and Gravel Resource: High Potential

Disclaimer:

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

This information was furnished by Indiana Geological Survey

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

Email: IGSEnvir@indiana.edu

Phone: (812) 855-7428

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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: 08/20/2025 13:50:15 UTC
Project Code: 2025-0127937
Project Name: Des 2201238, Bridge Replacement Project, Elkhart Co Bridge 385 over Yellow Creek on Hively Ave

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:

To Whom It May Concern:

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

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

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

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

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

Other Trust Resources and Activities?

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

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

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

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

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

Attachment(s):

- Official Species List

OFFICIAL SPECIES LIST

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

This species list is provided by:

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

PROJECT SUMMARY

Project Code: 2025-0127937

Project Name: Des 2201238, Bridge Replacement Project, Elkhart Co Bridge 385 over Yellow Creek on Hively Ave

Project Type: Bridge - Replacement

Project Description: The Elkhart County Highway Department, with federal funding, intends to proceed with a project involving the aforementioned bridge #385 (Str. No. 20-00385, NBI No. 2000164) in Elkhart County, Indiana (DES 2201238). This project is located on Hively Avenue (County Road (CR) 18), 0.8 miles east of US 33.

The proposed project intends to remove the existing bridge structure and approaches. The proposed structure is a single-span, 60 feet in length, prestressed concrete box beam bridge. The bridge width will be 52 feet, including two 12-foot travel lanes, 8-foot shoulders, and 6-foot sidewalks for both east and westbound lanes. The approach from the west and east sides of the bridge will be approximately 225 feet and consist of a Hot Mix Asphalt (HMA) overlay. Additional work will include riprap north and south of the bridge, pile driving, channel work will consist of dewatering, construction of cofferdams, placement of scour protection, and sheet pile wall located along the channel bank in the northeast quadrant of the bridge will be replaced. Maintenance of Traffic (MOT) will require a full road closure on CR 18 utilizing a signed detour route.

Approximately 1.75 acres of permanent and 0.5 acre of temporary right of way are anticipated for this project.
Suitable summer habitats are located within the project area.

Dominant species within the project area are American Elm (Ulmus americana) and Common Adler (Alnus glutinosa). Approximately 1.008 acres of tree clearing is anticipated. The tree clearing will occur during the inactive season and within 100 feet of the roadway. A bridge inspection completed on August 7, 2025, by GAI, concluded no signs of bats/birds were seen. The most recent INDOT Bridge Inspection Report, August 22, 2024, showed no signs of birds/bats. No mitigation is anticipated.

Based on consultation with INDOT Fort Wayne District, a review of the U.S. Fish and Wildlife Service (USFWS) database on September 8, 2023, did not indicate the presence of endangered bat species in or within 0.5 mile of the project area.

No temporary lighting is anticipated during construction as no night work will be required, and no new permanent lighting will be required. The project is planned to begin in June 2027 and be completed by June 2028.

Project Location:

The approximate location of the project can be viewed in Google Maps: https://www.google.com/maps/@41.6594425,-85.93220232108274,14z



Counties: Elkhart County, Indiana

ENDANGERED SPECIES ACT SPECIES

There is a total of 3 threatened, endangered, or candidate species on this species list.

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

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

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

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

MAMMALS

NAME	STATUS
Indiana Bat *Myotis sodalis* There is **final** critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/5949	Endangered

BIRDS

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

CRITICAL HABITATS

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

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

IPAC USER CONTACT INFORMATION

Agency: Indiana Department of Transportation
Name: Maya Hefty
Address: 5333 Hatfield Rd
City: Fort Wayne
State: IN
Zip: 46808
Email mhefty@indot.in.gov
Phone: 2609698302

LEAD AGENCY CONTACT INFORMATION

Lead Agency: Department of Transportation

You have indicated that your project falls under or receives funding through the following special project authorities:

- BIPARTISAN INFRASTRUCTURE LAW (BIL) (OTHER)

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: 08/20/2025 13:50:54 UTC
Project code: 2025-0127937
Project Name: Des 2201238, Bridge Replacement Project, Elkhart Co Bridge 385 over Yellow Creek on Hively Ave

Subject: Not Likely to Adversely Affect Concurrence verification letter for the 'Des 2201238, Bridge Replacement Project, Elkhart Co Bridge 385 over Yellow Creek on Hively Ave' project under the December 13, 2024, FHWA, FRA, FTA Programmatic Biological Opinion for Transportation Projects within the Range of the Indiana Bat, Northern Long-eared Bat, and Tricolored Bat.

To whom it may concern:

This letter records the determination of effects to federally listed (or proposed) bat species anticipated to result from the Des 2201238, Bridge Replacement Project, Elkhart Co Bridge 385 over Yellow Creek on Hively Ave (the Project). This determination is based upon information you entered into the assisted determination key (Dkey) associated with the above referenced Programmatic Biological Opinion/Conference Opinion (PBO/PCO) in the U.S. Fish and Wildlife Service's (Service) Information for Planning and Consultation (IPaC) system on the date listed above to verify that the Project may rely on the concurrence provided in the PBO/PCO to satisfy requirements under section 7(a)(2) of the Endangered Species Act of 1973 (ESA) (16 USC 1536), as amended.

Ensuring Accurate Determinations When Using IPaC:

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

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

Determinations:

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

Species	Listing Status	Determination
Indiana Bat (*Myotis sodalis*)	Endangered	NLAA

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

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

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

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

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

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

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

- Monarch Butterfly *Danaus plexippus* Proposed Threatened
- 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

Des 2201238, Bridge Replacement Project, Elkhart Co Bridge 385 over Yellow Creek on Hively Ave

DESCRIPTION

The Elkhart County Highway Department, with federal funding, intends to proceed with a project involving the aforementioned bridge #385 (Str. No. 20-00385, NBI No. 2000164) in Elkhart County, Indiana (DES 2201238). This project is located on Hively Avenue (County Road (CR) 18), 0.8 miles east of US 33.

The proposed project intends to remove the existing bridge structure and approaches. The proposed structure is a single-span, 60 feet in length, prestressed concrete box beam bridge. The bridge width will be 52 feet, including two 12-foot travel lanes, 8-foot shoulders, and 6-foot sidewalks for both east and westbound lanes. The approach from the west and east sides of the bridge will be approximately 225 feet and consist of a Hot Mix Asphalt (HMA) overlay. Additional work will include riprap north and south of the bridge, pile driving, channel work will consist of dewatering, construction of cofferdams, placement of scour protection, and sheet pile wall located along the channel bank in the northeast quadrant of the bridge will be replaced. Maintenance of Traffic (MOT) will require a full road closure on CR 18 utilizing a signed detour route.

Approximately 1.75 acres of permanent and 0.5 acre of temporary right of way are anticipated for this project.
Suitable summer habitats are located within the project area.

Dominant species within the project area are American Elm (Ulmus americana) and Common Adler (Alnus glutinosa). Approximately 1.008 acres of tree clearing is anticipated. The tree clearing will occur during the inactive season and within 100 feet of the roadway. A bridge inspection completed on August 7, 2025, by GAI, concluded no signs of bats/birds were seen. The most recent INDOT Bridge Inspection Report, August 22, 2024, showed no signs of birds/bats. No mitigation is anticipated.

Based on consultation with INDOT Fort Wayne District, a review of the U.S. Fish and Wildlife Service (USFWS) database on September 8, 2023, did not indicate the presence of endangered bat species in or within 0.5 mile of the project area.

No temporary lighting is anticipated during construction as no night work will be required, and no new permanent lighting will be required. The project is planned to begin in June 2027 and be completed by June 2028.

The approximate location of the project can be viewed in Google Maps: https://www.google.com/maps/@41.6594425,-85.93220232108274,14z



DETERMINATION KEY RESULT

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

QUALIFICATION INTERVIEW

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

   A) Federal Highway Administration (FHWA)

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

   Automatically answered
   Yes

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

   No

4. [Semantic] Is any portion of the action area within a 0.5 mile radius of an entrance/opening to any known NLEB or TCB hibernacula?

   Note: The map queried for this question contains proprietary information and cannot be displayed. If you need additional information, please contact the Field Office listed in the letterhead of this letter.

   Automatically answered
   No

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

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

   No

6. Is your project located within a karst area?

   No

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

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

   Yes

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

   Yes

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

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

   Yes

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

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

    No

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

    Yes

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

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

    No

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

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

    No

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

    Yes

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

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

    No

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

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

    No

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

    No

18. Will your project include percussive activities?

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

    Yes

19. Are the percussive activities only related to tree removal/trimming or bridge/culvert structural work?

    Yes

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

    Yes

21. Is there any suitable habitat for the Indiana bat or NLEB within 1,000 feet of the **bridge** (includes any trees suitable for maternity, roosting, foraging, or travelling habitat)?

    Yes

22. Has a Bridge Bat Assessment been conducted **within the last 24 months** to determine if the bridge is being used by the Indiana bat, NLEB, or TCB? If yes, upload assessment.

    Note: Refer to the Service's current survey guidance for acceptable assessment practices and validity timeframe of bridge/culvert and structure bat assessments: https://www.fws.gov/library/collections/range-wide-indiana-bat-and-northern-long-eared-bat-survey-guidelines.

    Yes

    SUBMITTED DOCUMENTS

    - *Elkhart Bridge INDOT Bridge Inspection.pdf https://ipac.ecosphere.fws.gov/project/VTQNFPOP4BGZRIRGHLC3ECBGFA/projectDocuments/165986333*
    - *Bridge Assessment Form 8.7.25 signed.pdf https://ipac.ecosphere.fws.gov/project/VTQNFPOP4BGZRIRGHLC3ECBGFA/projectDocuments/168615925*

23. Please select one of the following results of the Bridge Bat Assessment:

    ***c)** Indicates the **absence** of Indiana bats, NLEBs, or TCBs roosting in/under the bridge (no bats, guano, etc.)?*

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

    No

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

    No

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

    No

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

    No

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

    No

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

    No

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

    Automatically answered
    Yes

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

    Automatically answered
    No

PROJECT QUESTIONNAIRE

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

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

   1.008

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

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

   0

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

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

   0

4. How many acres of trees are proposed for removal/trimming **either outside or within documented habitat** for the Indiana bat, NLEB, or TCB between 100-300 feet of the existing road/rail surface during the inactive season (LAA)? Note: If described as number of trees, multiply by 0.09 to convert to acreage and enter that number.

   0

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

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

   0

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

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

   0

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

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

   0

8. Please enter the date of the bridge assessment.

   8/7/2025

AVOIDANCE AND MINIMIZATION MEASURES (AMMS)

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

GAMM1

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

TRTAMM1

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

TRTAMM2

Ensure tree removal/trimming is limited to that specified in project plans and ensure that contractors understand clearing limits and how they are marked in the field (e.g., install bright

colored flagging/fencing prior to any tree removal/trimming to ensure contractors stay within clearing limits

TRTAMM3

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

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

This key was last updated in IPaC on July 21, 2025. Keys are subject to periodic revision.

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

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

IPAC USER CONTACT INFORMATION

Agency: Indiana Department of Transportation
Name: Maya Hefty
Address: 5333 Hatfield Rd
City: Fort Wayne
State: IN
Zip: 46808
Email mhefty@indot.in.gov
Phone: 2609698302

LEAD AGENCY CONTACT INFORMATION

Lead Agency: Department of Transportation

You have indicated that your project falls under or receives funding through the following special project authorities:

- BIPARTISAN INFRASTRUCTURE LAW (BIL) (OTHER)

Bridge/Structure Bat Assessment Form

Date & Time of Assessment	DOT Project Number	Route/Facility Carried	County
8/7/2025 1:00 pm	DES 2201238	Yellow Creek	Elkhart
Federal Structure ID	**Structure Coordinates (latitude and longitude)**	**Structure Height (approximate)**	**Structure Length**
20-00385			45ft

Structure Type (check one)

Bridge Construction Style

(•)	Cast-in-place	( )	Pre-stressed Girder
( )	Flat Slab/Box	( )	Steel I-beam
( )	Truss (Side View)	( )	Covered
( )	Parallel Box Beam	( )	Other:

Culvert Type

( )	Box
( )	Pipe/Round
( )	Other:

Other Structure

( )	

Structure Material (check all that apply)

Deck Material		*Beam Material*		*End/Back Wall Material*	
[ ]	Metal	[ ]	None	[X]	Concrete
[X]	Concrete	[X]	Concrete	[ ]	Timber
[ ]	Timber	[ ]	Steel	[ ]	Stone/Masonry
[ ]	Open grid	[ ]	Timber	[ ]	Other:
[ ]	Other:	[ ]	Other:		

Culvert Material

[ ]	Metal
[ ]	Concrete
[ ]	Plastic
[ ]	Stone/Masonry
[ ]	Other:

Creosote Evidence

( ) Yes (•) No ( ) Unknown

Notes:

Crossings Traversed (check all that apply)

[ ]	Bare ground	[ ]	Open vegetation
[ ]	Rip-rap	[ ]	Closed vegetation
[X]	Flowing water	[ ]	Railroad
[ ]	Standing water	[ ]	Road/trail - Type:
[ ]	Seasonal water	[ ]	Other:

Surrounding Habitat (check all that apply)

[ ]	Agricultural	[ ]	Grassland
[ ]	Commercial	[ ]	Ranching
[X]	Residential-urban	[X]	Riparian/wetland
[ ]	Residential-rural	[ ]	Mixed use
[X]	Woodland/forested	[ ]	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)		
[X] All crevices and cracks: **Bridges/culverts:** rough surfaces or imperfections in concrete **Other structures:** soffits, rafters, attic areas	[X] Not present	[ ] Visual - live # dead # [ ] Guano [ ] Staining	[ ] Audible [ ] Odor [ ] Photos	[ ] Species
[X] Concrete surfaces (open roosting on concrete)	[X] Not present	[ ] Visual - live # dead # [ ] Guano [ ] Staining	[ ] Audible [ ] Odor [ ] Photos	[ ] Species
[X] Spaces between concrete end walls and the bridge deck	[X] Not present	[ ] Visual - live # dead # [ ] Guano [ ] Staining	[ ] Audible [ ] Odor [ ] Photos	[ ] Species
[X] Crack between concrete railings on top of the bridge deck (Gap, Railing)	[X] Not present	[ ] Visual - live # dead # [ ] Guano [ ] Staining	[ ] Audible [ ] Odor [ ] Photos	[ ] Species
[X] Vertical surfaces on concrete I-beams	[X] Not present	[ ] Visual - live # dead # [ ] Guano [ ] Staining	[ ] Audible [ ] Odor [ ] Photos	[ ] Species
[X] Spaces between walls, ceiling joists	[X] Not present	[ ] Visual - live # dead # [ ] Guano [ ] Staining	[ ] Audible [ ] Odor [ ] Photos	[ ] Species
[X] Weep holes, scupper drains, and inlets/pipes	[X] Not present	[ ] Visual - live # dead # [ ] Guano [ ] Staining	[ ] Audible [ ] Odor [ ] Photos	[ ] Species
[X] All guiderails	[X] Not present	[ ] Visual - live # dead # [ ] Guano [ ] Staining	[ ] Audible [ ] Odor [ ] Photos	[ ] Species
[X] All expansion joints	[X] Not present	[ ] Visual - live # dead # [ ] Guano [ ] Staining	[ ] Audible [ ] Odor [ ] Photos	[ ] Species

Name: Brook Earl

Signature: Brook Elizabeth Earl Digitally signed by Brook Elizabeth Earl DN: E=B.Earl@gaiconsultants.com, CN=Brook Elizabeth Earl Reason: I am approving this document Date: 2025.07.29 08:06:10-04'00'

Appendix D

Section 106 Consultation

Item	Appendix Page
MPPA Submittal & Assessment Form	D-1 to D-7
INDOT CRO Approval	D-8 to D-10
Phase 1c Archaeological Excerpt	D-11 to D-14

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

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

Original Submission Date: May 10, 2024 **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):

Cooper Shields
Gray & Pape
513-287-7703

Project Designation Number: 2201238

Route Number: CR 18 (Hively Avenue)

Feature crossed (if applicable): Yellow Creek

City/Township: Concord Township **County:** Elkhart 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 bridge project is located on CR 18 (Hively Avenue) at the southeast edge of Elkhart, Indiana (Figure 1). The project intends to remove the existing bridge structure (Bridge No. 20-00385) and approaches and replace the bridge and approach pavement. The project begins 8 meters (26 feet) east of the intersection of Vee Jay St. and CR 18. It extends west for approximately 213 meters (700 feet), along CR 18. The proposed undertaking will involve approximately 0.5 acres of new permanent right-of-way (r/w) around the proposed new bridge that crosses Yellow Creek.

The project will consist of the replacement of the existing bridge on the same horizontal alignment. The proposed bridge is anticipated to be a single span width superstructure, with substructure types to be determined during design. The vertical alignment is anticipated to require a marginal increase to balance hydraulic needs with project length, cost and serviceability.

The proposed cross section is anticipated to consist of two 12-ft lanes, 8-ft shoulders, and 6-ft sidewalks on the north and south sides of the roadway. It is anticipated that the proposed project limits will terminate approximately 250-ft to the east and west of the existing bridge, and these areas will have a Hot Mix Asphalt (HMA) overlay. If project limits extend far enough east to where they impact VeeJay Street, this road will need evaluated for reconstruction in accordance with Elkhart County Highway Department Standards.

The widened cross section of the roadway will create a need for retaining walls in both the northeast and southeast quadrants. In the northeast quadrant, an MSE or Modular Block-type retaining wall is anticipated to limit the required proposed right-of-way and impacts to a nearby residence. In the southeast quadrant, a Sheet Pile or other type of retaining wall is anticipated to limit the impacts to Yellow Creek, where it meanders upstream and encroaches near the existing roadway embankment.

If the project includes any curb, curb ramp, or sidewalk work, please specify the location(s) of such work:
Six (6)-foot sidewalks will be added on both sides of the bridge and along the north side of the roadway from the east bridge abutment to Vee Jay Street.

Note scope change: An eight (8)-foot sidewalk will be added on the northside and a six (6)-foot sidewalk will be added on the southside, along the bridge and along the side of the roadway.

For bridge or small structure projects, please list feature crossed, structure number, NBI number, and structure type:
The structure (Bridge #20-00385, NBI #2000164) carries Hively Avenue/County Road 18 over Yellow Creek, outside of Elkhart, Indiana.

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 # 436

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

☒ **Yes** ☐ **No**

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

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

If applicable, identify right-of-way acquisition locations in text below and in attached mapping. Please specify how much (both temporary and permanent) and indicate what activities are included in the proposed right-of-way:
The added ROW will allow the two 12-ft lanes, 8-ft shoulders, and 6-ft sidewalks on the north and south sides of the roadway.

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

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

B-1. Replacement, repair, or installation of curbs, curb ramps, or sidewalks, including when such projects are associated with roadway work such as surface replacement, reconstruction, rehabilitation, or resurfacing projects, including overlays, shoulder treatments, pavement repair, seal coating, pavement grinding, and pavement marking, 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 satisfied *(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 Division of Historic Preservation and Archaeology (DHPA) and any archaeological site form information will be entered directly into the State Historic Architectural and Archaeological Database (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 two conditions listed below must be satisfied *(EITHER Condition i or Condition ii must be satisfied)*:

i. Work does not occur adjacent to or within a National Register-listed or National Register-eligible district or individual above-ground resource; *OR*

ii. Work occurs adjacent to or within a National Register-listed or National Register-eligible district or individual above-ground resource under one of the two additional conditions listed below *(EITHER Condition a OR Condition b must be met and field work and documentation must be completed as described below)*:

   a. No unusual features, including but not limited to historic brick or stone sidewalks, curbs or curb ramps, stepped or elevated sidewalks and historic brick or stone retaining walls are present in the project area adjacent to or within a National Register-listed or National Register-eligible district or individual above-ground resource; *OR*

   b. Unusual features, including but not limited to historic brick or stone sidewalks, curbs or curb ramps, stepped or elevated sidewalks and historic brick or stone retaining walls are present in the project area adjacent to or within a National Register-listed or National Register-eligible individual above-ground resource or district and ANY ONE of the conditions *(1, 2, or 3)* listed below must be fulfilled:

      1. Unusual features described above will not be impacted by the project. Firm commitments regarding the avoidance of these features must be listed in the MPPA determination form and the NEPA document and must be entered into the INDOT Project Commitments Database. These projects will also be flagged for quality assurance reviews by INDOT Cultural Resources Office during/after project construction.
      2. Unusual features described above have been determined not to contribute to the significance of the historic resource by INDOT Cultural Resources Office in consultation with the SHPO based on an analysis and justification prepared by their staff or review of such information from other qualified professional historians.
      3. Impacts to unusual features described above have been determined by INDOT Cultural Resources Office to be so minimal that they do not diminish any of the characteristics that

contribute to the significance of the historic resource, based on an analysis and justification prepared by their staff or review of such information from other qualified professional historians.

B-12. Replacement, widening, or raising the elevation of the superstructure on existing bridges, and bridge replacement projects (when both the superstructure and substructure are removed), under the following conditions ***[BOTH Condition A, which pertains to Archaeological Resources, and Condition B, which pertains to Above-Ground Resources, must be satisfied]***:

Condition A (Archaeological Resources)

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

i. Work occurs in previously disturbed soils; *OR*

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

Condition B (Above-Ground Resources)

The conditions listed below must be met *(BOTH Condition i and Condition ii must be satisfied)*

i. Work does not occur adjacent to or within a National Register-listed or National Register-eligible district or individual above-ground resource; *AND*

ii. With regard to the subject bridge, at least one of the conditions listed below is satisfied *(AT LEAST one of the conditions a, b or c, must be fulfilled)*:

   a. The latest Historic Bridge Inventory identified the bridge as non-historic (see http://www.in.gov/indot/2531.htm);

   b. The bridge was built after 1945, and is a common type as defined in Section V. of the *Program Comment Issued for Streamlining Section 106 Review for Actions Affecting Post-1945 Concrete and Steel Bridges* issued by the Advisory Council on Historic Preservation on November 2, 2012 for so long as that Program Comment remains in effect AND the considerations listed in Section IV of the Program Comment do not apply;

   c. The bridge is part of the Interstate system and was determined not eligible for the National Register under the Section 106 Exemption Regarding Effects to the Interstate Highway System adopted by the Advisory Council on Historic Preservation on March 10, 2005, for so long as that Exemption remains in effect.

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

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

Part II: Completed by INDOT-CRO

Information reviewed (please check all that apply):

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

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

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

Bridge inspection information/iTAMS ☒ Historic Bridge Inventory Database ☒

SHAARD ☒ SHAARD GIS ☒ Streetview Imagery ☒ County GIS Data/Property Cards ☒

Other (please specify):

Vehling, Marcia, Jocelyn Connolly, Colin McKinstry, Brandon Garcia
2024 Phase I Archaeological Reconnaissance for the Proposed Replacement of Elkhart County Bridge 385 Carrying CR 18 over Yellow Creek, Elkhart County, Indiana (INDOT Des. No. 2201238). Report on file, Indiana Department of Transportation, Cultural Resources Office, Indianapolis, IN.

Silverman, Danielle, and Colin McKinstry
2025 A Phase Ic Subsurface Archaeological Reconnaissance for the Proposed Replacement of Elkhart County Bridge 385 Carrying CR 18 over Yellow Creek, Concord Township, Elkhart County, Indiana (INDOT Des No. 2201238). Report on file, Indiana Department of Transportation, Cultural Resources Office, Indianapolis, IN.

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

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

Additional Comments:

<u>Above-ground Resources</u>

An INDOT-Cultural Resources Office (CRO) historian who meets the Secretary of the Interior's Professional Qualification Standards as per 36 CFR Part 61 first performed a desktop review, checking the Indiana Register of Historic Sites and Structures (State Register) and National Register of Historic Places (National Register) lists for Elkhart County. No listed resources are present within 0.25 mile of the project area, a distance that would serve as an adequate area of potential effects (APE) given the scope of the project and the surrounding terrain.

The *Elkhart County Interim Report* (2005; Concord Township) of the Indiana Historic Sites and Structures Inventory (IHSSI) was also consulted. The National Register & IHSSI information is available in the Indiana State Historic Architectural and Archaeological Research Database (SHAARD) and the Indiana Historic Buildings, Bridges, and Cemeteries Map (IHBBCM). The SHAARD information was checked against the Interim Report hard copy maps. No IHSSI resources are recorded within 0.25 mile of the project.

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.

The INDOT-CRO historian reviewed structures adjacent to the project area utilizing online aerial, street-view photography, and the Elkhart County GIS website. Land surrounding the project area is suburban, characterized by dense wooded areas, consisting of both mature coniferous and deciduous trees, with small pockets of residential houses clustered together and some scattered residences present as well. Given the density of the tree coverage around the project area, the only properties that have the potential to be impacted by the project are immediately adjacent to CR 18 and the three properties along Vee Jay Street just north of CR 18 that have a view of the project area. Only these properties will be considered adjacent to the project in this determination.

There are three (3) above-ground properties immediately adjacent to CR 18 and three (3) above-ground properties along Vee Jay Street that are considered adjacent to the project. Three (3) of these six (6) properties will not be 50 years old or older by project letting in 2026. The remaining three (3) properties consist of one early twentieth-century farmhouse with its associated outbuildings along CR 18 and two (2) mid-twentieth-century houses along Vee Jay Street. The early twentieth-century farmhouse is shielded from the project area by a dense wooded area with mature deciduous trees present. Additionally, the farmhouse and outbuildings have been highly altered with replacement siding and windows as well as fenestration changes. The property does not appear to continue farming practices. These significant material alterations impact the integrity of the property and limit its ability to convey any significance. For the purposes of this determination, the early twentieth-century farmhouse and its outbuildings are not considered eligible to the National Register. The houses dating to the mid-twentieth century do appear to retain their material integrity, however, neither are excellent examples of a particular style, form, or type. They do not appear to meet the "Residential Planning and Development in Indiana, 1940-1973" requirements to be individually eligible to the National Register. Therefore, no National Register listed or eligible properties are present adjacent to this project.

The most recent inspection report (M. Berry; 8/11/2022) was accessed via INDOT's Indiana Total Assets Management System (iTAMS). The subject structure (Bridge No. 20-00385; NBI No. 2000164) carries CR 18 (Hively Avenue) over Yellow Creek and is a single span, 45-foot-long prestressed concrete box beam bridge. The bridge was built in 1958. The INDOT *Historic Bridge Inventory* (M & H Architecture, Inc., 2009) determined that this bridge is not eligible for listing in the National Register (Volume 2, Section 2, page 436).

Based on the available information, as summarized above, no above-ground concerns exist as long as the project scope does not change.

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 archaeological reconnaissance submitted by Gray & Pape, Inc. on behalf of GAI Consultants (Vehling et al. 2024).

A 1.3-acre survey area was examined through a combination of systematic shovel probing (n=9), auger probing (n=4), and visual inspection of disturbed areas. The area encompassing CR 18 has been previously disturbed from the construction of the county road, existing bridge with associated drainage, embankments, residential infrastructure, landscaping, a gravel driveway, and buried utilities. Shovel test probes were placed on the north and south sides of CR 18 in wooded areas and a residential lawn in 15 m intervals. A total of four auger probes were excavated along the southern side of CR 18; two of the four auger probes encountered impasses, rocks or tree roots. No archaeological sites were documented as a result of the survey and no further investigation is recommended (Vehling et al. 2024).

In 2025, Gray & Pape, Inc. conducted Phase Ic investigations on the floodplain of Yellow Creek. In total, seven trenches were excavated, with three trenches excavated in the northwestern section and four trenches excavated in the southwestern section of the project area. No cultural materials were identified or recorded during the Phase Ic subsurface investigations. Therefore, it is the opinion of Gray & Pape, Inc. that the proposed project will not impact any sites listed on or eligible for inclusion in the NRHP. No further archaeological investigations are recommended (Silverman and McKinstry 2025).

Therefore, there are no archaeological concerns as long as 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): Kelyn Alexander and KayLee Blum

INDOT Approval Date: 5/13/2025

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.
- **Map depicting potential temporary and/or permanent right-of-way acquisitions.**
- **Project plans, if available.**
- **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.

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 depict the project area, including all existing and proposed right-of-way and construction limits, and should use the "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.**

Jay A. Stankiewicz

From: David Moffatt <dmoffatt@graypape.com>
Sent: Tuesday, May 13, 2025 3:05 PM
To: Jay A. Stankiewicz
Subject: FW: Revised report: Elkhart County Bridge Des. 2201238 Phase Ic archaeology report

EXERCISE CAUTION: This is an External Email Message!
Think before clicking on links, opening attachments, or responding

David Moffatt
Gray & Pape, Inc.
Principal Investigator
Office 317.541.8200
Cell 317-417-3843

dmoffatt@graypape.com



From: Blum, Kaylee <KBlum@indot.IN.gov>
Sent: Tuesday, May 13, 2025 12:34 PM
To: Danielle Silverman <dSilverman@graypape.com>
Cc: Coon, Matthew <mcoon@indot.IN.gov>; Branigin, Susan <SBranigin@indot.IN.gov>; David Moffatt <dmoffatt@graypape.com>; Patrick Trader <ptrader@graypape.com>; Jocelyn Connolly <JConnolly@graypape.com>; Colin McKinstry <cMcKinstry@graypape.com>; Jeff Laswell <jlaswell@graypape.com>; Alexander, Kelyn <KAlexander3@indot.IN.gov>; Blum, Kaylee <KBlum@indot.IN.gov>
Subject: RE: Revised report: Elkhart County Bridge Des. 2201238 Phase Ic archaeology report

Good afternoon,

Thank you for providing the Phase Ic and related materials for our review of this project under the MPPA. We have determined that B-1 and B-12 of the MPPA is applicable, and therefore no further Section 106 work is necessary. The completed determination form is available in ProjectWise for use in the CE document:

ElkhartCoBridge385_Des2201238_MPPA Determination Form_B1_B12_2025-5-13.docx
ElkhartCoB#385_Des2201238_PhIc Revised_2025-05-12 signed.pdf

Please upload the revised report to SHAARD and also upload to IN SCOPE for a 30-day review period. Once released in IN SCOPE, please email one PDF copy of the current Review Request Submittal Form to dhpareview@dnr.IN.gov and forward one hard copy of the form to DHPA for review, indicating that the project qualified as a Minor Project and therefore the report is for their records only and no formal review is required under Section 106. In addition, we ask that a copy of the DHPA submittal be sent to INDOT-CRO c/o KayLee Blum at kblum@indot.in.gov during the time of submission.

Please keep in mind that if the scope of the project or the project limits should change, our office will need to re-examine the information to determine whether the MPPA still applies. Please do not hesitate to contact us should you have any questions or need additional information.

Best,

KayLee A. Blum, M.S.
Archaeologist
Indiana Department of Transportation, Cultural Resources Office
100 North Senate Ave., N758 — Environmental Services
Indianapolis, IN 46204
Office: (317) 439-3337
Email: kblum@indot.in.gov
Find us on social media!

From: Danielle Silverman <dSilverman@graypape.com>
Sent: Monday, May 12, 2025 8:00 AM
To: INDOT ESD.CRO <ESDCRO@indot.IN.gov>
Cc: David Moffatt <dmoffatt@graypape.com>; Patrick Trader <ptrader@graypape.com>; Jocelyn Connolly <JConnolly@graypape.com>; Colin McKinstry <cMcKinstry@graypape.com>; Jeff Laswell <jlaswell@graypape.com>
Subject: Revised report: Elkhart County Bridge Des. 2201238 Phase Ic archaeology report

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

Dear CRO team,

Thank you for your review and comments on the Phase Ic archaeological report. Please find the revised report addressing all requested comments at the following ProjectWise link:

ElkhartCoB#385_Des2201238_PhIc Revised_2025-05-12.pdf

If there are any additional comments or questions, please don't hesitate to reach out.

Best,

Danielle

Danielle Silverman, MPhil, MA, RPA

Archaeologist III, Midwest Region

GRAY & PAPE
HERITAGE MANAGEMENT

8902 Otis Ave., Ste. 220A

Indianapolis, IN 46216

Work 312-254-6976

Cell 518-690-5731

Email dsilverman@graypape.com

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:: CAUTION :: This email originated from outside of Gray & Pape. Do not click links or open attachments unless you recognize the sender and know the content is safe.

GRAY & PAPE

HERITAGE MANAGEMENT



A Phase Ic Subsurface Archaeological Reconnaissance for the Proposed Replacement of Elkhart County Bridge 385 Carrying CR 18 over Yellow Creek, Concord Township, Elkhart County, Indiana (INDOT Des No. 2201238)

Excerpt of Full Report: Portions have been removed to reduce file size.

Lead Federal Agency:

Federal Highway Administration

Prepared for:

GAI Consultants
116 E Berry Street, Suite 935
Fort Wayne, IN 46802

Prepared by:

Gray & Pape, Inc.
8902 Otis Avenue, Suite 220-A
Indianapolis, IN 46802

24-89101.001

GRAY & PAPE
HERITAGE MANAGEMENT

Project No. 24-89101.001

A Phase Ic Subsurface Archaeological Reconnaissance for the Proposed Replacement of Elkhart County Bridge 385 Carrying CR 18 over Yellow Creek, Concord Township, Elkhart County, Indiana (INDOT Des No. 2201238)

Lead Federal Agency:
Federal Highway Administration

Prepared for:
GAI Consultants
116 E Berry Street, Suite 935
Fort Wayne, IN 46802

Prepared by:
Danielle Silverman, MPhil, MA, RPA
Colin McKinstry, MA, RPA

Gray & Pape, Inc.
8902 Otis Avenue, Suite 220-A
Indianapolis, IN 46802
(317) 541-8200



Patrick Trader, MA, RPA
Principal Investigator
May 12, 2025

MANAGEMENT SUMMARY

Gray & Pape, Inc., under contract with GAI Consultants, Inc. and on behalf of the Indiana Department of Transportation, conducted a Phase Ic geomorphological and geoarchaeological subsurface investigation for the proposed bridge replacement project at CR 18 at the southeast edge of Elkhart, Indiana. The project area is located 8 meters east of the intersection of Vee Jay Street and CR 18, extending west for approximately 213 meters along CR 18 in Section 15, Township 37 North, Range 5 East, Concord Township, Elkhart County, Indiana. Fieldwork was conducted between January 6 through 8, 2025. Phase Ic investigations were conducted on the northwest and southwest sections of the project area around Elkhart County Bridge 385 carrying CR 18 over Yellow Creek. Fieldwork was conducted under a Division of Historic Preservation and Archaeological approved plan #32931. All fieldwork was conducted in compliance with Section 106 of the National Historic Preservation Act as amended and DHPA guidelines.

In 2024, Gray & Pape, Inc. conducted a Phase Ia survey of the project area; four Phase Ia bucket augers identified a buried land surface (Ab) in the southwestern section of the project area at approximately 108 centimeters below surface. In 2025, Gray & Pape, Inc. conducted Phase Ic investigations on the floodplain of Yellow Creek, which drains into the Elkhart River, a tributary of the St. Joseph River. In total, seven trenches were excavated, with three trenches excavated in the northwestern section and four trenches excavated in the southwestern section of the project area. The previously identified Ab horizon was re-identified and described in Trenches 4, 5, 6, and 7 at approximate depths between 82 and 115 centimeters below surface. No cultural materials were identified or recorded during the Phase Ic subsurface investigations.

For the most part, trenches exposed soil sequences that were consistent with a dynamic landscape representative of historical creek meander, comprising of relict channels of Yellow Creek associated natural levees and point bars consisting of coarse sands and gravels. Typical trench profiles exposed A-B-C soil sequences of riparian topsoil (A) over a series of weakly developed cambic B horizons (Bw) that overlie a transitional C horizon (Cb). In the southwestern section of the project area, the previously identified buried paleosol (Ab) was recorded underlying the cambic Bw horizon(s). No buried archaeological sites or landforms were identified during backhoe trenching. Therefore, it is the opinion of Gray & Pape, Inc. that the proposed project will not impact any sites listed on or eligible for inclusion in the NRHP. No further archaeological investigations are recommended.

In the event that archaeological deposits or human remains are encountered during the construction phase of the proposed project, all construction activities must cease and an archaeologist from the Indiana Department of Natural Resources, Division of Historic Preservation and Archaeology, and the Indiana Department of Transportation, Cultural Resources Office must be notified.

7.0 CONCLUSIONS AND RECOMMENDATIONS

Geoarchaeological investigations at the project area for the Elkhart County Bridge 385 carrying CR 18 over Yellow Creek were conducted between January 6 and 9, 2025. These investigations resulted in the mechanical excavation of seven backhoe trenches including three trenches in the northwestern section and four trenches in the southwestern section of the project area. Trenches were excavated in these survey areas based on the bucket auger results from the Phase Ia survey and as recommended by the Phase Ic workplan (Trader and Moffatt 2024). Trenches were excavated across the project area along the floodplain of Yellow Creek to examine the various landforms. There were no trenches placed on the northeastern section of the project area due to residential disturbances and currently occupied residences. Additionally, there were no trenches placed on the southeastern section of the project area due to the existing course of the Yellow Creek which runs parallel to CR 18 in this area, the adjacent steep creekbank, and guardrail.

For the most part, trenches identified a series of weakly developed B (Bw) and/or stacked C horizons underlying a well-defined A horizon. However, in Trenches 4 through 7, buried soil horizons (Ab) were identified. Buried soils were found primarily in the southwestern section of the project area associated with the buried soils (Ab) defined in the Waterford loam series (WcnAl). There were no archaeological materials identified with any of the buried soils encountered. The water table was perched high and there was evidence that trenches were situated within a dynamic landscape formed through the creek meander of the Yellow Creek. Trenches were excavated to terminal depths between 80 and 133 cmbs (31 and 52 inbs) on the northwestern section of the project area and between 110 and 130 cmbs (43 and 51 inbs) on the southwestern section of the project area. For all trenches except for Trench 1, water seeped into the base of each trench at around 1 m (3 ft).

Based on the results of backhoe trenching, no archaeological deposits were identified or documented by G&P. Therefore, it is the opinion of G&P that the proposed project will not impact any sites listed on or eligible for inclusion in the NRHP. No further archaeological investigations are recommended.

Appendix E

Red Flag and Hazardous Materials

Item	Appendix Page
Red Flag Investigation	E-1 to E-9

Date: November 28, 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: Shawn Slaymon
GAI Consultants, Inc.
201 N. Illinois Street
Indianapolis, Indiana 46204
s.slaymon@gaiconsultants.com

Re: RED FLAG INVESTIGATION
DES #2201238, Local Project
Bridge Replacement (Bridge No. 20-00385)
County Road 18 (Hively Avenue) over Yellow Creek
Elkhart, Elkhart County, Indiana

PROJECT DESCRIPTION

Brief Description of Project: The Elkhart County Highway Department intends to proceed with a bridge replacement project on County Road (CR) 18 (Hively Avenue) over Yellow Creek in the City of Elkhart, Elkhart County, Indiana. The bridge is located 0.8 miles east of the United States (US) 33. The project will include replacement of the existing 45-ft single span concrete box beam bridge that was constructed in 1958. The replacement bridge is anticipated to consist of a single span bridge of approximately 70-ft length. The new bridge will be approximately 54-ft wide and include pedestrian facilities at each side of the roadway throughout the project limits. Other construction activities will consist of:

- Roadway widening and reconstruction for approximately 800-ft
- Reconstruction of the local road (Vee Jay Street) at the Eastern roadway approach to tie into new construction of CR 18
- Channel work will consist of dewatering, construction of cofferdams, placement of scour protection.
    - An alternatives analysis will be performed to evaluate the potential for re-alignment of the channel for approximately 150-ft in the SE quadrant of the bridge.
- An alternatives analysis will be performed to evaluate the potential for retaining walls along the edge of the widened cross section in the NE Quadrant of the bridge. This will be evaluated to minimize R/W impacts.
- A sheet pile wall located along the channel bank in the NE quadrant of the bridge will be considered for replacement or removal.
- Maintenance of traffic is anticipated to be performed under a full closure with a traffic detour.
- Utility relocations will be required

Bridge Work Included in Project: Yes ☒ No ☐ Structure #(s) 20-00385
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 _____, Permanent ☒ # Acres _0.75____, Not Applicable ☐

Type and proposed depth of excavation: Excavation will include 24" of depth for roadway reconstruction at approaches, approximately 8-ft of depth around the existing bridge for removal and reconstruction, and the bridge will be supported on deep pile foundations that are driven approximately 50-ft below ground.

Maintenance of traffic (MOT): MOT will occur under full closure with traffic detoured.

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

State Project: ☐ LPA: ☒

Any other factors influencing recommendations: N/A

INFRASTRUCTURE TABLE AND SUMMARY

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

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

Explanation:

Trails: One (1) trail segment is located within the 0.5 mile search radius. The trail segment, Woodland Trail, is located 0.41 miles northwest 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, Elkhart Environmental Center, is located 0.41 miles northwest 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	**N/A**	Canal Routes - Historic	**N/A**
Karst Springs	**N/A**	NWI - Wetlands	**21**
Canal Structures – Historic	**N/A**	Lakes	**8**
NPS NRI Listed	**N/A**	Floodplain - DFIRM	**14**
NWI-Lines	**8**	Cave Entrance Density	**N/A**
IDEM 303d Listed Streams and Lakes (Impaired)	**N/A**	Sinkhole Areas	**N/A**
Rivers and Streams	**21**	Sinking-Stream Basins	**N/A**

Explanation:

NWI-Lines: Eight (8) NWI-Lines are located within the 0.5 mile search radius. Two (2) NWI-Lines, Yellow Creek, are located within the project area. A Waters of the US Report is recommended based on mapped features, and coordination with the appropriate agency, if applicable, will occur.

Rivers and Streams: Twenty-one (21) stream segments are located within the 0.5 mile search radius. Yellow Creek crosses the project area. A Waters of the US Report is recommended based on mapped features, and coordination with the appropriate agency, if applicable, will occur.

NWI-Wetlands: Twenty-one (21) wetland polygons are located within the 0.5 mile search radius. Two (2) wetland polygons are within the north and south side of the project area. A Waters of the US Report is recommended based on mapped features, and coordination with the appropriate agency, if applicable, will occur.

Lakes: Eight (8) lakes are located within the 0.5 mile search radius. The nearest lake is located 0.12 mile northwest of the project area. No impacted is expected.

Floodplains: Fourteen (14) floodplain polygons are located within the 0.5 mile search radius. The project area is located within two (2) of the floodplain polygons. Coordination with the appropriate agency 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 and mineral 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	**1***
Infectious/Medical Waste Sites	**N/A**	NPDES Pipe Locations	**N/A**

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 Facilities*: One (1) NPDES facility is located within the 0.5 search radius. One (1) unmapped facility, Auburn Estates, permit # INR10G676, is located 0.39 mile east of the project area. The permit was terminated on 5/15/2023. No impact is expected.

ECOLOGICAL INFORMATION SUMMARY

The Elkhart 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_elkhart.pdf . A preliminary review of the Indiana Natural Heritage Database by INDOT ESD did indicate the presence of ETR species within the 0.5 mile search radius. Coordination with USFWS and IDNR will occur.

A review of the USFWS database did not indicate the presence of endangered bat species in or within 0.5 mile of the project area. The August 11, 2022, inspection report for Structure Number 20-00385 states that no evidence of bats was seen or heard under the bridge. The range-wide programmatic consultation for the Indiana Bat and Northern Long-eared Bat will be completed according to the most recent "Using the USFWS's IPaC System for Listed Bat Consultation for INDOT Projects".

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:

- Two (2) NWI-Lines, Yellow Creek, cross the project area.
- One (1) stream segment, Yellow Creek, crosses the project area.
- Two (2) wetland polygons are located within the project area.
- The project area is located within two (2) floodplain polygons (coordination only).

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 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".

INDOT ESD concurrence: Tracy Barnes Digitally signed by Tracy Barnes Date: 2023.11.28 15:11:03 -05'00' (Signature)

Prepared by:

Shawn Slaymon
Project Environmental Specialist
GAI Consultants, Inc.

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

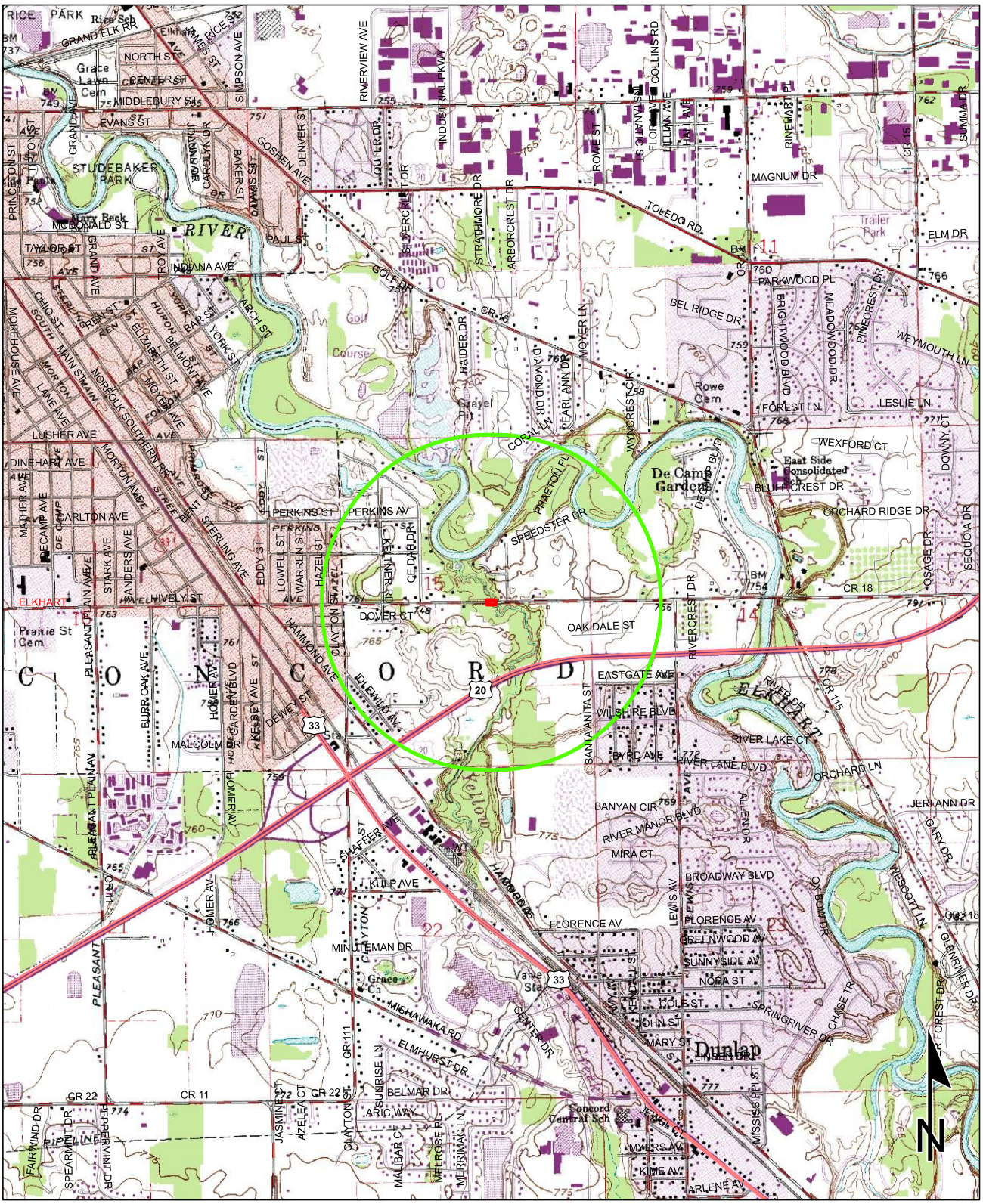
INFRASTRUCTURE: YES

WATER RESOURCES: YES

MINING/MINERAL EXPLORATION: N/A

HAZARDOUS MATERIAL CONCERNS: YES

Red Flag Investigation - Site Location Map
Elkhart Bridge 385 on CR 18 over Yellow Creek
Des. No. 2201238, Bridge Replacement
Elkhart County, Indiana



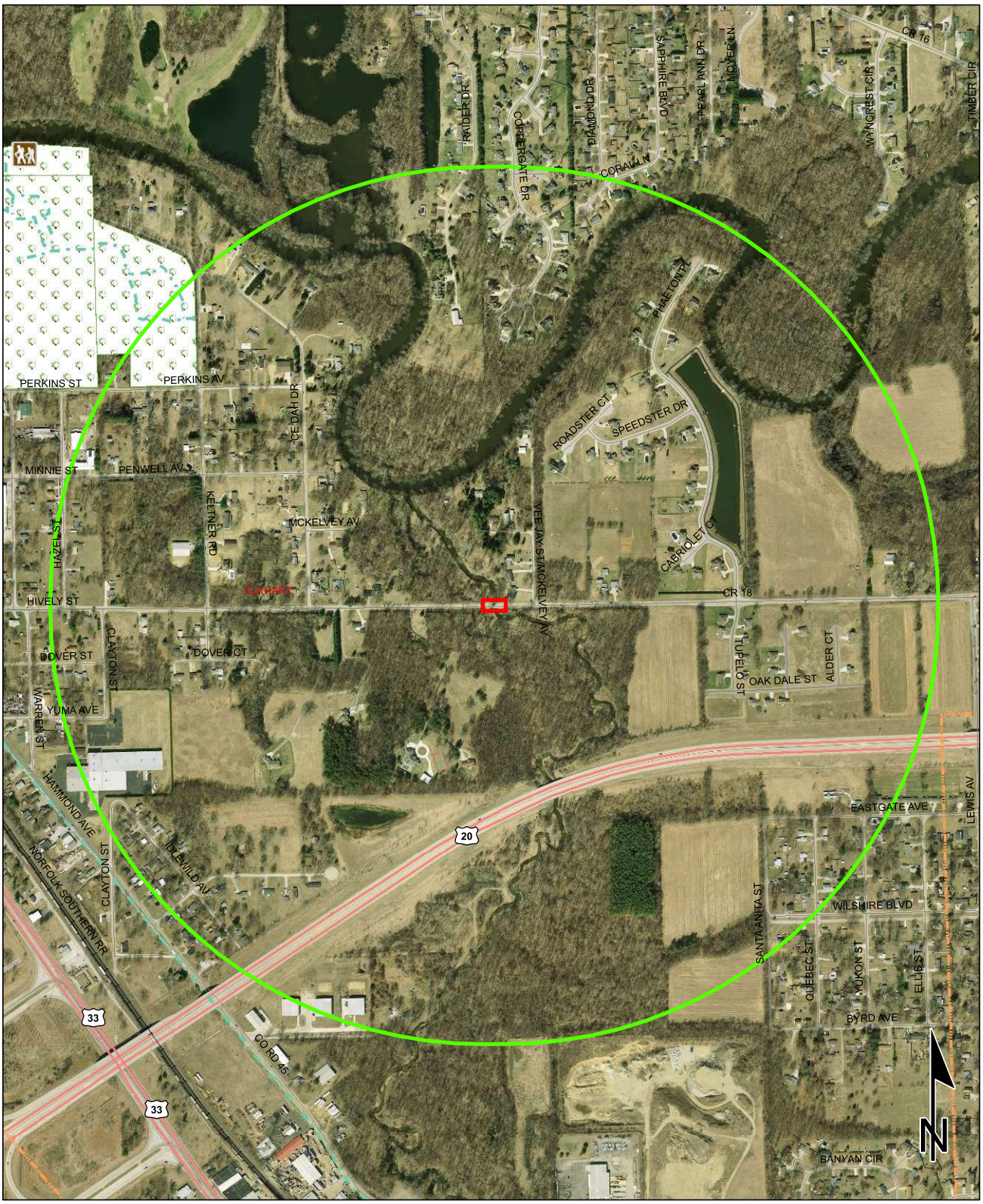
0.35 0.175 0 0.35 Miles

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

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

ELKHART QUADRANGLE
INDIANA
7.5 MINUTE SERIES
(TOPOGRAPHIC)

Red Flag Investigation - Infrastructure
Elkhart Bridge 385 on CR 18 over Yellow Creek
Des. No. 2201238, Bridge Replacement
Elkhart County, Indiana



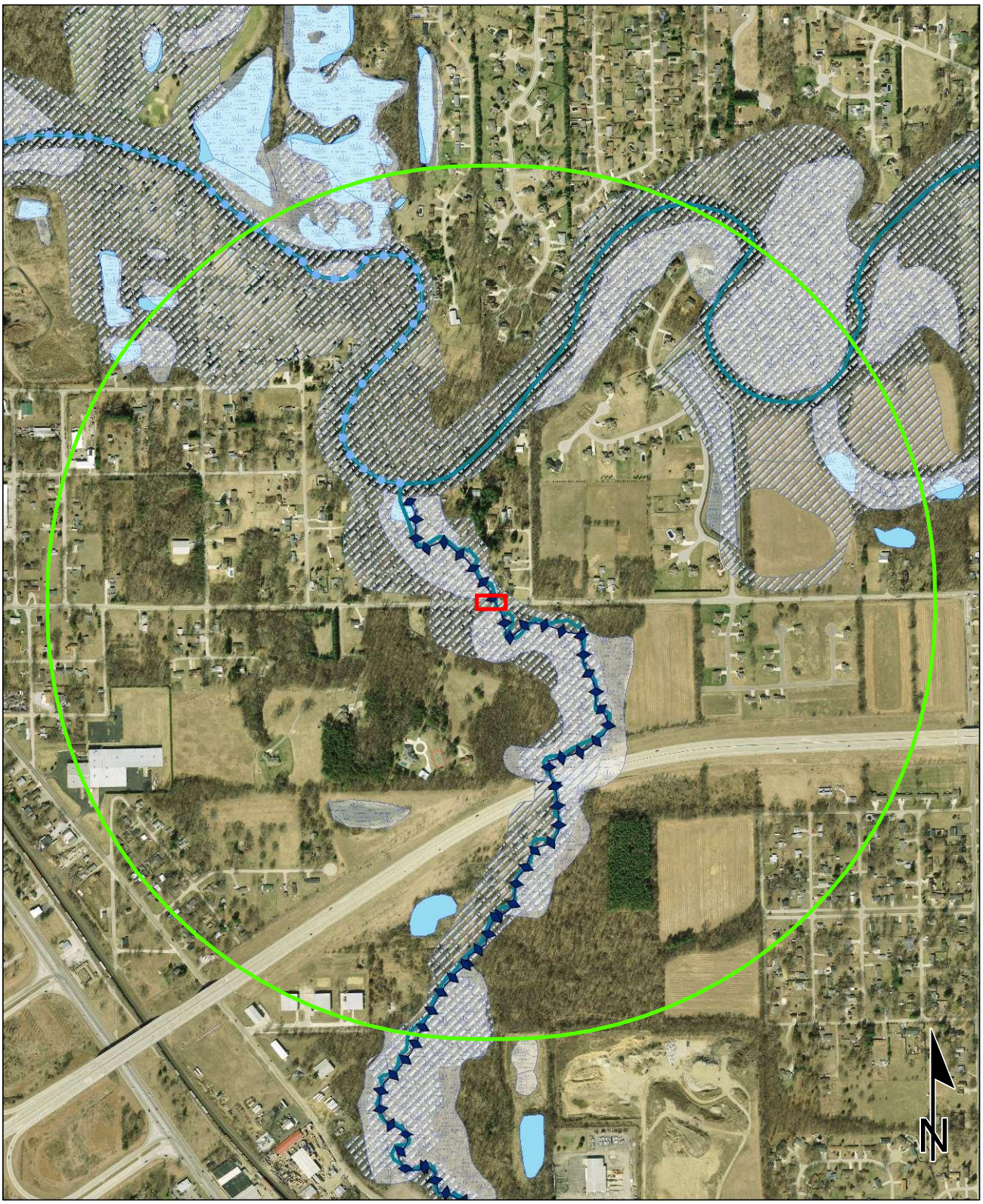
0.1 0.05 0 0.1 Miles

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

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

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

Red Flag Investigation - Water Resources
County Road 18 over Yellow Creek
Des. No. 2201238, Bridge Replacement
Elkhart County, Indiana



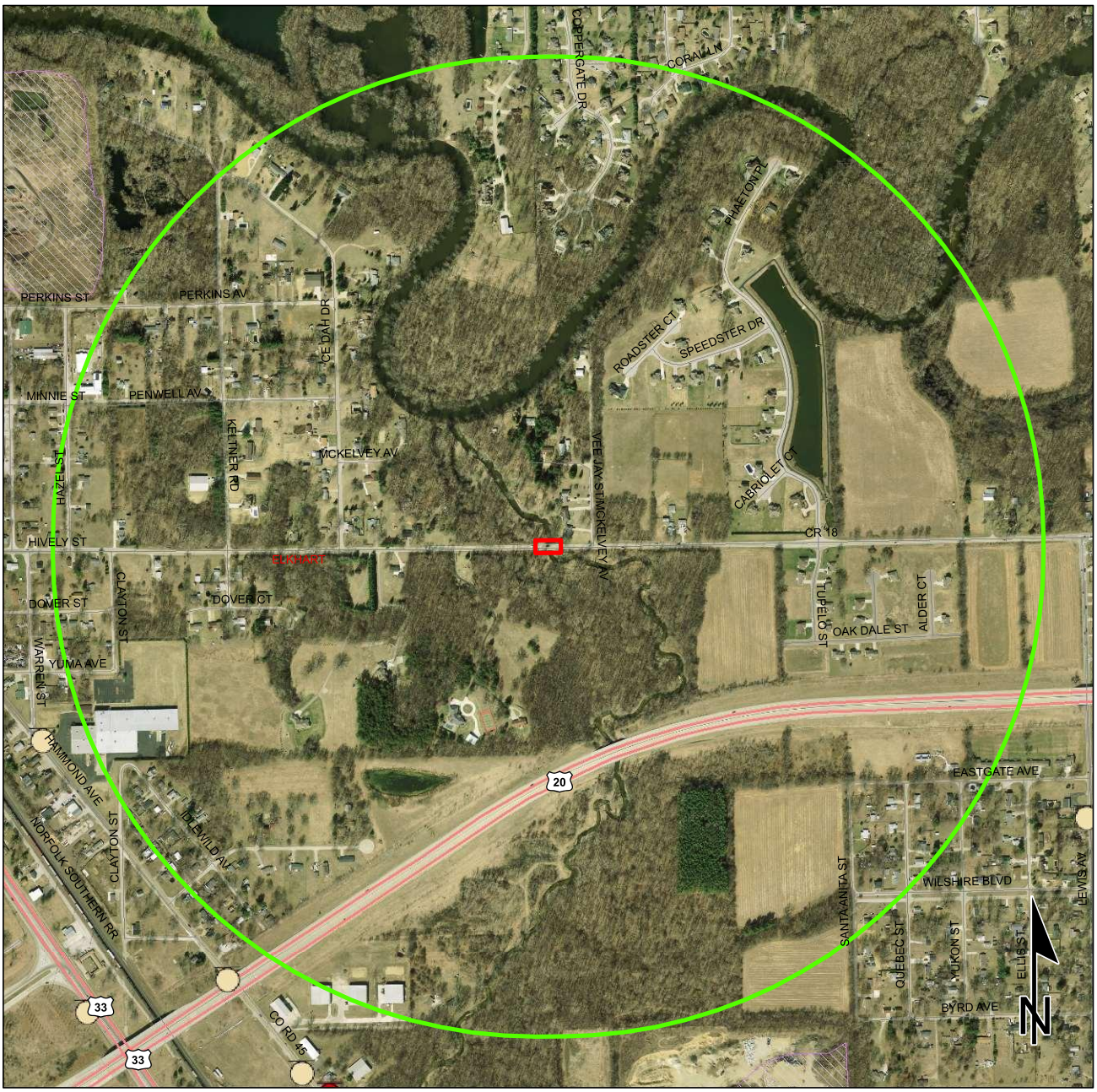
0.1 0.05 0 0.1 Miles

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

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

- NWI - Point
- Karst Spring
- NWI- Line
- Impaired_Stream_Lake
- NPS NRI listed
- River
- Canal Structure - Historic
- Canal Route - Historic
- Wetlands
- Lake
- Floodplain - DFIRM
- Cave Entrance Density
- Sinkhole Area
- Sinking-Stream Basin
- County Boundary
- Project Area
- Half Mile Radius
- Toll
- Interstate
- State Route
- US Route
- Local Road

Red Flag Investigation - Hazardous Material Concerns
Elkhart Bridge 385 on CR 18 over Yellow Creek
Des. No. 2201238, Bridge Replacement
Elkhart County, Indiana



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

0.1 0.05 0 0.1 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

Water Resources

Item	Appendix Page
Waters of the US Determination	F-1 to F-23

Waters of the U.S. Determination

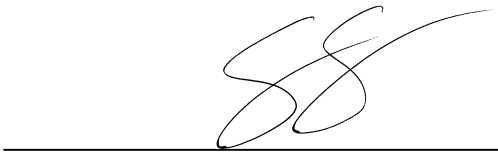
Elkhart Bridge 385
over Yellow Creek
Bridge Replacement Project

Elkhart County, Indiana

Des No. 2201238
Asset #: 20-00385

Site Investigation: November 14, 2023 & June 6, 2025
Report Completed: July 1, 2025

Author:



Shawn Slaymon
Project Environmental Specialist

Prepared by: GAI Consultants, Inc.
Fort Wayne Office
116 East Berry Street, Suite 935
Fort Wayne, IN 46802

Prepared for: Elkhart County Highway Department
610 Steury Avenue
Goshen, IN 46528

Introduction

The Elkhart County Highway Department and Federal Highway Administration (FHWA) intend to proceed to rehabilitate the bridge carrying Elkhart County County Road (CR) 18 (Hively Ave) Bridge No. 385 over Yellow Creek (Structure No. 20-00385), located in Elkhart County, Indiana (Figure 1 & 2).

- Bridge No. 385 is located over Yellow Creek, approximately 0.8 miles east of US 33.
- Section 15 of Township 37 North, Range 5 East, on the Elkhart USGS 7.5 Minute Topographic Map
- Coordinates: 41.659496, -85.932461

The purpose of this project is to correct deficiencies of the structure and provide continued safe vehicular crossing over the Yellow Creek for traffic utilizing Elkhart County CR 18 (Hively Ave) and increase the service life of the structure.

The project will include the replacement of the existing 45-ft single-span concrete box beam bridge that was constructed in 1958. The replacement bridge is anticipated to consist of a single-span bridge of approximately 70-ft length. The new bridge will be approximately 54-ft wide and include pedestrian facilities at each side of the roadway throughout the project limits.

Construction activities will consist of:

- The project scope intends to remove the existing bridge structure and approaches and replace the bridge and approach pavement.
- The proposed structure is a single span, 60 feet in length, prestressed concrete box beam bridge. The bridge width will be 52 feet including two 12-foot travel lanes, 8-foot shoulders and 6-foot sidewalks for both east and westbound lanes.
- The approach from the west and east side of the bridge will be approximately 225 feet and consist of a Hot Mix Asphalt (HMA) overlay.
- Channel work will consist of dewatering, construction of cofferdams, and placement of scour protection.

GAI Consultants, Inc. (GAI), on behalf of Elkhart County Highway Department, conducted wetland delineations and waterbody investigations of the investigated area initially on November 14, 2023 & a follow up was conducted on June 6, 2025.

Methods

Wetland delineations were conducted in accordance with the 1987 United States Army Corps of Engineers (USACE) *Corps of Engineers Wetlands Delineation Manual* (Environmental Laboratory, 1987) and the *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Northcentral and Northeast Region (Version 2.0)* (USACE, 2012). Wetlands were classified using the *Classification of Wetlands and Deepwater Habitats of the United States* (Cowardin et al., 1979). Classification of the indicator status of vegetation is based on *The National Wetland Plant List:* 2016 wetland ratings (Lichvar et al. 2016).

Desktop Review

The project study area topography is mostly flat, with elevations ranging from 740 to 750 ft. Drainage patterns were identified via topographic elevation contours to drain towards Yellow Creek. The project study area is within the St. Joseph Drainageways physiographic region of the Southern Michigan/Northern Indiana Drift Plains (Indiana Geological Survey, 2000). Land use in the vicinity of the project is primarily residential and agricultural.

National Wetland Inventory (NWI)

The USFWS' NWI Wetlands Mapper was reviewed for potential wetland locations. The NWI data of the area (Figure 4) identified three wetlands within the investigated area. The wetlands pass through the investigated area and are classified as two PFO1C wetlands that are separated by the road and one R2UBH wetland. The PF01C wetlands are confined to the riparian area adjacent to the Yellow Creek.

Watersheds

The investigated area is in the Headwaters Yellow Creek watershed, which is identified by the 12-digit hydrologic unit code (HUC) 040500011903. (Figure 7)

Natural Resources Conservation Service (NRCS) Soil Survey

The NRCS Soil Survey of Elkhart County identified three soil series within the investigated area (Figure 6, Table 1). One soil was identified as being hydric.

Table 1. NRCS Soil Survey Area of Interest Results

Map Unit Name (Map Symbol)	NRCS Flooding Frequency/Hydrology	NRCS Drainage Class	SSURGO Hydric Rating
Waterford loam(WcnAl)	Frequently flooded	Somewhat poorly drained	Predominantly Hydric (90%)
Urban land-Osolo complex(UglA)	None	N/A	Nonhydric (0%)
Bristol loamy sand(BtxB)	None	Excessively drained	Nonhydric (0%)

Floodway

The investigated area is located within an Indiana Department of Natural Resources (IDNR) Approximated Floodway according to the Floodplain Analysis & Regulatory Assessment map with a base flood elevation of 745.8 feet. (Figure 5)

National Hydrology Dataset

National Hydrology Dataset (NHD) represents the water drainage network surface water component on the USGS topographic maps. Two NHD flowlines, one representing Yellow Creek, are within the investigated area. (Figure 4)

Field Reconnaissance

A field visit to inspect the investigated area for aquatic resources was conducted by GAI staff on November 14, 2023 and a follow-up was conducted due to scope changes on June 6, 2025. The survey footprint extended approximately 150 feet north and 150 feet south from the bridge and 250 feet east and 250 feet west of the centerline of the bridge to encompass the maximum estimated area of disturbance based on the design. One stream, Yellow Creek, and two wetlands, DP-2 and DP-3, were identified within the investigated area (Figure 9). The descriptions of the wetland data collected are represented in Table 2.

Waterbodies

Detailed descriptions of the delineated stream and other water bodies are discussed below. The stream features are described by morphological characteristics, flow regime, substrate, jurisdictional connection and significant nexus determination.

Yellow Creek

One Stream, Yellow Creek, was identified in the investigated area. Yellow Creek is a perennial stream that flows south to north in the investigated area. Yellow Creek is shown as a USGS blue line waterway. According to the USGS Stream Stats Application, Yellow Creek has an upstream drainage area of 32.835 square miles (Figure 8). The stream has an average Ordinary High Water Mark (OHWM) of 12 ft. x 0.8 ft. The quality of this stream would be considered average due to its shallow depth, minor sinuosity, lack of instream habitat diversity, and its silt substrate. Yellow Creek had no pools and two riffle areas within the investigated area. One is located in the northern portion of the investigated area. (Figure 11, Photo 8). A small riffle in the southern portion of the investigated area (Figure 11, Photo 16). Yellow Creek would be considered a likely jurisdictional waterway due to its hydrological connection to Elkhart River, a TNW. (Figures 4 & 9)

Wetlands

The US Army Corps of Engineers (USACE) 1987 Wetland Delineation Manual and the 2012 Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Midwest Region (Version 2.0) were used to determine whether wetlands were present within the survey area. Wetland/non-wetland determinations were made using guidance and techniques provided by the Delineation Manual and Regional Supplement, including vegetation (National Wetland Plant List, Lichvar et al, 2016), hydrology, and soil characteristics. Sample points were taken in areas where potential wetland hydrology and/or hydrophytic vegetation were observed. The soils observed at each sample point location were compared to the hydric soil indicators presented in the Field Indicators of Hydric Soils in the United States.

Three areas adjacent to the roadway exhibited characteristics that wetlands exist or have existed in this area. All other adjacent land was currently mowed lawn and appeared to have been so for a very long time.

All three data points are representative of the two NWI mapped wetlands and exist on three of the four quadrants (NW, SW, SE) of the bridge. These sites were all characterized by the following sample points in Table 2.

Table 2: Data Point Summary Table

Feature Name	Meet all 3 Wetland Indicators	Photo Numbers	Lat/Long	Wetland Size (acres)	NWI Wetland Classification	Quality	Waters of the U.S.
Data Point 1 SW Quad	No	19-21	41.659343, -85.932582	N/A	None	N/A	No
Data Point 2 SE Quad (Wetland A)	Yes	22-24	41.659309, -85.932344	0.012	PFO	Poor	Yes
Data Point 3 NW Quad (Wetland B)	Yes	25-27	41.659532, -85.932534	0.028	PFO	Poor	Yes

Upland Data Point (DP-1)

DP-1 was taken on the south side of CR 18 in the southwest quadrant of the investigated area. The tree stratum has Box Elder (*Acer negundo*, FAC) and Silver Maple (*Acer saccharinum*, FACW) as the dominant species. In the herb stratum, the dominant species were False Nettle (*Boehmeria cylindrica*, OBL), Hemlock (*Conium maculatum*, FACW), and Reed Canary Grass (*Phalaris arundinacea*, FACW). DP-1 met the hydrophytic vegetation criterion by passing the Dominance Test and meeting the Prevalence Index indicator. Soils were a 10YR 2/2 (100%) from 0 to 15 inches with a sandy texture. DP-1 failed to meet the hydric soil criterion. DP-1 failed to meet the wetland hydrology criterion by only meeting one secondary

hydrology indicator, FAC-Neutral Test (D5). In not meeting all of the USACE criteria for wetlands, DP-1 was determined not to be within a wetland.

Wetland A Data Point (DP-2)

Wetland A is a 0.012-acre palustrine forested (PFO) wetland that is located on the southeast side of Bridge 385 in the southern portion of the investigated area. Wetland A would be considered poor quality due to the invasive vegetation populations. Wetland A would be considered a likely jurisdictional wetland due to the proximity and hydrologic connection with Yellow Creek.

DP-2 was collected in the southern portion of the investigated area on the east side of Yellow Creek. The tree stratum has Box Elder (Acer negundo, FAC) and Silver Maple (*Acer saccharinum*, FACW) as the dominant species. In the herb stratum, the dominant species were False Nettle (*Boehmeria cylindrica*, OBL), Hemlock (*Conium maculatum*, FACW), Reed Canary Grass (*Phalaris arundinacea*, FACW), and Garlic Mustard (*Alliaria petiolata*, FAC). DP-2 met the hydrophytic vegetation criterion by passing the Dominance Test and meeting the Prevalence Index indicator. Soils were a 10YR 4/2 (96%) with 10YR 4/6 (4%) redox concentrations in the matrix from 0 to 15 inches. DP-2 met the Sandy Mucky Mineral (S1) and Sandy Redox (S5) hydric soils indicators, thus meeting the hydric soils criterion. DP-2 met the hydrology primary indicator of Saturation (A3), and the secondary indicators of Saturation Visible on Aerial Imagery (C9), Geomorphic Position (D2), and passed the FAC-Neutral Test (D5). Saturation was observed from the surface throughout the soil profile. In meeting all three of the USACE criteria for wetlands, DP-2 was determined to be within a wetland.

Wetland B Data Point (DP-3)

Wetland B is a 0.028-acre PFO wetland located on the north side of CR 18 on the west side of Yellow Creek. Wetland B would be considered poor quality due to invasive vegetation populations. Wetland B would be considered a likely jurisdictional wetland due to the proximity and hydrologic connection with Yellow Creek.

DP-3 was collected as a representative wetland data point for Wetland B. The tree stratum has Box Elder (*Acer negundo*, FAC) and Silver Maple (*Acer saccharinum*, FACW) as the dominant species. In the herb stratum, the dominant species were False Nettle (*Boehmeria cylindrica*, OBL), Hemlock (*Conium maculatum*, FACW), and Reed Canary Grass (*Phalaris arundinacea*, FACW). DP-3 met the hydrophytic vegetation criterion by passing the Dominance Test and meeting the Prevalence Index indicator. Soils were a 10YR 4/2 (95%) with 10YR 5/6 (5%) redox concentrations in the matrix from 0 to 12 inches. DP-3 met the Sandy Mucky Mineral (S1) and Sandy Redox (S5) hydric soils indicators, thus meeting the hydric soils criterion. DP-3 met the hydrology primary indicator of sediment deposits (B2) and secondary indicators of Geomorphic Position (D2) and passed the FAC-Neutral Test (D5). In meeting all three of the USACE criteria for wetlands, DP-3 was determined to be within a wetland.

Roadside Ditches and Other Drainages

No roadside ditches were discovered during the investigation. The topography due to the roadway elevation and adjacent properties does not convey water in a channelized manner to Yellow Creek.

Conclusions

Wetland delineations and stream investigations for the Elkhart Bridge 385 replacement project were conducted initiall on November 14, 2023 and again on June 6, 2025. One stream, Yellow Creek, is within the investigated area. Two likely jurisdictional wetlands were identified within the investigated area. No unusual circumstances were identified during the investigation.

Every effort should be taken to avoid and minimize impacts on Yellow Creek and the wetlands. If impacts are necessary, then mitigation may be required. The final determination of likely jurisdictional waters is ultimately made by USACE. This report is our best judgment based on the guidelines set forth by the Corps.

Acknowledgment

This waters determination has been prepared based on the best available information, interpreted in the light of the investigator's training, experience, and professional judgment in conformance with the 1987 *Corps of Engineers Wetland Delineation Manual*, the appropriate regional supplement, the USACE *Jurisdictional Determination Form Instructional Guidebook*, and other appropriate agency guidelines.



Shawn Slaymon
Project Environmental Project

References

Cowardin, D.M., Carter, V., Golet, F.C., and La Roe, E.T. 1979. *Classification of Wetlands and Deepwater Habitats of the United States*. Publication No. FWS/OBS-79/31. United States Department of the Interior, Fish and Wildlife Service, Washington, D.C.

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Lichvar, R.W., D.L. Banks, W.N. Kirchner, and N.C. Melvin. 2016. *The National Wetland Plant List*: 2016 wetland ratings. Phytoneuron 2016-30: 1-17. Published April 28, 2016. ISSN 2153 733X.

Taylor University Environmental Research Group. 2005. *Indiana Wetland Rapid Assessment Protocol, InWRAP. Version 2.5.* Taylor University, Upland, Indiana.

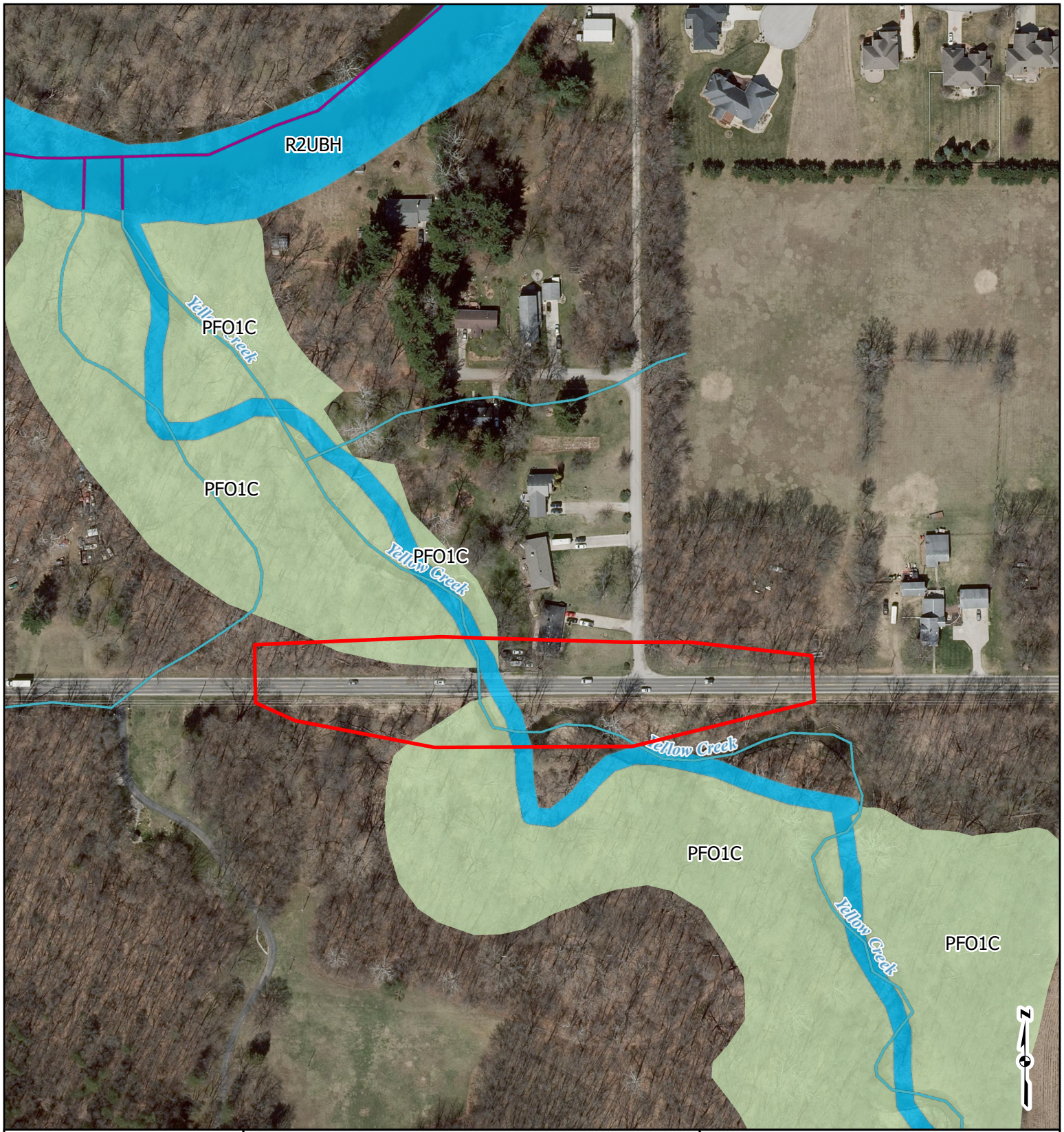
United States Army Corps of Engineers (USACE). 2012. *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Midwest Region, Version 2.0.* August of 2010.

United States Department of Agriculture, Natural Resources Conservation Service (USDA-NRCS). 2006. *Land Resource Regions and Major Land Resource Areas of the United States, the Caribbean, and the Pacific.* U.S. Department of Agriculture Handbook, 296.

Attachments:

~~Figure 1- Aerial Map~~
~~Figure 2- Location Map~~
~~Figure 3- Topographic Map~~
Figure 4- NWI Wetland and NHD Flowline Map
Figure 5- IDNR FARA Map
Figure 6- NRCS Soil Map
Figure 7- Watershed Map
Figure 8- USGS StreamStats Report
Figure 9- Water Resources Map
~~Figure 10- Photo Location Map~~
~~Figure 11- Photos~~
Figure 12- Wetland Determination Forms
Preliminary Jurisdictional Determination Form

Crossed out figures have been removed to avoid duplication.
Figures located in Appendix B.



PROJECT LOCATION



ELKHART COUNTY, INDIANA

LEGEND

- Investigated Area
- Palustrine
- Riverine
- Perennial
- Artificial Path

0 100 300 500 Feet

NWI & NHD MAP
FIGURE 4

ELKHART COUNTY BRIDGE 385
BRIDGE REPLACEMENT
DES# 2201238

DRAWN BY: SCS DATE: 7/30/2025
CHECKED: BE APPROVED: JAS

REFERENCE: WORLD IMAGERY, ESRI, ACCESSED 07/2025. COUNTY BOUNDARY,ESRI,2010.
null, USGS TNM – National Hydrography Dataset. Data Refreshed June, 2025.

gai consultants

DNR Indiana Department of Natural Resources

Floodplain Analysis & Regulatory Assessment (FARA)



Point of Interest

Base Flood Elevation Point

VERSION

1.0

FLD_ZONE, SOURCE_DNR, ZONE_SUBTY

FEMA Zone AE Floodway; FEMA Administrative Floodway

FEMA Zone AE

Additional Floodplain Area; DNR .2 Percent Flood Hazard

Not Mapped

Long: **-85.93238822509961**

Lat: **41.65946940840647**

The information provided below is based on the point of interest shown in the map above.

County: **Elkhart**

Stream Name: **Yellow Creek**

Approximate Ground Elevation: **737.4 feet (NAVD88)**

Base Flood Elevation: **745.8 Feet (NAVD88)**

Drainage Area: **Not Available**

Best Available Flood Hazard Zone: **FEMA Zone AE Floodway**

National Flood Hazard Zone: **FEMA Zone AE Floodway**

Is a Flood Control Act permit from the DNR needed for this location? **yes**

Is a local floodplain permit needed for this location? **yes-**

Floodplain Administrator: **Adam Coleson, Planner**

Community Jurisdiction: **Elkhart County, County proper**

Phone: **(574) 971-4565**

Email: **AColeson@elkhartcounty.com**

US Army Corps of Engineers District: **Detroit**

FIGURE 5
DNR FARA MAP

Date Generated: 11/21/2023

Custom Soil Resource Report
Soil Map



Map Scale: 1:1,370 if printed on A landscape (11" x 8.5") sheet.

N

Meters
0 20 40 80 120

Feet
0 50 100 200 300

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 16N WGS84

NRCS SOILS MAP
FIGURE 6

MAP LEGEND

Area of Interest (AOI)
- Area of Interest (AOI)

Soils
- Soil Map Unit Polygons
- Soil Map Unit Lines
- Soil Map Unit Points

Special Point Features
- Blowout
- Borrow Pit
- Clay Spot
- Closed Depression
- Gravel Pit
- Gravelly Spot
- Landfill
- Lava Flow
- Marsh or swamp
- Mine or Quarry
- Miscellaneous Water
- Perennial Water
- Rock Outcrop
- Saline Spot
- Sandy Spot
- Severely Eroded Spot
- Sinkhole
- Slide or Slip
- Sodic Spot
- Spoil Area
- Stony Spot
- Very Stony Spot
- Wet Spot
- Other
- Special Line Features

Water Features
- Streams and Canals

Transportation
- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

Background
- Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:12,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Elkhart County, Indiana
Survey Area Data: Version 27, Aug 28, 2024

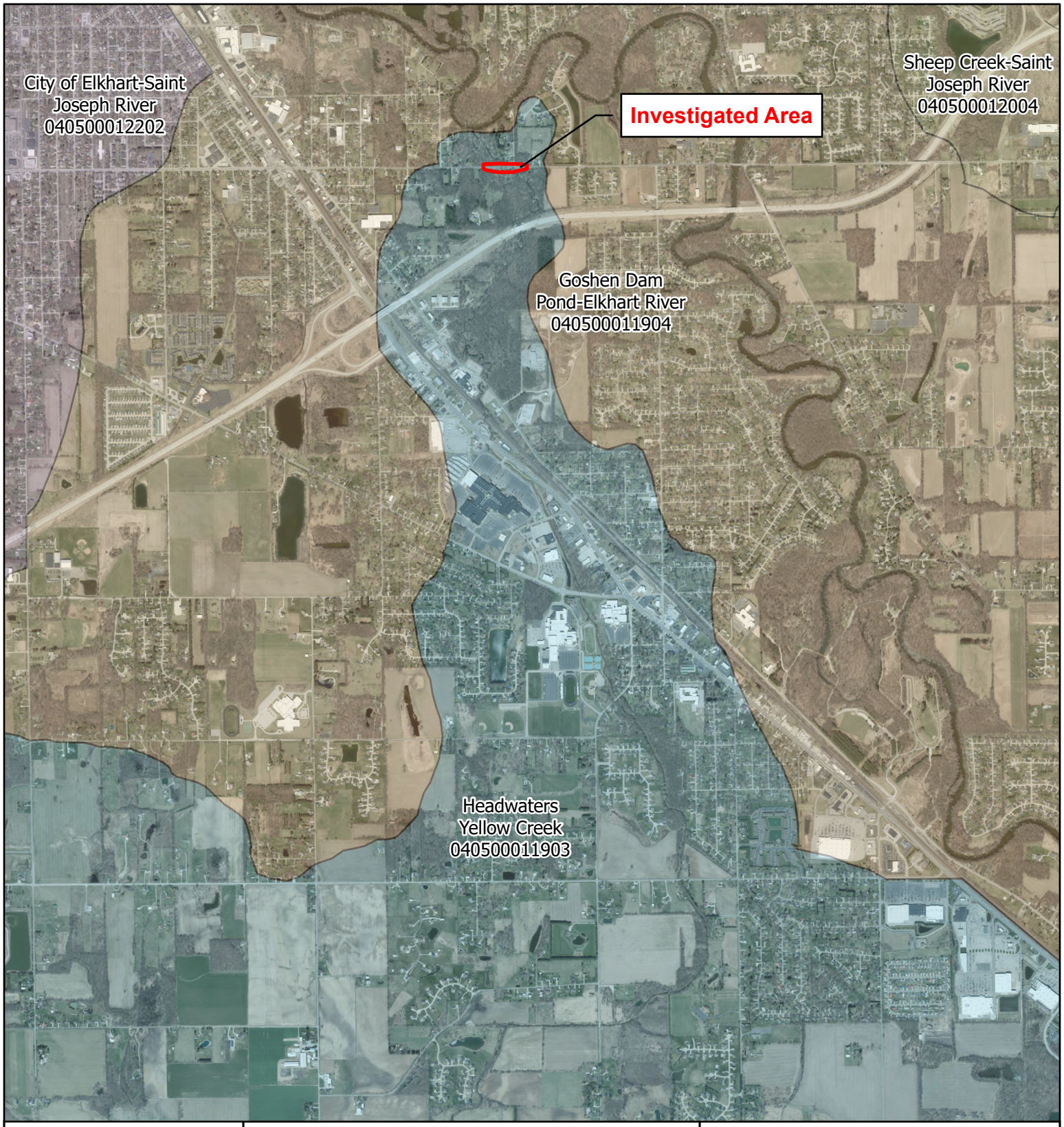
Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Jun 16, 2022—Jun 21, 2022

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Report—Hydric Soil List - All Components (Elkhart 385)

Hydric Soil List - All Components–IN039-Elkhart County, Indiana					
Map symbol and map unit name	**Component/Local Phase**	**Comp. pct.**	**Landform**	**Hydric status**	**Hydric criteria met (code)**
BtxB: Bristol loamy sand, 2 to 5 percent slopes	Bristol	80	Outwash plains,kames,outwash terraces	No	—
	Vistula	8	Outwash plains	No	—
	Tyner	4	Outwash plains	No	—
	Osolo	4	Outwash plains,outwash terraces	No	—
	Bronson	4	Outwash plains,moraines	No	—
UglA: Urban land-Osolo complex, 0 to 1 percent slopes	Urban land	50	Outwash plains	Unranked	—
	Osolo	40	Outwash plains,outwash terraces	No	—
	Tyner	4	Outwash plains	No	—
	Coloma	3	Moraines,outwash plains	No	—
	Brems	3	Outwash plains	No	—
WcnAl: Waterford loam, 0 to 2 percent slopes, frequently flooded, long duration	Waterford	80	Flood plains	Yes	4
	Abscota	10	Flood plains	No	—
	Gravelton	5	Drainageways on flood plains,depressions on flood plains	Yes	2,4
	Adrian-Undrained	5	Depressions on till plains,depressions on outwash plains,depressions on lake plains	Yes	1,2,3



PROJECT LOCATION



ELKHART COUNTY, INDIANA

LEGEND

- Investigated Area
- 040500011903,Headwaters Yellow Creek
- 040500011904,Goshen Dam Pond-Elkhart River
- 040500012004,Sheep Creek-Saint Joseph River
- 040500012202,City of Elkhart-Saint Joseph River

0 2,000 3,000 6,000 Feet

HUC12 WATERSHED MAP
FIGURE 7

ELKHART COUNTY BRIDGE 385
BRIDGE REPLACEMENT
DES# 2201238

DRAWN BY: SCS DATE: 7/30/2025
CHECKED: BE APPROVED: JAS

REFERENCE: WORLD IMAGERY, ESRI, ACCESSED 07/2025. COUNTY BOUNDARY,ESRI,2010.
null

gai consultants

Elkhart Bridge 385 StreamStats Report

Region ID: IN
Workspace ID: IN20231109160649539000
Clicked Point (Latitude, Longitude): 41.65945, -85.93220
Time: 2023-11-09 11:07:11 -0500



Collapse All

Basin Characteristics

Parameter Code	Parameter Description	Value	Unit
DRNAREA	Area that drains to a point on a stream	32.835	square miles
K2INDNR	Average hydraulic conductivity (ft/d) for the full depth of unconsolidated deposits from InDNR well database.	36	ft per day
LC01FOREST	Percentage of forest from NLCD 2001 classes 41-43	5.3	percent
LOWREG	Low Flow Region Number	1728	dimensionless
QSSPERMTHK	Index of the permeability of surficial Quaternary sediments computed as in SIR 2014-5177	6129.7	dimensionless
T2INDNR	Average transmissivity (ft2/d) for the full depth of unconsolidated deposits from InDNR well database.	2344	square feet per day
WETLAND	Percentage of Wetlands	1.37	percent

USGS Data Disclaimer: Unless otherwise stated, all data, metadata and related materials are considered to satisfy the quality standards relative to the purpose for which the data were collected. Although these data and associated metadata have been reviewed for accuracy and completeness and approved for release by the U.S. Geological Survey (USGS), no warranty expressed or implied is made regarding the display or utility of the data for other purposes, nor on all computer systems, nor shall the act of distribution constitute any such warranty.

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USGS Product Names Disclaimer: Any use of trade, firm, or product names is for descriptive purposes only and does not imply endorsement by the U.S. Government.

FIGURE 8
USGS StreamStats MAP



PROJECT LOCATION



ELKHART COUNTY, INDIANA

LEGEND

- Investigated Area
- Data Point 1 - Upland
- Data Point 2 - Wetland
- Data Point 3 - Wetland
- DP2 Wetland
- DP3 Wetland

0 80 200 300 Feet

WATER RESOURCES MAP
FIGURE 9

ELKHART COUNTY BRIDGE 385
BRIDGE REPLACEMENT
DES# 2201238

DRAWN BY: SCS DATE: 7/30/2025
CHECKED: BE APPROVED: JAS

REFERENCE: WORLD IMAGERY, ESRI, ACCESSED 07/2025. COUNTY BOUNDARY,ESRI,2010.

gai consultants

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: Elkhart Bridge 385 City/County: Elkhart County Sampling Date: 11/14/2023

Applicant/Owner: Elkhart County Highway Department State: Sampling Point: DP-1

Investigator(s): Ken McMullen Section, Township, Range: S15, T37N, R5E

Landform (hillside, terrace, etc.): terrrace Local relief (concave, convex, none): Flat

Slope (%): 0 Lat: 41.659343 Long: -85.932582 Datum: NAD88

Soil Map Unit Name: NRCS Elkhart County (WcnAl) NWI classification: PFO1C

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If no, explain in Remarks.)

Are Vegetation No , Soil No , or Hydrology No significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation No , Soil No , or Hydrology No naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes X	No ____	**Is the Sampled Area within a Wetland?** Yes ____ No X
Hydric Soil Present?	Yes ____	No X	
Wetland Hydrology Present?	Yes ____	No X	

Remarks:
location appears to be alluvial in nature with frequent deposition of sediment from the flooding of the stream. Area likely floodplain and not wetland as no evidence of hydrology or even wet soils present.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30 ft.)	Absolute % Cover	Dominant Species?	Indicator Status
1. *Acer negundo L.*	20	Yes	FAC
2. *Acer saccharinum*	20	Yes	FACW
3.			
4.			
5.			
	40	=Total Cover	
Sapling/Shrub Stratum (Plot size: 15 ft.)			
1.			
2.			
3.			
4.			
5.			
		=Total Cover	
Herb Stratum (Plot size: 5 ft.)			
1. *Boehmeria cylindrica*	20	Yes	OBL
2. *Conium maculatum*	30	Yes	FACW
3. *Phalaris arundinacea*	20	Yes	FACW
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	70	=Total Cover	
Woody Vine Stratum (Plot size: 30 ft.)			
1.			
2.			
		=Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 5 (A)

Total Number of Dominant Species Across All Strata: 5 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	20	x 1 =	20
FACW species	70	x 2 =	140
FAC species	20	x 3 =	60
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	110 (A)		220 (B)

Prevalence Index = B/A = 2.00

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

X 2 - Dominance Test is >50%

X 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes X No ____

Remarks: (Include photo numbers here or on a separate sheet.)

SOIL

Sampling Point: DP-1

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-15	10yr 2/2	100					Sandy	alluvial deposits

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

[2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ Coast Prairie Redox (A16)
- ___ Iron-Manganese Masses (F12)
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (F22)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ___ **No** X

Remarks:

This data form is revised from Midwest Regional Supplement Version 2.0 to include the NRCS Field Indicators of Hydric Soils, Version 7.0, 2015 Errata. (http://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/nrcs142p2_051293.docx)

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Gauge or Well Data (D9)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- X FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ___ No X Depth (inches): ___

Water Table Present? Yes ___ No X Depth (inches): ___

Saturation Present? Yes ___ No X Depth (inches): ___

(includes capillary fringe)

Wetland Hydrology Present? **Yes** ___ **No** X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: Elkhart 365 City/County: Elkhart County Sampling Date: 11/14/2023

Applicant/Owner: Elkhart County Highway State: IN Sampling Point: DP-2

Investigator(s): Ken McMullen Section, Township, Range: S15, T37N, R5E

Landform (hillside, terrace, etc.): Terrace Local relief (concave, convex, none): Concave

Slope (%): 0 Lat: 41.659309 Long: -85.932344 Datum: NAD83

Soil Map Unit Name: NRCS Elkhart County NWI classification: Yes

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If no, explain in Remarks.)

Are Vegetation No , Soil No , or Hydrology No significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation No , Soil No , or Hydrology No naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes x	No ____	**Is the Sampled Area within a Wetland?** **Yes** X **No** ____
Hydric Soil Present?	Yes X	No ____	
Wetland Hydrology Present?	Yes X	No ____	

Remarks:
Wetland development evident on east bank of Yellow Creek. This Data Point is associated with Wetland A.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30 ft.)	Absolute % Cover	Dominant Species?	Indicator Status
1. *Acer negundo L.*	20	Yes	FAC
2. *Acer saccharinum*	20	Yes	FACW
3.			
4.			
5.			
	40	=Total Cover	
Sapling/Shrub Stratum (Plot size: 15 ft.)			
1.			
2.			
3.			
4.			
5.			
		=Total Cover	
Herb Stratum (Plot size: 5 ft.)			
1. *Boehmeria cylindrica*	30	Yes	OBL
2. *Conium maculatum*	20	Yes	FACW
3. *Phalaris arundinacea*	20	Yes	FACW
4. *Alliaria petiolata*	20	Yes	FAC
5.			
6.			
7.			
8.			
9.			
10.			
	90	=Total Cover	
Woody Vine Stratum (Plot size: 30 ft.)			
1.			
2.			
		=Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 6 (A)

Total Number of Dominant Species Across All Strata: 6 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	30	x 1 =	30
FACW species	60	x 2 =	120
FAC species	40	x 3 =	120
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	130 (A)		270 (B)
Prevalence Index = B/A =			2.08

Hydrophytic Vegetation Indicators:

____ 1 - Rapid Test for Hydrophytic Vegetation

X 2 - Dominance Test is >50%

X 3 - Prevalence Index is ≤3.0[1]

____ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** X **No** ____

Remarks: (Include photo numbers here or on a separate sheet.)

SOIL

Sampling Point: DP-2

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-15	10YR 4/2	96	10YR 4/6	4	C	M	Mucky Sand	alluvial deposits

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

[2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- X Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- X Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ Coast Prairie Redox (A16)
- ___ Iron-Manganese Masses (F12)
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (F22)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** X **No** ___

Remarks:

This data form is revised from Midwest Regional Supplement Version 2.0 to include the NRCS Field Indicators of Hydric Soils, Version 7.0, 2015 Errata. (http://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/nrcs142p2_051293.docx)

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- X Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Gauge or Well Data (D9)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- X Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- X Geomorphic Position (D2)
- X FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ___ No X Depth (inches): ___

Water Table Present? Yes ___ No X Depth (inches): ___

Saturation Present? Yes X No ___ Depth (inches): 0

(includes capillary fringe)

Wetland Hydrology Present? **Yes** X **No** ___

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: Elkhart Bridge 385 City/County: Elkhart County Sampling Date: 11/14/2023

Applicant/Owner: Elkhart County Highway State: IN Sampling Point: DP-3

Investigator(s): Ken McMullen Section, Township, Range: S15, T37N, R5E

Landform (hillside, terrace, etc.): terrrace Local relief (concave, convex, none): Concave

Slope (%): 0 Lat: 41.659532 Long: -85.932534 Datum: NAD83

Soil Map Unit Name: NRCS Elkhart County (WcnAl) NWI classification: PFO1C

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If no, explain in Remarks.)

Are Vegetation No , Soil No , or Hydrology No significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation No , Soil No , or Hydrology No naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes x	No ____	**Is the Sampled Area within a Wetland?** **Yes** X **No** ____
Hydric Soil Present?	Yes X	No ____	
Wetland Hydrology Present?	Yes X	No ____	

Remarks:
Wetland development evident on west bank of Yellow Creek. This data point is associated with Wetland B.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30 ft.)	Absolute % Cover	Dominant Species?	Indicator Status
1. *Acer negundo L.*	60	Yes	FAC
2. *Acer saccharinum*	30	Yes	FACW
3.			
4.			
5.			
	90	=Total Cover	
Sapling/Shrub Stratum (Plot size: 15 ft.)			
1.			
2.			
3.			
4.			
5.			
		=Total Cover	
Herb Stratum (Plot size: 5 ft.)			
1. *Boehmeria cylindrica*	10	Yes	OBL
2. *Conium maculatum*	10	Yes	FACW
3. *Phalaris arundinacea*	20	Yes	FACW
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	40	=Total Cover	
Woody Vine Stratum (Plot size: 30 ft.)			
1.			
2.			
		=Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 5 (A)

Total Number of Dominant Species Across All Strata: 5 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	10	x 1 =	10
FACW species	60	x 2 =	120
FAC species	60	x 3 =	180
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	130 (A)		310 (B)
Prevalence Index = B/A =			2.38

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

X 2 - Dominance Test is >50%

X 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** X **No** ____

Remarks: (Include photo numbers here or on a separate sheet.)

SOIL

Sampling Point: DP-3

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-12	10YR 4/2	95	10YR 5/6	5	C	M	Mucky Sand	alluvial deposits

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- X Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- X Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ Coast Prairie Redox (A16)
- ___ Iron-Manganese Masses (F12)
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (F22)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** X **No** ___

Remarks:

This data form is revised from Midwest Regional Supplement Version 2.0 to include the NRCS Field Indicators of Hydric Soils, Version 7.0, 2015 Errata. (http://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/nrcs142p2_051293.docx)

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- X Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Gauge or Well Data (D9)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- X Geomorphic Position (D2)
- X FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ___	No X	Depth (inches): ___
Water Table Present?	Yes ___	No X	Depth (inches): ___
Saturation Present? (includes capillary fringe)	Yes ___	No X	Depth (inches): ___

Wetland Hydrology Present? **Yes** X **No** ___

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Appendix 2 - PRELIMINARY JURISDICTIONAL DETERMINATION (PJD) FORM

BACKGROUND INFORMATION

A. REPORT COMPLETION DATE FOR PJD: 7/29/2025

B. NAME AND ADDRESS OF PERSON REQUESTING PJD: Shawn Slaymon, 201 N. Illinois Street, Ste 1700, Indianapolis, IN 46204

C. DISTRICT OFFICE, FILE NAME, AND NUMBER:

D. PROJECT LOCATION(S) AND BACKGROUND INFORMATION:
(USE THE TABLE BELOW TO DOCUMENT MULTIPLE AQUATIC RESOURCES AND/OR AQUATIC RESOURCES AT DIFFERENT SITES)

State: IN County/parish/borough: Elkhart City: Elkhart

Center coordinates of site (lat/long in degree decimal format):

Lat.: 40.392169 Long.: -86.587197

Universal Transverse Mercator: 16S

Name of nearest waterbody: Yellow Creek

E. REVIEW PERFORMED FOR SITE EVALUATION (CHECK ALL THAT APPLY):

☐ Office (Desk) Determination. Date:

☐ Field Determination. Date(s):

TABLE OF AQUATIC RESOURCES IN REVIEW AREA WHICH "MAY BE" SUBJECT TO REGULATORY JURISDICTION.

Site number	Latitude (decimal degrees)	Longitude (decimal degrees)	Estimated amount of aquatic resource in review area (acreage and linear feet, if applicable)	Type of aquatic resource (i.e., wetland vs. non-wetland waters)	Geographic authority to which the aquatic resource "may be" subject (i.e., Section 404 or Section 10/404)
Yellow Creek	40.392169	-86.587197	300 ft	Non-wetland waters	Section 404
Wetland 1	41.659309	-85.932344	0.012	wetland	Section 404
Wetland 2	41.659532	-85.932534	0.028	wetland	Section 404

1) The Corps of Engineers believes that there may be jurisdictional aquatic resources in the review area, and the requestor of this PJD is hereby advised of his or her option to request and obtain an approved JD (AJD) for that review area based on an informed decision after having discussed the various types of JDs and their characteristics and circumstances when they may be appropriate.

2) In any circumstance where a permit applicant obtains an individual permit, or a Nationwide General Permit (NWP) or other general permit verification requiring "pre-construction notification" (PCN), or requests verification for a non-reporting NWP or other general permit, and the permit applicant has not requested an AJD for the activity, the permit applicant is hereby made aware that: (1) the permit applicant has elected to seek a permit authorization based on a PJD, which does not make an official determination of jurisdictional aquatic resources; (2) the applicant has the option to request an AJD before accepting the terms and conditions of the permit authorization, and that basing a permit authorization on an AJD could possibly result in less compensatory mitigation being required or different special conditions; (3) the applicant has the right to request an individual permit rather than accepting the terms and conditions of the NWP or other general permit authorization; (4) the applicant can accept a permit authorization and thereby agree to comply with all the terms and conditions of that permit, including whatever mitigation requirements the Corps has determined to be necessary; (5) undertaking any activity in reliance upon the subject permit authorization without requesting an AJD constitutes the applicant's acceptance of the use of the PJD; (6) accepting a permit authorization (e.g., signing a proffered individual permit) or undertaking any activity in reliance on any form of Corps permit authorization based on a PJD constitutes agreement that all aquatic resources in the review area affected in any way by that activity will be treated as jurisdictional, and waives any challenge to such jurisdiction in any administrative or judicial compliance or enforcement action, or in any administrative appeal or in any Federal court; and (7) whether the applicant elects to use either an AJD or a PJD, the JD will be processed as soon as practicable. Further, an AJD, a proffered individual permit (and all terms and conditions contained therein), or individual permit denial can be administratively appealed pursuant to 33 C.F.R. Part 331. If, during an administrative appeal, it becomes appropriate to make an official determination whether geographic jurisdiction exists over aquatic resources in the review area, or to provide an official delineation of jurisdictional aquatic resources in the review area, the Corps will provide an AJD to accomplish that result, as soon as is practicable. This PJD finds that there *"may be"* waters of the U.S. and/or that there *"may be"* navigable waters of the U.S. on the subject review area, and identifies all aquatic features in the review area that could be affected by the proposed activity, based on the following information:

SUPPORTING DATA. Data reviewed for PJD (check all that apply)

Checked items should be included in subject file. Appropriately reference sources below where indicated for all checked items:

- ☒ Maps, plans, plots or plat submitted by or on behalf of the PJD requestor:
  Map: Aerial Map A1, Location Map A2, Topographic Map A3.
- ☒ Data sheets prepared/submitted by or on behalf of the PJD requestor.
  - ☐ Office concurs with data sheets/delineation report.
  - ☐ Office does not concur with data sheets/delineation report. Rationale: _____.
- ☐ Data sheets prepared by the Corps: _____.
- ☐ Corps navigable waters' study: _____.
- ☒ U.S. Geological Survey Hydrologic Atlas: NHD Map Figure 4 & HUC12 Watershed Map Figure 7.
  - ☒ USGS NHD data.
  - ☒ USGS 8 and 12 digit HUC maps.
- ☒ U.S. Geological Survey map(s). Cite scale & quad name: Elkhart Topographic Map, Scale 1'=1315', A3.
- ☒ Natural Resources Conservation Service Soil Survey. Citation: Elkhart County Figure 6.
- ☒ National wetlands inventory map(s). Cite name: USFWS NWI Map Figure 4.
- ☐ State/local wetland inventory map(s): _____.
- ☐ FEMA/FIRM maps: _____.
- ☒ 100-year Floodplain Elevation is: 745.8 feet.(National Geodetic Vertical Datum of 1929)
- ☒ Photographs: ☐ Aerial (Name & Date): _____.
  or ☒ Other (Name & Date): 6/3/2023, 11/13/2023.
- ☐ Previous determination(s). File no. and date of response letter: _____.
- ☒ Other information (please specify): USGS Stream Stats Figure 8.

IMPORTANT NOTE: The information recorded on this form has not necessarily been verified by the Corps and should not be relied upon for later jurisdictional determinations.

_____	7.29.2025
Signature and date of Regulatory staff member completing PJD	Signature and date of person requesting PJD (REQUIRED, unless obtaining the signature is impracticable)[1]

[1] Districts may establish timeframes for requestor to return signed PJD forms. If the requestor does not respond within the established time frame, the district may presume concurrence and no additional follow up is necessary prior to finalizing an action.

Appendix G

Public Involvement

Item	Appendix Page
Example NOS letter	G-1
Example Notice of Archaeological Investigation	G-2

APEX CONSULTING & SURVEYING

SAMPLE NOTICE

May 2023

Dear Property Owner:

RE: Bridge 385 Replacement

GAI Consultants, Inc. has retained Apex Consulting & Surveying, Inc. to prepare a Topographic Survey and Location Control Route Survey for the Bridge 385 Replacement project in the area.

Our information indicated that you either own or occupy property near this proposed project. Our employees will be conducting a survey of the project area in the near future. Some of the work will be within existing street rights-of-way or utility easements, but it will be necessary for them to come onto your property to complete this work. Entry onto your property will be kept to a minimum. They will show you their identification, at your request. If the property is occupied by someone else, please let them know that a survey crew could be on the property. If you have sold the property, please let me know so I can properly notify them.

The survey work will include gathering detailed mapping information for the project area, including the location of features such as roads, existing utilities, buildings, trees fences and drives, and obtaining ground elevations. The survey is needed for the proper planning and design of this project.

Please be assured it is our sincerest desire to cause you as little inconvenience as possible during this survey. If any problems do occur, please contact Jay Stankiewicz, Project Manager at GAI Consultants, Inc., phone number 260-449-1645.

Truly yours,

Nana Opoku

Nana Opoku
President

1313 Broadway
Fort Wayne, IN 46802
Phone: 260-755-5993
Fax: 888-808-4177
Email: Info@apexsurveying.net

GRAY & PAPE
HERITAGE MANAGEMENT

Since 1987

340 Reading Road
Cincinnati, OH 45202
513.287.7700

SAMPLE NOTICE

December 11, 2024

NOTICE OF ARCHAEOLOGICAL INVESTIGATION

Rex E. & Marjorie S Franklin, Et al.
24278 CR 18
Elkhart, IN 46516

Re: Elkhart County Bridge #385
CR 18/Hively Ave. over Yellow Creek
Elkhart County, Indiana

Dear Property Owner:

Our information indicates that you own or occupy property near this proposed bridge improvement project. Our employees will be conducting an archeological investigation of the project area in the near future. It may be necessary for them to come onto your property to complete this work. Before coming onto your property, they will show you their identification, if you are available. 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 this survey.

The investigation will include clearing workspace and the excavation of up to eight trenches spread across multiple properties. The trenches will be approximately 30-feet long and 4-feet deep utilizing hand tools and a small excavator. The trenches will be filled in after the investigation is complete. Impacts will be limited to trees less than 3" in diameter, scrub/shrub vegetation, and existing ground soils.

The investigation is needed for the proper planning and design of this bridge improvement project. Please be assured of our sincere desire to cause you as little inconvenience as possible during this investigation. If any problems do occur, please speak to our field crew or contact me at the telephone number or address shown above.

David Moffatt

Sincerely,
David Moffatt
Gray & Pape, Inc.
Sr. Principal Investigator
Cell 317-417-3843

Appendix H

Air Quality

Item	Appendix Page
STIP Approval Letters	H-1 to H-6
MACOG TIP Listing	H-7

Federal Transit Administration
Region V
200 West Adams St., Suite 320
Chicago, IL 60606-5253

U.S. Department of Transportation

Federal Highway Administration
Indiana Division
575 N. Pennsylvania St., Rm 254
Indianapolis, IN 46204-1576

August 28, 2025

Ms. Lyndsay Quist
Commissioner
Indiana Department of Transportation
100 N Senate Ave. N955
Indianapolis, IN 46204

SUBJECT: Indiana FY2026-2030 STIP Approval and Associated Federal Planning Finding

Dear Ms. Quist:

The Federal Highway Administration (FHWA) and the Federal Transit Administration (FTA) have completed our review of the FY2026-2030 Indiana Statewide Transportation Improvement Program (INSTIP), which was submitted by the Indiana Department of Transportation (INDOT) request letter dated June 6, 2025.

Based on our review of the information provided, certifications of the Statewide and Metropolitan transportation planning processes for and within the state of Indiana, and our participation in those transportation planning processes (including planning certification reviews conducted in Transportation Management Areas), FHWA and FTA are jointly approving the FY2026-2030 STIP, including the Metropolitan Planning Organization (MPO) Transportation Improvement Programs (TIPs) incorporated into the STIP by reference, subject to the corrective action identified in the attached Federal Planning Finding (FPF) report. FHWA and FTA consider the projects in the 5th year for informational purposes only, and our approval does not exceed four years per 23 CFR 450.220(c).

FHWA and FTA are required under 23 CFR 450.220(b) to document and issue an FPF in conjunction with the approval of the FY2026-2030 STIP. At a minimum, the FPF verifies that the development of the STIP is consistent with the provisions of both the Statewide and Metropolitan transportation planning requirements. FHWA and FTA find that the Indiana FY2026-2030 STIP substantially meets the transportation planning requirements and are approving the STIP subject to the corrective action outlined in the FPF. This approval is effective August 22, 2025, and is given with the understanding that an eligibility determination of individual projects for funding must be met, and INDOT must ensure the satisfaction of all administrative and statutory requirements, as well as address the corrective actions outlined in the attached report.

If you have questions or need additional information concerning our approval and the FPF, please contact Ms. Erica Tait of the FHWA Indiana Division at (317) 226-7481, or by email at erica.tait@dot.gov, or Mr. Anthony Greep of the FTA Region 5 Office at (312) 353-2866, or by email at anthony.greep@dot.gov.

Sincerely,

KELLEY BROOKINS

Digitally signed by KELLEY BROOKINS
Date: 2025.08.27 08:09:52 -05'00'

Kelley Brookins
Regional Administrator
FTA Region V

Sincerely,



Digitally signed by CHRISTOPHER J HALL
Date: 2025.08.28 10:04:48 -05'00'

Christopher J. Hall
Interim Division Administrator
FHWA Indiana Division

INDIANA DEPARTMENT OF TRANSPORTATION

100 North Senate Avenue
Room N758-Executive Office
Indianapolis, Indiana 46204

PHONE: (855) 463-6848

Mike Braun, Governor
Lyndsay Quist, Commissioner

June 6, 2025

Mr. Christopher J Hall, Interim Division Administrator
FHWA Indiana Division
575 North Pennsylvania St., Room 254
Indianapolis, IN 46204

Ms. Kelley Brookins, Regional Administrator
FTA Region 5
200 West Adams St.
Suite 320
Chicago, IL 60606-5253

Dear Mr. Hall /Ms. Brookins:

The Indiana Department of Transportation is pleased to submit its Draft FY 2026-2029 Statewide Transportation Improvement Program (STIP) for review and comment by your offices.

Included in the final submitted document is a listing of the state's expansion/preservation and local small urban and rural and rural transit projects. The following Metropolitan Planning Organization TIP's will be included in the FY 2024-2028 STIP by reference.

Area Plan Commission of Tippecanoe County (APCTC) FY 2026-2030
- APCTC TIP FY2026-2030

Bloomington-Monroe County Metropolitan Planning Organization (BMCMPO) FY 2026-2030
- BMCMPO TIP FY2026-2030

Columbus Area Metropolitan Planning Organization (CAMPO) FY 2026-2030
- CAMPO TIP FY2026-2030

Delaware-Muncie Metropolitan Plan Commission (DMMPC) FY 2026-2030
- DMMPC TIP FY2026-2030

Evansville Metropolitan Planning Organization (EMPO) FY 2026-2030
- EMPO TIP FY2026-2030

Indianapolis Metropolitan Planning Organization (IMPO) FY 2026-2029
- IMPO TIP FY2026-2029
- IMPO Project Listing FY2026-2029

Kokomo-Howard County Governmental Coordinating Council (KHCGCC) FY 2026-2030
- KHCGCC TIP FY2026-2030

Kentuckiana Regional Planning and Development Agency (KIPDA) FY 2025-2028
- KIPDA TIP FY2025-2028

Michiana Area Council of Governments (MACOG) FY 2026-2030
- MACOG TIP FY2026-2030

Madison County Council of Governments (MCCOG) FY 2026-2030
- MCCOG TIP FY2026-2030

Northeastern Indiana Regional Coordinating Council (NIRCC) FY 2026-2030
- NIRCC TIP FY2026-2030

Northwestern Indiana Regional Planning Commission (NIRPC) FY 2026-2030
- NIRPC TIP FY2026-2030

Ohio-Kentucky-Indiana Regional Council of Governments (OKI) FY 2026-2029
- OKI TIP FY2026-2029

Terre Haute Area Metropolitan Planning Organization (THAMPO) TIP FY 2026-2030
- THAMPO TIP FY2026-2029

We greatly appreciate FHWA/FTA support in the development of the STIP 2026-2029 and look forward to working together to achieve our mutual goals. Should you have any questions pertaining to this amendment, please contact April Leckie, STIP Administration at 317-232-5466 or at aleckie@indot.in.gov.

Sincerely,

Lyndsay Quist

Lyndsay Quist, Commissioner
Indiana Department of Transportation

cc: (w/enclosure): Angelica Salgado, FTA
Cecilia Crenshaw, FTA
Anthony Greep, FTA
Bill Wheeler, FTA
Kelley Brookins, FTA
Matt Kane, FTA
Susan Weber, FTA
Erica Tait, FHWA
Paige Story, FHWA
Lyndsay Quist, INDOT
Blake Martain, INDOT
Kathy Eaton-McKalip, INDOT
Louis Feagans, INDOT
April Leckie, INDOT
Roy Nunnally, INDOT
Larry Buckel, INDOT
Jay Mitchell, INDOT
Jason Casteel, INDOT
Ryan Pennington, INDOT
Michael McNeil, INDOT

RESOLUTION 12-25

A RESOLUTION OF THE MICHIANA AREA COUNCIL OF GOVERNMENTS ENDORSING THE MICHIANA AREA COUNCIL OF GOVERNMENTS FISCAL YEAR 2026 – 2030 TRANSPORTATION IMPROVEMENT PROGRAM

WHEREAS, the Infrastructure Investment and Jobs Act (IIJA) designates joint Federal Highway Administration/Federal Transit Administration rules and regulations, under Section 134, Title 23 of the US Code, the act requires the preparation of a Transportation Improvement Program (TIP) by the designated Metropolitan Planning Organization(s) as a part of the transportation planning process in urbanized areas of 50,000 or more population; and

WHEREAS, the Michiana Area Council of Governments (MACOG), being the duly designated Metropolitan Planning Organization for the South Bend and Elkhart/Goshen Urbanized Areas, and the Rural Planning Organization for Marshall and Kosciusko Counties, has cooperated with local governmental entities and implementing agencies to prepare a Fiscal Year (FY) 2026-2030 TIP which is consistent with the Michiana on the Move: 2050 Transportation Plan; and

WHEREAS, MACOG has deemed the FY 2026-2030 TIP conforms to the State Implementation Plan for Air Quality and has consulted with the Interagency Consultation Group, and anticipates, after Policy Board approval, the USDOT will find that the proposed FY 2026-2030 TIP meets Transportation Conformity requirements under Section 176(C) of the Clean Air Act and 40 CFR Parts 51.390 and 93;

WHEREAS, the development of the TIP has involved the public and interested stakeholders through a process documented in the MACOG Public Engagement Plan, including a public comment period of no less than 30 days.

BE IT THEREFORE RESOLVED that the Michiana Area Council of Governments FY 2026-2030 TIP is hereby endorsed.

IN WITNESS WHEREOF, this Resolution has been adopted on this 9th day of April 2025

Michiana Area Council of Governments

David Wood, Policy Board Chair

F:\ABC\MACOG\MEETINGS\SFY 2025\Policy Board\Resolutions\04 Apr 25\R04Resol12_TIP.docx

INDIANA DEPARTMENT OF TRANSPORTATION

100 North Senate Avenue
Room N758
Indianapolis, Indiana 46204

PHONE: (855) 463-6848

Mike Braun, Governor
Lyndsay Quist, Commissioner

July 2, 2025

Mr. James Turnwald, Executive Director
Michiana Area Council of Governments
277 W. Jefferson Blvd. South Bend, IN 46601

Fiscal Year 2026–2030 Transportation Improvement Program (TIP) Approval

Dear Mr. Turnwald:

The Indiana Department of Transportation (INDOT) has completed its review of the FY 2026-2030 Transportation Improvement Program for the Michiana Area Council of Governments (MACOG). State and locally initiated transportation projects were reviewed for accuracy and compliance under The Infrastructure Investment and Jobs Act (IIJA), Public Law 117-58.

It is my pleasure to inform you that on behalf of Governor Mike Braun, I approve your FY 2026-2030 Transportation Improvement Program. This document will serve as support for the local and INDOT projects in your area that fall within the FY 2026-2029 timeline and will be included by reference in the FY 2026-2029 Indiana Statewide Improvement Program (STIP). Please be aware that the FY 2030-year projects are listed as illustrative.

If you should have any questions, please feel free to contact Roy Nunnally at 317-234-1692.

Sincerely,

Louis Feagans

Lyndsay Quist, Commissioner
Indiana Department of Transportation

cc: Louis Feagans
Mathew Deitchley
Jason Kaiser
Roy Nunnally
Erica Tait
Paige Story

File

Sponsor	Contract	DES	Additional Des/Project Description	Res.	Route	Location	Work Type	Fund Type	Phase	Federal	Match	SFY 2026	SFY 2027	SFY 2028	SFY 2029	SFY 2030	Estimated Total Project Cost	Letting	Length (Miles)
Elkhart	R-46125	2500471				High Dive Park to Walker Park multi-use path along Baldwin and Bristol St	Bike/Pedestrian Facilities	TA	PE	$548,000	$137,000		$685,000				$7,095,000	9/11/2030	2.15
Elkhart	R-46125	2500471				High Dive Park to Walker Park MultiUse Path along Baldwin and Bristol St	Bike/Pedestrian Facilities	TA	RW	$1,490,400	$372,600				$613,000	$1,250,000	$7,095,000	9/11/2030	2.15
Elkhart Co.	B-42006	2100027	1900486			CR 17 (Phase 1) from CR 42 to CR 38	New Road Construction	STBG	CN	$8,089,440	$2,022,360	$10,111,800					$21,241,937	2/11/2026	2
Elkhart Co.	B-43581	2100028	1900486			CR 17 (Phase 2) from CR 142 to CR 42	New Road Construction	STBG	CN	$5,709,960	$1,427,490			$7,137,450			$21,241,937	12/07/2027	0.5
Elkhart Co.	B-43618	2003071				Bridge #233 on CR 26 over Yellow Creek	Bridge Replacement	ST Bridge	CN	$1,015,230	$253,807		$1,269,037				$1,594,000	7/8/2026	0.09
Elkhart Co.	B-44333	2101770				Bridge #265 on CR 16 (Warren Street) over the Little Elkhart River	Bridge Replacement	ST Bridge	RW	$670,842	$167,711		$838,553				$6,440,000	12/13/2028	0.26
Elkhart Co.	B-44333	2101770				Bridge #265 on CR 16 (Warren Street) over the Little Elkhart River	Bridge Replacement	ST Bridge	CN	$3,912,816	$978,204				$4,891,020		$6,440,000	12/13/2028	0.26
Elkhart Co.	B-44742	2201238				Bridge #385 Carrying Hively Ave/CR 18 over the Yellow Creek	Bridge Replacement	STBG	RW	$304,000	$76,000	$380,000					$3,330,000	3/10/2027	0.05
Elkhart Co.	B-44742	2201238				Bridge #385 Carrying Hively Ave/CR 18 over the Yellow Creek	Bridge Replacement	STBG	CN	$1,984,000	$496,000		$2,480,000				$3,330,000	3/10/2027	0.05
Elkhart Co.	B-45526	2301660				Bridge #335 over the Hydraulic Canal, 0.2 Miles N of CR 46	Bridge Replacement	ST Bridge	PE	$317,600	$79,400	$198,500		$198,500			$4,568,000	09/12/2029	0.04
Elkhart Co.	B-45526	2301660				Bridge #335 over the Hydraulic Canal, 0.2 Miles N of CR 46	Bridge Replacement	ST Bridge	RW	$194,481	$48,620			$243,101			$4,568,000	09/12/2029	0.04
Elkhart Co.	B-45526	2301660				Bridge #335 over the Hydraulic Canal, 0.2 Miles N of CR 46	Bridge Replacement	ST Bridge	CN	$2,983,589	$745,897					$3,729,486	$4,568,000	09/12/2029	0.04
Elkhart Co.		2201695				Countywide Bridge Inspection and Inventory Program for Cycle Years 2024-2027	Bridge Inspections	ST Bridge	PE	$281,038	$70,260	$34,543	$279,813	$36,942			$557,000		
Elkhart Co.		2400798				Countywide Bridge Inspection and Inventory Program for Cycle Years 2028-2031	Bridge Inspections	ST Bridge	PE	$211,425	$52,856			$45,257	$181,027	$37,997	$613,000		
Elkhart Co.	B-46124	2500469				Bridge #126 on CR 6 crossing Christiana Cre	Bridge Replacement	STBG	PE	$782,174	$195,543	$375,000	$602,717				$8,989,441	09/12/2029	
Elkhart Co.	B-46124	2500469				Bridge #126 on CR 6 crossing Christiana Cre	Bridge Replacement	STBG	RW	$243,102	$60,775			$303,877			$8,989,441	09/12/2029	
Elkhart Co.	B-46124	2500469				Bridge #126 on CR 6 crossing Christiana Cre	Bridge Replacement	STBG	CN	$6,166,278	$1,541,569					$7,707,847	$8,989,441	09/12/2029	
Goshen	R-42000	1900739	2101631 (Pedestrian Bridge over Horn Ditch)			College Ave from US 33 to NS Railroad (East Entrance of parking lot) - Phase 1	Auxiliary Lanes, Two-way Left Turn Lanes	STBG	CN	$3,100,000	$5,146,891	$8,246,891					$8,246,891	8/6/2025	0.84
Goshen	R-43583	2100021				College Avenue from 9th St and US 33 - Phase 3	Auxiliary Lanes, Two-way Left Turn Lanes	STBG	RW	$1,040,000	$260,000		$250,000	$425,000	$625,000		$9,541,450	8/9/2028	1.21
Goshen	R-43583	2100021				College Avenue from 9th St and US 33 - Phase 3	Auxiliary Lanes, Two-way Left Turn Lanes	STBG	CN	$5,900,000	$1,475,000					$7,375,000	$9,541,450	8/9/2028	1.21
Goshen	R-44743	2201239				East College Ave from Century Drive to Entrance of Planned Development - Phase 2	Auxiliary Lanes, Two-way Left Turn Lanes	STBG	RW	$40,000	$10,000		$50,000				$7,900,000	8/9/2028	0.62
Goshen	R-44743	2201239				East College Ave from Century Drive to Entrance of Planned Development - Phase 2	Auxiliary Lanes, Two-way Left Turn Lanes	STBG	CN	$4,600,000	$2,530,000				$7,130,000		$7,900,000	8/9/2028	0.62
Middlebury	R-44338	2101771				Bristol Avenue: from Brown Street to Powell Drive	Pavement Replacement	ST STBG	CN	$5,204,420	$1,301,105		$6,505,525				$9,175,000	10/7/2026	0.66
MACOG Transit		MAC-26-010				Capital Cost of Third Party Contracting	Transit Operating	5307		$985,000	$246,250	$1,231,250					$1,231,250	2026	

Appendix I

Additional Studies

Item	Appendix Page
LWCF Property List for Elkhart County	I-1
Bridge Inspection Report	I-2 to I-21

Land and Water Conservation Fund (LWCF) County Property List for Indiana (Last Updated April 2025)

ProjectNumber	SubProjectCode	County	Property
1800054	1800054	Elkhart	Oxbow County Park
1800064	1800064	Elkhart	Stauffer Park, Derksen Park & McCormicks Creek G.C.
1800074	1800074	Elkhart	Oxbow County Park
1800099	1800099	Elkhart	Stauffer Park, Derksen Park & McCormicks Creek G.C.
1800257	1800257A	Elkhart	Elliott Park
1800257	1800257B	Elkhart	Lundquist Bicentennial Park
1800257	1800257C	Elkhart	Pinewood Park
1800283	1800283	Elkhart	High Dive Park
1800310	1800310	Elkhart	McNaughton Park
1800337	1800337	Elkhart	Stauffer Park, Derksen Park & McCormicks Creek G.C.
1800339	1800339	Elkhart	Shoup-Parsons Woods Park
1800340	1800340	Elkhart	Reith Park
1800354	1800354	Elkhart	Pierre Moran Park
1800441	1800441	Elkhart	High Dive Park
1800450	1800450	Elkhart	Stauffer Park, Derksen Park & McCormicks Creek G.C.
1800470	1800470	Elkhart	Studebaker Park
1800554	1800554	Elkhart	Cobus Creek County Park
1800628	1800628	Elkhart	Corson Riverwoods County Park
1800631	1800631	Elkhart	South Park

*Park names may have changed. If acquisition of publically owned land or impacts to publically owned land is anticipated, coordination with Indiana State Parks, Community Grants & Trails Section, should occur.

Routine Bridge Inspection Report



Structure Information

Structure:	20-00385	Facility Carried:	HIVELY AVE
NBI Number:	2000164	Features Intersected:	YELLOW CREEK

Inspection Information

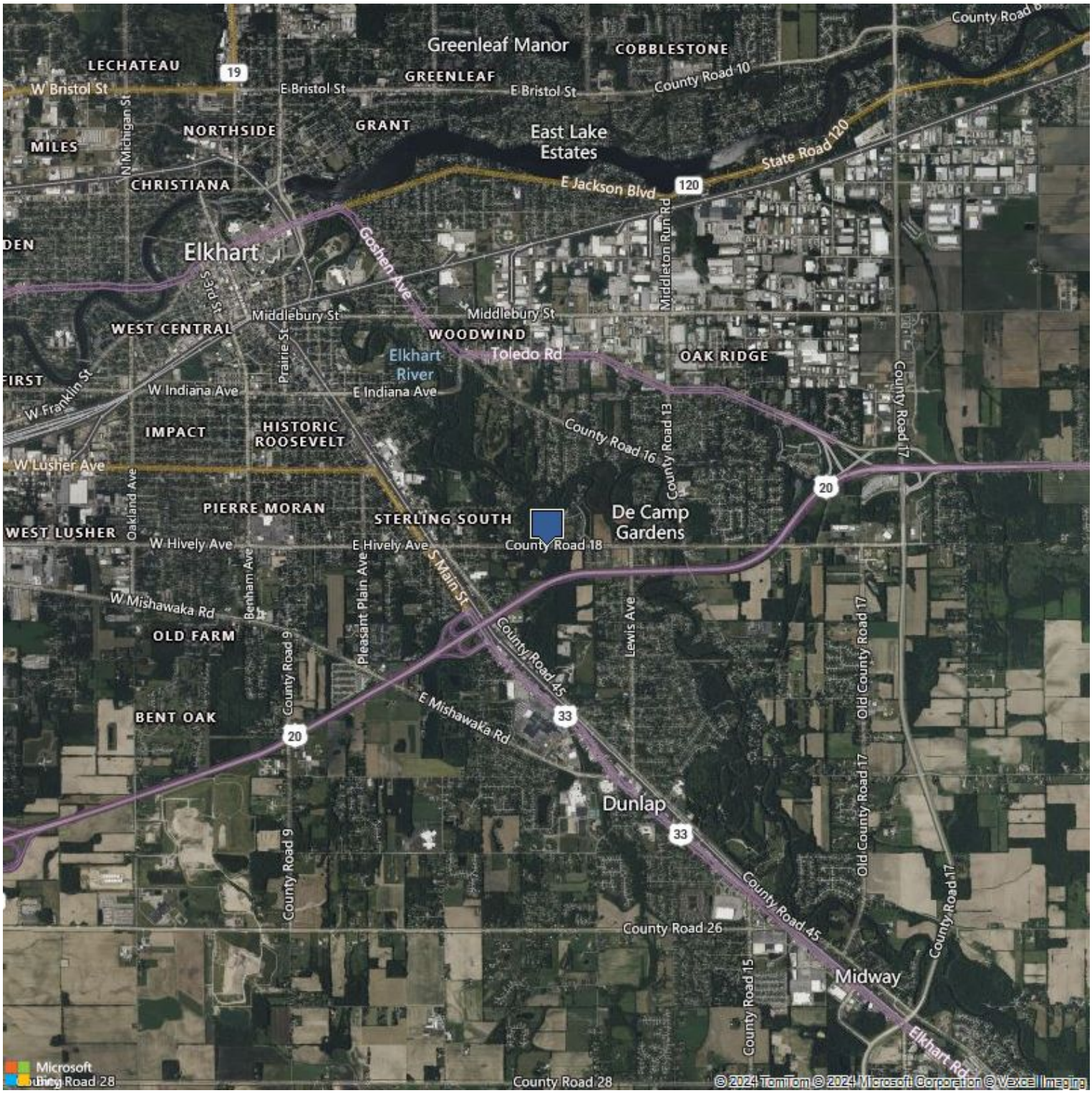
Inspection Date:	08/22/2024	Lead Inspector:	Ramy Matta
Inspection Type:	Routine	Additional Inspectors:	

Condition Ratings Summary

(58) Deck:	**5**	(60) Substructure:	**6**
(58.01) Wearing Surface:	**6**	(61) Channel / Channel Protection:	**5**
(58.02) Joints:		(62) Culverts:	**N**
(58.05) Approach Slabs:	**N**	(71) Waterway Adequacy:	**6**
(59) Superstructure:	**5**	(72) Approach Roadway Alignment:	**8**
(59.01) Paint:	**N**	(113) Scour Critical Bridge:	**5**

Structure:	20-00385	Facility Carried:	HIVELY AVE	Inspector:	Ramy Matta
NBI Number:	2000164	Features Intersected:	YELLOW CREEK	Inspection Date:	08/22/2024

Location Map



Location:	00.80 E OF US 33	Latitude:	41.659460000000003
County:	Elkhart	Longitude:	-85.93243000000000

Structure:	20-00385	Facility Carried:	HIVELY AVE	Inspector:	Ramy Matta
NBI Number:	2000164	Features Intersected:	YELLOW CREEK	Inspection Date:	08/22/2024

Routine Inspection Summary

BRIDGE IS POSTED 17 TONS COMMERCIAL.

BRIDGE IS IN FAIR CONDITION. SPALLED AREAS IN TOP DECK AT SOUTH COPING THAT ARE PARTIALLY FILLED WITH ASPHALT. ONE HAIRLINE CRACK IN BEAMS 2, 3, AND 5 WITH EFFLORESCENCE AND RUST STAINS IN BEAM 9. TOP OF FOOTING WAS PREVIOUSLY EXPOSED AT WEST ABUTMENT FOR 18' BUT NOW PROTECTED WITH RIPRAP AND CONCRETE. CHANNEL GETS DEEP NEAR WEST ABUTMENT. BORING LOGS WERE NOTED DURING THE 2024 INSPECTION.

REPLACE STRUCTURE DUE TO LOAD CAPACITY AND SCOUR ISSUES. COUNTY PLANS A REPLACEMENT PROJECT TO BE LET IN 2027.

UNTIL REPLACEMENT, RECOMMEND INSTALLING BRIDGE END MARKERS.

Structure:	20-00385	Facility Carried:	HIVELY AVE	Inspector:	Ramy Matta
NBI Number:	2000164	Features Intersected:	YELLOW CREEK	Inspection Date:	08/22/2024

Identification

(1) State Code:	185 - Indiana	(12) Base Highway Network:	0
(8) Structure:	2000164	(13A) Inventory Route:	
(5) Inv. Route:	1 - 5 - 1 - 00000 - 0	(13B) Subroute Number:	
(2) Highway Agency District:	2 - Fort Wayne	(16) Latitude:	41.659460000000003
(3) County Code:	020 - Elkhart	(17) Longitude:	-85.93243000000000
(4) Place Code:	20728 - Elkhart	(98) Border	
(6) Features Intersected:	YELLOW CREEK	(A) State Name:	
(7) Facility Carried:	HIVELY AVE	(B) Percent:	
(9) Location:	00.80 E OF US 33	(99) Border Bridge Struct. No:	
(11) Milepoint:	0000.000		

Age Of Service

(27) Year Built:	1958	(19) Bypass Detour Length:	002
(106) Year Reconstructed:	0000	(29) ADT:	004608
(42) Type Of Service		(30) Year Of ADT:	2018
(A) On Bridge:	1 - Highway	(109) ADTT:	12
(B) Under Bridge:	5 - Waterway	(114) Future ADT:	007937
(28) Lanes		(115) Year Of Future ADT:	2038
(A) On Bridge:	02		
(B) Under Bridge:	00		

Structure Type And Material

(43) Main Spans:		(45) No. Of Spans In Main Unit:	001
(A) Kind Of Material:	5 - Prestressed Concrete	(46) No. Of Approach Spans:	0000
(B) Type Of Design:	5 - Box Beam or Girders - Multiple	(107) Deck Structure Type:	1 - Concrete Cast-In-Place
(44) Approach Spans		(108) Wearing Surface	
(A) Kind Of Material:	0 - Other	A) Wearing Surface:	1 - Monolithic Concrete (concurrently placed with structural deck)
(B) Type Of Design:	00 - Other	B) Deck Membrane:	0 - None
		C) Deck Protection:	1 - Epoxy Coated Reinforcing

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Classification

(20) Toll:	3 - On Free Road. The structure is toll-free and carries a toll-free highway.	(21) Maint Responsibility:	02
(22) Owner:	02 - County Highway Agency	(26) Functional Class:	16
(37) Historical Significance:	5 - Not eligible	(100) Strahnet Highway:	0 - The inventory route is not a STRAHNET route.
(101) Parallel Structure:	N - No parallel structure exists.	(102) Direction Of Traffic:	2 - 2-Way Traffic
(103) Temporary Structure:		(104) NHS Inventory:	0 - Inventory Route is not on the NHS
(105) Federal Lands Highways:	0 - Not Applicable	(110) DES National Network:	0 - Inventory route not on network
(112) NBIS Bride Length:	Y - Yes		

Geometric Data

(48) Length Of Max Span:	0041.5	(35) Structure Flared:	0 - No Flare
(49) Structure Length:	00045.0	(10) Inv Rte, Min Vert Clearance:	99.99
(50) Curb/Sidewalk Widths		(47) Tot Horiz Clearance:	035.2
(A) Left:	00.0	(53) Vert Clear Over Br Rdwy:	99.99
(B) Right:	00.0	(54) Min Vertical Underclearance:	
(51) Brdg Rdwy Width Curb- To-Curb:	035.2	A) Reference Feature:	N
(52) Deck Width, Out-To-Out:	035.4	B) Min Vert Underclear:	00.00
(32) Approach Roadway:	027.0	(55) Lateral Underclearance Right:	
(33) Bridge Median:	0 - No Median	A) Reference Feature:	N
(34) Skew:	00	B) Min Lateral Underclear:	000.0
		(56) Min Lateral Underclear On Left:	000.0

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Inspections

(90) Inspection Date:	Aug 22 2024 12:00AM	(91) Designated Iinspection Frequency:	24
(92) Critical Feature Inspection		(93) Critical Feature Inspection Date	
A) NSTM Insp Req / Freq:	N	A) NSTM Date:	
B) Underwater Insp Req / Freq:	N	B) Underwater Insp Date:	
C) Special Insp Req / Freq:	N	C) Special Insp Date:	

Proposed Improvements

(75A) Type Of Work:	31 - Replacement - Load/Geometry		
(75B) Work Done By:	1 - Work to be done by contract		
(76) Length Of Improvement:	55	(94) Bridge Improvement Cost:	1800
(97) Year Of Improvement Cost Estimate:	2024	(95) Roadway Improvement Cost:	600
		(96) Total Project Cost:	2400
Comments:			

Navigation Data

(38) Navigation Control:	0	(39) Navigation Vertical Clear:	000.0
(111) Pier Or Abutment Protection:		(116) Minimum Navigation Verti.Clearance, Vert. Lift Bridge:	
		(40) Nav Horizontal Clearance:	0000.0

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Load Rating & Posting

5.1 – Loads And Load Ratings

B.LR.01 - Design Load	H20
B.LR.02 - Design Method	LFD
B.LR.03 - Load Rating Date	
B.LR.04 - Load Rating Method	LRFR
B.LR.05 - Inventory Load Rating Factor	0.89
B.LR.06 - Operating Load Rating Factor	1.15
B.LR.07 - Controlling Legal Load Rating Factor	1.56
B.LR.08 - Routine Permit Loads	C

Legacy Coding

(65) Inventory Rating Method	8
(66) Inventory Rating	0.89
(63) Operating Rating Method	8
(64) Operating Rating	1.15
(31) Design Load	4
(70) Bridge Posting	5
(41) Structure Open/Posted/Closed	P
Tons Posted	17
Date Posted/Closed	Nov 30 2019 12:00AM

5.2 – Load Posting Status

B.PS.01 - Load Posting Status	PP
B.PS.02 - Posting Status Change Date	Nov 30 2019 12:00AM

Posting – Emergency Vehicles (Ton)

Emergency Vehicle Sign	
Posted Tonnage (Single Axle) EV	
Posted Tonnage (Tandem) EV	
Posted Tonnage (Gross) EV	

Posting – Commercial Vehicle (Ton)

Commercial Vehicle Sign	G
Posted Tonnage (Single Axle) CV	
Posted Tonnage (Gross) CV	17
Posted Tonnage (2-axle) CV	
Posted Tonnage (3-axle) CV	
Posted Tonnage (4-axle) CV	
Posted Tonnage (5-axle) CV	
Posted Tonnage (6-axle) CV	

Maximum Allowable Tonnages

*Actual posted values may not exceed those as shown below

Weight Limit 17 Tons

Emergency Vehicle Weight Limit

Single Axle T

Tandem T

Gross T

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NBI Number:	2000164	Features Intersected:	YELLOW CREEK	Inspection Date:	08/22/2024

National Bridge Inventory Condition Ratings

(58) Deck:	5 - Fair Condition (minor section loss)

SPALLED AREAS IN TOP DECK AT SOUTH COPING THAT ARE PARTIALLY FILELD WITH ASPHALT
Material:
CONCRETE

(58.01) Wearing Surface:	6 - Satisfactory Condition

CHIP AND SEAL COATING
Material:
CONCRETE

(58.02) Joints:			
Joint Type:		Joint Location:	No Joints Present

(58.05) Approach Slabs:	N - Not Applicable
(58.06) Terminal Joints:	

(59) Superstructure:	5 - Fair Condition (minor section loss)

ONE HAIRLINE CRACK IN BEAMS 2, 3, AND 5 WITH EFFLORESCENCE AND RUST STAINS IN BEAM 9
Material:
PRESTR. CONC. BOX BEAMS

(59.01) Paint:	N - Not Rated / N/A	Paint Year:	
(59.02) Bearings:		Bearing Type:	

(60) Substructure:	6 - Satisfactory Condition (minor deterioration)

MINOR HONEYCOMBING AND CRACKING.
Material:
CONCRETE

(61) Channel / Channel Protection:	5 - Bank protection is being eroded. River control devices and/or embankment have major damage. Trees and brush restrict the channel.

FLOWS ALONG WEST ABUTMENT, DEEP SCOUR NEAR WEST ABUTMENT. DEFLECTED SHEET PILE DOWNSTREAM.
Material:
NATURAL/RIPRAP

(62) Culverts:	N - Not applicable. Use if structure is not a culvert.

N/A
Material:
N/A

INDOT Defined Condition Ratings

Concrete Slopewall:	
Birds Present?:	No
Bats Present?:	No

Structure:	20-00385	Facility Carried:	HIVELY AVE	Inspector:	Ramy Matta
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Appraisal

(71) Water Adequacy:	6 - Occasional overtopping of approaches - insignificant delays
APPEARS SLIGHTLY INADEQUATE	
(72) Approach Roadway Alignment:	8 - Equal to present desirable criteria
STRAIGHT & LEVEL	
36A) Bridge Rails:	0 - Does not meet acceptable standards/safety feature is required
36B) Transitions:	0 - Does not meet acceptable standards/safety feature is required
36D) Approach Guardrail Ends:	0 - Does not meet acceptable standards/safety feature is required

Sufficiency Rating:	82.0	(67) Structural Evaluation:	5
Status:	0	(68) Deck Geometry:	5
		(69) Underclearances, Vertical & Horizontal	N

Scour Critical Bridge Appraisal

Bridge Inspection Scour Appraisal

(113) Scour Critical Bridges:	5 - Scour within limits of footings or piles
TOP OF FOOTING WAS PREVIOUSLY EXPOSED AT WEST ABUTMENT FOR 18' BUT NOW PROTECTED WITH RIPRAP AND CONCRETE.	
Scour Critical Safety Status:	
Countermeasures Placed/Verified:	
Bridge Inspection Comments:	

Hydraulic Scour Analysis Determination

Scour Analysis Status:	C - Scour Analysis is not on file, bridge should have been designed for scour
Scour Analysis Date:	
Scour Analysis Determination:	A
Hydraulics Comments:	

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Element Level Condition Ratings

Component	Total Quantity	Units	CS1	CS2	CS3	CS4	Comments

Structure:	20-00385	Facility Carried:	HIVELY AVE	Inspector:	Ramy Matta
NBI Number:	2000164	Features Intersected:	YELLOW CREEK	Inspection Date:	08/22/2024



PHOTO #: Update - Distance Placard Added at East Intersection



PHOTO #: West Abutment 1

Structure:	20-00385	Facility Carried:	HIVELY AVE	Inspector:	Ramy Matta
NBI Number:	2000164	Features Intersected:	YELLOW CREEK	Inspection Date:	08/22/2024



PHOTO #: 4 - East Abutment 2



PHOTO #: Superstructure

Structure:	20-00385	Facility Carried:	HIVELY AVE	Inspector:	Ramy Matta
NBI Number:	2000164	Features Intersected:	YELLOW CREEK	Inspection Date:	08/22/2024



PHOTO #: Update - Distance Placard Added at West Intersection



PHOTO #: Upstream Looking South

Structure:	20-00385	Facility Carried:	HIVELY AVE	Inspector:	Ramy Matta
NBI Number:	2000164	Features Intersected:	YELLOW CREEK	Inspection Date:	08/22/2024



PHOTO #: East Intersection (17 T CV)



PHOTO #: 1 - Alignment Looking West (17 T CV)

Structure:	20-00385	Facility Carried:	HIVELY AVE	Inspector:	Ramy Matta
NBI Number:	2000164	Features Intersected:	YELLOW CREEK	Inspection Date:	08/22/2024



PHOTO #: Top of Wearing Surface



PHOTO #: 3 - Longitudinal Crack in Beam 9

Structure:	20-00385	Facility Carried:	HIVELY AVE	Inspector:	Ramy Matta
NBI Number:	2000164	Features Intersected:	YELLOW CREEK	Inspection Date:	08/22/2024



PHOTO #: South Elevation



PHOTO #: West Intersection (17 T CV)

Structure:	20-00385	Facility Carried:	HIVELY AVE	Inspector:	Ramy Matta
NBI Number:	2000164	Features Intersected:	YELLOW CREEK	Inspection Date:	08/22/2024



PHOTO #: Downstream Looking North



PHOTO #: Alignment Looking East (17 T CV)

Structure:	20-00385	Facility Carried:	HIVELY AVE	Inspector:	Ramy Matta
NBI Number:	2000164	Features Intersected:	YELLOW CREEK	Inspection Date:	08/22/2024



PHOTO #: 2 - North Elevation

Structure Information

Structure Number:	20-00385	Facility Carried:	HIVELY AVE
NBI Number:	2000164	Features Intersected:	YELLOW CREEK
County / District:	Elkhart	Location:	00.80 E OF US 33