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STANDARD SINGLE SLOPE CONCRETE MEDIAN BARRIER.....	STD-1-3SS	05-10-2021
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STANDARD PRECAST PRESTRESSED BRIDGE DECK PANELS GENERAL DETAILS.....	STD-4-1	04-08-2025
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PIN NO.: 100340.00
 DESIGN BY: ALL OMAR DATE: 08/2025
 DRAWN BY: P. MOSHER DATE: 02/2026
 SUPERVISED BY: DAN SHIKE DATE: 01/2026
 CHECKED BY: URVA PATEL DATE: 01/2026

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CONST. NO.: 79020-3253-14

PROJECT NO.	YEAR	SHEET NO.	
STP/NH-4(6)	2026	B-1	
REVISIONS			
NO.	DATE	BY	BRIEF DESCRIPTION
- -			
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- -			

SEALED BY

STATE OF TENNESSEE
 DEPARTMENT OF TRANSPORTATION

INDEX OF BRIDGES
 STATE ROUTE 4 (LAMAR AVE.)
 SHELBY COUNTY

SHELBY COUNTY

PROJECT NO.	YEAR	SHEET NO.	
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-	-	-	-
-	-	-	-

BRIDGE NO. 1 PERKINS ROAD WB OVER STATE ROUTE 4 (LAMAR AVE.) BRIDGE ID NO. 79SR0040006 STATION 18+05.73 PRESTRESSED CONCRETE BULB TEE BEAM (BT-72) WITH COMPOSITE CONCRETE DECK SLAB 2 SPAN BRIDGE TOTAL LENGTH = 252'-0" SPAN NO. 1 = 112'-6" SPAN NO. 2 = 139'-6" 52'-0" ROADWAY WITH (1) 6'-0" SIDEWALK (1) STD 11-1 BRIDGE RAIL (1) STD-1-1SS PARAPET LAYOUT DWG. NO. U-102-145	BRIDGE NO. 2 PERKINS ROAD EB OVER STATE ROUTE 4 (LAMAR AVE.) BRIDGE ID NO. 79SR0040005 STATION 18+05.73 PRESTRESSED CONCRETE BULB TEE BEAM (BT-72) WITH COMPOSITE CONCRETE DECK SLAB 2 SPAN BRIDGE TOTAL LENGTH = 252'-0" SPAN NO. 1 = 112'-6" SPAN NO. 2 = 139'-6" 40'-0" ROADWAY WITH (1) 6'-0" SIDEWALK (1) STD 11-1 BRIDGE RAIL (1) STD-1-1SS PARAPET LAYOUT DWG. NO. U-102-166	BRIDGE NO. 3 STATE ROUTE 4 (LAMAR AVE.) OVER BURLINGTON-NORTHERN RR BRIDGE ID NO. 79SR0040009 STATION 536+56.00 CONTINUOUS STEEL WELDED PLATE GIRDER (57" WEB) WITH COMPOSITE CONCRETE DECK SLAB 3 SPAN BRIDGE TOTAL LENGTH = 380'-0" SPAN NO. 1 = 102'-0" SPAN NO. 2 = 176'-0" SPAN NO. 3 = 102'-0" 126'-0" ROADWAY WITH (2) STD-1-1SS PARAPETS (1) STD-1-3 (51") BARRIER LAYOUT DWG. NO. U-102-185	BRIDGE NO. 4 STATE ROUTE 4 (LAMAR AVE.) OVER WINCHESTER ROAD BRIDGE ID NO. 79SR0040043 STATION 570+62.91 CONTINUOUS STEEL WELDED PLATE GIRDER (69" WEB) WITH COMPOSITE CONCRETE DECK SLAB 1 SPAN BRIDGE TOTAL LENGTH = 180'-3" 110'-9" ROADWAY WITH (2) STD-1-1SS PARAPETS LAYOUT DWG. NO. U-102-221	BRIDGE NO. 5 STATE ROUTE 176 (GETWELL ROAD) OVER STATE ROUTE 4 (LAMAR AVE.) BRIDGE ID NO. 79SR0040013 STATION 148+08.91 CONTINUOUS STEEL WELDED PLATE GIRDER (42" WEB) WITH COMPOSITE CONCRETE DECK SLAB 3 SPAN BRIDGE TOTAL LENGTH = 250'-0" SPAN NO. 1 = 66'-6" SPAN NO. 2 = 117'-0" SPAN NO. 3 = 66'-6" 68'-9" ROADWAY WITH (2) STD-1-1SS PARAPETS LAYOUT DWG. NO. U-102-245	BRIDGE NO. 3 TEMP. WIDENING OF STATE ROUTE 4 (LAMAR AVE.) OVER BURLINGTON-NORTHERN RR BRIDGE ID NO. 79SR0040010 STATION 536+56.00 CONTINUOUS STEEL WELDED PLATE GIRDER (36" WEB) WITH COMPOSITE CONCRETE DECK SLAB 3 SPAN BRIDGE TOTAL LENGTH = 285'-7" SPAN NO. 1 = 88'-6½" SPAN NO. 2 = 108'-6" SPAN NO. 3 = 88'-6½" 48'-0" ROADWAY WITH (2) STD-1-1SS PARAPETS LAYOUT DWG. NO. U-102-274
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ESTIMATED QUANTITIES

ITEM NO.	DESCRIPTION	TOTAL	TOTAL	TOTAL	TOTAL	TOTAL	TOTAL	GRAND TOTAL	UNIT
202-04.01	REMOVAL OF STRUCTURES (EXIST. BR. I.D. NO. 79SR0040006)	1						1	L.S.
202-04.02	REMOVAL OF STRUCTURES (EXIST. BR. I.D. NO. 79SR0040005)		1					1	L.S.
202-04.03	REMOVAL OF STRUCTURES (EXIST. BR. I.D. NO. 79SR0040009 & 10)			1				1	L.S.
202-04.04	REMOVAL OF STRUCTURES (EXIST. BR. I.D. NO. 79SR0040013)					1		1	L.S.
202-04.05	REMOVAL OF STRUCTURES (EXIST. BR. I.D. NO. 79SR0040010)						1	1	L.S.
204-02.01	DRY EXCAVATION (BRIDGES)	232	216	2,764	388	2,008	366	5,974	C.Y.
303-01.02	GRANULAR BACKFILL (BRIDGES)	48	42	197	92	66	22	467	TONS
602-04.01	STEEL STRUCTURES (BR. NO. 3, 57" WEB, WELDED PLATE GIRDER)			1				1	L.S.
602-04.02	STEEL STRUCTURES (BR. NO. 4, 69" WEB, WELDED PLATE GIRDER)				1			1	L.S.
602-04.03	STEEL STRUCTURES (BR. NO. 5, 42" WEB, WELDED PLATE GIRDER)					1		1	L.S.
602-04.04	STEEL STRUCTURES (BR. NO. 3 TEMP., 36" WEB, WELDED PLATE GIRDER)						1	1	L.S.
602-10.60	BEARING DEVICE (BR. NO. 3, ABUTMENTS)			26				26	EA.
602-10.61	BEARING DEVICE (BR. NO. 3, BENTS)			26				26	EA.
602-10.62	BEARING DEVICE (BR. NO. 4, ABUTMENTS)				24			24	EA.
604-02.03	EPOXY COATED REINFORCING STEEL	125,080	102,379	217,204	151,585	180,813	29,410	806,471	LB.
604-03.01	CLASS A CONCRETE (BRIDGES)	312	293	1,578	196	581	86	3,046	C.Y.
604-03.02	STEEL BAR REINFORCEMENT (BRIDGES)	72,965	65,136	270,916	39,383	63,414	21,732	533,546	LB.
604-03.04	PAVEMENT @ BRIDGE ENDS	306	246	663	585	374	44	2,218	S.Y.
604-03.32	CLASS DS CONCRETE	457	369	1,290	894	541	89	3,640	C.Y.
604-03.74	CLASS X CONCRETE	54	43					97	C.Y.
604-04.01	APPLIED TEXTURE FINISH (NEW STRUCTURES)	4,677	4,150	2,741	776	1,058		13,402	S.Y.
604-04.01	THREE STAR STATE EMBLEM	1	1		4	2		8	EA.
604-05.31	BRIDGE DECK GROOVING (MECHANICAL)	1,667	1,267	5,637	2,780	2,277		13,628	S.Y.
604-10.30	BRIDGE DECK REPAIRS (FULL DEPTH OF SLAB)						146	146	S.Y.
606-09.01	TEST PILES (PRECAST CONCRETE, SIZE 1)	200	210				160	570	L.F.
606-09.02	LOADING TEST (PRECAST CONCRETE, SIZE 1)	1	1				1	3	EA.
606-09.03	PRECAST CONCRETE, SIZE 1	3,700	3,735				840	8,275	L.F.
606-12.01	PILE ANCHORAGE SYSTEM (SEISMIC)	70	66				28	164	EA.
606-17.01	TEST PILES (STEEL PIPE PILES, 12-INCH)					260		260	L.F.
606-17.02	LOADING TEST (STEEL PIPE PILES, 12-INCH)					1		1	EA.
606-17.03	STEEL PIPE PILE (12-INCH)					7,040		7,040	L.F.
606-18.01	TEST PILES (STEEL PIPE PILES, 14-INCH)			280	150			430	L.F.
606-18.02	LOADING TEST (STEEL PIPE PILES, 14-INCH)			1	1			2	EA.
606-18.03	STEEL PIPE PILE (14-INCH)			15,840	4,810			20,650	L.F.
615-01.12	PRESTRESSED CONCRETE BULB-TEE BEAM (6" WEB) (BT-72)	1,980	1,733					3,713	L.F.
617-02	BRIDGE DECK CRACK SEALING			760			334	1,094	L.F.
617-05	SEALANT (HMWM)			4			3	7	GAL
620-05	CONCRETE PARAPET WITH STRUCTURAL TUBING (STD-11-1)	291	291					582	L.F.
620-05.01	CONCRETE PARAPET SINGLE SLOPE (STD-1-1SS)	291	291	778	419	580	316	2,675	L.F.
621-05.11	TEMPORARY SHORING (BR. NO. 5)					1		1	L.S.
621-05.12	TEMPORARY SHORING (BR. NO. 3 TEMP. WIDENING)						1	1	L.S.
707-07.01	CHAIN-LINK FENCE (BRIDGES)			1,700				1,700	S.F.
709-04	REINFORCED CONCRETE SLOPE PAVEMENT			461				461	C.Y.
710-09.01	6" PERFORATED PIPE WITH VERTICAL DRAIN SYSTEM	182	158	434	378	200	56	1,408	L.F.
710-09.02	6" PIPE UNDERDRAIN	52	52	66	80	40	20	310	L.F.
711-05.74	CONCRETE MEDIAN BARRIER SINGLE SLOPE (STD-1-3SS)			428	228			656	L.F.
714-01.03	STRUCTURAL LIGHTING (BR. NO. 3)			1				1	L.S.
714-01.04	STRUCTURAL LIGHTING (BR. NO. 5)					1		1	L.S.

SEALED BY

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

ESTIMATED QUANTITIES
STATE ROUTE 4 (LAMAR AVE.)
SHELBY COUNTY

PIN NO.: 100340.00
 DESIGN BY: ALL OMAR DATE: 08/2025
 DRAWN BY: P. MOSHER DATE: 02/2026
 SUPERVISED BY: DAN SHIKE DATE: 01/2026
 CHECKED BY: URVA PATEL DATE: 01/2026

PROJECT NO.		YEAR	SHEET NO.
STP/NH-4(6)		2026	
REVISIONS			
NO.	DATE	BY	BRIEF DESCRIPTION

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RIGHT LANE BENT DETAILS.....	M-38-41.....
BILL OF STEEL.....	M-38-42.....

LIST OF STANDARD DRAWINGS

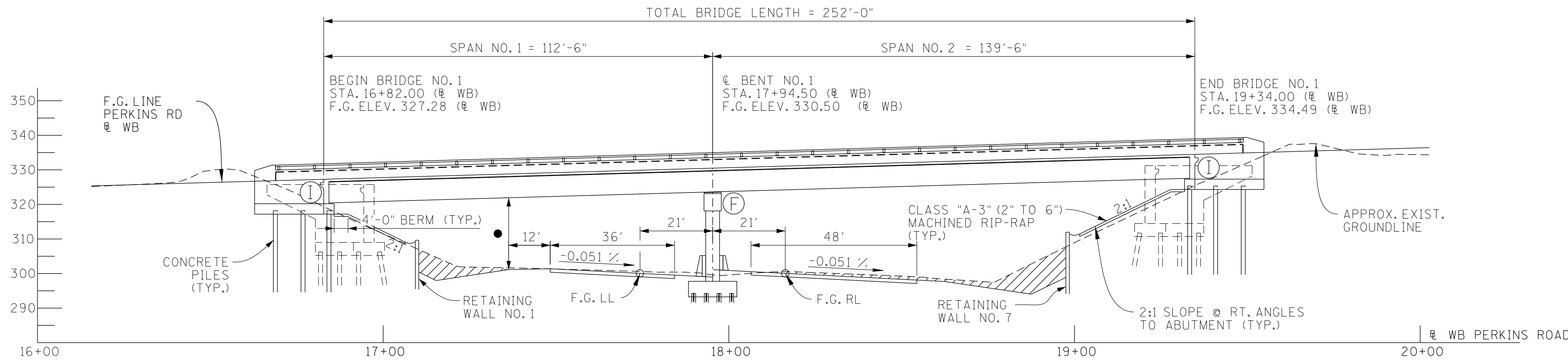
	<u>DWG. NO.</u>	<u>LAST REV.</u> <u>DATE</u>
BRIDGE RAILING SINGLE SLOPE CONCRETE PARAPET.....	STD-1-1SS.....	07/09/2025
STEEL SLIDER PLATE ASSEMBLIES FOR SINGLE SLOPE CONCRETE PARAPET AND BRIDGE DECK DRAIN DETAILS.....	STD-1-2SS.....	05/31/2024
REINFORCED CONCRETE PAVEMENT AT BRIDGE ENDS.....	STD-1-5.....	06/05/2023
STANDARD PILE DETAILS.....	STD-5-1.....	
STANDARD SEISMIC DETAILS.....	STD-6-1.....	12/08/2023
TRI-STAR STATE EMBLEM FINISH DETAILS.....	STD-8-6.....	10/03/2018
STANDARD REINFORCING BAR SUPPORT DETAILS FOR CONCRETE SLABS....	STD-9-1.....	10/07/2008
MISCELLANEOUS ABUTMENT AND DRAINAGE DETAILS.....	STD-10-1.....	06/05/2023
MISC. ABUTMENT AND PAVEMENT AT BRIDGE ENDS BACKFILL DETAILS.....	STD-10-2.....	06/05/2023
BRIDGE RAILING CONCRETE PARAPET WITH STRUCTURAL TUBING.....	STD-11-1.....	04/15/2020
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

SEALED BY

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BRIDGE NO. 1
INDEX OF DRAWINGS
PERKINS ROAD WB
OVER STATE ROUTE 4 (LAMAR AVE.)
BRIDGE ID NO. 79SR0040006
LOG MILE 3.60
STATION 18+05.73
SHELBY COUNTY

PIN NO.: 100340.00
DESIGN BY: A. OMAR DATE: 08/15/2025
DRAWN BY: A. OMAR DATE: 08/15/2025
SUPERVISED BY: D. SHIKE DATE: 08/15/2025
CHECKED BY: U. PATEL DATE: 09/15/2025

PROJECT NO.		YEAR		SHEET NO.	
STP/NH-4(6)		2026			
REVISIONS					
NO.	DATE	BY	BRIEF DESCRIPTION		



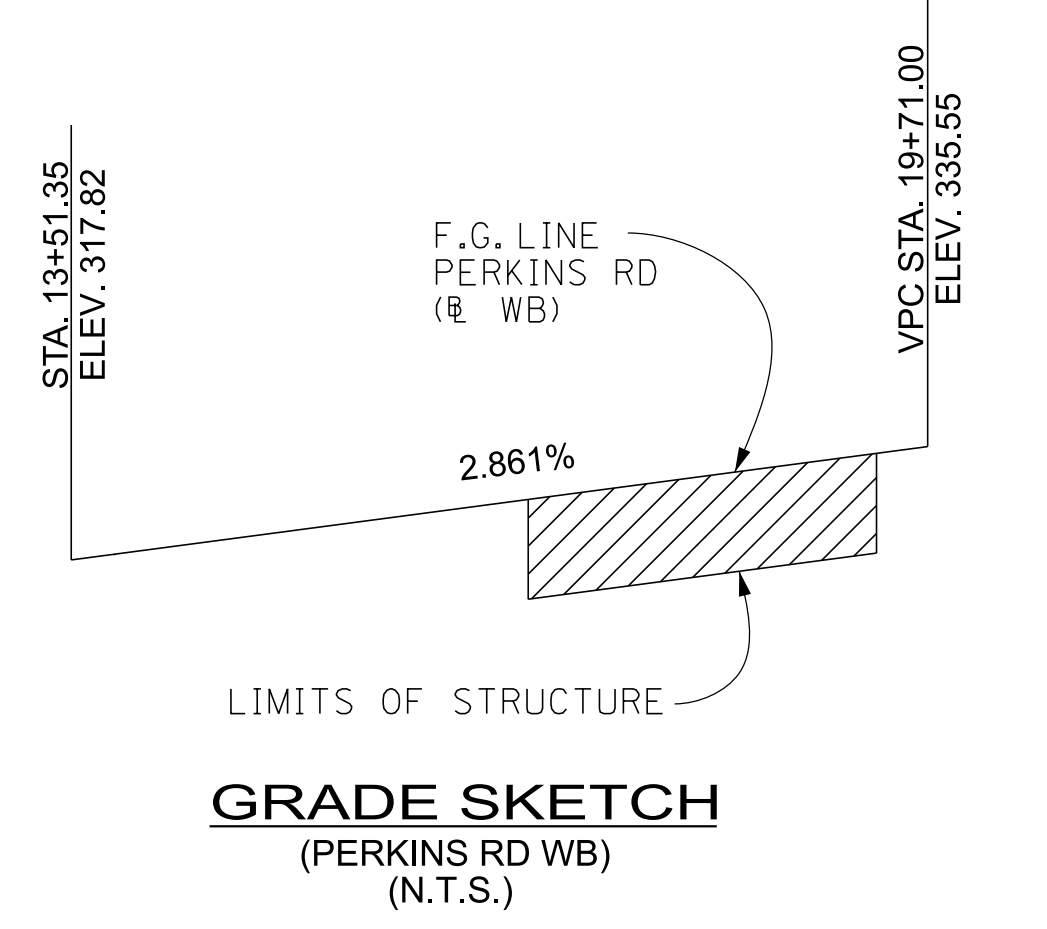
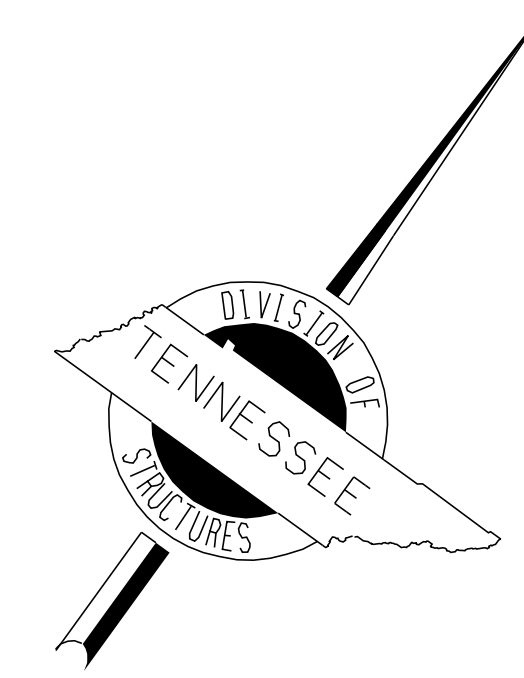
- Ⓡ DENOTES: INTEGRAL
- ⓕ DENOTES: FIXED

▨ DENOTES AREA TO EXCAVATED AND PAID FOR AS A ROADWAY ITEM.

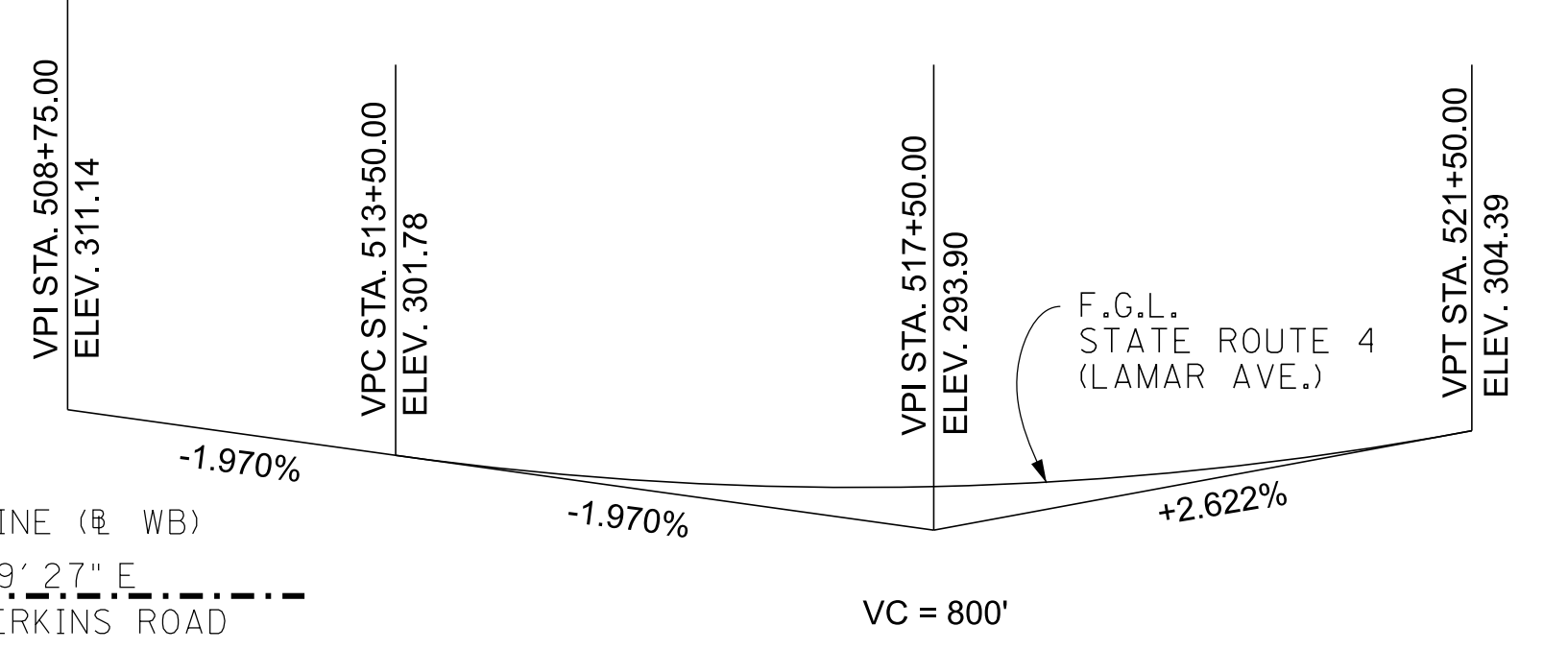
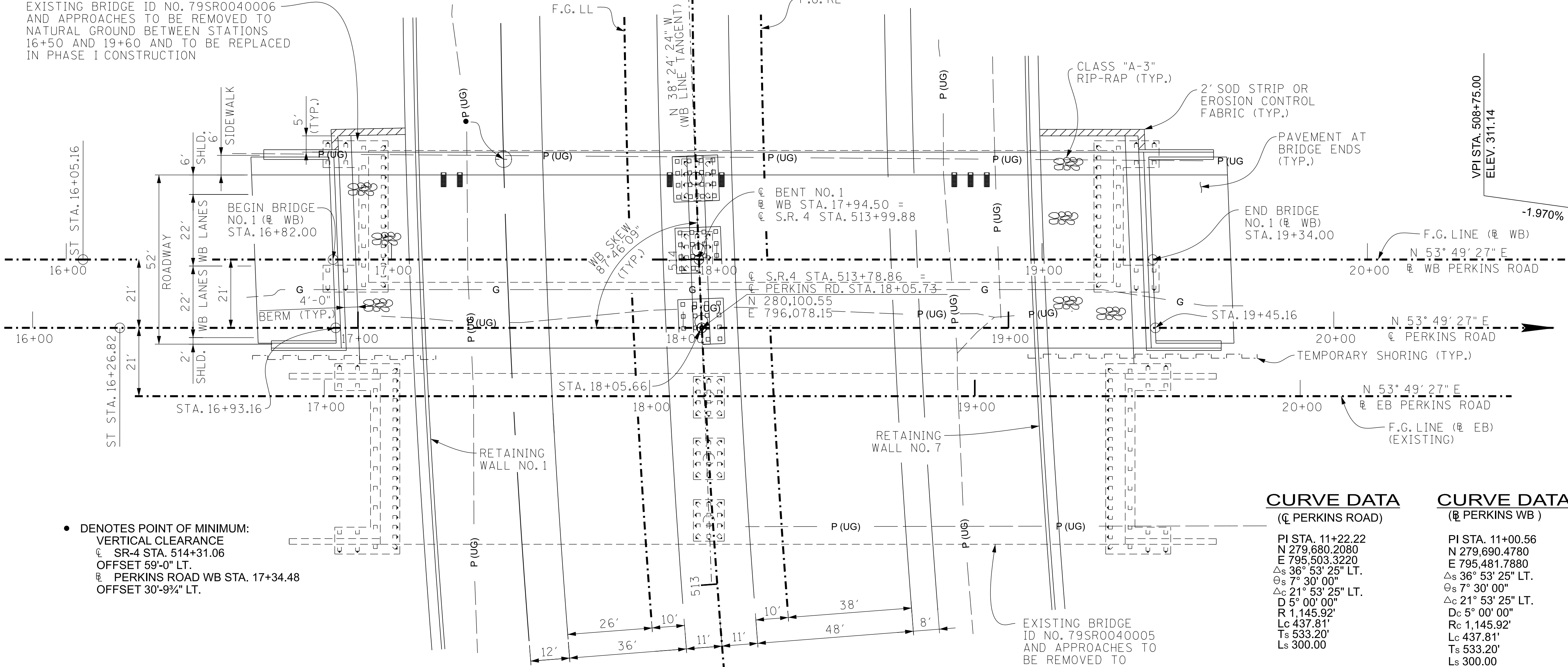
• DENOTES: ACTUAL MINIMUM VERTICAL CLEARANCE = 19'-10⁵/₁₆"
(MINIMUM ALLOWABLE VERTICAL CLEARANCE = 16'-6")

▣ DENOTES: TYPE 2 GRATE DECK DRAINS FOR WB BRIDGE. SEE STD-1-2SS. STATIONS BASED ON WB PERKINS ROAD.

STA.	LOC.
17+16.00	LEFT
17+21.00	LEFT
17+85.50	LEFT
18+01.50	LEFT
18+73.00	LEFT
18+78.00	LEFT
18+83.00	LEFT



EXISTING BRIDGE ID NO. 79SR0040006 AND APPROACHES TO BE REMOVED TO NATURAL GROUND BETWEEN STATIONS 16+50 AND 19+60 AND TO BE REPLACED IN PHASE I CONSTRUCTION



• DENOTES POINT OF MINIMUM: VERTICAL CLEARANCE
 ⓕ SR-4 STA. 514+31.06
 OFFSET 59'-0" LT.
 ⓕ PERKINS ROAD WB STA. 17+34.48
 OFFSET 30'-9³/₄" LT.

CURVE DATA
(ⓕ PERKINS ROAD)

PI STA. 11+22.22
 N 279,680.2080
 E 795,503.3220
 Δs 36° 53' 25" LT.
 Θs 7° 30' 00"
 Δc 21° 53' 25" LT.
 Dc 5° 00' 00"
 R 1,145.92'
 Lc 437.81'
 Tc 533.20'
 Ls 300.00'

CURVE DATA
(ⓕ PERKINS WB)

PI STA. 11+00.56
 N 279,690.4780
 E 795,481.7880
 Δs 36° 53' 25" LT.
 Θs 7° 30' 00"
 Δc 21° 53' 25" LT.
 Dc 5° 00' 00"
 Rc 1,145.92'
 Lc 437.81'
 Tc 533.20'
 Ls 300.00'
 S.E. 0.049 FT/FT (EXIST)
 DESIGN SPEED 45 MPH

CURVE DATA
(STATE ROUTE 4)

PI STA. 519+93.66
 N 280,485.4655
 E 795,594.7819
 Δs 40° 57' 45" RT.
 Θs 3° 30' 00"
 Δc 33° 57' 45" RT.
 Dc 2° 00' 00"
 Rc 2,864.79'
 Lc 1,698.13'
 Tc 1,245.68'
 Ls 350.00'
 S.E. 0.051 FT/FT
 DESIGN SPEED 60 MPH

EXISTING BRIDGE ID NO. 79SR0040005 AND APPROACHES TO BE REMOVED TO NATURAL GROUND BETWEEN STATIONS 16+80 AND 19+90 AND TO BE REPLACED IN PHASE II CONSTRUCTION

GRADE SKETCH
(STATE ROUTE 4)
(N.T.S.)

SEALED BY

STATE OF TENNESSEE
 DEPARTMENT OF TRANSPORTATION
BRIDGE NO. 1
LAYOUT OF BRIDGE
PERKINS ROAD WB
OVER STATE ROUTE 4 (LAMAR AVE.)
BRIDGE ID NO. 79SR0040006
LOG MILE 3.60
STATION 18+05.73
SHELBY COUNTY

PIN NO.: 100340.00

DESIGN BY: A. OMAR	DATE: 08/15/2025
DRAWN BY: A. OMAR	DATE: 08/15/2025
SUPERVISED BY: D. SHIKE	DATE: 08/15/2025
CHECKED BY: U. PATEL	DATE: 09/15/2025

PLAN
SCALE: 1" = 20'-0"

Jed A. Kravitz
 ENGINEER OF STRUCTURES

GENERAL NOTES

SPECIFICATIONS & LOADING

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

DESIGN SPECIFICATIONS: 10TH EDITION (2024) 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 LOAD INCREASED BY 10% (MULTIPLIED BY 1.1) IN ADDITION TO ALL LOAD FACTORS SPECIFIED BY AASHTO FOR ALL APPLICABLE LOAD COMBINATIONS
 - B. SEISMIC DESIGN CATEGORY "C" WITH $A_S = 0.363$, $S_{DS} = 0.782$, $S_{D1} = 0.338$, (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.

CONCRETE: BENT CAP CONCRETE TO BE CLASS X (CAST-IN-PLACE) EXCEPT AS NOTED OTHERWISE. CLASS X CONCRETE SHALL HAVE A MINIMUM 28-DAY COMPRESSIVE STRENGTH OF 4000 PSI AND SHALL MEET ALL OTHER CRITERIA FOR CLASS A CONCRETE AS SPECIFIED IN SECTION 604 OF THE STANDARD SPECIFICATIONS.

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 "3" 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 SHALL BE REMAIN-IN-PLACE STEEL. 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 DRAWING 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.

REINFORCING STEEL IN COLUMNS: ALL LONGITUDINAL REINFORCING STEEL IN COLUMNS SHALL BE ASTM A706 GRADE 60.

FOUNDATION ELEMENTS

ABUTMENTS ON FILL: THE FILLS AT THE ENDS OF THE BRIDGE SHALL BE IN PLACE AND THOROUGHLY COMPACTED BEFORE ANY ABUTMENT PILES ARE DRIVEN.

FRICTION PILES: TO BE SIZE 1 PRECAST CONCRETE PILES AT ABUTMENTS AND BENT. AFTER EXCAVATION TO THE PROPOSED FOOTING ELEVATIONS, A TEST PILE SHALL BE DRIVEN AT EACH SUBSTRUCTURE AT THE LOCATION DESIGNATED ON DRAWING NO. U-102-163. A LOAD TEST WILL THEN BE APPLIED TO THE TEST PILE IN ABUTMENT NO. 1. FROM THE RESULTS OF THE LOAD TEST, THE ENGINEER OF STRUCTURES WILL DETERMINE THE REQUIRED LENGTH OF

THE PRODUCTION PILES AND MINIMUM REQUIRED BEARING. FOR PILE DESIGN LOADS AND CUT-OFF ELEVATIONS, SEE PILE DATA TABLE ON THIS SHEET. THE CONTRACTOR SHALL INSTALL PILING SUCH THAT ALL THE FOLLOWING REQUIREMENTS ARE MET. THE TIP ELEVATION FOR ALL TEST PILES AND PRODUCTION PILES SHALL BE EQUAL TO OR BELOW THE MINIMUM PILE TIP ELEVATION SHOWN ON THE PLANS. IN ADDITION, TEST PILES TO BE LOAD TESTED SHALL BE INSTALLED TO AT LEAST THE SPECIFIED BEARING SHOWN ON THE PLANS OR FULL LENGTH, WHICHEVER OCCURS FIRST. ALL OTHER TEST PILES SHALL BE INSTALLED TO AT LEAST 1.5 TIMES THE SPECIFIED BEARING SHOWN ON THE PLANS OR FULL LENGTH, WHICHEVER OCCURS FIRST. ALL PRODUCTION PILES SHALL BE INSTALLED FULL LENGTH UNLESS EXCESSIVELY HARD DRIVING WHICH MIGHT DAMAGE THE PILES IS ENCOUNTERED. IF THE PRODUCTION PILES DO NOT ACHIEVE THE MINIMUM REQUIRED BEARING, THE ENGINEER OF STRUCTURES WILL DETERMINE IF ADDITIONAL PILES ARE REQUIRED.

IN THE EVENT THAT DRIVING THE TEST PILE TO AT LEAST THE MINIMUM TIP ELEVATION OR DRIVING THE PRODUCTION PILE FULL LENGTH MIGHT DAMAGE THE PILE BECAUSE OF EXCESSIVELY HARD DRIVING, THE CONTRACTOR SHALL USE OTHER METHODS APPROVED BY THE ENGINEER FOR INSTALLING THE PILES SUCH AS JETTING (WHERE ALLOWED) OR PRE-DRILLING HOLES. HOWEVER, ALL PILES MUST BE DRIVEN BY HAMMER FOR THE LAST FEW FEET OF PENETRATION. NO MEASUREMENT FOR PAYMENT WILL BE MADE FOR PRE-DRILLING HOLES OR FOR JETTING PILING TO OBTAIN THE REQUIRED PILE PENETRATION.

THE PILE LOAD TEST SHALL BE A QUICK LOAD TEST CONDUCTED IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS. THE PILE LOAD TEST APPARATUS FOR APPLYING LOADS AND MEASURING MOVEMENT SHALL MEET THE REQUIREMENTS OF ASTM D1143, STANDARD TEST METHODS FOR DEEP FOUNDATION ELEMENTS UNDER STATIC AXIAL COMPRESSIVE LOAD. WHEN INSUFFICIENT CLEARANCE IS AVAILABLE WITHIN AN EXCAVATION, THE CLEARANCE REQUIREMENTS IN ARTICLE 9.1.1 MAY BE REDUCED, BUT ONLY WITH PRIOR APPROVAL OF THE ENGINEER.

ALTERNATE FRICTION PILES: WITH THE EXCEPTION OF PILE BENTS, THE CONTRACTOR MAY USE AN ALTERNATE PILE TYPE OR SIZE FROM THAT SHOWN ON THE PLANS PROVIDED THE SUBSTITUTION MEETS MINIMUM DESIGN STANDARDS AND SPECIFICATIONS AND IS APPROVED BY THE ENGINEER. FOR PILE BENTS, ANY PROPOSAL OF THE CONTRACTOR TO USE AN ALTERNATE PILE TYPE OR SIZE SHALL BE CONSIDERED VALUE ENGINEERING.

PRECAST SUPERSTRUCTURES

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

MISCELLANEOUS GENERAL NOTES

SHOP DRAWINGS: SEE SECTION 105.02 OF THE STANDARD SPECIFICATIONS.

PARAPET SYSTEM: BUILD PARAPETS ACCORDING TO STANDARD DRAWING STD-1-1SS AND STD-11-1. 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.

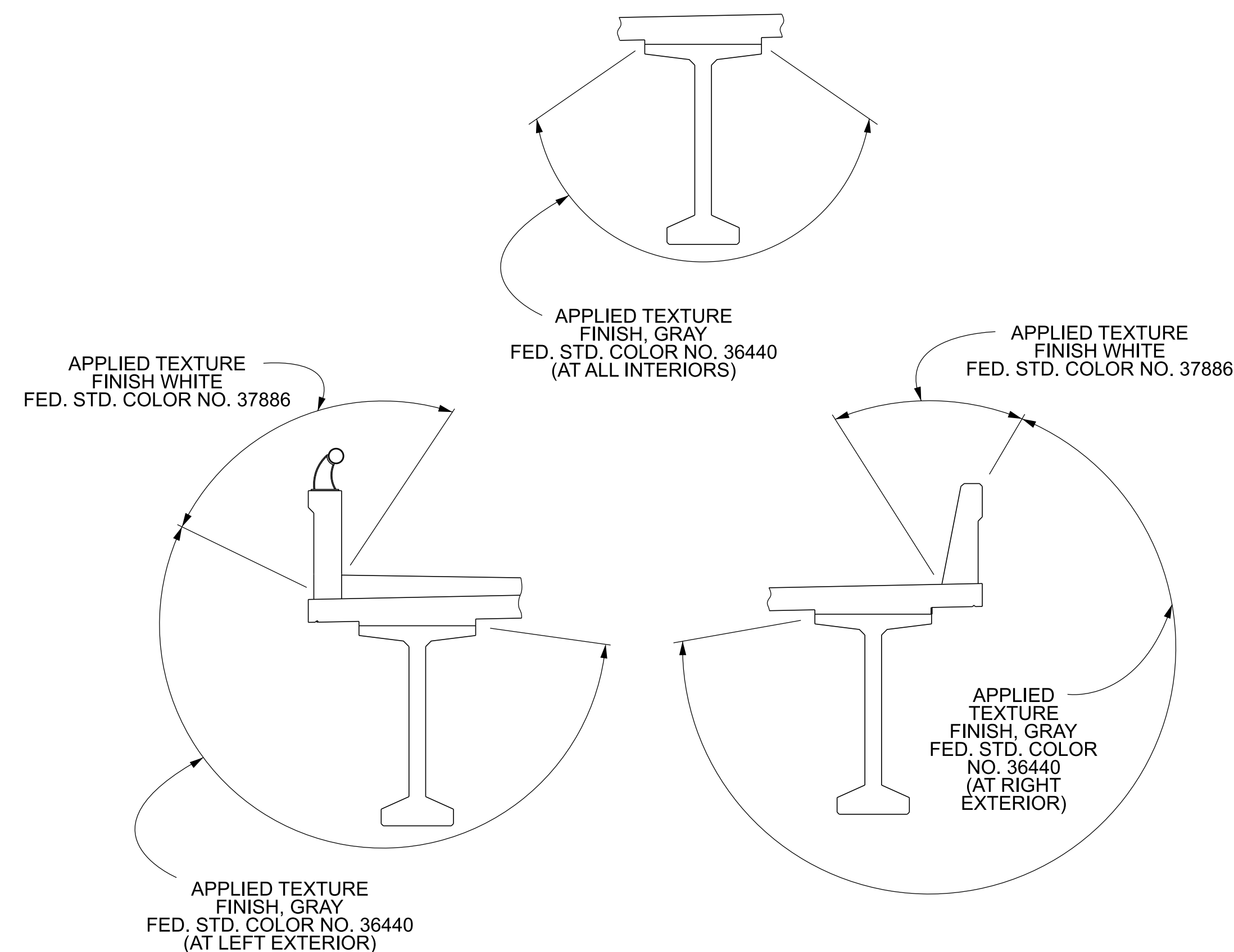
MACHINED RIP-RAP: MACHINED RIP-RAP FOR SLOPE PROTECTION SHALL BE 2' TO 6" IN SIZE UNIFORMLY GRADED AND MEET THE REQUIREMENTS OF SECTION 709 OF THE STANDARD SPECIFICATIONS AND SHALL BE MEASURED AND PAID FOR UNDER ROADWAY ITEM NO. 709-05.05.

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.

FALSEWORK OVER TRAFFIC: SEE SECTION 604.06 OF THE STANDARD SPECIFICATIONS.

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.



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, BENT, AND EXTERIOR PORTIONS OF THE ENDWALLS SHALL RECEIVE AN APPLIED TEXTURE FINISH, (GRAY, FEDERAL STANDARD AMS-STD-595A, COLOR NO. 36440).

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PILE DATA TABLE

LOCATION	DESIGN LOAD (TONS)	TEST PILE CUT-OFF ELEV. (FT.)	ESTIMATED PILE LENGTH (FT.)	TEST PILE LENGTH (FT.)	MINIMUM PILE TIP ELEVATION (FT.)
ABUTMENT NO. 1	115	317.65	60	70	N/A
BENT	120	294.63	40	50	N/A
ABUTMENT NO. 2	135	324.73	70	80	N/A

PIN NO.: 100340.00
 DESIGN BY: A. OMAR DATE: 08/15/2025
 DRAWN BY: A. OMAR DATE: 08/15/2025
 SUPERVISED BY: D. SHIKE DATE: 08/15/2025
 CHECKED BY: U. PATEL DATE: 09/15/2025

STATE OF TENNESSEE
 DEPARTMENT OF TRANSPORTATION
BRIDGE NO. 1
GENERAL NOTES
PERKINS ROAD WB
OVER STATE ROUTE 4 (LAMAR AVE.)
BRIDGE ID NO. 79SR0040006
LOG MILE 3.60
STATION 18+05.73
SHELBY COUNTY

PROJECT NO.	YEAR	SHEET NO.	
STP/NH-4(6)	2026		
REVISIONS			
NO.	DATE	BY	BRIEF DESCRIPTION

ESTIMATED QUANTITIES:

ITEM NO.	DESCRIPTION	UNIT	TOTAL	SUPERSTRUCTURE	ABUTMENT NO. 1	BENT NO. 1	ABUTMENT NO. 2
(2) 202-04.01	REMOVAL OF STRUCTURES (EXIST. BR. ID NO. 79SR0040006)	L.S.	1				
(3) 204-02.01	DRY EXCAVATION (BRIDGES)	C.Y.	232		116		116
(10) 303-01.02	GRANULAR BACKFILL (BRIDGES)	TON	48		24		24
604-02.03	EPOXY COATED REINFORCING STEEL	LB.	125,080	119,542	2,769		2,769
604-03.01	CLASS A CONCRETE (BRIDGES)	C.Y.	312	38	72	129	73
604-03.02	STEEL BAR REINFORCEMENT (BRIDGES)	LB.	72,965	1,435	7,952	55,575	8,003
(1) 604-03.04	PAVEMENT @ BRIDGE ENDS	S.Y.	306				
604-03.32	CLASS DS CONCRETE	C.Y.	457	449	4		4
(8) 604-03.74	CLASS X CONCRETE	C.Y.	54			54	
604-04.01	APPLIED TEXTURE FINISH (NEW STRUCTURES)	S.Y.	4,677	4,407	47	176	47
(11) 604-04.41	THREE STAR STATE EMBLEM	EACH	1			1	
604-05.31	BRIDGE DECK GROOVING (MECHANICAL)	S.Y.	1,667				
606-09.01	TEST PILES (PRECAST CONCRETE PILES, SIZE 1)	L.F.	200		70	50	80
606-09.02	LOADING TEST (PRECAST CONCRETE PILES, SIZE 1)	EACH	1		1		
606-09.03	PRECAST CONCRETE PILES (SIZE 1)	L.F.	3,700		840	1,880	980
(9) 606-12.01	PILE ANCHORAGE SYSTEM (SEISMIC)	EACH	70		11	48	11
(5) (6) 615-01.12	PRESTRESSED CONCRETE BULB-TEE BEAM (6" WEB) (BT-72)	L.F.	1,980				
620-05	CONCRETE PARAPET WITH STRUCTURAL TUBING (STD-11-1)	L.F.	291				
620-05.01	CONCRETE PARAPET SINGLE SLOPE (STD-1-1SS)	L.F.	291				
(7) 710-09.01	6" PERFORATED PIPE WITH VERTICAL DRAIN SYSTEM	L.F.	182		91		91
710-09.02	6" PIPE UNDERDRAIN	L.F.	52		26		26

FOOTNOTES:

- | | |
|--|---|
| <p>(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.</p> <p>(2) NOTE: LUMP SUM: EXISTING (LEFT LANE) BRIDGE ID NO. 79SR0040006 AND APPROACHES TO BE REMOVED TO NATURAL GROUND BETWEEN STATIONS 16+50 AND 19+60. EXISTING BRIDGE CONTAINS 2 SPAN COMPOSITE REINFORCED CONCRETE TUB GIRDERS WITH 8" CONCRETE DECK SLAB, CONCRETE MULTI-COLUMN BENT, CONCRETE FOOTINGS WITH 14" CONCRETE FRICTION PILES, AND CONCRETE ABUTMENT WITH WING AND ENDWALLS. EXISTING STRUCTURE (WITHOUT APPROACHES) IS 40.5 FT WIDE AND 229 FT LONG. EXISTING FOUNDATION ELEMENTS THAT COINCIDE WITH PROPOSED FOUNDATION ELEMENTS SHALL BE REMOVED ENTIRELY.</p> <p>(3) NOTE: EXCAVATION BASED ON FINAL PROFILE AT ABUTMENTS AND AT BENTS.</p> <p>(4) NOTE: THE COST OF BITUMINOUS-FIBERBOARD AND ALL MISCELLANEOUS JOINT MATERIAL TO BE INCLUDED IN THE UNIT PRICE BID FOR OTHER ITEMS.</p> <p>(5) NOTE: COST OF ELASTOMERIC PADS AND RUBBER BONDING CEMENT TO BE INCLUDED IN THE UNIT PRICE BID FOR THE PRESTRESSED BEAM.</p> | <p>(6) NOTE: INTERMEDIATE DIAPHRAGMS SHALL BE STRUCTURAL STEEL AND PAID FOR IN ACCORDANCE WITH STANDARD DRAWING STD-14-1.</p> <p>(7) NOTE: COST OF POLYETHYLENE SHEETING AND ALL MISCELLANEOUS ITEMS NECESSARY FOR INSTALLATION TO BE INCLUDED IN THE UNIT PRICE BID FOR PERFORATED PIPE.</p> <p>(8) NOTE: THE COST OF ALL MATERIALS AND LABOR NECESSARY FOR THE INSTALLATION OF 52 ANCHOR BOLT ASSEMBLIES SHALL BE INCLUDED IN THE UNIT PRICE BID FOR CLASS "X" CONCRETE (BRIDGES), ITEM NO. 604-03.74. ALL ANCHOR BOLTS SHALL BE 1" Ø F1554 GRADE MIN. 55.</p> <p>(9) NOTE: COST OF PREPARATION OF THE TOP OF PILE FOR SEISMIC REQUIREMENTS SHALL BE INCLUDED IN THE UNIT PRICE BID FOR ITEM 606-12.01. SEE STANDARD DRAWING STD-6-1 FOR DETAILS. THE PILE AND TEST PILE LENGTHS SHOWN ON THE PLANS DO NOT INCLUDE THE 2 FEET REQUIRED FOR SEISMIC ATTACHMENT.</p> <p>(10) NOTE: GRANULAR BACKFILL SHALL BE TYPE "A" GRADING "D" MATERIAL. SEE STANDARD DRAWING STD-10-1.</p> <p>(11) NOTE: EMBLEM SHALL BE APPLIED TO THE LEFT SIDE OF CAP. FOR DETAILS SEE STD. DWG. NO. STD-8-6.</p> <p>(12) NOTE: THE COST OF TEMPORARY SHORING TO BE INCLUDED IN THE UNIT PRICE BID FOR OTHER ITEMS.</p> |
|--|---|

SEALED BY

PIN NO.: 100340.00
 DESIGN BY: A. OMAR DATE: 08/15/2025
 DRAWN BY: A. OMAR DATE: 08/15/2025
 SUPERVISED BY: D. SHIKE DATE: 08/15/2025
 CHECKED BY: U. PATEL DATE: 09/15/2025

STATE OF TENNESSEE
 DEPARTMENT OF TRANSPORTATION
BRIDGE NO. 1
ESTIMATED QUANTITIES
PERKINS ROAD WB
OVER STATE ROUTE 4 (LAMAR AVE.)
BRIDGE ID NO. 79SR0040006
LOG MILE 3.60
STATION 18+05.73
SHELBY COUNTY

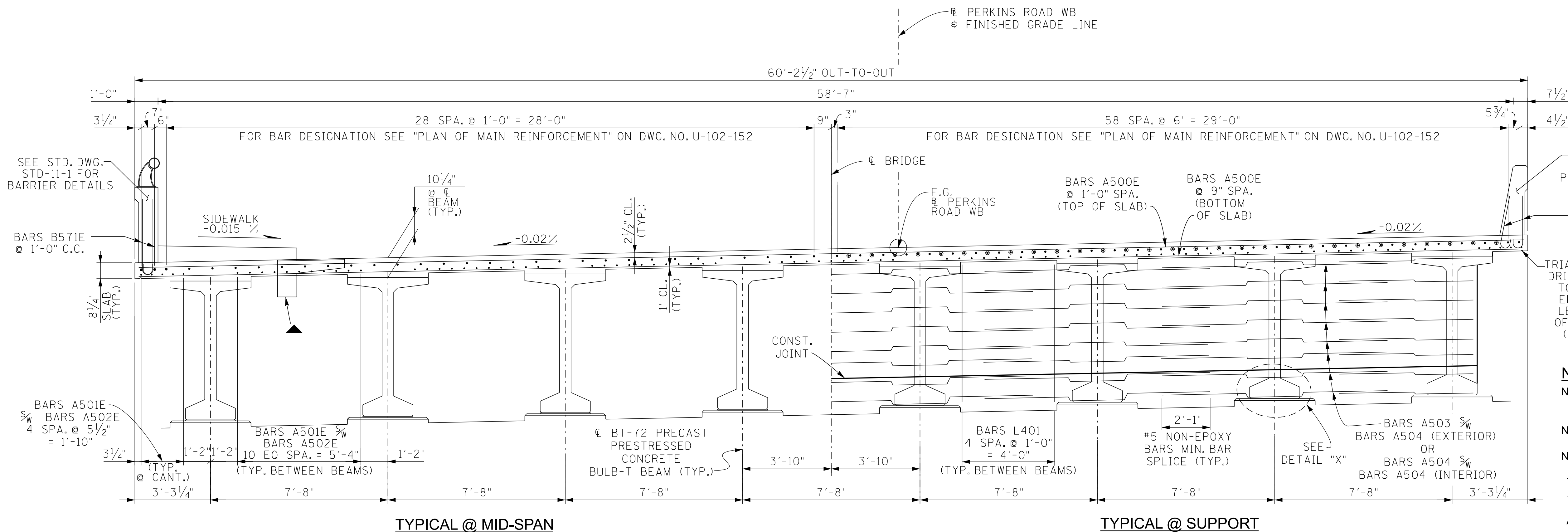
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PROJECT NO.	YEAR	SHEET NO.	
STP/NH-4(6)	2026		
REVISIONS			
NO.	DATE	BY	BRIEF DESCRIPTION

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BRIDGE NO. 1
FOUNDATION DATA
PERKINS ROAD WB
OVER STATE ROUTE 4 (LAMAR AVE.)
BRIDGE ID NO. 79SR0040006
LOG MILE 3.60
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SHELBY COUNTY

PIN NO.: 100340.00
DESIGN BY: A. OMAR DATE: 08/15/2025
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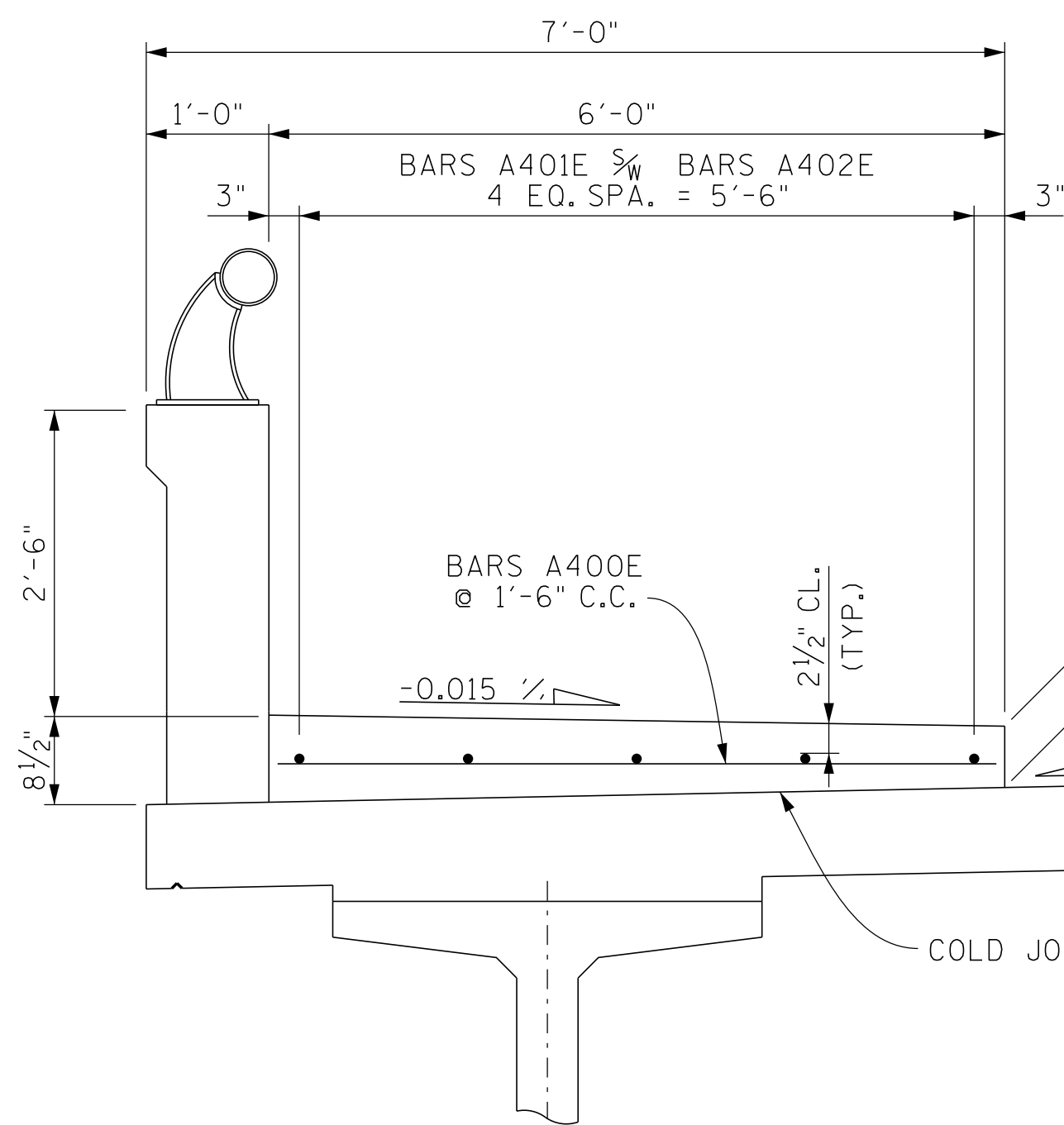
TYPICAL @ MID-SPAN

TYPICAL @ SUPPORT

TYPICAL CROSS-SECTION
(LOOKING FORWARD ON SURVEY)

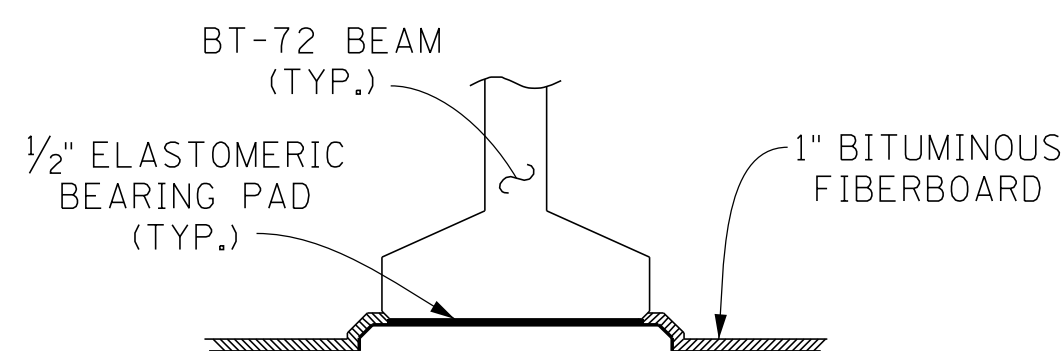
▲ DENOTES: TYPE 2 GRATE DECK DRAINS.
SEE STD-1-2SS.

- NOTES:**
- NOTE: NO PORTION OF THE PARAPET SHALL BE POURED UNTIL THE ENTIRE DECK SLAB IS IN PLACE.
 - NOTE: PRESTRESSED DECK PANELS ARE NOT ALLOWED.
 - NOTE: WHEN POURING SLAB, PROVISIONS SHALL BE MADE FOR SETTING REINFORCING STEEL FOR PARAPETS. THE PARAPETS SHALL NOT BE POURED UNTIL THE SLAB IS POURED AND CURED. WHEN POURING PARAPETS, PROVISIONS SHALL BE MADE FOR SETTING ANCHOR BOLTS FOR HANDRAILS. ALSO SEE STD. DWG. NOS. STD-1-1SS AND STD-11-1.
 - 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 BOTH THE TEMPORARY ERECTION DIAPHRAGMS AND THE PERMANENT INTERMEDIATE DIAPHRAGMS BE INSTALLED PRIOR TO PLACING ANY LOADS ON THE BEAMS, IT IS REQUIRED THAT ALL TEMPORARY ERECTION DIAPHRAGMS AND ALL PERMANENT INTERMEDIATE DIAPHRAGMS IN A SPAN BE FULLY INSTALLED PRIOR TO POURING ANY PORTION OF THE SLAB IN THAT SPAN.

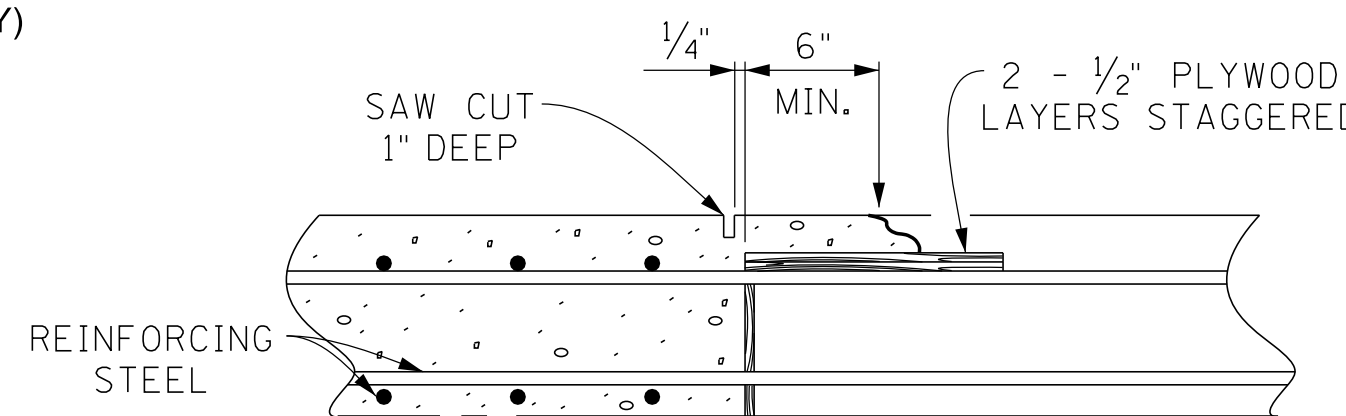


SIDEWALK DETAIL
(FOR CLARITY, SLAB & PARAPET REINFORCEMENT NOT SHOWN)

- NOTES:**
- NOTE: SIDEWALKS TO EXTEND ALONG PAVEMENT AT BRIDGE ENDS. ALL SIDEWALK CONCRETE SHALL BE INCLUDED IN THE QUANTITY FOR ITEM 604-03.01.
 - NOTE: NO PORTION OF THE SIDEWALK SHALL BE POURED UNTIL THE ENTIRE PARAPET IS IN PLACE.
 - NOTE: MIN. SPLICE LENGTH = 1'-10" FOR NO. 4 BARS IN SIDEWALK.
 - PARAPET TO BE CONSTRUCTED IN ACCORDANCE WITH STD-11-1.



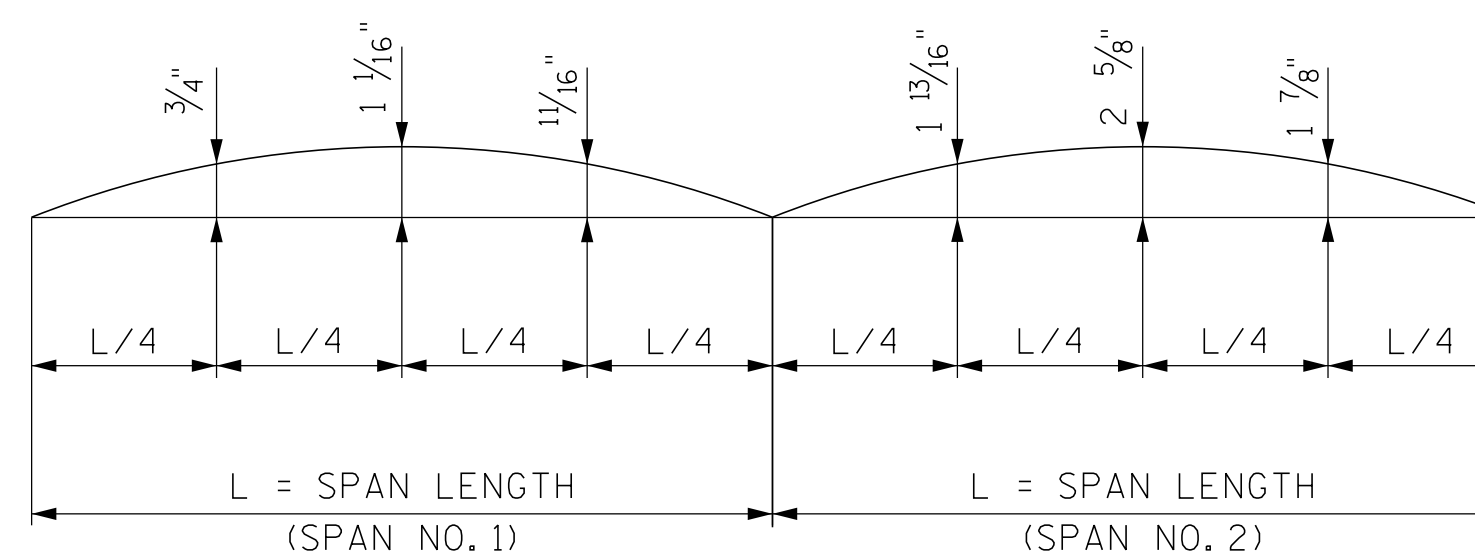
DETAIL "X"



SLAB CONSTRUCTION DETAIL

DECK CONCRETE POURING SEQUENCE: SLAB CONSTRUCTION JOINTS MAY BE LOCATED AT THE CONTRACTOR'S OPTION SUBJECT TO THE FOLLOWING:

- NO CONSTRUCTION JOINT MAY BE LOCATED CLOSER THAN 10 FEET OR FURTHER THAN 15 FEET FROM AN INTERIOR SUPPORT.
- 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.
- ALL SLAB CONSTRUCTION JOINTS SHALL BE IN ACCORDANCE WITH THE SLAB CONSTRUCTION JOINT DETAIL SHOWN ABOVE.



DEAD LOAD CORRECTION CURVE

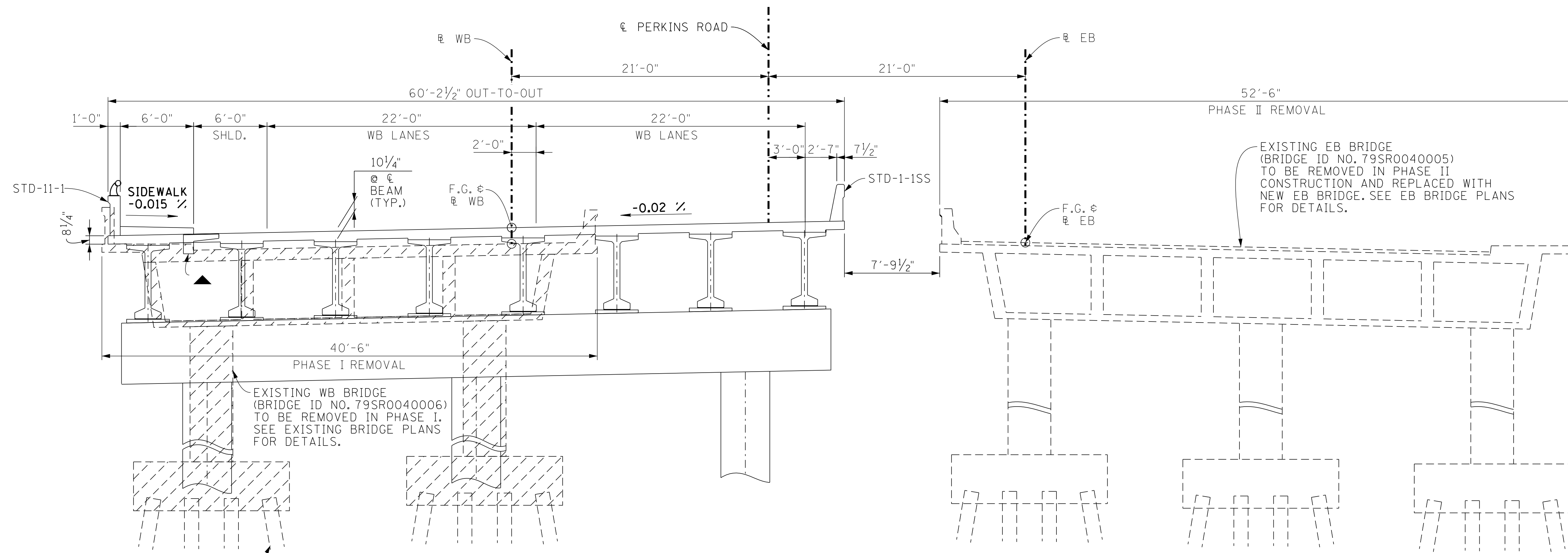
DEAD LOAD CORRECTION CURVE: THIS CURVE IS FOR DEAD LOAD SLAB AND ALL DEAD LOADS THAT ARE APPLIED AFTER SLAB IS IN PLACE. PRESTRESSED DECK PANELS ARE NOT ALLOWED.

SEALED BY

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
**BRIDGE NO. 1
SUPERSTRUCTURE
PERKINS ROAD WB
OVER STATE ROUTE 4 (LAMAR AVE.)
BRIDGE ID NO. 79SR0040006
LOG MILE 3.60
STATION 18+05.73
SHELBY COUNTY**

PIN NO.: 100340.00
DESIGN BY: A. OMAR DATE: 08/15/2025
DRAWN BY: A. OMAR DATE: 08/15/2025
SUPERVISED BY: D. SHIKE DATE: 08/15/2025
CHECKED BY: U. PATEL DATE: 09/15/2025

PROJECT NO.	YEAR	SHEET NO.	
STP/NH-4(6)	2026		
REVISIONS			
NO.	DATE	BY	BRIEF DESCRIPTION

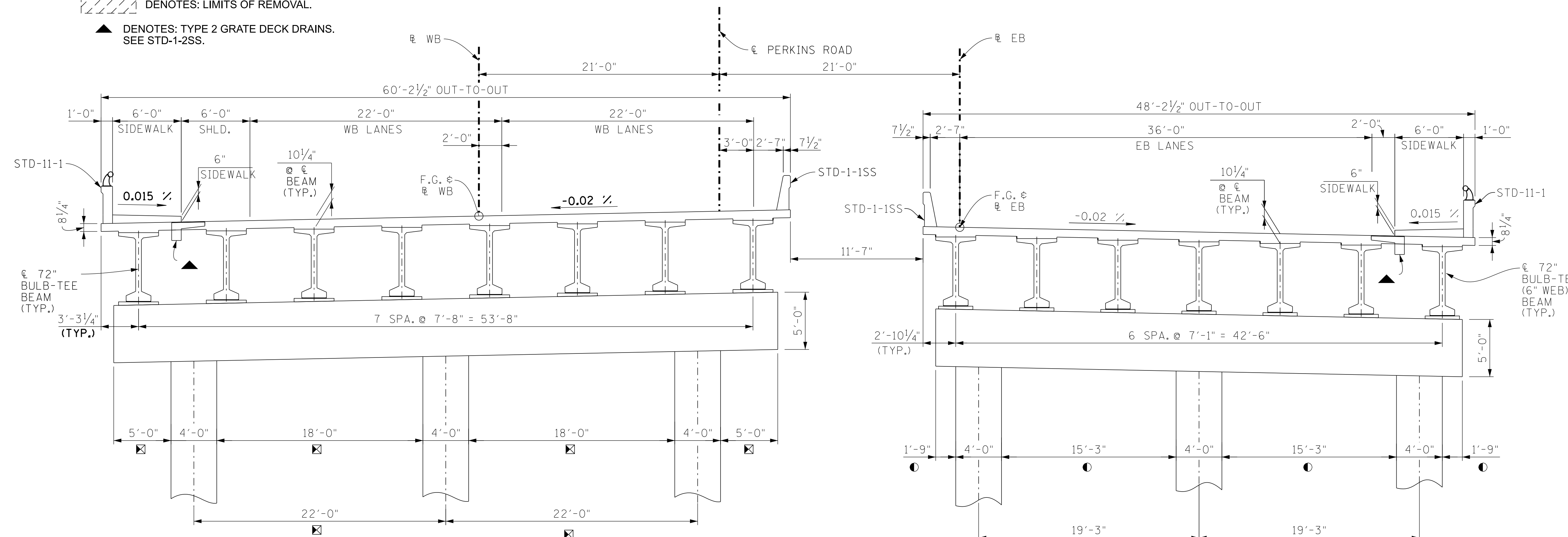


WB PERKINS - PHASE I CONSTRUCTION
 (LOOKING FORWARD ON SURVEY)
 EXISTING WB BRIDGE TO BE REMOVED
 IN PHASE I CONSTRUCTION

EB PERKINS - PHASE I TRAFFIC
 (LOOKING FORWARD ON SURVEY)
 EXISTING EB BRIDGE TO BE REMOVED
 IN PHASE II CONSTRUCTION

▨ DENOTES: LIMITS OF REMOVAL.

▲ DENOTES: TYPE 2 GRATE DECK DRAINS.
 SEE STD-1-2SS.



WB PERKINS - PHASE II TRAFFIC
TYPICAL CROSS-SECTION
 (LOOKING FORWARD ON SURVEY)

EB PERKINS - PHASE II CONSTRUCTION
TYPICAL CROSS-SECTION
 (LOOKING FORWARD ON SURVEY)

☒ DENOTES: MEASURED ALONG WB SKEW.

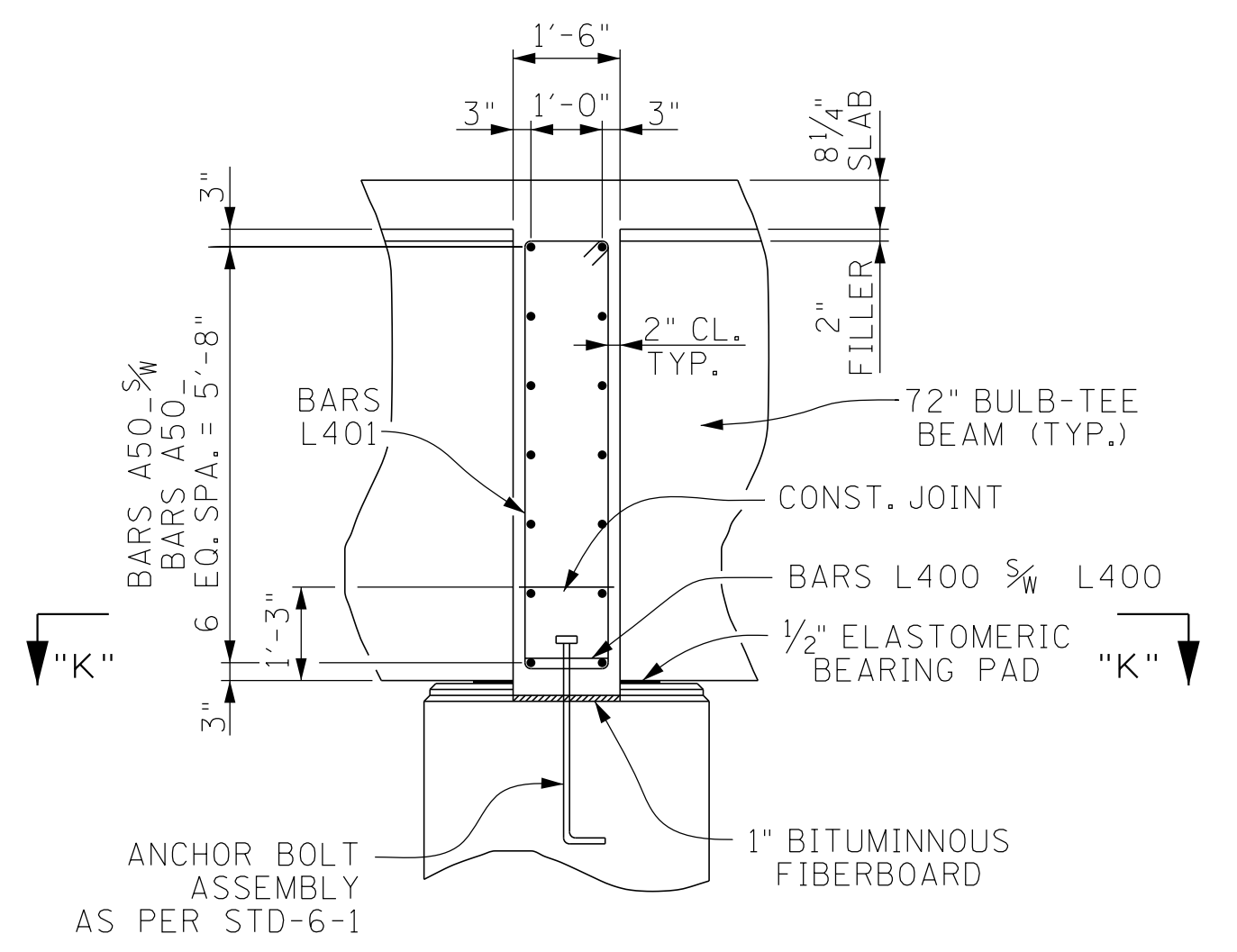
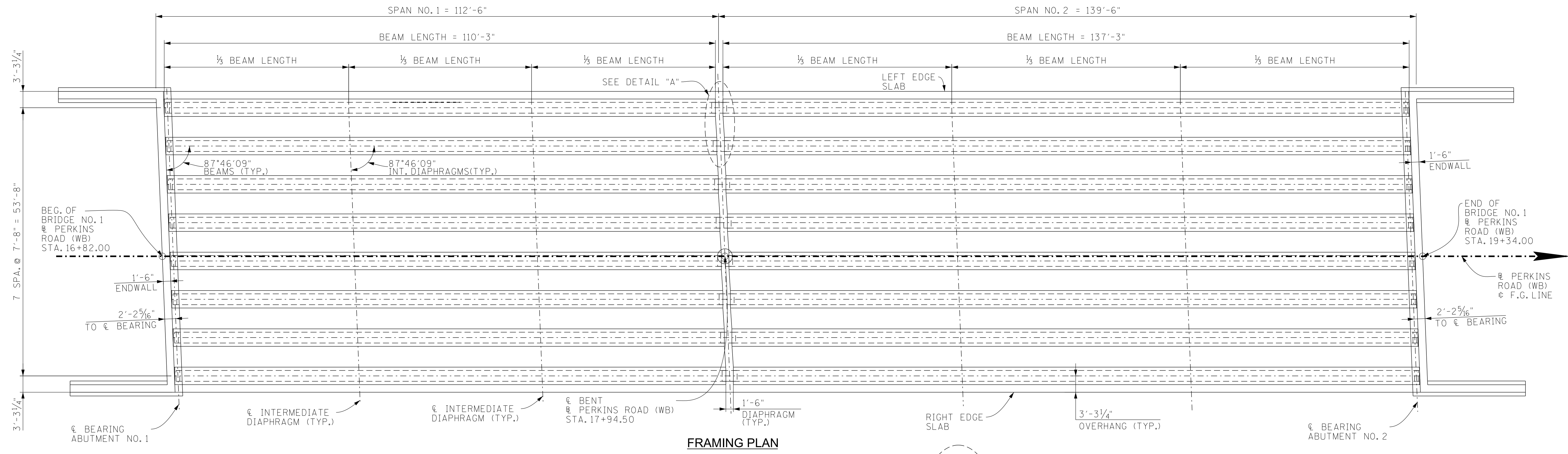
● DENOTES: MEASURED ALONG EB SKEW.

SEALED BY

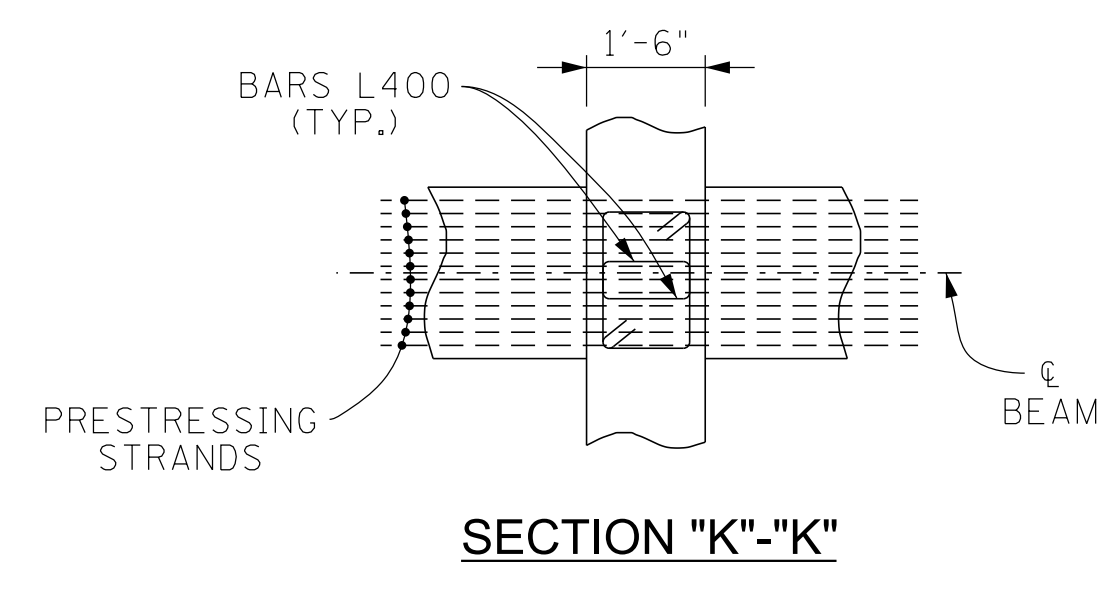
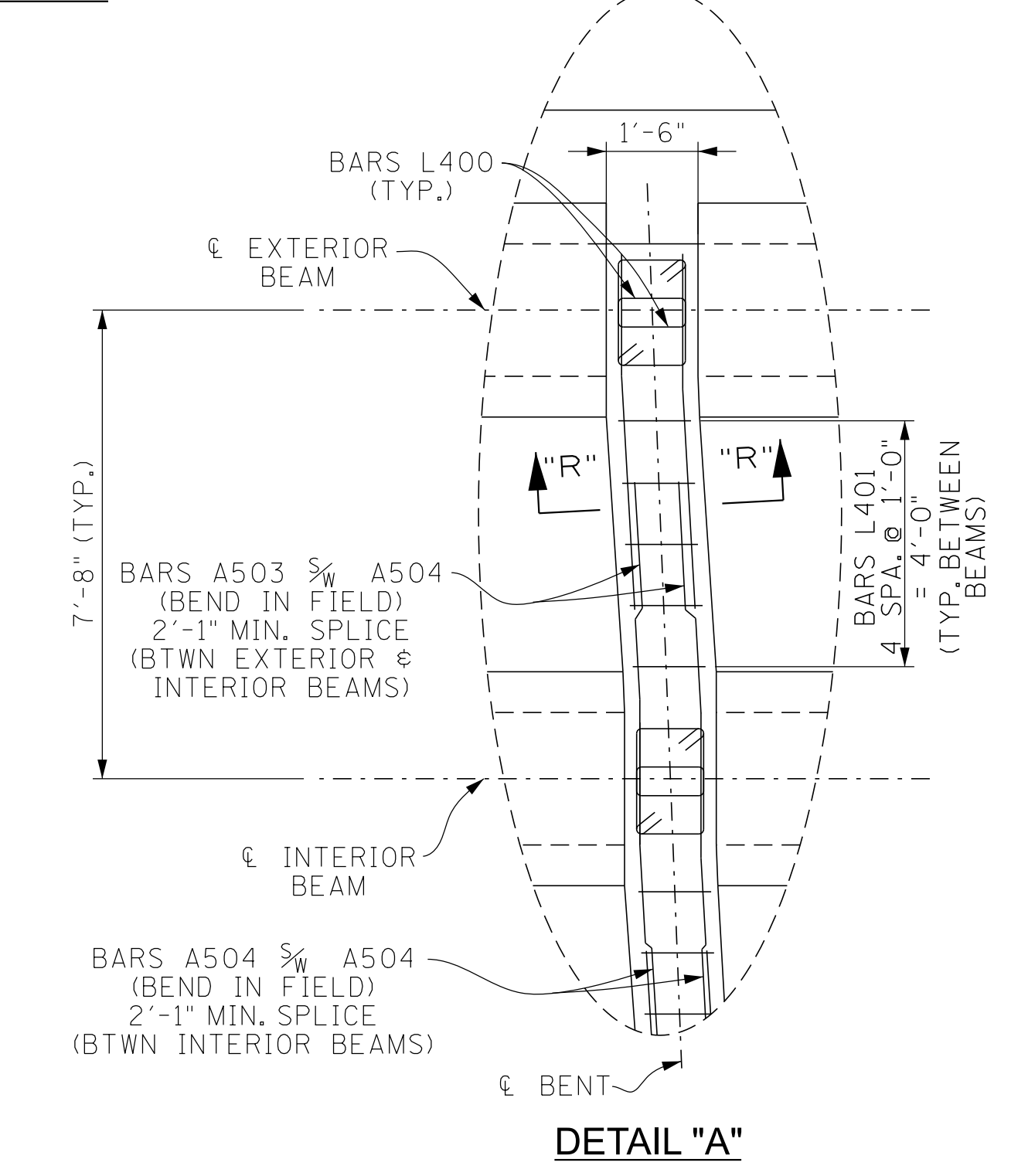
STATE OF TENNESSEE
 DEPARTMENT OF TRANSPORTATION
BRIDGE NO. 1
SUPERSTRUCTURE DETAILS
PERKINS ROAD WB
OVER STATE ROUTE 4 (LAMAR AVE.)
BRIDGE ID NO. 79SR0040006
LOG MILE 3.60
STATION 18+05.73
SHELBY COUNTY

PIN NO.: 100340.00
 DESIGN BY: A. OMAR DATE: 08/15/2025
 DRAWN BY: A. OMAR DATE: 08/15/2025
 SUPERVISED BY: D. SHIKE DATE: 08/15/2025
 CHECKED BY: U. PATEL DATE: 09/15/2025

PROJECT NO.	YEAR	SHEET NO.	
STP/NH-4(6)	2026		
REVISIONS			
NO.	DATE	BY	BRIEF DESCRIPTION



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

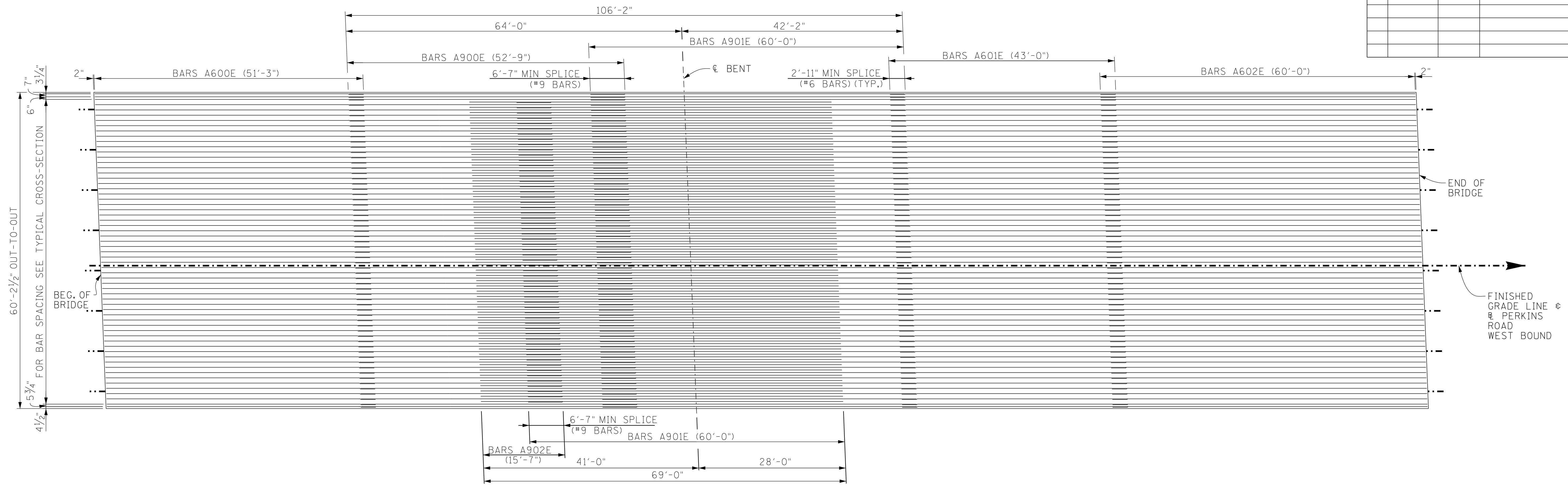


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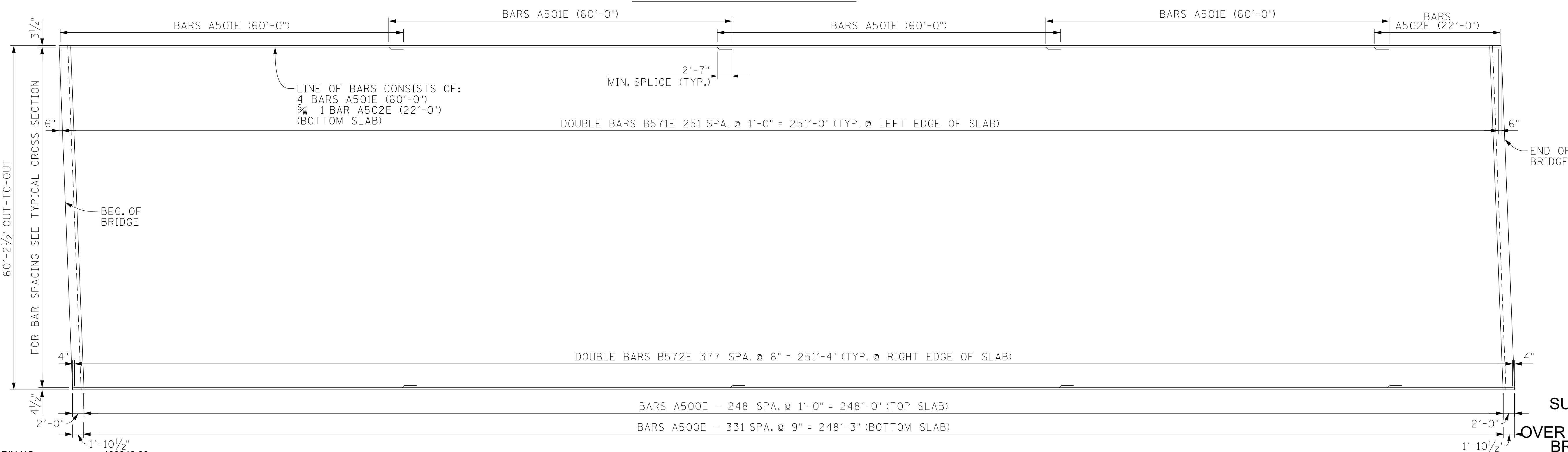
STATE OF TENNESSEE
 DEPARTMENT OF TRANSPORTATION
BRIDGE NO. 1
SUPERSTRUCTURE DETAILS
PERKINS ROAD WB
OVER STATE ROUTE 4 (LAMAR AVE.)
BRIDGE ID NO. 79SR0040006
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SHELBY COUNTY

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 SUPERVISED BY: D. SHIKE DATE: 08/15/2025
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PROJECT NO.	YEAR	SHEET NO.	
STP/NH-4(6)	2026		
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NO.	DATE	BY	BRIEF DESCRIPTION



PLAN OF MAIN REINFORCEMENT



SLAB PLAN

SEALED BY

STATE OF TENNESSEE
 DEPARTMENT OF TRANSPORTATION
BRIDGE NO. 1
SUPERSTRUCTURE DETAILS
PERKINS ROAD WB
OVER STATE ROUTE 4 (LAMAR AVE.)
BRIDGE ID NO. 79SR0040006
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STATION 18+05.73
SHELBY COUNTY

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 DRAWN BY: A. OMAR DATE: 08/15/2025
 SUPERVISED BY: D. SHIKE DATE: 08/15/2025
 CHECKED BY: U. PATEL DATE: 09/15/2025

PROJECT NO.	YEAR	SHEET NO.	
STP/NH-4(6)	2026		
REVISIONS			
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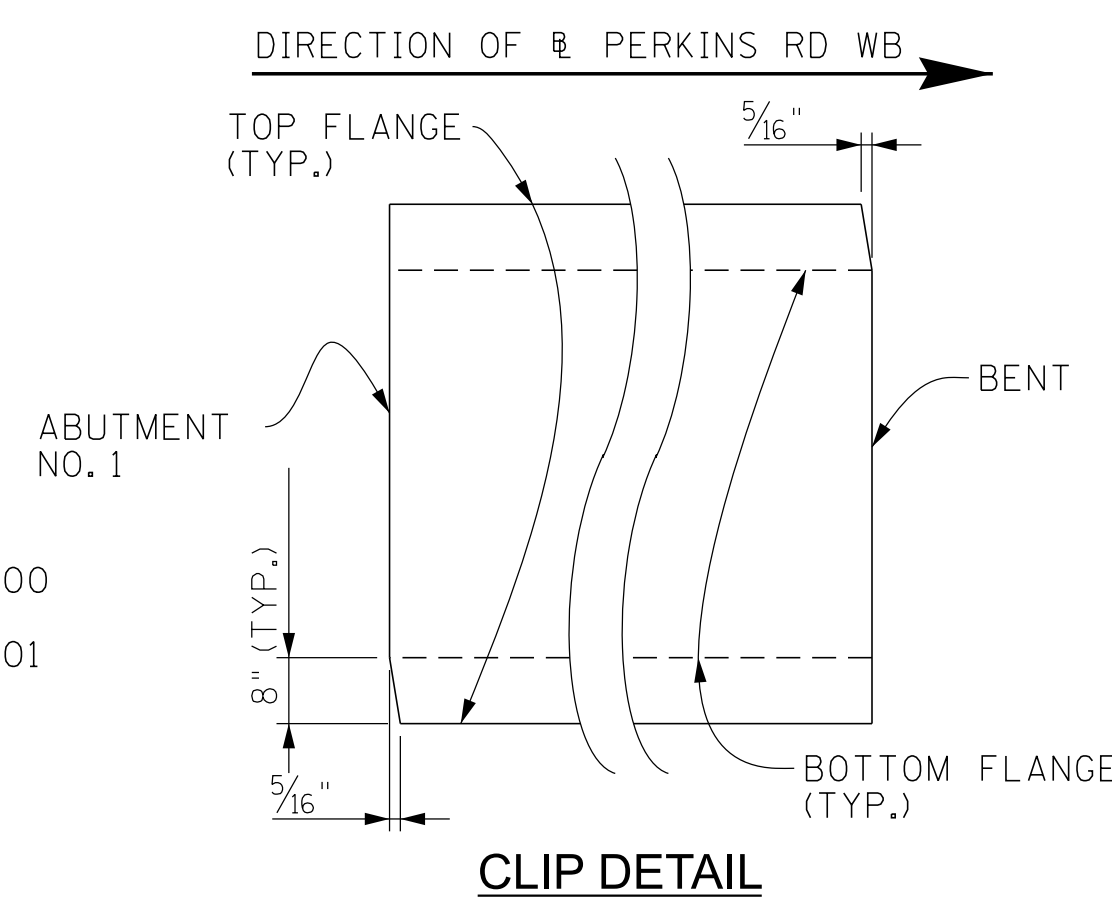
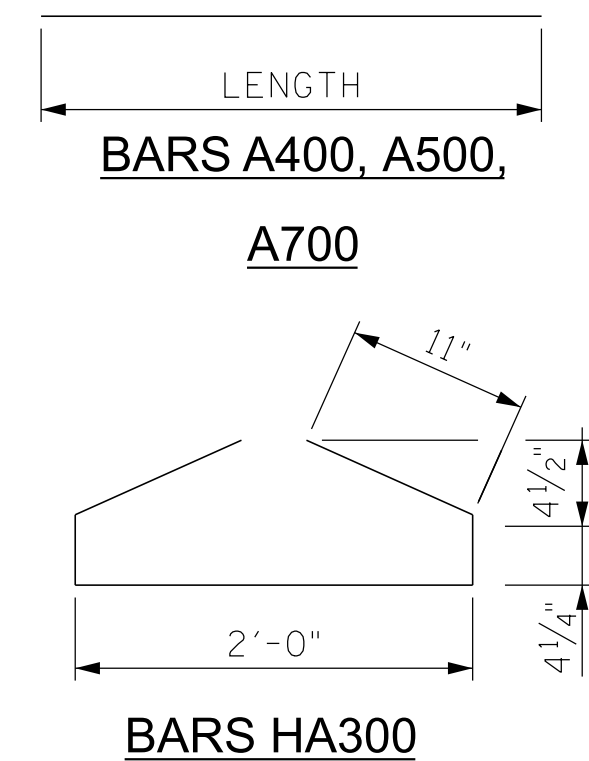
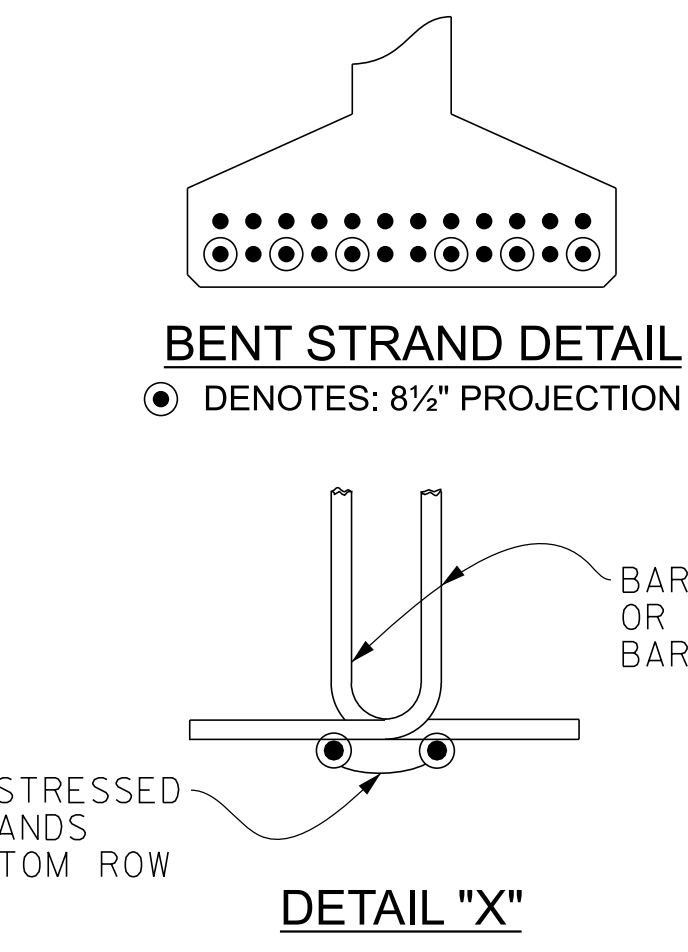
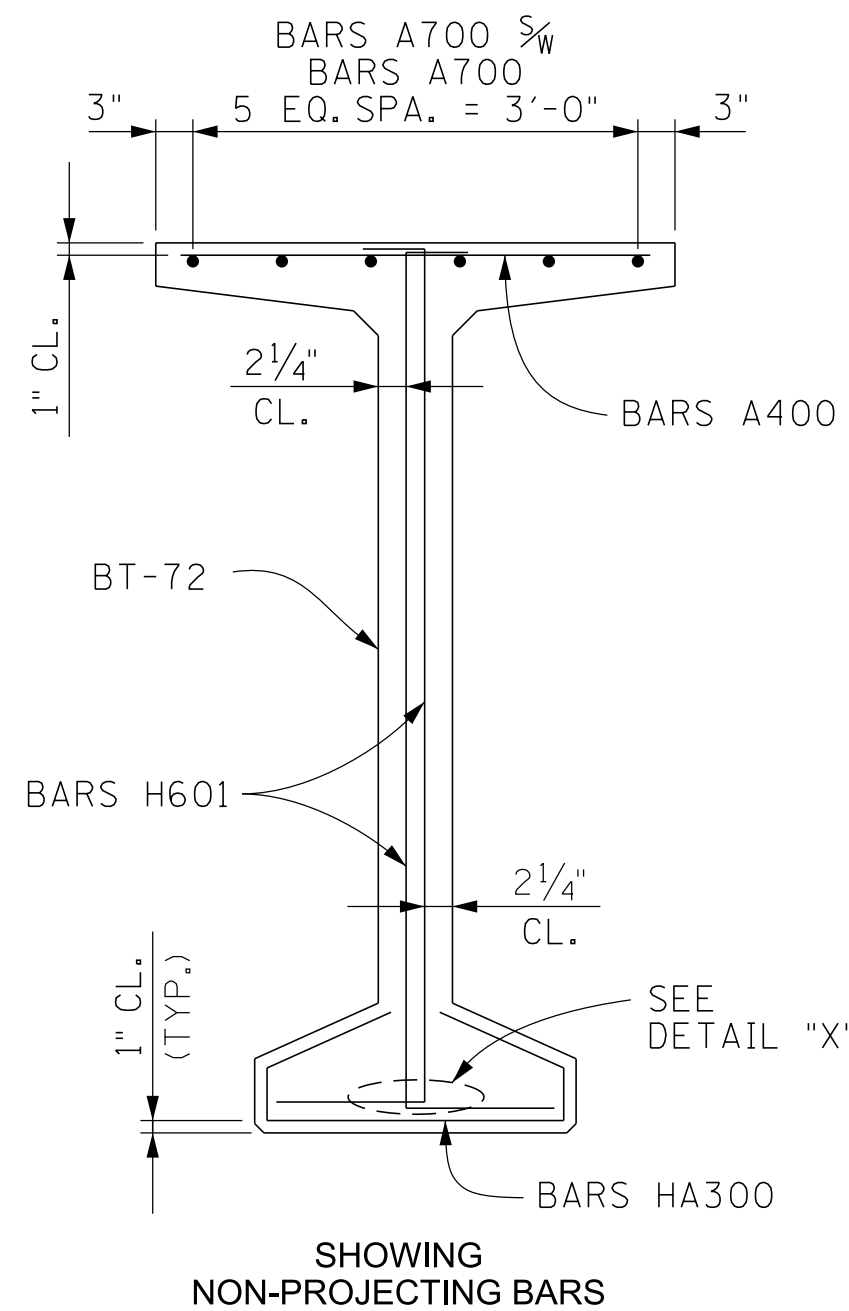
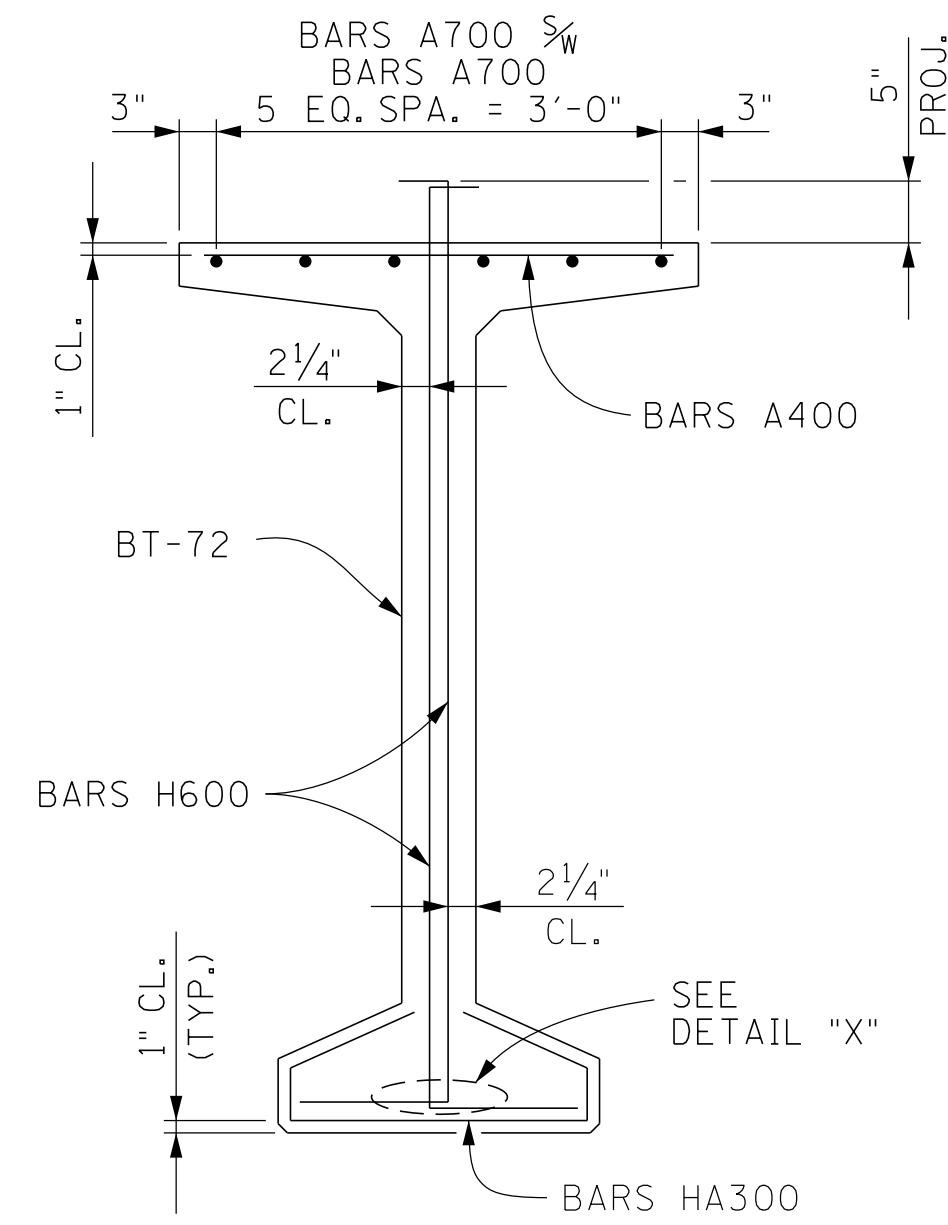
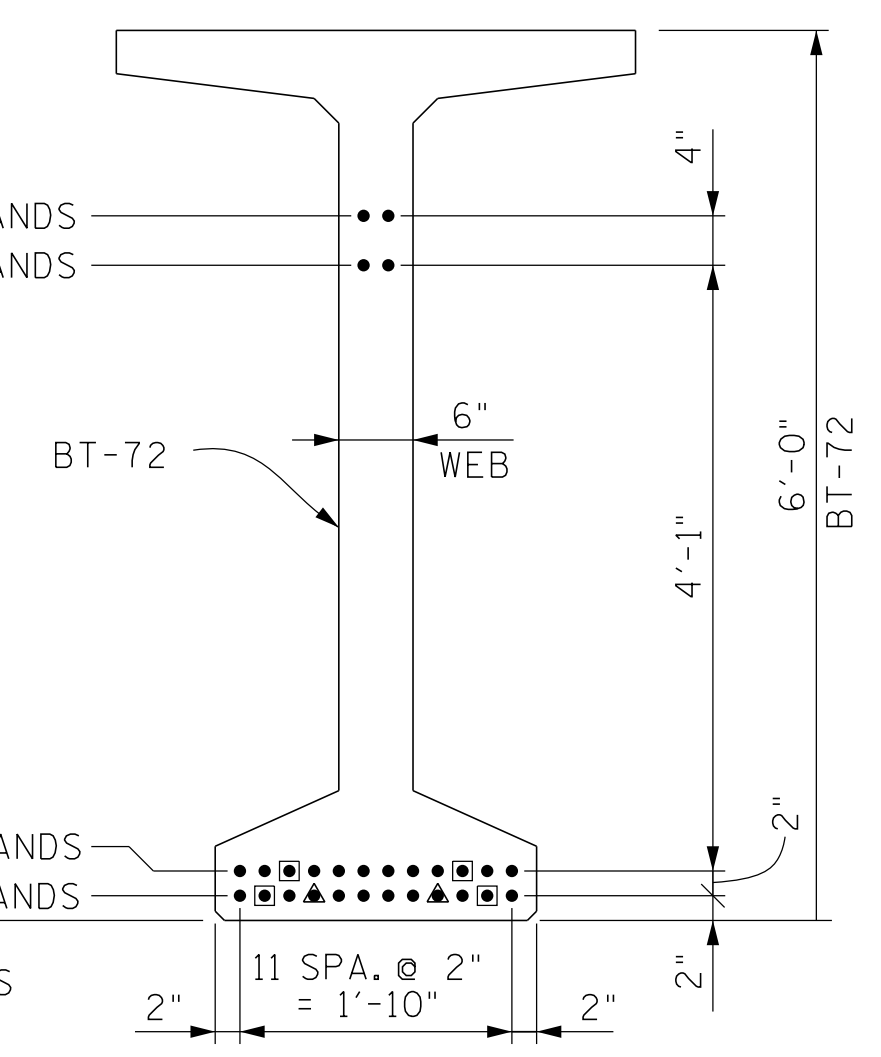
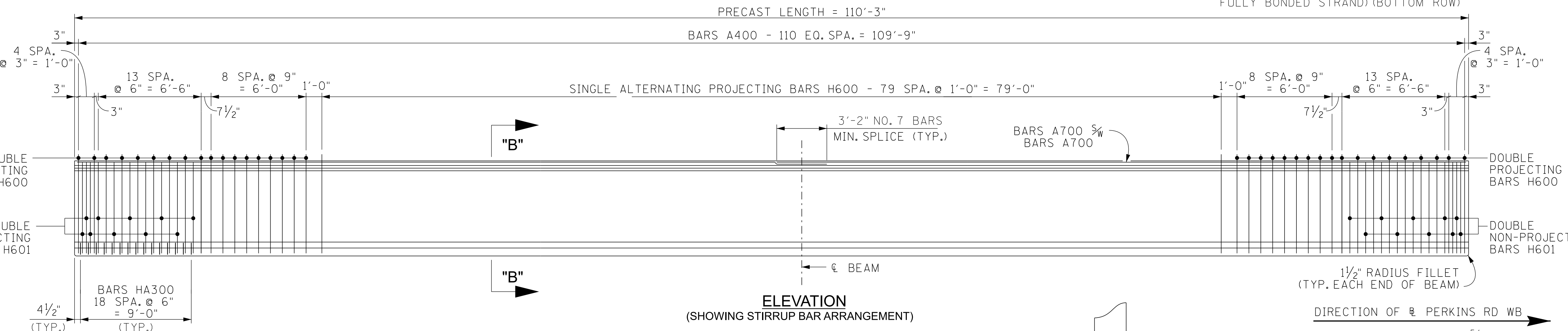
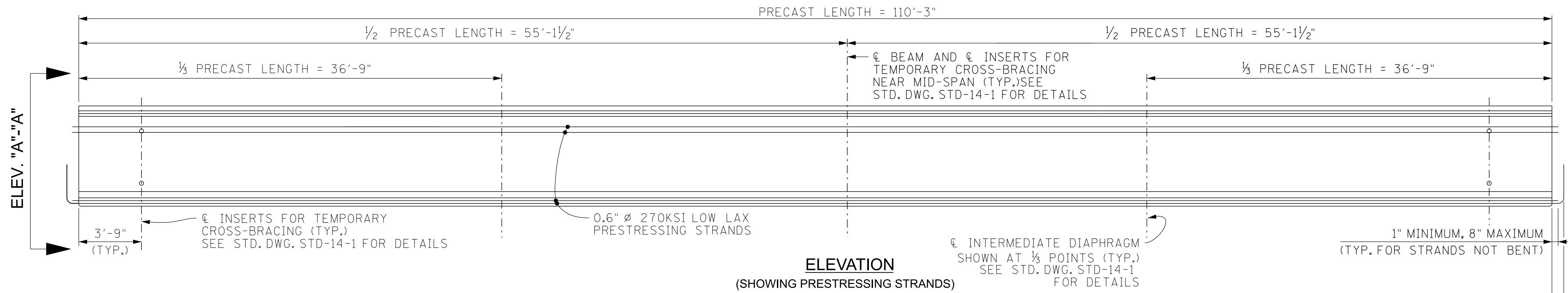


TABLE OF BILL OF STEEL

NO. BEAMS REQUIRED	PRESTRESSING STRANDS (LOW RELAXATION) LB.	CONCRETE C.Y.	REINFORCING STEEL LB.
8	2,333	22	3,891

PRESTRESSED BEAM DESIGN DATA:
(PER BEAM)

LIVE LOAD DISTRIBUTION FACTOR FOR MOMENT	= 0.77 LANES/BEAM
LIVE LOAD DISTRIBUTION FACTOR FOR SHEAR	= 0.80 LANES/BEAM
COMPOSITE DEAD LOAD: DC	= 171 LB/FT/BEAM
COMPOSITE DEAD LOAD: DW	= 228 LB/FT/BEAM
COMPOSITE SLAB DESIGN STRENGTH: F'C	= 4,000 PSI

NOTE: DOWNWARD DEFLECTION UNDER TOTAL DL IS NOT ALLOWED.

BILL OF STEEL PER BEAM

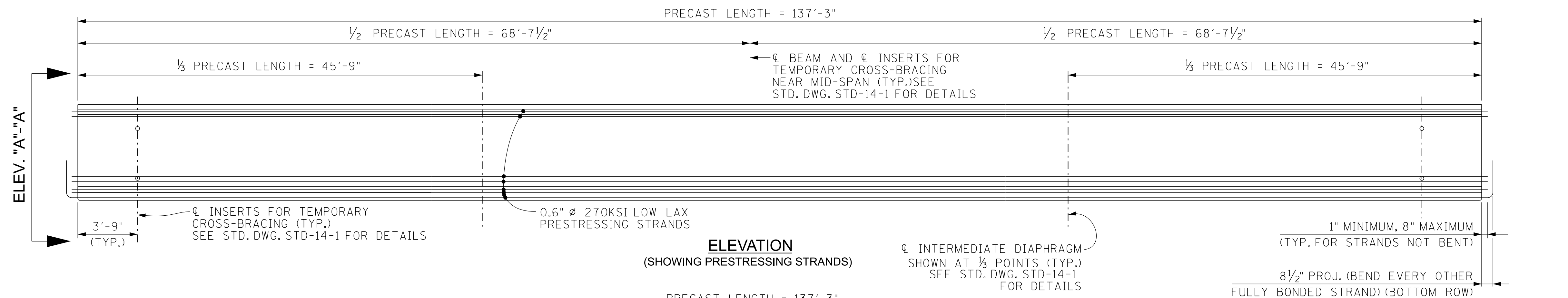
BAR	SIZE	NO. REQ'D	LENGTH
A400	4	111	3'-2"
A500	5	8	5'-6"
A700	7	12	56'-7"
H600	6	152	7'-7"
H601	6	40	7'-1"
HA300	3	38	4'-7"

SEALED BY

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BRIDGE NO. 1
PRESTRESSED CONCRETE BULB-TEE
BEAM DETAILS - SPAN NO. 1
PERKINS ROAD WB
OVER STATE ROUTE 4 (LAMAR AVE.)
BRIDGE ID NO. 79SR0040006
LOG MILE 3.60
STATION 18+05.73
SHELBY COUNTY

PIN NO.: 100340.00
DESIGN BY: A. OMAR DATE: 08/15/2025
DRAWN BY: A. OMAR DATE: 08/15/2025
SUPERVISED BY: D. SHIKE DATE: 08/15/2025
CHECKED BY: U. PATEL DATE: 09/15/2025

PROJECT NO.	YEAR	SHEET NO.	
STP/NH-4(6)	2026		
REVISIONS			
NO.	DATE	BY	BRIEF DESCRIPTION



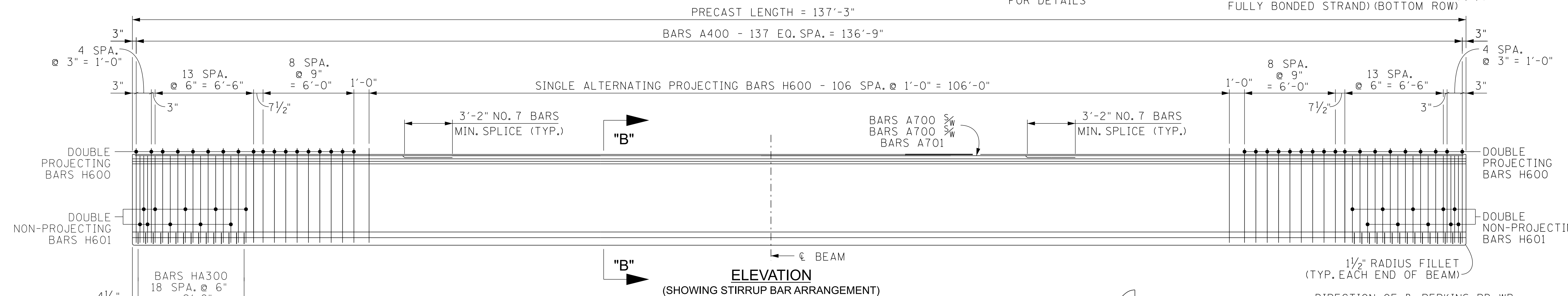
ELEVATION
(SHOWING PRESTRESSING STRANDS)

◊ BEAM AND ◊ INSERTS FOR TEMPORARY CROSS-BRACING NEAR MID-SPAN (TYP.) SEE STD. DWG. STD-14-1 FOR DETAILS

◊ INTERMEDIATE DIAPHRAGM SHOWN AT 1/3 POINTS (TYP.) SEE STD. DWG. STD-14-1 FOR DETAILS

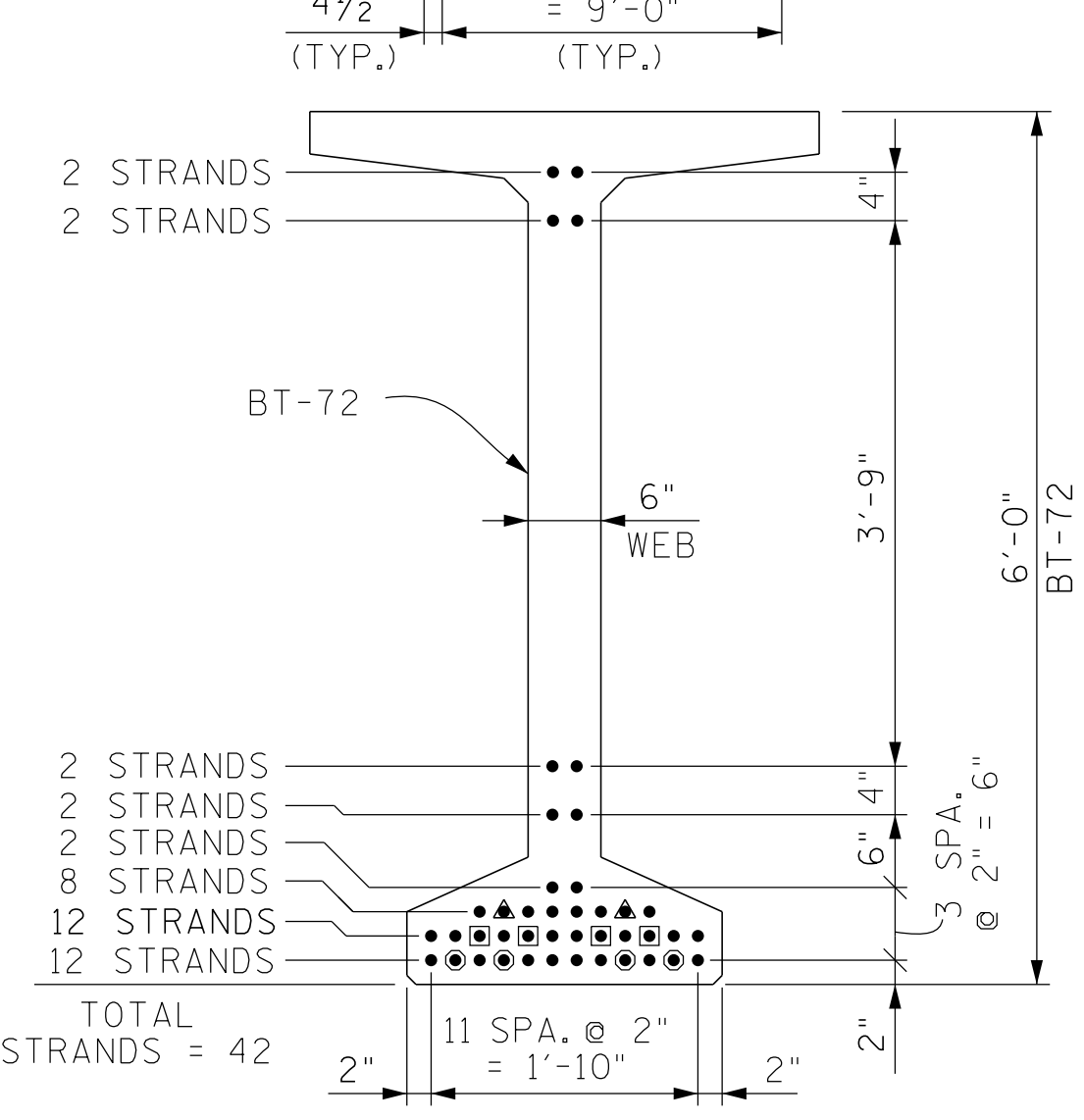
1" MINIMUM, 8" MAXIMUM (TYP. FOR STRANDS NOT BENT)

8 1/2" PROJ. (BEND EVERY OTHER FULLY BONDED STRAND) (BOTTOM ROW)



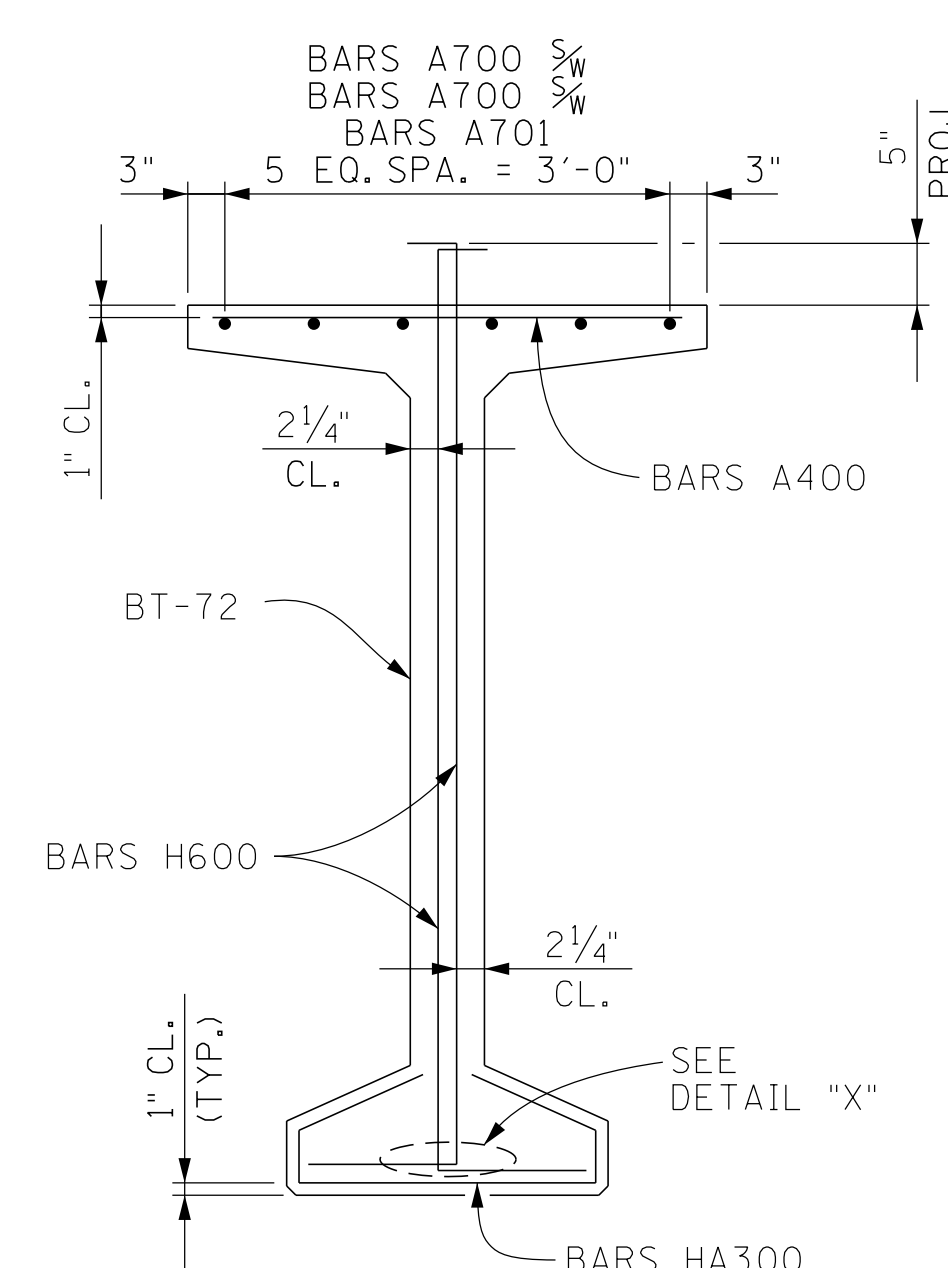
ELEVATION
(SHOWING STIRRUP BAR ARRANGEMENT)

1 1/2" RADIUS FILLET (TYP. EACH END OF BEAM)



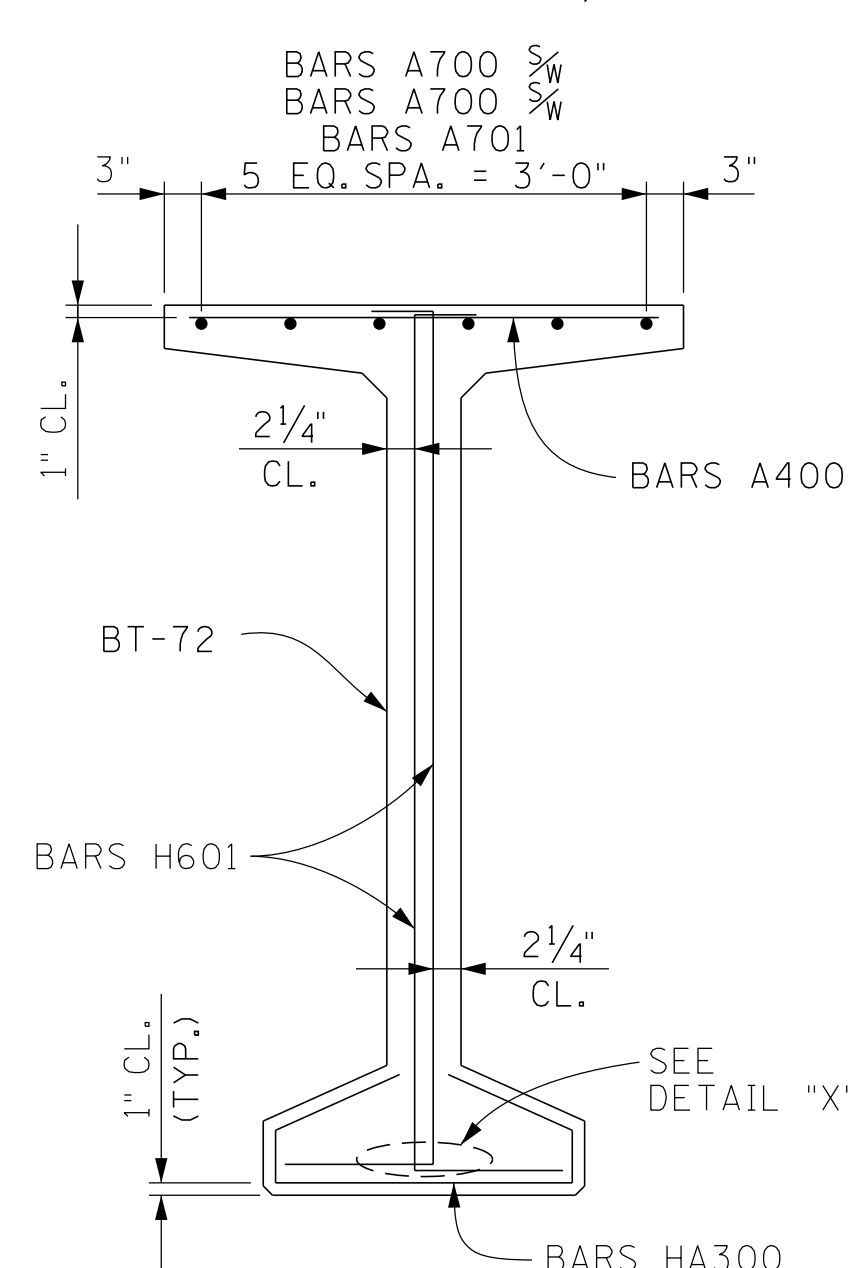
ELEVATION "A"-A"
SHOWING PRESTRESSING STRANDS

△ DENOTES: BREAK BOND 3'-0" @ EACH END OF BEAM
□ DENOTES: BREAK BOND 6'-0" @ EACH END OF BEAM
○ DENOTES: BREAK BOND 9'-0" @ EACH END OF BEAM

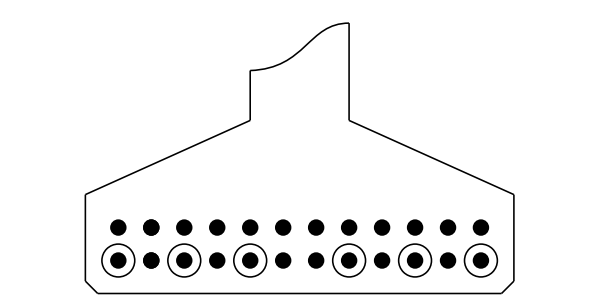


SECTION "B"-B"

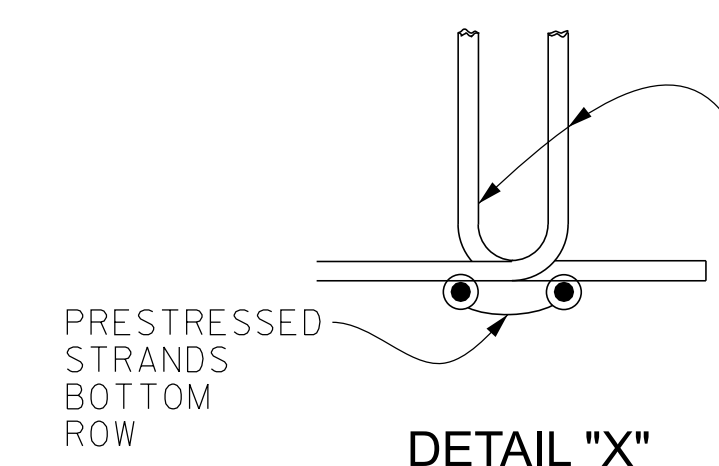
SHOWING PROJECTING BARS



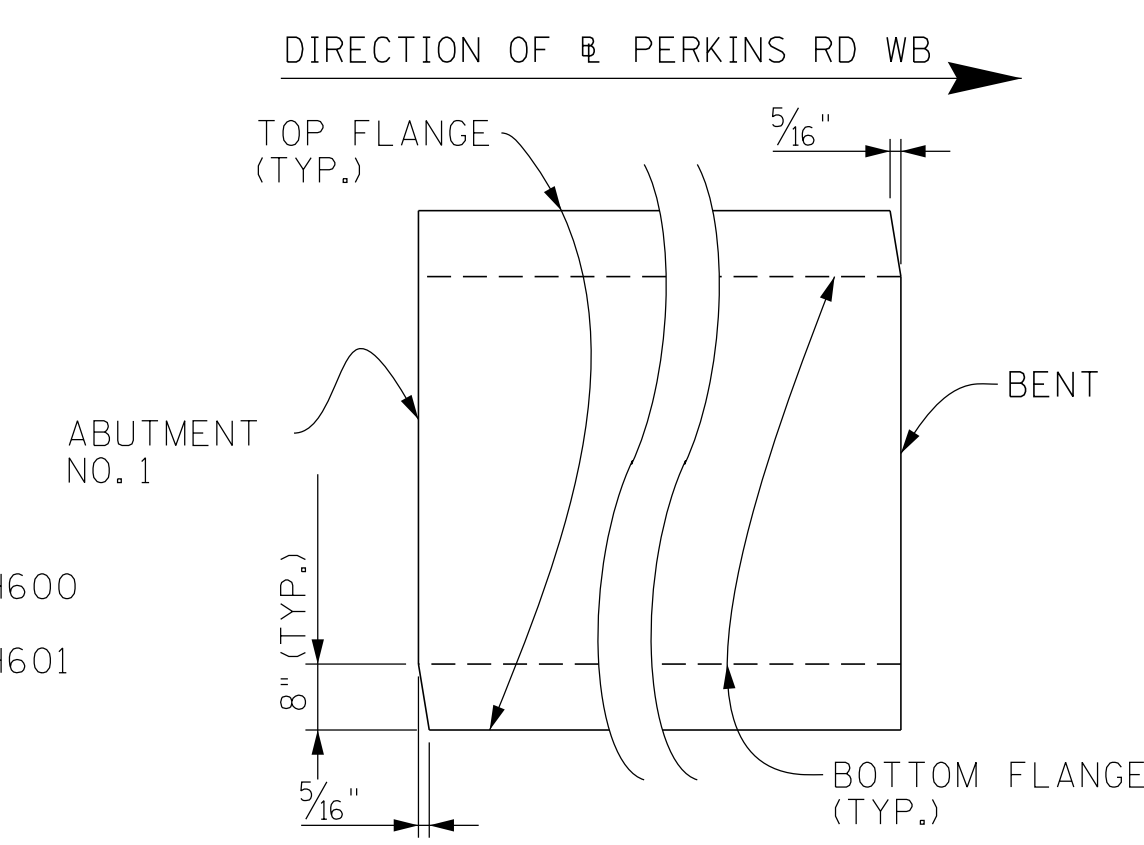
SHOWING NON-PROJECTING BARS



BENT STRAND DETAIL
◉ DENOTES: 8 1/2" PROJECTION



DETAIL "X"



CLIP DETAIL

TABLE OF BILL OF STEEL

NO. BEAMS REQUIRED	PRESTRESSING STRANDS (LOW RELAXATION) LB.	CONCRETE C.Y.	REINFORCING STEEL LB.
8	4,328	27	4,625

PRESTRESSED BEAM DESIGN DATA:
(PER BEAM)

LIVE LOAD DISTRIBUTION FACTOR FOR MOMENT	= 0.77 LANES/BEAM
LIVE LOAD DISTRIBUTION FACTOR FOR SHEAR	= 0.80 LANES/BEAM
COMPOSITE DEAD LOAD: DC	= 171 LB/FT/BEAM
COMPOSITE DEAD LOAD: DW	= 228 LB/FT/BEAM
COMPOSITE SLAB DESIGN STRENGTH: F'C	= 4,000 PSI

NOTE: DOWNWARD DEFLECTION UNDER TOTAL DL IS NOT ALLOWED.

BILL OF STEEL
PER BEAM

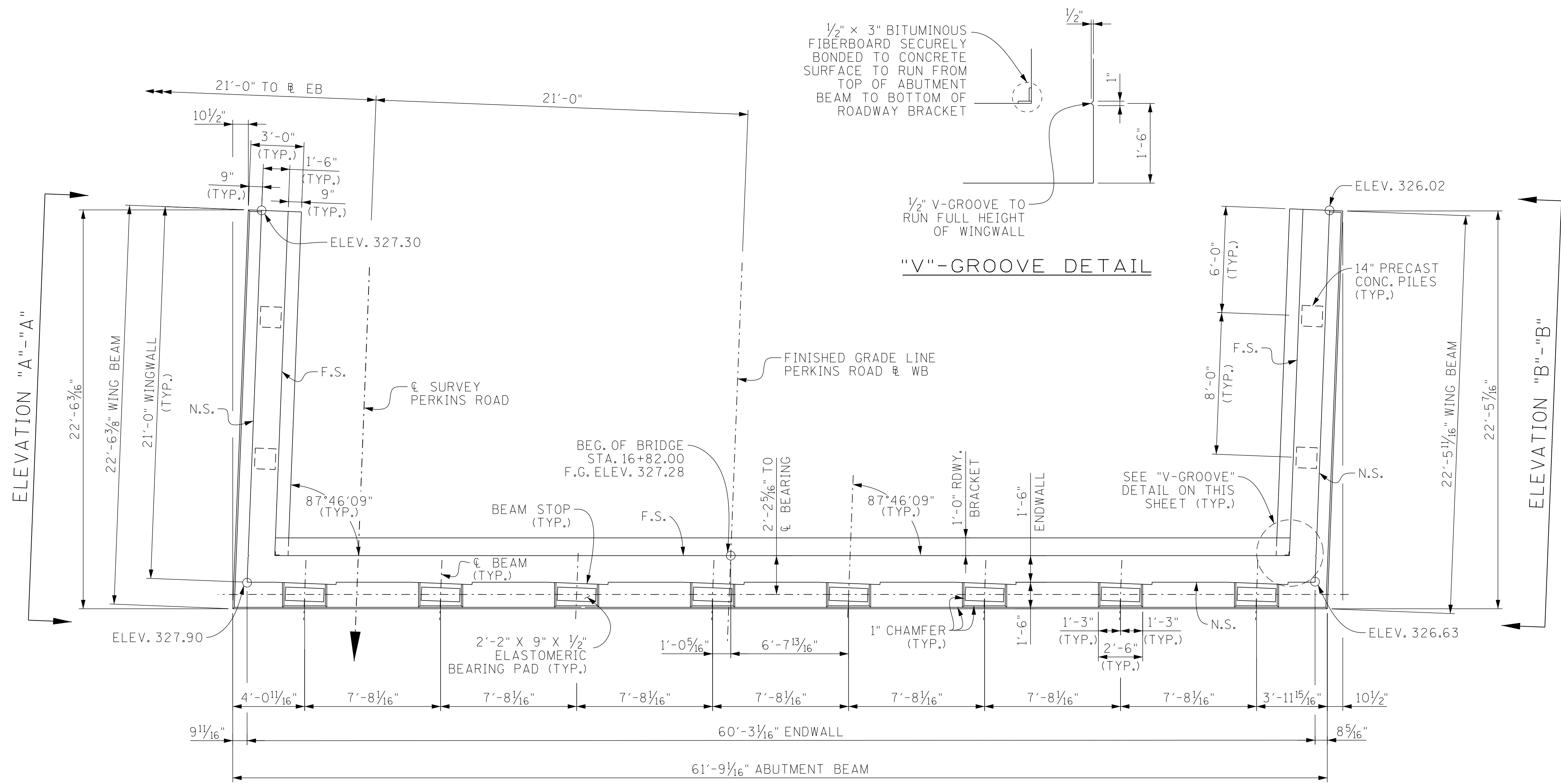
BAR	SIZE	NO. REQ'D	LENGTH
A400	4	138	3'-2"
A500	5	8	5'-6"
A700	7	12	60'-0"
A701	7	6	23'-3"
H600	6	179	7'-7"
H601	6	40	7'-1"
HA300	3	38	4'-7"

SEALED BY

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BRIDGE NO. 1
PRESTRESSED CONCRETE BULB-TEE
BEAM DETAILS - SPAN NO. 2
PERKINS ROAD WB
OVER STATE ROUTE 4 (LAMAR AVE.)
BRIDGE ID NO. 79SR0040006
LOG MILE 3.60
STATION 18+05.73
SHELBY COUNTY

PIN NO.: 100340.00
DESIGN BY: A. OMAR DATE: 08/15/2025
DRAWN BY: A. OMAR DATE: 08/15/2025
SUPERVISED BY: D. SHIKE DATE: 08/15/2025
CHECKED BY: U. PATEL DATE: 09/15/2025

PROJECT NO.	YEAR	SHEET NO.	
STP/NH-4(6)	2026		
REVISIONS			
NO.	DATE	BY	BRIEF DESCRIPTION
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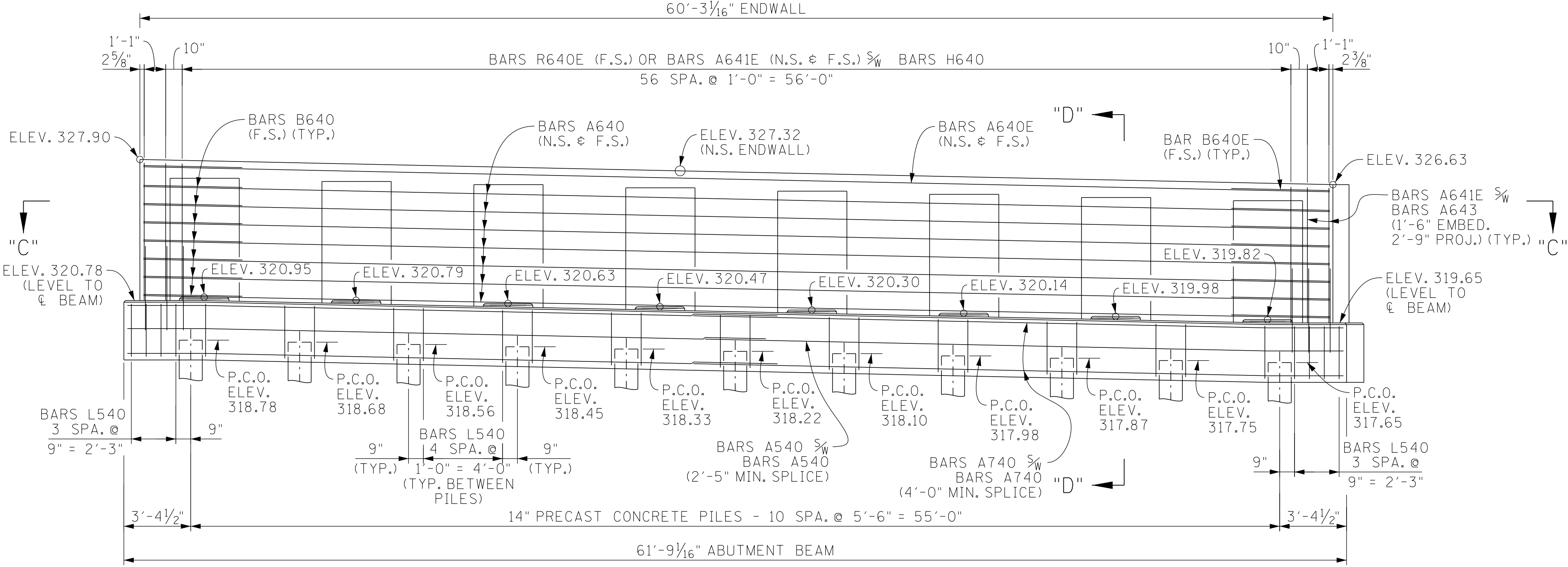


PLAN

F.S. DENOTES: FAR SIDE
N.S. DENOTES: NEAR SIDE
P.C.O. DENOTES: PILE CUT-OFF

NOTES

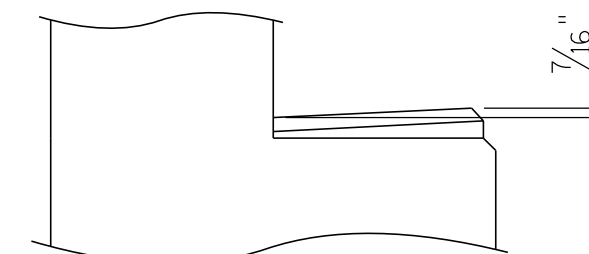
- NOTE:** RISER BLOCKS SHALL BE POURED MONOLITHICALLY WITH THE ABUTMENT BEAM.
- NOTE:** RISER BLOCK BEARING SURFACE TO CONFORM TO BOTTOM OF BEAM GRADE.
- NOTE:** ELASTOMERIC PADS SHALL BE IN PLACE A MINIMUM OF ONE DAY BEFORE BEING DISTURBED BY SETTING BEAMS. PLACE RUBBER BONDING CEMENT IN SUCH A WAY 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 AND STD-11-1.
- NOTE:** NOT LESS THAN HALF OF THE SLAB IN THE END SPANS SHALL BE POURED PRIOR TO PLACEMENT 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 SEISMIC ATTACHMENT DETAILS AND NOTES.
- NOTE:** WINGBEAM PILES SHALL BE DRIVEN TO THE PLANS TIP ELEVATION OR REFUSAL. SEISMIC ATTACHMENT IS NOT REQUIRED FOR WINGBEAM PILES.



ELEVATION

(LOOKING BACK ON SURVEY)

DIRECTION OF SURVEY



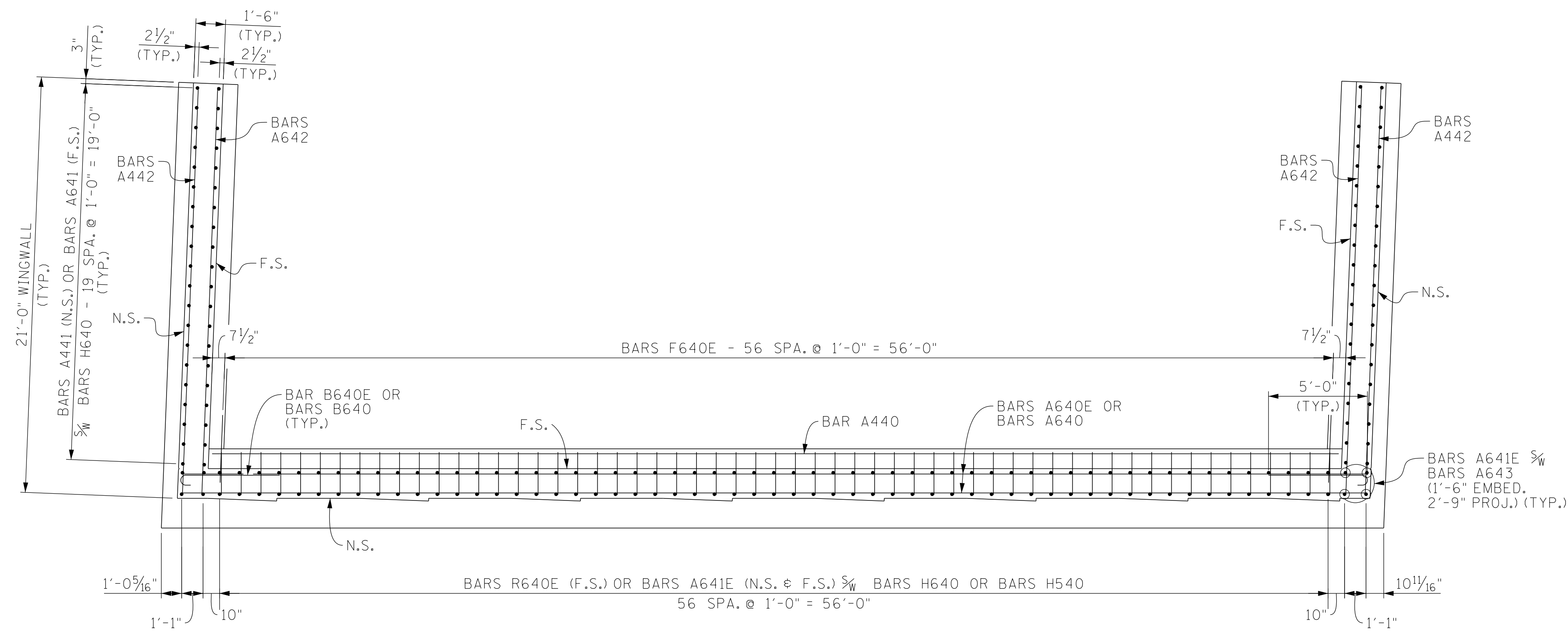
RISER BLOCK SLOPE DETAIL

SEALED BY

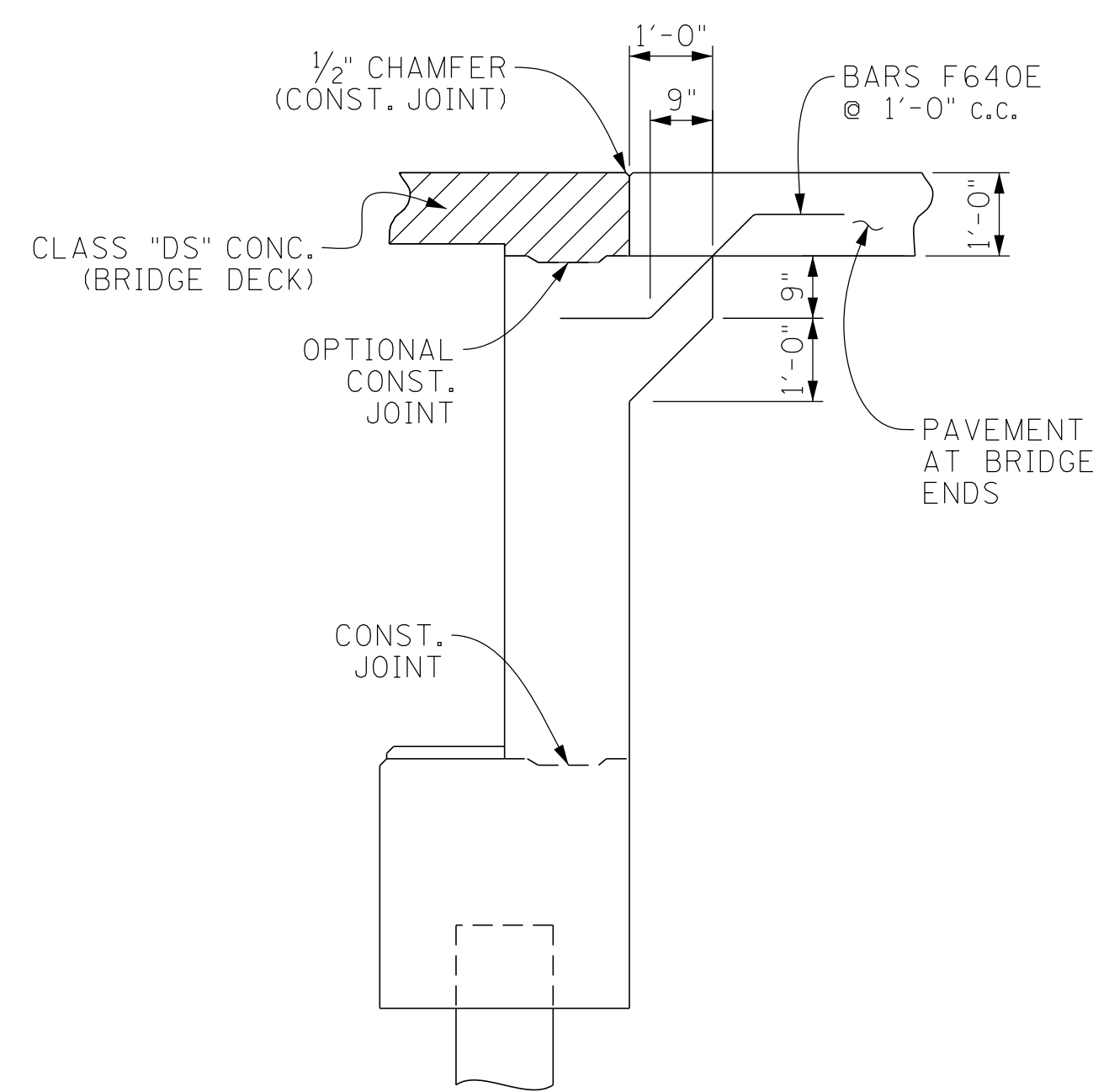
STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BRIDGE NO. 1
ABUTMENT NO. 1
PERKINS ROAD WB
OVER STATE ROUTE 4 (LAMAR AVE.)
BRIDGE ID NO. 79SR0040006
STATION 18+05.73
LOG MILE 3.60
SHELBY COUNTY

PIN NO.: 100340.00
DESIGN BY: ALLOMAR DATE: 08/2025
DRAWN BY: P. MOSHER DATE: 09/2025
SUPERVISED BY: DAN SHIKE DATE: 01/2026
CHECKED BY: URVA PATEL DATE: 01/2026

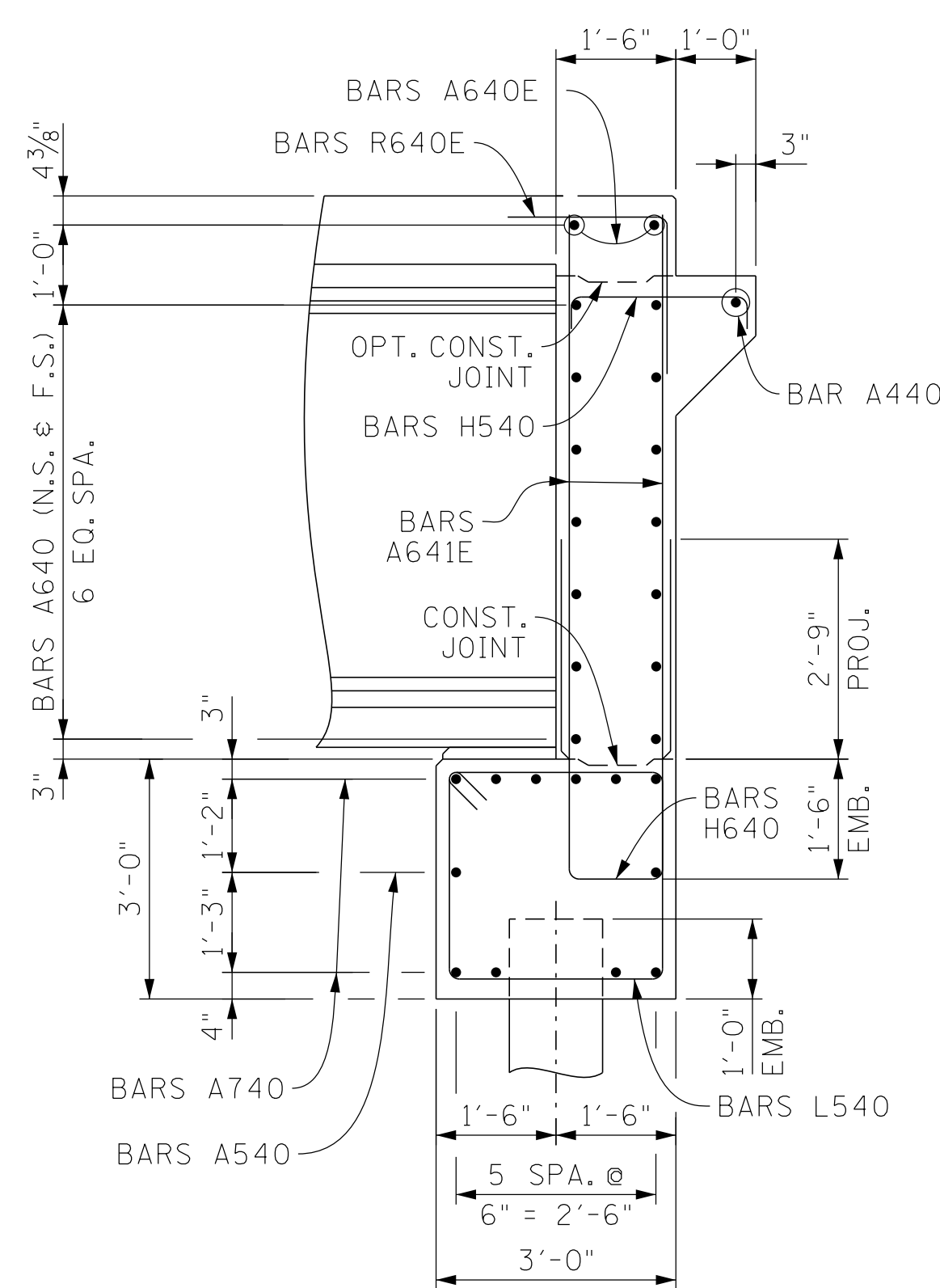
PROJECT NO.	YEAR	SHEET NO.	
STP/NH-4(6)	2026		
REVISIONS			
NO.	DATE	BY	BRIEF DESCRIPTION
-	-	-	-
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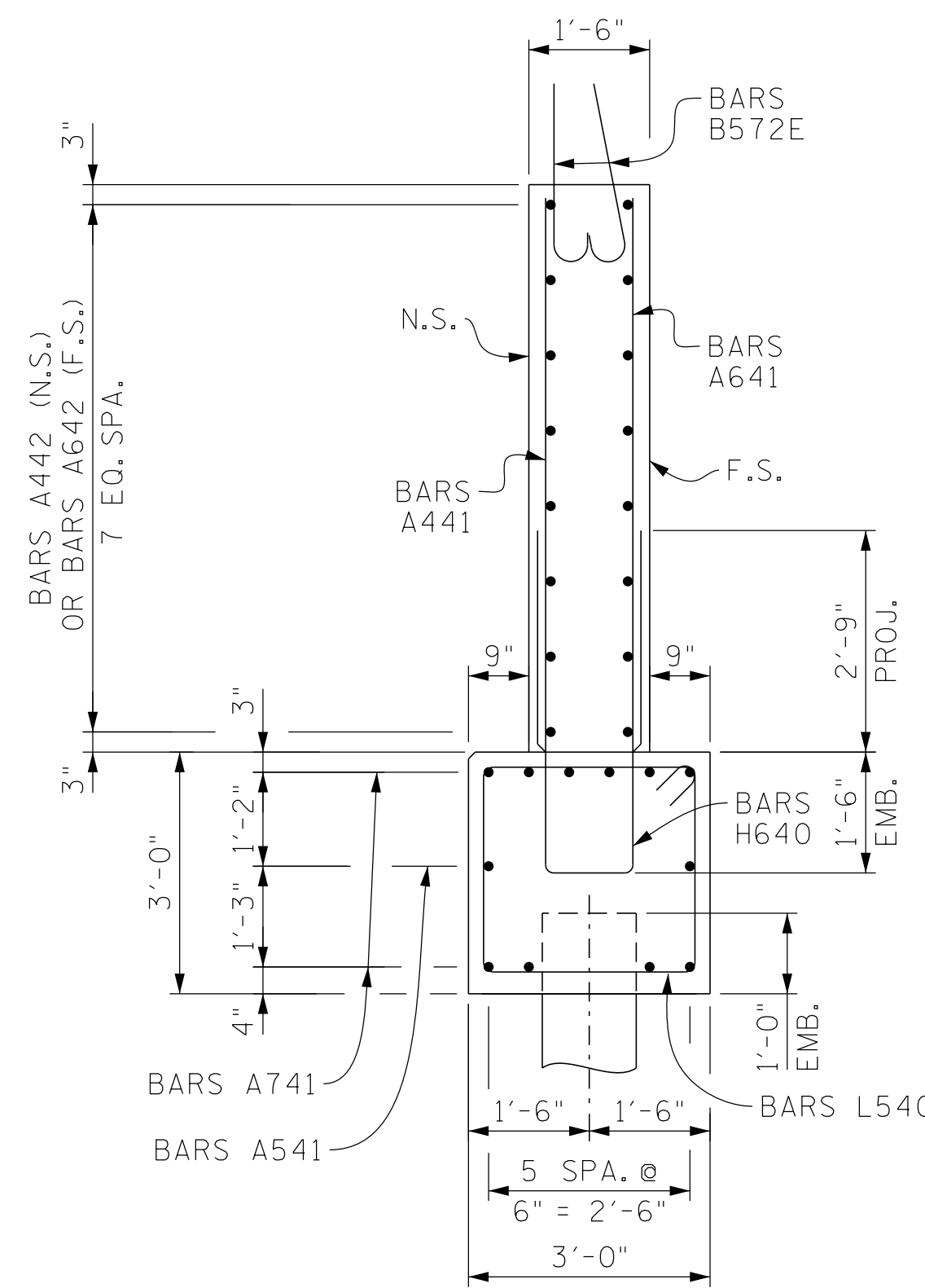
SECTION "C"-"C"



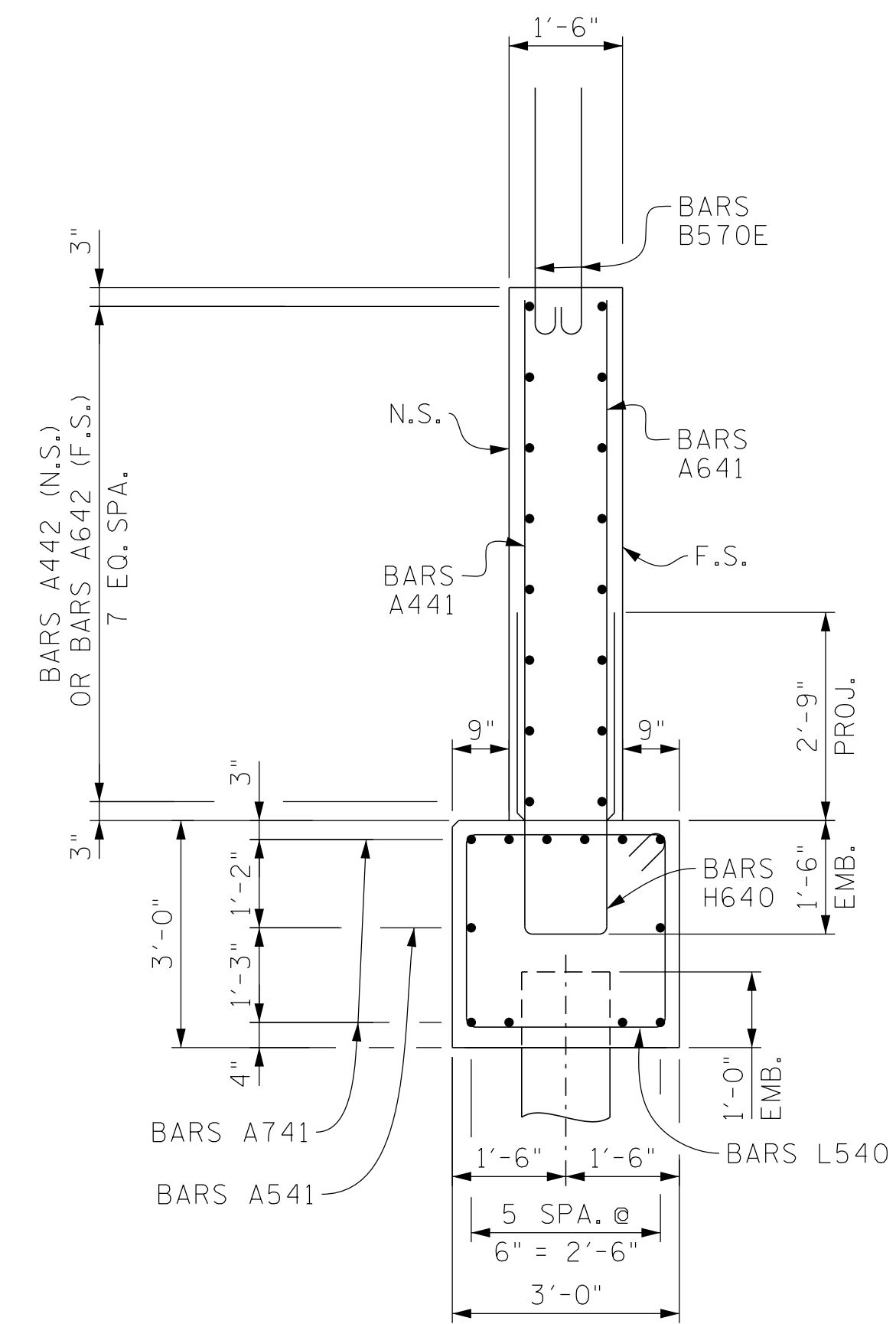
SECTION "D"-"D"
(SHOWING PAVEMENT AT BRIDGE ENDS)



SECTION "D"-"D"
(SHOWING STEEL REINFORCEMENT)



SECTION "E"-"E"



SECTION "G"-"G"

SEALED BY

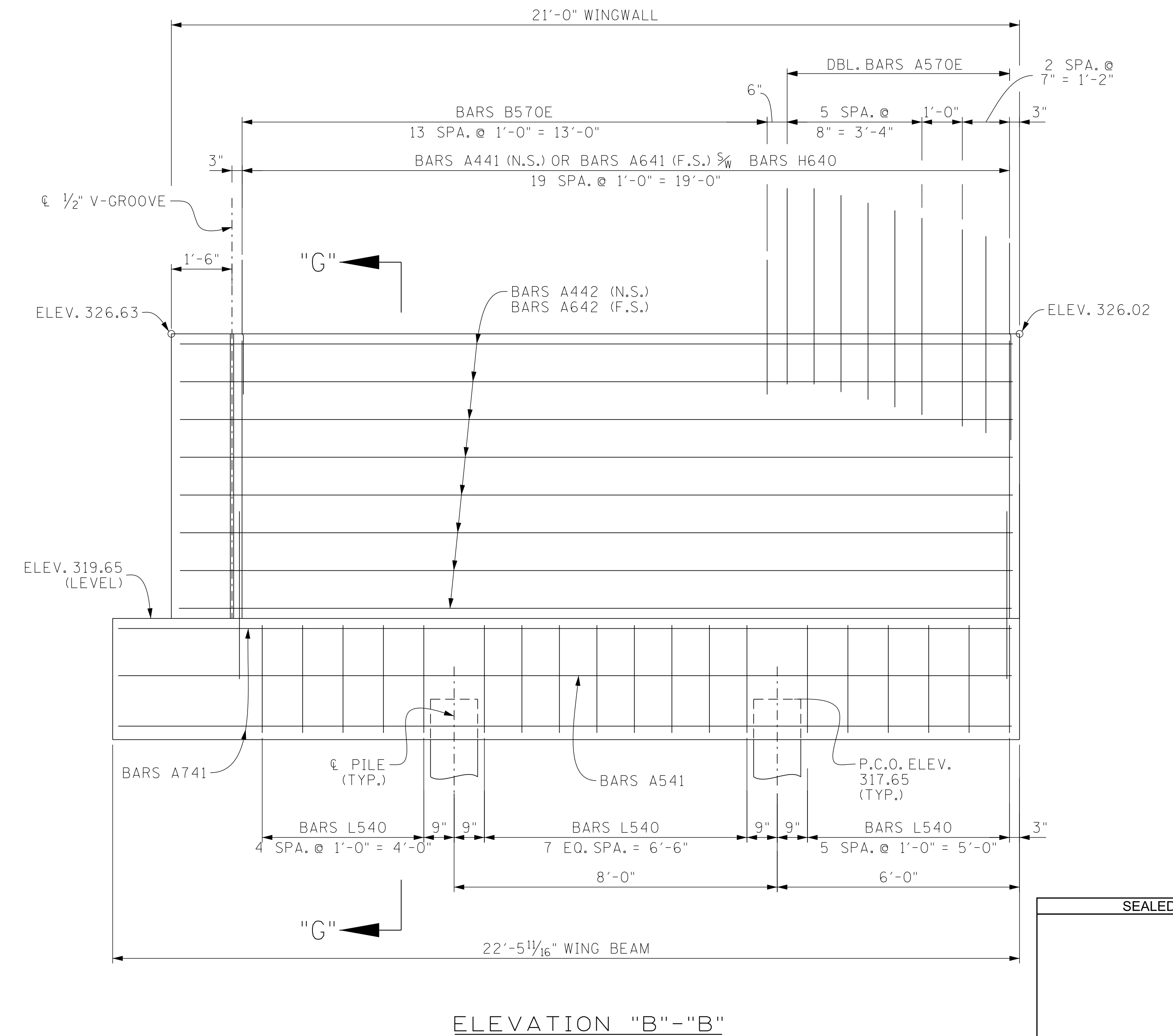
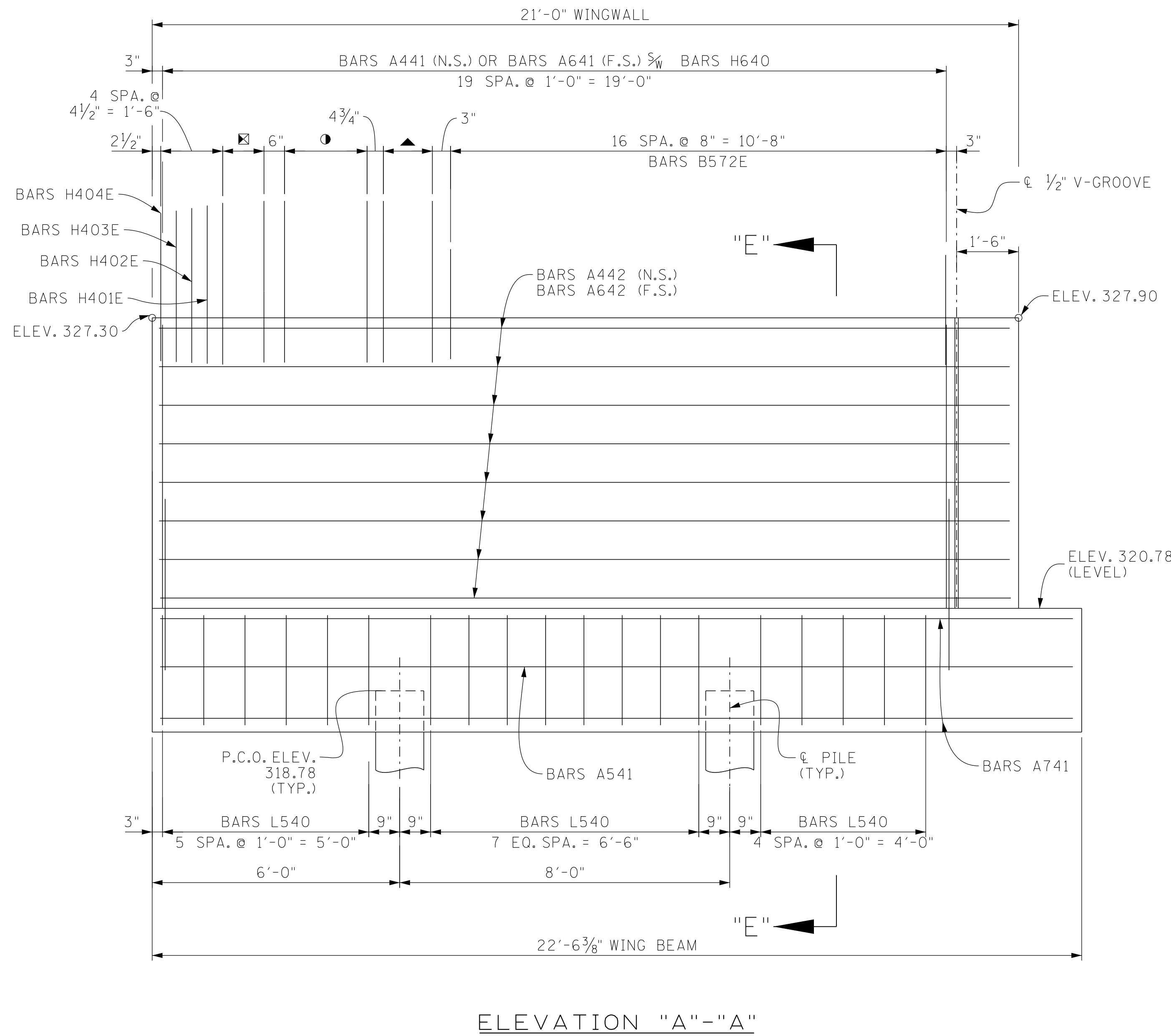
STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BRIDGE NO. 1
ABUTMENT NO. 1 DETAILS
PERKINS ROAD WB
OVER STATE ROUTE 4 (LAMAR AVE.)
BRIDGE ID NO. 79SR0040006
STATION 18+05.73
LOG MILE 3.60
SHELBY COUNTY

PIN NO.: 100340.00
DESIGN BY: ALLOMAR DATE: 08/2025
DRAWN BY: P. MOSHER DATE: 09/2025
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CHECKED BY: URVA PATEL DATE: 01/2026

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-	-	-	-
-	-	-	-
-	-	-	-
-	-	-	-
-	-	-	-

- ☒ DENOTES: BARS H400E
5 SPA. @ 6" = 2'-6"
- DENOTES: SER. BARS HD401E
4 SPA. @ 6" = 2'-0"
- ▲ DENOTES: SER. BARS HD400E
3 SPA. @ 4 3/4" = 1'-2 1/4"

F.S. DENOTES: FAR SIDE
N.S. DENOTES: N.S.
P.C.O. DENOTES: PILE CUT-OFF



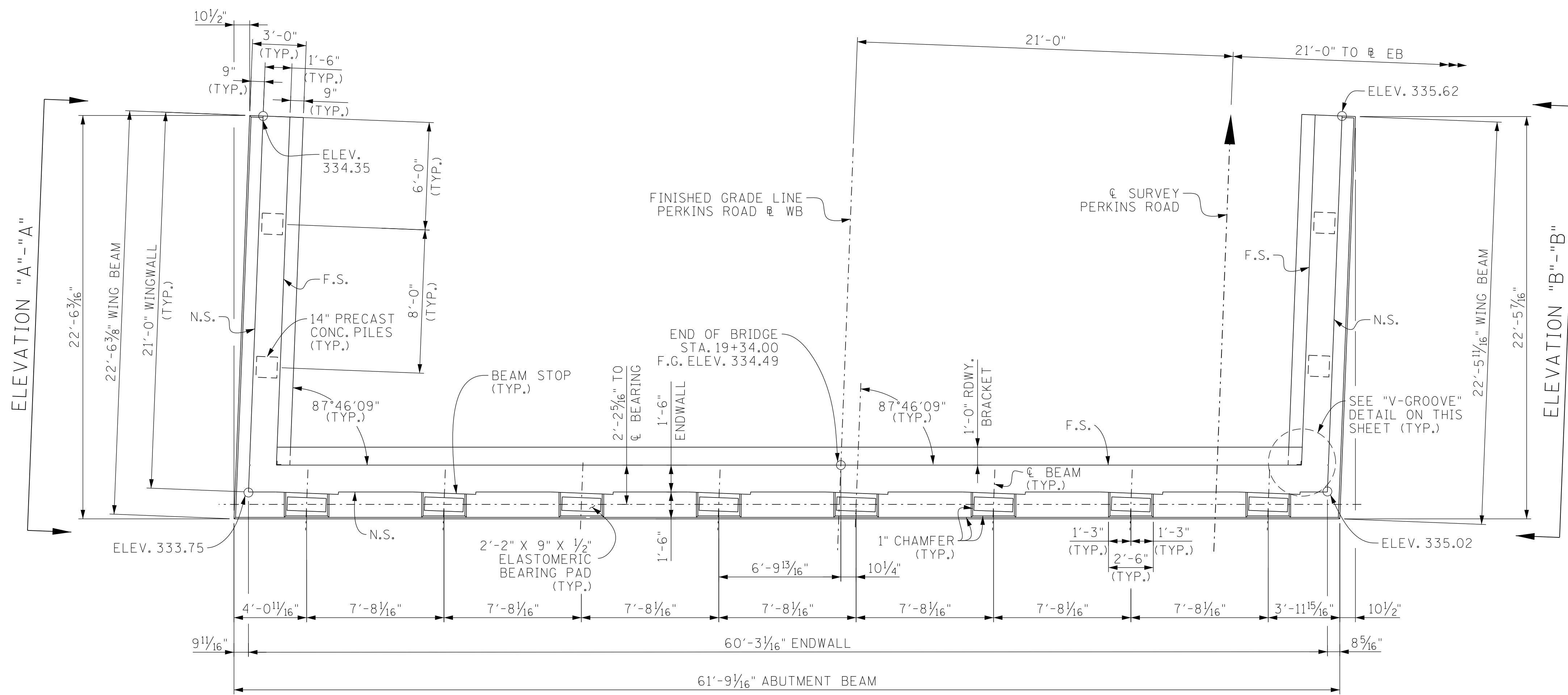
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ABUTMENT NO. 1 DETAILS
PERKINS ROAD WB
OVER STATE ROUTE 4 (LAMAR AVE.)
BRIDGE ID NO. 79SR0040006
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SHELBY COUNTY

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SUPERVISED BY: DAN SHIKE DATE: 01/2026
CHECKED BY: URVA PATEL DATE: 01/2026

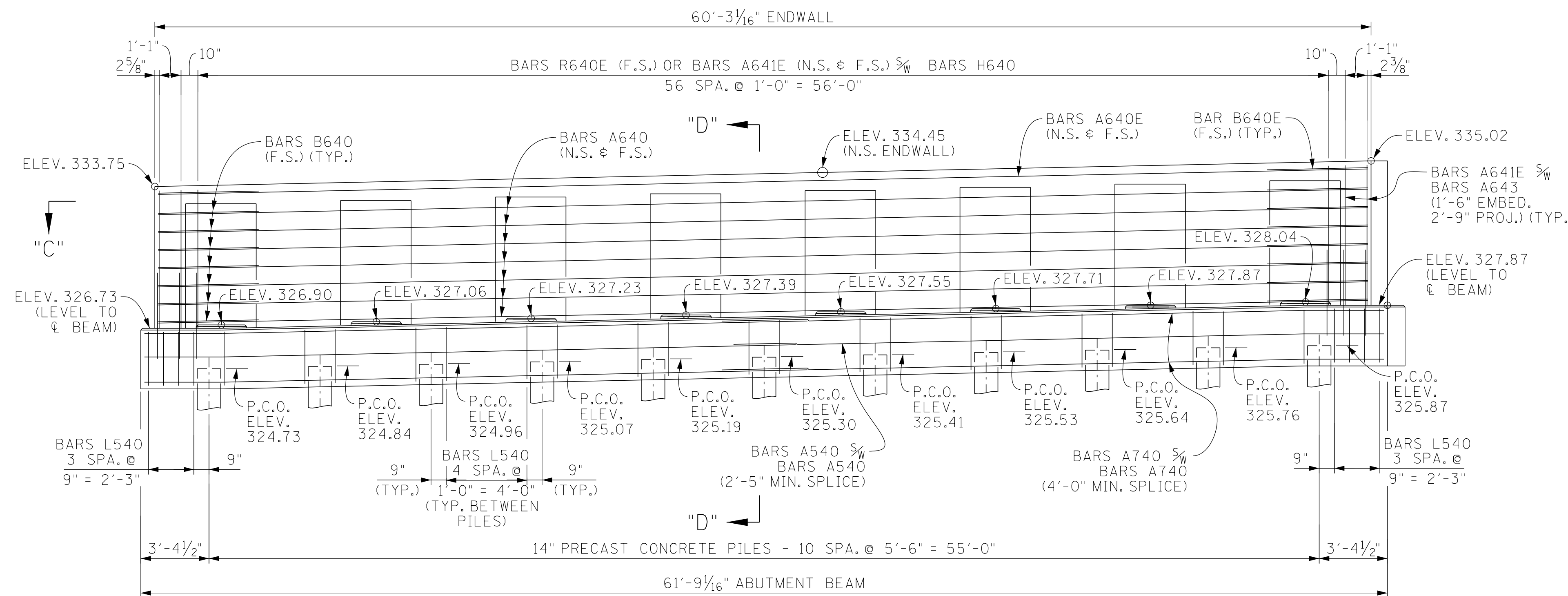
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PROJECT NO.	YEAR	SHEET NO.	
STP/NH-4(6)	2026		
REVISIONS			
NO.	DATE	BY	BRIEF DESCRIPTION
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-	-	-	-
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-	-	-	-
-	-	-	-



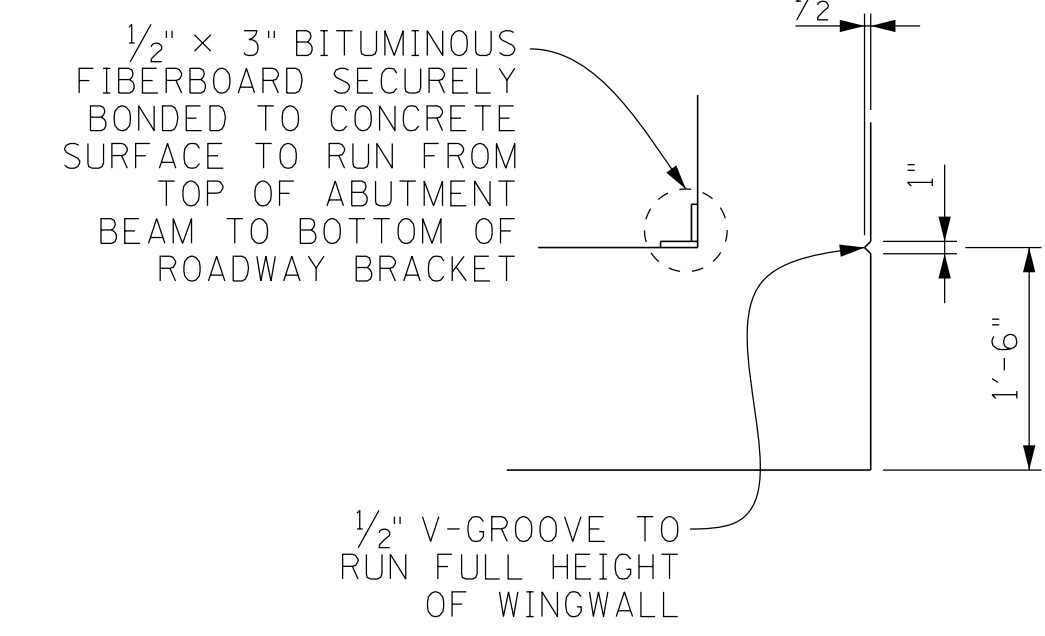
PLAN

F.S. DENOTES: FAR SIDE
 N.S. DENOTES: NEAR SIDE
 P.C.O. DENOTES: PILE CUT-OFF



ELEVATION

(LOOKING FORWARD ON SURVEY)



"V"-GROOVE DETAIL

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.

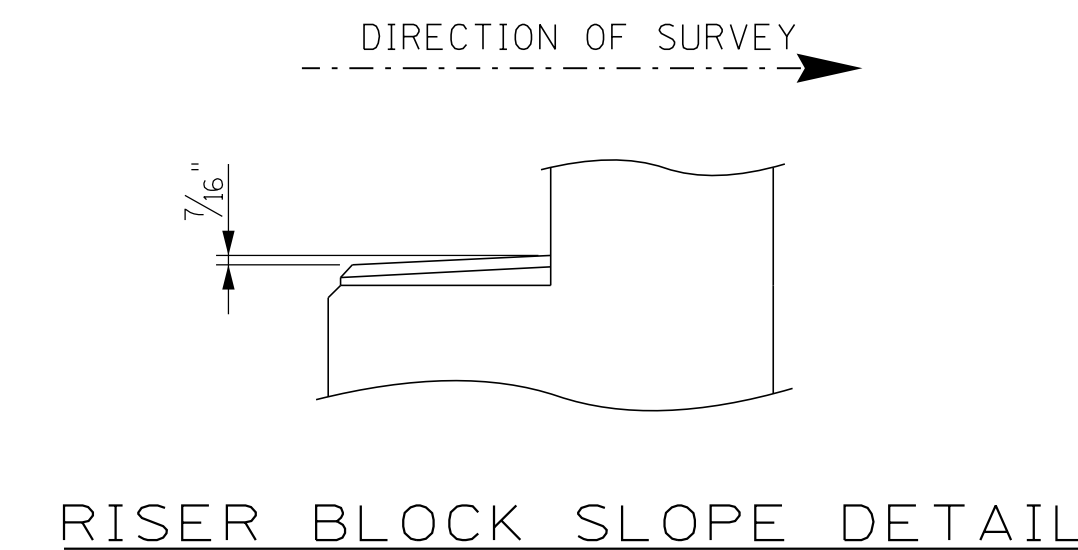
NOTE: WHEN POURING WINGWALLS, PROVISIONS SHALL BE MADE FOR SETTING REINFORCING STEEL FOR WINGPOSTS AND PARAPETS. FOR DETAILS OF WINGPOSTS AND PARAPETS, SEE STD. DWG. NO. STD-1-1SS AND STD-11-1.

NOTE: NOT LESS THAN HALF OF THE SLAB IN THE END SPANS SHALL BE POURED PRIOR TO PLACEMENT 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 SEISMIC ATTACHMENT DETAILS AND NOTES.

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



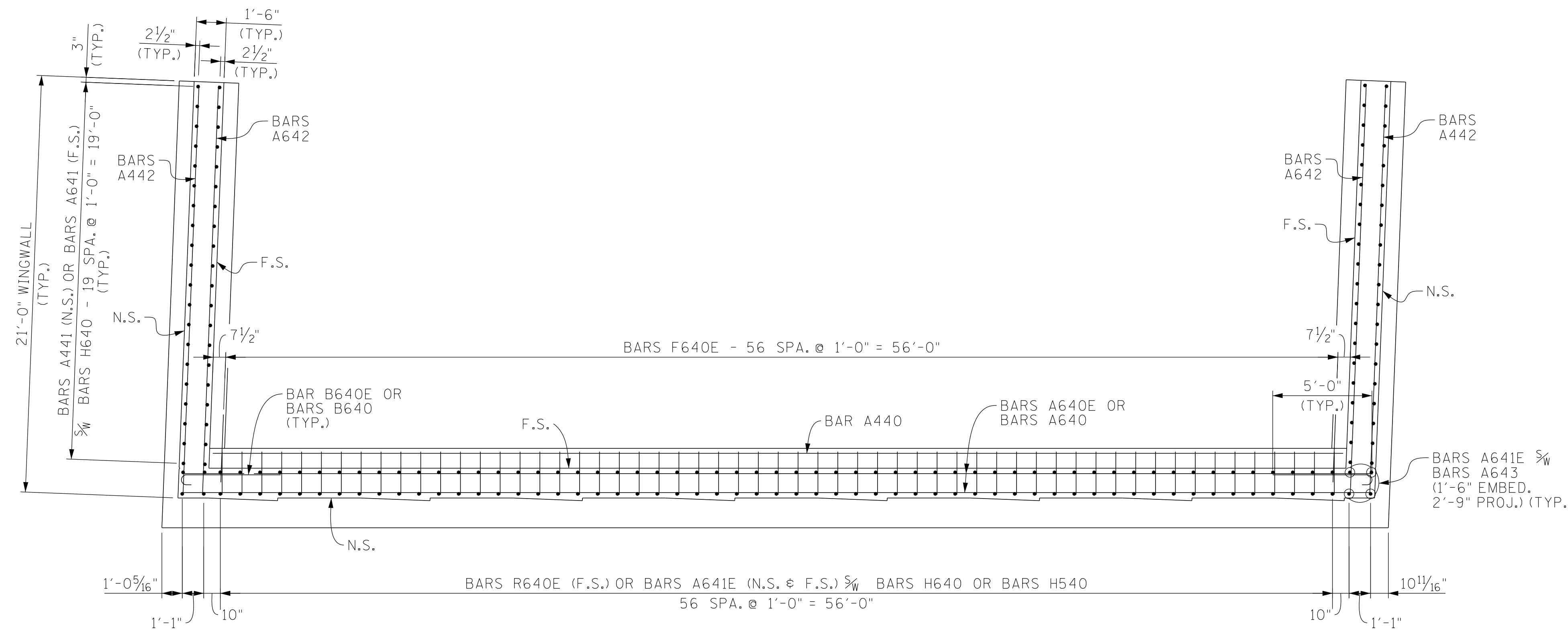
RISER BLOCK SLOPE DETAIL

SEALED BY

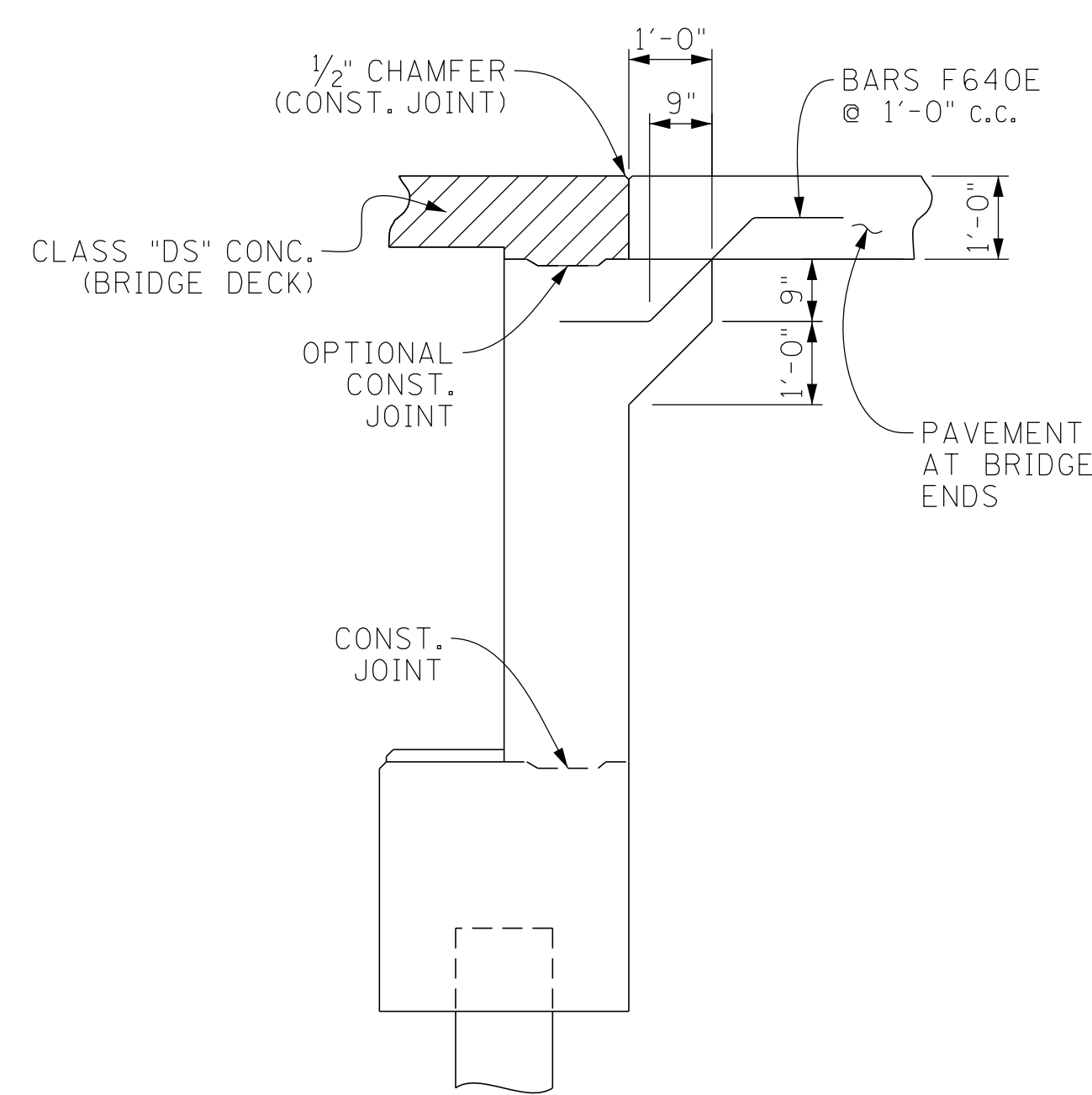
STATE OF TENNESSEE
 DEPARTMENT OF TRANSPORTATION
BRIDGE NO. 1
ABUTMENT NO. 2
PERKINS ROAD WB
OVER STATE ROUTE 4 (LAMAR AVE.)
BRIDGE ID NO. 79SR0040006
STATION 18+05.73
LOG MILE 3.60
SHELBY COUNTY

PIN NO.:	100340.00	DATE:	08/2025
DESIGN BY:	ALLOMAR	DATE:	09/2025
DRAWN BY:	P. MOSHER	DATE:	01/2026
SUPERVISED BY:	DAN SHIKE	DATE:	01/2026
CHECKED BY:	URVA PATEL	DATE:	01/2026

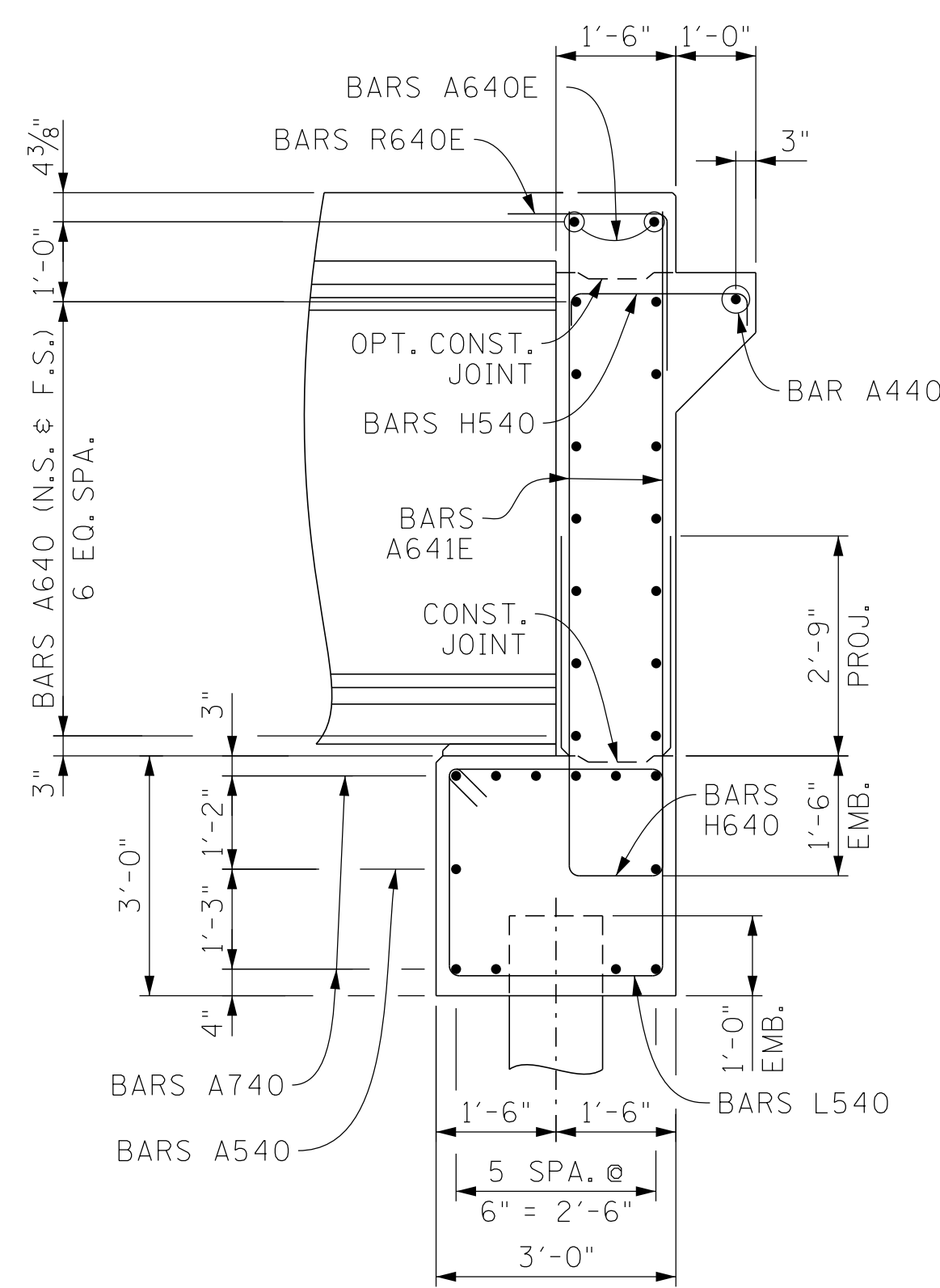
PROJECT NO.	YEAR	SHEET NO.	
STP/NH-4(6)	2026		
REVISIONS			
NO.	DATE	BY	BRIEF DESCRIPTION
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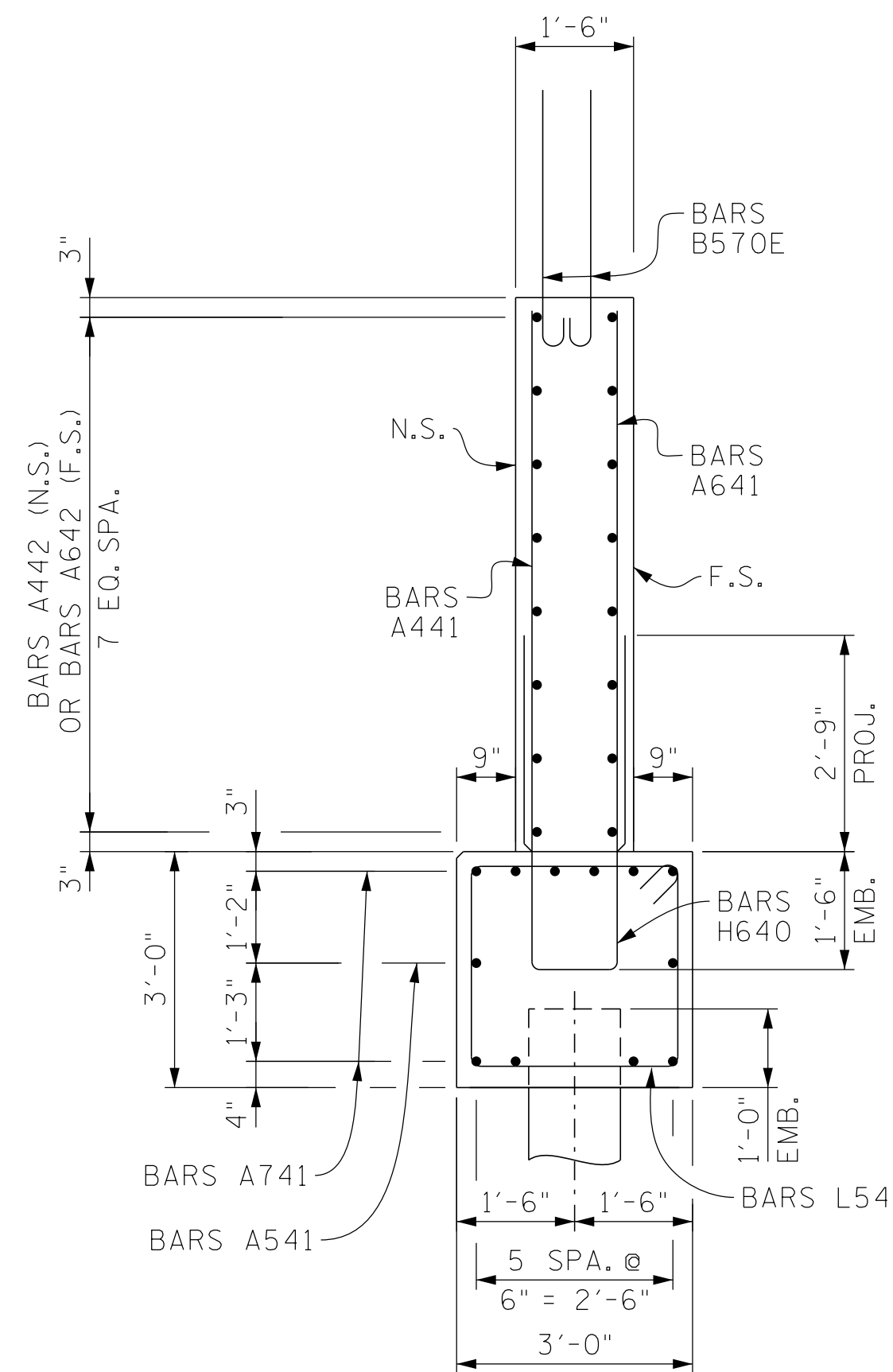
SECTION "C"-"C"



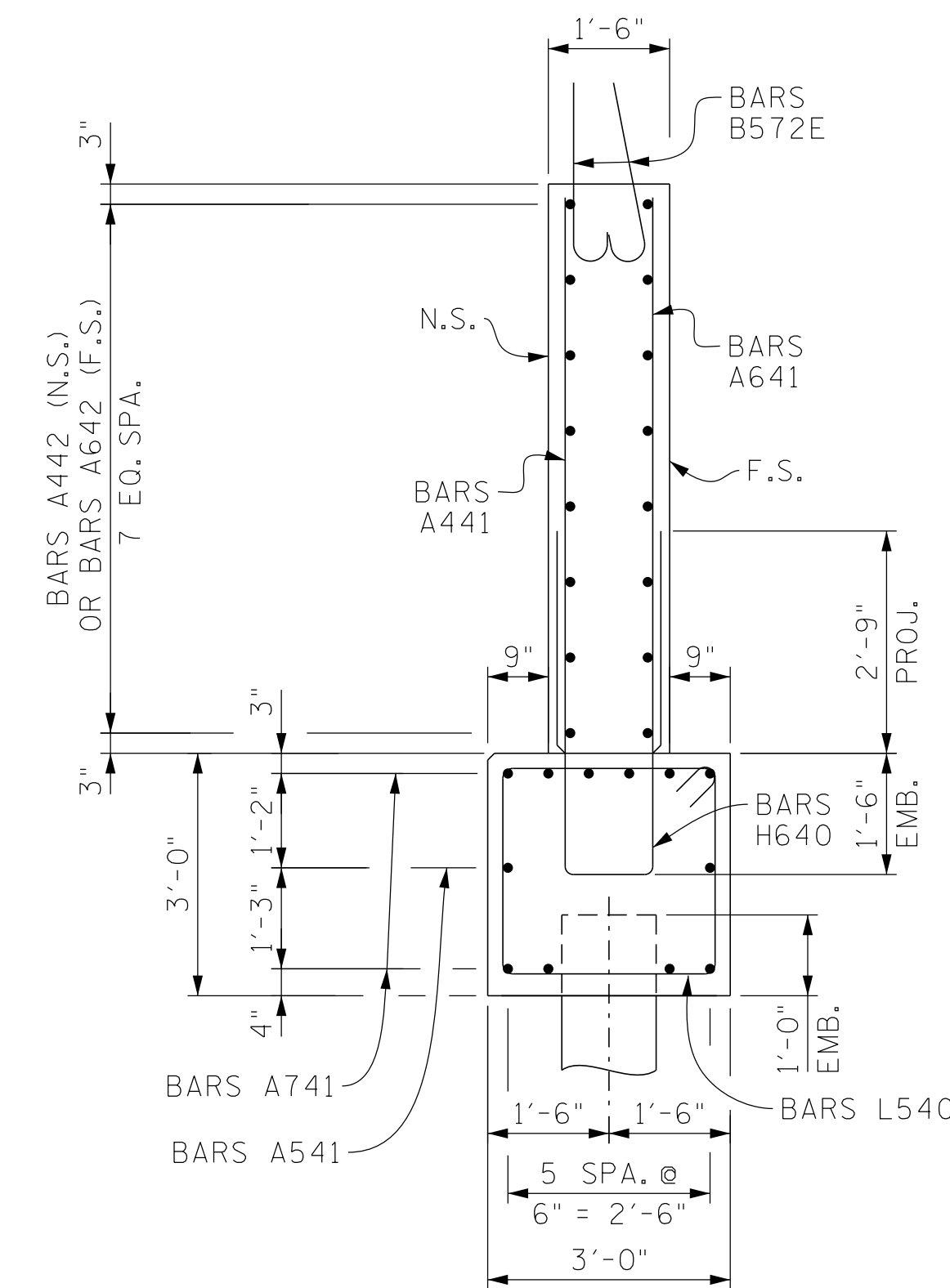
SECTION "D"-"D"
(SHOWING PAVEMENT AT BRIDGE ENDS)



SECTION "D"-"D"
(SHOWING STEEL REINFORCEMENT)



SECTION "G"-"G"



SECTION "E"-"E"

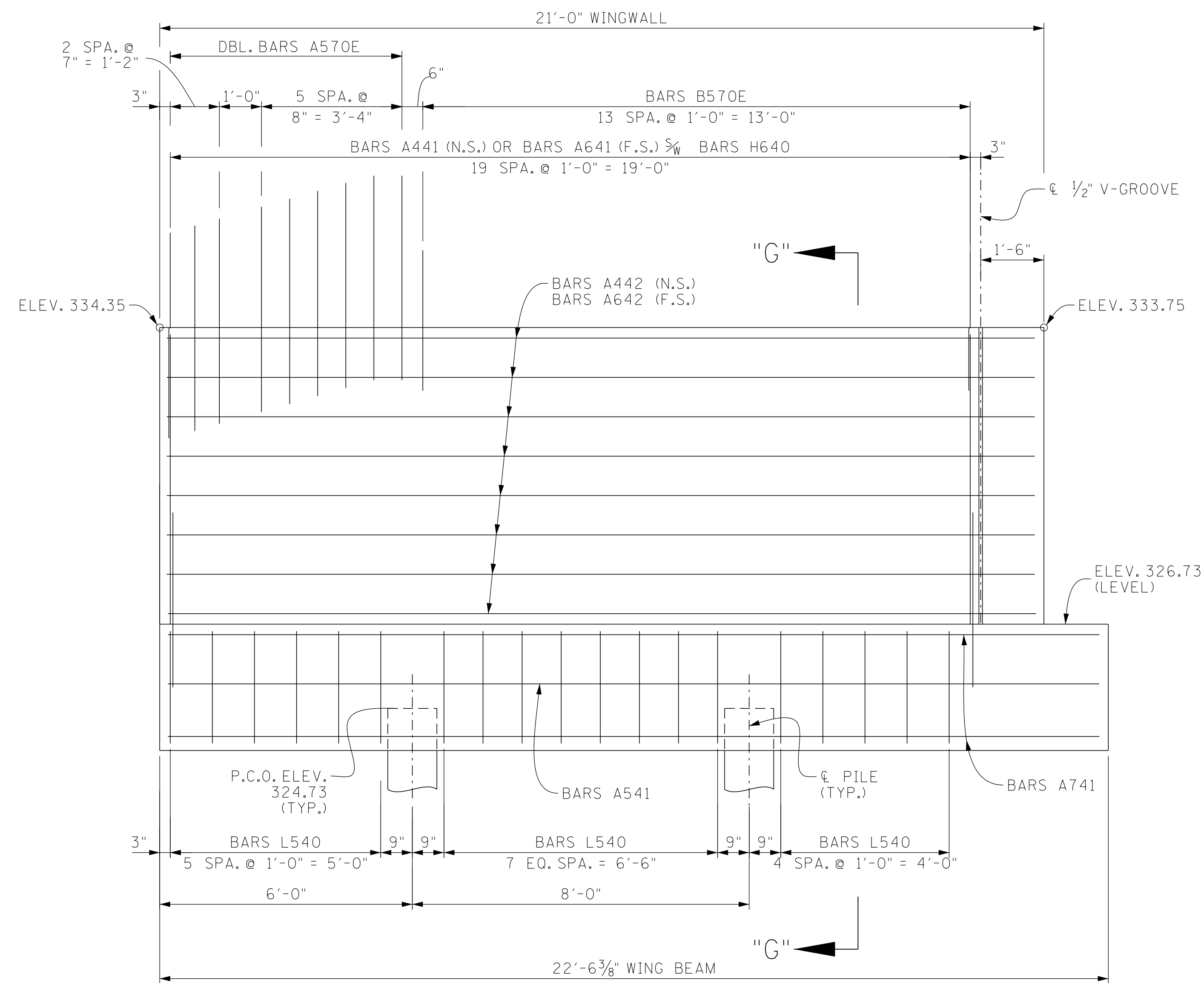
SEALED BY

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BRIDGE NO. 1
ABUTMENT NO. 2 DETAILS
PERKINS ROAD WB
OVER STATE ROUTE 4 (LAMAR AVE.)
BRIDGE ID NO. 79SR0040006
STATION 18+05.73
LOG MILE 3.60
SHELBY COUNTY

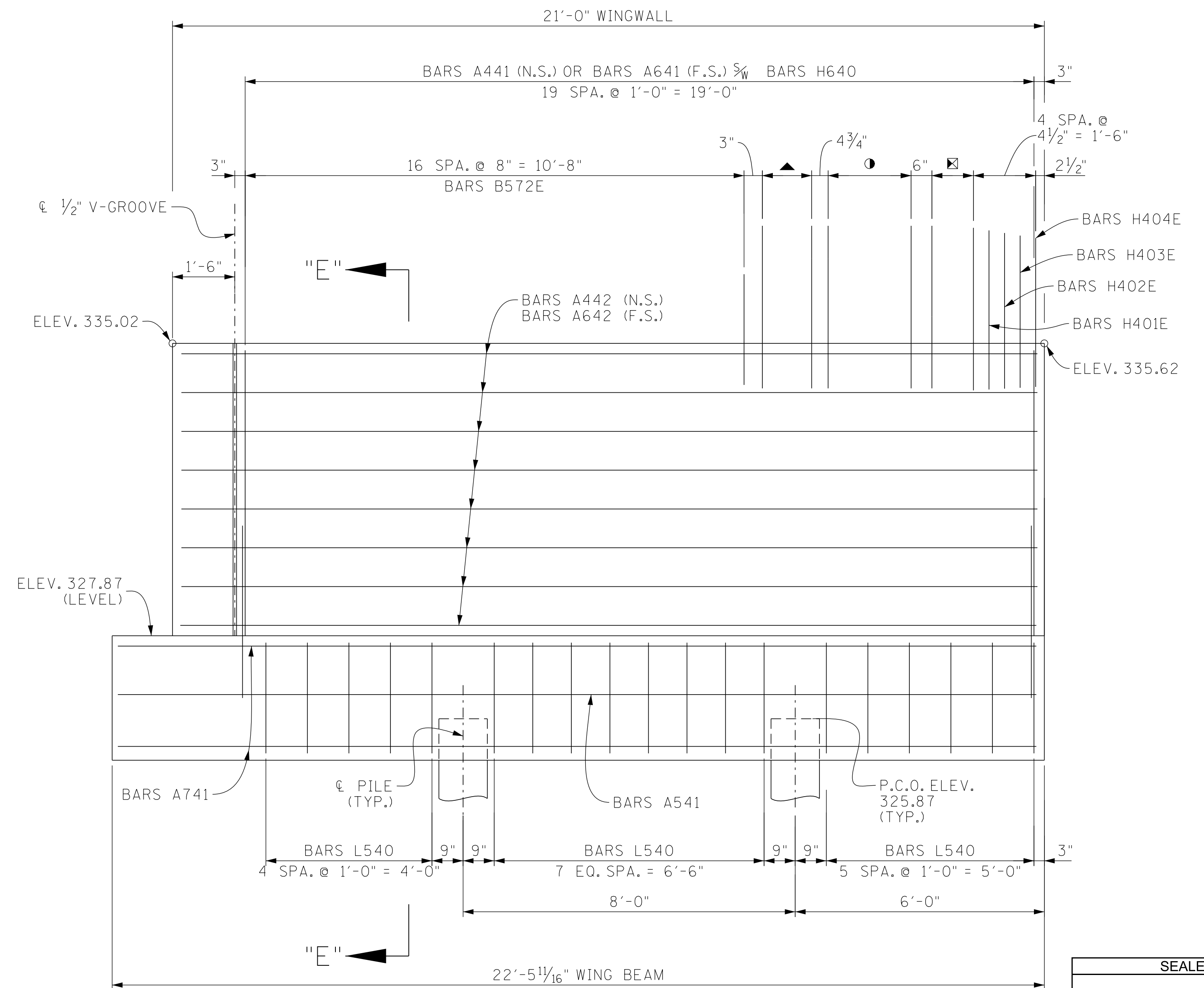
F.S. DENOTES: FAR SIDE
 N.S. DENOTES: N.S.
 P.C.O. DENOTES: PILE CUT-OFF

PROJECT NO.	YEAR	SHEET NO.	
STP/NH-4(6)	2026		
REVISIONS			
NO.	DATE	BY	BRIEF DESCRIPTION
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- ☒ DENOTES: BARS H400E
5 SPA. @ 6" = 2'-6"
- DENOTES: SER. BARS HD401E
4 SPA. @ 6" = 2'-0"
- ▲ DENOTES: SER. BARS HD400E
3 SPA. @ 4 3/4" = 1'-2 1/4"



ELEVATION "A"-"A"



ELEVATION "B"-"B"

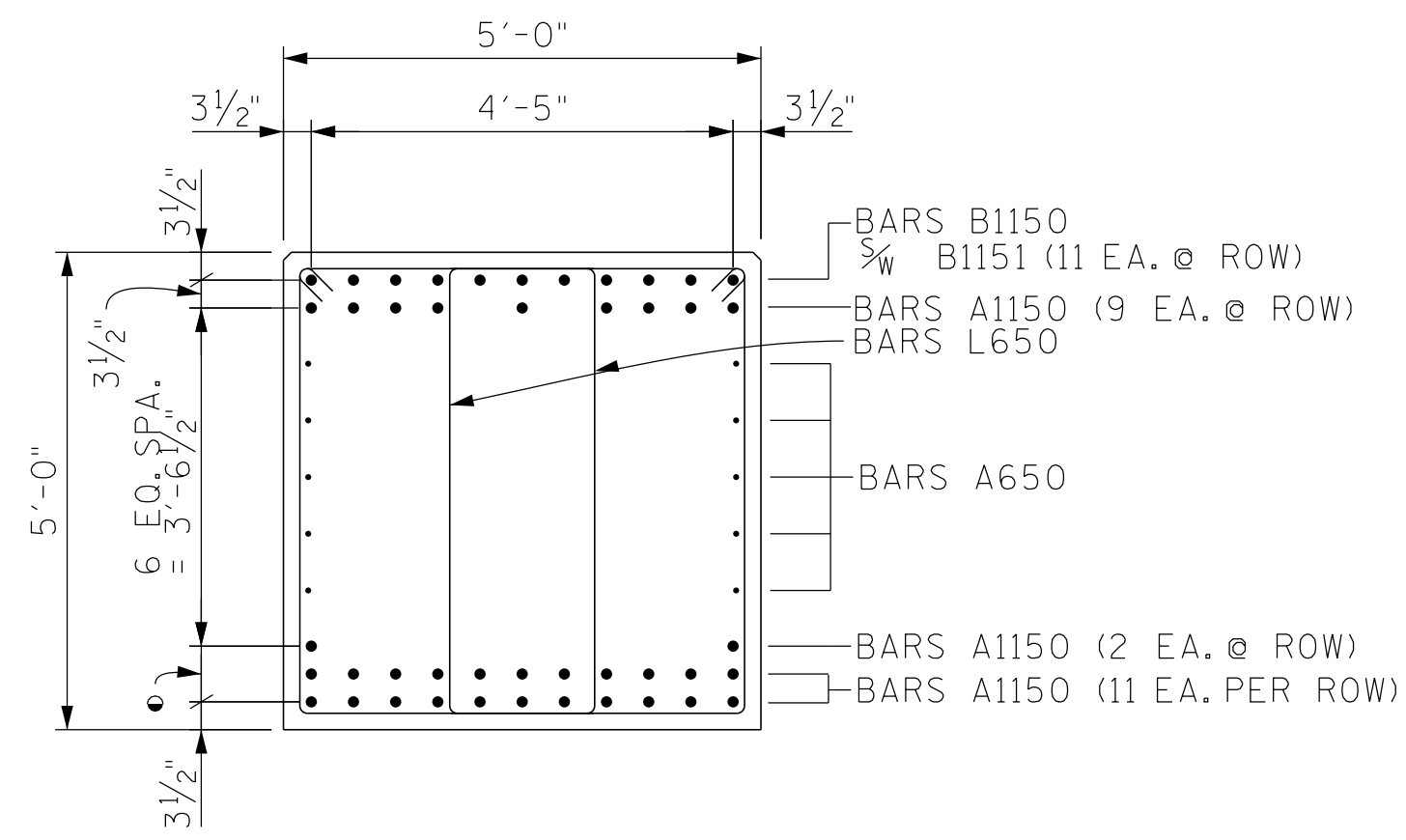
SEALED BY

STATE OF TENNESSEE
 DEPARTMENT OF TRANSPORTATION
BRIDGE NO. 1
ABUTMENT NO. 2 DETAILS
PERKINS ROAD WB
OVER STATE ROUTE 4 (LAMAR AVE.)
BRIDGE ID NO. 79SR0040006
STATION 18+05.73
LOG MILE 3.60
SHELBY COUNTY

PIN NO.: 100340.00
 DESIGN BY: ALLOMAR DATE: 08/2025
 DRAWN BY: P. MOSHER DATE: 09/2025
 SUPERVISED BY: DAN SHIKE DATE: 01/2026
 CHECKED BY: URVA PATEL DATE: 01/2026

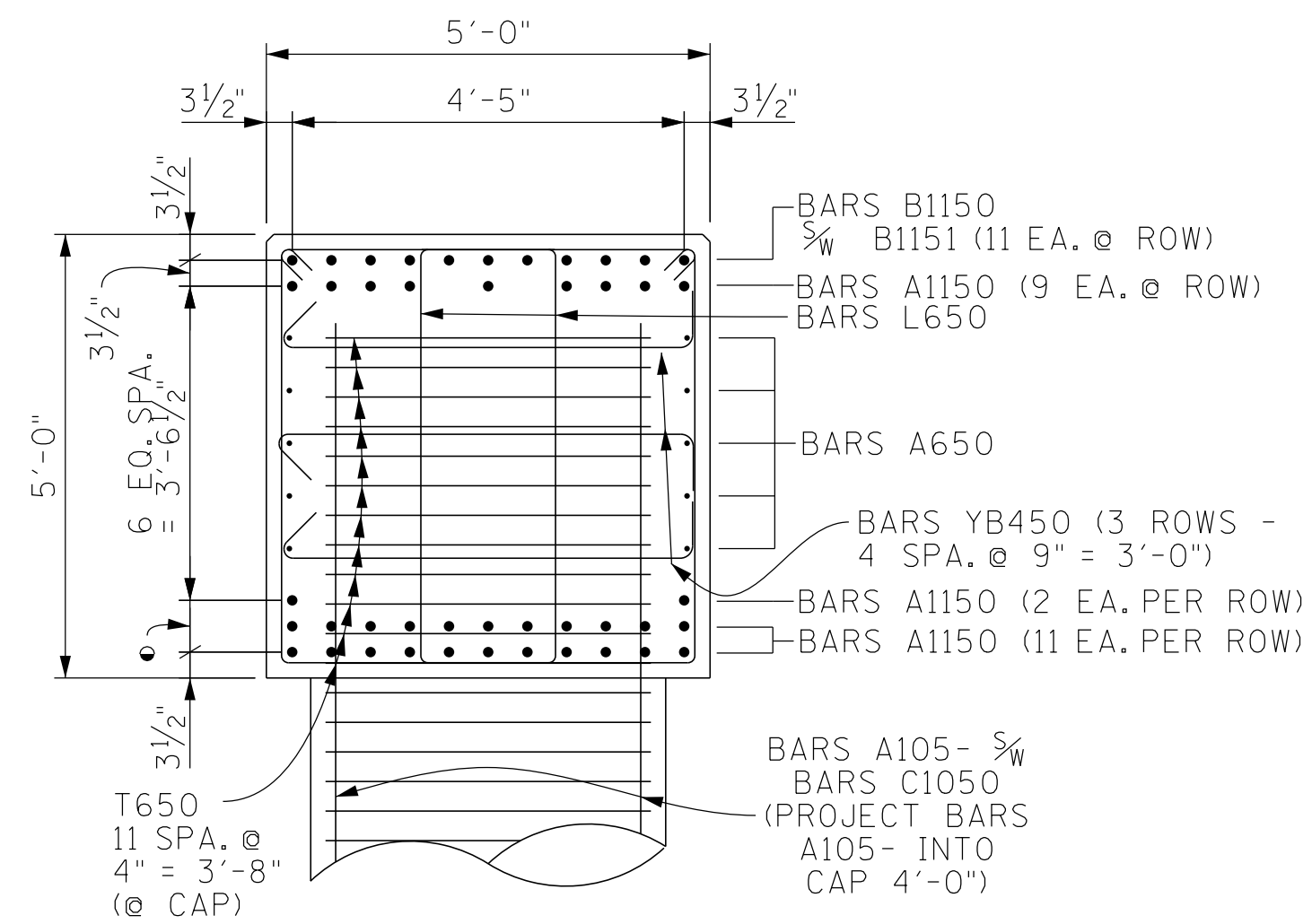
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PROJECT NO.	YEAR	SHEET NO.	
STP/NH-4(6)	2026		
REVISIONS			
NO.	DATE	BY	BRIEF DESCRIPTION



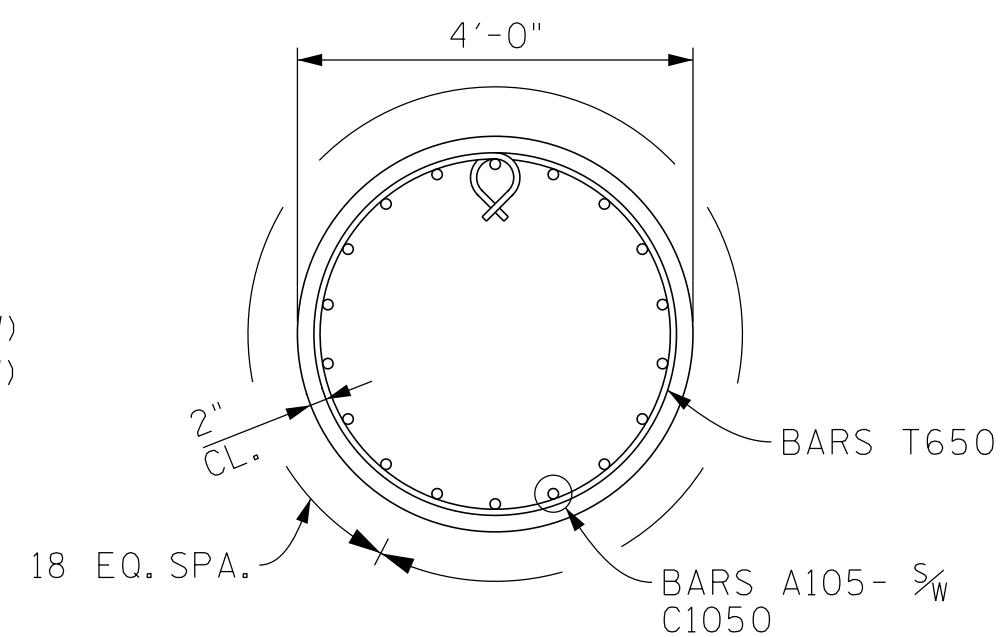
SECTION "A"-"A"

• DENOTES: 2 SPA. @ 3 1/2" = 7"



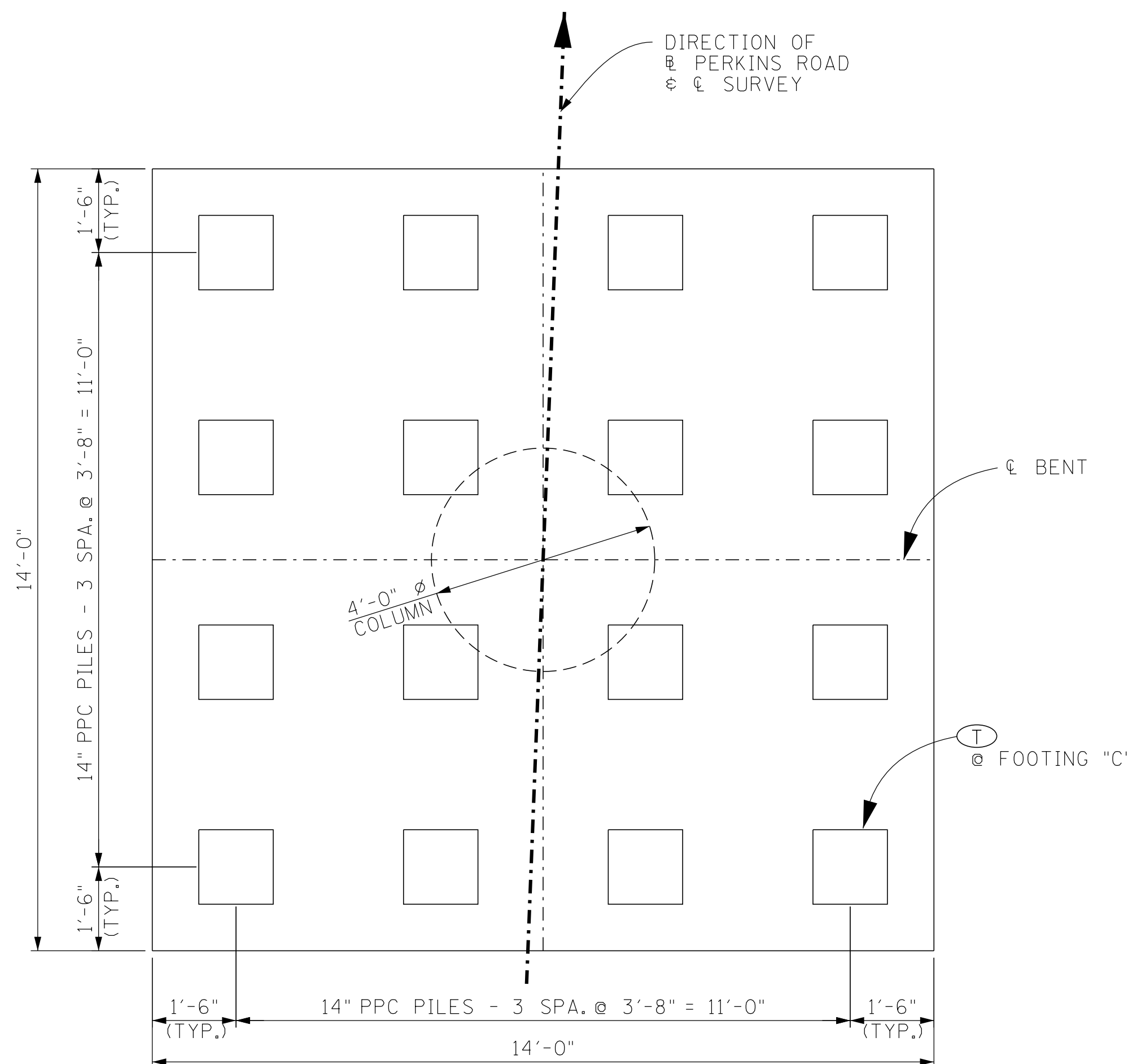
SECTION "B"-"B"
(TYP. @ COLUMNS)

• DENOTES: 2 SPA. @ 3 1/2" = 7"



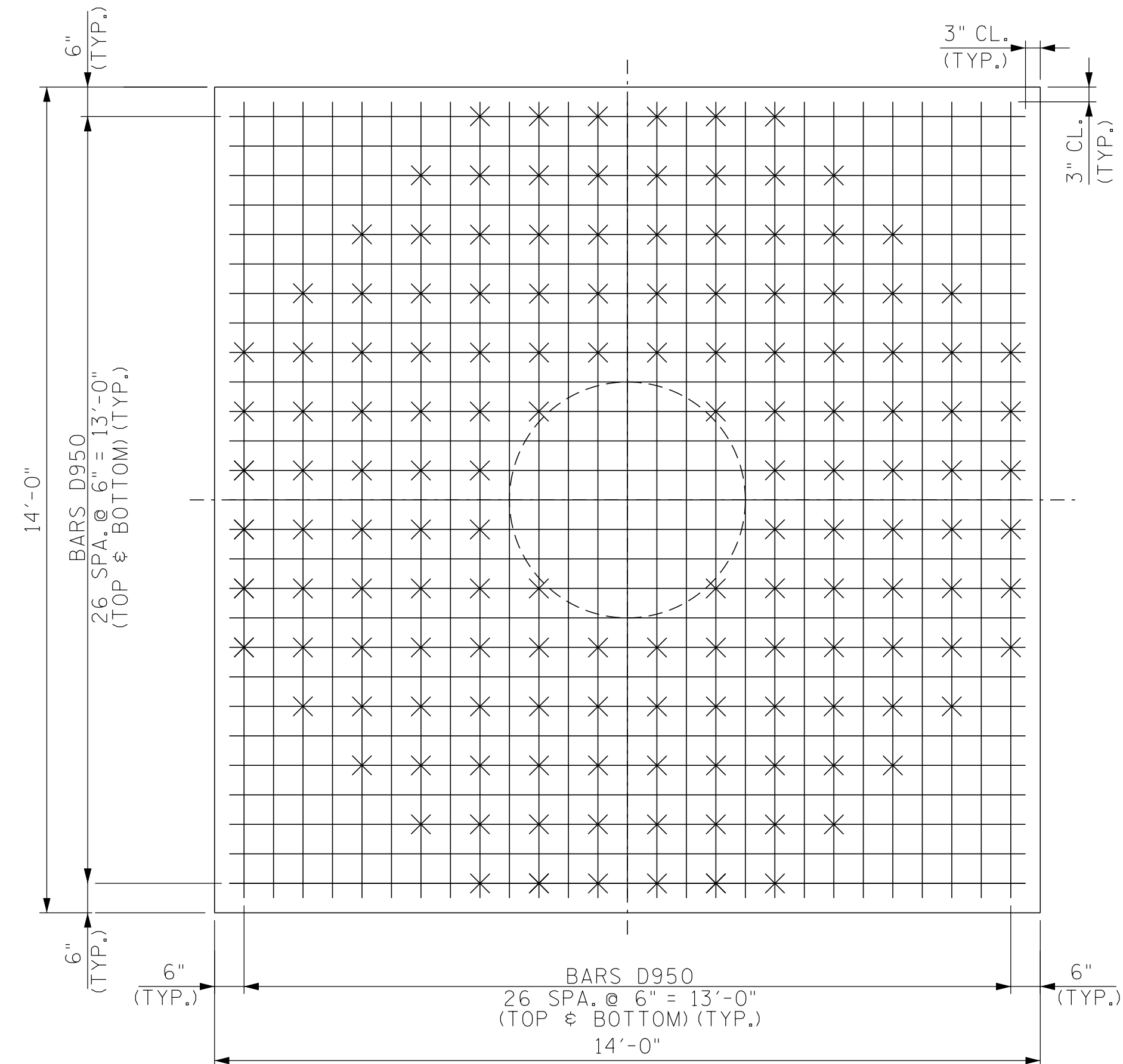
SECTION "C"-"C"

(TYP. @ EACH COLUMNS)



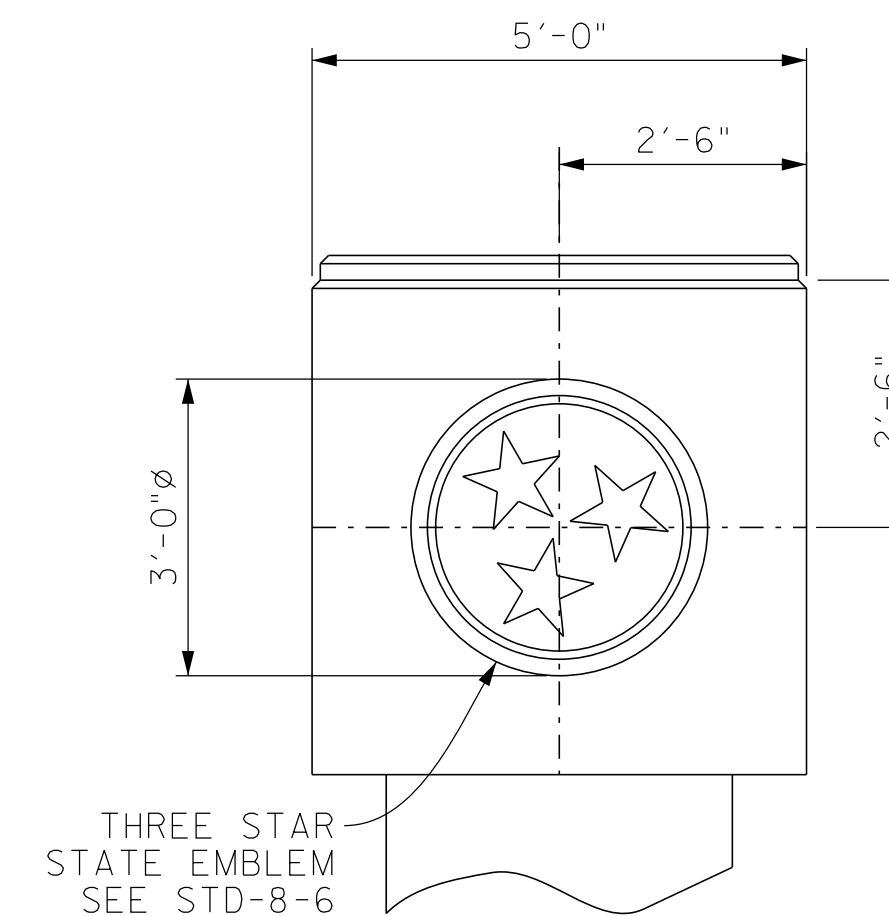
PLAN OF FOOTING - PILES
(TYP. @ ALL FOOTINGS)

Ⓣ DENOTES: TEST PILE.



PLAN OF FOOTING - REINFORCEMENT
(TYP. @ ALL FOOTINGS)

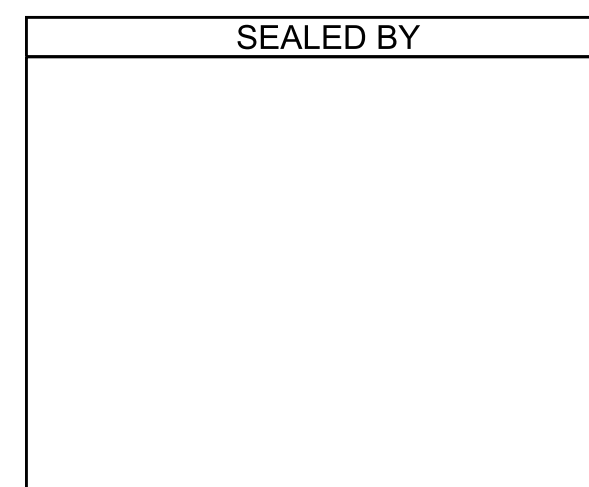
× DENOTES: DOUBLE BARS B550 (144 PAIRS) @ 1'-0" SPA.



BENT TREATMENT
(END ELEVATION)

NOTE: EMBLEM SHALL BE APPLIED TO LEFT SIDE OF CAP. FOR DETAILS SEE STD. DWG. NO. STD-8-6.

SEALED BY



STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BRIDGE NO. 1
BENT DETAILS
PERKINS ROAD WB
OVER STATE ROUTE 4 (LAMAR AVE.)
BRIDGE ID NO. 79SR0040006
LOG MILE 3.60
STATION 18+05.73
SHELBY COUNTY

PIN NO.: 100340.00
DESIGN BY: A. OMAR DATE: 08/15/2025
DRAWN BY: A. OMAR DATE: 08/15/2025
SUPERVISED BY: D. SHIKE DATE: 08/15/2025
CHECKED BY: U. PATEL DATE: 09/15/2025

PROJECT NO.	YEAR	SHEET NO.	
STP/NH-4(6)	2026		
REVISIONS			
NO.	DATE	BY	BRIEF DESCRIPTION

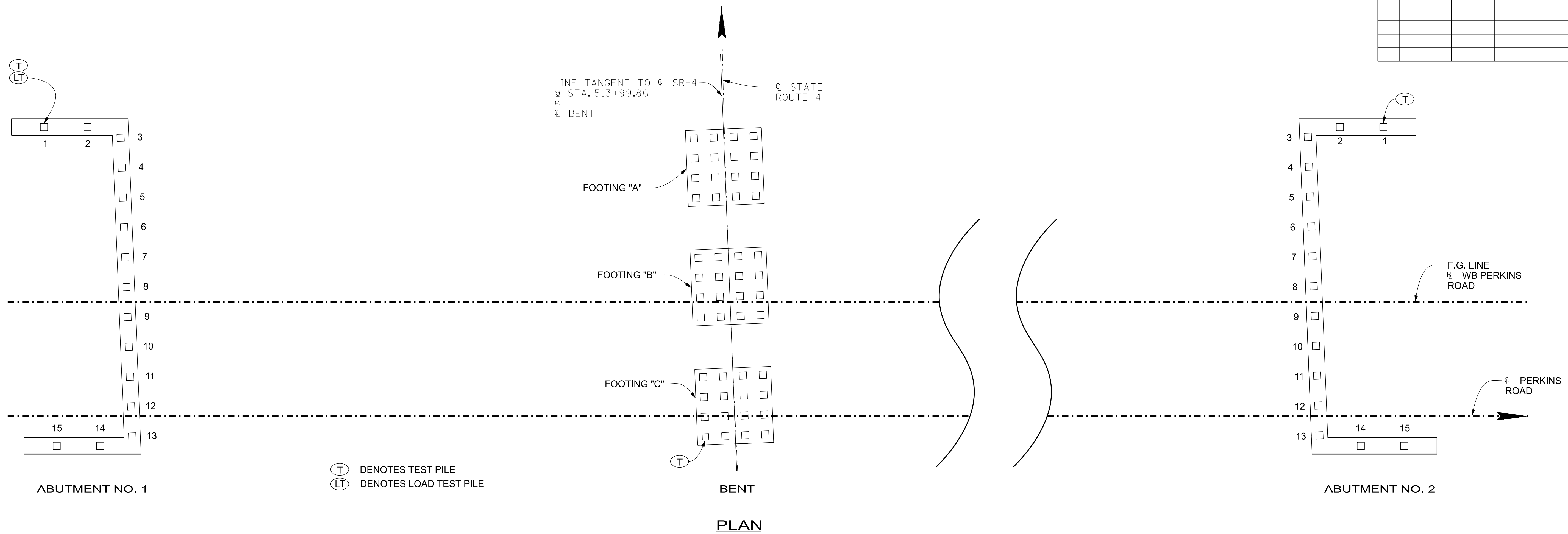
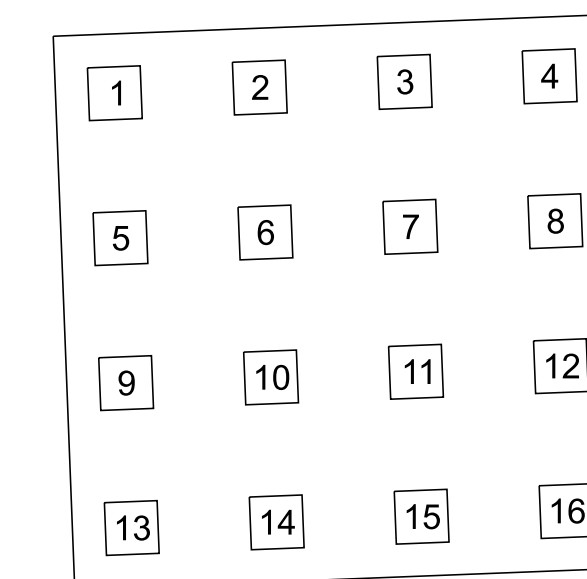


TABLE OF FOUNDATION DATA

		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
ABUTMENT NO. 1	PILE CUT-OFF ELEVATION																
	PILE TIP ELEVATION																
	IN PLACE PILE LENGTH																
BENT FOOTING "A"	PILE CUT-OFF ELEVATION																
	PILE TIP ELEVATION																
	IN PLACE PILE LENGTH																
BENT FOOTING "B"	PILE CUT-OFF ELEVATION																
	PILE TIP ELEVATION																
	IN PLACE PILE LENGTH																
BENT FOOTING "C"	PILE CUT-OFF ELEVATION																
	PILE TIP ELEVATION																
	IN PLACE PILE LENGTH																
ABUTMENT NO. 2	PILE CUT-OFF ELEVATION																
	PILE TIP ELEVATION																
	IN PLACE PILE LENGTH																



PLAN OF FOOTING
TYP. AT EACH FOOTING

NOTE TO CONTRACTOR AND CONSTRUCTION OFFICE:
THE BLANKS ON THIS SHEET 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.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BRIDGE NO. 1
FINAL FOUNDATION DATA
PERKINS ROAD WB
OVER STATE ROUTE 4 (LAMAR AVE.)
BRIDGE ID NO. 79SR0040006
LOG MILE 3.60
STATION 18+05.73
SHELBY COUNTY

PIN NO.: 100340.00
DESIGN BY: A. OMAR DATE: 08/15/2025
DRAWN BY: A. OMAR DATE: 08/15/2025
SUPERVISED BY: D. SHIKE DATE: 08/15/2025
CHECKED BY: U. PATEL DATE: 09/15/2025

BILL OF STEEL

CONST. NO.: 79020-3253-14

SUPERSTRUCTURE (EPOXY)								
BAR	LOCATION	SIZE	NO. REQ'D	BENDING DIMENSIONS				LENGTH
				A	B	C	D	
A400E	SIDEWALK	4	201					5'-8"
A401E	SIDEWALK	4	25					60'-0"
A402E	SIDEWALK	4	5					9'-0"
A500E	SLAB	5	581					59'-11"
A501E	SLAB	5	348					60'-0"
A502E	SLAB	5	87					22'-0"
A600E	SLAB	6	62					51'-3"
A601E	SLAB	6	62					43'-0"
A602E	SLAB	6	62					60'-0"
A900E	SLAB	9	62					52'-9"
A901E	SLAB	9	120					60'-0"
A902E	SLAB	9	58					15'-7"
B571E	SLAB/RAIL	5	506	3'-4"				3'-11"
B572E	SLAB/RAIL	5	756	2'-8"				3'-3"

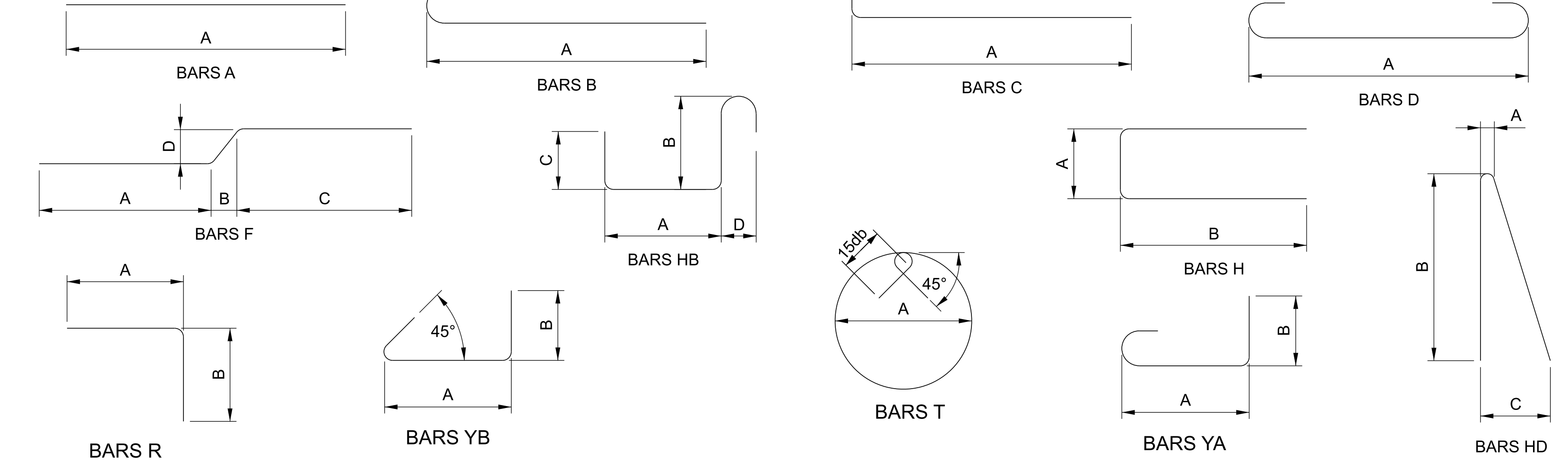
SUPERSTRUCTURE (REGULAR)								
BAR	LOCATION	SIZE	NO. REQ'D	BENDING DIMENSIONS				LENGTH
				A	B	C	D	
A503	DIAPHRAGM	5	28					5'-10"
A504	DIAPHRAGM	5	84					9'-10"
L400	DIAPHRAGM	4	16	1'-2"	1'-2"			5'-5"
L401	DIAPHRAGM	4	35	1'-2"	5'-10"			14'-9"

BENT (REGULAR)								
BAR	LOCATION	SIZE	NO. REQ'D	BENDING DIMENSIONS				LENGTH
				A	B	C	D	
A650	CAP	6	10					57'-8"
A1050	COLUMN	10	18					17'-6"
A1051	COLUMN	10	18					17'-7"
A1052	COLUMN	10	18					17'-8"
A1150	CAP	11	33					57'-8"
B550	FOOTING	5	864	3'-2"				3'-9"
B1150	CAP	11	11	21'-6"				23'-1"
B1151	CAP	11	11	45'-0"				46'-7"
C1050	COLUMN	10	54	17'-2"				19'-0"
D950	FOOTING	9	324	13'-6"				16'-0"
L650	CAP	6	230	3'-1"	4'-8"			16'-10"
T650	COLUMN	6	237	3'-8"				14'-2"
YB450	CAP	4	45	4'-8"	4 1/2"			5'-5"

ABUTMENT NO. 1 (EPOXY)								
BAR	LOCATION	SIZE	NO. REQ'D	BENDING DIMENSIONS				LENGTH
				A	B	C	D	
A570E	WINGWALL	5	18					5'-7"
A640E	ENDWALL	6	2					59'-11"
A641E	ENDWALL	6	122					6'-10"
B570E	WINGWALL /PARAPET	5	28	3'-4"				3'-11"
B572E	WINGWALL /PARAPET	5	34	2'-8"				3'-3"
B640E	ENDWALL	6	2	5'-0"				5'-8"
F640E	ENDWALL /P.A.B.E.	6	57	1'-1"	1'-3"	1'-1"	1'-3"	4'-0"
H400E	WINGWALL /PARAPET	4	6	10 1/2"	3'-11"			8'-9"
H401E	WINGWALL /PARAPET	4	1	9 7/8"	3'-10"			8'-7"
H402E	WINGWALL /PARAPET	4	1	8 3/4"	3'-9"			8'-4"
H403E	WINGWALL /PARAPET	4	1	7 5/8"	3'-8"			8'-0"
H404E	WINGWALL /PARAPET	4	1	6 1/2"	3'-7"			7'-7"
HD400E	WINGWALL /PARAPET	4	1	*	3'-11"	9"		33'-4"
HD401E	WINGWALL /PARAPET	4	1	*	3'-11"	9"		42'-8"
R640E	ENDWALL/SLAB	6	57	3'-3"	3'-0"			6'-3"

ABUTMENT NO. 1 (REGULAR)								
BAR	LOCATION	SIZE	NO. REQ'D	BENDING DIMENSIONS				LENGTH
				A	B	C	D	
A440	ROADWAY BRACKET	4	1					56'-11"
A441	WINGWALL	4	40					6'-3"
A442	WINGWALL	4	16					20'-8"
A540	ABUTMENT BEAM	5	4					32'-0"
A541	WING BEAM	5	4					22'-1"
A640	ENDWALL	6	14					59'-11"
A641	WINGWALL	6	40					6'-3"
A642	WINGWALL	6	16					20'-8"
A643	ENDWALL	6	8					4'-3"
A740	ABUTMENT BEAM	7	20					32'-9"
A741	WING BEAM	7	20					22'-1"
B640	ENDWALL	6	14	5'-0"				5'-8"
H540	ENDW. /RDWY. BRKT.	5	57	2'-2"	6"			3'-2"
H640	ENDW. /WINGW.	6	97	1'-2"	4'-3"			9'-8"
L540	ABUT. B. /WING B.	5	96	2'-8"	2'-8"			11'-7"

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.

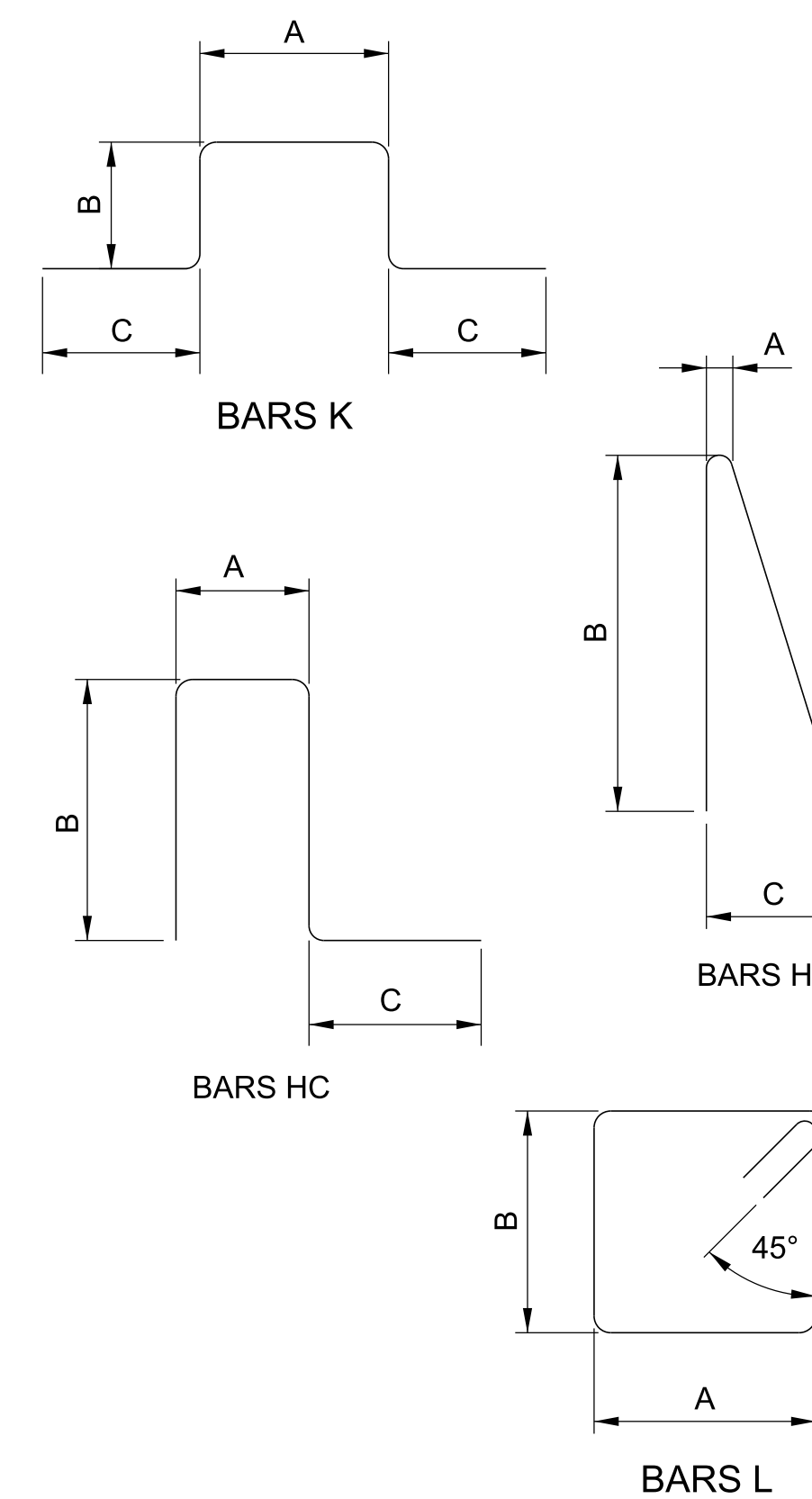


ABUTMENT NO. 2 (EPOXY)								
BAR	LOCATION	SIZE	NO. REQ'D	BENDING DIMENSIONS				LENGTH
				A	B	C	D	
A570E	WINGWALL	5	18					5'-7"
A640E	ENDWALL	6	2					59'-11"
A641E	ENDWALL	6	122					6'-10"
B570E	WINGWALL /PARAPET	5	28	3'-4"				3'-11"
B572E	WINGWALL /PARAPET	5	34	2'-8"				3'-3"
B640E	ENDWALL	6	2	5'-0"				5'-8"
F640E	ENDWALL /P.A.B.E.	6	57	1'-1"	1'-3"	1'-1"	1'-3"	4'-0"
H400E	WINGWALL /PARAPET	4	6	10 1/2"	3'-11"			8'-9"
H401E	WINGWALL /PARAPET	4	1	9 7/8"	3'-10"			8'-7"
H402E	WINGWALL /PARAPET	4	1	8 3/4"	3'-9"			8'-4"
H403E	WINGWALL /PARAPET	4	1	7 5/8"	3'-8"			8'-0"
H404E	WINGWALL /PARAPET	4	1	6 1/2"	3'-7"			7'-7"
HD400E	WINGWALL /PARAPET	4	1	*	3'-11"	9"		33'-4"
HD401E	WINGWALL /PARAPET	4	1	*	3'-11"	9"		42'-8"
R640E	ENDWALL/SLAB	6	57	3'-3"	3'-0"			6'-3"

ABUTMENT NO. 2 (REGULAR)								
BAR	LOCATION	SIZE	NO. REQ'D	BENDING DIMENSIONS				LENGTH
				A	B	C	D	
A440	ROADWAY BRACKET	4	1					56'-11"
A441	WINGWALL	4	40					6'-10"
A442	WINGWALL	4	16					20'-8"
A540	ABUTMENT BEAM	5	4					32'-0"
A541	WING BEAM	5	4					22'-1"
A640	ENDWALL	6	14					59'-11"
A641	WINGWALL	6	40					6'-10"
A642	WINGWALL	6	16					20'-8"
A643	ENDWALL	6	8					4'-3"
A740	ABUTMENT BEAM	7	20					32'-9"
A741	WING BEAM	7	20					22'-1"
B640	ENDWALL	6	14	5'-0"				5'-8"
H540	ENDW. /RDWY. BRKT.	5	57	2'-2"	6"			3'-2"
H640	ENDW. /WINGW.	6	97	1'-2"	4'-3"			9'-8"
L540	ABUT. B. /WING B.	5	96	2'-8"	2'-8"			11'-7"

PROJECT NO.	YEAR	SHEET NO.
STP/NH-4(6)	2026	

REVISIONS			
NO.	DATE	BY	BRIEF DESCRIPTION



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 NOTES.

NOTE: THE SUFFIX "E" FOR BARS SO MARKED DENOTES EPOXY COATED REINFORCEMENT.

SEALED BY

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BRIDGE NO. 1
BILL OF STEEL
PERKINS ROAD WB
OVER STATE ROUTE 4 (LAMAR AVE.)
BRIDGE ID NO. 79SR0040006
LOG MILE 3.60
STATION 18+05.73
SHELBY COUNTY

PIN NO.: 100340.00
DESIGN BY: A. OMAR DATE: 08/15/2025
DRAWN BY: A. OMAR DATE: 08/15/2025
SUPERVISED BY: D. SHIKE DATE: 08/15/2025
CHECKED BY: U. PATEL DATE: 09/15/2025

PROJECT NO.		YEAR	SHEET NO.
STP/NH-4(6)		2026	
REVISIONS			
NO.	DATE	BY	BRIEF DESCRIPTION

LIST OF DRAWINGS

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SUPERSTRUCTURE DETAILS.....	U-102-172.....
SUPERSTRUCTURE DETAILS.....	U-102-173.....
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LAST REV.
DATE

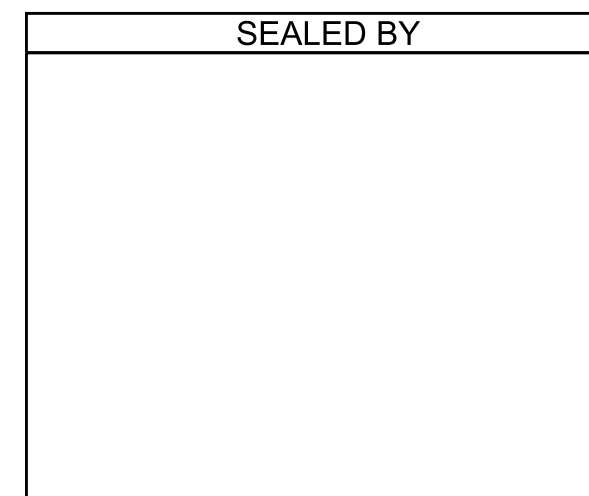
LIST OF REFERENCE (EXISTING) BRIDGE DRAWINGS

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FOUNDATION DATA SHEET.....	M-38-26.....
LEFT LANE SUPERSTRUCTURE DETAILS.....	M-38-27.....
LEFT LANE SUPERSTRUCTURE DETAILS.....	M-38-28.....
LEFT LANE SUPERSTRUCTURE DETAILS.....	M-38-29.....
LEFT LANE SUPERSTRUCTURE DETAILS.....	M-38-30.....
RIGHT LANE SUPERSTRUCTURE DETAILS.....	M-38-31.....
RIGHT LANE SUPERSTRUCTURE DETAILS.....	M-38-32.....
RIGHT LANE SUPERSTRUCTURE DETAILS.....	M-38-33.....
RIGHT LANE SUPERSTRUCTURE DETAILS.....	M-38-34.....
SUPERSTRUCTURE DETAILS.....	M-38-35.....
LEFT LANE ABUTMENTS NO. 1 & 2.....	M-38-36.....
LEFT LANE ABUTMENTS NO. 1 & 2 DETAILS.....	M-38-37.....
RIGHT LANE ABUTMENTS NO. 1 & 2.....	M-38-38.....
RIGHT LANE ABUTMENTS NO. 1 & 2 DETAILS.....	M-38-39.....
LEFT LANE BENT DETAILS.....	M-38-40.....
RIGHT LANE BENT DETAILS.....	M-38-41.....
BILL OF STEEL.....	M-38-42.....

LIST OF STANDARD DRAWINGS

	<u>DWG. NO.</u>	<u>LAST REV.</u>	<u>DATE</u>
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 PILE DETAILS.....	STD-5-1.....		
STANDARD SEISMIC DETAILS.....	STD-6-1.....		12/08/2023
TRI-STAR STATE EMBLEM FINISH DETAILS.....	STD-8-6.....		10/03/2018
STANDARD REINFORCING BAR SUPPORT DETAILS FOR CONCRETE SLABS....	STD-9-1.....		10/07/2008
MISCELLANEOUS ABUTMENT AND DRAINAGE DETAILS.....	STD-10-1.....		06/05/2023
MISC. ABUTMENT AND PAVEMENT AT BRIDGE ENDS BACKFILL DETAILS.....	STD-10-2.....		06/05/2023
BRIDGE RAILING CONCRETE PARAPET WITH STRUCTURAL TUBING.....	STD-11-1.....		04/15/2020
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

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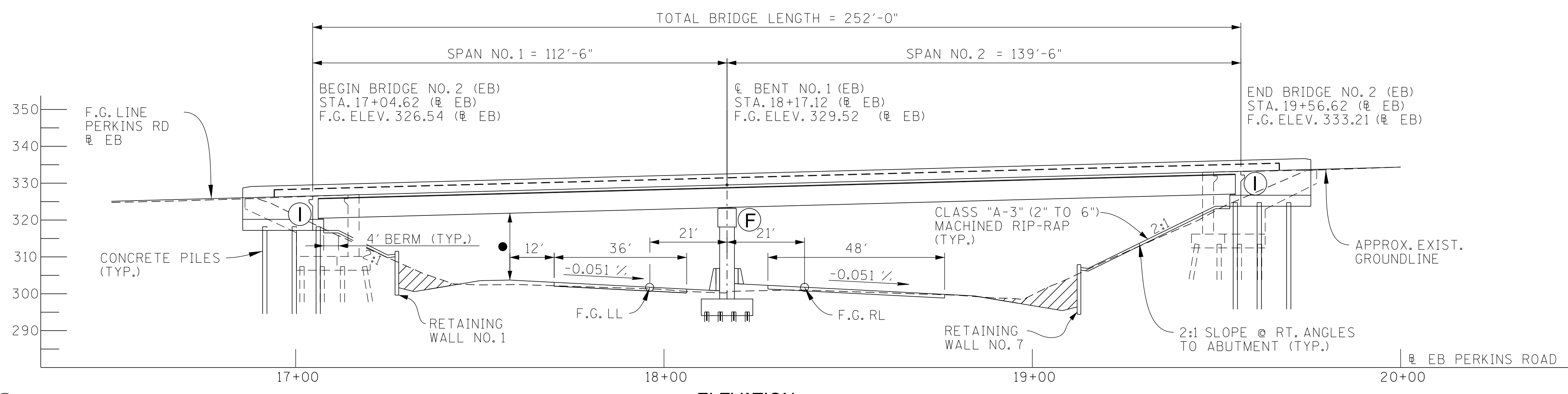


STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BRIDGE NO. 2
INDEX OF DRAWINGS
PERKINS ROAD EB
OVER STATE ROUTE 4 (LAMAR AVE.)
BRIDGE ID NO. 79SR0040005
LOG MILE 3.60
STATION 18+05.73
SHELBY COUNTY

PIN NO.: 100340.00
DESIGN BY: A. OMAR DATE: 12/15/2025
DRAWN BY: A. OMAR DATE: 12/15/2025
SUPERVISED BY: D. SHIKE DATE: 12/15/2025
CHECKED BY: U. PATEL DATE: 01/15/2026

CONST. NO.: 79020-3253-14

PROJECT NO.	YEAR	SHEET NO.	
STP/NH-4(6)	2026		
REVISIONS			
NO.	DATE	BY	BRIEF DESCRIPTION

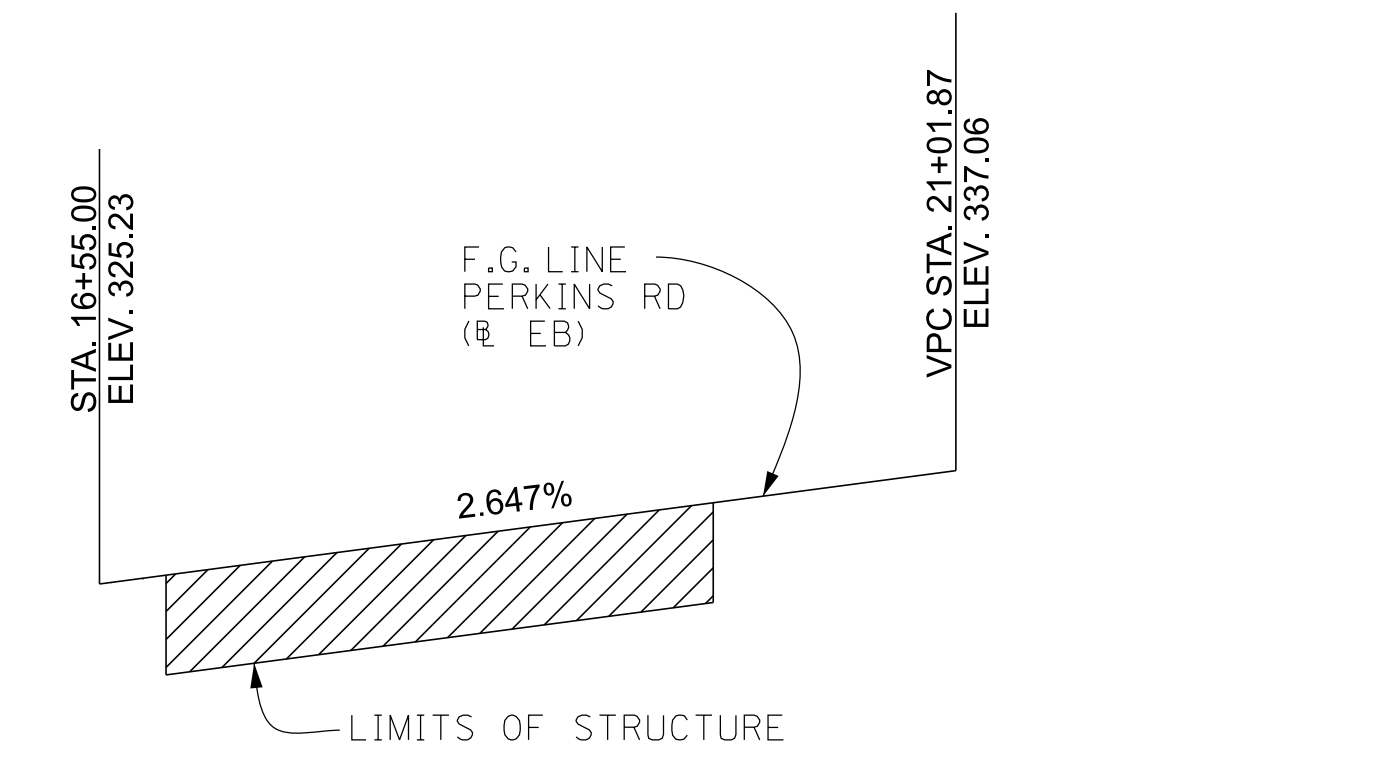
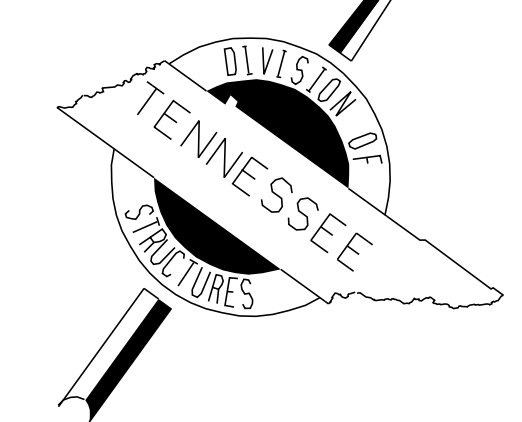


Ⓛ DENOTES: INTEGRAL
 ⓕ DENOTES: FIXED

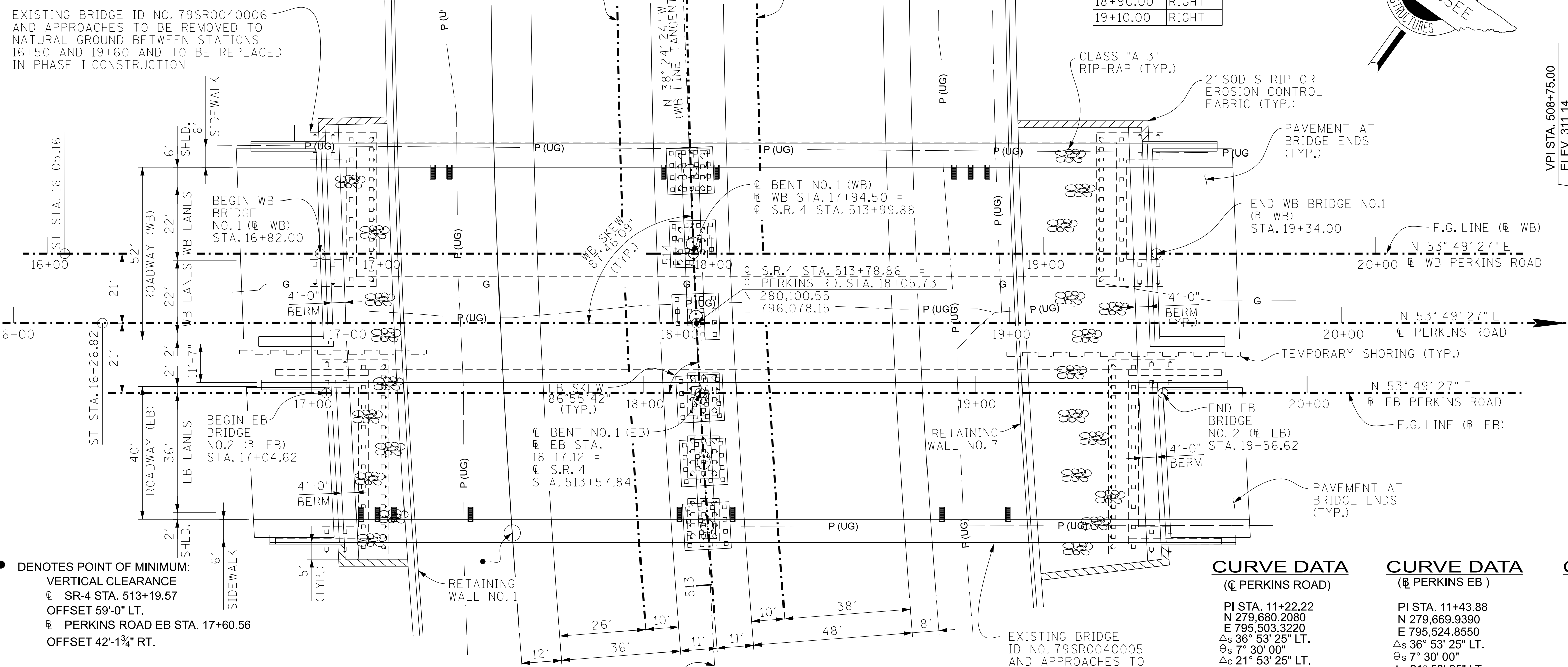
▨ DENOTES AREA TO EXCAVATED AND PAID FOR AS A ROADWAY ITEM.
 ● DENOTES: ACTUAL MINIMUM VERTICAL CLEARANCE = 16'-10 1/8"
 (MINIMUM ALLOWABLE VERTICAL CLEARANCE = 16'-6")

■ DENOTES: TYPE 2 GRATE DECK DRAINS FOR EB BRIDGE. SEE STD-1-2SS. STATIONS BASED ON EB PERKINS ROAD.

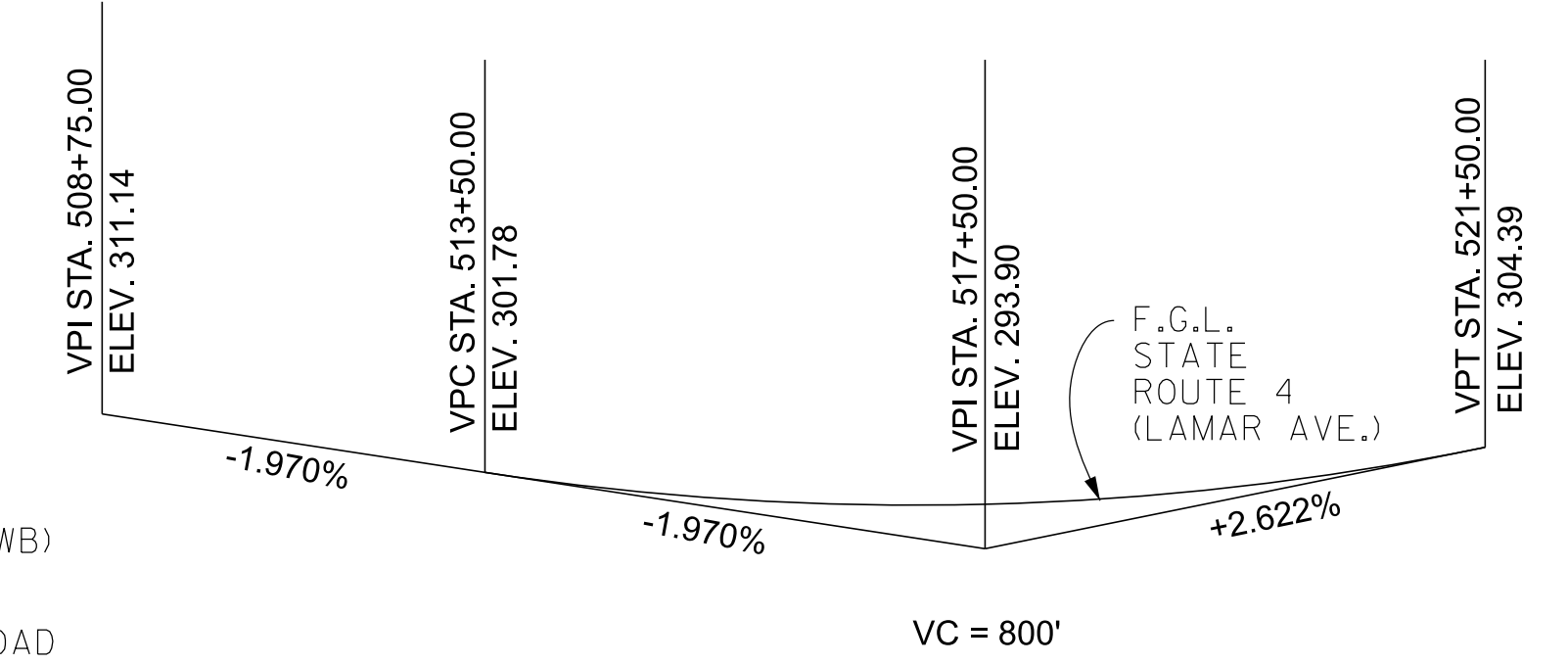
STA.	LOC.
17+15.00	RIGHT
17+20.00	RIGHT
17+25.00	RIGHT
17+48.00	RIGHT
18+11.00	RIGHT
18+27.00	RIGHT
18+90.00	RIGHT
19+10.00	RIGHT



GRADE SKETCH (PERKINS RD EB) (N.T.S.)



● DENOTES POINT OF MINIMUM VERTICAL CLEARANCE
 ⓕ SR-4 STA. 513+19.57 OFFSET 59'-0" LT.
 ⓕ PERKINS ROAD EB STA. 17+60.56 OFFSET 42'-1 3/4" RT.



GRADE SKETCH (STATE ROUTE 4) (N.T.S.)

CURVE DATA (ⓕ PERKINS ROAD)	CURVE DATA (ⓕ PERKINS EB)	CURVE DATA (STATE ROUTE 4)
PI STA. 11+22.22 N 279,669.2080 E 795,503.3220 Δs 36° 53' 25" LT. Θs 7° 30' 00" Δc 21° 53' 25" LT. D 5° 00' 00" R 1,145.92' Lc 437.81' Ts 533.20' Ls 300.00	PI STA. 11+43.88 N 279,669.9390 E 795,524.8550 Δs 36° 53' 25" LT. Θs 7° 30' 00" Δc 21° 53' 25" LT. Dc 5° 00' 00" Rc 1,145.92' Lc 437.81' Ts 533.20' Ls 300.00 S.E. 0.063 FT/FT (EXIST) DESIGN SPEED 45 MPH	PI STA. 519+93.66 N 280,485.4655 E 795,594.7819 Δs 40° 57' 45" RT. Θs 3° 30' 00" Δc 33° 57' 45" RT. Dc 2° 00' 00" Rc 2,864.79' Lc 1,698.13' Ts 1,245.68' Ls 350.00 S.E. 0.051 FT/FT DESIGN SPEED 60 MPH

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STATE OF TENNESSEE
 DEPARTMENT OF TRANSPORTATION
BRIDGE NO. 2
LAYOUT OF BRIDGE
PERKINS ROAD EB
OVER STATE ROUTE 4 (LAMAR AVE.)
BRIDGE ID NO. 79SR0040005
LOG MILE 3.60
STATION 18+05.73
SHELBY COUNTY

Jed A. Krawczyk
 ENGINEER OF STRUCTURES

PIN NO.: 100340.00
 DESIGN BY: A. OMAR DATE: 12/15/2025
 DRAWN BY: A. OMAR DATE: 12/15/2025
 SUPERVISED BY: D. SHIKE DATE: 12/15/2025
 CHECKED BY: U. PATEL DATE: 01/15/2026

PLAN SCALE: 1" = 20'-0"

GENERAL NOTES

SPECIFICATIONS & LOADING

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

DESIGN SPECIFICATIONS: 10TH EDITION (2024) 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 LOAD INCREASED BY 10% (MULTIPLIED BY 1.1) IN ADDITION TO ALL LOAD FACTORS SPECIFIED BY AASHTO FOR ALL APPLICABLE LOAD COMBINATIONS
 - B. SEISMIC DESIGN CATEGORY "C" WITH $A_S=0.363$, $S_{DS}=0.782$, $S_{D1}=0.338$, (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.

CONCRETE: BENT CAP CONCRETE TO BE CLASS X (CAST-IN-PLACE) EXCEPT AS NOTED OTHERWISE. CLASS X CONCRETE SHALL HAVE A MINIMUM 28-DAY COMPRESSIVE STRENGTH OF 4000 PSI AND SHALL MEET ALL OTHER CRITERIA FOR CLASS A CONCRETE AS SPECIFIED IN SECTION 604 OF THE STANDARD SPECIFICATIONS.

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 "3" 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 SHALL BE REMAIN-IN-PLACE STEEL. 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 DRAWING 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.

REINFORCING STEEL IN COLUMNS: ALL LONGITUDINAL REINFORCING STEEL IN COLUMNS SHALL BE ASTM A706 GRADE 60.

FOUNDATION ELEMENTS

ABUTMENTS ON FILL: THE FILLS AT THE ENDS OF THE BRIDGE SHALL BE IN PLACE AND THOROUGHLY COMPACTED BEFORE ANY ABUTMENT PILES ARE DRIVEN.

FRICTION PILES: TO BE SIZE 1 PRECAST CONCRETE PILES AT ABUTMENTS AND BENT. AFTER EXCAVATION TO THE PROPOSED FOOTING ELEVATIONS, A TEST PILE SHALL BE DRIVEN AT EACH SUBSTRUCTURE AT THE LOCATION DESIGNATED ON DRAWING NO. U-102-182. A LOAD TEST WILL THEN BE APPLIED TO THE TEST PILE IN ABUTMENT NO. 1. FROM THE RESULTS OF THE LOAD TEST, THE ENGINEER OF STRUCTURES WILL DETERMINE THE REQUIRED LENGTH OF

THE PRODUCTION PILES AND MINIMUM REQUIRED BEARING. FOR PILE DESIGN LOADS AND CUT-OFF ELEVATIONS, SEE PILE DATA TABLE ON THIS SHEET. THE CONTRACTOR SHALL INSTALL PILING SUCH THAT ALL THE FOLLOWING REQUIREMENTS ARE MET. THE TIP ELEVATION FOR ALL TEST PILES AND PRODUCTION PILES SHALL BE EQUAL TO OR BELOW THE MINIMUM PILE TIP ELEVATION SHOWN ON THE PLANS. IN ADDITION, TEST PILES TO BE LOAD TESTED SHALL BE INSTALLED TO AT LEAST THE SPECIFIED BEARING SHOWN ON THE PLANS OR FULL LENGTH, WHICHEVER OCCURS FIRST. ALL OTHER TEST PILES SHALL BE INSTALLED TO AT LEAST 1.5 TIMES THE SPECIFIED BEARING SHOWN ON THE PLANS OR FULL LENGTH, WHICHEVER OCCURS FIRST. ALL PRODUCTION PILES SHALL BE INSTALLED FULL LENGTH UNLESS EXCESSIVELY HARD DRIVING WHICH MIGHT DAMAGE THE PILES IS ENCOUNTERED. IF THE PRODUCTION PILES DO NOT ACHIEVE THE MINIMUM REQUIRED BEARING, THE ENGINEER OF STRUCTURES WILL DETERMINE IF ADDITIONAL PILES ARE REQUIRED.

IN THE EVENT THAT DRIVING THE TEST PILE TO AT LEAST THE MINIMUM TIP ELEVATION OR DRIVING THE PRODUCTION PILE FULL LENGTH MIGHT DAMAGE THE PILE BECAUSE OF EXCESSIVELY HARD DRIVING, THE CONTRACTOR SHALL USE OTHER METHODS APPROVED BY THE ENGINEER FOR INSTALLING THE PILES SUCH AS JETTING (WHERE ALLOWED) OR PRE-DRILLING HOLES. HOWEVER, ALL PILES MUST BE DRIVEN BY HAMMER FOR THE LAST FEW FEET OF PENETRATION. NO MEASUREMENT FOR PAYMENT WILL BE MADE FOR PRE-DRILLING HOLES OR FOR JETTING PILING TO OBTAIN THE REQUIRED PILE PENETRATION.

THE PILE LOAD TEST SHALL BE A QUICK LOAD TEST CONDUCTED IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS. THE PILE LOAD TEST APPARATUS FOR APPLYING LOADS AND MEASURING MOVEMENT SHALL MEET THE REQUIREMENTS OF ASTM D1143, STANDARD TEST METHODS FOR DEEP FOUNDATION ELEMENTS UNDER STATIC AXIAL COMPRESSIVE LOAD. WHEN INSUFFICIENT CLEARANCE IS AVAILABLE WITHIN AN EXCAVATION, THE CLEARANCE REQUIREMENTS IN ARTICLE 9.1.1 MAY BE REDUCED, BUT ONLY WITH PRIOR APPROVAL OF THE ENGINEER.

ALTERNATE FRICTION PILES: WITH THE EXCEPTION OF PILE BENTS, THE CONTRACTOR MAY USE AN ALTERNATE PILE TYPE OR SIZE FROM THAT SHOWN ON THE PLANS PROVIDED THE SUBSTITUTION MEETS MINIMUM DESIGN STANDARDS AND SPECIFICATIONS AND IS APPROVED BY THE ENGINEER. FOR PILE BENTS, ANY PROPOSAL OF THE CONTRACTOR TO USE AN ALTERNATE PILE TYPE OR SIZE SHALL BE CONSIDERED VALUE ENGINEERING.

PRECAST SUPERSTRUCTURES

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

MISCELLANEOUS GENERAL NOTES

SHOP DRAWINGS: SEE SECTION 105.02 OF THE STANDARD SPECIFICATIONS.

PARAPET SYSTEM: BUILD PARAPETS ACCORDING TO STANDARD DRAWING STD-1-1SS AND STD-11-1. 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.

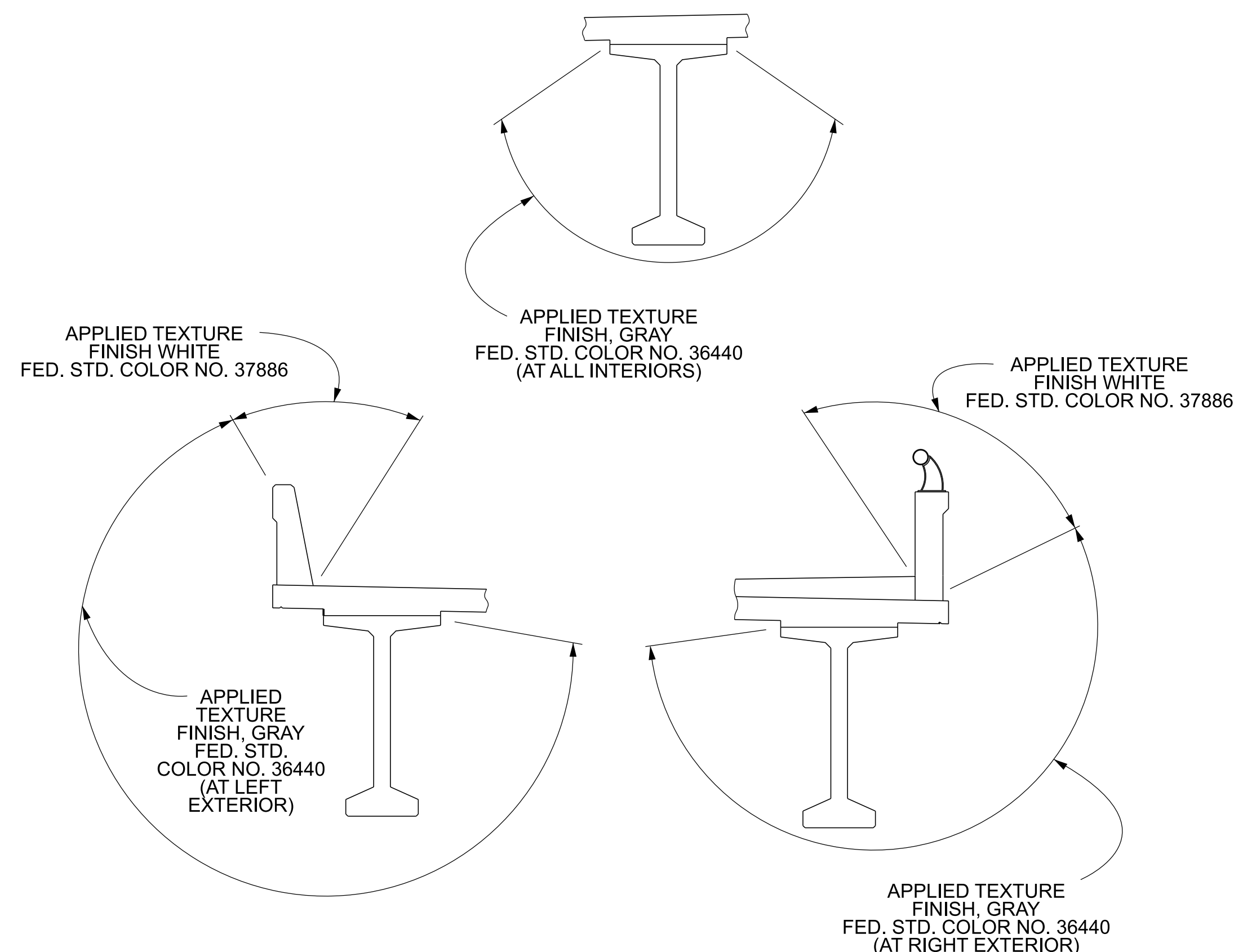
MACHINED RIP-RAP: MACHINED RIP-RAP FOR SLOPE PROTECTION SHALL BE 2" TO 6" IN SIZE UNIFORMLY GRADED AND MEET THE REQUIREMENTS OF SECTION 709 OF THE STANDARD SPECIFICATIONS AND SHALL BE MEASURED AND PAID FOR UNDER ROADWAY ITEM NO. 709-05.05.

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.

FALSEWORK OVER TRAFFIC: SEE SECTION 604.06 OF THE STANDARD SPECIFICATIONS.

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.



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, BENT, AND EXTERIOR PORTIONS OF THE ENDWALLS SHALL RECEIVE AN APPLIED TEXTURE FINISH, (GRAY, FEDERAL STANDARD AMS-STD-595A, COLOR NO. 36440).

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PILE DATA TABLE

LOCATION	DESIGN LOAD (TONS)	TEST PILE CUT-OFF ELEV. (FT.)	ESTIMATED PILE LENGTH (FT.)	TEST PILE LENGTH (FT.)	MINIMUM PILE TIP ELEVATION (FT.)
ABUTMENT NO. 1	120	317.54	65	75	259.00
BENT	115	295.42	45	55	N/A
ABUTMENT NO. 2	145	324.10	70	80	N/A

PIN NO.: 100340.00
 DESIGN BY: A. OMAR DATE: 12/15/2025
 DRAWN BY: A. OMAR DATE: 12/15/2025
 SUPERVISED BY: D. SHIKE DATE: 12/15/2025
 CHECKED BY: U. PATEL DATE: 01/15/2026

STATE OF TENNESSEE
 DEPARTMENT OF TRANSPORTATION
BRIDGE NO. 2
GENERAL NOTES
PERKINS ROAD EB
OVER STATE ROUTE 4 (LAMAR AVE.)
BRIDGE ID NO. 79SR0040005
LOG MILE 3.60
STATION 18+05.73
SHELBY COUNTY

PROJECT NO.		YEAR	SHEET NO.
STP/NH-4(6)		2026	
REVISIONS			
NO.	DATE	BY	BRIEF DESCRIPTION

ESTIMATED QUANTITIES:

ITEM NO.	DESCRIPTION	UNIT	TOTAL	SUPERSTRUCTURE	ABUTMENT NO. 1	BENT NO. 1	ABUTMENT NO. 2
(2)	202-04.02 REMOVAL OF STRUCTURES (EXIST. BR. ID NO. 79SR0040005)	L.S.	1				
(3)	204-02.01 DRY EXCAVATION (BRIDGES)	C.Y.	216		108		108
(10)	303-01.02 GRANULAR BACKFILL (BRIDGES)	TON	42		21		21
	604-02.03 EPOXY COATED REINFORCING STEEL	LB.	102,379	97,775	2,302		2,302
	604-03.01 CLASS A CONCRETE (BRIDGES)	C.Y.	293	38	65	125	65
	604-03.02 STEEL BAR REINFORCEMENT (BRIDGES)	LB.	65,136	1,191	6,855	50,235	6,855
(1)	604-03.04 PAVEMENT @ BRIDGE ENDS	S.Y.	246				
	604-03.32 CLASS DS CONCRETE	C.Y.	369	363	3		3
(8)	604-03.74 CLASS X CONCRETE	C.Y.	43			43	
	604-04.01 APPLIED TEXTURE FINISH (NEW STRUCTURES)	S.Y.	4,150	3,922	41	146	41
(11)	604-04.41 THREE STAR STATE EMBLEM	EACH	1			1	
	604-05.31 BRIDGE DECK GROOVING (MECHANICAL)	S.Y.	1,267				
	606-09.01 TEST PILES (PRECAST CONCRETE PILES, SIZE 1)	L.F.	210		75	55	80
	606-09.02 LOADING TEST (PRECAST CONCRETE PILES, SIZE 1)	EACH	1		1		
	606-09.03 PRECAST CONCRETE PILES (SIZE 1)	L.F.	3,735		780	2,115	840
(9)	606-12.01 PILE ANCHORAGE SYSTEM (SEISMIC)	EACH	66		9	48	9
(5) (6)	615-01.12 PRESTRESSED CONCRETE BULB-TEE BEAM (6" WEB) (BT-72)	L.F.	1,733				
	620-05 CONCRETE PARAPET WITH STRUCTURAL TUBING (STD-11-1)	L.F.	291				
	620-05.01 CONCRETE PARAPET SINGLE SLOPE (STD-1-1SS)	L.F.	291				
(7)	710-09.01 6" PERFORATED PIPE WITH VERTICAL DRAIN SYSTEM	L.F.	158		79		79
	710-09.02 6" PIPE UNDERDRAIN	L.F.	52		26		26

FOOTNOTES:

- | | |
|---|--|
| <p>(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.</p> <p>(2) NOTE: LUMP SUM: EXISTING (RIGHT LANE) BRIDGE ID NO. 79SR0040005 AND APPROACHES TO BE REMOVED TO NATURAL GROUND BETWEEN STATIONS 16+80 AND 19+90. EXISTING BRIDGE CONTAINS 2 SPAN COMPOSITE REINFORCED CONCRETE TUB GIRDERS WITH 8" CONCRETE DECK SLAB, CONCRETE MULTI-COLUMN BENT, CONCRETE FOOTINGS WITH 14" CONCRETE FRICTION PILES, AND CONCRETE ABUTMENT WITH WING AND ENDWALLS. EXISTING STRUCTURE (WITHOUT APPROACHES) IS 52.5 FT WIDE AND 229 FT LONG. EXISTING FOUNDATION ELEMENTS THAT COINCIDE WITH PROPOSED FOUNDATION ELEMENTS SHALL BE REMOVED ENTIRELY.</p> <p>(3) NOTE: EXCAVATION BASED ON FINAL PROFILE AT ABUTMENTS AND AT BENTS.</p> <p>(4) NOTE: THE COST OF BITUMINOUS-FIBERBOARD AND ALL MISCELLANEOUS JOINT MATERIAL TO BE INCLUDED IN THE UNIT PRICE BID FOR OTHER ITEMS.</p> <p>(5) NOTE: COST OF ELASTOMERIC PADS AND RUBBER BONDING CEMENT TO BE INCLUDED IN THE UNIT PRICE BID FOR THE PRESTRESSED BEAM.</p> | <p>(6) NOTE: INTERMEDIATE DIAPHRAGMS SHALL BE STRUCTURAL STEEL AND PAID FOR IN ACCORDANCE WITH STANDARD DRAWING STD-14-1.</p> <p>(7) NOTE: COST OF POLYETHYLENE SHEETING AND ALL MISCELLANEOUS ITEMS NECESSARY FOR INSTALLATION TO BE INCLUDED IN THE UNIT PRICE BID FOR PERFORATED PIPE.</p> <p>(8) NOTE: THE COST OF ALL MATERIALS AND LABOR NECESSARY FOR THE INSTALLATION OF 45 ANCHOR BOLT ASSEMBLIES SHALL BE INCLUDED IN THE UNIT PRICE BID FOR CLASS "X" CONCRETE (BRIDGES), ITEM NO. 604-03.74. ALL ANCHOR BOLTS SHALL BE 1" Ø F1554 GRADE MIN. 55.</p> <p>(9) NOTE: COST OF PREPARATION OF THE TOP OF PILE FOR SEISMIC REQUIREMENTS SHALL BE INCLUDED IN THE UNIT PRICE BID FOR ITEM 606-12.01. SEE STANDARD DRAWING STD-6-1 FOR DETAILS. THE PILE AND TEST PILE LENGTHS SHOWN ON THE PLANS DO NOT INCLUDE THE 2 FEET REQUIRED FOR SEISMIC ATTACHMENT.</p> <p>(10) NOTE: GRANULAR BACKFILL SHALL BE TYPE "A" GRADING "D" MATERIAL. SEE STANDARD DRAWING STD-10-1.</p> <p>(11) NOTE: EMBLEM SHALL BE APPLIED TO THE RIGHT SIDE OF CAP. FOR DETAILS SEE STD. DWG. NO. STD-8-6.</p> <p>(12) NOTE: THE COST OF TEMPORARY SHORING TO BE INCLUDED IN THE UNIT PRICE BID FOR OTHER ITEMS.</p> |
|---|--|

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PIN NO.: 100340.00
 DESIGN BY: A. OMAR DATE: 12/15/2025
 DRAWN BY: A. OMAR DATE: 12/15/2025
 SUPERVISED BY: D. SHIKE DATE: 12/15/2025
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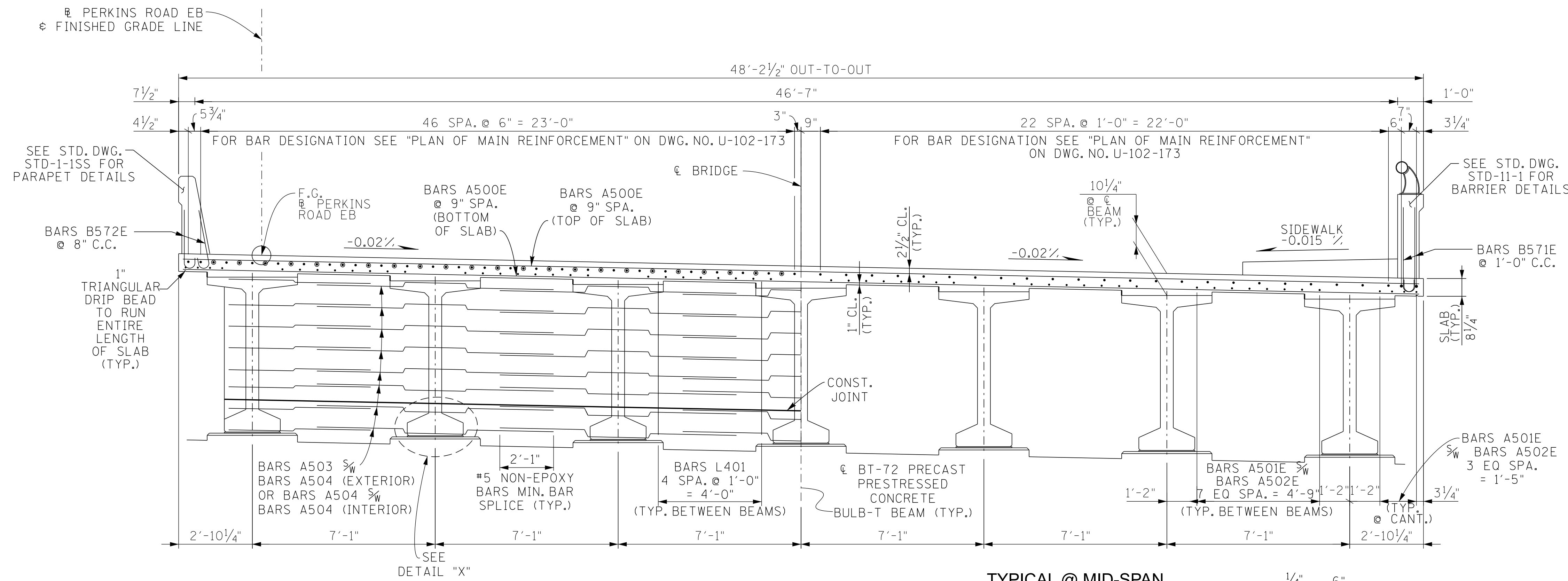
STATE OF TENNESSEE
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BRIDGE NO. 2
ESTIMATED QUANTITIES
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PROJECT NO.	YEAR	SHEET NO.	
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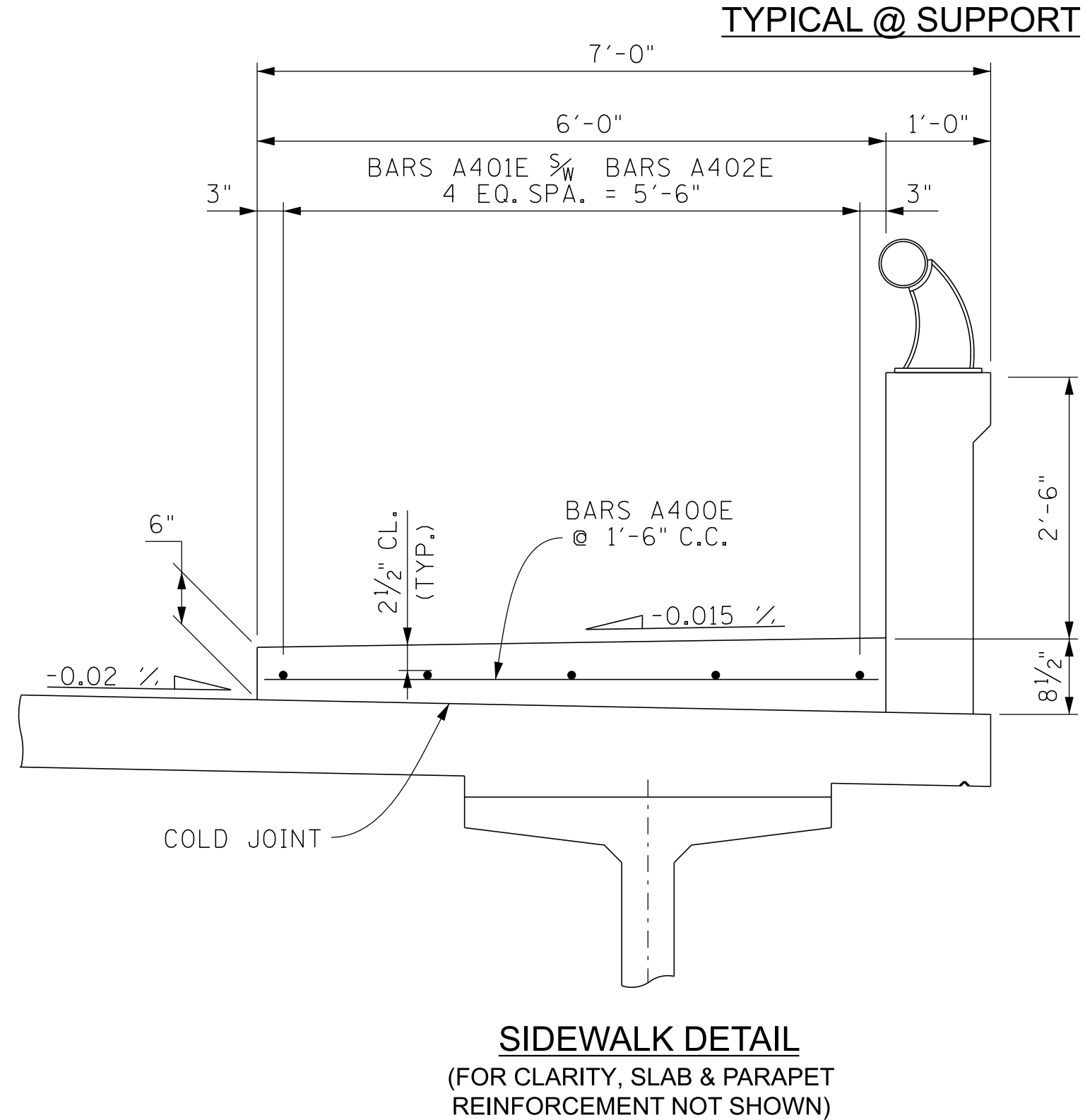
STATE OF TENNESSEE
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BRIDGE NO. 2
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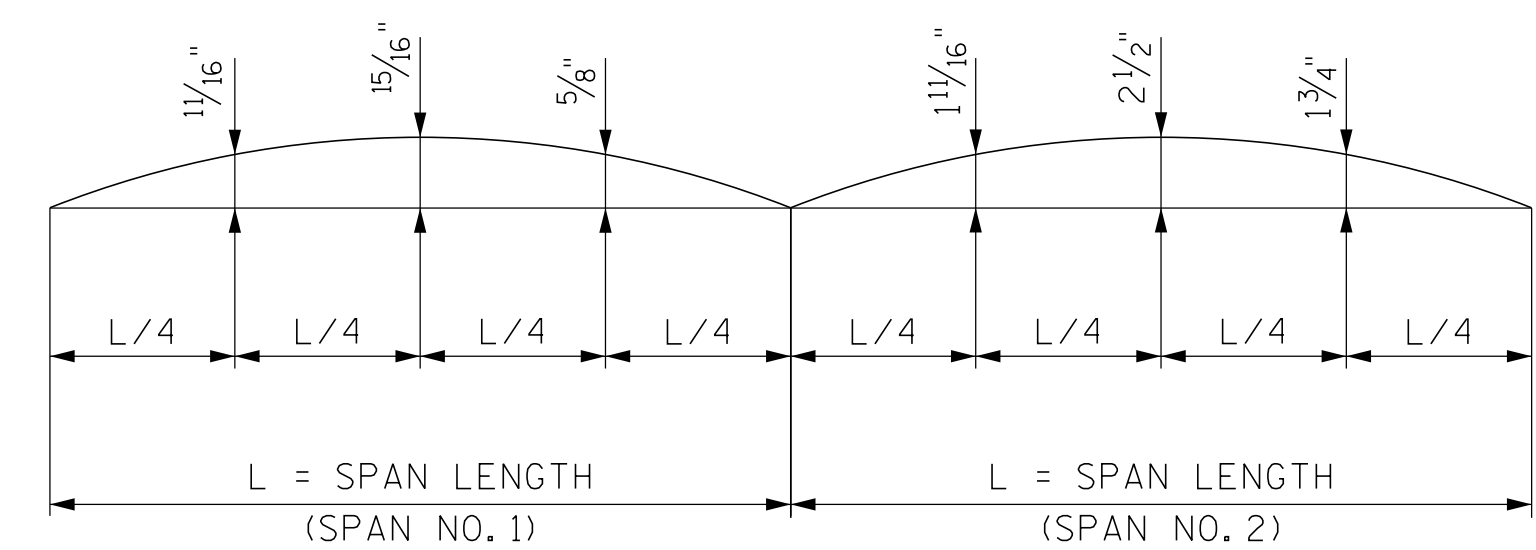
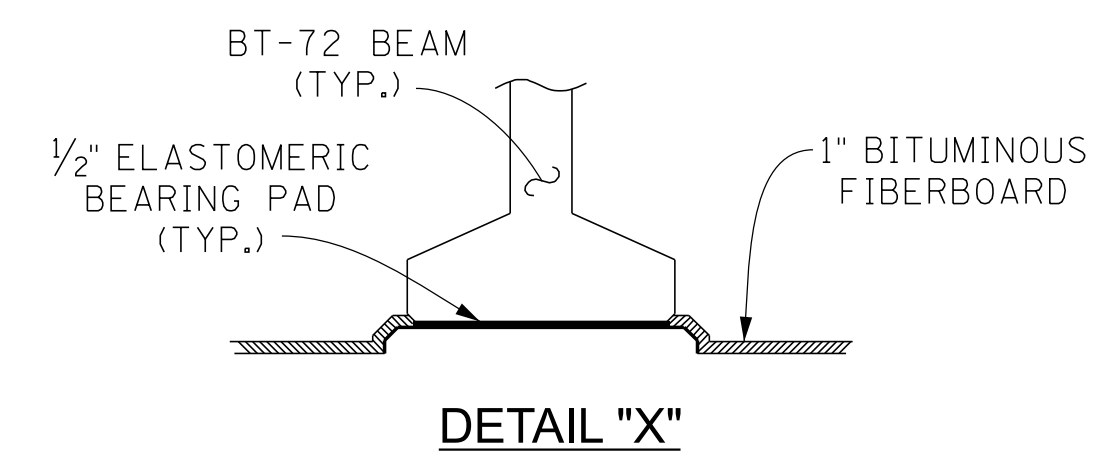
NOTES:
 NOTE: NO PORTION OF THE PARAPET SHALL BE POURED UNTIL THE ENTIRE DECK SLAB IS IN PLACE.
 NOTE: PRESTRESSED DECK PANELS ARE NOT ALLOWED.
 NOTE: WHEN POURING SLAB, PROVISIONS SHALL BE MADE FOR SETTING REINFORCING STEEL FOR PARAPETS. THE PARAPETS SHALL NOT BE POURED UNTIL THE SLAB IS POURED AND CURED. WHEN POURING PARAPETS, PROVISIONS SHALL BE MADE FOR SETTING ANCHOR BOLTS FOR HANDRAILS. ALSO SEE STD. DWG. NOS. STD-1-1SS AND STD-11-1.
 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 BOTH THE TEMPORARY ERECTION DIAPHRAGMS AND THE PERMANENT INTERMEDIATE DIAPHRAGMS BE INSTALLED PRIOR TO PLACING ANY LOADS ON THE BEAMS, IT IS REQUIRED THAT ALL TEMPORARY ERECTION DIAPHRAGMS AND ALL PERMANENT INTERMEDIATE DIAPHRAGMS IN A SPAN BE FULLY INSTALLED PRIOR TO POURING ANY PORTION OF THE SLAB IN THAT SPAN.



TYPICAL CROSS-SECTION (LOOKING FORWARD ON SURVEY)
NOTES:
 NOTE: SIDEWALKS TO EXTEND ALONG PAVEMENT AT BRIDGE ENDS. ALL SIDEWALK CONCRETE SHALL BE INCLUDED IN THE QUANTITY FOR ITEM 604-03.01.
 NOTE: NO PORTION OF THE SIDEWALK SHALL BE POURED UNTIL THE ENTIRE PARAPET IS IN PLACE.
 NOTE: MIN. SPLICE LENGTH = 1'-10" FOR NO. 4 BARS IN SIDEWALK.
 PARAPET TO BE CONSTRUCTED IN ACCORDANCE WITH STD-11-1.



SLAB CONSTRUCTION DETAIL
 DECK CONCRETE POURING SEQUENCE: SLAB CONSTRUCTION JOINTS MAY BE LOCATED AT THE CONTRACTOR'S OPTION SUBJECT TO THE FOLLOWING:
 A) NO CONSTRUCTION JOINT MAY BE LOCATED CLOSER THAN 10 FEET OR FURTHER THAN 15 FEET FROM AN INTERIOR SUPPORT.
 B) 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.
 C) ALL SLAB CONSTRUCTION JOINTS SHALL BE IN ACCORDANCE WITH THE SLAB CONSTRUCTION JOINT DETAIL SHOWN ABOVE.



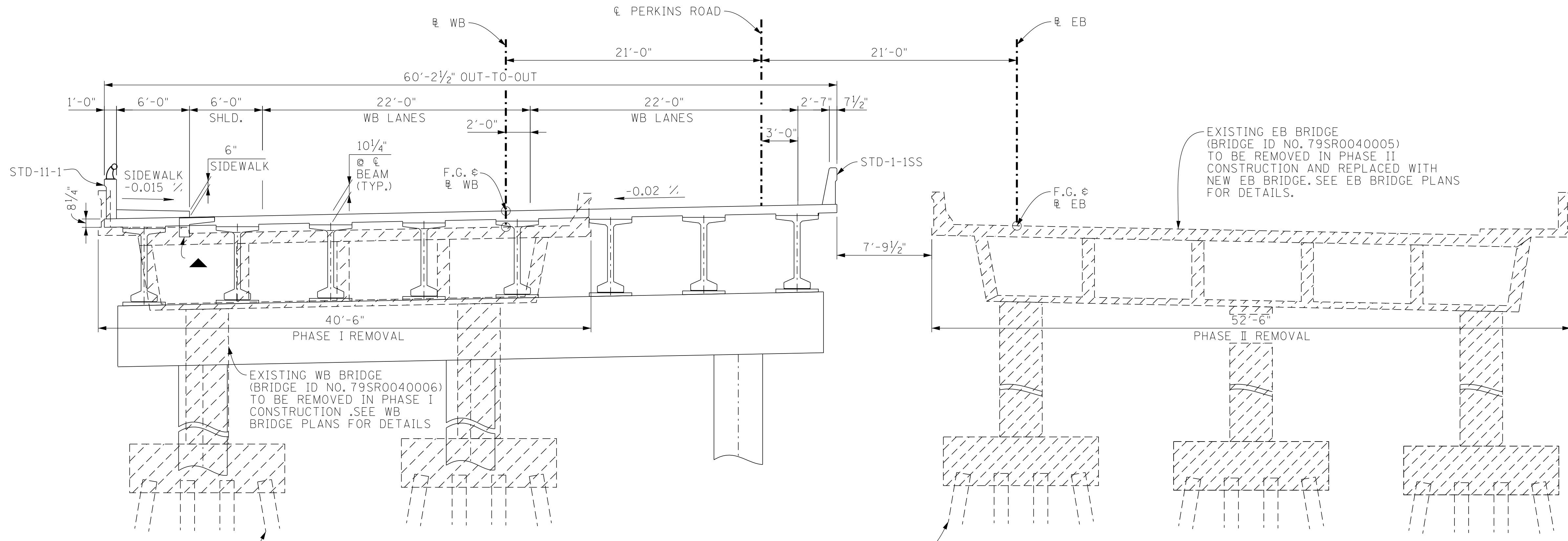
DEAD LOAD CORRECTION CURVE
 DEAD LOAD CORRECTION CURVE: THIS CURVE IS FOR DEAD LOAD SLAB AND ALL DEAD LOADS THAT ARE APPLIED AFTER SLAB IS IN PLACE. PRESTRESSED DECK PANELS ARE NOT ALLOWED.

SEALED BY

STATE OF TENNESSEE
 DEPARTMENT OF TRANSPORTATION
**BRIDGE NO. 2
 SUPERSTRUCTURE
 PERKINS ROAD EB
 OVER STATE ROUTE 4 (LAMAR AVE.)
 BRIDGE ID NO. 79SR0040005
 LOG MILE 3.60
 STATION 18+05.73
 SHELBY COUNTY**

PIN NO.: 100340.00
 DESIGN BY: A. OMAR DATE: 12/15/2025
 DRAWN BY: A. OMAR DATE: 12/15/2025
 SUPERVISED BY: D. SHIKE DATE: 12/15/2025
 CHECKED BY: U. PATEL DATE: 01/15/2026

PROJECT NO.	YEAR	SHEET NO.	
STP/NH-4(6)	2026		
REVISIONS			
NO.	DATE	BY	BRIEF DESCRIPTION



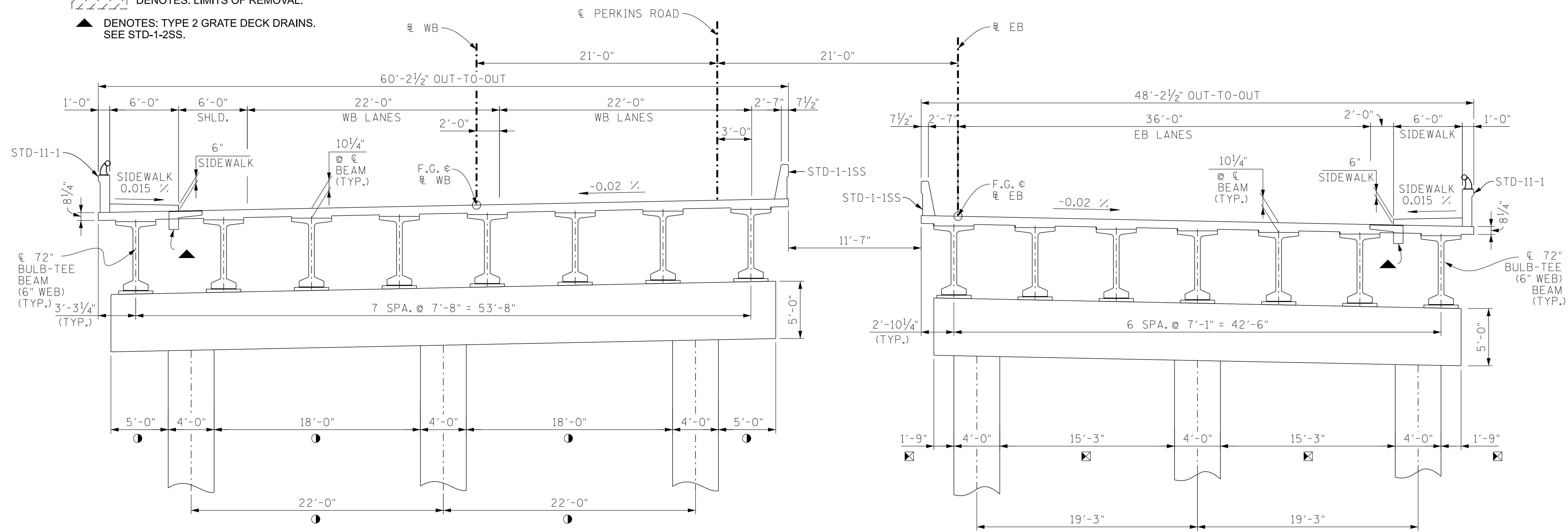
WB PERKINS - PHASE I CONSTRUCTION

(LOOKING FORWARD ON SURVEY)
EXISTING WB BRIDGE TO BE REMOVED
IN PHASE I CONSTRUCTION

EB PERKINS - PHASE I TRAFFIC

(LOOKING FORWARD ON SURVEY)
EXISTING EB BRIDGE TO BE REMOVED
IN PHASE II CONSTRUCTION

- ▨ DENOTES: LIMITS OF REMOVAL.
- ▲ DENOTES: TYPE 2 GRATE DECK DRAINS. SEE STD-1-2SS.



WB PERKINS - PHASE II TRAFFIC

TYPICAL CROSS-SECTION
(LOOKING FORWARD ON SURVEY)

● DENOTES: MEASURED ALONG WB SKEW.

EB PERKINS - PHASE II CONSTRUCTION

TYPICAL CROSS-SECTION
(LOOKING FORWARD ON SURVEY)

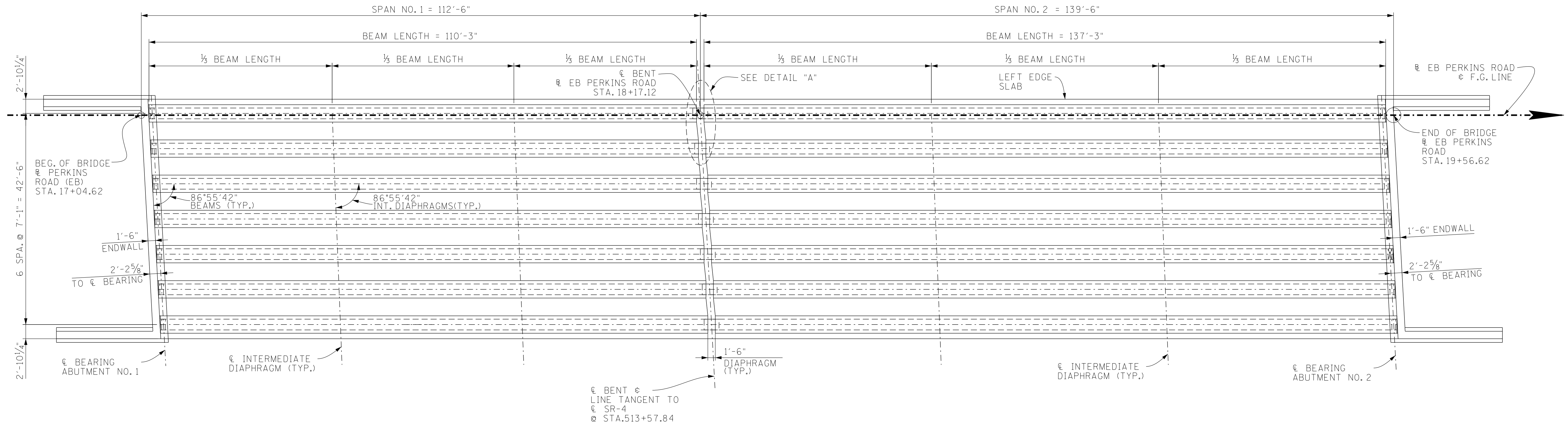
⊠ DENOTES: MEASURED ALONG EB SKEW.

SEALED BY

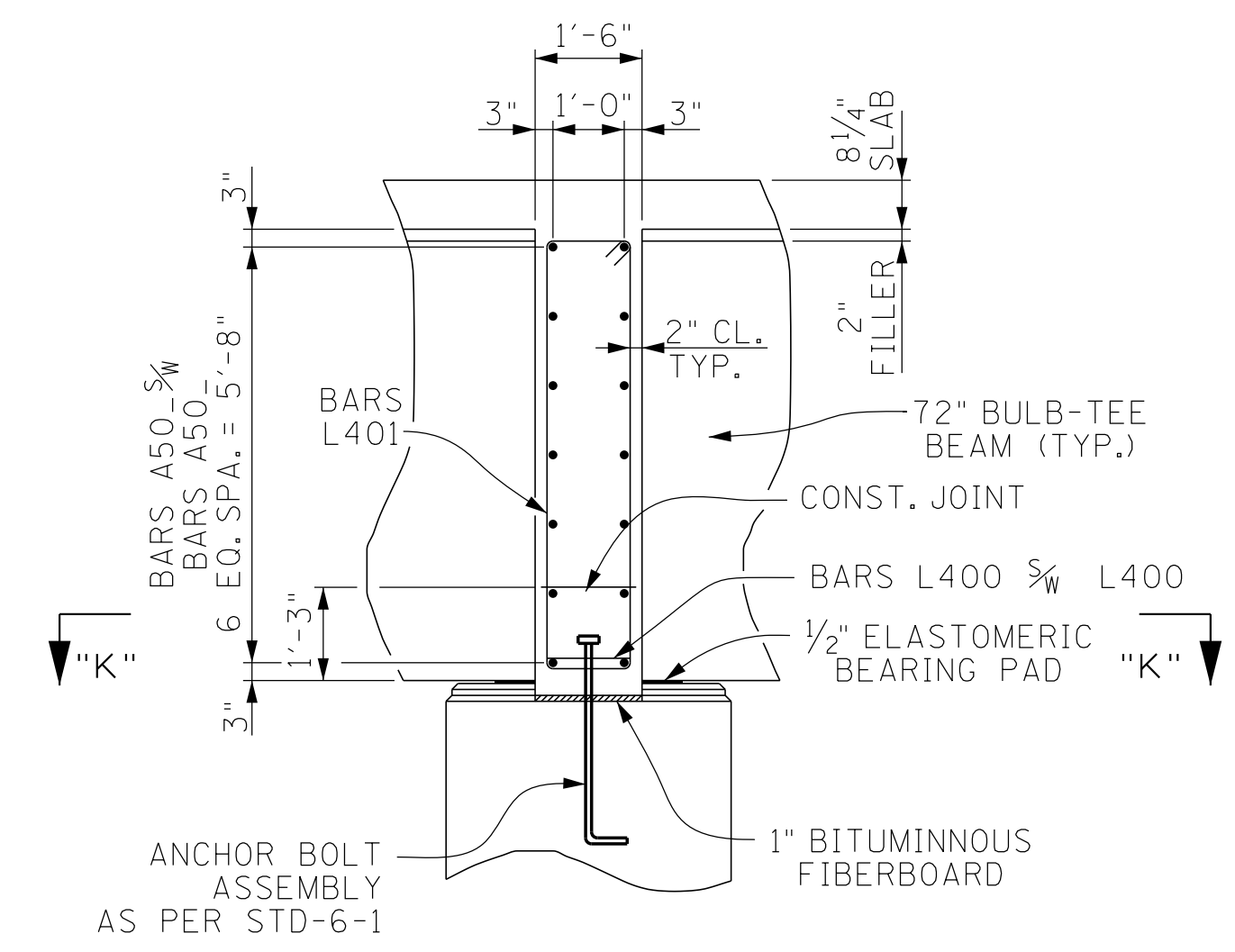
STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BRIDGE NO. 2
SUPERSTRUCTURE DETAILS
PERKINS ROAD EB
OVER STATE ROUTE 4 (LAMAR AVE.)
BRIDGE ID NO. 79SR0040005
LOG MILE 3.60
STATION 18+05.73
SHELBY COUNTY

PIN NO.: 100340.00
DESIGN BY: A. OMAR DATE: 12/15/2025
DRAWN BY: A. OMAR DATE: 12/15/2025
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CHECKED BY: U. PATEL DATE: 01/15/2026

PROJECT NO.	YEAR	SHEET NO.	
STP/NH-4(6)	2026		
REVISIONS			
NO.	DATE	BY	BRIEF DESCRIPTION

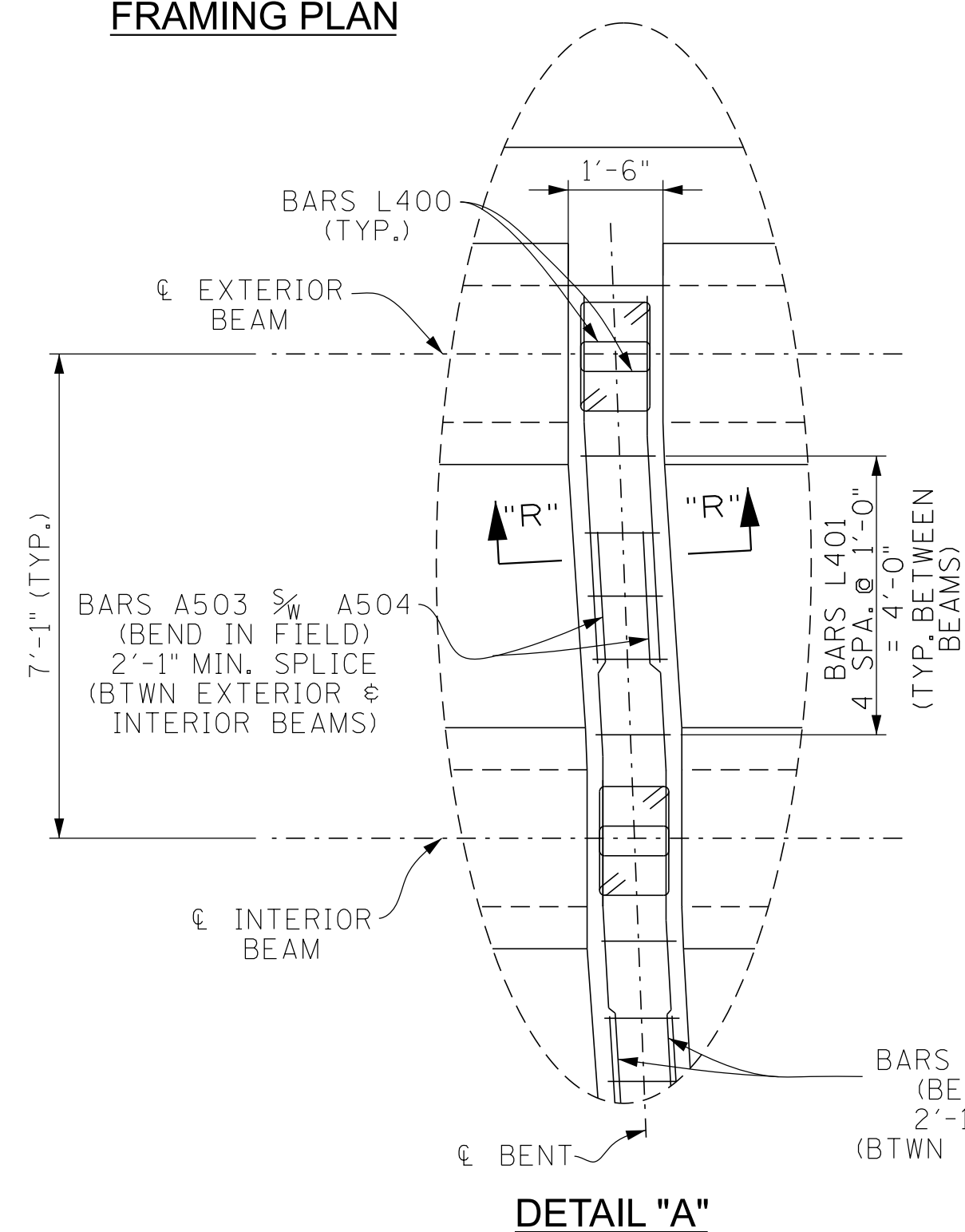


FRAMING PLAN

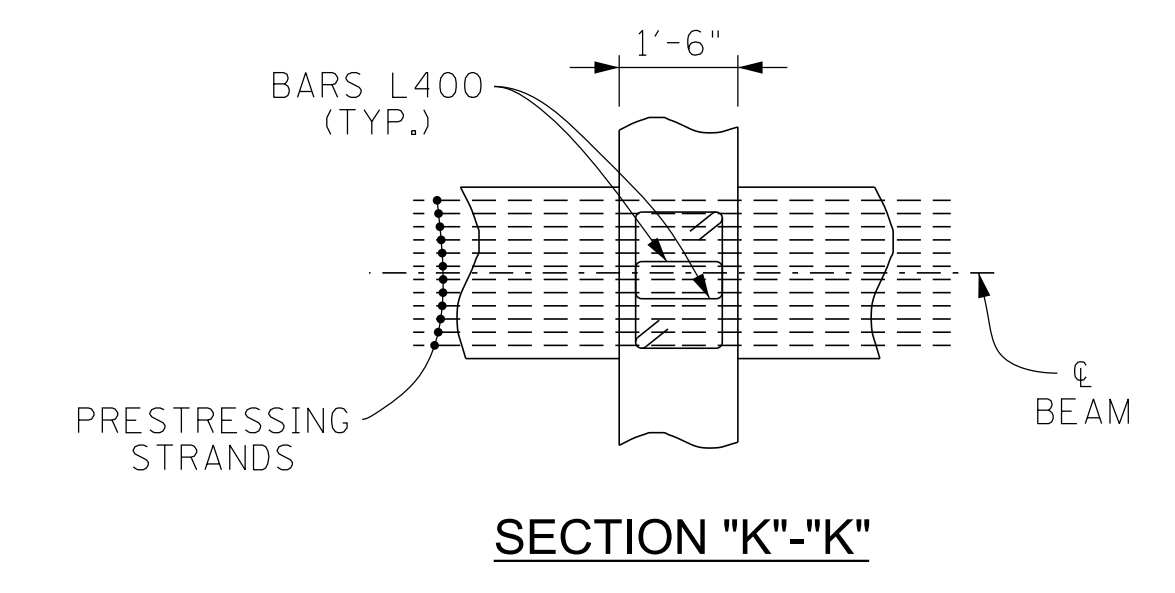


SECTION "R"-"R"

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



DETAIL "A"



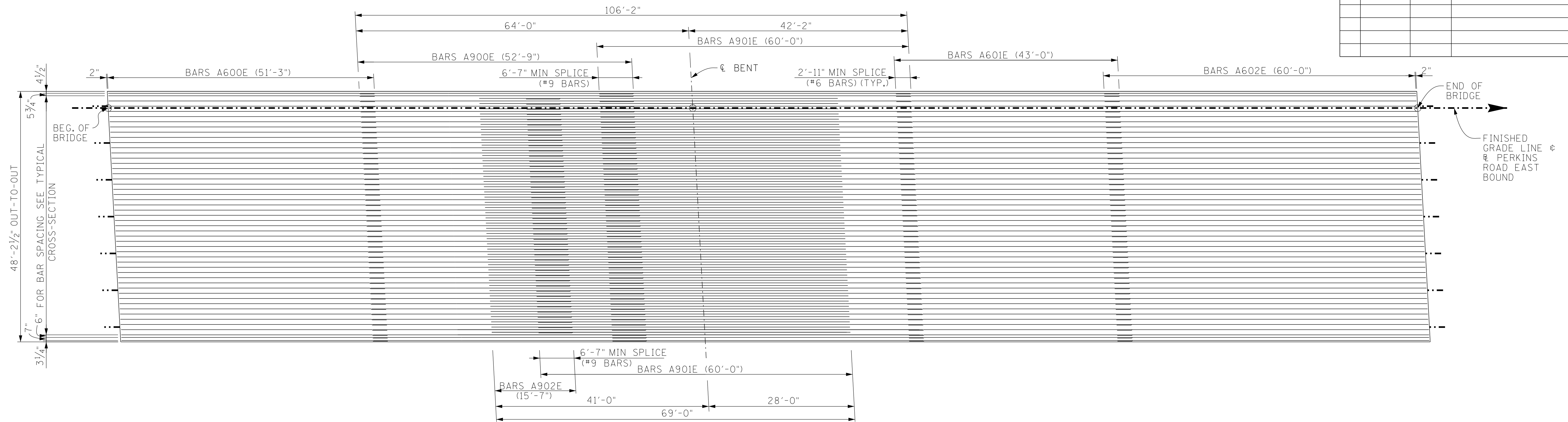
SECTION "K"-"K"

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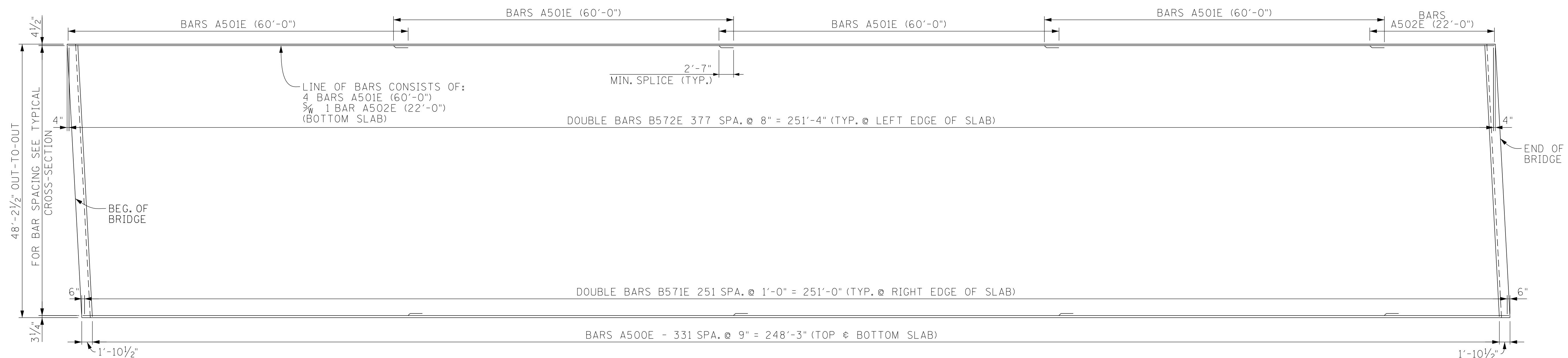
STATE OF TENNESSEE
 DEPARTMENT OF TRANSPORTATION
BRIDGE NO. 2
SUPERSTRUCTURE DETAILS
PERKINS ROAD EB
OVER STATE ROUTE 4 (LAMAR AVE.)
BRIDGE ID NO. 79SR0040005
LOG MILE 3.60
STATION 18+05.73
SHELBY COUNTY

PIN NO.: 100340.00
 DESIGN BY: A. OMAR DATE: 12/15/2025
 DRAWN BY: A. OMAR DATE: 12/15/2025
 SUPERVISED BY: D. SHIKE DATE: 12/15/2025
 CHECKED BY: U. PATEL DATE: 01/15/2026

PROJECT NO.	YEAR	SHEET NO.	
STP/NH-4(6)	2026		
REVISIONS			
NO.	DATE	BY	BRIEF DESCRIPTION



PLAN OF MAIN REINFORCEMENT



SLAB PLAN

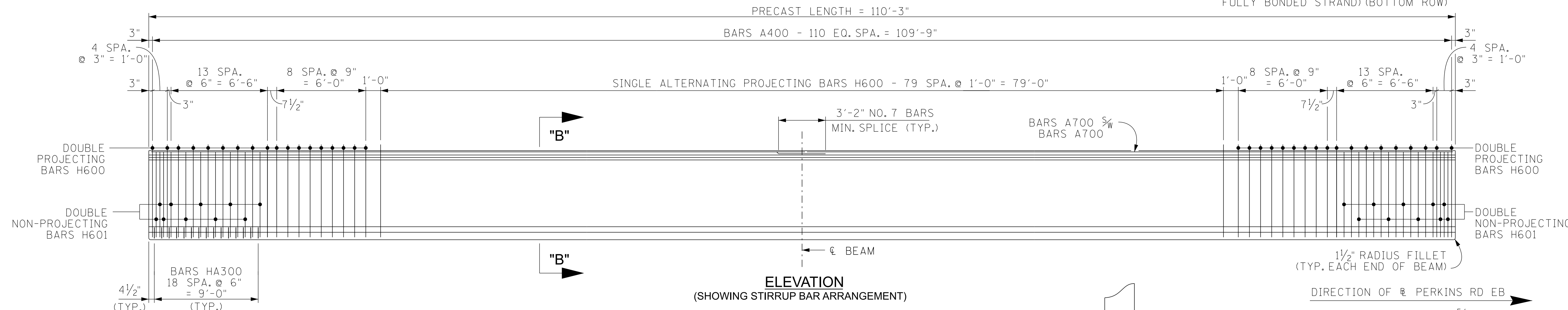
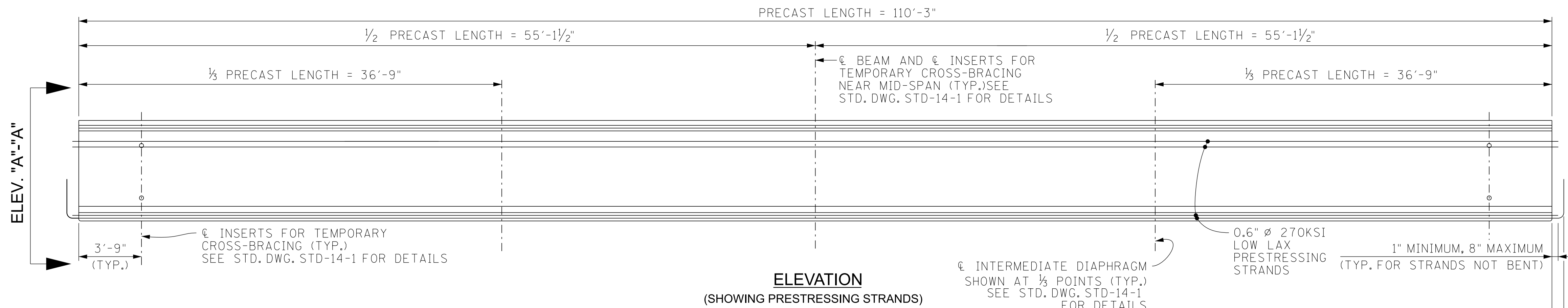
SEALED BY

STATE OF TENNESSEE
 DEPARTMENT OF TRANSPORTATION
BRIDGE NO. 2
SUPERSTRUCTURE DETAILS
PERKINS ROAD EB
OVER STATE ROUTE 4 (LAMAR AVE.)
BRIDGE ID NO. 79SR0040005
LOG MILE 3.60
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SHELBY COUNTY

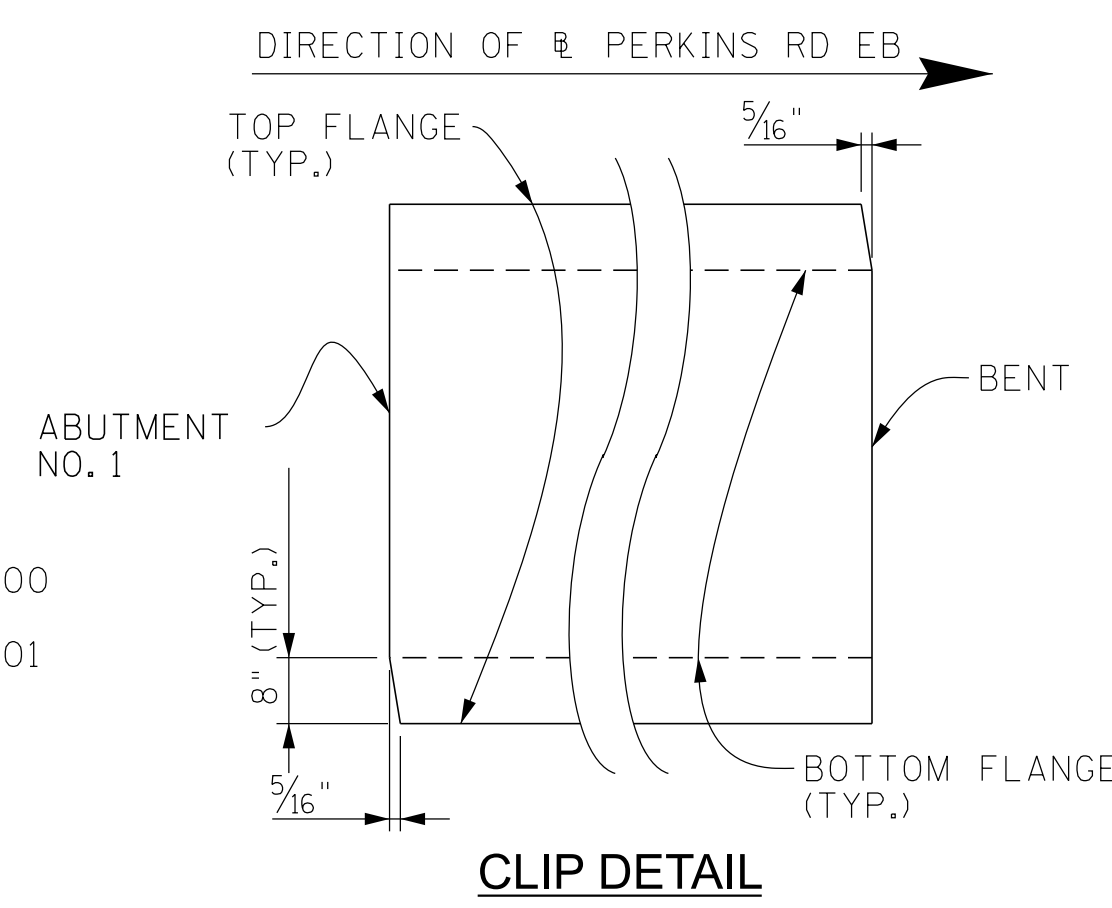
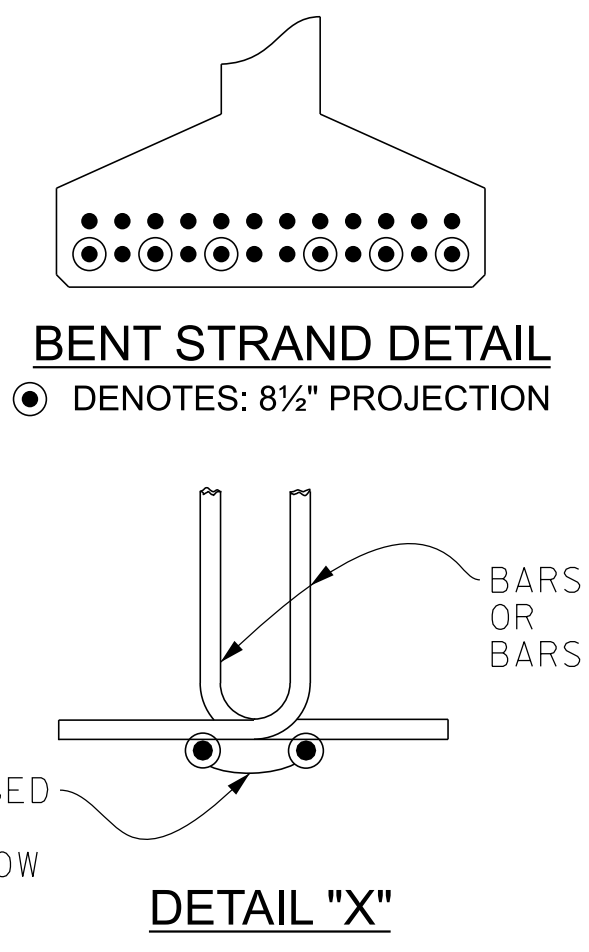
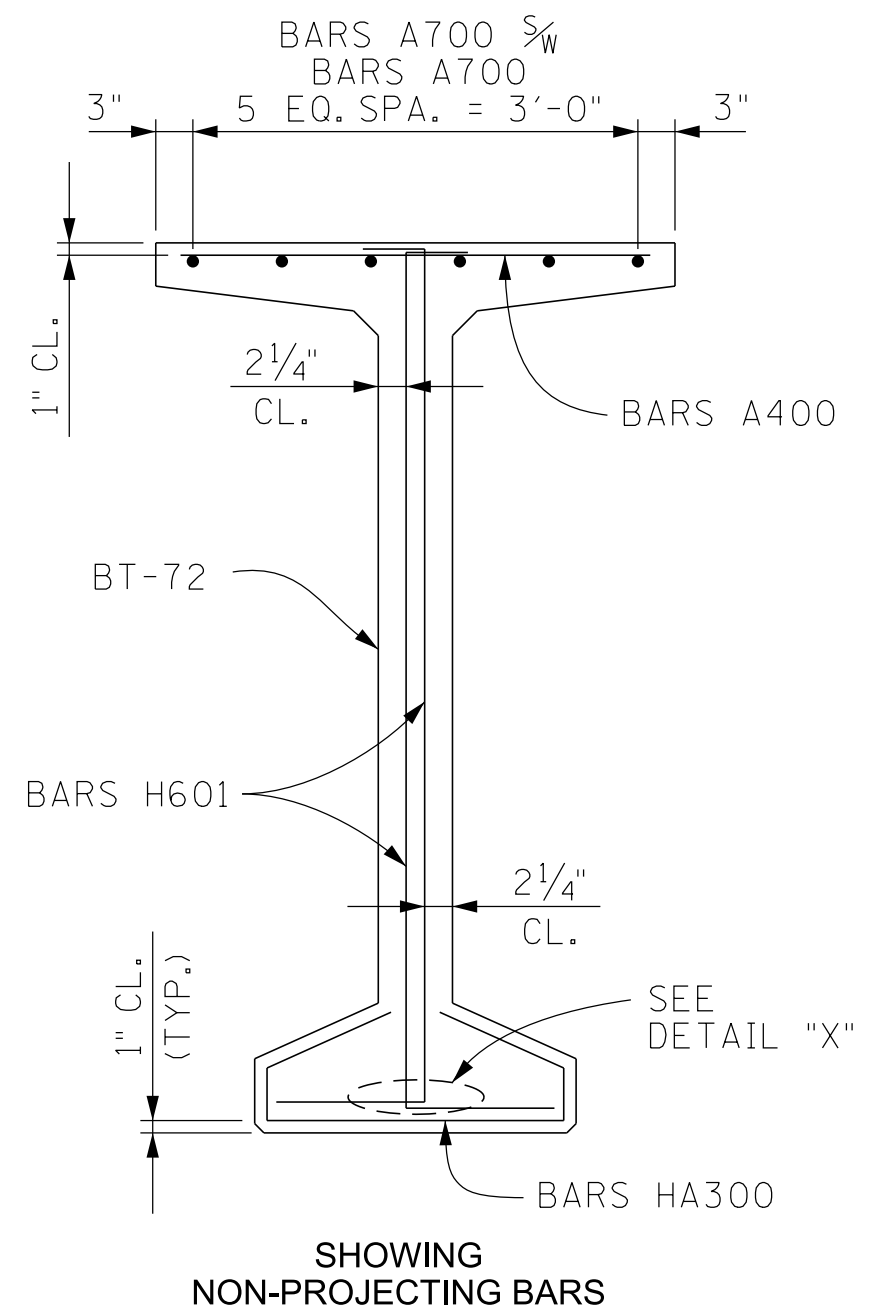
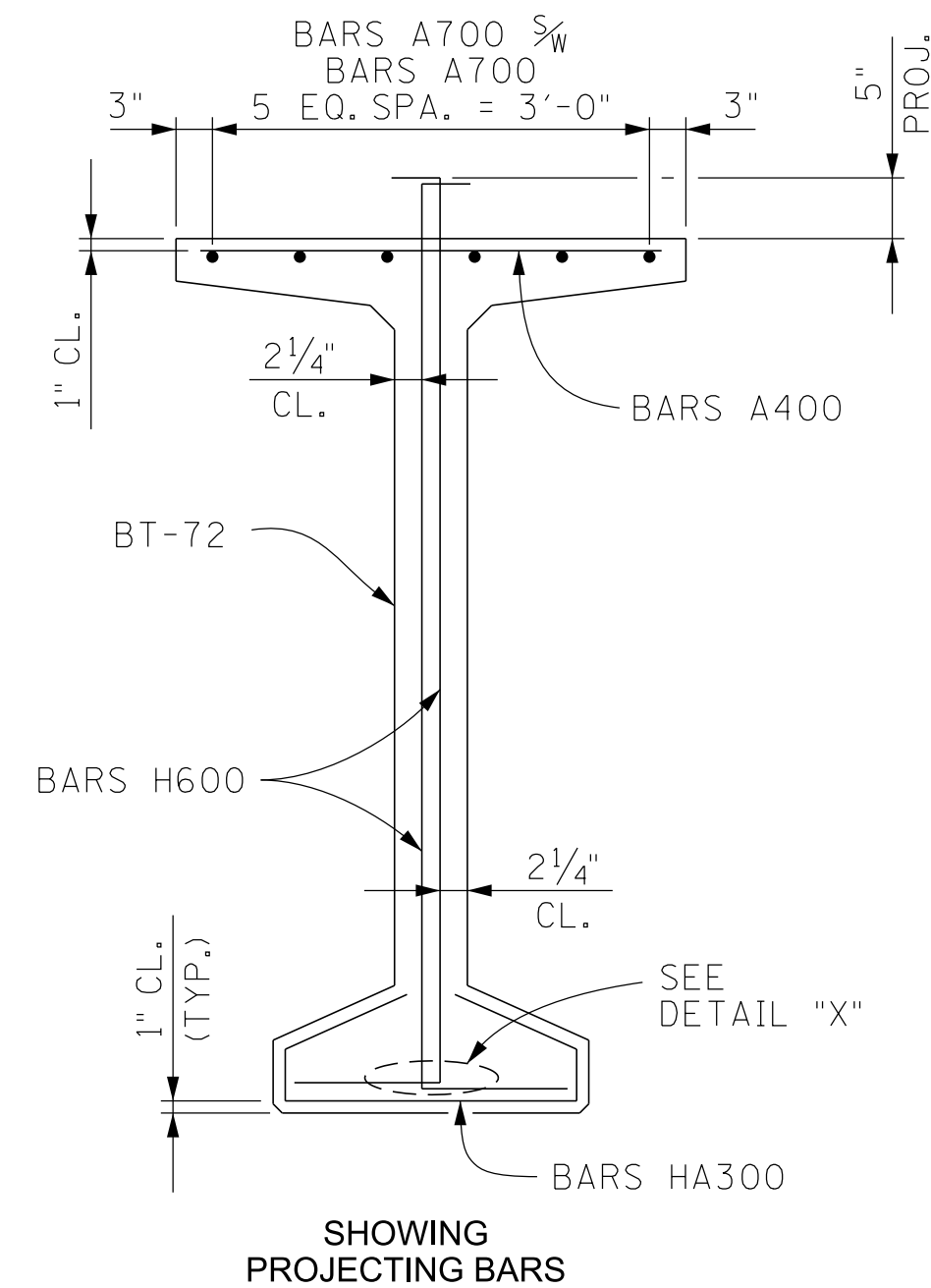
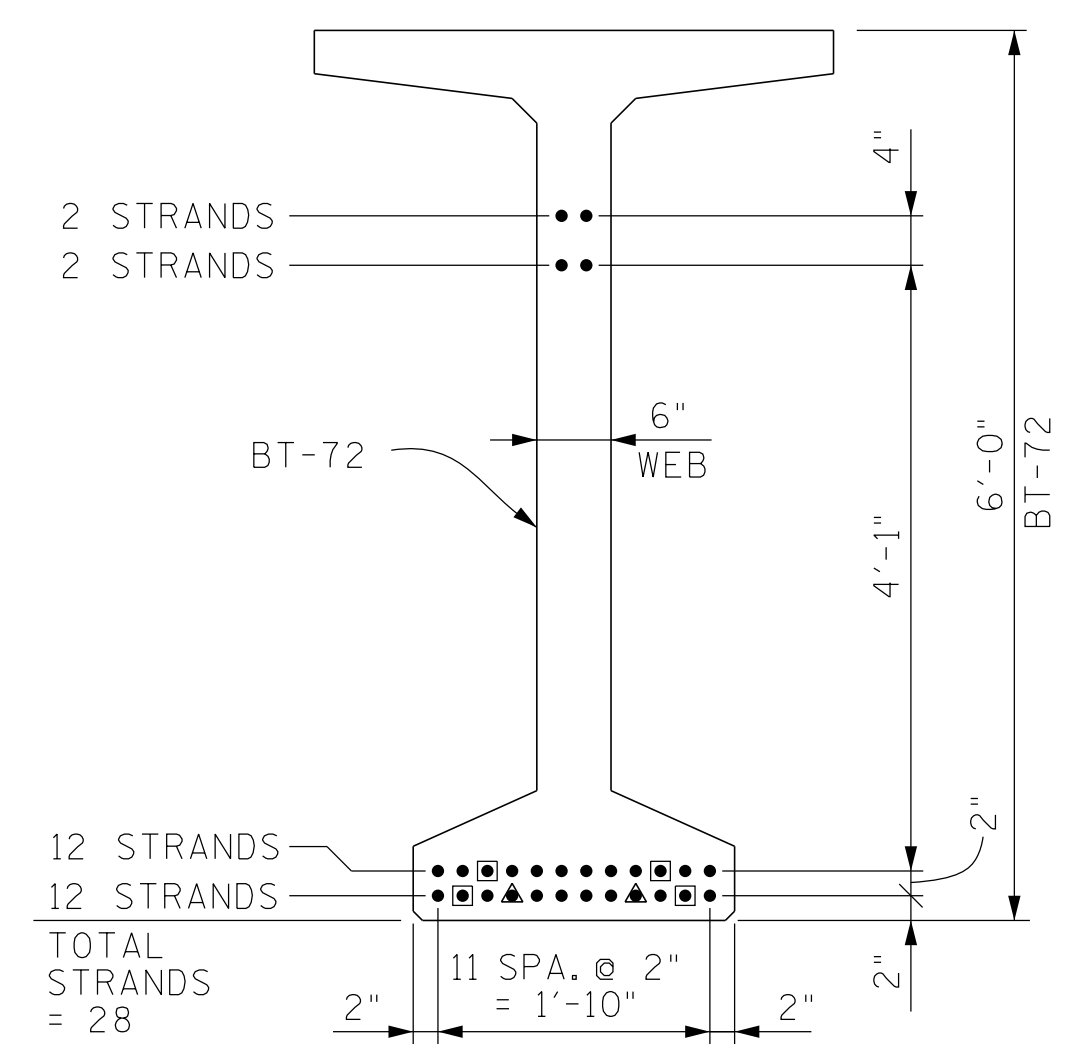
PIN NO.: 100340.00
 DESIGN BY: A. OMAR DATE: 12/15/2025
 DRAWN BY: A. OMAR DATE: 12/15/2025
 SUPERVISED BY: D. SHIKE DATE: 12/15/2025
 CHECKED BY: U. PATEL DATE: 01/15/2026

3/7/2026 7:35:10 PM

PROJECT NO.	YEAR	SHEET NO.	
STP/NH-4(6)	2026		
REVISIONS			
NO.	DATE	BY	BRIEF DESCRIPTION



- NOTES:**
- NOTE: SEE STD-14-1 FOR BULB-TEE BEAM STANDARD DETAILS, NOTES, AND REINFORCING.
 - NOTE: ALL BEAMS ARE BT-72.
 - NOTE: THE PRESTRESSED BEAMS SHALL ATTAIN AN AGE OF AT LEAST 90 DAYS PRIOR TO POURING THE SUPPORT DIAPHRAGMS (EXCLUDING BOTTOM 15 INCHES) AND DECK SLAB.
 - NOTE: THE CONCRETE FOR THIS CONSTRUCTION SHALL BE OF SUCH PROPERTIES AS TO ATTAIN A COMPRESSIVE STRENGTH OF NOT LESS THAN 10,000 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 8,000 PSI. SEE GENERAL NOTES FOR CONCRETE FINISHING NOTE.
 - PRESTRESSING STRANDS: ALL STRANDS SHALL BE 5/16" 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.



BILL OF STEEL PER BEAM

BAR	SIZE	NO. REQ'D	LENGTH
A400	4	111	3'-2"
A500	5	8	5'-6"
A700	7	12	56'-7"
H600	6	152	7'-7"
H601	6	40	7'-1"
HA300	3	38	4'-7"

TABLE OF BILL OF STEEL

NO. BEAMS REQUIRED	PRESTRESSING STRANDS (LOW RELAXATION) LB.	CONCRETE C.Y.	REINFORCING STEEL LB.
7	2,333	22	3,891

PRESTRESSED BEAM DESIGN DATA: (PER BEAM)

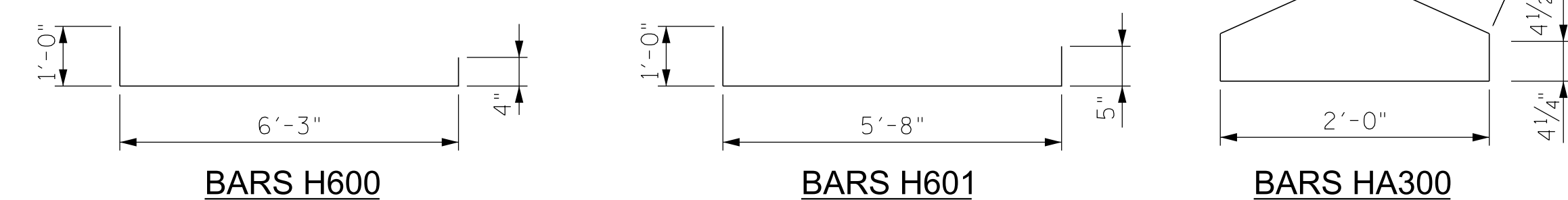
LIVE LOAD DISTRIBUTION FACTOR FOR MOMENT	= 0.67 LANES/BEAM
LIVE LOAD DISTRIBUTION FACTOR FOR SHEAR	= 0.76 LANES/BEAM
COMPOSITE DEAD LOAD: DC	= 195 LB/FT/BEAM
COMPOSITE DEAD LOAD: DW	= 200 LB/FT/BEAM
COMPOSITE SLAB DESIGN STRENGTH: F'C	= 4,000 PSI

NOTE: DOWNWARD DEFLECTION UNDER TOTAL DL IS NOT ALLOWED.

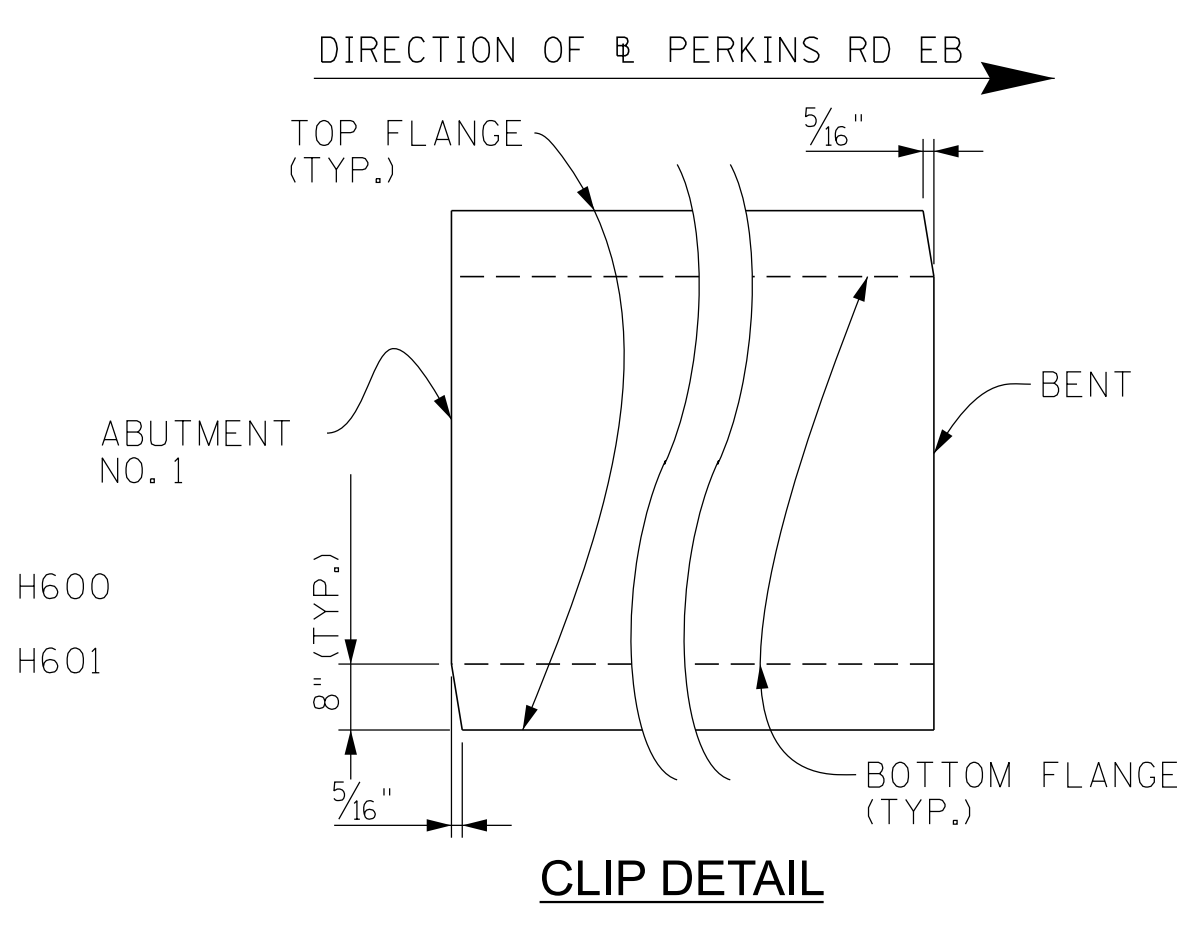
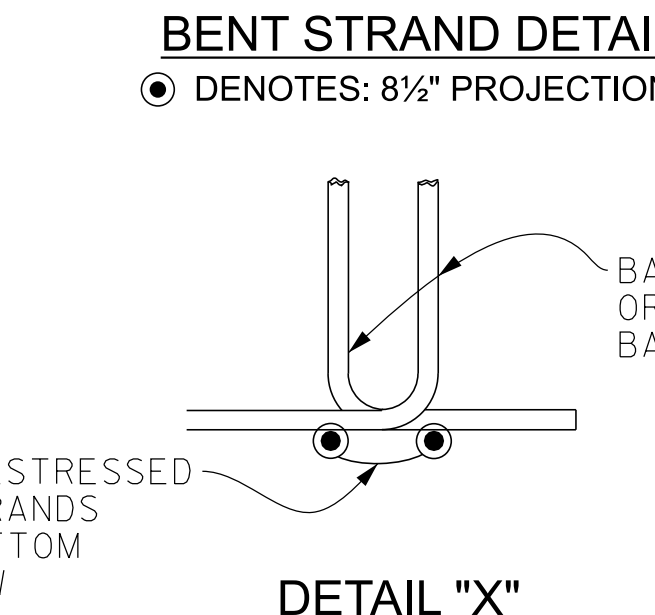
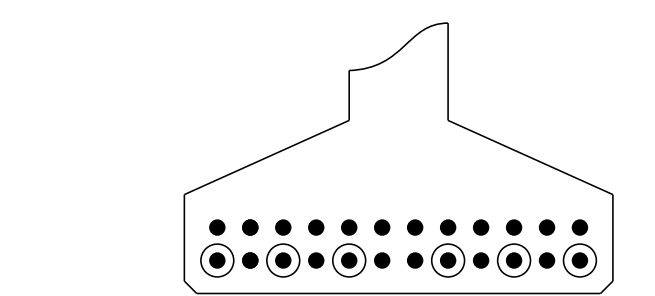
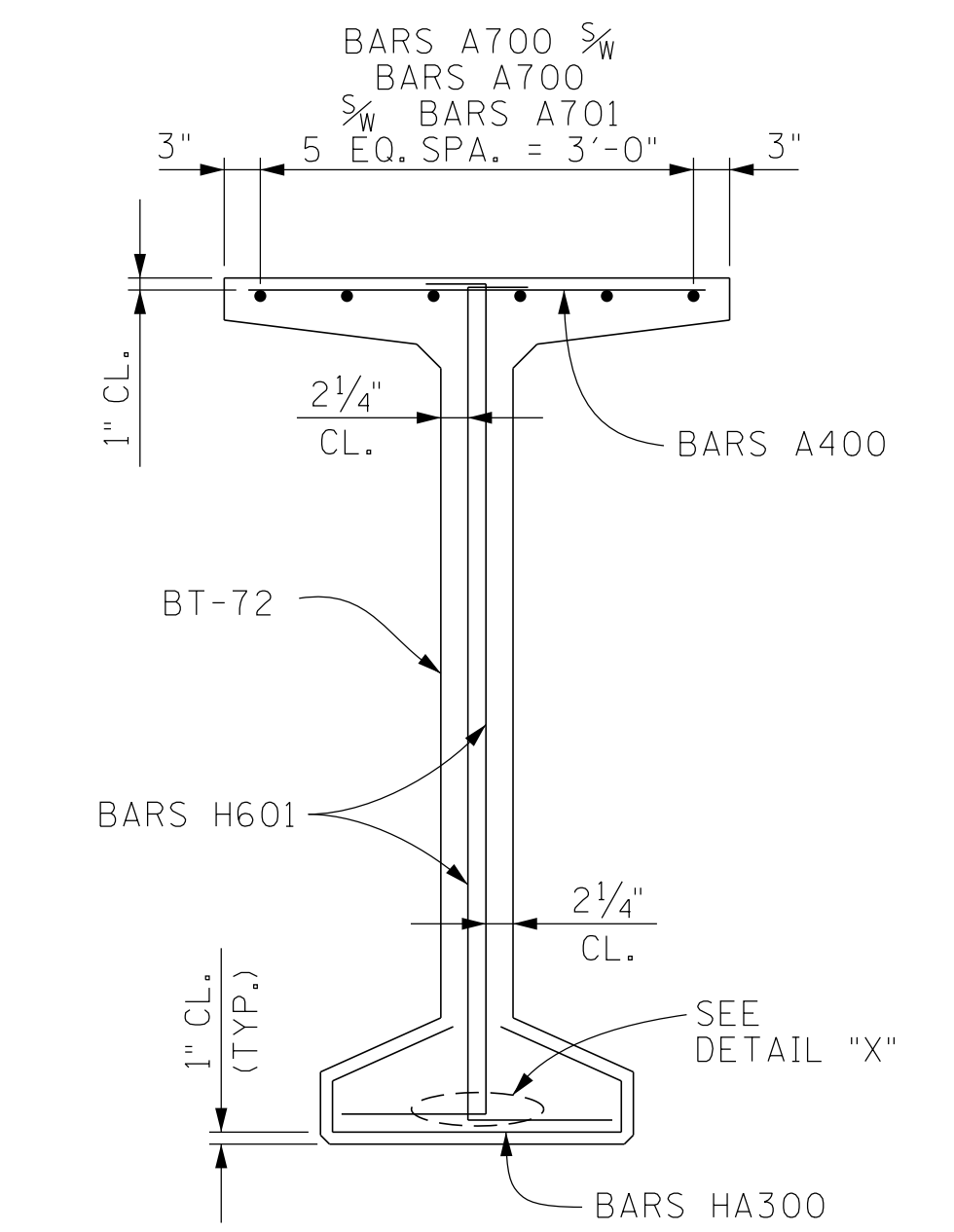
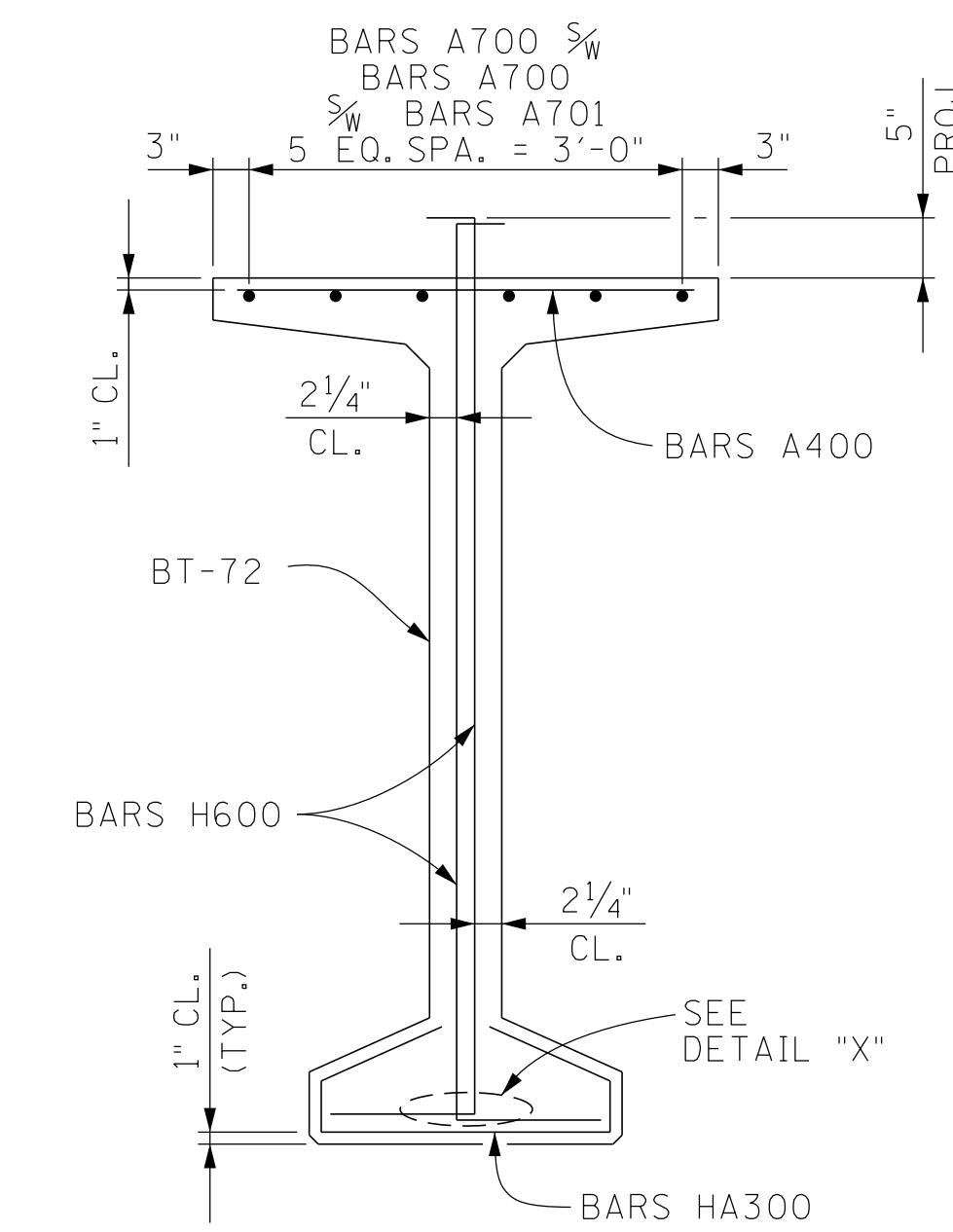
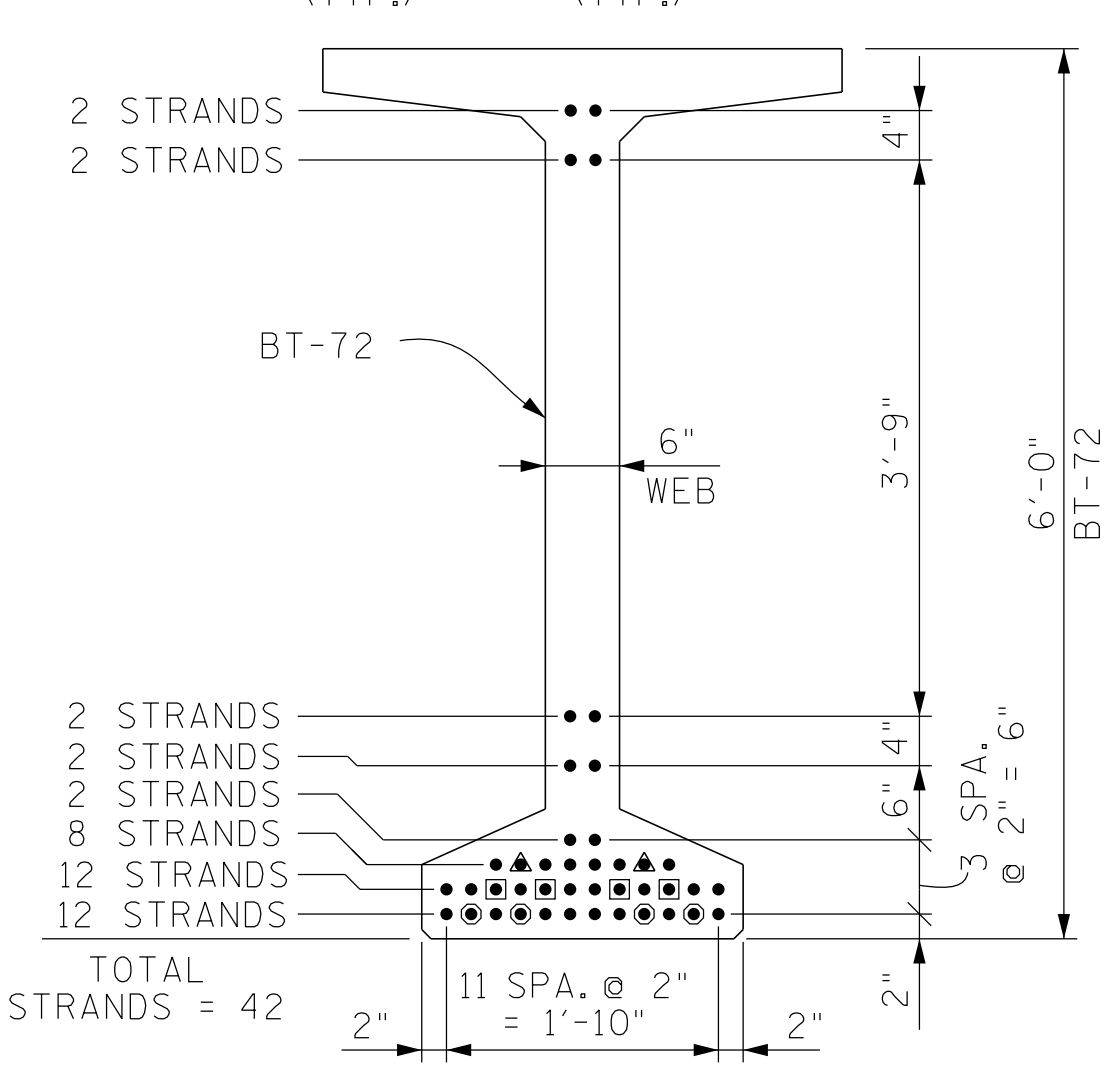
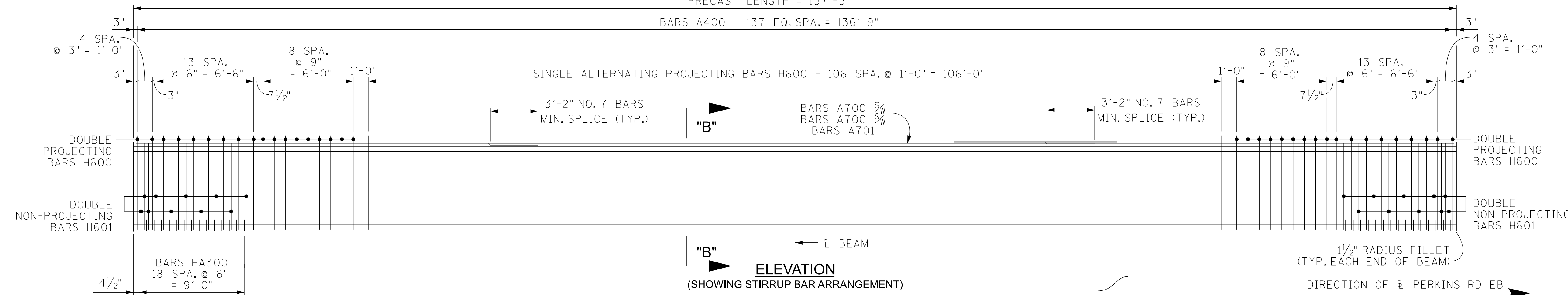
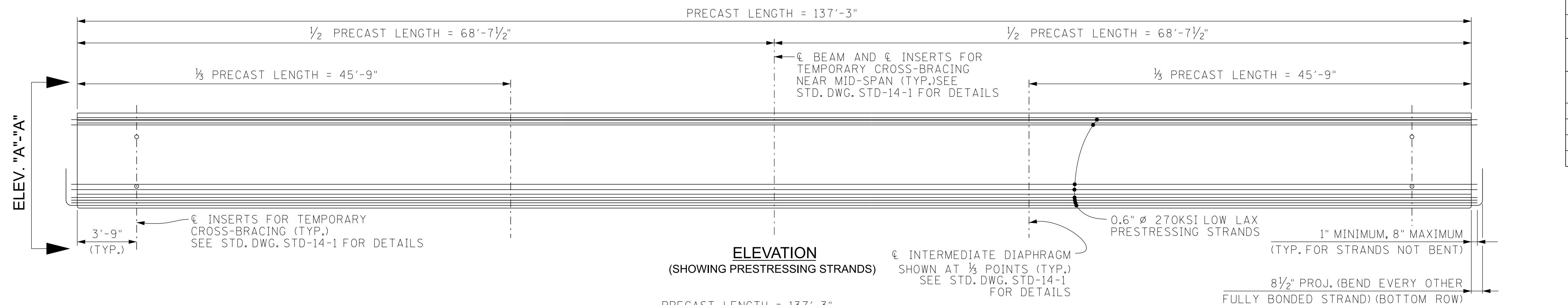
SEALED BY

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BRIDGE NO. 2
PRESTRESSED CONCRETE BULB-TEE
BEAM DETAILS - SPAN NO. 1
PERKINS ROAD EB
OVER STATE ROUTE 4 (LAMAR AVE.)
BRIDGE ID NO. 79SR0040005
LOG MILE 3.60
STATION 18+05.73
SHELBY COUNTY

PIN NO.: 100340.00
DESIGN BY: A. OMAR DATE: 12/15/2025
DRAWN BY: A. OMAR DATE: 12/15/2025
SUPERVISED BY: D. SHIKE DATE: 12/15/2025
CHECKED BY: U. PATEL DATE: 01/15/2026



PROJECT NO.	YEAR	SHEET NO.	
STP/NH-4(6)	2026		
REVISIONS			
NO.	DATE	BY	BRIEF DESCRIPTION



BILL OF STEEL PER BEAM

BAR	SIZE	NO. REQ'D	LENGTH
A400	4	138	3'-2"
A500	5	8	5'-6"
A700	7	12	60'-0"
A701	7	6	23'-3"
H600	6	179	7'-7"
H601	6	40	7'-1"
HA300	3	38	4'-7"

TABLE OF BILL OF STEEL

NO. BEAMS REQUIRED	PRESTRESSING STRANDS (LOW RELAXATION) LB.	CONCRETE C.Y.	REINFORCING STEEL LB.
7	4,328	27	4,625

PRESTRESSED BEAM DESIGN DATA: (PER BEAM)

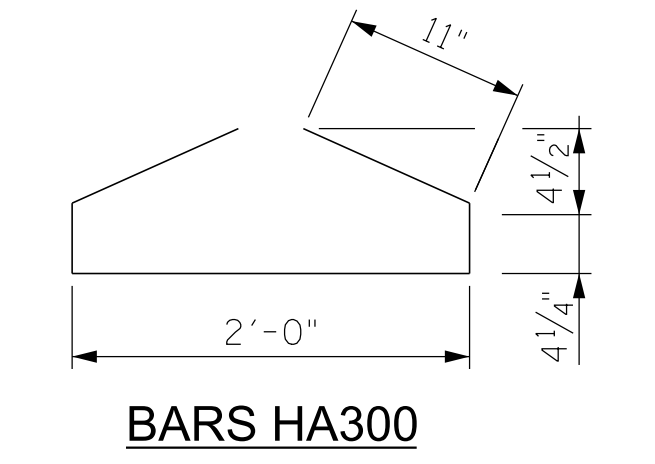
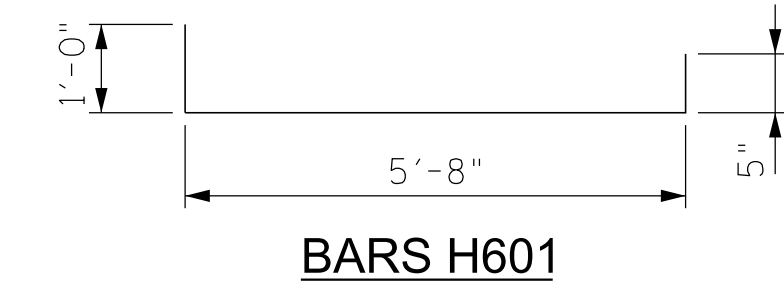
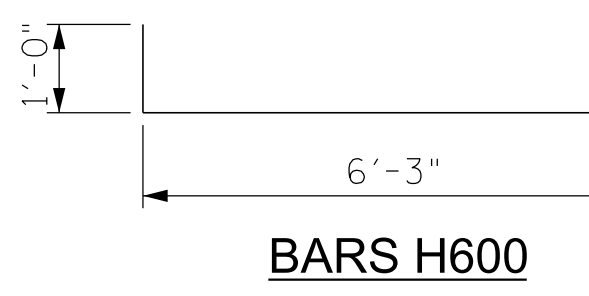
LIVE LOAD DISTRIBUTION FACTOR FOR MOMENT	= 0.67 LANES/BEAM
LIVE LOAD DISTRIBUTION FACTOR FOR SHEAR	= 0.76 LANES/BEAM
COMPOSITE DEAD LOAD: DC	= 195 LB/FT/BEAM
COMPOSITE DEAD LOAD: DW	= 200 LB/FT/BEAM
COMPOSITE SLAB DESIGN STRENGTH: F'C	= 4,000 PSI

NOTE: DOWNWARD DEFLECTION UNDER TOTAL DL IS NOT ALLOWED.

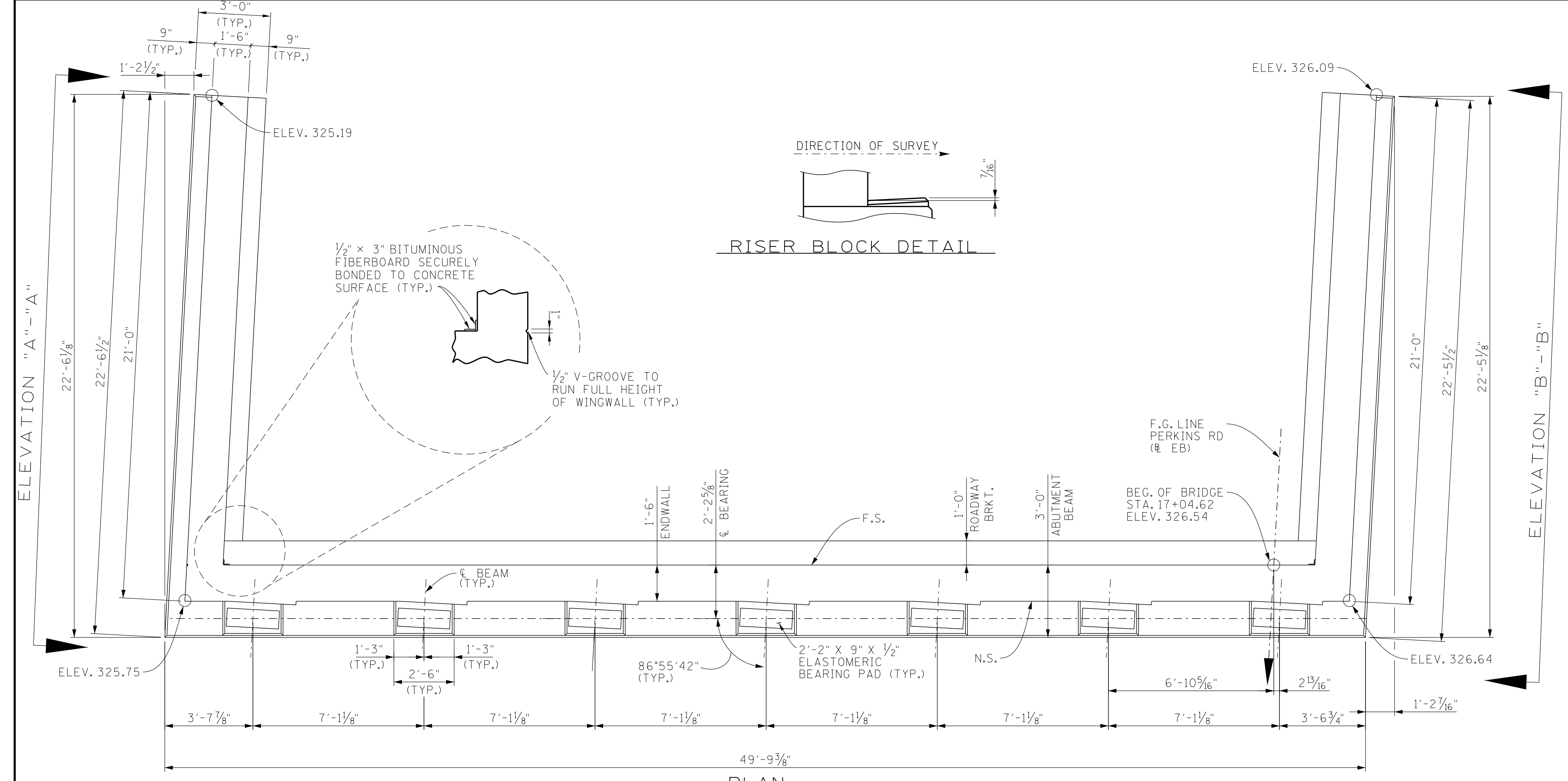
SEALED BY

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BRIDGE NO. 2
PRESTRESSED CONCRETE BULB-TEE BEAM DETAILS - SPAN NO. 2
PERKINS ROAD EB
OVER STATE ROUTE 4 (LAMAR AVE.)
BRIDGE ID NO. 79SR0040005
LOG MILE 3.60
STATION 18+05.73
SHELBY COUNTY

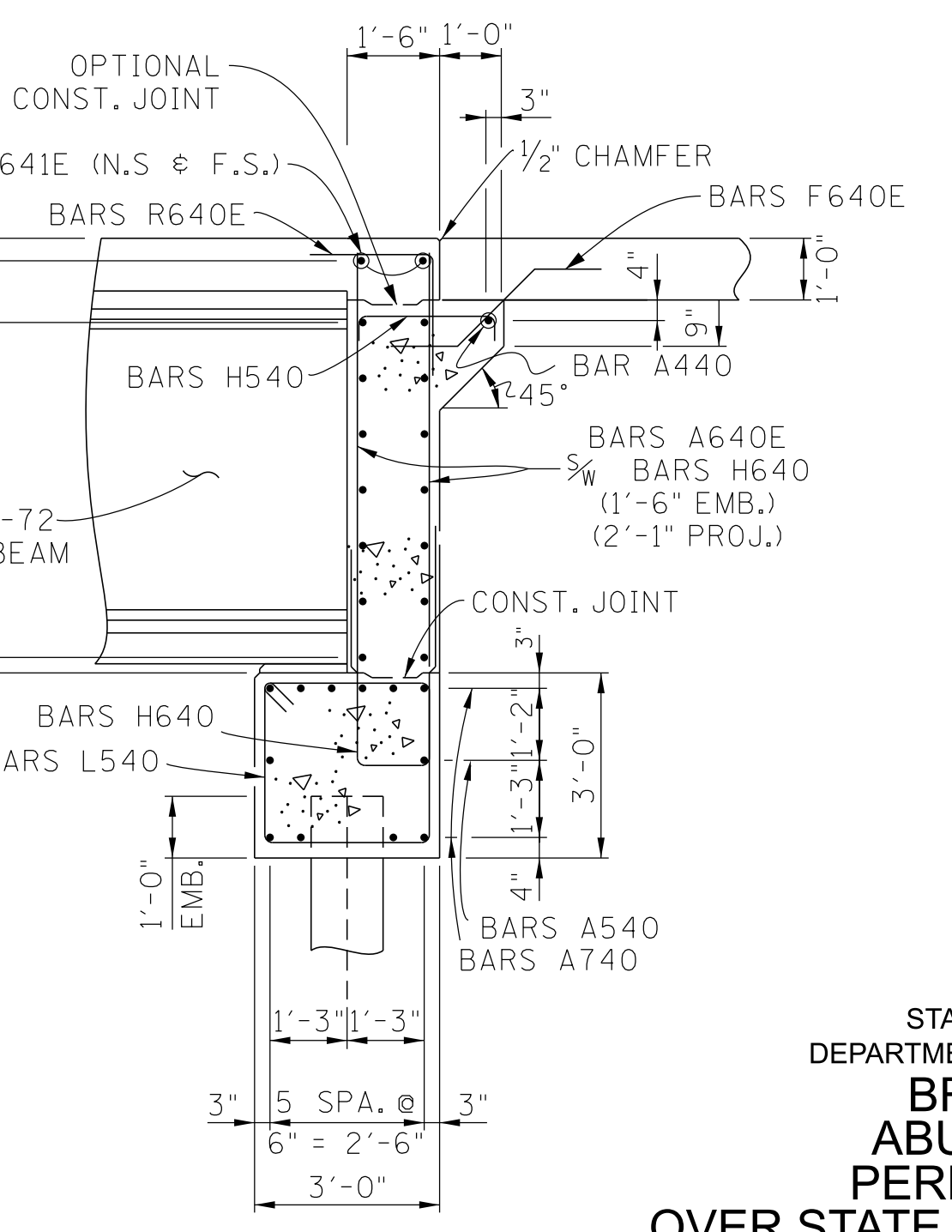
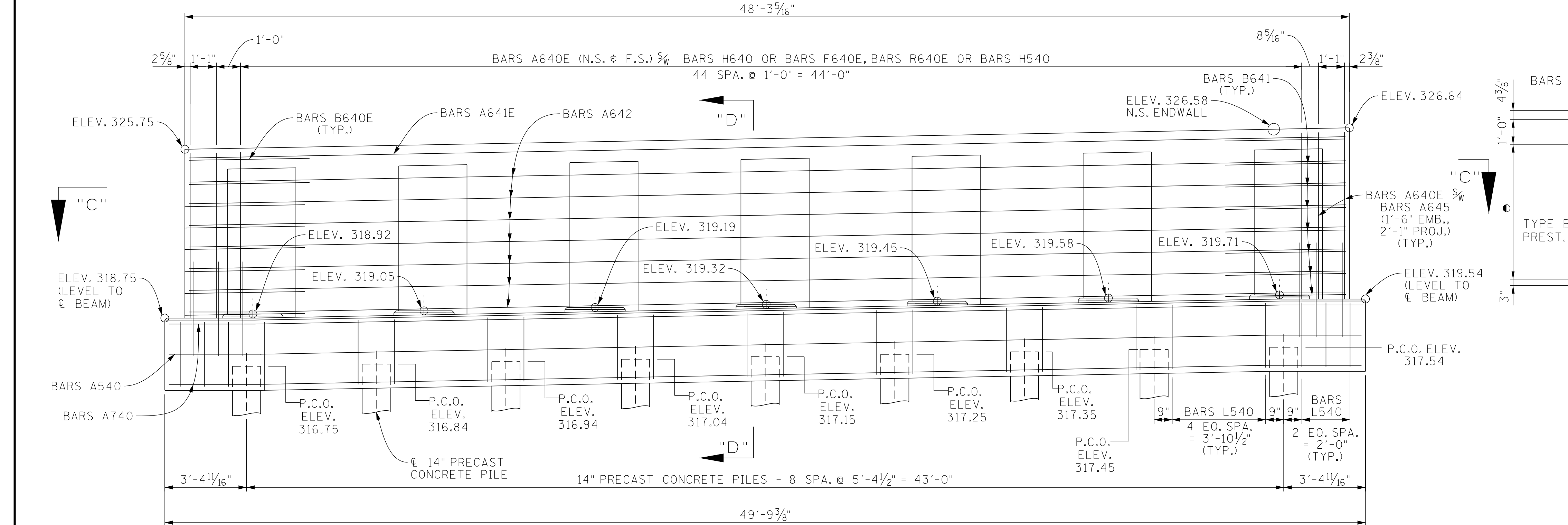
PIN NO.: 100340.00
DESIGN BY: A. OMAR DATE: 12/15/2025
DRAWN BY: A. OMAR DATE: 12/15/2025
SUPERVISED BY: D. SHIKE DATE: 12/15/2025
CHECKED BY: U. PATEL DATE: 01/15/2026



PROJECT NO.	YEAR	SHEET NO.	
STP/NH-4(6)	2026		
REVISIONS			
NO.	DATE	BY	BRIEF DESCRIPTION
-	-	-	-
-	-	-	-
-	-	-	-
-	-	-	-
-	-	-	-



- 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 AND STD-11-1.
 - NOTE:** NOT LESS THAN HALF OF THE SLAB IN THE END SPANS SHALL BE POURED PRIOR TO PLACEMENT 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 SEISMIC ATTACHMENT DETAILS AND NOTES.
 - NOTE:** WINGBEAM PILES SHALL BE DRIVEN TO THE PLANS TIP ELEVATION OR REFUSAL. SEISMIC ATTACHMENT IS NOT REQUIRED FOR WINGBEAM PILES.

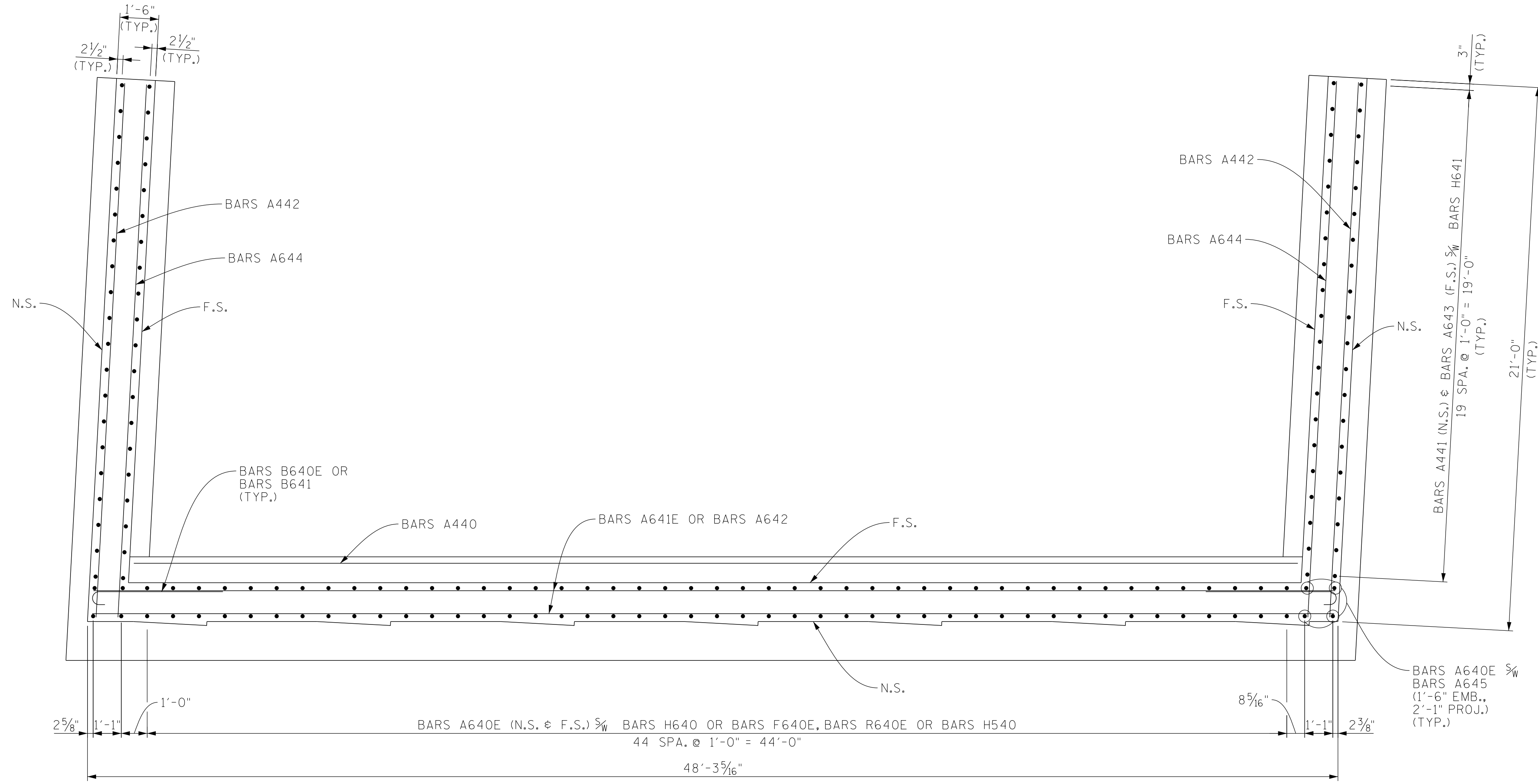


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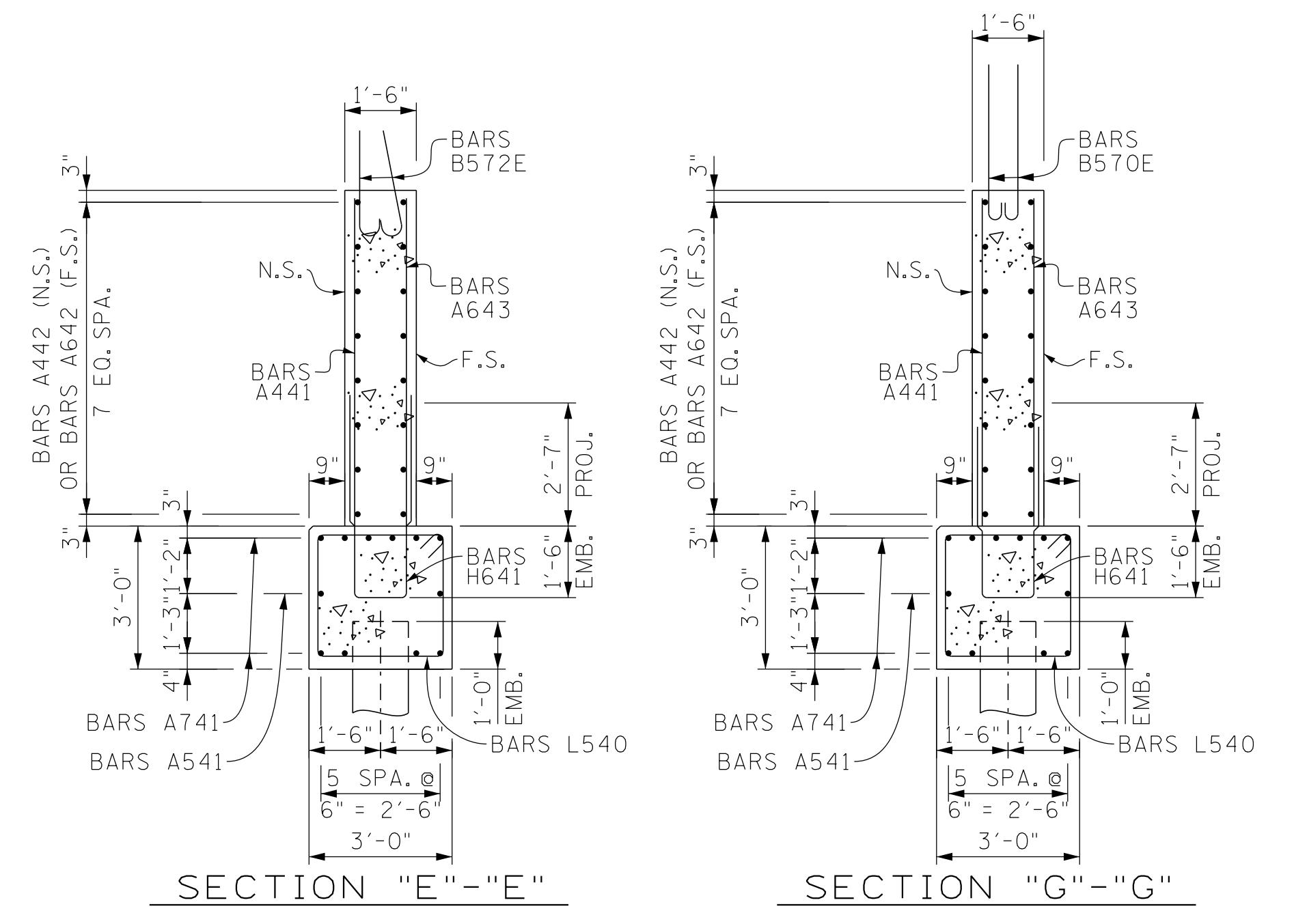
STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BRIDGE NO. 2
ABUTMENT NO. 1
PERKINS ROAD EB
OVER STATE ROUTE 4 (LAMAR AVE.)
BRIDGE ID NO. 79SR00040005
LOG MILE 3.60
STATION 18+05.73
SHELBY COUNTY

PIN NO.: 100340.00
DESIGN BY: A. OMAR DATE: 08/2025
DRAWN BY: F. BARTON DATE: 08/2025
SUPERVISED BY: D. SHIKE DATE: 02/2026
CHECKED BY: U. PATEL DATE: 02/2026

PROJECT NO.	YEAR	SHEET NO.	
STP/NH-4(6)	2026		
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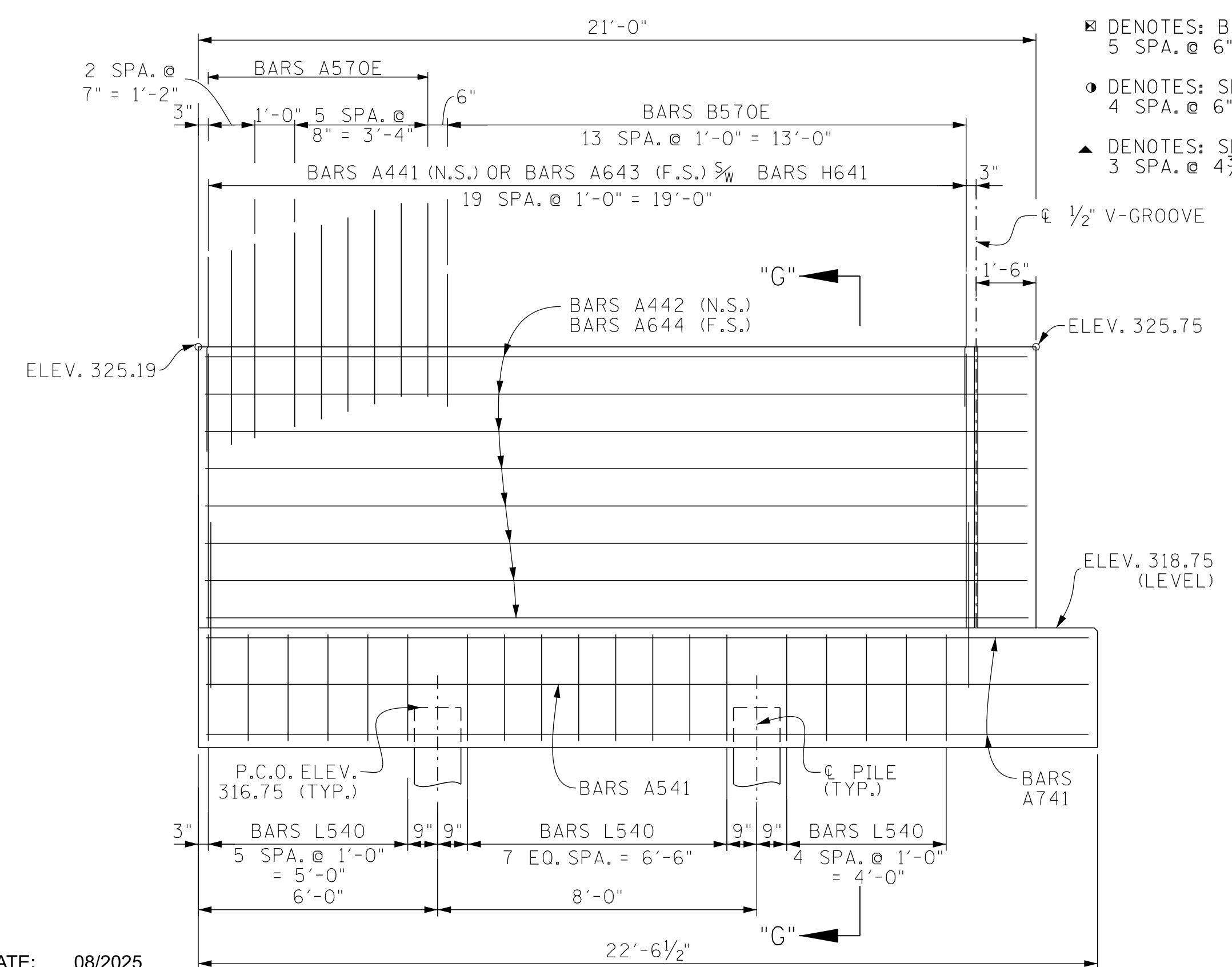


SECTION "C"-"C"

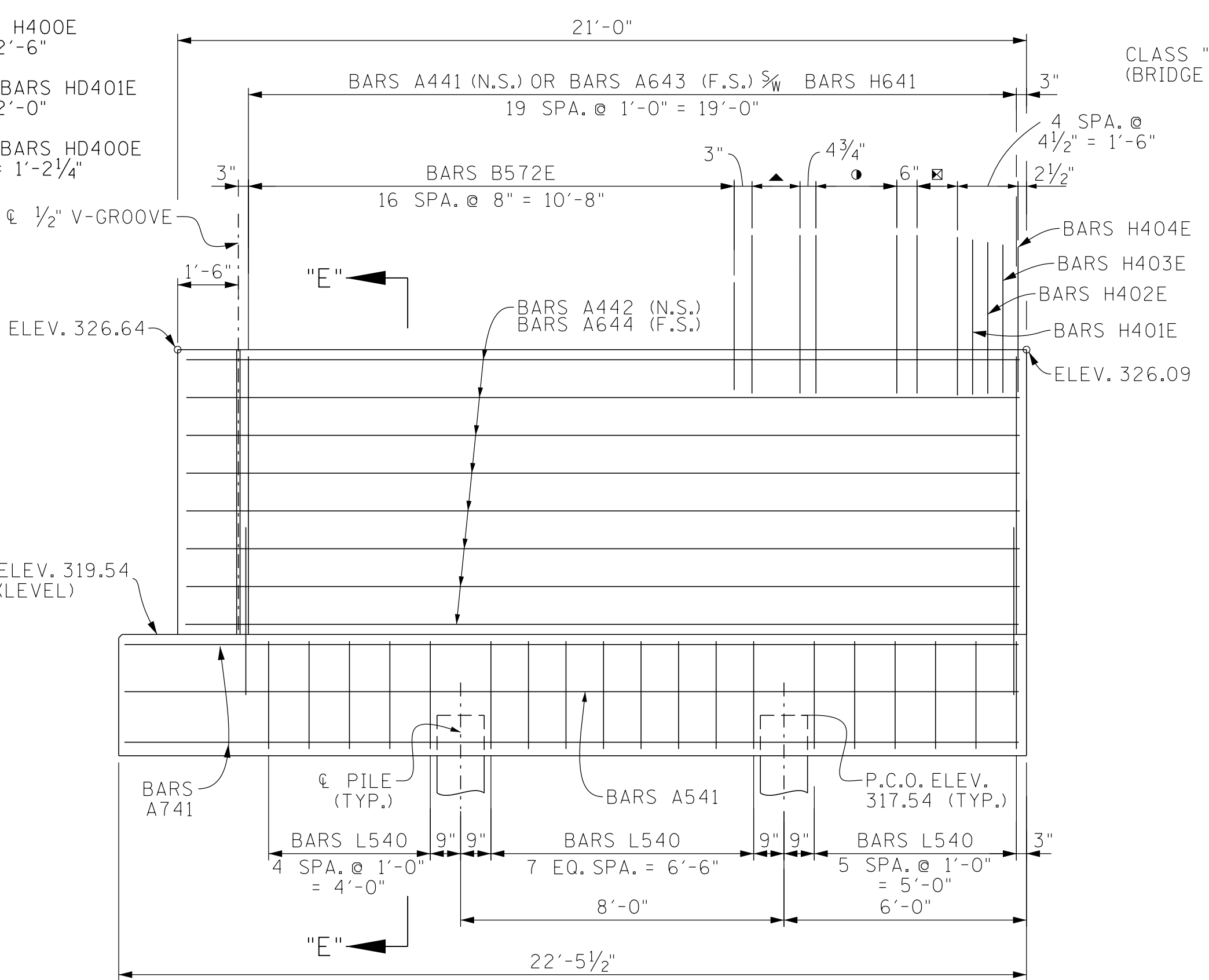


SECTION "E"-"E"

SECTION "G"-"G"



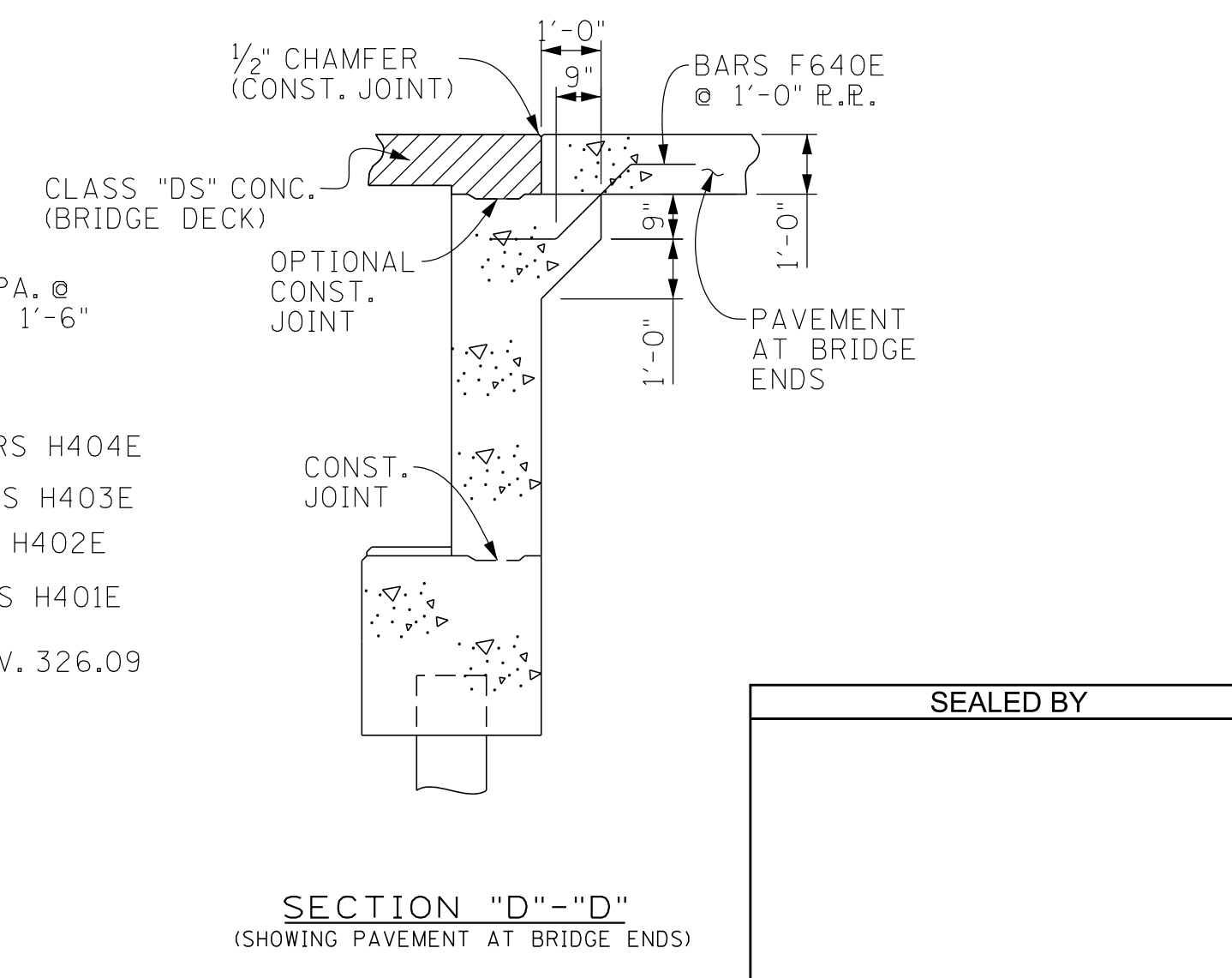
ELEVATION "A"-"A"



ELEVATION "B"-"B"

- DENOTES: BARS H400E
5 SPA. @ 6" = 2'-6"
- DENOTES: SER. BARS HD401E
4 SPA. @ 6" = 2'-0"
- ▲ DENOTES: SER. BARS HD400E
3 SPA. @ 4 3/4" = 1'-2 1/4"

F.S. DENOTES: FAR SIDE
N.S. DENOTES: NEAR SIDE
P.C.O. DENOTES: PILE CUT-OFF



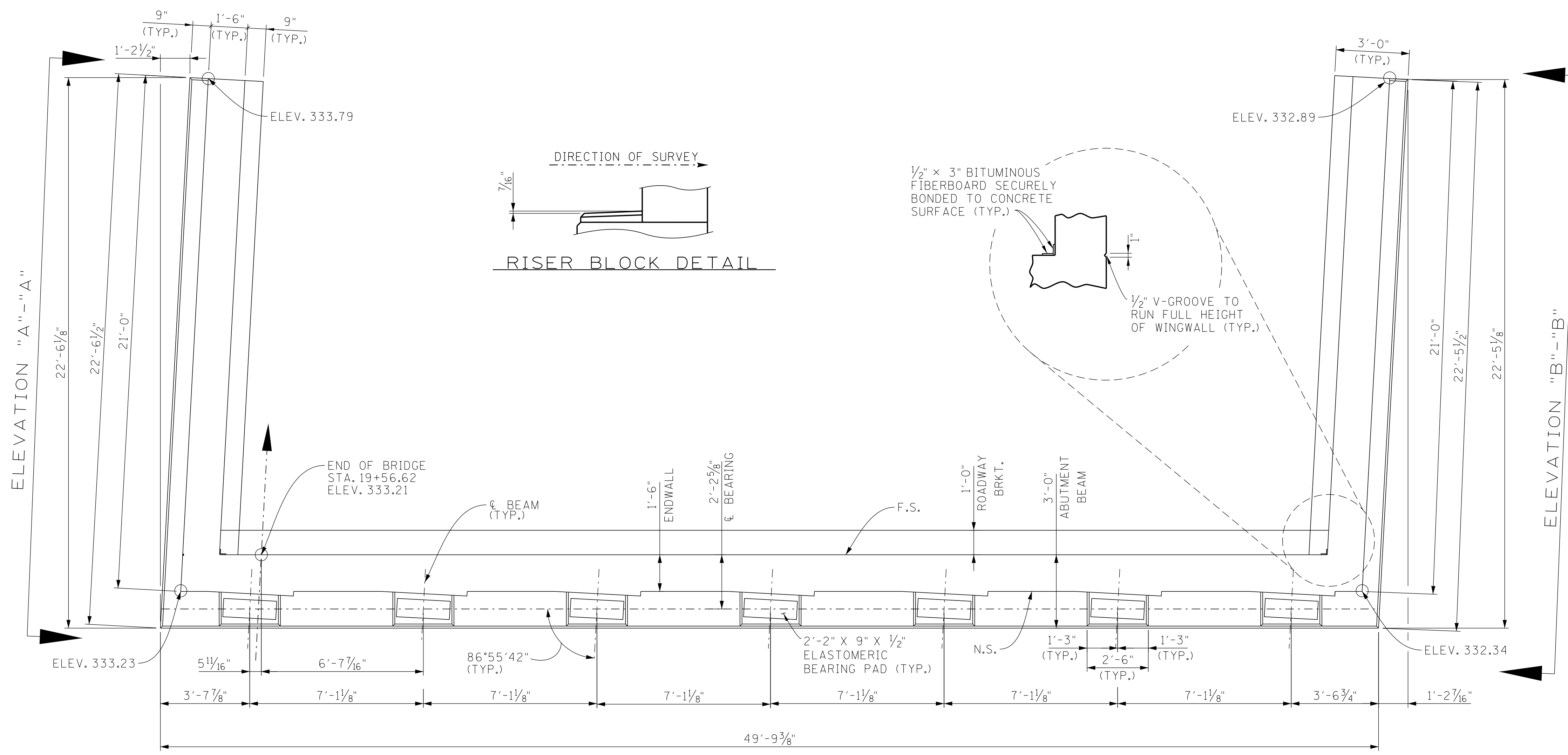
SECTION "D"-"D"
(SHOWING PAVEMENT AT BRIDGE ENDS)

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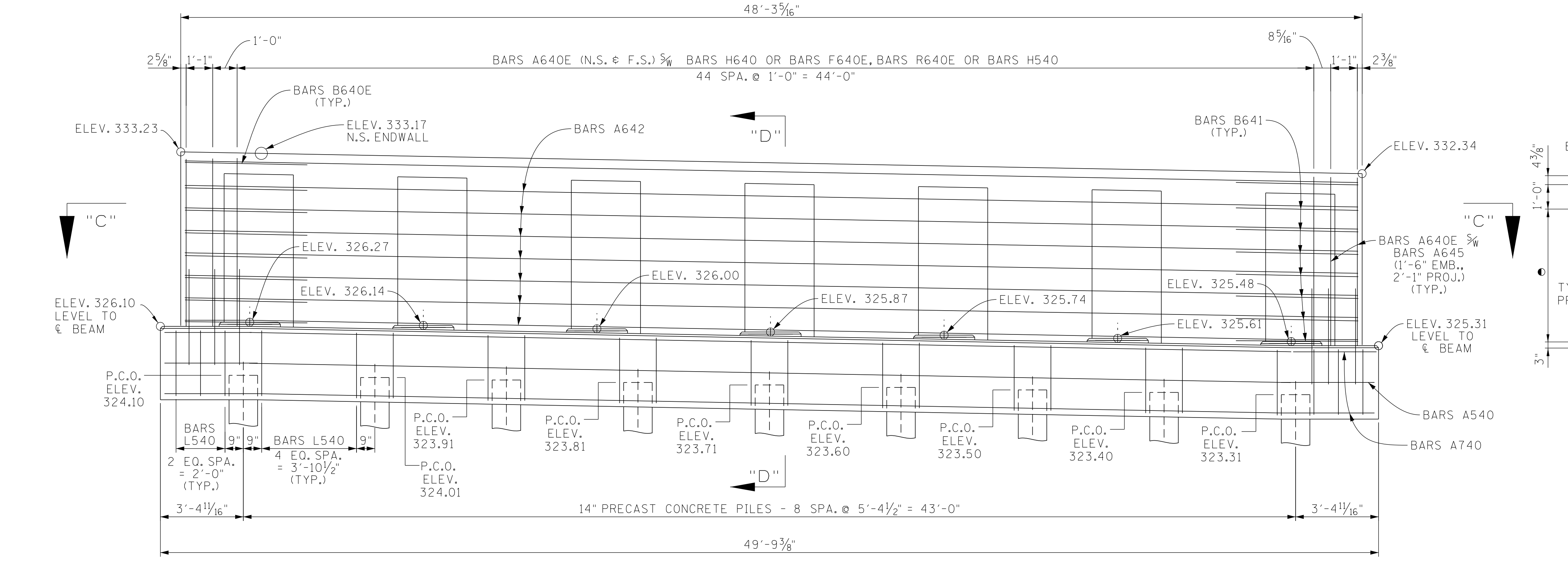
STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BRIDGE NO. 2
ABUTMENT NO. 1 DETAILS
PERKINS ROAD EB
OVER STATE ROUTE 4 (LAMAR AVE.)
BRIDGE ID NO. 79SR00040005
LOG MILE 3.60
STATION 18+05.73
SHELBY COUNTY

PIN NO.: 100340.00
DESIGN BY: A. OMAR DATE: 08/2025
DRAWN BY: F. BARTON DATE: 08/2025
SUPERVISED BY: D. SHIKE DATE: 02/2026
CHECKED BY: U. PATEL DATE: 02/2026

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STP/NH-4(6)	2026		
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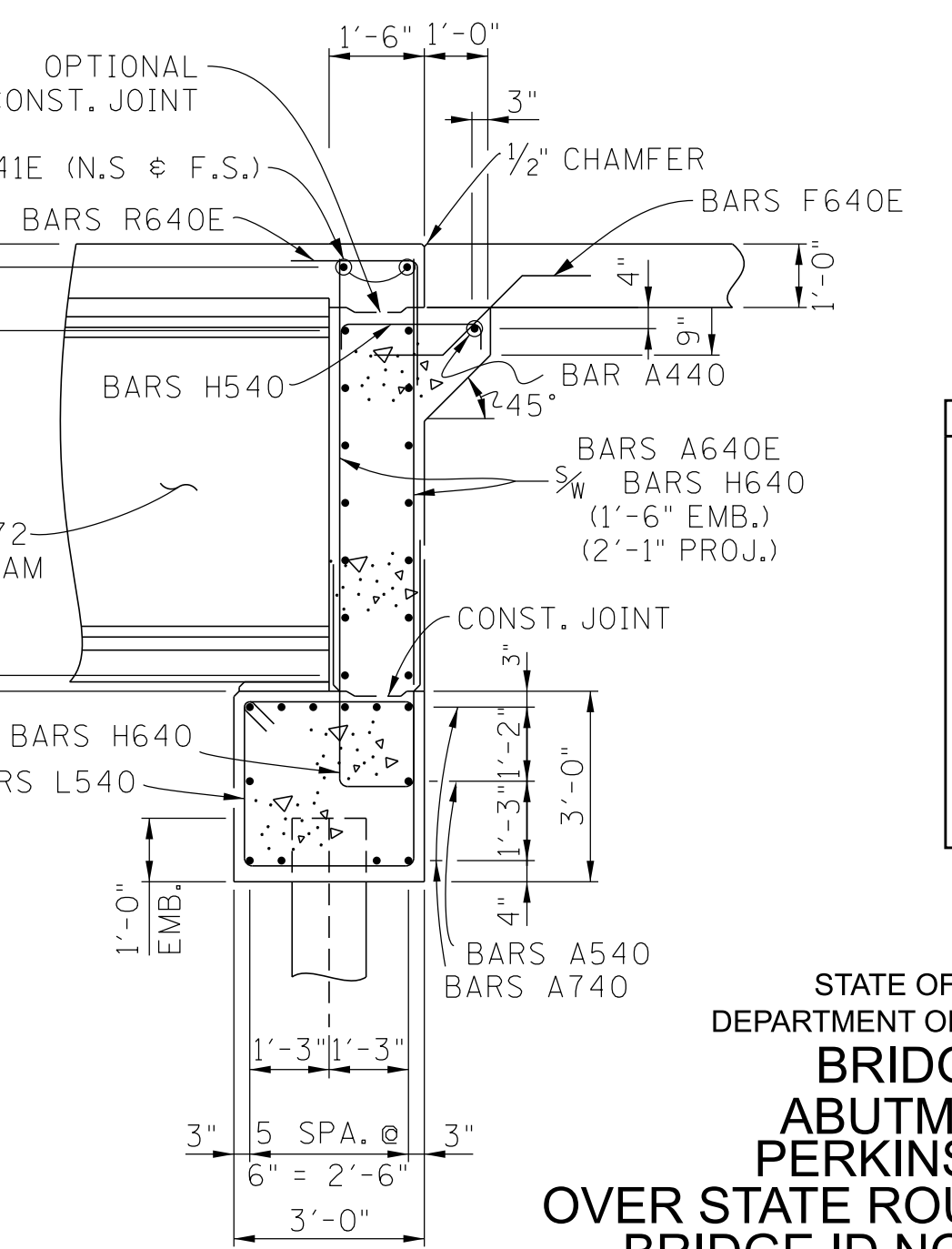
PLAN



PLAN

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 AND STD-11-1.
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- 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 SEISMIC ATTACHMENT DETAILS AND NOTES.
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SECTION "D"-D"

• DENOTES: BARS A642 (N.S. & F.S.)
6 EQUAL SPA. = 1'-0" MAX

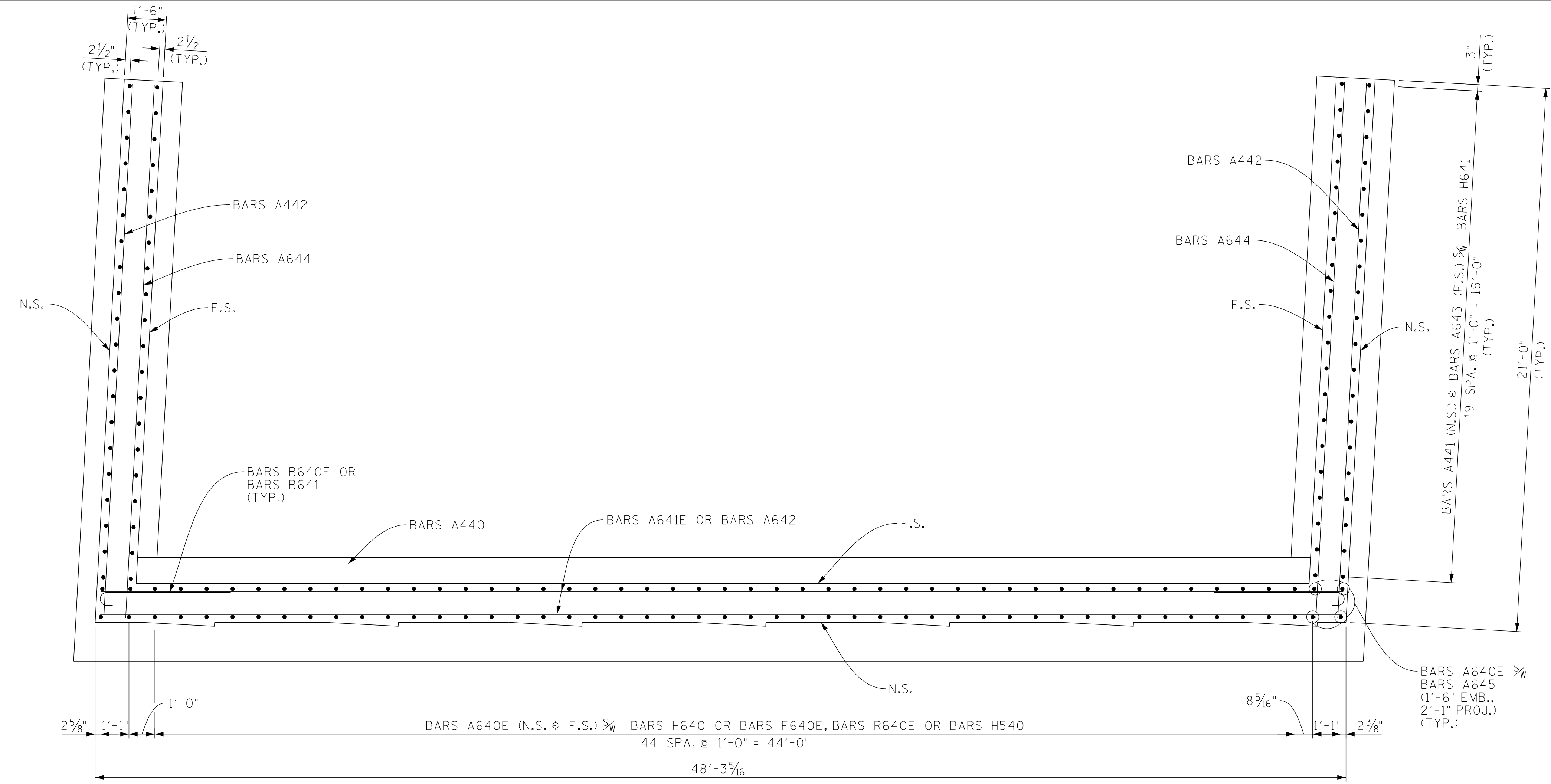
SEALED BY

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BRIDGE NO. 2
ABUTMENT NO. 2
PERKINS ROAD EB
OVER STATE ROUTE 4 (LAMAR AVE.)
BRIDGE ID NO. 79SR00040005
LOG MILE 3.60
STATION 18+05.73
SHELBY COUNTY

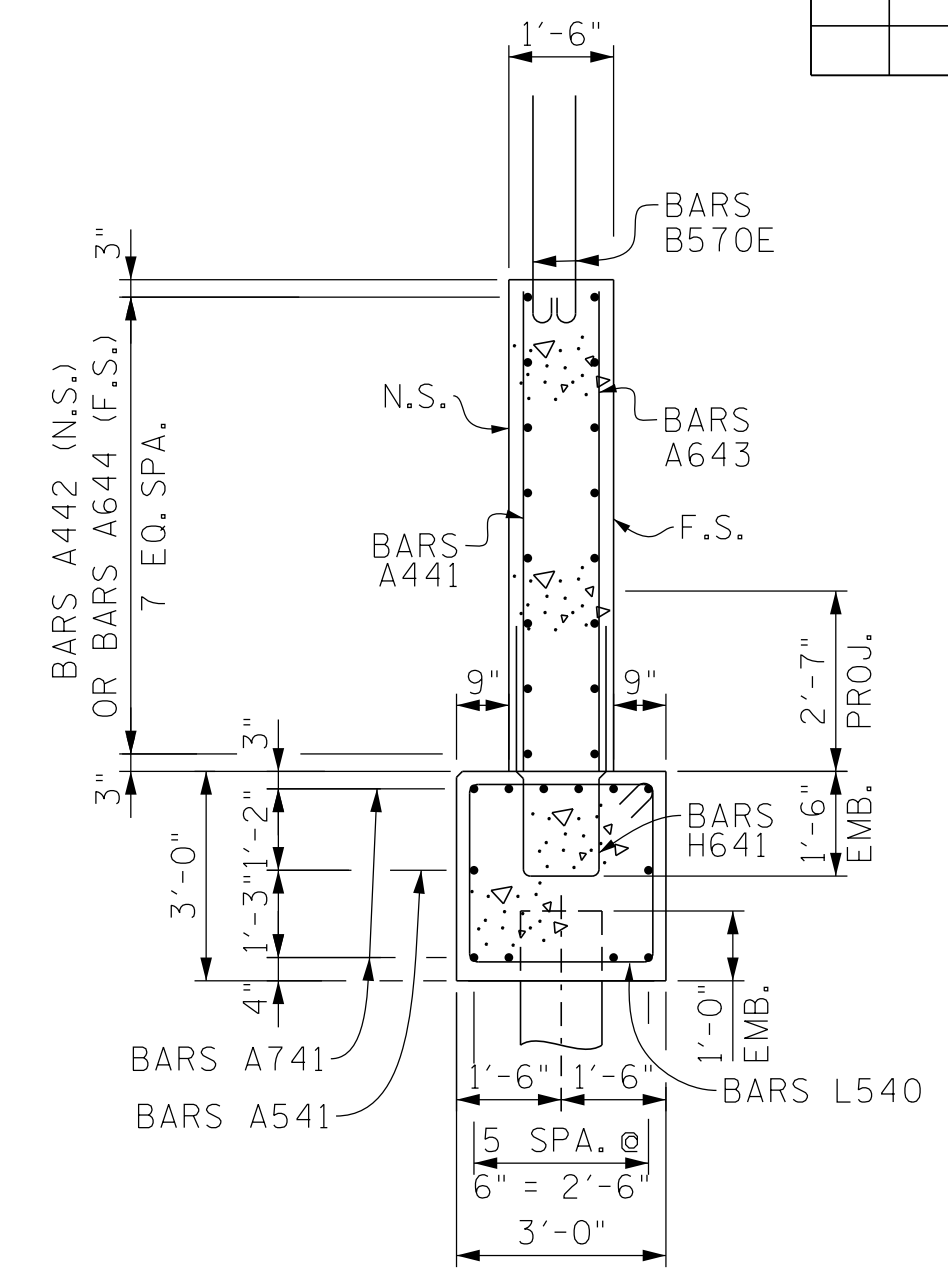
PIN NO.: 100340.00

DESIGN BY: A. OMAR	DATE: 08/2025
DRAWN BY: F. BARTON	DATE: 08/2025
SUPERVISED BY: D. SHIKE	DATE: 02/2026
CHECKED BY: U. PATEL	DATE: 02/2026

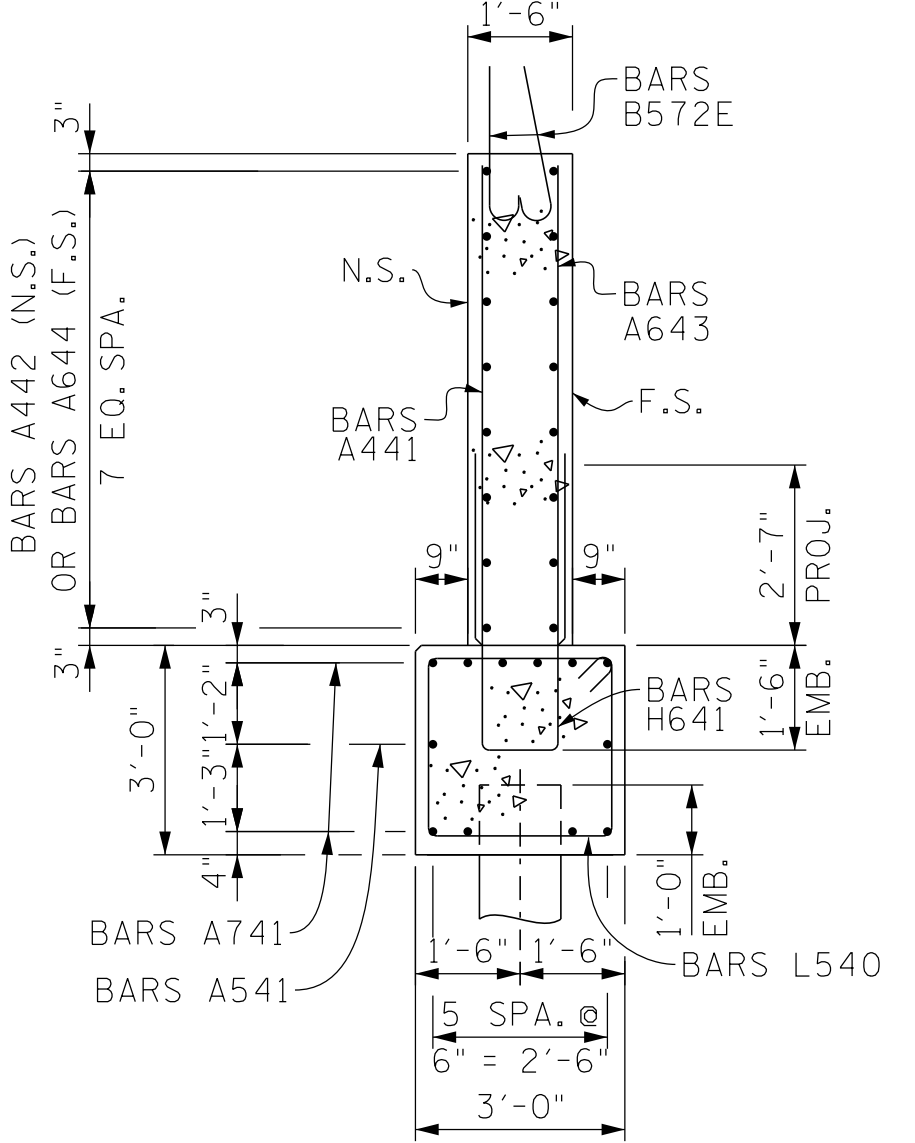
PROJECT NO.	YEAR	SHEET NO.	
STP/NH-4(6)	2026		
REVISIONS			
NO.	DATE	BY	BRIEF DESCRIPTION
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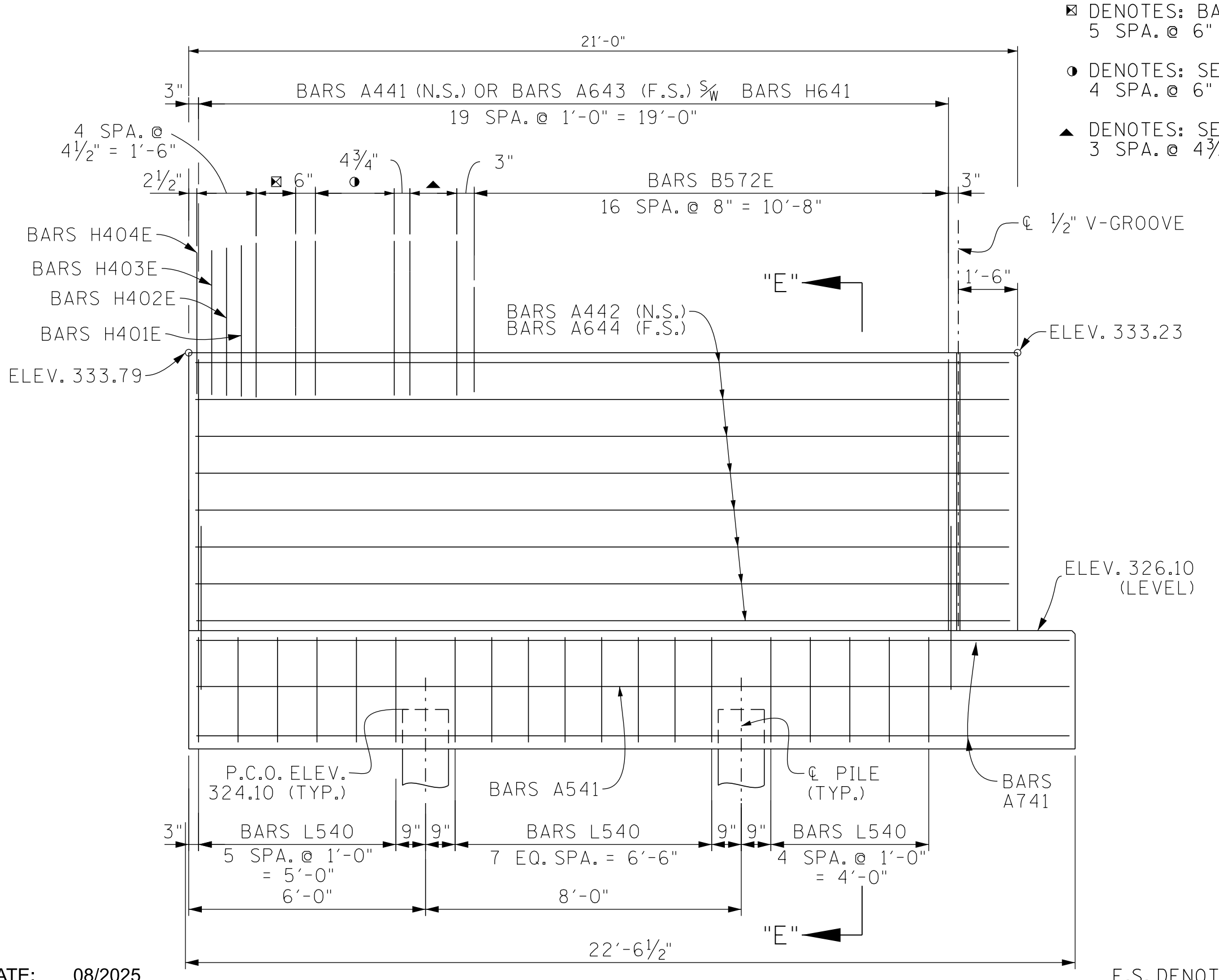
SECTION "C"-"C"



SECTION "G"-"G"

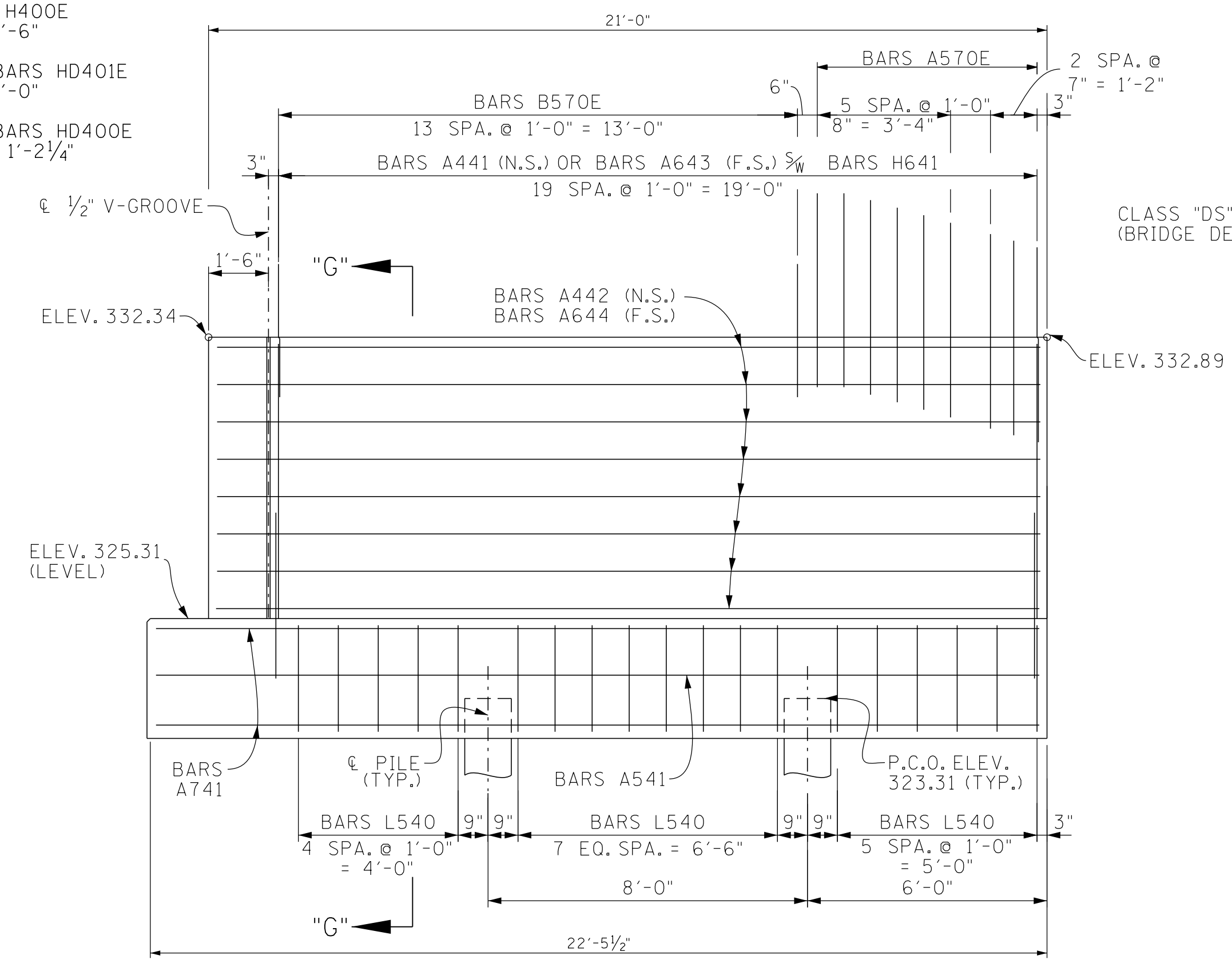


SECTION "E"-"E"

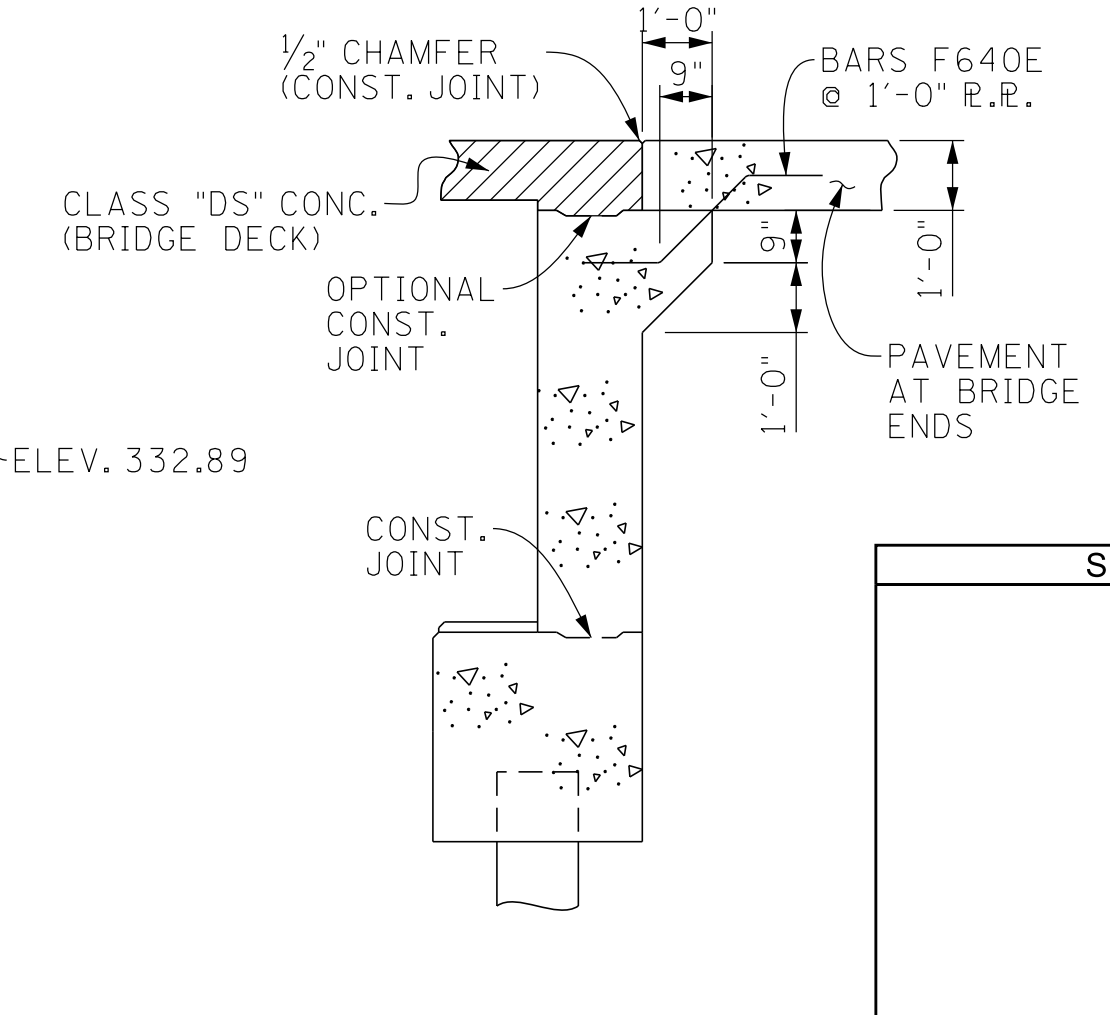


ELEVATION "A"-"A"

- DENOTES: BARS H400E
5 SPA. @ 6" = 2'-6"
- DENOTES: SER. BARS HD401E
4 SPA. @ 6" = 2'-0"
- ▲ DENOTES: SER. BARS HD400E
3 SPA. @ 4 3/4" = 1'-2 1/4"



ELEVATION "B"-"B"



SECTION "D"-"D"
(SHOWING PAVEMENT AT BRIDGE ENDS)

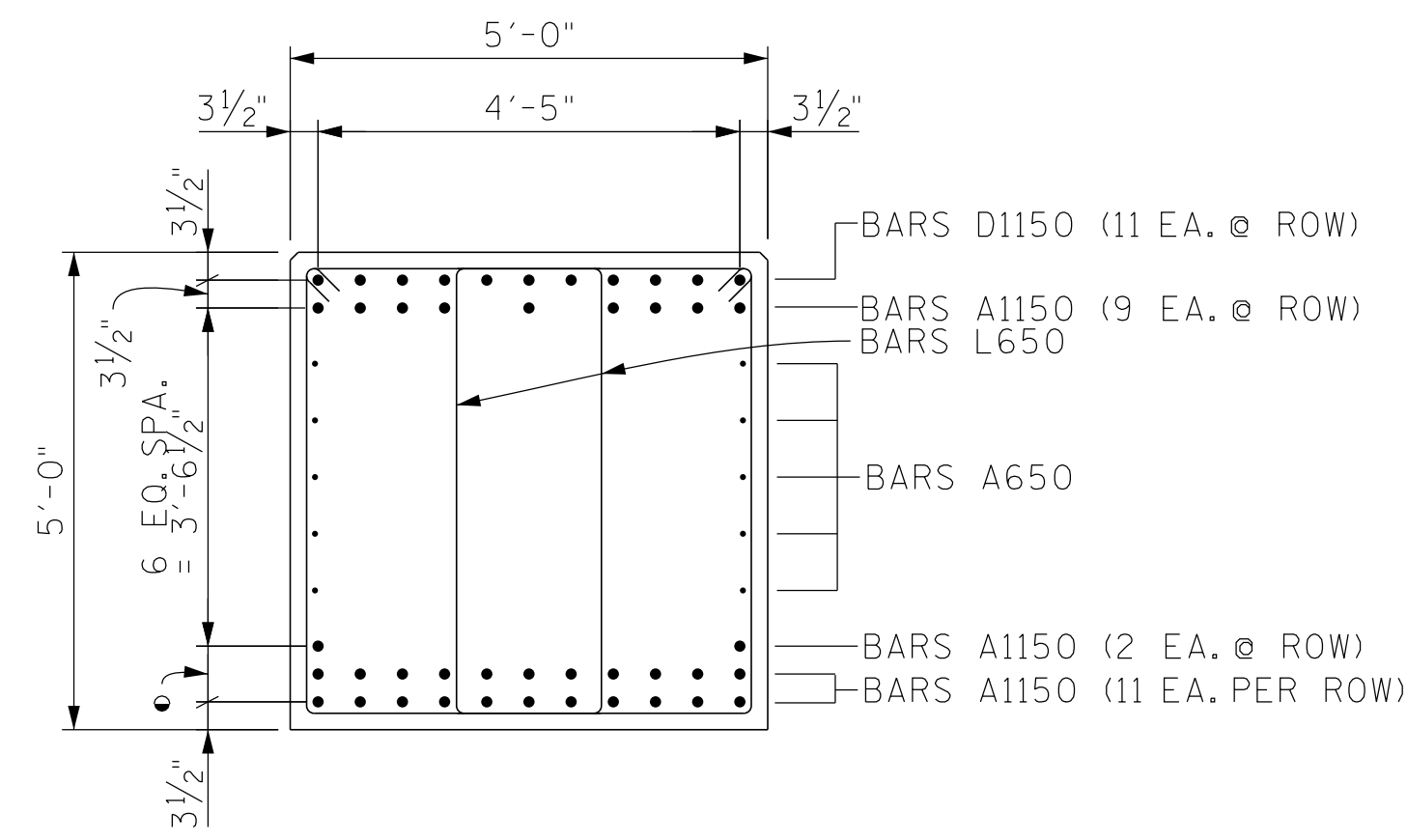
STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BRIDGE NO. 2
ABUTMENT NO. 2 DETAILS
PERKINS ROAD EB
OVER STATE ROUTE 4 (LAMAR AVE.)
BRIDGE ID NO. 79SR00040005
LOG MILE 3.60
STATION 18+05.73
SHELBY COUNTY

SEALED BY

PIN NO.: 100340.00
DESIGN BY: A. OMAR DATE: 08/2025
DRAWN BY: F. BARTON DATE: 08/2025
SUPERVISED BY: D. SHIKE DATE: 02/2026
CHECKED BY: U. PATEL DATE: 02/2026

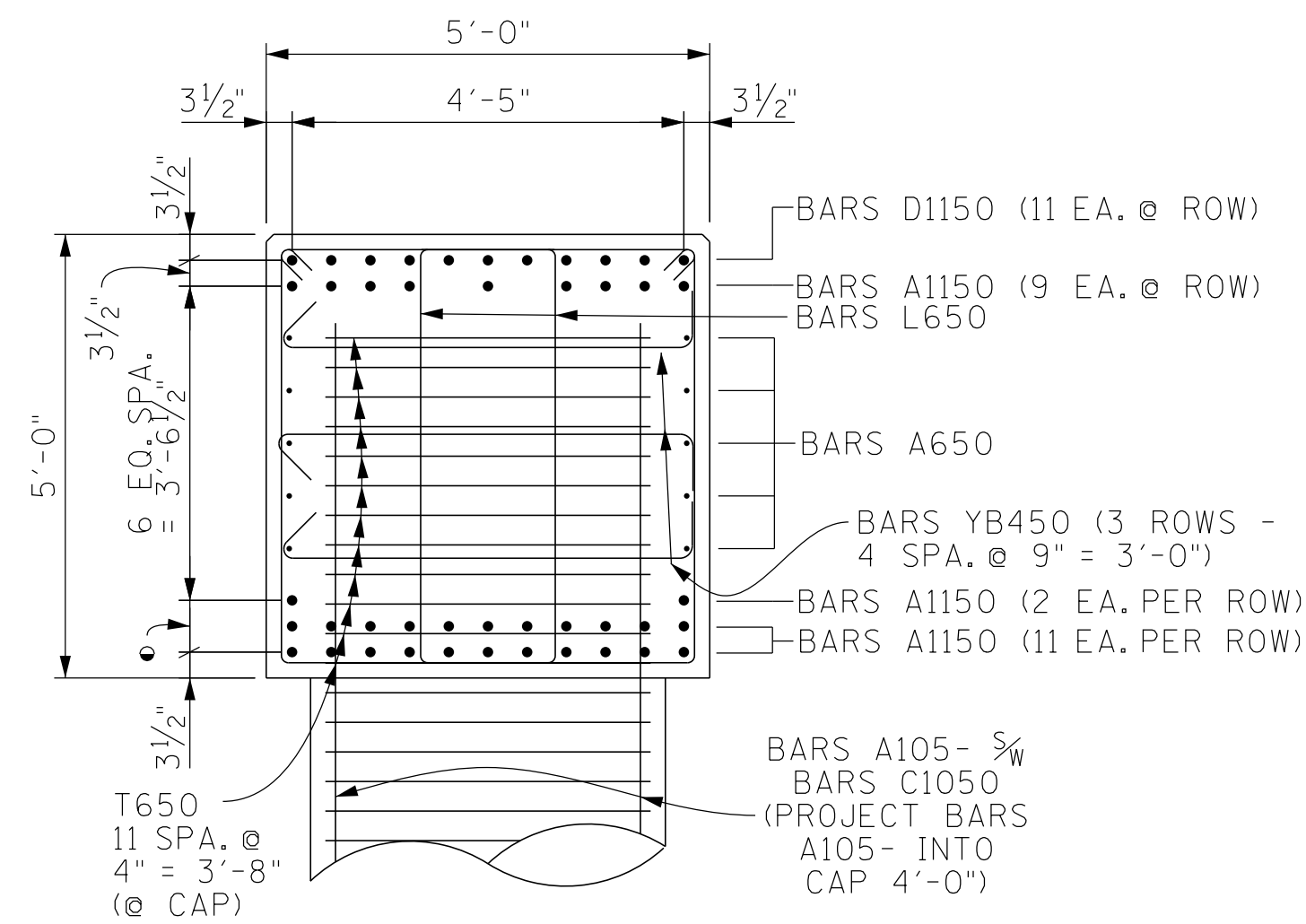
F.S. DENOTES: FAR SIDE
N.S. DENOTES: NEAR SIDE
P.C.O. DENOTES: PILE CUT-OFF

PROJECT NO.	YEAR	SHEET NO.	
STP/NH-4(6)	2026		
REVISIONS			
NO.	DATE	BY	BRIEF DESCRIPTION



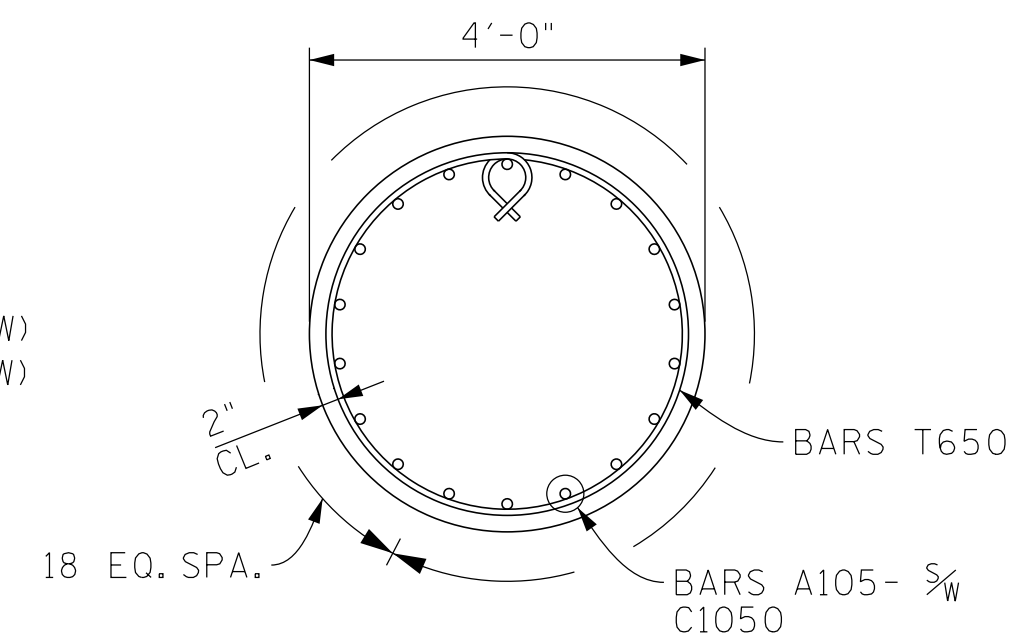
SECTION "A"-"A"

• DENOTES: 2 SPA. @ 3 1/2" = 7"



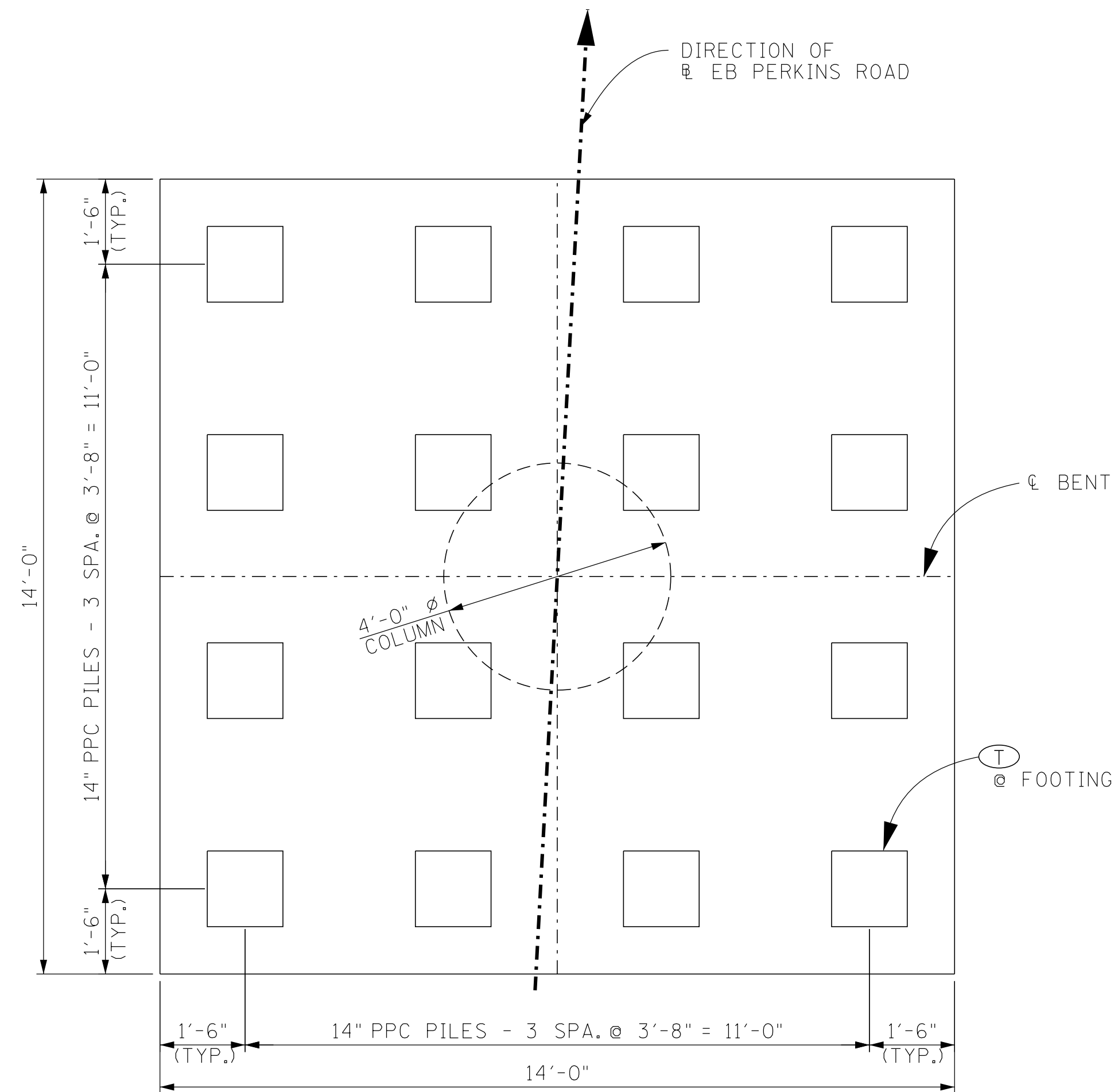
SECTION "B"-"B"
(TYP. @ COLUMNS)

• DENOTES: 2 SPA. @ 3 1/2" = 7"



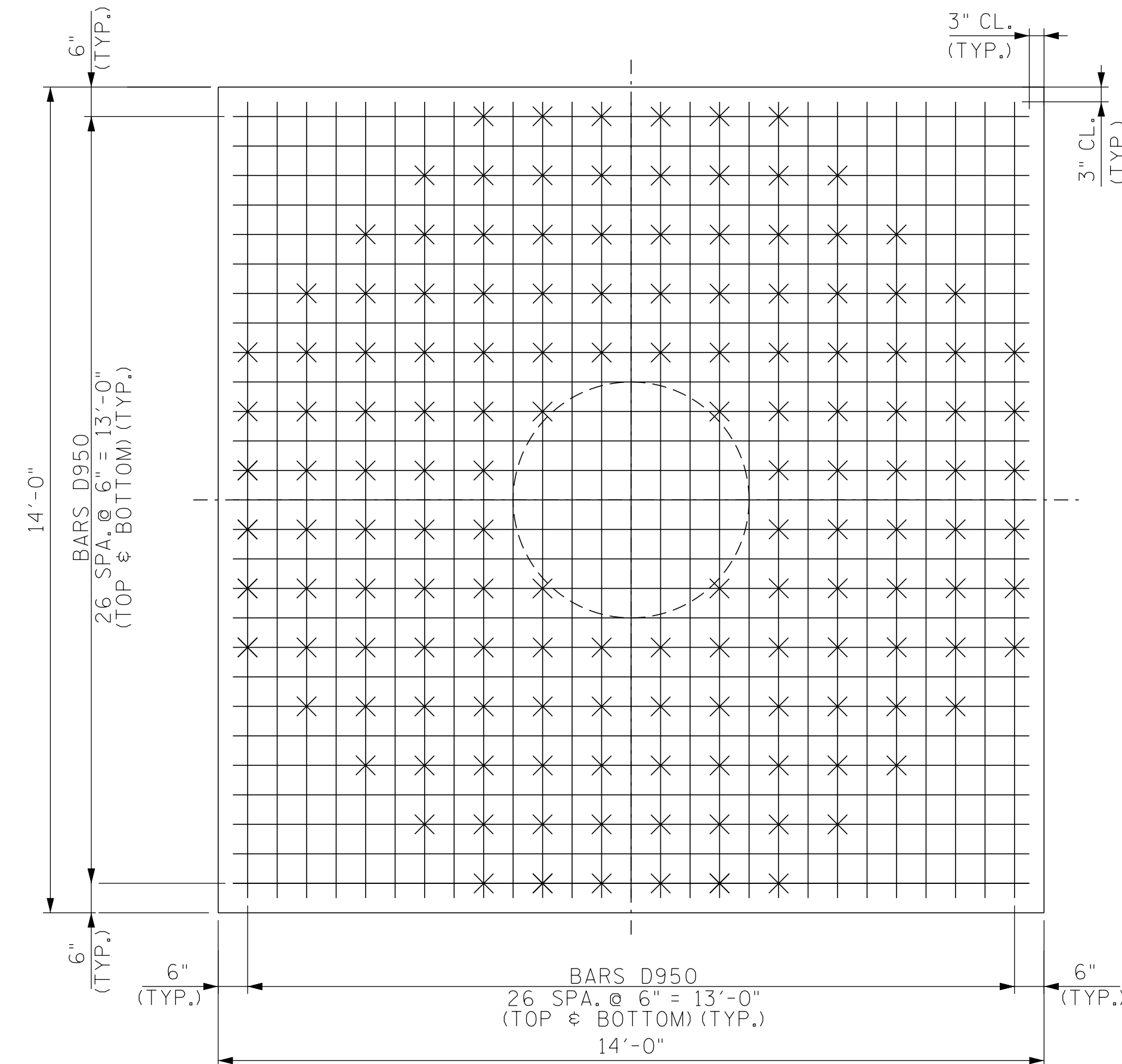
SECTION "C"-"C"

(TYP. @ EACH COLUMNS)



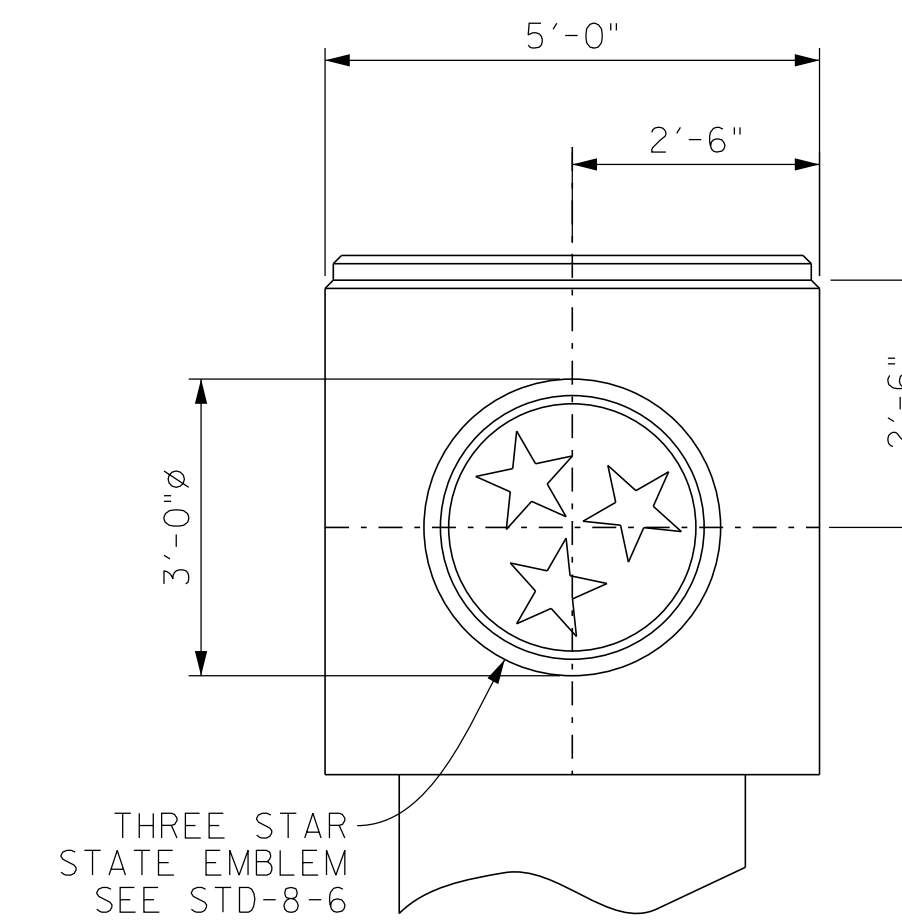
PLAN OF FOOTING - PILES
(TYP. @ ALL FOOTINGS)

Ⓟ DENOTES: TEST PILE



PLAN OF FOOTING - REINFORCEMENT
(TYP. @ ALL FOOTINGS)

× DENOTES: DOUBLE BARS B550 (144 PAIRS) @ 1'-0" SPA.



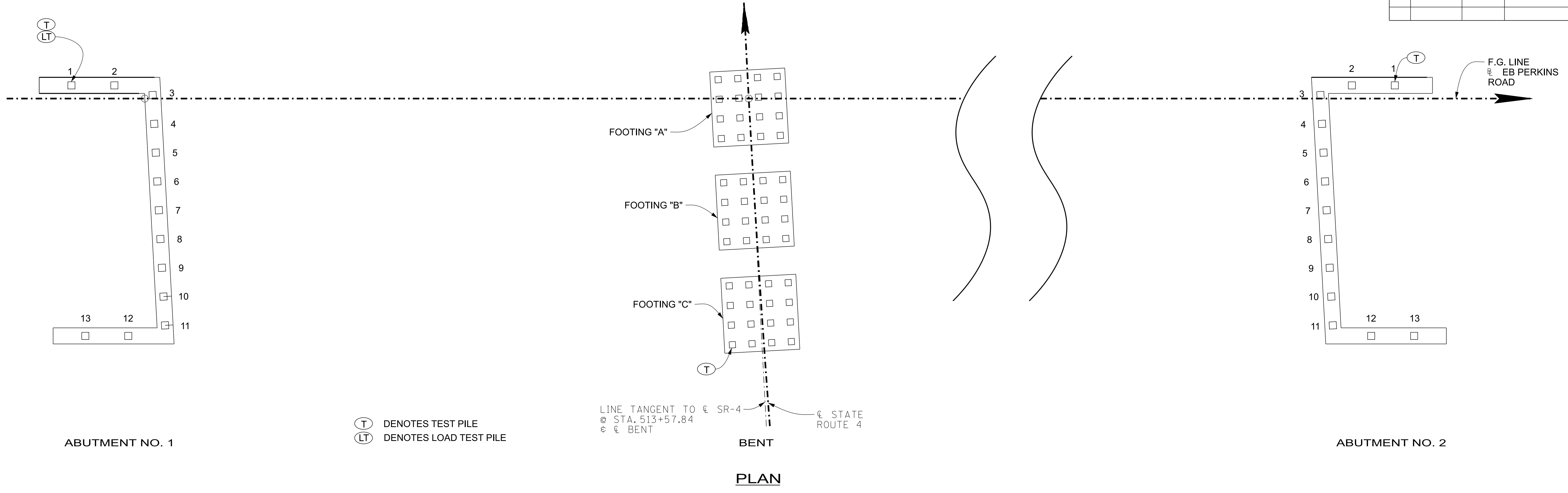
BENT TREATMENT
(END ELEVATION)

NOTE: EMBLEM SHALL BE APPLIED TO RIGHT SIDE OF CAP. FOR DETAILS SEE STD. DWG. NO. STD-8-6.

SEALED BY

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BRIDGE NO. 2
BENT DETAILS
PERKINS ROAD EB
OVER STATE ROUTE 4 (LAMAR AVE.)
BRIDGE ID NO. 79SR0040005
LOG MILE 3.60
STATION 18+05.73
SHELBY COUNTY

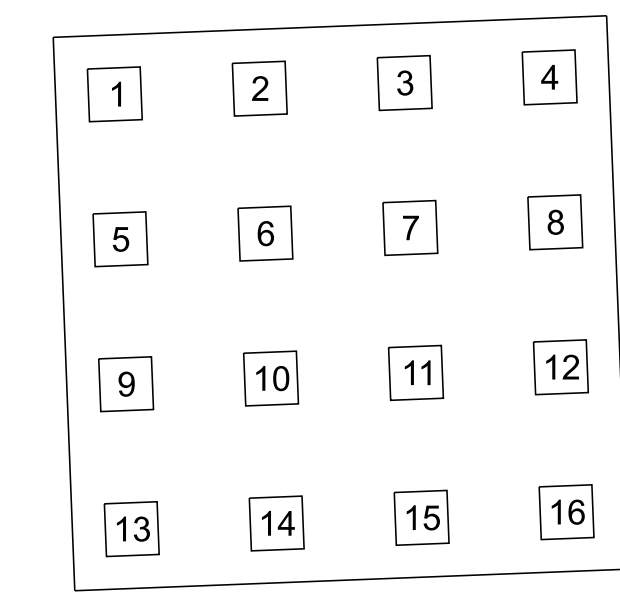
PROJECT NO.	YEAR	SHEET NO.	
STP/NH-4(6)	2026		
REVISIONS			
NO.	DATE	BY	BRIEF DESCRIPTION



(T) DENOTES TEST PILE
(LT) DENOTES LOAD TEST PILE

TABLE OF FOUNDATION DATA

		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
ABUTMENT NO. 1	PILE CUT-OFF ELEVATION																
	PILE TIP ELEVATION																
	IN PLACE PILE LENGTH																
BENT FOOTING "A"	PILE CUT-OFF ELEVATION																
	PILE TIP ELEVATION																
	IN PLACE PILE LENGTH																
BENT FOOTING "B"	PILE CUT-OFF ELEVATION																
	PILE TIP ELEVATION																
	IN PLACE PILE LENGTH																
BENT FOOTING "C"	PILE CUT-OFF ELEVATION																
	PILE TIP ELEVATION																
	IN PLACE PILE LENGTH																
ABUTMENT NO. 2	PILE CUT-OFF ELEVATION																
	PILE TIP ELEVATION																
	IN PLACE PILE LENGTH																



NOTE TO CONTRACTOR AND CONSTRUCTION OFFICE:
THE BLANKS ON THIS SHEET 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.

PIN NO.: 100340.00
DESIGN BY: A. OMAR DATE: 12/15/2025
DRAWN BY: A. OMAR DATE: 12/15/2025
SUPERVISED BY: D. SHIKE DATE: 12/15/2025
CHECKED BY: U. PATEL DATE: 01/15/2026

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BRIDGE NO. 2
FINAL FOUNDATION DATA
PERKINS ROAD EB
OVER STATE ROUTE 4 (LAMAR AVE.)
BRIDGE ID NO. 79SR0040005
LOG MILE 3.60
STATION 18+05.73
SHELBY COUNTY

BILL OF STEEL

CONST. NO.: 79020-3253-14

SUPERSTRUCTURE (EPOXY)								
BAR	LOCATION	SIZE	NO. REQ'D	BENDING DIMENSIONS				LENGTH
				A	B	C	D	
A400E	SIDEWALK	4	201					5'-8"
A401E	SIDEWALK	4	25					60'-0"
A402E	SIDEWALK	4	5					9'-0"
A500E	SLAB	5	664					47'-11"
A501E	SLAB	5	224					60'-0"
A502E	SLAB	5	56					22'-0"
A600E	SLAB	6	50					51'-3"
A601E	SLAB	6	50					43'-0"
A602E	SLAB	6	50					60'-0"
A900E	SLAB	9	50					52'-9"
A901E	SLAB	9	96					60'-0"
A902E	SLAB	9	46					15'-7"
B571E	SLAB/RAIL	5	506	3'-4"				3'-11"
B572E	SLAB/RAIL	5	756	2'-8"				3'-3"

SUPERSTRUCTURE (REGULAR)								
BAR	LOCATION	SIZE	NO. REQ'D	BENDING DIMENSIONS				LENGTH
				A	B	C	D	
A503	DIAPHRAGM	5	28					5'-7"
A504	DIAPHRAGM	5	70					9'-4"
L400	DIAPHRAGM	4	14	1'-2"	1'-2"			5'-5"
L401	DIAPHRAGM	4	30	1'-2"	5'-10"			14'-9"

BENT (REGULAR)								
BAR	LOCATION	SIZE	NO. REQ'D	BENDING DIMENSIONS				LENGTH
				A	B	C	D	
A650	CAP	6	10					45'-8"
A1050	COLUMN	10	18					17'-6"
A1051	COLUMN	10	18					16'-11"
A1052	COLUMN	10	18					16'-5"
A1150	CAP	11	33					45'-8"
B550	FOOTING	5	864	3'-2"				3'-9"
C1050	COLUMN	10	54	15'-5"				17'-3"
D950	FOOTING	9	324	13'-6"				16'-0"
D1150	CAP	11	11	45'-8"				48'-10"
L650	CAP	6	186	3'-1"	4'-8"			16'-10"
T650	COLUMN	6	229	3'-8"				14'-2"
YB450	CAP	4	45	4'-8"	4½"			5'-5"

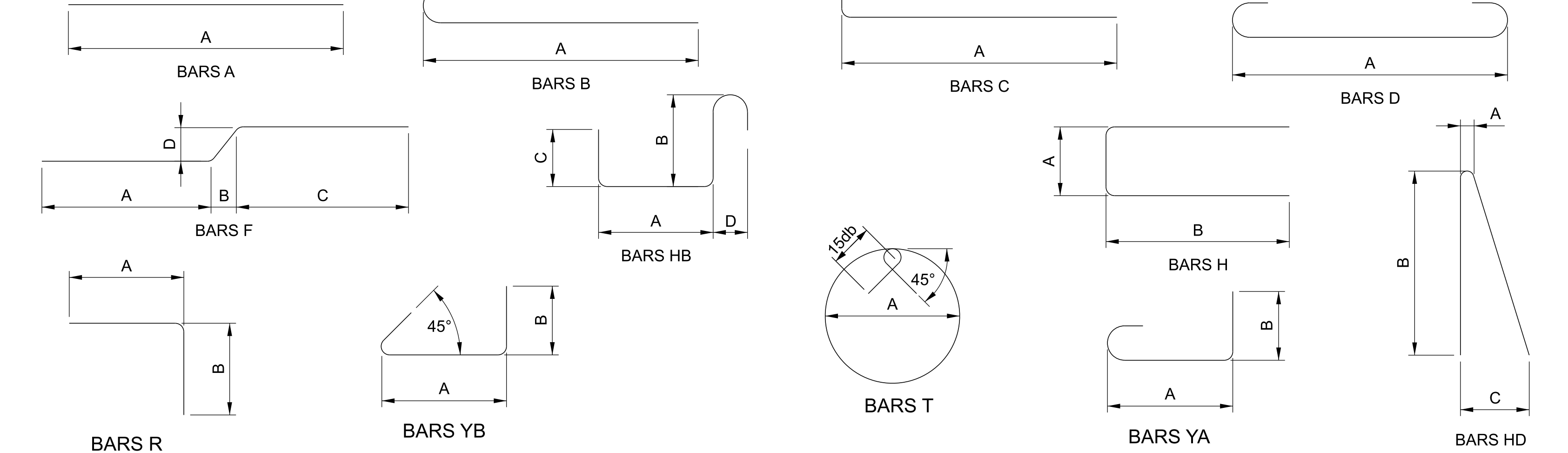
ABUTMENT NO. 1 (EPOXY)								
BAR	LOCATION	SIZE	NO. REQ'D	BENDING DIMENSIONS				LENGTH
				A	B	C	D	
A570E	WINGWALL	5	18					5'-7"
A640E	ENDWALL	6	98					6'-10"
A641E	ENDWALL	6	2					47'-11"
B570E	WINGWALL /PARAPET	5	28	3'-4"				3'-11"
B572E	WINGWALL /PARAPET	5	34	2'-8"				3'-3"
B640E	ENDWALL	6	2	5'-0"				5'-8"
F640E	ENDWALL /P.A.B.E.	6	45	1'-1"	1'-3"	1'-1"	1'-3"	4'-0"
H400E	WINGWALL /PARAPET	4	6	10½"	3'-11"			8'-9"
H401E	WINGWALL /PARAPET	4	1	9⅞"	3'-10"			8'-7"
H402E	WINGWALL /PARAPET	4	1	8¾"	3'-9"			8'-4"
H403E	WINGWALL /PARAPET	4	1	7⅝"	3'-8"			8'-0"
H404E	WINGWALL /PARAPET	4	1	6½"	3'-7"			7'-7"
HD400E	WINGWALL /PARAPET	4	1	*	3'-11"	9"		33'-4"
HD401E	WINGWALL /PARAPET	4	1	*	3'-11"	9"		42'-8"
R640E	ENDWALL/SLAB	6	45	3'-3"	3'-0"			6'-3"

ABUTMENT NO. 1 (REGULAR)								
BAR	LOCATION	SIZE	NO. REQ'D	BENDING DIMENSIONS				LENGTH
				A	B	C	D	
A440	ROADWAY BRACKET	4	1					44'-11"
A441	WINGWALL	4	40					6'-3"
A442	WINGWALL	4	16					20'-8"
A540	ABUTMENT BEAM	5	2					49'-5"
A541	WING BEAM	5	4					22'-1"
A642	ENDWALL	6	14					47'-11"
A643	WINGWALL	6	40					6'-3"
A644	WINGWALL	6	16					20'-8"
A645	ENDWALL	6	8					3'-7"
A740	ABUTMENT BEAM	7	10					49'-5"
A741	WING BEAM	7	20					22'-1"
B640	ENDWALL	6	14					5'-8"
H540	ENDW. /RDWY. BRKT.	5	45	2'-2"	6"			3'-2"
H640	ENDWALL	6	45	1'-2"	3'-7"			8'-4"
H641	WINGWALL	6	40	1'-2"	4'-1"			9'-4"
L540	ABUT. B. /WING B.	5	84	2'-8"	2'-8"			11'-7"

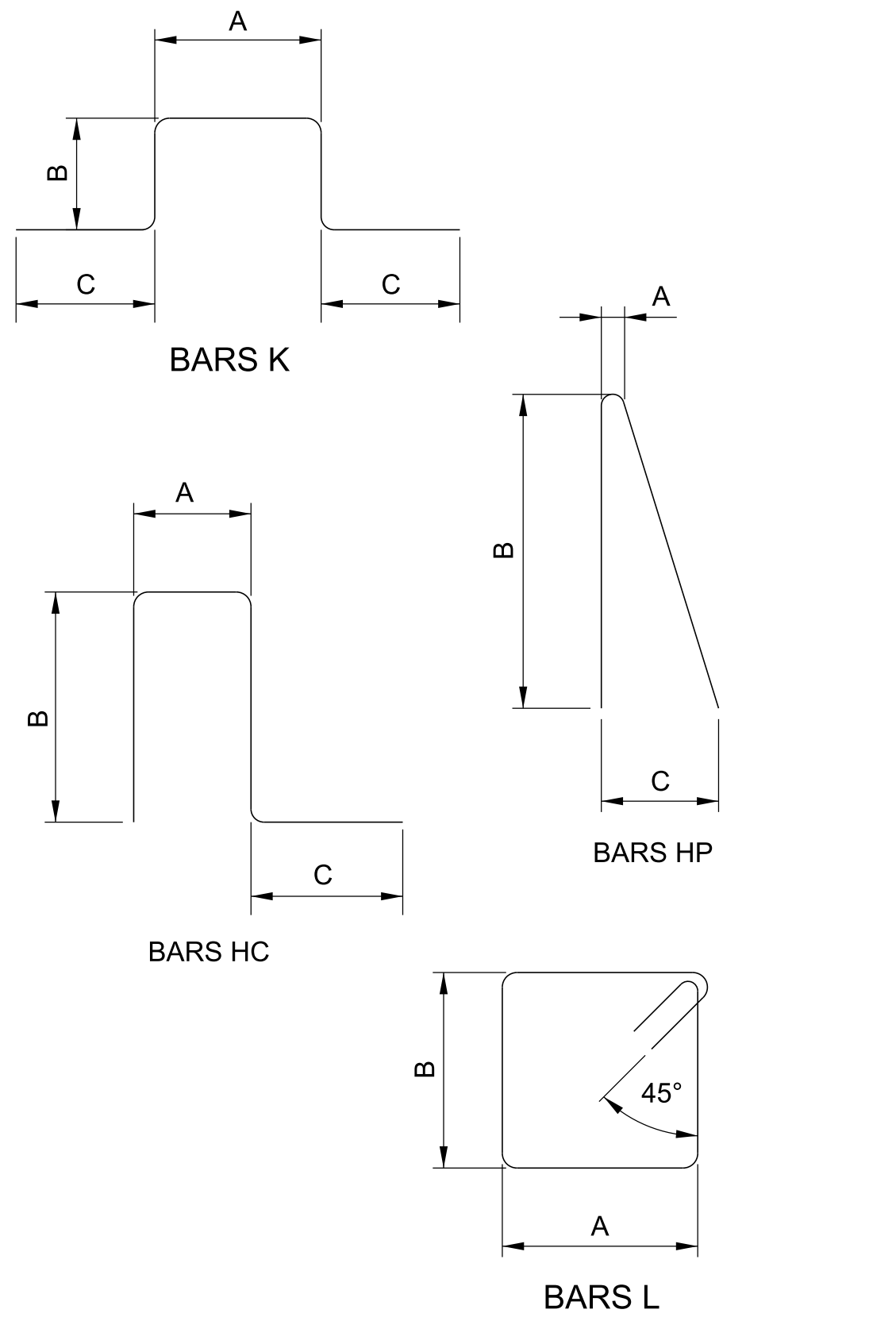
ABUTMENT NO. 2 (EPOXY)								
BAR	LOCATION	SIZE	NO. REQ'D	BENDING DIMENSIONS				LENGTH
				A	B	C	D	
A570E	WINGWALL	5	18					5'-7"
A640E	ENDWALL	6	98					6'-10"
A641E	ENDWALL	6	2					47'-11"
B570E	WINGWALL /PARAPET	5	28	3'-4"				3'-11"
B572E	WINGWALL /PARAPET	5	34	2'-8"				3'-3"
B640E	ENDWALL	6	2	5'-0"				5'-8"
F640E	ENDWALL /P.A.B.E.	6	45	1'-1"	1'-3"	1'-1"	1'-3"	4'-0"
H400E	WINGWALL /PARAPET	4	6	10½"	3'-11"			8'-9"
H401E	WINGWALL /PARAPET	4	1	9⅞"	3'-10"			8'-7"
H402E	WINGWALL /PARAPET	4	1	8¾"	3'-9"			8'-4"
H403E	WINGWALL /PARAPET	4	1	7⅝"	3'-8"			8'-0"
H404E	WINGWALL /PARAPET	4	1	6½"	3'-7"			7'-7"
HD400E	WINGWALL /PARAPET	4	1	*	3'-11"	9"		33'-4"
HD401E	WINGWALL /PARAPET	4	1	*	3'-11"	9"		42'-8"
R640E	ENDWALL/SLAB	6	45	3'-3"	3'-0"			6'-3"

ABUTMENT NO. 2 (REGULAR)								
BAR	LOCATION	SIZE	NO. REQ'D	BENDING DIMENSIONS				LENGTH
				A	B	C	D	
A440	ROADWAY BRACKET	4	1					44'-11"
A441	WINGWALL	4	40					6'-3"
A442	WINGWALL	4	16					20'-8"
A540	ABUTMENT BEAM	5	2					49'-5"
A541	WING BEAM	5	4					22'-1"
A642	ENDWALL	6	14					47'-11"
A643	WINGWALL	6	40					6'-3"
A644	WINGWALL	6	16					20'-8"
A645	ENDWALL	6	8					3'-7"
A740	ABUTMENT BEAM	7	10					49'-5"
A741	WING BEAM	7	20					22'-1"
B641	ENDWALL	6	14					5'-8"
H540	ENDW. /RDWY. BRKT.	5	45	2'-2"	6"			3'-2"
H640	ENDWALL	6	45	1'-2"	3'-7"			8'-4"
H641	WINGWALL	6	40	1'-2"	4'-1"			9'-4"
L540	ABUT. B. /WING B.	5	84	2'-8"	2'-8"			11'-7"

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.



PROJECT NO. STP/NH-4(6)	YEAR 2026	SHEET NO.	
REVISIONS			
NO.	DATE	BY	BRIEF DESCRIPTION



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 NOTES.
NOTE: THE SUFFIX "E" FOR BARS SO MARKED DENOTES EPOXY COATED REINFORCEMENT.

SEALED BY

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BRIDGE NO. 2
BILL OF STEEL
PERKINS ROAD EB
OVER STATE ROUTE 4 (LAMAR AVE.)
BRIDGE ID NO. 79SR0040005
LOG MILE 3.60
STATION 18+05.73
SHELBY COUNTY

8:12:52 PM
3/7/2026

PIN NO.: 100340.00
DESIGN BY: A. OMAR DATE: 12/15/2025
DRAWN BY: A. OMAR DATE: 12/15/2025
SUPERVISED BY: D. SHIKE DATE: 12/15/2025
CHECKED BY: U. PATEL DATE: 01/15/2026

PROJECT NO.	YEAR	SHEET NO.	
STP/NH-4(6)	2026		
REVISIONS			
NO.	DATE	BY	BRIEF DESCRIPTION
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LAST

LIST OF DRAWINGS DWG. NO. REV. DATE

INDEX OF DRAWINGS	U-102-184	----
LAYOUT OF BRIDGE	U-102-185	----
BRIDGE GENERAL NOTES	U-102-186	----
BRIDGE GENERAL NOTES	U-102-187	----
BRIDGE QUANTITIES	U-102-188	----
FOUNDATION DATA	U-102-189	----
FOUNDATION DATA	U-102-190	----
SUPERSTRUCTURE	U-102-191	----
SUPERSTRUCTURE DETAILS	U-102-192	----
SUPERSTRUCTURE DETAILS	U-102-193	----
SUPERSTRUCTURE DETAILS	U-102-194	----
SUPERSTRUCTURE DETAILS	U-102-195	----
SUPERSTRUCTURE DETAILS	U-102-196	----
GIRDER DETAILS	U-102-197	----
GIRDER DETAILS	U-102-198	----
GIRDER DETAILS	U-102-199	----
ABUTMENT NO. 1	U-102-200	----
ABUTMENT NO. 1 DETAILS	U-102-201	----
ABUTMENT NO. 1 DETAILS	U-102-202	----
ABUTMENT NO. 1 DETAILS	U-102-203	----
ABUTMENT NO. 2	U-102-204	----
ABUTMENT NO. 2 DETAILS	U-102-205	----
ABUTMENT NO. 2 DETAILS	U-102-206	----
ABUTMENT NO. 2 DETAILS	U-102-207	----
MISCELLANEOUS/GENERAL DETAILS	U-102-208	----
BENT NO. 1	U-102-209	----
BENT NO. 1 CONTINUED	U-102-210	----
BENT NO. 1 DETAILS	U-102-211	----
BENT NO. 1 DETAILS	U-102-212	----
BENT NO. 2	U-102-213	----
BENT NO. 2 CONTINUED	U-102-214	----
BENT NO. 2 DETAILS	U-102-215	----
BENT NO. 2 DETAILS	U-102-216	----
BENT NO. 1 & NO. 2 DETAILS	U-102-217	----
FINAL FOUNDATION DATA	U-102-218	----
BILL OF STEEL	U-102-219	----

LAST

LIST OF STANDARD DRAWINGS DWG. NO. REV. DATE

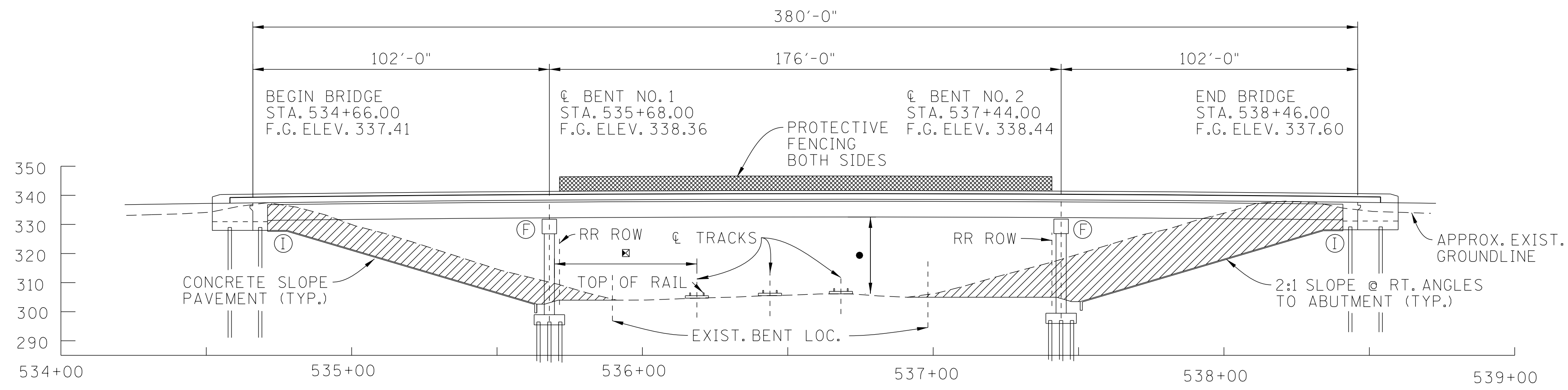
BRIDGE RAILING SINGLE SLOPE CONCRETE PARAPET	STD-1-1SS	07-09-25
STEEL SLIDER PLATE ASSEMBLIES FOR SINGLE SLOPE CONCRETE PARAPET AND BRIDGE DECK DRAIN DETAILS	STD-1-2SS	05-31-24
BRIDGE RAILING SINGLE SLOPE CONCRETE PARAPET	STD-1-3SS	05-10-21
REINFORCED CONCRETE PAVEMENT AT BRIDGE ENDS	STD-1-5	06-05-23
STANDARD PILE DETAILS	STD-5-1	----
STANDARD SEISMIC DETAILS	STD-6-1	12-08-23
SINGLE SLOPE PARAPET STANDARD LIGHT SUPPORT DETAIL	STD-8-2SS	----
STANDARD PROTECTIVE FENCE DETAILS	STD-8-5	10-01-25
STANDARD REINFORCING BAR SUPPORT DETAILS FOR CONCRETE SLABS	STD-9-1	10-07-08
MISCELLANEOUS ABUTMENT AND DRAINAGE DETAILS	STD-10-1	06-05-23
MISCELLANEOUS ABUTMENT & PAVEMENT AT BRIDGE ENDS BACKFILL DETAILS	STD-10-2	06-05-23

SEALED BY

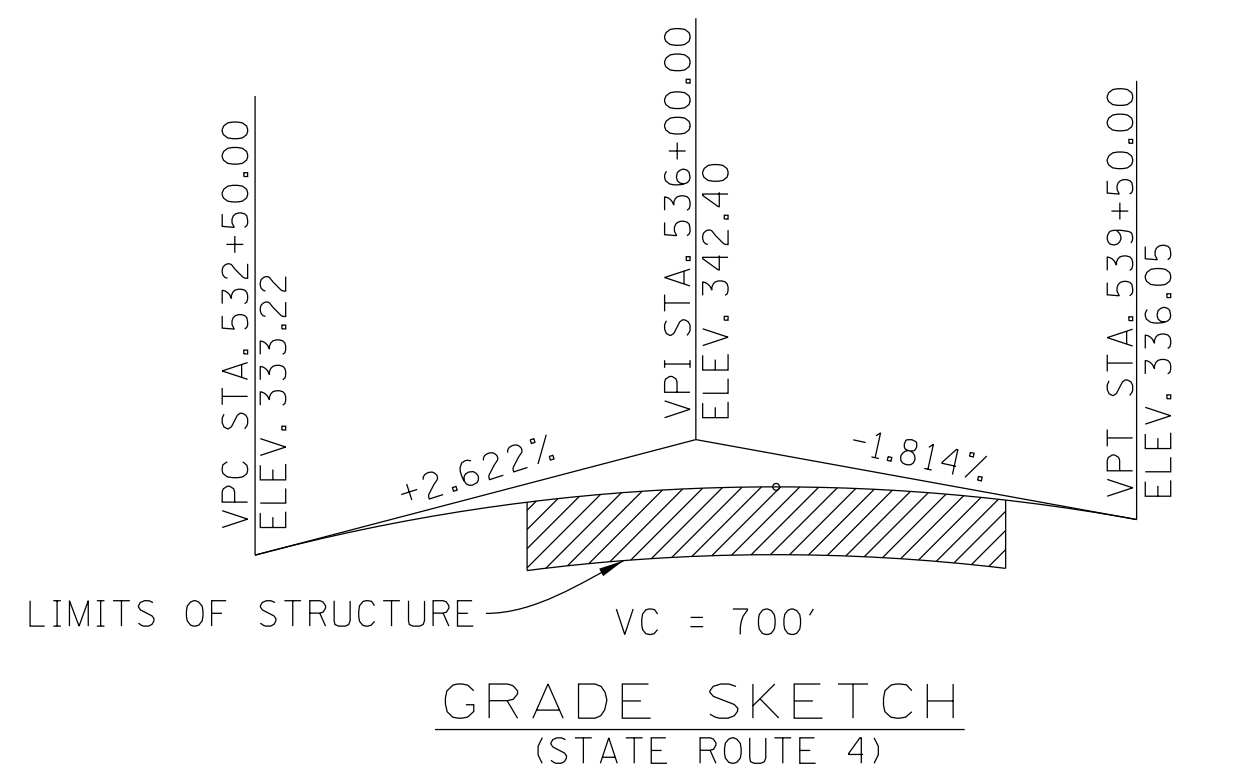
BRIDGE NO. 3
STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
INDEX OF DRAWINGS
STATE ROUTE 4 OVER
BURLINGTON-NORTHERN RAILROAD
BRIDGE ID NO. 79SR0040009
STATION 536+56.00
LOG MILE 4.13
SHELBY COUNTY

PIN NO.: 100340.00
DESIGN BY: JOHN AYERS DATE: 1-26
DRAWN BY: JERRY W. SIMPSON DATE: 2-26
SUPERVISED BY: S. STEELE/D. SHIKE DATE: 1-26
CHECKED BY: A. OMAR DATE: 3-26

PROJECT NO.	YEAR	SHEET NO.	
STP/NH-4(6)	2026		
REVISIONS			
NO.	DATE	BY	BRIEF DESCRIPTION
-	-	-	-
-	-	-	-
-	-	-	-
-	-	-	-
-	-	-	-

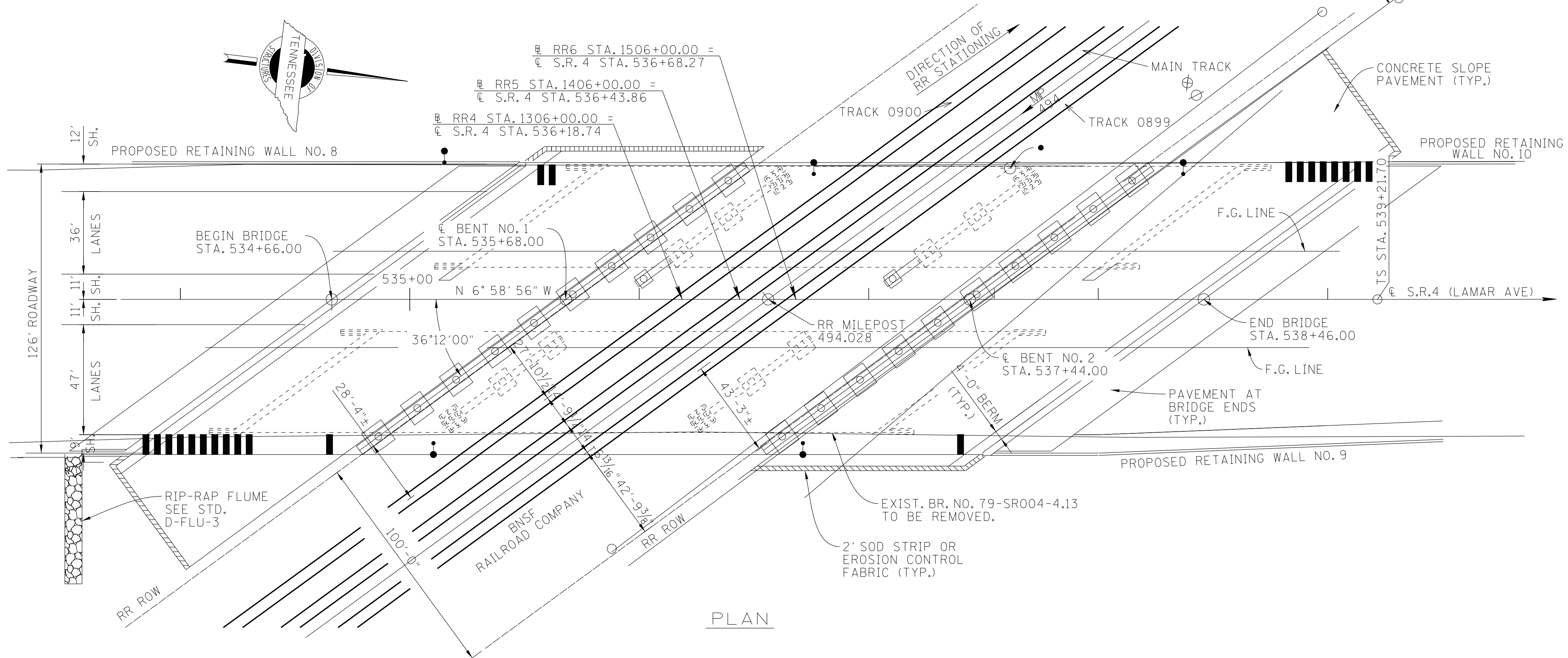


- ① DENOTES: INTEGRAL
- ⓕ DENOTES: FIXED
- ▨ DENOTES AREA TO BE EXCAVATED AND PAID FOR AS A ROADWAY ITEM.
- DENOTES POINT OF MIN VERT CLEARANCE (TO TOP OF RAIL)
ACTUAL CLEARANCE = 23'-9" (EXISTING = 21'-10")
REQUIRED CLEARANCE = 23'-6"
- DENOTES MINIMUM HORIZONTAL CLEARANCE = 28'-4" PERPENDICULAR TO TRACK



CURVE DATA (STATE ROUTE 4)

PI STA. 547+61.58
 N 283,325.4010
 E 795,246.9710
 Δs 36°59'14" LT.
 Δs 6°00'00"
 Δc 24°59'14" LT.
 D 3°00'00"
 R 1,909.86'
 Lc 832.91'
 Ts 839.89'
 Ls 400.00
 SE 6.8%
 DES SPEED 60 MPH



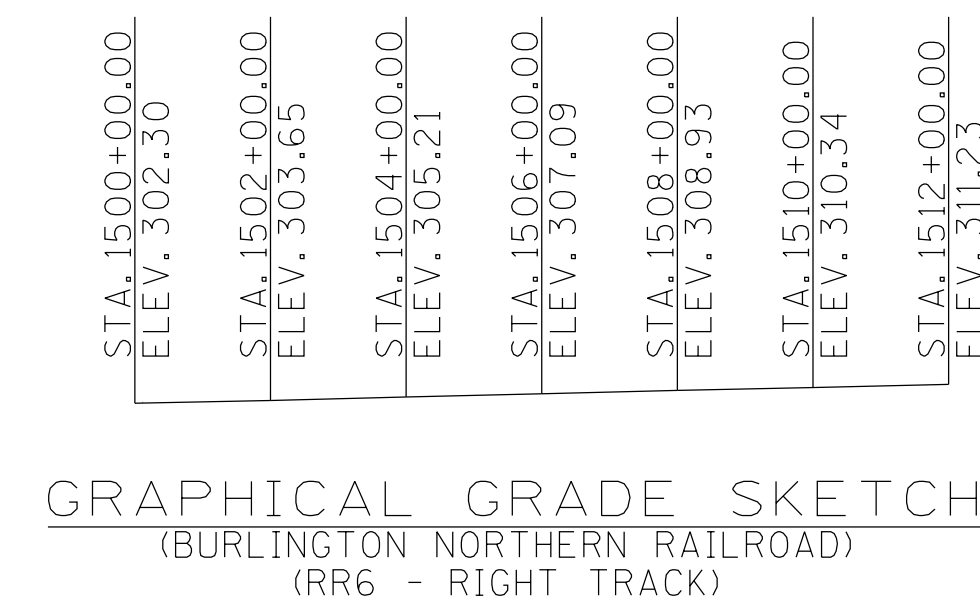
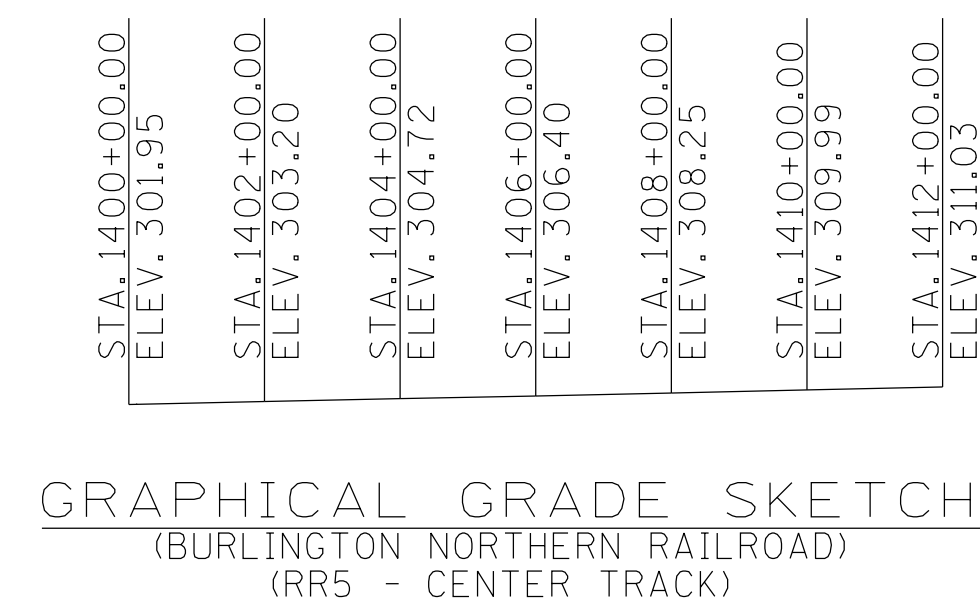
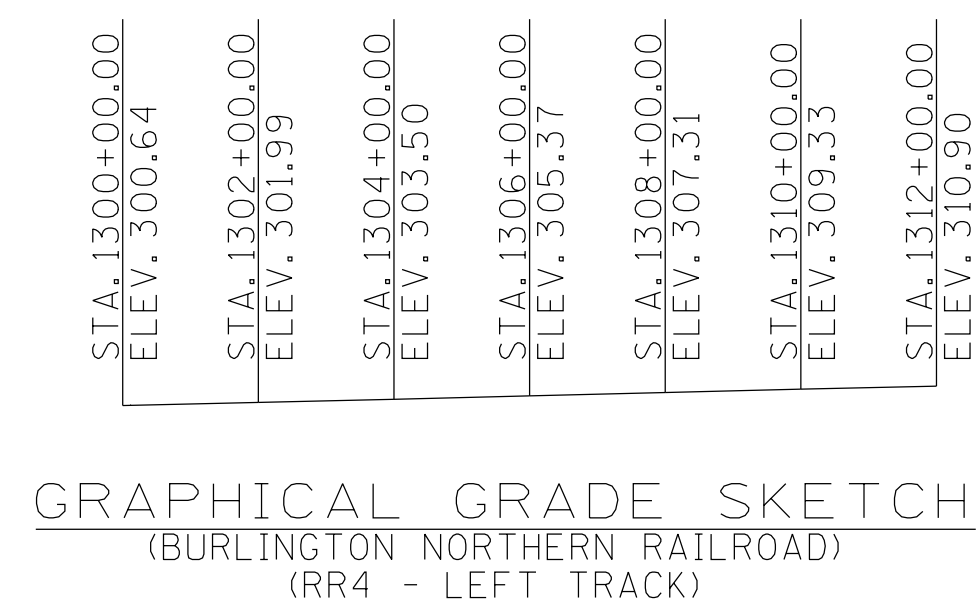
- DENOTES POINT OF MINIMUM VERTICAL CLEARANCE
SR-4 STA. 537+61.58
RR6 STA. 1507+09.02
- DENOTES ROADWAY LIGHTING SUPPORT
- ▬ DENOTES BRIDGE DECK DRAINS (PARAPET OPENING TYPE) SEE STD. DWG. STD-1-2SS.

PARAPET DRAINS

LEFT	RIGHT
535+57	533+85
535+62	533+90
538+83	533+95
538+88	534+00
538+93	534+05
538+98	534+10
539+03	534+15
539+08	534+20
539+13	534+25
539+18	534+30
	534+65
	537+40

SEALED BY

PIN NO.: 100340.00
 DESIGN BY: JOHN AYERS DATE: 1-26
 DRAWN BY: JERRY W. SIMPSON DATE: 2-26
 SUPERVISED BY: S. STEELE/D. SHIKE DATE: 1-26
 CHECKED BY: A. OMAR DATE: 3-26



BRIDGE NO. 3
 STATE OF TENNESSEE
 DEPARTMENT OF TRANSPORTATION
LAYOUT OF BRIDGE
STATE ROUTE 4 OVER
BURLINGTON-NORTHERN RAILROAD
 BRIDGE ID NO. 79SR0040009
 STATION 536+56.00
 LOG MILE 4.13
 SHELBY COUNTY

GENERAL NOTES

SPECIFICATIONS & LOADING

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

DESIGN SPECIFICATIONS: 10TH EDITION (2024) 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 LOAD INCREASED BY 10% (MULTIPLIED BY 1.1) IN ADDITION TO ALL LOAD FACTORS SPECIFIED BY AASHTO FOR ALL APPLICABLE LOAD COMBINATIONS
- B. SEISMIC DESIGN CATEGORY 'C' WITH A_S=0.364, S_{DS}=0.783, S_{D1}=0.340, (1000 YEAR RETURN PERIOD)
- C. DEAD LOAD INCLUDES 35 LB/SQ. FT. FOR FUTURE WEARING SURFACE.

CONCRETE, REINFORCING & FORMING

CONCRETE: TO BE CLASS A 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 3 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 SHALL BE REMAIN-IN-PLACE STEEL. FORMS SHALL BE ATTACHED BY MEANS OTHER THAN WELDING TO MAIN STRUCTURAL MEMBERS OR REINFORCING STEEL.

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

REINFORCING STEEL IN COLUMNS: ALL LONGITUDINAL REINFORCING STEEL IN COLUMNS SHALL BE ASTM A706 GRADE 60.

FOUNDATION ELEMENTS

FRICITION PILES: TO BE 14" DIA. X 1/2" GRADE 3 MODIFIED PIPE PILES. AFTER EXCAVATION TO THE PROPOSED FOOTING ELEVATIONS, A TEST PILE SHALL BE DRIVEN AT EACH SUBSTRUCTURE AT THE LOCATION DESIGNATED ON DRAWING NO. U-102-218. A LOAD TEST WILL THEN BE APPLIED TO THE TEST PILE IN ABUT. NO. 1. FROM THE RESULTS OF THE LOAD TEST, THE ENGINEER OF STRUCTURES WILL DETERMINE THE REQUIRED LENGTH OF THE PRODUCTION PILES AND MINIMUM REQUIRED BEARING. FOR PILE DESIGN LOADS AND CUT-OFF ELEVATIONS, SEE TABLE ON DRAWING NO. U-102-187.

THE CONTRACTOR SHALL INSTALL PILING SUCH THAT ALL THE FOLLOWING REQUIREMENTS ARE MET. THE TIP ELEVATION FOR ALL TEST PILES AND PRODUCTION PILES SHALL BE EQUAL TO OR BELOW THE MINIMUM PILE TIP ELEVATION SHOWN ON THE PLANS. IN ADDITION, TEST PILES TO BE LOAD TESTED SHALL BE INSTALLED TO AT LEAST THE SPECIFIED BEARING SHOWN ON THE PLANS OR FULL LENGTH, WHICHEVER OCCURS FIRST. ALL OTHER TEST PILES SHALL BE INSTALLED TO AT LEAST 1.5 TIMES THE SPECIFIED BEARING SHOWN ON THE PLANS OR FULL LENGTH, WHICHEVER OCCURS FIRST. ALL PRODUCTION PILES SHALL BE INSTALLED FULL LENGTH UNLESS EXCESSIVELY HARD DRIVING WHICH MIGHT DAMAGE THE PILES IS ENCOUNTERED. IF THE PRODUCTION PILES DO NOT ACHIEVE THE MINIMUM REQUIRED BEARING, THE ENGINEER OF STRUCTURES WILL DETERMINE IF ADDITIONAL PILES ARE REQUIRED.

IN THE EVENT THAT DRIVING THE TEST PILE TO AT LEAST THE MINIMUM TIP ELEVATION OR DRIVING THE PRODUCTION PILE FULL LENGTH MIGHT DAMAGE THE PILE BECAUSE OF EXCESSIVELY HARD DRIVING, THE CONTRACTOR SHALL USE OTHER METHODS APPROVED BY THE ENGINEER FOR INSTALLING THE PILES SUCH AS JETTING (WHERE ALLOWED) OR PRE-DRILLING HOLES. HOWEVER, ALL PILES MUST BE DRIVEN BY HAMMER FOR THE LAST FEW FEET OF PENETRATION. NO MEASUREMENT FOR PAYMENT WILL BE MADE FOR PRE-DRILLING HOLES OR FOR JETTING PILING TO OBTAIN THE REQUIRED PILE PENETRATION.

THE PILE LOAD TEST SHALL BE A QUICK LOAD TEST CONDUCTED IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS. THE PILE LOAD TEST APPARATUS FOR APPLYING LOADS AND MEASURING MOVEMENT SHALL MEET THE REQUIREMENTS OF ASTM D1143, STANDARD TEST METHODS FOR DEEP FOUNDATION ELEMENTS UNDER STATIC AXIAL COMPRESSIVE LOAD. WHEN INSUFFICIENT CLEARANCE IS AVAILABLE WITHIN AN EXCAVATION, THE CLEARANCE REQUIREMENTS IN ARTICLE 9.1.1 MAY BE REDUCED, BUT ONLY WITH PRIOR APPROVAL OF THE ENGINEER.

ALTERNATE FRICTION PILES: WITH THE EXCEPTION OF PILE BENTS, THE CONTRACTOR MAY USE AN ALTERNATE PILE TYPE OR SIZE FROM THAT SHOWN ON THE PLANS PROVIDED THE SUBSTITUTION MEETS MINIMUM DESIGN STANDARDS AND SPECIFICATIONS AND IS APPROVED BY THE ENGINEER. FOR PILE BENTS, ANY PROPOSAL OF THE CONTRACTOR TO USE AN ALTERNATE PILE TYPE OR SIZE SHALL BE CONSIDERED VALUE ENGINEERING.

PIPE PILES: SHALL BE PP 14" DIA. X 1/2", GRADE 3 MODIFIED WITH A MINIMUM YIELD STRESS OF 50 KSI IN ACCORDANCE WITH ASTM A252. WEATHERING STEEL WILL NOT BE ALLOWED FOR PIPE PILES. ANY PIPE PILE HAVING BENDS, KINKS OR OTHER DEFORMATIONS DURING THE PROCESS OF DRIVING THAT WOULD IMPAIR THE STRENGTH (10% REDUCTION AS DETERMINED BY THE ENGINEER) EFFICIENCY OF THE COMPLETED PILE SHALL BE EITHER REMOVED AND REPLACED OR REPAIRED BY THE CONTRACTOR IN A MANNER SATISFACTORY TO THE ENGINEER. THE CONTRACTOR WILL NOT BE REIMBURSED FOR ANY SUCH PIPE PILE ORDERED REMOVED OR REPLACED BY THE ENGINEER.

PIPE PILE SPLICES: FULL LENGTH PILES SHALL BE USED WHERE PRACTICAL. PILES MAY BE SPLICED WITH THE PRIOR APPROVAL OF THE ENGINEER. SPLICES SHALL USE FULL PENETRATION WELDS DESIGNED TO DEVELOP THE FULL STRENGTH OF THE PILE CROSS-SECTION IN TENSION AND COMPRESSION. ONLY ONE SPLICE PER 40 LINEAR FEET OF PILE WILL BE ALLOWED. DRIVE-ON SPLICES SHALL NOT BE USED AND ONLY COMMERCIALY MANUFACTURED SPLICES WILL BE ALLOWED. SPLICING DETAILS MUST BE SUBMITTED TO THE ENGINEER FOR APPROVAL. COST TO BE INCLUDED IN THE COST OF PILES ITEM NO. 606-18.03.

STEEL SUPERSTRUCTURES

WELDING: SEE SECTION 602 OF THE STANDARD SPECIFICATIONS AND NOTES ON DRAWING NO. U-102-191.

PAINT: PAINT SHALL BE SYSTEM "A" (QPL 3.001) – INORGANIC ZINC. COLOR OF THE FINISH COAT SHALL COMPLY WITH FEDERAL STANDARD AMS-STD-595A COLOR NO. 30059 BROWN. SEE SECTIONS 603 AND 910 OF THE STANDARD SPECIFICATIONS. THE CONTRACTOR SHALL ALSO HAVE THE OPTION TO USE ORGANIC ZINC IN SYSTEM "A" INSTEAD OF AN INORGANIC ZINC. ORGANIC ZINC SYSTEMS SHALL BE FROM QPL 3.002.

RADIOGRAPHIC, ULTRASONIC, AND MAGNETIC INSPECTION: SEE SECTION 602 OF THE STANDARD SPECIFICATIONS AND NOTES ON DRAWING NO. U-102-191.

STEEL STRUCTURES: SEE TENNESSEE STANDARD SPECIFICATIONS SECTION 602 AND NOTES ON DRAWING NO. U-102-191.

PROTECTION OF SUBSTRUCTURES: SINCE THIS BRIDGE UTILIZES WEATHERING STEEL, THE CONTRACTOR MUST TAKE SPECIAL PRECAUTIONS TO PREVENT STAINING OF PIERS AND ABUTMENTS. PRIOR TO THE ERECTION OF ANY STEEL, THE TOPS AND SIDES OF THE COMPLETED SUBSTRUCTURES SHALL BE PROTECTED FROM STAINING BY WRAPPING WITH TRANSLUCENT, REINFORCED, HIGH DENSITY, TWO-PLY, CROSS-LAMINATED POLYETHYLENE.

IN LIEU OF THIS PROTECTION, THE CONTRACTOR MAY ELECT TO THOROUGHLY CLEAN THE CONCRETE OF RUST STAINING BY SANDBLASTING OR OTHER APPROVED METHODS, PRIOR TO APPLYING A TEXTURE-COATED FINISH. NO SEALANT TYPE MATERIALS SHALL BE APPLIED WHICH ARE INCOMPATIBLE WITH THE TEXTURE-COATED FINISH UNLESS THEY CAN BE THOROUGHLY REMOVED PRIOR TO APPLYING THE FINISH. TEXTURE-COATING OF THE SUBSTRUCTURE SHALL BE DELAYED UNTIL AFTER THE DECK IS COMPLETED.

AFTER A SUBSTRUCTURE HAS RECEIVED ITS FINAL FINISH, THE TOP AND SIDES SHALL BE PROTECTED FROM STAINING BY WRAPPING WITH REINFORCED POLYETHYLENE, WHICH, IF BEING REUSED, SHALL BE IN GOOD CONDITION AND FREE FROM HOLES AND TEARS. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO PROTECT THE SUBSTRUCTURES FROM STAINING FOR THE DURATION OF THE CONTRACT. ANY CORRECTIVE TEXTURE-COATING SHALL BE AT HIS EXPENSE. COST TO BE INCLUDED IN THE UNIT PRICE BID FOR OTHER ITEMS.

BLAST CLEANING: THE FASCIA GIRDERS AND ALL FAYING SURFACES OF FIELD SPLICES OF ALL GIRDERS SHALL BE BLAST CLEANED IN ACCORDANCE WITH THE STEEL STRUCTURES PAINTING COUNCIL SURFACE PREPARATION SPECIFICATIONS "NO. 6 COMMERCIAL BLAST CLEANING" SSPC-SP 6 (OR NACE EQUIVALENT). PRIOR TO BOLTING, ANY LOOSE RUST ON THE FAYING SURFACES SHALL BE REMOVED.

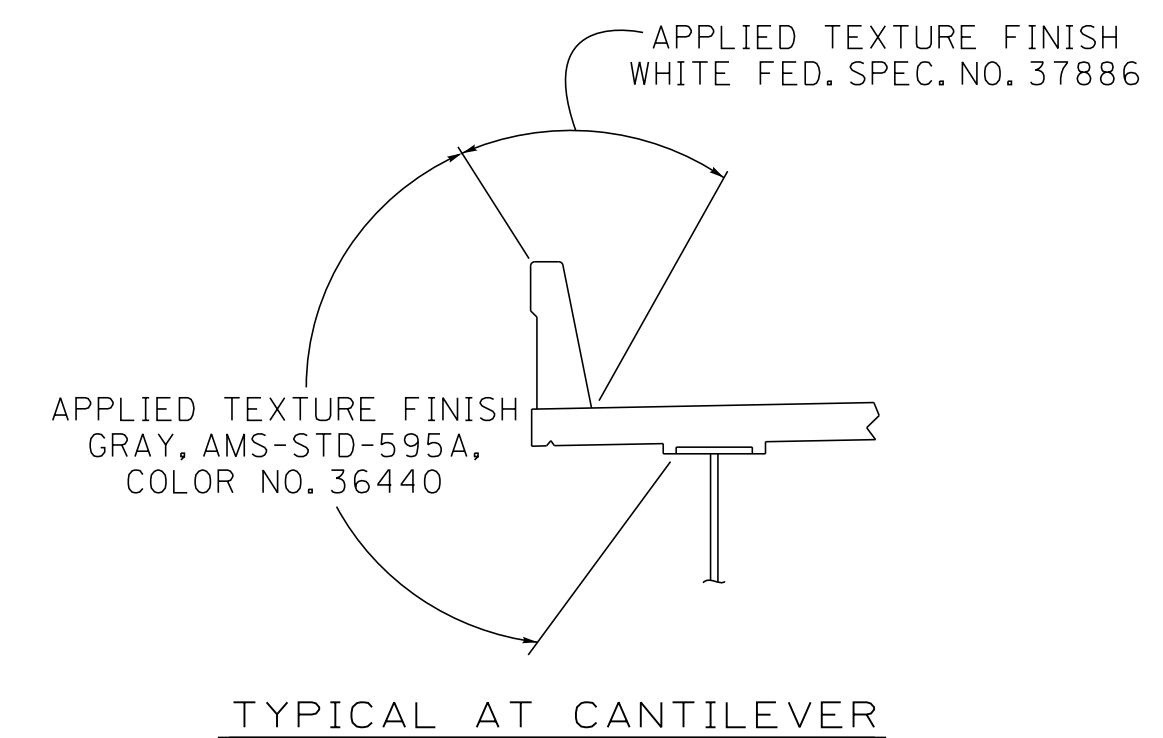
FINAL APPEARANCE: PRIOR TO FINAL ACCEPTANCE, ALL STRUCTURAL STEEL SHALL BE FREE OF GREASE, OIL, CHALK MARKS, PAINT, CONCRETE SPATTER AND SIMILAR SOILAGE. DEPENDING ON THE LOCATION, WITH RESPECT TO VIEW AND SEVERITY OF THE FOREGOING SOILAGE, THE STRUCTURAL STEEL SHALL BE CLEANED UNDER THE PROVISIONS OF ONE OF THE FOLLOWING STEEL STRUCTURES PAINTING COUNCIL SURFACE PREPARATION SPECIFICATIONS:

- NO. 1 SOLVENT CLEANING - SSPC-SP 1
- NO. 2 HAND CLEANING - SSPC-SP 2
- NO. 3 POWER TOOL CLEANING - SSPC-SP 3
- NO. 7 BRUSH-OFF BLAST CLEANING - SSPC-SP 7 (OR NACE EQUIVALENT)

WEATHERING BOLTS: ALL BOLTS SHALL BE ASTM F3125 GRADE A325 TYPE 3 UNLESS NOTED OTHERWISE. ALL BOLTS, NUTS, AND WASHERS SHALL HAVE THE SAME WEATHERING CHARACTERISTICS AS THE STRUCTURAL STEEL USED. IN LIEU OF USING DIRECT TENSION INDICATORS (DTI'S), ALL BOLTS SHALL BE INSTALLED BY EITHER TURN-OF-NUT TIGHTENING OR CALIBRATED WRENCH TIGHTENING IN ACCORDANCE WITH SECTION 602 OF THE STANDARD SPECIFICATIONS AND THE AASHTO LRFD BRIDGE CONSTRUCTION SPECIFICATIONS, CURRENT EDITION.

PAINTING GIRDERS ENCASED IN CONCRETE: WHERE WEATHERING STEEL GIRDERS ARE ENCASED IN CONCRETE AT INTEGRAL ABUTMENTS (AND INTEGRAL PIER CAPS), THE GIRDERS SHALL BE PAINTED OVER THE ENTIRE EMBEDMENT LENGTH PLUS AT LEAST ONE FOOT OUTSIDE THE ENCASEMENT. HOWEVER, THE SURFACES EMBEDDED IN CONCRETE SHALL ONLY RECEIVE A COAT OF PRIMER. FOR SURFACES NOT EMBEDDED IN CONCRETE, THE COLOR OF THE TOP COAT SHALL BE BROWN, FEDERAL STANDARD AMS-STD-595A COLOR NO. 30059.

PROJECT NO.	YEAR	SHEET NO.	
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APPLIED TEXTURE FINISH SKETCH

NOTE: IN ADDITION TO THE SURFACES SHOWN IN THE APPLIED TEXTURE FINISH SKETCH ALL EXPOSED SURFACES OF THE BENT, WINGWALLS, ABUTMENTS, AND EXTERIOR PORTIONS OF ENDWALLS ARE TO RECEIVE AN APPLIED TEXTURE FINISH (GREY, AMS-STD-595A, COLOR NO. 36440).

FINISHING CONCRETE SURFACES: CONCRETE FINISHING SHALL BE IN ACCORDANCE WITH SECTION 604.21 OF THE TENNESSEE STANDARD SPECIFICATION. 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 604-04.01.

SEALED BY

BRIDGE NO. 3
 STATE OF TENNESSEE
 DEPARTMENT OF TRANSPORTATION
BRIDGE GENERAL NOTES
STATE ROUTE 4 OVER
BURLINGTON-NORTHERN RAILROAD
BRIDGE ID NO. 79SR0040009
STATION 536+56.00
LOG MILE 4.13
SHELBY COUNTY

PIN NO.: 100340.00
 DESIGN BY: JOHN AYERS DATE: 1-26
 DRAWN BY: B. ERVIN DATE: 02/2026
 SUPERVISED BY: S. STEELE/D. SHIKE DATE: 1-26
 CHECKED BY: A. QMAR DATE: 3-26

10:52:38 AM 3/9/2026

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 (NAME OF R.R.) 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 SUBMITTED BY THE CONTRACTOR DIRECTLY TO THE RAILROAD FOR APPROVAL. TDOT'S ENGINEERING DIVISION - STRUCTURES 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 8'-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.

MEDIAN BARRIER: THE REINFORCED CONCRETE MEDIAN BARRIER RAIL SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE DETAILS SHOWN ON DRAWING STD-1-3SS AND SHALL BE GIVEN AN APPLIED TEXTURE FINISH. THE COLOR OF THE FINISH SHALL BE WHITE, FEDERAL STANDARD AMS-STD-595A COLOR NO. 37886. THE COST OF THE FINISH SHALL BE INCLUDED IN THE LINEAR FOOT PRICE BID FOR THE MEDIAN RAIL. PRECAST BRIDGE DECK PANELS ARE NOT PERMITTED IN THE BAY SUPPORTING THE MEDIAN BARRIER RAIL.

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

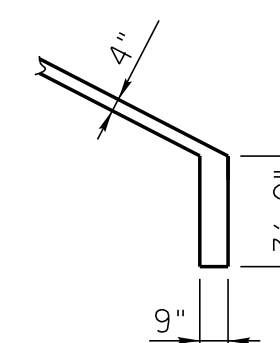
- A. THE PHASE CONSTRUCTION SEQUENCE MAY PROHIBIT THE EXTRACTION OF SOME SHEET PILING. ALL COSTS ASSOCIATED WITH SHEET PILING SHALL BE INCLUDED IN THE UNIT PRICE BID FOR OTHER ITEMS.
- B. THE LOCATION OF LONGITUDINAL CONSTRUCTION JOINTS SHALL NOT BE CHANGED TO ACCOMMODATE STAY-IN-PLACE DECK FORMS.
- C. NO SHEET PILES OR BEARING PILES MAY BE DRIVEN FROM THE EXISTING OR PROPOSED STRUCTURE.
- D. FOUR 11' TRAFFIC LANES SHALL BE MAINTAINED AT ALL TIMES.

LEAD/CHROMATE PAINT: OUR MAINTENANCE RECORDS INDICATE THE BRIDGE WAS ORIGINALLY PAINTED WITH MATERIALS CONTAINING LEAD AND/OR CHROMATES. THE CONTRACTOR IS REQUIRED TO PROCEED ACCORDINGLY TO TAKE ALL MANDATORY SAFEGUARDS PRESCRIBED BY STATE AND FEDERAL LAW FOR BOTH WORKER PROTECTION AND HAZARDOUS MATERIALS DISPOSAL.

CUTTING STEEL WITH LEAD/CHROMATE PAINT: WHEN STRUCTURAL STEEL MEMBERS COATED WITH LEAD AND/OR CHROMATE-BASED PAINTS ARE TO BE SEVERED USING THERMAL CUTTING METHODS, THE AREAS TO BE CUT SHALL FIRST BE CLEANED TO BARE METAL BY ABRASION.

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.

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 AN APPLIED TEXTURE FINISH, (GRAY, FEDERAL STANDARD AMS-STD-595A COLOR NO. 36440).



REINFORCED CONCRETE SLOPE PAVEMENT

PAVE SLOPES AND EXPOSED EARTH UNDER BRIDGES WITH 4" THICK CEMENT CONCRETE SLAB REINFORCED WITH NO. 4 GAGE WIRE FABRIC @ 6" CENTERS AND 58 LB. PER 100 S.F. THE WIRE FABRIC REINFORCEMENT SHALL BE PLACED AT ONE-HALF THE DEPTH OF THE SLAB AND EXTEND TO WITHIN 3" OF ITS EDGE WITH A 12" LAP REQ'D. ON ALL SHEETS. THE COST OF THE WIRE FABRIC REINFORCEMENT TO BE INCLUDED IN THE UNIT PRICE BID FOR ITEM 709-04, REINFORCED CONCRETE SLOPE PAVEMENT. ONE-HALF INCH PREMOLDED EXPANSION JOINTS WITHOUT LOAD TRANSFERS SHALL BE FORMED ABOUT 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 CENTER LINE AT 6' CENTERS. DEPTH OF GROOVE TO BE NOT LESS THAN 1" SEE STD. DWG. RD-SA-1 FOR LIMITS OF SLOP PROTECTION.

PILE DATA TABLE

LOCATION	DESIGN LOAD (TONS)	TEST PILE CUT-OFF ELEV. (FT.)	ESTIMATED PILE LENGTH (FT.)	TEST PILE LENGTH (FT.)	MINIMUM PILE TIP ELEVATION
ABUTMENT 1	90	327.06	60	70	N/A
BENT 1	90	294.75	60	70	N/A
BENT 2	90	294.75	60	70	N/A
ABUTMENT 2	90	329.50	60	70	N/A

SEALED BY

BRIDGE NO. 3
 STATE OF TENNESSEE
 DEPARTMENT OF TRANSPORTATION
BRIDGE GENERAL NOTES
 STATE ROUTE 4 OVER
 BURLINGTON-NORTHERN RAILROAD
 BRIDGE ID NO. 79SR0040009
 STATION 536+56.00
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PIN NO.: 100340.00
 DESIGN BY: JOHN AYERS DATE: 1-26
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ESTIMATED QUANTITIES								
ITEM NO.	DESCRIPTION	UNIT	TOTAL	SUPERSTRUCTURE	ABUT. NO. 1	BNT. NO. 1	BNT. NO. 2	ABUT. NO. 2
②	202-04.03	REMOVAL OF STRUCTURES (EXISTING BRIDGE NO. 79-SR004-4.13)	L.S.	1				
③	204-02.01	DRY EXCAVATION (BRIDGES)	C.Y.	2,764		174	1,329	1,145
③	303-01.02	GRANULAR BACKFILL (BRIDGES)	TON	197		100		97
④	602-04.01	STEEL STRUCTURES (BRIDGE NO. 3)	L.S.	1				
	602-10.60	BEARING DEVICE (BRIDGE NO. 3, ABUTMENTS)	EA.	26		13		13
	602-10.61	BEARING DEVICE (BRIDGE NO. 3, BENTS)	EA.	26			13	
	604-02.03	EPOXY COATED REINFORCING STEEL	LB.	217,204	197,387	9,987		9,830
	604-03.01	CLASS A CONCRETE (BRIDGES)	C.Y.	1,578		243	552	552
	604-03.02	STEEL BAR REINFORCEMENT (BRIDGES)	LB.	270,916		17,645	118,495	118,673
①	604-03.04	PAVEMENT @ BRIDGE ENDS	S.Y.	663				
	604-03.32	CLASS DS CONCRETE	C.Y.	1,290	1,290			
	604-04.01	APPLIED TEXTURE FINISH (NEW STRUCTURES)	S.Y.	2,741	1,511	83	589	481
	604-05.31	BRIDGE DECK GROOVING (MECHANICAL)	S.Y.	5,637				
	606-18.01	TEST PILES (STEEL PIPE PILES, 14-INCH)	L.F.	280		70	70	70
	606-18.02	LOADING TEST (STEEL PIPE PILES, 14-INCH)	EA.	1		1		
	606-18.03	STEEL PIPE PILES (14-INCH)	L.F.	15,840		1,560	6,420	6,420
⑩	617-02	BRIDGE DECK CRACK SEALING	L.F.	760				
	617-05	SEALANT (HMWM)	GAL.	4				
⑤	620-05.01	CONC PARAPET SINGLE SLOPE (STD-1-1SS)	L.F.	778				
	707-07.01	CHAIN-LINK FENCE (BRIDGES)	S.F.	1,700				
	709-04	REINFORCED CONCRETE SLOPE PAVEMENT	C.Y.	461		233		228
⑦	710-09.01	6" PERFORATED PIPE WITH VERTICAL DRAIN SYSTEM	L.F.	434		216		218
	710-09.02	6" PIPE UNDERDRAIN	L.F.	66		34		32
	711-05.74	CONC MEDIAN BARR SING SLOPE (STD-1-3SS)	L.F.	428				
⑧	714-01.03	STRUCTURAL LIGHTING (BRIDGE NO. 3)	L.S.	1				

- 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 NO. 79-SR004-4.13 AND APPROACHES TO BE REMOVED BETWEEN STATIONS 534+66 AND 538+46. EXISTING BRIDGE CONSISTS OF DUAL 3-SPAN STRUCTURES WITH STEEL GIRDERS AND CONCRETE DECK SUPERSTRUCTURES WITH MULTI-POST CONCRETE BENTS ON PILE FOUNDATIONS. TOTAL LENGTH = 285'-7" WIDTH = 49'-9 1/2" LL & 44'-0" RL.
- ③ **NOTE:** EXCAVATION BASED ON FINAL PROFILE AT ABUTMENTS AND EXISTING GROUND AT BENTS.
- ④ **NOTE:** LUMP SUM: TOTAL ESTIMATED WEIGHT OF 1,601,632 LBS. OF STRUCTURAL STEEL INCLUDES GIRDERS, GIRDER BEARING DEVICES, FIELD SPLICES, CROSS-FRAMES, STIFFENERS, LATERAL BRACES, SHEAR CONNECTORS, TAB CONNECTION PLATES, BOLTS, ETC. ALSO SEE STANDARD SPECIFICATIONS SECTIONS 602.49 AND 602.50.
- ⑤ **NOTE:** COST OF 22 BRIDGE PARAPET DRAINS TO BE INCLUDED IN THE UNIT PRICE BID FOR THE PARAPET.

- ⑥ **NOTE:** THE COST OF WATER STOPS, BITUMINOUS-FIBERBOARD AND ALL MISCELLANEOUS JOINT MATERIAL TO BE INCLUDED IN THE UNIT PRICE BID FOR OTHER ITEMS.
- ⑦ **NOTE:** COST OF POLYETHYLENE SHEETING AND ALL MISCELLANEOUS ITEMS NECESSARY FOR INSTALLATION TO BE INCLUDED IN THE UNIT PRICE BID FOR PERFORATED PIPE.
- ⑧ **NOTE:** LUMP SUM FOR STRUCTURAL LIGHTING INCLUDES 820 FT. 2" Ø SCHEDULE 40 PVC CONDUIT WITH PULL WIRES, 4 JUNCTION BOXES, 4 PULL BOXES, 16 ANCHOR BOLTS, AND ALL NECESSARY MATERIALS FOR INSTALLATION OF STRUCTURAL LIGHTING. SEE ROADWAY PLANS FOR STRUCTURAL LIGHTING DETAILS AND NOTES.
- ⑨ **NOTE:** GRANULAR BACKFILL SHALL BE TYPE "A" GRADING "D" MATERIAL. SEE STANDARD DRAWING STD-10-1.
- ⑩ **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.

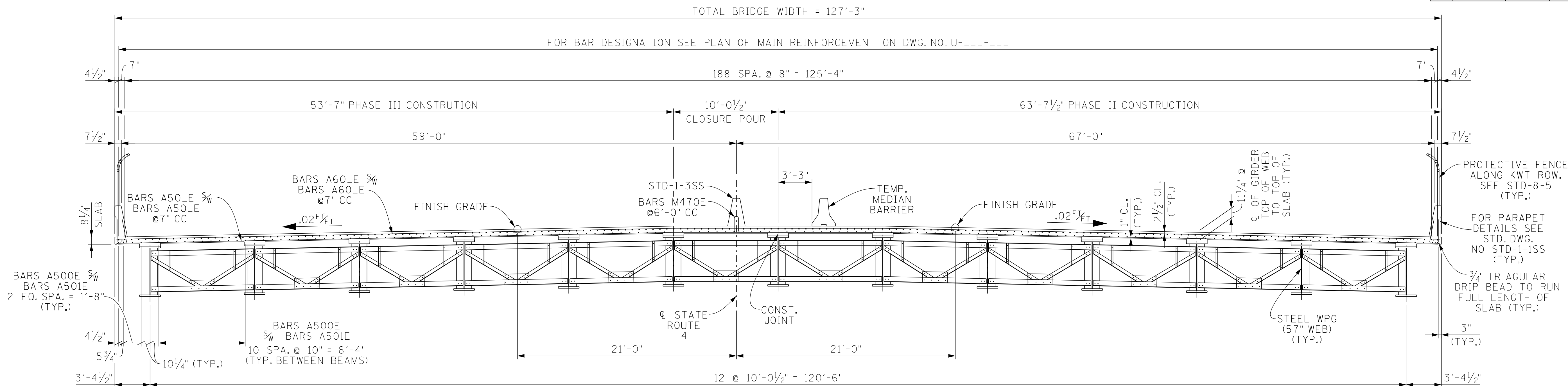
SEALED BY

BRIDGE NO. 3
 STATE OF TENNESSEE
 DEPARTMENT OF TRANSPORTATION
BRIDGE QUANTITIES
STATE ROUTE 4 OVER
BURLINGTON-NORTHERN RAILROAD
BRIDGE ID NO. 79SR0040009
STATION 536+56.00
LOG MILE 4.13
SHELBY COUNTY

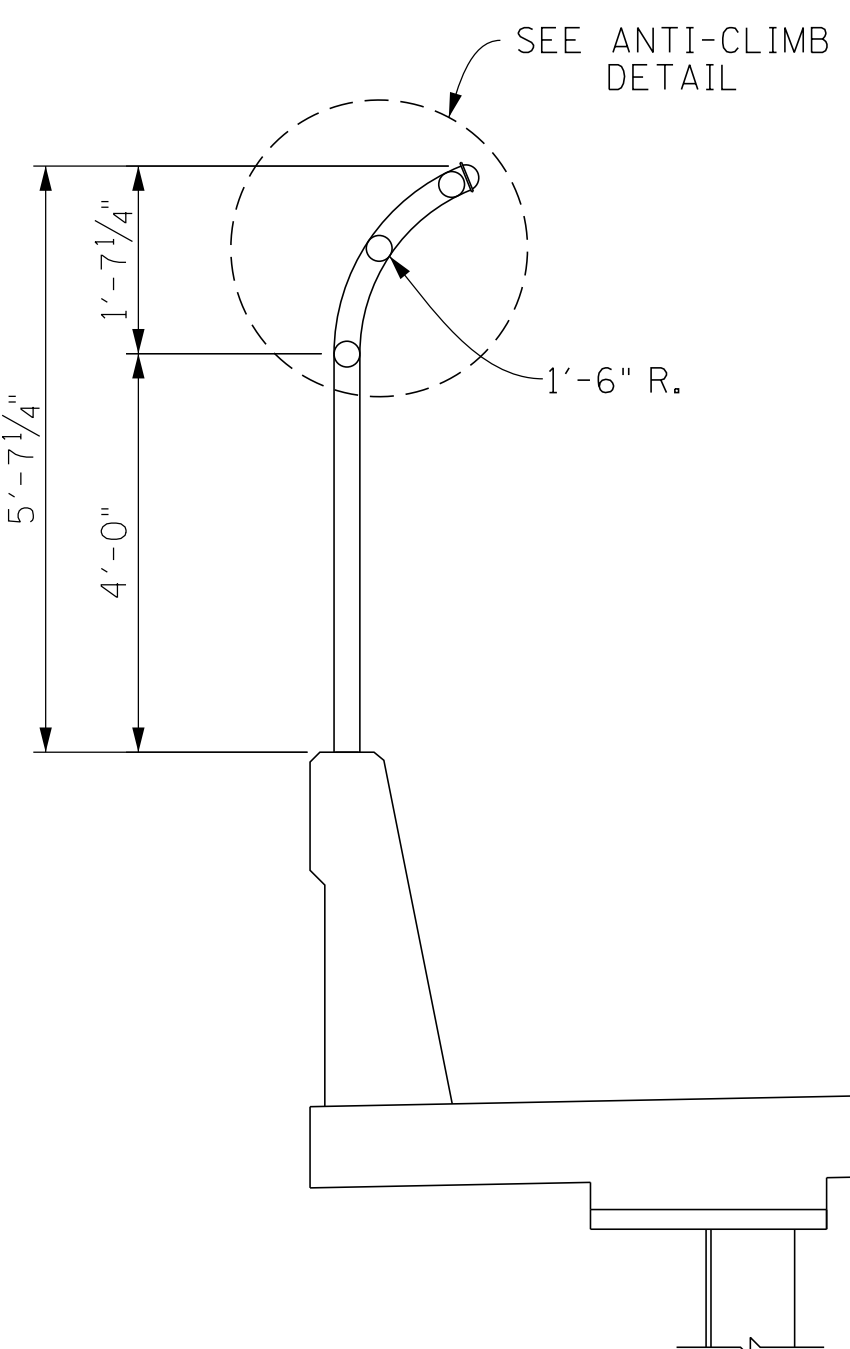
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 DRAWN BY: B. ERVIN DATE: 2/26
 SUPERVISED BY: S. STEELE/D. SHIKE DATE: 1-26
 CHECKED BY: A. OMAR DATE: 3-26

1:26:19 PM 3/9/2026

PROJECT NO.	YEAR	SHEET NO.	
STP/NH-4(6)	2026		
REVISIONS			
NO.	DATE	BY	BRIEF DESCRIPTION
-	-	-	-
-	-	-	-
-	-	-	-
-	-	-	-
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TYPICAL CROSS-SECTION
(LOOKING FORWARD ON SURVEY)



PART SECTION

SUPERSTRUCTURE NOTES:

WELDING: SEE SECTION 602 OF THE STANDARD SPECIFICATIONS AND NOTES ON DRAWING NO. _____.

PAINT: PAINT SHALL BE SYSTEM "A" (QPL 3.001) - INORGANIC ZINC. COLOR OF THE FINISH COAT SHALL COMPLY WITH FEDERAL STANDARD AMS-STD-595A COLOR NO. 30059 BROWN. SEE SECTIONS 603 AND 910 OF THE STANDARD SPECIFICATIONS. THE CONTRACTOR SHALL ALSO HAVE THE OPTION TO USE ORGANIC ZINC IN SYSTEM "A" INSTEAD OF AN INORGANIC ZINC. ORGANIC ZINC SYSTEMS SHALL BE FROM QPL 3.002.

RADIOGRAPHIC, ULTRASONIC, AND MAGNETIC INSPECTION: SEE SECTION 602 OF THE STANDARD SPECIFICATIONS AND NOTES ON DRAWING NO. _____.

STEEL STRUCTURES: SEE TENNESSEE STANDARD SPECIFICATIONS SECTION 602 AND NOTES ON DRAWING NO. _____.

PROTECTION OF SUBSTRUCTURES: SINCE THIS BRIDGE UTILIZES WEATHERING STEEL, THE CONTRACTOR MUST TAKE SPECIAL PRECAUTIONS TO PREVENT STAINING OF PIERS AND ABUTMENTS. PRIOR TO THE ERECTION OF ANY STEEL, THE TOPS AND SIDES OF THE COMPLETED SUBSTRUCTURES SHALL BE PROTECTED FROM STAINING BY WRAPPING WITH TRANSLUCENT, REINFORCED, HIGH DENSITY, TWO-PLY, CROSS-LAMINATED POLYETHYLENE.

IN LIEU OF THIS PROTECTION, THE CONTRACTOR MAY ELECT TO THOROUGHLY CLEAN THE CONCRETE OF RUST STAINING BY SANDBLASTING OR OTHER APPROVED METHODS, PRIOR TO APPLYING A TEXTURE-COATED FINISH. NO SEALANT TYPE MATERIALS SHALL BE APPLIED WHICH ARE INCOMPATIBLE WITH THE TEXTURE-COATED FINISH UNLESS THEY CAN BE THOROUGHLY REMOVED PRIOR TO APPLYING THE FINISH. TEXTURE-COATING OF THE SUBSTRUCTURE SHALL BE DELAYED UNTIL AFTER THE DECK IS COMPLETED.

AFTER A SUBSTRUCTURE HAS RECEIVED ITS FINAL FINISH, THE TOP AND SIDES SHALL BE PROTECTED FROM STAINING BY WRAPPING WITH REINFORCED POLYETHYLENE, WHICH, IF BEING REUSED, SHALL BE IN GOOD CONDITION AND FREE FROM HOLES AND TEARS. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO PROTECT THE SUBSTRUCTURES FROM STAINING FOR THE DURATION OF THE CONTRACT. ANY CORRECTIVE TEXTURE-COATING SHALL BE AT HIS EXPENSE. COST TO BE INCLUDED IN THE UNIT PRICE BID FOR OTHER ITEMS.

BLAST CLEANING: THE FASCIA GIRDERS AND ALL FAYING SURFACES OF FIELD SPLICES OF ALL GIRDERS SHALL BE BLAST CLEANED IN ACCORDANCE WITH THE STEEL STRUCTURES PAINTING COUNCIL SURFACE PREPARATION SPECIFICATIONS "NO. 6 COMMERCIAL BLAST CLEANING" SSPC-SP 6 (OR NACE EQUIVALENT). PRIOR TO BOLTING, ANY LOOSE RUST ON THE FAYING SURFACES SHALL BE REMOVED.

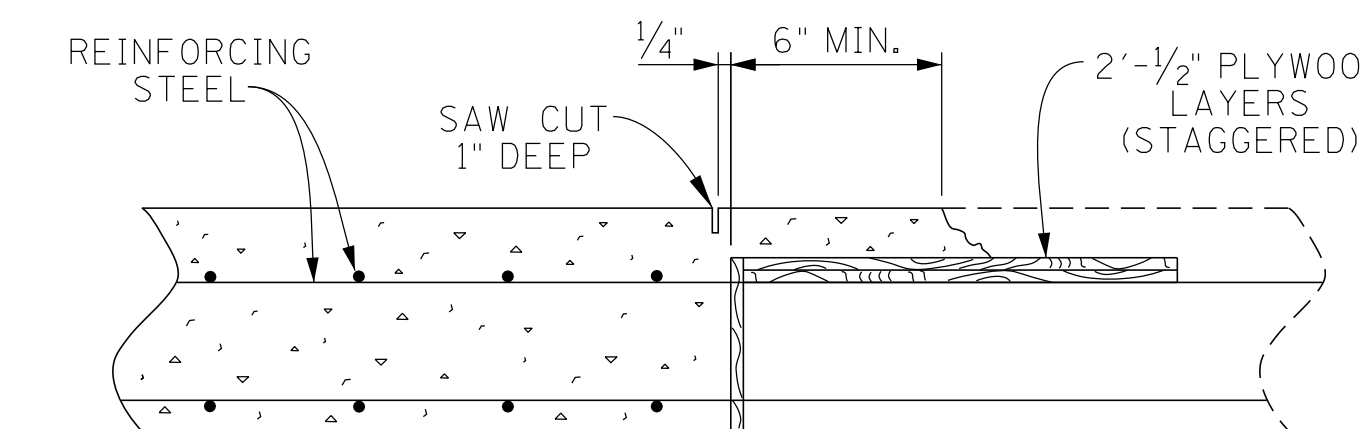
FINAL APPEARANCE: PRIOR TO FINAL ACCEPTANCE, ALL STRUCTURAL STEEL SHALL BE FREE OF GREASE, OIL, CHALK MARKS, PAINT, CONCRETE SPATTER AND SIMILAR SOILAGE. DEPENDING ON THE LOCATION, WITH RESPECT TO VIEW AND SEVERITY OF THE FOREGOING SOILAGE, THE STRUCTURAL STEEL SHALL BE CLEANED UNDER THE PROVISIONS OF ONE OF THE FOLLOWING STEEL STRUCTURES PAINTING COUNCIL SURFACE PREPARATION SPECIFICATIONS:

- NO. 1 SOLVENT CLEANING - SSPC-SP 1
- NO. 2 HAND CLEANING - SSPC-SP 2
- NO. 3 POWER TOOL CLEANING - SSPC-SP 3
- NO. 7 BRUSH-OFF BLAST CLEANING - SSPC-SP 7 (OR NACE EQUIVALENT)

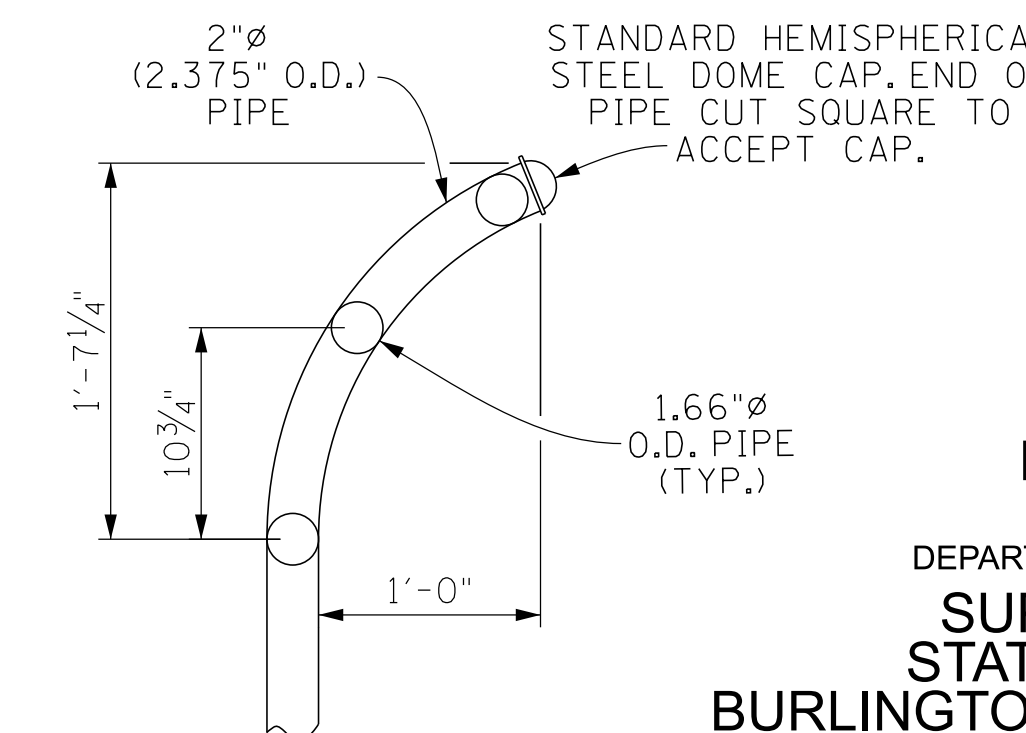
WEATHERING BOLTS: ALL BOLTS SHALL BE ASTM F3125 GRADE A325 TYPE 3 UNLESS NOTED OTHERWISE. ALL BOLTS, NUTS, AND WASHERS SHALL HAVE THE SAME WEATHERING CHARACTERISTICS AS THE STRUCTURAL STEEL USED. IN LIEU OF USING DIRECT TENSION INDICATORS (DTI'S), ALL BOLTS SHALL BE INSTALLED BY EITHER TURN-OF-NUT TIGHTENING OR CALIBRATED WRENCH TIGHTENING IN ACCORDANCE WITH SECTION 602 OF THE STANDARD SPECIFICATIONS AND THE AASHTO LRFD BRIDGE CONSTRUCTION SPECIFICATIONS, CURRENT EDITION.

PAINTING GIRDERS ENCASED IN CONCRETE: WHERE WEATHERING STEEL GIRDERS ARE ENCASED IN CONCRETE AT INTEGRAL ABUTMENTS (AND INTEGRAL PIER CAPS), THE GIRDERS SHALL BE PAINTED OVER THE ENTIRE EMBEDMENT LENGTH PLUS AT LEAST ONE FOOT OUTSIDE THE ENCASEMENT. HOWEVER, THE SURFACES EMBEDDED IN CONCRETE SHALL ONLY RECEIVE A COAT OF PRIMER. FOR SURFACES NOT EMBEDDED IN CONCRETE, THE COLOR OF THE TOP COAT SHALL BE BROWN, FEDERAL STANDARD AMS-STD-595A COLOR NO. 30059.

ALL SLAB CONSTRUCTION JOINTS SHALL BE IN ACCORDANCE WITH THE SLAB CONSTRUCTION JOINT DETAIL SHOWN BELOW



SLAB CONSTRUCTION JOINT DETAIL
(N.T.S.)



ANTI-CLIMB DETAIL

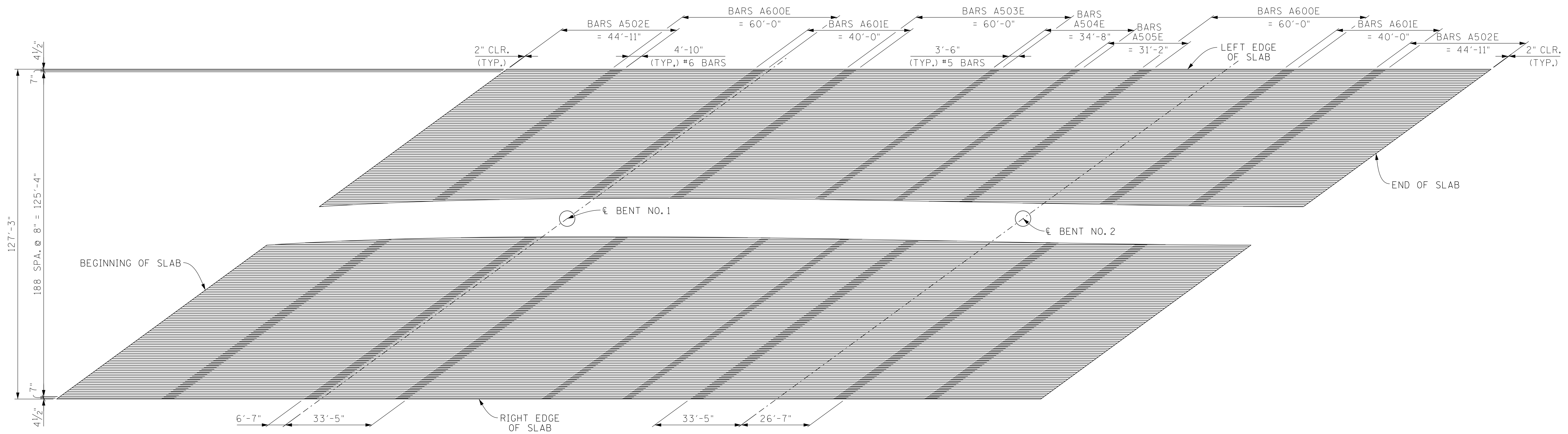
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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
SUPERSTRUCTURE
STATE ROUTE 4 OVER
BURLINGTON-NORTHERN RAILROAD
BRIDGE ID NO. 79SR0040009
STATION 536+56.00
LOG MILE 4.13
SHELBY COUNTY

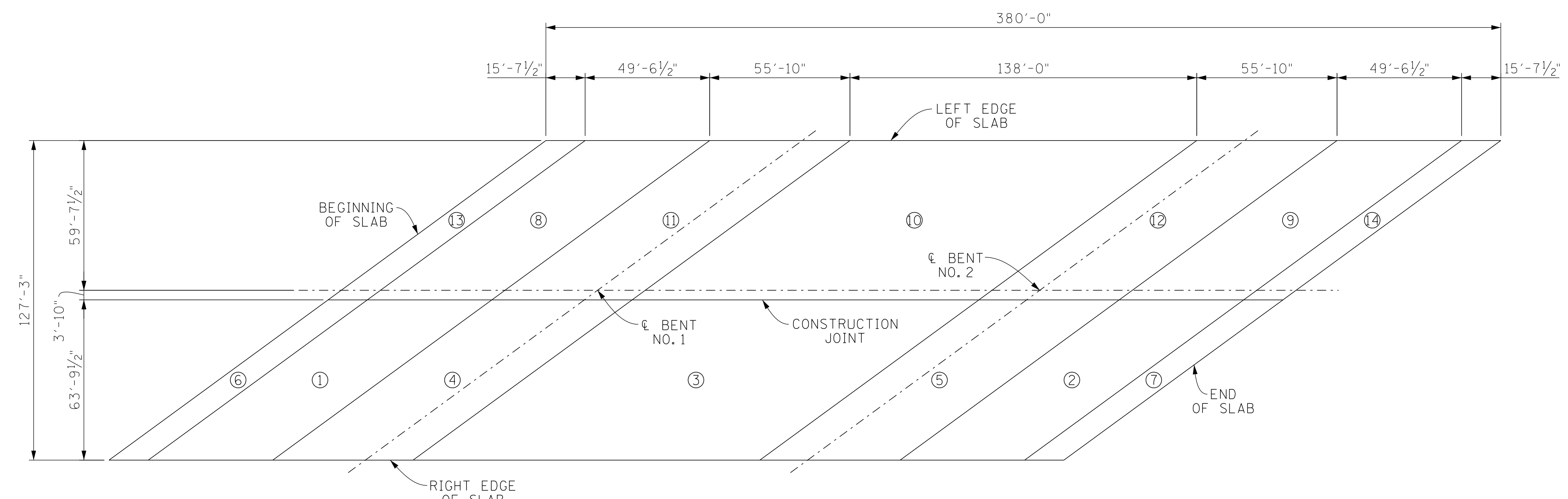
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SUPERVISED BY:	S. STEELE/D. SHIKE
CHECKED BY:	
DATE:	1-26
DATE:	1-26
DATE:	1-26
DATE:	

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2/23/2026

PROJECT NO.	YEAR	SHEET NO.	
STP/NH-4(6)	2026		
REVISIONS			
NO.	DATE	BY	BRIEF DESCRIPTION
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PLAN OF REINFORCEMENT



SLAB POURING SEQUENCE

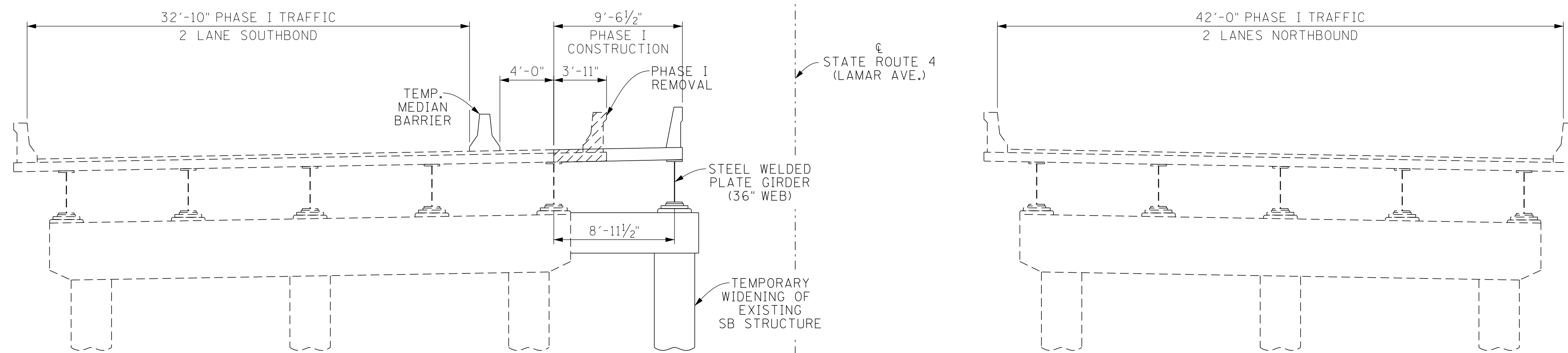
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SUPERSTRUCTURE DETAILS
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 BRIDGE ID NO. 79SR0040009
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 LOG MILE 4.13
 SHELBY COUNTY

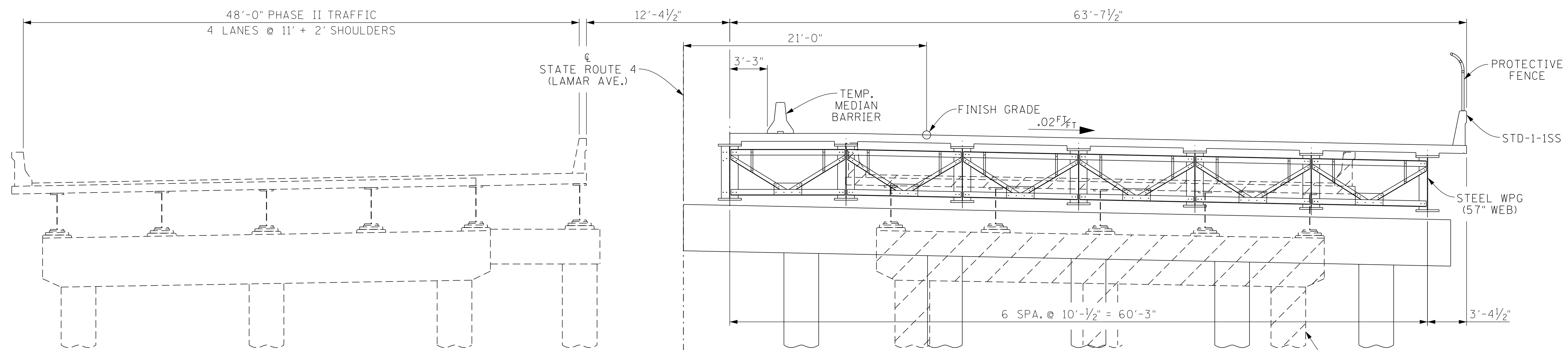
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PROJECT NO.	YEAR	SHEET NO.	
STP/NH-4(6)	2026		
REVISIONS			
NO.	DATE	BY	BRIEF DESCRIPTION
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PHASE I CONSTRUCTION
(LOOKING FORWARD ON SURVEY)



PHASE II CONSTRUCTION
(LOOKING FORWARD ON SURVEY)

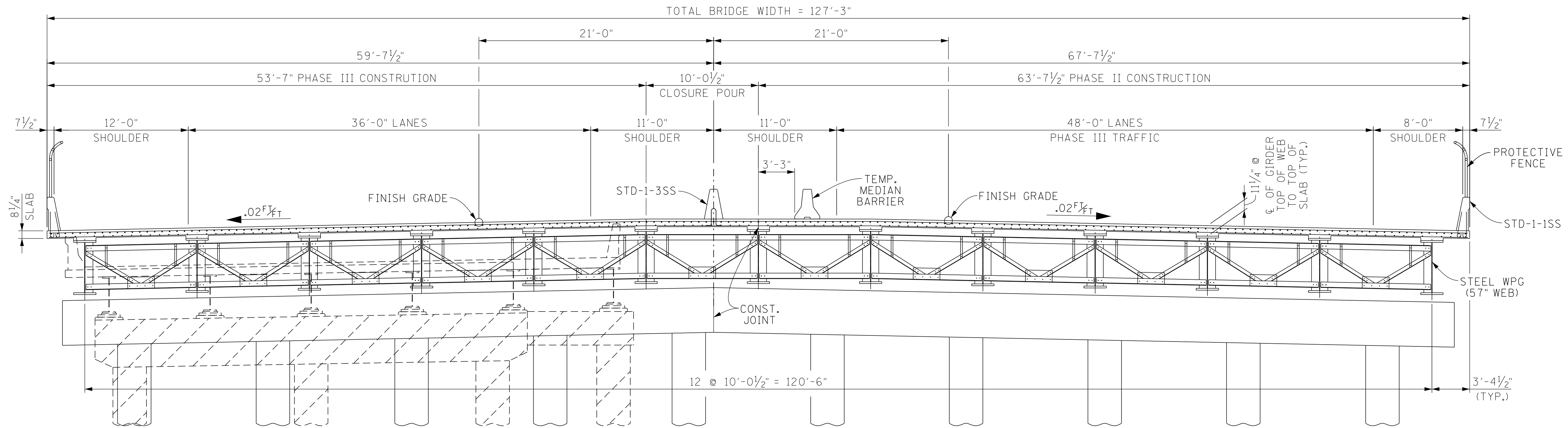
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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
SUPERSTRUCTURE DETAILS
STATE ROUTE 4 OVER
BURLINGTON-NORTHERN RAILROAD
BRIDGE ID NO. 79SR0040009
STATION 536+56.00
LOG MILE 4.13
SHELBY COUNTY

PIN NO.: 100340.00
DESIGN BY: JOHN AVERY DATE: 1-26
DRAWN BY: J. STEVENS DATE: 1-26
SUPERVISED BY: S. STEELE/D. SHIKE DATE: 1-26
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STP/NH-4(6)	2026		
REVISIONS			
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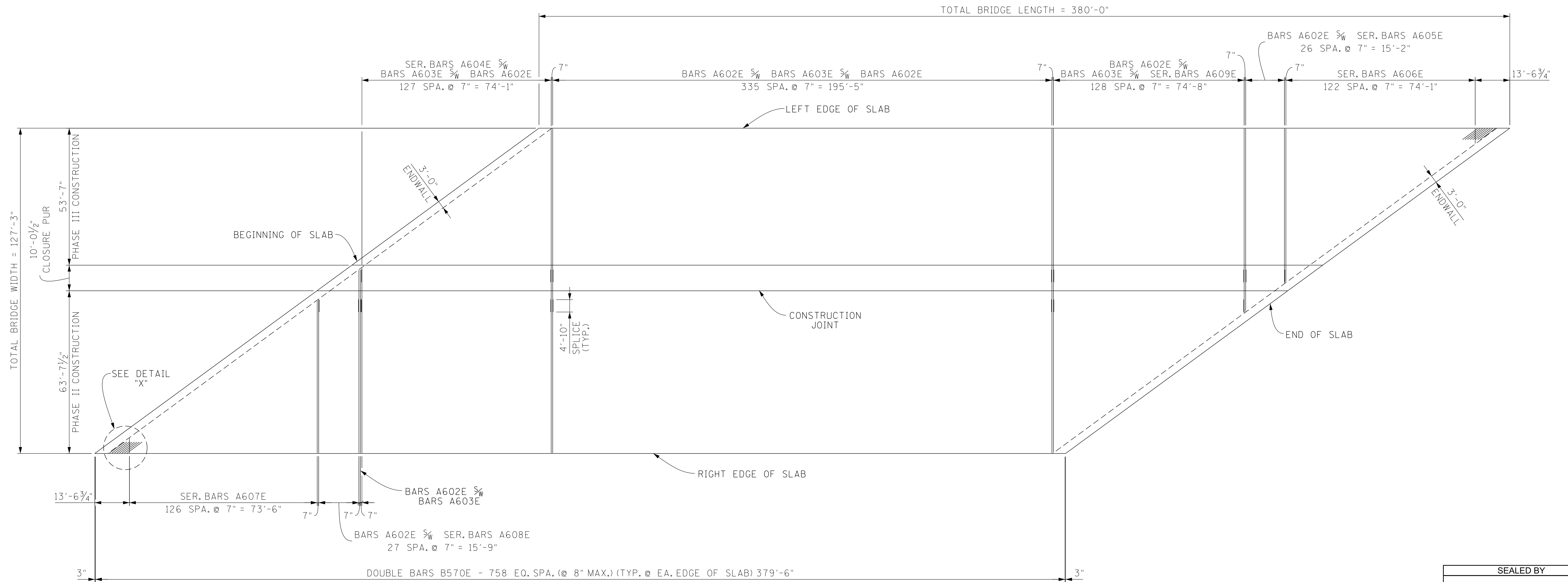
PHASE III CONSTRUCTION
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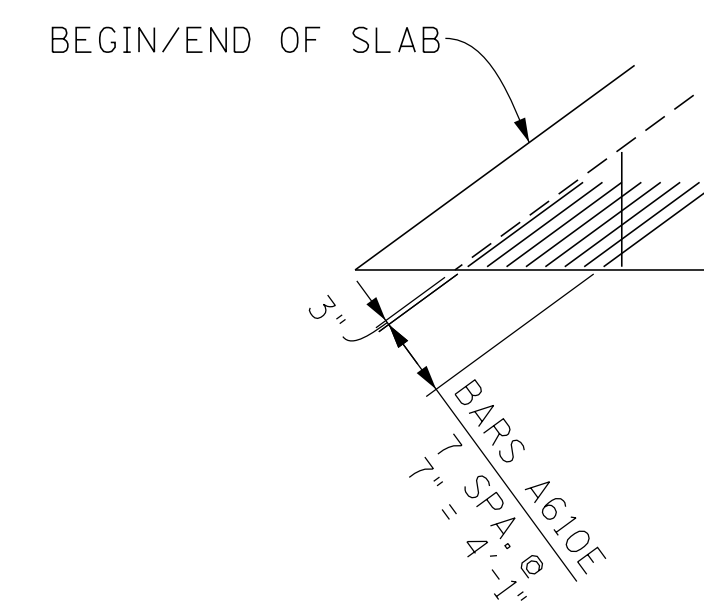
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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
SUPERSTRUCTURE DETAILS
STATE ROUTE 4 OVER
BURLINGTON-NORTHERN RAILROAD
BRIDGE ID NO. 79SR0040009
STATION 536+56.00
LOG MILE 4.13
SHELBY COUNTY

PIN NO.: 100340.00
DESIGN BY: JOHN AVERY DATE: 1-26
DRAWN BY: J. STEVENS DATE: 1-26
SUPERVISED BY: S. STEELE/D. SHIKE DATE: 1-26
CHECKED BY: DATE:

PROJECT NO.	YEAR	SHEET NO.	
STP/NH-4(6)	2026		
REVISIONS			
NO.	DATE	BY	BRIEF DESCRIPTION
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SLAB PLAN
(SHOWING TOP OF SLAB)



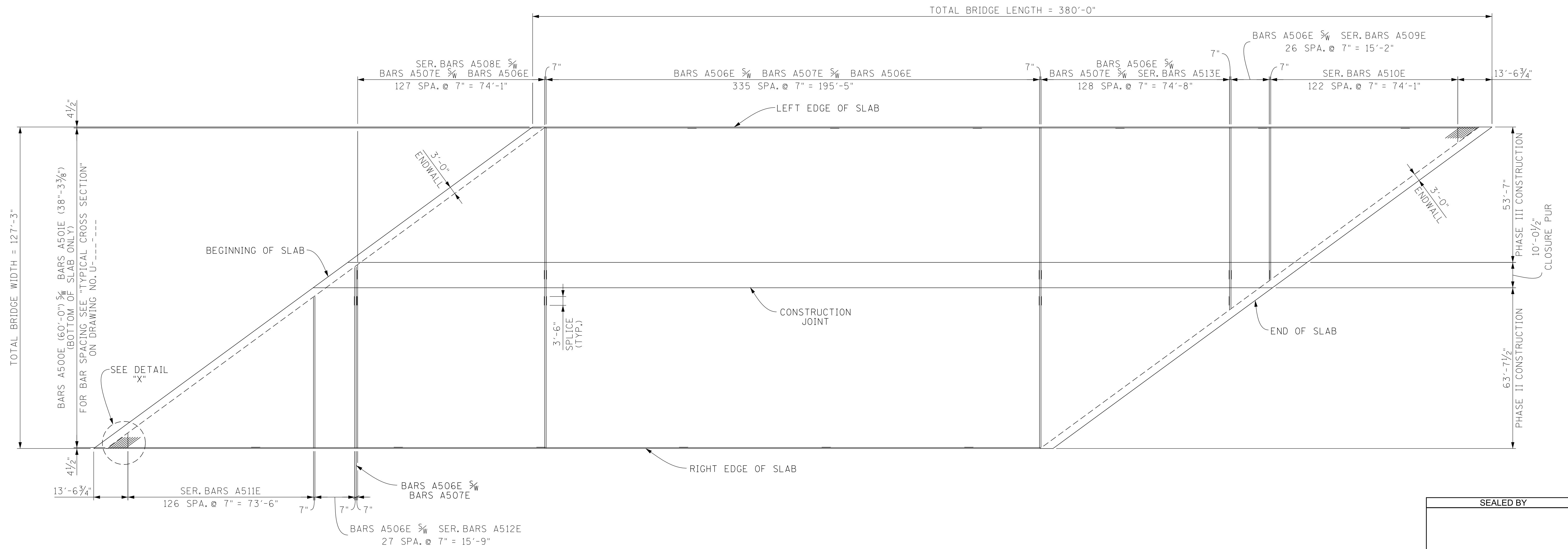
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DEPARTMENT OF TRANSPORTATION
SUPERSTRUCTURE DETAILS
STATE ROUTE 4 OVER
BURLINGTON-NORTHERN RAILROAD
BRIDGE ID NO. 79SR0040009
STATION 536+56.00
LOG MILE 4.13
SHELBY COUNTY

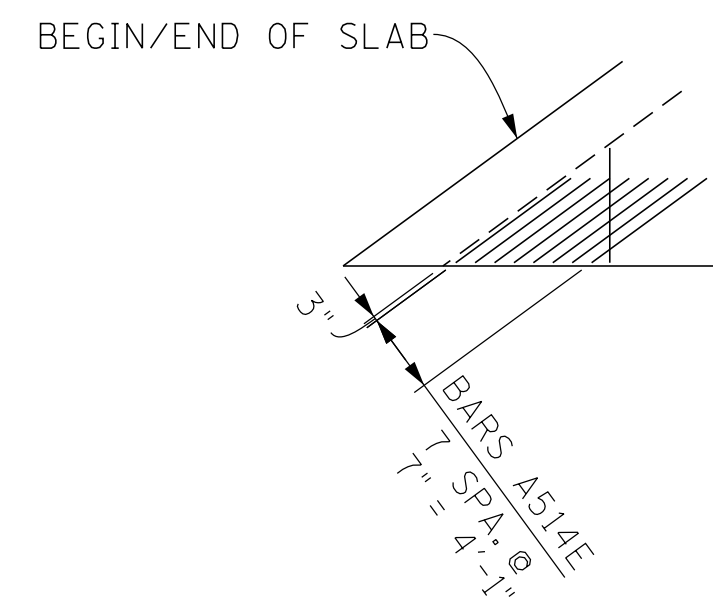
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2/23/2026

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STP/NH-4(6)	2026		
REVISIONS			
NO.	DATE	BY	BRIEF DESCRIPTION
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-	-	-	-
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SLAB PLAN
(SHOWING BOTTOM OF SLAB)



DETAIL "X"
(SHOWING BOTTOM OF SLAB)
NOTE: LONGITUDINAL BARS NOT SHOWN FOR CLARITY.

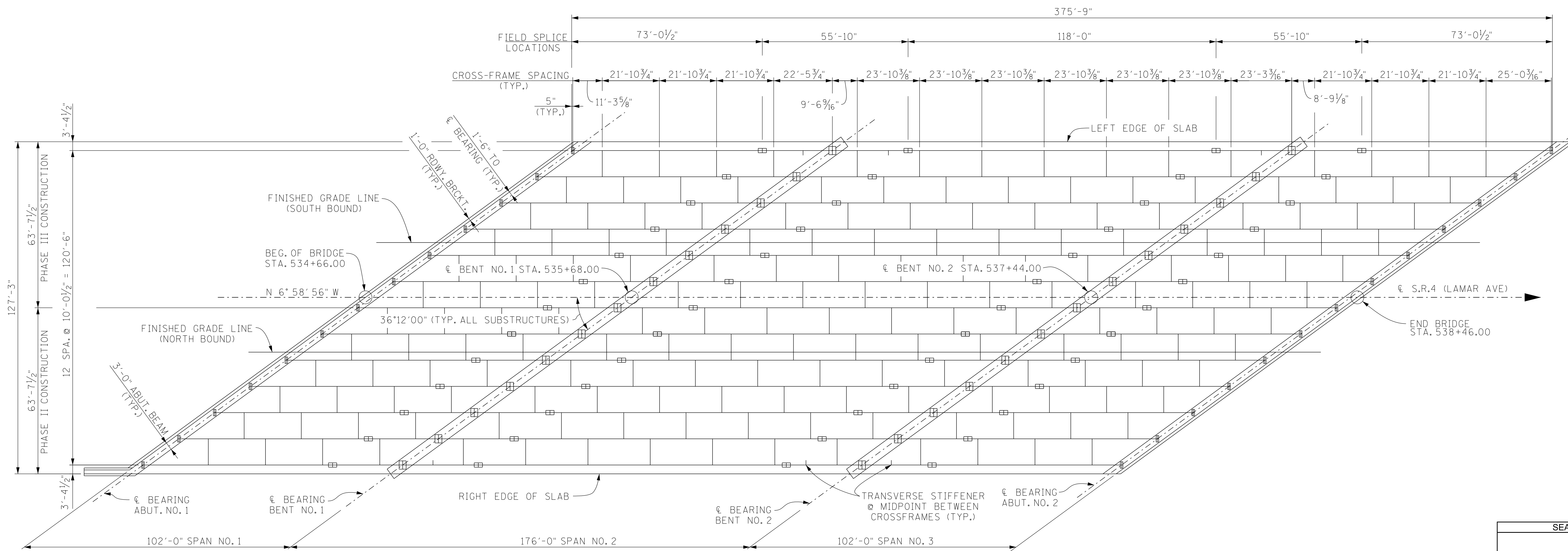
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DEPARTMENT OF TRANSPORTATION
SUPERSTRUCTURE DETAILS
STATE ROUTE 4 OVER
BURLINGTON-NORTHERN RAILROAD
BRIDGE ID NO. 79SR0040009
STATION 536+56.00
LOG MILE 4.13
SHELBY COUNTY

PIN NO.: 100340.00
DESIGN BY: JOHN AVERY DATE: 1-26
DRAWN BY: J. STEVENS DATE: 1-26
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PROJECT NO.	YEAR	SHEET NO.	
STP/NH-4(6)	2026		
REVISIONS			
NO.	DATE	BY	BRIEF DESCRIPTION
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FRAMING PLAN

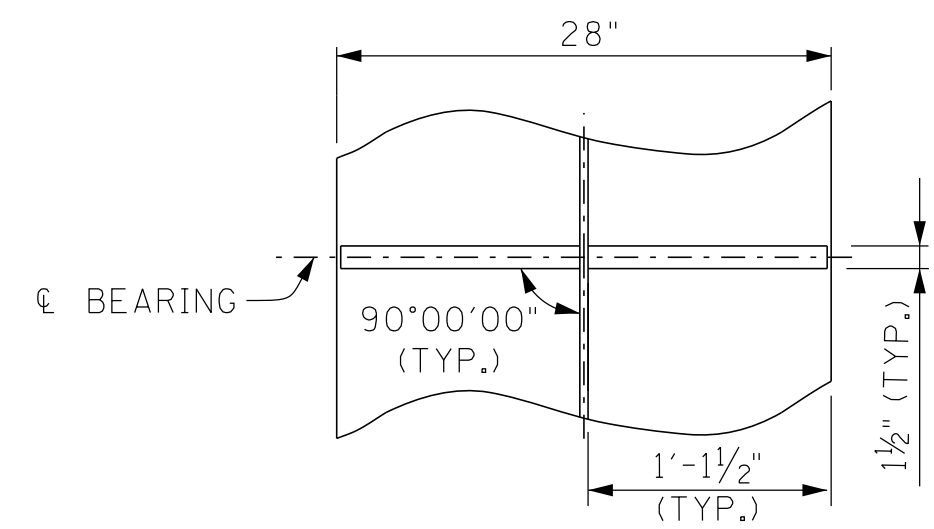
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 STATE OF TENNESSEE
 DEPARTMENT OF TRANSPORTATION
GIRDER DETAILS
 STATE ROUTE 4 OVER
 BURLINGTON-NORTHERN RAILROAD
 BRIDGE ID NO. 79SR0040009
 STATION 536+56.00
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 SHELBY COUNTY

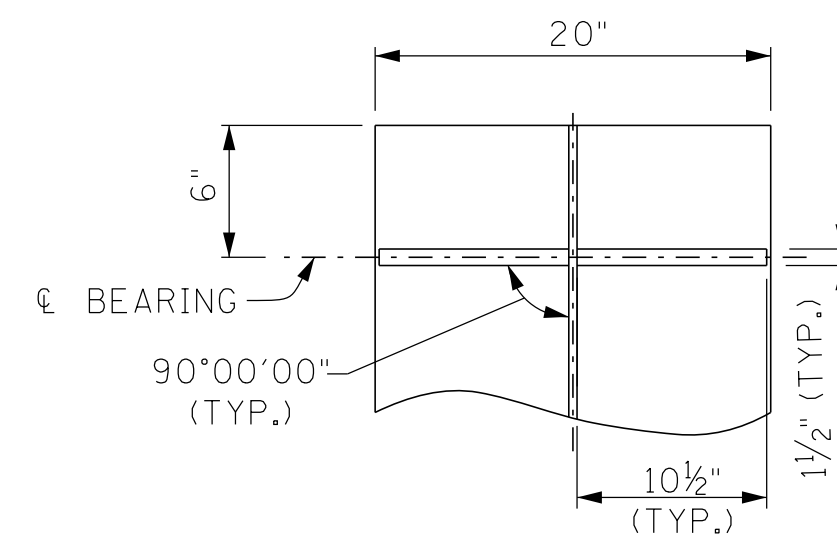
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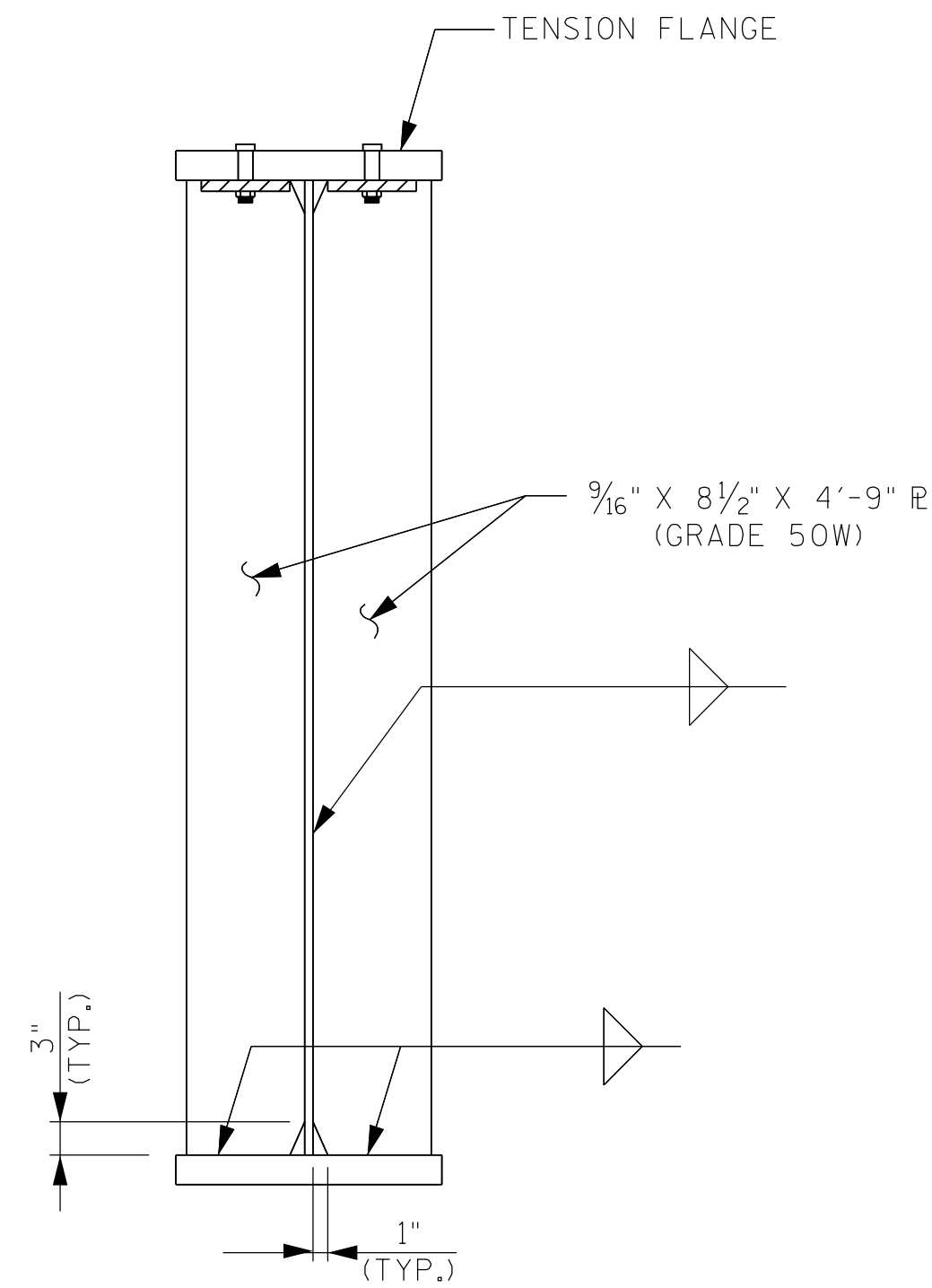
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REVISIONS			
NO.	DATE	BY	BRIEF DESCRIPTION
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PLAN

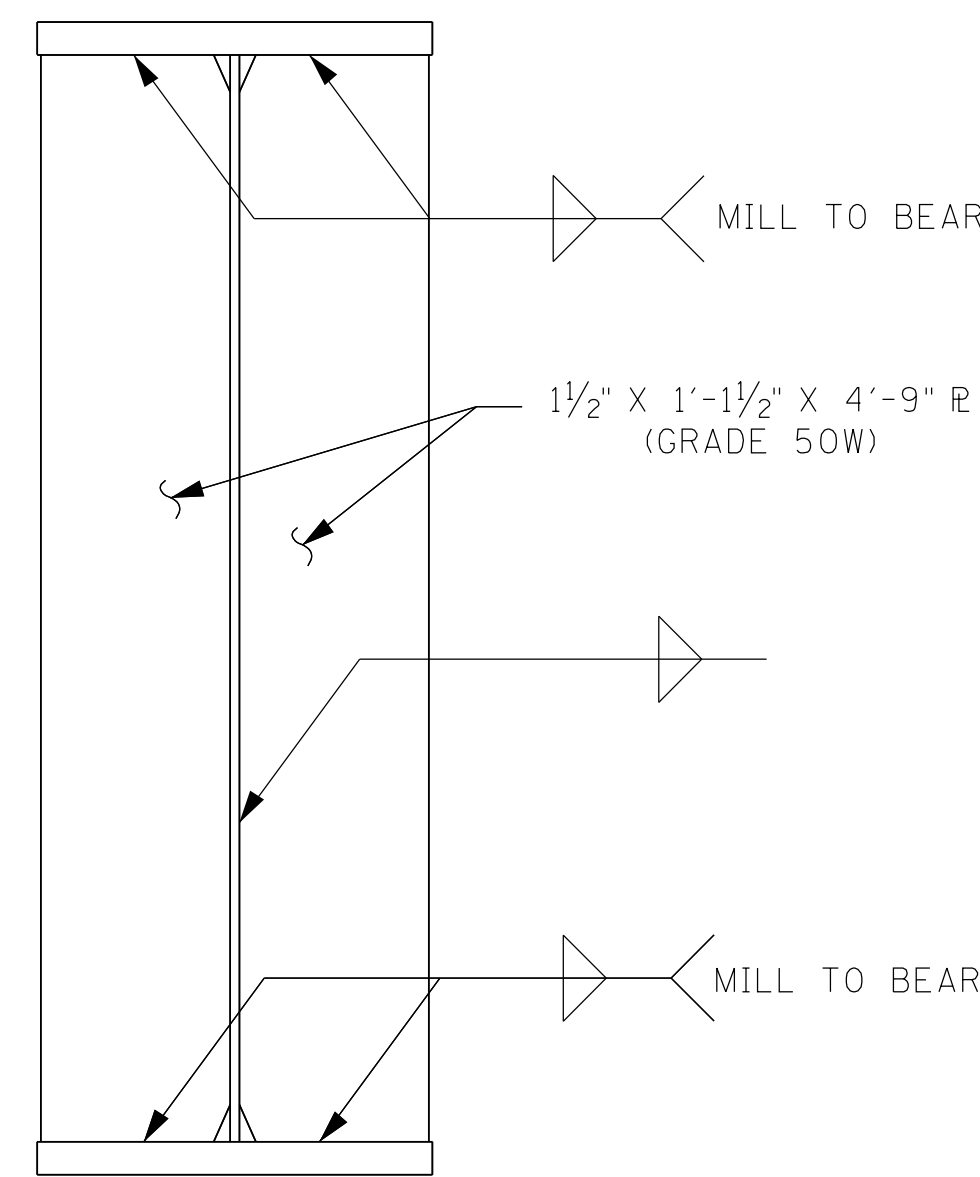


PLAN



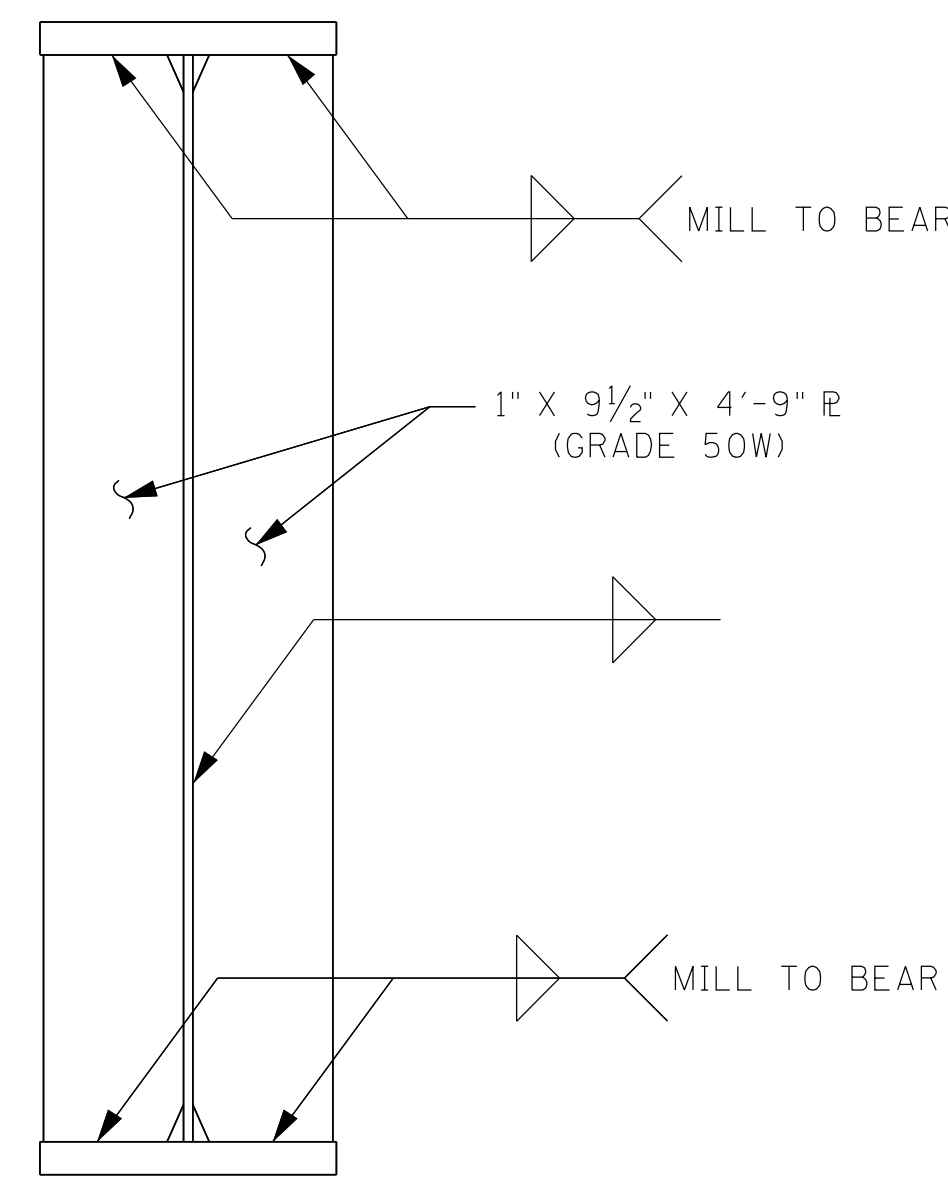
CROSS-FRAME STIFFENERS

(OMIT STIFFENER ON OUTSIDE FACE OF EXTERIOR GIRDERS)
(NOT TO SCALE)



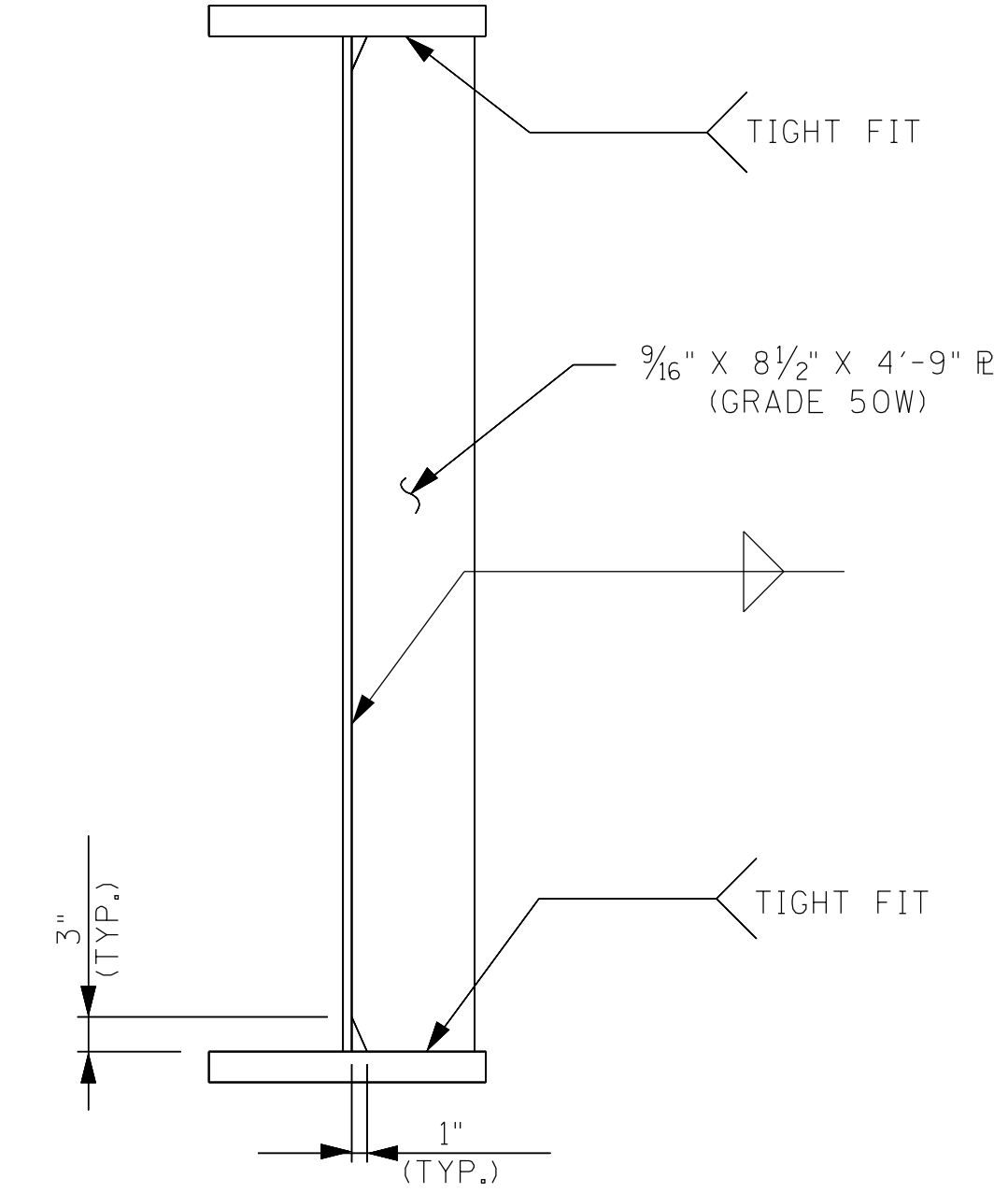
BEARING STIFFENERS

(BENT NOS. 1 AND 2)
(NOT TO SCALE)



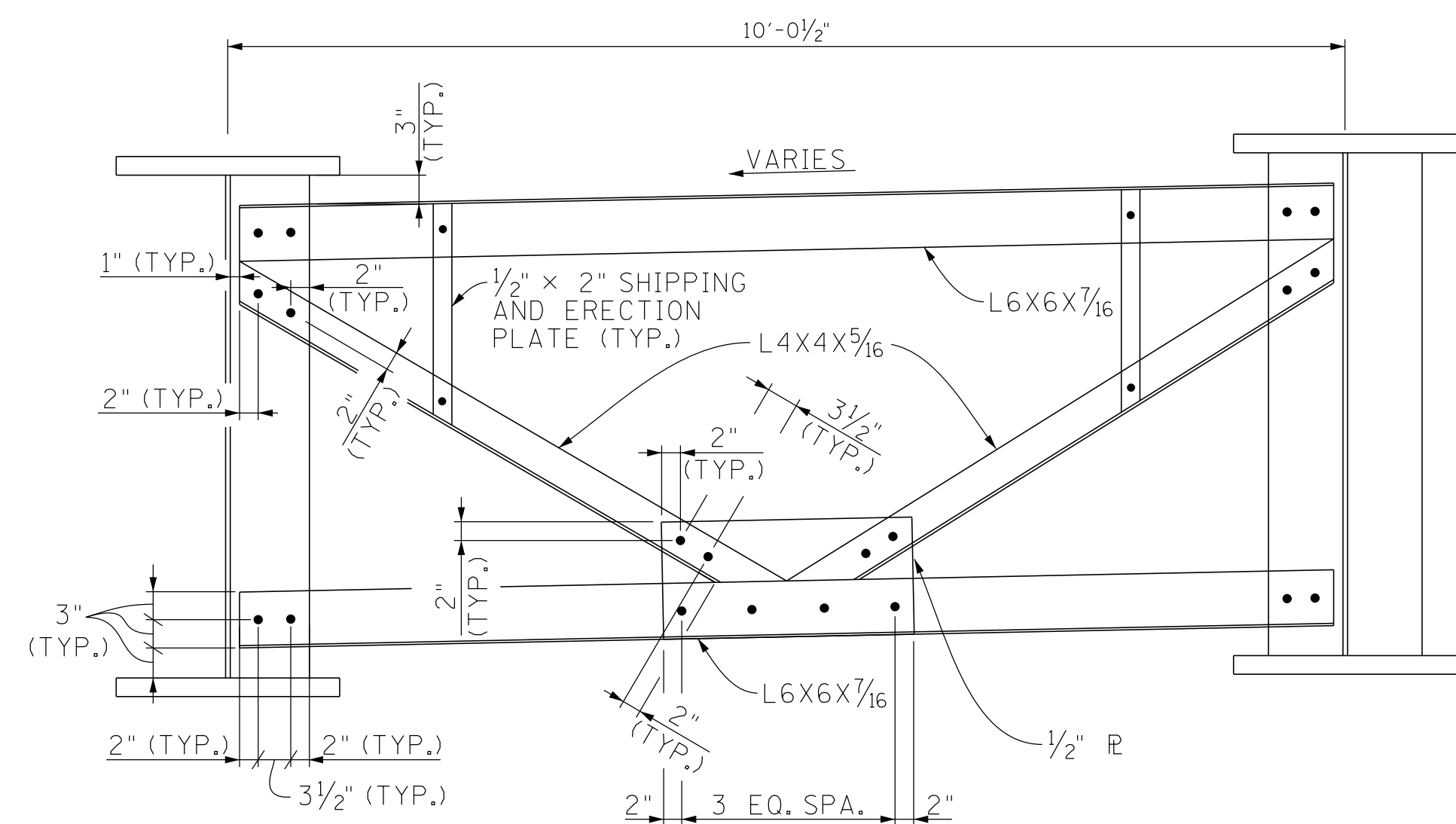
BEARING STIFFENERS

(ABUT. NO. 1 AND 2)
(NOT TO SCALE)



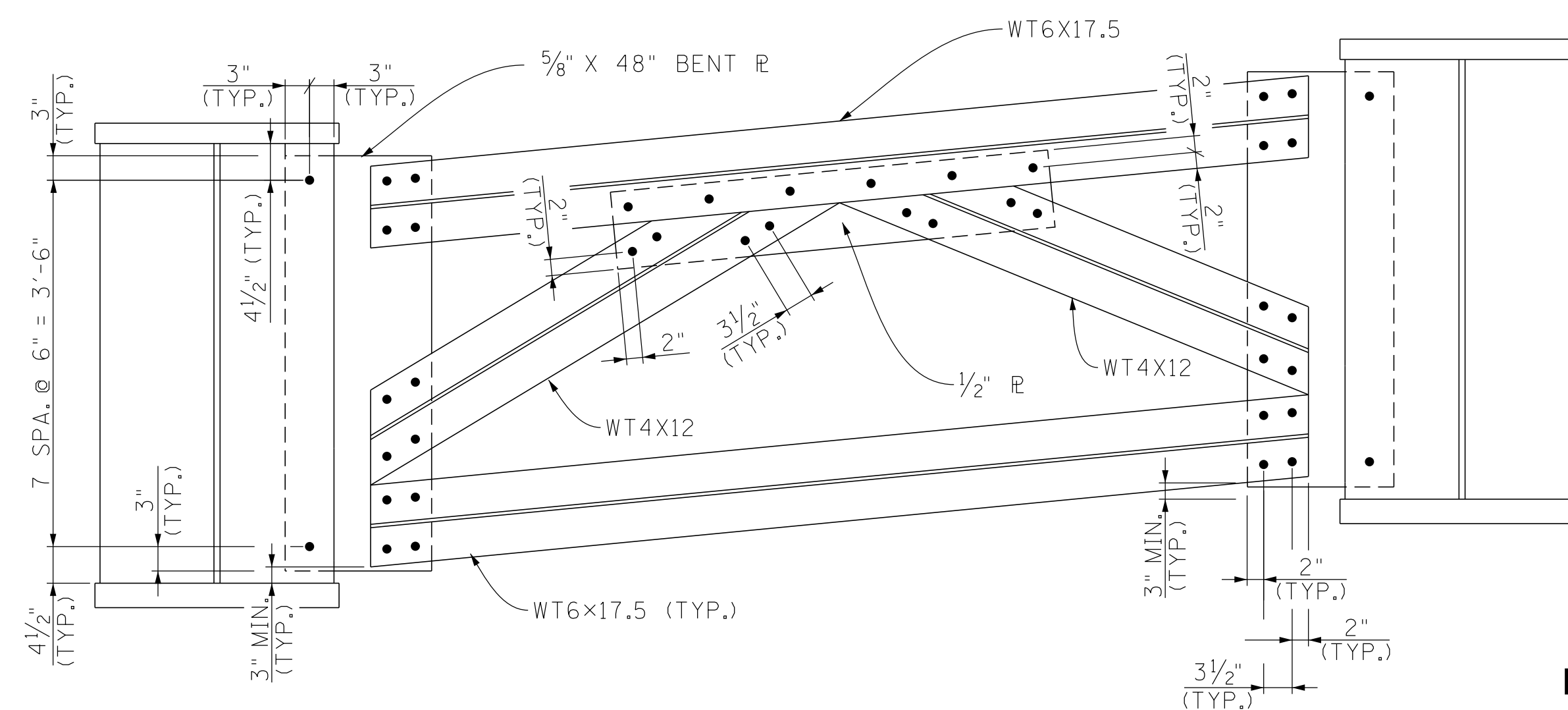
TRANSVERSE STIFFENERS

(ONE SIDE ONLY)
(NOT TO SCALE)



TYPICAL CROSS-FRAME DETAIL

1" F3125 GRADE A325 TYPE 3 BOLTS



TYPICAL CROSS-FRAME DETAIL AT BENTS

7/8" F3125 GRADE A325 TYPE 3 BOLTS

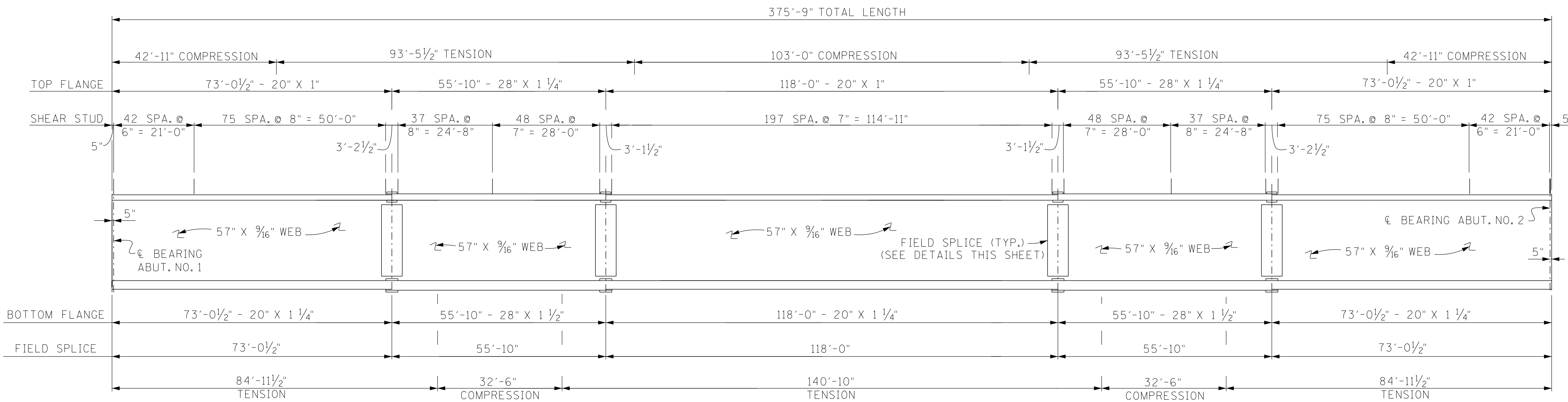
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BRIDGE NO. 2
STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
GIRDER DETAILS
STATE ROUTE 4 OVER
BURLINGTON-NORTHERN RAILROAD
BRIDGE ID NO. 79SR0040009
STATION 536+56.00
LOG MILE 4.13
SHELBY COUNTY

PIN NO.: 100340.00
DESIGN BY: JOHN AVERY DATE: 1-26
DRAWN BY: DATE:
SUPERVISED BY: S. STEELE/D. SHIKE DATE: 1-26
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2/9/2026

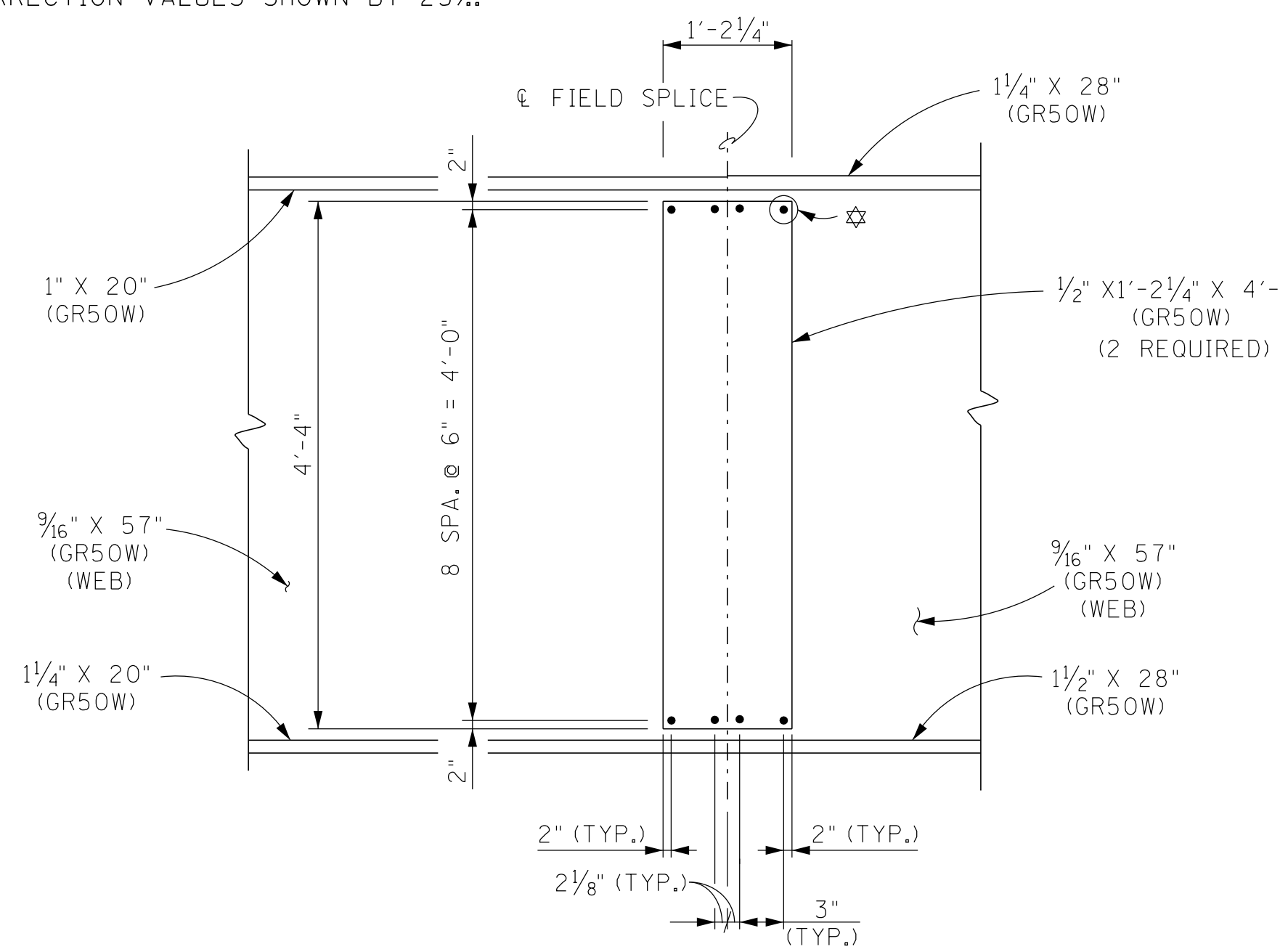
PROJECT NO.	YEAR	SHEET NO.	
STP/NH-4(6)	2026		
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NO.	DATE	BY	BRIEF DESCRIPTION
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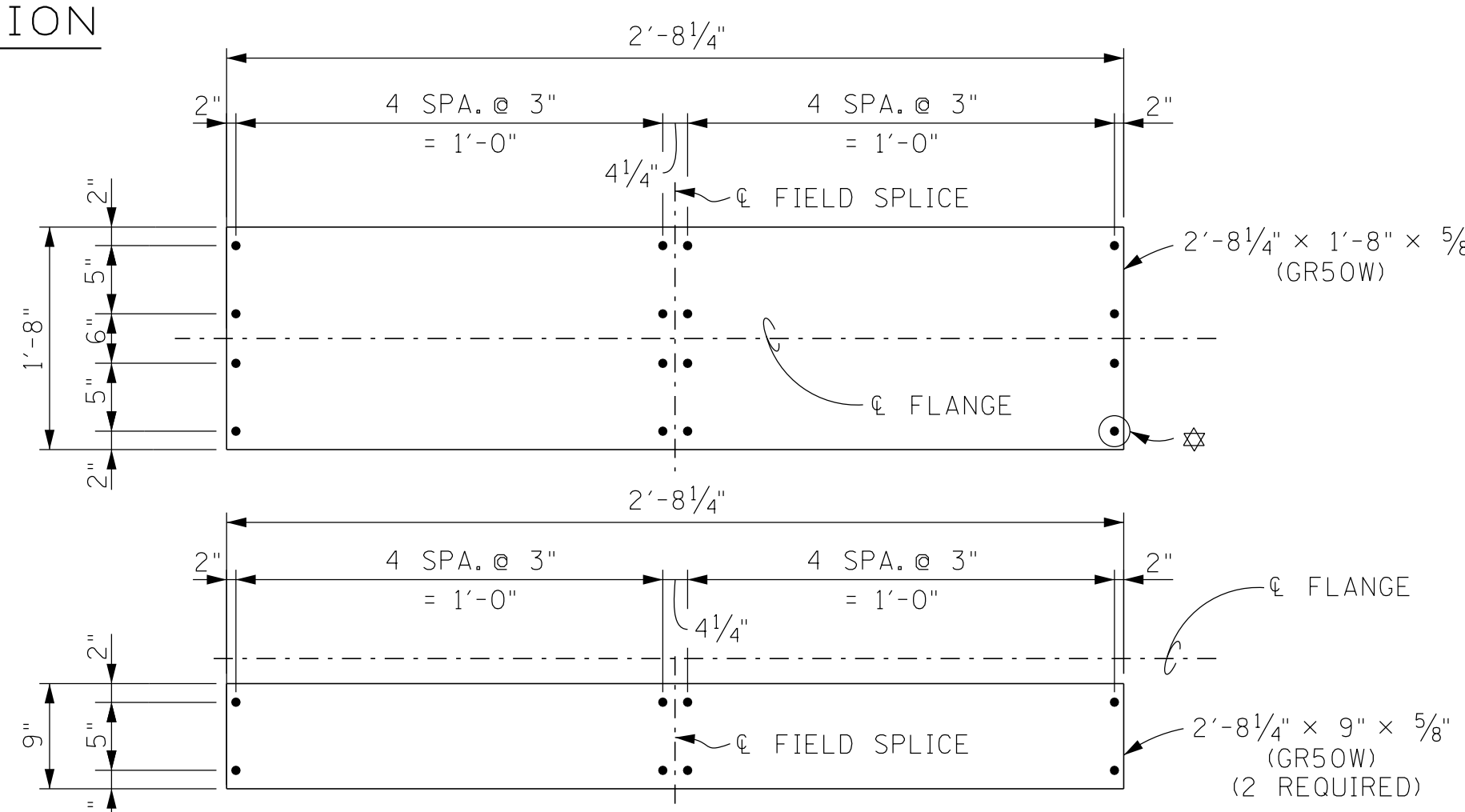
GIRDER ELEVATION

SPAN NO.1											
SPAN POINT	0.0	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	1.0
DEAD LOAD GIRDER	0"	0"	0"	0"	0"	-1/16"	-1/16"	-1/16"	-1/16"	-1/16"	0"
TOTAL DEAD LOAD	0"	1/16"	1/16"	0"	-1/16"	-1/4"	-3/8"	-1/16"	-7/16"	-5/16"	0"
SPAN NO.2											
SPAN POINT	1.0	1.1	1.2	1.3	1.4	1.5	1.6	1.7	1.8	1.9	2.0
DEAD LOAD GIRDER	0"	1/4"	1/2"	13/16"	1 1/16"	1 1/8"	1 1/16"	13/16"	1/2"	1/4"	0"
TOTAL DEAD LOAD	0"	5/16"	13/16"	1 3/8"	1 7/8"	2 1/16"	1 7/8"	1 3/8"	13/16"	5/16"	0"
SPAN NO.3											
SPAN POINT	2.0	2.1	2.2	2.3	2.4	2.5	2.6	2.7	2.8	2.9	3.0
DEAD LOAD GIRDER	0"	-1/16"	-1/16"	-1/16"	-1/16"	-1/16"	0"	0"	0"	0"	0"
TOTAL DEAD LOAD	0"	1/8"	7/16"	1"	1 1/16"	1 5/16"	2 1/16"	1 5/16"	1 1/2"	7/8"	0"

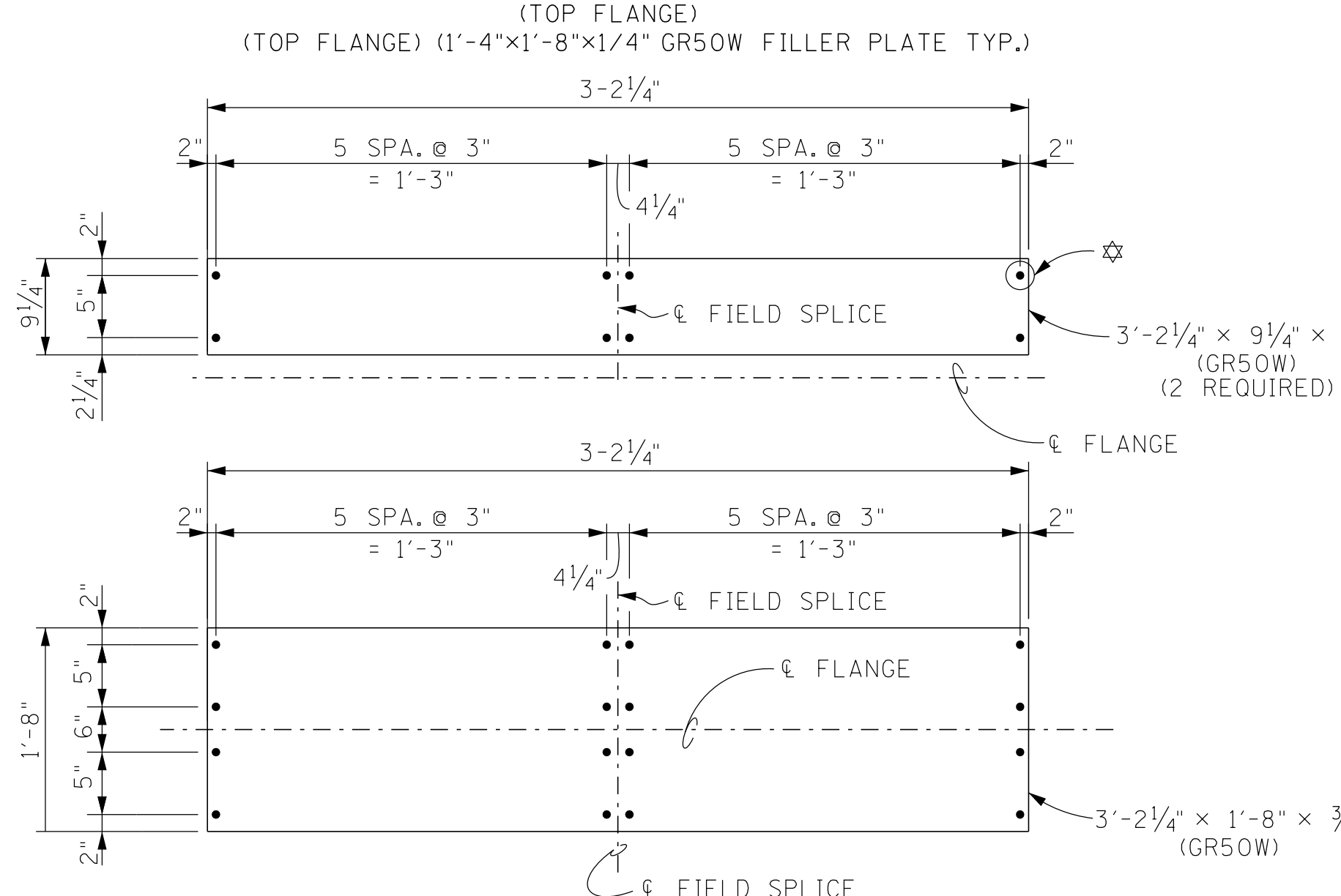
NOTE: IF PRESTRESSED DECK PANELS ARE USED AND THE GIRDERS ARE PROFILED AFTER THE PANELS ARE IN PLACE, REDUCE THE DEAD LOAD CORRECTION VALUES SHOWN BY 25%.



FIELD SPLICE ELEVATION



PLAN OF FIELD SPLICE



PLAN OF FIELD SPLICE

(TOP FLANGE) (1'-4" X 1'-8" X 1/4" GR50W FILLER PLATE TYP.)

(BOTTOM FLANGE) (1'-7" X 1'-8" X 1/4" GR50W FILLER PLATE TYP.)

NOTE: ALL BOLTED FIELD SPLICES - SHALL USE 7/8" Ø A325 BOLTS.

STEEL BEAM DESIGN DATA (PER BEAM):

LIVE LOAD DISTRIBUTION FACTOR:

0.??? LANES FOR MOMENT

0.??? LANES FOR SHEAR

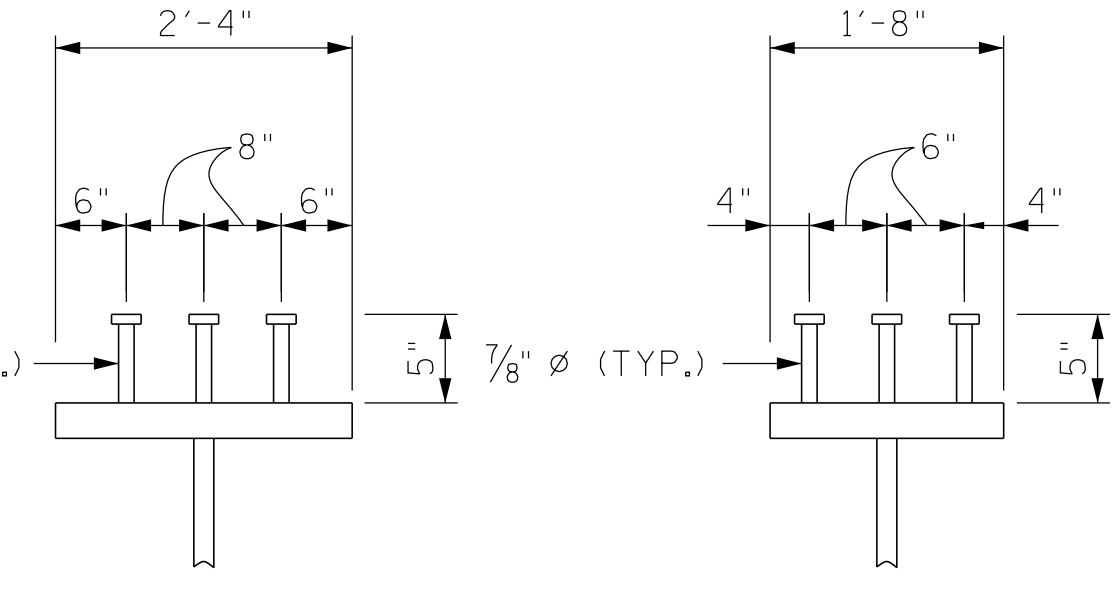
0.??? LANES FOR FATIGUE

COMPOSITE DEAD LOAD:

DC = ??? LB/FT

DW = ??? LB/FT

COMPOSITE SLAB DESIGN STRENGTH: F'C = 4000 PSI



SHEAR CONNECTOR DETAIL

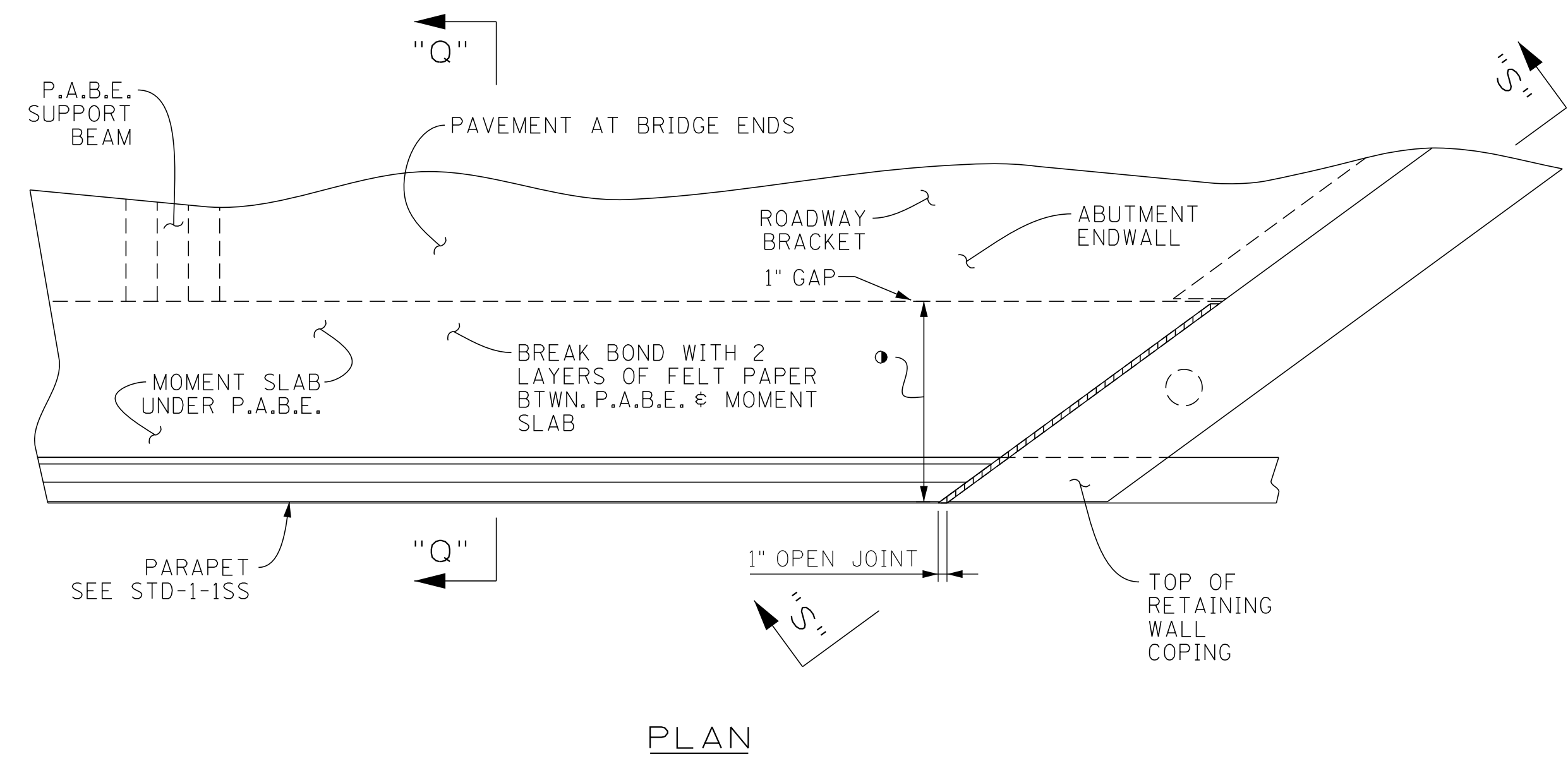
NOTE: SHEAR CONNECTOR MATERIAL SHALL BE COLD-DRAWN ASTM A108 GRADE 1015, 1018, OR 1020, EITHER SEMI OR FULLY KILLED, AND HAVE SPECIFIED MINIMUM YIELD AND TENSILE STRENGTHS OF 50 KSI AND 60 KSI, RESPECTIVELY.

SEALED BY

BRIDGE NO. 2
STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
GIRDER DETAILS
STATE ROUTE 4 OVER
BURLINGTON-NORTHERN RAILROAD
BRIDGE ID NO. 79SR0040009
STATION 536+56.00
LOG MILE 4.13
SHELBY COUNTY

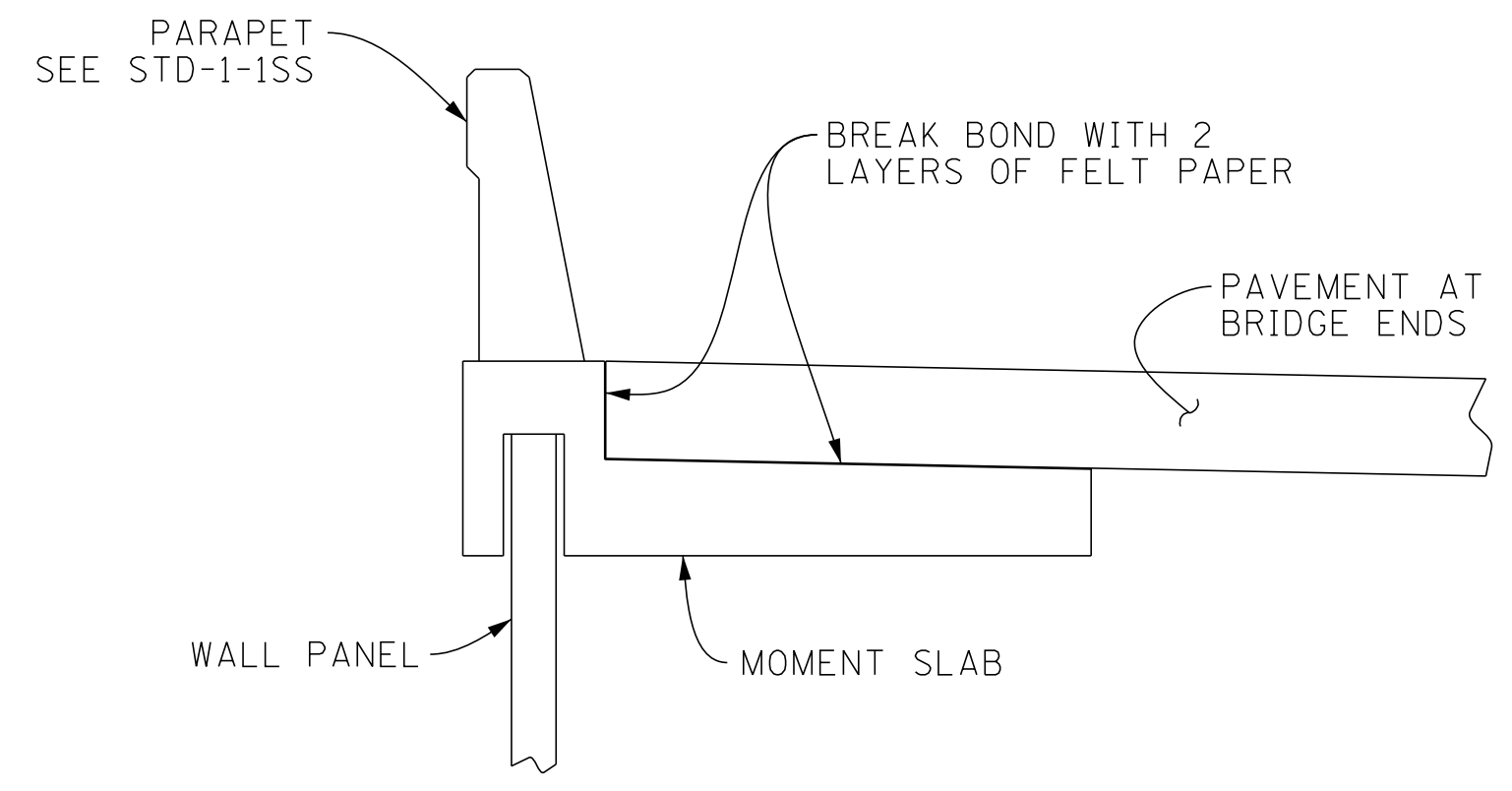
PIN NO.: 100340.00
DESIGN BY: JOHN AVERY DATE: 1-26
DRAWN BY: DATE:
SUPERVISED BY: S. STEELE/D. SHIKE DATE: 1-26
CHECKED BY: DATE:

PROJECT NO.	YEAR	SHEET NO.	
STP/NH-4(6)	2026		
REVISIONS			
NO.	DATE	BY	BRIEF DESCRIPTION
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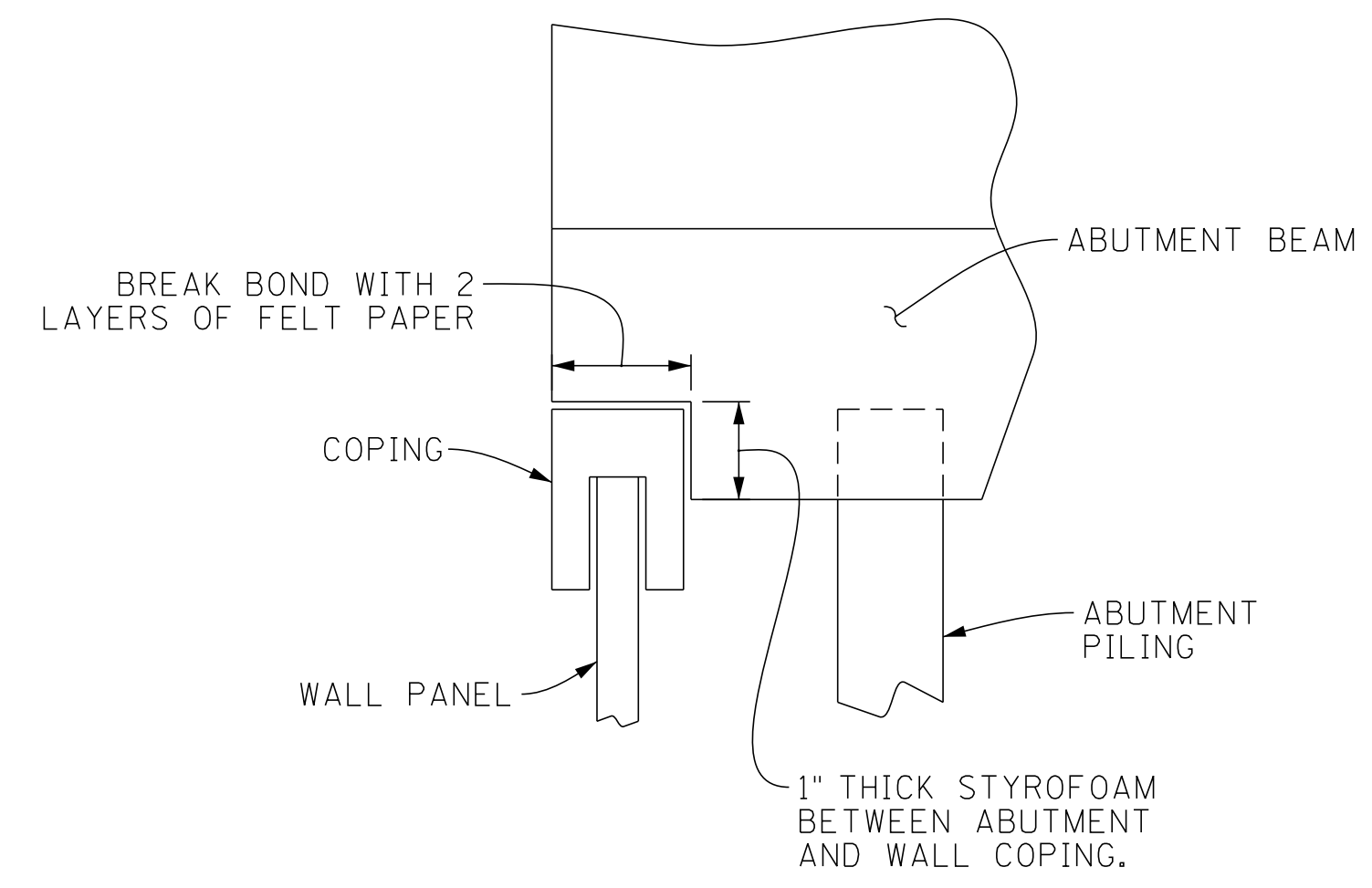


PLAN

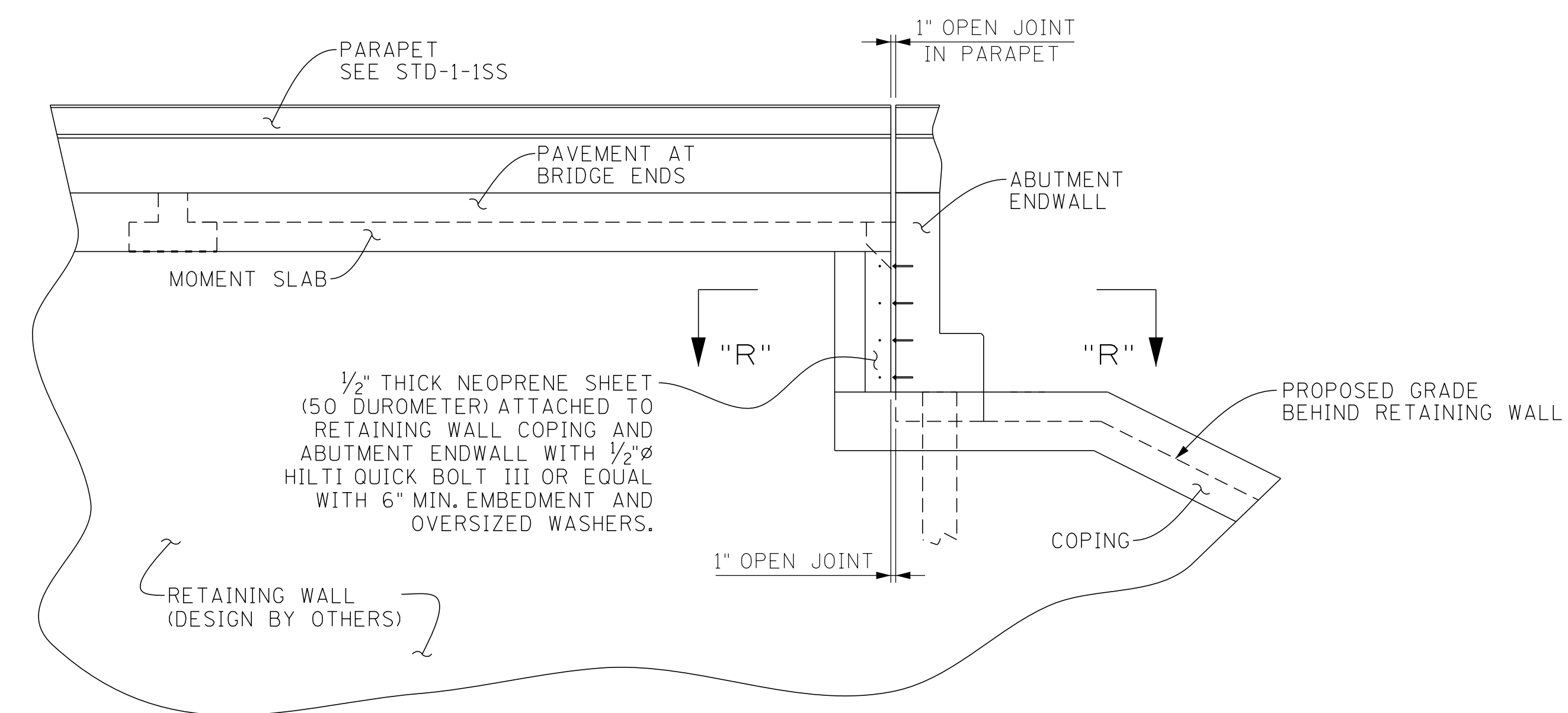
◊ DENOTES: 1" OPEN JOINT BETWEEN MOMENT SLAB AND ENDWALL. OPEN JOINT SHALL NOT EXTEND BETWEEN P.A.B.E. AND ENDWALL.



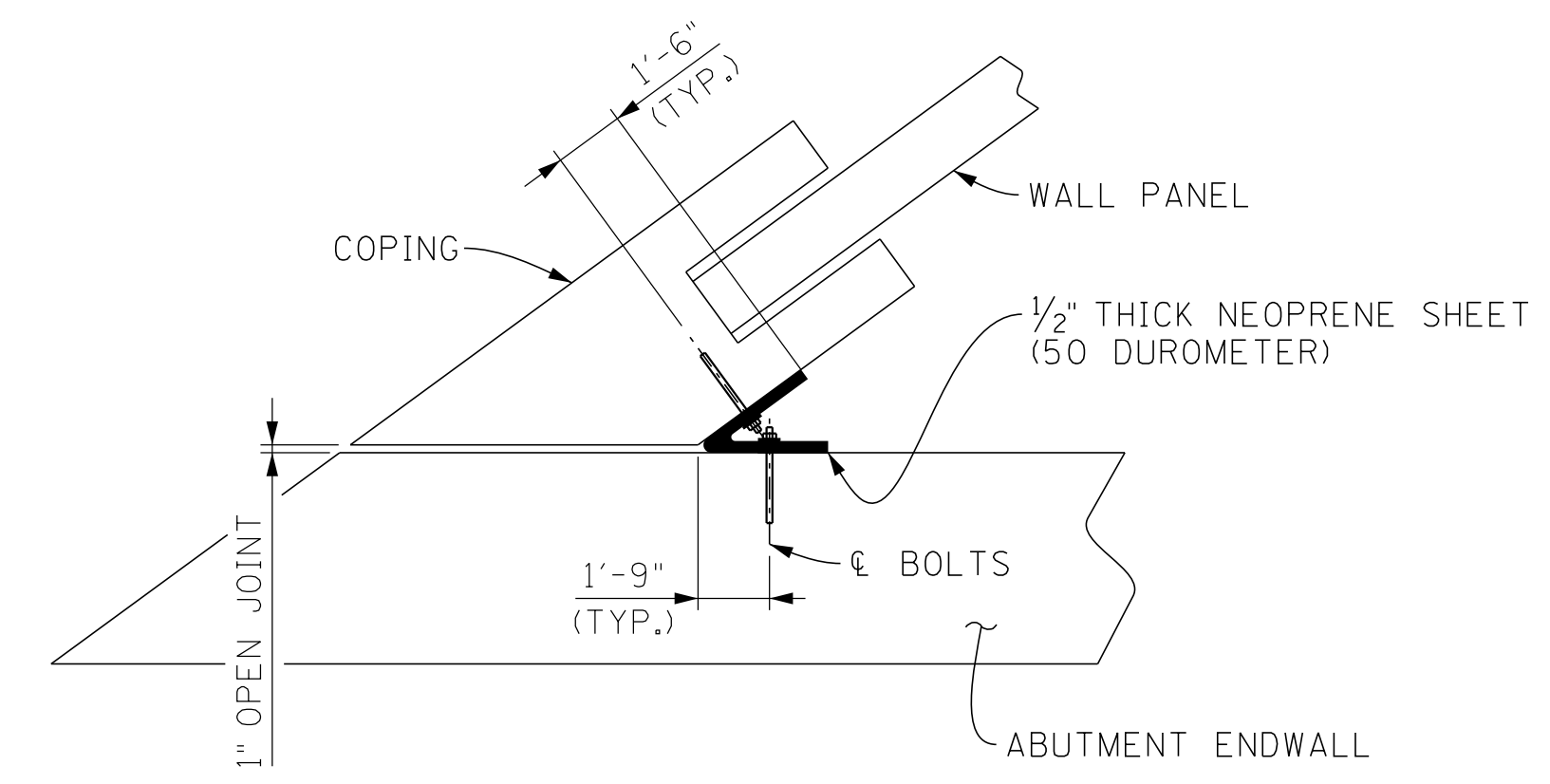
SECTION "Q"- "Q"



SECTION "S"- "S"



ELEVATION



SECTION "R"- "R"

NOTE: ADJUSTMENTS TO ROADWAY BRACKET LENGTH AND REBAR SHALL BE MADE IN FIELD BASED ON FINAL MOMENT SLAB DIMENSIONS.

SEALED BY

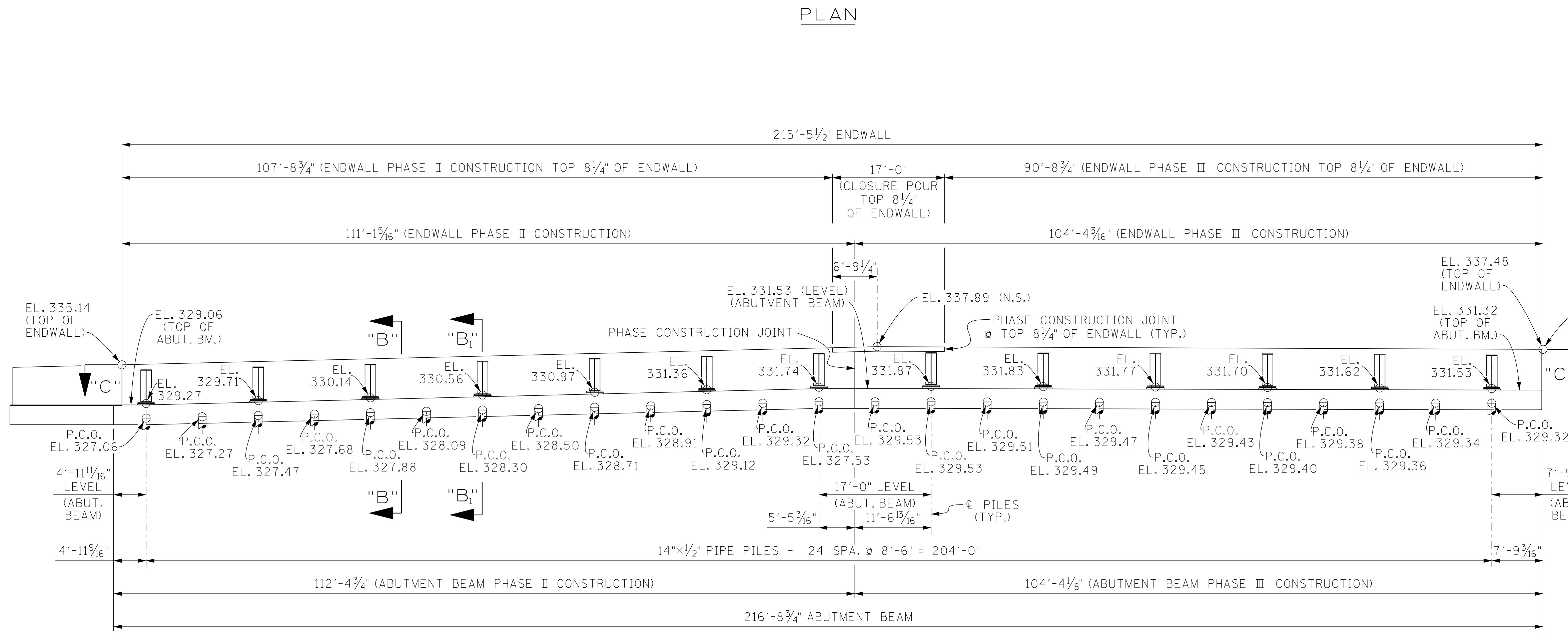
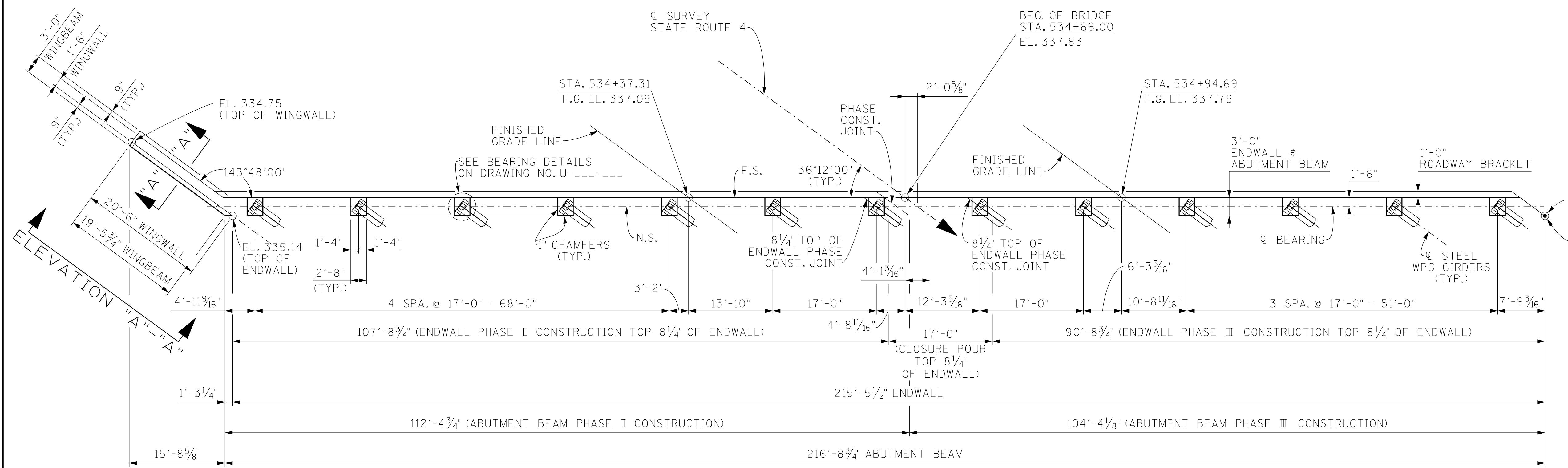
RETAINING WALL TO BRIDGE CONNECTION
(TYPICAL CONNECTION FOR RETAINING WALLS NOS. 8, 9, AND 10 USING M.S.E. PANEL WALL)

BRIDGE NO. 2
STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
MISCELLANEOUS/GENERAL DETAILS
STATE ROUTE 4 OVER
BURLINGTON-NORTHERN RAILROAD
BRIDGE ID NO. 79SR0040009
STATION 536+56.00
LOG MILE 4.13
SHELBY COUNTY

PIN NO.: 100340.00
DESIGN BY: JOHN AVERY DATE: 1-26
DRAWN BY: B. ERVIN DATE: 2-26
SUPERVISED BY: S. STEELE/D. SHIKE DATE: 1-26
CHECKED BY: DATE:

1:22:22 PM
2/9/2026

PROJECT NO.	YEAR	SHEET NO.	
STP/NH-4(6)	2026		
REVISIONS			
NO.	DATE	BY	BRIEF DESCRIPTION
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NOTES

- NOTE:** WHEN POURING ABUTMENT BEAM, PROVISIONS SHALL BE MADE FOR SETTING ANCHOR BOLTS. BOLT PROJECTION 5".
- NOTE:** RISER BLOCKS SHALL BE POURED MONOLITHICALLY WITH THE ABUTMENT BEAM.
- 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:** THE ENTIRE ABUTMENT ENDWALL SHALL BE POURED CONCURRENTLY WITH POUR NO. _____. SEE DWG. NO. _____ FOR DETAILS.
- 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 SEISMIC ATTACHMENT DETAILS AND NOTES.
- NOTE:** WINGBEAM PILES SHALL BE DRIVEN TO THE PLANS TIP ELEVATION OR REFUSAL.

SEALED BY

BRIDGE NO. 3
 STATE OF TENNESSEE
 DEPARTMENT OF TRANSPORTATION
ABUTMENT NO. 1
 STATE ROUTE 4 OVER
 BURLINGTON-NORTHERN RAILROAD
 BRIDGE ID NO. 79SR0040009
 STATION 536+56.00
 LOG MILE 4.13
 SHELBY COUNTY

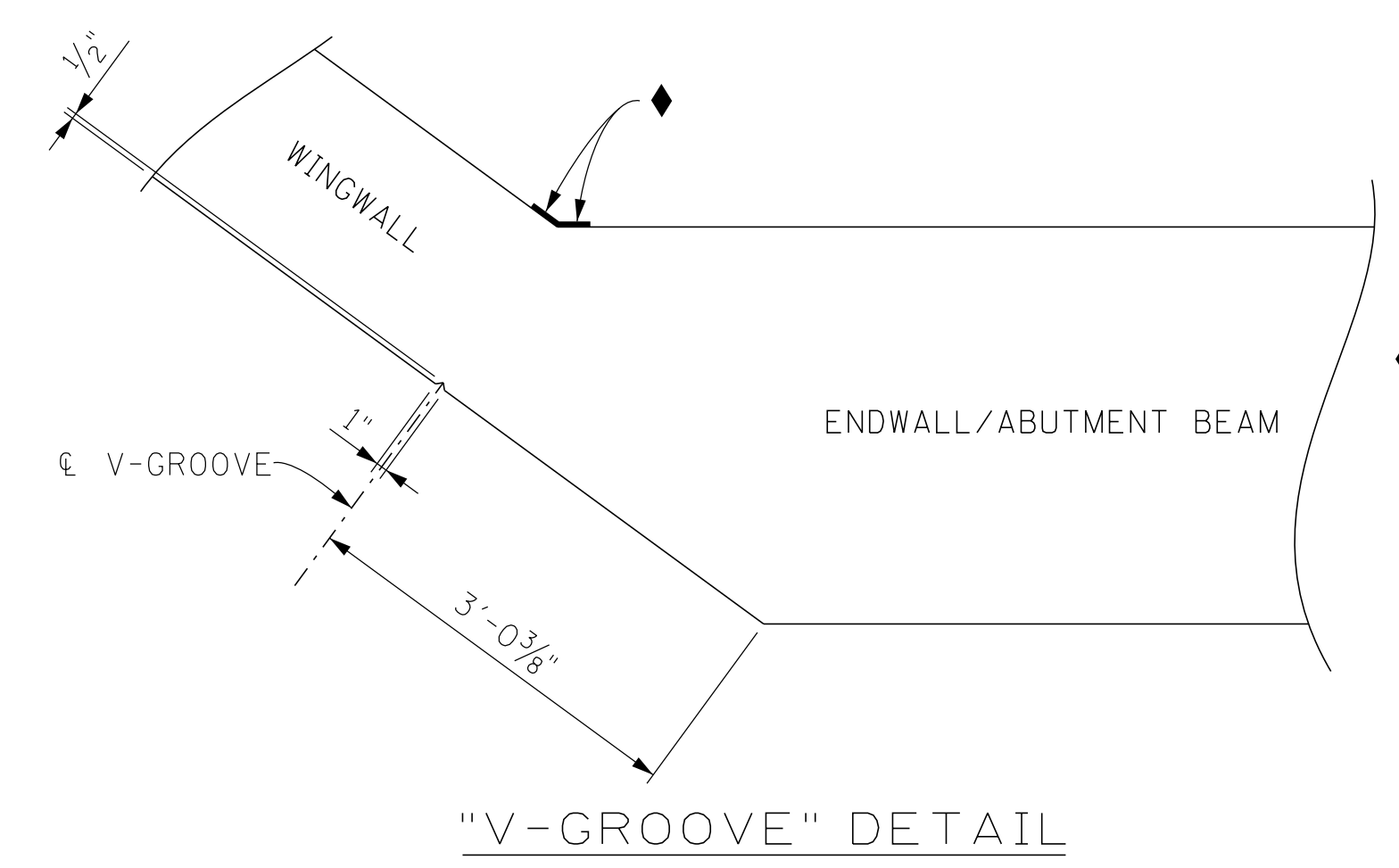
PIN NO.: 100340.00
 DESIGN BY: JOHN AVERY DATE: 1-26
 DRAWN BY: T. WISEMAN DATE: 1-26
 SUPERVISED BY: S. STEELE/D. SHIKE DATE: 1-26
 CHECKED BY: DATE:

U- - -

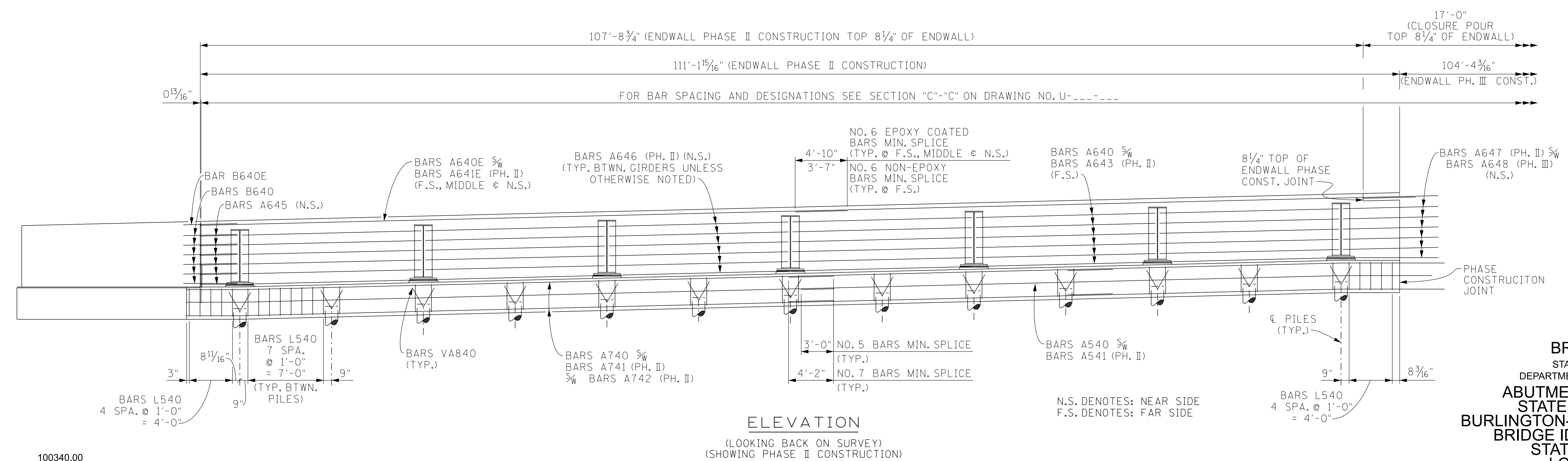
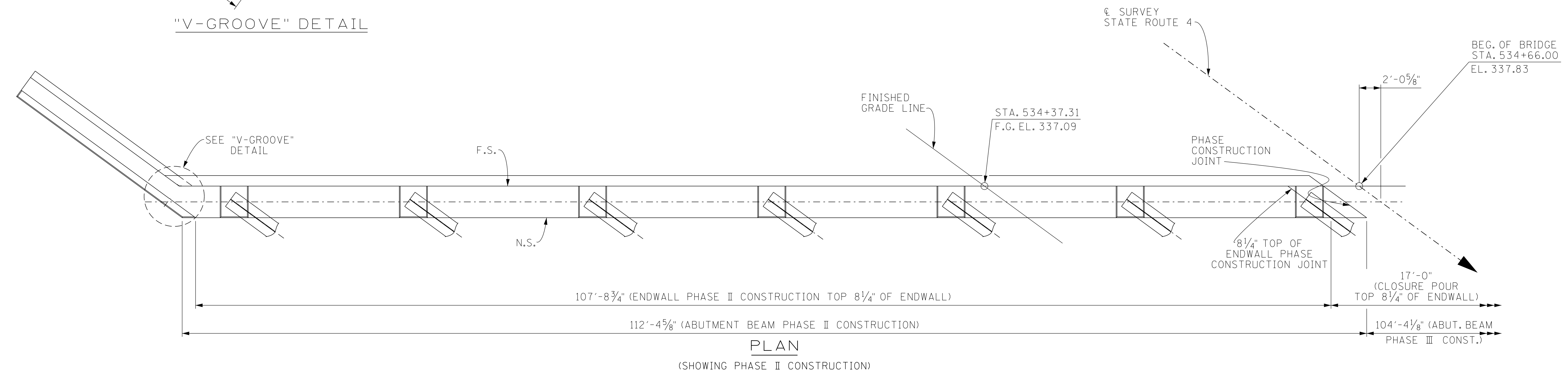
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 2/19/2026

PROJECT NO.	YEAR	SHEET NO.	
STP/NH-4(6)	2026		
REVISIONS			
NO.	DATE	BY	BRIEF DESCRIPTION
-	-	-	-
-	-	-	-
-	-	-	-
-	-	-	-
-	-	-	-

NOTE: THE CONTRACTOR SHALL OFFSET ANY REINFORCEMENT NECESSARY TO MAINTAIN 2" CLEARANCE TO PHASE CONSTRUCTION JOINT.



◆ DENOTES: 1/2"x3" BITUMINOUS FIBERBOARD SECURELY BONDED TO CONCRETE SURFACE TO RUN FROM TOP OF ABUTMENT BEAM TO BOTTOM OF ROADWAY BRACKET (TYP.)



SEALED BY

BRIDGE NO. 3
STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
ABUTMENT NO. 1 DETAILS
STATE ROUTE 4 OVER
BURLINGTON-NORTHERN RAILROAD
BRIDGE ID NO. 79SR0040009
STATION 536+56.00
LOG MILE 4.13
SHELBY COUNTY

PIN NO.: 100340.00
DESIGN BY: JOHN AVERY DATE: 1-26
DRAWN BY: T. WISEMAN DATE: 1-26
SUPERVISED BY: S. STEELE/D. SHIKE DATE: 1-26
CHECKED BY: DATE:

U- - -

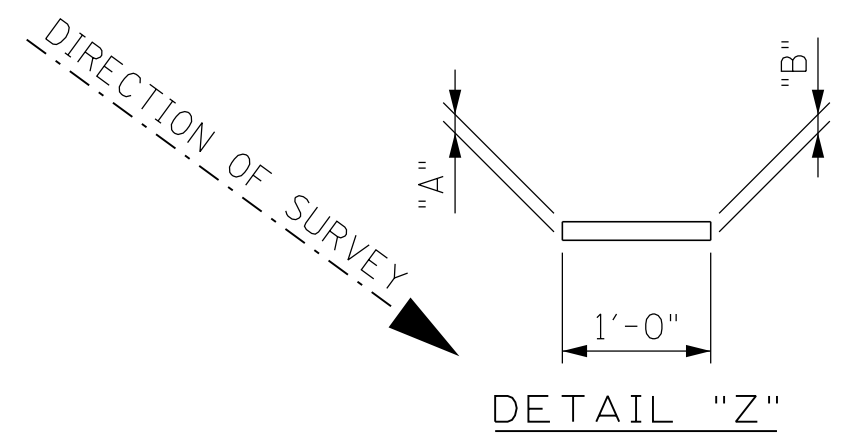
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2/19/2026

CONST. NO.: 79020-3253-14

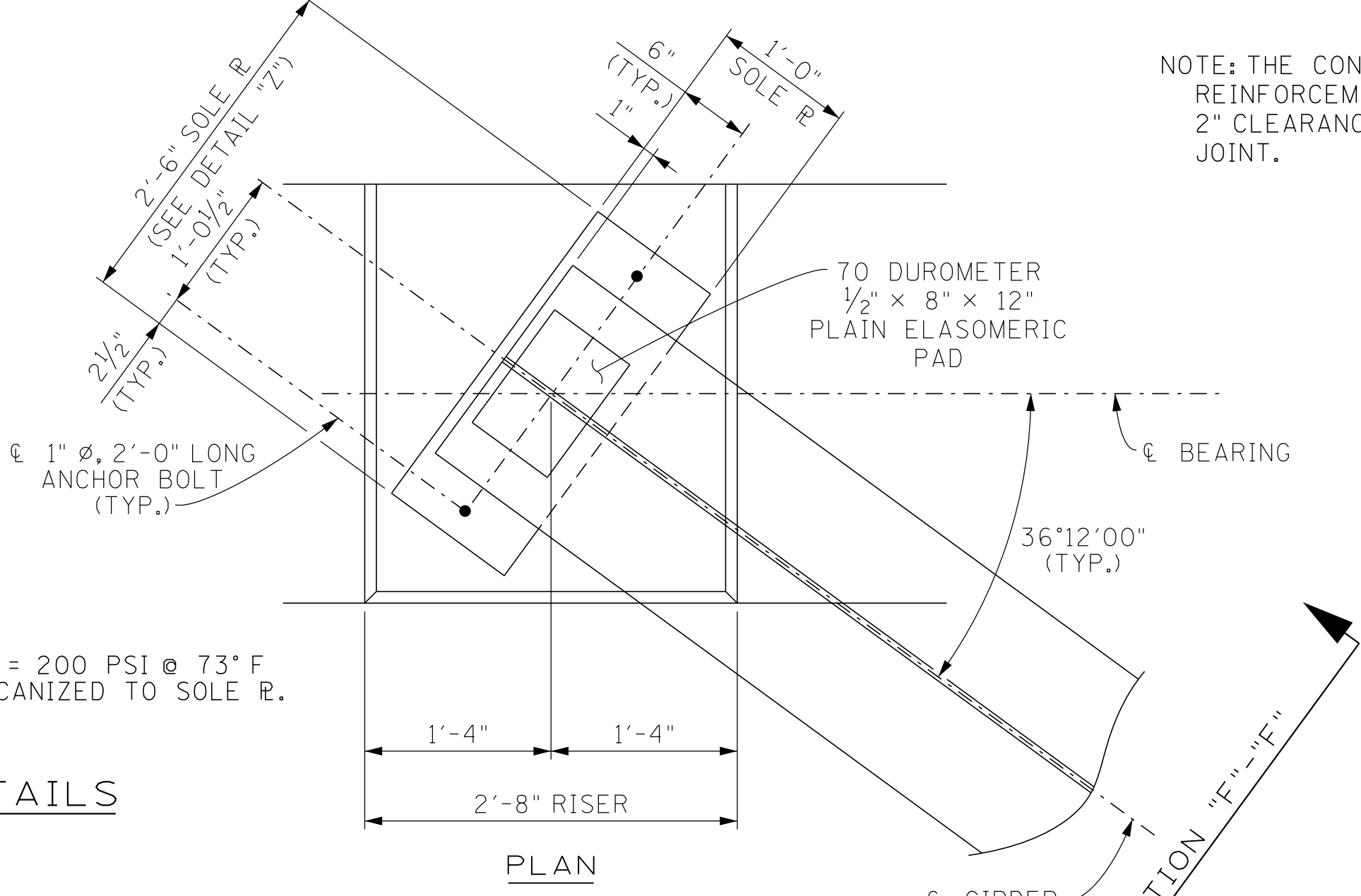
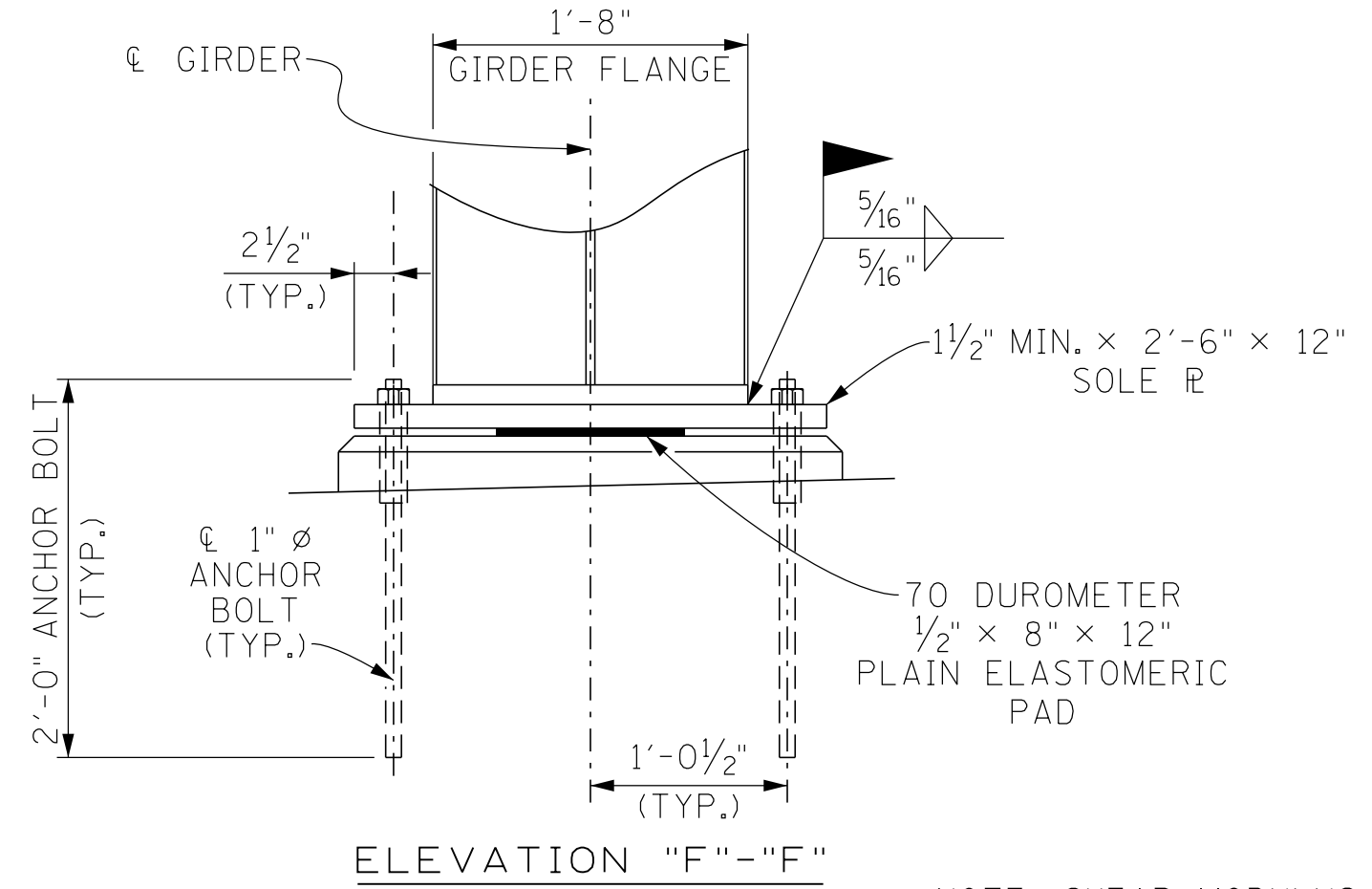
PROJECT NO.	YEAR	SHEET NO.
STP/NH-4(6)	2026	

REVISIONS			
NO.	DATE	BY	BRIEF DESCRIPTION
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NOTE: THE CONTRACTOR SHALL OFFSET ANY REINFORCEMENT NECESSARY TO MAINTAIN 2" CLEARANCE TO PHASE CONSTRUCTION JOINT.

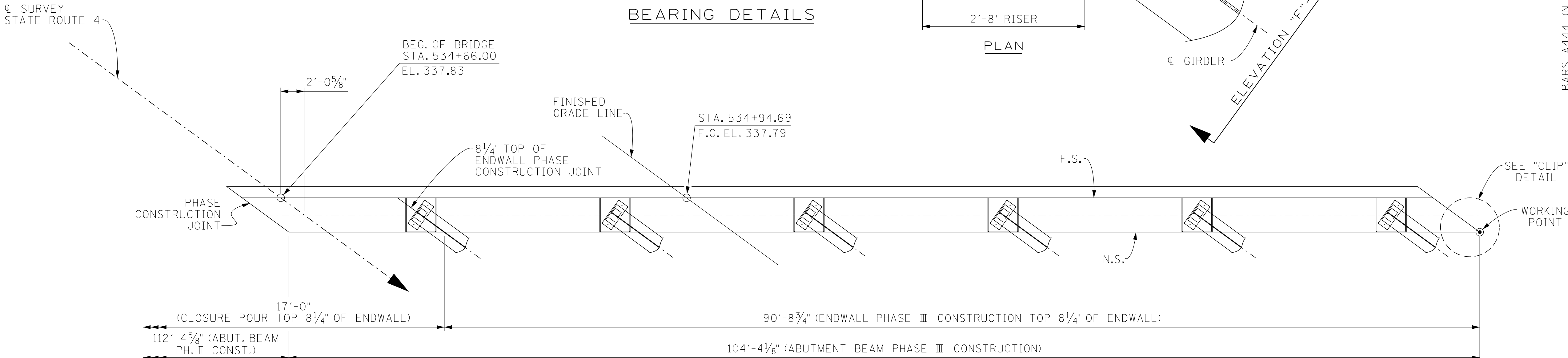


BEAM NOS. @ ABUTMENT NO. 1	"A"	"B"
BEAM NOS. 1 THRU 3	1 1/2"	1 5/8"
BEAM NOS. 4 THRU 8	1 1/2"	1 1/16"
BEAM NOS. 9 THRU 12	1 1/2"	1 3/4"
BEAM NO. 13	1 1/2"	1 13/16"

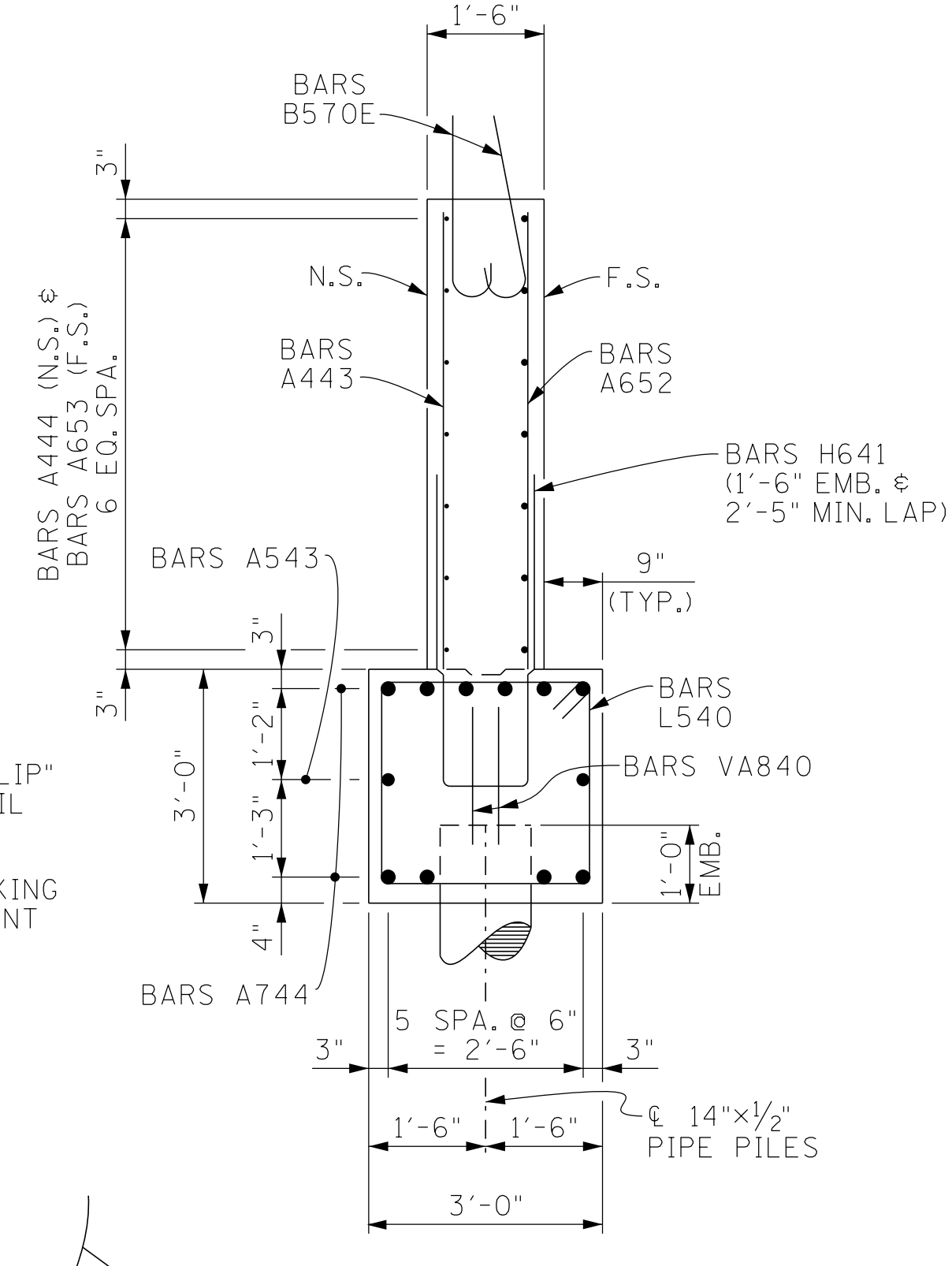


NOTE: SHEAR MODULUS = 200 PSI @ 73° F
BEARING TO BE VULCANIZED TO SOLE R.

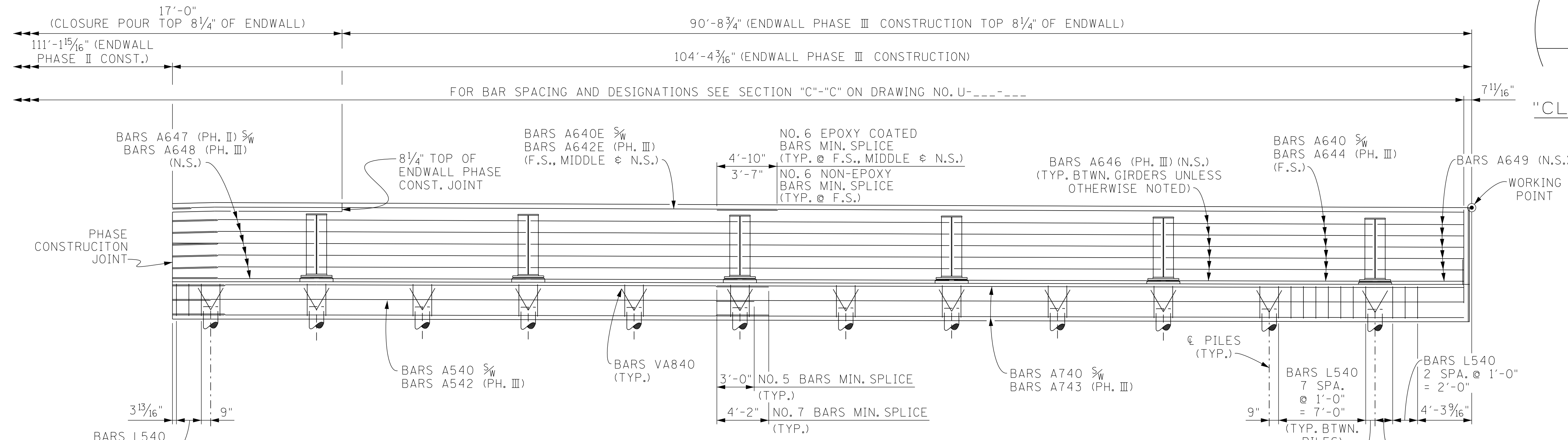
BEARING DETAILS



PLAN (SHOWING PHASE III CONSTRUCTION)

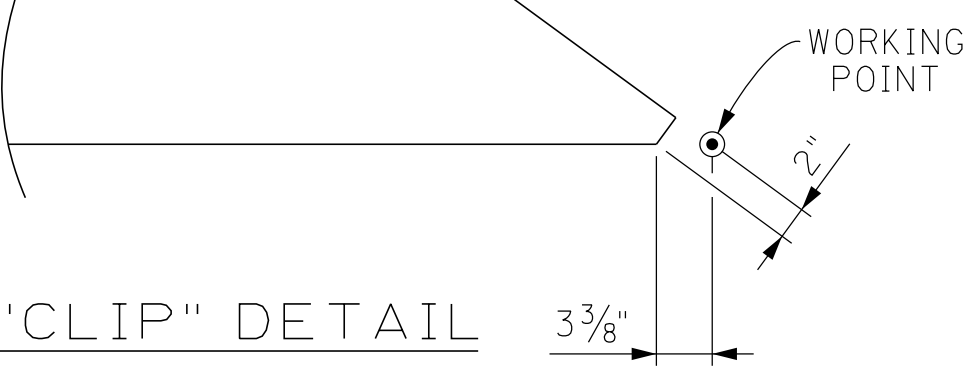


SECTION "A"-"A"



ELEVATION (LOOKING BACK ON SURVEY) (SHOWING PHASE III CONSTRUCTION)

N.S. DENOTES: NEAR SIDE
F.S. DENOTES: FAR SIDE



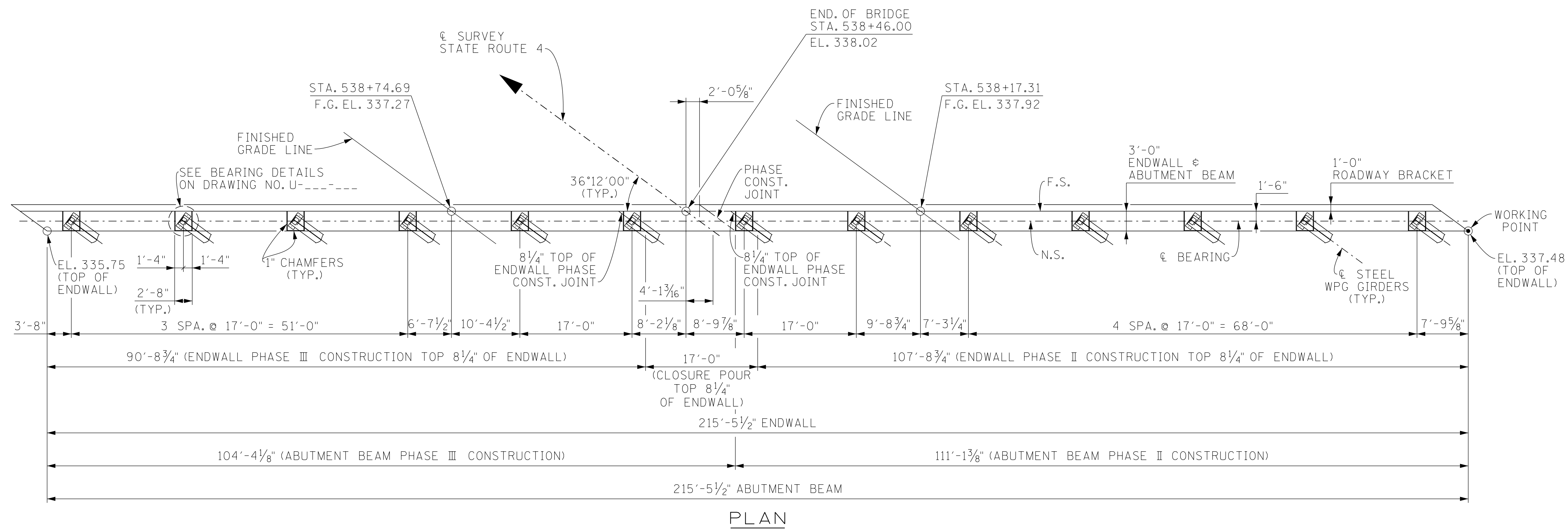
"CLIP" DETAIL

SEALED BY

BRIDGE NO. 3
STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
ABUTMENT NO. 1 DETAILS
STATE ROUTE 4 OVER
BURLINGTON-NORTHERN RAILROAD
BRIDGE ID NO. 79SR0040009
STATION 536+56.00
LOG MILE 4.13
SHELBY COUNTY

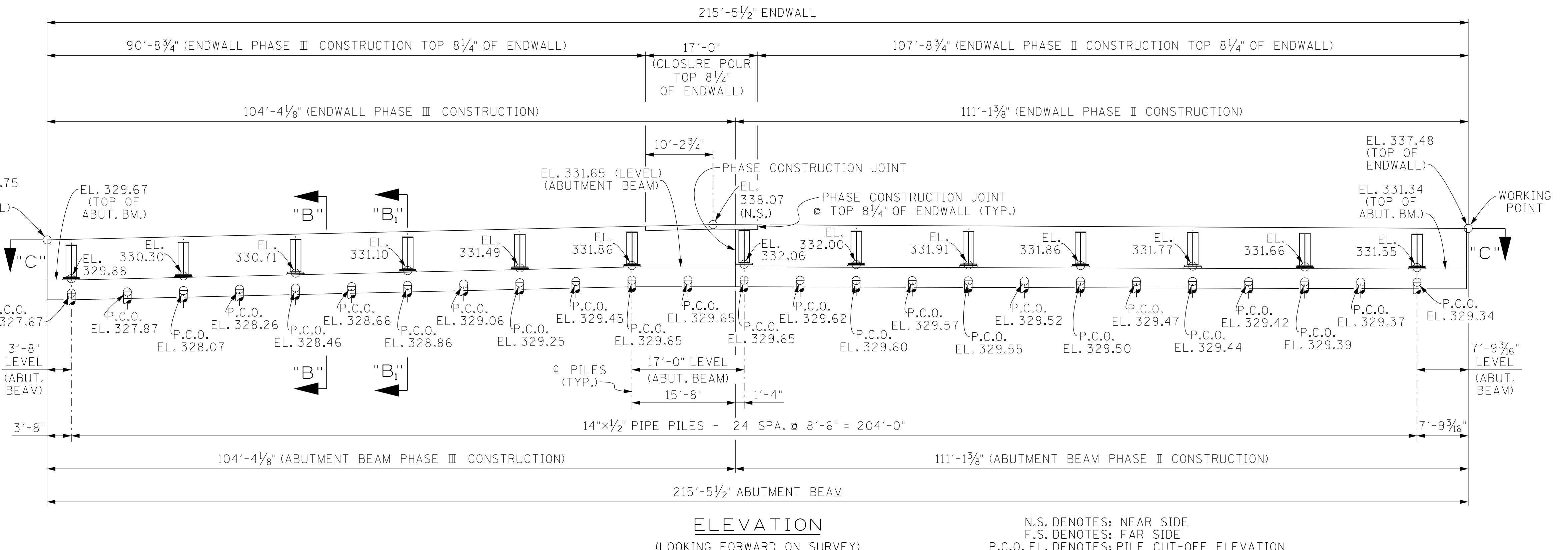
PIN NO.: 100340.00
DESIGN BY: JOHN AVERY DATE: 1-26
DRAWN BY: T. WISEMAN DATE: 1-26
SUPERVISED BY: S. STEELE/D. SHIKE DATE: 1-26
CHECKED BY: DATE:

PROJECT NO.	YEAR	SHEET NO.	
STP/NH-4(6)	2026		
REVISIONS			
NO.	DATE	BY	BRIEF DESCRIPTION
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NOTES

- NOTE:** WHEN POURING ABUTMENT BEAM, PROVISIONS SHALL BE MADE FOR SETTING ANCHOR BOLTS. BOLT PROJECTION 5".
- NOTE:** RISER BLOCKS SHALL BE POURED MONOLITHICALLY WITH THE ABUTMENT BEAM.
- 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:** THE ENTIRE ABUTMENT ENDWALL SHALL BE POURED CONCURRENTLY WITH POUR NO. _____. SEE DWG. NO. _____ FOR DETAILS.
- 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 SEISMIC ATTACHMENT DETAILS AND NOTES.



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BRIDGE NO. 3
 STATE OF TENNESSEE
 DEPARTMENT OF TRANSPORTATION
ABUTMENT NO. 2
 STATE ROUTE 4 OVER
 BURLINGTON-NORTHERN RAILROAD
 BRIDGE ID NO. 79SR0040009
 STATION 536+56.00
 LOG MILE 4.13
 SHELBY COUNTY

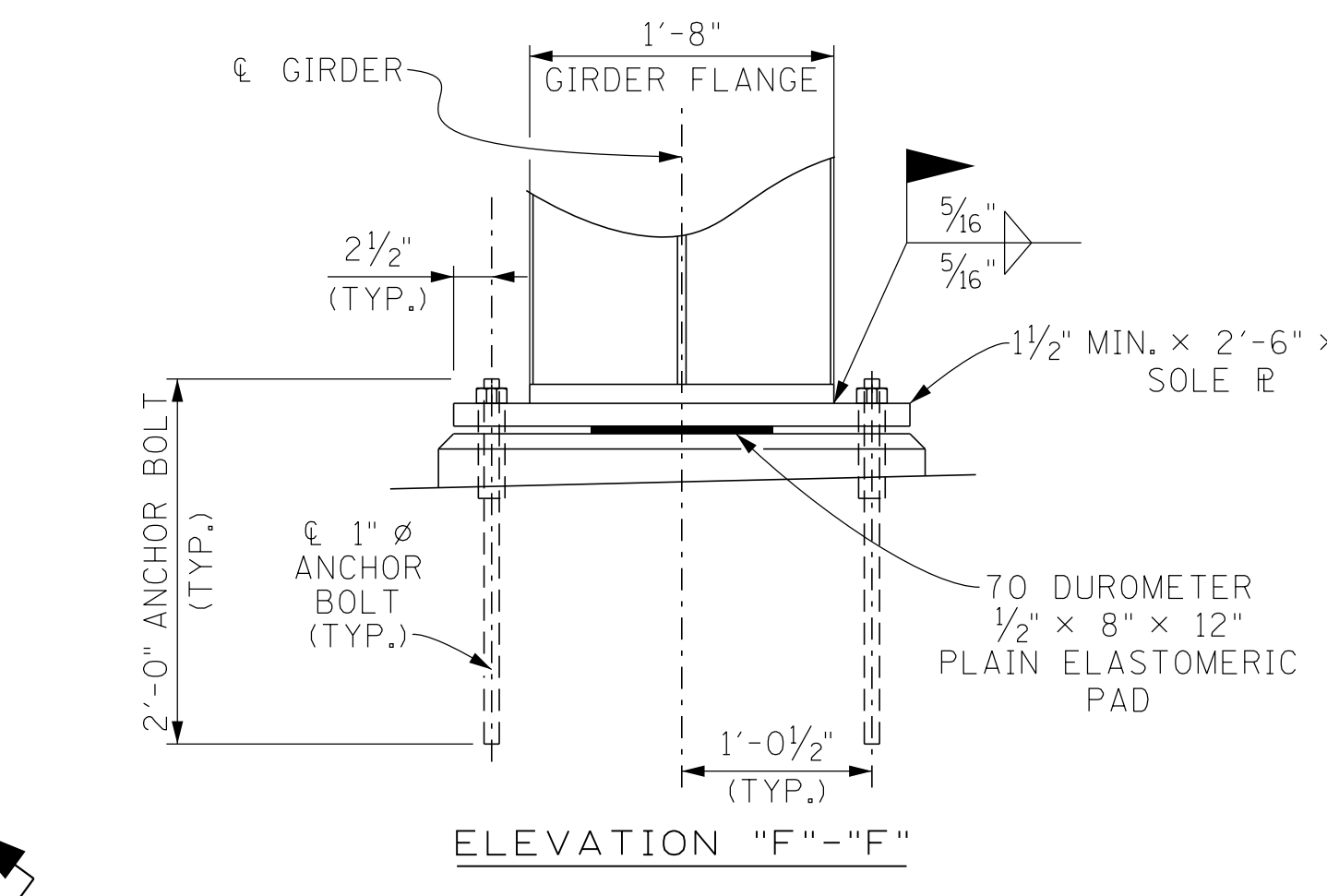
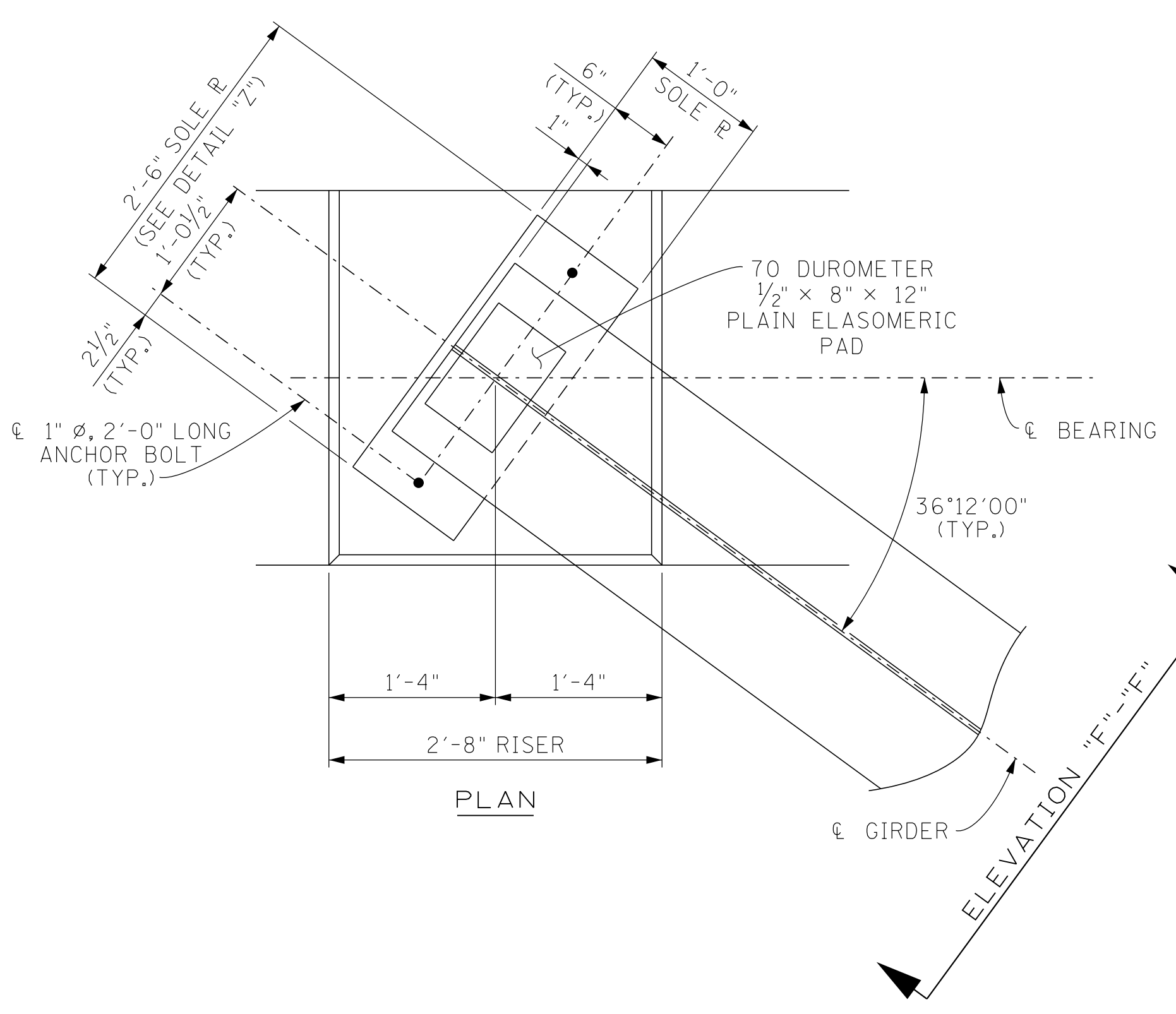
N.S. DENOTES: NEAR SIDE
 F.S. DENOTES: FAR SIDE
 P.C.O. EL. DENOTES: PILE CUT-OFF ELEVATION

PIN NO.: 100340.00
 DESIGN BY: JOHN AVERY DATE: 1-26
 DRAWN BY: T. WISEMAN DATE: 1-26
 SUPERVISED BY: S. STEELE/D. SHIKE DATE: 1-26
 CHECKED BY: DATE:

U- - -

2/19/2026 11:27:31 AM

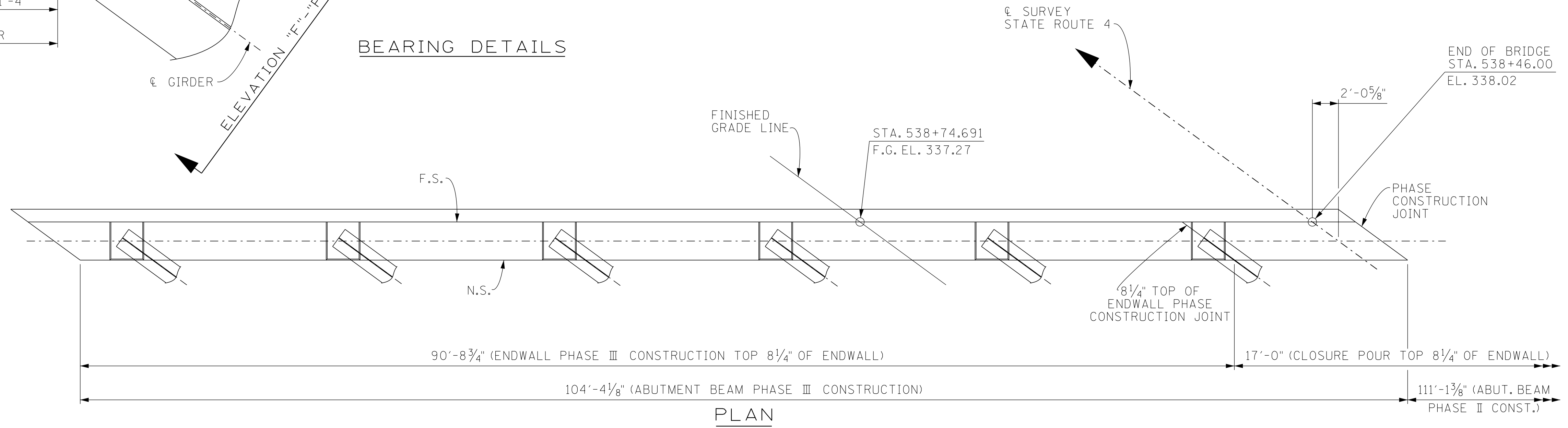
PROJECT NO.	YEAR	SHEET NO.	
STP/NH-4(6)	2026		
REVISIONS			
NO.	DATE	BY	BRIEF DESCRIPTION
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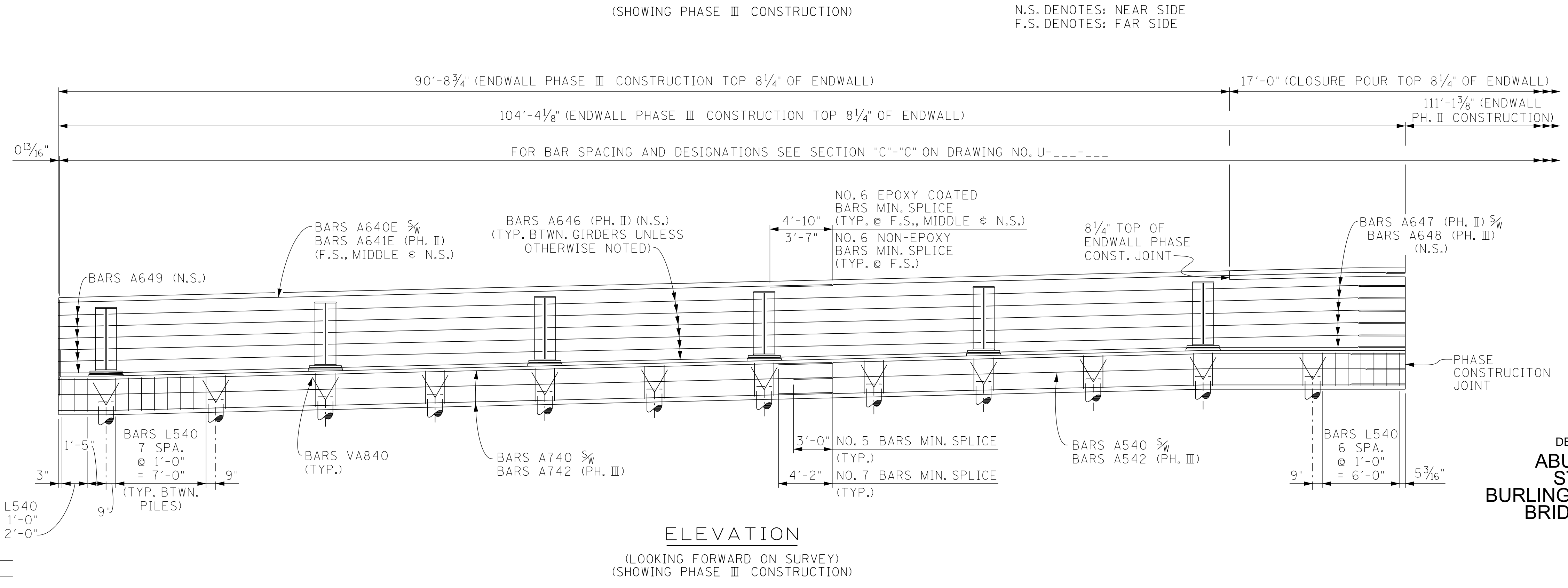
NOTE: SHEAR MODULUS = 200 PSI @ 73° F
BEARING TO BE VULCANIZED TO SOLE PL.

DETAIL "Z"

BEAM NOS. @ ABUTMENT NO. 2	"A"	"B"
BEAM NOS. 1 THRU 4	1 3/4"	1 1/2"
BEAM NOS. 5 THRU 8	1 1/4"	1 1/2"
BEAM NOS. 9 THRU 12	1 5/8"	1 1/2"
BEAM NO. 13	1 1/16"	1 1/2"



NOTE: THE CONTRACTOR SHALL OFFSET ANY REINFORCEMENT NECESSARY TO MAINTAIN 2" CLEARANCE TO PHASE CONSTRUCTION JOINT.



SEALED BY

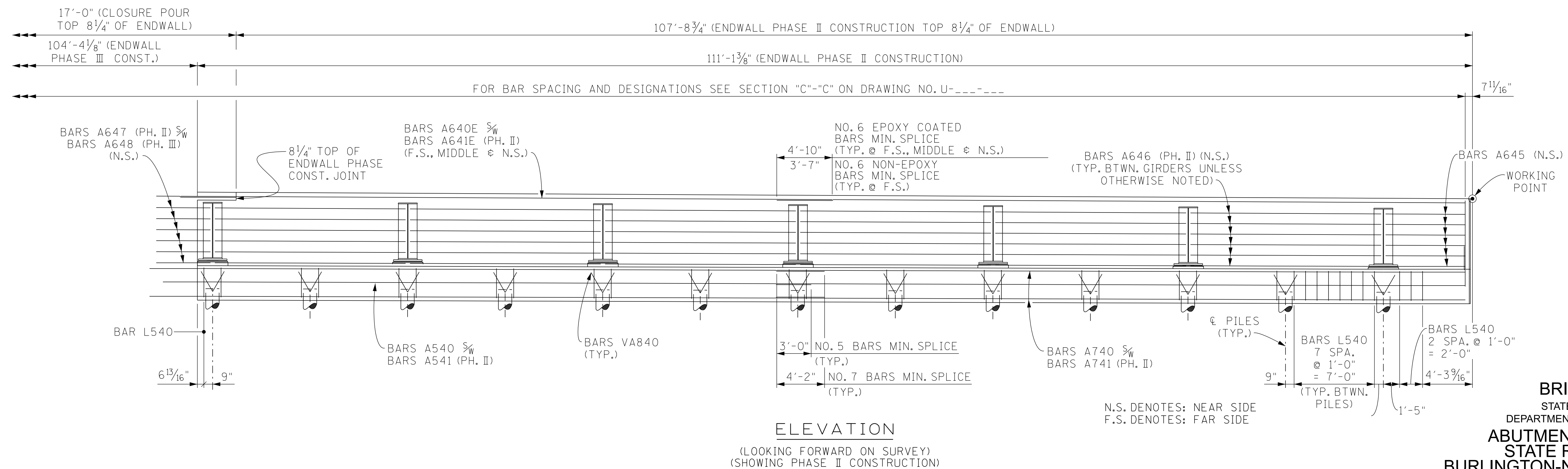
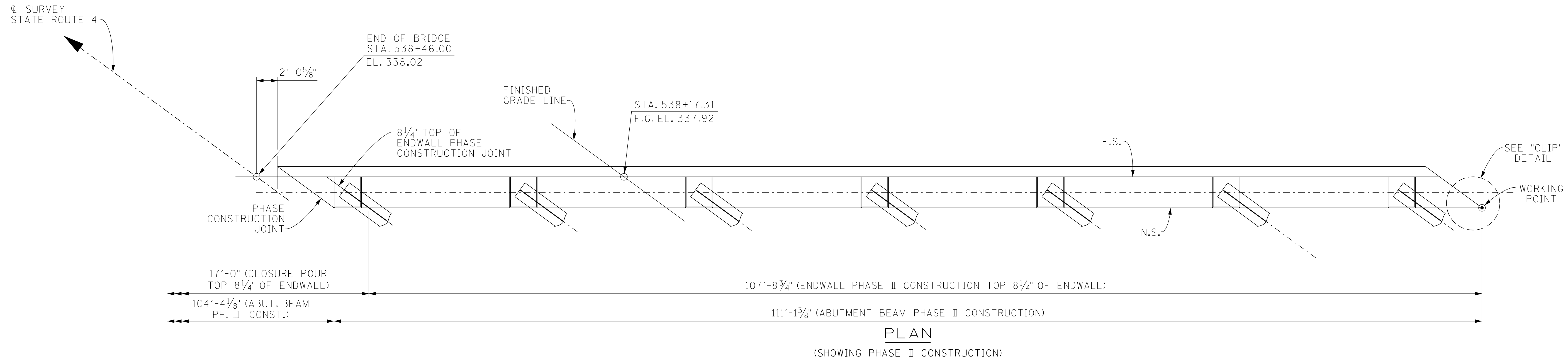
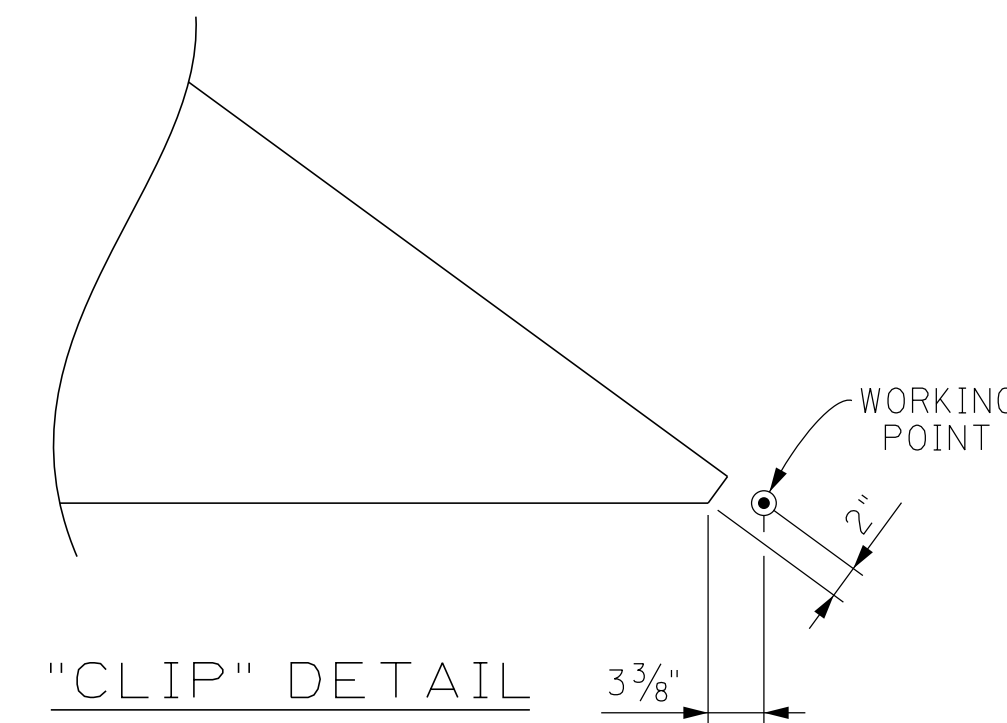
BRIDGE NO. 3
STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
ABUTMENT NO. 2 DETAILS
STATE ROUTE 4 OVER
BURLINGTON-NORTHERN RAILROAD
BRIDGE ID NO. 79SR0040009
STATION 536+56.00
LOG MILE 4.13
SHELBY COUNTY

PIN NO.: 100340.00
DESIGN BY: JOHN AVERY DATE: 1-26
DRAWN BY: T. WISEMAN DATE: 1-26
SUPERVISED BY: S. STEELE/D. SHIKE DATE: 1-26
CHECKED BY: DATE:

U- - -

PROJECT NO.	YEAR	SHEET NO.	
STP/NH-4(6)	2026		
REVISIONS			
NO.	DATE	BY	BRIEF DESCRIPTION
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NOTE: THE CONTRACTOR SHALL OFFSET ANY REINFORCEMENT NECESSARY TO MAINTAIN 2" CLEARANCE TO PHASE CONSTRUCTION JOINT.



SEALED BY

BRIDGE NO. 3
STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
ABUTMENT NO. 2 DETAILS
STATE ROUTE 4 OVER
BURLINGTON-NORTHERN RAILROAD
BRIDGE ID NO. 79SR0040009
STATION 536+56.00
LOG MILE 4.13
SHELBY COUNTY

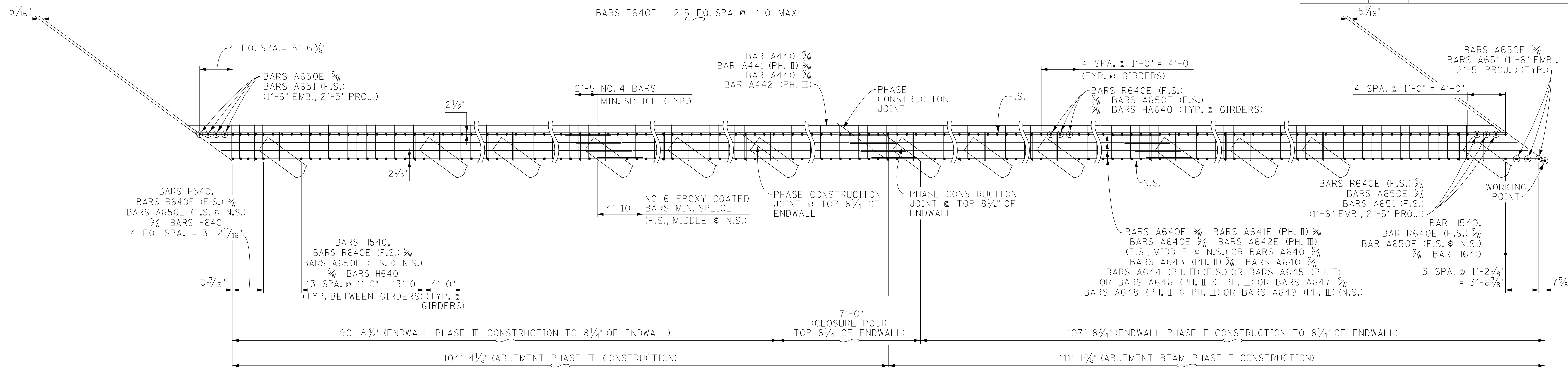
PIN NO.: 100340.00
DESIGN BY: JOHN AVERY DATE: 1-26
DRAWN BY: T. WISEMAN DATE: 1-26
SUPERVISED BY: S. STEELE/D. SHIKE DATE: 1-26
CHECKED BY: DATE:

U- -

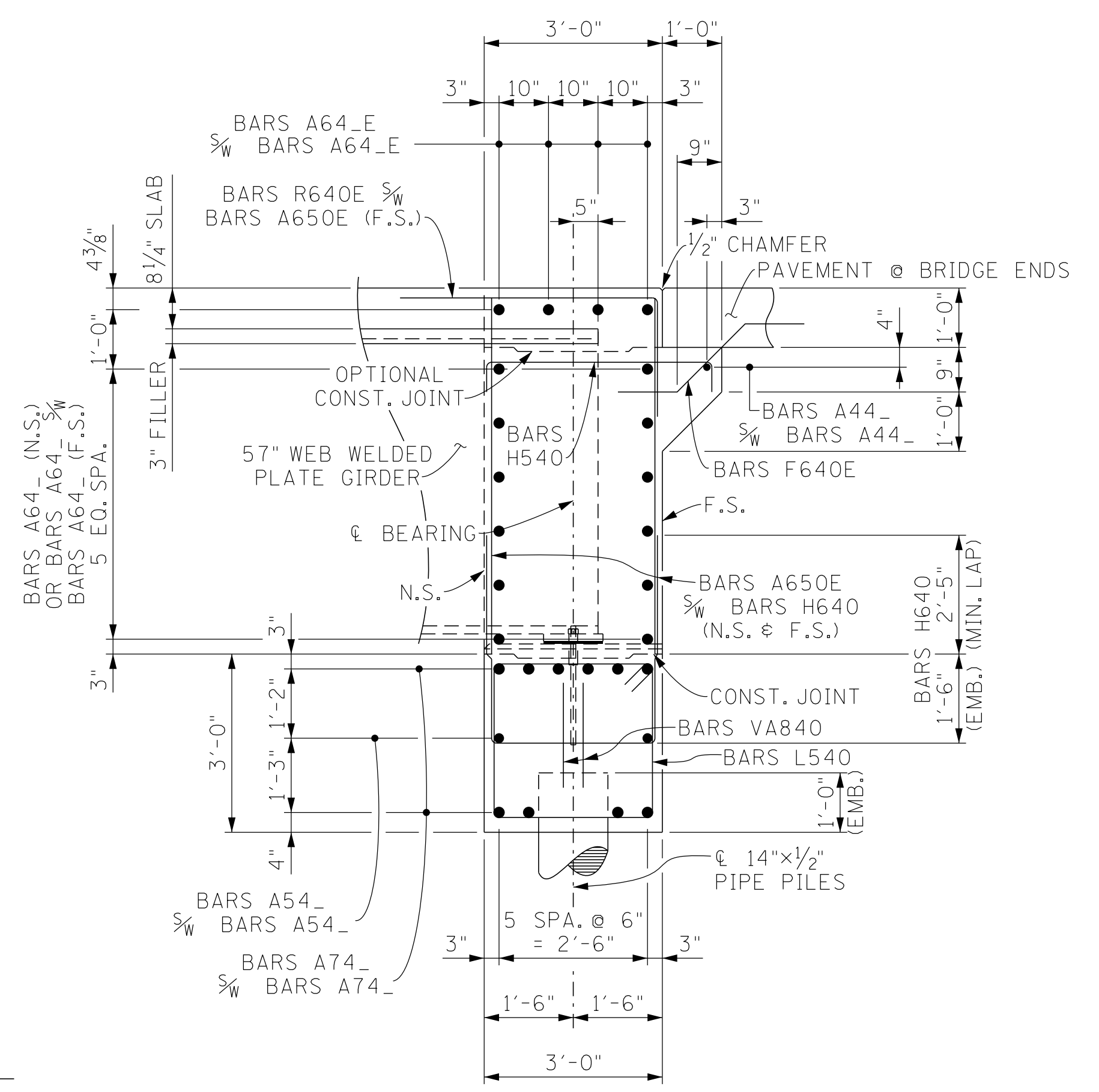
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2/19/2026

PROJECT NO.	YEAR	SHEET NO.	
STP/NH-4(6)	2026		
REVISIONS			
NO.	DATE	BY	BRIEF DESCRIPTION
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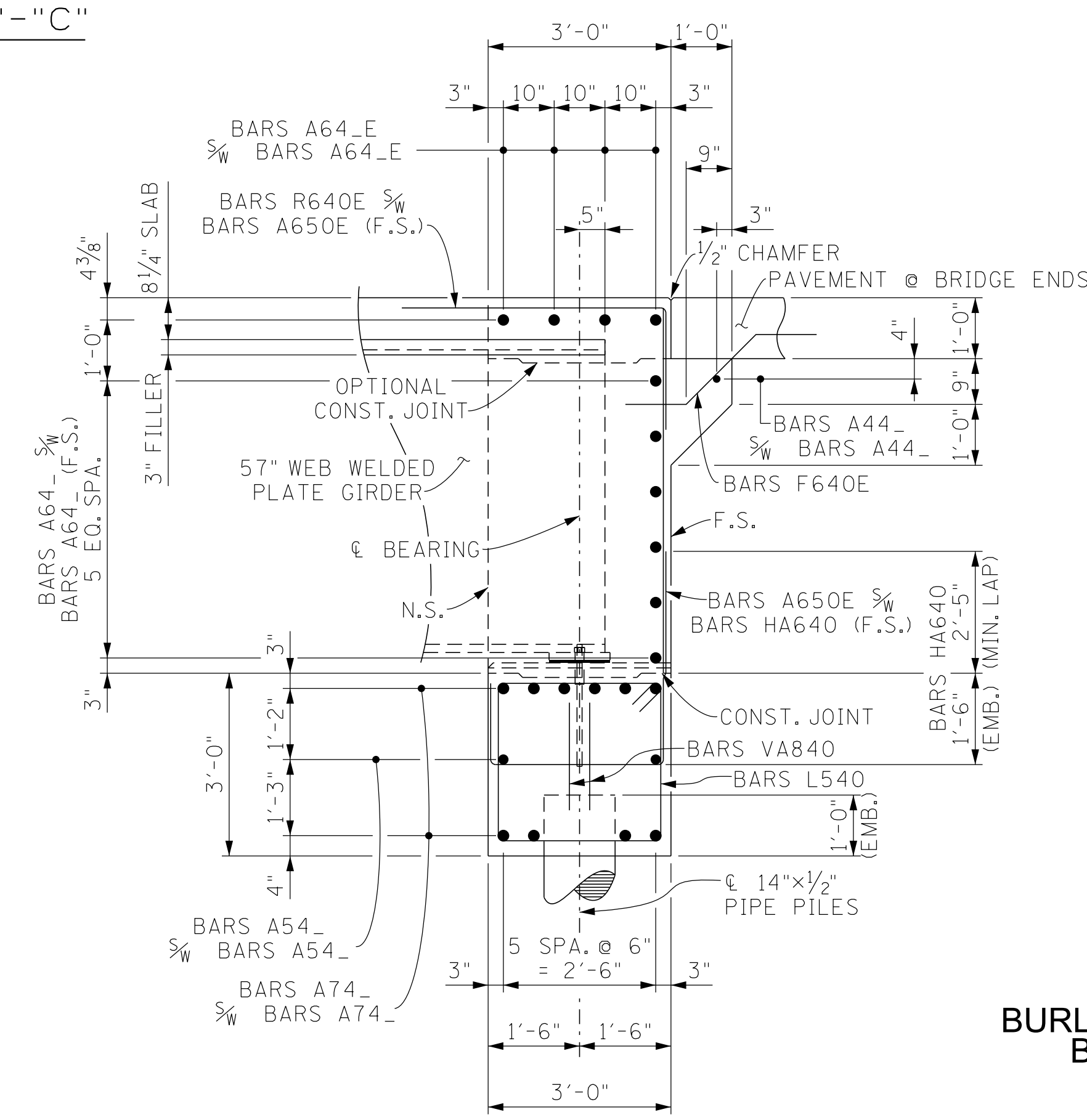
NOTE: THE CONTRACTOR SHALL OFFSET ANY REINFORCEMENT NECESSARY TO MAINTAIN 2" CLEARANCE TO PHASE CONSTRUCTION JOINT.



SECTION "C"-"C"



SECTION "B"-"B"
(TYP. BETWEEN GIRDERS)



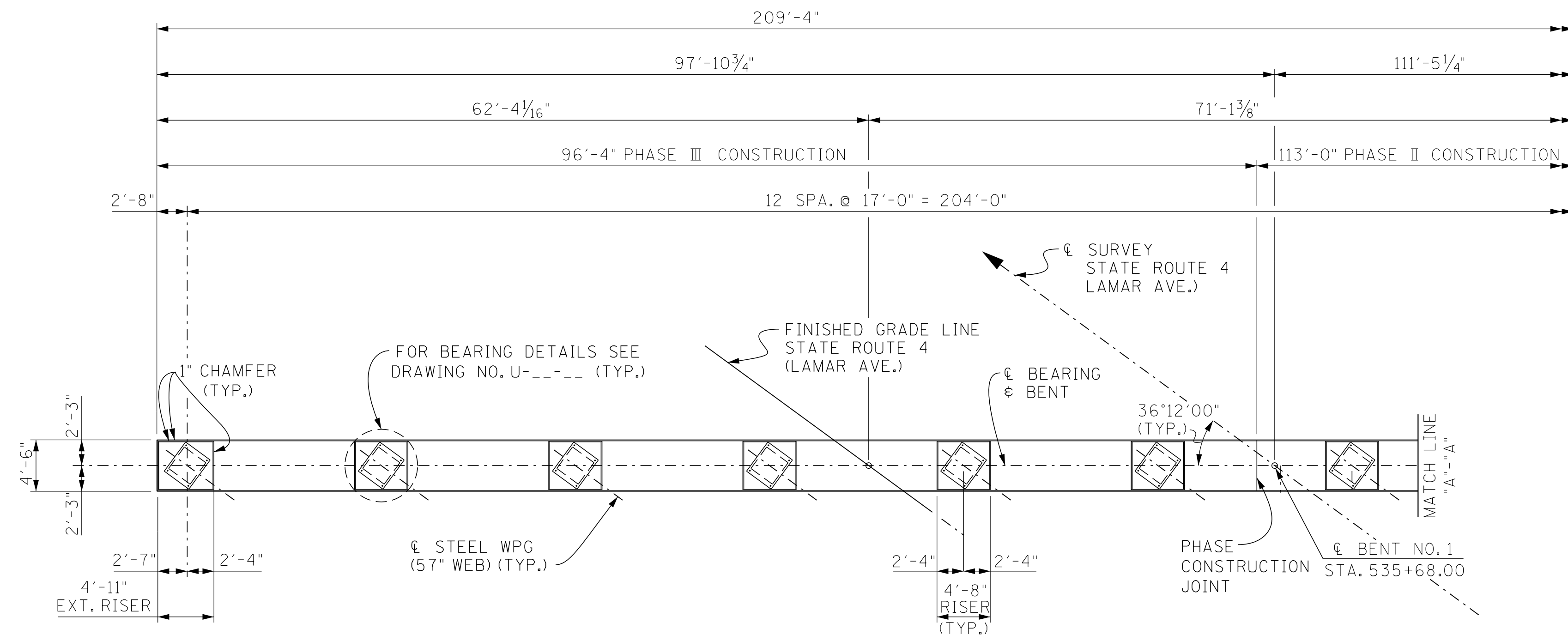
SECTION "B1"-"B1"
(TYP. @ GIRDERS)

SEALED BY

BRIDGE NO. 3
STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
ABUTMENT NO. 2 DETAILS
STATE ROUTE 4 OVER
BURLINGTON-NORTHERN RAILROAD
BRIDGE ID NO. 79SR0040009
STATION 536+56.00
LOG MILE 4.13
SHELBY COUNTY

PIN NO.: 100340.00
DESIGN BY: JOHN AVERY DATE: 1-26
DRAWN BY: T. WISEMAN DATE: 1-26
SUPERVISED BY: S. STEELE/D. SHIKE DATE: 1-26
CHECKED BY: DATE:

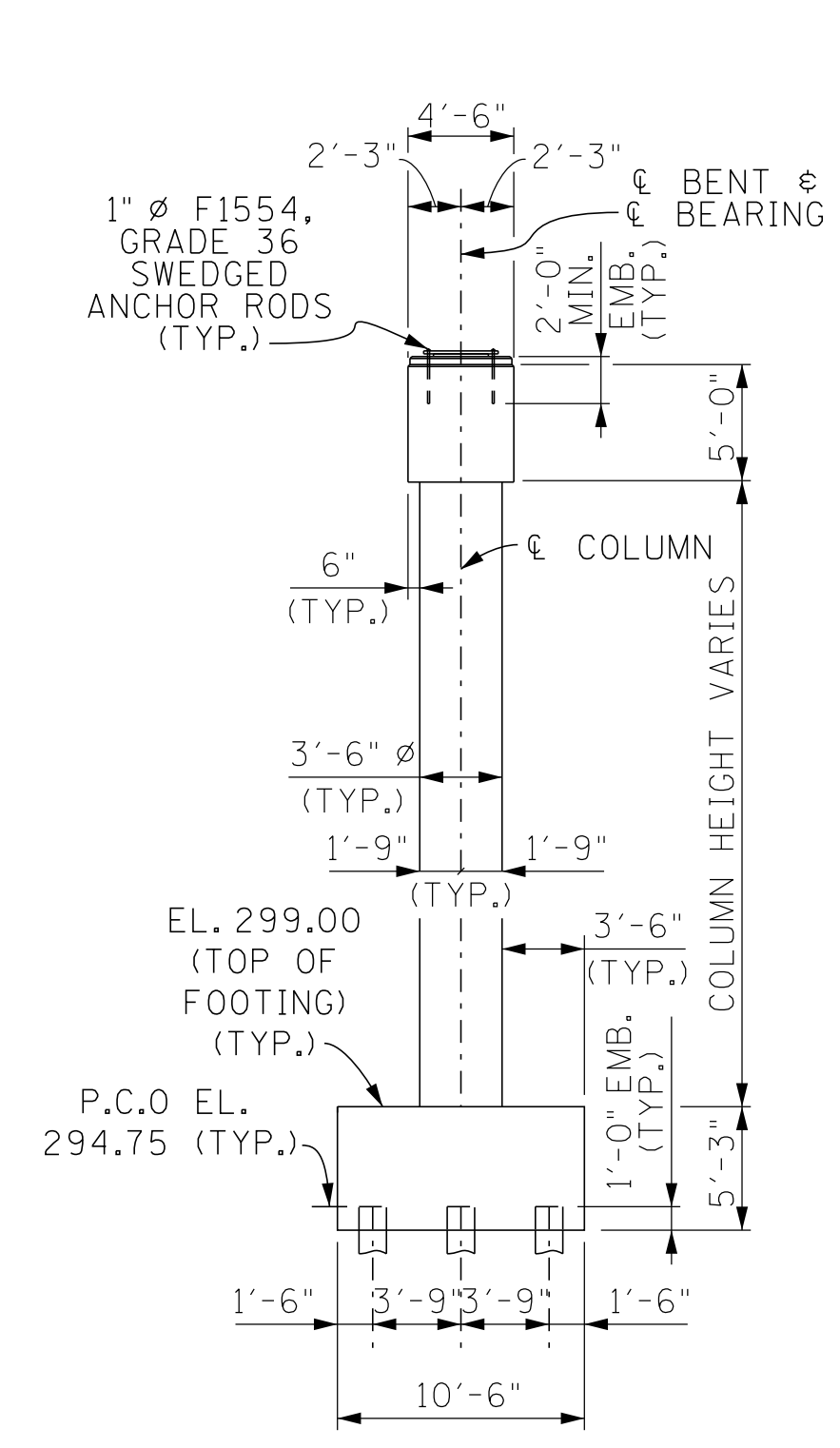
PROJECT NO.	YEAR	SHEET NO.	
STP/NH-4(6)	2026		
REVISIONS			
NO.	DATE	BY	BRIEF DESCRIPTION
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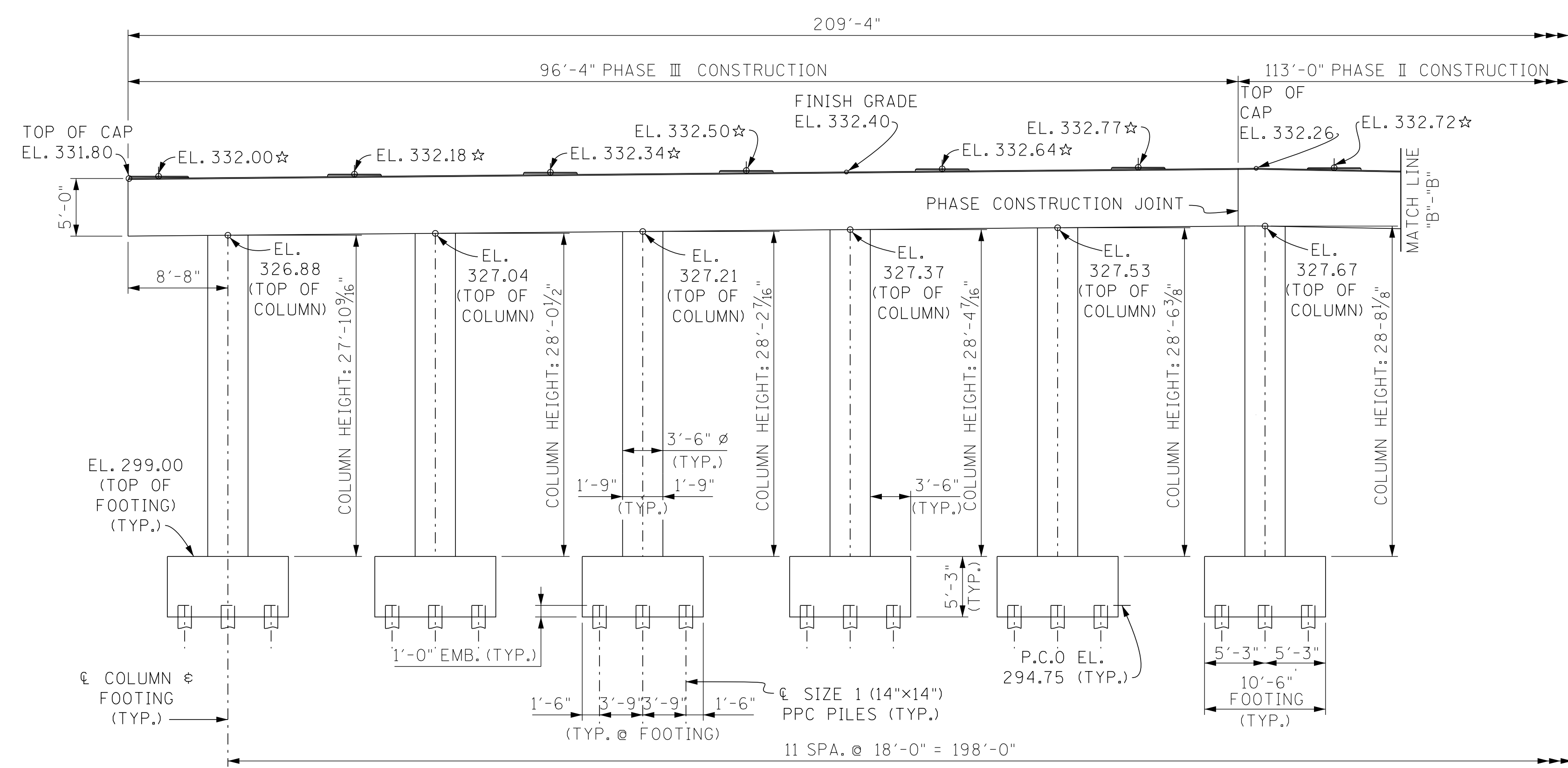
PLAN

NOTES

- NOTE:** WHEN POURING CAP BEAM, PROVISIONS SHALL BE MADE FOR SETTING ANCHOR BOLTS. BOLT PROJECTION 5".
- NOTE:** RISER BLOCKS SHALL BE POURED MONOLITHICALLY WITH (BENT OR PIER) CAP.
- 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 SEISMIC ATTACHMENT DETAILS AND NOTES.



END ELEVATION



ELEVATION
(LOOKING FORWARD ON SURVEY)

☆ DENOTES: FOR DESIGNATION OF SOLE PLATES, ON RISERS,
 @ BEARING DETAILS SEE DRAWING NO. U-.

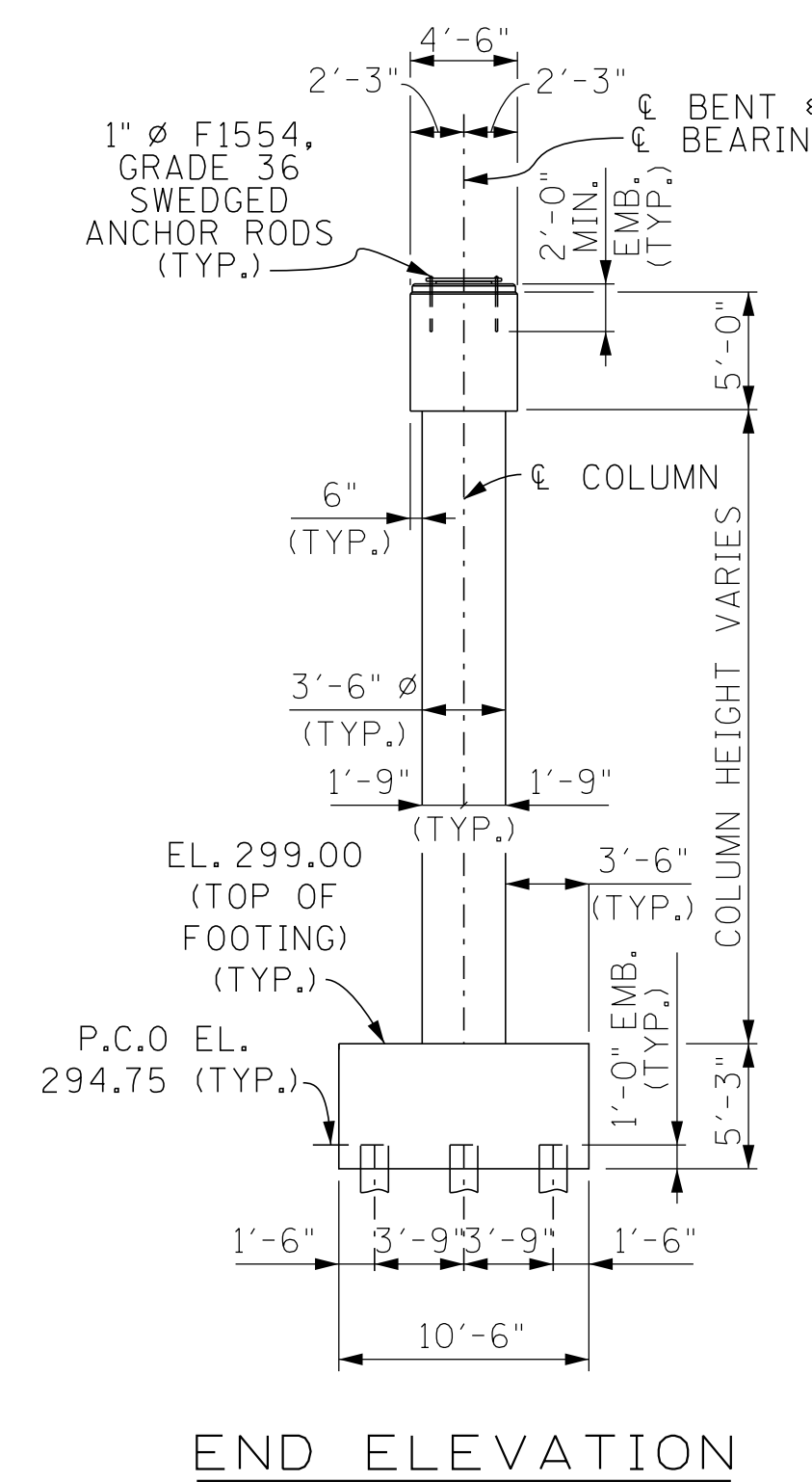
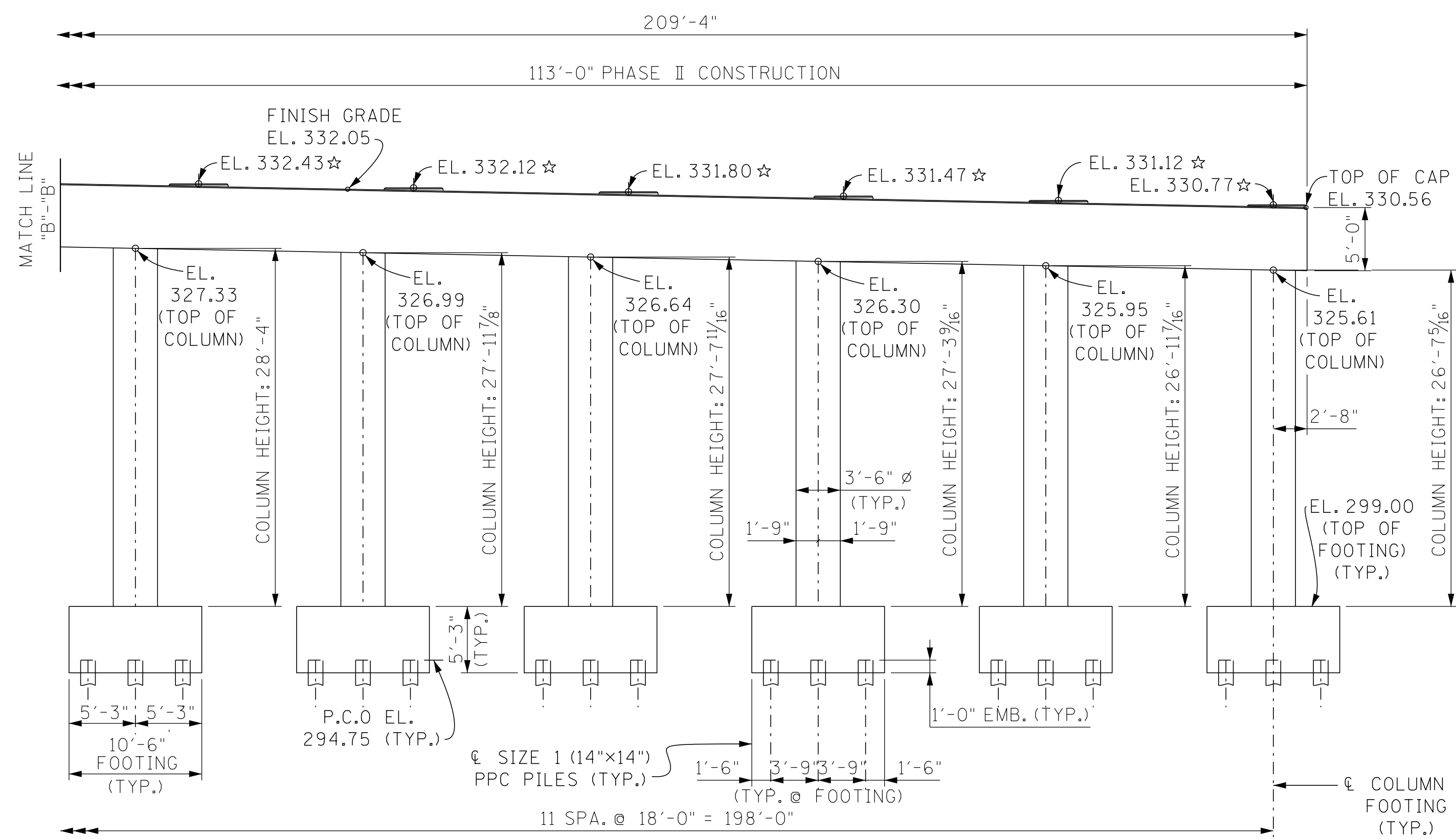
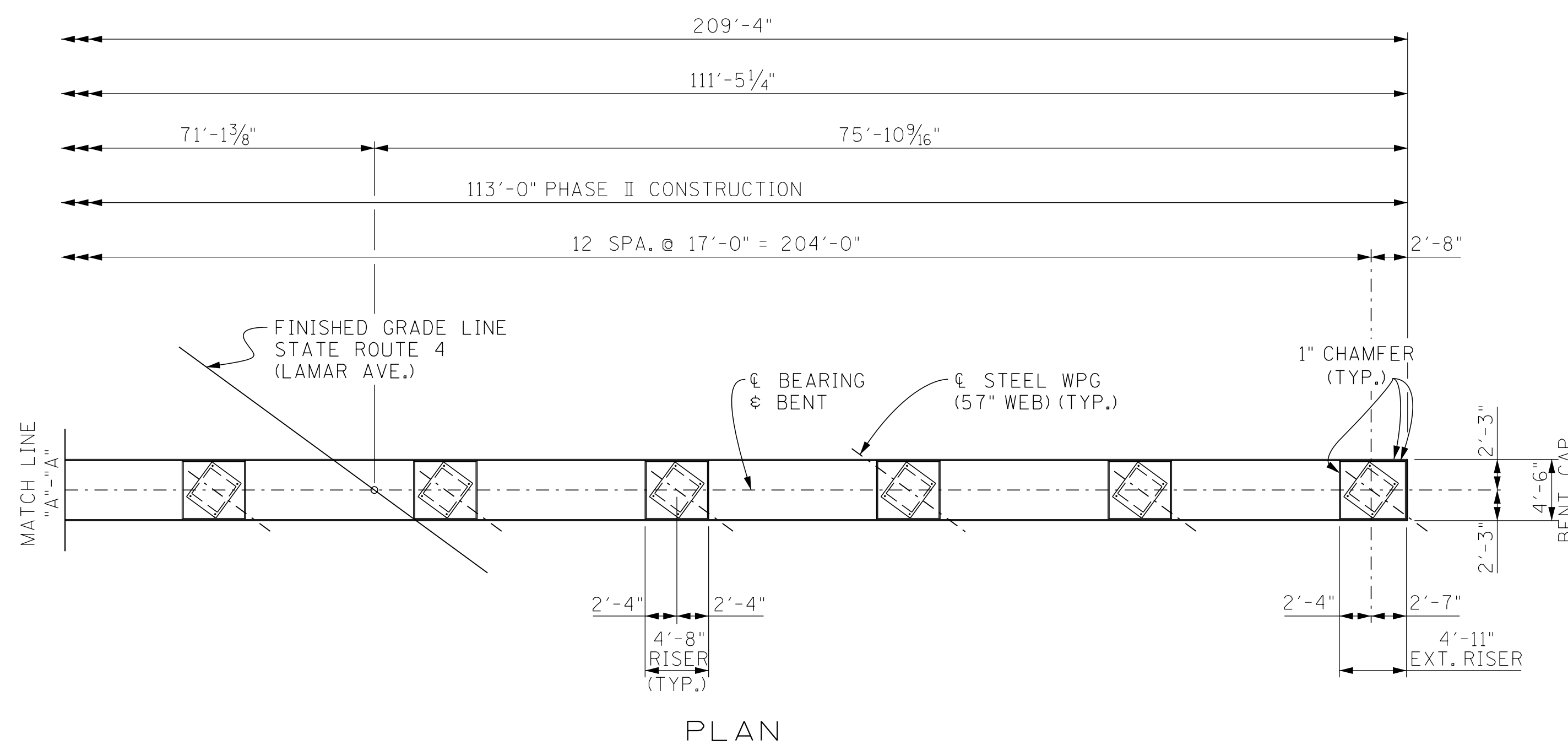
SEALED BY

BRIDGE NO. 2
 STATE OF TENNESSEE
 DEPARTMENT OF TRANSPORTATION
BENT NO. 1
 STATE ROUTE 4 OVER
 BURLINGTON-NORTHERN RAILROAD
 BRIDGE ID NO. 79SR0040009
 STATION 536+56.00
 LOG MILE 4.13
 SHELBY COUNTY

PIN NO.: 100340.00
 DESIGN BY: JOHN AVERY DATE: 1-26
 DRAWN BY: B. ERVIN DATE: 1-26
 SUPERVISED BY: S. STEELE/D. SHIKE DATE: 1-26
 CHECKED BY: DATE:

8:47:48 AM
 2/5/2026

PROJECT NO.	YEAR	SHEET NO.	
STP/NH-4(6)	2026		
REVISIONS			
NO.	DATE	BY	BRIEF DESCRIPTION
-	-	-	-
-	-	-	-
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☆ DENOTES: FOR DESIGNATION OF SOLE PLATES, ON RISERS,
 ◎ BEARING DETAILS SEE DAWING NO. U-

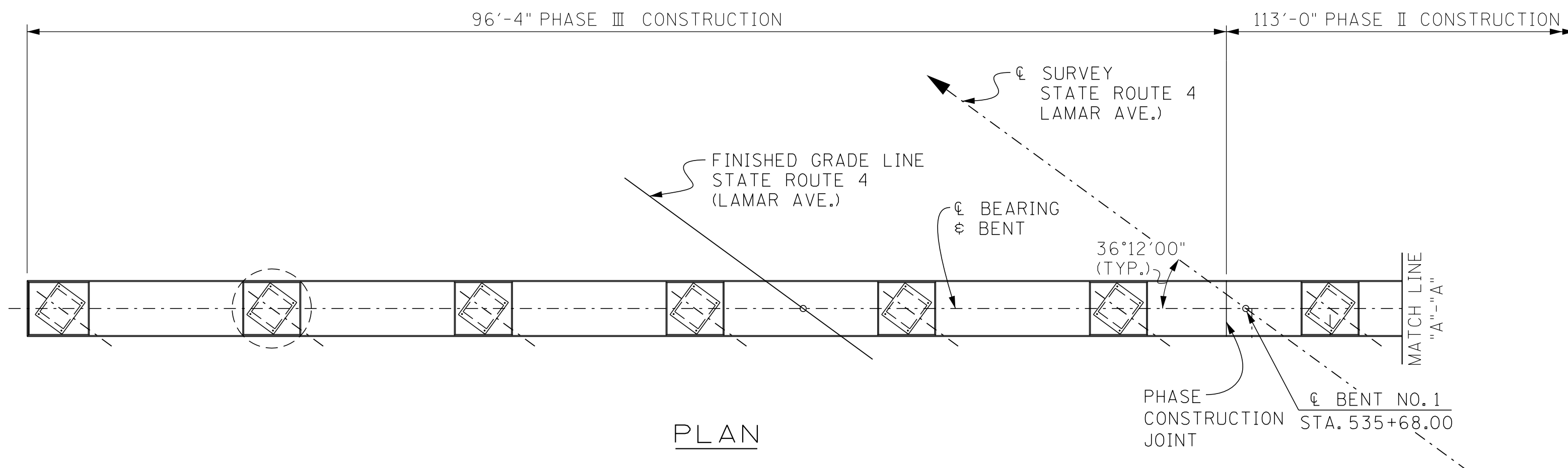
SEALED BY

BRIDGE NO. 2
 STATE OF TENNESSEE
 DEPARTMENT OF TRANSPORTATION
BENT NO. 1 DETAILS
 STATE ROUTE 4 OVER
 BURLINGTON-NORTHERN RAILROAD
 BRIDGE ID NO. 79SR0040009
 STATION 536+56.00
 LOG MILE 4.13
 SHELBY COUNTY

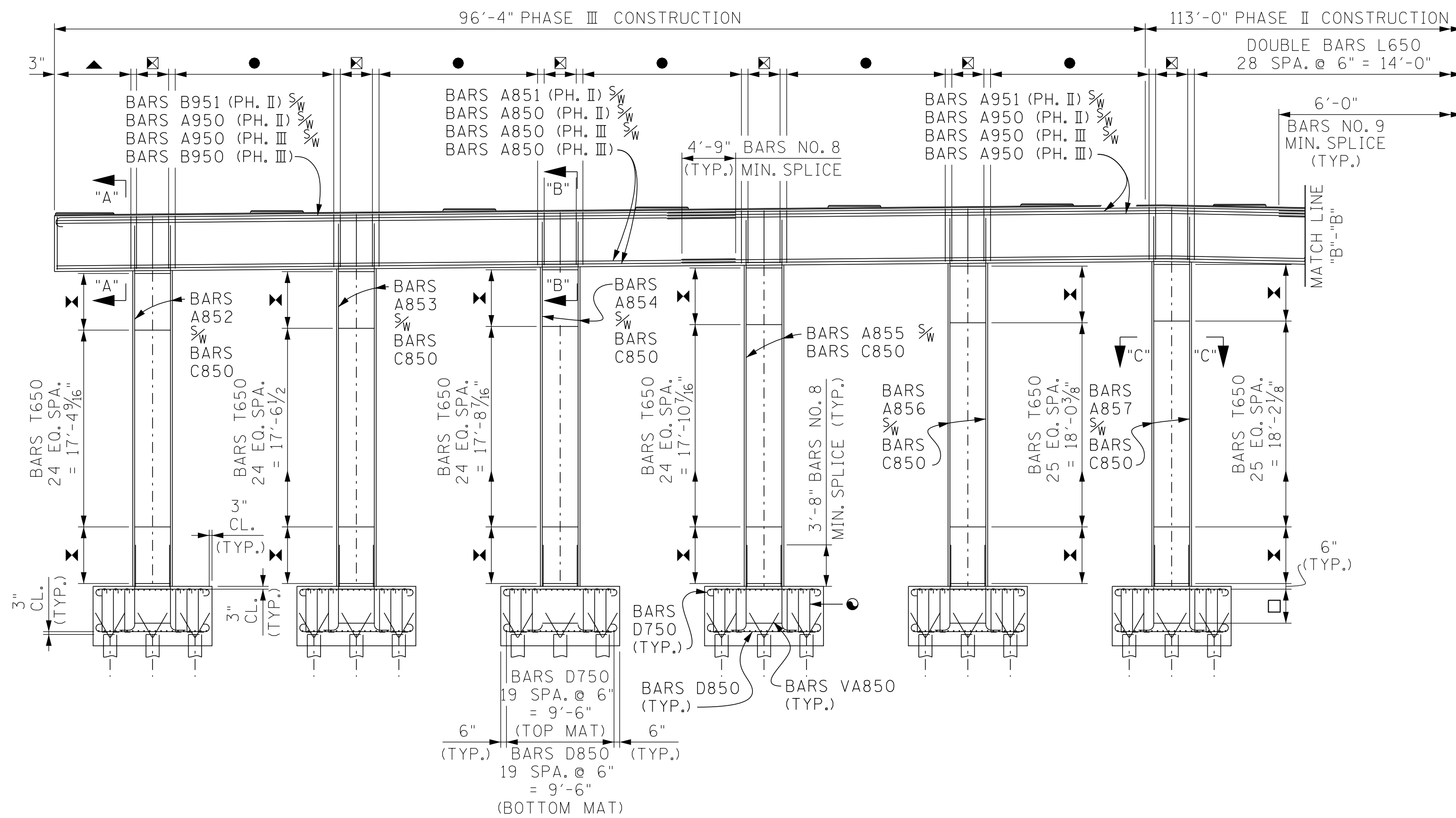
PIN NO.: 100340.00
 DESIGN BY: JOHN AVERY DATE: 1-26
 DRAWN BY: B. ERVIN DATE: 1-26
 SUPERVISED BY: S. STEELE/D. SHIKE DATE: 1-26
 CHECKED BY: DATE:

8:50:09 AM
 2/5/2026

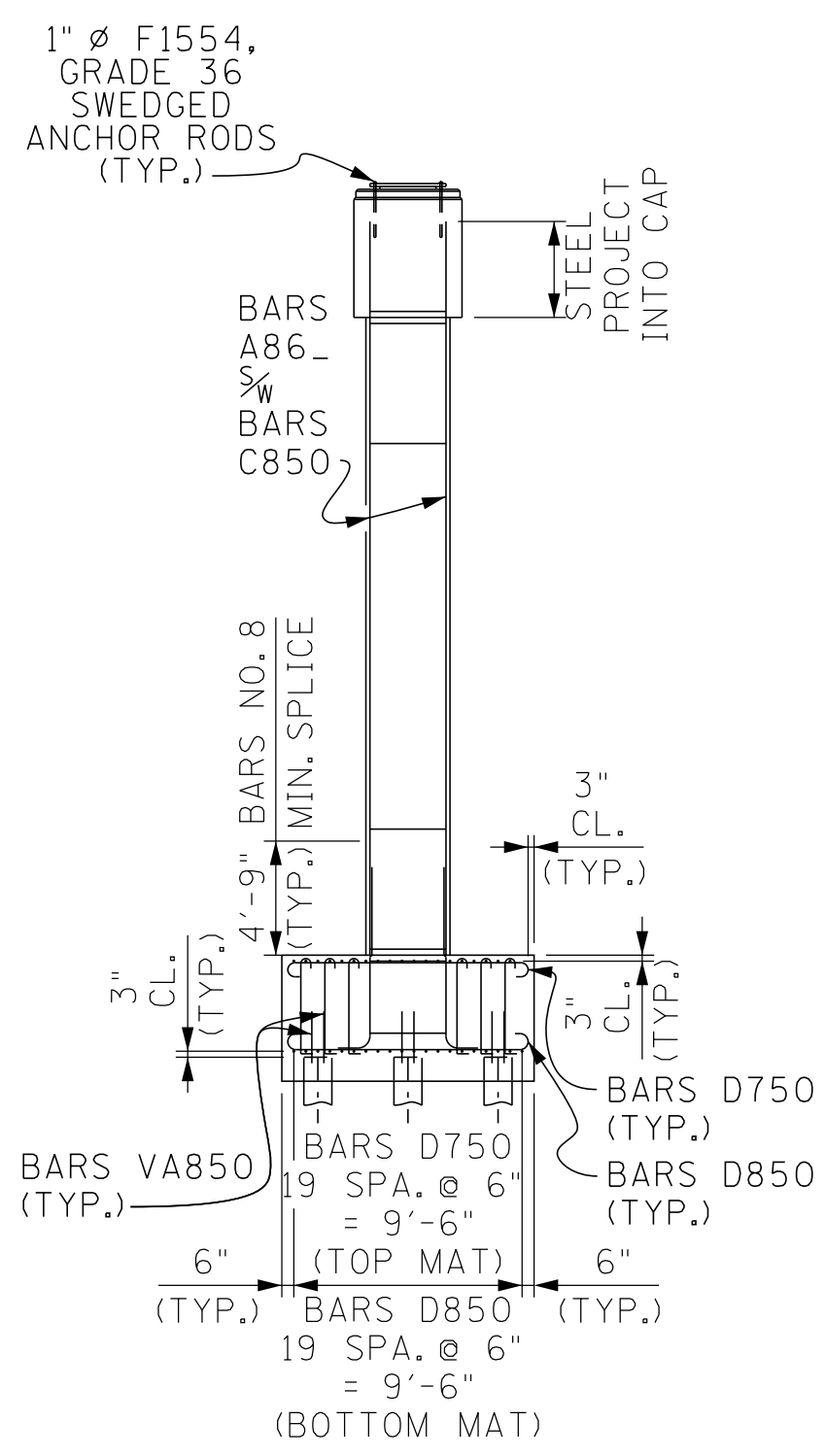
PROJECT NO.	YEAR	SHEET NO.	
STP/NH-4(6)	2026		
REVISIONS			
NO.	DATE	BY	BRIEF DESCRIPTION
-	-	-	-
-	-	-	-
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-	-	-	-
-	-	-	-



PLAN



ELEVATION
(SHOWING STEEL BAR REINFORCEMENT)



END ELEVATION

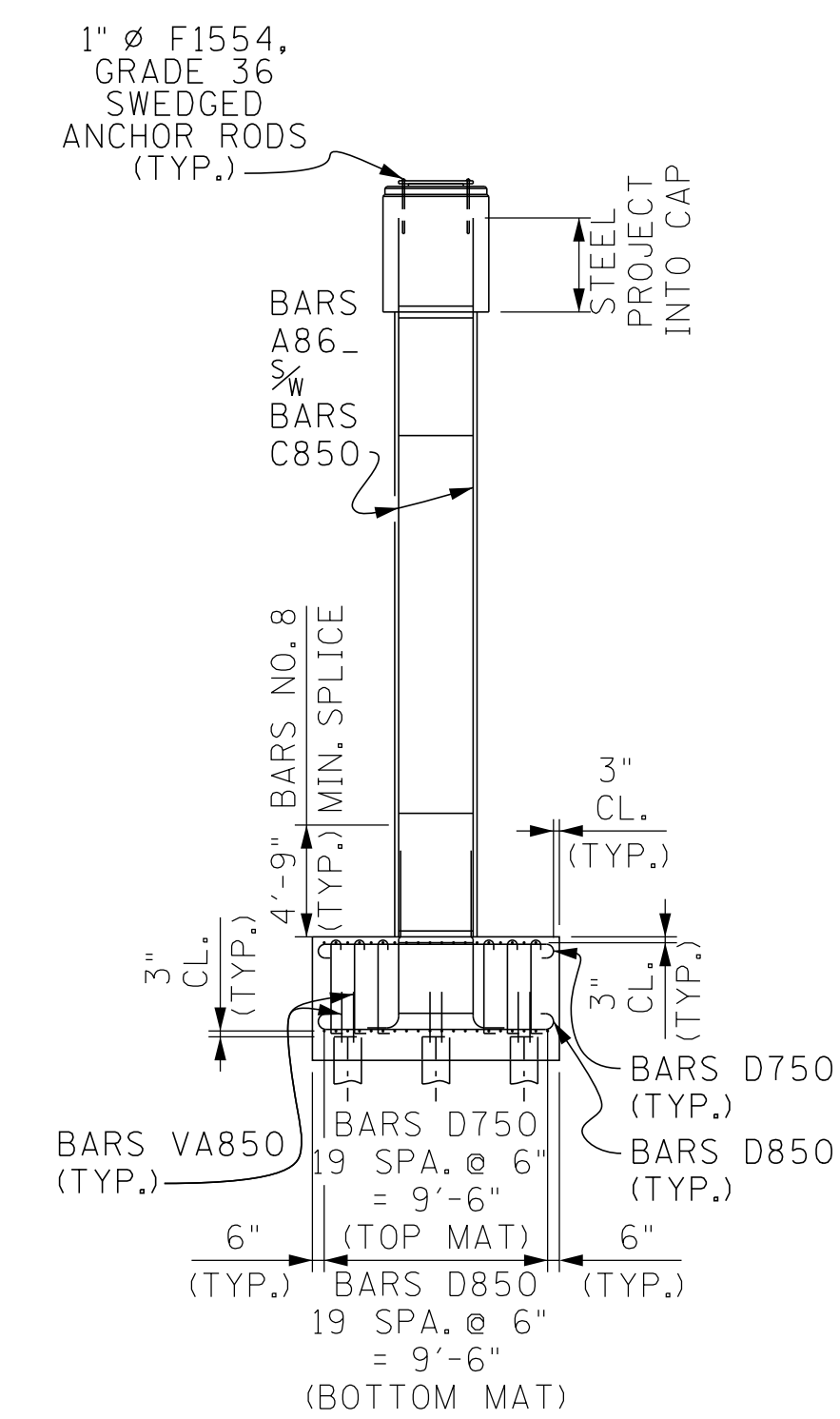
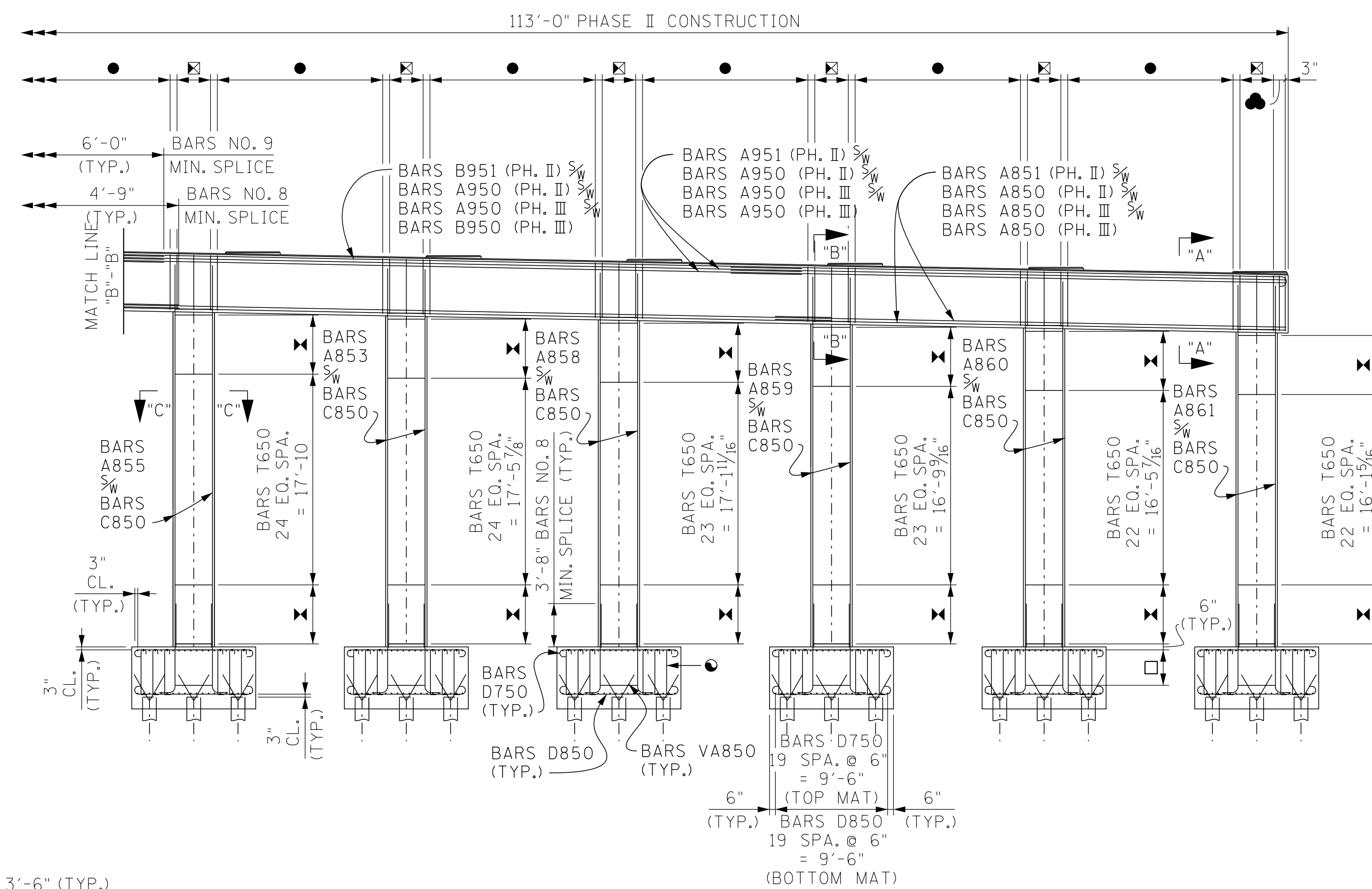
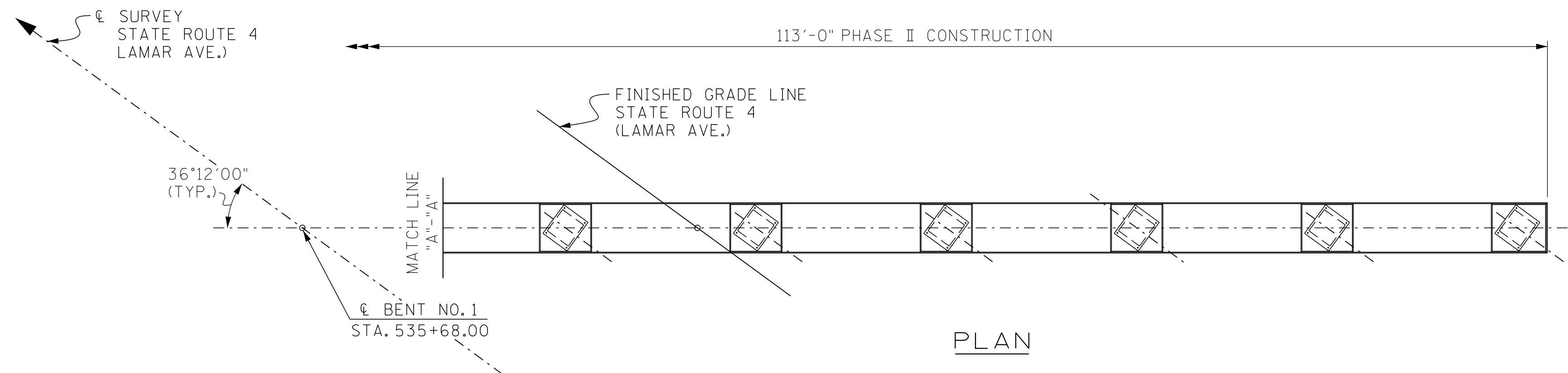
- DENOTES: BARS T650 7 SPA. @ 6" = 3'-6" (TYP.)
- ▲ DENOTES: DOUBLE BARS L650 13 SPA. @ 6" = 6'-6"
- ▣ DENOTES: DOUBLE BARS H650 2 SPA. @ 1'-5" = 2'-10"
- DENOTES: DOUBLE BARS L650 28 SPA. @ 6" = 14'-0"
- ✕ DENOTES: BARS T650 10 SPA. @ 6" = 5'-0"
- DENOTES: BARS YB550 (TYP.) - FOR BAR PLACEMENT
SEE PLAN OF FOOTING ON DRAWING NO. U- - - -

PIN NO.: 100340.00
 DESIGN BY: JOHN AVERY DATE: 1-26
 DRAWN BY: B. ERVIN DATE: 1-26
 SUPERVISED BY: S. STEELE/D. SHIKE DATE: 1-26
 CHECKED BY: DATE:

SEALED BY

BRIDGE NO. 2
 STATE OF TENNESSEE
 DEPARTMENT OF TRANSPORTATION
BENT NO. 1 DETAILS
STATE ROUTE 4 OVER
BURLINGTON-NORTHERN RAILROAD
BRIDGE ID NO. 79SR0040009
STATION 536+56.00
LOG MILE 4.13
SHELBY COUNTY

PROJECT NO.	YEAR	SHEET NO.	
STP/NH-4(6)	2026		
REVISIONS			
NO.	DATE	BY	BRIEF DESCRIPTION
-	-	-	-
-	-	-	-
-	-	-	-
-	-	-	-
-	-	-	-



- DENOTES: BARS T650 7 SPA. @ 6" = 3'-6" (TYP.)
- ▲ DENOTES: DOUBLE BARS L650 13 SPA. @ 6" = 6'-6"
- ⊠ DENOTES: DOUBLE BARS H650 2 SPA. @ 1'-5" = 2'-10"
- DENOTES: DOUBLE BARS L650 28 SPA. @ 6" = 14'-0"
- DENOTES: DOUBLE BARS L650 2 SPA. @ 6" = 1'-0"
- DENOTES: BARS YB550 (TYP.) - FOR BAR PLACEMENT SEE PLAN OF FOOTING ON DRAWING NO. U-----

ELEVATION
(SHOWING STEEL BAR REINFORCEMENT)

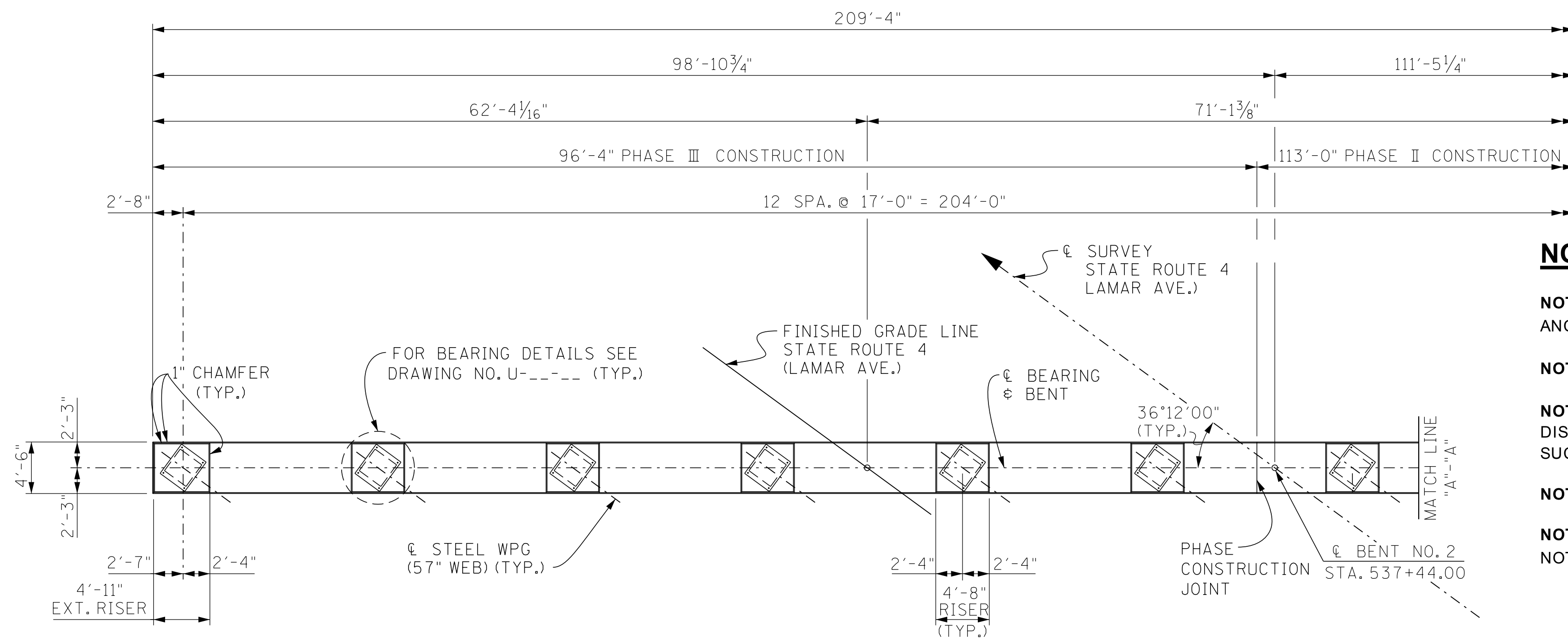
END ELEVATION

SEALED BY

BRIDGE NO. 2
STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BENT NO. 1 DETAILS
STATE ROUTE 4 OVER
BURLINGTON-NORTHERN RAILROAD
BRIDGE ID NO. 79SR0040009
STATION 536+56.00
LOG MILE 4.13
SHELBY COUNTY

PIN NO.: 100340.00
DESIGN BY: JOHN AVERY DATE: 1-26
DRAWN BY: B. ERVIN DATE: 1-26
SUPERVISED BY: S. STEELE/D. SHIKE DATE: 1-26
CHECKED BY: DATE:

PROJECT NO.	YEAR	SHEET NO.	
STP/NH-4(6)	2026		
REVISIONS			
NO.	DATE	BY	BRIEF DESCRIPTION
-	-	-	-
-	-	-	-
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-	-	-	-



PLAN

NOTES

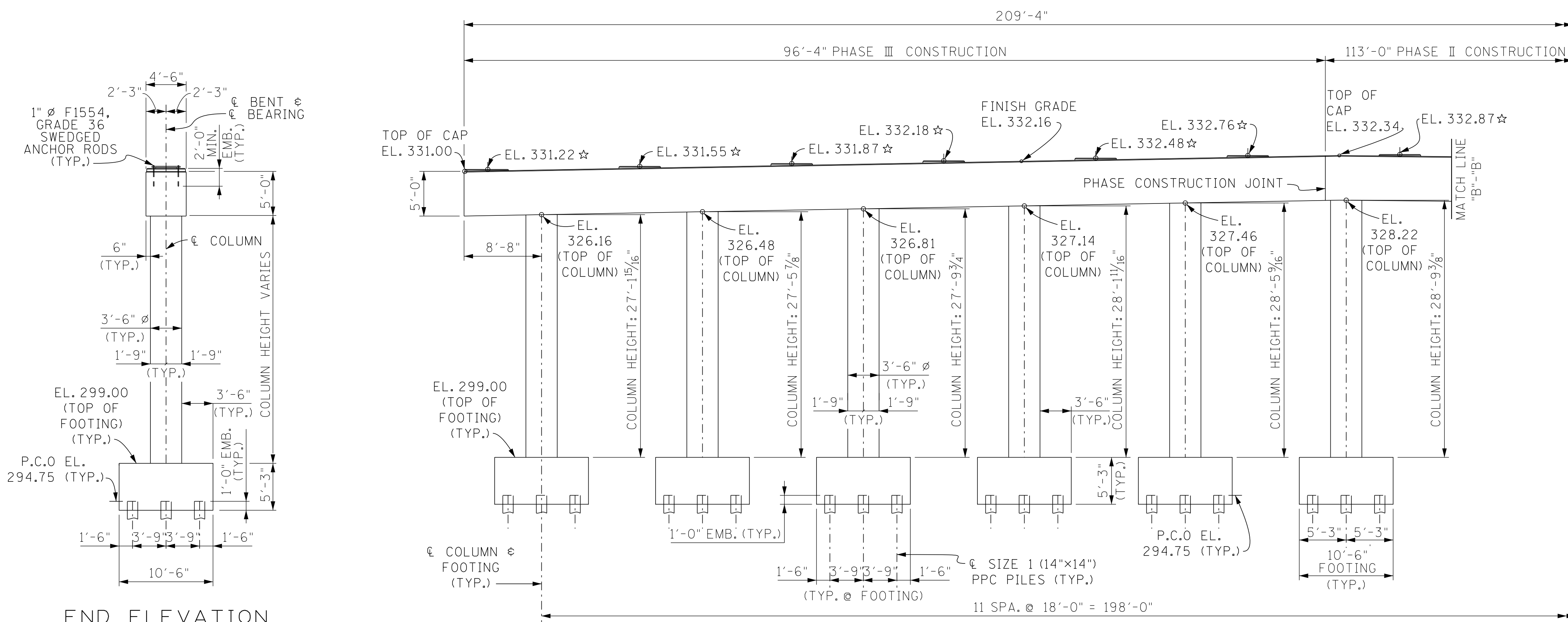
NOTE: WHEN POURING CAP BEAM, PROVISIONS SHALL BE MADE FOR SETTING ANCHOR BOLTS. BOLT PROJECTION 5".

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

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.

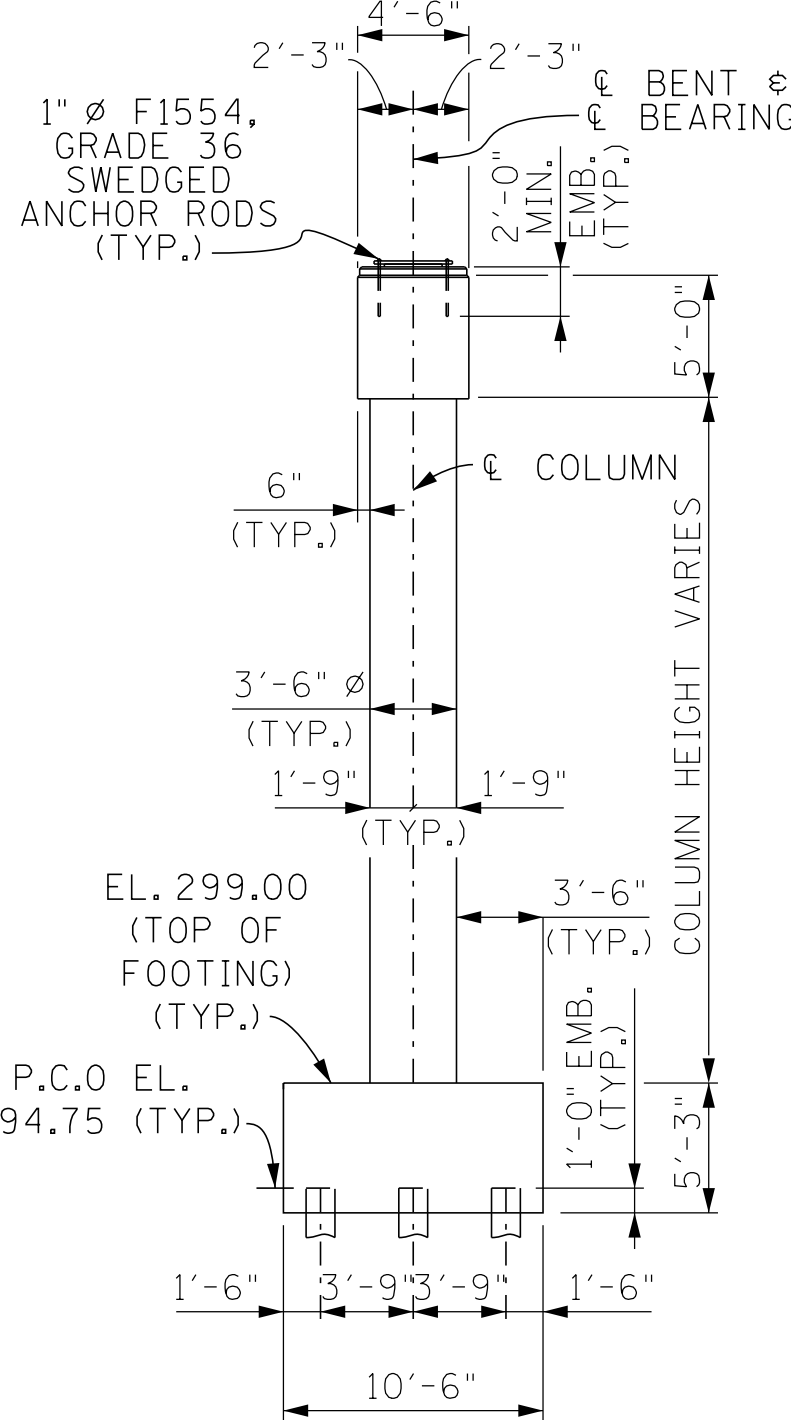
NOTE: COLUMN STEEL SHALL EXTEND 4'-0" INTO BENT CAP.

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



ELEVATION
(LOOKING FORWARD ON SURVEY)

★ DENOTES: FOR DESIGNATION OF SOLE PLATES, ON RISERS,
@ BEARING DETAILS SEE DRAWING NO. U-.



END ELEVATION

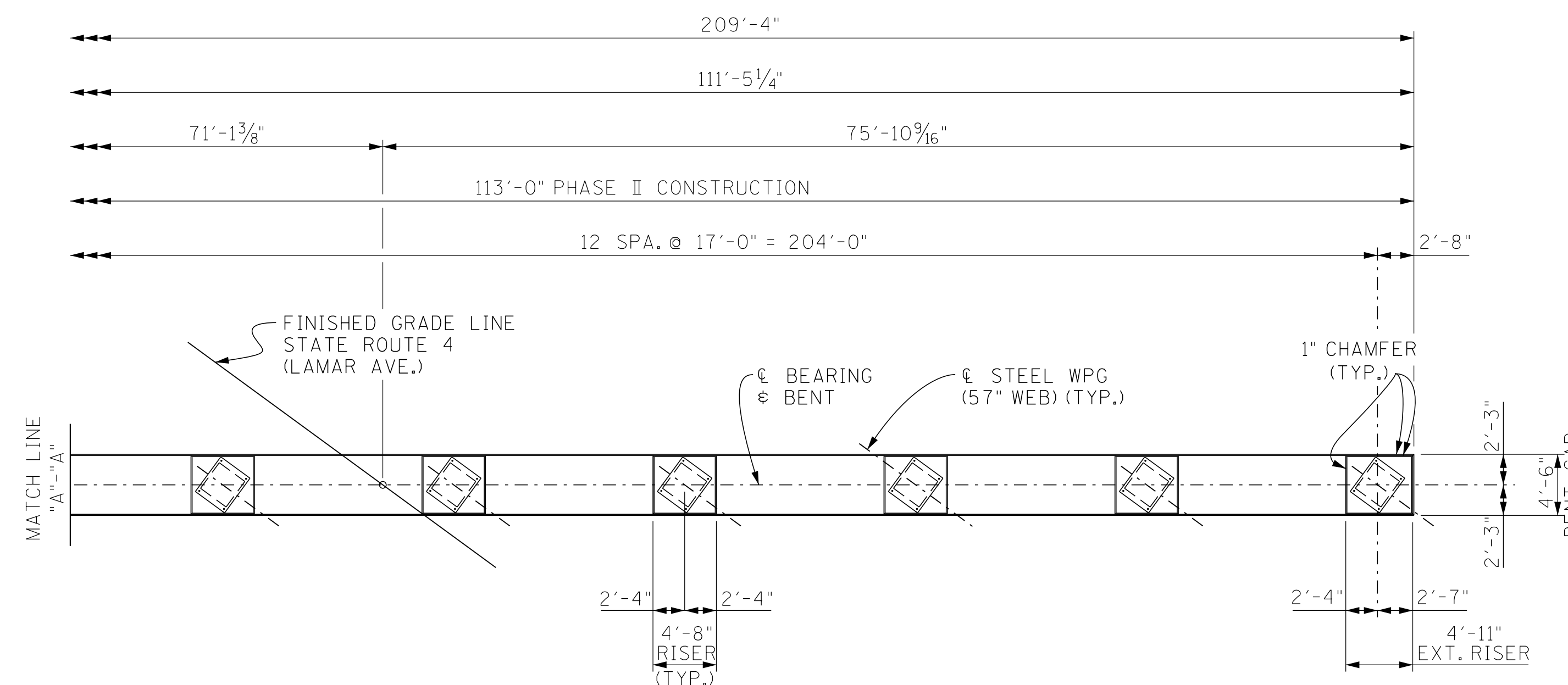
SEALED BY

BRIDGE NO. 2
STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BENT NO. 2
STATE ROUTE 4 OVER
BURLINGTON-NORTHERN RAILROAD
BRIDGE ID NO. 79SR0040009
STATION 536+56.00
LOG MILE 4.13
SHELBY COUNTY

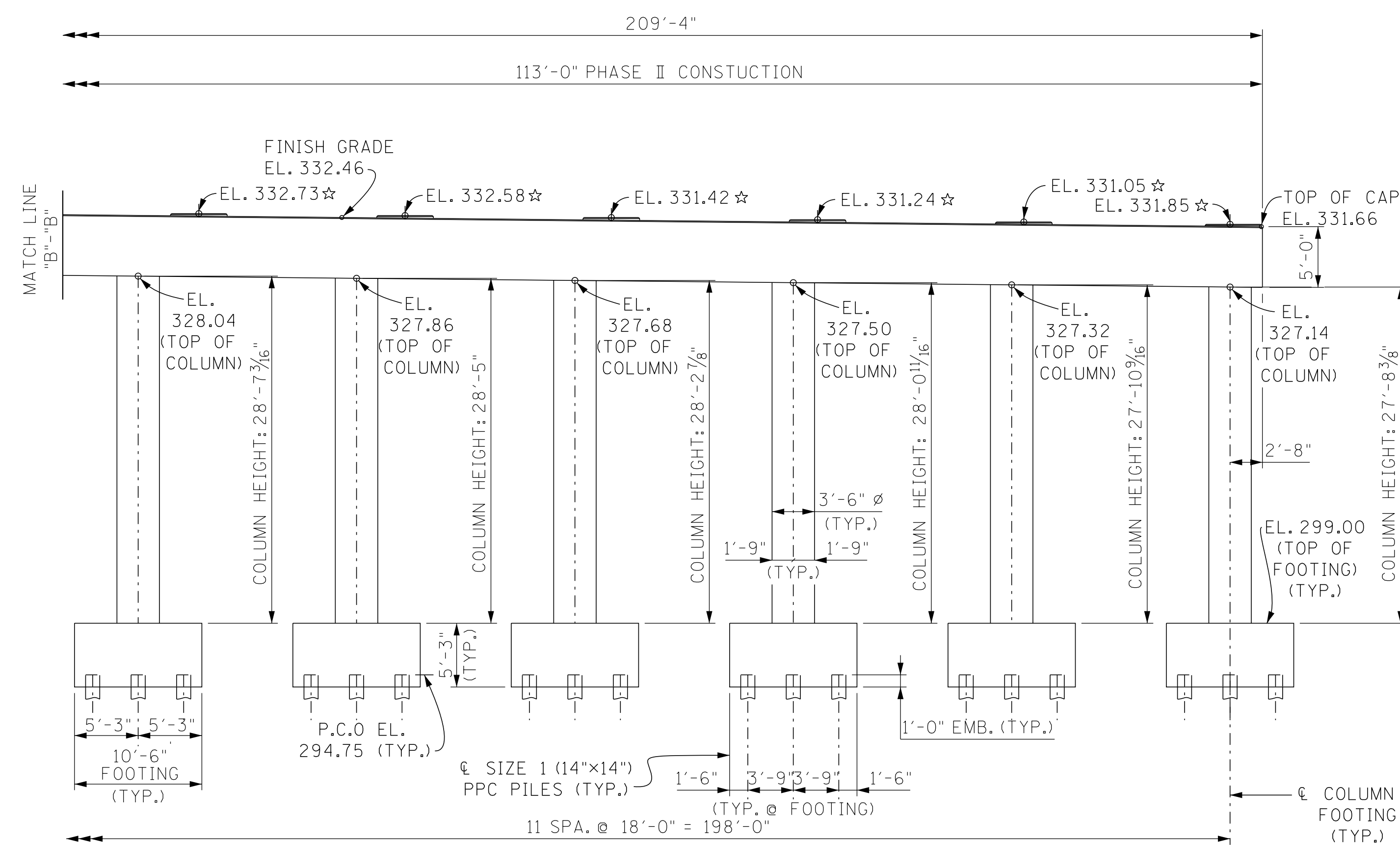
PIN NO.: 100340.00
DESIGN BY: JOHN AVERY DATE: 1-26
DRAWN BY: B. ERVIN DATE: 1-26
SUPERVISED BY: S. STEELE/D. SHIKE DATE: 1-26
CHECKED BY: DATE:

8:45:47 AM
2/5/2026

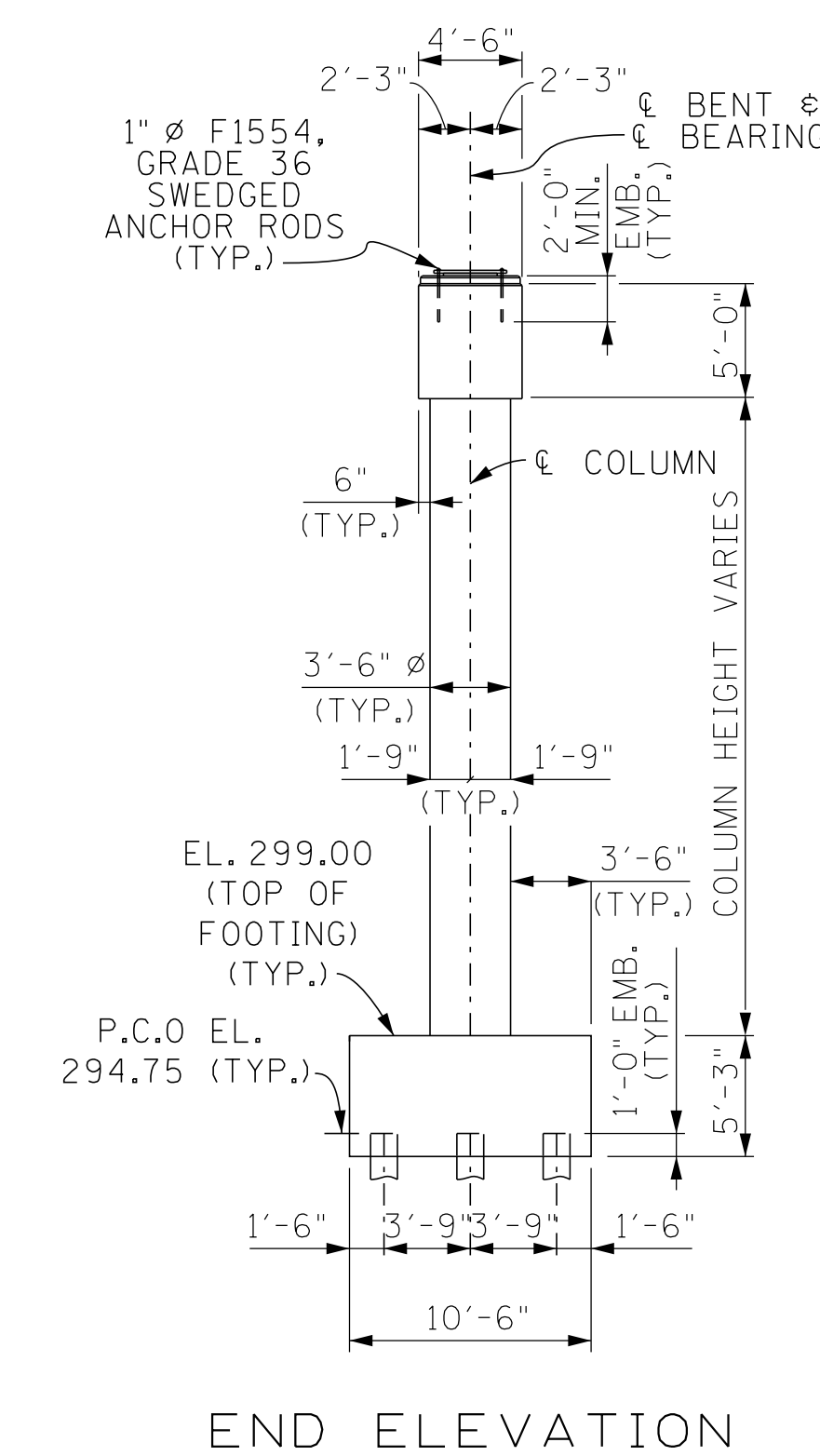
PROJECT NO.	YEAR	SHEET NO.	
STP/NH-4(6)	2026		
REVISIONS			
NO.	DATE	BY	BRIEF DESCRIPTION
-	-	-	-
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-	-	-	-
-	-	-	-



PLAN



ELEVATION
(LOOKING FORWARD ON SURVEY)



END ELEVATION

☆ DENOTES: FOR DESIGNATION OF SOLE PLATES, ON RISERS,
@ BEARING DETAILS SEE DRAWING NO. U-.

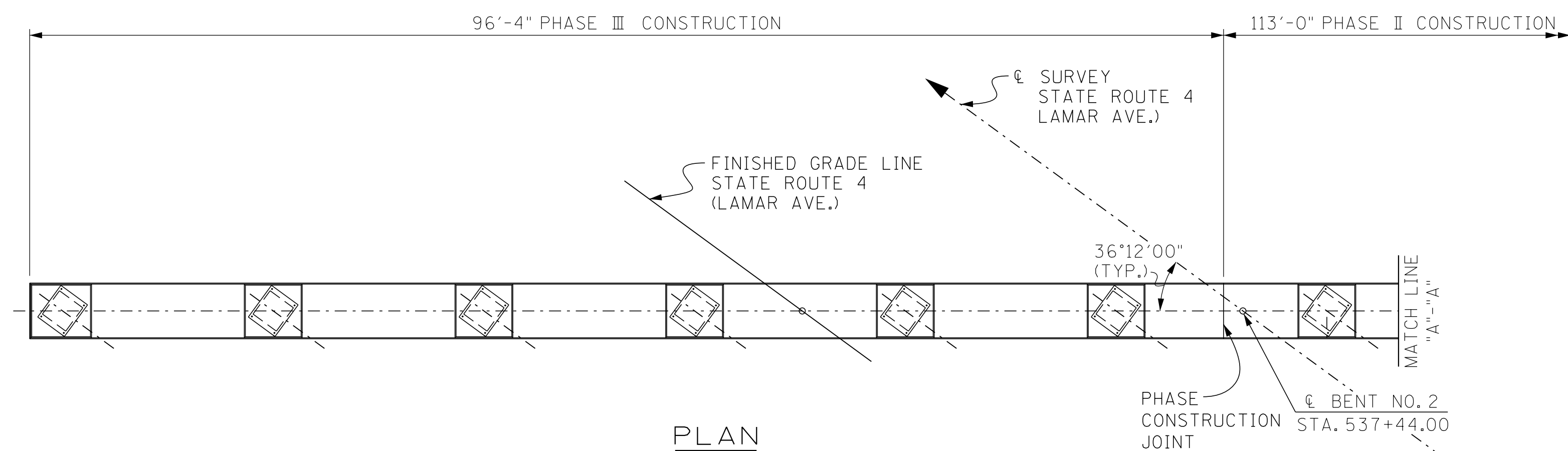
SEALED BY

BRIDGE NO. 2
STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BENT NO. 2 DETAILS
STATE ROUTE 4 OVER
BURLINGTON-NORTHERN RAILROAD
BRIDGE ID NO. 79SR0040009
STATION 536+56.00
LOG MILE 4.13
SHELBY COUNTY

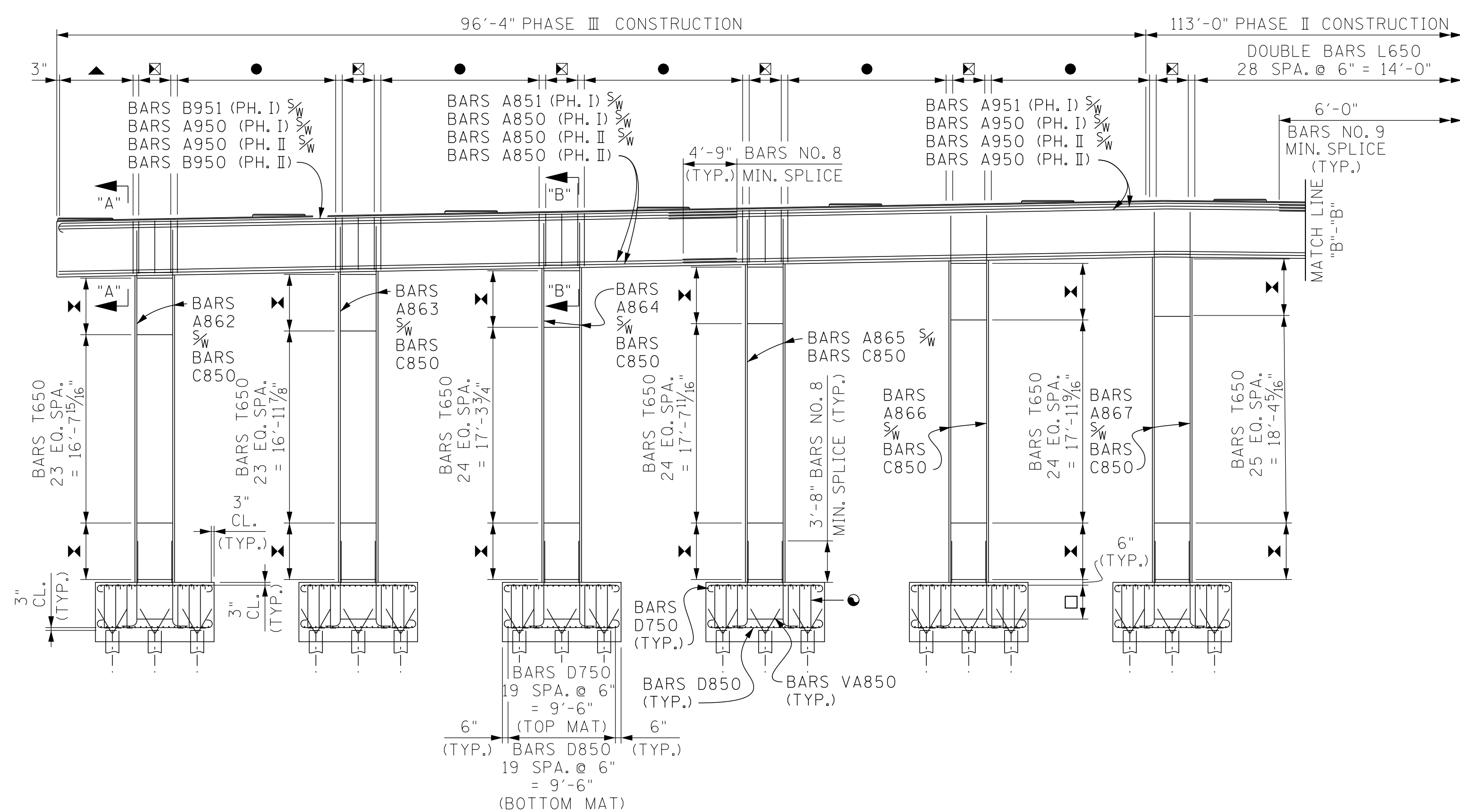
PIN NO.: 100340.00
DESIGN BY: JOHN AVERY DATE: 1-26
DRAWN BY: B. ERVIN DATE: 1-26
SUPERVISED BY: S. STEELE/D. SHIKE DATE: 1-26
CHECKED BY: DATE:

8:55:21 AM
2/5/2026

PROJECT NO.	YEAR	SHEET NO.	
STP/NH-4(6)	2026		
REVISIONS			
NO.	DATE	BY	BRIEF DESCRIPTION
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-	-	-	-
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PLAN

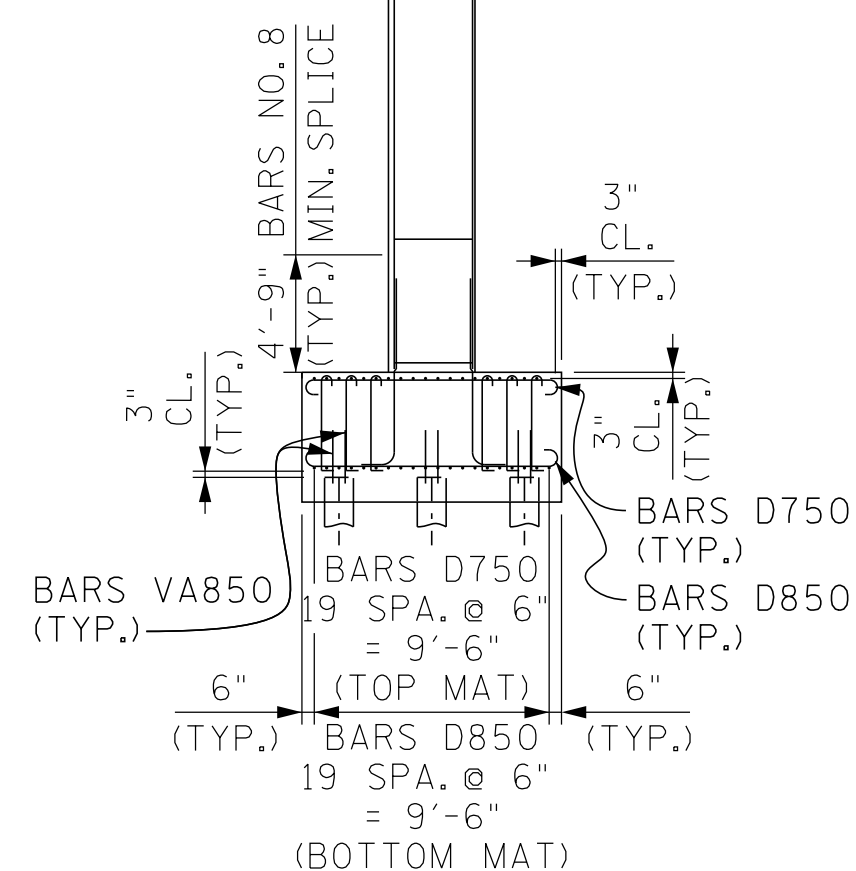


ELEVATION

(SHOWING STEEL BAR REINFORCEMENT)

- DENOTES: BARS T650 7 SPA. @ 6" = 3'-6" (TYP.)
- ▲ DENOTES: DOUBLE BARS L650 13 SPA. @ 6" = 6'-6"
- ⊠ DENOTES: DOUBLE BARS H650 2 SPA. @ 1'-5" = 2'-10"
- DENOTES: DOUBLE BARS L650 28 SPA. @ 6" = 14'-0"
- ⊗ DENOTES: BARS T650 10 SPA. @ 6" = 5'-0"
- DENOTES: BARS YB550 (TYP.) - FOR BAR PLACEMENT
SEE PLAN OF FOOTING ON DRAWING NO. U-_-_-_-

1" Ø F1554, GRADE 36 SWEDGED ANCHOR RODS (TYP.)
STEEL PROJECT INTO CAP



END ELEVATION

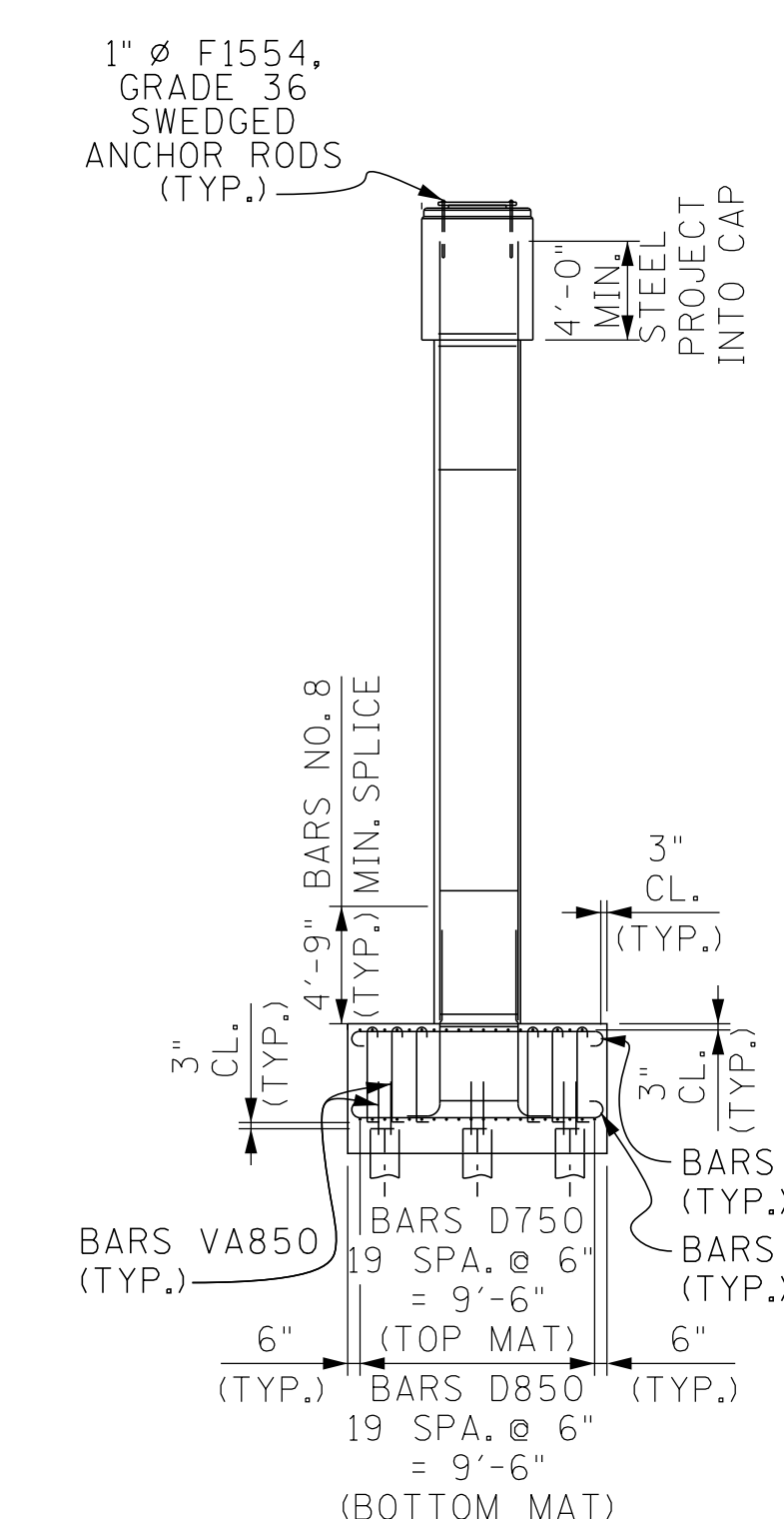
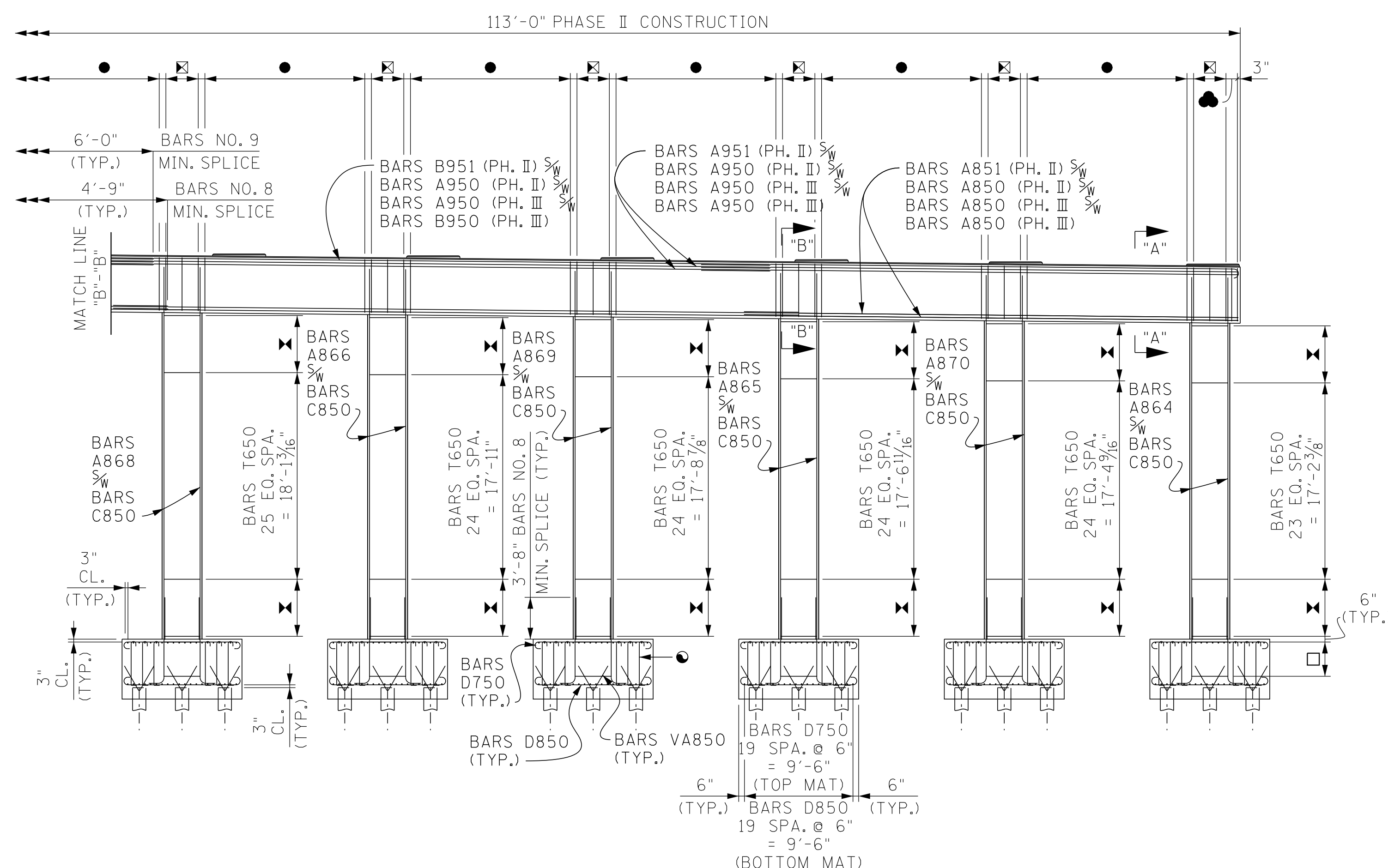
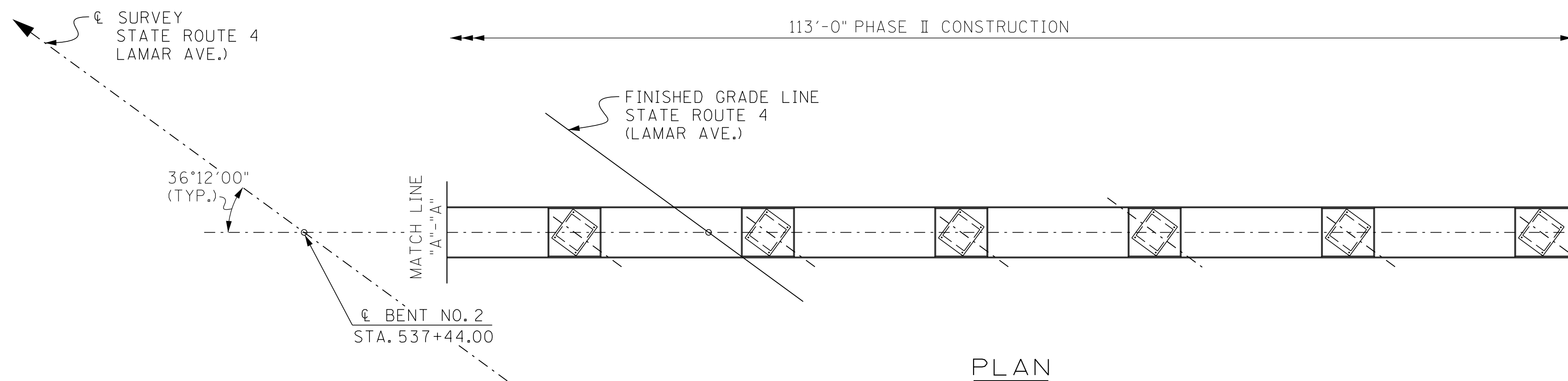
SEALED BY

BRIDGE NO. 2
STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BENT NO. 2 DETAILS
STATE ROUTE 4 OVER
BURLINGTON-NORTHERN RAILROAD
BRIDGE ID NO. 79SR0040009
STATION 536+56.00
LOG MILE 4.13
SHELBY COUNTY

PIN NO.: 100340.00
DESIGN BY: JOHN AVERY DATE: 1-26
DRAWN BY: B. ERVIN DATE: 1-26
SUPERVISED BY: S. STEELE/D. SHIKE DATE: 1-26
CHECKED BY: DATE:

6:47:31 AM
2/10/2026

PROJECT NO.	YEAR	SHEET NO.	
STP/NH-4(6)	2026		
REVISIONS			
NO.	DATE	BY	BRIEF DESCRIPTION
-	-	-	-
-	-	-	-
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-	-	-	-
-	-	-	-



- DENOTES: BARS T650 7 SPA. @ 6" = 3'-6" (TYP.)
- ▲ DENOTES: DOUBLE BARS L650 13 SPA. @ 6" = 6'-6"
- ⊠ DENOTES: DOUBLE BARS H650 2 SPA. @ 1'-5" = 2'-10"
- DENOTES: DOUBLE BARS L650 28 SPA. @ 6" = 14'-0"
- DENOTES: DOUBLE BARS L650 2 SPA. @ 6" = 1'-0"
- DENOTES: BARS YB550 (TYP.) - FOR BAR PLACEMENT SEE PLAN OF FOOTING ON DRAWING NO. U-_-_-_-.

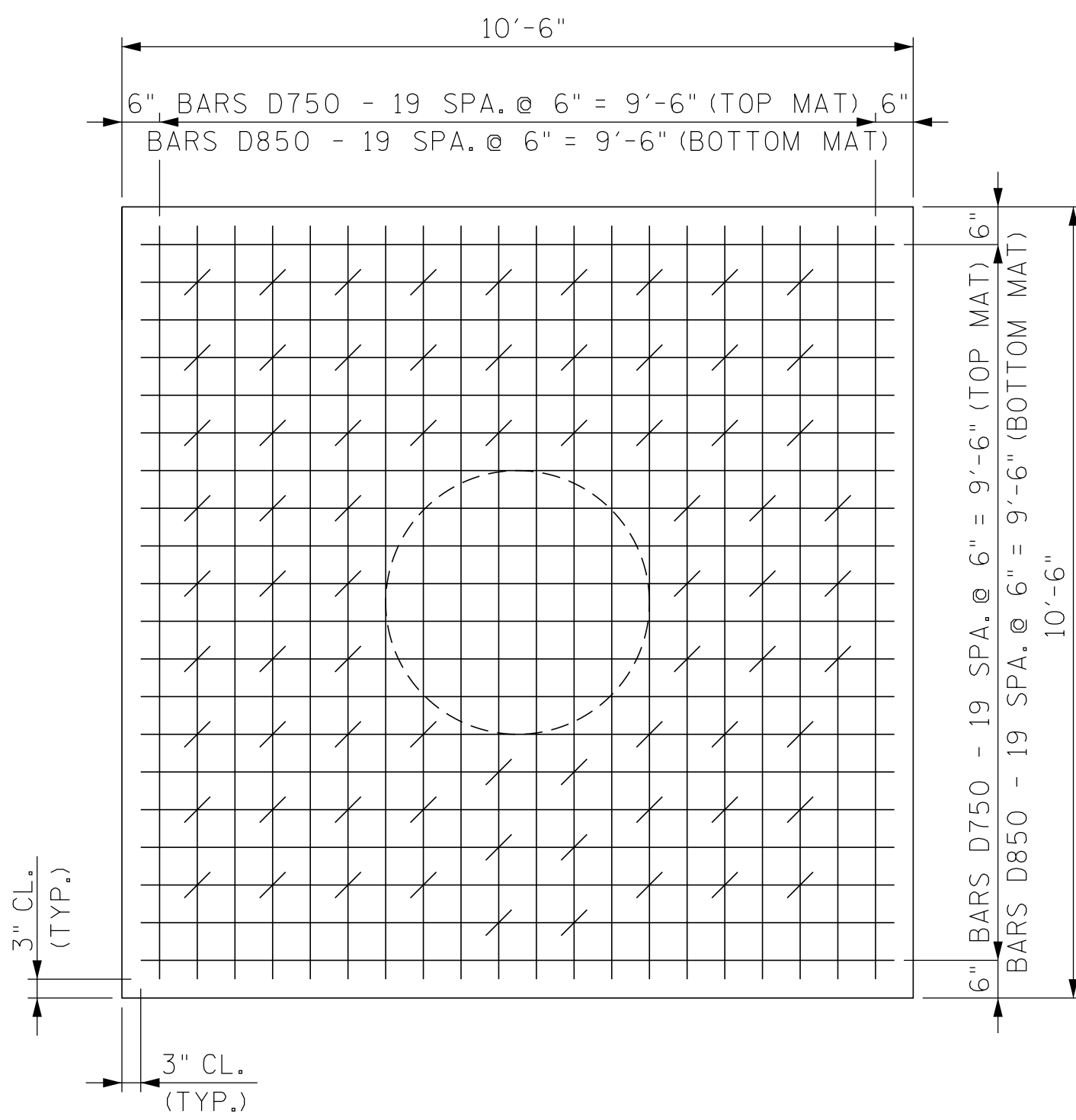
SEALED BY

BRIDGE NO. 2
 STATE OF TENNESSEE
 DEPARTMENT OF TRANSPORTATION
BENT NO. 2 DETAILS
 STATE ROUTE 4 OVER
 BURLINGTON-NORTHERN RAILROAD
 BRIDGE ID NO. 79SR0040009
 STATION 536+56.00
 LOG MILE 4.13
 SHELBY COUNTY

PIN NO.: 100340.00
 DESIGN BY: JOHN AVERY DATE: 1-26
 DRAWN BY: B. ERVIN DATE: 1-26
 SUPERVISED BY: S. STEELE/D. SHIKE DATE: 1-26
 CHECKED BY: DATE:

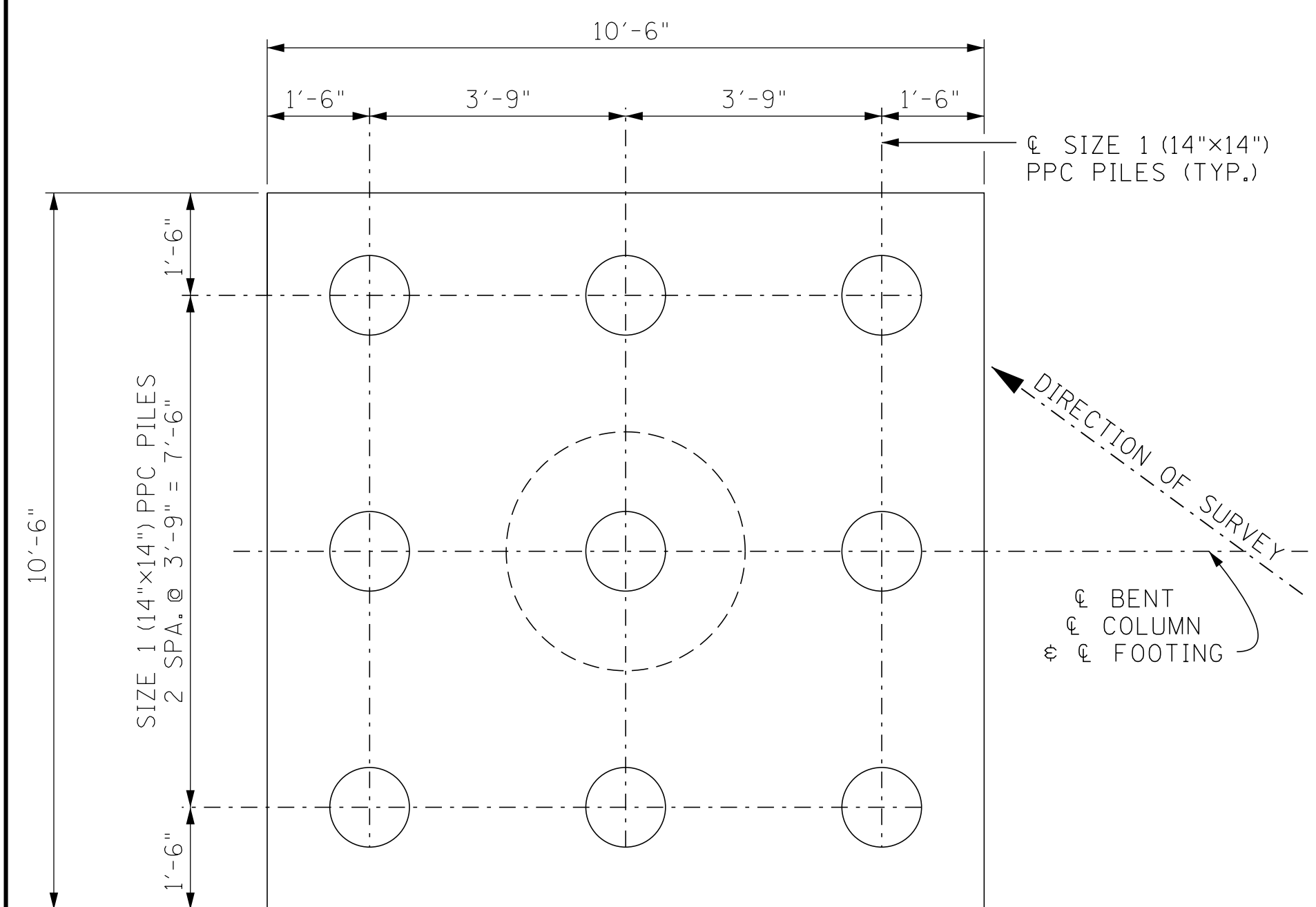
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 2/10/2026

PROJECT NO.	YEAR	SHEET NO.	
STP/NH-4(6)	2026		
REVISIONS			
NO.	DATE	BY	BRIEF DESCRIPTION
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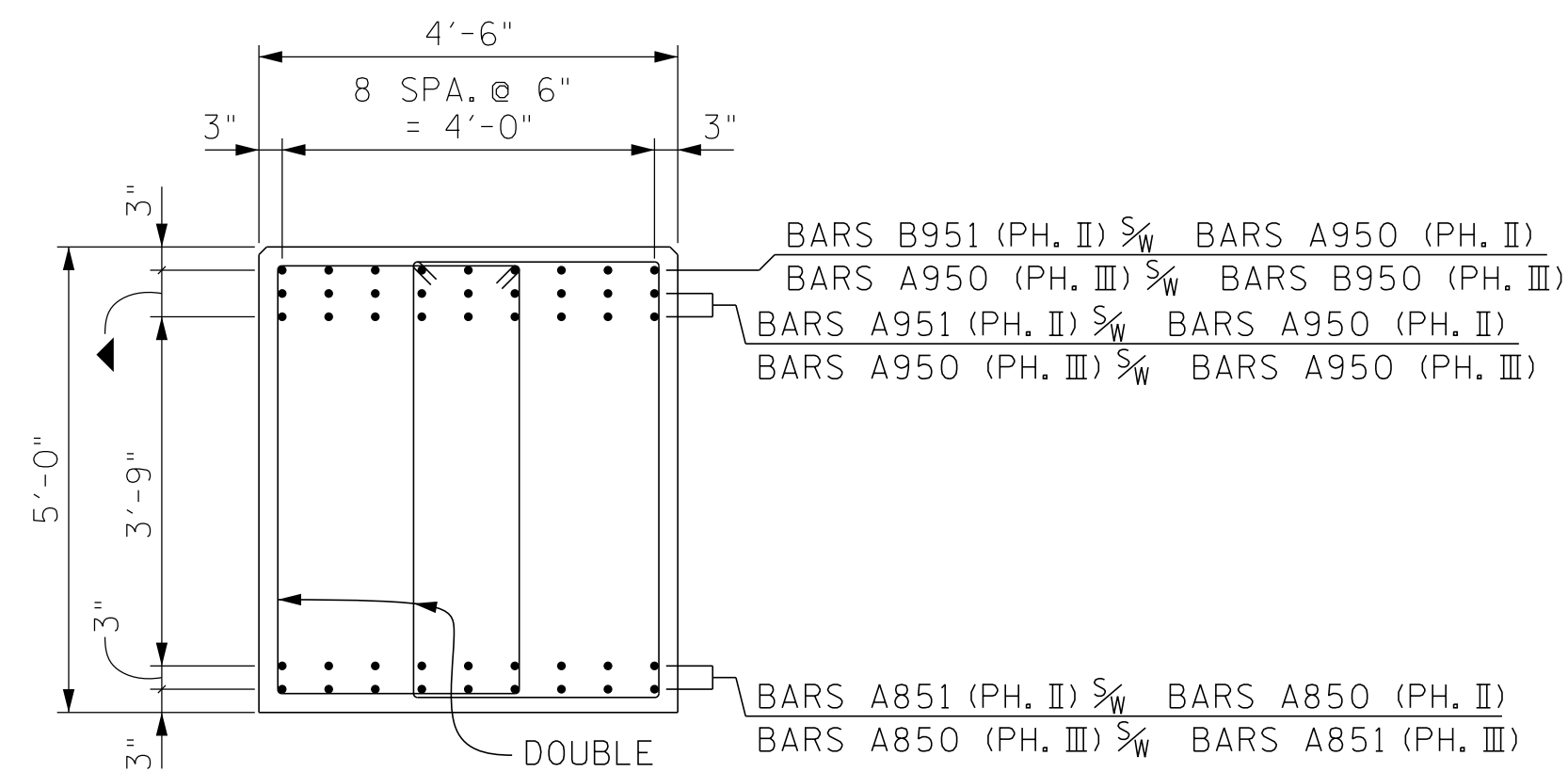


PLAN OF FOOTING
(SHOWING REINFORCEMENT @ TOP & BOTTOM MATS)

DENOTES: SHOWING BARS YB550 PLACEMENT
SEE ELEVATION VIEW ON DRAWING NO. U-1-1-1 & U-1-1-1
(180° HOOK ON TOP, 90° HOOK ON BOTTOM)

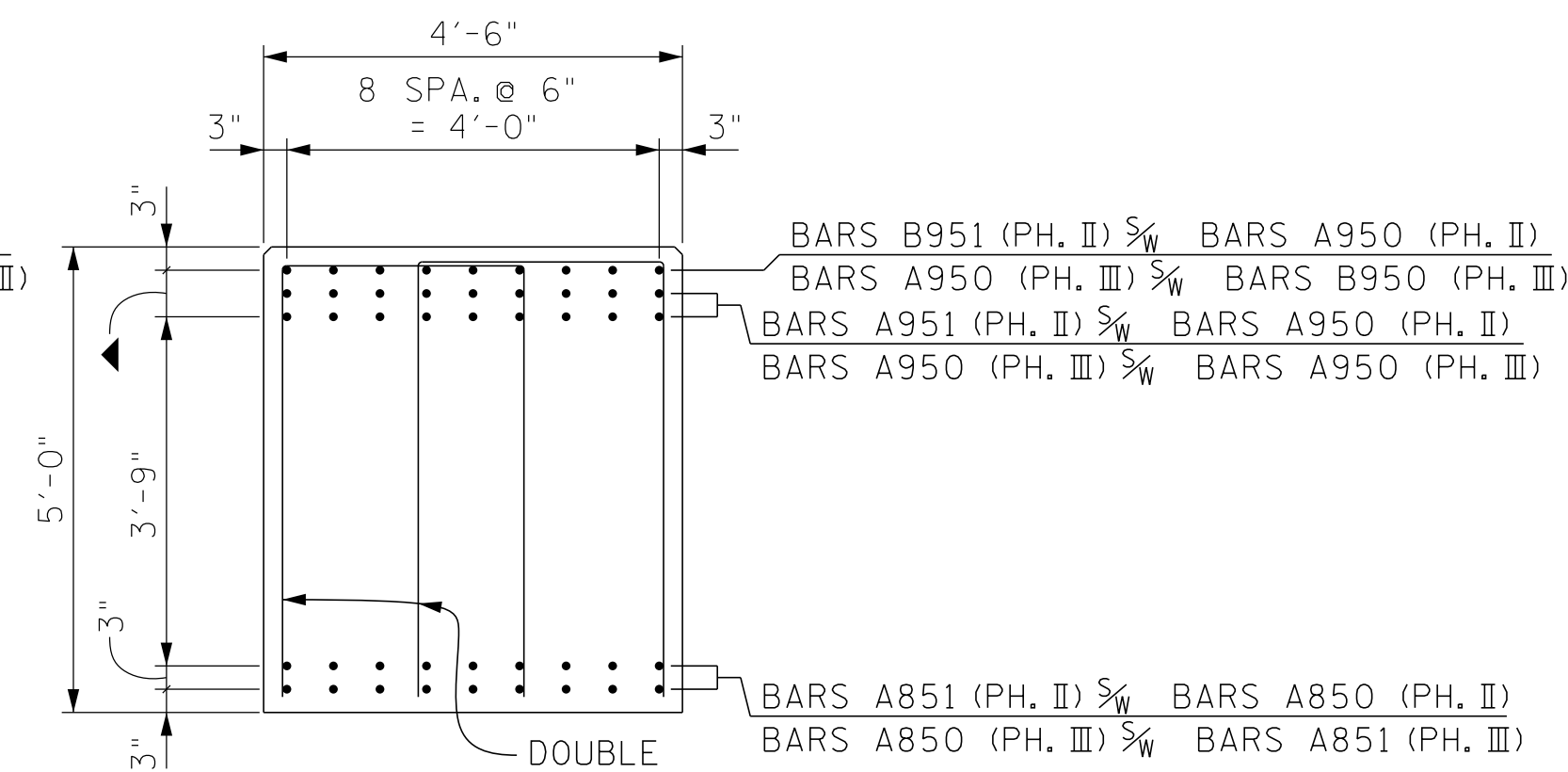


PLAN OF FOOTING
(SHOWING PILE SPACING)



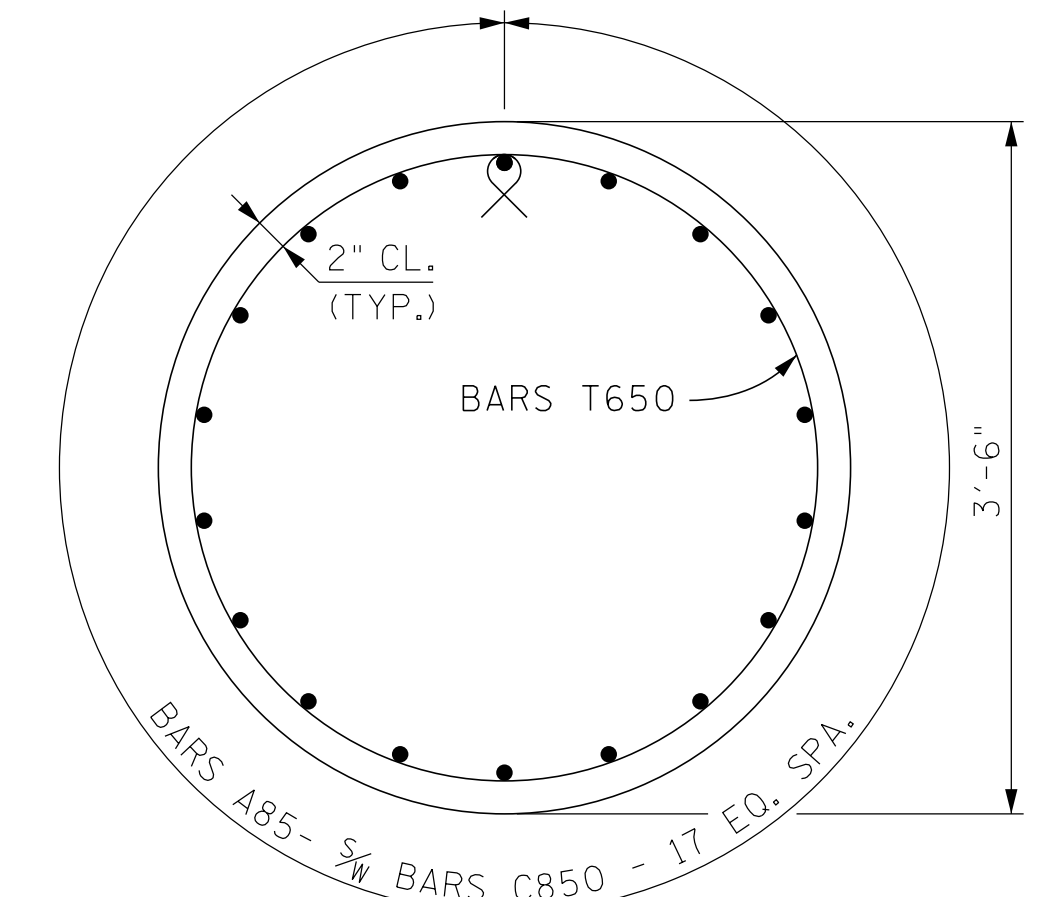
SECTION "A"- "A"

▲ DENOTES: 2 SPA. @ 3" = 6"

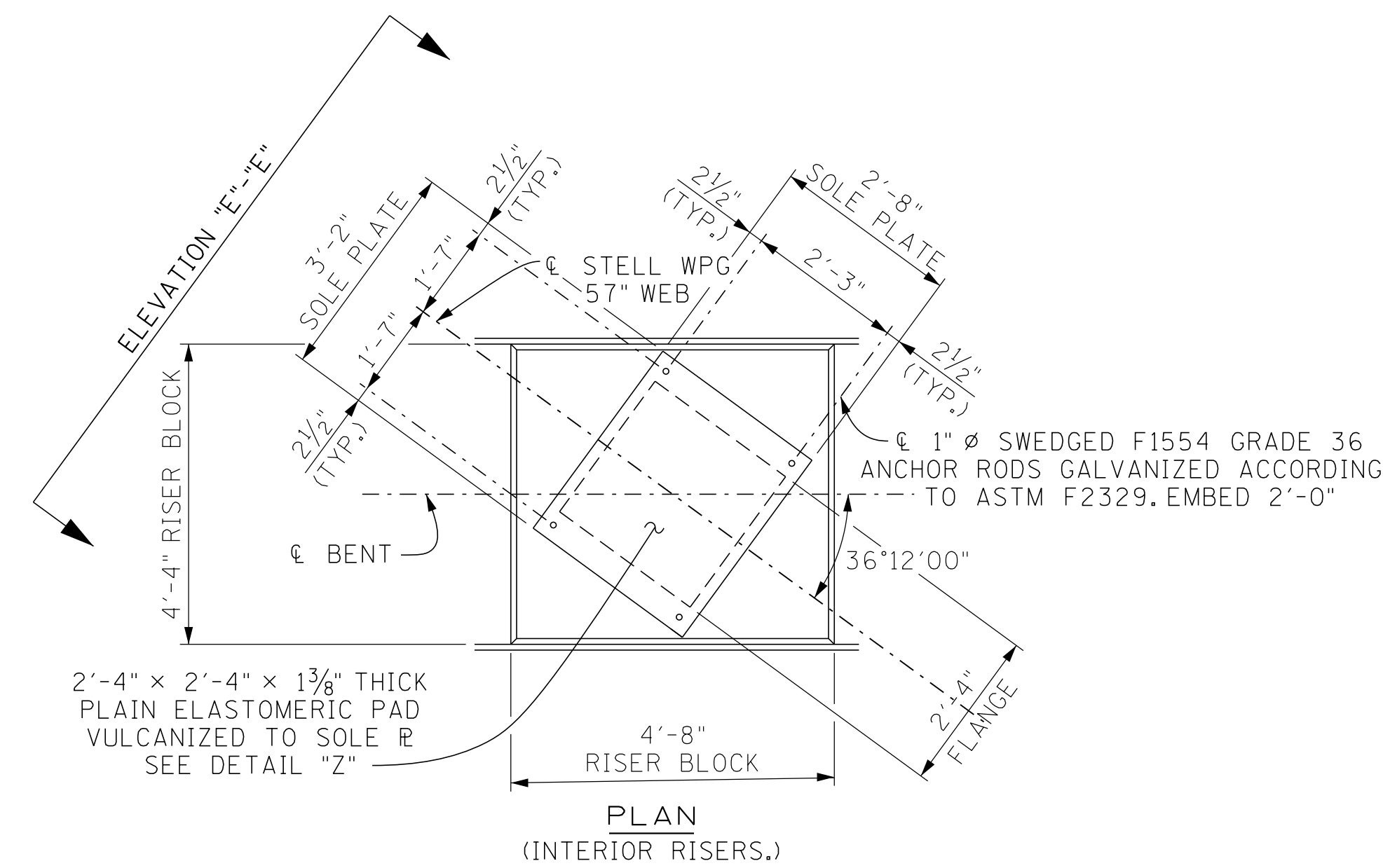


SECTION "B"- "B"

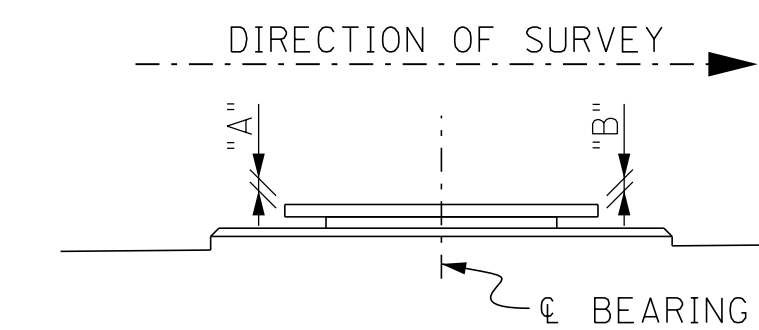
▲ DENOTES: 2 SPA. @ 3" = 6"



SECTION "C"- "C"



PLAN
(INTERIOR RISERS.)

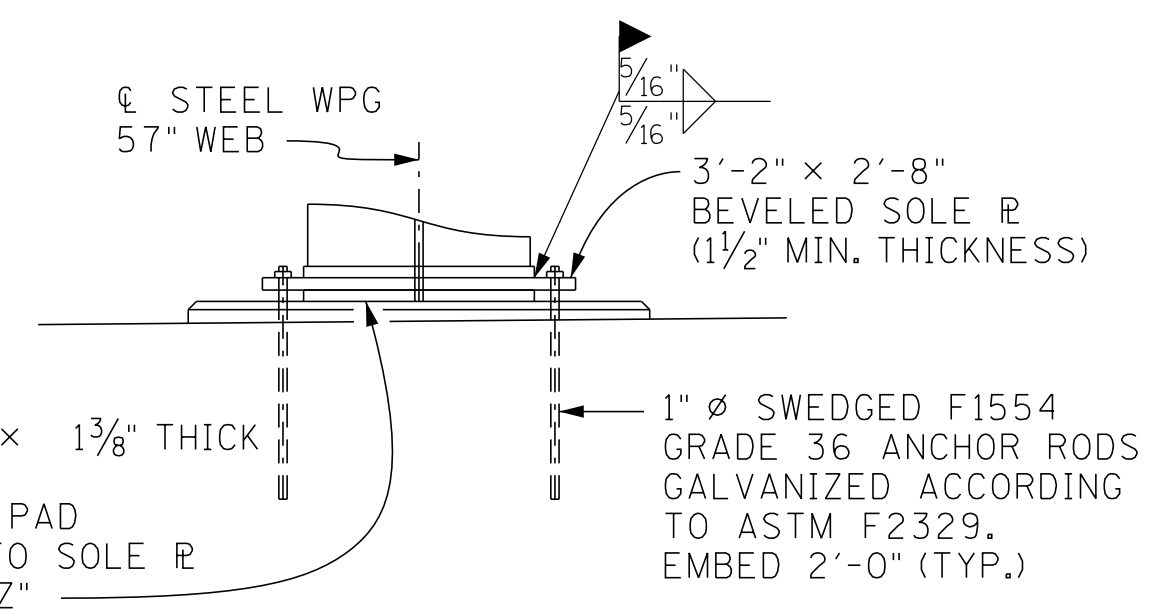


SOLE PLATES

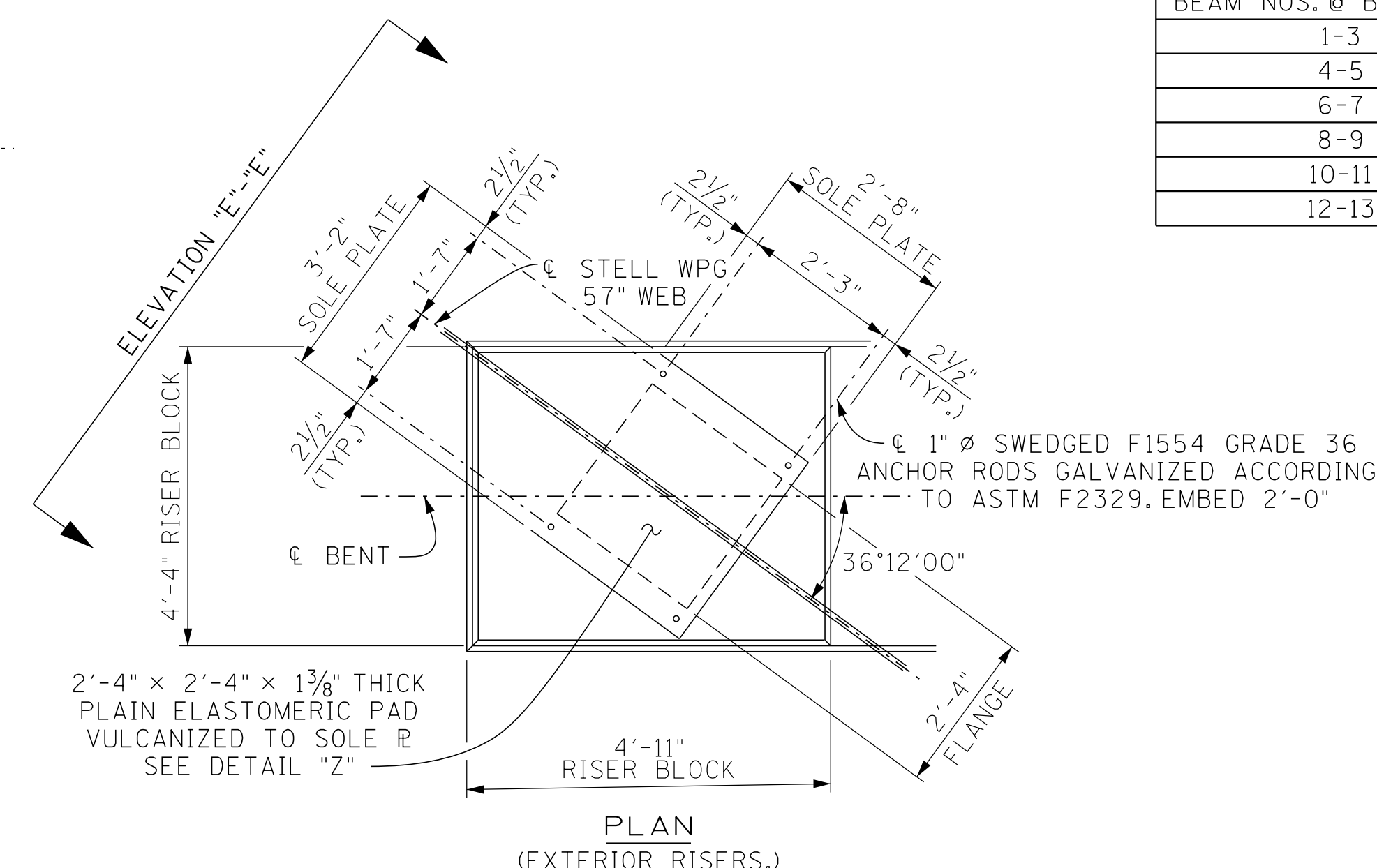
TABLE OF BEVEL DIMENSIONS

BEAM NOS. @ BENT NO. 1	"A"	"B"
1-3	1 1/2"	1 9/16"
4-5	1 1/2"	1 5/8"
6-7	1 1/2"	1 11/16"
8-9	1 1/2"	1 3/4"
10-11	1 1/2"	1 13/16"
12-13	1 1/2"	1 7/8"

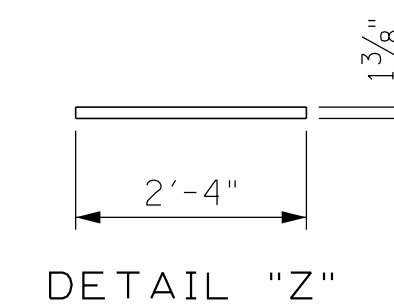
BEAM NOS. @ BENT NO. 1	"A"	"B"
1-2	1 13/16"	1 1/2"
3-4	1 3/4"	1 1/2"
5-6	1 11/16"	1 1/2"
7-9	1 5/8"	1 1/2"
10-11	1 9/16"	1 1/2"
12-13	1 1/2"	1 1/2"



ELEVATION "D"- "D"
(ELASTOMERIC PAD INFO.)



PLAN
(EXTERIOR RISERS.)



DETAIL "Z"

NOTE: SHEAR MODULUS = 200 PSI
AT 73 DEGREES FAHRENHEIT BEARING
TO BE VULCANIZED TO SOLE PLATE.

BEARING DETAILS

SEALED BY

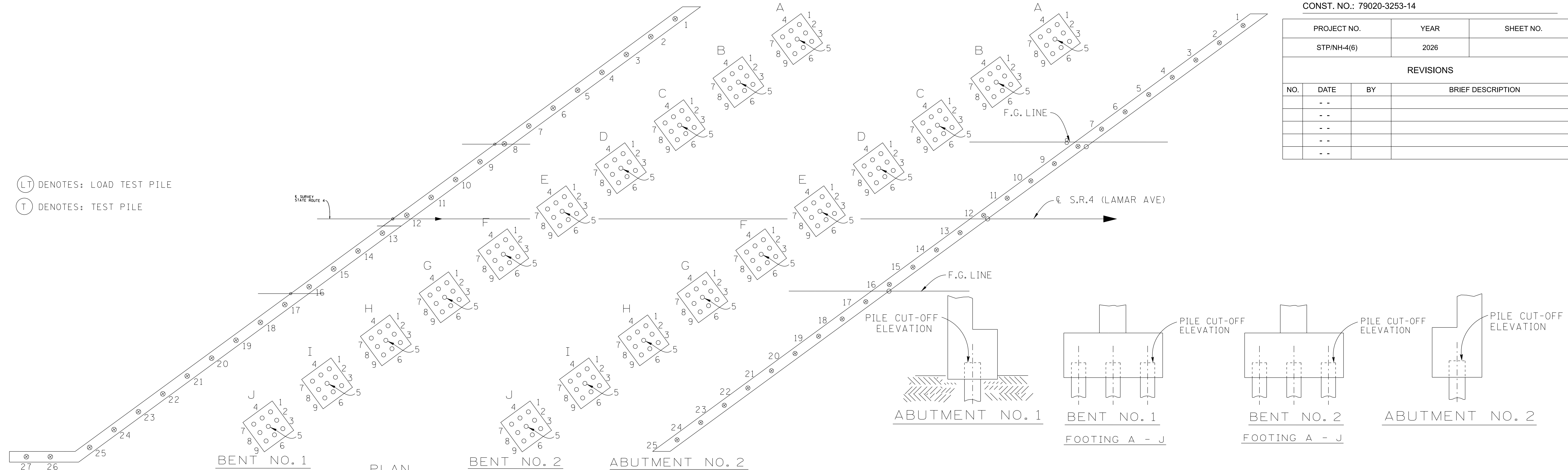
BRIDGE NO. 2
STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BENT NO. 1 AND NO. 2 DETAILS
STATE ROUTE 4 OVER
BURLINGTON-NORTHERN RAILROAD
BRIDGE ID NO. 79SR0040009
STATION 536+56.00
LOG MILE 4.13
SHELBY COUNTY

PIN NO.: 100340.00
DESIGN BY: JOHN AVERY DATE: 1-26
DRAWN BY: B. ERVIN DATE: 1-26
SUPERVISED BY: S. STEELE/D. SHIKE DATE: 1-26
CHECKED BY: DATE:

9:08:06 AM
2/5/2026

PROJECT NO.	YEAR	SHEET NO.	
STP/NH-4(6)	2026		
REVISIONS			
NO.	DATE	BY	BRIEF DESCRIPTION
-	-	-	-
-	-	-	-
-	-	-	-
-	-	-	-

(LT) DENOTES: LOAD TEST PILE
 (T) DENOTES: TEST PILE



ABUTMENT NO. 1		1	2	3	4	5	6	7	8	9	BENT NO. 1		10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27
ABUTMENT NO. 1	PILE CUT-OFF ELEV.																													
	PILE TIP ELEV.																													
	IN PLACE PILE LENGTH																													
BENT NO. 1	PILE CUT-OFF ELEV.	1	2	3	4	5	6	7	8	9																				
FOOTING A	PILE TIP ELEV.																													
	IN PLACE PILE LENGTH																													
BENT NO. 1	PILE CUT-OFF ELEV.	1	2	3	4	5	6	7	8	9																				
FOOTING B	PILE TIP ELEV.																													
	IN PLACE PILE LENGTH																													
BENT NO. 1	PILE CUT-OFF ELEV.	1	2	3	4	5	6	7	8	9																				
FOOTING C	PILE TIP ELEV.																													
	IN PLACE PILE LENGTH																													
BENT NO. 1	PILE CUT-OFF ELEV.	1	2	3	4	5	6	7	8	9																				
FOOTING D	PILE TIP ELEV.																													
	IN PLACE PILE LENGTH																													
BENT NO. 1	PILE CUT-OFF ELEV.	1	2	3	4	5	6	7	8	9																				
FOOTING E	PILE TIP ELEV.																													
	IN PLACE PILE LENGTH																													
BENT NO. 1	PILE CUT-OFF ELEV.	1	2	3	4	5	6	7	8	9																				
FOOTING F	PILE TIP ELEV.																													
	IN PLACE PILE LENGTH																													
BENT NO. 1	PILE CUT-OFF ELEV.	1	2	3	4	5	6	7	8	9																				
FOOTING G	PILE TIP ELEV.																													
	IN PLACE PILE LENGTH																													
BENT NO. 2	PILE CUT-OFF ELEV.	1	2	3	4	5	6	7	8	9																				
FOOTING H	PILE TIP ELEV.																													
	IN PLACE PILE LENGTH																													
BENT NO. 1	PILE CUT-OFF ELEV.	1	2	3	4	5	6	7	8	9																				
FOOTING I	PILE TIP ELEV.																													
	IN PLACE PILE LENGTH																													
BENT NO. 1	PILE CUT-OFF ELEV.	1	2	3	4	5	6	7	8	9																				
FOOTING J	PILE TIP ELEV.																													
	IN PLACE PILE LENGTH																													
ABUTMENT NO. 1	PILE CUT-OFF ELEV.																													
	PILE TIP ELEV.																													
	IN PLACE PILE LENGTH																													

TABLE SHOWING PILE NUMBERS, PILE CUT-OFF ELEVATIONS, PILE TIP ELEVATIONS, AND PILE LENGTHS

PIN NO.: 100340.00
 DESIGN BY: JOHN AVERY DATE: 1-26
 DRAWN BY: JERRY SIMPSON DATE: 2-26
 SUPERVISED BY: S. STEELE/D. SHIKE DATE: 1-26
 CHECKED BY: DATE:

NOTE TO CONTRACTOR AND CONSTRUCTION OFFICE:
 THE BLANKS ON THIS SHEET 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

BRIDGE NO. 2
 STATE OF TENNESSEE
 DEPARTMENT OF TRANSPORTATION
FINAL FOUNDATION
STATE ROUTE 4 OVER
BURLINGTON-NORTHERN RAILROAD
 BRIDGE ID NO. 79SR0040009
 STATION 536+56.00
 LOG MILE 4.13
 SHELBY COUNTY

3:30:50 PM
 2/5/2026

PROJECT NO.	YEAR	SHEET NO.
STP/NH-4(6)	2026	

REVISIONS

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

SUPERSTRUCTURE (EPOXY)								
BARS	LOCATION	SIZE	NO. REQ'D.	BENDING DIMENSIONS				LENGTH (FEET)
				A	B	C	D	
A500E	SLAB	5	840					60'-0"
A501E	SLAB	5	140					38'-3"
A502E	SLAB	5	382					44'-11"
A503E	SLAB	5	191					60'-0"
A504E	SLAB	5	191					34'-8"
A505E	SLAB	5	191					31'-2"
A506E	SLAB	5	985					60'-0"
A507E	SLAB	5	594					13'-11"
SERIES								
A508E	SLAB	5	1	LENGTH VARIES FROM 5'-6 1/4" TO 59'-8 7/8" IN INC. OF 5 5/8" (128 BARS)				4176'-7"
SERIES								
A509E	SLAB	5	1	LENGTH VARIES FROM 3'-11 3/4" TO 15'-1" IN INC. OF 5 1/8" (27 BARS)				257'-5"
SERIES								
A510E	SLAB	5	1	LENGTH VARIES FROM 5'-10 1/8" TO 60'-0" IN INC. OF 5 3/8" (123 BARS)				4049'-1"
SERIES								
A511E	SLAB	5	1	LENGTH VARIES FROM 5'-10 1/8" TO 59'-7" IN INC. OF 5 1/8" (127 BARS)				4157'-3"
SERIES								
A512E	SLAB	5	1	LENGTH VARIES FROM 3'-6 5/8" TO 15'-1" IN INC. OF 5 1/8" (28 BARS)				261'-0"
SERIES								
A513E	SLAB	5	1	LENGTH VARIES FROM 5'-1 1/8" TO 59'-8 7/8" IN INC. OF 5 1/8" (129 BARS)				4181'-8"
A514E	SLAB	5	16					7'-3"
A600E	SLAB	6	382					60'-0"
A601E	SLAB	6	382					40'-0"
A602E	SLAB	6	985					60'-0"
A603E	SLAB	6	594					16'-7"
SERIES								
A604E	SLAB	6	1	LENGTH VARIES FROM 5'-6 1/4" TO 59'-8 7/8" IN INC. OF 5 5/8" (128 BARS)				4176'-7"
SERIES								
A605E	SLAB	6	1	LENGTH VARIES FROM 5'-3 3/4" TO 16'-5" IN INC. OF 5 1/8" (27 BARS)				293'-5"
SERIES								
A606E	SLAB	6	1	LENGTH VARIES FROM 5'-10 1/8" TO 60'-0" IN INC. OF 5 3/8" (123 BARS)				4049'-1"
SERIES								
A607E	SLAB	6	1	LENGTH VARIES FROM 5'-10 1/8" TO 59'-7 1/2" IN INC. OF 5 1/8" (127 BARS)				4157'-3"
SERIES								
A608E	SLAB	6	1	LENGTH VARIES FROM 5'-10 1/8" TO 59'-7 1/2" IN INC. OF 5 1/8" (28 BARS)				298'-4"
SERIES								
A609E	SLAB	6	1	LENGTH VARIES FROM 5'-1 1/8" TO 59'-8 7/8" IN INC. OF 5 1/8" (129 BARS)				4181'-8"
A610E	SLAB	6	16					7'-3"
B570E	SLAB	5	3036	2'-8"				3'-3"
M470E	MEDIAN BARRIER	4	72	6"	5"	1'-6"		4'-5"

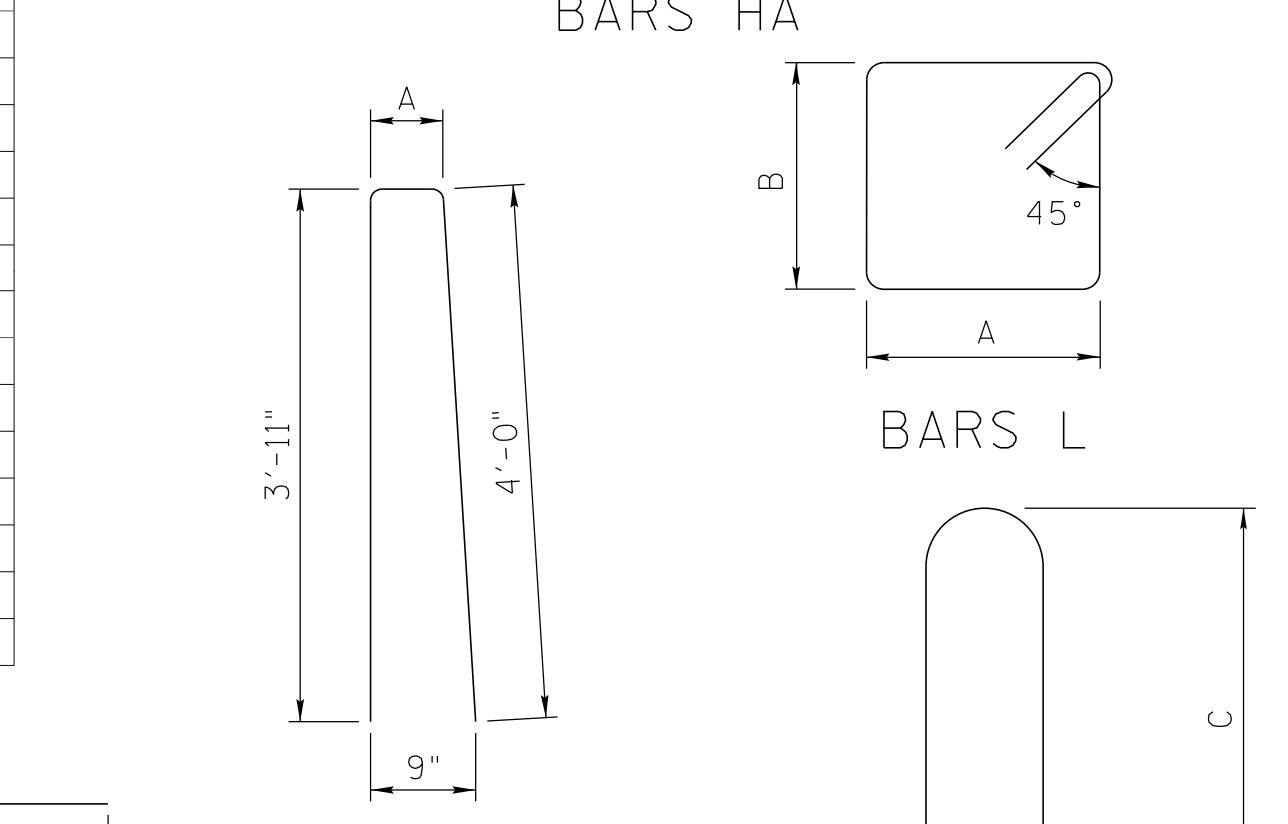
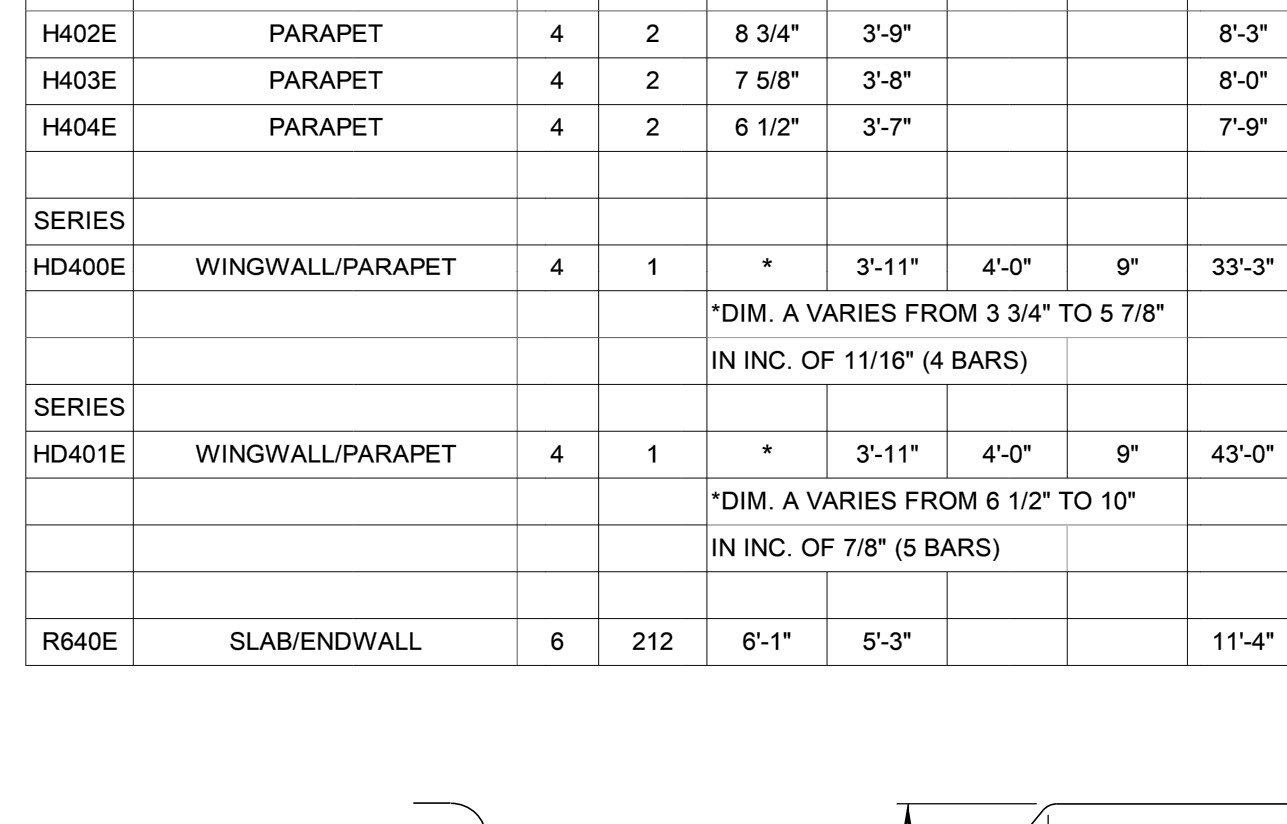
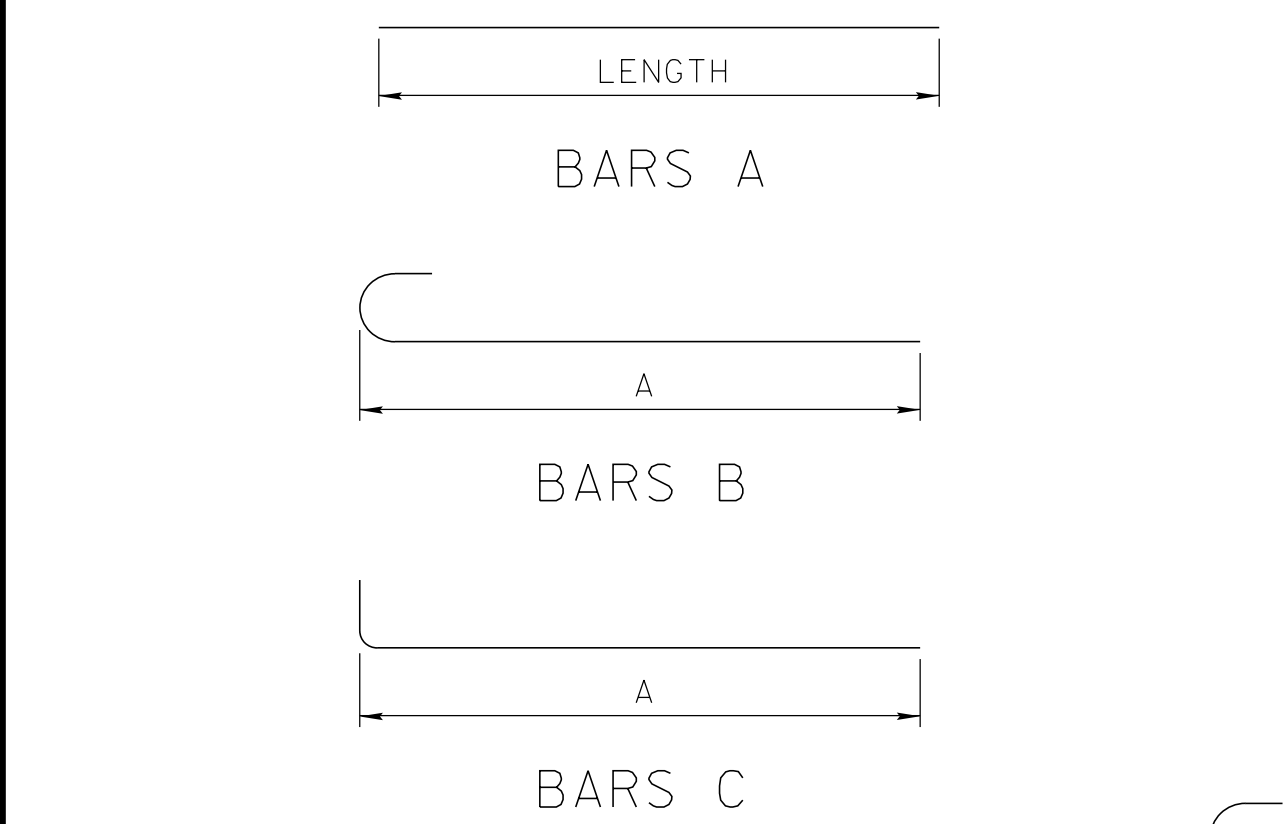
ABUTMENT NO. 1								
BARS	LOCATION	SIZE	NO. REQ'D.	BENDING DIMENSIONS				LENGTH (FEET)
				A	B	C	D	
A440	ROADWAY BRACKET	4	2					60'-0"
A441	ROADWAY BRACKET	4	1					53'-2"
A442	ROADWAY BRACKET	4	1					46'-6"
A443	WINGWALL	4	16					5'-7"
A444	WINGWALL	4	7					20'-5"
A540	ABUTMENT BEAM	5	4					60'-0"
A541	ABUTMENT BEAM	5	2					58'-6"
A542	ABUTMENT BEAM	5	2					46'-9"
A543	WING BEAM	5	2					19'-4"
A640	ENDWALL	6	12					60'-0"
A643	ENDWALL	6	6					58'-0"
A644	ENDWALL	6	6					47'-8"
A645	ENDWALL	6	6					3'-6"
A646	ENDWALL	6	66					16'-7"
A647	ENDWALL	6	6					8'-8"
A648	ENDWALL	6	6					11'-5"
A649	ENDWALL	6	6					6'-11"
A651	ENDWALL/ABUT. BM./WING BM.	6	14					3'-10"
A652	WINGWALL	6	17					5'-7"
A653	WINGWALL	6	7					21'-9"
A740	ABUTMENT BEAM	7	20					60'-0"
A741	ABUTMENT BEAM	7	10					30'-0"
A742	ABUTMENT BEAM	7	10					35'-0"
A743	ABUTMENT BEAM	7	10					47'-11"
A744	WING BEAM	7	10					19'-4"
B640	ENDWALL	6	6	5'-0"				5'-8"
H540	ENDWALL/ROADWAY BRACKET	5	170	2'-2"	6"			3'-2"
H640	ENDWALL/ABUTMENT BEAM	6	171	2'-8"	3'-10"			10'-4"
H641	WINGWALL/WING BEAM	6	16	1'-2"	3'-11"			9'-0"
HA640	ENDWALL/ABUTMENT BEAM	6	39	2'-8"	3'-10"	1'-4"		7'-10"
L540	ABUTMENT BEAM & WING BEAM	5	216	2'-8"	2'-7"			11'-5"
VA850	PILES	8	54	2'-6"	2'-6"			5'-0"

ABUTMENT NO. 2								
BARS	LOCATION	SIZE	NO. REQ'D.	BENDING DIMENSIONS				LENGTH (FEET)
				A	B	C	D	
A440	ROADWAY BRACKET	4	2					60'-0"
A441	ROADWAY BRACKET	4	1					55'-8"
A442	ROADWAY BRACKET	4	1					46'-6"
A540	ABUTMENT BEAM	5	4					60'-0"
A541	ABUTMENT BEAM	5	2					56'-6"
A542	ABUTMENT BEAM	5	2					47'-5"
A640	ENDWALL	6	12					60'-0"
A643	ENDWALL	6	6					58'-0"
A644	ENDWALL	6	6					47'-8"
A645	ENDWALL	6	6					6'-11"
A646	ENDWALL	6	66					16'-7"
A647	ENDWALL	6	6					4'-9"
A648	ENDWALL	6	6					15'-6"
A649	ENDWALL	6	6					3'-6"
A651	ENDWALL/ABUT. BM./WING BM.	6	10					3'-11"
A740	ABUTMENT BEAM	7	20					60'-0"
A741	ABUTMENT BEAM	7	10					58'-10"
A742	ABUTMENT BEAM	7	10					48'-7"
H540	ENDWALL/ROADWAY BRACKET	6	174	2'-2"	6"			3'-2"
H640	ENDWALL/ABUTMENT BEAM	6	173	2'-8"	3'-11"			10'-6"
HA640	ENDWALL/ABUTMENT BEAM	6	39	2'-8"	3'-11"	1'-4"		7'-11"
L540	ABUTMENT BEAM	5	198	2'-8"	2'-7"			11'-5"
VA850	PILES	8	50	2'-6"	2'-6"			5'-0"

ABUTMENT NO. 2 (EPOXY)								
BARS	LOCATION	SIZE	NO. REQ'D.	BENDING DIMENSIONS				LENGTH (FEET)
				A	B	C	D	
A640E	ENDWALL	6	8					60'-0"
A641E	ENDWALL	6	4					57'-2"
A642E	ENDWALL	6	4					52'-4"
A650E	ENDWALL	6	397					5'-11"
F640E	P.A.B.E.	6	216					4'-0"
R640E	SLAB/ENDWALL	6	213					11'-4"

BENT NO. 1								
BARS	LOCATION	SIZE	NO. REQ'D.	BENDING DIMENSIONS				LENGTH (FEET)
				A	B	C	D	
A850	CAP	8	54					60'-0"
A851	CAP	8	18					43'-3"
A852	CAP/COLUMN	8	18					32'-4"
A853	CAP/COLUMN	8	36					32'-6"
A854	CAP/COLUMN	8	18					32'-8"
A855	CAP/COLUMN	8	36					32'-10"
A856	CAP/COLUMN	8	18					33'-0"
A857	CAP/COLUMN	8	18					33'-2"
A858	CAP/COLUMN	8	18					32'-1"
A859	CAP/COLUMN	8	18					31'-9"
A860	CAP/COLUMN	8	18					31'-5"
A861	CAP/COLUMN	8	18					31'-1"
A950	CAP	9	72					60'-0"
A951	CAP	9	18					48'-3"
B950	CAP	9	9	58'-9"				60'-0"
B951	CAP	9	9	47'-0"				48'-3"
C850	COLUMN/FOOTING	8	216	7'-6"				8'-10"
D750	FOOTING	7	480	10'-0"				11'-8"
D850	FOOTING	8	480	10'-0"				11'-10"
H650	CAP	6	72	3'-6"	5'-1"			13'-8"
L650	CAP	6	669	3'-6"	5'-0"			18'-4"
T650	COLUMN/FOOTING	6	560	3'-2"				11'-3"
VA850	FOOTING	8	216	2'-6"	2'-6"			5'-0"
YB550	FOOTING	5	864	3'-9"	6"			4'-9"

BENT NO. 2								
BARS	LOCATION	SIZE	NO. REQ'D.	BENDING DIMENSIONS				LENGTH (FEET)
				A	B	C	D	
A850	CAP	8	54					60'-0"
A851	CAP	8	18					43'-3"
A862	CAP/COLUMN	8	18					31'-8"
A863	CAP/COLUMN	8	18					32'-0"
A864	CAP/COLUMN	8	36					32'-3"
A865	CAP/COLUMN	8	36					32'-7"
A866	CAP/COLUMN	8	36					32'-11"
A867	CAP/COLUMN	8	18					33'-3"
A868	CAP/COLUMN	8	18					33'-1"
A869	CAP/COLUMN	8	18					32'-9"
A870	CAP/COLUMN	8	18					32'-7"
A950	CAP	9	72					60'-0"
A951	CAP	9	18					47'-0"
B950	CAP	9	9	58'-9"				60'-0"
B951	CAP	9	9	47'-0"				48'-3"
C850	COLUMN/FOOTING	8	216	7'-6"				8'-10"
D750	FOOTING	7	480	10'-0"				11'-8"
D850	FOOTING	8	480	10'-0"				11'-10"
H650	CAP	6	72	3'-6"	5'-1"			13'-8"
L650	CAP	6	669	3'-6"	5'-0"			18'-4"
T650	COLUMN/FOOTING	6	563	3'-2"				11'-3"
VA850	FOOTING	8	216	2'-6"	2'-6"			5'-0"
YB550	FOOTING	5	864	3'-9"	6"			4'-9"



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 (2015) SHALL APPLY, EXCEPT AS NOTED.
NOTE: THE SUFFIX E FOR BARS SO MARKED DENOTES EPOXY COATED REINFORCEMENT.

SEALED BY

BRIDGE NO. 3
STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BILL OF STEEL
STATE ROUTE 4 OVER
BURLINGTON-NORTHERN RAILROAD
BRIDGE ID NO. 79SR0040009
STATION 536+56.00
LOG MILE 4.13
SHELBY COUNTY

PIN NO.: 100340.00
DESIGN BY: JOHN AVERY DATE: 1-26
DRAWN BY: T. WISEMAN DATE: 2-26
SUPERVISED BY: S. STEELE/D. SHIKE DATE: 1-26
CHECKED BY: DATE:

PROJECT NO.		YEAR	SHEET NO.
STP/NH-4(6)		2026	
REVISIONS			
NO.	DATE	BY	BRIEF DESCRIPTION
-	-		
-	-		
-	-		
-	-		

<u>LIST OF DRAWINGS</u>	<u>DWG. NO.</u>	<u>LAST REV. DATE</u>
INDEX OF DRAWINGS.....	U-102-220	
LAYOUT OF BRIDGE.....	U-102-221	
GENERAL NOTES.....	U-102-222	
ESTIMATED QUANTITIES.....	U-102-223	
FOUNDATION DATA.....	U-102-224	
SUPERSTRUCTURE.....	U-102-225	
SUPERSTRUCTURE NOTES.....	U-102-226	
SUPERSTRUCTURE DETAILS.....	U-102-227	
SUPERSTRUCTURE DETAILS.....	U-102-228	
GIRDER.....	U-102-229	
GIRDER DETAILS.....	U-102-230	
GIRDER DETAILS.....	U-102-231	
GIRDER DETAILS.....	U-102-232	
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ABUTMENT NO. 1 DETAILS.....	U-102-236	
ABUTMENT NO. 2.....	U-102-237	
ABUTMENT NO. 2.....	U-102-238	
ABUTMENT NO. 2 DETAILS.....	U-102-239	
ABUTMENT NO. 1 & 2 DETAILS.....	U-102-240	
ABUTMENT NO. 1 & 2 DETAILS.....	U-102-241	
FINAL FOUNDATION DATA.....	U-102-242	
BILL OF STEEL.....	U-102-243	

<u>LIST OF STANDARD DRAWINGS</u>	<u>DWG. NO.</u>	<u>LAST REV. DATE</u>
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
STANDARD SINGLE SLOPE CONCRETE MEDIAN BARRIER.....	STD-1-3SS	05-10-2021
REINFORCED CONCRETE PAVEMENT AT BRIDGE ENDS.....	STD-1-5	06-05-2023
STANDARD PILE DETAILS.....	STD-5-1	
STANDARD SEISMIC DETAILS.....	STD-6-1	12-08-2023
TRI-STAR STATE EMBLEM.....	STD-8-6	10-03-2018
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
SAFETY APPROACH TO UNDERPASSES GRADING DESIGN AND SLOPE PROTECTION.....	RD11-SA-1	01-09-2024

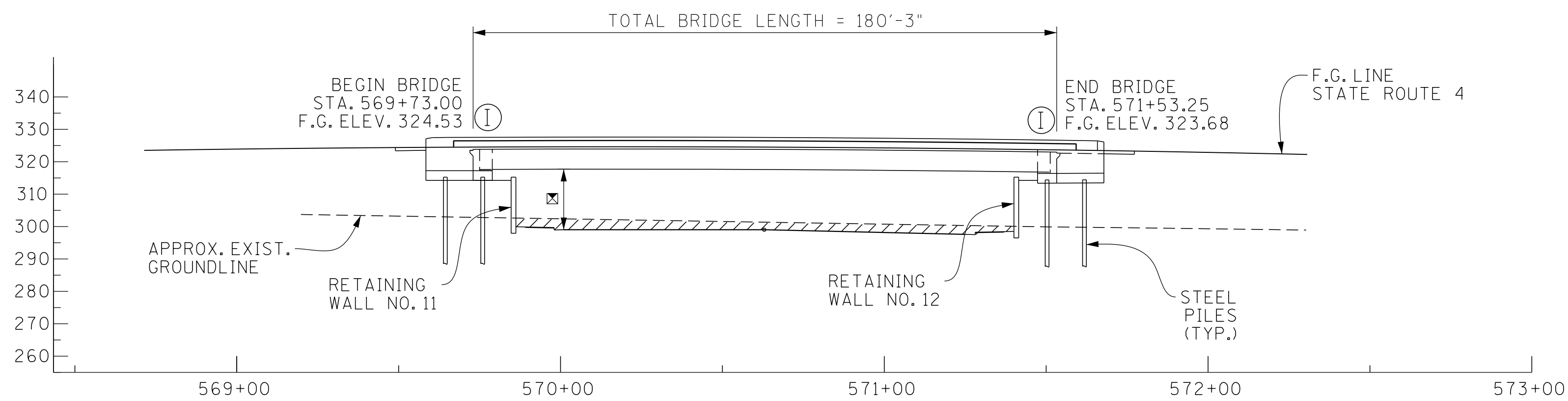
SEALED BY

BRIDGE NO. 4
STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

INDEX OF DRAWINGS
STATE ROUTE 4 (LAMAR AVE.)
OVER WINCHESTER ROAD
BRIDGE ID NO. 79SR0040043
LOG MILE 4.82
STATION 570+62.91
SHELBY COUNTY

PIN NO.: 100340.00
DESIGN BY: A. OMAR DATE: 10/2025
DRAWN BY: D. EASTERLY DATE: 02/2026
SUPERVISED BY: D.E./D.S. DATE: 10/2025
CHECKED BY: D. SHIKE DATE: 01/2026

PROJECT NO.	YEAR	SHEET NO.	
STP/NH-4(6)	2026		
REVISIONS			
NO.	DATE	BY	BRIEF DESCRIPTION
-	-	-	-
-	-	-	-
-	-	-	-
-	-	-	-



▨ DENOTES: AREA TO BE EXCAVATED AND PAID FOR AS A ROADWAY ITEM.

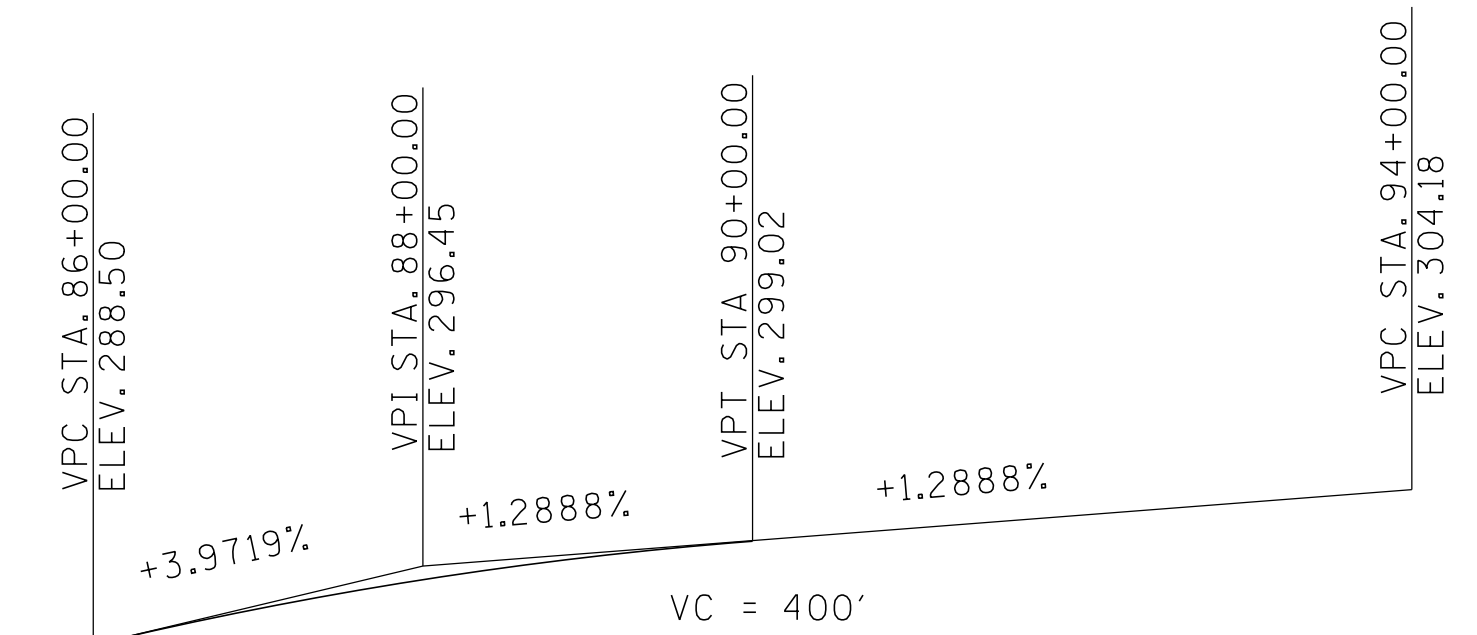
⊠ DENOTES: MINIMUM VERTICAL CLEARANCE TO BOTTOM OF GIRDER = 16'-7"

Ⓜ DENOTES: INTEGRAL

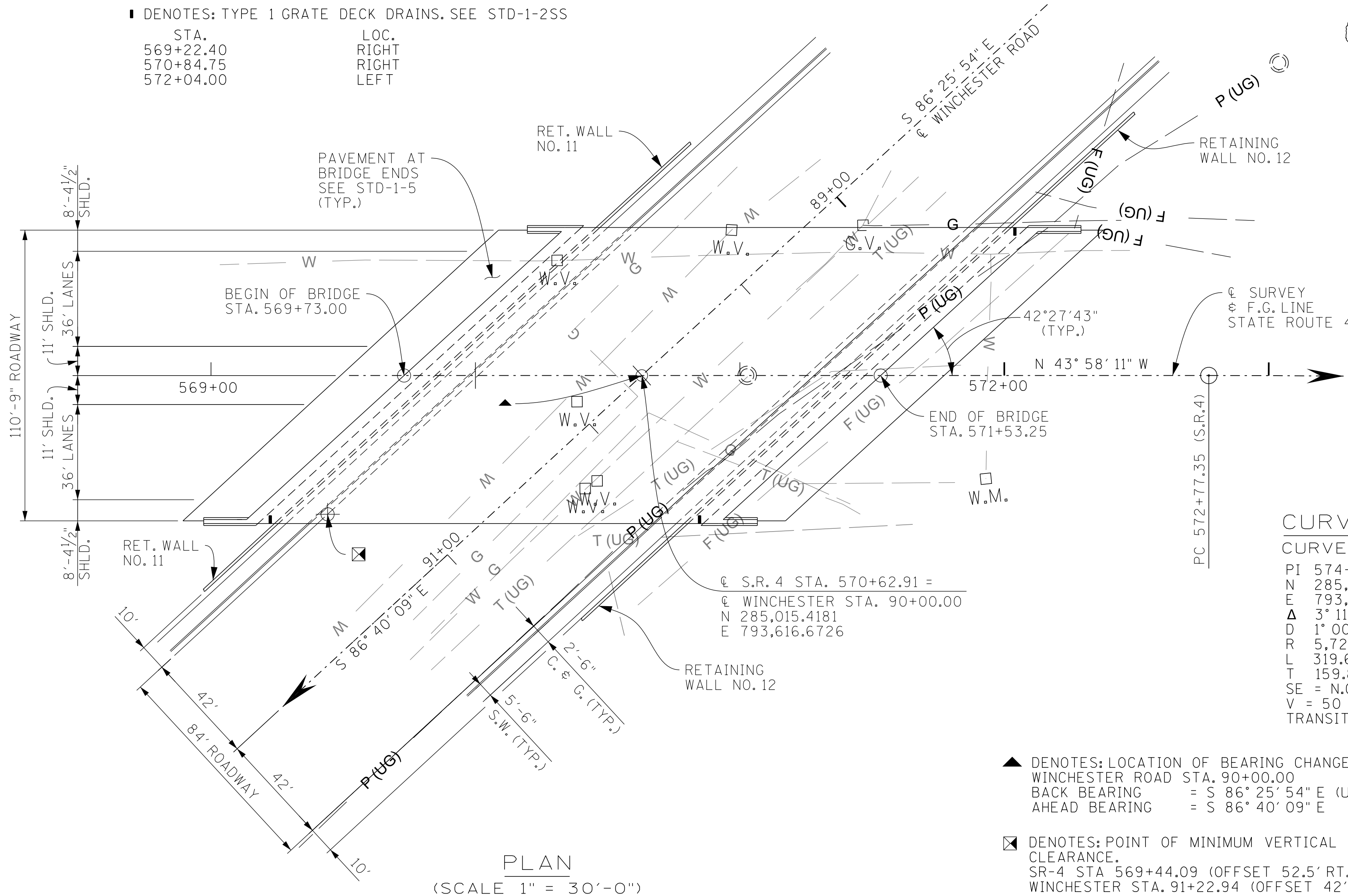
ELEVATION
(SCALE 1" = 30'-0")

■ DENOTES: TYPE 1 GRATE DECK DRAINS, SEE STD-1-2SS

STA.	LOC.
569+22.40	RIGHT
570+84.75	RIGHT
572+04.00	LEFT



GRADE SKETCH
(WINCHESTER ROAD)



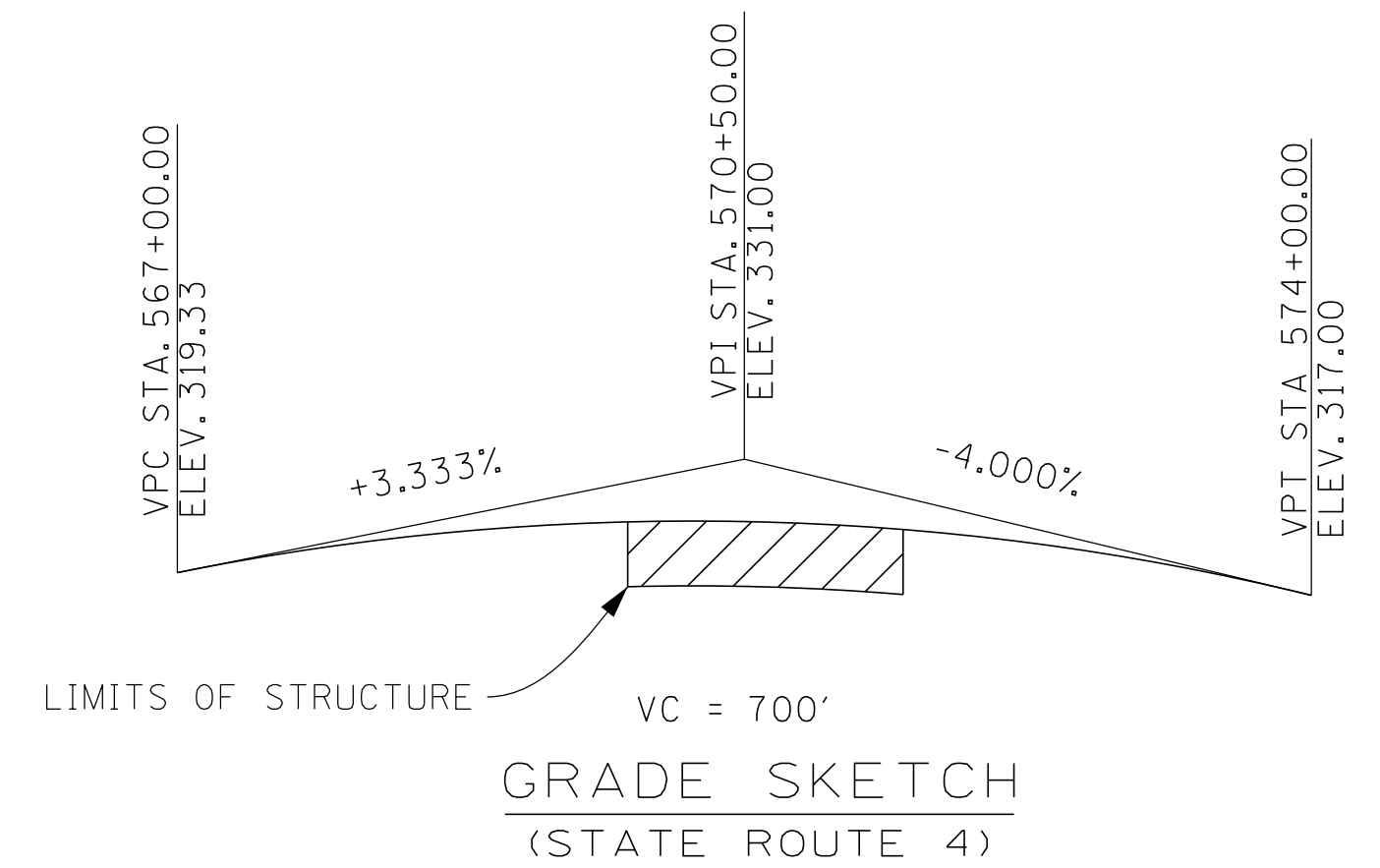
PLAN
(SCALE 1" = 30'-0")

CURVE DATA

CURVE DC-3 (S. R. 4)
 PI 574+37.22
 N 285,284.8120
 E 793,356.7980
 Δ 3° 11' 48" (RT.)
 D 1' 00' 00"
 R 5,729.58
 L 319.67
 T 159.88
 SE = N.C.
 V = 50 MPH
 TRANSITION LENGTH = 0

▲ DENOTES: LOCATION OF BEARING CHANGE
 WINCHESTER ROAD STA. 90+00.00
 BACK BEARING = S 86° 25' 54" E (USED FOR BRIDGE SKEW)
 AHEAD BEARING = S 86° 40' 09" E

⊠ DENOTES: POINT OF MINIMUM VERTICAL CLEARANCE.
 SR-4 STA 569+44.09 (OFFSET 52.5' RT.)
 WINCHESTER STA. 91+22.94 (OFFSET 42' RT.)



GRADE SKETCH
(STATE ROUTE 4)

SEALED BY

BRIDGE NO. 4
 STATE OF TENNESSEE
 DEPARTMENT OF TRANSPORTATION

LAYOUT OF BRIDGE
 STATE ROUTE 4 (LAMAR AVE.)
 OVER WINCHESTER ROAD
 BRIDGE ID NO. 79SR0040043
 LOG MILE 4.82
 STATION 570+62.91
 SHELBY COUNTY

Ded A K...
 ENGINEER OF STRUCTURES

PIN NO.: 100340.00
 DESIGN BY: A. OMAR DATE: 10/2025
 DRAWN BY: T.R. KIRK DATE: 02/2026
 SUPERVISED BY: D.E./D.S. DATE: 10/2025
 CHECKED BY: D. SHIKE DATE: 01/2026

UNDERPASS LIGHTING SHALL BE CONNECTED TO RETAINING WALLS 11 AND 12. ALL ASSOCIATED COSTS AND QUANTITIES ARE INCIDENTAL TO RETAINING WALLS 11 AND 12. SEE LIGHTING AND RETAINING WALL PLANS FOR DETAILS.

GENERAL NOTES

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

DESIGN SPECIFICATIONS: 10th EDITION (2024) 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 LOAD INCREASED BY 10% (MULTIPLIED BY 1.1) IN ADDITION TO ALL LOAD FACTORS SPECIFIED BY AASHTO FOR ALL APPLICABLE LOAD COMBINATIONS.
 - b. SEISMIC DESIGN CATEGORY "C" WITH AS= 0.369, SDS=0.794, SD1=0.342, (1000 YEAR RETURN PERIOD).
 - c. DEAD LOAD INCLUDES 35 LB/SQ. FT. FOR FUTURE WEARING SURFACE.

CONCRETE: TO BE CLASS A 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 "3" 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 SHALL BE REMAIN-IN-PLACE STEEL. 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.

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

ABUTMENTS ON FILL: THE FILLS AT THE ENDS OF THE BRIDGE SHALL BE IN PLACE AND THOROUGHLY COMPACTED BEFORE ANY ABUTMENT PILES ARE DRIVEN.

FRICTION PILES: TO BE STEEL PIPE PILE 14" X 1/2". AFTER EXCAVATION TO THE PROPOSED FOOTING ELEVATIONS, A TEST PILE SHALL BE DRIVEN AT EACH SUBSTRUCTURE AT THE LOCATION DESIGNATED ON DRAWING NO. U-102-242. A LOAD TEST WILL THEN BE APPLIED TO THE TEST PILE IN ABUTMENT NO.1. FROM THE RESULTS OF THE LOAD TEST, THE ENGINEER OF STRUCTURES WILL DETERMINE THE REQUIRED LENGTH OF THE PRODUCTION PILES AND MINIMUM REQUIRED BEARING. FOR PILE DESIGN LOADS AND CUT-OFF ELEVATIONS, SEE TABLE ON DRAWING NO. U-102-222.

THE CONTRACTOR SHALL INSTALL PILING SUCH THAT ALL THE FOLLOWING REQUIREMENTS ARE MET. THE TIP ELEVATION FOR ALL TEST PILES AND PRODUCTION PILES SHALL BE EQUAL TO OR BELOW THE MINIMUM PILE TIP ELEVATION SHOWN ON THE PLANS. IN ADDITION, TEST PILES TO BE LOAD TESTED SHALL BE INSTALLED TO AT LEAST THE SPECIFIED BEARING SHOWN ON THE PLANS OR FULL LENGTH, WHICHEVER OCCURS FIRST. ALL OTHER TEST PILES SHALL BE INSTALLED TO AT LEAST 1.5 TIMES THE SPECIFIED BEARING SHOWN ON THE PLANS OR FULL LENGTH, WHICHEVER OCCURS FIRST. ALL PRODUCTION PILES SHALL BE INSTALLED FULL LENGTH UNLESS EXCESSIVELY HARD DRIVING WHICH MIGHT DAMAGE THE PILES IS ENCOUNTERED. IF THE PRODUCTION PILES DO NOT ACHIEVE THE MINIMUM REQUIRED BEARING, THE ENGINEER OF STRUCTURES WILL DETERMINE IF ADDITIONAL PILES ARE REQUIRED.

IN THE EVENT THAT DRIVING THE TEST PILE TO AT LEAST THE MINIMUM TIP ELEVATION OR DRIVING THE PRODUCTION PILE FULL LENGTH MIGHT DAMAGE THE PILE BECAUSE OF EXCESSIVELY HARD DRIVING, THE CONTRACTOR SHALL USE OTHER METHODS APPROVED BY THE ENGINEER FOR INSTALLING THE PILES SUCH AS JETTING (WHERE ALLOWED) OR PRE-DRILLING HOLES. HOWEVER, ALL PILES MUST BE DRIVEN BY HAMMER FOR THE LAST FEW FEET OF PENETRATION. NO MEASUREMENT FOR PAYMENT WILL BE MADE FOR PRE-DRILLING HOLES OR FOR JETTING PILING TO OBTAIN THE REQUIRED PILE PENETRATION.

THE PILE LOAD TEST SHALL BE A QUICK LOAD TEST CONDUCTED IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS. THE PILE LOAD TEST APPARATUS FOR APPLYING LOADS AND MEASURING MOVEMENT SHALL MEET THE REQUIREMENTS OF ASTM D1143, STANDARD TEST METHODS FOR DEEP FOUNDATION ELEMENTS UNDER STATIC AXIAL COMPRESSIVE LOAD. WHEN INSUFFICIENT CLEARANCE IS AVAILABLE WITHIN AN EXCAVATION, THE CLEARANCE REQUIREMENTS IN ARTICLE 9.1.1 MAY BE REDUCED, BUT ONLY WITH PRIOR APPROVAL OF THE ENGINEER.

ALTERNATE FRICTION PILES: WITH THE EXCEPTION OF PILE BENTS, THE CONTRACTOR MAY USE AN ALTERNATE PILE TYPE OR SIZE FROM THAT SHOWN ON THE PLANS PROVIDED THE SUBSTITUTION MEETS MINIMUM DESIGN STANDARDS AND SPECIFICATIONS AND IS APPROVED BY THE ENGINEER. FOR PILE BENTS, ANY PROPOSAL OF THE CONTRACTOR TO USE AN ALTERNATE PILE TYPE OR SIZE SHALL BE CONSIDERED VALUE ENGINEERING.

PIPE PILES: SHALL BE PP 14" X 1/2". GRADE 3 MODIFIED WITH A MINIMUM YIELD STRESS OF 50 KSI IN ACCORDANCE WITH ASTM A252. WEATHERING STEEL WILL NOT BE ALLOWED FOR PIPE PILES. ANY PIPE PILE HAVING BENDS, KINKS OR OTHER DEFORMATIONS DURING THE PROCESS OF DRIVING THAT WOULD IMPAIR THE STRENGTH (10% REDUCTION AS DETERMINED BY THE ENGINEER) EFFICIENCY OF THE COMPLETED PILE SHALL BE EITHER REMOVED AND REPLACED OR REPAIRED BY THE CONTRACTOR IN A MANNER SATISFACTORY TO THE ENGINEER. THE CONTRACTOR WILL NOT BE REIMBURSED FOR ANY SUCH PIPE PILE ORDERED REMOVED OR REPLACED BY THE ENGINEER.

PIPE PILE SPLICES: FULL LENGTH PILES SHALL BE USED WHERE PRACTICAL. PILES MAY BE SPLICED WITH THE PRIOR APPROVAL OF THE ENGINEER. SPLICES SHALL USE FULL PENETRATION WELDS DESIGNED TO DEVELOP THE FULL STRENGTH OF THE PILE CROSS-SECTION IN TENSION AND COMPRESSION. ONLY ONE SPlice PER 40 LINEAR FEET OF PILE WILL BE ALLOWED. DRIVE-ON SPLICES SHALL NOT BE USED AND ONLY COMMERCIALY MANUFACTURED SPLICES WILL BE ALLOWED. SPLICING DETAILS MUST BE SUBMITTED TO THE ENGINEER FOR APPROVAL. COST TO BE INCLUDED IN THE COST OF PILES ITEM NO. 606-19.03.

WELDING: SEE SECTION 602 OF THE STANDARD SPECIFICATIONS AND NOTES ON DRAWING NO. U-102-225.

PAINT: PAINT SHALL BE SYSTEM "A" (QPL 3.001) INORGANIC ZINC. COLOR OF THE FINISH COAT SHALL COMPLY WITH FEDERAL STANDARD AMS-STD-595A, COLOR NO. 30059, BROWN. SEE SECTIONS 603 AND 910 OF THE STANDARD SPECIFICATIONS. THE CONTRACTOR SHALL ALSO HAVE THE OPTION TO USE ORGANIC ZINC IN SYSTEM "A" INSTEAD OF AN INORGANIC ZINC. ORGANIC ZINC SYSTEMS SHALL BE FROM QPL 3.002.

PAINTING GIRDERS ENCASED IN CONCRETE: WHERE WEATHERING STEEL GIRDERS ARE ENCASED IN CONCRETE AT INTEGRAL ABUTMENTS, THE GIRDERS SHALL BE PAINTED OVER THE ENTIRE EMBEDMENT LENGTH PLUS AT LEAST ONE FOOT OUTSIDE THE ENCASEMENT. HOWEVER, THE SURFACES EMBEDDED IN CONCRETE SHALL ONLY RECEIVE A COAT OF PRIMER. FOR SURFACES NOT EMBEDDED IN CONCRETE, THE COLOR OF THE TOP COAT SHALL BE BROWN, FEDERAL STANDARD AMS-STD-595A, COLOR NO. 30059.

RADIOGRAPHIC, ULTRASONIC, AND MAGNETIC INSPECTION: SEE SECTION 602 OF THE STANDARD SPECIFICATIONS AND NOTES ON DRAWING NO. U-102-225.

STEEL STRUCTURES: SEE TENNESSEE STANDARD SPECIFICATIONS SECTION 602 AND NOTES ON DRAWING NO. U-102-225.

PROTECTION OF SUBSTRUCTURES: SINCE THIS BRIDGE UTILIZES WEATHERING STEEL, THE CONTRACTOR MUST TAKE SPECIAL PRECAUTIONS TO PREVENT STAINING OF ABUTMENTS. PRIOR TO THE ERECTION OF ANY STEEL, THE TOPS AND SIDES OF THE COMPLETED SUBSTRUCTURES SHALL BE PROTECTED FROM STAINING BY WRAPPING WITH TRANSLUCENT, REINFORCED, HIGH DENSITY, TWO-PLY, CROSS-LAMINATED POLYETHYLENE.

IN LIEU OF THIS PROTECTION, THE CONTRACTOR MAY ELECT TO THOROUGHLY CLEAN THE CONCRETE OF RUST STAINING BY SANDBLASTING OR OTHER APPROVED METHODS, PRIOR TO APPLYING A TEXTURE-COATED FINISH. NO SEALANT TYPE MATERIALS SHALL BE APPLIED WHICH ARE INCOMPATIBLE WITH THE TEXTURE-COATED FINISH UNLESS THEY CAN BE THOROUGHLY REMOVED PRIOR TO APPLYING THE FINISH. TEXTURE-COATING OF THE SUBSTRUCTURE SHALL BE DELAYED UNTIL AFTER THE DECK IS COMPLETED.

AFTER A SUBSTRUCTURE HAS RECEIVED ITS FINAL FINISH, THE TOP AND SIDES SHALL BE PROTECTED FROM STAINING BY WRAPPING WITH REINFORCED POLYETHYLENE, WHICH, IF BEING REUSED, SHALL BE IN GOOD CONDITION AND FREE FROM HOLES AND TEARS. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO PROTECT THE SUBSTRUCTURES FROM STAINING FOR THE DURATION OF THE CONTRACT. ANY CORRECTIVE TEXTURE-COATING SHALL BE AT HIS EXPENSE. COST TO BE INCLUDED IN THE UNIT PRICE BID FOR OTHER ITEMS.

PILE DATA TABLE

LOCATION	DESIGN LOAD (TONS)	TEST PILE CUT-OFF ELEV. (FT.)	ESTIMATED PILE LENGTH (FT.)	TEST PILE LENGTH (FT.)	MINIMUM PILE TIP ELEVATION (FT.)
ABUTMENT NO. 1	130	313.86	50	60	N/A
ABUTMENT NO. 2	130	314.10	80	90	N/A

BLAST CLEANING: ALL GIRDERS AND ALL FAYING SURFACES OF FIELD SPLICES OF ALL GIRDERS SHALL BE BLAST CLEANED IN ACCORDANCE WITH THE STEEL STRUCTURES PAINTING COUNCIL SURFACE PREPARATION SPECIFICATIONS "NO. 6 COMMERCIAL BLAST CLEANING" SSPC-SP 6 (OR NACE EQUIVALENT). PRIOR TO BOLTING, ANY LOOSE RUST ON THE FAYING SURFACES SHALL BE REMOVED.

FINAL APPEARANCE: PRIOR TO FINAL ACCEPTANCE, ALL STRUCTURAL STEEL SHALL BE FREE OF GREASE, OIL, CHALK MARKS, PAINT, CONCRETE SPATTER AND SIMILAR SOILAGE. DEPENDING ON THE LOCATION, WITH RESPECT TO VIEW AND SEVERITY OF THE FOREGOING SOILAGE, THE STRUCTURAL STEEL SHALL BE CLEANED UNDER THE PROVISIONS OF ONE OF THE FOLLOWING STEEL STRUCTURES PAINTING COUNCIL SURFACE PREPARATION SPECIFICATIONS:

- NO. 1 SOLVENT CLEANING - SSPC-SP 1
- NO. 2 HAND CLEANING - SSPC-SP 2
- NO. 3 POWER TOOL CLEANING - SSPC-SP 3
- NO. 7 BRUSH-OFF BLAST CLEANING - SSPC-SP 7 (OR NACE EQUIVALENT)

WEATHERING BOLTS: ALL BOLTS SHALL BE ASTM F3125 GRADE A325 TYPE 3 UNLESS NOTED OTHERWISE. ALL BOLTS, NUTS, AND WASHERS SHALL HAVE THE SAME WEATHERING CHARACTERISTICS AS THE STRUCTURAL STEEL USED. IN LIEU OF USING DIRECT TENSION INDICATORS (DTI'S), ALL BOLTS SHALL BE INSTALLED BY EITHER TURN-OF-NUT TIGHTENING OR CALIBRATED WRENCH TIGHTENING IN ACCORDANCE WITH SECTION 602 OF THE STANDARD SPECIFICATIONS AND THE AASHTO LRFD BRIDGE CONSTRUCTION SPECIFICATIONS, CURRENT EDITION.

UTILITIES: IT IS INTENDED THAT THE COST OF MATERIALS AND LABOR NECESSARY FOR THE COMPLETE INSTALLATION OF UTILITIES SHALL BE BORNE BY OTHERS AND SHALL NOT BE PAID FOR AS A PART OF THIS CONTRACT. THE CONTRACTOR SHALL COOPERATE WITH OTHERS IN THE INSTALLATION OF UTILITIES WITH NO ADDITIONAL COMPENSATION ALLOWED THE CONTRACTOR AS A RESULT.

SHOP DRAWINGS: SEE SECTION 105.02 OF THE STANDARD SPECIFICATIONS.

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.

MEDIAN BARRIER: THE REINFORCED CONCRETE MEDIAN BARRIER RAIL SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE DETAILS SHOWN ON DRAWING STD-1-3SS AND SHALL BE GIVEN AN APPLIED TEXTURE FINISH. THE COLOR OF THE FINISH SHALL BE WHITE, FEDERAL STANDARD AMS-STD-595A COLOR NO. 37886. THE COST OF THE FINISH SHALL BE INCLUDED IN THE LINEAR FOOT PRICE BID FOR THE MEDIAN RAIL. PRECAST BRIDGE DECK PANELS ARE NOT PERMITTED IN THE BAY SUPPORTING THE MEDIAN BARRIER RAIL.

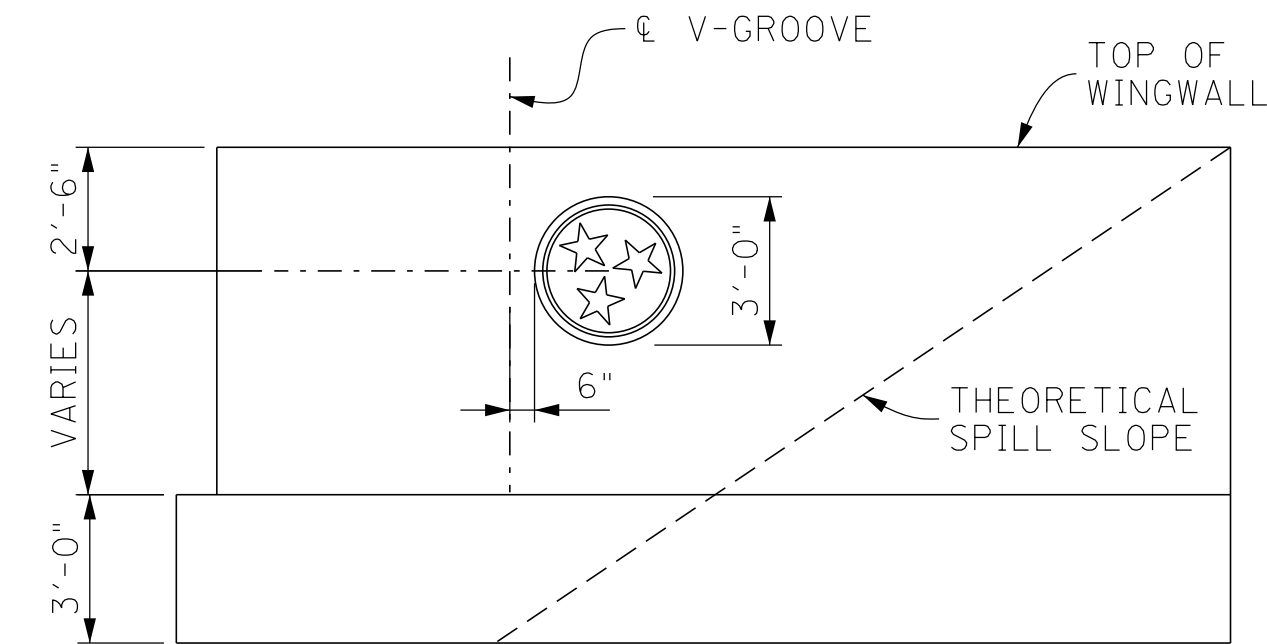
VALUE ENGINEERING ALTERNATE BRIDGE DESIGN CRITERIA: ALTERNATE BRIDGE DESIGN PROPOSALS MAY NOT DIMINISH THE FUNCTIONAL OR STRUCTURAL EQUIVALENCY OF THE BRIDGE AND MUST MEET OR EXCEED THE CAPACITIES OF THE CONTRACT PLANS STRUCTURE AT ALL LIMIT STATES IN AASHTO TABLE 3.4.1-1. ADDITIONALLY, THE WATERWAY 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.

FALSEWORK OVER TRAFFIC: SEE SECTION 604.06 OF THE STANDARD SPECIFICATIONS.

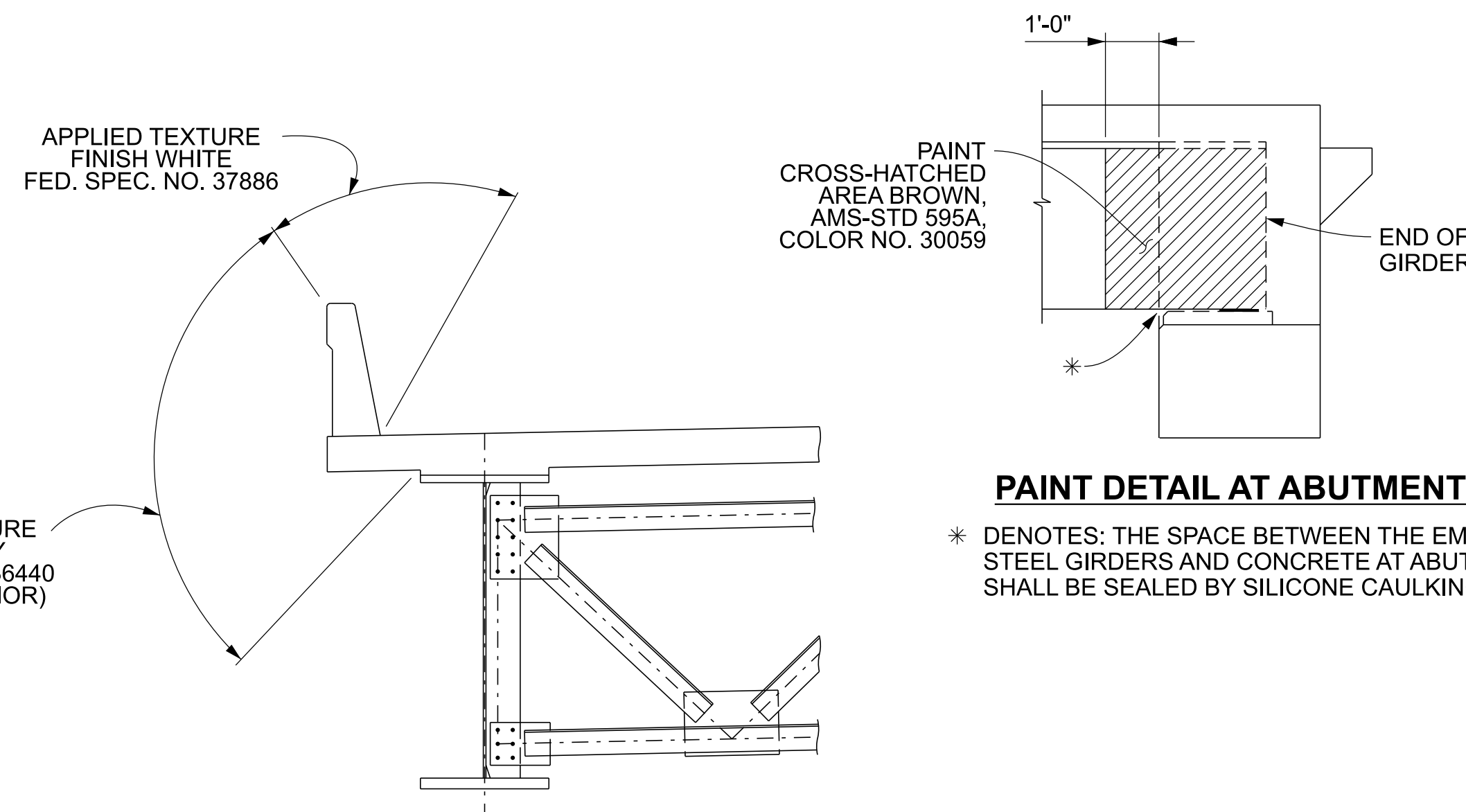
FINISHING CONCRETE SURFACES: CONCRETE FINISHING SHALL BE IN ACCORDANCE WITH SECTION 604.21 OF THE STANDARD SPECIFICATIONS. A CLASS I FINISH FOLLOWED BY AN APPLIED TEXTURE FINISH SHALL BE USED IN LIEU OF A CLASS II FINISH. NO TEXTURE FINISH SHALL BE APPLIED PRIOR TO COMPLETION OF PAVING AND HAULING OPERATIONS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

CONST. NO.: 79020-3253-14

PROJECT NO.	YEAR	SHEET NO.	
STP/NH-4(6)	2026		
REVISIONS			
NO.	DATE	BY	BRIEF DESCRIPTION
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TRI-STAR TREATMENT AT ABUTMENT WINGWALL
(TYP. PER WINGWALL)



PAINT DETAIL AT ABUTMENTS

* DENOTES: THE SPACE BETWEEN THE EMBEDDED STEEL GIRDERS AND CONCRETE AT ABUTMENTS SHALL BE SEALED BY SILICONE CAULKING.

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, AND EXTERIOR PORTIONS OF THE ENDWALLS SHALL RECEIVE AN APPLIED TEXTURE FINISH. (GRAY, FEDERAL STANDARD AMS-STD-595A, COLOR NO. 36440).

BRIDGE NO. 4
STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

GENERAL NOTES
STATE ROUTE 4 (LAMAR AVE.)
OVER WINCHESTER ROAD
BRIDGE ID NO. 79SR0040043
LOG MILE 4.82
STATION 570+62.91
SHELBY COUNTY

U-102-222

PIN NO.: 100340.00
DESIGN BY: A. OMAR DATE: 10/2025
DRAWN BY: P. MOSHER DATE: 02/2026
SUPERVISED BY: D.E./D.S. DATE: 10/2025
CHECKED BY: D. SHIKE DATE: 01/2026

PROJECT NO.		YEAR	SHEET NO.
STP/NH-4(6)		2026	
REVISIONS			
NO.	DATE	BY	BRIEF DESCRIPTION
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ESTIMATED QUANTITIES

ITEM NO.	DESCRIPTION	UNIT	TOTAL	SUPERSTRUCTURE	ABUT. NO. 1	ABUT. NO. 2
(2)	204-02.01 DRY EXCAVATION (BRIDGES)	C.Y.	388		194	194
(7)	303-01.02 GRANULAR BACKFILL (BRIDGES)	TON	92		46	46
(3)	602-04.02 STEEL STRUCTURES (BRIDGE NO. 4, 69" WEB, WELDED PLATE GIRDER)	L.S.	1			
(4)	602-10.62 BEARING DEVICE (BRIDGE NO. 4 ABUTMENTS)	EACH	24		12	12
	604-02.03 EPOXY COATED REINFORCING STEEL	LB.	151,585	137,387	7,099	7,099
	604-03.01 CLASS A CONCRETE (BRIDGES)	C.Y.	196		98	98
	604-03.02 STEEL BAR REINFORCEMENT (BRIDGES)	LB.	39,383		19,699	19,684
(1)	604-03.04 PAVEMENT @ BRIDGE ENDS	S.Y.	585			
	604-03.32 CLASS DS CONCRETE (BRIDGE DECK)	C.Y.	894	518	188	188
	604-04.01 APPLIED TEXTURE FINISH (NEW STRUCTURES)	S.Y.	776	366	205	205
	604-04.41 THREE STAR STATE EMBLEM	EACH	4		2	2
	604-05.31 BRIDGE DECK GROOVING (MECHANICAL)	S.Y.	2,780			
	606-18.01 TEST PILES (STEEL PIPE PILES 14-INCH)	L.F.	150		60	90
	606-18.02 LOADING TEST (STEEL PIPE PILES, 14-INCH)	EACH	1		1	
	606-18.03 STEEL PIPE PILES (14-INCH)	L.F.	4,810		1,850	2,960
(8)	620-05.01 CONCRETE PARAPET SINGLE SLOPE (STD-1-1SS)	L.F.	419			
(6)	710-09.01 6" PERFORATED PIPE WITH VERTICAL DRAIN SYSTEM	L.F.	378		189	189
	710-09.02 6" PIPE UNDERDRAIN	L.F.	80		40	40
	711-05.74 CONCRETE MEDIAN BARRIER SINGLE SLOPE (STD-1-3SS)	L.F.	228			

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: EXCAVATION BASED ON FINAL PROFILE AT ABUTMENTS.
- (3) NOTE: LUMP SUM: TOTAL ESTIMATED WEIGHT OF 1,319,339 LBS. OF STRUCTURAL STEEL INCLUDES GIRDERS, GIRDER BEARING DEVICES, FIELD SPLICES, CROSS-FRAMES, STIFFENERS, LATERAL BRACES, SHEAR CONNECTORS, TAB CONNECTION PLATES, BOLTS, ETC. ALSO SEE STANDARD SPECIFICATIONS SECTIONS 602.49 AND 602.50.
- (4) NOTE: THE COST OF BEARING DEVICE INCLUDES ALL MATERIALS AND LABOR NECESSARY FOR THE INSTALLATION OF ANCHOR BOLTS, ELASTOMERIC BEARING PAD, AND SOLE OR BEVELED PLATES.
- (5) NOTE: THE COST OF BITUMINOUS-FIBERBOARD AND ALL MISCELLANEOUS JOINT MATERIAL TO BE INCLUDED IN THE UNIT PRICE BID FOR OTHER ITEMS.
- (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: GRANULAR BACKFILL SHALL BE TYPE "A" GRADING "D" MATERIAL. SEE STANDARD DRAWING STD-10-1.
- (8) NOTE: COST OF 3 BRIDGE DECK DRAINS TO BE INCLUDED IN THE UNIT BID FOR PARAPET.

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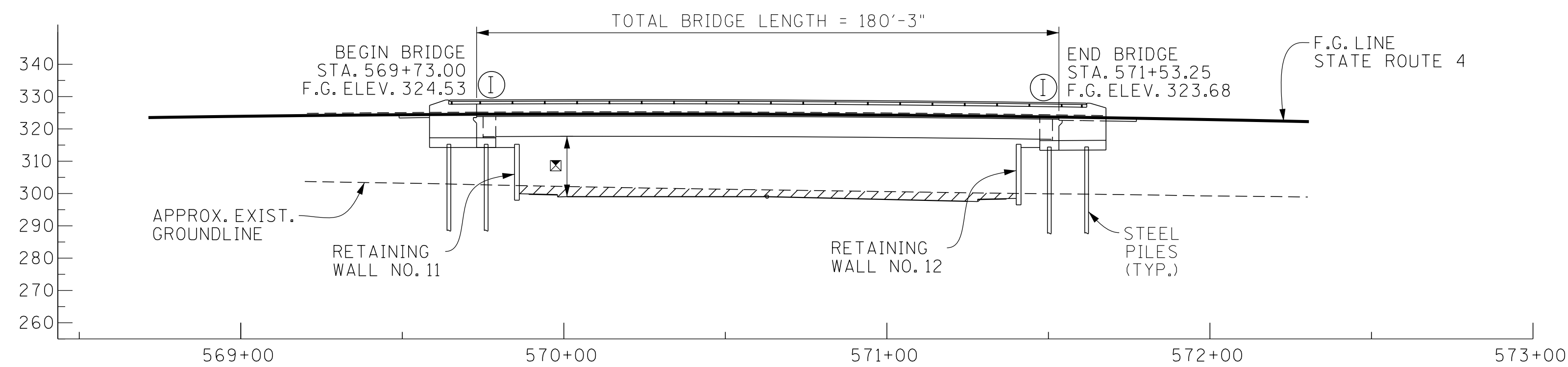
BRIDGE NO. 4
STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

ESTIMATED QUANTITIES
STATE ROUTE 4 (LAMAR AVE.)
OVER WINCHESTER ROAD
BRIDGE ID NO. 79SR0040043
LOG MILE 4.82
STATION 570+62.91
SHELBY COUNTY

PIN NO.: 100340.00
DESIGN BY: A. OMAR DATE: 10/2025
DRAWN BY: D. EASTERLY DATE: 02/2026
SUPERVISED BY: D.E./D.S. DATE: 10/2025
CHECKED BY: D. SHIKE DATE: 01/2026

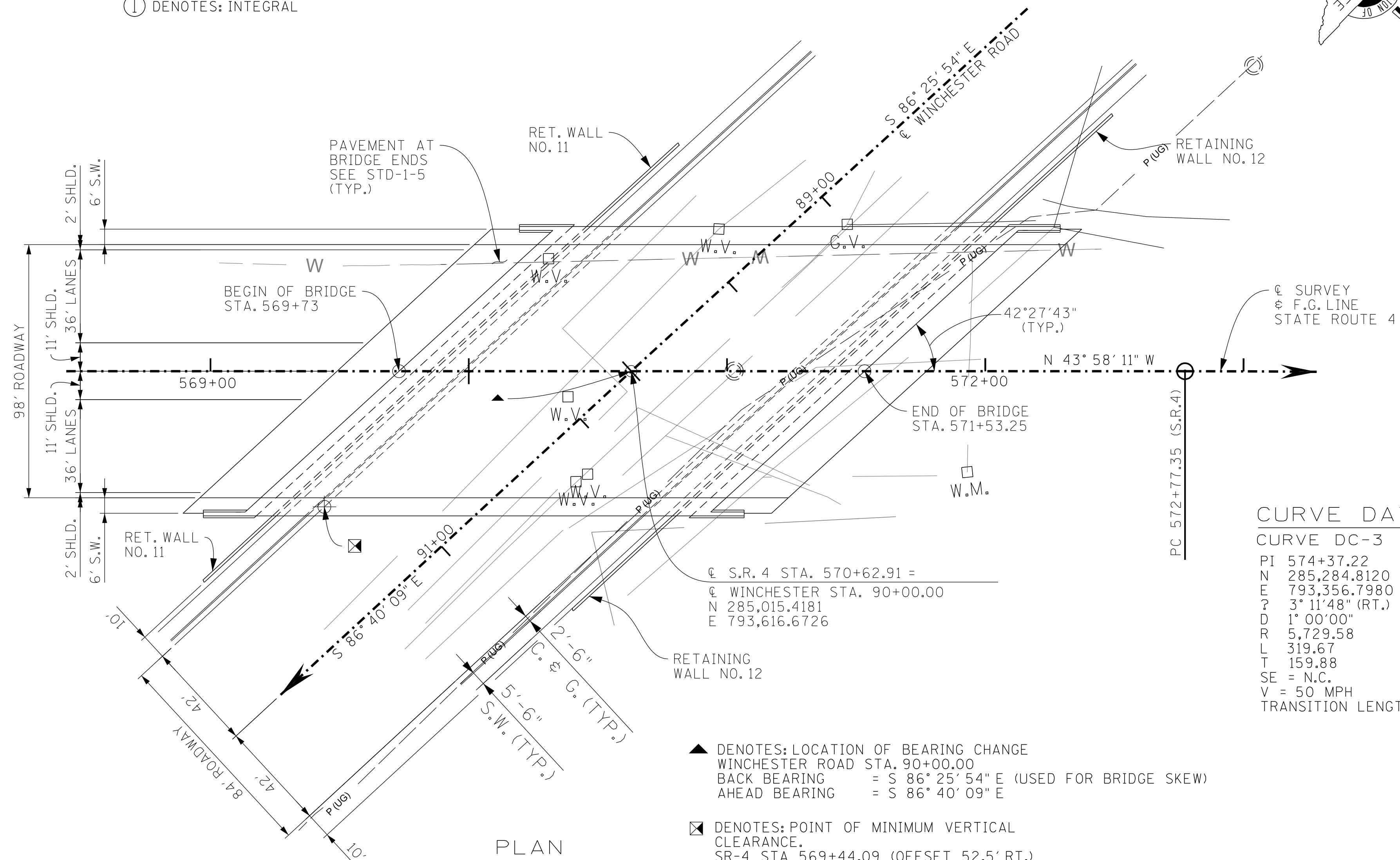
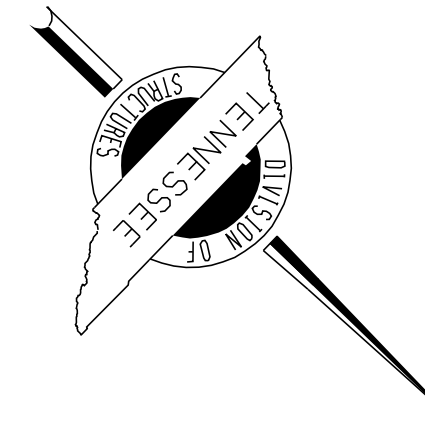
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PROJECT NO.	YEAR	SHEET NO.	
STP/NH-4(6)	2026		
REVISIONS			
NO.	DATE	BY	BRIEF DESCRIPTION
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- DENOTES: AREA TO BE EXCAVATED AND PAID FOR AS A ROADWAY ITEM.
- DENOTES: MINIMUM VERTICAL CLEARANCE TO BOTTOM OF GIRDER = 16'-7"
- DENOTES: INTEGRAL

ELEVATION



CURVE DATA
 CURVE DC-3 (S. R. 4)

PI	574+37.22
N	285,284.8120
E	793,356.7980
? (RT.)	3° 11' 48"
D	1° 00' 00"
R	5,729.58
L	319.67
T	159.88
SE	= N.C.
V	= 50 MPH
TRANSITION LENGTH	= 0

- DENOTES: LOCATION OF BEARING CHANGE
 WINCHESTER ROAD STA. 90+00.00
 BACK BEARING = S 86° 25' 54" E (USED FOR BRIDGE SKEW)
 AHEAD BEARING = S 86° 40' 09" E
- DENOTES: POINT OF MINIMUM VERTICAL CLEARANCE.
 SR-4 STA 569+44.09 (OFFSET 52.5' RT.)
 WINCHESTER STA. 91+22.94 (OFFSET 42' RT.)

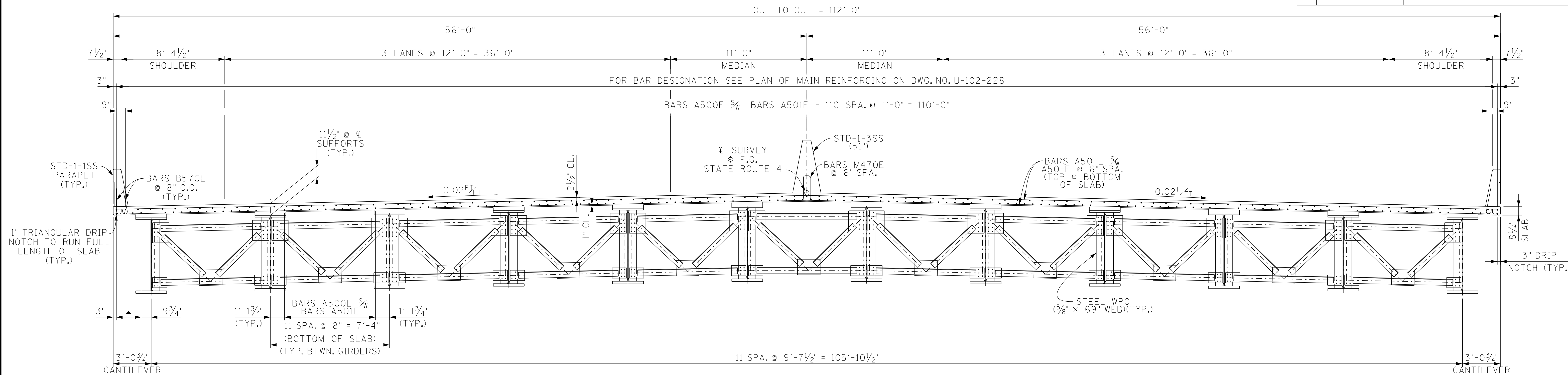
NOTE: THIS DRAWING IS FOR FOUNDATION DATA ONLY AND IS NOT TO BE USED AS A LAYOUT.

BRIDGE NO. 4
 STATE OF TENNESSEE
 DEPARTMENT OF TRANSPORTATION

FOUNDATION DATA
 STATE ROUTE 4 (LAMAR AVE.)
 OVER WINCHESTER ROAD
 BRIDGE ID NO. 79SR0040043
 LOG MILE 4.82
 STATION 570+62.91
 SHELBY COUNTY

PIN NO.: 100340.00
 DESIGN BY: A. OMAR DATE: 10/2025
 DRAWN BY: A. HUNTER DATE: 02/2026
 SUPERVISED BY: D.E./D.S. DATE: 10/2025
 CHECKED BY: D. SHIKE DATE: 01/2026

PROJECT NO.	YEAR	SHEET NO.	
STP/NH-4(6)	2026		
REVISIONS			
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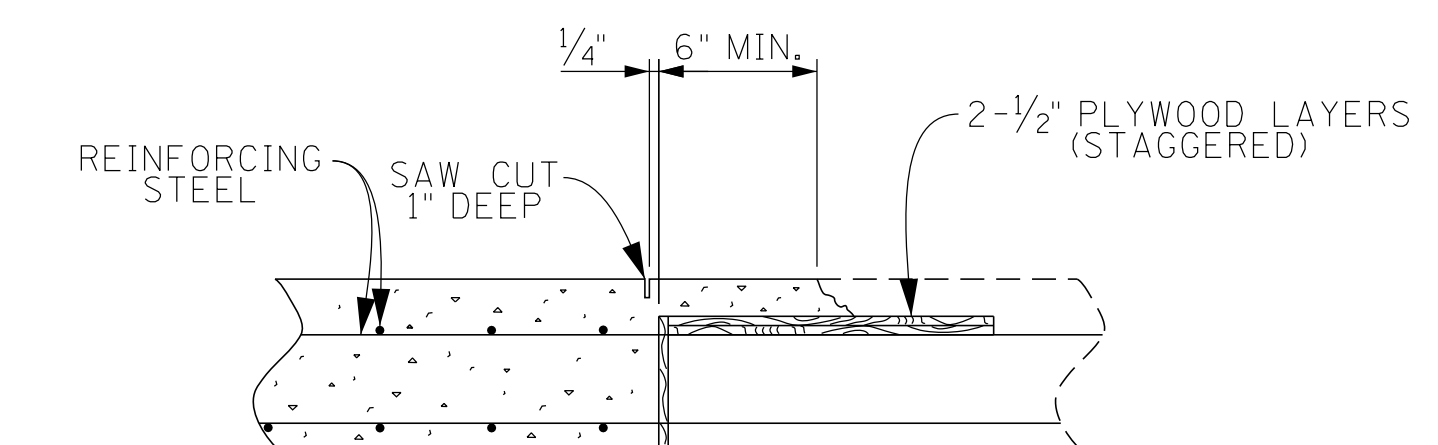


▲ DENOTES: BARS A500E $\frac{5}{8}$ " A501E - 3 SPA. @ 8" = 2'-0" (BOTTOM OF SLAB) (TYP. @ CANTILEVERS)

NOTES:

- NOTE: ALL SLAB CONSTRUCTION JOINTS SHALL BE IN ACCORDANCE WITH THE SLAB CONSTRUCTION JOINT DETAILS SHOWN ON DWG. NO. U-102-225.
- NOTE: THE CONTRACTOR SHALL MAKE ADEQUATE PROVISIONS DURING PLACEMENT OF THE SLAB TO PREVENT THE EXTERIOR GIRDERS FROM TWISTING.
- NOTE: NO PORTION OF THE PARAPET AND MEDIAN BARRIER RAIL SHALL BE POURED UNTIL THE ENTIRE DECK SLAB IS IN PLACE.
- NOTE: THE CONCRETE DECK SHALL NOT BE POURED UNTIL ALL STRUCTURAL STEEL IS ERECTED AND ALL WELDING AND/OR BOLTING IS COMPLETE.
- DEAD LOAD CORRECTION CURVE: GIRDERS SHALL BE CAMBERED TO COMPENSATE FOR DEAD LOAD DEFLECTION AND VERTICAL CURVE.
- NOTE: WHEN POURING SLAB, PROVISIONS SHALL BE MADE FOR SETTING REINFORCING STEEL AND ANCHOR BOLTS FOR PARAPETS AND MEDIAN BARRIER. THE PARAPETS AND MEDIAN BARRIER SHALL NOT BE POURED UNTIL SLAB IS POURED AND CURED. WHEN POURING PARAPETS, PROVISIONS SHALL BE MADE FOR SETTING ANCHOR BOLTS FOR HANDRAILS. ALSO SEE STD. DWG. NO. STD-1-3SS AND STD-1-1SS.
- APPROVAL OF MATERIALS: NO FABRICATION SHALL BE STARTED UNTIL THE MATERIALS INVOLVED HAVE BEEN APPROVED BY THE TENNESSEE DEPARTMENT OF TRANSPORTATION, DIVISION OF MATERIALS AND TESTS WITH A COPY OF THE TEST REPORTS ALSO GOING TO THE TENNESSEE DEPARTMENT OF TRANSPORTATION, DIVISION OF MATERIALS AND TESTS.
- IDENTITY OF MAIN MATERIALS: SEE SECTION 602 OF THE STANDARD SPECIFICATIONS.
- STRUCTURAL STEEL: SHALL CONFORM TO ASTM A709 GRADE 50W UNLESS OTHERWISE NOTED. ALL STRUCTURAL STEEL FOR GIRDER FLANGES IN TENSION AND ALL WEBS SHALL MEET THE SUPPLEMENTAL REQUIREMENTS FOR LONGITUDINAL CHARPY V-NOTCH TESTS SPECIFIED IN THE ASTM SPECIFICATIONS. ZONE 2 OF NON-FRACTURE CRITICAL CRITERIA SHALL APPLY.

- SHALL EXCLUDE THREADS FROM ALL SHEAR PLANES. SEE AASHTO LRFD BRIDGE CONSTRUCTION SPECIFICATIONS ART.11.3.2 AND SECTION 602 OF THE STANDARD SPECIFICATIONS.
- ADDITIONAL SHOP SPLICE NOTE: SHOP SPLICES NECESSARY DUE TO LENGTHS OR SIZE OF MATERIAL INVOLVED MAY BE ADDED BY THE FABRICATOR SUBJECT TO APPROVAL BY THE ENGINEER AND SHALL BE AT NO ADDITIONAL COST TO THE PROJECT.
- ADDITIONAL FIELD SPLICE NOTE: FIELD SPLICES NECESSARY DUE TO LENGTHS INVOLVED MAY BE ADDED BY THE FABRICATOR SUBJECT TO APPROVAL BY THE ENGINEER AND SHALL BE AT NO ADDITIONAL COST TO THE PROJECT.
- FIELD SPLICE NOTE: FIELD SPLICES SHOWN ON THE PLANS MAY BE DELETED BY THE CONTRACTOR. ADJUSTMENT TO THE LUMP SUM PRICE FOR STEEL STRUCTURES SHALL BE IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS.
- STEEL BEAM DESIGN DATA (PER BEAM):
LIVE LOAD DISTRIBUTION FACTOR: 0.83 LANES FOR MOMENT
1.07 LANES FOR SHEAR
0.80 LANES FOR FATIGUE
- COMPOSITE DEAD LOAD: DC = 241LB/FT
COMPOSITE DEAD LOAD: DW = 286 LB/FT
COMPOSITE SLAB DESIGN STRENGTH: FC = 4000 PSI
- GIRDER ERECTION: GIRDERS MAY HAVE TO BE CRANE-LIFTED, JACKED, NEEDLE-BEAMED, ETC. TO ACHIEVE THE PROPER CROSS-SLOPE AND HOLE ALIGNMENT DURING TRANSVERSE BRACING INSTALLATION. ALL TRANSVERSE BRACING SHALL BE IN PLACE AND ALL BOLTS TENSIONED TO THE PLANS SPECIFIED VALUES PRIOR TO THE SLAB POUR. ALL COSTS OF TRANSVERSE BRACING INSTALLATION TO BE INCLUDED IN THE LUMP SUM COST OF STEEL STRUCTURES.
- GIRDER TRANSVERSE BRACING: STRAIGHT GIRDER TRANSVERSE BRACING SHALL BE FABRICATED FOR TOTAL CAMBER MINUS GIRDER SELF WEIGHT CAMBER.



SLAB CONSTRUCTION JOINT DETAIL
(N.T.S.)

NOTE: ALL DECK POURS SHALL BE MADE IN NUMERICAL SEQUENCE. THE SLAB SHALL NOT BE POURED UNTIL ALL STRUCTURAL STEEL IS ERECTED AND ALL WELDING OR BOLTING IS COMPLETE. THE CONTRACTOR SHALL MAKE ADEQUATE PROVISIONS DURING PLACEMENT OF THE SLAB TO PREVENT THE EXTERIOR BEAM FROM TWISTING. NO PORTION OF THE CURB OR PARAPET SHALL BE POURED UNTIL ENTIRE SLAB IS IN PLACE.

ALL SLAB CONSTRUCTION JOINT SHALL BE IN ACCORDANCE WITH THE SLAB CONSTRUCTION JOINT DETAIL SHOWN ABOVE.

SEALED BY

BRIDGE NO. 4
STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

SUPERSTRUCTURE
STATE ROUTE 4 (LAMAR AVE.)
OVER WINCHESTER ROAD
BRIDGE ID NO. 79SR0040043
LOG MILE 4.82
STATION 570+62.91
SHELBY COUNTY

PIN NO.:	100340.00
DESIGN BY:	A. OMAR
DRAWN BY:	A. HUNTER
SUPERVISED BY:	D.E./D.S.
CHECKED BY:	D. SHIKE
DATE:	10/2025
DATE:	01/2026
DATE:	10/2025
DATE:	01/2026

WELDING: AASHTO/AWS D1.5-CURRENT EDITION BRIDGE WELDING CODE AND SECTION 602 OF THE STANDARD SPECIFICATIONS.

FIELD CONNECTIONS: SHALL BE 1"Ø HIGH TENSILE STRENGTH BOLTS ASTM F3125 GRADE A325 TYPE 3 UNLESS OTHERWISE SHOWN. BOLT LENGTHS

SHAE CONNECTORS: SHEAR CONNECTOR MATERIAL SHALL BE COLD-DRAWN ASTM A108 GRADE 1015, 1018, OR 1020, EITHER SEMI OR FULLY KILLED, AND HAVE SPECIFIED MINIMUM YIELD AND TENSILE STRENGTHS OF 50 KSI AND 60 KSI, RESPECTIVELY.

7:38:18 AM 3/9/2026

PROJECT NO.		YEAR	SHEET NO.
STP/NH-4(6)		2026	
REVISIONS			
NO.	DATE	BY	BRIEF DESCRIPTION
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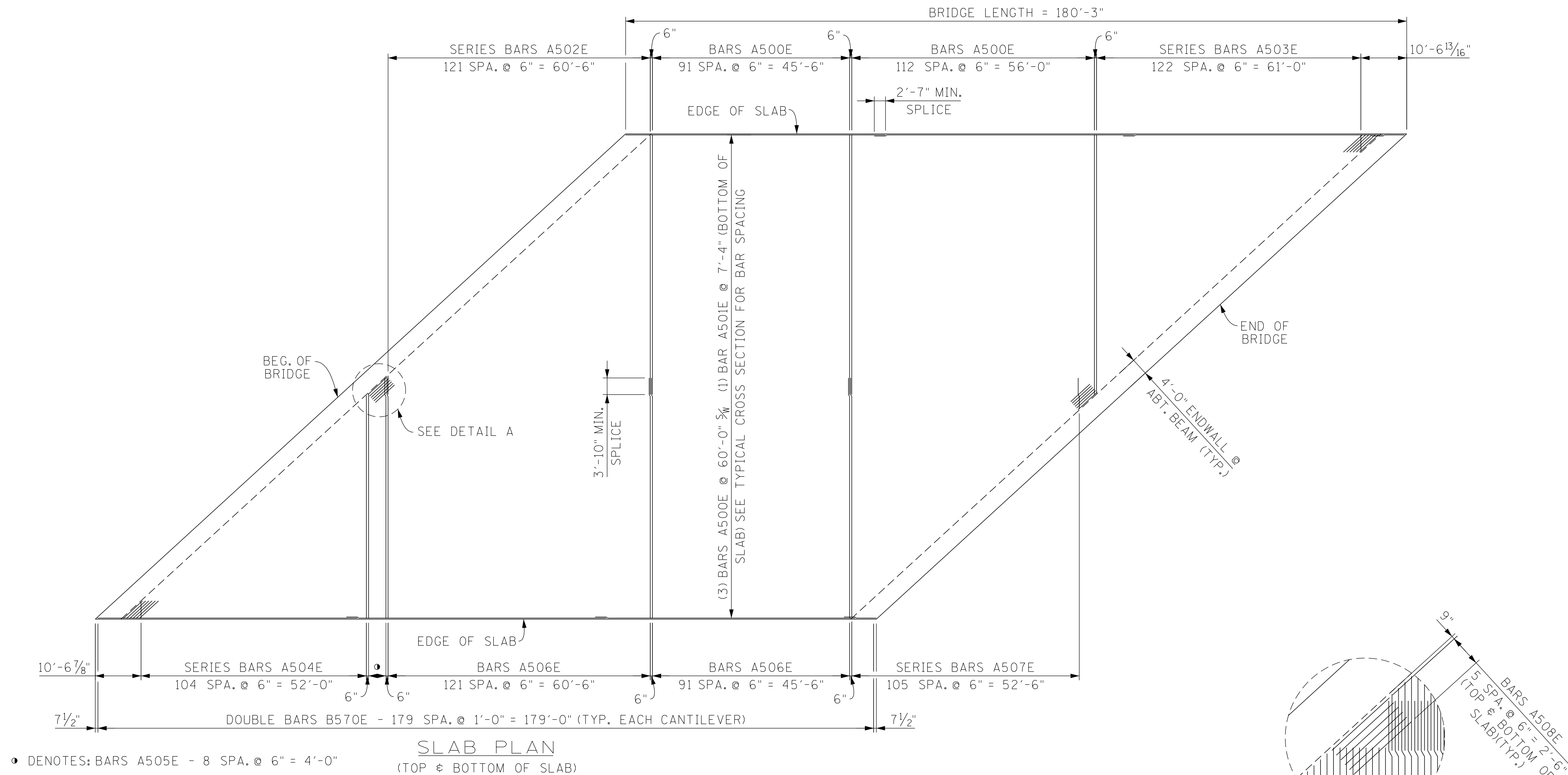
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BRIDGE NO. 4
 STATE OF TENNESSEE
 DEPARTMENT OF TRANSPORTATION

SUPERSTRUCTURE NOTES
 STATE ROUTE 4 (LAMAR AVE.)
 OVER WINCHESTER ROAD
 BRIDGE ID NO. 79SR0040043
 LOG MILE 4.82
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 SHELBY COUNTY

PIN NO.: 100340.00
 DESIGN BY: A. OMAR DATE: 10/2025
 DRAWN BY: A. HUNTER DATE: 01/2026
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PROJECT NO.	YEAR	SHEET NO.	
STP/NH-4(6)	2026		
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BRIDGE NO. 4
STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

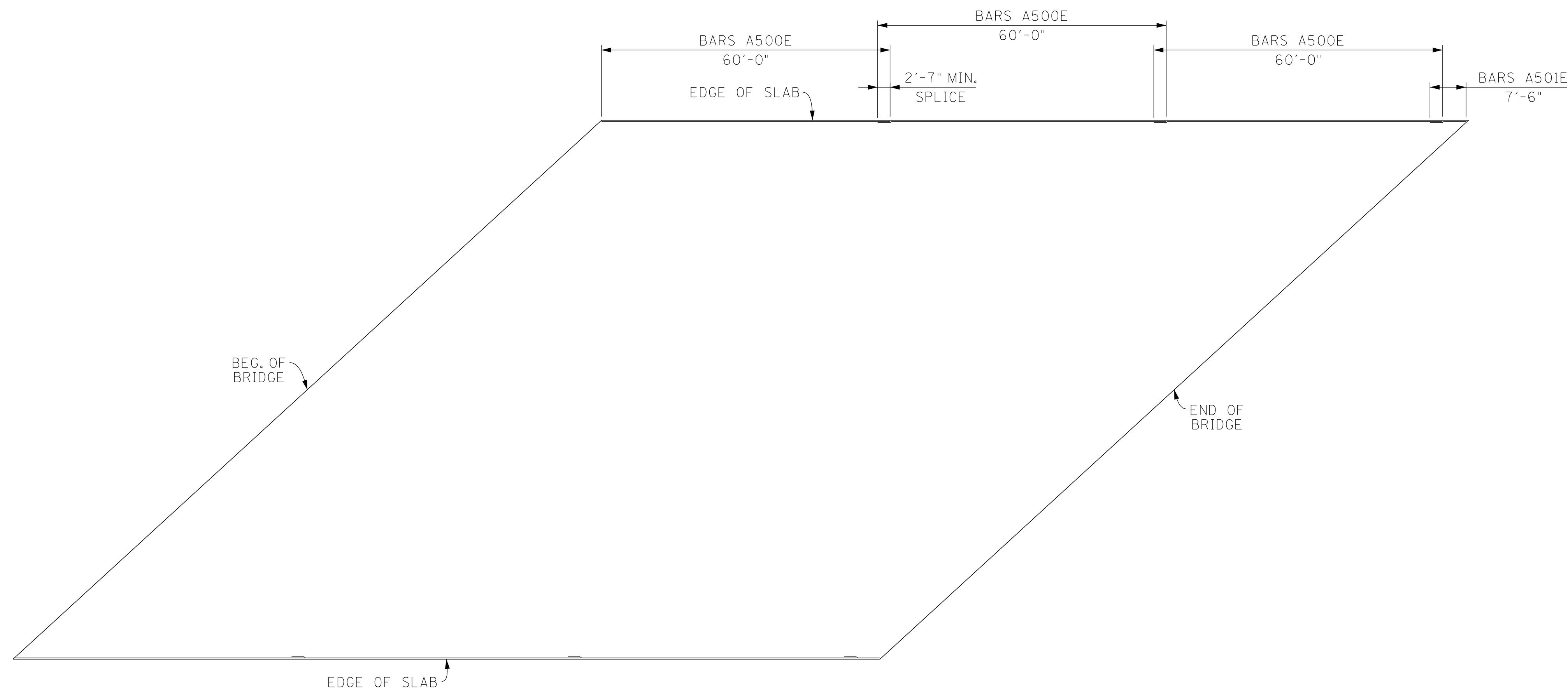
SUPERSTRUCTURE DETAILS
STATE ROUTE 4 (LAMAR AVE.)
OVER WINCHESTER ROAD
BRIDGE ID NO. 79SR0040043
LOG MILE 4.82
STATION 570+62.91
SHELBY COUNTY

U-102-227

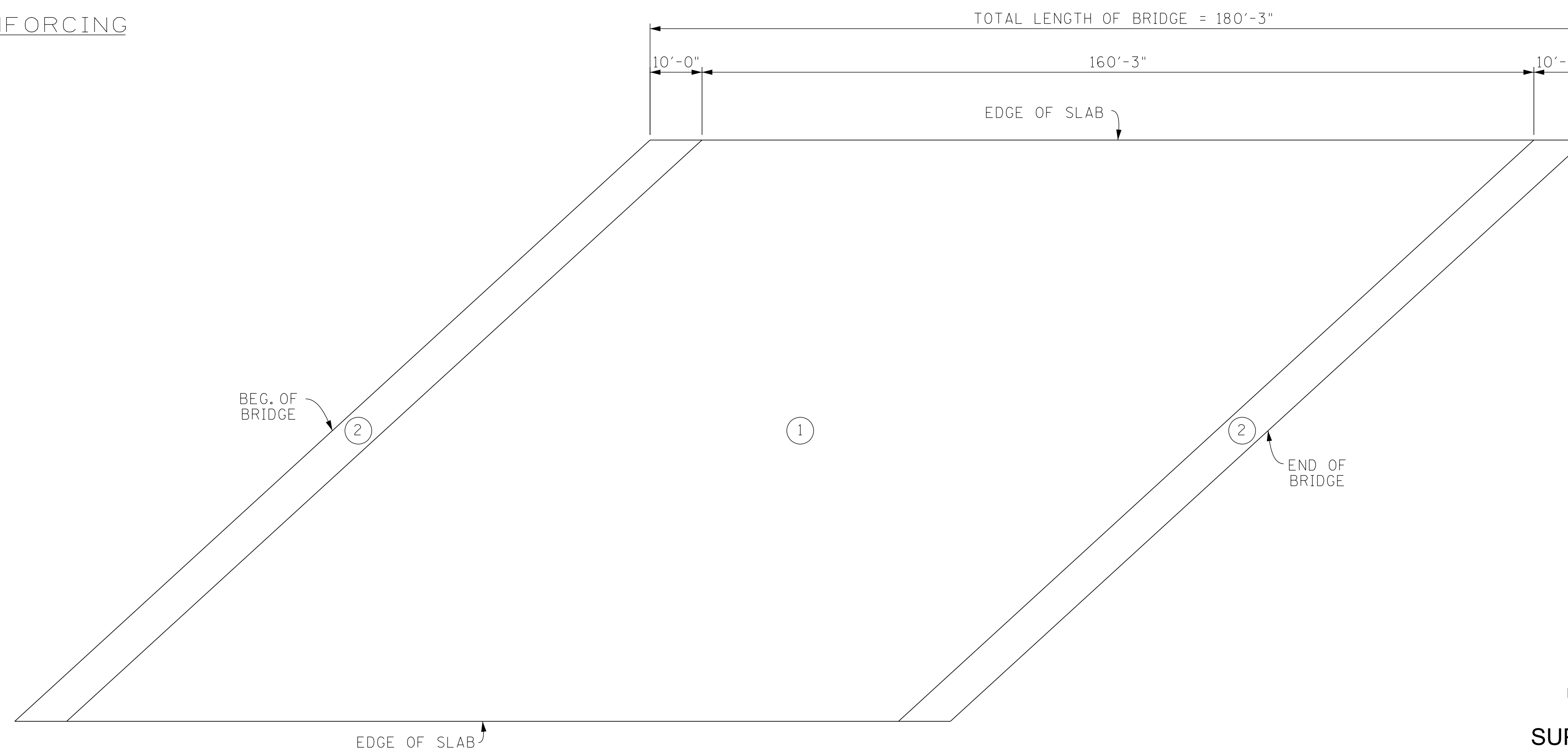
PIN NO.: 100340.00
DESIGN BY: A. OMAR DATE: 10/2025
DRAWN BY: A. HUNTER DATE: 01/2026
SUPERVISED BY: D.E./D.S. DATE: 10/2025
CHECKED BY: D. SHIKE DATE: 01/2026

3/9/2026 1:44:15 PM

PROJECT NO.	YEAR	SHEET NO.	
STP/NH-4(6)	2026		
REVISIONS			
NO.	DATE	BY	BRIEF DESCRIPTION
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PLAN OF MAIN REINFORCING
(TOP OF SLAB)



SLAB POURING SEQUENCE

NOTE: ALL SLAB POURS SHALL BE MADE IN NUMERICAL SEQUENCE.

SEALED BY

BRIDGE NO. 4
STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

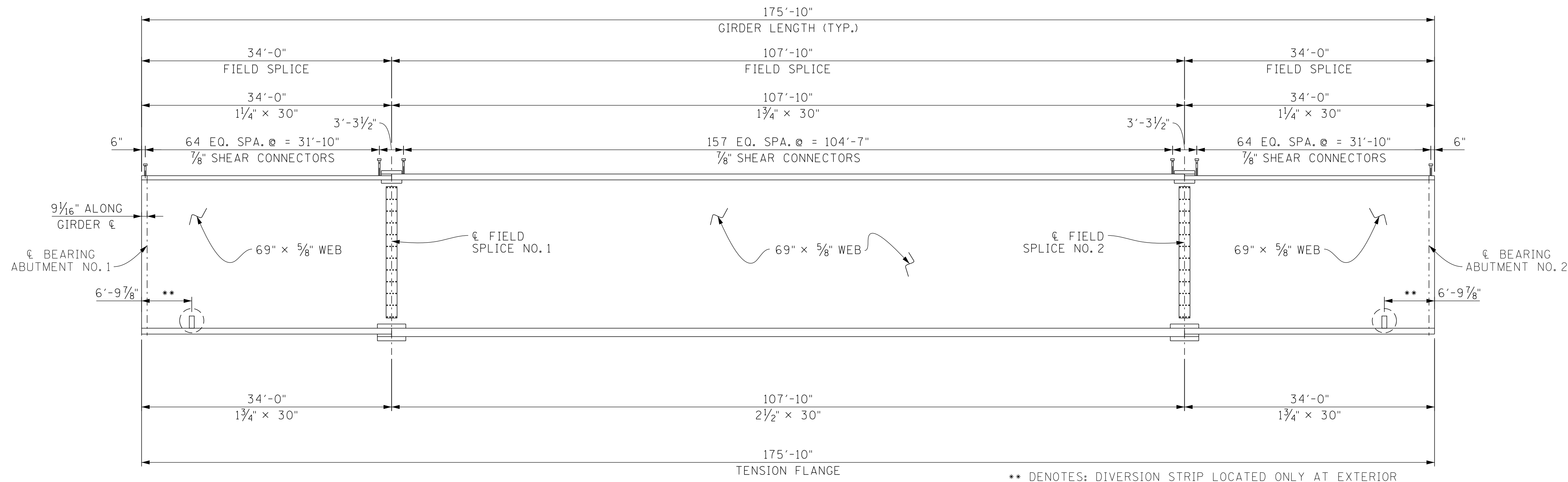
SUPERSTRUCTURE DETAILS
STATE ROUTE 4 (LAMAR AVE.)
OVER WINCHESTER ROAD
BRIDGE ID NO. 79SR0040043
LOG MILE 4.82
STATION 570+62.91
SHELBY COUNTY

U-102-228

PIN NO.: 100340.00
DESIGN BY: A. OMAR DATE: 10/2025
DRAWN BY: A. HUNTER DATE: 01/2026
SUPERVISED BY: D.E./D.S. DATE: 10/2025
CHECKED BY: D. SHIKE DATE: 01/2026

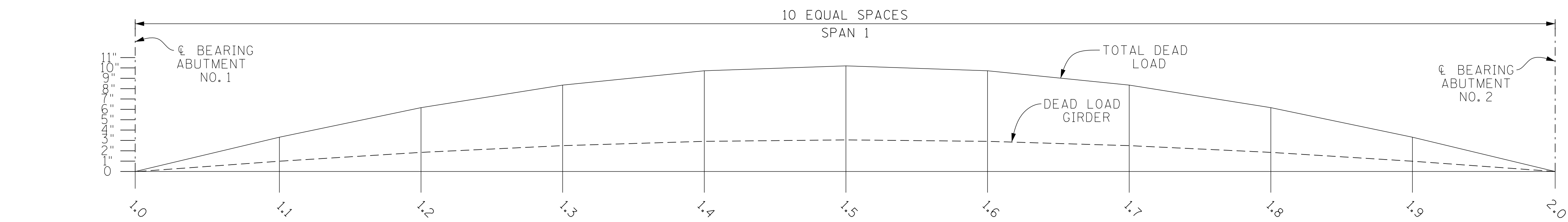
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3/9/2026

PROJECT NO.	YEAR	SHEET NO.	
STP/NH-4(6)	2026		
REVISIONS			
NO.	DATE	BY	BRIEF DESCRIPTION
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GIRDER ELEVATION

** DENOTES: DIVERSION STRIP LOCATED ONLY AT EXTERIOR SIDE OF EXTERIOR GIRDERS AT THE FIRST AND LAST CROSS-FRAME LOCATIONS. SEE DWG. NO. U-102-232 FOR DIVERSION STRIP DETAILS.



SPAN POINT	1.0	1.1	1.2	1.3	1.4	1.5	1.6	1.7	1.8	1.9	2.0
DEAD LOAD GIRDER	0	1"	1 7/8"	2 1/2"	2 15/16"	3 1/16"	2 15/16"	2 1/2"	1 7/8"	1"	0
TOTAL DEAD LOAD	0	3 5/16"	6 3/16"	8 5/16"	9 3/4"	10 3/16"	9 3/4"	8 5/16"	6 3/16"	3 5/16"	0

DEAD LOAD CORRECTION
ALL DIMENSIONS ARE GIVEN IN INCHES

SEALED BY

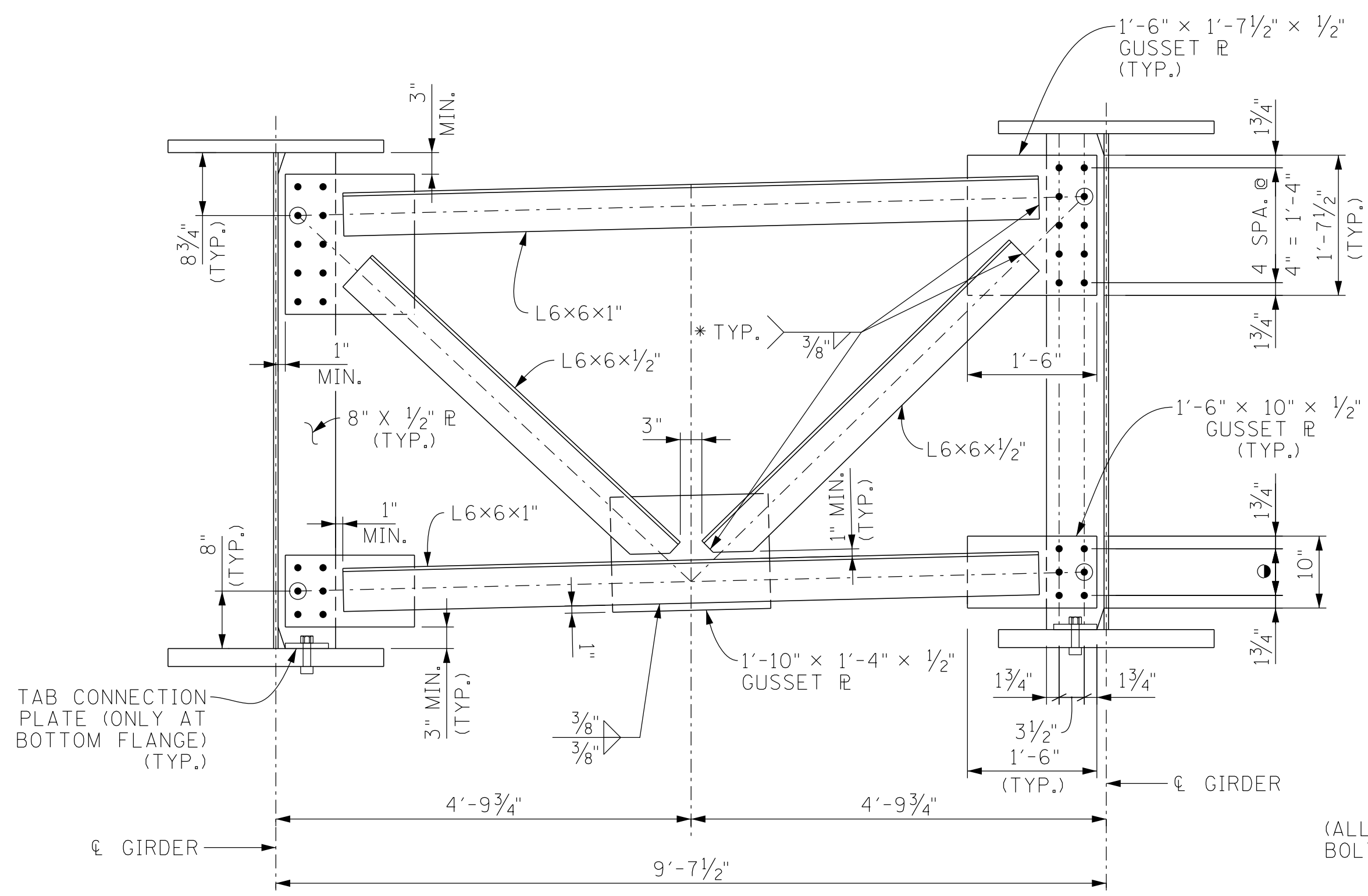
BRIDGE NO. 4
STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

GIRDER
STATE ROUTE 4 (LAMAR AVE.)
OVER WINCHESTER ROAD
BRIDGE ID NO. 79SR0040043
LOG MILE 4.82
STATION 570+62.91
SHELBY COUNTY

PIN NO.: 100340.00
DESIGN BY: A. OMAR DATE: 10/2025
DRAWN BY: RODNEY CHANDLER DATE: 01/2026
SUPERVISED BY: D.E./D.S. DATE: 10/2025
CHECKED BY: D. SHIKE DATE: 01/2026

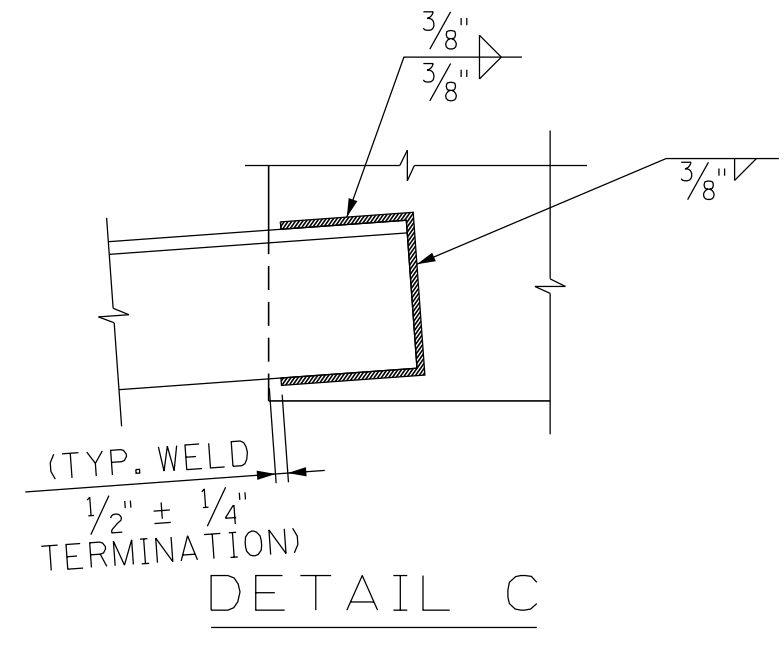
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PROJECT NO.	YEAR	SHEET NO.	
STP/NH-4(6)	2026		
REVISIONS			
NO.	DATE	BY	BRIEF DESCRIPTION
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TYPICAL CROSS-FRAME

NOTE: BOLTS SHALL BE 1"Ø - ASTM F3125 GRADE A325 BOLTS.



DETAIL C

(ALL PLATE DIMENSIONS AND BOLT SPACINGS ARE TYPICAL)

- DENOTES: 2 SPA. @ 3 1/4" = 6 1/2"
- * DENOTES: SEE DETAIL 'C'

NOTE: BOLTS SHALL BE 1"Ø - ASTM F3125 GRADE A325 BOLTS.

DENOTES: BOLTS TO BE TENSIONED TO AASHTO SPECIFICATION FOR SLIP-CRITICAL CONNECTION PRIOR TO STIFFENER-TO-TAB PLATE WELDING.

NOTE: TAB CONNECTION PLATE YIELD STRENGTH SHALL MATCH STIFFENER YIELD STRENGTH. TAB CONNECTION PLATE SIZE AND LOCATION SHALL BE AS SHOWN REGARDLESS OF STIFFENER WIDTH.

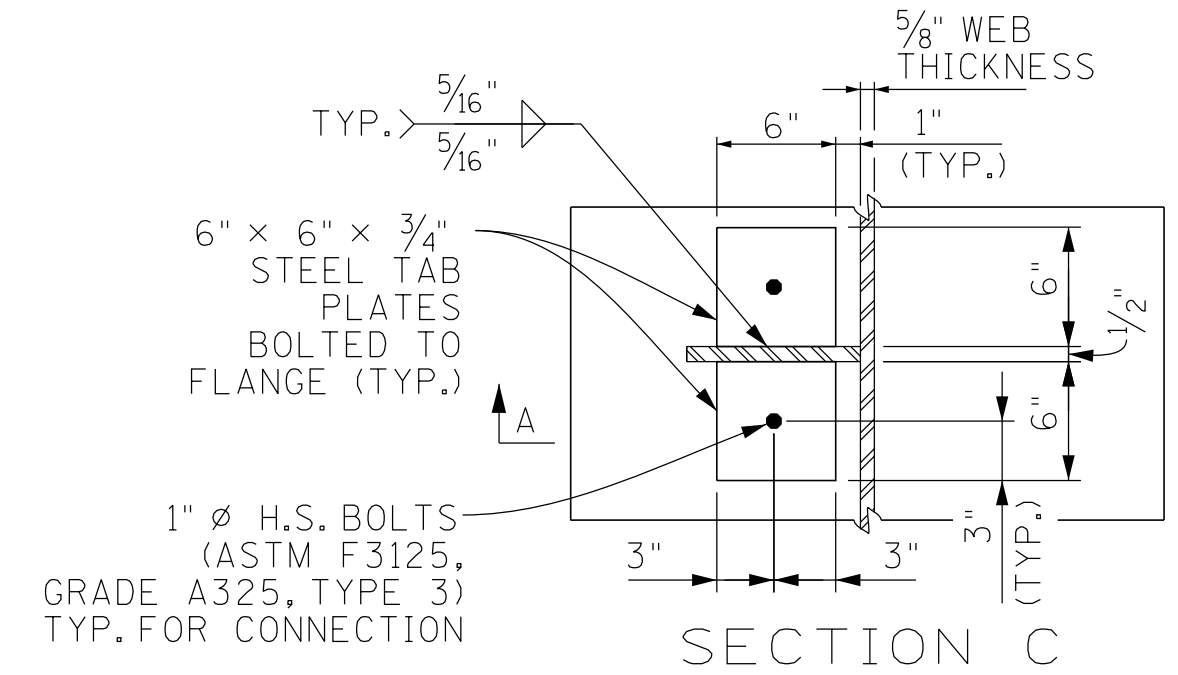
NOTE: TAB CONNECTION PLATES ARE REQUIRED AT THE BOTTOM FLANGES AT ALL CROSS-FRAME LOCATIONS.

NOTE: 1"Ø ASTM F3125 GRADE A325 BOLTS TO BE TENSIONED TO AASHTO SPECIFICATION FOR SLIP-CRITICAL CONNECTION PRIOR TO TAB-TO-STIFFENER WELD.

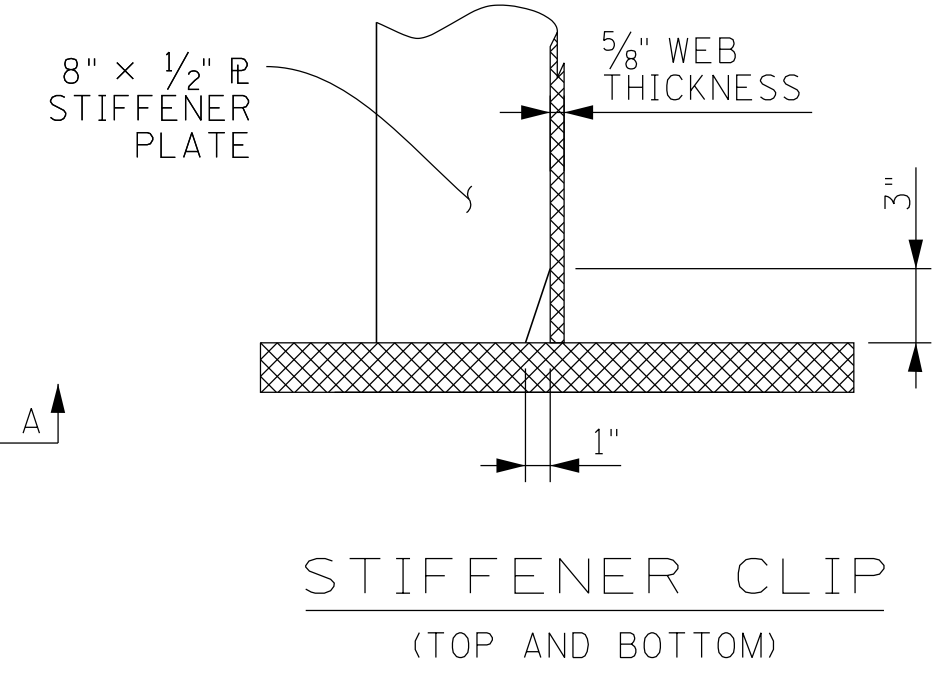
NOTE: WEB STIFFENER SHALL BE TIGHT FIT AGAINST FLANGE WITHIN AWS D1.5 FABRICATION TOLERANCE.

NOTE: IF PROJECTING FLANGE WIDTH IS LESS THAN 7", A SPECIAL DETAIL WILL BE REQUIRED.

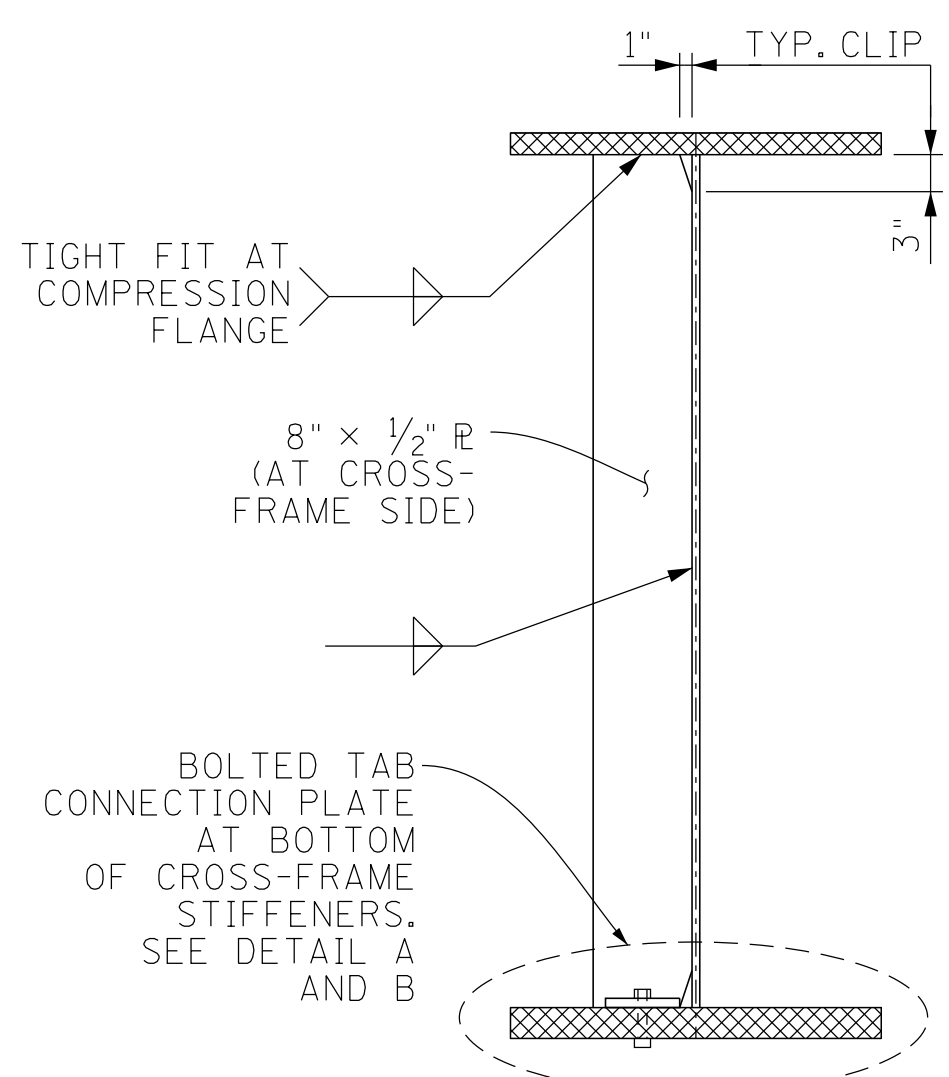
NOTE: IF ROLLED BEAM'S (K1- TW/2) > THAN 1", TAB CONNECTION PLATE GRINDING IS REQUIRED.



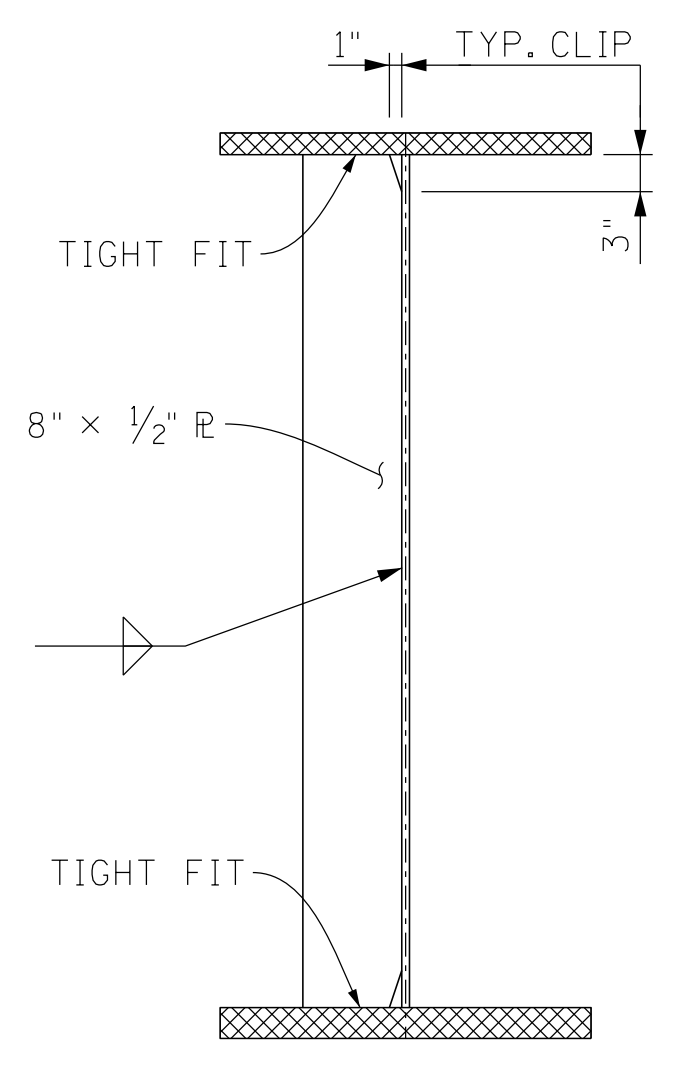
SECTION C



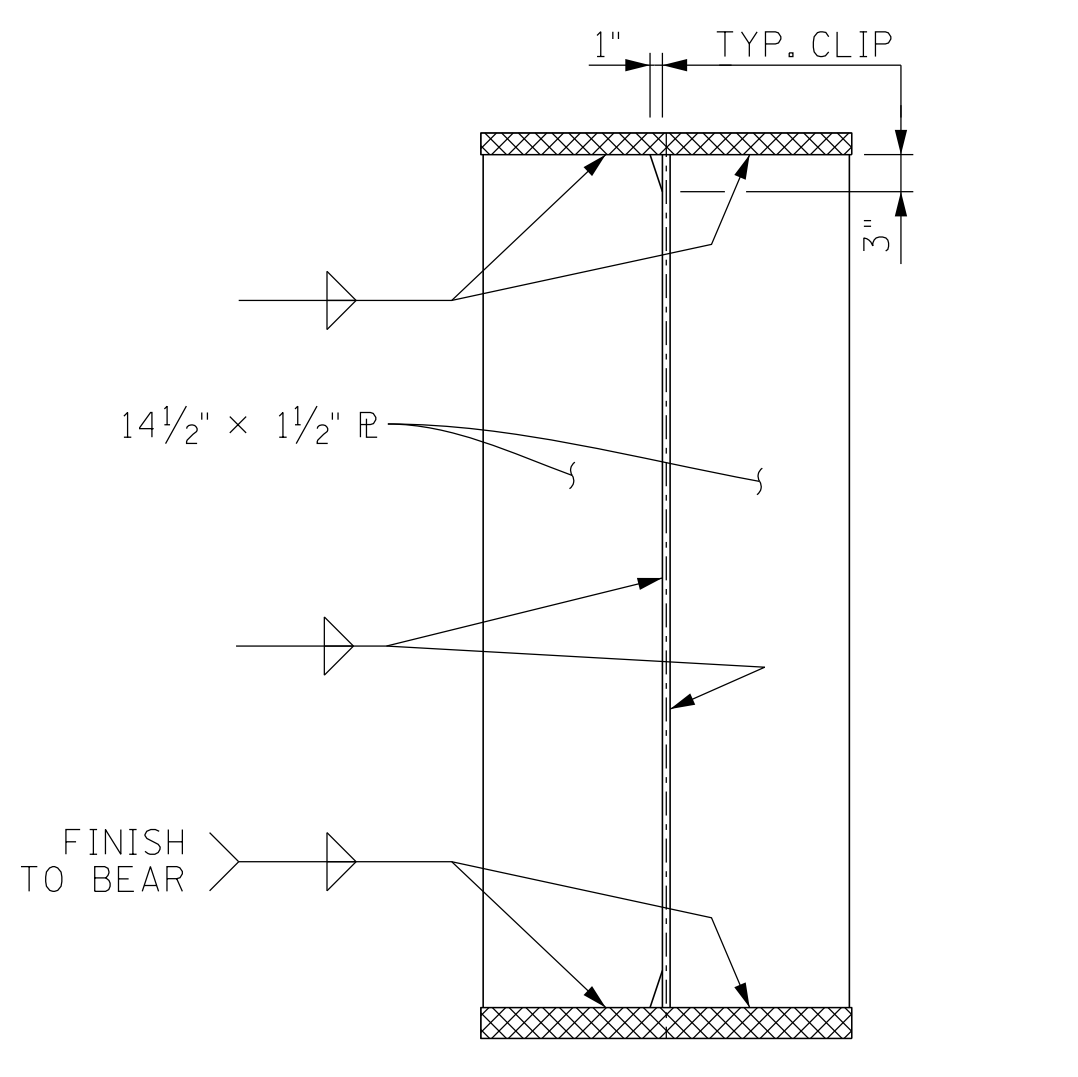
STIFFENER CLIP (TOP AND BOTTOM)



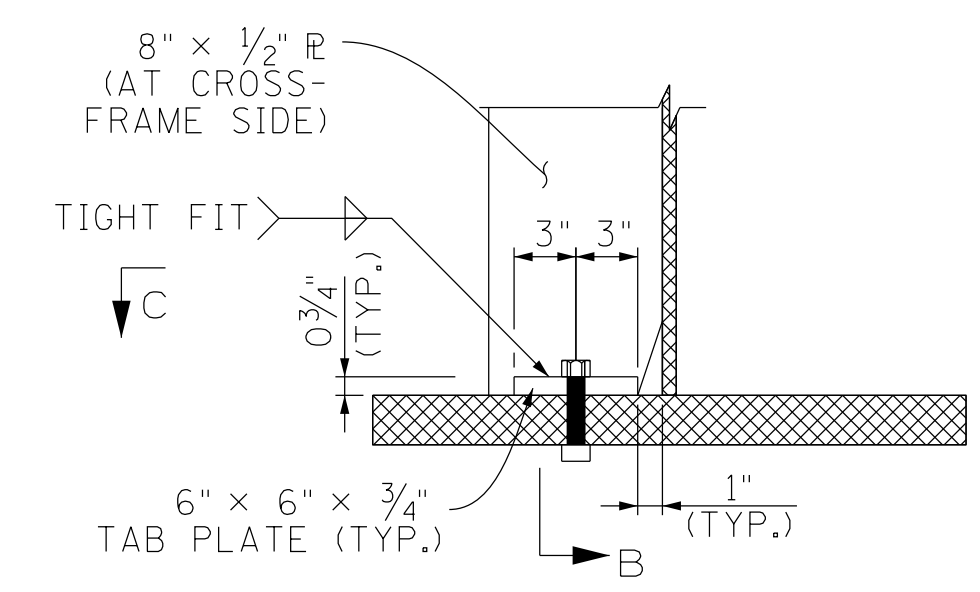
CROSSFRAME STIFFENER



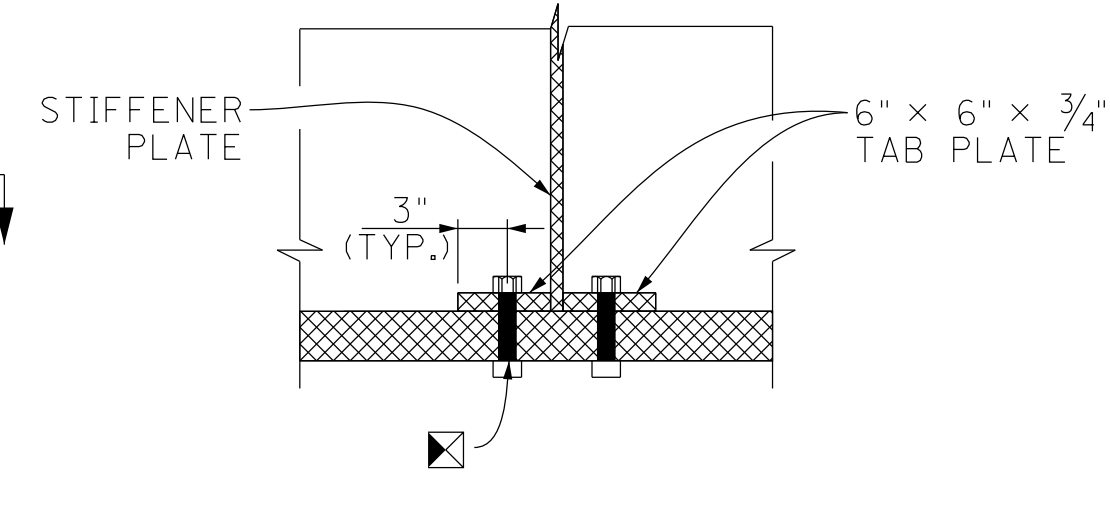
INTERMEDIATE STIFFENER



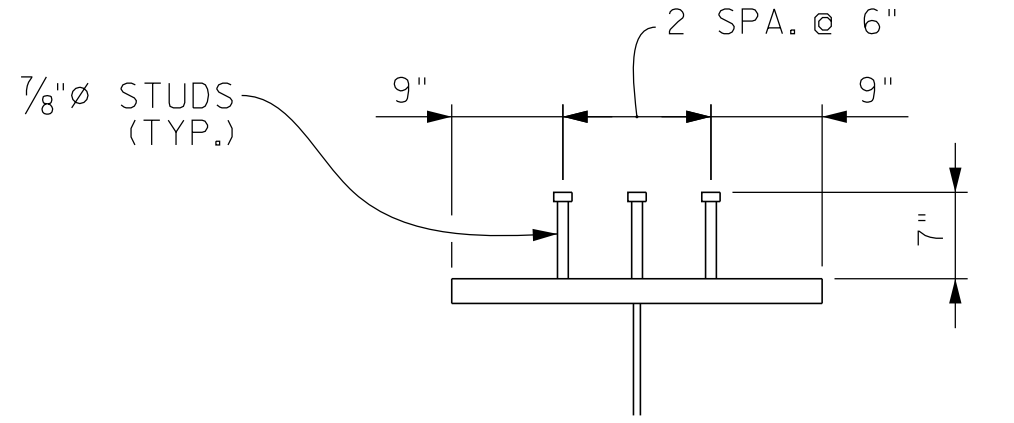
BEARING STIFFENER



DETAIL A (TENSION FLANGE CONNECTION)

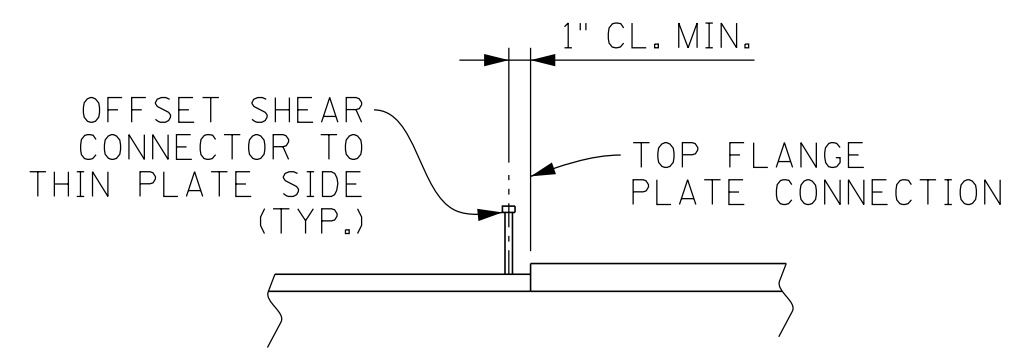


SECTION B



SHEAR CONNECTORS

NOTE: SHIFT THE SHEAR STUDS IN CONFLICT WITH THE GRATE DECK DRAINS.



DETAIL Z (TYP. AS REQUIRED)

SEALED BY

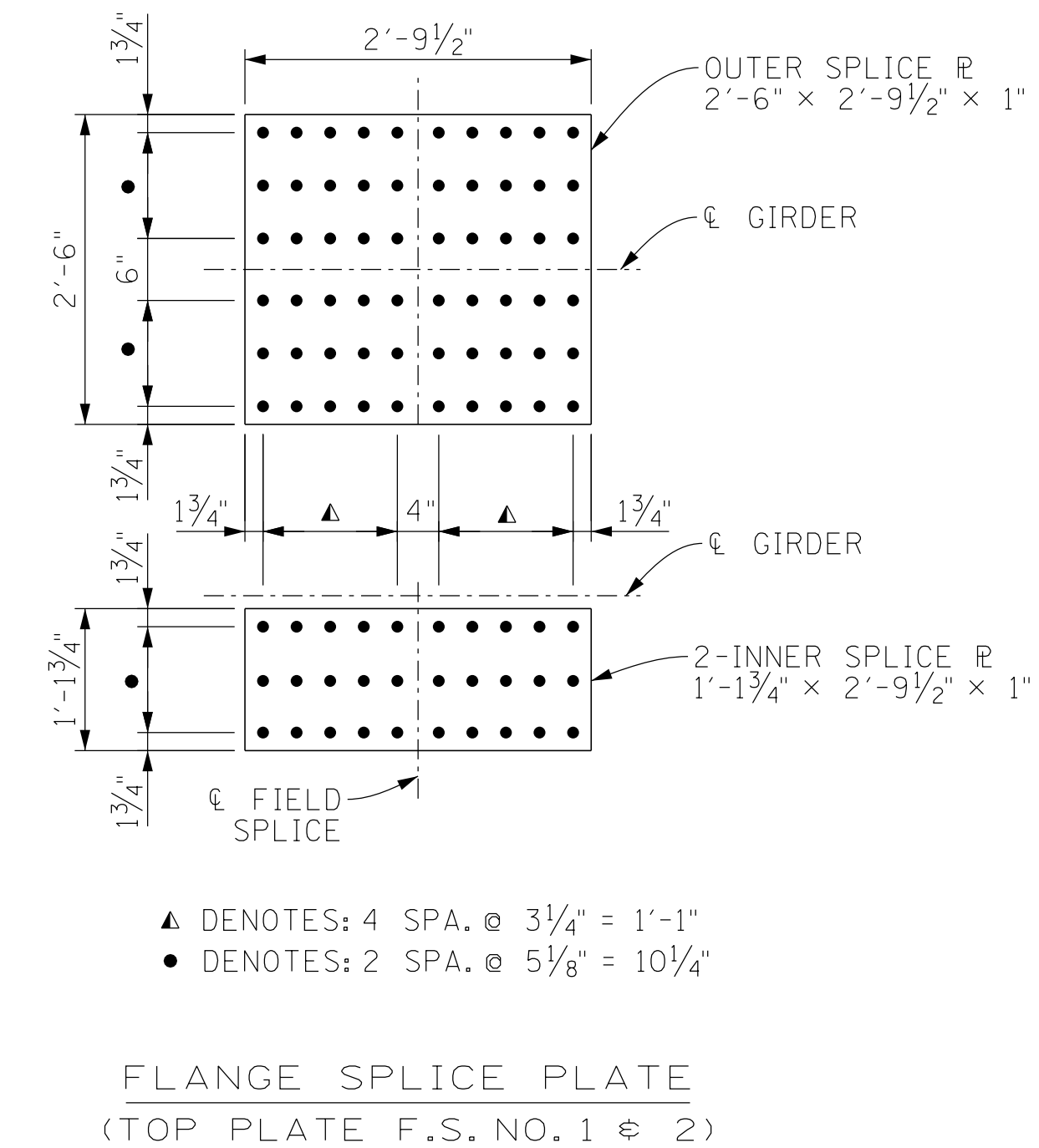
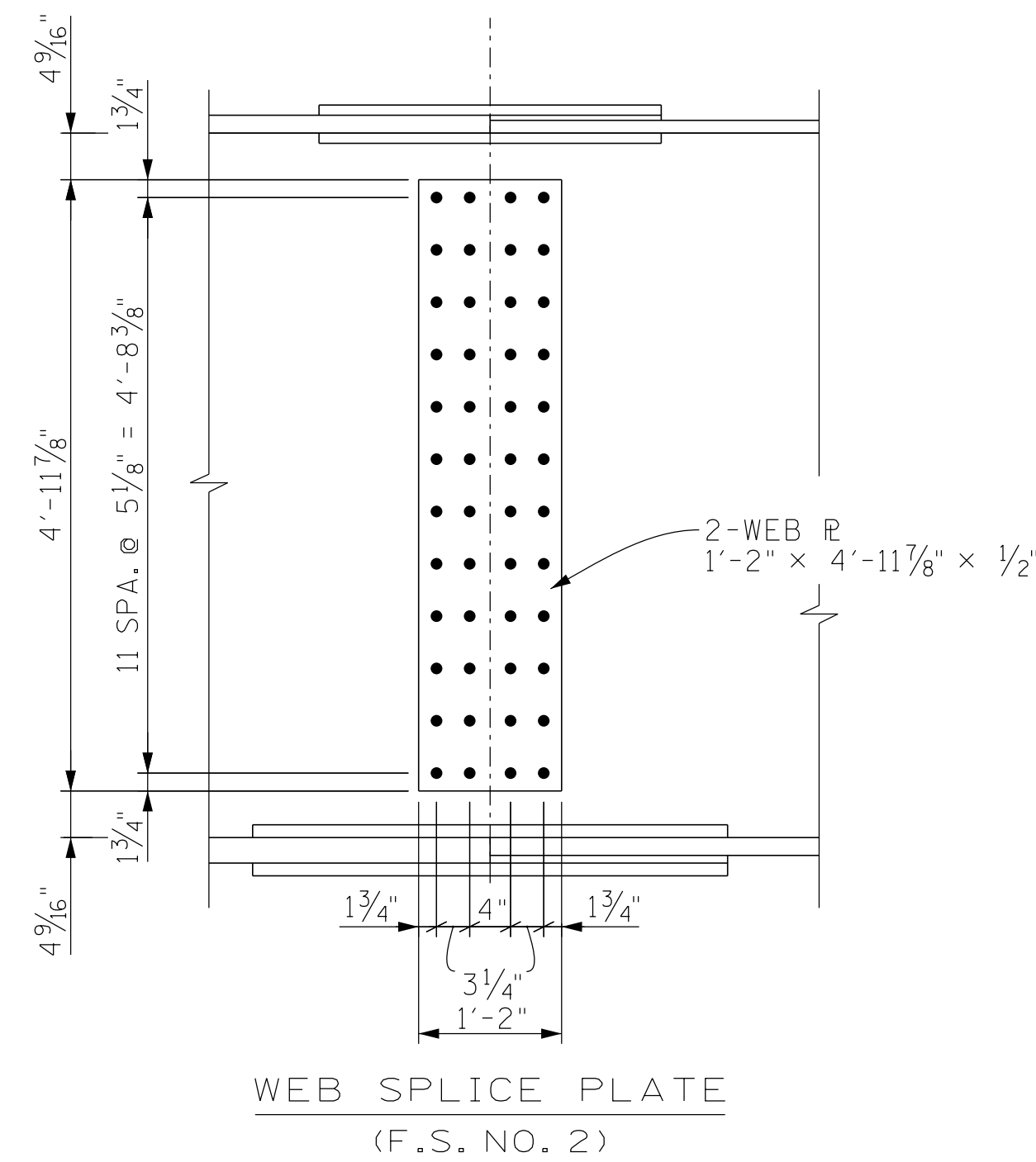
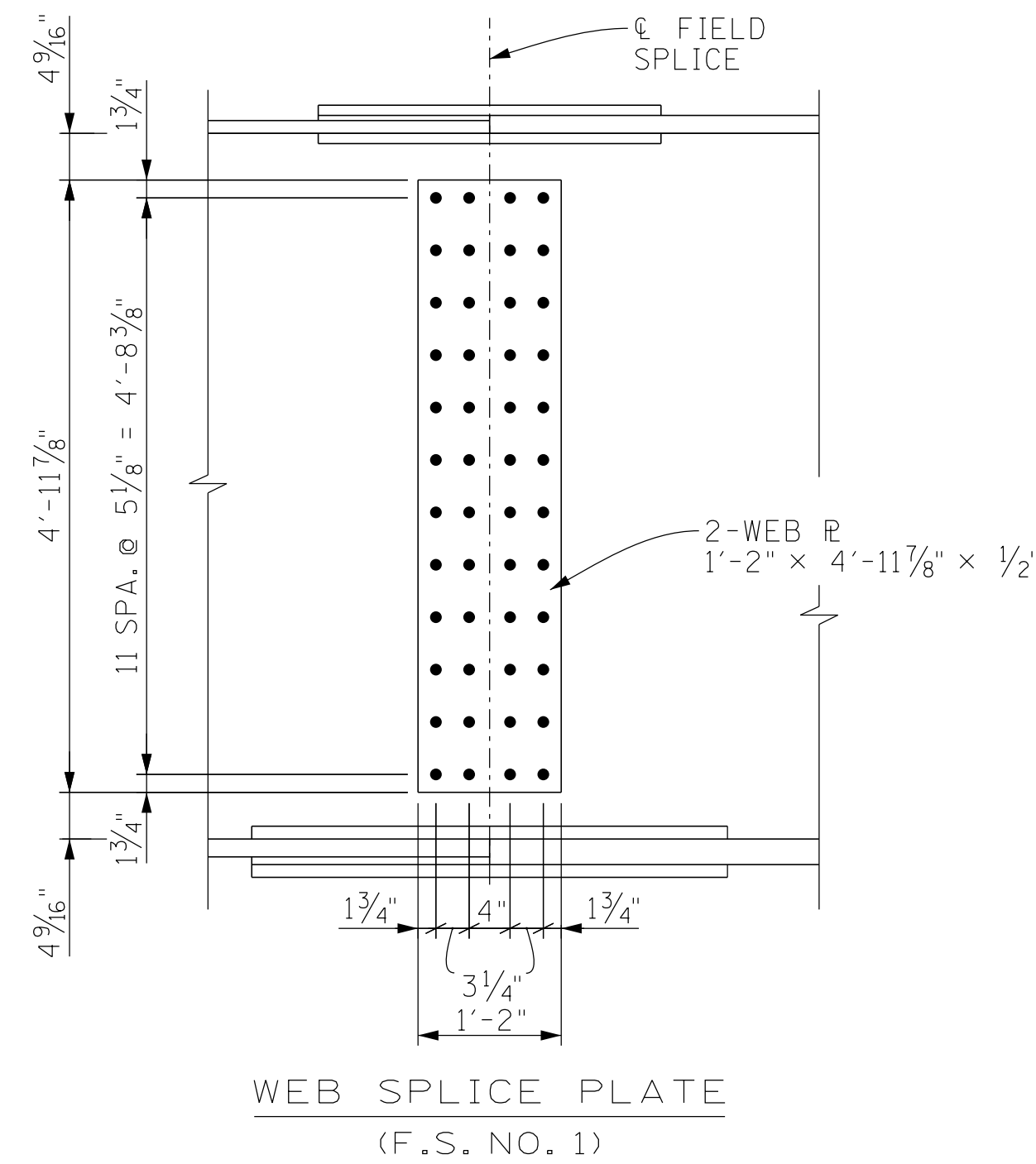
BRIDGE NO. 4
STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

GIRDER DETAILS
STATE ROUTE 4 (LAMAR AVE.)
OVER WINCHESTER ROAD
BRIDGE ID NO. 79SR0040043
LOG MILE 4.82
STATION 570+62.91
SHELBY COUNTY

PIN NO.: 100340.00
DESIGN BY: A. OMAR DATE: 10/2025
DRAWN BY: RODNEY CHANDLER DATE: 01/2026
SUPERVISED BY: D.E./D.S. DATE: 10/2025
CHECKED BY: D. SHIKE DATE: 01/2026

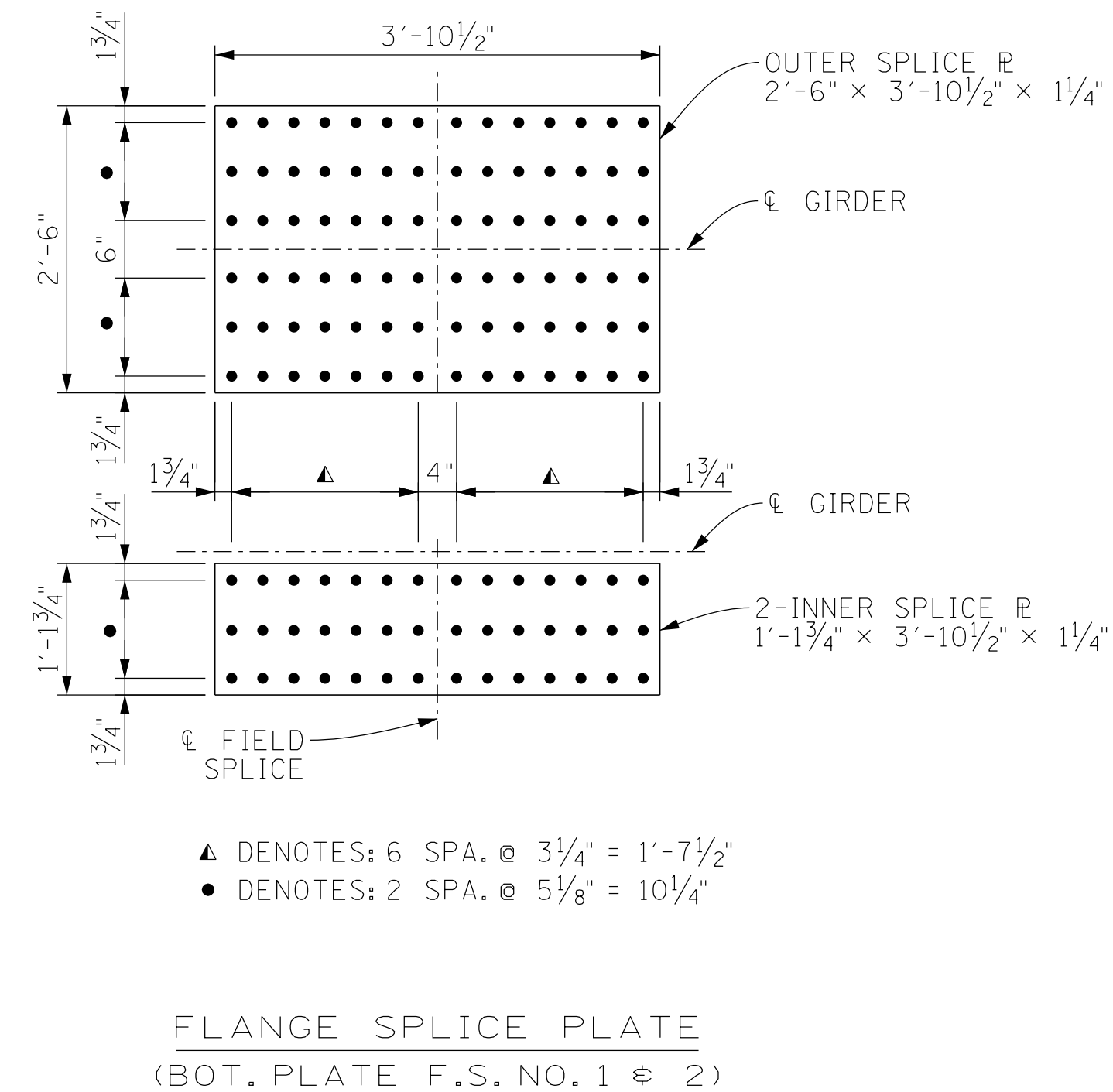
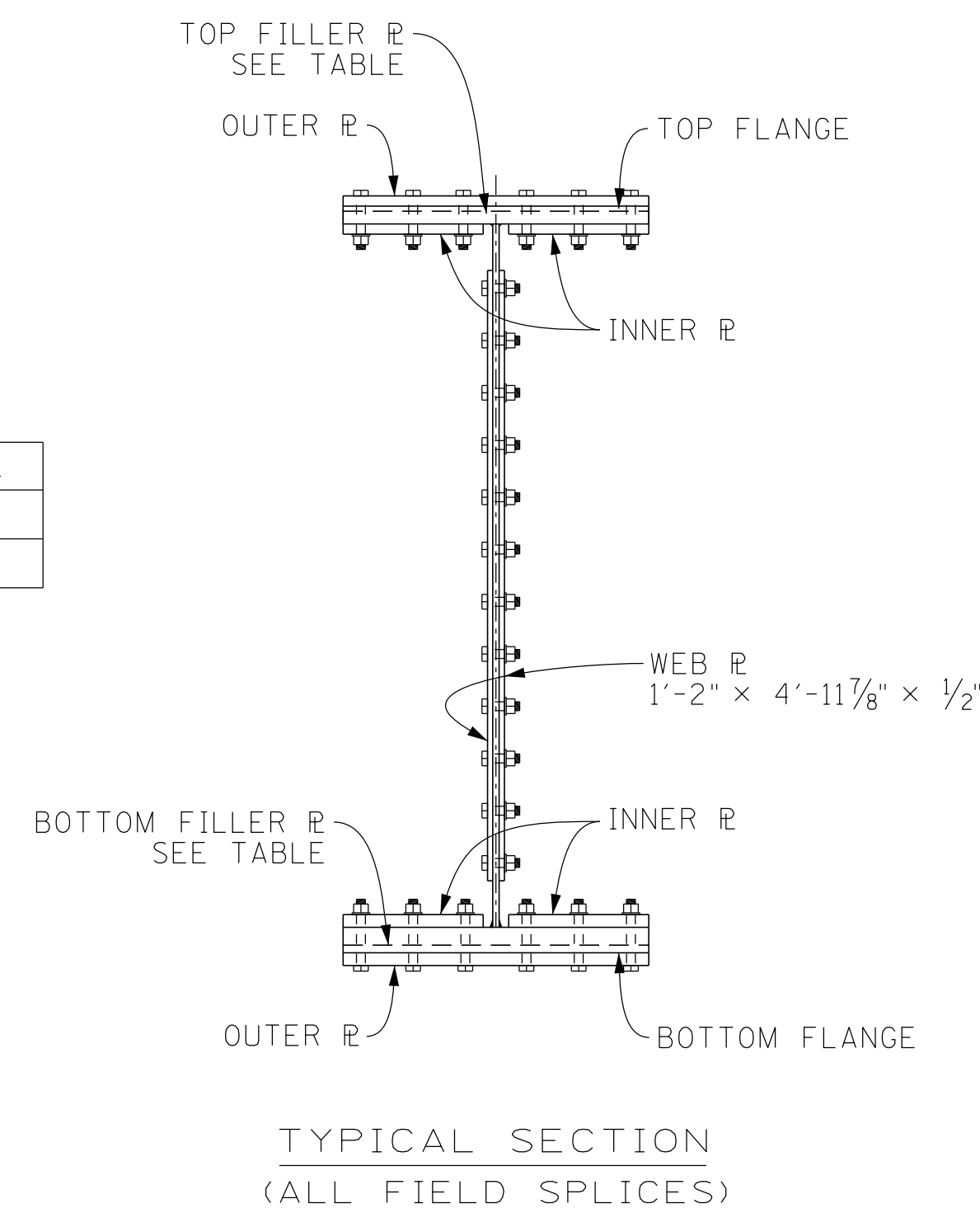
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3/9/2026

PROJECT NO.	YEAR	SHEET NO.	
STP/NH-4(6)	2026		
REVISIONS			
NO.	DATE	BY	BRIEF DESCRIPTION
-	-	-	-
-	-	-	-
-	-	-	-
-	-	-	-
-	-	-	-



FILLER PLATE TABLE

SPlice NO.	TOP FILLER PLATE	BOTTOM FILLER PLATE
1	2'-6" x 1'-4 3/4" x 1/2"	2'-6" x 1'-11 1/4" x 3/4"
2	2'-6" x 1'-4 3/4" x 1/2"	2'-6" x 1'-11 1/4" x 3/4"



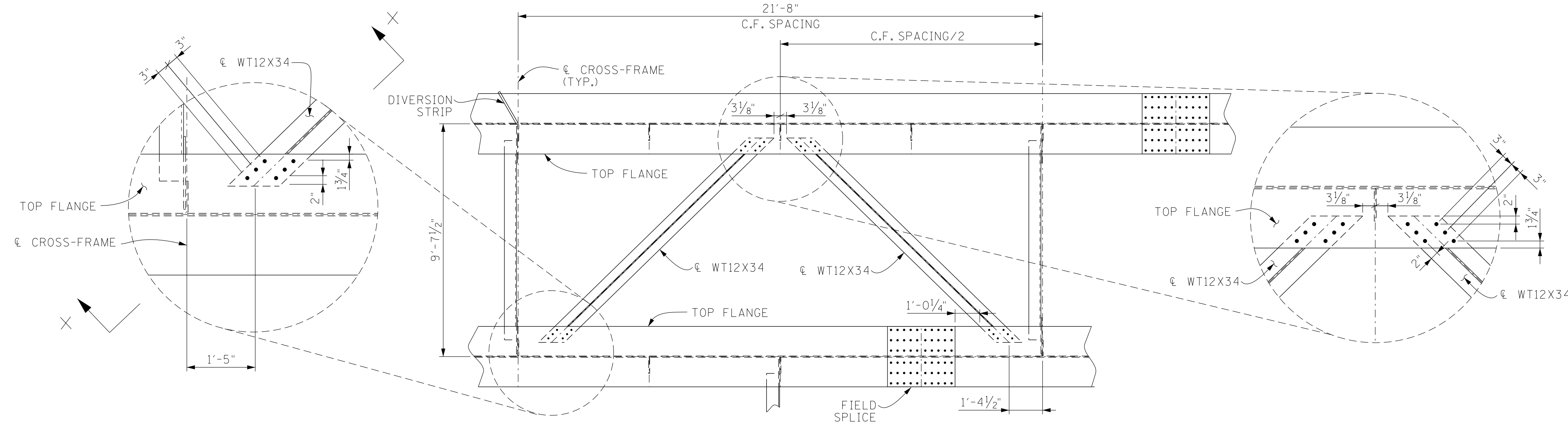
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BRIDGE NO. 4
STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

GIRDER DETAILS
STATE ROUTE 4 (LAMAR AVE.)
OVER WINCHESTER ROAD
BRIDGE ID NO. 79SR0040043
LOG MILE 4.82
STATION 570+62.91
SHELBY COUNTY

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3/9/2026

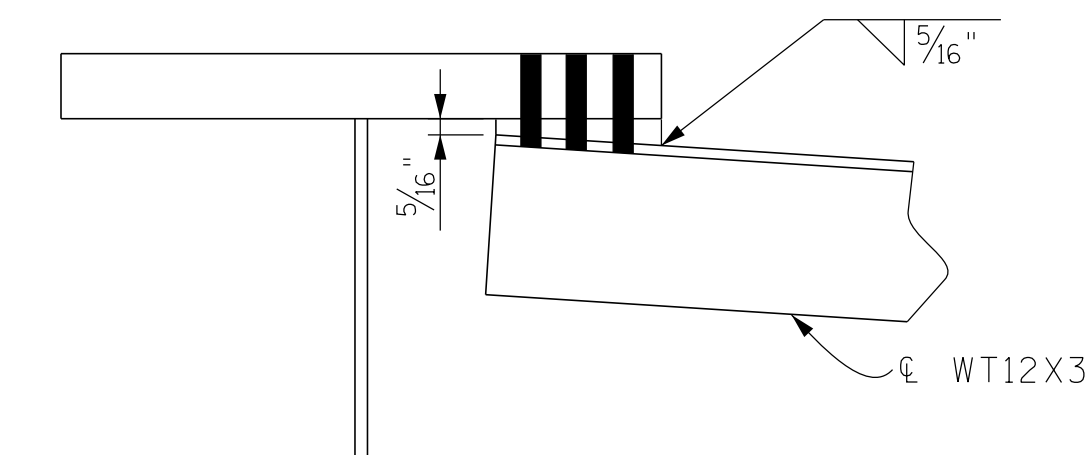
PROJECT NO.	YEAR	SHEET NO.	
STP/NH-4(6)	2026		
REVISIONS			
NO.	DATE	BY	BRIEF DESCRIPTION
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LATERAL BRACING DETAIL

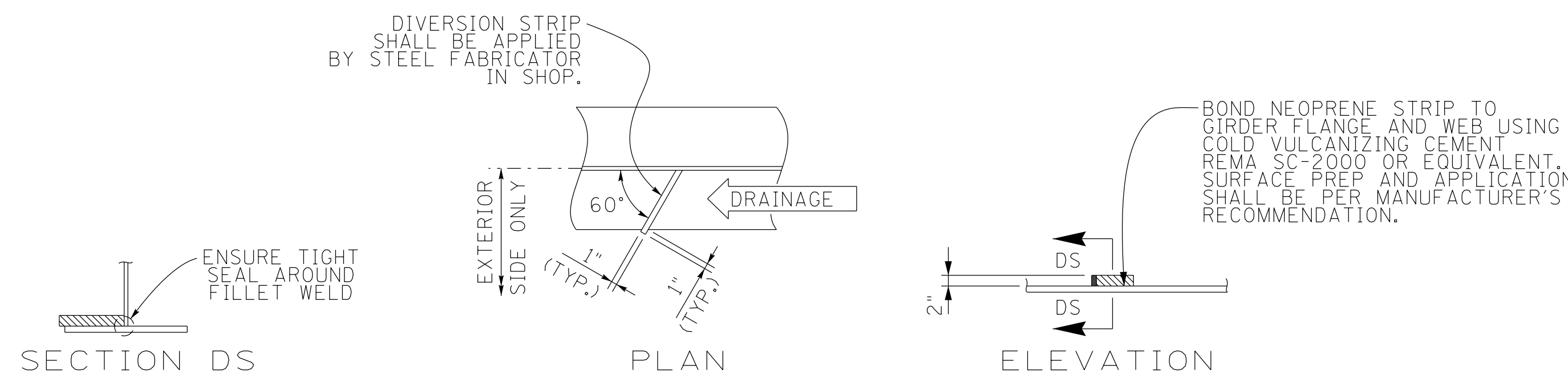
NOTE: BOLTS SHALL BE 1"Ø - ASTM F3125 GRADE A325 BOLTS.

NOTE: LATERAL BRACING IS REQUIRED ONLY AT THE BEGINNING AND AT THE END OF THE FIRST AND THE LAST BAYS AS SHOWN ON THE FRAMING PLAN, FOR LOCATIONS SEE FRAMING PLAN.



SECTION X-X

NOTE: BEVELED SPACER PLATE REQUIRED AT EACH LATERAL END CONNECTION. (BEVEL ALONG AXIS OF BRACING) (TRANSVERSE BEVEL NOT REQUIRED)



DIVERSION STRIP DETAILS

NOTE: NEOPRENE DIVERSION STRIPS SHALL BE LOCATED ON THE EXTERIOR SIDE OF THE WEB OF THE EXTERIOR GIRDERS ONLY. THE STRIPS SHALL BE PLACED NEAR THE LOW END OF ALL SPANS. THE STRIPS SHALL BE LOCATED FIVE (5'-0") FEET FROM THE GIRDER END OR FROM THE CENTERLINE OF THE BENT FOR GIRDERS CONTINUOUS OVER A BENT AND SHALL BE SLOPED TOWARD THE END OF THE GIRDER AS SHOWN IN PLAN VIEW.

SEALED BY

BRIDGE NO. 4
STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

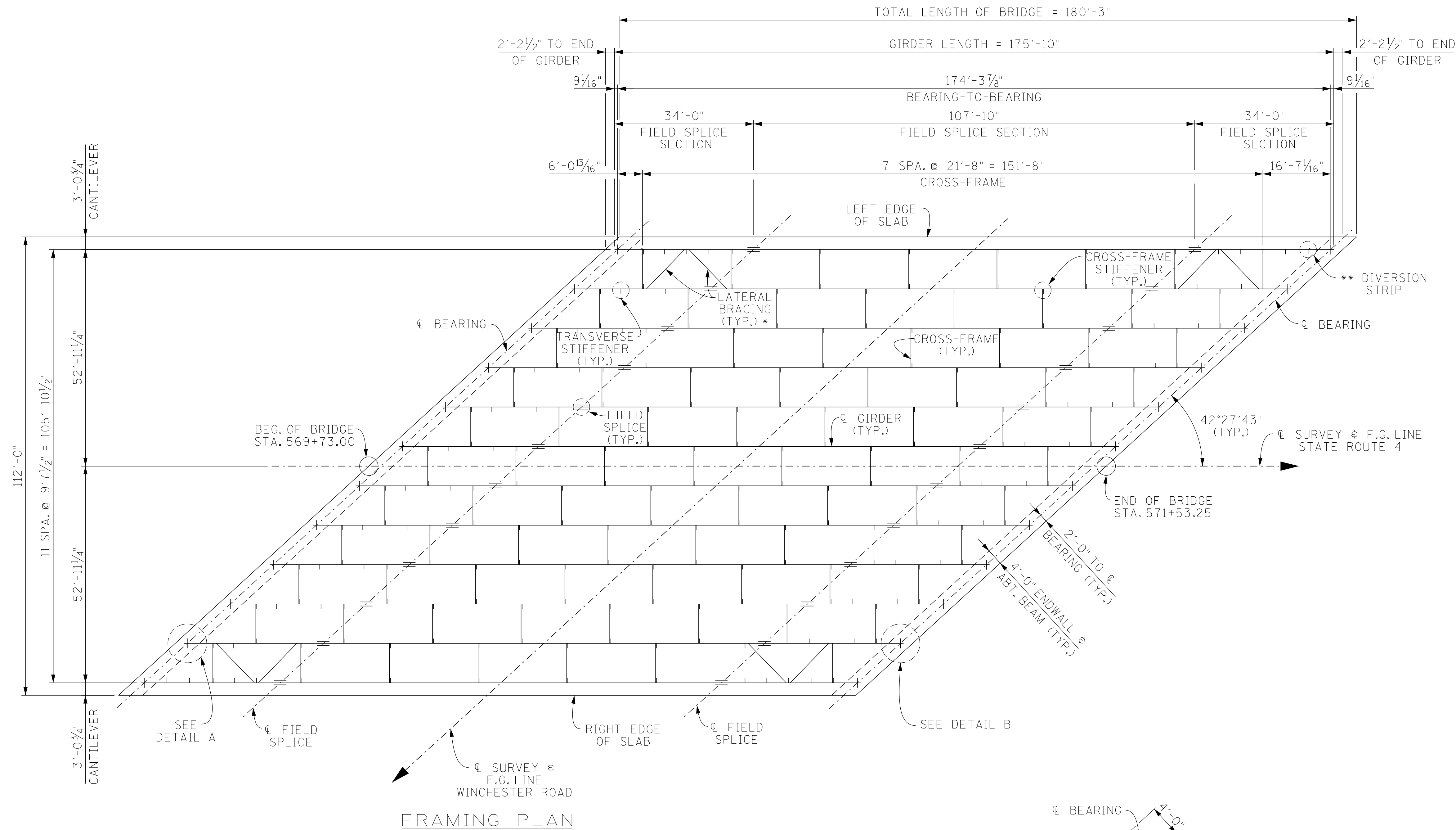
GIRDER DETAILS
STATE ROUTE 4 (LAMAR AVE.)
OVER WINCHESTER ROAD
BRIDGE ID NO. 79SR0040043
LOG MILE 4.82
STATION 570+62.91
SHELBY COUNTY

U-102-232

PIN NO.: 100340.00
DESIGN BY: A. OMAR DATE: 10/2025
DRAWN BY: RODNEY CHANDLER DATE: 01/2026
SUPERVISED BY: D.E./D.S. DATE: 10/2025
CHECKED BY: D. SHIKE DATE: 01/2026

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3/9/2026

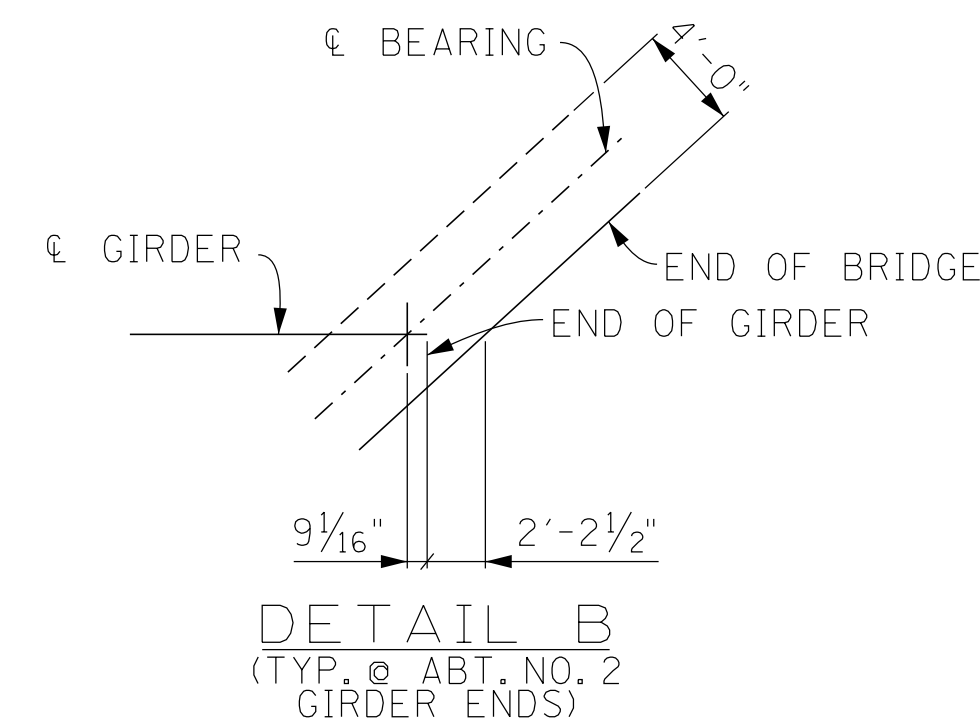
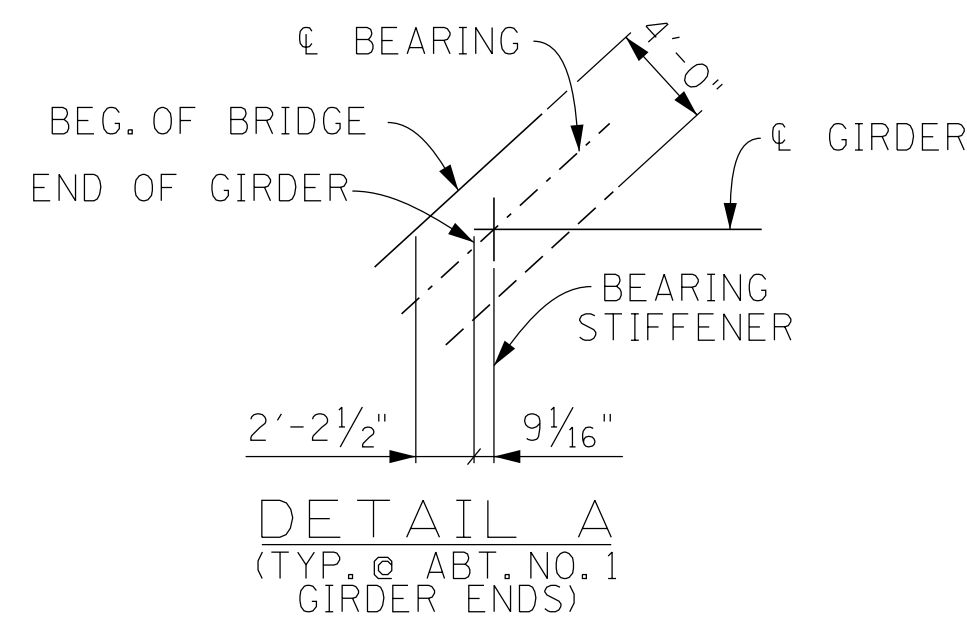
PROJECT NO.	YEAR	SHEET NO.	
STP/NH-4(6)	2026		
REVISIONS			
NO.	DATE	BY	BRIEF DESCRIPTION
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** DENOTES: DIVERSION STRIP LOCATED ONLY AT EXTERIOR SIDE OF EXTERIOR GIRDERS AT THE FIRST AND LAST CROSS-FRAME LOCATIONS. SEE DWG. NO. U-102-232 FOR DIVERSION STRIP DETAILS.

* DENOTES: LATERAL BRACING TO BE WT12X35 AND CONNECTED TO TOP FLANGE. SEE DWG. NO. U-102-232 FOR DETAILS.

= DENOTES: FIELD SPLICE.



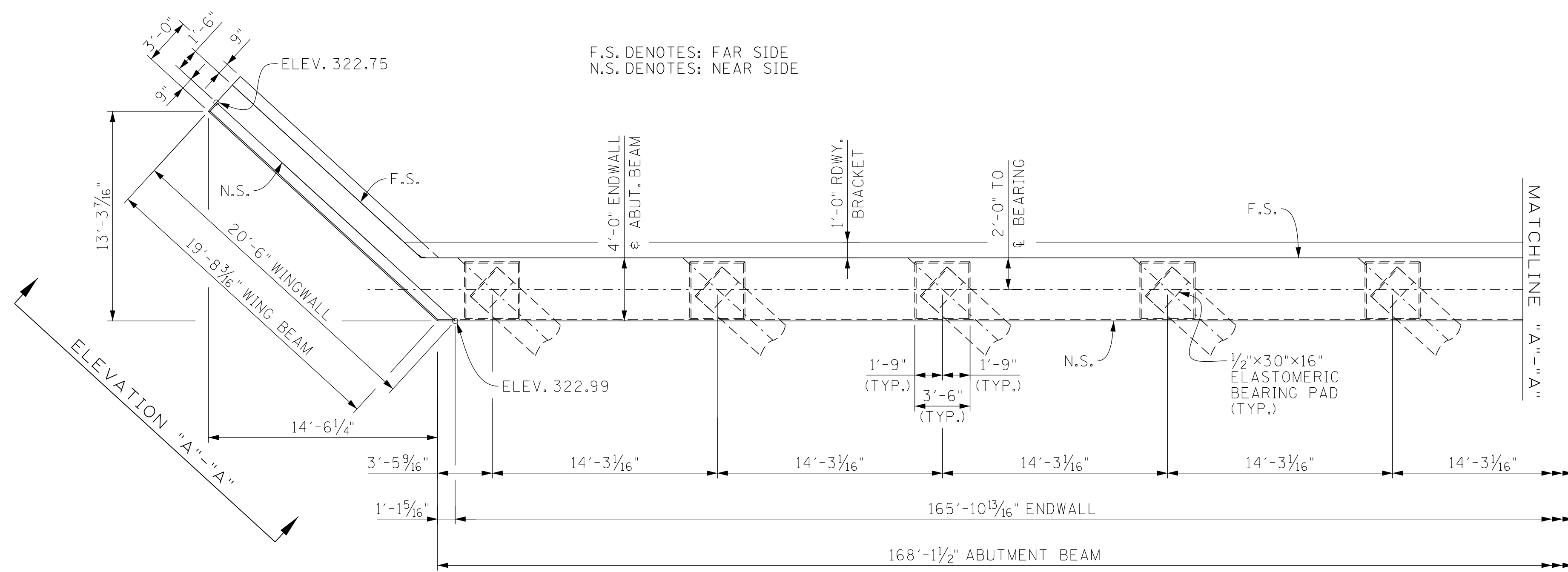
SEALED BY

BRIDGE NO. 4
STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

GIRDER DETAILS
STATE ROUTE 4 (LAMAR AVE.)
OVER WINCHESTER ROAD
BRIDGE ID NO. 79SR0040043
LOG MILE 4.82
STATION 570+62.91
SHELBY COUNTY

PIN NO.: 100340.00
DESIGN BY: A. OMAR DATE: 10/2025
DRAWN BY: RODNEY CHANDLER DATE: 01/2026
SUPERVISED BY: D.E./D.S. DATE: 10/2025
CHECKED BY: D. SHIKE DATE: 01/2026

PROJECT NO.	YEAR	SHEET NO.	
STP/NH-4(6)	2026		
REVISIONS			
NO.	DATE	BY	BRIEF DESCRIPTION
-	-	-	-
-	-	-	-
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-	-	-	-
-	-	-	-



NOTES:

NOTE: WHEN POURING ABUTMENT BEAM, PROVISIONS SHALL BE MADE FOR SETTING ANCHOR BOLTS. BOLT PROJECTION 6".

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

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.

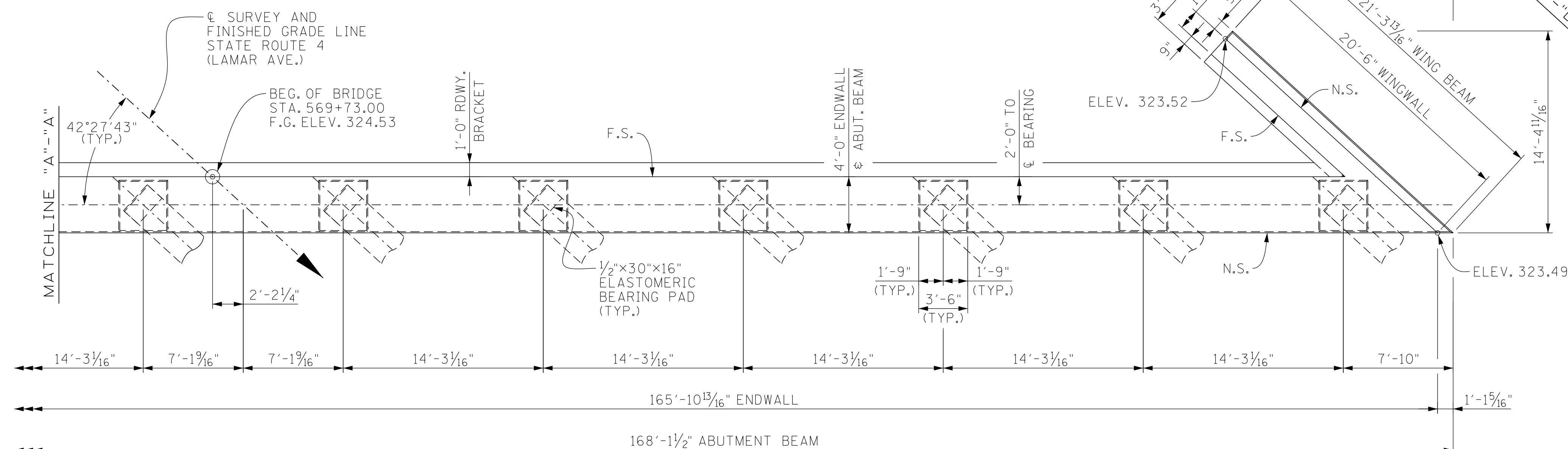
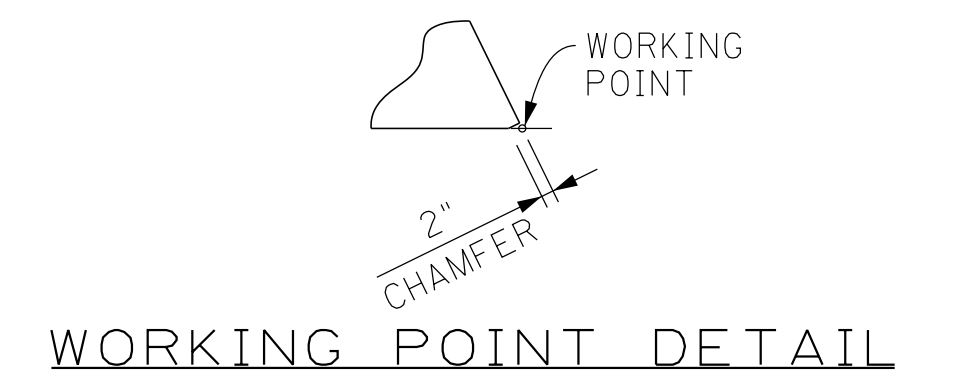
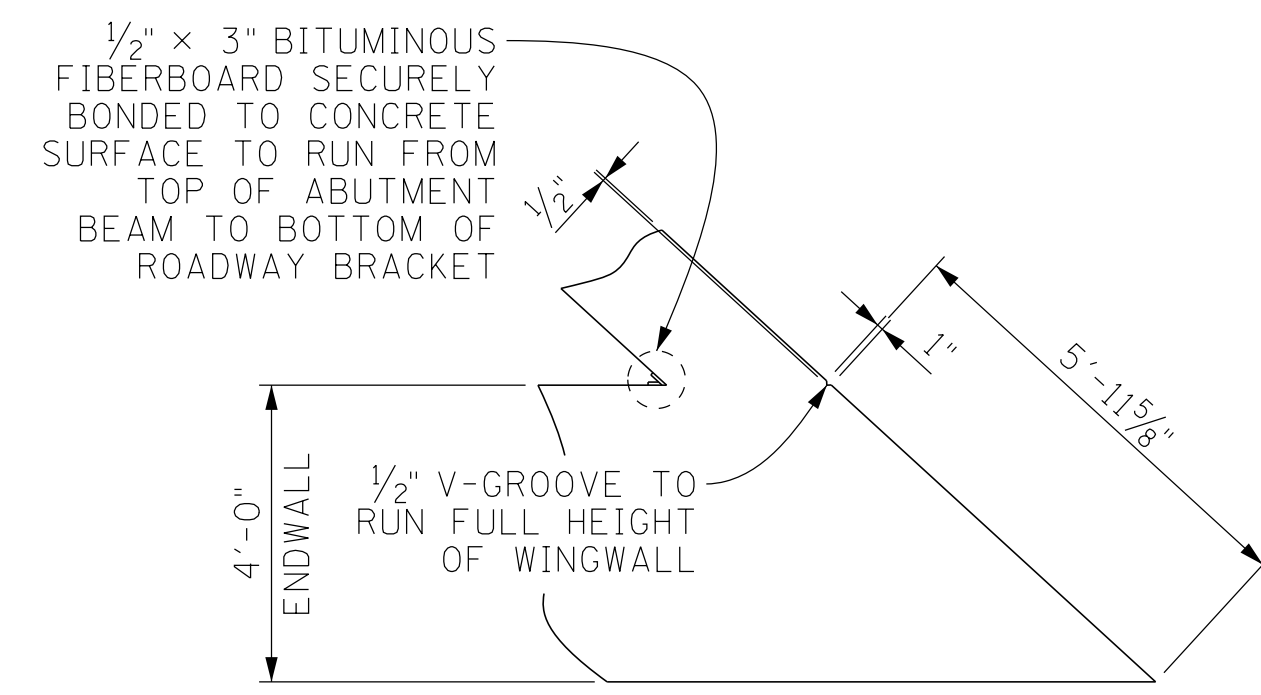
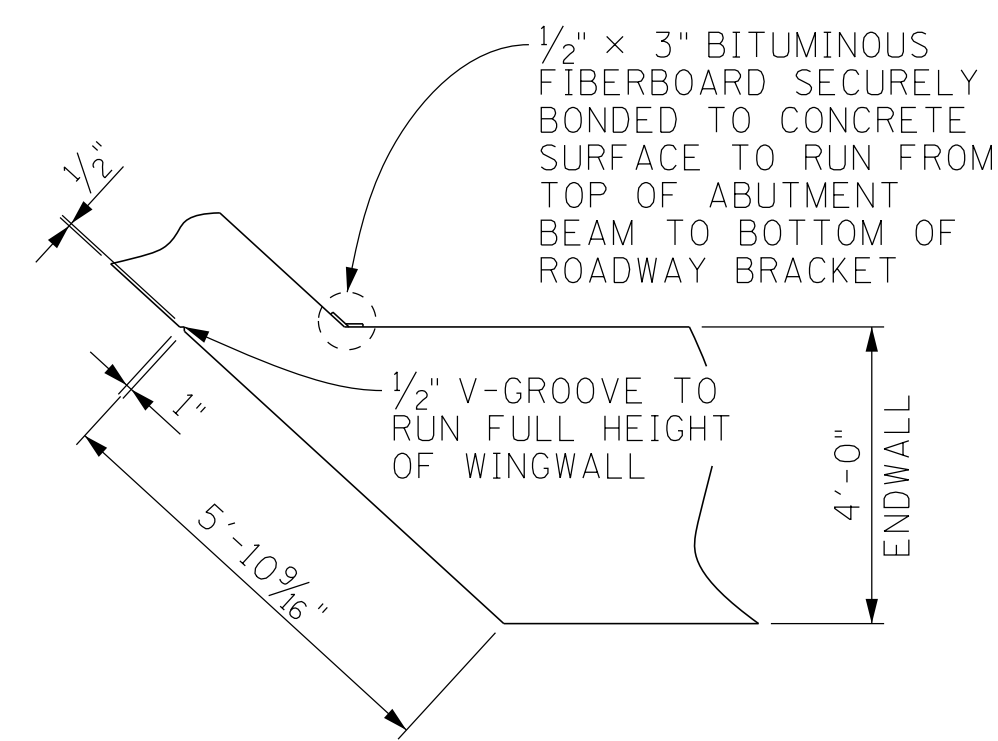
NOTE: WHEN POURING WINGWALLS, PROVISIONS SHALL BE MADE FOR SETTING REINFORCING STEEL FOR WINGPOSTS AND PARAPETS. FOR DETAILS OF WINGPOSTS AND PARAPETS, SEE STD. DWG. STD-1-1SS.

NOTE: THE ENTIRE ABUTMENT ENDWALL SHALL BE POURED CONCURRENTLY WITH POUR NO. 2. SEE DWG. NO. U-102-228.

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

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

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



SEALED BY

BRIDGE NO. 4
STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

ABUTMENT NO. 1
STATE ROUTE 4 (LAMAR AVE.)
OVER WINCHESTER ROAD
BRIDGE ID NO. 79SR0040043
LOG MILE 4.82
STATION 570+62.91
SHELBY COUNTY

F.S. DENOTES: FAR SIDE
 N.S. DENOTES: NEAR SIDE
 P. C. O. DENOTES: PILE CUT-OFF

CONST. NO.: 79020-3253-14

PROJECT NO.	YEAR	SHEET NO.	
STP/NH-4(6)	2026		
REVISIONS			
NO.	DATE	BY	BRIEF DESCRIPTION
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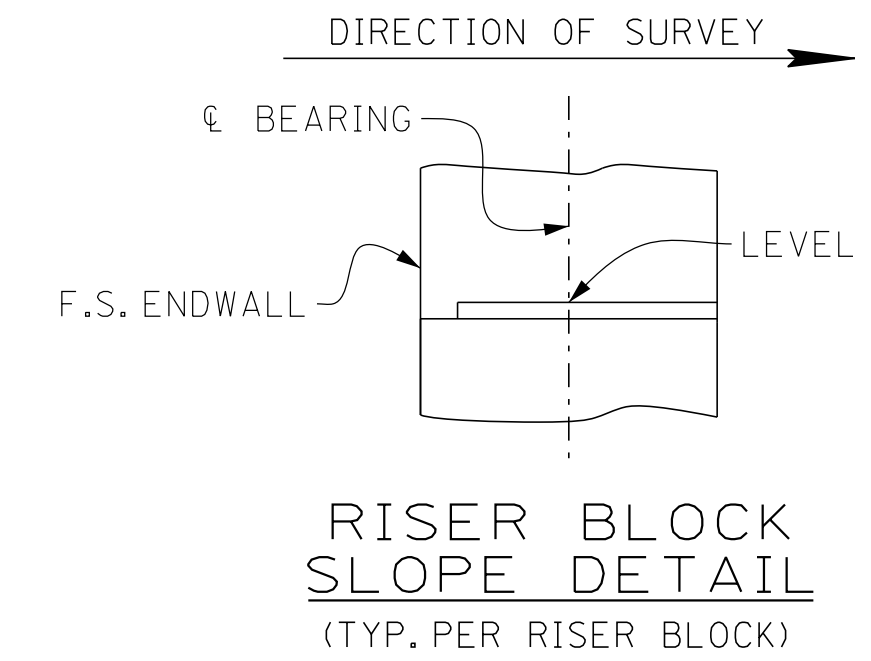
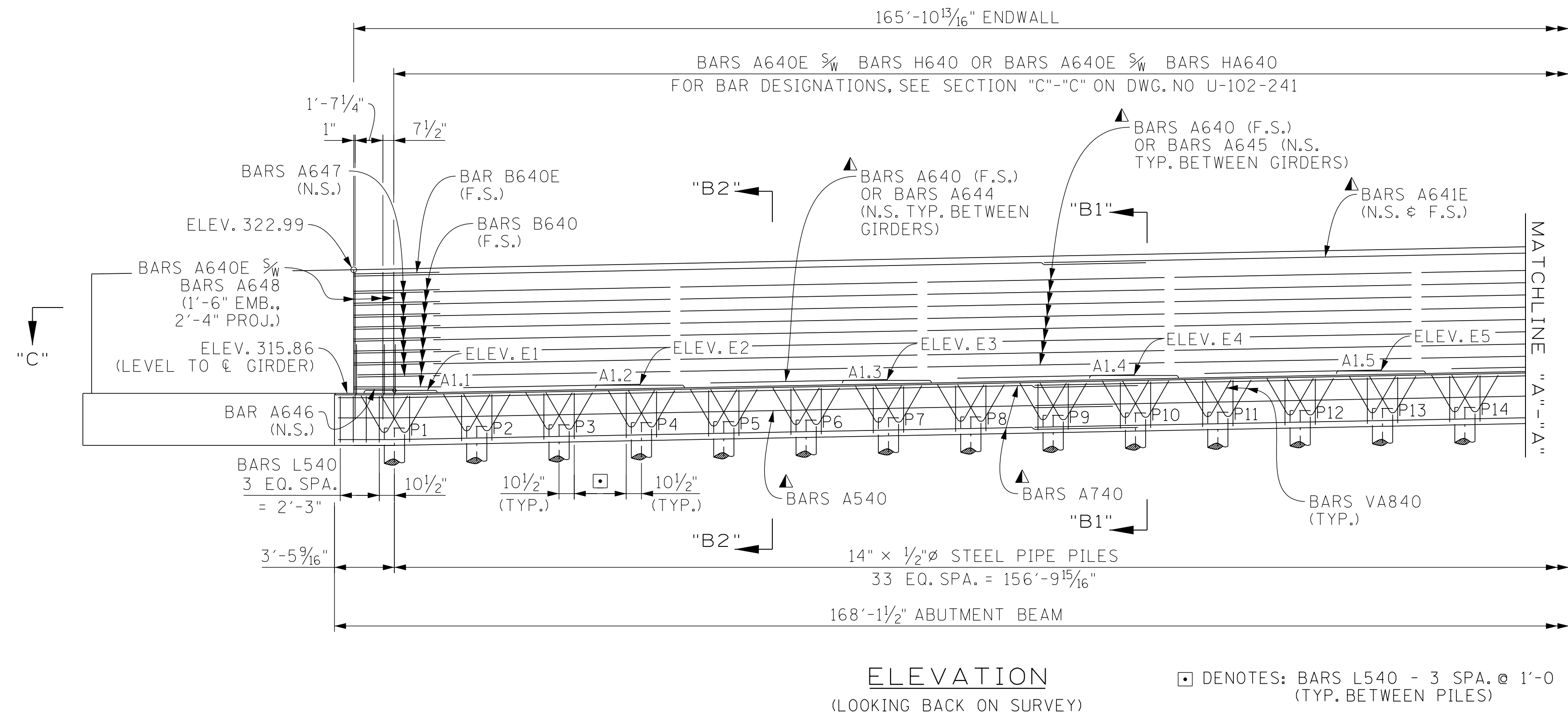
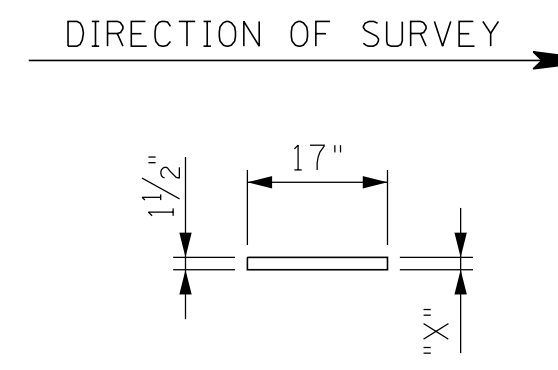


TABLE OF ELEVATIONS

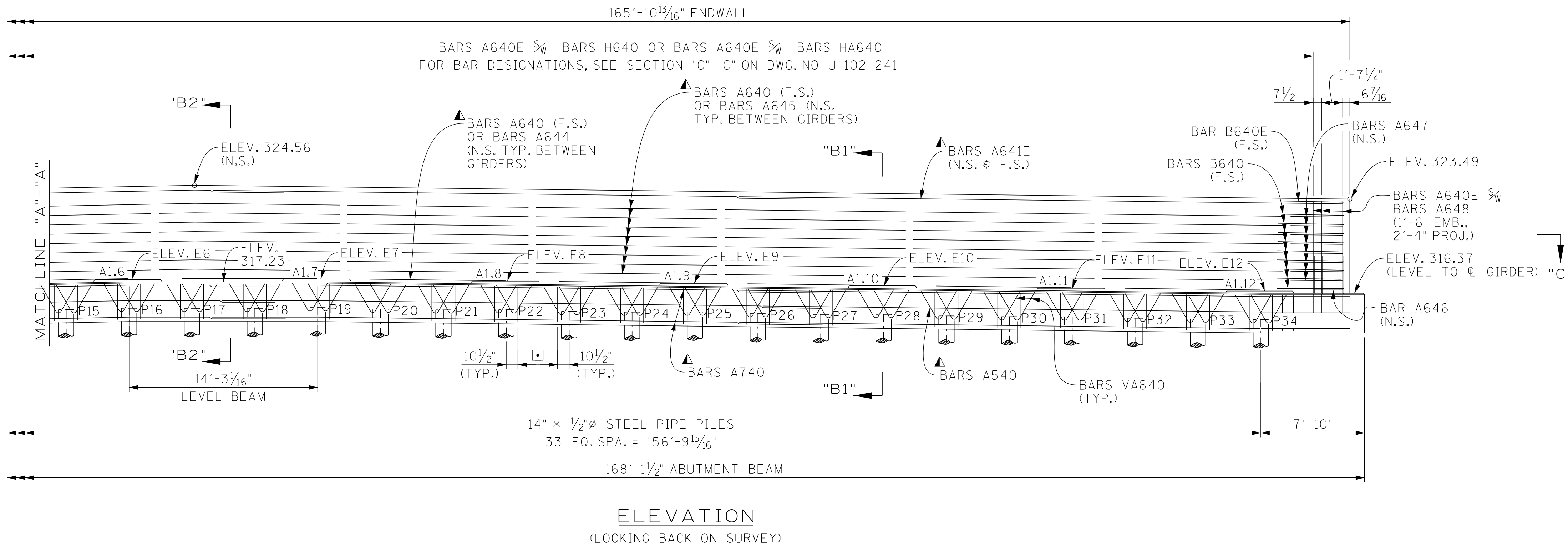
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316.03	316.33	316.61	316.89	317.15	317.40	317.45	317.29	317.12	316.94	316.75	316.54

▲ DENOTES:
 4 BARS A641E (PER ROW) (4'-10" MIN. SPLICE)
 4 BARS A640 (PER ROW) (3'-7" MIN. SPLICE)
 4 BARS A440 (2'-5" MIN. SPLICE)
 4 BARS A740 (PER ROW) (4'-2" MIN. SPLICE)
 4 BARS A540 (PER ROW) (3'-0" MIN. SPLICE)

RISER LOCATION	"X"
A1.1	1 1/2"
A1.2	1 1/2"
A1.3	1 1/2"
A1.4	1 1/2"
A1.5	1 9/16"
A1.6	1 9/16"
A1.7	1 9/16"
A1.8	1 5/8"
A1.9	1 5/8"
A1.10	1 5/8"
A1.11	1 11/16"
A1.12	1 11/16"



BEVELED SOLE PLATE DETAIL
 ABUTMENT NO. 1



ELEVATION
 (LOOKING BACK ON SURVEY)

TABLE OF P. C. O. ELEVATIONS

P1	P2	P3	P4	P5	P6	P7	P8	P9	P10	P11	P12	P13	P14	P15	P16	P17
313.86	313.95	314.04	314.13	314.23	314.32	314.41	314.50	314.59	314.68	314.77	314.86	314.96	315.05	315.14	315.23	315.23
P18	P19	P20	P21	P22	P23	P24	P25	P26	P27	P28	P29	P30	P31	P32	P33	P34
315.23	315.23	315.17	315.12	315.06	315.00	314.94	314.89	314.83	314.77	314.71	314.66	314.60	314.54	314.48	314.43	314.37

BRIDGE NO. 4
 STATE OF TENNESSEE
 DEPARTMENT OF TRANSPORTATION

ABUTMENT NO. 1
 STATE ROUTE 4 (LAMAR AVE.)
 OVER WINCHESTER ROAD
 BRIDGE ID NO. 79SR0040043
 LOG MILE 4.82
 STATION 570+62.91
 SHELBY COUNTY

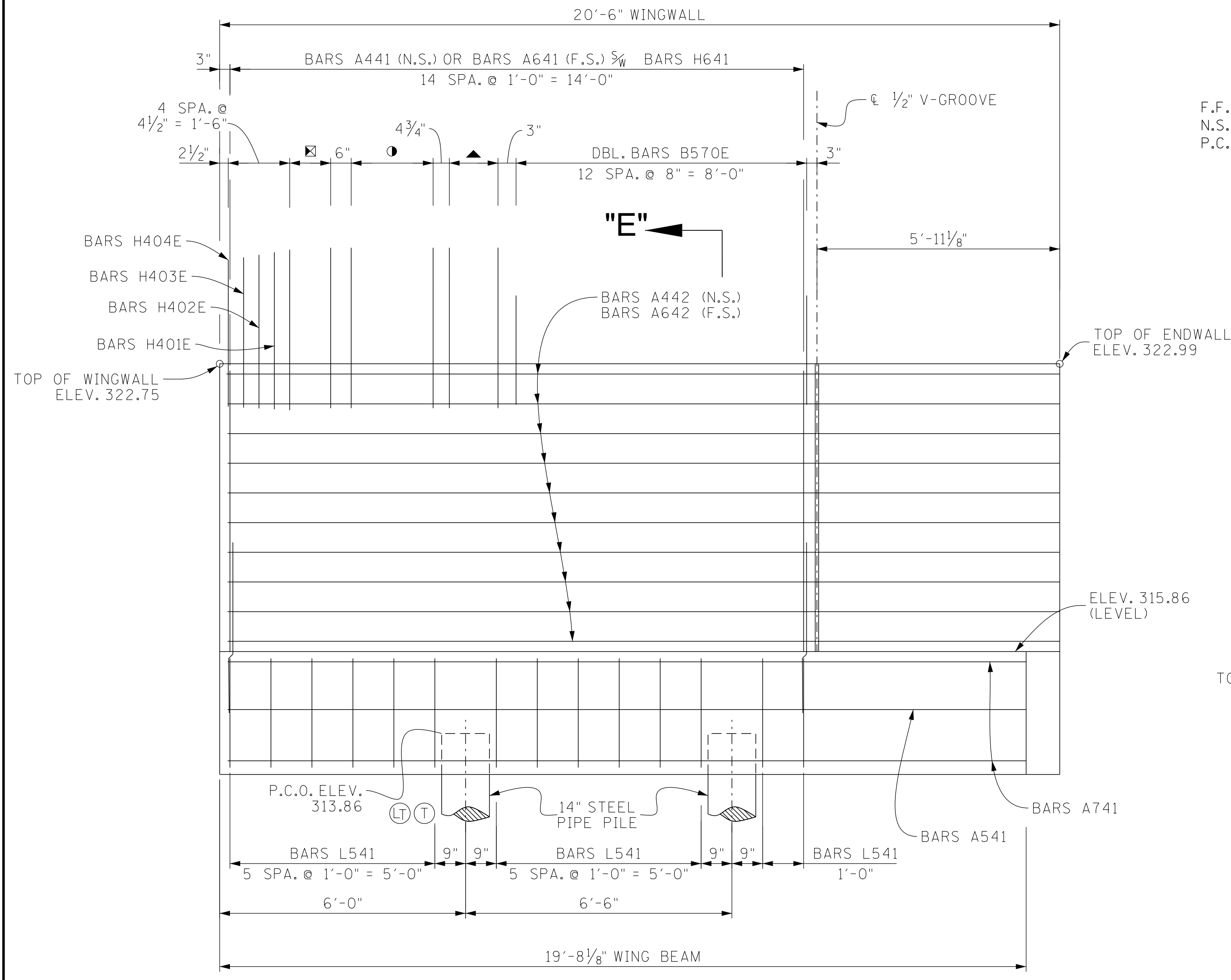
U-102-235

PIN NO.: 100340.00
 DESIGN BY: A. OMAR DATE: 10/2025
 DRAWN BY: P. MOSHER DATE: 01/2026
 SUPERVISED BY: D.E./D.S. DATE: 10/2025
 CHECKED BY: D. SHIKE DATE: 01/2026

SEALED BY

10:23:10 AM
 3/9/2026

PROJECT NO.	YEAR	SHEET NO.	
STP/NH-4(6)	2026		
REVISIONS			
NO.	DATE	BY	BRIEF DESCRIPTION
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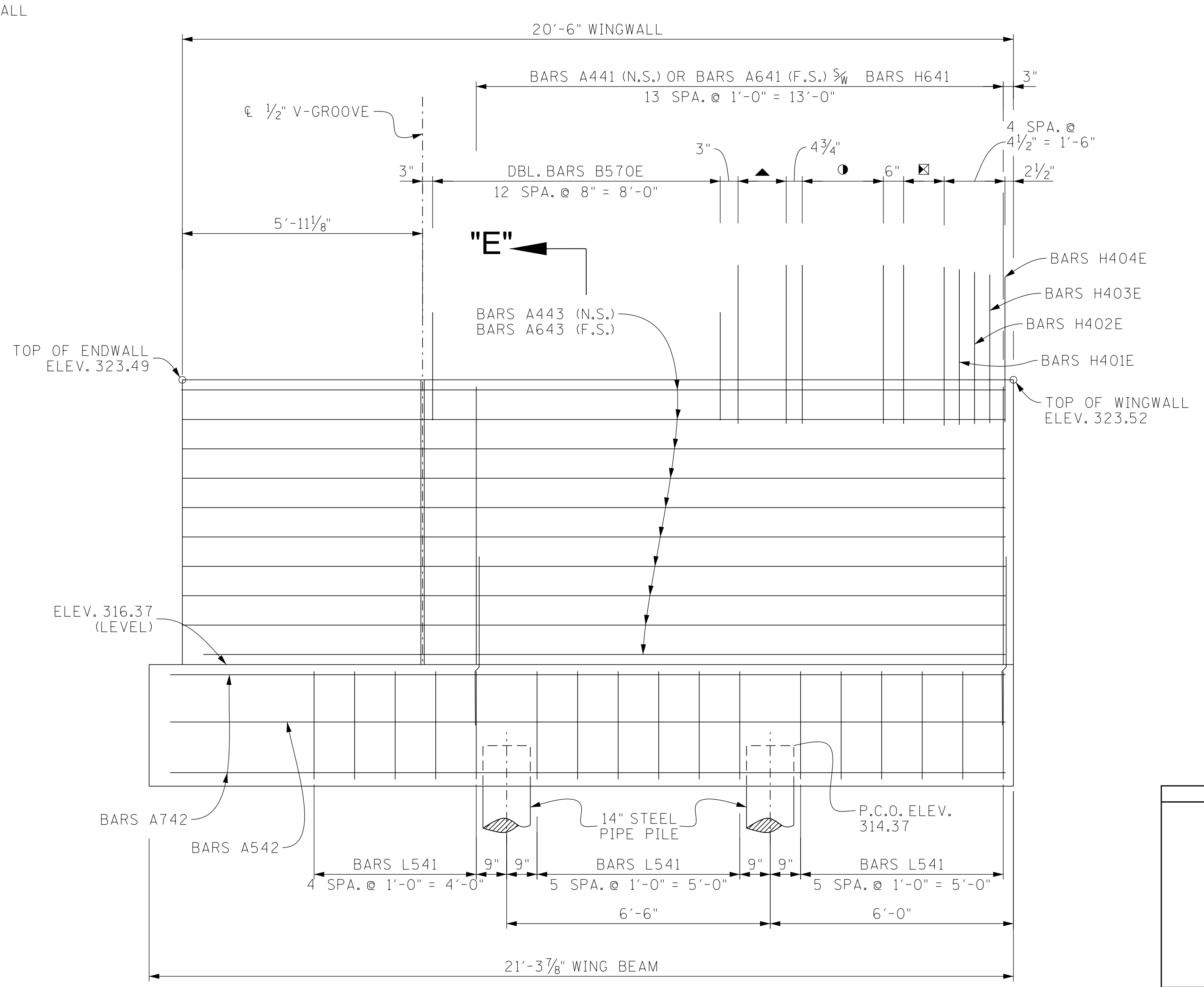


ELEVATION "A"-"A"

Ⓣ DENOTES: LOAD TEST
 Ⓢ DENOTES: TEST PILE

F.F. DENOTES: FAR SIDE
 N.S. DENOTES: NEAR SIDE
 P.C.O. DENOTES: PILE CUT-OFF

☒ DENOTES: BARS H400E
 5 SPA. @ 6" = 2'-6"
 ● DENOTES: SER. BARS HD401E
 4 SPA. @ 6" = 2'-0"
 ▲ DENOTES: SER. BARS HD400E
 3 SPA. @ 4 3/4" = 1'-2 1/4"



ELEVATION "D"-"D"

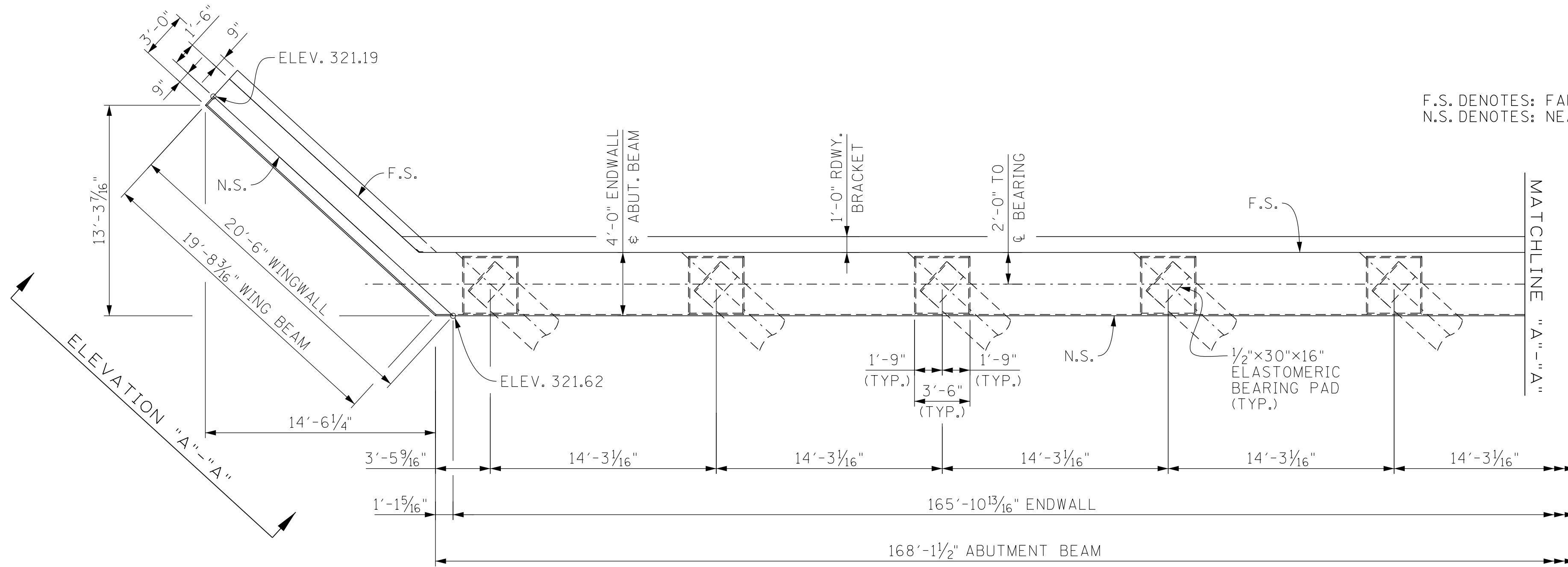
SEALED BY

BRIDGE NO. 4
 STATE OF TENNESSEE
 DEPARTMENT OF TRANSPORTATION
 ABUTMENT NO. 1 DETAILS
 STATE ROUTE 4 (LAMAR AVE.)
 OVER WINCHESTER ROAD
 BRIDGE ID NO. 79SR0040043
 LOG MILE 4.82
 STATION 570+62.91
 SHELBY COUNTY

PIN NO.: 100340.00
 DESIGN BY: A. OMAR DATE: 10/2025
 DRAWN BY: P. MOSHER DATE: 01/2026
 SUPERVISED BY: D.E./D.S. DATE: 10/2025
 CHECKED BY: D. SHIKE DATE: 01/2026

10:24:28 AM
 3/9/2026

PROJECT NO.	YEAR	SHEET NO.	
STP/NH-4(6)	2026		
REVISIONS			
NO.	DATE	BY	BRIEF DESCRIPTION
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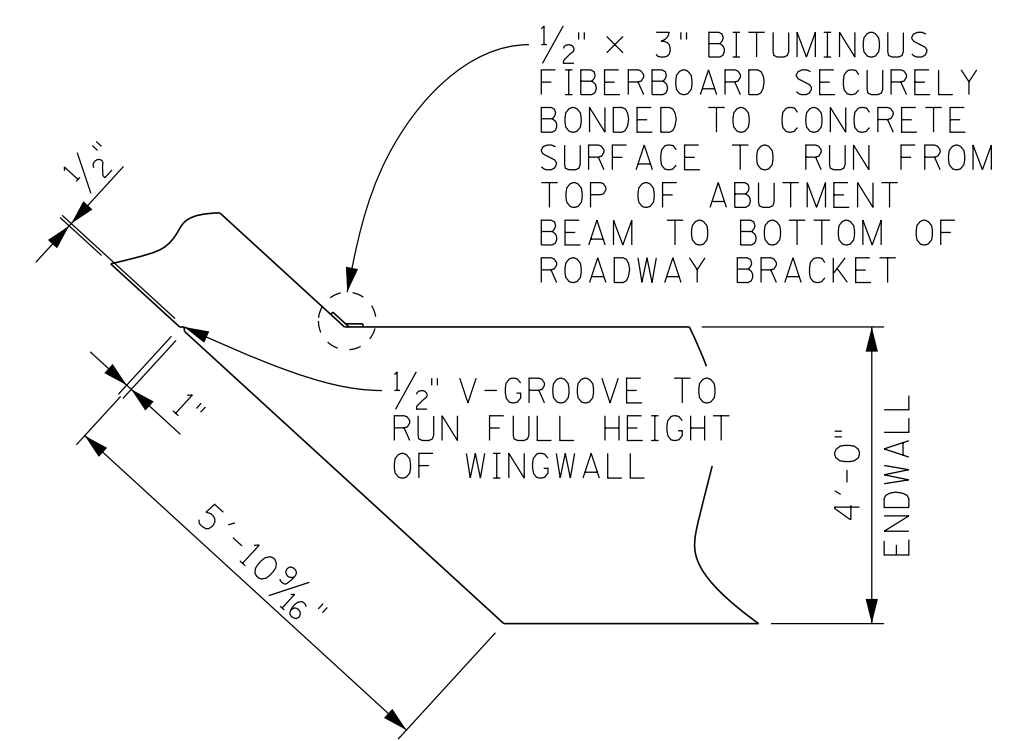


F.S. DENOTES: FAR SIDE
N.S. DENOTES: NEAR SIDE

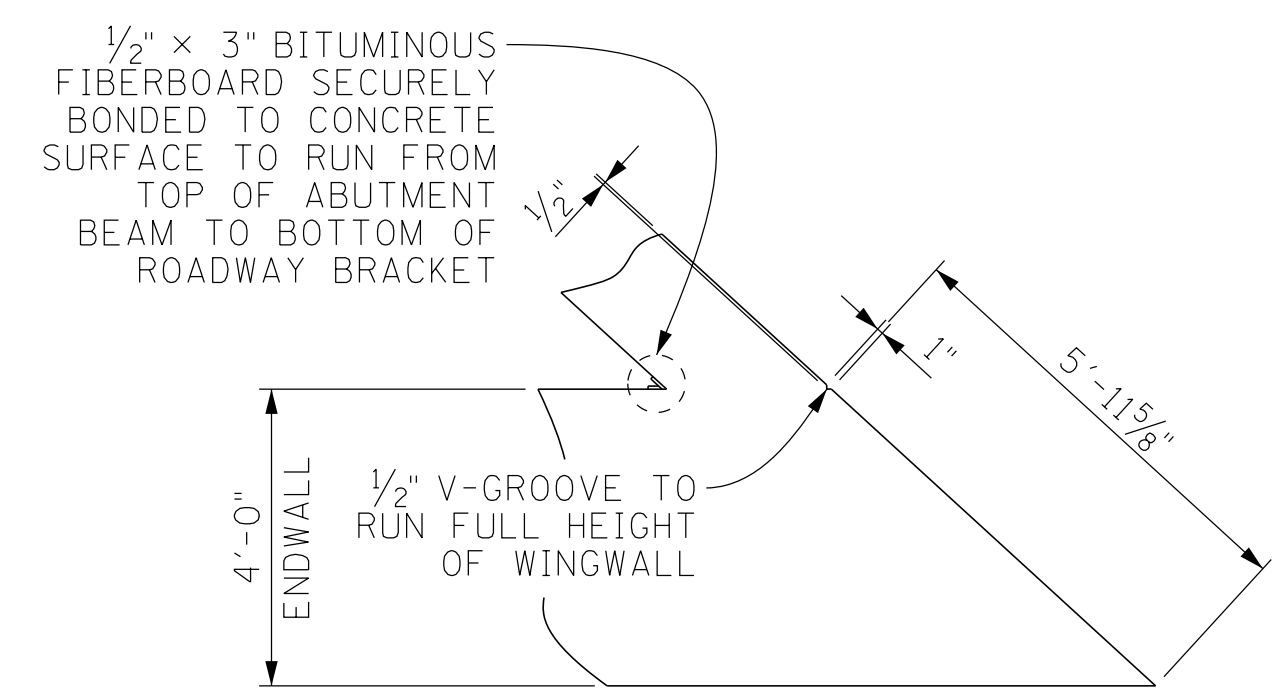
PLAN

NOTES:

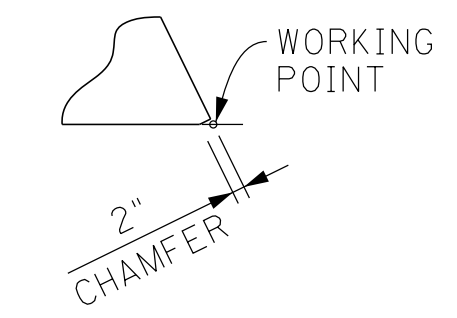
- NOTE:** WHEN POURING ABUTMENT BEAM, PROVISIONS SHALL BE MADE FOR SETTING ANCHOR BOLTS. BOLT PROJECTION 6".
- NOTE:** RISER BLOCKS SHALL BE POURED MONOLITHICALLY WITH THE ABUTMENT BEAM.
- NOTE:** ELASTOMERIC PADS SHALL BE IN PLACE A MINIMUM OF ONE DAY BEFORE BEING DISTURBED BY SETTING BEAMS. PLACE RUBBER 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. STD-1-1SS.
- NOTE:** THE ENTIRE ABUTMENT ENDWALL SHALL BE POURED CONCURRENTLY WITH POUR NO. 2. SEE DWG. NO. U-102-228.
- NOTE:** COST OF BRIDGE RAIL AND POST IS TO BE INCLUDED IN THE UNIT PRICE BID FOR THE BRIDGE RAIL SYSTEM.
- NOTE:** SEE STANDARD DRAWING STD-6-1 FOR PILE SEISMIC ATTACHMENT DETAILS AND NOTES.
- NOTE:** WINGBEAM PILES SHALL BE DRIVEN TO THE PLANS TIP ELEVATION OR REFUSAL. SEISMIC ATTACHMENT IS NOT REQUIRED FOR WINGBEAM PILES.



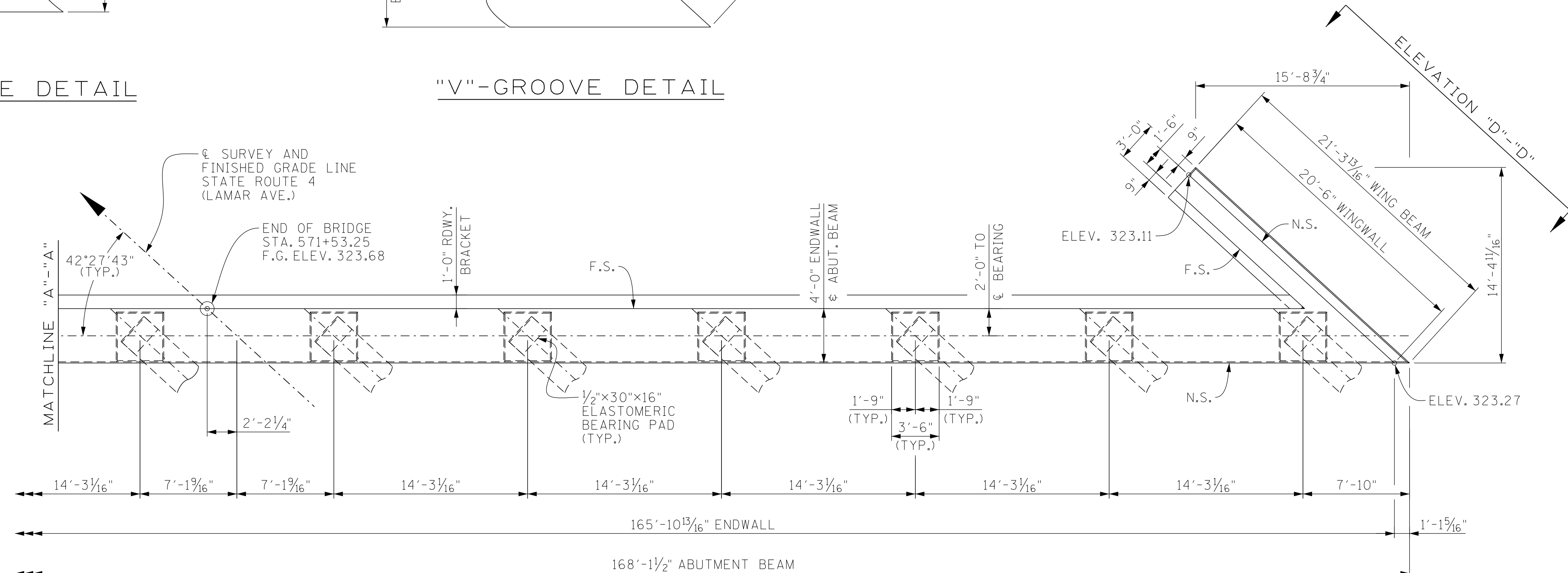
'V'-GROOVE DETAIL



'V'-GROOVE DETAIL



WORKING POINT DETAIL



PLAN

SEALED BY

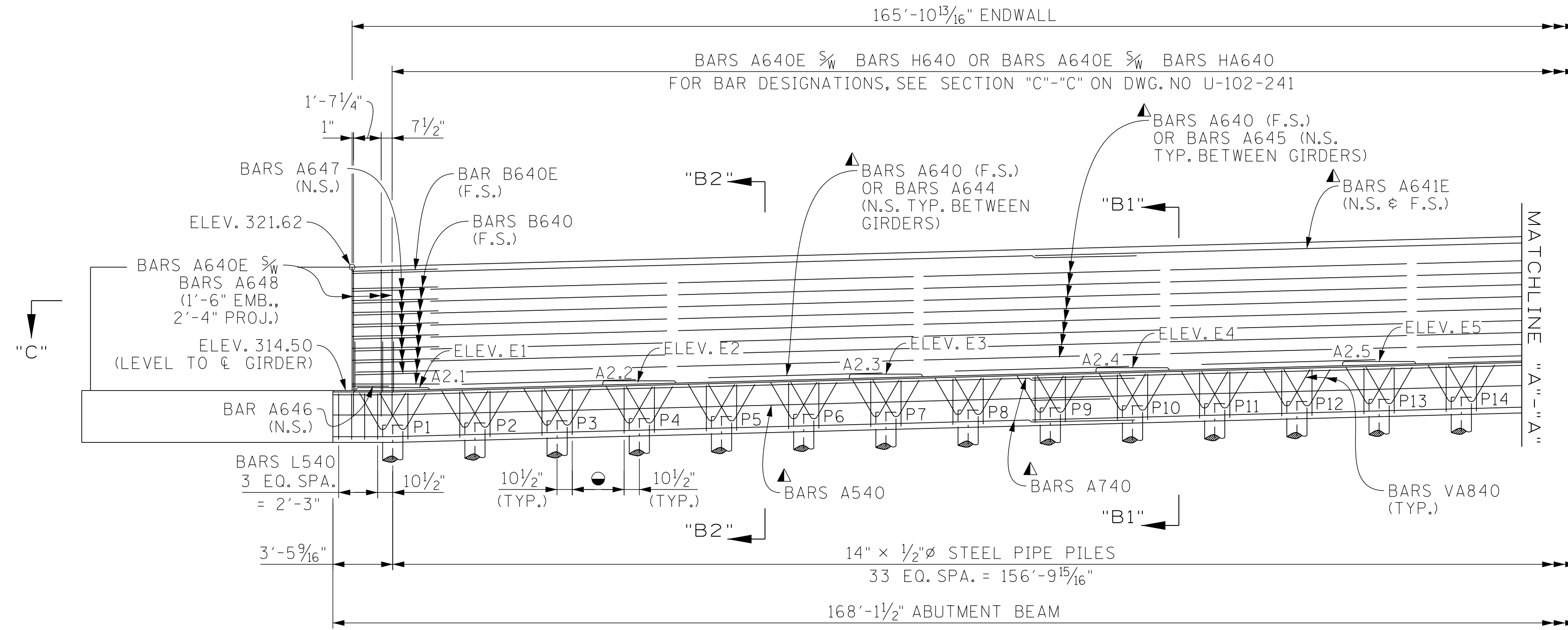
BRIDGE NO. 4
STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

ABUTMENT NO. 2
STATE ROUTE 4 (LAMAR AVE.)
OVER WINCHESTER ROAD
BRIDGE ID NO. 79SR0040043
LOG MILE 4.82
STATION 570+62.91
SHELBY COUNTY

PIN NO.: 100340.00
DESIGN BY: A. OMAR DATE: 10/2025
DRAWN BY: P. MOSHER DATE: 01/2026
SUPERVISED BY: D.E./D.S. DATE: 10/2025
CHECKED BY: D. SHIKE DATE: 01/2026

PROJECT NO.	YEAR	SHEET NO.	
STP/NH-4(6)	2026		
REVISIONS			
NO.	DATE	BY	BRIEF DESCRIPTION
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F.S. DENOTES: FAR SIDE
 N.S. DENOTES: NEAR SIDE
 P. C. O. DENOTES: PILE CUT-OFF



ELEVATION
 (LOOKING FORWARD ON SURVEY)

● DENOTES: BARS L540 - 3 SPA. @ 1'-0" = 3'-0"
 (TYP. BETWEEN PILES)

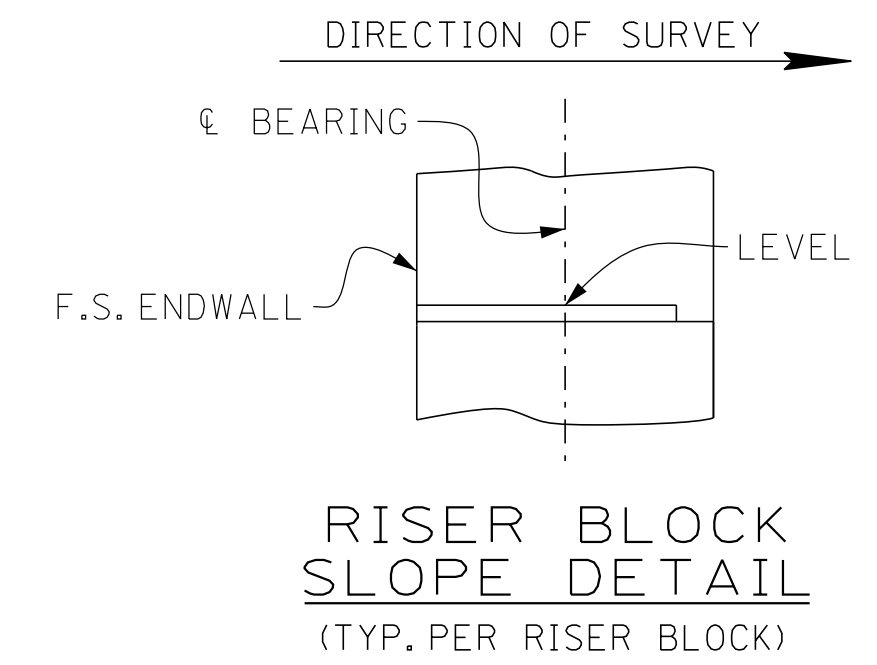
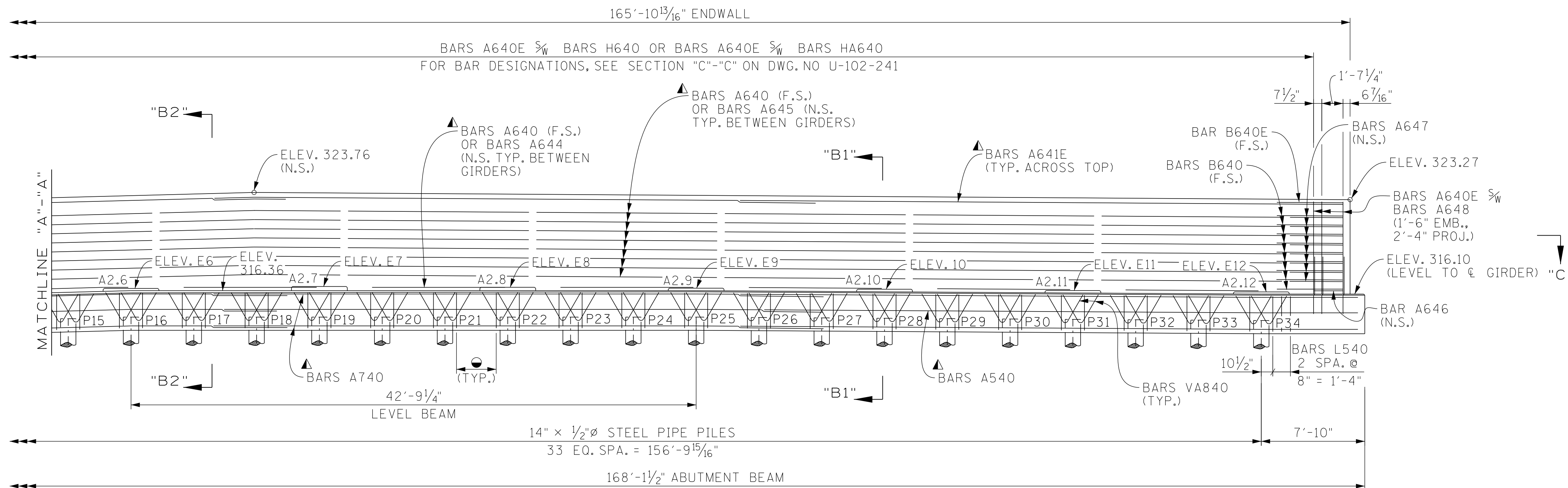


TABLE OF ELEVATIONS

E1	E2	E3	E4	E5	E6	E7	E8	E9	E10	E11	E12
314.67	315.06	315.45	315.82	316.18	316.53	316.68	316.62	316.55	316.47	316.37	316.27

▲ DENOTES:
 4 BARS A641E (PER ROW) (4'-10" MIN. SPLICE)
 4 BARS A640 (PER ROW) (3'-7" MIN. SPLICE)
 4 BARS A440 (2'-5" MIN. SPLICE)
 4 BARS A740 (PER ROW) (4'-2" MIN. SPLICE)
 4 BARS A540 (PER ROW) (3'-0" MIN. SPLICE)

RISER LOCATION	"X"
A2.1	1 ¹³ / ₁₆ "
A2.2	1 ¹³ / ₁₆ "
A2.3	1 ¹³ / ₁₆ "
A2.4	1 ³ / ₄ "
A2.5	1 ³ / ₄ "
A2.6	1 ³ / ₄ "
A2.7	1 ³ / ₄ "
A2.8	1 ¹¹ / ₁₆ "
A2.9	1 ¹¹ / ₁₆ "
A2.10	1 ¹¹ / ₁₆ "
A2.11	1 ⁵ / ₈ "
A2.12	1 ⁵ / ₈ "



ELEVATION
 (LOOKING FORWARD ON SURVEY)

TABLE OF P. C. O. ELEVATIONS

P1	P2	P3	P4	P5	P6	P7	P8	P9	P10	P11	P12	P13	P14	P15	P16	P17
312.50	312.62	312.75	312.87	313.00	313.12	313.24	313.37	313.49	313.62	313.74	313.86	313.99	314.11	314.24	314.36	314.36
P18	P19	P20	P21	P22	P23	P24	P25	P26	P27	P28	P29	P30	P31	P32	P33	P34
314.36	314.36	314.36	314.36	314.36	314.36	314.36	314.36	314.33	314.30	314.27	314.24	314.22	314.19	314.16	314.13	314.10

SEALED BY

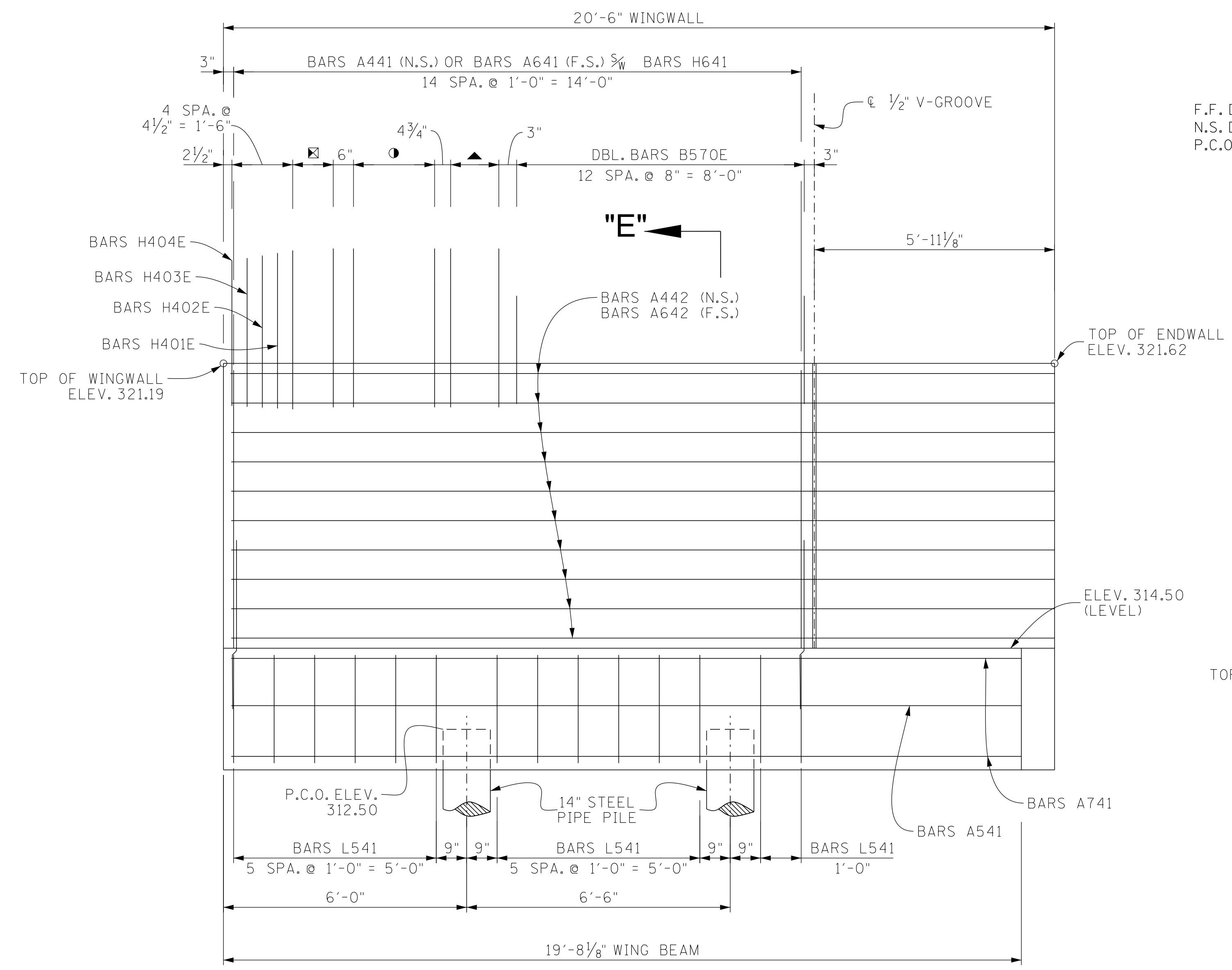
BRIDGE NO. 4
 STATE OF TENNESSEE
 DEPARTMENT OF TRANSPORTATION

ABUTMENT NO. 2
 STATE ROUTE 4 (LAMAR AVE.)
 OVER WINCHESTER ROAD
 BRIDGE ID NO. 79SR0040043
 LOG MILE 4.82
 STATION 570+62.91
 SHELBY COUNTY

PIN NO.: 100340.00
 DESIGN BY: A. OMAR DATE: 10/2025
 DRAWN BY: P. MOSHER DATE: 01/2026
 SUPERVISED BY: D.E./D.S. DATE: 10/2025
 CHECKED BY: D. SHIKE DATE: 01/2026

1:39:45 PM
 3/9/2026

PROJECT NO.	YEAR	SHEET NO.	
STP/NH-4(6)	2026		
REVISIONS			
NO.	DATE	BY	BRIEF DESCRIPTION
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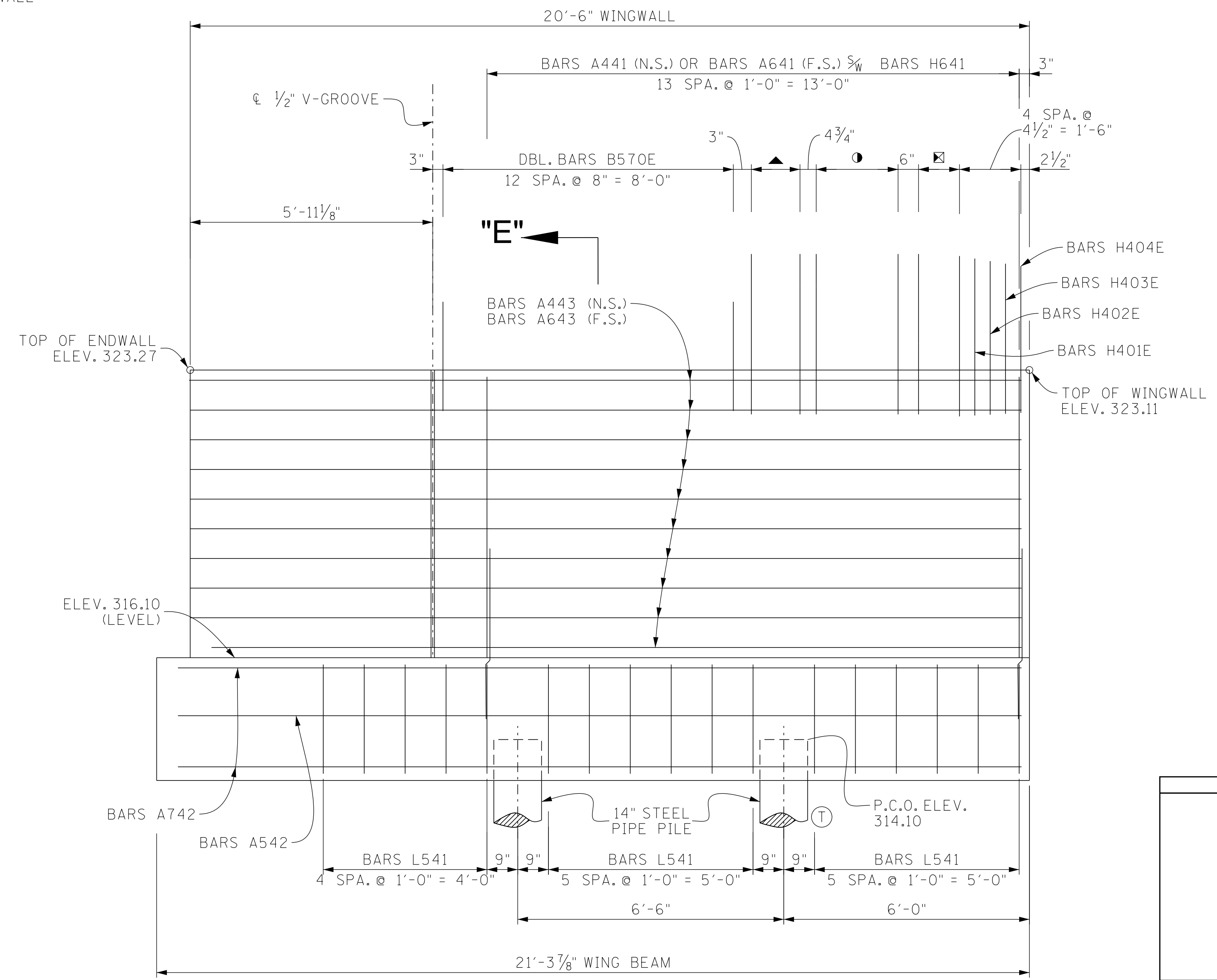


ELEVATION "A"-"A"

Ⓣ DENOTES: TEST PILE

F.F. DENOTES: FAR SIDE
 N.S. DENOTES: NEAR SIDE
 P.C.O. DENOTES: PILE CUT-OFF

- ☒ DENOTES: BARS H400E
5 SPA. @ 6" = 2'-6"
- DENOTES: SER. BARS HD401E
4 SPA. @ 6" = 2'-0"
- ▲ DENOTES: SER. BARS HD400E
3 SPA. @ 4 3/4" = 1'-2 1/4"



ELEVATION "E"-"E"

Ⓣ DENOTES: TEST PILE

SEALED BY

BRIDGE NO. 4
 STATE OF TENNESSEE
 DEPARTMENT OF TRANSPORTATION

ABUTMENT NO. 2 DETAILS
 STATE ROUTE 4 (LAMAR AVE.)
 OVER WINCHESTER ROAD
 BRIDGE ID NO. 79SR0040043
 LOG MILE 4.82
 STATION 570+62.91
 SHELBY COUNTY

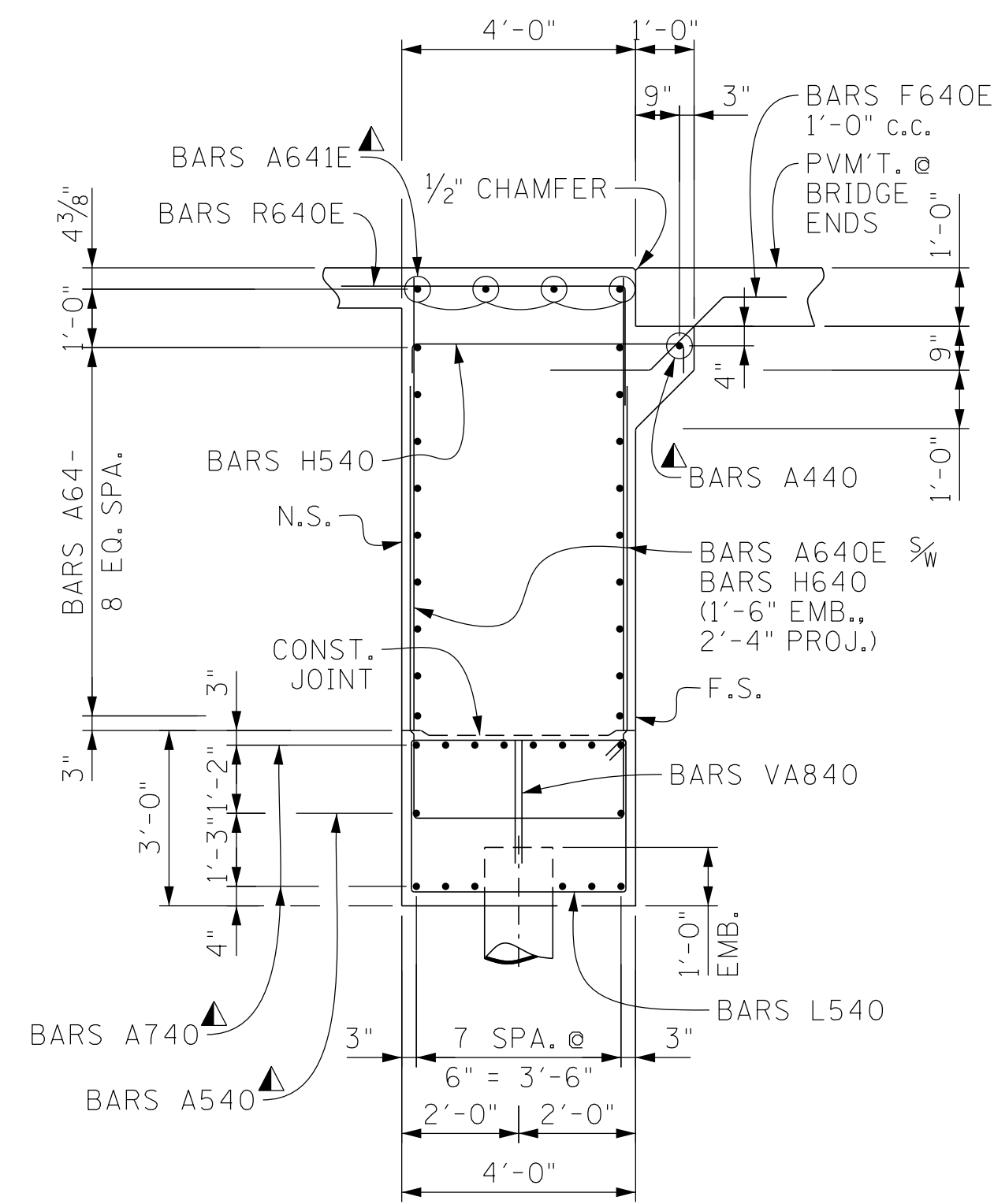
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PIN NO.: 100340.00
 DESIGN BY: A. OMAR DATE: 10/2025
 DRAWN BY: P. MOSHER DATE: 01/2026
 SUPERVISED BY: D.E./D.S. DATE: 10/2025
 CHECKED BY: D. SHIKE DATE: 01/2026

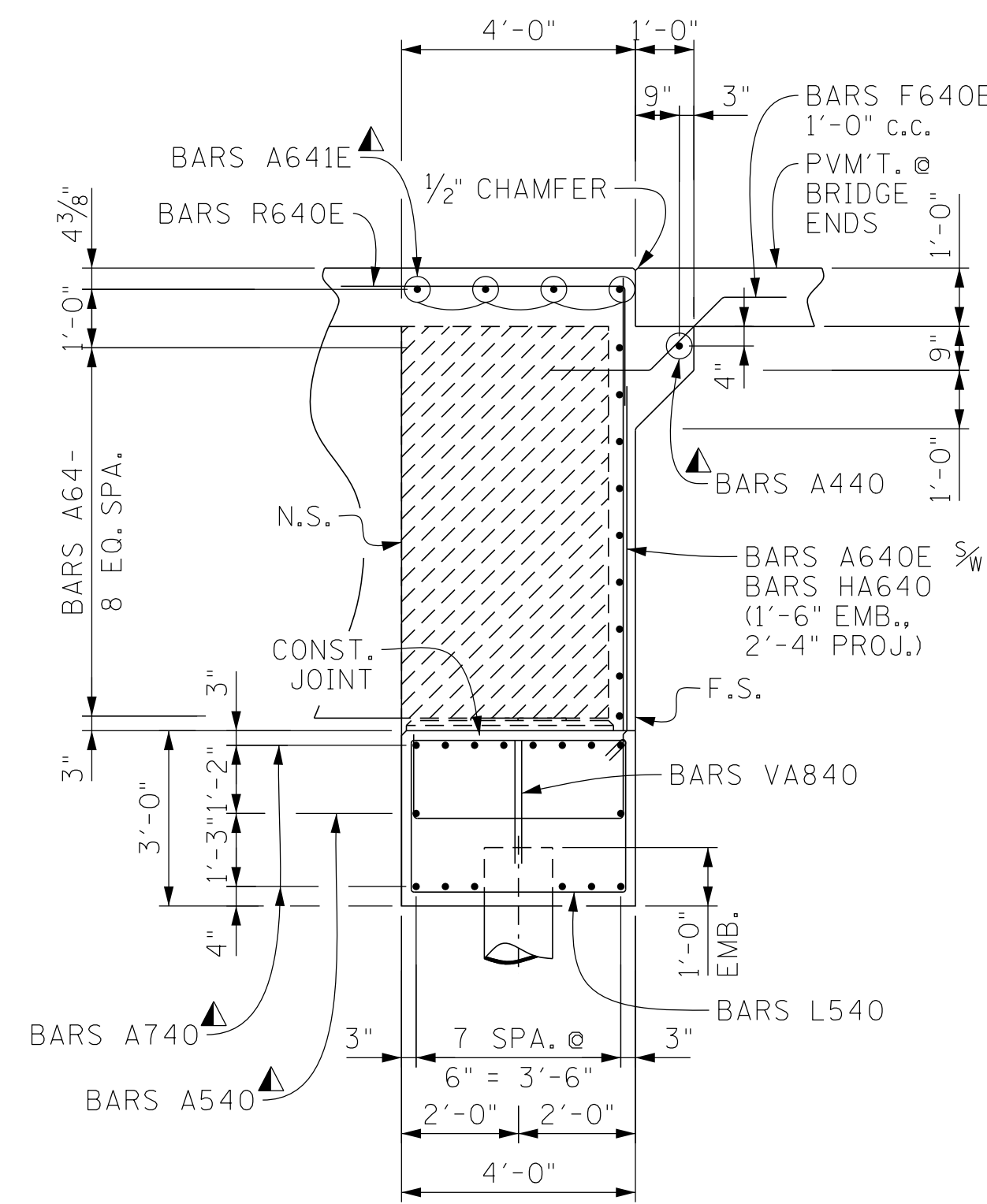
PROJECT NO.	YEAR	SHEET NO.	
STP/NH-4(6)	2026		
REVISIONS			
NO.	DATE	BY	BRIEF DESCRIPTION
-	-	-	-
-	-	-	-
-	-	-	-
-	-	-	-

F.S. DENOTES: FAR SIDE
N.S. DENOTES: NEAR SIDE

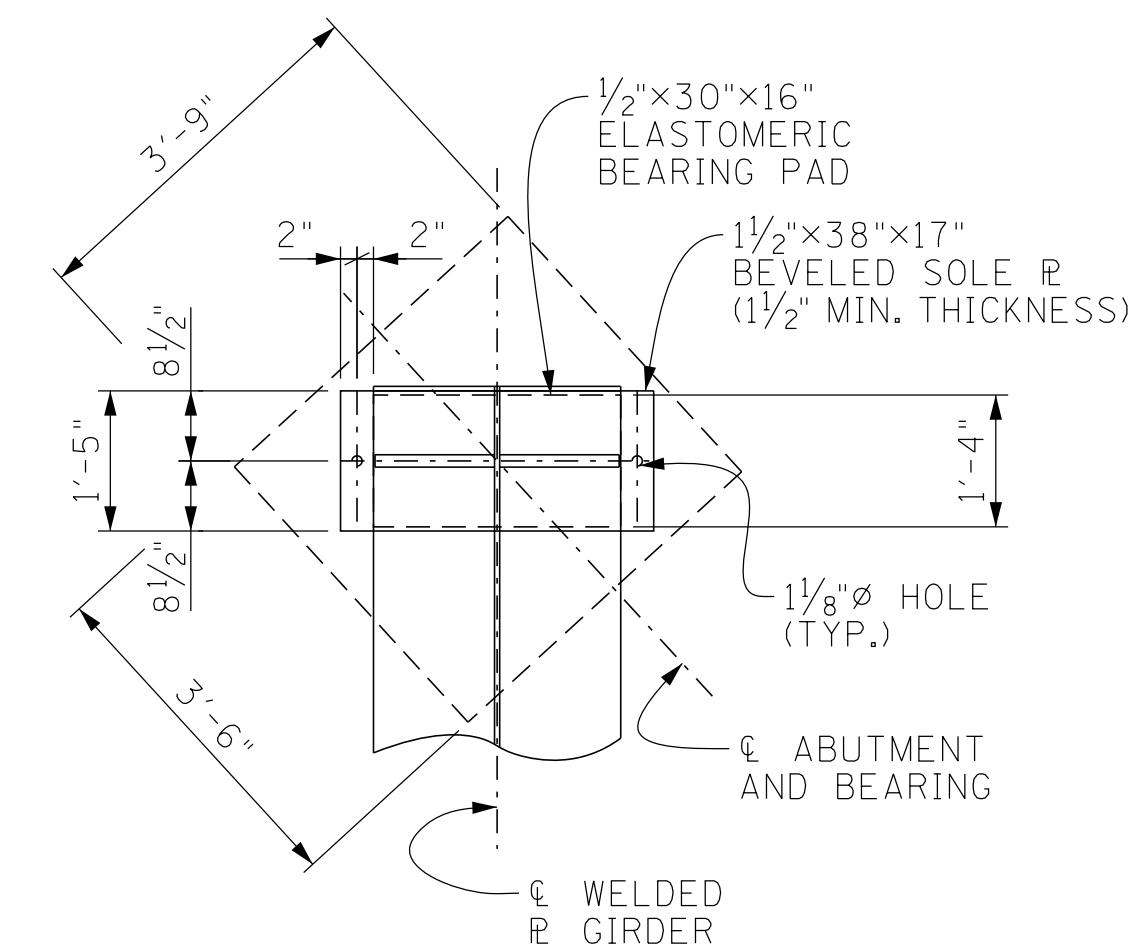
- ▲ DENOTES:
 4 BARS A641E (PER ROW) (4'-10" MIN. SPLICE)
 4 BARS A640 (PER ROW) (3'-7" MIN. SPLICE)
 4 BARS A440 (2'-5" MIN. SPLICE)
 4 BARS A740 (PER ROW) (4'-2" MIN. SPLICE)
 4 BARS A540 (PER ROW) (3'-0" MIN. SPLICE)



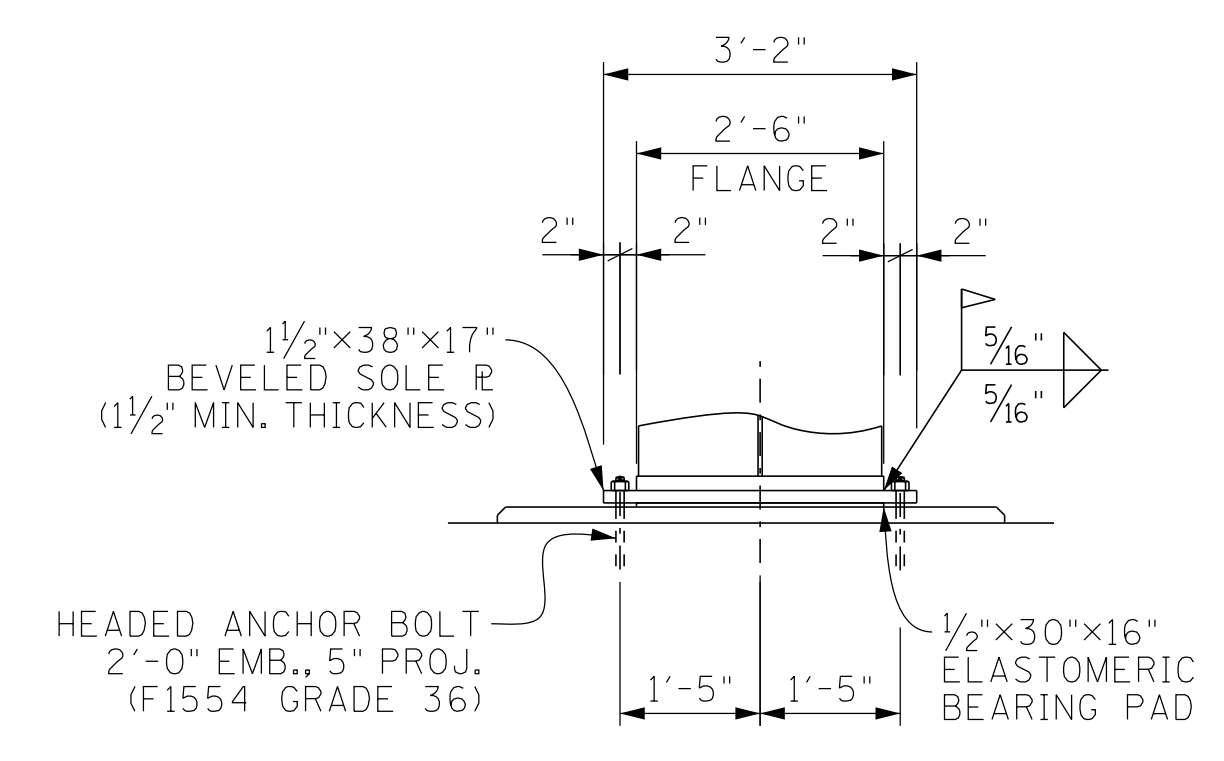
SECTION "B1"-"B1"
(BETWEEN GIRDERS)



SECTION "B2"-"B2"
(@ GIRDERS)



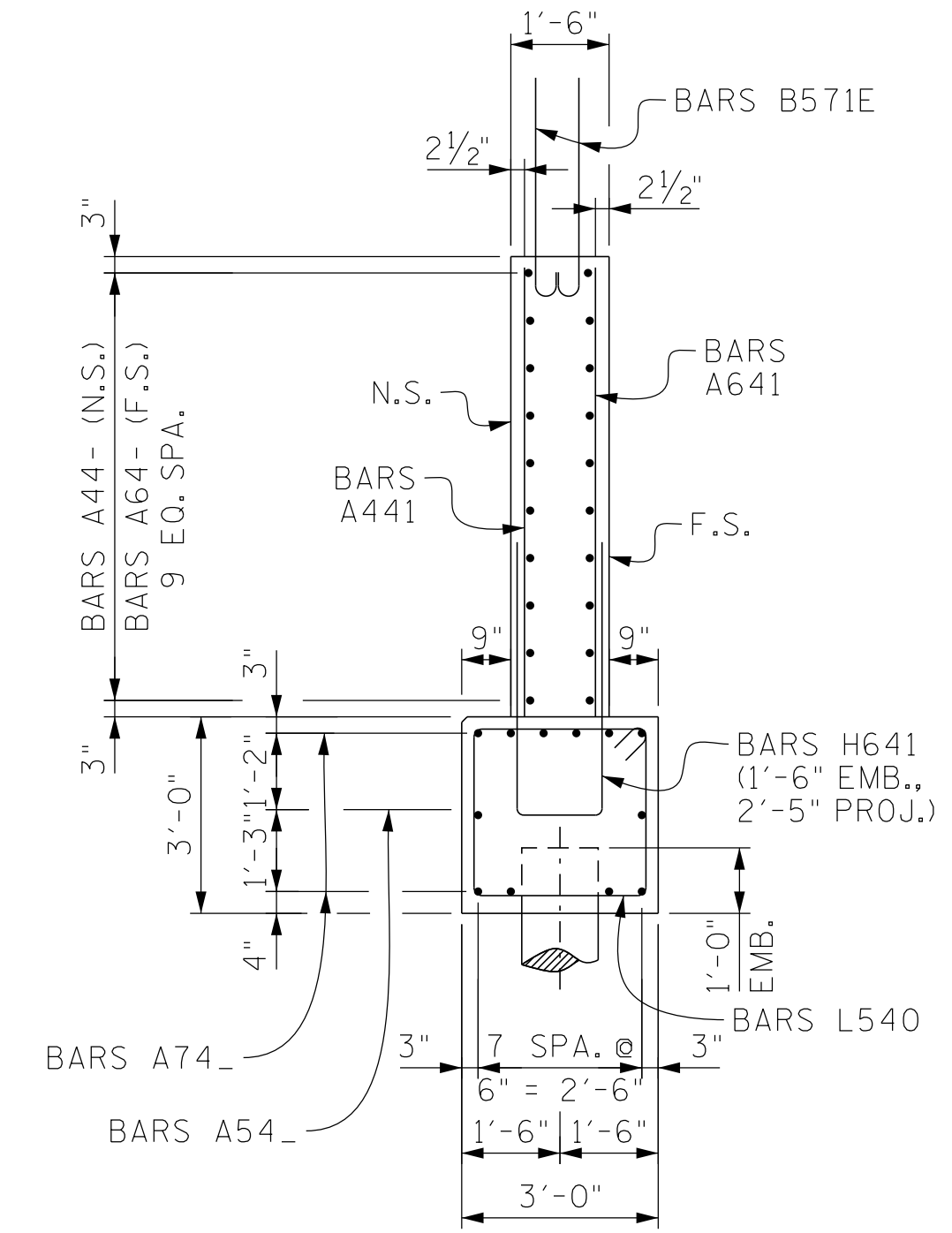
PLAN



ELEVATION

BEARING DETAIL
(TYP. PER RISER BLOC)

NOTE: PADS SHALL HAVE HARDNESS (SHORE A) OF 70.
NOTE: PADS SHALL BE VULCANIZED TO SOLE PLATE.



SECTION "E"-"E"

SEALED BY

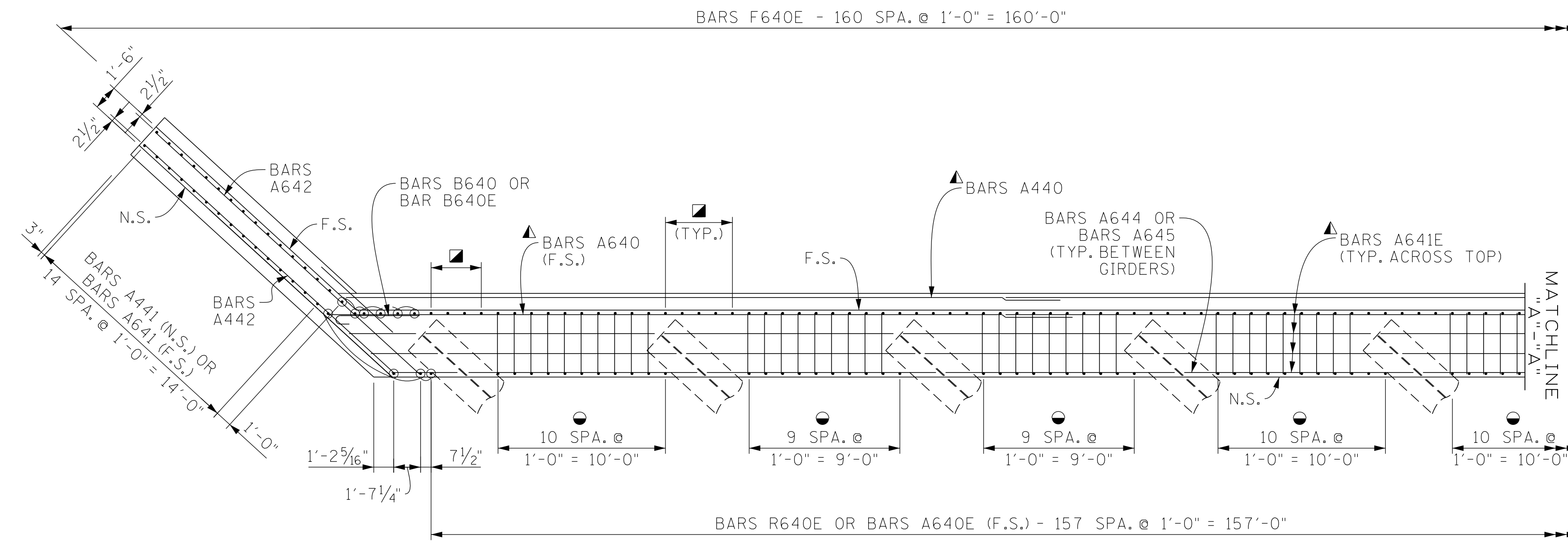
BRIDGE NO. 4
STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

ABUTMENT NO. 1 & 2 DETAILS
STATE ROUTE 4 (LAMAR AVE.)
OVER WINCHESTER ROAD
BRIDGE ID NO. 79SR0040043
LOG MILE 4.82
STATION 570+62.91
SHELBY COUNTY

PIN NO.: 100340.00
 DESIGN BY: A. OMAR DATE: 10/2025
 DRAWN BY: P. MOSHER DATE: 01/2026
 SUPERVISED BY: D.E./D.S. DATE: 10/2025
 CHECKED BY: D. SHIKE DATE: 01/2026

PROJECT NO.	YEAR	SHEET NO.	
STP/NH-4(6)	2026		
REVISIONS			
NO.	DATE	BY	BRIEF DESCRIPTION
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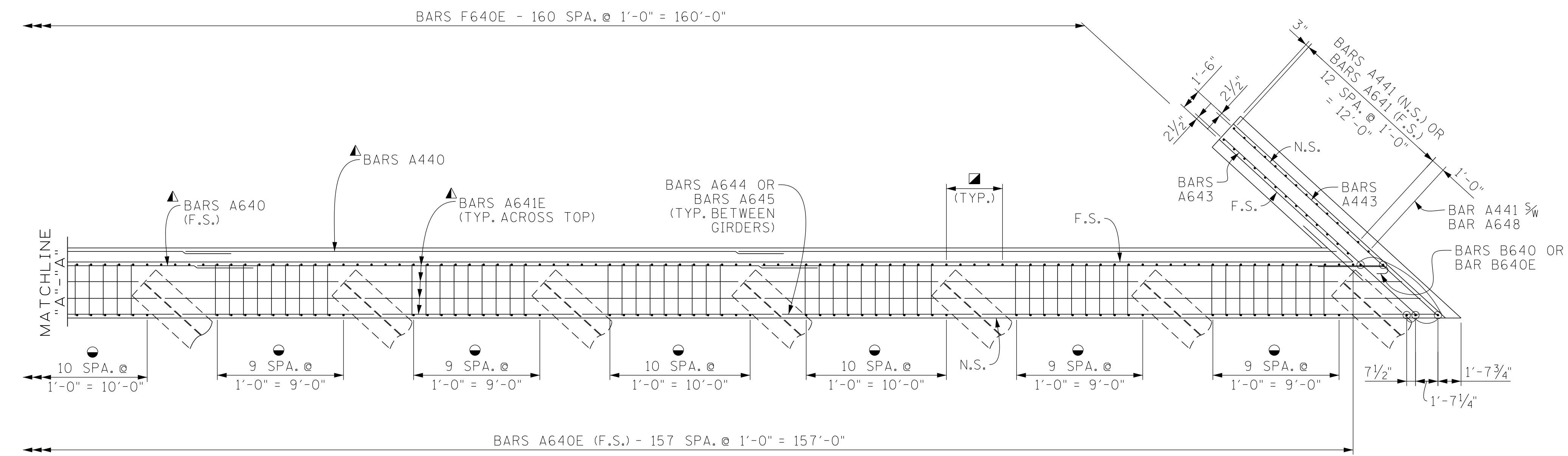
F.S. DENOTES: FAR SIDE
N.S. DENOTES: NEAR SIDE



SECTION "C"-"C"

- ⊙ DENOTES: BARS A640E (N.S. & F.S.) $\frac{5}{8}$ BARS A648
- ▣ DENOTES: BARS A640E (N.S. & F.S.) $\frac{5}{8}$ BARS HA640 (F.S.)
- DENOTES: BARS A640E (N.S. & F.S.) $\frac{5}{8}$ BARS H640 OR BARS H540

- ▲ DENOTES:
 - 4 BARS A641E (PER ROW) (4'-10" MIN. SPLICE)
 - 4 BARS A640 (PER ROW) (3'-7" MIN. SPLICE)
 - 4 BARS A440 (2'-5" MIN. SPLICE)
 - 4 BARS A740 (PER ROW) (4'-2" MIN. SPLICE)
 - 4 BARS A540 (PER ROW) (3'-0" MIN. SPLICE)



SECTION "C"-"C"

SEALED BY

BRIDGE NO. 4
STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

ABUTMENT NO. 1 & 2 DETAILS
STATE ROUTE 4 (LAMAR AVE.)
OVER WINCHESTER ROAD
BRIDGE ID NO. 79SR0040043
LOG MILE 4.82
STATION 570+62.91
SHELBY COUNTY

U-102-241

PIN NO.: 100340.00
DESIGN BY: A. OMAR DATE: 10/2025
DRAWN BY: P. MOSHER DATE: 01/2026
SUPERVISED BY: D.E./D.S. DATE: 10/2025
CHECKED BY: D. SHIKE DATE: 01/2026

10:36:30 AM 3/9/2026

PROJECT NO.	YEAR	SHEET NO.	
STP/NH-4(6)	2026		
REVISIONS			
NO.	DATE	BY	BRIEF DESCRIPTION
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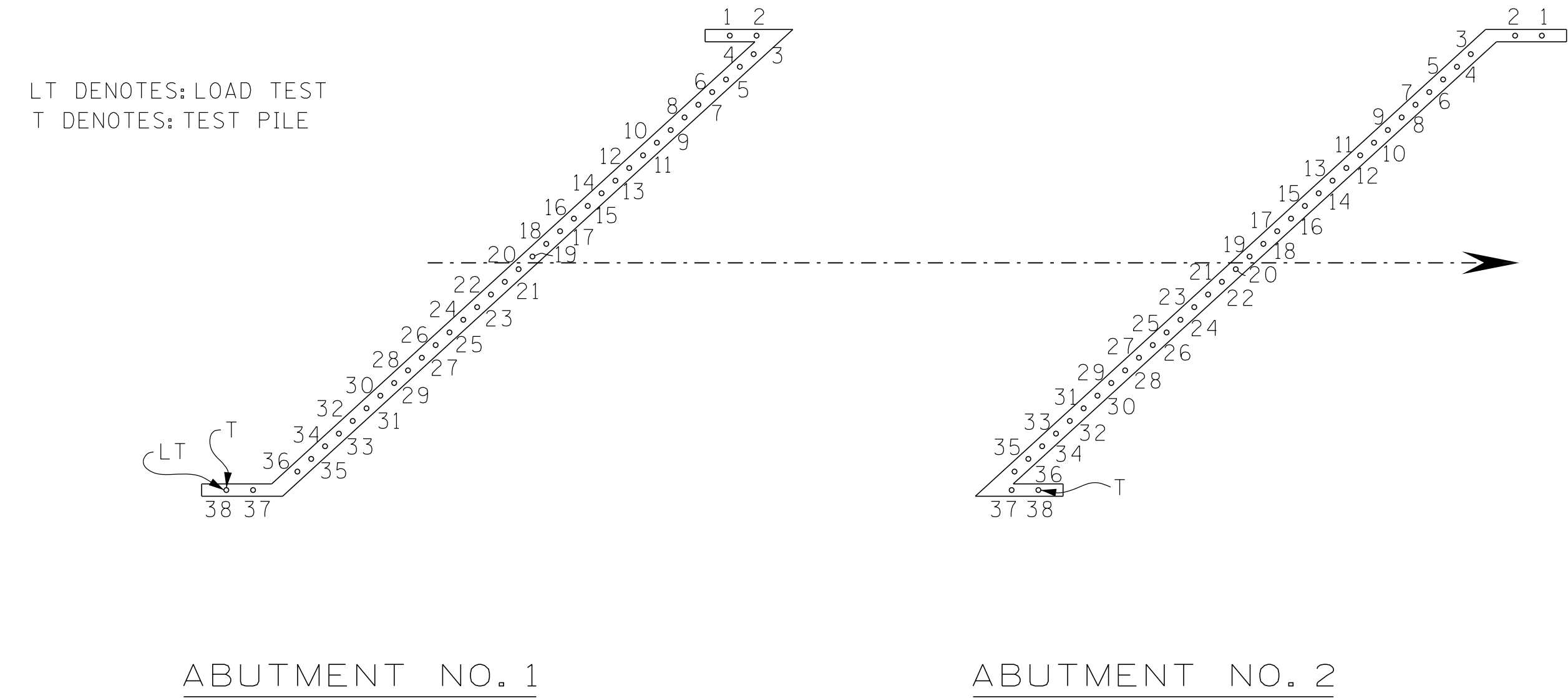


TABLE SHOWING PILE NUMBERS, PILE CUT-OFF ELEVATIONS, AND PILE LENGTHS

ABUTMENT NO. 1	PILE CUT-OFF ELEVATION	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	
	IN PLACE PILE LENGTH																				
	PILE TIP ELEVATION																				
ABUTMENT NO. 2	PILE CUT-OFF ELEVATION																				
	IN PLACE PILE LENGTH																				
	PILE TIP ELEVATION																				
ABUTMENT NO. 1	PILE CUT-OFF ELEVATION	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	
	IN PLACE PILE LENGTH																				
	PILE TIP ELEVATION																				
ABUTMENT NO. 2	PILE CUT-OFF ELEVATION																				
	IN PLACE PILE LENGTH																				
	PILE TIP ELEVATION																				

NOTE TO CONTRACTOR AND CONSTRUCTION OFFICE:
THE BLANKS ON THIS SHEET 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 THE FINAL BRIDGE DOCUMENTS.

PIN NO.: 100340.00
 DESIGN BY: A. OMAR DATE: 10/2025
 DRAWN BY: T.R. KIRK DATE: 02/2026
 SUPERVISED BY: D.E./D.S. DATE: 10/2025
 CHECKED BY: D. SHIKE DATE: 01/2026

BRIDGE NO. 4
 STATE OF TENNESSEE
 DEPARTMENT OF TRANSPORTATION

FINAL FOUNDATION DATA
 STATE ROUTE 4 (LAMAR AVE.)
 OVER WINCHESTER ROAD
 BRIDGE ID NO. 79SR0040043
 LOG MILE 4.82
 STATION 570+62.91
 SHELBY COUNTY

3/9/2026 8:07:26 AM

BILL OF STEEL

SUPERSTRUCTURE (EPOXY)										ABUTMENT NO. 1 (EPOXY)										ABUTMENT NO. 1 (REGULAR - CONTINUED)										ABUTMENT NO. 2 (REGULAR - CONTINUED)									
BARS	LOCATION	SIZE	NO. REQ'D.	BENDING DIMENSIONS				LENGTH (FEET)	BARS	LOCATION	SIZE	NO. REQ'D.	BENDING DIMENSIONS				LENGTH (FEET)	BARS	LOCATION	SIZE	NO. REQ'D.	BENDING DIMENSIONS				LENGTH (FEET)	BARS	LOCATION	SIZE	NO. REQ'D.	BENDING DIMENSIONS				LENGTH (FEET)				
A500E	SLAB	5	1,199	A	B	C	D	60'-0"	A640E	ENDWALL	6	288	A	B	C	D	7'-0"	H640	ABUTMENT BEAM	6	116	A	B	C	D	11'-4"	A740	ABUTMENT BEAM	7	56	A	B	C	D	45'-8"				
A501E	SLAB	5	263					7'-6"	A641E	ENDWALL	6	16					45'-6"	H641	WING BEAM	6	29	1'-2"	3'-11"			9'-0"	A741	WING BEAM	7	10					19'-7"				
SERIES A502E	SLAB	5	2	LENGTH VARIES FROM 4'-4 1/4" TO 59'-8 5/8" IN INC. OF 5 7/16" (122 BARS)				3908'-6"	B570E	BRIDGERAIL	5	52	2'-8"				3'-3"	L540	ABUTMENT BEAM	5	139	3'-8"	2'-8"			13'-7"	A742	WING BEAM	7	10					17'-11"				
SERIES A503E	SLAB	5	2	LENGTH VARIES FROM 3'-10 1/4" TO 59'-8 1/8" IN INC. OF 5 7/16" (123 BARS)				3907'-2"	B640E	ENDWALL	6	2	5'-0"				5'-8"	L541	WING BEAM	5	31	2'-8"	2'-8"			11'-7"	B640	ENDWALL	6	18	5'-0"				5'-8"				
SERIES A504E	SLAB	5	2	LENGTH VARIES FROM 3'-10 1/4" TO 51'-5 1/4" IN INC. OF 5 7/16" (105 BARS)				2902'-10"	F640E	ENDWALL/RDWY. BRKT.	6	161	1'-1"	1'-3"	1'-1"	1'-3"	4'-0"	VA840	PILES	8	68	2'-6"	2'-6"			5'-0"	HA640	ABUTMENT BEAM	6	60	3'-8"	3'-10"	1'-5"		8'-11"				
A505E	SLAB	5	18					51'-8"	H400E	WINGWALLS	4	6	10 1/2"	3'-11"			8'-9"	ABUTMENT NO. 2 (EPOXY)																					
A506E	SLAB	5	428					55'-6"	H401E	WINGWALLS	4	1	9 7/8"	3'-10"			8'-7"	A640E	ENDWALL	6	288					7'-0"	H640	ABUTMENT BEAM	6	116	3'-8"	3'-10"			11'-4"				
SERIES A507E	SLAB	5	2	LENGTH VARIED FROM 7'-2 5/16" TO 55'-2 9/16" IN INC. OF 5 7/16" (106 BARS)				3307'-6"	H402E	WINGWALLS	4	1	8 3/4"	3'-9"			8'-4"	A641E	ENDWALL	6	16					45'-6"	H641	WING BEAM	6	29	1'-2"	3'-11"			9'-0"				
A508E	SLAB	5	48					6'-0"	H403E	WINGWALLS	4	1	7 5/8"	3'-8"			8'-0"	B570E	BRIDGERAIL	5	52	2'-8"				3'-3"	L540	ABUTMENT BEAM	5	139	3'-8"	2'-8"			13'-7"				
B570E	PARAPET/SLAB	5	1076	2'-8"				3'-3"	H404E	WINGWALLS	4	1	6 1/2"	3'-7"			7'-7"	L541	WING BEAM	5	31	2'-8"	2'-8"			11'-7"	VA840	PILES	8	68	2'-6"	2'-6"			5'-0"				
M470E	SLAB/MEDIAN BARRIER	4	456	1'-6"	0'-5"	0'-6"		4'-5"	SER. HD400E	WINGWALLS	4	1	* DIM. "A" VARIES FROM 5 7/8" TO 3 3/4" IN INC. OF 11/16" (4 BARS)				33'-4"	ABUTMENT NO. 1 (REGULAR)																					
									SER. HD401E	WINGWALLS	4	1	* DIM. "A" VARIES FROM 10" TO 6 1/2" IN INC. OF 7/8" (5 BARS)				42'-8"	A440	RDWY. BRKT.	4	4					42'-8"													
									R640E	ENDWALL/SLAB	6	157	4'-3"	3'-0"			7'-3"	A441	WINGWALL	4	29					6'-8"													
									ABUTMENT NO. 2 (REGULAR)										A442	WINGWALL	4	10					20'-4"												
									A640	ENDWALL	6	36					44'-6"	A443	WINGWALL	4	10					19'-10"													
									A641	WINGWALL	6	29					6'-9"	A540	ABUTMENT BEAM	5	8					44'-10"													
									A642	WINGWALL	6	10					21'-5"	A541	WING BEAM	5	2					19'-7"													
									A643	WINGWALL	6	10					18'-9"	A542	WING BEAM	5	2					17'-11"													
									A644	ENDWALL	6	11					10'-3"	B640	ENDWALL	6	18	5'-0"				5'-8"													
									A645	ENDWALL	6	88					13'-8"	H540	ENDWALL	5	116	4'-8"	0'-6"			5'-8"													
									A646	ENDWALL	6	2					2'-2"	HA640	ABUTMENT BEAM	6	60	3'-8"	3'-10"	1'-5"		8'-11"													
									A647	ENDWALL	6	16					4'-0"																						
									A648	ENDWALL	6	15					4'-4"																						
									A740	ABUTMENT BEAM	7	56					45'-8"																						
									A741	WING BEAM	7	10					17'-11"																						
									A742	WING BEAM	7	10					17'-11"																						

PROJECT NO.	YEAR	SHEET NO.	
STP/NH-4(6)	2026		
REVISIONS			
NO.	DATE	BY	BRIEF DESCRIPTION
-	-	-	-
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-	-	-	-

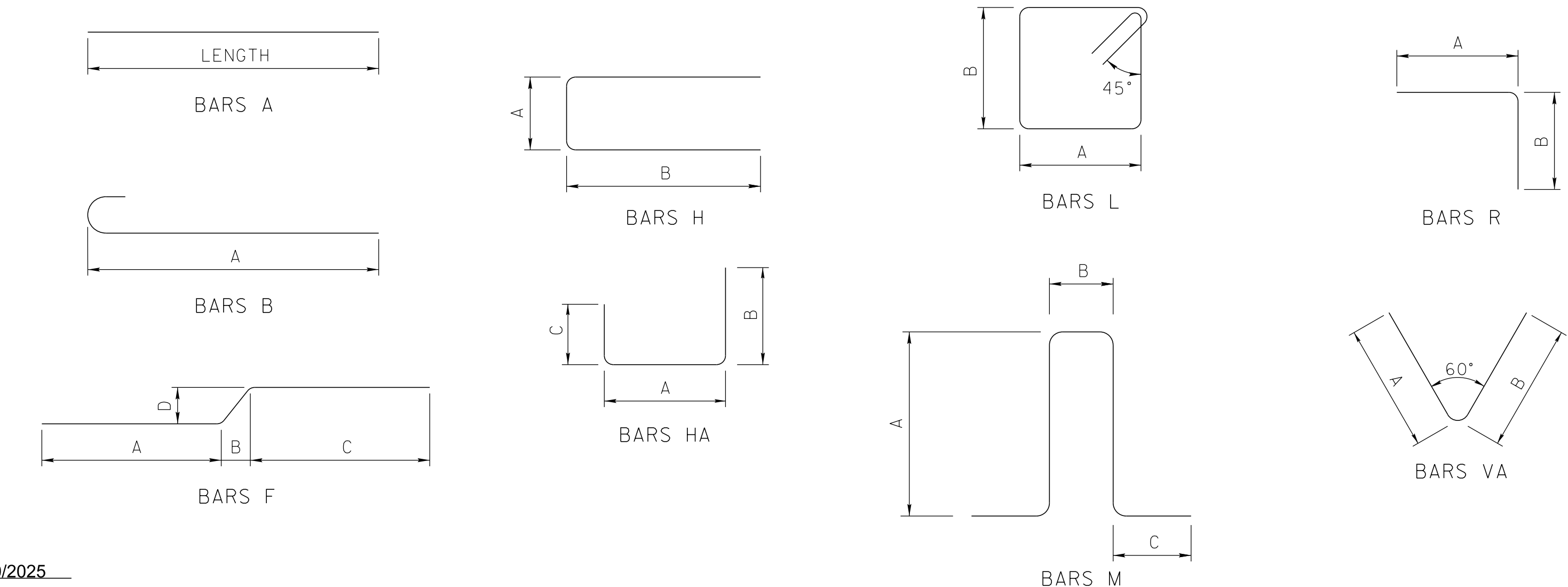
REINFORCING STEEL CODE

TYPE	SIZE	SERIES
A	5	6

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.

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.



SEALED BY

BRIDGE NO. 4
 STATE OF TENNESSEE
 DEPARTMENT OF TRANSPORTATION
BILL OF STEEL
 GENERAL NOTES
 STATE ROUTE 4 (LAMAR AVE.)
 OVER WINCHESTER ROAD
 BRIDGE ID NO. 79SR0040043
 LOG MILE 4.82
 STATION 570+62.91
 SHELBY COUNTY

PIN NO.: 100340.00
 DESIGN BY: A. OMAR DATE: 10/2025
 DRAWN BY: RODNEY CHANDLER DATE: 02/2026
 SUPERVISED BY: D.E./D.S. DATE: 10/2025
 CHECKED BY: D. SHIKE DATE: 01/2026

PROJECT NO.	YEAR	SHEET NO.	
STP-NH-4(6)	2026		
REVISIONS			
NO.	DATE	BY	BRIEF DESCRIPTION
-	-		
-	-		
-	-		
-	-		
-	-		

LIST OF DRAWINGS DWG. NO. LAST REV. DATE

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ESTIMATED BRIDGE QUANTITIES	U-102-247	
FOUNDATION DATA	U-102-248	
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PHASING SEQUENCE	U-102-250	
SUPERSTRUCTURE	U-102-251	
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SUPERSTRUCTURE DETAILS	U-102-253	
FRAMING PLAN	U-102-254	
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STRUCTURAL STEEL DETAILS	U-102-256	
STRUCTURAL STEEL DETAILS	U-102-257	
STRUCTURAL STEEL DETAILS	U-102-258	
ABUTMENT NO. 1	U-102-259	
ABUTMENT NO. 1 DETAILS	U-102-260	
ABUTMENT NO. 1 DETAILS	U-102-261	
ABUTMENT NO. 2	U-102-262	
ABUTMENT NO. 2 DETAILS	U-102-263	
ABUTMENT NO. 2 DETAILS	U-102-264	
RETAINING WALL CONNECTION DETAILS	U-102-265	
BENT NO. 1	U-102-266	
BENT NO. 2	U-102-267	
BENT NO. 1 & 2 DETAILS	U-102-268	
BEARING DETAILS	U-102-269	
FINAL FOUNDATION DATA	U-102-270	
BILL OF STEEL	U-102-271	
BILL OF STEEL	U-102-272	

LIST OF STD. DWG. DWG. NO. LAST REV. DATE

BRIDGE RAILING SINGLE SLOPE CONCRETE PARAPET	STD-1-1SS	07-09-25
REINFORCED CONCRETE PAVEMENT AT BRIDGE ENDS	STD-1-5	06-05-23
BRIDGE MOUNTED INTERCONNECTED PORTABLE BARRIER RAIL	STD-2-1	08-26-25
BRIDGE MOUNTED INTERCONNECTED PORTABLE BARRIER RAIL ALTERNATE CONNECTION DETAIL	STD-2-3	08-26-25
STD. PRECAST PRESTRESSED BRIDGE DECK PANELS GENERAL DETAILS	STD-4-1	04-08-05
STD. PRECAST PRESTRESSED BRIDGE DECK PANELS DESIGN CRITERIA	STD-4-2	04-08-05
STD. PRECAST PRESTRESSED BRIDGE DECK PANELS GENERAL DETAILS	STD-4-3	03-02-02
STD. PRECAST PRESTRESSED BRIDGE DECK PANELS CONSTRUCTION DETAILS	STD-4-4	06-10-96
STANDARD PILE DETAILS	STD-5-1	
STANDARD SEISMIC DETAILS	STD-6-1	12-08-23
TRI-STAR STATE EMBLEM FINISH DETAILS	STD-8-6	10-03-18
STANDARD REINFORCING BAR SUPPORT DETAILS FOR CONCRETE SLABS	STD-9-1	10-07-08
MISCELLANEOUS ABUTMENT & DRAINAGE DETAILS	STD-10-1	06-05-23
MISCELLANEOUS ABUTMENT & PAVEMENT AT BRIDGE ENDS BACKFILL DETAILS	STD-10-2	06-05-23
MISCELLANEOUS ABUTMENT & PAVEMENT AT BRIDGE ENDS DITCH DETAILS	STD-10-3	
SAFETY APPROACH TO UNDERPASSES GRADING DESIGN AND SLOPE PROTECTION	RD11-SA-1	

LIST OF SPECIAL PROVISIONS PROV. NO. LAST REV. DATE

REGARDING STEEL STRUCTURES	602	07-15-05
REGARDING BRIDGE DECK CRACK SEALING	604CR	02-08-21

LIST OF REFERENCE DRAWINGS
K-59-89 THRU K-59-95

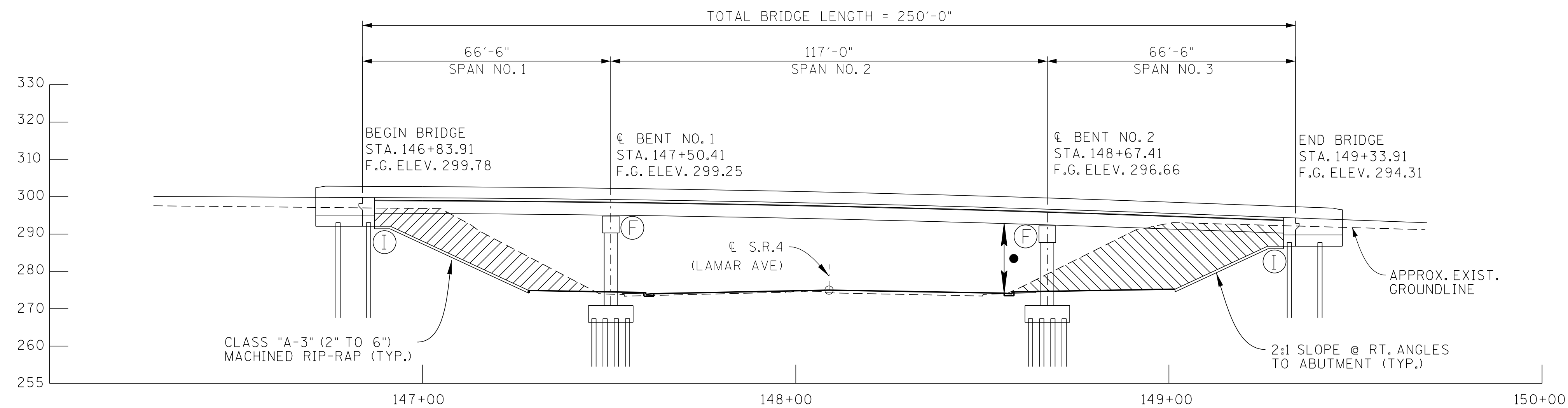
SEALED BY

BRIDGE NO. 5
STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
INDEX OF DRAWINGS
STATE ROUTE 176 (GETWELL ROAD)
OVER STATE ROUTE 4 (LAMAR AVE.)
BRIDGE ID NO. 79SR0040013
STATION 148+08.91
LOG MILE 4.36
SHELBY COUNTY

PIN NO.: 100340.00
DESIGN BY: BENESCH DATE: 03/2026
DRAWN BY: R. MEYER DATE: 03/2026
SUPERVISED BY: J. LEWIS/A. HARRIS DATE: 03/2026
CHECKED BY: K. LEWIS DATE: 03/2026



PROJECT NO.	YEAR	SHEET NO.	
STP-NH-4(6)	2026		
REVISIONS			
NO.	DATE	BY	BRIEF DESCRIPTION
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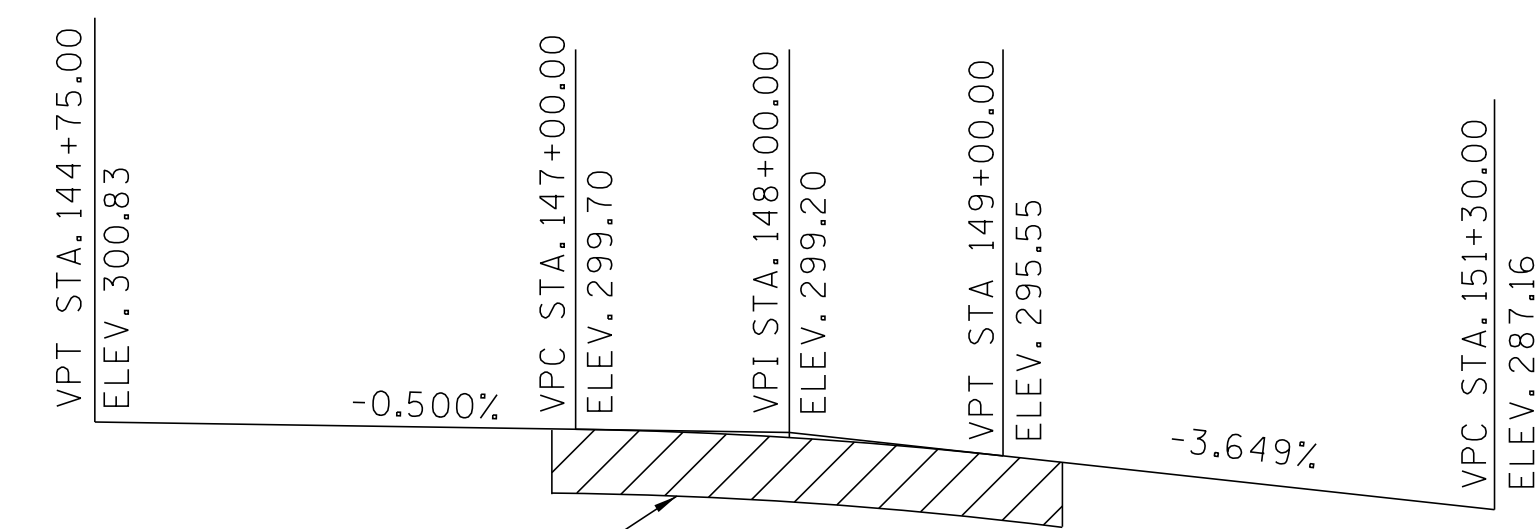


(I) DENOTES: INTEGRAL
(F) DENOTES: FIXED

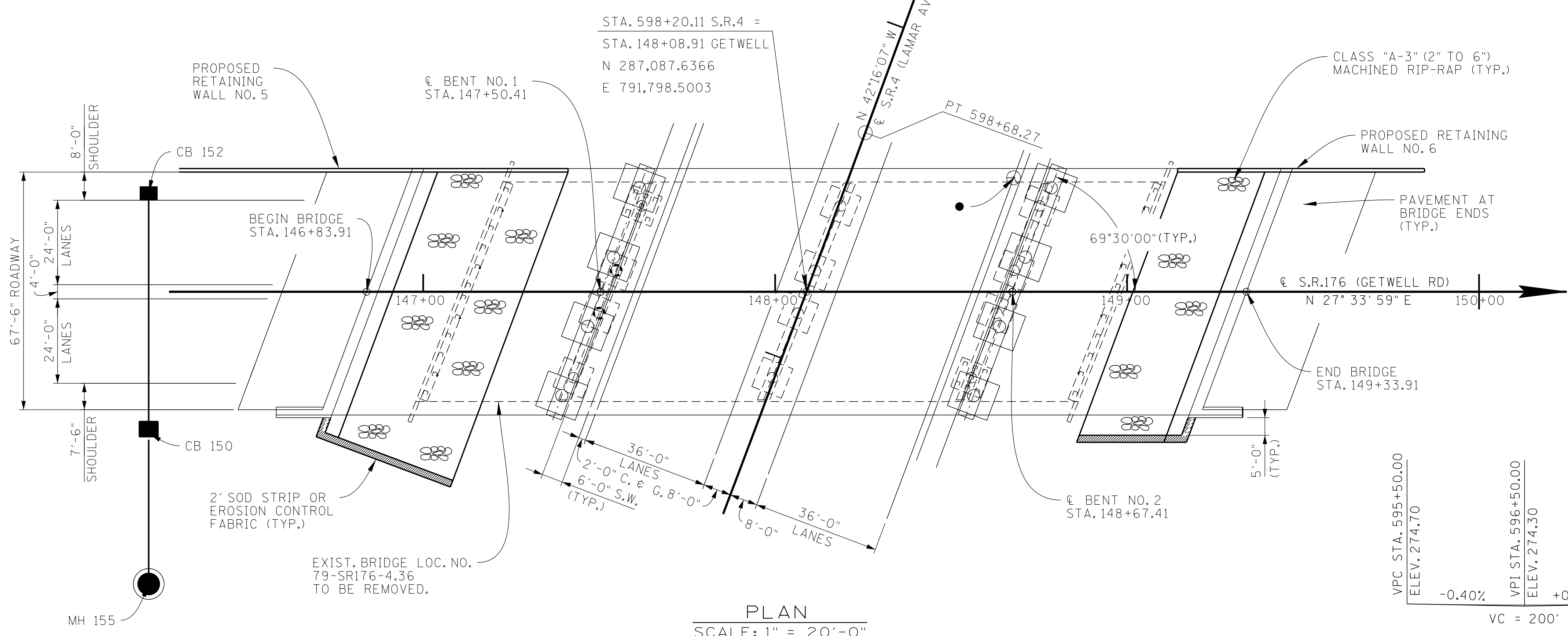
▨ DENOTES AREA TO EXCAVATED AND PAID FOR AS A ROADWAY ITEM.

ELEVATION SCALE: 1" = 20'-0"

- DENOTES MINIMUM VERTICAL CLEARANCE = 17'-1" SR-176 STA. 148+67.78 OFFSET 32'-4 1/2" (LT.) SR-4 STA. 598+70.79 OFFSET 44'-0" (RT.)



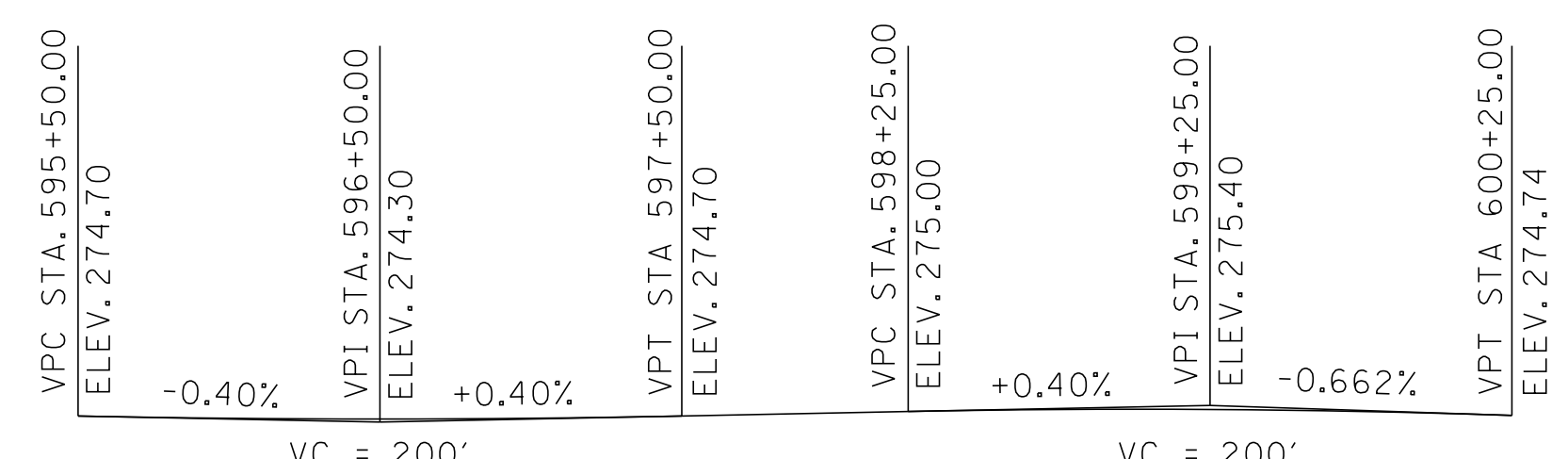
FINISHED GRADE SKETCH STATE ROUTE 176 (GETWELL RD.)



PLAN SCALE: 1" = 20'-0"

STATE ROUTE 4 (CURVE MAINLINE-4)

PI	597+18.71
N	287,012,6552
E	791,866,7898
Δ	1° 29' 45" (LT.)
D	0' 30' 0"
R	11,459.16
L	299.14
T	149.58
SE	= N.C.
V	= 50 MPH



FINISHED GRADE SKETCH STATE ROUTE 4 (LAMAR AVE.)

BRIDGE NO. 5

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
LAYOUT OF BRIDGE
STATE ROUTE 176 (GETWELL ROAD)
OVER STATE ROUTE 4 (LAMAR AVE.)
BRIDGE ID NO. 79SR0040013
STATION 148+08.91
LOG MILE 4.36
SHELBY COUNTY

NOTE: FOR PROPOSED DRAINAGE, SEE ROADWAY PLANS.

PIN NO.: 100340.00
DESIGN BY: BENESCH DATE: 03/2026
DRAWN BY: R. MEYER DATE: 03/2026
SUPERVISED BY: J. LEWIS/A. HARRIS DATE: 03/2026
CHECKED BY: K. LEWIS DATE: 03/2026



GENERAL NOTES:

(1) CONSTRUCTION SPECIFICATIONS: TENNESSEE DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION (JANUARY 1, 2021 EDITION).

(2) DESIGN SPECIFICATIONS: 9TH EDITION (2020) AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS AND THE 2ND EDITION (2021) AASHTO GUIDE SPECIFICATIONS FOR LRFD SEISMIC BRIDGE DESIGN WITH INTERIMS.

(3) LOADING:

A. HL-93 LIVE LOADING

B. SEISMIC DESIGN CATEGORY C WITH AS=0.373, SDS=0.799, SD1=0.344, (1000 YEAR RETURN PERIOD).

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

(4) CONCRETE: TO BE CLASS A F'C = 3000 PSI EXCEPT AS NOTED OTHERWISE.

(5) BRIDGE DECKS: CLASS D CONCRETE FOR BRIDGE DECKS SHALL BE IN ACCORDANCE WITH SECTION 604 OF THE STANDARD SPECIFICATIONS.

(6) BRIDGE DECK SURFACE FINISH: TO BE IN ACCORDANCE WITH METHOD 3 IN ARTICLE 604.22 OF THE STANDARD SPECIFICATIONS.

(7) 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-14-3, AND ARTICLE 604.05 OF THE STANDARD SPECIFICATIONS

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

(9) FRICTION PILES: TO BE 12" DIA PIPE PILES. AFTER EXCAVATION TO THE PROPOSED FOOTING ELEVATIONS, A TEST PILE SHALL BE DRIVEN AT EACH SUBSTRUCTURE AT THE LOCATION DESIGNATED ON DRAWING NO. U-102-270. A LOAD TEST WILL THEN BE APPLIED TO THE TEST PILE IN (BENT OR ABUT. NO.), FROM THE RESULTS OF THE LOAD TEST, THE ENGINEER OF STRUCTURES WILL DETERMINE THE REQUIRED LENGTH OF THE PRODUCTION PILES AND MINIMUM REQUIRED BEARING. FOR PILE DESIGN LOADS AND CUT-OFF ELEVATIONS, SEE TABLE ON DRAWING NO. U-102-270.

THE CONTRACTOR SHALL INSTALL PILING SUCH THAT ALL THE FOLLOWING REQUIREMENTS ARE MET. THE TIP ELEVATION FOR ALL TEST PILES AND PRODUCTION PILES SHALL BE EQUAL TO OR BELOW THE MINIMUM PILE TIP ELEVATION SHOWN ON THE PLANS. IN ADDITION, TEST PILES TO BE LOAD TESTED SHALL BE INSTALLED TO AT LEAST THE SPECIFIED BEARING SHOWN ON THE PLANS OR FULL LENGTH.

ALL OTHER TEST PILES SHALL BE INSTALLED TO AT LEAST 1.5 TIMES THE SPECIFIED BEARING SHOWN ON THE PLANS OR FULL LENGTH. ALL PRODUCTION PILES SHALL BE INSTALLED FULL LENGTH UNLESS EXCESSIVELY HARD DRIVING WHICH MIGHT DAMAGE THE PILES IS ENCOUNTERED. IF THE PRODUCTION PILES DO NOT ACHIEVE THE MINIMUM REQUIRED BEARING, THE ENGINEER OF STRUCTURES WILL DETERMINE IF ADDITIONAL PILES ARE REQUIRED.

IN THE EVENT THAT DRIVING THE TEST PILE TO AT LEAST THE MINIMUM TIP ELEVATION OR DRIVING THE PRODUCTION PILE FULL LENGTH MIGHT DAMAGE THE PILE BECAUSE OF EXCESSIVELY HARD DRIVING, THE CONTRACTOR SHALL USE OTHER METHODS APPROVED BY THE ENGINEER FOR INSTALLING THE PILES SUCH AS JETTING OR PRE-DRILLING HOLES. HOWEVER, ALL PILES MUST BE DRIVEN BY HAMMER FOR THE LAST FEW FEET OF PENETRATION. NO MEASUREMENT FOR PAYMENT WILL BE MADE FOR PRE-DRILLING HOLES OR FOR JETTING PILING TO OBTAIN THE REQUIRED PILE PENETRATION.

THE PILE LOAD TEST SHALL BE A (QUICK OR MAINTAINED) LOAD TEST CONDUCTED IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS. THE PILE LOAD TEST APPARATUS FOR APPLYING LOADS AND MEASURING MOVEMENT SHALL MEET THE REQUIREMENTS OF ASTM D1143, STANDARD TEST METHODS FOR DEEP FOUNDATION ELEMENTS UNDER STATIC AXIAL COMPRESSIVE LOAD. WHEN INSUFFICIENT CLEARANCE IS AVAILABLE WITHIN AN EXCAVATION, THE CLEARANCE REQUIREMENTS IN ARTICLE 9.1.1 MAY BE REDUCED, BUT ONLY WITH PRIOR APPROVAL OF THE ENGINEER.

(10) ALTERNATE FRICTION PILES: WITH THE EXCEPTION OF PILE BENTS, THE CONTRACTOR MAY USE AN ALTERNATE PILE TYPE OR SIZE FROM THAT SHOWN ON THE PLANS PROVIDED THE SUBSTITUTION MEETS MINIMUM DESIGN STANDARDS AND SPECIFICATIONS AND IS APPROVED BY THE ENGINEER. FOR PILE BENTS, ANY PROPOSAL OF THE CONTRACTOR TO USE AN ALTERNATE PILE TYPE OR SIZE SHALL BE CONSIDERED VALUE ENGINEERING.

(11) PIPE PILES: SHALL BE PP 12", GRADE 3 MODIFIED WITH A MINIMUM YIELD STRESS OF 50 KSI IN ACCORDANCE WITH ASTM A252. WEATHERING STEEL WILL NOT BE ALLOWED FOR PIPE PILES. ANY PIPE PILE HAVING BENDS, KINKS OR OTHER DEFORMATIONS DURING THE PROCESS OF DRIVING THAT WOULD IMPAIR THE STRENGTH (10% REDUCTION AS DETERMINED BY THE ENGINEER) EFFICIENCY OF THE COMPLETED PILE SHALL BE EITHER REMOVED AND REPLACED OR REPAIRED BY THE CONTRACTOR IN A MANNER SATISFACTORY TO THE ENGINEER. THE CONTRACTOR WILL NOT BE REIMBURSED FOR ANY SUCH PIPE PILE ORDERED REMOVED OR REPLACED BY THE ENGINEER.

(12) PIPE PILE SPLICES: FULL LENGTH PILES SHALL BE USED WHERE PRACTICAL. PILES MAY BE SPICED WITH THE PRIOR APPROVAL OF THE ENGINEER. SPLICES SHALL USE FULL PENETRATION WELDS DESIGNED TO DEVELOP THE FULL STRENGTH OF THE PILE CROSS-SECTION IN TENSION AND COMPRESSION. ONLY ONE SPLICE PER 40 LINEAR FEET OF PILE WILL BE ALLOWED. DRIVE-ON SPLICES SHALL NOT BE USED AND ONLY COMMERCIALY MANUFACTURED SPLICES WILL BE ALLOWED. SPICING DETAILS MUST BE SUBMITTED TO THE ENGINEER FOR APPROVAL. COST TO BE INCLUDED IN THE COST OF PILES ITEM NO. 606-02.03.

(13) WELDING: SEE SECTION 602 OF THE STANDARD SPECIFICATIONS AND NOTES ON DRAWING NO. U-102-251.

(14) PAINT: PAINT SHALL BE SYSTEM "A" (OPL 3.001) - INORGANIC ZINC. COLOR OF THE FINISH COAT SHALL COMPLY WITH AMS-STD-595A, FEDERAL STANDARD NO. (FED COLOR ID. AND DESCRIPTION). SEE SECTIONS 603 AND 910 OF THE STANDARD SPECIFICATIONS. THE CONTRACTOR SHALL ALSO HAVE THE OPTION TO USE ORGANIC ZINC IN SYSTEM "A" INSTEAD OF AN INORGANIC ZINC. ORGANIC ZINC SYSTEMS SHALL BE FROM OPL 3.002.

(15) PAINTING STRUCTURAL STEEL: ALL SURFACES OF STRUCTURAL STEEL GIRDERS MUST BE PAINTED. HOWEVER, THE FAYING SURFACES OF FIELD SPLICES, THE TOP OF THE TOP FLANGE, SURFACES EMBEDDED IN CONCRETE, AND BEARING AREAS SHALL RECEIVE ONLY A COAT OF PRIMER. BOLTED FAYING SURFACES FOR THIS PROJECT ARE DESIGNED FOR A CLASS B SURFACE. (SEE AASHTO TABLE 6.13.2.8-3). THE CONTRACTOR SHALL INSURE THE FAYING SURFACES ARE PREPARED TO PROVIDE A SLIP COEFFICIENT AT LEAST EQUAL TO THAT REQUIRED FOR THIS CLASS FOR THE THICKNESS OF PRIMER APPLIED IN THE SHOP. THE FAYING SURFACES ARE TO BE PAINTED, AS NOTED ABOVE, AND THE CONTRACTOR SHALL SUPPLY A PAINT MANUFACTURER'S CERTIFICATION THAT THE PAINT TO BE USED WILL PROVIDE THE REQUIRED RESISTANCE AT THE APPLIED THICKNESS WHEN TESTED IN ACCORDANCE WITH AASHTO ART. 6.13.2.8.

(16) RADIOGRAPHIC, ULTRASONIC, AND MAGNETIC INSPECTION: SEE SECTION 602 OF THE STANDARD SPECIFICATIONS AND NOTES ON DRAWING NO. U-102-251.

(17) STEEL STRUCTURES: SEE TENNESSEE STANDARD SPECIFICATIONS SECTION 602 AND NOTES ON DRAWING NO. U-102-251.

(18) PROTECTION OF SUBSTRUCTURES: SINCE THIS BRIDGE UTILIZES WEATHERING STEEL, THE CONTRACTOR MUST TAKE SPECIAL PRECAUTIONS TO PREVENT STAINING OF PIERS AND ABUTMENTS. PRIOR TO THE ERECTION OF ANY STEEL, THE TOPS AND SIDES OF THE COMPLETED SUBSTRUCTURES SHALL BE PROTECTED FROM STAINING BY WRAPPING WITH TRANSLUCENT, REINFORCED, HIGH DENSITY, TWO-PLY, CROSS-LAMINATED POLYETHYLENE.

IN LIEU OF THIS PROTECTION, THE CONTRACTOR MAY ELECT TO THOROUGHLY CLEAN THE CONCRETE OF RUST STAINING BY SANDBLASTING OR OTHER APPROVED METHODS, PRIOR TO APPLYING A TEXTURE-COATED FINISH. NO SEALANT TYPE MATERIALS SHALL BE APPLIED WHICH ARE INCOMPATIBLE WITH THE TEXTURE-COATED FINISH UNLESS THEY CAN BE THOROUGHLY REMOVED PRIOR TO APPLYING THE FINISH. TEXTURE-COATING OF THE SUBSTRUCTURE SHOULD BE DELAYED UNTIL AFTER THE DECK IS COMPLETED.

AFTER A SUBSTRUCTURE HAS RECEIVED ITS FINAL FINISH, THE TOP AND SIDES SHALL BE PROTECTED FROM STAINING BY WRAPPING WITH REINFORCED POLYETHYLENE, WHICH, IF BEING REUSED, SHALL BE IN GOOD CONDITION AND FREE FROM HOLES AND TEARS. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO PROTECT THE SUBSTRUCTURES FROM STAINING FOR THE DURATION OF THE CONTRACT. ANY CORRECTIVE TEXTURE-COATING SHALL BE AT HIS EXPENSE. COST TO BE INCLUDED IN THE UNIT PRICE BID FOR OTHER ITEMS.

(18) BLAST CLEANING: THE FASCIA GIRDERS AND ALL FAYING SURFACES OF FIELD SPLICES OF ALL GIRDERS SHALL BE BLAST CLEANED IN ACCORDANCE WITH THE STEEL STRUCTURES PAINTING COUNCIL SURFACE PREPARATION SPECIFICATIONS "NO. 6 COMMERCIAL BLAST CLEANING" SSPC-SP 6 (OR NACE EQUIVALENT), PRIOR TO BOLTING. ANY LOOSE RUST ON THE FAYING SURFACES SHALL BE REMOVED.

(19) FINAL APPEARANCE: PRIOR TO FINAL ACCEPTANCE, ALL STRUCTURAL STEEL SHALL BE FREE OF GREASE, OIL, CHALK MARKS, PAINT, CONCRETE SPATTER AND SIMILAR SOILAGE. DEPENDING ON THE LOCATION, WITH RESPECT TO VIEW AND SEVERITY OF THE FOREGOING SOILAGE, THE STRUCTURAL STEEL SHALL BE CLEANED UNDER THE PROVISIONS OF ONE OF THE FOLLOWING STEEL STRUCTURES PAINTING COUNCIL SURFACE PREPARATION SPECIFICATIONS:

NO. 1 SOLVENT CLEANING - SSPC-SP 1

NO. 2 HAND CLEANING - SSPC-SP 2

NO. 3 POWER TOOL CLEANING - SSPC-SP 3

NO. 7 BRUSH-OFF BLAST CLEANING - SSPC-SP 7 (OR NACE EQUIVALENT)

(20) WEATHERING BOLTS: ALL BOLTS SHALL BE ASTM F3125 GRADE (A325 OR A490) TYPE 3 UNLESS NOTED OTHERWISE. ALL BOLTS, NUTS, AND WASHERS SHALL HAVE THE SAME WEATHERING CHARACTERISTICS AS THE STRUCTURAL STEEL USED. IN LIEU OF USING DIRECT TENSION INDICATORS (DTI'S), ALL BOLTS SHALL BE INSTALLED BY EITHER TURN-OF-NUT TIGHTENING OR CALIBRATED WRENCH TIGHTENING IN ACCORDANCE WITH SECTION 602 OF THE STANDARD SPECIFICATIONS AND THE AASHTO LRFD BRIDGE CONSTRUCTION SPECIFICATIONS, CURRENT EDITION.

(21) RETIGHTENING BOLTS: (ASTM F3125 GRADE A325, 144, OR A490, OR ASTM F3148 GRADE 144) BOLTS SHALL NOT BE RETIGHTENED AFTER THEY HAVE BEEN FULLY PRETENSIONED. IF THEY ARE LOOSENED AFTER BEING FULLY PRETENSIONED, THE BOLT, WASHER, AND NUT ASSEMBLY SHALL BE DISCARDED AND REPLACED.

(22) PAINTING GIRDERS ENCASED IN CONCRETE: WHERE WEATHERING STEEL GIRDERS ARE ENCASED IN CONCRETE AT INTEGRAL ABUTMENTS (AND INTEGRAL PIER CAPS), THE GIRDERS SHALL BE PAINTED OVER THE ENTIRE EMBEDMENT LENGTH PLUS AT LEAST ONE FOOT OUTSIDE THE ENCASEMENT. THE COLOR OF THE TOP COAT SHALL BE BROWN, AMS-STD-595A, COLOR NO. 30059.

(23) SHOP DRAWINGS: SEE SECTION 105.02 OF THE STANDARD SPECIFICATIONS.

CONST. NO.: 79020-1245-14

PROJECT NO.	YEAR	SHEET NO.	
STP-NH-4(6)	2026		
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(24) MACHINED RIP-RAP: MACHINED RIP-RAP FOR SLOPE PROTECTION SHALL BE 2" TO 6" IN SIZE UNIFORMLY GRADED AND MEET THE REQUIREMENTS OF SECTION 709 OF THE STANDARD SPECIFICATIONS AND SHALL BE MEASURED AND PAID FOR UNDER ROADWAY ITEM NO. 709-05.05.

(25) FALSEWORK OVER TRAFFIC: SEE SECTION 604.06 OF THE STANDARD SPECIFICATIONS.

(26) 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. (NUMBER AND WIDTH) TRAFFIC LANES SHALL BE MAINTAINED AT ALL TIMES.

(26) LEAD/CHROMATE PAINT: OUR MAINTENANCE RECORDS INDICATE THE BRIDGE WAS ORIGINALLY PAINTED WITH MATERIALS CONTAINING LEAD AND/OR CHROMATES. THE CONTRACTOR IS REQUIRED TO PROCEED ACCORDINGLY TO TAKE ALL MANDATORY SAFEGUARDS PRESCRIBED BY STATE AND FEDERAL LAW FOR BOTH WORKER PROTECTION AND HAZARDOUS MATERIALS DISPOSAL.

(27) 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.

SEALED BY

BRIDGE NO. 5

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

GENERAL NOTES
STATE ROUTE 176 (GETWELL ROAD)
OVER STATE ROUTE 4 (LAMAR AVE.)
BRIDGE ID NO. 79SR0040013
STATION 148+08.91
LOG MILE 4.36
SHELBY COUNTY

U-102-246

PIN NO.: 100340.00
DESIGN BY: BENESCH DATE: 03/2026
DRAWN BY: R. MEYER DATE: 03/2026
SUPERVISED BY: J. LEWIS/A. HARRIS DATE: 03/2026
CHECKED BY: K. LEWIS DATE: 03/2026



PROJECT NO.	YEAR	SHEET NO.	
STP-NH-4(6)	2026		
REVISIONS			
NO.	DATE	BY	BRIEF DESCRIPTION
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ESTIMATED QUANTITIES

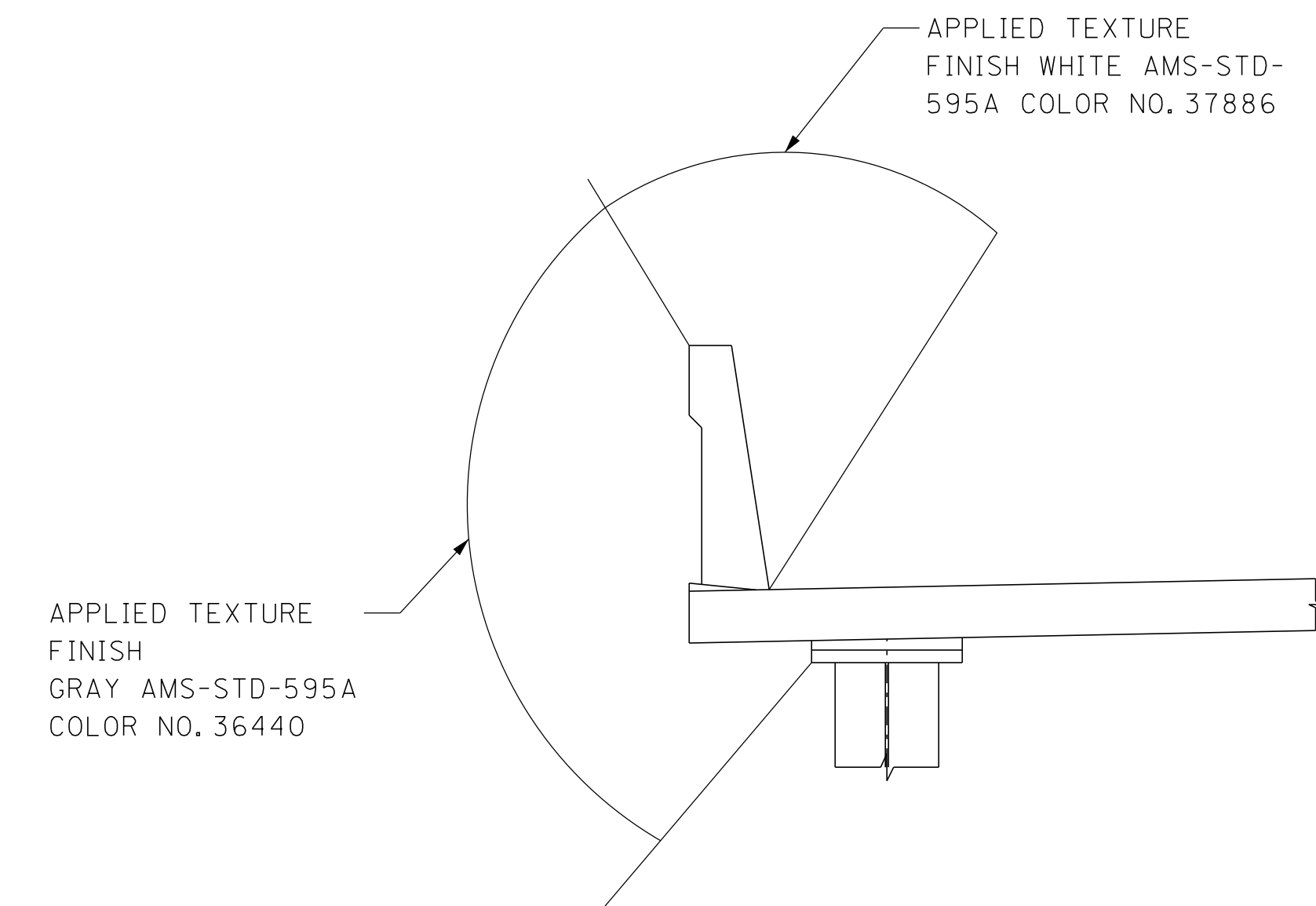
ITEM NO.	DESCRIPTION	UNIT	TOTAL	SUPERSTRUCTURE	ABUT. NO. 1	BENT. NO. 1	BENT. NO. 2	ABUT. NO. 2
202-01.05	REMOVAL OF ASBESTOS (EX. BR. NO. 79-SR004-0013)	LS	1	1	0	0	0	0
(1) 202-04.03	REMOVAL OF STRUCTURES (EX. BR. NO. 79-SR004-0013)	LS	1	1	0	0	0	0
(2) 204-02.01	DRY EXCAVATION (BRIDGES)	C.Y.	2008	0	159	845	845	159
(3) 303-01.02	GRANULAR BACKFILL (BRIDGES)	TON	66	0	33	0	0	33
(4) 602-04.01	STEEL STRUCTURES (BRIDGE NO. 4)	LS	1	1	0	0	0	0
(5) 604-02.03	EPOXY COATED REINFORCING STEEL	LB.	180813	176063	2378	0	0	2372
(6)(11) 604-03.01	CLASS A CONCRETE (BRIDGES)	C.Y.	581	23	35	247	242	34
(5) 604-03.02	STEEL BAR REINFORCEMENT (BRIDGES)	LB.	63414	0	5799	27430	25717	4468
(7) 604-03.04	PAVEMENT @ BRIDGE ENDS	S.Y.	374	374	0	0	0	0
604-03.30	CLASS D CONCRETE	C.Y.	541	467	37	0	0	37
604-04.01	APPLIED TEXTURE FINISH (NEW STRUCTURES)	S.Y.	1058	618	46	181	167	46
604-04.41	THREE STAR STATE EMBLEM	EACH	2	0	0	1	1	0
604-05.31	BRIDGE DECK GROOVING (MECHANICAL)	S.Y.	2277	2277	0	0	0	0
606-17.01	TEST PILES (STEEL PIPE PILES, 12-INCH)	L.F.	260	0	65	65	65	65
606-17.02	LOADING TEST (STEEL PIPE PILES, 12-INCH)	EACH	1	0	1	0	0	0
606-17.03	STEEL PIPE PILES (12-INCH)	L.F.	7040	0	880	2640	2640	880
(8) 606-17.06	PILE TIPS (STEEL PIPE PILES, 12-INCH)	EACH	132	0	17	49	49	17
606-12.01	PILE ANCHORAGE SYSTEM (SEISMIC)	EACH	128	0	16	48	48	16
620-05.01	CONC PARAPET SINGLE SLOPE (STD-1-ISS)	L.F.	580	500	40	0	0	40
(9) 621-05.02	TEMPORARY SHORING	LS	1	1	0	0	0	0
(10) 710-09.01	6" PERFORATED PIPE WITH VERTICAL DRAIN SYSTEM	L.F.	200	0	100	0	0	100
710-09.02	6" PIPE UNDERDRAIN	L.F.	40	0	20	0	0	20

FOOTNOTES

- (1) LUMP SUM: TO INCLUDE COMPLETE REMOVAL OF EXISTING BRIDGES NO. 79-SR176-4.36 AND APPROACHES TO NATURAL GROUND BETWEEN STATIONS 147+03.16 AND 148+91.45. EXISTING BRIDGE CONSISTS OF 4 SPANS OF 12 PRESTRESSED REINFORCED CONCRETE BEAMS WITH A CONCRETE DECK ON CONCRETE FRAMED BENTS. OUT TO OUT DECK WIDTH = 62'-4".
- (2) EXCAVATION BASED ON FINAL PROFILE AT ABUTMENTS AND BENTS.
- (3) GRANULAR BACKFILL SHALL BE CLASS "A" GRADING "D" MATERIAL. SEE STANDARD DRAWING STD-10-1.
- (4) LUMP SUM: TOTAL ESTIMATED WEIGHT OF 669,700 LBS. OF STRUCTURAL STEEL INCLUDES GIRDERS, GIRDER BEARING DEVICES, FIELD SPLICES, CROSS-FRAMES, STIFFENERS, SHEAR CONNECTORS, TAB CONNECTION PLATES, BOLTS, DIVERSION STRIP, ETC. ALSO SEE STANDARD SPECIFICATIONS SECTIONS 602.49 AND 602.50.
- (5) 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.
- (6) THE COST OF ALL MATERIALS AND LABOR NECESSARY FOR THE INSTALLATION OF 64, 1" DIA., F1554 GRADE 55 ANCHOR BOLT ASSEMBLIES SHALL BE INCLUDED IN THE UNIT PRICE BID FOR ITEM 604-03.01, CLASS "A" CONCRETE (BRIDGES).
- (7) PRIOR TO CONSTRUCTION OF THE PAVEMENT AT BRIDGE ENDS, THE CONTRACTOR SHALL SUBMIT A PROPOSED BILL OF STEEL TO THE ENGINEER FOR APPROVAL.
- (8) THE UNIT PRICE BID FOR CAST STEEL POINTS SHALL INCLUDE FURNISHING AND INSTALLATION OF THE PILES.
- (9) INCLUDES ALL COSTS ASSOCIATED WITH SHORING REQUIRED FOR THE PHASED CONSTRUCTION OF BRIDGE
- (10) COST OF POLYETHYLENE SHEETING AND ALL MISCELLANEOUS ITEMS NECESSARY FOR INSTALLATION TO BE INCLUDED IN THE UNIT PRICE BID FOR PERFORATED PIPE.
- (11) COST OF RUBBER BONDING CEMENT AND ELASTOMERIC BEARING PADS TO BE INCLUDED IN UNIT PRICE BID FOR CLASS "A" CONCRETE.

PILE DATA TABLE

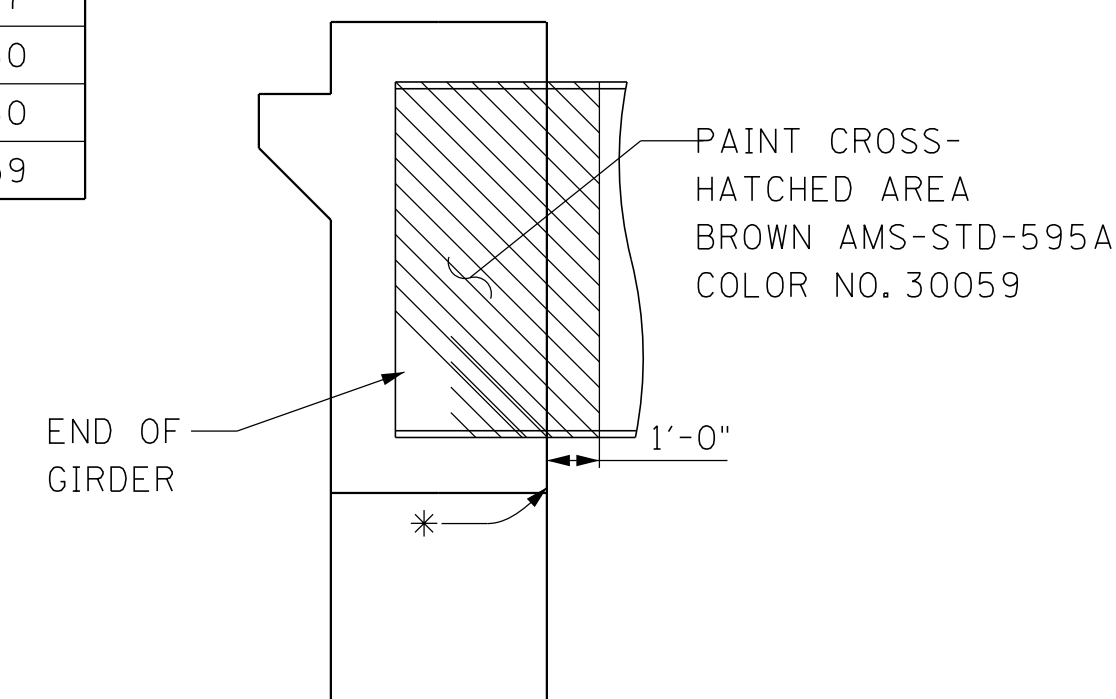
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ABUTMENT 1	150	292.17	50	60	267.17
BENT NO. 1	150	265.50	50	60	240.50
BENT NO. 2	150	265.50	50	60	240.50
ABUTMENT 2	150	286.39	50	60	267.39



TYPICAL AT CANTILEVER

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, APRON WALLS, BENTS, AND EXTERIOR PORTIONS OF THE ENDWALLS) SHALL RECEIVE AN APPLIED TEXTURE FINISH, (GRAY, AMS-STD-595A, COLOR NO. 36440).



PAINT DETAIL

* NOTE: THE CREVICE BETWEEN THE EMBEDDED STEEL GIRDERS AND CONCRETE AT ABUTMENTS SHALL BE SEALED BY CAULKING WITH SILICONE CAULK.

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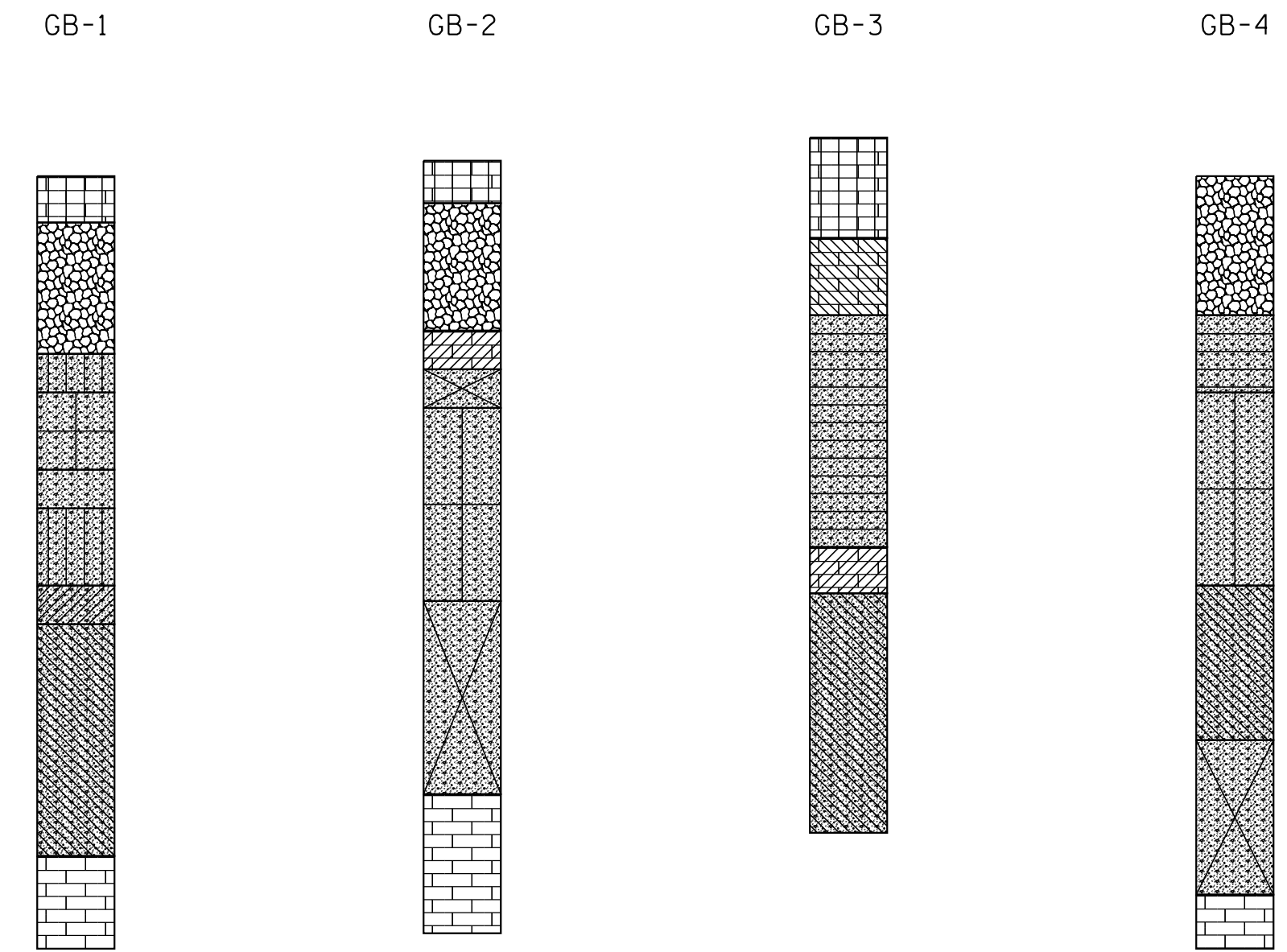
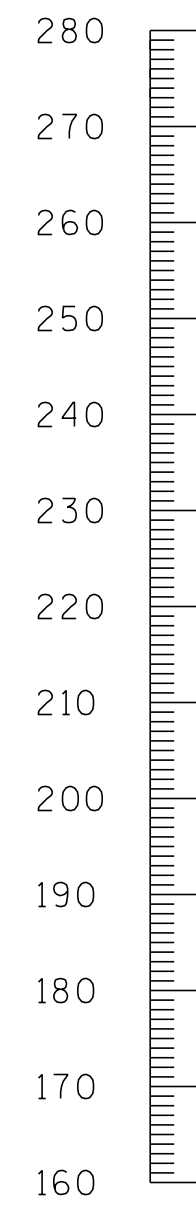
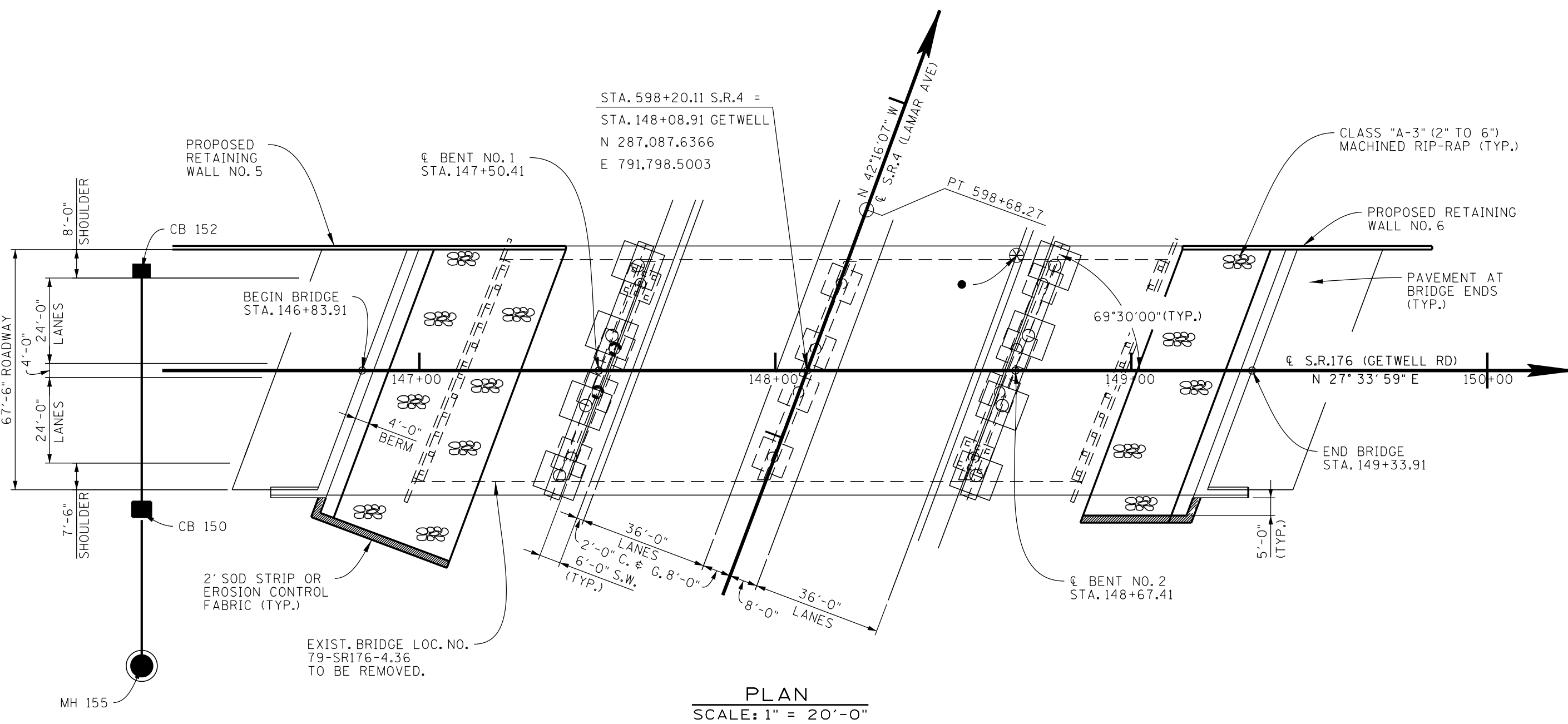
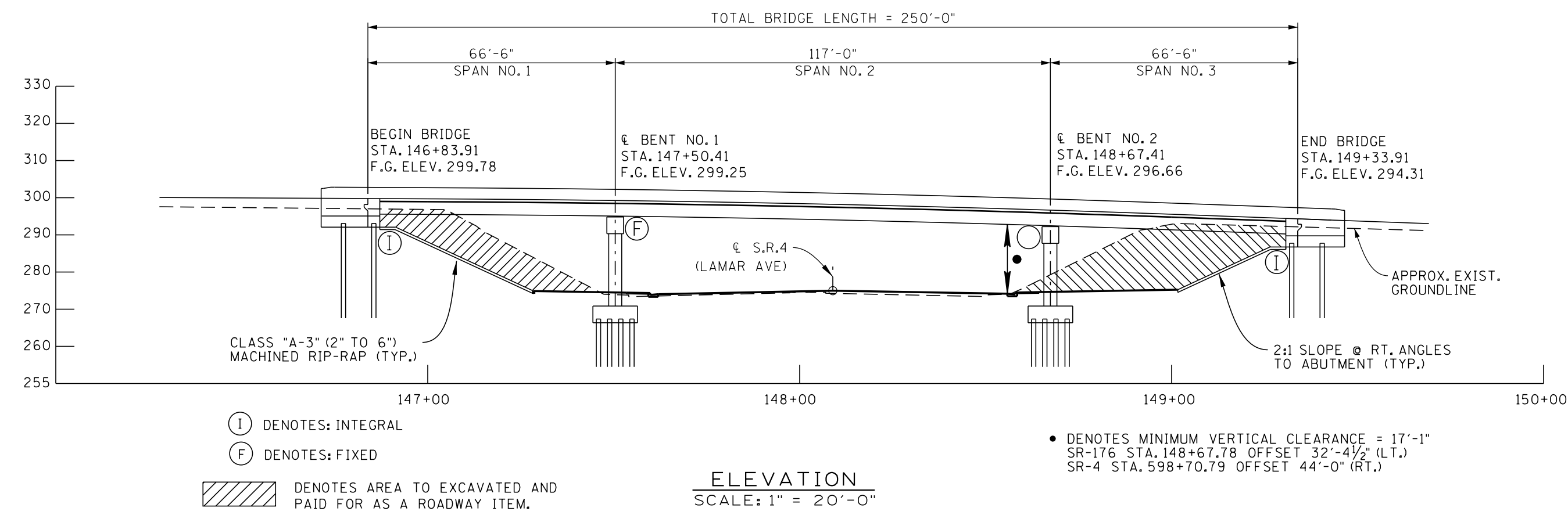
BRIDGE NO. 5

STATE OF TENNESSEE
 DEPARTMENT OF TRANSPORTATION
ESTIMATED BRIDGE QUANTITIES
 STATE ROUTE 176 (GETWELL ROAD)
 OVER STATE ROUTE 4 (LAMAR AVE.)
 BRIDGE ID NO. 79SR0040013
 STATION 148+08.91
 LOG MILE 4.36
 SHELBY COUNTY

PIN NO.: 100340.00
 DESIGN BY: BENESCH DATE: 03/2026
 DRAWN BY: R. MEYER DATE: 03/2026
 SUPERVISED BY: J. LEWIS/A. HARRIS DATE: 03/2026
 CHECKED BY: K. LEWIS DATE: 03/2026



PROJECT NO.	YEAR	SHEET NO.	
STP-NH-4(6)	2026		
REVISIONS			
NO.	DATE	BY	BRIEF DESCRIPTION
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- SILTY CLAY (CL)
- CLAYEY SILT
- CLAYEY SAND
- SILTY SAND
- SAND
- SAND WITH GRAVEL
- SILTY SAND WITH CLAY
- CLAY
- SANDY CLAY
- GRAVELLY SAND
- SILTY CLAY (CL-MI)
- CLAYEY SAND WITH GRAVEL
- SANDY CLAY WITH GRAVEL

BORING NO.	STATION	OFFSET	GROUND ELEV.
GB-1	597+48	106.3 RT	273.53
GB-2	599+51	131.5 LT	275.68
GB-3	598+59	124.2 LT	278.80
GB-4	596+54	77.9 LT	273.53

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

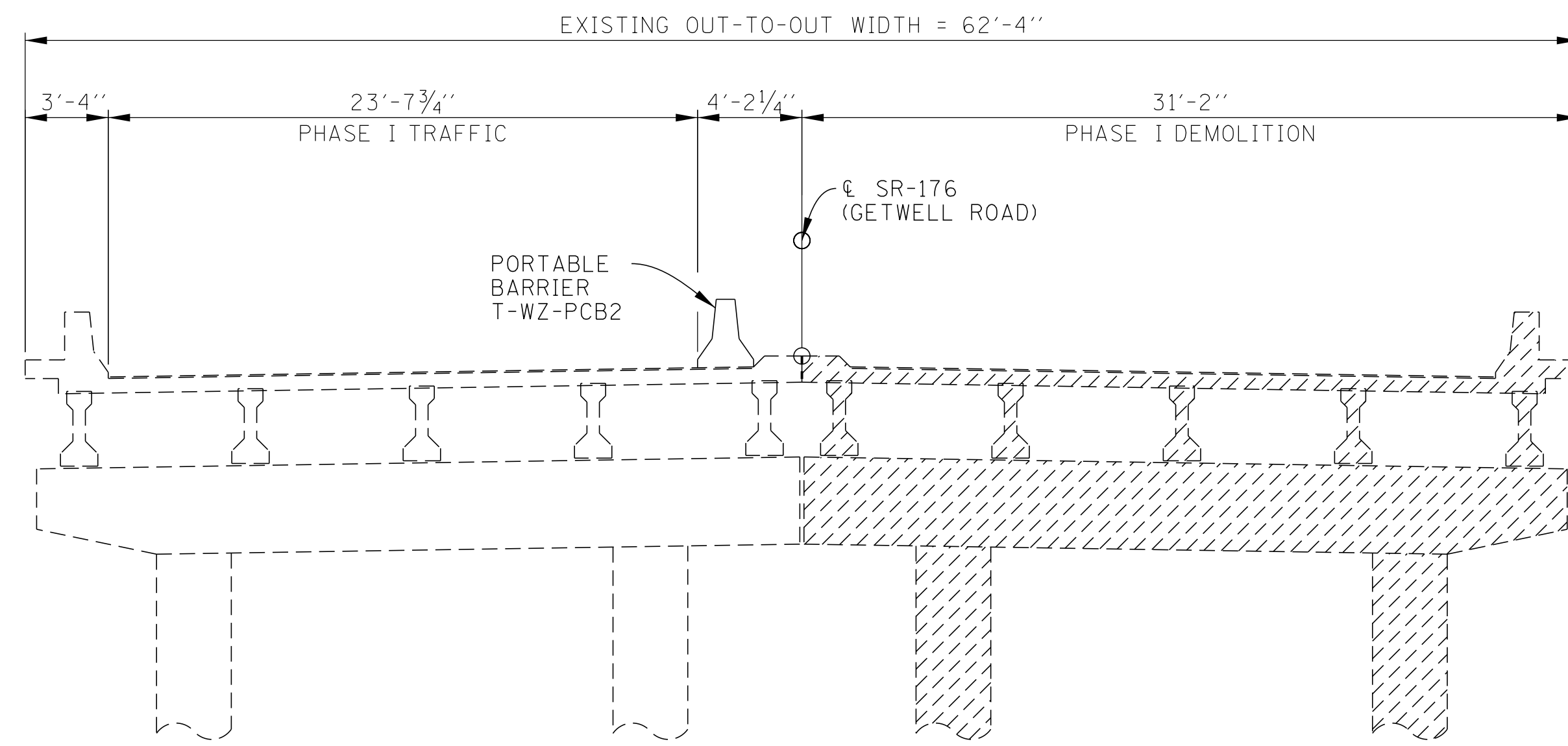
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 DEPARTMENT OF TRANSPORTATION
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 BRIDGE ID NO. 79SR0040013
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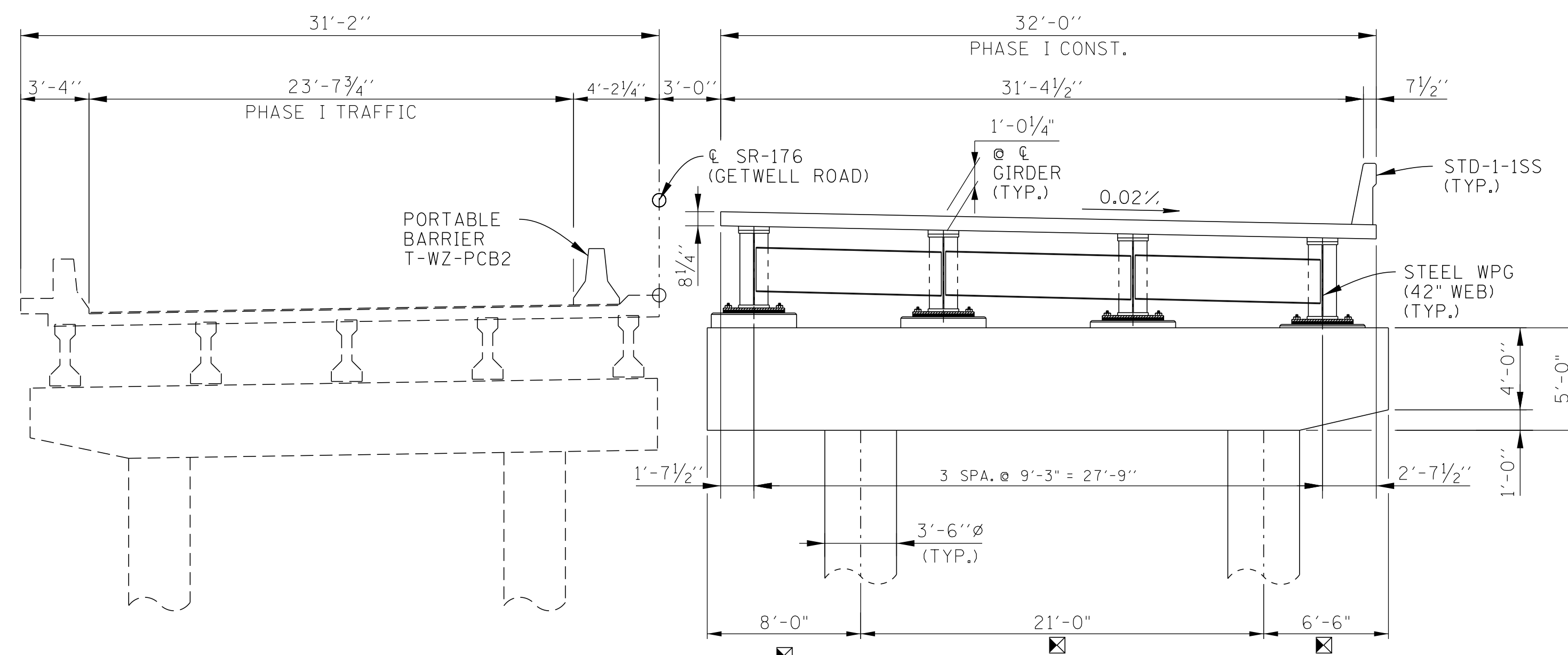
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STP-NH-4(6)	2026		
REVISIONS			
NO.	DATE	BY	BRIEF DESCRIPTION
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PHASE I DEMOLITION

(LOOKING FORWARD ON SURVEY)

DENOTES: LIMITS OF REMOVAL.



PHASE I CONSTRUCTION

(LOOKING FORWARD ON SURVEY)

DENOTES: MEASURED ALONG SKEW.

SEALED BY

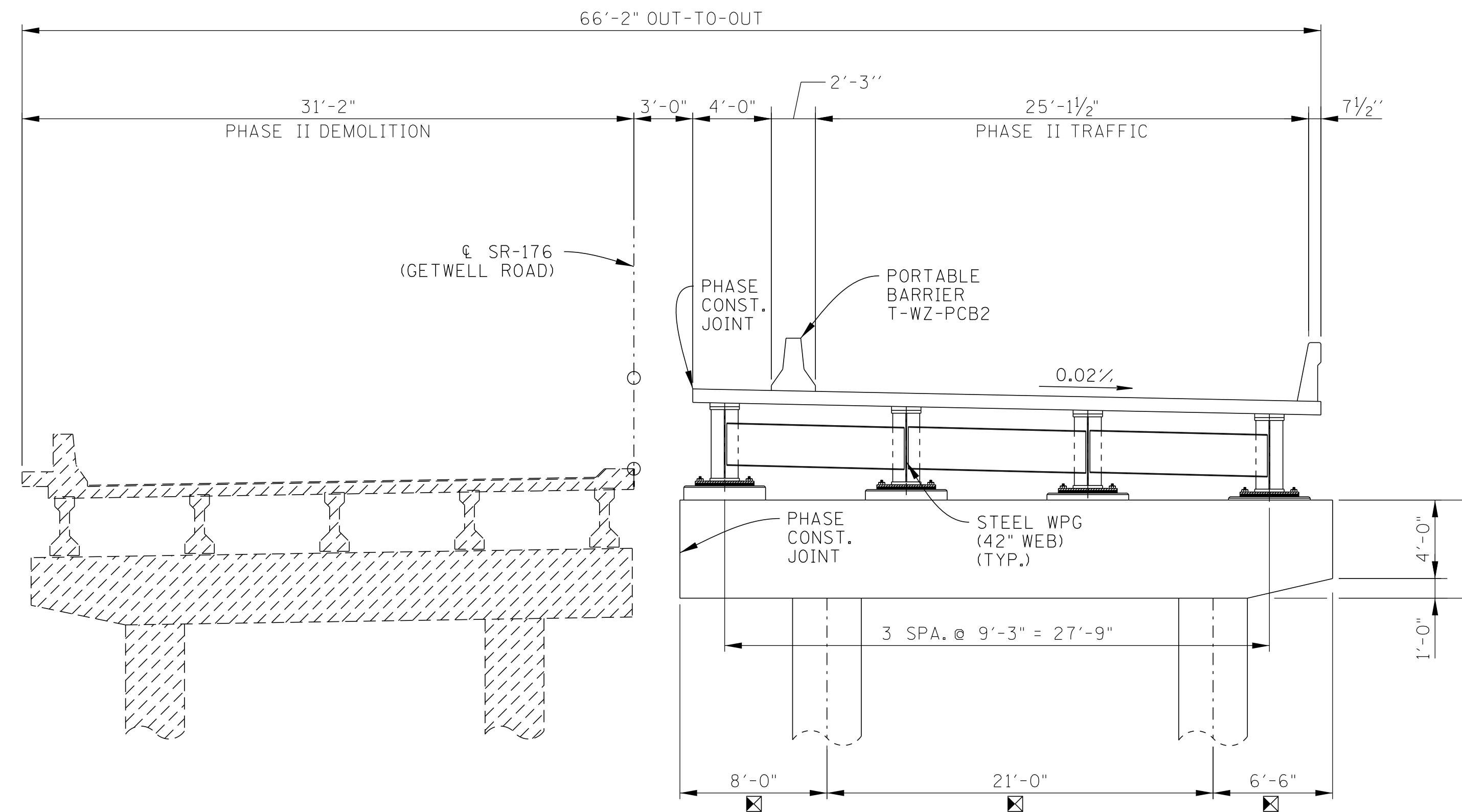
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 DEPARTMENT OF TRANSPORTATION
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 OVER STATE ROUTE 4 (LAMAR AVE.)
 BRIDGE ID NO. 79SR0040013
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 LOG MILE 4.36
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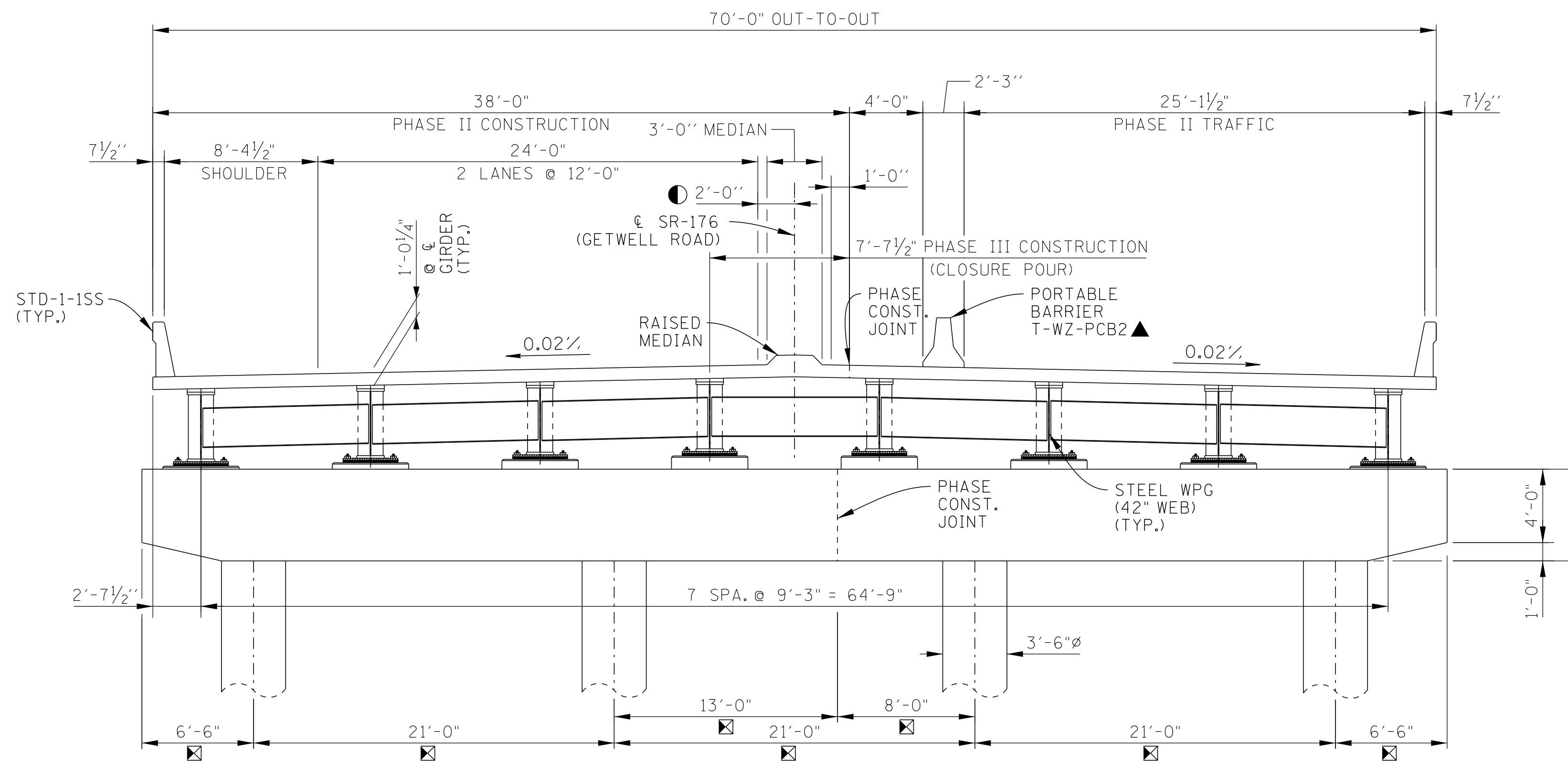
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PROJECT NO.	YEAR	SHEET NO.	
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REVISIONS			
NO.	DATE	BY	BRIEF DESCRIPTION
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PHASE II DEMOLITION
(LOOKING FORWARD ON SURVEY)

- DENOTES: CURB AND GUTTER.
- ⊠ DENOTES: MEASURED ALONG SKEW.
- ▲ DENOTES: TO BE REMOVED AFTER COMPLETION OF PHASE III CONSTRUCTION.



PHASE II CONSTRUCTION
(LOOKING FORWARD ON SURVEY)

SEALED BY

BRIDGE NO. 5
STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
PHASING SEQUENCE
STATE ROUTE 176 (GETWELL ROAD)
OVER STATE ROUTE 4 (LAMAR AVE.)
BRIDGE ID NO. 79SR0040013
STATION 148+08.91
LOG MILE 4.36
SHELBY COUNTY

PIN NO.: 100340.00
DESIGN BY: BENESCH DATE: 03/2026
DRAWN BY: R. MEYER DATE: 03/2026
SUPERVISED BY: J. LEWIS/A. HARRIS DATE: 03/2026
CHECKED BY: K. LEWIS DATE: 03/2026

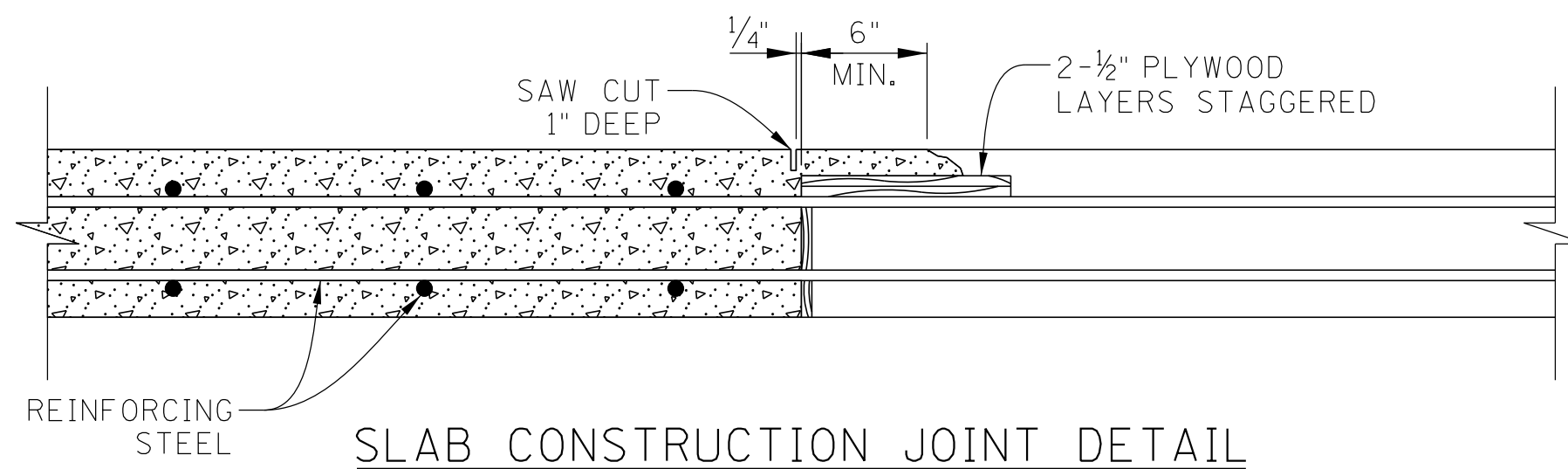


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STP-NH-4(6)	2026		
REVISIONS			
NO.	DATE	BY	BRIEF DESCRIPTION
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NOTE: NO PORTION OF THE PARAPET SHALL BE POURED UNTIL THE ENTIRE DECK SLAB IS IN PLACE UNLESS REQUIRED FOR PHASE CONSTRUCTION.

NOTE: THE CONCRETE DECK SHALL NOT BE POURED UNTIL ALL STRUCTURAL STEEL IS ERECTED AND ALL WELDING AND/OR BOLTING COMPLETE FOR EACH PHASE.

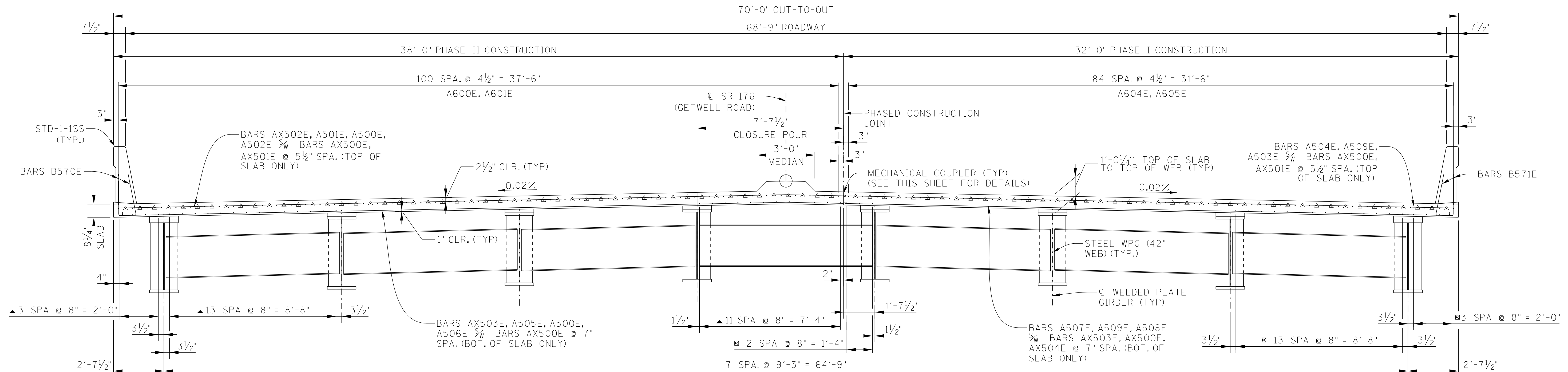
NOTE: WHEN POURING SLAB, PROVISIONS SHALL BE MADE FOR SETTING REINFORCING STEEL FOR PARAPET. THE PARAPET SHALL NOT BE POURED UNTIL THE SLAB IS POURED AND CURED.



SLAB CONSTRUCTION JOINT DETAIL

NOTE: ALL DECK POURS SHALL BE MADE IN NUMERICAL SEQUENCE. THE SLAB SHALL NOT BE POURED UNTIL ALL STRUCTURAL STEEL IS ERECTED AND ALL WELDING OR BOLTING IS COMPLETE. THE CONTRACTOR SHALL MAKE ADEQUATE PROVISIONS DURING PLACEMENT OF THE SLAB TO PREVENT THE EXTERIOR BEAM FROM TWISTING. NO PORTION OF THE CURB OR PARAPET SHALL BE POURED UNTIL THE ENTIRE SLAB IS IN PLACE.

ALL SLAB CONSTRUCTION JOINTS SHALL BE IN ACCORDANCE WITH THE SLAB CONSTRUCTION JOINT DETAIL SHOWN ABOVE.



TYPICAL CROSS SECTION

(LOOKING FORWARD ON SURVEY)

- ▲ DENOTES LINE OF BARS CONSISTS OF - 3 BARS A600E $\frac{5}{8}$ " 1 BAR A601E
- DENOTES LINE OF BARS CONSISTS OF - 3 BARS A604E $\frac{5}{8}$ " 1 BAR A605E
- △ DENOTES DROP IN BARS A606E, A607E (PHASE I CONSTRUCTION) AND A602E, A603E (PHASE II CONSTRUCTION)

APPROVAL OF MATERIALS: NO FABRICATION SHALL BE STARTED UNTIL THE MATERIALS INVOLVED HAVE BEEN APPROVED BY THE TENNESSEE DEPARTMENT OF TRANSPORTATION, DIVISION OF MATERIALS AND TESTS WITH A COPY OF THE TEST REPORTS ALSO GOING TO THE TENNESSEE DEPARTMENT OF TRANSPORTATION, DIVISION OF MATERIALS AND TESTS.

IDENTITY OF MAIN MATERIALS: SEE SECTION 602 OF THE STANDARD SPECIFICATIONS.

STRUCTURAL STEEL: SHALL CONFORM TO ASTM A709 GRADE 50W UNLESS OTHERWISE NOTED. ALL STRUCTURAL STEEL FOR GIRDER FLANGES IN TENSION AND ALL WEBS SHALL MEET THE SUPPLEMENTAL REQUIREMENTS FOR LONGITUDINAL CHARPY V-NOTCH TESTS SPECIFIED IN ASTM SPECIFICATIONS. ZONE 2 OF NON-FRACTURE CRITICAL CRITERIA SHALL APPLY.

WELDING: ANSI/AASHTO/AWS D1.5-CURRENT EDITION BRIDGE WELDING CODE AND SECTION 602 OF THE STANDARD SPECIFICATIONS.

GIRDER BENT PLATE DIAPHRAGM: BENT PLATE BRACING FOR PHASE 3 CLOSURE POUR TO BE CONNECTED DURING PHASE 2 GIRDER ERECTION. THE CENTER BOLT SHALL BE INSTALLED HAND-TIGHT AND THREADS THEN UPSET AT EACH END OF THE BENT PLATE. AFTER THE DECK SLAB OF PHASE 2 HAS BEEN POURED, THE CONTRACTOR SHALL INSTALL THE REMAINING BOLTS AND TENSION ALL BOLTS TO THE REQUIRED PLANS VALUE.

GIRDER ERECTION: GIRDERS MAY HAVE TO BE CRANE-LIFTED, JACKED, NEEDLE-BEAMED, ETC. TO ACHIEVE THE PROPER CROSS-SLOPE AND HOLE ALIGNMENT DURING PHASE 1 AND PHASE 2 TRANSVERSE BRACING INSTALLATION. ALL TRANSVERSE BRACING IN PHASE 1 AND PHASE 2 SHALL BE IN PLACE AND ALL BOLTS TENSIONED TO THE PLANS SPECIFIED VALUES PRIOR TO THE SLAB POUR IN THAT PHASE. ALL COSTS OF TRANSVERSE BRACING INSTALLATION TO BE INCLUDED IN THE LUMP SUM COST OF STEEL STRUCTURE.

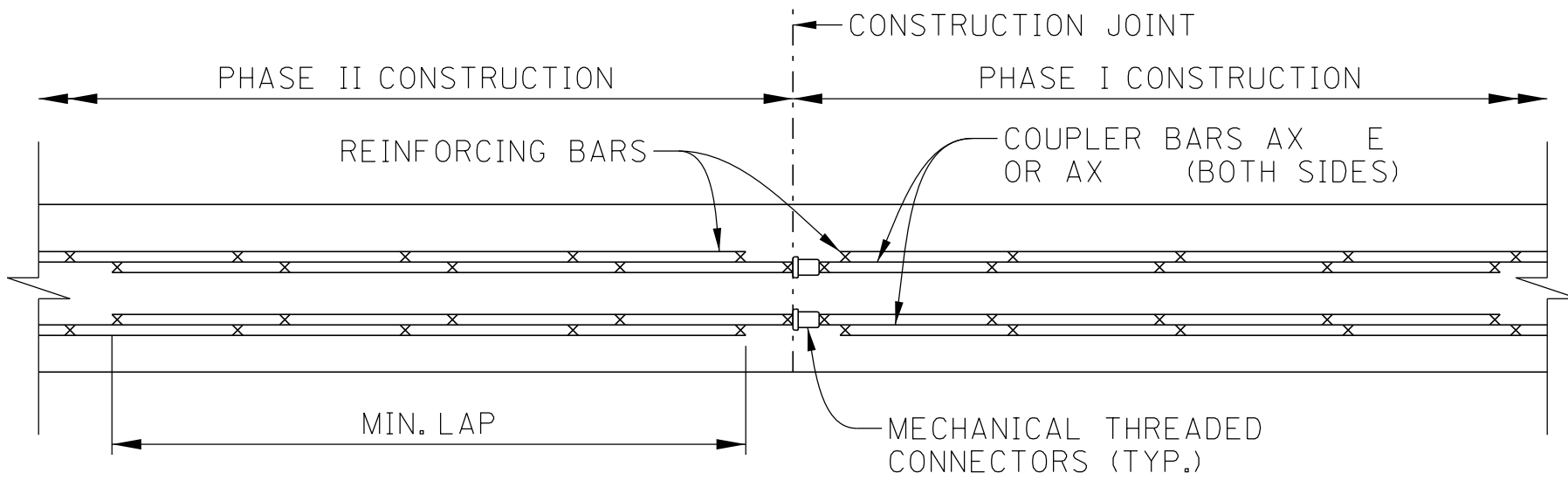
FIELD CONNECTIONS: SHALL BE 1" Ø HIGH TENSILE STRENGTH BOLTS ASTM F3125 GRADE A325 UNLESS OTHERWISE SHOWN. SEE AASHTO LRFD BRIDGE CONSTRUCTION SPECIFICATIONS ART.11.3.2 AND SECTION 602 OF THE STANDARD SPECIFICATIONS.

ADDITIONAL SHOP SPLICE NOTE: SHOP SPLICES NECESSARY DUE TO LENGTHS OR SIZE OF MATERIAL INVOLVED MAY BE ADDED BY THE FABRICATOR SUBJECT TO APPROVAL BY THE ENGINEER AND SHALL BE AT NO ADDITIONAL COST TO THE PROJECT.

ADDITIONAL FIELD SPLICE NOTE: FIELD SPLICES NECESSARY DUE TO LENGTHS INVOLVED MAY BE ADDED BY THE FABRICATOR SUBJECT TO APPROVAL BY THE ENGINEER AND SHALL BE AT NO ADDITIONAL COST TO THE PROJECT.

FIELD SPLICE NOTE: FIELD SPLICES SHOWN ON THE PLANS MAY BE DELETED BY THE CONTRACTOR. ADJUSTMENT TO THE LUMP SUM PRICE FOR STEEL STRUCTURES SHALL BE IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS.

STEEL BEAM DESIGN DATA (PER BEAM):
 COMPOSITE DEAD LOAD: DC = 348 LB/FT/BEAM
 DW = 294 LB/FT/BEAM
 COMPOSITE SLAB DESIGN STRENGTH: F'C = 3000 PSI



COUPLER BAR DETAIL

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.

PIN NO.: 100340.00
 DESIGN BY: BENESCH DATE: 03/2026
 DRAWN BY: R. MEYER DATE: 03/2026
 SUPERVISED BY: J. LEWIS/A. HARRIS DATE: 03/2026
 CHECKED BY: K. LEWIS DATE: 03/2026

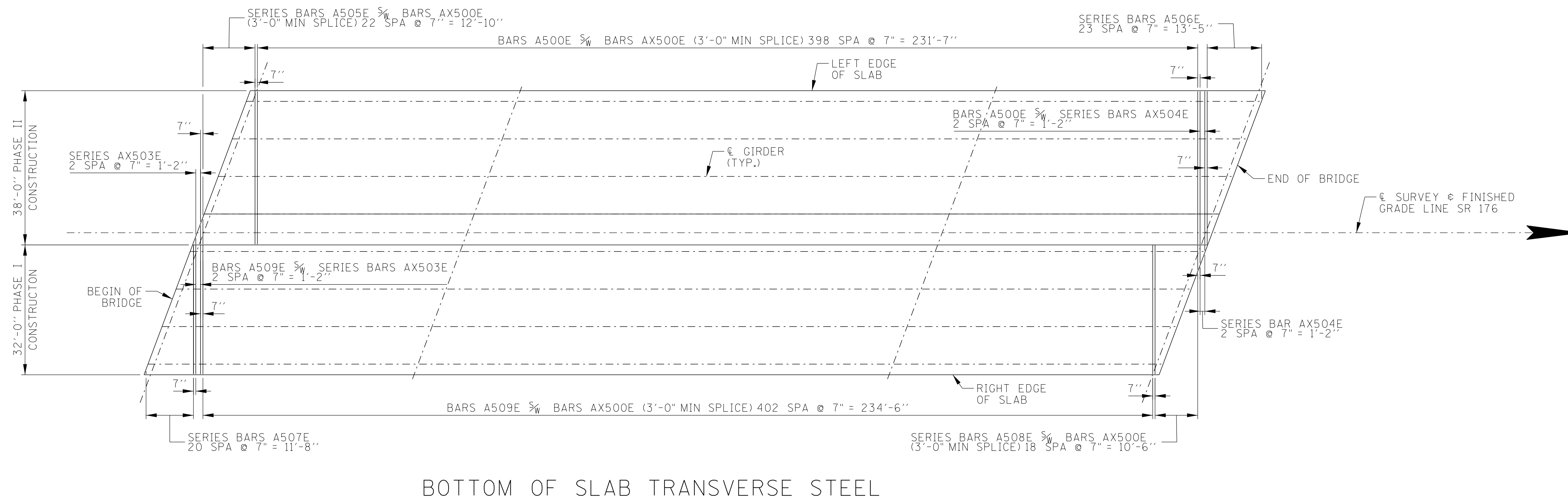
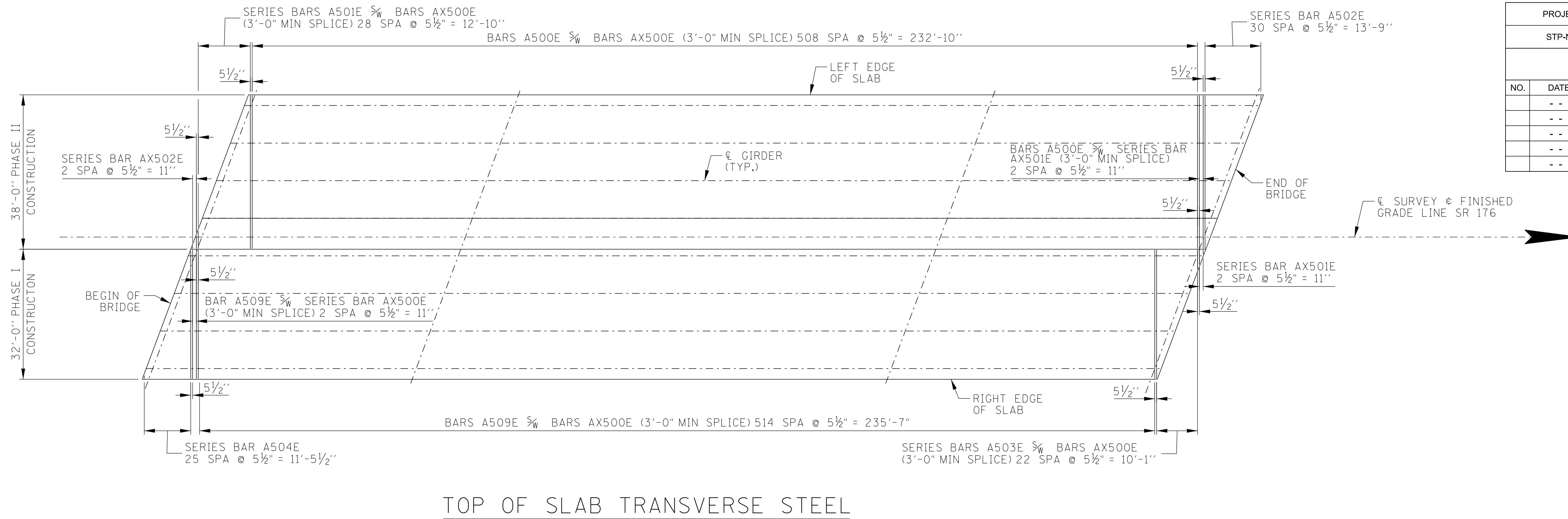


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BRIDGE NO. 5
 STATE OF TENNESSEE
 DEPARTMENT OF TRANSPORTATION
SUPERSTRUCTURE
STATE ROUTE 176 (GETWELL ROAD)
OVER STATE ROUTE 4 (LAMAR AVE.)
 BRIDGE ID NO. 79SR0040013
 STATION 148+08.91
 LOG MILE 4.36
 SHELBY COUNTY

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PROJECT NO.	YEAR	SHEET NO.	
STP-NH-4(6)	2026		
REVISIONS			
NO.	DATE	BY	BRIEF DESCRIPTION
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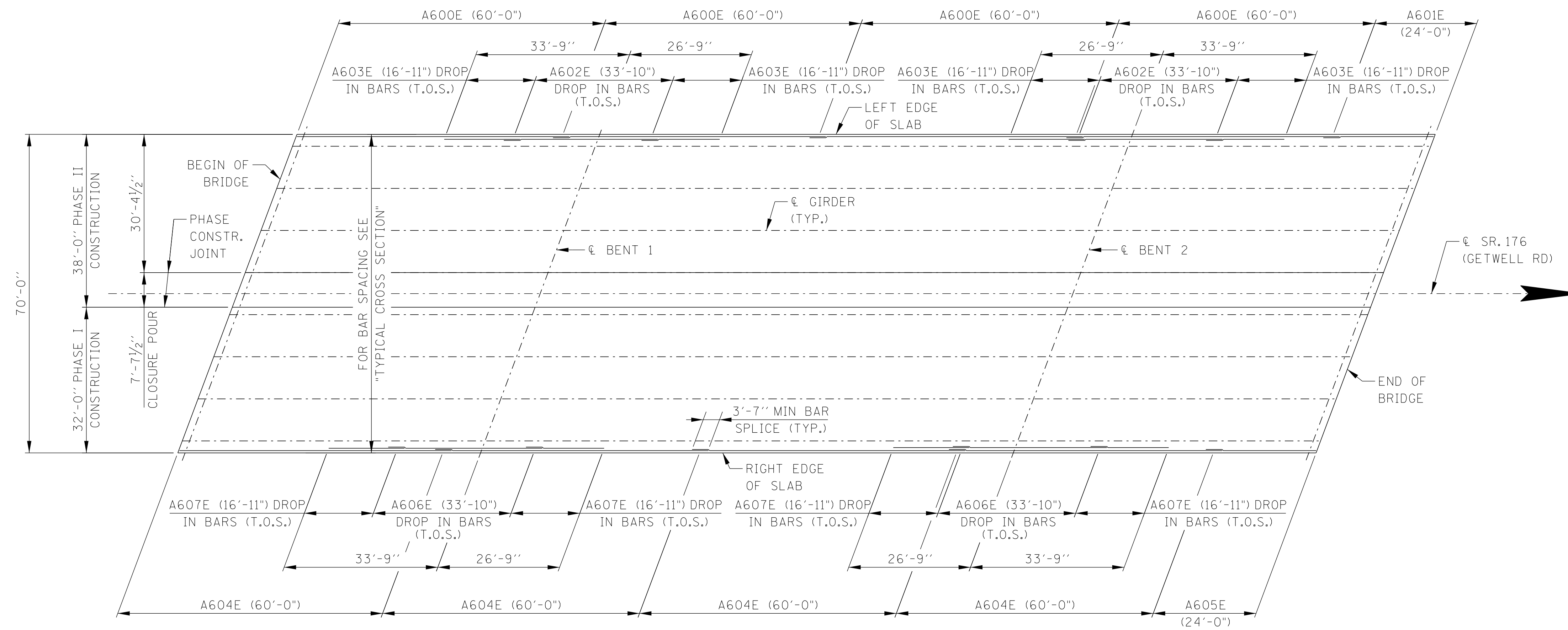
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 DEPARTMENT OF TRANSPORTATION
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 STATE ROUTE 176 (GETWELL ROAD)
 OVER STATE ROUTE 4 (LAMAR AVE.)
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 STATION 148+08.91
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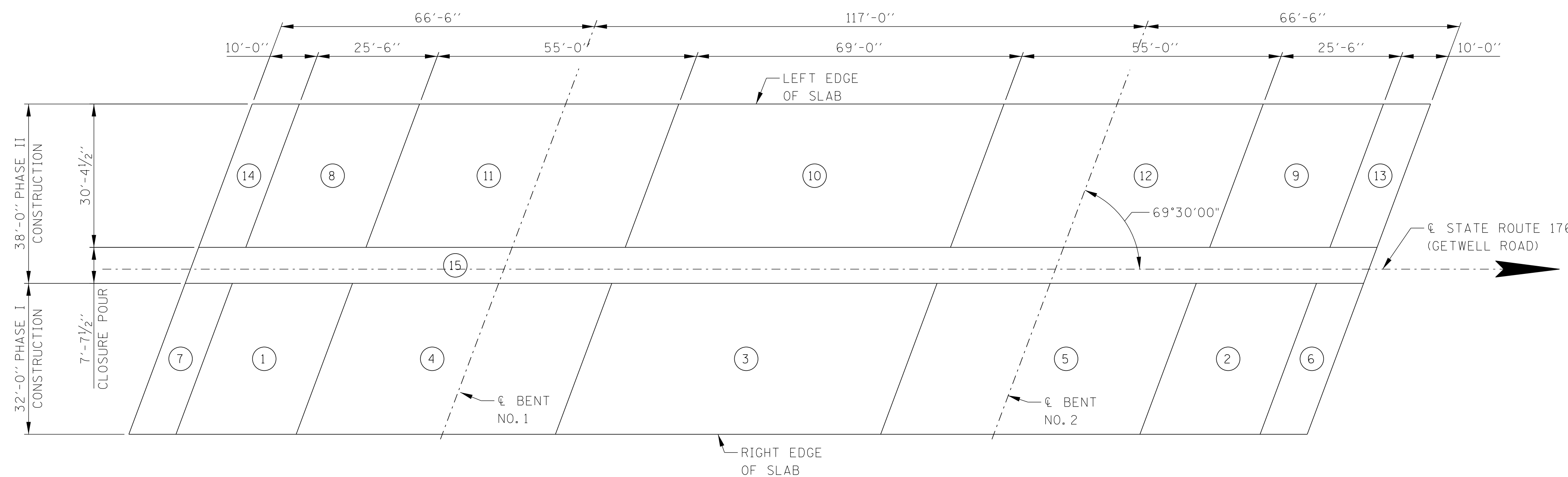


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PROJECT NO.	YEAR	SHEET NO.	
STP-NH-4(6)	2026		
REVISIONS			
NO.	DATE	BY	BRIEF DESCRIPTION
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MAIN REINFORCEMENT



POURING SEQUENCE

NOTE: ALL SLAB POURS SHALL BE MADE IN NUMERICAL SEQUENCE.

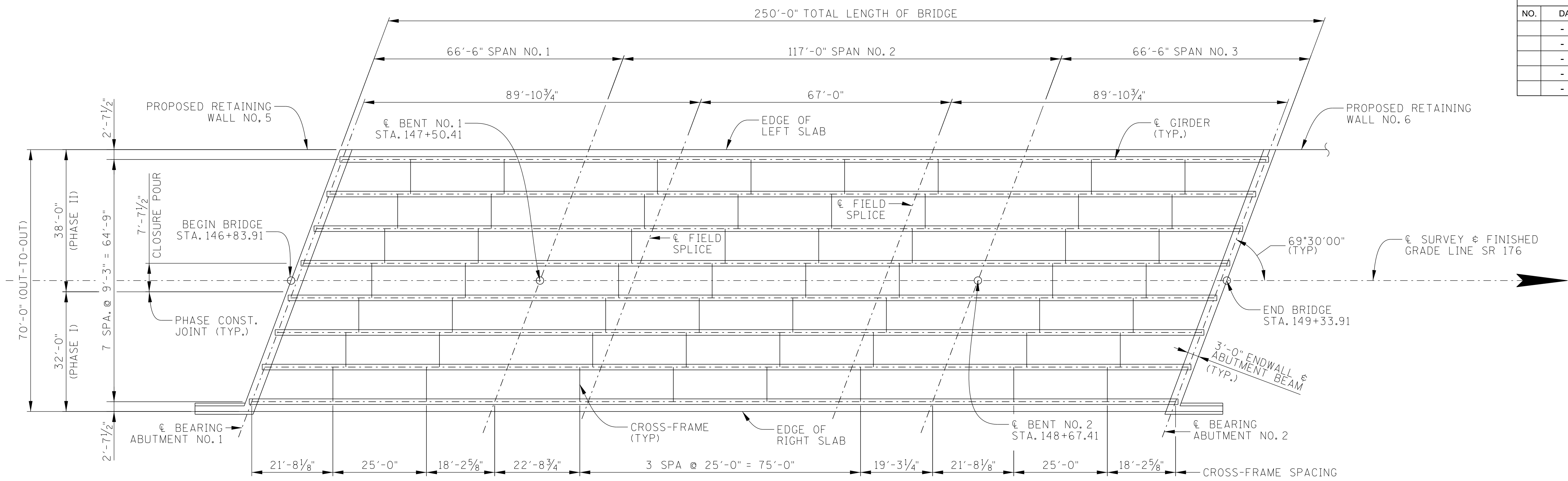
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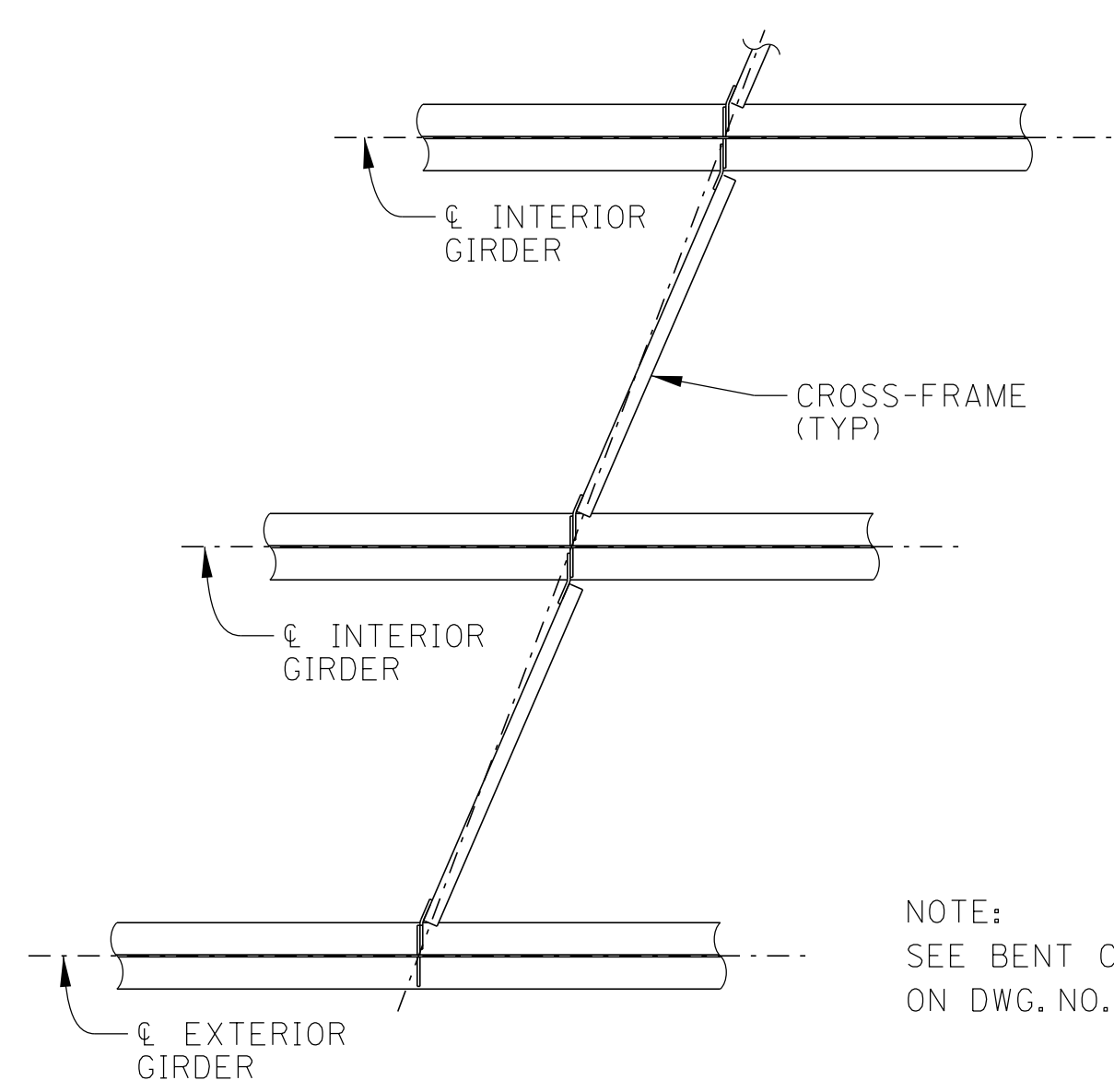


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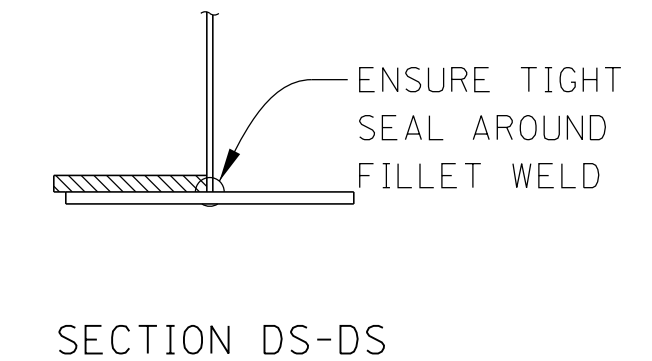
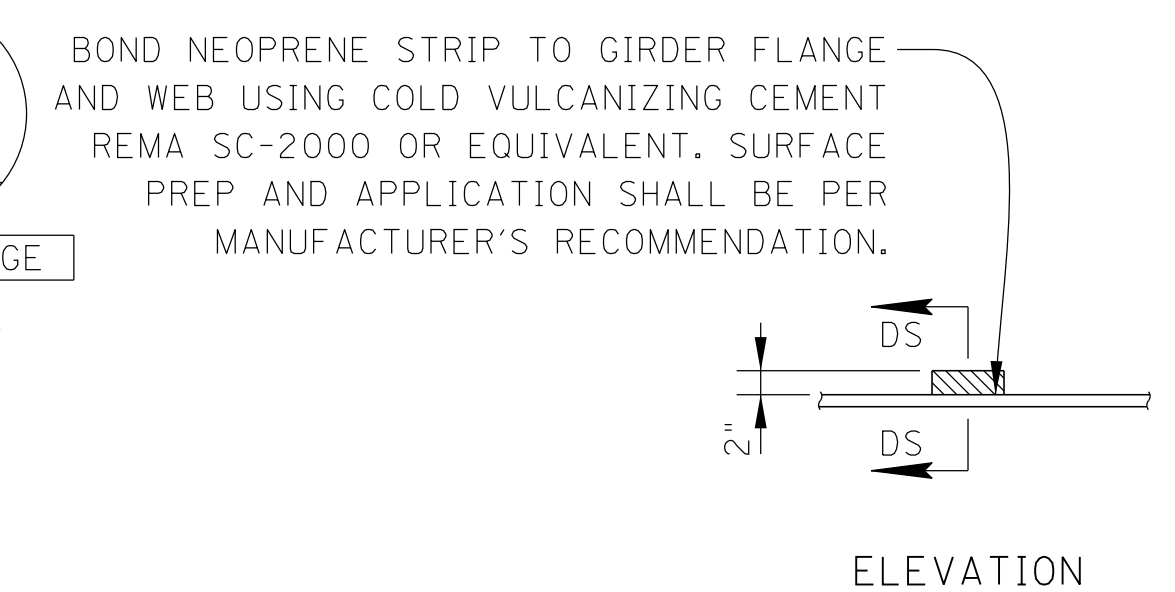
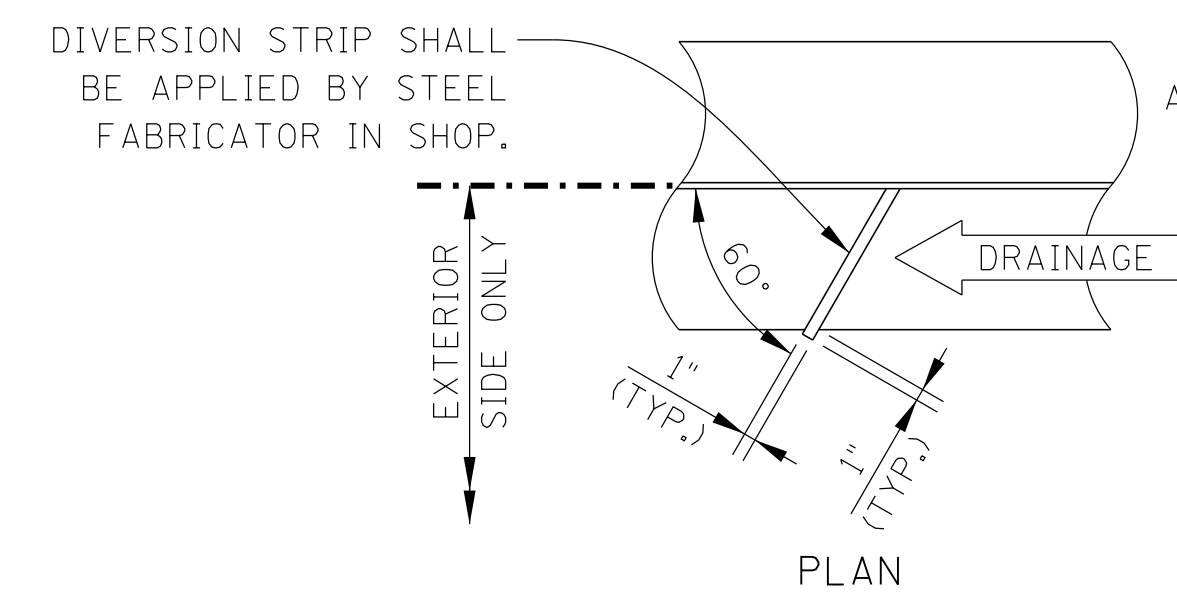


FRAMING PLAN

NOTE: FOR PROPOSED DRAINAGE, SEE ROADWAY PLANS.



NOTE: SEE BENT CONNECTION PLATE DETAIL ON DWG. NO. U-102-257



DIVERSION STRIP DETAILS
 NOTE: NEOPRENE DIVERSION STRIPS SHALL BE LOCATED ON THE EXTERIOR SIDE OF THE WEB OF THE EXTERIOR GIRDERS ONLY. THE STRIPS SHALL BE PLACED NEAR THE LOW END OF ALL SPANS. THE STRIPS SHALL BE LOCATED FIVE (5'-0") FEET FROM THE GIRDER END OR FROM THE CENTERLINE OF THE BENT FOR GIRDERS CONTINUOUS OVER A BENT AND SHALL BE SLOPED TOWARD THE END OF THE GIRDER AS SHOWN IN PLAN VIEW.

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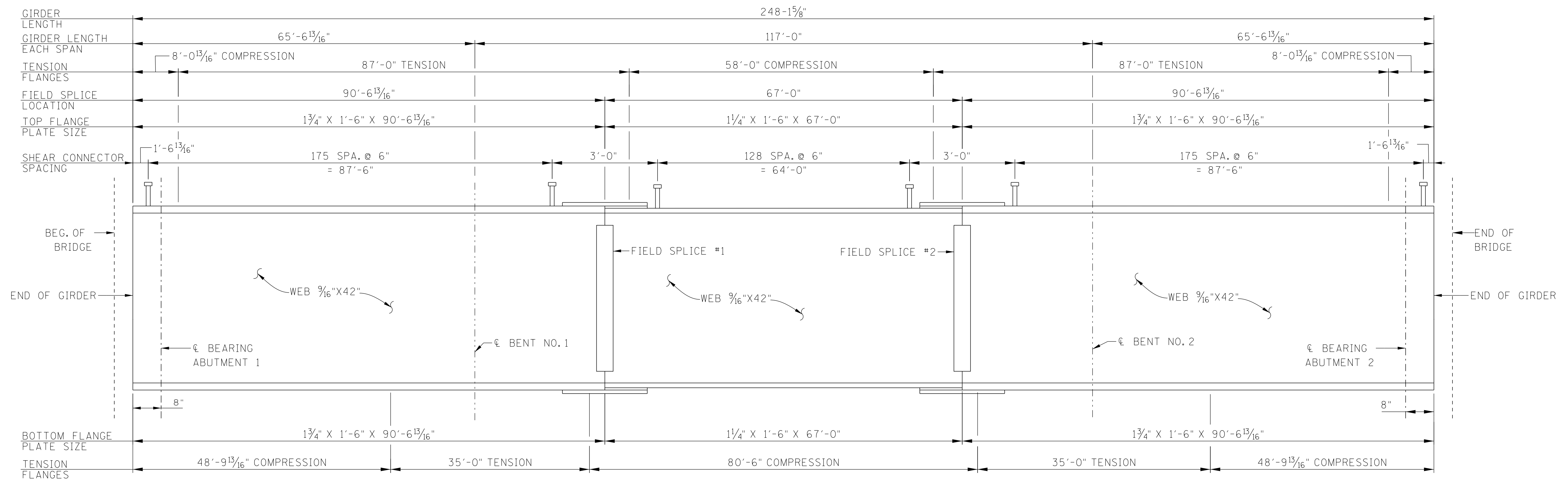
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 STATE ROUTE 176 (GETWELL ROAD)
 OVER STATE ROUTE 4 (LAMAR AVE.)
 BRIDGE ID NO. 79SR0040013
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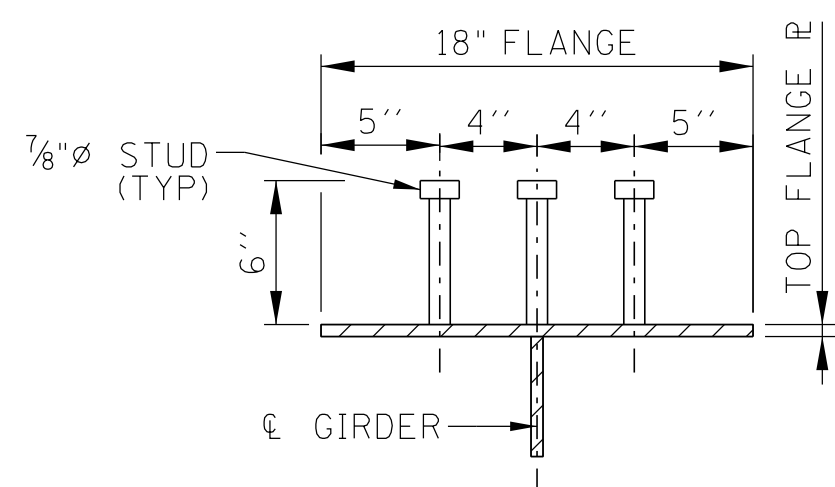


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GIRDER ELEVATION



SHEAR CONNECTOR DETAILS

NOTE: SHEAR CONNECTOR MATERIAL SHALL BE COLD-DRAWN ASTM A108 GRADE 1015, 1018, OR 1020, EITHER SEMI OR FULLY KILLED, AND HAVE SPECIFIED MINIMUM YIELD AND TENSILE STRENGTHS OF 50 KSI AND 60 KSI, RESPECTIVELY.

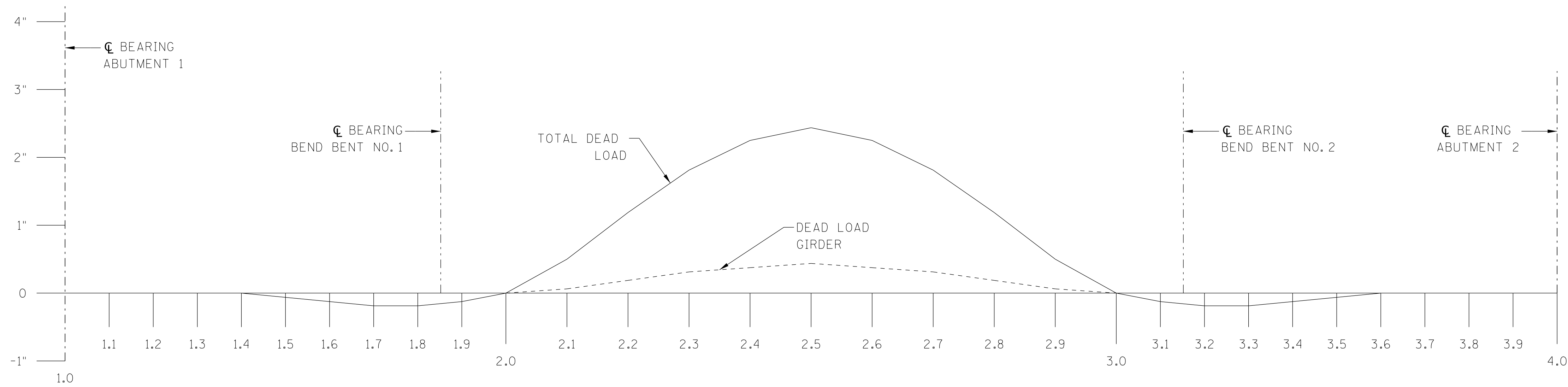
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 STATE ROUTE 176 (GETWELL ROAD)
 OVER STATE ROUTE 4 (LAMAR AVE.)
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SPAN POINT	1.0	1.1	1.2	1.3	1.4	1.5	1.6	1.7	1.8	1.9	2.0	2.1	2.2	2.3	2.4	2.5	2.6	2.7	2.8	2.9	3.0	3.1	3.2	3.3	3.4	3.5	3.6	3.7	3.8	3.9	4.0
DEAD LOAD GIRDER	0"	0"	0"	0"	0"	0"	0"	0"	0"	0"	0"	1/16"	3/16"	5/16"	3/8"	7/16"	3/8"	5/16"	3/16"	1/16"	0"	0"	0"	0"	0"	0"	0"	0"	0"	0"	0"
DEAD LOAD SLAB	0"	0"	0"	0"	0"	-1/16"	-1/8"	-1/8"	-1/8"	-1/16"	0"	5/16"	11/16"	11/16"	15/16"	17/16"	15/16"	11/16"	11/16"	5/16"	0"	-1/16"	-1/8"	-1/8"	-1/16"	-1/16"	0"	0"	0"	0"	
DEAD LOAD WS	0"	0"	0"	0"	0"	0"	0"	0"	0"	0"	0"	1/16"	1/8"	1/4"	5/16"	5/16"	5/16"	1/4"	1/8"	1/16"	0"	0"	0"	0"	0"	0"	0"	0"	0"	0"	
DEAD LOAD APPURT.	0"	0"	0"	0"	0"	0"	0"	0"	0"	0"	0"	1/16"	1/8"	3/16"	1/4"	1/4"	1/4"	3/16"	1/8"	1/16"	0"	0"	0"	0"	0"	0"	0"	0"	0"	0"	
TOTAL DEAD LOAD	0"	0"	0"	0"	0"	-1/16"	-1/8"	-3/16"	-3/16"	-1/8"	0"	1/2"	13/16"	13/16"	21/4"	27/16"	21/4"	13/16"	13/16"	1/2"	0"	-1/8"	-3/16"	-3/16"	-1/8"	-1/16"	0"	0"	0"	0"	

DEAD LOAD CORRECTION CURVE EXTERIOR GIRDER

SPAN POINT	1.0	1.1	1.2	1.3	1.4	1.5	1.6	1.7	1.8	1.9	2.0	2.1	2.2	2.3	2.4	2.5	2.6	2.7	2.8	2.9	3.0	3.1	3.2	3.3	3.4	3.5	3.6	3.7	3.8	3.9	4.0
DEAD LOAD GIRDER	0"	0"	0"	0"	0"	0"	0"	0"	-1/16"	0"	0"	1/8"	1/4"	5/16"	7/16"	7/16"	5/16"	1/4"	1/8"	0"	0"	-1/16"	0"	0"	0"	0"	0"	0"	0"	0"	
DEAD LOAD SLAB	0"	0"	0"	0"	0"	0"	-1/16"	-1/8"	-1/8"	-1/16"	0"	3/8"	13/16"	13/16"	15/8"	11/4"	15/8"	15/16"	13/16"	3/8"	0"	-1/16"	-1/8"	-1/8"	-1/16"	0"	0"	0"	0"	0"	
DEAD LOAD WS	0"	0"	0"	0"	0"	0"	0"	0"	0"	0"	0"	1/16"	1/8"	1/4"	1/4"	5/16"	1/4"	1/4"	1/8"	1/16"	0"	0"	0"	0"	0"	0"	0"	0"	0"	0"	
DEAD LOAD APPURT.	0"	0"	0"	0"	0"	0"	0"	0"	0"	0"	0"	1/16"	1/8"	3/16"	1/4"	1/4"	1/4"	3/16"	1/8"	1/16"	0"	0"	0"	0"	0"	0"	0"	0"	0"	0"	
TOTAL DEAD LOAD	0"	0"	1/16"	0"	0"	-1/16"	-1/8"	-3/16"	-3/16"	-1/8"	0"	1/2"	15/16"	21/16"	21/2"	23/4"	23/16"	21/16"	15/16"	9/16"	0"	-1/8"	-3/16"	3/16"	1/8"	1/16"	0"	0"	0"	0"	

DEAD LOAD CORRECTION CURVE INTERIOR GIRDER

NOTE: GIRDERS SHALL BE CAMBERED TO COMPENSATE FOR DEAD LOAD DEFLECTION AND VERTICAL CURVE.

NOTE: IF PRESTRESSED DECK PANELS ARE USED AND THE GIRDERS ARE PROFILED AFTER THE PANELS ARE IN PLACE, REDUCE THE DEAD LOAD CORRECTION VALUES SHOWN BY 25%.

STRAIGHT GIRDER TRANSVERSE BRACING: STRAIGHT GIRDER TRANSVERSE BRACING (INCLUDING CLOSURE BRACING). SHALL BE FABRICATED FOR TOTAL CAMBER MINUS BEAM SELF WEIGHT CAMBER.

GIRDER ERECTION: GIRDERS MAY HAVE TO BE CRANE LIFTED, JACKED, NEEDLE BEAMED, ETC TO ACHIEVE PROPER CROSS-SLOPE AND HOLE ALIGNMENT DURING TRANSVERSE BRACING INSTALLATION. THE CONTRACTOR WILL NOT BE ALLOWED TO REAM HOLES UNTIL 50% OF THE HOLES IN THE PATTERN AT THAT LOCATION ARE FILLED WITH BOLTS OF PLAN SPECIFIED SIZE. ALL TRANSVERSE BRACING SHALL BE IN PLACE AND ALL BOLTS TENSIONED TO THE PLANS SPECIFIED VALUES PRIOR TO THE SLAB POUR IN THAT PHASE. ALL COSTS OF TRANSVERSE BRACING INSTALLATION TO BE INCLUDED IN THE LUMP SUM COST OF STEEL STRUCTURES.

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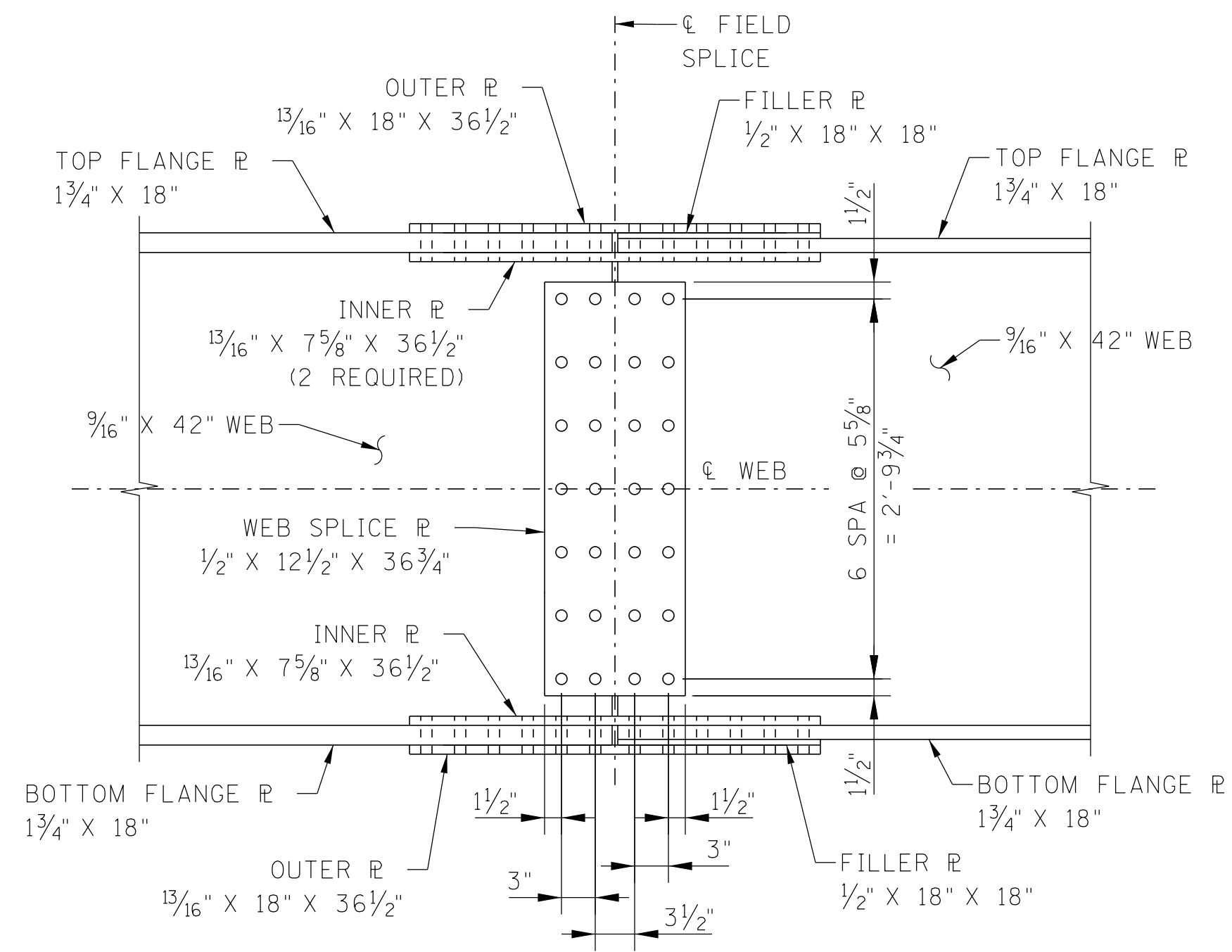
BRIDGE NO. 5
 STATE OF TENNESSEE
 DEPARTMENT OF TRANSPORTATION
STRUCTURAL STEEL DETAILS
 STATE ROUTE 176 (GETWELL ROAD)
 OVER STATE ROUTE 4 (LAMAR AVE.)
 BRIDGE ID NO. 79SR0040013
 STATION 148+08.91
 LOG MILE 4.36
 SHELBY COUNTY

PIN NO.: 100340.00
 DESIGN BY: BENESCH DATE: 03/2026
 DRAWN BY: R. MEYER DATE: 03/2026
 SUPERVISED BY: J. LEWIS/A. HARRIS DATE: 03/2026
 CHECKED BY: K. LEWIS DATE: 03/2026

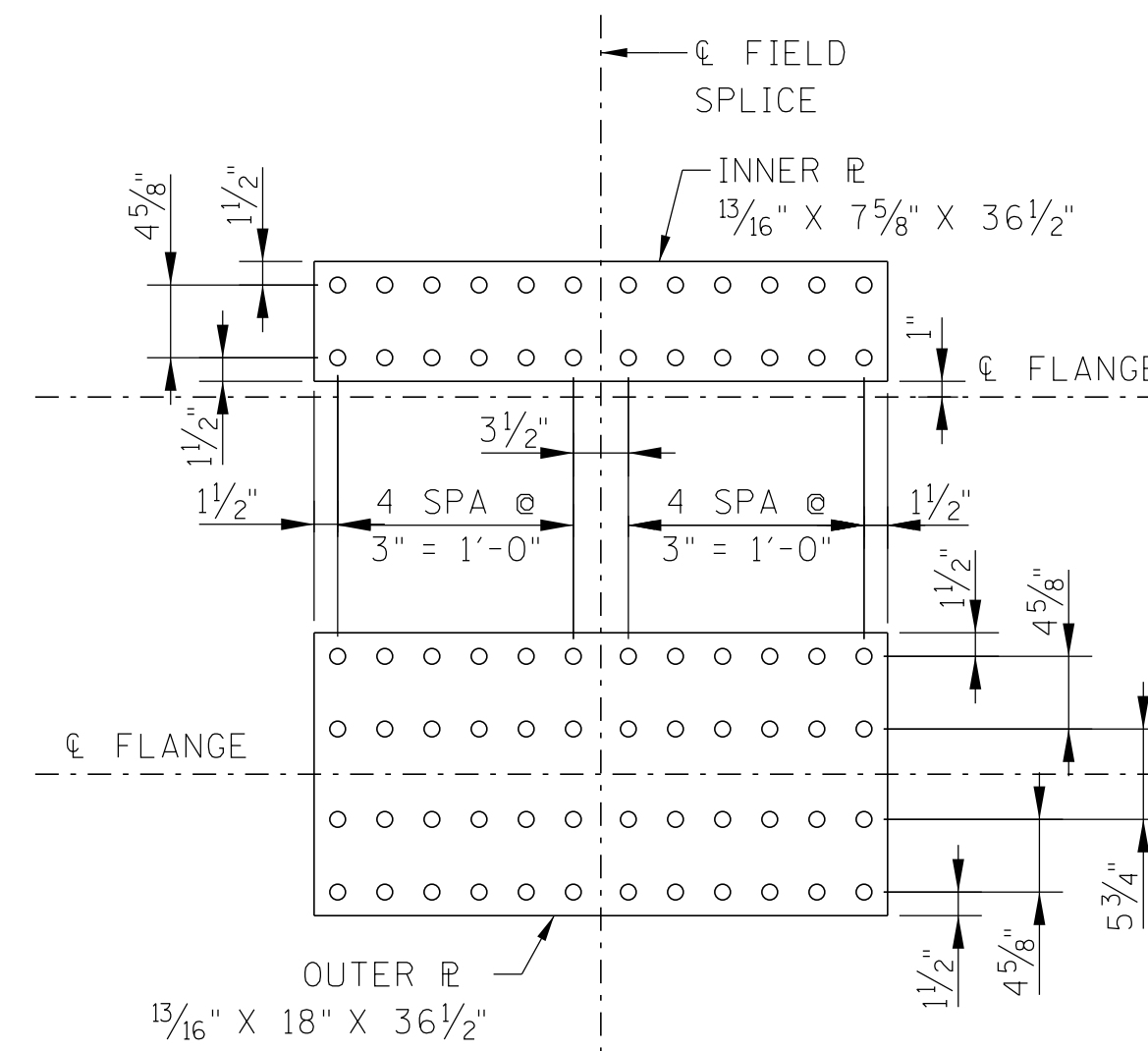


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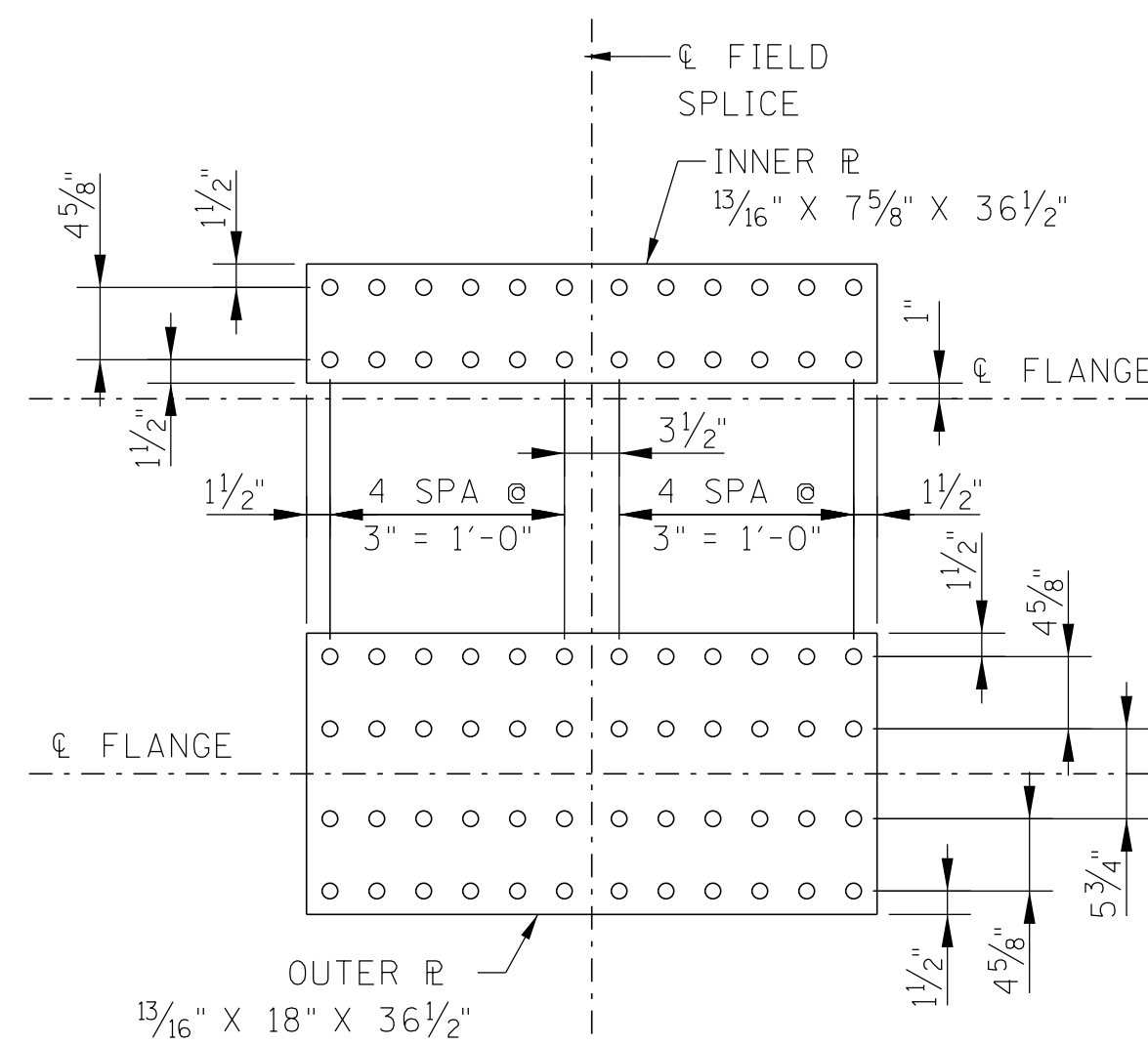
PROJECT NO.	YEAR	SHEET NO.	
STP-NH-4(6)	2026		
REVISIONS			
NO.	DATE	BY	BRIEF DESCRIPTION
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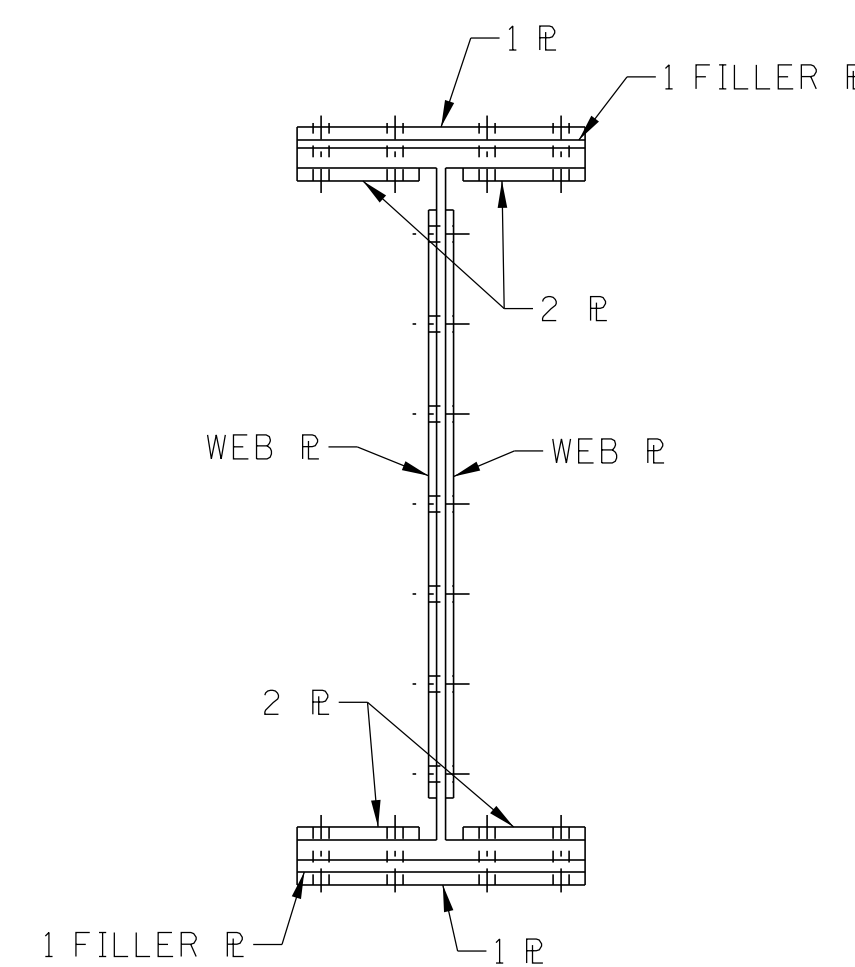
WEB SPLICE PLATE ELEVATION



PLAN OF TOP FLANGE SPLICE



PLAN OF BOTTOM FLANGE SPLICE



TYPICAL SECTION

NOTE TO FABRICATOR: BOLTS LENGTHS MUST EXCLUDE THREADS FROM ALL SHEAR PLANES.

NOTE: DESIGN BASED ON BLAST CLEANED UNFINISHED SURFACES (CLASS "B").

NOTE: FOR FIELD SPLICE LOCATIONS SEE "FRAMING PLAN" ON SHEET U-102-254 AND "GIRDER ELEVATION" ON SHEET U-102-255.

NOTE: ALL HOLES STANDARD SIZE FOR 1" BOLTS.

NOTE: ALL BOLTS TO BE 1" Ø ASTM F3125 GRADE 325 TYPE 3.

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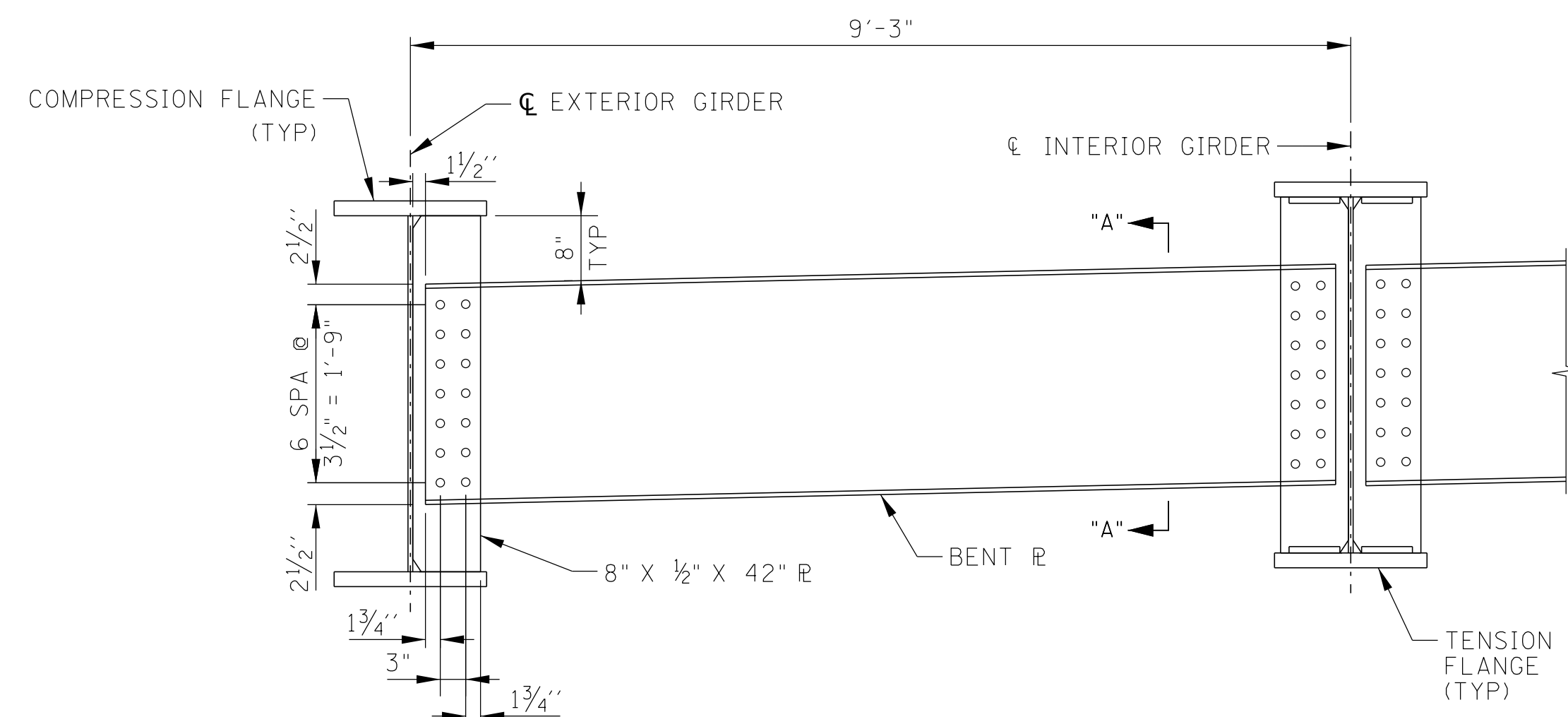
BRIDGE NO. 5

STATE OF TENNESSEE
 DEPARTMENT OF TRANSPORTATION
 STRUCTURAL STEEL DETAILS
 STATE ROUTE 176 (GETWELL ROAD)
 OVER STATE ROUTE 4 (LAMAR AVE.)
 BRIDGE ID NO. 79SR0040013
 STATION 148+08.91
 LOG MILE 4.36
 SHELBY COUNTY

PIN NO.: 100340.00
 DESIGN BY: BENESCH DATE: 03/2026
 DRAWN BY: R. MEYER DATE: 03/2026
 SUPERVISED BY: J. LEWIS/A. HARRIS DATE: 03/2026
 CHECKED BY: K. LEWIS DATE: 03/2026

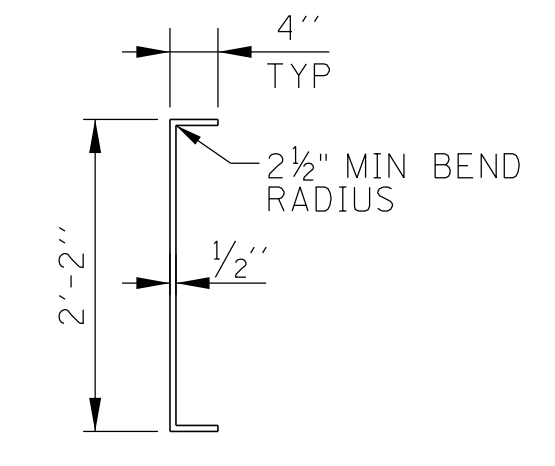


PROJECT NO.	YEAR	SHEET NO.	
STP-NH-4(6)	2026		
REVISIONS			
NO.	DATE	BY	BRIEF DESCRIPTION
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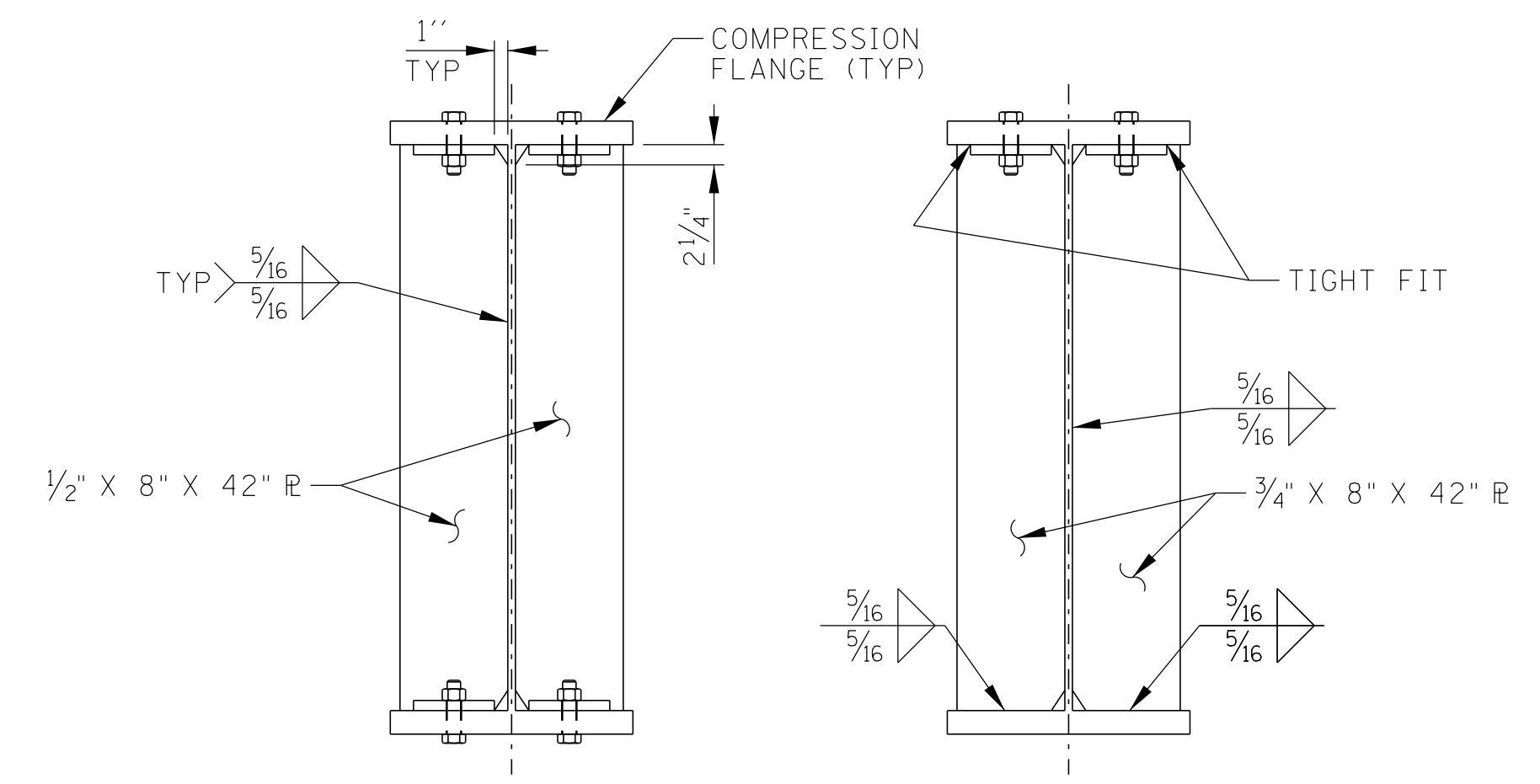


INTERMEDIATE CROSS-FRAME DETAIL

STIFFENERS TO BE MOUNTED PERPENDICULAR TO THE GIRDERS AT INTERMEDIATE LOCATIONS.
 ALL DIAPHRAGM BOLTS TO BE 1"Ø ASTM F3125 GRADE A325 TYPE 3
 ALL DIAPHRAGMS SHALL HAVE BOLT HOLES SHOP DRILLED
 GRADE E70 FILLET WELDS

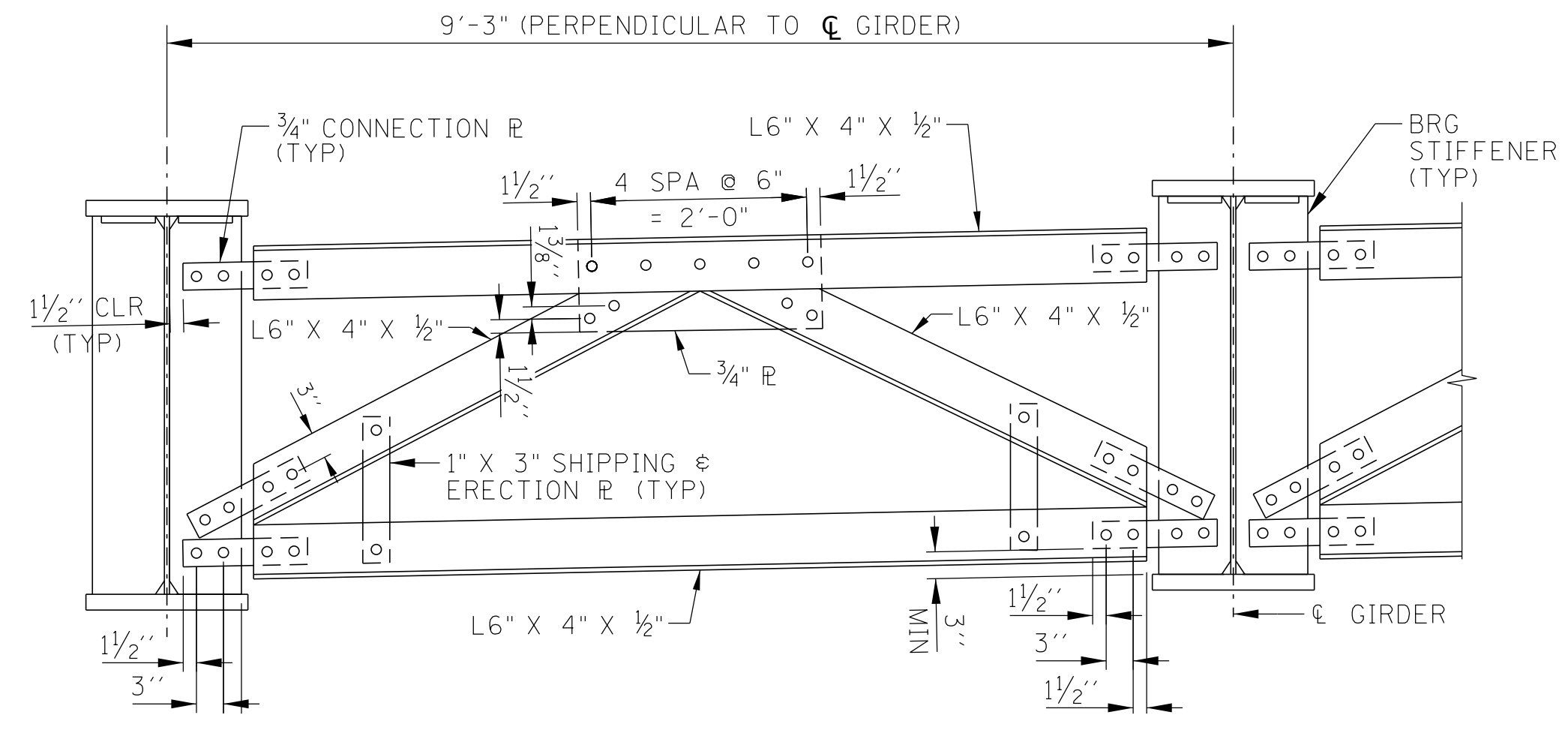


SECTION X-X

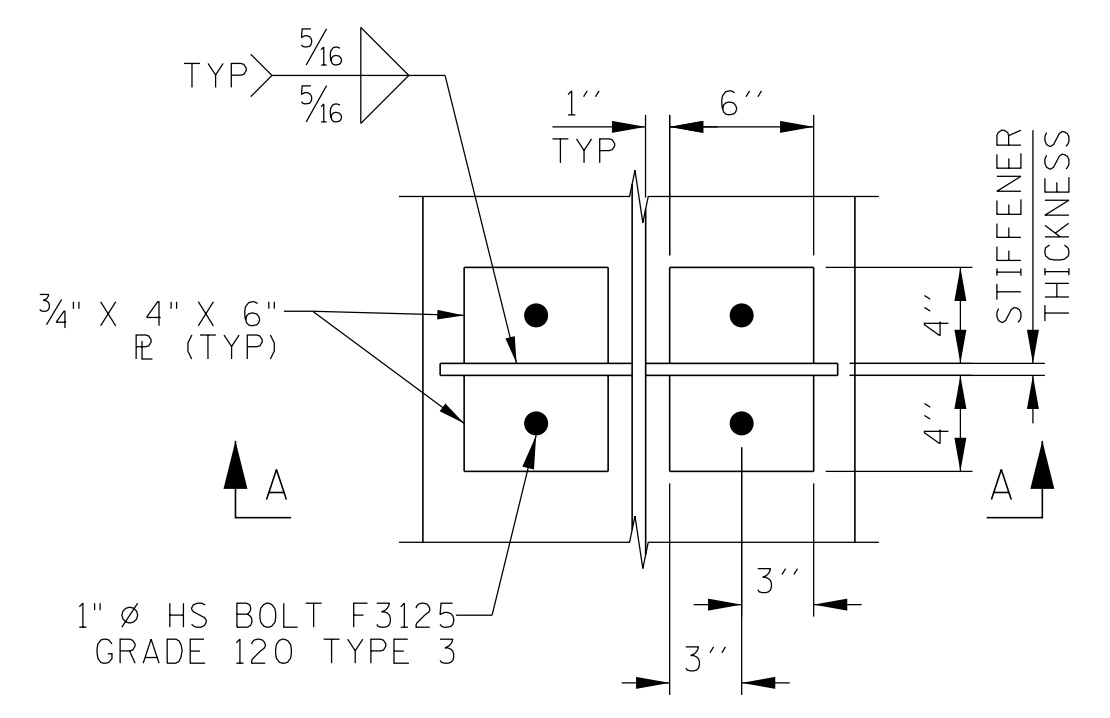


INTERMEDIATE CROSS-FRAME STIFFENER

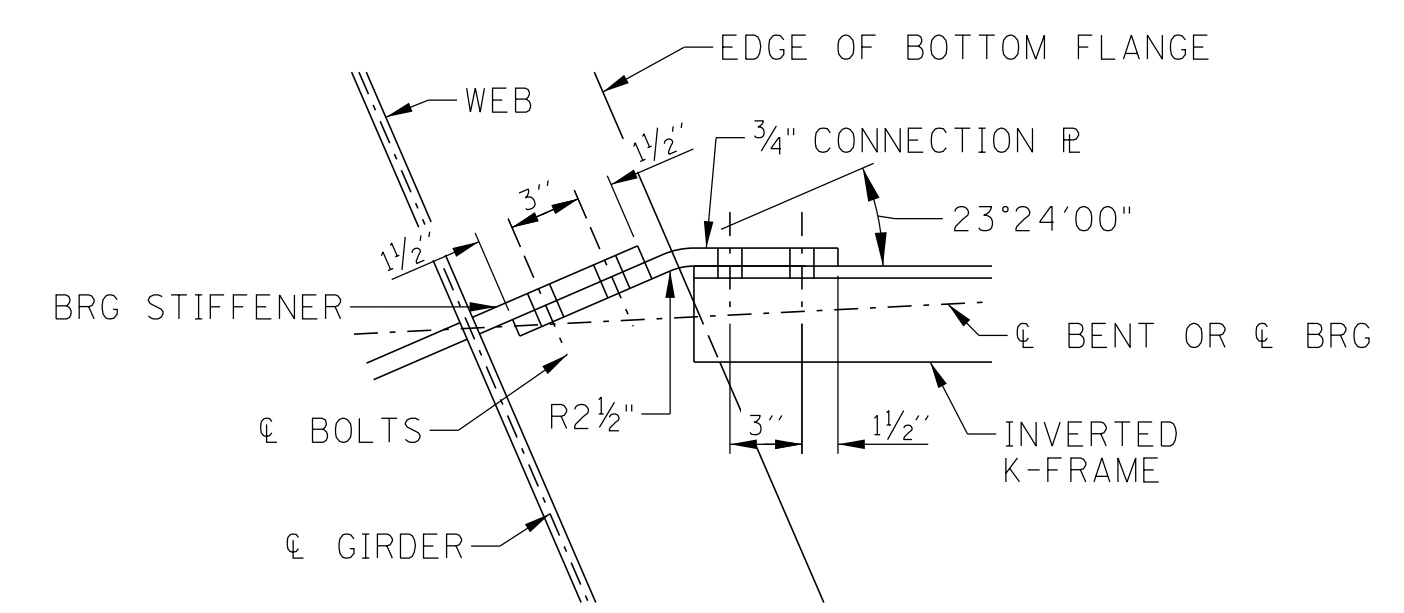
BEARING STIFFENER



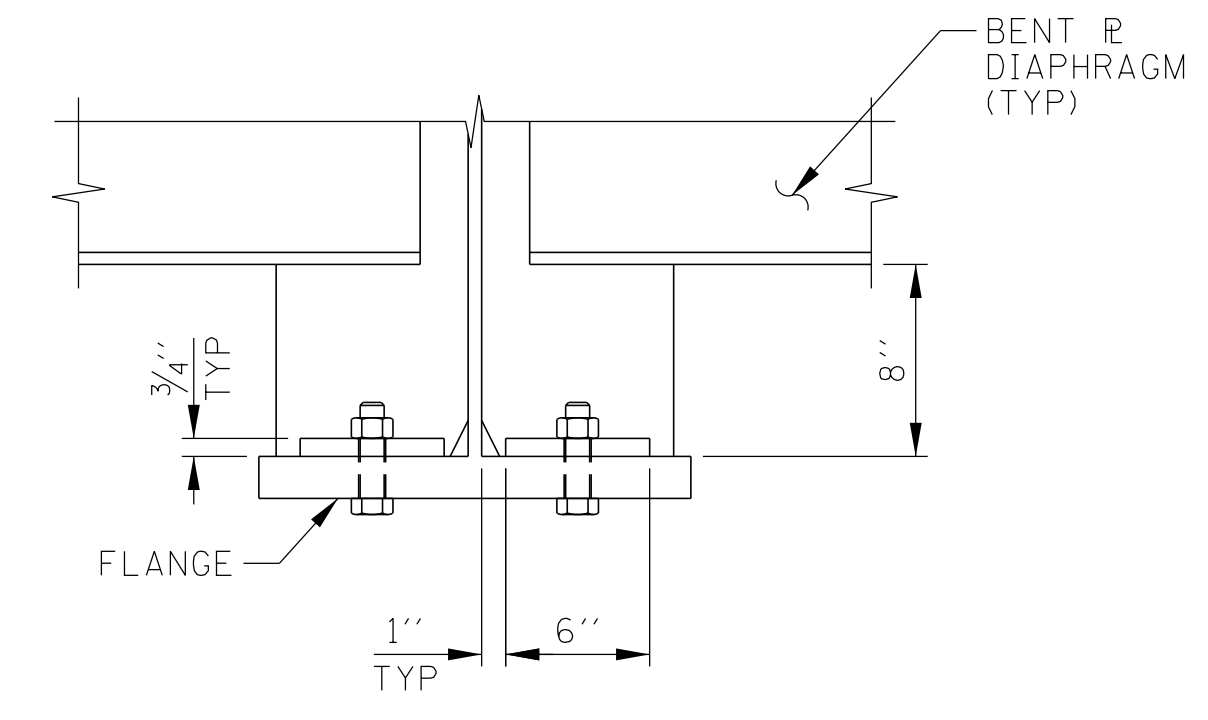
BEARING CROSS-FRAME DETAIL



STANDARD CONNECTION DETAILS



ABUTMENT & BENT CONNECTION PLATE DETAIL



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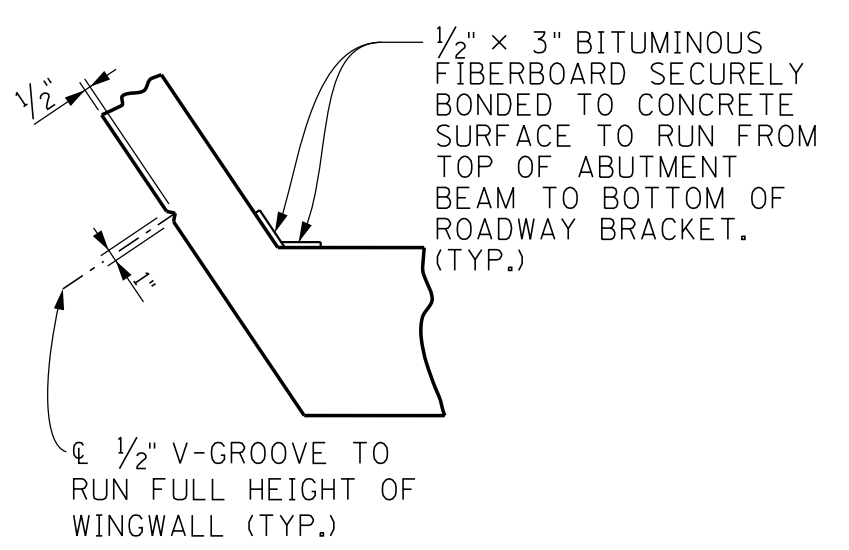
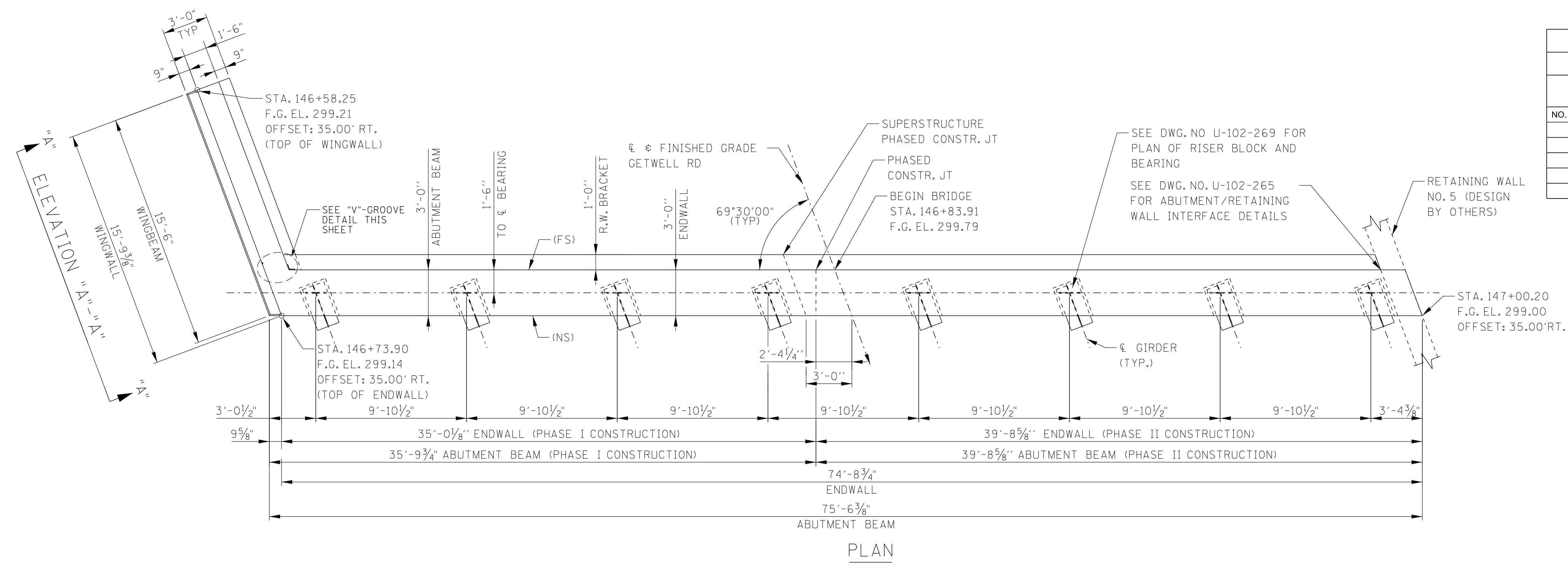
BRIDGE NO. 5
 STATE OF TENNESSEE
 DEPARTMENT OF TRANSPORTATION
 STRUCTURAL STEEL DETAILS
 STATE ROUTE 176 (GETWELL ROAD)
 OVER STATE ROUTE 4 (LAMAR AVE.)
 BRIDGE ID NO. 79SR0040013
 STATION 148+08.91
 LOG MILE 4.36
 SHELBY COUNTY

PIN NO.: 100340.00
 DESIGN BY: BENESCH DATE: 03/2026
 DRAWN BY: R. MEYER DATE: 03/2026
 SUPERVISED BY: J. LEWIS/A. HARRIS DATE: 03/2026
 CHECKED BY: K. LEWIS DATE: 03/2026

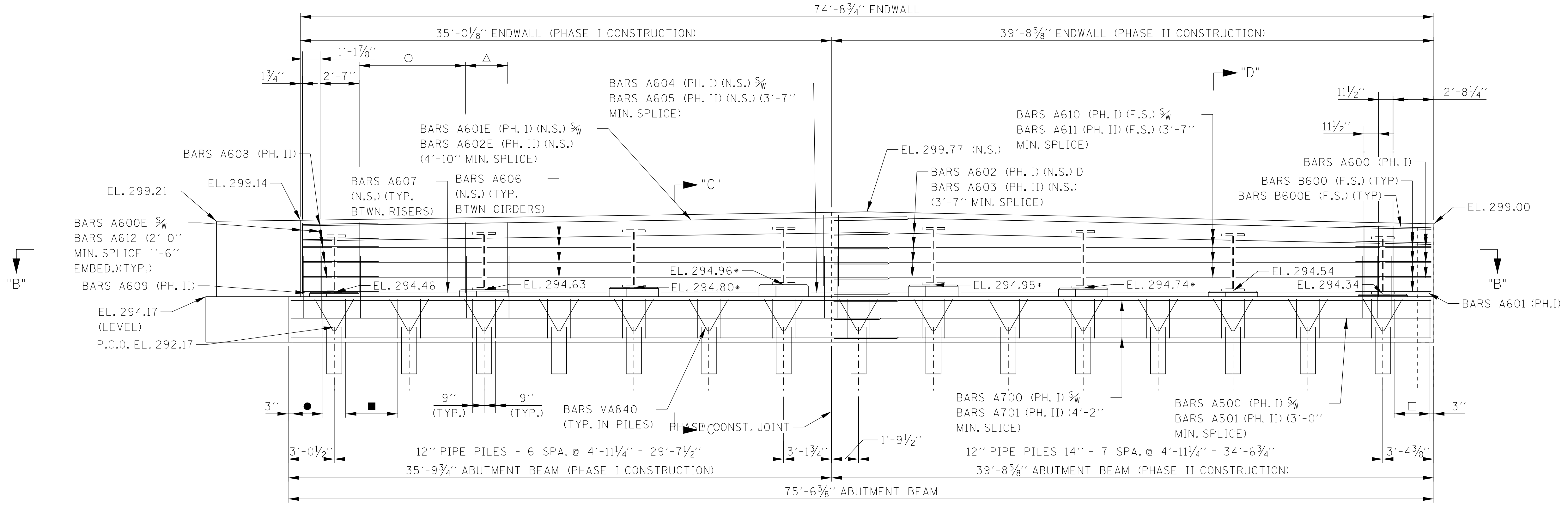


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PROJECT NO.	YEAR	SHEET NO.	
STP-NH-4(6)	2026		
REVISIONS			
NO.	DATE	BY	BRIEF DESCRIPTION
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N.S. DENOTES: NEAR SIDE
F.S. DENOTES: FAR SIDE
P.C.O. EL. DENOTES: PILE CUT-OFF ELEVATION



- DENOTES: BARS L500 3 EQ. SPA. 1'-0" MAX. = 2'-0 1/2"
- DENOTES: BARS L500 4 EQ. SPA. 1'-0" MAX. = 3'-5 1/4" (TYP. BTWN. PILES)
- DENOTES: BARS L500 3 EQ. SPA. 1'-0" MAX. = 2'-3 8"
- DENOTES: BARS R600E $\frac{5}{8}$ " BARS A600E (F.S.)
BARS A600E (N.S. & F.S.) $\frac{5}{8}$ " BARS H600 OR BARS H500 7 SPA. @ 1'-0" = 7'-0"
- △ DENOTES: BARS R600E $\frac{5}{8}$ " BARS A600E (F.S.)
BARS A600E $\frac{5}{8}$ " BARS HA600 (F.S.) 3 EQ. SPA. = 2'-10 5/8" (TYP. BEHIND INTERIOR GIRDERS)

* DENOTES: RISER BLOCKS REINFORCEMENT REQUIRED
(SEE SHEET U-102-269)

BRIDGE NO. 5
STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
ABUTMENT NO. 1
STATE ROUTE 176 (GETWELL ROAD)
OVER STATE ROUTE 4 (LAMAR AVE.)
BRIDGE ID NO. 79SR0040013
STATION 148+08.91
LOG MILE 4.36
SHELBY COUNTY

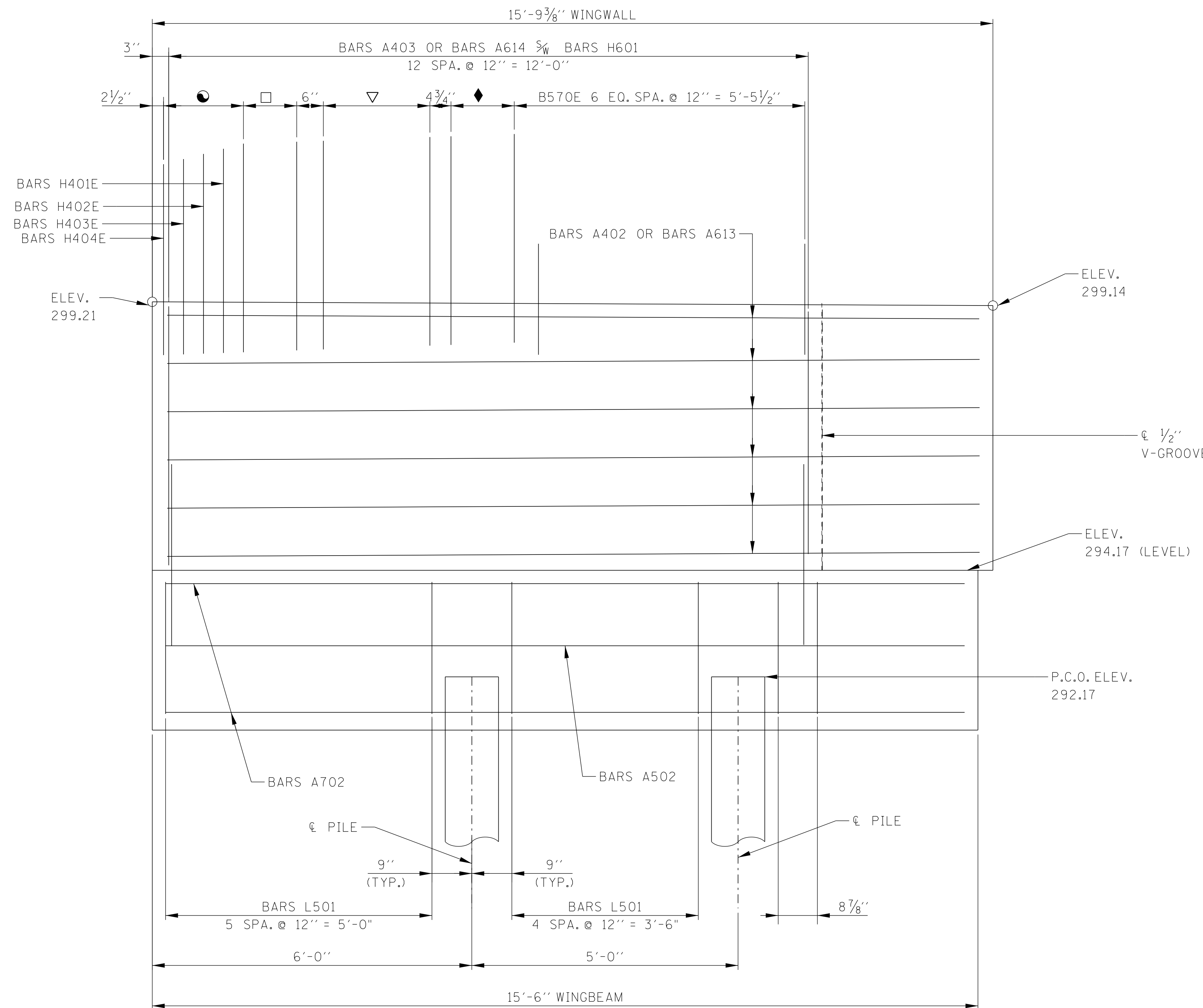
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PIN NO.: 100340.00
DESIGN BY: BENESCH DATE: 03/2026
DRAWN BY: R. MEYER DATE: 03/2026
SUPERVISED BY: J. LEWIS/A. HARRIS DATE: 03/2026
CHECKED BY: K. LEWIS DATE: 03/2026



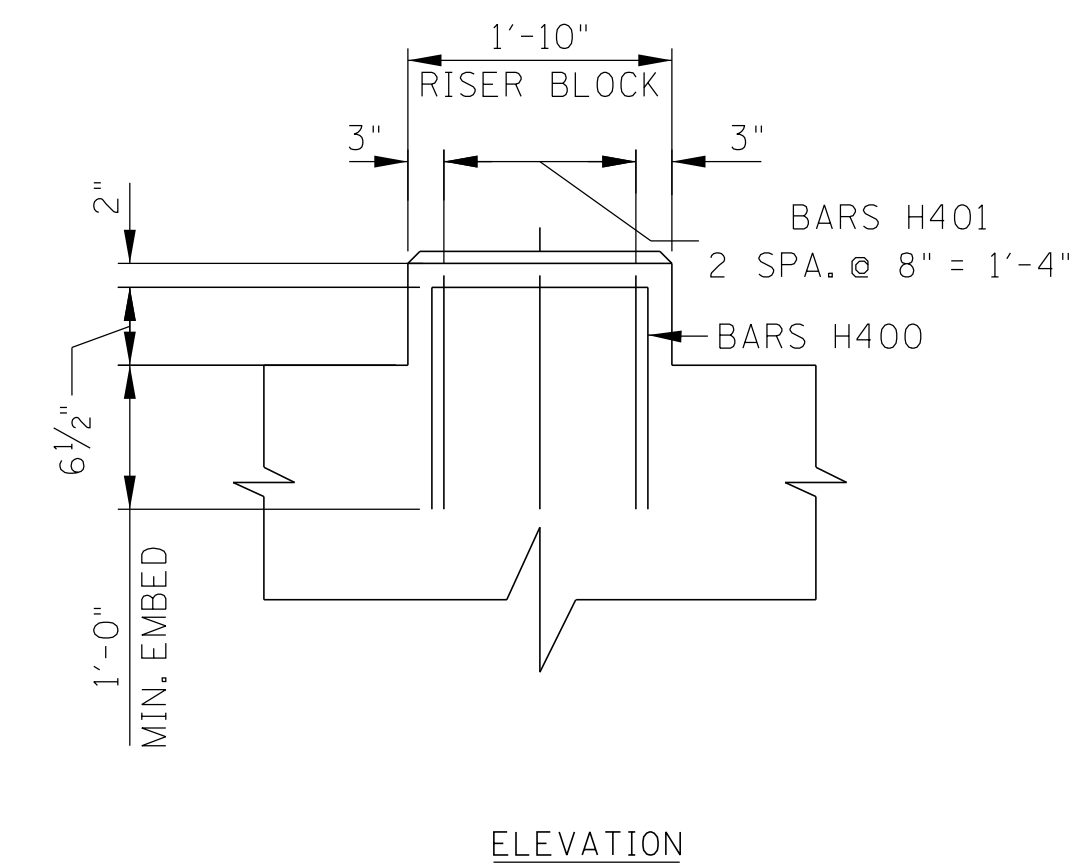
PROJECT NO.	YEAR	SHEET NO.	
STP-NH-4(6)	2026		
REVISIONS			
NO.	DATE	BY	BRIEF DESCRIPTION
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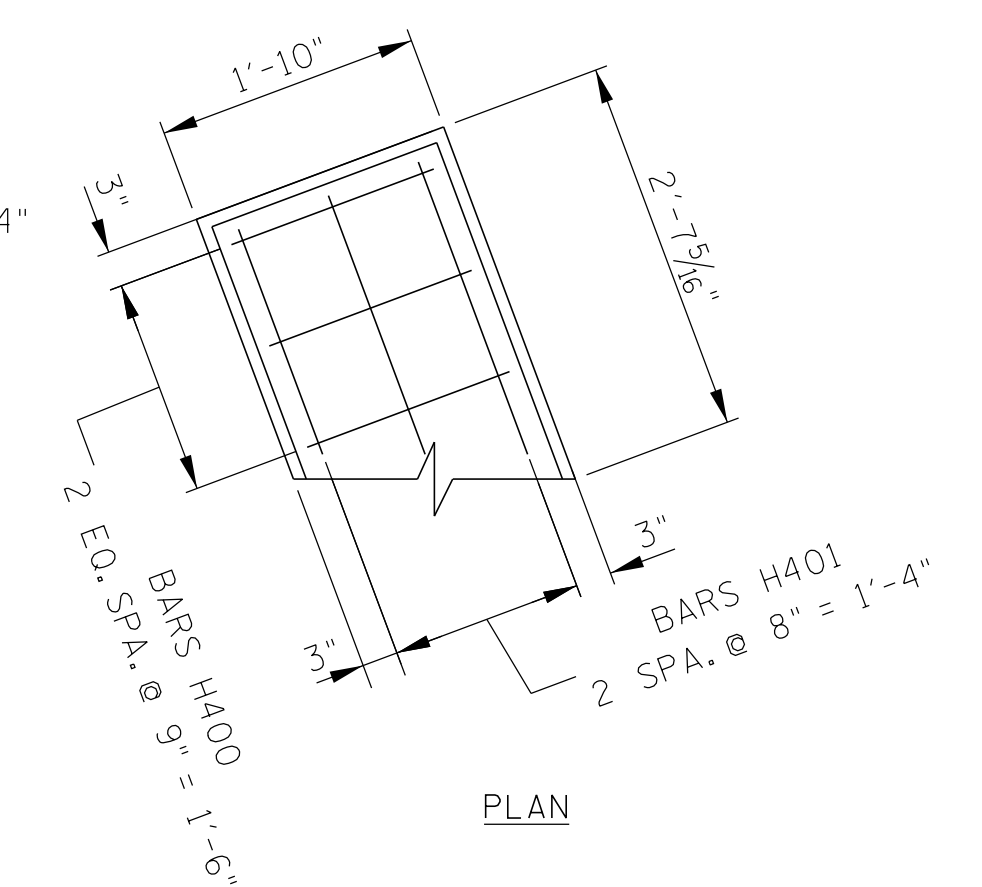
ELEVATION "A"-A"

- DENOTES: BARS H40-E 4 SPA. @ 4 1/2" = 1'-6"
- DENOTES: BARS H400E 2 SPA. @ 6" = 1'-0"
- ▽ DENOTES: BARS HD401E 4 SPA. @ 6" = 2'-0"
- ◆ DENOTES: BARS HD400E 3 SPA. @ 4 3/4" = 1'-2 1/4"

PIN NO.: 100340.00
 DESIGN BY: BENESCH DATE: 03/2026
 DRAWN BY: R. MEYER DATE: 03/2026
 SUPERVISED BY: J. LEWIS/A. HARRIS DATE: 03/2026
 CHECKED BY: K. LEWIS DATE: 03/2026

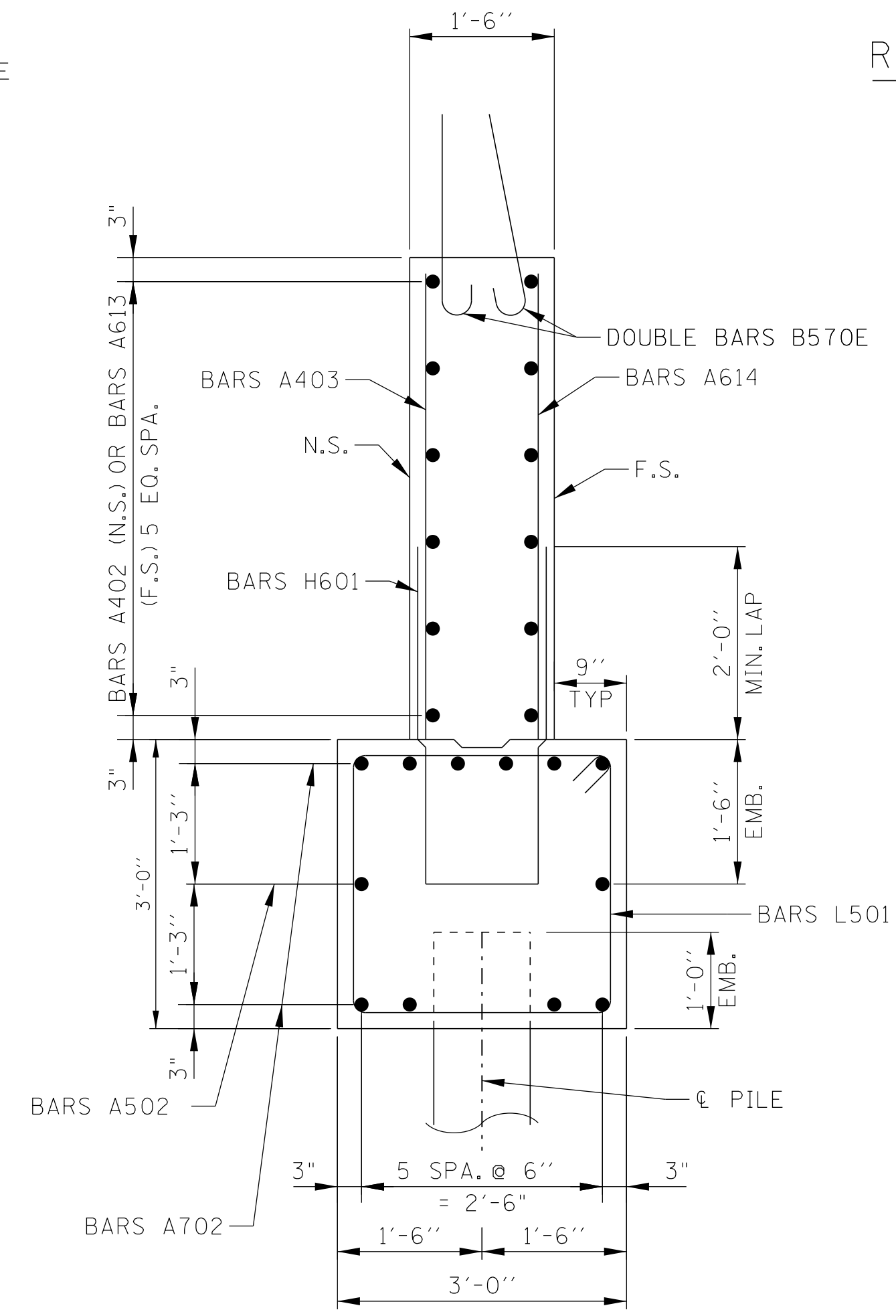


ELEVATION



PLAN

RISER BLOCK REINFORCEMENT DETAIL



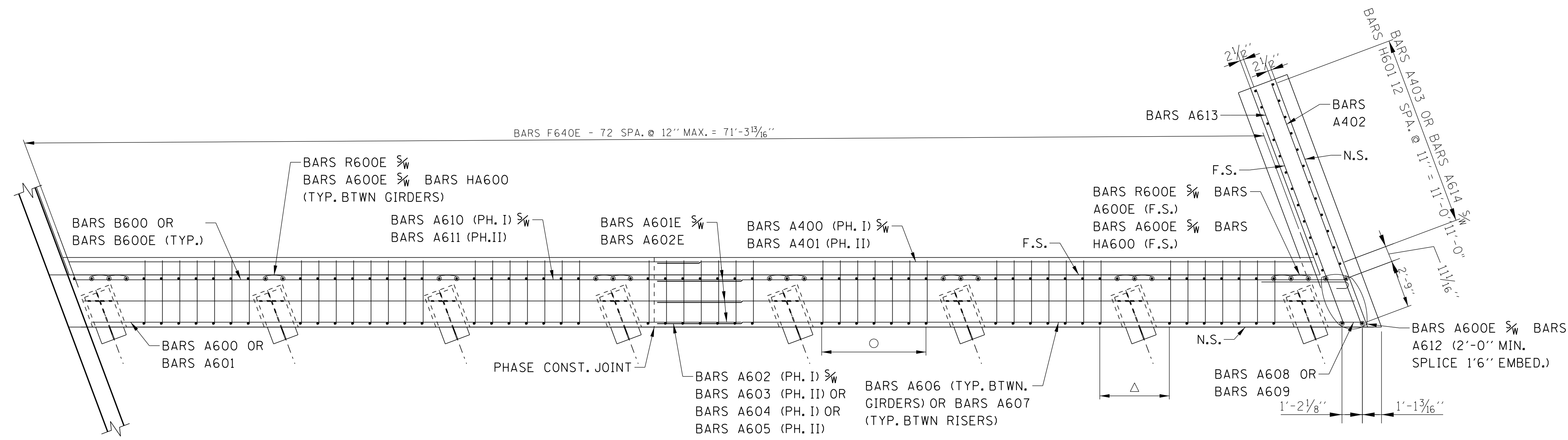
SECTION "A"-A"

SEALED BY

BRIDGE NO. 5
 STATE OF TENNESSEE
 DEPARTMENT OF TRANSPORTATION
ABUTMENT NO. 1 DETAILS
 STATE ROUTE 176 (GETWELL ROAD)
 OVER STATE ROUTE 4 (LAMAR AVE.)
 BRIDGE ID NO. 79SR0040013
 STATION 148+08.91
 LOG MILE 4.36
 SHELBY COUNTY

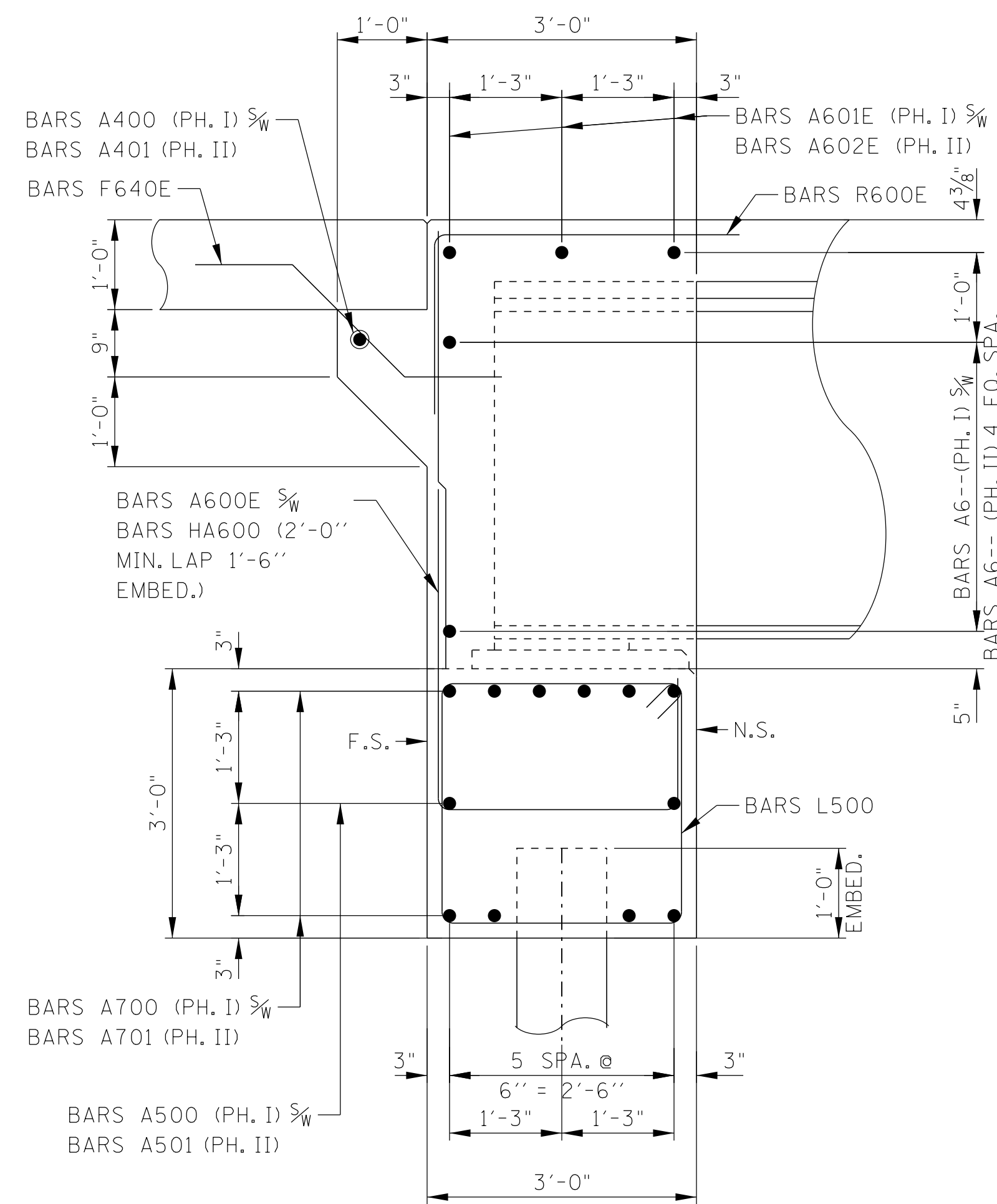
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PROJECT NO.	YEAR	SHEET NO.	
STP-NH-4(6)	2026		
REVISIONS			
NO.	DATE	BY	BRIEF DESCRIPTION
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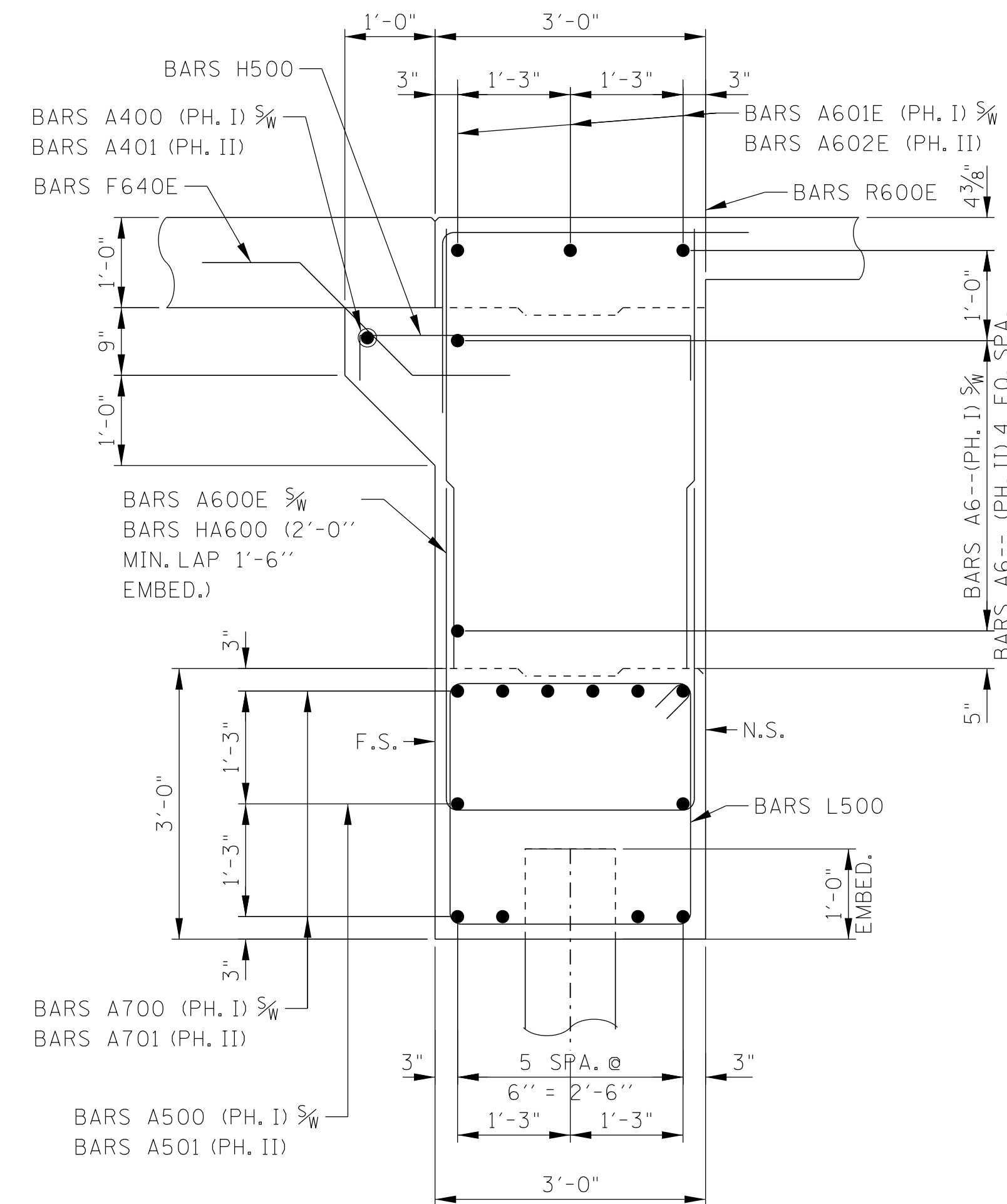


○ DENOTES: BARS R600E $\frac{5}{8}$ " BARS A600E (F.S.)
 BARS A600E (N.S. & F.S.) $\frac{5}{8}$ " BARS H600 OR BARS H500 6 SPA. @ 1'-0" = 6'-0"
 △ DENOTES: BARS R600E $\frac{5}{8}$ " BARS A600E (F.S.)
 BARS A600E $\frac{5}{8}$ " BARS HA600 (F.S.) 4 EQ. SPA. = 4'-0" (TYP. BEHIND INTERIOR GIRDERS)

SECTION "B"-"B"



SECTION "D"-"D"



SECTION "C"-"C"

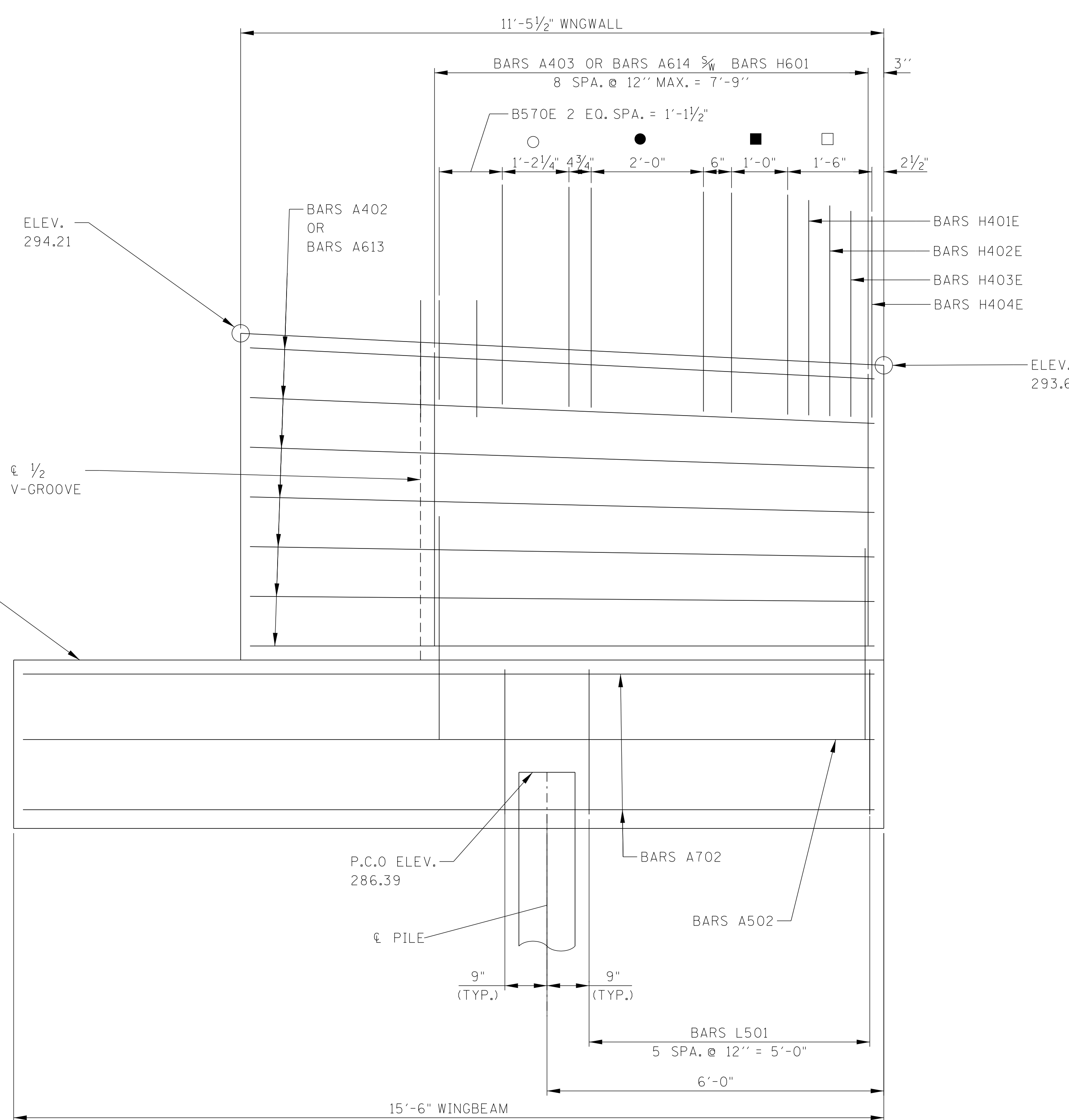
SEALED BY

BRIDGE NO. 5
 STATE OF TENNESSEE
 DEPARTMENT OF TRANSPORTATION
 ABUTMENT NO. 2 DETAILS
 STATE ROUTE 176 (GETWELL ROAD)
 OVER STATE ROUTE 4 (LAMAR AVE.)
 BRIDGE ID NO. 79SR0040013
 STATION 148+08.91
 LOG MILE 4.36
 SHELBY COUNTY

PIN NO.: 100340.00
 DESIGN BY: BENESCH DATE: 03/2026
 DRAWN BY: R. MEYER DATE: 03/2026
 SUPERVISED BY: J. LEWIS/A. HARRIS DATE: 03/2026
 CHECKED BY: K. LEWIS DATE: 03/2026

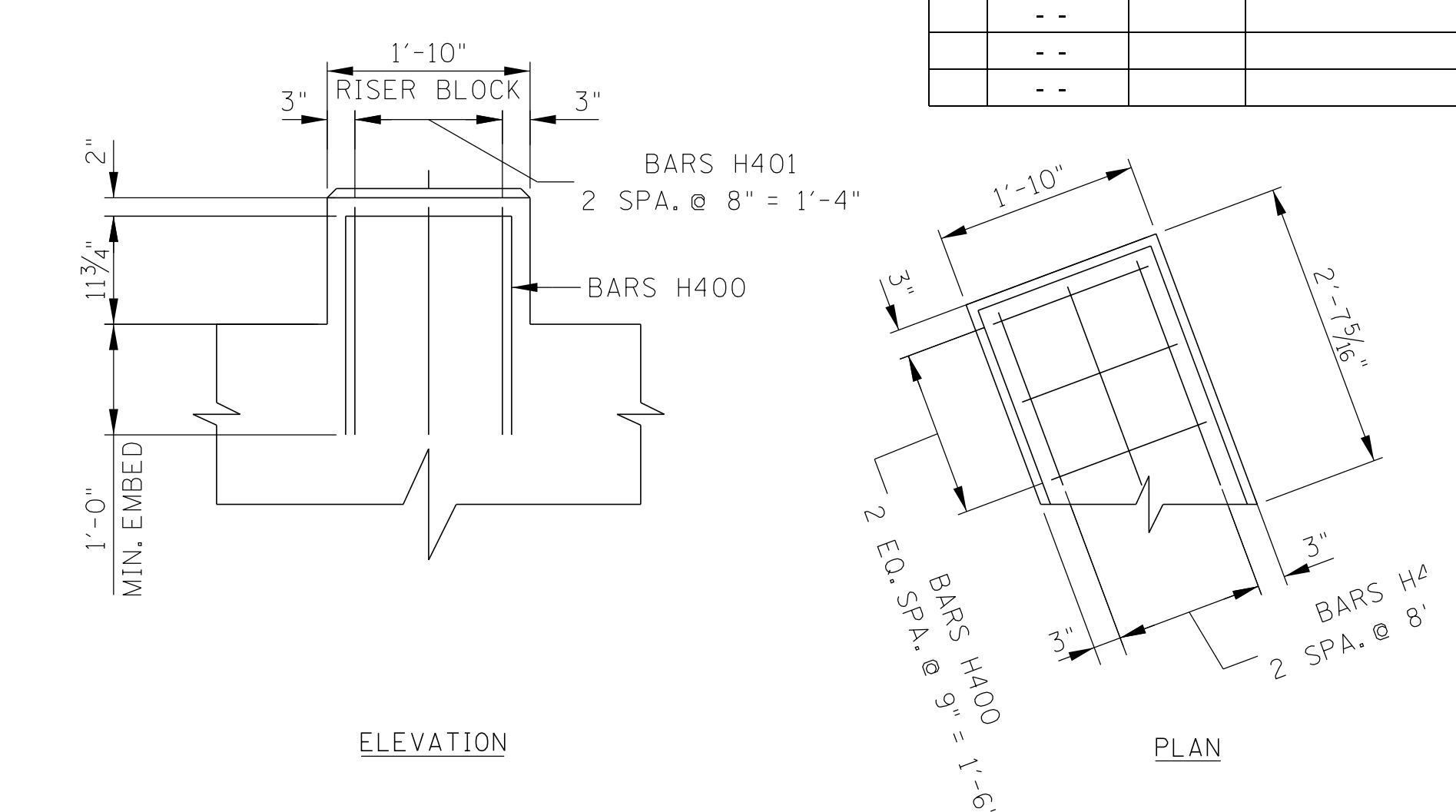


PROJECT NO.	YEAR	SHEET NO.	
STP-NH-4(6)	2026		
REVISIONS			
NO.	DATE	BY	BRIEF DESCRIPTION
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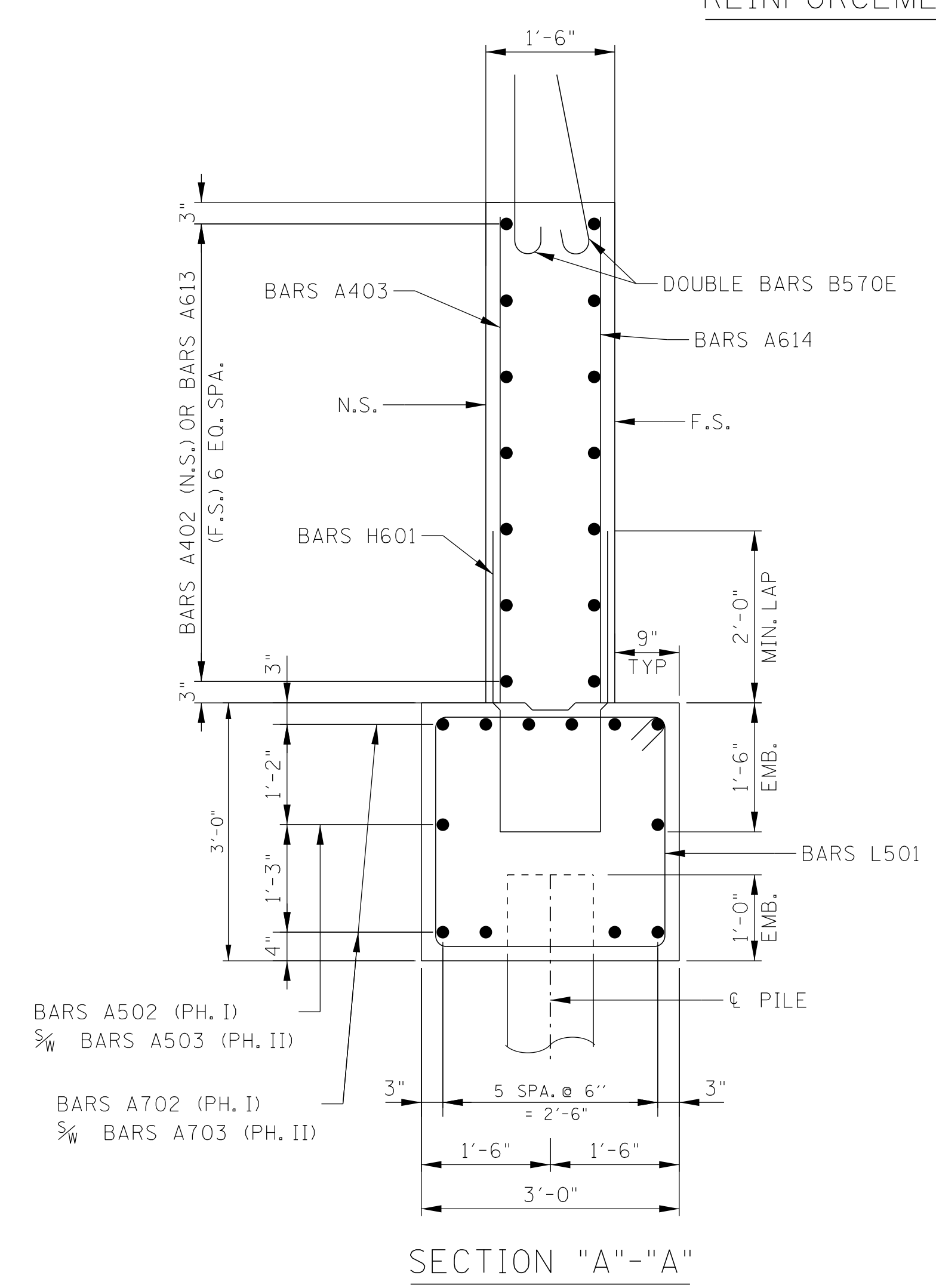


ELEVATION "A"-A"

- DENOTES: BARS H40-E 4 SPA. @ 4 1/2" = 1'-6"
- DENOTES: BARS H400E 2 SPA. @ 6" = 1'-0"
- DENOTES: BARS HD401E 4 SPA. @ 6" = 2'-0"
- DENOTES: BARS HD400E 3 SPA. @ 4 3/4" = 1'-2 1/4"



RISER BLOCK REINFORCEMENT DETAIL



SECTION "A"-A"

SEALED BY

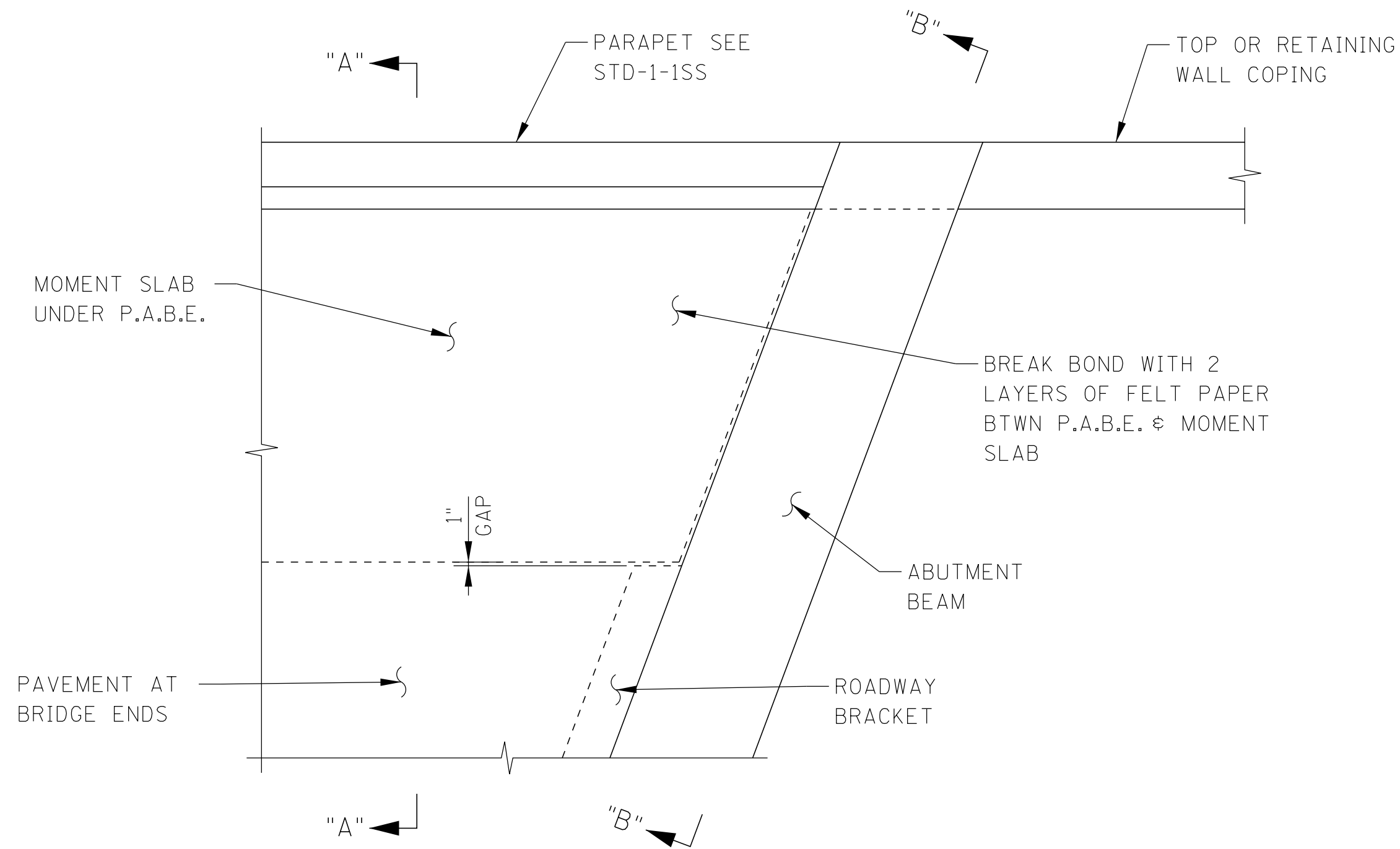
BRIDGE NO. 5
 STATE OF TENNESSEE
 DEPARTMENT OF TRANSPORTATION
ABUTMENT NO. 2 DETAILS
 STATE ROUTE 176 (GETWELL ROAD)
 OVER STATE ROUTE 4 (LAMAR AVE.)
 BRIDGE ID NO. 79SR0040013
 STATION 148+08.91
 LOG MILE 4.36
 SHELBY COUNTY

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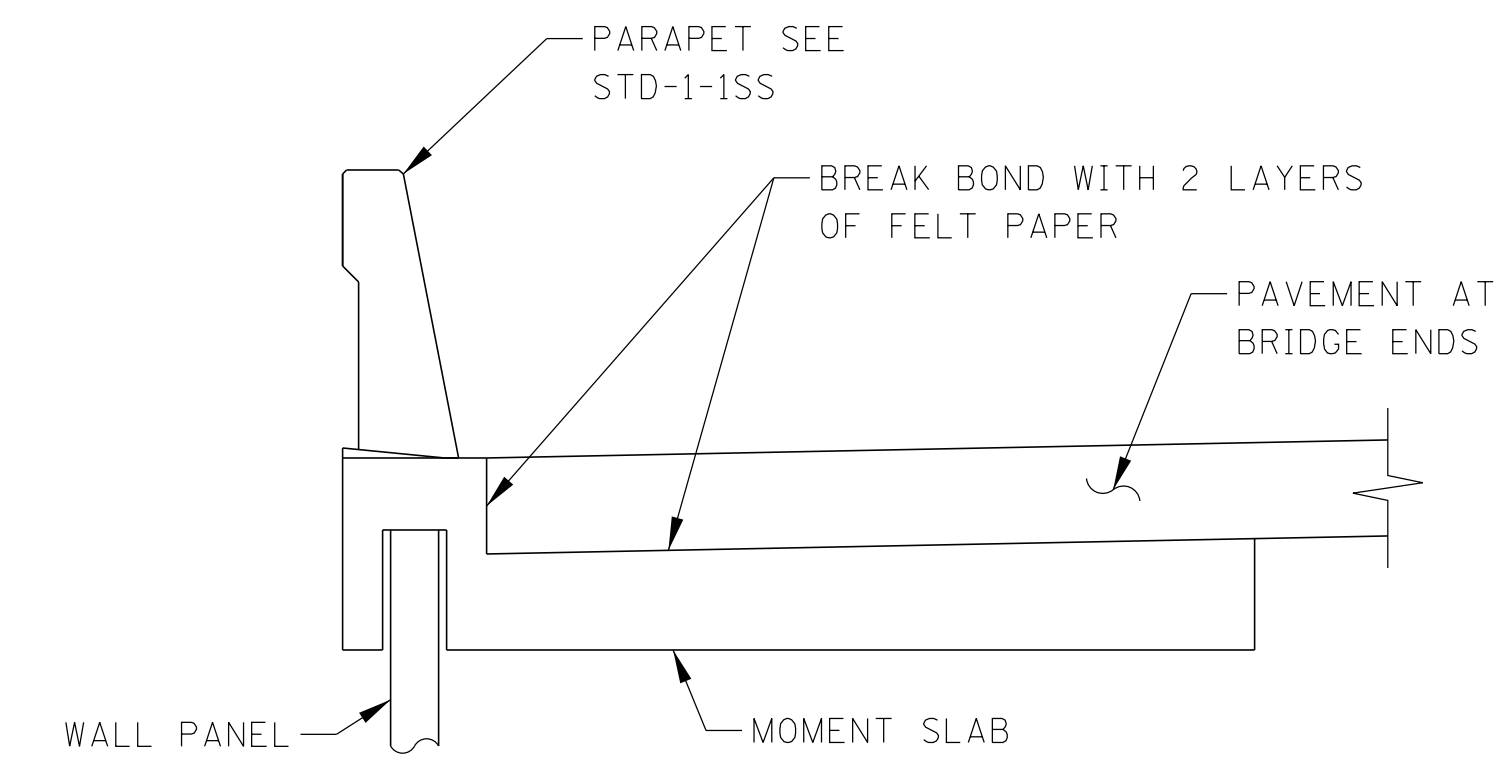
PIN NO.: 100340.00
 DESIGN BY: BENESCH DATE: 03/2026
 DRAWN BY: R. MEYER DATE: 03/2026
 SUPERVISED BY: J. LEWIS/A. HARRIS DATE: 03/2026
 CHECKED BY: K. LEWIS DATE: 03/2026



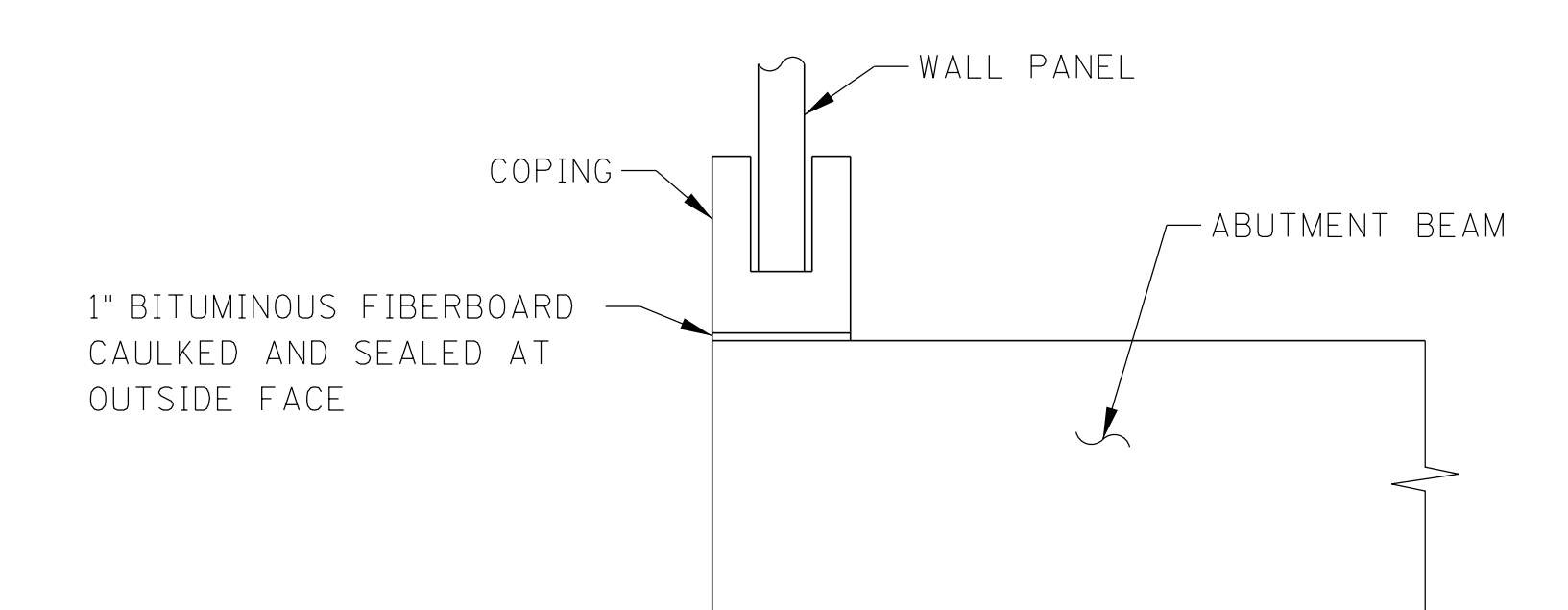
PROJECT NO.	YEAR	SHEET NO.	
STP-NH-4(6)	2026		
REVISIONS			
NO.	DATE	BY	BRIEF DESCRIPTION
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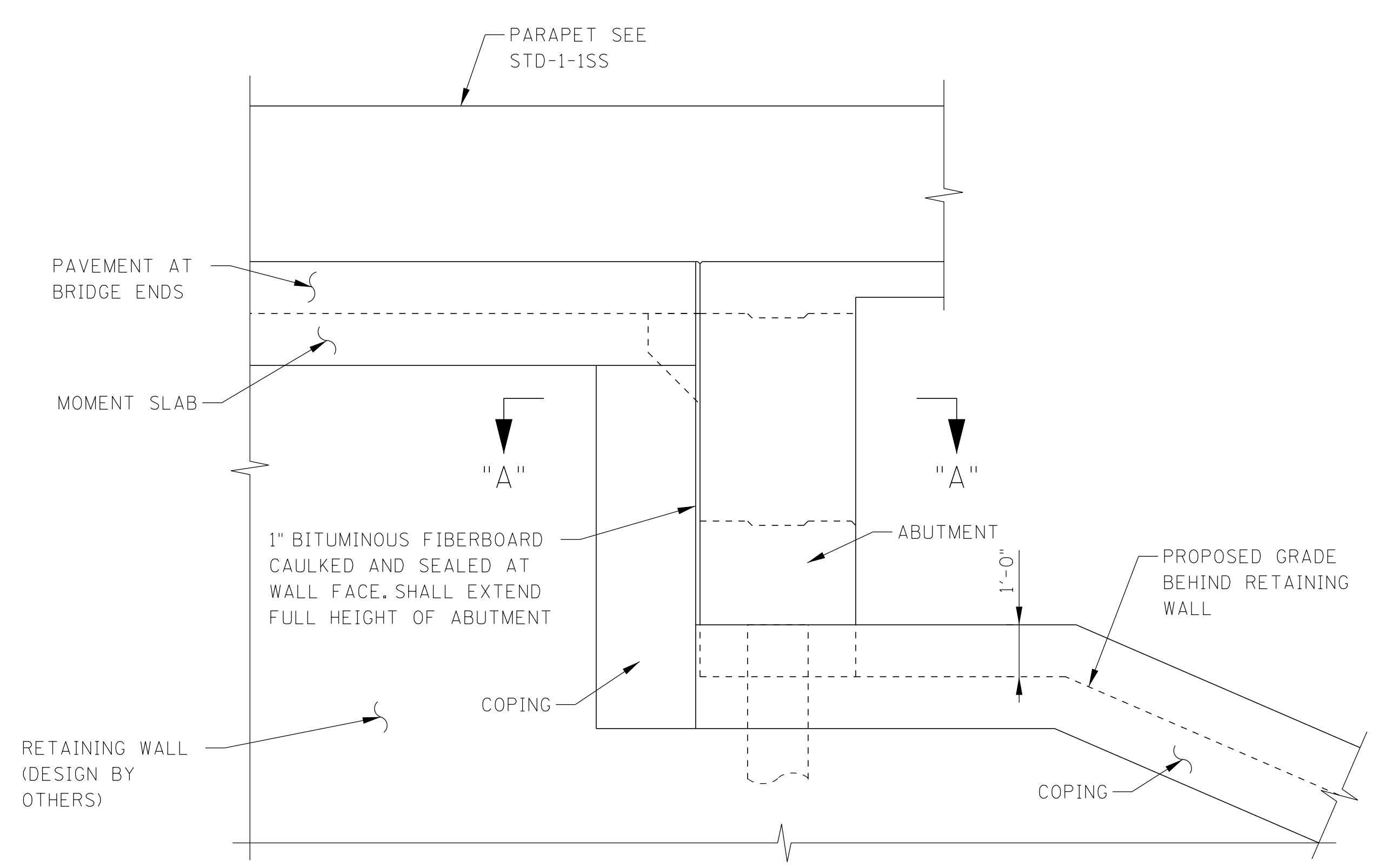
PLAN



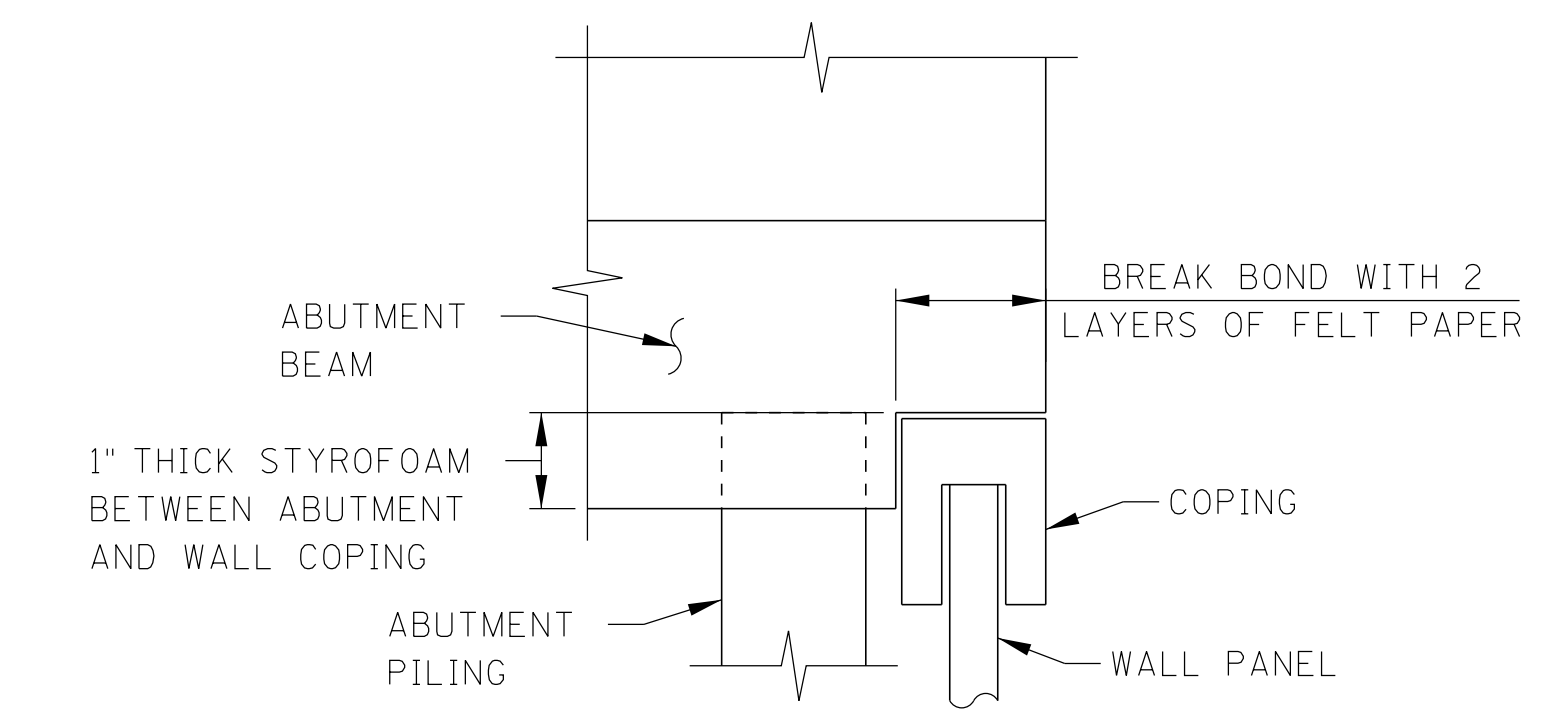
SECTION X-X



SECTION X-X



ELEVATION



SECTION X-X

SEALED BY

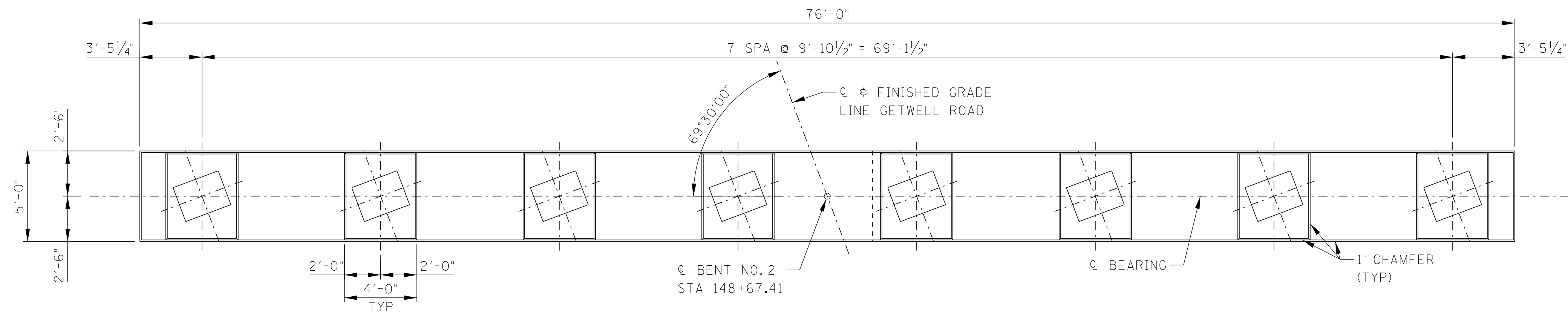
BRIDGE NO. 5
 STATE OF TENNESSEE
 DEPARTMENT OF TRANSPORTATION
RETAINING WALL CONNECTION DETAILS
 STATE ROUTE 176 (GETWELL ROAD)
 OVER STATE ROUTE 4 (LAMAR AVE.)
 BRIDGE ID NO. 79SR0040013
 STATION 148+08.91
 LOG MILE 4.36
 SHELBY COUNTY

PIN NO.: 100340.00
 DESIGN BY: BENESCH DATE: 03/2026
 DRAWN BY: R. MEYER DATE: 03/2026
 SUPERVISED BY: J. LEWIS/A. HARRIS DATE: 03/2026
 CHECKED BY: K. LEWIS DATE: 03/2026



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PROJECT NO.	YEAR	SHEET NO.	
STP-NH-4(6)	2026		
REVISIONS			
NO.	DATE	BY	BRIEF DESCRIPTION
-	-	-	-
-	-	-	-
-	-	-	-
-	-	-	-
-	-	-	-



PLAN

NOTE: WHEN POURING CAP BEAM, PROVISIONS SHALL BE MADE FOR SETTING ANCHOR BOLTS.

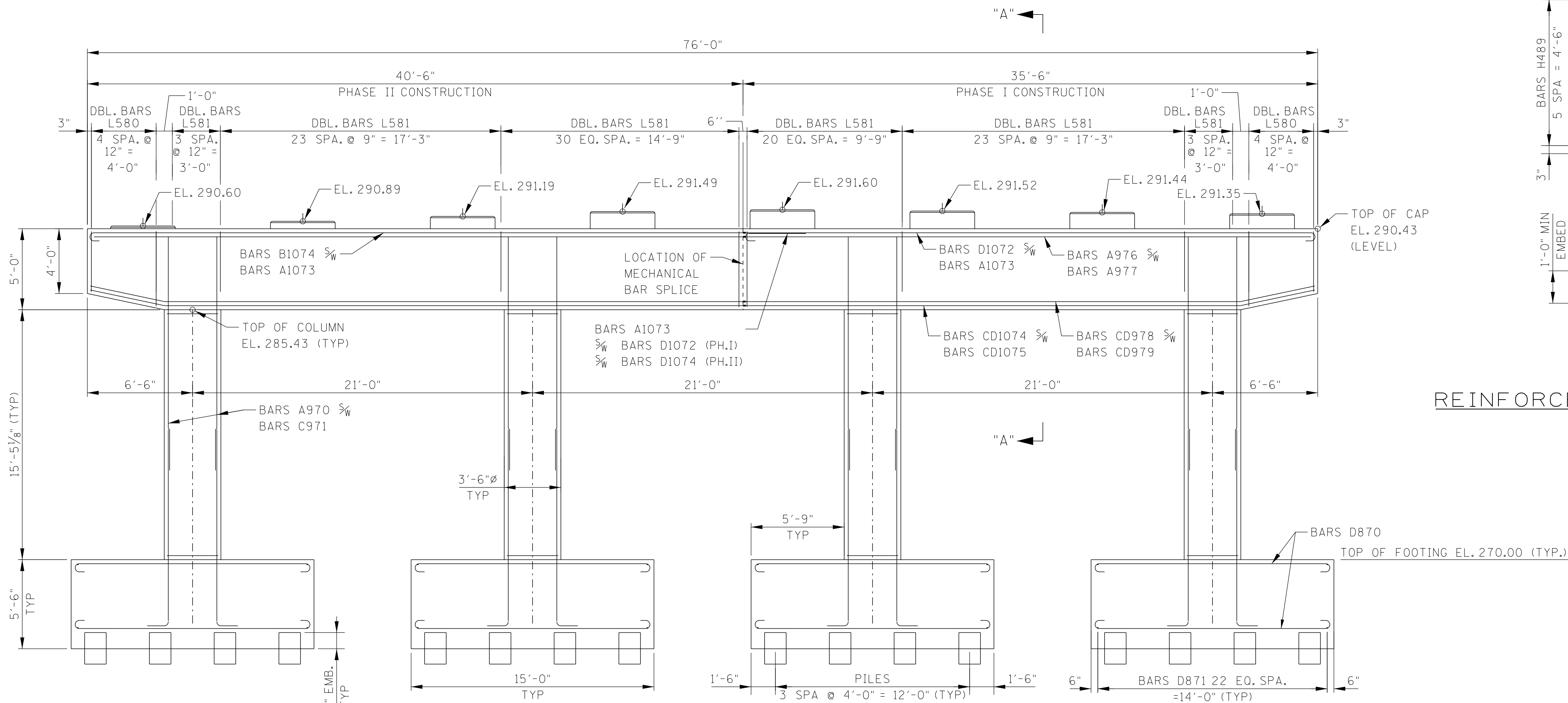
NOTE: RISER BLOCK TO BE POURED MONOLITHICALLY WITH BENT CAP.

NOTE: ALL RISER BLOCK BEARING SURFACES TO BE CAST LEVEL.

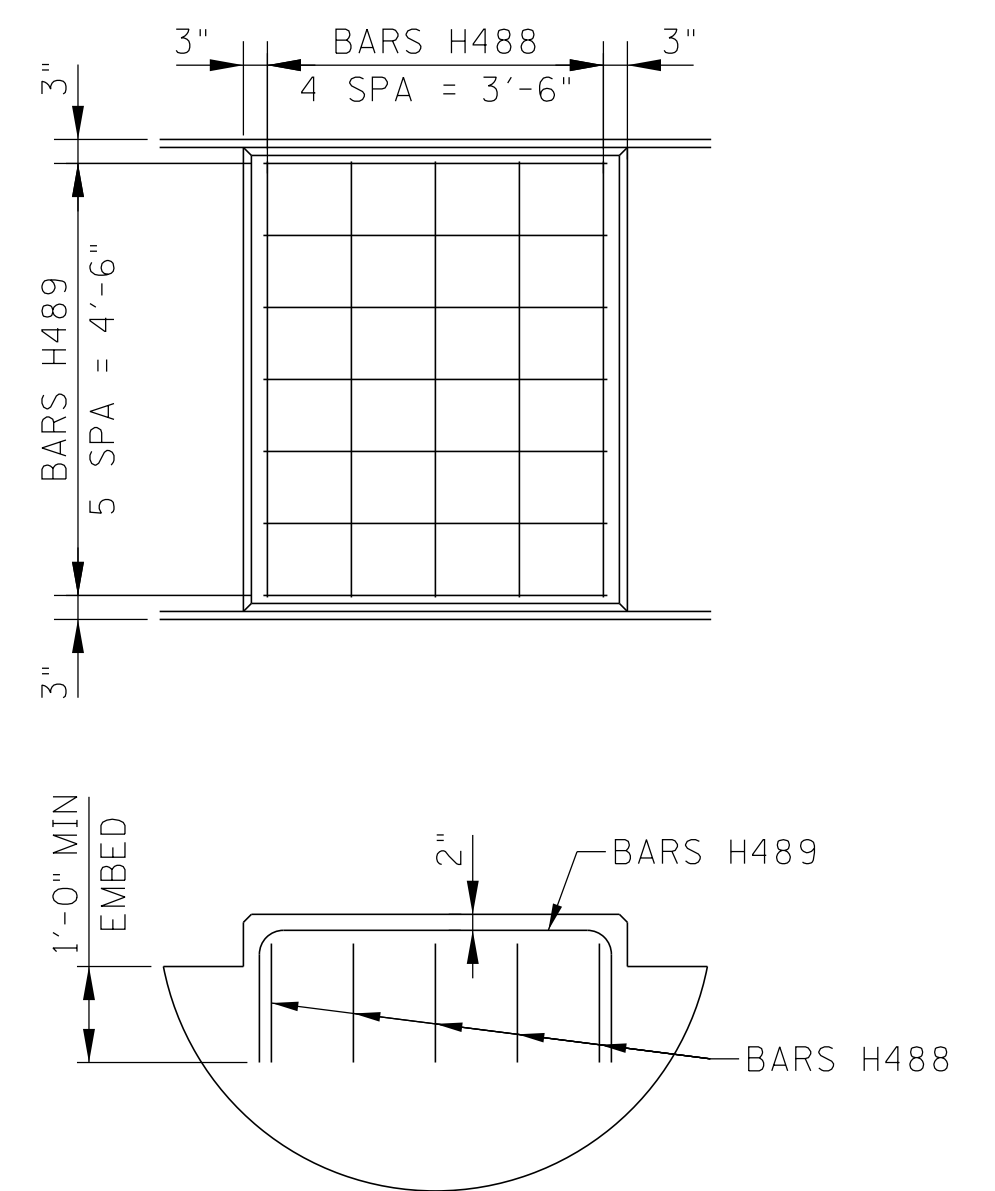
NOTE: ELASTOMERIC PADS SHALL BE IN PLACE A MINIMUM OF ONE DAY BEFORE BEING DISTURBED BY SETTING BEAMS ON CONCRETE. PLACE RUBBER BONDING CEMENT IN SUCH WAY THAT VISIBLE CONCRETE SURFACES WILL NOT BE STAINED.

NOTE: COLUMN STEEL TO EXTEND 4'-6" MIN. INTO BENT CAP.

FOR BENT CAP, COLUMN, AND FOOTING
4,000 PSI CONCRETE SHALL BE USED.



ELEVATION
(LOOKING FORWARD ON SURVEY)



REINFORCED RISE BLOCK DETAIL

SEALED BY

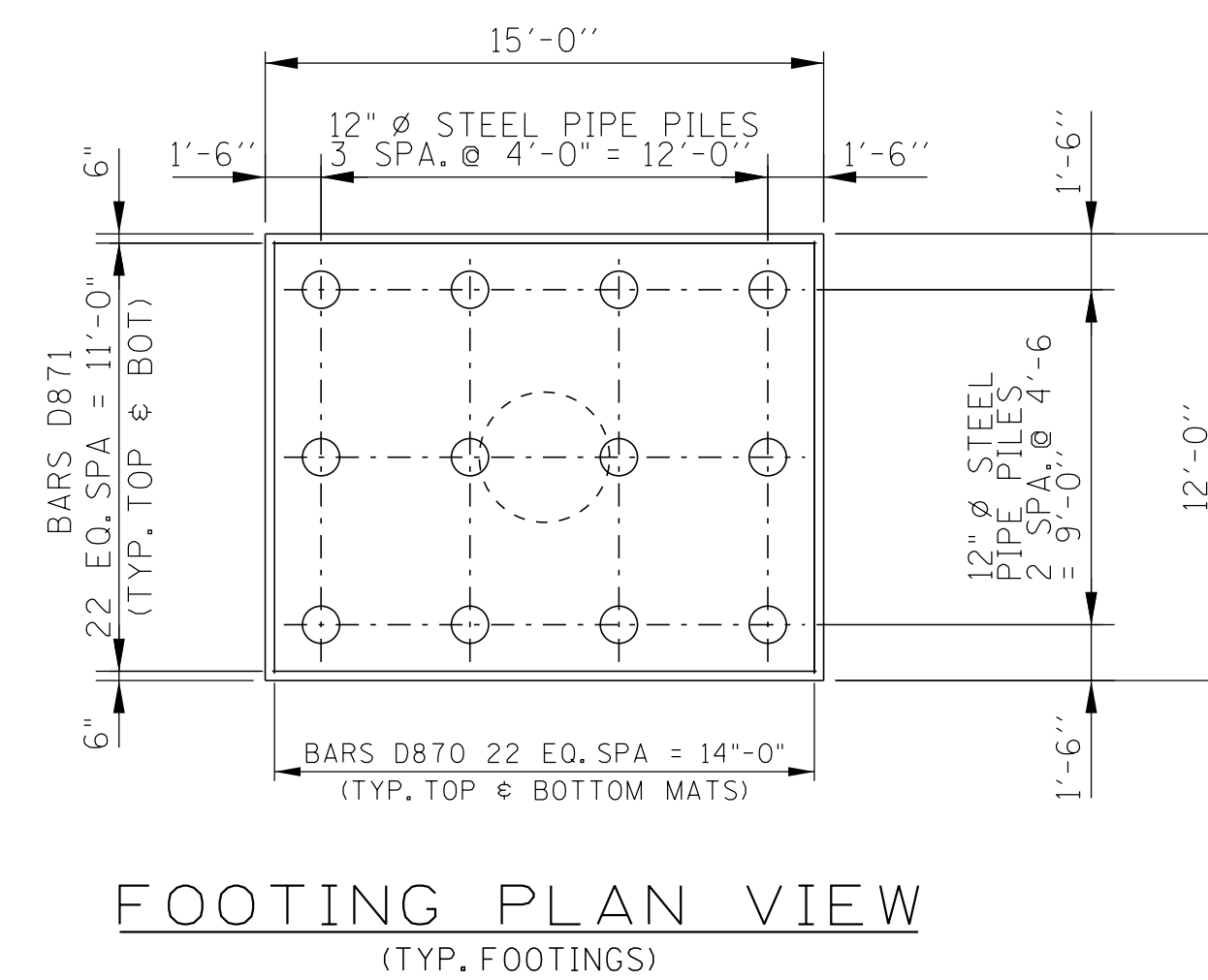
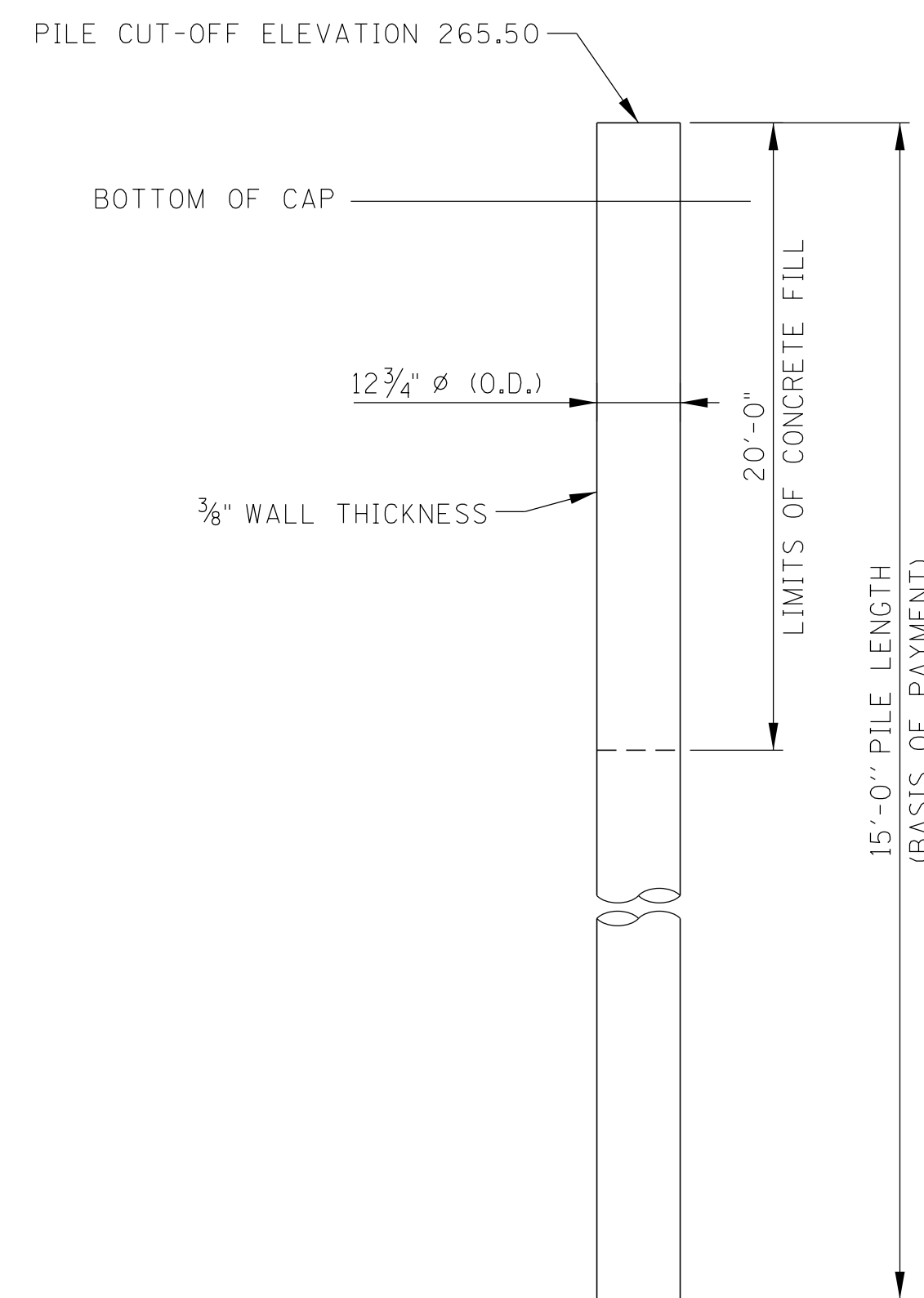
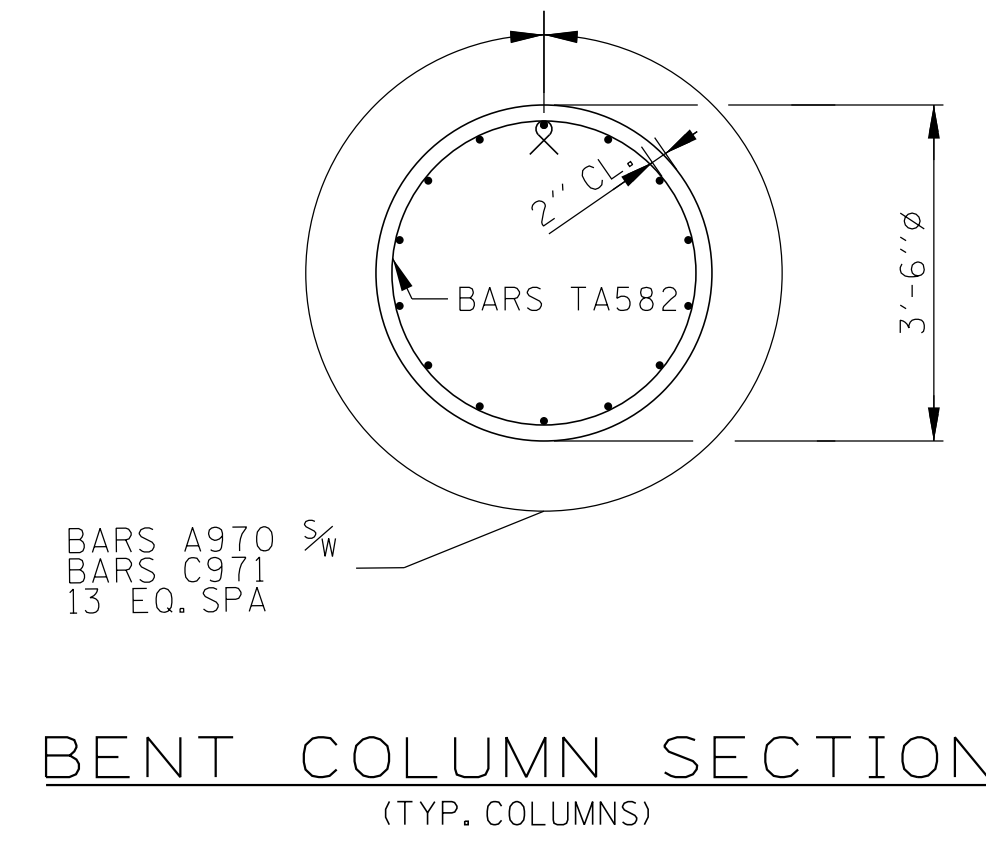
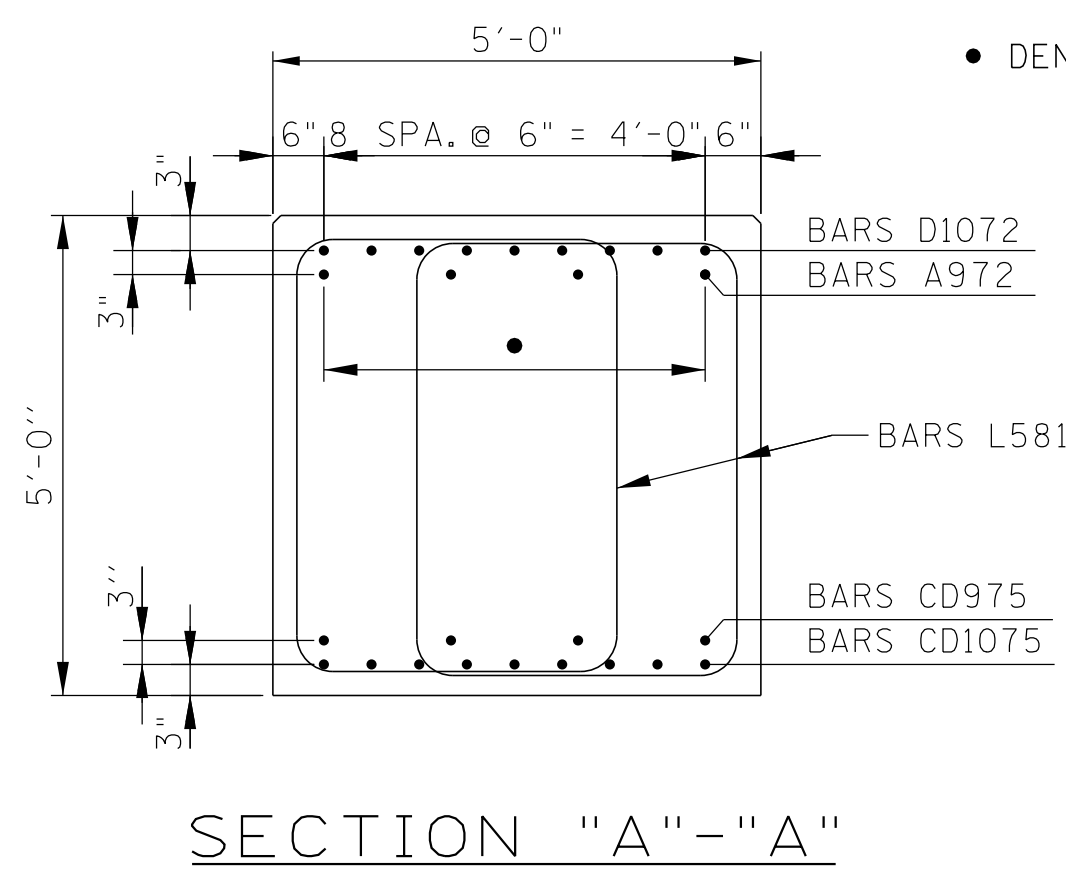
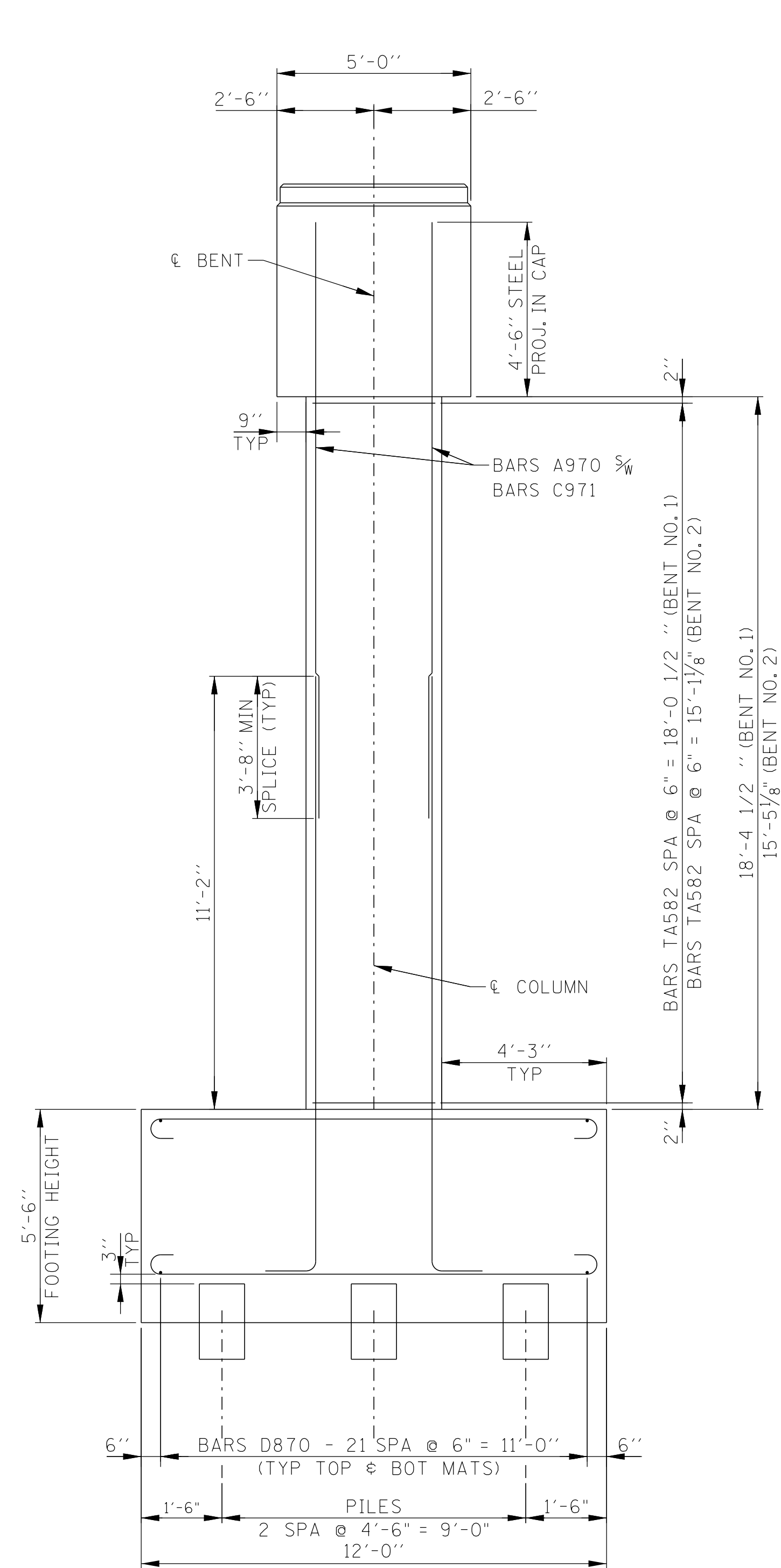
BRIDGE NO. 5
STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BENT NO. 2
STATE ROUTE 176 (GETWELL ROAD)
OVER STATE ROUTE 4 (LAMAR AVE.)
BRIDGE ID NO. 79SR0040013
STATION 148+08.91
LOG MILE 4.36
SHELBY COUNTY

PIN NO.: 100340.00
DESIGN BY: BENESCH DATE: 03/2026
DRAWN BY: R. MEYER DATE: 03/2026
SUPERVISED BY: J. LEWIS/A. HARRIS DATE: 03/2026
CHECKED BY: K. LEWIS DATE: 03/2026



PROJECT NO.	YEAR	SHEET NO.	
STP-NH-4(6)	2026		
REVISIONS			
NO.	DATE	BY	BRIEF DESCRIPTION
-	-	-	-
-	-	-	-
-	-	-	-
-	-	-	-
-	-	-	-

FOR BENT CAP, COLUMN, AND FOOTING
4,000 PSI CONCRETE SHALL BE USED.



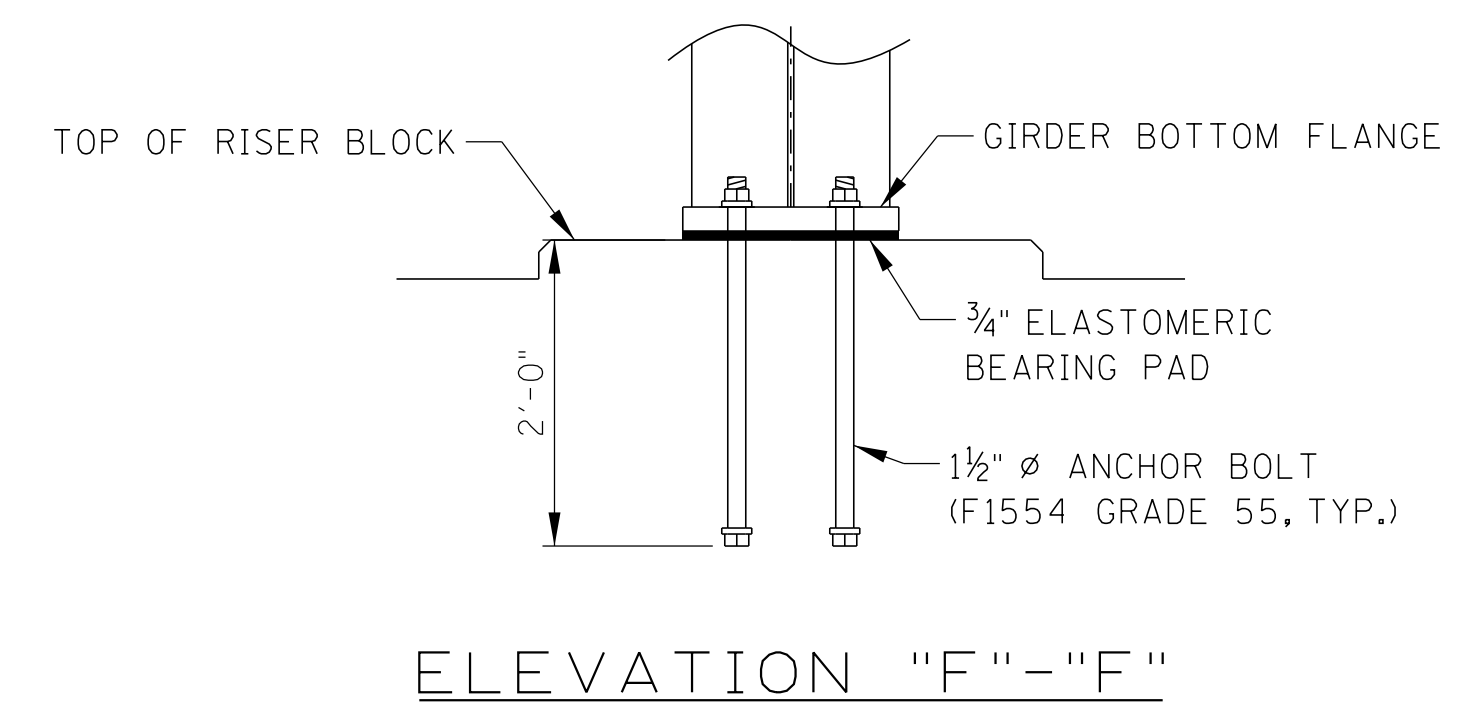
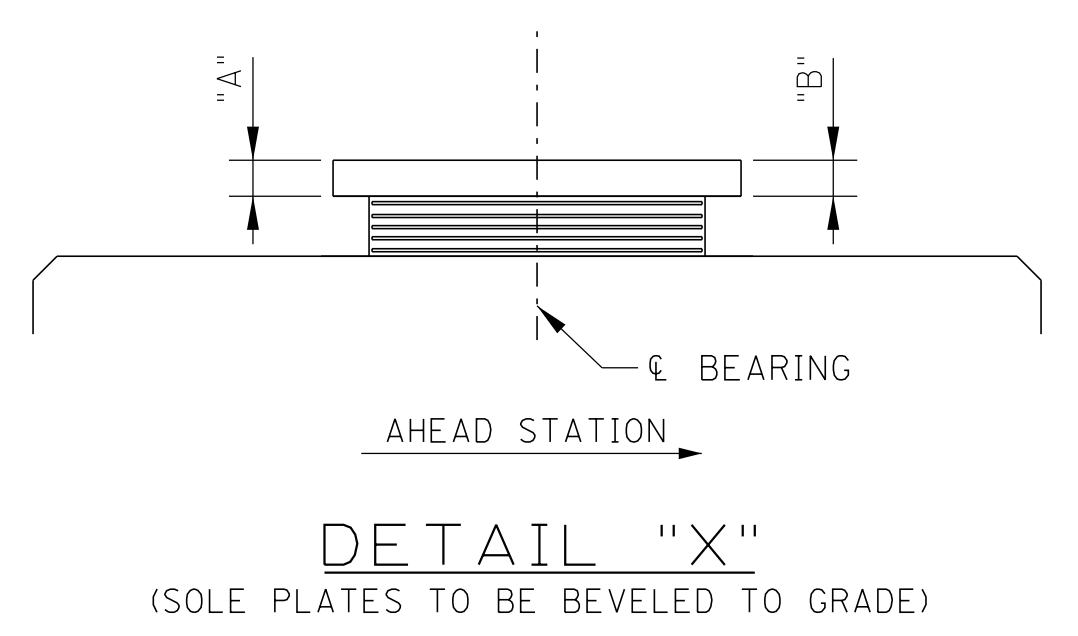
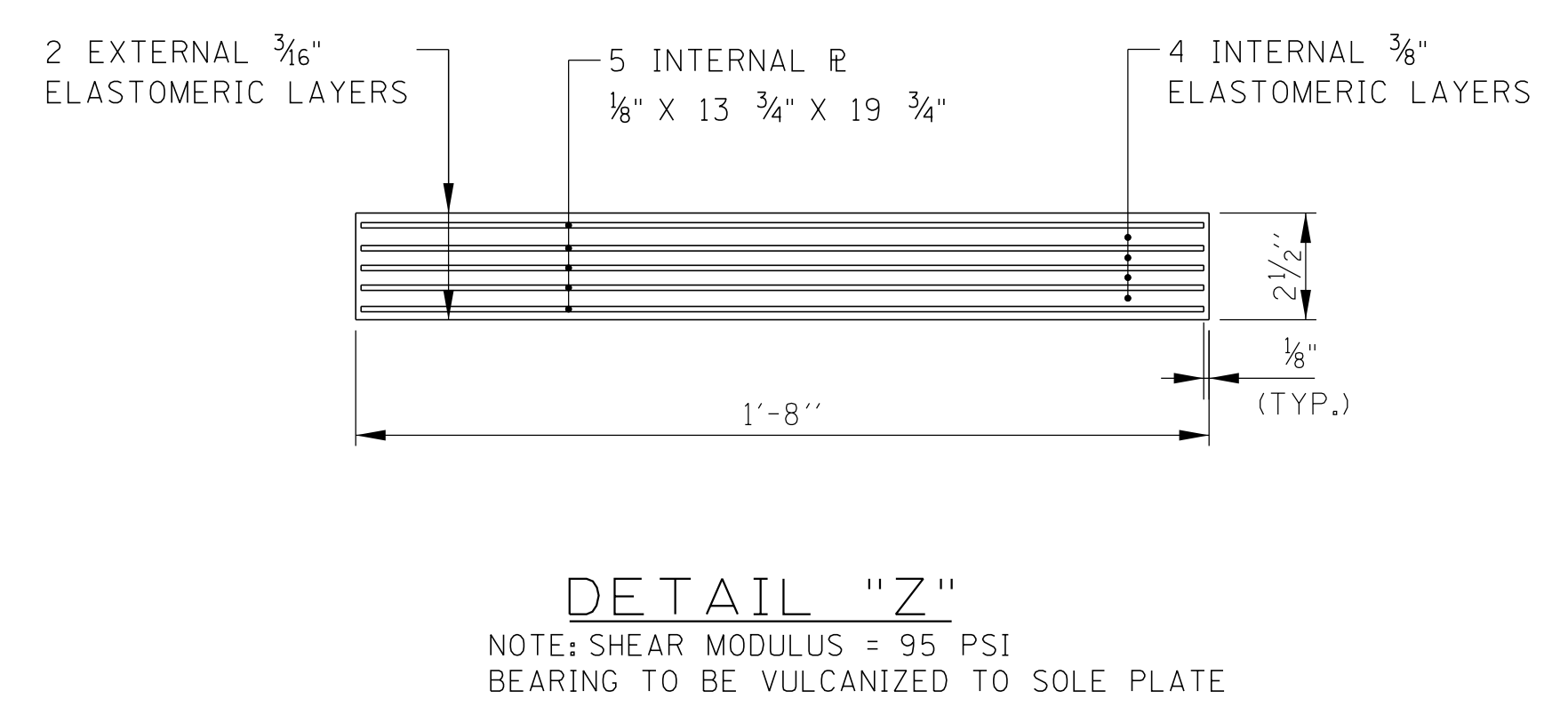
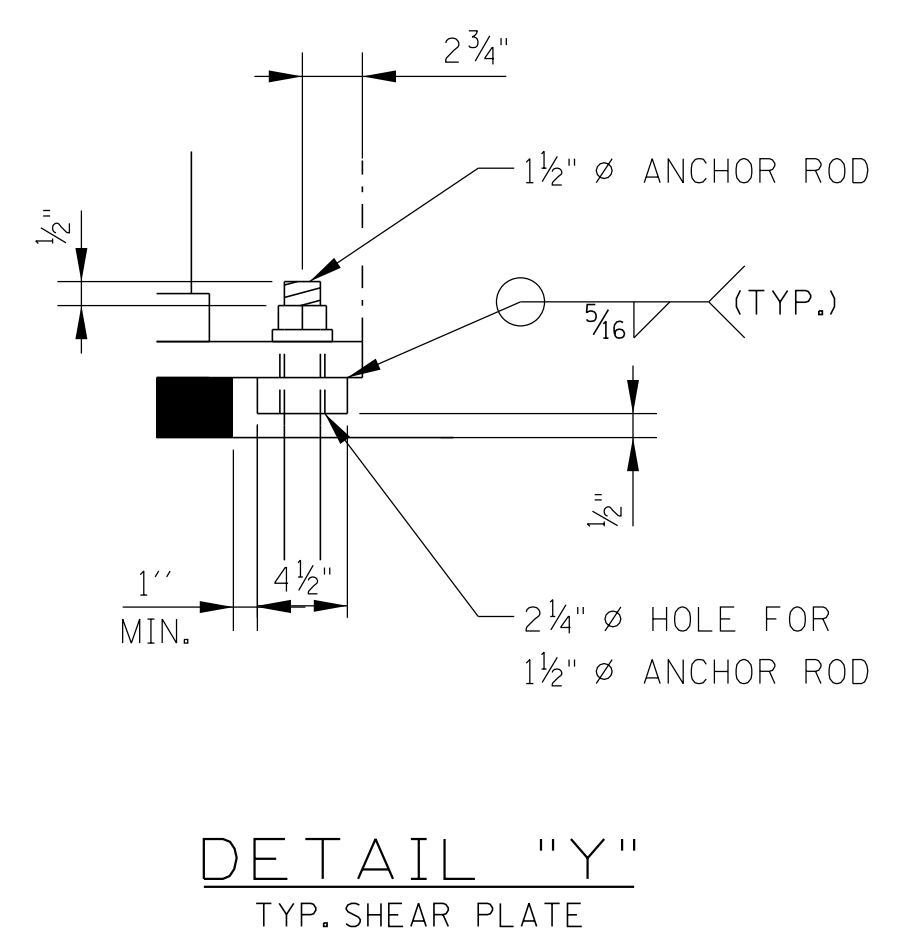
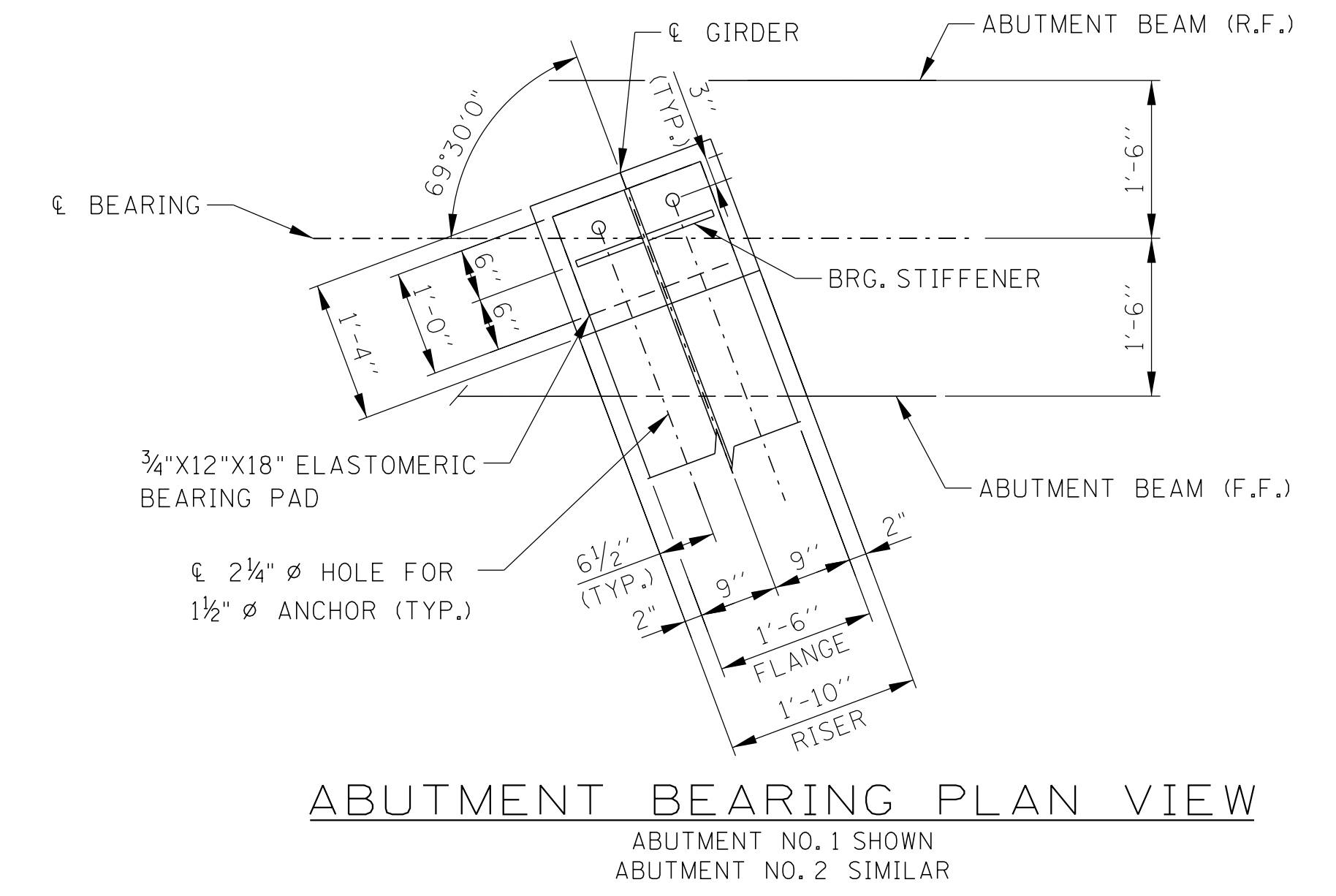
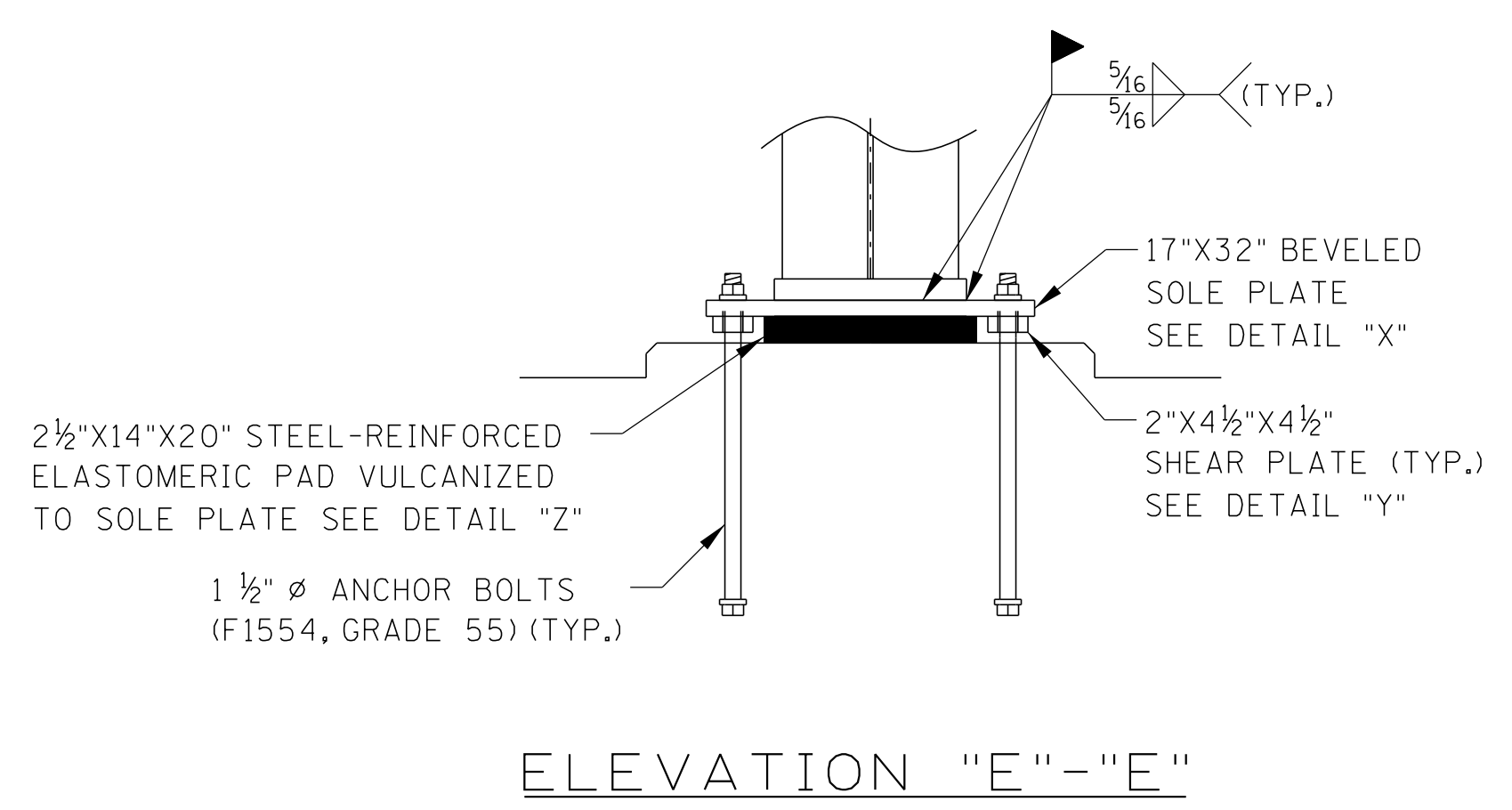
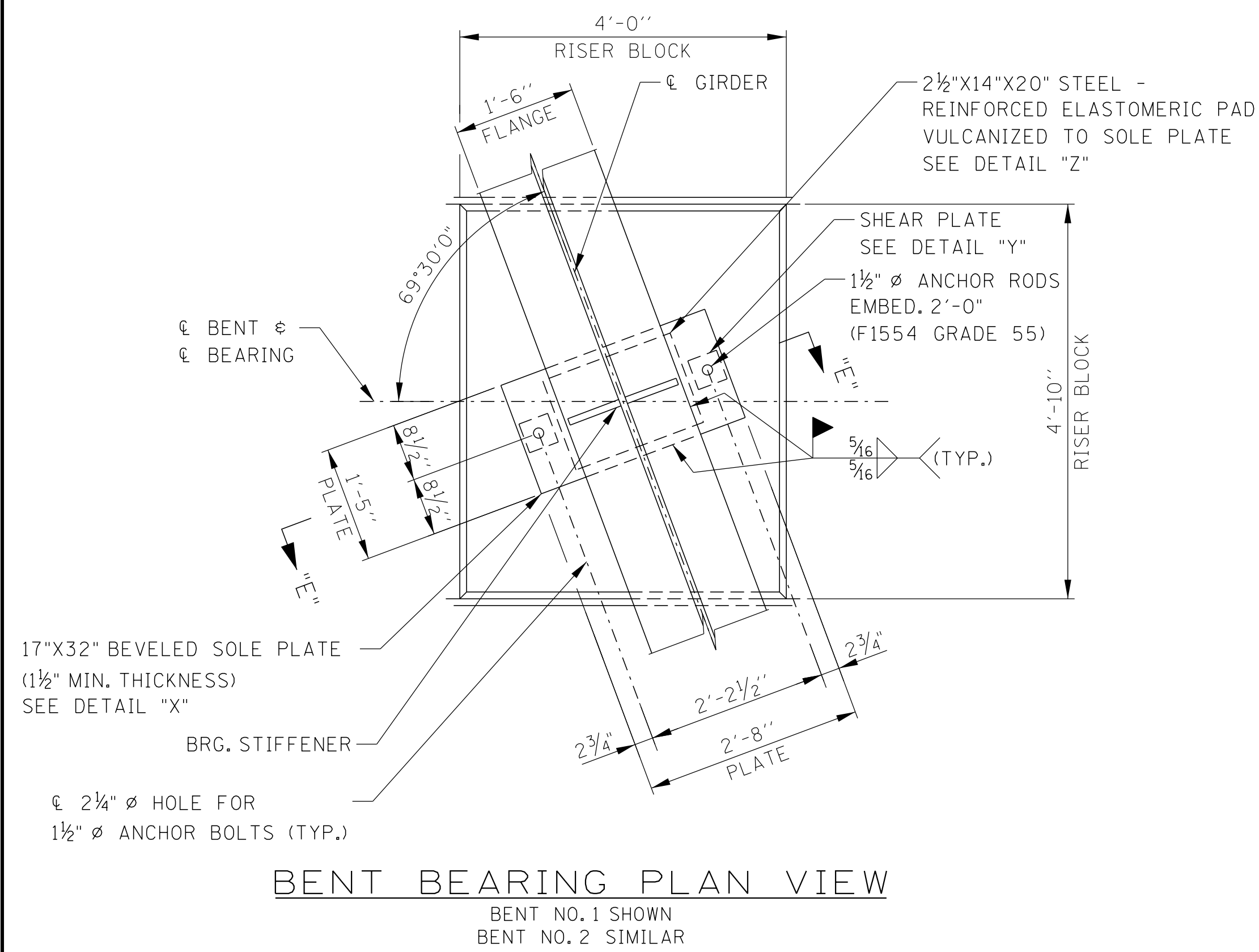
PIN NO.: 100340.00
 DESIGN BY: BENESCH DATE: 03/2026
 DRAWN BY: R. MEYER DATE: 03/2026
 SUPERVISED BY: J. LEWIS/A. HARRIS DATE: 03/2026
 CHECKED BY: K. LEWIS DATE: 03/2026



SEALED BY

BRIDGE NO. 5
 STATE OF TENNESSEE
 DEPARTMENT OF TRANSPORTATION
BENT NO. 1 & 2 DETAILS
 STATE ROUTE 176 (GETWELL ROAD)
 OVER STATE ROUTE 4 (LAMAR AVE.)
 BRIDGE ID NO. 79SR0040013
 STATION 148+08.91
 LOG MILE 4.36
 SHELBY COUNTY

PROJECT NO.	YEAR	SHEET NO.	
STP-NH-4(6)	2026		
REVISIONS			
NO.	DATE	BY	BRIEF DESCRIPTION
-	-	-	-
-	-	-	-
-	-	-	-
-	-	-	-
-	-	-	-



SEALED BY

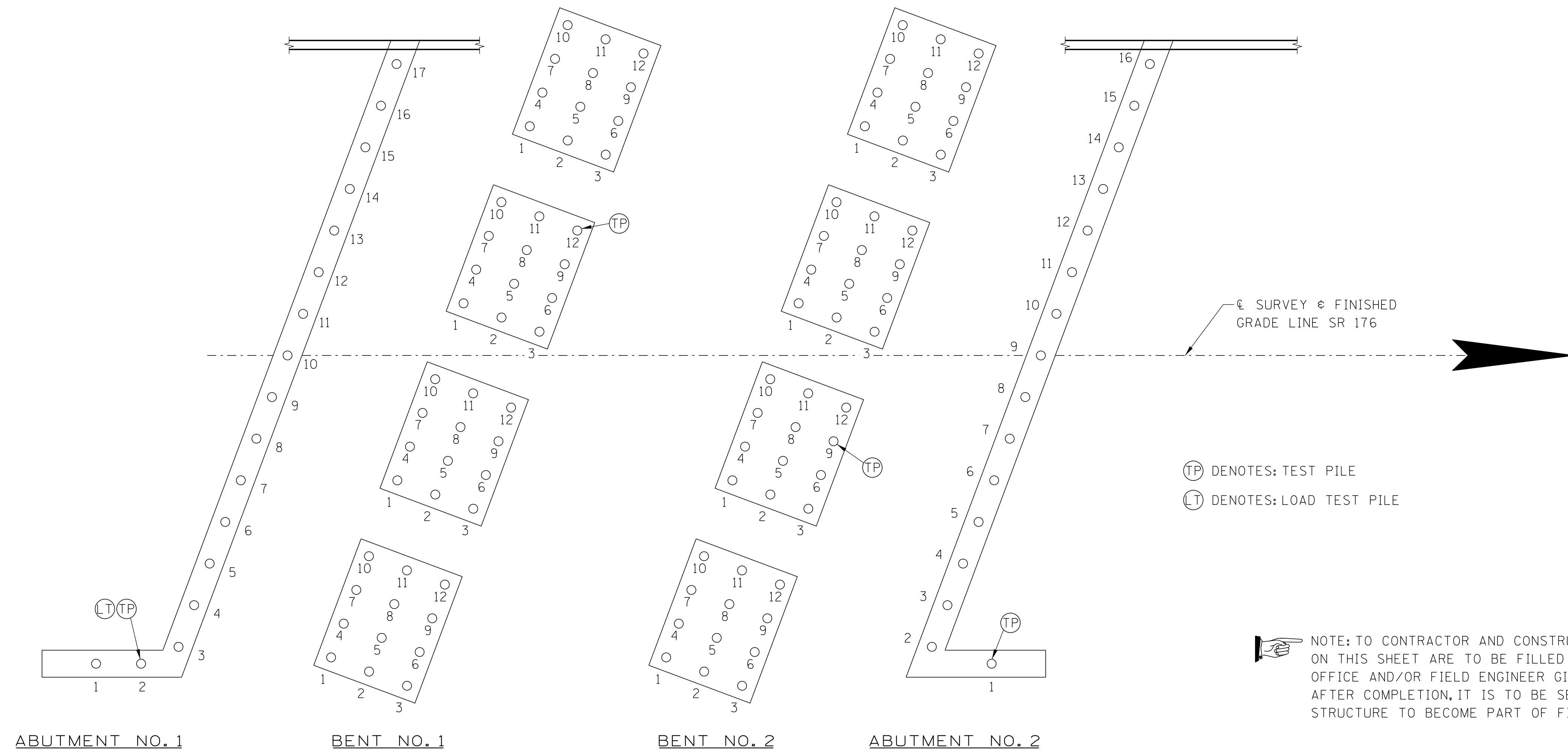
BRIDGE NO. 5
STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BEARING DETAILS
STATE ROUTE 176 (GETWELL ROAD)
OVER STATE ROUTE 4 (LAMAR AVE.)
BRIDGE ID NO. 79SR0040013
STATION 148+08.91
LOG MILE 4.36
SHELBY COUNTY

PIN NO.: 100340.00
DESIGN BY: BENESCH DATE: 03/2026
DRAWN BY: B.BOSLEY DATE: 03/2026
SUPERVISED BY: J. LEWIS/A. HARRIS DATE: 03/2026
CHECKED BY: K. LEWIS DATE: 03/2026



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PROJECT NO.	YEAR	SHEET NO.	
STP-NH-4(6)	2026		
REVISIONS			
NO.	DATE	BY	BRIEF DESCRIPTION
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		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
ABUTMENT NO. 1	PILE CUT-OFF ELEVATION																	
	PILE TIP ELEVATION																	
	IN PLACE PILE LENGTH																	
BENT NO. 1	FOOTING "A"	PILE CUT-OFF ELEVATION																
		PILE TIP ELEVATION																
		IN PLACE PILE LENGTH																
	FOOTING "B"	PILE CUT-OFF ELEVATION																
		PILE TIP ELEVATION																
		IN PLACE PILE LENGTH																
	FOOTING "C"	PILE CUT-OFF ELEVATION																
		PILE TIP ELEVATION																
		IN PLACE PILE LENGTH																
	FOOTING "D"	PILE CUT-OFF ELEVATION																
		PILE TIP ELEVATION																
		IN PLACE PILE LENGTH																
BENT NO. 2	FOOTING "A"	PILE CUT-OFF ELEVATION																
		PILE TIP ELEVATION																
		IN PLACE PILE LENGTH																
	FOOTING "B"	PILE CUT-OFF ELEVATION																
		PILE TIP ELEVATION																
		IN PLACE PILE LENGTH																
	FOOTING "C"	PILE CUT-OFF ELEVATION																
		PILE TIP ELEVATION																
		IN PLACE PILE LENGTH																
	FOOTING "D"	PILE CUT-OFF ELEVATION																
		PILE TIP ELEVATION																
		IN PLACE PILE LENGTH																
ABUTMENT NO. 2	PILE CUT-OFF ELEVATION																	
	PILE TIP ELEVATION																	
	IN PLACE PILE LENGTH																	

SEALED BY

BRIDGE NO. 5
 STATE OF TENNESSEE
 DEPARTMENT OF TRANSPORTATION
FINAL FOUNDATION DATA
 STATE ROUTE 176 (GETWELL ROAD)
 OVER STATE ROUTE 4 (LAMAR AVE.)
 BRIDGE ID NO. 79SR0040013
 STATION 148+08.91
 LOG MILE 4.36
 SHELBY COUNTY

PIN NO.: 100340.00
 DESIGN BY: BENESCH DATE: 03/2026
 DRAWN BY: R. MEYER DATE: 03/2026
 SUPERVISED BY: J. LEWIS/A. HARRIS DATE: 03/2026
 CHECKED BY: K. LEWIS DATE: 03/2026



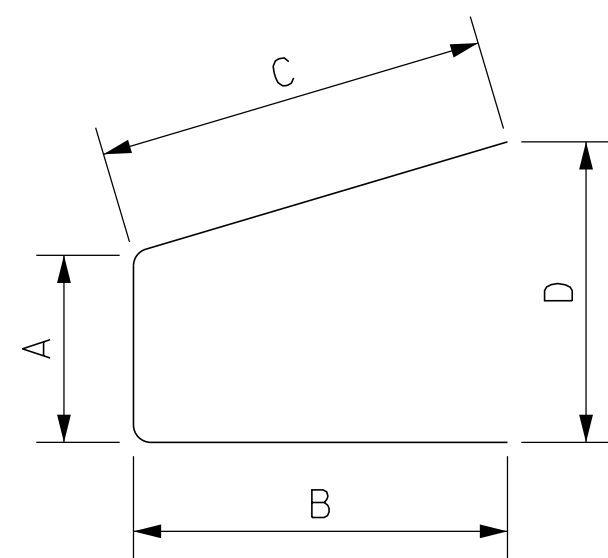
3/10/2026 12:22:58 PM C:\PWORD\IR\BENESCH PROJECTS\PROJECTS\0269225\SR4 BRIDGE_4_FINAL FOUNDATION DATA.DGN

SUPERSTRUCTURE
EPOXY COATED

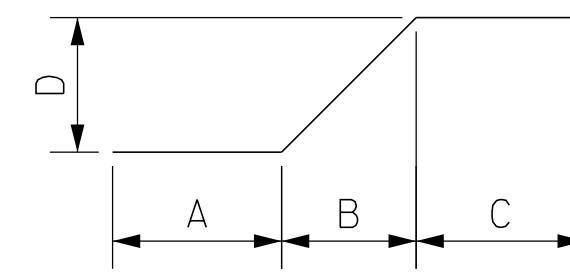
BAR	LOCATION	SIZE	NO. REQ'D.	BENDING DIMENSIONS				TOTAL LENGTH
				A	B	C	D	
A500E	SLAB PHASE II	5	914					37'-8"
SERIES	SLAB PHASE II	5	1	LENGTH VARIES FROM 4'-3" TO 37'-8" IN INC. OF 1'-2 3/8" (+) (29 BARS)				190'-1"
A501E								
SERIES	SLAB PHASE II	5	1	LENGTH VARIES FROM 1'-1 1/4" TO 37'-8" IN INC. OF 1'-2 5/8" (31 BARS)				70'-9 1/2"
A502E								
SERIES	SLAB PHASE I	5	1	LENGTH VARIES FROM 4'-10 1/4" TO 31'-8" IN INC. OF 1'-2 5/8" (23 BARS)				138'-5 1/2"
A503E								
SERIES	SLAB PHASE I	5	1	LENGTH VARIES FROM 8" TO 31'-4 3/4" IN INC. OF 1'-2 3/4" (26 BARS)				48'-0 3/4"
A504E								
SERIES	SLAB PHASE II	5	1	LENGTH VARIES FROM 4'-7" TO 37'-7" IN INC. OF 1'-6" (23 BARS)				138'-5"
A505E								
SERIES	SLAB PHASE I	5	1	LENGTH VARIES FROM 1'-9" TO 37'-8" IN INC. OF 1'-6 3/4" (24 BARS)				77'-11 1/4"
A506E								
SERIES	SLAB PHASE I	5	1	LENGTH VARIES FROM 8" TO 3'-8 1/2" IN INC. OF 1'-6 5/8" (21 BARS)				45'-0 1/2"
A507E								
SERIES	SLAB PHASE I	5	1	LENGTH VARIES FROM 4'-4" TO 31'-8 1/2" IN INC. OF 1'-6 1/4" (19 BARS)				109'-8 1/2"
A508E								
A509E	SLAB PHASE I	5	924					31'-8"
A600E	SLAB PHASE II	6	436					60'-0"
A601E	SLAB PHASE II	6	109					24'-0"
A602E	SLAB PHASE II	6	98					33'-10"
A603E	SLAB PHASE II	6	196					16'-11"
A604E	SLAB PHASE I	6	368					60'-0"
A605E	SLAB PHASE I	6	92					24'-0"
A606E	SLAB PHASE I	6	84					33'-10"
A607E	SLAB PHASE I	6	168					16'-11"
AX500E	SLAB	5	960					6'-4"
SERIES	SLAB	5	1	LENGTH VARIES FROM 4'-5" TO 6'-11" IN INC. OF 1'-3" (3 BARS)				15'-9"
AX501E								
SERIES	SLAB	5	1	LENGTH VARIES FROM 3'-11" TO 6'-4" IN INC. OF 1'-2 1/2" (3 BARS)				14'-2"
AX502E								
SERIES	SLAB	5	1	LENGTH VARIES FROM 4'-9" TO 7'-9" IN INC. OF 3'-0" (3 BARS)				20'-3"
AX503E								
SERIES	SLAB	5	1	LENGTH VARIES FROM 4'-7" TO 7'-8" IN INC. OF 3'-1" (3 BARS)				16'-10"
AX504E								
B570E	PARAPET/SLAB PH. II	5	750					2'-8"
B571E	PARAPET/SLAB PH. I	5	750					2'-8"

ABUTMENT 1

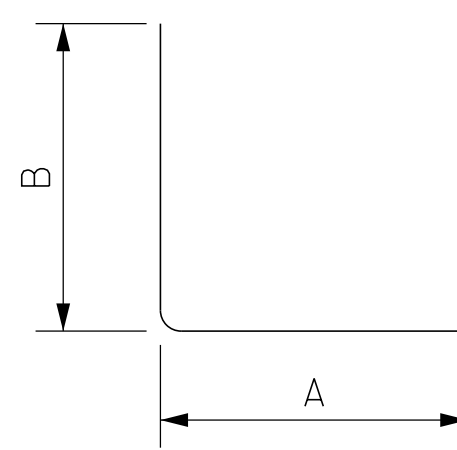
BAR	LOCATION	SIZE	NO. REQ'D.	BENDING DIM.			TOTAL LENGTH
				A	B	C	
A400	ROADWAY BRACKET PH. I	4	1	34'-6"			34'-6"
A401	ROADWAY BRACKET PH. II	4	1	36'-6"			36'-6"
A402	WINGWALL	4	6	15'-8"			15'-8"
A403	WINGWALL	4	13	4'-11"			4'-11"
A500	ABUTMENT BEAM PH. I	5	2	37'-9"			37'-9"
A501	ABUTMENT BEAM PH. II	5	2	40'-6"			40'-6"
A502	WINGBEAM	5	2	15'-0"			15'-0"
A600	ENDWALL PH. I	6	4	3'-0"			3'-0"
A601	ENDWALL PH. I	6	1	1'-7"			1'-7"
A602	ENDWALL PH. I	6	4	5'-4"			5'-4"
A603	ENDWALL PH. II	6	4	7'-10"			7'-10"
A604	ENDWALL PH. I	6	1	3'-9"			3'-9"
A605	ENDWALL PH. II	6	1	6'-3"			6'-3"
A606	ENDWALL	6	24	9'-6"			9'-6"
A607	ENDWALL	6	6	6'-3"			6'-3"
A608	ENDWALL PH. II	6	4	1'-11"			1'-11"
A609	ENDWALL PH. II	6	1	0'-6"			0'-6"
A610	ENDWALL PH. I	6	4	38'-4"			38'-4"
A611	ENDWALL PH. II	6	4	39'-9"			39'-9"
A612	ENDWALL	6	4	4'-2"			4'-2"
A613	WINGWALL	6	6	16'-0"			16'-0"
A614	WINGWALL	6	13	4'-11"			4'-11"
A700	ABUTMENT BEAM PH. I	7	10	38'-11"			38'-11"
A701	ABUTMENT BEAM PH. II	7	10	40'-5"			40'-5"
A702	WINGBEAM	7	10	15'-0"			15'-0"
B600	ENDWALL	6	16	5'-0"			5'-8"
H400	RISER BLOCK	4	16	1'-7"	2'-0"		5'-2"
H401	RISER BLOCK	4	12	1'-7"	2'-0"		5'-2"
H500	ROADWAY BRACKET	5	56	3'-8"	0'-6"		4'-8"
H600	ENDWALL	6	56	2'-8"	4'-2"		11'-0"
H601	WINGWALL	6	12	1'-2"	3'-6"		8'-2"
HA600	ENDWALL	6	17	2'-8"	4'-2"	1'-5"	8'-3"
L500	ABUTMENT BEAM	5	78	2'-8"	2'-8"		5'-0"
L501	WINGBEAM	5	13	2'-8"	2'-8"		5'-0"



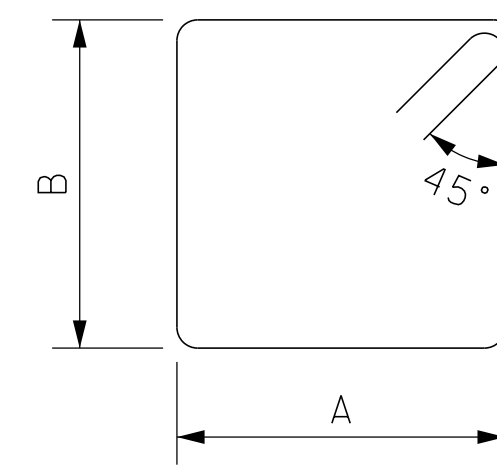
BARS HB



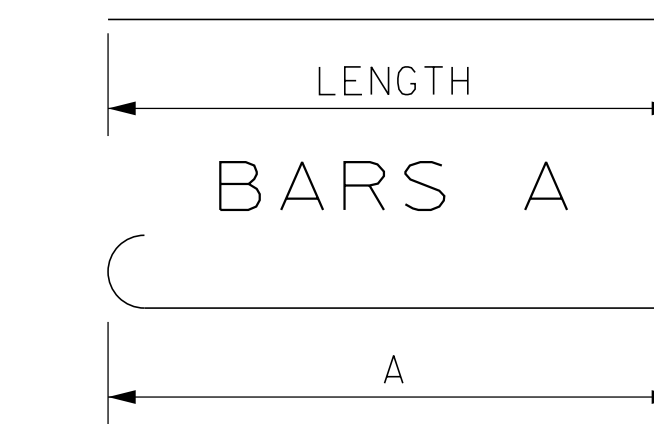
BARS F



BARS R



BARS L



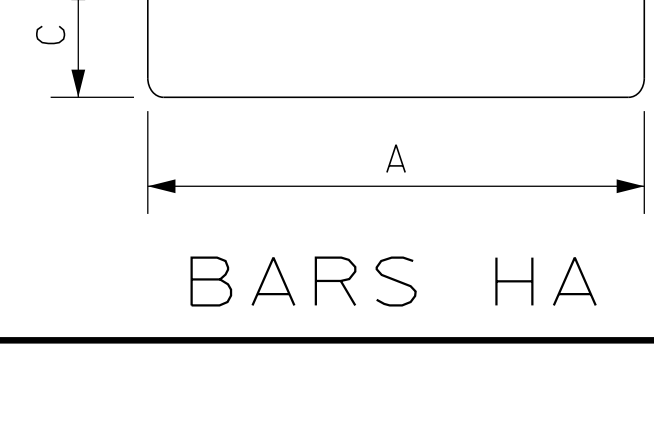
BARS A



BARS B



BARS H



BARS HA

CONST. NO.: 79020-1245-14

PROJECT NO.	YEAR	SHEET NO.	
STP-NH-4(6)	2026		
REVISIONS			
NO.	DATE	BY	BRIEF DESCRIPTION
-	-	-	-
-	-	-	-
-	-	-	-
-	-	-	-
-	-	-	-

ABUTMENT 1
EPOXY COATED

BAR	LOCATION	SIZE	NO. REQ'D.	BENDING DIMENSIONS				TOTAL LENGTH
				A	B	C	D	
A600E	ENDWALL	6	129	4'-8"				4'-8"
A601E	ENDWALL PH. I	6	3	39'-7"				39'-7"
A602E	ENDWALL PH. II	6	3	39'-9"				39'-9"
B570E	PARAPET	5	7	2'-9"				3'-4"
B600E	ENDWALL	6	2	5'-0"				5'-8"
F640E	ROADWAY BRACKET	6	73	1'-1"	1'-3"	1'-1"	1'-3"	4'-0"
H400E	PARAPET	4	3	0'-11"	3'-11"			8'-9"
H401E	PARAPET	4	1	0'-11"	3'-10"			8'-7"
H402E	PARAPET	4	1	0'-10"	3'-9"			8'-4"
H403E	PARAPET	4	1	0'-8"	3'-8"			8'-0"
H404E	PARAPET	4	1	0'-5"	3'-7"			7'-7"
SERIES	PARAPET	4	1	3'-11"	*	4'-0"	0'-9"	36'-3 1/2"
HD400E								
SERIES	PARAPET	4	1	3'-11"	**	4'-0"	0'-9"	36'-8 3/4"
HD401E								
R600E	ENDWALL	6	73	3'-0"	2'-0"			5'-0"

SEALED BY

BRIDGE NO. 5
STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BILL OF STEEL
STATE ROUTE 176 (GETWELL ROAD)
OVER STATE ROUTE 4 (LAMAR AVE.)
BRIDGE ID NO. 79SR0040013
STATION 148+08.91
LOG MILE 4.36
SHELBY COUNTY

PIN NO.: 100340.00
DESIGN BY: BENESCH DATE: 03/2026
DRAWN BY: R. MEYER DATE: 03/2026
SUPERVISED BY: J. LEWIS/A. HARRIS DATE: 03/2026
CHECKED BY: K. LEWIS DATE: 03/2026



ABUTMENT 2

BAR	LOCATION	SIZE	NO. REQ'D.	BENDING DIM.			TOTAL LENGTH
				A	B	C	
A400	ROADWAY BRACKET PH. I	4	1	34'-10"			34'-10"
A401	ROADWAY BRACKET PH. II	4	1	38'-4"			38'-4"
A402	WINGWALL	4	7	14'-10"			14'-10"
A403	WINGWALL	4	12	5'-8"			5'-8"
A500	ABUTMENT BEAM PH. I	5	2	35'-3"			35'-3"
A501	ABUTMENT BEAM PH. II	5	2	41'-2"			41'-2"
A502	WINGBEAM	5	2	15'-2"			15'-2"
A600	ENDWALL PH. I	6	5	1'-5"			1'-5"
A601	ENDWALL PH. I	6	1	1'-7"			1'-7"
A602	ENDWALL PH. I	6	5	3'-7"			3'-7"
A603	ENDWALL PH. II	6	5	6'-5"			6'-5"
A604	ENDWALL PH. I	6	1	3'-7"			3'-7"
A605	ENDWALL PH. II	6	1	4'-10"			4'-10"
A606	ENDWALL	6	30	9'-7"			9'-7"
A607	ENDWALL	6	6	6'-4"			6'-4"
A608	ENDWALL PH. II	6	5	3'-6"			3'-6"
A609	ENDWALL PH. II	6	1	1'-11"			1'-11"
A610	ENDWALL PH. I	6	5	33'-6"			33'-6"
A611	ENDWALL PH. II	6	5	39'-11"			39'-11"
A612	ENDWALL	6	4	4'-6"			4'-6"
A613	WINGWALL	6	7	11'-2"			11'-2"
A614	WINGWALL	6	13	5'-8"			5'-8"
A700	ABUTMENT BEAM PH. I	7	10	35'-3"			35'-3"
A701	ABUTMENT BEAM PH. II	7	10	36'-9"			36'-9"
A702	WINGBEAM	7	10	15'-2"			15'-2"
B600	ENDWALL	6	12	5'-0"			5'-0"
H400	RISER BLOCK	4	16	2'-0"	3'-0"		2'-0"
H401	RISER BLOCK	4	12	2'-0"	3'-0"		2'-0"
H500	ROADWAY BRACKET	5	56	3'-8"	0'-6"		3'-8"
H600	ENDWALL	6	56	2'-8"	4'-2"		2'-8"
H601	WINGWALL	6	12	1'-2"	3'-6"		1'-2"
HA600	ENDWALL	6	17	2'-8"	4'-2"	1'-5"	2'-8"
L500	ABUTMENT BEAM	5	78	2'-8"	2'-8"		2'-8"
L501	WINGBEAM	5	13	2'-8"	2'-8"		2'-8"

BENT 1

BAR	LOCATION	SIZE	NO. REQ'D.	BENDING DIMENSIONS				TOTAL LENGTH
				A	B	C	D	
A970	COLUMN	9	56	15'-3 1/8"				15'-3 1/8"
A972	CAP	9	4	35'-3"				35'-3"
A974	CAP	9	4	40'-3"				40'-3"
A1073	CAP	10	8	7'-6"				7'-6"
B1074	CAP	10	8	40'-3"				41'-8"
C971	COLUMN	9	56	15'-5"	1'-3 1/4"			16'-8 1/4"
CD975	CAP	9	4	30'-8 3/8"	11 1/2"	4'-6 1/4"		34'-11 5/8"
CD976	CAP	9	4	35'-8 3/8"	11 1/2"	4'-6 1/4"		39'-11 5/8"
CD1075	CAP	10	8	30'-8 3/4"	11 1/2"	4'-6 1/4"		35'-0"
CD1076	CAP	10	8	35'-8 3/4"	11 1/2"	4'-6 1/4"		40'-0"
D870	FOOTING	8	88	14'-6"				16'-4"
D871	FOOTING	8	92	11'-6"				13'-4"
D1072	CAP	10	8	35'-0"				37'-10"
H488	RISER BLOCK	4	44	4'-0"	1'-4"			6'-8"
H489	RISER BLOCK	4	44	3'-6"	1'-4"			6'-2"
L580	CAP	5	1	4'-6"	*			358'-9 1/4"
L581	CAP	5	212	4'-6"	4'-6"			18'-11"
TA582	COLUMN	5	148	3'-2"				10'-10 3/8"

BENT 2

BAR	LOCATION	SIZE	NO. REQ'D.	BENDING DIMENSIONS				TOTAL LENGTH
				A	B	C	D	
A970	COLUMN	9	56	7'-11 1/8"				7'-11 1/8"
A972	CAP	9	4	35'-3"				35'-3"
A974	CAP	9	4	40'-3"				40'-3"
A1073	CAP	10	8	7'-6"				7'-6"
B1074	CAP	10	8	40'-3"				41'-8"
C971	COLUMN	9	56	15'-5"	1'-3 1/4"			16'-8 1/4"
CD975	CAP	9	4	30'-8 3/8"	11 1/2"	4'-6 1/4"		34'-11 5/8"
CD976	CAP	9	4	35'-8 3/8"	11 1/2"	4'-6 1/4"		39'-11 5/8"
CD1075	CAP	10	8	30'-8 3/4"	11 1/2"	4'-6 1/4"		35'-0"
CD1076	CAP	10	8	35'-8 3/4"	11 1/2"	4'-6 1/4"		40'-0"
D870	FOOTING	8	88	14'-6"				16'-4"
D871	FOOTING	8	92	11'-6"				13'-4"
D1072	CAP	10	8	35'-0"				37'-10"
H488	RISER BLOCK	4	44	4'-0"	1'-4"			6'-8"
H489	RISER BLOCK	4	44	3'-6"	1'-4"			6'-2"
L580	CAP	5	1	4'-6"	*			358'-9 1/4"
L581	CAP	5	212	4'-6"	4'-6"			18'-11"
TA582	COLUMN	5	120	3'-2"				10'-10 3/8"

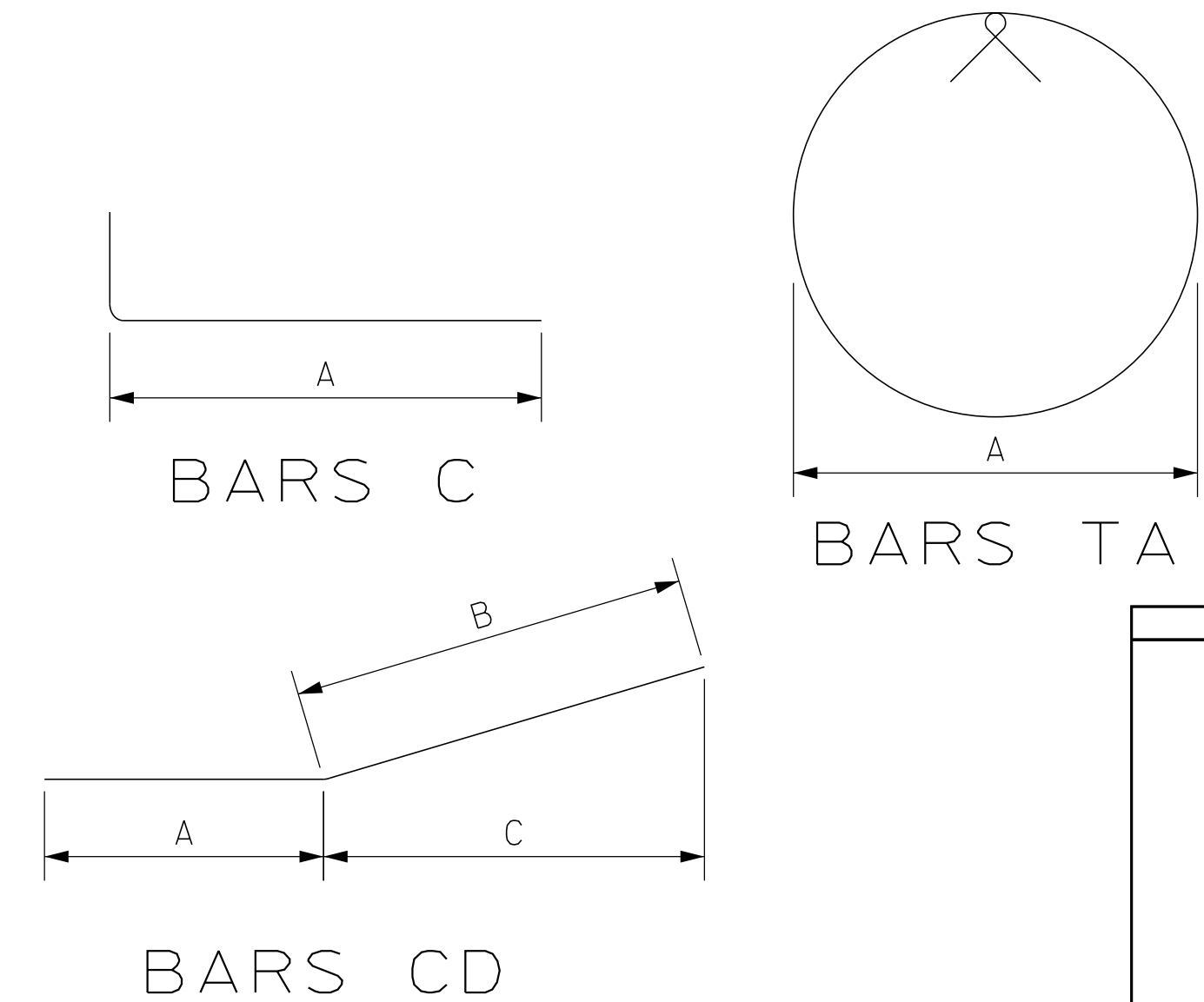
* DENOTES: VARIES FROM 3'-7" TO 4'-5 1/4" IN INC. OF 2 1/2" (+) (20 BARS)

CONST. NO.: 79020-1245-14

PROJECT NO.	YEAR	SHEET NO.	
STP-NH-4(6)	2026		
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ABUTMENT 2 EPOXY COATED

BAR	LOCATION	SIZE	NO. REQ'D.	BENDING DIMENSIONS				TOTAL LENGTH
				A	B	C	D	
A600E	ENDWALL	6	129	4'-8"				4'-8"
A601E	ENDWALL PH. I	6	3	39'-7"				39'-7"
A602E	ENDWALL PH. II	6	3	39'-9"				39'-9"
B570E	PARAPET	5	7	2'-9"				2'-9"
B600E	ENDWALL	6	2	5'-0"				5'-0"
F640E	ROADWAY BRACKET	6	73	1'-1"	1'-3"	1'-1"	1'-3"	4'-0"
H400E	PARAPET	4	3	0'-11"	3'-11"			8'-9"
H401E	PARAPET	4	1	0'-11"	3'-10"			8'-7"
H402E	PARAPET	4	1	0'-10"	3'-9"			8'-4"
H403E	PARAPET	4	1	0'-8"	3'-8"			8'-0"
H404E	PARAPET	4	1	0'-5"	3'-7"			7'-7"
SERIES	PARAPET	4	1	3'-11"	*	4'-0"	0'-9"	36'-3 1/2"
HD400E								
SERIES	PARAPET	4	1	3'-11"	**	4'-0"	0'-9"	36'-8 3/4"
HD401E								
R600E	ENDWALL	6	73	3'-0"	2'-0"			5'-0"



SEALED BY

BRIDGE NO. 5
STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BILL OF STEEL
STATE ROUTE 176 (GETWELL ROAD)
OVER STATE ROUTE 4 (LAMAR AVE.)
BRIDGE ID NO. 79SR0040013
STATION 148+08.91
LOG MILE 4.36
SHELBY COUNTY

PIN NO.: 100340.00
DESIGN BY: BENESCH DATE: 03/2026
DRAWN BY: R. MEYER DATE: 03/2026
SUPERVISED BY: J. LEWIS/A. HARRIS DATE: 03/2026
CHECKED BY: K. LEWIS DATE: 03/2026



PROJECT NO.	YEAR	SHEET NO.	
STP-NH-4(6)	2026		
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<u>LIST OF DRAWINGS</u>	<u>DWG. NO.</u>	<u>LAST REV. DATE</u>
INDEX OF DRAWINGS -----	U-102-273	
LAYOUT OF BRIDGE -----	U-102-274	
GENERAL NOTES -----	U-102-275	
ESTIMATED BRIDGE QUANTITIES -----	U-102-276	
PHASING SEQUENCE -----	U-102-277	
SUPERSTRUCTURE -----	U-102-278	
SUPERSTRUCTURE DETAILS -----	U-102-279	
FRAMING PLAN -----	U-102-280	
STRUCTURAL STEEL DETAILS -----	U-102-281	
STRUCTURAL STEEL DETAILS -----	U-102-282	
STRUCTURAL STEEL DETAILS -----	U-102-283	
ABUTMENT NO. 1 -----	U-102-284	
ABUTMENT NO. 1 DETAILS -----	U-102-285	
ABUTMENT NO. 2 -----	U-102-286	
ABUTMENT NO. 2 DETAILS -----	U-102-287	
P.A.B.E. DETAILS -----	U-102-288	
BENT NO. 1 -----	U-102-289	
BENT NO. 2 -----	U-102-290	
BENT NO. 1 AND NO. 2 DETAILS -----	U-102-291	
BEARING DETAILS -----	U-102-292	
FINAL FOUNDATION DATA -----	U-102-293	
BILL OF STEEL -----	U-102-294	

<u>LIST OF STANDARD DRAWINGS</u>	<u>DWG. NO.</u>	<u>LAST REV. DATE</u>
BRIDGE RAILING SINGLE SLOPE CONCRETE PARAPET -----	STD-1-1SS -----	07/09/2025
REINFORCED CONCRETE PAVEMENT AT BRIDGE ENDS -----	STD-1-5 -----	06/05/2023
STANDARD PILE DETAILS -----	STD-5-1 -----	
STANDARD PIPE PILE BENT DETAILS -----	STD-5-2 -----	
STANDARD SEISMIC DETAILS -----	STD-6-1 -----	12/08/2023
STANDARD SEISMIC DETAILS -----	STD-6-2 -----	04/15/2020
STANDARD REINFORCING BAR SUPPORT DETAILS FOR CONCRETE SLABS -----	STD-9-1 -----	10/07/2008
MISCELLANEOUS ABUTMENT AND DRAINAGE DETAILS -----	STD-10-1 -----	06/05/2023

<u>LIST OF SPECIAL PROVISIONS</u>	<u>DWG. NO.</u>	<u>LAST REV. DATE</u>
REGARDING STEEL STRUCTURES -----	602 -----	07/15/2005
REGARDING BRIDGE DECK CRACK SEALANT -----	604CR -----	02/08/2021

LIST OF EXISTING BRIDGE DRAWINGS
M-38-56 THRU M-38-67
K-80-14
K-86-144

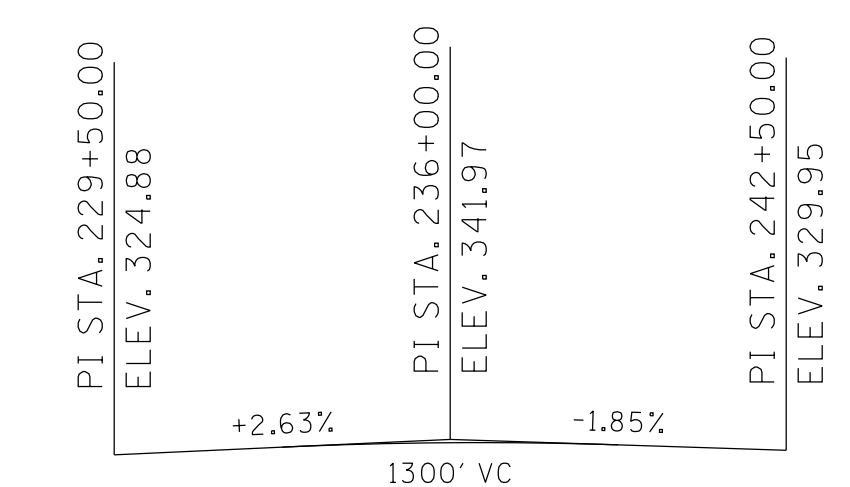
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BRIDGE NO. 3 (TEMP.)
STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
INDEX OF DRAWINGS
WIDENING OF STATE ROUTE 4 OVER
BURLINGTON-NORTHERN RR
BRIDGE ID NO. 79SR0040010
STATION 236+55.00
LOG MILE 4.13
SHELBY COUNTY

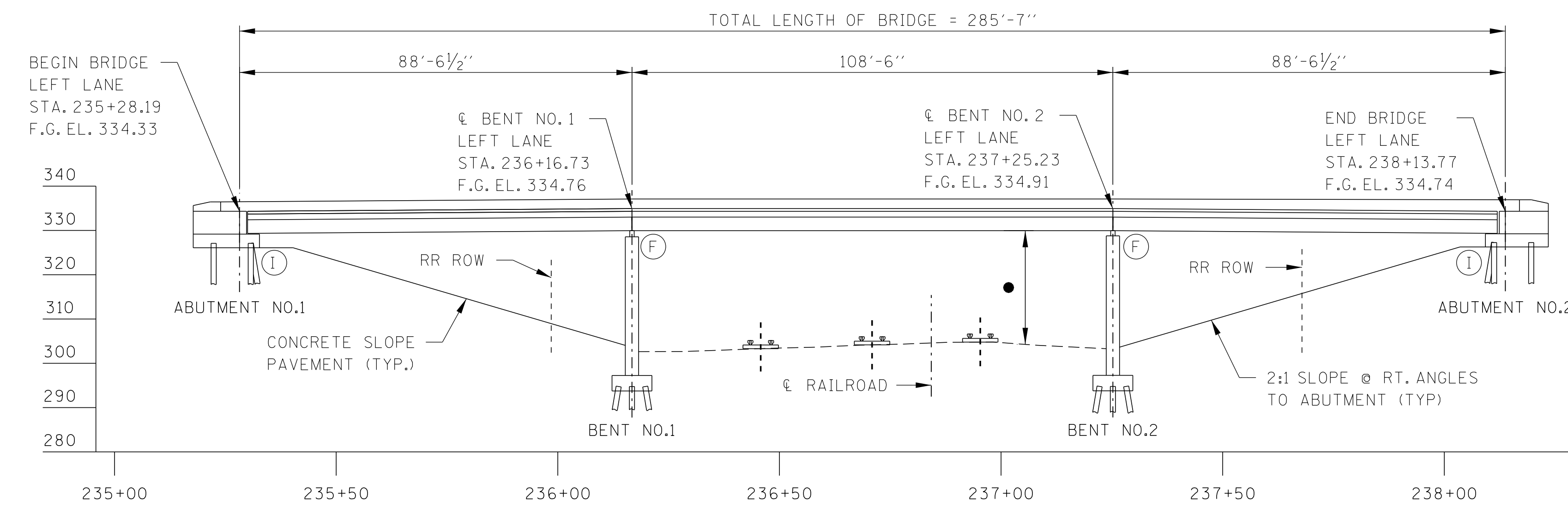
PIN NO.: 100340.00
DESIGN BY: BENESCH DATE: 03/2026
DRAWN BY: B. BOSLEY DATE: 03/2026
SUPERVISED BY: C. WANSON/A. HARRIS DATE: 03/2026
CHECKED BY: K. LEWIS DATE: 03/2026



PROJECT NO.	YEAR	SHEET NO.	
STP-NH-4(6)	2026		
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-	-	-	-
-	-	-	-
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STATE ROUTE NO. 4
(ELEVATIONS SHOWN ARE BASED ON FINISHED GRADE)



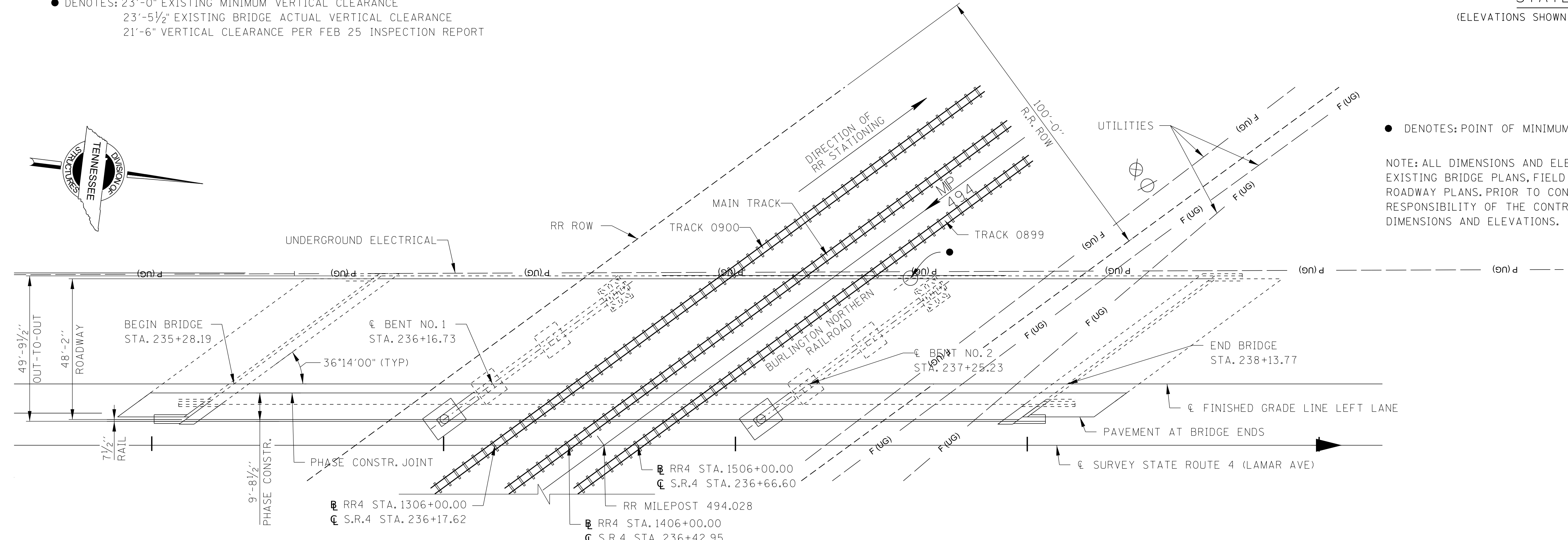
ELEVATION

- DENOTES: 23'-0" EXISTING MINIMUM VERTICAL CLEARANCE
- DENOTES: 23'-5 1/2" EXISTING BRIDGE ACTUAL VERTICAL CLEARANCE
- DENOTES: 21'-6" VERTICAL CLEARANCE PER FEB 25 INSPECTION REPORT

- Ⓢ DENOTES: INTEGRAL
- Ⓣ DENOTES: FIXED

- DENOTES: POINT OF MINIMUM VERTICAL CLEARANCE

NOTE: ALL DIMENSIONS AND ELEVATIONS ARE BASED ON EXISTING BRIDGE PLANS, FIELD MEASUREMENTS, OR THE ROADWAY PLANS. PRIOR TO CONSTRUCTION, IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO FIELD VERIFY THE DIMENSIONS AND ELEVATIONS.



PLAN

STA. 1300+00.00	ELEV. 300.64
STA. 1302+00.00	ELEV. 301.99
STA. 1304+00.00	ELEV. 303.50
STA. 1306+00.00	ELEV. 305.37
STA. 1308+00.00	ELEV. 307.31
STA. 1310+00.00	ELEV. 309.33
STA. 1312+00.00	ELEV. 310.90

GRAPHICAL GRADE SKETCH
(BURLINGTON NORTHERN RAILROAD)
(RR4 - LEFT TRACK)

STA. 1400+00.00	ELEV. 301.95
STA. 1402+00.00	ELEV. 303.20
STA. 1404+00.00	ELEV. 304.72
STA. 1406+00.00	ELEV. 306.40
STA. 1408+00.00	ELEV. 308.25
STA. 1410+00.00	ELEV. 309.99
STA. 1412+00.00	ELEV. 311.03

GRAPHICAL GRADE SKETCH
(BURLINGTON NORTHERN RAILROAD)
(RR5 - CENTER TRACK)

STA. 1500+00.00	ELEV. 302.30
STA. 1502+00.00	ELEV. 303.65
STA. 1504+00.00	ELEV. 305.21
STA. 1506+00.00	ELEV. 307.09
STA. 1508+00.00	ELEV. 308.93
STA. 1510+00.00	ELEV. 310.34
STA. 1512+00.00	ELEV. 311.23

GRAPHICAL GRADE SKETCH
(BURLINGTON NORTHERN RAILROAD)
(RR6 - RIGHT TRACK)

BRIDGE NO. 3 (TEMP.)
STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
LAYOUT OF BRIDGE
WIDENING OF STATE ROUTE 4 OVER
BURLINGTON-NORTHERN RR
BRIDGE ID NO. 79SR0040010
STATION 236+55.00
LOG MILE 4.13
SHELBY COUNTY

SEALED BY



GENERAL NOTES:

- (1) CONSTRUCTION SPECIFICATIONS: TENNESSEE DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION (JANUARY 1, 2021 EDITION).
- (2) DESIGN SPECIFICATIONS: 9TH EDITION (2020) AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS AND THE 2ND EDITION (2021) AASHTO GUIDE SPECIFICATIONS FOR LRFD SEISMIC BRIDGE DESIGN WITH INTERIMS.
- (3) LOADING:
 - A. HL-93 LIVE LOADING
 - B. SEISMIC DESIGN CATEGORY C WITH AS= 0.364, SDS=0.783, SD1=0.340, (1000 YEAR RETURN PERIOD).
- (4) CONCRETE: TO BE CLASS A F'c = 3000 PSI EXCEPT AS NOTED OTHERWISE.
- (5) BRIDGE DECKS: CLASS D CONCRETE FOR BRIDGE DECKS SHALL BE IN ACCORDANCE WITH SECTION 604 OF THE STANDARD SPECIFICATIONS.
- (6) BRIDGE DECK SURFACE FINISH: TO BE IN ACCORDANCE WITH METHOD 3 IN ARTICLE 604.22 OF THE STANDARD SPECIFICATIONS.
- (7) BRIDGE DECK FORMS: BRIDGE DECK FORMS FOR CONCRETE DECKS SHALL BE CONSTRUCTED USING EITHER REMOVABLE FORMS OR PERMANENT FORMS. PERMANENT FORMS SHALL BE REMAIN-IN-PLACE STEEL. 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 DRAWING STD-14-2 AND ARTICLE 604.05 OF THE STANDARD SPECIFICATIONS.
- (8) REINFORCING STEEL: SHALL BE ASTM A615 GRADE 60 UNLESS NOTED OTHERWISE. SEE SECTIONS 604 AND 907 OF THE STANDARD SPECIFICATIONS.
- (9) FOUNDATION PREPARATION: SEE SECTION 204 OF THE STANDARD SPECIFICATIONS. IF IT IS DETERMINED THAT COFFERDAMS ARE REQUIRED, THEY SHALL BE IN ACCORDANCE WITH SECTION 204.09 OF THE STANDARD SPECIFICATIONS.
- (10) BENT EXCAVATION: ALL FILL SHALL BE IN PLACE PRIOR TO EXCAVATING FOR BENT FOOTINGS. AFTER CONSTRUCTING THE BENT, EXTREME CARE SHALL BE TAKEN WHEN BACKFILLING SO AS NOT TO DAMAGE OR MISALIGN THE BENT.
- (11) ABUTMENTS ON FILL: THE FILLS AT THE ENDS OF THE BRIDGE SHALL BE IN PLACE AND THOROUGHLY COMPACTED BEFORE ANY ABUTMENT PILES ARE DRIVEN.
- (12) FRICTION PILES: TO BE 14" PCC. AFTER EXCAVATION TO THE PROPOSED FOOTING ELEVATIONS, A TEST PILE SHALL BE DRIVEN AT EACH SUBSTRUCTURE AT THE LOCATION DESIGNATED ON DRAWING NO. U-102-193. A LOAD TEST WILL THEN BE APPLIED TO THE TEST PILE IN (BENT OR ABUT. NO.), FROM THE RESULTS OF THE LOAD TEST, THE ENGINEER OF STRUCTURES WILL DETERMINE THE REQUIRED LENGTH OF THE PRODUCTION PILES AND MINIMUM REQUIRED BEARING. FOR PILE DESIGN LOADS AND CUT-OFF ELEVATIONS, SEE TABLE ON THIS SHEET.

THE CONTRACTOR SHALL INSTALL PILING SUCH THAT ALL THE FOLLOWING REQUIREMENTS ARE MET. THE TIP ELEVATION FOR ALL TEST PILES AND PRODUCTION PILES SHALL BE EQUAL TO OR BELOW THE MINIMUM PILE TIP ELEVATION SHOWN ON THE PLANS. IN ADDITION, TEST PILES TO BE LOAD TESTED SHALL BE INSTALLED TO AT LEAST THE SPECIFIED BEARING SHOWN ON THE PLANS OR FULL LENGTH. ALL OTHER TEST PILES SHALL BE INSTALLED TO AT LEAST 1.5 TIMES THE SPECIFIED BEARING SHOWN ON THE PLANS OR FULL LENGTH. ALL PRODUCTION PILES SHALL BE INSTALLED FULL LENGTH UNLESS EXCESSIVELY HARD DRIVING WHICH MIGHT DAMAGE THE PILES IS ENCOUNTERED. IF THE PRODUCTION PILES DO NOT ACHIEVE THE MINIMUM REQUIRED BEARING, THE ENGINEER OF STRUCTURES WILL DETERMINE IF ADDITIONAL PILES ARE REQUIRED.

IN THE EVENT THAT DRIVING THE TEST PILE TO AT LEAST THE MINIMUM TIP ELEVATION OR DRIVING THE PRODUCTION PILE FULL LENGTH MIGHT DAMAGE THE PILE BECAUSE OF EXCESSIVELY HARD DRIVING, THE CONTRACTOR SHALL USE OTHER METHODS APPROVED BY THE ENGINEER FOR INSTALLING THE PILES SUCH AS JETTING OR PRE-DRILLING HOLES. HOWEVER, ALL PILES MUST BE DRIVEN BY HAMMER FOR THE LAST FEW FEET OF PENETRATION. NO MEASUREMENT FOR PAYMENT WILL BE MADE FOR PRE-DRILLING HOLES OR FOR JETTING PILING TO OBTAIN THE REQUIRED PILE PENETRATION.

THE PILE LOAD TEST SHALL BE A QUICK LOAD TEST CONDUCTED IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS. THE PILE LOAD TEST APPARATUS FOR APPLYING LOADS AND MEASURING MOVEMENT SHALL MEET THE REQUIREMENTS OF ASTM D1143, STANDARD TEST METHODS FOR DEEP FOUNDATION ELEMENTS UNDER STATIC AXIAL COMPRESSIVE LOAD. WHEN INSUFFICIENT CLEARANCE IS AVAILABLE WITHIN AN EXCAVATION, THE CLEARANCE REQUIREMENTS IN ARTICLE 9.1.1 MAY BE REDUCED, BUT ONLY WITH PRIOR APPROVAL OF THE ENGINEER.

- (13) ALTERNATE FRICTION PILES: WITH THE EXCEPTION OF PILE BENTS, THE CONTRACTOR MAY USE AN ALTERNATE PILE TYPE OR SIZE FROM THAT SHOWN ON THE PLANS PROVIDED THE SUBSTITUTION MEETS MINIMUM DESIGN STANDARDS AND SPECIFICATIONS AND IS APPROVED BY THE ENGINEER. FOR PILE BENTS, ANY PROPOSAL OF THE CONTRACTOR TO USE AN ALTERNATE PILE TYPE OR SIZE SHALL BE CONSIDERED VALUE ENGINEERING.
- (14) WELDING: SEE SECTION 602 OF THE STANDARD SPECIFICATIONS AND NOTES ON DRAWING NO. U-102-278.
- (15) RADIOGRAPHIC, ULTRASONIC, AND MAGNETIC INSPECTION: SEE SECTION 602 OF THE STANDARD SPECIFICATIONS AND NOTES ON DRAWING NO. U-102-278.
- (16) STEEL STRUCTURES: SEE TENNESSEE STANDARD SPECIFICATIONS SECTION 602 AND NOTES ON DRAWING NO. U-102-278.
- (17) FINAL APPEARANCE: PRIOR TO FINAL ACCEPTANCE, ALL STRUCTURAL STEEL SHALL BE FREE OF GREASE, OIL, CHALK MARKS, PAINT, CONCRETE SPATTER AND SIMILAR SOILAGE. DEPENDING ON THE LOCATION, WITH RESPECT TO VIEW AND SEVERITY OF THE FOREGOING SOILAGE, THE STRUCTURAL STEEL SHALL BE CLEANED UNDER THE PROVISIONS OF ONE OF THE FOLLOWING STEEL STRUCTURES PAINTING COUNCIL SURFACE PREPARATION SPECIFICATIONS:
 - NO. 1 SOLVENT CLEANING - SSPC-SP 1
 - NO. 2 HAND CLEANING - SSPC-SP 2
 - NO. 3 POWER TOOL CLEANING - SSPC-SP 3
 - NO. 7 BRUSH-OFF BLAST CLEANING - SSPC-SP 7 (OR NACE EQUIVALENT)
- (18) WEATHERING BOLTS: ALL BOLTS SHALL BE ASTM F3125 GRADE (A325 OR A490) TYPE 3 UNLESS NOTED OTHERWISE. ALL BOLTS, NUTS, AND WASHERS SHALL HAVE THE SAME WEATHERING CHARACTERISTICS AS THE STRUCTURAL STEEL USED. IN LIEU OF USING DIRECT TENSION INDICATORS (DTI^{1/32}S), ALL BOLTS SHALL BE INSTALLED BY EITHER TURN-OF-NUT TIGHTENING OR CALIBRATED WRENCH TIGHTENING IN ACCORDANCE WITH SECTION 602 OF THE STANDARD SPECIFICATIONS AND THE AASHTO LRFD BRIDGE CONSTRUCTION SPECIFICATIONS, CURRENT EDITION.
- (19) 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 BURLINGTON-NORTHERN SO AS TO MAINTAIN R.R. CLEARANCE AND NOT INTERRUPT TRAFFIC.
- (20) SHOP DRAWINGS: SEE SECTION 105.02 OF THE STANDARD SPECIFICATIONS.
- (21) 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.
- (22) GROUTED BARS IN DRILLED HOLES: HORIZONTALLY DRILLED HOLES SHALL BE DRILLED 1/2" IN DIAMETER LARGER THAN THE BAR, CLEANED, PACKED WITH NON-SHRINK GROUT, AND THE BAR ROTATED (NOT DRIVEN) TO ITS SEAT. VERTICALLY DRILLED HOLES SHALL BE DRILLED 1/4" IN DIAMETER LARGER THAN THE BAR, CLEANED, PACKED WITH EPOXY GROUT, AND THE BAR SHALL BE DRIVEN TO ITS SEAT. ALL GROUTING MATERIAL SHALL BE APPROVED BY TDOT MATERIALS AND TESTS.
- (23) 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 (2) 12'-0" TRAFFIC LANES SHALL BE MAINTAINED AT ALL TIMES.
- (24) LEAD/CHROMATE PAINT: OUR MAINTENANCE RECORDS INDICATE THE BRIDGE WAS ORIGINALLY PAINTED WITH MATERIALS CONTAINING LEAD AND/OR CHROMATES. THE CONTRACTOR IS REQUIRED TO PROCEED ACCORDINGLY TO TAKE ALL MANDATORY SAFEGUARDS PRESCRIBED BY STATE AND FEDERAL LAW FOR BOTH WORKER PROTECTION AND HAZARDOUS MATERIALS DISPOSAL.

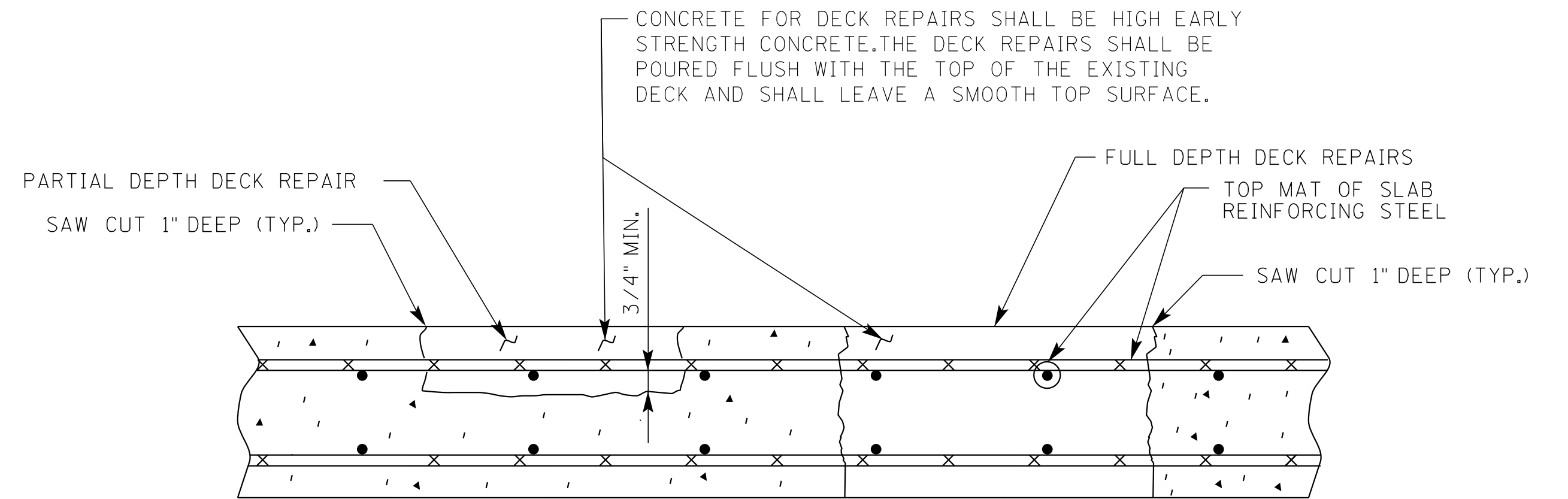
(25) CUTTING STEEL WITH LEAD/CHROMATE PAINT: WHEN STRUCTURAL STEEL MEMBERS COATED WITH LEAD AND/OR CHROMATE-BASED PAINTS ARE TO BE SEVERED USING THERMAL CUTTING METHODS, THE AREAS TO BE CUT SHALL FIRST BE CLEANED TO BARE METAL BY ABRASION.

(26) SLAB REMOVAL FOR WIDENINGS: THE CONTRACTOR SHALL SAW CUT 1 INCH DEEP INTO THE SLAB BEFORE REMOVING CONCRETE. ALL TRANSVERSE REINFORCING STEEL SHALL REMAIN IN PLACE AND BE SPLICED WITH THE NEW REINFORCING. THE CONTRACTOR SHALL NOT USE A HYDRAULIC RAM MOUNTED ON A BACKHOE (COMMONLY CALLED A HOE RAM) OR OTHER SIMILAR HEAVY EQUIPMENT FOR CONCRETE REMOVAL. THE MAXIMUM ALLOWABLE HAMMER SIZE IS THE 60 POUND CLASS.

(27) WIDENING DIMENSIONS: THE CONTRACTOR SHALL CHECK THE LOCATION OF ALL EXISTING SUBSTRUCTURES AND VERIFY SPAN LENGTHS BEFORE FABRICATING GIRDERS.

CONST. NO.: 79020-1245-14

PROJECT NO.	YEAR	SHEET NO.	
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DETAIL SHOWING PARTIAL DEPTH DECK REPAIR

NOTE: REMOVE CONCRETE IN ALL DELAMINATED AREAS TO A DEPTH OF 3/4" BELOW THE TOP BAR OF THE TOP MAT OF REINFORCING STEEL. ALL REINFORCING STEEL IN AREAS OF DECK REPAIR SHALL BE COMPLETELY CLEANED. AREAS OF CONCRETE REMOVAL SHALL BE DESIGNATED BY PERSONNEL FROM THE BRIDGE REPAIR OFFICE. INSPECTIONS TO DETERMINE AREAS OF DECK REPAIR SHALL BE SCHEDULED WITH THE BRIDGE REPAIR OFFICE AT LEAST THREE (3) DAYS IN ADVANCE. DECK REPAIR WILL BE PAID FOR UNDER ITEM NO. 604-10.50, BRIDGE DECK REPAIR (PARTIAL DEPTH OF SLAB). DURING PARTIAL DEPTH REPAIRS, SHOULD DETERIORATED CONCRETE BE ENCOUNTERED WHICH APPEARS TO RUN FULL DEPTH IN THE SLAB, THE ENGINEER MAY DESIGNATE THESE AREAS TO BE REPAIRED UNDER ITEM NO. 604-10.30. POWER DRIVEN HAND TOOLS USED FOR THE REMOVAL OF UNSOUND CONCRETE IN MAKING PARTIAL DEPTH DECK REPAIRS ARE SUBJECT TO THE FOLLOWING RESTRICTIONS:

- 1) (PARTIAL DEPTH REPAIRS) PNEUMATIC HAMMERS HEAVIER THAN NOMINAL 60 POUND CLASS SHALL NOT BE USED.
- 2) CHIPPING HAMMERS OF THE 15 POUND CLASS SHALL BE USED TO REMOVE CONCRETE FROM BENEATH ANY REINFORCING STEEL.

NOTE: CONCRETE FOR DECK REPAIRS SHALL BE HIGH EARLY STRENGTH CONCRETE F'c = 4,000 PSI @ 28-DAY STRENGTH. TRAFFIC SHALL NOT BE PERMITTED ON ANY REPAIR AREA UNTIL TEST SPECIMENS ATTAIN A COMPRESSIVE STRENGTH OF 3,000 PSI MINIMUM AND THE CONCRETE HAS BEEN IN PLACE A MINIMUM OF TEN (10) DAYS.

PILE DATA TABLE

LOCATION	DESIGN LOAD (TONS)	TEST PILE CUT-OFF ELEV. (FT.)	ESTIMATED PILE LENGTH (FT.)	TEST PILE LENGTH (FT.)	MINIMUM PILE TIP ELEVATION
ABUTMENT 1	150	329.71	30	40	304.71
BENT NO. 1	150	300.62	30	40	275.62
BENT NO. 2	150	300.62	30	40	275.62
ABUTMENT 2	150	330.27	30	40	305.27

SEALED BY

BRIDGE NO. 3 (TEMP.)

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
GENERAL NOTES
WIDENING OF STATE ROUTE 4 OVER
BURLINGTON-NORTHERN RR
BRIDGE ID NO. 79SR0040010
STATION 236+55.00
LOG MILE 4.13
SHELBY COUNTY

3/10/2026 11:34:02 AM C:\P\WORKDIR\BENESCH PROJECTS\PROJECTS\DOT\STRUCTURES\BENESCH LOGO.DGN

PIN NO.: 100340.00
DESIGN BY: BENESCH DATE: 03/2026
DRAWN BY: B. BOSLEY DATE: 03/2026
SUPERVISED BY: A. HARRIS DATE: 03/2026
CHECKED BY: K. LEWIS DATE: 03/2026



ESTIMATED BRIDGE QUANTITIES

ITEM NO.	DESCRIPTION	UNIT	TOTAL	SUPERSTRUCTURE	ABUT. NO. 1	BENT NO. 1	BENT NO. 2	ABUT. NO. 2
202-01.05	REMOVAL OF ASBESTOS (EX. BR. NO. 79SR0040010)	LS	1	0	0	0	0	0
(1) 202-04.03	REMOVAL OF STRUCTURES (EX. BR. NO. 79SR0040010)	LS	1	0	0	0	0	0
(2) 204-02.01	DRY EXCAVATION (BRIDGES)	C.Y.	366	0	84	96	96	90
(3) 303-01.02	GRANULAR BACKFILL (BRIDGES)	TON	22	0	12	0	0	10
(4) 602-04.01	STEEL STRUCTURES (BRIDGE NO. 2)	LS	1	0	0	0	0	0
(5) 604-02.03	EPOXY COATED REINFORCING STEEL	LB.	29410	28428	505	0	0	477
(6)(13) 604-03.01	CLASS A CONCRETE (BRIDGES)	C.Y.	86	0	13	29	29	15
604-03.02	STEEL BAR REINFORCEMENT (BRIDGES)	LB.	21732	0	1966	9098	8812	1856
(7) 604-03.04	PAVEMENT @ BRIDGE ENDS	S.Y.	44	44	0	0	0	0
604-03.30	CLASS D CONCRETE	C.Y.	89	73	8	0	0	8
604-10.30	BRIDGE DECK REPAIRS (FULL DEPTH OF SLAB)	S.Y.	146	146	0	0	0	0
606-09.01	TEST PILES (PRECAST CONCRETE, SIZE 1)	L.F.	160	0	40	40	40	40
606-09.02	LOADING TEST (PRECAST CONCRETE, SIZE 1)	EACH	1	0	0	0	0	1
606-09.03	PRECAST CONCRETE PILES (SIZE 1)	L.F.	840	0	60	360	360	60
(8) 606-12.01	PILE ANCHORAGE SYSTEM (SEISMIC)	EACH	28	0	2	12	12	2
(9) 617-02	BRIDGE DECK CRACK SEALING	L.F.	334	334	0	0	0	0
617-05	SEALANT (HMWM)	GAL.	3	3	0	0	0	0
620-05.01	CONC PARAPET SINGLE SLOPE (STD-1-1SS)	L.F.	316	316	0	0	0	0
(10) 621-05.02	TEMPORARY SHORING	LS	1	1	0	0	0	0
(11) 710-09.01	6" PERFORATED PIPE WITH VERTICAL DRAIN SYSTEM	L.F.	56	0	28	0	0	28
710-09.02	6" PIPE UNDERDRAIN	L.F.	20	0	10	0	0	10

FOOTNOTES

- (1) LUMP SUM: TO INCLUDE PARTIAL REMOVAL OF EXISTING BRIDGE NO. 79-SR004-4.14 STATIONS 235+28.19 AND 238+13.77.
- (2) EXCAVATION BASED ON FINAL PROFILE AT ABUTMENTS AND BENTS.
- (3) GRANULAR BACKFILL SHALL BE CLASS "A" GRADING "D" MATERIAL. SEE STANDARD DRAWING STD-10-1.
- (4) LUMP SUM: TOTAL ESTIMATED WEIGHT OF 61,610 LBS. OF STRUCTURAL STEEL INCLUDES GIRDERS, GIRDER BEARING DEVICES, FIELD SPLICES, CROSS-FRAMES, STIFFENERS, SHEAR CONNECTORS, TAB CONNECTION PLATES, BOLTS, DIVERSION STRIP, ETC. ALSO SEE STANDARD SPECIFICATIONS SECTIONS 602.49 AND 602.50.
- (5) 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.
- (6) THE COST OF ALL MATERIALS AND LABOR NECESSARY FOR THE INSTALLATION OF 8, 1" DIA., F1554 GRADE 55 ANCHOR BOLT ASSEMBLIES SHALL BE INCLUDED IN THE UNIT PRICE BID FOR ITEM 604-03.01, CLASS "A" CONCRETE (BRIDGES).
- (7) INCLUDES COST FOR ALL EQUIPMENT, MATERIALS, AND LABOR REQUIRED TO CONSTRUCT THE WIDENED PORTION OF THE PAVEMENT AT BRIDGE ENDS. INCLUDES COST OF ALL REBAR AND CONCRETE. GEOGRID REINFORCEMENT NOT REQUIRED FOR TEMPORARY WIDENING CONDITION.
- (8) THE COST OF PREPARATION OF THE TOP OF PILE FOR SEISMIC REQUIREMENTS SHALL BE INCLUDED IN THE UNIT PRICE BID FOR ITEM 606-12.01. SEE STANDARD DRAWINGS STD-6-1 FOR DETAILS. THE PRICE AND TEST PILE LENGTHS SHOWN ON THE PLANS DO NOT INCLUDE THE 2 FEET REQUIRED FOR SEISMIC ATTACHMENT.
- (9) 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.
- (10) INCLUDES ALL COSTS ASSOCIATED WITH SHORING REQUIRED FOR THE PHASED CONSTRUCTION OF BRIDGE
- (11) COST OF POLYETHYLENE SHEETING AND ALL MISCELLANEOUS ITEMS NECESSARY FOR INSTALLATION TO BE INCLUDED IN THE UNIT PRICE BID FOR PERFORATED PIPE.
- (12) COST OF RUBBER BONDING CEMENT AND ELASTOMERIC BEARING PADS TO BE INCLUDED IN UNIT PRICE BID FOR CLASS "A" CONCRETE.

PIN NO.: 100340.00
 DESIGN BY: BENESCH DATE: 03/2026
 DRAWN BY: B. BOSELY DATE: 03/2026
 SUPERVISED BY: C. WANSON/A. HARRIS DATE: 03/2026
 CHECKED BY: K. LEWIS DATE: 03/2026



PROJECT NO.	YEAR	SHEET NO.	
STP-NH-4(6)	2026		
REVISIONS			
NO.	DATE	BY	BRIEF DESCRIPTION
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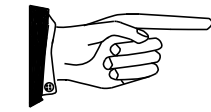
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BRIDGE NO. 3 (TEMP.)
 STATE OF TENNESSEE
 DEPARTMENT OF TRANSPORTATION
ESTIMATED BRIDGE QUANTITIES
WIDENING OF STATE ROUTE 4 OVER
BURLINGTON-NORTHERN RR
BRIDGE ID NO. 79SR0040010
STATION 236+55.00
LOG MILE 4.13
SHELBY COUNTY

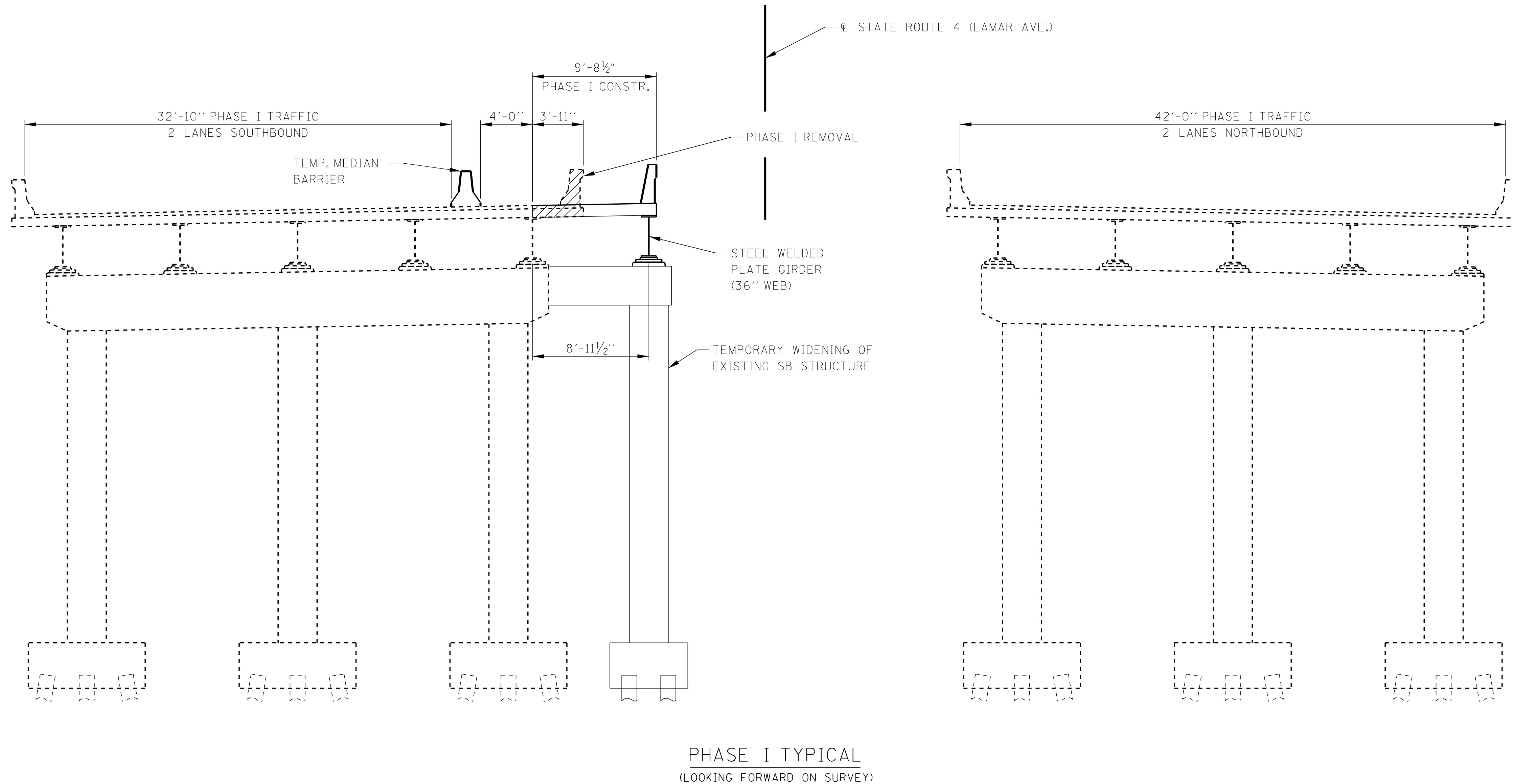
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STP-NH-4(6)	2026		
REVISIONS			
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PHASE I:

1. NB TRAFFIC ON EXISTING NB STRUCTURE.
2. SB TRAFFIC ON EXISTING SB STRUCTURE SHIFTED TO OUTSIDE.
3. REMOVE INSIDE CANTILEVER EXISTING SB STRUCTURE.
4. CONSTRUCT TEMPORARY WIDENING OF EXISTING SB STRUCTURE - 1 GIRDER LINE.



SEE BRIDGE NO. 3 PLANS FOR PHASE 2, PHASE 3, AND FINAL PROPOSED BRIDGE INFORMATION.



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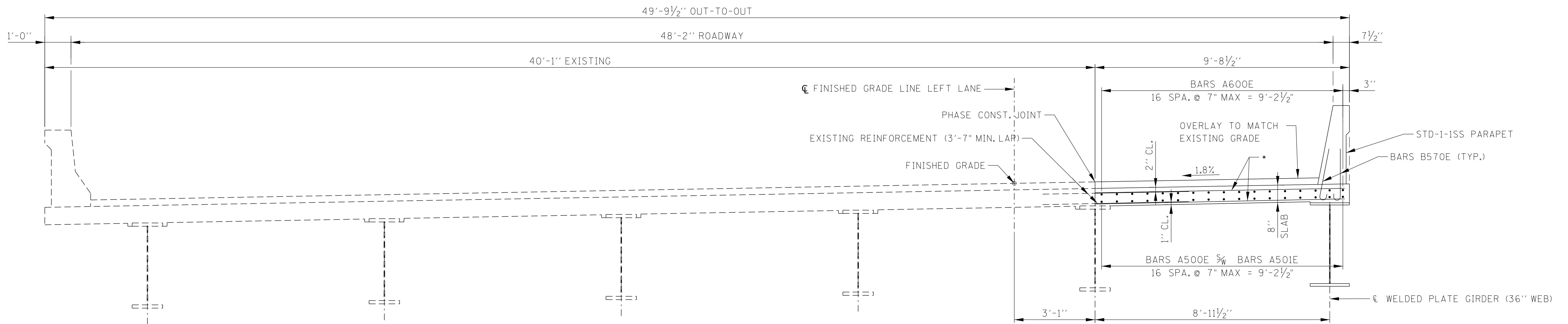
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PHASING SEQUENCE
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 LOG MILE 4.13
 SHELBY COUNTY

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 CHECKED BY: K. LEWIS DATE: 03/2026



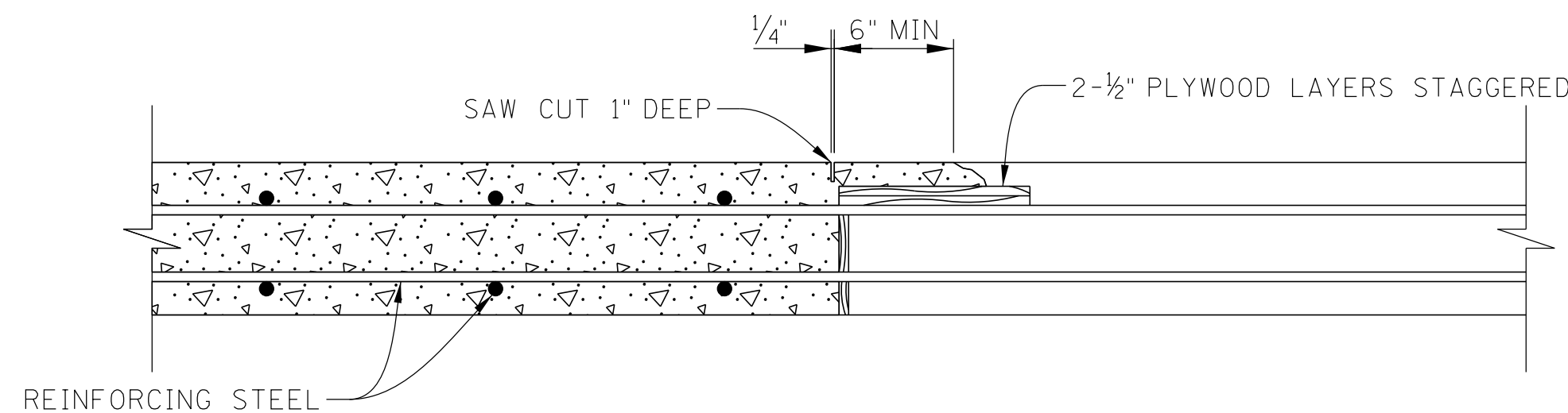
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* DENOTES: BARS A502E OR SERIES BARS A503E OR SERIES BARS A504E @ 5" C.C.

TYPICAL CROSS-SECTION
(LOOKING FORWARD ON SURVEY)



SLAB CONSTRUCTION JOINT DETAIL

NOTE: ALL DECK POURS SHALL BE MADE IN NUMERICAL SEQUENCE. THE SLAB SHALL NOT BE POURED UNTIL ALL STRUCTURAL STEEL IS ERECTED AND ALL WELDING OR BOLDING IS COMPLETE. THE CONTRACTOR SHALL MAKE ADEQUATE PROVISIONS DURING PLACEMENT OF THE SLAB TO PREVENT THE EXTERIOR BEAM FROM TWISTING. NO PORTION OF THE CURB OR PARAPET SHALL BE POURED UNTIL THE ENTIRE SLAB IS IN PLACE.

ALL SLAB CONSTRUCTIONS JOINTS SHALL BE IN ACCORDANCE WITH THE SLAB CONSTRUCTION JOINT DETAIL SHOWN ABOVE.

IDENTITY OF MAIN MATERIALS: SEE SECTION 602 OF THE STANDARD SPECIFICATIONS.

APPROVAL OF MATERIALS: NO FABRICATION SHALL BE STARTED UNTIL THE MATERIALS INVOLVED HAVE BEEN APPROVED BY THE TENNESSEE DEPARTMENT OF TRANSPORTATION, DIVISION OF MATERIALS AND TESTS.

STRUCTURAL STEEL: SHALL CONFORM TO ASTM A709 GRADE 50W UNLESS OTHERWISE NOTED. ALL STRUCTURAL STEEL FOR GIRDER FLANGES IN TENSION AND ALL WEBS SHALL MEET THE SUPPLEMENTAL REQUIREMENTS FOR LONGITUDINAL CHARPY V-NOTCH TESTS SPECIFIED IN ASTM SPECIFICATIONS. ZONE 2 OF NON-FRACTURE CRITICAL CRITERIA SHALL APPLY.

WELDING: ANSI/AASHTO/AWS D1.5-CURRENT EDITION BRIDGE WELDING CODE AND SECTION 602 OF THE STANDARD SPECIFICATIONS.

FIELD CONNECTIONS: SHALL BE 1" Ø HIGH TENSILE STRENGTH BOLTS ASTM F3125 GRADE A325 UNLESS OTHERWISE SHOWN. SEE AASHTO LRFD BRIDGE CONSTRUCTION SPECIFICATIONS ART. 11.3.2 AND SECTION 602 OF THE STANDARD SPECIFICATIONS.

ADDITIONAL SHOP SPLICE NOTE: SHOP SPLICES NECESSARY DUE TO LENGTHS OR SIZE OF MATERIAL INVOLVED MAY BE ADDED BY THE FABRICATOR SUBJECT TO APPROVAL BY THE ENGINEER AND SHALL BE AT NO ADDITIONAL COST TO THE PROJECT.

ADDITIONAL FIELD SPLICE NOTE: FIELD SPLICES NECESSARY DUE TO LENGTHS INVOLVED MAY BE ADDED BY THE FABRICATOR SUBJECT TO APPROVAL BY THE ENGINEER AND SHALL BE AT NO ADDITIONAL COST TO THE PROJECT.

STEEL BEAM DESIGN DATA (PER BEAM):
COMPOSITE DEAD LOAD: DC = 0.157 LB/FT/BEAM
DW = 0 LB/FT/BEAM
COMPOSITE SLAB DESIGN STRENGTH: F'C = 4000 PSI

*** NOTE: NEW BRIDGE DECK CONSTRUCTION SHALL MATCH THE EXISTING DECK CROSS-SLOPE. THE CONTRACTOR SHALL VERIFY THE EXISTING CROSS-SLOPE AT THE BRIDGE SITE.

NOTE: WHEN REMOVING CONCRETE IN EXISTING SLAB THE CONTRACTOR SHALL TAKE CARE TO AVOID DAMAGE TO REINFORCING BARS IN EXISTING SLAB. EXISTING PROJECTING BARS SHALL BE THOROUGHLY CLEANED PRIOR TO SPLICING WITH NEW STEEL.

NOTE: NO PORTION OF THE PARAPET SHALL BE POURED UNTIL THE ENTIRE DECK SLAB IS IN PLACE.

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 DRAWING NO. STD-1-1SS.

NOTE: THE CONCRETE DECK SHALL NOT BE POURED UNTIL ALL STRUCTURAL STEEL IS ERECTED AND ALL WELDING AND/OR BOLTING COMPLETE.

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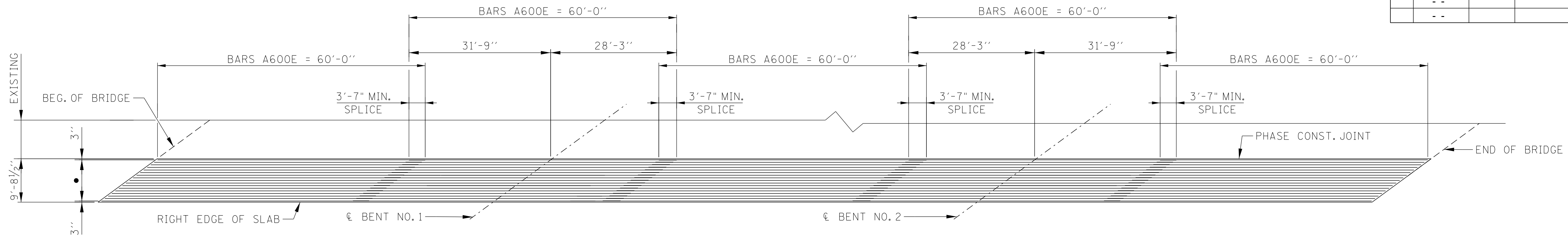
BRIDGE NO. 3 (TEMP.)

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
SUPERSTRUCTURE
WIDENING OF STATE ROUTE 4 OVER
BURLINGTON-NORTHERN RR
BRIDGE ID NO. 79SR0040010
STATION 236+55.00
LOG MILE 4.13
SHELBY COUNTY

PIN NO.: 100340.00
DESIGN BY: C. WANSON DATE: 03/2026
DRAWN BY: C. WANSON DATE: 03/2026
SUPERVISED BY: A. HARRIS DATE: 03/2026
CHECKED BY: K. LEWIS DATE: 03/2026

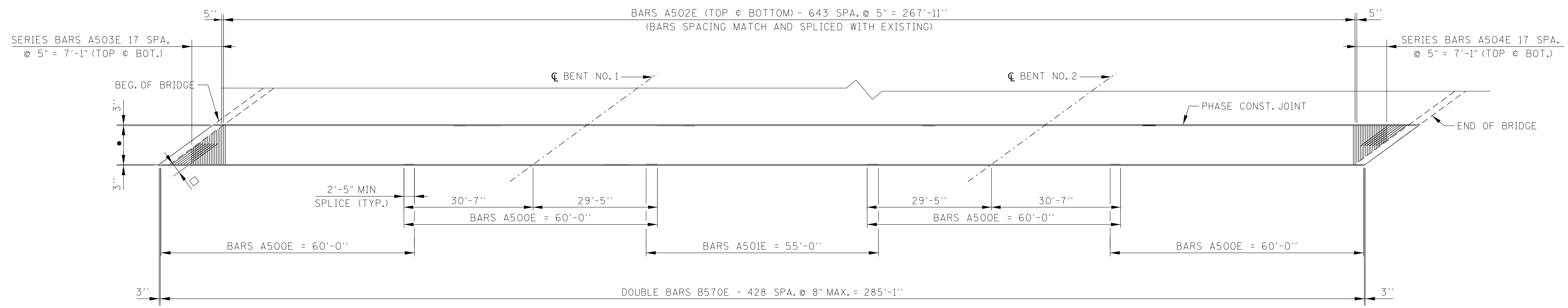


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REVISIONS			
NO.	DATE	BY	BRIEF DESCRIPTION
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PLAN OF MAIN REINFORCEMENT
(SHOWING TOP LONGITUDINAL STEEL)

• DENOTES: SEE TYPICAL CROSS-SECTION FOR BAR SPACING AND DIMENSIONS FOR PHASE I CONSTRUCTION.

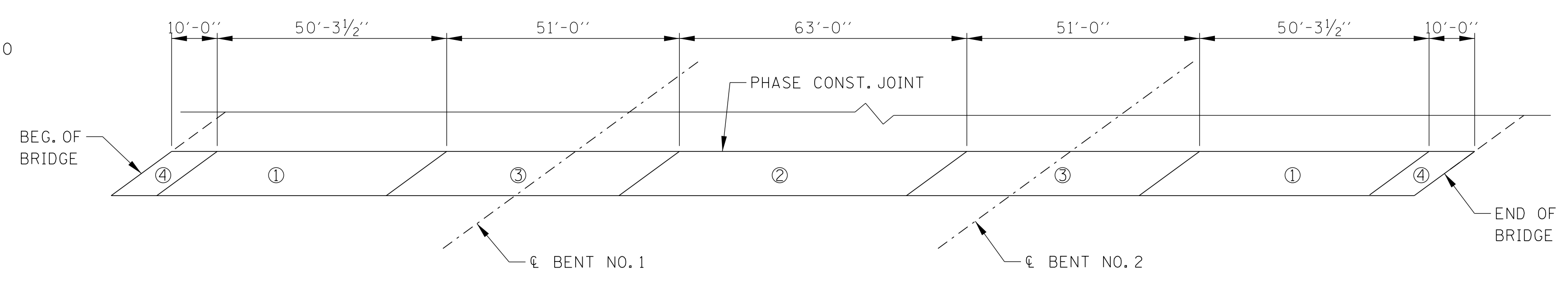


SLAB PLAN

(SHOWING BOTTOM LONGITUDINAL AND TRANSVERSE STEEL)

□ DENOTES: 7 BARS A505E SPA. @ 5" (TYP. ALL ACUTE CORNERS) (TOP & BOTTOM)
• DENOTES: SEE TYPICAL CROSS-SECTION FOR BAR SPACING AND DIMENSIONS FOR PHASE I CONSTRUCTION.

NOTE: WHEN REMOVING CONCRETE IN EXISTING SLAB THE CONTRACTOR SHALL TAKE CARE TO AVOID DAMAGE TO REINFORCING BARS IN EXISTING SLAB. EXISTING PROJECTING BARS SHALL BE THOROUGHLY CLEANED PRIOR TO SPLICING WITH NEW STEEL.



POURING SEQUENCE

NOTE: ALL SLAB POURS SHALL BE MADE IN NUMERICAL SEQUENCE.

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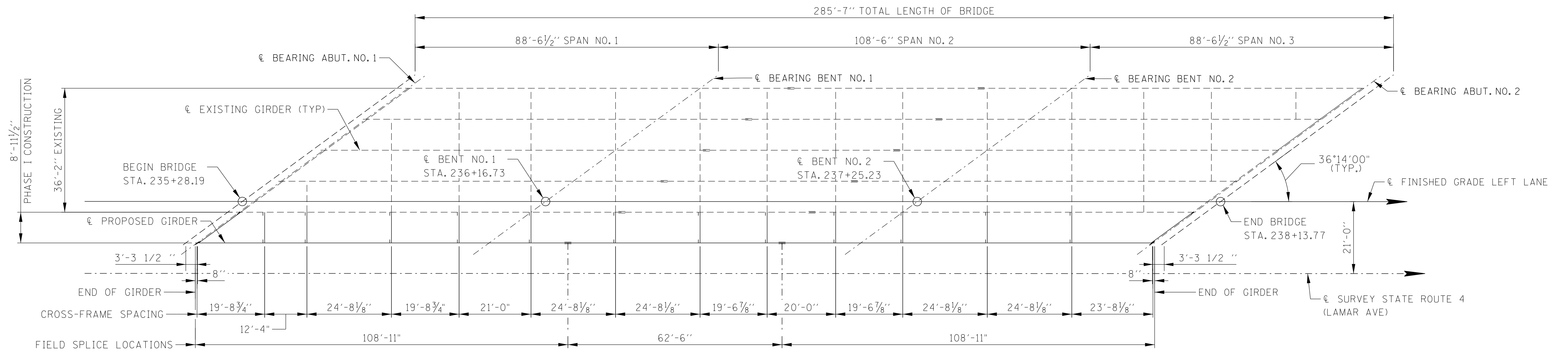
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STATE OF TENNESSEE
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WIDENING OF STATE ROUTE 4 OVER
BURLINGTON-NORTHERN RR
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LOG MILE 4.13
SHELBY COUNTY

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DESIGN BY: C. WANSON DATE: 03/2026
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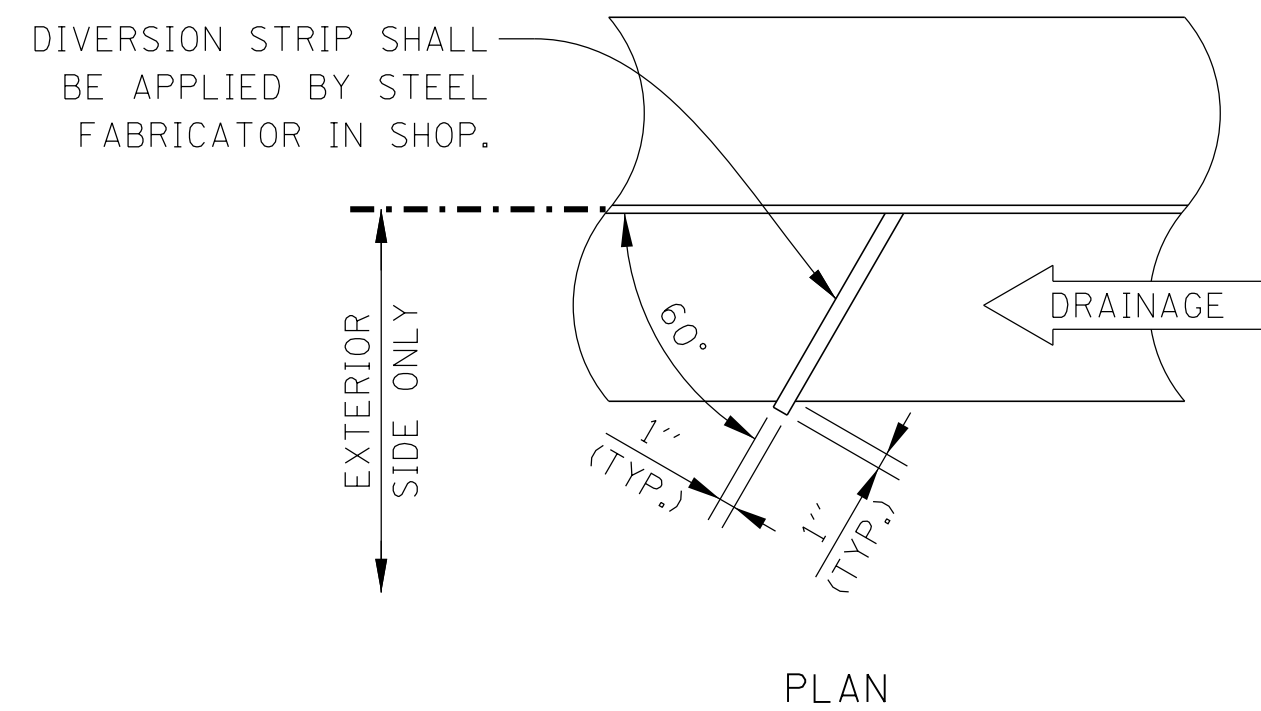
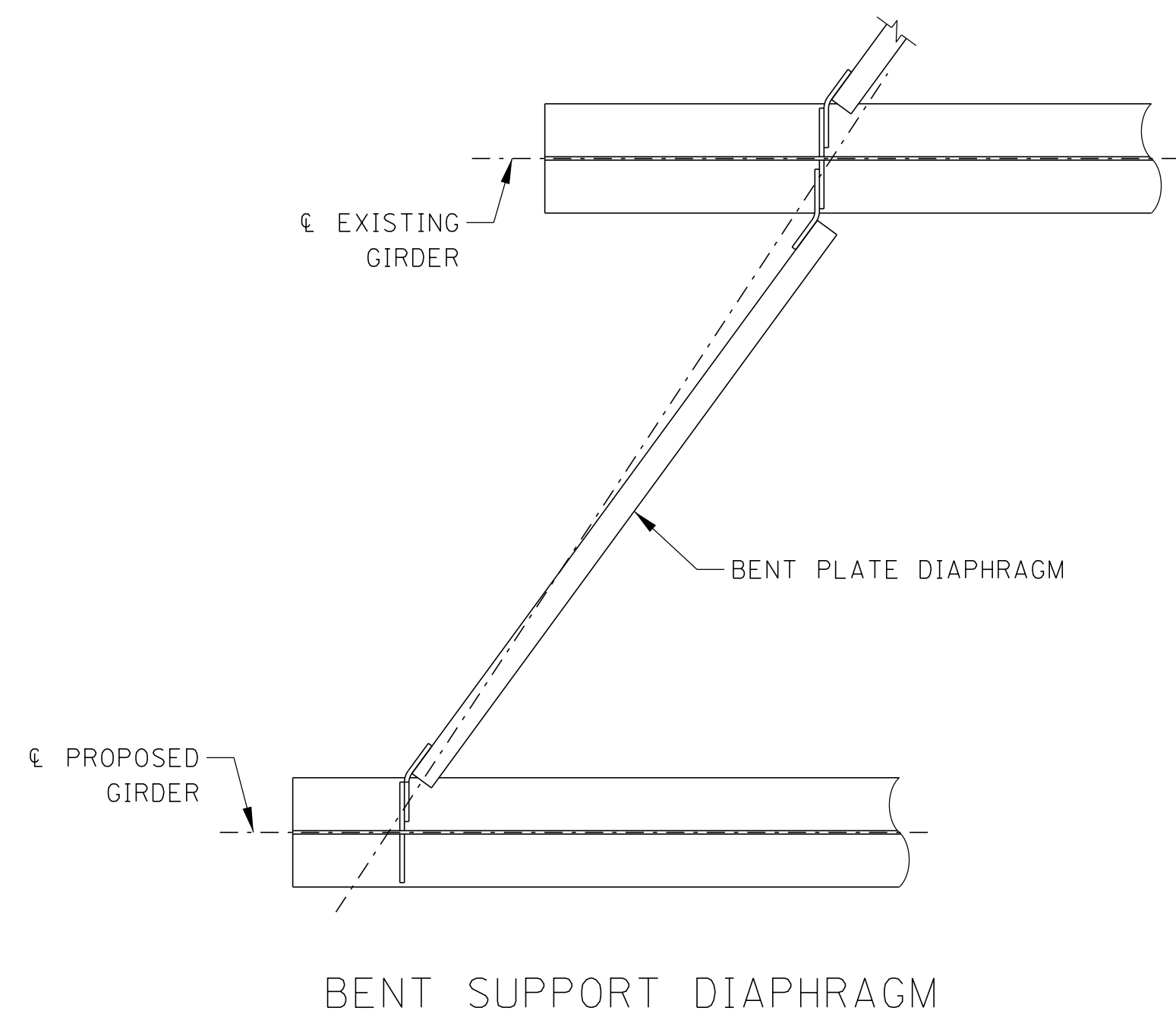


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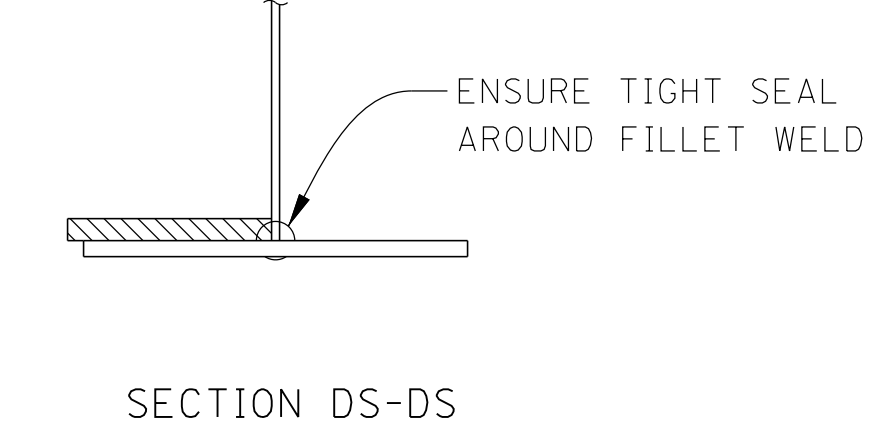
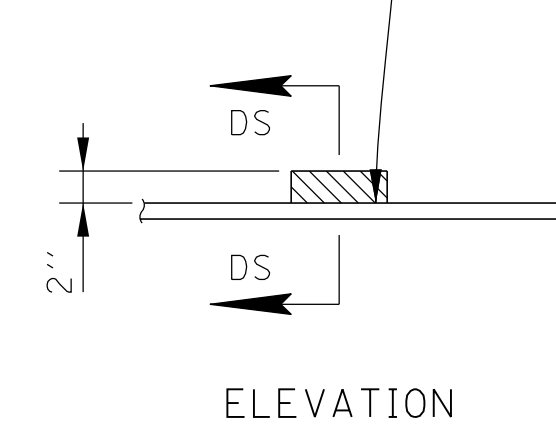
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FRAMING PLAN



BOND NEOPRENE STRIP TO GIRDER FLANGE AND WEB USING COLD VULCANIZING CEMENT REMA SC-2000 OR EQUIVALENT. SURFACE PREP AND APPLICATION SHALL BE PER MANUFACTURER'S RECOMMENDATION.



DIVERSION STRIP DETAILS

NOTE: NEOPRENE DIVERSION STRIPS SHALL BE LOCATED ON THE EXTERIOR SIDE OF THE WEB OF THE EXTERIOR GIRDERS ONLY. THE STRIPS SHALL BE PLACED NEAR THE LOW END OF ALL SPANS. THE STRIPS SHALL BE LOCATED FIVE (5'-0") FEET FROM THE GIRDER END OR FROM THE CENTERLINE OF THE BENT FOR GIRDERS CONTINUOUS OVER A BENT AND SHALL BE SLOPED TOWARD THE END OF THE GIRDER AS SHOWN IN PLAN VIEW.

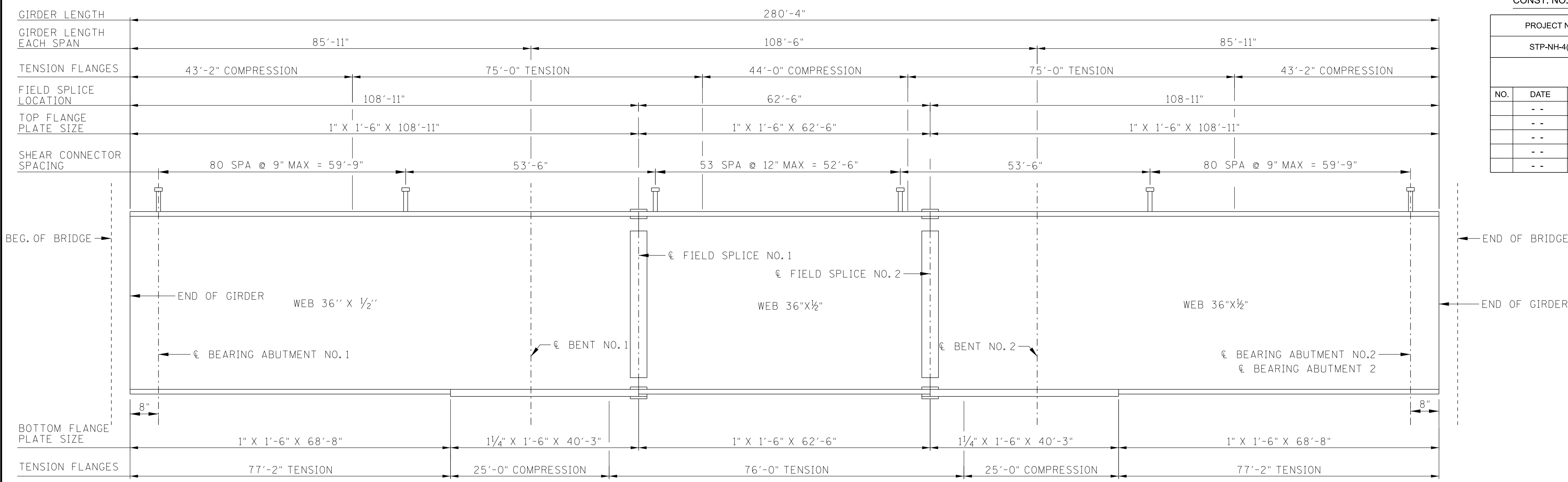
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BRIDGE NO. 3 (TEMP.)
 STATE OF TENNESSEE
 DEPARTMENT OF TRANSPORTATION
FRAMING PLAN
 WIDENING OF STATE ROUTE 4 OVER
 BURLINGTON-NORTHERN RR
 BRIDGE ID NO. 79SR0040010
 STATION 236+55.00
 LOG MILE 4.13
 SHELBY COUNTY

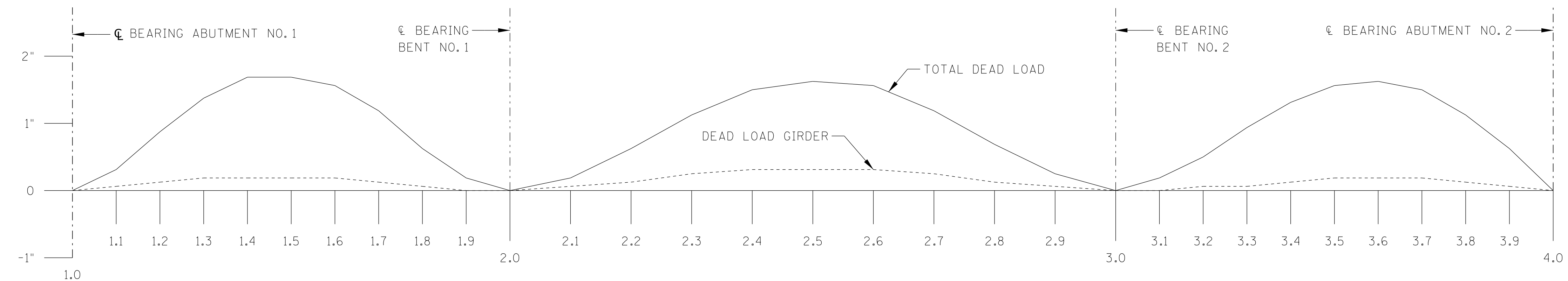
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 CHECKED BY: K. LEWIS DATE: 03/2026



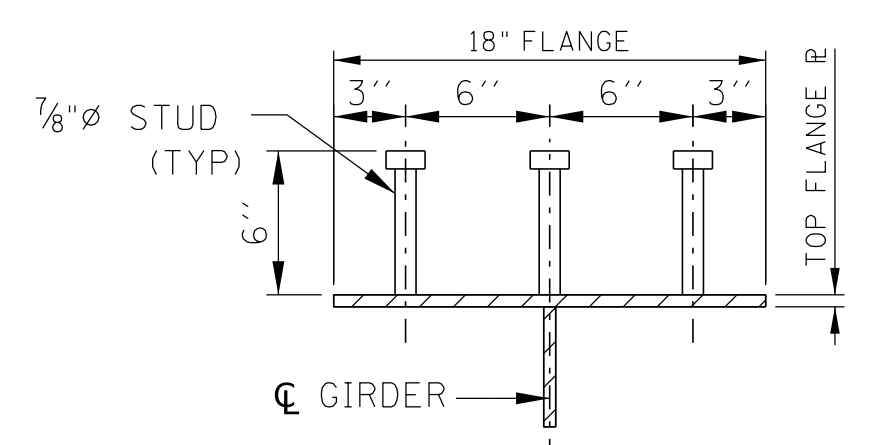
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REVISIONS			
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GIRDER ELEVATION



SPAN POINT	1.0	1.1	1.2	1.3	1.4	1.5	1.6	1.7	1.8	1.9	2.0	2.1	2.2	2.3	2.4	2.5	2.6	2.7	2.8	2.9	3.0	3.1	3.2	3.3	3.4	3.5	3.6	3.7	3.8	3.9	4.0											
DEAD LOAD GIRDER	0"	1/16"	1/8"	3/16"	3/16"	3/16"	3/16"	1/8"	1/16"	0"	0"	1/16"	1/8"	1/4"	5/16"	5/16"	5/16"	1/4"	1/8"	1/16"	0"	0"	1/16"	1/16"	1/8"	3/16"	3/16"	1/8"	1/16"	0"	0"	1/16"	1/16"	1/8"	1/16"	1/16"	1/8"	1/16"	1/16"	1/8"	1/16"	0"
DEAD LOAD SLAB	0"	1/4"	3/4"	1 1/16"	1 5/16"	1 3/8"	1 1/4"	5/16"	1/2"	3/8"	0"	1/16"	3/8"	3/4"	1"	1 1/8"	1 1/16"	13/16"	7/16"	1/8"	0"	1/8"	7/16"	13/16"	5/16"	1 1/8"	1 5/16"	1 3/16"	15/16"	1/2"	0"											
DEAD LOAD BARRIER	0"	0"	1/16"	1/8"	1/8"	1/8"	1/8"	1/16"	1/16"	0"	0"	1/16"	1/16"	1/8"	3/16"	3/16"	3/16"	3/16"	1/8"	1/16"	0"	0"	0"	1/16"	1/16"	1/8"	1/8"	1/8"	1/16"	1/16"	0"											
TOTAL DEAD LOAD	0"	5/16"	7/8"	1 3/8"	1 11/16"	1 11/16"	1 9/16"	1 3/16"	5/8"	3/16"	0"	3/16"	5/8"	1 1/8"	1 1/2"	1 5/8"	1 9/16"	1 3/16"	11/16"	1/4"	0"	3/16"	1/2"	15/16"	1 5/16"	1 9/16"	1 5/8"	1 1/2"	1 1/8"	5/8"	0"											



SHEAR CONNECTOR DETAILS

NOTE: SHEAR CONNECTOR MATERIAL SHALL BE COLD-DRAWN ASTM A108 GRADE 1015, 1018, OR 1020, EITHER SEMI OR FULLY KILLED, AND HAVE SPECIFIED MINIMUM YIELD AND TENSILE STRENGTHS OF 50 KSI AND 60 KSI, RESPECTIVELY.

DEAD LOAD CORRECTION CURVE

NOTE: GIRDERS SHALL BE CAMBERED TO COMPENSATE FOR DEAD LOAD DEFLECTION AND VERTICAL CURVE.

STRAIGHT GIRDER TRANSVERSE BRACING: STRAIGHT GIRDER TRANSVERSE BRACING (INCLUDING CLOSURE BRACING), SHALL BE FABRICATED FOR TOTAL CAMBER MINUS BEAM SELF WEIGHT CAMBER.

GIRDER ERECTION: GIRDERS MAY HAVE TO BE CRANE LIFTED, JACKED, NEEDLE BEAMED, ETC TO ACHIEVE PROPER CROSS-SLOPE AND HOLE ALIGNMENT DURING TRANSVERSE BRACING INSTALLATION. THE CONTRACTOR WILL NOT BE ALLOWED TO REAM HOLES UNTIL 50% OF THE HOLES IN THE PATTERN AT THAT LOCATION ARE FILLED WITH BOLTS OF PLAN SPECIFIED SIZE. ALL TRANSVERSE BRACING SHALL BE IN PLACE AND ALL BOLTS TENSIONED TO THE PLANS SPECIFIED VALUES PRIOR TO THE SLAB POUR IN THAT PHASE. ALL COSTS OF TRANSVERSE BRACING INSTALLATION TO BE INCLUDED IN THE LUMP SUM COST OF STEEL STRUCTURES.

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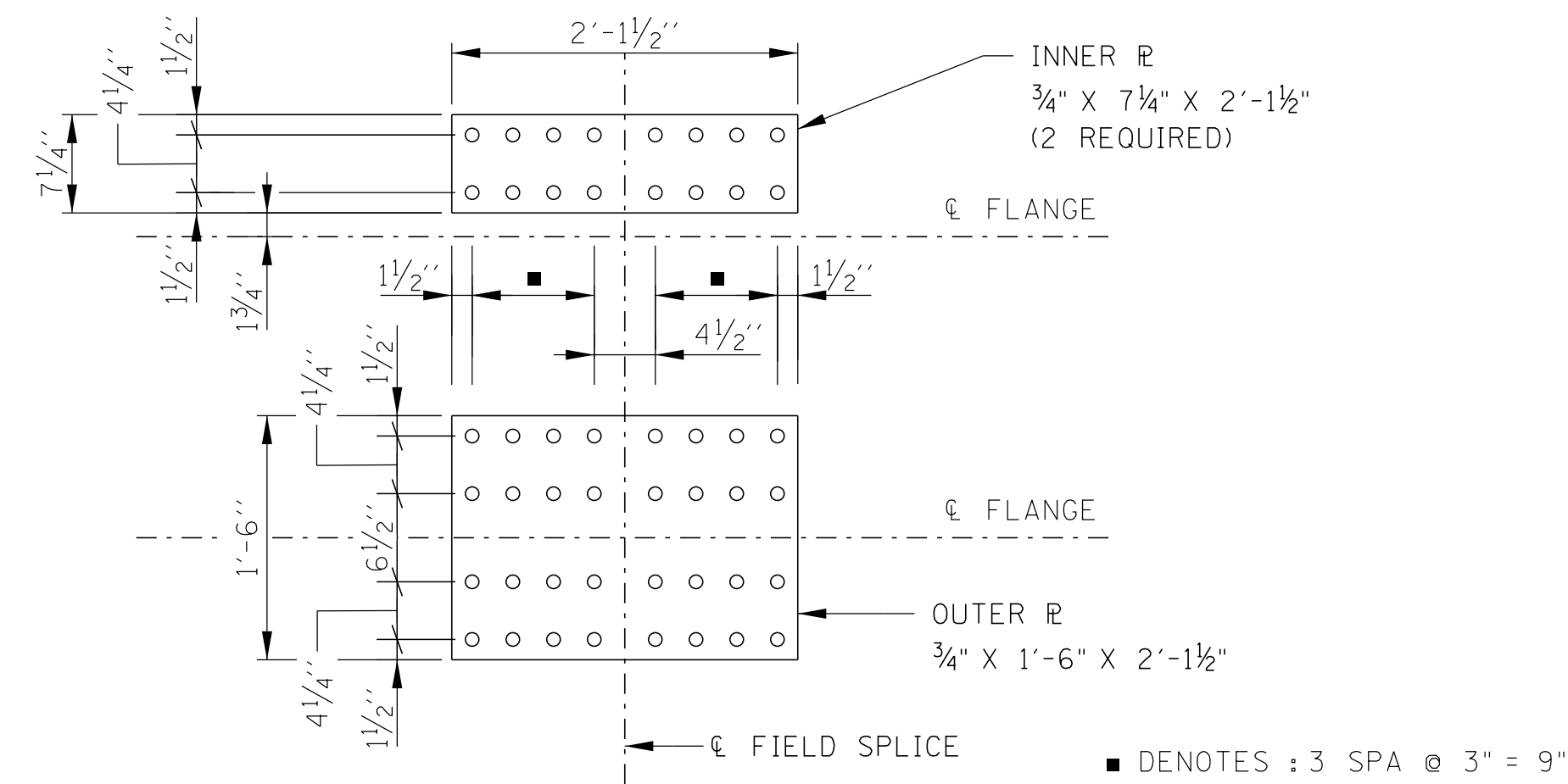
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 STATE OF TENNESSEE
 DEPARTMENT OF TRANSPORTATION
STRUCTURAL STEEL DETAILS
 WIDENING OF STATE ROUTE 4 OVER
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 LOG MILE 4.13
 SHELBY COUNTY

PIN NO.: 100340.00
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 DRAWN BY: A. FLEMING DATE: 03/2026
 SUPERVISED BY: C. WANSON/A. HARRIS DATE: 03/2026
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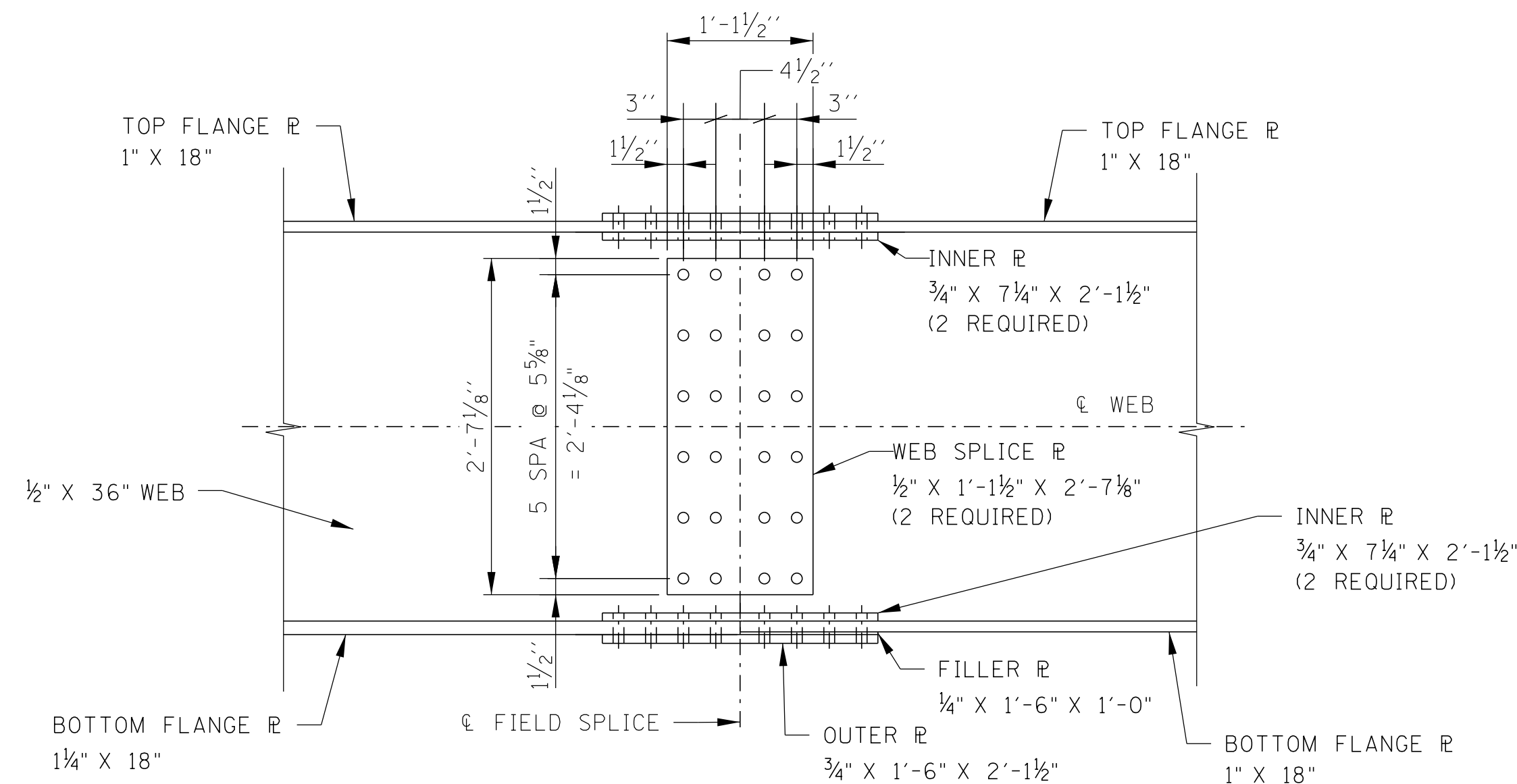


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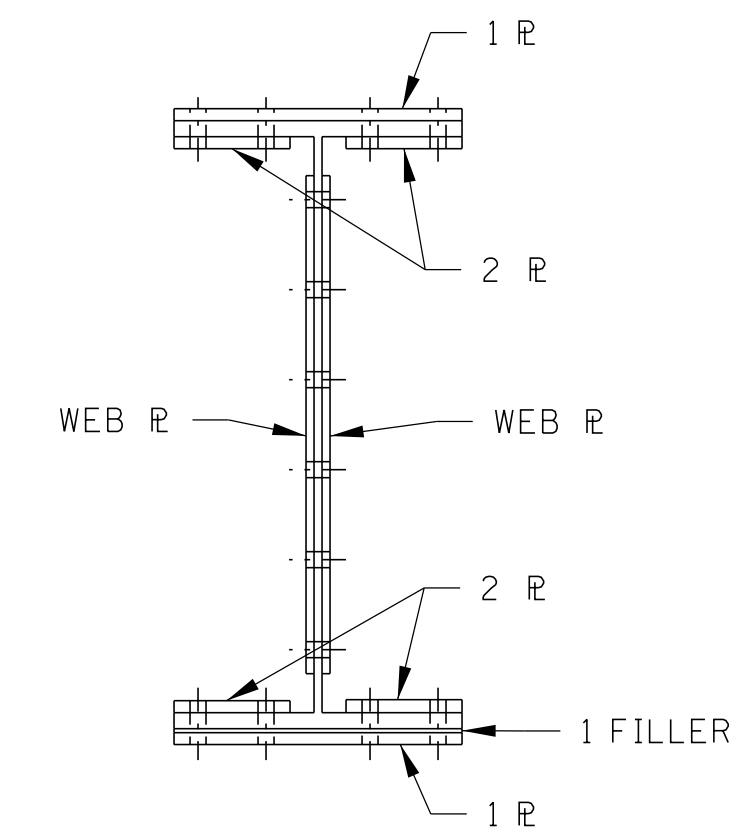
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PLAN OF TOP FLANGE SPLICE



WEB SPLICE PLATE ELEVATION
(SPLICE NO.1 SHOWN - SPLICE NO.2 SIMILAR)



TYPICAL SECTION

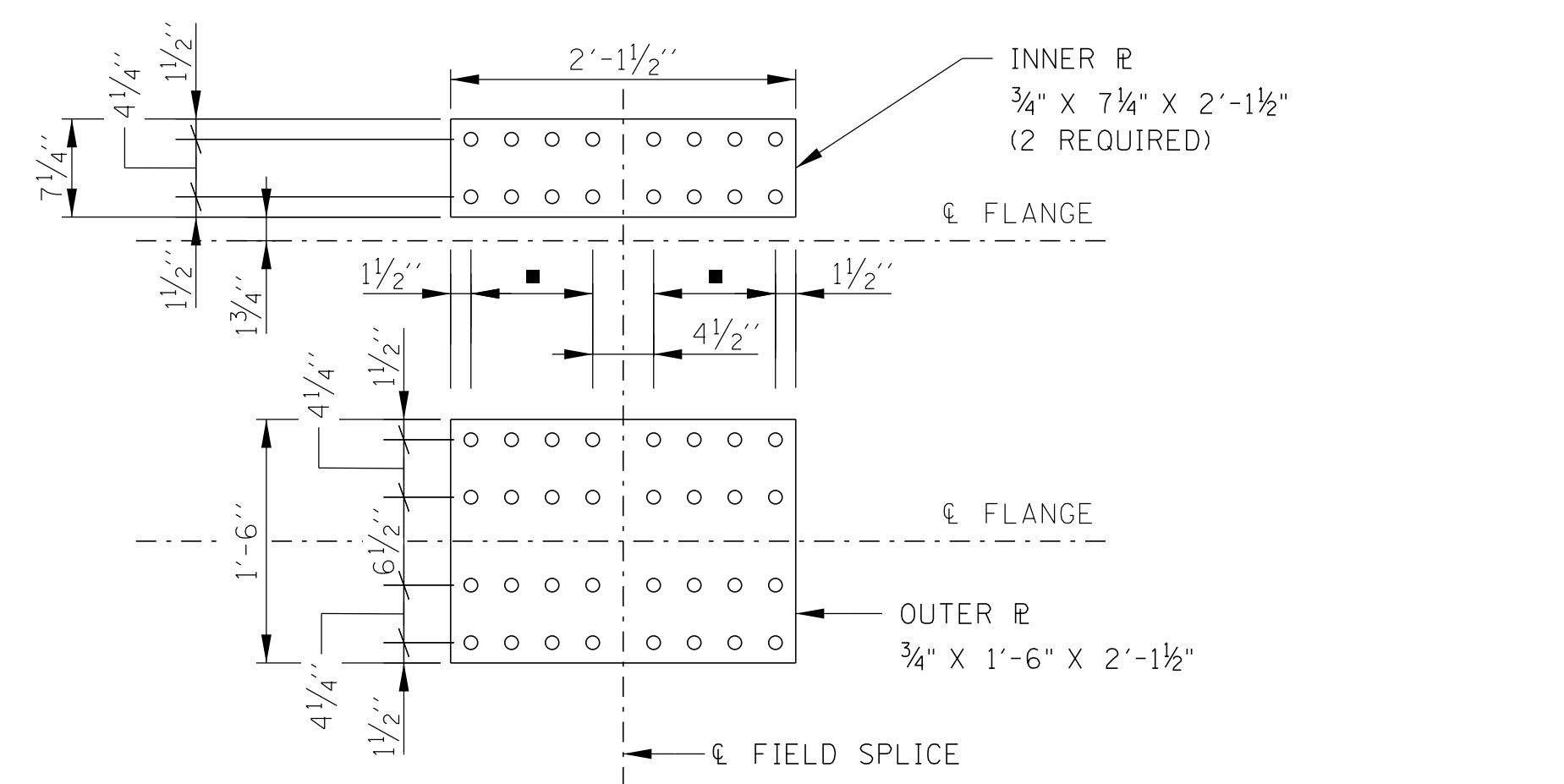
NOTE TO FABRICATOR: BOLT LENGTHS MUST EXCLUDE THREADS FROM ALL SHEAR PLANES.

NOTE: DESIGN BASED ON BLAST CLEANED UNFINISHED SURFACES (CLASS "B").

NOTE: FOR FIELD SPLICE LOCATIONS SEE "FRAMING PLAN" ON SHEET U-102-280 AND "GIRDER ELEVATION" ON SHEET U-102-281.

NOTE: ALL HOLES STANDARD SIZE FOR 1" BOLTS.

NOTE: ALL BOLTS TO BE 1" Ø ASTM F3125 GRADE 325 TYPE 3.



PLAN OF BOTTOM FLANGE SPLICE

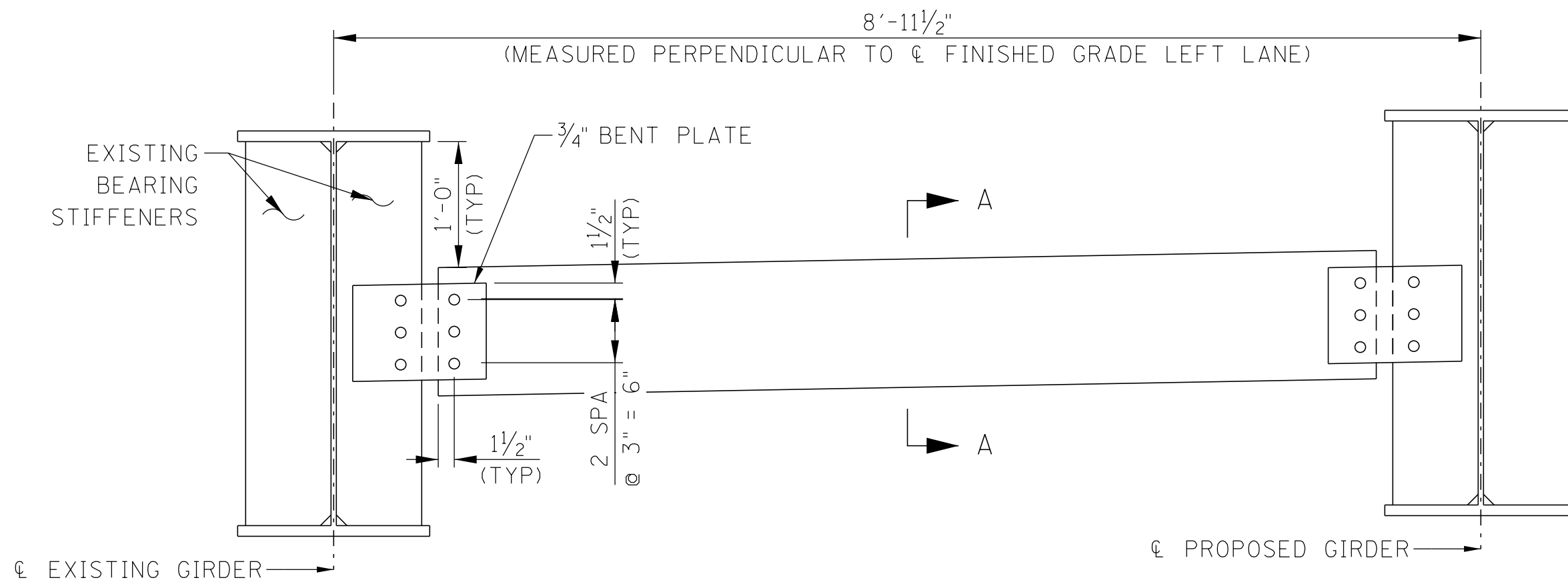
SEALED BY

BRIDGE NO. 3 (TEMP.)
STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
STRUCTURAL STEEL DETAILS
WIDENING OF STATE ROUTE 4 OVER
BURLINGTON-NORTHERN RR
BRIDGE ID NO. 79SR0040010
STATION 236+55.00
LOG MILE 4.13
SHELBY COUNTY

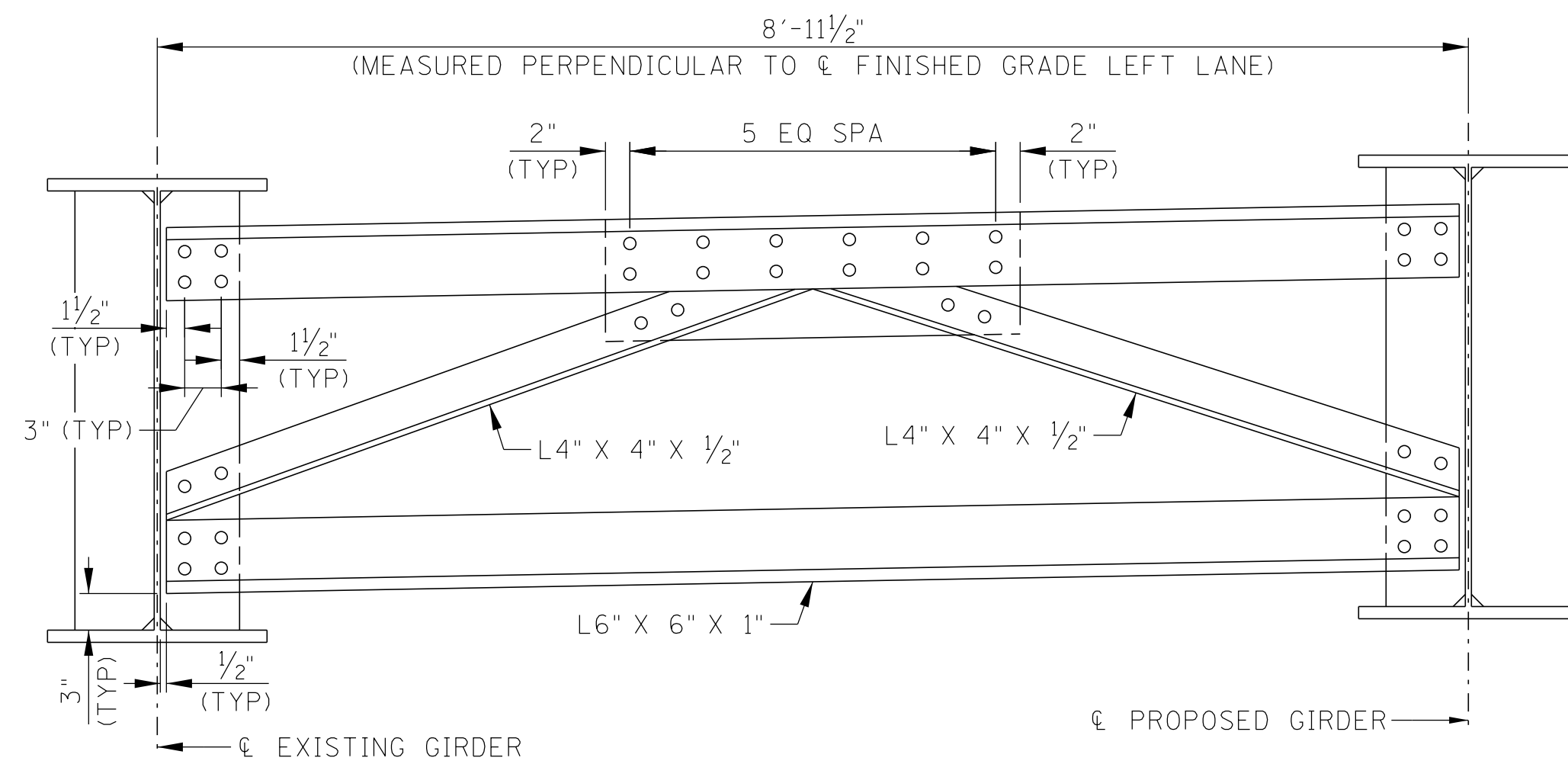
PIN NO.: 100340.00
DESIGN BY: C. WANSON DATE: 03/2026
DRAWN BY: C. WANSON DATE: 03/2026
SUPERVISED BY: A. HARRIS DATE: 03/2026
CHECKED BY: K. LEWIS DATE: 03/2026



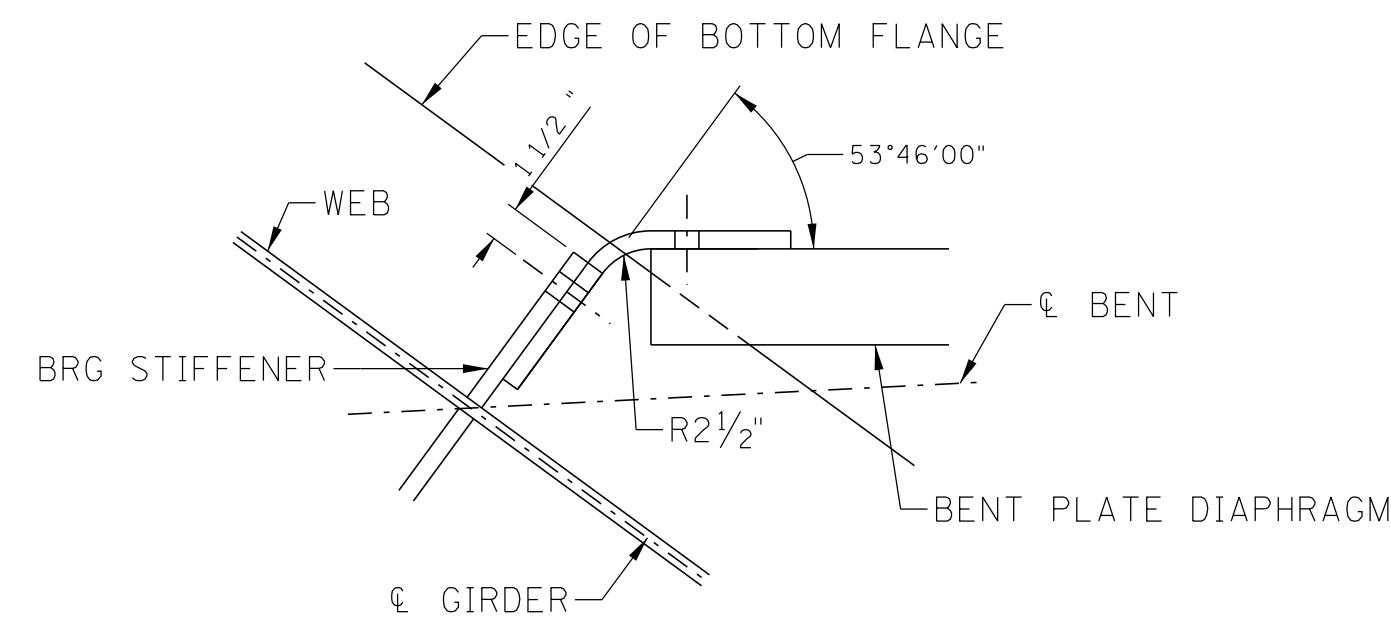
PROJECT NO.	YEAR	SHEET NO.	
STP-NH-4(6)	2026		
REVISIONS			
NO.	DATE	BY	BRIEF DESCRIPTION
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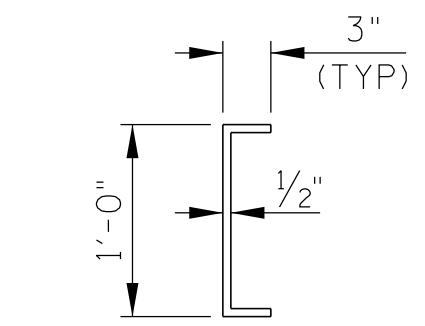
ABUTMENT CROSS-FRAME DETAIL



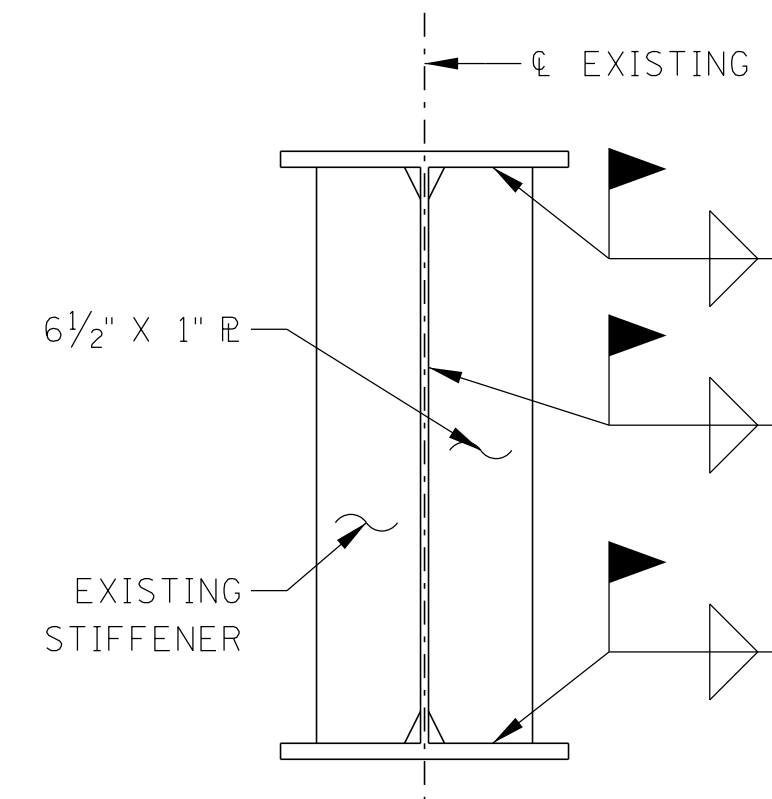
INTERMEDIATE CROSS-FRAME DETAIL



BENT CONNECTION PLATE DETAIL

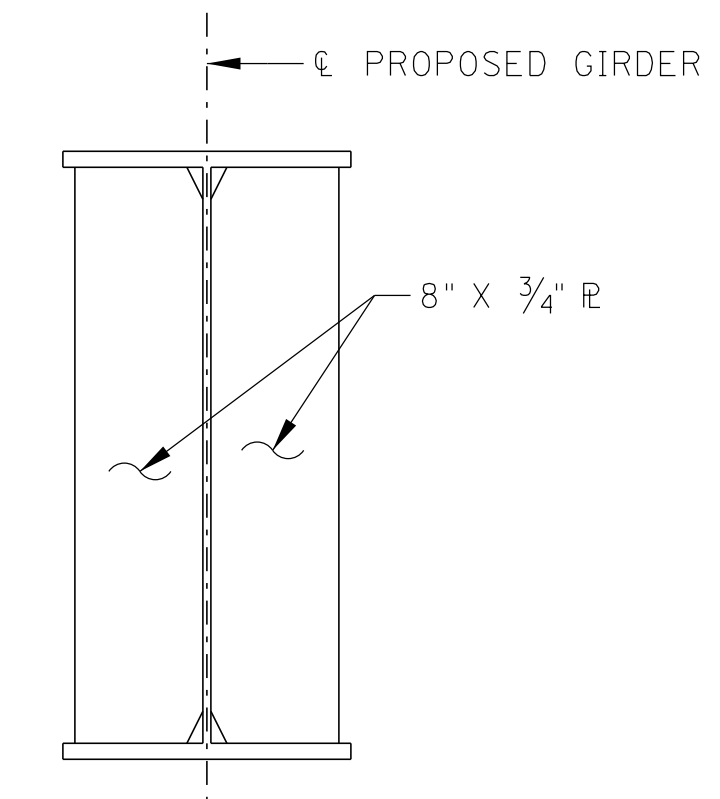


SECTION A-A



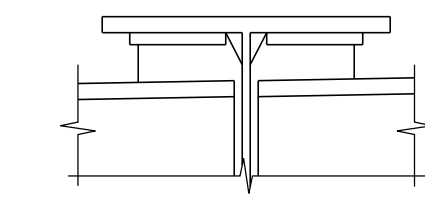
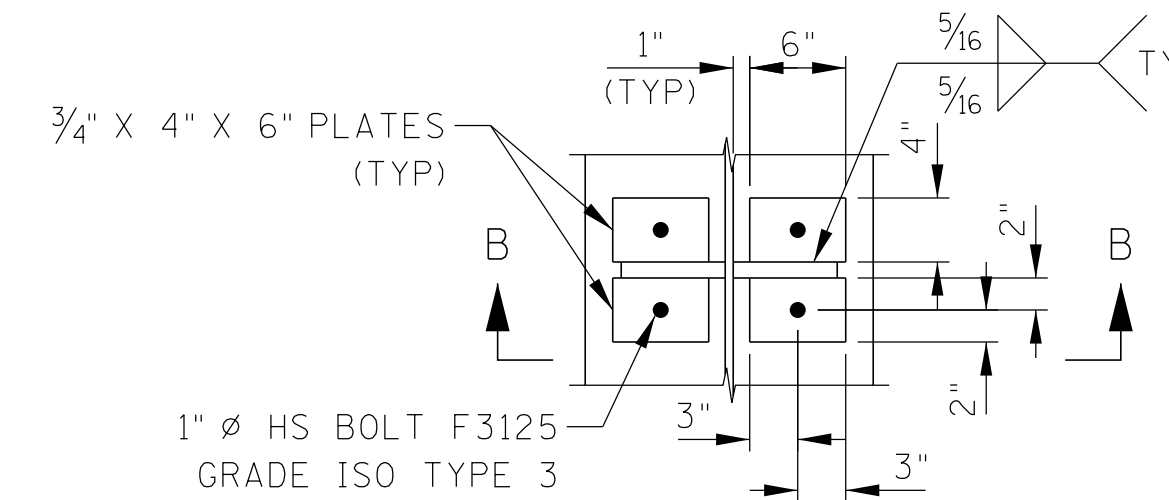
CONNECTION STIFFENER

(TYP @ CROSS-FRAMES)



BEARING STIFFENER

(TYP @ ABUTMENTS)



SECTION B-B

TAB CONNECTION PLATE DETAILS

NOTE: TAB CONNECTION PLATE YIELD STRENGTH SHALL MATCH STIFFENER YIELD STRENGTH. TAB CONNECTION PLATE SIZE AND LOCATION SHALL BE AS SHOWN REGARDLESS OF STIFFENER WIDTH.
 NOTE: TAB CONNECTION PLATES ARE REQUIRED AT THE TOP AND BOTTOM FLANGES AT ALL CROSS-FRAME LOCATIONS ON THE PROPOSED GIRDER EXCEPT AT THE BOTTOM FLANGE AT BEARING STIFFENERS.
 NOTE: 1"Ø - ASTM F3125 GRADE A325 BOLTS TO BE TENSIONED TO AASHTO SPECIFICATION FOR SLIP-CRITICAL CONNECTION PRIOR TO TAB-TO-STIFFENER WELD.
 NOTE: WEB STIFFENER SHALL BE TIGHT FIT AGAINST FLANGE WITHIN AWS D1.5 FABRICATION TOLERANCE.

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BRIDGE NO. 3 (TEMP.)
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STRUCTURAL STEEL DETAILS
WIDENING OF STATE ROUTE 4 OVER
BURLINGTON-NORTHERN RR
BRIDGE ID NO. 79SR0040010
STATION 236+55.00
LOG MILE 4.13
SHELBY COUNTY

PIN NO.: 100340.00
 DESIGN BY: C. WANSON DATE: 03/2026
 DRAWN BY: C. WANSON DATE: 03/2026
 SUPERVISED BY: A. HARRIS DATE: 03/2026
 CHECKED BY: K. LEWIS DATE: 03/2026



PROJECT NO.	YEAR	SHEET NO.	
STP-NH-4(6)	2026		
REVISIONS			
NO.	DATE	BY	BRIEF DESCRIPTION
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NOTES:

WHEN POURING ABUTMENT BEAM, PROVISIONS SHALL BE MADE FOR SETTING ANCHOR BOLTS. PROJECTION 3 1/2".

RISER BLOCKS SHALL BE POURED MONOLITHICALLY WITH ABUTMENT BEAM.

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

ELASTOMERIC BEARING 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.

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

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

THE CONTRACTOR SHALL OFFSET ANY REINFORCEMENT NECESSARY TO MAINTAIN A 2" CLEARANCE TO PHASE CONSTRUCTION JOINT.

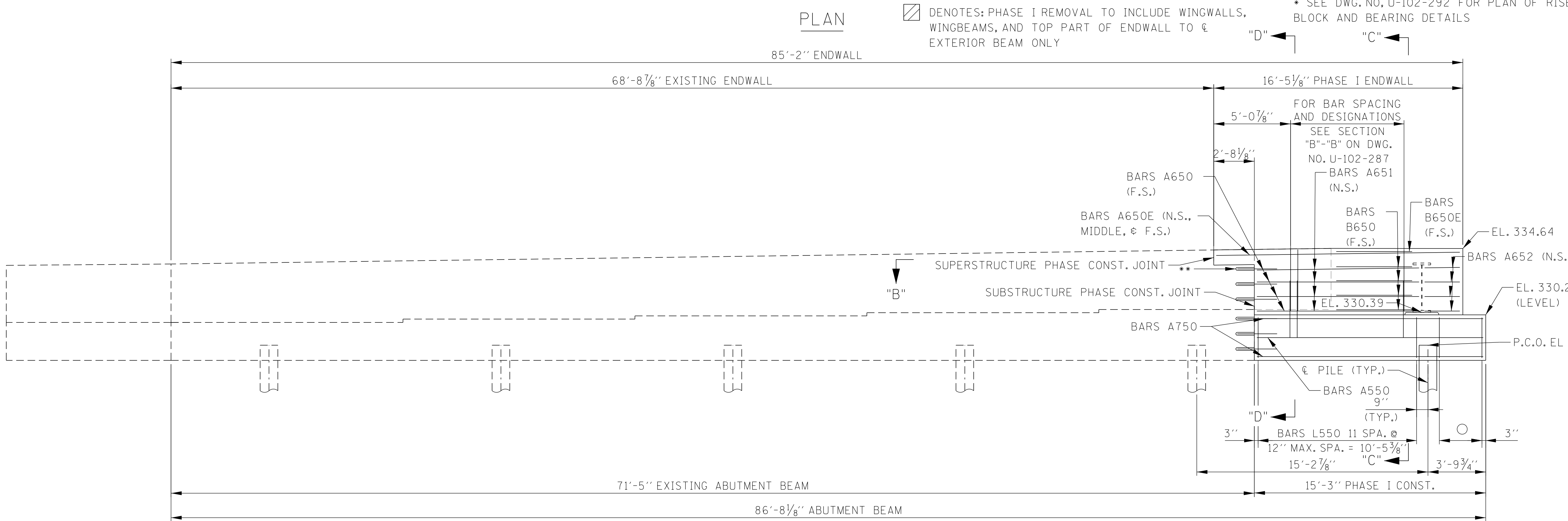
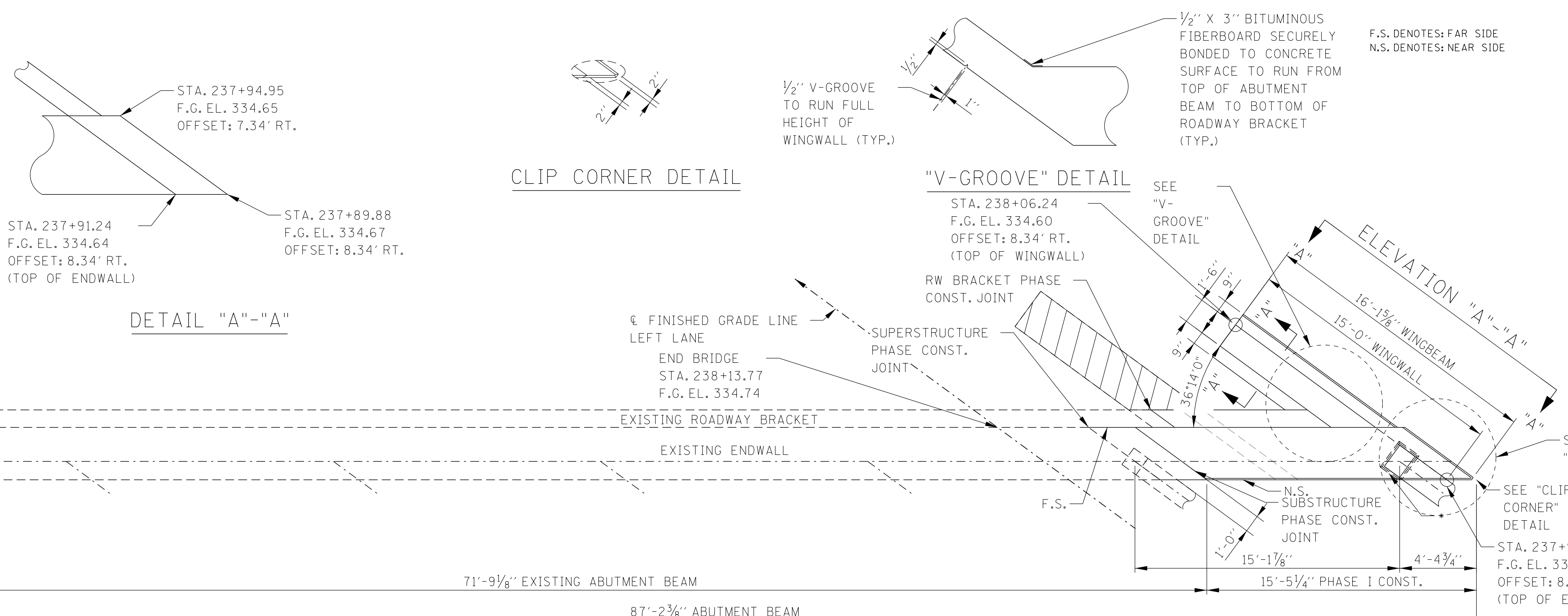
SEE STANDARD DRAWING STD-6-1 FOR PILE DETAILS AND NOTES.

WINGBEAM PILES SHALL BE DRIVEN TO THE PLANS TIP ELEVATION OR REFUSAL.

THE ENTIRE ABUTMENT ENDWALL SHALL BE POURED CONCURRENTLY WITH POUR NO. 4. SEE DRAWING NO. U-102-279 FOR DETAILS.

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BRIDGE NO. 3 (TEMP.)
 STATE OF TENNESSEE
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ABUTMENT NO. 2
WIDENING OF STATE ROUTE 4 OVER
BURLINGTON-NORTHERN RR
BRIDGE ID NO. 79SR0040010
STATION 236+55.00
LOG MILE 4.13
SHELBY COUNTY



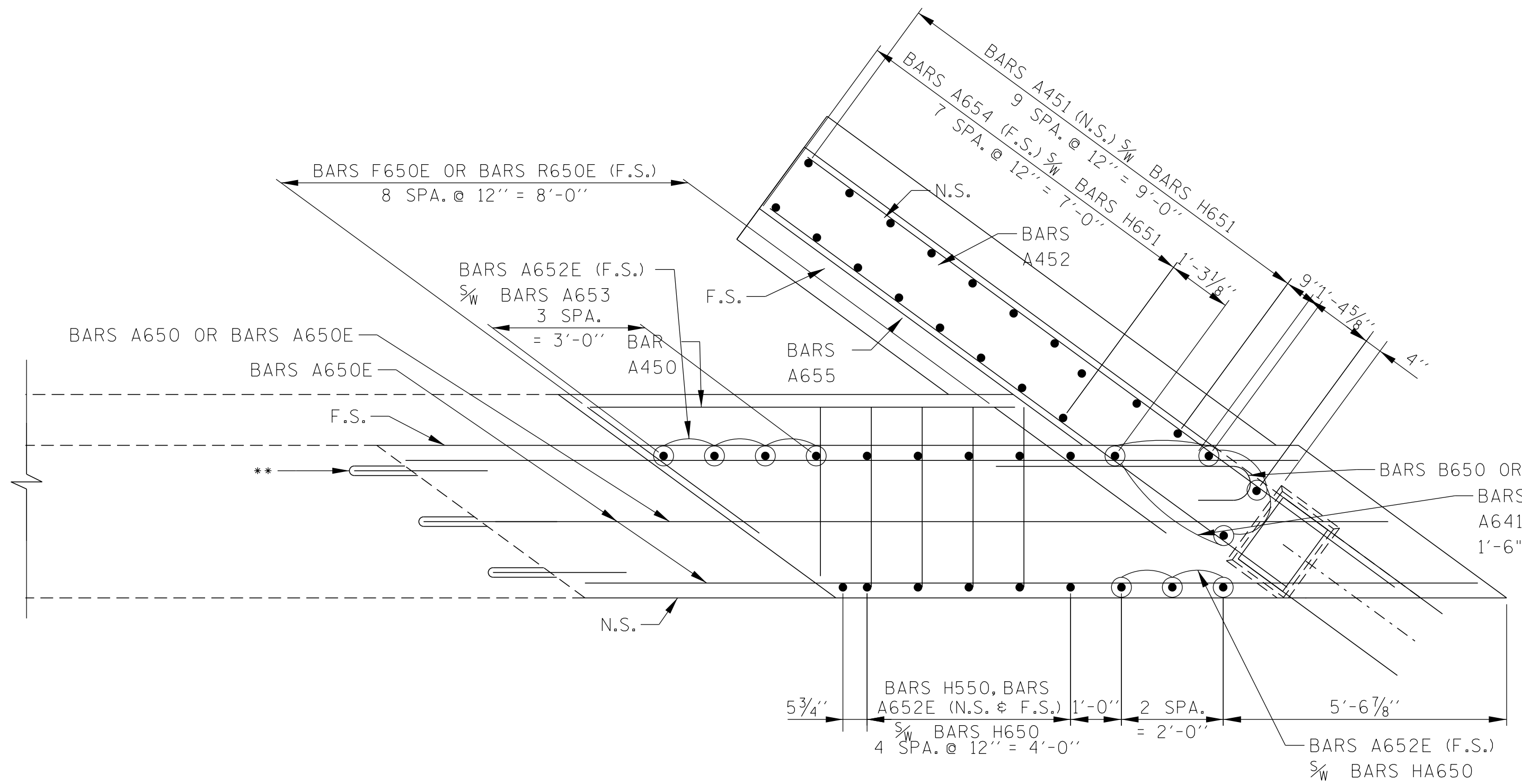
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PIN NO.: 100340.00
 DESIGN BY: BENESCH DATE: 03/2026
 DRAWN BY: R. WITHERSPOON DATE: 03/2026
 SUPERVISED BY: C. WANSON/A. HARRIS DATE: 03/2026
 CHECKED BY: K. LEWIS DATE: 03/2026



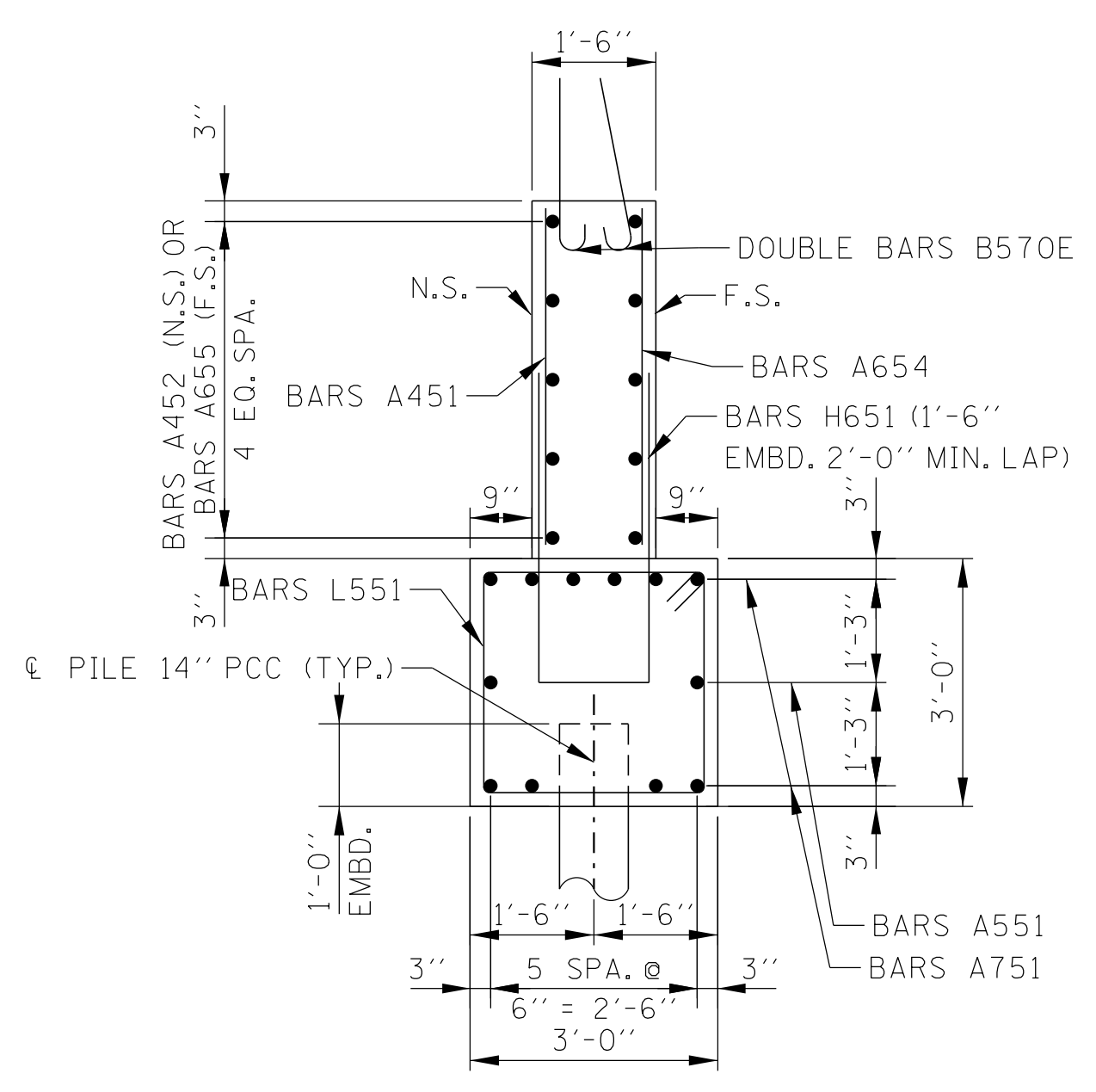
PROJECT NO.	YEAR	SHEET NO.
STP-NH-4(6)	2026	

REVISIONS			
NO.	DATE	BY	BRIEF DESCRIPTION
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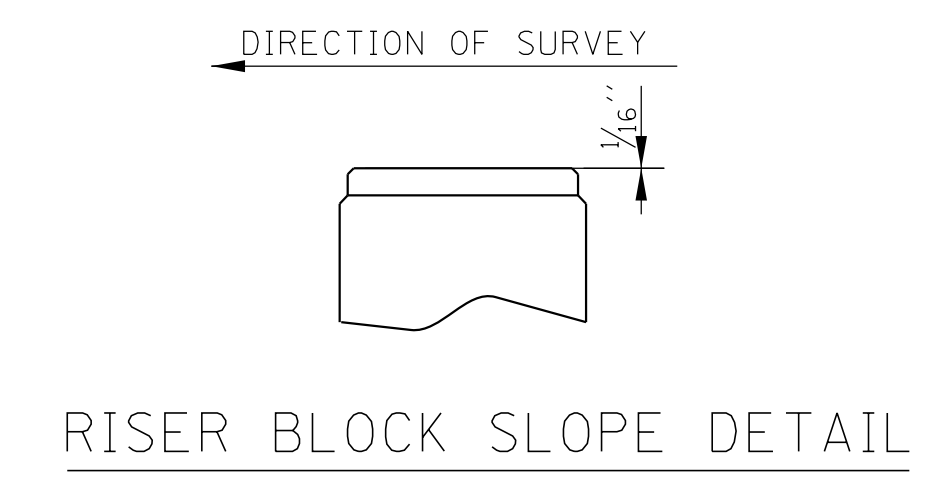


SECTION "B"-"B"

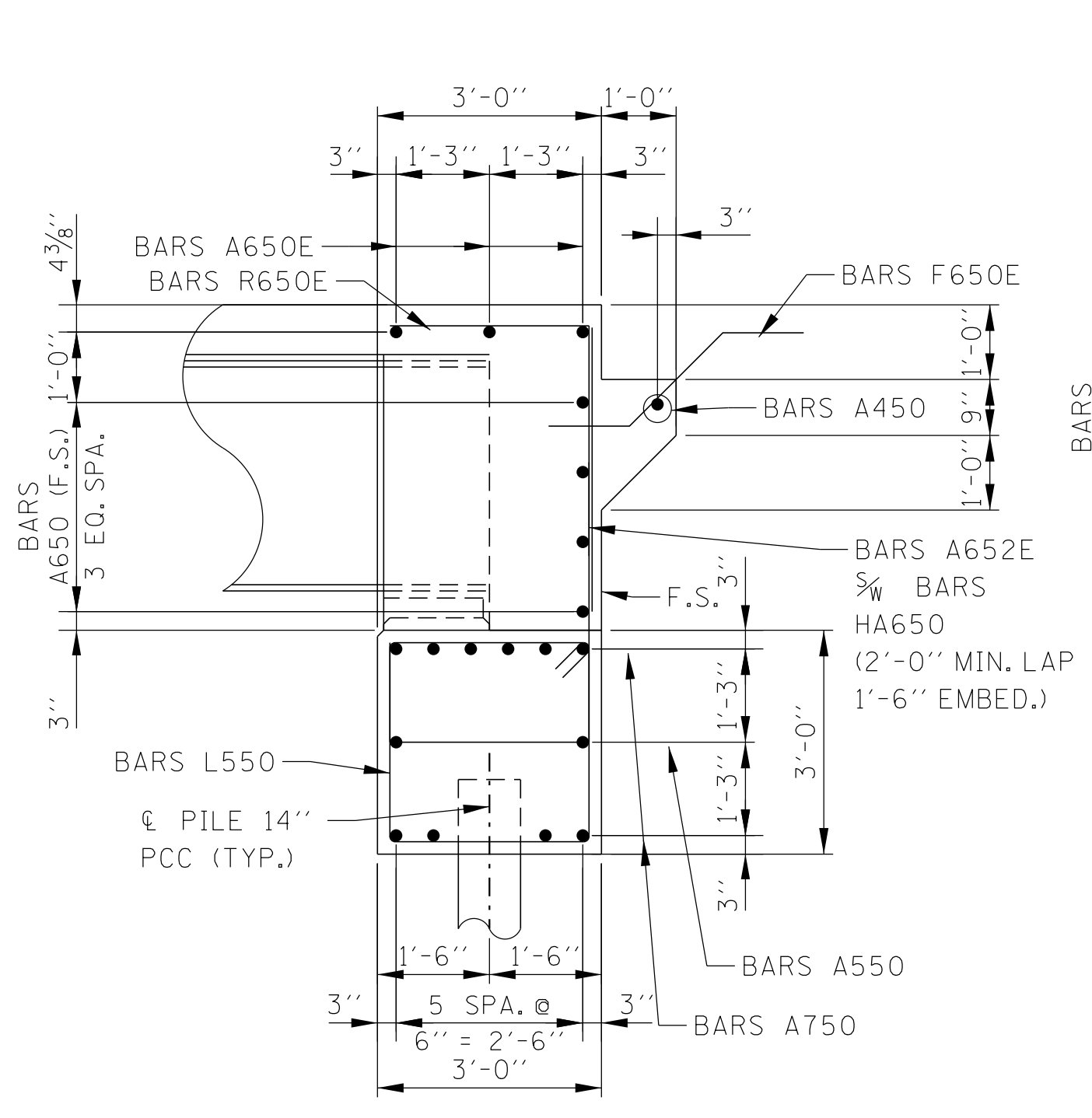
** NOTE: DOWEL BARS A840 SHALL BE DRILL & GROUTED, 1'-6" EMBD. INTO EXISTING ABUTMENT BEAM AND ENDWALL AND 1'-6" PROJ. FROM ABUTMENT BEAM AND ENDWALL WITH A TOTAL LENGTH OF 3'-0". (TYP. AT ABUT. NO. 1 & 2)



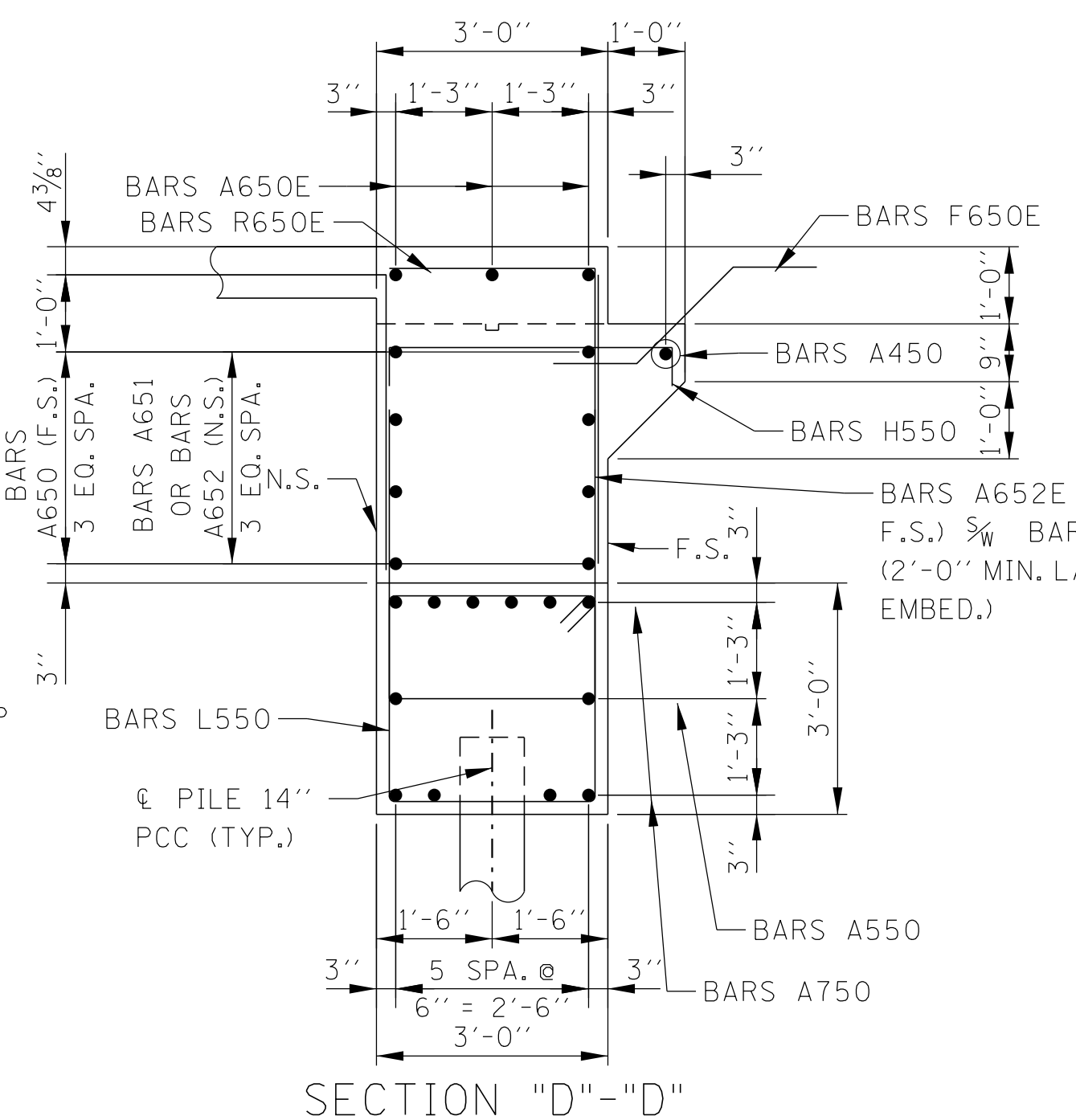
SECTION "A"-"A"



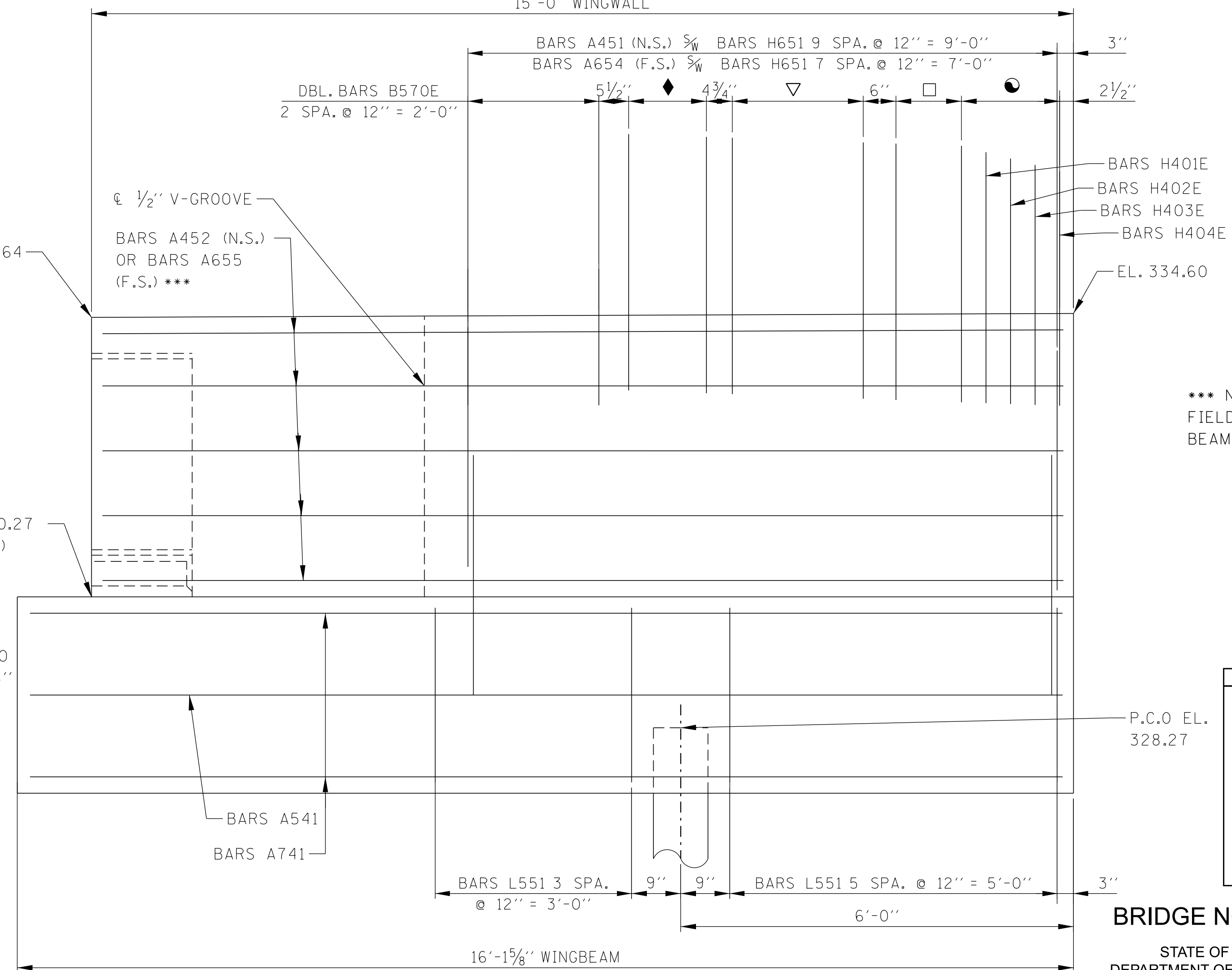
RISER BLOCK SLOPE DETAIL



SECTION "C"-"C"



SECTION "D"-"D"



ELEVATION "A"-"A"

*** NOTE: BARS TO BE CUT IN FIELD TO AVOID CONFLICT WITH BEAM

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BRIDGE NO. 3 (TEMP.)
 STATE OF TENNESSEE
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ABUTMENT NO. 2 DETAILS
WIDENING OF STATE ROUTE 4 OVER
BURLINGTON-NORTHERN RR
BRIDGE ID NO. 79SR0040010
STATION 236+55.00
LOG MILE 4.13
SHELBY COUNTY

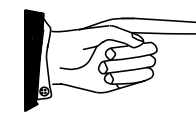
- DENOTES: BARS H40-E 4 SPA. @ 4 1/2" = 1'-6"
- DENOTES: BARS H400E 2 SPA. @ 6" = 1'-0"
- ▽ DENOTES: BARS HD401E 4 SPA. @ 6" = 2'-0"
- ◆ DENOTES: BARS HD400E 3 SPA. @ 4 3/4" = 1'-2 1/4"

3/10/2026 11:52:07 AM C:\PWORD\IR\BENESCH PROJECTS\PROJECTS\0269224\SR4 BRIDGE 2_ABUTMENT PLAN AND ELEVATION.DGN

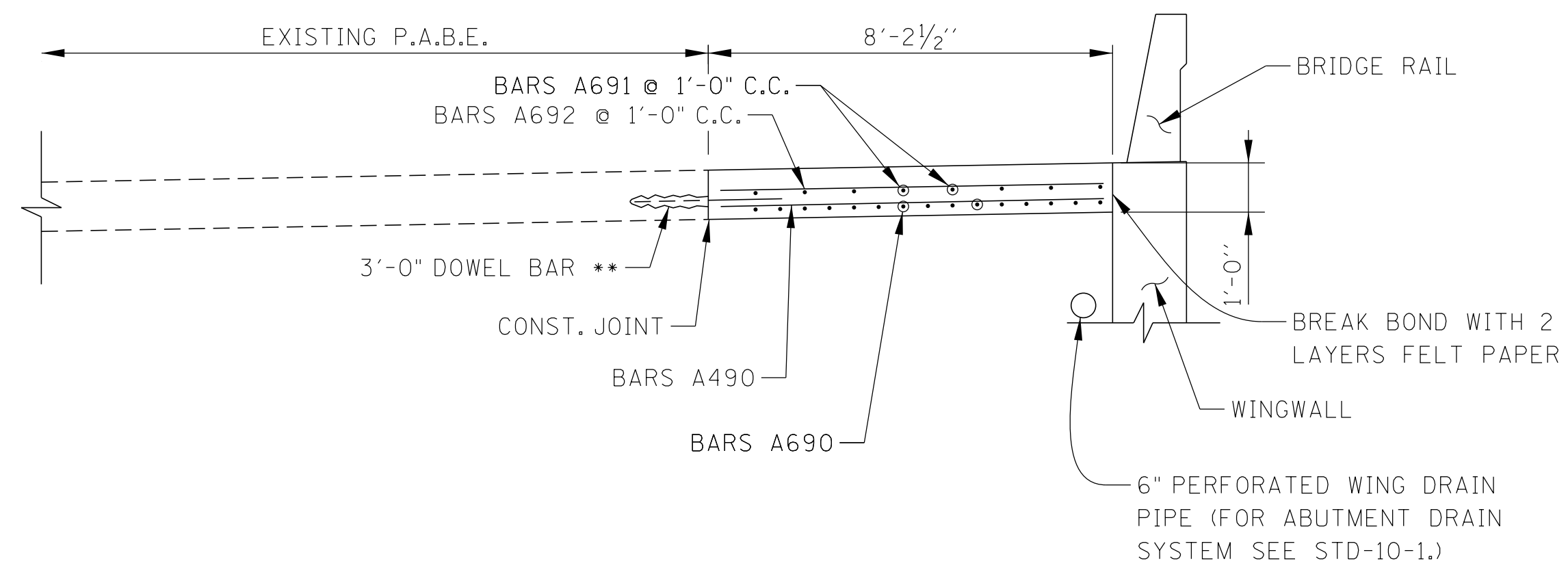
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 DRAWN BY: R. WITHERSPOON DATE: 03/2026
 SUPERVISED BY: C. WANSON/A. HARRIS DATE: 03/2026
 CHECKED BY: K. LEWIS DATE: 03/2026



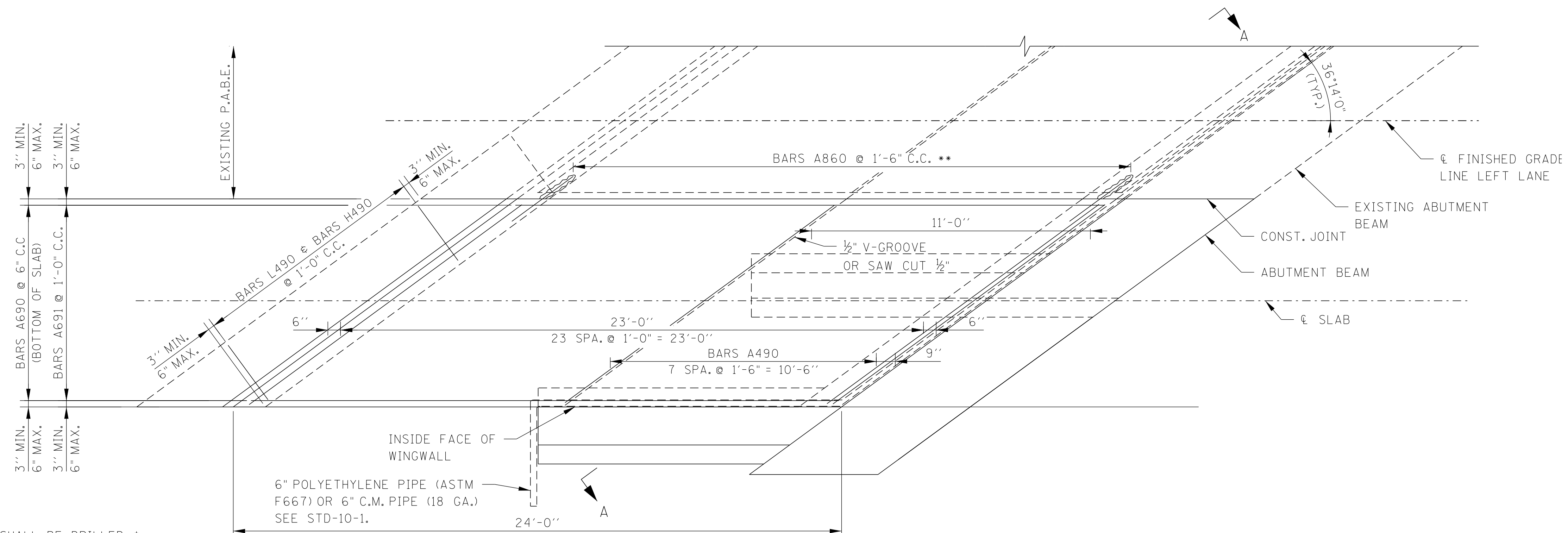
PROJECT NO.	YEAR	SHEET NO.	
STP-NH-4(6)	2026		
REVISIONS			
NO.	DATE	BY	BRIEF DESCRIPTION
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SEE STD-1-5 FOR OTHER P.A.B.E. DETAILS AND NOTES



SECTION A-A



** NOTE: DOWEL BARS A860 SHALL BE DRILLED & GROUTED, 1'-6" EMBD. INTO EXISTING P.A.B.E. AND 1'-6" PROJ. FROM P.A.B.E. WITH A TOTAL LENGTH OF 3'-0". (TYP. AT ABUT. NO. 1 & 2)

P.A.B.E. AT ABUTMENT 1
(ABUTMENT 2 SIMILAR)

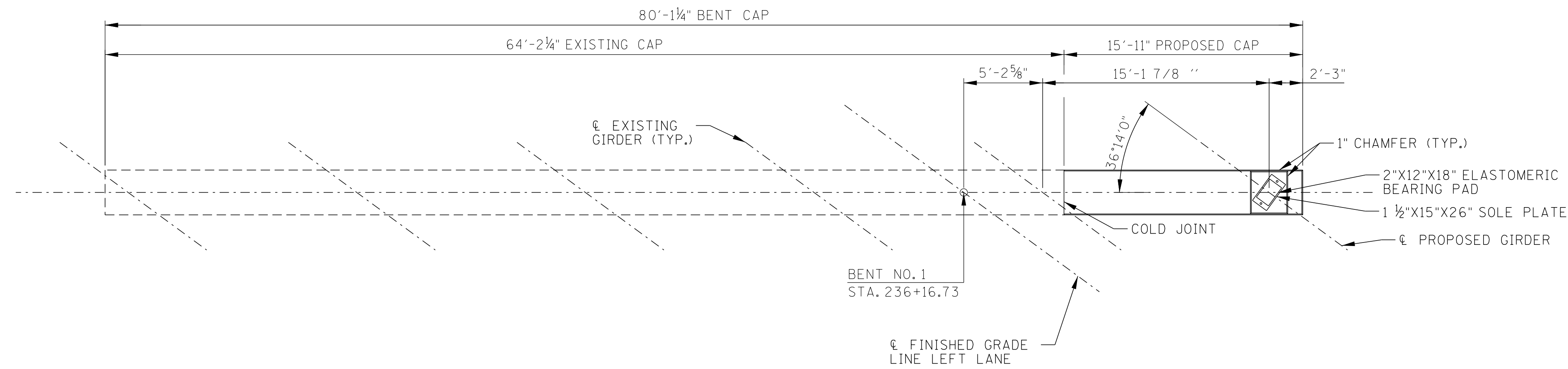
SEALED BY

BRIDGE NO. 3 (TEMP.)
 STATE OF TENNESSEE
 DEPARTMENT OF TRANSPORTATION
P.A.B.E. DETAILS
WIDENING OF STATE ROUTE 4 OVER
BURLINGTON-NORTHERN RR
 BRIDGE ID NO. 79SR0040010
 STATION 236+55.00
 LOG MILE 4.13
 SHELBY COUNTY

PIN NO.: 100340.00
 DESIGN BY: BENESCH DATE: 03/2026
 DRAWN BY: M. COVINGTON DATE: 03/2026
 SUPERVISED BY: C. WANSON/A. HARRIS DATE: 03/2026
 CHECKED BY: K. LEWIS DATE: 03/2026



PROJECT NO.	YEAR	SHEET NO.	
STP-NH-4(6)	2026		
REVISIONS			
NO.	DATE	BY	BRIEF DESCRIPTION
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PLAN

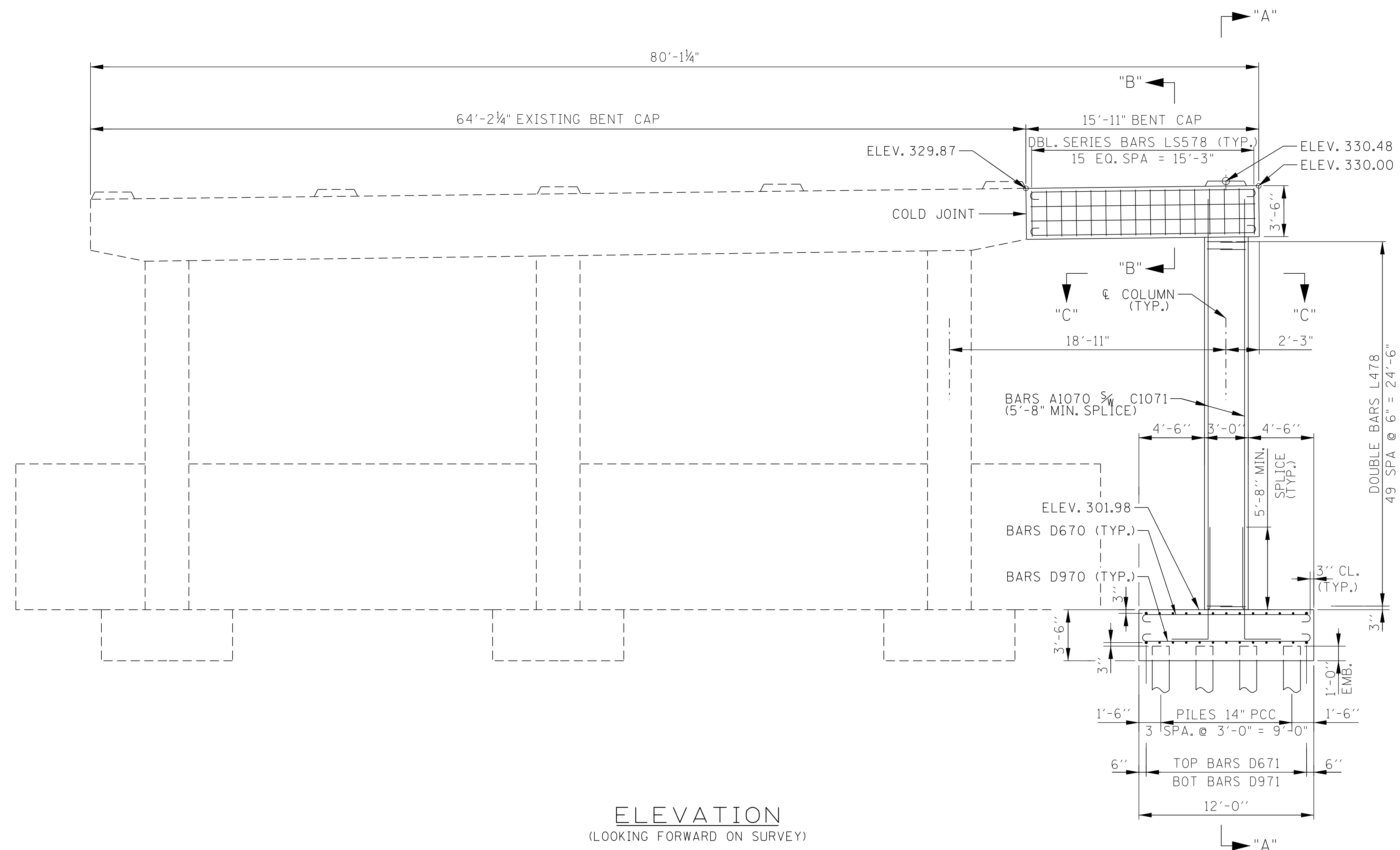
NOTE: WHEN POURING CAP BEAM, PROVISIONS SHALL BE MADE FOR SETTING ANCHOR BOLTS.

NOTE: RISER BLOCKS TO BE POURED MONOLITHICALLY WITH BENT CAP.

NOTE: ALL RISER BLOCK BEARING SURFACES TO BE CAST LEVEL.

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 WAY THAT VISIBLE CONCRETE SURFACES WILL NOT BE STAINED.

NOTE: COLUMN STEEL TO EXTEND 3'-0" MIN. INTO BENT CAP.



ELEVATION
(LOOKING FORWARD ON SURVEY)

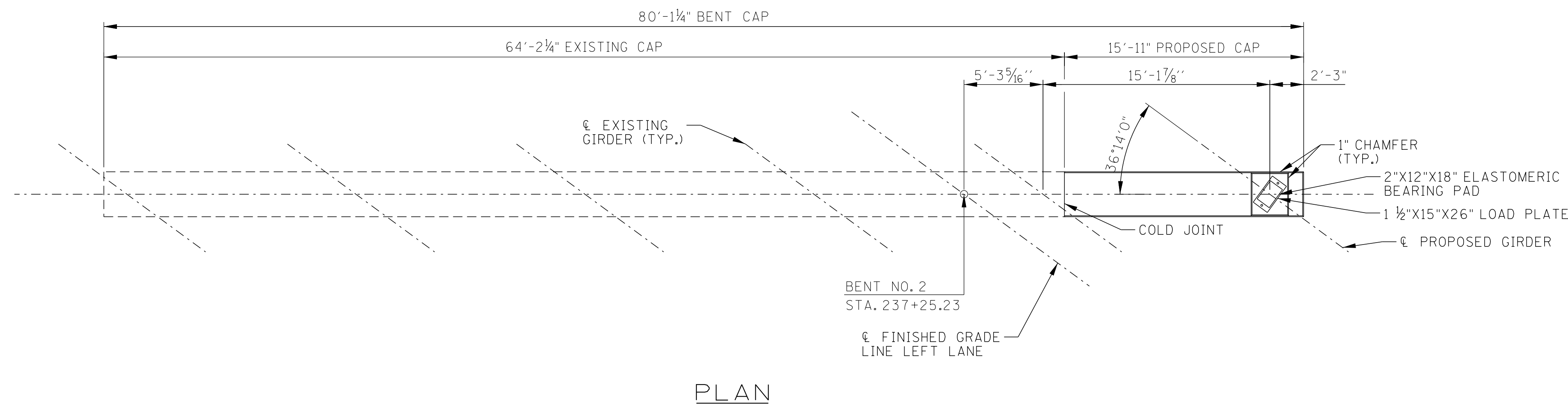
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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BENT NO. 1
WIDENING OF STATE ROUTE 4 OVER
BURLINGTON-NORTHERN RR
BRIDGE ID NO. 79SR0040010
STATION 236+55.00
LOG MILE 4.13
SHELBY COUNTY

PIN NO.: 100340.00
DESIGN BY: BENESCH DATE: 03/2026
DRAWN BY: B. BOSLEY DATE: 03/2026
SUPERVISED BY: C. WANSON/A. HARRIS DATE: 03/2026
CHECKED BY: K. LEWIS DATE: 03/2026



PROJECT NO.	YEAR	SHEET NO.	
STP-NH-4(6)	2026		
REVISIONS			
NO.	DATE	BY	BRIEF DESCRIPTION
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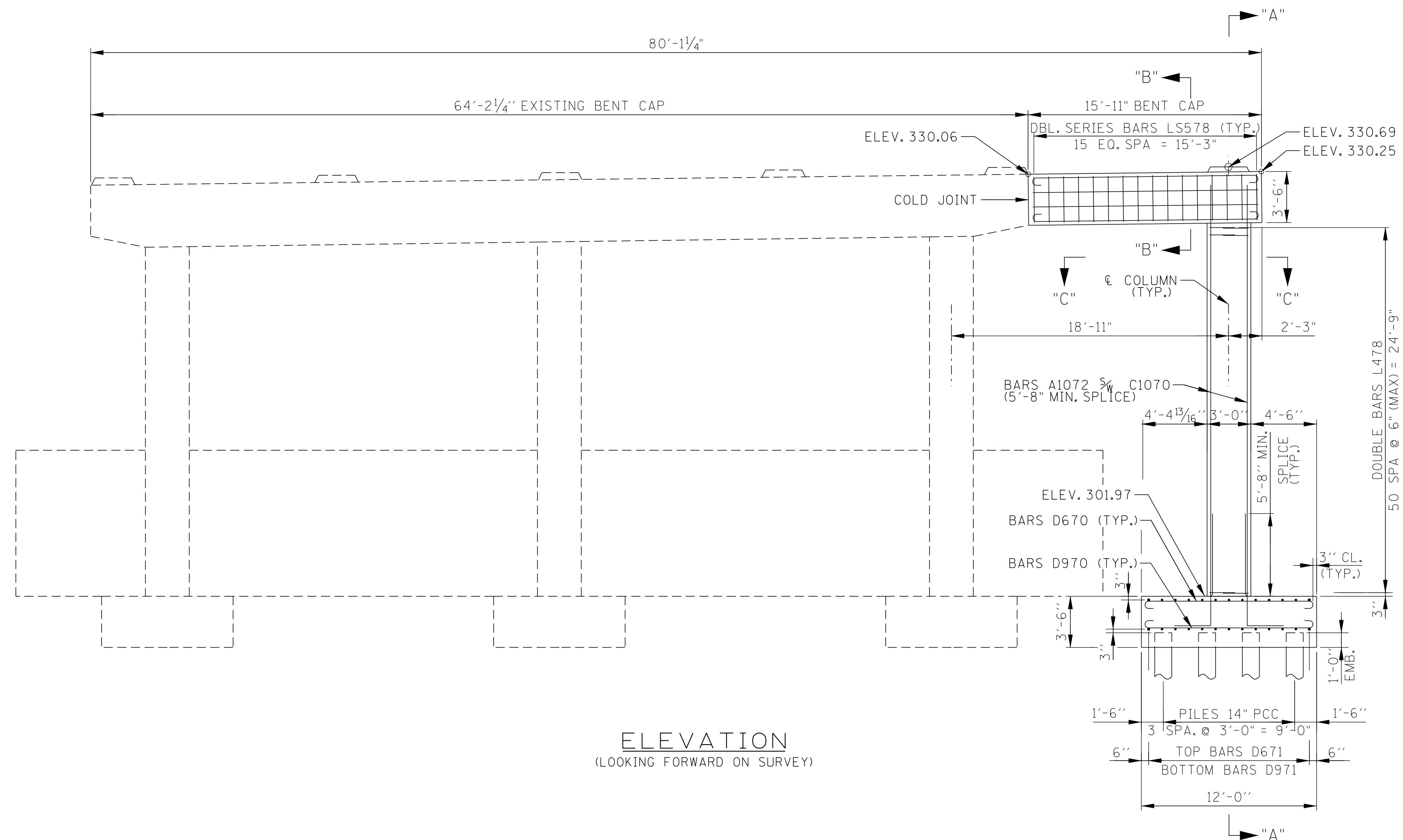
NOTE: WHEN POURING CAP BEAM, PROVISIONS SHALL BE MADE FOR SETTING ANCHOR BOLTS.

NOTE: RISER BLOCKS TO BE POURED MONOLITHICALLY WITH BENT CAP.

NOTE: ALL RISER BLOCK BEARING SURFACES TO BE CAST LEVEL.

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 WAY THAT VISIBLE CONCRETE SURFACES WILL NOT BE STAINED.

NOTE: COLUMN STEEL TO EXTEND 3'-0" MIN. INTO BENT CAP.



SEALED BY

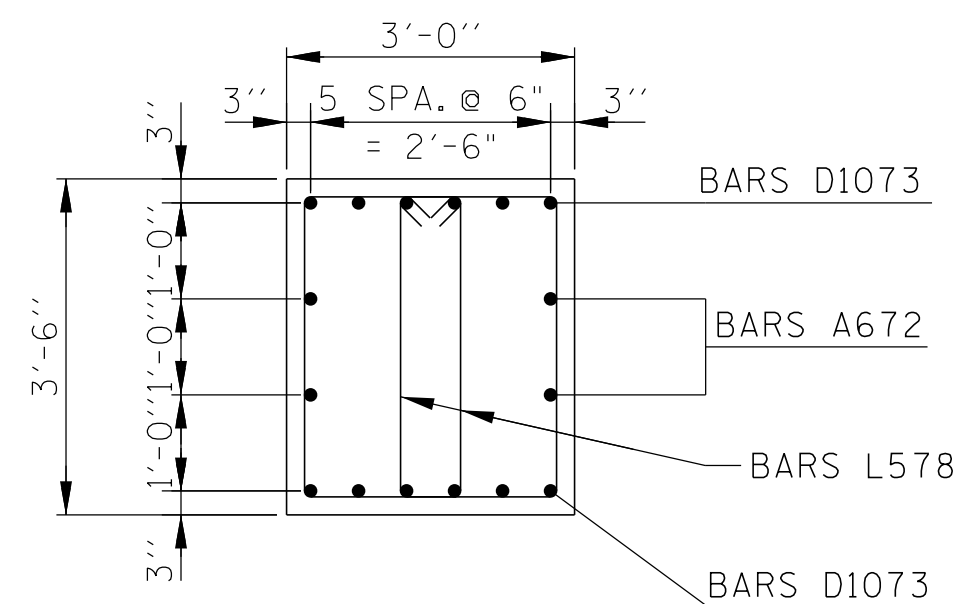
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BENT NO. 2
WIDENING OF STATE ROUTE 4 OVER
BURLINGTON-NORTHERN RR
BRIDGE ID NO. 79SR0040010
STATION 236+55.00
LOG MILE 4.13
SHELBY COUNTY

3/10/2026 11:54:19 AM C:\P\WORD\IR\BENESCH PROJECTS\PROJECTS\DD269224\SR4 BRIDGE 2_BENT NO. 2 PLAN AND ELEVATION.DGN

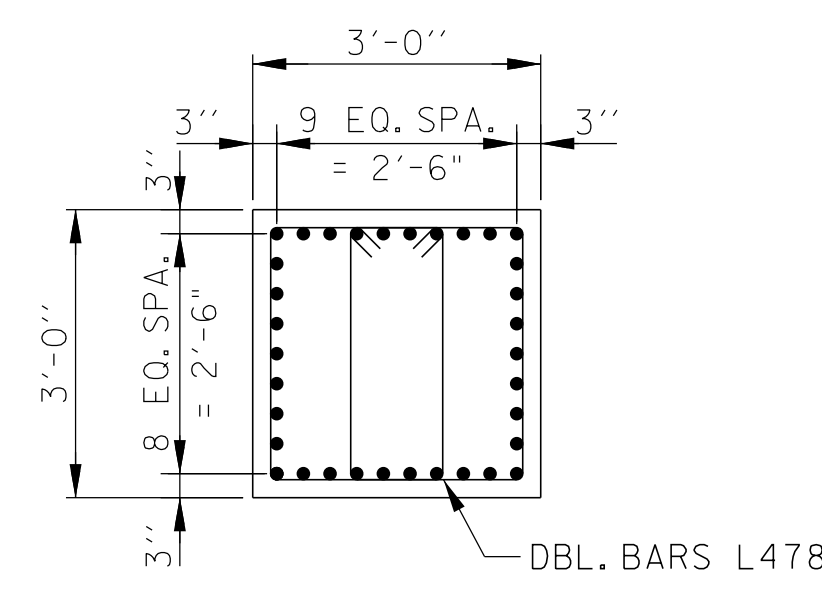
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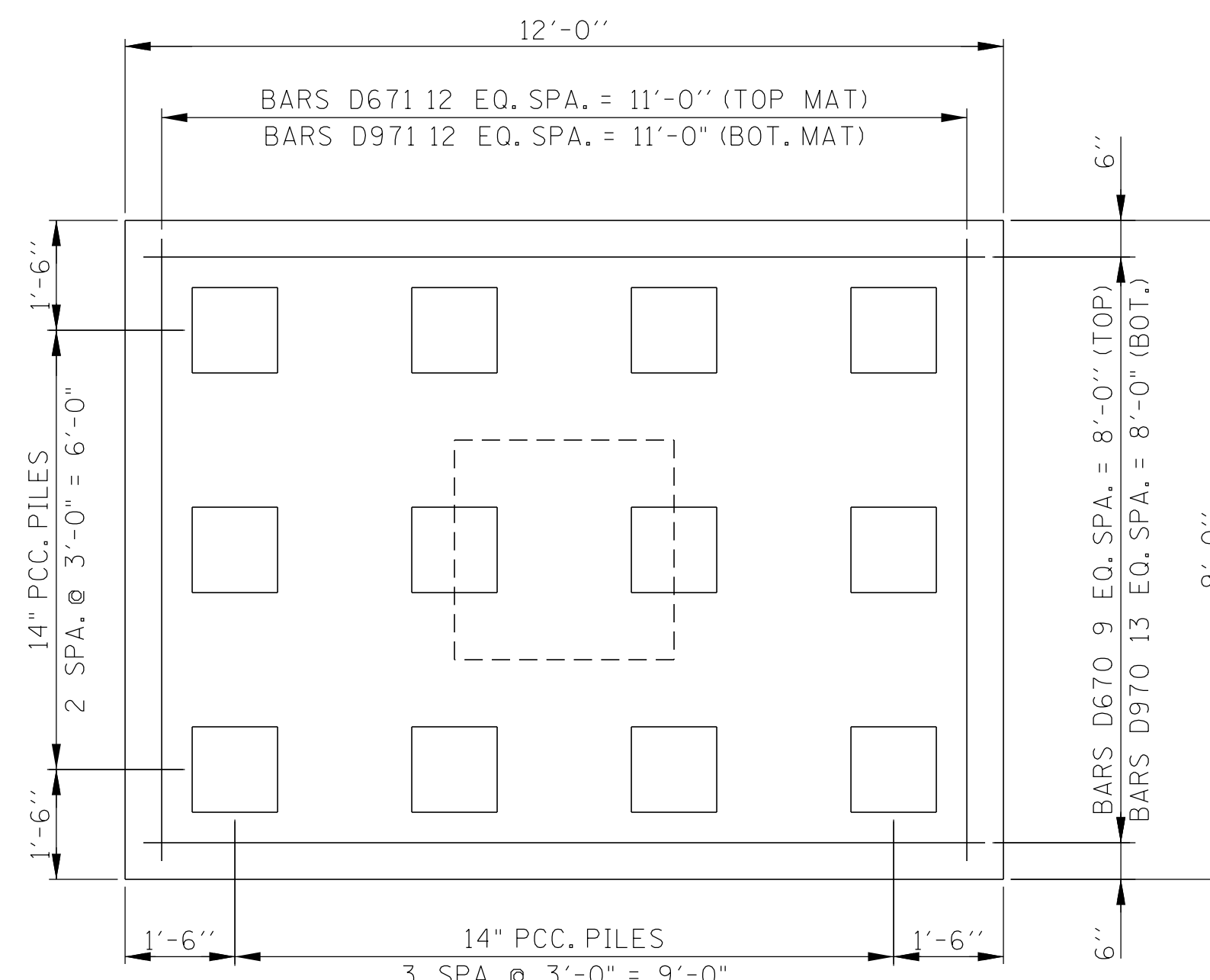
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REVISIONS			
NO.	DATE	BY	BRIEF DESCRIPTION
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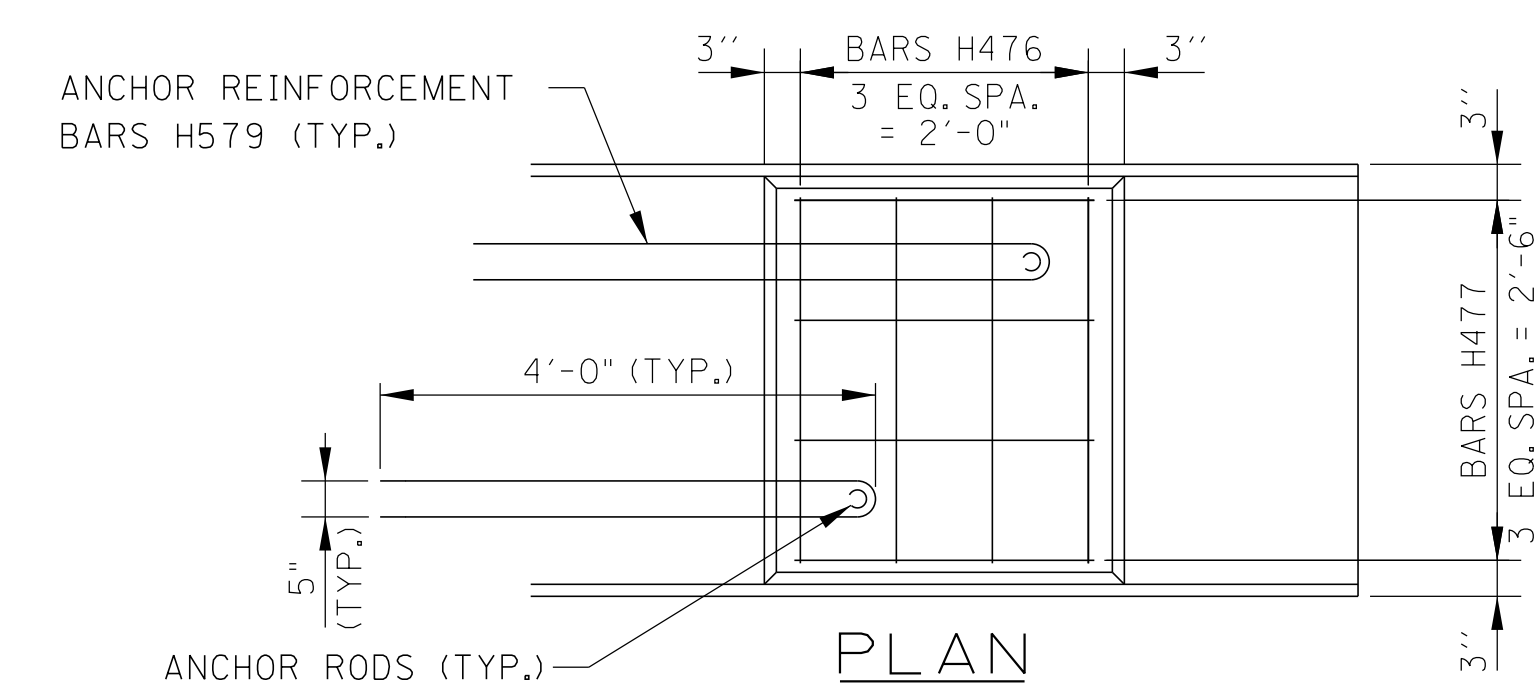
SECTION "B"-"B"
(TYP. ALL BENTS)



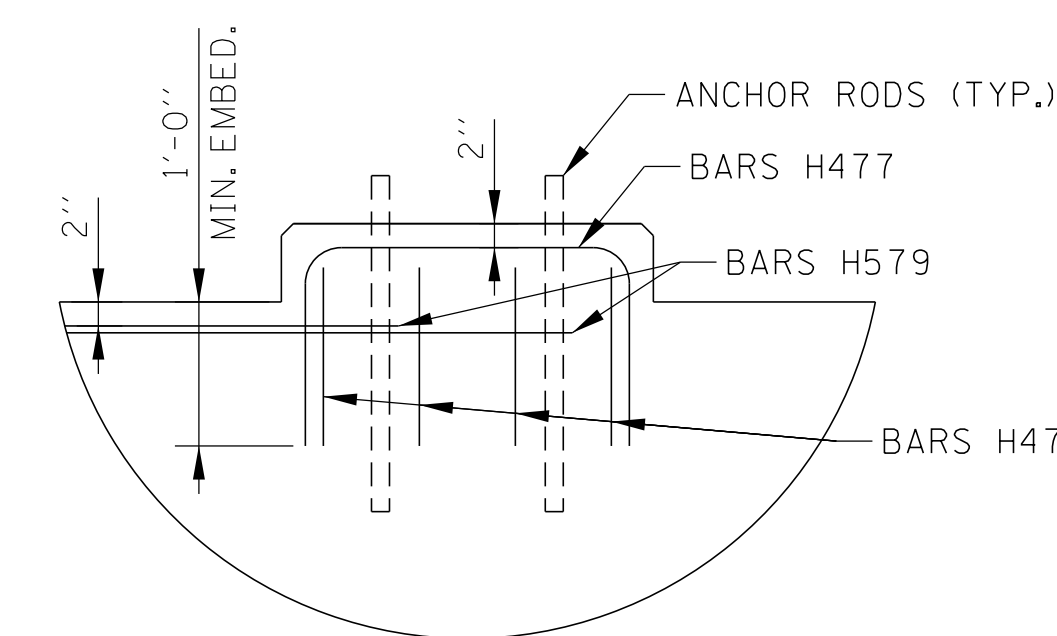
SECTION "C"-"C"
(TYP. ALL BENTS)



PILE FOOTING DETAIL
(12'-0" X 9'-0" X 3'-6")



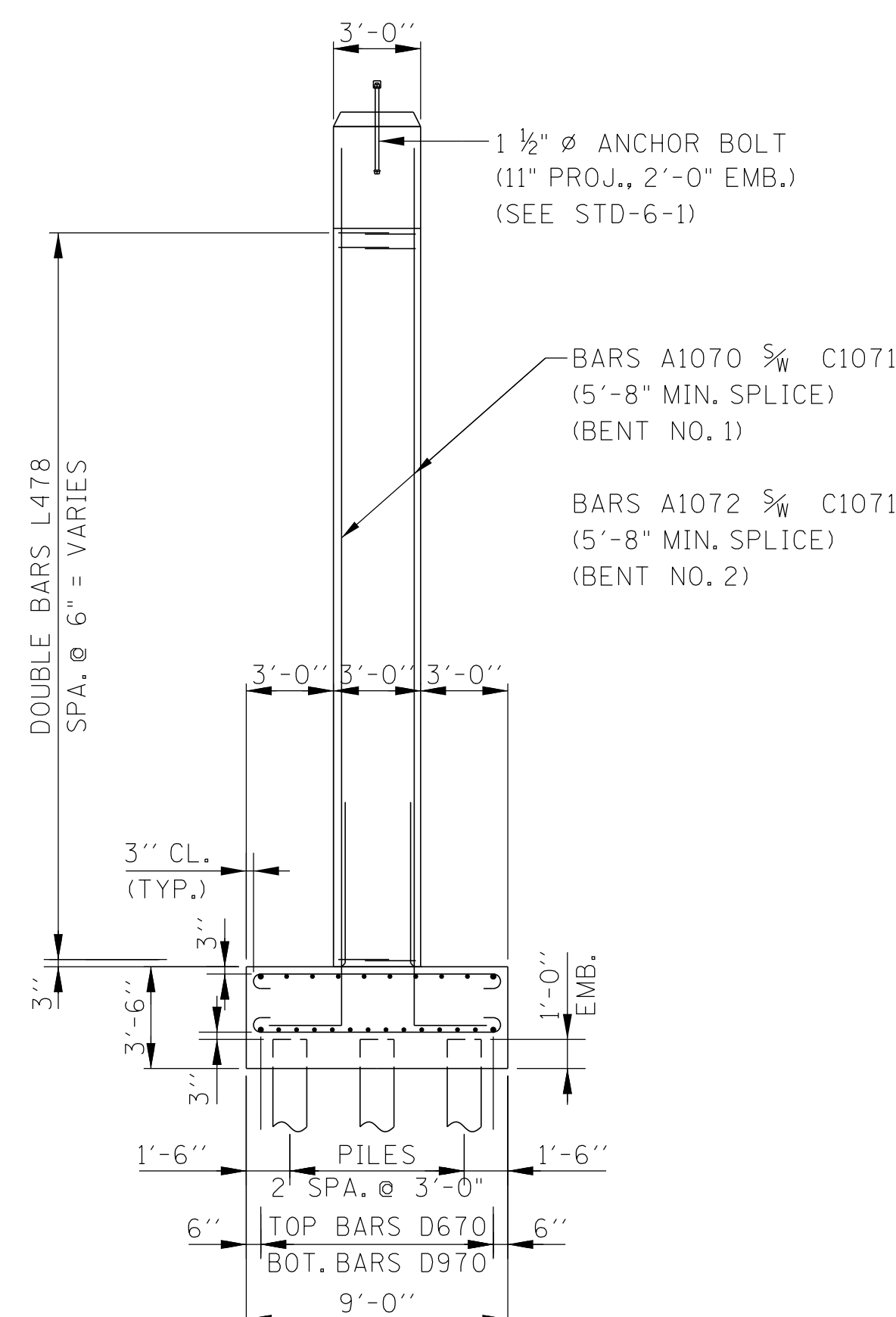
PLAN



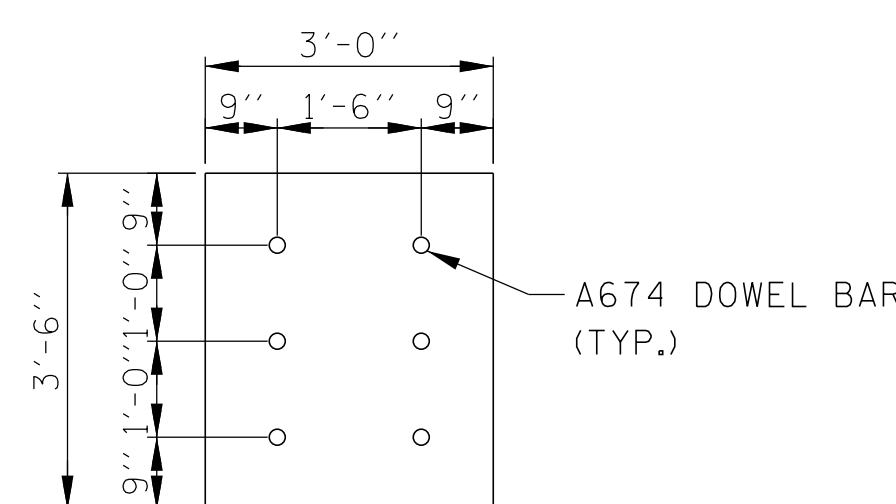
ELEVATION

REINFORCED RISER BLOCK DETAIL
(TYP. ALL BENTS)

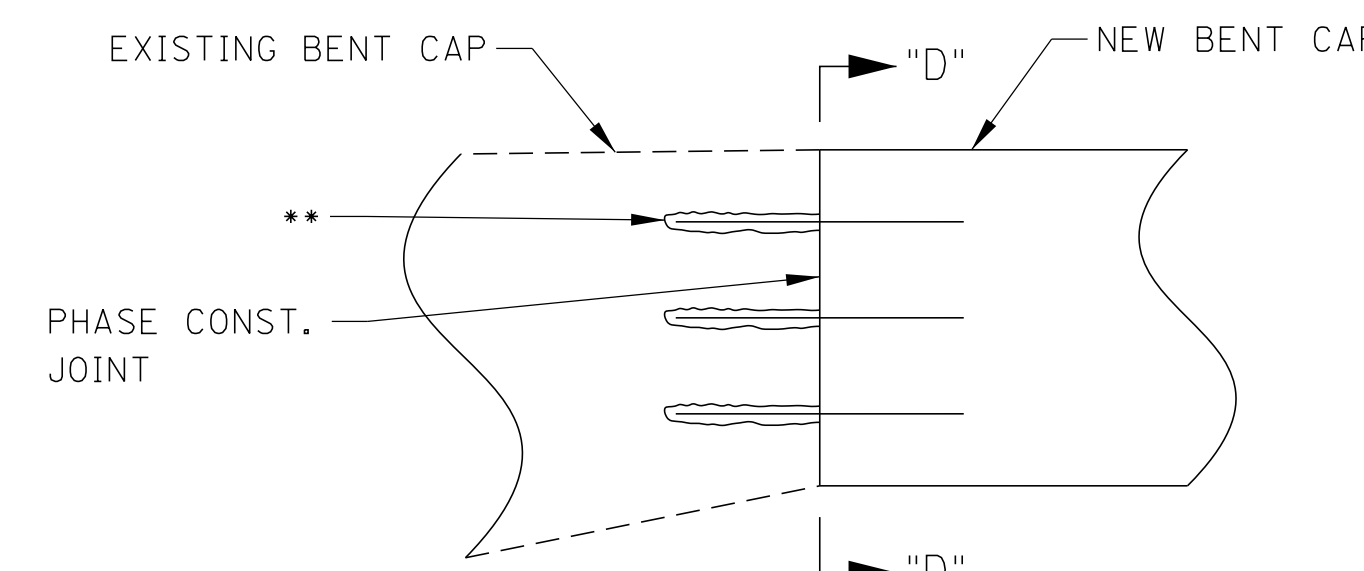
NOTE: ANCHOR REINFORCEMENT TO ENCLOSE AND CONTACT ANCHOR ROD
(SEE BEARING DETAILS SHEET U-102-292)



SIDE ELEVATION "A"-"A"
(SEE PILE FOOTING DETAIL FOR PILE DETAILS)



SECTION "D"-"D"
(TYP. ALL BENTS)



PARTIAL ELEVATION
(SHOWING DOWEL BAR DETAILS)

** NOTE: DOWEL BARS A674 SHALL BE DRILL & GROUTED, 1'-6" EMB. INTO EXISTING BENT CAP AND 1'-6" PROJ. FROM NEW BENT CAP WITH A TOTAL LENGTH OF 3'-0". (TYP. AT BENT NO. 1 & 2)

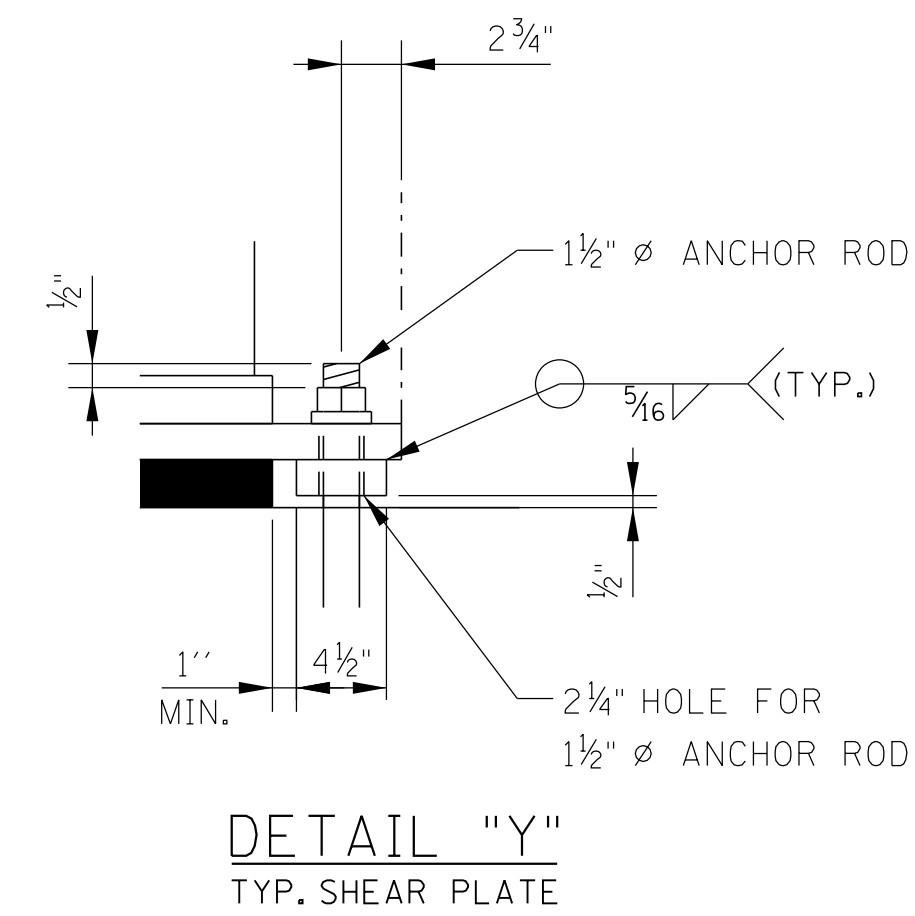
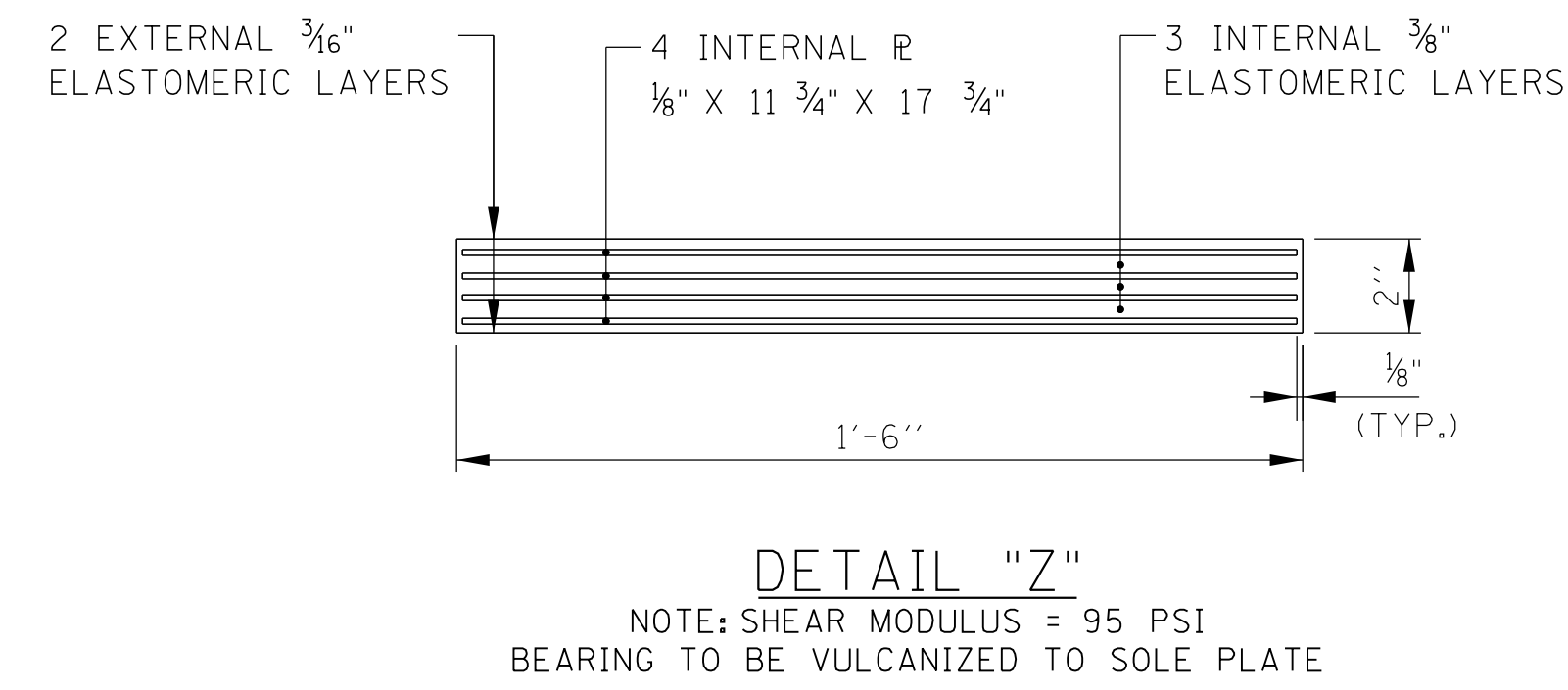
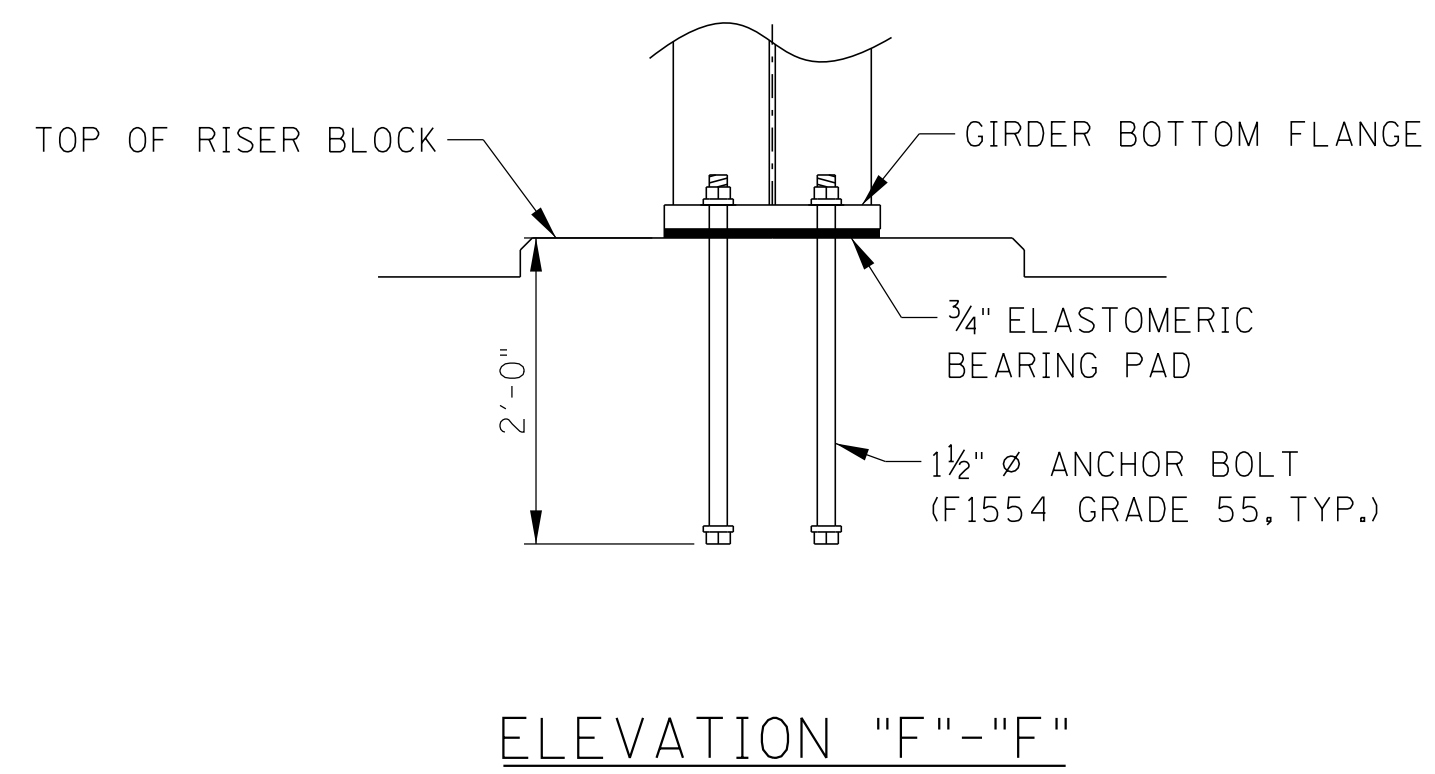
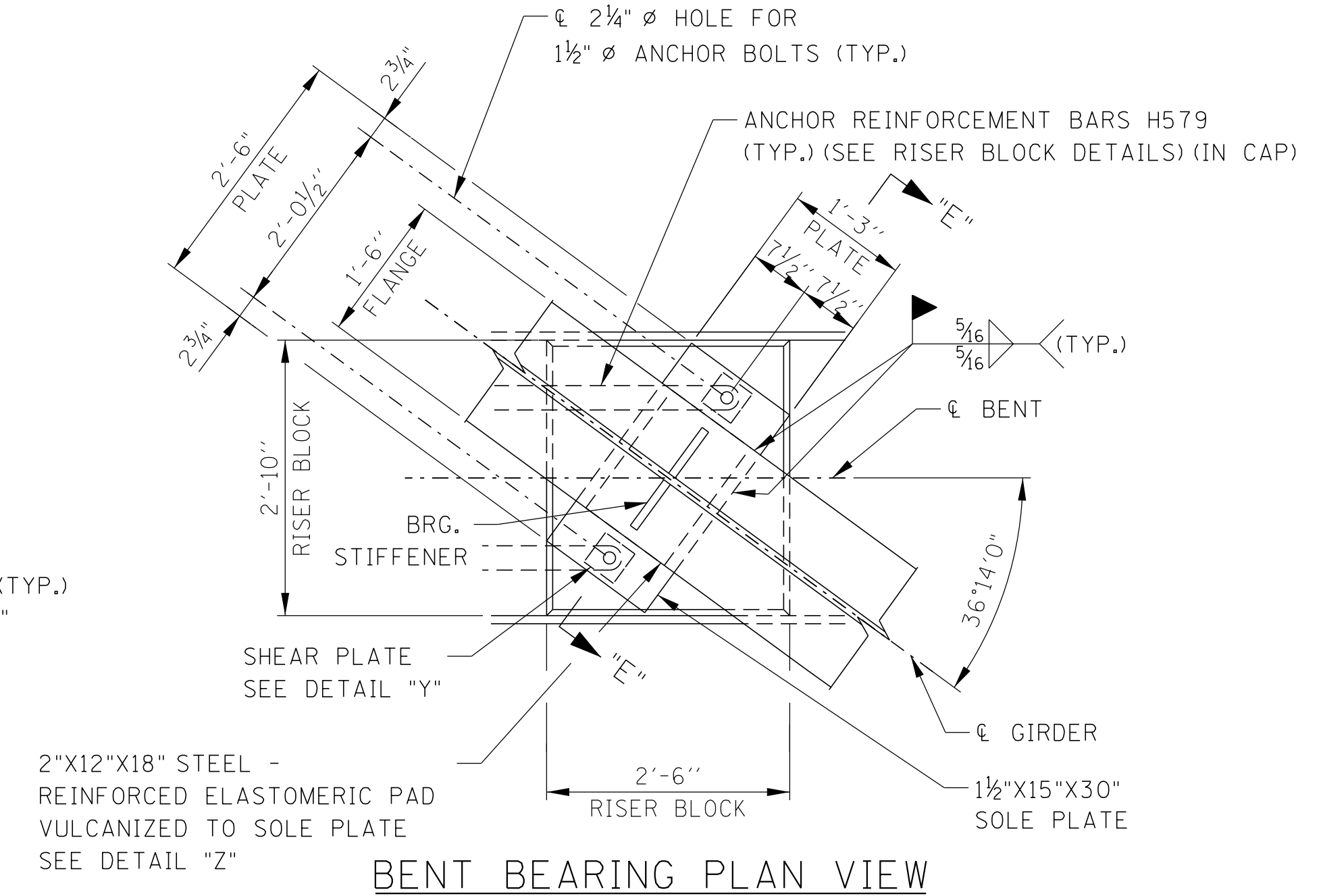
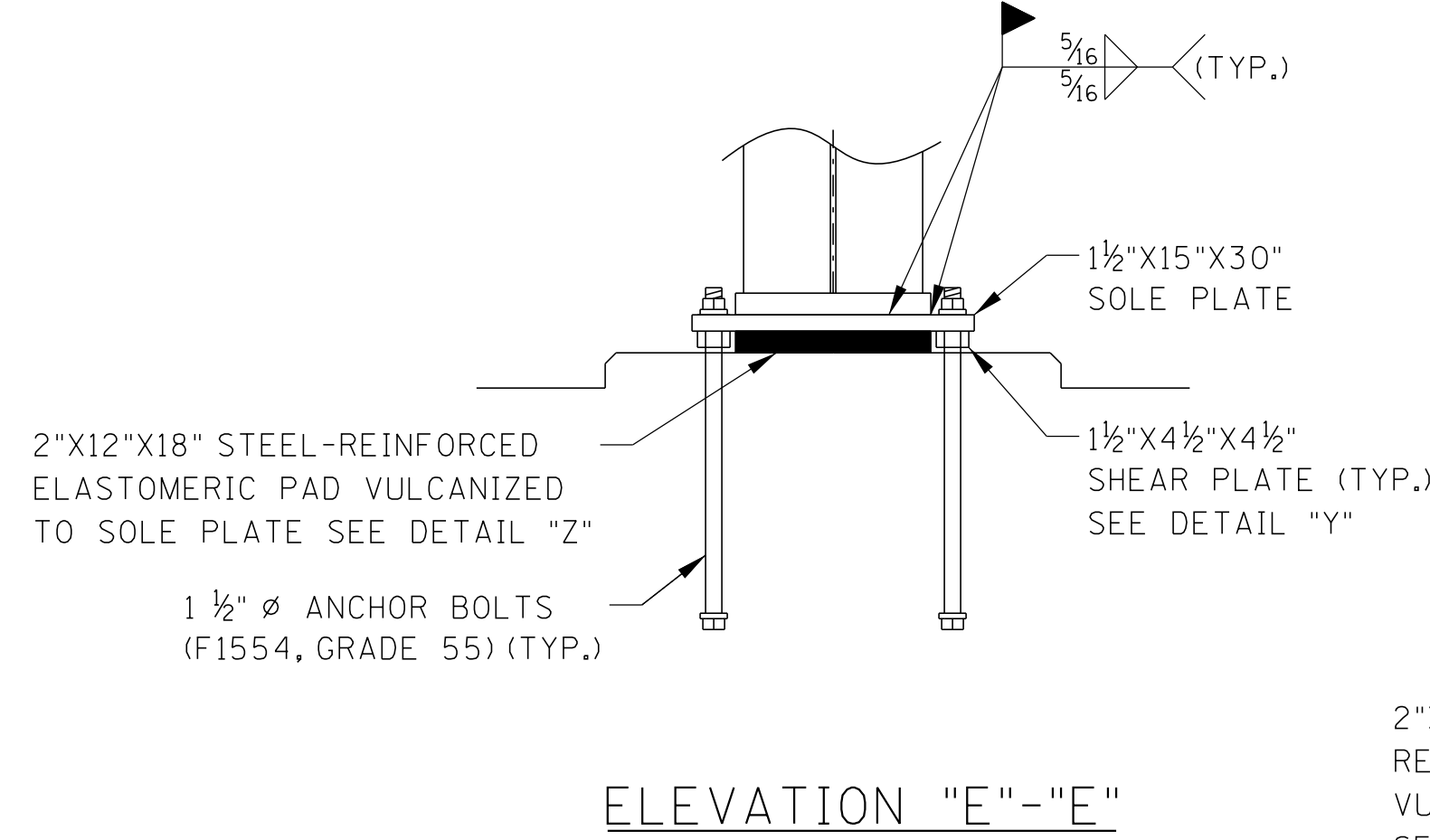
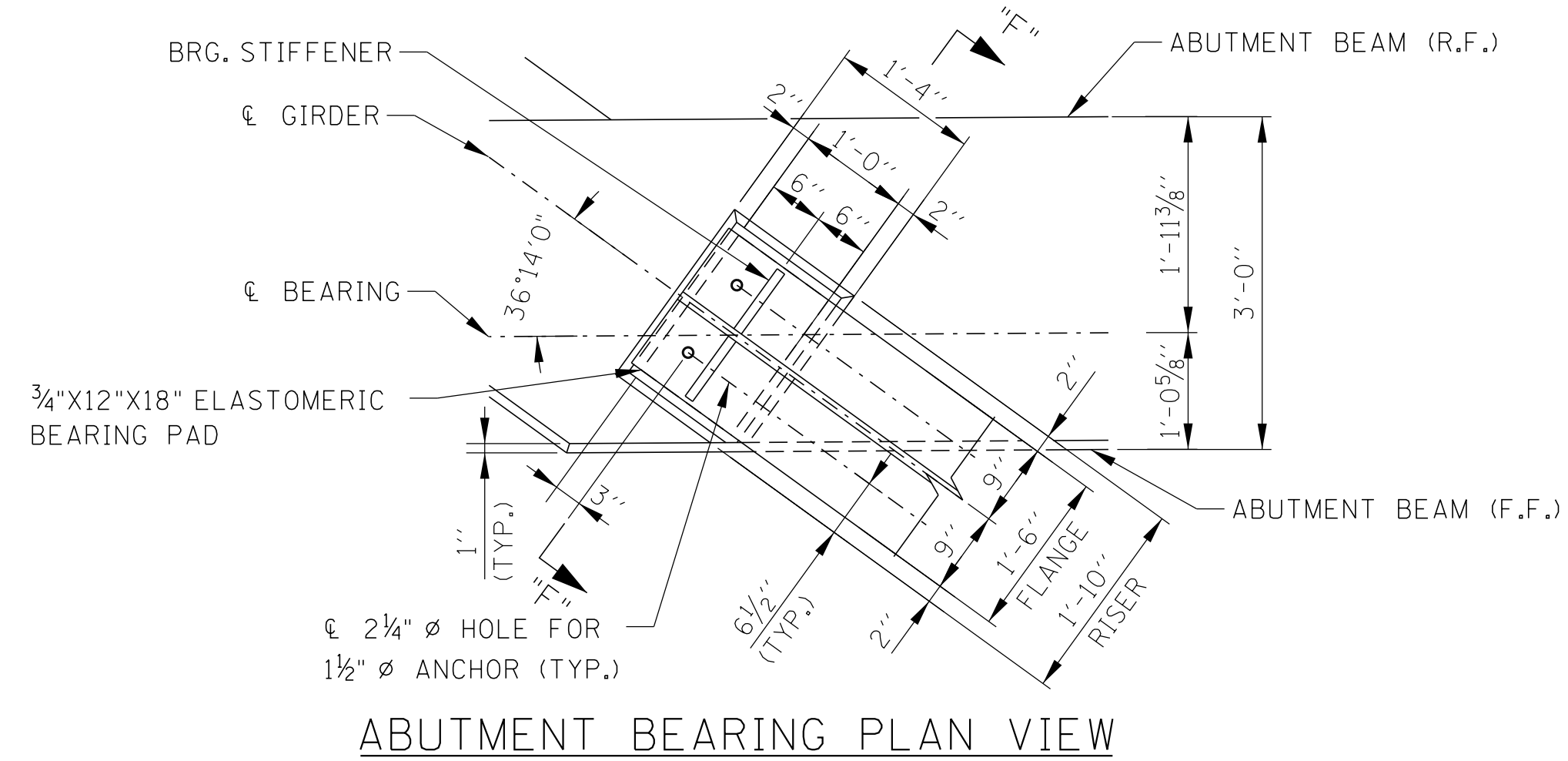
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BRIDGE NO. 3 (TEMP.)
STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BENT NO. 1 AND NO. 2 DETAILS
WIDENING OF STATE ROUTE 4 OVER
BURLINGTON-NORTHERN RR
BRIDGE ID NO. 79SR0040010
STATION 236+55.00
LOG MILE 4.13
SHELBY COUNTY

PIN NO.: 100340.00
DESIGN BY: BENESCH DATE: 03/2026
DRAWN BY: B. BOSLEY DATE: 03/2026
SUPERVISED BY: C. WANSON/A. HARRIS DATE: 03/2026
CHECKED BY: K. LEWIS DATE: 03/2026



PROJECT NO.	YEAR	SHEET NO.	
STP-NH-4(6)	2026		
REVISIONS			
NO.	DATE	BY	BRIEF DESCRIPTION
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SEALED BY

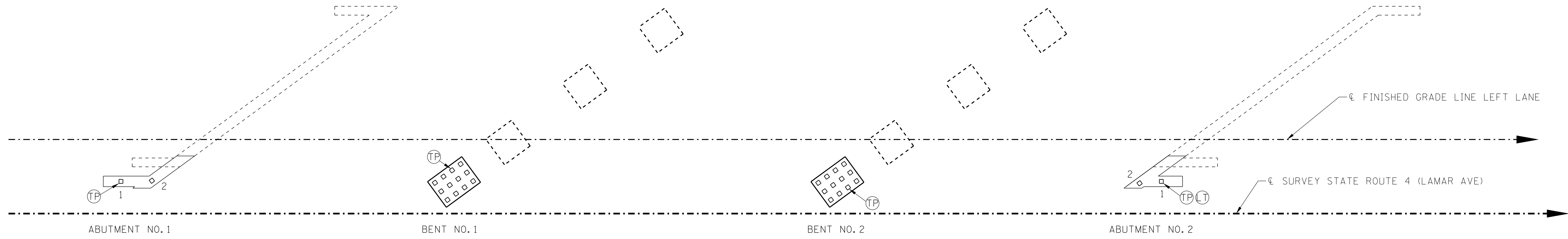
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 STATE OF TENNESSEE
 DEPARTMENT OF TRANSPORTATION
BEARING DETAILS
 WIDENING OF STATE ROUTE 4 OVER
 BURLINGTON-NORTHERN RR
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 SUPERVISED BY: J. LEWIS/A. HARRIS DATE: 03/2026
 CHECKED BY: K. LEWIS DATE: 03/2026



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PROJECT NO.	YEAR	SHEET NO.	
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REVISIONS			
NO.	DATE	BY	BRIEF DESCRIPTION
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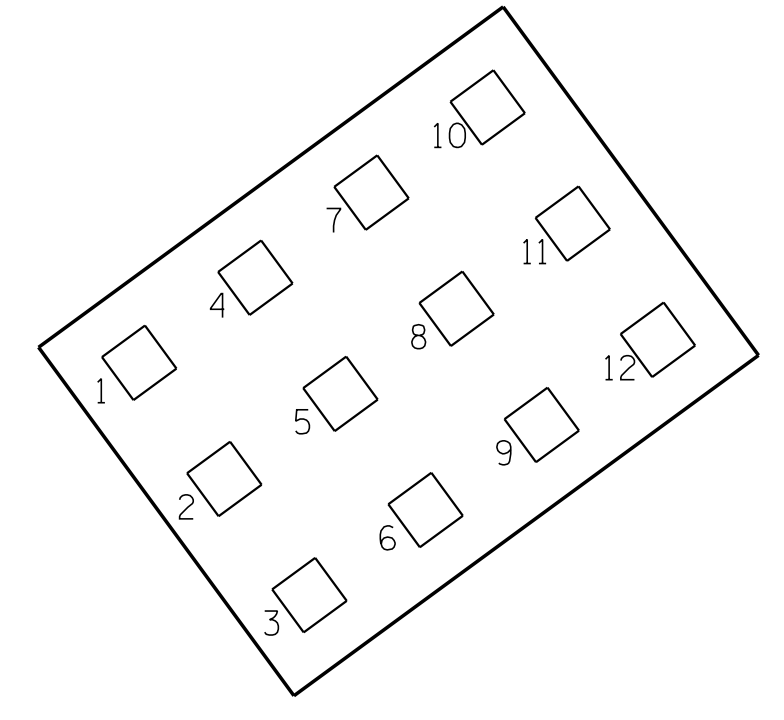


PLAN

Ⓟ DENOTES: TEST PILE
ⓁⓉ DENOTES: LOAD TEST PILE

		1	2	3	4	5	6	7	8	9	10	11	12
ABUTMENT NO. 1	PILE CUT-OFF ELEVATION												
	PILE TIP ELEVATION												
	IN PLACE PILE LENGTH												
BENT NO. 1	PILE CUT-OFF ELEVATION												
	PILE TIP ELEVATION												
	IN PLACE PILE LENGTH												
BENT NO. 2	PILE CUT-OFF ELEVATION												
	PILE TIP ELEVATION												
	IN PLACE PILE LENGTH												
ABUTMENT NO. 2	PILE CUT-OFF ELEVATION												
	PILE TIP ELEVATION												
	IN PLACE PILE LENGTH												

TABLE OF PILE DATA



PLAN OF FOOTING
(BENT NO. 1 & BENT NO. 2)

SEALED BY

NOTE TO CONTRACTOR AND CONSTRUCTION OFFICE: THE BLANKS OF THIS SHEET 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.

PIN NO.: 100340.00
 DESIGN BY: BENESCH DATE: 03/2026
 DRAWN BY: B. BOSELY DATE: 03/2026
 SUPERVISED BY: A. HARRIS DATE: 03/2026
 CHECKED BY: K. LEWIS DATE: 03/2026



BRIDGE NO. 3 (TEMP.)
 STATE OF TENNESSEE
 DEPARTMENT OF TRANSPORTATION
 FINAL FOUNDATION DATA
 WIDENING OF STATE ROUTE 4 OVER
 BURLINGTON-NORTHERN RR
 BRIDGE ID NO. 79SR0040010
 STATION 236+55.00
 LOG MILE 4.13
 SHELBY COUNTY

3/10/2026 11:56:26 AM C:\P\WORD\IR\BENESCH PROJECTS\PROJECTS\DOT\DOT STRUCTURES_BENESCH LOGO.DGN

PROJECT NO.	YEAR	SHEET NO.	
STP-NH-4(6)	2026		
REVISIONS			
NO.	DATE	BY	BRIEF DESCRIPTION
- -			
- -			
- -			
- -			
- -			

SUPERSTRUCTURE (EPOXY)

BAR	LOCATION	SIZE	NO. REQ'D.	BENDING DIMENSIONS				TOTAL LENGTH
				A	B	C	D	
A500E	SLAB	5	68	60'-0"				60'-0"
A501E	SLAB	5	17	55'-0"				55'-0"
A502E	SLAB	5	1288	9'-3"				9'-3"
SERIES	SLAB	5	2	DIM. A VARIES 3'-10" TO 9'-1 3/4" IN INC. OF 3 3/4" (18 BARS)				16'-9 3/4"
A503E								
SERIES	SLAB	5	2	DIM. A VARIES 3'-8" TO 8'-11 3/4" IN INC. OF 3 3/4" (18 BARS)				13'-9 3/4"
A504E								
A505E	SLAB	5	28	8'-4"				8'-4"
A600E	SLAB	6	85	60'-0"				60'-0"
B570E	SLAB	5	858	2'-1"				2'-8"

ABUTMENT NO. 1

BAR	LOCATION	SIZE	NO. REQ'D.	BENDING DIMENSIONS				TOTAL LENGTH
				A	B	C	D	
A440	ROADWAY BRACKET	4	1	10'-8"				10'-8"
A441	WINGWALL	4	10	3'-11"				3'-11"
A442	WINGWALL	4	5	14'-8"				14'-8"
A540	ABUTMENT BEAM	5	2	15'-4"				15'-4"
A541	WING BEAM	5	2	13'-1"				13'-1"
A640	ENDWALL	6	4	19'-0"				19'-0"
A641	ENDWALL	6	4	13'-7"				13'-7"
A642	ENDWALL	6	4	4'-11"				4'-11"
A643	ENDWALL	6	4	3'-9"				3'-9"
A644	WINGWALL	6	12	3'-11"				3'-11"
A645	WINGWALL	6	5	16'-3"				16'-3"
A740	ABUTMENT BEAM	7	10	15'-4"				15'-4"
A741	WING BEAM	7	10	13'-1"				13'-1"
A840	ENDWALL/ABUTMENT BEAM	8	18	3'-0"				3'-0"
B640	ENDWALL	6	4	5'-0"				5'-8"
H540	ROADWAY BRACKET	5	7	3'-8"	0'-6"			4'-8"
H640	ENDWALL	5	8	2'-8"	3'-9"			10'-2"
H641	WINGWALL	6	12	1'-2"	3'-9"			8'-8"
HA640	ENDWALL	6	3	2'-8"	1'-4"	3'-9"		7'-9"
L540	ABUTMENT BEAM	5	16	2'-8"	2'-8"			11'-7"
L541	WING BEAM	5	10	2'-8"	2'-8"			11'-7"

ABUTMENT NO. 1 (EPOXY)

BAR	LOCATION	SIZE	NO. REQ'D.	BENDING DIMENSIONS				TOTAL LENGTH
				A	B	C	D	
A640E	ENDWALL	6	3	21'-6"				21'-6"
A641E	ENDWALL	6	4	3'-9"				3'-9"
A642E	ENDWALL	6	23	3'-9"				3'-9"
B640E	ENDWALL	6	1	5'-0"				5'-8"
B570E	PARAPET	5	3	2'-9"				3'-4"
F640E	ROADWAY BRACKET	6	11	1'-1"	1'-3"	1'-1"	1'-3"	4'-0"
H400E	PARAPET	4	3	0'-11"	3'-11"			8'-9"
H401E	PARAPET	4	1	0'-11"	3'-10"			8'-7"
H402E	PARAPET	4	1	0'-10"	3'-9"			8'-4"
H403E	PARAPET	4	1	0'-8"	3'-8"			8'-0"
H404E	PARAPET	4	1	0'-5"	3'-7"			7'-7"
SERIES	PARAPET	4	1	3'-11"	*	4'-0"	0'-9"	36'-3 1/2"
HD400E								
SERIES	PARAPET	4	1	3'-11"	**	4'-0"	0'-9"	36'-8 3/4"
HD401E								
R640E	ENDWALL	6	11	3'-0"	2'-0"			5'-0"

* DENOTES: VARIES FROM 4 3/8" TO 5 1/4" IN INC. OF 1/4" (4 BARS)
 ** DENOTES: VARIES FROM 5 1/2" TO 6 3/8" IN INC. OF 1/4" (5 BARS)

ABUTMENT NO. 2

BAR	LOCATION	SIZE	NO. REQ'D.	BENDING DIMENSIONS				TOTAL LENGTH
				A	B	C	D	
A450	ROADWAY BRACKET	4	1	8'-4"				8'-4"
A451	WINGWALL	4	10	4'-0"				4'-0"
A452	WINGWALL	4	5	14'-8"				14'-8"
A550	ABUTMENT BEAM	5	2	14'-11"				14'-11"
A551	WING BEAM	5	2	15'-9"				15'-9"
A650	ENDWALL	6	4	13'-5"				13'-5"
A651	ENDWALL	6	4	10'-8"				10'-8"
A652	ENDWALL	6	4	2'-4"				2'-4"
A653	ENDWALL	6	4	3'-9"				3'-9"
A654	WINGWALL	6	7	4'-0"				4'-0"
A655	WINGWALL	6	5	14'-8"				14'-8"
A750	ABUTMENT BEAM	7	10	14'-11"				14'-11"
A751	WING BEAM	7	10	15'-9"				15'-9"
A850	ENDWALL/ABUTMENT BEAM	8	18	3'-0"				3'-0"
B650	ENDWALL	6	4	5'-0"				5'-8"
H550	ROADWAY BRACKET	5	6	3'-8"	0'-6"			4'-8"
H650	ENDWALL	5	6	2'-8"	3'-9"			10'-2"
H651	WINGWALL	6	10	1'-2"	3'-9"			8'-8"
HA650	ENDWALL	6	3	2'-8"	1'-4"	3'-9"		7'-9"
L550	ABUTMENT BEAM	5	16	2'-8"	2'-8"			11'-7"
L551	WING BEAM	5	10	2'-8"	2'-8"			11'-7"

ABUTMENT NO. 2 (EPOXY)

BAR	LOCATION	SIZE	NO. REQ'D.	BENDING DIMENSIONS				TOTAL LENGTH
				A	B	C	D	
A650E	ENDWALL	6	3	16'-1"	0	0	0	16'-1"
A651E	ENDWALL	6	4	3'-10"				3'-10"
A652E	ENDWALL	6	18	3'-10"				3'-10"
B650E	ENDWALL	6	1	5'-0"				5'-8"
B570E	PARAPET	5	3	2'-9"				3'-4"
F650E	ROADWAY BRACKET	6	9	1'-1"	1'-3"	1'-1"	1'-3"	4'-0"
H400E	PARAPET	4	3	0'-11"	3'-11"			8'-9"
H401E	PARAPET	4	1	0'-11"	3'-10"			8'-7"
H402E	PARAPET	4	1	0'-10"	3'-9"			8'-4"
H403E	PARAPET	4	1	0'-8"	3'-8"			8'-0"
H404E	PARAPET	4	1	0'-5"	3'-7"			7'-7"
SERIES	PARAPET	4	2	3'-11"	*	4'-0"	0'-9"	36'-3 1/2"
HD400E								
SERIES	PARAPET	4	2	3'-11"	**	4'-0"	0'-9"	36'-8 3/4"
HD401E								
R650E	ENDWALL	6	9	3'-0"	2'-0"			5'-0"

* DENOTES: VARIES FROM 4 3/8" TO 5 1/4" IN INC. OF 1/4" (4 BARS)
 ** DENOTES: VARIES FROM 5 1/2" TO 6 3/8" IN INC. OF 1/4" (5 BARS)

BENT NO. 1

BAR	LOCATION	SIZE	NO. REQ'D.	BENDING DIMENSIONS				TOTAL LENGTH
				A	B	C	D	
A672	CAP	6	4	15'-5 5/8"				15'-5 5/8"
A674	DOWEL	6	6	3'-0"				3'-0"
A1072	COLUMN	10	34	28'-7 1/2"				28'-7 1/2"
C1071	COLUMN/FOOTING	10	34	7'-9"				9'-3 7/8"
D670	FOOTING	6	10	11'-6"				12'-9"
D671	FOOTING	6	13	8'-6"				9'-9"
D970	FOOTING	9	14	11'-6"				13'-5 1/2"
D971	FOOTING	9	13	8'-6"				10'-5 1/2"
D1073	CAP	10	12	15'-5 5/8"				18'-3 5/8"
H476	RISER BLOCK	4	4	2'-6"	1'-3"			5'-0"
H477	RISER BLOCK	4	4	2'-0"	1'-3"			4'-6"
H579	CAP	5	2	5"	4'-0"			8'-2 1/2"
L478	COLUMN	4	98	2'-0"	2'-6"			10'-0"
L578	CAP	5	30	2'-0"	3'-0"			10'-8 3/4"

BENT NO. 2

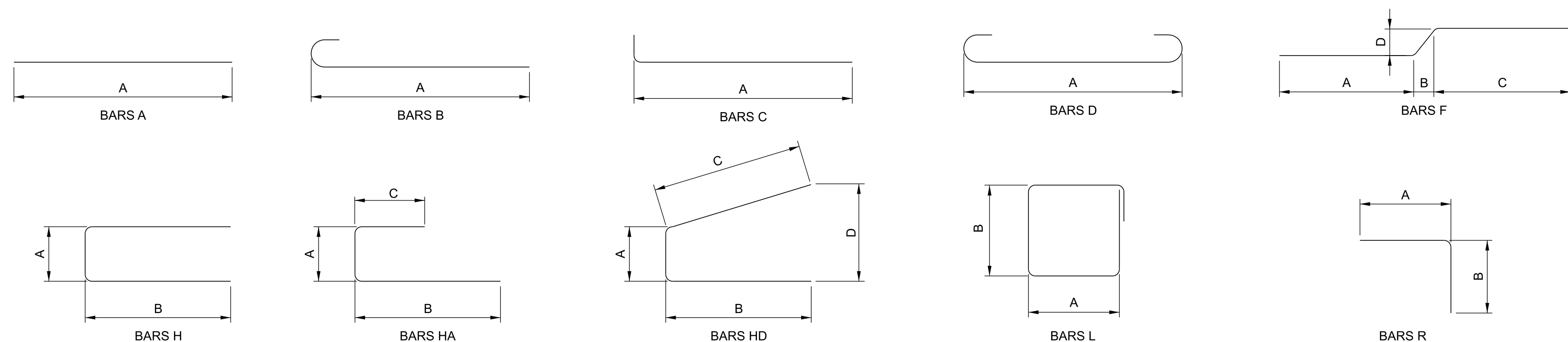
BAR	LOCATION	SIZE	NO. REQ'D.	BENDING DIMENSIONS				TOTAL LENGTH
				A	B	C	D	
A672	CAP	6	4	15'-5 5/8"				15'-5 5/8"
A674	DOWEL	6	6	3'-0"				3'-0"
A1072	COLUMN	10	34	28'-7 1/2"				28'-7 1/2"
C1071	COLUMN/FOOTING	10	34	7'-9"				9'-3 7/8"
D670	FOOTING	6	10	11'-6"				12'-9"
D671	FOOTING	6	13	8'-6"				9'-9"
D970	FOOTING	9	14	11'-6"				13'-5 1/2"
D971	FOOTING	9	13	8'-6"				10'-5 1/2"
D1073	CAP	10	12	15'-5 5/8"				18'-3 5/8"
H476	RISER BLOCK	4	4	2'-6"	1'-3"			5'-0"
H477	RISER BLOCK	4	4	2'-0"	1'-3"			4'-6"
H579	CAP	5	2	5"	4'-0"			8'-2 1/2"
L478	COLUMN	4	100	2'-0"	2'-6"			10'-0"
L578	CAP	5	30	2'-0"	3'-0"			10'-8 3/4"

☆ P.A.B.E. NO. 1 AND NO. 2

BAR	LOCATION	SIZE	NO. REQ'D.	BENDING DIMENSIONS				TOTAL LENGTH
				A	B	C	D	
A490	SLAB	4	8	7'-8 1/2"				7'-8 1/2"
A690	SLAB	6	17	12'-0"				12'-0"
A691	SLAB	6	9	23'-8"				23'-8"
A692	SLAB	6	31	7'-8 1/2"				7'-8 1/2"
A860	SLAB	8	16	3'-0"				3'-0"
H490	FOOTING	4	11	0'-6"	1'-5"			3'-4"
L490	FOOTING	4	11	2'-7 3/4"	0'-8"			7'-4 1/2"

☆ DENOTES: P.A.B.E. REINFORCING STEEL FOR INFORMATION ONLY.
 REINFORCING STEEL INCLUDED IN UNIT PRICE FOR ITEM 604-03.04, PAVEMENT @ BRIDGE ENDS.

SEALED BY



PIN NO.: 100340.00
 DESIGN BY: BENESCH
 DRAWN BY: B. BOSELY
 SUPERVISED BY: C. WANSON/A. HARRIS
 CHECKED BY: K. LEWIS

DATE: 03/2026
 DATE: 03/2026
 DATE: 03/2026
 DATE: 03/2026



BRIDGE NO. 3 (TEMP.)
 STATE OF TENNESSEE
 DEPARTMENT OF TRANSPORTATION
BILL OF STEEL
 WIDENING OF STATE ROUTE 4 OVER
 BURLINGTON-NORTHERN RR
 BRIDGE ID NO. 79SR0040010
 STATION 236+55.00
 LOG MILE 4.13
 SHELBY COUNTY