PROJECT	DESIGNATION
2001993	2001993
CONTRACT	BRIDGE FILE
B-43325	003-05-10729

STRUCTURE INFORMATION				
STRUCTURE	TYPE	SPANS AND SKEW	OVER	STATION
003-05-10729	Continuous Reinforced Concrete Slab Bridge	3 Spans: 31'-0", 40'-0", 31'-0" Skew: 30° Rt.	Prairie Creek	11+40.65 Line "A"

KIN PROJECT INFORMATION	
DESIGNATION	PROJECT DESCRIPTION
2002021 (LEAD)	BRIDGE REPLACEMENT ON US 33 OVER ANDREW MILLER DITCH
2001993	BRIDGE REPLACEMENT ON SR 3 OVER PRAIRIE CREEK

INDIANA DEPARTMENT OF TRANSPORTATION

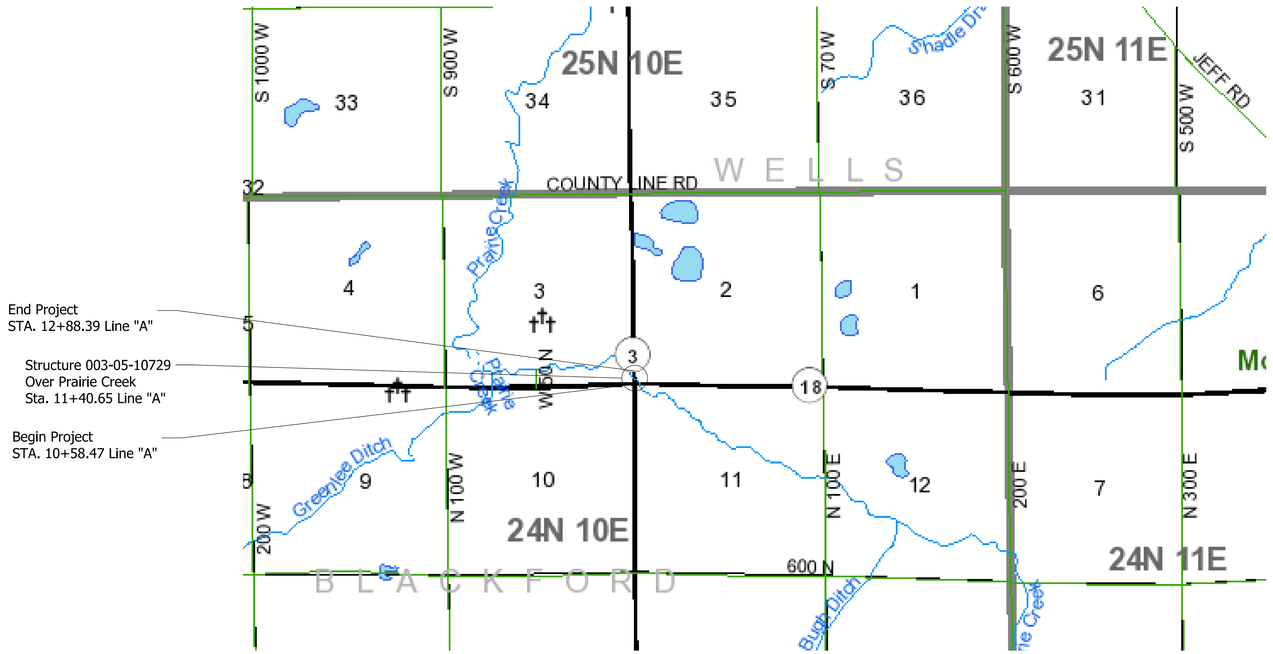
BRIDGE PLANS

FOR SPANS OVER 20 FEET

ROUTE: SR 3 AT: RP 159+26

PROJECT NO. 2001993 P.E.
2001993 R/W
2001993 CONST.

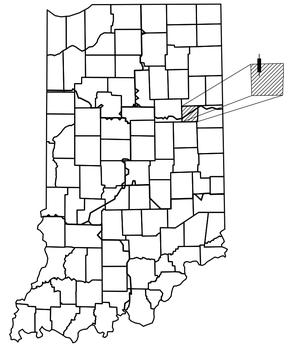
Bridge Replacement on SR 3 over Prairie Creek
Located 0.02 Miles North of SR 18
Section 2 & 3, T-24-N, R-10-E, Washington Township, Blackford County, Indiana



SCALE: 1" = 2000'

TRAFFIC DATA		
A.A.D.T.	(2025)	2,493 V.P.D.
A.A.D.T.	(2045)	2,599 V.P.D.
D.H.V.	(2045)	223 V.P.H.
DIRECTIONAL DISTRIBUTION		53 %
TRUCKS		23 % A.A.D.T.
		17 % D.H.V.

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



PROJECT LOCATION SHOWN BY
Blackford County

LATITUDE: 40°33'10" N LONGITUDE: 85°22'16" W

BRIDGE LENGTH:	0.020	MI.
ROADWAY LENGTH:	0.024	MI.
TOTAL LENGTH:	0.044	MI.
MAX. GRADE:	0.37	%

HUC: 051201020302

Plans Prepared By:

fishbeck
Engineers | Architects | Scientists | Constructors

INDIANA DEPARTMENT OF TRANSPORTATION
STANDARD SPECIFICATIONS DATED 2022
TO BE USED WITH THESE PLANS.

PLANS PREPARED BY: FISHBECK (317) 577-9050 PHONE NUMBER

"THIS MEDIA SHOULD NOT BE CONSIDERED A CERTIFIED DOCUMENT"

CERTIFIED BY: DATE

APPROVED FOR LETTING: INDIANA DEPARTMENT OF TRANSPORTATION DATE

BRIDGE FILE
003-05-10729
DESIGNATION
2001993

	SHEETS	
	1 of	22
CONTRACT	PROJECT	
B-43325	2001993	

Plot: 3/6/2023

File: BR_Title Sheet.dgn
Model:BR_Title Sheet

UTILITIES

Electric: Indiana Michigan Power
4504 S. Lincoln Blvd.
Marion, IN 46953
Thomas McDonough
(765) 667-6025
tamcdonough@aep.com

Pipeline: Panhandle Eastern (Edgerton)
8910 Purdue Road
Suite 300
Indianapolis, IN 46268
Nathan Cloud
(317) 879-3039
nathan.cloud@energytransfer.com

Communications: AT&T - Distribution
116 E. Taylor St.
Kokomo, IN 46901
David W. Smith
(765) 454-5021
DS8383@att.com

INDEX

REVISIONS

SHEET NO.	DATE	REVISED

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE

DESIGNED: DLC DRAWN: DLC

CHECKED: APM CHECKED: APM

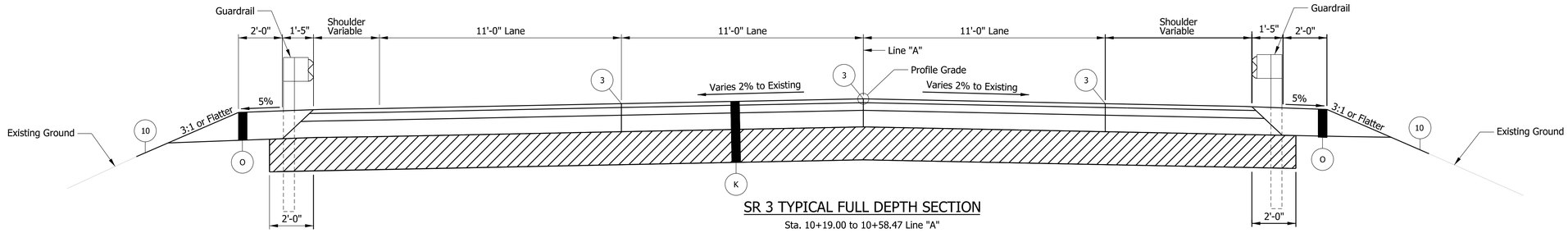
INDIANA
DEPARTMENT OF TRANSPORTATION

INDEX

SCALE	BRIDGE FILE
NONE	003-05-10729
	DESIGNATION
	2001993
	SHEETS
	2 of 22
CONTRACT	PROJECT
B-43325	2001993

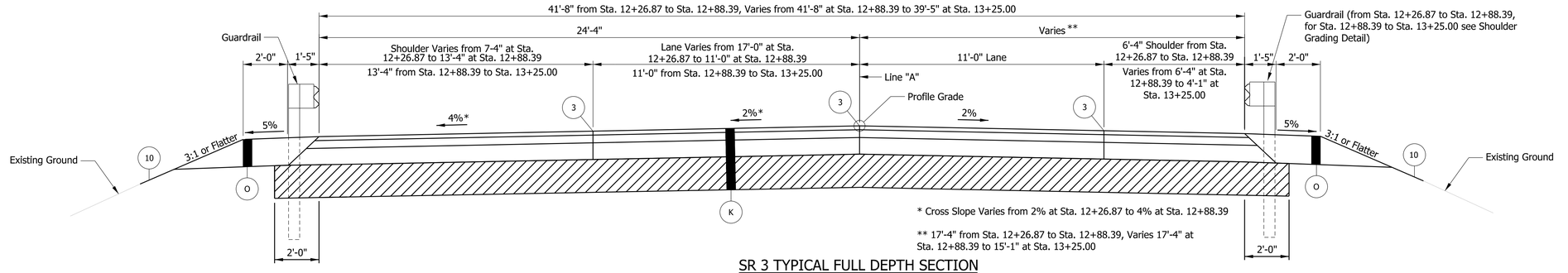
Plot: 3/6/2023

File: BR_Index Sheet.dgn
Model: BR_Index Sheet



SR 3 TYPICAL FULL DEPTH SECTION

Sta. 10+19.00 to 10+58.47 Line "A"

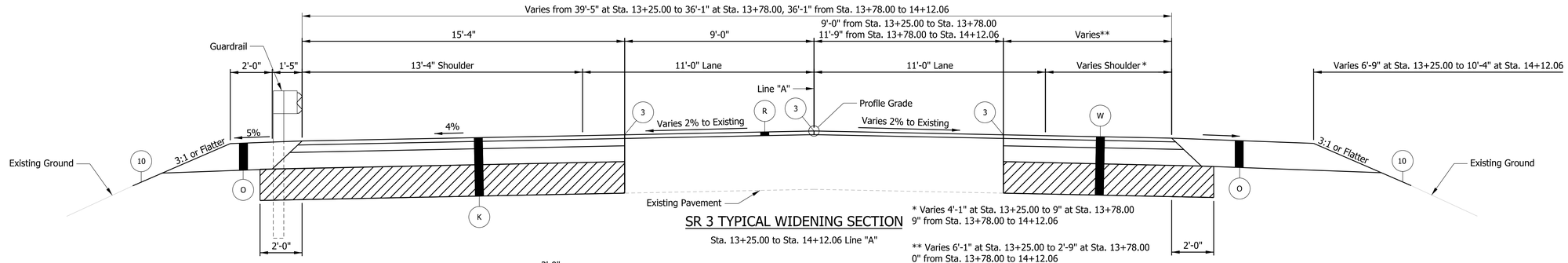


* Cross Slope Varies from 2% at Sta. 12+26.87 to 4% at Sta. 12+88.39

** 17'-4" from Sta. 12+26.87 to Sta. 12+88.39, Varies 17'-4" at Sta. 12+88.39 to 15'-1" at Sta. 13+25.00

SR 3 TYPICAL FULL DEPTH SECTION

Sta. 12+26.87 to Sta. 13+25.00 Line "A"

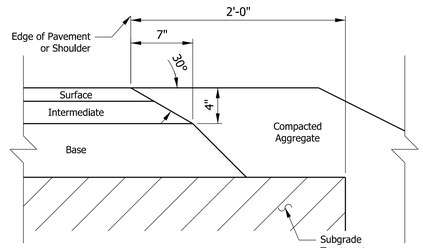


SR 3 TYPICAL WIDENING SECTION

Sta. 13+25.00 to Sta. 14+12.06 Line "A"

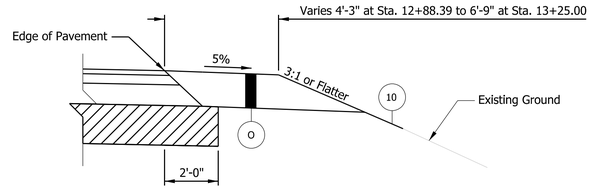
* Varies 4'-1" at Sta. 13+25.00 to 9" at Sta. 13+78.00
9" from Sta. 13+78.00 to 14+12.06

** Varies 6'-1" at Sta. 13+25.00 to 2'-9" at Sta. 13+78.00
0" from Sta. 13+78.00 to 14+12.06



SAFETY EDGE DETAIL

Not to Scale



SHOULDER GRADING DETAIL

NOTES:

1. After milling the pavement surface, any cracks that remain visible with 0.25" or greater width shall be sealed before applying tack coat. The material used to fill the cracks shall be PG 64-22, no emulsion shall be used. The sealed cracks should not be over banded above the milled texture.

LEGEND

- (R) 165 lbs/syd QC/QA-HMA, 3, 70, Surface, 9.5 mm on Milling, Transition
- (O) Variable Depth Compacted Aggregate, No. 53
- (3) Longitudinal Joint Adhesive and Liquid Asphalt Sealant
- (W) Widening with HMA, Type C, Consisting of 165 lbs/syd QC/QA-HMA, 3, 70, Surface, 9.5 mm on 275 lbs/syd HMA Intermediate, Type C on 880 lbs/syd HMA Base, Type C on Subgrade Treatment Type IC
- (10) Mulched Seeding, R
- (K) 165 lbs/syd QC/QA-HMA, 3, 70, Surface, 9.5 mm on 275 lbs/syd QC/QA-HMA, 3, 70, Intermediate, 19.0 mm on 880 lbs/syd QC/QA-HMA, 3, 64, Base, 25.0 mm on Subgrade Treatment Type IC on Geotextile for Pavement, Type 2B

RECOMMENDED FOR APPROVAL
DESIGN ENGINEER DATE

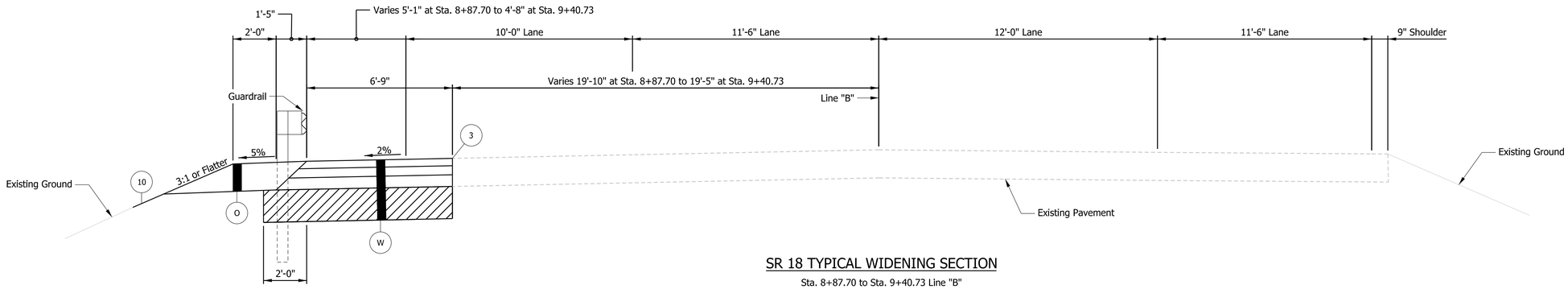
DESIGNED: NSK DRAWN: NSK
CHECKED: JH CHECKED: JH

INDIANA DEPARTMENT OF TRANSPORTATION

TYPICAL CROSS SECTIONS

SCALE	BRIDGE FILE
3/8" = 1'-0"	003-05-10729
	DESIGNATION
	2001993
	SHEETS
	3 of 22
CONTRACT	PROJECT
B-43325	2001993

Plot: 3/6/2023
File: RD210940_Typ Sections.dgn
Model: Typical 1



SR 18 TYPICAL WIDENING SECTION

Sta. 8+87.70 to Sta. 9+40.73 Line "B"

LEGEND

- (R) 165 lbs/syd QC/QA-HMA, 3, 70, Surface, 9.5 mm on Milling, Transition
- (O) Variable Depth Compacted Aggregate, No. 53
- (3) Longitudinal Joint Adhesive and Liquid Asphalt Sealant
- (W) Widening with HMA, Type C, Consisting of 165 lbs/syd QC/QA-HMA, 3, 70, Surface, 9.5 mm on 275 lbs/syd HMA Intermediate, Type C on 880 lbs/syd HMA Base, Type C on Subgrade Treatment Type IC
- (10) Mulched Seeding, R
- (K) 165 lbs/syd QC/QA-HMA, 3, 70, Surface, 9.5 mm on 275 lbs/syd QC/QA-HMA, 3, 70, Intermediate, 19.0 mm on 880 lbs/syd QC/QA-HMA, 3, 64, Base, 25.0 mm on Subgrade Treatment Type IC on Geotextile for Pavement, Type 2B

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE

DESIGNED: NSK DRAWN: NSK

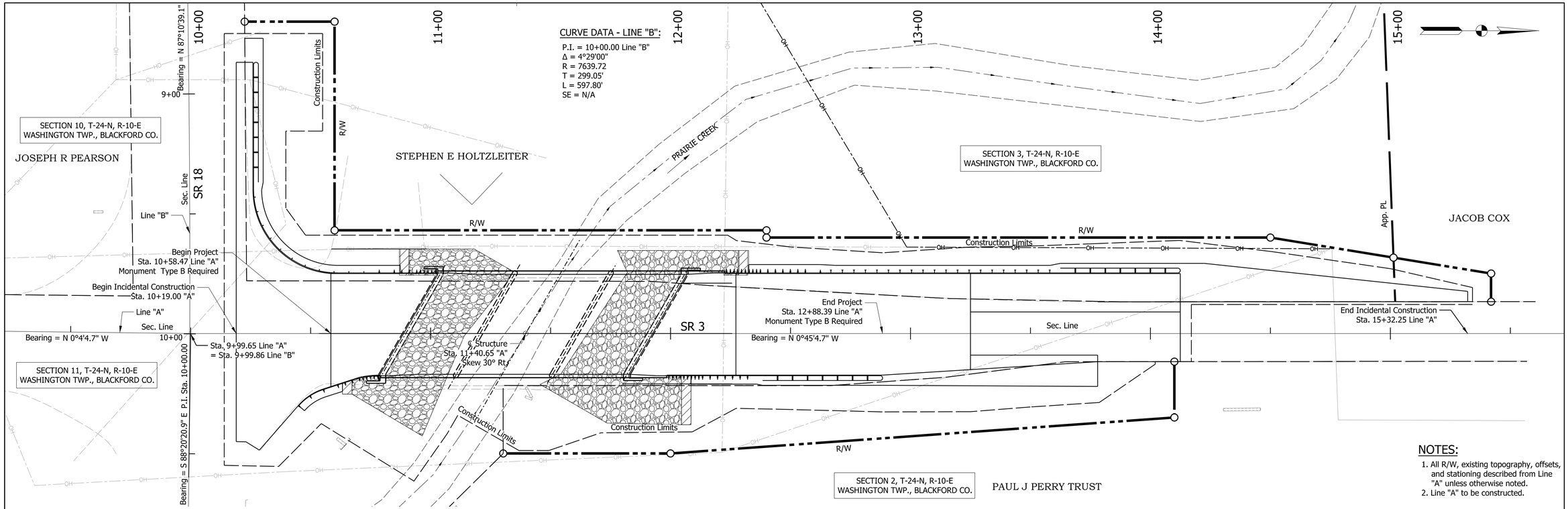
CHECKED: JH CHECKED: JH

INDIANA
DEPARTMENT OF TRANSPORTATION

TYPICAL CROSS SECTIONS

SCALE	BRIDGE FILE
3/8" = 1'-0"	003-05-10729
	DESIGNATION
	2001993
	SHEETS
	4 of 22
CONTRACT	PROJECT
B-43325	2001993

Plot: 3/6/2023
File: RD210940_Typ Sections.dgn
Model: Typical 2



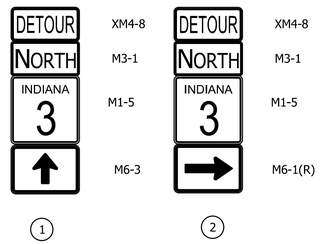
NOTES:

1. All R/W, existing topography, offsets, and stationing described from Line "A" unless otherwise noted.
2. Line "A" to be constructed.

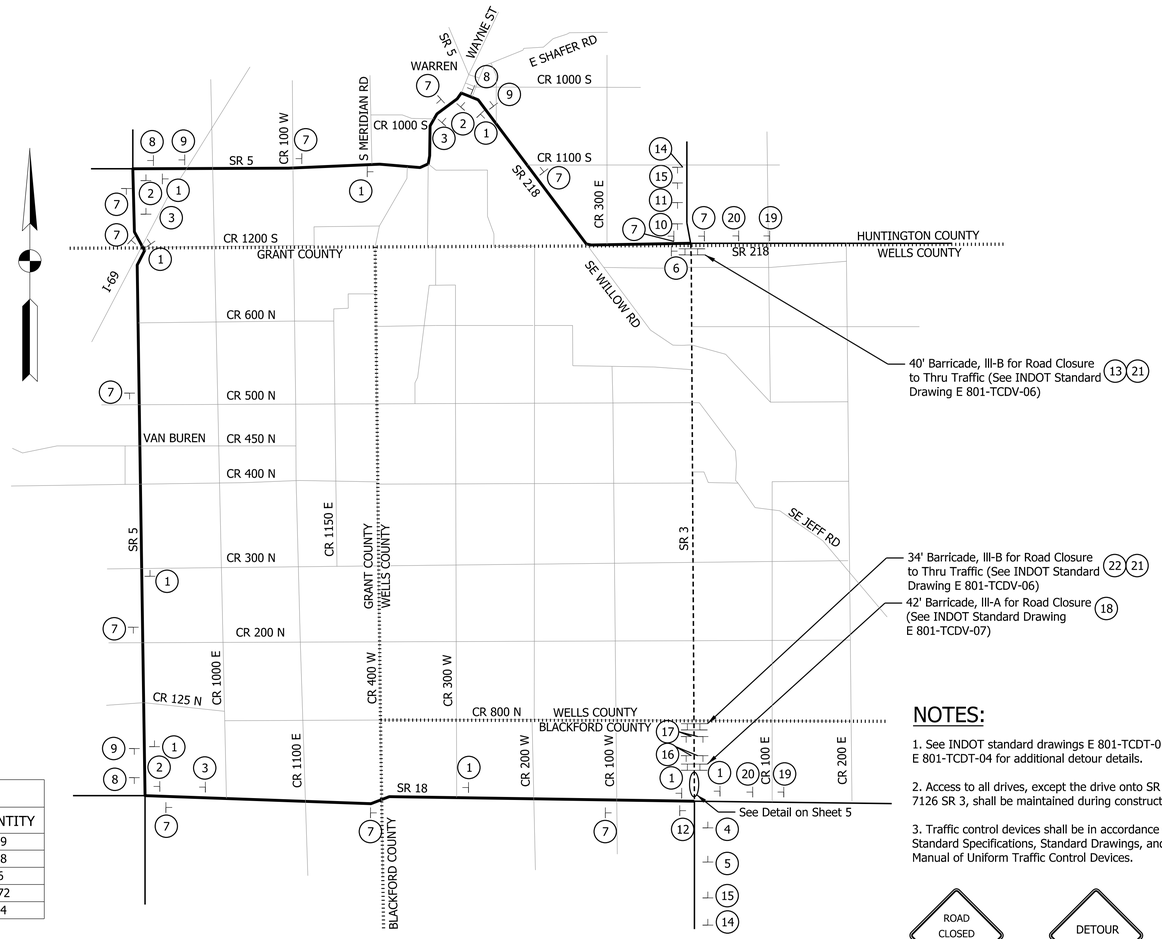
	RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE	INDIANA DEPARTMENT OF TRANSPORTATION	SCALE: 1" = 20' / BRIDGE FILE: 003-05-10729 / DESIGNATION: 2001993
	DESIGNED: DLC / DRAWN: DLC / CHECKED: APM / CHECKED: APM	PLAT NO. 1	SHEETS: 5 of 22 / CONTRACT: B-43325 / PROJECT: 2001993

Plot: 3/6/2023

File: RW_Plat1.dgn
Model: BR_Detail Sheet



MOT SUMMARY TABLE		
DESCRIPTION	UNIT	QUANTITY
DETOUR ROUTE MARKER ASSEMBLY	EACH	39
CONSTRUCTION SIGN, A	EACH	18
ROAD CLOSURE SIGN ASSEMBLY	EACH	6
BARRICADE, III-A	LFT	272
BARRICADE, III-B	LFT	74

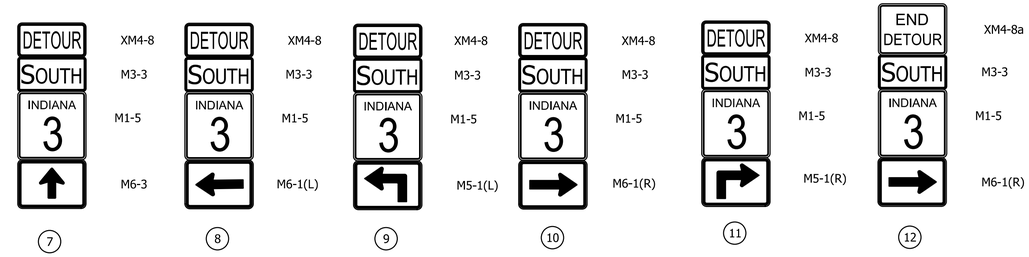


NOTES:

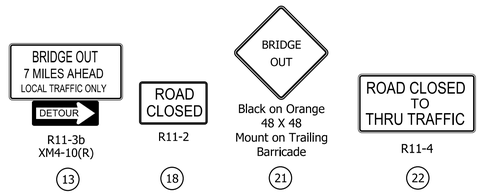
1. See INDOT standard drawings E 801-TCDT-01 and E 801-TCDT-04 for additional detour details.

2. Access to all drives, except the drive onto SR 3 from 7126 SR 3, shall be maintained during construction.

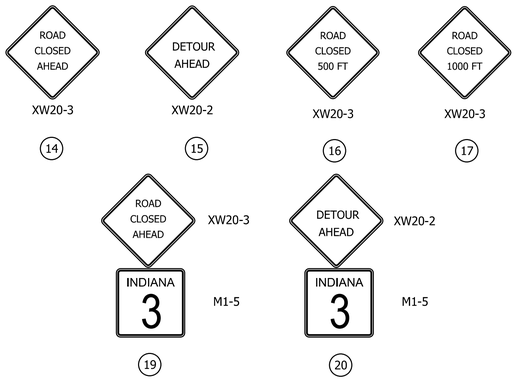
3. Traffic control devices shall be in accordance with INDOT Standard Specifications, Standard Drawings, and the Indiana Manual of Uniform Traffic Control Devices.



DETOUR ROUTE MARKER ASSEMBLIES



ROAD CLOSURE SIGN ASSEMBLIES



CONSTRUCTION SIGNS

LEGEND

- Detoured Route
- Sign
- Type III Barricade
- Construction Area
- Detour Route

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER _____ DATE

DESIGNED: NSK DRAWN: NSK

CHECKED: JH CHECKED: JH

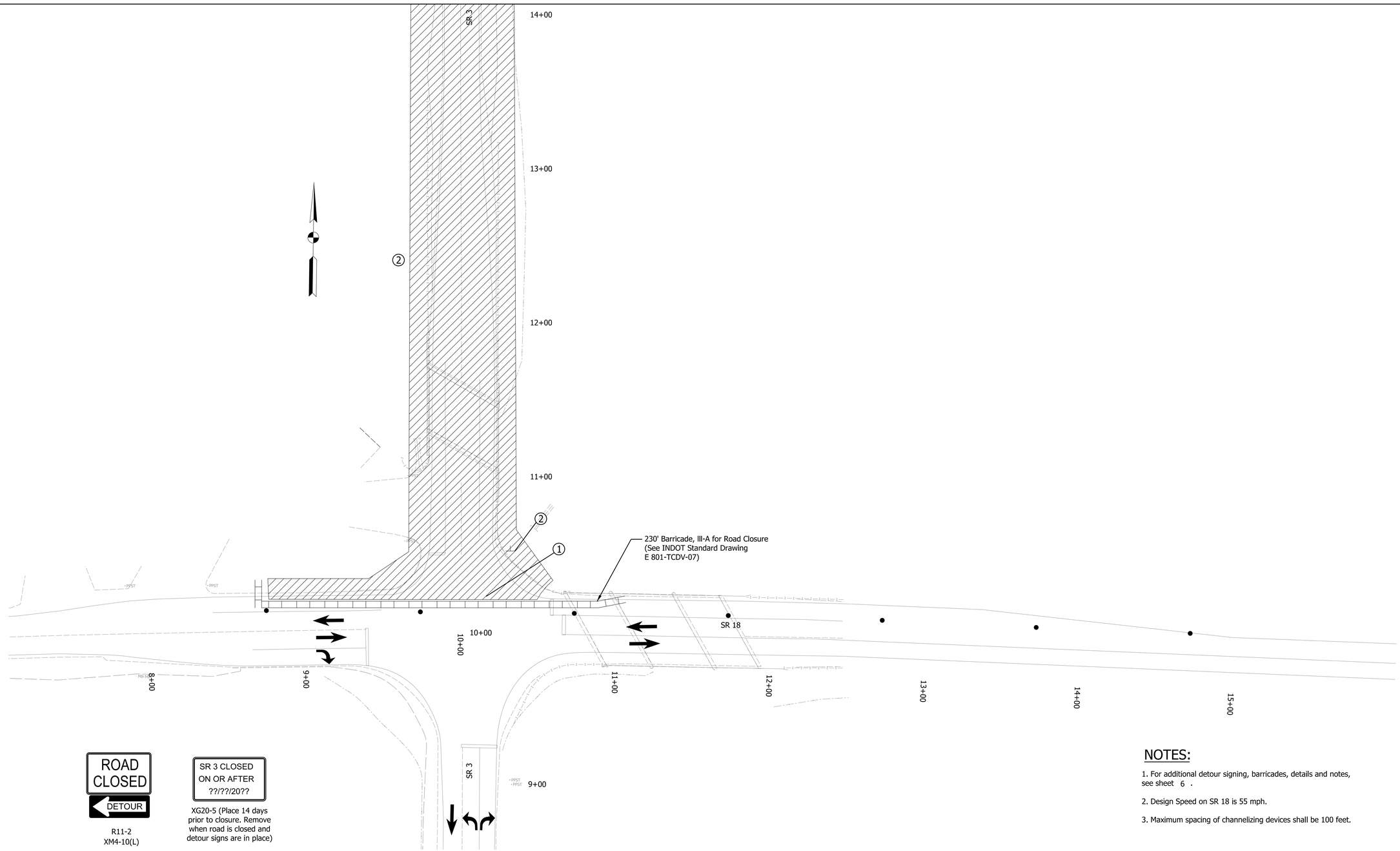
INDIANA DEPARTMENT OF TRANSPORTATION

MAINTENANCE OF TRAFFIC DETOUR

SCALE	BRIDGE FILE
1"=4800'	003-05-10729
	DESIGNATION
	2001993
	SHEETS
	6 of 22
CONTRACT	PROJECT
B-43325	2001993

Plot: 3/6/2023

File: RD_Detour.dgn



NOTES:

1. For additional detour signing, barricades, details and notes, see sheet 6 .
2. Design Speed on SR 18 is 55 mph.
3. Maximum spacing of channelizing devices shall be 100 feet.

LEGEND

- Traffic Flow
- Channelizing Device
- Construction Area
- Type III Barricade
- Sign

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE

DESIGNED: NSK DRAWN: NSK

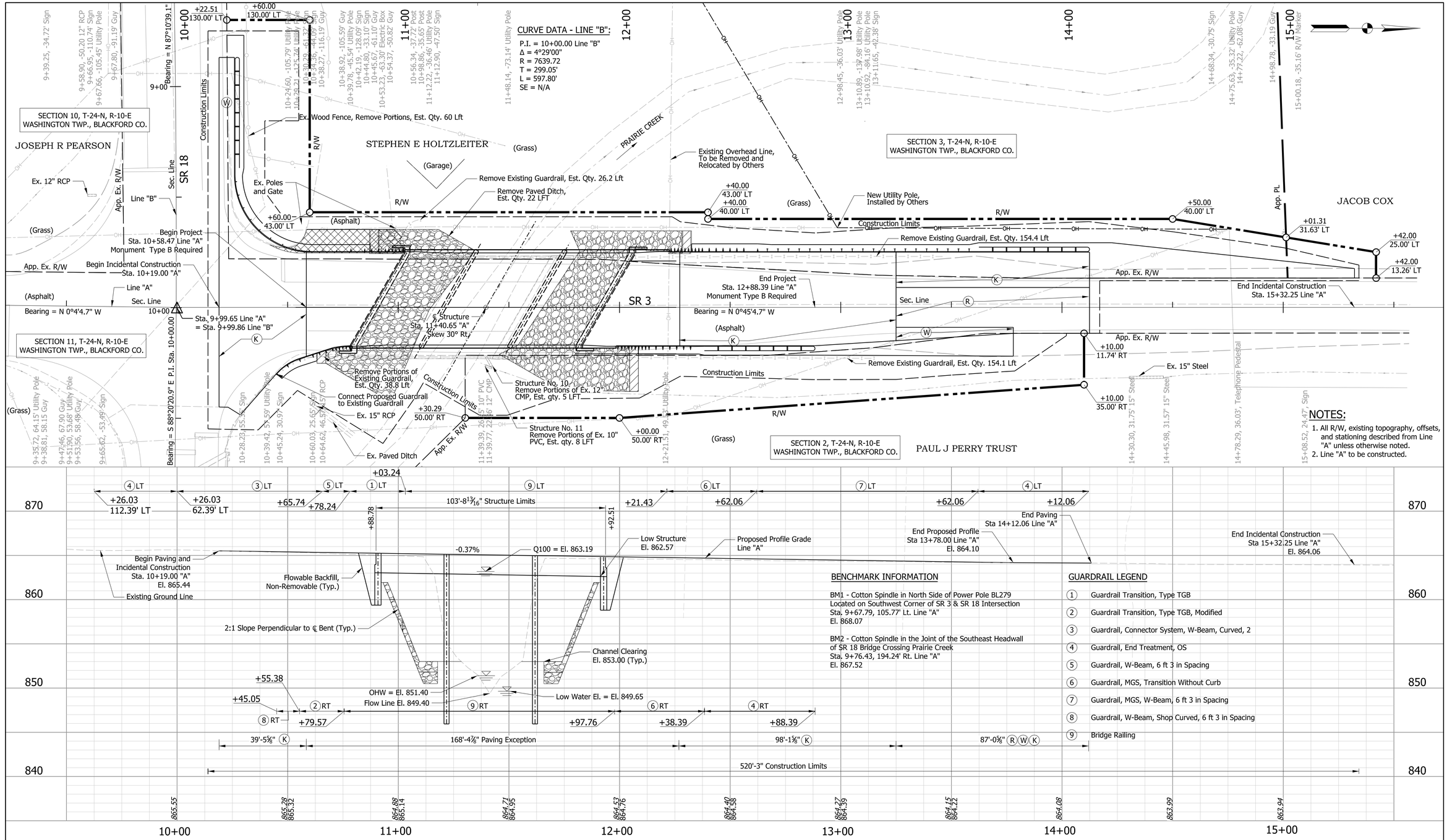
CHECKED: JH CHECKED: JH

INDIANA
DEPARTMENT OF TRANSPORTATION

MAINTENANCE OF TRAFFIC
DETOUR

SCALE	BRIDGE FILE
1"=30'	003-05-10729
	DESIGNATION
	2001993
	SHEETS
	7 of 22
CONTRACT	PROJECT
B-43325	2001993

Plot: 3/6/2023
File: RD_MOT.dgn
Model: BR_Detail Sheet



LEGEND

- (K) Full Depth HMA Pavement
- (R) Milling and Resurfacing
- (W) Widening with HMA, Type C
- Drive Removal
- Riprap
- Sodding

REFERENCE TIES

HPS1
Type of Marker: Iron Pin
Northing: 301200.73
Easting: 795121.70
Station: 10+19.42, 306.80' Lt.
Line "A"

HPS2
Type of Marker: Iron Pin
Northing: 301205.94
Easting: 795804.38
Station: 10+15.67, 375.89' Rt.
Line "A"

107
Type of Marker: Iron Pin
Northing: 301190.84
Easting: 795428.67
Station: 10+05.50, 0.01' Rt.
Line "A"

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE

DESIGNED: NSK DRAWN: NSK

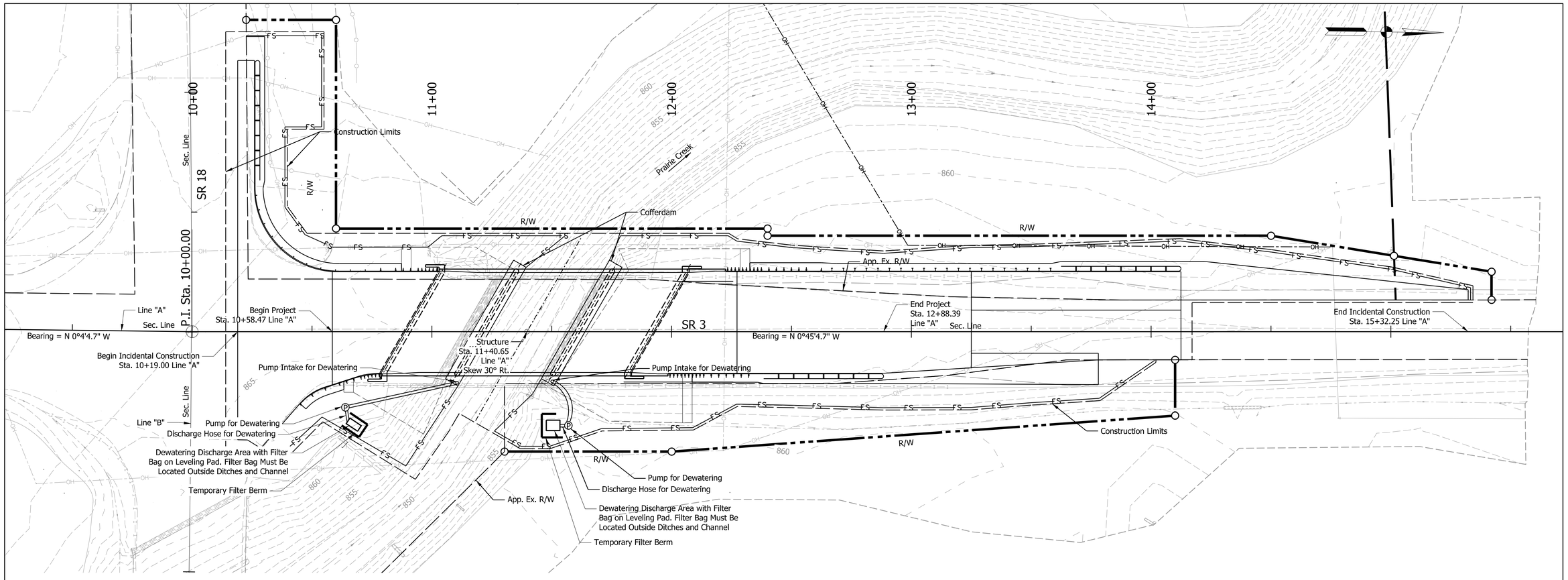
CHECKED: JH CHECKED: JH

INDIANA
DEPARTMENT OF TRANSPORTATION

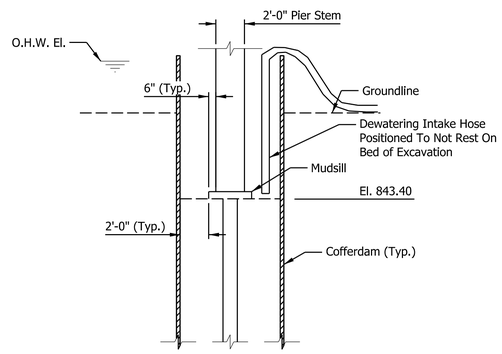
PLAN & PROFILE
LINE "A"

HORIZONTAL SCALE	BRIDGE FILE
1" = 20'	003-05-10729
VERTICAL SCALE	DESIGNATION
1" = 5'	2001993
	SHEETS
	8 of 22
CONTRACT	PROJECT
B-43325	2001993

Plot: 3/6/2023
File: RD_Plan&Profile.dgn
Model:BR_Detail Sheet

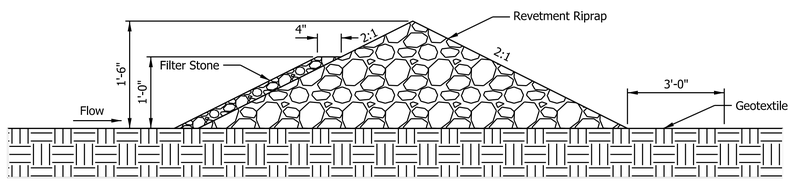


PLAN



SECTION AT COFFERDAM

No Scale



FILTER BERM DETAIL

No Scale

TEMPORARY EROSION CONTROL TABLE

STATION		LOCATION						
FROM/AT	TO	LEFT	MEDIAN	RIGHT	FILTER SOCK	TEMPORARY FILTER BERM	SEDIMENT, REMOVE	COFFERDAM
					LFT	LFT	CYS	LS

Quantities Shown are for Information Only

LEGEND

FS Filter Sock

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE

DESIGNED: DLC DRAWN: DLC

CHECKED: APM CHECKED: APM

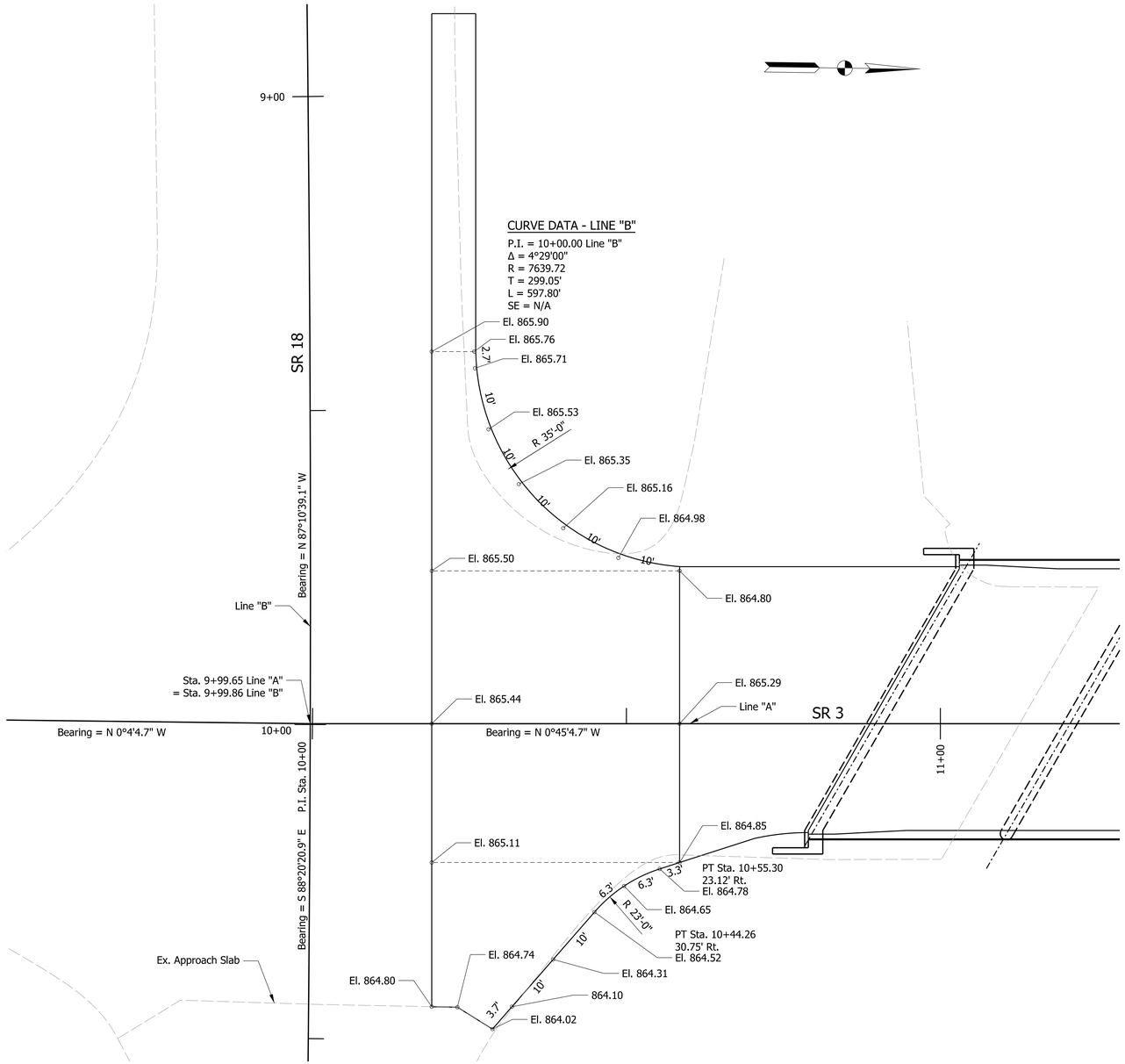
INDIANA
DEPARTMENT OF TRANSPORTATION

EROSION CONTROL

SCALE	BRIDGE FILE
1" = 20'	003-05-10729
	DESIGNATION
	2001993
	SHEETS
	9 of 22
CONTRACT	PROJECT
B-43325	2001993

Plot: 3/6/2023

File: BR_Erosion Control.dgn
Model:BR_Detail Sheet

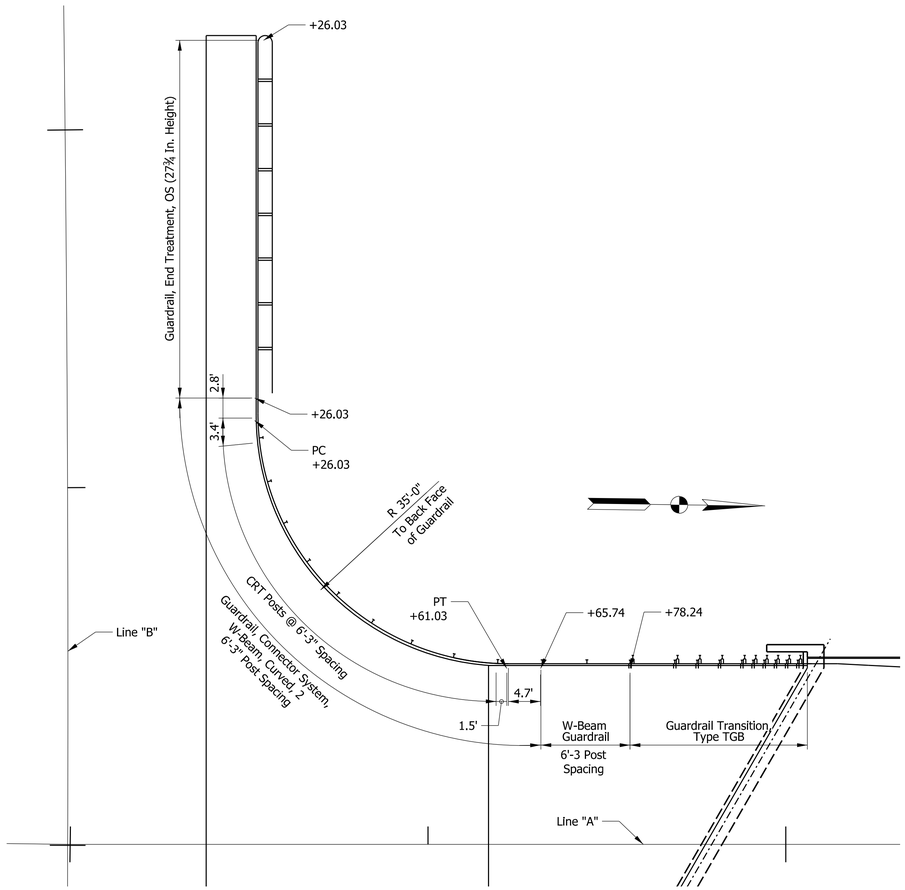


PLAN

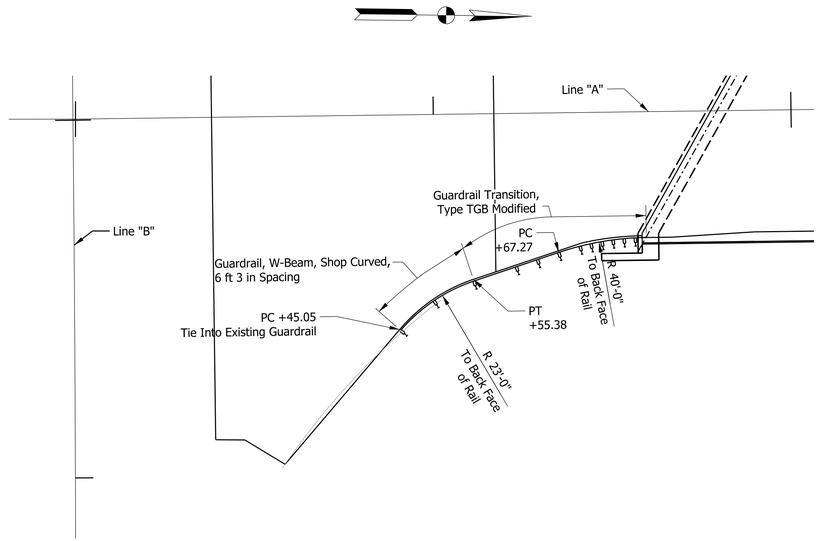
	RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE	INDIANA DEPARTMENT OF TRANSPORTATION	SCALE 1" = 10'	BRIDGE FILE 003-05-10729
				DESIGNATION 2001993
	DESIGNED: APM DRAWN: APM	INTERSECTION DETAILS		SHEETS 10 of 22
	CHECKED: DLC CHECKED: DLC		CONTRACT B-43325	PROJECT 2001993

Plot: 3/6/2023

File: BR_Intersection Details.dgn
Model: BR_Detail Sheet



GUARDRAIL PLAN - SOUTHWEST QUADRANT
Scale: 1" = 10'



GUARDRAIL PLAN - SOUTHEAST QUADRANT
Scale: 1" = 10'

NOTES:

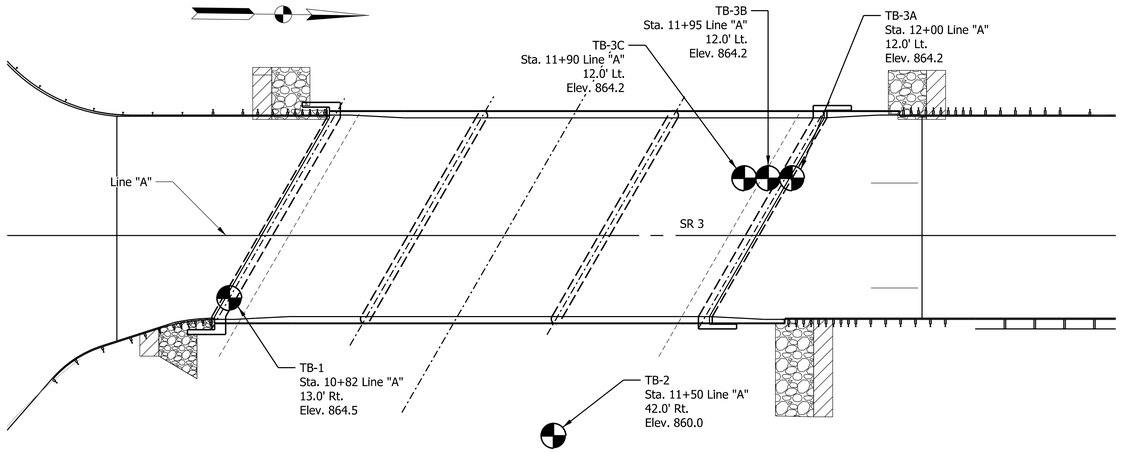
All stationing described from Line "A" unless otherwise noted.

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE		INDIANA DEPARTMENT OF TRANSPORTATION	SCALE: AS NOTED; BRIDGE FILE: 003-05-10729; DESIGNATION: 2001993
DESIGNED: DLC	DRAWN: DLC	GUARDRAIL DETAILS	SHEETS: 11 of 22
CHECKED: APM	CHECKED: APM		CONTRACT: B-43325; PROJECT: 2001993

Plot: 3/6/2023
File: BR_Mod Guardrail Details.dgn
Model: BR_Detail Sheet

PILE LOADING FOR GEOTECHNICAL TESTING

Summary of Static and Driving Resistances	Bent No. 1	Pier Nos. 2 & 3	Bent No. 4
Pile Size, Type, & Grade (ksi)	HP 12x53 50 ksi	HP 12x53 50 ksi	HP 12x53 50 ksi
Factored Design Load, Qf (kips)	110	234	110
Factored Design Soil Resistance per Pile, Rr (kips)	110	234	110
Resistance Factor	0.55	0.55	0.55
Downdrag Load, DD (kips)	0	7	0
Nominal Soil Resistance, Rn (kips)	200	426	200
Downdrag Friction, Rsdd (kips)	0	0	0
Scour Zone Friction, Rs scour (kips)	0	7	0
Maximum Relaxation in Shale (kips)	0	0	0
Nominal Driving Resistance, Rndr (kips)	200	433	200
Method of Testing - Dynamic Formula Method in accordance with ISS 701.05(a)			



BORING PLAN
Scale: 1" = 15'-0"

TEST BORING RECORD

CLIENT : Fishbeck
PROJECT : Bridge Replacement
ROUTE NO. : SR 3 COUNTY : Blackford
LOCATION : SR 3 over Prairie Creek; 0.02 miles North of SR 18
DES NO. : 2001993 PROJECT NO.: 2001993

BORING NO. : TB-1
SHEET : 1 OF 4
DATE STARTED : 06-02-22
DATE COMPLETED : 06-03-22
CTL PROJECT NO : 22050016IND

Boring Elevation: 864.5 feet
Latitude : 40.552742
Longitude -85.371077
Boring Depth : 89.0 feet
Station : 10+82
Offset : 13.0 feet Rt
Line : 'A'
Boring Method : HSA
Rig Type : CME 550 ATV
Casing Diameter : 3.25" ID
Core Size : ---
Hammer : Automatic
Hammer Efficiency : 80.2
Driller/Inspector : ED/AM
Temperature : 68° F
Weather : Cloudy

GROUNDWATER: ▽ Encountered at 18.0 feet ▼ At completion 13.5 feet ▼ 13.5 feet After 24 hours ⊠ Caved in at 26.0 feet

Stratum Elevation	Sample Depth	SOIL/MATERIAL DESCRIPTION	Stratum Depth	Sample Number	SPT per 6"	SPT per 12"	Recovery (%)	Moisture Content (%)	Total Unit Weight (pcf)	Unconfined Compression (ksf)	Atterberg Limits LL	PL	PI
863.5		**ASPHALT CONCRETE** (12") (Visual)	1.0										
	2.5	Brown, Slightly Moist to Moist, Medium Dense to Very Loose, **SAND AND GRAVEL (FILL)** (Visual)		SS-1	10 13 15	28	83	6.1					
				SS-2	6 8 7	15	83	7.7					
	5.0			SS-3	5 3 3	6	67	6.7					
	7.5			SS-4	6 2 2	4	17	7.1					
856.5			8.0										
	10.0			SS-5	4 8 10	18	100	16.2					
	12.5	Brown and Gray, Moist, Very Stiff to Medium Stiff, **CLAY (TILL)** A-6 (9), Lab 1		SS-6	2 3 3	6	100	7.1	132.5	3.340 @ 15.0%	31	17	14
	15.0												
	17.5												
846.5			18.0										
	20.0	Brown and Gray, Wet, Very Loose to Medium Dense, **SAND** with Traces of Gravel (Visual)		SS-7	2 1 2	3	44	23.8					

Continued on next page

BORING METHOD: HSA - Hollow Stem Auger; SFA - Solid Flight Auger; RC - Rock Coring; MD - Mud Drilling; WD - Wash Drilling; HA - Hand Auger
SAMPLING METHOD: SS - Split Spoon Sample; ST - Shelby Tube Sample; CR - Rock Core Sample; BS - Bag Sample; AC - Auger Cuttings; SBS - Subbase Sample
ABBREVIATIONS: * - Hand Penetrometer; LL - Liquid Limit; PL - Plastic Limit; PI - Plasticity Index; DCP - Dynamic Cone Penetrometer Test

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INDOT_TEST BORING RECORD_LL_SO 22050016IND.GPJ INDOT_DATA TEMPLATE.GDT

TEST BORING RECORD

CLIENT : Fishbeck
PROJECT : Bridge Replacement

BORING NO. : TB-1
SHEET : 2 OF 4

Stratum Elevation	Sample Depth	SOIL/MATERIAL DESCRIPTION	Stratum Depth	Sample Number	SPT per 6"	SPT per 12"	Recovery (%)	Moisture Content (%)	Total Unit Weight (pcf)	Unconfined Compression (ksf)	Atterberg Limits LL	PL	PI
840.5	22.5	Brown and Gray, Wet, Very Loose to Medium Dense, **SAND** with Traces of Gravel (Visual)	24.0	SS-8	4 5 6	11	100	18.9					
837.5	25.0	Gray, Moist, Stiff, **CLAY (TILL)** A-6, As Lab 1	27.0										
	27.5	Brown and Gray, Wet, Medium Dense, **SAND** (Visual)		SS-9	8 7 6	13	100	18.6					
832.5	30.0		32.0										
	32.5			SS-10	4 5 6	11	100	22.1					
	35.0												
	37.5	Brown and Gray, Moist, Stiff to Hard, **CLAY (TILL)** A-6, As Lab 1		SS-11	5 6 6	12	100	8.9					
	40.0												
	42.5	(Possible cobbles/boulders encoutered during drilling between 43 feet and 53 feet)		SS-12	50/5"		100	14.2					
819.5	45.0												

Continued on next page

BORING METHOD: HSA - Hollow Stem Auger; SFA - Solid Flight Auger; RC - Rock Coring; MD - Mud Drilling; WD - Wash Drilling; HA - Hand Auger
SAMPLING METHOD: SS - Split Spoon Sample; ST - Shelby Tube Sample; CR - Rock Core Sample; BS - Bag Sample; AC - Auger Cuttings; SBS - Subbase Sample
ABBREVIATIONS: * - Hand Penetrometer; LL - Liquid Limit; PL - Plastic Limit; PI - Plasticity Index; DCP - Dynamic Cone Penetrometer Test

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INDOT_TEST BORING RECORD_LL_SO 22050016IND.GPJ INDOT_DATA TEMPLATE.GDT

TEST BORING RECORD

CLIENT : Fishbeck
PROJECT : Bridge Replacement

BORING NO. : TB-1
SHEET : 3 OF 4

Stratum Elevation	Sample Depth	SOIL/MATERIAL DESCRIPTION	Stratum Depth	Sample Number	SPT per 6"	SPT per 12"	Recovery (%)	Moisture Content (%)	Total Unit Weight (pcf)	Unconfined Compression (ksf)	Atterberg Limits LL	PL	PI
	47.5			SS-13	24 36 44	80	100	10.3					
	50.0	Brown and Gray, Moist, Stiff to Hard, **CLAY (TILL)** A-6, As Lab 1											
	52.5			SS-14	10 10 11	21	100	11.9					
	55.0												
807.5	57.5		57.0										
	60.0	Brown and Gray, Wet, Loose to Medium Dense, **SAND AND GRAVEL** (Visual)		SS-15	4 5 5	10	67	9.5					
	62.5												
800.0	65.0		64.5	SS-16	9 11 11	22	100	9.5					
	67.5	Brown and Gray, Moist, Very Stiff to Hard, **CLAY (TILL)** (with intermittent Sand Seams) A-6, As Lab 1											
	70.0			SS-17	10 12 15	27	33	11.7					

Continued on next page

BORING METHOD: HSA - Hollow Stem Auger; SFA - Solid Flight Auger; RC - Rock Coring; MD - Mud Drilling; WD - Wash Drilling; HA - Hand Auger
SAMPLING METHOD: SS - Split Spoon Sample; ST - Shelby Tube Sample; CR - Rock Core Sample; BS - Bag Sample; AC - Auger Cuttings; SBS - Subbase Sample
ABBREVIATIONS: * - Hand Penetrometer; LL - Liquid Limit; PL - Plastic Limit; PI - Plasticity Index; DCP - Dynamic Cone Penetrometer Test

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INDOT_TEST BORING RECORD_LL_SO 22050016IND.GPJ INDOT_DATA TEMPLATE.GDT

TEST BORING RECORD

CLIENT : Fishbeck
PROJECT : Bridge Replacement

BORING NO. : TB-1
SHEET : 4 OF 4

Stratum Elevation	Sample Depth	SOIL/MATERIAL DESCRIPTION	Stratum Depth	Sample Number	SPT per 6"	SPT per 12"	Recovery (%)	Moisture Content (%)	Total Unit Weight (pcf)	Unconfined Compression (ksf)	Atterberg Limits LL	PL	PI
	72.5			SS-18	8 11 14	25	100	11.9					
	75.0												
	77.5	Brown and Gray, Moist, Very Stiff to Hard, **CLAY (TILL)** (with intermittent Sand Seams) A-6, As Lab 1 (Possible cobbles/boulders encountered at 79 feet)		SS-19	14 19 23	42	100	15.3					
	80.0												
	82.5	(Scattered Cobbles at depths of 84' to 88')		SS-20	30 44 50/2"		86	18.6					
	85.0												
776.5	87.5		88.0										
775.5	90.0	Gray, Soft, Highly Weathered, **LIMESTONE** (Visual) **(Auger refusal at 89.0 feet)** **Bottom of Boring at 89.0 feet** Boring backfilled in accordance with INDOT requirements and pavement restored with concrete patch.	89.0	SS-21	50/5"		80						
	92.5												
	95.0												

BORING METHOD: HSA - Hollow Stem Auger; SFA - Solid Flight Auger; RC - Rock Coring; MD - Mud Drilling; WD - Wash Drilling; HA - Hand Auger
SAMPLING METHOD: SS - Split Spoon Sample; ST - Shelby Tube Sample; CR - Rock Core Sample; BS - Bag Sample; AC - Auger Cuttings; SBS - Subbase Sample
ABBREVIATIONS: * - Hand Penetrometer; LL - Liquid Limit; PL - Plastic Limit; PI - Plasticity Index; DCP - Dynamic Cone Penetrometer Test

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INDOT_TEST BORING RECORD_LL_SO 22050016IND.GPJ INDOT_DATA TEMPLATE.GDT

Plot: 3/6/2023
File: BR_Soil Borings.dgn
Model:BR_Detail Sheet 1

RECOMMENDED FOR APPROVAL
DESIGN ENGINEER DATE

DESIGNED: ASU DRAWN: ASU
CHECKED: APM CHECKED: APM

INDIANA
DEPARTMENT OF TRANSPORTATION

SOIL BORINGS

SCALE	BRIDGE FILE
AS NOTED	003-05-10729
	DESIGNATION
	2001993
	SHEETS
	12 of 22
CONTRACT	PROJECT
B-43325	2001993

TEST BORING RECORD

CLIENT : Fishbeck
PROJECT : Bridge Replacement
BORING NO. : TB-2
SHEET : 1 OF 4
ROUTE NO. : SR 3 COUNTY : Blackford
DATE STARTED : 05-31-22
LOCATION : SR 3 over Prairie Creek; 0.02 miles North of SR 18
DATE COMPLETED : 06-01-22
DES NO. : 2001993 PROJECT NO: 2001993
CTL PROJECT NO. : 22050016IND

Boring Elevation: 860.0 feet
Latitude : 40.552928
Longitude: -85.370977
Boring Depth : 83.2 feet
Station : 11+50
Offset : 42.0 feet Rt
Line : 'A'
Boring Method : HSA
Rig Type : CME 550 ATV
Casing Diameter : 3.25" ID
Core Size : ---
Hammer : Automatic
Hammer Efficiency: 89.2
Driller/Inspector : ED/AM
Temperature : 88° F
Weather : Sunny

GROUNDWATER: ▽ Encountered at 17.0 feet ▽ At completion 9.2 feet ▽ 8.0 feet After 24 hours ▽ Caved in at 18.2 feet.

Stratum Elevation	Sample Depth	SOIL/MATERIAL DESCRIPTION	Stratum Depth	Sample Number	SPT per 6"	SPT per 12"	Recovery (%)	Moisture Content (%)	Total Unit Weight (pcf)	Unconfined Compression (ksf)	Atterberg Limits LL	PL	PI
859.7		**TOPSOIL** (3") (Visual)	0.3										
	2.5	Brown, Moist, Medium Stiff, **SANDY LOAM** A-4 (1), Lab 2 (Traces of Gravel in SS-3)		SS-1	3 4 5	9	67	12.4					
				SS-2	3 3 4	7	100	10.4			26	17	9
	5.0			SS-3	3 4 4	8	100	19.1					
854.0			6.0										
	7.5			SS-4	6 7 9	16	100	13.0					
				SS-5	4 6 7	13	100	14.7	136.4	9.913 @ 15.0%			
	10.0	Brown and Gray, Moist, Very Stiff to Medium Stiff, **CLAY (TILL)** A-6, As Lab 1											
	12.5			SS-6	2 3 4	7	100	17.2					
843.0			17.0										
	17.5	Brown and Gray, Wet, Loose to Medium Dense, **SAND** (Visual)		SS-7	2 3 4	7	100	26.0					
	20.0												

Continued on next page

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BORING METHOD		SAMPLING METHOD		ABBREVIATIONS	
HSA - Hollow Stem Auger	SS - Split Spoon Sample	* - Hand Penetrometer
SFA - Solid Flight Auger	ST - Shelby Tube Sample	LL - Liquid Limit
RC - Rock Coring	CR - Rock Core Sample	PL - Plastic Limit
MD - Mud Drilling	BS - Bag Sample	PI - Plasticity Index
WD - Wash Drilling	AC - Auger Cuttings	DCP - Dynamic Cone Penetrometer Test
HA - Hand Auger	SBS - Subbase Sample	

TEST BORING RECORD

CLIENT : Fishbeck
PROJECT : Bridge Replacement
BORING NO. : TB-2
SHEET : 2 OF 4

Stratum Elevation	Sample Depth	SOIL/MATERIAL DESCRIPTION	Stratum Depth	Sample Number	SPT per 6"	SPT per 12"	Recovery (%)	Moisture Content (%)	Total Unit Weight (pcf)	Unconfined Compression (ksf)	Atterberg Limits LL	PL	PI
	22.5	Brown and Gray, Wet, Loose to Medium Dense, **SAND** (Visual) (Heaving sand encountered during drilling operation at 23' and 27')		SS-8	5 6 8	14	100	21.4					
833.0	25.0		27.0										
	27.5			SS-9	4 5 5	10	100	21.9					
	30.0	(Possible cobbles/boulders encoutered during drilling at 33.5 feet)		SS-10	50/5"		100	23.2					
	32.5												
	35.0	Brown and Gray, Moist, Medium Stiff to Hard, **CLAY (TILL)** A-6, As Lab 1											
	37.5	(Wet Sand Seam at 39')		SS-11	14 25 33	58	83	8.7					
	40.0												
	42.5	(Scattered Cobbles at depths of 43' to 57')											
	45.0			SS-12	14 25 33	58	83	10.2					

Continued on next page

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TEST BORING RECORD

CLIENT : Fishbeck
PROJECT : Bridge Replacement
BORING NO. : TB-2
SHEET : 3 OF 4

Stratum Elevation	Sample Depth	SOIL/MATERIAL DESCRIPTION	Stratum Depth	Sample Number	SPT per 6"	SPT per 12"	Recovery (%)	Moisture Content (%)	Total Unit Weight (pcf)	Unconfined Compression (ksf)	Atterberg Limits LL	PL	PI
	47.5			SS-13	15 23 30	53	33	11.9					
	50.0	Brown and Gray, Moist, Medium Stiff to Hard, **CLAY (TILL)** A-6, As Lab 1											
	52.5			SS-14	33 50/2"		28	6.8					
803.0	55.0		57.0										
	57.5	Brown and Gray, Wet, Medium Dense, **SAND AND GRAVEL** (Visual) (Heaving sand encountered during drilling at 58 feet)	59.5	SS-15	7 10 12	22	67	5.8					
800.5	60.0												
	62.5												
	65.0	Brown and Gray, Moist, Hard to Very Stiff, **CLAY (TILL)** with intermittent Sand Seams A-6, As Lab 1		SS-16	50/5"		100	9.2					
	67.5												
	70.0			SS-17	6 8 8	16	100	15.3					

Continued on next page

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TEST BORING RECORD

CLIENT : Fishbeck
PROJECT : Bridge Replacement
BORING NO. : TB-2
SHEET : 4 OF 4

Stratum Elevation	Sample Depth	SOIL/MATERIAL DESCRIPTION	Stratum Depth	Sample Number	SPT per 6"	SPT per 12"	Recovery (%)	Moisture Content (%)	Total Unit Weight (pcf)	Unconfined Compression (ksf)	Atterberg Limits LL	PL	PI
	72.5	Brown and Gray, Moist, Hard to Very Stiff, **CLAY (TILL)** with intermittent Sand Seams A-6, As Lab 1		SS-18	7 9 12	21	83	13.9					
783.0	75.0		77.0										
781.8	77.5	Gray, Soft, Highly Weathered, **LIMESTONE** (Visual)	78.2	SS-19	50/2"		0						
	80.0	Auger Refusal at 78.2 feet Light Gray, Hard to Very Hard, Slightly Weathered to Fresh, **LIMESTONE** (Visual)		RC-1 RQD= 66%			93						
776.8	82.5	**Bottom of Boring at 83.2 feet**	83.2										
	85.0	Boring backfilled in accordance with INDOT requirements.											
	87.5												
	90.0												
	92.5												
	95.0												

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TEST BORING RECORD

CLIENT : Fishbeck
PROJECT : Bridge Replacement
BORING NO. : TB-3A
SHEET : 1 OF 1
ROUTE NO. : SR 3 COUNTY : Blackford
DATE STARTED : 06-06-22
LOCATION : SR 3 over Prairie Creek; 0.02 miles North of SR 18
DATE COMPLETED : 06-07-22
DES NO. : 2001993 PROJECT NO: 2001993
CTL PROJECT NO. : 22050016IND

Boring Elevation: 864.2 feet
Latitude : 40.553066
Longitude: -85.371174
Boring Depth : 3.2 feet
Station : 12+00
Offset : 12.0 feet Lt
Line : 'A'
Boring Method : HSA
Rig Type : CME 550 ATV
Casing Diameter : 3.25" ID
Core Size : ---
Hammer : Automatic
Hammer Efficiency: 80.2
Driller/Inspector : ED/AM
Temperature : 78° F
Weather : Cloudy

GROUNDWATER: ▽ Encountered at Dry ▽ At completion Dry ▽ Caved in at 3.0 feet.

Stratum Elevation	Sample Depth	SOIL/MATERIAL DESCRIPTION	Stratum Depth	Sample Number	SPT per 6"	SPT per 12"	Recovery (%)	Moisture Content (%)	Total Unit Weight (pcf)	Unconfined Compression (ksf)	Atterberg Limits LL	PL	PI
863.5		**ASPHALT CONCRETE** (8") (Visual)	0.7										
	2.5	Brown and Gray, Moist, Medium Stiff, **CLAY (FILL)** A-6 (5), Lab 3		SS-1	3 4 4	8	83	15.5			27	16	11
861.0			3.2	SS-2	8 50/2"		86	16.2					
	5.0	**Bottom of Boring at 3.2 feet** **Auger refusal on concrete fill at a depth of 3.2 feet.** **Test boring moved 5' south to TB-3B.** Boring backfilled in accordance with INDOT requirements and pavement restored with concrete patch.											
	7.5												
	10.0												
	12.5												
	15.0												

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TEST BORING RECORD

CLIENT : Fishbeck
PROJECT : Bridge Replacement
BORING NO. : TB-3B
SHEET : 1 OF 1
ROUTE NO. : SR 3 COUNTY : Blackford
DATE STARTED : 06-06-22
LOCATION : SR 3 over Prairie Creek; 0.02 miles North of SR 18
DATE COMPLETED : 06-07-22
DES NO. : 2001993 PROJECT NO: 2001993
CTL PROJECT NO : 22050016IND

Boring Elevation: 864.2 feet
Latitude : 40.553052
Longitude: -85.371173
Boring Depth : 3.2 feet
Station : 11+95
Offset : 12.0 feet Lt
Line : 'A'
Boring Method : HSA
Rig Type : CME 550 ATV
Casing Diameter : 3.25" ID
Core Size : ---
Hammer : Automatic
Hammer Efficiency: 80.2
Driller/Inspector : ED/AM
Temperature : 78° F
Weather : Cloudy

GROUNDWATER: ▽ Encountered at Dry ▽ At completion Dry ▽ Caved in at 3.0 feet.

Stratum Elevation	Sample Depth	SOIL/MATERIAL DESCRIPTION	Stratum Depth	Sample Number	SPT per 6"	SPT per 12"	Recovery (%)	Moisture Content (%)	Total Unit Weight (pcf)	Unconfined Compression (ksf)	Atterberg Limits LL	PL	PI
863.5		**ASPHALT CONCRETE** (8") (Visual)	0.7										
	2.5	Brown and Gray, Moist, **CLAY (FILL)** A-6, As Lab 3											
861.0			3.2										
	5.0	**Bottom of Boring at 3.2 feet** **Same as at TB-3A, auger refusal on concrete fill at a depth of 3.2 feet.** **Test boring moved 5' south to to TB-3C.** Boring backfilled in accordance with INDOT requirements and pavement restored with concrete patch.											
	7.5												
	10.0												
	12.5												
	15.0												

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Plot: 3/6/2023

File: BR_Soil Borings.dgn
Model:BR_Detail Sheet 2

RECOMMENDED FOR APPROVAL
DESIGN ENGINEER DATE

DESIGNED: ASU DRAWN: ASU
CHECKED: APM CHECKED: APM

INDIANA
DEPARTMENT OF TRANSPORTATION

SOIL BORINGS

SCALE	BRIDGE FILE
AS NOTED	003-05-10729
	DESIGNATION
	2001993
	SHEETS
	13 of 22
CONTRACT	PROJECT
B-43325	2001993

TEST BORING RECORD

CLIENT : Fishbeck
PROJECT : Bridge Replacement
BORING NO. : TB-3C
SHEET : 1 OF 4
ROUTE NO. : SR 1 COUNTY : Blackford
DATE STARTED : 06-06-22
LOCATION : SR 1 over Prairie Creek; 0.02 miles North of SR 18
DATE COMPLETED : 06-07-22
DES NO. : 2001993 PROJECT NO : 2001993
CTL PROJECT NO : 22050016IND

Boring Elevation: 864.2 feet
Latitude : 40.553039
Longitude : -85.371173
Boring Depth : 80.5 feet
Station : 11+90
Offset : 12.0 feet Lt
Line : 'A'
Boring Method : HSA
Rig Type : CME 550 ATV
Casing Diameter : 3.25" ID
Core Size : ---
Hammer : Automatic
Hammer Efficiency : 80.2
Driller/Inspector : ED/AM
Temperature : 78° F
Weather : Cloudy

GROUNDWATER: ▽ Encountered at 7.0 feet ▼ At completion 8.0 feet ▼ 8.0 feet After 24 hours ⊠ Caved in at 66.0 feet

Stratum Elevation	Sample Depth	SOIL/MATERIAL DESCRIPTION	Stratum Depth	Sample Number	SPT per 6"	SPT per 12"	Recovery (%)	Moisture Content (%)	Total Unit Weight (pcf)	Unconfined Compression (ksf)	Atterberg Limits LL	PL	PI
863.5		**ASPHALT CONCRETE** (8") (Visual)	0.7										
	2.5	Brown and Gray, Moist, **CLAY (FILL)** A-1, As Lab 3											
861.0			3.2										
	5.0	Brown, Moist, Loose, **SAND AND GRAVEL (FILL)** (Visual)		SS-3	4 4 3	7	83	7.2					
858.2			6.0										
857.2	7.5	Brown, Moist, Very Loose, **SAND (FILL)** (Visual)	7.0	SS-4	2 2 2	4	83	22.2					
	10.0	Gray, Moist, Soft to Stiff, **CLAY** A-6, As Lab 1		SS-5	5 6 6	12	0						
852.2			12.0										
	12.5				3								
	15.0	Gray, Moist, Medium Stiff, **CLAY** A-6 (8), Lab 4		SS-6	3 3 3	6	100	19.1			30	16	14
	17.5				3								
	20.0			SS-7	3 3 3	6	100	15.4					

Continued on next page

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BORING METHOD	SAMPLING METHOD	ABBREVIATIONS
HSA - Hollow Stem Auger	SS - Split Spoon Sample	* - Hand Penetrometer
SFA - Solid Flight Auger	ST - Shelby Tube Sample	LL - Liquid Limit
RC - Rock Coring	CR - Rock Core Sample	PL - Plastic Limit
MD - Mud Drilling	BS - Bag Sample	PI - Plasticity Index
WD - Wash Drilling	AC - Auger Cuttings	DCP - Dynamic Cone Penetrometer Test
HA - Hand Auger	SBS - Subbase Sample	

INDOT_TEST BORING RECORD_LL_SO 22050016IND.GPJ INDOT_DATA TEMPLATE.GDT

TEST BORING RECORD

CLIENT : Fishbeck
PROJECT : Bridge Replacement
BORING NO. : TB-3C
SHEET : 2 OF 4

Stratum Elevation	Sample Depth	SOIL/MATERIAL DESCRIPTION	Stratum Depth	Sample Number	SPT per 6"	SPT per 12"	Recovery (%)	Moisture Content (%)	Total Unit Weight (pcf)	Unconfined Compression (ksf)	Atterberg Limits LL	PL	PI
	22.5	Gray, Moist, Medium Stiff, **CLAY** A-6 (8), Lab 4											
840.2			24.0	SS-8	5 2 2	4	67	7.6					
	25.0	Brown and Gray, Wet, Very Loose, **SAND AND GRAVEL** (Visual)											
837.2			27.0										
	27.5				13								
	30.0	Gray, Moist, Hard to Very Stiff, **CLAY (TILL)** A-6, As Lab 4		SS-9	15 17	32	100	12.6					
	32.5				7								
	35.0			SS-10	10 13	23	83	19.4					
827.2			37.0										
	37.5	Brown and Gray, Wet, Dense, **SAND** (Visual)											
825.2			39.0		6								
	40.0	Gray, Moist, Stiff to Hard, **CLAY (TILL)** with intermittent Sand Seams A-6, As Lab 4		SS-11	10 22	32	67	12.1					
	42.5				12								
	45.0			SS-12	12 16	28	100	10.6					

Continued on next page

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BORING METHOD	SAMPLING METHOD	ABBREVIATIONS
HSA - Hollow Stem Auger	SS - Split Spoon Sample	* - Hand Penetrometer
SFA - Solid Flight Auger	ST - Shelby Tube Sample	LL - Liquid Limit
RC - Rock Coring	CR - Rock Core Sample	PL - Plastic Limit
MD - Mud Drilling	BS - Bag Sample	PI - Plasticity Index
WD - Wash Drilling	AC - Auger Cuttings	DCP - Dynamic Cone Penetrometer Test
HA - Hand Auger	SBS - Subbase Sample	

INDOT_TEST BORING RECORD_LL_SO 22050016IND.GPJ INDOT_DATA TEMPLATE.GDT

TEST BORING RECORD

CLIENT : Fishbeck
PROJECT : Bridge Replacement
BORING NO. : TB-3C
SHEET : 3 OF 4

Stratum Elevation	Sample Depth	SOIL/MATERIAL DESCRIPTION	Stratum Depth	Sample Number	SPT per 6"	SPT per 12"	Recovery (%)	Moisture Content (%)	Total Unit Weight (pcf)	Unconfined Compression (ksf)	Atterberg Limits LL	PL	PI
	47.5												
	50.0			SS-13	11 12 14	26	100	11.7					
	52.5												
	55.0			SS-14	23 33 40	73	33	11.7					
	57.5	Gray, Moist, Stiff to Hard, **CLAY (TILL)** with intermittent Sand Seams A-6, As Lab 4											
	60.0			SS-15	5 6 7	13	100	14.9					
	62.5												
	65.0				6								
				SS-16	7 8	15	100	15.5	136.8	5.515 @ 15.0%			
	67.5				9								
	70.0			SS-17	16 20	36	67	15.9					

Continued on next page

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BORING METHOD	SAMPLING METHOD	ABBREVIATIONS
HSA - Hollow Stem Auger	SS - Split Spoon Sample	* - Hand Penetrometer
SFA - Solid Flight Auger	ST - Shelby Tube Sample	LL - Liquid Limit
RC - Rock Coring	CR - Rock Core Sample	PL - Plastic Limit
MD - Mud Drilling	BS - Bag Sample	PI - Plasticity Index
WD - Wash Drilling	AC - Auger Cuttings	DCP - Dynamic Cone Penetrometer Test
HA - Hand Auger	SBS - Subbase Sample	

INDOT_TEST BORING RECORD_LL_SO 22050016IND.GPJ INDOT_DATA TEMPLATE.GDT

TEST BORING RECORD

CLIENT : Fishbeck
PROJECT : Bridge Replacement
BORING NO. : TB-3C
SHEET : 4 OF 4

Stratum Elevation	Sample Depth	SOIL/MATERIAL DESCRIPTION	Stratum Depth	Sample Number	SPT per 6"	SPT per 12"	Recovery (%)	Moisture Content (%)	Total Unit Weight (pcf)	Unconfined Compression (ksf)	Atterberg Limits LL	PL	PI
	72.5												
	75.0	Gray, Moist, Stiff to Hard, **CLAY (TILL)** with intermittent Sand Seams A-6, As Lab 4		SS-18	8 13 17	30	100	15.6					
	77.5												
785.7			78.5		17								
784.7		Brown and Gray, Wet, **SAND AND GRAVEL** (Visual)	79.5	SS-19	28 50/4"		75	14.5					
783.7	80.0	Light Gray, Soft, Highly Weathered, **LIMESTONE** (Visual)	80.5	SS-20	50/2"		50						
	82.5	**Bottom of Boring at 80.5 feet** **Auger refusal at 80.5 feet.** Boring backfilled in accordance with INDOT requirements and pavement restored with concrete patch.											
	85.0												
	87.5												
	90.0												
	92.5												
	95.0												

CTL Engineering, Inc.
Phone: 317-295-8650

BORING METHOD	SAMPLING METHOD	ABBREVIATIONS
HSA - Hollow Stem Auger	SS - Split Spoon Sample	* - Hand Penetrometer
SFA - Solid Flight Auger	ST - Shelby Tube Sample	LL - Liquid Limit
RC - Rock Coring	CR - Rock Core Sample	PL - Plastic Limit
MD - Mud Drilling	BS - Bag Sample	PI - Plasticity Index
WD - Wash Drilling	AC - Auger Cuttings	DCP - Dynamic Cone Penetrometer Test
HA - Hand Auger	SBS - Subbase Sample	

INDOT_TEST BORING RECORD_LL_SO 22050016IND.GPJ INDOT_DATA TEMPLATE.GDT

Plot: 3/6/2023
File: BR_Soil Borings.dgn
Model: BR_Detail Sheet 3

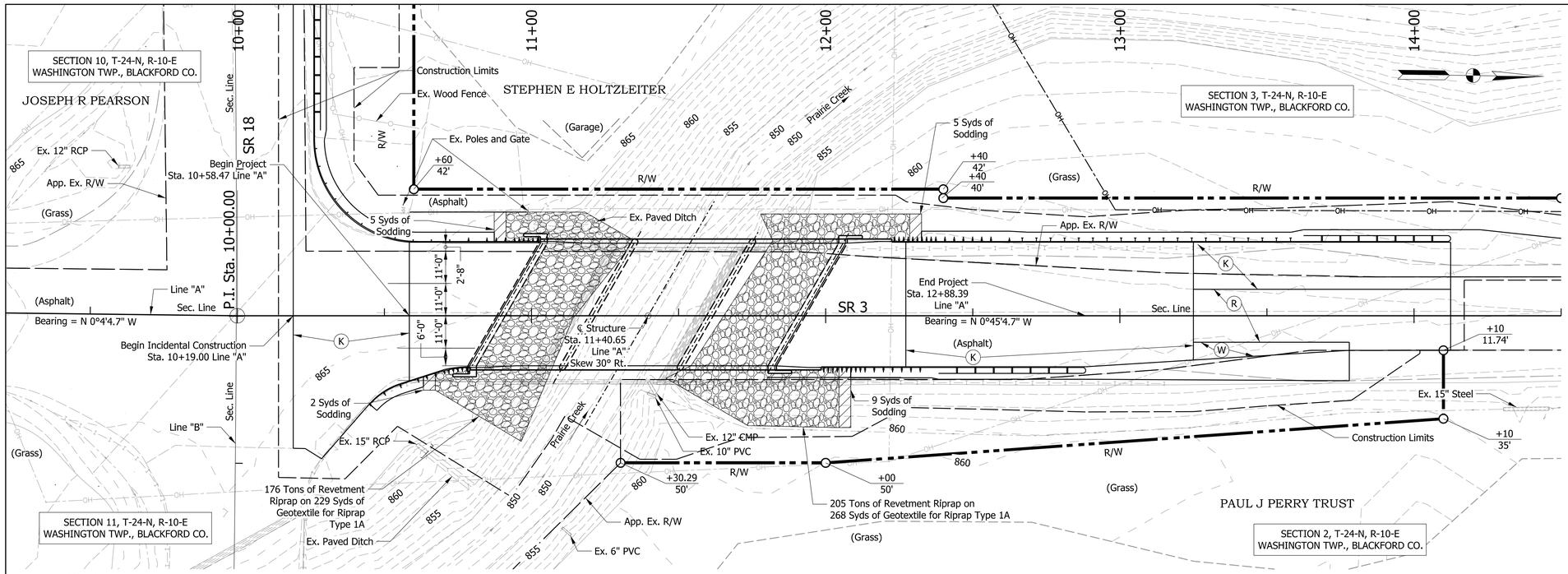
RECOMMENDED FOR APPROVAL
DESIGN ENGINEER DATE

DESIGNED: ASU DRAWN: ASU
CHECKED: APM CHECKED: APM

INDIANA
DEPARTMENT OF TRANSPORTATION

SOIL BORINGS

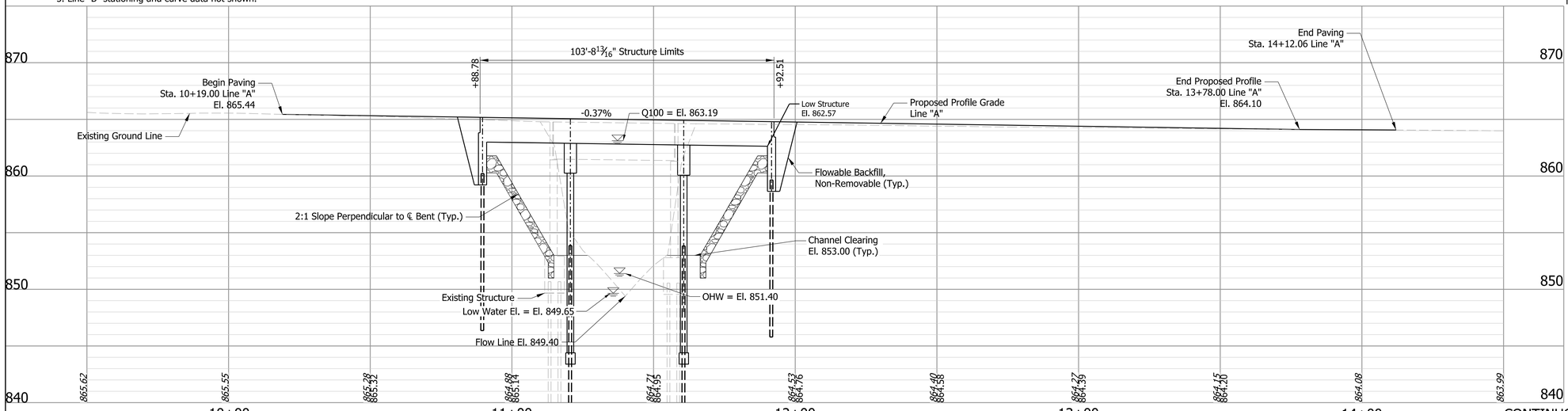
SCALE	BRIDGE FILE
AS NOTED	003-05-10729
	DESIGNATION
	2001993
	SHEETS
	14 of 22
CONTRACT	PROJECT
B-43325	2001993



PLAN

NOTES:

1. All R/W, stations, and offsets described from Line "A".
2. Line "A" to be constructed.
3. Line "B" stationing and curve data not shown.



PROFILE

EXISTING STRUCTURE

The existing structure 003-05-01228B is a single span prestressed concrete I beam bridge with a clear span of 41'-8" and clear roadway width of 44'-0". Existing structure to be removed.

HYDRAULIC DATA

Drainage Area =	18.94 sq. mi.
Q100 Discharge =	2750 cfs
Q100 Elevation =	863.19
Q500 Discharge =	3575 cfs
Q500 Elevation =	864.14

Existing Bridge:

Waterway Area Below Q100 El. =	275.75 sq. ft.
Velocity through Bridge =	8.30 ft/s
Q100 Headwater =	865.19
Backwater =	1.86 ft
Low Structure Elevation =	861.06

Proposed Bridge:

Waterway Area Below Q100 El. =	649.65 sq. ft.
Velocity through Bridge =	4.26 ft/s
Q100 Headwater =	863.50
Backwater =	0.26 ft
Low Structure Elevation =	862.57
Velocity at Q500 =	6.74 ft/s
Contraction Scour Depth =	4.90 ft
Total Scour Depth =	8.31 ft
Low Scour Elevation =	841.09
Contraction Scour Depth (Q100) =	9.43 ft
Total Scour Depth (Q100) =	13.22 ft
Low Scour Elevation (Q100) =	836.18
Contraction Scour Depth (Q500) =	15.02 ft
Total Scour Depth (Q500) =	18.44 ft
Low Scour Elevation (Q500) =	830.96

EARTHWORK TABULATION

Fill + 20%	Cys
Common Excavation	Cys
Usable Waterway Excavation (70%)	Cys
Surplus Foundation Excavation (70%)	Cys
Borrow	Cys
Total Waterway Excavation	Cys
Excavation Unclassified	Cys
Benching (Estimated)	Cys

No direct payment for Benching. Benching will not be paid for as Common Excavation.

CONTINUOUS REINFORCED CONCRETE SLAB BRIDGE
3 SPANS: 31'-0", 40'-0", 31'-0"
41'-8" CLEAR ROADWAY; 30° SKEW RT.
SR 3 OVER PRAIRIE CREEK
BLACKFORD COUNTY

LEGEND

- Riprap
- Sodding
- (K) Full Depth HMA Pavement
- (R) Milling and Resurfacing
- (W) Widening with HMA

RECOMMENDED FOR APPROVAL
DESIGN ENGINEER DATE

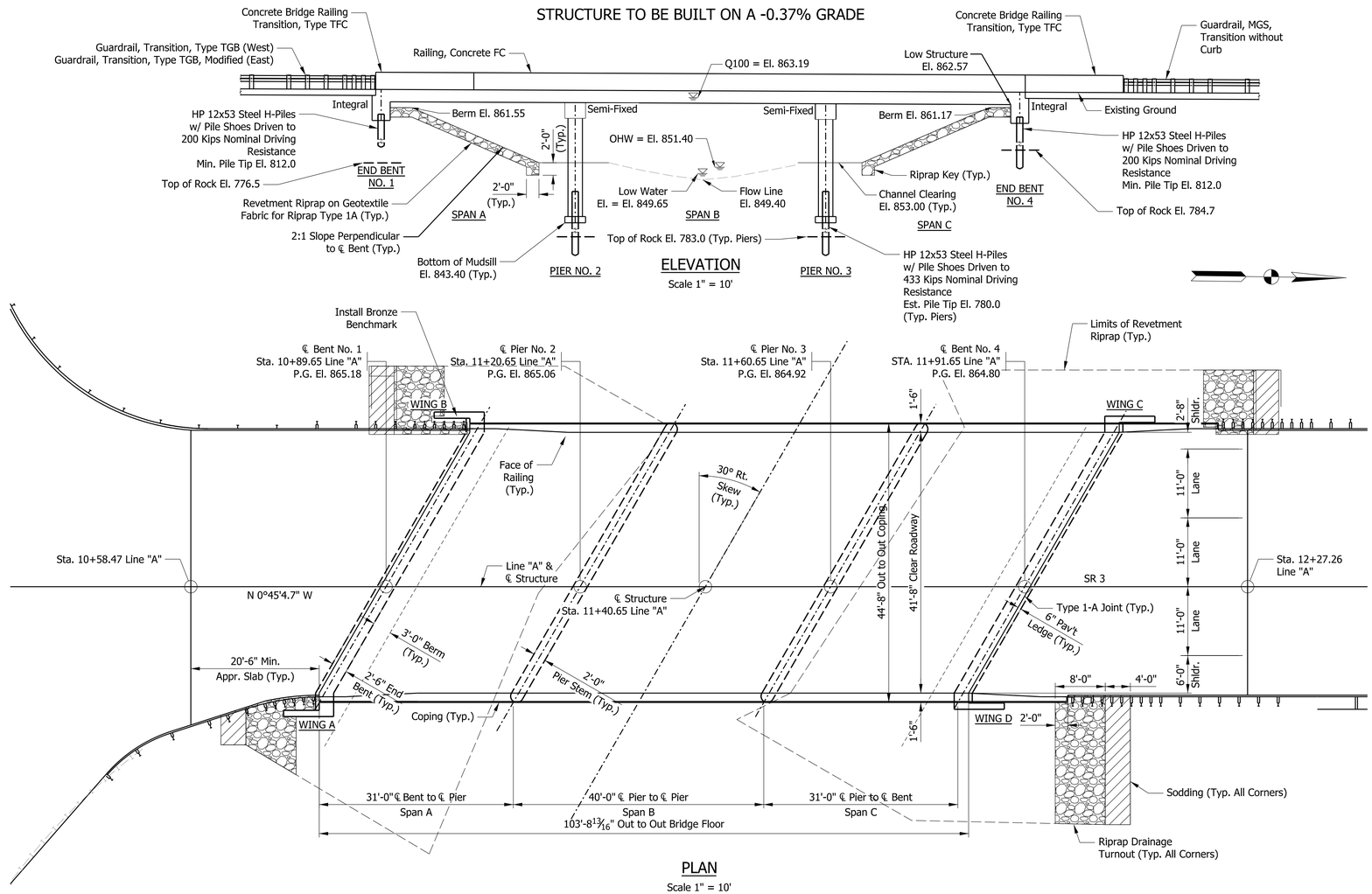
DESIGNED: DLC DRAWN: DLC
CHECKED: APM CHECKED: APM

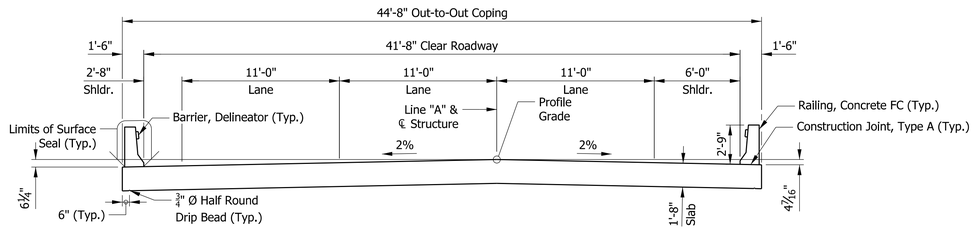
INDIANA
DEPARTMENT OF TRANSPORTATION

LAYOUT

HORIZONTAL SCALE	BRIDGE FILE
1" = 20'	003-05-10729
VERTICAL SCALE	DESIGNATION
1" = 5'	2001993
	SHEETS
	15 of 22
CONTRACT	PROJECT
B-43325	2001993

Plot: 3/6/2023
File: BR_Layout.dgn
Model: BR_Detail Sheet





TYPICAL SECTION
Scale 1" = 5'

GENERAL NOTES

Reinforcing steel cover to be 2½ inches in top and 1 inch minimum in bottom of floor slab, 3 inches in footings except bottom steel which shall be 4 inches, and 2 inches in all other parts, unless noted.

DESIGN DATA

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

DEAD LOAD

Actual weight plus 35 lb/ft² for future wearing surface

FLOOR SLAB

Designed with a 19½" structural depth plus ½" sacrificial wearing surface.

DESIGN STRESSES

CONCRETE

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

REINFORCING STEEL

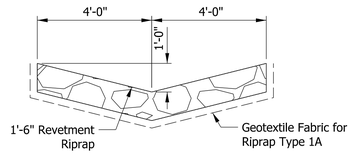
Grade 60 fy = 60,000 psi

WIND LOAD

Horizontal wind load varies per various wind load combinations in accordance with LRFD 3.8.1.

SEISMIC DESIGN DATA

Seismic Performance Zone 1
Acceleration Coefficient 0.102
Seismic Soil Profile Type D



RIPRAP DRAINAGE TURNOUT
TYPICAL SECTION

CONTINUOUS REINFORCED CONCRETE SLAB BRIDGE
3 SPANS: 31'-0", 40'-0", 31'-0"
41'-8" CLEAR ROADWAY; 30° SKEW RT.
SR 3 OVER PRAIRIE CREEK
BLACKFORD COUNTY

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE

DESIGNED: DLC DRAWN: DLC

CHECKED: APM CHECKED: APM

INDIANA
DEPARTMENT OF TRANSPORTATION

GENERAL PLAN

SCALE	BRIDGE FILE
AS NOTED	003-05-10729
	DESIGNATION
	2001993
	SHEETS
	16 of 22
CONTRACT	PROJECT
B-43325	2001993

Plot: 3/6/2023
File: BR_GeneralPlan.dgn
Model:BR_Detail Sheet

PAVEMENT QUANTITIES AND APPROACH TABLE

LOCATION	DESCRIPTION (APPROACH TYPE OR CLASS)	WIDTH	LENGTH	RADII	DISTANCE BEYOND R/W LINE	SURFACE BEYOND R/W LINE			GRADE		EXCAVATION		CLEAR ZONE AT DRIVE	HMA FOR APPROACHES				HMA FOR ROADS						SEAL COAT TYPE __	ASPHALT MATERIAL FOR		COMPACTED AGGREGATE FOR BASE NO. 53		COMPACTED AGGREGATE FOR SURFACE NO. 73		LIQUID ASPHALT SEALANT	JOINT ADHESIVE SURFACE	JOINT ADHESIVE INTERMEDIATE	SUBGRADE TREATMENT TYPE IC	REMARKS
						COMPACTED AGGREGATE BASE	HMA	PCCP	1	2	CUT	FILL		SURFACE TYPE __	INTERMD TYPE __	BASE TYPE __		SURFACE TYPE __	INTERMD TYPE __	BASE TYPE __					PRIME COAT	TACK COAT	DEPTH		DEPTH					
														LBS PER SYD				LBS PER SYD																
		FT	FT	FT	FT	SYS	SYS	SYS	%	%	CYS	CYS	FT	TONS	TONS	TONS	TONS	TONS	TONS	TONS	TONS	TONS	TONS	SYS	SYS	SYS	TONS	TONS	TONS	TONS	LFT	LFT	LFT	SYS	
LINE "A"																																		
10+19.00 to 10+58.47																																		
12+26.87 to 13+25.00																																		
13+25.00 to 14+12.06																																		
LINE "B"																																		
8+87.70 to 9+40.73																																		

STRUCTURE DATA

STRUCTURE NUMBER	LOCATION				SIZE	PIPE TYPE	MANHOLE, INLET, CATCH BASIN, OR SPECIALTY STRUCTURE AND TYPE	LENGTH REMOVED	SKEW	FLOW LINE		SERVICE LIFE	SITE DESIGNATION	pH	BACKFILL METHOD	STRUCTURE BACKFILL		REVETMENT RIPRAP CONCRETE, CLASS A, FOR STR.	VIDEO INSPECTION PIPE END SECTION		GRATED BOX END SECTION			SAFETY METAL END SECTION				REMARKS
	STATION	LEFT	CROSS	RIGHT						COVER	UP STREAM	DOWN STREAM																
					IN.			LFT		FT	ELEV.	ELEV.	YR				TYPE	CYS	TONS	CYS	LFT	EA.	TYPE	SLOPE	EA.	SIZE	SLOPE	EA.	
	LINE "A"																												
10	11+39.77		X		12			5																					
11	11+39.39		X		10			8																					

RIGHT OF WAY MARKERS

STATION	OFFSET	LEFT	RIGHT
LINE "A"			
10+60.00	130.00'	X	
10+60.00	43.00'	X	
12+40.00	43.00'	X	
12+40.00	40.00'	X	
14+50.00	40.00'	X	
15+01.31	31.63'	X	
15+42.00	25.00'	X	
11+30.29	50.00'		X
12+00.00	50.00'		X
14+10.00	35.00'		X

GUARDRAIL SUMMARY TABLE

LOCATION					W-BEAM GUARDRAIL LENGTH			MGS GUARDRAIL LENGTH			GUARDRAIL TRANSITION TYPE TGB	GUARDRAIL TRANSITION TYPE TGB, MODIFIED	GUARDRAIL, MGS, TRANSITION WITHOUT CURB	GUARDRAIL END TREATMENT TYPE OS (27¾ IN.)	GUARDRAIL END TREATMENT TYPE OS (31 IN.)	CURVED W-BEAM GUARDRAIL SYSTEM				GUARDRAIL REMOVE	GUARDRAIL RESET	IMPACT ATTENUATOR TYPE ___	IMPACT ATTENUATOR TYPE ___	REMARKS
FROM STATION	TO STATION	LEFT	MEDIAN LEFT	MEDIAN RIGHT	STANDARD POST AT 6 FT 3 IN. SPA.	SHOP CURVED AT 6 FT 3 IN. SPA.		STANDARD POST AT 6 FT 3 IN. SPA.								TERMINAL SYSTEM		CONNECTOR SYSTEM						
				RIGHT																				
					LFT	LFT		LFT			EACH	EACH	EACH	EACH	EACH	TYPE	EACH	TYPE	EACH	LFT	LFT	EACH	EACH	
LINE "A"																								
10+26.03	14+12.06	X																						
10+45.05	12+88.39			X																				
TOTALS																								

MONUMENTS

LOCATION				TYPE				
STATION	LEFT	CENTER	RIGHT	A	B	C	D	SECTION CORNER
LINE "A"								
10+58.47		X			X			
12+88.39		X			X			
TOTAL					2			

SIGNING SUMMARY TABLE

LOCATION			
STATION	LEFT	RIGHT	SIGN, GROUND MOUNTED, RESET
			EACH
LINE "A"			
10+30.29	X		2
10+34.36	X		4
10+44.80	X		2
10+45.24		X	2
10+60.03		X	4
10+72.18		X	2
TOTALS			16

PAVEMENT MARKINGS SUMMARY TABLE

LOCATION		EDGE LINES	LANE LINES	CENTERLINE	LINE, PAINT			LINE, THERMOPLASTIC		
FROM/AT STATION	TO STATION				SOLID, YELLOW, 6 IN.	BROKEN, YELLOW, 6 IN.	SOLID, WHITE, 6 IN.	STOP LINE, WHITE, 24 IN.		
					LFT	LFT	LFT	LFT		
LINE "A"										
10+19.00	14+12.06									
TOTALS										

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE

DESIGNED: DLC DRAWN: DLC

CHECKED: APM CHECKED: APM

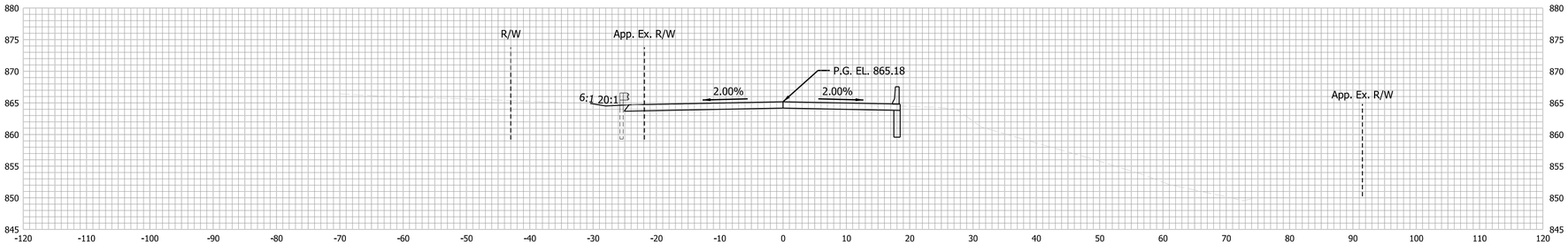
INDIANA
DEPARTMENT OF TRANSPORTATION

ROAD SUMMARY

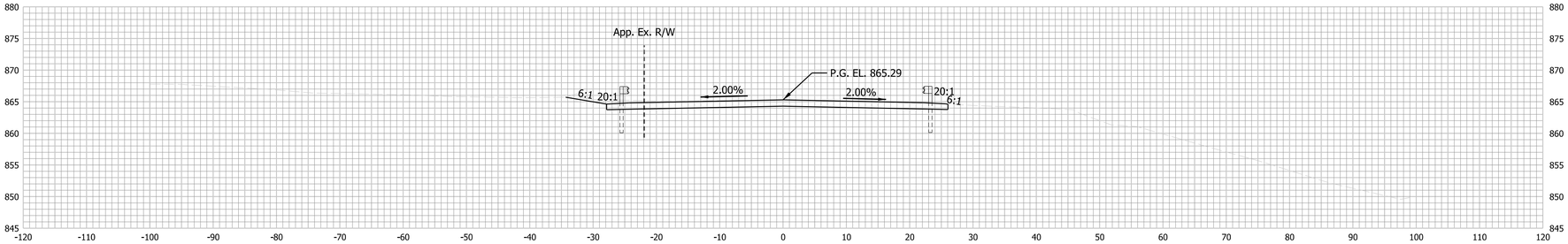
SCALE	BRIDGE FILE
NONE	003-05-10729
	DESIGNATION
	2001993
	SHEETS
	17 of 22
CONTRACT	PROJECT
B-43325	2001993

Plot: 3/6/2023

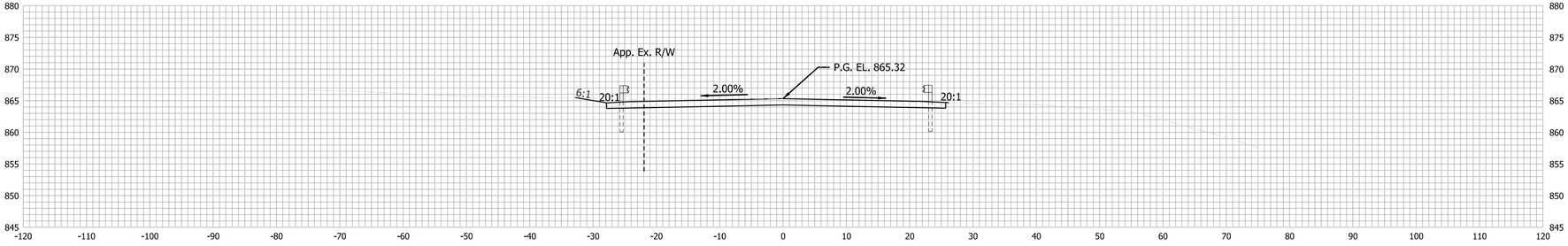
File: RD_Road Summary.dgn
Model:BR_Detail Sheet



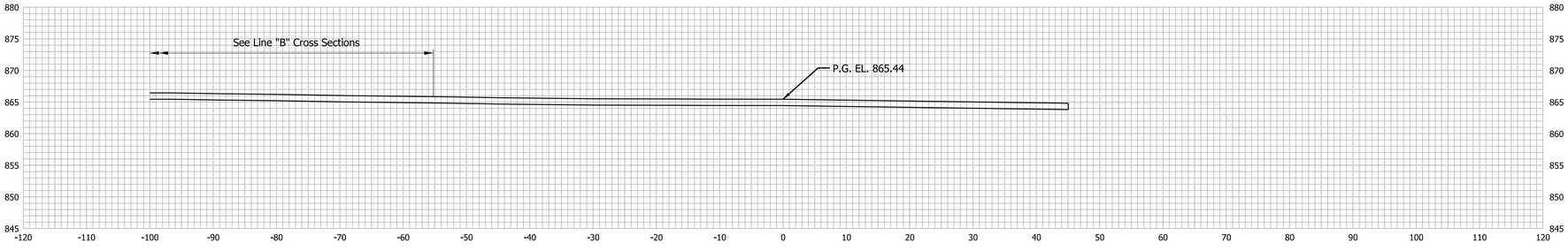
10+88.78
Begin Structure



10+58.47
Begin Project



10+50.00



10+19.00
Begin Incidental Construction

RECOMMENDED FOR APPROVAL
DESIGN ENGINEER DATE

DESIGNED: NSK
DRAWN: NSK
CHECKED: JH
CHECKED: JH

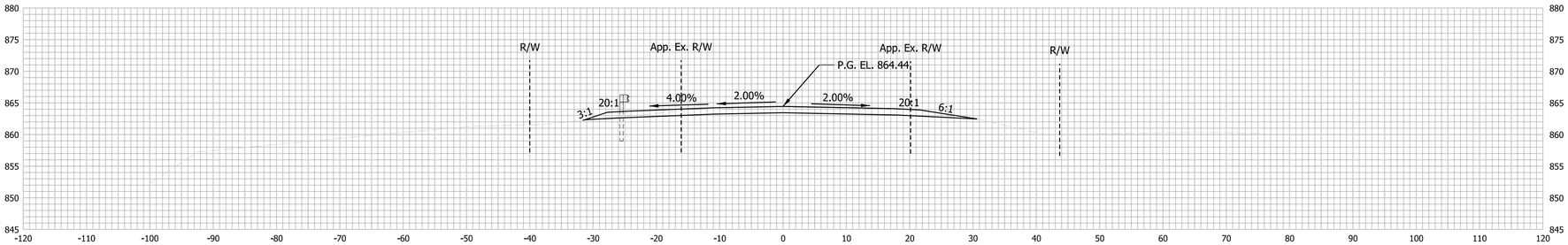
INDIANA
DEPARTMENT OF TRANSPORTATION

CROSS SECTIONS
LINE "A"

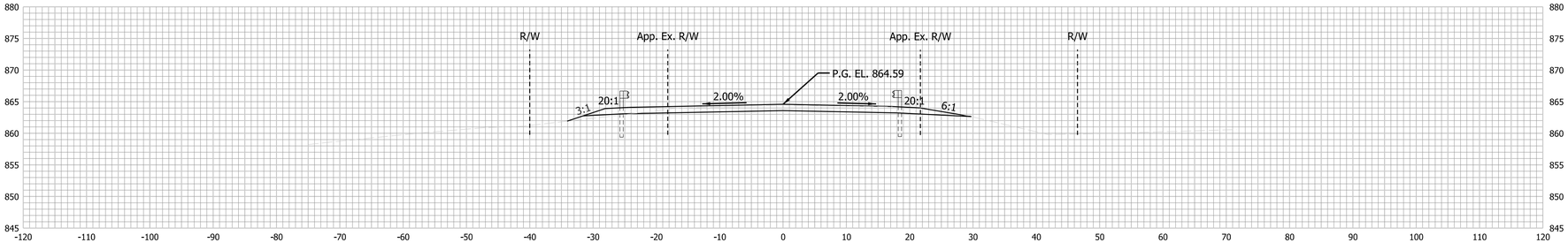
HORIZONTAL SCALE	BRIDGE FILE
1"=10'	003-05-10729
VERTICAL SCALE	DESIGNATION
1"=10'	2001993

SHEETS	
18 of 22	
CONTRACT	PROJECT
B-43325	2001993

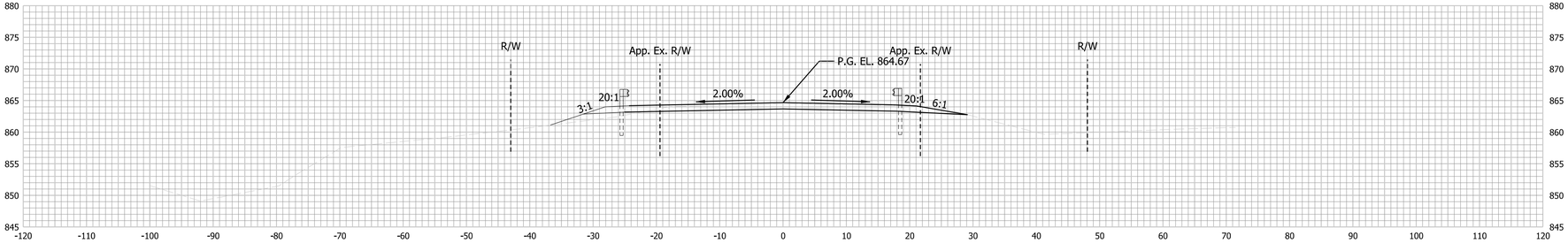
Plot: 3/6/2023
File: RD_Cross Sections.dgn
Model:RD_XS 1



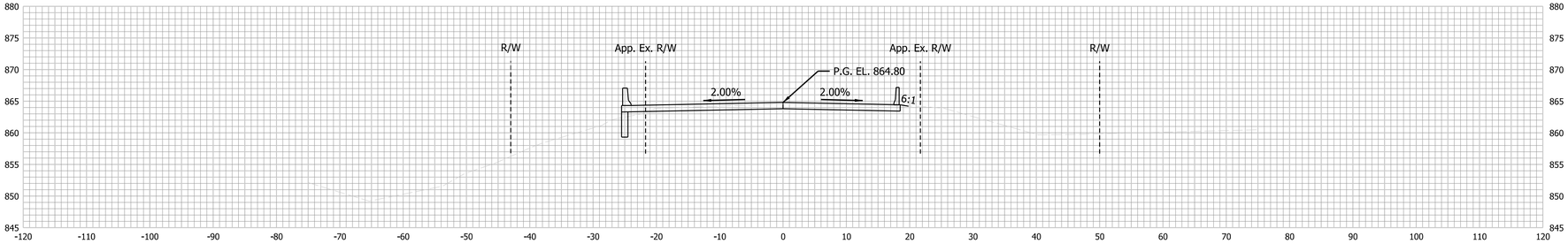
12+88.39
End Project



12+50.00



12+26.87



11+92.51
End Structure

RECOMMENDED FOR APPROVAL

DESIGN ENGINEER DATE

DESIGNED: NSK DRAWN: NSK

CHECKED: JH CHECKED: JH

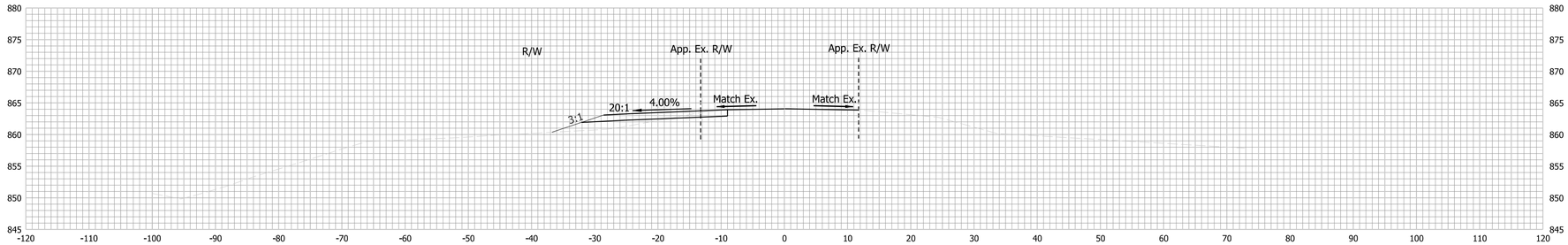
INDIANA
DEPARTMENT OF TRANSPORTATION

CROSS SECTIONS
LINE "A"

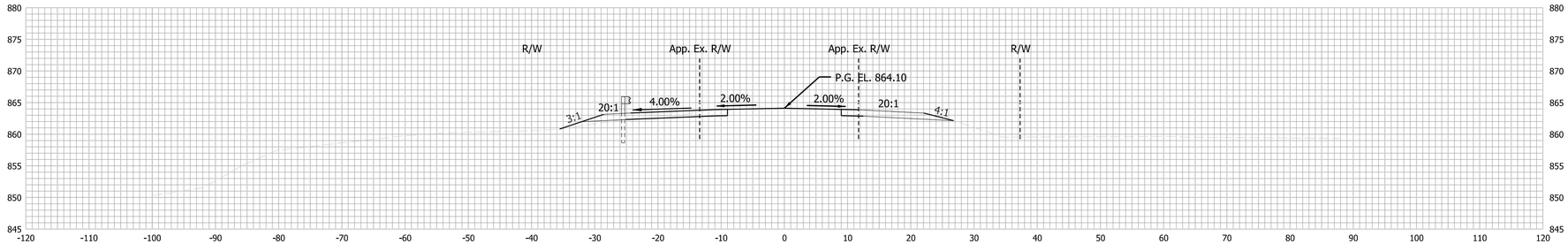
HORIZONTAL SCALE	BRIDGE FILE
1"=10'	003-05-10729
VERTICAL SCALE	DESIGNATION
1"=10'	2001993
	SHEETS
	19 of 22
CONTRACT	PROJECT
B-43325	2001993

Plot: 3/6/2023

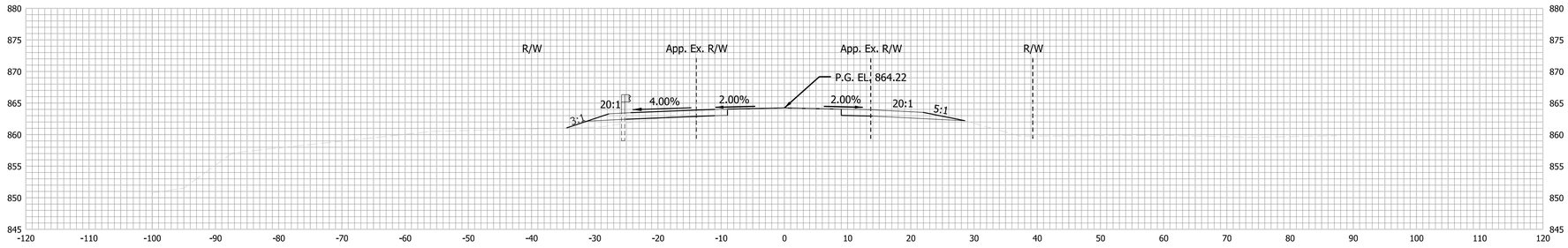
File: RD_Cross Sections.dgn
Model:RD_XS 2



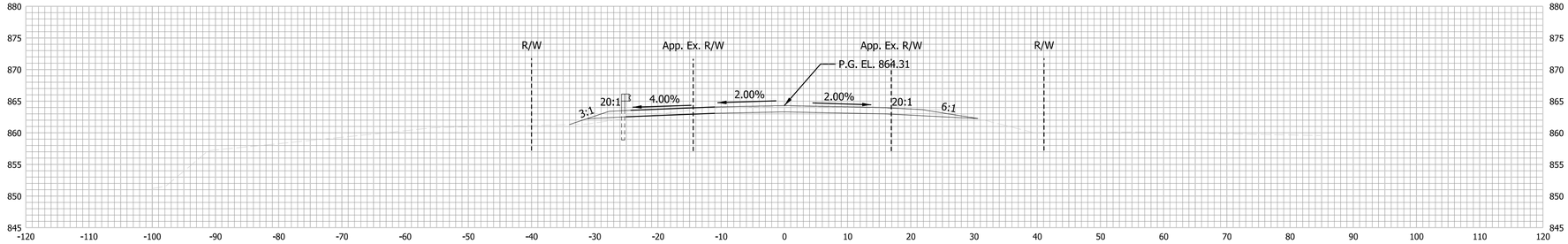
14+12.06
End Paving



13+78.00
End Proposed Profile



13+50.00



13+25.00
End Full Depth Pavement

RECOMMENDED FOR APPROVAL

DESIGN ENGINEER DATE

DESIGNED: NSK DRAWN: NSK

CHECKED: JH CHECKED: JH

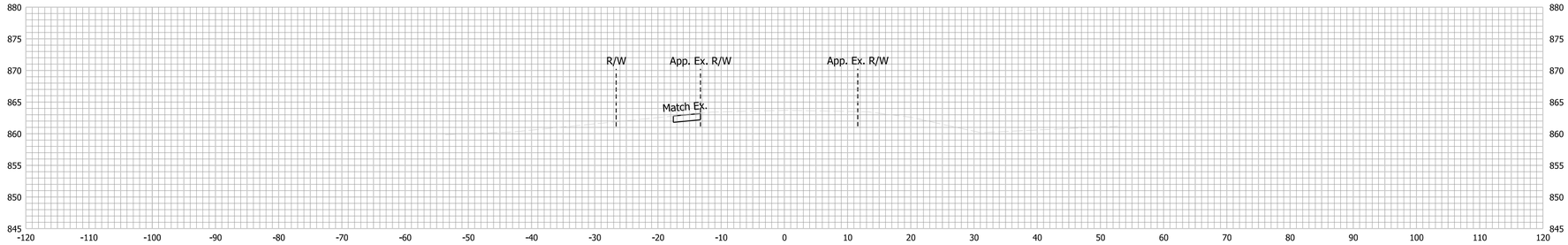
INDIANA
DEPARTMENT OF TRANSPORTATION

CROSS SECTIONS
LINE "A"

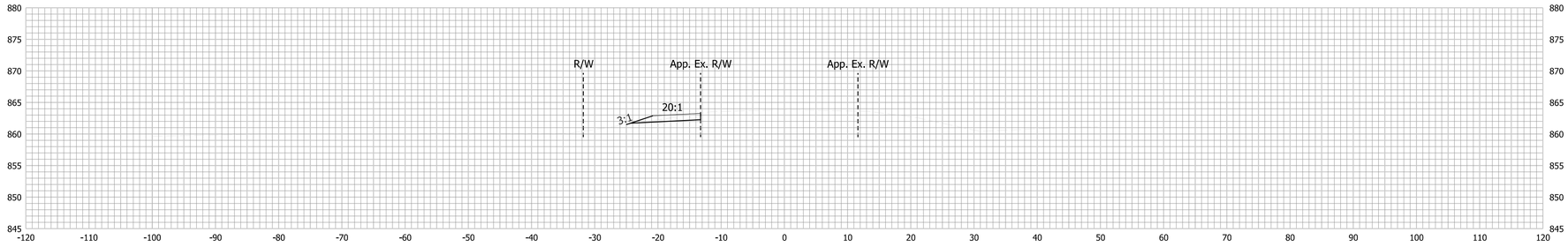
HORIZONTAL SCALE	BRIDGE FILE
1"=10'	003-05-10729
VERTICAL SCALE	DESIGNATION
1"=10'	2001993
	SHEETS
	20 of 22
CONTRACT	PROJECT
B-43325	2001993

Plot: 3/6/2023

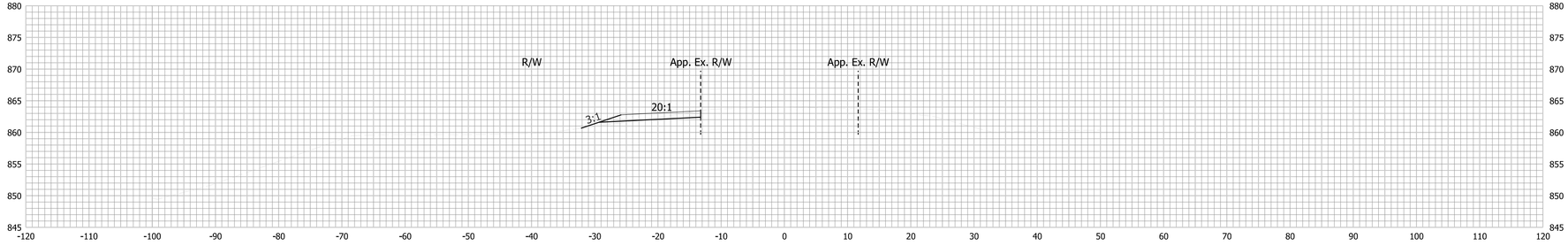
File: RD_Cross Sections.dgn
Model:RD_XS 3



15+32.25
End Incidental Construction



15+00.00



14+50.00

RECOMMENDED FOR APPROVAL
DESIGN ENGINEER DATE

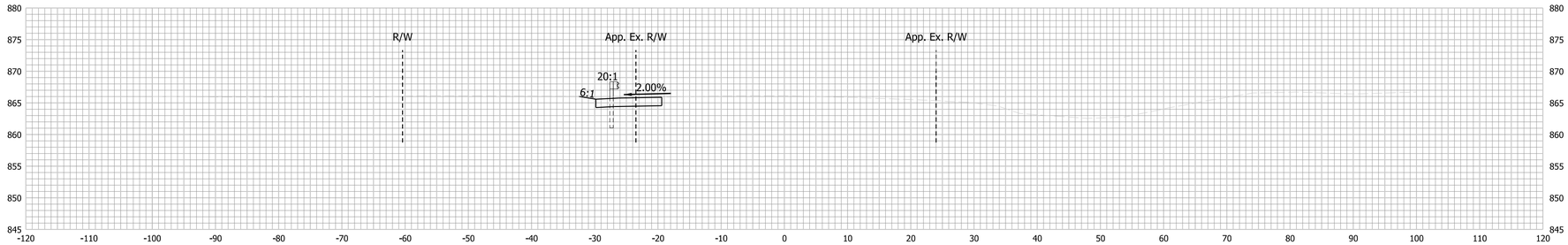
DESIGNED: NSK
DRAWN: NSK
CHECKED: JH
CHECKED: JH

INDIANA
DEPARTMENT OF TRANSPORTATION

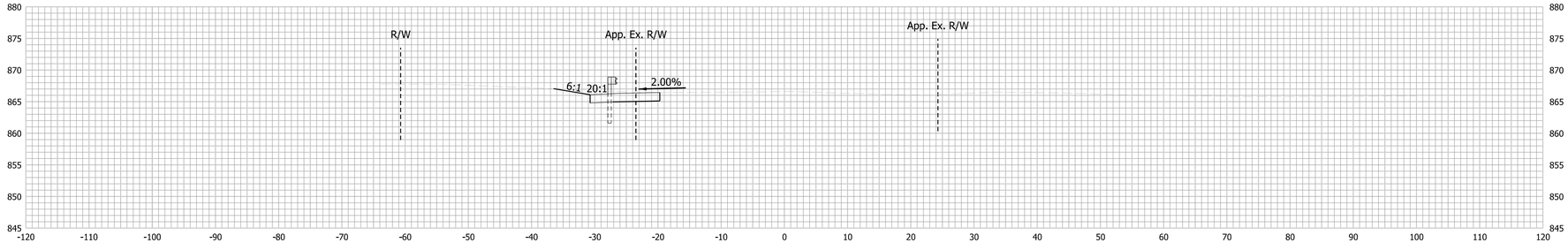
CROSS SECTIONS
LINE "A"

HORIZONTAL SCALE	BRIDGE FILE
1"=10'	003-05-10729
VERTICAL SCALE	DESIGNATION
1"=10'	2001993
	SHEETS
	21 of 22
CONTRACT	PROJECT
B-43325	2001993

Plot: 3/6/2023
File: RD_Cross Sections.dgn
Model:RD_XS 4



9+40.73
End Paving



9+00.00

8+87.70
Begin Paving

8+77.77
Begin Incidental Consctruction

RECOMMENDED FOR APPROVAL
DESIGN ENGINEER DATE

DESIGNED: NSK
DRAWN: NSK
CHECKED: JH
CHECKED: JH

INDIANA
DEPARTMENT OF TRANSPORTATION

CROSS SECTIONS
LINE "B"

HORIZONTAL SCALE	BRIDGE FILE
1"=10'	003-05-10729
VERTICAL SCALE	DESIGNATION
1"=10'	2001993
	SHEETS
	22 of 22
CONTRACT	PROJECT
B-43325	2001993

Plot: 3/6/2023
File: RD_Cross Sections.dgn
Model:RD_XS 5