

THIS DOCUMENT HAS BEGUN DIGITALLY SIGNED AND SEALED BY:

JAMES BARTON MORGAN
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TENNESSEE DEPARTMENT OF TRANSPORTATION
7345 REGION LANE

KNOXVILLE, TENNESSEE 37914
JAMES B. MORGAN, P.E. NO. 111658

THE ABOVE NAMED PROFESSIONAL ENGINEER SHALL BE RESPONSIBLE FOR THE FOLLOWING SHEETS IN ACCORDANCE OF TENN. CODE ANN. §62-2-306.

SHEET NAME	SHEET NO.
SIGNATURE SHEETS	ROADWAY-SIGN1
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EROSION PREVENTION AND SEDIMENT CONTROL PLANS	9, 10, 11 – 13A
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YEAR	PROJECT NO.	SHEET NO.
2025	BRZ-3700(43)	ROADWAY-SIGN1
2026	BRZ-3700(43)	ROADWAY-SIGN1

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

SIGNATURE SHEETS

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Index Of Sheets
SEE SHEET NO. 1A

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF ENGINEERING

HAWKINS COUNTY

AFG ROAD, BRIDGE OVER SOUTHERN RAILWAY,
LM 0.45 (IA)

PS&E

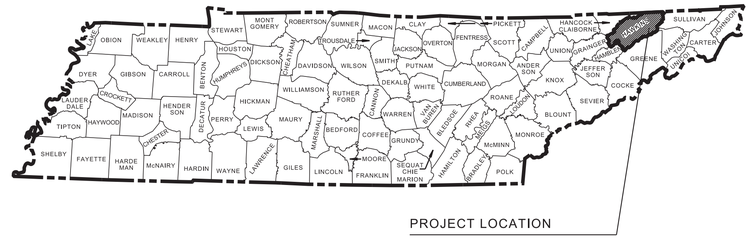
GRADE, DRAIN, BRIDGE AND PAVE

STATE HIGHWAY NO. N/A F.A.H.S. NO. N/A

DOES THIS PROJECT QUALIFY FOR UTILITY CHAPTER 86	YES	NO X
WORK ZONE SIGNIFICANCE DETERMINATION		
SIGNIFICANT	YES	NO X
RAILROAD INVOLVEMENT	YES X	NO

TENN.	YEAR	SHEET NO.
	2026	1
FED. AID PROJ. NO.	BRZ-3700(43)	
STATE PROJ. NO.	37LCOU-F3-006	

REV. 04/12/23: ADDED ADD'L SURVEY DATE.
REV. 06/13/24: ADDED ADD'L SURVEY DATES.
REV. 06/27/25: ADDED ADD'L SURVEY DATE.



BRIDGE ID. # 370A3520001

37LCOU-F3-006
BEGIN PROJECT NO. BRZ-3700(43) CONSTRUCTION
STA. 102+20.00
N 805098.4542 E 2912136.2219

BEGIN PROJECT NO. 37455-2422-04 RIGHT-OF-WAY
STA. 103+15.00
N 805080.1127 E 2912229.3009

NORFOLK SOUTHERN RAILROAD UNDERPASS
DOT #730178N
MILE POST 59.00-TC

END PROJECT NO. 37455-2422-04 RIGHT-OF-WAY
STA. 112+20.00
N 804501.1394 E 2912914.4483

37LCOU-F3-006
END PROJECT NO. BRZ-3700(43) CONSTRUCTION
STA. 114+50.00
N 804338.9334 E 2913077.4235



N

NO EXCLUSIONS

ADJACENT PROJECT: 136599.00
HAWKINS COUNTY-AFG ROAD

SCALE: 1"= 5280'

0 1 2 3 MILES

R.O.W. LENGTH	0.171 MILES
ROADWAY LENGTH	0.190 MILES
BRIDGE LENGTH	0.042 MILES
BOX BRIDGE LENGTH	0.000 MILES
BOX BRIDGE LENGTH	0.000 MILES ▲
PROJECT LENGTH	0.232 MILES

▲ Not included in the project length (Non Riding Surface).

SEALED BY
JAMES B. MORGAN
REGISTERED ENGINEER
AGRICULTURE
COMMERCE
NO. 111658
STATE OF TENNESSEE
07/20/2026

APPROVED:
SHANE HESTER, CHIEF ENGINEER

DATE:

APPROVED:
WILL REID, COMMISSIONER

AFG ROAD

SURVEY 10-08-19	TRAFFIC DATA	
ADD'L SURVEY 02-10-20	ADT (2027)	2100
ADD'L SURVEY 07-26-21	ADT (2047)	2730
ADD'L SURVEY 02-06-23	DHV (2047)	383
ADD'L SURVEY 04-18-24	D	65 - 35
ADD'L SURVEY 05-01-24	T (ADT)	4 %
ADD'L SURVEY 12-04-24	T (DHV)	6 %
	V	35 MPH

COORDINATES ARE NAD 83(1995), ARE DATUM ADJUSTED BY THE FACTOR OF 1.00004 AND TIED TO THE TGRN. ALL ELEVATIONS ARE REFERENCED TO THE NAVD 1988 WITH GEOID 12B.

SPECIAL NOTES

PROPOSALS MAY BE REJECTED BY THE COMMISSIONER IF ANY OF THE UNIT PRICES CONTAINED THEREIN ARE OBVIOUSLY UNBALANCED, EITHER EXCESSIVE OR BELOW THE REASONABLE COST ANALYSIS VALUE.

THIS PROJECT TO BE CONSTRUCTED UNDER THE STANDARD SPECIFICATIONS OF THE TENNESSEE DEPARTMENT OF TRANSPORTATION DATED APRIL 1, 2026 AND ADDITIONAL SPECIFICATIONS AND SPECIAL PROVISIONS CONTAINED IN THE PLANS AND IN THE PROPOSAL CONTRACT.

TDOT PROJECT MANAGER: JEFF BRANHAM, P.E., PTOE
DESIGNER : AUBIN CANNING CHECKED BY : NATHAN BARTLETT, P.E.
P.E. NO. 37455-1422-04 (DESIGN)
PIN NO. 124369.00

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TYPE	YEAR	PROJECT NO.	SHEET NO.
PIH	2025	BRZ-3700(43)	1A
PS&E	2026	BRZ-3700(43)	1A

ROADWAY INDEX

SHEET NAME	SHEET NO.
SIGNATURE SHEETS	ROADWAY-SIGN1
TITLE SHEET	1
ROADWAY INDEX AND STANDARD ROADWAY DRAWINGS	1A
STANDARD STRUCTURE AND TRAFFIC OPERATIONS DRAWINGS	1A3
PROJECT COMMITMENTS	1B
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ROADWAY CROSS SECTIONS	14 – 36
TRAFFIC CONTROL PLANS	T1, T2, T3 – T6A
BRIDGE PLANS	B-1
STORM WATER POLLUTION PREVENTION PLAN (SWPPP) PLANS	S-1
UTILITIES PLANS	U1–1

NOTE: THE ALPHABETICAL LETTERS “I”, “O” & “Q” ARE NOT USED IN THE NUMBERING OF SHEETS.

STANDARD ROADWAY DRAWINGS

STANDARD ROADWAY TITLE SHEET, ABBREVIATIONS, AND LEGENDS

DWG.	REV.	DESCRIPTION
RD-TP-1	09-26-16	STANDARD ROADWAY DRAWINGS TITLE SHEET
RD-A-1	02-20-20	STANDARD ABBREVIATIONS A THROUGH L
RD-A-2		STANDARD ABBREVIATIONS M THROUGH Z
RD-L-1	01-30-26	STANDARD LEGEND
RD-L-1A		STANDARD LEGEND
RD-L-2	02-20-20	STANDARD LEGEND FOR UTILITY INSTALLATIONS
RD-L-5	07-30-24	STANDARD LEGEND FOR EROSION PREVENTION AND SEDIMENT CONTROL
RD-L-6	02-20-20	STANDARD LEGEND FOR EROSION PREVENTION AND SEDIMENT CONTROL
RD-L-7	02-20-20	STANDARD LEGEND FOR EROSION PREVENTION AND SEDIMENT CONTROL

STANDARDS ROADWAY DRAWINGS

RD11-SE-1		TRANSITION AND CROSS SLOPE DETAILS
RD11-SE-2		SUPERELEVATION TRANSITION DETAILS FOR UNDIVIDED ROADWAYS
RD11-SE-2A		SUPERELEVATION TRANSITION SECTIONS FOR UNDIVIDED ROADWAYS
RD11-TS-1A	06-28-19	DESIGN STANDARDS FOR LOCAL ROADS AND STREETS
RD11-LR-2		MINIMUM RUNOFF LENGTHS (LR) FOR RURAL HIGHWAYS
RD11-S-11		DESIGN AND CONSTRUCTION DETAILS FOR ROADSIDE SLOPE DEVELOPMENT
RD11-S-11A		ROADSIDE DITCH DETAILS FOR DESIGN AND CONSTRUCTION
RD11-SA-1	04-30-26	SAFETY APPROACH TO UNDERPASSES GRADING DESIGN AND SLOPE PROTECTION

AQUATIC ORGANISM PASSAGE (AOP) DESIGN, PIPE CULVERTS, AND ENDWALLS

D-PB-1	03-01-23	STANDARD DETAILS FOR CONCRETE PIPE INSTALLATION
D-PB-4	01-09-24	PIPE COLLAR DETAILS
D-PG-3	06-28-19	FERROUS AND ALUMINUM CORRUGATED METAL PIPE
D-PS-1	06-28-19	STRUTTING DETAILS FOR CORR. METAL & STRUCTURAL PLATE ROUND PIPE
D-SEW-1A	01-30-26	TYPE "SAFETY" SIDE ENDWALL WITH STEEL PIPE GRATE, FOR 15" THRU 48" PIPES, 6:1 SLOPE
D-PE-4	06-28-19	STRAIGHT CONCRETE ENDWALLS (PIPE SIZES 18" TO 30")
D-PEW-4		PROTECTED STRAIGHT ENDWALLS (PIPE SIZES 18” TO 30” & EQU. OVAL PIPES)

CATCH BASINS AND MANHOLES

D-RS-1		PRECAST ROUND STRUCTURES (48” THRU 120”)
D-RS-2		PRECAST ROUND STRUCTURES REINFORCMENT DETAILS
D-RS-3		MISCELLANEOUS DETAILS FOR ROUND STRUCTURES
D-RJB-1		PRECAST ROUND JUNCTION BOX STRUCTURES (48” THRU 120”)

ROADWAY, PAVEMENT APPURTENANCES, AND FENCES

S-F-1	03-01-23	HIGH VISIBILITY FENCE

SAFETY DESIGN AND GUARDRAILS

S-CZ-1	06-28-19	CLEAR ZONE CRITERIA
S-PL-1	03-01-23	SAFETY PLAN FOR BARRIER LENGTH OF NEED
S-PL-1B	03-01-23	SAFETY PLAN FOR BARRIER LENGTH OF NEED ON CURVED ROADWAYS
S-PL-3	03-01-23	SAFETY PLAN MINIMUM INSTALLATION AT BRIDGE ENDS
S-PL-6	04-30-26	SAFETY PLAN SAFETY HARDWARE PLACEMENT ON OUTSIDE EDGE
S-CC-1	10-01-24	CRASH CUSHION
S-GR31-1	10-31-25	GUARDRAIL DETAILS
S-GR31-1A	06-28-19	GUARDRAIL AND BLOCK-OUT DETAILS
S-GR31-1B		GUARDRAIL FASTENING HARDWARE
S-GR31-1C	07-07-23	GUARDRAIL GENERAL NOTES AND POST DETAILS
S-GR31-1D	03-01-23	GUARDRAIL POST PLACEMENT IN ROCK
S-GRC-4	01-30-25	GUARDRAIL CONNECTION TO BRIDGE RAILING CONCRETE PARAPET
S-GRS-4	10-31-25	SPECIAL CASE GUARDRAIL HEIGHT TRANSITION DETAIL
S-GRT-2P	10-16-20	EARTH PAD FOR TYPE 38 AND TYPE 21 TERMINAL
S-GRT-3	06-28-19	TYPE 21 GUARDRAIL END TERMINAL
S-GRA-3	01-09-24	TYPE 13 GUARDRAIL ANCHOR
S-GRA-4	03-01-23	IN-LINE GUARDRAIL ANCHOR TO PRIVATE DRIVE

EROSION PREVENTION AND SEDIMENT CONTROL

EC-STR-3C	03-01-23	SILT FENCE WITH WIRE BACKING
EC-STR-3E	04-01-08	SILT FENCE FABRIC JOINING DETAILS
EC-STR-34	05-04-22	EROSION CONTROL BLANKET FOR SLOPE INSTALLATION
EC-STR-37	06-10-14	SEDIMENT TUBE
EC-STR-6	11-30-20	ROCK CHECK DAM
EC-STR-6A	05-06-16	ENHANCED ROCK CHECK DAM
EC-STR-11	03-16-17	CULVERT PROTECTION TYPE 1
EC-STR-25	08-01-12	TEMPORARY CULVERT CROSSING, CONSTRUCTION EXIT, CONSTRUCTION FORD

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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

ROADWAY INDEX AND STANDARD ROADWAY DRAWINGS

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TYPE	YEAR	PROJECT NO.	SHEET NO.
PS&E	2026	BRZ-3700(43)	1A3

STANDARD STRUCTURE DRAWINGS

DWG.	REV.	DESCRIPTION
NEW STRUCTURES		
STD-1-1SS	07-09-25	BRIDGE RAILING SINGLE SLOPE CONCRETE PARAPET
STD-1-2SS	05-31-24	SLIDER PLATES FOR SINGLE SLOPE PARAPETS AND DECK DRAINS
STD-1-5	05-28-26	PAVEMENT AT BRIDGE ENDS
STD-4-1	04-08-05	STD. PRECAST PRESTRESSED BRIDGE DECK PANELS GENERAL DETAILS
STD-4-2	04-08-05	STD. PRECAST PRESTRESSED BRIDGE DECK PANELS DESIGN CRITERIA
STD-4-3	03-02-02	STD. PRECAST PRESTRESSED BRIDGE DECK PANELS GENERAL DETAILS
STD-4-4	06-10-96	STD. PRECAST PRESTRESSED BRIDGE DECK PANELS CONSTRUCTION DETAILS
STD-5-1		STD. PILE DETAILS
STD-6-1	12-08-23	STANDARD SEISMIC DETAILS
STD-8-5	10-01-25	STANDARD PROTECTIVE FENCE DETAILS
STD-9-1	10-07-08	REINFORCING BAR SUPPORT DETAILS FOR CONCRETE SLABS
STD-10-1	06-05-23	MISCELLANEOUS ABUTMENT AND DRAINAGE DETAILS
STD-10-2	06-05-23	MISC. ABUTMENT & PAVEMENT AT BRIDGE ENDS BACKFILL DETAILS
STD-14-1	06-05-23	STD. DETAILS AND INT. DIAPH. DETAILS FOR BULB - TEE BEAMS

STANDARD TRAFFIC DESIGN DRAWINGS

DWG.	REV.	DESCRIPTION
DESIGN - TRAFFIC CONTROL		
T-M-1	01-24-25	DETAILS OF PAVEMENT MARKINGS FOR CONVENTIONAL ROADS AND MARKING ABBREVIATIONS
T-M-2	01-24-25	DETAILS OF PAVEMENT MARKINGS FOR CONVENTIONAL ROADS
T-WZ-10	03-26-25	ADVANCE ROAD WORK SIGNING ON HIGHWAYS AND FREEWAYS
T-WZ-16	03-26-25	LANE SHIFT FOR DIVIDED HIGHWAYS AND FREEWAYS
T-WZ-32	03-26-25	TRAFFIC CONTROL PLAN SIGNAL LAYOUT FOR TRAFFIC SIGNAL AT TWO LANE BRIDGE RECONSTRUCTION SITE
T-WZ-33	03-26-25	TRAFFIC CONTROL PLAN FOR CLOSE INTERSECTION CONDITIONS USING TRAFFIC SIGNAL AT TWO LANE BRIDGE RECONSTRUCTION SITE
T-WZ-34	03-26-25	TRAFFIC CONTROL PLAN GENERAL NOTES FOR TRAFFIC SIGNAL AT TWO LANE BRIDGE RECONSTRUCTION SITE
T-WZ-35	03-26-25	TRAFFIC CONTROL PLAN PAY ITEM AND SIGN DETAILS FOR TRAFFIC SIGNAL AT TWO LANE BRIDGE RECONSTRUCTION SITE
T-WZ-PCB1	03-26-25	10 FOOT PORTABLE CONCRETE BARRIER RAIL
T-WZ-PCB2	03-26-25	20 FOOT PORTABLE CONCRETE BARRIER RAIL
T-WZ-PCB3	03-26-25	PORTABLE CONCRETE BARRIER RAIL DETAILS
T-WZ-PCB4	07-22-25	PORTABLE CONCRETE BARRIER RAIL ANCHOR PIN DETAILS

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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

STANDARD STRUCTURE
AND
TRAFFIC OPERATIONS
DRAWINGS

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TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2022	37455-2422-04	1B
PIH	2025	BRZ-3700(43)	1B
PS&E	2026	BRZ-3700(43)	1B

PROJECT COMMITMENTS

COMMITMENT ID	SOURCE DIVISON	DESCRIPTION	STA. / LOCATION
EDHZ001	ENVIRONMENTAL DIVISION, HAZARDOUS MATERIALS	AN ASBESTOS CONTAINING MATERIAL (ACM) SURVEY WAS COMPLETED ON BRIDGE NO. 370A3520001, AFG ROAD, BRIDGE OVER NORFOLK SOUTHERN RAILWAY, LM 0.45 (29-0A365-00.09). NO ACM WAS DETECTED. PLEASE SEE THE REPORT FOR FURTHER DETAILS AND PHOTOGRAPHS. NO SPECIAL ACCOMMODATIONS FOR DEMOLITION AND WASTE DISPOSAL ARE ANTICIPATED FOR THESE STRUCTURES AND THE MATERIAL CAN BE DEPOSITED IN A C&D LANDFILL. PRIOR TO THE DEMOLITION OR REHABILITATION OF ANY STRUCTURE (BRIDGE OR BUILDING), THE CONTRACTOR IS REQUIRED TO SUBMIT THE NATIONAL EMISSION STANDARDS FOR HAZARDOUS AIR POLLUTANTS STANDARD 10-DAY NOTICE OF DEMOLITION TO THE TDEC DIVISION OF AIR POLLUTION CONTROL (PER TDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION (JANUARY 1, 2021) SECTIONS 107.08 D AND 202.03).	BRIDGE NO. 370A3520001

SEALED BY

JAMES B. MORGAN
REGISTERED ENGINEER
AGRICULTURE
COMMERCE
111658
STATE OF TENNESSEE

07/20/2026

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

PROJECT COMMITMENTS

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TYPE	YEAR	PROJECT NO.	SHEET NO.
PIH	2025	BRZ-3700(43)	2
PS&E	2026	BRZ-3700(43)	2

ESTIMATED ROADWAY QUANTITIES

	ITEM NO.	DESCRIPTION	UNIT	QUANTITY 37LCOU-F3-006
	105-01	CONSTRUCTION STAKES, LINES AND GRADES	LS	1
	201-01	CLEARING AND GRUBBING	LS	1
	202-01.13	REMOVAL OF PIPE (12" CMP, STA. 108+57)	L.F.	15
	202-01.14	REMOVAL OF PIPE (15" CMP, STA. 108+77)	L.F.	38
(1)(2)	203-01	ROAD & DRAINAGE EXCAVATION (UNCLASSIFIED)	C.Y.	8540
(2)	203-04	PLACING AND SPREADING TOPSOIL	C.Y.	647
	203-06	WATER	M.G.	32
(2)	203-07	FURNISHING & SPREADING TOPSOIL	C.Y.	74
(3)	208-01.05	BROOMING & DEGRASSING SHOULDERS	L.M.	0.1
	209-05	SEDIMENT REMOVAL	C.Y.	92
(4)	209-08.02	TEMPORARY SILT FENCE (WITH BACKING)	L.F.	1240
(4)	209-08.07	ROCK CHECK DAM	EACH	10
(4)	209-08.08	ENHANCED ROCK CHECK DAM	EACH	9
(5)	303-01	MINERAL AGGREGATE, TYPE A BASE, GRADING D	TON	1915
(6)	303-01.01	GRANULAR BACKFILL (ROADWAY)	TON	68
(4)(7)	303-10.01	MINERAL AGGREGATE (SIZE 57)	TON	25
(8)	303-10.04	MINERAL AGGREGATE (SIZE VARIES)	TON	808
	307-02.01	ASPHALT CONCRETE MIX (PG70-22) (BPMB-HM) GRADING A	TON	400
	307-02.08	ASPHALT CONCRETE MIX (PG70-22) (BPMB-HM) GRADING B-M2	TON	325
	403-01	BITUMINOUS MATERIAL FOR TACK COAT (TC)	TON	2
(9)	411-02.10	ACS MIX(PG70-22) GRADING D	TON	281
	415-01.01	COLD PLANING BITUMINOUS PAVEMENT	TON	80
(10)	607-03.02	18" CONCRETE PIPE CULVERT (CLASS III)	L.F.	14
(10)	607-06.30	30" PIPE CULVERT	L.F.	21
	607-39.02	18" PIPE CULVERT (SIDE DRAIN)	L.F.	114
(11)	611-07.01	CLASS A CONCRETE (PIPE ENDWALLS)	C.Y.	3
(11)	611-07.02	STEEL BAR REINFORCEMENT (PIPE ENDWALLS)	LB.	122
	611-07.31	18IN ENDWALL (SIDE DRAIN)	EACH	5
	611-63.02	JUNCTION STRUCTURE, 48IN ROUND,> ('4' FT DEPTH)	EACH	1
	705-06.01	W BEAM GR (TYPE 2) MASH TL3	L.F.	582
	705-06.10	GR TERMINALTRAILING END (TYPE 13) MASH TL3	EACH	1
	705-06.11	GR TERMINAL (IN-INLINE) MASH TL3	EACH	1
	705-06.25	THRIE BEAM BRIDGE TRANSITION MASH TL-3	EACH	4
	705-06.30	GR TERMINAL (ENERGY ABSORBING) MASH TL2	EACH	6
	706-01	GUARDRAIL REMOVED	L.F.	898
	706-06.03	RADIUS RAIL	L.F.	17
	707-08.11	HIGH-VISIBILITY CONSTRUCTION FENCE	L.F.	600
(12)	709-05.05	MACHINED RIP-RAP (CLASS A-3)	TON	50
(13)	709-05.06	MACHINED RIP-RAP (CLASS A-1)	TON	304
	712-01	TRAFFIC CONTROL	LS	1
	712-02.10	PORTABLE BARRIER RAIL (MASH TL-3)	L.F.	1480
(14)	712-02.60	TEMPORARY CRASH CUSHION (MASH TL-3)	EACH	8
(15)	712-04.01	FLEXIBLE DRUMS (CHANNELIZING)	EACH	100
	712-04.50	BARRIER RAIL DELINEATOR	EACH	68
(15)	712-05.01	WARNING LIGHTS (TYPE A)	EACH	50
(15)	712-06	SIGNS (CONSTRUCTION)	S.F.	331
(15)	712-07.03	TEMPORARY BARRICADES (TYPE III)	L.F.	30
(15)	712-09.04	REMOVABLE PAVEMENT MARKING (STOP LINE)	L.F.	48
(15)	712-09.08	REMOVABLE PAVEMENT MARKING (6" line)	L.F.	7250
(15)	712-09.30	REMOVABLE BLACK-OUT TAPE (6")	L.F.	750
(15)	716-01.11	RAISED PVMT MARKERS (BI-DIRECTIONAL) (1 COLOR LENS)	EACH	72
	716-01.21	SNOWPLOWABLE RAISED PAVEMENT MARKERS (BI-DIR) (1 COLOR)	EACH	16
(16)	716-05.20	PAINTED PAVEMENT MARKING (6" LINE)	L.M.	1
	716-13.02	SPRAY THERMO PVMT MRKNG (60 mil) (6IN LINE)	L.M.	1
	717-01	MOBILIZATION	LS	1
(23)	730-40.02	TEMPORARY TRAFFIC SIGNAL SYSTEM	LS	1
(6)	740-06.01	GEOMEMBRANE	S.Y.	117
(17)	740-07.04	GEOGRID REINFORCEMENT TYPE 2	S.Y.	1430
(18)	740-10.03	GEOTEXTILE (TYPE III)(EROSION CONTROL)	S.Y.	531
(19)	740-10.04	GEOTEXTILE (TYPE IV)(STABILIZATION)	S.Y.	507

ESTIMATED ROADWAY QUANTITIES

	ITEM NO.	DESCRIPTION	UNIT	QUANTITY 37LCOU-F3-006
(4)	740-11.02	TEMPORARY SEDIMENT TUBE 12IN	L.F.	2823
(20)	801-01	SEEDING (WITH MULCH)	UNIT	1
(21)	801-02	SEEDING (WITHOUT MULCH)	UNIT	38
(22)	801-03	WATER (SEEDING & SODDING)	M.G.	6.5
(6)	803-01	SODDING (NEW SOD)	S.Y.	277
	805-12.02	EROSION CONTROL BLANKET (TYPE II)	S.Y.	3268

FOOTNOTES

(1) INCLUDES 8 C.Y. FOR TEMPORARY CONSTRUCTION EXITS.

(2) SEE GRADING SPECIAL NOTES ON SHEET 2D.

(3) INCLUDES THE COST OF REMOVING DEBRIS AND SWEEPING SHOULDERS PRIOR TO WORK. SEE SHEET NO. 2C, FINAL PAVEMENT MARKING NOTE (6) AND SHEET NO. 2D, PAVEMENT NOTE (2) FOR MORE INFORMATION.

(4) SEE SUBSECTION 209.07 OF THE STANDARD SPECIFICATIONS FOR MAINTENANCE REPLACEMENT. ALL QUANTITIES ARE TO BE USED AS DIRECTED BY THE TDOT MANAGER.

(5) INCLUDES 76 TONS FOR DRIVEWAYS.

(6) TO BE USED FOR SPECIAL DITCHES.

(7) TO BE USED FOR CULVERT PROTECTION TYPE 1.

(8) TO BE USED AT BRIDGE ENDS. ALLOWABLE GRADATIONS FOR THE MINERAL AGGREGATE BACKFILL ARE #4, #5, #57, #67, #68, #7, #78, AND #8.

(9) INCLUDES 20 TONS FOR ASPHALT WEDGING TO CORRECT S.E. SEE TYPICAL SECTIONS AND CROSS SECTIONS FOR DETAILS.

(10) THE BEDDING MATERIAL SHALL BE INCLUDED IN THE COST OF THE PROPOSED PIPE CULVERT. SEE STANDARD DRAWING NO. D-PB-1 AND D-PB-2 FOR ADDITIONAL DETAILS.

(11) TO BE USED FOR STRAIGHT CONCRETE ENDWALLS AT STA. 108+85.00 AND STA. 111+70.24.

(12) TO BE USED FOR CONSTRUCTION EXIT.

(13) INCLUDES 246 TONS FOR CULVERT PROTECTION TYPE 1, AND 58 TONS FOR SPECIAL DITCHES.

(14) THE ITEM SHALL BE A PORTABLE ENERGY ABSORBING TERMINAL MEETING THE REQUIREMENTS OF AASHTO MASH FOR TEST LEVEL 3. THE PAY ITEM WILL INCLUDE FURNISHING AND INSTALLING ALL COMPONENTS AS SHOWN ON THE MANUFACTURER'S DRAWING.

(15) QUANTITIES MAY BE INCREASED OR DECREASED BY THE TDOT MANAGER.

(16) TO BE USED FOR TEMPORARY PAVEMENT MARKINGS ON INTERMEDIATE LAYERS AND FOR TRAFFIC CONTROL PHASING.

(17) 4 LAYERS AT 7.5" TO BE USED FOR STATE BRIDGE ENDS APPROACHES.

(18) INCLUDES 86 S.Y. FOR TEMPORARY CONSTRUCTION EXIT AND 445 S.Y. FOR CULVERT PROTECTION TYPE 1.

(19) TO BE USED FOR STATE BRIDGE END APPROACHES.

(20) TO BE USED FOR SCARIFIED AREA.

(21) THE COST OF FERTILIZER AND LIME USED IN INITIAL SEED BED PREPARATION IS TO BE INCLUDED IN THE COST OF SEEDING. SEE SECTION 801 OF TDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION.

(22) INCLUDES 3.8 THOUSAND GALLONS FOR EROSION PREVENTION AND SEDIMENT CONTROL.

(23) INCLUDES THE TEMPORARY TRAFFIC SIGNAL SYSTEM FOR ALL SIDE ROADS AND ONE BUSINESS DRIVEWAY AS WELL AS THE USE OF A RESIDENTIAL DRIVEWAY TEMPORARY SIGNALS(RDTS) FOR FOUR PRIVATE DRIVEWAYS AS SHOWN ON PHASES 2A AND 2B OF THE TRAFFIC CONTROL PLANS.

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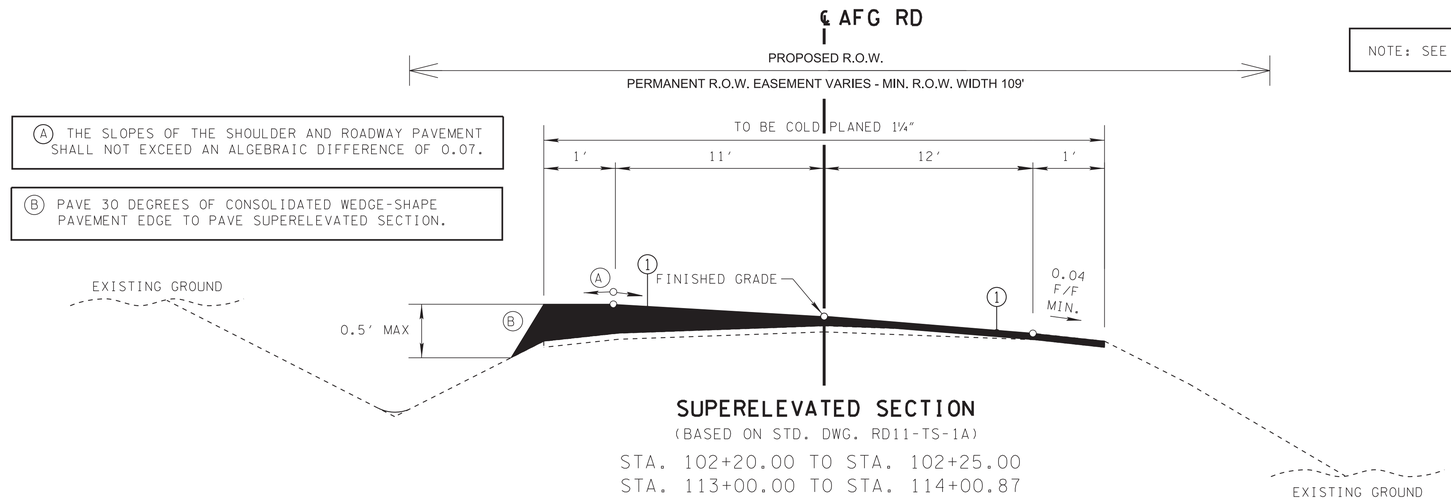
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ESTIMATED ROADWAY QUANTITIES

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TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2022	37455-2422-04	2B
PIH	2025	BRZ-3700(43)	2B
PS&E	2026	BRZ-3700(43)	2B

NOTE: SEE SHEET 2B2 FOR PAVEMENT SCHEDULE

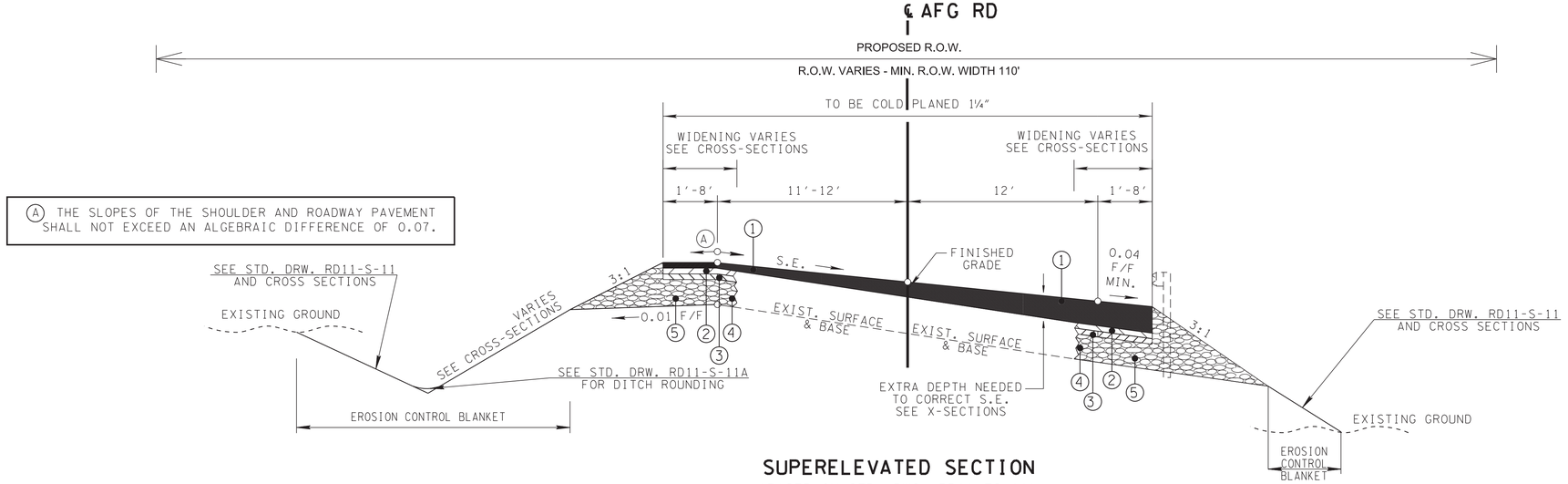


SUPERELEVATED SECTION

(BASED ON STD. DWG. RD11-TS-1A)

STA. 102+20.00 TO STA. 102+25.00
STA. 113+00.00 TO STA. 114+00.87

(RESURFACING ONLY)



SUPERELEVATED SECTION

(BASED ON STD. DWG. RD11-TS-1A)

STA. 102+25.00 TO STA. 103+35.00 (TRANS. FROM 1-11' AND 1-12' LANES WITH 1' SHLDS TO 2-12' LANES WITH 8' SHLDS)

STA. 103+35.00 TO STA. 104+25.00

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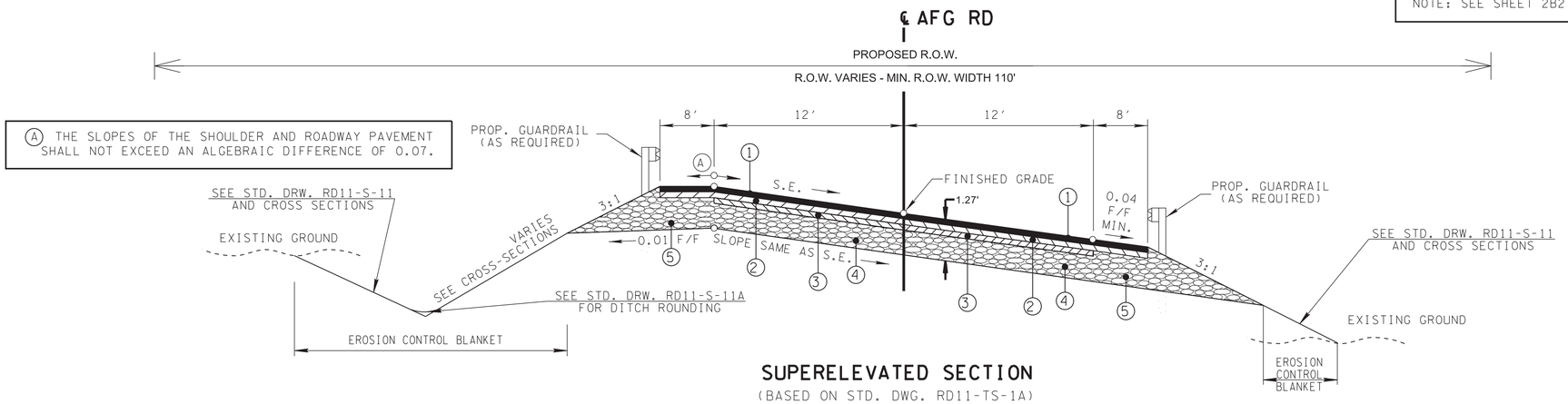
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TYPICAL SECTIONS

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TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2022	37455-2422-04	2B1
PIH	2025	BRZ-3700(43)	2B1
PS&E	2026	BRZ-3700(43)	2B1

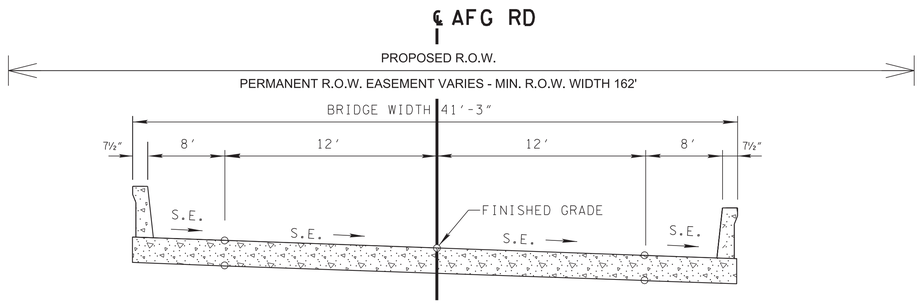
NOTE: SEE SHEET 2B2 FOR PAVEMENT SCHEDULE



SUPERELEVATED SECTION

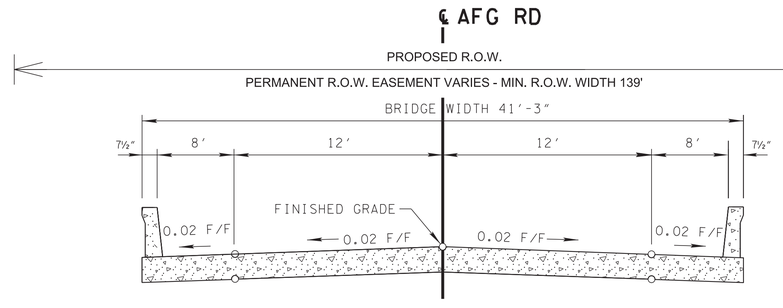
(BASED ON STD. DWG. RD11-TS-1A)

STA. 104+25.00 TO STA. 106+16.83
STA. 108+89.83 TO STA. 111+70.00
STA. 111+70.00 TO STA. 113+00.00 (TRANSITION FROM 2-12' LANES WITH 8' SHOULDER TO 1-11' AND 1-12' LANES WITH 1' SHOULDERS)



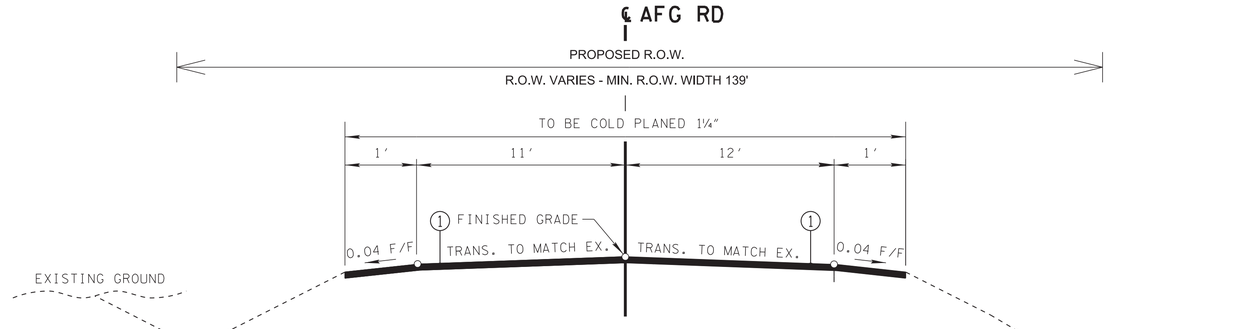
BRIDGE TYPICAL SECTION

STA. 106+16.83 TO STA. 106+40.83 (APPROACH SLAB/PAVEMENT AT BRIDGE END)
STA. 106+40.83 TO STA. 106+59.49
STA. 108+22.38 TO STA. 108+65.83
STA. 108+65.83 TO STA. 108+89.83 (APPROACH SLAB/PAVEMENT AT BRIDGE END)



BRIDGE TYPICAL SECTION

STA. 106+59.49 TO STA. 108+22.38



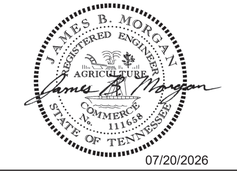
TANGENT SECTION

(BASED ON STD. DWG. RD11-TS-1A)

STA. 114+00.87 TO STA. 114+50.00

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TYPICAL SECTIONS

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TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2022	37455-2422-04	2B2
PIH	2025	BRZ-3700(43)	2B2
PS&E	2026	BRZ-3700(43)	2B2

REV. 06/13/24: ADDED SOD SPECIAL DITCH STATION RANGE.

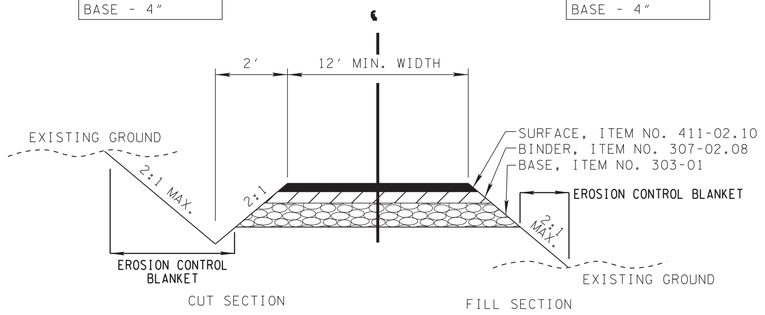
REV. 06/27/25: ADDED SOD SPECIAL DITCH STATION RANGE AND MODIFIED RIP-RAP SPECIAL DITCH STATION RANGE.

BUSINESS

SURFACE - 1¼"
BINDER - 1¾"
BASE - 4"

FIELD OR RESIDENTIAL

SURFACE - 1½"
BINDER - NONE
BASE - 4"

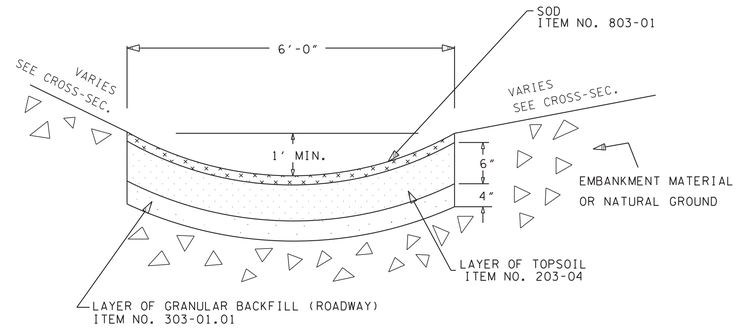


TYPICAL SECTION

PRIVATE DRIVE TO BUSINESS,
FIELD, OR RESIDENTIAL PROPERTY

NOTE: DITCH TO BE CONSTRUCTED WHERE DIRECTED BY THE ENGINEER

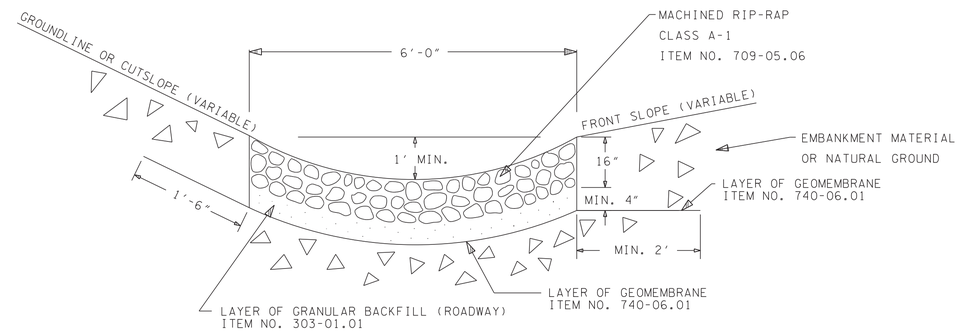
SPECIAL DITCH DETAIL #1



DETAIL OF SOD DITCH

STA. 103+20.00 TO STA. 105+90.00 (LEFT)
STA. 104+25.00 TO STA. 103+30.00 (RIGHT)
STA. 108+85.00 TO STA. 109+80.00 (RIGHT)

SPECIAL DITCH DETAIL #2



DETAIL OF GEOMEMBRANE LINED RIP-RAP DITCH

STA. 109+80.00 TO STA. 110+38.00 (LEFT)
STA. 109+80.00 TO STA. 110+31.61 (RIGHT)

PROPOSED PAVEMENT SCHEDULE

1. ASPHALTIC CONCRETE SURFACE (HOT MIX) @ 1 1/4" THICK (APPROX. 132.5 LBS./SY.)

   411-02.10 ACS MIX (PG70-22) GRADING "D"

   403-01 BITUMINOUS MATERIAL FOR TACK COAT (TC)
   SEE 403.05 FOR DETERMINING APPLICATION RATE IN THE FIELD.

2. BITUMINOUS PLANT MIX BASE (HOT MIX) @ 2" THICK (APPROX. 226 LBS./SY.)

   307-02.08 ASPHALT CONCRETE MIX (PG70-22) (BPMB-HM) GRADING "B-M2"

   403-01 BITUMINOUS MATERIAL FOR TACK COAT (TC)
   SEE 403.05 FOR DETERMINING APPLICATION RATE IN THE FIELD.

3. BITUMINOUS PLANT MIX BASE (HOT MIX) @ 4" THICK (APPROX. 460 LBS./SY.)

   307-02.01 ASPHALT CONCRETE MIX (PG70-22) (BPMB-HM) GRADING "A"

4. MINERAL AGGREGATE BASE @ 8" THICK (ROADWAY)

   303-01 MINERAL AGGRAGATE, TYPE A BASE, GRADING "D"

5. MINERAL AGGREGATE BASE @ 12" THICK (SHOULDERS)

   303-01 MINERAL AGGRAGATE, TYPE A BASE, GRADING "D"

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TYPICAL SECTIONS AND PAVEMENT SCHEDULE

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TYPE	YEAR	PROJECT NO.	SHEET NO.
PIH	2025	BRZ-3700(43)	2C
PS&E	2026	BRZ-3700(43)	2C

GENERAL NOTES

GRADING

(1) ANY AREA THAT IS DISTURBED OUTSIDE LIMITS OF CONSTRUCTION DURING THE LIFE OF THIS PROJECT SHALL BE REPAIRED BY THE CONTRACTOR AT HIS EXPENSE.

(2) CERTIFICATION FOR ALL BORROW PITS MUST BE OBTAINED IN ACCORDANCE WITH SUBSECTION 107.06 OF THE STANDARD SPECIFICATIONS.

(3) THE CONTRACTOR SHALL NOT DISPOSE OF ANY MATERIAL EITHER ON OR OFF STATE-OWNED R.O.W. IN A REGULATORY FLOOD WAY AS DEFINED BY THE FEDERAL EMERGENCY MANAGEMENT AGENCY (FEMA) WITHOUT APPROVAL BY FEMA. ALL MATERIAL SHALL BE DISPOSED OF IN UPLAND (NON-WETLAND) AREAS AND ABOVE ORDINARY HIGH WATER OF ANY ADJACENT WATERCOURSE. THIS DOES NOT ELIMINATE THE NEED TO OBTAIN ANY OTHER LICENSES OR PERMITS THAT MAY BE REQUIRED BY ANY OTHER FEDERAL, STATE OR LOCAL AGENCY.

SEEDING AND SODDING

(1) ALL EXISTING ROADS WITHIN THE RIGHT-OF-WAY AND NOT IN THE GRADED AREA THAT ARE TO BE ABANDONED SHALL BE SCARIFIED, OBLITERATED, TOPSOILED AND SEEDED. SCARIFYING AND OBLITERATING THE PAVEMENT WILL NOT BE MEASURED AND PAID FOR DIRECTLY, BUT THE COST WILL BE INCLUDED IN THE COST OF OTHER ITEMS. TOPSOIL, IN ACCORDANCE WITH SECTION 203 OF THE STANDARD SPECIFICATIONS, WILL BE MEASURED AND PAID FOR UNDER ITEM NO. 203-04 AND/OR 203-07. SEEDING, IN ACCORDANCE WITH SECTION 801 OF THE STANDARD SPECIFICATIONS, WILL BE MEASURED AND PAID FOR UNDER ITEM NO. 801-01.

(5) ITEM NO. 801-02, SEEDING (WITHOUT MULCH) AND EROSION CONTROL BLANKET, SHALL BE PLACED AT LOCATIONS SHOWN ON THE PLANS AS WELL AS LOCATIONS DIRECTED BY THE ENGINEER.

GUARDRAIL

(1) THE CONTRACTOR SHALL NOT REMOVE ANY SECTIONS OF EXISTING GUARDRAIL TO REWORK SHOULDERS OR FLATTEN SLOPES UNTIL THE ENGINEER CONCURS IN THE NECESSITY OF REMOVAL DUE TO CONSTRUCTION REQUIREMENTS AND THE APPROPRIATE WARNING DEVICES ARE INSTALLED. THE PROPOSED GUARDRAIL, INCLUDING ANY ANCHOR SYSTEM, SHALL BE INSTALLED QUICKLY TO MINIMIZE TRAFFIC EXPOSURE TO ANY HAZARD. NO PAYMENT WILL BE MADE FOR A SECTION OF PROPOSED GUARDRAIL, INCLUDING ANCHORS, UNTIL IT IS COMPLETE IN PLACE.

(3) IF ANY APPROACH END OF A SECTION OF GUARDRAIL OR BRIDGE RAIL MUST TEMPORARILY BE LEFT INCOMPLETE AND EXPOSED TO TRAFFIC, THE CONTRACTOR SHALL USE TWO (2) TEMPORARY BARRICADES OR DRUMS WITH TYPE “A” LIGHTS AND ROUNDED END ELEMENTS AS MINIMUM MEASURES TO PROTECT TRAFFIC FROM THE HAZARD OF AN EXPOSED END. ALL COST OF FURNISHING AND INSTALLING TEMPORARY BARRICADES OR DRUMS WITH TYPE “A” LIGHTS TO DELINEATE GUARDRAIL END AND A TEMPORARY ROUNDED END ELEMENT SHALL BE INCLUDED IN THE COST OF THE PROPOSED GUARDRAIL END TERMINAL.

(4) GUARDRAIL IS TO BE COMPLETE IN PLACE BEFORE THE MAINLINE ROADWAY IS OPENED TO TRAFFIC.

DRAINAGE

(1) THE CONTRACTOR SHALL SHAPE DITCHES TO THE SPECIFIED DESIGN. THIS WORK WILL NOT BE MEASURED AND PAID FOR DIRECTLY, BUT THE COST WILL BE INCLUDED IN THE COST OF OTHER ITEMS.

(2) EXCAVATION FOR PIPE CULVERTS WILL NOT BE MEASURED AND PAID FOR DIRECTLY, BUT WILL BE INCLUDED IN THE PRICE BID PER LINEAR FOOT OF PIPE (CHOOSE THE APPLICABLE ITEM(S) FROM THE FOLLOWING: PIPE CULVERTS, STORM SEWERS, CONDUITS, ALL OTHER CULVERTS AND MINOR STRUCTURES).

(4) THE CUTTING OF INLET AND OUTLET DITCHES WHERE SHOWN ON PLANS OR AS DIRECTED BY THE ENGINEER WILL BE MEASURED AND PAID FOR AS ITEM NO. 203-01 ROAD AND DRAINAGE EXCAVATION (UNCLASSIFIED).

(5) WHERE A CULVERT (PIPE, SLAB OR BOX) IS MOVED TO A NEW LOCATION OTHER THAN THAT SHOWN ON THE PLANS, INCREASING OR DECREASING THE AMOUNT OF CULVERT EXCAVATION WILL NOT RESULT IN AN INCREASE OR DECREASE IN THE AMOUNT OF PAYMENT THAT WILL BE MADE DUE TO SUCH CHANGE.

(6) DURING CONSTRUCTION OF DRAINAGE STRUCTURES ALL COST ASSOCIATED WITH MAINTAINING THE FLOW OF WATER AND TRAFFIC, AT THESE STRUCTURES, DURING THE PHASED CONSTRUCTION OF THIS PROJECT ARE TO BE INCLUDED IN THE UNIT PRICE OF THE DRAINAGE STRUCTURES AND TRAFFIC CONTROL ITEMS.

MISCELLANEOUS

(1) ALL DETOUR, ACCESS, SERVICE AND FRONTAGE ROADS SHALL BE CONSTRUCTED WITH A MINIMUM OF ONE (1) COURSE OF BASE MATERIAL BEFORE TRAFFIC IS INTERRUPTED ON EXISTING ROADS.

(2) THE CONTRACTOR SHALL BE REQUIRED TO REMOVE AND RESET MAILBOXES AND POSTS WHERE AND AS DIRECTED BY THE ENGINEER. COST TO BE INCLUDED IN PRICE BID FOR OTHER CONSTRUCTION ITEMS.

(3) NOTHING IN THE GENERAL NOTES OR SPECIAL PROVISIONS SHALL RELIEVE THE CONTRACTOR FROM HIS RESPONSIBILITIES TOWARD THE SAFETY AND CONVENIENCE OF THE GENERAL PUBLIC AND THE RESIDENTS ALONG THE PROPOSED CONSTRUCTION AREA.

PAVEMENT MARKINGS

TEMPORARY PAVEMENT MARKINGS ON INTERMEDIATE LAYERS

(2) TEMPORARY PAVEMENT LINE MARKINGS ON INTERMEDIATE LAYERS OF PAVEMENT SHALL BE REFLECTIVE TAPE OR REFLECTORIZED PAINT INSTALLED TO PERMANENT STANDARDS AT THE END OF EACH DAY’S WORK. SHORT, UNMARKED SECTIONS SHALL NOT BE ALLOWED. THESE MARKINGS WILL BE MEASURED AND PAID FOR UNDER ITEM NO. 716-05.20, PAINTED PAVEMENT MARKING (6” LINE), L.M.

FINAL PAVEMENT MARKING

(6) THE CONTRACTOR WILL BE REQUIRED TO PERFORM THE FOLLOWING WORK:

a. BROOMING & DE-GRASSING SHOULDERS SHALL INCLUDE CLIPPING OF MATERIAL INTERFERING WITH PROPER DRAINAGE OF ROADWAY (INCLUDING PAVED AND GRAVEL SHOULDERS), AS DIRECTED BY THE TDOT PROJECT ENGINEER.

b. ALL MATERIAL FROM CLIPPING, BROOMING AND DE-GRASSING SHOULDERS SHALL BE PICKED UP, REMOVED AND PROPERLY DISPOSED AS DIRECTED BY THE TDOT PROJECT ENGINEER.

c. ALL COSTS ASSOCIATED WITH PICKING UP, REMOVAL AND PROPER DISPOSAL SHALL BE PAID FOR UNDER ITEM NO. 208-01.05.

d. REMOVE ALL GARBAGE AND CONSTRUCTION DEBRIS FROM PROJECT. THE COST FOR THIS WILL BE INCLUDED IN THE PRICE BID FOR OTHER ITEMS OF CONSTRUCTION.

(11) PERMANENT PAVEMENT LINE MARKINGS SHALL BE 6” SPRAY THERMOPLASTIC (60 mil) INSTALLED TO PERMANENT STANDARDS AT THE END OF EACH DAY’S WORK. SHORT UNMARKED SECTIONS SHALL NOT BE ALLOWED. PAVEMENT MARKINGS WILL BE MEASURED AND PAID FOR UNDER ITEM NO. 716-13.02, SPRAY THERMO PVMT MRKNG (60 mil) (6IN LINE), L.M. THE CONTRACTOR SHALL HAVE THE OPTION OF USING REFLECTORIZED PAINT INSTALLED TO PERMANENT STANDARDS AT THE END OF EACH DAY’S WORK AND THEN INSTALLING THE PERMANENT MARKINGS AFTER THE PAVING OPERATION IS COMPLETED. THE TEMPORARY MARKINGS FOR THE FINAL SURFACE WILL NOT BE MEASURED AND PAID FOR DIRECTLY, BUT THE COSTS ARE TO BE INCLUDED IN THE PRICE BID FOR THE PERMANENT MARKINGS.

DETOURS, LANE SHIFTS AND MEDIAN CROSS-OVERS

(17) BEFORE OPENING THE LANE SHIFT TO TRAFFIC, THE TRANSITIONAL MARKINGS ON THE EXISTING ROADWAY MUST BE IN PLACE. THESE MARKINGS WILL BE MEASURED AND PAID FOR UNDER ITEM NO. 712-09.08 PER L.F. ALL EXISTING MARKINGS IN THE AREA OF THESE TRANSITIONAL MARKINGS SHALL BE OBLITERATED AND ALL EXISTING RAISED PAVEMENT MARKERS SHALL BE REMOVED TO ELIMINATE CONFLICTING MARKINGS. REMOVAL OF THE EXISTING CONFLICTING MARKINGS AND RAISED PAVEMENT MARKERS WILL NOT BE MEASURED AND PAID FOR DIRECTLY, BUT THE COST WILL BE INCLUDED IN ITEM NO. 712-01, TRAFFIC CONTROL, LUMP SUM.

PAVEMENT

PAVING

(2) THE CONTRACTOR SHALL BE REQUIRED TO COLD PLANE AND PAVE IN THE DIRECTION OF TRAFFIC.

(3) THE CONTRACTOR SHALL ATTACH A DEVICE TO THE SCREED OF THE PAVER SUCH THAT MATERIAL IS CONFINED AT THE END GATE AND EXTRUDES THE ASPHALT MATERIAL IN SUCH A WAY THAT RESULTS IN A CONSOLIDATED WEDGE-SHAPE PAVEMENT EDGE OF APPROXIMATELY 25 TO 30 DEGREES AS IT LEAVES THE PAVER (MEASURED FROM A LINE PARALLEL TO THE PAVEMENT SURFACE.) THE DEVICE SHALL MEET THE REQUIREMENTS THAT ARE CURRENTLY SET FORTH IN SPECIAL PROVISION 407SE.

SIGNING

(12) ALL SIGNS WHICH INTERFERE WITH CONSTRUCTION WILL BE RELOCATED OUTSIDE LIMITS OF CONSTRUCTION BY THE CONTRACTOR. UPON COMPLETION OF CONSTRUCTION, THE CONTRACTOR WILL RESTORE THE SIGNS TO ORIGINAL LOCATION. THE CONTRACTOR SHALL CHECK WITH THE REGIONAL TRAFFIC ENGINEER PRIOR TO MOVING ANY PERMANENT SIGNS.

TRAFFIC CONTROL DIRECTIONAL SIGNING

(7) WHEN EXISTING “TOURIST ORIENTED DIRECTIONAL SIGNS” (TODS) ARE ON NON-ACCESS CONTROLLED CONSTRUCTION PROJECTS, THE CONTRACTOR SHALL BE RESPONSIBLE FOR KEEPING THESE SIGNS IN FULL VIEW TO THE MOTORING PUBLIC DURING ALL PHASES OF CONSTRUCTION. ALL WORK IN MOVING THESE “TODS” AND TEMPORARY SUPPORTS ARE TO BE PAID FOR UNDER ITEM NO. 712-06, AS DIRECTED BY THE ENGINEER. NEW SUPPORTS AND SIGN FACE FOR FINAL LOCATION WILL BE PAID FOR UNDER OTHER ITEMS OF CONSTRUCTION.

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GENERAL NOTES

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TYPE	YEAR	PROJECT NO.	SHEET NO.
PIH	2025	BRZ-3700(43)	2C1
PS&E	2026	BRZ-3700(43)	2C1

GENERAL NOTES, CONT'D

CONSTRUCTION WORK ZONE & TRAFFIC CONTROL

(1) ADVANCED WARNING SIGNS SHALL NOT BE DISPLAYED MORE THAN FORTY-EIGHT (48) HOURS BEFORE PHYSICAL CONSTRUCTION BEGINS. SIGNS MAY BE ERECTED UP TO ONE WEEK BEFORE NEEDED, IF THE SIGN FACE IS FULLY COVERED.

(2) IF THE CONTRACTOR MOVES OFF THE PROJECT, HE SHALL COVER OR REMOVE ALL UNNEEDED SIGNS AS DIRECTED BY THE ENGINEER. COSTS OF REMOVAL, COVERING, AND REINSTALLING SIGNS SHALL NOT BE MEASURED AND PAID FOR SEPARATELY, BUT ALL COSTS SHALL BE INCLUDED IN THE ORIGINAL UNIT PRICE BID FOR ITEM NO. 712-06, SIGNS (CONSTRUCTION) PER SQUARE FOOT.

(3) A LONG TERM BUT SPORADIC USE WARNING SIGN, SUCH AS A FLAGGER SIGN, MAY REMAIN IN PLACE WHEN NOT REQUIRED PROVIDED THE SIGN FACE IS FULLY COVERED.

(4) TRAFFIC CONTROL DEVICES SHALL NOT BE DISPLAYED OR ERECTED UNLESS RELATED CONDITIONS ARE PRESENT NECESSITATING WARNING.

(5) USE OF BARRICADES, PORTABLE BARRIER RAILS, AND DRUMS SHALL BE LIMITED TO THE IMMEDIATE AREAS OF CONSTRUCTION WHERE A HAZARD IS PRESENT. THESE DEVICES SHALL NOT BE STORED ALONG THE ROADWAY WITHIN THIRTY (30) FEET OF THE EDGE OF THE TRAVELED WAY BEFORE OR AFTER USE UNLESS PROTECTED BY GUARDRAIL, BRIDGE RAIL, AND/OR BARRIERS INSTALLED FOR OTHER PURPOSES FOR ROADWAYS WITH CURRENT ADT'S LESS THAN 1500 AND DESIGN SPEED OF LESS THAN 60 MPH. THIS DISTANCE SHALL INCREASE TO FORTY-FIVE (45) FEET FOR ROADWAYS WITH CURRENT ADT'S OF 1500 OR GREATER AND DESIGN SPEED OF 60 MPH OR GREATER OR ON THE OUTSIDE OF A HORIZONTAL CURVE. THESE DEVICES SHALL BE REMOVED FROM THE CONSTRUCTION WORK ZONE WHEN THE ENGINEER DETERMINES THEY ARE NO LONGER NEEDED. WHERE THERE IS INSUFFICIENT RIGHT-OF-WAY TO PROVIDE FOR THIS REQUIRED SETBACK, THE CONTRACTOR SHALL DETERMINE THE ALTERNATE LOCATIONS AND REQUEST THE ENGINEER'S APPROVAL TO USE THEM.

(6) THE CONTRACTOR SHALL NOT BE PERMITTED TO PARK ANY VEHICLES OR CONSTRUCTION EQUIPMENT DURING PERIODS OF INACTIVITY, WITHIN THIRTY (30) FEET OF THE EDGE OF PAVEMENT WHEN THE LANE IS OPEN TO TRAFFIC UNLESS PROTECTED BY GUARDRAIL, BRIDGE RAIL, AND/OR BARRIERS INSTALLED FOR OTHER PURPOSES FOR ROADWAYS WITH CURRENT ADT'S LESS THAN 1500 AND DESIGN SPEED OF LESS THAN 60 MPH. THIS DISTANCE SHALL BE INCREASED TO FORTY-FIVE (45) FEET FOR ROADWAYS WITH CURRENT ADT'S OF 1500 OR GREATER AND DESIGN SPEED OF 60 MPH OR GREATER OR ON THE OUTSIDE OF A HORIZONTAL CURVE. PRIVATELY OWNED VEHICLES SHALL NOT BE ALLOWED TO PARK WITHIN THIRTY (30) FEET OF AN OPEN TRAFFIC LANE AT ANY TIME UNLESS PROTECTED AS DESCRIBED ABOVE FOR ROADWAYS WITH CURRENT ADT'S LESS THAN 1500 AND DESIGN SPEED OF LESS THAN 60 MPH. THIS DISTANCE SHALL BE INCREASED TO FORTY-FIVE (45) FEET FOR ROADWAYS WITH CURRENT ADT'S OF 1500 OR GREATER AND DESIGN SPEED OF 60 MPH OR GREATER OR ON THE OUTSIDE OF A HORIZONTAL CURVE. WHERE THERE IS INSUFFICIENT RIGHT-OF-WAY TO PROVIDE FOR THIS REQUIRED SETBACK, THE CONTRACTOR SHALL DETERMINE THE ALTERNATE LOCATIONS AND REQUEST THE ENGINEER'S APPROVAL TO USE THEM.

(7) ALL DETOUR AND CONSTRUCTION SIGNING SHALL BE IN STRICT ACCORDANCE WITH THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.

(8) ALL DETOURS SHALL BE PAVED, STRIPED, SIGNED, AND FLEXIBLE DRUMS ARE TO BE IN PLACE BEFORE IT IS OPENED TO TRAFFIC.

(9) THE CONTRACTOR SHALL BE RESPONSIBLE FOR STAKING CONSTRUCTION SIGNS. THE COST OF THIS WORK SHALL BE INCLUDED IN ITEM NO. 712-06, SIGNS (CONSTRUCTION), S.F.

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DEPARTMENT OF TRANSPORTATION

GENERAL NOTES

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TYPE	YEAR	PROJECT NO.	SHEET NO.
PIH	2025	BRZ-3700(43)	2D
PS&E	2026	BRZ-3700(43)	2D

SPECIAL NOTES

GRADING

(1) THE GRADING TABULATIONS AND RESULTING EARTHWORK ASSOCIATED BID QUANTITIES WERE PREPARED UTILIZING AVAILABLE GEOTECHNICAL INFORMATION AND/OR REPORTS PREPARED FOR THIS PROJECT. THIS INFORMATION IS PROVIDED FOR GENERAL INFORMATION AND ESTIMATION GUIDANCE ONLY.

(2) BORING DEPICTIONS SHOWN ON THE FOUNDATION DATA SHEETS, SOILS SHEETS, PLANS, AND CROSS-SECTIONS INDICATE SOIL AND ROCK CONDITIONS AT THE SPECIFIC BORING LOCATIONS. ANY SOIL PROFILE AND/OR ROCK LINE IS INTERPRETIVE BASED ON THE JUDGMENT OF THE GEOTECHNICAL ENGINEER/GEOLOGIST. THE TRANSITION BETWEEN BORINGS AND LAYERS MAY VARY SIGNIFICANTLY DEPENDING ON THE GEOLOGIC FORMATIONS ENCOUNTERED.

(3) TO ASSIST IN BID PREPARATION FOR EARTHWORK AND FOUNDATION CONSTRUCTION, DETAIL ROCK AND SOIL DESCRIPTION AND ON SOME PROJECTS, ROCK CORE SAMPLES ARE AVAILABLE FOR INSPECTION AT THE MATERIALS AND TESTS HEADQUARTERS AT 6601 CENTENNIAL BOULEVARD, NASHVILLE, TN OR AT THE TDOT REGION 1 BUILDING IN KNOXVILLE, TN.

(4) THE CONTRACTOR SHALL UTILIZE ALL INFORMATION PROVIDED IN THE PLANS, CROSS-SECTIONS AND CONTRACT DOCUMENTS INCLUDING ANY SPECIAL PROVISIONS AS WELL AS UTILIZING HIS PAST EXPERIENCE WITH PROJECTS OF SIMILAR NATURE, SCOPE AND LOCATION IN PREPARATION OF HIS BID FOR EARTHWORK ITEMS. IT IS THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE AND PROVIDE EQUIPMENT AND MEANS NECESSARY TO CONDUCT THE EXCAVATION ACTIVITIES IN ACCORDANCE WITH PLANS AND SPECIFICATIONS.

(5) EARTHWORK IS PAID FOR UNDER ITEM NO. 203-01, ROAD AND DRAINAGE EXCAVATION (UNCLASSIFIED). NO ADDITIONAL PAYMENT WILL BE MADE FOR EARTHWORK QUANTITIES BASED SOLELY ON A CLAIM THAT THE QUANTITIES SHOWN IN THE GRADING TABULATION OR ELSEWHERE IN THE PLANS ARE INACCURATE WITH RESPECT TO THE TYPE OF MATERIALS ENCOUNTERED DURING CONSTRUCTION EXCEPT AS PROVIDED FOR BY SECTION 104.02 IN THE CURRENT EDITION OF THE STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION OR AS AMENDED IN SUPPLEMENTAL SPECIFICATIONS.

(6) THE CONTRACTOR SHALL CONSTRUCT AND COMPACT ALL EMBANKMENTS AND BRIDGE APPROACHES WITHIN THE PROJECT LIMITS AS PER 205.04.C IN THE STANDARD SPECIFICATIONS FOR DEGRADABLE ROCK. STOCKPILING OF NON-DEGRADABLE MATERIAL MAY BE REQUIRED FOR USE IN CAPPING EMBANKMENT. NO SEPARATE PAYMENT WILL BE MADE FOR STOCKPILING OR ADDITIONAL HANDLING OF NON-DEGRADABLE MATERIAL.

DEMOLITION

DEMOLITION, REPAIR, OR REHABILITATION OF BRIDGES

(1) THE CONTRACTOR SHALL VERIFY THAT AN ASBESTOS SURVEY HAS BEEN COMPLETED PRIOR TO ANY DEMOLITION, REPAIR OR REHABILITATIONS ACTIVITIES (NOT INCLUDING ASPHALT MILLING OR OVERLAY).

(2) ASBESTOS-CONTAINING MATERIALS (ACM) ABATEMENT IS THE RESPONSIBILITY OF THE CONTRACTOR AND SHALL BE COMPLETED PRIOR TO ANY DEMOLITION, REPAIR OR REHABILITATION OF BRIDGE(S). ABATEMENT SHOULD BE ACCOMPLISHED PER SP202ACM SPECIAL PROVISION REGARDING REMOVAL OF ASBESTOS-CONTAINING MATERIALS. STATE OF TENNESSEE ASBESTOS ACCREDITATION REQUIREMENTS (TCA 1200-01-20) MANDATE THAT ACM ABATEMENT WORK BE PERFORMED BY AN ACCREDITED FIRM (CONTRACTOR) USING ACCREDITED ABATEMENT WORKERS AND SUPERVISORS.

(3) THE CONTRACTOR SHALL BE RESPONSIBLE FOR SUBMITTING A NOTICE TO THE TDEC, DIVISION OF AIR POLLUTION CONTROL TEN (10) DAYS IN ADVANCE OF ANY ACM ABATEMENT, DEMOLITION, OR MAJOR REPAIR INVOLVING THE REMOVAL/REPLACEMENT OF A STRUCTURAL COMPONENT.

PAVEMENT

RESURFACING

(2) THE CONTRACTOR WILL BE REQUIRED TO PERFORM THE FOLLOWING WORK:

A. BROOMING & DEGRASSING SHALL INCLUDE NOTCHING THE GRAVEL SHOULDER PRIOR TO MILLING. THE NOTCH SHALL BE 1.5 IN DEEP AND 2 FT WIDE, OR AS DIRECTED BY THE TDOT PROJECT ENGINEER.

B. ALL MATERIAL FROM NOTCHING AND BROOMING SHOULDERS SHALL BE PICKED UP, REMOVED AND PROPERLY DISPOSED AS DIRECTED BY THE TDOT PROJECT ENGINEER.

C. ALL COSTS ASSOCIATED WITH NOTCHING, PICKING UP, REMOVAL AND PROPER DISPOSAL SHALL BE PAID FOR UNDER ITEM NO. 208-01.05.

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DEPARTMENT OF TRANSPORTATION

SPECIAL NOTES

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TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2022	37455-2422-04	2E
PIH	2025	BRZ-3700(43)	2E
PS&E	2026	BRZ-3700(43)	2E

ENVIRONMENTAL NOTES

SUBSECTION 1 – ENVIRONMENTAL GENERAL NOTES

ENVIRONMENTAL GENERAL NOTES

NATURAL RESOURCES

(1) SOIL MATERIALS MUST BE PREVENTED FROM ENTERING WATERS OF THE STATE/U.S. EPSC MEASURES TO PROTECT NATURAL RESOURCES AND WATER QUALITY SHALL BE MAINTAINED THROUGHOUT THE CONSTRUCTION PERIOD. APPROPRIATE EPSC MEASURES MUST BE INSTALLED ALONG THE BASE OF ALL FILLS AND CUTS, ON THE DOWNHILL SIDE OF STOCKPILED SOIL, AND ALONG NATURAL RESOURCES IN CLEARED AREAS TO PREVENT SEDIMENT MIGRATION INTO STREAMS, WETLANDS OR OTHER NATURAL FEATURES IN ACCORDANCE WITH TDOT STANDARDS. EPSC MEASURES SHALL BE INSTALLED ON THE CONTOUR, ENTRENCHED AND STAKED, AND EXTEND THE WIDTH OF THE AREA TO BE CLEARED.

(2) NEW CHANNEL CONSTRUCTION SHALL BE COMPLETED IN THE DRY AND STABILIZED FOR AT LEAST 72 HOURS PRIOR TO DIVERTING WATER FROM THE EXISTING AND/OR TEMPORARY CHANNEL.

(3) INSTREAM EPSC DEVICES REQUIRE THE TDOT ENVIRONMENTAL DIVISION, PERMITS SECTION REVIEW AND MUST BE PROCESSED BY THE PERMITS SECTION TO OBTAIN WATER QUALITY PERMITS.

(4) THE OPERATION OF EQUIPMENT IN WATERS OF THE STATE/U.S., INCLUDING WETLANDS AND EPHEMERAL, INTERMITTENT, AND PERENNIAL STREAMS, IS NOT ALLOWED.

(5) THE WIDTH OF THE FILL ASSOCIATED WITH TEMPORARY CROSSINGS SHALL BE LIMITED TO THE MINIMUM NECESSARY FOR THE ACTUAL CROSSING, NOT TO EXCEED THE WIDTH SPECIFIED IN THE STANDARD DRAWING.

(6) STREAM BEDS SHALL NOT BE USED AS TRANSPORTATION ROUTES FOR CONSTRUCTION EQUIPMENT. TEMPORARY CULVERT CROSSINGS SHALL BE LIMITED TO ONE POINT PER STREAM AND EPSC MEASURES SHALL BE USED WHERE THE STREAM BANKS ARE DISTURBED. WHERE THE STREAMBED IS NOT COMPOSED OF BEDROCK, A PAD OF CLEAN ROCK SHALL BE USED AT THE CROSSING POINT AND CULVERTED TO PREVENT THE IMPOUNDMENT OF WATER FLOW. CLEAN ROCK IS ROCK OF VARIOUS TYPE AND SIZE, DEPENDING UPON APPLICATION, WHICH CONTAINS NO FINES, SOILS, OR OTHER WASTES OR CONTAMINANTS. OTHER MATERIALS USED FOR ALL TEMPORARY FILLS SHALL BE COMPLETELY REMOVED IN THEIR ENTIRETY AFTER THE WORK IS COMPLETED AND THE AFFECTED AREAS RETURNED TO PREEXISTING ELEVATIONS. ALL TEMPORARY CROSSINGS SHALL BE CONSTRUCTED IN ACCORDANCE WITH STD. DWG. EC-STR-25 UNLESS SPECIFICALLY ADDRESSED IN THE EPSC PLANS. ALTERNATIVELY, PLACING A TEMPORARY BRIDGE (E.G. BAILEY BRIDGE OR EQUIVALENT, TIMBERS, ETC.) FROM TOP OF BANK TO TOP OF BANK OR THE APPROPRIATE USE OF BARGES AT THE CROSSING TO AVOID DISTURBANCE OF THE STREAMBED IS AN ACCEPTABLE OPTION.

(7) HEAVY EQUIPMENT WORKING IN WETLANDS WITH PERMITTED TEMPORARY IMPACTS SHALL BE PLACED ON MATS, OR OTHER MEASURES MUST BE TAKEN TO MINIMIZE SOIL DISTURBANCE AND COMPACTION UNLESS SPECIFICALLY ADDRESSED IN THE CONSTRUCTION PLANS. ANY MATS AND OTHER MEASURES USED FOR HEAVY EQUIPMENT SHALL BE REMOVED IN THEIR ENTIRETY AFTER THE WORK IS COMPLETED. ALL AFFECTED AREAS SHOULD BE RETURNED TO PRE-EXISTING CONDITIONS.

(8) WETLANDS SHALL NOT BE USED AS EQUIPMENT STORAGE, STAGING, OR TRANSPORTATION AREAS, UNLESS SPECIFICALLY PROVIDED FOR IN THE CONSTRUCTION PLANS AND PERMITS.

(9) THE CONTRACTOR SHALL TAKE APPROPRIATE STEPS PRIOR TO ANY CONSTRUCTION AND MAINTENANCE ACTIVITIES TO ENSURE THAT ENVIRONMENTAL FEATURES (E.G., STREAMS, WETLANDS, SPRINGS, ETC.) ARE NOT IMPACTED BEYOND PERMITTED LOCATIONS. IF THE CONTRACTOR OR TDOT INSPECTOR IS UNSURE OF THE IDENTITY OF AN ENVIRONMENTAL FEATURE, THE INSPECTOR SHALL CONTACT THE TDOT REGION ENVIRONMENTAL TECH GROUP IMMEDIATELY.

SPECIES

(10) NO ACTIVITY MAY SUBSTANTIALLY DISRUPT THE MOVEMENT OF THOSE SPECIES OF AQUATIC LIFE INDIGENOUS TO THE WATER BODY, INCLUDING THOSE SPECIES THAT NORMALLY MIGRATE THROUGH THE AREA.

(11) SHOULD CLIFF SWALLOW OR BARN SWALLOW NESTS, EGGS, OR BIRDS (YOUNG AND ADULTS) BE PRESENT, THE CONTRACTOR SHALL CONTACT THE REGIONAL ECOLOGY OFFICE TO DETERMINE IF SEASONAL RESTRICTIONS WILL BE NECESSARY. GENERALLY, BIRDS, NESTS, AND EGGS MAY NOT BE DISTURBED BETWEEN APRIL 15 AND JULY 31. FROM AUGUST 1 TO APRIL 14, NESTS CAN BE REMOVED OR DESTROYED SO LONG AS BIRDS OR EGGS ARE NOT PRESENT, AND MEASURES IMPLEMENTED TO PREVENT FUTURE NEST BUILDING AT THE SITE (I.E., CLOSING OFF AREA USING NETTING).

(12) IF THE REMOVAL OF ANY TREES WITH A DIAMETER AT BREAST HEIGHT (DBH) GREATER THAN 3 INCHES IS DEEMED NECESSARY THE TDOT SUPERVISOR SHALL CONTACT THE TDOT ENVIRONMENTAL DIVISION, ECOLOGY SECTION IMMEDIATELY.

PERMITS, PLANS & RECORDS

(13) THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR AND OBTAIN ANY NECESSARY ENVIRONMENTAL PERMITS OR APPROVALS, INCLUDING BUT NOT LIMITED TO ARCHAEOLOGY, ECOLOGY, HISTORICAL, HAZARDOUS MATERIALS, AIR AND NOISE, TDEC ARAP/401, USACE SECTION 404, TVA SECTION 26A, AND TDEC NPDES PERMITS, FROM FEDERAL, STATE AND/OR LOCAL AGENCIES REGARDING ANY MATERIAL AND STAGING AREAS AND THE OPERATION OF ANY PROJECT-DEDICATED ASPHALT AND/OR CONCRETE PLANTS TO BE USED. ANY SUCH PERMITS SHALL BE SUPPLIED TO THE TDOT PROJECT RESPONSIBLE PARTY PRIOR TO THE USE OF THE PERMITTED AREA(S).

(14) ANY DISAGREEMENT BETWEEN THE CONSTRUCTION PLANS, THE PROJECT AS CONSTRUCTED, AND THE PERMIT(S) ISSUED FOR THE PROJECT, SHALL BE BROUGHT TO THE ATTENTION OF THE TDOT PROJECT RESPONSIBLE PARTY. THE ENVIRONMENTAL DIVISION, DESIGN DIVISION, AND HEADQUARTERS CONSTRUCTION OFFICE SHALL BE CONTACTED IN THESE INSTANCES AND DECIDE WHICH HAS PRECEDENCE AND WHETHER PERMIT OR PLANS REVISIONS ARE NEEDED. IN GENERAL, PERMIT CONDITIONS WILL PREVAIL.

(15) IF A CHANGE IN PROJECT SCOPE OCCURS DURING CONSTRUCTION, INCLUDING VALUE ENGINEERING, THE TDOT PERMIT SECTION SHALL BE CONTACTED TO DETERMINE WHETHER PERMIT REVISIONS ARE NEEDED. THE ROADWAY DESIGN DIVISION SHALL BE CONTACTED TO DETERMINE IF ANY PLAN REVISIONS ARE NEEDED.

(16) THE CONTRACTOR SHALL REVIEW ALL EXISTING PERMITS TO ENSURE THAT WORK AT PERMITTED SITES DOES NOT EXCEED EXPIRATION DATE. IF WORK IS GOING TO BE CONTINUED AFTER EXPIRATION DATES, THE CONTRACTOR SHALL CONTACT THE TDOT PROJECT RESPONSIBLE PARTY TO COMMENCE PERMIT RENEWAL PROCESS.

(17) ALL WATER QUALITY PERMITS SHALL BE POSTED NEAR THE MAIN ENTRANCE OF THE CONSTRUCTION SITE ACCESSIBLE TO THE PUBLIC. THE NAME, COMPANY NAME, EMAIL ADDRESS, TELEPHONE NUMBER AND ADDRESS OF THE PROJECT SITE OWNER, OPERATOR, OR A LOCAL CONTACT PERSON WITH A BRIEF DESCRIPTION OF THE PROJECT SHALL ALSO BE POSTED. IF POSTING THIS INFORMATION NEAR A MAIN ENTRANCE IS INFEASIBLE, THE INFORMATION SHALL BE PLACED IN A PUBLICLY ACCESSIBLE LOCATION NEAR WHERE THE CONSTRUCTION IS ACTIVELY UNDERWAY AND MOVED AS NECESSARY. THIS LOCATION SHALL BE POSTED AT THE CONSTRUCTION SITE. ALL POSTINGS SHALL BE MAINTAINED IN LEGIBLE CONDITION.

SUPPORT ACTIVITIES

(18) MATERIALS AND STAGING AREAS SHALL NOT AFFECT ANY WATERS OF THE STATE/U.S. UNLESS THESE AREAS ARE SPECIFICALLY COVERED BY ENVIRONMENTAL PERMITS, OBTAINED SOLELY BY THE CONTRACTOR. THE CONTRACTOR SHALL REVIEW ALL EXISTING PERMITS TO ENSURE THAT WORK AT PERMITTED SITES DOES NOT EXCEED EXPIRATION DATES. IF WORK IS GOING TO BE CONTINUED AFTER EXPIRATION DATES, THE CONTRACTOR SHALL CONTACT THE TDOT PROJECT RESPONSIBLE PARTY TO COMMENCE PERMIT RENEWAL PROCESS.

ENVIRONMENTAL

(20) EXCEPT AS OTHERWISE SPECIFIED, THERE ARE NO KNOWN SPECIAL ENVIRONMENTAL FACTORS PRESENT ON THIS PROJECT THAT INDICATE A NEED FOR SEASONAL LIMITATIONS ON THE CLEARING, GRUBBING, EXCAVATION, GRADING, CUTTING OR FILLING OPERATIONS OR ON THE TOTAL AREA OF EXPOSED SOIL.

SUBSECTION 2 – ENVIRONMENTAL SPECIAL NOTES

ENVIRONMENTAL SPECIAL NOTES

ECOLOGY

(2) STAFF FROM THE TDOT ENVIRONMENTAL DIVISION OR A DESIGNEE SHALL ADVISE THE CONTRACTOR DURING THE PRE-CONSTRUCTION MEETING WHEN ENVIRONMENTAL DIVISION PERSONNEL OR A DESIGNATED CONSULTANT WILL NEED TO BE ONSITE FOR WORK BEING DONE WHICH COULD AFFECT WATERS OF THE STATE/U.S. OR SPECIES.

(3) STAFF FROM THE TDOT ENVIRONMENTAL DIVISION OR A DESIGNEE SHALL ATTEND THE PRE-CONSTRUCTION MEETING FOR ALL PROJECTS WHICH HAVE THREATENED OR ENDANGERED SPECIES OR CRITICAL HABITAT PROXIMAL TO SCHEDULED WORK. THIS WILL PROVIDE THE OPPORTUNITY TO ENSURE THAT PERSONNEL INCLUDING THE CONTRACTOR'S PERSONNEL AND SUBCONTRACTORS ARE MADE AWARE OF THE NECESSARY PRECAUTIONS THAT MUST BE FOLLOWED.

(4) ALL PROJECTS WITH LEGALLY PROTECTED SPECIES OR CRITICAL HABITAT IDENTIFIED SHALL HAVE MEASURES IN PLACE TO CONTAIN CONCRETE DUST, CEMENT DUST AND ALL OTHER MATERIALS. THESE MATERIALS ARE NOT ALLOWED TO ENTER WATERS OF THE STATE/U.S.

PROJECT COMMITMENTS

(5) SEE PROJECT COMMITMENTS, SHEET 1B, FOR DETAILS RELATING TO SPECIAL ENVIRONMENTAL COMMITMENTS REQUIRED BY THIS PROJECT.

SCOPE OF WORK

(6) THIS PROJECT INCLUDES REPLACING THE EXISTING BRIDGE CROSSING OF AFG ROAD OVER RAILROAD TRACKS, GRADING, WIDENING PAVEMENT, INSTALLING GUARDRAIL, AND PLACING OTHER DESIGN FEATURES AS INDICATED IN THE PLANS OR AS DIRECTED BY THE TDOT MANAGER.

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ENVIRONMENTAL NOTES

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TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2022	37455-2422-04	2F
PIH	2025	BRZ-3700(43)	2F
PS&E	2026	BRZ-3700(43)	2F

REV. 04/12/23: MODIFIED THE SHRINK AND SWELL FACTORS IN THE ESTIMATED GRADING QUANTITIES TABLE.

REV. 06/13/24: UPDATED THE ESTIMATED GRADING QUANTITIES AND TOPSOIL TABULATION TABLES.

PROPOSED GUARDRAIL

SHEET NO.	LOCATION	SIDE		STATIONS		GUARDRAIL			TERMINAL ANCHORS			GUARDRAIL REMOVED	REMARKS
		LT	RT	FROM	TO	THRIE BEAM BRIDGE TRAN. MASH TL-3 (20.65') 705-06.25 EACH	W BEAM GR (TYPE 2) MASH TL3 705-06.01 (L.F.)	RADIUS RAIL 706-06.03 (L.F.)	TYPE 13 MASH TL3 (9.375') 705-06.10 (EACH)	IN-LINE MASH TL3 705-06.11 (EACH)	TYPE 21 MASH TL2 (21.875') 705-06.30 (EACH)	706-01 (L.F.)	
4B	AFG ROAD		X	102+75.00	103+56.87		57.75				1	31.00	
4B	AFG ROAD		X	104+51.50	106+18.37	1	120.44				1	214.00	
4B	AFG ROAD	X		105+94.88	106+37.40	1					1	126.00	
4B	AFG ROAD		X	108+70.01	109+12.53	1					1	50.00	
4B	AFG ROAD	X		108+90.79	109+33.31	1					1	76.00	
5B	AFG ROAD		X	110+69.23	112+80.00		231.00	17	1	1		184.00	
5B	AFG ROAD	X		110+87.53	112+80.00		172.40				1	217.00	
TOTALS						4	582	17	1	1	6	898	

SPECIAL DITCHES

ROADWAY	STATION		SIDE	DETAIL NO.	CONFIGURATION		RIP-RAP (CLASS A-1) 709-05.06 (TON)	SODDING NEW SOD 803-01 (S.Y.)
	FROM	TO			FORE (H/V)	BACK (H/V)		
AFG ROAD	103+20.00	105+90.00	LT.	1	VARIES	VARIES		140
AFG ROAD	103+30.00	104+25.00	RT.	1	VARIES	VARIES		59
AFG ROAD	109+80.00	110+38.11	LT.	2	VARIES	VARIES	30	
AFG ROAD	108+85.00	109+80.00	RT.	1	VARIES	VARIES		65
AFG ROAD	109+80.00	110+31.61	RT.	2	VARIES	VARIES	28	
AFG ROAD	111+68.18	111+70.24	RT.	1	VARIES	VARIES		13
TOTALS							58	277

PAVEMENT QUANTITIES

LOCATION (ROADWAY)	TYPE - GRADE - PAY ITEM (TON)				
	MINERAL AGG.	BITUMINOUS PLANT MIX BASE (HOT MIX)		TACK COAT	ASPHALTIC CONCRETE SURFACE (HOT MIX)
	D	A	B-M2		D
	303-01	307-02.01	307-02.08	403-01	411-02.10
AFG ROAD	1839.0	400.0	323.0	1.90	275.0
DRIVEWAYS	76.0		2.0	0.10	6.0
TOTALS	1915.0	400.0	325.0	2.0	281.0

ESTIMATED GRADING QUANTITIES

DESCRIPTION	UNADJUSTED VOLUMES (CY)		ADJUSTED VOLUMES (CY)
	EXC.	EMB.	EXC.
MAINLINE	4089	5924	3681
SIDE ROADS	0	0	
PVT. DRIVES, BUSINESS AND FIELD ENTRANCES	218	7	197
INDEPENDENT DITCHES	0	0	
TEMPORARY CONSTRUCTION EXITS	8	0	8
OTHER (BRIDGE EXCAVATION)	3584	823	3226
TOPSOIL (EMB.)	235		
TOPSOIL (EXC.)	406		
TOPSOIL TOTALS (SEE TOPSOIL TABLE)			

ROCK (C.Y.)		TOTALS (C.Y.)				
EXC.	EMB.	EXC. (UNCL.)	EMB. (UNCL.)	EXC (COMMON)	EXC. (AVAIL.)	EXC. (ADJ.)
0	0	8540	6754	8540	7899	7110

BALANCE SUMMARY

SHRINK = 10 % SWELL = 10 %

EXC.		EMB.
7110	VS.	-6754
AVAILABLE	=	356
WASTE MATERIAL	=	392

TOPSOIL

IF EXISTING TOPSOIL IS SUITABLE FOR REUSE

PROPOSED SLOPE AREA S.F.	EXISTING TOPSOIL (EXC.)	EXISTING TOPSOIL (EMB.)	EXISTING TOPSOIL (TOTAL) C.Y.	REQUIRED TOPSOIL C.Y.	PLACING TOPSOIL 203-04 C.Y.	FURNISHED TOPSOIL 203-07 C.Y.	EXCESS TOPSOIL C.Y.
38919	412	235	647	721	647	74	0

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07/20/2026

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TABULATED QUANTITIES

SHEET 1 OF 2

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TYPE	YEAR	PROJECT NO.	SHEET NO.
PIH	2025	BRZ-3700(43)	2F1
PS&E	2026	BRZ-3700(43)	2F1

STORM DRAIN ENDWALLS

LOCATION \ SHEET NO.	STATION	OFFSET (FT.)	SKEW	CODE	TYPE	STANDARD DRAWING NO.	PROTECTED ENDWALLS	
							CLASS "A" CONCRETE 611-07.01 (C.Y.)	STEEL BAR REINFORCING 611-07.02 (LB.)
AFG RD. \ 4B	108+85.00	30	90°	2	STR.	D-PEW-4	1.1	29
AFG RD. \ 5B	111+70.24	66.61	90°	3	STR.	D-PE-4	2.0	93
TOTALS							3	122

JUNCTION BOXES

SHEET NO.	LOCATION	STATION	OFFSET (FT.)	DRAINAGE CODE	TOP ELEV.	INVERT ELEV.	DEPTH (FT.)	INSIDE DIM.	STANDARD DRAWING NO.	PAY ITEMS 48" ROUND 611-63.02 (EACH)
4B	AFG RD.	108+75.00	18.21	1	1239.60	1236.31	3.29	48" DIAM.	D-RJB-1	1
TOTALS										1

STORM DRAINAGE PIPES

SHEET NO.	INLET		OUTLET		% GRADE	REINFORCED CONCRETE PIPE - CLASS, ITEM NO., SIZE & LENGTH (FT.)
	CODE NO.	OUTLET ELEV.	CODE NO.	INLET ELEV.		CLASS III 607-03.02 18"
4B	1	1236.31	2	1236.19	0.90%	14'
TOTALS						14'

SIDE DRAIN TABULATION

STATION	LOCATION LT.	LOCATION RT.	DESCRIPTION	SURFACE WIDTH FT.	SKEW	RCP CLASS III OR CMP 16 GA OR PVC OR SRTRP OR HDPE OR PP (L.F.) FILL HEIGHT ≤ 10 FT. 18"	24"	30"	36"	42"	48"	END TREATMENT INLET TYPE	INLET DRAWING NO.	OUTLET TYPE	OUTLET DRAWING NO.	REMARKS
103+55.00	X		DRIVEWAY TRACT 2	12	88°	15						SAFETY	D-SEW-1A	SAFETY	D-SEW-1A	
104+50.00	X		DRIVEWAY TRACT 3	12	90°	15						SAFETY	D-SEW-1A	SAFETY	D-SEW-1A	
110+50.87	X		DRIVEWAY TRACT 6	12	100°	29										
110+51.50		X	DRIVEWAY TRACT 9A	13	111°	55						SAFETY	D-SEW-1A			
TOTALS						114										

Pipe Tabulation For Private Drives, Business & Field Entrances

CROSS DRAIN TABULATION

STATION	SKEW	RCP CLASS III OR CMP 14 GA OR PVC FILL HEIGHT > 16 FT. AND ≤ 24 FT (L.F.) 18"	24"	30"	36"	42"	48"	END TREATMENT INLET TYPE	INLET DRAWING NO.	OUTLET TYPE	OUTLET DRAWING NO.	REMARKS
111+70.24				21				STR	D-PE-4			
TOTALS				21								

Pipe Tabulation For Local Roadways

SEALED BY

JAMES B. MORGAN REGISTERED ENGINEER DEPARTMENT OF AGRICULTURE COMMERCE No. 111658 STATE OF TENNESSEE

07/20/2026

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

TABULATED QUANTITIES

SHEET 2 OF 2

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TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2022	37455-2422-04	3
PIH	2025	BRZ-3700(43)	3
PS&E	2026	BRZ-3700(43)	3

RIGHT-OF-WAY

(1) IT IS INTENDED THAT ALL BUILDINGS AND/OR PORTIONS OF BUILDINGS THAT ARE WITHIN THE PROPOSED RIGHT-OF-WAY AND/OR EASEMENT LINES FOR THE PROJECT BE REMOVED THERE FROM IN THE PROCESS OF RIGHT-OF-WAY ACQUISITION. IF ANY SUCH BUILDINGS OR IMPROVEMENTS ARE NOT REMOVED IN THE COURSE OF RIGHT-OF-WAY ACQUISITION, THE PROJECT MANAGER, AND PRECONSTRUCTION OFFICE ARE TO BE NOTIFIED IN SUFFICIENT TIME TO PERMIT HAVING SUCH REMOVALS DESIGNATED AS A PART OF THE CONSTRUCTION CONTRACT.

(3) EXISTING PAVED DRIVEWAY PER TRACT REMAINDER WILL BE REPLACED IN KIND TO A TOUCHDOWN POINT.

(4) WHERE THE EXISTING DRIVEWAY IS UNPAVED AND THE PROPOSED DRIVEWAY EXCEEDS 7 PERCENT IN GRADE, EACH DRIVEWAY WILL BE PAVED TO A TOUCHDOWN POINT OR UNTIL THE GRADE IS LESS THAN 7 PERCENT.

(5) WHERE THE EXISTING DRIVEWAY IS UNPAVED AND THE PROPOSED DRIVEWAY IS LESS THAN 7 PERCENT IN GRADE, EACH DRIVEWAY WILL BE PAVED A SHOULDER WIDTH FROM THE EDGE OF PAVEMENT AND THE REMAINDER OF THAT DRIVEWAY REPLACED IN KIND TO A TOUCHDOWN POINT.

(6) ANY NECESSARY PAVING OF DRIVEWAYS WILL BE DONE DURING PAVING OPERATIONS ON THE MAIN ROADWAY.

(7) TRACT REMAINDERS NOT HAVING AN EXISTING DRIVEWAY WILL BE PROVIDED ONE 50-FOOT OPENING IN THE ACCESS CONTROL FENCE AND A DRIVEWAY WILL BE CONSTRUCTED UNLESS ACCESS IS PROVIDED FROM AN INTERSECTING ROAD OR BASED ON PHYSICAL CONDITIONS AND/OR CONFLICTS WITH OTHER DESIGN CONSIDERATIONS WHICH PREVENT AN ACCESS OPENING. PAVING OF THESE NEW DRIVEWAYS WILL BE IN ACCORDANCE TO THE 7 PERCENT CRITERIA PREVIOUSLY MENTIONED FOR EXISTING DRIVEWAYS.

(8) NEW DRIVEWAYS PROVIDED IN THE PLANS WILL BE PAVED BASED ON THE 7 PERCENT CRITERIA. THOSE 7 PERCENT OR STEEPER IN GRADE WILL BE PAVED AND THOSE FLATTER THAN 7 PERCENT WILL BE COVERED WITH BASE STONE.

(11) ON NON-STATE ROUTES, ADDITIONAL DRIVEWAYS AND FIELD ENTRANCES OTHER THAN THOSE PROVIDED IN THE PLANS SHALL REQUIRE A PERMIT ONLY IF THE LOCAL AGENCY SPECIFIES THE NEED FOR THAT PERMIT.

(12) EASEMENT REQUIRED FOR THE RAILROAD CROSSING IS TO BE OBTAINED BY THE UTILITIES ENGINEER BY PROVISIONS CONTAINED IN THE CROSSING AGREEMENT NEGOTIATED WITH THE RAILROAD.

UTILITY

(1) THE LOCATIONS OF UTILITIES SHOWN WITHIN THESE PLANS ARE APPROXIMATE ONLY. THE SURVEYOR HAS NOT PHYSICALLY LOCATED THE UNDERGROUND UTILITIES. ABOVE GRADE AND UNDERGROUND UTILITIES SHOWN WERE TAKEN FROM VISIBLE APPURTENANCES AT THE SITE, PUBLIC RECORDS, AND/OR MAPS PREPARED BY OTHERS. THEREFORE, RELIANCE UPON THE TYPE, SIZE, AND LOCATION OF UTILITIES SHOWN SHOULD BE DONE SO WITH THIS CIRCUMSTANCE CONSIDERED. DETAILED VERIFICATION OF EXISTENCE, LOCATION, AND DEPTH SHOULD ALSO BE MADE PRIOR TO ANY DECISION RELATIVE THERETO IS MADE. AVAILABILITY AND COST OF SERVICE SHOULD BE CONFIRMED WITH THE APPROPRIATE UTILITY COMPANY. IN TENNESSEE, IT IS A REQUIREMENT, PER "THE UNDERGROUND UTILITY DAMAGE PREVENTION ACT", THAT ANYONE WHO ENGAGES IN EXCAVATION MUST NOTIFY ALL KNOWN UNDERGROUND UTILITY OWNERS, NO LESS THAN THREE (3) OR NOT MORE THAN TEN (10) WORKING DAYS PRIOR TO THE DATE OF THEIR INTENT TO EXCAVATE AND ALSO TO AVOID ANY POSSIBLE HAZARD OR CONFLICT. NOTIFICATION BY CALLING THE TENNESSEE ONE CALL SYSTEM, INC., AT 1-800-351-1111 AS REQUIRED BY TCA 65-31-106 WILL BE REQUIRED.

(2) UNLESS OTHERWISE NOTED, ALL UTILITY ADJUSTMENTS WILL BE PERFORMED BY THE UTILITY OR ITS REPRESENTATIVE. THE CONTRACTOR AND UTILITY OWNERS WILL BE REQUIRED TO COOPERATE WITH EACH OTHER IN ORDER TO EXPEDITE THE WORK REQUIRED BY THIS CONTRACT. ON CONTRACTS WHERE CONSTRUCTION STAKES, LINES, AND GRADES ARE CONTRACT ITEMS, THE CONTRACTOR WILL BE REQUIRED TO PROVIDE RIGHT-OF-WAY OR SLOPE STAKES, DITCH OR STREAM BED GRADES, OR OTHER ESSENTIAL SURVEY STAKING TO PREVENT CONFLICTS WITH THE HIGHWAY CONSTRUCTION. FREQUENTLY, THIS WILL BE REQUIRED AS THE FIRST ITEM OF WORK AND AT ANY LOCATION ON THE PROJECT DIRECTED BY THE ENGINEER.

(3) THE CONTRACTOR WILL PROVIDE ALL NECESSARY PROTECTIVE MEASURES TO SAFEGUARD EXISTING UTILITIES FROM DAMAGE DURING CONSTRUCTION OF THIS PROJECT. IN THE EVENT THAT SPECIAL EQUIPMENT IS REQUIRED TO WORK OVER AND AROUND THE UTILITIES, THE CONTRACTOR WILL BE REQUIRED TO FURNISH SUCH EQUIPMENT. THE COST OF PROTECTING UTILITIES FROM DAMAGE AND FURNISHING SPECIAL EQUIPMENT WILL BE INCLUDED IN THE PRICE BID FOR OTHER ITEMS OF CONSTRUCTION.

(4) PRIOR TO SUBMITTING HIS BID, THE CONTRACTOR WILL BE SOLELY RESPONSIBLE FOR CONTACTING OWNERS OF ALL AFFECTED UTILITIES IN ORDER TO DETERMINE THE EXTENT TO WHICH UTILITY RELOCATIONS AND/OR ADJUSTMENTS WILL HAVE UPON THE SCHEDULE OF WORK FOR THE PROJECT. WHILE SOME WORK MAY BE REQUIRED 'AROUND' UTILITY FACILITIES THAT WILL REMAIN IN PLACE, OTHER UTILITY FACILITIES MAY NEED TO BE ADJUSTED CONCURRENTLY WITH THE CONTRACTOR'S OPERATIONS. ADVANCE CLEAR CUTTING MAY BE REQUIRED BY THE ENGINEER AT ANY LOCATION WHERE CLEARING IS CALLED FOR IN THE SPECIFICATIONS AND CLEAR CUTTING IS NECESSARY FOR A UTILITY RELOCATION. ANY ADDITIONAL COST WILL BE INCLUDED IN THE UNIT PRICE BID FOR THE CLEARING ITEM SPECIFIED IN THE PLANS.

(5) THE CONTRACTOR SHALL NOTIFY EACH INDIVIDUAL UTILITY OWNER OF HIS PLAN OF OPERATION IN THE AREA OF THE UTILITIES. PRIOR TO COMMENCING WORK, THE CONTRACTOR SHALL CONTACT THE UTILITY OWNERS AND REQUEST THEM TO PROPERLY LOCATE THEIR RESPECTIVE UTILITY ON THE GROUND. THIS NOTIFICATION SHALL BE GIVEN AT LEAST THREE (3) BUSINESS DAYS PRIOR TO COMMENCEMENT OF OPERATIONS AROUND THE UTILITY IN ACCORDANCE WITH TCA 65-31-106 NOTIFICATION BY CALLING THE TENNESSEE ONE CALL SYSTEM, INC AT 1-800-351-1111 WILL BE REQUIRED.

UTILITY SPECIAL NOTES

(1) ALL UTILITY INSTALLATIONS OR RELOCATIONS THAT ARE REQUIRED IN CONJUNCTION WITH THIS PROJECT CAN BE INSTALLED OR RELOCATED AS PART OF THE PROJECT PROVIDED THE CONSTRUCTION IS PERFORMED BY THE PROJECT CONTRACTOR OR PROJECT CONTRACTOR'S SUB-CONTRACTOR. HOWEVER, THE UTILITY MUST SUBMIT AN APPLICATION FOR-THE INSTALLATION-OR RELOCATION TO THE NS PIPE AND WIRE PROGRAM FOR APPROPRIATE HANDLING FOR LICENSE AGREEMENT AND APPLICABLE FEES. FOR UTILITY APPLICATIONS GO TO: HTTP://WWW.NSCORP.COM/CONTENT/NSCORP/EN/REAL-ESTATE/NORFOLK-SOUTHERN-SERVICES/WIRE-PIPELINE-FIBER-OPTIC-PROJECTS.HTML. NOTE: LICENSE AGREEMENT MUST BE EXECUTED PRIOR TO UTILITY BEING INSTALLED OR RELOCATED.

UTILITY OWNERS

CABLE:

CHARTER COMMUNICATIONS
1774 HENRY G. LANE ST.
MARYVILLE, TN 37801
CONTACT: BILLY CLICK
OFFICE PHONE: 865 273 2761
CELL PHONE: 865 388 7524
Email: Billy.click@charter.com

ELECTRIC:

HOLSTON ELECTRIC COOPERATIVE
P.O. BOX 190 / 1200 WEST MAIN STREET
ROGERSVILLE, TN 37857-0190
CONTACT: NATHAN FRANKLIN
OFFICE PHONE: 865 754 5424
CELL PHONE: 423 327 9838
Email: NFranklin@holstonelectric.com

GAS:

HAWKINS COUNTY GAS UTILITY DISTRICT
202 PARK BLVD.
ROGERSVILLE, TN 37857
CONTACT: PATRICK LUND
OFFICE PHONE: 423 272 8841
CELL PHONE: 423 358 0339
Email: plund@hcgas.com

SEWER:

CITY OF CHURCH HILL-SEWER
P.O. BOX 366, 251 SILVER LAKE RD
CHURCH HILL, TN 37642
CONTACT: GREG LINKOUS
OFFICE PHONE: 423 676 1531

WATER:

FIRST UTILITY DISTRICT OF HAWKINS COUNTY
P.O. BOX 8 / 523 W. MAIN BLVD.
CHURCH HILL, TN 37642
CONTACT: JEREMY JONES
OFFICE PHONE: 423 357 7511
CELL PHONE: 423 384 0604
Email: jjones@fudhc.com

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JAMES B. MORGAN
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AGRICULTURE
COMMERCE
No. 111658
STATE OF TENNESSEE

07/20/2026

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

RIGHT-OF-WAY NOTES, UTILITY NOTES AND UTILITY OWNERS

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TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2022	37455-2422-04	3A
PIH	2025	BRZ-3700(43)	3A
PS&E	2026	BRZ-3700(43)	3A

REV. 04/12/23: UPDATED TRACTS 3 AND 8 PROPERTY OWNER AND COUNTY RECORDS INFORMATION. UPDATED TRACT 4 TOTAL AREA AND AREA TO BE ACQUIRED INFORMATION.

REV. 06/13/24: ADDED TRACT 9A. MODIFIED TRACT 9 EASEMENT ACQUISITION. UPDATED DISTURBED AREA TABLE.

REV. 06/27/25: UPDATED SLOPE AND CONSTRUCTION EASEMENTS ON TRACTS 9A AND 9. UPDATED CONSTRUCTION, AIR RIGHTS, AND PERM. RAILROAD EASEMENTS ON TRACT 10. UPDATED TOTAL AREA ON TRACTS 9A AND 4. UPDATED PROPERTY OWNER ON TRACT 9A.

REV. 07/09/25: UPDATED CONST. EASEMENT AREA ON TRACT 9A.

R.O.W. ACQUISITION TABLE

TRACT NO.	PROPERTY OWNERS	COUNTY RECORDS				TOTAL AREA (ACRES)			AREA TO BE ACQUIRED (ACRES)			AREA REMAINING (ACRES)		EASEMENT (ACRES)				
		TAX MAP NO.	PARCEL NO.	DEED DOCUMENT REFERENCE		LEFT	RIGHT	TOTAL	LEFT	RIGHT	TOTAL	LEFT	RIGHT	PERM DRAINAGE	SLOPE	CONST *	AIR RIGHTS	PERM RAILROAD
				BOOK	PAGE													
~~1~~	~~GUY BENNY DRINNON AND WIFE, SUZANNE R. DRINNON~~	~~055~~	~~016.07~~	~~664~~	~~525~~		~~36.932~~	~~36.932~~					~~36.932~~					
2	RICHARD L. JENNINGS AND WIFE, MELANIE N. JENNINGS	055	016.00	1104	171	12.006		12.006				12.006				1528 S.F.		
3	TRAVIS HOLTZCLAW	055	017.00	1448	571	0.345		0.345				0.345				540 S.F.		
4	JEFF DOUTHAT AND WIFE, LINDA DOUTHAT	055	016.03	443	199		3.506	3.506		0.126	0.126		3.380					
~~5~~	~~REBECCA A. BARNETT AND HEIRS, ZANE A. JOHNSON AND AUSTIN W. RHOTON~~	~~055~~	~~018.02~~	~~1056~~	~~204~~	~~0.632~~		~~0.632~~				~~0.632~~						
~~6~~	~~CHARLES K. CRIGGER~~	~~055~~	~~065.15~~	~~1258~~	~~749~~	~~2.425~~		~~2.425~~				~~2.425~~						
~~7~~	~~PATRICIA C. BOND~~	~~055~~	~~065.00~~	~~770~~	~~408~~	~~1.235~~		~~1.235~~				~~1.235~~						
~~8~~	~~CARDINAL FG COMPANY~~	~~055~~	~~029.00~~	~~1417~~	~~558~~		~~357.771~~	~~357.771~~					~~357.771~~					
9A	UNKNOWN OWNER	NONE	NONE	129/129	103/105		1.471	1.471					1.471		3074 S.F.	0.269		
9	NORFOLK SOUTHERN RAILWAY	N/A	N/A				4.135	4.135					4.135			2410 S.F.		
10	NORFOLK SOUTHERN RAILWAY	N/A	N/A			0.247	0.116	0.363				0.247	0.116			0.360	0.362	88 S.F.
~~11~~	~~NORFOLK SOUTHERN RAILWAY~~	~~N/A~~	~~N/A~~															
ACQUISITION TOTALS (ACRES)										**0.126**					**0.107**	**0.732**	**0.362**	**0.002**

*TO PROVIDE WORKING ROOM FOR CONSTRUCTION AND EPSC MEASURES

DISTURBED AREA

IN BETWEEN SLOPE LINES	1.894	(AC)
15 FOOT WIDE STRIP (OUT SIDE SLOPE LINES)	0.797	(AC)
TOTAL DISTURBED AREA	2.690	(AC)
TOTAL PROJECT AREA	2.858	(AC)

SEALED BY

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No. 111658
STATE OF TENNESSEE

07/20/2026

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

RIGHT-OF-WAY ACQUISITION TABLE

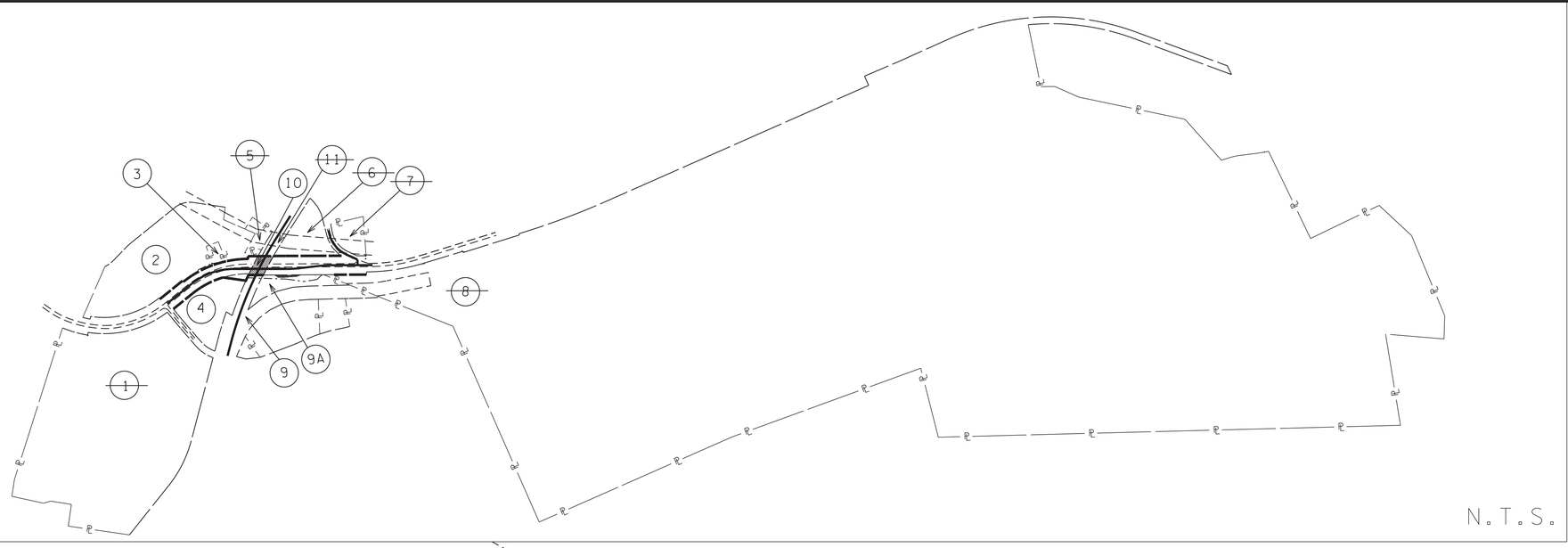
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TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2022	37455-2422-04	3B
PIH	2025	BRZ-3700(43)	3B
PS&E	2026	BRZ-3700(43)	3B

REV. 04/12/23: MODIFIED PRESENT AND PROPOSED ROW LINES ALONG TRACT 4.

REV. 06/13/24: ADDED TRACT 9A.

REV. 06/27/25: UPDATED TEMPORARY AND PERMANENT EASEMENTS ON TRACT 10, AND SLOPE EASEMENT ON TRACTS 9 AND 9A. UPDATED TRACTS 4 AND 9 PROPERTY LINES. UPDATED CONSTRUCTION NUMBER IN PROJECT LIMIT FLAG. CADD UPDATES.



AIR RIGHTS EASEMENT

SLOPE EASEMENT

PERMANENT EASEMENT

BEGIN PROJ. NO. 37455-2422-04
STA. 103+15.00 (R.O.W.)
N 805080.1127
E 2912229.3009

37LCOU-F3-006
BEGIN PROJ. NO. BRZ-3700(43)
STA. 102+20.00 (CONST.)
N 805098.4542
E 2912136.2219

AFG ROAD STA. 100+00.00
N 805125.2957
E 2911917.8655

GREENLAND RD. STA. 1+40.00
N 804644.9212
E 2913138.6256

AFG ROAD STA. 114+88.31 =
GREENLAND RD. STA. 5+00.00
N 804311.5562
E 2913104.2269

AFG ROAD STA. 116+00.00
N 804231.7502
E 2913182.3607

AFG ROAD STA. 107+56.70 =
NORFOLK SOUTHERN RAILROAD
STA. 24+57.56
DOT #730178N
MILE POST 59.00-TC
N 804815.8325
E 2912575.3233

37LCOU-F3-006
END PROJ. NO. BRZ-3700(43)
STA. 114+50.00 (CONST.)
N 804338.9334
E 2913077.4235

END PROJ. NO. 37455-2422-04
STA. 112+20.00 (R.O.W.)
N 804501.1394
E 2912914.4483

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JAMES B. MORGAN
REGISTERED ENGINEER
AGRICULTURE
COMMERCE
111658
STATE OF TENNESSEE

07/20/2026

COORDINATES ARE NAD 83(1995), ARE DATUM ADJUSTED BY THE FACTOR OF 1.00004 AND TIED TO THE TGRN. ALL ELEVATIONS ARE REFERENCED TO THE NAVD 1988 WITH GEOID 12B.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

PROPERTY MAP

SCALE: 1"=100'

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UTILITY NOTE: HAWKINS COUNTY GAS UTILITY DISTRICT STATED THE 6" HIGH PRESSURE GAS LINE RAN PARALLEL TO THE RAILROAD ALONG WITH A 50 FOOT GAS LINE EASEMENT.

WATER LINE IS ATTACHED TO NORTHEAST SIDE OF BRIDGE.

RAILROAD NOTE: DEMOLITION OF EXISTING SUBSTRUCTURES LOCATED IN OR ADJACENT TO THE TRACK DITCH NEED TO BE REMOVED TO A MINIMUM OF 2' BELOW FINAL GRADE.

AFG ROAD
PI 104+08.40
N 805,075.4681
E 2,912,323.2136
Δ 38° 50′ 05″ (RT)
D 11° 27′ 33″
R 500.00
L 338.90
T 176.25
SE 0.071 FT/FT

NORTHFOLK SOUTHERN RAILROAD
PI 26+20.34
N 804,794.4513
E 2,912,413.0455
Δ 17° 27′ 00″ (LT)
D 2° 02′ 47″
R 2,800.00
L 852.77
T 429.71

BEGIN PROJ. NO. 37455-2422-04
STA. 103+15.00 (R.O.W.)
N 805080.1127
E 2912229.3009

BEGIN PROJ. NO. BRZ-3700(43)
STA. 102+20.00 (CONST.)
N 805098.4542
E 2912136.2219

AFG RD. STA. 100+00.00
N 805125.2957
E 2911917.8655

AIR RIGHTS EASEMENT

SLOPE EASEMENT

PERMANENT EASEMENT

TRAVIS HOLTZCLAW
105

RICHARD L. JENNINGS
AND WIFE,
MELANIE N. JENNINGS
37LCOU-F3-006

~~REBECCA A. BARNETT AND HEIRS, ZANE A. JOHNSON AND AUSTIN W. RHOTON~~

JEFF DOUTHAT
AND WIFE,
LINDA DOUTHAT

~~GUY BENNY DRINNON AND WIFE, SUZANNE R. DRINNON~~

UNKNOWN OWNER

AFG ROAD STA. 107+56.70 =
NORFOLK SOUTHERN RAILROAD
STA. 24+57.56
DOT #730178N
MILE POST 59.00-TC
N 804815.8325
E 2912575.3233

TRACTS FOR REFERENCE ONLY

EXIST. PVMT. TO BE SCARIFIED, OBLITERATED, TOPSOILED, AND SEEDED.

MATCH LINE STA. 109+50 SEE SHT. NO. 5

CONTROL POINTS						
POINT	NORTH	EAST	ELEVATION	DESCRIPTION	STATION	OFFSET
37-AFG-01	804974.4925	2912474.3680	1244.16	37-AFG-01	105+72.54	38.10(LT)
37-AFG-02	804723.8980	2912674.3945	1234.09	37-AFG-02	108+91.67	7.03(LT)

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2022	37455-2422-04	4
PIH	2025	BRZ-3700(43)	4
PS&E	2026	BRZ-3700(43)	4

REV. 04/12/23: MODIFIED PRESENT AND PROPOSED ROW LINES ALONG TRACT 4. UPDATED PROPERTY OWNER ON TRACT 3.

REV. 06/13/24: ADDED TRACT 9A AND DRIVEWAY ON TRACT 4. MODIFIED SLOPE LINES ALONG TRACT 4. CADD CORRECTIONS.

REV. 06/27/25: UPDATED TEMPORARY AND PERMANENT EASEMENTS ON TRACT 10, AND SLOPE EASEMENT ON TRACTS 9 AND 9A. UPDATED SLOPE LINES ON TRACTS 9A, 10, AND ALONG EAST SIDE OF BRIDGE ENDS. CADD UPDATES. UPDATED TRACTS 9 AND 4 PROPERTY LINES. UPDATED CONSTRUCTION PROJECT NUMBER IN PROJECT LIMIT FLAG. UPDATED PROPERTY OWNER ON TRACT 9A.

SEALED BY

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AGRICULTURE
COMMERCE
111658
STATE OF TENNESSEE

07/20/2026

COORDINATES ARE NAD 83(1995), ARE DATUM ADJUSTED BY THE FACTOR OF 1.00004 AND TIED TO THE TGRN. ALL ELEVATIONS ARE REFERENCED TO THE NAVD 1988 WITH GEOID 12B.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

PRESENT LAYOUT

STA. 102+20 TO STA. 109+50
SCALE: 1"= 50'

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TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2022	37455-2422-04	4A
PIH	2025	BRZ-3700(43)	4A
PS&E	2026	BRZ-3700(43)	4A

REV. 04/12/23: MODIFIED PRESENT AND PROPOSED ROW LINES ALONG TRACT 4. UPDATED PROPERTY OWNER ON TRACT 3.

REV. 06/13/24: ADDED TRACT 9A AND DRIVEWAY ON TRACT 4. MODIFIED SLOPE LINES ALONG TRACT 4. ADDED STATION/OFFSET AND BEARING/DISTANCE LABELS. CADD CORRECTIONS.

REV. 06/27/25: UPDATED TEMPORARY AND PERMANENT EASEMENTS ON TRACT 10 AND SLOPE EASEMENT ON TRACTS 9 AND 9A. UPDATED SLOPE LINES ON TRACTS 9A, 10, AND ALONG EAST SIDE OF BRIDGE ENDS. CADD UPDATES. UPDATED TRACTS 9 AND 4 PROPERTY LINES. UPDATED CONSTRUCTION PROJECT NUMBER IN PROJECT LIMIT FLAG. UPDATED PROPERTY OWNER ON TRACT 9A.

N

AIR RIGHTS EASEMENT

SLOPE EASEMENT

PERMANENT EASEMENT

BEGIN PROJ. NO. 37455-2422-04
STA. 103+15.00 (R.O.W.)
N 805080.1127
E 2912229.3009

BEGIN PROJ. NO. BRZ-3700(43)
STA. 102+20.00 (CONST.)
N 805098.4542
E 2912136.2219

AFG RD. STA. 100+00.00
N 805125.2957
E 2911917.8655

2 RICHARD L. JENNINGS AND WIFE, MELANIE N. JENNINGS
37LCOU-F3-006

3 TRAVIS HOLTZCLAW
105

4 JEFF DOUTHAT AND WIFE, LINDA DOUTHAT

5 ~~REBECCA A. BARNETT AND HEIRS, ZANE A. JOHNSON AND AUSTIN W. RHOTON~~

9 NORFOLK SOUTHERN RAILROAD

9A UNKNOWN OWNER

10 NORFOLK SOUTHERN RAILROAD

11 NORFOLK SOUTHERN RAILROAD

1 ~~GUY BENNY DRINNON AND WIFE, SUZANNE R. DRINNON~~

100 25 30

100' TVA EASEMENT

24' ASP AFG RD

RIDGE HAVEN DR. 16' ASP.

NORFOLK SOUTHERN RAILROAD

RAILROAD R.O.W.

PRES. & PROP. ROW

TEMPORARY CONSTRUCTION EASEMENT

AIR RIGHTS EASEMENT

PERMANET EASEMENT #1

PERMANET EASEMENT #2

SLOPE EASEMENT

37-AFG-01

37-AFG-02

AFG ROAD STA. 107+56.70 = NORFOLK SOUTHERN RAILROAD STA. 24+57.56
DOT #730178N
MILE POST 59.00-TC
N 804815.8325
E 2912575.3233

TRACTS FOR REFERENCE ONLY

MATCH LINE STA. 109+50 SEE SHT.NO. 5A

CONTROL POINTS						
POINT	NORTH	EAST	ELEVATION	DESCRIPTION	STATION	OFFSET
37-AFG-01	804974.4925	2912474.3680	1244.16	37-AFG-01	105+72.54	38.10(LT)
37-AFG-02	804723.8980	2912674.3945	1234.09	37-AFG-02	108+91.67	7.03(LT)

SEALED BY

JAMES B. MORGAN, REGISTERED ENGINEER, DEPARTMENT OF AGRICULTURE, COMMERCE & No. 111648, STATE OF TENNESSEE

07/20/2026

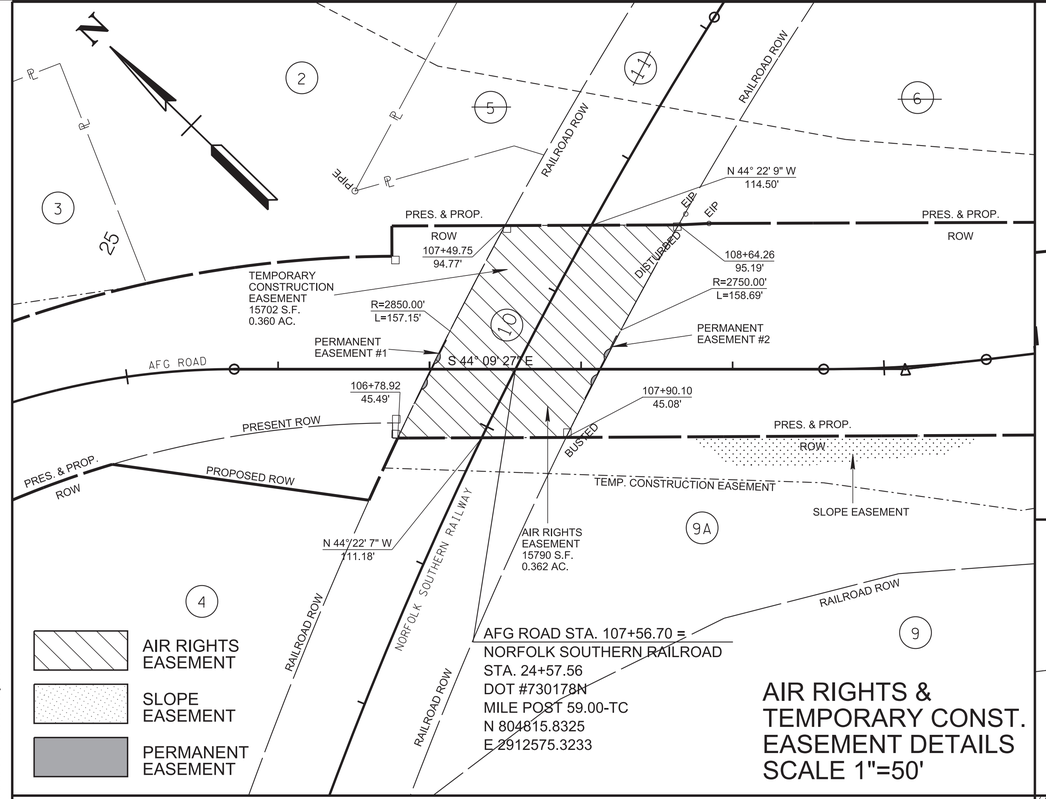
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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

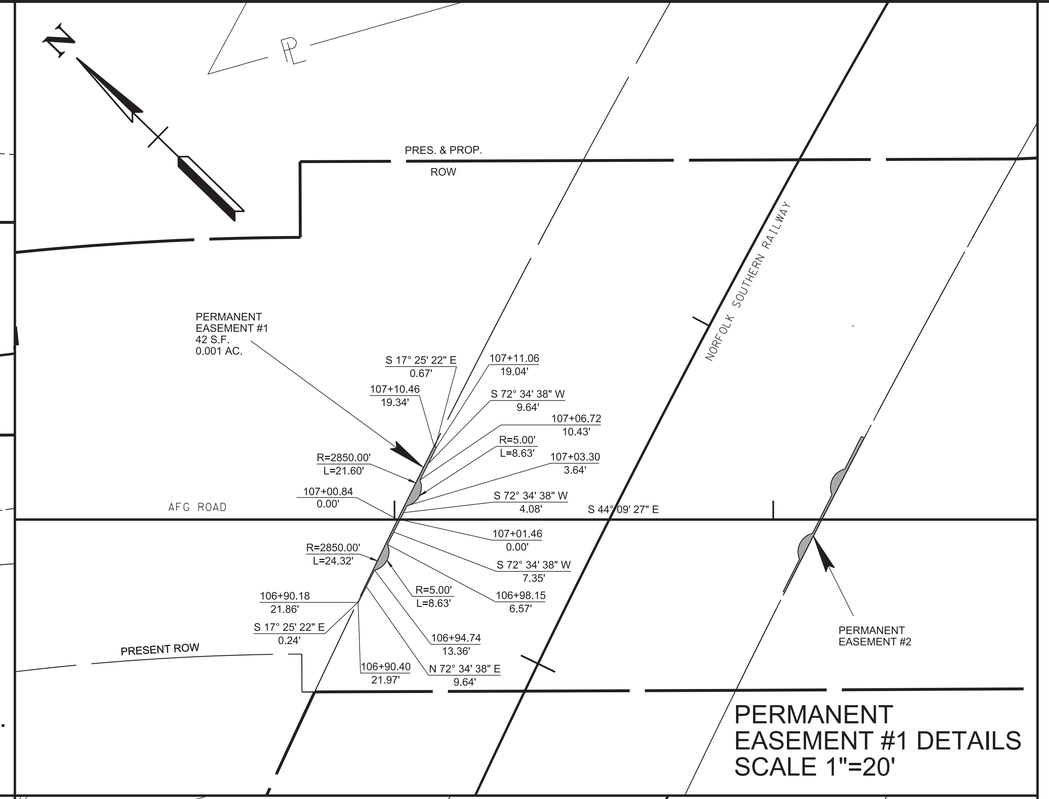
RIGHT-OF-WAY DETAILS

STA. 102+20 TO STA. 109+50
SCALE: 1"= 50'

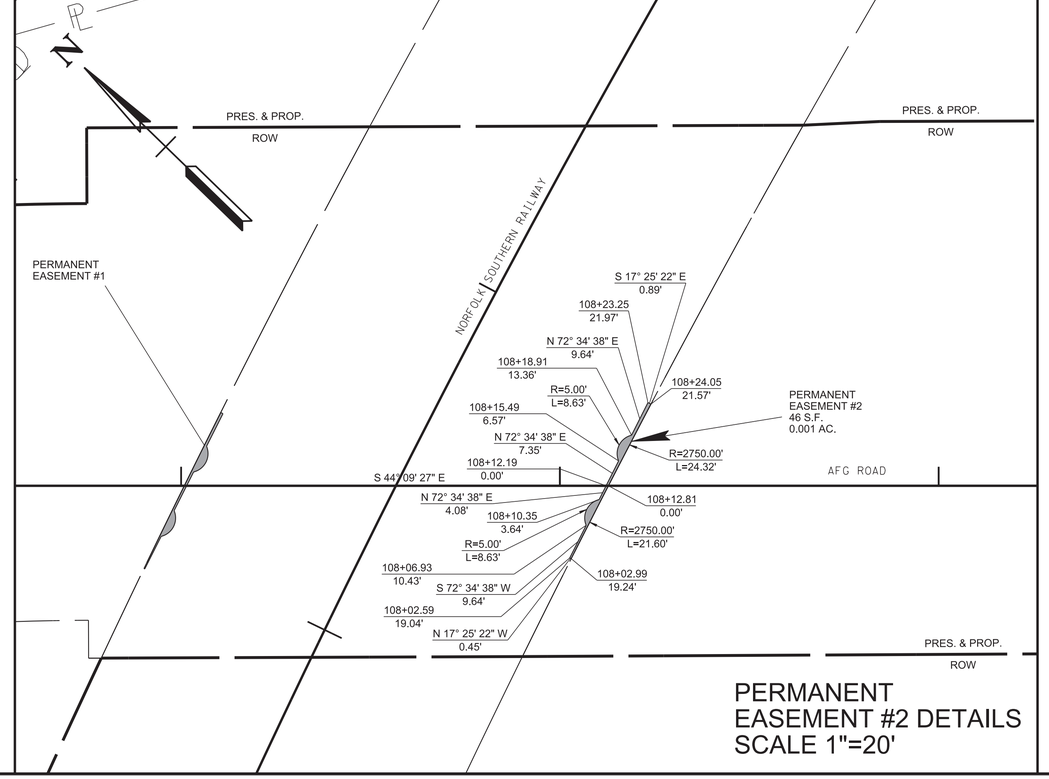
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AIR RIGHTS & TEMPORARY CONST. EASEMENT DETAILS
SCALE 1"=50'



PERMANENT EASEMENT #1 DETAILS
SCALE 1"=20'



PERMANENT EASEMENT #2 DETAILS
SCALE 1"=20'

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2022	37455-2422-04	4A1
PIH	2025	BRZ-3700(43)	4A1
PS&E	2026	BRZ-3700(43)	4A1

REV. 04/12/23: MODIFIED PRESENT AND PROPOSED ROW LINES ALONG TRACT 4. ADDED TRACT NUMBERS TO INSET.

REV. 06/13/24: ADDED TRACT 9A.

REV. 06/27/25: UPDATED TEMPORARY AND PERMANENT EASEMENTS ON TRACT 10 AND SLOPE EASEMENT ON TRACTS 9 AND 9A. UPDATED RIGHT-OF-WAY DETAILS. CADD UPDATES.

SEALED BY

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AGRICULTURE
111656
COMMERCE
STATE OF TENNESSEE

07/20/2026

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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

RIGHT-OF-WAY DETAILS

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THE CONTRACTOR SHALL USE ANY MEASURES NECESSARY TO ENSURE THAT NO CONSTRUCTION ACTIVITY WILL OCCUR IN, NOR THAT ANY CONSTRUCTION EQUIPMENT OR MATERIALS WILL ENTER, ANY PORTION OF STR-2 AND THAT THE STREAM AND SURROUNDING VEGETATION WILL NOT BE DISTURBED AND ARE PROTECTED FROM SEDIMENT AND OTHER POLLUTANTS EXCEPT AT THE PERMITTED LOCATIONS.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2022	37455-2422-04	4B
PIH	2025	BRZ-3700(43)	4B
PS&E	2026	BRZ-3700(43)	4B

REV. 06/13/24: ADDED DRIVEWAY AND SPECIAL DITCH ON TRACT 4. MODIFIED PROPOSED GUARDRAIL. CADD CORRECTIONS.

REV. 06/27/25: UPDATED CONSTRUCTION PROJECT NUMBER IN PROJECT LIMIT FLAG. CADD UPDATES. ADDED SPECIAL DITCH AND DRAINAGE STRUCTURES AT BRIDGE END.

BEGIN PROJ. NO. 37455-2422-04
STA. 103+15.00 (R.O.W.)
N 805080.1127
E 2912229.3009

37LCOU-F3-006
BEGIN PROJ. NO. BRZ-3700(43)
STA. 102+20.00 (CONST.)
N 805098.4542
E 2912136.2219

AFG RD. STA. 100+00.00
N 805125.2957
E 2911917.8655

AFG ROAD STA. 107+56.70 =
NORFOLK SOUTHERN RAILROAD
STA. 24+57.56
DOT #730178N
MILE POST 59.00-TC
N 804815.8325
E 2912575.3233

STA. 104+50.00
12' BUS. ENT.
15' - 18" SD REQD.
SEW ENDWALL

LIMIT OF CONST.
0+33.00

LIMIT OF CONST.
0+43.00

STA. 103+55.00
12' FIELD ENT.
15' - 18" SD REQD.
SEW ENDWALL

BEGIN SPECIAL DITCH
STA. 103+20.00

STA. 103+48.12
OFFSET 31.26 (LT.)

STA. 103+62.23
OFFSET 29.84 (LT.)

END RESURF. & WIDENING
STA. 104+25.00

STA. 104+42.76
OFFSET 30.08 (LT.)

STA. 104+56.94
OFFSET 30.05 (LT.)

END SPECIAL DITCH
STA. 105+90.00

BEGIN BRIDGE
STA. 106+40.83

END BRIDGE
STA. 108+65.83

TYPE 21
STA. 105+94.88
21.00 (LT.)

PROP. 225' X 41½'
CONCRETE SPAN BRIDGE

TYPE 21
STA. 109+33.31
21.00 (LT.)

BEGIN RESURF. & WIDENING
STA. 102+20.00

BEGIN RESURF.
STA. 102+25.00

V "SOD"
10' R
6" SSWL
6" DSYL
12'
8'

TYPE 21
STA. 104+51.50
21.00 (RT.)

STA. 104+35.00
12' FIELD ENT.
NO SD REQD.

LIMIT OF CONST.
0+75.00

BEGIN SPECIAL DITCH
STA. 104+25.00

END TAPER
STA. 103+35.00
OFFSET 20.00'

BEGIN TAPER
STA. 102+25.00
OFFSET 12.93'

TYPE 21
STA. 103+56.87
21.00 (RT.)

110' PVMT. TRANS.

END SPECIAL DITCH
STA. 105+30.00

STR-2

TIE TO EXIST. GUARDRAIL
STA. 102+75.00
18.03 (RT.)

PND-2

S 82° 59' 31" E

S 78° 02' 21" W

S 44° 09' 27" E

S60°35'21"W

NORFOLK SOUTHERN RAILWAY

RR/69

4" CONCRETE SLOPE PAVEMENT (TYP.)

PROP. 10" PVC
(SEE BRIDGE PLANS
FOR PIPE CONNECTION)

INV. 1236.48
OUT. 1236.31
#1 JB

STA. 108+75.00
OFFSET 18.21'

STA. 108+85.00
OFFSET 30.00'

INV. 1236.19
#2 EW

BEGIN SPECIAL DITCH
STA. 108+85.00

TYPE 21
STA. 109+12.53
21.00 (RT.)

MATCH LINE STA. 109+50 SEE SHT.NO. 5B

100
105
25
30

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AGRICULTURE
COMMERCE
111658
STATE OF TENNESSEE

07/20/2026

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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

PROPOSED LAYOUT

STA. 102+20 TO STA. 109+50
SCALE: 1"= 50'

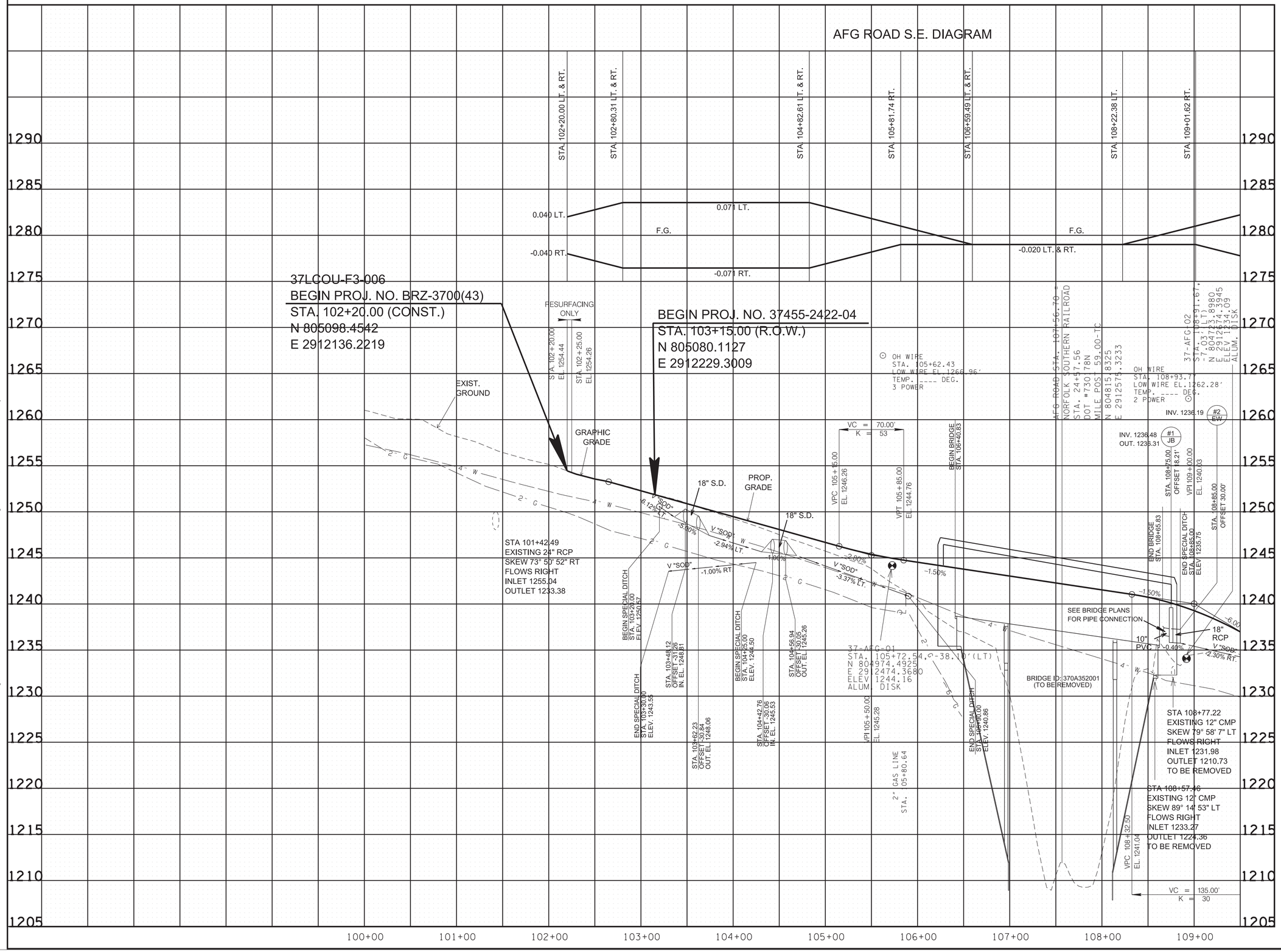
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TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2022	37455-2422-04	4C
PIH	2025	BRZ-3700(43)	4C
PS&E	2026	BRZ-3700(43)	4C

REV. 06/13/24: ADDED SPECIAL DITCH.

REV. 06/27/25: UPDATED CONSTRUCTION PROJECT NUMBER IN PROJECT LIMIT FLAG. ADDED SPECIAL DITCH AND DRAINAGE STRUCTURES AT BRIDGE END.

AFG ROAD S.E. DIAGRAM



SEALED BY

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STATE OF TENNESSEE

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STATE OF TENNESSEE
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PROPOSED PROFILE

STA. 102+20 TO STA. 109+50

SCALE: 1"= 50' HORIZ.
1"= 5' VERT.

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TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2022	37455-2422-04	5
PIH	2025	BRZ-3700(43)	5
PS&E	2026	BRZ-3700(43)	5

REV. 04/12/23: UPDATED PROPERTY OWNER ON TRACT 8.

REV. 06/13/24: ADDED TRACT 9A.

REV. 06/27/25: UPDATED CONSTRUCTION PROJECT NUMBER IN PROJECT LIMIT FLAG. UPDATED SLOPE EASEMENT AREA AND SLOPE LINES ON TRACT 9A. CADD UPDATES. UPDATED PROPERTY OWNER ON TRACT 9A.

EXIST. PVMT. TO BE SCARIFIED, OBLITERATED, TOPSOILED, AND SEEDED.

AFG ROAD
PI 110+13.96
N 804,631.2647
E 2,912,754.5411
Δ 6° 51′ 02″ (LT)
D 6° 21′ 58″
R 900.00
L 107.61
T 53.87
SE 0.053 FT/FT

AFG ROAD
PI 112+41.34
N 804,488.1113
E 2,912,931.3714
Δ 6° 36′ 53″ (RT)
D 6° 21′ 58″
R 900.00
L 103.90
T 52.01
SE 0.053 FT/FT

CONTROL POINTS						
POINT	NORTH	EAST	ELEVATION	DESCRIPTION	STATION	OFFSET
37-AFG-03	804031.9947	2913410.9805	1239.97	37-AFG-03	OFF ALIGNMENT	

GREENLAND ROAD
PI 2+70.49
N 804,537.4762
E 2,913,064.5787
Δ 53° 39′ 10″ (LT)
D 24° 54′ 40″
R 230.00
L 215.38
T 116.31

GREENLAND ROAD
PI 4+62.52
N 804,339.6920
E 2,913,132.9891
Δ 64° 42′ 38″ (RT)
D 286° 28′ 44″
R 20.00
L 22.59
T 12.67

GREENLAND RD. STA. 1+40.00
N 804644.9212
E 2913138.6256

AFG ROAD STA. 114+88.31 =
GREENLAND RD. STA. 5+00.00
N 804311.5562
E 2913104.2269

AFG RD. STA. 116+00.00
N 804231.7502
E 2913182.3607

37LCOU-F3-006
END PROJ. NO. BRZ-3700(43)
STA. 114+50.00 (CONST.)
N 804338.9334
E 2913077.4235

END PROJ. NO. 37455-2422-04
STA. 112+20.00 (R.O.W.)
N 804501.1394
E 2912914.4483

CHARLES K. CRIGGER (6)
PATRICIA C. BOND (7)
CARDINAL FC COMPANY (8)
UNKNOWN OWNER (9A)
NORFOLK SOUTHERN RAILROAD (9)
110
115
5

SOUTHERN RAILWAY
POST
PND-1
100' TVA EASEMENT
RUIN
F-SHED
MOBILE HOME
DOG KENNEL
SERVICE
WOODS
CHAINLINK
BUSTED
37-AFG-03
PRES. & PROP. ROW
RAILROAD ROW
NORFOLK SOUTHERN RAILROAD SPUR LINE EASEMENT
BARBEDWIRE
PIPE
DISTURBED
CONC. OUTSIDE/CENTER
ANGLE IRON
MALE
CUT
FILL
SLOPE EASEMENT
TEMPORARY CONSTRUCTION EASEMENT
10' GR
11' GR
18' ROCK
36" RCP
30" CMP
12' ASP.
24' ASP.
GRASS
INV-1196.38
INV-1193.41
INV-1193.55
INV-1199.61
INV-1201.57
INV-1214.30
INV-1218.89
STR-1
PC 109+60.09
PT 110+67.70
PC 1+54.17
PT 3+69.55
PC 4+89.85
PT 4+72.44
PC 111+89.34
PT 112+93.24
S 19° 04' 47" E
S 45° 51' 13" W
S 34° 34' 23" W
S 51° 00' 29" E
S 44° 23' 36" E
W.M.
EIP
CAP
P/TV
LINE FOR REFERENCE ONLY
TRACTS FOR REFERENCE ONLY
SLOPE EASEMENT

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111658
STATE OF TENNESSEE
07/20/2026

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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

PRESENT LAYOUT

STA. 109+50 TO STA. 114+50
SCALE: 1"= 50'

MATCH LINE STA. 109+50 SEE SHT. NO. 4

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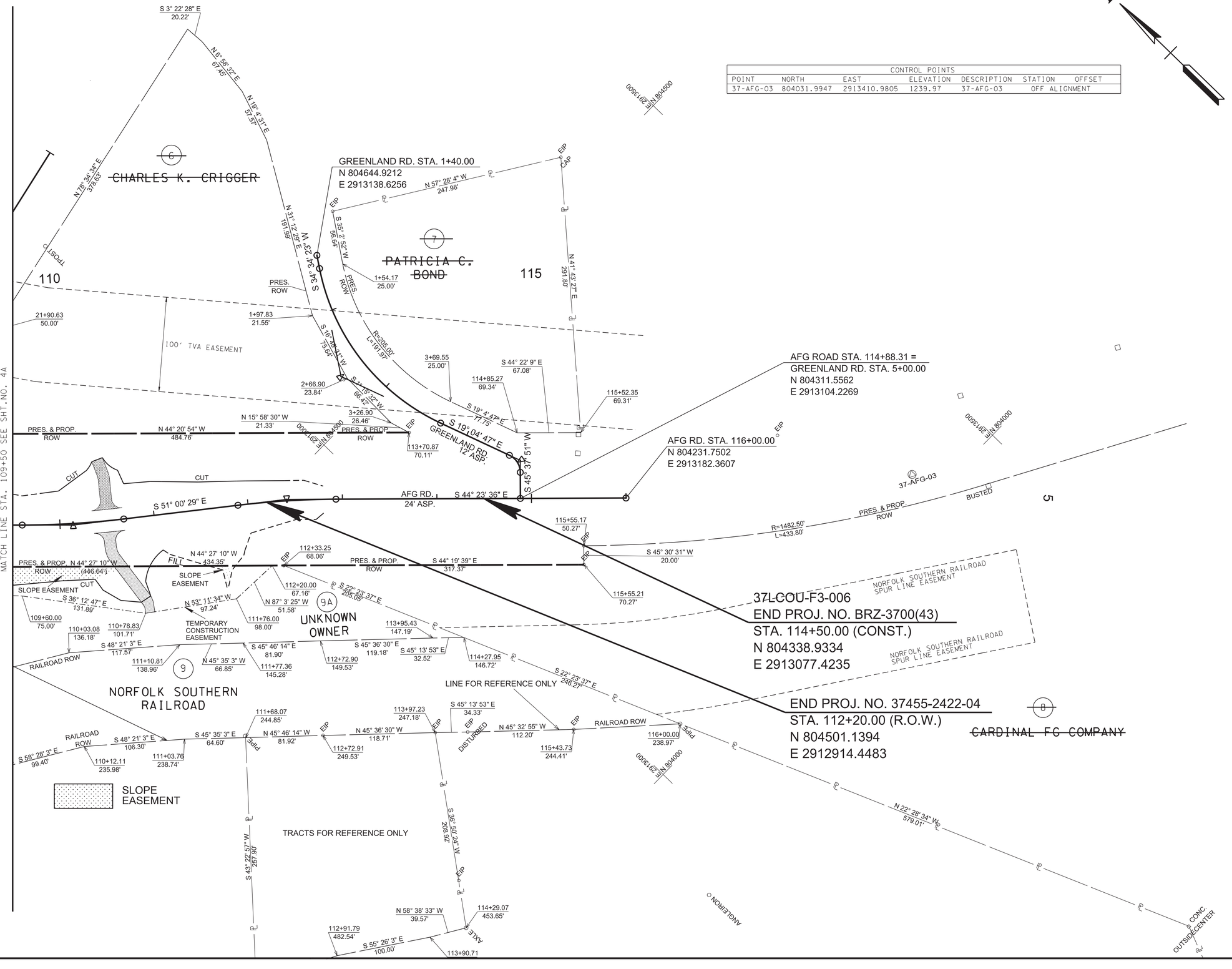
TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2022	37455-2422-04	5A
PIH	2025	BRZ-3700(43)	5A
PS&E	2026	BRZ-3700(43)	5A

REV. 04/12/23: UPDATED PROPERTY OWNER ON TRACT 8.

REV. 06/13/24: ADDED TRACT 9A. ADDED STATION/ OFFSET AND BEARING/DISTANCE LABELS. CADD CORRECTIONS.

REV. 06/27/25: UPDATED CONSTRUCTION PROJECT NUMBER IN PROJECT LIMIT FLAG. UPDATED SLOPE EASEMENT AND SLOPE LINES ON TRACT 9A. UPDATED PROPERTY OWNER ON TRACT 9A.

CONTROL POINTS						
POINT	NORTH	EAST	ELEVATION	DESCRIPTION	STATION	OFFSET
37-AFG-03	804031.9947	2913410.9805	1239.97	37-AFG-03	OFF ALIGNMENT	



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STATE OF TENNESSEE

07/20/2026

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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

RIGHT-OF-WAY DETAILS

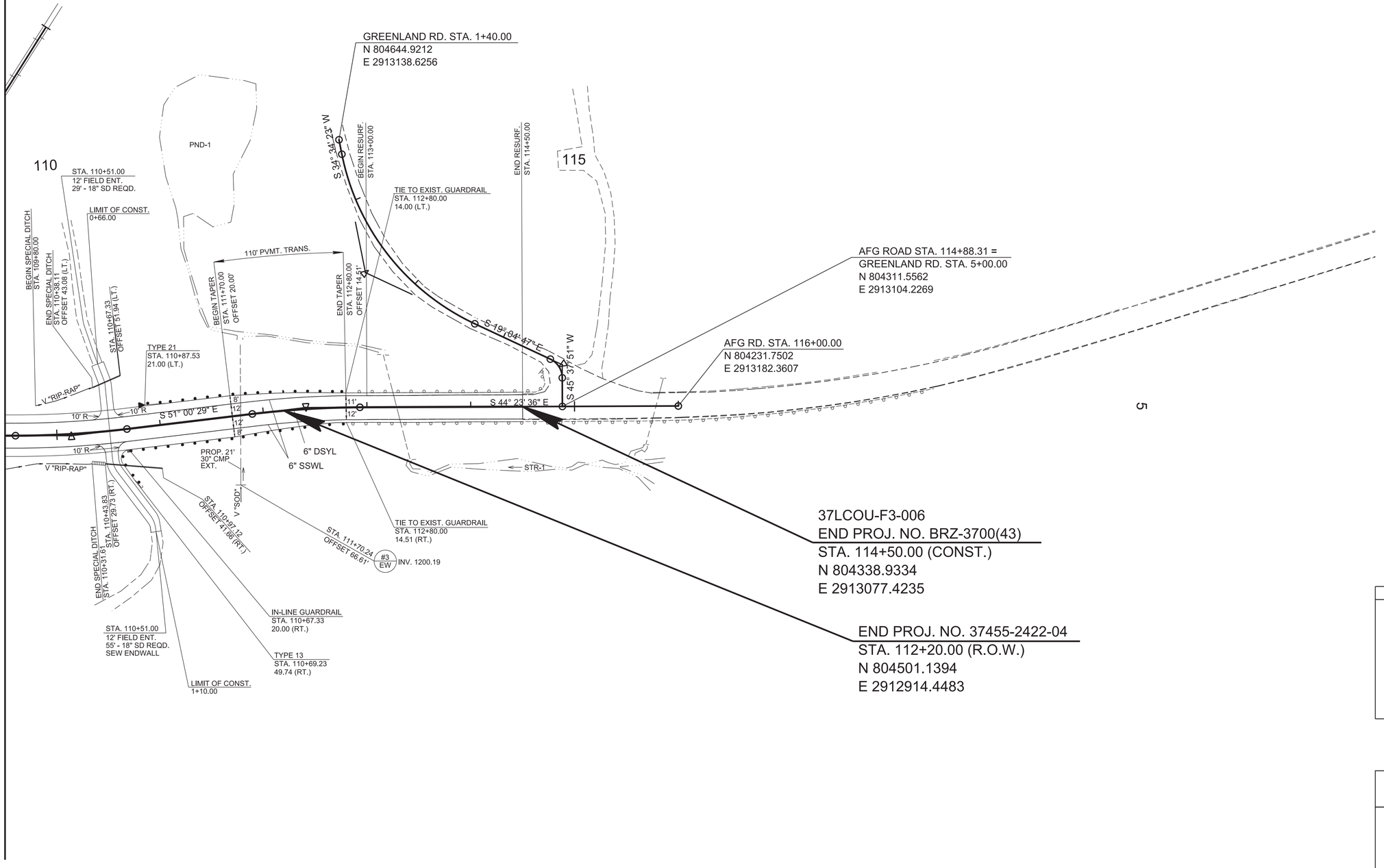
STA. 109+50 TO STA. 114+50
SCALE: 1"= 50'

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THE CONTRACTOR SHALL USE ANY MEASURES NECESSARY TO ENSURE THAT NO CONSTRUCTION ACTIVITY WILL OCCUR IN, NOR THAT ANY CONSTRUCTION EQUIPMENT OR MATERIALS WILL ENTER, ANY PORTION OF STR-1 AND THAT THE STREAM AND SURROUNDING VEGETATION WILL NOT BE DISTURBED AND ARE PROTECTED FROM SEDIMENT AND OTHER POLLUTANTS EXCEPT AT THE PERMITTED LOCATIONS.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2022	37455-2422-04	5B
PIH	2025	BRZ-3700(43)	5B
PS&E	2026	BRZ-3700(43)	5B

REV. 06/27/25: UPDATED CONSTRUCTION PROJECT IN PROJECT LIMIT FLAG. ADDED SPECIAL DITCH ALONG TRACT 9A. CADD UPDATES.



SEALED BY

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No. 111658
STATE OF TENNESSEE

07/20/2026

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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

PROPOSED LAYOUT

STA. 109+50 TO STA. 114+50
SCALE: 1"= 50'

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AFG ROAD S.E. DIAGRAM

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2022	37455-2422-04	5C
PIH	2025	BRZ-3700(43)	5C
PS&E	2026	BRZ-3700(43)	5C

REV. 06/27/25: UPDATED CONSTRUCTION PROJECT NUMBER IN PROJECT LIMIT FLAG. ADDED SPECIAL DITCH. CADD UPDATES.

STA. 109+67.00 LT. & RT.
STA. 110+32.38 LT.
STA. 111+11.62 LT. & RT.
STA. 111+90.87 RT.
STA. 112+56.25 LT. & RT.
STA. 113+21.62 RT.
STA. 114+00.87 LT. & RT.
STA. 114+50.00 LT. & RT.

0.053 RT.
-0.053 LT.
F.G.
-0.020 LT.
-0.058 LT.
-0.059 RT.
F.G.
-0.020 RT.

VC = 260.00'
K = 49

RESURFACING ONLY

AFGROAD STA. 114+88.31 =
GREENLAND STA. 5+00.00
N 804311.5562
E 2913104.2269

VPI STA. 109+80.00
ELEV. 1233.57
VPC 110+10.00
EL. 1233.43
END SPECIAL DITCH
STA. 110+31.61
ELEV. 1227.67
STA. 110+43.83
OFFSET 29.73

18" S.D.
18" S.D.
PROP. GRADE
"PROP-RAP"
-6.00%
-11.0 %
-9.45 %
"PROP-RAP"
RT
LT
-2.50%
-0.50%
-0.70%
GRAPHIC GRADE
EXIST. GROUND

VPT 112+70.00
EL. 1224.73
STA. 113+00.00
EL. 1224.52
STA. 114+50.00
EL. 1225.00

37-AFG-03
N 804031.9947
E 2913410.9805
ELEV. 1239.97
ALUM. DISK

VPT 109+67.50
EL. 1235.08
BEGIN SPECIAL DITCH
STA. 109+80.00
ELEV. 1232.24
END SPECIAL DITCH
STA. 110+28.11
ELEV. 1228.56
STA. 110+67.33
ELEV. 1226.41
STA. 110+97.00
ELEV. 1225.37
VPI 111+40.00
EL. 1225.63

STA 115+78.51
EXISTING 18" RCP
SKEW 75° 1' 19" LT
FLOWS RIGHT
INLET 1218.8860
OUTLET 1214.2960

37LCOU-F3-006
END PROJ. NO. BRZ-3700(43)
STA. 114+50.00 (CONST.)
N 804338.9334
E 2913077.4235

END PROJ. NO. 37455-2422-04
STA. 112+20.00 (R.O.W.)
N 804501.1394
E 2912914.4483

STA 113+28.69
EXISTING 36" RCP
SKEW 75° 52' 19" RT
FLOWS LEFT
INLET 1201.5700
OUTLET 1200.4790

STA 111+77.97
EXISTING 30" CMP
SKEW 83° 23' 20" LT
FLOWS LEFT
INLET 1199.6090
OUTLET 1196.3760

STA. 111+70.24
OFFSET 66.61
IN. EL. 1200.19
3 EW

PIPE CULVERT
STATION: 111+77.97
STRUCTURE: 21 L.F. OF 30" CMP EXTENSION

SKEW	90	DEG.
DRAINAGE AREA	1.274	AC.
DESIGN DISCHARGE (Q50)	4.12	CFS
DESIGN DISCHARGE (Q100)	4.62	CFS
VELOCITY (Q50)	5.0	FT/S
VELOCITY (Q100)	5.2	FT/S
ENDWALLS REQUIRED:		
STRAIGHT		
STANDARD DRAWING NOS.: D-PE-4		
QUANTITIES:		
CLASS "A" CONCRETE	2	C.Y.
STEEL BAR REINFORCING	93	LB.
ENDWALL ITEM NOS.: 611-07.01, 611-07.02		

110+00 111+00 112+00 113+00 114+00 115+00 116+00 117+00

1275 1270 1265 1260 1255 1250 1245 1240 1235 1230 1225 1220 1215 1210 1205 1200 1195 1190

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STATE OF TENNESSEE

07/20/2026

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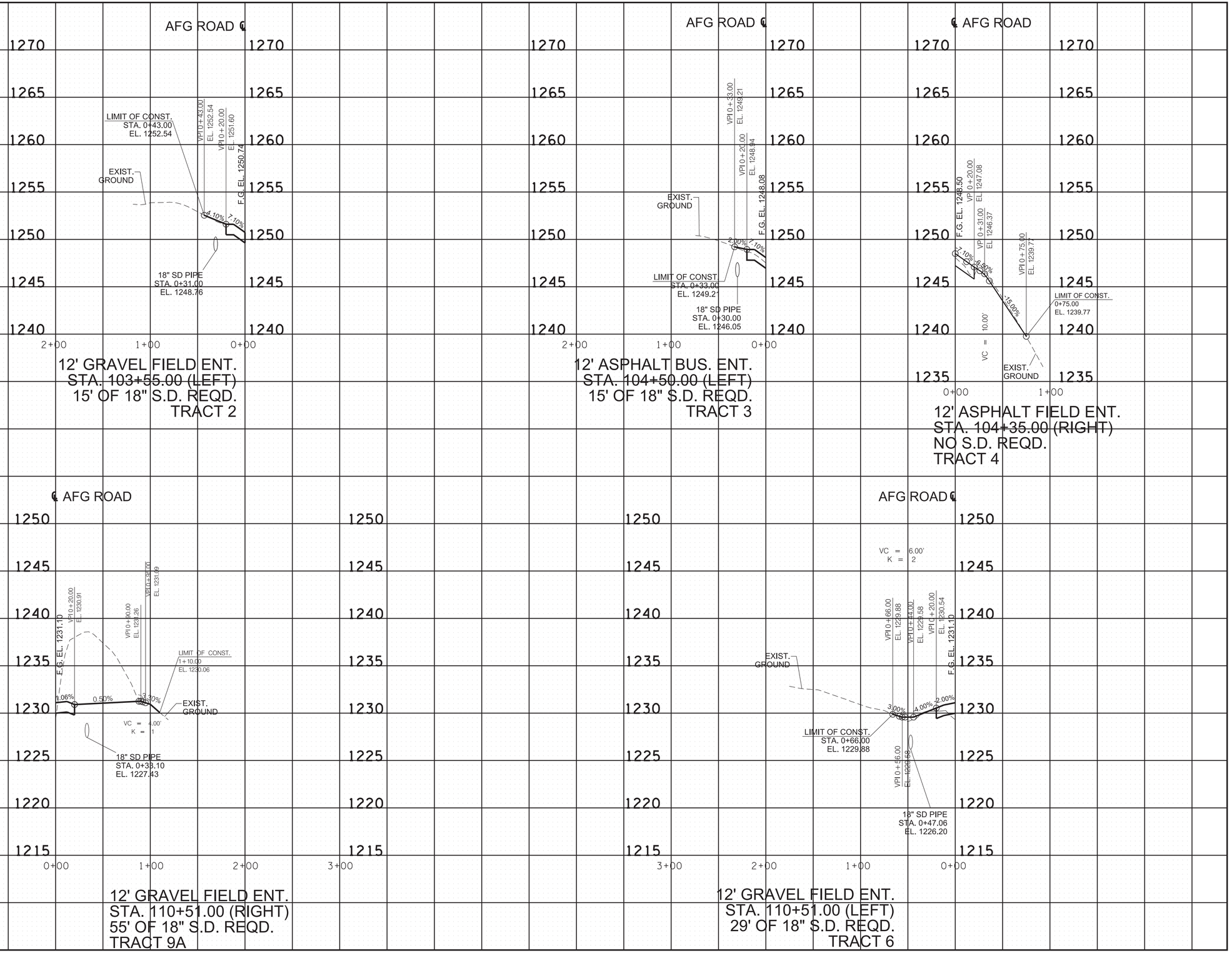
STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

PROPOSED PROFILE

STA. 109+50 TO STA. 114+50

SCALE: 1"= 50' HORIZ.
1"= 5' VERT.

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TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2022	37455-2422-04	6
PIH	2025	BRZ-3700(43)	6
PS&E	2026	BRZ-3700(43)	6

REV. 06/13/24: ADDED DRIVEWAY PROFILE FOR TRACT 4.

REV. 06/27/25: UPDATED TRACT NUMBER FOR DRIVEWAY ON TRACT 9A.

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AGRICULTURE
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111658
STATE OF TENNESSEE

07/20/2026

COORDINATES ARE NAD 83(1995), ARE DATUM ADJUSTED BY THE FACTOR OF 1.0004 AND TIED TO THE TGRN. ALL ELEVATIONS ARE REFERENCED TO THE NAVD 1988 WITH GEOID 12B.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

PRIVATE DRIVE, BUSINESS, AND FIELD ENTRANCE PROFILES

SCALE: 1"= 50' HORIZ.
1"=5 ' VERT.

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TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2022	37455-2422-04	7
PIH	2025	BRZ-3700(43)	7
PS&E	2026	BRZ-3700(43)	7

REV. 06/27/25: UPDATED CONSTRUCTION PROJECT NUMBER IN PROJECT LIMIT FLAG.

37LCOU-F3-006
BEGIN PROJ. NO. BRZ-3700(43)
STA. 102+20.00 (CONST.)
N 805098.4542
E 2912136.2219

BEGIN PROJ. NO. 37455-2422-04
STA. 103+15.00 (R.O.W.)
N 805080.1127
E 2912229.3009

END PROJ. NO. 37455-2422-04
STA. 112+20.00 (R.O.W.)
N 804501.1394
E 2912914.4483

AFG ROAD STA. 114+88.31 =
GREENLAND RD. STA. 5+00.00
N 804311.5562
E 2913104.2269

37LCOU-F3-006
END PROJ. NO. BRZ-3700(43)
STA. 114+50.00 (CONST.)
N 804338.9334
E 2913077.4235

AFG ROAD STA. 107+56.70 =
NORFOLK SOUTHERN RAILROAD
STA. 24+57.56
DOT #730178N
MILE POST 59.00-TC
N 804815.8325
E 2912575.3233

DRAINAGE DATA FOR
STATION: 101+42.49
EXISTING STRUCTURE: 24" RCP

INLET	DIRECTIONAL	ELEV.
OUTLET	1233.38	ELEV.
SKEW	73	DEG.
FLOW	RIGHT	
DRAINAGE AREA	4.3	AC.
TERRAIN	ROLLING	
DISCHARGE (Q50)	16.7	CFS

DRAINAGE DATA FOR
STATION: 115+78.51
EXISTING STRUCTURE: 18" RCP

INLET	1218.89	ELEV.
OUTLET	1214.30	ELEV.
SKEW	75	DEG.
FLOW	RIGHT	
DRAINAGE AREA	6.3	AC.
TERRAIN	ROLLING	
DISCHARGE (Q50)	6.9	CFS
VELOCITY (Q50)	12.98	FT/S

DRAINAGE DATA FOR
STATION: 108+57.46
EXISTING STRUCTURE: 12" CMP

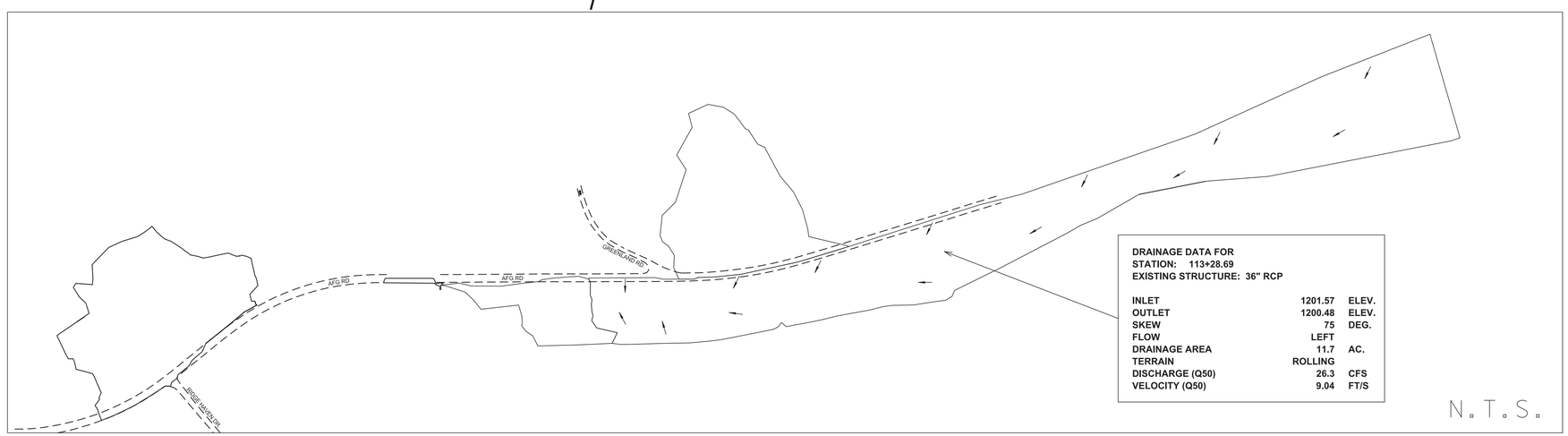
INLET	1233.27	ELEV.
OUTLET	1224.36	ELEV.
SKEW	90	DEG.
FLOW	RIGHT	
DRAINAGE AREA	0.1	AC.
TERRAIN	ROLLING	
DISCHARGE (Q50)	0.3	CFS
VELOCITY (Q50)	7.54	FT/S

DRAINAGE DATA FOR
STATION: 111+77.97
EXISTING STRUCTURE: 30" CMP

INLET	1199.61	ELEV.
OUTLET	1196.38	ELEV.
SKEW	90	DEG.
FLOW	LEFT	
DRAINAGE AREA	1.27	AC.
TERRAIN	ROLLING	
DISCHARGE (Q50)	4.12	CFS
DISCHARGE (Q100)	4.62	CFS
VELOCITY (Q50)	5.0	FT/S
VELOCITY (Q100)	5.2	FT/S

DRAINAGE DATA FOR
STATION: 113+28.69
EXISTING STRUCTURE: 36" RCP

INLET	1201.57	ELEV.
OUTLET	1200.48	ELEV.
SKEW	75	DEG.
FLOW	LEFT	
DRAINAGE AREA	11.7	AC.
TERRAIN	ROLLING	
DISCHARGE (Q50)	26.3	CFS
VELOCITY (Q50)	9.04	FT/S



DRAINAGE DATA FOR
STATION: 113+28.69
EXISTING STRUCTURE: 36" RCP

INLET	1201.57	ELEV.
OUTLET	1200.48	ELEV.
SKEW	75	DEG.
FLOW	LEFT	
DRAINAGE AREA	11.7	AC.
TERRAIN	ROLLING	
DISCHARGE (Q50)	26.3	CFS
VELOCITY (Q50)	9.04	FT/S

N.T.S.

EXISTING CONTOURS

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REGISTERED ENGINEER
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DEPARTMENT OF COMMERCE
No. 111658
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James B. Morgan

07/20/2026

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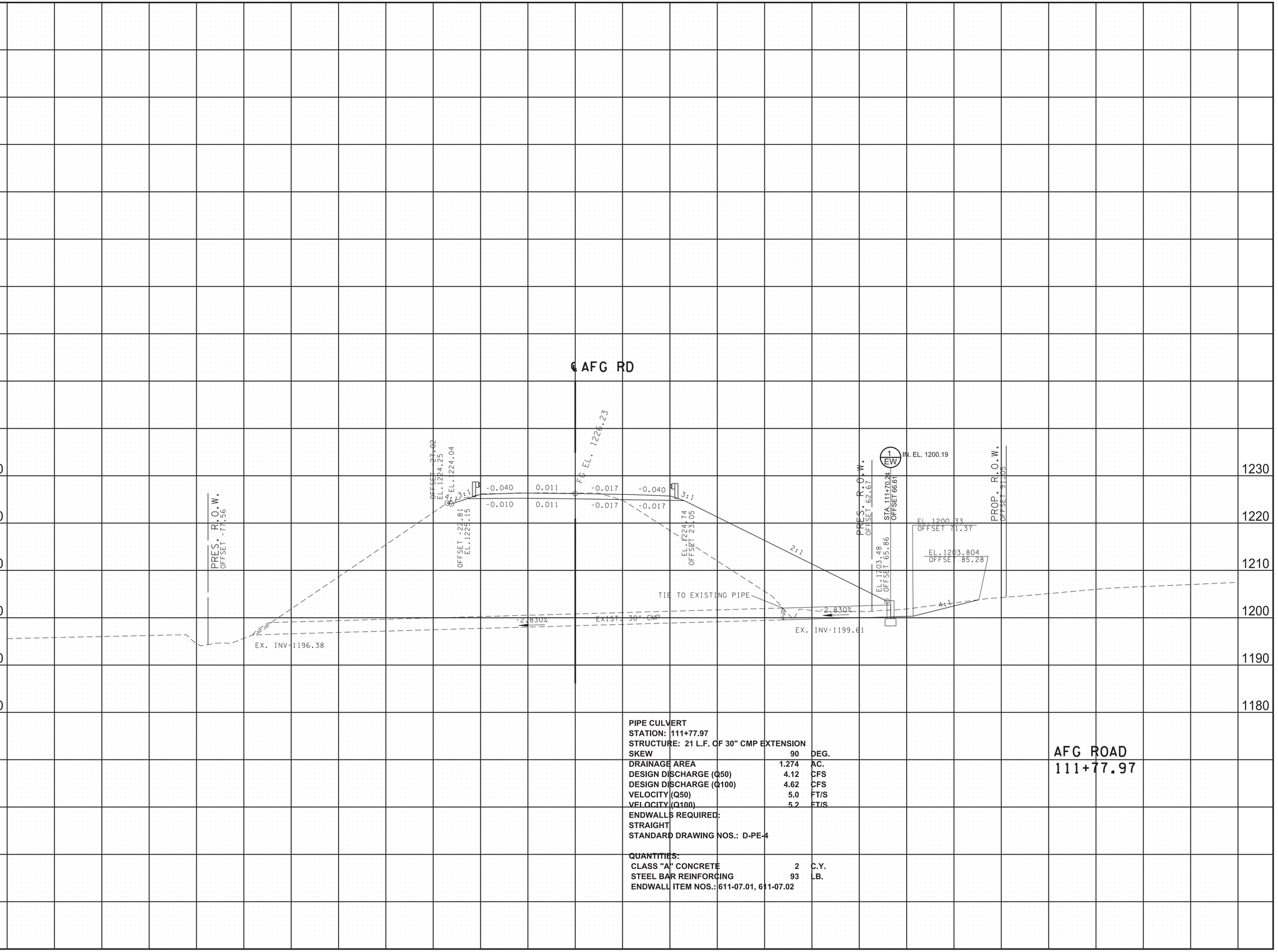
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DEPARTMENT OF TRANSPORTATION

DRAINAGE MAP

STA. 102+20 TO STA. 114+50
SCALE: 1"=100'

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TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2022	37455-2422-04	8
PIH	2025	BRZ-3700(43)	8
PS&E	2026	BRZ-3700(43)	8



PIPE CULVERT
STATION: 111+77.97
STRUCTURE: 21 L.F. OF 30" CMP EXTENSION

SKEW	**90**	**DEG.**
DRAINAGE AREA	**1.274**	**AC.**
DESIGN DISCHARGE (Q50)	**4.12**	**CFS**
DESIGN DISCHARGE (Q100)	**4.62**	**CFS**
VELOCITY (Q50)	**5.0**	**FT/S**
VELOCITY (Q100)	**5.2**	**FT/S**

ENDWALLS REQUIRED:
STRAIGHT
STANDARD DRAWING NOS.: D-PE-4

QUANTITIES:

CLASS "A" CONCRETE	**2**	**C.Y.**
STEEL BAR REINFORCING	**93**	**LB.**

ENDWALL ITEM NOS.: 611-07.01, 611-07.02

AFG ROAD
111+77.97

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DEPARTMENT OF TRANSPORTATION

CULVERT SECTION

SCALE: 1"=10' HORIZ.
1"=10' VERT.

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EROSION PREVENTION SEDIMENT CONTROL NOTES

SUBSECTION 3 – EROSION PREVENTION AND SEDIMENT CONTROL GENERAL NOTES

EROSION PREVENTION AND SEDIMENT CONTROL GENERAL NOTES

INSPECTION, MAINTENANCE & REPAIR

(11) REFER TO THE STORM WATER POLLUTION AND PREVENTION PLAN SHEET SERIES (S-1) FOR SWPPP, PERMITS, AND RECORDS NOTES.

GOOD HOUSEKEEPING MEASURES & WASTE DISPOSAL

(29) THE CONTRACTOR SHALL ESTABLISH AND MAINTAIN A PROACTIVE METHOD TO PREVENT LITTER AND CONSTRUCTION WASTES FROM ENTERING WATERS OF THE STATE/U.S. THESE MATERIALS SHALL BE REMOVED FROM STORMWATER EXPOSURE PRIOR TO ANTICIPATED STORM EVENTS OR BEFORE BEING CARRIED OFFSITE BY WIND, OR OTHERWISE PREVENTED FROM BECOMING A POLLUTANT SOURCE FOR STORMWATER DISCHARGES. AFTER USE, MATERIALS USED FOR EPSC SHALL BE REMOVED FROM THE SITE.

(30) THE CONTRACTOR SHALL TAKE APPROPRIATE STEPS TO ENSURE THAT PETROLEUM PRODUCTS OR OTHER CHEMICAL POLLUTANTS ARE PREVENTED FROM ENTERING WATERS OF THE STATE/U.S. ALL EQUIPMENT REFUELING, SERVICING, AND STAGING AREAS SHALL COMPLY WITH ALL LOCAL, STATE, AND FEDERAL LAWS, RULES, REGULATIONS, AND ORDINANCES, INCLUDING THOSE OF THE NATIONAL FIRE PROTECTION ASSOCIATION. APPROPRIATE CONTAINMENT MEASURES FOR THESE AREAS SHALL BE USED.

(31) CONTRACTORS SHALL PROVIDE DESIGNATED TRUCK WASHOUT AREAS ON THE SITE. THESE AREAS MUST BE SELF CONTAINED, NOT CONNECTED TO ANY STORMWATER OUTLET OF THE SITE, AND PROPERLY SIGNED. WASH DOWN OR WASTE DISCHARGE OF CONCRETE TRUCKS SHALL NOT BE PERMITTED ONSITE UNLESS PROPER SETTLEMENT AREAS HAVE BEEN PROVIDED IN ACCORDANCE WITH BOTH STATE AND FEDERAL REGULATIONS.

(32) WHEEL WASH WATER SHALL BE COLLECTED AND ALLOWED TO SETTLE OUT SUSPENDED SOLIDS PRIOR TO DISCHARGE. WHEEL WASH WATER SHALL NOT BE DISCHARGED DIRECTLY INTO ANY STORMWATER SYSTEM OR STORMWATER TREATMENT SYSTEM.

(33) IF PORTABLE SANITARY FACILITIES ARE PROVIDED ON CONSTRUCTION SITES, SANITARY WASTE SHALL BE COLLECTED FROM THE PORTABLE UNITS IN A TIMELY MANNER BY A LICENSED WASTE MANAGEMENT CONTRACTOR OR AS REQUIRED BY ANY REGULATIONS. THE CONTRACTOR SHALL OBTAIN ANY AND ALL NECESSARY PERMITS TO DISPOSE OF SANITARY WASTE.

(34) ONLY CONSTRUCTION PRODUCTS NEEDED SHALL BE STORED ONSITE BY THE CONTRACTOR. THE CONTRACTOR SHALL STORE ALL MATERIALS UNDER COVER AND IN APPROPRIATE CONTAINERS. PRODUCTS MUST BE STORED IN ORIGINAL CONTAINERS AND LABELED. MATERIAL MIXING SHALL BE CONDUCTED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS. THE CONTRACTOR'S RESPONSIBLE PARTY SHALL INSPECT MATERIALS STORAGE AREAS REGULARLY TO ENSURE PROPER USE AND DISPOSAL.

(35) WHEN POSSIBLE, ALL PRODUCTS SHALL BE USED COMPLETELY BEFORE PROPERLY DISPOSING OF THE CONTAINER OFFSITE. THE MANUFACTURER'S DIRECTIONS FOR DISPOSAL OF MATERIALS AND CONTAINERS SHALL BE FOLLOWED.

(36) ALL PAINT CONTAINERS SHALL BE TIGHTLY SEALED AND STORED WHEN NOT REQUIRED FOR USE. EXCESS PAINT SHALL BE DISPOSED OF ACCORDING TO THE MANUFACTURER'S INSTRUCTIONS AND APPLICABLE STATE AND LOCAL REGULATIONS.

(37) ALL HAZARDOUS WASTE MATERIALS SHALL BE DISPOSED OF IN A MANNER WHICH IS COMPLIANT WITH LOCAL OR STATE REGULATIONS. SITE PERSONNEL SHALL BE INSTRUCTED IN THESE PRACTICES, AND THE INDIVIDUAL DESIGNATED AS THE CONTRACTOR'S RESPONSIBLE PARTY SHALL BE RESPONSIBLE FOR SEEING THAT THESE PRACTICES ARE FOLLOWED. THE CONTRACTOR SHALL OBTAIN ANY AND ALL NECESSARY PERMITS TO DISPOSE OF HAZARDOUS MATERIAL.

(38) OPEN BURNING IS PROHIBITED UNLESS IT IS SPECIFICALLY ALLOWED BY LAW. IF ALLOWED, NATURAL VEGETATION, TREES, AND UNTREATED LUMBER SHALL BE THE ONLY MATERIALS THAT CAN BE OPEN BURNED. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL APPLICABLE STATE AND LOCAL PERMITS PRIOR TO ANY BURNING.

(39) DISPOSAL OF ONSITE VEGETATION AND TREES BY CHIPPING THEM INTO MULCH IS PREFERABLE TO OPEN BURNING. THIS MULCH MAY BE USED AS AN ONSITE SOIL STABILIZATION MEASURE WHERE APPROPRIATE.

(40) WASTE MATERIAL (EARTH, ROCK, ASPHALT, CONCRETE, ETC.) NOT REQUIRED FOR THE CONSTRUCTION OF THE PROJECT WILL BE DISPOSED OF BY THE CONTRACTOR. IMPACTS TO WATERS OF THE STATE/U.S. SHALL BE AVOIDED IF POSSIBLE. IF UNAVOIDABLE, THE CONTRACTOR WILL OBTAIN ANY AND ALL NECESSARY PERMITS INCLUDING, BUT NOT LIMITED TO NPDES, AQUATIC RESOURCES ALTERATION PERMIT(S), CORPS OF ENGINEERS SECTION 404 PERMITS, AND TVA SECTION 26A PERMITS TO DISPOSE OF WASTE MATERIALS.

SUBSECTION 4 – EROSION PREVENTION AND SEDIMENT CONTROL SPECIAL NOTES

EROSION PREVENTION AND SEDIMENT CONTROL SPECIAL NOTES

RAILROAD ENVIRONMENTAL

(15) THE CONTRACTOR SHALL MAINTAIN A COMPLETE AND COMPREHENSIVE EPSC PLAN AND SWPPP TO PREVENT ROADWAY AND/OR CONSTRUCTION SEDIMENT OR DEBRIS AND ANY PETROLEUM BASED PRODUCTS OR CHLORINATED SOLVENTS, PAINTS OR COATINGS ETC. FROM FALLING ONTO THE RAILROAD'S RIGHT-OF-WAY AND/OR FROM ENTERING THE DRAINAGE DITCHES OR DRAINAGE STRUCTURES OF THE RAILROAD, AND ANY SEDIMENT OR DEBRIS OR PETROLEUM BASED PRODUCTS OR CHLORINATED SOLVENTS, ETC. THAT DO ENTER SUCH DRAINAGE AREAS OF THE RAILROAD'S RIGHT-OF-WAY ARE TO BE REMOVED IN ACCORDANCE WITH RULES SET FORTH BY NORFOLK SOUTHERN RAILROAD AND AT THE CONTRACTOR'S EXPENSE.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2022	37455-2422-04	9
PIH	2025	BRZ-3700(43)	9
PS&E	2026	BRZ-3700(43)	9

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07/20/2026

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

EROSION PREVENTION AND SEDIMENT CONTROL SPECIAL NOTES

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TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2022	37455-2422-04	10
PIH	2025	BRZ-3700(43)	10
PS&E	2026	BRZ-3700(43)	10

REV. 06/13/24: UPDATED TABULATED EPSC QUANTITIES AND FOOTNOTES.

EROSION PREVENTION AND SEDIMENT CONTROL LEGEND

SYMBOL	ITEM	STD. DWG.
✱ SFB✱ SFB✱ SFB✱	SILT FENCE WITH WIRE BACKING	EC-STR-3C
	ROCK CHECK DAM (V-DITCH)	EC-STR-6
	ENHANCED ROCK CHECK DAM (V-DITCH)	EC-STR-6A
	CULVERT PROTECTION (TYPE 1)	EC-STR-11
	TEMPORARY CONSTRUCTION EXIT	EC-STR-25
	EROSION CONTROL BLANKET	EC-STR-34
✱✱TUBE 12"✱✱TUBE 12"✱✱	12 INCH SEDIMENT TUBE	EC-STR-37
✱ HVF ✱ HVF ✱	HIGH VISIBILITY FENCE	S-F-1

TABULATED EPSC QUANTITIES

	ITEM NO.	DESCRIPTION	UNIT	QUANTITY 37LCOU-F3-006
(1)	203-01	ROAD & DRAINAGE EXCAVATION (UNCLASSIFIED)	C.Y.	8
(2)	209-05	SEDIMENT REMOVAL	C.Y.	92
(2)	209-08.02	TEMPORARY SILT FENCE (WITH BACKING)	L.F.	1240
(2)	209-08.07	ROCK CHECK DAM PER	EACH	10
(2)	209-08.08	ENHANCED ROCK CHECK DAM	EACH	9
(3)	303-10.01	MINERAL AGGREGATE (SIZE 57)	TON	25
	707-08.11	HIGH-VISIBILITY CONSTRUCTION FENCE	L.F.	600
(1)	709-05.05	MACHINED RIP-RAP (CLASS A-3)	TON	50
(3)	709-05.06	MACHINED RIP-RAP (CLASS A-1)	TON	246
(4)	740-10.03	GEOTEXTILE (TYPE III)(EROSION CONTROL)	S.Y.	531
(2)	740-11.02	TEMPORARY SEDIMENT TUBE 12IN	L.F.	2823
	801-02	SEEDING (WITHOUT MULCH)	UNIT	38
	801-03	WATER (SEEDING & SODDING)	M.G.	6.5
	805-12.02	EROSION CONTROL BLANKET (TYPE II)	S.Y.	3268

FOOTNOTES

(1) TO BE USED FOR TEMPORARY CONSTRUCTION EXITS.

(2) SEE SUBSECTION 209.07 OF THE STANDARD SPECIFICATIONS FOR MAINTENANCE AND REPLACEMENT. ALL QUANTITIES ARE TO BE USED AS DIRECTED BY THE TDOT MANAGER.

(3) TO BE USED FOR CULVERT PROTECTION TYPE 1.

(4) INCLUDES 86 SY FOR TEMPORARY CONSTRUCTION EXIT AND 445 SY FOR CULVERT PROTECTION TYPE 1.

NOTE: ALL TEMPORARY EPSC MEASURES SHALL BE REMOVED AFTER CONSTRUCTION IS COMPLETED.

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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

EROSION PREVENTION AND SEDIMENT CONTROL SPECIAL NOTES

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TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2022	37455-2422-04	11
PIH	2025	BRZ-3700(43)	11
PS&E	2026	BRZ-3700(43)	11

REV. 04/12/23: MODIFIED PRESENT AND PROPOSED ROW LINES ALONG TRACT 4.

REV. 06/13/24: MODIFIED SLOPE LINES ALONG TRACT 4, ADDED TRACT 9A, UPDATED EPSC MEASURES, OUTFALLS, AND OUTFALL TABLE.

REV. 06/27/25: UPDATED TEMPORARY AND PERMANENT EASEMENTS ON TRACT 10 AND SLOPE EASEMENT ON TRACTS 9 AND 9A, UPDATED SLOPE LINES ON TRACTS 9A, 10, AND ALONG EAST SIDE OF BRIDGE ENDS, CADD UPDATES. UPDATED TRACTS 9 AND 4 PROPERTY LINES. UPDATED CONSTRUCTION PROJECT NUMBER IN PROJECT LIMIT FLAG.

OUTFALLS		
Outfall No.	Drainage Area	Average Slope
1	.96 (AC)	8.0 (%)
2	.08 (AC)	12.1 (%)
3	.07 (AC)	37.5 (%)
4	.16 (AC)	11.1 (%)
5	.64 (AC)	9.8 (%)
6	12.27 (AC)	1.1 (%)

BEGIN PROJ. NO. 37455-2422-04
STA. 103+15.00 (R.O.W.)
N 805080.1127
E 2912229.3009

37LCOU-F3-006
BEGIN PROJ. NO. BRZ-3700(43)
STA. 102+20.00 (CONST.)
N 805098.4542
E 2912136.2219

AFG RD. STA. 100+00.00
N 805125.2957
E 2911917.8655

AFG ROAD STA. 107+56.70 =
NORFOLK SOUTHERN RAILROAD
STA. 24+57.56
DOT #730178N
MILE POST 59.00-TC
N 804815.8325
E 2912575.3233

MATCH LINE STA. 109+50 SEE SHT.NO. 11A

AIR RIGHTS EASEMENT

SLOPE EASEMENT

PERMANENT EASEMENT

STAGE I

EXISTING CONTOURS

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07/20/2026

COORDINATES ARE NAD 83(1995), ARE DATUM ADJUSTED BY THE FACTOR OF 1.00004 AND TIED TO THE TGRN. ALL ELEVATIONS ARE REFERENCED TO THE NAVD 1988 WITH GEOID 12B.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

EROSION PREVENTION & SEDIMENT CONTROL (EPSC) PLANS

STA. 102+20 TO STA. 109+50

SCALE: 1"= 50'

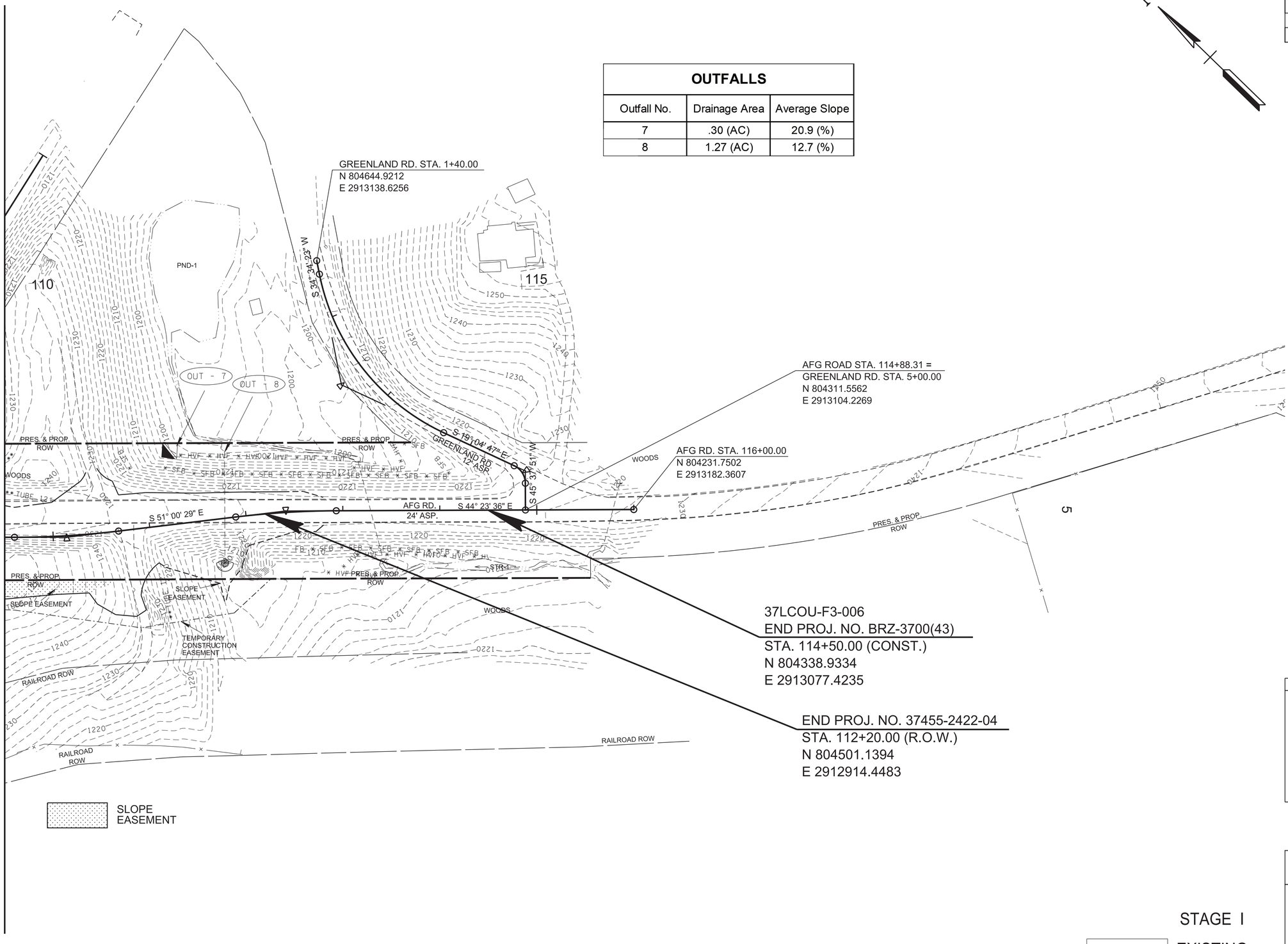
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TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2022	37455-2422-04	11A
PIH	2025	BRZ-3700(43)	11A
PS&E	2026	BRZ-3700(43)	11A

REV. 06/13/24: ADDED TRACT 9A. UPDATED OUTFALL LABELS AND TABLE.

REV. 06/27/25: UPDATED CONSTRUCTION PROJECT NUMBER IN PROJECT LIMIT FLAG. UPDATED SLOPE EASEMENT AREA AND SLOPE LINES ON TRACT 9A. CADD UPDATES.

OUTFALLS		
Outfall No.	Drainage Area	Average Slope
7	.30 (AC)	20.9 (%)
8	1.27 (AC)	12.7 (%)



STAGE I

EXISTING CONTOURS

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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

EROSION PREVENTION & SEDIMENT CONTROL (EPSC) PLANS

STA. 109+50 TO STA. 114+50

SCALE: 1"= 50'

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TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2022	37455-2422-04	12
PIH	2025	BRZ-3700(43)	12
PS&E	2026	BRZ-3700(43)	12

REV. 04/12/23: MODIFIED PRESENT AND PROPOSED ROW LINES ALONG TRACT 4.

REV. 06/13/24: MODIFIED SLOPE LINES AND ADDED DRIVEWAY ALONG TRACT 4, MODIFIED EPSC MEASURES, OUTFALLS, AND OUTFALL TABLE. ADDED TRACT 9A. UPDATED PROPOSED CONTOURS. CADD CORRECTIONS.

REV. 06/27/25; UPDATED PROPOSED CONTOURS. UPDATED PROJECT CONSTRUCTION NUMBER IN PROJECT LIMIT FLAG. UPDATED TEMPORARY AND PERMANENT EASEMENTS ON TRACT 10 AND SLOPE EASEMENT ON TRACTS 9 AND 9A. UPDATED SLOPE LINES ON TRACTS 9A, 10, AND ALONG EAST SIDE OF BRIDGE ENDS. CADD UPDATES. UPDATED EPSC MEASURES. ADDED SPECIAL DITCH AND DRAINAGE STRUCTURES AT BRIDGE ENDS. UPDATED TRACTS 9 AND 4 PROPERTY LINES.

OUTFALLS

Outfall No.	Drainage Area	Average Slope
1	.96 (AC)	8.0 (%)
2	.08 (AC)	12.1 (%)
3	.07 (AC)	37.5 (%)
4	.16 (AC)	11.1 (%)
5	.64 (AC)	9.8 (%)
6	12.27 (AC)	1.1 (%)
7	.16 (AC)	5.0 (%)

ALL TEMPORARY EPSC MEASURES SHALL BE REMOVED AFTER CONSTRUCTION IS COMPLETED.

BEGIN PROJ. NO. 37455-2422-04
STA. 103+15.00 (R.O.W.)
N 805080.1127
E 2912229.3009

37LCOU-F3-006
BEGIN PROJ. NO. BRZ-3700(43)
STA. 102+20.00 (CONST.)
N 805098.4542
E 2912136.2219

AFG RD. STA. 100+00.00
N 805125.2957
E 2911917.8655

AFG ROAD STA. 107+56.70 =
NORFOLK SOUTHERN RAILROAD
STA. 24+57.56
DOT #730178N
MILE POST 59.00-TC
N 804815.8325
E 2912575.3233

MATCH LINE STA. 109+50 SEE SHT.NO. 12A

AIR RIGHTS EASEMENT

SLOPE EASEMENT

PERMANENT EASEMENT

STAGE II

EXISTING CONTOURS

PROPOSED CONTOURS

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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

EROSION PREVENTION & SEDIMENT CONTROL (EPSC) PLANS

STA. 102+20 TO STA. 109+50

SCALE: 1"= 50'

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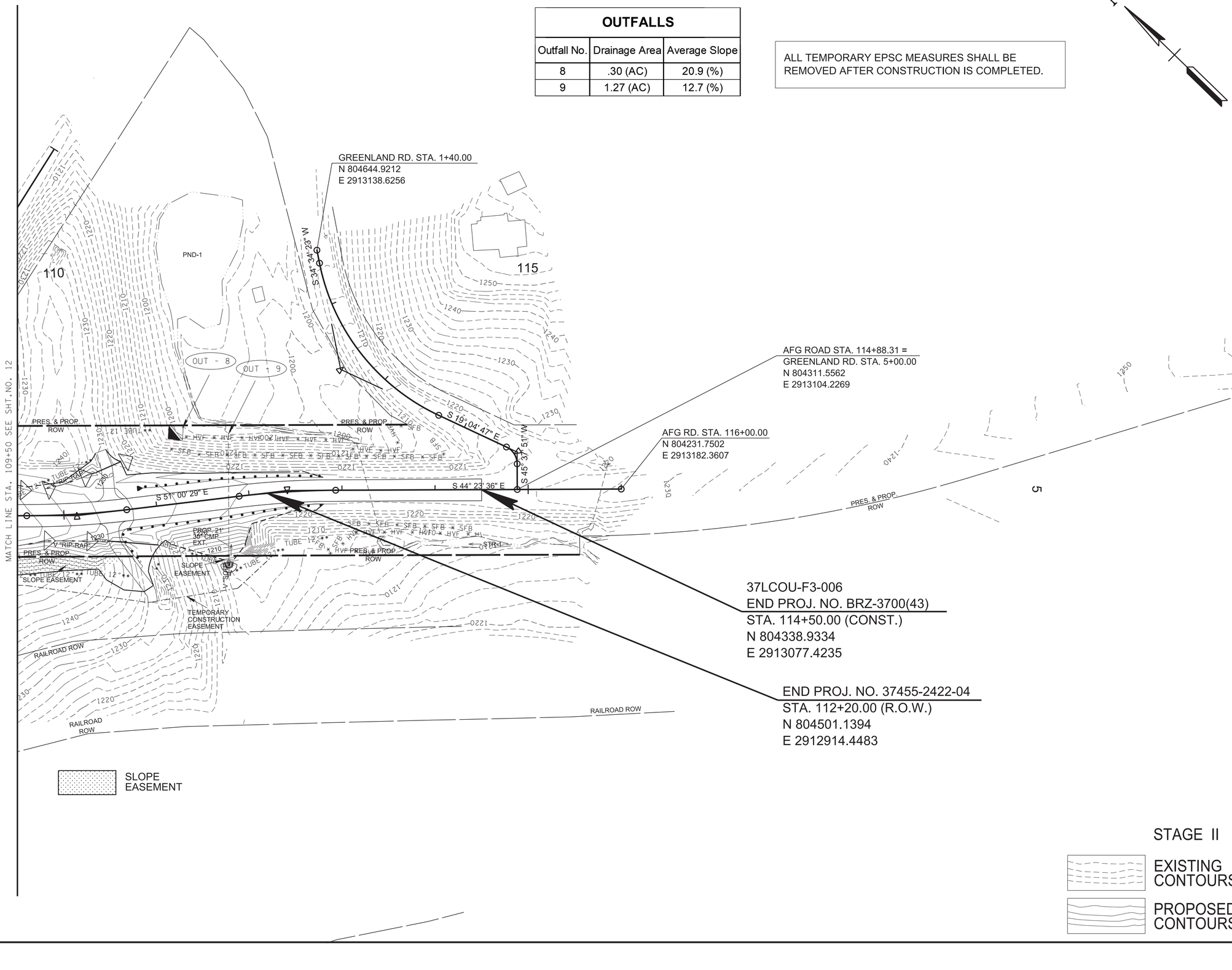
TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2022	37455-2422-04	12A
PIH	2025	BRZ-3700(43)	12A
PS&E	2026	BRZ-3700(43)	12A

REV. 06/13/24: ADDED TRACT 9A. UPDATED OUTFALL LABELS AND TABLE.

REV. 06/27/25: UPDATED CONSTRUCTION PROJECT NUMBER IN PROJECT LIMIT FLAG. UPDATED PROPOSED CONTOURS. UPDATED SLOPE EASEMENT AREA AND SLOPE LINES ON TRACT 9A. ADDED SPECIAL DITCH ALONG TRACT 9A.

OUTFALLS		
Outfall No.	Drainage Area	Average Slope
8	.30 (AC)	20.9 (%)
9	1.27 (AC)	12.7 (%)

ALL TEMPORARY EPSC MEASURES SHALL BE REMOVED AFTER CONSTRUCTION IS COMPLETED.



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STATE OF TENNESSEE

07/20/2026

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STAGE II

EXISTING CONTOURS

PROPOSED CONTOURS

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

EROSION PREVENTION & SEDIMENT CONTROL (EPSC) PLANS

STA. 109+50 TO STA. 114+50

SCALE: 1"= 50'

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TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2022	37455-2422-04	13
PIH	2025	BRZ-3700(43)	13
PS&E	2026	BRZ-3700(43)	13

REV. 04/12/23: MODIFIED PRESENT AND PROPOSED ROW LINES ALONG TRACT 4.

REV. 06/13/24: MODIFIED SLOPE LINES AND ADDED DRIVEWAY ALONG TRACT 4. UPDATED PROPOSED CONTOURS AND EPSC MEASURES. ADDED TRACT 9A. CADD CORRECTIONS.

REV. 06/27/25: UPDATED PROPOSED CONTOURS. UPDATED PROJECT CONSTRUCTION NUMBER IN PROJECT LIMIT FLAG. UPDATED TEMPORARY AND PERMANENT EASEMENTS ON TRACT 10 AND SLOPE EASEMENT ON TRACTS 9 AND 9A. UPDATED SLOPE LINES ON TRACTS 9A, 10, AND ALONG EAST SIDE OF BRIDGE ENDS. CADD UPDATES. UPDATED EPSC MEASURES. ADDED SPECIAL DITCH AND DRAINAGE STRUCTURES AT BRIDGE ENDS. UPDATED TRACTS 9 AND 4 PROPERTY LINES.

ALL TEMPORARY EPSC MEASURES SHALL BE REMOVED AFTER CONSTRUCTION IS COMPLETED.

N

BEGIN PROJ. NO. 37455-2422-04
STA. 103+15.00 (R.O.W.)
N 805080.1127
E 2912229.3009

37LCOU-F3-006
BEGIN PROJ. NO. BRZ-3700(43)
STA. 102+20.00 (CONST.)
N 805098.4542
E 2912136.2219

AIR RIGHTS EASEMENT

SLOPE EASEMENT

PERMANENT EASEMENT

AFG RD. STA. 100+00.00
N 805125.2957
E 2911917.8655

AFG ROAD STA. 107+56.70 =
NORFOLK SOUTHERN RAILROAD
STA. 24+57.56
DOT #730178N
MILE POST 59.00-TC
N 804815.8325
E 2912575.3233

BEGIN BRIDGE STA. 106+40.83

END BRIDGE STA. 108+65.83

MATCH LINE STA. 109+50 SEE SHT.NO. 13A

STAGE III

PROPOSED CONTOURS

SEALED BY

JAMES B. MORGAN
REGISTERED ENGINEER
DEPARTMENT OF AGRICULTURE
COMMERCE
No. 111658
STATE OF TENNESSEE

07/20/2026

COORDINATES ARE NAD 83(1995), ARE DATUM ADJUSTED BY THE FACTOR OF 1.00004 AND TIED TO THE TGRN. ALL ELEVATIONS ARE REFERENCED TO THE NAVD 1988 WITH GEOID 12B.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

EROSION PREVENTION & SEDIMENT CONTROL (EPSC) PLANS

STA. 102+20 TO STA. 109+50

SCALE: 1"= 50'

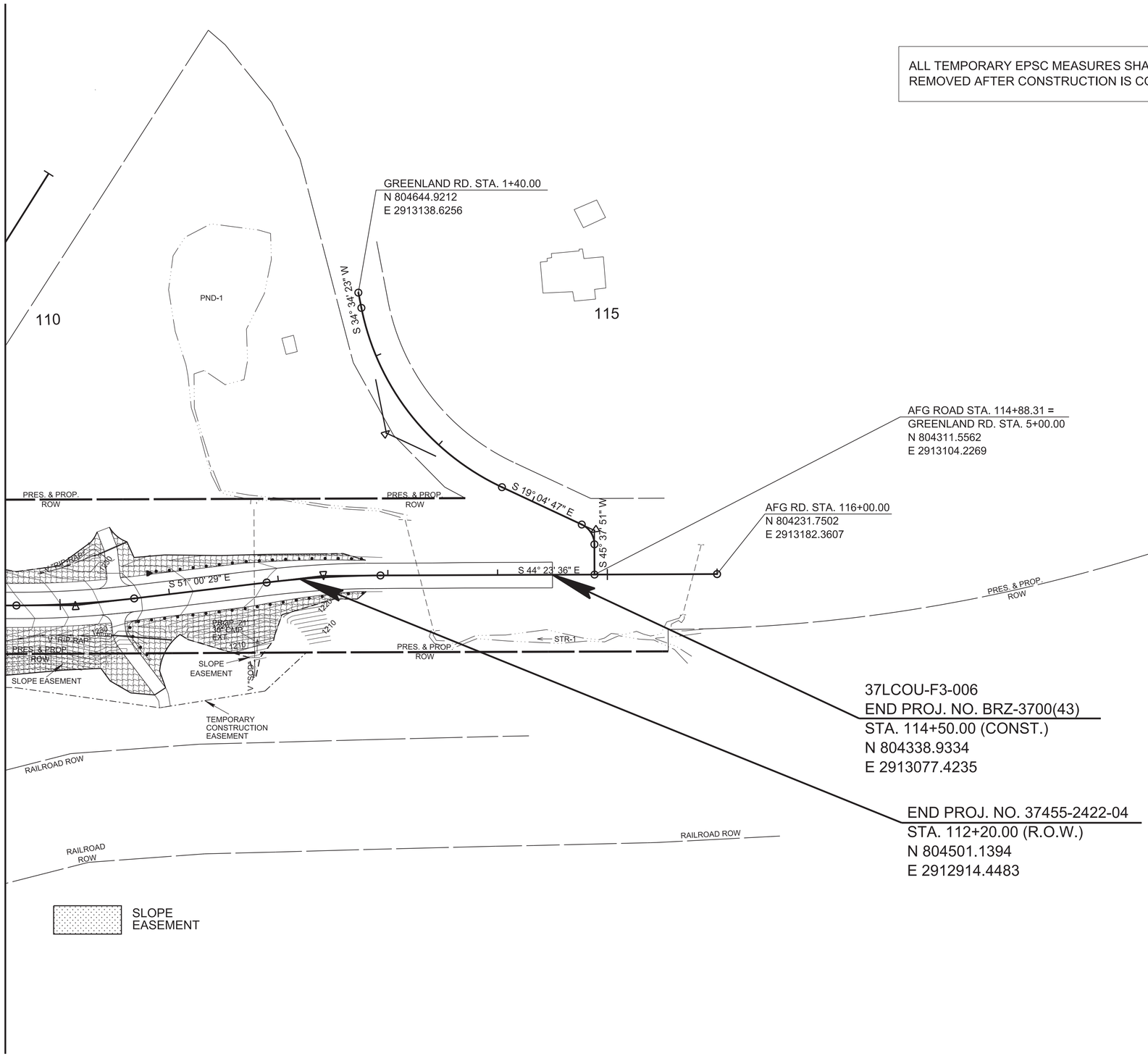
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TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2022	37455-2422-04	13A
PIH	2025	BRZ-3700(43)	13A
PS&E	2026	BRZ-3700(43)	13A

REV. 06/13/24: ADDED TRACT 9A. CADD CORRECTIONS.

REV. 06/27/25: UPDATED CONSTRUCTION PROJECT NUMBER IN PROJECT LIMIT FLAG. UPDATED PROPOSED CONTOURS. UPDATED SLOPE EASEMENT AREA AND SLOPE LINES ON TRACT 9A. ADDED SPECIAL DITCH ALONG TRACT 9A.

ALL TEMPORARY EPSC MEASURES SHALL BE REMOVED AFTER CONSTRUCTION IS COMPLETED.



STAGE III

PROPOSED CONTOURS

SEALED BY

JAMES B. MORGAN
REGISTERED ENGINEER
DEPT. OF AGRICULTURE
COMMERCE
No. 111658
STATE OF TENNESSEE

07/20/2026

COORDINATES ARE NAD 83(1995), ARE DATUM ADJUSTED BY THE FACTOR OF 1.00004 AND TIED TO THE TGRN. ALL ELEVATIONS ARE REFERENCED TO THE NAVD 1988 WITH GEOID 12B.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

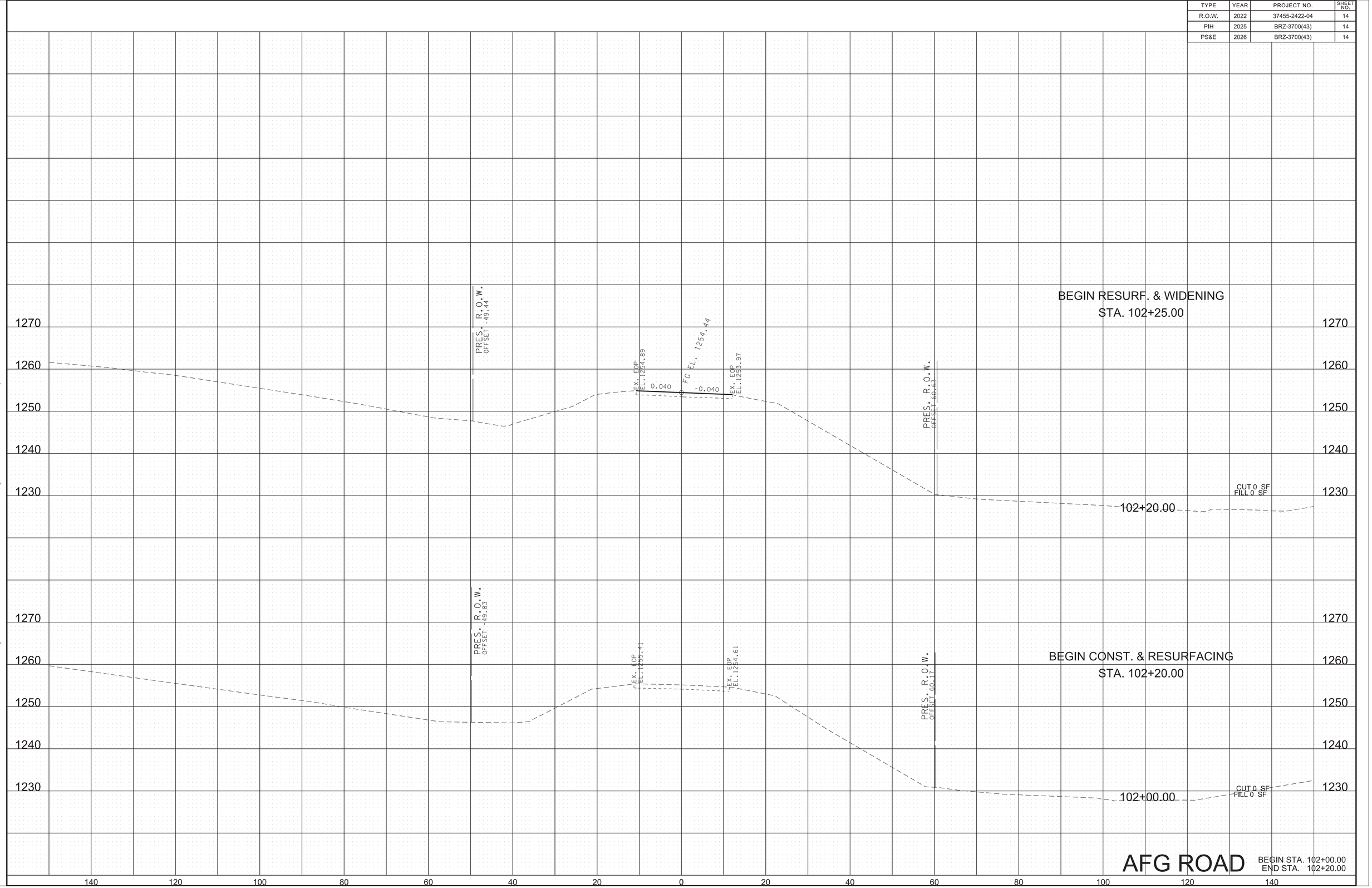
EROSION PREVENTION & SEDIMENT CONTROL (EPSC) PLANS

STA. 109+50 TO STA. 114+50

SCALE: 1"= 50'

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TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2022	37455-2422-04	14
PIH	2025	BRZ-3700(43)	14
PS&E	2026	BRZ-3700(43)	14



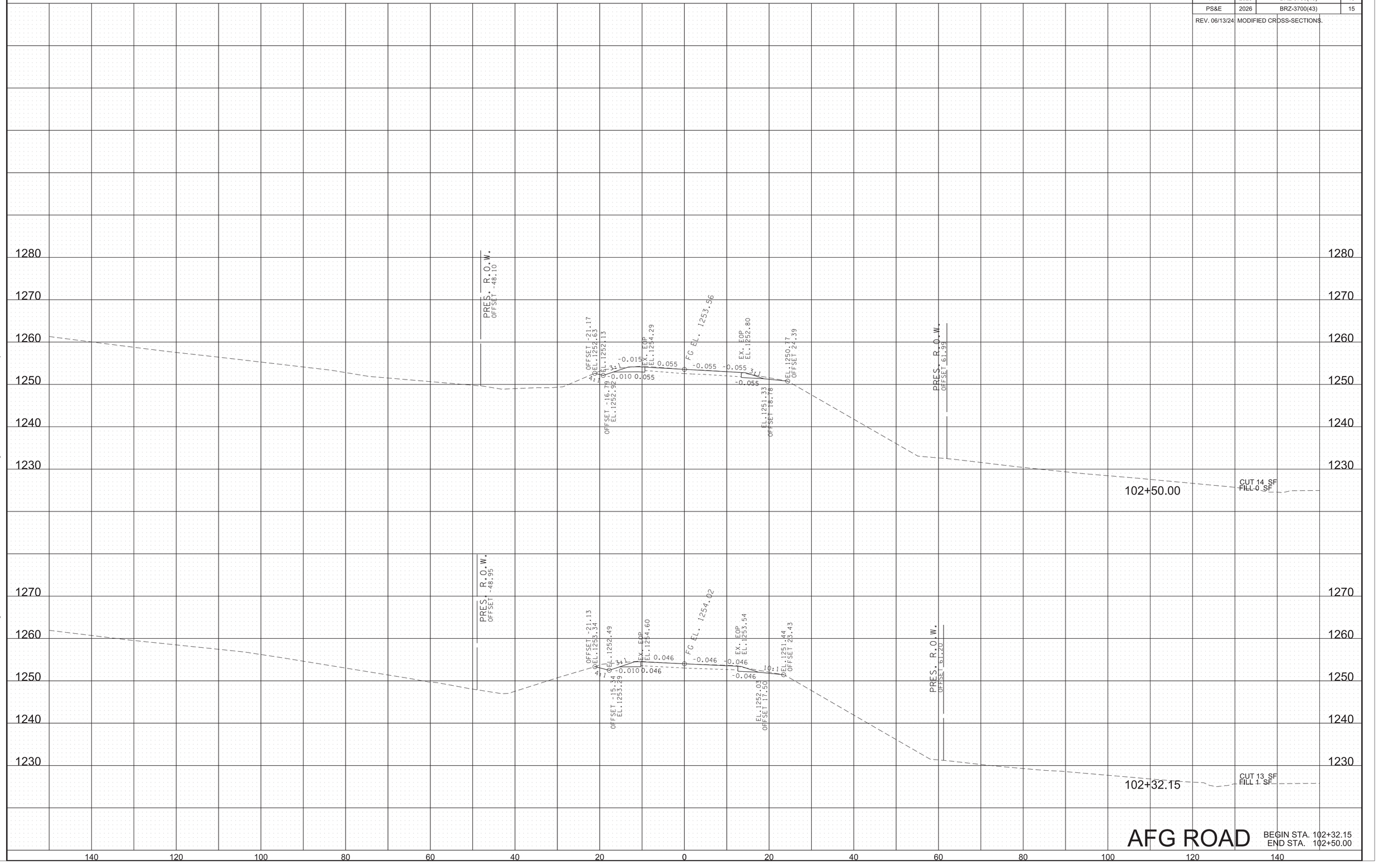
AFG ROAD

BEGIN STA. 102+00.00
END STA. 102+20.00

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TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2022	37455-2422-04	15
PIH	2025	BRZ-3700(43)	15
PS&E	2026	BRZ-3700(43)	15

REV. 06/13/24 MODIFIED CROSS-SECTIONS.



AFG ROAD

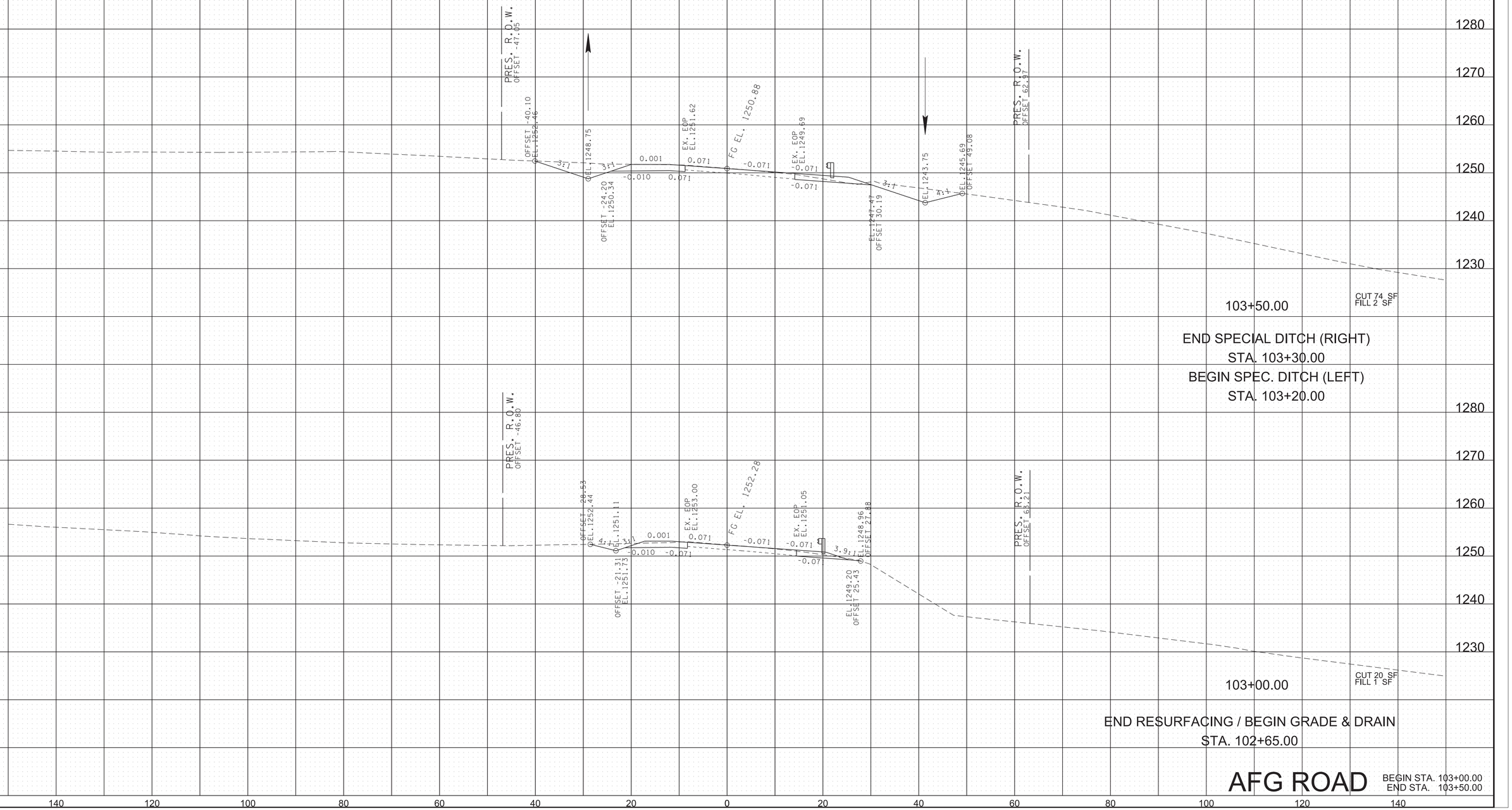
BEGIN STA. 102+32.15
END STA. 102+50.00

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TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2022	37455-2422-04	16
PIH	2025	BRZ-3700(43)	16
PS&E	2026	BRZ-3700(43)	16

REV. 04/12/23: MODIFIED PROPOSED ROW LINES.

REV. 06/13/24: MODIFIED CROSS-SECTIONS.



AFG ROAD

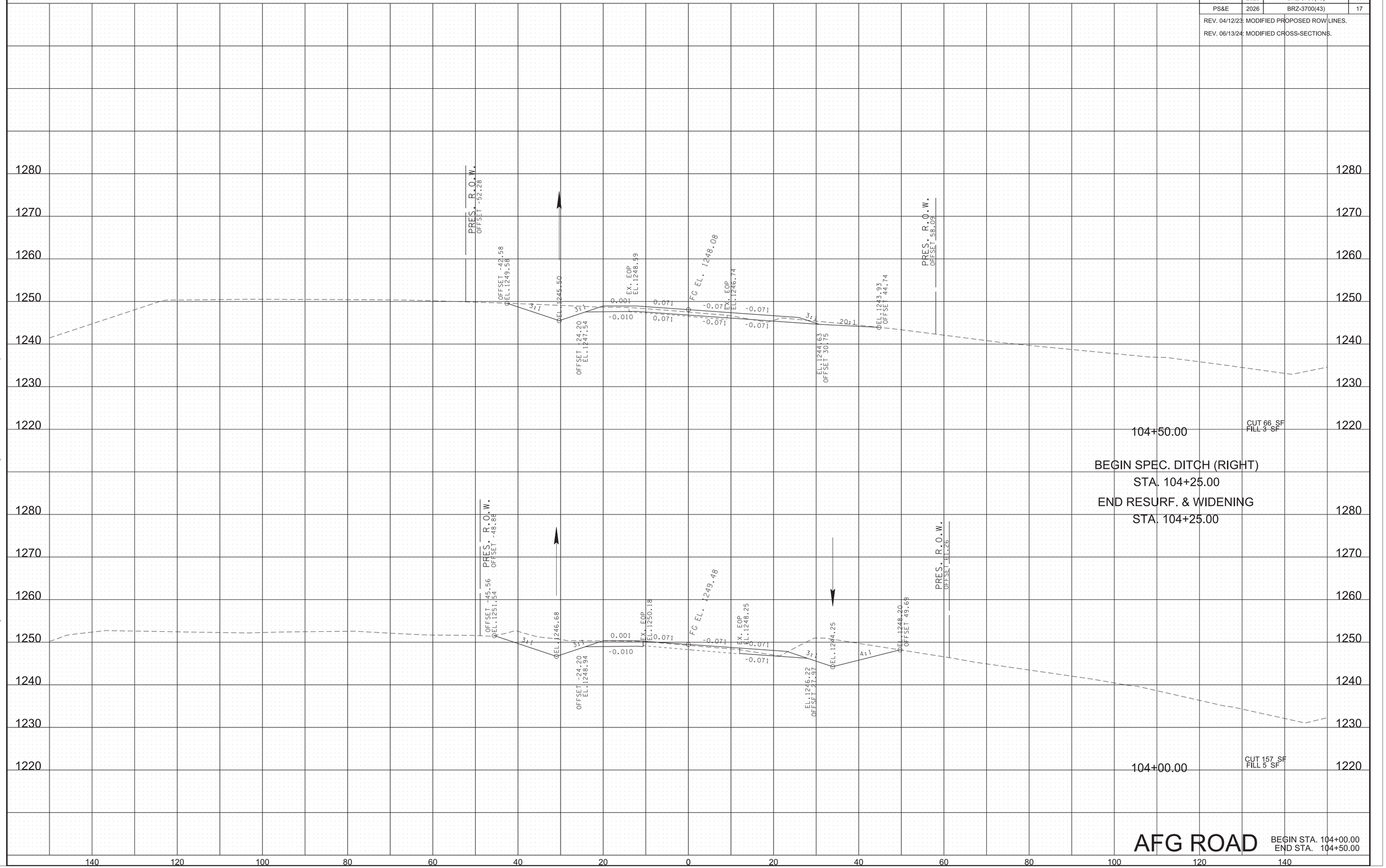
BEGIN STA. 103+00.00
END STA. 103+50.00

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TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2022	37455-2422-04	17
PIH	2025	BRZ-3700(43)	17
PS&E	2026	BRZ-3700(43)	17

REV. 04/12/23: MODIFIED PROPOSED ROW LINES.

REV. 06/13/24: MODIFIED CROSS-SECTIONS.

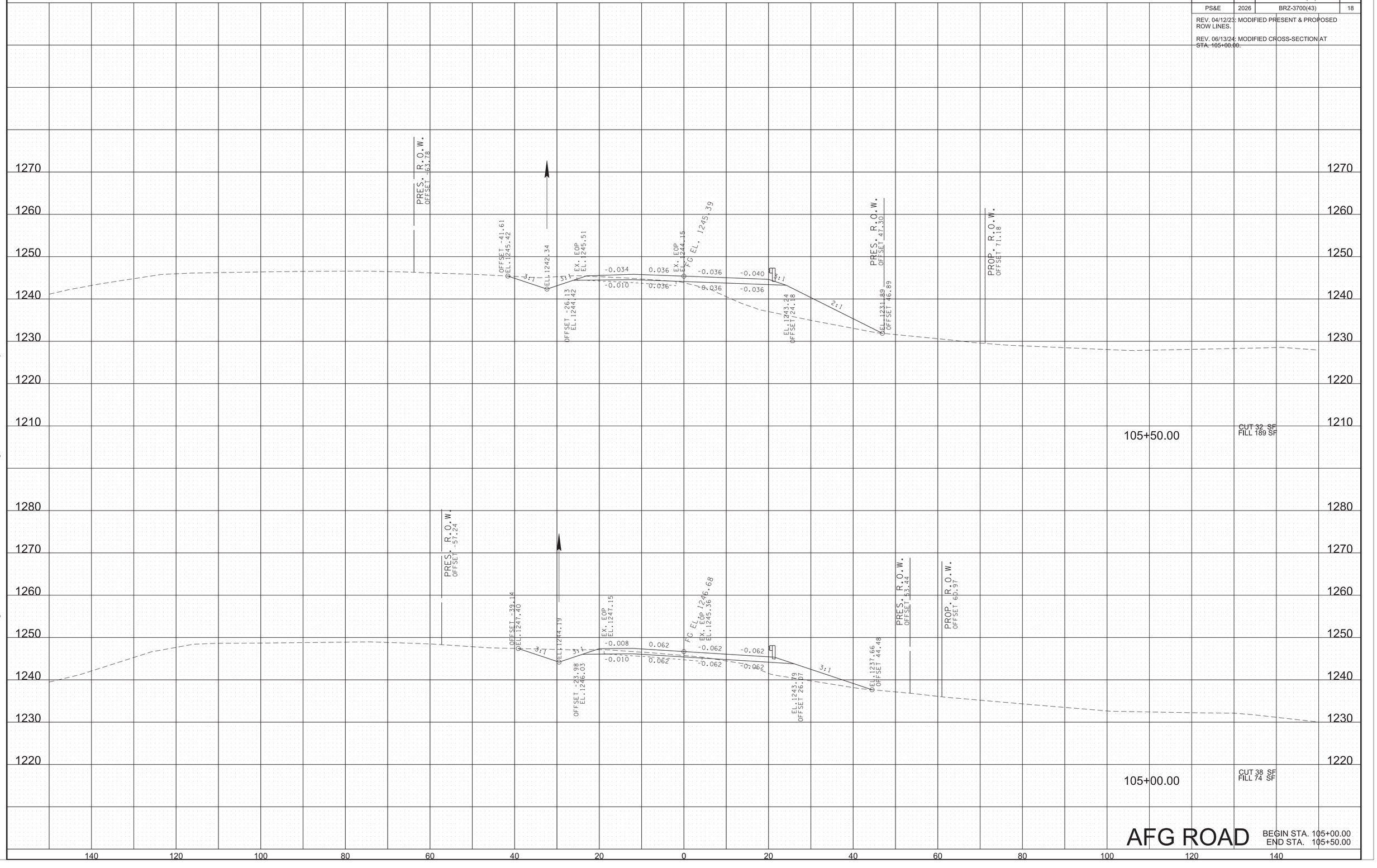


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TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2022	37455-2422-04	18
PIH	2025	BRZ-3700(43)	18
PS&E	2026	BRZ-3700(43)	18

REV. 04/12/23: MODIFIED PRESENT & PROPOSED ROW LINES.

REV. 06/13/24: MODIFIED CROSS-SECTION AT STA. 105+00.00.



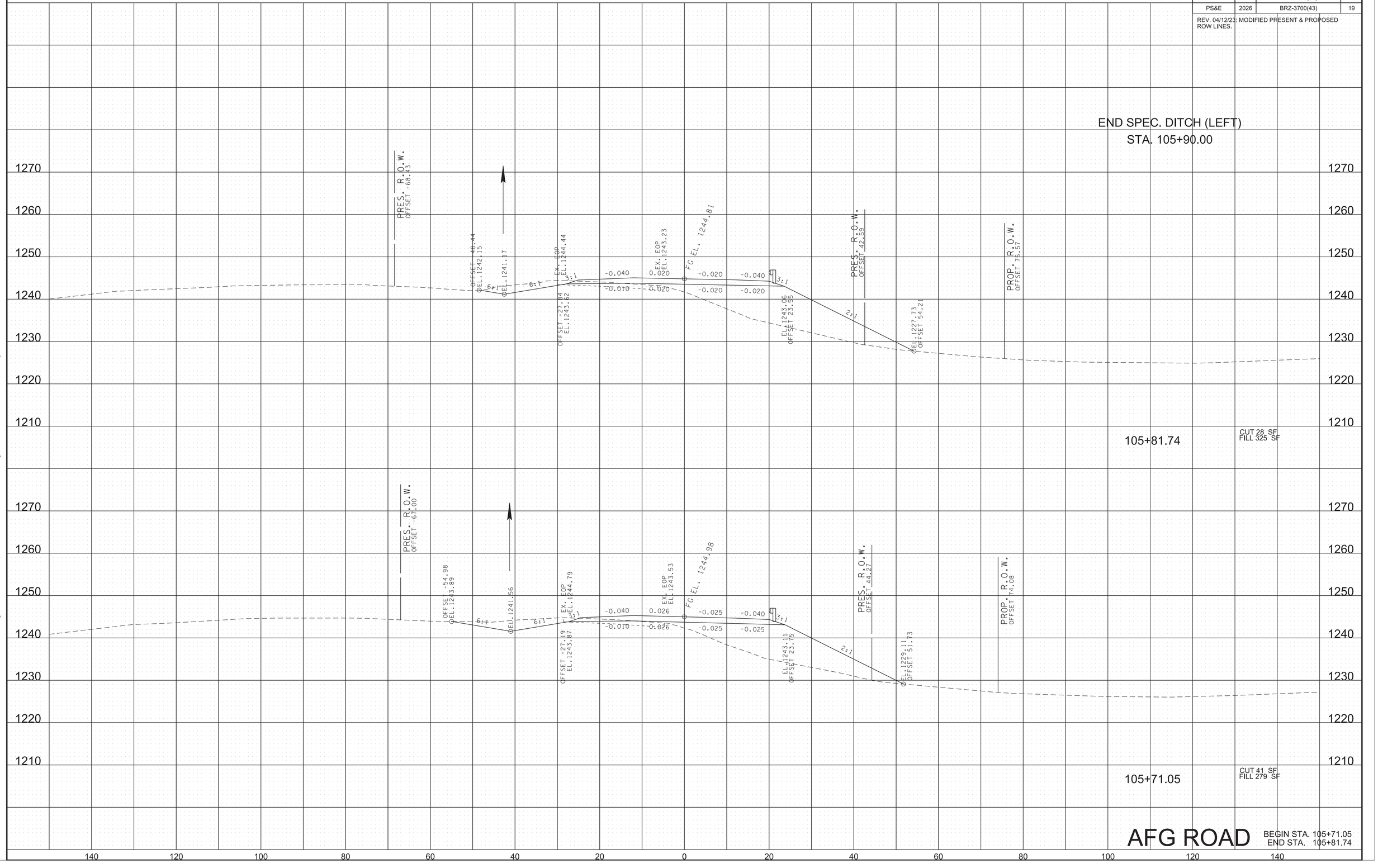
AFG ROAD

BEGIN STA. 105+00.00
END STA. 105+50.00

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TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2022	37455-2422-04	19
PIH	2025	BRZ-3700(43)	19
PS&E	2026	BRZ-3700(43)	19

REV. 04/12/23: MODIFIED PRESENT & PROPOSED ROW LINES.



AFG ROAD

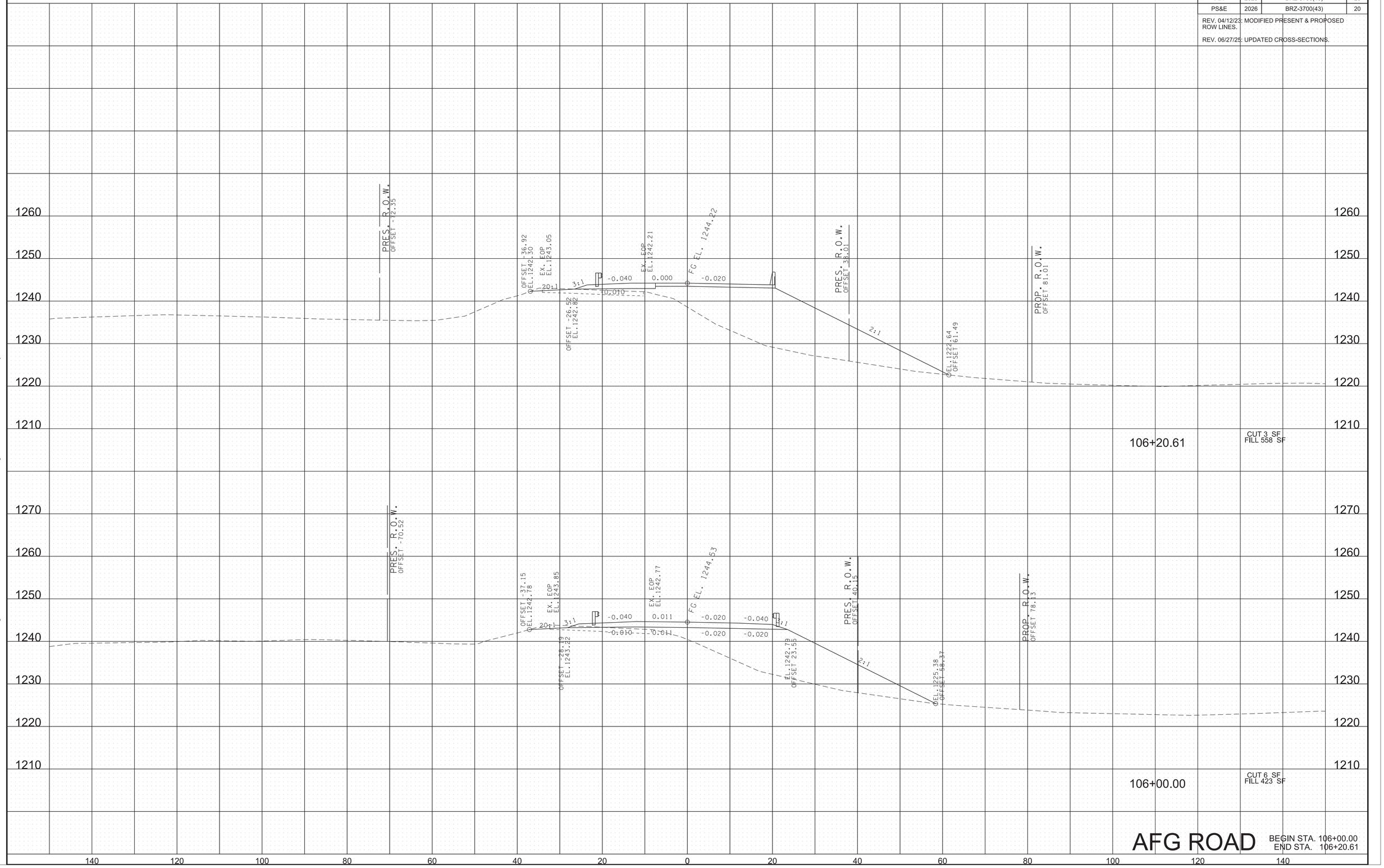
BEGIN STA. 105+71.05
END STA. 105+81.74

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TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2022	37455-2422-04	20
PIH	2025	BRZ-3700(43)	20
PS&E	2026	BRZ-3700(43)	20

REV. 04/12/23: MODIFIED PRESENT & PROPOSED ROW LINES.

REV. 06/27/25: UPDATED CROSS-SECTIONS.

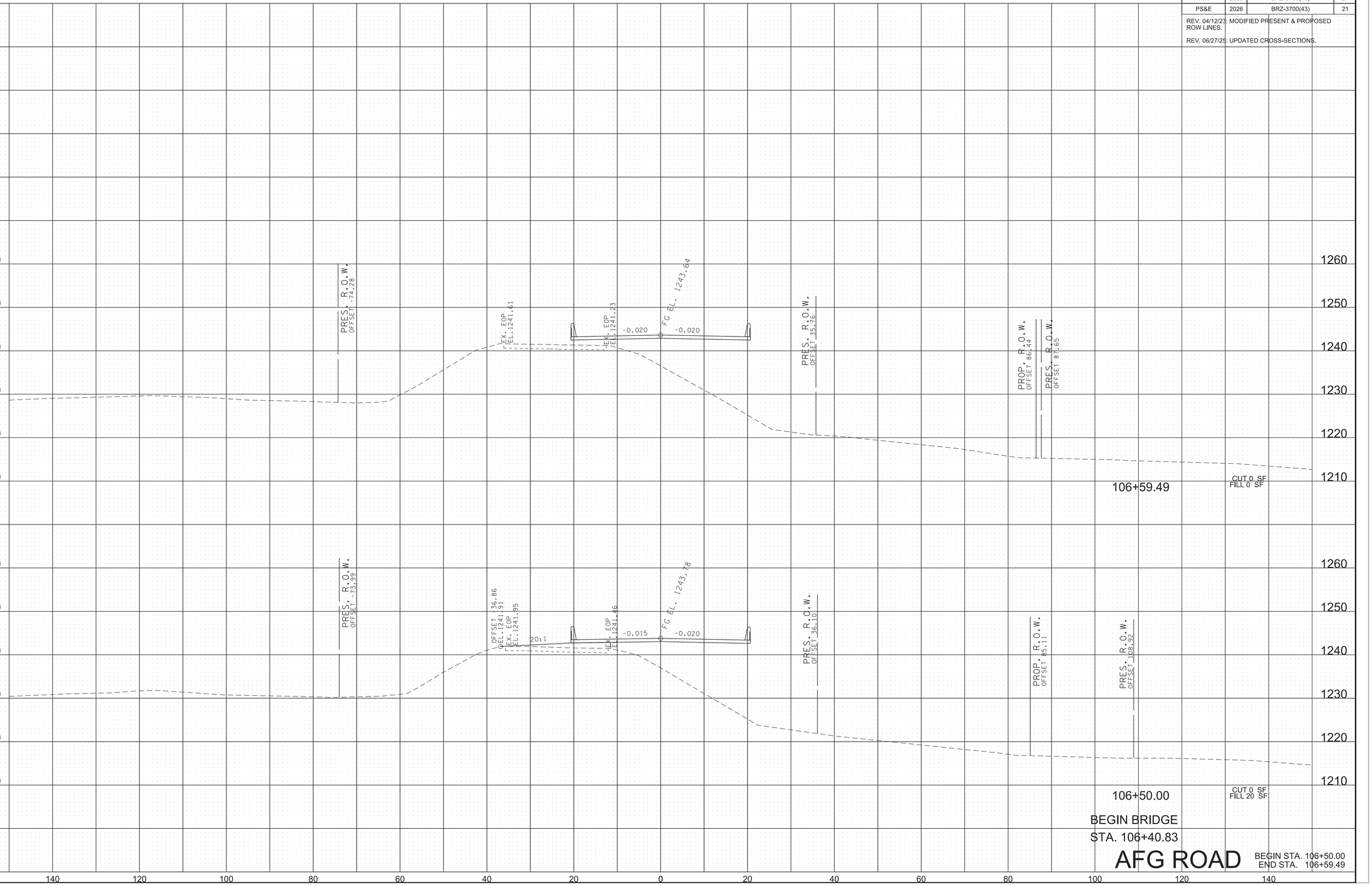


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TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2022	37455-2422-04	21
PIH	2025	BRZ-3700(43)	21
PS&E	2026	BRZ-3700(43)	21

REV. 04/12/23: MODIFIED PRESENT & PROPOSED ROW LINES.

REV. 06/27/25: UPDATED CROSS-SECTIONS.



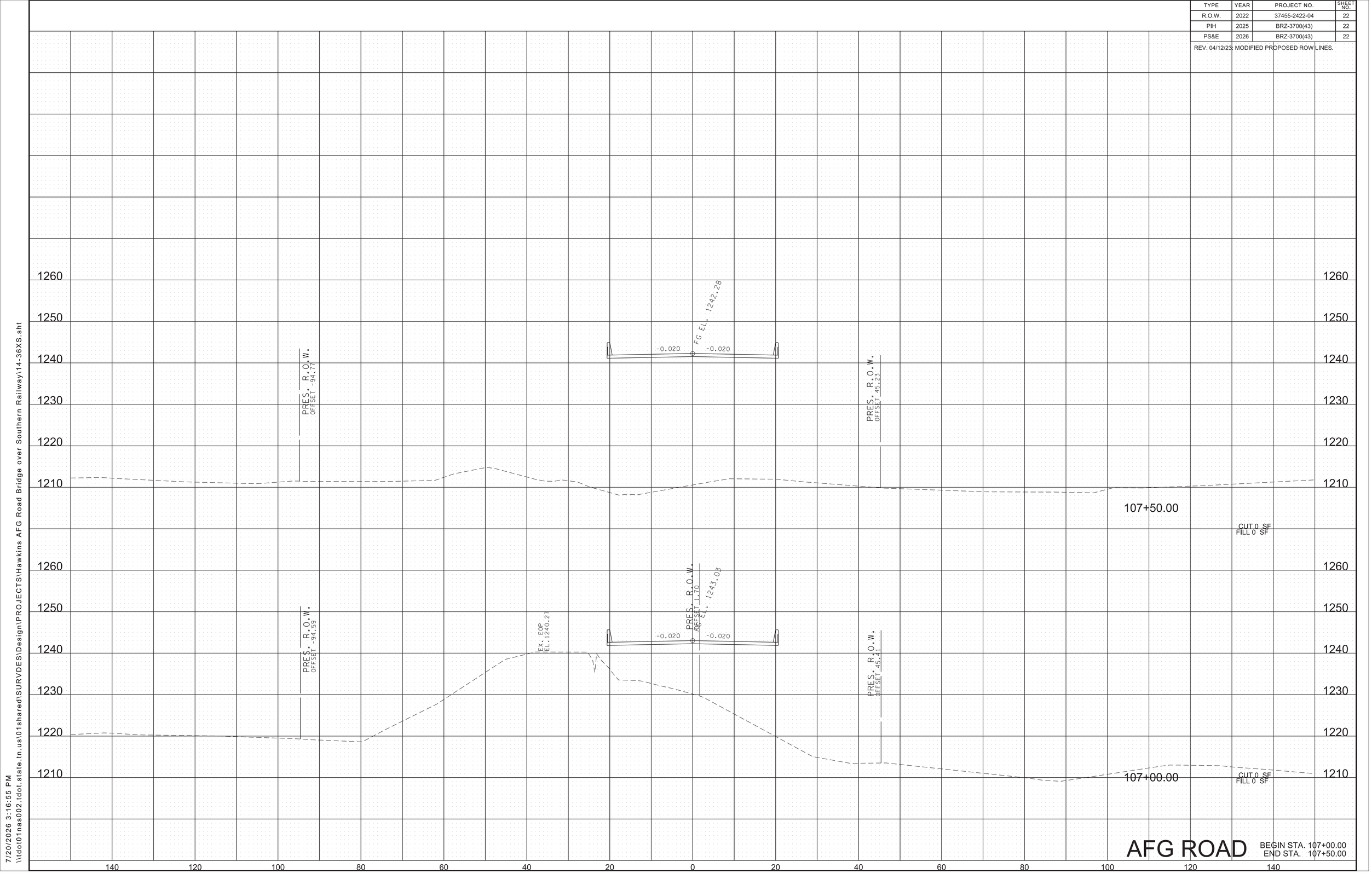
AFG ROAD

BEGIN STA. 106+50.00
END STA. 106+59.49

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TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2022	37455-2422-04	22
PIH	2025	BRZ-3700(43)	22
PS&E	2026	BRZ-3700(43)	22

REV. 04/12/23: MODIFIED PROPOSED ROW LINES.



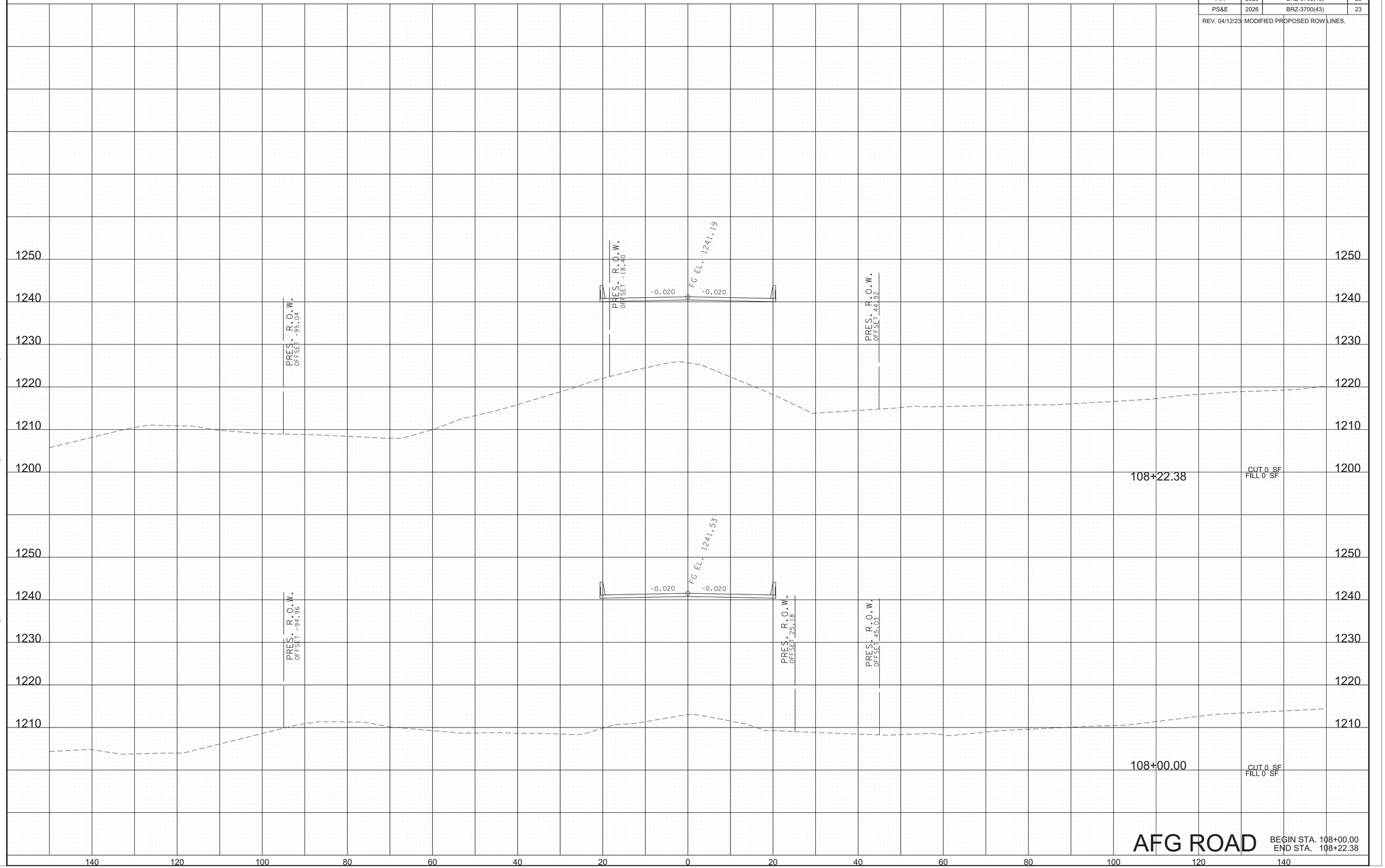
AFG ROAD

BEGIN STA. 107+00.00
END STA. 107+50.00

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TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2022	37455-2422-04	23
PIH	2025	BRZ-3700(43)	23
PS&E	2026	BRZ-3700(43)	23

REV. 04/12/23: MODIFIED PROPOSED ROW LINES.



AFG ROAD

BEGIN STA. 108+00.00
END STA. 108+22.38

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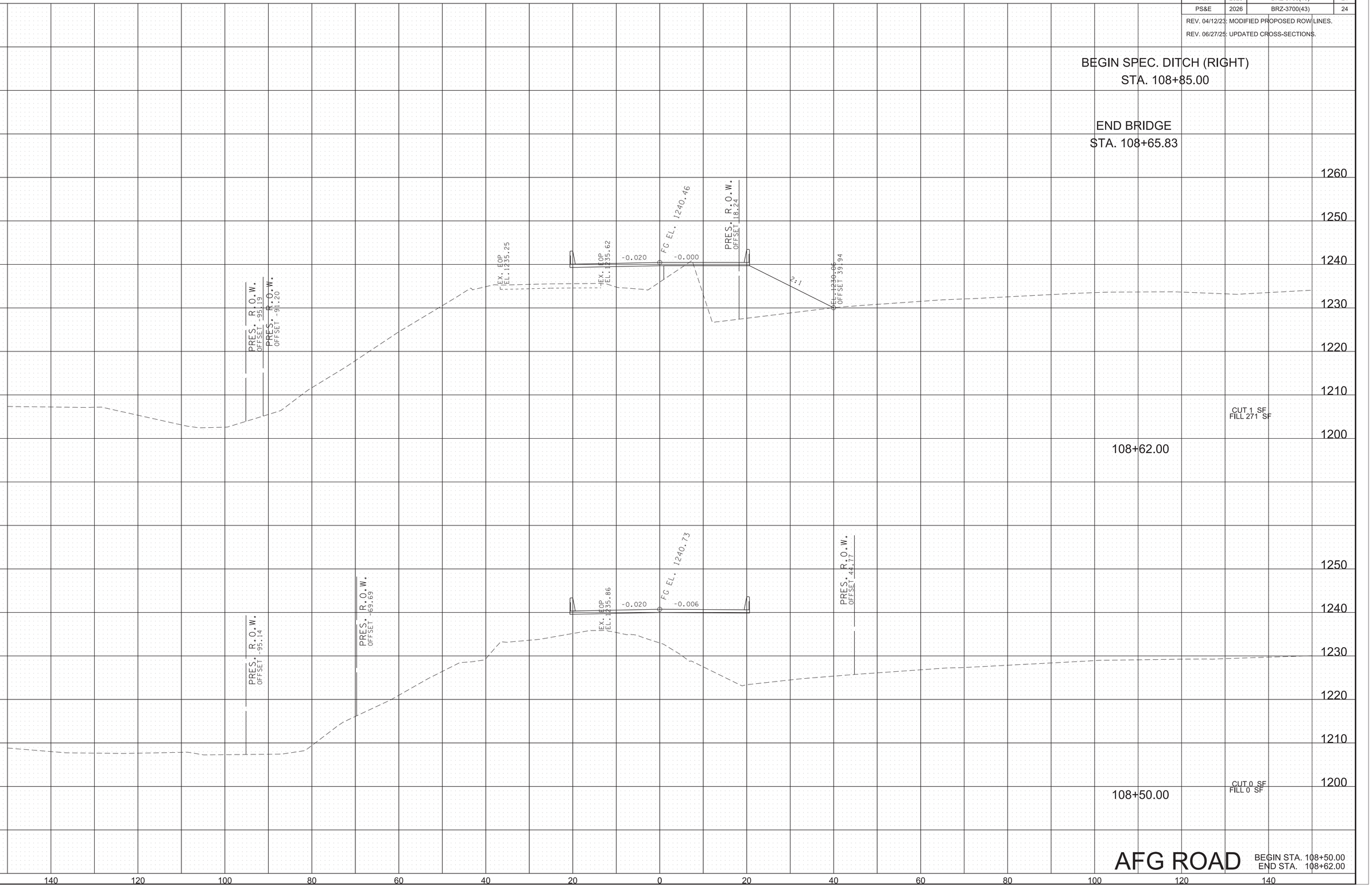
TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2022	37455-2422-04	24
PIH	2025	BRZ-3700(43)	24
PS&E	2026	BRZ-3700(43)	24

REV. 04/12/23: MODIFIED PROPOSED ROW LINES.

REV. 06/27/25: UPDATED CROSS-SECTIONS.

BEGIN SPEC. DITCH (RIGHT)
STA. 108+85.00

END BRIDGE
STA. 108+65.83



AFG ROAD

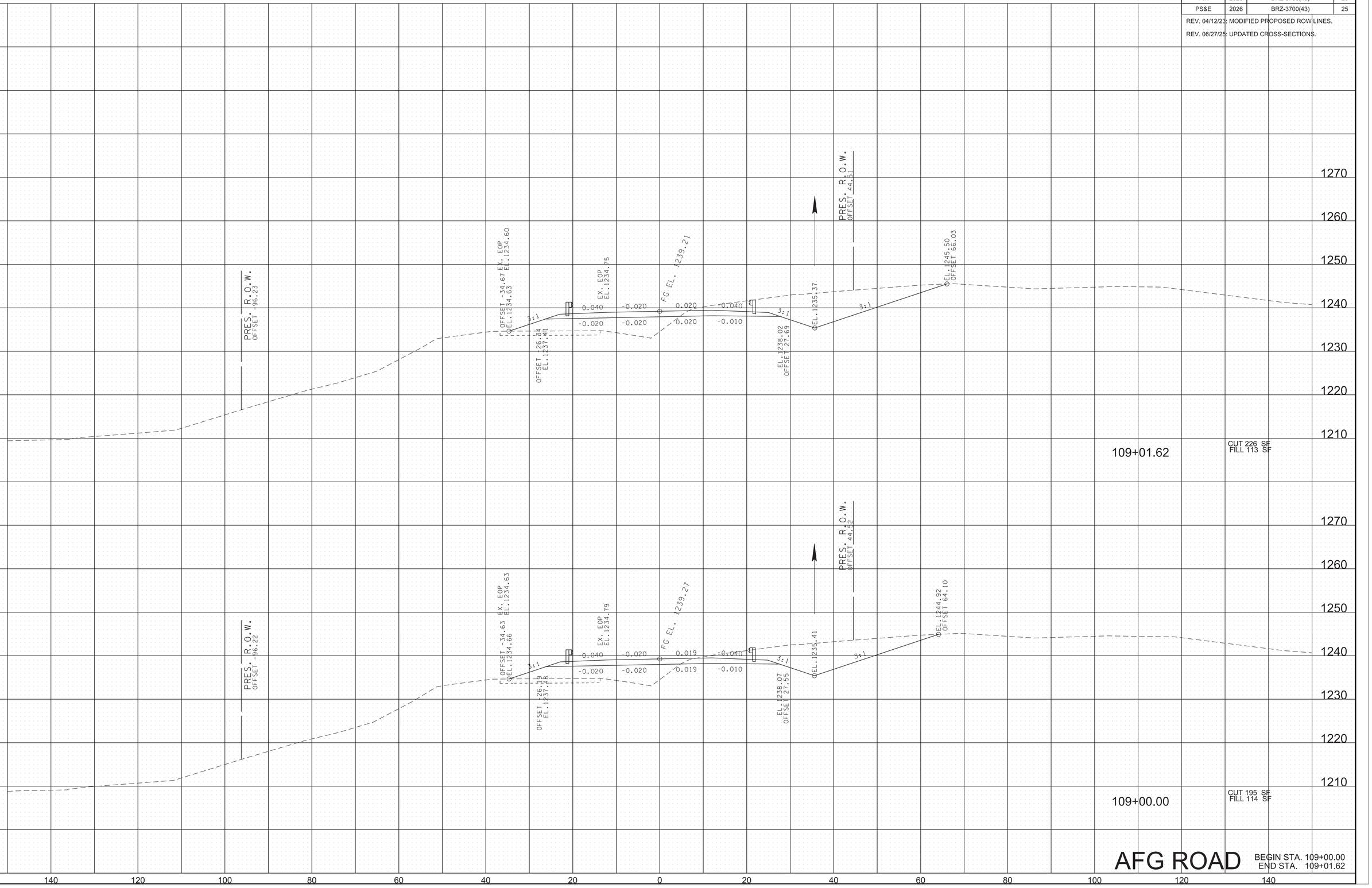
BEGIN STA. 108+50.00
END STA. 108+62.00

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TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2022	37455-2422-04	25
PIH	2025	BRZ-3700(43)	25
PS&E	2026	BRZ-3700(43)	25

REV. 04/12/23: MODIFIED PROPOSED ROW LINES.

REV. 06/27/25: UPDATED CROSS-SECTIONS.



AFG ROAD

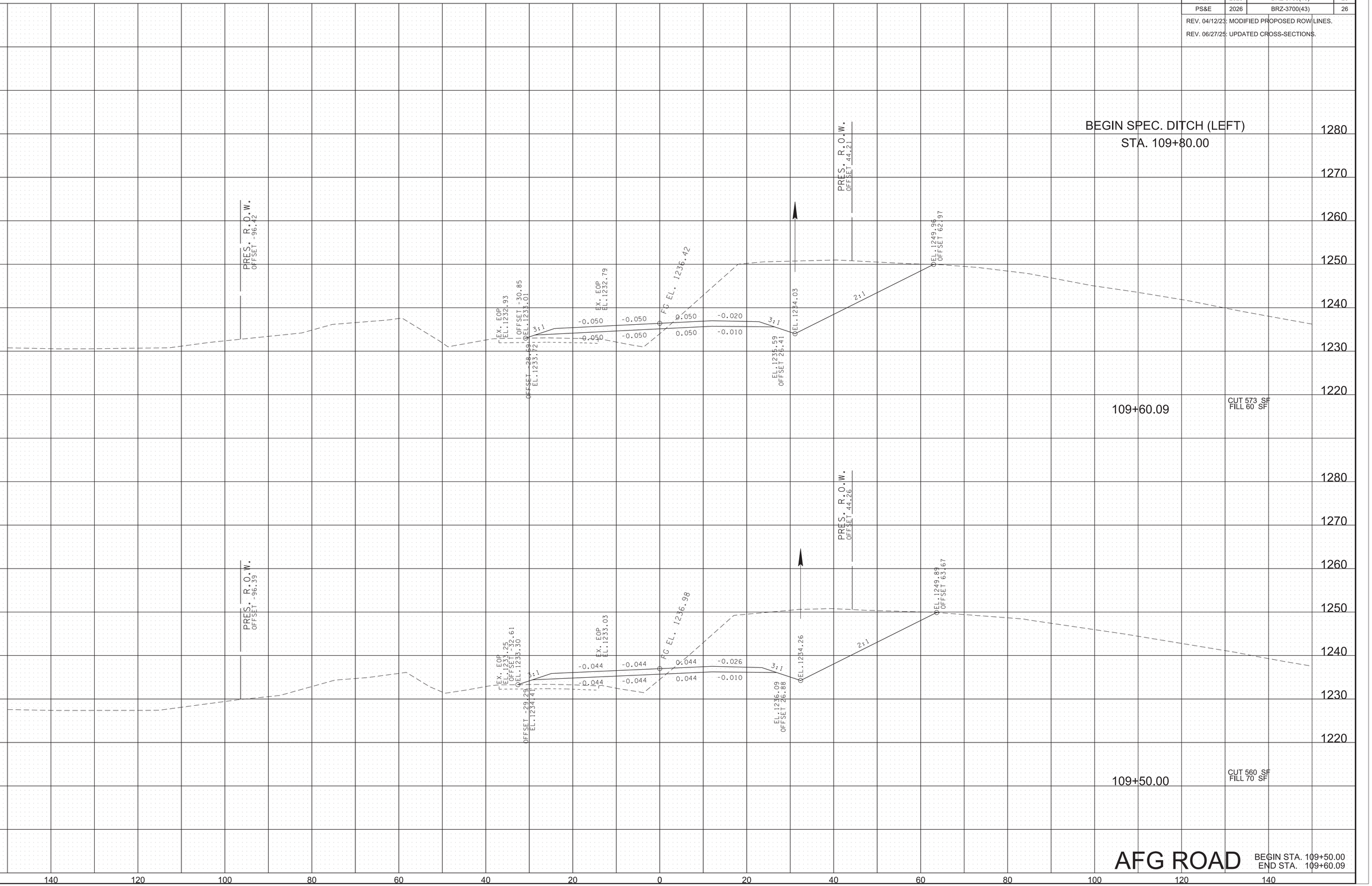
BEGIN STA. 109+00.00
END STA. 109+01.62

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TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2022	37455-2422-04	26
PIH	2025	BRZ-3700(43)	26
PS&E	2026	BRZ-3700(43)	26

REV. 04/12/23: MODIFIED PROPOSED ROW LINES.

REV. 06/27/25: UPDATED CROSS-SECTIONS.



AFG ROAD

BEGIN STA. 109+50.00
END STA. 109+60.09

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TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2022	37455-2422-04	27
PIH	2025	BRZ-3700(43)	27
PS&E	2026	BRZ-3700(43)	27

REV. 04/12/23: MODIFIED PROPOSED ROW LINES.

END SPEC. DITCH (LEFT)
STA. 110+38.11

PRES. R.O.W. OFFSET -94.04
PRES. R.O.W. OFFSET -60.79
PRES. R.O.W. OFFSET 46.87
OFFSET -54.90 EL. 1233.63
EL. 1227.12
EX. EOP EL. 1230.78
OFFSET -25.72 EL. 1230.35
EX. EOP EL. 1230.92
FG EL. 1232.14
EL. 1228.48
OFFSET 23.19 EL. 1231.00
EL. 1245.32 OFFSET 60.41
2:1 3:1 -0.040 -0.020 0.020 -0.040 -0.020 -0.020 0.020 -0.010

110+32.38

CUT 525 SF
FILL 12 SF

END SPEC. DITCH (RIGHT)
STA. 110+31.61

PRES. R.O.W. OFFSET -95.75
PRES. R.O.W. OFFSET 44.92
OFFSET -35.12 EX. EOP EL. 1231.70
EL. 1230.29
OFFSET -24.34 EL. 1231.87
EX. EOP EL. 1231.70
FG EL. 1234.03
EL. 1231.63
OFFSET 23.50 EL. 1233.08
EL. 1247.63 OFFSET 59.86
2:1 3:1 -0.040 -0.036 -0.036 -0.034 -0.036 -0.036 0.036 -0.010

110+00.00

CUT 548 SF
FILL 28 SF

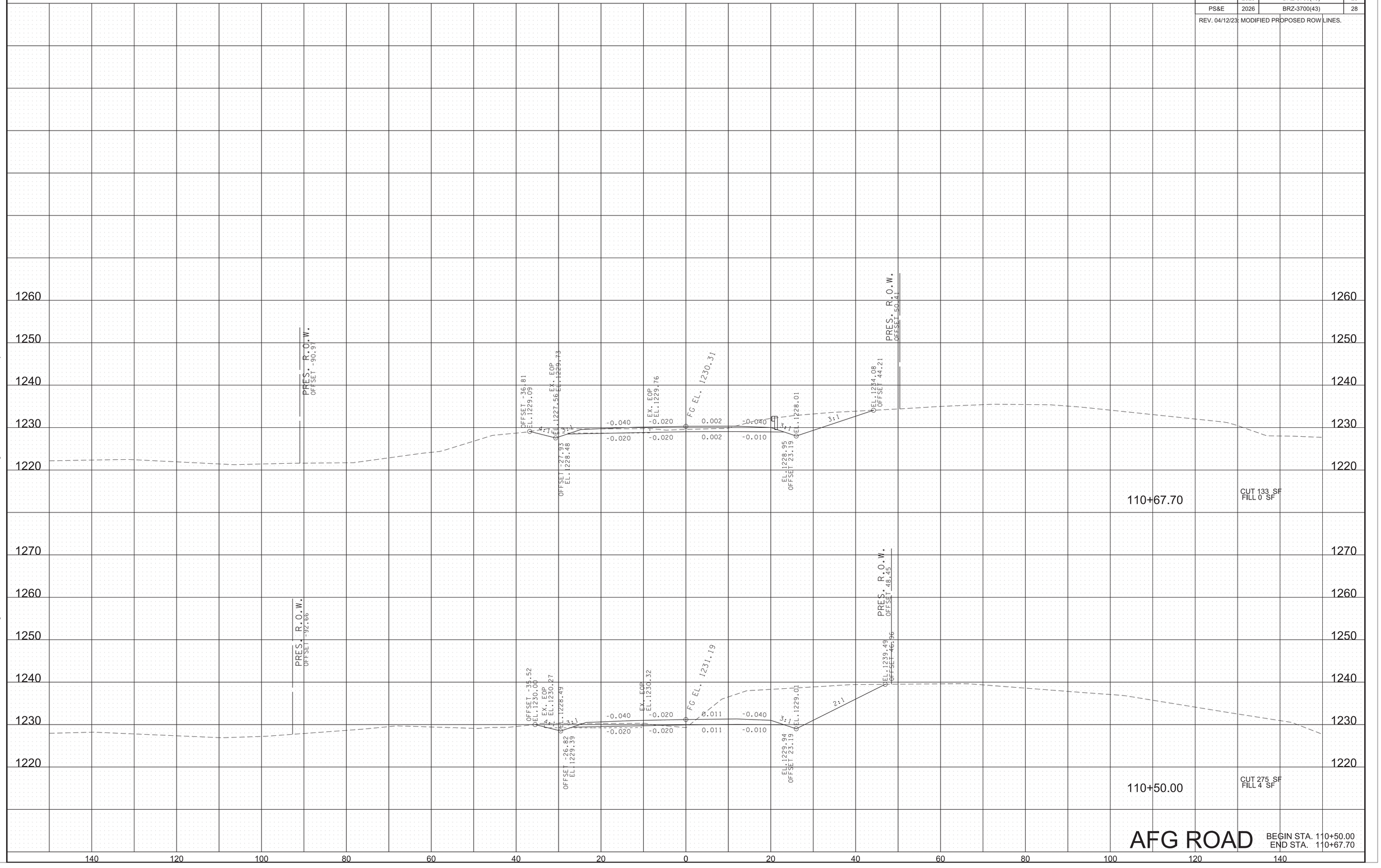
AFG ROAD

BEGIN STA. 110+00.00
END STA. 110+32.38

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TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2022	37455-2422-04	28
PIH	2025	BRZ-3700(43)	28
PS&E	2026	BRZ-3700(43)	28

REV. 04/12/23: MODIFIED PROPOSED ROW LINES.



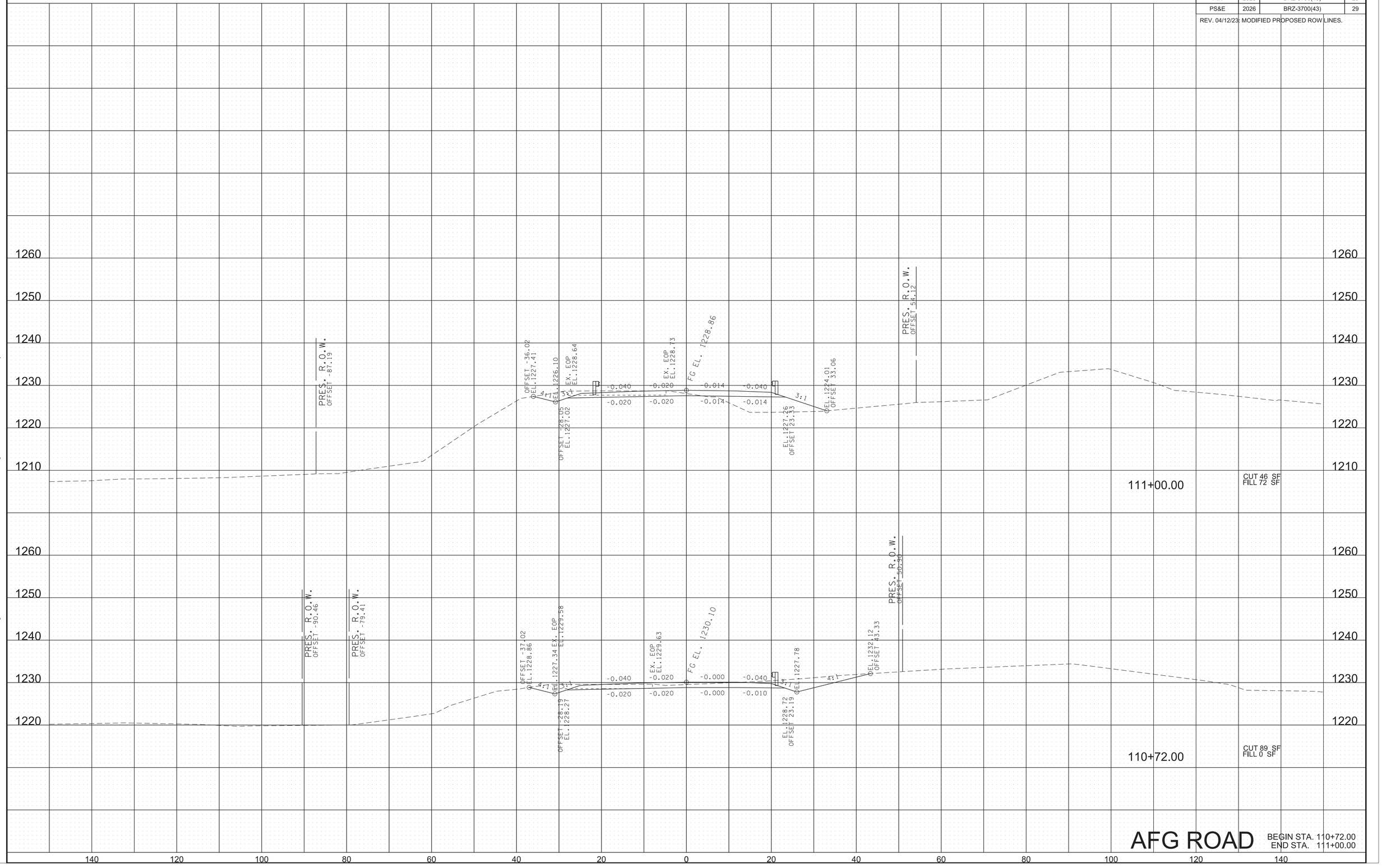
AFG ROAD

BEGIN STA. 110+50.00
END STA. 110+67.70

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TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2022	37455-2422-04	29
PIH	2025	BRZ-3700(43)	29
PS&E	2026	BRZ-3700(43)	29

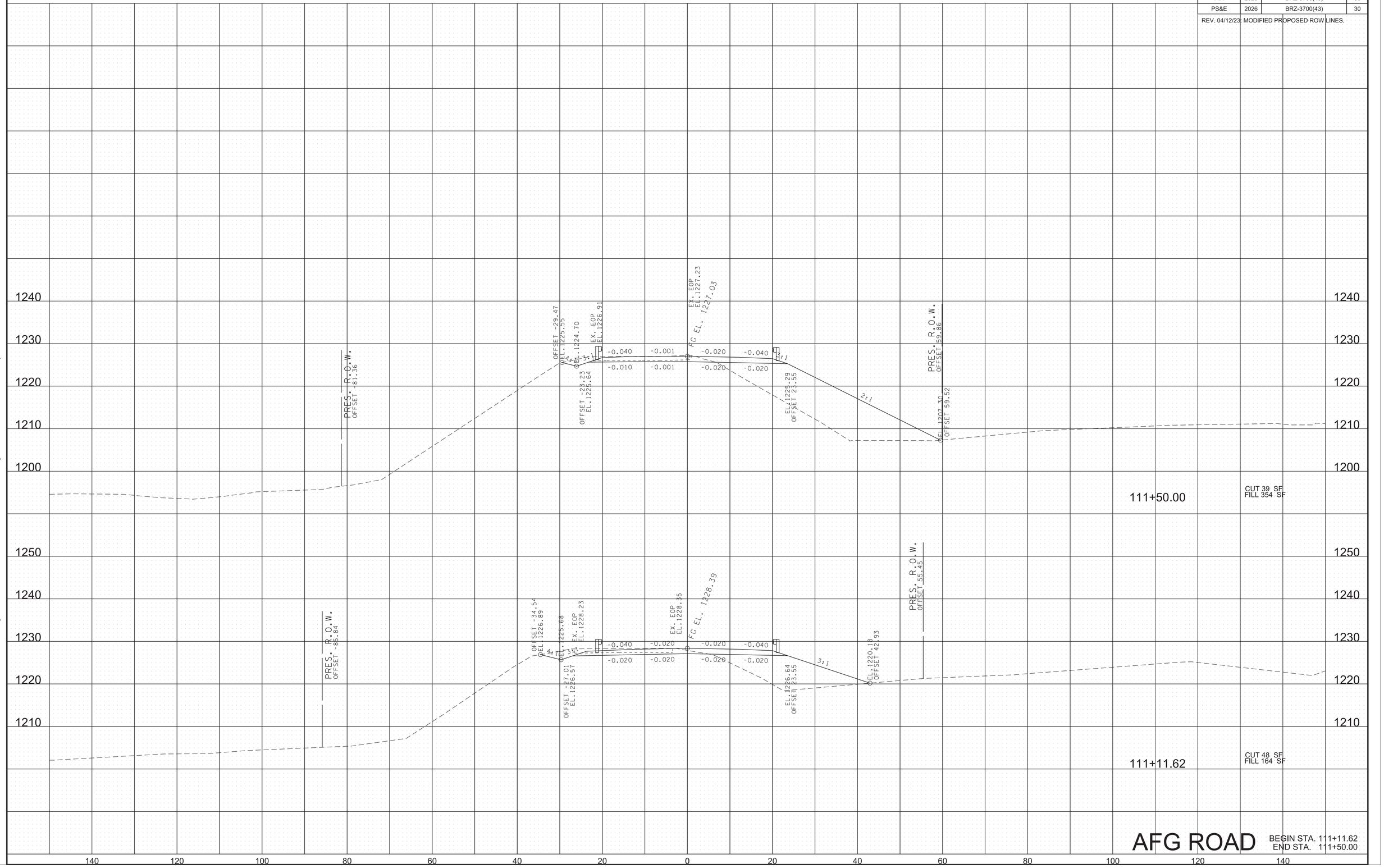
REV. 04/12/23: MODIFIED PROPOSED ROW LINES.



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TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2022	37455-2422-04	30
PIH	2025	BRZ-3700(43)	30
PS&E	2026	BRZ-3700(43)	30

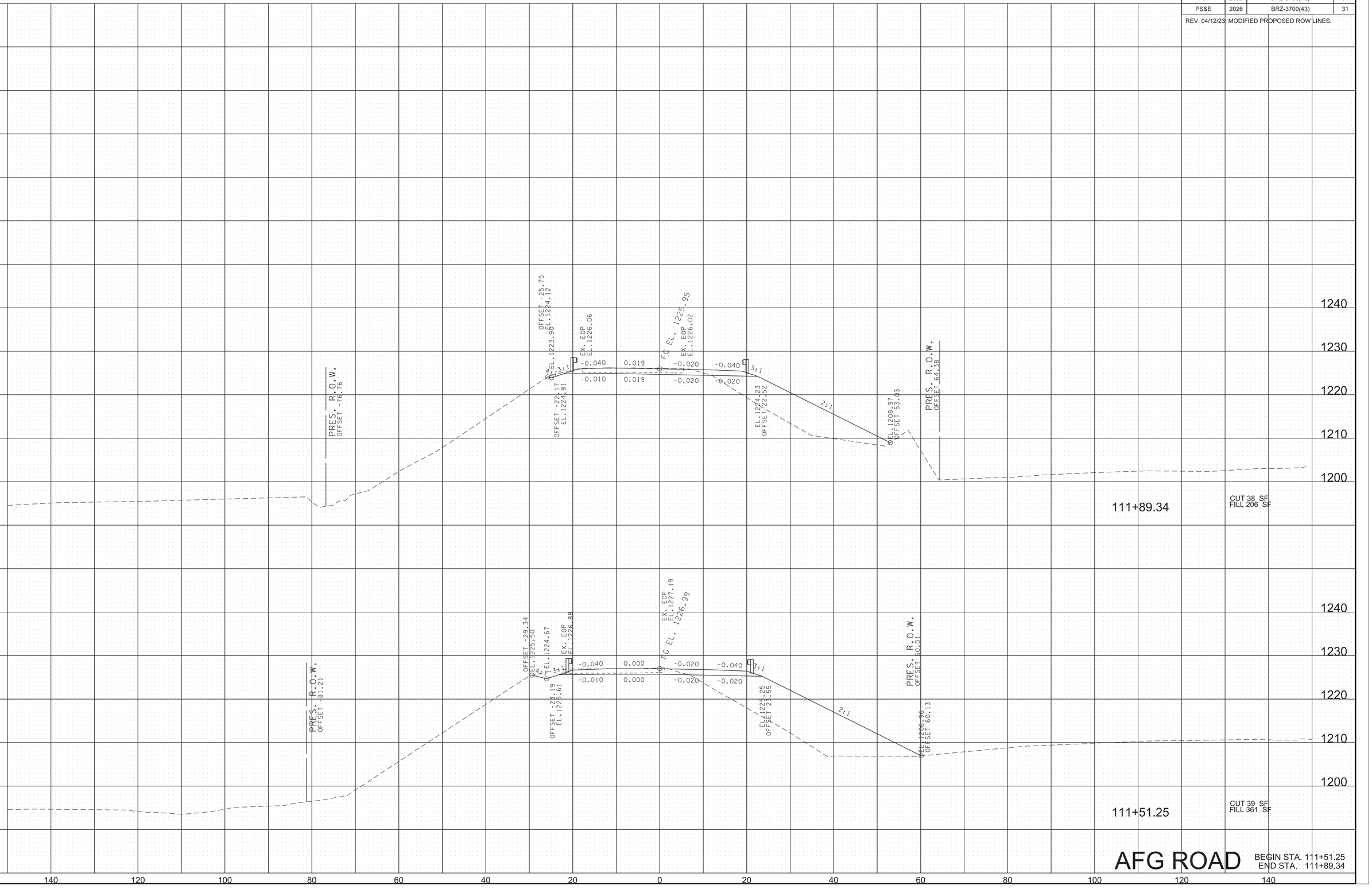
REV. 04/12/23: MODIFIED PROPOSED ROW LINES.



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TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2022	37455-2422-04	31
PIH	2025	BRZ-3700(43)	31
PS&E	2026	BRZ-3700(43)	31

REV. 04/12/23: MODIFIED PROPOSED ROW LINES.



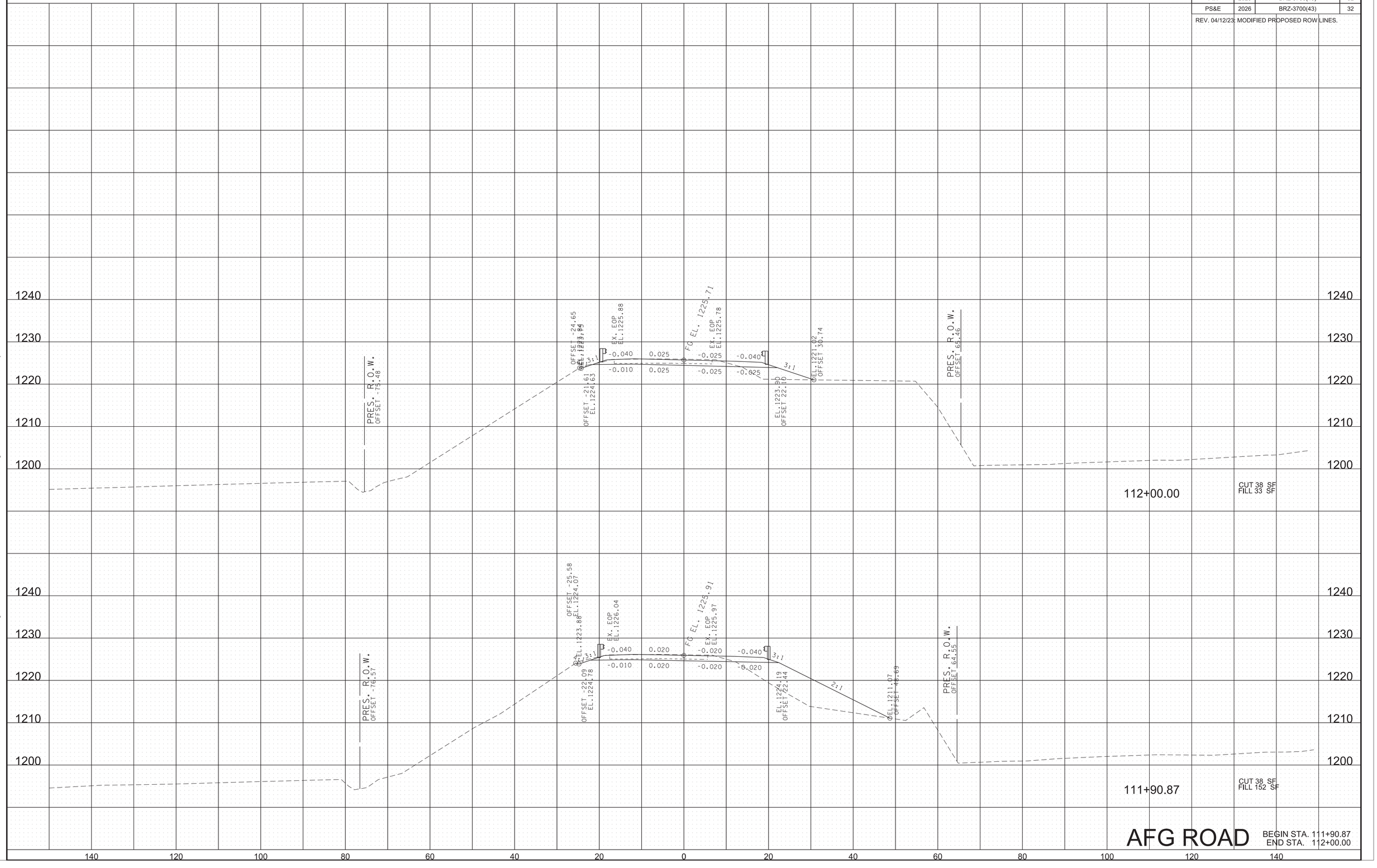
AFG ROAD

BEGIN STA. 111+51.25
END STA. 111+89.34

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TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2022	37455-2422-04	32
PIH	2025	BRZ-3700(43)	32
PS&E	2026	BRZ-3700(43)	32

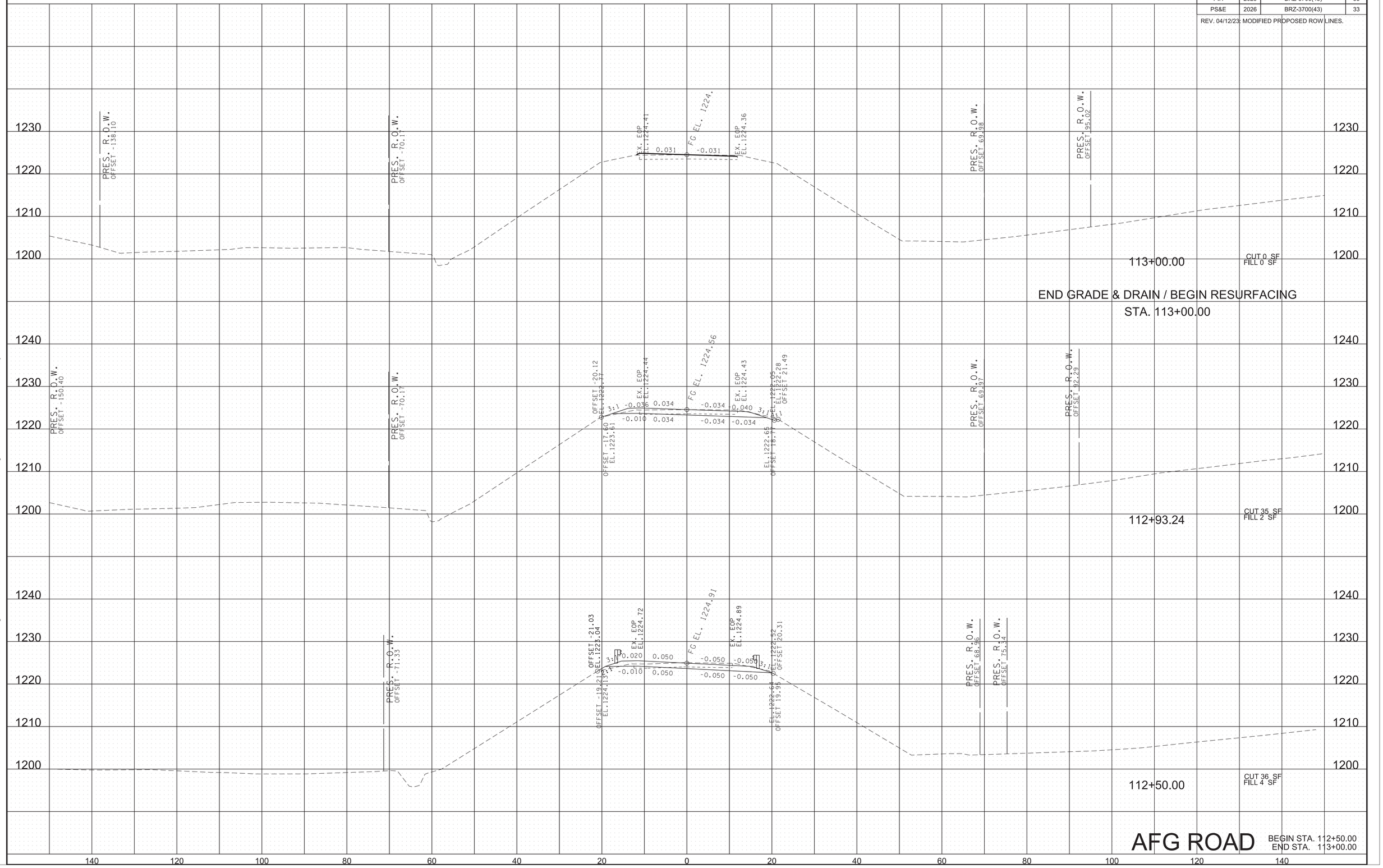
REV. 04/12/23: MODIFIED PROPOSED ROW LINES.



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TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2022	37455-2422-04	33
PIH	2025	BRZ-3700(43)	33
PS&E	2026	BRZ-3700(43)	33

REV. 04/12/23: MODIFIED PROPOSED ROW LINES.



113+00.00
CUT 0 SF
FILL 0 SF

END GRADE & DRAIN / BEGIN RESURFACING
STA. 113+00.00

112+93.24
CUT 35 SF
FILL 2 SF

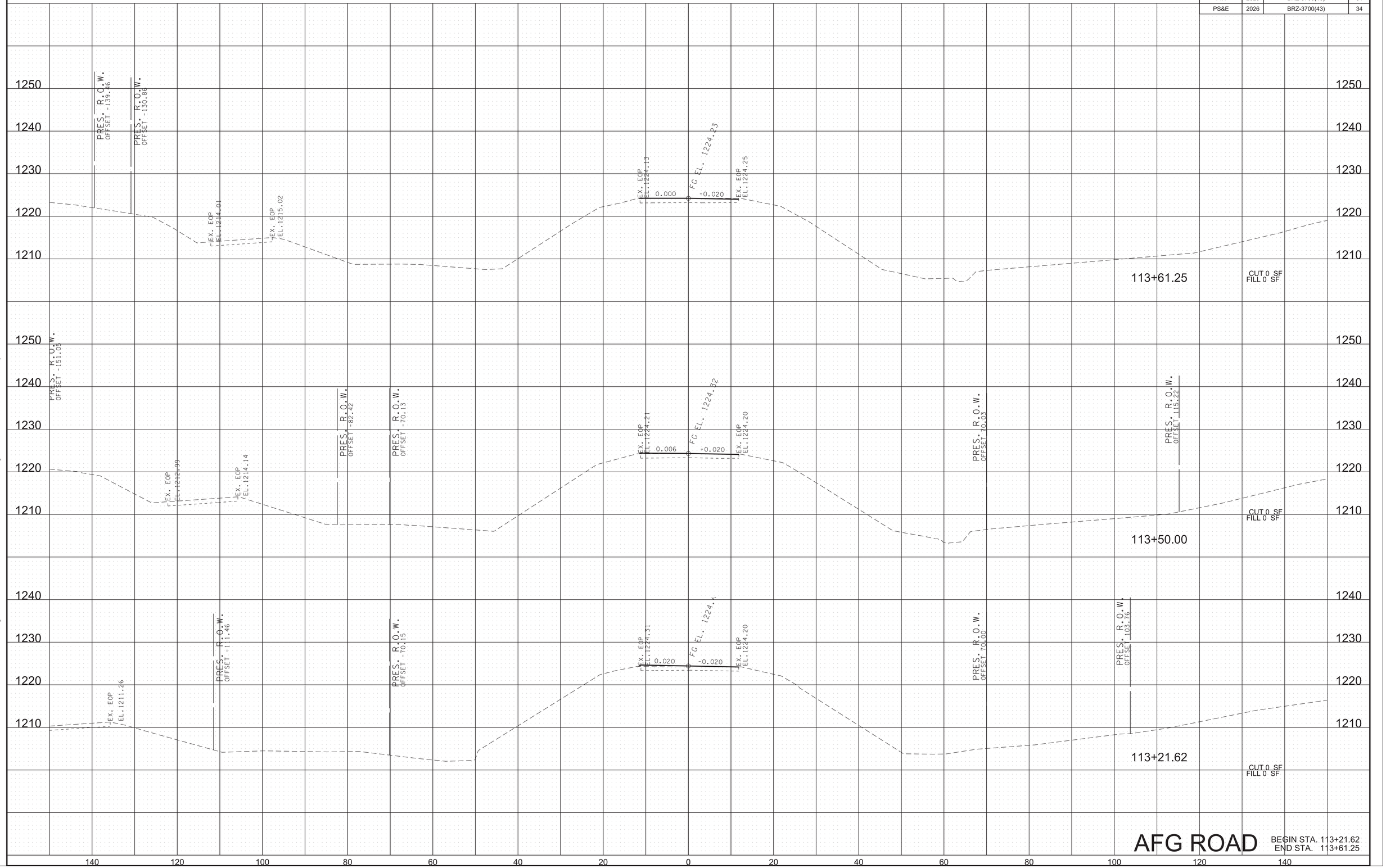
112+50.00
CUT 36 SF
FILL 4 SF

AFG ROAD

BEGIN STA. 112+50.00
END STA. 113+00.00

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TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2022	37455-2422-04	34
PIH	2025	BRZ-3700(43)	34
PS&E	2026	BRZ-3700(43)	34

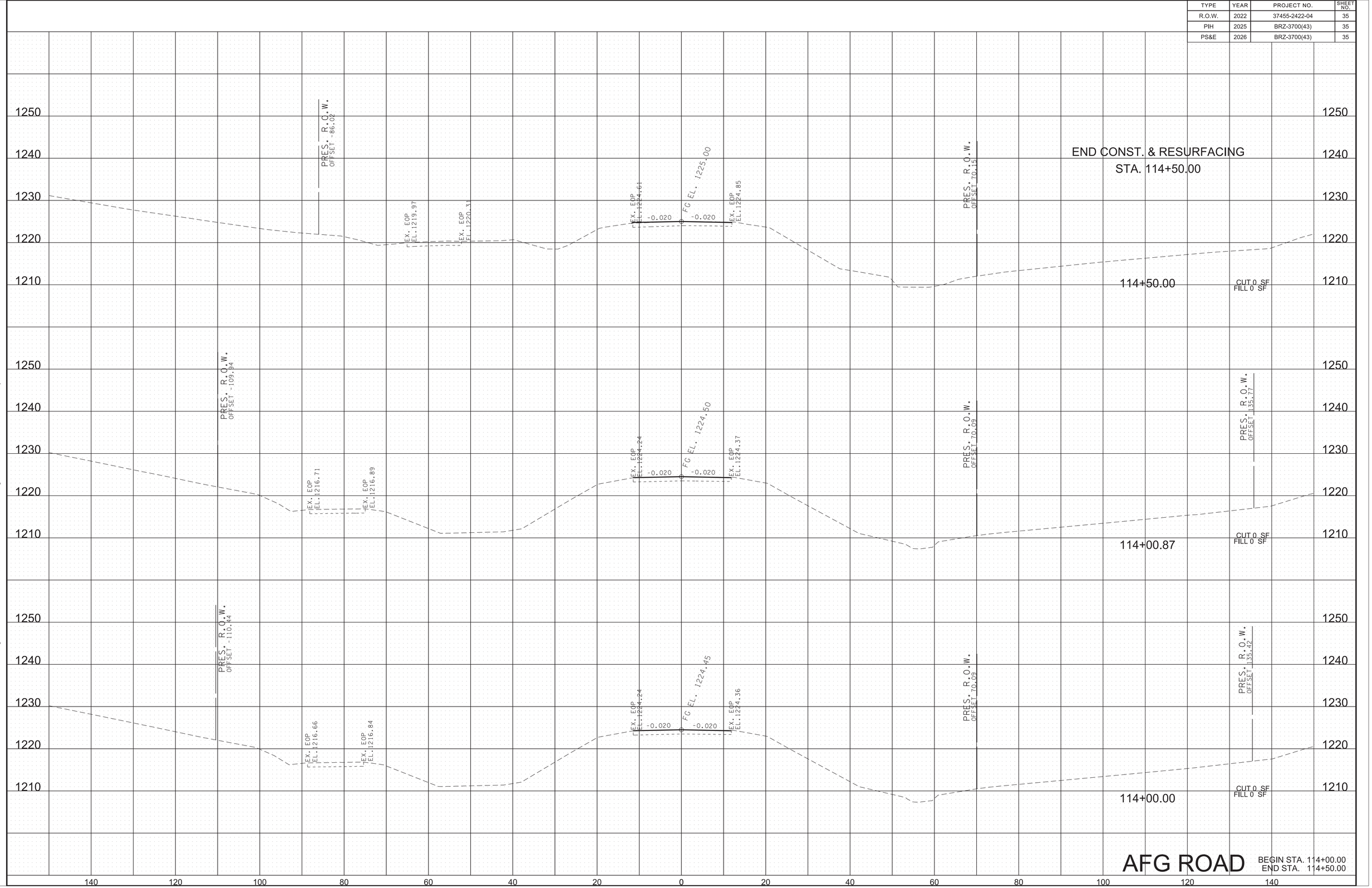


AFG ROAD

BEGIN STA. 113+21.62
END STA. 113+61.25

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TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2022	37455-2422-04	35
PIH	2025	BRZ-3700(43)	35
PS&E	2026	BRZ-3700(43)	35

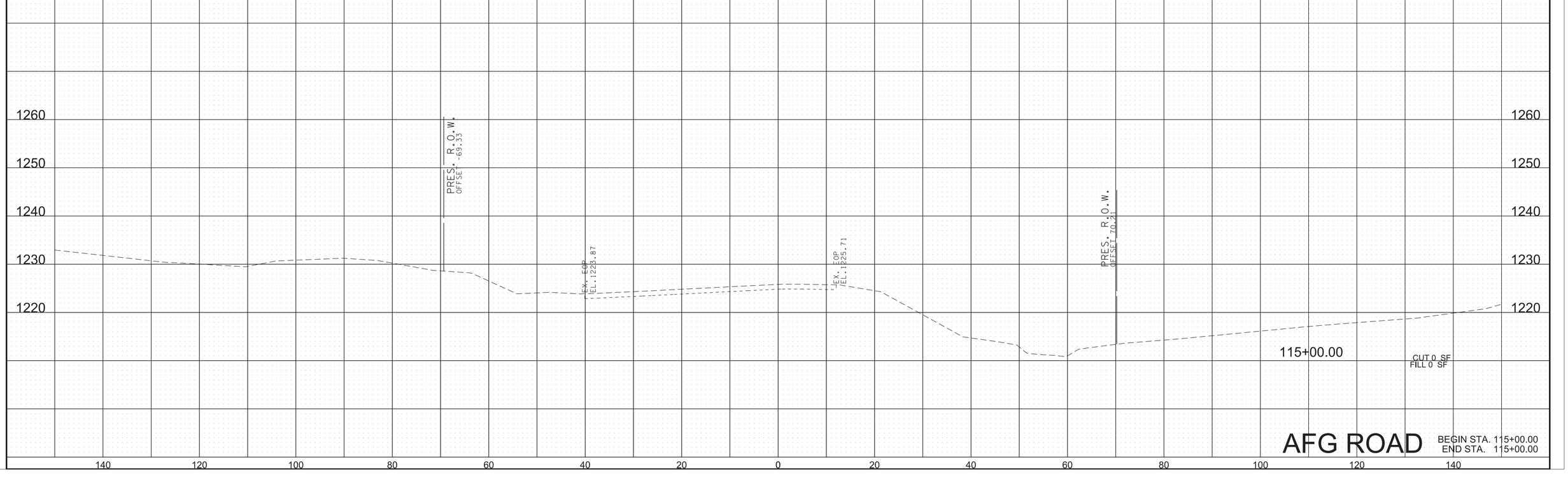


AFG ROAD

BEGIN STA. 114+00.00
END STA. 114+50.00

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TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2022	37455-2422-04	36
PIH	2025	BRZ-3700(43)	36
PS&E	2026	BRZ-3700(43)	36



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TYPE	YEAR	PROJECT NO.	SHEET NO.
PIH	2025	BRZ-3700(43)	T1
PS&E	2026	BRZ-3700(43)	T1

PAVEMENT EDGE DROP-OFF TRAFFIC CONTROL NOTES

A. DIFFERENCES IN ELEVATION BETWEEN ADJACENT TRAFFIC LANES OR TRAFFIC LANE AND SHOULDER WHERE THE TRAFFIC LANE IS BEING USED BY TRAFFIC, CAUSED BY BASE, PAVING OR RESURFACING:

1. DIFFERENCES IN ELEVATION BETWEEN ADJACENT ROADWAY ELEMENTS GREATER THAN 0.75 INCH AND NOT EXCEEDING 1.75 INCHES:

   a. WARNING SIGNS, UNEVEN LANES (W8-11) AND/OR SHOULDER DROP-OFF WITH PLAQUE (W8-17 AND W8-17P), SHALL BE PLACED IN ADVANCE OF AND THROUGHOUT THE EXPOSED AREA. MAXIMUM SPACING BETWEEN SIGNS SHALL BE 2,000 FEET WITH A MINIMUM OF 2 SIGNS PER EXPOSED AREA. WHERE UNEVEN PAVEMENT IS ENCOUNTERED, SIGNS SHALL BE PLACED ON EACH SIDE OF THE ROADWAY.

   b. DIFFERENCES IN ELEVATION BETWEEN ADJACENT TRAFFIC LANES BEING UTILIZED BY TRAFFIC CAUSED BY ADDED PAVEMENT SHALL BE ELIMINATED WITHIN THREE WORKDAYS.

   c. DIFFERENCES IN ELEVATION BETWEEN ADJACENT TRAFFIC LANES BEING UTILIZED BY TRAFFIC CAUSED BY COLD PLANING SHALL BE ELIMINATED WITHIN THREE WORKDAYS.

   d. WHEN THE DIFFERENCE IN ELEVATION IS BETWEEN THE TRAFFIC LANE BEING UTILIZED BY TRAFFIC AND SHOULDER THE DIFFERENCE IN ELEVATION SHALL BE ELIMINATED WITHIN SEVEN WORKDAYS AFTER THE CONDITION IS CREATED.

2. DIFFERENCES IN ELEVATION BETWEEN ADJACENT ROADWAY ELEMENTS GREATER THAN 1.75 INCHES AND NOT EXCEEDING 6 INCHES, TRAFFIC IS NOT TO BE ALLOWED TO TRAVERSE THIS DIFFERENCE IN ELEVATION.

   a. SEPARATION SHALL BE ACCOMPLISHED BY DRUMS, BARRICADES OR OTHER APPROVED DEVICES IN ACCORDANCE WITH THE FOLLOWING:

      (1) WHERE POSTED SPEEDS ARE 50 MPH OR GREATER, SPACING OF THE PROTECTIVE DEVICES SHALL NOT EXCEED 100 FEET.

      (2) WHERE POSTED SPEEDS ARE LESS THAN 50 MPH, THE MAXIMUM SPACING OF THE PROTECTIVE DEVICES IN FEET SHALL NOT EXCEED TWICE THE POSTED SPEED IN MILES PER HOUR OR 50 FEET, WHICHEVER SPACING IS GREATER.

   b. IF THE DIFFERENCE IN ELEVATION IS ELIMINATED OR DECREASED TO 2 INCHES OR LESS BY THE END OF EACH WORKDAY, CONES MAY BE USED DURING DAYLIGHT HOURS IN LIEU OF DRUMS, BARRICADES OR OTHER APPROVED PROTECTIVE DEVICES MENTIONED IN PARAGRAPH a, PROVIDED WARNING SIGNS ARE ERECTED. WARNING SIGNS (UNEVEN LANES AND/OR SHOULDER DROP-OFF) SHALL BE PLACED IN ADVANCE OF AND THROUGHOUT THE EXPOSED AREA. MAXIMUM SPACING BETWEEN SIGNS SHALL BE 2,000 FEET WITH A MINIMUM OF 2 SIGNS PER EXPOSED AREA. WHERE UNEVEN PAVEMENT IS ENCOUNTERED, SIGNS SHALL BE PLACED ON EACH SIDE OF THE ROADWAY.

   c. WHEN THE DIFFERENCE IN ELEVATION IS BETWEEN THE THROUGH TRAFFIC LANE AND THE SHOULDER AND THE ELEVATION DIFFERENCE IS LESS THAN 3 INCHES, THE CONTRACTOR MAY USE WARNING SIGNS AND/OR PROTECTIVE DEVICES AS APPLICABLE AND APPROVED BY THE REGIONAL TRAFFIC ENGINEER. SEE PARAGRAPH a REGARDING USE OF DRUMS, BARRICADES OR OTHER APPROVED PROTECTIVE DEVICES. WARNING SIGNS (UNEVEN LANES AND/OR SHOULDER DROP-OFF) WILL BE PLACED IN ADVANCE OF AND THROUGHOUT THE EXPOSED AREA. MAXIMUM SPACING BETWEEN SIGNS SHALL BE 2,000 FEET WITH A MINIMUM OF 2 SIGNS PER EXPOSED AREA. WHERE UNEVEN PAVEMENT IS ENCOUNTERED, SIGNS SHALL BE PLACED ON EACH SIDE OF THE ROADWAY.

   IN THESE SITUATIONS, THE CONTRACTOR SHALL LIMIT HIS OPERATIONS TO ONE WORK ZONE NOT EXCEEDING 2 MILES IN LENGTH UNLESS OTHERWISE NOTED ON THE PLANS OR APPROVED BY THE ENGINEER. ONCE THE CONTRACTOR BEGINS WORK IN A WORK ZONE, A CONTINUOUS OPERATION SHALL BE MAINTAINED UNTIL THE DIFFERENCE IN ELEVATION IS ELIMINATED. SIMULTANEOUS WORK ON SEPARATE ROADWAYS OF DIVIDED HIGHWAYS WILL BE CONSIDERED INDEPENDENTLY IN REGARD TO RESTRICTION OF WORK ZONE ACTIVITY.

3. DIFFERENCES IN ELEVATION BETWEEN ADJACENT ROADWAY ELEMENTS GREATER THAN 6 INCHES BUT NOT EXCEEDING 18 INCHES, THE CONTRACTOR, WITH THE ENGINEER'S APPROVAL, MAY UTILIZE ONE OF THE FOLLOWING:

   a. THE CONTRACTOR SHALL ACCOMPLISH SEPARATION BY DRUMS, BARRICADES OR OTHER APPROVED DEVICES IN ACCORDANCE WITH THE FOLLOWING:

      (1) WHERE POSTED SPEEDS ARE 50 MPH OR GREATER, SPACING OF THE PROTECTIVE DEVICES SHALL NOT EXCEED 100 FEET.

      (2) WHERE POSTED SPEEDS ARE LESS THAN 50 MPH, THE MAXIMUM SPACING OF THE PROTECTIVE DEVICES IN FEET SHALL NOT EXCEED TWICE THE POSTED SPEED IN MILES PER HOUR OR 50 FEET, WHICHEVER SPACING IS GREATER.

   IN ORDER TO USE THIS METHOD, THE CONTRACTOR MUST REDUCE THE DIFFERENCE IN ELEVATION TO 6 INCHES OR LESS BY THE END OF THE WORKDAY THAT THE CONDITION IS CREATED.

   b. THE CONTRACTOR SHALL PROVIDE DRUMS, BARRICADES OR OTHER APPROVED SEPARATION DEVICES AS SPECIFIED IN PARAGRAPH a, AND CONSTRUCT A STONE WEDGE WITH A 4:1 SLOPE, OR FLATTER, TO ELIMINATE THE VERTICAL OFFSET IF THE LOWER ELEVATION IS AT OR BELOW SUBGRADE AT THE END OF EACH DAY.

   c. THE CONTRACTOR SHALL PROVIDE DRUMS, BARRICADES OR OTHER APPROVED SEPARATION DEVICES AS SPECIFIED IN PARAGRAPH a AND IF THE LOWER ELEVATION IS BASE STONE OR ASPHALT PAVEMENT, PLACEMENT OF SUBSEQUENT LAYERS OF PAVEMENT MUST BEGIN THE NEXT WORK DAY AND PROGRESS CONTINUOUSLY UNTIL THE DIFFERENCE IN ELEVATION IS ELIMINATED OR REDUCED TO 6 INCHES OR LESS.

   d. THE CONTRACTOR SHALL PROVIDE SEPARATION BY PORTABLE BARRIER RAIL.

   FOR PRECEDING CONDITIONS a, b, AND c, THE CONTRACTOR SHALL USE THE SHOULDER DROP-OFF WARNING SIGN WITH PLAQUE (W8-17 AND W8-17P). IT SHALL BE PLACED IN ADVANCE OF AND THROUGHOUT THE EXPOSED AREA. MAXIMUM SPACING BETWEEN THE SIGNS SHALL BE 2,000 FEET WITH A MINIMUM OF 2 SIGNS PER EXPOSED AREA. IN THESE SITUATIONS, THE CONTRACTOR SHALL LIMIT HIS OPERATIONS TO ONE WORK ZONE NOT EXCEEDING 1 MILE IN LENGTH UNLESS OTHERWISE NOTED ON THE PLANS OR APPROVED BY THE ENGINEER. ONCE THE CONTRACTOR BEGINS WORK IN A WORK ZONE, A CONTINUOUS OPERATION SHALL BE MAINTAINED UNTIL THE DIFFERENCE IS ELIMINATED. SIMULTANEOUS WORK ON SEPARATE ROADWAYS OF DIVIDED HIGHWAYS WILL BE CONSIDERED INDEPENDENTLY IN REGARD TO RESTRICTION OF WORK ZONE ACTIVITY.

4. FOR DIFFERENCES IN ELEVATION BETWEEN ADJACENT ROADWAY ELEMENTS GREATER THAN 18 INCHES.

   SEPARATION WILL BE PROVIDED BY USE OF PORTABLE BARRIER RAIL.

   IN THIS SITUATION THE CONTRACTOR SHALL LIMIT HIS OPERATIONS TO ONE WORK ZONE NOT EXCEEDING 1 MILE IN LENGTH UNLESS OTHERWISE NOTED ON THE PLANS OR APPROVED BY THE ENGINEER. ONCE THE CONTRACTOR BEGINS WORK IN A WORK ZONE, A CONTINUOUS OPERATION SHALL BE MAINTAINED UNTIL THE DIFFERENCE IN ELEVATION IS ELIMINATED. SIMULTANEOUS WORK ON SEPARATE ROADWAYS OF DIVIDED HIGHWAYS WILL BE CONSIDERED INDEPENDENTLY IN REGARD TO RESTRICTION OF WORK ZONE ACTIVITY.

B. IF THE DIFFERENCE IN ELEVATION IS WITHIN 30 FEET OF THE NEAREST TRAFFIC LANE BEING USED BY TRAFFIC CAUSED BY GRADING, EXCAVATION FOR UTILITIES, DRAINAGE STRUCTURES, UNDERCUTTING, ETC.:

1. IF THE DIFFERENCE IN ELEVATION IS WITHIN 8 FEET OF THE NEAREST TRAFFIC LANE WITH DIFFERENCE IN ELEVATION GREATER THAN 0.75 INCH AND NOT EXCEEDING 2 INCHES.

   a. WARNING SIGNS (UNEVEN LANES AND/OR SHOULDER DROP-OFF) SHALL BE PLACED IN ADVANCE OF AND THROUGHOUT THE EXPOSED AREA. MAXIMUM SPACING BETWEEN SIGNS SHALL BE 2,000 FEET WITH A MINIMUM OF 2 SIGNS PER EXPOSED AREA. WHERE UNEVEN PAVEMENT IS ENCOUNTERED, SIGNS SHALL BE PLACED ON EACH SIDE OF THE ROADWAY.

2. IF THE DIFFERENCE IN ELEVATION IS WITHIN 8 FEET OF THE NEAREST TRAFFIC LANE WITH DIFFERENCE IN ELEVATION GREATER THAN 2 INCHES AND NOT EXCEEDING 6 INCHES:

   a. SEPARATION SHALL BE ACCOMPLISHED BY DRUMS, BARRICADES OR OTHER APPROVED DEVICES IN ACCORDANCE WITH THE FOLLOWING:

      (1) WHERE POSTED SPEEDS ARE 50 MPH OR GREATER, SPACING OF THE PROTECTIVE DEVICES SHALL NOT EXCEED 100 FEET.

      (2) WHERE POSTED SPEEDS ARE LESS THAN 50 MPH THE MAXIMUM SPACING OF THE PROTECTIVE DEVICES IN FEET SHALL NOT EXCEED TWICE THE POSTED SPEED IN MILES PER HOUR OR 50 FEET, WHICHEVER SPACING IS GREATER.

3. IF THE DIFFERENCE IN ELEVATION IS WITHIN 8 FEET OF THE NEAREST TRAFFIC LANE WITH DIFFERENCE IN ELEVATION GREATER THAN 6 INCHES:

   a. SEPARATION SHALL BE ACCOMPLISHED BY DRUMS, BARRICADES OR OTHER APPROVED DEVICES IN ACCORDANCE WITH THE FOLLOWING:

      (1) WHERE POSTED SPEEDS ARE 50 MPH OR GREATER, SPACING OF THE PROTECTIVE DEVICES SHALL NOT EXCEED 100 FEET.

      (2) WHERE POSTED SPEEDS ARE LESS THAN 50 MPH THE MAXIMUM SPACING OF THE PROTECTIVE DEVICES IN FEET SHALL NOT EXCEED TWICE THE POSTED SPEED IN MILES PER HOUR OR 50 FEET, WHICHEVER SPACING IS GREATER.

   b. ELIMINATE VERTICAL OFFSET BY CONSTRUCTING A STONE WEDGE OR GRADING TO A 4:1 SLOPE, OR FLATTER, OR USE PORTABLE BARRIER RAIL.

   THE CONTRACTOR SHALL SCHEDULE THE WORK SO AS TO MINIMIZE THE TIME TRAFFIC IS EXPOSED TO AN ELEVATION DIFFERENCE. ONCE THE CONTRACTOR BEGINS AN ACTIVITY THAT CREATES AN ELEVATION DIFFERENCE WITHIN 8 FEET OF A TRAFFIC LANE, THE ACTIVITY SHALL BE PURSUED AS A CONTINUOUS OPERATION UNTIL THE ELEVATION DIFFERENCE IS ELIMINATED.

C. IF THE DIFFERENCE IN ELEVATION IS FARTHER THAN 8 FEET FROM THE NEAREST TRAFFIC LANE BUT NOT MORE THAN 30 FEET FROM THE NEAREST TRAFFIC LANE:

SEPARATION SHALL BE ACCOMPLISHED BY DRUMS, BARRICADES OR OTHER APPROVED DEVICES IN ACCORDANCE WITH THE FOLLOWING:

1. WHERE POSTED SPEEDS ARE 50 MPH OR GREATER, SPACING OF THE PROTECTIVE DEVICES SHALL NOT EXCEED 100 FEET.

2. WHERE POSTED SPEEDS ARE LESS THAN 50 MPH, THE MAXIMUM SPACING OF THE PROTECTIVE DEVICES IN FEET SHALL NOT EXCEED TWICE THE POSTED SPEED IN MILES PER HOUR OR 50 FEET, WHICHEVER SPACING IS GREATER.

THE CONTRACTOR SHALL SCHEDULE THE WORK SO AS TO MINIMIZE THE TIME TRAFFIC IS EXPOSED TO AN ELEVATION DIFFERENCE. ONCE THE CONTRACTOR BEGINS AN ACTIVITY THAT CREATES AN ELEVATION DIFFERENCE, THE ACTIVITY SHALL BE PURSUED AS A CONTINUOUS OPERATION UNTIL THE ELEVATION DIFFERENCE IS ELIMINATED.

SEALED BY

JAMES B. MORGAN
REGISTERED ENGINEER
AGRICULTURE
COMMERCE
111658
STATE OF TENNESSEE

07/20/2026

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

PAVEMENT EDGE DROP-OFF TRAFFIC CONTROL NOTES

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TABULATED TRAFFIC CONTROL QUANTITIES

ITEM NO.	DESCRIPTION	UNIT	QUANTITY 37LCOU-F3-006
712-01	TRAFFIC CONTROL	LS	1
712-02.10	PORTABLE BARRIER RAIL (MASH TL-3)	L.F.	1480
712-02.60	TEMPORARY WORK ZONE CRASH CUSHION (MASH TL-3)	EACH	8
712-04.01	FLEXIBLE DRUMS (CHANNELIZING)	EACH	100
712-04.50	BARRIER RAIL DELINEATOR	EACH	68
712-05.01	WARNING LIGHTS (TYPE A)	EACH	50
712-06	SIGNS (CONSTRUCTION)	S.F.	331
712-07.03	TEMPORARY BARRICADES (TYPE III)	L.F.	30
712-09.04	REMOVABLE PAVEMENT MARKING (STOP LINE)	L.F.	48
712-09.08	REMOVABLE PAVEMENT MARKING (6" line)	L.F.	7250
712-09.30	REMOVABLE BLACK-OUT TAPE (6")	L.F.	750
716-01.11	RAISED PVMT MARKERS (BI-DIRECTIONAL)(1 COLOR LENS)	EACH	72
716-01.21	SNOWPLOWABLE RAISED PAVEMENT MARKERS (BI-DIR) (1 COLOR)	EACH	16
716-05.20	PAINTED PAVEMENT MARKING (6" LINE)	L.M.	1
716-13.02	SPRAY THERMO PVMT MRKNG (60 mil) (6IN LINE)	L.M.	1
717-01	MOBILIZATION	LS	1
730-40.02	TEMPORARY TRAFFIC SIGNAL SYSTEM	LS	1

TRAFFIC CONTROL LEGEND

SYMBOL	ITEM
	WORK ZONE
	FLEXIBLE DRUMS (CHANNELIZING)
	SIGN (CONSTRUCTION)
	PORTABLE BARRIER RAIL (WITH BARRIER RAIL DELINEATORS)
	TEMPORARY ATTENUATOR
	TEMPORARY TRAFFIC SIGNAL SYSTEM

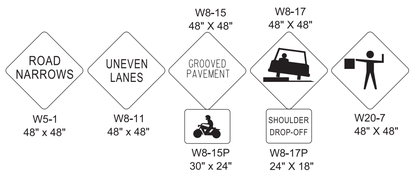
TRAFFIC CONTROL NOTES

THE CONSTRUCTION SIGNING PLANS ARE TO SERVE AS A GUIDE ONLY. OTHER SIGNS MAY BE REQUIRED DURING VARIOUS PHASES OF CONSTRUCTION.

THIS TRAFFIC CONTROL PLAN DOES NOT RELIEVE THE CONTRACTOR OF THE RESPONSIBILITY OF INSTALLING TRAFFIC CONTROL DEVICES IN ACCORDANCE WITH THE CURRENT EDITION OF THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES."

ALL CONSTRUCTION SIGNS ON THE PROJECT SHALL BE COVERED WHEN WORK WILL NOT BE AFFECTING TRAFFIC. COST OF COVERING/UNCOVERING SIGNS SHALL NOT BE MEASURED AND PAID FOR SEPARATELY, BUT ALL COST SHALL BE INCLUDED IN THE ORIGINAL UNIT PRICE BID FOR ITEM NO. 712-06, SIGNS (CONSTRUCTION) PER SQUARE FOOT.

ALL TRAFFIC CONTROL DEVICES SHALL BE APPROVED BY TDOT MANAGER.



SIGNS SHOWN ABOVE ARE TO BE USED WHEN CONSTRUCTION OPERATIONS WARRANT. TO BE USED AS DIRECTED BY THE TDOT MANAGER.

NOTE:

CONTRACTOR SHALL REPLACE ALL TEMPORARY TRAFFIC CONTROL DEVICES WITHIN THE PROJECTS LIMITS AS NEEDED.

THE CONTRACTOR IS TO MAINTAIN ACCESS TO ALL LOCAL PROPERTY OWNERS.

TRAFFIC CONTROL PHASING NOTES

(BASED ON STD. DWG. NOS. T-WZ-10, T-WZ-16, T-WZ-32 - T-WZ-35)

PHASE 1

(1) MAINTAIN THE TRAFFIC ON EXISTING AFG ROAD UNTIL STA. 106+80.00. SHIFT TRAFFIC TO MAINTAIN 2-10' LANES. MAINTAIN 1' SHOULDER BETWEEN TRAVEL LANE AND PORTABLE BARRIER RAIL.
(2) PROTECT THE WORK AREA WITH PORTABLE BARRIER RAIL AND DRUMS.
(3) BUILD THE PORTION OF THE NEW BRIDGE (26.71' WIDE), AND 1 LANE ROADWAY FROM APPROX. STA. 105+75.00 TO STA. 106+40.83 AND APPROX. STA. 108+65.83 TO STA. 111+25.00 AS SHOWN ON SHEET NO. T3 AND T3A.
(4) MAINTAIN FULL ACCESS TO PRIVATE DRIVES.

PHASE 2A

(1) UTILIZE TEMPORARY SIGNALS TO SHIFT TRAFFIC ONTO THE EXISTING NORTHBOUND TRAVEL LANE, MAINTAINING 1-11' TRAVEL LANE WITH 2' SHOULDER BETWEEN THE LANE AND PORTABLE BARRIER RAIL. SHIFT TO 1-10' LANE WITH 1' SHOULDER BETWEEN THE LANE AND PORTABLE BARRIER RAIL AT APPROX. STA. 106+80.00.
(2) UTILIZE RESIDENTIAL DRIVEWAY TEMPORARY SIGNALS(RDTS) WITH THE TEMPORARY SIGNALS TO MAINTAIN PRIVATE DRIVEWAY ACCESS THROUGH THE WORK ZONE.
(3) PROTECT THE WORK AREA WITH PORTABLE BARRIER RAIL AND DRUMS.
(4) BUILD THE PROPOSED WIDENED SOUTHBOUND PORTION OF ROADWAY FROM STA. 102+25.00 TO STA. 104+25.00, 1 LANE NEW ROAD FROM STA. 104+25.00 TO APPROX. STA. 106+00.00, AND 1 LANE NEW ROAD FROM APPROX. STA. 111+25.00 TO STA. 113+00.00 AS SHOWN ON SHEET NO. T4 AND T4A.
(5) RESURFACE SOUTHBOUND LANE FROM STA. 102+20.00 TO 104+25.00 AND STA. 113+00.00 TO STA. 114+50.00.

PHASE 2B

(1) SHIFT TRAFFIC ONTO THE PROPOSED 1 LANE ROAD UTILIZING TEMPORARY SIGNALS TO MAINTAIN 1-12' LANE WITH 2' SHOULDERS, TRANSITIONING TO 1-10' LANE WITH 1' SHOULDERS ACROSS THE PROPOSED BRIDGE.
(2) UTILIZE RESIDENTIAL DRIVEWAY TEMPORARY SIGNALS(RDTS) WITH THE TEMPORARY SIGNALS TO MAINTAIN PRIVATE DRIVEWAY ACCESS THROUGH THE WORK ZONE.
(3) PROTECT THE WORK AREA WITH PORTABLE BARRIER RAIL AND DRUMS.
(4) BUILD THE PROPOSED NORTHBOUND WIDENED PORTION OF ROADWAY FROM STA. 102+25.00 TO STA. 104+25.00, 1 LANE NEW ROAD FROM APPROX. STA. 104+25.00 TO STA. 106+40.83, AND 1 LANE NEW ROAD FROM APPROX. STA. 108+65.83 TO STA. 113+00.00 AS SHOWN ON SHEET NO. T5 AND T5A.
(5) RESURFACE NORTHBOUND LANE FROM STA. 102+20.00 TO 104+25.00 AND STA. 113+00.00 TO STA. 114+50.00.

PHASE 3

(1) SHIFT BOTH LANES ONTO THE PROPOSED ROADWAY, SHOULDER, AND BRIDGE, MAINTAINING 2-12' LANES WITH 2' SHOULDERS, TRANSITIONING TO 2-10' LANES WITH 1' SHOULDERS ACROSS THE PROPOSED BRIDGE.
(2) PROTECT THE WORK AREA WITH PORTABLE BARRIER RAIL AND DRUMS.
(3) CONSTRUCT THE REMAINING PORTION OF THE BRIDGE AND PROPOSED ROADWAY AS SHOWN ON SHT. T6 AND T6A.
(4) MAINTAIN FULL ACCESS TO PRIVATE DRIVES.

PHASE 4

(1) APPLY FINAL PAVEMENT MARKINGS.

TYPE	YEAR	PROJECT NO.	SHEET NO.
PIH	2025	BRZ-3700(43)	T2
PS&E	2026	BRZ-3700(43)	T2

TRAFFIC CONTROL SIGN TABULATION

M.U.T.C.D. SIGN NO.	LEGEND	SIZE IN INCHES L	X	W	S.F.	NO. REQUIRED PHASE I	NO. REQUIRED PHASE IIA	NO. REQUIRED PHASE IIB	NO. REQUIRED PHASE III	NO. REQUIRED PHASE IV	TOTAL NO. REQUIRED	ITEM NO. 712-06 S.F.	STANDARD DRAWING NO.	REMARKS
G20-2	END ROAD WORK	36"	X	18"	5	4	4	4	4	4	4	18	T-WZ-16	
W1-4L	REVERSE CURVE	36"	X	36"	9	2	2	2	2		2	18	T-WZ-16	
W1-4R	REVERSE CURVE	36"	X	36"	9	2	1	3	2		3	27	T-WZ-16	
W5-1	ROAD NARROWS	36"	X	36"	9		2	2		2	2	18		
W8-11	UNEVEN LANES	36"	X	36"	9		2	2		2	2	18		
W8-15	GROOVED PAVEMENT	36"	X	36"	9		2	2		2	2	18		
W8-15P	MOTORCYCLE (PLAQUE)	30"	X	24"	5		2	2		2	2	10		
W8-17	SHOULDER DROPOFF (SYMBOL)	36"	X	36"	9		2	2		2	2	18		
W8-17P	SHOULDER DROP OFF (PLAQUE)	24"	X	18"	3		2	2		2	2	6		
W20-1	ROAD WORK AHEAD	36"	X	36"	9	2	2	2	2	2	2	18	T-WZ-16	
W20-1	ROAD WORK XX FT	36"	X	36"	9	3	2	2	3	2	3	27	T-WZ-16	
W20-1	ROAD WORK XX MILE	36"	X	36"	9	2	2	2	2	2	2	18	T-WZ-16	
W20-7	FLAGGER (SYMBOL)	36"	X	36"	9		2	2		2	4	36		
R11-2	ROAD CLOSED	48"	X	30"	10				2		2	20		
W3-3	SIGNAL AHEAD	30"	X	30"	6		3	3			3	19	T-WZ-32	
W3-4	BE PREPARED TO STOP	36"	X	36"	9		2	2			2	18	T-WZ-32	
R10-6M	STAY IN LANE TO EXTEND GREEN	24"	X	36"	6		2	2			2	12	T-WZ-32	
R10-6	STOP HERE ON RED	24"	X	36"	6		2	2			2	12	T-WZ-32	
											TOTAL	331	S.F.	

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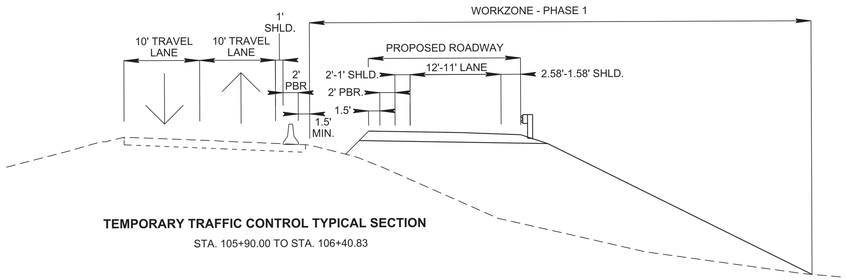
07/20/2026

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

TRAFFIC CONTROL PHASING NOTES, LEGEND AND TABULATION

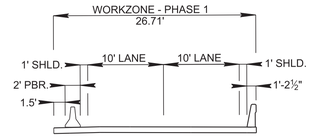
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TYPE	YEAR	PROJECT NO.	SHEET NO.
PIH	2025	BRZ-3700(43)	T3
PS&E	2026	BRZ-3700(43)	T3



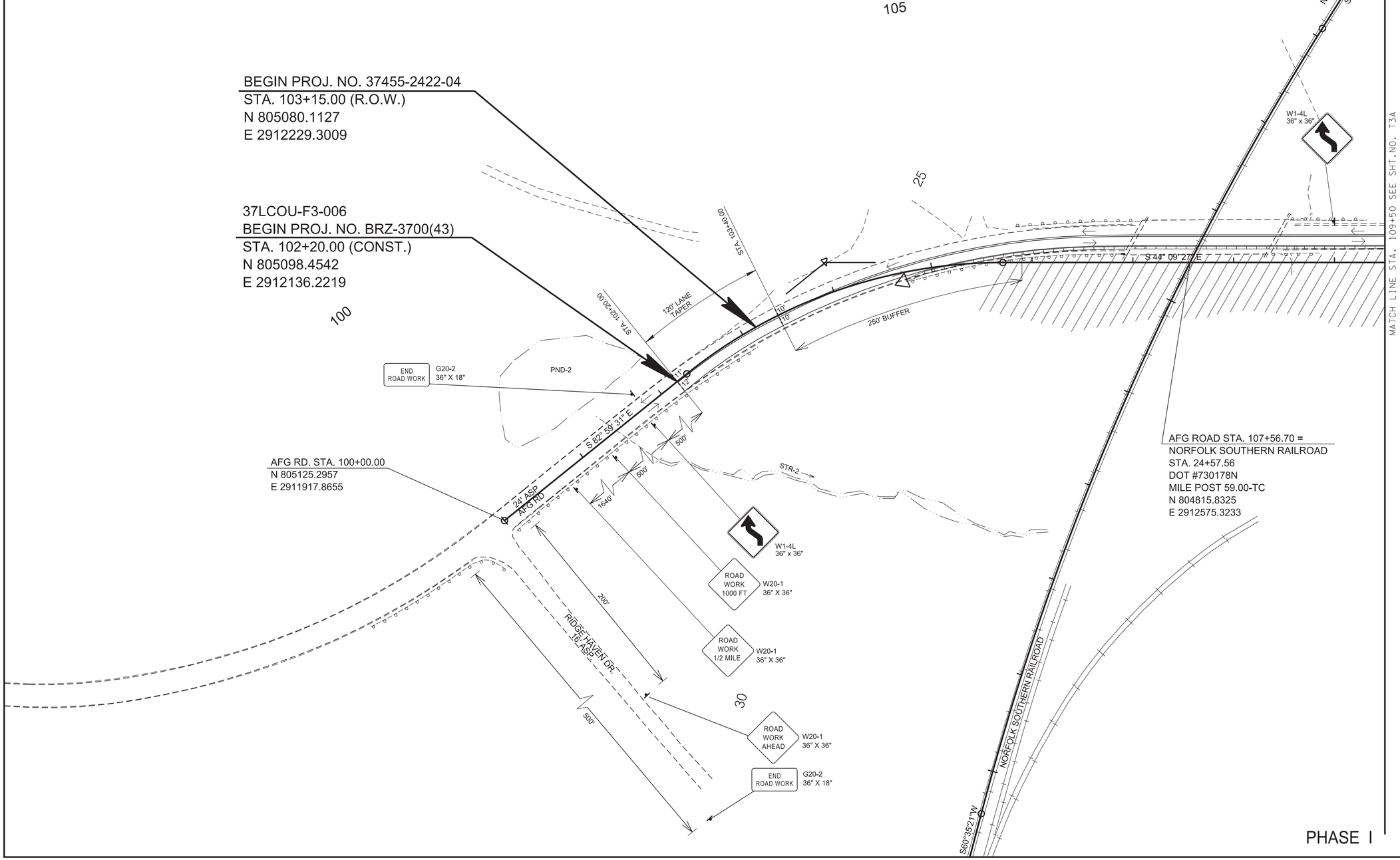
TEMPORARY TRAFFIC CONTROL TYPICAL SECTION

STA. 105+90.00 TO STA. 106+40.83



TEMPORARY TRAFFIC CONTROL TYPICAL SECTION

STA. 106+40.83 TO STA. 108+65.83



SEALED BY

JAMES B. MORGAN
REGISTERED ENGINEER
AGRICULTURE
COMMERCE
111658
STATE OF TENNESSEE

07/20/2026

COORDINATES ARE NAD 83(1995), ARE DATUM ADJUSTED BY THE FACTOR OF 1.00004 AND TIED TO THE TGRN. ALL ELEVATIONS ARE REFERENCED TO THE NAVD 1988 WITH GEOID 12B.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

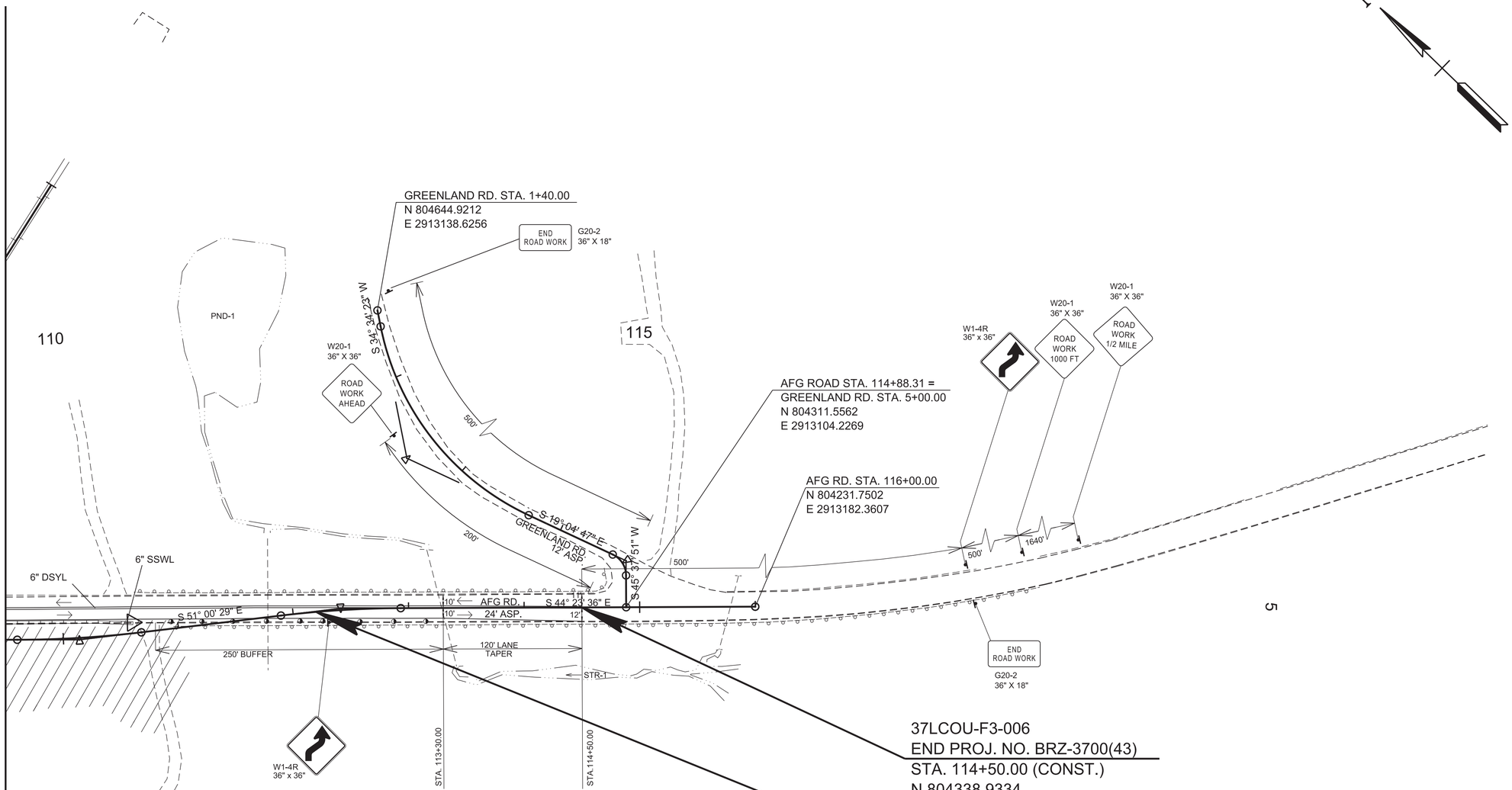
TRAFFIC CONTROL PLANS

STA. 102+20 TO STA. 109+50

SCALE: 1"= 50'

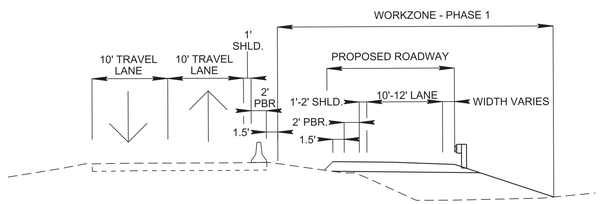
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TYPE	YEAR	PROJECT NO.	SHEET NO.
PIH	2025	BRZ-3700(43)	T3A
PS&E	2026	BRZ-3700(43)	T3A



37LCOU-F3-006
END PROJ. NO. BRZ-3700(43)
STA. 114+50.00 (CONST.)
N 804338.9334
E 2913077.4235

END PROJ. NO. 37455-2422-04
STA. 112+20.00 (R.O.W.)
N 804501.1394
E 2912914.4483



TEMPORARY TRAFFIC CONTROL TYPICAL SECTION

STA. 108+65.83 TO STA. 110+80.00

PHASE I

SEALED BY

JAMES B. MORGAN
REGISTERED ENGINEER
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COMMERCE
111658
STATE OF TENNESSEE

07/20/2026

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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

TRAFFIC CONTROL PLANS

STA. 109+50 TO STA. 114+50

SCALE: 1"= 50'

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TYPE	YEAR	PROJECT NO.	SHEET NO.
PIH	2025	BRZ-3700(43)	T4
PS&E	2026	BRZ-3700(43)	T4

TEMPORARY TRAFFIC CONTROL TYPICAL SECTION

STA. 102+25.00 TO STA. 104+25.00

TEMPORARY TRAFFIC CONTROL TYPICAL SECTION

STA. 104+25.00 TO STA. 105+90.00

105

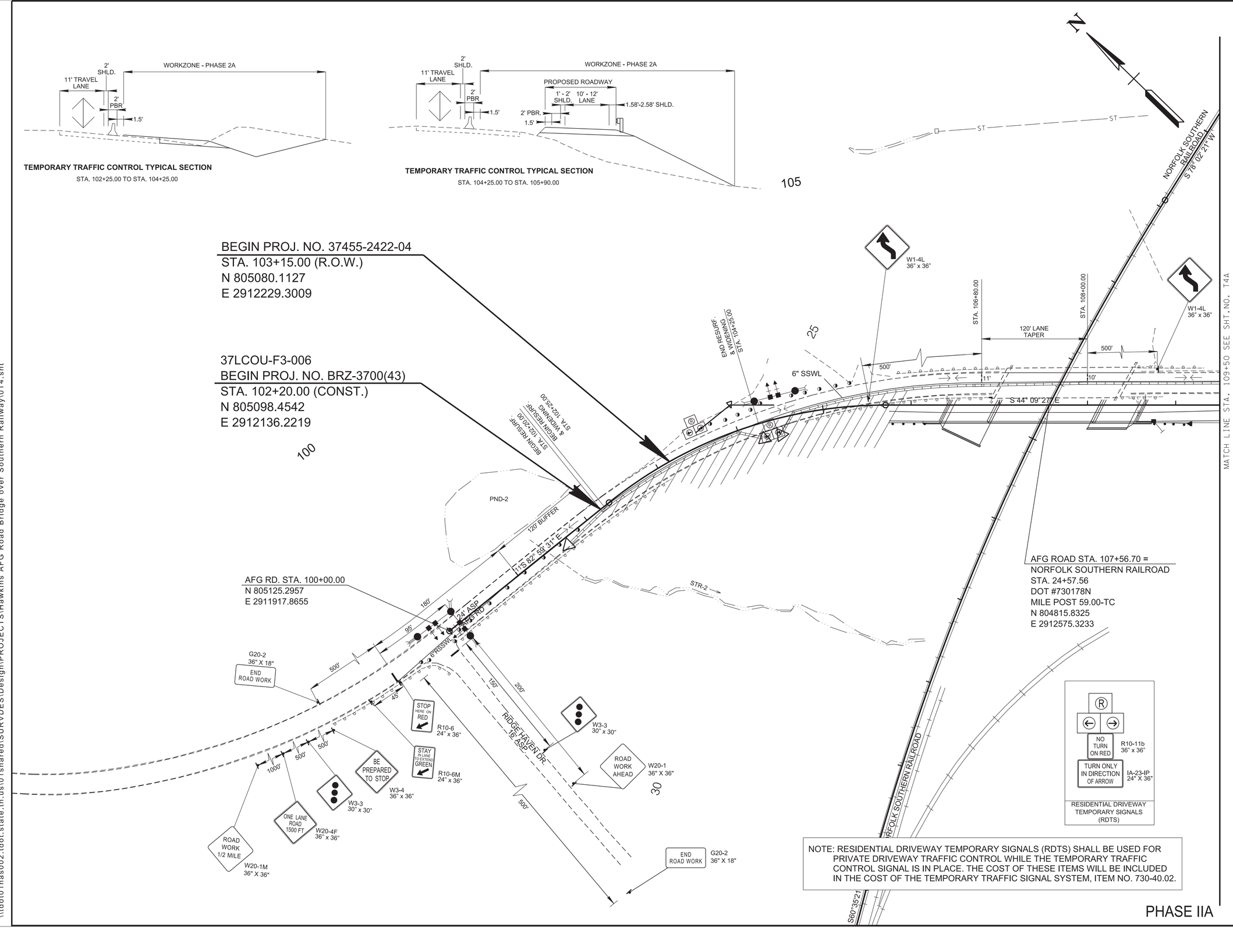
BEGIN PROJ. NO. 37455-2422-04
STA. 103+15.00 (R.O.W.)
N 805080.1127
E 2912229.3009

37LCOU-F3-006
BEGIN PROJ. NO. BRZ-3700(43)
STA. 102+20.00 (CONST.)
N 805098.4542
E 2912136.2219

100

AFG RD. STA. 100+00.00
N 805125.2957
E 2911917.8655

AFG ROAD STA. 107+56.70 =
NORFOLK SOUTHERN RAILROAD
STA. 24+57.56
DOT #730178N
MILE POST 59.00-TC
N 804815.8325
E 2912575.3233



RESIDENTIAL DRIVEWAY TEMPORARY SIGNALS (RDTS)

NOTE: RESIDENTIAL DRIVEWAY TEMPORARY SIGNALS (RDTS) SHALL BE USED FOR PRIVATE DRIVEWAY TRAFFIC CONTROL WHILE THE TEMPORARY TRAFFIC CONTROL SIGNAL IS IN PLACE. THE COST OF THESE ITEMS WILL BE INCLUDED IN THE COST OF THE TEMPORARY TRAFFIC SIGNAL SYSTEM, ITEM NO. 730-40.02.

PHASE IIA

SEALED BY



07/20/2026

COORDINATES ARE NAD 83(1995), ARE DATUM ADJUSTED BY THE FACTOR OF 1.00004 AND TIED TO THE TGRN. ALL ELEVATIONS ARE REFERENCED TO THE NAVD 1988 WITH GEOID 12B.

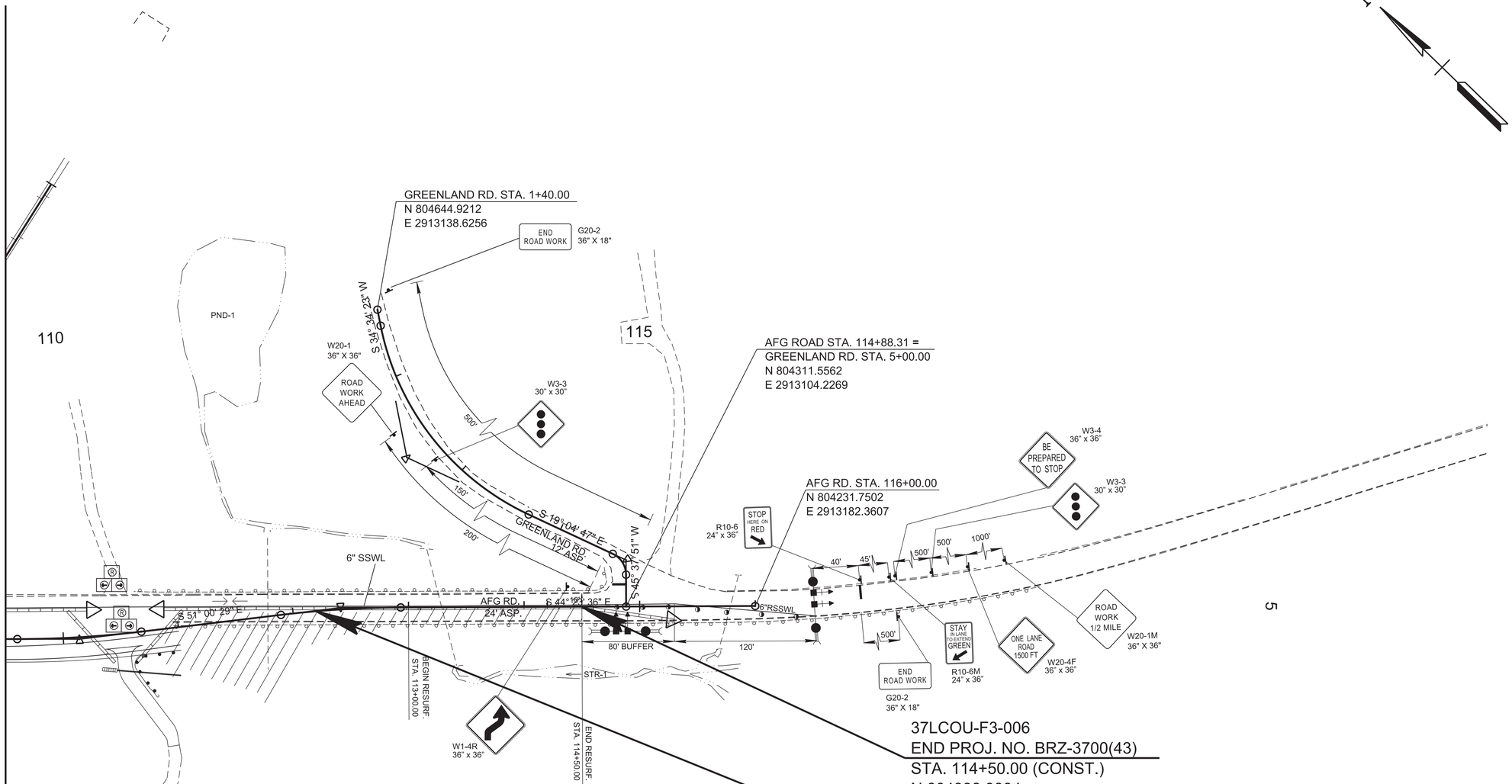
STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

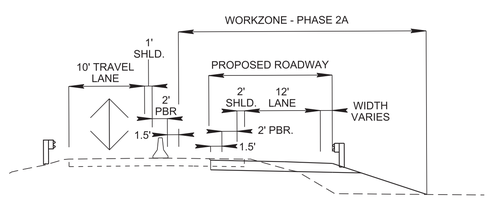
TRAFFIC CONTROL PLANS

STA. 102+20 TO STA. 109+50
SCALE: 1"= 50'

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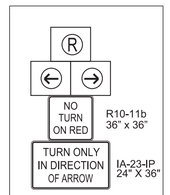
TYPE	YEAR	PROJECT NO.	SHEET NO.
PIH	2025	BRZ-3700(43)	T4A
PS&E	2026	BRZ-3700(43)	T4A





TEMPORARY TRAFFIC CONTROL TYPICAL SECTION

STA. 110+80.00 TO STA. 113+00.00



RESIDENTIAL DRIVEWAY TEMPORARY SIGNALS (RDTS)

NOTE: RESIDENTIAL DRIVEWAY TEMPORARY SIGNALS (RDTS) SHALL BE USED FOR PRIVATE DRIVEWAY TRAFFIC CONTROL WHILE THE TEMPORARY TRAFFIC CONTROL SIGNAL IS IN PLACE. THE COST OF THESE ITEMS WILL BE INCLUDED IN THE COST OF THE TEMPORARY TRAFFIC SIGNAL SYSTEM, ITEM NO. 730-40.02.

PHASE IIA

SEALED BY

JAMES B. MORGAN
REGISTERED ENGINEER
DEPARTMENT OF AGRICULTURE
COMMERCE
No. 111658
STATE OF TENNESSEE

07/20/2026

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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

TRAFFIC CONTROL PLANS

STA. 109+50 TO STA. 114+50

SCALE: 1"= 50'

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TYPE	YEAR	PROJECT NO.	SHEET NO.
PIH	2025	BRZ-3700(43)	T5
PS&E	2026	BRZ-3700(43)	T5

TEMPORARY TRAFFIC CONTROL TYPICAL SECTION

STA. 102+25.00 TO STA. 104+25.00

TEMPORARY TRAFFIC CONTROL TYPICAL SECTION

STA. 104+25.00 TO STA. 106+40.83

105

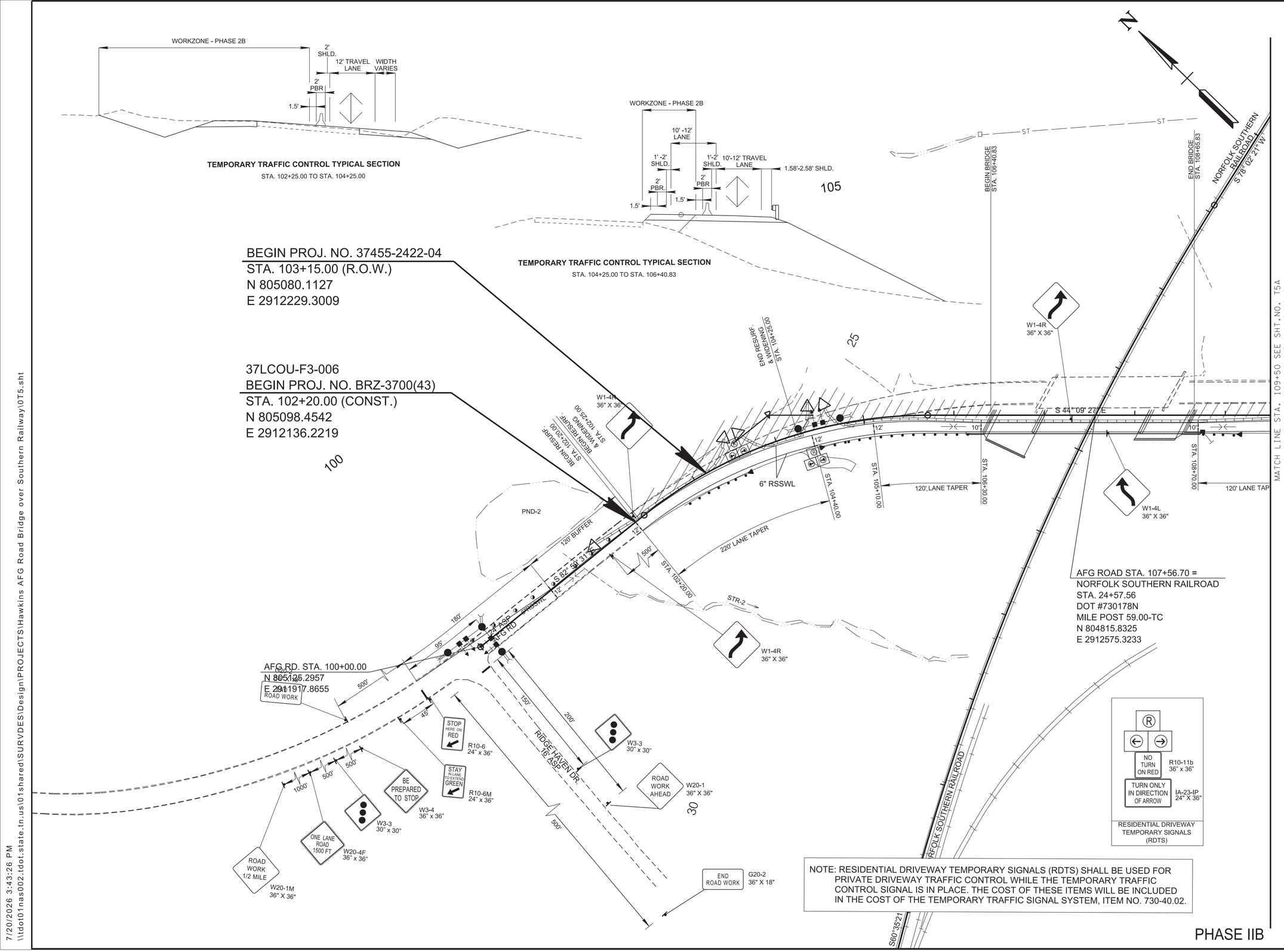
BEGIN PROJ. NO. 37455-2422-04
STA. 103+15.00 (R.O.W.)
N 805080.1127
E 2912229.3009

37LCOU-F3-006
BEGIN PROJ. NO. BRZ-3700(43)
STA. 102+20.00 (CONST.)
N 805098.4542
E 2912136.2219

100

25

30



AFG ROAD STA. 107+56.70 =
NORFOLK SOUTHERN RAILROAD
STA. 24+57.56
DOT #730178N
MILE POST 59.00-TC
N 804815.8325
E 2912575.3233

RESIDENTIAL DRIVEWAY TEMPORARY SIGNALS (RDTS)

NOTE: RESIDENTIAL DRIVEWAY TEMPORARY SIGNALS (RDTS) SHALL BE USED FOR PRIVATE DRIVEWAY TRAFFIC CONTROL WHILE THE TEMPORARY TRAFFIC CONTROL SIGNAL IS IN PLACE. THE COST OF THESE ITEMS WILL BE INCLUDED IN THE COST OF THE TEMPORARY TRAFFIC SIGNAL SYSTEM, ITEM NO. 730-40.02.

PHASE IIB

SEALED BY

JAMES B. MORGAN
REGISTERED ENGINEER
AGRICULTURE
COMMERCE
111658
STATE OF TENNESSEE

07/20/2026

COORDINATES ARE NAD 83(1995), ARE DATUM ADJUSTED BY THE FACTOR OF 1.00004 AND TIED TO THE TGRN. ALL ELEVATIONS ARE REFERENCED TO THE NAVD 1988 WITH GEOID 12B.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

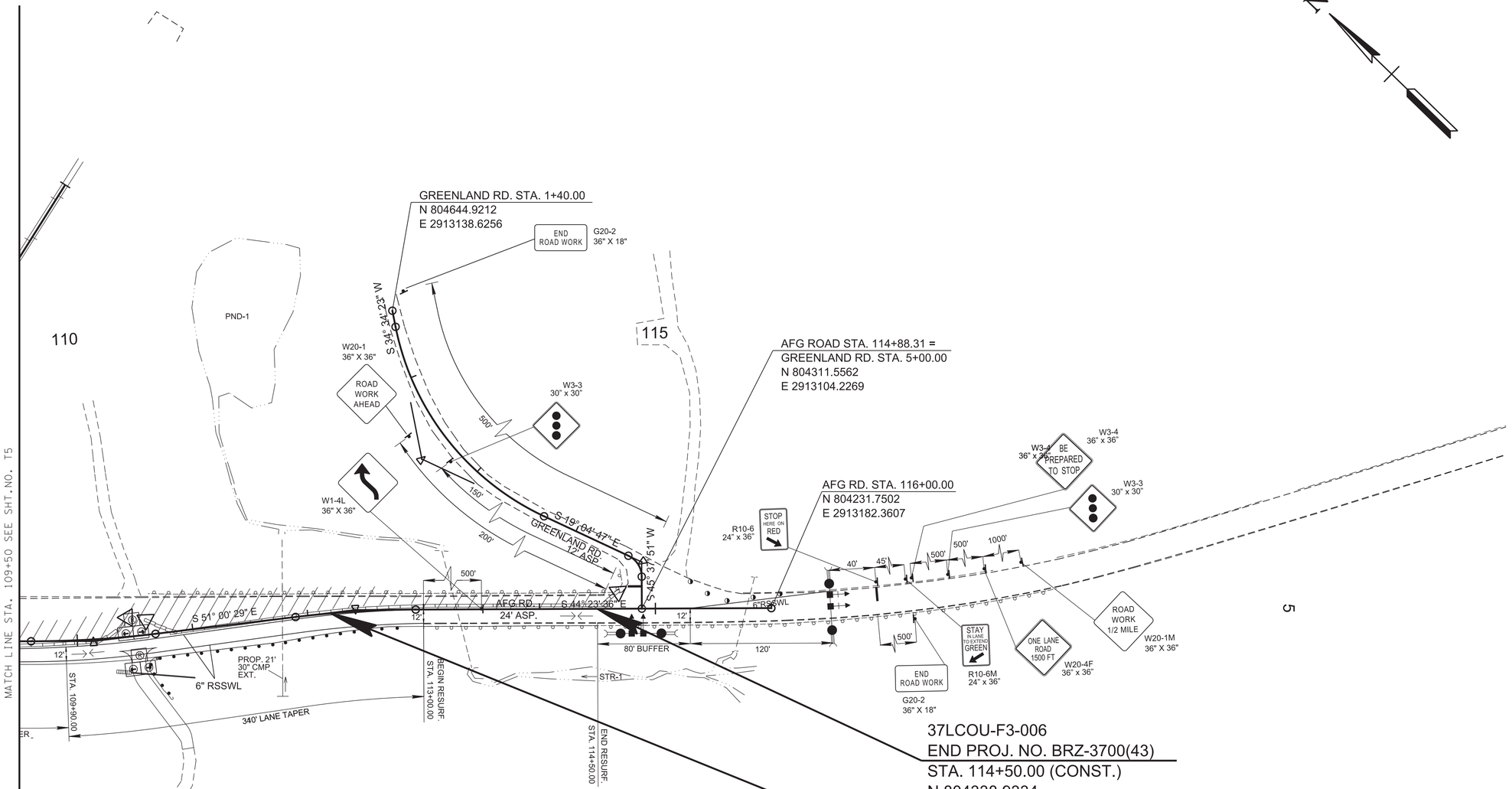
TRAFFIC CONTROL PLANS

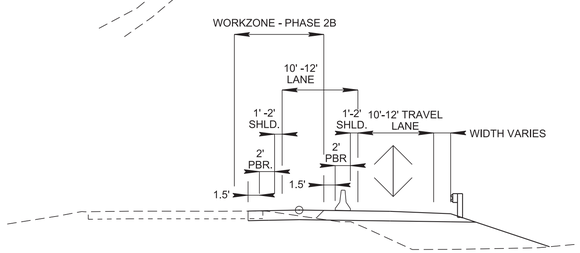
STA. 102+20 TO STA. 109+50

SCALE: 1"= 50'

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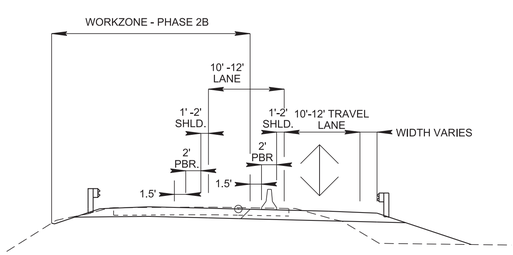
TYPE	YEAR	PROJECT NO.	SHEET NO.
PIH	2025	BRZ-3700(43)	T5A
PS&E	2026	BRZ-3700(43)	T5A





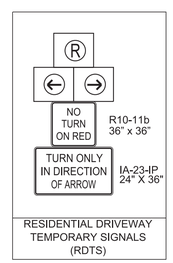
TEMPORARY TRAFFIC CONTROL TYPICAL SECTION

STA. 108+65.83 TO STA. 111+00.00



TEMPORARY TRAFFIC CONTROL TYPICAL SECTION

STA. 111+00.00 TO STA. 113+00.00



RESIDENTIAL DRIVEWAY TEMPORARY SIGNALS (RDTS)

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PHASE IIB

SEALED BY

JAMES B. MORGAN
REGISTERED ENGINEER
DEPARTMENT OF AGRICULTURE
COMMERCE
No. 111658
STATE OF TENNESSEE

07/20/2026

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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

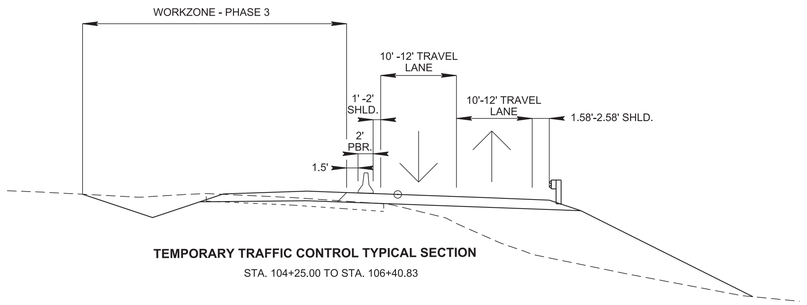
TRAFFIC CONTROL PLANS

STA. 109+50 TO STA. 114+50

SCALE: 1"= 50'

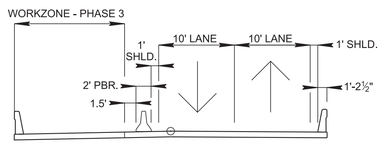
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TYPE	YEAR	PROJECT NO.	SHEET NO.
PIH	2025	BRZ-3700(43)	T6
PS&E	2026	BRZ-3700(43)	T6



TEMPORARY TRAFFIC CONTROL TYPICAL SECTION

STA. 104+25.00 TO STA. 106+40.83



TEMPORARY TRAFFIC CONTROL TYPICAL SECTION

STA. 106+40.83 TO STA. 108+65.83

105

BEGIN PROJ. NO. 37455-2422-04
STA. 103+15.00 (R.O.W.)
N 805080.1127
E 2912229.3009

37LCOU-F3-006
BEGIN PROJ. NO. BRZ-3700(43)
STA. 102+20.00 (CONST.)
N 805098.4542
E 2912136.2219

100

ROAD CLOSED R11-2 48" X 30"

TYPE III BARRICADE ROAD CLOSURE w/ TYPE A WARNING LIGHTS

25

END ROAD WORK G20-2 36" X 18"

PND-2

6" RSSWL

6" RDSYL

STA. 104+40.00

STA. 105+10.00

120' LANE TAPER

STA. 106+30.00

220' LANE TAPER

STA. 102+20.00

S 82° 59' 31" E

500'

500'

1640'

24' ASP AFG RD

STR-2

AFG RD. STA. 100+00.00
N 805125.2957
E 2911917.8655

ROAD WORK 1000 FT W20-1 36" X 36"

W1-4R 36" X 36"

ROAD WORK 1/2 MILE W20-1 36" X 36"

200'

RIDGE HAVEN DR. 16' ASP

500'

30

ROAD WORK AHEAD W20-1 36" X 36"

END ROAD WORK G20-2 36" X 18"

BEGIN BRIDGE STA. 106+40.83

END BRIDGE STA. 108+65.83

ST

ST

NORFOLK SOUTHERN RAILROAD
S 78° 02' 21" W

S 43° 09' 27" E

W1-4R 36" X 36"

W1-4L 36" X 36"

STA. 108+70.00

120' LANE TAP

MATCH LINE STA. 109+50 SEE SHT.NO. T6A

AFG ROAD STA. 107+56.70 =
NORFOLK SOUTHERN RAILROAD
STA. 24+57.56
DOT #730178N
MILE POST 59.00-TC
N 804815.8325
E 2912575.3233

NORFOLK SOUTHERN RAILROAD

S60°35'21"W

PHASE III

SEALED BY

JAMES B. MORGAN
REGISTERED ENGINEER
AGRICULTURE
COMMERCE
111658
STATE OF TENNESSEE

07/20/2026

COORDINATES ARE NAD 83(1995), ARE DATUM ADJUSTED BY THE FACTOR OF 1.00004 AND TIED TO THE TGRN. ALL ELEVATIONS ARE REFERENCED TO THE NAVD 1988 WITH GEOID 12B.

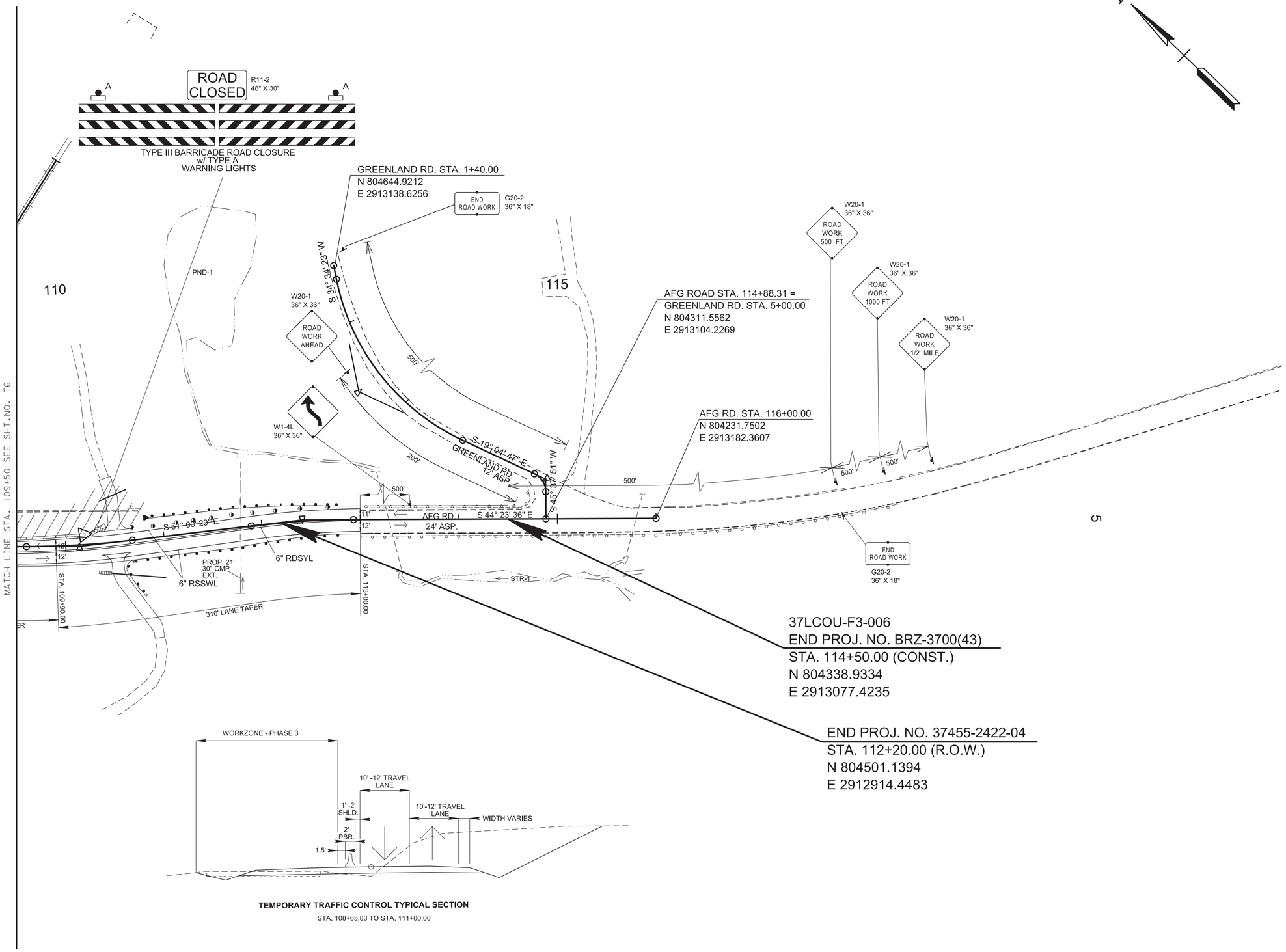
STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

TRAFFIC CONTROL PLANS

STA. 102+20 TO STA. 109+50
SCALE: 1"= 50'

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TYPE	YEAR	PROJECT NO.	SHEET NO.
PIH	2025	BRZ-3700(43)	T6A
PS&E	2026	BRZ-3700(43)	T6A



TEMPORARY TRAFFIC CONTROL TYPICAL SECTION

STA. 108+65.83 TO STA. 111+00.00

PHASE III

SEALED BY

JAMES B. MORGAN
REGISTERED ENGINEER
DEPARTMENT OF AGRICULTURE
DEPARTMENT OF COMMERCE
No. 111658
STATE OF TENNESSEE

07/20/2026

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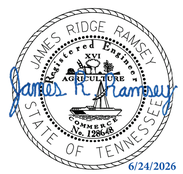
STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

TRAFFIC CONTROL PLANS

STA. 109+50 TO STA. 114+50

SCALE: 1"= 50'

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THIS DOCUMENT HAS BEEN DIGITALLY SIGNED AND SEALED BY:

JAMES RIDGE RAMSEY

PRINTED COPIES OF THIS DOCUMENT ARE NOT CONSIDERED SIGNED AND SEALED. THE SIGNATURE MUST BE VERIFIED ON THE ELECTRONIC DOCUMENTS.

TENNESSEE DEPARTMENT OF TRANSPORTATION
W.R.S. TENNESSEE TOWER, 2ND FLOOR
312 ROSA PARKS AVENUE
NASHVILLE, TN 37243
JAMES RIDGE RAMSEY, P.E. NO. 128648

THE ABOVE NAMED PROFESSIONAL ENGINEER SHALL BE RESPONSIBLE FOR THE FOLLOWING SHEETS IN ACCORDANCE OF TENN. CODE ANN. §62-2-306.

SHEET NAME	SHEET NO.
SIGNATURE SHEET	BRIDGE-SIGN1
INDEX OF DRAWINGS	U-94-941
LAYOUT OF BRIDGE	U-94-942
GENERAL NOTES	U-94-943
ESTIMATED QUANTITIES	U-94-944
SUPERSTRUCTURE	U-94-948
SUPERSTRUCTURE DETAILS	U-94-949
SUPERSTRUCTURE DETAILS	U-94-950
SUPERSTRUCTURE DETAILS	U-94-951
SCREED DETAILS	U-94-952
DRAINAGE COLLECTION SYSTEM	U-94-953
PHASE CONSTRUCTION DETAIL	U-94-954
BULB-TEE BEAM DETAILS SPAN 1	U-94-955
BULB-TEE BEAM DETAILS SPAN 2	U-94-956
BULB-TEE BEAM DETAILS SPAN 3	U-94-957
ABUTMENT NO. 1	U-94-958
ABUTMENT NO. 1 DETAILS	U-94-959
ABUTMENT NO. 2	U-94-960
ABUTMENT NO. 2 DETAILS	U-94-961
BENT NO. 1	U-94-962
BENT NO. 2	U-94-963
BENT NO. 1 & 2 DETAILS	U-94-964
BILL OF STEEL	U-94-966

YEAR	PROJECT NO.	SHEET NO.
2026		BRIDGE-SIGN1

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

SIGNATURE SHEET

$$$$SYTIME$$$$$$$

CONST. NO.: 37455-3422-04

PROJECT NO.	YEAR	SHEET NO.
	2026	B-1

REVISIONS

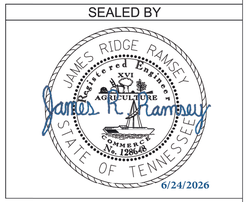
NO.	DATE	BY	BRIEF DESCRIPTION

SHEET NAME	SHEET NO.	LAST REV. DATE
SIGNATURE SHEET	BRIDGE-SIGN1	
INDEX OF DRAWING	U-94-941	
LAYOUT OF BRIDGE	U-94-942	
GENERAL NOTES	U-94-943	
ESTIMATED QUANTITIES	U-94-944	
FOUNDATION DATA	U-94-945	
FOUNDATION DATA	U-94-946	
FOUNDATION DATA	U-94-947	
SUPERSTRUCTURE	U-94-948	
SUPERSTRUCTURE DETAILS	U-94-949	
SUPERSTRUCTURE DETAILS	U-94-950	
SUPERSTRUCTURE DETAILS	U-94-951	
SCREED DETAILS	U-94-952	
DRAINAGE COLLECTION SYSTEM	U-94-953	
PHASE CONSTRUCTION DETAIL	U-94-954	
BULB-TEE BEAM DETAILS SPAN 1	U-94-955	
BULB-TEE BEAM DETAILS SPAN 2	U-94-956	
BULB-TEE BEAM DETAILS SPAN 3	U-94-957	
ABUTMENT NO. 1	U-94-958	
ABUTMENT NO. 1 DETAILS	U-94-959	
ABUTMENT NO. 2	U-94-960	
ABUTMENT NO. 2 DETAILS	U-94-961	
BENT NO. 1	U-94-962	
BENT NO. 2	U-94-963	
BENT NO. 1 & 2 DETAILS	U-94-964	
FINAL FOUNDATION DATA	U-94-965	
BILL OF STEEL	U-94-966	

LIST OF STANDARD DRAWINGS	DWG. NO.	LAST REV. DATE
BRIDGE RAILING SINGLE SLOPE CONCRETE PARAPET	STD-1-1SS	07-09-2025
STEEL SLIDER PLATE ASSEMBLIES FOR SINGLE SLOPE CONCRETE PARAPET AND BRIDGE DECK DRAIN DETAILS	STD-1-2SS	05-31-2024
REINFORCED CONCRETE PAVEMENT AT BRIDGE ENDS	STD-1-5	06-05-2023
STANDARD PRECAST PRESTRESSED BRIDGE DECK PANELS GENERAL DETAILS	STD-4-1	04-08-2005
STANDARD PRECAST PRESTRESSED BRIDGE DECK PANELS DESIGN CRITERIA	STD-4-2	04-08-2005
STANDARD PRECAST PRESTRESSED BRIDGE DECK PANELS DESIGN DETAILS	STD-4-3	03-02-2002
STANDARD PRECAST PRESTRESSED BRIDGE DECK PANELS CONSTRUCTION DETAILS	STD-4-4	06-10-1996
STANDARD PILE DETAILS	STD-5-1	
STANDARD SEISMIC DETAILS	STD-6-1	12-08-2023
STANDARD PROTECTIVE FENCE DETAILS	STD-8-5	05-10-2021
STANDARD REINFORCEMENT BAR SUPPORT DETAILS FOR CONCRETE SLABS	STD-9-1	10-07-2008
MISCELLANEOUS ABUTMENT AND DRAINAGE DETAILS	STD-10-1	06-05-2023
MISCELLANEOUS ABUTMENT AND PAVEMENT AT BRIDGE ENDS BACKFILL DETAILS	STD-10-2	06-05-2023
STANDARD DETAILS AND INTERMEDIATE DIAPHRAGM DETAILS FOR BULB-TEE AND WIDE BULB-TEE BEAMS	STD-14-1	06-05-2023
SAFETY APPROACH TO UNDERPASSES GRADING DESIGN AND SLOPE PROTECTION	RD11-SA-1	01-09-2024

LIST OF SPECIAL PROVISIONS	PROV. NO.	LAST REV. DATE
REPAIR OF BRIDGE DECK CRACKS	604CR	02-08-2021
DRILLED SHAFT SPECIFCATIONS	625	09-01-2021

SEALED BY



PIN NO.: 124369.00

DESIGN BY:	ABDISALAN DAHIR	DATE: 03-2022
DRAWN BY:	(J.S.) A. HUNTER	DATE: 04-2024
SUPERVISED BY:	JS/GWK	DATE: 03-2024
CHECKED BY:	RICK CRAWFORD	DATE: 08-2024

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

INDEX OF DRAWINGS
AFG ROAD
OVER
NORFOLK SOUTHERN RAILROAD
BRIDGE ID NO. 370A3520001
STATION 107+56.70
HAWKINS COUNTY

U-94-941

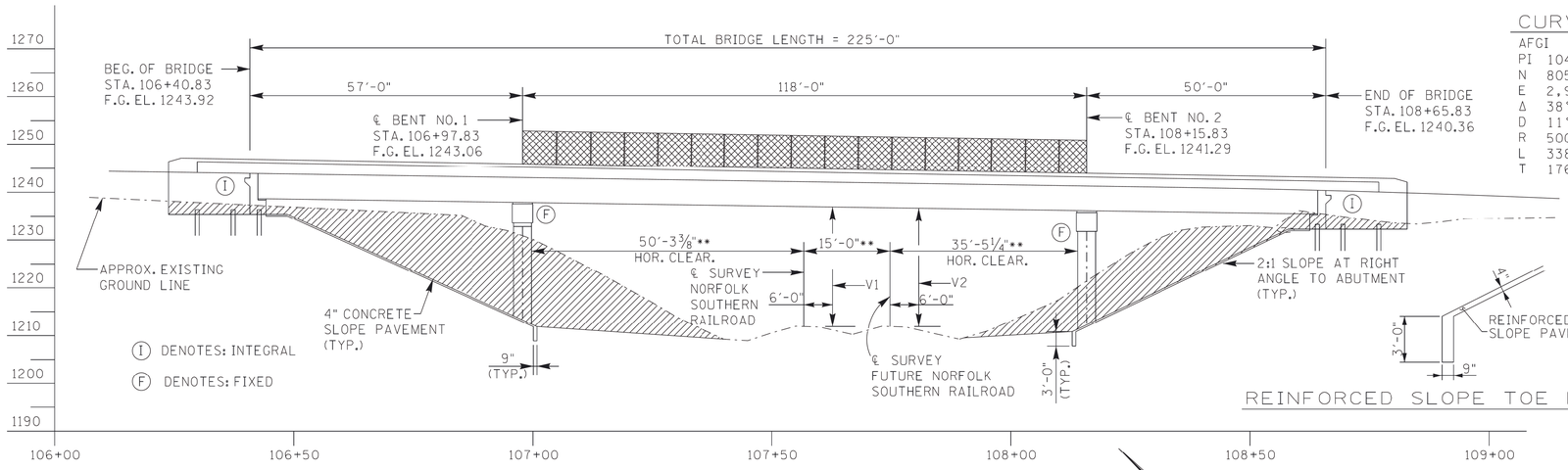
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CONST. NO.: 37455-3422-04

PROJECT NO.	YEAR	SHEET NO.
	2026	

REVISIONS

NO.	DATE	BY	BRIEF DESCRIPTION



ELEVATION

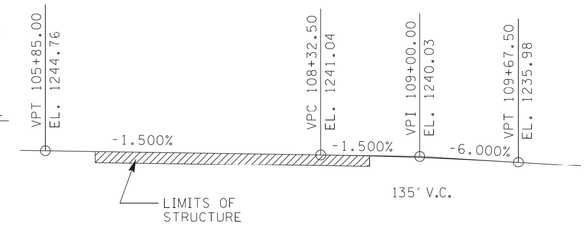
CURVE DATA

AFGI
PI 104+08.40
N 805,075.4681
E 2,912,323.2136
Δ 38°50'05" RT
D 11°27'33"
R 500.00
L 338.90
T 176.25

CURVE DATA

SOUTHERN RAILWAY 1
PI 26+20.34
N 804,794.4513
E 2,912,413.0455
Δ 17°27'00" LT
D 2°02'47"
R 2,800.00
L 852.77
T 429.71

REINFORCED SLOPE TOE DETAIL



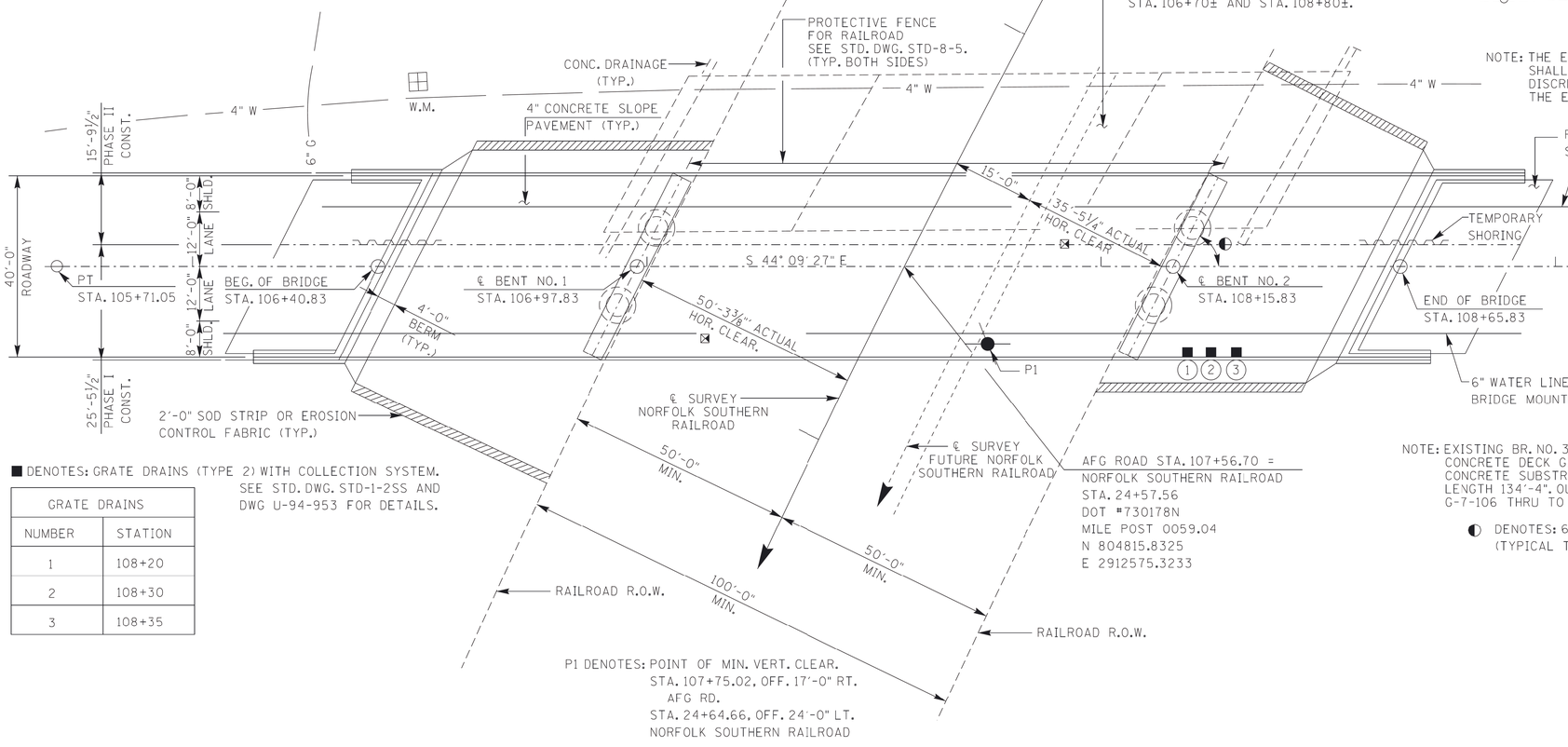
V1 & V2 DENOTES: REQUIRED MINIMUM VERTICAL CLEARANCE 23'-6"
ACTUAL VERTICAL CLEARANCE
V1 CLEARANCE 23'-8½"
V2 CLEARANCE 23'-6"
(ALL RAILROAD STATIONS & ELEVATIONS ARE BASED ON THE EXISTING RR CL SURVEY)

** DENOTES: HORIZONTAL DISTANCE PERPENDICULAR TO THE RAILROAD

DENOTES: EXCAVATION TO BE INCLUDED IN ROADWAY ITEMS

DENOTES: PROTECTIVE FENCE FOR RAILROAD SEE STD. DWG. STD-8-5.

EXIST. BR. LOC. NO.: 37-0A352-0.46 AND APPROACHES TO BE REMOVED BETWEEN STA. 106+70± AND STA. 108+80±.



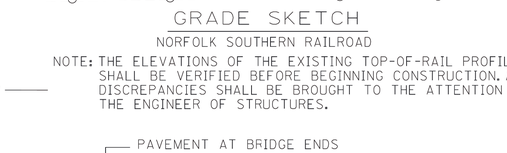
■ DENOTES: GRATE DRAINS (TYPE 2) WITH COLLECTION SYSTEM. SEE STD. DWG. STD-1-2SS AND DWG U-94-953 FOR DETAILS.

GRATE DRAINS	
NUMBER	STATION
1	108+20
2	108+30
3	108+35

P1 DENOTES: POINT OF MIN. VERT. CLEAR. STA. 107+75.02, OFF. 17'-0" RT. AFG RD.
STA. 24+64.66, OFF. 24'-0" LT. NORFOLK SOUTHERN RAILROAD

☒ DENOTES: MINIMUM REQUIRED HORIZONTAL CLEARANCE = 25'-0"

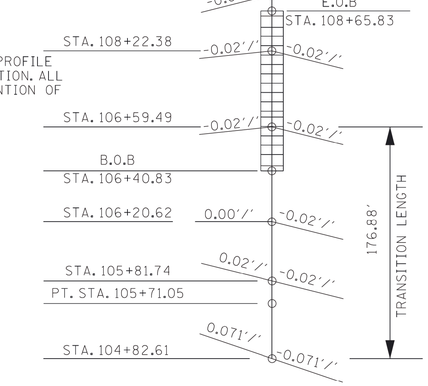
PLAN



GRADE SKETCH
NORFOLK SOUTHERN RAILROAD

NOTE: THE ELEVATIONS OF THE EXISTING TOP-OF-RAIL PROFILE SHALL BE VERIFIED BEFORE BEGINNING CONSTRUCTION. ALL DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER OF STRUCTURES.

GRADE SKETCH
AFG ROAD



TRANSITION SKETCH
(AFG ROAD)

NOTE: EXISTING BR. NO. 370A3520001 CONSISTING OF 3 SPANS CONCRETE DECK GIRDERS WITH ASPHALT OVERLAY AND CONCRETE SUBSTRUCTURES TO BE REMOVED. TOTAL LENGTH 134'-4". OUT-TO-OUT WIDTH 28'-0". SEE DWG. NOS. G-7-106 THRU TO G-7-109 FOR DETAILS OF EXISTING BRIDGE.

◐ DENOTES: 63°16' 12" (TYPICAL TO ALL SUBSTRUCTURES)

SEALED BY

JAMES RIDGE RAMSEY
REGISTERED PROFESSIONAL ENGINEER
STATE OF TENNESSEE
6/24/2026

2042 ADT = 2541
40'-0" ROADWAY WITH STD-1-1SS PARAPETS
DESIGN SPEED = 35 MPH

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

LAYOUT OF BRIDGE
AFG ROAD
OVER
NORFOLK SOUTHERN RAILROAD
BRIDGE ID NO. 370A3520001
STATION 107+56.70
HAWKINS COUNTY

U-94-942

CORRECT
ENGINEER OF STRUCTURES

PIN NO.: 124369.00
DESIGN BY: ABDISALAN DAHIR DATE: 03-2022
DRAWN BY: (J.S.) A. HUNTER DATE: 04-2024
SUPERVISED BY: JS/GWK DATE: 03-2024
CHECKED BY: RICK CRAWFORD DATE: 08-2024

1:30:03 PM
6/24/2026

GENERAL NOTES

SPECIFICATIONS & LOADING

CONSTRUCTION SPECIFICATIONS: TENNESSEE DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION (APRIL 1, 2026 EDITION).

DESIGN SPECIFICATIONS: 9TH EDITION (2020) AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS AND THE 2ND EDITION (2011) AASHTO GUIDE SPECIFICATIONS FOR LRFD SEISMIC BRIDGE DESIGN WITH INTERIMS.

LOADING:

A. HL-93 LIVE LOADING

B. SEISMIC DESIGN CATEGORY "A" WITH A_S= 0.138, S_{DS}= 0.268, S_{D1}=0.105, (1000 YEAR RETURN PERIOD).

C. DEAD LOAD INCLUDES 35 LB/SQ. FT. FOR FUTURE WEARING SURFACE.

CONCRETE, REINFORCING & FORMING

CONCRETE: TO BE CLASS A (CAST-IN-PLACE) F'C = 3000 PSI EXCEPT AS NOTED OTHERWISE.

BRIDGE DECKS: CLASS DS CONCRETE FOR BRIDGE DECKS SHALL BE IN ACCORDANCE WITH SECTION 604 OF THE STANDARD SPECIFICATIONS.

BRIDGE DECK SURFACE FINISH: TO BE IN ACCORDANCE WITH METHOD 1 IN ARTICLE 604.22 OF THE STANDARD SPECIFICATIONS.

BRIDGE DECK FORMS: BRIDGE DECK FORMS FOR CONCRETE DECKS SHALL BE CONSTRUCTED USING EITHER REMOVABLE FORMS OR PERMANENT FORMS. PERMANENT FORMS MAY BE EITHER REMAIN-IN-PLACE STEEL OR PRECAST, PRESTRESSED CONCRETE PANELS. IN EITHER CASE, FORMS SHALL BE ATTACHED BY MEANS OTHER THAN WELDING TO MAIN STRUCTURAL MEMBERS OR REINFORCING STEEL. TEMPORARY ERECTION DIAPHRAGMS MUST BE USED AT THE ENDS OF PRECAST CONCRETE GIRDERS WHERE END DIAPHRAGMS, SUPPORT DIAPHRAGMS, OR ABUTMENT ENDWALLS ARE TO BE POURED CONCURRENTLY WITH THE DECK AND SHALL BE PROVIDED ELSEWHERE IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS TO PREVENT GIRDER ROTATION. SEE STANDARD DRAWINGS STD-4-1 THRU 4, STD-14-1, AND ARTICLE 604.05 OF THE STANDARD SPECIFICATIONS.

REINFORCING STEEL: SHALL BE ASTM A615 GRADE 60 UNLESS NOTED OTHERWISE. SEE SECTIONS 604 AND 907 OF THE STANDARD SPECIFICATIONS.

FOUNDATION ELEMENTS

END-BEARING STEEL PILES: TO BE HP10X42 DRIVEN TO REFUSAL ON ROCK OR A MINIMUM BEARING OF 110 TONS FOR THE ABUTMENTS. ALL PILES SHALL BE ASTM A709 GRADE 50 STEEL.

PILE TIPS: PILES SHALL BE EQUIPPED WITH CAST STEEL POINTS. ALSO, SEE STANDARD DRAWING STD-5-1 FOR ADDITIONAL NOTES.

DRILLED SHAFTS: SEE SPECIAL PROVISION 625 REGARDING DRILLED SHAFT SPECIFICATIONS.

PRECAST SUPERSTRUCTURES

SLAB OVERHANGS: IT IS RECOMMENDED THAT SPACING OF OVERHANG BRACKETS FOR BEAMS NOT EXCEED 2'-0" CENTER-TO-CENTER.

MISCELLANEOUS GENERAL NOTES

RAILROAD CROSSING: THE CONTRACTOR SHALL CONDUCT HIS WORK SO AS TO PROTECT THE RAILROAD TRACKS AND PROPERTIES FROM ANY DAMAGE. THE WORK SHALL BE DONE IN ACCORDANCE WITH REGULATIONS STIPULATED BY THE NORFOLK SOUTHERN RAILWAY COMPANY SO AS TO MAINTAIN CLEARANCE AND NOT INTERRUPT TRAFFIC.

THE CONTRACTOR SHALL COMPLY WITH ALL REQUIREMENTS OF AREMA AND THE APPLICABLE RAILROAD PUBLIC CROSSING MANUAL. ALL REQUIRED DOCUMENTATION OF THE CONTRACTOR'S MEANS AND METHODS SHALL BE SUMBITTED BY THE COTRACTOR DIRECTLY TO THE RAILROAD FOR APPROVAL. TDOT'S ENGINEERING DIVISION – SRUCTURES SECTION DOES NOT REVIEW OR APPROVE THE CITED CONTRACTOR SUBMITTALS WITH THE EXCEPTION THAT TDOT MAY REVIEW PHASED DEMOLITION DETAILS ON BRIDGES CROSSING OVER RAILROADS TO INSURE THE STABILITY OF THE REMAINING STRUCTURE.

SHOP DRAWINGS: SEE SECTION 105.02 OF THE STANDARD SPECIFICATIONS.

PROTECTIVE FENCE: RAILROAD PROTECTIVE FENCE IS REQUIRED TO BE BUILT IN ACCORDANCE WITH STANDARD DRAWING STD-8-5. DIMENSION "H" AS SHOWN ON STANDARD DRAWING STD-8-5 SHALL BE 10'-0".

PARAPET SYSTEM: BUILD PARAPETS ACCORDING TO STANDARD DRAWING STD-1-1SS. THE PARAPETS SHALL BE FORMED AND CAST PLUMB, NOT PERPENDICULAR TO THE SLAB. THE DIMENSIONS AT THE TRAFFIC FACE SHALL BE KEPT CONSTANT, WITH VARIATION DUE TO CROSS-SLOPE ACCOMMODATED AT THE REAR FACE.

SLOPE PAVEMENT: PAVE SLOPES AND EXPOSED EARTH UNDER BRIDGE WITH A 4" THICK CONCRETE SLAB REINFORCED WITH 6 X 6 – D4.5 X D4.5 WELDED WIRE REINFORCEMENT. THE WELDED WIRE REINFORCEMENT SHALL BE PLACED AT ONE-HALF THE DEPTH OF THE SLAB AND EXTEND TO WITHIN 3" OF ITS EDGE WITH A 1'-0" LAP REQUIRED ON ALL SHEETS. THE COST OF THE WELDED WIRE REINFORCEMENT SHALL BE INCLUDED IN THE UNIT PRICE BID FOR ITEM NO. 709-04, REINFORCED CONCRETE SLOPE PAVEMENT. ONE-HALF INCH PREMOLDED EXPANSION JOINTS WITHOUT LOAD TRANSFERS SHALL BE FORMED AROUND ALL STRUCTURES AND FEATURES PROJECTING THROUGH, IN, OR AGAINST THE SLAB. THE SLAB SHALL BE GROOVED PARALLEL WITH AND AT RIGHT ANGLES TO THE UNDER-ROADWAY CENTERLINE AT 6'-0" SPACING IN EACH DIRECTION. DEPTH OF GROOVE SHALL NOT BE LESS THAN 1". SEE STD. DWG. NO. RD11-SA-1 FOR LIMITS OF SLOPE PROTECTION.

VALUE ENGINEERING ALTERNATE BRIDGE DESIGN CRITERIA: ALTERNATE BRIDGE DESIGN PROPOSALS MAY NOT DIMINISH THE FUNCTIONAL OR STRUCTURAL EQUIVALENCY OF THE BRIDGE AND MUST MEET OR EXCEED THE CAPACITIES OF THE CONTRACT PLANS STRUCTURE AT ALL LIMIT STATES IN AASHTO TABLE 3.4.1-1. ADDITIONALLY, THE WATERWAY OPENING AND FLOOD CLEARANCES MAY NOT BE REDUCED. FOR GRADE SEPARATIONS, THE HORIZONTAL CLEARANCES MAY NOT BE REDUCED, NOR MAY THE VERTICAL CLEARANCES BE LESS THAN THE MINIMUM ACCEPTABLE FOR THE TYPE FACILITY CROSSED.

REQUIREMENTS AND RESTRICTIONS FOR PHASE CONSTRUCTION

A. THE PHASE CONSTRUCTION SEQUENCE MAY PROHIBIT THE EXTRACTION OF SOME SHEET PILING. ALL COSTS ASSOCIATED WITH SHEET PILING SHALL BE INCLUDED IN THE UNIT PRICE BID FOR OTHER ITEMS.

B. THE LOCATION OF LONGITUDINAL CONSTRUCTION JOINTS SHALL NOT BE CHANGED TO ACCOMMODATE STAY-IN-PLACE DECK FORMS.

C. NO SHEET PILES OR BEARING PILES MAY BE DRIVEN FROM THE EXISTING OR PROPOSED STRUCTURE.

D. TWO 10'-0" TRAFFIC LANES SHALL BE MAINTAINED AT ALL TIMES.

FINISHING CONCRETE SURFACES: CONCRETE FINISHING SHALL BE IN ACCORDANCE WITH SECTION 604.21 OF THE STANDARD SPECIFICATIONS. A CLASS I FINISH FOLLOWED BY AN APPLIED TEXTURE FINISH SHALL BE USED IN LIEU OF A CLASS II FINISH. NO TEXTURE FINISH SHALL BE APPLIED PRIOR TO COMPLETION OF PAVING AND HAULING OPERATIONS AT THE BRIDGE SITE. THE APPLIED TEXTURE FINISH SHALL BE MEASURED AND PAID FOR UNDER ITEM NO. 604-04.01.

SPECIAL RAILROAD NOTES

INSTALLATION OF PILES ON OR ADJACENT TO NS ROW MAY REQUIRE A TRACK MONITORING PROGRAM IN ACCORDANCE WITH SECTION 5.1 OF "NORFOLK SOUTHERN'S SPECIAL PROVISIONS FOR PROTECTION OF RAILWAY INTERESTS."

A MINIMUM VERTICAL CLEARANCE OF 22'-6" ABOVE THE TOP OF HIGHEST RAIL SHALL BE MAINTAINED AT ALL TIMES DURING CONSTRUCTION.

A MINIMUM HORIZONTAL CLEARANCE OF 14'-0" FROM CENTERLINE OF TRACK SHALL BE MAINTAINED AT ALL TIMES DURING CONSTRUCTION.

THE EXISTING SUBSTANDARD CLEARANCES SHALL NOT BE FURTHER REDUCED FOR THE TEMPORARY CONSTRUCTION CONDITION WITHOUT THE WRITTEN PERMISSION FROM NORFOLK SOUTHERN.

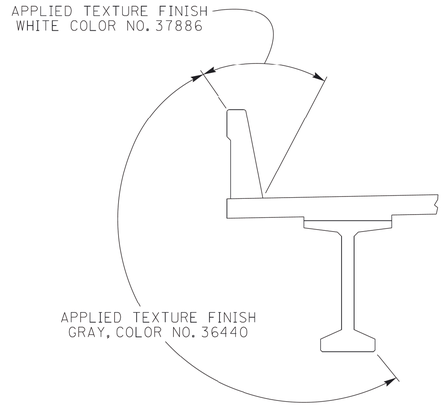
DEMOLITION OF EXISTING SUBSTRUCTURES LOCATED IN OR ADJACENT TO TRACK DITCH NEED TO BE REMOVED TO A MINIMUM OF 2' BELOW FINAL GRADE.

CONST. NO.: 37455-3422-04

PROJECT NO.	YEAR	SHEET NO.
	2026	

REVISIONS

NO.	DATE	BY	BRIEF DESCRIPTION



APPLIED TEXTURE FINISH SKETCH

TEXTURE FINISH: IN ADDITION TO THE SURFACES SHOWN IN THE APPLIED TEXTURE FINISH SKETCH, ALL EXPOSED SURFACES OF THE WINGWALLS, ABUTMENT BEAMS, BENTS, AND EXTERIOR PORTIONS OF THE ENDWALLS SHALL RECEIVE AND APPLIED TEXTURE FINISH (GRAY, FEDERAL STANDARD AMS-STD-595A COLOR NO. 36440).

SEALED BY



PIN NO.: 124369.00

DESIGN BY:	ABDISALAN DAHIR	DATE:	03-2022
DRAWN BY:	(J. S.) A. HUNTER/J.R.C.	DATE:	04-2024
SUPERVISED BY:	JS/GWK	DATE:	03-2024
CHECKED BY:	RICK CRAWFORD	DATE:	08-2024

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

GENERAL NOTES
AFG ROAD
OVER
NORFOLK SOUTHERN RAILROAD
BRIDGE ID NO. 370A3520001
STATION 107+56.70
HAWKINS COUNTY

U-94-943

6:19:46 AM
6/24/2026

CONST. NO.: 37455-3422-04

PROJECT NO.	YEAR	SHEET NO.
	2026	

REVISIONS

NO.	DATE	BY	BRIEF DESCRIPTION
	- -		
	- -		
	- -		
	- -		
	- -		

ESTIMATED QUANTITIES

	ITEM NO.	DESCRIPTION	UNIT	TOTAL	SUPERSTRUCTURE	ABUTMENT NO. 1	PIER NO. 1	PIER NO. 2	ABUTMENT NO. 2
(2)	202-04.01	REMOVAL OF STRUCTURES (EXIST. BR. NO. EXIST. BR. NO. 37-0A352-0.46)	L.S.	1					
(3)	204-02.01	DRY EXCAVATION (BRIDGES)	C.Y.	214		107			107
(16)	204-05.01	CORE DRILLING AND SAMPLING	L.F.	184			86	98	
(8)	303-01.02	GRANULAR BACKFILL (BRIDGES)	TON	32		16			16
(13)	604-02.03	EPOXY COATED REINFORCING STEEL	LB.	101,237	96,011	2,463			2,763
(7)	604-03.01	CLASS A CONCRETE (BRIDGES)	C.Y.	429		60	141	168	60
(13)	604-03.02	STEEL BAR REINFORCEMENT (BRIDGES)	LB.	66,898	2,069	8,369	23,233	24,757	8,470
(1)	604-03.04	PAVEMENT @ BRIDGE ENDS	S.Y.	204		102			102
	604-03.09	CLASS DS CONCRETE	C.Y.	281	281				
	604-04.01	APPLIED TEXTURE FINISH (NEW STRUCTURES)	S.Y.	1,227	973	33	133	55	33
	604-05.31	BRIDGE DECK GROOVING (MECHANICAL)	S.Y.	1,117	1,117				
	606-02.03	STEEL PILES (10 INCH)	L.F.	390		250			140
(10)	606-02.06	PILE TIPS (STEEL PILES, 10 INCH)	EACH	24		12			12
(9)	610-10.04	DRAINAGE SYSTEM - BRIDGE DECK	L.S.	1					
(5)(12)	615-02.52	PRESTRESSED CONCRETE BULB TEE BEAM (6" WEB) (BT- 63)	L.F.	1,088	1,088				
(14)	617-02	BRIDGE DECK CRACK SEALING	L.F.	225	225				
	617-05	SEALANT (HMWM)	GAL.	2					
	620-05.01	CONC PARAPET SINGLE SLOPE (STD-1-1SS)	L.F.	525					
	621-05.02	TEMPORARY SHORING	L.S.	1					
(15)	625-02.13	DRILLED SHAFT-ROCK (8'-0" DIA.)	V.F.	48			24	24	
(11)	625-02.40	DRILLED SHAFT (SH-SCC) CONCRETE	C.Y.	90			45	45	
(17)	625-02.46	SONIC LOGGING TESTING	EACH	4			2	2	
	707-07.01	CHAIN-LINK FENCE (BRIDGES)	S.F.	2,360	2,360				
	709-04	REINFORCED CONCRETE SLOPE PAVEMENT	C.Y.	125		70			55
(6)	710-09.01	6" PERFORATED PIPE WITH VERTICAL DRAIN SYSTEM	L.F.	142		71			71
	710-09.02	6" PIPE UNDERDRAIN	L.F.	38		19			19

FOOTNOTES

(1) NOTE: PRIOR TO CONSTRUCTION OF THE PAVEMENT AT BRIDGE ENDS, THE CONTRACTOR SHALL SUBMIT A PROPOSED BILL OF STEEL TO THE ENGINEER FOR APPROVAL.

(2) NOTE: LUMP SUM (EXISTING BRIDGE ID. NO. 37-0A352-0.46 AND APPROACHES TO BE REMOVED TO FINAL PROFILE BETWEEN STATIONS 106+70 AND 108+80. EXISTING BRIDGE DESCRIPTION: 3 SPAN, 28'-0" OUT-TO-OUT, CONTINUOUS CONCRETE DECK GIRDERS, CONCRETE BENTS AND ABUTMENTS).

(3) NOTE: EXCAVATION BASED ON FINAL PROFILE AT ABUTMENTS AND FINAL PROFILE AT PIERS.

(4) NOTE: THE COST OF BITUMINOUS-FIBERBOARD AND ALL MISCELLANEOUS JOINT MATERIAL TO BE INCLUDED IN THE UNIT PRICE BID FOR OTHER ITEMS.

(5) NOTE: COST OF ELASTOMERIC PADS AND RUBBER BONDING CEMENT TO BE INCLUDED IN THE UNIT PRICE BID FOR THE PRESTRESSED BEAM.

(6) NOTE: COST OF POLYETHYLENE SHEETING AND ALL MISCELLANEOUS ITEMS NECESSARY FOR INSTALLATION TO BE INCLUDED IN THE UNIT PRICE BID FOR PERFORATED PIPE.

(7) NOTE: THE COST OF ALL MATERIALS AND LABOR NECESSARY FOR THE INSTALLATION OF 31 ANCHOR BOLT ASSEMBLIES SHALL BE INCLUDED IN THE UNIT PRICE BID FOR CLASS A CONCRETE (BRIDGES), ITEM NO. 604-03.01.

(8) NOTE: GRANULAR BACKFILL SHALL BE TYPE "A" GRADING "D" MATERIAL. SEE STANDARD DRAWING STD-10-1.

(9) NOTE: INCLUDES THE COST OF 3 INLET GRATES, 10" PVC PIPE, FITTINGS, SUPPORTS AND CLEAN-OUTS NECESSARY FOR THE INSTALLATION OF THE DECK DRAINAGE SYSTEM. DRAINAGE PIPE SHALL BE SCHEDULE 80 PVC.

(10) NOTE: THE UNIT PRICE BID FOR THE CAST STEEL POINTS SHALL INCLUDE FURNISHING AND INSTALLATION TO THE PILES.

(11) NOTE: DRILLED SHAFT CONCRETE SHALL BE CLASS SH-SCC.

(12) NOTE: INTERMEDIATE DIAPHRAGMS SHALL BE PAID FOR IN ACCORDANCE WITH STANDARD DRAWINGS STD-14-1.

(13) NOTE: MECHANICAL BAR SPLICERS MUST BE ON THE TDOT QUALIFIED PRODUCTS LIST 27. THE BAR SPLICERS SHALL MEET AASHTO LRFD SPECIFICATIONS FOR MECHANICAL CONNECTION. WHEN EPOXY COATING IS REQUIRED, THE EXPOSED THREADS SHALL BE REPAIRED AFTER SPLICING ACCORDING TO SECTION 907 OF THE STANDARD SPECIFICATIONS. THE COST OF FURNISHING THE BAR SPLICERS, (AND EPOXY COATING WHEN REQUIRED) INCLUDING ALL LABOR AND MATERIALS NECESSARY FOR COMPLETE INSTALLATION, SHALL BE INCLUDED IN THE UNIT PRICE BID FOR ITEM NO. 604-02.03 AND ITEM NO. 604-03.02.

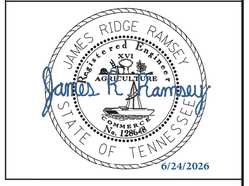
(14) NOTE: INCLUDES ALL COSTS FOR INSTALLING THE BRIDGE DECK CRACK SEALER (HMWM) INCLUDING CRACK PREPARATION, CLEANING, LABOR, AND ALL MISCELLANEOUS MATERIALS REQUIRED TO SEAL THE LONGITUDINAL CONSTRUCTION JOINT ACCORDING TO SPECIAL PROVISION 604CR AND MANUFACTURERS' SPECIFICATIONS. CRACK SEALING SHALL BE DONE AT THE END OF CONSTRUCTION TO ALLOW SHRINKAGE OF DECK CONCRETE CAUSING THE CRACK TO OCCUR.

(15) NOTE: THE COST OF THE FOLLOWING ITEMS IS TO BE INCLUDED IN THE UNIT PRICE BID FOR ITEM NOS. 625-02.13:
1. DRILLING THE SHAFT
2. CLEANING AND INSPECTING THE SHAFT
3. INSTALLATION OF ALL CASING AND/OR SLURRY, IF USED. NO PAYMENT WILL BE MADE FOR TEMPORARY CASING WHICH CANNOT BE REMOVED.
4. INSTALLATION OF 1.5" DIAMETER PIPES IN SHAFTS FOR CSL TESTING. 8 CSL TUBES ARE REQUIRED PER SHAFT AT BENT NOS. 1 & 2.

(16) NOTE: SEE ARTICLE 625.31 OF THE SPECIAL PROVISION. THE INTENT IS FOR THE CORE DRILLING AND SAMPLING TO BE PERFORMED PRIOR TO SHAFT DRILLING. SUBJECT TO THE APPROVAL FROM THE GEOTECHNICAL ENGINEER, THESE CORES ARE TO BE USED TO PRE-DETERMINE ACCEPTABLE SHAFT TIP ELEVATIONS. CORES SHALL EXTEND 15FT BELOW ESTIMATED TIP ELEVATIONS SHOWN ON THE PLANS. 1 CORE IS REQUIRED WITHIN THE FOOTPRINT OF EACH SHAFT.

(17) NOTE: CSL TESTING WITH THE ADDITION OF 3D TOMOGRAPHY SHALL BE PERFORMED ON ALL SHAFTS. THE CSL TESTING FIRM MUST BE PRESENT FOR ALL SHAFT POURS.

SEALED BY



STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

ESTIMATED QUANTITIES
AFG ROAD
OVER
NORFOLK SOUTHERN RAILROAD
BRIDGE ID NO. 370A3520001
STATION 107+56.70
HAWKINS COUNTY

U-94-944

PIN NO.: 124369.00
DESIGN BY: ABDISALAN DAHIR DATE: 03-2022
DRAWN BY: A. HUNTER/JRC DATE: 08 2025
SUPERVISED BY: JS/GWK DATE: 03-2024
CHECKED BY: RICK CRAWFORD DATE: 08-2024

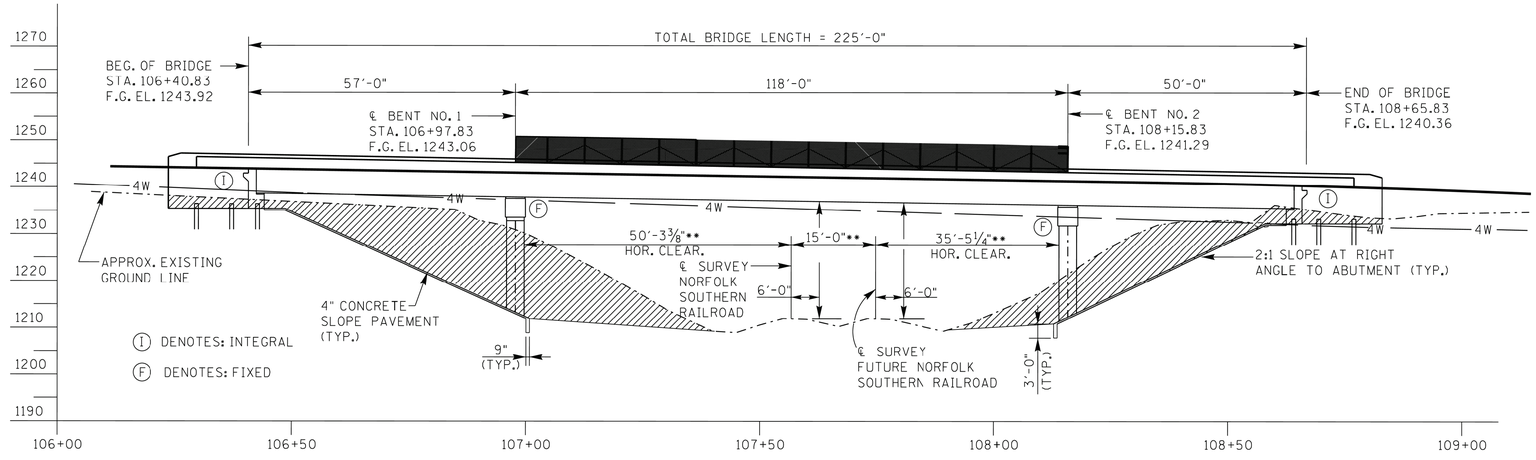
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6/24/2026

CONST. NO.: 37455-3422-04

PROJECT NO.	YEAR	SHEET NO.
	2026	

REVISIONS

NO.	DATE	BY	BRIEF DESCRIPTION
	- -		
	- -		
	- -		
	- -		
	- -		



DENOTES: EXCAVATION TO BE INCLUDED IN ROADWAY ITEMS

DENOTES: PROTECTIVE FENCE FOR RAILROAD SEE STD. DWG. STD-8-5.

** DENOTES: HORIZONTAL DISTANCE PERPENDICULAR TO THE RAILROAD

ELEVATION

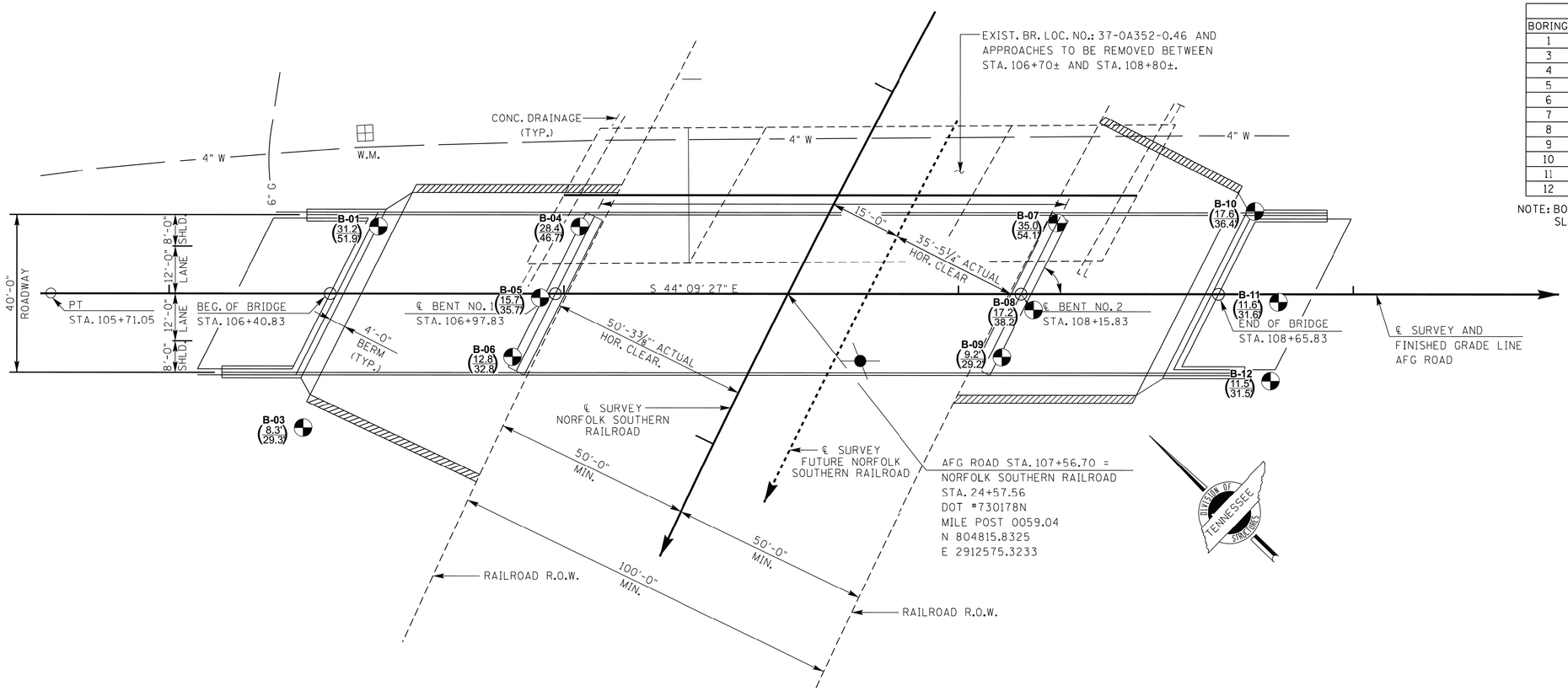
SCALE: 1" = 15'-0"

LEGEND: BORING LOCATIONS

- B-152 (24.5) (70.3) - BORING I.D. - DEPTH TO REFUSAL (ABOVE LINE) - BOTTOM OF HOLE (BELOW LINE)
- B-152 (24.5) - BORING I.D. - DEPTH TO REFUSAL
- B-152 (24.5) - BORING I.D. - TERMINATION DEPTH (NO REFUSAL)

TABLE OF BORING LOCATIONS				
BORING	STATION	OFFSET	GROUND ELEV.	ROCK ELEV.
1	106+53	17' LT.	1,241.4	1,209.8
3	106+34	26' RT.	1,226	1,217.7
4	107+04	17' LT.	1,240.1	1,211.6
5	106+94	1' RT.	1,231	1,215.3
6	106+87	16' RT.	1,225	1,212.2
7	108+25	18' LT.	1,236.7	1,201.0
8	108+19	4' RT.	1,219	1,201.8
9	108+11	16' RT.	1,220	1,210.8
10	108+75	21' LT.	1,235.4	1,217.4
11	108+81	2' RT.	1,243	1,231.4
12	108+79	22' RT.	1,231	1,219.5

NOTE: BORING B-02 WAS NOT DRILLED DUE TO PROXIMITY TO SLOPE AND GUARDRAIL.



PLAN

SCALE: 1" = 15'-0"

NOTE: THIS DRAWING IS FOR FOUNDATION DATA ONLY AND IS NOT TO BE USED AS A LAYOUT.

PIN NO.: 124369.00

DESIGN BY: ABDISALAN DAHIR DATE: 03-2022

DRAWN BY: GEORGE KORNIKOSKI DATE: 08-2024

SUPERVISED BY: JS/GWK DATE: 03-2024

CHECKED BY: RICK CRAWFORD DATE: 08-2024

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

FOUNDATION DATA
AFG ROAD
OVER
NORFOLK SOUTHERN RAILROAD
BRIDGE ID NO. 370A3520001
STATION 107+56.70
HAWKINS COUNTY

U-94-945

6/24/2026 7:02:21 AM

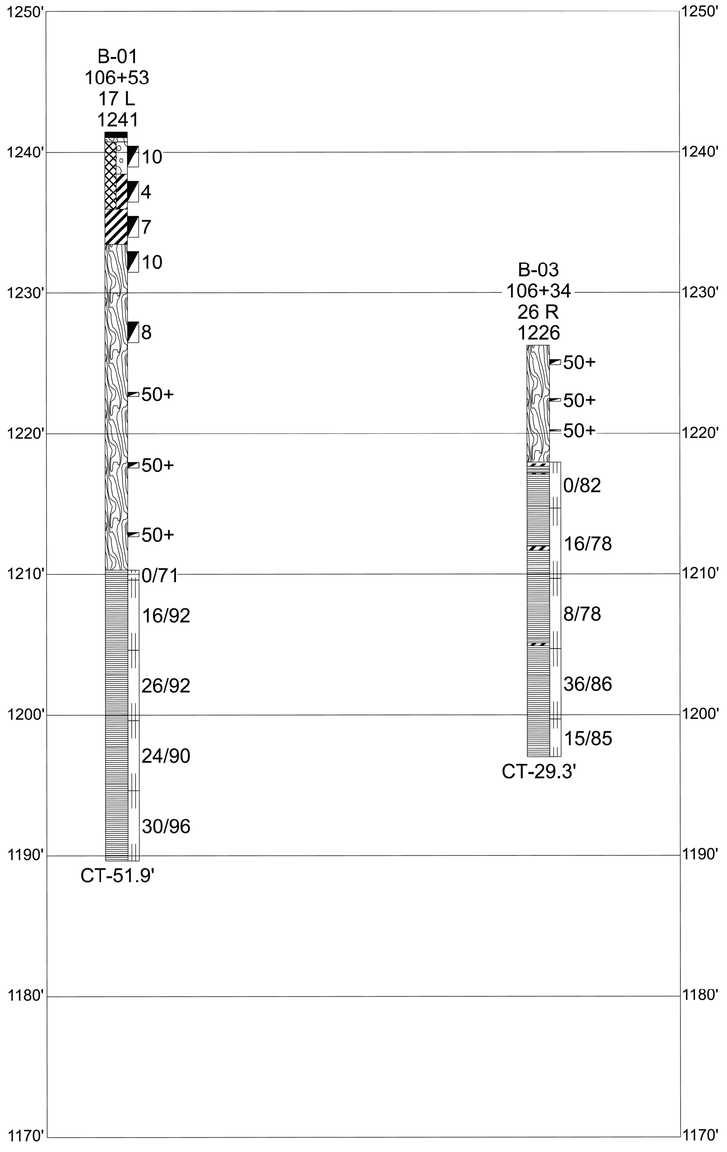
CONST. NO.: 37455-3422-04

PROJECT NO.	YEAR	SHEET NO.
	2026	

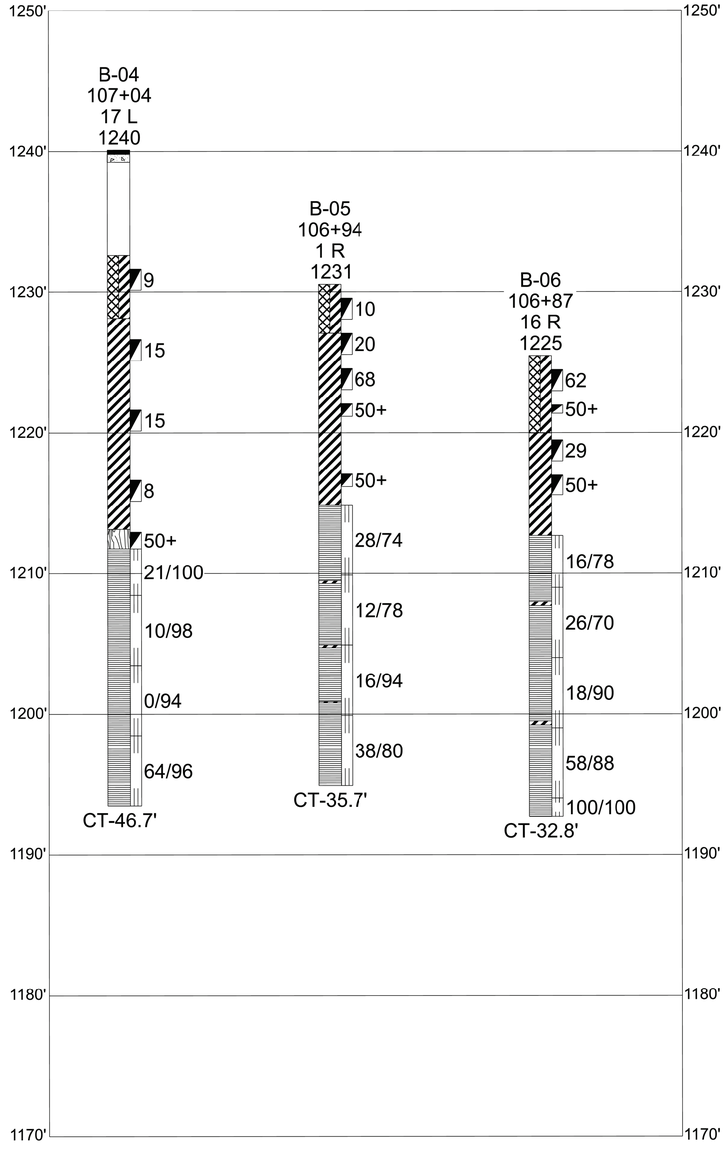
REVISIONS

NO.	DATE	BY	BRIEF DESCRIPTION
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	- -		
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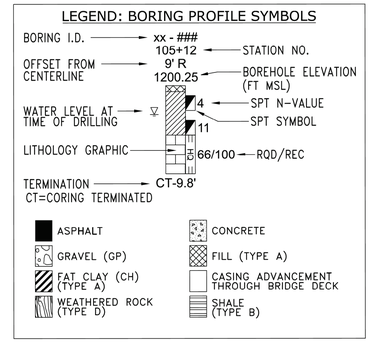
ABUTMENT 1



BENT 1



LEGEND: BORING PROFILE SYMBOLS



PIN NO.: 124369.00

DESIGN BY: ABDISALAN DAHIR DATE: 03-2022

DRAWN BY: GEORGE KORNIKOSKI DATE: 08-2024

SUPERVISED BY: JS/GWK DATE: 03-2024

CHECKED BY: RICK CRAWFORD DATE: 08-2024

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

FOUNDATION DATA
AFG ROAD
OVER
NORFOLK SOUTHERN RAILROAD
BRIDGE ID NO. 370A3520001
STATION 107+56.70
HAWKINS COUNTY

U-94-946

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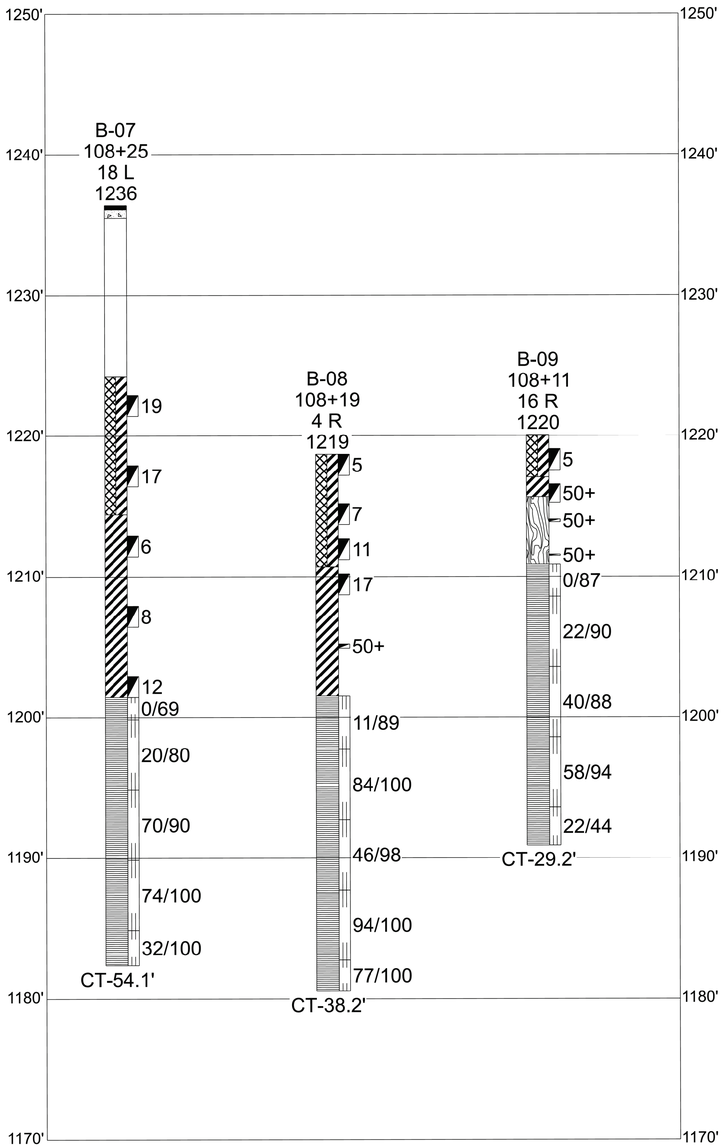
CONST. NO.: 37455-3422-04

PROJECT NO.	YEAR	SHEET NO.
	2026	

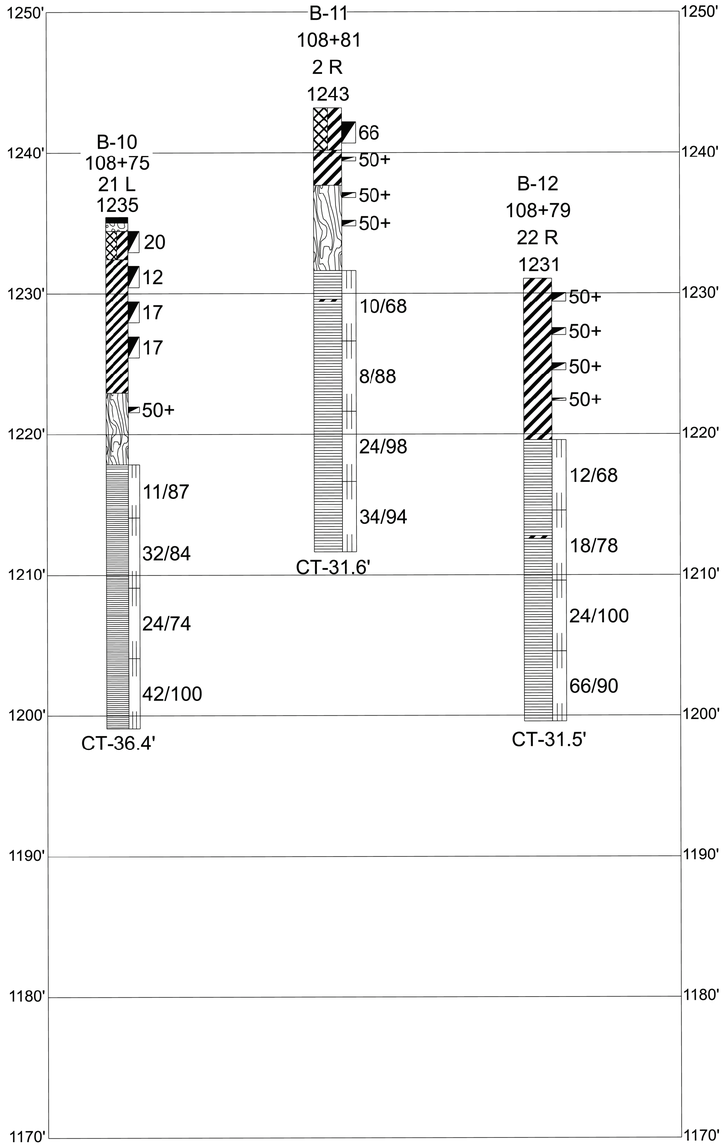
REVISIONS

NO.	DATE	BY	BRIEF DESCRIPTION
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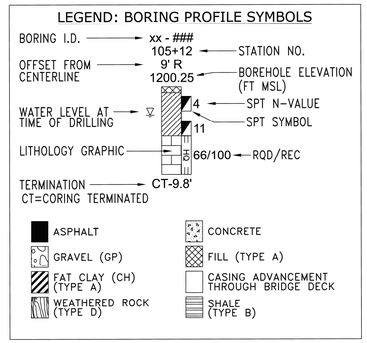
BENT 2



ABUTMENT 2



LEGEND: BORING PROFILE SYMBOLS



PIN NO.: 124369.00
DESIGN BY: ABDISALAN DAHIR DATE: 03-2022
DRAWN BY: GEORGE KORNIKOSKI DATE: 08-2024
SUPERVISED BY: JS/GWK DATE: 03-2024
CHECKED BY: RICK CRAWFORD DATE: 08-2024

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

FOUNDATION DATA
AFG ROAD
OVER
NORFOLK SOUTHERN RAILROAD
BRIDGE ID NO. 370A3520001
STATION 107+56.70
HAWKINS COUNTY

U-94-947

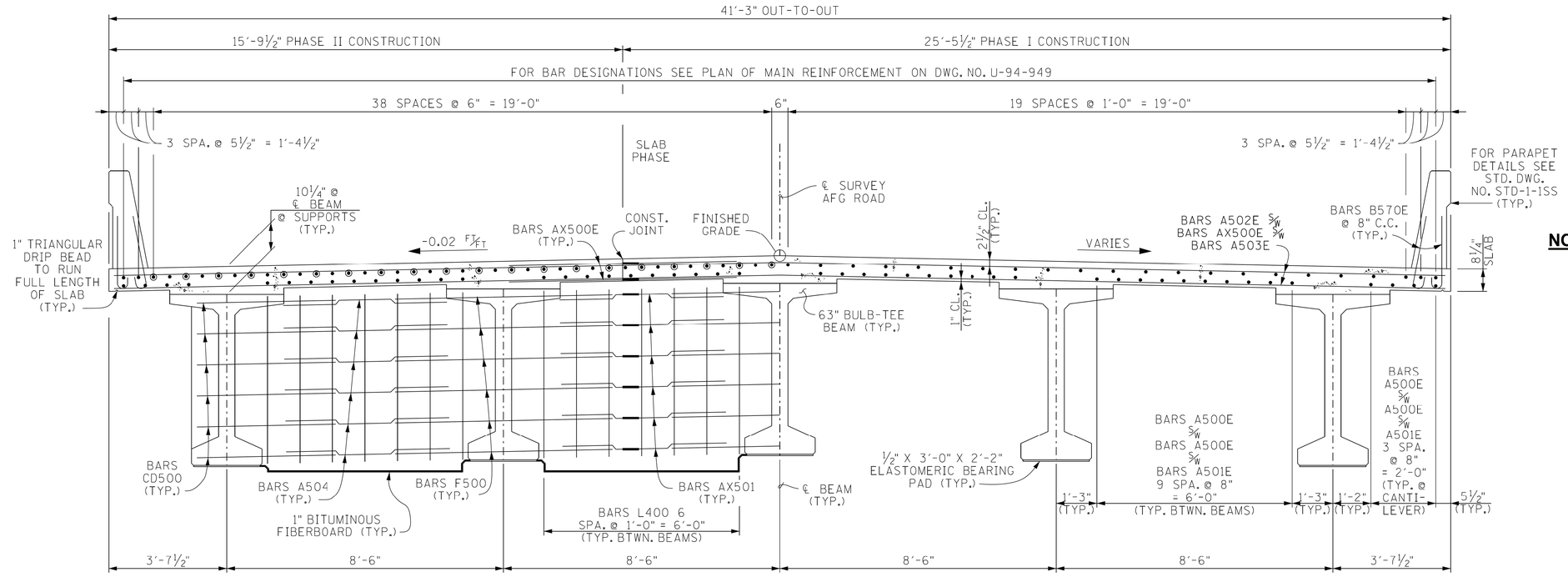
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CONST. NO.: 37455-3422-04

PROJECT NO.	YEAR	SHEET NO.
	2026	

REVISIONS

NO.	DATE	BY	BRIEF DESCRIPTION
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	- -		
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HALF-SECTION NEAR SUPPORT

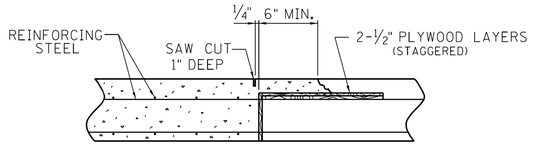
HALF-SECTION NEAR MID-SPAN

TYPICAL CROSS-SECTION

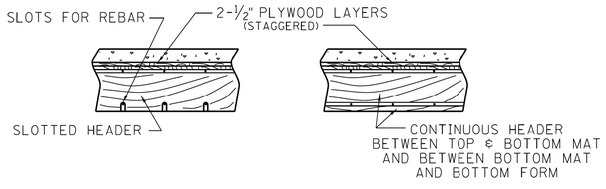
(LOOKING FORWARD ON SURVEY)

◉ DENOTES: CUT-OFF BARS

DECK CONCRETE POURING SEQUENCE: SLAB CONSTRUCTION JOINTS MAY BE LOCATED AT THE CONTRACTOR'S OPTION SUBJECT TO THE FOLLOWING:
1. NO CONSTRUCTION JOINT MAY BE LOCATED CLOSER THAN 10 FEET OR FURTHER THAN 15 FEET FROM AN INTERIOR SUPPORT.
2. THE SLAB IN THE MIDDLE SECTION OF BOTH ADJACENT SPANS MUST BE POURED TO WITHIN AT LEAST 15 FEET OF THE SUPPORTS EITHER PRIOR TO OR CONCURRENTLY WITH THE SLAB OVER AN INTERIOR SUPPORT.
3. ALL SLAB CONSTRUCTION JOINTS SHALL BE IN ACCORDANCE WITH THE SLAB CONSTRUCTION JOINT DETAIL SHOWN BELOW.

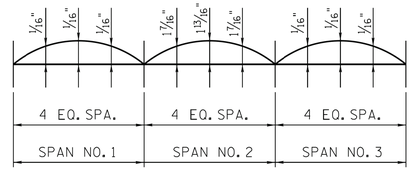


SLAB CONSTRUCTION JOINT DETAIL



ALTERNATE "A" ALTERNATE "B"

ALTERNATE HEADER DETAILS



DEAD LOAD CORRECTION CURVE

THIS CURVE IS FOR DEAD LOAD SLAB AND ALL DEAD LOADS THAT ARE APPLIED AFTER SLAB IS IN PLACE AND SHOULD BE CORRECTED TO COMPENSATE FOR THE EFFECTS DUE TO VERTICAL CURVE.
IF PRESTRESSED DECK PANELS ARE USED AND THE BEAMS ARE PROFILED AFTER PANELS ARE IN PLACE, REDUCE THE DEAD LOAD CORRECTION VALUES SHOWN BY 25%.

NOTES

NOTE: NO PORTION OF THE PARAPETS SHALL BE POURED UNTIL THE ENTIRE DECK SLAB IS IN PLACE (UNLESS REQUIRED FOR PHASE CONSTRUCTION).

ANCHOR BOLTS AT BENTS: ANCHOR BOLT ASSEMBLIES AT BENTS SHALL BE IN ACCORDANCE WITH STANDARD DRAWING STD-6-1.

NOTE: WHEN POURING SLAB, PROVISIONS SHALL BE MADE FOR SETTING REINFORCING STEEL FOR PARAPET. THE PARAPET SHALL NOT BE POURED UNTIL THE SLAB IS POURED AND CURED. ALSO SEE STD. DWG. NO. STD-1-1SS.

NOTE: THE CONTRACTOR IS SOLELY RESPONSIBLE FOR SUPPORTING THE BEAMS TO PREVENT DAMAGE DUE TO TWISTING OR OVERTURNING DURING ALL PHASES OF CONSTRUCTION. WHILE IT IS STRONGLY RECOMMENDED THAT THE TEMPORARY ERECTION DIAPHRAGMS BE INSTALLED PRIOR TO PLACING ANY LOADS ON THE BEAMS, IT IS REQUIRED THAT ALL TEMPORARY ERECTION DIAPHRAGMS IN A SPAN BE FULLY INSTALLED PRIOR TO POURING ANY PORTION OF THE SLAB IN THAT SPAN.

NOTE: THE SUPPORT DIAPHRAGMS AT THE BENTS SHALL BE FORMED AND THE BOTTOM 15 INCHES POURED AS SOON AS POSSIBLE AFTER THE BEAMS HAVE BEEN SET. THE REMAINDER OF THE DIAPHRAGMS SHALL BE POURED CONCURRENTLY WITH THE DECK SLAB. THE BEAMS SHALL ATTAIN AN AGE OF AT LEAST 90 DAYS PRIOR TO POURING THE REMAINDER OF THE SUPPORT DIAPHRAGMS AND DECK SLAB. ALL DIAPHRAGM CONCRETE SHALL BE INCLUDED IN THE QUANTITY FOR CLASS D CONCRETE.

NOTE: MECHANICAL COUPLERS IN SLAB AT PHASE JOINT REQUIRED.

SEALED BY

JAMES RIDGE RAMSEY
LICENSED PROFESSIONAL ENGINEER
XVI
AGRICULTURE
COMMERCE
1796
STATE OF TENNESSEE
6/24/2026

PIN NO.: 124369.00

DESIGN BY:	ABDISALAN DAHIR	DATE:	03-2022
DRAWN BY:	T.R. KIRK	DATE:	03-2024
SUPERVISED BY:	JS/GWK	DATE:	03-2024
CHECKED BY:	RICK CRAWFORD	DATE:	08-2024

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

SUPERSTRUCTURE
AFG ROAD
OVER
NORFOLK SOUTHERN RAILROAD
BRIDGE ID NO. 370A3520001
STATION 107+56.70
HAWKINS COUNTY

U-94-948

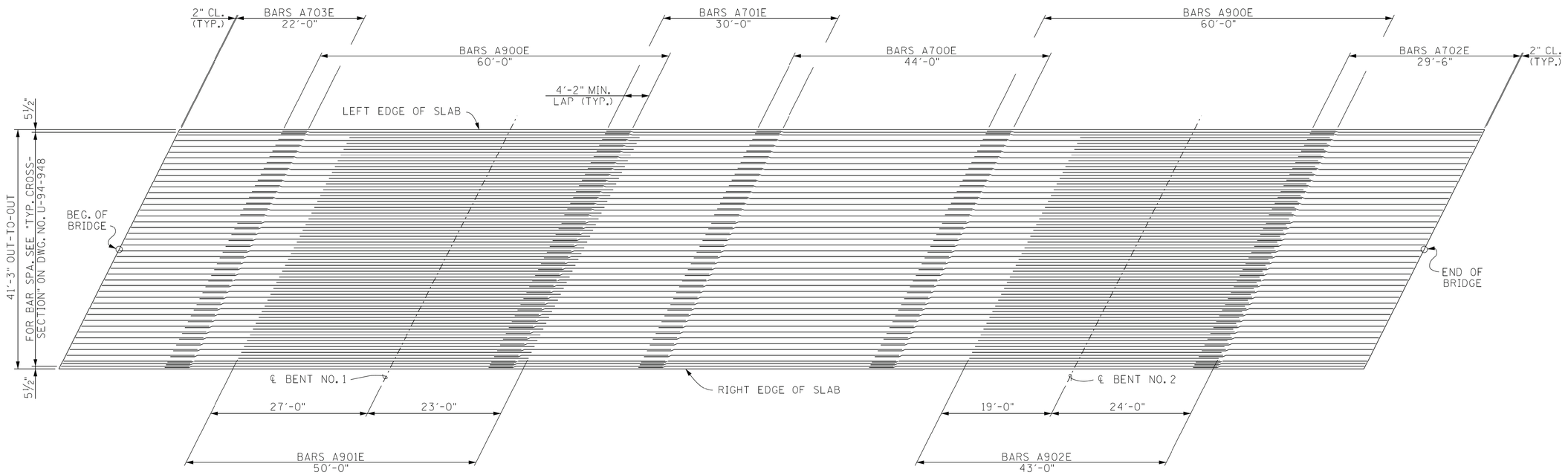
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CONST. NO.: 37455-3422-04

PROJECT NO.	YEAR	SHEET NO.
	2026	

REVISIONS

NO.	DATE	BY	BRIEF DESCRIPTION
	- -		
	- -		
	- -		
	- -		
	- -		



PLAN OF MAIN REINFORCEMENT

(SHOWING TOP OF SLAB REINFORCEMENT)

SEALED BY

JAMES RIDGE RAMSEY
REGISTERED PROFESSIONAL ENGINEER
AGRICULTURE
CERTIFICATE NO. 129648
STATE OF TENNESSEE
James R. Ramsey
6/24/2026

PIN NO.: 124369.00
DESIGN BY: ABDISALAN DAHIR DATE: 03-2022
DRAWN BY: T.R. KIRK DATE: 03-2024
SUPERVISED BY: JS/GWK DATE: 03-2024
CHECKED BY: RICK CRAWFORD DATE: 08-2024

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

SUPERSTRUCTURE DETAILS
AFG ROAD
OVER
NORFOLK SOUTHERN RAILROAD
BRIDGE ID NO. 370A3520001
STATION 107+56.70
HAWKINS COUNTY

U-94-949

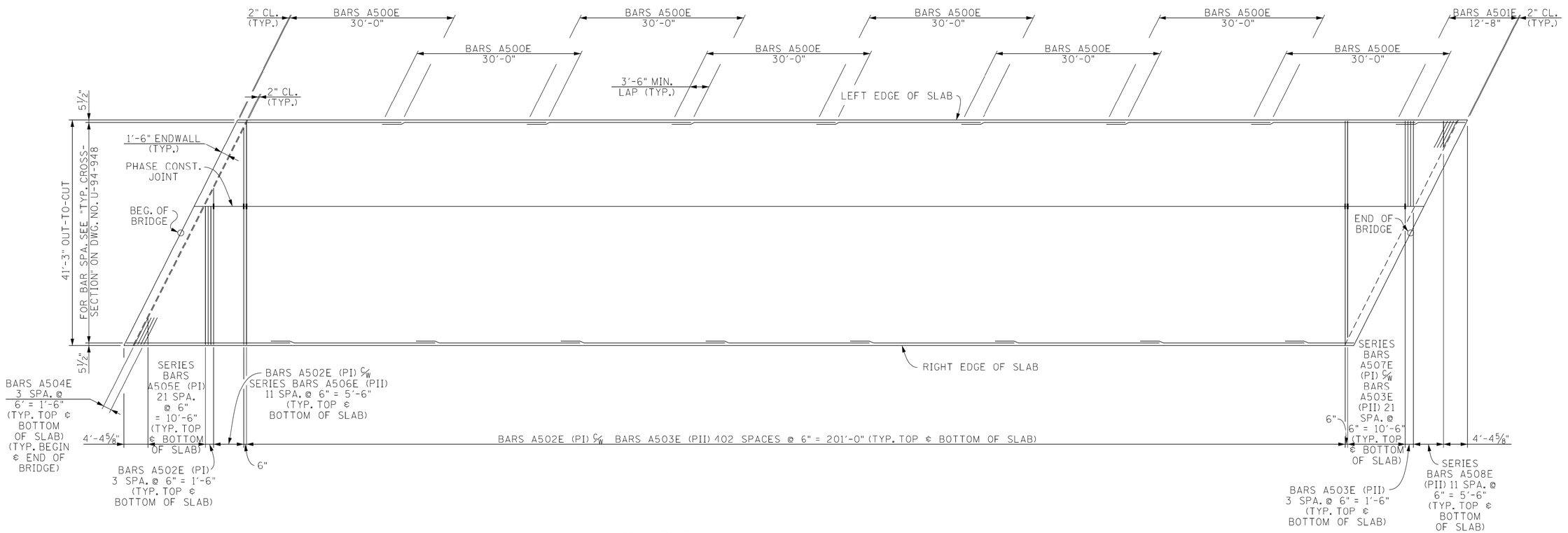
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6/24/2026

CONST. NO.: 37455-3422-04

PROJECT NO.	YEAR	SHEET NO.
	2026	

REVISIONS

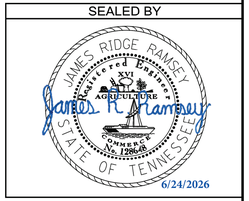
NO.	DATE	BY	BRIEF DESCRIPTION
	- -		
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SLAB PLAN

(SHOWING BOTTOM OF SLAB UNLESS OTHERWISE NOTED)

SEALED BY



STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

SUPERSTRUCTURE DETAILS
AFG ROAD
OVER
NORFOLK SOUTHERN RAILROAD
BRIDGE ID NO. 370A3520001
STATION 107+56.70
HAWKINS COUNTY

U-94-950

PIN NO.: 124369.00
DESIGN BY: ABDISALAN DAHIR DATE: 03-2022
DRAWN BY: T.R. KIRK DATE: 03-2024
SUPERVISED BY: JS/GWK DATE: 03-2024
CHECKED BY: RICK CRAWFORD DATE: 08-2024

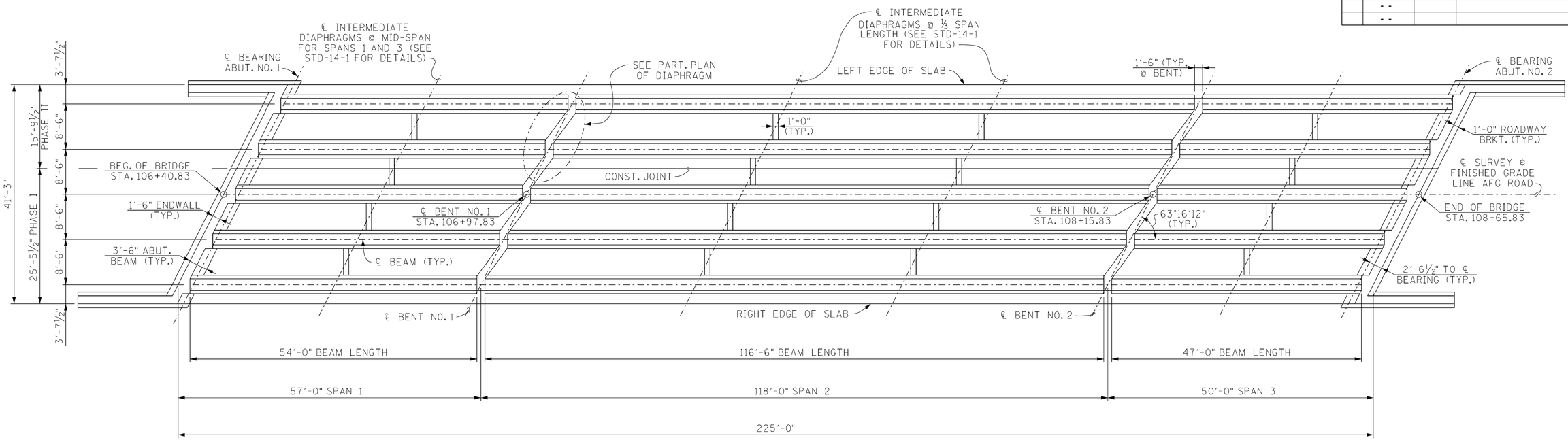
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CONST. NO.: 37455-3422-04

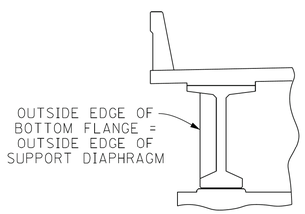
PROJECT NO.	YEAR	SHEET NO.
	2026	

REVISIONS

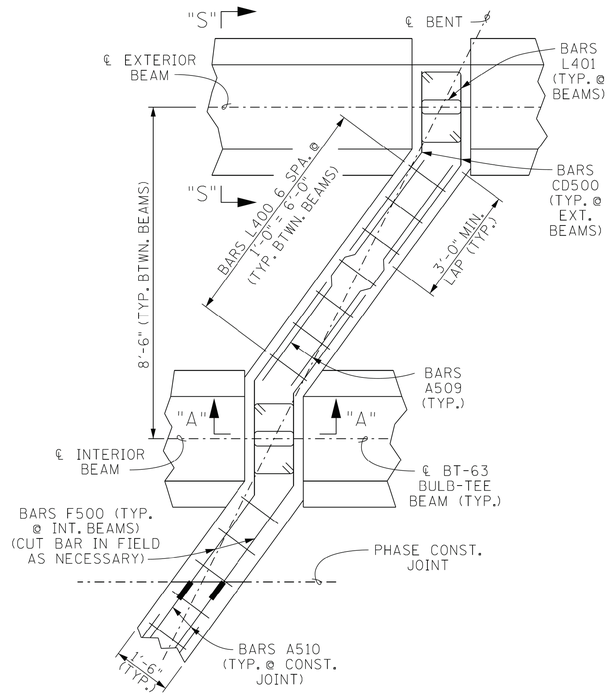
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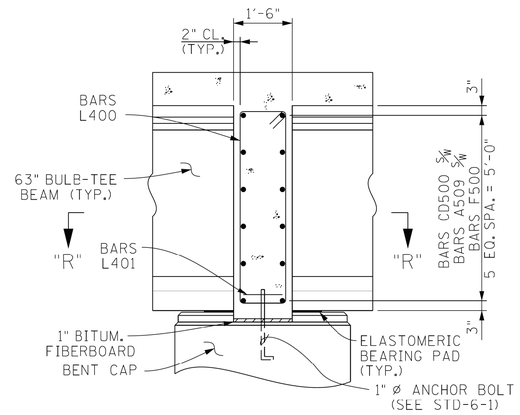
FRAMING PLAN



SECTION "S"-"S"

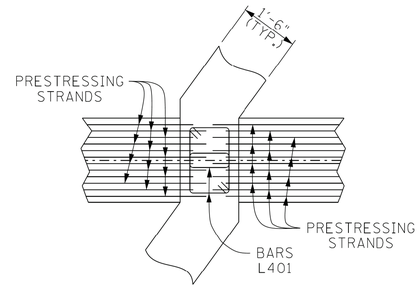


PARTIAL PLAN OF DIAPHRAGM



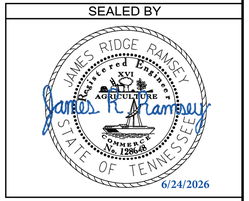
SECTION "A"-"A"

SPECIAL NOTE FOR ANCHOR BOLTS AT BENTS:
ANCHOR BOLT ASSEMBLIES AT BENTS SHALL BE IN ACCORDANCE WITH STANDARD DRAWING STD-6-1.



SECTION "R"-"R"

SEALED BY



PIN NO.: 124369.00

DESIGN BY: ABDISALAN DAHIR	DATE:	03-2022
DRAWN BY: T.R. KIRK	DATE:	03-2024
SUPERVISED BY: JS/GWK	DATE:	03-2024
CHECKED BY: RICK CRAWFORD	DATE:	08-2024

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

SUPERSTRUCTURE DETAILS
AFG ROAD
OVER
NORFOLK SOUTHERN RAILROAD
BRIDGE ID NO. 370A3520001
STATION 107+56.70
HAWKINS COUNTY

U-94-951

8:13:53 AM

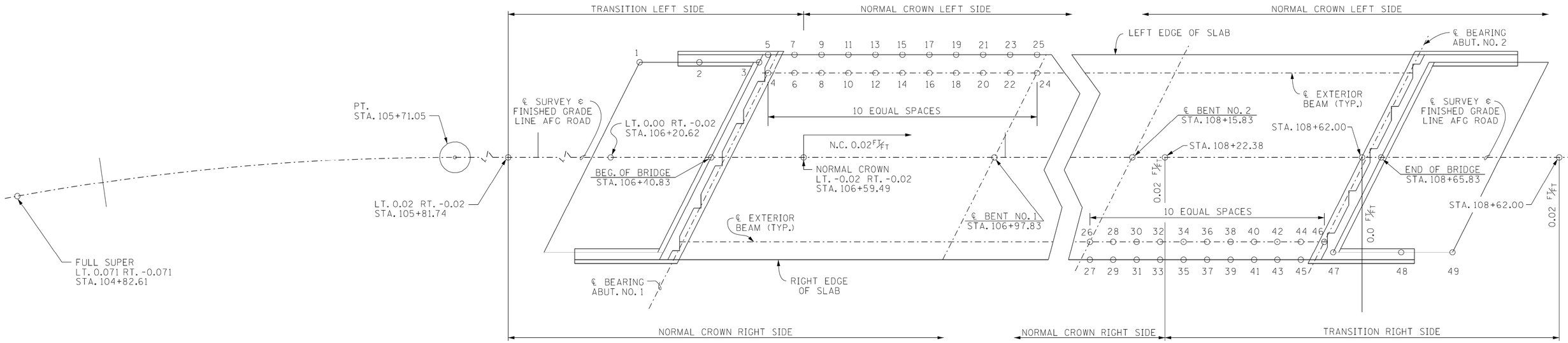
6/24/2026

CONST. NO.: 37455-3422-04

PROJECT NO.	YEAR	SHEET NO.
	2026	

REVISIONS

NO.	DATE	BY	BRIEF DESCRIPTION
	- -		
	- -		
	- -		
	- -		
	- -		



BRIDGE SCREED

POINT	STATION	ELEVATION	POINT	STATION	ELEVATION	POINT	STATION	ELEVATION	POINT	STATION	ELEVATION	POINT	STATION	ELEVATION
1	106+26.46	1244.08	11	106+68.48	1243.10	21	106+95.56	1242.69	31	108+16.70	1240.87	41	108+40.28	1240.69
2	106+38.46	1243.78	12	106+73.90	1243.09	22	107-00.10	1242.69	32	108+21.41	1240.87	42	108+44.99	1240.68
3	106+50.46	1243.48	13	106+73.90	1243.01	23	107-00.10	1242.62	33	108+21.41	1240.80	43	108+44.99	1240.65
4	106+52.24	1243.47	14	106+79.31	1243.01	24	107+06.39	1242.60	34	108+26.13	1240.84	44	108+49.71	1240.63
5	106+52.24	1243.42	15	106+79.31	1242.93	25	107+06.39	1242.53	35	108+26.13	1240.77	45	108+49.71	1240.61
6	106+57.65	1243.35	16	106+84.73	1242.92	26	108+07.27	1241.09	36	108+30.85	1240.80	46	108+54.43	1240.57
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SEALED BY

JAMES RIDGE RAMSEY
LICENSED PROFESSIONAL ENGINEER
XVI
AGRICULTURE
COMMERCE
1796
STATE OF TENNESSEE
James R. Ramsey
6/24/2026

BRIDGE SCREED TABLE

PIN NO.: 124369.00
DESIGN BY: ABDISALAN DAHIR DATE: 03-2022
DRAWN BY: T.R. KIRK DATE: 07-2024
SUPERVISED BY: JS/GWK DATE: 03-2024
CHECKED BY: RICK CRAWFORD DATE: 08-2024

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

SCREED DETAILS
AFG ROAD
OVER
NORFOLK SOUTHERN RAILROAD
BRIDGE ID NO. 370A3520001
STATION 107+56.70
HAWKINS COUNTY

U-94-952

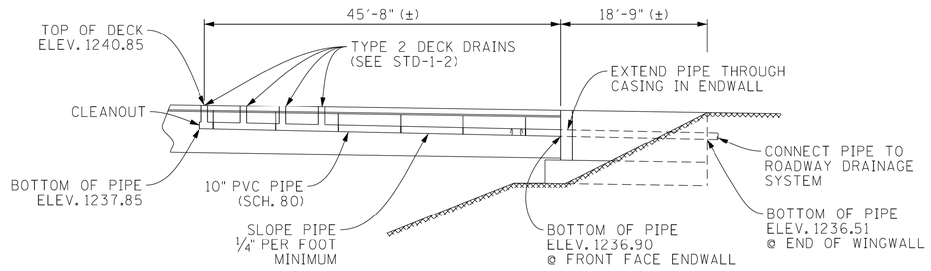
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CONST. NO.: 37455-3422-04

PROJECT NO.	YEAR	SHEET NO.
	2026	

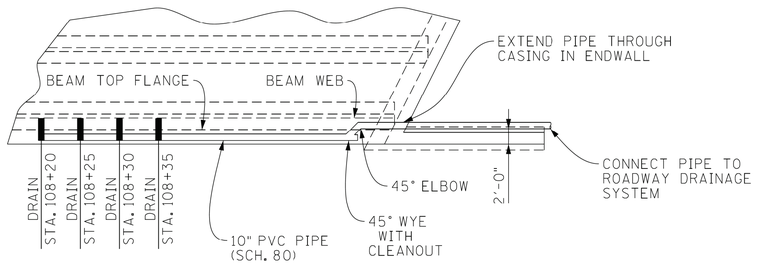
REVISIONS

NO.	DATE	BY	BRIEF DESCRIPTION
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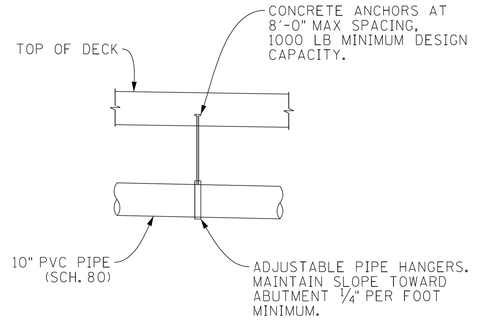
BRIDGE DECK DRAIN ELEVATION

(PARAPET NOT SHOWN FOR CLARITY)

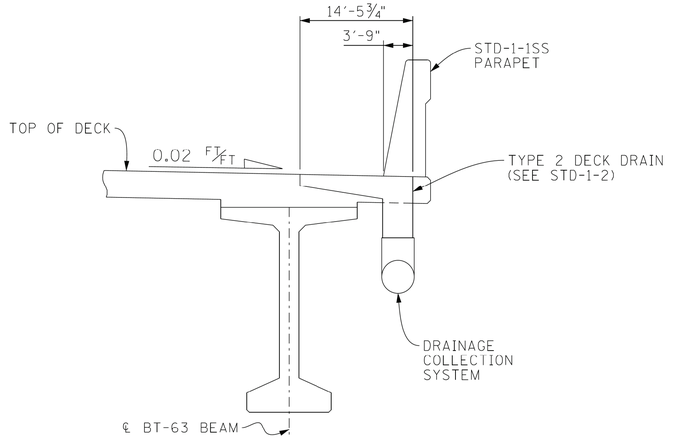


BRIDGE DECK DRAIN LAYOUT

(PARAPET NOT SHOWN FOR CLARITY)

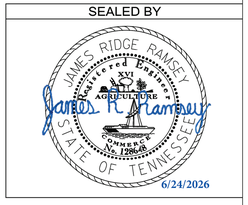


HANGER DETAIL



CRATE DRAIN SECTION

SEALED BY



PIN NO.: 124369.00

DESIGN BY: ABDISALAN DAHIR DATE: 03-2022

DRAWN BY: (J.S.) A. HUNTER DATE: 07-2024

SUPERVISED BY: JS/GWK DATE: 03-2024

CHECKED BY: RICK CRAWFORD DATE: 08-2024

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

DRAINAGE COLLECTION SYSTEM
AFG ROAD
OVER
NORFOLK SOUTHERN RAILROAD
BRIDGE ID NO. 370A3520001
STATION 107+56.70
HAWKINS COUNTY

U-94-953

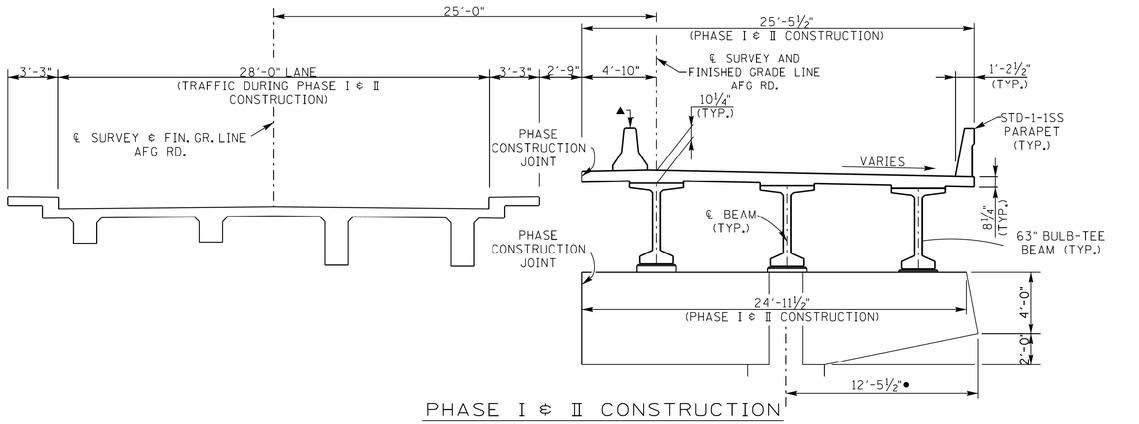
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CONST. NO.: 37455-3422-04

PROJECT NO.	YEAR	SHEET NO.
	2026	

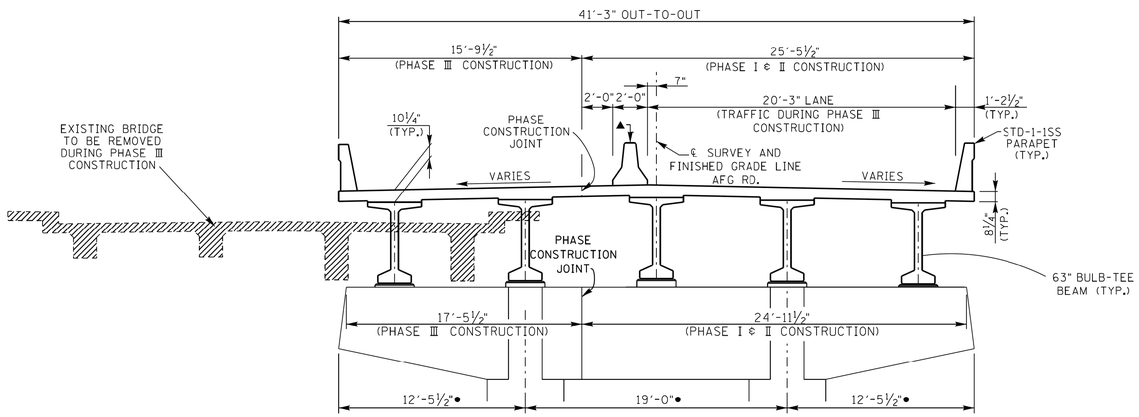
REVISIONS

NO.	DATE	BY	BRIEF DESCRIPTION
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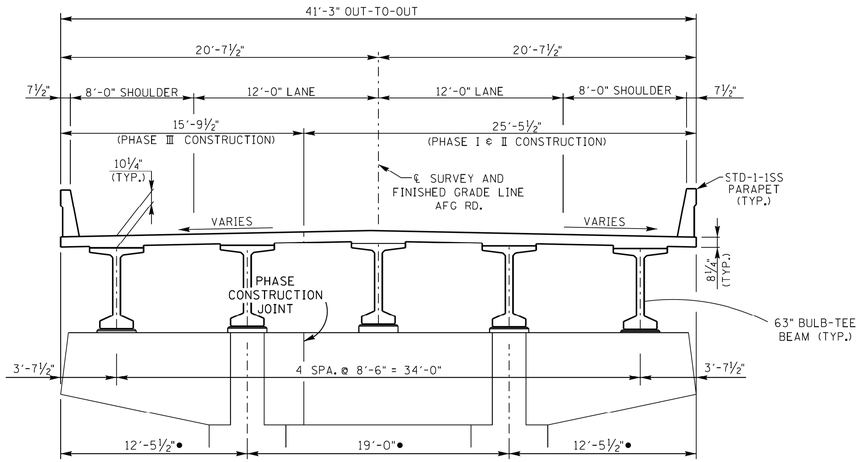
PHASE I & II CONSTRUCTION

(LOOKING FORWARD ON SURVEY)



PHASE III CONSTRUCTION

(LOOKING FORWARD ON SURVEY)



TYPICAL CROSS-SECTION

(LOOKING FORWARD ON SURVEY)

BRIDGE CONSTRUCTION SEQUENCE: LABELING SHOWN IN THIS PLAN SET DOES NOT DIRECTLY CORRESPOND TO LABELING SHOWN ON TRAFFIC CONTROL PLANS. IT IS THE CONTRACTOR'S RESPONSIBILITY TO REVIEW ALL PLAN SETS AND ENSURE THAT THE PROPOSED SEQUENCE OF CONSTRUCTION MAINTAINS TRAFFIC OPERATIONS AS REQUIRED IN THE TRAFFIC CONTROL PLANS.

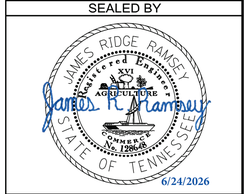
NOTE: EXISTING STRUCTURE INDICATED BY DASHED LINES.

NOTE: HATCHED AREA DENOTES EXISTING STRUCTURE TO BE REMOVED DURING PHASE II CONSTRUCTION.

▲ DENOTES: INTERCONNECTED PORTABLE BARRIER RAIL.

● DENOTES: DIMENSIONS MEASURED ALONG THE SKEW.

SEALED BY



STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

PHASE CONSTRUCTION DETAIL
AFG ROAD
OVER
NORFOLK SOUTHERN RAILROAD
BRIDGE ID NO. 370A3520001
STATION 107+56.70
HAWKINS COUNTY

U-94-954

PIN NO.: 124369.00
DESIGN BY: ABDISALAN DAHIR DATE: 03-2022
DRAWN BY: RODNEY CHANDLER DATE: 08-2024
SUPERVISED BY: JS/GWK DATE: 03-2024
CHECKED BY: RICK CRAWFORD DATE: 08-2024

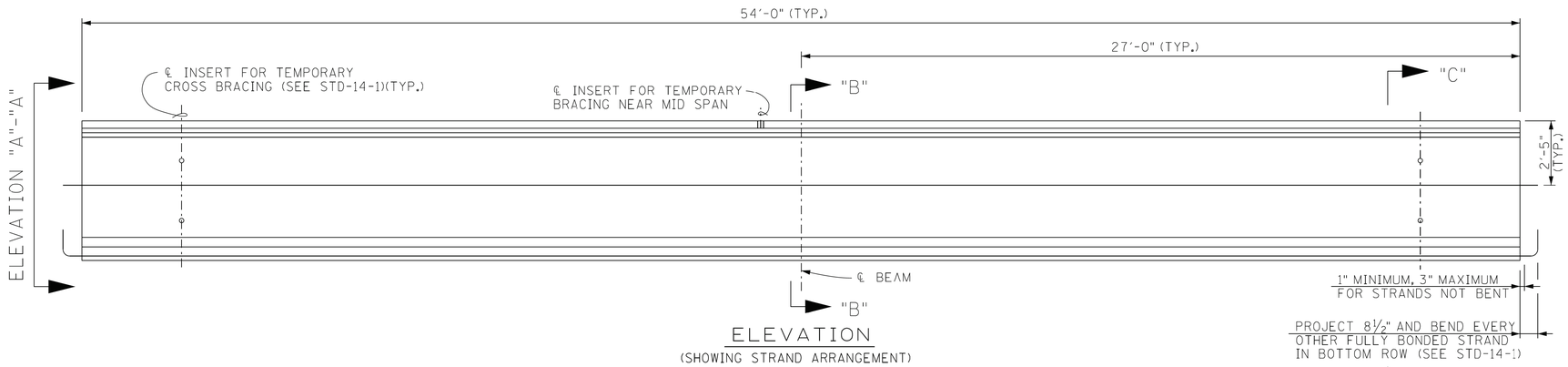
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CONST. NO.: 37455-3422-04

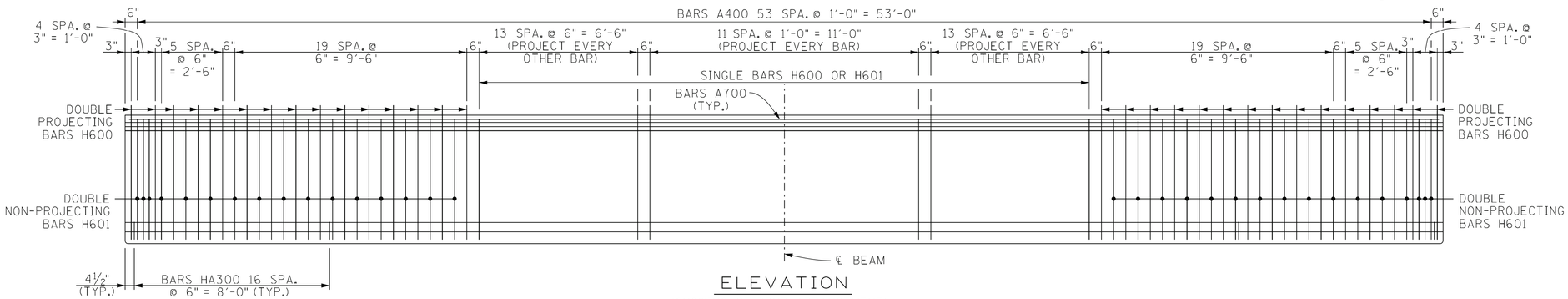
PROJECT NO.	YEAR	SHEET NO.
	2026	

REVISIONS

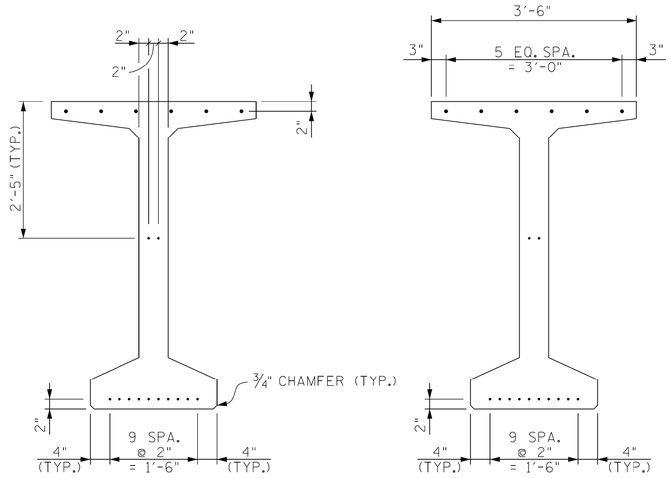
NO.	DATE	BY	BRIEF DESCRIPTION
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ELEVATION
(SHOWING STRAND ARRANGEMENT)

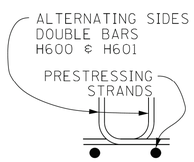


ELEVATION
(SHOWING STIRRUP ARRANGEMENT)

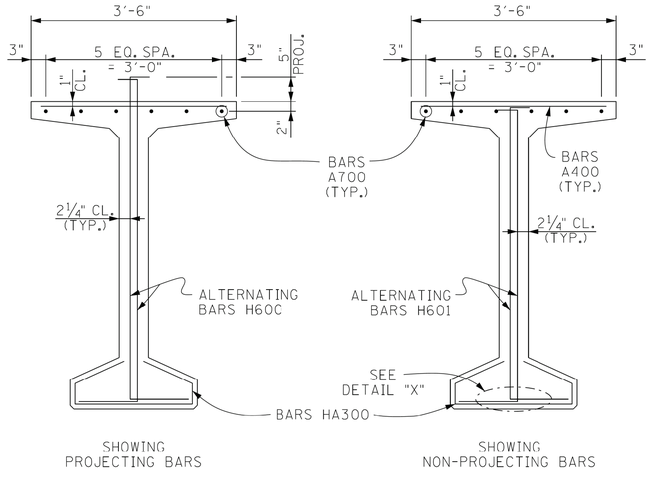


TOTAL NUMBER OF STRANDS = 12

ELEVATION "A"-"A"

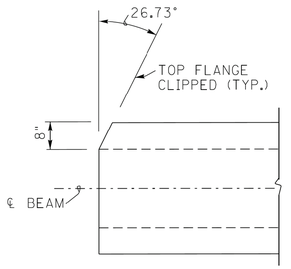


DETAIL "X"

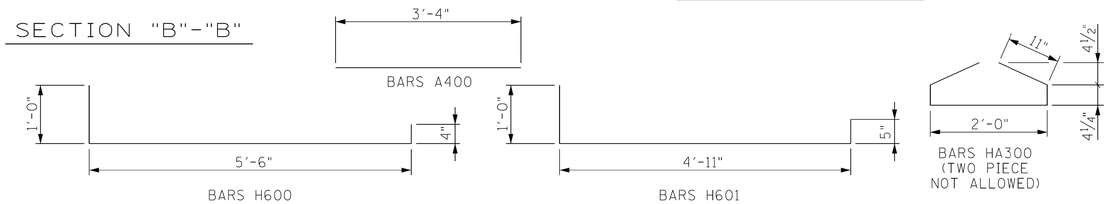


SECTION "C"-"C"

BILL OF STEEL PER BEAM			
BARS	SIZE	NO. REQ'D	LENGTH
A400	4	54	3'-2"
A700	7	6	53'-8"
H600	6	80	6'-10"
H601	6	84	6'-4"
HA300	3	34	4'-6 1/2"



BEAM CLIP DETAIL



SECTION "B"-"B"

NOTES

NOTE: SEE STD-14-1 FOR BULB-TEE BEAM STANDARD DETAILS, NOTES AND REINFORCING.
NOTE: THE PRESTRESSED BEAMS SHALL ATTAIN AN AGE OF AT LEAST 90 DAYS PRIOR TO POURING THE SUPPORT DIAPHRAGMS (EXCLUDING BOTTOM 15") AND DECK SLAB.
NOTE: ALL BEAMS ARE BULB-TEE BT-63.
NOTE: THE CONCRETE FOR THIS CONSTRUCTION SHALL BE OF SUCH PROPERTIES AS TO ATTAIN A COMPRESSIVE STRENGTH OF NOT LESS THAN 10000 PSI AT THE AGE OF 28 DAYS AND STRESS TRANSFER SHALL NOT BE MADE TO THE BRIDGE MEMBER UNTIL THE TEST SPECIMENS INDICATE THAT THE CONCRETE HAS REACHED A COMPRESSIVE STRENGTH OF AT LEAST 9000 PSI. SEE GENERAL NOTES FOR CONCRETE FINISHING NOTE.

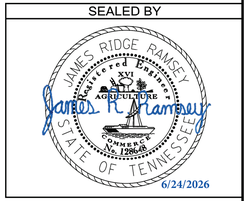
PRESTRESSING STRANDS: ALL STRANDS SHALL BE 6/10" DIAMETER, UNCOATED 7- WIRE STRANDS, ASTM A416 GRADE 270, LOW-LAX, A = 0.217 SQ. IN. PULLED TO 43,943 LBS. PER STRAND UNLESS OTHERWISE NOTED.

PRESTRESSED BEAM DESIGN DATA (PER BEAM):
All Spans
LIVE LOAD DISTRIBUTION FACTOR: MOMENT = 0.86 LANES
SHEAR = 0.93 LANES

SPAN 1
COMPOSITE DEAD LOAD: DC = 155 LB/FT
DW = 289 LB/FT
COMPOSITE SLAB DESIGN STRENGTH: F 'C = 4000 PSI
DOWNWARD DEFLECTION UNDER TOTAL DL IS NOT ALLOWED.

ESTIMATED QUANTITIES PER BEAM			
NO. BEAMS REQ'D	PRESTRESSING STRANDS (LOW RELAXATION) LB.	CONCRETE CLASS "A" C.Y.	REINFORCING STEEL LB.
5	506	10	2451

SEALED BY



PIN NO.: 124369.00
DESIGN BY: ABDISALAN DAHIR DATE: 03-2022
DRAWN BY: T.R. KIRK DATE: 03-2024
SUPERVISED BY: JS/GWK DATE: 03-2024
CHECKED BY: RICK CRAWFORD DATE: 08-2024

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

BULB-TEE BEAM DETAILS SPAN 1
AFG ROAD
OVER
NORFOLK SOUTHERN RAILROAD
BRIDGE ID NO. 370A3520001
STATION 107+56.70
HAWKINS COUNTY

U-94-955

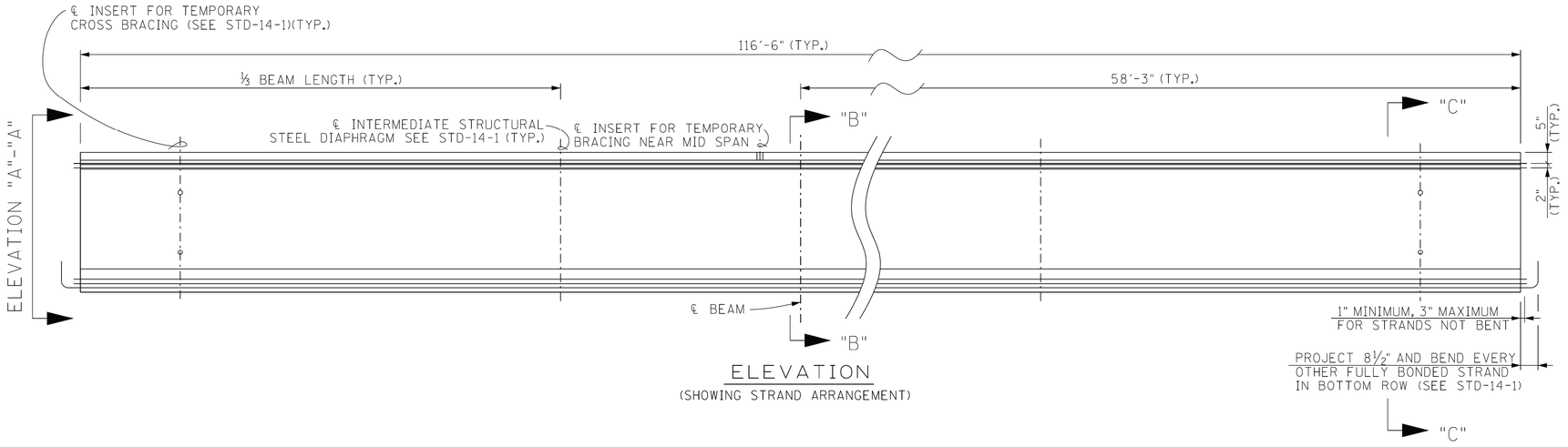
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CONST. NO.: 37455-3422-04

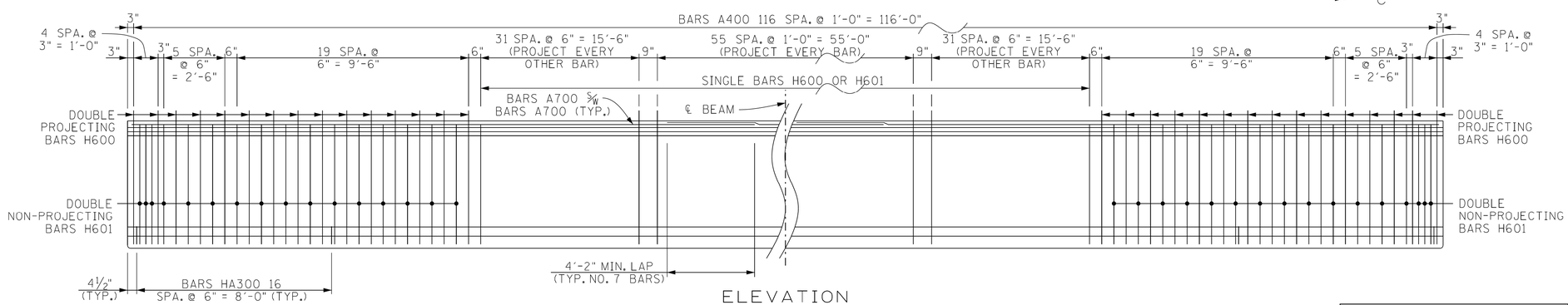
PROJECT NO.	YEAR	SHEET NO.
	2026	

REVISIONS

NO.	DATE	BY	BRIEF DESCRIPTION
	- -		
	- -		
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	- -		
	- -		



ELEVATION
(SHOWING STRAND ARRANGEMENT)



ELEVATION
(SHOWING STIRRUP ARRANGEMENT)

BILL OF STEEL PER BEAM			
BARS	SIZE	NO. REQ'D	LENGTH
A400	4	117	3'-2"
A700	7	18	41'-6"
H600	6	121	6'-10"
H601	6	124	6'-4"
HA300	3	34	4'-6 1/2"

ESTIMATED QUANTITIES PER BEAM			
NO. BEAMS REQ'D	PRESTRESSING STRANDS (LOW RELAXATION) LB.	CONCRETE CLASS "A" C.Y.	REINFORCING STEEL LB.
5	2974	21	4254

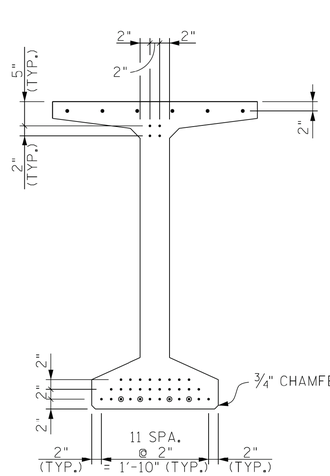
NOTES

NOTE: SEE STD-14-1 FOR BULB-TEE BEAM STANDARD DETAILS, NOTES AND REINFORCING.
NOTE: THE PRESTRESSED BEAMS SHALL ATTAIN AN AGE OF AT LEAST 90 DAYS PRIOR TO POURING THE SUPPORT DIAPHRAGMS (EXCLUDING BOTTOM 15") AND DECK SLAB.
NOTE: ALL BEAMS ARE BULB-TEE BT-63.
NOTE: THE CONCRETE FOR THIS CONSTRUCTION SHALL BE OF SUCH PROPERTIES AS TO ATTAIN A COMPRESSIVE STRENGTH OF NOT LESS THAN 10000 PSI AT THE AGE OF 28 DAYS AND STRESS TRANSFER SHALL NOT BE MADE TO THE BRIDGE MEMBER UNTIL THE TEST SPECIMENS INDICATE THAT THE CONCRETE HAS REACHED A COMPRESSIVE STRENGTH OF AT LEAST 9000 PSI. SEE GENERAL NOTES FOR CONCRETE FINISHING NOTE.

PRESTRESSING STRANDS: ALL STRANDS SHALL BE 6/10" DIAMETER, UNCOATED 7- WIRE STRANDS, ASTM A416 GRADE 270, LOW-LAX, A = 0.217 SQ. IN. PULLED TO 43,943 LBS. PER STRAND UNLESS OTHERWISE NOTED.

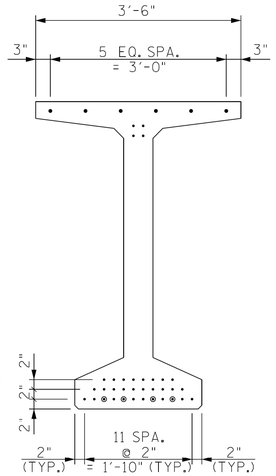
PRESTRESSED BEAM DESIGN DATA (PER BEAM):
All Spans
LIVE LOAD DISTRIBUTION FACTOR: MOMENT = 0.86 LANES
SHEAR = 0.93 LANES

SPAN 1
COMPOSITE DEAD LOAD: DC = 155 LB/FT
DW = 289 LB/FT
COMPOSITE SLAB DESIGN STRENGTH: F 'C = 4000 PSI
DOWNWARD DEFLECTION UNDER TOTAL DL IS NOT ALLOWED.



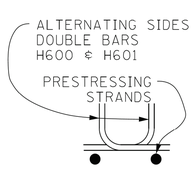
℄ DENOTES: DEBOND 4'-0" FROM EACH END

ELEVATION "A"-"A"

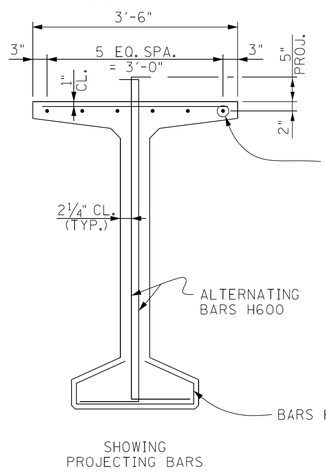


TOTAL NUMBER OF STRANDS = 34

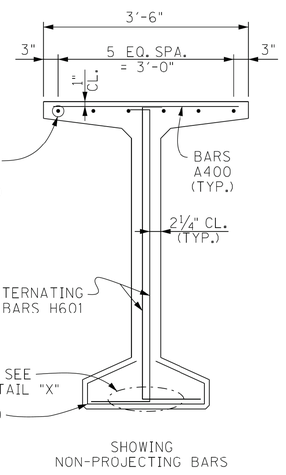
SECTION "B"-"B"



DETAIL "X"

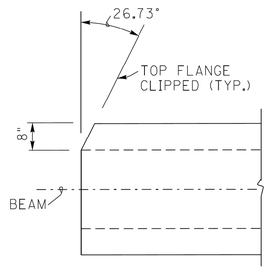


SHOWING PROJECTING BARS



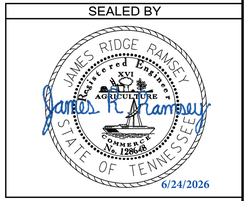
SHOWING NON-PROJECTING BARS

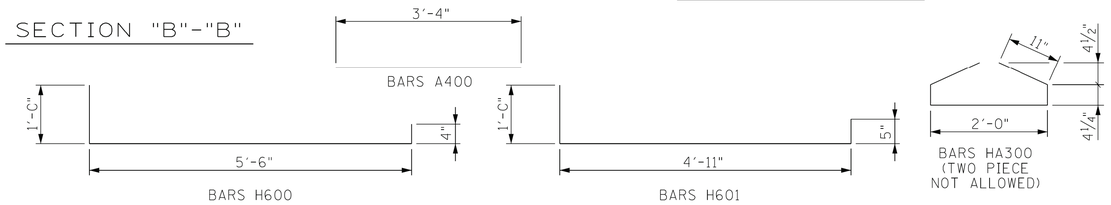
SECTION "C"-"C"



BEAM CLIP DETAIL

SEALED BY





PIN NO.: 124369.00
DESIGN BY: ABDISALAN DAHIR DATE: 03-2022
DRAWN BY: T.R. KIRK DATE: 03-2024
SUPERVISED BY: JS/GWK DATE: 03-2024
CHECKED BY: RICK CRAWFORD DATE: 08-2024

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

BULB-TEE BEAM DETAILS SPAN 2
AFG ROAD
OVER
NORFOLK SOUTHERN RAILROAD
BRIDGE ID NO. 370A3520001
STATION 107+56.70
HAWKINS COUNTY

U-94-956

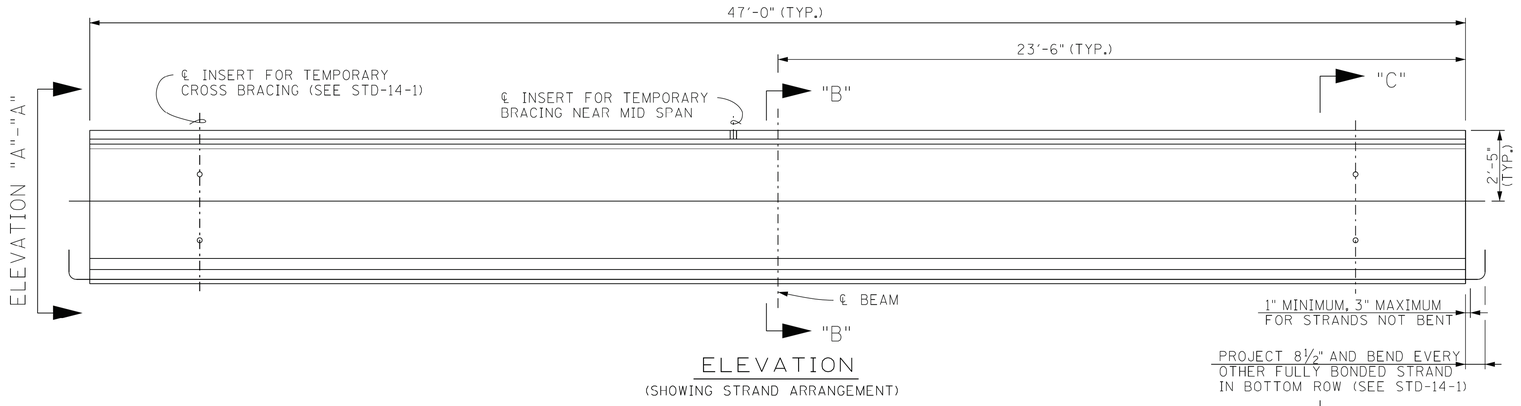
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CONST. NO.: 37455-3422-04

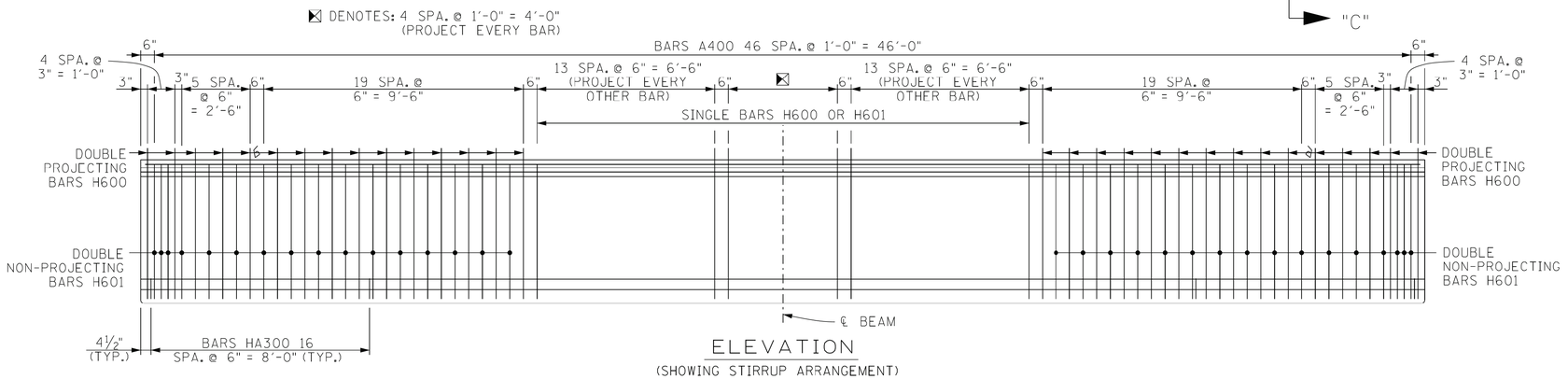
PROJECT NO.	YEAR	SHEET NO.
	2026	

REVISIONS

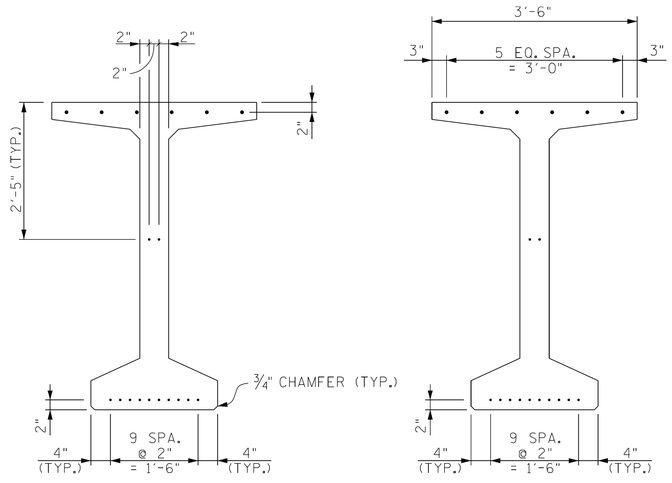
NO.	DATE	BY	BRIEF DESCRIPTION
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ELEVATION
(SHOWING STRAND ARRANGEMENT)

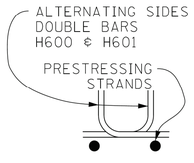


ELEVATION
(SHOWING STIRRUP ARRANGEMENT)

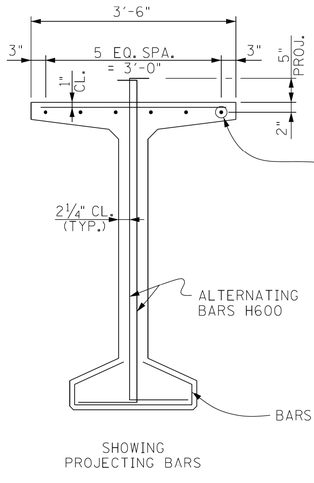


TOTAL NUMBER OF STRANDS = 12

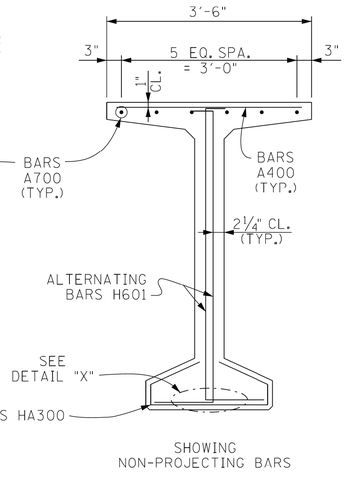
ELEVATION "A"-"A"



DETAIL "X"

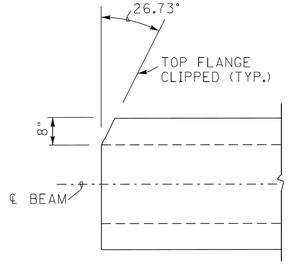


SHOWING PROJECTING BARS



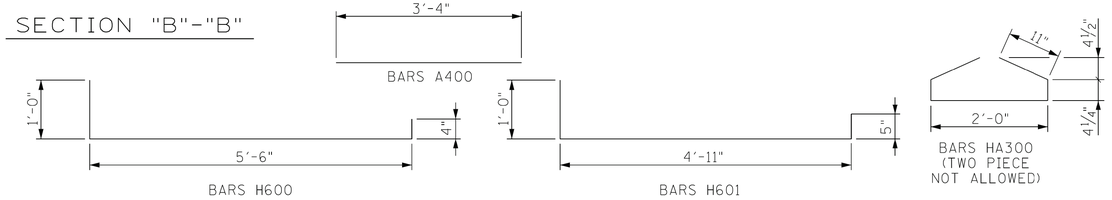
SHOWING NON-PROJECTING BARS

SECTION "C"-"C"



BEAM CLIP DETAIL

SECTION "B"-"B"



NOTES

NOTE: SEE STD-14-1 FOR BULB-TEE BEAM STANDARD DETAILS, NOTES AND REINFORCING.
NOTE: THE PRESTRESSED BEAMS SHALL ATTAIN AN AGE OF AT LEAST 90 DAYS PRIOR TO POURING THE SUPPORT DIAPHRAGMS (EXCLUDING BOTTOM 15") AND DECK SLAB.
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PRESTRESSING STRANDS: ALL STRANDS SHALL BE 6/10" DIAMETER, UNCOATED 7- WIRE STRANDS, ASTM A416 GRADE 270, LOW-LAX, A = 0.217 SQ. IN. PULLED TO 43,943 LBS. PER STRAND UNLESS OTHERWISE NOTED.

PRESTRESSED BEAM DESIGN DATA (PER BEAM):
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LIVE LOAD DISTRIBUTION FACTOR: MOMENT = 0.86 LANES
SHEAR = 0.93 LANES
SPAN 1
COMPOSITE DEAD LOAD: DC = 155 LB/FT
DW = 289 LB/FT
COMPOSITE SLAB DESIGN STRENGTH: F 'C = 4000 PSI
DOWNWARD DEFLECTION UNDER TOTAL DL IS NOT ALLOWED.

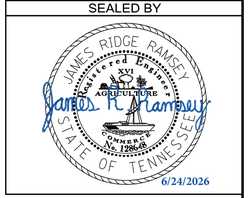
BILL OF STEEL PER BEAM

BARS	SIZE	NO. REQ'D	LENGTH
A400	4	47	3'-2"
A700	7	6	46'-8"
H600	6	77	6'-10"
H601	6	80	6'-4"
HA300	3	34	4'-6 1/2"

ESTIMATED QUANTITIES PER BEAM

NO. BEAMS REQ'D	PRESTRESSING STRANDS (LOW RELAXATION) LB.	CONCRETE CLASS "A" C.Y.	REINFORCING STEEL LB.
5	444	9	2281

SEALED BY



PIN NO.: 124369.00
DESIGN BY: ABDISALAN DAHIR DATE: 03-2022
DRAWN BY: T.R. KIRK DATE: 03-2024
SUPERVISED BY: JS/GWK DATE: 03-2024
CHECKED BY: RICK CRAWFORD DATE: 08-2024

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

BULB-TEE BEAM DETAILS SPAN 3
AFG ROAD
OVER
NORFOLK SOUTHERN RAILROAD
BRIDGE ID NO. 370A3520001
STATION 107+56.70
HAWKINS COUNTY

U-94-957

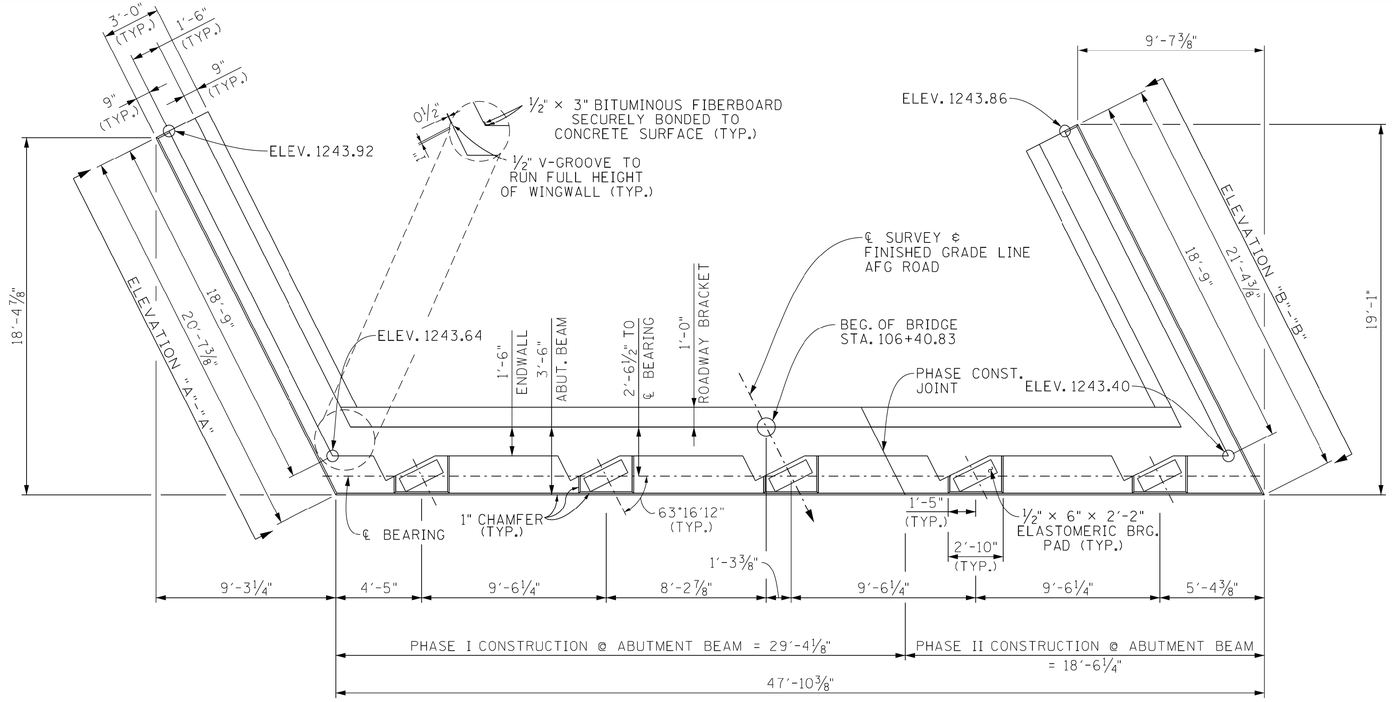
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CONST. NO.: 37455-3422-04

PROJECT NO.	YEAR	SHEET NO.
	2026	

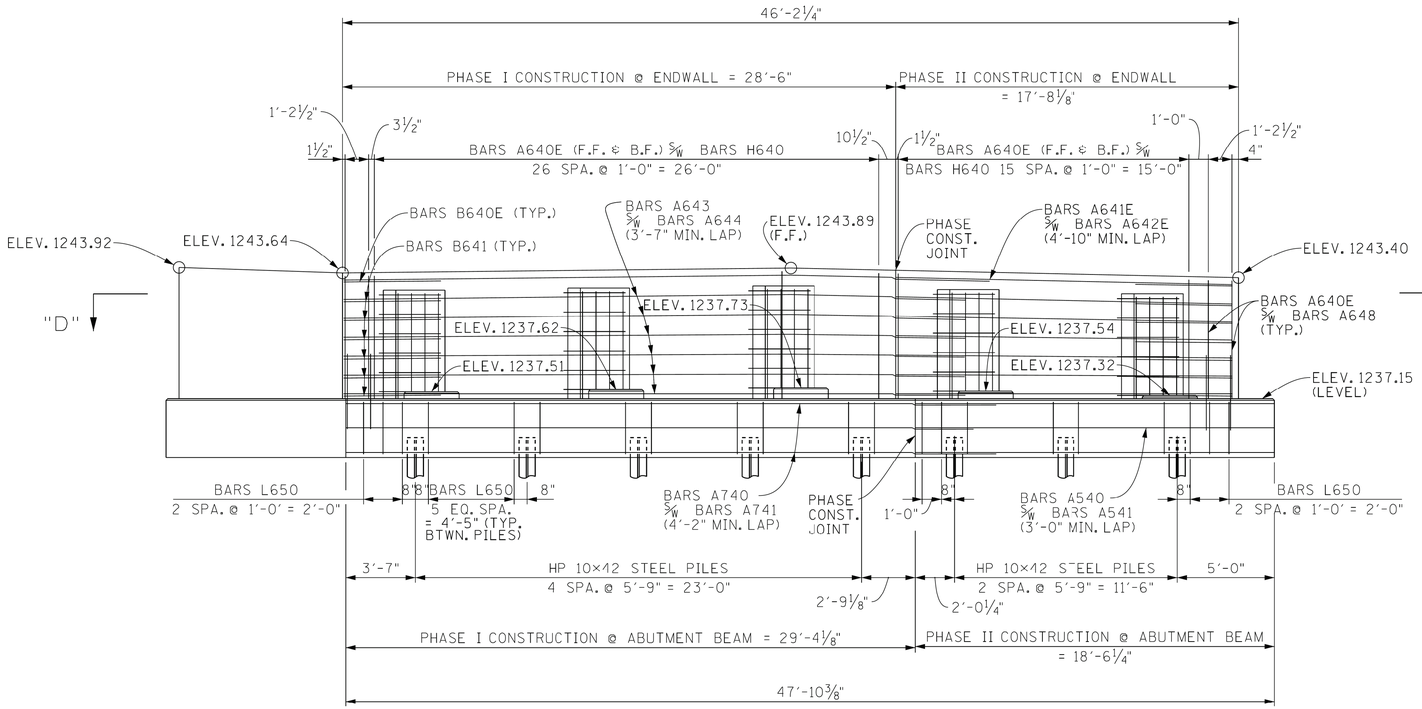
REVISIONS

NO.	DATE	BY	BRIEF DESCRIPTION
	- -		
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	- -		
	- -		



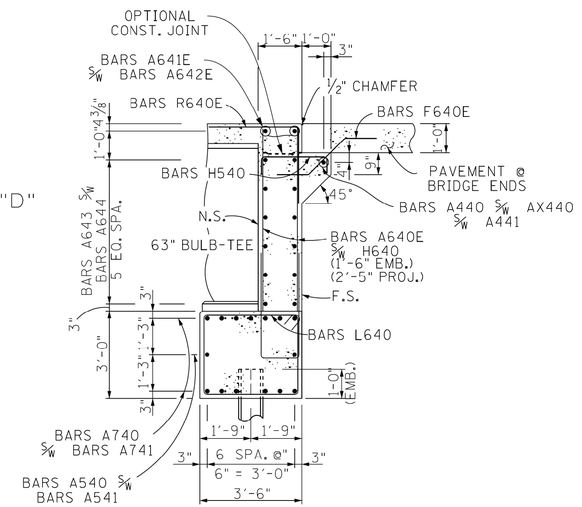
PLAN

F.F. DENOTES: FRONT FACE
B.F. DENOTES: BACK FACE



ELEVATION
(LOOKING BACK ON SURVEY)

"C"



SECTION "C"-"C"

SEALED BY

JAMES RIDGE RAMSEY
Registered Engineer
AGRICULTURE
No. 126648
STATE OF TENNESSEE
6/24/2026

NOTES

NOTE: RISER BLOCKS SHALL BE POURED MONOLITHICALLY WITH THE ABUTMENT BEAM.

NOTE: RISER BLOCK BEARING SURFACE TO CONFORM TO BOTTOM OF BEAM GRADE.

NOTE: ELASTOMERIC PADS SHALL BE IN PLACE A MINIMUM OF ONE DAY BEFORE BEING DISTURBED BY SETTING BEAMS. PLACE RUBBER BONDING CEMENT IN SUCH A WAY THAT VISIBLE CONCRETE SURFACES WILL NOT BE STAINED.

NOTE: WHEN POURING WINGWALLS, PROVISIONS SHALL BE MADE FOR SETTING REINFORCING STEEL FOR WINGPOSTS AND PARAPETS. FOR DETAILS OF WINGPOSTS AND PARAPETS, SEE STD. DWG. NO. STD-1-1SS.

NOTE: NOT LESS THAN HALF OF THE SLAB IN THE END SPANS SHALL BE POURED PRIOR TO, OR CONCURRENTLY WITH, PLACEMENT OF ANY PART OF THE ABUTMENT ENDWALLS. AT LEAST THE TOP 12 INCHES OF THE ENDWALLS SHALL BE POURED CONCURRENTLY WITH THE END OF SLAB.

NOTE: COST OF PARAPET AND POST IS TO BE INCLUDED IN THE UNIT PRICE BID FOR THE PARAPET SYSTEM.

NOTE: SEE STANDARD DRAWING STD-6-1 FOR PILE DETAILS AND NOTES.

NOTE: WINGBEAM PILES SHALL BE DRIVEN TO THE PLANS TIP ELEVATION OR REFUSAL. SEISMIC ATTACHMENT IS NOT REQUIRED FOR WINGBEAM PILES.

PIN NO.: 124369.00
DESIGN BY: ABDISALAN DAHIR DATE: 03-2022
DRAWN BY: F. BARTON DATE: 04-2024
SUPERVISED BY: JS/GWK DATE: 03-2024
CHECKED BY: RICK CRAWFORD DATE: 08-2024

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

ABUTMENT NO. 1
AFG ROAD
OVER
NORFOLK SOUTHERN RAILROAD
BRIDGE ID NO. 370A3520001
STATION 107+56.70
HAWKINS COUNTY

U-94-958

6/23/2026 2:30:54 PM

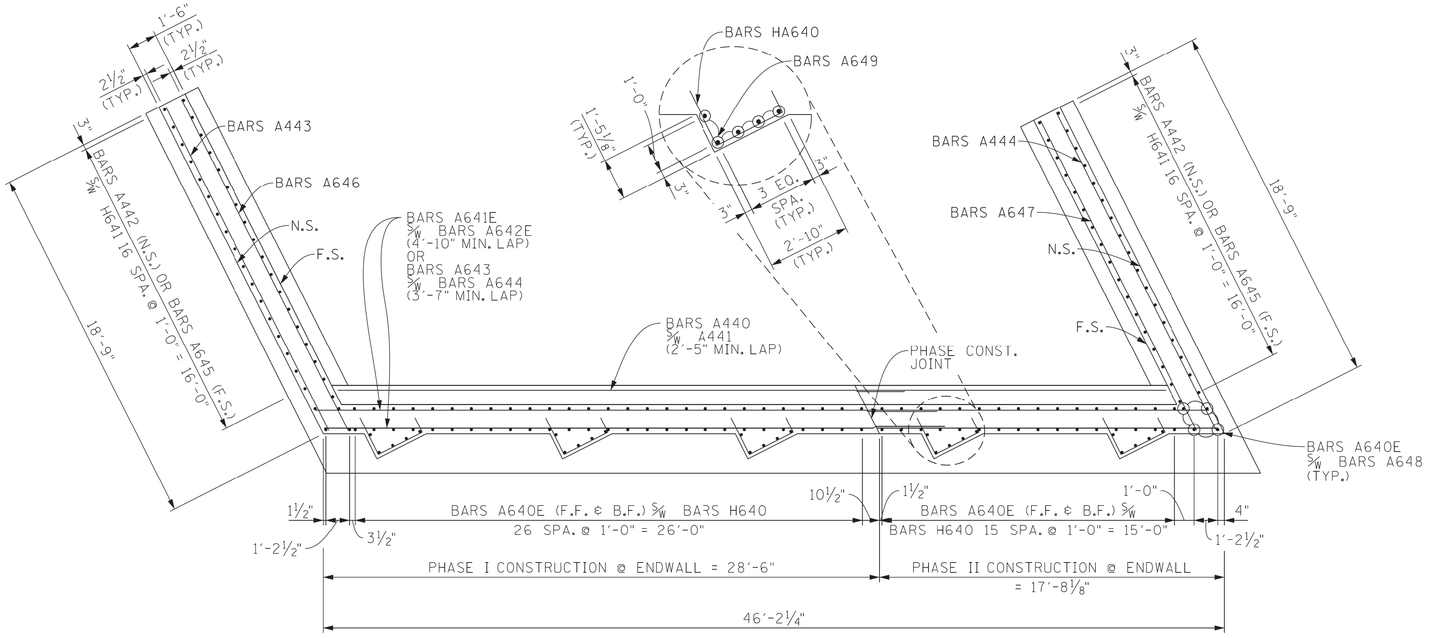
CONST. NO.: 37455-3422-04

PROJECT NO.	YEAR	SHEET NO.
	2026	

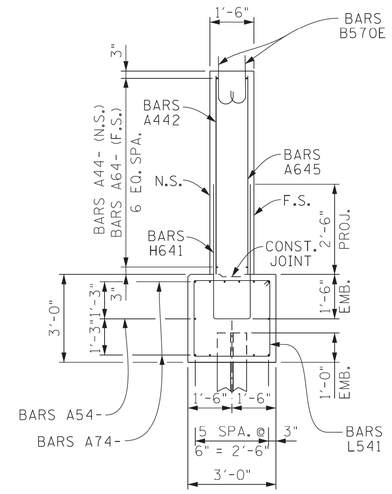
REVISIONS

NO.	DATE	BY	BRIEF DESCRIPTION
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	- -		
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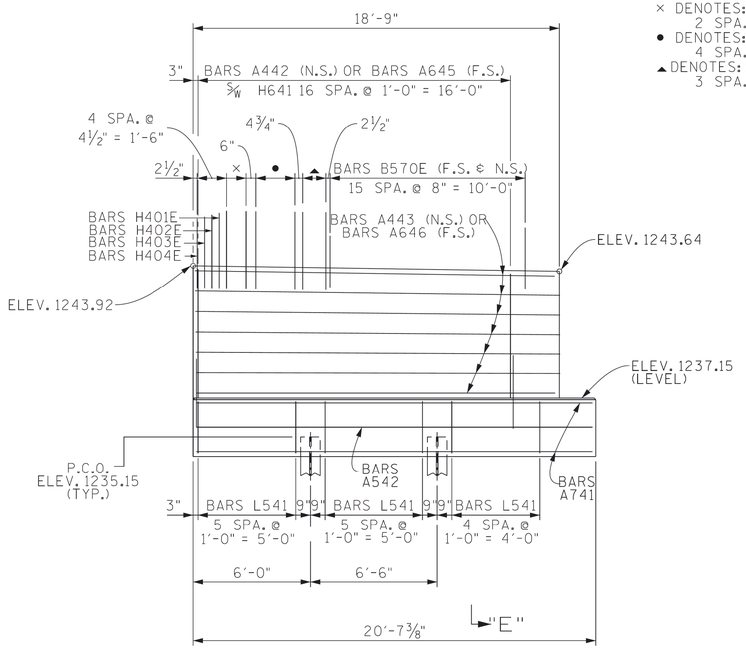
F.F. DENOTES: FRONT FACE
B.F. DENOTES: BACK FACE
N.S. DENOTES: NEAR SIDE
F.S. DENOTES: FAR SIDE



SECTION "D"-"D"

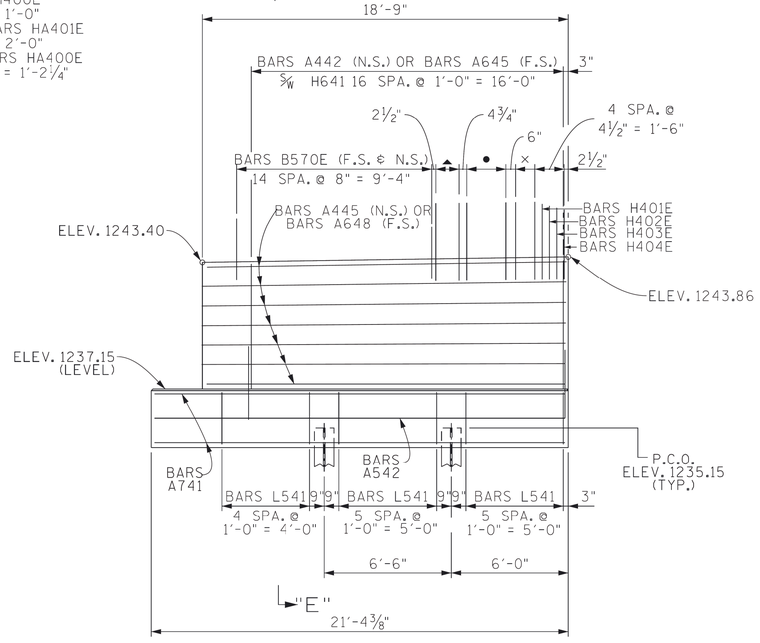


SECTION "E"-"E"



× DENOTES: BARS H400E 2 SPA. @ 6" = 1'-0"
● DENOTES: SER. BARS HA401E 4 SPA. @ 6" = 2'-0"
▲ DENOTES: SER. BARS HA400E 3 SPA. @ 4¾" = 1'-2¼"

ELEVATION "A"-"A"



ELEVATION "B"-"B"

SEALED BY



STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

ABUTMENT NO. 1 DETAILS
AFG ROAD
OVER
NORFOLK SOUTHERN RAILROAD
BRIDGE ID NO. 370A3520001
STATION 107+56.70
HAWKINS COUNTY

U-94-959

PIN NO.: 124369.00
DESIGN BY: ABDISALAN DAHIR DATE: 03-2022
DRAWN BY: F. BARTON DATE: 04-2024
SUPERVISED BY: JS/GWK DATE: 03-2024
CHECKED BY: RICK CRAWFORD DATE: 08-2024

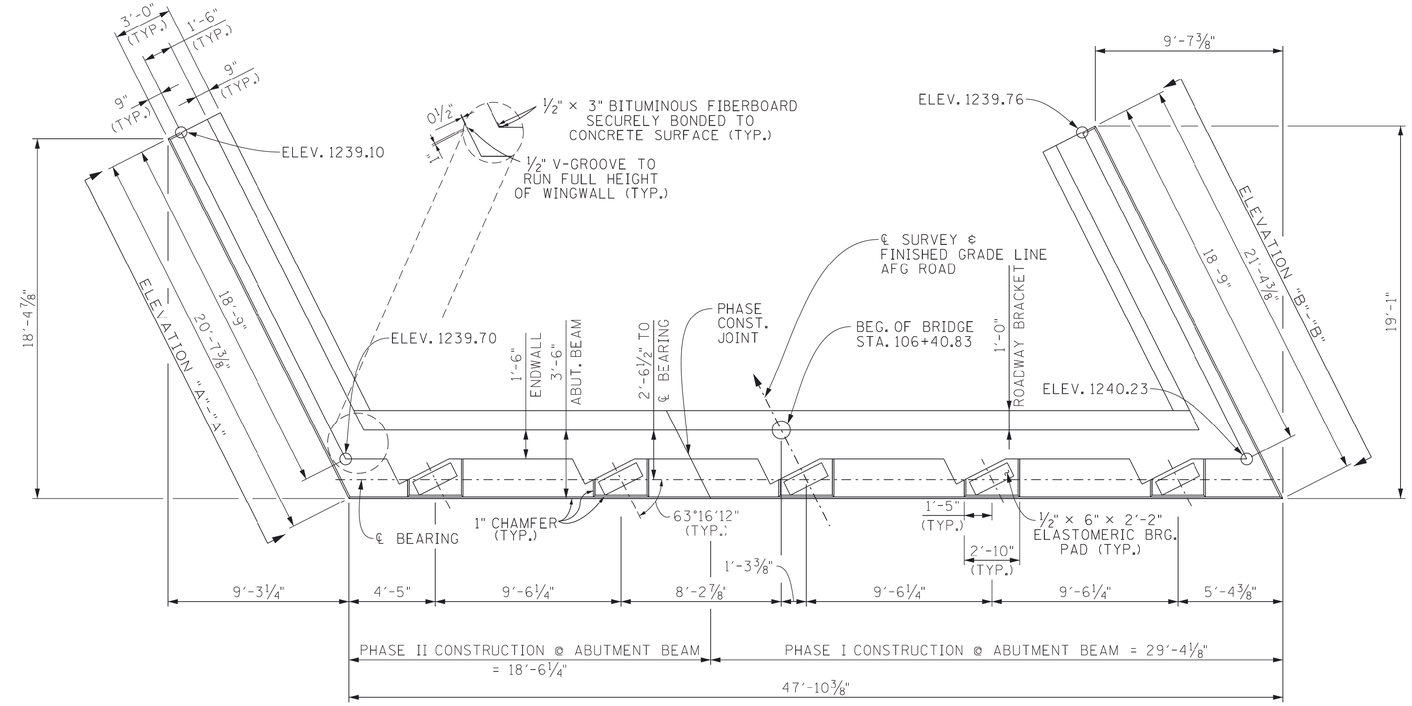
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CONST. NO.: 37455-3422-04

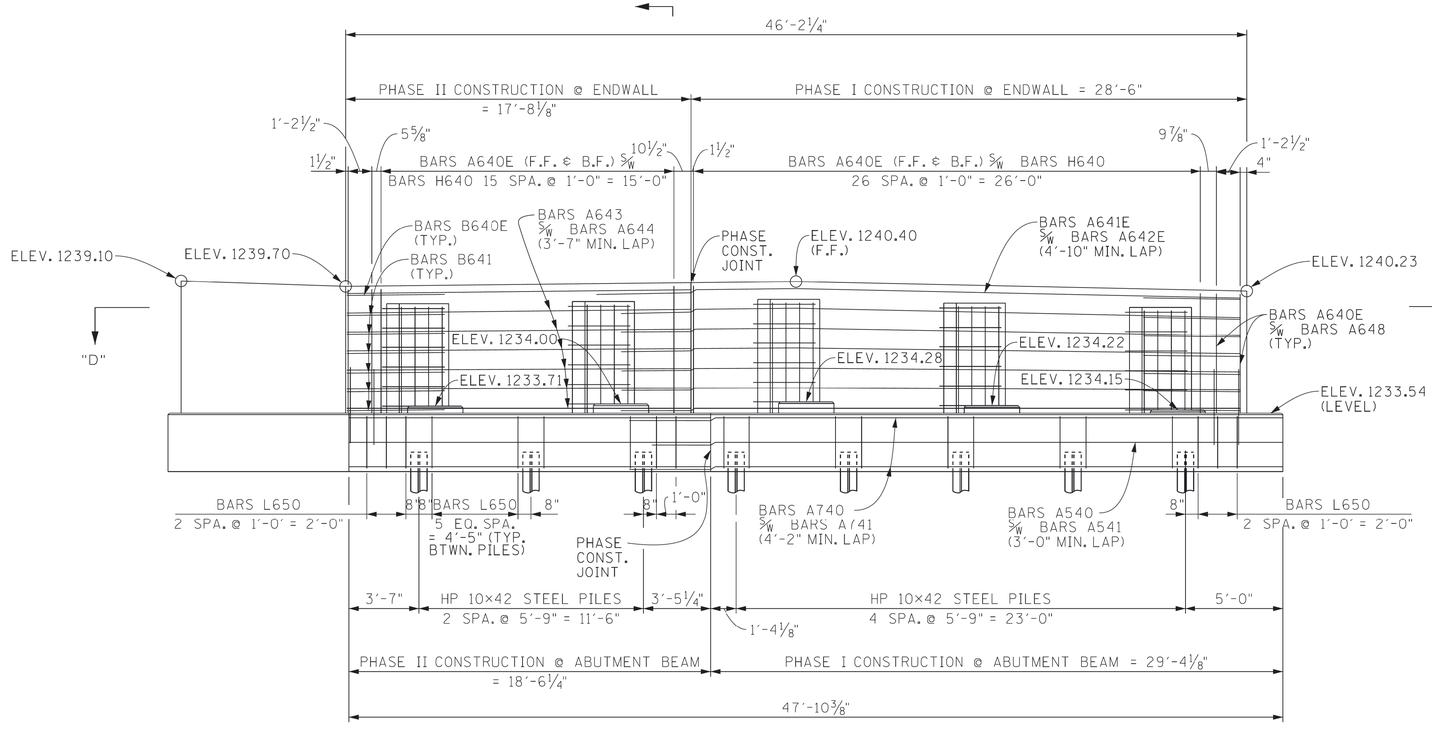
PROJECT NO.	YEAR	SHEET NO.
	2026	

REVISIONS

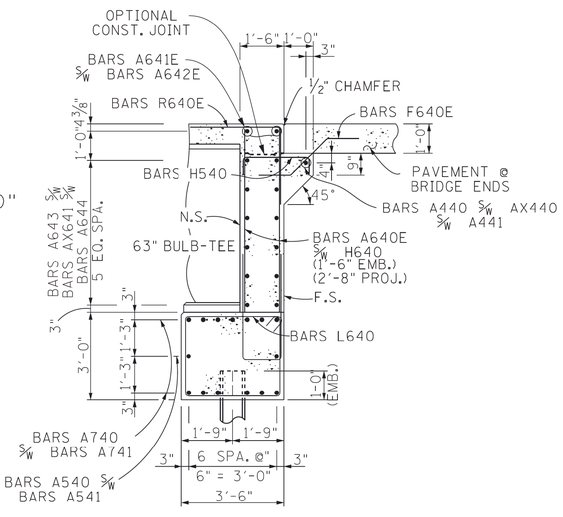
NO.	DATE	BY	BRIEF DESCRIPTION
	- -		
	- -		
	- -		
	- -		
	- -		



PLAN



ELEVATION
(LOOKING FORWARD ON SURVEY)



SECTION "C"-"C"

NOTES

NOTE: RISER BLOCKS SHALL BE POURED MONOLITHICALLY WITH THE ABUTMENT BEAM.

NOTE: RISER BLOCK BEARING SURFACE TO CONFORM TO BOTTOM OF BEAM GRADE.

NOTE: ELASTOMERIC PADS SHALL BE IN PLACE A MINIMUM OF ONE DAY BEFORE BEING DISTURBED BY SETTING BEAMS. PLACE RUBBER BONDING CEMENT IN SUCH A WAY THAT VISIBLE CONCRETE SURFACES WILL NOT BE STAINED.

NOTE: WHEN POURING WINGWALLS, PROVISIONS SHALL BE MADE FOR SETTING REINFORCING STEEL FOR WINGPOSTS AND PARAPETS. FOR DETAILS OF WINGPOSTS AND PARAPETS, SEE STD. DWG. NO. STD-1-ISS.

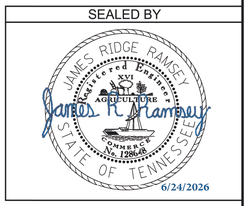
NOTE: NOT LESS THAN HALF OF THE SLAB IN THE END SPANS SHALL BE POURED PRIOR TO, OR CONCURRENTLY WITH, PLACEMENT OF ANY PART OF THE ABUTMENT ENDWALLS. AT LEAST THE TOP 12 INCHES OF THE ENDWALLS SHALL BE POURED CONCURRENTLY WITH THE END OF SLAB.

NOTE: COST OF PARAPET AND POST IS TO BE INCLUDED IN THE UNIT PRICE BID FOR THE PARAPET SYSTEM.

NOTE: SEE STANDARD DRAWING STD-6-1 FOR PILE DETAILS AND NOTES.

NOTE: WINGBEAM PILES SHALL BE DRIVEN TO THE PLANS TIP ELEVATION OR REFUSAL. SEISWIC ATTACHMENT IS NOT REQUIRED FOR WINGBEAM PILES.

SEALED BY



PIN NO.: 124369.00
DESIGN BY: ABDISALAN DAHIR DATE: 03-2022
DRAWN BY: F. BARTON DATE: 04-2024
SUPERVISED BY: JS/GWK DATE: 03-2024
CHECKED BY: RICK CRAWFORD DATE: 08-2024

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

ABUTMENT NO. 2
AFG ROAD
OVER
NORFOLK SOUTHERN RAILROAD
BRIDGE ID NO. 370A3520001
STATION 107+56.70
HAWKINS COUNTY

U-94-960

6/23/2026 2:33:24 PM

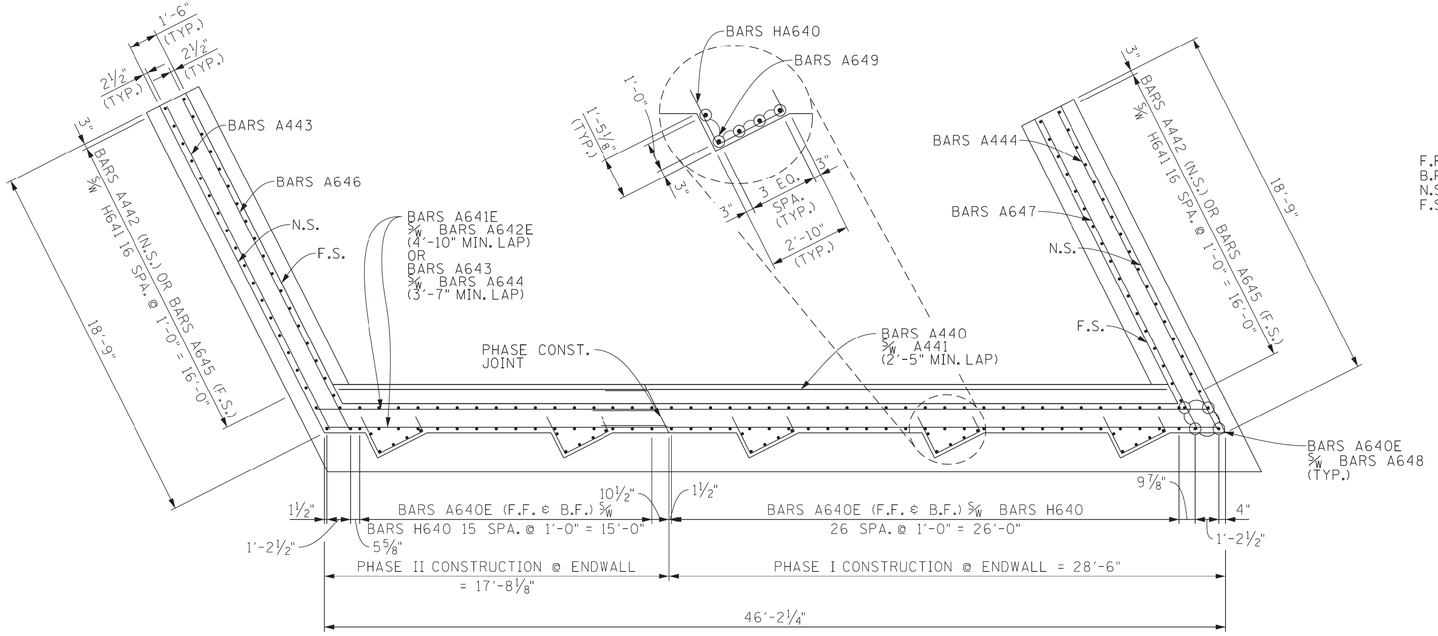
CONST. NO.: 37455-3422-04

PROJECT NO.	YEAR	SHEET NO.
	2026	

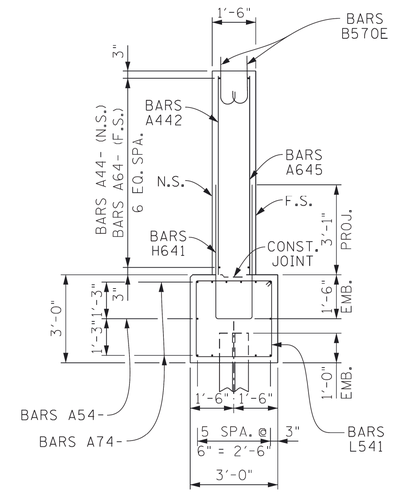
REVISIONS

NO.	DATE	BY	BRIEF DESCRIPTION
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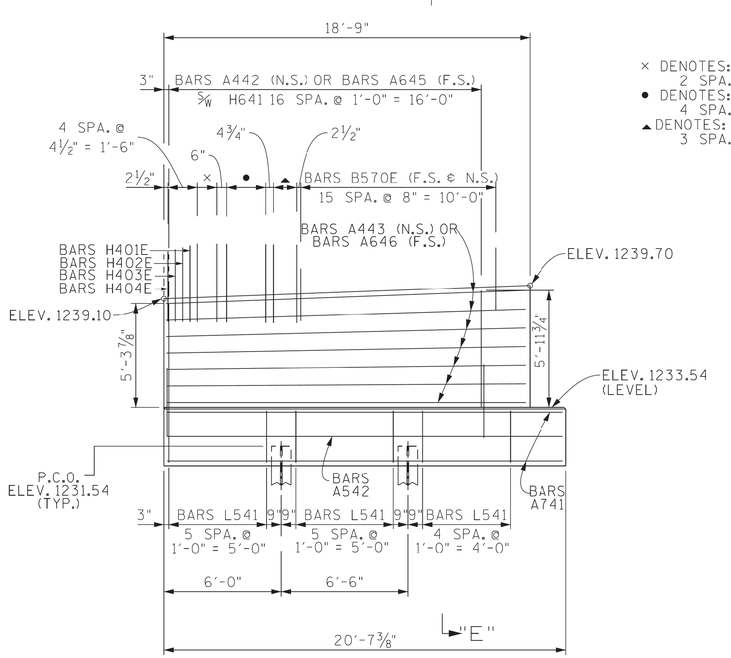
F.F. DENOTES: FRONT FACE
B.F. DENOTES: BACK FACE
N.S. DENOTES: NEAR SIDE
F.S. DENOTES: FAR SIDE



SECTION "D"-"D"

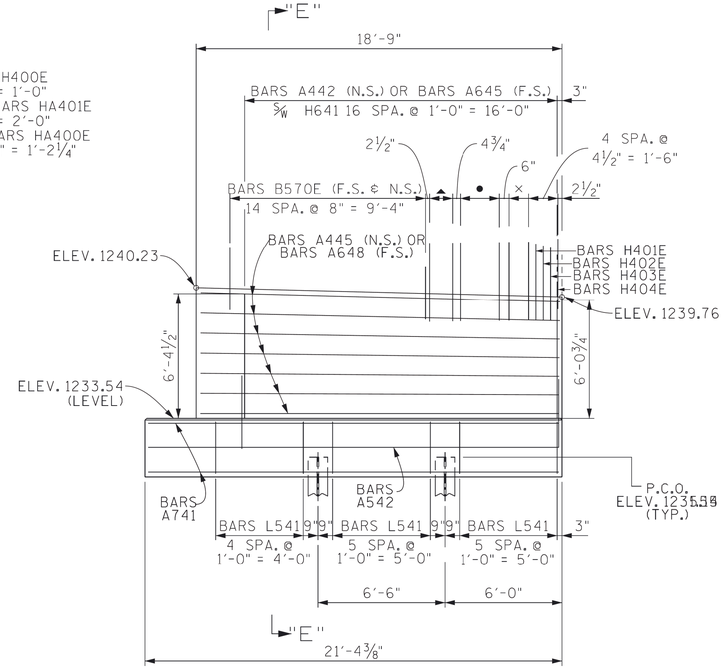


SECTION "E"-"E"



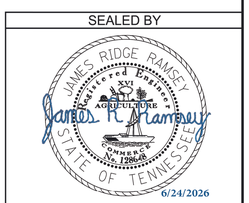
× DENOTES: BARS H400E 2 SPA. @ 6" = 1'-0"
● DENOTES: SER. BARS HA401E 4 SPA. @ 6" = 2'-0"
▲ DENOTES: SER. BARS HA400E 3 SPA. @ 4¾" = 1'-2¼"

ELEVATION "A"-"A"



ELEVATION "B"-"B"

SEALED BY



STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

ABUTMENT NO. 2 DETAILS
AFG ROAD
OVER
NORFOLK SOUTHERN RAILROAD
BRIDGE ID NO. 370A3520001
STATION 107+56.70
HAWKINS COUNTY

U-94-961

PIN NO.: 124369.00
DESIGN BY: ABDISALAN DAHIR DATE: 03-2022
DRAWN BY: F. BARTON DATE: 04-2024
SUPERVISED BY: JS/GWK DATE: 03-2024
CHECKED BY: RICK CRAWFORD DATE: 08-2024

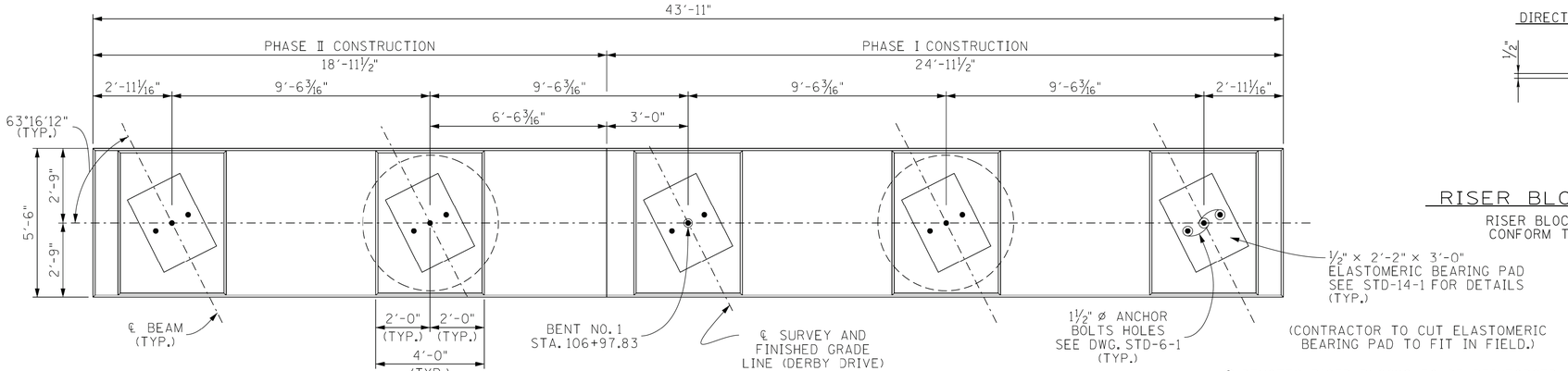
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CONST. NO.: 37455-3422-04

PROJECT NO.	YEAR	SHEET NO.
	2026	

REVISIONS

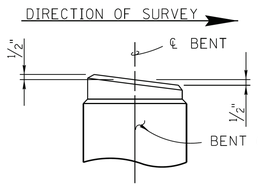
NO.	DATE	BY	BRIEF DESCRIPTION
	- -		
	- -		
	- -		
	- -		
	- -		



▲ DENOTES: DOUBLE BARS L650
6 SPA. @ 6" = 3'-0"

PLAN
(LOOKING FORWARD ON SURVEY)

◑ DENOTES: RISER BLOCKS TO BE REINFORCED.



RISER BLOCK SLOPE DETAIL

RISER BLOCK BEARING PAD SURFACE TO CONFORM TO BOTTOM OF BEAM GRADE.

GENERAL NOTES

NOTE: WHEN POURING CAP BEAM, PROVISIONS SHALL BE MADE FOR SETTING ANCHOR BOLTS. SEE STANDARD DRAWING STD-6-1. BOLT PROJECTION 11".

NOTE: RISER BLOCKS SHALL BE POURED MONOLITHICALLY WITH (BENT OR PIER) CAP.

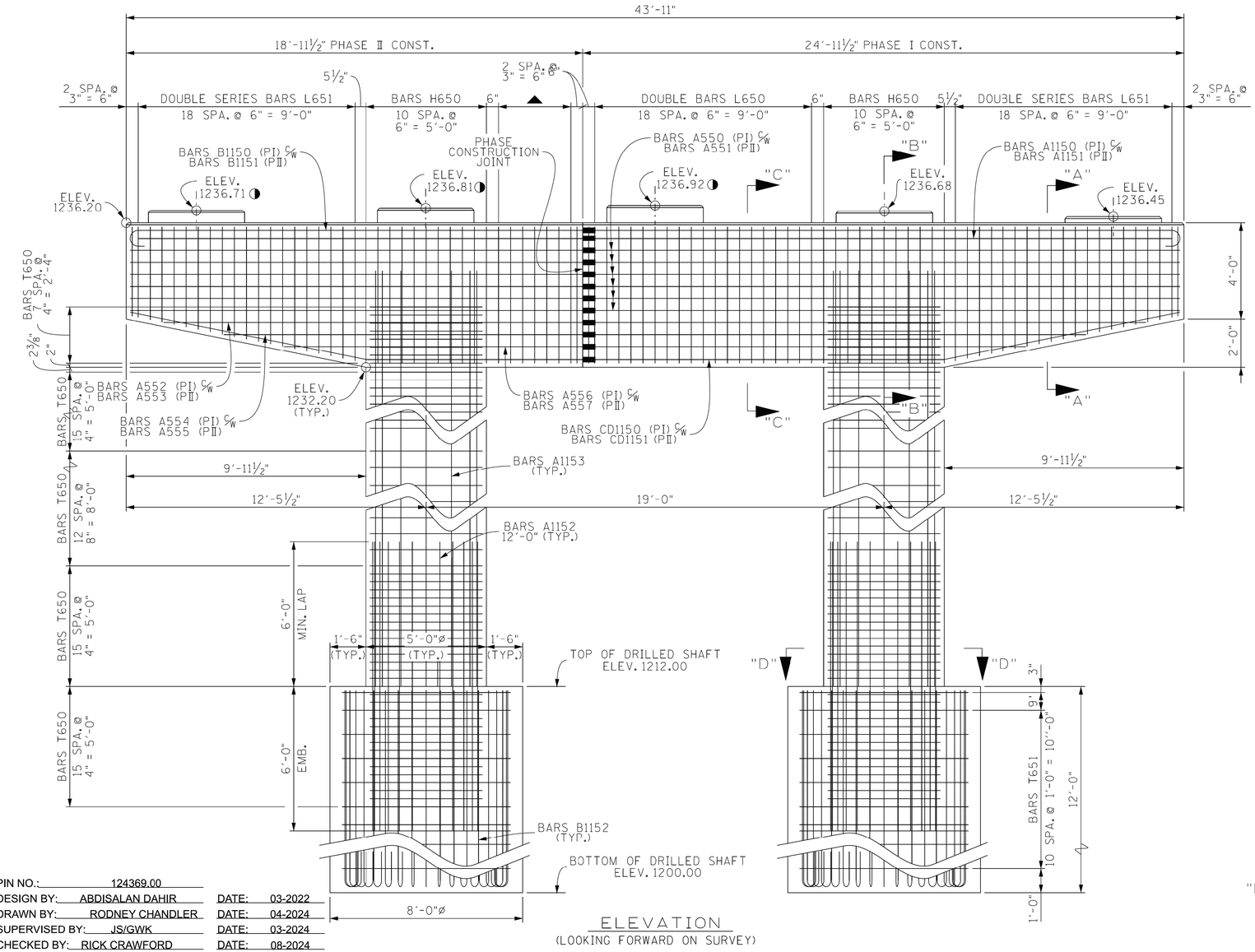
NOTE: RISER BLOCK BEARING SURFACE SHALL CONFORM TO BOTTOM OF BEAM GRADE.

NOTE: ELASTOMERIC PADS SHALL BE IN PLACE A MINIMUM OF ONE DAY BEFORE BEING DISTURBED BY SETTING BEAMS ON CONCRETE. PLACE RUBBER BONDING CEMENT IN SUCH A WAY THAT VISIBLE CONCRETE SURFACES WILL NOT BE STAINED.

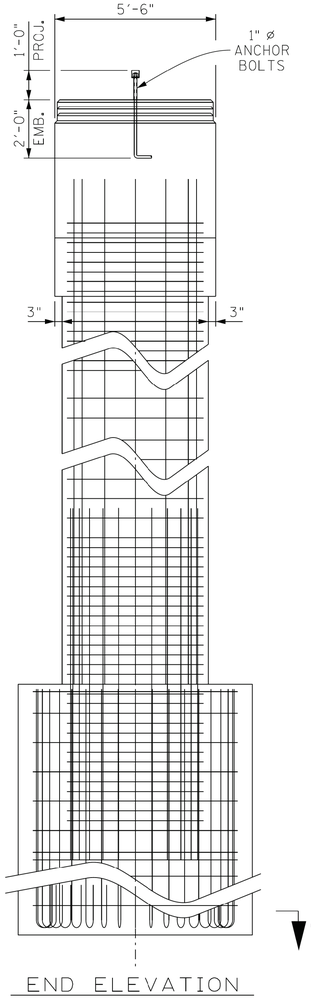
NOTE: COLUMN STEEL SHALL EXTEND 4'-0" INTO BENT CAP.

NOTE: SEE STANDARD DRAWING STD-6-1 FOR PILE DETAILS AND NOTES.

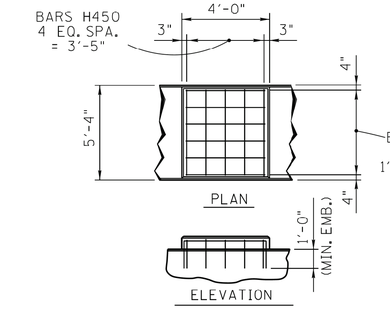
NOTE: BOTTOM OF SHAFTS SHALL BE THOROUGHLY INSPECTED AND CLEANED OF DEBRIS PRIOR TO POURING OF CONCRETE.



ELEVATION
(LOOKING FORWARD ON SURVEY)

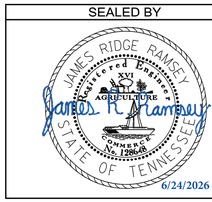


END ELEVATION



RISER BLOCK REINFORCING DETAIL

SEALED BY



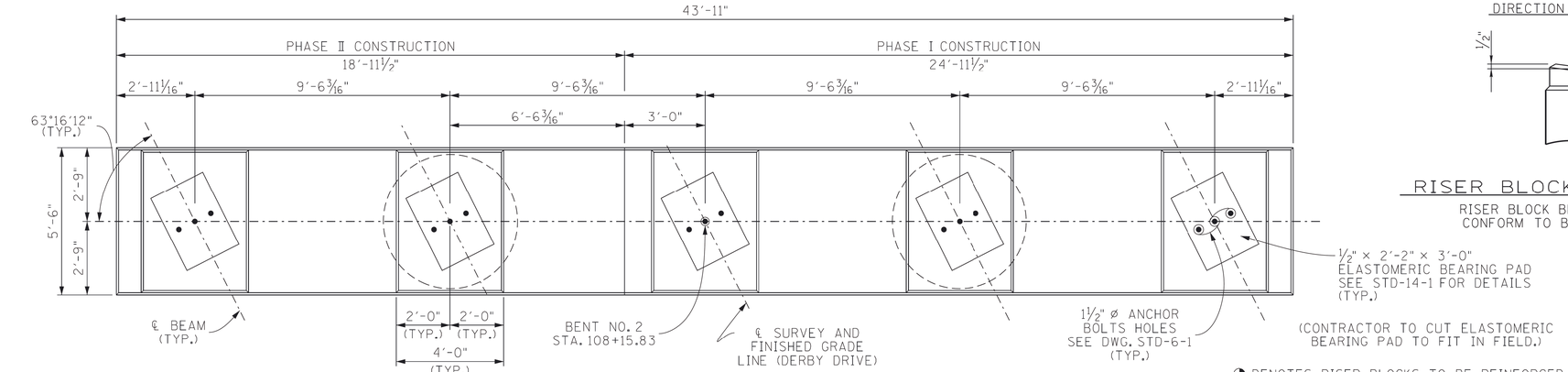
STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

BENT NO. 1
AFG ROAD
OVER
NORFOLK SOUTHERN RAILROAD
BRIDGE ID NO. 370A3520001
STATION 107+56.70
HAWKINS COUNTY

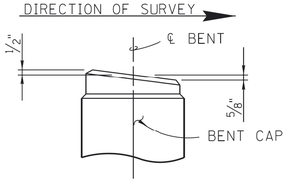
U-94-962

PIN NO.:	124369.00	
DESIGN BY:	ABDISALAN DAHIR	DATE: 03-2022
DRAWN BY:	RODNEY CHANDLER	DATE: 04-2024
SUPERVISED BY:	JS/GWK	DATE: 03-2024
CHECKED BY:	RICK CRAWFORD	DATE: 08-2024

6/24/2026 9:47:20 AM



PLAN
(LOOKING FORWARD ON SURVEY)



RISER BLOCK SLOPE DETAIL

RISER BLOCK BEARING PAD SURFACE TO CONFORM TO BOTTOM OF BEAM GRADE.

CONST. NO.: 37455-3422-04

PROJECT NO.	YEAR	SHEET NO.
	2026	

REVISIONS

NO.	DATE	BY	BRIEF DESCRIPTION
	- -		
	- -		
	- -		
	- -		
	- -		

GENERAL NOTES

NOTE: WHEN POURING CAP BEAM, PROVISIONS SHALL BE MADE FOR SETTING ANCHOR BOLTS. SEE STANDARD DRAWING STD-6-1. BOLT PROJECTION 11".

NOTE: RISER BLOCKS SHALL BE POURED MONOLITHICALLY WITH (BENT OR PIER) CAP.

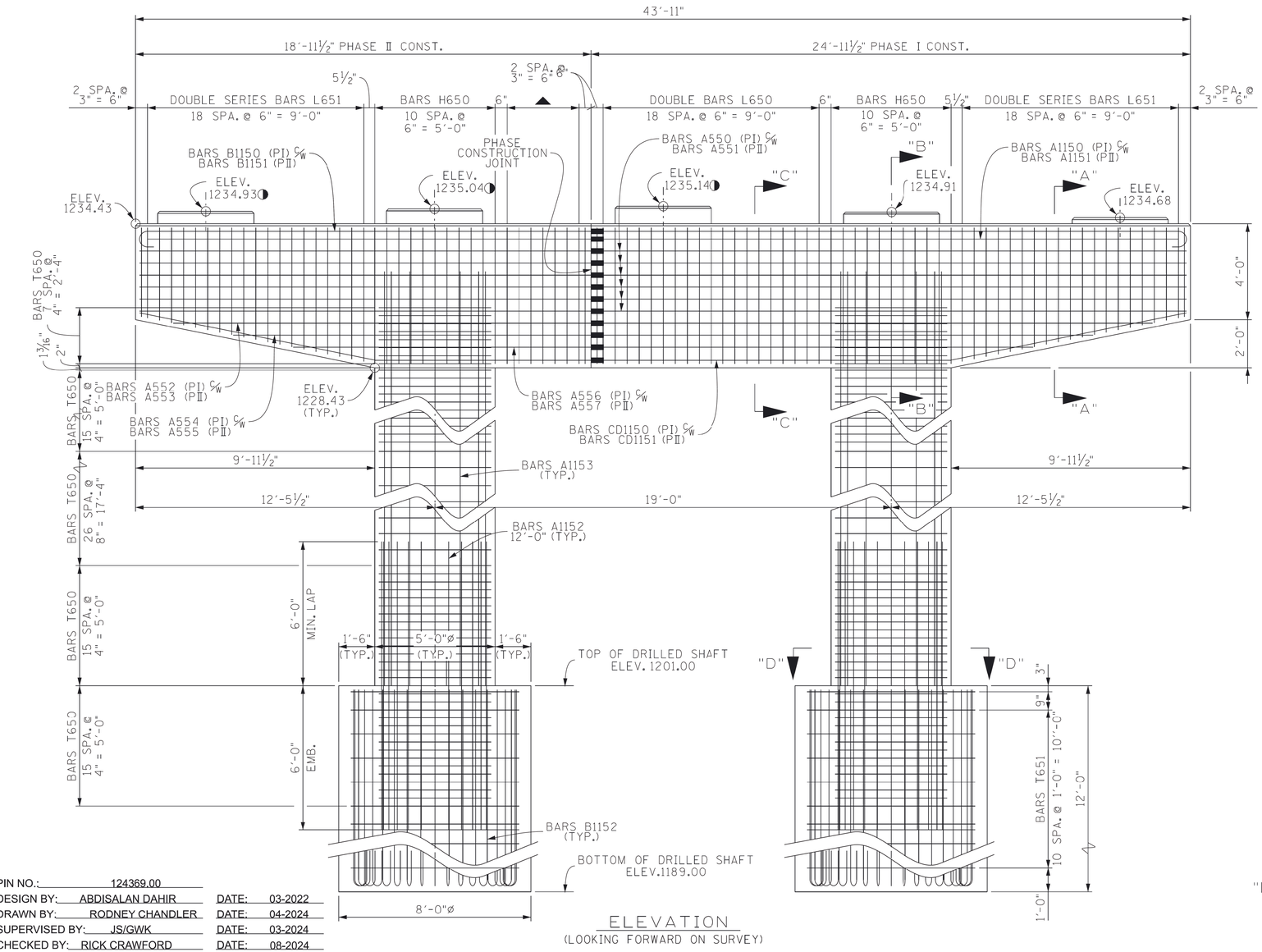
NOTE: RISER BLOCK BEARING SURFACE SHALL CONFORM TO BOTTOM OF BEAM GRADE.

NOTE: ELASTOMERIC PADS SHALL BE IN PLACE A MINIMUM OF ONE DAY BEFORE BEING DISTURBED BY SETTING BEAMS ON CONCRETE. PLACE RUBBER BONDING CEMENT IN SUCH A WAY THAT VISIBLE CONCRETE SURFACES WILL NOT BE STAINED.

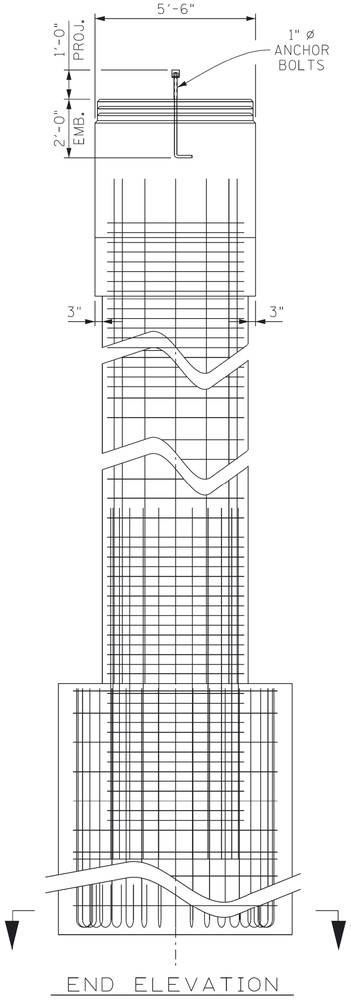
NOTE: COLUMN STEEL SHALL EXTEND 4'-0" INTO BENT CAP.

NOTE: SEE STANDARD DRAWING STD-6-1 FOR PILE DETAILS AND NOTES.

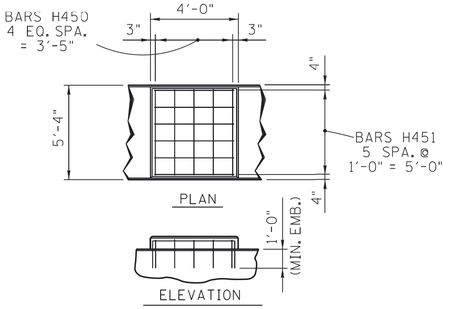
NOTE: BOTTOM OF SHAFTS SHALL BE THOROUGHLY INSPECTED AND CLEANED OF DEBRIS PRIOR TO POURING OF CONCRETE.



ELEVATION
(LOOKING FORWARD ON SURVEY)

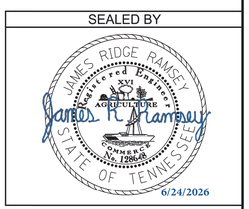


END ELEVATION



RISER BLOCK REINFORCING DETAIL

SEALED BY



STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

BENT NO. 2
AFG ROAD
OVER
NORFOLK SOUTHERN RAILROAD
BRIDGE ID NO. 370A3520001
STATION 107+56.70
HAWKINS COUNTY

U-94-963

PIN NO.: 124369.00
DESIGN BY: ABDISALAN DAHIR DATE: 03-2022
DRAWN BY: RODNEY CHANDLER DATE: 04-2024
SUPERVISED BY: JS/GWK DATE: 03-2024
CHECKED BY: RICK CRAWFORD DATE: 08-2024

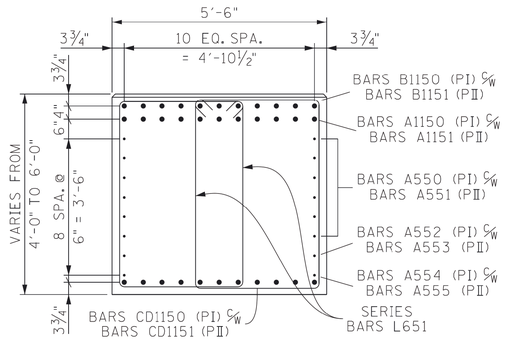
6/24/2026 9:51:28 AM

CONST. NO.: 37455-3422-04

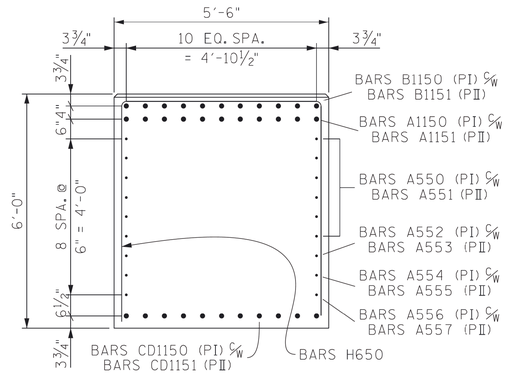
PROJECT NO.	YEAR	SHEET NO.
	2026	

REVISIONS

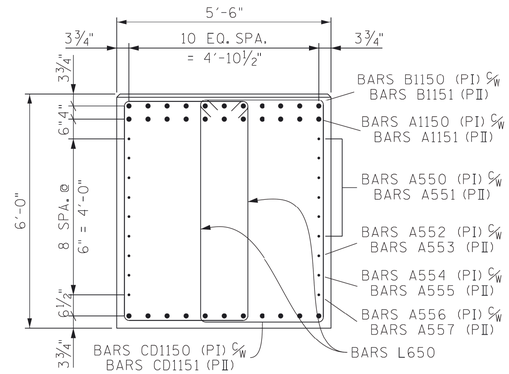
NO.	DATE	BY	BRIEF DESCRIPTION
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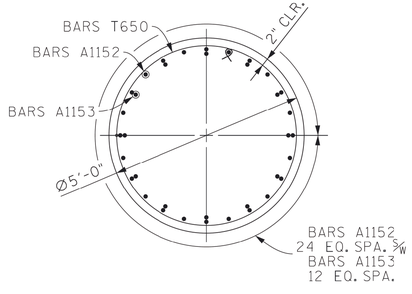
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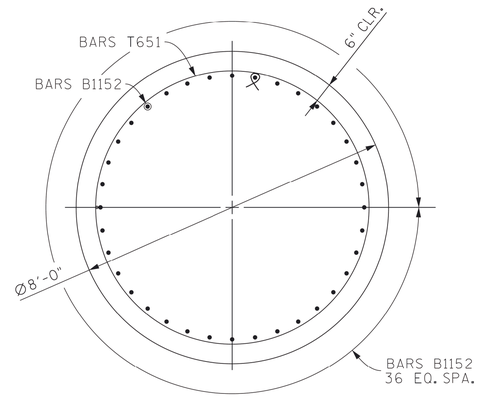
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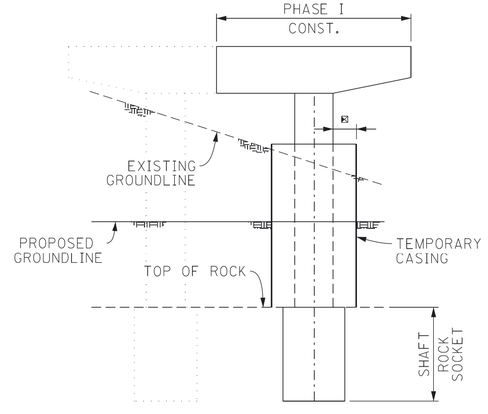
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SECTION "D"-"D"



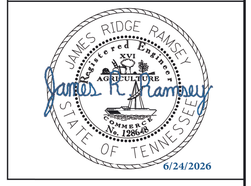
SECTION "E"-"E"



⊠ DENOTES: CASING SIZED TO ALLOW ADEQUATE WORKSPACE FOR FORMING COLUMN.

PROPOSED PH. I SHORING SKETCH

SEALED BY



STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

BENTS NO. 1 & 2 - DETAILS
AFG ROAD
OVER
NORFOLK SOUTHERN RAILROAD
BRIDGE ID NO. 370A3520001
STATION 107+56.70
HAWKINS COUNTY

U-94-964

PIN NO.: 124369.00
DESIGN BY: ABDISALAN DAHIR DATE: 03-2022
DRAWN BY: RODNEY CHANDLER DATE: 04-2024
SUPERVISED BY: JS/GWK DATE: 03-2024
CHECKED BY: RICK CRAWFORD DATE: 08-2024

6/24/2026 10:05:16 AM

CONST. NO.: 37455-3422-04

PROJECT NO.	YEAR	SHEET NO.
	2026	

REVISIONS

NO.	DATE	BY	BRIEF DESCRIPTION



ABUTMENT NO. 1 | BENT NO. 1 | BENT NO. 2 | ABUTMENT NO. 2



ABUTMENT NO. 1 | BENT NO. 1 | BENT NO. 2 | ABUTMENT NO. 2

		BENT NO. 1	BENT NO. 2
DRILLED SHAFT NO. 1	TOP OF SHAFT ELEV.		
	TOP OF ROCK SOCKET ELEV.		
	BOTTOM OF SHAFT ELEV.		
DRILLED SHAFT NO. 2	TOP OF SHAFT ELEV.		
	TOP OF ROCK SOCKET ELEV.		
	BOTTOM OF SHAFT ELEV.		

TABLE SHOWING PILE NUMBERS, PILE CUT-OFF ELEVATION AND LENGTHS

		1	2	3	4	5	6	7	8	9	10	11	12
ABUT. NO. 1	PILE CUT-OFF ELEV.												
	PILE TIP ELEV.												
	IN PLACE PILE LENGTH												
ABUT. NO. 2	PILE CUT-OFF ELEV.												
	PILE TIP ELEV.												
	IN PLACE PILE LENGTH												

NOTE: TO CONTRACTOR AND CONSTRUCTION OFFICE:
THE BLANKS ON THISSHEET ARE TO BE FILLED IN BY THE CONSTRUCTION OFFICE AND/OR FIELD ENGINEER GIVING AS BUILT CONDITIONS. AFTER COMPLETION, IT IS TO BE SENT TO THE DIVISION OF STRUCTURES TO BECOME PART OF FINAL BRIDGE DOCUMENTS.

SEALED BY

PIN NO.: 124369.00
DESIGN BY: ABDISALAN DAHIR DATE: 03-2022
DRAWN BY: J. STEVENS DATE: 04-2024
SUPERVISED BY: JS/GWK DATE: 03-2024
CHECKED BY: RICK CRAWFORD DATE: 08-2024

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

FINAL FOUNDATION DATA
AFG ROAD
OVER
NORFOLK SOUTHERN RAILROAD
BRIDGE ID NO. 370A3520001
STATION 107+56.70
HAWKINS COUNTY

U-94-965

6/24/2026 9:12:48 AM

SUPERSTRUCTURE (EPOXY)

BARS	LOCATION	SIZE	NO. REQ'D.	BENDING DIMENSIONS A	B	C	D	LENGTH (FEET)
A500E	SLAB	5	384					30'-0"
A501E	SLAB	5	48					12'-8"
A502E	SLAB	5	834					25'-4"
A503E	SLAB	5	854					15'-8"
A504E	SLAB	5	16					5'-6"
SERIES								
A505E	SLAB	5	2	*				335'-6"
				DIM. "A" VARIES FROM 25'-4" TO 5'-2" IN INC. OF 11 1/2" (22 BARS)				
SERIES								
A506E	SLAB	5	2	*				106'-0"
				DIM. "A" VARIES FROM 14'-3 1/2" TO 3'-4 1/2" IN INC. OF 1'-0" (12 BARS)				
SERIES								
A507E	SLAB	5	2	*				297'-11"
				DIM. "A" VARIES FROM 24'-0" TO 3'-1" IN INC. OF 1'-0" (22 BARS)				
SERIES								
A508E	SLAB	5	2	*				125'-0"
				DIM. "A" VARIES FROM 15'-8" TO 5'-2" IN INC. OF 11 1/2" (12 BARS)				
A700E	SLAB	7	43					44'-0"
A701E	SLAB	7	43					30'-0"
A702E	SLAB	7	43					29'-6"
A703E	SLAB	7	43					22'-0"
A900E	SLAB	9	86					60'-0"
A901E	SLAB	9	39					50'-0"
A902E	SLAB	9	39					43'-0"
B570E	SLAB / PARAPET	5	1,348	2'-5"				3'-3"

SUPERSTRUCTURE (REGULAR)

BARS	LOCATION	SIZE	NO. REQ'D.	BENDING DIMENSIONS A	B	C	D	LENGTH (FEET)
A509	DIAPHRAGM	5	72					7'-0"
A510	DIAPHRAGM	5	12					3'-6"
CD500	DIAPHRAGM	5	48	2'-1"	3'-2"	2'-6"		5'-3"
F500	DIAPHRAGM	5	72	3'-2"	2'-2"	3'-2"	1'-7"	8'-11"
L400	DIAPHRAGM	4	56	1'-2"	5'-2"			13'-5"
L401	DIAPHRAGM	4	20	1'-1"	1'-0"			4'-11"

ABUTMENT NO. 1 (EPOXY)

BARS	LOCATION	SIZE	NO. REQ'D.	BENDING DIMENSIONS A	B	C	D	LENGTH (FEET)
A640E	ENDWALL	6	94					8'-1"
A641E	ENDWALL	6	2					28'-4"
A642E	ENDWALL	6	2					17'-6"
B570E	WINGWALL	5	62	2'-8"				3'-3"
B640E	ENDWALL	6	2	5'-0"				5'-8"
F640E	ENDWALL	6	43	1'-1"	1'-3"	1'-1"	1'-3"	3'-11"
H400E	WINGWALL	4	6	0'-11"	3'-11"			8'-9"
H401E	WINGWALL	4	2	0'-11"	3'-10"			8'-7"
H402E	WINGWALL	4	2	0'-10"	3'-9"			8'-4"
H403E	WINGWALL	4	2	0'-8"	3'-8"			8'-0"
H404E	WINGWALL	4	2	0'-5"	3'-7"			7'-7"
SERIES								
HA400E	WINGWALL	4	2	"A"	3'-11"	4'-0"	0'-9"	33'-4"
				DIM. "A" VARIES FROM 4 3/8" TO 5 1/4" IN INC. OF 5/16" (4 BARS)				
SERIES								
HA401E	WINGWALL	4	2	"A"	3'-11"	4'-0"	0'-9"	42'-2"
				DIM. "A" VARIES FROM 5 1/2" TO 5 1/4" IN INC. OF 5/16" (5 BARS)				
R640E	ENDWALL	6	86	3'-0"	3'-3"	0.0000	0.0000	6'-3"

ABUTMENT NO. 1 (REGULAR)

BARS	LOCATION	SIZE	NO. REQ'D.	BENDING DIMENSIONS A	B	C	D	LENGTH (FEET)
A440	RDWY. BRKT.	4	1					26'-7"
A441	RDWY. BRKT.	4	1					15'-9"
A442	WINGWALL	4	34					6'-2"
A443	WINGWALL	4	7					18'-6"
A444	WINGWALL	4	7					18'-3"
A540	ABUT. BEAM	5	2					29'-0"
A541	ABUT. BEAM	5	2					18'-4"
A542	WING BEAM	5	2					20'-4"
A543	WING BEAM	5	2					19'-7"
A643	ENDWALL	6	12					28'-2"
A644	ENDWALL	6	12					17'-6"
A645	WINGWALL	6	34					6'-2"
A646	WINGWALL	6	7					19'-0"
A647	WINGWALL	6	7					17'-9"
A648	ENDWALL	6	8					3'-9"
A649	BEAM STOP	6	25					5'-3"
A740	ABUT. BEAM	7	13					29'-2"
A741	ABUT. BEAM	7	13					18'-4"
A742	WING BEAM	7	20					20'-4"
A743	WING BEAM	7	20					19'-7"
B641	ENDWALL	6	12	5'-0"				5'-8"
H540	ENDWALL	5	43	2'-2"	0'-6"			3'-2"
								0
H640	ENDWALL	6	43	1'-2"	3'-11"			9'-0"
H641	WINGWALL	6	40	1'-2"	4'-0"			9'-2"
HA640	BEAM STOP	6	30	1'-2"	4'-1"			9'-4"
L640	ABUT. BEAM	6	44	3'-2"	2'-8"			12'-7"
L641	WINGBEAM	6	32	2'-8"	2'-8"			11'-7"

ABUTMENT NO. 2 (EPOXY)

BARS	LOCATION	SIZE	NO. REQ'D.	BENDING DIMENSIONS A	B	C	D	LENGTH (FEET)
A640E	ENDWALL	6	94					8'-0"
A641E	ENDWALL	6	2					28'-4"
A642E	ENDWALL	6	2					17'-6"
AX640E	ENDWALL	6	2					9'-10"
B570E	WINGWALL	5	62	2'-8"				3'-3"
B640E	ENDWALL	6	2	5'-0"				5'-8"
F640E	ENDWALL	6	43	1'-1"	1'-3"	1'-1"	1'-3"	3'-11"
H400E	WINGWALL	4	6	0'-11"	3'-11"			8'-9"
H401E	WINGWALL	4	2	0'-11"	3'-10"			8'-7"
H402E	WINGWALL	4	2	0'-10"	3'-9"			8'-4"
H403E	WINGWALL	4	2	0'-8"	3'-8"			8'-0"
H404E	WINGWALL	4	2	0'-5"	3'-7"			7'-7"
SERIES								
HA400E	WINGWALL	4	2	"A"	3'-11"	4'-0"	0'-9"	33'-4"
				DIM. "A" VARIES FROM 4 3/8" TO 5 1/4" IN INC. OF 5/16" (4 BARS)				
SERIES								
HA401E	WINGWALL	4	2	"A"	3'-11"	4'-0"	0'-9"	42'-2"
				DIM. "A" VARIES FROM 5 1/2" TO 6 7/8" IN INC. OF 5/16" (5 BARS)				
R640E	ENDWALL	6	86	3'-0"	3'-3"			6'-3"

ABUTMENT NO. 2 (REGULAR)

BARS	LOCATION	SIZE	NO. REQ'D.	BENDING DIMENSIONS A	B	C	D	LENGTH (FEET)
A440	RDWY. BRKT.	4	1					26'-7"
A441	RDWY. BRKT.	4	1					15'-9"
A442	WINGWALL	4	34					6'-1"
A443	WINGWALL	4	7					18'-6"
A444	WINGWALL	4	7					18'-3"
A540	ABUT. BEAM	5	2					29'-0"
A541	ABUT. BEAM	5	2					18'-4"
A542	WING BEAM	5	2					20'-4"
A543	WING BEAM	5	2					19'-7"
A643	ENDWALL	6	12					28'-2"
A644	ENDWALL	6	12					17'-6"
A645	WINGWALL	6	34					6'-1"
A646	WINGWALL	6	7					19'-0"
A647	WINGWALL	6	7					17'-9"
A648	ENDWALL	6	8					4'-0"
A649	BEAM STOP	6	25					5'-3"
A740	ABUT. BEAM	7	13					29'-2"
A741	ABUT. BEAM	7	13					18'-4"
A742	WING BEAM	7	20					20'-4"
A743	WING BEAM	7	20					19'-7"
B641	ENDWALL	6	12	5'-0"				5'-8"
H540	ENDWALL	5	43	2'-2"	0'-6"			3'-2"
H640	ENDWALL	6	43	1'-2"	3'-11"			9'-6"
H641	WINGWALL	6	40	1'-2"	4'-6"			10'-2"
HA640	BEAM STOP	6	30	1'-2"	4'-1"			9'-4"
L640	ABUT. BEAM	6	44	3'-2"	2'-8"			12'-7"
L641	WINGBEAM	6	32	2'-8"	2'-8"			11'-7"

PIER NO. 1

BARS	LOCATION	SIZE	NO. REQ'D.	BENDING DIMENSIONS A	B	C	D	LENGTH (FEET)
A550	CAP	5	12					24'-7"
A551	CAP	5	12					18'-7"
A552	CAP	5	2					23'-3"
A553	CAP	5	2					17'-3"
A554	CAP	5	2					20'-7"
A555	CAP	5	2					14'-7"
A556	CAP	5	2					18'-1"
A557	CAP	5	2					12'-1"
A1150	CAP	11	11					24'-7"
A1151	CAP	11	11					18'-7"
A1152	COLUMN	11	48					12'-0"
A1153	COLUMN/CAP	11	24					26'-2"
B1150	CAP	11	11	24'-7"	1'-6"			25'-11"
B1151	CAP	11	11	18'-7"	1'-6"			19'-11"
B1152	SHAFT	11	11	11'-4"	1'-6"			13'-6"
CD1150	CAP	11	11	15'-0"	10'-1"			25'-1"
CD1151	CAP	11	11	9'-0"	10'-1"			19'-1"
H450	RISER	4	15	4'-8"	1'-6"			7'-8"
H451	RISER	4	18	3'-8"	1'-6"			6'-8"
H650	CAP	6	22	5'-2"	5'-8"			16'-6"
L650	CAP	6	52	5'-2"	5'-8"			22'-8"
SERIES								0.0000
L651	CAP	6	2	5'-2"	*			373'-9"
					DIM "B" VARIES FROM 3'-9 3/16" TO 5'-6 7/8" IN INC. OF 1 3/16" (19 BARS)			
T650	CAP/COLUMN/SHAFT	6	140					15'-4"
T651	SHAFT	6	24					23'-4"

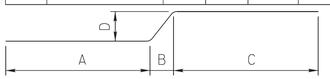
PIER NO. 2

BARS	LOCATION	SIZE	NO. REQ'D.	BENDING DIMENSIONS A	B	C	D	LENGTH (FEET)
A550	CAP	5	12					24'-7"
A551	CAP	5	12					18'-7"
A552	CAP	5	2					23'-3"
A553	CAP	5	2					17'-3"
A554	CAP	5	2					20'-7"
A555	CAP	5	2					14'-7"
A556	CAP	5	2					18'-1"
A557	CAP	5	2					12'-1"
A1150	CAP	11	11					24'-7"
A1151	CAP	11	11					18'-7"
A1152	COLUMN	11	48					12'-0"
A1153	COLUMN/CAP	11	24					33'-5"
B1150	CAP	11	11	24'-7"	1'-6"			25'-11"
B1151	CAP	11	11	18'-7"	1'-6"			19'-11"
B1152	SHAFT	11	11	11'-4"	1'-6"			13'-6"
CD1150	CAP	11	11	15'-0"	10'-1"			25'-1"
CD1151	CAP	11	11	9'-0"	10'-1"			19'-1"
H450	RISER	4	15	4'-8"	1'-6"			7'-8"
H451	RISER	4	18	3'-8"	1'-6"			6'-8"
H650	CAP	6	22	5'-2"	5'-8"			16'-6"
L650	CAP	6	52	5'-2"	5'-8"			22'-8"
SERIES								
L651	CAP	6	2	5'-2"	*			373'-9"
					DIM "B" VARIES FROM 3'-9 3/16" TO 5'-6 7/8" IN INC. OF 1 3/16" (19 BARS)			
T650	CAP/COLUMN/SHAFT	6	166					15'-4"
T651	SHAFT	6	24					23'-4"

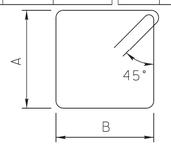
NOTE: BAR NUMBERS ARE REPEATED ON BILL OF STEEL FOR EACH SUBSTRUCTURE. THE SUPPLIER SHALL SHIP THE BARS TO THE JOB SITE WITH THE SUBSTRUCTURE DESIGNATION INCLUDED AS PART OF THE LABEL.



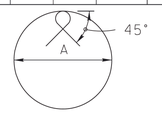
BARS A



BARS F



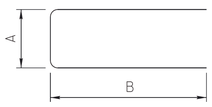
BARS L



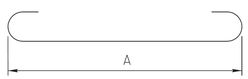
BARS T



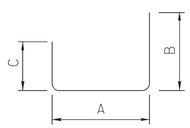
BARS B



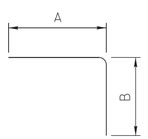
BARS H



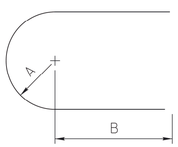
BARS D



BARS HA



BARS R



BARS XA

PIN NO.: 124369.00
DESIGN BY: ABDISALAN DAHIR DATE: 03-2022
DRAWN BY: GEORGE KORNIKOSKI(DE) DATE: 04-2024
SUPERVISED BY: JS/GWK DATE: 03-2024
CHECKED BY: RICK CRAWFORD DATE: 08-2024

6/24/2026 6:59:34 AM

CONST. NO.: 37455-3422-04

PROJECT NO.	YEAR	SHEET NO.
	2026	

REVISIONS

NO.	DATE	BY	BRIEF DESCRIPTION
	- -		
	- -		
	- -		
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	- -		

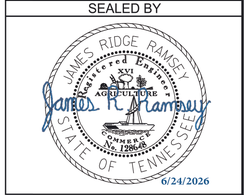
REINFORCING STEEL CODE

TYPE	SIZE	SERIES
A	5	06

NOTE: DIMENSIONS SHOWN ON THIS SHEET ARE OUTSIDE TO OUTSIDE OF BAR. STANDARD C.R.S.I. HOOK DETAILS SHALL APPLY, EXCEPT AS NOTED.

NOTE: THE SUFFIX E FOR BARS SO MARKED DENOTES EPOXY COATED REINFORCEMENT.

SEALED BY



STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

BILL OF STEEL
AFG ROAD
OVER
NORFOLK SOUTHERN RAILROAD
BRIDGE ID NO. 370A3520001
STATION 107+56.70
HAWKINS COUNTY

U-94-966

TENNESSEE D.O.T. | DESIGN DIVISION | FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
PSE	2026	BRZ-3700(43)	S-1

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NOTE: CITATIONS IN PARENTHESIS INDICATE SECTIONS OF THE CURRENT CGP.

1. SWPPP REQUIREMENTS (5.0.)

1.1. HAS THE SWPPP TEMPLATE BEEN PREPARED BY AN INDIVIDUAL THAT HAS THE FOLLOWING LICENSING AND/OR CERTIFICATIONS (5.2)?

☒ YES (CHECK ALL THAT APPLY BELOW) OR ☐ NO

- ☐ CERTIFIED PROFESSIONAL IN EROSION AND SEDIMENT CONTROL (CPESC)
- ☒ A TN LICENSED PROFESSIONAL ENGINEER OR LANDSCAPE ARCHITECT
- ☒ HAS SUCCESSFULLY COMPLETED TDEC LEVEL II COURSE

1.2. DO THE EPSC PLANS INVOLVE STRUCTURAL DESIGN, HYDRAULIC, HYDROLOGIC OR OTHER ENGINEERING CALCULATIONS FOR EPSC STRUCTURAL MEASURES (E.G. SEDIMENT BASINS) (5.2.)? YES ☐ NO ☒

IF YES, HAVE THE EPSC PLANS BEEN PREPARED, STAMPED AND CERTIFIED BY A TN LICENSED PROFESSIONAL ENGINEER OR LANDSCAPE ARCHITECT? ☐ YES ☐ NO

1.3. DO THE PROJECT STORMWATER OUTFALLS DISCHARGE INTO THE FOLLOWING (6.4.1.)? ☐ YES (CHECK ALL THAT APPLY BELOW) ☒ NO

- ☐ WATERS WITH UNAVAILABLE PARAMETERS (303d FOR SILTATION)
- ☐ EXCEPTIONAL TENNESSEE WATERS (ETW)

2. SITE DESCRIPTION (5.5.1.)

2.1. PROJECT LIMITS (5.5.1.f): REFER TO TITLE SHEET

2.2. TOTAL PROJECT AREA (5.5.1.b): 2.798 ACRES

2.3. TOTAL AREA TO BE DISTURBED (5.5.1.b): 2.630 ACRES

2.4. PROJECT DESCRIPTION (5.5.1.a):

TITLE: AFG ROAD, BRIDGE OVER SOUTHERN RAILWAY, LM 0.45 (IA)
COUNTY: HAWKINS
PIN: 124369.00

2.5. SITE MAP(S) (3.2.2.): REFER TO TITLE SHEET

2.6. DESCRIPTION OF EXISTING SITE TOPOGRAPHY (5.5.1.c): REFER TO EXISTING CONTOURS SHEET(S) 11-11A, DRAINAGE MAP SHEET(S) 7, USGS QUAD MAP, AND THE OUTFALL TABLE IN SECTION 4.2.

2.7. MAJOR SOIL DISTURBING ACTIVITIES (5.5.1.a) (CHECK ALL THAT APPLY):

- ☒ CLEARING AND GRUBBING
- ☒ EXCAVATION
- ☒ CUTTING AND FILLING
- ☒ FINAL GRADING AND SHAPING
- ☒ UTILITIES
- ☐ OTHER (DESCRIBE): _____

2.8. NO MORE THAN 50 ACRES OF ACTIVE SOIL DISTURBANCE IS ALLOWED AT ANY TIME DURING THE CONSTRUCTION OF THE PROJECT.

2.9. ARE THERE ANY SEASONAL LIMITATIONS ON WORK? ☐ YES ☒ NO

IF YES, LIST THE CORRESPONDING PLAN SHEET: _____

2.10. WAS ROW FINALIZED PRIOR TO FEBRUARY 1, 2010 (4.1.2.2)?

☐ YES _____ (DATE) ☒ NO

IF ROW WAS FINALIZED PRIOR TO FEBRUARY 1, 2010, THIS PROJECT IS CONSIDERED A PRE-APPROVED SITE (4.1.2.2)

2.11. SOIL PROPERTIES (5.5.1.d, 5.5.3.3.d, 5.5.3.6.b).

SOIL PROPERTIES FOR THE PRIMARY SOILS ARE LISTED IN THE TABLE BELOW.

SOIL PROPERTIES			
PRIMARY SOIL NAME	**HSG**	**% OF SITE**	**ERODIBILITY (k value)**
DaE - Dandridge shaly silty clay loam, 20 to 35 percent slopes	D	100	0.20

2.12. IS ACID PRODUCING ROCK (APR) (i.e. PYRITE) LOCATED WITHIN THE PROJECT LIMITS? ☐ YES ☒ NO

2.12.1. IF YES TO SECTION 2.13, HAVE APR LOCATIONS BEEN IDENTIFIED WITHIN THE CONSTRUCTION PLANS AND/OR THE GEOTECHNICAL REPORT? ☐ YES ☐ NO; AND

2.12.2. IF YES TO SECTION 2.12.1, HAS A SPECIAL HANDLING PLAN AND/OR ADAPTIVE MANAGEMENT PLAN (AMP) BEEN PREPARED FOR THE PROJECT? ☐YES ☐ NO ☐ N/A (TDOT SP107L WILL BE APPLIED.)

2.13. PROJECT RUNOFF COEFFICIENTS AND AREA PERCENTAGES (5.5.3.6.a).

RUNOFF COEFFICIENTS FOR EXISTING CONDITIONS				
AREA TYPE	**AREA(AC)**	**PERCENTAGE OF TOTAL AREA (%)**	**RUNOFF CN**	**C FACTOR**
IMPERVIOUS	1.150	41.1	98	
	1.648	58.9	80	
WEIGHTED CURVE NUMBER OR C-FACTOR =			87.4	

RUNOFF COEFFICIENTS FOR POST-CONSTRUCTION CONDITIONS				
AREA TYPE	**AREA(AC)**	**PERCENTAGE OF TOTAL AREA (%)**	**RUNOFF CN**	**C FACTOR**
IMPERVIOUS	1.300	46.5	98	
	1.498	53.5	80	
WEIGHTED CURVE NUMBER OR C-FACTOR =			88.4	

3. ORDER OF CONSTRUCTION ACTIVITIES (5.5.1.a)

CONSTRUCTION SHALL BE SEQUENCED AND STAGED TO: MINIMIZE THE EXPOSURE TIME OF GRADED OR DENUDED SOIL AREAS, PRESERVE TOPSOIL, AND MINIMIZE SOIL COMPACTION. NO WORK SHALL BE STARTED UNTIL THE CONTRACTOR'S PLAN FOR THE STAGING OF THEIR OPERATIONS, INCLUDING THE PLAN FOR STAGING OF TEMPORARY AND PERMANENT EPSC MEASURES, HAS BEEN ACCEPTED BY THE ENGINEER. THE CONTRACTOR'S EPSC PLAN SHALL INCORPORATE AND SUPPLEMENT, AS ACCEPTABLE, THE ORDER OF CONSTRUCTION ACTIVITIES AND THE BASIC EPSC DEVICES DEPICTED ON THE EPSC PLAN CONTAINED WITHIN THE APPROVED SWPPP.

3.1. SPECIAL SEQUENCING REQUIREMENTS (SEE SHEETS _____)

3.2. INSTALL STABILIZED CONSTRUCTION EXITS.

3.3. INSTALL PERIMETER PROTECTION WHERE RUNOFF SHEET FLOWS FROM THE SITE.

3.4. INSTALL INITIAL EPSC MEASURES BEFORE CLEARING, GRUBBING, EXCAVATION, GRADING, CULVERT OR BRIDGE CONSTRUCTION, CUTTING, FILLING, OR ANY OTHER EARTHWORK OCCURS, EXCEPT AS SUCH WORK MAY BE NECESSARY TO INSTALL EPSC MEASURES.

3.5. PERFORM CLEARING AND GRUBBING (NOT MORE THAN TWO WEEKS PRIOR TO GRADING OR EARTH-MOVING. REFER TO THE STABILIZATION PRACTICES BELOW.).

3.6. REMOVE AND STORE TOPSOIL.

3.7. STABILIZE DISTURBED AREAS WITHIN 2 WEEKS OF COMPLETING ANY STAGE AND/OR PHASE OF ACTIVITY (STEEP SLOPES SHALL BE STABILIZED WITHIN 1 WEEK AFTER CONSTRUCTION ACTIVITY HAS TEMPORARY OR PERMANENTLY CEASED).

3.8. INSTALL UTILITIES, STORM SEWERS, CULVERTS AND BRIDGE STRUCTURES.

3.9. INSTALL INLET AND CULVERT PROTECTION ONCE STRUCTURES ARE IN PLACE AND CAPABLE OF INTERCEPTING FLOW.

3.10. PERFORM FINAL GRADING AND INSTALL BASE STONE.

3.11. COMPLETE FINAL PAVING AND SEALING OF CONCRETE.

3.12. INSTALL TRAFFIC CONTROL AND PROTECTION DEVICES.

3.13. COMPLETE PERMANENT STABILIZATION (TOPSOIL, SEEDING, MULCH, EROSION CONTROL BLANKET, SOD, ETC.)

3.14. REMOVE TEMPORARY EROSION CONTROLS AND ACCUMULATED SEDIMENT FROM AREAS THAT HAVE ESTABLISHED AT LEAST 70 PERCENT UNIFORM PERMANENT VEGETATIVE COVER.

3.15. RE-STABILIZE AREAS DISTURBED BY REMOVAL ACTIVITIES.

4. STREAM, OUTFALL, WETLAND, TMDL AND ECOLOGY INFORMATION

4.1. STREAM INFORMATION (5.5.1.h, 5.5.1.i)

4.1.1. WILL CONSTRUCTION AND/OR EROSION PREVENTION AND SEDIMENT CONTROLS IMPACT ANY STREAMS WITHIN THE PROJECT LIMITS? ☐ YES ☒ NO

IF YES, THE IMPACT(S) HAVE BEEN INCLUDED IN THE TOTAL PROJECT IMPACTS AND HAVE BEEN INCLUDED IN THE WATER QUALITY PERMITS.

4.1.2. HAVE ANY OF THE RECEIVING STATE WATERS LESS THAN OR EQUAL TO 1 FLOW MILE DOWN GRADIENT OF THE PROJECT LIMITS BEEN CLASSIFIED BY TDEC AS FOLLOWS (CHECK ALL THAT APPLY):

- ☐ 303d WITH UNAVAILABLE PARAMETERS FOR SILTATION
- ☐ EXCEPTIONAL TENNESSEE WATERS (ETW)

4.1.3. RECEIVING WATERS OF THE STATE (5.5.1.h, 5.5.1.j, 5.5.1.k).

RECEIVING WATERS OF THE STATE INFORMATION					
TDOT STATE WATER LABEL FROM EBR	**NAME OF RECEIVING STATE WATER**	**303d WITH UNAVAILABLE PARAMETERS FOR SILTATION (YES OR NO)**	**ETW (YES OR NO)**	**LOCATED WITHIN PROJECT LIMITS (YES OR NO)**	**LOCATED WITHIN ≤ 1 FLOW MILE DOWN GRADIENT OF PROJECT LIMITS (YES OR NO)**
STR-1	N/A	NO	NO	YES	YES
STR-2	N/A	NO	NO	NO	YES
N/A	Bradley Creek	NO	NO	NO	YES

4.1.4. RECEIVING WATERS OF THE US (NON STATE WATERS) (4.1.2). LIST ANY FEATURE THAT IS IDENTIFIED AS A WET WEATHER CONVEYANCE (TDEC) AND IDENTIFIED AS WATERS OF THE US BY THE ARMY CORPS OF ENGINEERS.

WET WEATHER CONVEYANCES THAT ARE WATERS OF THE US		
TDOT STATE WATER LABEL FROM EBR	**LOCATED WITHIN PROJECT LIMITS (YES OR NO)**	**LOCATED WITHIN ≤ 1 FLOW MILE DOWN GRADIENT OF PROJECT LIMITS (YES OR NO)**

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

STORMWATER POLLUTION PREVENTION PLAN

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4.1.5. ARE THERE ANY WATER QUALITY RIPARIAN BUFFER ZONES REQUIRED FOR WATERS OF THE STATE? (5.5.1.l, 6.4.2.)

☐ YES ☒ NO

BUFFER ZONE REQUIREMENTS ARE NOT REQUIRED FOR PRE-APPROVED SITES (4.1.2.2.)

IF YES, THEY HAVE BEEN INCLUDED ON PLAN SHEET(S) _____.

IF YES, CHECK THE APPROPRIATE BOX BELOW FOR SIZE OF BUFFER.

☐ 60-FEET FOR WATERS WITH UNAVAILABLE PARAMETERS AND EXCEPTIONAL TENNESSEE WATERS (ETW) (AVERAGE WIDTH PER SIDE WITH A MINIMUM OF 30-FEET).

A 60 FOOT NATURAL WATER QUALITY RIPARIAN BUFFER ZONE ADJACENT TO AND ON BOTH SIDES OF THE RECEIVING STATE STREAM WITH THIS DESIGNATION SHALL BE PRESERVED TO THE MAXIMUM EXTENT PRACTICABLE DURING CONSTRUCTION ACTIVITIES AT THE SITE. THE 60 FOOT CRITERION FOR THE WIDTH OF THE BUFFER ZONE CAN BE ESTABLISHED ON AN AVERAGE WIDTH BASIS AT A PROJECT, AS LONG AS THE MINIMUM WIDTH OF THE BUFFER ZONE IS MORE THAN 30 FEET AT ANY MEASURED LOCATION. IF THE CONSTRUCTION SITE ENCOMPASSES BOTH SIDES OF A STREAM, BUFFER AVERAGING CAN BE APPLIED TO BOTH SIDES, BUT MUST BE APPLIED INDEPENDENTLY.

☐ 30-FEET FOR ALL OTHER STREAMS (AVERAGE WIDTH PER SIDE WITH A MINIMUM OF 15-FEET).

A 30 FOOT NATURAL WATER QUALITY RIPARIAN BUFFER ZONE ADJACENT TO AND ON BOTH SIDES OF THE RECEIVING STATE STREAM SHALL BE PRESERVED TO THE MAXIMUM EXTENT PRACTICABLE DURING CONSTRUCTION ACTIVITIES AT THE SITE. THE 30 FOOT CRITERION FOR THE WIDTH OF THE BUFFER ZONE CAN BE ESTABLISHED ON AN AVERAGE WIDTH BASIS AT A PROJECT, AS LONG AS THE MINIMUM WIDTH OF THE BUFFER ZONE IS MORE THAN 15 FEET AT ANY MEASURED LOCATION. IF THE CONSTRUCTION SITE ENCOMPASSES BOTH SIDES OF A STREAM, BUFFER AVERAGING CAN BE APPLIED TO BOTH SIDES, BUT MUST BE APPLIED INDEPENDENTLY.

☐ 15-FEET FOR ANY WET WEATHER CONVEYANCES IDENTIFIED AS WATERS OF THE US BY THE US ARMY CORPS OF ENGINEERS.

4.1.6. ARE THERE ANY WATER QUALITY RIPARIAN BUFFER ZONES NOT REQUIRED FOR STATE WATERS DUE TO A TDEC ARAP? (1.5.2.)

☐ YES ☒ NO

4.1.7. ARE THERE WATER QUALITY RIPARIAN BUFFER ZONE EXEMPTIONS? (4.1.2.1.) ☐ YES ☒ NO

IF YES, EXISTING CONDITIONS DESCRIPTION:_____

4.1.8. EVERY ATTEMPT SHOULD BE MADE FOR CONSTRUCTION ACTIVITIES TO NOT TAKE PLACE WITHIN THE WATER QUALITY RIPARIAN BUFFER ZONE AND FOR EXISTING FORESTED AREAS TO BE PRESERVED. (4.1.2., 6.4.2.)

4.1.9. BECAUSE OF HEAVY SEDIMENT LOAD ASSOCIATED WITH CONSTRUCTION SITE RUNOFF, WATER QUALITY RIPARIAN BUFFER ZONES ARE NOT SEDIMENT CONTROL MEASURES AND SHOULD NOT BE RELIED UPON AS PRIMARY SEDIMENT CONTROL MEASURES. THE WATER QUALITY RIPARIAN BUFFER ZONE SHALL BE ESTABLISHED BETWEEN THE TOP OF THE STREAM BANK AND THE DISTURBED CONSTRUCTION AREA.

4.1.10. WHERE IT IS NOT PRACTICABLE TO MAINTAIN A FULL WATER QUALITY RIPARIAN BUFFER, BEST MANAGEMENT PRACTICES (BMPS) PROVIDING EQUIVALENT PROTECTION AS THE NATURAL RIPARIAN ZONE MUST BE USED. A JUSTIFICATION FOR USE AND DESIGN EQUIVALENCY SHALL BE DOCUMENTED WITHIN THE SWPPP. THE ENVIRONMENTAL AND ROADWAY DESIGN DIVISIONS SHALL REVIEW AND APPROVE THIS REVISION OF THE SWPPP BEFORE DISTURBANCE OF THE SITE PROCEEDS, UNLESS PREVIOUSLY EXEMPT IN THE NPDES CGP. WHERE ISSUED, ARAP/401 REQUIREMENTS WILL PREVAIL IF IN CONFLICT WITH THESE BUFFER ZONE REQUIREMENTS.

4.2. OUTFALL INFORMATION

4.2.1. OUTFALL TABLE (5.5.1.c). SEE SWPPP SHEET S-8 FOR OUTFALL INFORMATION.

4.2.2. HAVE ALL OUTFALLS BEEN LABELED ON THE EPSC PLAN SHEETS (5.5.1.f)? ☒ YES ☐ NO

4.2.3. HAVE ALL OUTFALLS BEEN LABELED ON A USGS TOPOGRAPHIC MAP INCLUDED IN THE "DOCUMENTATION AND PERMITS" BINDER (3.2.2.)? ☒YES ☐ NO

4.2.4. WHERE POSSIBLE, HAS NON-PROJECT RUN-ON BEEN DIVERTED AROUND OR THROUGH THE PROJECT TO ELIMINATE CONTACT WITH DISTURBED AREAS OF THE PROJECT AND SEPARATE IT FROM PROJECT RUN-OFF THEREBY REDUCING THE DRAINAGE AREA OF TO THE OUTFALLS IN THIS AREA?

☐ YES ☐ NO ☒ N/A

4.2.5. ARE EQUIVALENT MEASURES BEING SUBSTITUTED FOR A SEDIMENT BASIN(S) OR SEDIMENT TRAP(S)? (5.5.3.5.)

☒ YES ☐ NO ☐ N/A

4.2.6. A SEDIMENT BASIN, OR EQUIVALENT MEASURE(S) WILL BE PROVIDED FOR ANY OUTFALL IN A DRAINAGE AREA:

OF TEN ACRES OR MORE FOR AN OUTFALL(S) THAT DOES NOT DISCHARGE TO A STATE STREAM WITH UNAVAILABLE PARAMETERS OR EXCEPTIONAL TENNESSEE WATERS (ETW). A TEMPORARY (OR PERMANENT) SEDIMENT BASIN OR EQUIVALENT CONTROL MEASURES THAT PROVIDES STORAGE FOR A CALCULATED VOLUME OF RUNOFF FROM A MINIMUM 2-YEAR/ 24-HOUR STORM EVENT, SHALL BE PROVIDED UNTIL PERMANENT STABILIZATION OF THE SITE. (5.5.3.5)

OR

OF FIVE ACRES OR MORE FOR AN OUTFALL(S) THAT DISCHARGES TO A STATE STREAM WITH UNAVAILABLE PARAMETERS OR EXCEPTIONAL TENNESSEE WATERS (ETW). A TEMPORARY (OR PERMANENT) SEDIMENT BASIN THAT PROVIDES STORAGE FOR A CALCULATED VOLUME OF RUNOFF FROM A 5-YEAR/ 24-HOUR STORM EVENT AND RUNOFF FROM EACH ACRE DRAINED, OR EQUIVALENT CONTROL MEASURES, SHALL BE PROVIDED UNTIL PERMANENT STABILIZATION OF THE SITE. (6.4.1.e).

ALL CALCULATIONS RELATED TO DRAINAGE AREAS, RUNOFF COEFFICIENTS, BASIN VOLUMES AND EQUIVALENT CONTROL MEASURES MUST BE PROVIDED IN THE SWPPP (5.5.3.5.)

4.2.7. A SEDIMENT TRAP, OR EQUIVALENT MEASURE(S) WILL BE PROVIDED FOR ANY OUTFALL IN A DRAINAGE AREA:

OF 3.5 - 4.9 ACRES FOR AN OUTFALL(S) THAT DISCHARGES TO A STATE STREAM WITH UNAVAILABLE PARAMETERS (303d SILTATION) OR EXCEPTIONAL TENNESSEE WATERS (ETW). A SEDIMENT TRAP THAT PROVIDES STORAGE FOR A CALCULATED VOLUME OF RUNOFF FROM A 5-YEAR/24-HOUR STORM EVENT AND RUNOFF FROM EACH ACRE DRAINED, OR EQUIVALENT CONTROL MEASURES, SHALL BE PROVIDED UNTIL PERMANENT STABILIZATION OF THE SITE. (6.4.1.f).

IN BOTH INSTANCES, THE ENVIRONMENTAL AND ROADWAY DESIGN DIVISIONS MAY BE CONTACTED TO REVIEW AND CONCUR WITH ANY REVISION OF THE SWPPP BEFORE DISTURBANCE OF THE OUTFALL PROCEEDS.

4.2.8. SEDIMENT STRUCTURES TREATING DRAINAGE AREAS IN EXCESS OF 25 ACRES REQUIRE A SITE-SPECIFIC DESIGN THAT ACCURATELY DEFINES THE SITE HYDROLOGY, SITE-SPECIFIC SEDIMENT LOADING, HYDRAULICS OF THE SITE, AND ADHERES TO ALL TENNESSEE EROSION AND SEDIMENT CONTROL HANDBOOK DESIGN RECOMMENDATIONS FOR SEDIMENT BASINS. (5.5.3.5.)

4.3. WETLAND INFORMATION

WILL CONSTRUCTION AND/OR EROSION AND SEDIMENT CONTROLS IMPACT ANY WETLANDS? ☐ YES ☒ NO

IF YES, THE STRUCTURAL EPSC MEASURES HAVE BEEN INCLUDED IN THE TOTAL PROJECT IMPACTS AND IN THE WATER QUALITY PERMITS.

WETLAND INFORMATION				
TDOT WETLAND LABEL	FROM STATION LT OR RT	TO STATION LT OR RT	TEMPORARY IMPACTS (AC)	PERMANENT IMPACTS (AC)

4.4. TOTAL MAXIMUM DAILY LOADS (TMDL) INFORMATION (1.3.j)

4.4.1. IS THIS PROJECT LOCATED IN A HUC-8 WATERSHED THAT MAINTAINS AN EPA APPROVED TMDL FOR SILTATION AND HABITAT ALTERATION?

☐YES ☒ NO

4.4.2. IF YES, IS THIS PROJECT LOCATED WITHIN A HUC-12 SUBWATERSHED WITH A WASTE LOAD ALLOCATION (WLA)?

☐ YES ☐ NO

4.4.3. IF YES, DOES THE PROJECT HAVE A DIRECT DISCHARGE TO A 303(d) LISTED STREAM FOR SILTATION?

☐ YES ☐ NO

IF YES, SWPPP INCORPORATES MEASURES OR CONTROLS CONSISTENT WITH THE ASSUMPTIONS AND REQUIREMENTS OF THE TMDL.

4.5. ECOLOGY INFORMATION (3.5.5.e)

DOES THE TDOT ENVIRONMENTAL BOUNDARIES REPORT SPECIFY SPECIAL NOTES TO BE ADDED TO THE PLAN SHEETS?

☐ YES ☒ NO

IF YES, THEY HAVE BEEN INCLUDED ON PLAN SHEET(S) _____.

4.6. ENVIRONMENTAL COMMITMENTS

ARE THERE ANY NOTES ON THE ENVIRONMENTAL COMMITMENT SHEET?

☒ YES ☐ NO

IF YES, THEY HAVE BEEN INCLUDED ON PLAN SHEET(S) 1B.

5. EROSION PREVENTION AND SEDIMENT CONTROL (EPSC) MEASURES (5.5.3.)

5.1. EPSC MEASURES MUST BE DESIGNED, INSTALLED AND MAINTAINED TO CONTROL STORMWATER VOLUME AND VELOCITY WITHIN THE SITE TO MINIMIZE EROSION (4.1.1).

5.2. EPSC MEASURES MUST CONTROL STORMWATER DISCHARGES, INCLUDING BOTH PEAK FLOWS AND TOTAL STORMWATER VOLUME, TO MINIMIZE EROSION AT OUTLETS, STREAM CHANNELS, AND STREAM BANKS. (4.1.1)

5.3. HAVE THE CONTROL MEASURES BEEN DESIGNED PER THE SIZE AND SLOPE OF THE DISTURBED DRAINAGE AREA (5.5.3.5.)?

☒YES ☐ NO

5.4. THE CONTROL MEASURES HAVE, AT A MINIMUM, BEEN DESIGNED FOR THE 2-YEAR, 24 HOUR STORM EVENT (5.5.3.5., 6.4.1.b).

5.5. ARE THE LIMITS OF DISTURBANCE CLEARLY MARKED ON THE EPSC PLANS (5.5.1.f)? ☒ YES ☐ NO

5.6. AREAS TO BE UNDISTURBED SHALL BE CLEARLY MARKED IN THE FIELD BEFORE CONSTRUCTION ACTIVITIES BEGIN.

5.7. UNLESS OTHERWISE NOTED IN THE PLANS, THE CONTRACTOR SHALL NOT CLEAR/DISTURB ANY AREA BEYOND 15 FEET FROM SLOPE LINES OR ROW/ EASEMENT LINE, WHICHEVER IS LESSER.

5.8. CLEARING, GRUBBING, AND OTHER DISTURBANCE TO RIPARIAN VEGETATION SHALL BE LIMITED TO THE MINIMUM NECESSARY FOR SLOPE CONSTRUCTION AND EQUIPMENT OPERATIONS. EXISTING VEGETATION, INCLUDING STREAM AND WETLAND BUFFERS (UNLESS PERMITTED), SHOULD BE PRESERVED TO THE MAXIMUM EXTENT POSSIBLE. UNNECESSARY VEGETATION REMOVAL IS PROHIBITED.

5.9. HAS A THREE STAGED EPSC PLAN BEEN PREPARED FOR THE PROJECT (5.5.2.)?

YES ☒ NO ☐

PLEASE NOTE THAT A THREE STAGED EPSC PLAN IS REQUIRED FOR ALL TDOT PROJECTS FOR WHICH AN NPDES PERMIT IS REQUIRED.

5.10. STEEP SLOPES ARE DEFINED AS A NATURAL OR CREATED SLOPE OF 35% GRADE OR GREATER REGARDLESS OF HEIGHT. HAVE STEEP SLOPES BEEN MINIMALLY DISTURBED AND/OR PROTECTED BY CONVEYING RUNOFF NON-EROSIVELY AROUND OR OVER THE SLOPE (5.5.3.4.) (10. "STEEP SLOPE")? ☐ YES ☐ NO ☒ N/A

5.11. THE STRUCTURAL EPSC MEASURES HAVE BEEN INCLUDED IN THE TOTAL PROJECT IMPACTS AND HAVE BEEN INCLUDED IN THE AQUATIC RESOURCE ALTERATION (ARAP) PERMIT OR SECTION 401 CERTIFICATION (5.5.1.h). REFER TO THE LIST OF APPLICABLE ENVIRONMENTAL PERMITS LOCATED ON SWPPP SHEET N/A. ALL PERMITS WILL BE MAINTAINED ON SITE WITHIN THE "DOCUMENTATION AND PERMITS" BINDER.

STATE OF TENNESSEE
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STORMWATER POLLUTION PREVENTION PLAN

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5.12. THE EPSC CONTROL MEASURES LISTED IN THE QUANTITIES TABLE ON SHEET 12 HAVE BEEN SELECTED IN ACCORDANCE WITH TDOT STANDARD DRAWINGS AND GOOD ENGINEERING PRACTICES (5.1., 5.5.3.1.b, 5.5.3.5.).

5.13. EPSC MEASURES SHALL BE INSTALLED PER TDOT STANDARDS (i.e. STANDARD DRAWINGS) AND SHALL BE FUNCTIONAL PRIOR TO ANY EARTH MOVING OPERATIONS.

5.14. EPSC MEASURES WILL NOT BE INSTALLED WITHIN A STREAM WITHOUT FIRST OBTAINING APPROVAL FROM THE PERMITS SECTION.

5.15. TEMPORARY EPSC MEASURES MAY BE REMOVED AT THE BEGINNING OF THE WORKDAY, BUT MUST BE REINSTALLED AT THE END OF THE WORKDAY OR BEFORE A PRECIPITATION EVENT.

5.16. EPSC MEASURES LOCATED IN WOTUS (EPHEMERAL STREAMS) MUST BE CONSIDERED TEMPORARY AND SHALL BE REMOVED AT THE END OF CONSTRUCTION.

5.17. THE CONTRACTOR SHALL ESTABLISH AND MAINTAIN A PROACTIVE METHOD TO PREVENT THE OFF-SITE MIGRATION OR DEPOSIT OF SEDIMENT OFF THE PROJECT LIMITS (E.G. R.O.W., EASEMENTS, ETC.), INTO WATERS OF THE STATE/U.S., OR ONTO ROADWAYS USED BY THE PUBLIC. IF SEDIMENT ESCAPES THE CONSTRUCTION SITE, OFF-SITE ACCUMULATIONS OF SEDIMENT THAT HAVE NOT REACHED A STREAM MUST BE REMOVED TO A LEVEL SUFFICIENT TO MINIMIZE OFF-SITE IMPACTS (E.G., FUGITIVE SEDIMENT THAT HAS ESCAPED THE CONSTRUCTION SITE AND HAS COLLECTED IN A STREET MUST BE REMOVED SO THAT IT IS NOT SUBSEQUENTLY WASHED INTO STORM SEWERS AND STREAMS BY THE NEXT RAIN AND/OR SO THAT IT DOES NOT POSE A SAFETY HAZARD TO USERS OF PUBLIC STREETS). ARRANGEMENTS CONCERNING REMOVAL OF SEDIMENT ON ADJOINING PROPERTY MUST BE SETTLED WITH THE ADJOINING PROPERTY OWNER BEFORE REMOVAL OF SEDIMENT. SEDIMENT THAT MIGRATES INTO WATERS OF THE STATE/US SHALL NOT BE REMOVED WITHOUT GUIDANCE FROM TDOT ENVIRONMENTAL PERSONNEL.

5.18. OFFSITE VEHICLE TRACKING OF SEDIMENTS AND THE GENERATION OF DUST SHALL BE MINIMIZED. A STABILIZED CONSTRUCTION EXIT (A POINT OF ENTRANCE/EXIT TO THE CONSTRUCTION PROJECT) SHALL BE PROVIDED TO REDUCE THE TRACKING OF MUD AND DIRT ONTO PUBLIC ROADS BY CONSTRUCTION VEHICLES.

5.19. THE QUANTITIES REQUIRED FOR STABILIZED CONSTRUCTION EXITS PER TDOT STANDARDS HAVE BEEN SPECIFIED ON SHEET 2 (5.5.3.1.j).

5.20. DISCHARGES FROM DEWATERING ACTIVITIES ARE PROHIBITED UNLESS MANAGED BY APPROPRIATE CONTROLS THAT PROVIDE THE LEVEL OF TREATMENT (FILTRATION) NECESSARY TO COMPLY WITH PERMIT REQUIREMENTS. (4.1.3.).

5.21. SETTLING BASINS AND SEDIMENT TRAPS SHALL BE PROPERLY DESIGNED PER THE SIZE OF THE DRAINAGE AREAS OR VOLUME OF WATER TO BE TREATED. TREATED WATER MUST BE DISCHARGED THROUGH A PIPE OR WELL VEGETATED OR LINED CHANNEL, SO THAT THE DISCHARGE DOES NOT CAUSE EROSION OR SEDIMENT TRANSPORT.

5.22. DISCHARGES FROM SEDIMENT BASINS AND IMPOUNDMENTS SHALL UTILIZE OUTLET STRUCTURES THAT ONLY WITHDRAW WATER FROM NEAR THE SURFACE OF THE BASIN OR IMPOUNDMENT. TREATED WATER MUST BE DISCHARGED THROUGH A PIPE, WELL- VEGETATED AND/OR LINED CHANNEL, SO THAT THE DISCHARGE DOES NOT CAUSE EROSION OR SEDIMENT TRANSPORT. (5.5.3.5.).

5.23. THE DEWATERING OF WORK AREAS, TRENCHES, FOUNDATIONS, EXCAVATIONS, ETC. THAT HAVE COLLECTED STORMWATER, WATER FROM VEHICLE WASH AREAS, OR GROUNDWATER SHALL BE EITHER HELD IN SETTLING BASINS OR TREATED BY FILTRATION AND/OR CHEMICAL TREATMENT PRIOR TO ITS DISCHARGE. ALL CHEMICAL TREATMENTS MUST BE APPLIED PER SECTION 6 FLOCCULANTS.

5.24. WATER DISCHARGED FROM DEWATERING ACTIVITIES SHALL NOT CAUSE AN OBJECTIONABLE COLOR CONTRAST WITHIN THE RECEIVING NATURAL RESOURCE. WATER MUST BE HELD WITHIN SETTLING BASINS UNTIL IT IS AT LEAST AS CLEAR AS THE RECEIVING WATERS.

5.25. DEWATERING STRUCTURES, SEDIMENT FILTER BAGS, SEDIMENT BASINS AND TRAPS SHALL NOT BE LOCATED CLOSER THAN 30 FEET (60 FEET DESIRABLE VEGETATIVE BUFFER) FOR WATERS WITH UNAVAILABLE PARAMETERS AND EXCEPTIONAL TENNESSEE WATERS (ETW) AND 15 FEET (30 FEET DESIRABLE VEGETATIVE BUFFER) FOR ALL OTHER FEATURES FROM THE TOP BANK OF A STREAM, WOTUS (EPHEMERAL), WETLAND OR OTHER NATURAL RESOURCE AND SHALL BE PROPERLY DESIGNED PER THE SIZE OF THE DRAINAGE AREAS OR VOLUME OF WATER TO BE TREATED.

5.26. STABILIZATION PRACTICES: PRE-CONSTRUCTION VEGETATIVE COVER WILL NOT BE DESTROYED, REMOVED OR DISTURBED MORE THAN 2 WEEKS PRIOR TO GRADING OR EARTH MOVING UNLESS THE AREA WILL BE SEEDED AND/OR MULCHED OR OTHER TEMPORARY COVER IS INSTALLED (5.5.3.5.f).

5.27. STABILIZATION MEASURES WILL BE INITIATED AS SOON AS POSSIBLE WHERE CONSTRUCTION ACTIVITIES HAVE TEMPORARILY OR PERMANENTLY CEASED. TEMPORARY OR PERMANENT STABILIZATION WILL BE COMPLETED WITHIN 2 WEEKS AFTER ACTIVITY HAS TEMPORARILY OR PERMANENTLY CEASED IN THAT AREA. PERMANENT STABILIZATION WILL REPLACE TEMPORARY MEASURES AS SOON AS PRACTICABLE (5.5.3.4.).

5.28. PRIORITY SHALL BE GIVEN TO FINISHING OPERATIONS AND PERMANENT EPSC MEASURES OVER TEMPORARY EPSC MEASURES ON ALL PROJECTS. UNPACKED GRAVEL CONTAINING FINES (SILT AND CLAY SIZED PARTICLES) OR CRUSHER-RUN WILL NOT BE CONSIDERED A NON-ERODIBLE SURFACE

5.29. DELAYING THE PLANTING OF COVER VEGETATION UNTIL WINTER MONTHS OR DRY MONTHS SHOULD BE AVOIDED, IF POSSIBLE.

5.30. STEEP SLOPES SHALL BE TEMPORARILY STABILIZED NOT LATER THAN 1 WEEK AFTER CONSTRUCTION ACTIVITY ON THE SLOPE HAS TEMPORARILY OR PERMANENTLY CEASED. (5.5.3.4.).

6. FLOCCULANTS (3.5.3.1.b)

IS ADDITIONAL PHYSICAL OR CHEMICAL TREATMENT OF STORMWATER RUNOFF NECESSARY (5.5.3.5.)? ☐ YES ☒ NO

IF YES, THE FOLLOWING NOTES APPLY:

6.1. ENSURE THE FLOCCULANT EMULSIONS AND POWDERS ARE OF THE ANIONIC TYPE (5.5.3.5.). AND MEET THE FOLLOWING REQUIREMENTS:

6.1.1. MEETS THE EPA AND FDA ACRYLAMIDE MONOMER LIMITS OF EQUAL TO OR GREATER THAN 0.005% ACRYLAMIDE MONOMER.

6.1.2. HAS A DENSITY OF 10% TO 55% BY WEIGHT AND A MOLECULAR WEIGHT OF 16 TO 24 MG/MOLE (MILLIGRAM PER MOLE).

6.1.3. MIXTURE IS NON-COMBUSTIBLE.

6.1.4. CONTAINS ONLY MANUFACTURER'S RECOMMENDED ADDITIVES.

6.2. FLOCCULANT SHALL BE MIXED AND APPLIED IN ACCORDANCE WITH ALL OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA) MATERIAL SAFETY DATA SHEET REQUIREMENTS AND THE MANUFACTURER'S RECOMMENDATIONS FOR THE SPECIFIED USES CONFORMING TO ALL FEDERAL, STATE, AND LOCAL LAWS, RULES, AND REGULATIONS.

6.3. ALL VENDORS AND SUPPLIERS OF FLOCCULANT BLENDS SHALL PRESENT OR SUPPLY A WRITTEN TOXICITY REPORT WHICH VERIFIES ACCEPTABLE TOXICITY PARAMETERS WHICH MEET OR EXCEED THE EPS REQUIREMENTS FOR THE STATE AND FEDERAL WATER QUALITY STANDARDS. WHOLE EFFLUENT TESTING DOES NOT MEET THIS REQUIREMENT AS PRIMARY REACTIONS HAVE OCCURRED AND TOXIC POTENTIALS HAVE BEEN REDUCED. CATIONIC FORMS OF FLOCCULANTS ARE NOT ALLOWED UNDER THIS SECTION DUE TO HIGH LEVELS OF TOXICITY TO AQUATIC ORGANISMS. FLOCCULANT EMULSIONS SHALL NEVER BE APPLIED DIRECTLY TO STORMWATER RUNOFF OR RIPARIAN WATERS DUE TO SURFACTANT TOXICITY. THE CONTRACTOR MUST SEEK THE APPROVAL OF THE EPSC DESIGN ENGINEER AND TDOT IF CHITOSAN IS PROPOSED FOR THIS PROJECT.

6.4. ALL VENDORS AND SUPPLIERS OF FLOCCULANT BLENDS SHALL SUPPLY WRITTEN "SITE SPECIFIC" TESTING RESULTS DEMONSTRATING A PERFORMANCE OF 95% OR GREATER REDUCTION OF NTU OR TSS FROM STORMWATER DISCHARGES.

6.5. EMULSION BATCHES SHALL BE MIXED FOLLOWING RECOMMENDATIONS OF THE TESTING LABORATORY THAT DETERMINES THE PROPER PRODUCT AND RATE TO MEET SITE REQUIREMENTS. APPLICATION METHODS SHALL ENSURE UNIFORM COVERAGE TO THE TARGET AREA. EMULSIONS SHALL NEVER BE APPLIED DIRECTLY TO STORMWATER RUNOFF OR RIPARIAN BUFFERS.

6.6. FLOCCULANT POWDER MAY BE APPLIED BY A HAND OR MECHANICAL SPREADER. MIXING OF THE FLOCCULANT POWDER WITH DRY SILICA SAND WILL AID IN SPREADING.

6.7. PREMIXING OF FLOCCULANT POWDER INTO FERTILIZER, SEED, OR OTHER SOIL AMENDMENTS IS ALLOWED WHEN SPECIFIED IN THE DESIGN PLAN. APPLICATION METHOD SHALL ENSURE UNIFORM COVERAGE TO THE TARGET AREA.

6.8. FLOCCULANT LOGS OR BLOCKS SHALL BE APPLIED FOLLOWING SITE TESTING RESULTS TO ENSURE PROPER PLACEMENT AND PERFORMANCE AND SHALL MEET OR EXCEED STATE AND FEDERAL WATER QUALITY REQUIREMENTS.

6.9. DO NOT APPLY FLOCCULANTS DIRECTLY TO, OR WITHIN 60 FEET, OF ANY STREAMS, WETLANDS, OR OTHER NATURAL WATER RESOURCE LOCATED ON OR ADJACENT TO THE CONSTRUCTION SITE. DO NOT APPLY FLOCCULANTS DIRECTLY INTO WATERS CONTAINED WITHIN SEDIMENT PONDS OR TO SLOPES THAT PRODUCE RUNOFF DIRECTLY INTO A STREAM, WETLAND, OR OTHER NATURAL WATER RESOURCE. DO NOT APPLY FLOCCULANTS IMMEDIATELY AT A STORMWATER OUTFALL WHERE RUNOFF LEAVES THE PROJECT LIMITS.

7. UTILITY RELOCATION

ARE UTILITIES INCLUDED IN THE CONTRACT? ☒ YES ☐ NO

IF YES, THE FOLLOWING APPLY:

7.1. STORMWATER WHICH COLLECTS IN THE UTILITY TRENCH SHALL BE PUMPED INTO A DEWATERING STRUCTURE OR SEDIMENT FILTER BAG AND TREATED PRIOR TO DISCHARGE.

7.2. SILT FENCE SHALL BE INSTALLED ON THE DOWNGRADIENT SIDE OF STOCKPILED SOIL. ANY TRENCHING ACROSS WET WEATHER CONVEYANCES SHALL BE DONE DURING DRY CONDITIONS, REMOVED AND STABILIZED BY THE END OF THE WORK DAY.

7.3. UTILITY CROSSINGS IN ENVIRONMENTAL FEATURES SHALL BE CONSTRUCTED IN ACCORDANCE WITH TDOT STANDARDS AND NO WORK SHALL BE CONDUCTED IN FLOWING WATERS. ENVIRONMENTAL PERMITS APPLY TO UTILITIES IN THIS PROJECT. THE STATE CONTRACTOR SHALL COMPLY WITH ALL REQUIREMENTS OF THE PERMITS.

7.4. IT IS THE RESPONSIBILITY OF THE STATE UTILITY CONTRACTOR TO PROTECT EXPOSED EARTH FROM EROSION AND TO PROVIDE FOR CONTAINMENT OF SEDIMENT THAT MAY RESULT FROM THEIR WORK. PRIOR TO BEGINNING WORK, ADEQUATE EPSC MEASURES MUST BE IN PLACE TO TRAP ANY SEDIMENT THAT MAY TRAVEL OFF-SITE IN THE EVENT OF RAIN. DURING THE PROGRESSION OF THEIR WORK, EXPOSED EARTH AREAS SHALL BE STABILIZED AS SOON AS POSSIBLE TO PREVENT EROSION. AT NO TIME, SHALL EXPOSED EARTH RESULTING FROM THEIR OPERATIONS HAVE UNPROTECTED ACCESS TO FLOWING OFF-SITE AND ENTERING WATERS OF THE STATE/U.S.

7.5. FOR THE INSTALLATION OF BURIED UTILITIES (PIPES AND CABLES), TRENCHES SHALL BE BACKFILLED DAILY AS CONSTRUCTION PROCEEDS. BACKFILLED TRENCHES SHALL BE SEEDED AND MULCHED OR SODDED DAILY IF POSSIBLE, BUT NO LATER THAN FOURTEEN DAYS AFTER BEING BACKFILLED. ANY TEMPORARY SPOILS OF EXCAVATED EARTH SHALL BE LOCATED WITHIN TDOT EPSC MEASURES OR RECEIVE SEPARATE EPSC MEASURES. IF TRENCHES ARE NOT BACKFILLED OVERNIGHT, APPROPRIATE EPSC MEASURES WILL BE INSTALLED BY THE STATE UTILITY CONTRACTOR UNTIL THE TRENCH IS BACKFILLED.

7.6. IN REGARDS TO EPSC, TDEC REGULATIONS APPLY TO THE STATE UTILITY CONTRACTORS ON THIS PROJECT. THE STATE CONTRACTOR IS RESPONSIBLE FOR EPSC MEASURES RELATED TO UTILITY CONSTRUCTION INCLUDED IN THE STATE CONTRACT.

7.7. TRENCHES FORMED FOR THE INSTALLATION OF BURIED UTILITIES MAY CAUSE STORMWATER RUNOFF TO CONCENTRATE AT THE TRENCH LINE. ADDITIONAL EPSC MEASURES MAY BE REQUIRED TO BE INSTALLED AS APPROVED BY THE TDOT PROJECT ENGINEER.

7.8. FOR THE INSTALLATION OF UNDERGROUND UTILITIES OUTSIDE OF THE TDOT RIGHT-OF-WAY, EPSC MEASURES SHALL BE INSTALLED PRIOR TO CLEARING (TRENCHING AND ASSOCIATED BLASTING) IN THOSE AREAS NECESSARY TO PREVENT SEDIMENT FROM LEAVING THE CONSTRUCTION AREA. THESE EPSC MEASURES SHALL REMAIN UNTIL THE BACKFILLED TRENCH IS STABILIZED WITH PERMANENT VEGETATIVE COVER.

7.9. THE UTILITY CONTRACTOR SHALL RESTORE ALL AFFECTED WET WEATHER CONVEYANCES TO THE EXISTING TOPOGRAPHIC CONDITIONS AS APPROVED BY THE TDOT RESPONSIBLE PARTY.

7.10. THE UTILITY CONTRACTOR WILL PROVIDE APPROPRIATE EPSC MEASURES TO REPLACE ONSITE EPSC MEASURES REMOVED TO FACILITATE THE INSTALLATION OF UTILITIES. REPLACEMENT OF EPSC MEASURES WILL BE COORDINATED WITH THE TDOT ENGINEER BEFORE COMMENCING WORK.

7.11. FOR UTILITY CROSSINGS THAT UTILIZE HORIZONTAL DIRECTIONAL DRILLING THE FOLLOWING SHALL APPLY:

7.11.1. THE ENTRY AND EXIT POINTS SHALL BE AT LEAST 50 FEET FROM THE STREAM BANK OR WETLAND BOUNDARY.

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7.11.2. THE DEPTH OF BORE BELOW THE STREAMBED IS SUFFICIENT TO PREVENT RELEASE OF DRILLING FLUID, BASED ON THE PARENT MATERIAL.

7.11.3. A SITE-SPECIFIC CONTINGENCY AND CONTAINMENT PLAN FOR INADVERTENT RELEASE OF DRILLING FLUID SHALL BE ESTABLISHED PRIOR TO COMMENCEMENT OF WORK. THIS PLAN SHALL BE SUBMITTED TO THE TDOT PROJECT ENGINEER AND THE TDOT ENVIRONMENTAL DIVISION PERMITS AND/OR COMPLIANCE AND FIELD SERVICES OFFICE FOR REVIEW AND APPROVAL.

8. MAINTENANCE AND INSPECTION

8.1. INSPECTION PRACTICES (5.5.3.9.)

8.1.1. PROJECT EPSC INSPECTORS AND ENGINEERS (INCLUDING TDOT STAFF, CONSULTANTS AND CONTRACTOR STAFF) RESPONSIBLE FOR THE INSPECTION, IMPLEMENTATION, MAINTENANCE. AND/OR REPAIR OF EPSC MEASURES SHALL MEET ONE OF THE FOLLOWING REQUIREMENTS (5.5.3.10.):

8.1.1.1. SUCCESSFULLY COMPLETED THE TDOT EPSC INSPECTIONS TRAINING AND ANY RECERTIFICATION COURSE AS REQUIRED.

8.1.1.2. SUCCESSFULLY COMPLETED THE TDEC “LEVEL I - FUNDAMENTALS OF EROSION PREVENTION AND SEDIMENT CONTROL” COURSE AND ANY RECERTIFICATION COURSES AS REQUIRED.

8.1.1.3. BE A CURRENT TN LICENSED PROFESSIONAL ENGINEER OR LANDSCAPE ARCHITECT.

8.1.1.4. BE A CURRENT CERTIFIED PROFESSIONAL IN EROSION AND SEDIMENT CONTROL (CPESC).

8.1.1.5. SUCCESSFULLY COMPLETED TDEC “LEVEL II – DESIGN PRINCIPLES FOR EROSION PREVENTION AND SEDIMENT CONTROL FOR CONSTRUCTION SITES” COURSE AND ANY RECERTIFICATION COURSE AS REQUIRED.

8.1.2. THE TDOT CONSTRUCTION ENGINEER (OR THEIR DULY AUTHORIZED REPRESENTATIVE) AND THE CONTRACTOR’S SITE SUPERINTENDENT ARE RESPONSIBLE FOR INSPECTIONS. MAINTENANCE AND REPAIR ACTIVITIES ARE THE RESPONSIBILITY OF THE CONTRACTOR. THE TDOT CONSTRUCTION ENGINEER OR THEIR DULY AUTHORIZED REPRESENTATIVE SHALL COMPLETE THE EPSC INSPECTION REPORTS AND DISTRIBUTE COPIES PER THE CONTRACT.

8.1.3. THE INSPECTOR SHALL CONDUCT PRE-CONSTRUCTION INSPECTIONS TO VERIFY AREAS THAT ARE NOT TO BE DISTURBED HAVE BEEN MARKED IN THE SWPPP AND IN THE FIELD BEFORE LAND DISTURBANCE ACTIVITIES BEGIN AND INITIAL MEASURES HAVE BEEN INSTALLED (10 “INSPECTOR”) (5.5.1.f).

8.1.4. EPSC CONTROLS SHALL BE INSPECTED TO VERIFY MEASURES HAVE BEEN INSTALLED AND MAINTAINED IN ACCORDANCE WITH TDOT STANDARD DRAWINGS, SPECIFICATIONS, AND GOOD ENGINEERING PRACTICES. EPSC INSPECTIONS SHALL BE DOCUMENTED ON THE TDOT EPSC INSPECTION REPORT FORM AND THE TDEC CONSTRUCTION STORMWATER INSPECTION CERTIFICATION (TWICE-WEEKLY INSPECTIONS) FORM.

8.1.5. OUTFALL POINTS SHALL BE INSPECTED TO ASCERTAIN WHETHER EPSC MEASURES ARE EFFECTIVE IN PREVENTING EROSION AND CONTROLLING SEDIMENT INCLUDING SIGNIFICANT IMPACTS TO SURROUNDING STATE WATERS, WOTUS (EPHEMERAL), WETLANDS, OTHER NATURAL RESOURCES AND ADJACENT PROPERTY OWNERS. WHERE DISCHARGE LOCATIONS ARE INACCESSIBLE, NEARBY DOWN GRADIENT LOCATIONS SHALL BE INSPECTED. LOCATIONS WHERE VEHICLES ENTER AND EXIT THE SITE SHALL BE INSPECTED FOR EVIDENCE OF OFF-SITE ROADWAY SEDIMENT TRACKING.

8.1.6. INSPECTIONS WILL BE CONDUCTED AT LEAST TWICE EVERY CALENDAR WEEK AND AT LEAST 72 HOURS APART (5.5.3.11.a). A CALENDAR WEEK IS DEFINED AS SUNDAY THROUGH SATURDAY. QUALITY ASSURANCE INSPECTIONS OF TDOT EPSC, NPDES AND WATER QUALITY PERMIT REQUIREMENTS SHALL BE PERFORMED PER THE TDOT ENVIRONMENTAL DIVISION COMPLIANCE AND FIELD SERVICES OFFICE.

8.1.7. THE FREQUENCY OF EPSC INSPECTIONS MAY BE REDUCED TO ONCE A MONTH WHERE SITES OR PORTIONS OF SITES HAVE BEEN TEMPORARILY STABILIZED UNTIL CONSTRUCTION ACTIVITIES RESUME WITH WRITTEN NOTIFICATION BY THE TDOT REGIONAL ENGINEER TO TDEC NASHVILLE CENTRAL OFFICE AND SUBSEQUENT TDEC APPROVAL. WRITTEN NOTIFICATION MUST INCLUDE THE INTENT TO CHANGE FREQUENCY AND JUSTIFICATION (5.5.3.11.a).

8.1.8. ALL DISTURBED AREAS OF THE SITE THAT HAVE NOT BEEN PERMANENTLY STABILIZED, AREAS USED FOR MATERIAL STORAGE THAT ARE EXPOSED TO PRECIPITATION, STRUCTURAL CONTROL MEASURES, AND LOCATIONS WHERE VEHICLES ENTER OR EXIT THE SITE, AND EACH OUTFALL WILL BE INSPECTED (5.5.3.11.b).

8.1.9. THE INSPECTOR WILL OVERSEE THE REQUIREMENTS OF OTHER CONSTRUCTION-RELATED WATER QUALITY PERMITS (I.E. TDEC ARAP, USACE SECTION 404, AND TVA SECTION 26a PERMITS) FOR CONSTRUCTION ACTIVITIES AROUND WATERS OF THE STATE (10 “INSPECTOR”).

8.1.10. THE SWPPP WILL BE REVISED AS NECESSARY BASED ON THE RESULTS OF THE INSPECTION. REVISION(S) WILL BE RECORDED WITHIN 1 WEEK OF THE INSPECTION. REVISION(S) WILL BE IMPLEMENTED WITHIN 2 WEEKS OF THE INSPECTION (5.5.3.11.e AND 5.5.3.11.f).

8.1.11. DOCUMENTATION OF INSPECTIONS WILL BE MAINTAINED ON SITE IN THE “DOCUMENTATION AND PERMITS” BINDER. REPORTS WILL BE SUBMITTED TO THE TDOT PROJECT ENGINEER PER THE CONTRACT.

8.1.12. THESE INSPECTION REQUIREMENTS DO NOT APPLY TO DEFINABLE AREAS OF THE SITE THAT HAVE MET PERMANENT STABILIZATION REQUIREMENTS AND HAVE BEEN NOTED IN THE SWPPP.

8.1.13. TRAINED CERTIFIED INSPECTORS SHALL COMPLETE INSPECTION TO THE BEST OF THEIR ABILITY. FALSIFYING INSPECTION RECORDS OR OTHER DOCUMENTATION OR FAILURE TO COMPLETE INSPECTION DOCUMENTATION SHALL RESULT IN A VIOLATION OF THIS PERMIT AND ANY OTHER APPLICABLE ACTS OR RULES (5.5.3.11.h).

8.2. DULY AUTHORIZED REPRESENTATIVE (8.7.3.)

THE PROJECT ENGINEER MAY DELEGATE AN INDIVIDUAL AND/OR CONSULTANT TO SIGN EPSC INSPECTIONS REPORTS. FOR SATISFYING SIGNATORY REQUIREMENTS FOR EPSC INSPECTION REPORTS, THE PROJECT ENGINEER AND NEWLY AUTHORIZED INDIVIDUAL ACCEPTING RESPONSIBILITY MUST COMPLETE AND SIGN THE TDOT CONSTRUCTION DIVISION EPSC DELEGATION OF AUTHORITY.

8.3. MAINTENANCE PRACTICES (5.1 AND 8.13.)

8.3.1. ALL CONTROLS WILL BE MAINTAINED IN GOOD AND EFFECTIVE OPERATING ORDER AND IN ACCORDANCE WITH TDOT STANDARD DRAWINGS AND GOOD ENGINEERING PRACTICES. (5.1. AND 5.5.3.1.b)

8.3.2. MAINTENANCE AND REPAIR ACTIVITIES ARE THE RESPONSIBILITY OF THE CONTRACTOR.

8.3.3. UPON CONCLUSION OF THE INSPECTIONS, EPSC MEASURES FOUND TO BE INEFFECTIVE SHALL BE REPAIRED, REPLACED, OR MODIFIED BEFORE THE NEXT RAIN EVENT, IF POSSIBLE, BUT IN NO CASE, MORE THAN 24 HOURS AFTER THE INSPECTION OR WHEN THE CONDITION IS IDENTIFIED. IF THE REPAIR, REPLACEMENT OR MODIFICATION IS NOT PRACTICAL WITHIN THE 24-HOUR TIMEFRAME, WRITTEN DOCUMENTATION PROVIDED BY THE CONTRACTOR SHALL BE PLACED IN THE FIELD DIARY AND EPSC INSPECTION REPORT. AN ESTIMATED REPAIR, REPLACEMENT OR MODIFICATION SCHEDULE SHALL BE DOCUMENTED WITHIN 24 HOURS AFTER IDENTIFICATION. (5.5.3.11.e).

8.3.4. SEDIMENT SHALL BE REMOVED FROM SEDIMENT CONTROL STRUCTURES (SEDIMENT TRAPS, SILT FENCE, SEDIMENT BASINS, OTHER CONTROLS, ETC.) WHEN THE DESIGN CAPACITY HAS BEEN REDUCED BY FIFTY PERCENT (50%). (5.5.3.1.d).

8.3.5. DURING SEDIMENT REMOVAL, THE CONTRACTOR SHALL TAKE STEPS TO ENSURE THAT STRUCTURAL COMPONENTS OF EPSC MEASURES ARE NOT DAMAGED AND THUS MADE INEFFECTIVE. IF DAMAGE DOES OCCUR, THE CONTRACTOR SHALL REPAIR THE EPSC MEASURES AT THE CONTRACTOR'S OWN EXPENSE.

8.3.6. CHECK DAMS WILL BE INSPECTED FOR STABILITY. SEDIMENT WILL BE REMOVED WHEN DEPTH REACHES ONE-HALF (½) THE HEIGHT OF THE DAM.

8.3.7. SEDIMENT REMOVED FROM SEDIMENT CONTROL STRUCTURES SHALL BE PLACED AND TREATED IN A MANNER SO THAT THE SEDIMENT IS CONTAINED WITHIN THE PROJECT LIMITS, DOES NOT MIGRATE INTO FEATURES REMOVED FROM, AND DOES NOT MIGRATE ONTO ADJACENT PROPERTIES AND/OR INTO WATERS OF THE STATE/U.S.

8.3.8. LITTER, CONSTRUCTION DEBRIS, AND CONSTRUCTION CHEMICALS EXPOSED TO STORMWATER WILL BE PICKED UP AND REMOVED FROM STORMWATER EXPOSURE PRIOR TO ANTICIPATED STORM EVENTS OR BEFORE BEING CARRIED OFF THE SITE BY WIND, OR OTHERWISE PREVENTED FROM BECOMING A POLLUTANT SOURCE FOR STORMWATER DISCHARGES. AFTER USE, MATERIALS USED FOR EROSION CONTROL WILL BE REMOVED (5.5.3.7.a).

8.3.9. ALL SEEDED AREAS WILL BE CHECKED FOR BARE SPOTS, EROSION WASHOUTS, AND VIGOROUS GROWTH FREE OF SIGNIFICANT WEED INFESTATIONS.

9. SITE ASSESSMENTS (5.5.3.8.)

QUALITY ASSURANCE SITE ASSESSMENTS OF EROSION PREVENTION AND SEDIMENT CONTROLS SHALL BE PERFORMED PER THE TDOT ENVIRONMENTAL DIVISION COMPLIANCE AND FIELD SERVICES OFFICE GUIDELINES.

10. STORMWATER MANAGEMENT (5.5.3.11.h)

10.1. STORMWATER MANAGEMENT WILL BE HANDLED BY TEMPORARY CONTROLS OUTLINED IN THIS SWPPP AND ANY PERMANENT CONTROLS NEEDED TO MEET PERMANENT STORMWATER MANAGEMENT NEEDS IN THE POST CONSTRUCTION PERIOD. PERMANENT CONTROLS WILL BE DEPICTED ON THE PLANS AND NOTED AS PERMANENT.

10.2. DESCRIBE ANY SPECIFIC POST-CONSTRUCTION MEASURES THAT WILL CONTROL VELOCITY, POLLUTANTS, AND/OR EROSION (5.5.3.6.c): _____

10.3. OTHER ITEMS NEEDING CONTROL (5.5.3.7.)

CONSTRUCTION MATERIALS: THE FOLLOWING MATERIALS OR SUBSTANCES ARE EXPECTED TO BE PRESENT ON THE SITE DURING THE CONSTRUCTION PERIOD. (CHECK ALL THAT APPLY).

☒ LUMBER, GUARDRAIL, TRAFFIC CONTROL DEVICES
☒ CONCRETE WASHOUT
☒ PIPE CULVERTS (I.E. CONCRETE, CORRUGATED METAL, HDPE, ETC.)
☒ MINERAL AGGREGATES, ASPHALT
☒ EARTH
☒ LIQUID TRAFFIC STRIPING MATERIALS, PAINT
☒ ROCK
☒ CURING COMPOUND
☐ EXPLOSIVES
☐ OTHER _____

THESE MATERIALS WILL BE HANDLED AS NOTED IN THIS SWPPP.

10.4. WASTE MATERIALS (5.5.3.7.c)

WASTE MATERIAL (EARTH, ROCK, ASPHALT, CONCRETE, ETC.) NOT REQUIRED FOR THE CONSTRUCTION OF THE PROJECT WILL BE DISPOSED OF BY THE CONTRACTOR IN ACCORDANCE WITH THE TDOT CONSTRUCTION CONTRACT AND FEDERAL AND STATE REGULATIONS. IMPACTS TO WATERS OF THE STATE/U.S. SHALL BE AVOIDED IF POSSIBLE. IF UNAVOIDABLE, THE CONTRACTOR WILL OBTAIN ALL NECESSARY PERMITS INCLUDING, BUT NOT LIMITED TO NPDES, AQUATIC RESOURCES ALTERATION PERMIT(S) CORPS OF ENGINEERS SECTION 404 PERMITS, AND TVA SECTION 26A PERMITS TO DISPOSE OF WASTE MATERIALS.

10.5. HAZARDOUS WASTE (5.5.3.7.c) (8.8)

ALL HAZARDOUS WASTE MATERIALS WILL BE DISPOSED OF IN A MANNER WHICH IS COMPLIANT WITH LOCAL OR STATE REGULATIONS. SITE PERSONNEL WILL BE INSTRUCTED IN THESE PRACTICES, AND THE INDIVIDUAL DESIGNATED AS THE CONTRACTOR’S ON-SITE REPRESENTATIVE WILL BE RESPONSIBLE FOR SEEING THAT THESE PRACTICES ARE FOLLOWED. THE CONTRACTOR WILL OBTAIN ALL NECESSARY PERMITS TO DISPOSE OF HAZARDOUS MATERIAL.

10.6. SANITARY WASTE (5.5.3.7.b)

PORTABLE SANITARY FACILITIES WILL BE PROVIDED ON ALL CONSTRUCTION SITES. SANITARY WASTE WILL BE COLLECTED FROM THE PORTABLE UNITS IN A TIMELY MANNER BY A LICENSED WASTE MANAGEMENT CONTRACTOR OR AS REQUIRED BY ANY LOCAL REGULATIONS. THE CONTRACTOR WILL OBTAIN ALL NECESSARY PERMITS TO DISPOSE OF SANITARY WASTE.

10.7. OTHER MATERIALS

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THE FOLLOWING MATERIALS OR SUBSTANCES ARE EXPECTED TO BE PRESENT ON THE SITE DURING THE CONSTRUCTION PERIOD. (CHECK ALL THAT APPLY).

☒ FERTILIZERS AND LIME

☐ PESTICIDES AND/OR HERBICIDES

☒ DIESEL AND GASOLINE

☒ MACHINERY LUBRICANTS (OIL AND GREASE)

THESE MATERIALS WILL BE HANDLED AS NOTED IN THIS SWPPP.

11. NON-STORMWATER DISCHARGES (5.5.3.12.)

11.1. THE FOLLOWING NON-STORMWATER DISCHARGES ARE ANTICIPATED DURING THE CONSTRUCTION OF THIS PROJECT (CHECK ALL THAT APPLY):

☒ DEWATERING OF WORK AREAS OF COLLECTED STORMWATER AND GROUND WATER.

☒ WATERS USED TO WASH VEHICLES (OF DUST AND SOIL) WHERE DETERGENTS ARE NOT USED AND DETENTION AND/OR FILTERING IS PROVIDED BEFORE THE WATER LEAVES THE SITE.

☒ WATER USED TO CONTROL DUST. (3.5.3.1.n)

☐ POTABLE WATER SOURCES INCLUDING WATERLINE FLUSHING FROM WHICH CHLORINE HAS BEEN REMOVED TO THE MAXIMUM EXTENT PRACTICABLE.

☐ UNCONTAMINATED GROUNDWATER OR SPRING WATER.

☐ FOUNDATION OR FOOTING DRAINS WHERE FLOWS ARE NOT CONTAMINATED WITH POLLUTANTS.

☐ OTHER: _____

11.2. ALL ALLOWABLE NON-STORMWATER DISCHARGES WILL BE DIRECTED TO STABLE DISCHARGE STRUCTURES PRIOR TO LEAVING THE SITE. FILTERING OR CHEMICAL TREATMENT MAY BE NECESSARY PRIOR TO DISCHARGE. ALL CHEMICAL TREATMENTS MUST BE APPLIED PER SECTION 6 FLOCCULANTS.

11.3. THE DESIGN OF ALL IMPACTED EPSC MEASURES RECEIVING FLOW FROM ALLOWABLE NON-STORMWATER DISCHARGES MUST BE DESIGNED TO HANDLE THE VOLUME OF THE NON-STORMWATER COMPONENT.

11.4. WASH DOWN OR WASTE DISCHARGE OF CONCRETE TRUCKS WILL NOT BE PERMITTED ON-SITE UNLESS PROPER SETTLEMENT AREAS HAVE BEEN PROVIDED IN ACCORDANCE WITH BOTH STATE AND FEDERAL REGULATIONS.

11.5. ARE ANY DISCHARGES ASSOCIATED WITH INDUSTRIAL (NON-CONSTRUCTION STORMWATER) ACTIVITY EXPECTED (5.5.1.g)?

☐ YES ☒ NO

IF YES, SPECIFY THE LOCATION OF THE ACTIVITY AND ITS PERMIT NUMBER: _____

12. SPILL PREVENTION, MANAGEMENT AND NOTIFICATION (5.5.3.7.c, 6.1)

12.1. SPILL PREVENTION (5.5.3.7.c)

12.1.1. CONTRACTOR'S BULK FUEL AND PETROLEUM PRODUCTS STORED ON-SITE OR ADJACENT TO THE R.O.W. IN ABOVE GROUND STORAGE TANKS WITH AGGREGATE STORAGE CAPACITY IN EXCESS OF 1,320 GALLONS SHALL HAVE SECONDARY CONTAINMENT.

12.1.2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PREPARING A SPILL PREVENTION CONTROL AND COUNTERMEASURE (SPCC) PLAN AS REQUIRED BY TDOT SPECIAL PROVISION 107FP (REGARDING WATER QUALITY AND STORM WATER PERMITS) AND THE LAW PRIOR TO STORING 1320 GALLONS ON SITE.

12.1.3. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR OBTAINING ANY NECESSARY LOCAL, STATE, AND FEDERAL PERMITS. THE SPCC PLAN AND/OR PERMITS SHALL BE KEPT ON-SITE AND A COPY PROVIDED TO THE TDOT CONSTRUCTION ENGINEER.

12.2. MATERIAL MANAGEMENT

12.2.1. HOUSEKEEPING

ONLY CONSTRUCTION PRODUCTS NEEDED SHALL BE STORED ON-SITE BY THE CONTRACTOR. EXCEPT FOR BULK MATERIALS THE CONTRACTOR WILL STORE ALL MATERIALS UNDER COVER AND IN APPROPRIATE CONTAINERS. PRODUCTS MUST BE STORED IN ORIGINAL CONTAINERS AND LABELED. MATERIAL MIXING WILL BE CONDUCTED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS. WHEN POSSIBLE, ALL PRODUCTS WILL BE USED COMPLETELY BEFORE PROPERLY DISPOSING OF THE CONTAINER OFF SITE. THE MANUFACTURER'S DIRECTIONS FOR DISPOSAL OF MATERIALS AND CONTAINERS WILL BE FOLLOWED. THE CONTRACTOR'S SITE SUPERINTENDENT WILL INSPECT MATERIALS STORAGE AREAS REGULARLY TO ENSURE PROPER USE AND DISPOSAL. DUST GENERATED WILL BE CONTROLLED IN AN ENVIRONMENTALLY SAFE MANNER. VEGETATION AREAS NOT ESSENTIAL TO THE CONSTRUCTION PROJECT WILL BE PRESERVED AND MAINTAINED AS NOTED ON THE PLANS.

12.2.2. HAZARDOUS MATERIALS

PRODUCTS MUST BE STORED IN ORIGINAL CONTAINERS UNLESS THE CONTAINER IS NOT RE-SEALABLE. ORIGINAL LABELS AND MATERIAL SAFETY DATA SHEETS WILL BE RETAINED IN A SAFE PLACE TO RELAY IMPORTANT PRODUCT INFORMATION. IF SURPLUS PRODUCT MUST BE DISPOSED OF, MANUFACTURER'S LABEL DIRECTIONS FOR DISPOSAL WILL BE FOLLOWED. MAINTENANCE AND REPAIR OF ALL EQUIPMENT AND VEHICLES INVOLVING OIL CHANGES, HYDRAULIC SYSTEM DRAIN DOWN, DE-GREASING OPERATIONS, FUEL TANK DRAIN DOWN AND REMOVAL, AND OTHER ACTIVITIES WHICH MAY RESULT IN THE ACCIDENTAL RELEASE OF CONTAMINANTS WILL BE CONDUCTED ON AN IMPERVIOUS SURFACE AND UNDER COVER DURING WET WEATHER TO PREVENT THE RELEASE OF CONTAMINANTS ONTO THE GROUND. WHEEL WASH WATER WILL BE COLLECTED AND ALLOWED TO SETTLE OUT SUSPENDED SOLIDS PRIOR TO DISCHARGE. WHEEL WASH WATER WILL NOT BE DISCHARGED DIRECTLY INTO ANY STORMWATER SYSTEM OR STORMWATER TREATMENT SYSTEM. POTENTIAL pH-MODIFYING MATERIALS SUCH AS: BULK CEMENT, CEMENT KILN DUST, FLY ASH, NEW CONCRETE WASHINGS AND CURING WATERS, CONCRETE PUMPING, AND MIXER WASHOUT WATERS WILL BE COLLECTED ON SITE AND MANAGED TO PREVENT CONTAMINATION OF STORMWATER RUNOFF.

12.3. PRODUCT SPECIFIC PRACTICES

12.3.1. PETROLEUM PRODUCTS: ALL ON-SITE VEHICLES WILL BE MONITORED FOR LEAKS AND RECEIVE REGULAR PREVENTIVE MAINTENANCE TO REDUCE THE CHANCE OF LEAKAGE. PETROLEUM PRODUCTS WILL BE STORED IN TIGHTLY SEALED CONTAINERS WHICH ARE CLEARLY LABELED.

12.3.2. FERTILIZERS: FERTILIZERS WILL BE APPLIED ONLY IN THE AMOUNTS SPECIFIED BY TDOT. ONCE APPLIED, FERTILIZERS WILL BE WORKED INTO THE SOIL TO LIMIT THE EXPOSURE TO STORMWATER. FERTILIZERS WILL BE STORED IN AN ENCLOSED AREA UNDER COVER. THE CONTENTS OF PARTIALLY USED FERTILIZER BAGS WILL BE TRANSFERRED TO SEALABLE CONTAINERS TO AVOID SPILLS.

12.3.3. PAINTS: ALL CONTAINERS WILL BE TIGHTLY SEALED AND STORED WHEN NOT REQUIRED FOR USE. THE EXCESS WILL BE DISPOSED OF PER THE MANUFACTURER'S INSTRUCTIONS AND APPLICABLE STATE AND LOCAL REGULATIONS.

12.3.4. CONCRETE TRUCKS: CONTRACTORS WILL PROVIDE DESIGNATED TRUCK WASHOUT AREAS ON THE SITE. THESE AREAS MUST BE SELF CONTAINED AND NOT CONNECTED TO ANY STORMWATER OUTLET OF THE SITE, AND PROPERLY SIGNED. UPON COMPLETION OF CONSTRUCTION WASHOUT AREAS WILL BE PROPERLY STABILIZED.

12.4. SPILL MANAGEMENT

IN ADDITION TO THE PREVIOUS HOUSEKEEPING AND MANAGEMENT PRACTICES, THE FOLLOWING PRACTICES WILL BE FOLLOWED FOR SPILL PREVENTION AND CLEANUP IF NECESSARY:

12.4.1. ALL ONSITE VEHICLES SHALL BE MONITORED FOR LEAKS AND RECEIVE REGULAR PREVENTATIVE MAINTENANCE TO REDUCE THE CHANGE OF LEAKAGE AND SPILLS.

12.4.2. FOR ALL HAZARDOUS MATERIALS STORED ON SITE, THE MANUFACTURER'S RECOMMENDED METHODS FOR SPILL CLEAN UP WILL BE CLEARLY POSTED. SITE PERSONNEL WILL BE MADE AWARE OF THE PROCEDURES AND THE LOCATIONS OF THE INFORMATION AND CLEANUP SUPPLIES.

12.4.3. APPROPRIATE CLEANUP MATERIALS AND EQUIPMENT WILL BE MAINTAINED BY THE CONTRACTOR IN THE MATERIALS STORAGE AREA ON-SITE AND UNDER COVER. SPILL RESPONSE EQUIPMENT SHALL BE INSPECTED AND MAINTAINED BY THE CONTRACTOR AS NECESSARY TO REPLACE ANY MATERIALS USED IN SPILL RESPONSE ACTIVITIES.

12.4.4. ALL SPILLS SHALL BE CLEANED IMMEDIATELY AFTER DISCOVERY AND THE MATERIALS DISPOSED OF PROPERLY. THE SPILL AREA WILL BE KEPT WELL VENTILATED AND PERSONNEL WILL WEAR APPROPRIATE PROTECTIVE CLOTHING TO PREVENT INJURY FROM CONTACT WITH A HAZARDOUS SUBSTANCE.

12.4.5. THE CONTRACTOR'S RESPONSIBLE PARTY WILL BE THE SPILL PREVENTION AND CLEANUP COORDINATOR. THE CONTRACTOR IS RESPONSIBLE FOR ENSURING THAT THE SITE SUPERINTENDENT HAS HAD APPROPRIATE TRAINING FOR HAZARDOUS MATERIALS HANDLING, SPILL MANAGEMENT, AND CLEANUP.

12.4.6. IF SPILLS REPRESENT AN IMMINENT THREAT OF ESCAPING THE SITE AND ENTERING RECEIVING WATERS, PERSONNEL WILL RESPOND IMMEDIATELY TO CONTAIN THE RELEASE AND NOTIFY THE SUPERINTENDENT AFTER THE SITUATION HAS BEEN STABILIZED.

12.4.7. IF AN OIL SHEEN IS OBSERVED ON SURFACE WATER (E.G. SETTLING PONDS, DETENTION PONDS, SWALES), ACTION WILL BE TAKEN IMMEDIATELY TO REMOVE THE MATERIAL CAUSING THE SHEEN. THE CONTRACTOR WILL USE APPROPRIATE MATERIALS TO CONTAIN AND ABSORB THE SPILL. THE SOURCE OF THE OIL SHEEN WILL ALSO BE IDENTIFIED AND REMOVED OR REPAIRED AS NECESSARY TO PREVENT FURTHER RELEASES.

12.4.8. IF A SPILL OCCURS THE CONTRACTOR'S RESPONSIBLE PARTY SHALL BE RESPONSIBLE FOR COMPLETING THE SPILL REPORTING FORM AND FOR REPORTING THE SPILL TO THE TDOT PROJECT RESPONSIBLE PARTY. ALL SPILLS MUST BE REPORTED TO THE APPROPRIATE AGENCY, AND MEASURES SHALL BE TAKEN IMMEDIATELY TO PREVENT THE POLLUTION OF WATERS OF THE STATE/U.S., INCLUDING GROUNDWATER, SHOULD A SPILL OCCUR.

12.5. SPILL NOTIFICATION (6.1)

WHERE A RELEASE CONTAINING A HAZARDOUS SUBSTANCE IN AN AMOUNT EQUAL TO, OR MORE THAN A REPORTABLE QUANTITY ESTABLISHED UNDER EITHER 40 CFR 117 OR 40 CFR 302 OCCURS DURING A 24 HOUR PERIOD:

12.5.1. THE TDOT PROJECT ENGINEER IS RESPONSIBLE FOR NOTIFYING THE REGIONAL PROJECT DEVELOPMENT OFFICE (E.G. TRANSPORTATION ENVIRONMENTAL STUDIES SPECIALIST) AS SOON AS HE OR SHE HAS KNOWLEDGE OF THE DISCHARGE.

12.5.2. THE TDOT REGIONAL PROJECT DEVELOPMENT OFFICE WILL NOTIFY THE LOCAL TDEC ENVIRONMENTAL FIELD OFFICE AND ANY OTHER APPLICABLE REGULATORY AGENCIES WITHIN 24 HOURS OF THE SPILL.

12.5.3. IN ADDITION TO ANY FOLLOW UP NOTIFICATIONS REQUIRED BY FEDERAL LAW, A WRITTEN DESCRIPTION OF THE RELEASE, DATE OF RELEASE AND CIRCUMSTANCES LEADING TO THE RELEASE, WHAT ACTIONS WERE TAKEN TO MITIGATE EFFECTS OF THE RELEASE, AND STEPS TAKEN TO MINIMIZE THE CHANCE OF FUTURE OCCURRENCES WILL BE SUBMITTED TO THE APPROPRIATE TDEC ENVIRONMENTAL FIELD OFFICE WITHIN 2 WEEKS OF KNOWLEDGE OF THE RELEASE.

12.5.4. THE SWPPP MUST BE MODIFIED WITHIN 2 WEEKS OF KNOWLEDGE OF THE RELEASE PROVIDING A DESCRIPTION OF THE RELEASE, CIRCUMSTANCES LEADING TO THE RELEASE, AND THE DATE OF RELEASE. THE SWPPP WILL BE REVIEWED AND MODIFIED AS NECESSARY TO IDENTIFY MEASURES TO PREVENT THE REOCCURRENCE OF SUCH RELEASES AND TO RESPOND TO SUCH RELEASES.

13. RECORD-KEEPING

13.1. REQUIRED RECORDS

TDOT OR THEIR DULY AUTHORIZED REPRESENTATIVE WILL MAINTAIN AT THE SITE THE FOLLOWING RECORDS OF CONSTRUCTION ACTIVITIES (7.2.1.) (7.2.1.):

13.1.1. THE DATES WHEN MAJOR GRADING ACTIVITIES OCCUR.

13.1.2. THE DATES WHEN CONSTRUCTION ACTIVITIES TEMPORARILY OR PERMANENTLY CEASE ON A PORTION OF THE SITE.

13.1.3. THE DATES WHEN STABILIZATION MEASURES ARE INITIATED.

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13.1.4. RECORDS EPSC INSPECTION REPORTS AND CORRECTIVE MEASURES.

13.1.5. RECORDS OF QUALITY ASSURANCE SITE ASSESSMENTS.

13.1.6. COPY OF SITE EPSC INSPECTOR'S CERTIFICATION AND/OR LICENSING

13.1.7. A COPY OF ANY REGULATORY CORRESPONDENCE REGARDING THE EFFECTIVENESS OF THE SWPPP OR EPSC CONTROLS.

13.2. RAINFALL MONITORING PLAN (7.2.1.):

13.2.1. EQUIPMENT
AT A MINIMUM, THE CONTRACTOR WILL INSTALL A FENCE POST TYPE RAIN GAUGE TO MEASURE RAINFALL. THE STANDARD FENCE POST RAIN GAUGE WILL BE A WEDGE-SHAPED GAUGE THAT MEASURES UP TO 6 INCHES OF RAINFALL. AN ENGLISH SCALE WILL BE PROVIDED ON ONE FACE, WITH A METRIC SCALE ON THE OTHER FACE. GRADUATION WILL BE PERMANENTLY MOLDED IN DURABLE WEATHER-RESISTANT PLASTIC. THE MINIMUM GRADUATION WILL BE 0.01 INCH (OR 0.1MM). AN ALUMINUM BRACKET WITH SCREWS MAY BE USED TO MOUNT THE GAUGE ON A WOODEN SUPPORT.

13.2.2. LOCATION
THE RAIN GAUGE WILL BE LOCATED AT OR ALONG THE PROJECT SITE, AS DEFINED IN THE NOI OF THE NPDES PERMIT, IN AN OPEN AREA SUCH THAT THE MEASUREMENT WILL NOT BE INFLUENCED BY OUTSIDE FACTORS (I.E. OVERHANGS, GUTTER, TREES, ETC.). AT LEAST ONE RAIN GAUGE PER LINEAR MILE IS REQUIRED ALONG (AS MEASURED ALONG THE CENTERLINE OF THE PRIMARY ALIGNMENT) THE PROJECT WHERE CLEARING, GRUBBING, EXCAVATION, GRADING, CUTTING OR FILLING IS ACTIVELY PERFORMED, OR EXPOSED SOIL HAS NOT YET BEEN PERMANENTLY STABILIZED.

13.2.3. METHODS
RAINFALL MONITORING WILL BE INITIATED PRIOR TO CLEARING, GRUBBING, EXCAVATION, GRADING, CUTTING, OR FILLING, EXCEPT AS SUCH MINIMAL CLEARING MAY BE NECESSARY TO INSTALL A RAIN GAUGE IN AN OPEN AREA. THE RAIN GAUGE WILL BE CHECKED FOR OPERATIONAL SOUNDNESS DAILY (DURING NORMAL BUSINESS HOURS) IN WET TIMES AND WEEKLY IN DRY TIMES. GAUGES WILL BE REPAIRED OR REPLACED ON THE SAME DAY IF FOUND TO BE NON-OPERATIONAL OR MISSING.

13.2.4. EACH RAIN GAUGE WILL BE READ (FOR DETAILED RECORDS OF RAINFALL) AND EMPTIED AFTER EVERY RAINFALL EVENT OCCURRING ON THE PROJECT SITE AT APPROXIMATELY THE SAME TIME OF THE DAY (DURING NORMAL BUSINESS HOURS). DURING PERIODS OF DRY CONDITIONS, IT WILL NOT BE NECESSARY TO READ THE RAIN GAUGE EVERY DAY. IN LIEU OF THIS REQUIREMENT ON WEEKENDS AND ON STATE HOLIDAYS, THE RAIN GAUGES CAN BE EMPTIED THE NEXT BUSINESS DAY AND A REFERENCE SITE USED FOR A RECORD OF DAILY AMOUNT OF PRECIPITATION FOR THOSE DAYS. A REFERENCE SITE IS THE DOCUMENTATION FROM THE CLOSEST GAUGE WITHIN PROXIMITY OF THE PROJECT FROM A RECOGNIZED SOURCE SUCH AS THE NOAA NATIONAL WEATHER SERVICE.

13.2.5. DETAILED RECORDS WILL BE RECORDED OF RAINFALL EVENTS INCLUDE DATES, AMOUNTS OF RAINFALL, AND THE APPROXIMATE DURATION (OR THE STARTING AND ENDING TIMES). THE RAINFALL RECORDS SHALL BE RECORDED ON THE TDOT RAINFALL RECORD SHEET AND SHALL BE MAINTAINED IN THE "DOCUMENTATION AND PERMITS" BINDER.

13.2.6. IF THE RAINFALL EVENT IS STILL IN PROGRESS AT THE DAILY RECORDING TIME, THE GAUGE WILL BE EMPTIED AND THE RECORD WILL INDICATE THAT THE STORM EVENT WAS STILL IN PROGRESS.

13.2.7. RAIN GAUGE INFORMATION (DETAILED RECORDS), INCLUDING THE LOCATION OF THE NEAREST OUTFALL, WILL BE RECORDED ON THE EPSC INSPECTION REPORT FORMS AT THE TIME OF MEASUREMENT.

13.3. KEEPING PLANS CURRENT (5.4.)

13.3.1. THE EPSC PLAN IS TO SERVE AS AN INITIAL GUIDE FOR SITE PERSONNEL AS THE CONSTRUCTION PROCESS DEVELOPS. IT MUST BE AMENDED, MODIFIED, AND UPDATED WHENEVER EPSC INSPECTIONS INDICATE, OR WHERE STATE OR FEDERAL REGULATORY OFFICIALS DETERMINE EPSC MEASURES ARE PROVING INEFFECTIVE IN ELIMINATING OR SIGNIFICANTLY MINIMIZING POLLUTANT SOURCES OR ARE OTHERWISE NOT ACHIEVING THE GENERAL OBJECTIVES OF CONTROLLING POLLUTANTS IN STORMWATER DISCHARGES ASSOCIATED WITH THE CONSTRUCTION ACTIVITY.

13.3.2. THE STAGES DEPICTED WITHIN THE EPSC PLANS MAY NOT COINCIDE WITH THE ACTUAL STAGES OF CONSTRUCTION ESTABLISHED BY THE CONTRACTOR DURING CONSTRUCTION, THUS MODIFICATIONS WILL BE REQUIRED TO ENSURE THE EPSC PLAN IS MAINTAINED TO DEPICT CURRENT SITE CONDITIONS. IT SHOULD BE MAINTAINED SUCH THAT IT WILL ALWAYS REFLECT THE MEASURES THAT ARE INSTALLED DURING THE VARIOUS STAGES OF CONSTRUCTION. IT IS IMPRACTICAL TO DETERMINE ALL THE INTERMEDIATE STAGES OF CONSTRUCTION THAT WILL OCCUR, THUS THESE DOCUMENTS MUST BE UPDATED THROUGHOUT THE LIFE OF THE CONSTRUCTION PROJECT.

13.3.3. THE TDOT EPSC INSPECTOR OR THEIR DULY AUTHORIZED REPRESENTATIVE WILL MODIFY AND UPDATE THE SWPPP WHEN ANY OF THE FOLLOWING CONDITIONS APPLY:

13.3.3.1. WHENEVER THERE IS A CHANGE IN THE SCOPE OF THE PROJECT THAT WOULD BE EXPECTED TO HAVE A SIGNIFICANT EFFECT ON THE DISCHARGE OF POLLUTANTS TO THE WATERS OF THE STATE AND WHICH HAS NOT OTHERWISE BEEN ADDRESSED IN THE SWPPP;

13.3.3.2. WHENEVER INSPECTIONS OR INVESTIGATIONS BY SITE OPERATORS, LOCAL, STATE, OR FEDERAL OFFICIALS INDICATE THE SWPPP IS PROVING INEFFECTIVE IN ELIMINATING OR SIGNIFICANTLY MINIMIZING POLLUTANTS FROM CONSTRUCTION ACTIVITY SOURCES, OR IS OTHERWISE NOT ACHIEVING THE GENERAL OBJECTIVES OF CONTROLLING POLLUTANTS IN STORMWATER DISCHARGES ASSOCIATED WITH CONSTRUCTION ACTIVITY; WHERE LOCAL, STATE, OR FEDERAL OFFICIALS DETERMINE THAT THE SWPPP IS INEFFECTIVE IN ELIMINATING OR SIGNIFICANTLY MINIMIZING POLLUTANT SOURCES, A COPY OF ANY CORRESPONDENCE TO THAT EFFECT MUST BE RETAINED IN THE SWPPP;

13.3.3.3. WHEN ANY NEW OPERATOR AND/OR SUB-OPERATOR IS ASSIGNED OR RELIEVED OF THEIR RESPONSIBILITY TO IMPLEMENT A PORTION OF THE SWPPP;

13.3.3.4. TO PREVENT A NEGATIVE IMPACT TO LEGALLY PROTECTED STATE OR FEDERALLY LISTED OR PROPOSED THREATENED OR ENDANGERED AQUATIC FAUNA;

13.3.3.5. WHEN THERE IS A CHANGE IN CHEMICAL TREATMENT METHODS INCLUDING: USE OF DIFFERENT TREATMENT CHEMICALS, DIFFERENT DOSAGE OR APPLICATION RATES OR A DIFFERENT AREA OF APPLICATION NOT SPECIFIED ON THE EPSC PLANS.

13.3.3.6. ALL SWPPP REVISION(S) SHALL BE RECORDED WITHIN 1 WEEK BY THE PROJECT EPSC INSPECTOR.

13.3.3.7. WHEN A TMDL IS DEVELOPED FOR THE RECEIVING WATERS FOR A POLLUTANT OF CONCERN (SILTATION AND/OR HABITAT ALTERATION), CONSTRUCTION SHALL NOTIFY THE PERMITS SECTION FOR PROPER COORDINATION.

13.4. MAKING PLANS ACCESSIBLE

13.4.1. TDOT WILL RETAIN A COPY OF THIS SWPPP (INCLUDING A COPY OF THE "DOCUMENTATION AND PERMITS" BINDER AT THE CONSTRUCTION SITE (OR OTHER LOCATION ACCESSIBLE TO TDEC AND THE PUBLIC) FROM THE DATE CONSTRUCTION COMMENCES TO THE DATE OF PERMANENT STABILIZATION. TDOT WILL HAVE A COPY OF THE SWPPP AVAILABLE AT THE LOCATION WHERE WORK IS OCCURRING ON-SITE FOR THE USE OF OPERATORS AND THOSE IDENTIFIED AS HAVING RESPONSIBILITIES UNDER THE SWPPP WHENEVER THEY ARE ON THE CONSTRUCTION SITE (7.2.).

13.4.2. PRIOR TO THE INITIATION OF LAND DISTURBING ACTIVITIES AND UNTIL THE SITE HAS MET THE PERMANENT STABILIZATION CRITERIA, TDOT OR THEIR DULY AUTHORIZED REPRESENTATIVE WILL POST A NOTICE NEAR THE MAIN ENTRANCE OF THE CONSTRUCTION SITE WITH THE FOLLOWING INFORMATION (5.3.4.) (7.2.1.):

13.4.2.1. A COPY OF THE NOTICE OF COVERAGE (NOC) WITH THE NPDES PERMIT NUMBER FOR THE PROJECT;

13.4.2.2. THE INDIVIDUAL NAME, COMPANY NAME, E-MAIL ADDRESS (IF APPLICABLE) AND TELEPHONE NUMBER OF THE LOCAL PROJECT SITE OWNER AND OPERATOR CONTACT;

13.4.2.3. A BRIEF DESCRIPTION OF THE PROJECT; AND

13.4.2.4. THE LOCATION OF THE SWPPP.

13.4.3. ALL INFORMATION DESCRIBED IN SECTION 13.4.2 MUST BE MAINTAINED IN LEGIBLE CONDITION. IF POSTING THIS INFORMATION NEAR A MAIN ENTRANCE IS INFEASIBLE DUE TO SAFETY CONCERNS, THE NOTICE SHALL BE POSTED IN A LOCAL BUILDING. THE NOTICE MUST BE PLACED IN A PUBLICLY ACCESSIBLE LOCATION WHERE CONSTRUCTION IS ACTIVELY UNDERWAY AND MOVED AS NECESSARY.

13.5. NOTICE OF TERMINATION (9.0.)

13.5.1. WHEN ALL STORMWATER DISCHARGES FROM CONSTRUCTION ACTIVITIES THAT ARE AUTHORIZED BY THE PERMIT ARE ELIMINATED BY PERMANENT STABILIZATION, THE TDOT REGIONAL ENGINEER WILL SUBMIT A NOTICE OF TERMINATION (NOT) THAT IS SIGNED IN ACCORDANCE WITH THE PERMIT TO THE TDEC CENTRAL OFFICE IN NASHVILLE, TN.

13.5.2. FOR THE PURPOSES OF THE CERTIFICATION REQUIRED BY THE NOT, THE ELIMINATION OF STORMWATER DISCHARGES ASSOCIATED WITH THE CONSTRUCTION ACTIVITY MEANS THE

13.5.2.1. ALL EARTH-DISTURBING ACTIVITIES ON THE SITE ARE COMPLETED AND ALL DISTURBED SOILS AT THE PORTION OF THE CONSTRUCTION SITE WHERE THE OPERATOR HAD CONTROL HAVE BEEN PERMANENTLY STABILIZED; AND

13.5.2.2. ALL CONSTRUCTION MATERIALS, WASTE AND WASTE HANDLING DEVICES, AND ALL EQUIPMENT, AND VEHICLES THAT WERE USED DURING CONSTRUCTION HAVE BEEN REMOVED AND PROPERLY DISPOSED; AND

13.5.2.3. ALL STORMWATER CONTROLS THAT WERE INSTALLED AND MAINTAINED DURING CONSTRUCTION, EXCEPT THOSE THAT ARE INTENDED FOR LONG-TERM USE FOLLOWING TERMINATION OF PERMIT COVERAGE, HAVE BEEN REMOVED; AND

13.5.2.4. ALL POTENTIAL POLLUTANTS AND POLLUTANT GENERATING ACTIVITIES ASSOCIATED WITH CONSTRUCTION HAVE BEEN REMOVED; AND

13.5.2.5. THE PERMITTEE HAS IDENTIFIED WHO IS RESPONSIBLE FOR ONGOING MAINTENANCE OF ANY STORMWATER CONTROLS LEFT ON THE SITE FOR LONG-TERM USE FOLLOWING TERMINATION OF PERMIT COVERAGE; AND

13.5.2.6. TEMPORARY EPSC MEASURES HAVE BEEN OR WILL BE REMOVED AT AN APPROPRIATE TIME TO ENSURE PERMANENT STABILIZATION IS MAINTAINED; AND

13.5.2.7. ALL STORMWATER DISCHARGES ASSOCIATED WITH CONSTRUCTION ACTIVITIES FROM THE IDENTIFIED SITE THAT ARE AUTHORIZED BY A NPDES GENERAL PERMIT HAVE OTHERWISE BEEN ELIMINATED FROM THE PORTION OF THE CONSTRUCTION SITE WHERE THE OPERATOR HAD CONTROL.

13.6. RETENTION OF RECORDS (7.1.)

TDOT WILL RETAIN COPIES OF THE SWPPP, ALL REPORTS REQUIRED BY THE PERMIT, AND RECORDS OF ALL DATA USED TO COMPLETE THE NOTICE OF INTENT FOR THE PROJECT FOR A PERIOD OF AT LEAST THREE (3) YEARS FROM THE DATE THE NOT WAS FILED.

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TENNESSEE D.O.T. | DESIGN DIVISION | FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
PSE	2026	BRZ-3700(43)	S-7

14. SITE WIDE/PRIMARY PERMITTEE CERTIFICATION (8.7.5.)

I CERTIFY UNDER PENALTY OF LAW THAT THIS DOCUMENT AND ALL ATTACHMENTS WERE PREPARED BY ME, OR UNDER MY DIRECTION OR SUPERVISION. THE SUBMITTED INFORMATION IS TO THE BEST OF MY KNOWLEDGE AND BELIEF, TRUE, ACCURATE, AND COMPLETE. I AM AWARE THAT THERE ARE SIGNIFICANT PENALTIES FOR SUBMITTING FALSE INFORMATION, INCLUDING THE POSSIBILITY OF FINE AND IMPRISONMENT. AS SPECIFIED IN TENNESSEE CODE ANNOTATED SECTION 39-16-702(a)(4), THIS DECLARATION IS MADE UNDER PENALTY OF PERJURY.

Keven Brown
AUTHORIZED TDOT PERSONNEL SIGNATURE (5.3.3.)

KEVEN BROWN
PRINTED NAME

TEAM LEAD
TITLE

7-7-26
DATE

15. SECONDARY PERMITTEE (OPERATOR) CERTIFICATION (8.7.6.)

I CERTIFY UNDER PENALTY OF LAW THAT I HAVE REVIEWED THIS DOCUMENT, ANY ATTACHMENTS, AND THE SWPPP REFERENCED ABOVE. BASED ON MY INQUIRY OF THE CONSTRUCTION SITE OWNER/DEVELOPER IDENTIFIED ABOVE AND/OR MY INQUIRY OF THE PERSON DIRECTLY RESPONSIBLE FOR ASSEMBLING THIS NOI AND SWPPP, I BELIEVE THE INFORMATION SUBMITTED IS ACCURATE. I AM AWARE THAT THIS NOI, IF APPROVED, MAKES THE ABOVE-DESCRIBED CONSTRUCTION ACTIVITY SUBJECT TO NPDES PERMIT NUMBER TNR100000, AND THAT CERTAIN OF MY ACTIVITIES ONSITE ARE THEREBY REGULATED. I AM AWARE THAT THERE ARE SIGNIFICANT PENALTIES, INCLUDING THE POSSIBILITY OF FINE AND IMPRISONMENT FOR KNOWING VIOLATIONS, AND FOR FAILURE TO COMPLY WITH THESE PERMIT REQUIREMENTS. AS SPECIFIED IN TENNESSEE CODE ANNOTATED SECTION 39-16-702(a)(4), THIS DECLARATION IS MADE UNDER PENALTY OF PERJURY.

AUTHORIZED CONTRACTOR PERSONNEL SIGNATURE (5.3.3.)

PRINTED NAME

TITLE

DATE

16. ENVIRONMENTAL PERMITS (1.5.2.)

LIST ALL ENVIRONMENTAL PERMITS AND EXPIRATION DATES FOR PROJECT **(TO BE COMPLETED AT THE ENVIRONMENTAL PRECONSTRUCTION MEETING BY TDOT CONSTRUCTION OR THEIR DULY AUTHORIZED REPRESENTATIVE)**:

ENVIRONMENTAL PERMITS			
PERMIT	**YES OR NO**	**PERMIT OR TRACKING NO.**	**EXPIRATION DATE***
TDEC ARAP	NO		
CORPS OF ENGINEERS (USACE)	NO		
TVA 26A	NO		
TDEC CGP	YES	TNR192249	9/30/2026
OTHER:			

*THE TDOT ENVIRONMENTAL DIVISION MUST BE NOTIFIED SIX MONTHS PRIOR TO PERMIT EXPIRATION DATE.

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17. OUTFALL TABLE (5.5.1.c, 6.4.1.e, 6.4.1.f)

OUTFALL LABEL	SUB OUT-FALL	STATION CL, LT OR RT	SLOPE WITHIN ROW (%)	STAGE 1 DRAINAGE AREA (AC)	STAGE 2 DRAINAGE AREA (AC)	STAGE 3 DRAINAGE AREA (AC)	SEDIMENT BASIN OR EQUIVALENT MEASURE(S) (YES, NO OR N/A)	SEDIMENT TRAP OR EQUIVALENT MEASURE(S) (YES, NO OR N/A)	RECEIVING RESOURCE (TDOT EBR LABEL) OR OTHER	COMMENTS
1		AFG 107+20 LT	8.0	0.96	0.96				Bradley Creek	
2		AFG 108+80 LT	12.1	0.08	0.08				Bradley Creek	
3		AFG 107+00 RT	37.5	0.07	0.07				Bradley Creek	
4		AFG 108+00 RT	11.1	0.16	0.16				Bradley Creek	
5		AFG 102+30 LT	9.8	0.64	0.64				Bradley Creek	
6		AFG 107+80 LT	1.1	12.27	12.27				Bradley Creek	
7		AFG 111+20 LT	20.9	0.30	0.30				Bradley Creek	
8		AFG 111+80 LT	12.7	1.27	1.27				Bradley Creek	

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TENN.	YEAR	SHEET NO.
	2026	U1-1
FED. AID PROJ. NO.	BRZ-3700(43)	
STATE PROJ. NO.	37LCOU-F3-006	

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF ENGINEERING

HAWKINS COUNTY

AFG ROAD, BRIDGE OVER SOUTHERN RAILWAY (IA)

STATE HIGHWAY NO. U.S. ROUTE NO. NA

UTILITIES INDEX

SHEET NAME	SHEET NUMBER
HAWKINS COUNTY GAS UTILITY DISTRICT	U1 SERIES
HOLSTON ELECTRIC COOPERATIVE	
CHARTER	
FIRST UTILITY DISTRICT OF HAWKINS COUNTY-WATER	U2 SERIES
CITY OF CHURCH HILL-SEWER	**U3 SERIES**

UTILITIES NOT IN ROADWAY CONTRACT

GAS: HAWKINS COUNTY GAS UTILITY DISTRICT P.O. BOX 667 202 PARK BLVD. ROGERSVILLE, TN 37857 PATRICK LUND (423) 272-8841 (MOVE PRIOR)	ELEC: HOLSTON ELECTRIC COOP. P.O. BOX 190 1200 WEST MAIN ST. ROGERSVILLE, TN 37857 NATHAN FRANKLIN (865) 754-5424 (MOVE PRIOR)
COMM: CHARTER 1774 HENRY G. LANE ST. MARYVILLE, TN 37801 BILLY CLICK (865) 388-7524 (NO RESPOSNE)	

UTILITIES IN ROADWAY CONTRACT

SEWER: CITY OF CHURCH HILL-SEWER P.O. BOX 366 251 SILVER LAKE RD. CHURCH HILL, TN 37642 GREG LINKOUS (423) 676-1531 (MOVE-IN-STATE)	WATER: FIRST UTILITY DIST. OF HAWKINS P.O. BOX 8523 W MAIN BLVD CHURCH HILL, TN 37642 JEREMY JONES (423) 384-0604 (MOVE-IN-STATE)

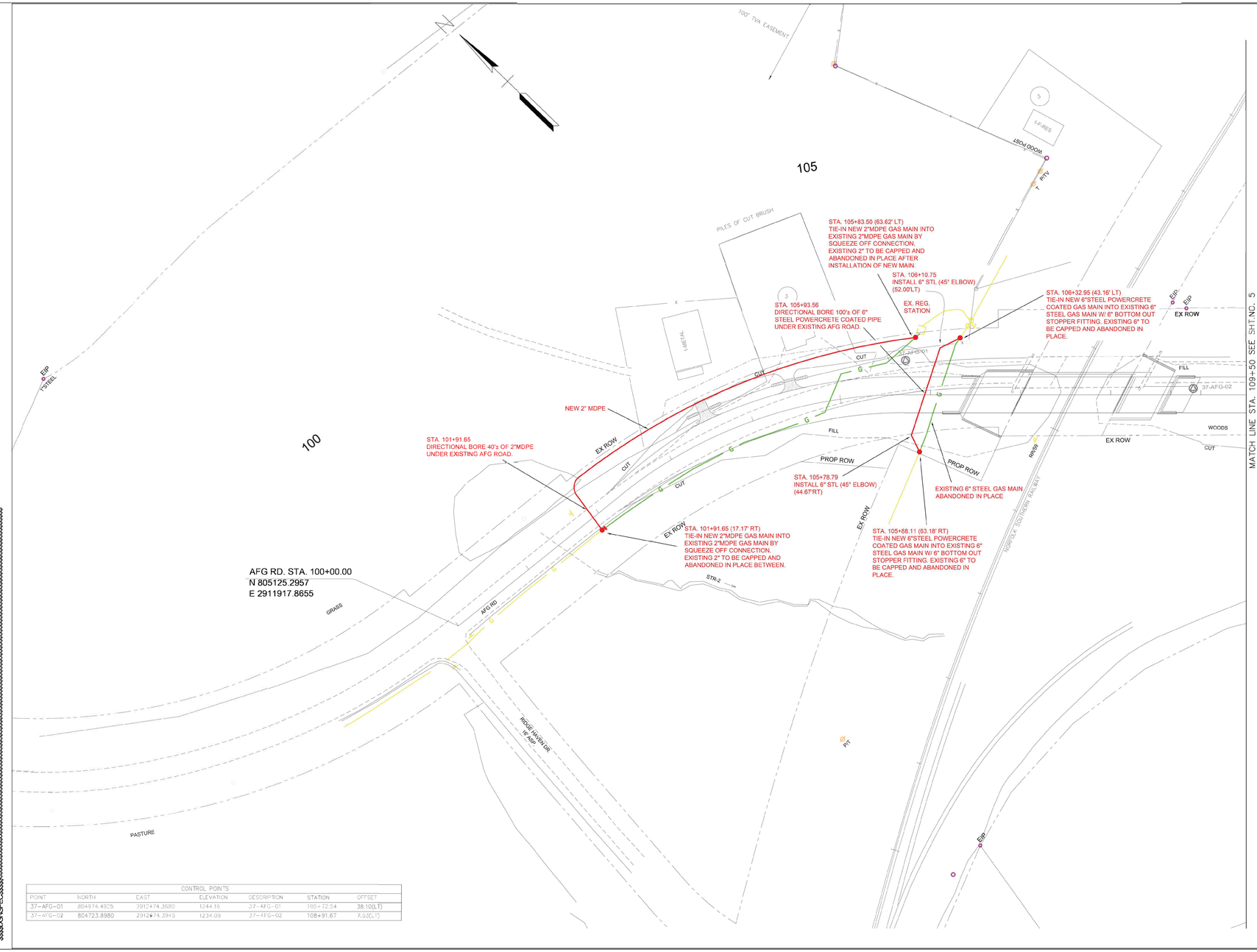
STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

UTILITY INDEX,
UTILITY OWNERS

$$$$SYTIME$$$$$$$$
$$$$DGNSPEC$$$$$$$$

TYPE	YEAR	PROJECT NO.	SHEET NO.
PS&E	2026	37LCOU-F3-006	U1-2

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST	2022	37455-242204	U2-1



CONTROL POINTS						
POINT	NORTH	EAST	ELEVATION	DESCRIPTION	STATION	OFFSET
37-AFG-01	804974.4925	2912474.3580	1244.16	37-AFG-01	105+72.54	38.10(LT)
37-AFG-02	804723.8980	2912674.3945	1234.09	37-AFG-02	108+91.67	7.03(LT)

SEALED BY

COORDINATES ARE NAD 83(1995), ARE DATUM ADJUSTED BY THE FACTOR OF 1.00004 AND TIED TO THE TGRN. ALL ELEVATIONS ARE REFERENCED TO THE NAVD 1988 WITH GEOID 12B.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

GAS LINE RELOCATION
AFG ROAD
SCALE: 1"= 50'

$$$$SYTIMESSSSS
$$$$DGNSPECSSS

TYPE	YEAR	PROJECT NO.	SHEET NO.
PS&E	2026	37LCOU-F3-006	U1-3

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2022	37455-2422-04	4

UTILITY NOTE: HAWKINS COUNTY GAS UTILITY DISTRICT STATED THE 6" HIGH PRESSURE GAS LINE RAN PARALLEL TO THE RAILROAD ALONG WITH A 50 FOOT GAS LINE EASEMENT.

WATER LINE IS ATTACHED TO NORTHEAST SIDE OF BRIDGE.

AFG ROAD
PI 104+08.40
N 805,075.4681
E 2,912,323.2136
Δ 38° 50' 05" (RT)
D 11° 27' 33"
R 500.00
L 338.90
T 176.25
SE 0.071 FT/FT

NORFOLK SOUTHERN RAILROAD
PI 26+20.34
N 804,794.4513
E 2,912,413.0455
Δ 17° 27' 00" (LT)
D 2° 02' 47"
R 2,800.00
L 852.77
T 429.71

BEGIN PROJ. NO. 37455-2422-04
STA. 103+15.00 (R.O.W.)
N 805080.1127
E 2912229.3009

BEGIN PROJ. NO. 37455-3422-04
STA. 102+20.00 (CONST.)
N 805098.4542
E 2912136.2219

AFG RD. STA. 100+00.00
N 805125.2957
E 2911917.8655

AFG ROAD STA. 107+56.70 =
NORFOLK SOUTHERN RAILROAD
STA. 24+57.56
DOT #730178N
MILE POST 0059.04
N 804815.8325
E 2912575.3233

RICHARD L. CALDWELL AND WIFE, DOROTHY H. CALDWELL — 105

RICHARD L. JENNINGS AND WIFE, MELANIE N. JENNINGS — 2

JEFF DOUTHAT AND WIFE, LINDA DOUTHAT — 4

~~REBECCA A. BARNETT AND HEIRS, ZANE A. JOHNSON AND AUSTIN W. RHOTON~~ — 5

~~GUY BENNY DRINNON AND WIFE, SUZANNE R. DRINNON~~

NORFOLK SOUTHERN RAILROAD — 9, 10

AIR RIGHTS EASEMENT

SLOPE EASEMENT

TRACTS FOR REFERENCE ONLY

CONTROL POINTS						
POINT	NORTH	EAST	ELEVATION	DESCRIPTION	STATION	OFFSET
37-AFG-01	804974.4925	2912474.3680	1244.16	37-AFG-01	105+72.54	38.10(LT)
37-AFG-02	804723.8980	2912674.3945	1234.09	37-AFG-02	108+91.67	7.03(LT)

R.O.W. PLANS

SEALED BY

COORDINATES ARE NAD 83(1995), ARE DATUM ADJUSTED BY THE FACTOR OF 1.00004 AND TIED TO THE TGRN. ALL ELEVATIONS ARE REFERENCED TO THE NAVD 1988 WITH GEOID 12B.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

PRESENT LAYOUT

STA. 102+20 TO STA. 109+50
SCALE: 1"= 50'

26-APR-2022 11:14
\\dot01nas002.idot.state.tn.us\01Shared\SURVDES\Design\PROJECTS\Hawkins AFG Road Bridge over Southern Railway\004.sht

UTILITY REFERENCE - HOLSTON ELECTRIC COOP - ELECTRIC

(NO COST - MOVE PRIOR; NOT TO SCALE)

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

UTILITIES REFERENCE

TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

DATE OF PRINT: 2/20/2023 3:44 PM CTI PROJECT: K10010-05 (First Utility District of Hawk) TDOT AFG Road Water Line Relocation, DRAWING: COVER SHEET (772519v11/2/20/23 3:41PM), LAYOUT: Layout1

State Project No.: 37455-2422-04
AFG Road, Bridge Over Southern Railway
County: Hawkins

TYPE	YEAR	PROJECT NO.	SHEET NO.
PS&E	2026	37LCOU-F3-006	U2-1

REVISIONS

NO.	DATE	BY	DESCRIPTION

Index of Sheets

SHEET NO.	DESCRIPTION
U2-1	COVER SHEET
U2-2	PLAN (BRIDGE)
U2-3	PLAN (STA. 102+20 TO STA. 109+50)
U2-4	PLAN (STA. 109+50 TO STA. 114+50)
U2-5	WATER LINE BRIDGE CROSSING DETAILS
U2-6	STANDARD WATER DETAILS
U2-7	STANDARD WATER DETAILS

ESTIMATED UTILITY QUANTITIES

TDOT ITEM NO.	ITEM DESCRIPTION	UNIT	PROJECT NO.: 37455-2422-04 QUANTITY	% UTILITY BETTERMENT	% PROJECT PUBLIC	% PROJECT PRIVATE	FOOTNOTE	BUY AMERICAN
	WATER ITEMS							
795-01.03	6 IN. DIP RESTRAINED JOINT WATER LINE	LF	487	0%	100%	0%	1, 6	
795-03.05	6 IN. PVC WATER LINE	LF	1022	0%	100%	0%	1, 6	
795-06.03	CONNECT TO 4 IN. WATER LINE	EA	2	0%	100%	0%	2	
795-08.04	6 IN GATE VALVE ASSEMBLY	EA	2	0%	100%	0%	3	
795-10.03	1 IN. AUTO AIR RELEASE VALVE ASSEMBLY	EA	1	0%	100%	0%	3	
795-13.01	DI FITTINGS	LBS	50	0%	100%	0%	1	
795-13.04	BRIDGE HANGER SYSTEM	LS	1	0%	100%	0%	4, 6	
795-15.03	14 IN. STEEL CASING PIPE OPEN CUT METHOD	LF	260	0%	100%	0%	5, 6	

FOOTNOTES TO BE INCLUDED ON PLANS

FOOTNOTE 1:
INCLUDES ALL LABOR AND EQUIPMENT FOR COMPLETE INSTALLATION OF PIPE INCLUDING BUT NOT LIMITED TO TRAFFIC CONTROL, MATERIALS, EQUIPMENT, EXCAVATION IN BOTH UNCONSOLIDATED AND ROCK, REMOVAL AND REPLACEMENT OF UNSUITABLE SOIL, ENVELOPE/BEDDING MATERIAL, BACKFILLING, FLOWABLE FILL, THRUST BLOCKING, CONCRETE DEADMAN, PIPE FUSION, TRACER WIRE, WARNING TAPE, APPURTENANCES, TEMPORARY/PERMANENT SHORING, MAINTAINING THE TRENCH, TESTING, FLUSHING, DISINFECTION, BACTERIOILOGICAL SAMPLING AND TEMPORARY/PERMANENT SURFACE RESTORATION AS SPECIFIED ON THE PLANS. MATERIALS PRODUCED BY UTILITY.

FOOTNOTE 2:
INCLUDES ALL LABOR AND EQUIPMENT NECESSARY FOR CONNECTING TO AN EXISTING WATER LINE INCLUDING TRAFFIC CONTROL. MATERIALS PRODUCED BY UTILITY.

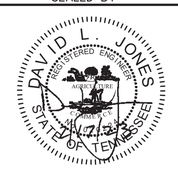
FOOTNOTE 3:
INCLUDES ALL LABOR AND EQUIPMENT INCLUDING BUT NOT LIMITED TO FITTINGS, VALVE, VALVE STEM EXTENSIONS, VALVE BOX AND COVER, BOX ADJUSTMENT, VALVE BOX COLLAR, VALVE MARKER, EXCAVATION, BEDDING, BACKFILL, BLOCKING, AND TRAFFIC CONTROL. MATERIALS PRODUCED BY UTILITY.

FOOTNOTE 4:
INCLUDES ALL MATERIALS, LABOR AND EQUIPMENT INCLUDING PIPE INSULATION AND JACKETING, FOR COMPLETE INSTALLATION OF UNIT OR LUMP SUM ITEM AS SPECIFIED ON BID FORM.

FOOTNOTE 5:
INCLUDES ALL MATERIALS, LABOR AND EQUIPMENT, SETUP AND TRAFFIC CONTROL.

FOOTNOTE 6:
FOR PIPE, 1,022 LF IS TO BE IN TRENCH, 260 LF IS TO BE IN CASING, AND 225 LF IS TO BE ON HANGERS.

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COORDINATE VALUES ARE NAD/83(1995) AND ARE DATUM ADJUSTED BY THE FACTOR 0.99999 & TIED TO THE TGRN.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

UTILITY INFORMATION
FIRST UTILITY DISTRICT OF HAWKINS COUNTY
523 W. MAIN BLVD
CHURCH HILL, TN 37642
PHONE: 423-357-7511
FAX: 423-357-6668

CTIENGINEERS
112 Durwood Road, Suite A
Knoxville, TN 37922
Phone: 865.246.2750

COVER SHEET

TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

CTI PROJECT: K10010-05 (First Utility District of Hawk) TDOT AFG Road Water Line Relocation, DRAWING: PLAN (BRIDGE) (773707v13/2/20/23 4:57PM), LAYOUT: Layout1

DATE OF PRINT: 2/20/2023 4:57 PM

NOTE;

1. INSTALL MODULAR SEALS BETWEEN CARRIER PIPE AND WALL SLEEVE IN THE ABUTMENT. SEALS SHALL BE LINK-SEAL, MODEL LS (OR APPROVED EQUAL.

2. 12-INCH DIA. EXPANSION JOINT FITTING WITH MECHANICAL JOINT ENDS. INSTALL 2 FEET FROM BRIDGE ABUTMENT. MANUFACTURER SHALL BE EBAA IRON, MODEL EX-TEND 212MO (OR APPROVED EQUAL). TOTAL ALLOWABLE EXPANSION WITH TWO FITTINGS PER PIPELINE SHALL BE GREATER THAN 5 INCHES.

3. INSTALL ANCHOR POINT HANGER 2-FOOT FROM END OF EXPANSION JOINT FITTING.

4. INSTALL ONE ANCHOR POINT HANGER AND ONE INTERMEDIATE HANGER AT THE FIRST JOINT ON EITHER SIDE OF A BRIDGE BENT. INSTALL ANCHOR POINT ON THE BENT SIDE OF THE PIPE JOINT AND A MINIMUM OF 4 FEET FROM THE FACE OF THE BENT BUT WITHIN 2-FOOT OF THE PIPE JOINT.

5. INTERMEDIATE HANGERS TO BE PLACED AT 2 FEET DISTANCE ALONG PIPE ON BOTH SIDES OF A JOINT, AND NOT WITHIN 2 FEET OF AN INTERMEDIATE DIAPHRAGMS.

6. DO NOT INSTALL MODULAR SEALS WITHIN WALL SLEEVES/OPENINGS THROUGH BRIDGE BENTS.

7. WHEN INSTALLING PIPE FACILITIES UNDERNEATH THE PROPOSED BRIDGE, THE UTILITY CONTRACTOR SHALL CONDUCT THE WORK IN SUCH A MANNER AS TO SAFEGUARD THE OPERATION AND FACILITIES ON THE RAILWAY BELOW.

8. ALL WORK THAT WILL BE CONDUCTED FOR THE INSTALLATION OF THE PROPOSED WATER LINES SHALL BE SUBJECT TO THE APPROVAL OF THE FIRST UTILITY DISTRICT OF HAWKINS COUNTY, TDOT, AND OTHER AGENCIES.

9. TEMPORARY RAILWAY CLOSURES MAY BE REQUIRED WHEN INSTALLING PIPE OVER RAILWAY BELOW PROPOSED BRIDGE.

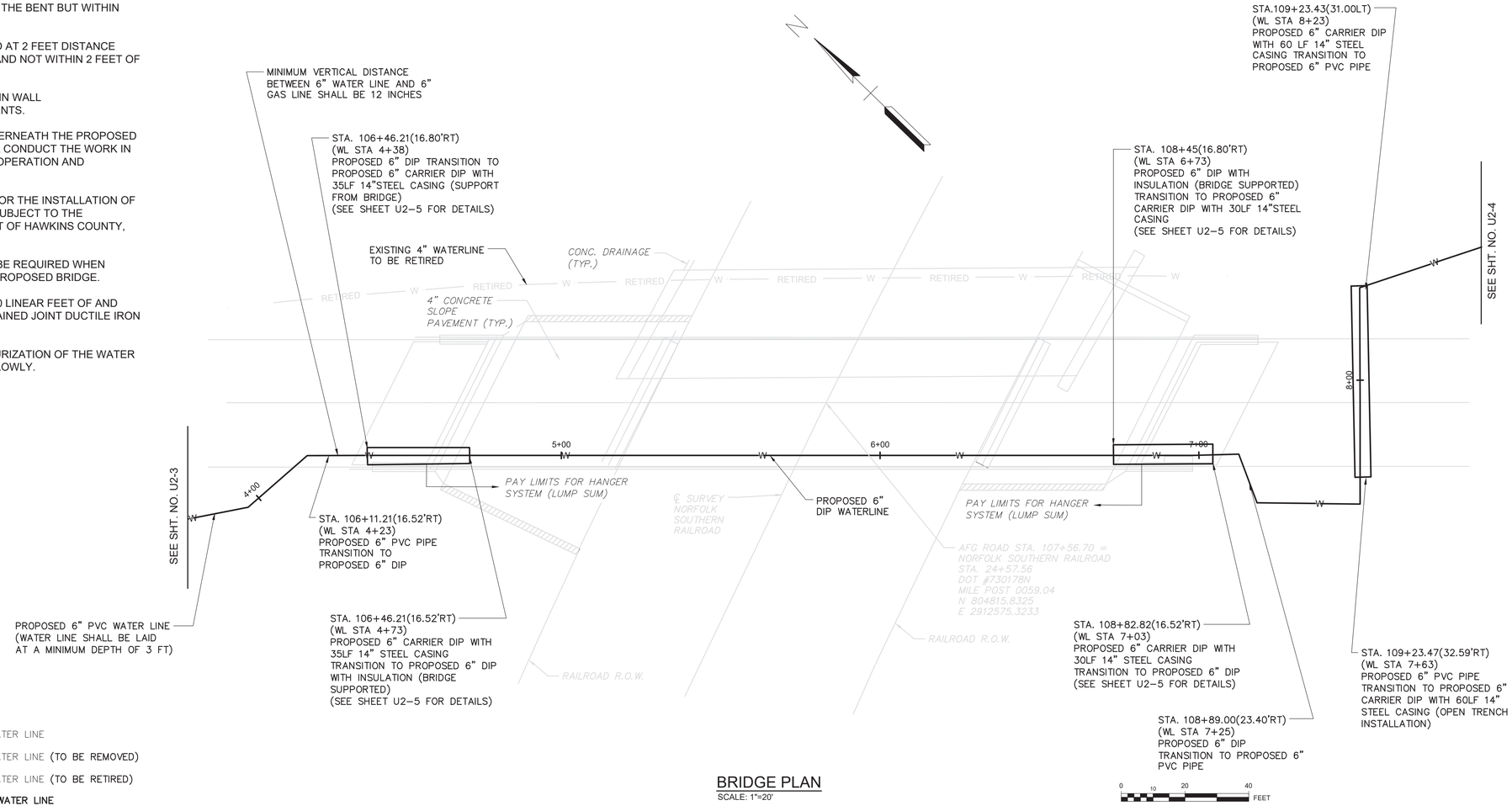
10. POTABLE WATER PIPELINES WITHIN 140 LINEAR FEET OF AND HANGING FROM BRIDGE SHALL BE RESTRAINED JOINT DUCTILE IRON PIPE.

11. WHEN ATTEMPTING THE FIRST PRESSURIZATION OF THE WATER LINE, INCREASE PRESSURE IN THE LINE SLOWLY.

TYPE	YEAR	PROJECT NO.	SHEET NO.
PS&E	2026	37LCOU-F3-006	U2-2

REVISIONS

NO.	DATE	BY	DESCRIPTION



BRIDGE PLAN
SCALE: 1"=20'

LEGEND

—W—	EXISTING WATER LINE
—W— REMOVE	EXISTING WATER LINE (TO BE REMOVED)
—W— RETIRE	EXISTING WATER LINE (TO BE RETIRED)
—W—	PROPOSED WATER LINE
W.M.	EXISTING WATER METER TO BE REMOVED
W.M.	PROPOSED WATER METER
	PROPOSED FIRE HYDRANT
	AIR RELEASE VALVE
	PROPOSED GATE VALVE
OC	CASING BY OPEN CUT
BJ	CASING BY BORE/JACK
STA	TDOT STATION
WL STA	WATER LINE STATION

SEALED BY

DAVID L. JONES
REGISTERED ENGINEER
AGRICULTURE
STATE OF TENNESSEE

COORDINATE VALUES ARE NAD/83(1995) AND ARE DATUM ADJUSTED BY THE FACTOR 0.99999 & TIED TO THE TGRN.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

UTILITY INFORMATION
FIRST UTILITY DISTRICT OF HAWKINS COUNTY
523 W. MAIN BLVD
CHURCH HILL, TN 37642
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CTIENGINEERS
112 Durwood Road, Suite A
Knoxville, TN 37922
Phone: 865.246.2750

PLAN (BRIDGE)

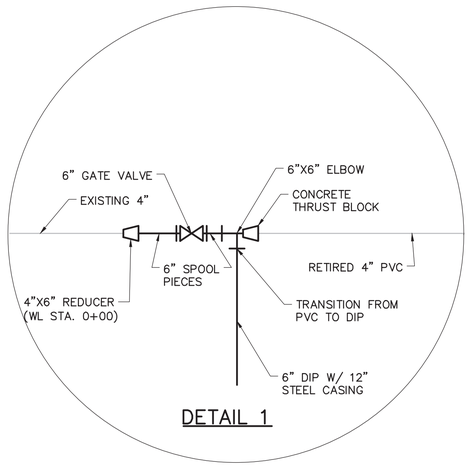
TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

DATE OF PRINT: 2/20/2023 3:38 PM CTI PROJECT: K10010-05 (First Utility District of Hawk) TDOT AFG Road Water Line Relocation, DRAWING: PLAN (102+20-109+50) (775442v15/2/20/23 3:36PM), LAYOUT: Layout1

TYPE	YEAR	PROJECT NO.	SHEET NO.
PS&E	2026	37LCOU-F3-006	U2-3

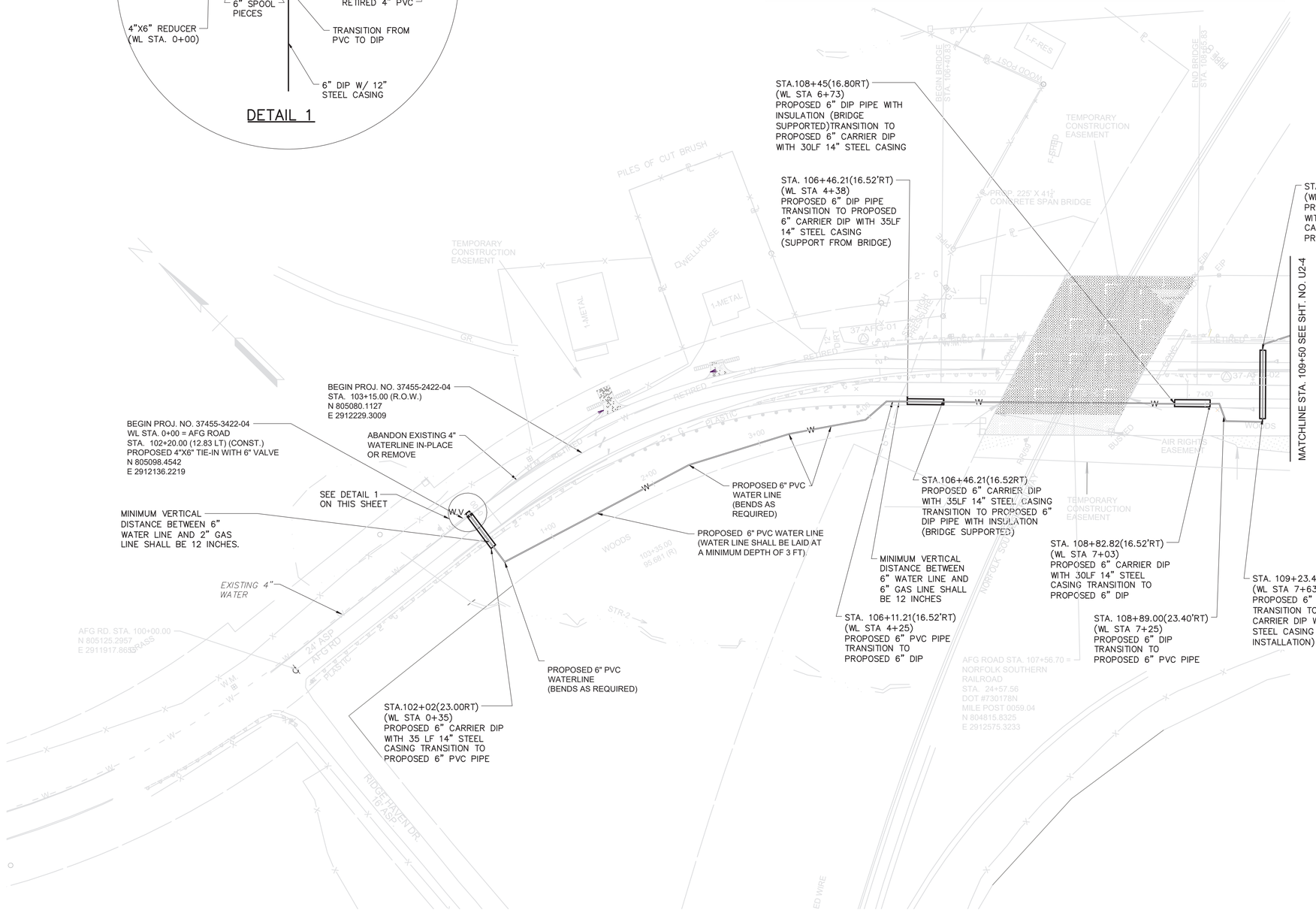
REVISIONS

NO.	DATE	BY	DESCRIPTION



DETAIL 1

NOTES:
1. HAWKINS COUNTY GAS UTILITY DISTRICT STATED THE 6" HIGH PRESSURE GAS LINE RAN PARALLEL TO THE RAILROAD ALONG WITH A 50 FOOT GAS LINE EASEMENT.
2. WATERLINE IS ATTACHED TO THE NORTHEAST SIDE OF BRIDGE.
3. EXISTING WATER METERS TO BE RELOCATED BY FIRST UTILITY DISTRICT OF HAWKINS COUNTY.
4. THE CONTRACTOR SHALL USE ANY MEASURES NECESSARY TO ENSURE THAT NO CONSTRUCTION ACTIVITY WILL OCCUR IN, NOR THAT ANY CONSTRUCTION EQUIPMENT OR MATERIALS WILL ENTER, ANY PORTION OF STR-2 AND THAT THE STREAM AND SURROUNDING VEGETATION WILL NOT BE DISTURBED AND ARE PROTECTED FROM SEDIMENT AND OTHER POLLUTANTS EXCEPT AT THE PERMITTED LOCATIONS.



PLAN STA. 102+20 TO STA. 109+50
SCALE: 1"=50'

0 25 50 100 FEET

LEGEND

W	EXISTING WATER LINE
W REMOVE	EXISTING WATER LINE (TO BE REMOVED)
W RETIRE	EXISTING WATER LINE (TO BE RETIRED)
W	PROPOSED WATER LINE
W.M.	EXISTING WATER METER TO BE REMOVED
W.M.	PROPOSED WATER METER
	PROPOSED FIRE HYDRANT
	AIR RELEASE VALVE
	PROPOSED GATE VALVE
OC	CASING BY OPEN CUT
BJ	CASING BY BORE/JACK
STA	TDOT STATION
WL STA	WATER LINE STATION

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UTILITY INFORMATION
FIRST UTILITY DISTRICT OF HAWKINS COUNTY
523 W. MAIN BLVD
CHURCH HILL, TN 37642
PHONE: 423-357-7511
FAX: 423-357-6668

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

CTIENGINEERS
112 Durwood Road, Suite A
Knoxville, TN 37922
Phone: 865.246.2750

PLAN (STA.102+20-109+50)

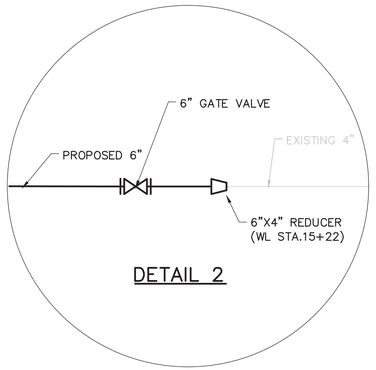
TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

DATE OF PRINT: 2/20/2023 3:38 PM CTI PROJECT: K10010-05 (First Utility District of Hawk) TDOT AFG Road Water Line Relocation, DRAWING: PLAN (109+50 – 116+00) (773170v19/2/20/23 3:15PM), LAYOUT: Layout1

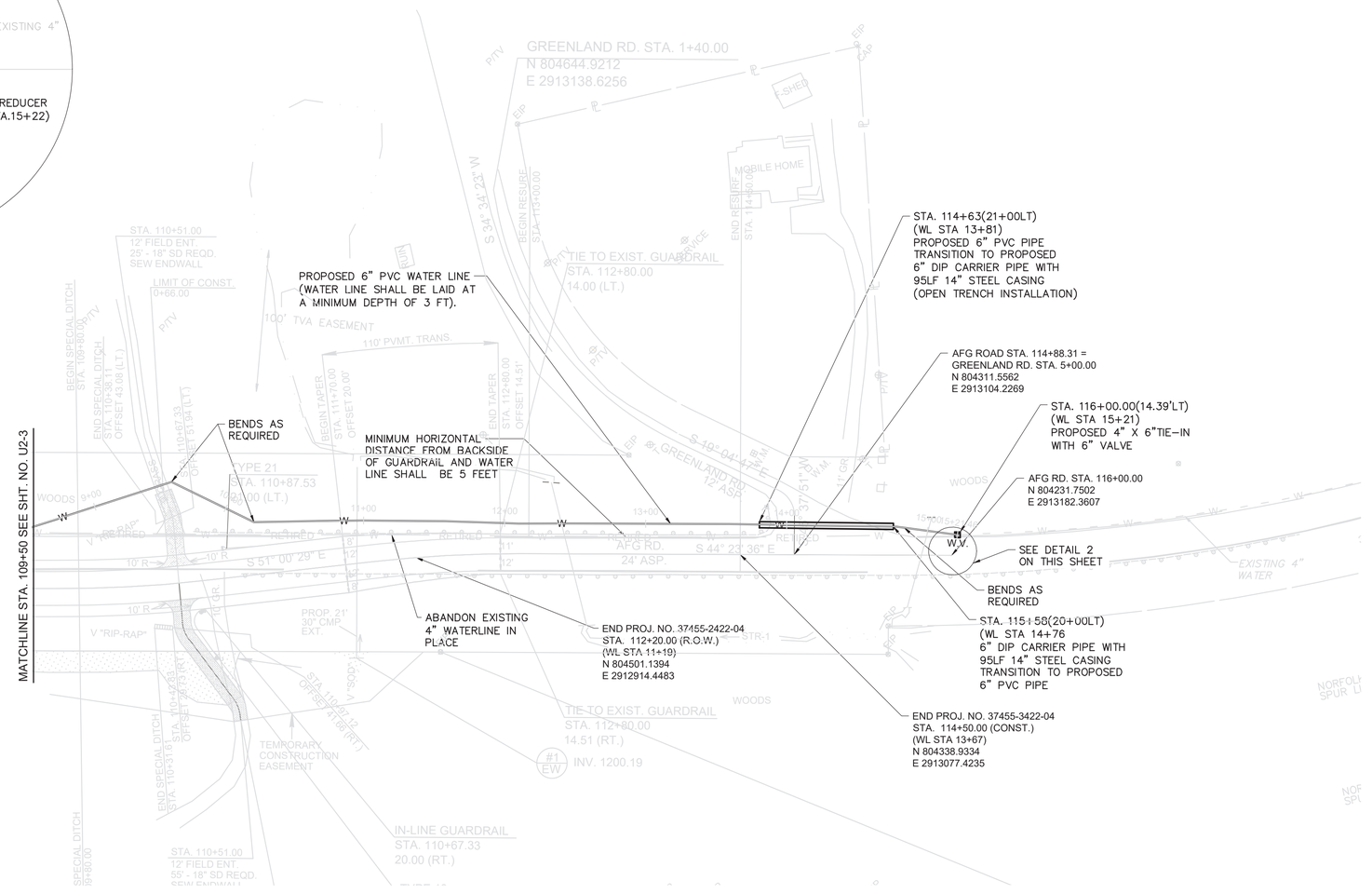
TYPE	YEAR	PROJECT NO.	SHEET NO.
PS&E	2026	37LCOU-F3-006	U2-4

REVISIONS

NO.	DATE	BY	DESCRIPTION



DETAIL 2



PLAN STA. 109+50 TO STA. 114+50
SCALE: 1"=50'

0 25 50 100 FEET

LEGEND

W	EXISTING WATER LINE
W REMOVE	EXISTING WATER LINE (TO BE REMOVED)
W RETIRE	EXISTING WATER LINE (TO BE RETIRED)
W	PROPOSED WATER LINE
W.M.	EXISTING WATER METER TO BE REMOVED
W.M.	PROPOSED WATER METER
	PROPOSED FIRE HYDRANT
	AIR RELEASE VALVE
	PROPOSED GATE VALVE
OC	CASING BY OPEN CUT
BJ	CASING BY BORE/JACK
STA	TDOT STATION
WL STA	WATER LINE STATION

NOTES:
1. HAWKINS COUNTY GAS UTILITY DISTRICT STATED THE 6" HIGH PRESSURE GAS LINE RAN PARALLEL TO THE RAILROAD ALONG WITH A 50 FOOT GAS LINE EASEMENT.
2. WATERLINE IS ATTACHED TO THE NORTHEAST SIDE OF BRIDGE.
3. EXISTING WATER METERS TO BE RELOCATED BY FIRST UTILITY DISTRICT OF HAWKINS COUNTY.
4. THE CONTRACTOR SHALL USE ANY MEASURES NECESSARY TO ENSURE THAT NO CONSTRUCTION ACTIVITY WILL OCCUR IN, NOR THAT ANY CONSTRUCTION EQUIPMENT OR MATERIALS WILL ENTER, ANY PORTION OF STR-2 AND THAT THE STREAM AND SURROUNDING VEGETATION WILL NOT BE DISTURBED AND ARE PROTECTED FROM SEDIMENT AND OTHER POLLUTANTS EXCEPT AT THE PERMITTED LOCATIONS.

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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

UTILITY INFORMATION
FIRST UTILITY DISTRICT OF HAWKINS COUNTY
523 W. MAIN BLVD
CHURCH HILL, TN 37642
PHONE: 423-357-7511
FAX: 423-357-6668

CTIENGINEERS
112 Durwood Road, Suite A
Knoxville, TN 37922
Phone: 865.246.2750

PLAN (STA.109+50 – 116+00)

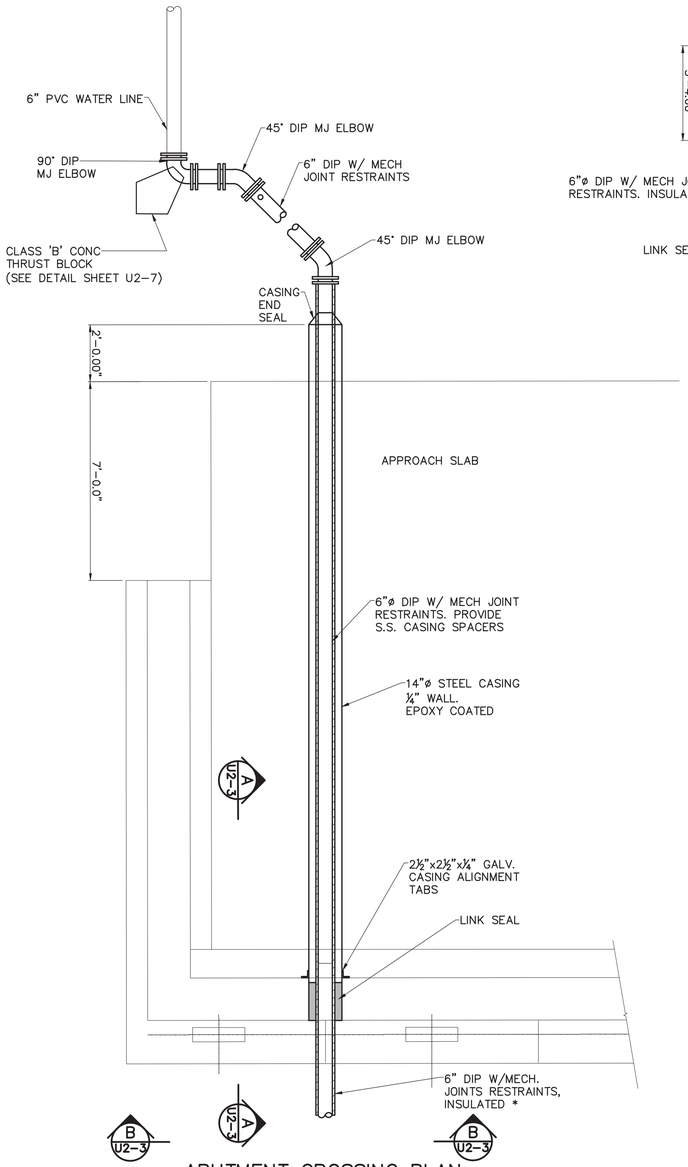
TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

DATE OF PRINT: 2/20/2023 4:56 PM PROJECT: K10010-05 (First Utility District of Hawk) TDOT AFG Road Water Line Relocation, DRAWING: WATERLINE BRIDGE CROSSING DETAILS (778249v8/2/20/23 3:47PM), LAYOUT: Layout1

TYPE	YEAR	PROJECT NO.	SHEET NO.
PS&E	2026	37LCOU-F3-006	U2-5

REVISIONS

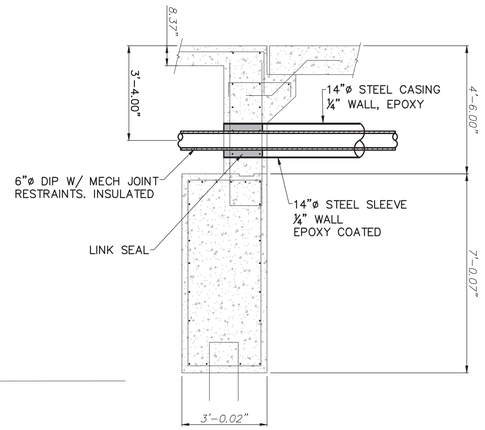
NO.	DATE	BY	DESCRIPTION



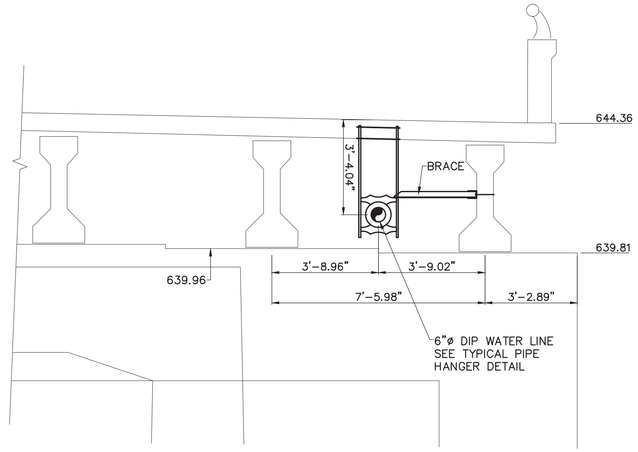
ABUTMENT CROSSING PLAN
(TYP BOTH ENDS)
SCALE: ⅜" = 1'-0"

* NOTE:

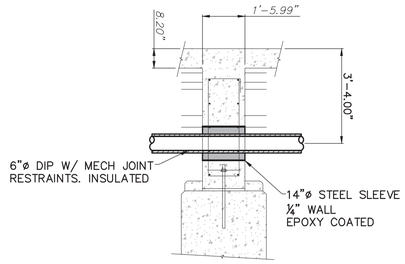
PROVIDE 10" DIA. SCH 10 STN. STL. PIPE SLEEVE OVER INSULATION JACKET EXTENDING 20' OUT FROM EACH ABUTMENT (FOR PHYSICAL PROTECTION).



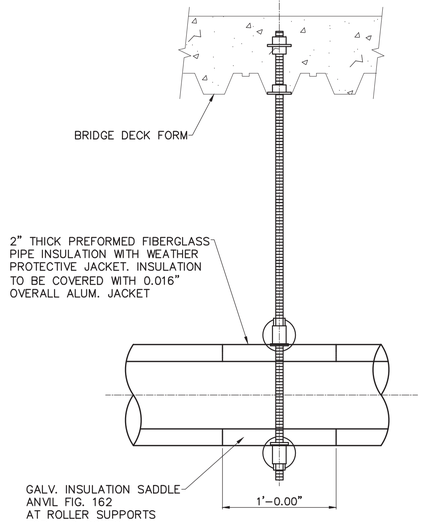
SECTION A
SCALE: ⅜" = 1'-0"



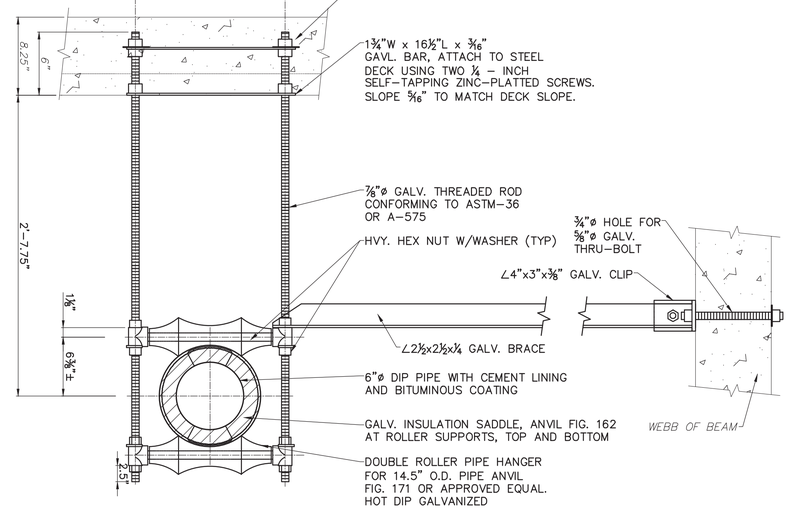
SECTION B
SCALE: ⅜" = 1'-0"



TYPICAL DIAPHRAGM PENETRATION
SCALE: ⅜" = 1'-0"

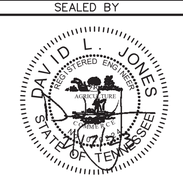


SECTION
SCALE: 1½" = 1'-0"



TYPICAL PIPE HANGER ASSEMBLY FOR ALL SPANS
(TYP 18'-0" O.C.)
SCALE: 1½" = 1'-0"

SEALED BY



COORDINATE VALUES ARE NAD/83(1995) AND ARE DATUM ADJUSTED BY THE FACTOR 0.99999 & TIED TO THE TGRN.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

UTILITY INFORMATION
FIRST UTILITY DISTRICT OF HAWKINS COUNTY
523 W. MAIN BLVD
CHURCH HILL, TN 37642
PHONE: 423-357-7511
FAX: 423-357-6668

CTIENGINEERS
112 Durwood Road, Suite A
Knoxville, TN 37922
Phone: 865.246.2750

WATERLINE BRIDGE CROSSING DETAILS

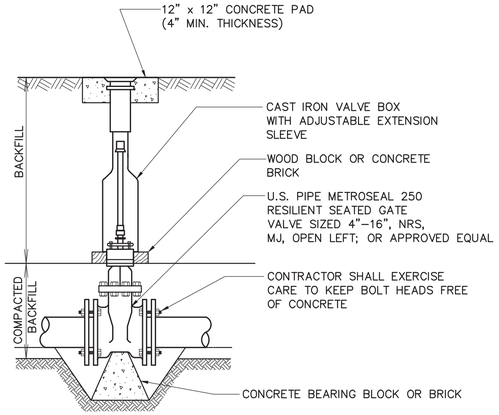
TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

DATE OF PRINT: 2/20/2023 4:59 PM PROJECT: K10010-05 (First Utility District of Hawk) TDOT AFG Road Water Line Relocation, DRAWING: STD WATER DETAILS (1) - U2 - 6 (772941v12/2/20/23 4:58PM), LAYOUT: Layout1

TYPE	YEAR	PROJECT NO.	SHEET NO.
PS&E	2026	37LCOU-F3-006	U2-6

REVISIONS

NO.	DATE	BY	DESCRIPTION



GATE VALVE INSTALLATION DETAIL

NTS

MECHANICALLY RESTRAINED JOINTS GENERAL NOTES:

1. THE RESTRAINED LENGTHS SHOWN IN THE TABLE ASSUME A WORST CASE SOIL CONDITION FOR EACH BEDDING CONDITION AND DESIGN PRESSURE.
2. INSTALL THRUST RESTRAINTS IN STRICT CONFORMANCE WITH MANUFACTURERS INSTRUCTIONS AND RECOMMENDATIONS.
3. PIPE JOINTS WITHIN CASING PIPES WILL BE RESTRAINED BUT PIPE LENGTHS WITHIN CASING PIPES WILL NOT BE CONSIDERED IN THE TOTAL LENGTH OF RESTRAINED PIPE.
4. "L" IN THE TABLE INDICATES THE MINIMUM LENGTH (IN FEET) TO BE RESTRAINED ON EACH SIDE OF THE RESPECTIVE FITTING LISTED.
5. THE FOLLOWING ARE THE PROCEDURES FOR DETERMINING THE MINIMUM RESTRAINED LENGTHS WHEN INSTALLING BENDS AND FITTINGS.

   A. WHERE HORIZONTAL NON-ENCROACHING BENDS ARE ENCOUNTERED, USE "L" AS SHOWN IN THE TABLES.

   B. WHERE HORIZONTAL RESTRAINED LENGTHS ENCROACH, RESTRAIN ALL JOINTS BETWEEN BENDS (OR FITTINGS) AND MULTIPLY "L" BY 1.5 FOR NEW RESTRAINED LENGTH OPPOSITE THE FULLY RESTRAINED SECTION OF PIPING.

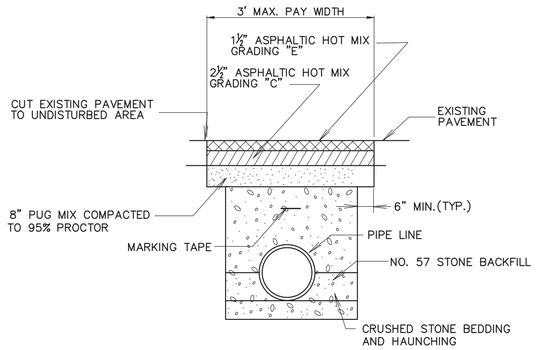
   C. WHERE VERTICAL UP BENDS ARE ENCOUNTERED, USE "L" AS SHOWN IN TABLES.

   D. WHERE VERTICAL DOWN BENDS ARE ENCOUNTERED, MULTIPLY "L" BY 1.5 FOR NEW RESTRAINED LENGTH.

   E. WHERE VERTICAL BENDS ENCROACH, RESTRAIN ALL JOINTS BETWEEN BENDS. FOR VERTICAL UP BENDS, MULTIPLY "L" BY 1.5 AND FOR VERTICAL DOWN BENDS, MULTIPLY "L" BY 2.25 FOR NEW RESTRAINED LENGTHS OPPOSITE THE FULLY RESTRAINED SECTION OF PIPE.
6. THE RESTRAINED LENGTHS SHOWN FOR REDUCERS ARE BASED ON A REDUCTION OF ONE SIZE DOWN (I.E. 8 TO 6, 4 TO 3, ETC.). IF A REDUCTION GREATER THAN ONE SIZE DOWN IS NECESSARY, SEE THE ENGINEER FOR THE REQUIRED RESTRAINED LENGTH.

ENCROACHING: WHERE FITTINGS ARE INSTALLED AT LOCATIONS CLOSE ENOUGH TO ONE ANOTHER WHERE THE CALCULATED MINIMUM RESTRAINED LENGTHS OVERLAP.

NON ENCROACHING: WHERE FITTINGS ARE INSTALLED AT LOCATIONS WHERE THE CALCULATED MINIMUM RESTRAINED LENGTHS DO NOT OVERLAP.



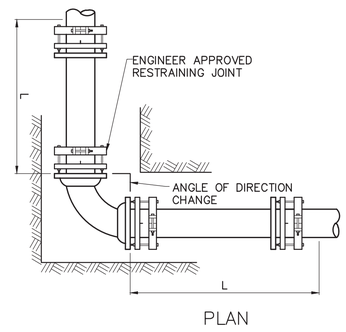
NOTE:

TO BE USED ON HOT MIX PAVED ROADS AND ELSEWHERE AS DESIGNATED BY THE ENGINEER. COST OF SAW CUTTING, COMPACTING, PUG MIX, HOT MIX, ETC. TO BE INCLUDED IN THE UNIT PRICE FOR HOT MIX PAVEMENT IN THE BID SCHEDULE, AND SHALL BE PAID FOR ON A LINEAR FOOT BASIS, COMPLETE IN PLACE.

PAVEMENT REPLACEMENT DETAIL

NOT TO SCALE

FOR DUCTILE IRON PIPE



PLAN

NOTES:

1. THE FOLLOWING JOINTS MUST BE RESTRAINED IN ALL APPLICATIONS:

BENDS	CAPS
TEES	PLUGS
WYES	HYDRANTS
OFFSET	REDUCERS

2. MECHANICAL JOINTS SHALL BE RESTRAINED WITH EBBA MEG-A-LUG SERIES 1100, UNI-FLANGE SERIES 1400, OR APPROVED EQUAL.
   PUSH-ON JOINTS SHALL BE RESTRAINED WITH EBBA MEG-A-LUG SERIES 1700, U.S. PIPE FIELD LOK 350 GASKET (WITH U.S. PIPE TYTON PIPE OR FITTINGS), AMERICAN DUCTILE IRON PIPE'S FAST GRIP GASKET (WITH STANDARD AMERICAN DUCTILE IRON FASTITE PIPE), OR APPROVED EQUAL.
3. RESTRAIN ONE JOINT BEYOND THE MINIMUM LENGTH FOR ALL LENGTHS OVER 10 FEET FROM THE LAST RESTRAINED JOINT.

L = MINIMUM LENGTH TO BE RESTRAINED ON EACH SIDE OF FITTING (FEET)

TEST PRESSURE - 150 psi

NOM. PIPE SIZE (IN.)	ELBOWS (DEGREES)				TEES, VALVES, DEAD-ENDS
	11½	22½	45	90	
6	4	7	15	36	31
12	7	14	28	68	59

COMMENTS AND ASSUMPTIONS:

THE TABULATED VALUES SHOWN WERE GENERATED USING THE DIPRA COMPUTER PROGRAM.
SOIL TYPE: CON-GRAN

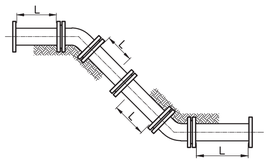
TRENCH TYPE: 2 (FLAT-BOTTOM TRENCH BACKFILL LIGHTLY CONSOLIDATED TO CENTERLINE OF PIPE).

DEPTH OF COVER TO TOP OF PIPE: 2.5 FEET
SAFETY FACTOR: 1.5

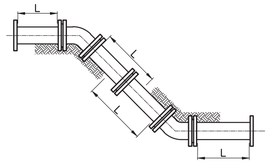
MECHANICALLY RESTRAINED JOINT DETAIL

NOT TO SCALE

VERTICAL DOWN (NON-ENCROACHING)
N.T.S.

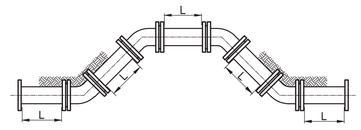


VERTICAL DOWN (ENCROACHING)
N.T.S.

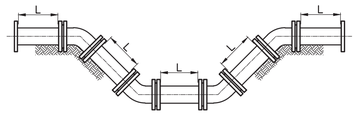


VERTICAL UP (NON-ENCROACHING)
N.T.S.

VERTICAL UP (ENCROACHING)
N.T.S.



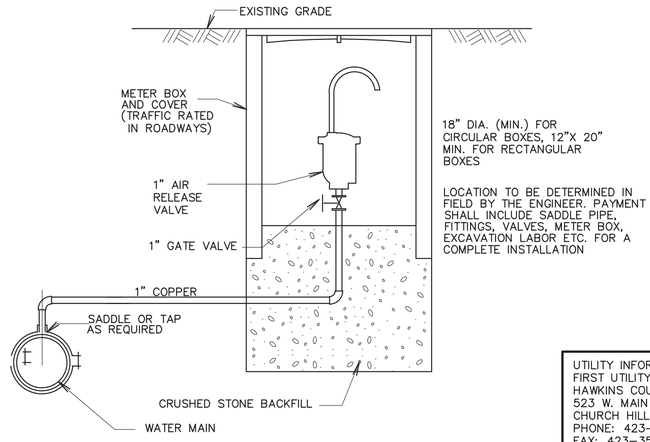
COMBINED VERTICAL OBJECT (OVER OBJECT)
N.T.S.



COMBINED VERTICAL OBJECT (UNDER OBJECT)
N.T.S.

MECHANICALLY RESTRAINED JOINT DETAIL

NOT TO SCALE



1" AIR RELEASE VALVE DETAIL

NOT TO SCALE

SEALED BY



COORDINATE VALUES ARE NAD/83(1995) AND ARE DATUM ADJUSTED BY THE FACTOR 0.99999 & TIED TO THE TGRN.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

UTILITY INFORMATION
FIRST UTILITY DISTRICT OF HAWKINS COUNTY
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STANDARD WATER DETAILS

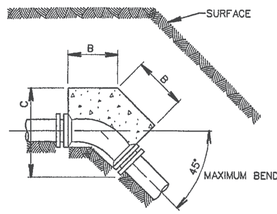
TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

DATE OF PRINT: 2/20/2023 5:00 PM, PROJECT: K10010-05 (First Utility District of Hawk) TDOT AFG Road Water Line Relocation, DRAWING: STD WATER DETAILS (2) – U2-7 (778244v5/2/20/23 5:00PM), LAYOUT: Layout1

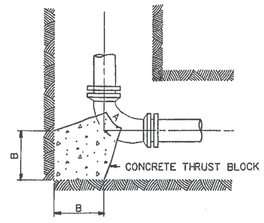
TYPE	YEAR	PROJECT NO.	SHEET NO.
PS&E	2026	37LCOU-F3-006	U2-7

REVISIONS

NO.	DATE	BY	DESCRIPTION



PLAN-TYPICAL VERTICAL BEND
NOT TO SCALE



PLAN-TYPICAL HORIZONTAL BEND
NOT TO SCALE

PIPE SIZE A	A	B	DEPTH C
11¼° BEND			
12"	1'-0"	1'-2"	1'-3"
10"	0'-9"	1'-0"	1'-0"
8"	0'-9"	1'-0"	0'-8"
6"	0'-9"	1'-0"	0'-6"
4"	0'-8"	1'-0"	0'-4"
DEAD END			
12"	0'-11"	2'-6"	2'-7"
10"	0'-9"	2'-0"	2'-4"
8"	0'-7"	1'-8"	1'-9"
6"	0'-5"	1'-3"	1'-5"
4"	0'-4"	0'-10"	0'-11"
TEE			
12"	2'-0"	4'-9"	2'-9"
10"	1'-9"	4'-0"	2'-3"
8"	1'-6"	3'-0"	2'-0"
6"	1'-0"	2'-8"	1'-6"
4"	1'-0"	2'-0"	1'-0"

PIPE SIZE X	A	B	DEPTH C
90° BEND UNBALANCED TEE			
12"	1'-6"	3'-0"	3'-0"
10"	1'-4"	2'-2"	3'-0"
8"	1'-0"	2'-0"	2'-0"
6"	1'-0"	1'-3"	2'-0"
4"	0'-9"	1'-0"	1'-0"
45° BEND			
12"	1'-0"	2'-6"	2'-0"
10"	0'-9"	2'-0"	1'-9"
8"	0'-9"	1'-6"	1'-6"
6"	0'-9"	1'-0"	1'-6"
4"	0'-6"	1'-0"	1'-0"
22½° BEND			
12"	1'-0"	1'-8"	1'-9"
10"	0'-9"	1'-3"	1'-6"
8"	0'-9"	1'-0"	1'-4"
6"	0'-9"	0'-10"	1'-0"
4"	0'-9"	0'-7"	1'-0"

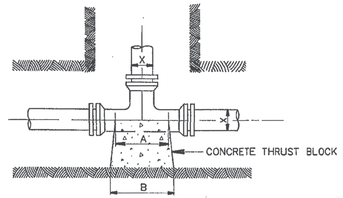
TABLE OF DIMENSIONS FOR HORIZONTAL & VERTICAL BENDS

NOTE : ALL CONCRETE FOR THRUST BLOCKS SHALL BE READY-MIXED 3000 psi(MINIMUM) CLASS "B". MIX DESIGN SHALL BE SUBMITTED TO ENGINEER FOR APPROVAL PRIOR TO USE. THRUST BLOCKS BASED ON 225 psi & 2000lb/ft2 SOIL RESISTANCE TYPICAL FOR UNDISTURBED SAND AND GRAVEL CEMENTED WITH CLAY. FOR OTHER SOILS THE BEARING FACE OF THE THRUST BLOCKS SHOULD BE INCREASED BY THE FOLLOWING FACTORS :

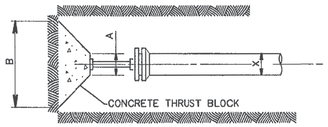
SAND	2
SAND & GRAVEL	1.33
SHALE	0.4

SOFT CLAYS, MUCK AND PEAT SHALL USE RESTRAINED JOINTS IN LIEU OF THRUST BLOCKS.

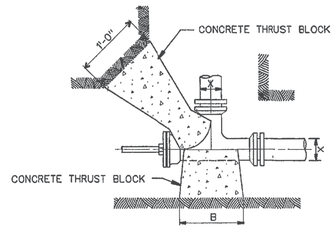
THRUST BLOCK DETAILS
NOT TO SCALE



PLAN-TYPICAL TEE
NOT TO SCALE



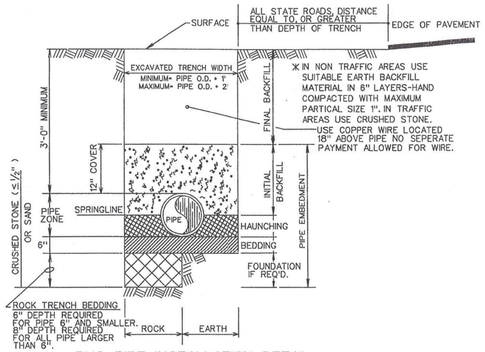
PLAN-TYPICAL PLUG
NOT TO SCALE



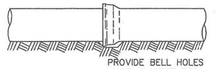
PLAN-UNBALANCED TEE
NOT TO SCALE

SIZE OF PIPE	TEE			DEAD END			90° BEND & UNBAL. TEE			45° BEND			22 1/2° BEND			11 1/4° BEND		
	A	B	C	A	B	C	A	B	C	A	B	C	A	B	C	A	B	C
1-1/2" to 4"	12"	24"	12"	4"	10"	11"	9"	12"	12"	9"	12"	12"	9"	7"	12"	6"	12"	4"
6"	12"	30"	18"	5"	15"	17"	12"	15"	24"	9"	12"	18"	9"	10"	12"	9"	12"	6"
8"	18"	36"	24"	7"	20"	21"	12"	24"	24"	9"	18"	20"	9"	12"	16"	9"	12"	8"
10"	21"	48"	27"	9"	24"	28"	16"	26"	36"	9"	24"	21"	9"	15"	18"	9"	12"	12"
12"	48"	56"	18"	11"	30"	31"	18"	36"	36"	12"	30"	24"	12"	18"	21"	12"	14"	15"
16"	54"	66"	18"	12"	36"	36"	21"	42"	42"	12"	51"	24"	12"	28"	24"	12"	16"	16"

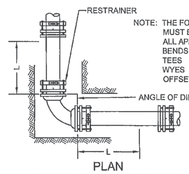
CONCRETE THRUST BLOCK



PVC PIPE INSTALLATION DETAIL
NOT TO SCALE



FOR P.V.C. PIPE



NOTE: THE FOLLOWING JOINTS MUST BE RESTRAINED IN ALL APPLICATIONS:

BENDS	CAPS
TEES	PLUGS
WYES	HYDRANTS
OFFSETS	REDUCERS

** MECHANICAL JOINTS SHALL BE RESTRAINED WITH ONE OF THE FOLLOWING, OR AN APPROVED EQUIVALENT.
C900 (3"-12") AND C905 (14"- 24") PIPE - EBAA SERIES 2000PV OR UNI-FLANGE SERIES 1500-CA
ASTM D2241 IPS OD PIPE - EBAA SERIES 2000PV OR UNI-FLANGE SERIES 1500-SA

PUSH ON JOINTS SHALL BE RESTRAINED WITH ONE OF THE FOLLOWING, OR AN APPROVED EQUIVALENT:
C900 (3"-12") PIPE - EBAA SERIES 1600 OR UNI-FLANGE 1390-C
C905 (14"-24") PIPE -EBAA SERIES 2800 OR UNI-FLANGE 1390-C
ASTM D2241 IPS OD PIPE - EBAA SERIES 6500 OR UNI-FLANGE 1390-S

PLAN RESTRAINED JOINT DETAIL
NOT TO SCALE

L = MINIMUM LENGTH TO BE RESTRAINED ON EACH SIDE OF FITTING (FEET)*

NOM. PIPE SIZE (IN.)	TEST PRESSURE - 150 psi ELBOWS (DEGREES) 11¼	22½	45	90	REDUCERS	TEES, VALVES, DEAD-ENDS	TEST PRESSURE - 200 psi ELBOWS (DEGREES) 11¼	22½	45	90	REDUCERS	TEES, VALVES, DEAD-ENDS
3	2	4	9	21	------	44	3	5	11	27	------	68
4	2	5	10	25	17	52	3	7	14	33	22	79
6	3	7	14	35	38	74	5	9	19	46	51	98
8	5	8	19	46	40	96	6	12	25	61	54	128
10	5	11	23	55	39	115	7	15	30	73	52	154
12	6	13	27	66	40	136	9	17	36	86	53	181
14	7	15	31	74	40	155	10	20	41	98	53	207
16	8	17	34	83	40	174	11	22	48	111	53	233
18	9	18	38	92	39	193	12	24	51	123	52	257
20	10	20	42	101	39	211	13	27	56	135	52	281
24	12	23	49	118	73	245	15	31	65	157	98	327

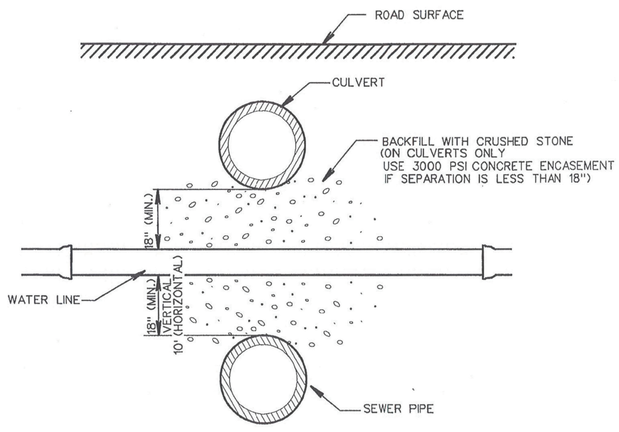
TEST PRESSURE - 250 psi

NOM. PIPE SIZE (IN.)	ELBOWS (DEGREES) 11¼	22½	45	90	REDUCERS	TEES, VALVES, DEAD-ENDS
3	3	7	14	34	------	73
4	4	8	17	41	28	87
6	6	12	24	58	63	123
8	8	15	32	76	67	161
10	9	18	38	91	64	192
12	11	21	45	108	66	227
14	12	24	51	123	66	258
16	14	28	57	139	66	291
18	15	31	64	154	66	321
20	17	33	70	168	65	351
24	19	39	81	195	122	409

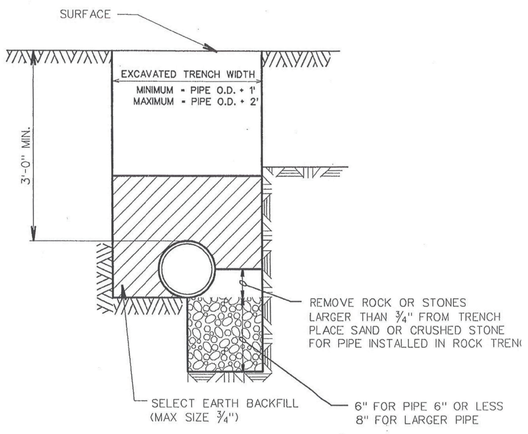
COMMENTS AND ASSUMPTIONS:
The tabulated values shown were generated using the EBAA Iron, Inc. computer program.
Soil Type: Worst Case
MH Granular - For Elbows
ML - For Reducers, Tees, Valves, and Dead-ends.
Trench Type: 3 (Pipe bedded in 4-inch minimum loose soil. Backfill lightly consolidated to top of pipe).
Depth of cover to top of pipe: 3 feet
Safety Factor: 1.5
The values shown for the Reducers were based on a reduction from the nominal pipe size to a pipe one-size smaller.

* Restrain one joint beyond the minimum length for all lengths over 10 feet.

WAT050



DETAIL OF INSTALLATION UNDER CULVERT OR OVER SEWER PIPE
NOT TO SCALE



DUCTILE IRON PIPE INSTALLATION DETAIL
SURFACE

SEALED BY



COORDINATE VALUES ARE NAD/83(1995) AND ARE DATUM ADJUSTED BY THE FACTOR 0.99999 & TIED TO THE TGRN.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

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CTIENGINEERS
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STANDARD WATER DETAILS

TYPE	YEAR	PROJECT NO.	SHEET NO.
PS&E	2026	37LCOU-F3-006	U3-1

State Project No.: 37455-3422-04
AFG Road, Bridge Over Southern Railway
County: Hawkins

Index of Sheets

SHEET NO.	DESCRIPTION
U3-1	COVER SHEET
U3-2	SEWER LAYOUT (BRIDGE)
U3-3	SEWER LAYOUT (STA. 102+20 TO STA. 109+50)
U3-4	SEWER LAYOUT (STA. 109+50 TO STA. 114+50)
U3-5	BRIDGE CROSSING DETAILS
U3-6	STANDARD SEWER DETAILS

ESTIMATED UTILITY QUANTITIES

TDOT ITEM NO.	ITEM DESCRIPTION	UNIT	PROJECT NO.: 37455-3422-04 QUANTITY	% UTILITY BETTERMENT	% PROJECT PUBLIC	% PROJECT PRIVATE	FOOTNOTE	BUY AMERICAN
797-03.05	3 IN. PVC FORCE MAIN	L.F.	563	100%	100%	0%	1, 6	
797-01.11	3 IN. DIP FORCE MAIN	L.F.	338	100%	100%	0%	1, 6, 7	
797-06.89	OPEN CUT 12IN STEEL CASING PIPE	L.F.	80	100%	100%	0%	2, 5	
797-08.01	DI FITTINGS	LBS.	50	100%	100%	0%	3	
797-11.43	BRIDGE HANGER SYSTEM	LS	1	100%	100%	0%	4, 6	

FOOTNOTES TO BE INCLUDED ON PLANS

FOOTNOTE 1:
INCLUDES ALL MATERIALS, LABOR AND EQUIPMENT FOR COMPLETE EXCAVATION INCLUDING BUT NOT LIMITED TO BEDDING, BACKFILLING, THRUST BLOCKING, PIPE FUSION, APPURTENANCES, FLOWABLE FILL, MAINTAINING THE TRENCH, TESTING, CHECK DAMS, AND ANY OTHER LABOR OR MATERIAL REQUIRED TO COMPLETE FOR GRAVITY SEWER LINES OR FORCE MAINS AS SPECIFIED ON THE PLANS. DUCTILE IRON PIPE GRAVITY SEWER LINES SHALL BE EPOXY LINED.

FOOTNOTE 2:
INCLUDES ALL MATERIALS, LABOR AND EQUIPMENT INCLUDING BUT NOT LIMITED TO CASING PIPE, PIPE SPACERS, CASING END SEALS, STONE BACKFILL, TEMPORARY PAVEMENT, AND ANY OTHER APPURTENANCE TO COMPLETE THE WORK AS SPECIFIED ON THE PLANS, AND TRAFFIC CONTROL.

FOOTNOTE 3:
INCLUDES FITTINGS, GLANDS AND RESTRAINT DEVICES DESCRIBED IN POUNDS.

FOOTNOTE 4:
INCLUDES ALL MATERIALS, LABOR AND EQUIPMENT INCLUDING PIPE INSULATION AND JACKETING, FOR COMPLETE INSTALLATION OF UNIT OR LUMP SUM ITEM AS SPECIFIED ON BID FORM.

FOOTNOTE 5:
INCLUDES ALL MATERIALS, LABOR AND EQUIPMENT, SETUP AND TRAFFIC CONTROL.

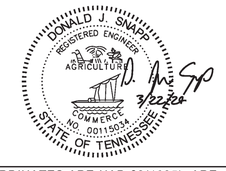
FOOTNOTE 6:
FOR PIPE, 600 LF IS TO BE IN TRENCH, 80 LF IS TO BE IN CASING, AND 220 LF IS TO BE ON HANGERS.

FOOTNOTE 7:
SHALL BE RESTRAINED JOINT 3 IN. DIP.

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UTILITY INFORMATION
CITY OF CHURCH HILL
300 EAST MAIN BLVD.
CHURCH HILL, TN 37642
PHONE: (423) 357-4601
CONTACT: JERRY SIMPSON

SEALED BY



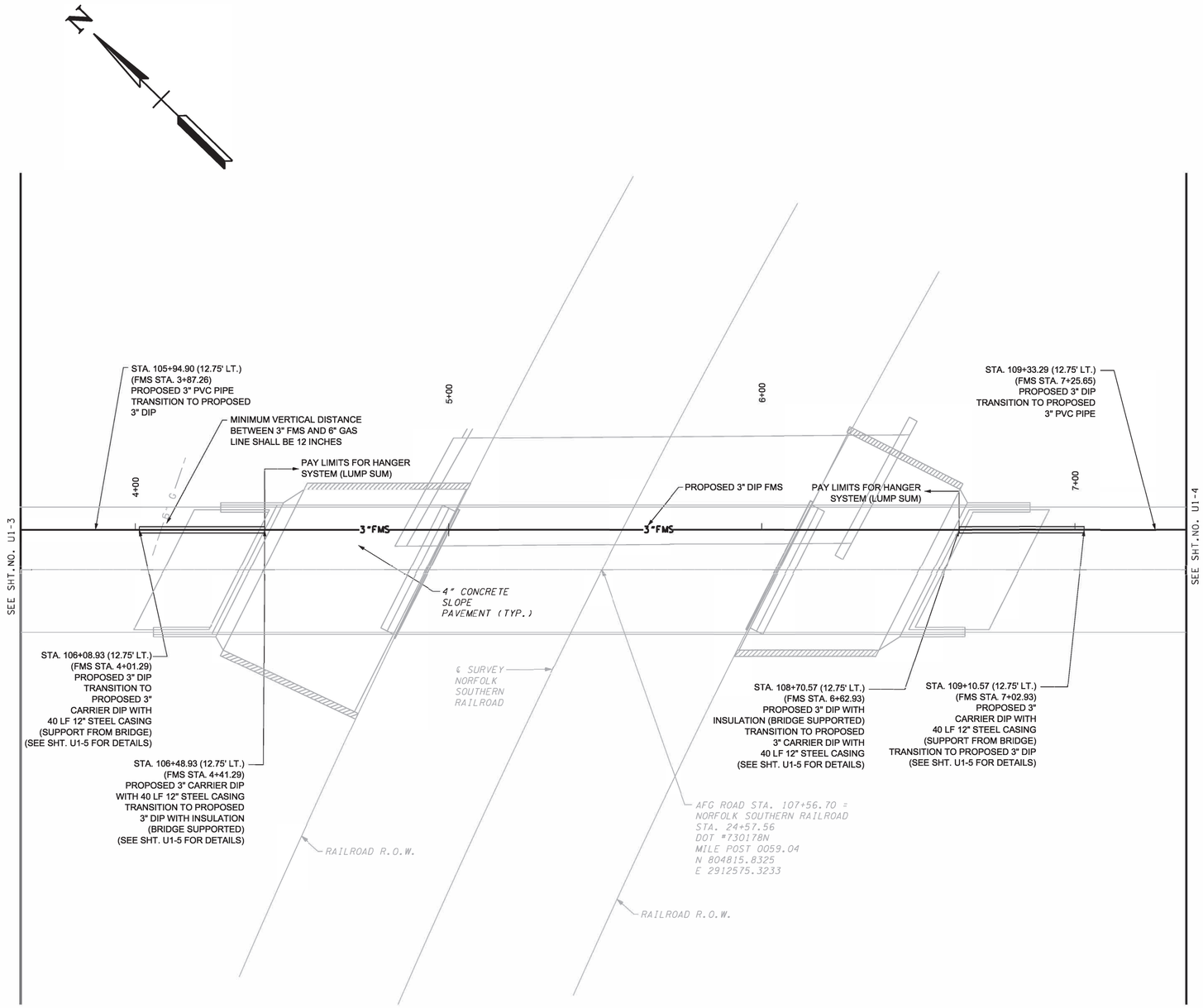
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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

COVER SHEET

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TYPE	YEAR	PROJECT NO.	SHEET NO.
PS&E	2026	37LCOU-F3-006	U3-2



NOTE:

1. INSTALL MODULAR SEALS BETWEEN CARRIER PIPE AND WALL SLEEVE IN THE ABUTMENT. SEALS SHALL BE LINK-SEAL, MODEL LS (OR APPROVED EQUAL).

2. 12-INCH DIA. EXPANSION JOINT FITTING WITH MECHANICAL JOINT ENDS. INSTALL 2 FEET FROM BRIDGE ABUTMENT. MANUFACTURER SHALL BE EBAA IRON, MODEL EX-TEND 212M0 (OR APPROVED EQUAL). TOTAL ALLOWABLE EXPANSION WITH TWO FITTINGS PER PIPELINE SHALL BE GREATER THAN 5 INCHES.

3. INSTALL ANCHOR POINT HANGER 2-FOOT FROM END OF EXPANSION JOINT FITTING.

4. INSTALL ONE ANCHOR POINT HANGER AND ONE INTERMEDIATE HANGER AT THE FIRST JOINT ON EITHER SIDE OF A BRIDGE BENT. INSTALL ANCHOR POINT ON THE BENT SIDE OF THE PIPE JOINT AND A MINIMUM OF 4 FEET FROM THE FACE OF THE BENT BUT WITHIN 2-FOOT OF THE PIPE JOINT.

5. INTERMEDIATE HANGERS TO BE PLACED AT 2 FEET DISTANCE ALONG PIPE ON BOTH SIDES OF A JOINT, AND NOT WITHIN 2 FEET OF AN INTERMEDIATE DIAPHRAGMS.

6. DO NOT INSTALL MODULAR SEALS WITHIN WALL SLEEVES/OPENINGS THROUGH BRIDGE BENTS.

7. WHEN INSTALLING PIPE FACILITIES UNDERNEATH THE PROPOSED BRIDGE, THE UTILITY CONTRACTOR SHALL CONDUCT THE WORK IN SUCH A MANNER AS TO SAFEGUARD THE OPERATION AND FACILITIES ON THE RAILWAY BELOW.

8. ALL WORK THAT WILL BE CONDUCTED FOR THE INSTALLATION OF THE PROPOSED SEWER LINES SHALL BE SUBJECT TO THE APPROVAL OF THE CITY OF CHURCH HILL SANITARY SEWER DEPARTMENT, TDOT, AND OTHER AGENCIES.

9. TEMPORARY RAILWAY CLOSURES MAY BE REQUIRED WHEN INSTALLING PIPE OVER RAILWAY BELOW PROPOSED BRIDGE.

10. SANITARY SEWER PIPELINES WITHIN 40 LINEAR FEET OF AND HANGING FROM BRIDGE SHALL BE RESTRAINED JOINT DUCTILE IRON PIPE.

11. WHEN ATTEMPTING THE FIRST PRESSURIZATION OF THE SEWER LINE, INCREASE PRESSURE IN THE LINE SLOWLY.

LEGEND

3"FMS — PROPOSED FORCE MAIN SEWER LINE

CASING BY OPEN CUT

Mattern & Craig
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429 CLAY STREET
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UTILITY INFORMATION
FIRST UTILITY DISTRICT OF
HAWKINS COUNTY
523 W. MAIN BLVD.
CHURCH HILL, TN 37642
PHONE: 423-357-7511
FAX: 423-357-6668

SEALED BY

DONALD J. SNAPP
REGISTERED ENGINEER
AGRICULTURE
COMMERCE
NO. 0011503A
STATE OF TENNESSEE
3/22/24

COORDINATES ARE NAD 83(1995), ARE DATUM ADJUSTED BY THE FACTOR OF 1.00004 AND TIED TO THE TGRN. ALL ELEVATIONS ARE REFERENCED TO THE NAVD 1988 WITH GEOID 12B.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

SEWER LAYOUT (BRIDGE)

SCALE: 1"= 20"

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NOTES:

1. HAWKINS COUNTY GAS UTILITY DISTRICT STATED THE 6" HIGH PRESSURE GAS LINE RAN PARALLEL TO THE RAILROAD ALONG WITH A 50 FOOT GAS LINE EASEMENT.

2.THE CONTRACTOR SHALL USE ANY MEASURES NECESSARY TO ENSURE THAT NO CONSTRUCTION ACTIVITY WILL OCCUR IN, NOR THAT ANY CONSTRUCTION EQUIPMENT OR MATERIALS WILL ENTER, ANY PORTION OF STR-2 AND THAT THE STREAM AND SURROUNDING VEGETATION WILL NOT BE DISTURBED AND ARE PROTECTED FROM SEDIMENT AND OTHER POLLUTANTS EXCEPT AT THE PERMITTED LOCATIONS.

3. CONTRACTOR SHALL INSTALL A GUARD/IDENTIFIER POST AT THE BEGINNING AND END OF 3" FMS.

AFG ROAD
PI 104+08.40
N 805,075.4681
E 2,912,323.2136
Δ 38° 50' 05" (RT)
D 11° 27' 33"
R 500.00
L 338.90
T 176.25
SE 0.071 FT/FT

NORTHFOLK SOUTHERN RAILROAD
PI 26+20.34
N 804,794.4513
E 2,912,413.0455
Δ 17° 27' 00" (LT)
D 2° 02' 47"
R 2,800.00
L 852.77
T 429.71

BEGIN PROJ. NO. 37455-2422-04
STA. 103+15.00 (R.O.W.)
N 805080.1127
E 2912229.3009

BEGIN PROJ. NO. 37455-3422-04
STA. 102+20.00 (CONST.)
N 805098.4542
E 2912136.2219

BEGIN PROJ. NO. 37455-3422-04
FMS STA. 0+00
AFG ROAD STA. 102+20.00 (16.00' LT)
PROPOSED STUB OUT AND CAP
N 805114.3346
E 2912138.1740

AFG RD. STA. 100+00.00
N 805125.2957
E 2911917.8655

RICHARD L. CALDWELL AND WIFE, DOROTHY H. CALDWELL

RICHARD L. JENNINGS AND WIFE, MELANIE N. JENNINGS

JEFF DOUTHAT AND WIFE, LINDA DOUTHAT

GUY BENNY DRINNON AND WIFE, SUZANNE R. DRINNON

105
MINIMUM VERTICAL DISTANCE BETWEEN 3" FMS AND 6" GAS LINE SHALL BE 12 INCHES

PROPOSED 3" FMS (LINE SHALL BE LAID AT A MINIMUM OF 3')

STA. 105+94.90 (12.75' LT.)
(FMS STA. 3+87.26)
PROPOSED 3" PVC PIPE TRANSITION TO PROPOSED 3" DIP

STA. 106+08.93 (12.75' LT.)
(FMS STA. 4+01.29)
PROPOSED 3" DIP TRANSITION TO PROPOSED 3" CARRIER DIP WITH 40 LF 12" STEEL CASING (SUPPORT FROM BRIDGE)
(SEE SHT. U1-5 FOR DETAILS)

STA. 106+48.93 (12.75' LT.)
(FMS STA. 4+41.29)
PROPOSED 3" CARRIER DIP WITH 40 LF 12" STEEL CASING TRANSITION TO PROPOSED 3" DIP WITH INSULATION (BRIDGE SUPPORTED)
(SEE SHT. U1-5 FOR DETAILS)

STA. 109+10.57 (12.75' LT.)
(FMS STA. 7+02.93)
PROPOSED 3" CARRIER DIP WITH 40 LF 12" STEEL CASING (SUPPORT FROM BRIDGE) TRANSITION TO PROPOSED 3" DIP
(SEE SHT. U1-5 FOR DETAILS)

STA. 108+70.57 (12.75' LT.)
(FMS STA. 6+62.93)
PROPOSED 3" DIP WITH INSULATION (BRIDGE SUPPORTED) TRANSITION TO PROPOSED 3" CARRIER DIP WITH 40 LF 12" STEEL CASING
(SEE SHT. U1-5 FOR DETAILS)

STA. 109+33.29 (12.75' LT.)
(FMS STA. 7+25.65)
PROPOSED 3" DIP TRANSITION TO PROPOSED 3" PVC PIPE

MATCH LINE STA. 109+50 SEE SHT. NO. U1-4

AFG ROAD STA. 107+56.70 =
NORFOLK SOUTHERN RAILROAD STA. 24+57.56
DOT #730178N
MILE POST 0059.04
N 804815.8325
E 2912575.3233

TRACTS FOR REFERENCE ONLY

AIR RIGHTS EASEMENT

SLOPE EASEMENT

CONTROL POINTS						
POINT	NORTH	EAST	ELEVATION	DESCRIPTION	STATION	OFFSET
37-AFG-01	804974.4925	2912474.3680	1244.16	37-AFG-01	105+72.54	38.10(LT)
37-AFG-02	804723.8980	2912674.3945	1234.09	37-AFG-02	108+91.67	7.03(LT)

TYPE	YEAR	PROJECT NO.	SHEET NO.
PS&E	2026	37LCOU-F3-006	U3-3

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UTILITY INFORMATION
CITY OF CHURCH HILL
300 EAST MAIN BLVD.
CHURCH HILL, TN 37642
PHONE: (423) 357-4601
CONTACT: JERRY SIMPSON

SEALED BY

DONALD J. SWAPP
REGISTERED ENGINEER
No. 0011503
STATE OF TENNESSEE
3/22/24

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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

SEWER LAYOUT

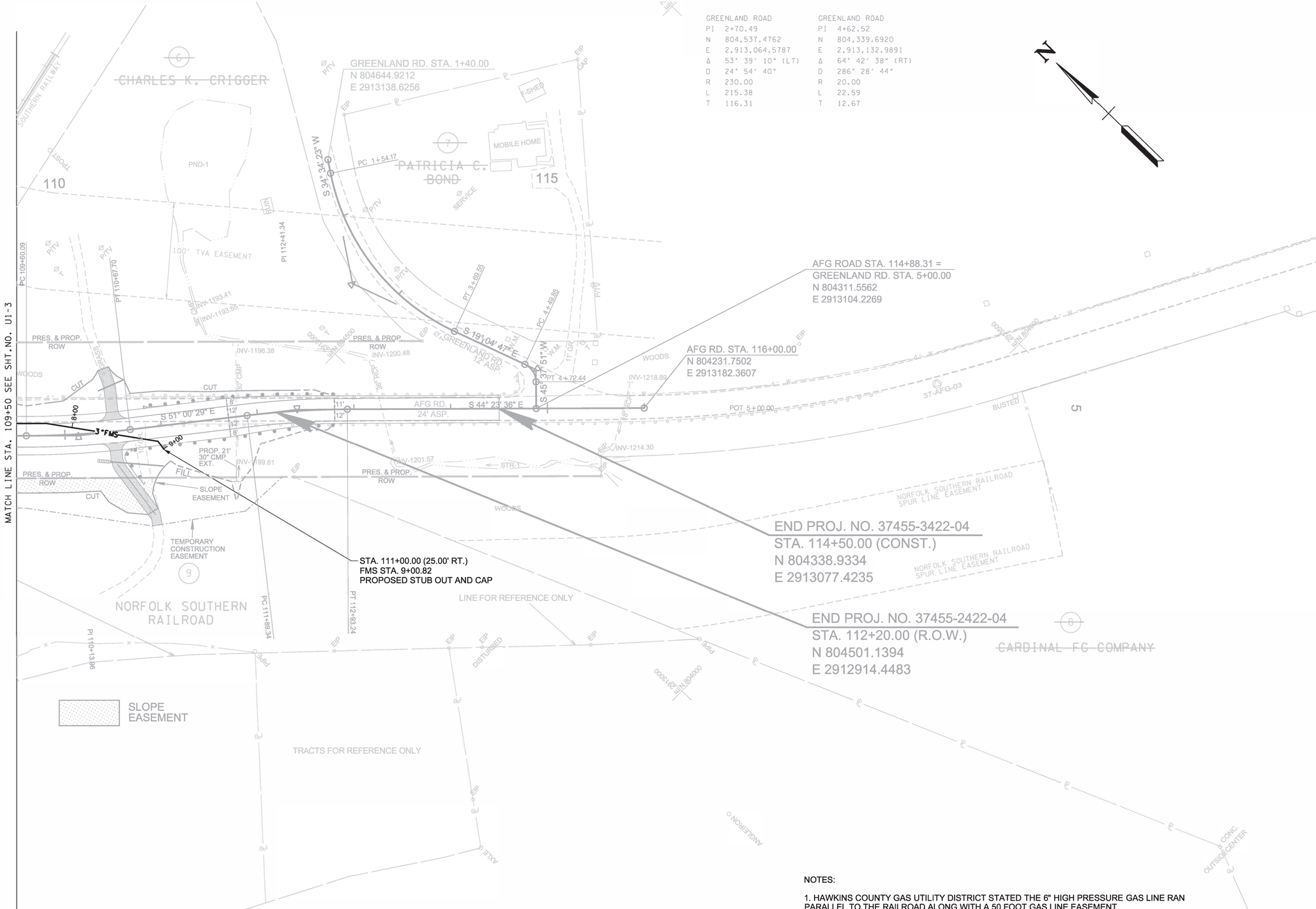
STA. 102+20 TO STA. 109+50
SCALE: 1"= 50'

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TYPE	YEAR	PROJECT NO.	SHEET NO.
PS&E	2026	37LCOU-F3-006	U3-4

GREENLAND ROAD
PI 2+70.49
N 804,537.4762
E 2,913,064.5787
Δ 53° 39' 10" (LT)
D 24° 54' 40"
R 230.00
L 215.38
T 116.31

GREENLAND ROAD
PI 4+62.52
N 804,339.6920
E 2,913,132.9891
Δ 64° 42' 38" (RT)
D 286° 28' 44"
R 20.00
L 22.59
T 12.67



NOTES:

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2.THE CONTRACTOR SHALL USE ANY MEASURES NECESSARY TO ENSURE THAT NO CONSTRUCTION ACTIVITY WILL OCCUR IN, NOR THAT ANY CONSTRUCTION EQUIPMENT OR MATERIALS WILL ENTER, ANY PORTION OF STR-2 AND THAT THE STREAM AND SURROUNDING VEGETATION WILL NOT BE DISTURBED AND ARE PROTECTED FROM SEDIMENT AND OTHER POLLUTANTS EXCEPT AT THE PERMITTED LOCATIONS.

3. CONTRACTOR SHALL INSTALL A GUARD/IDENTIFIER POST AT THE BEGINNING AND END OF 3" FMS.

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UTILITY INFORMATION
CITY OF CHURCH HILL
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CHURCH HILL, TN 37642
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CONTACT: JERRY SIMPSON

SEALED BY

DONALD J. SNAPP REGISTERED ENGINEER STATE OF TENNESSEE AGRICULTURE COMMERCE NO. 0011503A 3/27/24

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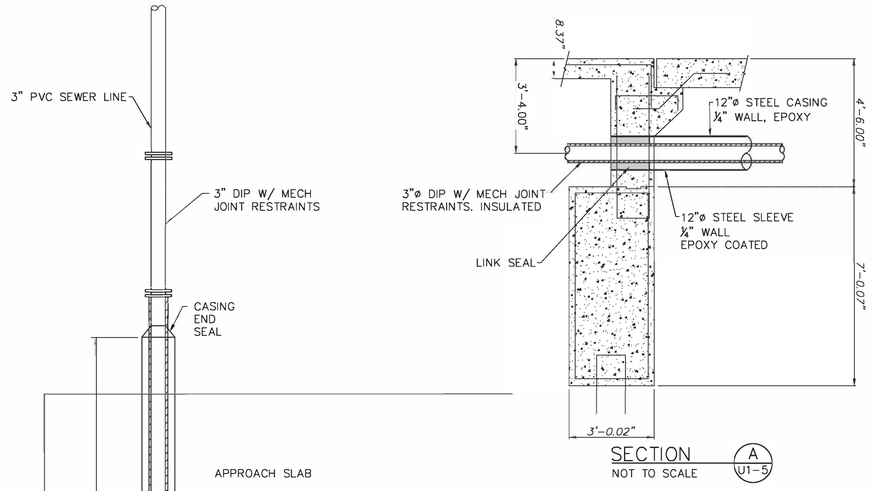
STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

SEWER LAYOUT

STA.109+50 TO STA.114+50
SCALE: 1"= 50'

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TYPE	YEAR	PROJECT NO.	SHEET NO.
PS&E	2026	37LCOU-F3-006	U3-5



ABUTMENT CROSSING PLAN

(TYP BOTH ENDS – NORTHEAST BRIDGE CORNER SHOWN)

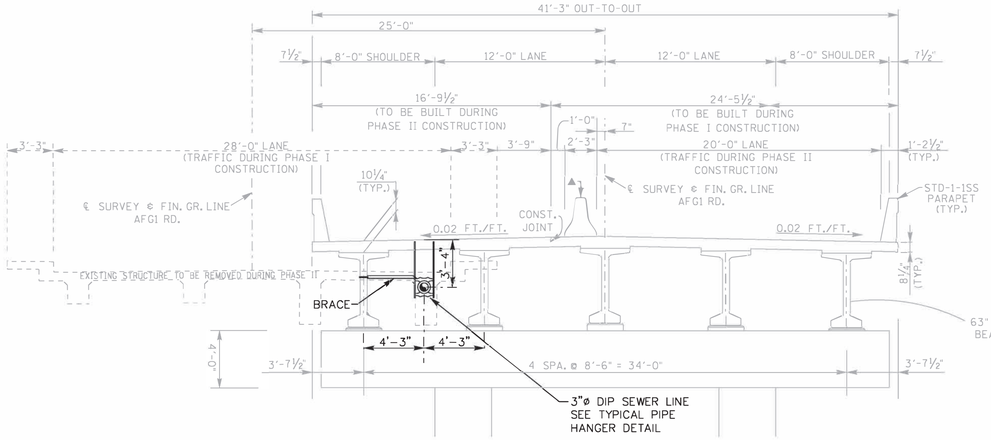
NOT TO SCALE

SECTION A U1-5

NOT TO SCALE

* NOTE:

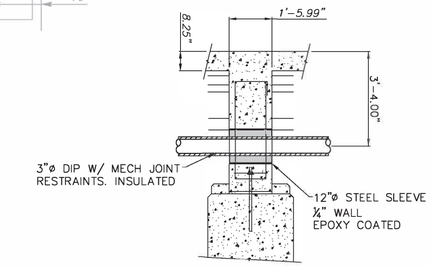
PROVIDE 8" DIA. SCH 10 STN. STL. PIPE SLEEVE OVER INSULATION JACKET EXTENDING 20" OUT FROM EACH ABUTMENT (FOR PHYSICAL PROTECTION).



SECTION – BRIDGE WITH HANGER

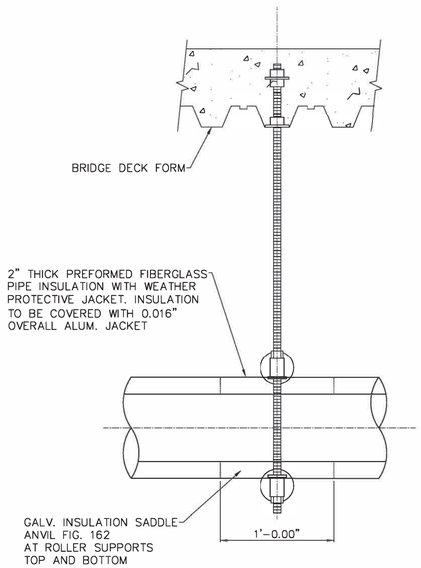
LOOKING AHEAD STATION

NOT TO SCALE



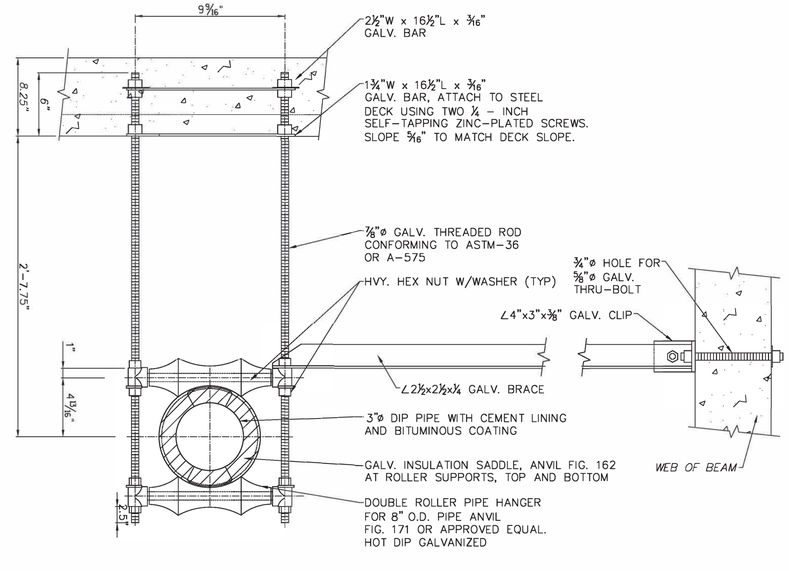
TYPICAL DIAPHRAGM PENETRATION

NOT TO SCALE



SECTION

NOT TO SCALE



TYPICAL PIPE HANGER ASSEMBLY FOR ALL SPANS

(TYP 18'-0" O.C.)

NOT TO SCALE

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UTILITY INFORMATION
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DONALD J. SNAPP REGISTERED ENGINEER AGRICULTURE COMMERCE No. 0011503 STATE OF TENNESSEE

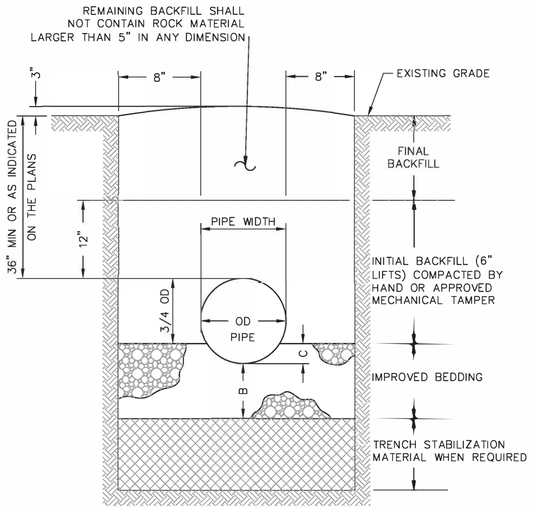
3/25/24

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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

SEWER LINE BRIDGE CROSSING DETAILS

3/26/2024 10:54:39 AM
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DIMENSION "B"
4" TYPICAL
6" IF ROCK IN BOTTOM OF
TRENCH SEE SPECIFICATIONS

DIMENSION "C"
1/4 OD

MC W-9A TRENCH INSTALLATION FOR PRESSURE PIPE (BEDDED)

NOT TO SCALE

Pipe Size	Fitting Type	Test Pressure < 151psi DI	< 151psi PVC	151-225psi DI	151-225psi PVC	226-300psi DI	226-300psi PVC
4"	Tee	6	12	15	26	23	41
	Dead End	16	30	24	44	32	59
	90°	12	16	18	24	24	32
	45°	5	7	8	10	10	13
	22.5°	2	3	4	5	5	6
	11.25°	2	2	2	3	3	3
6"	Tee	13	24	25	44	36	65
	Dead End	23	42	34	63	46	84
	90°	17	23	26	34	34	45
	45°	7	9	11	14	14	19
	22.5°	3	4	5	7	7	9
	11.25°	2	3	3	4	4	5
8"	Tee	21	38	36	65	52	93
	Dead End	30	55	46	83	61	111
	90°	22	30	34	44	45	59
	45°	9	12	14	18	19	25
	22.5°	4	6	7	9	9	12
	11.25°	3	3	4	5	5	6
10"	Tee	27	48	45	81	63	114
	Dead End	37	67	55	100	73	134
	90°	27	36	40	53	54	71
	45°	11	15	17	22	22	29
	22.5°	5	7	8	11	11	14
	11.25°	3	4	4	6	6	7
12"	Tee	33	60	55	100	77	139
	Dead End	44	80	65	119	87	159
	90°	32	42	48	63	64	84
	45°	13	17	20	26	26	35
	22.5°	6	8	10	13	13	17
	11.25°	3	4	5	7	7	9
14"	Tee	40	72	65	117	90	162
	Dead End	50	92	75	137	100	183
	90°	36	48	55	72	73	96
	45°	15	20	23	30	30	40
	22.5°	7	10	11	14	14	19
	11.25°	3	4	6	7	7	10
16"	Tee	47	84	75	135	103	186
	Dead End	57	104	85	156	113	208
	90°	41	54	62	82	82	109
	45°	17	23	26	34	34	45
	22.5°	8	11	12	16	16	22
	11.25°	4	5	6	8	8	11
18"	Tee	53	95	84	152	116	209
	Dead End	63	116	95	174	126	232
	90°	46	60	69	90	91	121
	45°	19	25	28	37	38	50
	22.5°	9	12	14	18	18	24
	11.25°	4	6	7	9	9	12

NOTES:

1. LENGTHS SHOWN ARE IN FEET.
2. WHERE TEST PRESSURES EXCEED 300 PSI. CONSULT WITH MFR. REP.
3. IN AREAS OF POOR SOILS, CONFIRM LENGTHS WITH ENGINEER.
4. AS AN ALTERNATE, THRUST BLOCKS IN ACCORDANCE WITH MC W-7A MAY BE USED WHEN APPROVED BY THE ENGINEER.
5. BOTH SIDES OF VALVES SHALL BE RESTRAINED AS INDICATED FOR DEAD ENDS.
6. FOR VERTICAL BENDS, USE MOST STRINGENT COLUMN.

MC W-7 MINIMUM REQUIRED PIPE RESTRAINT LENGTH

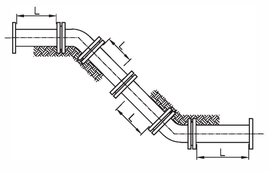
MECHANICALLY RESTRAINED JOINTS GENERAL NOTES:

1. THE RESTRAINED LENGTHS SHOWN IN THE TABLE ASSUME A WORST CASE SOIL CONDITION FOR EACH BEDDING CONDITION AND DESIGN PRESSURE.
2. INSTALL THRUST RESTRAINTS IN STRICT CONFORMANCE WITH MANUFACTURERS INSTRUCTIONS AND RECOMMENDATIONS.
3. PIPE JOINTS WITHIN CASING PIPES WILL BE RESTRAINED BUT PIPE LENGTHS WITHIN CASING PIPES WILL NOT BE CONSIDERED IN THE TOTAL LENGTH OF RESTRAINED PIPE.
4. "L" IN THE TABLE INDICATES THE MINIMUM LENGTH (IN FEET) TO BE RESTRAINED ON EACH SIDE OF THE RESPECTIVE FITTING LISTED.
5. THE FOLLOWING ARE THE PROCEDURES FOR DETERMINING THE MINIMUM RESTRAINED LENGTHS WHEN INSTALLING BENDS AND FITTINGS.
   A. WHERE HORIZONTAL NON-ENCROACHING BENDS ARE ENCOUNTERED, USE "L" AS SHOWN IN THE TABLES.
   B. WHERE HORIZONTAL RESTRAINED LENGTHS ENCROACH, RESTRAIN ALL JOINTS BETWEEN BENDS (OR FITTINGS) AND MULTIPLY "L" BY 1.5 FOR NEW RESTRAINED LENGTH OPPOSITE THE FULLY RESTRAINED SECTION OF PIPING.
   C. WHERE VERTICAL UP BENDS ARE ENCOUNTERED, USE "L" AS SHOWN IN TABLES.
   D. WHERE VERTICAL DOWN BENDS ARE ENCOUNTERED, MULTIPLY "L" BY 1.5 FOR NEW RESTRAINED LENGTH.
   E. WHERE VERTICAL BENDS ENCROACH, RESTRAIN ALL JOINTS BETWEEN BENDS. FOR VERTICAL UP BENDS, MULTIPLY "L" BY 1.5 AND FOR VERTICAL DOWN BENDS, MULTIPLY "L" BY 2.25 FOR NEW RESTRAINED LENGTHS OPPOSITE THE FULLY RESTRAINED SECTION OF PIPE.
6. THE RESTRAINED LENGTHS SHOWN FOR REDUCERS ARE BASED ON A REDUCTION OF ONE SIZE DOWN (I.E. 8 TO 6, 4 TO 3, ETC.). IF A REDUCTION GREATER THAN ONE SIZE DOWN IS NECESSARY, SEE THE ENGINEER FOR THE REQUIRED RESTRAINED LENGTH.

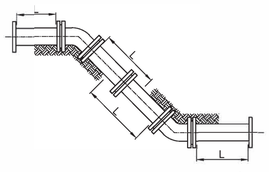
ENCROACHING: WHERE FITTINGS ARE INSTALLED AT LOCATIONS CLOSE ENOUGH TO ONE ANOTHER WHERE THE CALCULATED MINIMUM RESTRAINED LENGTHS OVERLAP.

NON ENCROACHING: WHERE FITTINGS ARE INSTALLED AT LOCATIONS WHERE THE CALCULATED MINIMUM RESTRAINED LENGTHS DO NOT OVERLAP.

VERTICAL DOWN (NON-ENCROACHING)
N.T.S.

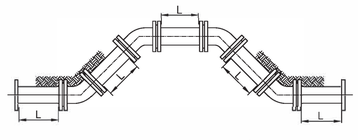


VERTICAL DOWN (ENCROACHING)
N.T.S.

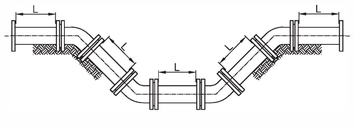


VERTICAL UP (NON-ENCROACHING)
N.T.S.

VERTICAL UP (ENCROACHING)
N.T.S.



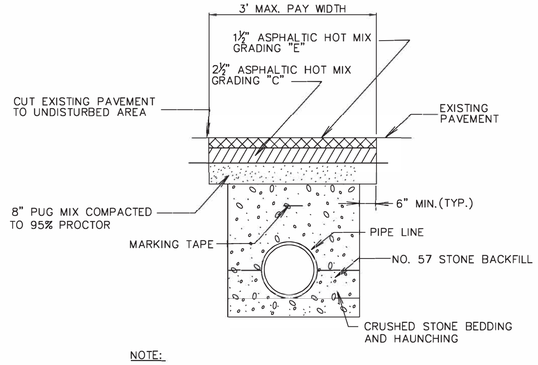
COMBINED VERTICAL OBJECT (OVER OBJECT)
N.T.S.



COMBINED VERTICAL OBJECT (UNDER OBJECT)
N.T.S.

MECHANICALLY RESTRAINED JOINT DETAIL

NOT TO SCALE



NOTE:

TO BE USED ON HOT MIX PAVED ROADS AND ELSEWHERE AS DESIGNATED BY THE ENGINEER. COST OF SAW CUTTING, COMPACTING, PUG MIX, HOT MIX, ETC. TO BE INCLUDED IN THE UNIT PRICE FOR HOT MIX PAVEMENT IN THE BID SCHEDULE, AND SHALL BE PAID FOR ON A LINEAR FOOT BASIS, COMPLETE IN PLACE.

PAVEMENT REPLACEMENT DETAIL

NOT TO SCALE

TYPE	YEAR	PROJECT NO.	SHEET NO.
PS&E	2026	37LCOU-F3-006	U3-6

Mattern & Craig
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UTILITY INFORMATION
CITY OF CHURCH HILL
300 EAST MAIN BLVD.
CHURCH HILL, TN 37642
PHONE: (423) 357-4601
CONTACT: JERRY SIMPSON

SEALED BY



COORDINATES ARE NAD 83(1995), ARE DATUM ADJUSTED BY THE FACTOR OF 1.00004 AND TIED TO THE TGRN. ALL ELEVATIONS ARE REFERENCED TO THE NAVD 1988 WITH GEOID 12B.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

STANDARD SEWER DETAILS

3/26/2024 10:58:29 AM
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