

PROJECT	DESIGNATION
1700203	1700203
CONTRACT	BRIDGE FILE
B-40414	050-40-10259

STRUCTURE	TYPE	SPAN AND SKEW	OVER	STATION
050-40-10259	COMPOSITE STEEL BEAM BRIDGE	3 SPANS: 45'-0", 60'-0", & 45'-0" SKEW: 30° Rt.	SIX MILE CREEK	☺ STRUCTURE Sta.467+62.00 "PR-A"

INDIANA DEPARTMENT OF TRANSPORTATION



BRIDGE PLANS

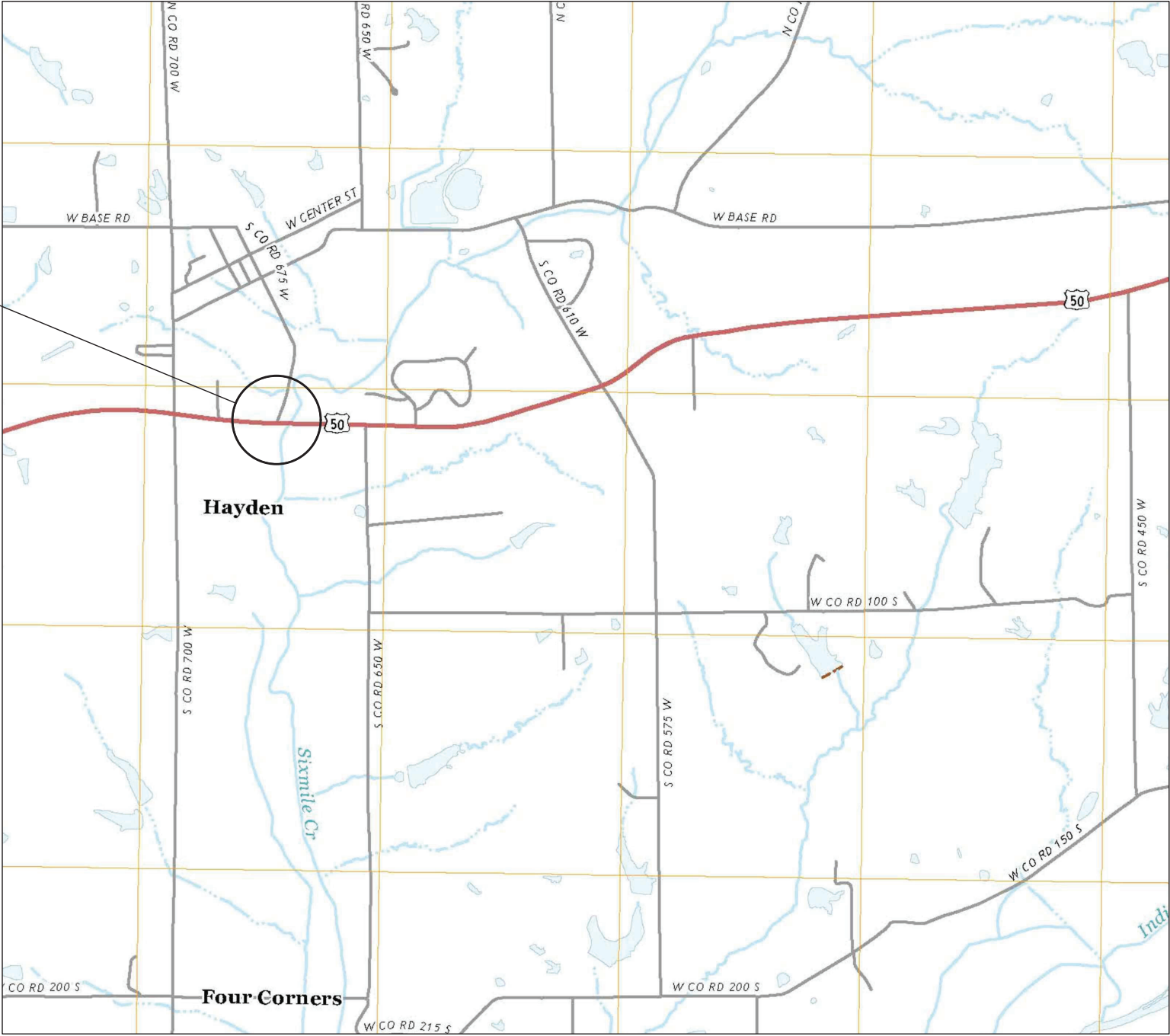
FOR SPANS OVER 20 FEET

ROUTE: US 50 OVER SIX MILE CREEK AT: RP 111 + 83

PROJECT NO. 1700203 P.E.
1700203 R/W
1700203 CONST.

Structure Replacement on US 50 over Six Mile Creek
Located 5.64 Miles East of US 31 in
Section 10, T-6N, R-7E, Spencer Township, Jennings County, Indiana

PROJECT LOCATION
Begin Project-Sta.464+50 "PR-A"
End Project-Sta.470+00 "PR-A"



LOCATION MAP
SCALE: 1:24000

TRAFFIC DATA		US 50	WASHINGTON ST.
A.A.D.T.	(2022)	11,020 V.P.D.	353 V.P.D.
A.A.D.T.	(2042)	13,040 V.P.D.	353 V.P.D.
D.H.V	(2042)	1,217 V.P.H.	14 V.P.H.
DIRECTIONAL DISTRIBUTION		50/50 %	63/37 %
TRUCKS		23.7 % A.A.D.T.	2 % A.A.D.T.
		18.6 % D.H.V.	2 % D.H.V.
DESIGN DATA			
DESIGN SPEED		55 M.P.H.	30 M.P.H.
PROJECT DESIGN CRITERIA		3R (NON-FREEWAY)	3R (NON-FREEWAY)
FUNCTIONAL CLASSIFICATION		RURAL OTHER PRINCIPAL ARTERIAL	RURAL LOCAL ROAD
RURAL/URBAN		RURAL	RURAL
TERRAIN		LEVEL	LEVEL
ACCESS CONTROL		NONE	NONE



PROJECT LOCATION SHOWN BY
JENNINGS COUNTY

LATITUDE: 38°58'33" N LONGITUDE: 85°44'5" W

BRIDGE LENGTH: 0.029 MI.
ROADWAY LENGTH: 0.075 MI.
TOTAL LENGTH: 0.104 MI.
MAX. GRADE: 0.07 %

HUC #05120207070060

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		
	050-40-10259		
	DESIGNATION		
	1700203		
DRAWING NO.	SHEETS		
	1	of	38
CONTRACT	PROJECT		
B-40414	1700203		

UTILITIES

HAYDEN WATER ASSOCIATION
6970 West US 50
North Vernon, In 47265
Attn: Andy Jackson
Ph: (812) 346-6311
Email: haydenwater@verizon.net

FRONTIER COMMUNICATIONS
8001 West Jefferson Blvd
Fort Wayne, In 46804
Attn: Mark Gibson
Ph: (260) 461-3324
Email: mgibson@yesrus.com

JACKSON COUNTY REMC
274 East Base Road
Brownstown, In 47220
Attn: Brad Pritchett
Ph: (812) 358-4458
Email: bpritchett@jacksonremc.com

HAYDEN WASTEWATER UTILITY
75 North Private Road 720 West
Hayden, In 47265
Attn: Pat Sullivan
Ph: (812) 592-7722



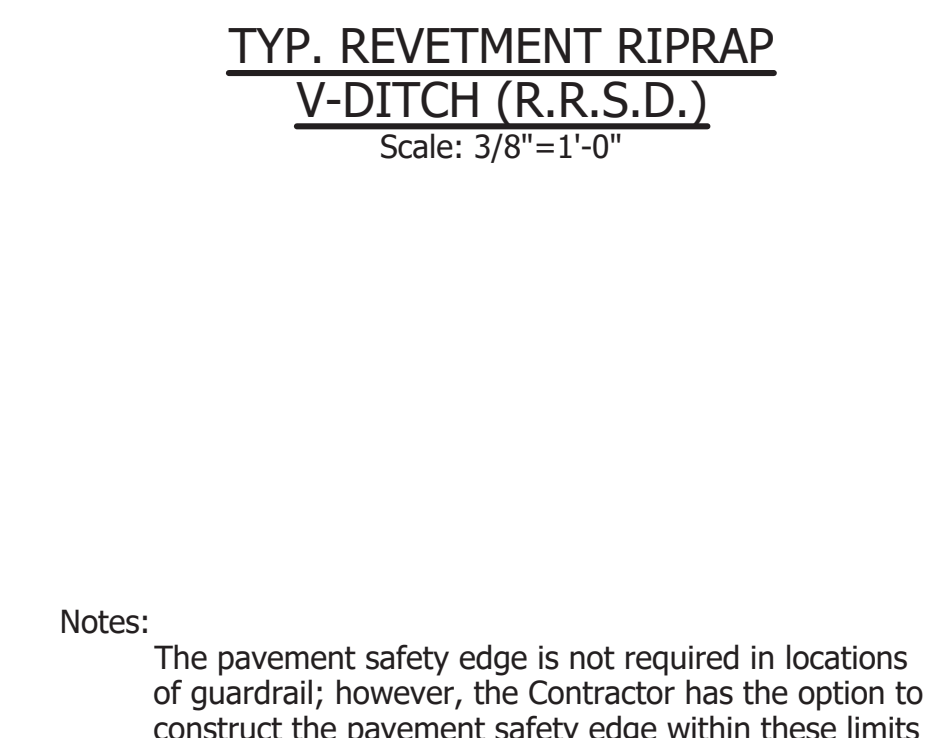
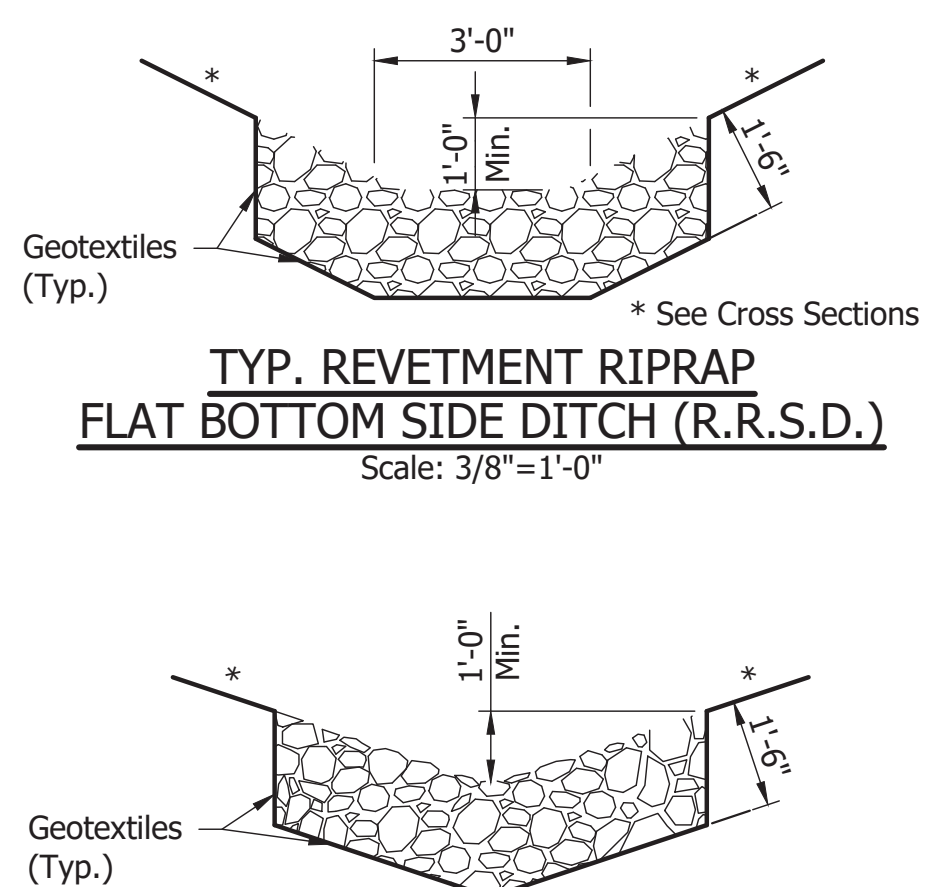
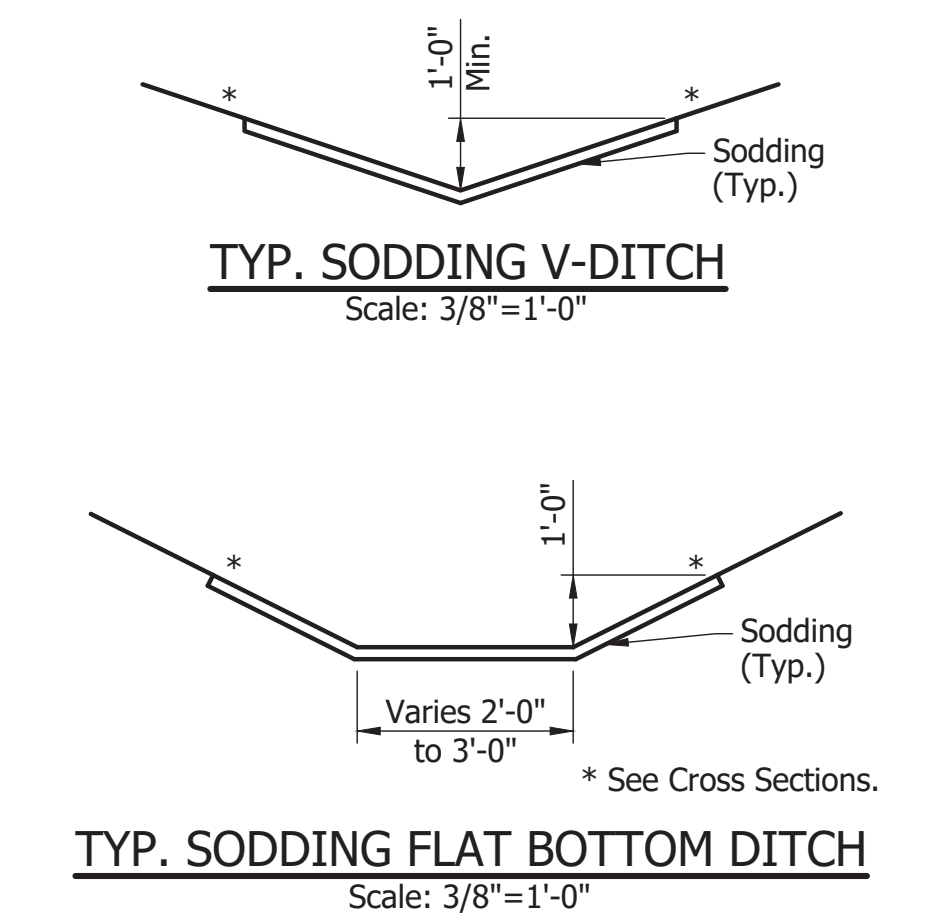
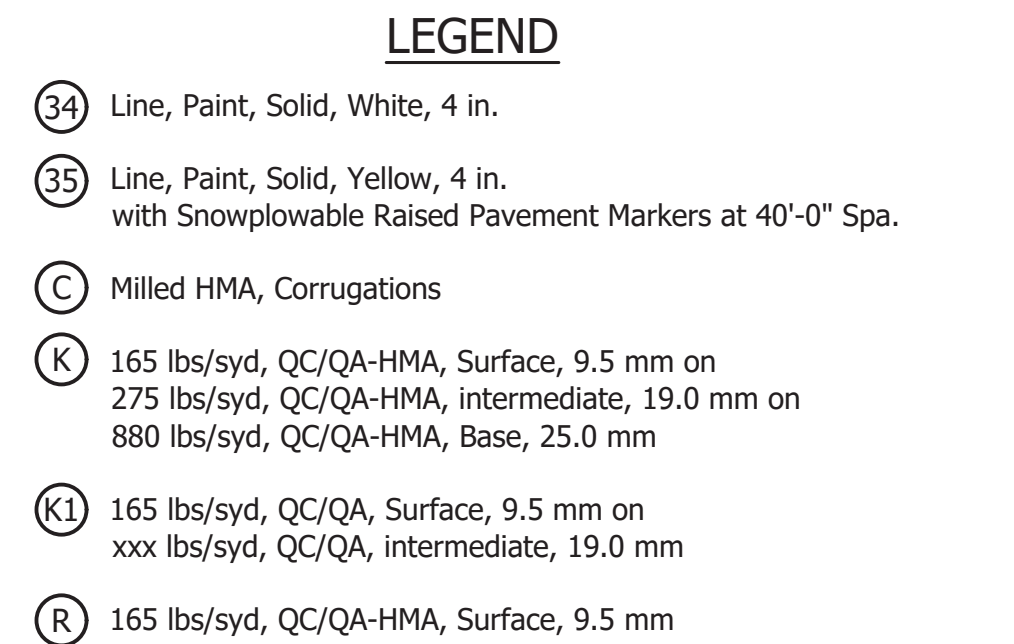
REVISIONS

REVISIONS		
SHEET NO.	DATE	REVISED

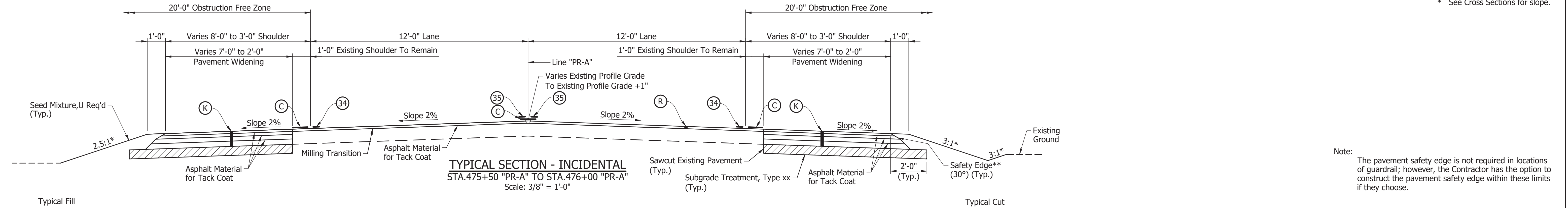
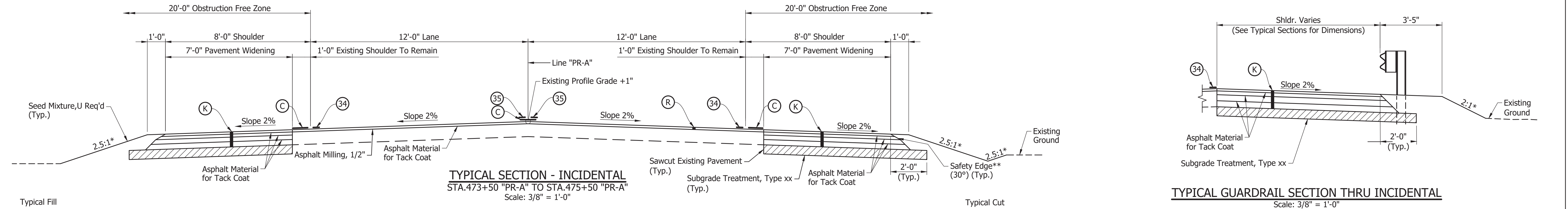
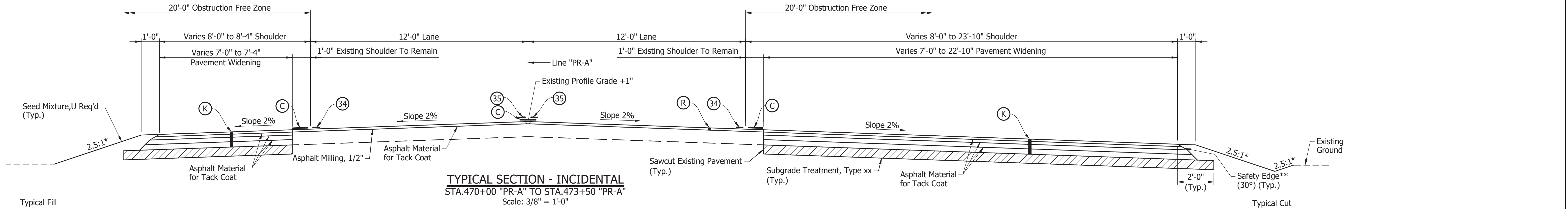
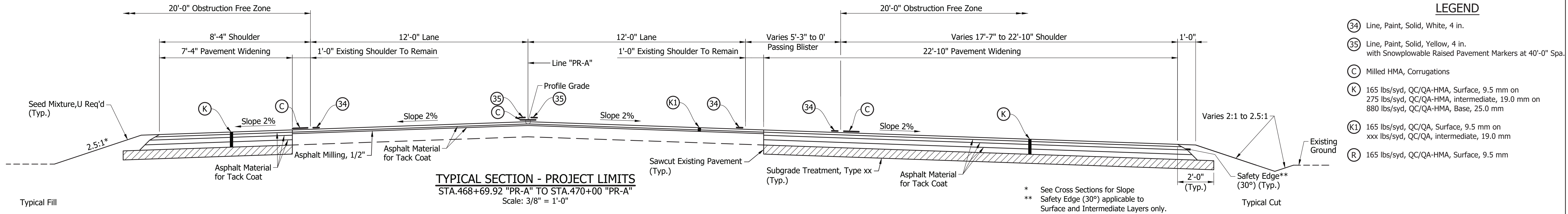
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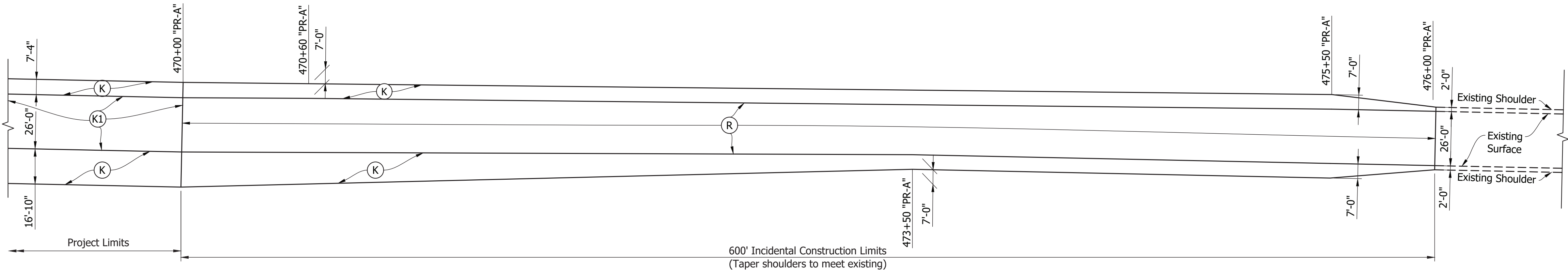
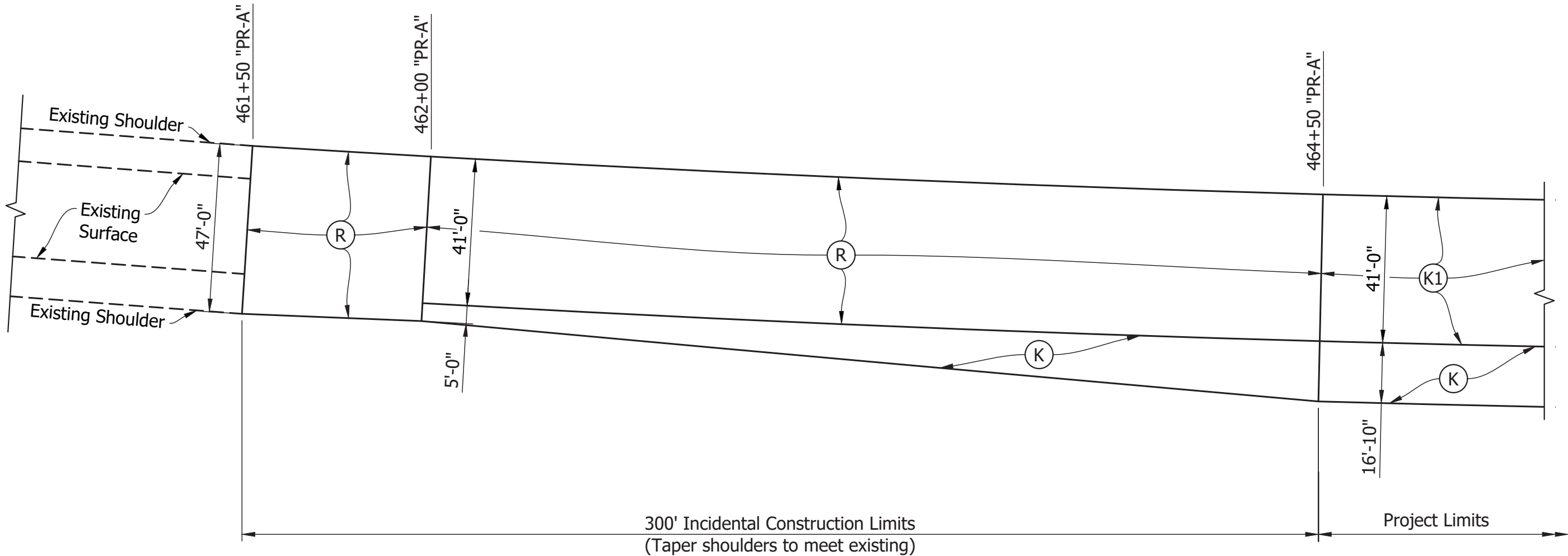
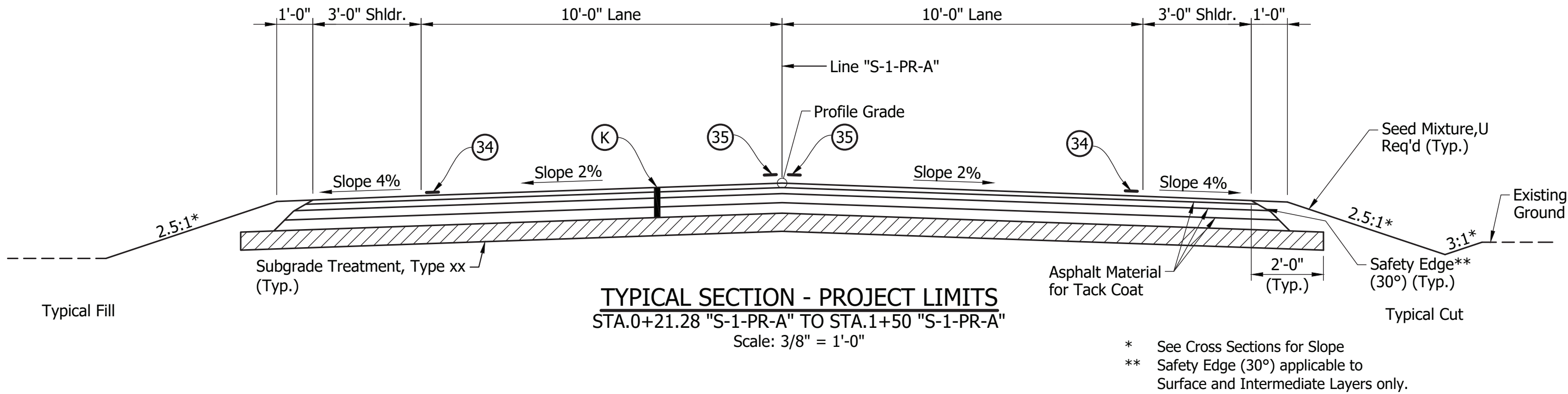
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				NONE	050-40-10259	
				VERTICAL SCALE	DESIGNATION	
				NONE	1700203	
DESIGNED: <u>APL</u>	DRAWN: <u>NW</u>	INDEX		DRAWING NO.	SHEETS	
CHECKED: DRT	CHECKED: <u>APL</u>			2	of	38
				CONTRACT	PROJECT	
				B-40414	1700203	



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RECOMMENDED FOR APPROVAL	DESIGN ENGINEER		DATE		INDIANA DEPARTMENT OF TRANSPORTATION			HORIZONTAL SCALE		BRIDGE FILE	
								AS NOTED		050-40-10259	
					TYPICAL SECTIONS			VERTICAL SCALE		DESIGNATION	
								AS NOTED		1700203	
DESIGNED: APL		DRAWN: NW					DRAWING NO.		SHEETS		
							4		of 38		
CHECKED: DRT		CHECKED: APL					CONTRACT		PROJECT		
							B-40414		1700203		

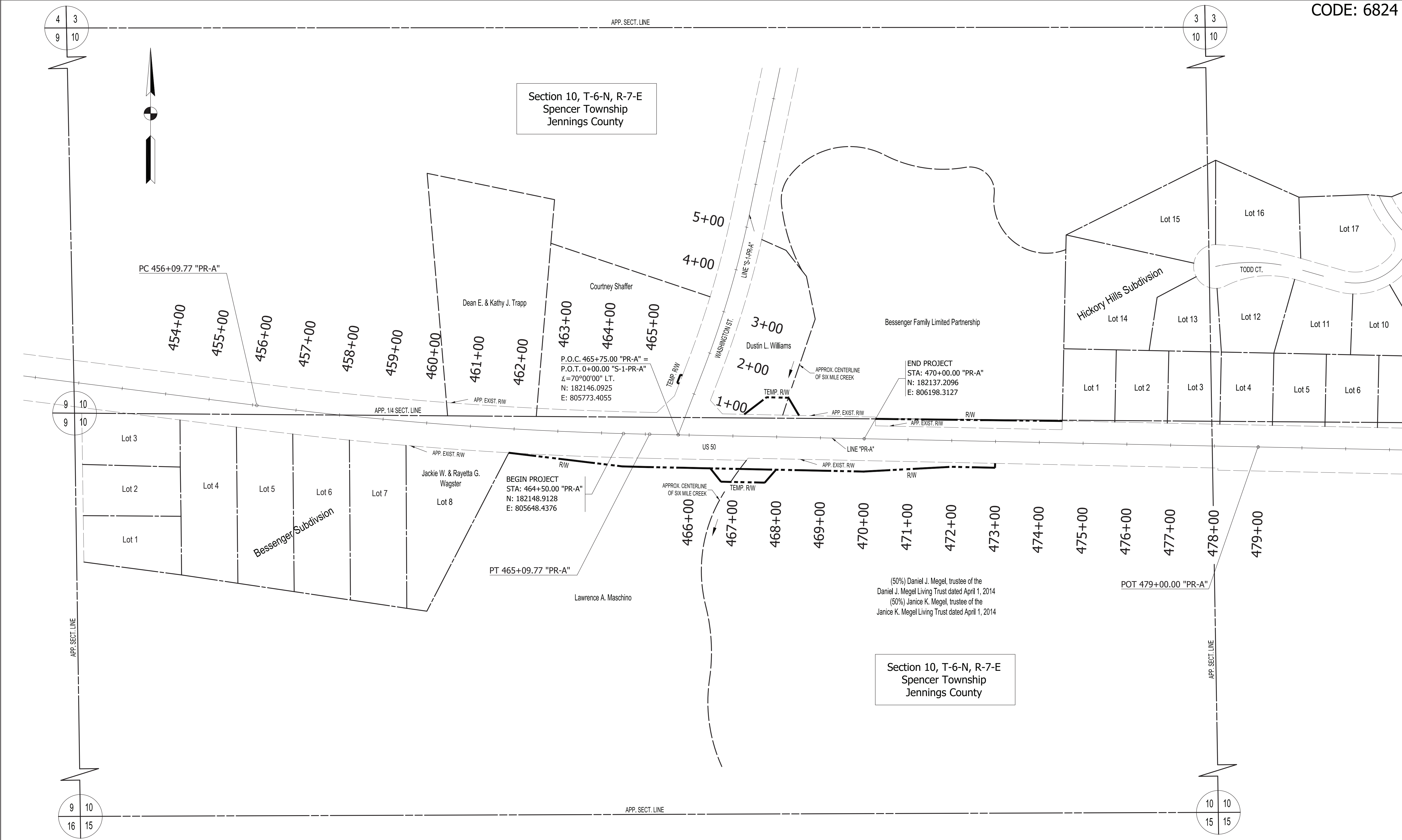


LEGEND

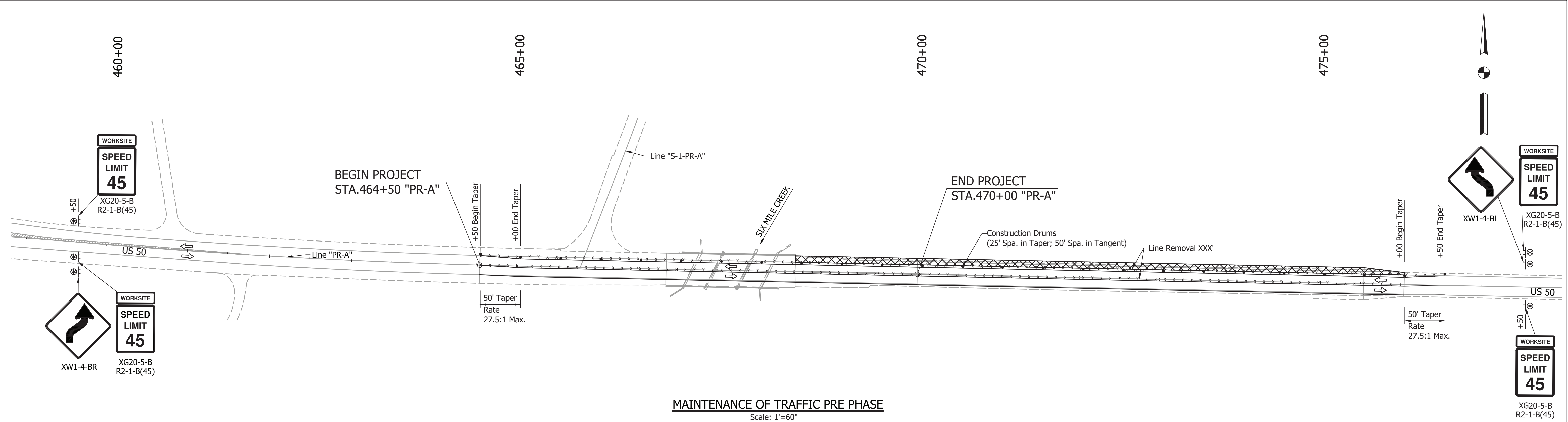
- 34 Line, Paint, Solid, White, 4 in.
- 35 Line, Paint, Solid, Yellow, 4 in. with Snowplowable Raised Pavement Markers at 40'-0" Spa.
- C Milled HMA, Corrugations
- K 165 lbs/syd, QC/QA-HMA, Surface, 9.5 mm on 275 lbs/syd, QC/QA-HMA, intermediate, 19.0 mm on 880 lbs/syd, QC/QA-HMA, Base, 25.0 mm
- K1 165 lbs/syd, QC/QA, Surface, 9.5 mm on xxx lbs/syd, QC/QA, intermediate, 19.0 mm
- R 165 lbs/syd, QC/QA-HMA, Surface, 9.5 mm

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 additional Typical Sections, see Shts.3 & 4.

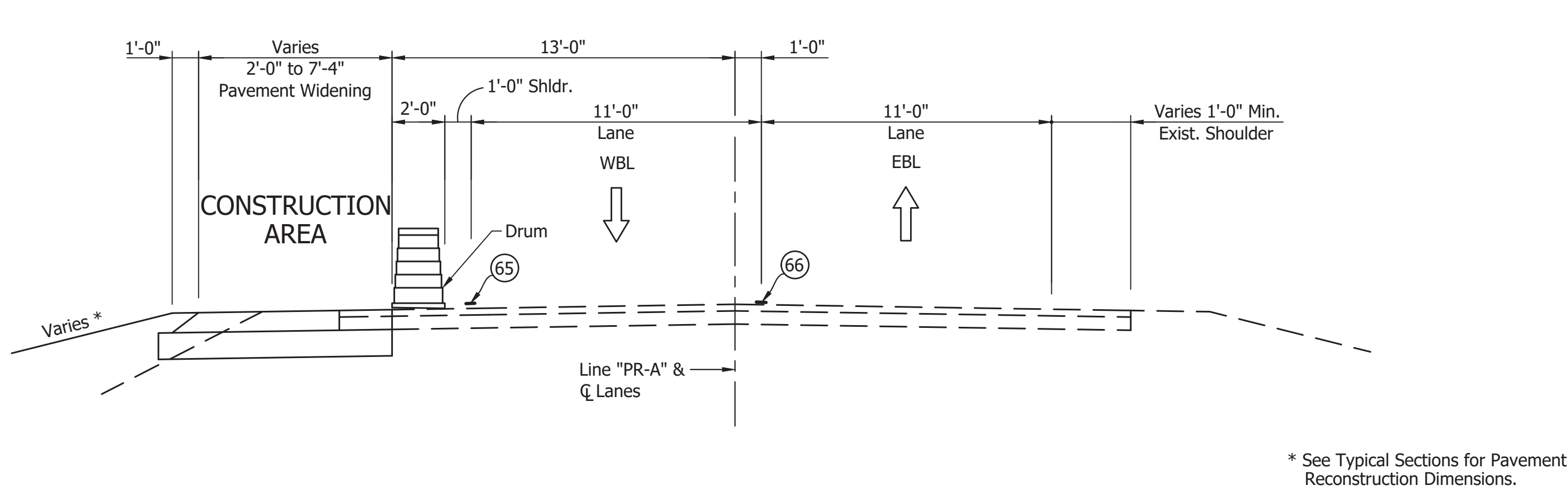


		RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER _____ DATE _____	INDIANA DEPARTMENT OF TRANSPORTATION			HORIZONTAL SCALE		BRIDGE FILE	
						1"=100'		050-40-10259-B	
						VERTICAL SCALE		DESIGNATION	
					1700203				
			DRAWING NO.		SHEETS				
					6 of 3				
CONTRACT		PROJECT							
B-40414		1700203							
DESIGNED: APL		DRAWN: NW		PLAT NO.1					
CHECKED: DRT		CHECKED: APL							



MAINTENANCE OF TRAFFIC PRE PHASE
Scale: 1"=60"

CONSTRUCTION ZONE DESIGN SPEED = 45 MPH

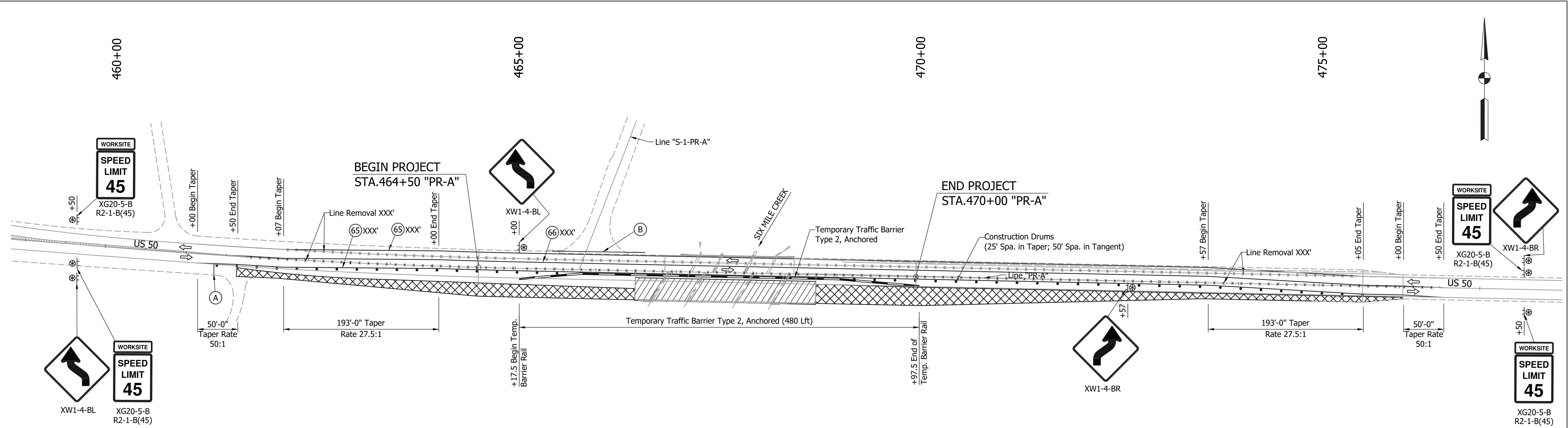


ROAD SECTION - PRE-PHASE
Sta. 468+42 "PR-A" to Sta. 476+00 "PR-A"
Scale: 1/4" = 1'-0"

- LEGEND**
- Construction Zone
 - XXX lb/syd, QC/QA-HMA, 3, 64, Surface, 9.5 mm on
XXX lb/syd, QC/QA-HMA, 3, 64, Intermediate, 19.0 mm on
XXX lb/syd, QC/QA-HMA, 3, 64, Base, 25.0 mm on
X in. Compacted Aggregate, No.53, Base on
Subgrade Treatment, Type
(Tack Coat between HMA layers)
 - Construction Sign and Supports
 - Construction Drums
 - Low Intensity Construction Warning Light Type A
 - Directional Traffic
 - Line Removal
 - (A) Barricade Type III-A & Road Closure Sign Assembly
 - (B) Barricade Type III-B & Road Closure Sign Assembly
 - (C) Barricade Type III-B
 - (65) Temporary Pavement Marking, 4 in. (White)
 - (66) Temporary Pavement Marking, 4 in. (Yellow)
 - Type "A" Construction Signs
 - (1) R11-2 Road Closed

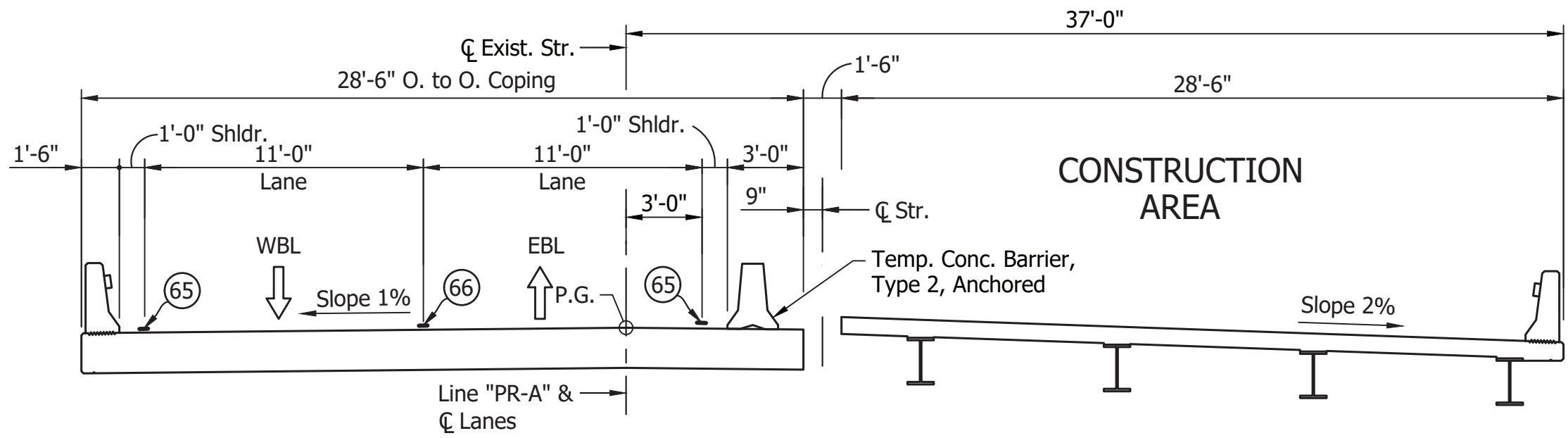
Notes:
For Additional Sign Placement Plan, see Sht.10.
For Quantities, see Sht.X.

		RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER _____ DATE _____	INDIANA DEPARTMENT OF TRANSPORTATION	HORIZONTAL SCALE	BRIDGE FILE	
				AS NOTED	050-40-10259	
				VERTICAL SCALE	DESIGNATION	
				AS NOTED	1700203	
	DESIGNED: APL CHECKED: DRT	DRAWN: AAO CHECKED: APL	MAINTENANCE OF TRAFFIC PRE PHASE	DRAWING NO.	SHEETS	
					7	of 38
				CONTRACT	PROJECT	
				B-40414	1700203	

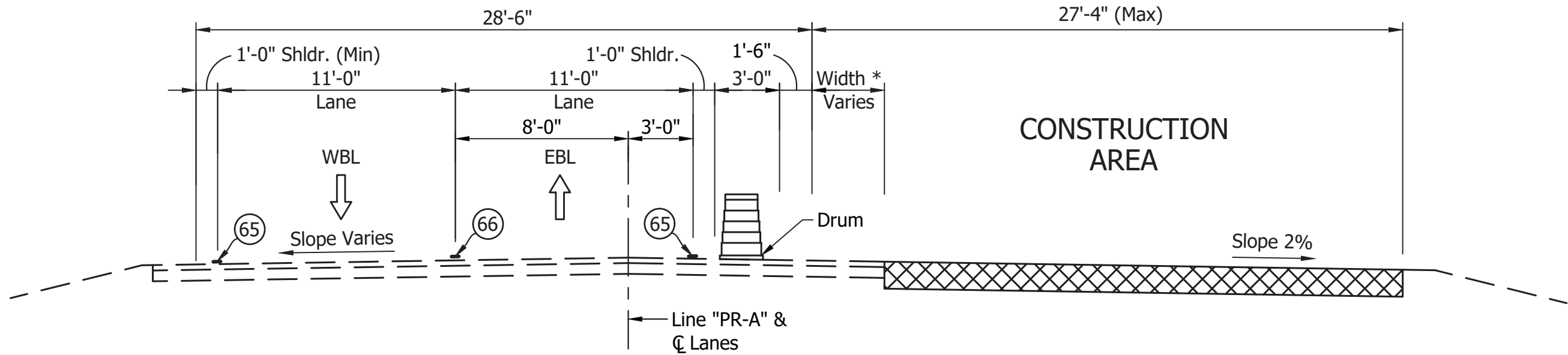


MAINTENANCE OF TRAFFIC PHASE I
Scale: 1"=60"

CONSTRUCTION ZONE DESIGN SPEED = 45 MPH



BRIDGE SECTION - PHASE I
Scale: 3/16" = 1'-0"

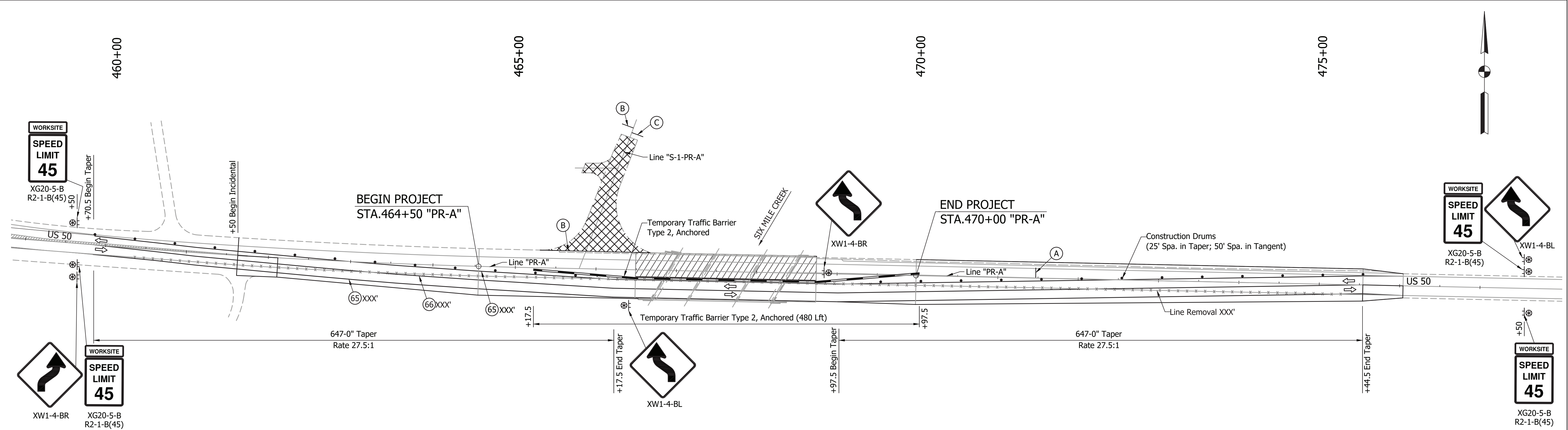


ROAD SECTION - PHASE I
Scale: 3/16" = 1'-0"

* See Typical Sections for Pavement Reconstruction Dimensions.

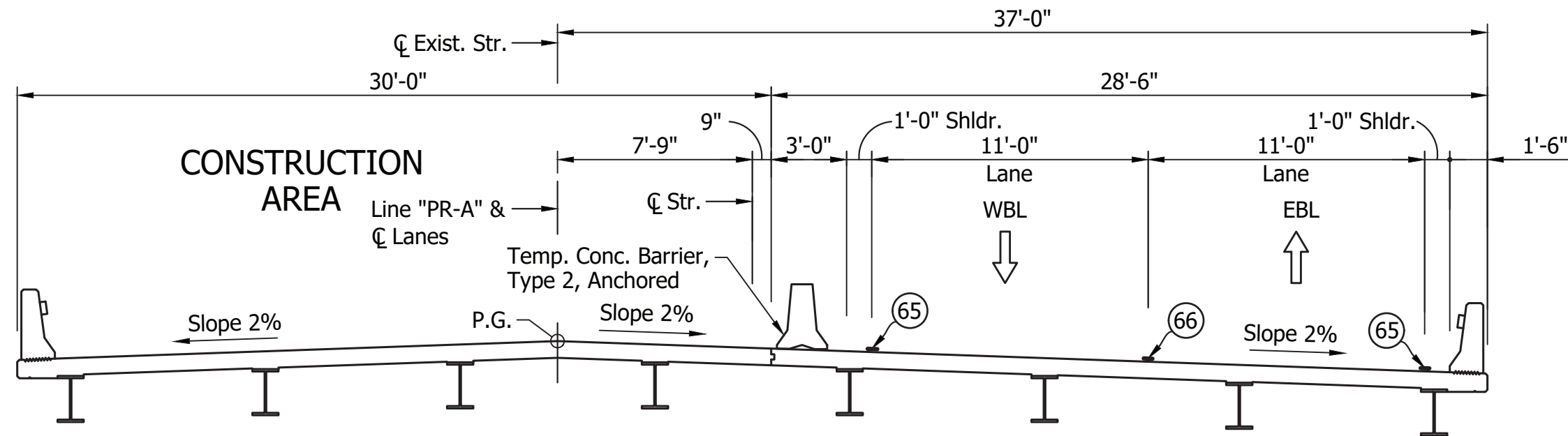
Notes:
For Legend, see Sht.7.
For Additional Sign Placement Plan, see Sht.10.
For Quantities, see Sht. X.

		RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE	INDIANA DEPARTMENT OF TRANSPORTATION	HORIZONTAL SCALE		BRIDGE FILE	
				AS NOTED		050-40-10259	
				VERTICAL SCALE		DESIGNATION	
				AS NOTED		1700203	
	DESIGNED: APL CHECKED: DRT	DRAWN: AAO CHECKED: APL	MAINTENANCE OF TRAFFIC PHASE I	DRAWING NO.		SHEETS	
						8 of 38	
				CONTRACT		PROJECT	
				B-40414		1700203	

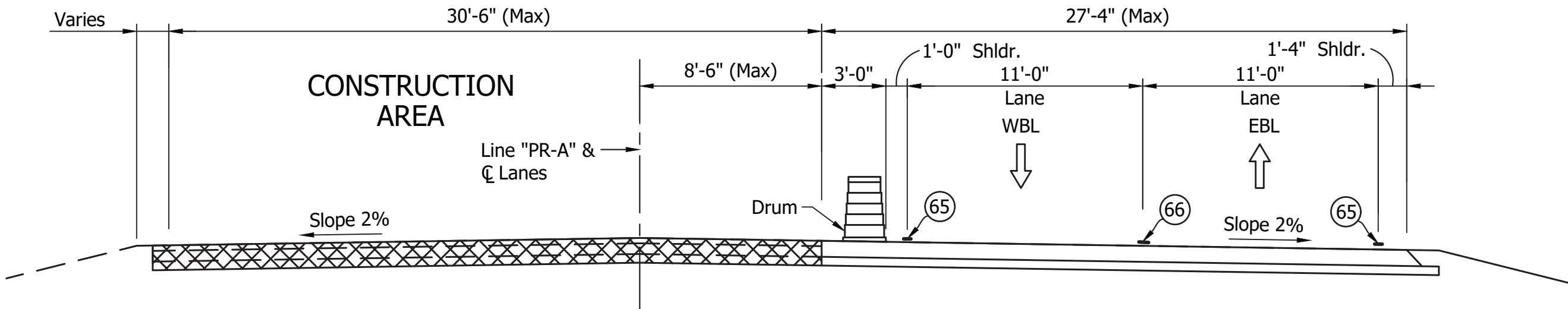


MAINTENANCE OF TRAFFIC PHASE II
Scale: 1"=60"

CONSTRUCTION ZONE DESIGN SPEED = 45 MPH



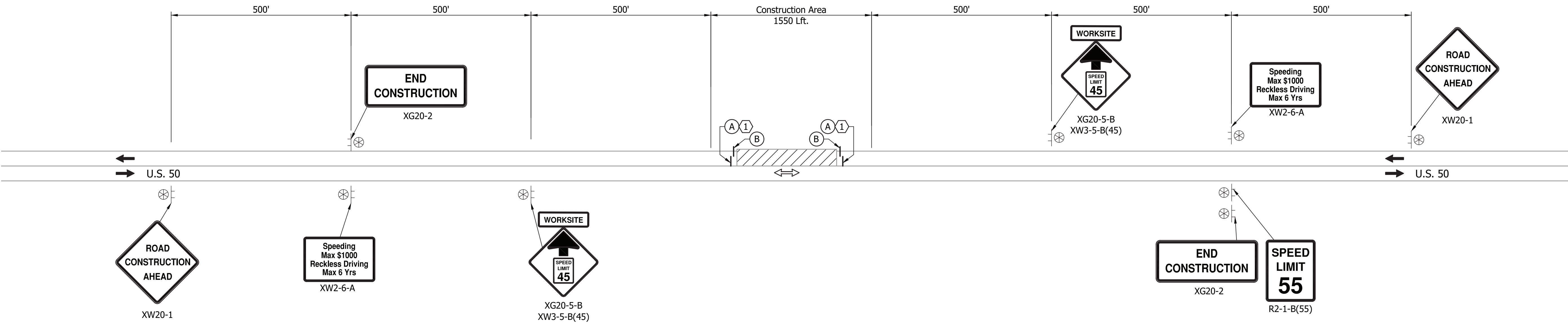
BRIDGE SECTION - PHASE II
Scale: 3/16" = 1'-0"



ROAD SECTION - PHASE II
Scale: 3/16" = 1'-0"

Notes:
For Legend, see Sht. 7.
For Additional Sign Placement Plan, see Sht. 10.
For Quantities, see Sht. X.

		RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE	INDIANA DEPARTMENT OF TRANSPORTATION	HORIZONTAL SCALE	BRIDGE FILE
				AS NOTED	050-40-10259
				VERTICAL SCALE	DESIGNATION
				AS NOTED	1700203
	DESIGNED: APL CHECKED: DRT	DRAWN: AAO CHECKED: APL	MAINTENANCE OF TRAFFIC PHASE II	DRAWING NO.	SHEETS
				9	of 38
				CONTRACT	PROJECT
				B-40414	1700203



PLAN - ADDITIONAL CONSTRUCTION SIGNS
No Scale

CONSTRUCTION ZONE DESIGN SPEED = 45 MPH

Notes:
For Legend, see Sht. 7.
For Details within Construction Area, see Sht. X

		RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER _____ DATE _____		INDIANA DEPARTMENT OF TRANSPORTATION		HORIZONTAL SCALE		BRIDGE FILE	
						AS NOTED		050-40-10259	
		DESIGNED: <u>APL</u> _____ DRAWN: <u>AAO</u> _____ CHECKED: <u>DRT</u> _____ CHECKED: <u>APL</u> _____		MAINTENANCE OF TRAFFIC US 50		VERTICAL SCALE		DESIGNATION	
						AS NOTED		1700203	
						DRAWING NO.		SHEETS	
						10 of 38			
				CONTRACT		PROJECT			
				B-40414		1700203			

SEC.10, T-6-N, R-7-W
SPENCER TOWNSHIP
JENNINGS COUNTY

BEGIN CONSTRUCTION
STA.0+21.28 "S-1-PR-A"
N 182165.9326
E 805781.1000

P.O.C. 465+75.00 "PR-A"
=P.O.T. 0+00.00 "S-1-PR-A"
Δ=70°00'00" LT.
N 182146.0925
E 805773.4055
Monument "B" Req'd.

P.C.465+09.77 "PR-A"

Class II Drive
L=32.1', W=12'
STR. NO. 11
92 Lft of 24" φ Pipe
Type 1 Req'd.
Skew: 15° Lt.

Temp R/W
For Drive
Constr.

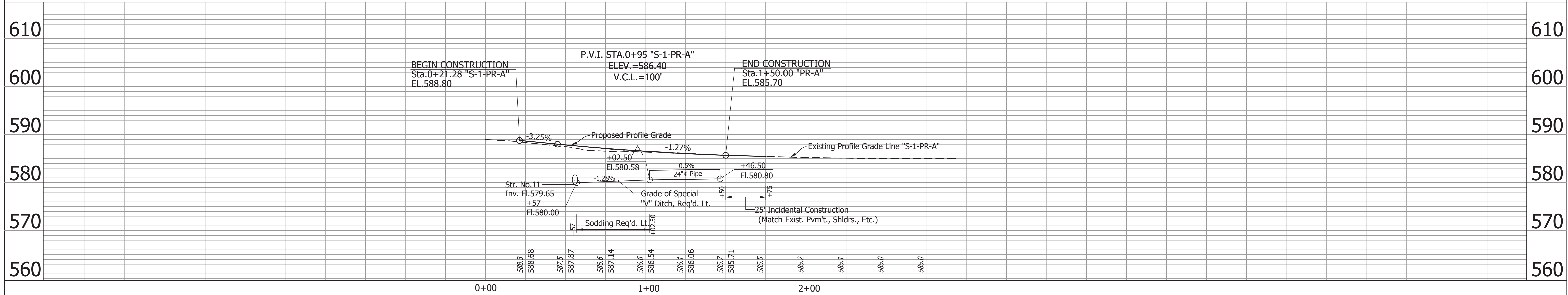
STR. NO. 12
44 Lft of 24" φ Pipe
Type 3 Req'd.

END CONSTRUCTION
STA.1+50.00 "S-1-PR-A"
N 182285.9433
E 805827.6434
Monument "B" Req'd.
25' Incidental Construction
Match Exist. Pvm't., Shldrs., Etc.

CURVE DATA
P.I. 3+42.88 "S-1-PR-A"
Δ=9°21'00" Lt.
Dc=2°30'00"
R=2291.8 ft
T=187.42 ft
L=374.00 ft
E=7.65 ft
SE=N/A

Notes:
All R/W on this sheet described from
Line "S-1-PR-A", except as noted.

For Topo Notes, see Shts.11 & 12.



N 182377.9534
E 805869.9734
Mailbox
Post

N

Jennings
County Sign

Drive

End of Fence on S.
Side of Gravel Drive

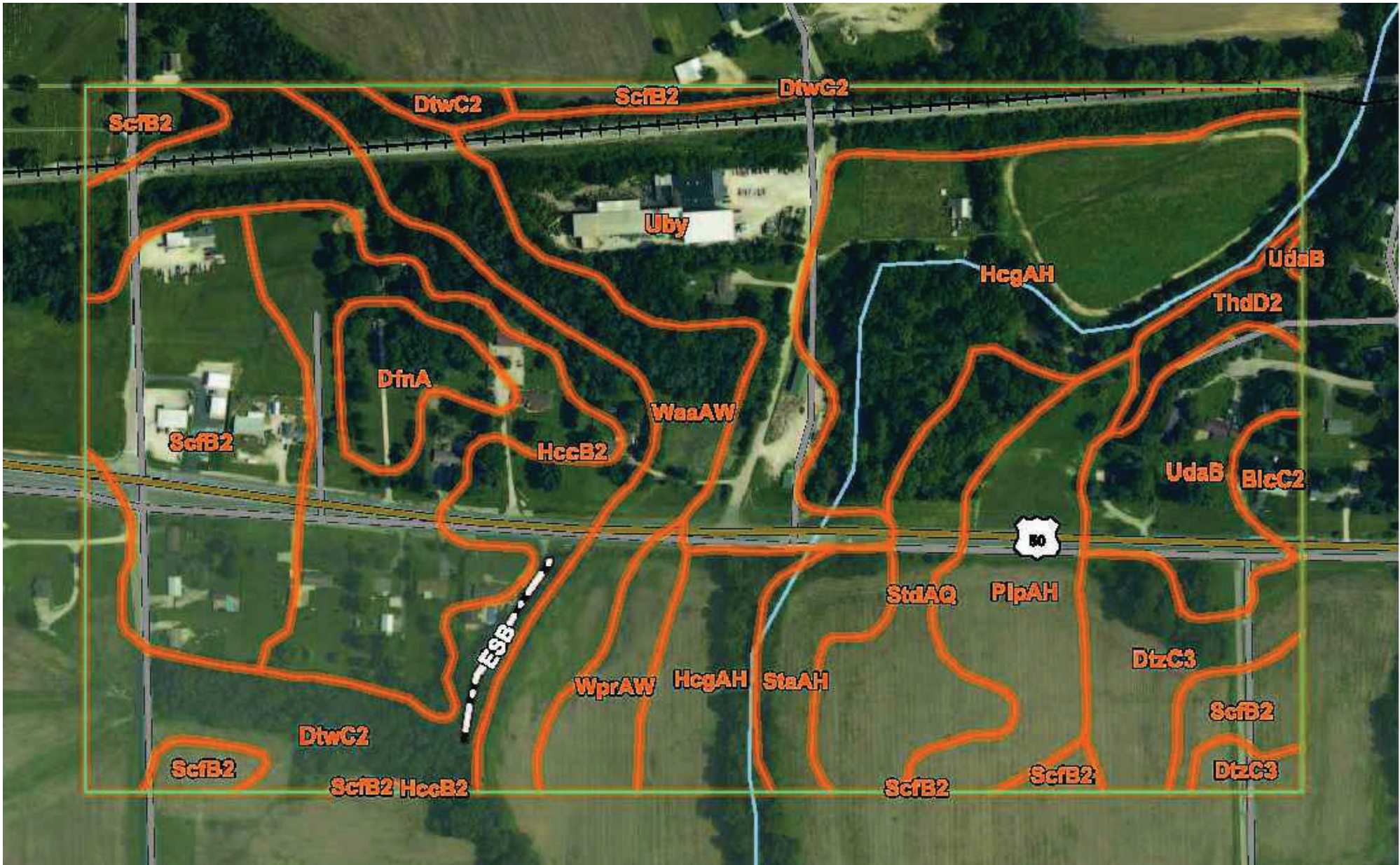
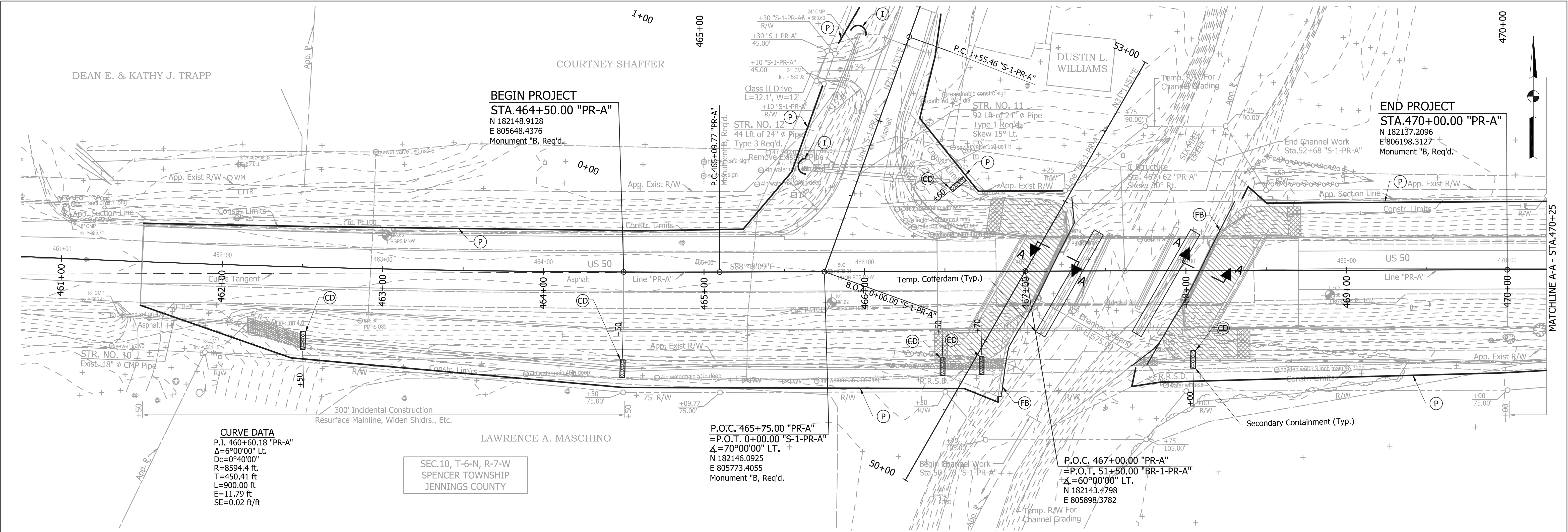
Washington St.
96°15'
182°10'

CONTROL PT. #104

RECOMMENDED FOR APPROVAL	
DESIGNED: APL	DRAWN: NW
CHECKED: DRT	CHECKED: APL

INDIANA DEPARTMENT OF TRANSPORTATION		HORIZONTAL SCALE 1"=30'	BRIDGE FILE 050-40-10259
		VERTICAL SCALE 1"=10'	DESIGNATION 1700203
PLAN & PROFILE LINE "S-1-PR-A"		DRAWING NO.	SHEETS 13 of 38
		CONTRACT B-40414	PROJECT 1700203

n\washington | p:\180022 - seymour district us 50 des 1700203\02 bridge\04plans\180022-108-sht plan profile s-1-pr-a.dwg | plan profile (s-1-pr-a) | 1/29/2021 2:32:33 PM ||

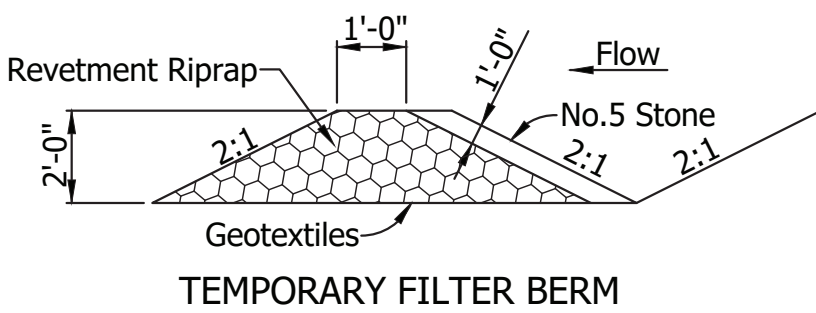


SOIL MAP
No Scale

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
BlcC2	Blocher, soft black shale substratum-Jennings-Deputy silt loams, 6 to 12 percent slopes, eroded	1.0	0.9%
DfnA	Dubois silt loam, 0 to 2 percent slopes	2.3	2.1%
DtwC2	Deputy silt loam, 6 to 15 percent slopes, eroded	15.4	14.0%
DtzC3	Deputy-Trappist silty clay loams, 6 to 15 percent slopes, severely eroded	4.4	4.0%
HccB2	Haubstadt silt loam, 2 to 6 percent slopes, eroded	9.9	8.9%
HcgAH	Haymond silt loam, 0 to 2 percent slopes, frequently flooded, brief duration	17.6	16.0%
PipAH	Piopolis silty clay loam, 0 to 1 percent slopes, frequently flooded, brief duration	6.1	5.5%
ScfB2	Scottsburg-Deputy silt loams, 2 to 6 percent slopes, eroded	14.5	13.2%
StaAH	Steff silt loam, 0 to 2 percent slopes, frequently flooded, brief duration	2.5	2.2%
SldAQ	Stendal silt loam, 0 to 2 percent slopes, rarely flooded	5.5	5.0%
ThdD2	Trappist-Rohan silt loams, 12 to 25 percent slopes, eroded	1.4	1.3%
Uby	Udothents, loamy	14.4	13.1%
UdaB	Urban land-Deputy-Scottsburg complex, 2 to 15 percent slopes	4.9	4.4%
WaaAW	Wakeland silt loam, 0 to 2 percent slopes, occasionally flooded, very brief duration	8.0	7.3%
WprAW	Wirt loam, 0 to 2 percent slopes, occasionally flooded, very brief duration	2.4	2.1%
Totals for Area of Interest		110.2	100.0%

LEGEND

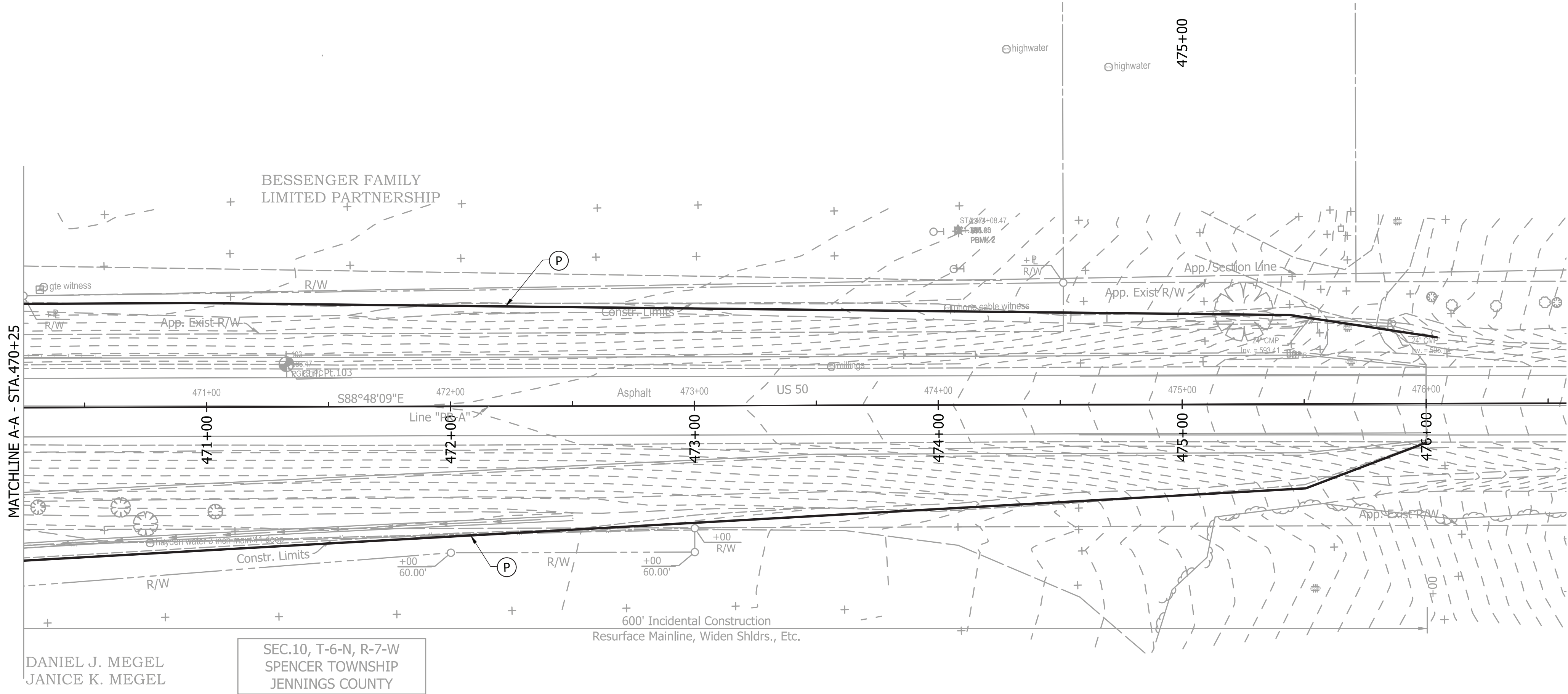
- (P) Temporary Silt Fence
- (D) Dewatering Pump
- (I) Temporary Inlet Protection, Gravel Ring (Inlet)
- (N) Sodding, Nursery
- (CD) Temporary Check Dam, Revetment Riprap, Modified
- (FB) Temporary Filter Berm (Revetment Riprap)
- (ST) Temporary Sediment Trap
- [Box] Temporary Cofferdam for Pier Construction



SECTION A-A
No Scale

Notes:
All 2:1 slopes to be seeded and covered with erosion control blankets unless armored by riprap.
All R/W on this sheet described from Line "D", except as noted.

				RECOMMENDED FOR APPROVAL			INDIANA DEPARTMENT OF TRANSPORTATION	HORIZONTAL SCALE		BRIDGE FILE	
								1" = 30'		050-40-10259	
								VERTICAL SCALE		DESIGNATION	
								1" = 30'		1700203	
					DRAWING NO.			SHEETS			
								14 of 38			
CONTRACT		PROJECT									
B-40414		1700203									
DESIGNED: <u>APL</u>		DRAWN: <u>LLH</u>		EROSION CONTROL							
CHECKED: <u>DRT</u>		CHECKED: <u>APL</u>									



RECOMMENDED FOR APPROVAL _____	
DESIGNED: APL _____	DRAWN: LLH _____
CHECKED: DRT _____	CHECKED: APL _____
DESIGN ENGINEER _____ DATE _____	

INDIANA
DEPARTMENT OF TRANSPORTATION

EROSION CONTROL

HORIZONTAL SCALE 1" = 30'	BRIDGE FILE 050-40-10259	
VERTICAL SCALE 1" = 30'	DESIGNATION 1700203	
DRAWING NO.	SHEETS 15 of 38	
CONTRACT B-40414	PROJECT 1700203	

BORING NO. TB-1

TEST BORING RECORD USING DCP

CLIENT : Beam, Longest and Neff

PROJECT : Bridge Replacement

ROUTE NO. : US 50

COUNTY : Jennings

LOCATION : US 50 over Six Mile Creek

DES NO. : 1700203

BORING NO. : TB- 1

SHEET : 1 OF 1

DATE STARTED : 12-12-19

DATE COMPLETED : 12-12-19

CTL PROJECT NO : 19050055IND

Boring Elevation : 588.3 Feet

Boring Depth : 14.3 feet

Boring Method : HSA

Hammer : Automatic

Northing : Station : 466+88

Rig Type : CME 550 ATV

Hammer Efficiency : 90.7

Easting : Offset : 7.0 feet Rt

Driller/Inspector : JS/DW

Datum : Line : "PR-A"

Coring Diameter : 3.25" I.D.

Temperature : 35° F

Weather : Clear

Core Size : ---

GROUNDWATER: Encountered at 13.5 feet

At completion Dry

Caved in at 12.2 feet

Station Elevation	Sample Depth	SOIL/MATERIAL DESCRIPTION	Station Elevation	Sample Depth	Sample Number	DCP per 6"	DCP per 12"	Recovery (%)	Moisture Content (%)	Total Unit Weight (pcf)	Unconfined Compression (ksf)	Atterberg Limits		
												LL	PL	PI
587.5		ASPHALT CONCRETE (10") (Visual)		0.8										
586.8		SAND AND GRAVEL BASE (8") (Visual)		1.5										
	2.5				SS-1	3	6	67	24.1			35	15	20
	5.0					3								
		Brown, Moist, Medium SHIF, SILTY CLAY A-6 (16), Lab 1			SS-2	3	6	44	25.1					
						3								
	5.0					4								
581.8				6.5		2	5	100	15.0			30	19	12
	7.5				SS-3	3								
		Brown and Gray, Moist, Medium SHIF, SILTY CLAY LOAM A-6 (7), Lab 2				4								
579.8				8.5										
	10.0				SS-4	2	4	100	26.8			27	20	7
						2								
						2								
						3								
	12.5													
		Gray, Moist, Soft, SILTY LOAM A-4 (5), Lab 3												
574.8				13.5		6								
574.0		Brown, Wet, Very Dense, SAND AND GRAVEL (Visual)		14.3	SS-5	50/3"		89	16.0					
	15.0													
		Bottom of Boring at 14.3 feet												
		Boring terminated on bedrock at 14.3 feet.												
		Boring backfilled in accordance with INDOT requirements and pavement restored with concrete patch.												
	17.5													
	20.0													

CTL ENGINEERING

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

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

BORING NO. TB-2

TEST BORING RECORD USING DCP

CLIENT : Beam, Longest and Neff

PROJECT : Bridge Replacement

ROUTE NO. : US 50

COUNTY : Jennings

LOCATION : US 50 over Six Mile Creek

DES NO. : 1700203

BORING NO. : TB- 2

SHEET : 1 OF 1

DATE STARTED : 12-06-19

DATE COMPLETED : 12-06-19

CTL PROJECT NO : 19050055IND

Boring Elevation : 588.0 Feet

Boring Depth : 25.0 feet

Boring Method : HSA, RC

Hammer : Automatic

Northing : Station : 467+38

Rig Type : CME 550 ATV

Hammer Efficiency : 90.7

Easting : Offset : 17.1 feet Lt

Driller/Inspector : JS/DW

Datum : Line : "PR-A"

Coring Diameter : 3.25" I.D.

Temperature : 45° F

Weather : Sunny

Core Size : 2" NQ

GROUNDWATER: Encountered at Dry

At completion Dry

Caved in at 22.8 feet

Station Elevation	Sample Depth	SOIL/MATERIAL DESCRIPTION	Station Elevation	Sample Depth	Sample Number	DCP per 6"	DCP per 12"	Recovery (%)	Moisture Content (%)	Total Unit Weight (pcf)	Unconfined Compression (ksf)	Atterberg Limits		
												LL	PL	PI
586.3		CEMENT CONCRETE (20") (Visual)		1.7										
	2.5													
	5.0													
	7.5													
	10.0													
	12.5													
	15.0													
574.0				14.0										
	17.5													
		Gray, Hard, Slightly Weathered, LIMESTONE												
		Uniaxial Compressive Strength = 11,980 psi												
	20.0													
	22.5													
		Gray, Hard, Slightly Weathered, LIMESTONE												
		Uniaxial Compressive Strength = 6,770 psi												
563.0	25.0			25.0										
	27.5													
	30.0													
	32.5													
	35.0													
	37.5													
	40.0													
	42.5													
	45.0													

CTL ENGINEERING

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

BORING METHOD

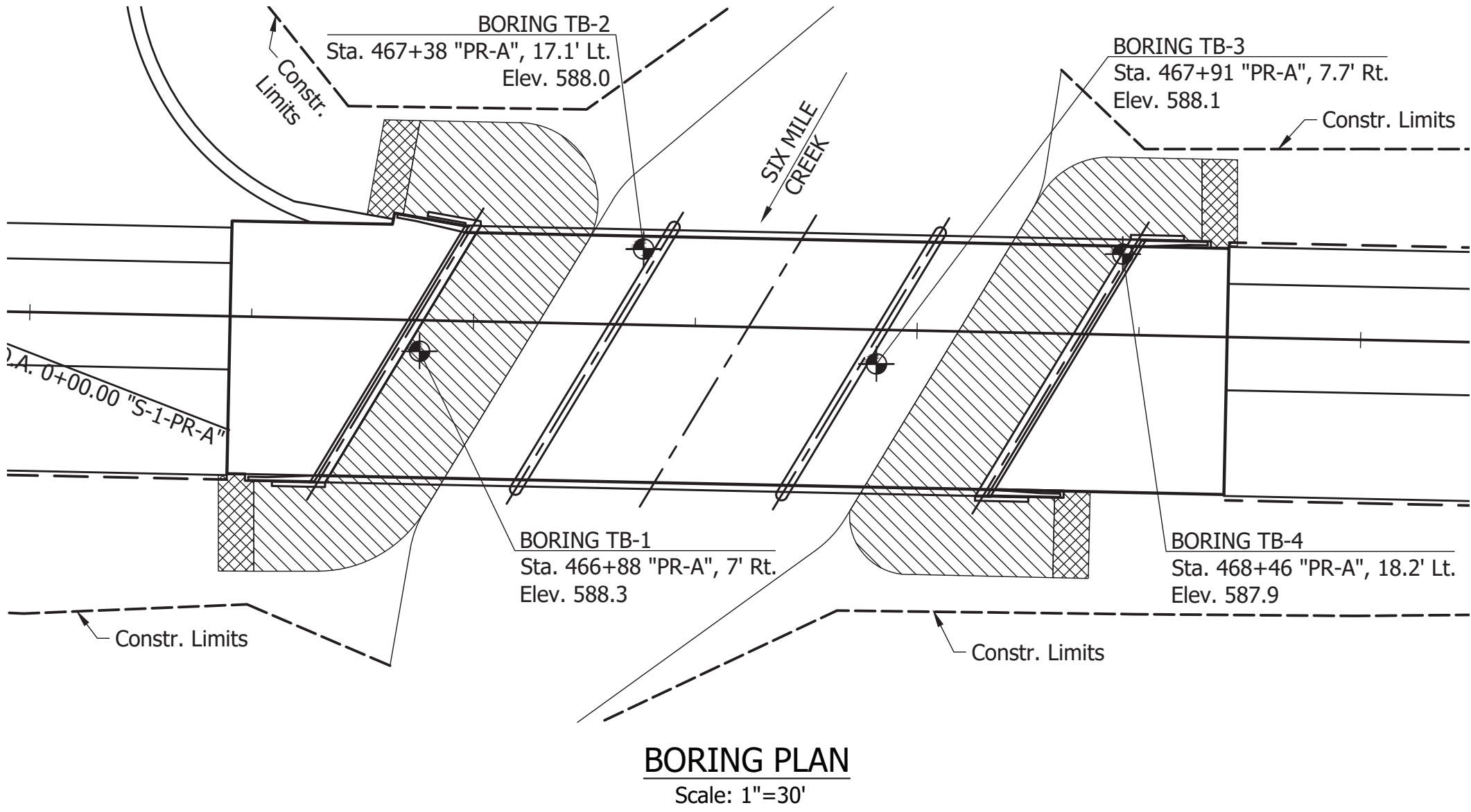
HSA - Hollow Stem Auger
SFA - Solid Flight Auger
RC - Rock Coring
MD - Mud Drilling
WD - Wash Drilling
HA - Hand Auger

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



NOTE TO REVIEWER:
Table to be completed at Stage 3.

PILE LOADING FOR GEOTECHNICAL TESTING				
	BENT NO.1	PIER NO.2	PIER NO.3	BENT NO.4
Pile Size, Type & Grade	xxx	xxx	xxx	xxx
Factored Design Load Q _f (Kips)	xxx	xxx	xxx	xxx
Factored Design Soil Resistance R _{R max} (Kips)	xxx	xxx	xxx	xxx
Resistance Factor Φ _{dyn}	x.xx	x.xx	x.xx	x.xx
Downdrag Load, DD (Kips)*	0	0	0	0
Nominal Soil Resistance R _{n max} (Kips)	xxx	xxx	xxx	xxx
Downdrag Friction R _{add} (Kips)	0	0	0	0
Scour Zone Friction R _{s scour} (Kips)	0	0	0	0
Relaxation in Shale (Kips)	xxx	xxx	xxx	xxx
Nominal Driving Resistance, R _{ndr} (Kips)	xxx	xxx	xxx	xxx
Testing Method	By Formula, Standard Specifications 701.05()			

Note:
* In calculations of Downdrag Loads, γ_p = 1.4

BORING NO. TB-3

TEST BORING RECORD USING DCP

CLIENT : Beam, Longest and Neff

PROJECT : Bridge Replacement

ROUTE NO. : US 50

COUNTY : Jennings

LOCATION : US 50 over Six Mile Creek

DES NO. : 1700203

BORING NO. : TB- 3

SHEET : 1 OF 1

DATE STARTED : 12-05-19

DATE COMPLETED : 12-05-19

CTL PROJECT NO : 19050055IND

Boring Elevation : 588.1 Feet

Station : 467+91

Offset : 7.7 feet RT

Line : "PR-A"

Boring Depth : 23.5 feet

Rig Type : CME 550 ATV

Casing Diameter : 3.25" I.D.

Core Size : 2" NQ

Boring Method : HSA, RC

Hammer : Automatic

Hammer Efficiency : 90.7

Driller/Inspector : JS/DW

Temperature : 30° F

Weather : Sunny

GROUNDWATER: ☒ Encountered at Dry

☒ At completion Dry

☒ Caved in at 23.5 feet

Station Elevation	Sample Depth	SOIL/MATERIAL DESCRIPTION	Station Elevation	Sample Number	DCP per 6"	DCP per 12"	Recovery (%)	Moisture Content (%)	Total Unit Weight (pcf)	Unconfined Compression (ksf)	Atterberg Limits			
											LL	PL	PI	
586.4	2.5	CEMENT CONCRETE (20") (Visual)	586.4											
	5.0													
	7.5	Drilled through the Bridge Deck. Flowline encountered at 12.0 feet.												
	10.0													
578.1	12.5	Brown, Very Moist, Hard, CLAY LOAM with Some Gravel (Visual)	578.1											
575.0	13.1		575.0	SS-1	1	7	8	46	21.3					
	15.0													
	17.5	Gray, Hard, Slightly Weathered, LIMESTONE												
	20.0	Uniaxial Compressive Strength = 9,790 psi												
	22.5													
	23.5	Gray, Hard, Slightly Weathered, LIMESTONE												
		Uniaxial Compressive Strength = 6,160 psi												
564.9		Bottom of Boring at 23.5 feet												
	25.0	Boring backfilled in accordance with INDOT requirements and pavement restored with concrete patch.												
	27.5													
	30.0													
	32.5													
	35.0													
	37.5													
	40.0													
	42.5													
	45.0													

CTL ENGINEERING

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

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

BORING NO. TB-4

TEST BORING RECORD USING DCP

CLIENT : Beam, Longest and Neff

PROJECT : Bridge Replacement

ROUTE NO. : US 50

COUNTY : Jennings

LOCATION : US 50 over Six Mile Creek

DES NO. : 1700203

BORING NO. : TB- 4

SHEET : 1 OF 1

DATE STARTED : 12-18-19

DATE COMPLETED : 12-18-19

CTL PROJECT NO : 19050055IND

Boring Elevation : 587.9 Feet

Station : 468+46

Offset : 18.2 feet LT

Line : "PR-A"

Boring Depth : 14.6 feet

Rig Type : CME 550 ATV

Casing Diameter : 3.25" I.D.

Core Size : ---

Boring Method : HSA

Hammer : Automatic

Hammer Efficiency : 90.7

Driller/Inspector : JS/DW

Temperature : 30° F

Weather : Overcast

GROUNDWATER: ☒ Encountered at 14.0 feet

☒ At completion DRY

☒ Caved in at 12.9 feet

Station Elevation	Sample Depth	SOIL/MATERIAL DESCRIPTION	Station Elevation	Sample Number	DCP per 6"	DCP per 12"	Recovery (%)	Moisture Content (%)	Total Unit Weight (pcf)	Unconfined Compression (ksf)	Atterberg Limits			
											LL	PL	PI	
587.1	0.8	ASPHALT CONCRETE (9") (Visual)	587.1											
	2.5			SS-1	4	7	89	17.1						
	5.0			SS-2	2	4	67	22.3						
	7.5	Gray, Moist, Soft to Medium Stiff, SILTY LOAM A-6, As Lab 3		SS-3	4	8	100	15.6						
	10.0			SS-4	2	4	100	21.9						
574.9	13.0		574.9											
573.3	14.6	Brown, Wet, Hard, SILTY CLAY LOAM with Rock Fragments (Visual)	573.3	SS-5	4	10	92	48.8						
	15.0	Bottom of Boring at 14.6 feet												
	17.5	Boring terminated on bedrock at 14.6 feet.												
	20.0	Boring backfilled in accordance with INDOT requirements and pavement restored with concrete patch.												

CTL ENGINEERING

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

BORING METHOD

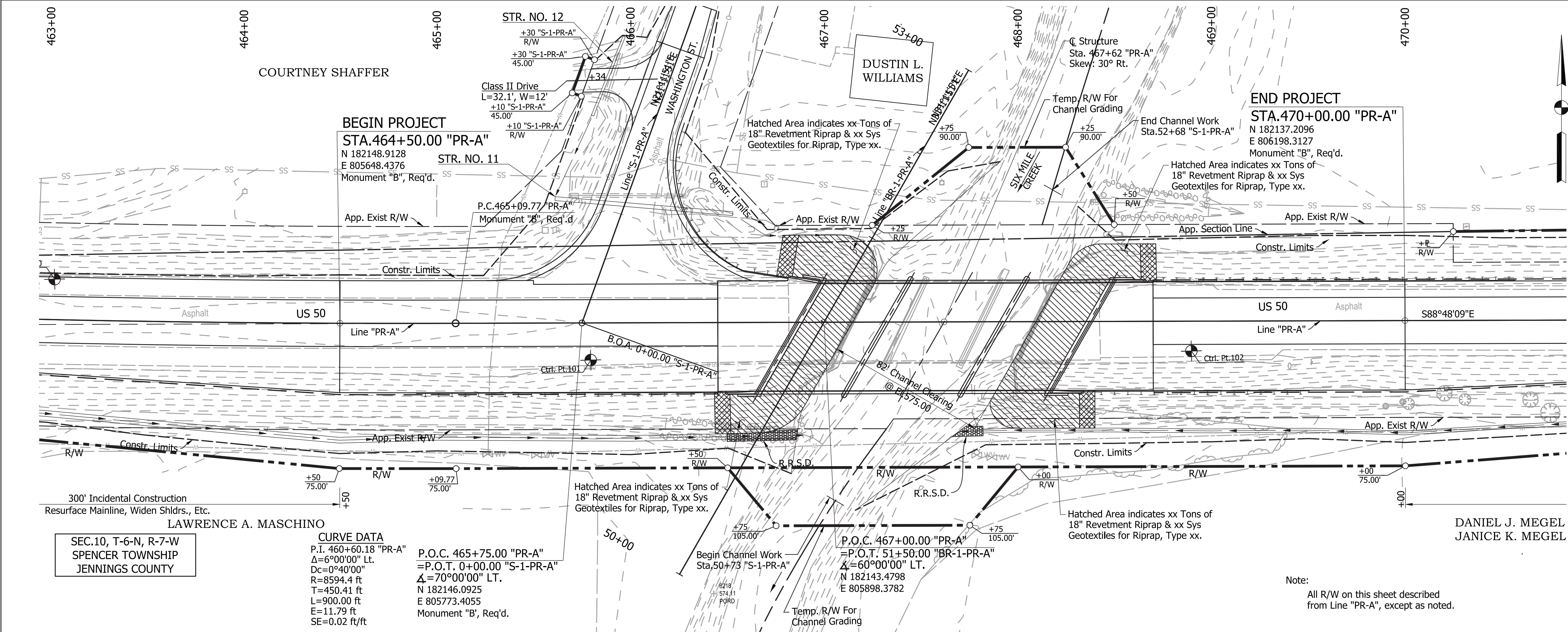
HSA - Hollow Stem Auger
SFA - Solid Flight Auger
RC - Rock Coring
MD - Mud Drilling
WD - Wash Drilling
HA - Hand Auger

SAMPLING METHOD

SS - Split Spoon Sample
ST - Shelby Tube Sample
CR - Rock Core Sample
BS - Bag Sample
AC - Auger Cuttings
SBS - Subbase Sample

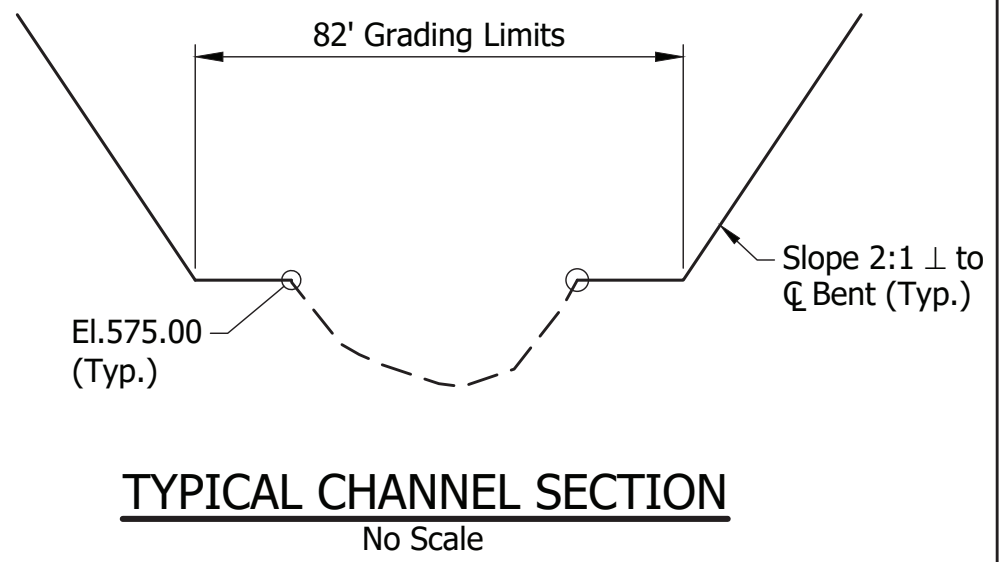
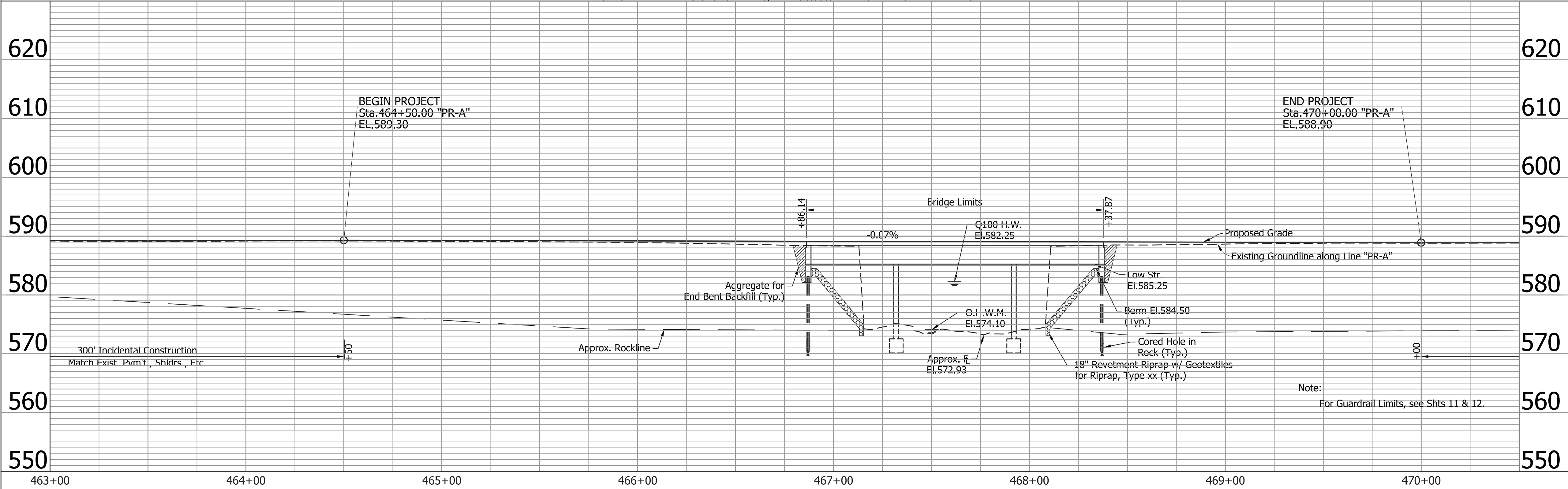
ABBREVIATIONS

* - Hand Penetrometer
LL - Liquid Limit
PL - Plastic Limit
PI - Plasticity Index
DCP - Dynamic Cone Penetrometer Test



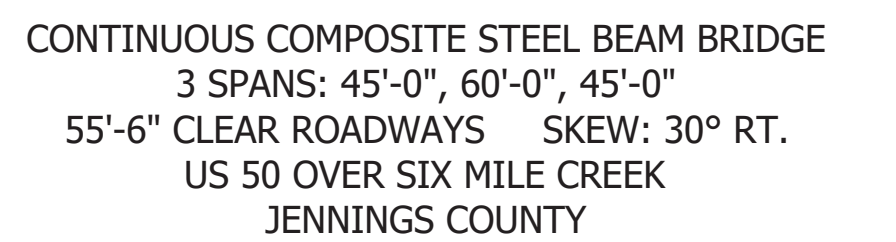
EXISTING STRUCTURE	
Existing Structure is a 3 Span Concrete Slab Bridge (28'-9 1/2", 38'-5", 28'-9 1/2") with a 40'-2" Clear Roadway. (To Be Removed)	
EARTHWORK TABULATION*	
Common Excavation	xxx Cys
Usable Common Excavation	xxx Cys
Fill + 20%	xxx Cys
Waterway Excavation	xx Cys
Usable Waterway Excavation (50%)	xx Cys
Borrow	xx Cys
* Quantities shown are to be used as final pay items.	
The estimated quantities for Benching are xxx Cys for Cut and xxx Cys for Fill and are not included in the Earthwork Summary.	

HYDRAULIC DATA	
Drainage Area	22.4 Sq Mi
Design Discharge, Q100	4600 cfs
Design Discharge, Q500	6100 cfs
High Water Elevation, Q100	El.582.25
Existing Bridge	
Waterway Area below Q100	
Net Area thru Bridge	655 Sft
Gross Area thru Bridge	682 Sft
Area over Road	0.0 Sft
Backwater	1.16 ft
Low Structure Elevation	El.586.5
Proposed Bridge	
Waterway Area below Q100	
Net Area thru Bridge	867.3 Sft
Provided Gross Area thru Bridge	906.1 Sft
Area over Road	0.0 Sft
Velocity thru Bridge	5.84 ft/sec
Backwater	0.95 ft
Proposed Low Structure Elevation	El.585.25
Skew	30° Rt
Flowline Elevation (@ Upstream Coping)	El.572.93
Contraction Scour, Q100	3.17 ft
Total Scour, Q100	7.84 ft
Low Scour Elevation, Q100	El.565.09
Max. Velocity, Q100 (C Channel)	7.20 ft/sec
Contraction Scour, Q500	7.88 ft
Total Scour, Q500	12.68 ft
Low Scour Elevation, Q500	El.560.25
Max. Velocity, Q500 (C Channel)	9.49 ft/sec



CONTINUOUS COMPOSITE STEEL BEAM BRIDGE
3 SPANS: 45'-0", 60'-0" & 45'-0"
55'-6" CLEAR ROADWAYS SKEW: 30° RT.
US 50 OVER SIX MILE CREEK
JENNINGS COUNTY

		RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE		INDIANA DEPARTMENT OF TRANSPORTATION		HORIZONTAL SCALE		BRIDGE FILE			
						1"=30'		050-40-10259			
						VERTICAL SCALE		DESIGNATION			
						1"=10'		1700203			
		DESIGNED: <u>APL</u>		DRAWN: <u>NW</u>		LAYOUT LINE "PR-A"		DRAWING NO.		SHEETS	
								S1 of S3		18 of 38	
		CHECKED: <u>DRT</u>		CHECKED: <u>APL</u>				CONTRACT		PROJECT	
								B-40414		1700203	



RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER _____ DATE _____	INDIANA DEPARTMENT OF TRANSPORTATION			HORIZONTAL SCALE		BRIDGE FILE		
				AS NOTED		050-40-10259		
				VERTICAL SCALE		DESIGNATION		
				AS NOTED		1700203		
DESIGNED: <u>APL</u>	DRAWN: <u>NW</u>	GENERAL PLAN			DRAWING NO.		SHEETS	
					S2 of S3		19 of 38	
CHECKED: <u>DRT</u>	CHECKED: <u>APL</u>				CONTRACT		PROJECT	
					B-40414		1700203	

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.

The top of roadway surface from coping line to coping line, all exposed faces of concrete railings, face of deck copings, underside of bridge floor from coping to outside face of exterior beam, and all exposed top of bents, surfaces of wingwalls and end bents to be sealed in accordance with Article 702.21 of Specifications.
(Estimated Quantity = xxx Sft.)

Plans for existing structure are on file in the Research and Documents Section at the Indiana Department of Transportation, as Bridge File No. 050-40-00853 and are available upon request.

DESIGN DATA

- LIVE LOAD:Designed for HL-93 loading in accordance with 2018 AASHTO LRFD Bridge Design Specifications.
- DEAD LOAD:Actual weight plus 35 psf (composite) for future wearing surface and 15 psf (non-composite) for permanent metal deck forms.
- FLOOR SLAB:Slab designed for HL-93 loading with a 1/2" sacrificial wearing surface.
- DESIGN STRENGTHS:To be in accordance with 2018 AASHTO LRFD Bridge Design Specifications.
- 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
- STRUCTURAL STEEL:ASTM A709 Grade 50W: fy=50 ksi

CONSTRUCTION LOADING

The exterior beam has been checked for strength, deflection, and overturning using the construction loads shown below. Cantilever overhang brackets were assumed for support of the deck overhang past the edge of exterior beam. The finishing machine was assumed to be supported 6 inches outside the vertical coping form. The top overhang brackets were assumed to be located 6 inches past the edge of the vertical coping form. The bottom overhang brackets were assumed to be braced against the intersection of the beam bottom flange and web. The Contractor shall use blocking or other methods to ensure beam rotation does not occur prior to or during concrete placement on exterior beam. Temporary Bracing shall be installed at midspan of each permanent diaphragm on exterior beams prior to deck pour.

- Deck Falsework Loads:Designed for 15 psf for permanent metal stay-in-place deck forms, removable deck forms, and 2-ft exterior walkway.
- Construction Live Load:Designed for 20 psf extending 2 ft past the edge of coping and 75 plf vertical force applied at a distance of 6 inches outside the face of coping over a 30-ft length of the deck centered with the finishing machine.
- Finishing Machine Load:4500 lbs distributed over 10 ft along the coping.
- Wind Load:Designed for 70 mph horizontal wind loading in accordance with AASHTO LRFD 3.8.1.

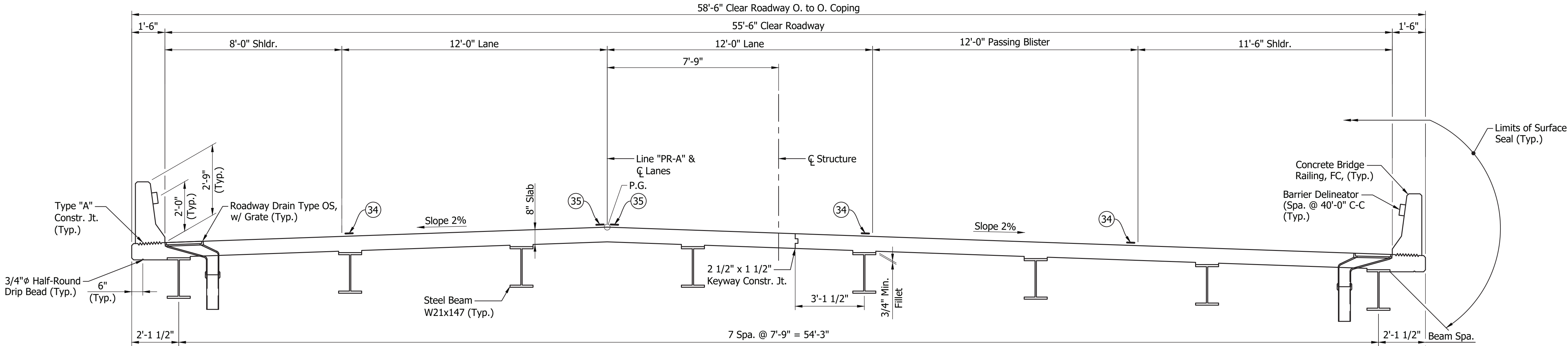
SEISMIC DATA

- AASHTO Guide Design Specifications for LRFD Seismic Bridge Design
- Seismic Design Category A
- S1=0.094
- Site Class C
- Fv=1.7

CONTINUOUS COMPOSITE STEEL BEAM BRIDGE
3 SPANS: 45'-0", 60'-0", 45'-0"
55'-6" CLEAR ROADWAYS SKEW: 30° RT.
US 50 OVER SIX MILE CREEK
JENNINGS COUNTY

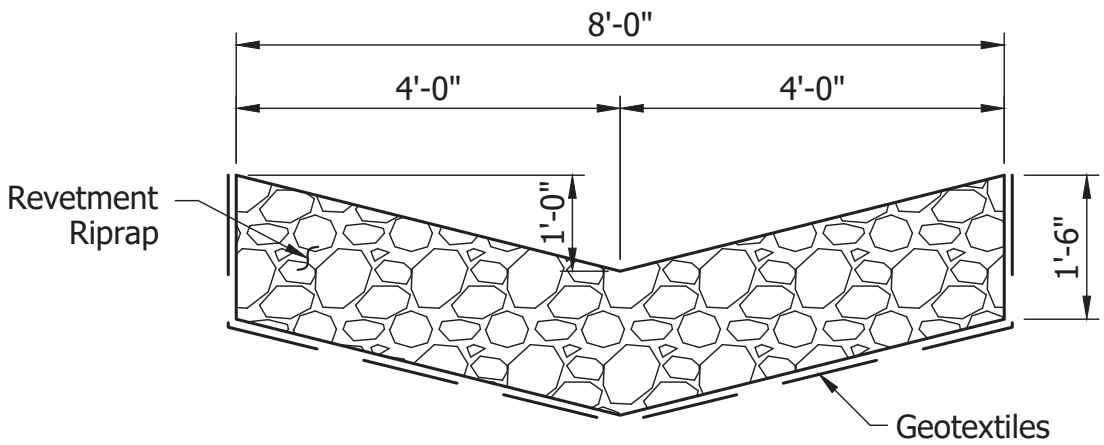
LEGEND

- 34 Line, Paint, Solid, White, 4 in.
- 35 Line, Paint, Solid, Yellow, 4 in.

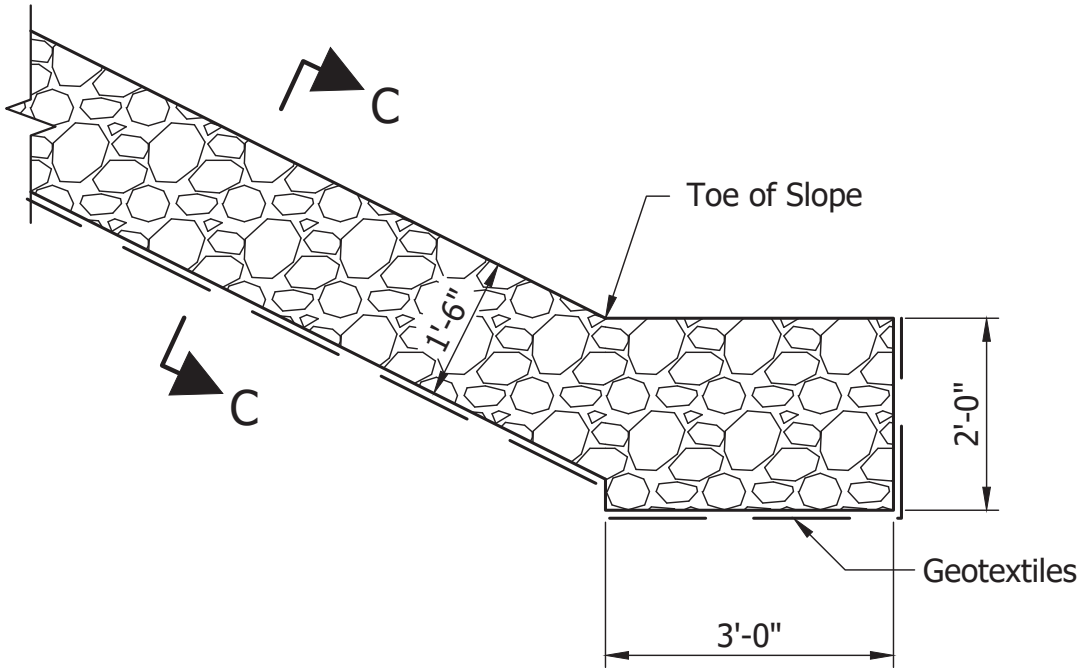


TYPICAL SECTION

Scale: 3/8" = 1'-0"



SECTION C-C



LONGITUDINAL SECTION

RIPRAP DRAINAGE TURNOUT DETAIL

Scale: 1/2"=1'-0"

RECOMMENDED FOR APPROVAL _____	
DESIGNED: APL	DRAWN: NW
CHECKED: DRT	CHECKED: APL

INDIANA DEPARTMENT OF TRANSPORTATION	
GENERAL PLAN TYPICAL SECTIONS	

HORIZONTAL SCALE	BRIDGE FILE	
AS NOTED	050-40-10259	
VERTICAL SCALE	DESIGNATION	
AS NOTED	1700203	
DRAWING NO.	SHEETS	
S3 of S3	20	of 38
CONTRACT	PROJECT	
B-40414	1700203	

SUMMARY OF BRIDGE QUANTITIES

ITEM	CONCRETE					CONCRETE RAILING CLASS C	RAILING CONCRETE, FC, MOD.	BARRIER DELINE- ATORS	CONC.BRIDGE RAILING TRANSITION, TFC	REINF. BARS TOTAL	REINF. BARS EPOXY COATED	THREADED TIE BAR ASSEMBLY EPOXY COATED	FIELD DRILLED HOLE IN CONCRETE	STRUCTURAL STEEL*	REINF.CONC. BRIDGE APPROACH (12")	DENSE GRADED SUBBASE	PIPE RDWY. DRAIN, CASTING EXTENSION	CAST IRON, GRATES, BASINS & FITTINGS											AGGREGATE FOR END BENT BACKFILL	GEOTEXTILES	EXPANSION JT. SS	SURFACE SEAL*	
	CLASS C	CLASS C	CLASS B		CLASS A														STEEL H (SIZE)	STEEL H EPOXY COATED	STEEL H REINF.CONC. ENCASED	TEST PILE, INDICATOR PRODUCTION	TEST PILE, INDICATOR, RESTRIKE	PILE TIP, STEEL H (SIZE)	PILE SHOES, (SIZE)	CORED HOLE IN ROCK							
	SUPERSTR. CYS	SUBSTR. CYS	ABOVE FTG. CYS	IN FTG. CYS	SUBSTR. CYS														CYS	LFT	EACH	EACH	LBS	LBS	EACH	EACH	LBS	SYS					CYS
BENT NO.1																																	
PIER NO.2																																	
PIER NO.3																																	
BENT NO.4																																	
SUPERSTRUCTURE																																	
R.C. BRIDGE APPROACH - BENT NO.1																																	
R.C. BRIDGE APPROACH - BENT NO.4																																	
TOTALS																																	

RECOMMENDED FOR APPROVAL _____	
DESIGN ENGINEER _____	DATE _____
DESIGNED: APL _____	DRAWN: NW _____
CHECKED: DRT _____	CHECKED: APL _____

INDIANA DEPARTMENT OF TRANSPORTATION	HORIZONTAL SCALE	BRIDGE FILE
	NONE	050-40-10259
	VERTICAL SCALE	DESIGNATION
	NONE	1700203
BRIDGE SUMMARY	DRAWING NO.	SHEETS
		21 of 38
	CONTRACT	PROJECT
	B-40414	1700203

PAVEMENT QUANTITIES AND APPROACH TABLE

[illegible]

STRUCTURE DATA

[illegible]

SHEET SIGN SUMMARY

[illegible]

PAVEMENT MARKING TABLE

	LOCATION STATION	4 in., THERMO, SOLID WHITE EDGE LINE	4 in., THERMO, SOLID YELLOW CENTERLINE	TRANSVERSE MARKING, THERMO, CROSSWALK, 6 in.	4 in., MULTICOMPONENT, SOLID, YELLOW CENTERLINE	TRANSVERSE MARKING, THERMO, STOP LINE, 24 in.
LT/RT						
	TOTALS					

PAVED SIDE DITCH, RIPRAP DITCH AND SODDING SUMMARY TABLE

[illegible]

R/W MARKER SUMMARY

[illegible]

MAILBOX APPROACHES

LT./RT.	C BOX STATION	DESCRIPTION	WIDTH, W (FT)	ASSEMBLY REQ'D		
				SINGLE	DOUBLE	TRIPLE
		TOTAL				

MONUMENT TABLE

LOCATION	OFFSET	TYPE	SECTION CORNER
	TOTAL		

REVISIONS

[illegible]

GUARDRAIL SUMMARY TABLE

[illegible]

RECOMMENDED FOR APPROVAL	DESIGN ENGINEER	DATE
DESIGNED: APL	DRAWN: NW	
CHECKED: DRT	CHECKED: APL	

ROAD SUMMARY

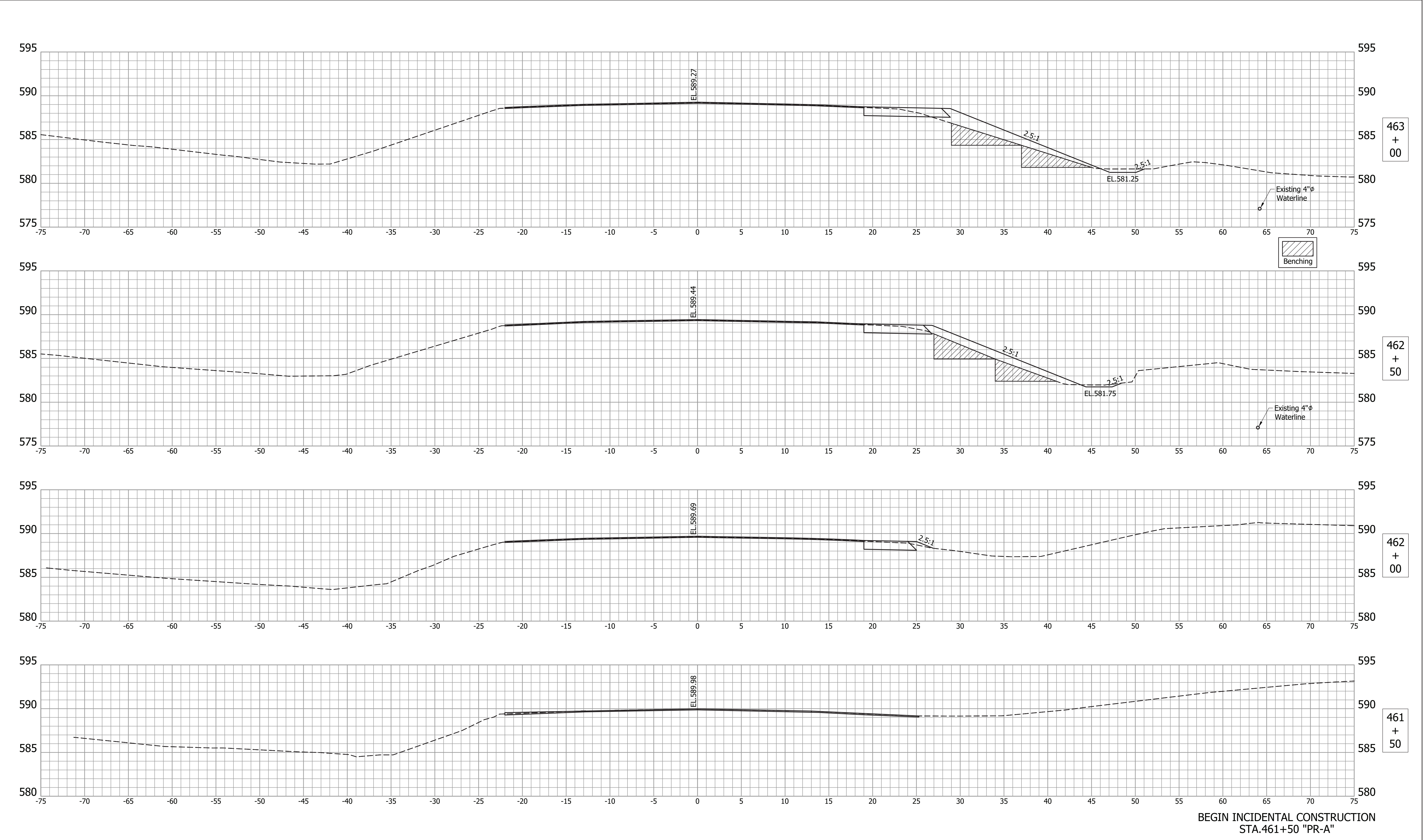
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NONE		050-40-10259	
VERTICAL SCALE		DESIGNATION	
NONE		1700203	
DRAWING NO.		SHEETS	
		22	38
CONTRACT		PROJECT	
B-40414		1700203	

PIPE MATERIAL TABLE									
PIPE TYPE/SHAPE									
SMOOTH PIPE SIZE									
CORRUGATED PIPE SIZE									
RCP/ RCHEP (S)	CLASS								
	D _{0.01} RATING								
NON-REINFORCED CONCRETE PIPE, CLASS 3 (S)									
CORRUGATED PE PIPE, TYPE S (S) *									
RIBBED PE PIPE									
SMOOTH WALL PE PIPE (S)/ MAXIMUM DR									
PROFILE WALL PVC PIPE (S)									
SMOOTH WALL PVC PIPE (S)									
VITRIFIED CLAY PIPE, EXTRA STRENGTH (S)									
CORRUGATED STEEL PIPE/ PIPE-ARCH	FULLY BIT. PAVED & LINED (S)		CORR. PROFILE						
			THICKNESS						
	ZINC COATED (C)		CORR. PROFILE						
			THICKNESS						
	ZINC COATED W/ BPI (LS)		CORR. PROFILE						
			THICKNESS						
	ALUM. COATED TYPE 2 (C)		CORR. PROFILE						
			THICKNESS						
	ALUM. COATED TYPE 2 W/ BPI (LS)		CORR. PROFILE						
			THICKNESS						
	POLYMER PRECOATED GALVANIZED TYPE 1A (S)		CORR. PROFILE						
			THICKNESS						
	POLYMER PRECOATED GALVANIZED W/ BPI (C)		CORR. PROFILE						
			THICKNESS						
	FIBER BONDED BITUMINOUS COATED (C)		CORR. PROFILE						
			THICKNESS						
FIBER BONDED BITUMINOUS COATED W/ BPI (C)		CORR. PROFILE							
		THICKNESS							
CORRUGATED ALUM. ALLOY PIPE W/ BPI (RIVETED)		CORR. PROFILE							
		THICKNESS							
CORRUGATED ALUM. ALLOY PIPE W/ BPI (LS)		CORR. PROFILE							
		THICKNESS							
STR. PLATE ALUMINUM ALLOY PIPE (C)		CORR. PROFILE							
		THICKNESS							
STR. PLATE ALUMINUM ALLOY PIPE W/ CFP (C)		CORR. PROFILE							
		THICKNESS							
STR. PLATE STEEL PIPE (C)		CORR. PROFILE							
		THICKNESS **							
STR. PLATE STEEL PIPE W/ CFP (C)		CORR. PROFILE							
		THICKNESS **							

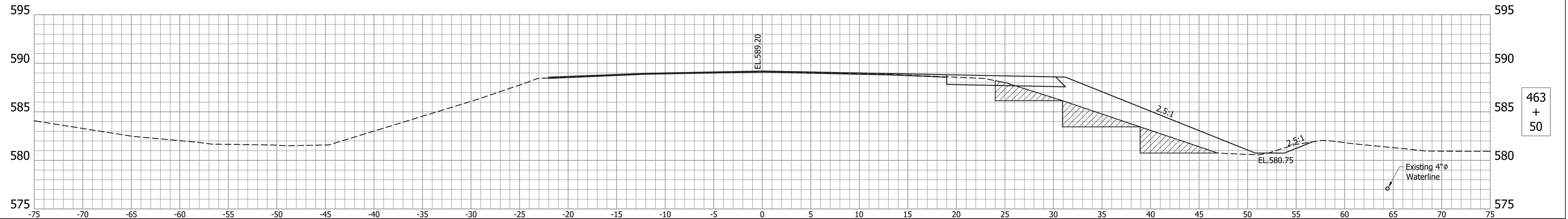
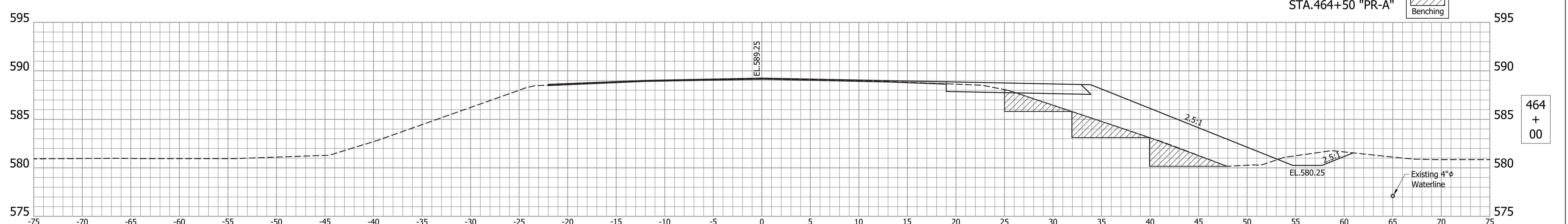
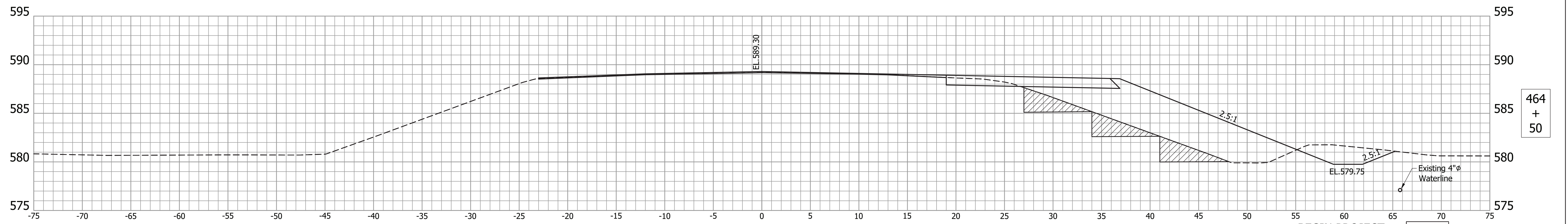
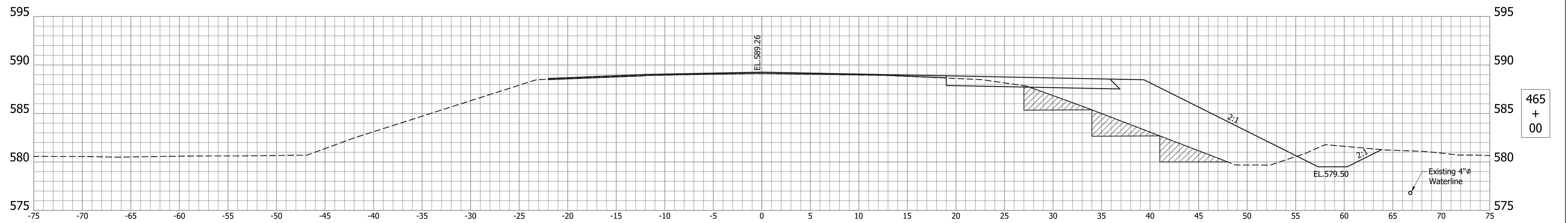
RCP -	REINFORCED CONCRETE PIPE
RCHEP -	REINFORCED CONCRETE HORIZONTAL ELLIPTICAL PIPE
PE -	POLYETHYLENE
DR -	DIMENSION RATIO
PVC -	POLYVINYL CHLORIDE
BIT -	BITUMINOUS
CORR -	CORRUGATION
BPI -	BITUMINOUS PAVED INVERT
ALUM -	ALUMINUM
STR -	STRUCTURAL
CFP -	CONCRETE FIELD PAVING
(S) -	SMOOTH PIPE MATERIAL
(C) -	CORRUGATED PIPE MATERIAL
OK -	ACCEPTABLE FOR USE
(LS) -	LOCK SEAM PIPE REQUIRED
(SP) -	PERFORATED SMOOTH PIPE MATERIAL
* -	REFER TO STANDARD DRAWING 715-PHCL-18 OR -19 FOR DIAMETER APPROPRIATE FOR PAY ITEM DIAMETER.
** -	TABULATED THICKNESS REFERS TO TOP & SIDE PLATES, BOTTOM PLATES SHALL BE OF NEXT GREATER AVAILABLE THICKNESS.
*** -	UNDISTRIBUTED QUANTITY

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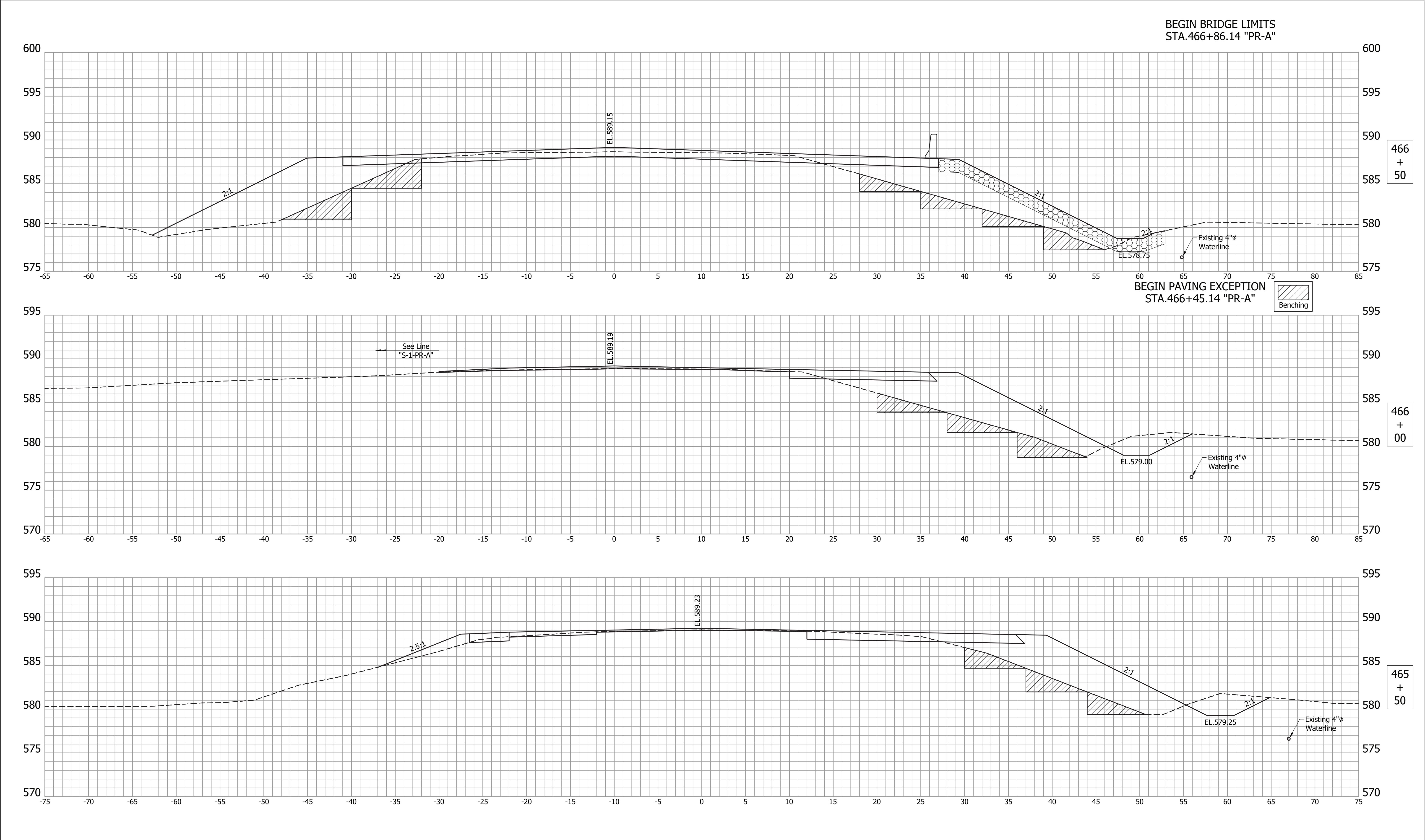
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				NONE		050-40-10259	
				VERTICAL SCALE		DESIGNATION	
	DESIGN ENGINEER			DATE	NONE		1700203
DESIGNED: APL	DRAWN: NW		ROAD SUMMARY	DRAWING NO.		SHEETS	
				23		of	38
CHECKED: DRT	CHECKED: APL			CONTRACT		PROJECT	
				B-40414		1700203	



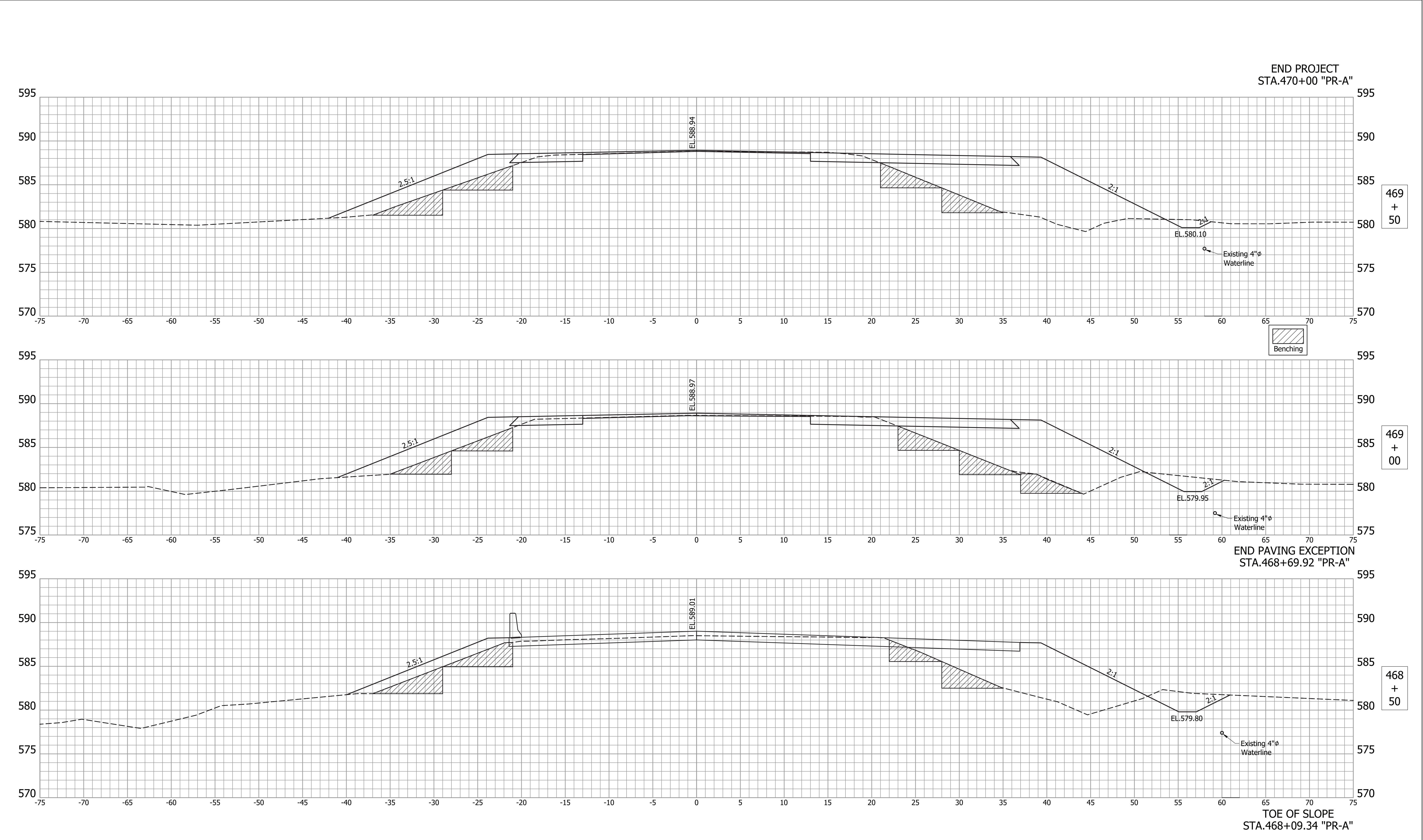
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		DESIGN ENGINEER		DATE		VERTICAL SCALE 1"=30'		DESIGNATION 1700203	
		DESIGNED: APL	DRAWN: AAO	CROSS SECTIONS LINE "PR-A"		DRAWING NO. of S3		SHEETS 24 of 38	
		CHECKED: DRT	CHECKED: APL			CONTRACT B-40414		PROJECT 1700203	



RECOMMENDED FOR APPROVAL			INDIANA DEPARTMENT OF TRANSPORTATION	HORIZONTAL SCALE		BRIDGE FILE	
				1" = 30'		050-40-10259	
				VERTICAL SCALE		DESIGNATION	
				1" = 5'		1700203	
DESIGNED: APL		DRAWN: NW	CROSS SECTIONS LINE "PR-A"	DRAWING NO.		SHEETS	
				25		of	38
CHECKED: DRT		CHECKED: APL		CONTRACT		PROJECT	
				B-40414		1700203	

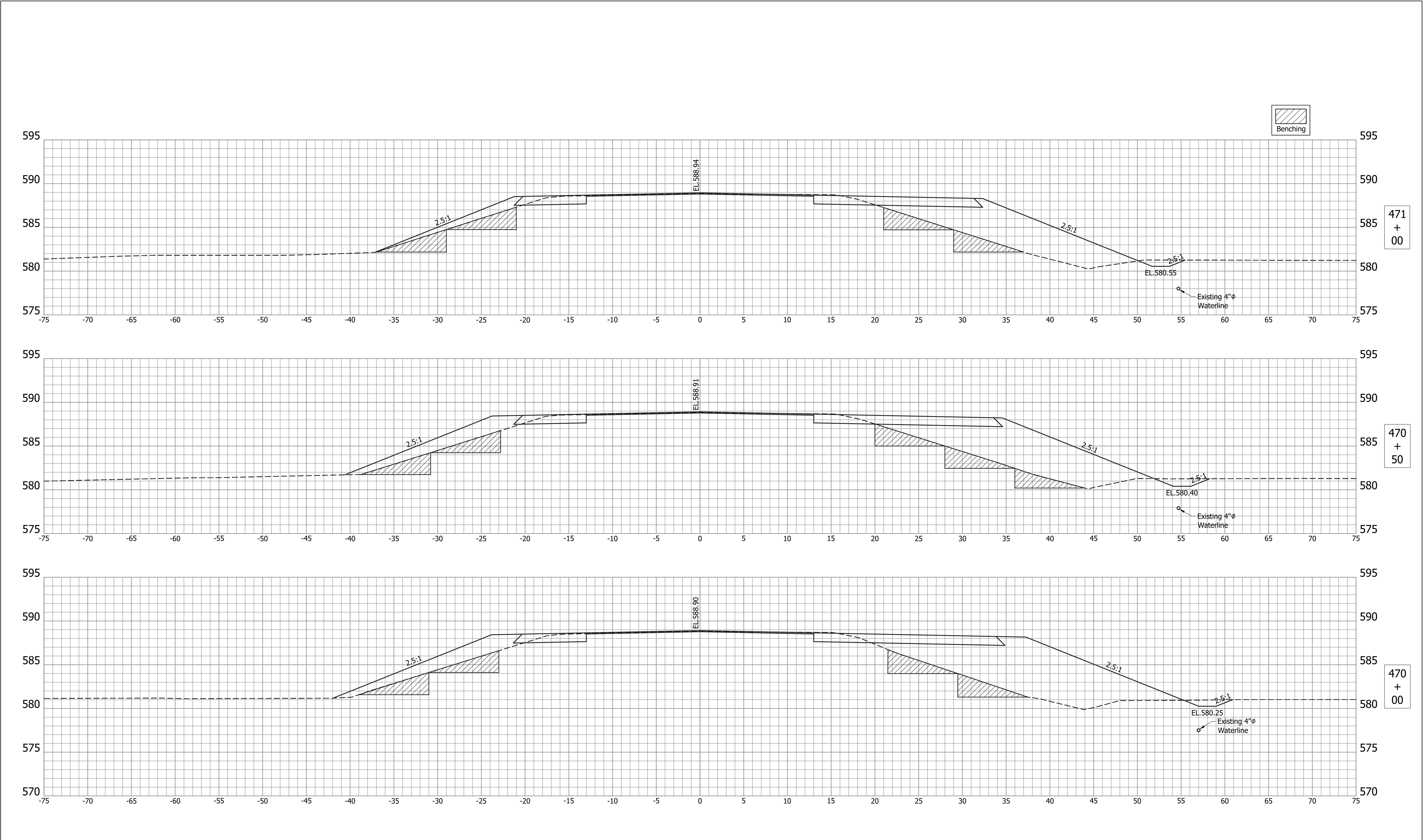


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		DESIGN ENGINEER _____				VERTICAL SCALE 1" = 5'		DESIGNATION 1700203	
		DESIGNED: <u>APL</u>		DRAWN: <u>NW</u>		DRAWING NO.		SHEETS	
		CHECKED: <u>DRT</u>		CHECKED: <u>APL</u>		CONTRACT B-40414		PROJECT 1700203	
				CROSS SECTIONS LINE "PR-A"					

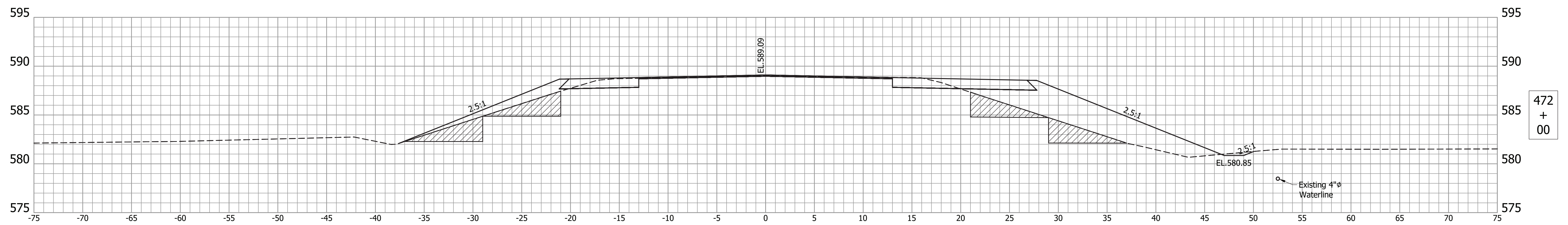


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		DESIGN ENGINEER _____		DATE _____		VERTICAL SCALE 1" = 5'		DESIGNATION 1700203	
		DESIGNED: APL		DRAWN: NW		DRAWING NO.		SHEETS	
		CHECKED: DRT		CHECKED: APL		CONTRACT B-40414		PROJECT 1700203	
								28 of 38	

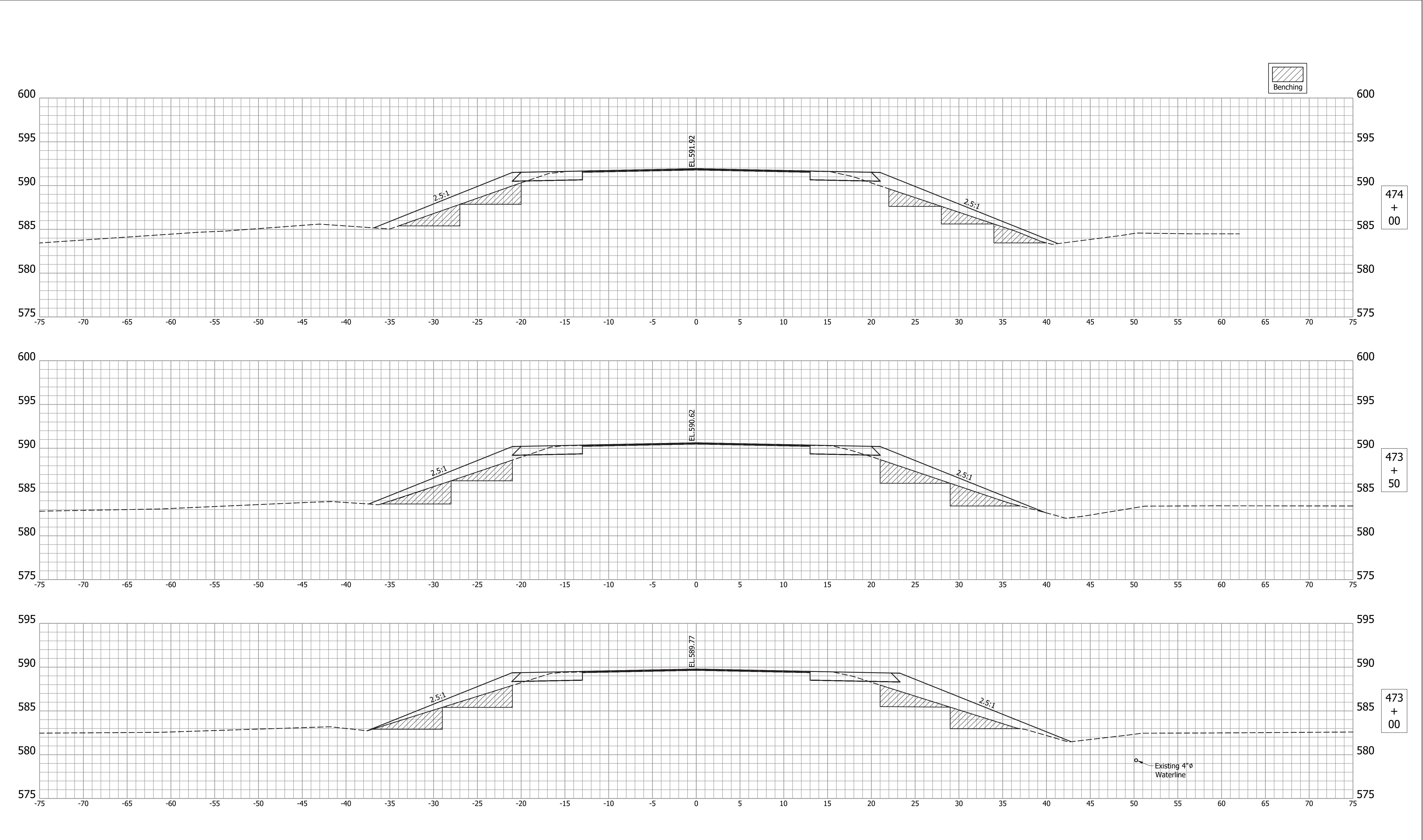
CROSS SECTIONS
LINE "PR-A"



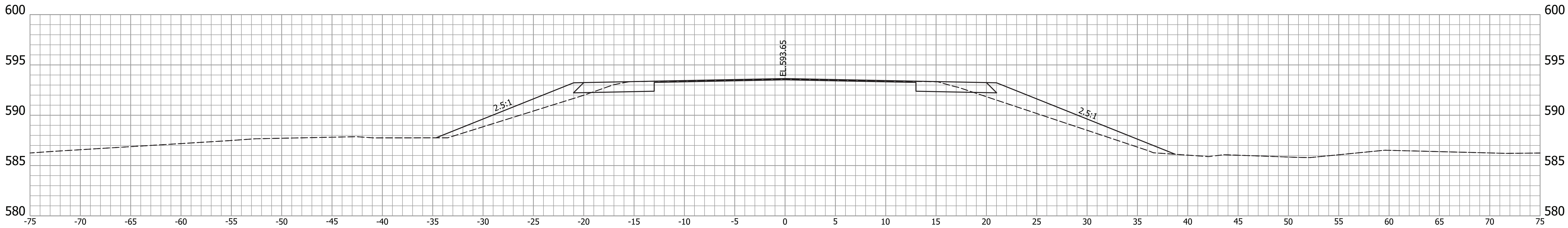
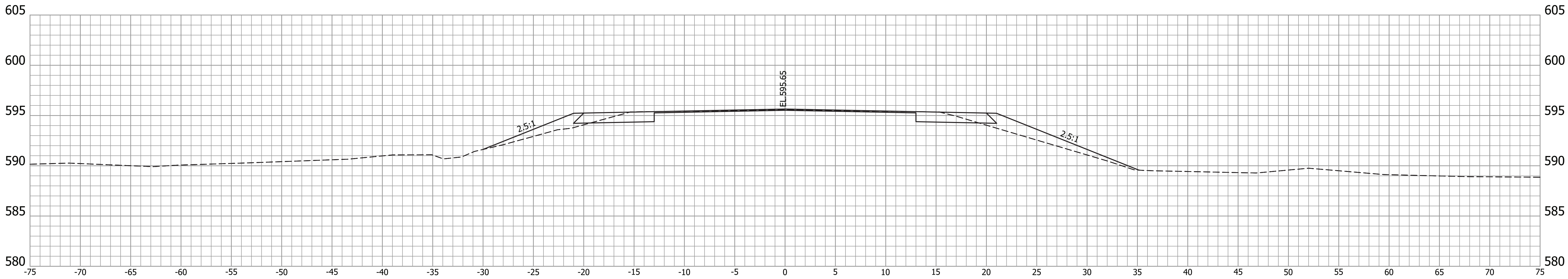
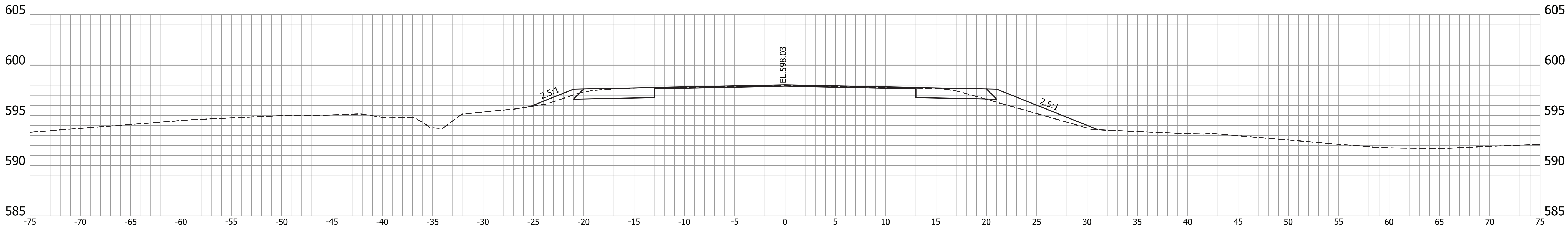
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						1" = 30'		050-40-10259			
		DESIGNED: <u>APL</u> _____ DRAWN: <u>NW</u> _____		CROSS SECTIONS LINE "PR-A"		VERTICAL SCALE		DESIGNATION			
						1" = 5'		1700203			
		CHECKED: <u>DRT</u> _____ CHECKED: <u>APL</u> _____				DRAWING NO.		SHEETS			
29 of 38											
CONTRACT						PROJECT					
B-40414						1700203					



RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER _____ DATE _____	INDIANA DEPARTMENT OF TRANSPORTATION		HORIZONTAL SCALE		BRIDGE FILE		
			1" = 30'		050-40-10259		
			VERTICAL SCALE		DESIGNATION		
			1" = 5'		1700203		
DESIGNED: <u>APL</u>	DRAWN: <u>NW</u>	CROSS SECTIONS LINE "PR-A"		DRAWING NO.		SHEETS	
CHECKED: <u>DRT</u>	CHECKED: <u>APL</u>			30		of 38	
				CONTRACT		PROJECT	
				B-40414		1700203	



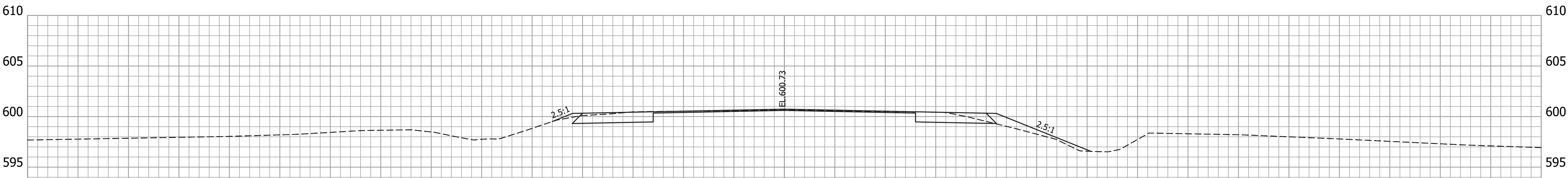
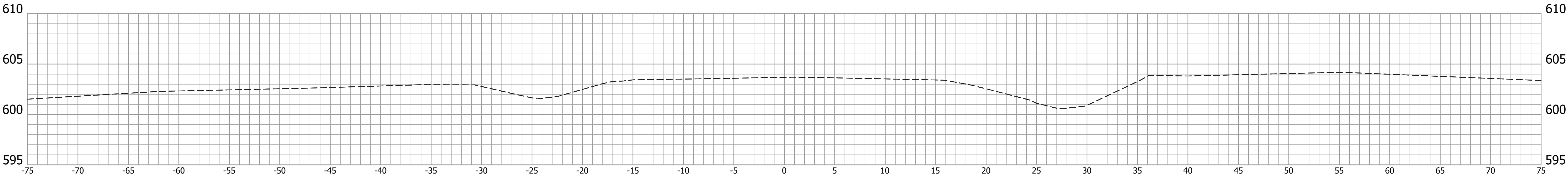
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						1" = 30'		050-40-10259			
		DESIGNED: <u>APL</u> _____ DRAWN: <u>NW</u> _____		CROSS SECTIONS LINE "PR-A"		VERTICAL SCALE		DESIGNATION			
						1" = 5'		1700203			
		CHECKED: <u>DRT</u> _____ CHECKED: <u>APL</u> _____				DRAWING NO.		SHEETS			
						CONTRACT		PROJECT			
B-40414						1700203					
		31		of		38					



RECOMMENDED FOR APPROVAL _____		DESIGN ENGINEER _____		DATE _____	
DESIGNED: APL _____		DRAWN: NW _____			
CHECKED: DRT _____		CHECKED: APL _____			

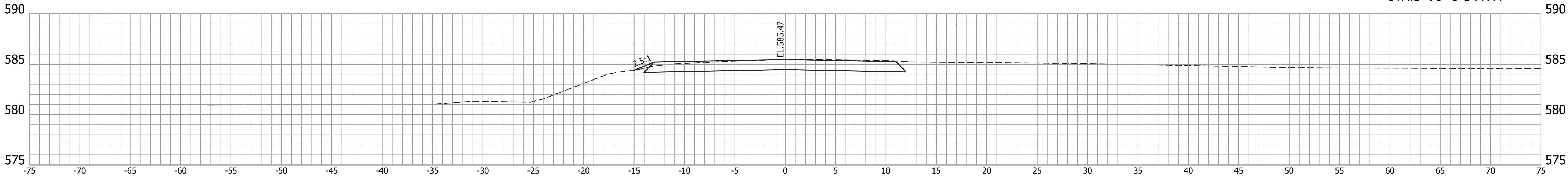
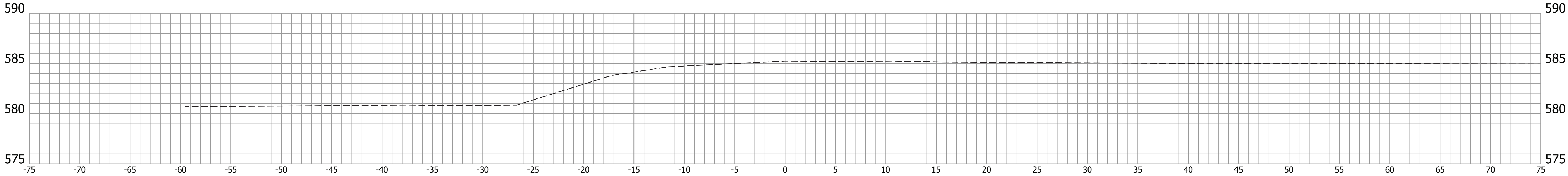
INDIANA DEPARTMENT OF TRANSPORTATION	
CROSS SECTIONS LINE "PR-A"	

HORIZONTAL SCALE 1" = 30'		BRIDGE FILE 050-40-10259	
VERTICAL SCALE 1" = 5'		DESIGNATION 1700203	
DRAWING NO.		SHEETS	
		32	of 38
CONTRACT B-40414		PROJECT 1700203	



END INCIDENTAL CONSTRUCTION
STA. 476+00 "PR-A"

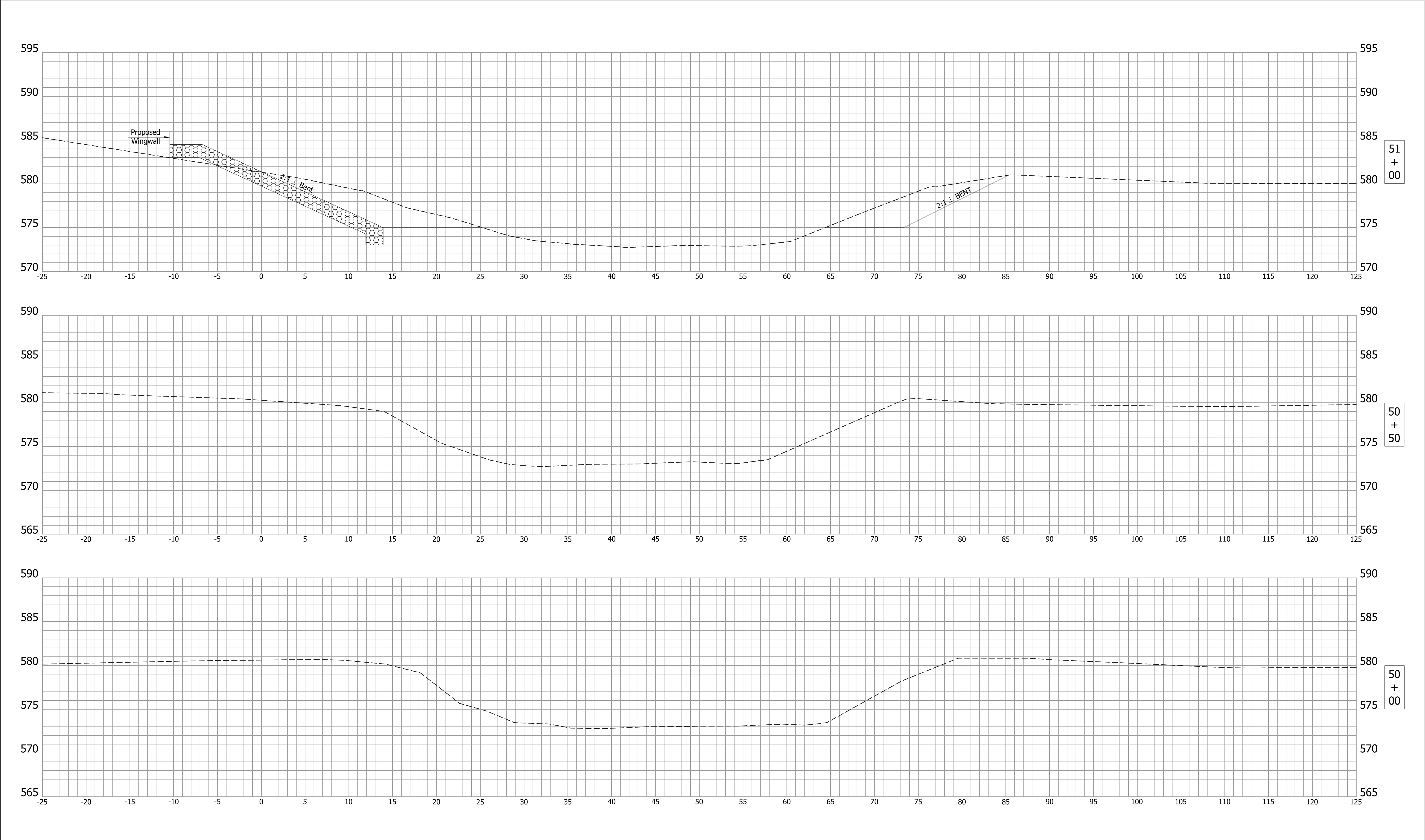
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						VERTICAL SCALE		DESIGNATION		
						1" = 5'		1700203		
DESIGNED: <u>APL</u>	DRAWN: <u>MEN</u>		CROSS SECTIONS LINE "PR-A"			DRAWING NO.		SHEETS		
								33 of 38		
CHECKED: <u>DRT</u>	CHECKED: <u>APL</u>					CONTRACT		PROJECT		
						B-40414		1700203		



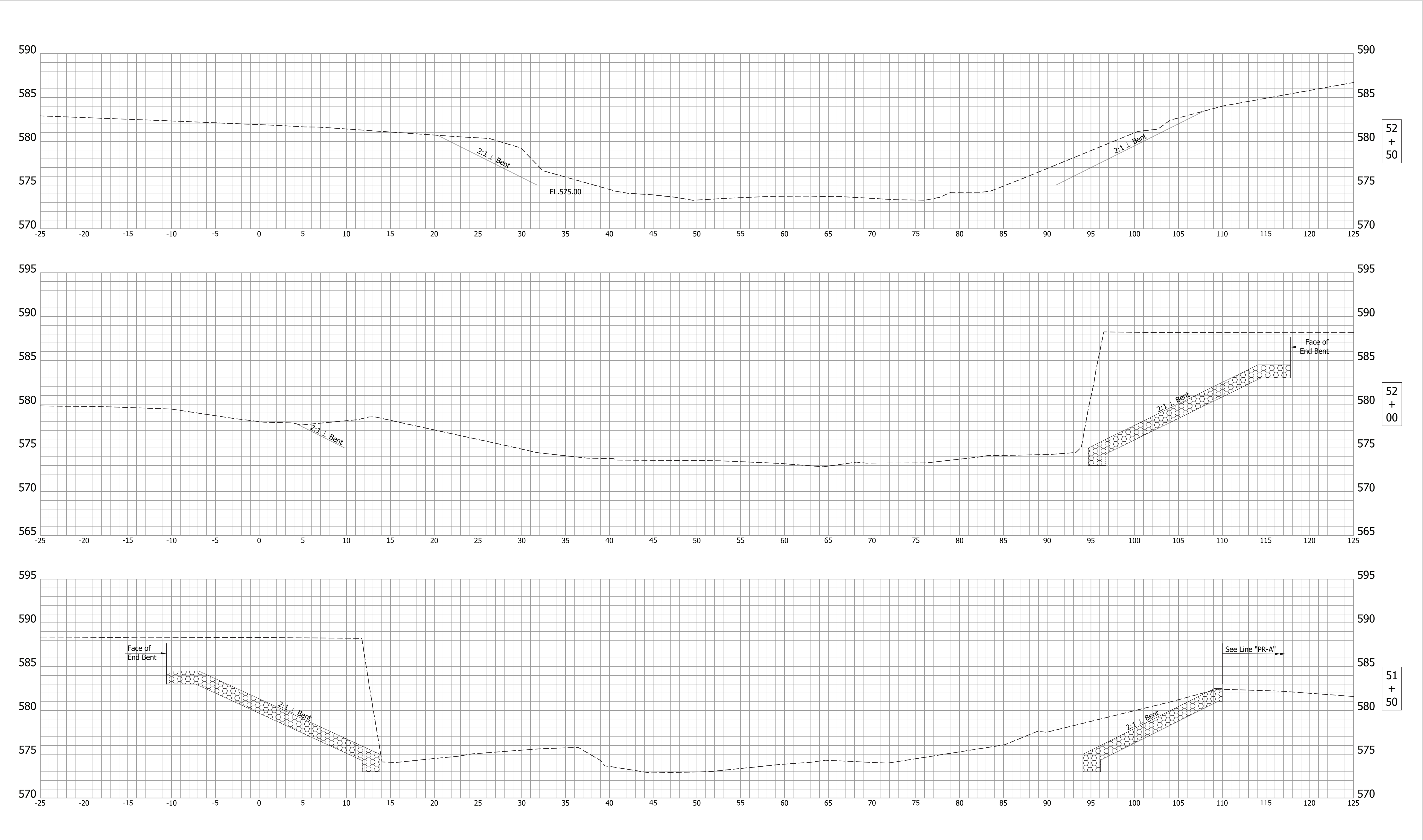
RECOMMENDED FOR APPROVAL _____	
DESIGN ENGINEER _____	DATE _____
DESIGNED: APL _____	DRAWN: NW _____
CHECKED: DRT _____	CHECKED: APL _____

INDIANA DEPARTMENT OF TRANSPORTATION	
CROSS SECTIONS LINE "S-1-PR-A"	

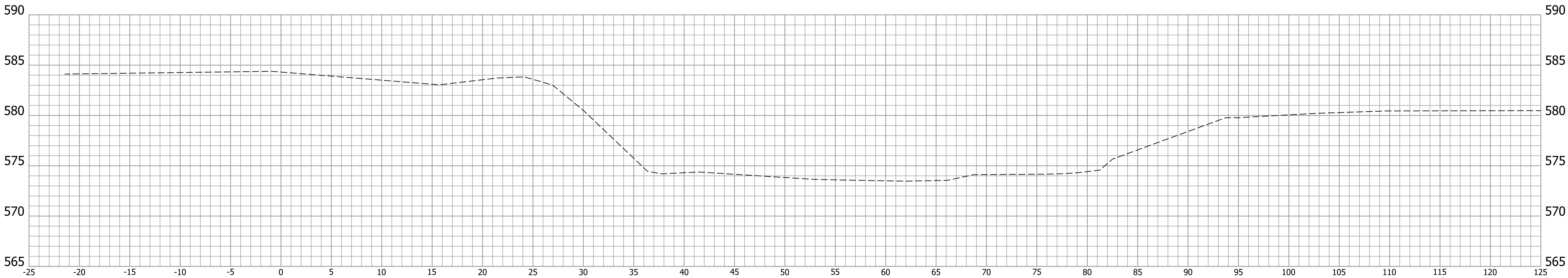
HORIZONTAL SCALE 1" = 30'		BRIDGE FILE 050-40-10259	
VERTICAL SCALE 1" = 5'		DESIGNATION 1700203	
DRAWING NO.		SHEETS	
CONTRACT B-40414		35 of 38	PROJECT 1700203



		RECOMMENDED FOR APPROVAL _____		INDIANA DEPARTMENT OF TRANSPORTATION		HORIZONTAL SCALE 1" = 30'		BRIDGE FILE 050-40-10259		
		DESIGN ENGINEER _____		DATE _____		VERTICAL SCALE 1" = 5'		DESIGNATION 1700203		
		DESIGNED: <u>APL</u> _____	DRAWN: <u>NW</u> _____		CROSS SECTIONS LINE "BR-1-PR-A"		DRAWING NO. _____		SHEETS	
		CHECKED: <u>DRT</u> _____	CHECKED: <u>APL</u> _____				CONTRACT B-40414		PROJECT 1700203	
									36 of 38	



		RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER _____ DATE _____		INDIANA DEPARTMENT OF TRANSPORTATION		HORIZONTAL SCALE		BRIDGE FILE	
						1" = 30'		050-40-10259	
		DESIGNED: <u>APL</u> DRAWN: <u>NW</u>		CROSS SECTIONS LINE "BR-1-PR-A"		VERTICAL SCALE		DESIGNATION	
						1" = 5'		1700203	
		CHECKED: <u>DRT</u> CHECKED: <u>APL</u>				DRAWING NO.		SHEETS	
						37 of 38			
				CONTRACT		PROJECT			
				B-40414		1700203			



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RECOMMENDED FOR APPROVAL _____	
DESIGNED: APL _____	DRAWN: NW _____
CHECKED: DRT _____	CHECKED: APL _____

INDIANA DEPARTMENT OF TRANSPORTATION	
CROSS SECTIONS LINE "BR-1-PR-A"	

HORIZONTAL SCALE 1" = 30'		BRIDGE FILE 050-40-10259	
VERTICAL SCALE 1" = 5'		DESIGNATION 1700203	
DRAWING NO.		SHEETS	
CONTRACT B-40414		38 of 38	PROJECT 1700203