

**Appendix A:**

**INDOT Supporting  
Documentation**

## Categorical Exclusion Level Thresholds

	PCE	Level 1	Level 2	Level 3	Level 4 <sup>1</sup>
<b>Section 106</b>	Falls within guidelines of Minor Projects PA	“No Historic Properties Affected”	“No Adverse Effect”	-	“Adverse Effect” Or Historic Bridge involvement <sup>2</sup>
<b>Stream Impacts</b>	No construction in waterways or water bodies	< 300 linear feet of stream impacts	≥ 300 linear feet of stream impacts	-	Individual 404 Permit
<b>Wetland Impacts</b>	No adverse impacts to wetlands	< 0.1 acre	-	< 1 acre	≥ 1 acre
<b>Right-of-way<sup>3</sup></b>	Property acquisition for preservation only or none	< 0.5 acre	≥ 0.5 acre	-	-
<b>Relocations</b>	None	-	-	< 5	≥ 5
<b>Threatened/Endangered Species (Species Specific Programmatic for Indiana bat &amp; northern long eared bat)</b>	“No Effect”, “Not likely to Adversely Affect” (Without AMMs <sup>4</sup> or with AMMs required for all projects <sup>5</sup> )	“Not likely to Adversely Affect” (With any other AMMs)	-	“Likely to Adversely Affect”	Project does not fall under Species Specific Programmatic
<b>Threatened/Endangered Species (Any other species)</b>	Falls within guidelines of USFWS 2013 Interim Policy	“No Effect”, “Not likely to Adversely Affect”	-	-	“Likely to Adversely Affect”
<b>Environmental Justice</b>	No disproportionately high and adverse impacts	-	-	-	Potential <sup>6</sup>
<b>Sole Source Aquifer</b>	Detailed Assessment Not Required	-	-	-	Detailed Assessment
<b>Floodplain</b>	No Substantial Impacts	-	-	-	Substantial Impacts
<b>Coastal Zone Consistency</b>	Consistent	-	-	-	Not Consistent
<b>National Wild and Scenic River</b>	Not Present	-	-	-	Present
<b>New Alignment</b>	None	-	-	-	Any
<b>Section 4(f) Impacts</b>	None	-	-	-	Any
<b>Section 6(f) Impacts</b>	None	-	-	-	Any
<b>Added Through Lane</b>	None	-	-	-	Any
<b>Permanent Traffic Alteration</b>	None	-	-	-	Any
<b>Coast Guard Permit</b>	None	-	-	-	Any
<b>Noise Analysis Required</b>	No	-	-	-	Yes
<b>Air Quality Analysis Required</b>	No	-	-	-	Yes <sup>7</sup>
<b>Approval Level</b>	Concurrence by INDOT District Environmental or Environmental Services	Yes	Yes	Yes	Yes
<ul style="list-style-type: none"> <li>• District Env. Supervisor</li> <li>• Env. Services Division</li> <li>• FHWA</li> </ul>				Yes	Yes

<sup>1</sup>Coordinate with INDOT Environmental Services. INDOT will then coordinate with the appropriate FHWA Environmental Specialist.

<sup>2</sup>Any involvement with a bridge processed under the Historic Bridge Programmatic Agreement.

<sup>3</sup>Permanent and/or temporary right-of-way.

<sup>4</sup>AMMs = Avoidance and Mitigation Measures.

<sup>5</sup>AMMs determined by the IPAC decision key to be needed that are listed in the USFWS *User’s Guide for the Range-wide Programmatic Consultation for Indiana bat and Northern long-eared bat* as “required for all projects”.

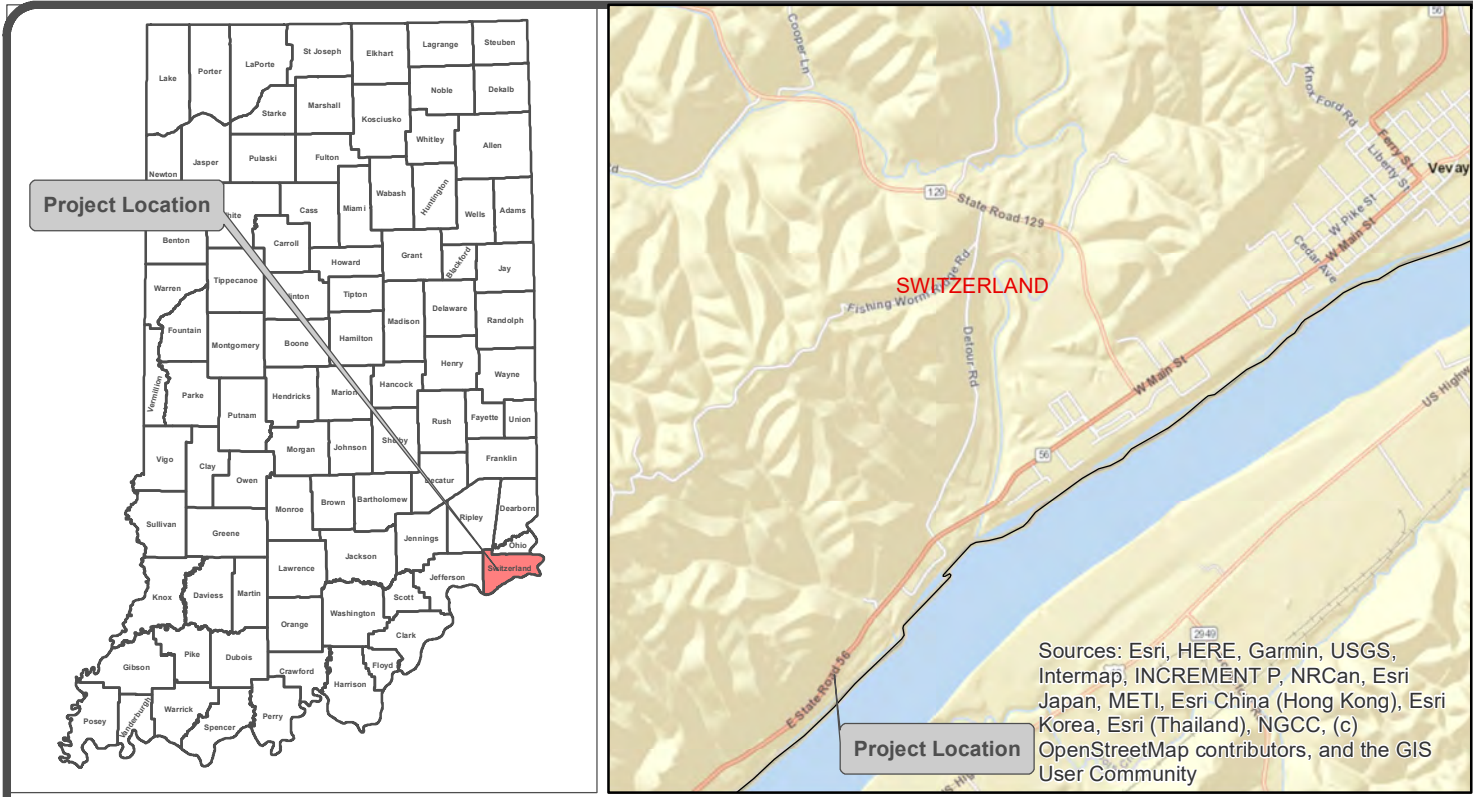
<sup>6</sup>Potential for causing a disproportionately high and adverse impact.

<sup>7</sup>Hot Spot Analysis and/or MSAT Quantitative Emission Analysis.

\*Substantial public or agency controversy may require a higher-level NEPA document.

# **Appendix B:**

## **Graphics**



Source: Indiana MAP



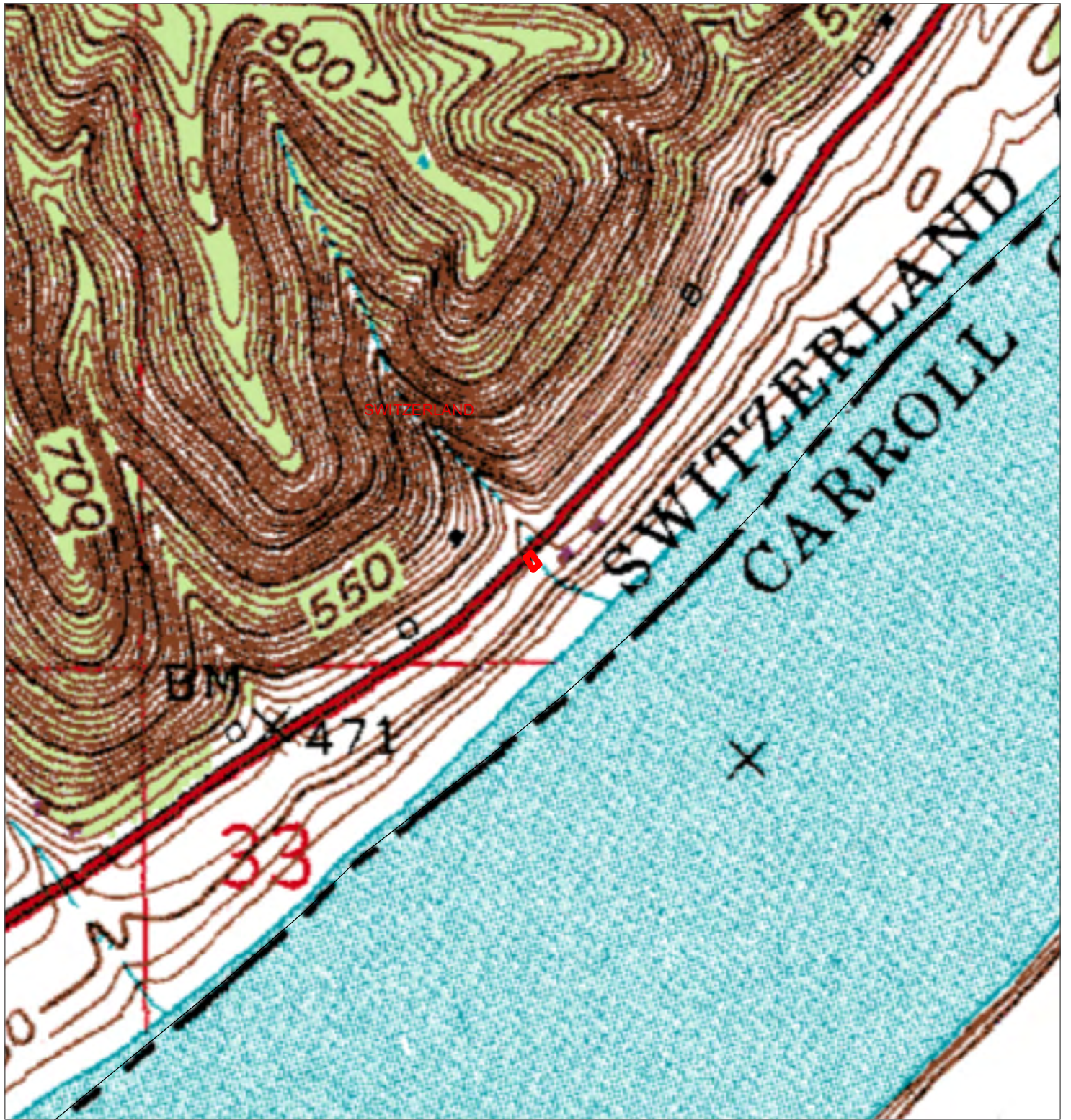
**Legend**

- Project County
- County Boundary

**Project Location Map**  
 Small Structure Replacement  
 SR 56 over Unnamed Tributary to Ohio River  
 Switzerland County, Indiana  
 Des. No. 1700001

May 10, 2021





Source: U.S. Geological Survey  
 1:5,398  
 1 in = 450 ft



**Legend**

Project Area

**USGS Topographic Map**  
 Small Structure Replacement  
 SR 56 over Unnamed Tributary to Ohio River  
 Switzerland County, Indiana  
 Des. No. 1700001

June 19, 2019





National Agriculture Imagery Program (NAIP), Farm Services Agency (FSA),  
U. S. Department of Agriculture (USDA), UITS, Indiana Spatial Data Portal



Source: Indiana MAP

1:1,000

1 in = 83 ft



**Legend**

 Project Area

**Aerial Map**  
Small Structure Replacement  
SR 56 over Unnamed Tributary to Ohio River  
Switzerland County, Indiana  
Des. No.1700001

June 19, 2019





National Agriculture Imagery Program (NAIP), Farm Services Agency (FSA), U. S. Department of Agriculture (USDA), UITS, Indiana Spatial Data Portal



Source: U.S. Fish & Wildlife Service

1:1,000

1 in = 83 ft



**Legend**

Project Area

**IN\_Wetlands**

**Wetland Type**

- Freshwater Pond
- Freshwater Forested/Shrub Wetland
- Freshwater Emergent Wetland
- Riverine
- Lake
- Other

**National Wetlands Inventory Map**  
 Small Structure Replacement  
 SR 56 over Unnamed Tributary to Ohio River  
 Switzerland County, Indiana  
 Des. No.1700001

June 19, 2019





Source: Indiana Department of Natural Resources

1:1,000

1 in = 83 ft



**Legend**

- Project Area
- Floodplains\_FIRM\_IDNR\_IN  
FLD\_ZONE, ZONE\_SUBTY**
- Floodway
- 1 % Annual Chance Flood Hazard

**Floodplain Map**  
 Small Structure Replacement  
 SR 56 over Unnamed Tributary to Ohio River  
 Des. No. 1700001

June 19, 2019






Source: BLN Field Investigation

1:500

1 in = 42 ft



**Legend**

 Project Area

**Photo Location and Orientation Map**  
 Author: Aimee Cooper  
 Small Structure Replacement  
 SR 56 over Unnamed Tributary to Ohio River  
 Switzerland County, Indiana  
 Des. No. 1700001

October 14, 2019

Categorical Exclusion B-6





**Photo 1: Looking southwest at SR 56 from the culvert.**



**Photo 2: Looking northeast at SR 56 from the culvert.**



**Photo 3: Looking over the northwest side of the culvert at the pool caused by Stream 1 (UNT to Ohio River).**



**Photo 4: Water level view of the pool caused by Stream 1 (UNT to Ohio River).**





**Photo 5: Northwest side of culvert.**



**Photo 6: Underside of the culvert taken from the northwest side of culvert. There is no stream running under the culvert. Soil is saturated but no surface water is present.**



**Photo 7: Looking over the southeast side of the culvert from road level.**



**Photo 8: Southeast side of the culvert.**





**Photo 9: Bank on the southeast side of the culvert. Channel is saturated but no surface water is present.**



**Photo 10: View of the bank of the southeast side of the culvert. Channel is saturated but no surface water is present.**





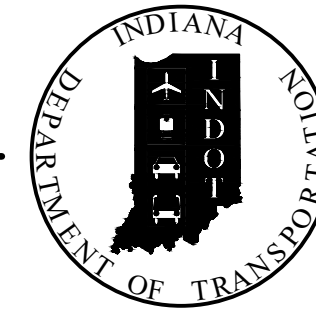
**Photo 11: South side of culvert. Taken from engineering report photos.**

PROJECT	DESIGNATION
1700001	1700001
CONTRACT	BRIDGE FILE
B-40422	N/A

STRUCTURE	TYPE	SPAN AND SKEW	OVER	STATION
CV-056-078-158.30	PRECAST CONCRETE 3-SIDED STRUCTURE	SINGLE SPAN: 12'-0" SKEW: 25° RT.	UNNAMED TRIBUTARY TO OHIO RIVER	☐ Structure Sta.12+00.00 "A"

KIN PROJECT INFORMATION	
DESIGNATION	PROJECT DESCRIPTION
1500021	BRIDGE REPLACEMENT FOR STRUCTURE 056-39-10261 (PARENT)
1701500	BRIDGE REHABILITATION FOR STRUCTURE 156-78-03115A
1700001	SMALL STRUCTURE REPLACEMENT FOR STRUCTURE CV 056-078-158.30

# INDIANA DEPARTMENT OF TRANSPORTATION



## ROAD PLANS

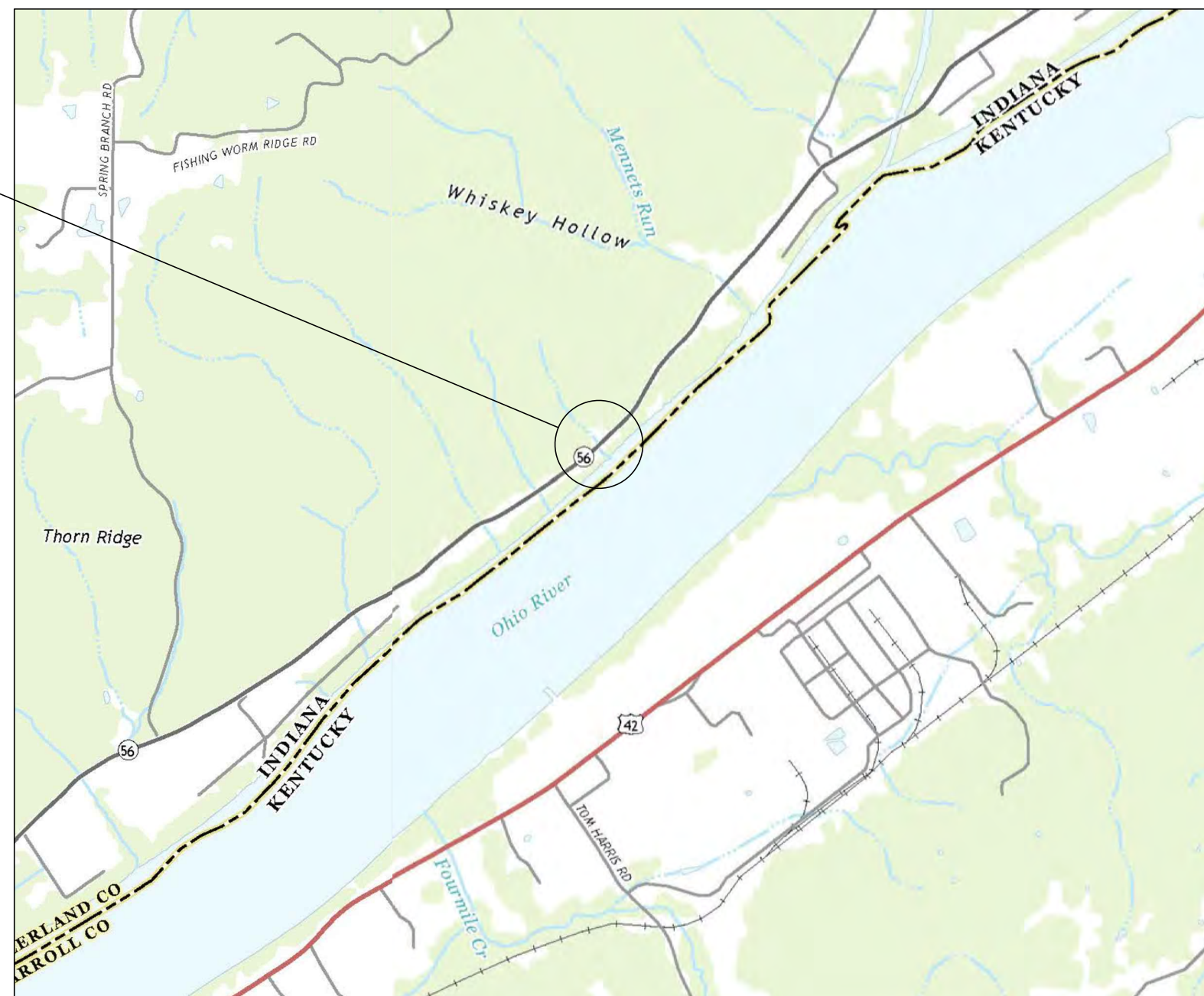
### SMALL STRUCTURE REPLACEMENT

ROUTE: SR 56 OVER UNNAMED TRIBUTARY TO OHIO RIVER AT: RP 158+30

PROJECT NO. 1700001 P.E.  
1700001 R/W  
1700001 CONST.

Small Structure Replacement on SR 56 over Unnamed Tributary to Ohio River  
Located 16.12 Miles East of US 421 in  
Section 28, T-2N, R-3W, Craig Township, Switzerland County, Indiana

PROJECT LOCATION  
Begin Project-Sta.11+25.00 "A"  
End Project-Sta.13+00.00"A"



LOCATION MAP  
SCALE: 1:24000

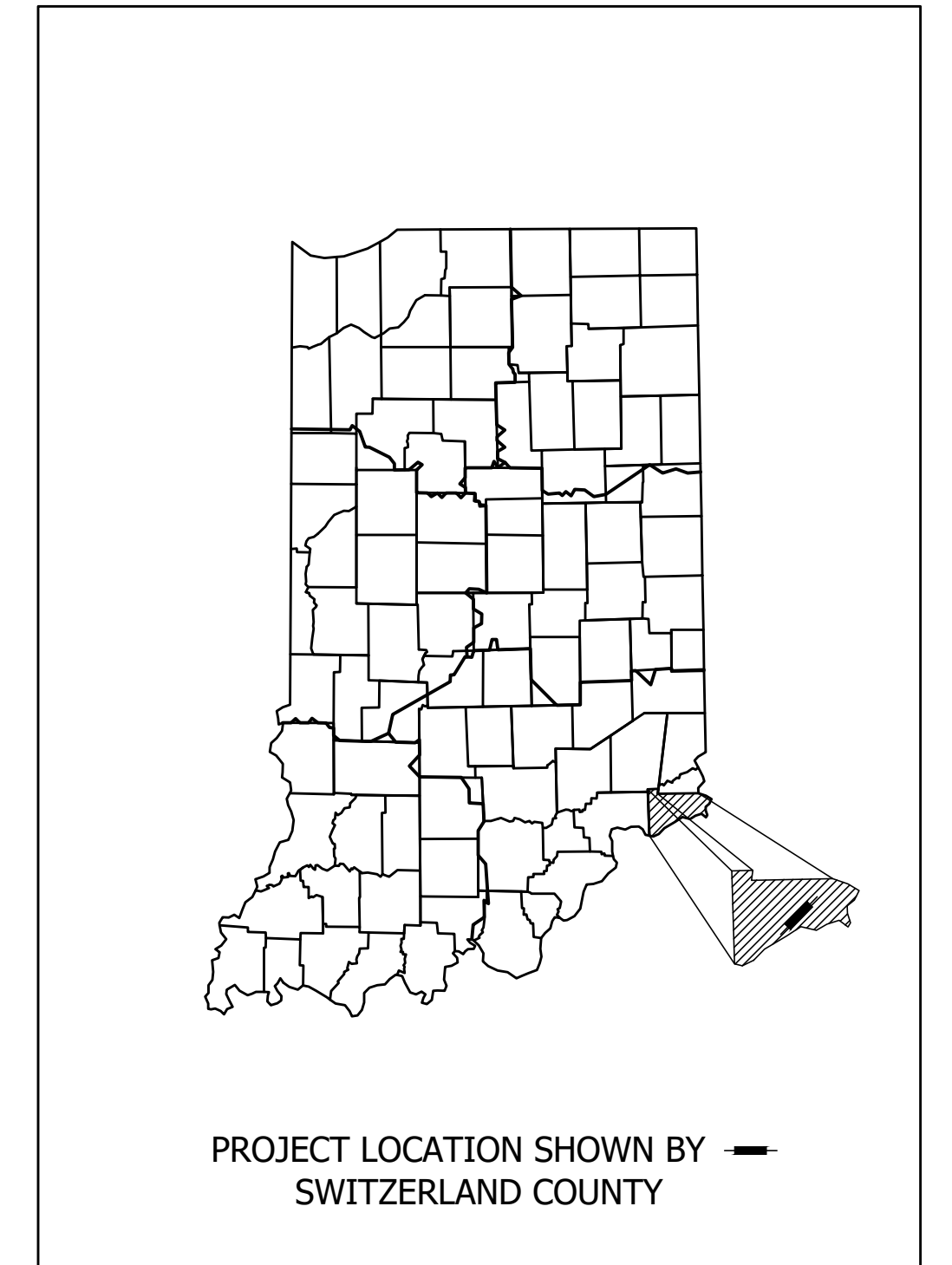


#### TRAFFIC DATA

A.A.D.T. (2022)	2414	V.P.D.
A.A.D.T. (2042)	2838	V.P.D.
D.H.V (2042)	290	V.P.H.
DIRECTIONAL DISTRIBUTION	49.16 %	
TRUCKS	10.00 %	A.A.D.T.
	10.20 %	D.H.V.

#### DESIGN DATA

DESIGN SPEED	55 M.P.H.
PROJECT DESIGN CRITERIA	3R (NON-FREEWAY)
FUNCTIONAL CLASSIFICATION	RURAL MINOR ARTERIAL
RURAL/URBAN	RURAL
TERRAIN	LEVEL
ACCESS CONTROL	NONE



LATITUDE: 38°42'59" N LONGITUDE: 85°6'55" W

BRIDGE LENGTH: 0.000 MI.  
ROADWAY LENGTH: 0.033 MI.  
TOTAL LENGTH: 0.033 MI.  
MAX. GRADE: 2.95 %

HUC 12 #050902031010  
HUC 14 #05090203210030

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

PLANS PREPARED BY:



PLANS PREPARED BY: BEAM, LONGEST & NEFF, LLC (317)849-5832 PHONE NUMBER

CERTIFIED BY: \_\_\_\_\_ DATE

APPROVED FOR LETTING: \_\_\_\_\_ INDIANA DEPARTMENT OF TRANSPORTATION DATE

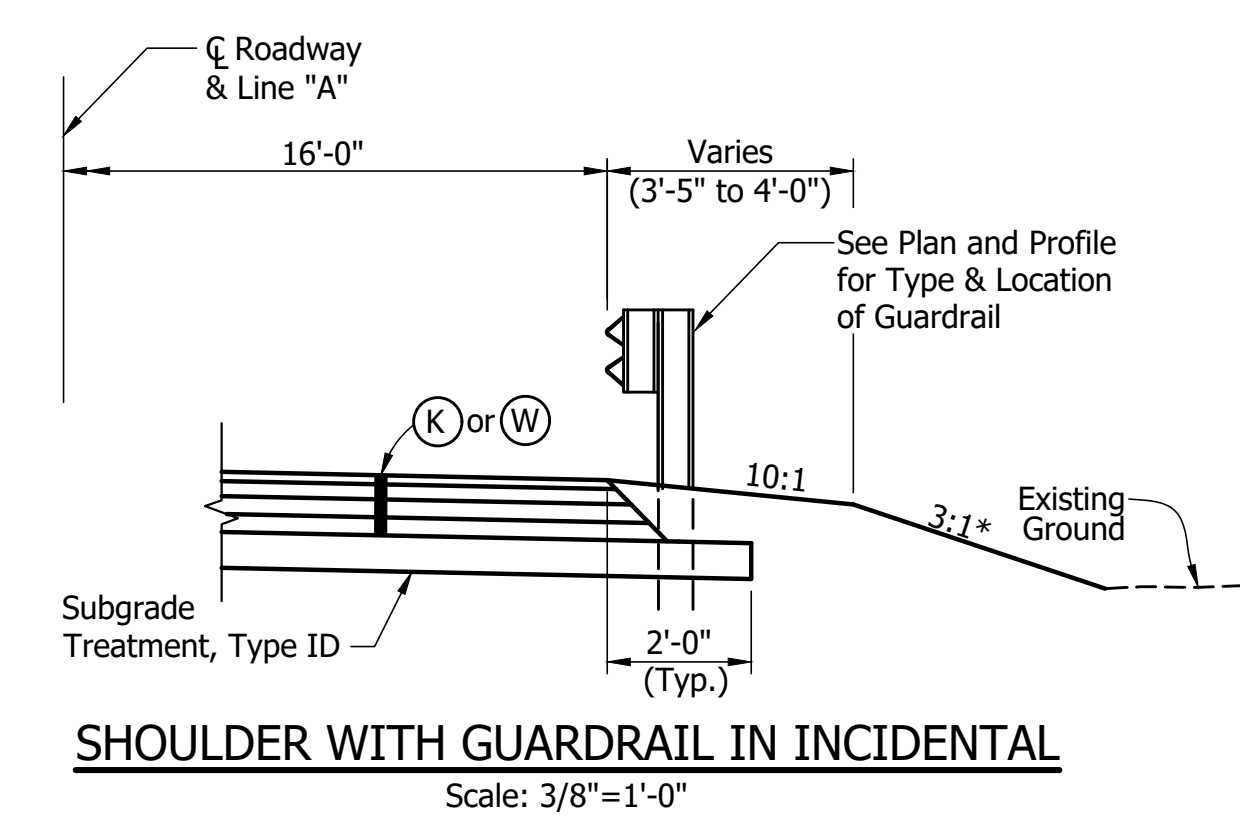
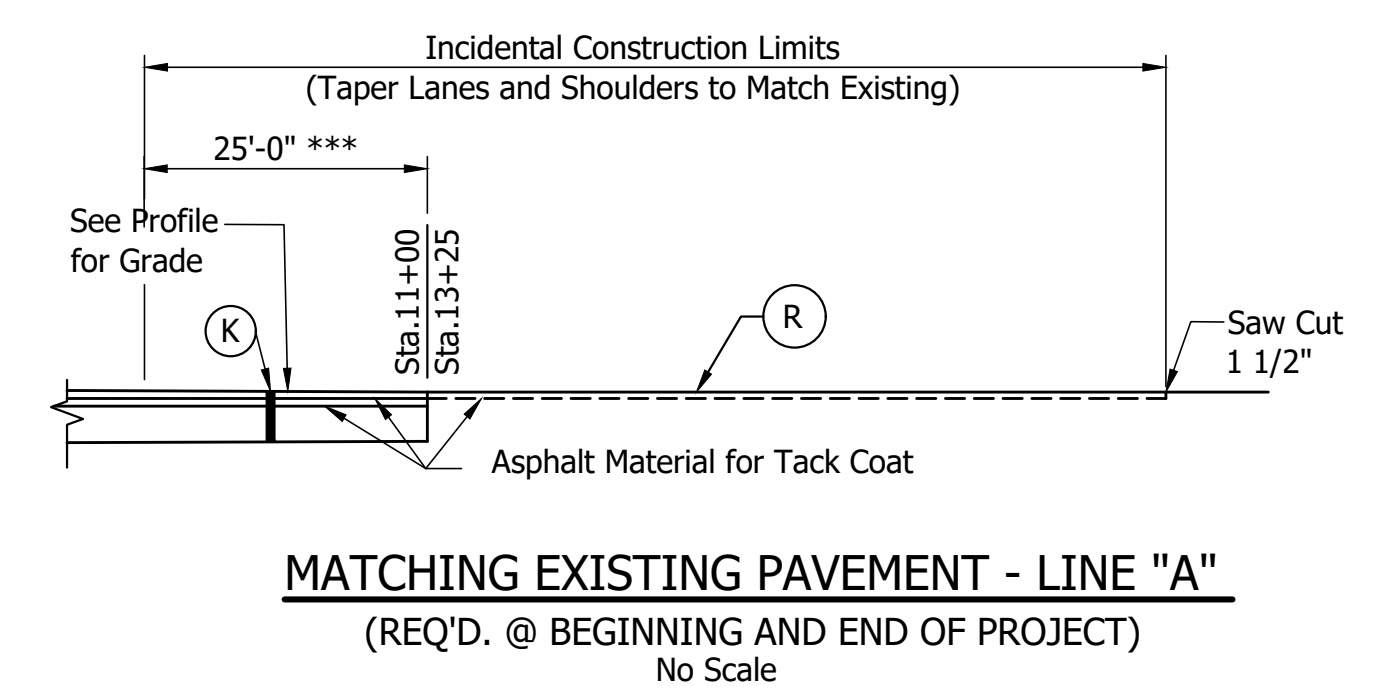
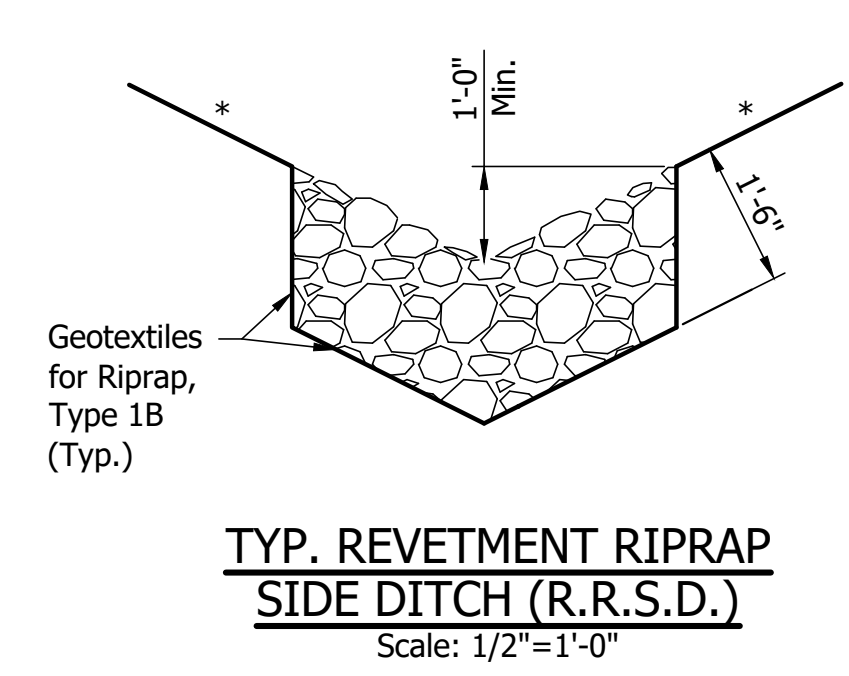
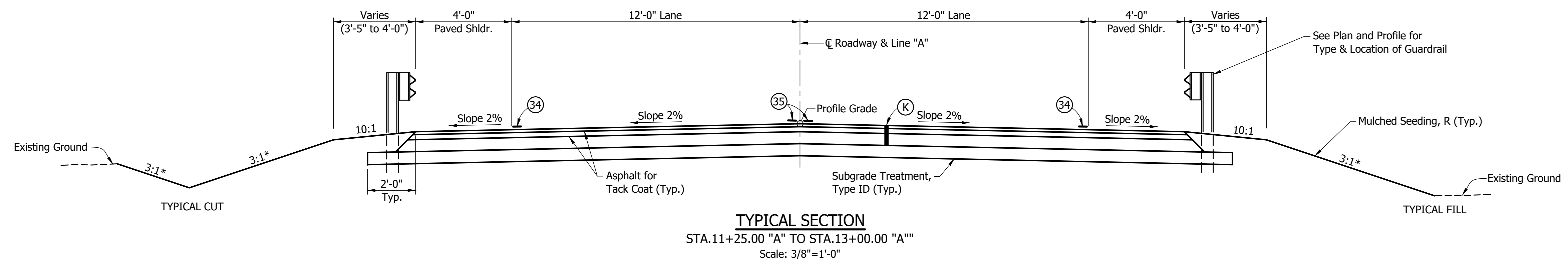
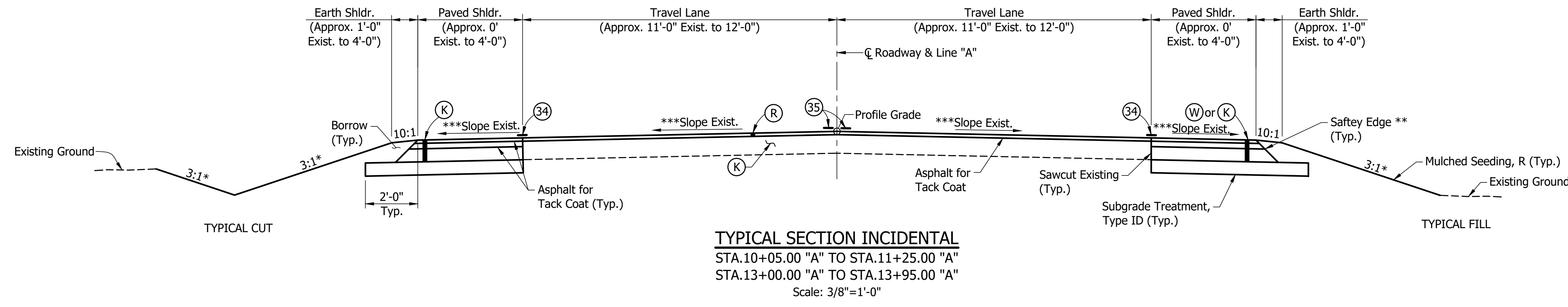
BRIDGE FILE	N/A
DESIGNATION	1700001

DRAWING NO.	SHEETS
CONTRACT	PROJECT
B-40422	1700001



**LEGEND**

- (K) 165#/Syd QC/QA-HMA, 3, 64 Surface, 9.5 mm on 275#/Syd QC/QA-HMA, 2, 64 Intermediate, 19.0 mm on 660#/Syd QC/QA-HMA, 2, 64, Base, 19.0 mm
- (R) Milling Asphalt, 1 1/2"
- 165#/Syd QC/QA-HMA, 3, 64, Surface, 9.5 mm
- (34) Line, Paint, Solid, White, 4"
- (35) Line, Paint, Solid, Yellow, 4"
- (W) 165#/Syd QC/QA-HMA, 3, 64, Surface, 9.5mm on Widening w/ HMA, Type B  
275#/Syd HMA Intermediate, Type B on 660#/Syd HMA Base, Type B



Notes:  
 The pavement safety edge is not required in locations of guardrail; however, the Contractor has the option to construct the pavement safety edge within these limits if they choose.  
 For Plan & Profile, see Sht.7.  
 \* See Cross Sections for Slopes  
 \*\* Safety Edge (30°) applicable to Surface and Intermediate layers only.  
 \*\*\* Transition proposed 2% cross-slopes to match existing cross-slopes within Full-Depth Pavement limits.

RECOMMENDED FOR APPROVAL _____ DESIGNED: GLB CHECKED: TSW	DESIGN ENGINEER _____ DRAWN: NW CHECKED: GLB	INDIANA DEPARTMENT OF TRANSPORTATION	HORIZONTAL SCALE	BRIDGE FILE
			AS NOTED	N/A
TYPICAL SECTIONS			VERTICAL SCALE	DESIGNATION
			AS NOTED	1700001
			DRAWING NO.	SHEETS
				3 of 24
			CONTRACT	PROJECT
			B-40422	1700001

SIGN NUMBER	IMUTCD CODE	SIGN MESSAGE	POST DESIGN		SIGN SIZE	SIGN COLOR		BORDER WIDTH	MARGIN WIDTH	LETTER HEIGHT SERIES - LINE 1	LETTER HEIGHT SERIES - LINE 2	LETTER HEIGHT SERIES - LINE 3	LETTER HEIGHT SERIES - LINE 4	WORD OR LINE	PCT	CORNER RADIUS	NO. OF POSTS	
			4'X4' WOOD	STEEL		BACKGROUND	COPY										1	2
9		SR 56 Closed Eastbound	*	B	60 x 36	Orange	Black	1/2	3/8	5 - Series C	5 - Series C						2 1/4	X
10		SR 56 Closed Westbound	*	B	60 x 36	Orange	Black	1/2	3/8	5 - Series C	5 - Series C						2 1/4	X

\* Wood Post permitted.

Notes:

- ① Spacing between letters of this word or line shall be reduced by this percentage as shown in the FHWA document, *Standard Highway Signs*.

See Standard Drawing E 801-TCSN-01 for additional general notes.

All dimensions are in inches.

**LEGEND**

- (A) Barricade Type III-A & Road Closure Sign Assembly
- (B) Barricade Type III-B
- (C) Barricade Type III-B & Road Closure Sign Assembly
- (D) Detour Route Marker Assembly
  1. Advance Turn
  2. Directional
  3. Confirming
  4. End
- Construction Sign and Support

**CONSTRUCTION SIGNS TYPE "A"**

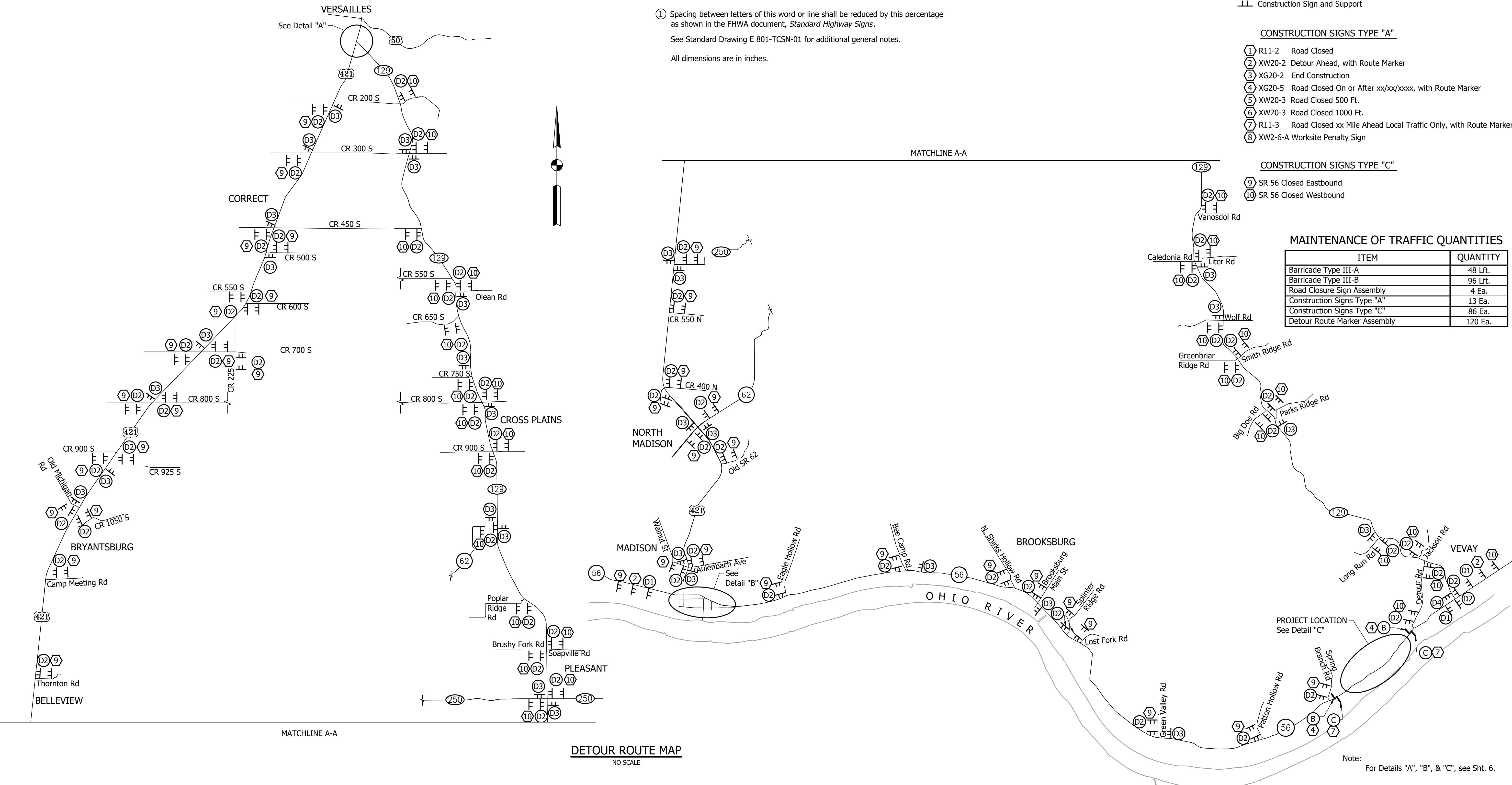
- ① R11-2 Road Closed
- ② XW20-2 Detour Ahead, with Route Marker
- ③ XG20-2 End Construction
- ④ XG20-5 Road Closed On or After xx/xx/xxxx, with Route Marker
- ⑤ XW20-3 Road Closed 500 Ft.
- ⑥ XW20-3 Road Closed 1000 Ft.
- ⑦ R11-3 Road Closed xx Mile Ahead Local Traffic Only, with Route Marker
- ⑧ XW2-6-A Worksite Penalty Sign

**CONSTRUCTION SIGNS TYPE "C"**

- ⑨ SR 56 Closed Eastbound
- ⑩ SR 56 Closed Westbound

**MAINTENANCE OF TRAFFIC QUANTITIES**

ITEM	QUANTITY
Barricade Type III-A	48 Lft.
Barricade Type III-B	96 Lft.
Road Closure Sign Assembly	4 Ea.
Construction Signs Type "A"	13 Ea.
Construction Signs Type "C"	86 Ea.
Detour Route Marker Assembly	120 Ea.



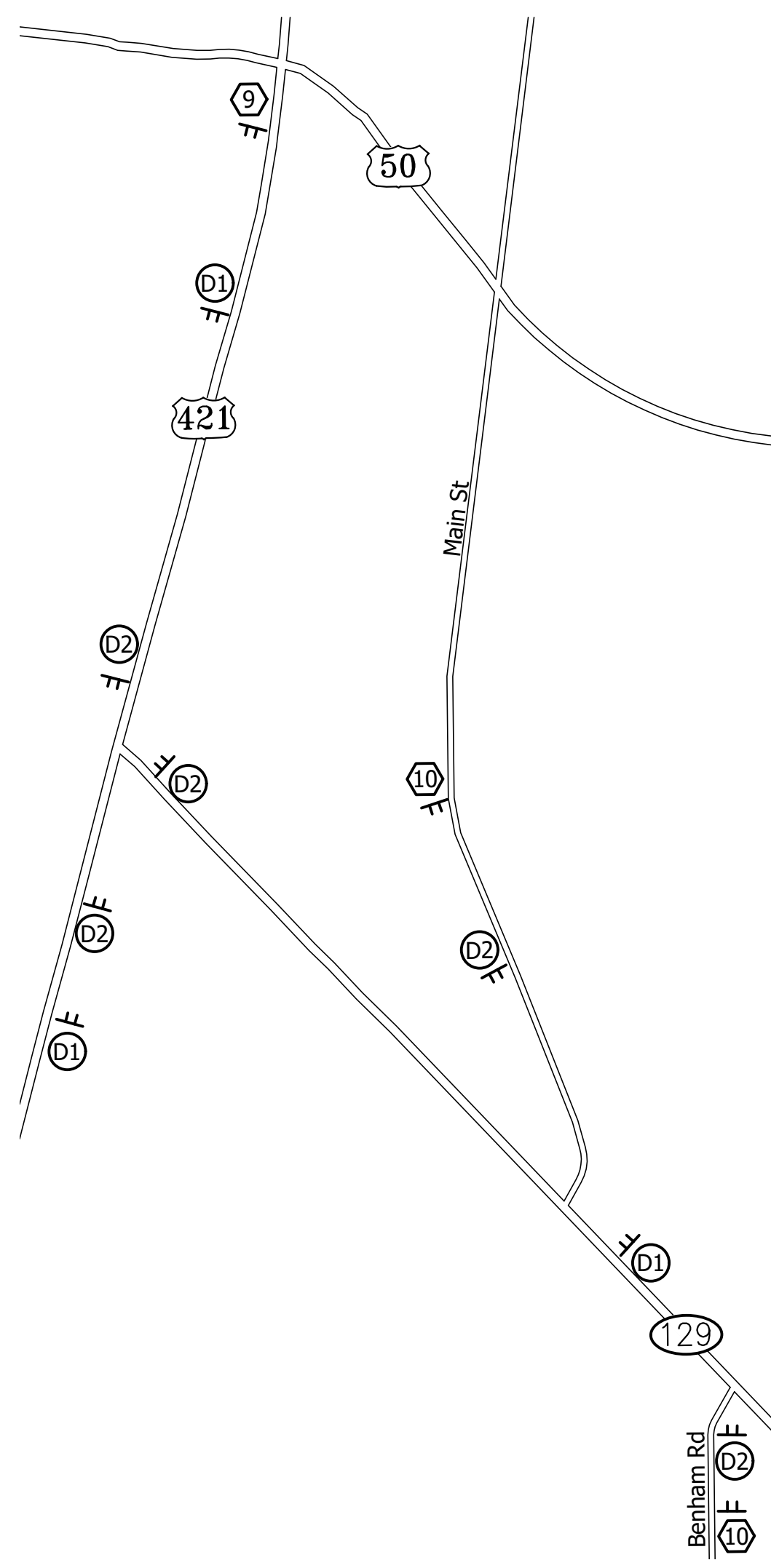
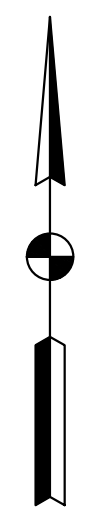
Note:  
For Details "A", "B", & "C", see Sht. 6.

RECOMMENDED FOR APPROVAL _____	DESIGN ENGINEER _____	DATE _____
DESIGNED: GLB _____	DRAWN: NW _____	
CHECKED: TSW _____	CHECKED: GLB _____	

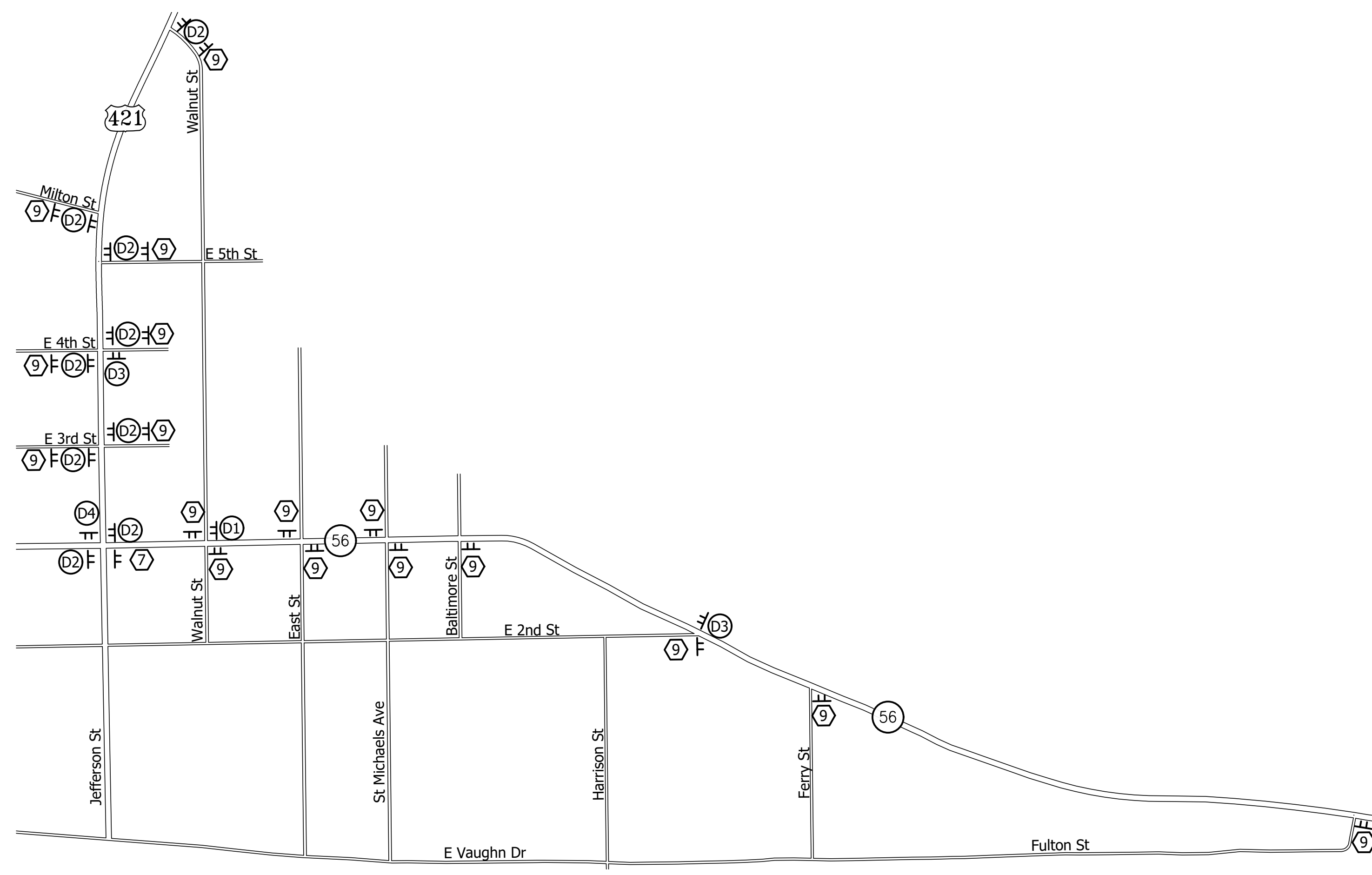
INDIANA  
DEPARTMENT OF TRANSPORTATION

MAINTENANCE OF TRAFFIC

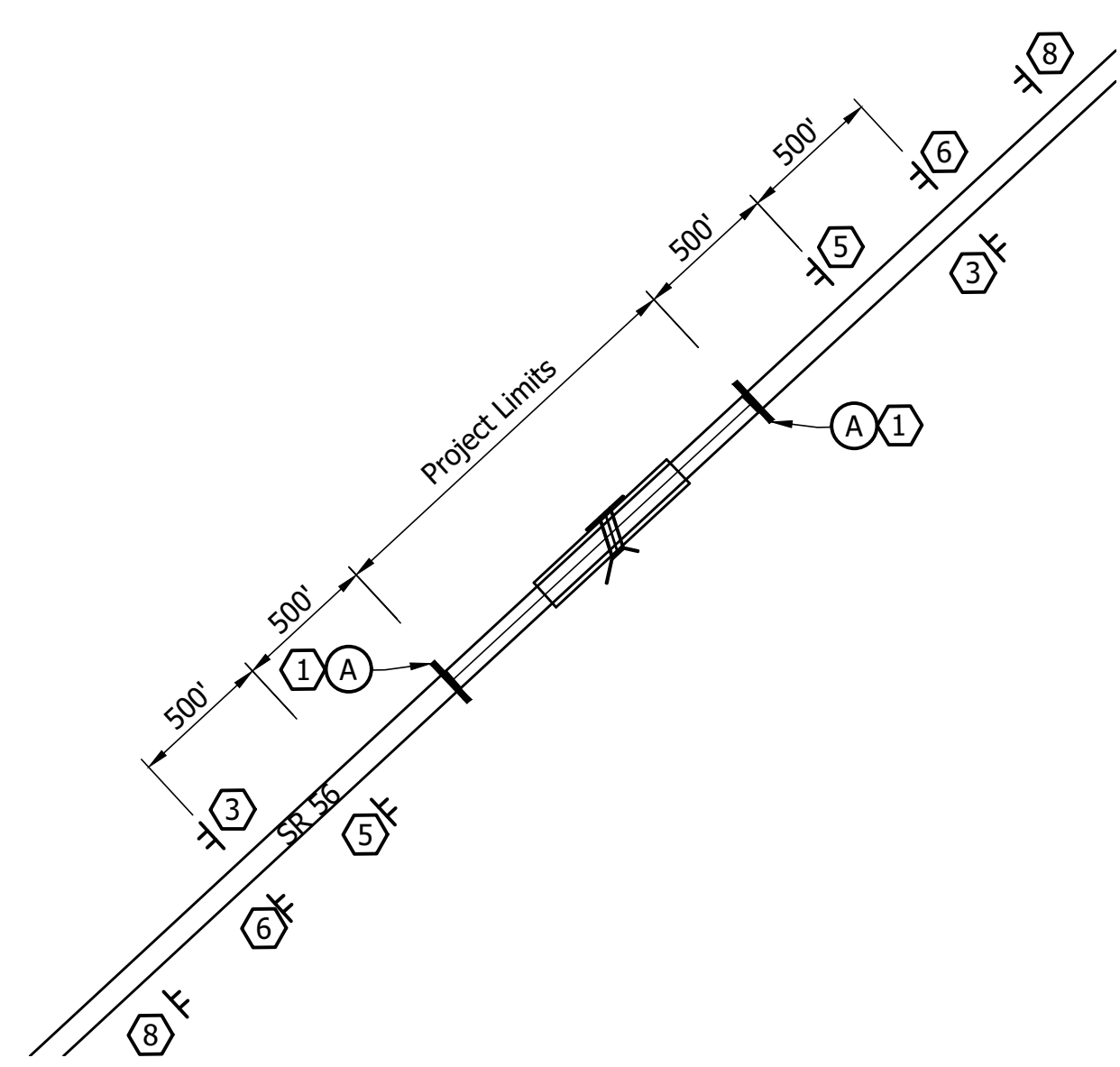
HORIZONTAL SCALE	BRIDGE FILE
AS NOTED	N/A
VERTICAL SCALE	DESIGNATION
AS NOTED	1700001
DRAWING NO.	SHEETS
	5 of 24
CONTRACT	PROJECT
B-40422	1700001



**DETAIL "A"**  
NO SCALE



**DETAIL "B"**  
NO SCALE



**DETAIL "C"**  
NO SCALE

Notes:  
For Locations of Details "A", "B", & "C", see Sht. 5.  
For Legend, see Sht. 5.

RECOMMENDED FOR APPROVAL _____	DESIGN ENGINEER _____	DATE _____
DESIGNED: GLB _____	DRAWN: NW _____	
CHECKED: TSW _____	CHECKED: GLB _____	

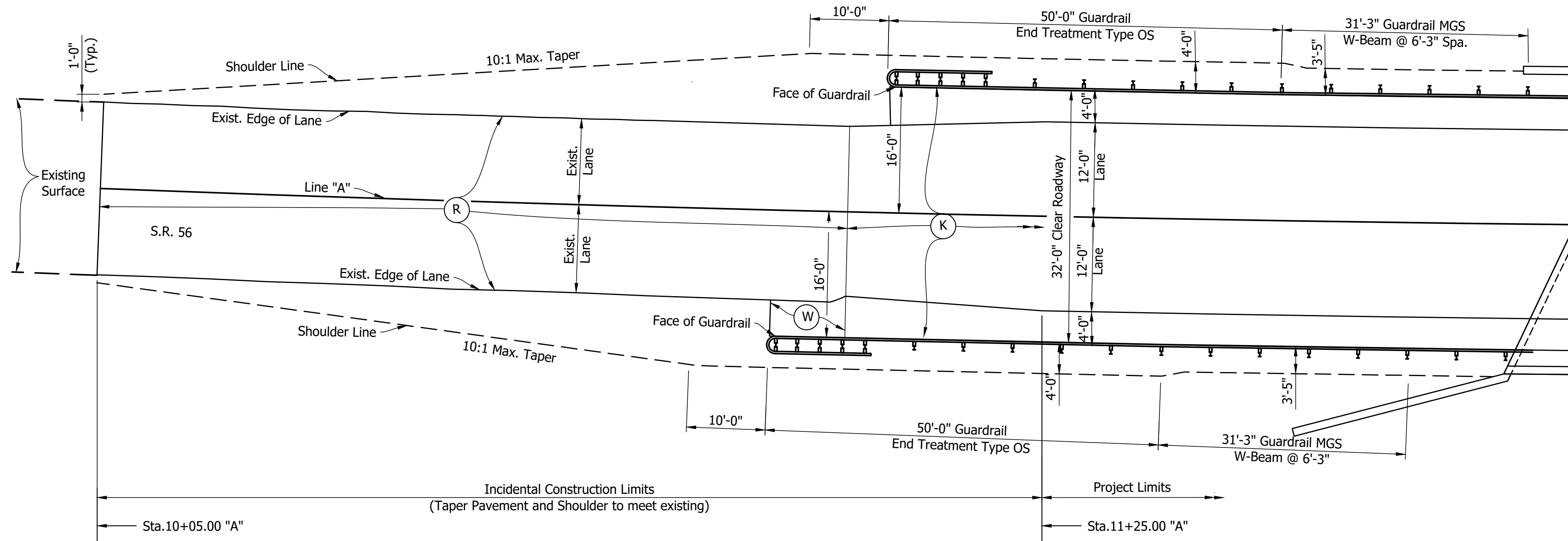
INDIANA  
DEPARTMENT OF TRANSPORTATION

MAINTENANCE OF TRAFFIC

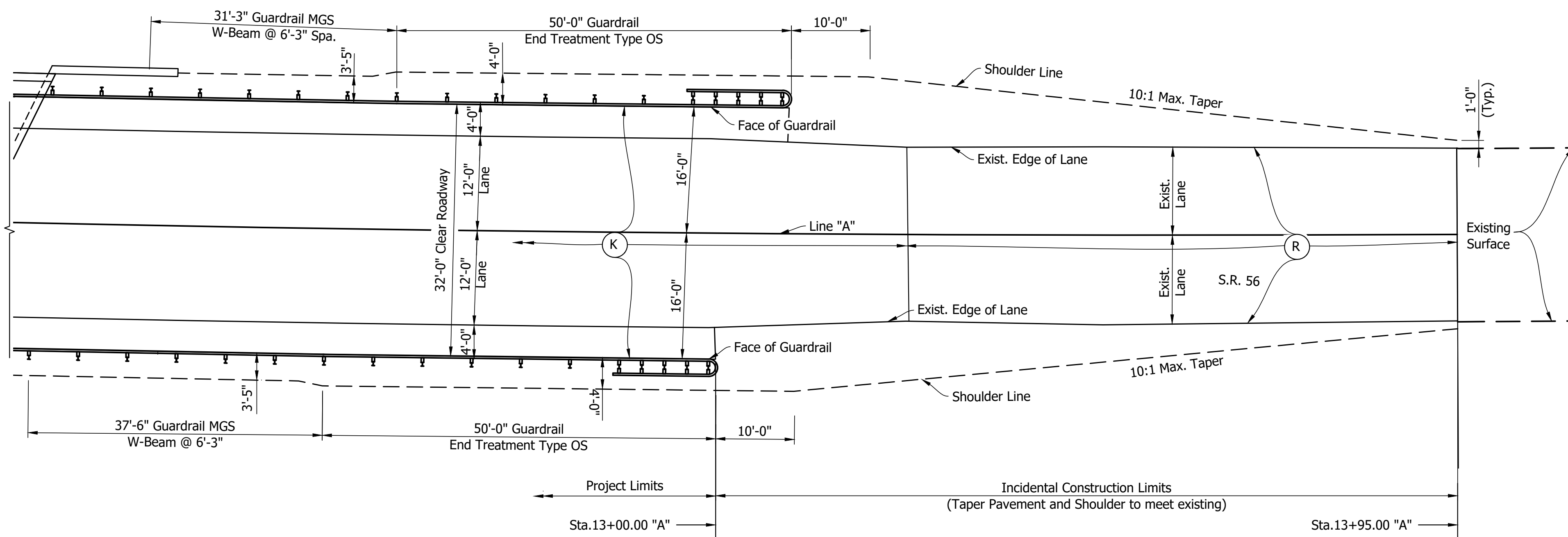
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AS NOTED	N/A
VERTICAL SCALE	DESIGNATION
AS NOTED	1700001
DRAWING NO.	SHEETS
	6 of 24
CONTRACT	PROJECT
B-40422	1700001







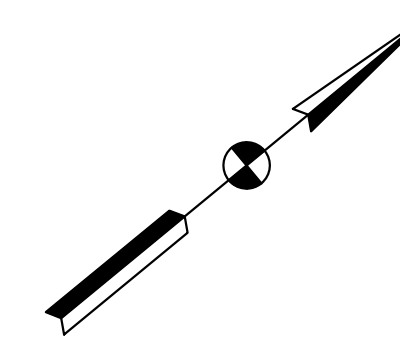
**SHOULDER AND GUARDRAIL DETAILS**  
(REQ'D. @ BEGIN OF PROJECT)  
Scale: 1" = 10'-0"



**SHOULDER AND GUARDRAIL DETAILS**  
(REQ'D. @ END OF PROJECT)  
Scale: 1" = 10'-0"

**LEGEND**

- (K) 165#/Syd QC/QA-HMA, 3, 64 Surface, 9.5 mm on 275#/Syd QC/QA-HMA, 2, 64 Intermediate, 19.0 mm on 660#/Syd QC/QA-HMA, 2, 64, Base, 19.0 mm
- (R) Milling Asphalt, 1 1/2" 165#/Syd QC/QA-HMA, 3, 64, Surface, 9.5 mm
- (W) 165#/Syd QC/QA-HMA, 3, 64, Surface, 9.5 mm Widening w/ HMA, Type B 275#/Syd HMA Intermediate, Type B on 660#/Syd HMA Base, Type B



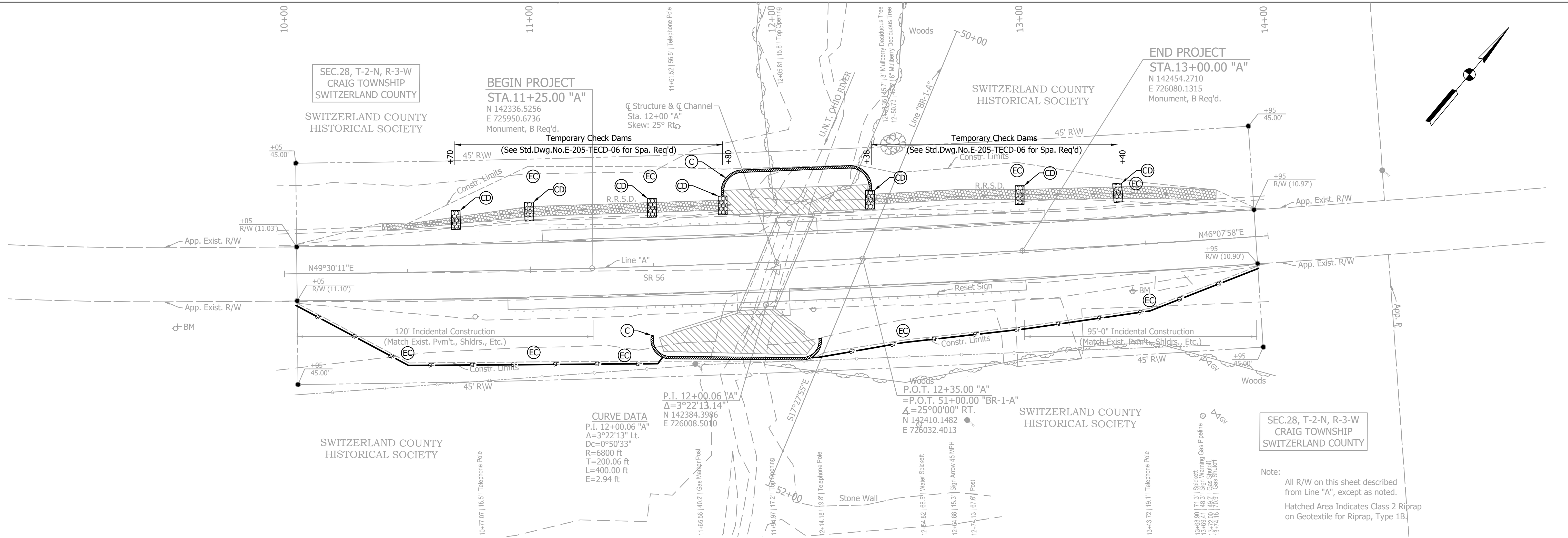
Notes:  
For Plan & Profile, see Sht.7.  
\*See Cross Sections for Slopes

RECOMMENDED FOR APPROVAL _____	DESIGN ENGINEER _____	DATE _____
DESIGNED: GLB _____	DRAWN: NW _____	
CHECKED: TSW _____	CHECKED: GLB _____	

INDIANA  
DEPARTMENT OF TRANSPORTATION

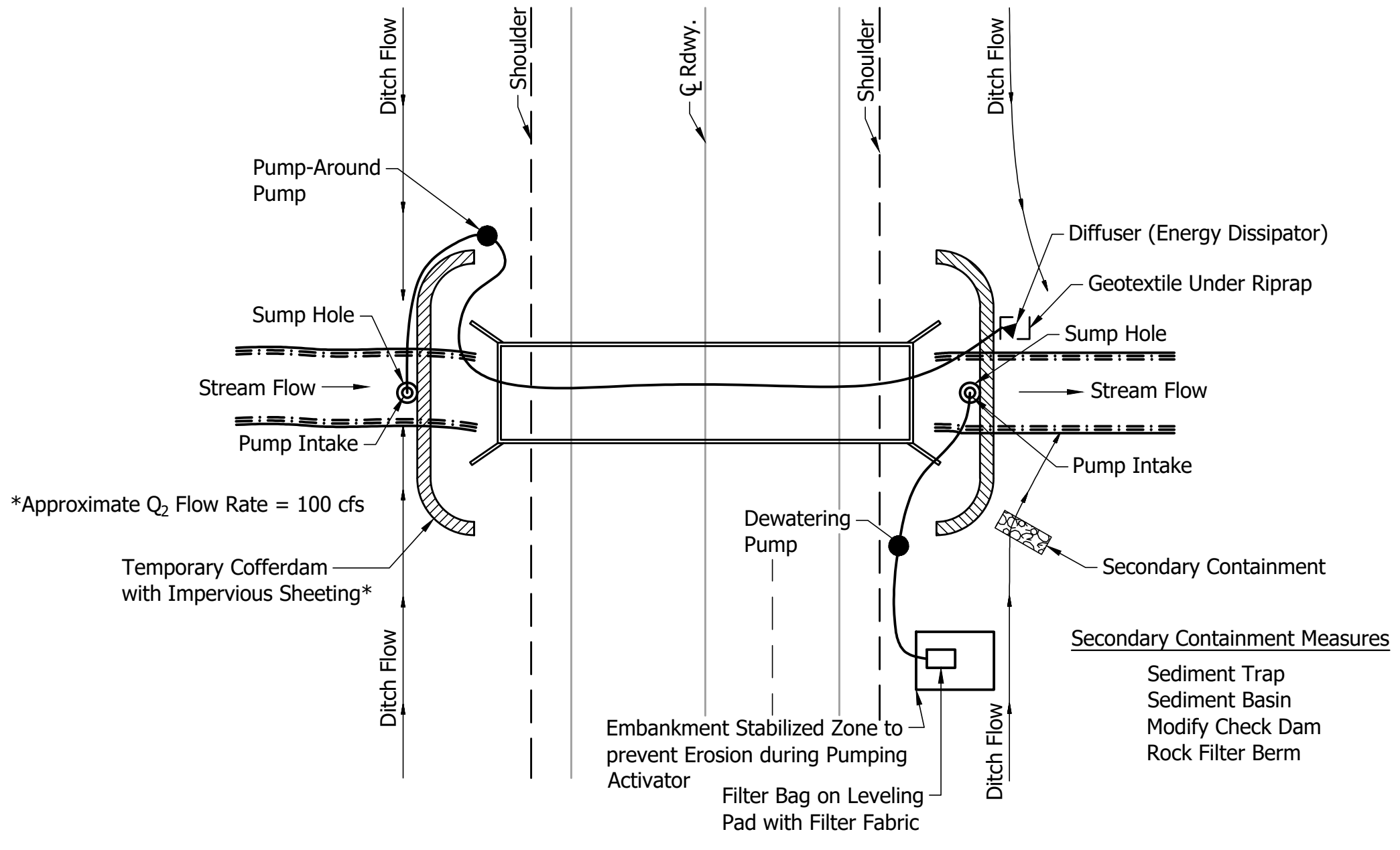
CONSTRUCTION LAYOUT DETAILS

HORIZONTAL SCALE	BRIDGE FILE
AS NOTED	N/A
VERTICAL SCALE	DESIGNATION
AS NOTED	1700001
DRAWING NO.	SHEETS
	8 of 24
CONTRACT	PROJECT
B-40422	1700001

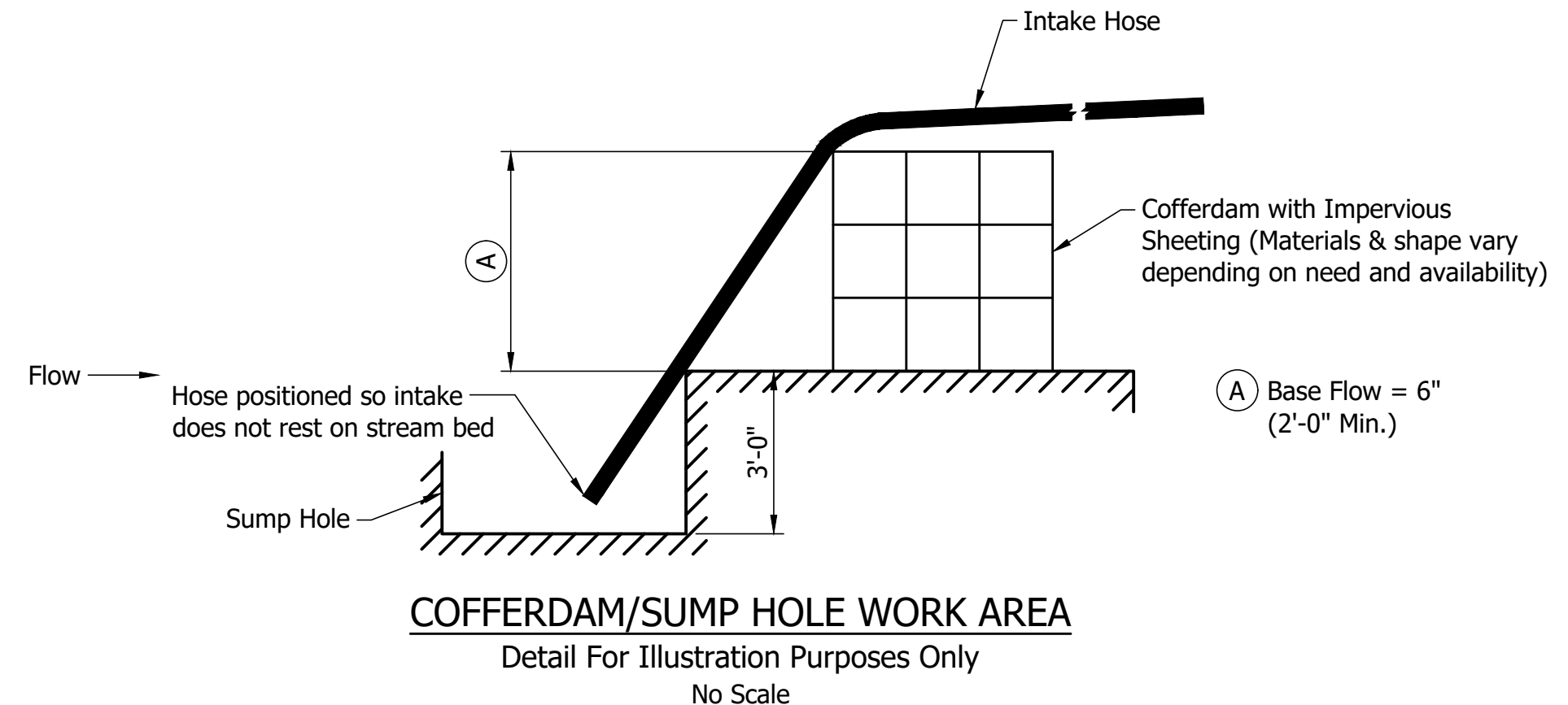


SEC.28, T-2-N, R-3-W  
CRAIG TOWNSHIP  
SWITZERLAND COUNTY

Note:  
All R/W on this sheet described from Line "A", except as noted.  
Hatched Area Indicates Class 2 Riprap on Geotextile for Riprap, Type 1B.



**PUMP AROUND AND DEWATERING DETAILS**  
Detail For Illustration Purposes Only  
No Scale



**LEGEND**

- SF— Temporary Silt Fence
- (C) Temporary Cofferdam with Impervious Sheeting
- (CD) Temporary Check Dam
- (EC) Manufactured Surface Protection Product/Erosion Control Blanket (All slopes Steeper than 3:1)  
Install on Rdwy Embankment side slopes at:  
Sta.10+05 "A" Rt. to Sta.13+95 "A" Rt.  
Sta.10+60 "A" Lt. to Sta.13+80 "A" Lt.

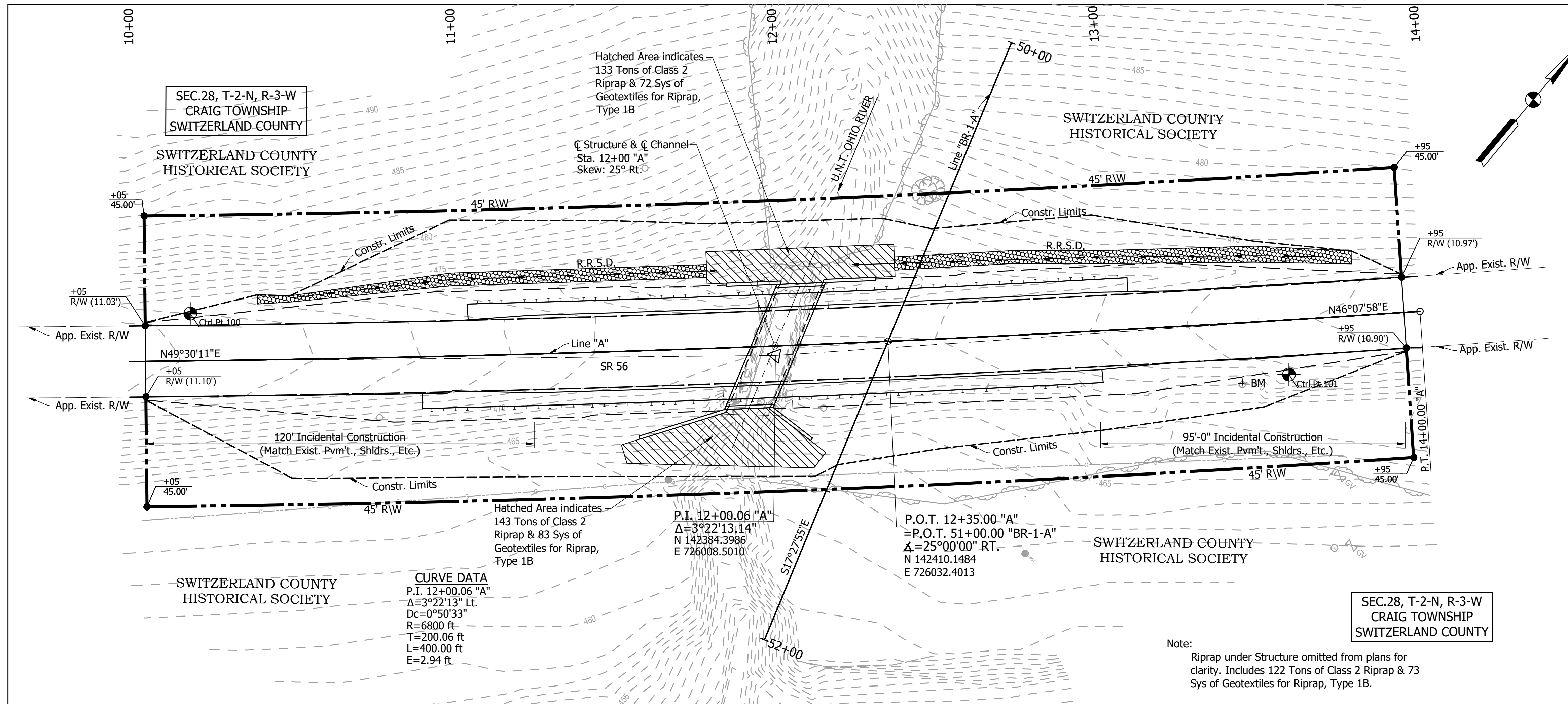
Note:  
Temporary Check Dams shall be one of the following:  
1. Temporary Check Dam, Traversable  
2. Temporary Check Dam, Revetment Riprap  
3. Temporary Check Dam, Modified

Temporary Check Dam, Traversable shall only be used when a check dam is required to be placed within 23' from the edge of the MOT or Design travel lane.

For Temporary Check Dam Details, see Std.Dwgs.E205-TECD-06-08

RECOMMENDED FOR APPROVAL _____ DESIGNED: GLB CHECKED: TSW	DESIGN ENGINEER _____ DATE _____	INDIANA DEPARTMENT OF TRANSPORTATION  EROSION CONTROL PLAN LINE "A"	HORIZONTAL SCALE 1"=20'	BRIDGE FILE N/A
	DRAWN: MEN CHECKED: GLB		VERTICAL SCALE 1"=5'	DESIGNATION 1700001
		DRAWING NO. B-40422	SHEETS 9 of 24 PROJECT 1700001	





**EXISTING STRUCTURE**  
Existing Structure is a Single Span Reinforced Concrete Slab widened with precast concrete channel beams (10'-0") with a 31'-6" Clear Roadway. (To Be Removed)

EARTHWORK SUMMARY	
Common Excavation	265 Cys
Usable Common Excavation	135 Cys
Fill + 25%	720 Cys
Borrow	585 Cys

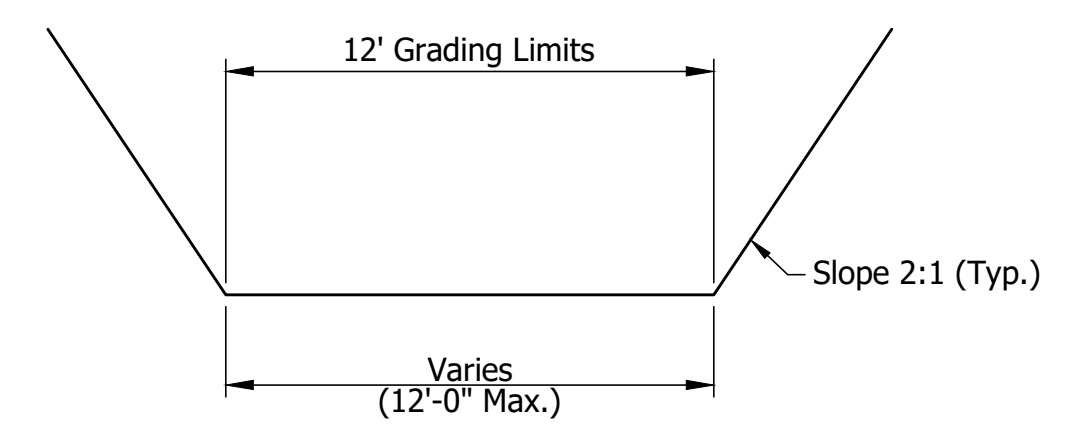
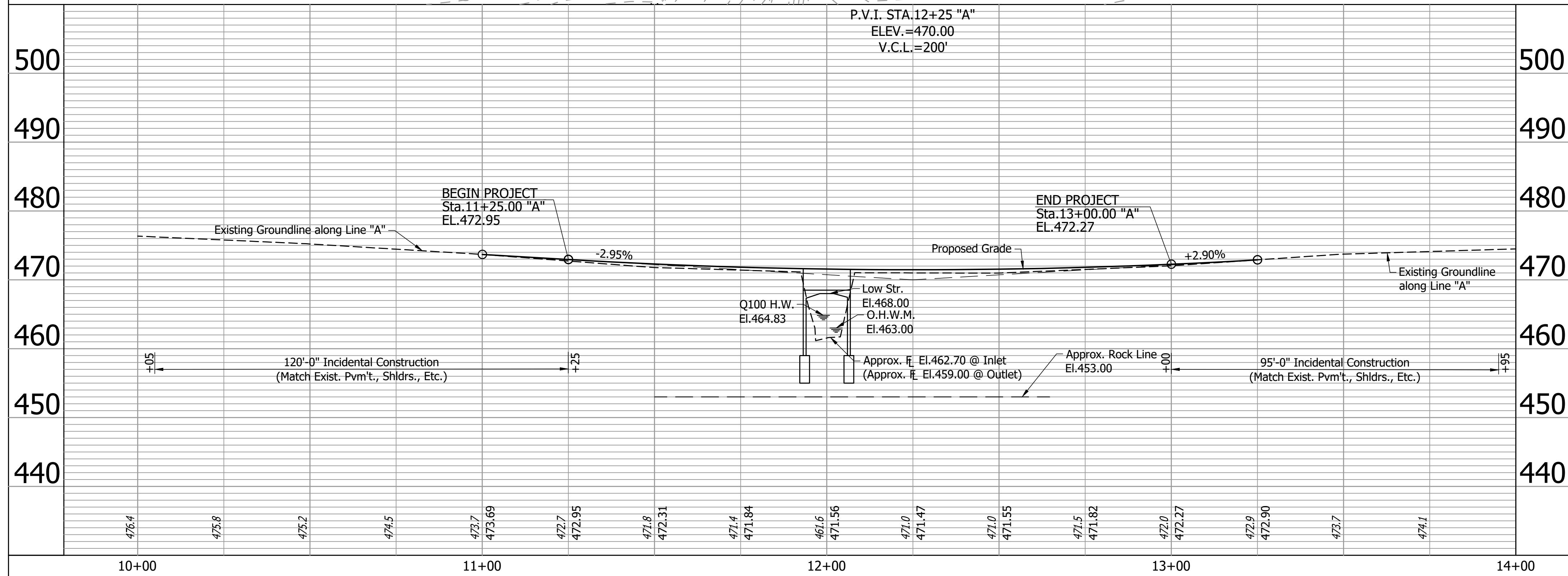
The estimated quantities for Benching are 160 Cys for Cut and 200 Cys for Fill and are not included in the Earthwork Summary.

**HYDRAULIC DATA**

Drainage Area	0.063 Sq Mi
Design Discharge, Q100	119 cfs
Design Discharge, Q25	103 cfs
High Water Elevation, Q100	El.464.83
Existing Small Structure	
Waterway Area	
Net Area thru Str.	57.7 Sft
Gross Area thru Str.	57.7 Sft
Area over Road	0.0 Sft
Velocity thru Str.	12.46 ft/sec
Backwater, Q100	1.40 ft
Low Structure Elevation	El.468.55
Proposed Culvert	
Waterway Area	
Net Area thru Culvert	58.3 Sft
Provided Gross Area thru Culvert	58.3 Sft
Area over Road	0 Sft
Velocity thru Culvert, Q100	9.59 ft/sec
Backwater, Q100	1.00 ft
Proposed Low Structure Elevation	El.468.00
Skew	25° Rt.
Flowline Elevation (@ Upstream Coping)	El.462.70
Flowline Elevation (@ Downstream Coping)	El.459.00

**CURVE DATA**  
P.I. 12+00.06 "A"  
Δ=3°22'13" Lt.  
Dc=0°50'33"  
R=6800 ft  
T=200.06 ft  
L=400.00 ft  
E=2.94 ft

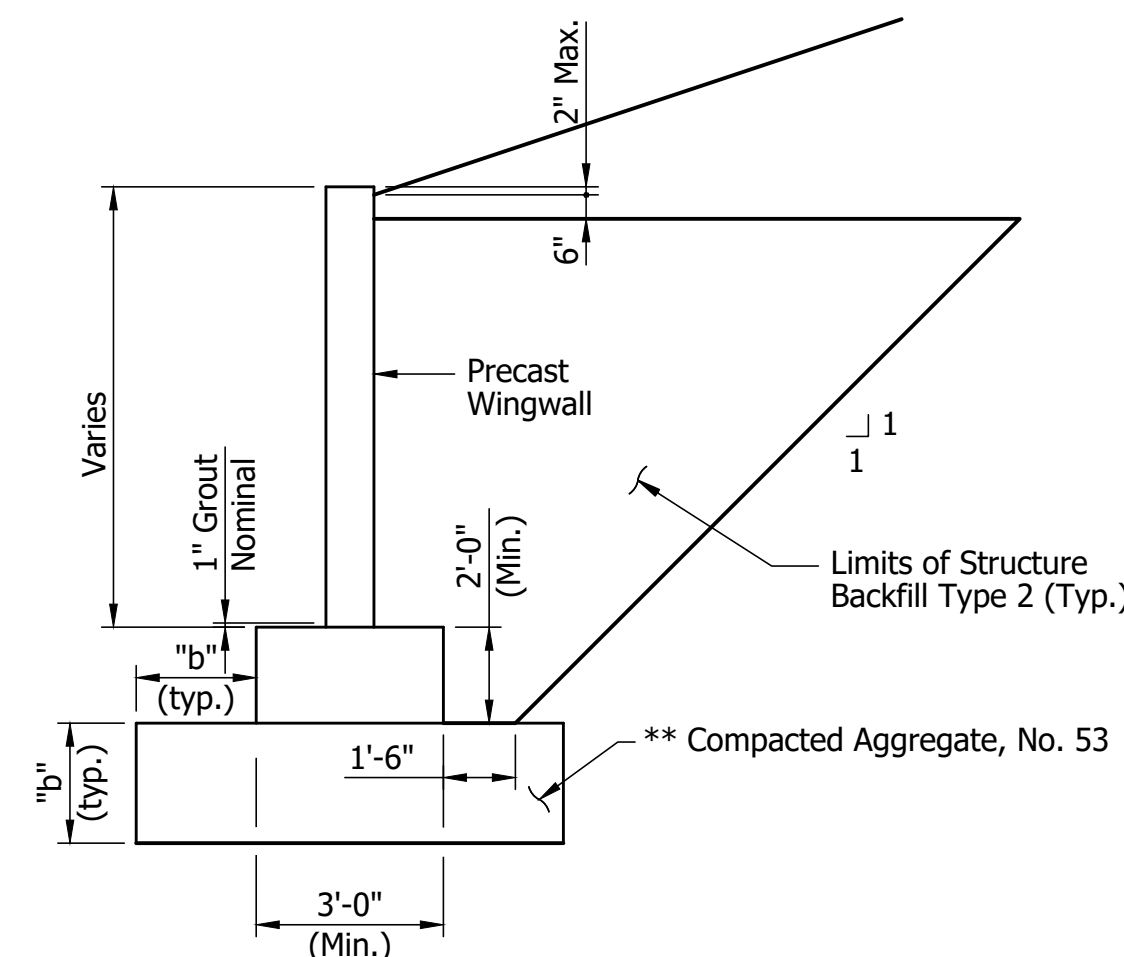
Note:  
Riprap under Structure omitted from plans for clarity. Includes 122 Tons of Class 2 Riprap & 73 Sys of Geotextiles for Riprap, Type 1B.



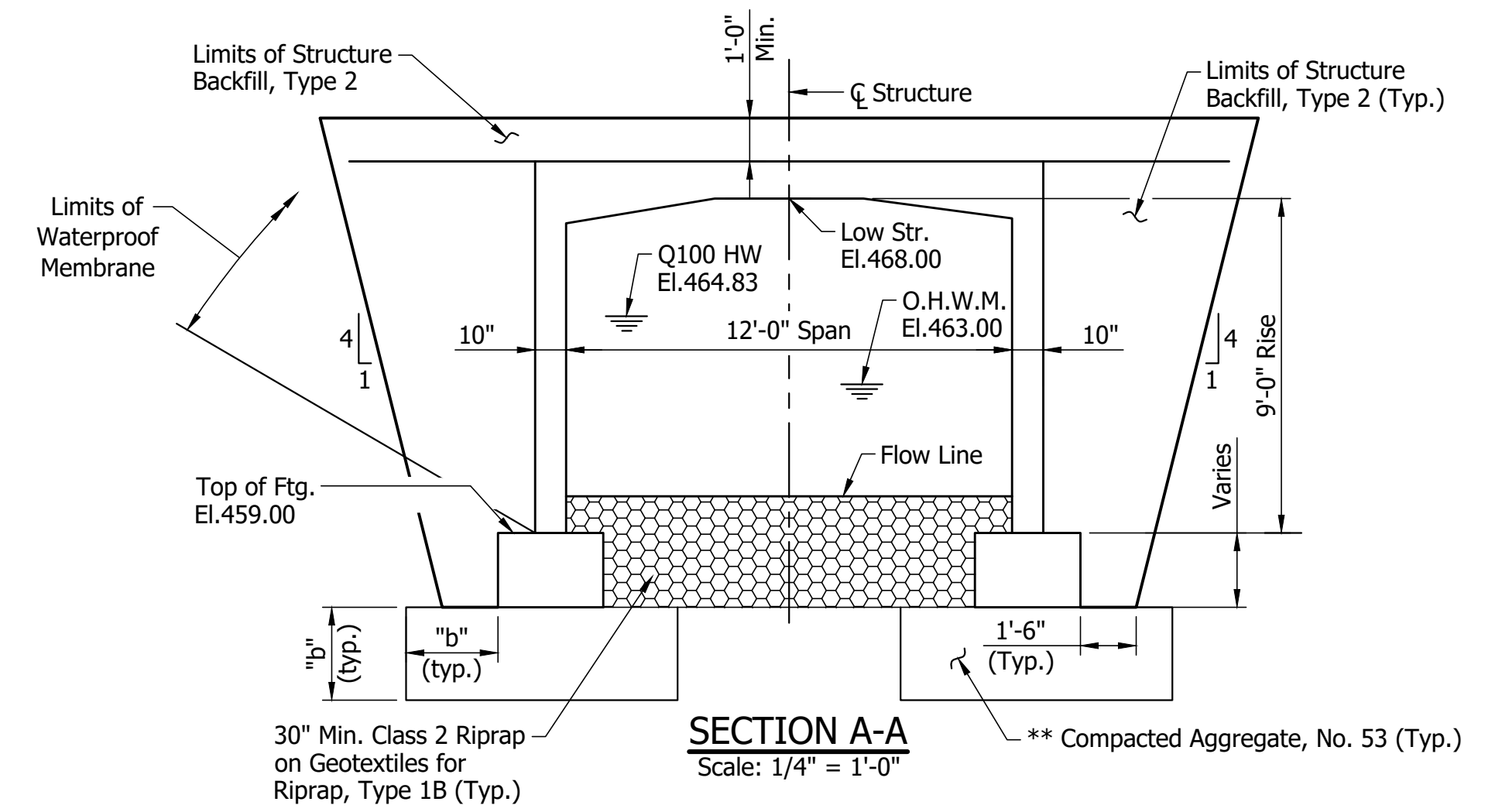
**TYPICAL CHANNEL SECTION**  
No Scale

**PRECAST CONCRETE 3-SIDED STRUCTURE**  
1 SPAN: 12'-0" RISE 9'-0"  
32'-0" CLEAR ROADWAY SKEW: 25° Rt.  
SR 56 OVER UNNAMED TRIBUTARY TO OHIO RIVER  
SWITZERLAND COUNTY

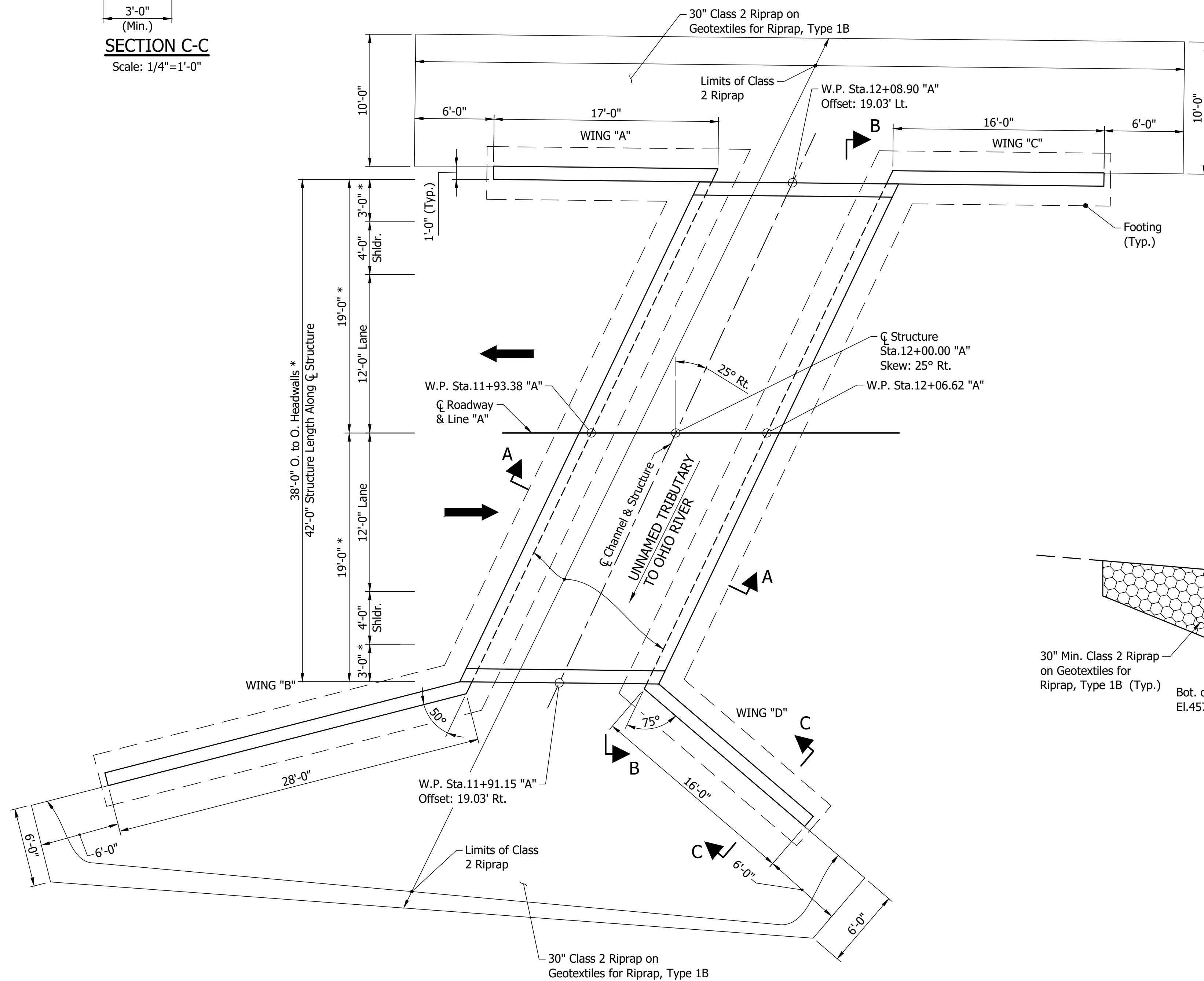
RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER _____ DATE _____	DESIGNED: GLB DRAWN: NW CHECKED: TSW CHECKED: GLB	<b>INDIANA DEPARTMENT OF TRANSPORTATION</b>  <b>LAYOUT LINE "A"</b>	HORIZONTAL SCALE 1"=20'	BRIDGE FILE N/A
			VERTICAL SCALE 1"=5'	DESIGNATION 1700001
		DRAWING NO. C1 of C3	SHEETS 12 of 24	
		CONTRACT B-40422	PROJECT 1700001	



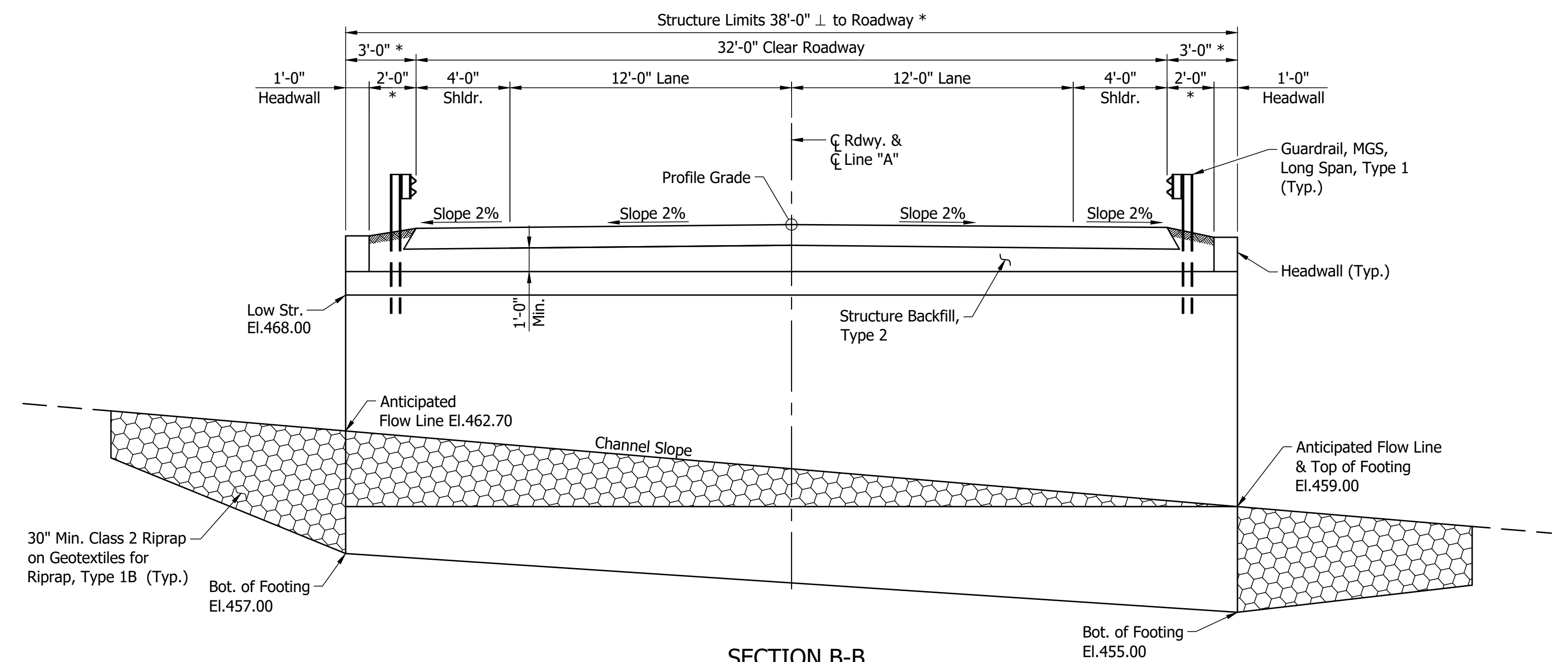
**SECTION C-C**  
Scale: 1/4" = 1'-0"



**SECTION A-A**  
Scale: 1/4" = 1'-0"



**PLAN**  
Scale: 3/16" = 1'-0"



**SECTION B-B**  
Scale: 1/4" = 1'-0"

Note:  
 \* For General Notes and Elevations, see Sht.C3.  
 \* Measurement varies slightly due to horizontal curve.  
 \*\* The Contractor shall excavate the soft or wet soils below the proposed footings and replace the unsuitable material with Compacted Aggregate No. 53. If the depth of this over excavation "b" exceed 18 inches, contact the INDOT Office of Geotechnical Services.

**PRECAST CONCRETE 3-SIDED STRUCTURE**  
 1 SPAN: 12'-0" RISE 9'-0"  
 32'-0" CLEAR ROADWAY SKEW: 25° Rt.  
 SR 56 OVER UNNAMED TRIBUTARY TO OHIO RIVER  
 SWITZERLAND COUNTY

RECOMMENDED FOR APPROVAL	DESIGN ENGINEER	DATE
DESIGNED: GLB	DRAWN: NW	
CHECKED: TSW	CHECKED: GLB	

INDIANA  
DEPARTMENT OF TRANSPORTATION

GENERAL PLAN

HORIZONTAL SCALE	BRIDGE FILE
AS NOTED	N/A
VERTICAL SCALE	DESIGNATION
AS NOTED	1700001
DRAWING NO.	SHEETS
C2 of C3	13 of 24
CONTRACT	PROJECT
B-40422	1700001



**GENERAL NOTES**

Reinforcing steel covering shall be 2 1/2" in top and 1" minimum in the bottom of the floor slabs, 3" in footings, except bottom steel which shall be 4", and 2" in all other parts unless noted.

Alternate Cast-in-place Wingwalls may be substituted for the precast wingwall shown in Section C-C. If cast-in-place, the exposed faces of headwalls and wingwalls shall be surface sealed in accordance with Article 702.21 of the specifications. Otherwise, surface seal shall be applied in the shop for precast concrete elements (Estimated Quantity = 594 Sft.)

Reinforcing in Precast Structure shall be epoxy coated.

Waterproofing Membrane shall be applied to the vertical sides and tops of the precast three-sided structure. See Special Provisions.

A three-sided arch-topped or true-arch structure will not be permitted at this location.

Wingwalls to be set on outside of the ends of the precast three sided structure. The minimum width for the wingwall footing shall be 3'-0".

**DESIGN DATA**

LIVE LOAD: Designed for HL-93 loading in accordance with AASHTO LRFD Bridge Design Specifications, Eighth Edition, 2017.

DEAD LOAD: Actual weight plus 35 psf (composite) for future wearing surface.

DESIGN STRENGTHS: To be in accordance with AASHTO LRFD Bridge Design Specification, Eighth Edition, 2017.

**CONCRETE:**

Class "C": f'c=4000 psi  
Class "B": f'c=3000 psi  
Class "A": f'c=3500 psi

**REINFORCING STEEL:**

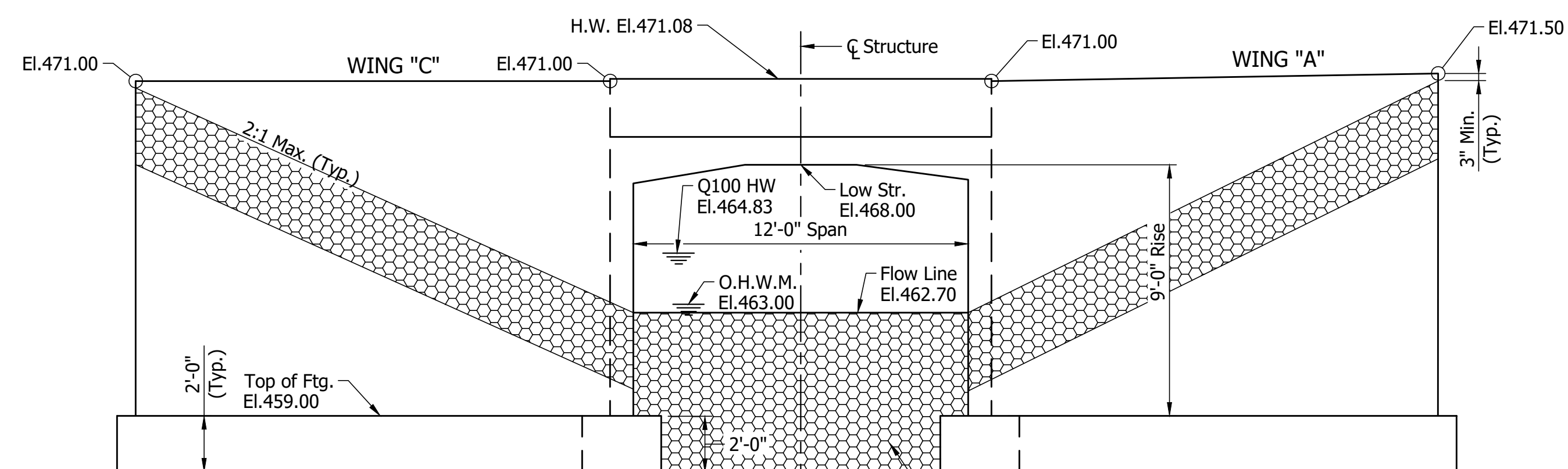
Grade 60: fy=60,000 psi

**SEISMIC DATA**

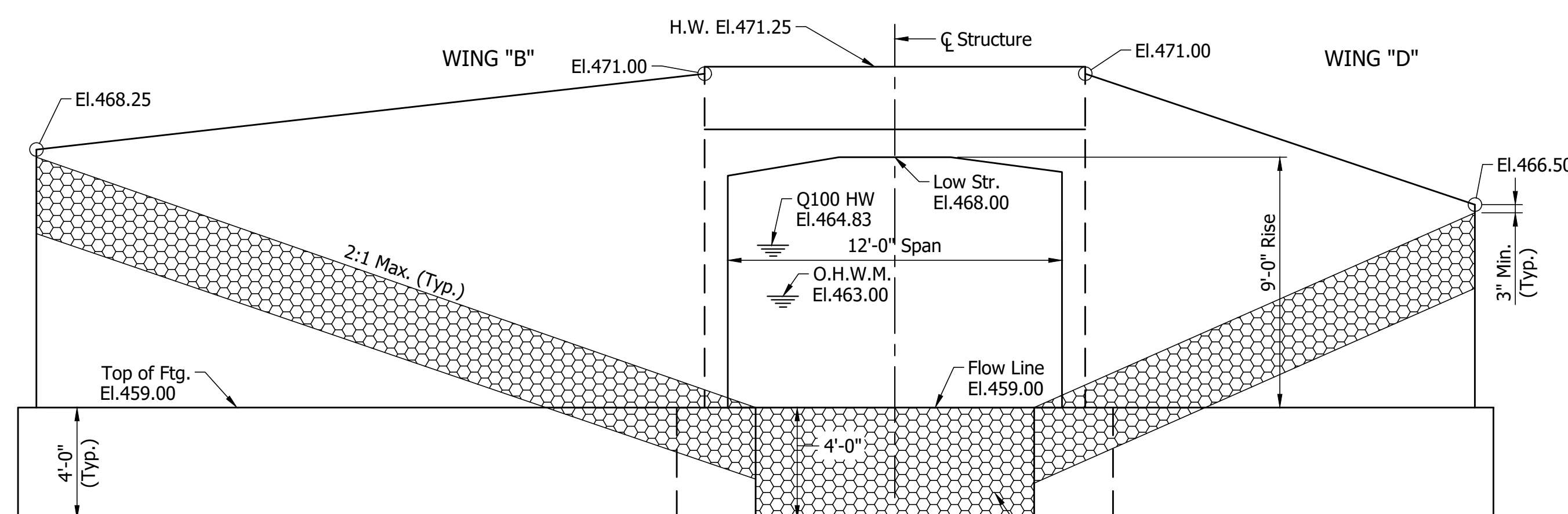
AASHTO Guide Design Specifications for LRFD Seismic Bridge Design, Second Edition, 2011 and Interims through 2015.

Seismic Zone 1  
S1=0.083g  
Site Class D  
Fv=2.40

WINGWALL INFORMATION		
	AREAS	LENGTH
Wing "A"	208.3 Sft.	17'-0"
Wing "B"	297.5 Sft.	28'-0"
Wing "C"	192.0 Sft.	16'-0"
Wing "D"	156.0 Sft.	16'-0"



**NORTH ELEVATION**  
Scale: 1/4" = 1'-0"



**SOUTH ELEVATION**  
Scale: 1/4" = 1'-0"

SOIL PARAMETERS FOR SPREAD FOOTING DESIGN	
PARAMETERS	ESTIMATED VALUE
Minimum Bottom of Footing Elevations	458.7 (inlet) 455.0 (outlet)
Minimum Footing Width, feet	3.0
Nominal Bearing Resistance (q <sub>n</sub> ), psf (Service Limit)	See Table
Bearing Resistance Factor (φ <sub>b</sub> ) (Strength Limit)	0.45
Nominal Soil Bearing Resistance, psf (Strength Limit)	See Table
Friction Angle of Soil (φ), degrees	0
Friction Angle Between Footing and Foundation soil (δ), degrees	0
Friction Factor, (tan δ)	0
Nominal Cohesion of Foundation Soil (C), psf	1,500
Nominal Adhesion between Foundation Soil and Concrete (C <sub>A</sub> ), psf	1,000
Friction Angle of Backfill Material, degrees	30
Friction Angle Between Wall and Backfill (δ <sub>r</sub> ), degrees	20
Total Unit Weight of Foundation Soil, pcf	150
Unit Weight of Backfill Material, pcf	125

**SHALLOW FOUNDATION BEARING RESISTANCE (PSF)**

FOOTING WIDTH (FEET)	SERVICE LIMIT STATE		STRENGTH LIMIT STATE	
	At 1.0-inch settlement	At 0.5-inch settlement	Nominal	Factored
	2	5,650	2,950	6,448
3	4,150	2,200	6,448	2,900
4	3,500	1,850	6,448	2,900
5	3,150	1,650	6,448	2,900
6	2,950	1,550	6,448	2,900
7	2,850	1,500	6,448	2,900

Note:  
For General Plan and Sections, see Sht.C2.

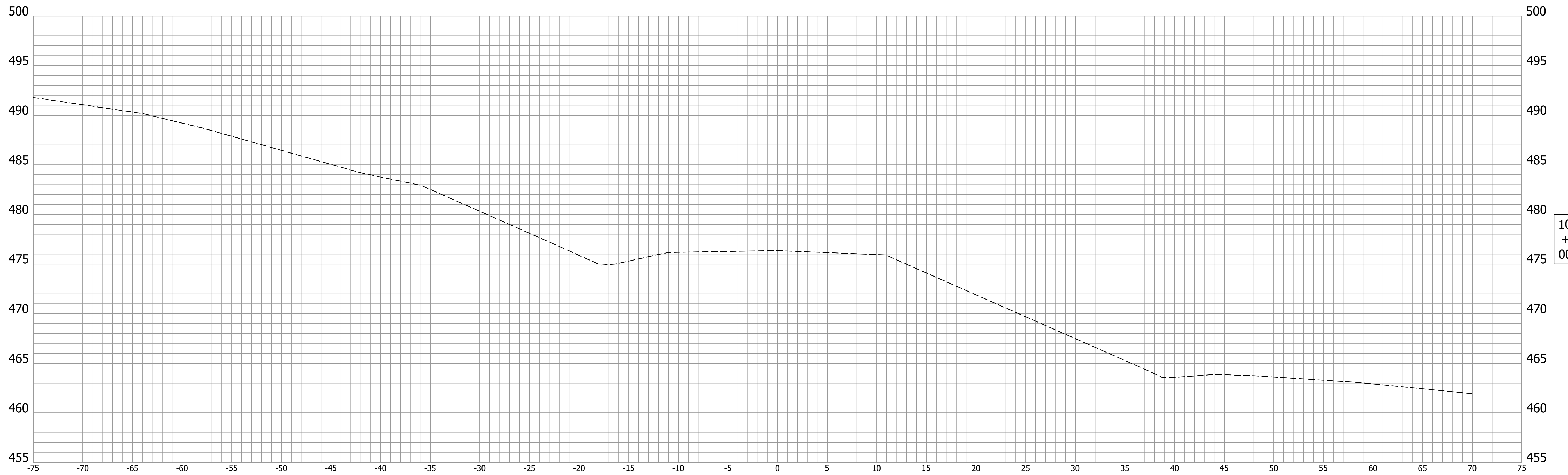
**PRECAST CONCRETE 3-SIDED STRUCTURE**  
1 SPAN: 12'-0" RISE 9'-0"  
32'-0" CLEAR ROADWAY SKEW: 25° Rt.  
SR 56 OVER UNNAMED TRIBUTARY TO OHIO RIVER  
SWITZERLAND COUNTY

RECOMMENDED FOR APPROVAL _____	DESIGN ENGINEER _____	DATE _____
DESIGNED: GLB _____	DRAWN: NW _____	
CHECKED: TSW _____	CHECKED: GLB _____	

INDIANA  
DEPARTMENT OF TRANSPORTATION

GENERAL PLAN

HORIZONTAL SCALE	BRIDGE FILE
AS NOTED	N/A
VERTICAL SCALE	DESIGNATION
AS NOTED	1700001
DRAWING NO.	SHEETS
C3 of C3	14 of 24
CONTRACT	PROJECT
B-40422	1700001



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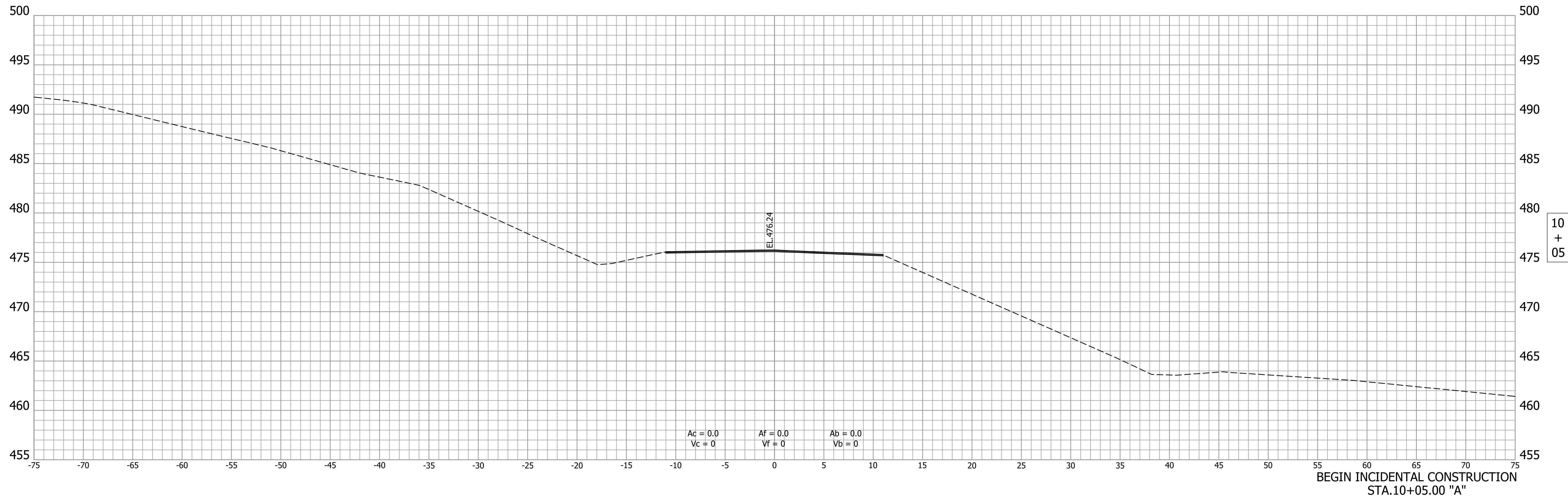
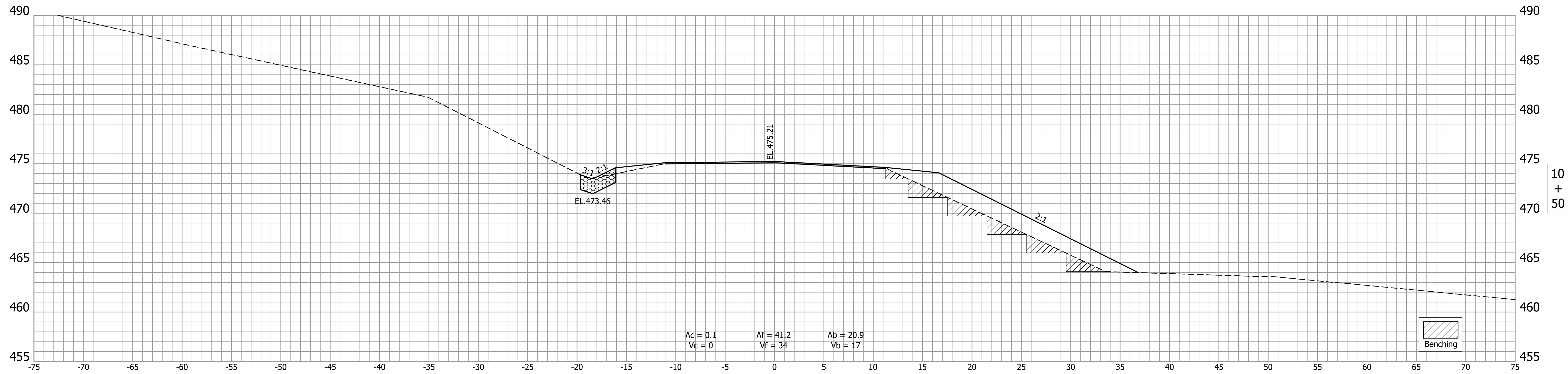
RECOMMENDED FOR APPROVAL _____	DESIGN ENGINEER _____	DATE _____
DESIGNED: GLB _____	DRAWN: NW _____	
CHECKED: TSW _____	CHECKED: GLB _____	

INDIANA  
DEPARTMENT OF TRANSPORTATION

CROSS SECTIONS  
LINE "A"

HORIZONTAL SCALE 1"=5'	BRIDGE FILE N/A
VERTICAL SCALE 1"=5'	DESIGNATION 1700001
DRAWING NO.	SHEETS 17 of 24
CONTRACT B-40422	PROJECT 1700001

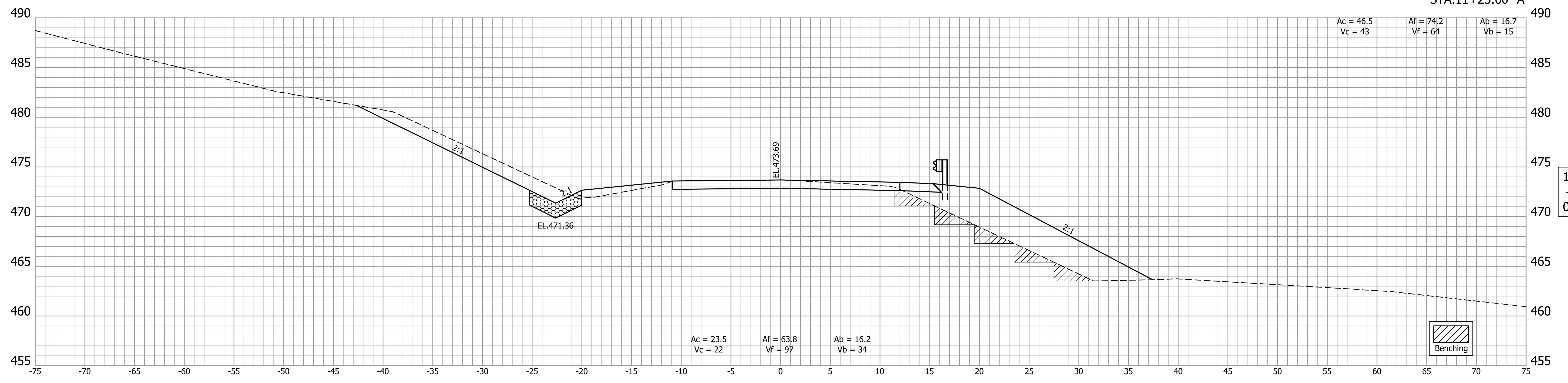
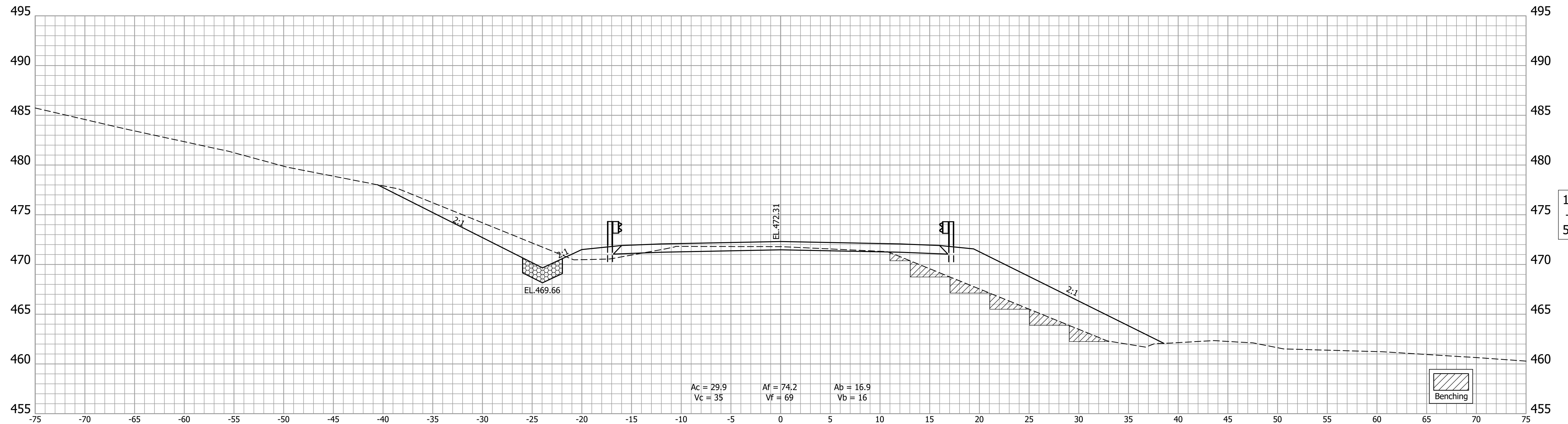




RECOMMENDED FOR APPROVAL	DESIGN ENGINEER	DATE
DESIGNED: GLB	DRAWN: NW	
CHECKED: TSW	CHECKED: GLB	

INDIANA DEPARTMENT OF TRANSPORTATION	
CROSS SECTIONS LINE "A"	

HORIZONTAL SCALE 1"=5'	BRIDGE FILE N/A
VERTICAL SCALE 1"=5'	DESIGNATION 1700001
DRAWING NO.	SHEETS
	18 of 24
CONTRACT B-40422	PROJECT 1700001



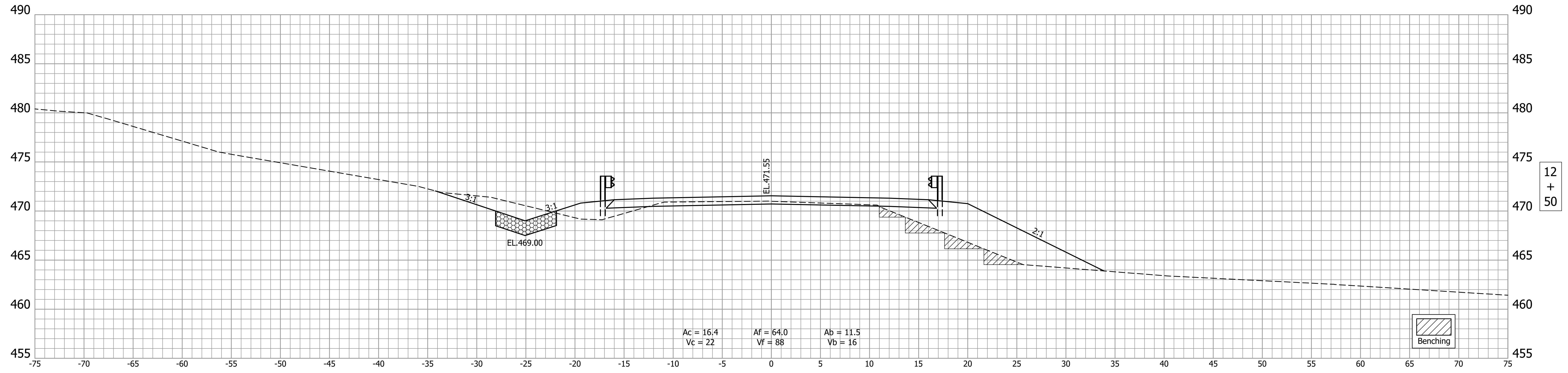
RECOMMENDED FOR APPROVAL	DESIGN ENGINEER	DATE
DESIGNED: GLB	DRAWN: NW	
CHECKED: TSW	CHECKED: GLB	

INDIANA  
DEPARTMENT OF TRANSPORTATION

CROSS SECTIONS  
LINE "A"

HORIZONTAL SCALE	BRIDGE FILE
1"=5'	N/A
VERTICAL SCALE	DESIGNATION
1"=5'	1700001
DRAWING NO.	SHEETS
	19 of 24
CONTRACT	PROJECT
B-40422	1700001





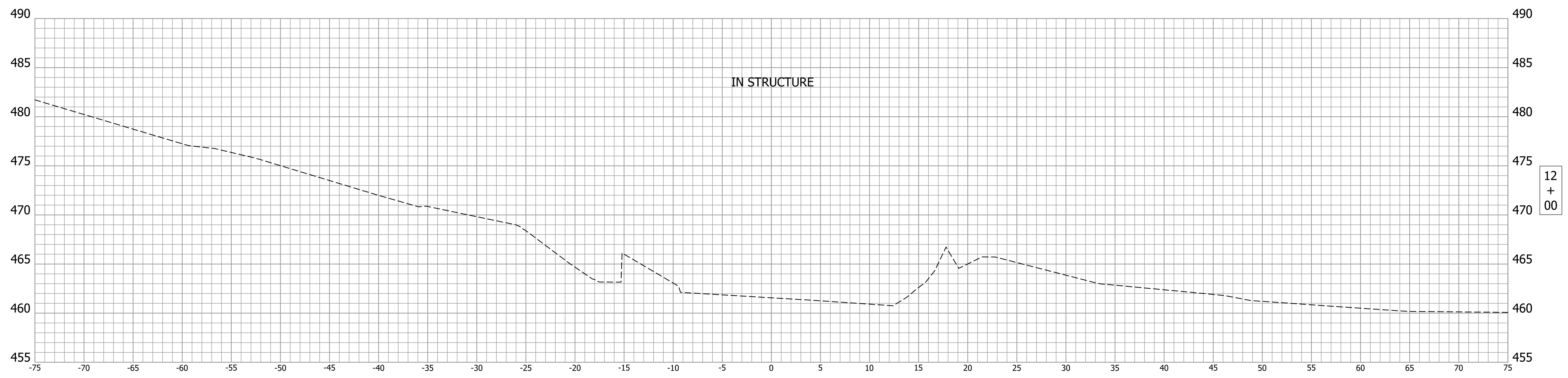
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Vc = 22

Af = 64.0  
Vf = 88

Ab = 11.5  
Vb = 16

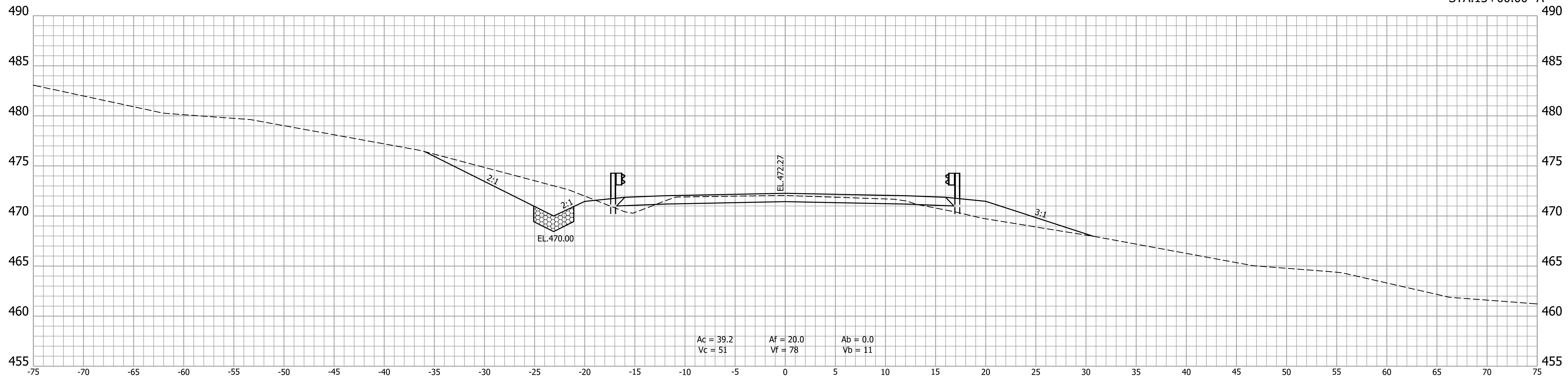
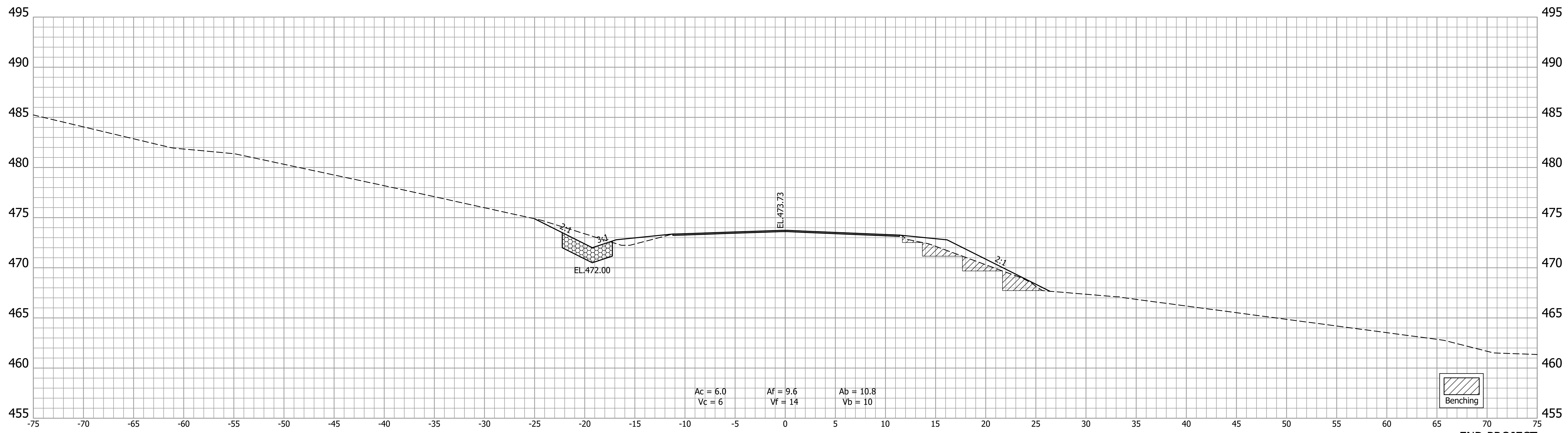
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RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER _____ DATE _____	DESIGNED: GLB _____ DRAWN: NW _____ CHECKED: TSW _____ CHECKED: GLB _____	INDIANA DEPARTMENT OF TRANSPORTATION		HORIZONTAL SCALE 1"=5'	BRIDGE FILE N/A
		CROSS SECTIONS LINE "A"		VERTICAL SCALE 1"=5'	DESIGNATION 1700001
				DRAWING NO. B-40422	SHEETS 20 of 24
				CONTRACT B-40422	PROJECT 1700001



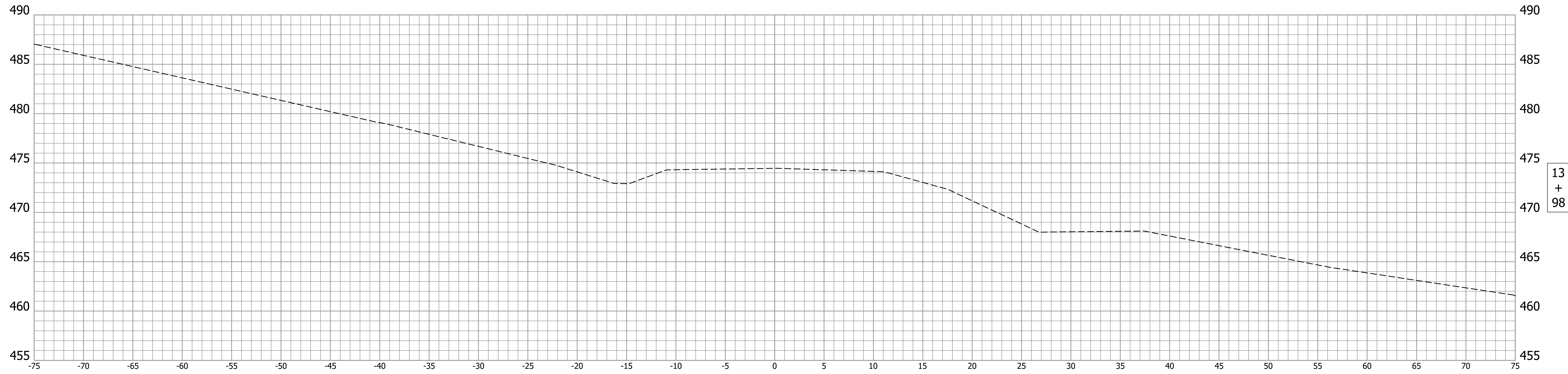
RECOMMENDED FOR APPROVAL _____	DESIGN ENGINEER _____	DATE _____
DESIGNED: GLB _____	DRAWN: NW _____	
CHECKED: TSW _____	CHECKED: GLB _____	

INDIANA  
 DEPARTMENT OF TRANSPORTATION

CROSS SECTIONS  
 LINE "A"

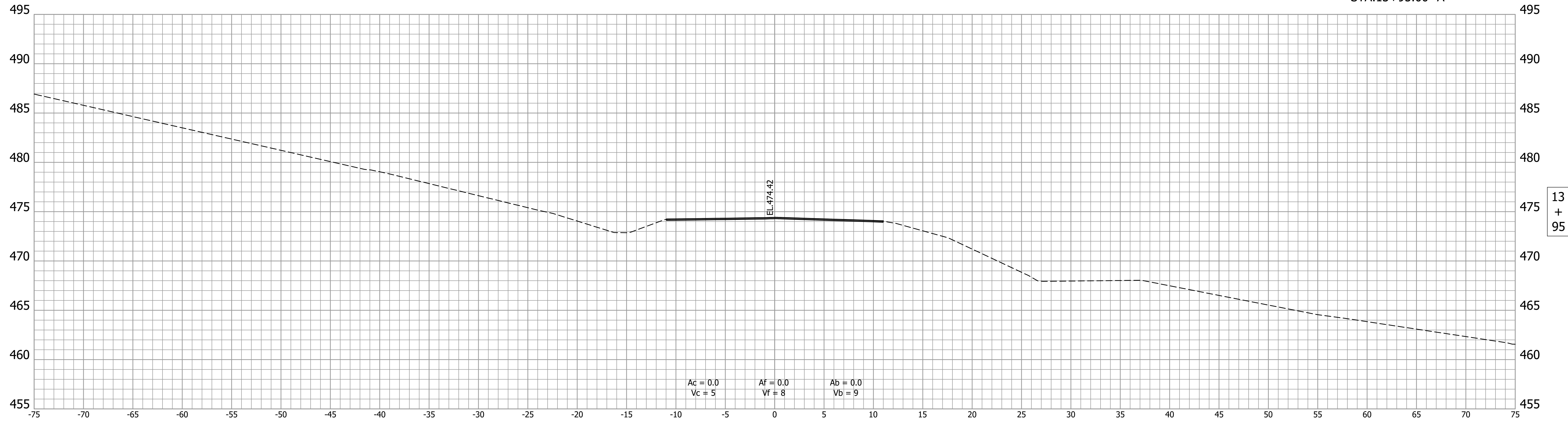
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VERTICAL SCALE 1"=5'	DESIGNATION 1700001
DRAWING NO.	SHEETS 21 of 24
CONTRACT B-40422	PROJECT 1700001





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END INCIDENTAL CONSTRUCTION  
STA.13+95.00 "A"



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Ac = 0.0  
Vc = 5

Af = 0.0  
Vf = 8

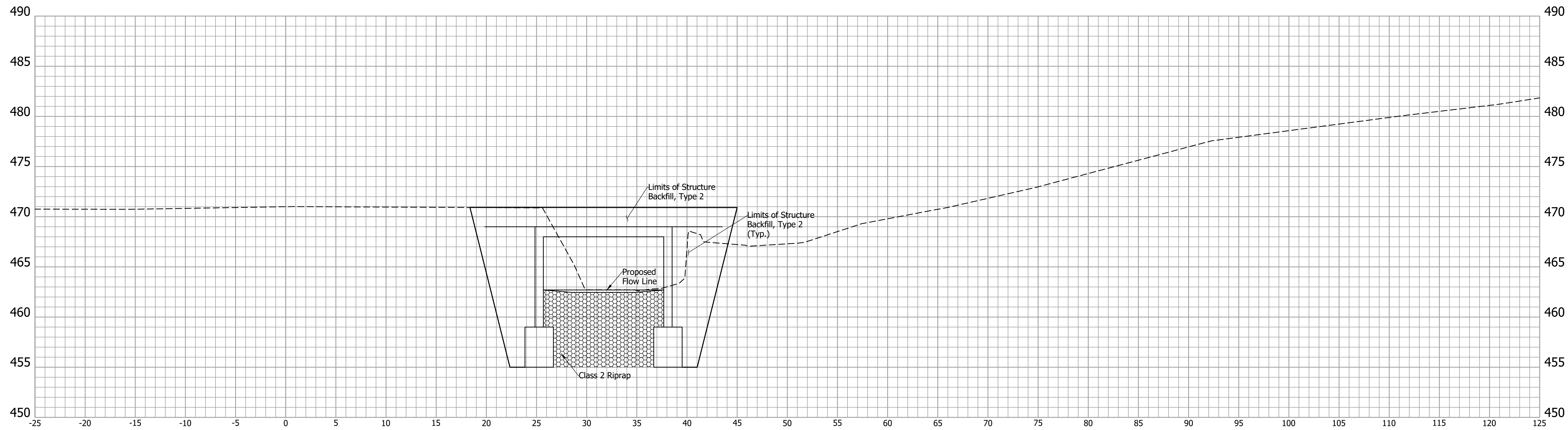
Ab = 0.0  
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RECOMMENDED FOR APPROVAL	DESIGN ENGINEER	DATE
DESIGNED: GLB	DRAWN: NW	
CHECKED: TSW	CHECKED: GLB	

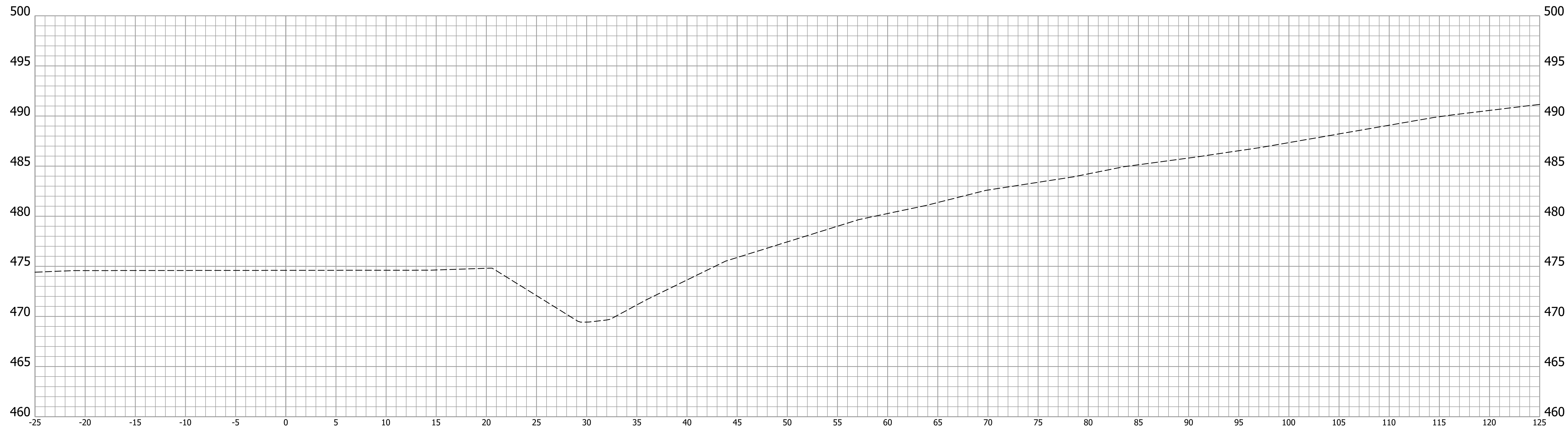
INDIANA  
DEPARTMENT OF TRANSPORTATION

CROSS SECTIONS  
LINE "A"

HORIZONTAL SCALE 1"=5'	BRIDGE FILE N/A
VERTICAL SCALE 1"=5'	DESIGNATION 1700001
DRAWING NO.	SHEETS
	22 of 24
CONTRACT B-40422	PROJECT 1700001



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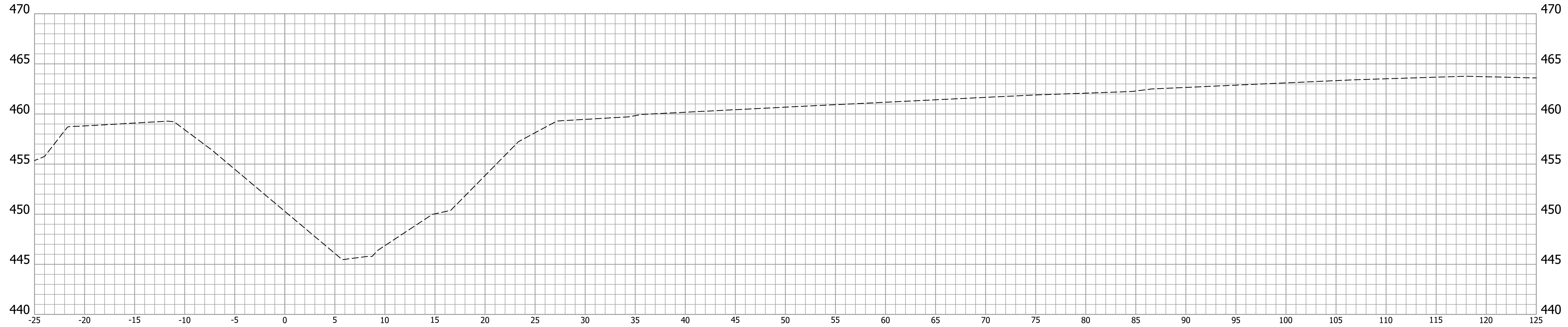
RECOMMENDED FOR APPROVAL _____	DESIGN ENGINEER _____	DATE _____
DESIGNED: GLB _____	DRAWN: NW _____	
CHECKED: TSW _____	CHECKED: GLB _____	

INDIANA  
DEPARTMENT OF TRANSPORTATION

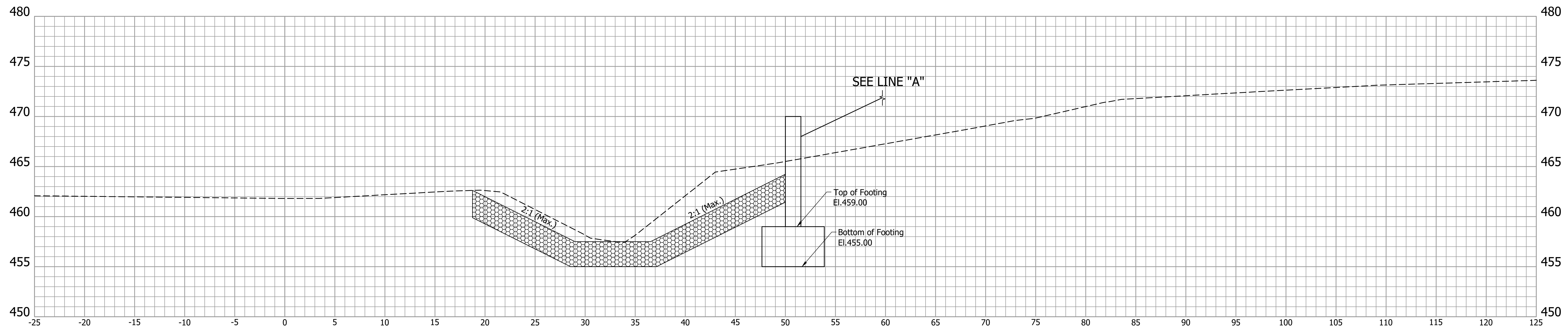
CROSS SECTIONS  
LINE "BR-1-A"

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VERTICAL SCALE 1"=5'	DESIGNATION 1700001
DRAWING NO.	SHEETS
	23 of 24
CONTRACT B-40422	PROJECT 1700001





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RECOMMENDED FOR APPROVAL _____	DESIGN ENGINEER _____	DATE _____
DESIGNED: GLB _____	DRAWN: NW _____	
CHECKED: TSW _____	CHECKED: GLB _____	

INDIANA  
DEPARTMENT OF TRANSPORTATION

CROSS SECTIONS  
LINE "BR-1-A"

HORIZONTAL SCALE 1"=5'	BRIDGE FILE N/A
VERTICAL SCALE 1"=5'	DESIGNATION 1700001
DRAWING NO.	SHEETS
	24 of 24
CONTRACT B-40422	PROJECT 1700001

# **Appendix C:**

## **Early Coordination**

August 12, 2019

Early Coordination Agency

Re: Des. No. 1700001, Small Structure Replacement Project over Unnamed Tributary (UNT) to Ohio River on SR 56, 16.12 miles east of US 421, in Switzerland County, Indiana.

Dear Early Coordination Agency:

The Indiana Department of Transportation (INDOT) and the Federal Highway Administration (FHWA) intend to proceed with a project involving the referenced small structure in south Switzerland County, Indiana. This letter is part of the early coordination phase of the environmental review process. We are requesting comments from your area of expertise regarding any possible environmental effects associated with this project. **Please use the designation numbers and description in your reply.** We will incorporate your comments into a study of the project's environmental impacts.

This project is located on SR 56, 16.12 miles east of US 421 in south Switzerland County, Indiana. This section of SR 56 is a two lane Rural Minor Arterial. The posted speed limit at the project location is 55 mph. The existing roadway paved width is approximately 22 ft. with an approximate clear roadway width of 31 ft. 6 in. through the structure with no existing railing. The existing roadway consists of two 11 ft. paved travel lanes bordered by 1 ft. earth usable shoulders (no paved shoulders). The existing culvert is 35 feet in length. Currently, the existing superstructure is rated in satisfactory condition and the substructure is rated in poor condition. The slab superstructure exhibits cracks with efflorescence and the exterior channel beams have spalls with exposed reinforcing steel. The existing substructure has cracks in areas along the faces of the abutments with exposed footings that are heavily deteriorated due to scour.

The current proposed project would replace the existing reinforced concrete slab structure over UNT to the Ohio River with a new structure. The proposed project will be constructed on the similar existing roadway alignment. The structure and roadway will be widened within the project limits to meet the current geometric standards, which are 12 ft. lanes bordered by a 3 ft. min. usable shoulder with a 1 ft. guardrail offset, paved to the guardrail face. The anticipated project limits will be 100 ft. west and 125 ft. east of the proposed structure with approximately 95 ft. west and 70 ft. east of incidental work beyond each end of the project for a total length of approximately 390 ft. This project will require approximately 0.2 acres of right-of-way. The preferred method of traffic maintenance would be a road closure with an official state detour route. The proposed detour will utilize SR 129, US 421, and SR 56. The anticipated letting date is December 8, 2021 with construction anticipated to begin in the Spring of 2022.





Land use in the vicinity of the project is primarily agricultural and rural residential. The UNT to the Ohio River at SR 56 is classified as a Riverine wetland. A zone of 1% annual chance flood hazard is located in the project area; refer to the attached National Wetlands Inventory Map and Floodplain Map, respectively. BLN will prepare a Waters of the US Report (WOUSR) including wetland determinations as appropriate. This project qualifies for application of the US Fish and Wildlife Service (USFWS) range-wide programmatic informal consultation for the federally – endangered Indiana bat and the Northern Long-Eared bat. The USFWS will be supplied with a project information form for review separately.

In addition, BLN will have Qualified Professionals (QPs) to investigate the additional right-of-way for archaeological and historic resources for compliance with Section 106 of the National Historic Preservation Act (NHPA). Potential historical properties listed on or eligible for the National Register of Historic Places and the Indiana Register of Historic Sites and Structures are located within the project vicinity. The Thiebaud Farm (Survey #155-649-15079, common name is Switzerland County Agricultural Museum Center) was listed on the Indiana State Historic Architectural and Archeological Research Database (SHAARD). The results of this investigation will be forwarded to the Indiana State Historic Preservation Officer (IN SHPO) for review and concurrence.

Should we not receive your response **within 30 calendar days** of the date of this letter, it will be assumed that your agency has no comment on potential adverse effects as a result of the proposed project. However, if an extension to the response time is necessary, a reasonable amount may be granted upon request. If you have any questions, or if we can be of any further assistance, please contact either Travis Mankin INDOT Project Manager at [tmankin@indot.in.gov](mailto:tmankin@indot.in.gov) or telephone 812-524-3957 or this office at [acooper@b-l-n.com](mailto:acooper@b-l-n.com) and telephone 317-849-5832, ext. 3060. Thank you for your cooperation.

Sincerely,



Aimee Cooper  
Environmental Analyst  
Beam, Longest, and Neff

Attachments:

Maps (Location, Topographic, Aerial, NWI, and Floodplain)  
Ground-Level Photographs

## EARLY COORDINATION MAILING LIST

Robin McWilliams  
Field Supervisor  
U.S Fish and Wildlife Service  
Bloomington Indiana Field Office  
620 South Walker Street  
Bloomington, IN 47403-2121  
Sent electronically – [robin\\_mcwilliams@fws.gov](mailto:robin_mcwilliams@fws.gov)

Vacant – Interim Michelle Allen  
Federal Highway Administration  
Federal Office Building, Room 254  
575 North Pennsylvania Street, Room 254  
Indianapolis, Indiana 46204  
Sent electronically – [michelle.allen@dot.gov](mailto:michelle.allen@dot.gov)

Rick Neilson  
State Conservationist  
Natural Resources Conservation Service  
6013 Lakeside Boulevard  
Indianapolis, Indiana 46278  
Sent electronically – [rick.neilson@in.usda.gov](mailto:rick.neilson@in.usda.gov)

Indiana Geological Survey  
611 North Walnut Grove  
Bloomington, IN 47405  
Sent electronically – [igs.indiana.edu/eAssessment/](http://igs.indiana.edu/eAssessment/)

Environmental Coordinator  
Indiana Department of Natural Resources  
Division of Fish and Wildlife  
402 West Washington Street, Rm. W273  
Indianapolis, IN 46204  
Sent electronically – [environmentalreview@dnr.in.gov](mailto:environmentalreview@dnr.in.gov)

Indiana Department of Environmental Management  
Sent electronically – [www.in.gov/idem/5284.htm](http://www.in.gov/idem/5284.htm)

Chief, Groundwater Section  
Indiana Department of Environmental Management  
100 N. Senate Avenue  
Indianapolis, IN 46204  
Sent electronically – [www.in.gov/idem/cleanwater/pages/wellhead](http://www.in.gov/idem/cleanwater/pages/wellhead)

Manger, Public Hearings  
Indiana Department of Transportation  
100 N. Senate Avenue, Rm. 642  
Indianapolis, IN 46204

Field Environmental Officer  
Chicago Regional Office  
US Department of Housing & Urban Development  
Metcalf Fed. Bldg.  
77 W. Jackson Blvd. Room 2401  
Chicago, IL 60604  
Sent electronically – [michael.e.wurl@hud.gov](mailto:michael.e.wurl@hud.gov)

Regional Environmental Coordinator  
Midwest Regional Office  
National Park Service  
601 Riverfront Drive  
Omaha, Nebraska 68102

Susan Craig  
Executive Director  
Southeastern Indiana Regional Planning Commission  
405 West US Hwy 50  
P.O. Box 765  
Versailles, IN 47043

Switzerland County Board of Commissioners  
212 West Main Street  
Vevay, IN 47043

Darrell Keith  
Highway Superintendent  
Switzerland County Highway Department  
212 West Main Street  
Vevay, IN 47043  
Sent electronically – [hwysuper@switzerlandcountycourthouse.org](mailto:hwysuper@switzerlandcountycourthouse.org)

Thomas Moore  
Switzerland County Emergency Management  
212 West Main Street  
Vevay, IN 47043  
Sent electronically – [switzema@gmail.com](mailto:switzema@gmail.com)

Switzerland County Historical Society  
208 E. Market Street  
Vevay, IN 47043  
Sent electronically – [swcomuseums@embarqmail.com](mailto:swcomuseums@embarqmail.com)

U.S. Army Corps of Engineers  
Louisville District  
ATTN: CELRL-RDN  
P.O. Box 59  
Louisville, KY 40201-0059  
Sent electronically – [Gregory.a.mckay@usace.army.mil](mailto:Gregory.a.mckay@usace.army.mil)

David Dye  
Environmental Scoping Manager  
INDOT, Seymour District  
185 Agrico Lane  
Seymour, IN 47274  
Sent electronically – [ddye@indot.in.gov](mailto:ddye@indot.in.gov)

Graphics included in the Early Coordination letter can be found in Appendix B





# Indiana Department of Environmental Management

*We Protect Hoosiers and Our Environment.*

100 North Senate Avenue - Indianapolis, IN 46204  
(800) 451-6027 - (317) 232-8603 - www.idem.IN.gov

INDOT

Beam, Longest, and Neff, LLC

Aimee Cooper

8320 Craig St

, IN

Indianapolis , IN 46250

Date

To Engineers and Consultants Proposing Roadway Construction Projects:

RE: The current proposed project would replace the existing reinforced concrete slab structure over UNT to the Ohio River with a new structure. The proposed project will be constructed on the similar existing roadway alignment. The structure and roadway will be widened within the project limits to meet the current geometric standards, which are 12 ft. lanes bordered by a 3 ft. min. usable shoulder with a 1 ft. guardrail offset, paved to the guardrail face. The anticipated project limits will be 100 ft. west and 125 ft. east of the proposed structure with approximately 95 ft. west and 70 ft. east of incidental work beyond each end of the project for a total length of approximately 390 ft. This project will require approximately 0.2 acres of right-of-way. The preferred method of traffic maintenance would be a road closure with an official state detour route. The proposed detour will utilize SR 129, US 421, and SR 56. The anticipated letting date is December 8, 2021 with construction anticipated to begin in the Spring of 2022.

This letter from the Indiana Department of Environmental Management (IDEM) serves as a standardized response to enquiries inviting IDEM comments on roadway construction, reconstruction, or other improvement projects within existing roadway corridors when the proposed scope of the project is beneath the threshold requiring a formal National Environmental Policy Act-mandated Environmental Assessment or Environmental Impact Statement. As the letter attempts to address all roadway-related environmental topics of potential concern, it is possible that not every topic addressed in the letter will be applicable to your particular roadway project.

For additional information on specific roadway-related topics of interest, please visit the appropriate Web pages cited below, many of which provide contact information for persons within the various program areas who can answer questions not fully addressed in this letter. Also please be mindful that some environmental requirements may be subject to change and so each person intending to include a copy of this letter in their project documentation packet is advised to download the most recently revised version of the letter; found at: <http://www.in.gov/idem/5283.htm> (<http://www.in.gov/idem/5283.htm>).

To ensure that all environmentally-related issues are adequately addressed, IDEM recommends that you read this letter in its entirety, and consider each of the following issues as you move forward with the planning of your proposed roadway construction, reconstruction, or improvement project:

## WATER AND BIOTIC QUALITY

1. Section 404 of the Clean Water Act requires that you obtain a permit from the U.S. Army Corps of Engineers (USACE) before discharging dredged or fill materials into any wetlands or other waters, such as rivers,

lakes, streams, and ditches. Other activities regulated include the relocation, channelization, widening, or other such alteration of a stream, and the mechanical clearing (use of heavy construction equipment) of wetlands. Thus, as a project owner or sponsor, it is your responsibility to ensure that no wetlands are disturbed without the proper permit. Although you may initially refer to the U.S. Fish and Wildlife Service National Wetland Inventory maps as a means of identifying potential areas of concern, please be mindful that those maps do not depict jurisdictional wetlands regulated by the USACE or the Department of Environmental Management. A valid jurisdictional wetlands determination can only be made by the USACE, using the 1987 Wetland Delineation Manual.

USACE recommends that you have a consultant check to determine whether your project will abut, or lie within, a wetland area. To view a list of consultants that have requested to be included on a list posted by the USACE on their Web site, see USACE Permits and Public Notices (<http://www.lrl.usace.army.mil/orf/default.asp>) (<http://www.lrl.usace.army.mil/orf/default.asp>) and then click on "Information" from the menu on the right-hand side of that page. Their "Consultant List" is the fourth entry down on the "Information" page. Please note that the USACE posts all consultants that request to appear on the list, and that inclusion of any particular consultant on the list does not represent an endorsement of that consultant by the USACE, or by IDEM.

Much of northern Indiana (Newton, Lake, Porter, LaPorte, St. Joseph, Elkhart, LaGrange, Steuben, and Dekalb counties; large portions of Jasper, Starke, Marshall, Noble, Allen, and Adams counties; and lesser portions of Benton, White, Pulaski, Kosciusko, and Wells counties) is served by the USACE District Office in Detroit (313-226-6812). The central and southern portions of the state (large portions of Benton, White, Pulaski, Kosciusko, and Wells counties; smaller portions of Jasper, Starke, Marshall, Noble, Allen, and Adams counties; and all other Indiana counties located in north-central, central, and southern Indiana) are served by the USACE Louisville District Office (502-315-6733).

Additional information on contacting these U.S. Army Corps of Engineers (USACE) District Offices, government agencies with jurisdiction over wetlands, and other water quality issues, can be found at <http://www.in.gov/idem/4396.htm> (<http://www.in.gov/idem/4396.htm>). IDEM recommends that impacts to wetlands and other water resources be avoided to the fullest extent.

2. In the event a Section 404 wetlands permit is required from the USACE, you also must obtain a Section 401 Water Quality Certification from the IDEM Office of Water Quality Wetlands Program. To learn more about the Wetlands Program, visit: <http://www.in.gov/idem/4384.htm> (<http://www.in.gov/idem/4384.htm>).
3. If the USACE determines that a wetland or other water body is isolated and not subject to Clean Water Act regulation, it is still regulated by the state of Indiana. A State Isolated Wetland permit from IDEM's Office of Water Quality (OWQ) is required for any activity that results in the discharge of dredged or fill materials into isolated wetlands. To learn more about isolated wetlands, contact the OWQ Wetlands Program at 317-233-8488.
4. If your project will involve over a 0.5 acre of wetland impact, stream relocation, or other large-scale alterations to water bodies such as the creation of a dam or a water diversion, you should seek additional input from the OWQ Wetlands Program staff. Consult the Web at: <http://www.in.gov/idem/4384.htm> (<http://www.in.gov/idem/4384.htm>) for the appropriate staff contact to further discuss your project.
5. Work within the one-hundred year floodway of a given water body is regulated by the Department of Natural Resources, Division of Water. The Division issues permits for activities regulated under the follow statutes:
  - o IC 14-26-2 Lakes Preservation Act 312 IAC 11
  - o IC 14-26-5 Lowering of Ten Acre Lakes Act No related code

- IC 14-28-1 Flood Control Act 310 IAC 6-1
- IC 14-29-1 Navigable Waterways Act 312 IAC 6
- IC 14-29-3 Sand and Gravel Permits Act 312 IAC 6
- IC 14-29-4 Construction of Channels Act No related code

For information on these Indiana (statutory) Code and Indiana Administrative Code citations, see the DNR Web site at: <http://www.in.gov/dnr/water/9451.htm> (<http://www.in.gov/dnr/water/9451.htm>) . Contact the DNR Division of Water at 317-232-4160 for further information.

The physical disturbance of the stream and riparian vegetation, especially large trees overhanging any affected water bodies should be limited to only that which is absolutely necessary to complete the project. The shade provided by the large overhanging trees helps maintain proper stream temperatures and dissolved oxygen for aquatic life.

6. For projects involving construction activity (which includes clearing, grading, excavation and other land disturbing activities) that result in the disturbance of one (1), or more, acres of total land area, contact the Office of Water Quality – Watershed Planning Branch (317/233-1864) regarding the need for of a Rule 5 Storm Water Runoff Permit. Visit the following Web page
- <http://www.in.gov/idem/4902.htm> (<http://www.in.gov/idem/4902.htm>)

To obtain, and operate under, a Rule 5 permit you will first need to develop a Construction Plan (<http://www.in.gov/idem/4917.htm#constreq> (<http://www.in.gov/idem/4917.htm#constreq>)), and as described in 327 IAC 15-5-6.5 (<http://www.in.gov/legislative/iac/T03270/A00150> [PDF] (<http://www.in.gov/legislative/iac/T03270/A00150.PDF>), pages 16 through 19). Before you may apply for a Rule 5 Permit, or begin construction, you must submit your Construction Plan to your county Soil and Water Conservation District (SWCD) (<http://www.in.gov/isda/soil/contacts/map.html> (<http://www.in.gov/isda/soil/contacts/map.html>)).

Upon receipt of the construction plan, personnel of the SWCD or the Indiana Department of Environmental Management will review the plan to determine if it meets the requirements of 327 IAC 15-5. Plans that are deemed deficient will require re-submittal. If the plan is sufficient you will be notified and instructed to submit the verification to IDEM as part of the Rule 5 Notice of Intent (NOI) submittal. Once construction begins, staff of the SWCD or Indiana Department of Environmental Management will perform inspections of activities at the site for compliance with the regulation.

Please be mindful that approximately 149 Municipal Separate Storm Sewer System (MS4) areas are now being established by various local governmental entities throughout the state as part of the implementation of Phase II federal storm water requirements. All of these MS4 areas will eventually take responsibility for Construction Plan review, inspection, and enforcement. As these MS4 areas obtain program approval from IDEM, they will be added to a list of MS4 areas posted on the IDEM Website at: <http://www.in.gov/idem/4900.htm> (<http://www.in.gov/idem/4900.htm>).

If your project is located in an IDEM-approved MS4 area, please contact the local MS4 program about meeting their storm water requirements. Once the MS4 approves the plan, the NOI can be submitted to IDEM.

Regardless of the size of your project, or which agency you work with to meet storm water requirements, IDEM recommends that appropriate structures and techniques be utilized both during the construction phase, and after completion of the project, to minimize the impacts associated with storm water runoff. The use of appropriate planning and site development and appropriate storm water quality measures are recommended to prevent soil from leaving the construction site during active land disturbance and for post



construction water quality concerns. Information and assistance regarding storm water related to construction activities are available from the Soil and Water Conservation District (SWCD) offices in each county or from IDEM.

7. For projects involving impacts to fish and botanical resources, contact the Department of Natural Resources - Division of Fish and Wildlife (317/232-4080) for additional project input.
8. For projects involving water main construction, water main extensions, and new public water supplies, contact the Office of Water Quality - Drinking Water Branch (317-308-3299) regarding the need for permits.
9. For projects involving effluent discharges to waters of the State of Indiana, contact the Office of Water Quality - Permits Branch (317-233-0468) regarding the need for a National Pollutant Discharge Elimination System (NPDES) permit.
10. For projects involving the construction of wastewater facilities and sewer lines, contact the Office of Water Quality - Permits Branch (317-232-8675) regarding the need for permits.

## AIR QUALITY

The above-noted project should be designed to minimize any impact on ambient air quality in, or near, the project area. The project must comply with all federal and state air pollution regulations. Consideration should be given to the following:

1. Regarding open burning, and disposing of organic debris generated by land clearing activities; some types of open burning are allowed (<http://www.in.gov/idem/4148.htm>) under specific conditions. You also can seek an open burning variance from IDEM.

However, IDEM generally recommends that you take vegetative wastes to a registered yard waste composting facility or that the waste be chipped or shredded with composting on site (you must register with IDEM if more than 2,000 pounds is to be composted; contact 317/232-0066). The finished compost can then be used as a mulch or soil amendment. You also may bury any vegetative wastes (such as leaves, twigs, branches, limbs, tree trunks and stumps) onsite, although burying large quantities of such material can lead to subsidence problems, later on.

Reasonable precautions must be taken to minimize fugitive dust emissions from construction and demolition activities. For example, wetting the area with water, constructing wind barriers, or treating dusty areas with chemical stabilizers (such as calcium chloride or several other commercial products). Dirt tracked onto paved roads from unpaved areas should be minimized.

Additionally, if construction or demolition is conducted in a wooded area where blackbirds have roosted or abandoned buildings or building sections in which pigeons or bats have roosted for 3-5 years precautionary measures should be taken to avoid an outbreak of histoplasmosis. This disease is caused by the fungus *Histoplasma capsulatum*, which stems from bird or bat droppings that have accumulated in one area for 3-5 years. The spores from this fungus become airborne when the area is disturbed and can cause infections over an entire community downwind of the site. The area should be wetted down prior to cleanup or demolition of the project site. For more detailed information on histoplasmosis prevention and control, please contact the Acute Disease Control Division of the Indiana State Department of Health at (317) 233-7272.

2. The U.S. EPA and the Surgeon General recommend that people not have long-term exposure to radon at levels above 4 pCi/L. (For a county-by-county map of predicted radon levels in Indiana, visit: <http://www.in.gov/idem/4145.htm>.)

The U.S. EPA further recommends that all homes (and apartments within three stories of ground level) be tested for radon. If in-home radon levels are determined to be 4 pCi/L, or higher, EPA recommends a follow-up test. If the second test confirms that radon levels are 4 pCi/L, or higher, EPA recommends the installation of radon-reduction measures. (For a list of qualified radon testers and radon mitigation (or reduction) specialists visit: [http://www.in.gov/isdh/regsvcs/radhealth/pdfs/radon\\_testers\\_mitigators\\_list.pdf](http://www.in.gov/isdh/regsvcs/radhealth/pdfs/radon_testers_mitigators_list.pdf) ([http://www.in.gov/isdh/regsvcs/radhealth/pdfs/radon\\_testers\\_mitigators\\_list.pdf](http://www.in.gov/isdh/regsvcs/radhealth/pdfs/radon_testers_mitigators_list.pdf).) It also is recommended that radon reduction measures be built into all new homes, particularly in areas like Indiana that have moderate to high predicted radon levels.

To learn more about radon, radon risks, and ways to reduce exposure visit:

<http://www.in.gov/isdh/regsvcs/radhealth/radon.htm> (<http://www.in.gov/isdh/regsvcs/radhealth/radon.htm>), <http://www.in.gov/idem/4145.htm> (<http://www.in.gov/idem/4145.htm>), or <http://www.epa.gov/radon/index.html> (<http://www.epa.gov/radon/index.html>).

3. With respect to asbestos removal: all facilities slated for renovation or demolition (except residential buildings that have (4) four or fewer dwelling units and which will not be used for commercial purposes) must be inspected by an Indiana-licensed asbestos inspector prior to the commencement of any renovation or demolition activities. If regulated asbestos-containing material (RACM) that may become airborne is found, any subsequent demolition, renovation, or asbestos removal activities must be performed in accordance with the proper notification and emission control requirements.

If no asbestos is found where a renovation activity will occur, or if the renovation involves removal of less than 260 linear feet of RACM off of pipes, less than 160 square feet of RACM off of other facility components, or less than 35 cubic feet of RACM off of all facility components, the owner or operator of the project does not need to notify IDEM before beginning the renovation activity.

For questions on asbestos demolition and renovation activities, you can also call IDEM's Lead/Asbestos section at 1-888-574-8150.

However, in all cases where a demolition activity will occur (even if no asbestos is found), the owner or operator must still notify IDEM 10 working days prior to the demolition, using the form found at <http://www.in.gov/icpr/webfile/formsdiv/44593.pdf> (<http://www.in.gov/icpr/webfile/formsdiv/44593.pdf>).

Anyone submitting a renovation/demolition notification form will be billed a notification fee based upon the amount of friable asbestos containing material to be removed or demolished. Projects that involve the removal of more than 2,600 linear feet of friable asbestos containing materials on pipes, or 1,600 square feet or 400 cubic feet of friable asbestos containing material on other facility components, will be billed a fee of \$150 per project; projects below these amounts will be billed a fee of \$50 per project. All notification remitters will be billed on a quarterly basis.

For more information about IDEM policy regarding asbestos removal and disposal, visit: <http://www.in.gov/idem/4983.htm> (<http://www.in.gov/idem/4983.htm>).

4. With respect to lead-based paint removal: IDEM encourages all efforts to minimize human exposure to lead-based paint chips and dust. IDEM is particularly concerned that young children exposed to lead can suffer from learning disabilities. Although lead-based paint abatement efforts are not mandatory, any abatement that is conducted within housing built before January 1, 1978, or a child-occupied facility is required to comply with all lead-based paint work practice standards, licensing and notification requirements. For more information about lead-based paint removal visit: <http://www.in.gov/isdh/19131.htm> (<http://www.in.gov/isdh/19131.htm>).

5. Ensure that asphalt paving plants are permitted and operate properly. The use of cutback asphalt, or asphalt emulsion containing more than seven percent (7%) oil distillate, is prohibited during the months April through October. See 326 IAC 8-5-2 , Asphalt Paving Rule (<http://www.ai.org/legislative/iac/T03260/A00080.PDF> (<http://www.ai.org/legislative/iac/T03260/A00080.PDF>)).
6. If your project involves the construction of a new source of air emissions or the modification of an existing source of air emissions or air pollution control equipment, it will need to be reviewed by the IDEM Office of Air Quality (OAQ). A registration or permit may be required under 326 IAC 2 (View at: [www.ai.org/legislative/iac/t03260/a00020.pdf](http://www.ai.org/legislative/iac/t03260/a00020.pdf) (<http://www.ai.org/legislative/iac/t03260/a00020.pdf>)). New sources that use or emit hazardous air pollutants may be subject to Section 112 of the Clean Air Act and corresponding state air regulations governing hazardous air pollutants.
7. For more information on air permits visit: <http://www.in.gov/idem/4223.htm> (<http://www.in.gov/idem/4223.htm>), or to initiate the IDEM air permitting process, please contact the Office of Air Quality Permit Reviewer of the Day at (317) 233-0178 or OAMPROD atdem.state.in.us.

## LAND QUALITY

In order to maintain compliance with all applicable laws regarding contamination and/or proper waste disposal, IDEM recommends that:

1. If the site is found to contain any areas used to dispose of solid or hazardous waste, you need to contact the Office of Land Quality (OLQ) at 317-308-3103.
2. All solid wastes generated by the project, or removed from the project site, need to be taken to a properly permitted solid waste processing or disposal facility. For more information, visit <http://www.in.gov/idem/4998.htm> (<http://www.in.gov/idem/4998.htm>).
3. If any contaminated soils are discovered during this project, they may be subject to disposal as hazardous waste. Please contact the OLQ at 317-308-3103 to obtain information on proper disposal procedures.
4. If PCBs are found at this site, please contact the Industrial Waste Section of OLQ at 317-308-3103 for information regarding management of any PCB wastes from this site.
5. If there are any asbestos disposal issues related to this site, please contact the Industrial Waste Section of OLQ at 317-308-3103 for information regarding the management of asbestos wastes (Asbestos removal is addressed above, under Air Quality).
6. If the project involves the installation or removal of an underground storage tank, or involves contamination from an underground storage tank, you must contact the IDEM Underground Storage Tank program at 317/308-3039. See: <http://www.in.gov/idem/4999.htm> (<http://www.in.gov/idem/4999.htm>).

## FINAL REMARKS

Should you need to obtain any environmental permits in association with this proposed project, please be mindful that IC 13-15-8 requires that you notify all adjoining property owners and/or occupants within ten days your submittal of each permit application. However, if you are seeking multiple permits, you can still meet the notification requirement with a single notice if all required permit applications are submitted with the same ten day period.



Should the scope of the proposed project be expanded to the extent that a National Environmental Policy Act Environmental Assessment (EA) or Environmental Impact Statement (EIS) is required, IDEM will actively participate in any early interagency coordination review of the project.

Meanwhile, please note that this letter does not constitute a permit, license, endorsement or any other form of approval on the part of the Indiana Department of Environmental Management regarding any project for which a copy of this letter is used. Also note that it is the responsibility of the project engineer or consultant using this letter to ensure that the most current draft of this document, which is located at <http://www.in.gov/idem/5284.htm> (<http://www.in.gov/idem/5284.htm>), is used.

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## Signature(s) of the Applicant

I acknowledge that the following proposed roadway project will be financed in part, or in whole, by public monies.

## Project Description

The current proposed project would replace the existing reinforced concrete slab structure over UNT to the Ohio River with a new structure. The proposed project will be constructed on the similar existing roadway alignment. The structure and roadway will be widened within the project limits to meet the current geometric standards, which are 12 ft. lanes bordered by a 3 ft. min. usable shoulder with a 1 ft. guardrail offset, paved to the guardrail face. The anticipated project limits will be 100 ft. west and 125 ft. east of the proposed structure with approximately 95 ft. west and 70 ft. east of incidental work beyond each end of the project for a total length of approximately 390 ft. This project will require approximately 0.2 acres of right-of-way. The preferred method of traffic maintenance would be a road closure with an official state detour route. The proposed detour will utilize SR 129, US 421, and SR 56. The anticipated letting date is December 8, 2021 with construction anticipated to begin in the Spring of 2022.

With my signature, I do hereby affirm that I have read the letter from the Indiana Department of Environment that appears directly above. In addition, I understand that in order to complete that project in which I am interested, with a minimum of impact to the environment, I must consider all the issues addressed in the aforementioned letter, and further, that I must obtain any required permits.

Date: 4/22/21

Signature of the INDOT  
Project Engineer or Other Responsible Agent *Travis Mankin*

Date: 4/22/21

Signature of the  
For Hire Consultant *Aimee Cooper*

Aimee Cooper

**From:** [McWilliams, Robin](#)  
**To:** [Aimee Cooper](#)  
**Subject:** Re: [EXTERNAL] Des. No. 1700001, Small Structure Replacement Project over Unnamed Tributary (UNT) to Ohio River on SR 56, Early Coordination  
**Date:** Monday, August 19, 2019 11:06:21 AM

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**EXTERNAL EMAIL**

Dear Aimee,

This responds to your recent letter, requesting our comments on the aforementioned project.

These comments have been prepared under the authority of the Fish and Wildlife Coordination Act (16 U.S.C. 661 et. seq.) and are consistent with the intent of the National Environmental Policy Act of 1969, the Endangered Species Act of 1973, and the U. S. Fish and Wildlife Service's Mitigation Policy.

The project is within the range of the Indiana bat (*Myotis sodalis*) and northern long-eared bat (*Myotis septentrionalis*) and should follow the new Indiana bat/northern long-eared bat programmatic consultation process, if applicable (*i.e.* a federal transportation nexus is established). We will review that information once it is received.

The project is also within the range of the sheepsnose mussel (*Plethobasus cyphus*). It does not appear that there will be impacts to sheepsnose mussel habitat as a result of the structure replacement.

Based on a review of the information you provided, the U.S. Fish and Wildlife Service has no objections to the project as currently proposed. However, should new information arise pertaining to project plans or a revised species list be published, it will be necessary for the Federal agency to reinstate consultation. Standard recommendations are provided below.

We appreciate the opportunity to comment at this early stage of project planning. If project plans change such that fish and wildlife habitat may be affected, please re-coordinate with our office as soon as possible. If you have any questions about our recommendations, please call (812) 334-4261 x. 207.

Sincerely,  
Robin McWilliams Munson

**Standard Recommendations:**

1. Do not clear trees or understory vegetation outside the construction zone boundaries. (**This restriction is not related to the "tree clearing" restriction for potential Indiana Bat habitat.**)
2. Restrict below low-water work in streams to placement of culverts, piers, pilings and/or footings, shaping of the spill slopes around the bridge abutments, and placement of riprap.

Culverts should span the active stream channel, should be either embedded or a 3-sided or open-arch culvert, and be installed where practicable on an essentially flat slope. When an open-bottomed culvert or arch is used in a stream, which has a good natural bottom substrate, such as gravel, cobbles and boulders, the existing substrate should be left undisturbed beneath the culvert to provide natural habitat for the aquatic community.

3. Restrict channel work and vegetation clearing to the minimum necessary for installation of the stream crossing structure.
4. Minimize the extent of hard armor (riprap) in bank stabilization by using bioengineering techniques whenever possible. If rip rap is utilized for bank stabilization, extend it below low-water elevation to provide aquatic habitat.
5. Implement temporary erosion and sediment control methods within areas of disturbed soil. All disturbed soil areas upon project completion will be vegetated following INDOT's standard specifications.
6. Avoid all work within the inundated part of the stream channel (in perennial streams and larger intermittent streams) during the fish spawning season (April 1 through June 30), except for work within sealed structures such as caissons or cofferdams that were installed prior to the spawning season. No equipment shall be operated below Ordinary High Water Mark during this time unless the machinery is within the caissons or on the cofferdams.
7. Evaluate wildlife crossings under bridge/culverts projects in appropriate situations. Suitable crossings include flat areas below bridge abutments with suitable ground cover, high water shelves in culverts, amphibian tunnels and diversion fencing.

Robin McWilliams Munson

U.S. Fish and Wildlife Service  
620 South Walker Street  
Bloomington, Indiana 46403  
812-334-4261 x. 207 Fax: 812-334-4273

Monday, Tuesday - 7:30a-3:00p  
Wednesday, Thursday - telework 8:30a-3:00p

On Tue, Aug 13, 2019 at 8:49 AM Aimee Cooper <[acooper@b-l-n.com](mailto:acooper@b-l-n.com)> wrote:

To Whom It May Concern,

Please see the attached early coordination letter, which has been prepared for the reference project. This is sent for your review and comment. Please forward your responses to my attention.

Thank you,

**AIMEE COOPER**

**Environmental Analyst**

THIS IS NOT A PERMIT

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

DNR #: ER-21756

Request Received: August 13, 2019

**Requestor:** Beam, Longest and Neff, LLC  
Aimee Cooper  
8320 Craig Street  
Indianapolis, IN 46250

**Project:** SR 56 small structure replacement over UNT Ohio River, 16.12 miles east of US 421;  
Des #1700001

**County/Site info:** Switzerland

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

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

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

**Natural Heritage Database:** The Natural Heritage Program's data have been checked. To date, no plant or animal species listed as state or federally threatened, endangered, or rare have been reported to occur in the project vicinity.

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

1) Crossing Structure:

The Environmental Unit recommends bridges rather than culverts and bottomless culverts rather than box or pipe culverts. Wide culverts are better than narrow culverts, and culverts with shorter through lengths are better than culverts with longer through lengths. If box or pipe culverts are used, the bottoms should be buried a minimum of 6" (or 20% of the culvert height/pipe diameter, whichever is greater up to a maximum of 2') below the stream bed elevation to allow a natural streambed to form within or under the crossing structure. Crossings should: span the entire channel width (a minimum of 1.2 times the OHWM width); maintain the natural stream substrate within the structure; have a minimum openness ratio (height x width / length) of 0.25; and have stream depth, channel width, and water velocities during low-flow conditions that are approximate to those in the natural stream channel. Banklines should be restored within box and pipe structures to allow for wildlife passage above the ordinary highwater mark.

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



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

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2) Bank Stabilization:

Some form of bank and/or streambed 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. 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 (heavy-duty net-free biodegradable erosion control blankets and/or turf reinforcement mats), vegetated geogrids or soil lifts, fiber rolls, glacial stone, or riprap. Information about bioengineering techniques can be found at <http://www.in.gov/legislative/iac/20120404-IR-312120154NRA.xml.pdf>. Additionally, the following is a link to a USDA/NRCS document that outlines many different bioengineering techniques for streambank stabilization: <http://directives.sc.egov.usda.gov/17553.wba>.

Riprap or other hard bank stabilization materials should be used only at the toe of the sideslopes up to the ordinary high water mark (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 Central Indiana and specifically for stream bank/floodway stabilization purposes as soon as possible upon completion. For streambed stabilization or scour protection, riprap or other stabilization materials should not be placed in the active stream channel above the existing streambed elevation. This is to prevent obstructions to the movement of aquatic organisms upstream and downstream.

3) Riparian Habitat:

We recommend a mitigation plan be developed for any unavoidable habitat impacts that will occur. The DNR's Floodway Habitat Mitigation guidelines (and plant lists) can be found online at: <http://www.in.gov/legislative/iac/20190130-IR-312190041NRA.xml.pdf>.

Impacts to non-wetland forest of one (1) acre or more should be mitigated at a minimum 2:1 ratio. If less than one acre of non-wetland forest is removed in a rural setting, replacement should be at a 1:1 ratio based on area. Impacts to non-wetland forest under one (1) acre in an urban setting should be mitigated by planting five trees, at least 2 inches in diameter-at-breast height (dbh), for each tree which is removed that is 10" dbh or greater (5:1 mitigation based on the number of large trees).

4) Wetland Habitat:

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 also the US Army Corps of Engineers (USACE) 404 program. Impacts to wetland habitat should be mitigated at the appropriate ratio according to the 1991 INDOT/IDNR/USFWS Memorandum of Understanding.

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 will not be mowed and maintained with a mixture of grasses, sedges, and wildflowers native to Central 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

THIS IS NOT A PERMIT

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

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- fescue but excluding all other varieties of tall fescue) may be used in regularly mowed areas only.
2. Minimize and contain within the project limits 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 (greater than 5 inches dbh, living or dead, with loose hanging bark, or with cracks, crevices, or cavities) from April 1 through September 30.
  5. Do not excavate in the low flow area except for the placement of piers, foundations, and riprap, or removal of the old structure.
  6. Do not construct any temporary runarounds, causeways, or cofferdams.
  7. Operate equipment used to replace the bridge from the existing roadway.
  8. Use minimum average 6 inch graded riprap stone extended below the normal water level to provide habitat for aquatic organisms in the voids.
  9. Do not use broken concrete as riprap.
  10. Underlay the riprap with a bedding layer of well graded aggregate or a geotextile to prevent piping of soil underneath the riprap.
  11. Minimize the movement of resuspended bottom sediment from the immediate project area.
  12. Do not deposit or allow demolition/construction materials or debris to fall or otherwise enter the waterway.
  13. Appropriately designed measures for controlling erosion and sediment must be implemented to prevent sediment from entering the stream or leaving the construction site; maintain these measures until construction is complete and all disturbed areas are stabilized.
  14. 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:**

Christie L. Stanifer, Environ. Coordinator, Fish & Wildlife  
Our agency appreciates this opportunity to be of service. Please contact the above staff member at (317) 232-4080 if we can be of further assistance.



Christie L. Stanifer  
Environ. Coordinator  
Division of Fish and Wildlife

**Date:** September 12, 2019

## Organization and Project Information

**Project ID:**  
**Des. ID:** 1700001  
**Project Title:** Small Structure Replacement Project over Unnamed Tributary (UNT) to Ohio River on SR 56  
**Name of Organization:** Beam, Longest, and Neff, LLC  
**Requested by:** Aimee Cooper

## Environmental Assessment Report

1. Geological Hazards:
  - High liquefaction potential
  - Floodway
  - Potential Slope Instability
2. Mineral Resources:
  - Bedrock Resource: Low Potential
  - Sand and Gravel Resource: High Potential
3. Active or abandoned mineral resources extraction sites:
  - None documented in the area

\*All map layers from Indiana Map ([maps.indiana.edu](http://maps.indiana.edu))

### **DISCLAIMER:**

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

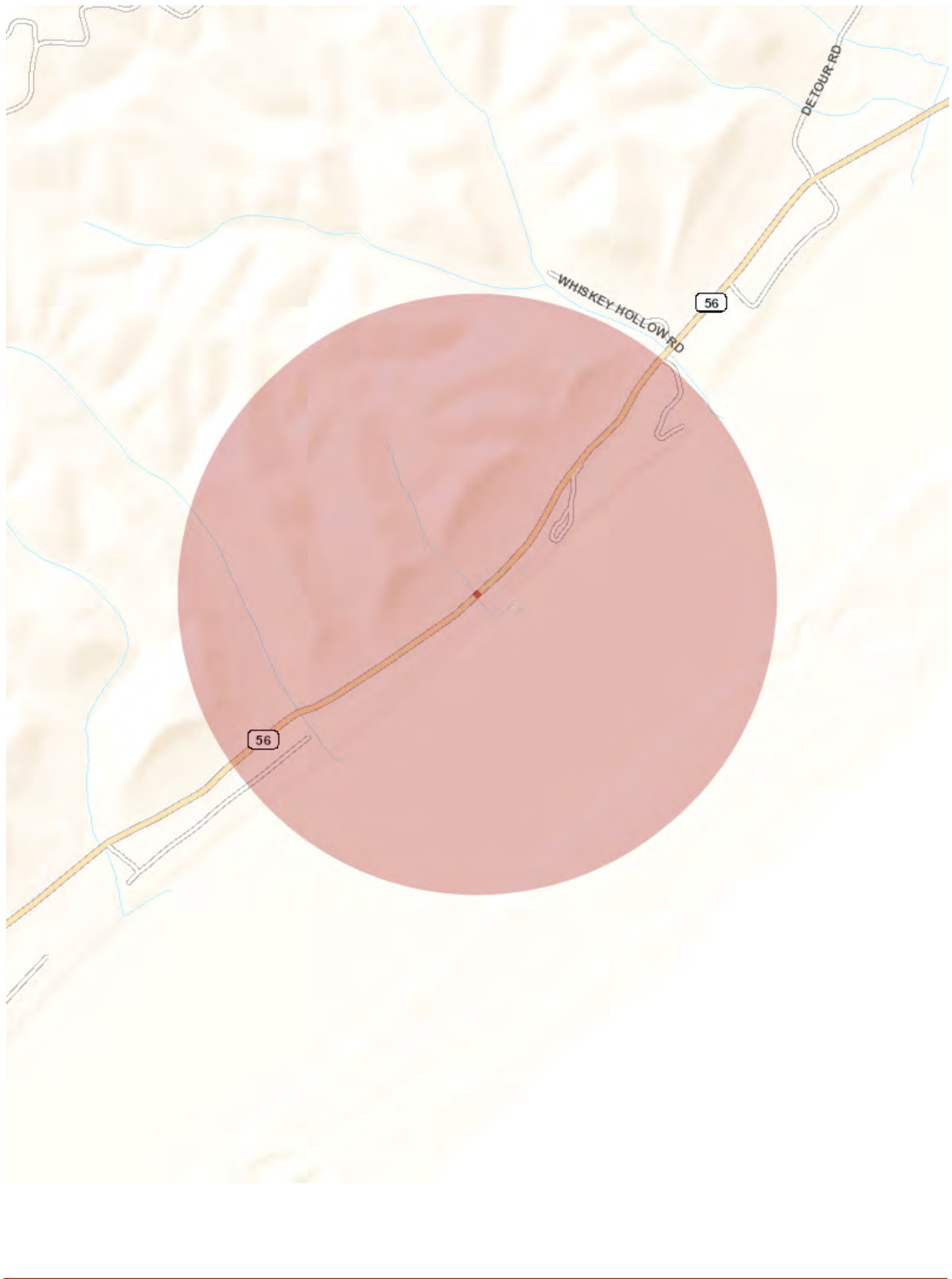
This information was furnished by Indiana Geological Survey

Address: 420 N. Walnut St., Bloomington, IN 47404

Email: [IGSEnvir@indiana.edu](mailto:IGSEnvir@indiana.edu)

Phone: 812 855-7428

Date: August 12, 2019





# Metadata:

- [https://maps.indiana.edu/metadata/Geology/Seismic\\_Earthquake\\_Liquefaction\\_Potential.html](https://maps.indiana.edu/metadata/Geology/Seismic_Earthquake_Liquefaction_Potential.html)
- [https://maps.indiana.edu/metadata/Geology/Industrial\\_Minerals\\_Sand\\_Gravel\\_Resources.html](https://maps.indiana.edu/metadata/Geology/Industrial_Minerals_Sand_Gravel_Resources.html)
- [https://maps.indiana.edu/metadata/Hydrology/Floodplains\\_FIRM.html](https://maps.indiana.edu/metadata/Hydrology/Floodplains_FIRM.html)
- [https://maps.indiana.edu/metadata/Geology/Bedrock\\_Geology.html](https://maps.indiana.edu/metadata/Geology/Bedrock_Geology.html)



United States Department of Agriculture

September 4, 2019

Aimee Cooper  
Beam, Longest and Neff, L.L.C.  
8320 Craig Street  
Indianapolis, Indiana 46250

Dear Ms. Cooper:

The proposed project to replace the small structure over an unnamed tributary to Ohio River on State Road 56 in Switzerland County, Indiana (Des. No. 1700001), as referred to in your letter received August 12, 2019, will not cause a conversion of prime farmland.

If you need additional information, please contact Daniel Phillips at 317-295-5871.

Sincerely,

JERRY RAYNOR  
State Conservationist



## 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

<http://www.fws.gov/midwest/Endangered/section7/s7process/step1.html>

In Reply Refer To:

April 02, 2021

Consultation Code: 03E12000-2021-SLI-1070

Event Code: 03E12000-2021-E-05022

Project Name: Des #1700001 SR 56 over Unnamed Tributary (UNT) to Ohio River, Small Structure Replacement

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

To Whom It May Concern:

The attached species list identifies any federally threatened, endangered, proposed and candidate species that may occur within the boundary of your proposed project or may be affected by your proposed project. The list also includes designated critical habitat if present within your proposed project area or affected by your project. This list is provided to you as the initial step of the consultation process required under section 7(c) of the Endangered Species Act, also referred to as Section 7 Consultation.

Section 7 of the Endangered Species Act of 1973 requires that actions authorized, funded, or carried out by Federal agencies not jeopardize federally threatened or endangered species or adversely modify designated critical habitat. To fulfill this mandate, Federal agencies (or their designated non-federal representative) must consult with the Service if they determine their project “may affect” listed species or critical habitat.

Under 50 CFR 402.12(e) (the regulations that implement Section 7 of the Endangered Species Act) the accuracy of this species list should be verified after 90 days. This verification can be completed formally or informally. You may verify the list by visiting the ECOS-IPaC website <http://ecos.fws.gov/ipac/> at regular intervals during project planning and implementation and completing the same process you used to receive the attached list. As an alternative, you may contact this Ecological Services Field Office for updates.

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

determine if your project will have an adverse effect on listed species and will help lead you through the Section 7 process.

For all **wind energy projects** and **projects that include installing towers that use guy wires or are over 200 feet in height**, please contact this field office directly for assistance, even if no federally listed plants, animals or critical habitat are present within your proposed project or may be affected by your proposed project.

Although no longer protected under the Endangered Species Act, be aware that bald eagles are protected under the Bald and Golden Eagle Protection Act (16 U.S.C. 668 *et seq.*) and Migratory Bird Treaty Act (16 U.S.C. 703 *et seq.*), as are golden eagles. Projects affecting these species may require measures to avoid harming eagles or may require a permit. If your project is near an eagle nest or winter roost area, see our Eagle Permits website at <http://www.fws.gov/midwest/midwestbird/EaglePermits/index.html> to help you determine if you can avoid impacting eagles or if a permit may be necessary.

We appreciate your concern for threatened and endangered species. Please include the Consultation Tracking Number in the header of this letter with any request for consultation or correspondence about your project that you submit to our office.

Attachment(s):

- Official Species List



## **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

Consultation Code: 03E12000-2021-SLI-1070

Event Code: 03E12000-2021-E-05022

Project Name: Des #1700001 SR 56 over Unnamed Tributary (UNT) to Ohio River,  
Small Structure Replacement

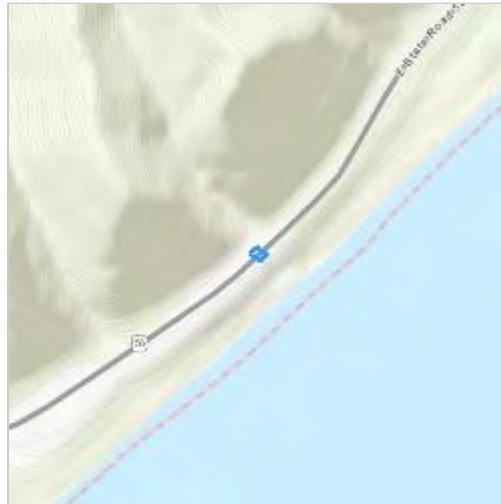
Project Type: TRANSPORTATION

Project Description: The subject project includes the replacement of culvert # CV 056-078-158.30. The proposed work will include installing a 12 ft by 6 ft 3-sided flat or arch topped structure 42 ft in length. The structure and roadway will be widened within the project limits to meet the current geometric standards, which are 12 ft lanes bordered by 3 ft minimum useable shoulders with a 1 ft guardrail offset, paved to the guardrail face. The proposed clear roadway width will be 32'-0".

0.6 acres of permanent right-of-way will be needed to complete the project. Trees approximately 40 feet north and south of the center line of the roadway will be removed for the installation of the structure. All tree clearing will take place during the inactive season for bats. No permanent lighting will be installed. Construction is anticipated to begin in the Spring of 2022.

Project Location:

Approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/@38.7164647,-85.115140314197,14z>



Counties: Switzerland 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. Note that 1 of these species should be considered only under certain conditions.

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

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

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

## Mammals

NAME	STATUS
Indiana Bat <i>Myotis sodalis</i> There is <b>final</b> critical habitat for this species. The location of the critical habitat is not available. Species profile: <a href="https://ecos.fws.gov/ecp/species/5949">https://ecos.fws.gov/ecp/species/5949</a>	Endangered
Northern Long-eared Bat <i>Myotis septentrionalis</i> No critical habitat has been designated for this species. This species only needs to be considered under the following conditions: <ul style="list-style-type: none"><li>▪ Incidental take of the NLEB is not prohibited here. Federal agencies may consult using the 4(d) rule streamlined process. Transportation projects may consult using the programmatic process. See <a href="http://www.fws.gov/midwest/endangered/mammals/nleb/index.html">www.fws.gov/midwest/endangered/mammals/nleb/index.html</a></li></ul> Species profile: <a href="https://ecos.fws.gov/ecp/species/9045">https://ecos.fws.gov/ecp/species/9045</a>	Threatened

## Clams

NAME	STATUS
Sheepnose Mussel <i>Plethobasus cyphus</i> No critical habitat has been designated for this species. Species profile: <a href="https://ecos.fws.gov/ecp/species/6903">https://ecos.fws.gov/ecp/species/6903</a>	Endangered

## Critical habitats

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



## 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

<http://www.fws.gov/midwest/Endangered/section7/s7process/step1.html>

In Reply Refer To:

April 09, 2021

Consultation code: 03E12000-2021-I-1070

Event Code: 03E12000-2021-E-05211

Project Name: Des #1700001 SR 56 over Unnamed Tributary (UNT) to Ohio River, Small Structure Replacement

Subject: Concurrence verification letter for the 'Des #1700001 SR 56 over Unnamed Tributary (UNT) to Ohio River, Small Structure Replacement' project under the revised February 5, 2018, FHWA, FRA, FTA Programmatic Biological Opinion for Transportation Projects within the Range of the Indiana Bat and Northern Long-eared Bat.

To whom it may concern:

The U.S. Fish and Wildlife Service (Service) has received your request to verify that the **Des #1700001 SR 56 over Unnamed Tributary (UNT) to Ohio River, Small Structure Replacement** (Proposed Action) may rely on the concurrence provided in the February 5, 2018, FHWA, FRA, FTA Programmatic Biological Opinion for Transportation Projects within the Range of the Indiana Bat and Northern Long-eared Bat (PBO) to satisfy requirements under Section 7(a)(2) of the Endangered Species Act of 1973 (ESA) (87 Stat. 884, as amended; 16 U.S.C 1531 *et seq.*).

Based on the information you provided (Project Description shown below), you have determined that the Proposed Action is within the scope and adheres to the criteria of the PBO, including the adoption of applicable avoidance and minimization measures, and may affect, but is not likely to adversely affect (NLAA) the endangered Indiana bat (*Myotis sodalis*) and/or the threatened Northern long-eared bat (*Myotis septentrionalis*).

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



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

**For Proposed Actions that include bridge/structure removal, replacement, and/or maintenance activities:** If your initial bridge/structure assessments failed to detect Indiana bats, but you later detect bats during construction, please submit the Post Assessment Discovery of Bats at Bridge/Structure Form (User Guide Appendix E) to this Service Office. In these instances, potential incidental take of Indiana bats may be exempted provided that the take is reported to the Service.

If the Proposed Action is modified, or new information reveals that it may affect the Indiana bat and/or Northern long-eared bat in a manner or to an extent not considered in the PBO, further review to conclude the requirements of ESA Section 7(a)(2) may be required. If the Proposed Action may affect any other federally-listed or proposed species, and/or any designated critical habitat, additional consultation between the lead Federal action agency and this Service Office is required. If the proposed action has the potential to take bald or golden eagles, additional coordination with the Service under the Bald and Golden Eagle Protection Act may also be required. In either of these circumstances, please contact this Service Office.

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

- Sheepnose Mussel *Plethobasus cyphus* Endangered

## **Project Description**

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

### ***Name***

Des #1700001 SR 56 over Unnamed Tributary (UNT) to Ohio River, Small Structure Replacement

### ***Description***

The subject project includes the replacement of culvert # CV 056-078-158.30. The proposed work will include installing a 12 ft by 6 ft 3-sided flat or arch topped structure 42 ft in length. The structure and roadway will be widened within the project limits to meet the current geometric standards, which are 12 ft lanes bordered by 3 ft minimum useable shoulders with a 1 ft guardrail offset, paved to the guardrail face. The proposed clear roadway width will be 32'-0".

0.6 acres of permanent right-of-way will be needed to complete the project. Trees approximately 40 feet north and south of the center line of the roadway will be removed for the installation of the structure. All tree clearing will take place during the inactive season for bats. No permanent lighting will be installed. Construction is anticipated to begin in the Spring of 2022.

# Determination Key Result

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

## Qualification Interview

1. Is the project within the range of the Indiana bat<sup>[1]</sup>?

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

**Automatically answered**

Yes

2. Is the project within the range of the Northern long-eared bat<sup>[1]</sup>?

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

**Automatically answered**

Yes

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

A) *Federal Highway Administration (FHWA)*

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

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

No

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

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

No

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

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

No

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

No

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

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

[2] The action area is defined as all areas to be affected directly or indirectly by the Federal action and not merely the immediate area involved in the action (50 CFR Section 402.02). Further clarification is provided by the [national consultation FAQs](#).

*Yes*

9. Will the project remove *any* suitable summer habitat<sup>[1]</sup> and/or remove/trim any existing trees **within** suitable summer habitat?

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

*Yes*

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

*No*

11. Have presence/probable absence (P/A) summer surveys<sup>[1][2]</sup> been conducted<sup>[3][4]</sup> **within** the suitable habitat located within your project action area?

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

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

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

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

*No*



12. Does the project include activities **within documented Indiana bat habitat**<sup>[1][2]</sup>?

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

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

*No*

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

*Yes*

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

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

*B) During the inactive season*

15. Does the project include activities **within documented NLEB habitat**<sup>[1][2]</sup>?

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

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

*No*

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

*Yes*

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

*B) During the inactive season*

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

*Yes*

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

*No*

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

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

Yes

26. Has a bridge assessment<sup>[1]</sup> been conducted **within** the last 24 months<sup>[2]</sup> to determine if the bridge is being used by bats?

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

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

Yes

#### **SUBMITTED DOCUMENTS**

- *Bat Inspection 3-29-21.pdf* <https://ecos.fws.gov/ipac/project/T6QDD22R3RGKDN4HMAJ7A7AYSE/projectDocuments/100820724>

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

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

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

No

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

No

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

No

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

Yes

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

Yes

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

No

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

No

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

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

Yes

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

No

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

**Automatically answered**

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

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

**Automatically answered**

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

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

**Automatically answered**

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

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

**Automatically answered**

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

40. **General AMM 1**

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

*Yes*



41. **Tree Removal AMM 1**

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

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

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

Yes

42. **Tree Removal AMM 3**

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

Yes

43. **Tree Removal AMM 4**

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

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

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

Yes

44. **Lighting AMM 1**

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

Yes

## Project Questionnaire

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

No

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

No

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

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

0.2

4. Please describe the proposed bridge work:  
*replacement of small structure*
5. Please state the timing of all proposed bridge work:  
*Spring 2022*
6. Please enter the date of the bridge assessment:  
*3-29-21*

## Avoidance And Minimization Measures (AMMs)

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

### TREE REMOVAL AMM 1

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

### LIGHTING AMM 1

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

### TREE REMOVAL AMM 2

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

### TREE REMOVAL AMM 3

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

### TREE REMOVAL AMM 4

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

### GENERAL AMM 1

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

## **Determination Key Description: FHWA, FRA, FTA Programmatic Consultation For Transportation Projects Affecting NLEB Or Indiana Bat**

This key was last updated in IPaC on December 29, 2020. Keys are subject to periodic revision.

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

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

# **Appendix D:**

## **Section 106 of the NHPA**

**FEDERAL HIGHWAY ADMINISTRATION'S  
SECTION 4(F) COMPLIANCE REQUIREMENTS (for historic properties) AND  
SECTION 106 FINDINGS AND DETERMINATIONS  
AREA OF POTENTIAL EFFECT  
ELIGIBILITY DETERMINATIONS  
EFFECT FINDING**

**SR 56 SMALL STRUCTURE REPLACEMENT PROJECT  
SWITZERLAND COUNTY, INDIANA  
DES. NO.: 1700001**

**AREA OF POTENTIAL EFFECTS  
(Pursuant to 36 CFR Section 800.4(a)(1))**

According to 36 CFR Section 800.16(d), the area of potential effects (APE) is the geographic area or areas within which an undertaking may directly or indirectly cause alterations in the character or use of historic properties, if any such properties exist. The APE is influenced by the scale and nature of an undertaking and may be different for different kinds of effects caused by the undertaking. Given the nature of the proposed project, the APE was determined to include the proposed project area and a buffer zone based on topography and vegetation surrounding the culvert. The APE takes into account the potential direct and indirect effects of the proposed project within the immediate contextual setting, which is comprised primarily of forested bluffs to the north and forested, flat areas to the south, just north of the Ohio River (Appendix A).

**ELIGIBILITY DETERMINATIONS  
(Pursuant to 36 CFR 800.4(c)(2))**

The Thiebaud Farmstead Historic District (NR-1766) was listed in the National Register of Historic Places (NRHP) in 2004 under Criterion A for Agriculture and Criterion C for its Greek Revival architecture with a period of significance between circa 1817 and 1953. The property consists of a Greek Revival home with multiple, contributing outbuildings associated with agricultural activities including a hay press barn and a smokehouse. Landscape features also associated with agricultural activities include stone fences. Historically, the property functioned as a farmstead with fields in every direction. Currently, the property encompasses 164 acres and functions as a museum.

**EFFECT FINDING**

Thiebaud Farmstead Historic District (NR-1766) – “No Adverse Effect.”

The Indiana Department of Transportation (INDOT) acting on behalf of the Federal Highway Administration (FHWA) has determined a “No Adverse Effect” finding is appropriate for this undertaking.

INDOT respectfully requests the Indiana State Historic Preservation Officer provide a written concurrence with the Section 106 determination of “No Adverse Effect.”



**SECTION 4(F) COMPLIANCE REQUIREMENTS (for historic properties)**

**Thiebaud Farmstead Historic District (NR-1766)** - This undertaking will convert property from the Thiebaud Historic District (NR-1766), a Section 4(f) historic property, to a transportation use; INDOT, acting on behalf of the FHWA has determined the appropriate Section 106 finding is “No Adverse Effect”; therefore FHWA hereby intends to issue a “de minimis” finding for the Thiebaud Farmstead Historic District (NR-1766), pursuant to SAFETEA-LU, thereby satisfying FHWA’s responsibilities under Section 4(f) for this historic property.

Susan R.  
Branigin for



Digitally signed by Susan R. Branigin for  
Date: 2021.01.05 09:46:30 -05'00'

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Anuradha V. Kumar, for FHWA  
Manager  
INDOT Cultural Resources

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Approved Date

**FEDERAL HIGHWAY ADMINISTRATION  
DOCUMENTATION OF SECTION 106 FINDING OF  
NO ADVERSE EFFECT *or* ADVERSE EFFECT  
SUBMITTED TO THE STATE HISTORIC PRESERVATION OFFICER  
PURSUANT TO 36 CFR Section 800.5(c)**

**SR 56 SMALL STRUCTURE REPLACEMENT PROJECT  
SWITZERLAND COUNTY, INDIANA  
DES. NO.: 1700001**

**1. DESCRIPTION OF THE UNDERTAKING**

The Indiana Department of Transportation (INDOT), on behalf of the Federal Highway Administration (FHWA), proposes to proceed with a small structure replacement project (Des. No. 1700001).

The proposed undertaking is on State Road (SR) 56 from Whiskey Hollow Road to Spring Branch Road, Switzerland County, Indiana. It is within Craig Township, as shown on the Vevay South, Indiana – Kentucky, USGS Topographic Quadrangle, in Sections 28, Township 2 North, Range 3 West (Appendix A).

The existing structure (CV 056-078-158.30) is showing signs of deterioration, including salt penetration with exposed reinforcing and section loss, as well as scour along the footers. Continued deterioration will result in unsafe conditions that could result in road closure until a replacement can be installed. In anticipation of these conditions, the existing structure will be replaced and approaches will be reconstructed. The need for the project stems from the unsafe driving conditions resulting from the deteriorated conditions of the existing culvert. The purpose of the project is to provide a safe driving surface.

The project proposes to replace the existing structure with a new concrete three-sided structure. The current roadway approach width consists of eleven (11)-foot paved travel lanes bordered by one (1)-foot useable shoulders for a total roadway width of approximately 24 feet. New approaches will consist of two, twelve (12)-foot through lanes with four (4)-foot usable shoulders. The new roadway width will be 32 feet. A 55-mph design speed will be used for this project. It is assumed that full road closure will be required throughout construction. An additional 45 feet of permanent right-of-way or 0.60 acre is anticipated to be required for the project. The proposed SR 56 small structure replacement project area begins approximately 2,745 feet (0.52 mile) southwest of its intersection with Whiskey Hollow Road and extends 400 feet (0.08 mile) southwest along the current route of SR 56. In total, the project area is 1.64 acres and is located in the rural, forested area of Switzerland County along the Ohio River.

Federal funding from the FHWA will be utilized for this project.

According to 36 CFR Section 800.16(d), the APE is the geographic area or areas within which an undertaking may directly or indirectly cause alterations in the character or use of historic properties, if any such properties exist. The APE is influenced by the scale and nature of an

undertaking and may be different for different kinds of effects caused by the undertaking. Given the nature of the proposed project, the APE for the architectural survey was determined to include the proposed project area and a buffer zone based on topography and vegetation surrounding the culvert. The APE for the archaeology survey was defined by a block area encompassing approximately 0.4 ha (1.1 acres) that included mixed hardwood trees, mixed grasses, and SR 56 and its right-of-way (ROW). The APE takes into account the potential direct and indirect effects of the proposed project within the immediate contextual setting, which is comprised primarily of forested bluffs to the north and forested, flat areas to the south, just north of the Ohio River (Appendix A & B)

## **2. EFFORTS TO IDENTIFY HISTORIC PROPERTIES.**

The National Register of Historic Places (NRHP), Indiana Register of Historic Sites and Structures (State Register), the State Historic Architectural and Archaeological Research Databased (SHAARD), the Indiana Historic Building, Bridges, and Cemeteries (IHBBC) Map, and the *Switzerland County Interim Report* were consulted. As a result of this review, there were no archaeological sites identified within the APE. The Thiebaud Farmstead Historic District (NR-1766) was identified as being listed in the NRHP.

The early coordination letter was sent to consulting parties on March 11, 2020. A list of consulting parties is identified in Appendix C with consulting party correspondence listed in Appendix D.

The Miami Tribe of Oklahoma indicated that they would like to be a consulting party on April 7, 2020.

On April 6, 2020 a letter was received from the Indiana Landmarks Southeast Field Office concerning the stone-lined ditch to the east of the carriage house and the remains of the stone retaining wall/landing next to the culvert. Two courses of action to minimize damage to these two structures were recommended by Indiana Landmarks.

The Indiana SHPO suggested inviting the property owner to be invited to participate in the Section 106 process on March 31, 2020. However, the property owner was already invited in the early coordination letter.

The Switzerland County Historical Society also voiced that they would like to be a consulting party on March 16, 2020.

No further responses to the early coordination letter were received.

In March 2020, CRA conducted a site visit of the indirect APE and documented all above-ground resources that will be 50 years of age or older at the time of project letting (2021). The APE was investigated for the existence of any buildings, structures, objects, or districts listed in or eligible for listing in the NRHP. As result of this field survey, only one previously surveyed above-ground resource was documented within the APE, the Thiebaud Farmstead Historic District (NR-1766), an NRHP-listed property. There were no archaeological sites identified

during the field visit in March, 2020. A Historic Property Short Report (HPSR) was completed (Reynolds, June 10, 2020) and sent to consulting parties on June 11, 2020. CRA recommended that the Thiebaud Farmstead Historic District (NR-1766) remain listed in the NRHP under Criterion A and C. The summary of the HPSR is found in Appendix E.

Initially, an archaeological resources check revealed that five previous professional surveys had been conducted within the 1.6 km (1.0 mi) radius of the survey area (Plamann 1978; Gibson 1998; Klabacka 2008; Laswell 2009; and Strewzewski 2004). It was determined that the survey area is located within the Thiebaud Farmstead property which is listed in the NRHP under Criteria A and C based on the historic features dating from 1817- 1953, which were documented outside of the current survey area, but within the 66.8 ha (165.0 acre) property. The current survey area is also within an area investigated previously as part of a formal assessment of prehistoric and historic resources of the Thiebaud property completed by Indiana University – Purdue University Archaeological Survey (IPFW-AS) personnel in 2004 (Strewzewski 2004). However, the current project vicinity was only previously subjected to a walkover survey in search of observable above-ground features associated with the historic farmstead. The 2003 – 2004 survey work resulted in the documentation of four archaeological sites (12Sw418-12Sw421), but none of these sites overlap with the current survey area. The closest site (12Ws418) is located 21 m (70 ft) south and east of the current survey area and was recorded as an unidentified prehistoric lithic scatter with fire-cracked rock and a small amount of lithic debris found on the surface of the lower terrace (3 m [10 ft] below the elevation of the current survey area). At the time of the previous survey, it was unclear whether the artifacts had been exposed on the ground surface of the lower terrace as a result of erosion or, perhaps, eroded from a buried paleosol. No indications of this site or a buried paleosol were found within the current survey area.

CRA completed a phase Ia archaeological reconnaissance survey of the proposed project in March 2020. No archaeological deposits were found within the narrow project area and disturbances associated with construction of the existing SR 56 were documented. Notably, visual inspection of the area beyond the current survey area was conducted to identify cultural features associated with the Thiebaud Farmstead that were previously mapped in the project vicinity. These features were found and documented to ensure that they were beyond the current survey area and would not be directly impacted by the project. Therefore, no additional archaeological work was recommended for the project. A summary of the phase Ia archaeology short report is found in Appendix E.

The State Historic Preservation Officer (SHPO) staff responded to the HPSR and Phase 1a archaeology report on July 9, 2020 and concurred with the recommendations therein (Appendix D).

There were no further comments related to the HPSR or the Phase 1a archaeology report.

### **3. DESCRIBE AFFECTED HISTORIC PROPERTIES**

The Thiebaud Farmstead Historic District (NR-1766) was listed in the National Register of Historic Places in 2004 under Criterion A for Agriculture and Criterion C for its Greek Revival architecture with a period of significance between circa 1817 and 1953. The property consists of

a Greek Revival home with multiple, contributing outbuildings associated with agricultural activities including a hay press barn and a smokehouse. Landscape features also associated with agricultural activities include stone fences and stone lined ditches. Historically, the property functioned as a farmstead with fields in every direction. Currently, the 164-acre property is a museum.

#### **4. DESCRIBE THE UNDERTAKING'S EFFECTS ON HISTORIC PROPERTIES**

The project proposes to replace the existing culvert with a new concrete three-sided structure within the boundary of the Thiebaud Farmstead Historic District property. The current roadway width of SR 56 will be increased a total of 8 feet, from 24 feet to 32 feet, with an additional 45 feet (0.60 acre) of permanent right-of-way measuring from the edge of the road. This amount of right-of-way is recommended in order to accommodate the additional riprap and to account for construction limits. New guardrail will be installed on the east and west elevations of the culvert. For detailed plans, please see Appendix F.

The culvert is positioned along a stone-lined ditch to the east of the residence that was historically used for agricultural purposes beginning in the early-nineteenth century. Small, deteriorated sections of stone abutments are visible surrounding the existing concrete culvert, but these appear to be associated with an earlier structure in this location; as fragmentary remnants, they lack integrity and therefore are non-contributing to the Thiebaud Farmstead and lack integrity and significance for the culvert to be individually eligible. A pooling area is adjacent to the culvert to the north. A stone structure within the Thiebaud Farmstead boundary, possibly a remnant of a foundation or retaining wall, is visible to the east of the culvert. This structure was not identified in the National Register nomination form. For photographs of the structures, please see Appendix B.

Only 8 feet (4 feet to the north and south of the culvert) of the stone-lined ditch will ultimately be destroyed along with the pooling area and remnants of the stone foundation/retaining wall adjacent to the culvert. The stone-lined ditch begins in the bluffs to the northeast of the residence, included within the National Register boundary. The ditch continues southeast until it empties into the Ohio River. Features along this ditch include a farmer's crossing to the east of the carriage house and a boat landing along the Ohio River. Portions of the stone-lined ditch to the north and south of the culvert will remain intact, alluding to the property's agricultural heritage and manipulation of the landscape. To the north of the culvert, the untouched portion of the stone-lined ditch continues for at least 260 feet into the bluffs. To the south, the untouched portion of the stone-lined ditch continues for at least 201 feet toward the Ohio River.

As previously mentioned, the proposed project will include increasing the right-of-way around the existing culvert, encroaching on both sides of the National Register boundary. However, only 8 feet in total will be utilized for the road widening, including a useable shoulder. Four feet will be taken from the north and south sides of SR 56 within the 45 feet (0.60 acre) of ROW. With the exception of the aforementioned stone-lined ditch, pooling area, and stone foundation/retaining wall, no other structures will be altered.

While these features were identified in the National Register nomination form, they are not specified as being significantly contributing resources to the property. However, there are



numerous other contributing stone features on the property, such as stone fences and retaining walls that will not be impacted by the project. While approximately 0.60 acre of the National Register property will be used for transportation purposes, the rest of the parcel will retain its historic characteristics and association with agriculture.

#### **5. EXPLAIN APPLICATION OF CRITERIA OF ADVERSE EFFECT -- INCLUDE CONDITIONS OR FUTURE ACTIONS TO AVOID, MINIMIZE OR MITIGATE ADVERSE EFFECTS**

According to 36 CFR 800.5(a)(1) “An adverse effect is found when an undertaking may alter, directly or indirectly, any of the characteristics of a historic property that qualify the property for inclusion in the National Register in a manner that would diminish the integrity of the property’s location, design, setting, materials, workmanship, feeling or association.”

**Thiebaud Farmstead Historic District (NR-1766)** – According to 36 CFR 800.5(a)(1) the criteria of adverse effect apply because the undertaking will alter portions of the site.

Per 36 CFR 800.5(a)(2)(i), the undertaking will result in the “Physical destruction of or damage to all or part of the property.” Portions of the site that are within the projects’ right-of-way cannot be avoided. However, only a total of 8 feet (4 feet to the north and south of the culvert) of the stone-lined ditch will ultimately be destroyed along with the pooling area and remnants of the stone foundation/retaining wall adjacent to the culvert. Portions of the stone-lined ditch to the north and south of the culvert will remain intact. To the north of the culvert, the untouched portion of the stone-lined ditch continues for at least 260 feet into the bluffs. To the south, the untouched portion of the stone-lined ditch continues for at least 201 feet toward the Ohio River. While the aforementioned features were identified in the National Register nomination form, they are not specified as being significantly contributing to the property. Permanent ROW will include 45 feet (0.60 acre) to the north and south of the culvert. While this land will be used for transportation purposes, the remainder of the property will retain its historic characteristics and association with agriculture. For minimization purposes, a USP will be enacted to remove and rest the stone along the new wingwalls so that this feature is visible from the roadway. A portion of the stone-lined ditch will also be cleared so that more intact portions will also be visible from the roadway.

Per 36 CFR 800.5(a)(2)(ii), the undertaking will not cause “Alteration of a property, including restoration, rehabilitation, repair, maintenance, stabilization, hazardous material remediation and provision of handicapped access, that is not consistent with the Secretary’s Standards for the Treatment of Historic Properties and/or other applicable guidelines.”

Per 36 CFR 800.5(a)(2)(iii), the undertaking will not result in the “Removal of the property from its historic location.” The property will not be moved from its historic location. The stones will also not be removed from the stone-lined ditch, but merely placed in a different area.

Per 36 CFR 800.5(a)(2)(iv), the undertaking will not result in a “Change of the character of the property’s uses or of physical features within the property setting that contribute to the historic significance” of the property. The stone-lined ditch and pooling area were mentioned in the National Register nomination form but were not identified as contributing features. Also, only a

small portion of the stone-lined ditch will be altered with minimal impacts. This will not affect the property's ability to convey its historic significance.

Per 36 CFR 800.5(a)2(v), the undertaking will not cause the "Introduction of visual, atmospheric or audible elements that diminish the integrity of the property's significant historic features". As previously mentioned, the roadway width will be widened and a larger culvert will be installed. However, these changes are minor and will not diminish the integrity or significance of the property.

Per 36 CFR 800.5(a)2(vi), the undertaking will not cause the "Neglect of a property which causes its deterioration..." The project will have no effect that will result in neglect.

Per 36 CFR 800.5(a)2(vii), the undertaking will not cause the "Transfer, lease, or sale of property out of Federal ownership or control..."

#### **FUTURE ACTIONS TO AVOID, MINIMIZE OR MITIGATE ADVERSE EFFECTS.**

Because a portion of the stone-lined ditch will be impacted, minimization efforts were explored. As a result of these minimization efforts, a USP will be added to remove and reset the stone likely behind the wingwalls of the new culvert. This will prevent the stones from ultimately being washed down the channel due to water flow. An Agreement will be signed between INDOT and the property owner pertaining to monies allotted to the property owner from INDOT for vegetation clearing. The vegetation clearing will allow for a portion of the stone-lined ditch to be more visible. INDOT is pursuing this Agreement in order to make the stone-lined ditch more visible since the project will destroy the visible portions of the stone-lined ditch and pooling area.

#### **6. SUMMARY OF CONSULTING PARTIES AND PUBLIC VIEWS**

An early coordination letter was uploaded to INSCOPE (INDOT's publicly Section 106 consultation website) on March 11, 2020, and released for viewing online the same day. Hard copies of these materials were mailed to SHPO on March 11, 2020. Below is a list of the organizations invited to participate as consulting parties. The organizations identified in bold print are participating consulting parties. Please also see Appendix C for a list of consulting parties.

##### **State Historic Preservation Officer (automatic consulting party)**

Historic Vevay, Inc.

Indiana Barn Foundation

##### **Indiana Landmarks Southeast Field Office**

Southeastern Indiana Regional Planning Commission

Switzerland County Commissioners

Switzerland County Council

Switzerland County Highway Supervisor

Switzerland County Historian

##### **Switzerland County Historical Society (Martha Bladen)**

Switzerland County Surveyor

Vevay Historic Review Board  
Vevay Town Council  
Delaware Tribe of Indians, Oklahoma  
Eastern Shawnee Tribe of Oklahoma  
**Miami Tribe of Oklahoma**  
Peoria Tribe of Indians of Oklahoma  
Pokagon Band of Potawatomi Indians  
Shawnee Tribe  
United Keetoowah Band of Cherokee Indians

The Switzerland County Historical Society voiced that they would like to be a consulting party of March 16, 2020.

The Indiana SHPO accepted consulting party status on March 31, 2020.

On April 6, 2020, an email was sent from Indiana Landmarks Southeast Field Office stating their concern for the stone lined ditch and a stone retaining wall. They also provided courses of action to minimize the damage to these two structures.

The Miami Tribe of Oklahoma sent a letter by email dated April 7, 2020 indicating their interest in being a consulting party. Please see Appendix D for all consulting party correspondence.

The HPSR and phase Ia archaeology report were uploaded to INSCOPE on June 11, 2020. Hard copies of these reports were mailed to the SHPO on June 12, 2020. The summary of the HPSR and phase Ia archaeology report are found in Appendix E.

The SHPO staff responded to the phase Ia archaeological reconnaissance report and HPSR on July 9, 2020 stating they had no further comments and agreed with the conclusions of the phase Ia report. They agreed that the size of the APE was sufficient for this project. The SHPO staff also agreed that the Thiebaud Farmstead will continue to be listed in the NRHP. Please see Appendix D for all consulting party correspondence.

No additional comments pertaining to the APE or the recommendations made in the HPSR were received.

An Effects Letter was uploaded to INSCOPE on August 24, 2020 and a hard copy was mailed to SHPO. The same day, the Effects Letter was sent to the consulting parties for comments about the “No Adverse Effect” with a *de minimis* 4(f) determination finding.

On September 1, 2020, Jarrard Holbrook of Indiana Landmarks proposed adding another commitment after reviewing the HPSR and effects letter. He also provided a map of the area he thought would be appropriate for vegetation clearing. He recommended that BLN could clear vegetation along the northern part of the stone-lined ditch in order to make the remaining portion more visible.

The property owner, Martha Bladen, concurred in a series of emails from September 1 – 25, 2020. Bladen also agreed to the USP, proposing that the stones from the ditch be set back in place after the culvert replacement.

SHPO responded to the effects letter on September 14, 2020. They stated that they would like to know more about the forthcoming opinions and recommendations from the Switzerland County Historical Society/Bladen (property owner) since they could see the project as having no adverse effect. SHPO also provided information about the stone-lined ditch and pooling area from the NRHP nomination form.

Bladen agreed to placing the stones behind the wingwalls in an email with INDOT Project Manager, Travis Mankin, on October 7, 2020. She also contacted local businesses for cost estimates about vegetation removal. Mankin agreed that this should be acceptable for the Commitment. Mankin will continue to work with INDOT CRO on the Agreement.

A public notice of the “No Adverse Effect” will be published in *The Switzerland Democrat* and the *Vevay Reveille Enterprise* seeking the views of the public regarding the effects of the proposed project on the historic property within the APE. Comments from the public will be accepted for 30 days following the publications of the notice. If any substantive comments are received during this period, this document will be revised to include them.

**Section 106 800.11(e)**

# **Appendix A**

**Maps**



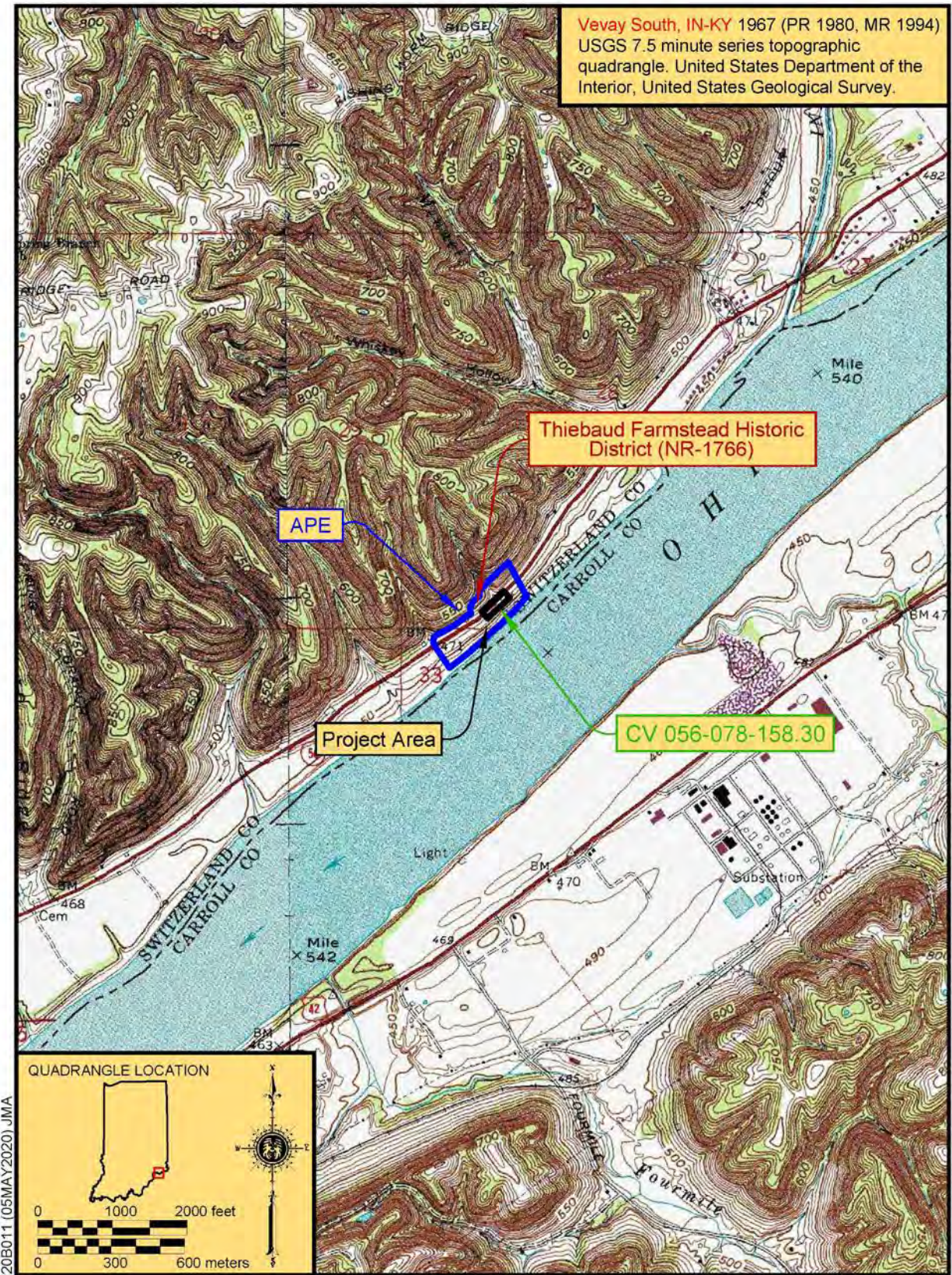
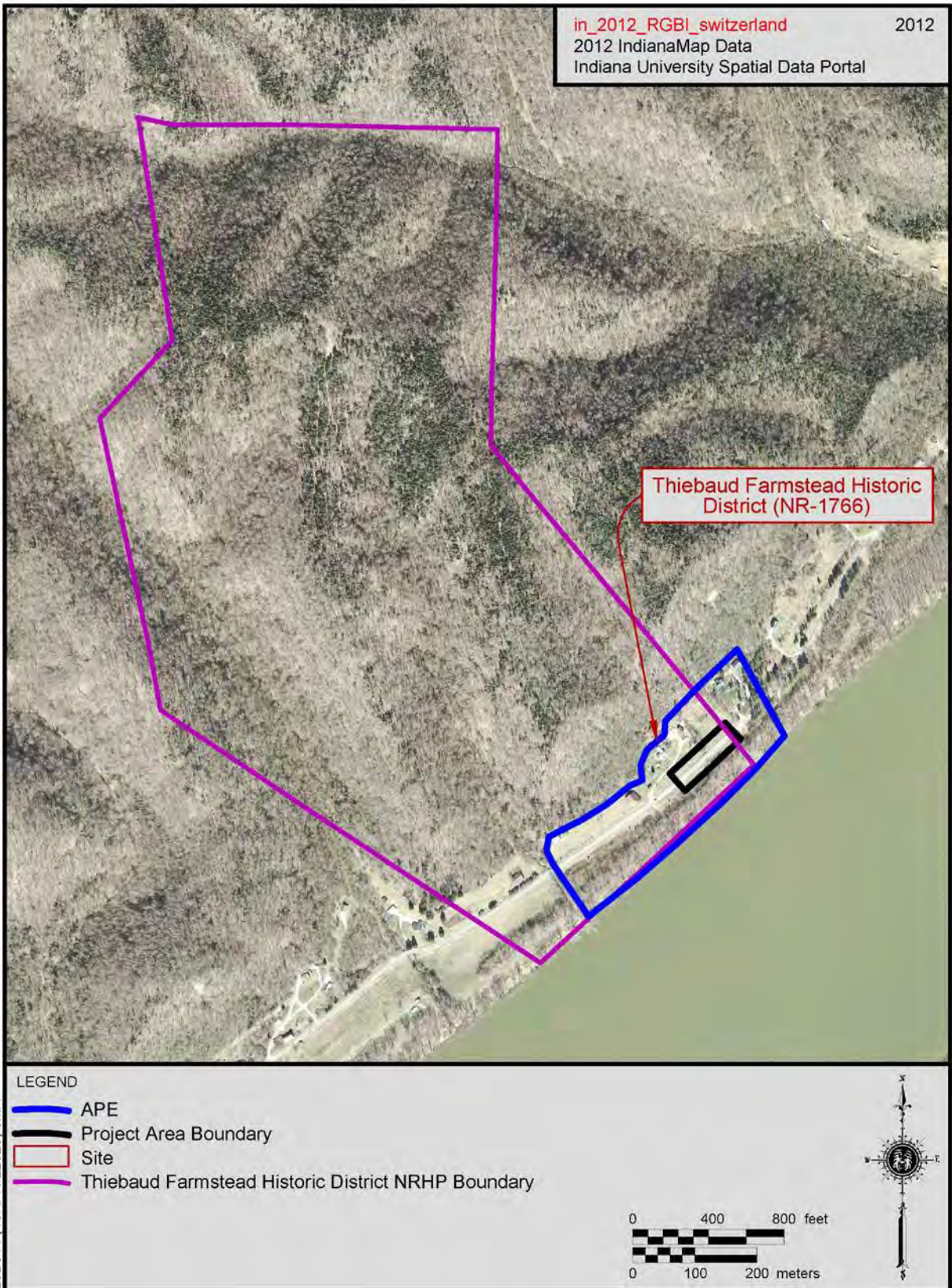


Figure A-1. Topographic map showing the project area, APE, Thiebaud Farmstead Historic District, and structure location.





**Figure A-2.** Aerial map showing the project area, APE, and Thiebaud Farmstead Historic District NRHP Boundary.



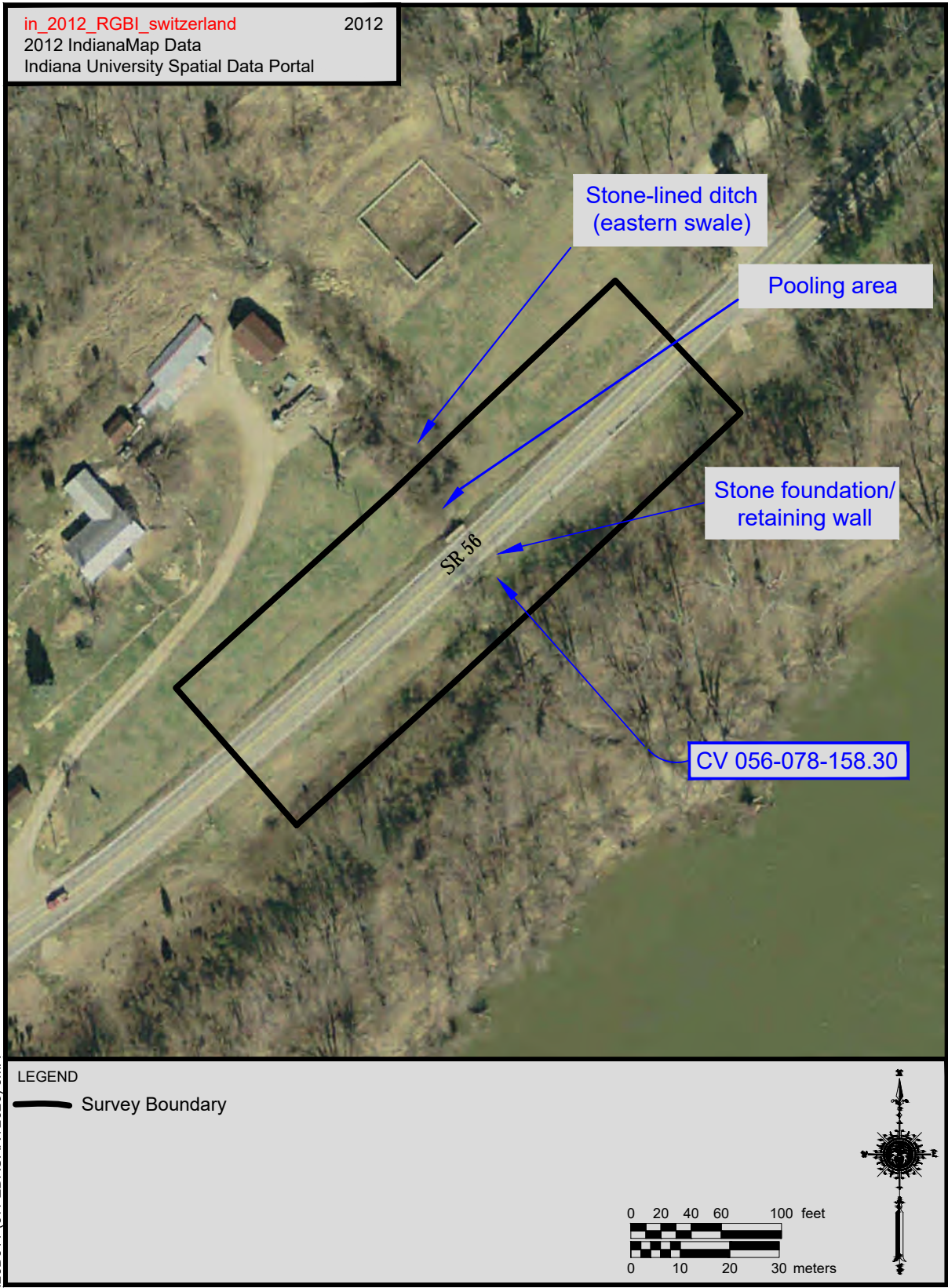


Figure A-3. Aerial photograph depicting the project and structure location.

**Section 106 800.11(e)**

# **Appendix B**

**General Photographs**





LEGEND

← Photo Direction

1b = Figure B-1 in Appendix B. Ex: 6b = Figure B-6  
 1 = Figure 1 in report. Ex: 3 = Figure 3



I20B011 (07MAY2020) JMA

Figure B-1. Thiebaud Farmstead Historic District (NR-1766) Photomap.





Figure 3. View of culvert (CV 056-078-158.30), south elevation and APE, facing northwest



Figure 4. Overview of forested bluffs to the north of the Thiebaud Farmstead, facing northwest.





Figure 5. Overview of a portion of the APE from Thiebaud Farmstead property, facing southeast.



Figure 6. North end of APE, south side of SR 56, facing northeast.





Figure 7. View of southern portion of APE and property showing new parking lot, facing southwest.



Figure 8. Eastern swale, facing north.





**Figure B-2. Overview of Thiebaud Farmstead Historic District (NR-1766), facing southwest.**



**Figure B-3. Overview of Thiebaud Farmstead Historic District (NR-1766), facing northwest.**



Figure B-4. Rear (north) and west elevations, facing east.



Figure B-5. Detail of rear porch, facing east.





**Figure B-6. New basement access, east elevation, facing west.**



**Figure B-7. Rear (north) and east elevation, facing south. Visible is a metal replacement roof.**





**Figure B-8. East elevation of hay press barn (Resource A), facing southwest.**



**Figure B-9. South and east elevations of hay press barn (Resource A), facing west.**



Figure B-10. View of interior of hay press barn (Resource A), facing southeast. Poles for tobacco barn conversion are visible.



Figure B-11. East and south elevations of granary (Resource B), facing west.





Figure B-12. North elevation of granary (Resource B), facing southeast. Deterioration of cladding is visible.



Figure B-13. South and west elevations of privy (Resource C), facing north.





Figure B-14. South and west elevations of carriage house/buggy shop (Resource D), facing north.



Figure B-15. North and east elevations of carriage house/buggy shop (Resource D), facing south.



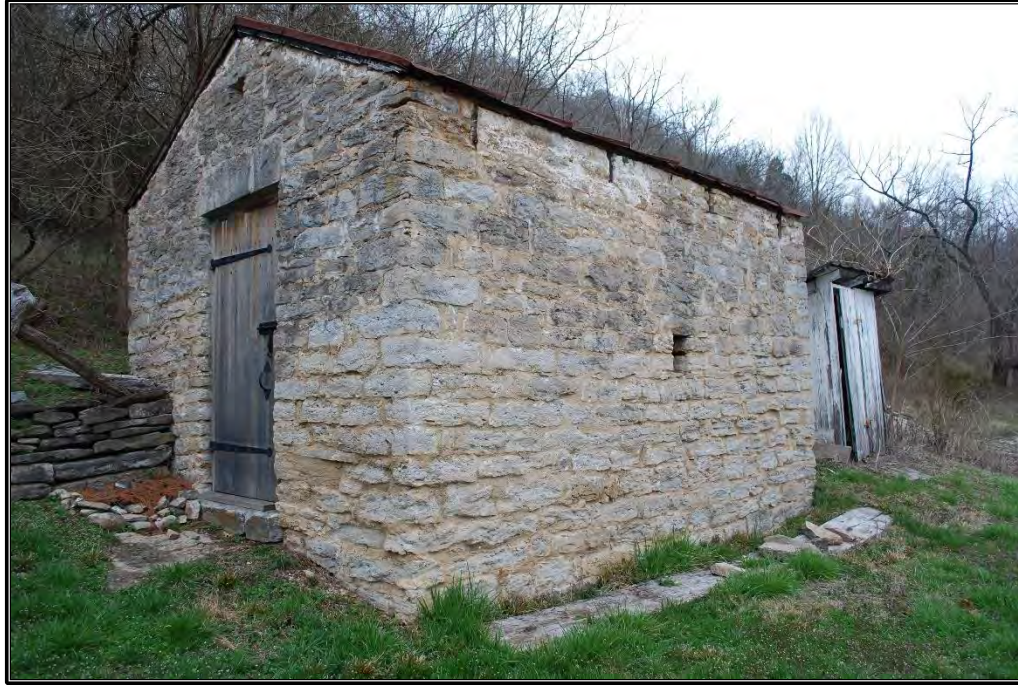


Figure B-16. South and west elevations of smokehouse (Resource E), facing north.



Figure B-17. View of dry-laid stone wall (Resource F) north of hay press barn, facing northeast.





Figure B-18. View of dry-laid stone wall (Resource F) north of residence, facing north.



Figure B-19. View of retaining wall (Resource G) south of residence, with visible erosion, facing north.





**Figure B-20. View of livestock enclosure (Resource H), facing northwest.**



**Figure B-21. Remains of a stone foundation (Resource I) east of SR 56 culvert, facing north.**





Figure B-22. Remains of a “farmer’s crossing” (Resource J) over the eastern swale, facing south.



Figure B-23. Well with pump (Resource K), facing north.





Figure B-24. Well (Resource L), facing north.



Figure B-25. Stone well (Resource M), facing north.





**Figure B-26. East elevation of pole barn (Resource N), facing southwest.**



**Figure B-27. Wood frame barn (Resource O), south and west elevations, facing north.**





**Figure B-28. Wood frame barn (Resource O), north and east elevations, facing south.**



**Figure B-29. Root cellar (Resource P), north and east elevation, facing south.**





Figure B-30. Looking toward southern end of APE from the Thiebaud Farmstead, facing west.



Figure B-31. Stone steps leading from Thiebaud Farmstead to the road, facing southeast.