

PROJECT	DESIGNATION
210742	2101742
CONTRACT	BRIDGE FILE
B-XXXX	30-00086

STRUCTURE	TYPE	SPAN AND SKEW	OVER	STATION
30-00086	CONTINUOUS COMPOSITE PRESTRESSED CONCRETE I- BEAM TYPE I	3 SPANS: 49'-9", 50'-6" & 49'-9" SKEW: 40° LT.	SUGAR CREEK	10100+00 "PR-A"

INDIANA DEPARTMENT OF TRANSPORTATION



BRIDGE PLANS

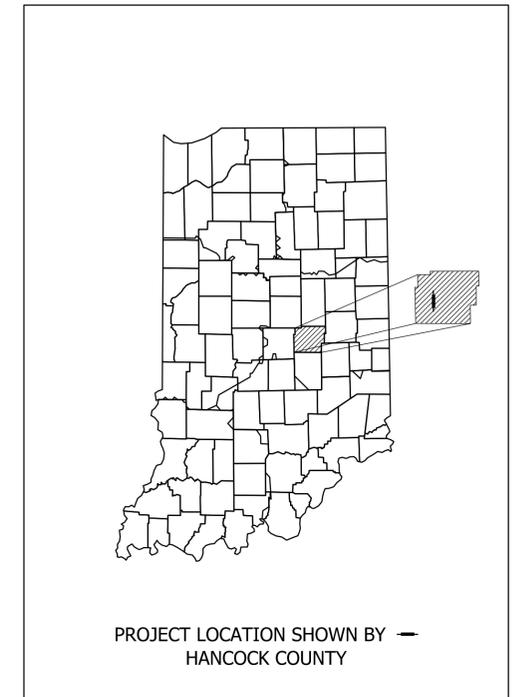
FOR SPANS OVER 20 FEET

STRUCTURE 30-00086 CR 450 W OVER SUGAR CREEK, SUGAR CREEK TOWNSHIP, HANCOCK COUNTY, INDIANA

BRIDGE REPLACEMENT ON CR 450 W OVER SUGAR CREEK
0.91 MILES SOUTH OF CR 400 S IN SECTION 29, T-15-N, R-6-E,
SUGAR CREEK TOWNSHIP, HANCOCK COUNTY

TRAFFIC DATA		
A.A.D.T.	(2025)	563 V.P.D.
A.A.D.T.	(2045)	836 V.P.D.
D.H.V	(2045)	- V.P.H.
DIRECTIONAL DISTRIBUTION		- %
TRUCKS		3 % A.A.D.T. - % D.H.V.

DESIGN DATA		
DESIGN SPEED	20 M.P.H.	
PROJECT DESIGN CRITERIA	3R (NON-FREEWAY)	
FUNCTIONAL CLASSIFICATION	LOCAL ROAD	
RURAL/URBAN	RURAL	
TERRAIN	LEVEL	
ACCESS CONTROL	NONE	



LATITUDE: 39° 42' 52" N LONGITUDE: 85° 53' 9" W

BRIDGE LENGTH:	0.028	MI.
ROADWAY LENGTH:	0.016	MI.
TOTAL LENGTH:	0.044	MI.
MAX. GRADE:	-3.50	%

HUC: 051202040600



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

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

HANCOCK COUNTY BOARD OF COMMISSIONERS

APPROVED BY _____ DATE _____

BILL SPALDING, PRESIDENT

GARY MCDANIEL, VICE PRESIDENT

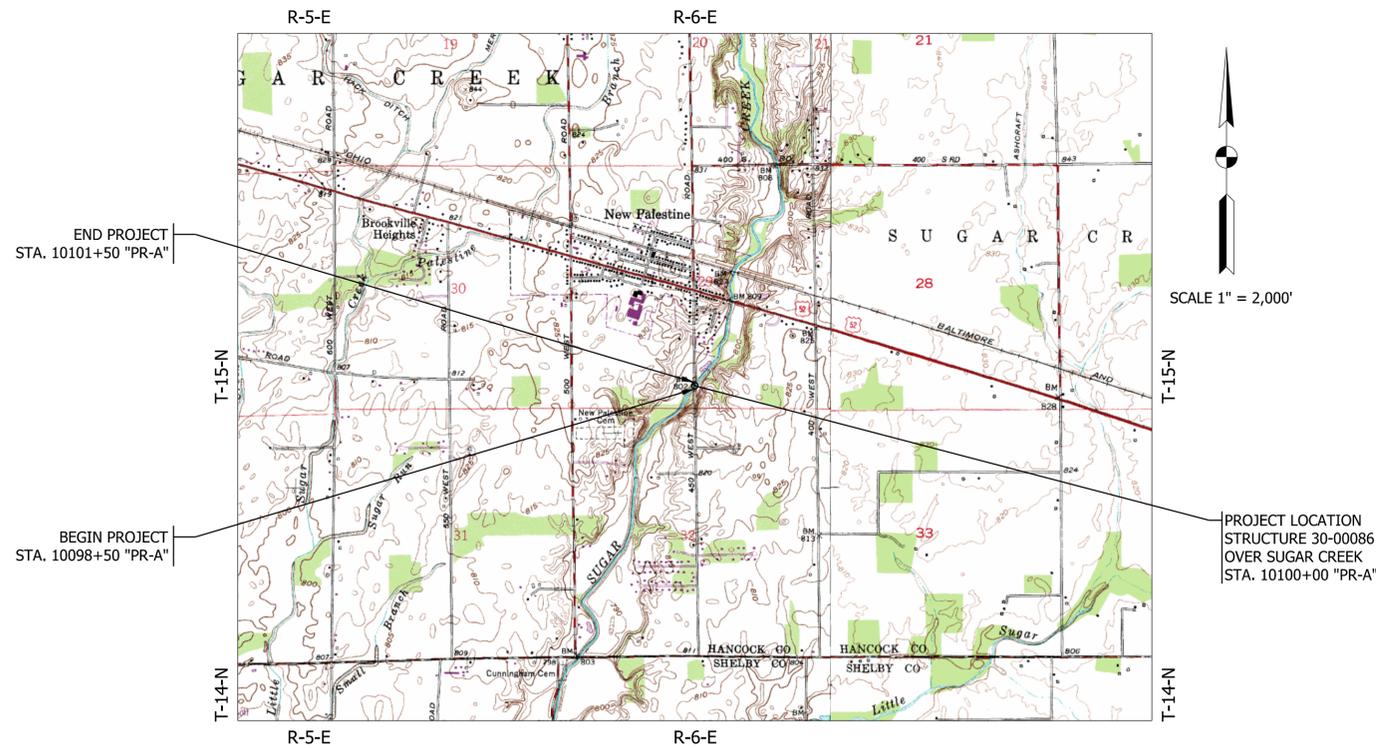
JOHN JESSUP, MEMBER

RECOMMEND FOR APPROVAL _____ DATE _____

GARY POOL, P.E., COUNTY ENGINEER

ATTESTED BY _____ DATE _____

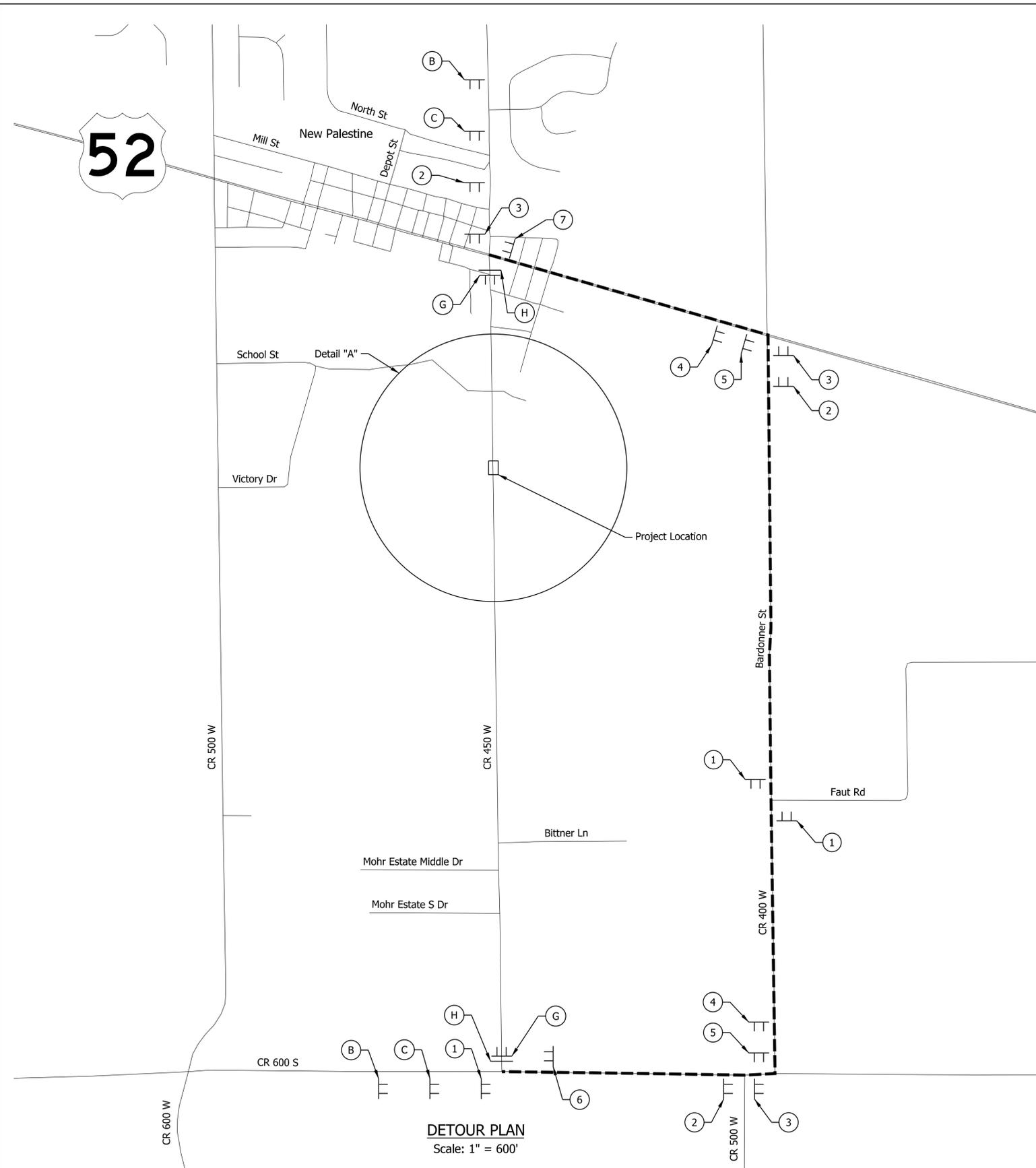
DEBRA CARNES, AUDITOR



HANCOCK COUNTY

PLANS PREPARED BY:	SJCA, INC.	(317) 566-0629 PHONE NUMBER
CERTIFIED BY:	_____	DATE _____
RECOMMENDED FOR LETTING:	_____	DATE _____
INDIANA DEPARTMENT OF TRANSPORTATION		

BRIDGE FILE	
30-00086	
DESIGNATION	
2101742	
SURVEY BOOK	
ELECTRONIC	1 of 13
CONTRACT	
PROJECT	
2101742	

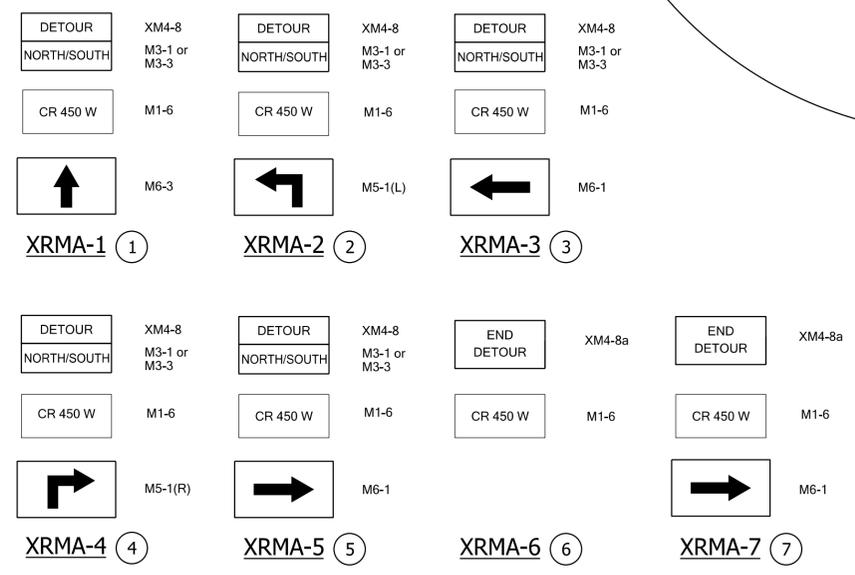


DETOUR PLAN
Scale: 1" = 600'

TWO ROUTE CLOSURE NOTICE SIGNS XG20-5 REQUIRED (ONE AT EACH END OF PROJECT) PLACED AT SITE A MAXIMUM OF 14 CALENDAR DAYS AND A MINIMUM OF 7 CALENDAR DAYS PER INDOT STANDARD SPECIFICATION SECTION 801.04 PRIOR TO ROAD CLOSURE

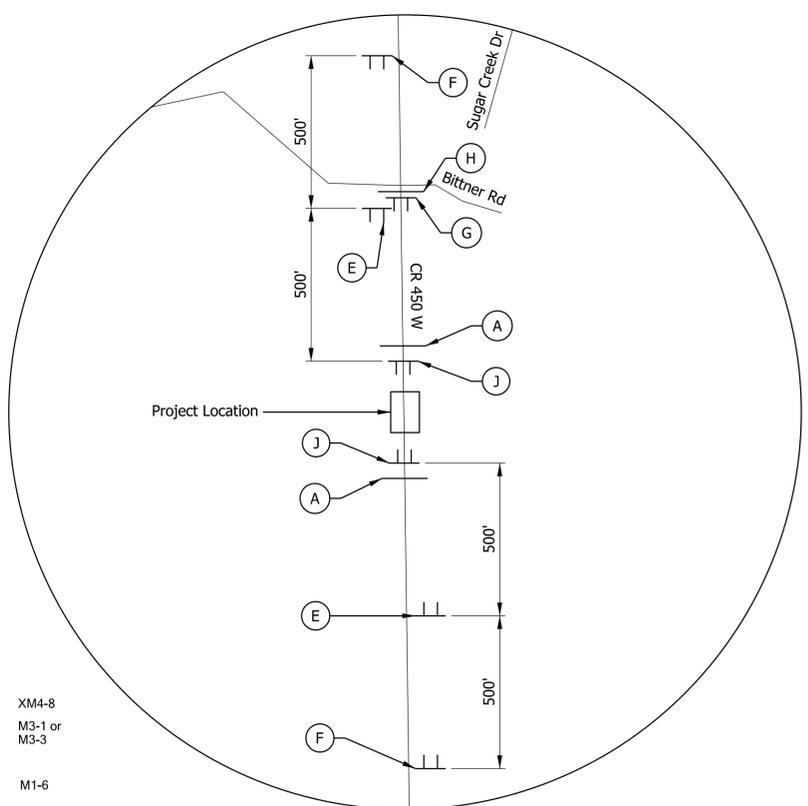
ESTIMATED QUANTITIES		
DESCRIPTION	UNIT	TOTAL
Construction Sign, A	EACH	8
Detour Route Marker Assembly	EACH	15
Road Closure Sign Assembly	EACH	5
Type III-A Barricades	LFT	48
Type III-B Barricades	LFT	72

DETOUR ROUTE MARKER ASSEMBLY LEGEND



LEGEND

- (A) TYPE III-A BARRICADES - 24 LFT REQUIRED
- (B) "ROAD CLOSED AHEAD" - XW20-3
- (C) "DETOUR AHEAD" - XW20-2
- (E) "ROAD CLOSED 500 FT." - XW20-3
- (F) "ROAD CLOSED 1000 FT." - XW20-3
- (G) ROAD CLOSURE SIGN ASSEMBLY WITH "ROAD CLOSED X MILES AHEAD LOCAL TRAFFIC ONLY" - R11-3
- (H) TYPE III-B BARRICADES STAGGERED - 24 LFT REQUIRED
- (J) ROAD CLOSURE SIGN ASSEMBLY WITH "ROAD CLOSED" - R11-2
- TT SIGN ASSEMBLY
- DETOUR ROUTE



DETAIL "A"
1" = 300'

NOTES:

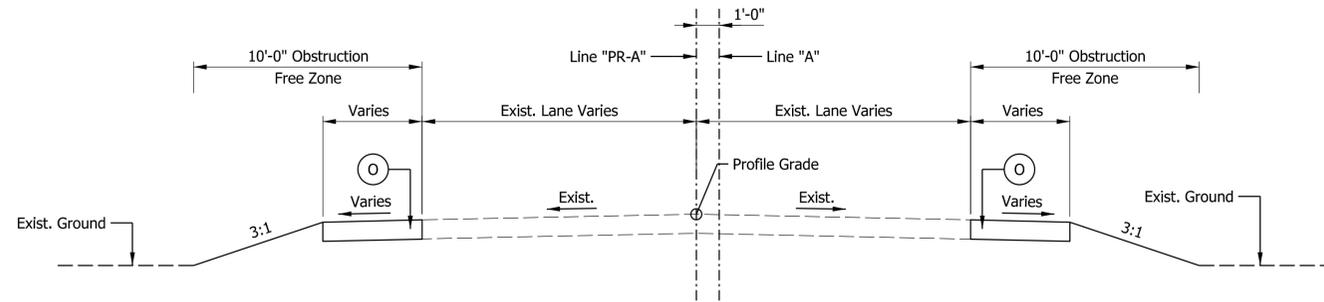
1. DETOUR ROUTE MARKER ASSEMBLIES SHALL BE IN ACCORDANCE WITH STANDARD DRAWING 801-TCDT-04.
2. TYPE B CONSTRUCTION WARNING LIGHTS SHALL BE USED WITH ALL SIGNS LOCATED ON BARRICADES.
3. TYPE A CONSTRUCTION WARNING LIGHTS SHALL BE USED ON ALL OTHER CONSTRUCTION SIGNS.
4. ACCESS TO PROPERTY OWNERS SHALL BE PROVIDED DURING CONSTRUCTION.

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RECOMMENDED FOR APPROVAL _____	DESIGN ENGINEER _____	DATE _____
DESIGNED: _____ JBL _____	DRAWN: _____ JBL _____	
CHECKED: _____ MJF _____	CHECKED: _____ MJF _____	

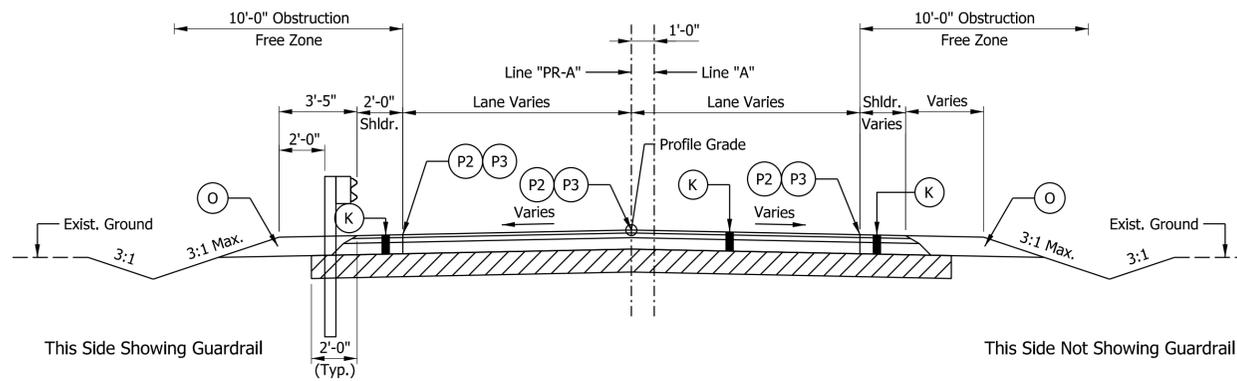
INDIANA DEPARTMENT OF TRANSPORTATION	
DETOUR	

HORIZONTAL SCALE	BRIDGE FILE
AS NOTED	30-00086
VERTICAL SCALE	DESIGNATION
N/A	2101742
SURVEY BOOK	SHEETS
ELECTRONIC	3 of 13
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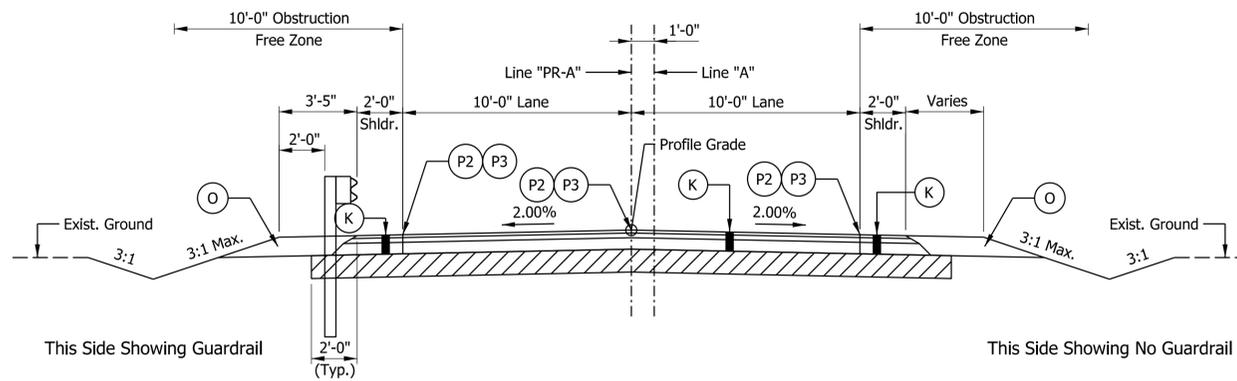
TYPICAL INCIDENTAL SECTION

Scale: 1/4" = 1'-0"
 Sta. 10097+71.00 "PR-A" to Sta. 10098+00.00 "PR-A"



TYPICAL INCIDENTAL CONSTRUCTION SECTION

Scale: 1/4" = 1'-0"
 Sta. 10098+00.00 "PR-A" to Sta. 10098+50.00 "PR-A"
 Sta. 10101+50.00 "PR-A" to Sta. 10102+00.00 "PR-A"



TYPICAL FULL-DEPTH PAVEMENT SECTION

Scale: 1/4" = 1'-0"
 Sta. 10098+50.00 "PR-A" to Sta. 10098+93.24 "PR-A"
 Sta. 10101+06.76 "PR-A" to Sta. 10101+50.00 "PR-A"

LEGEND

- ① Slope Treatment: Mulched Seeding 'R' for Slopes 3:1 or flatter. Erosion Control Blankets for Slopes steeper than 3:1. See Special Provisions
- K 165 lbs/syd QC/QA-HMA, 3, 64, Surface, 9.5 mm on 275 lbs/syd QC/QA-HMA, 3, 64, Intermediate, 19.0 mm on 660 lbs/syd QC/QA-HMA, 3, 64, Base, 25.0 mm on Subgrade Treatment, Type IC, on Geotextile for Pavement, Type 2B
- R QC/QA-HMA, 3, 64, Surface, 9.5mm on Transition Milling
- O Variable depth Compacted Aggregate, No. 53 (10" max.)
- P1 Joint Adhesive required for Surface layer at longitudinal joints
- P2 Liquid Asphalt Sealant required on Surface Layer over longitudinal joint, 24" width
- P3 Joint Adhesive required for Surface and Intermediate layers at longitudinal joints
- ▨ Subgrade Treatment, Type IC

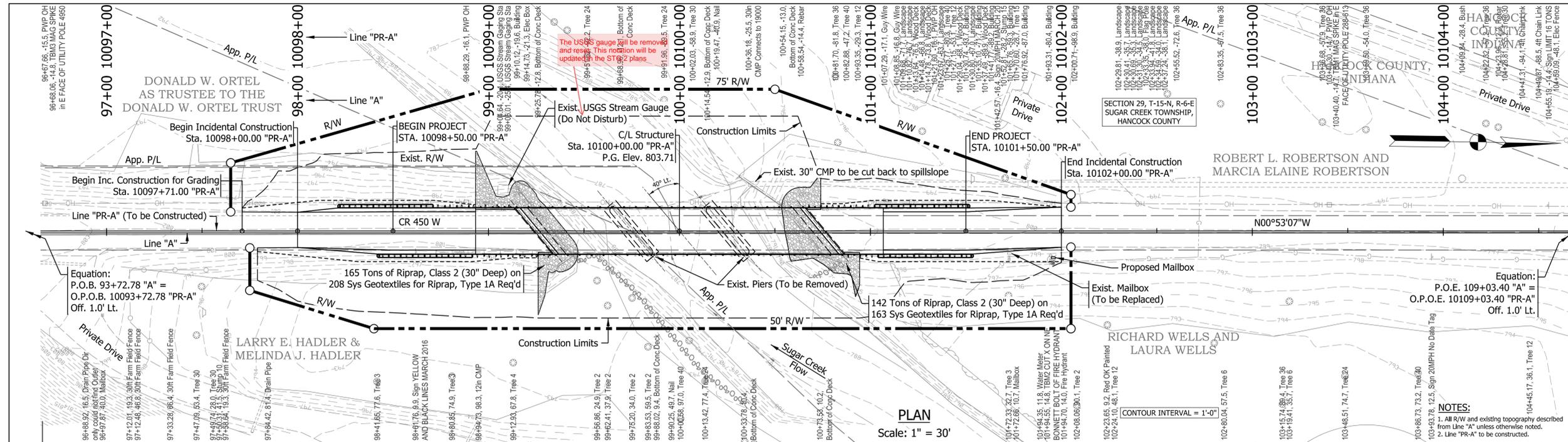
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RECOMMENDED FOR APPROVAL _____	DESIGN ENGINEER _____	DATE _____
DESIGNED: _____ JBL _____	DRAWN: _____ JBL _____	
CHECKED: _____ MJF _____	CHECKED: _____ MJF _____	

INDIANA DEPARTMENT OF TRANSPORTATION

TYPICAL SECTIONS

HORIZONTAL SCALE	BRIDGE FILE
1/4" = 1'-0"	30-00086
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1/4" = 1'-0"	2101742
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PLAN
Scale: 1" = 30'

UTILITIES
See Index Sheet for Information

EXISTING STRUCTURE
The Existing Structure is a Three-Span Reinforced Concrete Box Beam Bridge Built in 1970 with a 135' Length, 22'-10" Clear Roadway, and 45° Skew. Existing Structure to be Removed.

HYDRAULIC DATA

Drainage Area	93.97 sq. miles
Design Discharge (Q100)	12,300 cfs
Natural Q100 Elevation	799.99 ft
Backwater @ Q100	1.69 ft
Velocity @ Q100	10.25 ft/sec.
Headwater @ Q100	802.25 ft
Waterway Opening Provided Below Q100 (Structure)	938.03 sq. ft
Road Overflow Waterway Area @ Q100	143.50 sq. ft
Outlet Flowline Elevation	786.26 ft
Minimum Low Structure Elevation	799.51 ft
Skew	40° Skew Lt.

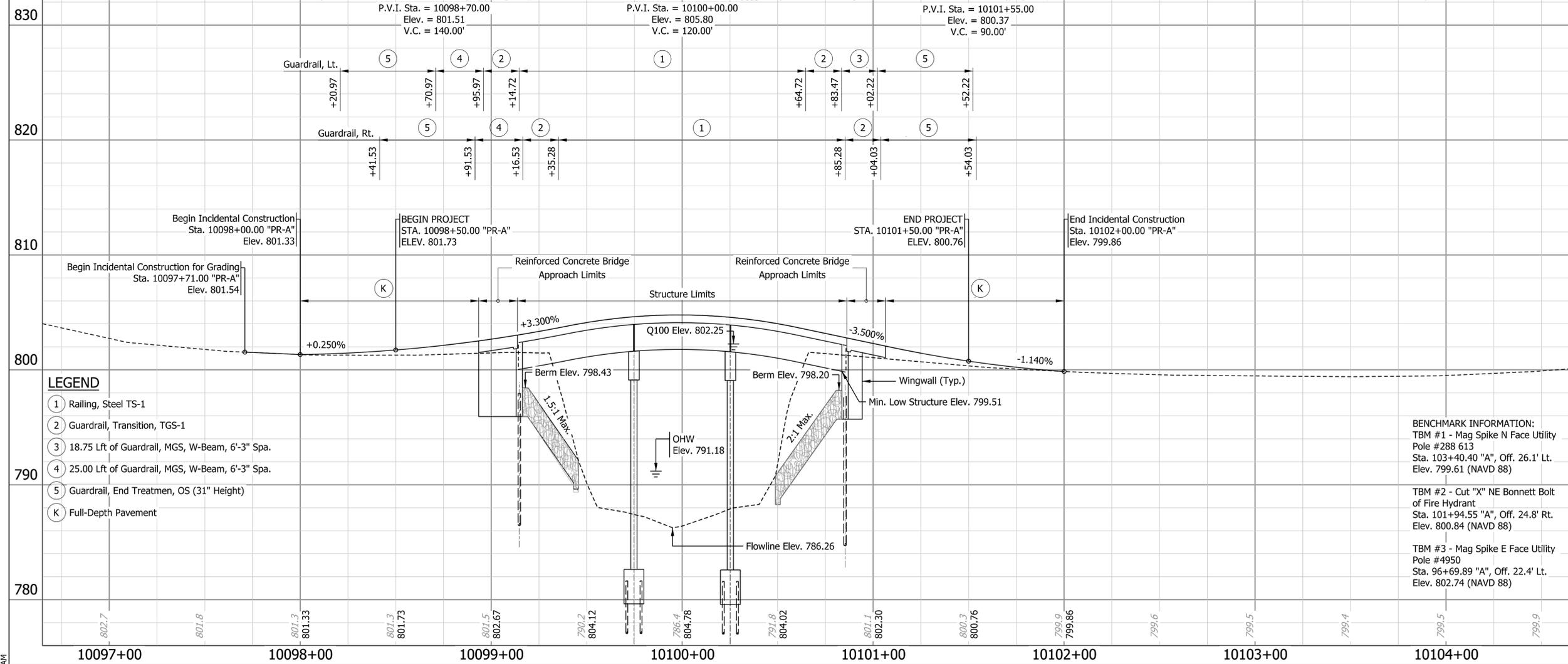
SCOUR DATA

QMax Scour	7,060 cfs
Contraction Scour Depth (Q100)	3.34 ft
Total Scour Depth (Q100)	8.12 ft
Low Scour Elevation (Q100)	778.14 ft

EARTHWORK SUMMARY

Fill +25%	x - CYS
Common Excavation	x - CYS
Usable Waterway Excavation (70%)	x - CYS
Surplus Foundation Excavation (70%)	x - CYS
Borrow	x - CYS
Total Waterway Excavation	x - CYS
Excavation Unclassified	x - CYS
Benching (Estimated)	x - CYS

NOTE: No direct payment will be made for Benchng. Benchng will not be included in the quantity of common excavation.



- LEGEND**
- ① Railing, Steel TS-1
 - ② Guardrail, Transition, TGS-1
 - ③ 18.75 Lft of Guardrail, MGS, W-Beam, 6'-3" Spa.
 - ④ 25.00 Lft of Guardrail, MGS, W-Beam, 6'-3" Spa.
 - ⑤ Guardrail, End Treatment, OS (31" Height)
 - K Full-Depth Pavement

BENCHMARK INFORMATION:
TBM #1 - Mag Spike N Face Utility Pole #288 613 Sta. 103+40.40 "A", Off. 26.1' Lt. Elev. 799.61 (NAVD 88)

TBM #2 - Cut "X" NE Bonnett Bolt of Fire Hydrant Sta. 101+94.55 "A", Off. 24.8' Rt. Elev. 800.84 (NAVD 88)

TBM #3 - Mag Spike E Face Utility Pole #4950 Sta. 96+69.89 "A", Off. 22.4' Lt. Elev. 802.74 (NAVD 88)

FINAL EARTHWORK QUANTITIES TO BE PROVIDED FOR STAGE 3 PLAN SUBMITTAL

CONTINUOUS COMPOSITE PRESTRESSED CONCRETE I-BEAM TYPE I
3 SPANS: 49'-9", 50'-6", 49'-9"
24'-0" CLEAR ROADWAY; 40° SKEW LT.
CR 450 W OVER SUGAR CREEK
HANCOCK COUNTY

RECOMMENDED FOR APPROVAL	DESIGN ENGINEER	DATE
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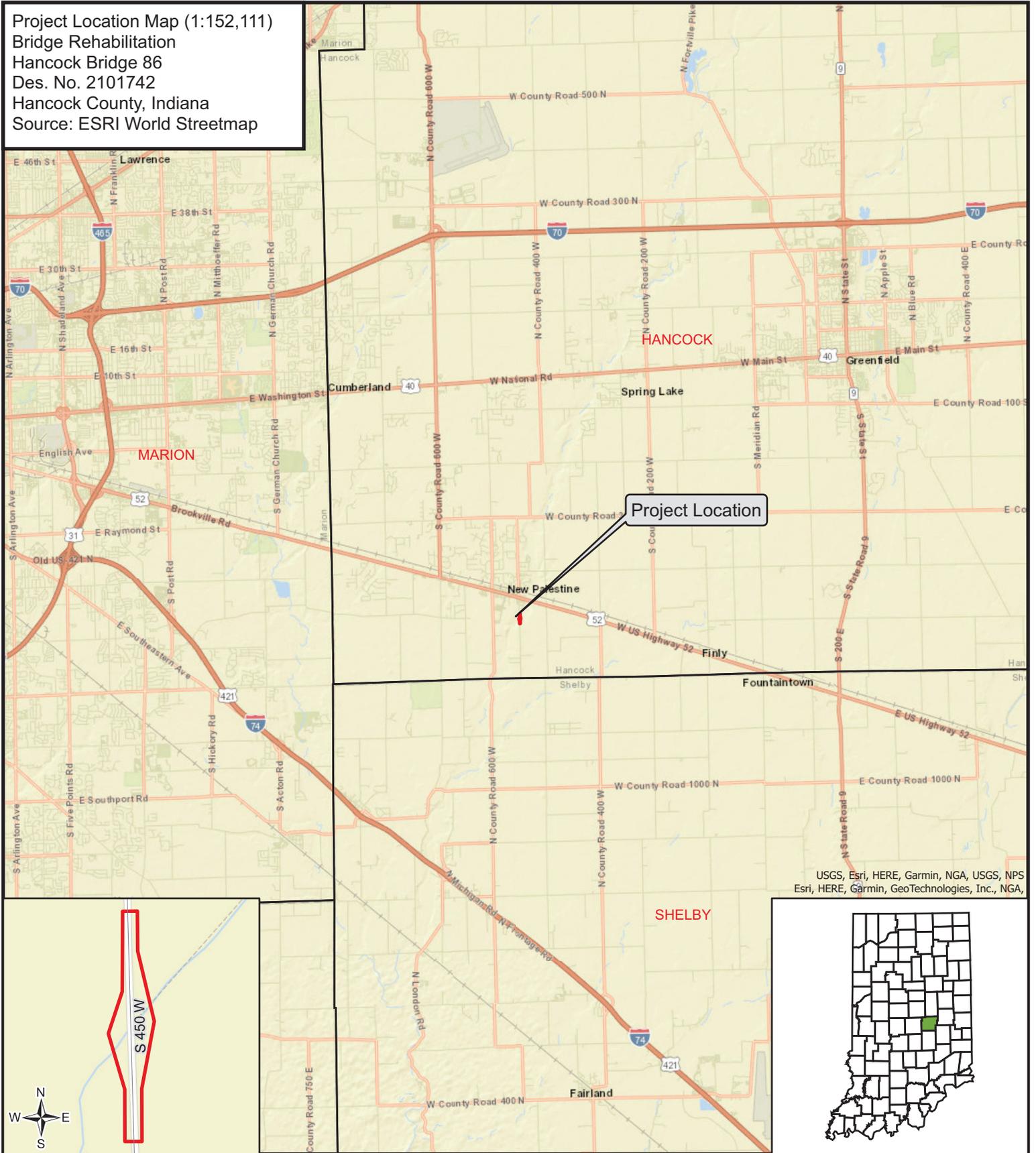
INDIANA DEPARTMENT OF TRANSPORTATION

LAYOUT

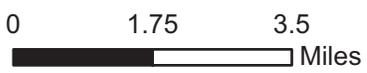
HORIZONTAL SCALE	BRIDGE FILE
1" = 30'	30-00086
VERTICAL SCALE	DESIGNATION
1" = 5'	2101742
SURVEY BOOK	SHEETS
ELECTRONIC	5 of 13
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Plot: 9/2/2023 10:59:10 AM

Project Location Map (1:152,111)
 Bridge Rehabilitation
 Hancock Bridge 86
 Des. No. 2101742
 Hancock County, Indiana
 Source: ESRI World Streetmap



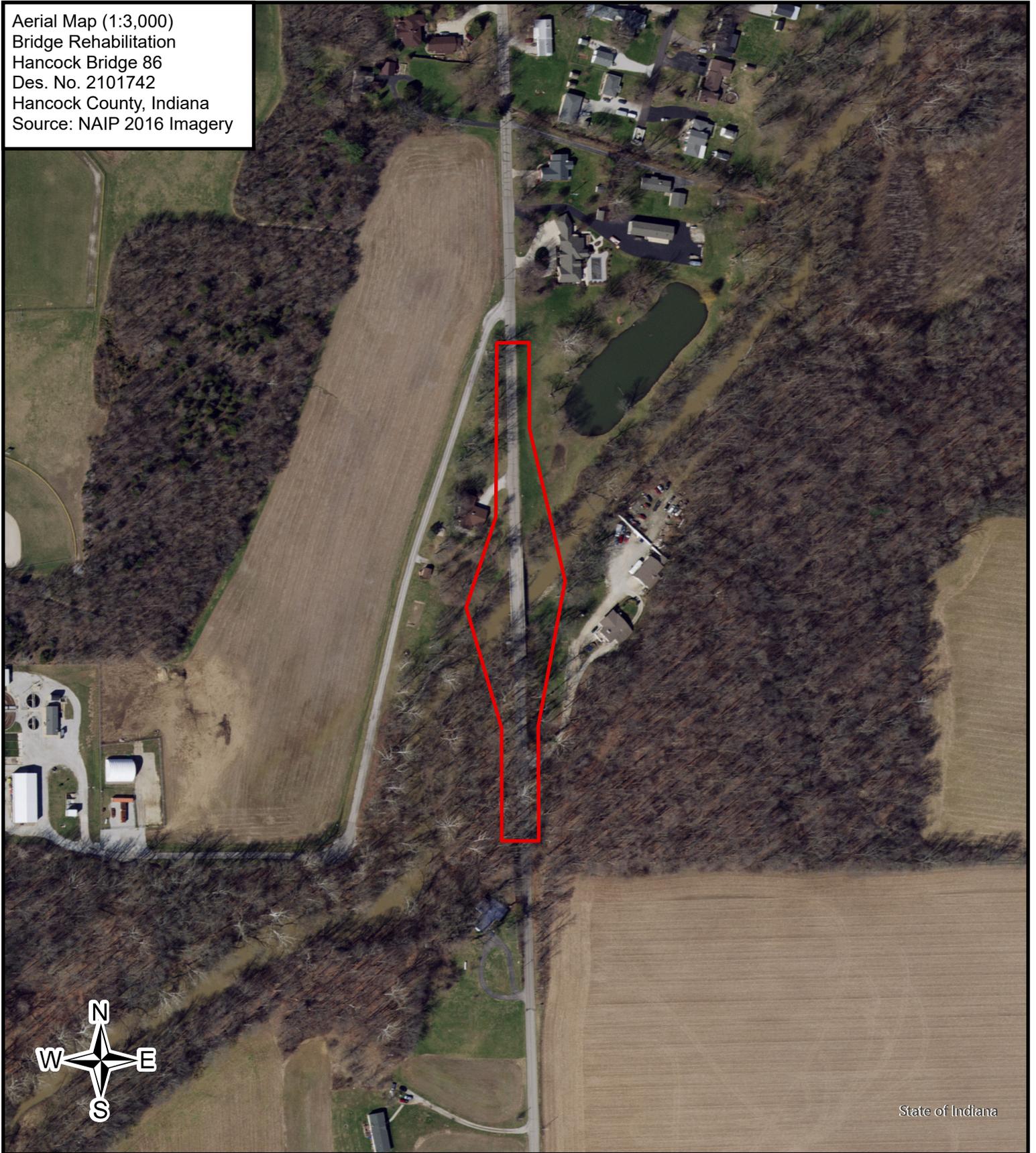
USGS, Esri, HERE, Garmin, NGA, USGS, NPS
 Esri, HERE, Garmin, GeoTechnologies, Inc., NGA,



- County Boundary
- Project County
- Project Location



Aerial Map (1:3,000)
Bridge Rehabilitation
Hancock Bridge 86
Des. No. 2101742
Hancock County, Indiana
Source: NAIP 2016 Imagery



State of Indiana



0 195 390
Feet

 Project Location

