

DESIGN DESIGNATION

A.A.D.T. - 2025 = 428
 A.A.D.T. - 2045 = 473
 D.H.V. = 8.59%
 T = 15.12%
 V = 55 M.P.H.

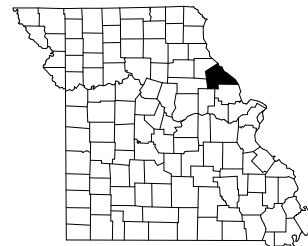
FUNCTIONAL CLASSIFICATION - MAJOR COLLECTOR

RIGHT OF WAY

NORMAL RIGHT OF WAY
 STA 11+00.00 TO STA 17+50.00

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

PLANS FOR PROPOSED STATE HIGHWAY PIKE COUNTY T55N, R4W

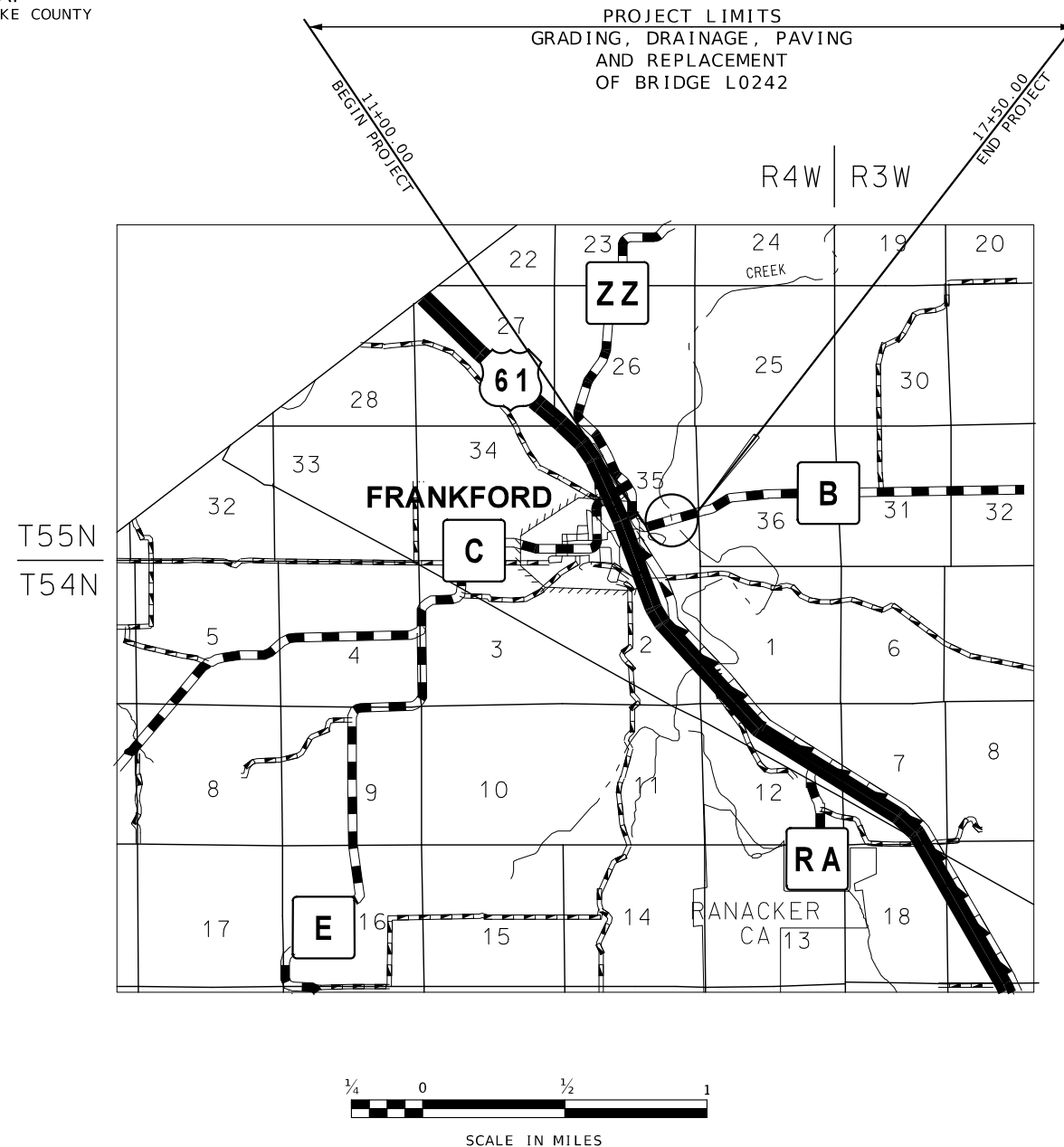


KEY MAP
LOCATION OF PIKE COUNTY

CONVENTIONAL SYMBOLS
(USED IN PLANS)

	EXISTING	NEW
BUILDINGS AND STRUCTURES		
GUARD RAIL		
GUARD CABLE		
CONCRETE RIGHT-OF-WAY MARKER		
STEEL RIGHT-OF-WAY MARKER		
LOCATION SURVEY MARKER		
UTILITIES		
FIBER OPTICS	-FO-	-FO-
OVERHEAD CABLE TV	-OTV-	-OTV-
UNDERGROUND CABLE TV	-UTV-	-UTV-
OVERHEAD TELEPHONE	-OT-	-OT-
UNDERGROUND TELEPHONE	-UT-	-UT-
OVERHEAD POWER	-OE-	-OE-
UNDERGROUND POWER	-UE-	-UE-
SANITARY SEWER	-S-	-S-
STORM SEWER	-SS-	-SS-
GAS	-G-	-G-
WATER	-W-	-W-
MANHOLE		
FIRE HYDRANT		
WATER VALVE		
WATER METER		
DROP INLET		
DITCH BLOCK		
GROUND MOUNTED SIGN		
LIGHT POLE		
H-FRAME POWER POLE		
TELEPHONE PEDESTAL		
FENCE		
CHAIN LINK		
WOVEN WIRE		
GATE POST		
BENCHMARK		

NOTE: DASHED OR OPEN SYMBOLS INDICATE EXISTING FEATURES



THE EXISTENCE AND APPROXIMATE LOCATION OF UTILITY FACILITIES KNOWN TO EXIST, AS SHOWN ON THE PLANS, ARE BASED ON THE BEST INFORMATION AVAILABLE TO THE COMMISSION AT THIS TIME. THIS INFORMATION IS PROVIDED BY THE COMMISSION "AS-IS" AND THE COMMISSION EXPRESSLY DISCLAIMS ANY REPRESENTATION OR WARRANTY AS TO THE COMPLETENESS, ACCURACY, OR SUITABILITY OF THE INFORMATION FOR ANY USE. RELIANCE UPON THIS INFORMATION IS DONE AT THE RISK AND PERIL OF THE USER, AND THE COMMISSION SHALL NOT BE LIABLE FOR ANY DAMAGES THAT MAY ARISE FROM ANY ERROR IN THE INFORMATION. IT IS, THEREFORE, THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY THE EXISTENCE, LOCATION AND STATUS OF ANY FACILITY. SUCH VERIFICATION INCLUDES DIRECT CONTACT WITH THE LISTED UTILITIES.

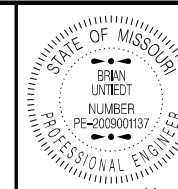
INDEX OF SHEETS

DESCRIPTION	SHEET NUMBER
TITLE SHEET	1
TYPICAL SECTIONS (TS) (1 SHEET)	2
QUANTITIES (QU) (2 SHEETS)	3
PLAN-PROFILE (PP)	4
REFERENCE POINTS (RP)	5
COORDINATE POINTS (CP)	6
SPECIAL SHEETS (SS)	7
TRAFFIC CONTROL SHEETS (TC)	8-9
EROSION CONTROL SHEETS (EC)	10
PAVEMENT MARKING (PM)	11
BRIDGE DRAWINGS (B)	
A9431	1-32
CROSS SECTIONS (XS)	1-5

LENGTH OF PROJECT

BEGINNING OF PROJECT	STA. 11+00.00
END OF PROJECT	STA. 17+50.00
APPARENT LENGTH	650.00 FEET
EQUATIONS AND EXCEPTIONS:	NONE

TOTAL CORRECTIONS	0.00 FEET
NET LENGTH OF PROJECT	650.00 FEET
STATE LENGTH	0.123 MILES
FOR INFORMATION ONLY ESTIMATED DISTURBED ACRES	1.44 ACRES



DATE PREPARED
6/30/2025

ROUTE B STATE MO
DISTRICT NE SHEET NO. 1

COUNTY PIKE
JOB NO. JNE0052
CONTRACT ID.

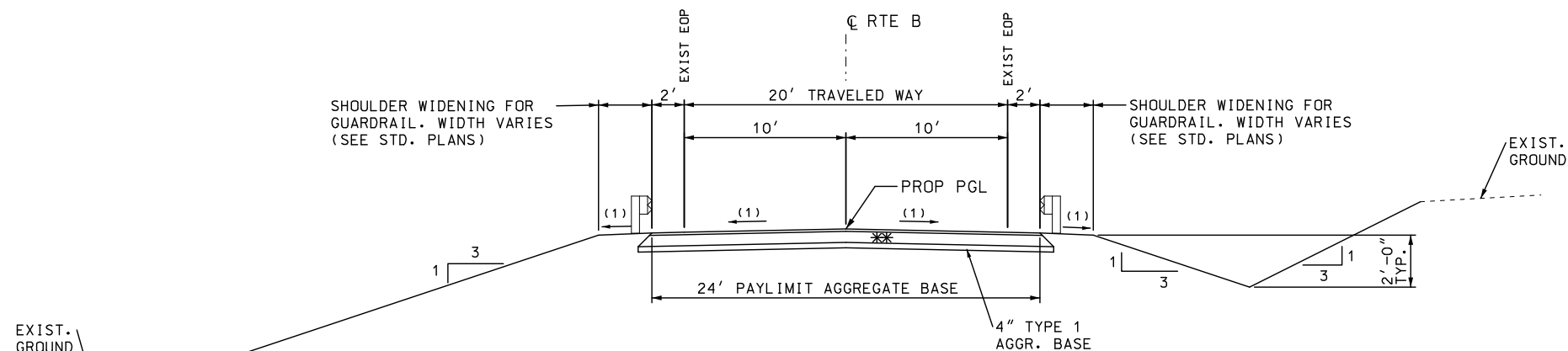
PROJECT NO.
BRIDGE NO.

DESCRIPTION	DATE

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)

TITLE SHEET



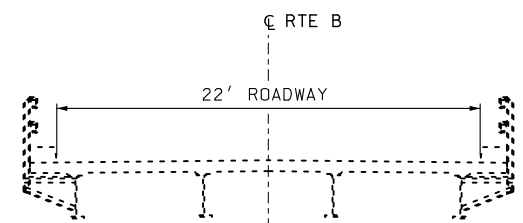
** OPTIONAL PAVEMENT
 OPTION 1
 1.75" BP-1 w/PG58H-28
 8.25" BB w/PG58H-28
 OPTION 2
 8" PCCP

SECTION ON TANGENT
 TYPICAL SECTION RTE. B
 STA 11+00.00 TO STA 12+90.93*
 STA 15+43.47* TO STA 17+50.00

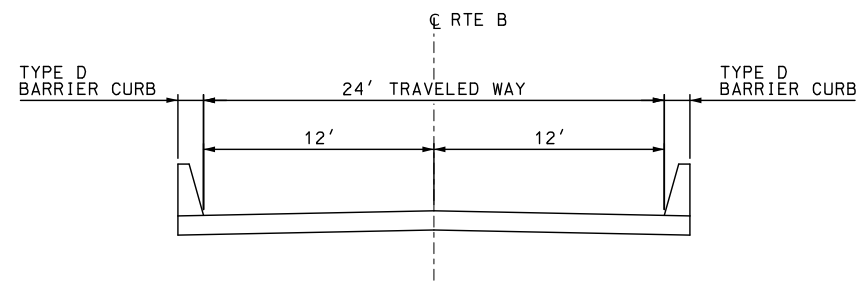
* STA 12+90.93 TO 13+10.93
 STA 15+23.47 TO 15+43.47
 INSTALL BR. APR. SLAB
 SEE BR. PLANS FOR DETAILS

CROSS SLOPE:
 (1) 2.0% OR S.E. SLOPE

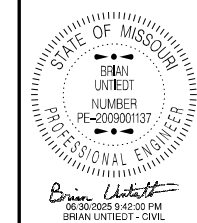
NOTE:
 SEE STD. PLANS FOR
 SAFETY EDGE DETAILS



EXISTING TYPICAL SECTION - BRIDGE N0015
 STA. 13+19.00 TO STA. 15+17.49
 (SURVEY C RTE B)



PROPOSED TYPICAL SECTION - BRIDGE A9431
 STA. 13+10.42 TO STA. 15+23.98



DATE PREPARED 6/30/2025	
ROUTE B	STATE MO
DISTRICT NE	SHEET NO. 2
COUNTY PIKE	
JOB NO. JNE0052	
CONTRACT ID.	
PROJECT NO.	
BRIDGE NO.	

DATE	DESCRIPTION

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

105 WEST CAPITOL
 JEFFERSON CITY, MO 65102
 1-888-ASK-MODOT (1-888-273-6636)

CLEARING AND GRUBBING	
TOTAL	0.5 ACRE
USE	1 ACRE

MOBILIZATION	
	1 LUMP SUM

REMOVAL OF IMPROVEMENTS						
SHEET	LOCATION	STATION	STATION	OFFSET	TOTAL	REMARKS
4	RTE B	11+00.00	-	LT/RT	20 LF	SAW CUT
4	RTE B	17+50.00	-	LT/RT	20 LF	SAW CUT
4	RTE B	11+00	13+18	LT/RT	4360 SF	EXISTING PAVEMENT
4	RTE B	15+15	17+50	LT/RT	4700 SF	EXISTING PAVEMENT
4	RTE B	13+15	-	RT	1 EA	OBJECT MARKER
4	RTE B	13+12	-	LT	1 EA	OBJECT MARKER
4	RTE B	15+17.00	-	LT	1 EA	OBJECT MARKER
4	RTE B	15+21.00	-	RT	1 EA	OBJECT MARKER
				TOTAL	1	LUMP SUM

CONTRACTOR FURNISHED SURVEYING AND STAKING	
	1 LUMP SUM

EARTHWORK							
SHEET	BEGIN STATION	END STATION	LOCATION	CL. A EXC. (CY)	COMP. EMB. (CY)	EMB. IN PLACE (CY)	REMARKS
	11+00.00	13+10.42	ROUTE B	359	457	-	157 CY CL A FROM SPILL SLOPES
			ROUTE B	331	-	-	SPILL SLOPE EXCAVATION
			ROUTE B	373	-	-	SPILL SLOPE EXCAVATION
	15+23.98	17+50.00	ROUTE B	392	831	262	547 CY CL A FROM SPILL SLOPES
			TOTAL	1455	1288	262	
			USE	1455	1288	262	

SUBGRADE COMPACTION (6 INCH DEPTH)						
SHEET	BEGIN STATION	END STATION	LOCATION	EMB. IN PLACE (CY)	SUBGRADE COMPACTION (6" DEPTH) (100')	REMARKS
	11+00.00	13+10.42	ROUTE B	-	2.1	157 CY CL A FROM SPILL SLOPES
	15+23.98	17+50.00	ROUTE B	262	2.3	547 CY CL A FROM SPILL SLOPES
			TOTAL	262	4.4	
			USE	262	5.0	

OPTIONAL PAVEMENT						
SHEET	BEGIN STATION	END STATION	LOCATION	PAYLIMIT WIDTH	PAVEMENT (SY)	REMARKS
4	11+00.00	11+20.00	ROUTE B	VARIES	48.9	WIDTH TRANSITION - MATCH EXIST TO 24'
4	11+20.00	12+90.93	ROUTE B	24	455.8	ROADWAY
4	15+43.47	17+30.00	ROUTE B	24	497.4	ROADWAY
4	17+30.00	17+50.00	ROUTE B	VARIES	48.9	WIDTH TRANSITION - MATCH EXIST TO 24'
			TOTAL		1051.0	
			USE		1051.0	

NOTE: WIDTHS INCLUDE SHOULDERS

TYPE 1 AGGREGATE BASE (4" THICK)						
SHEET	BEGIN STATION	END STATION	LOCATION	4" TYPE 1 AGG FOR BASE (SY)	REMARKS	
4	11+00.00	11+20.00	ROUTE B	49	WIDTH TRANSITION - MATCH EXIST TO 24'	
4	11+20.00	12+90.93	ROUTE B	456	ROADWAY	
4	15+43.47	17+30.00	ROUTE B	498	ROADWAY	
4	17+30.00	17+50.00	ROUTE B	49	WIDTH TRANSITION - MATCH EXIST TO 24'	
			TOTAL	1052		
			USE	1052		

NOTE: WIDTHS INCLUDE SHOULDERS

TYPE 2 ROCK BLANKET AND PERMANENT EROSION CONTROL GEOTEXTILE						
SHEET	BEGIN STATION	END STATION	FURNISHING TYPE 2 ROCK BLANKET (CY)	PLACING TYPE 2 ROCK BLANKET (CY)	PERM. EROSION CNTRL. GEOTEXTILE (SY)	REMARKS
4, 7	12+77.96	13+33.72	253	253	379	SPILL SLOPE AT 13+10.42
4, 7	14+00.03	14+97.98	270	270	405	SPILL SLOPE AT 15+23.98
		TOTAL	523	523	784	
		USE	523	523	784	

4" CLASS 1 PAVEMENT MARKING PAINT (18-MIL, TYPE P BEADS)							
SHEET	LOCATION	STATION	STATION	4" INT (LF)	4" SLD YLW (LF)	4" SLD WHI (LF)	REMARKS
11	ROUTE B	8+10.00	20+24.00	1214.00	-	2428.0	LT AND RT WHITE EDGE LINES
11	ROUTE B	11+00.00	17+50.00	650.00	162.5	-	INT. CENTERLINE
11	ROUTE B	11+00.00	13+00.00	200.00	-	200.00	SLD. CENTERLINE
11	ROUTE B	16+75.00	17+50.00	75.00	-	75.00	SLD. CENTERLINE
				162.5	275.0	2428.0	SUBTOTAL
				438		2428	TOTAL

GUARDRAIL							
SHEET	LOCATION	STATION	STATION	MGS GUARDRAIL (LF)	MGS BRIDGE APPR TRANS SECTION (EA)	TYPE A CRASHWORTHY END TERMINAL (MASH)	
4, 7	RTE B LT	11+73	12+98	37.5	1	1	
4, 7	RTE B RT	11+15	13+03	100.0	1	1	
4, 7	RTE B LT	15+31	17+19	100.0	1	1	
4, 7	RTE B RT	15+36	16+61	37.5	1	1	
			TOTAL	275.0	4	4	
			USE	275.0	4	4	

DATE PREPARED
6/30/2025

ROUTE	STATE
B	MO
DISTRICT	SHEET NO.
NE	3

COUNTY
PIKE

JOB NO.
JNE0052

CONTRACT ID.

PROJECT NO.

BRIDGE NO.

DESCRIPTION

DATE	DESCRIPTION

DATE

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

105 WEST CAPITOL JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)

QUANTITIES SHEET 1 OF 2

NW 1/4 OF THE SE 1/4
S35, T55N, R4W

CITY OF FRANKFORD
0.11 NEW R/W
7.12 ACRES REMAINING

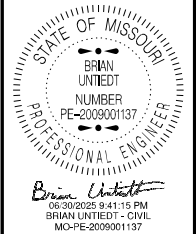
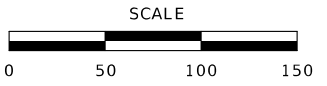
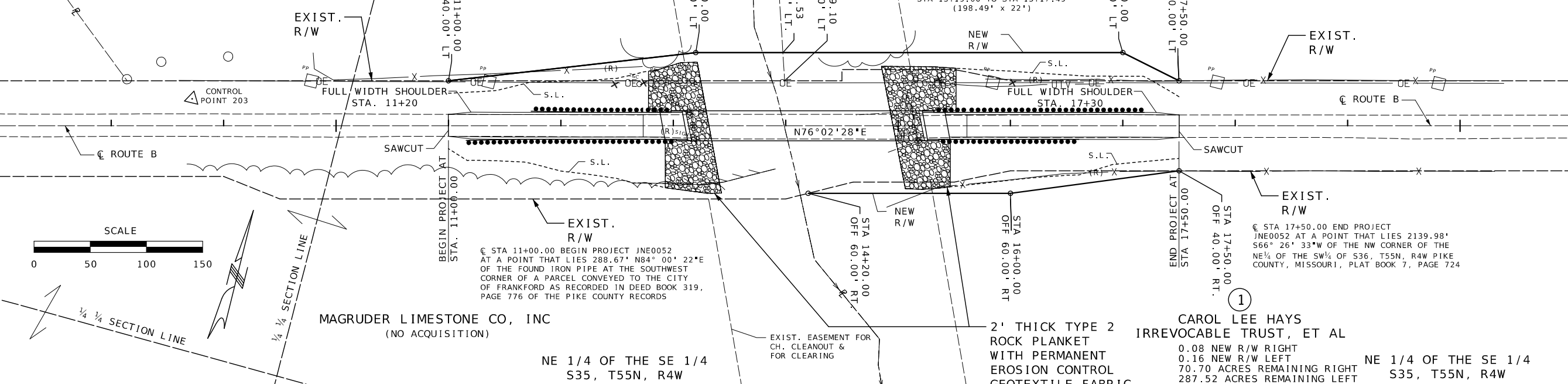
NE 1/4 OF THE SE 1/4
S35, T55N, R4W

EXIST. EASEMENT FOR
CH. CLEANOUT &
FOR CLEARING

BRIDGE NO. A9431
STA 13+10.42 TO STA 15+23.98 @ RTE B
(50'-80'-80') PRESTRESSED CONC I-GIRDER SPANS
INTEGRAL END BENTS
24'-0" (SYMMETRICAL) PLUS 16" TYPE D BARRIER
TANGENT ALIGNMENT, SKEW 10° RIGHT AHEAD,
HL-93 LOADING, D.A. 54 SQ. MI.
Q 50 = 9100 CFS
D.F. ELEV = 514.10

NE 1/4 OF THE SE 1/4
S35, T55N, R4W

CAROL LEE HAYS
IRREVOCABLE TRUST, ET AL
(SEE BELOW)



DATE PREPARED
6/30/2025

ROUTE	STATE
B	MO
DISTRICT	SHEET NO.
NE	4

COUNTY
PIKE

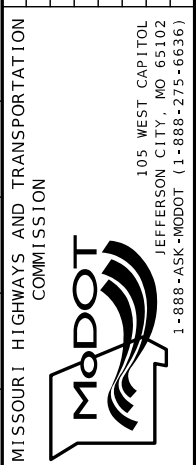
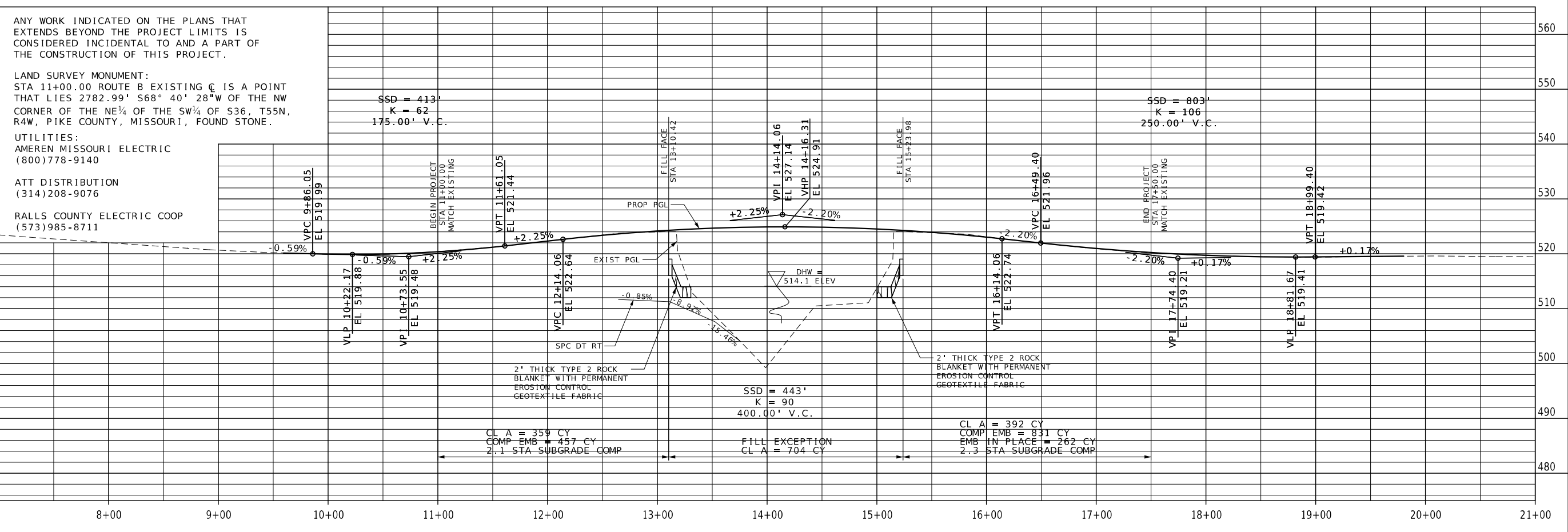
JOB NO.
JNE0052

CONTRACT ID.

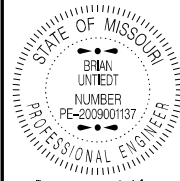
PROJECT NO.

BRIDGE NO.

DESCRIPTION	DATE



PLAN AND PROFILE
SHEET 1 OF 1



DATE PREPARED
6/30/2025 9:40:56 PM
BRIAN UNTCH - CIVIL
MO-PE-2009001137

ROUTE STATE
B MO

DISTRICT SHEET NO.
NE 5

COUNTY
PIKE

JOB NO.
JNE0052

CONTRACT ID.

PROJECT NO.

BRIDGE NO.

DESCRIPTION

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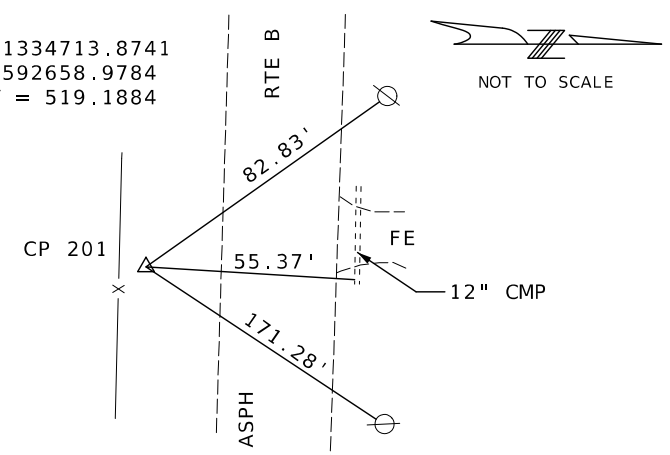
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DATE

DATE

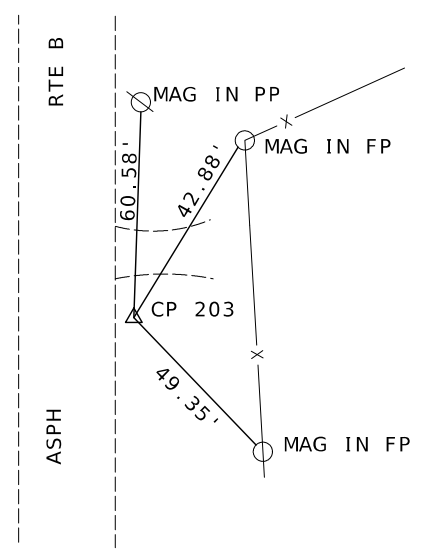
CP #201
5/8" IR w/CONTROL CAP

N = 1334713.8741
E = 592658.9784
ELEV = 519.1884

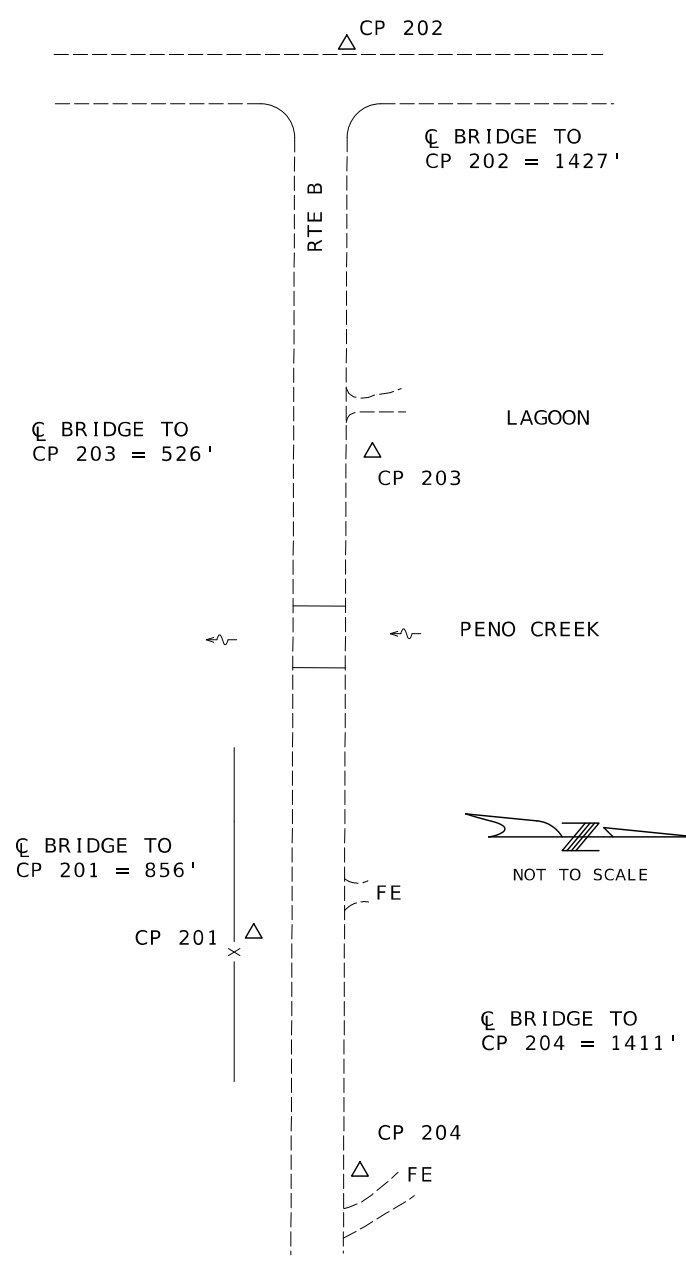


CP #203
5/8" IR w/CONTROL CAP

N = 1334444.3018
E = 591333.9033
ELEV = 519.9496

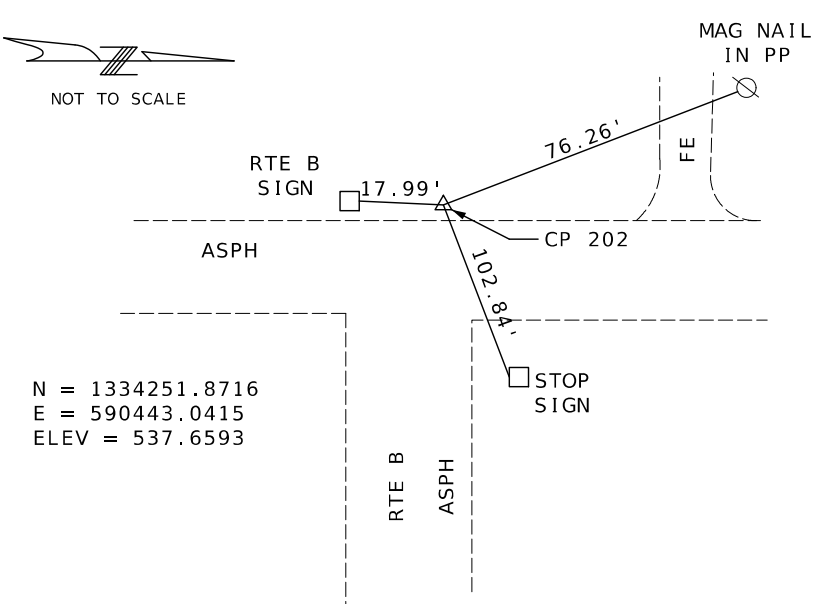


CONTROL POINTS LAYOUT
NOT TO SCALE



CP #202
5/8" IR w/CONTROL CAP

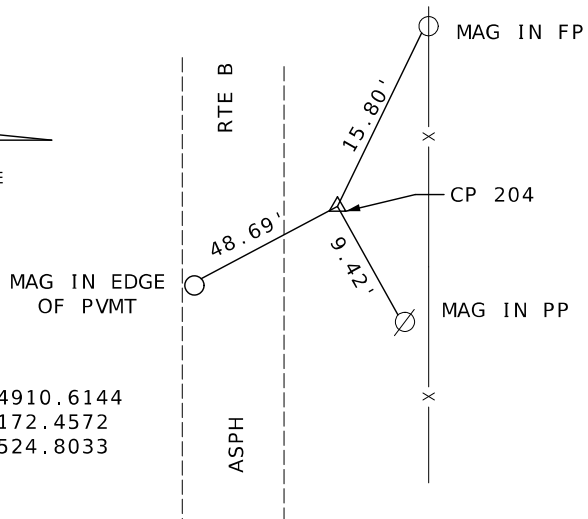
NOT TO SCALE



N = 1334251.8716
E = 590443.0415
ELEV = 537.6593

CP #204
5/8" IR w/CONTROL CAP

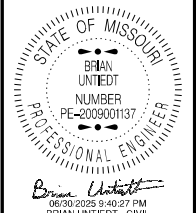
NOT TO SCALE



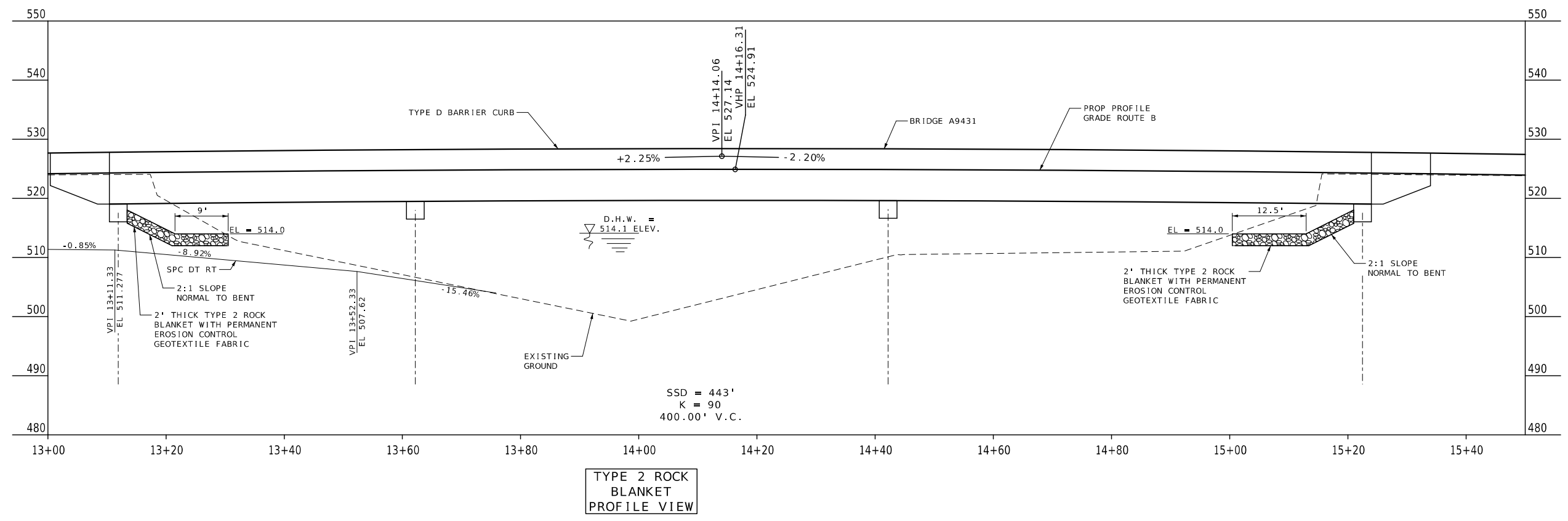
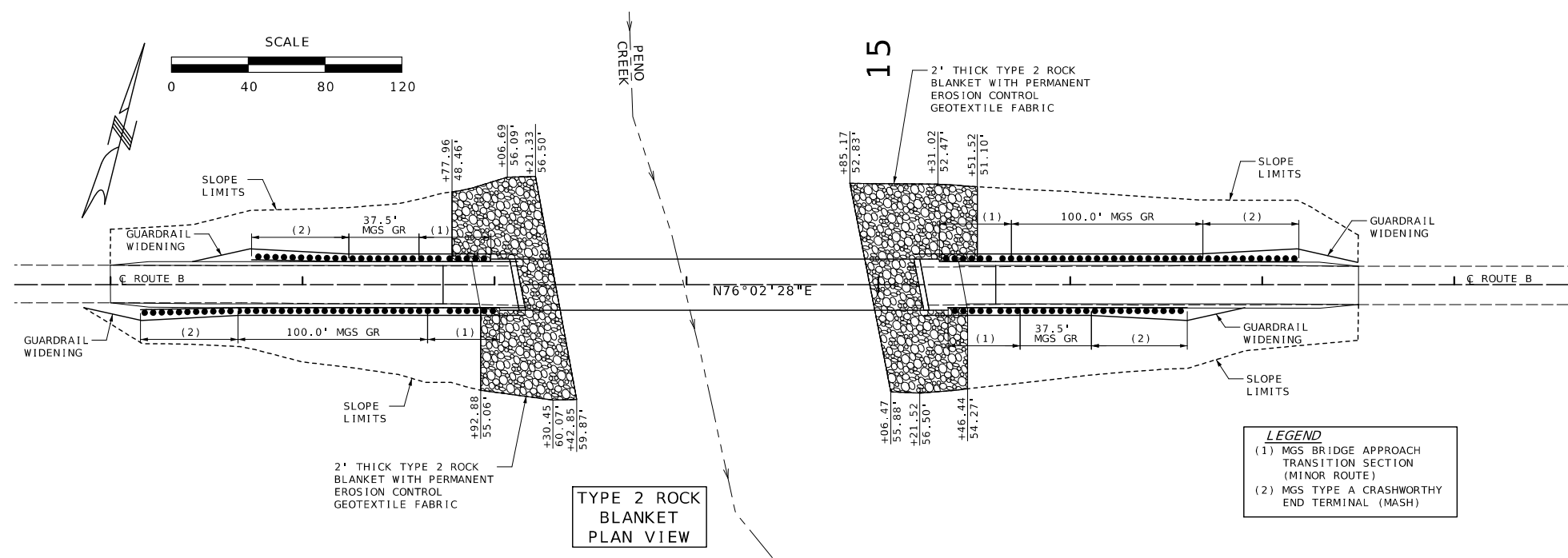
N = 1334910.6144
E = 593172.4572
ELEV = 524.8033

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION
MoDOT
105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)

REFERENCE POINTS
SHEET 1 OF 1



DATE PREPARED
6/30/2025
 ROUTE STATE
B MO
 DISTRICT SHEET NO.
NE 7
 COUNTY
PIKE
 JOB NO.
JNE0052
 CONTRACT ID.
 PROJECT NO.
 BRIDGE NO.

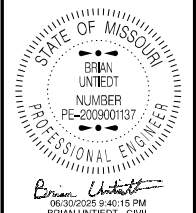


DESCRIPTION	DATE

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

105 WEST CAPITOL JEFFERSON CITY, MO 65102
 1-888-ASK-MODOT (1-888-275-6636)

GUARDRAIL AND ROCK BLANKET DETAILS
 SPECIAL SHEET 1 OF 1



DATE PREPARED
6/30/2025

ROUTE B STATE MO
DISTRICT NE SHEET NO. 8

COUNTY PIKE
JOB NO. JNE0052
CONTRACT ID.

PROJECT NO.
BRIDGE NO.

DESCRIPTION	DATE

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

MoDOT

105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)

TRAFFIC CONTROL SHEET 1 OF 2



W020-3
20A

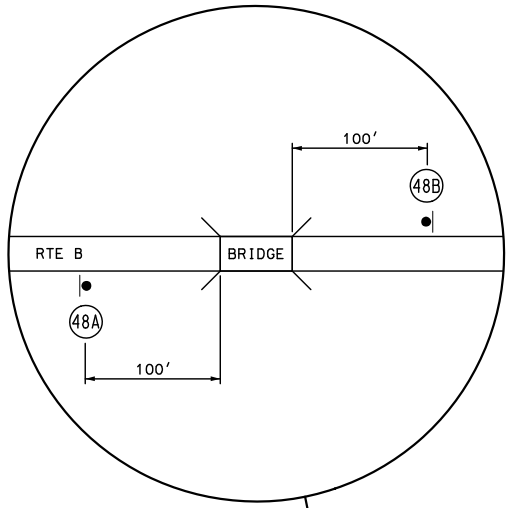


W020-3
20B

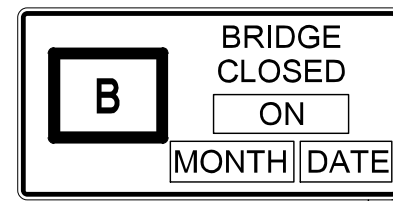
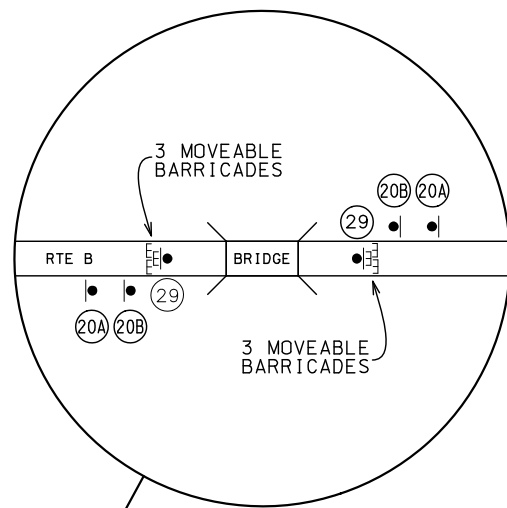


R11-2
29

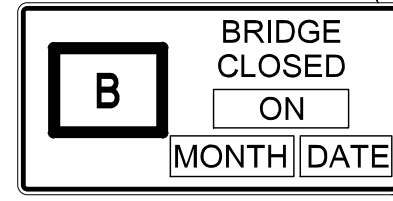
PRE-CLOSURE SIGNAGE AT BRIDGE
(TO BE RELOCATED)



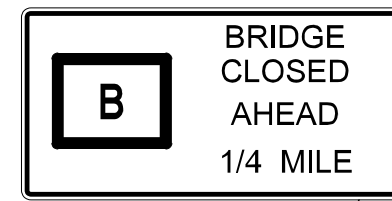
POST-CLOSURE SIGNAGE AT BRIDGE



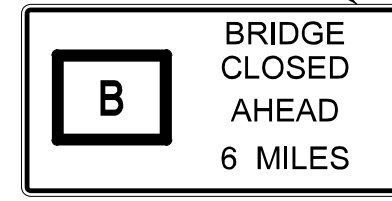
SPECIAL WITH CLOSURE PLATES
48A
PRE-CLOSURE SIGNS WITH PLAQUES



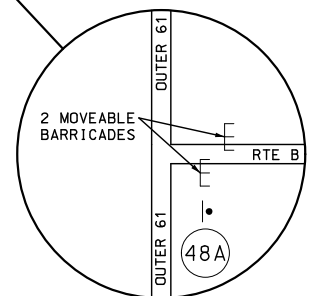
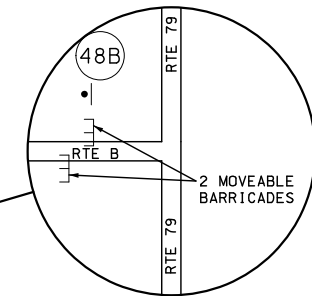
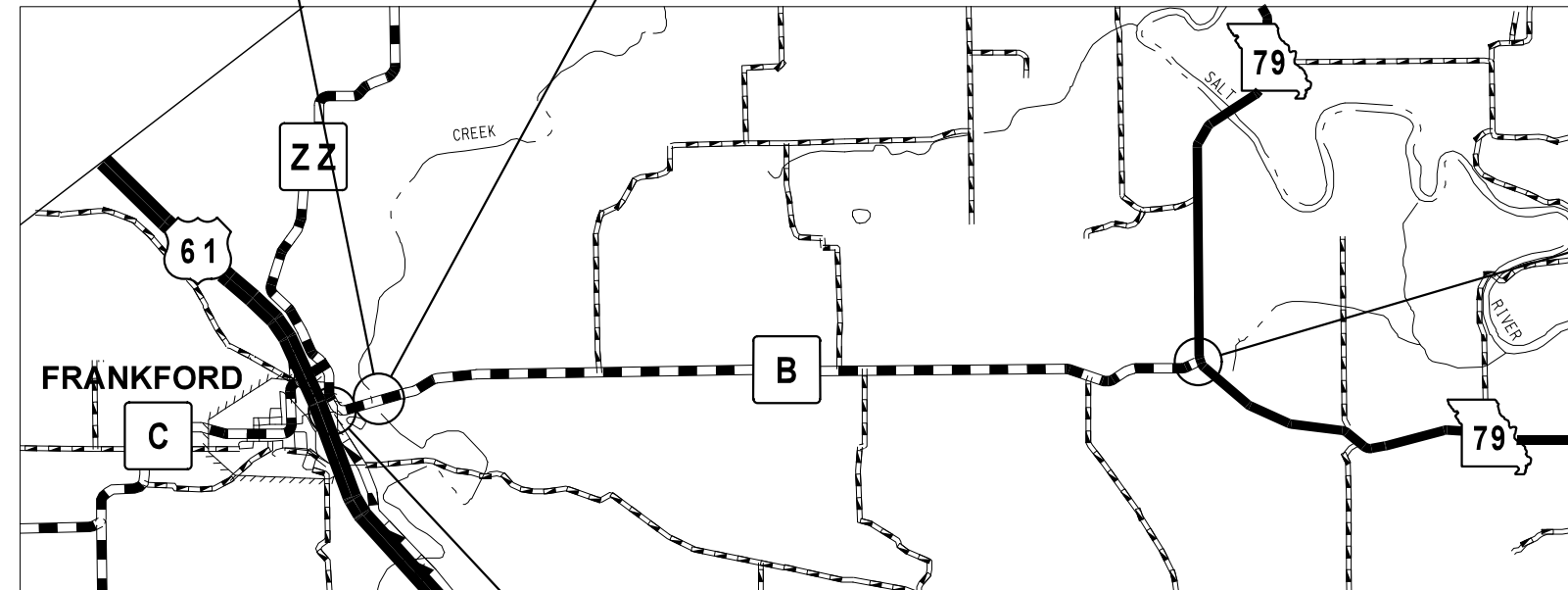
SPECIAL WITH CLOSURE PLATES
48B



SPECIAL
48A
POST-CLOSURE SIGNS PLAQUES REMOVED



SPECIAL
48B



NOTES:

INSTALL PRE-CLOSURE SIGNS WITH PLAQUES 48A & 48B A MINIMUM OF 2 WEEKS PRIOR TO CLOSURE.

WHEN BRIDGE CLOSURE OCCURS - REMOVE SPECIAL SIGN PLAQUES AND RELOCATE NOTED SIGNS.

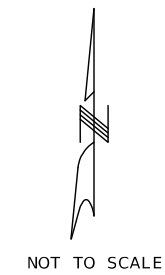
SEE TRAFFIC CONTROL SHEET 2 OF 2 FOR SPECIAL SIGN AND PLAQUE DETAILS.

ALL SIGNS SHALL BE SPACED AT 500 FEET UNLESS OTHERWISE NOTED.

* LOCATE SIGNS 100' FROM INTERSECTION.

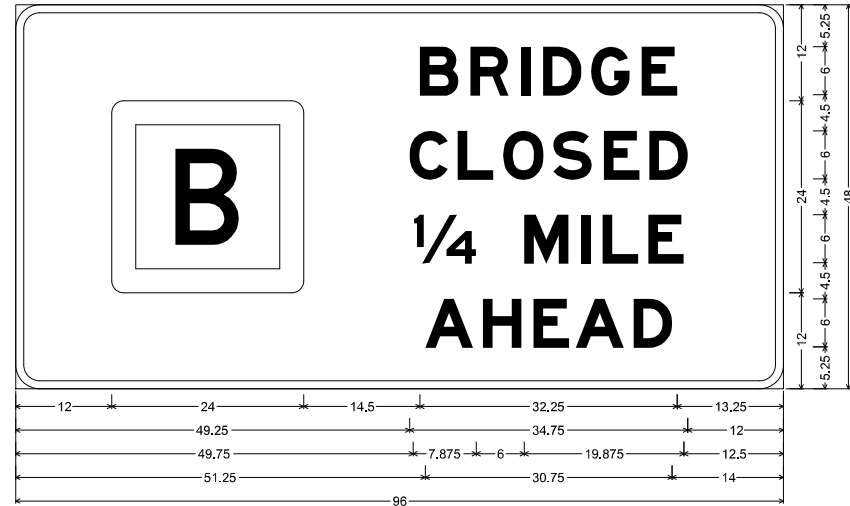
USE IN PLACE ALL SIGNS WHICH DO NOT CONFLICT WITH THIS PLAN. COVER OR REMOVE CONFLICTING SIGNS.

PLACE ALL SIGNS AS SHOWN OR AS DIRECTED BY THE ENGINEER.



TRAFFIC CONTROL LEGEND

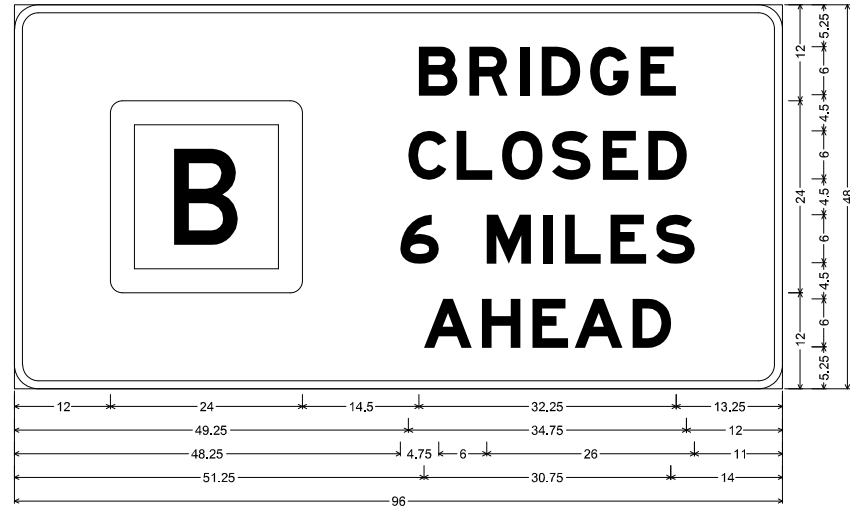
- SIGN (SINGLE SIDED)
- ▬ TYPE III MOVEABLE BARRICADE



MO4-13 SHF-FLAT SHEET FLUORESCENT;
3,000" Radius, 1,000" Border, Black on, Orange;
"BRIDGE", E Mod; "CLOSED", E Mod; "1/4 MILE", E Mod; "AHEAD", E Mod;
Table of letter and object lefts

Letter	B	R	I	D	G	E
Left	50.500	56.875	63.125	65.875	71.875	78.250
Letter	L	O	S	E	D	
Left	55.250	61.000	67.250	73.500	79.250	
Letter	M	I	L	E		
Left	63.625	70.625	73.375	79.125		
Letter	A	H	E	A	D	
Left	51.250	58.375	64.750	70.000	77.250	

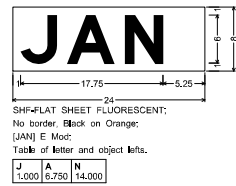
48A



MO4-13 SHF-FLAT SHEET FLUORESCENT;
3,000" Radius, 1,000" Border, Black on, Orange;
"BRIDGE", E Mod; "CLOSED", E Mod; "6 MILES", E Mod; "AHEAD", E Mod;
Table of letter and object lefts

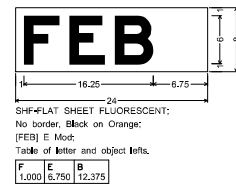
Letter	B	R	I	D	G	E
Left	50.500	56.875	63.125	65.875	71.875	78.250
Letter	L	O	S	E	D	
Left	55.250	61.000	67.250	73.500	79.250	
Letter	M	I	L	E	S	
Left	59.000	66.125	68.875	74.500	80.250	
Letter	A	H	E	A	D	
Left	51.250	58.375	64.750	70.000	77.250	

48B



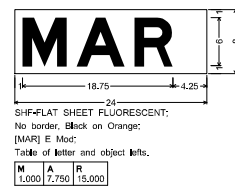
SHF-FLAT SHEET FLUORESCENT;
No border, Black on Orange;
[JAN] E Mod;
Table of letter and object lefts

Letter	J	A	N
Left	1,000	6,750	14,000



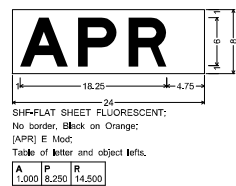
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No border, Black on Orange;
[FEB] E Mod;
Table of letter and object lefts

Letter	F	E	B
Left	1,000	6,750	12,375



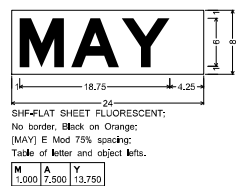
SHF-FLAT SHEET FLUORESCENT;
No border, Black on Orange;
[MAR] E Mod;
Table of letter and object lefts

Letter	M	A	R
Left	1,000	7,750	15,000



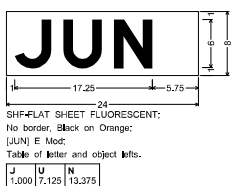
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No border, Black on Orange;
[APR] E Mod;
Table of letter and object lefts

Letter	A	P	R
Left	1,000	8,250	14,500



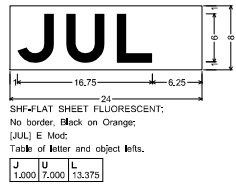
SHF-FLAT SHEET FLUORESCENT;
No border, Black on Orange;
[MAY] E Mod 75% spacing;
Table of letter and object lefts

Letter	M	A	Y
Left	1,000	7,500	13,750



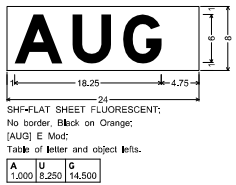
SHF-FLAT SHEET FLUORESCENT;
No border, Black on Orange;
[JUN] E Mod;
Table of letter and object lefts

Letter	J	U	N
Left	1,000	7,125	13,375



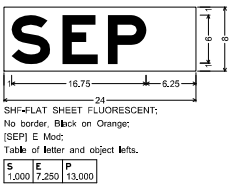
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No border, Black on Orange;
[JUL] E Mod;
Table of letter and object lefts

Letter	J	U	L
Left	1,000	7,000	13,375



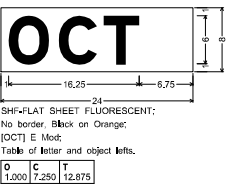
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No border, Black on Orange;
[AUG] E Mod;
Table of letter and object lefts

Letter	A	U	G
Left	1,000	8,250	14,500



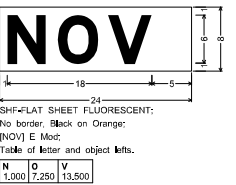
SHF-FLAT SHEET FLUORESCENT;
No border, Black on Orange;
[SEP] E Mod;
Table of letter and object lefts

Letter	S	E	P
Left	1,000	7,250	13,000



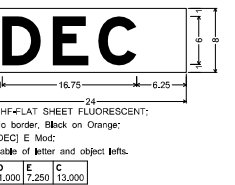
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No border, Black on Orange;
[OCT] E Mod;
Table of letter and object lefts

Letter	O	C	T
Left	1,000	7,250	12,875



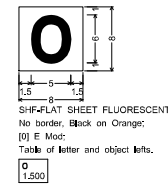
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No border, Black on Orange;
[NOV] E Mod;
Table of letter and object lefts

Letter	N	O	V
Left	1,000	7,250	13,500



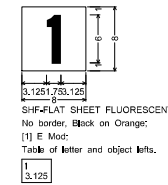
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No border, Black on Orange;
[DEC] E Mod;
Table of letter and object lefts

Letter	D	E	C
Left	1,000	7,250	13,000



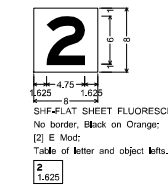
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No border, Black on Orange;
[0] E Mod;
Table of letter and object lefts

Letter	0
Left	1,500



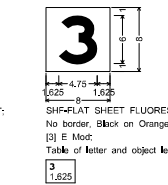
SHF-FLAT SHEET FLUORESCENT;
No border, Black on Orange;
[1] E Mod;
Table of letter and object lefts

Letter	1
Left	3,125



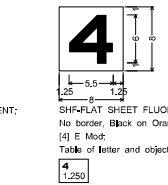
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No border, Black on Orange;
[2] E Mod;
Table of letter and object lefts

Letter	2
Left	1,625



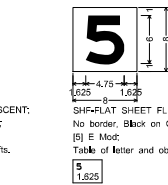
SHF-FLAT SHEET FLUORESCENT;
No border, Black on Orange;
[3] E Mod;
Table of letter and object lefts

Letter	3
Left	1,625



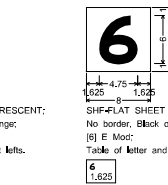
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No border, Black on Orange;
[4] E Mod;
Table of letter and object lefts

Letter	4
Left	1,250



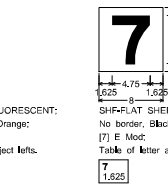
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No border, Black on Orange;
[5] E Mod;
Table of letter and object lefts

Letter	5
Left	1,625



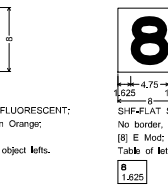
SHF-FLAT SHEET FLUORESCENT;
No border, Black on Orange;
[6] E Mod;
Table of letter and object lefts

Letter	6
Left	1,625



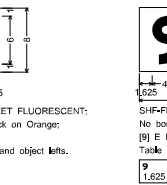
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No border, Black on Orange;
[7] E Mod;
Table of letter and object lefts

Letter	7
Left	1,825



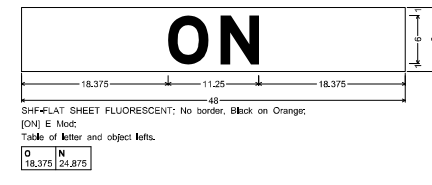
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No border, Black on Orange;
[8] E Mod;
Table of letter and object lefts

Letter	8
Left	1,825



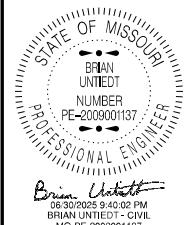
SHF-FLAT SHEET FLUORESCENT;
No border, Black on Orange;
[9] E Mod;
Table of letter and object lefts

Letter	9
Left	1,825



SHF-FLAT SHEET FLUORESCENT; No border, Black on Orange;
[ON] E Mod;
Table of letter and object lefts

Letter	O	N
Left	18,375	24,875



DATE PREPARED
6/30/2025
ROUTE
B
STATE
MO
DISTRICT
NE
SHEET NO.
9
COUNTY
PIKE
JOB NO.
JNE0052
CONTRACT ID.

PROJECT NO.
BRIDGE NO.

DATE	DESCRIPTION

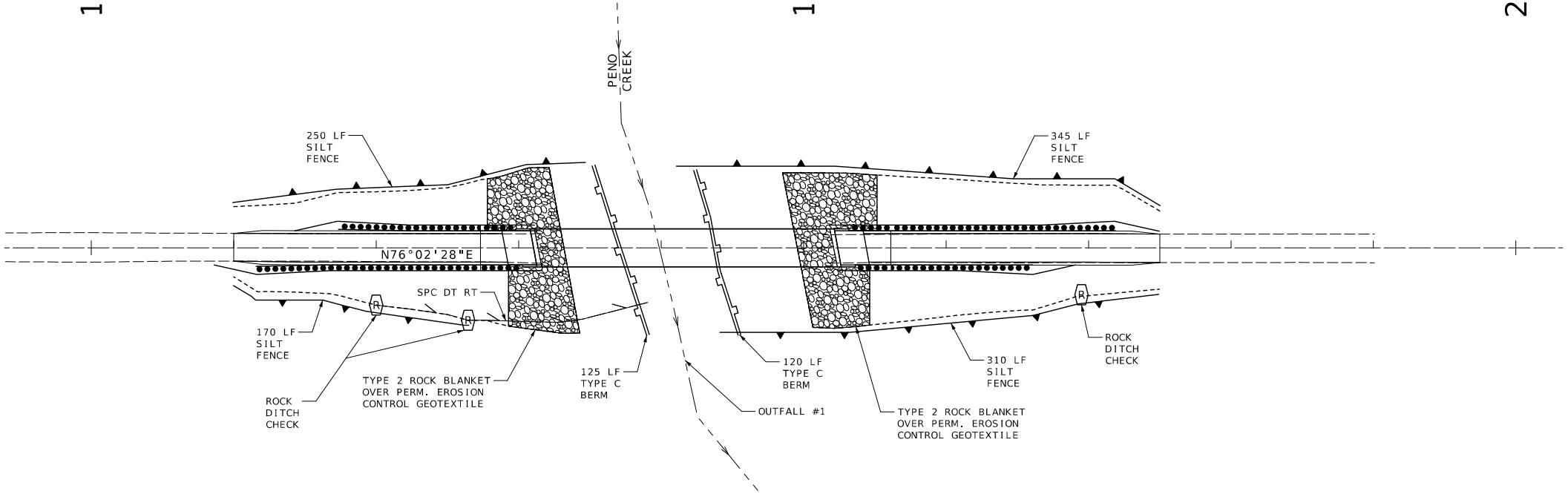
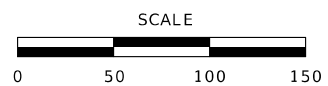
MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION
MoDOT
105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)

TRAFFIC CONTROL SHEET 2 OF 2

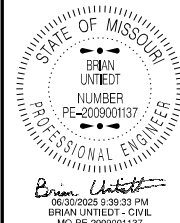
10

15

20



TEMPORARY EROSION CONTROL LEGEND		
	ROCK DITCH CHECK	= 30 LF
	SEDIMENT REMOVAL	= 14 CY
	SILT FENCE	= 1075 LF
	TYPE C BERM	= 245 LF
	SPECIAL DITCH	= N/A
SHEET TOTALS		



DATE PREPARED
6/30/2025

ROUTE STATE
B MO

DISTRICT SHEET NO.
NE 10

COUNTY
PIKE

JOB NO.
JNE0052

CONTRACT ID.

PROJECT NO.

BRIDGE NO.

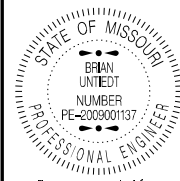
DESCRIPTION	DATE

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

MoDOT

105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)

EROSION CONTROL PLAN
SHEET 1 OF 1



DATE PREPARED
6/30/2025

ROUTE STATE
B MO

DISTRICT SHEET NO.
NE 11

COUNTY
PIKE

JOB NO.
JNE0052

CONTRACT ID.

PROJECT NO.

BRIDGE NO.

DESCRIPTION

DATE

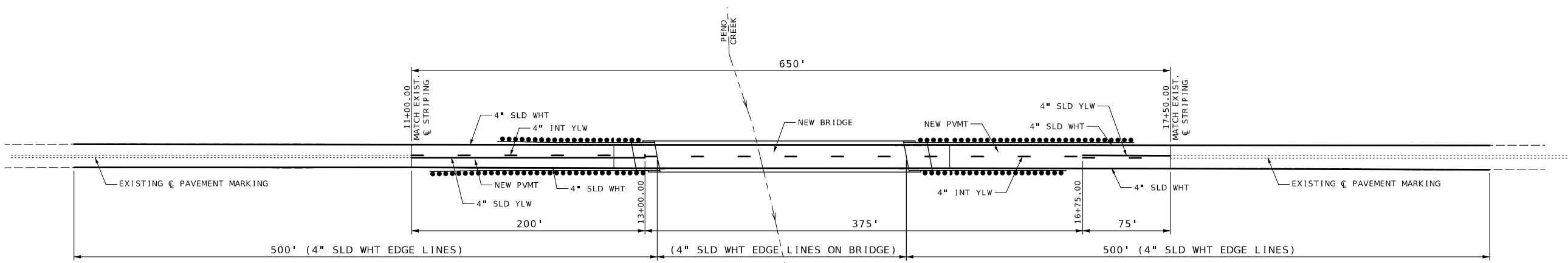
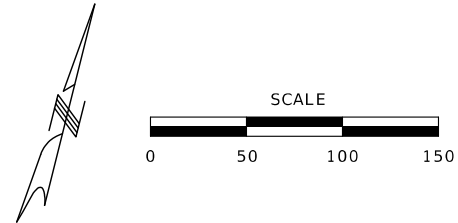
MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

105 WEST CAPITOL JEFFERSON CITY, MO 65102

1-888-ASK-MODOT (1-888-275-6636)

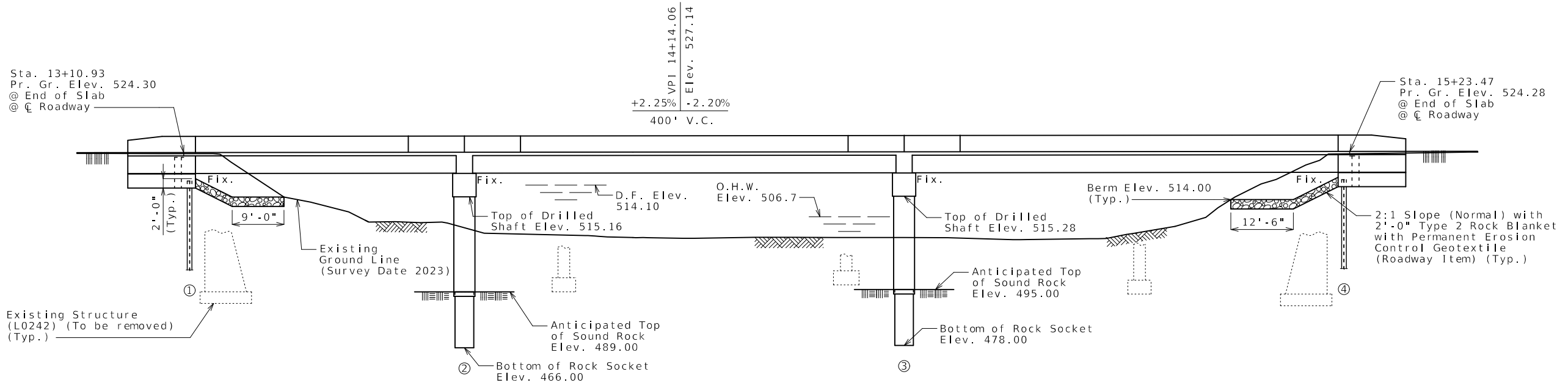
MoDOT

PAVEMENT MARKING SHEET 1 OF 1

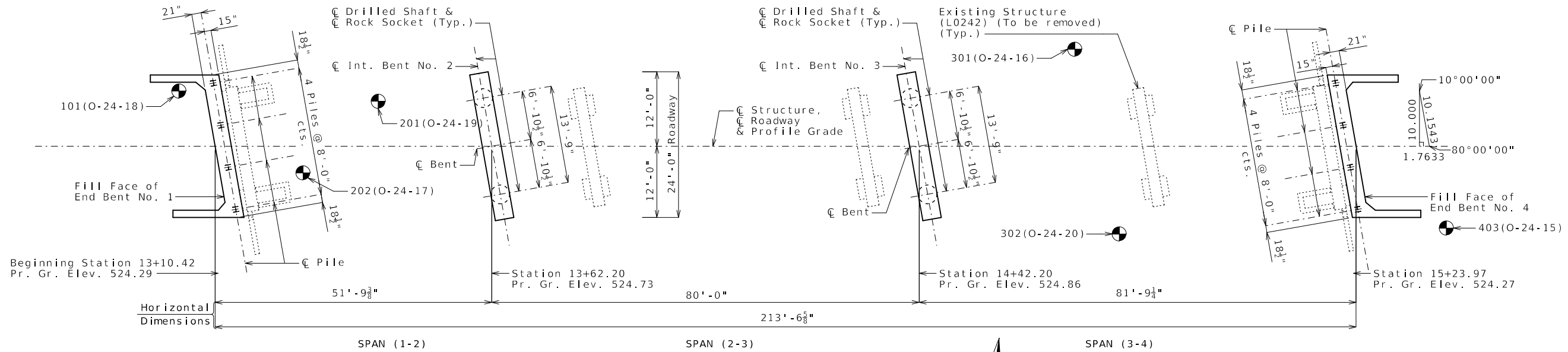


NOTE: REFER TO MODOT EPG 620.2.7.1 FOR FURTHER GUIDANCE ON THE EDGELINE STRIPE.

(50' - 80' - 80') PRESTRESSED CONCRETE I-GIRDER SPANS



GENERAL ELEVATION



PLAN

Indicates location of borings.

Notice and Disclaimer regarding Boring Log Data

The locations of all subsurface borings for this structure are shown on the plan sheet(s) for this structure. The boring data for all locations indicated, as well as any other boring logs of other factual records of subsurface data and investigations performed by the department for the design of the project, are shown on Sheet(s) No. 32 and may be included in the Electronic Bridge Deliverables. They will also be available from the Project Contact upon written request. No greater significance or weight should be given to the boring data sheets than is given to the subsurface data available from the district or elsewhere.

The Commission does not represent or warrant that any such boring data available depicts the conditions to be encountered in construction this project. A contractor assumes all risk it may encounter in basing its bid prices, time or schedule of performance on the boring data depicted here or those available from the district, or on any other documentation not expressly warranted, which the contractor may obtain from the Commission.

Notes:

For General Notes, Foundation Data, Estimated Quantities, Estimated Quantities for Slab on Concrete I-Girder, Hydrologic Data and Location Sketch, see Sheet No. 2.

Roadway fill shall be completed to the final roadway section and up to the elevation of the bottom of the concrete beam within the limits of the structure and for not less than 25 feet in the back of the fill face of the end bents before any piles are driven for any bents falling within the embankment section.

B.M. 1

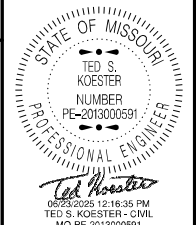
TOP CONCRETE NEAR BRIDGE
BEGINNING STATION 13+20.29
13.59 RT. ELEV.=524.43

B.M. 2

TOP CONCRETE NEAR BRIDGE
ENDING STATION 15+17.67
13.83 RT ELEV. 524.56

BRIDGE: ROUTE B OVER PENO CREEK

ROUTE B FROM ROUTE 61 OR TO ROUTE 79
ABOUT 0.3 MILES EAST OF ROUTE 61 OR
BEGINNING STATION 13+10.42



DATE PREPARED 6/23/2025	
ROUTE B	STATE MO
DISTRICT BR	SHEET NO. 1
COUNTY PIKE	
JOB NO. JNE0052	
CONTRACT ID.	
PROJECT NO.	
BRIDGE NO. A9431	

DESCRIPTION	DATE

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)

GENERAL NOTES:

Design Specifications:

2020 AASHTO LRFD Bridge Design Specifications (9th Ed.)
 2011 AASHTO Guide Specifications for LRFD Seismic Bridge Design (2nd Ed.)
 and 2014 Interim Revisions (Seismic Details)
 Seismic Design Category = B

Design Loading:

Vehicular = HL-93
 Future Wearing Surface = 35 lb/sf
 Earth = 120 lb/sf
 Equivalent Fluid Pressure = 45 lb/cf (Min.)
 Superstructure: Non-Composite for dead load.
 Composite for live load.

Design Unit Stresses:

Class B Concrete (Substructure) f'c = 3,000 psi
 Class B-1 Concrete (Barrier) f'c = 4,000 psi
 Class B-2 Concrete (Superstructure except
 Prestressed Girders and Barrier) f'c = 4,000 psi
 Reinforcing Steel (ASTM A706 Grade 60) fy = 60,000 psi
 Structural Steel HP Pile (ASTM A709 Grade 50) fy = 50,000 psi

For precast prestressed panel stresses, see Sheet No. 19.
 For prestressed girder stresses, see Sheets No. 14, 15, & 16.

Neoprene Pads:

Neoprene bearing pads shall be 60 durometer and shall be in accordance with Sec 716.

Joint Filler:

All joint filler shall be in accordance with Sec 1057 for preformed sponge rubber expansion and partition joint filler, except as noted.

Reinforcing Steel:

Minimum clearance to reinforcing steel shall be 1 1/2", unless otherwise shown.

Minimum clearance between galvanized piles and uncoated (plain) reinforcing steel including bar supports shall be 1 1/2". Nylon, PVC, or polyethylene spacers shall be used to maintain clearance. Nylon cable ties shall be used to bind the spacers to the reinforcement.

Traffic Handling:

Structure to be closed during construction. Traffic to be maintained on other routes during construction. See Roadway plans for traffic control.

Miscellaneous:

MoDOT Construction personnel will indicate the type of joint filler option used under the precast panels for this structure:

- Constant Joint Filler
- Varied Joint Filler

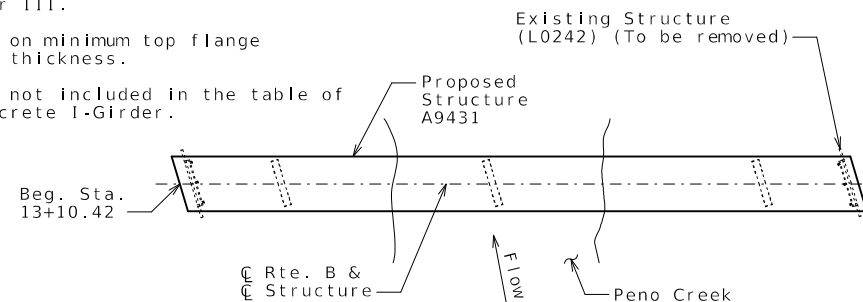
Estimated Quantities for Slab on Concrete I-Girder		
Item		Total
Class B-2 Concrete	cu. yard	207
Reinforcing Steel (Epoxy Coated)	pound	43,210

The table of Estimated Quantities for Slab on Concrete I-Girder represents the quantities used by the State in preparing the cost estimate for concrete slabs. The area of the concrete slab will be measured to the nearest square yard longitudinally from end of slab to end of slab and transversely from out to out of bridge slab (or with the horizontal dimensions as shown on the plan of slab). Payment for prestressed panels, conventional forms, all concrete and epoxy coated reinforcing steel will be considered completely covered by the contract unit price for the slab. Variations may be encountered in the estimated quantities but the variations cannot be used for an adjustment in the contract unit price.

Method of forming the slab shall be as shown on the plans and in accordance with Sec 703. All hardware for forming the slab to be left in place as a permanent part of the structure shall be coated in accordance with ASTM A123 or ASTM B633 with a thickness class SC 4 and a finish type I, II or III.

Class B-2 Concrete quantity is based on minimum top flange thickness and minimum joint material thickness.

The prestressed panel quantities are not included in the table of Estimated Quantities for Slab on Concrete I-Girder.



Note: This drawing is not to scale. Follow dimensions.

Estimated Quantities				
Item		Substr.	Superstr.	Total
Class 1 Excavation	cu. yard	80		80
Removal of Bridges (L0242)	lump sum			1
Bridge Approach Slab (Minor)	sq. yard		109	109
Drilled Shafts (3 ft. 6 in. Dia.)	linear foot	92.9		92.9
Rock Sockets (3 ft. 0 in. Dia.)	linear foot	80.0		80.0
Video Camera Inspection	each	4		4
Foundation Inspection Holes	linear foot	120		120
Sonic Logging Testing	each	4		4
Galvanized Structural Steel Piles (12 in.)	linear foot	312		312
Pile Point Reinforcement	each		8	8
Class B Concrete (Substructure)	cu. yard	51.0		51.0
Slab on Concrete I-Girder	sq. yard		630	630
Type D Barrier	linear foot		468	468
Type 6 (54 in.), Prestressed Concrete I-Girder	linear foot		630	630
Reinforcing Steel (Bridges)	pound		18,310	18,310
Steel Intermediate Diaphragm for P/S Concrete Girders	each		6	6
Slab Drains	each		16	16
Vertical Drain at End Bents	each		2	2
Plain Neoprene Bearing Pad	each		6	6
Laminated Neoprene Bearing Pad	each		12	12

All concrete above the construction joint in the end bents is included in the Estimated Quantities for Slab on Concrete I-Girder.

All reinforcement in the end bents is included in the Estimated Quantities for Slab on Concrete I-Girder.

All reinforcement in the intermediate bent concrete diaphragms except reinforcement embedded in the beam cap is included in the Estimated Quantities for Slab on Concrete I-Girder.

All concrete above the intermediate beam cap is included in the Estimated Quantities for Slab on Concrete I-Girder.

Cost of L4x4 ASTM A709 Grade 36 HP pile anchors and 3/4-inch diameter ASTM F3125 Grade A325 Type 1 bolts, complete in place, will be considered completely covered by the contract unit price for Galvanized Structural Steel Piles (12 in.).

Hydrologic Data	
Drainage Area = 54 sq. mi.	
Design Flood Frequency = 50 years	
Design Flood Discharge = 9,100 cfs	
Design Flood (D.F.) Elevation = 514.1	
Base Flood (100-year)	
Base Flood Elevation = 514.2	
Base Flood Discharge = 10,500 cfs	
Estimated Backwater = 0.9 ft	
Average Velocity thru Opening = 10 ft/s	
Freeboard (50-year)	
Freeboard = 4.5 ft	
Roadway Overtopping	
Overtopping Flood Discharge = N/A	
Overtopping Flood Frequency = 500 years	
Overtopping Flood Elevation = 516.4	

Foundation Data						
Type	Design Data	Bent Number				
		1	2	3	4	
Load Bearing Pile	Pile Type and Size	HP 12x53	-	-	HP 12x53	
	Number	4	-	-	4	
	Approximate Length Per Each	ft	57	-	-	21
	Pile Point Reinforcement	ea	4	-	-	4
	Min. Galvanized Penetration (Elev.)	ft	Full Length	-	-	Full Length
	Pile Driving Verification Method		DF	-	-	DF
	Minimum Nominal Axial Compressive Resistance	kip	437	-	-	535
Rock Socket	Number	-	2	2	-	
	Foundation Material	-	Strong Rock	Strong Rock	-	
	Elevation Range	ft	488-467	492-469	-	
	① Minimum Nominal Axial Compressive Resistance (Side Resistance)	ksf	0	11.7	-	
	Minimum Nominal Axial Compressive Resistance (Tip Resistance)	ksf	-	0	-	
	Foundation Material	-	Strong Rock	Strong Rock	-	
	Elevation Range	ft	467-455	469-455	-	
② Minimum Nominal Axial Compressive Resistance (Side Resistance)	ksf	29.3	29.3	-		
Minimum Nominal Axial Compressive Resistance (Tip Resistance)	ksf	400	400	-		

DF = FHWA-modified Gates Dynamic Pile Formula

$$\text{Minimum Nominal Axial Compressive Resistance} = \frac{\text{Maximum Factored Loads}}{\text{Resistance Factors}}$$

All piles shall be galvanized down to the minimum galvanized penetration (elevation).

Pile point reinforcement need not be galvanized. Shop drawings will not be required for pile point reinforcement.

The contractor shall make every effort to achieve the minimum galvanized penetration (elevation) shown on the plans for all piles. Deviations in penetration less than 5 feet of the minimum will be considered acceptable provided the contractor makes the necessary corrections to ensure the minimum penetration is achieved on subsequent piles.

HP piles are anticipated to be driven to refusal on rock. Review all borings for depth of rock and restrict driving as appropriate to comply with hard rock driving criteria in accordance with Sec 702.

DATE PREPARED: 6/23/2025

ROUTE: B STATE: MO

DISTRICT: BR SHEET NO.: 2

COUNTY: PIKE

JOB NO.: JNE0052

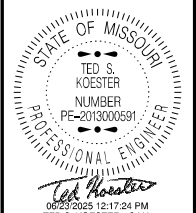
CONTRACT ID.:

PROJECT NO.:

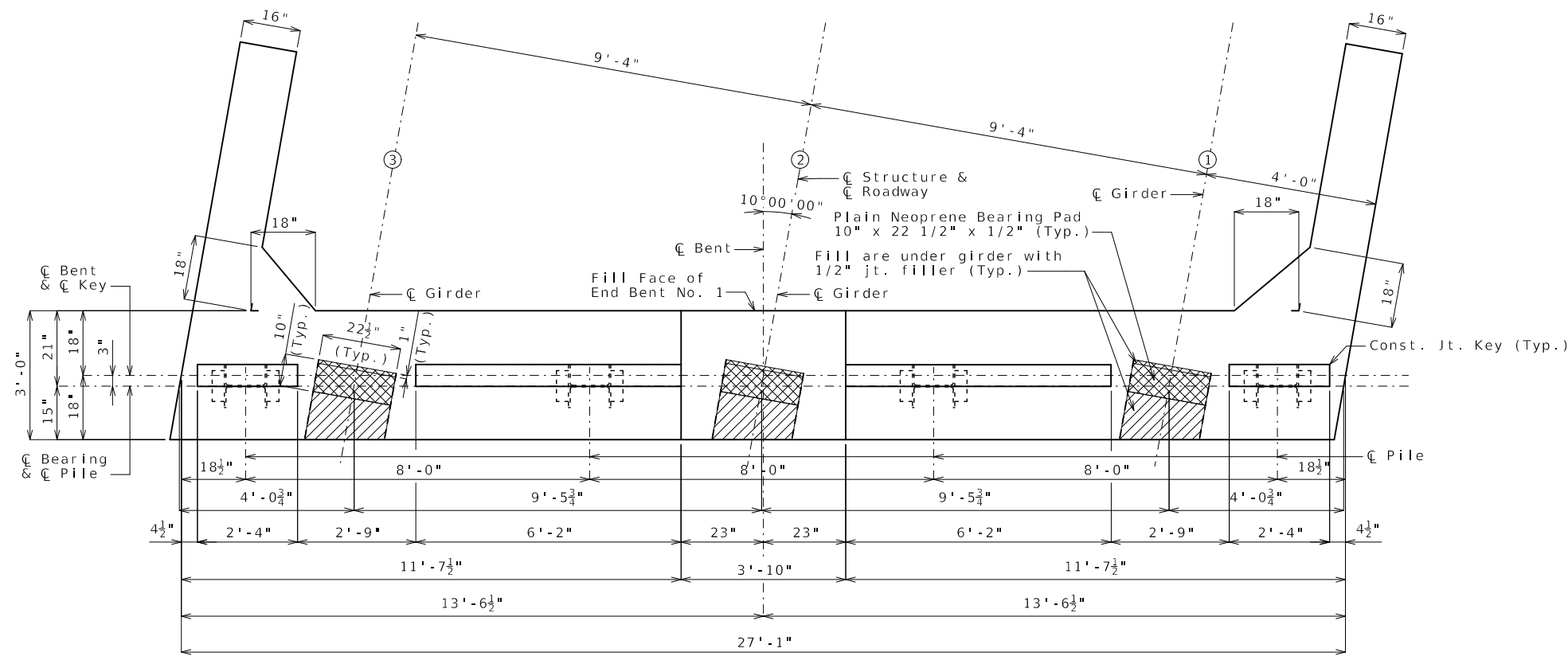
BRIDGE NO.: A9431

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

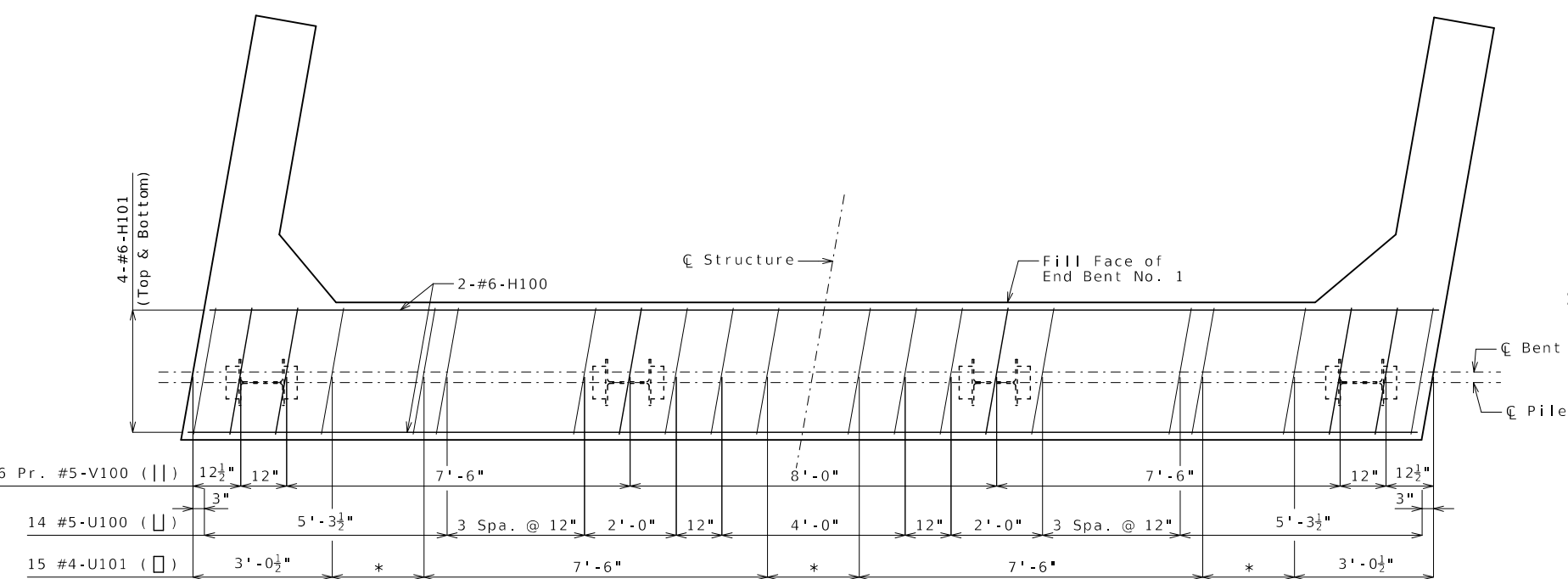
105 WEST CAPITOL
 JEFFERSON CITY, MO 65102
 1-888-ASK-MODOT (1-888-275-6636)



STATE OF MISSOURI
 TED S. KOESTER
 LICENSE NUMBER
 PE-2013000591
 PROFESSIONAL ENGINEER
 DATE PREPARED
 6/23/2025
 ROUTE B STATE MO
 DISTRICT BR SHEET NO. 3
 COUNTY PIKE
 JOB NO. JNE0052
 CONTRACT ID.
 PROJECT NO.
 BRIDGE NO. A9431



PLAN OF BEAM

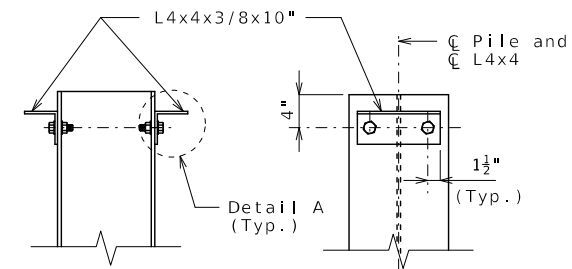


PLAN OF BEAM SHOWING REINFORCEMENT

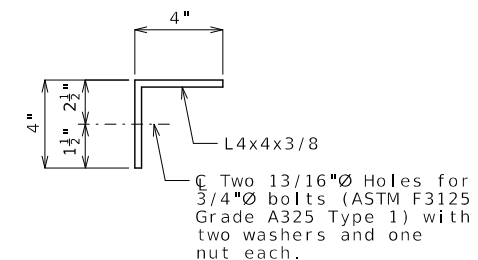
* 4 Spa. @ 6"

Note: Keys & steps not shown for clarity.

DETAILS OF END BENT NO. 1

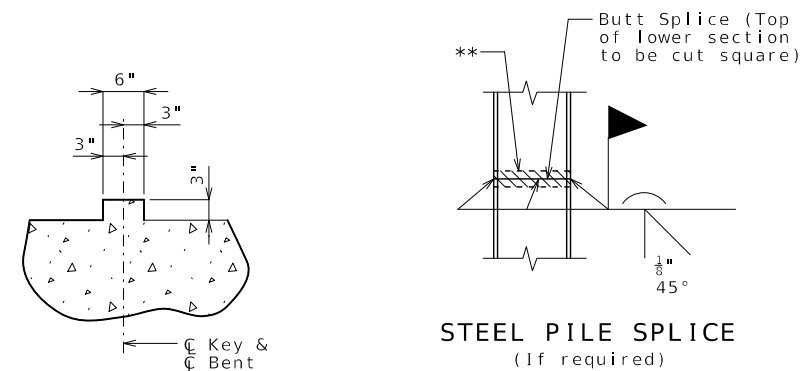


DETAILS OF HP PILE ANCHORS



DETAIL A

Angles shall be coated with a minimum of two coats of non-aluminum epoxy mastic primer to provide a dry film thickness of 4 mils minimum, 8 mils maximum, or galvanized in accordance with Sec 1081. Bolts, washers and nuts shall be galvanized in accordance with AASHTO M 232 (ASTM A153), Class C.



SECTION THRU KEY

STEEL PILE SPLICE (If required)

** Galvanizing material shall be omitted or removed one inch clear of weld locations in accordance with Sec 702.

Notes:

Work this sheet with Sheets No. 4 & 5.

Reinforcing steel shall be shifted to clear piles. U bars shall clear piles at least 1 1/2 inches.

The U bars and pairs of V bars shall be placed parallel to centerline of roadway.

Substructure Quantity Table for Bent No.1		
Item	Unit	Quantity
Class 1 Excavation	cu. yard	40
Galvanized Structural Steel Pile (12 in.)	linear foot	228
Pile Point Reinforcement	each	4
Class B Concrete (Substructure)	cu. yard	12.0

These quantities are included in the Estimated Quantities table on Sheet No. 2.

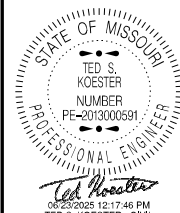
DESCRIPTION

DATE

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION



105 WEST CAPITOL
 JEFFERSON CITY, MO 65102
 1-888-ASK-MODOT (1-888-275-6636)

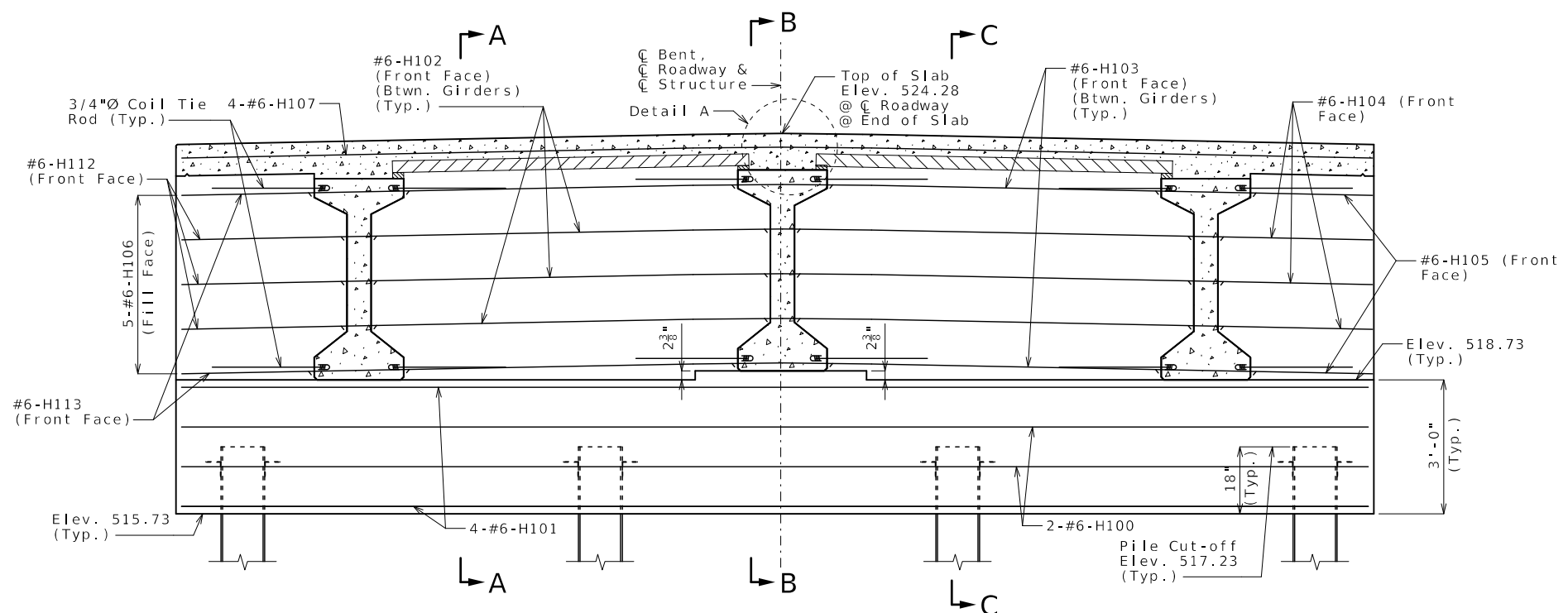


DATE PREPARED 6/23/2025	
ROUTE B	STATE MO
DISTRICT BR	SHEET NO. 4
COUNTY PIKE	
JOB NO. JNE0052	
CONTRACT ID.	
PROJECT NO.	
BRIDGE NO. A9431	

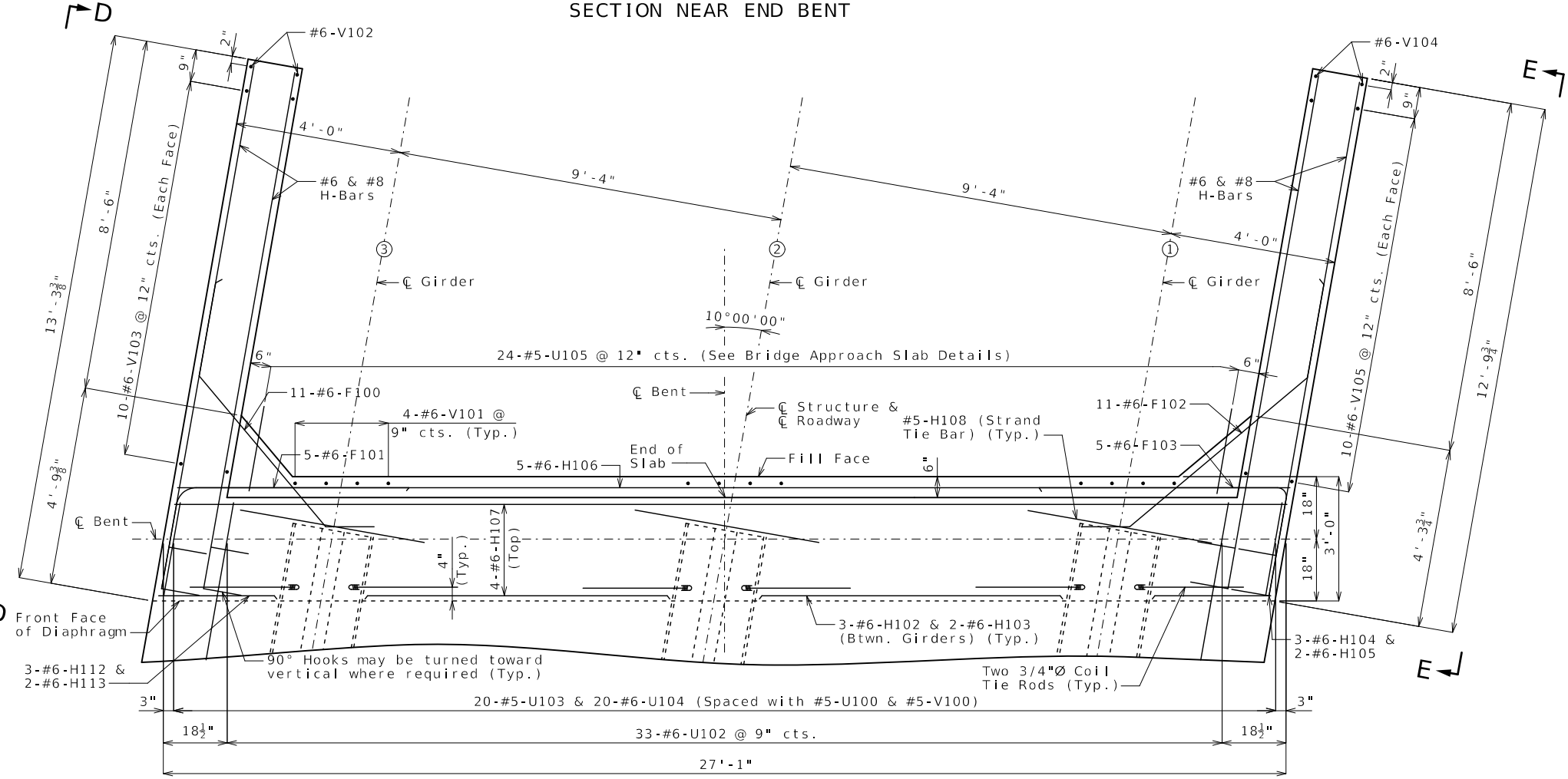
DESCRIPTION

DATE

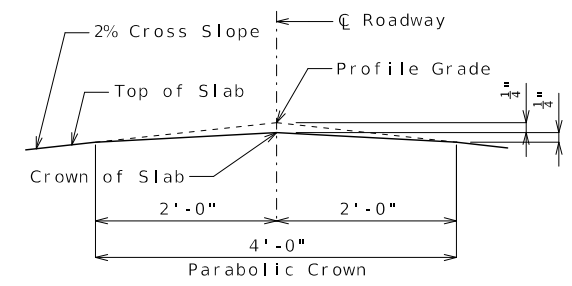
MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION



SECTION NEAR END BENT



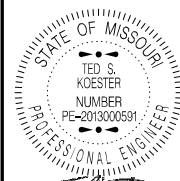
PART PLAN



DETAIL A

Notes:
 For Sections A-A, B-B, C-C and Typical Elevation of Wings, see Sheet No. 5.
 For details of End Bent No. 1 not shown, see Sheets No. 3 & 5.
 All concrete in the end bent above top of beam and below top of slab shall be Class B-2.
 Strands at end of girders shall be field bent or, if necessary, cut in field to maintain 1 1/2-inch minimum clearance to fill face of end bent.
 For location of coil ties & #5-H108 (strand tie bar), see Sheet No. 14.
 The #6-F100 & F102 bars shall be bent in field to clear girders.

DETAILS OF END BENT NO. 1



DATE PREPARED
6/23/2025

ROUTE B STATE MO

DISTRICT BR SHEET NO. 5

COUNTY PIKE

JOB NO. JNE0052

CONTRACT ID.

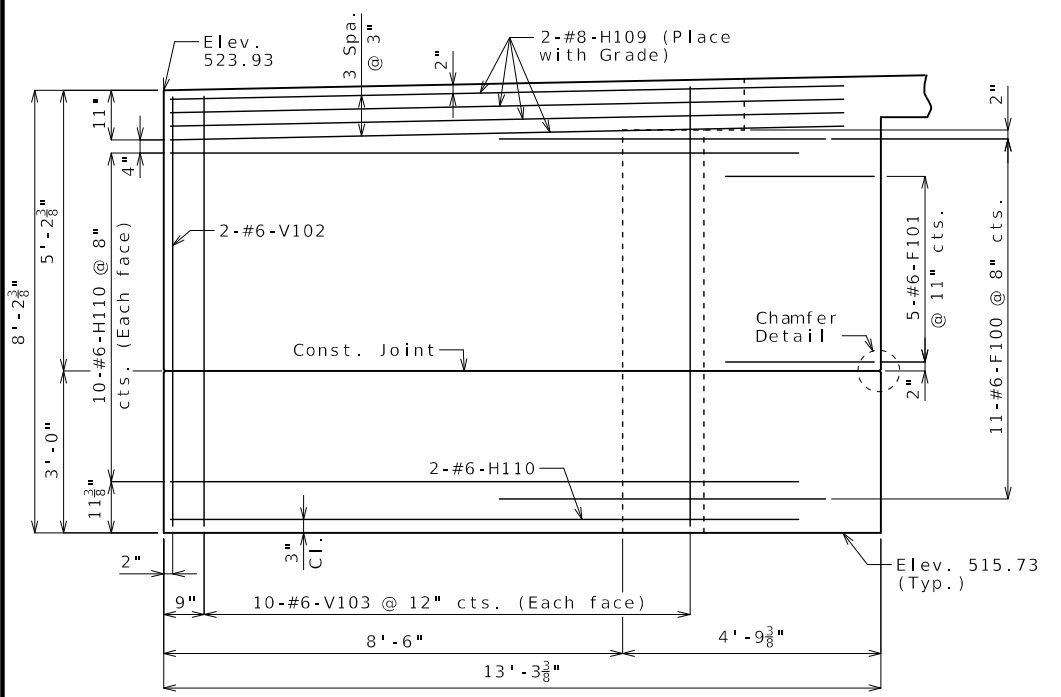
PROJECT NO.

BRIDGE NO. A9431

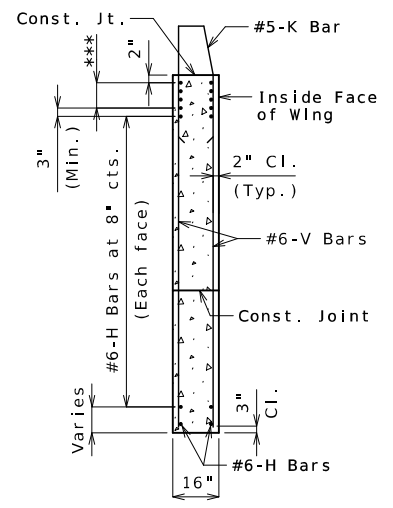
DATE	DESCRIPTION

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)

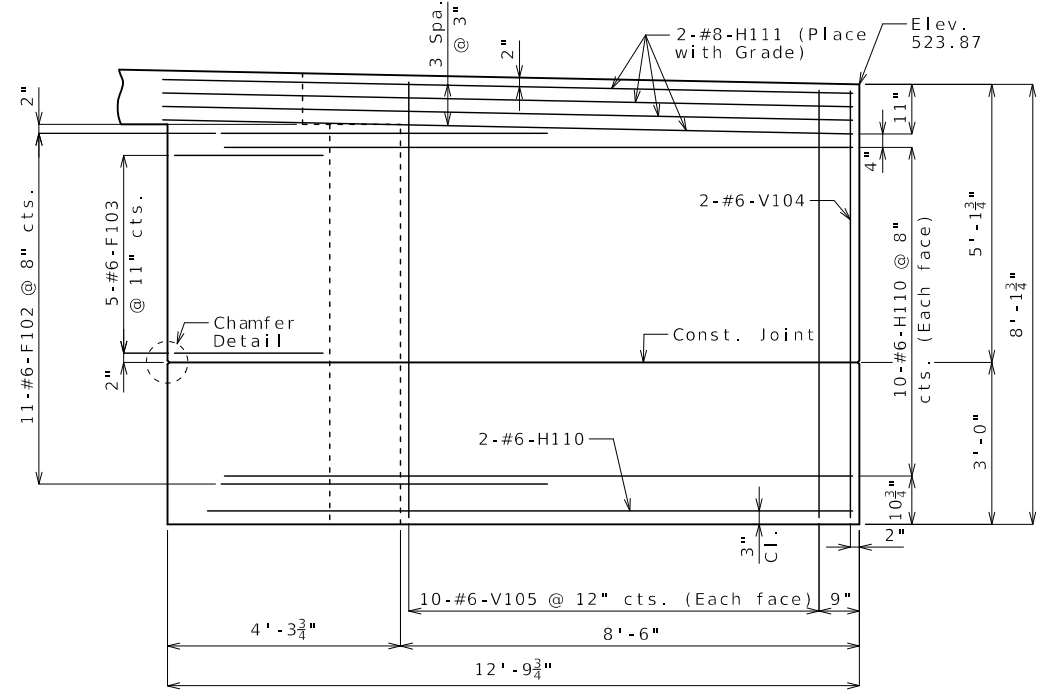


ELEVATION D-D

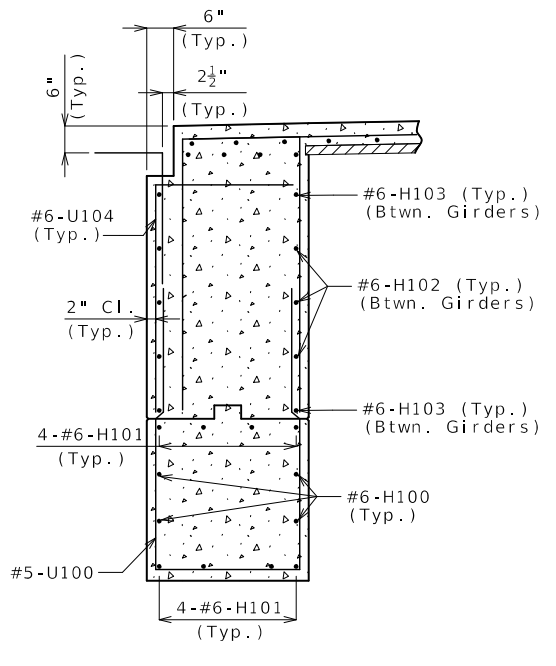


TYPICAL SECTION THRU WING

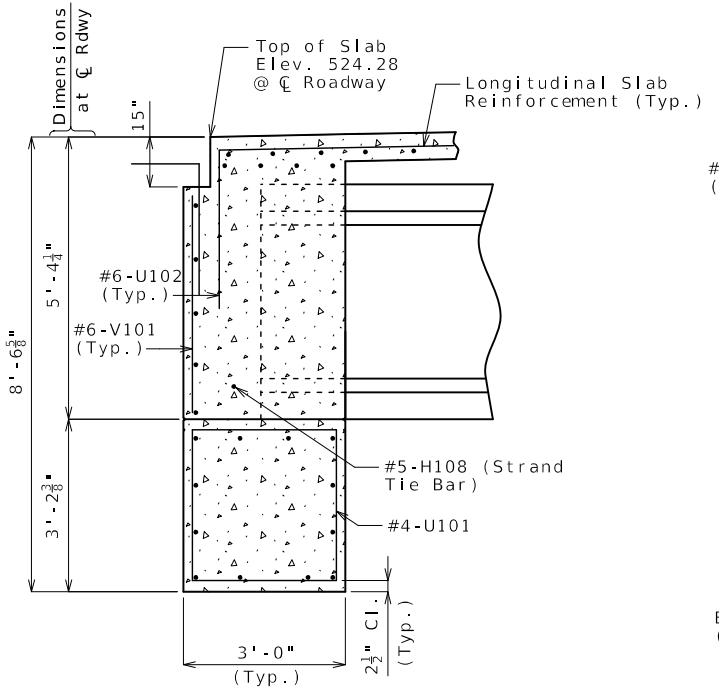
*** #8-H Bars at 3" cts. (Each face) (Place with grade)



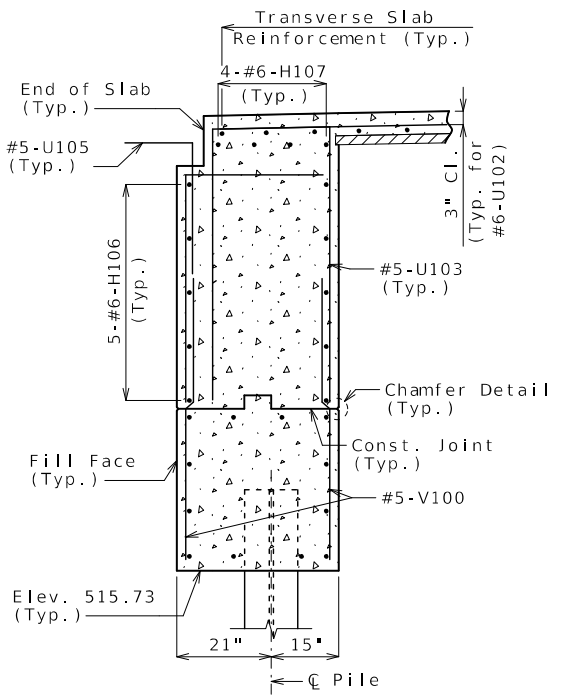
ELEVATION E-E



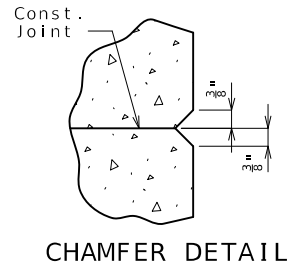
SECTION A-A



SECTION B-B



SECTION C-C



CHAMFER DETAIL

General Notes:

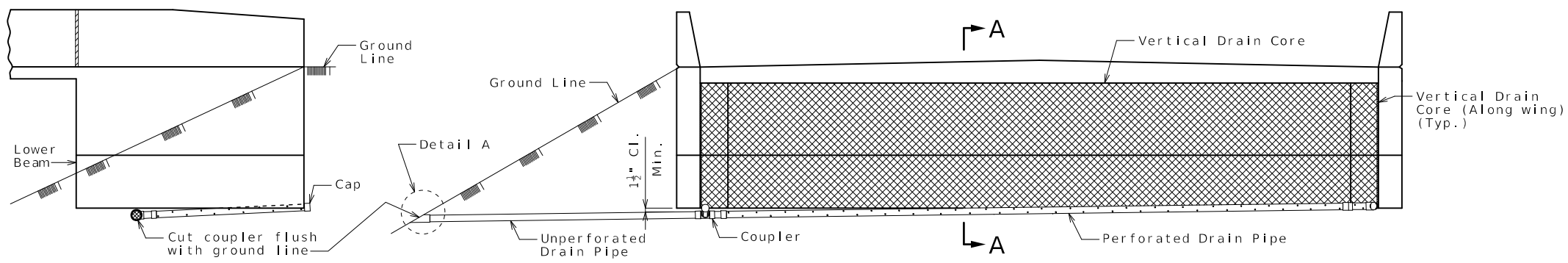
For locations of Sections A-A, B-B, C-C, and Elevations D-D and E-E, see Sheet No. 4.

Work this sheet with Sheet No. 3 & 4.

For reinforcement of Type D Barrier, see Sheet No. 26.

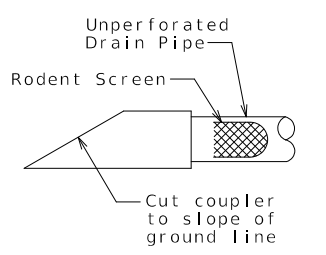
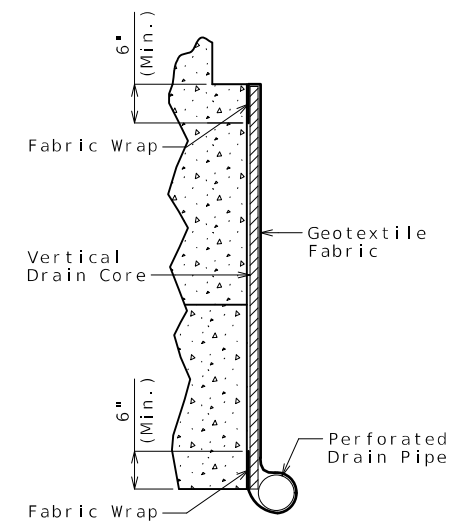
For Detail of Vertical Drain at End Bents, see Sheet No. 6.

DETAILS OF END BENT NO. 1

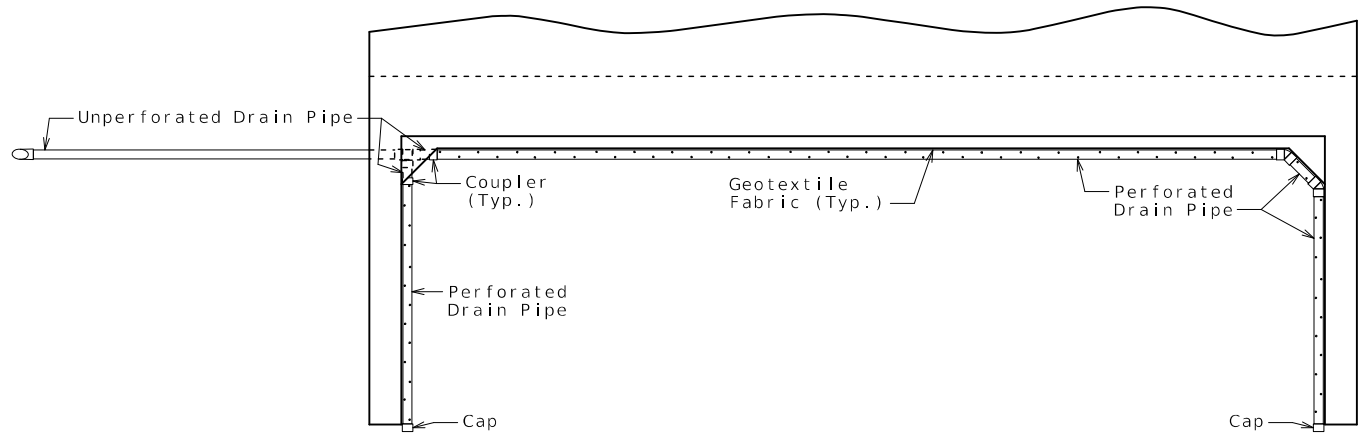


ELEVATION OF WING

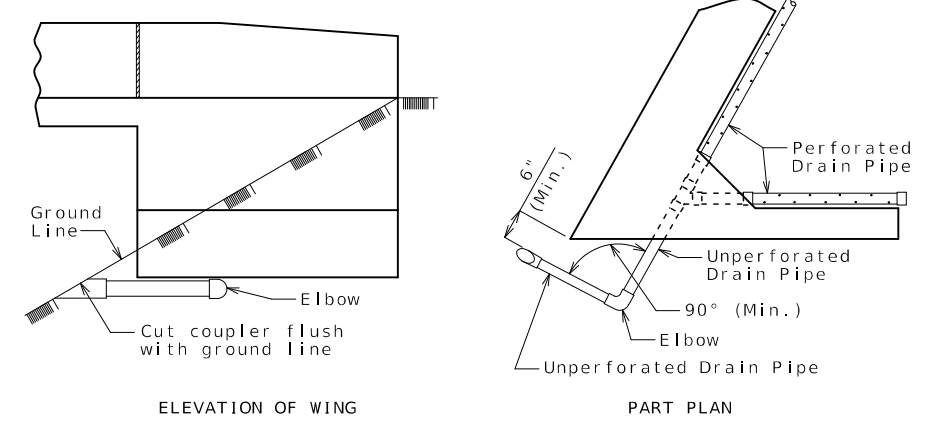
ELEVATION OF END BENT



DETAIL A



PLAN OF END BENT



ELEVATION OF WING

PART PLAN

OPTIONAL TURNED DRAIN
(Use only when straight drain is not practical.)

General Notes:

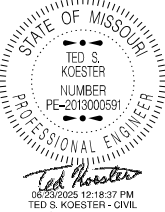
All drain pipe shall be sloped 1 to 2 percent.

Drain pipe may be either 6-inch diameter corrugated metallic-coated steel pipe underdrain, 4-inch diameter corrugated polyvinyl chloride (PVC) drain pipe, or 4-inch diameter corrugated polyethylene (PE) drain pipe.

Drain pipe shall be placed at fill face of end bent and inside face of wings. The pipe shall slope to lowest grade of ground line, also missing the lower beam of end bent by a minimum of 1 1/2 inches.

Perforated pipe shall be placed at fill face side and inside face of wings at the bottom of end bent and plain pipe shall be used where the vertical drain ends to the exit at ground line.

VERTICAL DRAIN AT END BENTS
(Squared end bent shown, skewed end bent similar)



STATE OF MISSOURI
TED S. KOESTER
NUMBER
PE-2013000591
PROFESSIONAL ENGINEER
Ted Koester
05/23/2025 12:18:37 PM
TED S. KOESTER - CIVIL
MO-PE-2013000591

DATE PREPARED
6/23/2025

ROUTE B STATE MO
DISTRICT BR SHEET NO. 6


COUNTY
PIKE
JOB NO.
JNE0052
CONTRACT ID.

PROJECT NO.

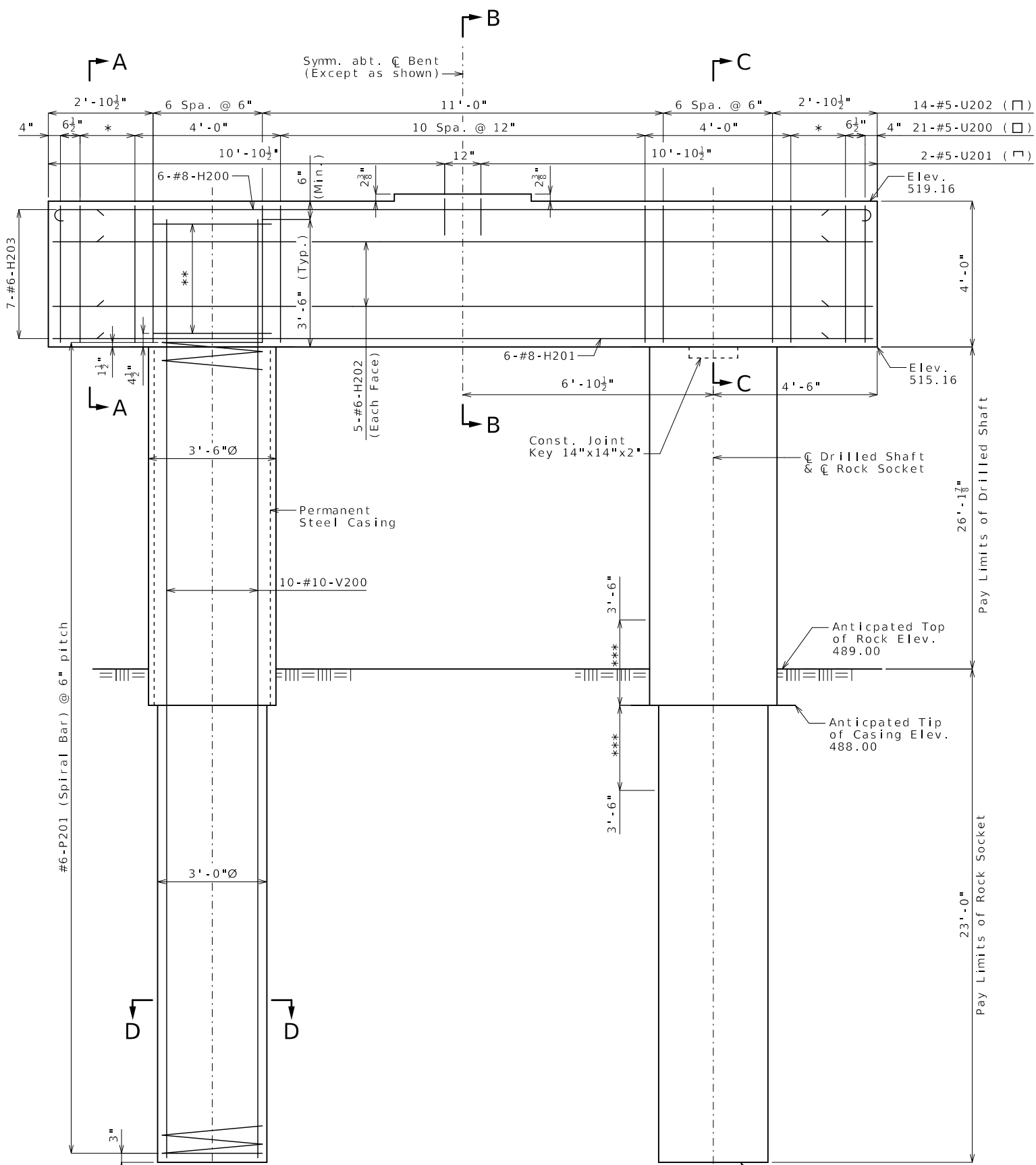
BRIDGE NO.
A9431

DATE	DESCRIPTION

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

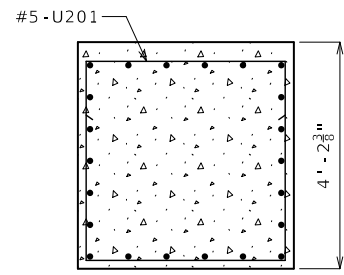
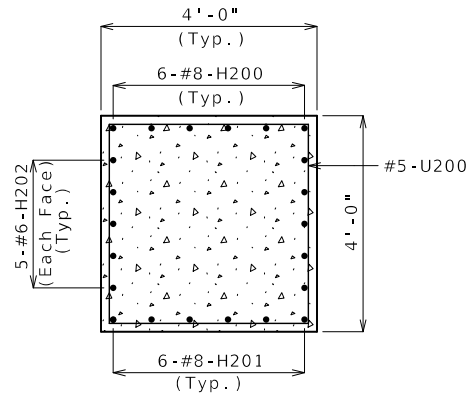


105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)

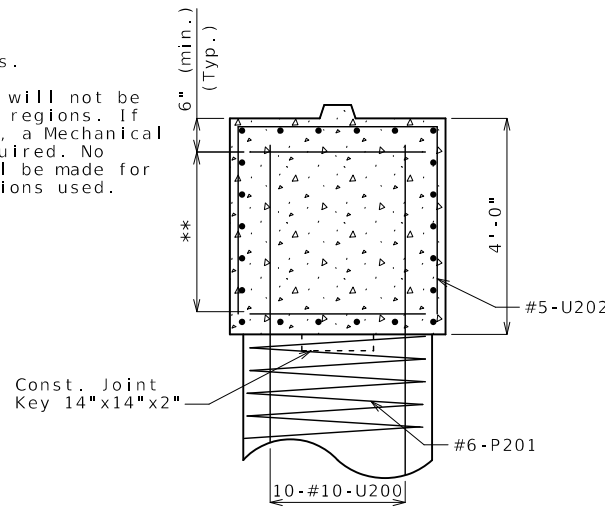


ELEVATION
 Note: Keys on Beam not shown for clarity

DETAILS OF INTERMEDIATE BENT NO. 2



* 3 Spa. @ 6"
 ** 13-#5-P200 @ 3" cts.
 *** Lapping of spirals will not be permitted within these regions. If lapping is unavailable, a Mechanical Bar Splice will be required. No additional payment will be made for any mechanical connections used.



Item	Quantity
Drilled Shaft (3 ft. 6 in. Dia.)	linear foot 40.6
Rock Socket (3 ft. 0 in. Dia.)	linear foot 46.0
Video Camera Inspection	each 2
Foundation Inspection Holes	linear foot 66.0
Sonic Logging Testing	each 2
Class B Concrete	cu. yard 13.5
Reinforcing Steel (Bridges)	pound 9,860

These quantities are included in the Estimated Quantities table on Sheet No. 2.

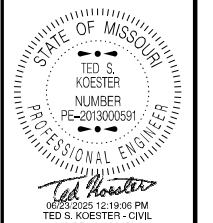
Thickness of permanent steel casing shall be in accordance with Sec. 701.

An additional 4 feet has been added to V-bar lengths and spiral bar heights have been added in the quantities, if required, for possible change in drilled shaft or rock socket length. The additional V-bar length shall be cut off or included in the reinforcement lap if not required. The additional P bars shall be spaced similarly to that shown in elevation, if required, or to a lesser spacing if not required, but not less than a 6-inch centers.

Sonic logging testing shall be performed on all drilled shafts and rock sockets.

All reinforcement in drilled shafts and rock sockets is included in the substructure quantities.

Work this sheet with Sheet No. 8.



STATE OF MISSOURI
 TED S. KOESTER
 NUMBER PE-2013000591
 PROFESSIONAL ENGINEER
 DATE PREPARED 6/23/2025
 ROUTE B STATE MO
 DISTRICT BR SHEET NO. 7
 COUNTY PIKE
 JOB NO. JNE0052
 CONTRACT ID.
 PROJECT NO.
 BRIDGE NO. A9431

DESCRIPTION	DATE

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION
 MoDOT
 105 WEST CAPITOL JEFFERSON CITY, MO 65102
 1-888-ASK-MODOT (1-888-275-6636)



DATE PREPARED
6/23/2025 12:19:34 PM
TED S. KOESTER - CIVIL
MO-PE-2013000591

ROUTE B STATE MO
DISTRICT BR SHEET NO. 8

COUNTY PIKE
JOB NO. JNE0052
CONTRACT ID.

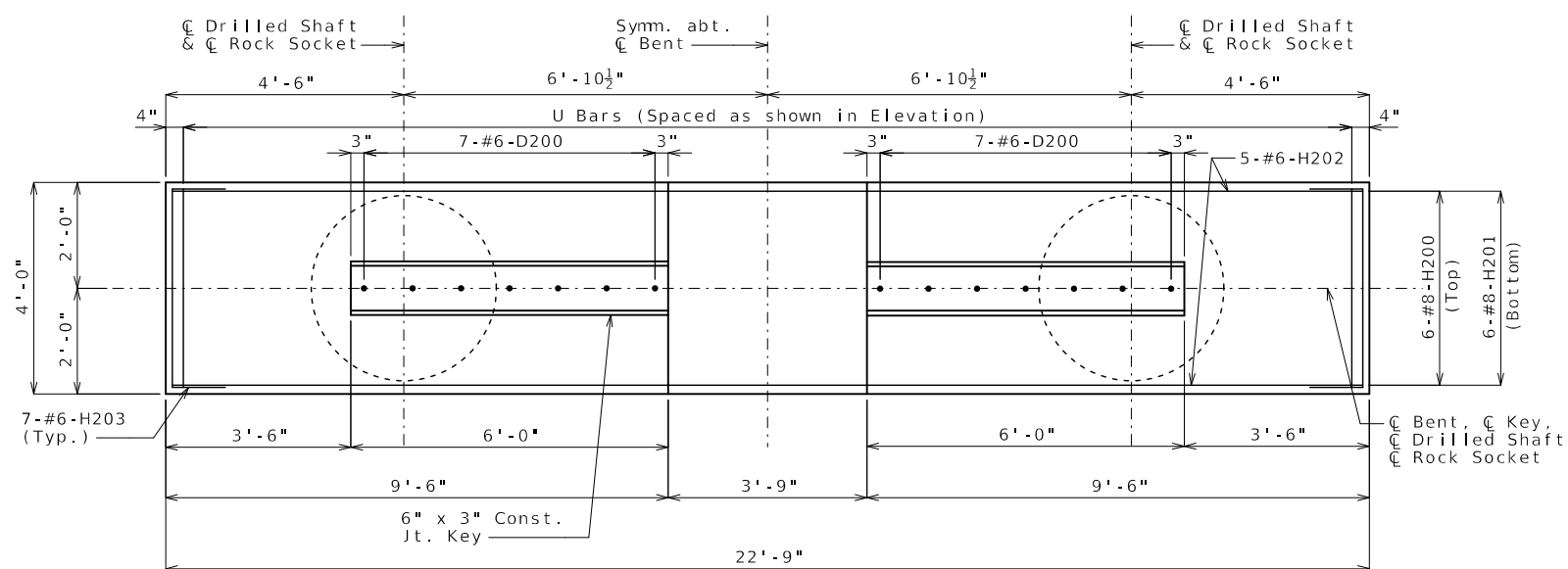
PROJECT NO.
BRIDGE NO. A9431

DESCRIPTION

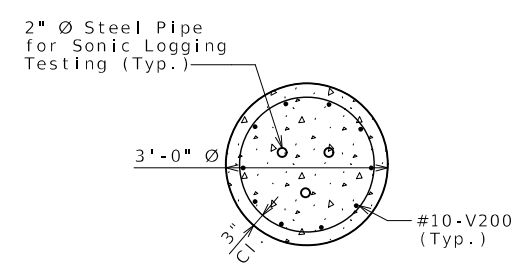
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MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION
105 WEST CAPITOL JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)

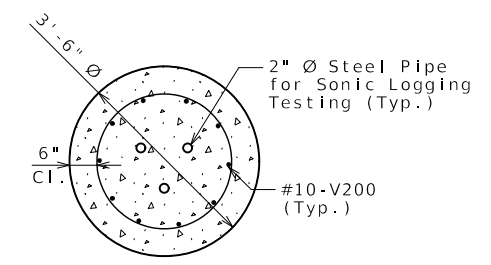
MoDOT



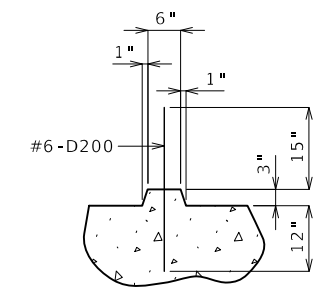
PLAN OF BEAM SHOWING REINFORCEMENT



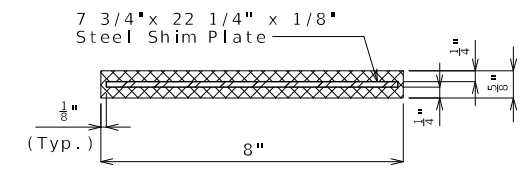
SECTION E-E (Rock Socket)



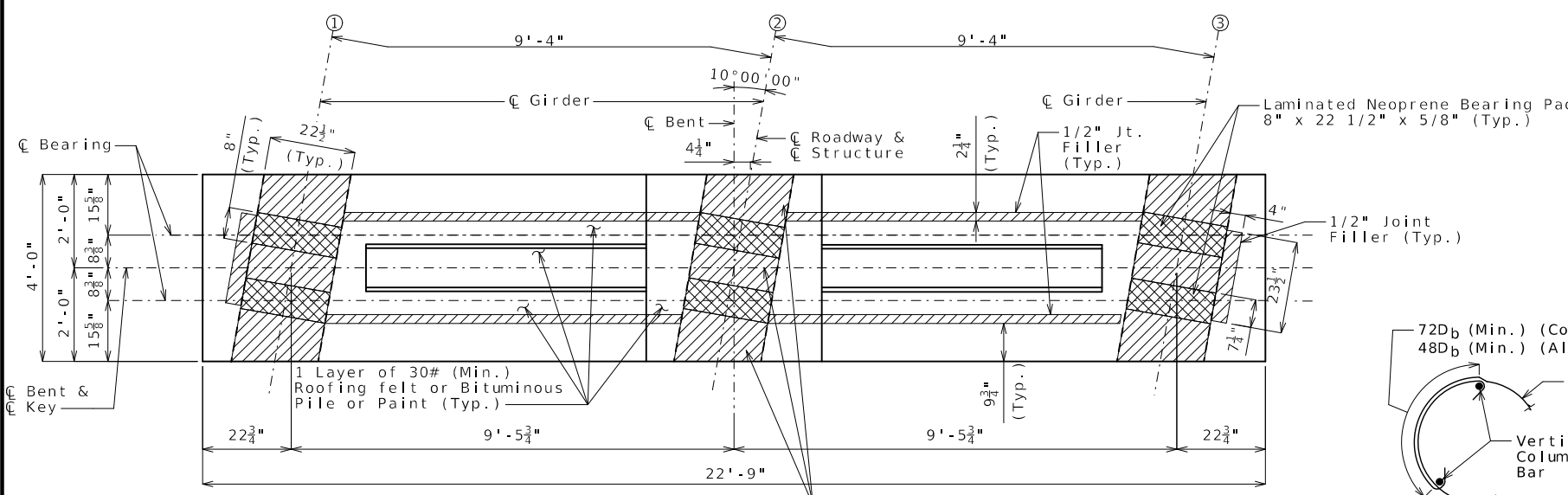
SECTION D-D (Drilled Shaft)



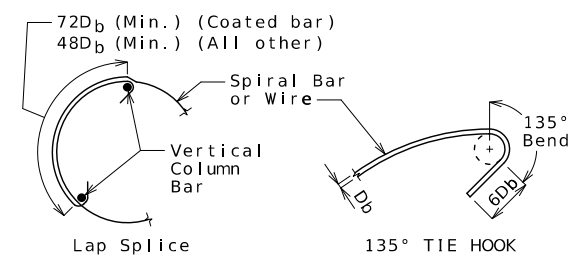
SECTION THRU KEY



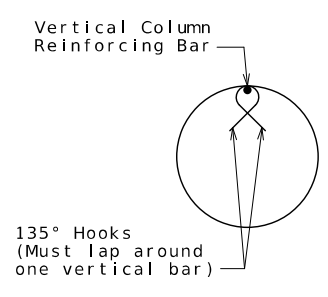
TYPICAL SECTION THRU LAMINATED NEOPRENE BEARING PAD



PLAN OF BEAM



INTERMEDIATE SPLICE OF SPIRALS
Standard 135-degree tie hooks that engage vertical column reinforcing bars shall be provided at each end of splice.



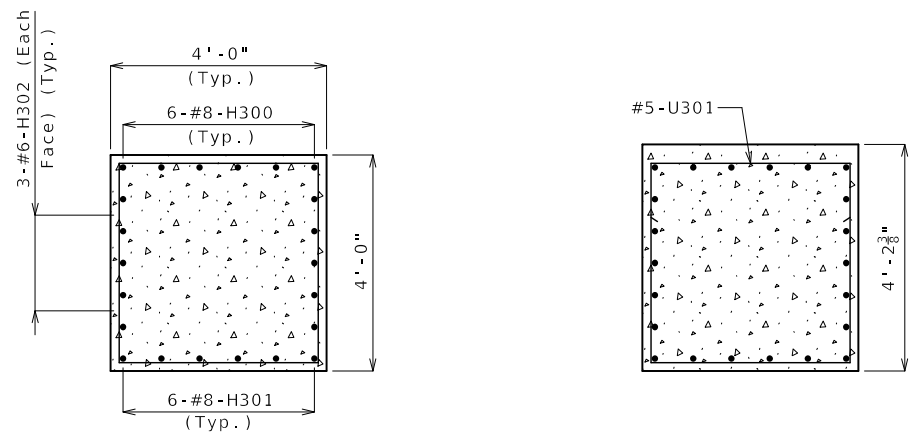
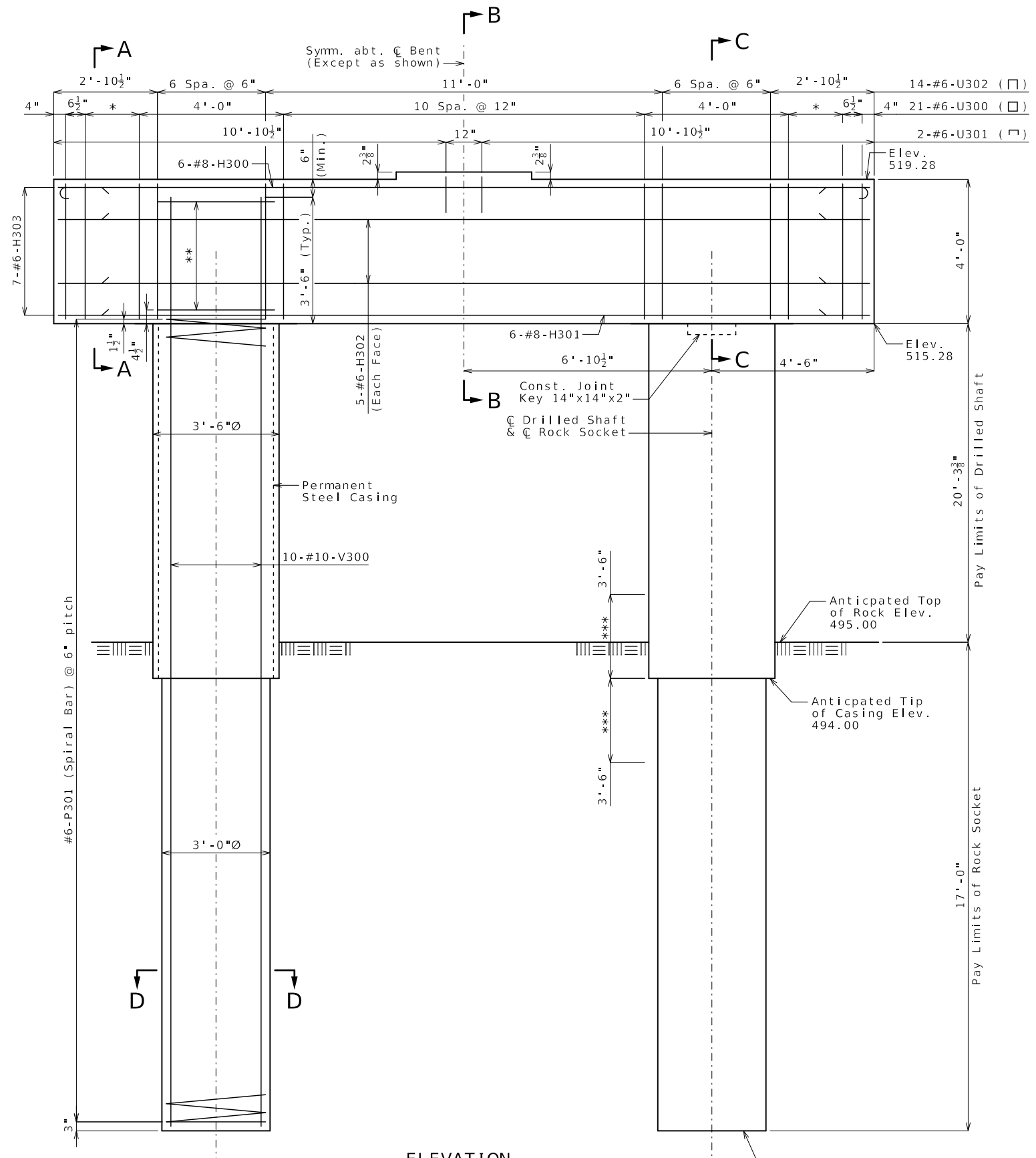
SEISMIC STIRRUP BAR

Note: For steps 2 inches or more, use 2 1/2" x 1/2" joint filler up vertical face.

Notes:
Work this sheet with Sheet No. 7.

DETAILS OF INTERMEDIATE BENT NO. 2

DATE	DESCRIPTION



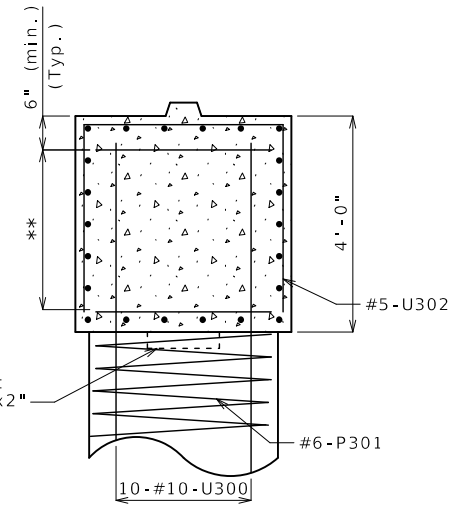
SECTION A-A

SECTION B-B

* 3 Spa. @ 6"

** 13-#5-P300 @ 3" cts.

*** Lapping of spirals will not be permitted within these regions. If lapping is unavailable, a Mechanical Bar Splice will be required. No additional payment will be made for any mechanical connections used.



SECTION C-C

Substructure Quantity Table for Bent No.3		
Item		Quantity
Drilled Shaft (3 ft. 6 in. Dia.)	linear foot	52.3
Rock Socket (3 ft. 0 in. Dia.)	linear foot	34.0
Video Camera Inspection	each	2
Foundation Inspection Holes	linear foot	54.0
Sonic Logging Testing	each	2
Class B Concrete	cu. yard	13.5
Reinforcing Steel (Bridges)	pound	8,460

These quantities are included in the Estimated Quantities table on Sheet No. 2.

Thickness of permanent steel casing shall be in accordance with Sec. 701.

An additional 4 feet has been added to V-bar lengths and spiral bar heights have been added in the quantities, if required, for possible change in drilled shaft or rock socket length. The additional V-bar length shall be cut off or included in the reinforcement lap if not required. The additional P bars shall be spaced similarly to that shown in elevation, if required, or to a lesser spacing if not required, but not less than a 6-inch centers.

Sonic logging testing shall be performed on all drilled shafts and rock sockets.

All reinforcement in drilled shafts and rock sockets is included in the substructure quantities.

Work this sheet with Sheet No. 10.

ELEVATION
 Note: Keys on Beam not shown for clarity

DETAILS OF INTERMEDIATE BENT NO. 3

Note: This drawing is not to scale. Follow dimensions.



DATE PREPARED
6/23/2025 12:20:23 PM
TED S. KOESTER - CIVIL
MO-PE-2013000591

ROUTE STATE
B MO

DISTRICT SHEET NO.
BR 10

COUNTY
PIKE

JOB NO.
JNE0052

CONTRACT ID.

PROJECT NO.

BRIDGE NO.
A9431

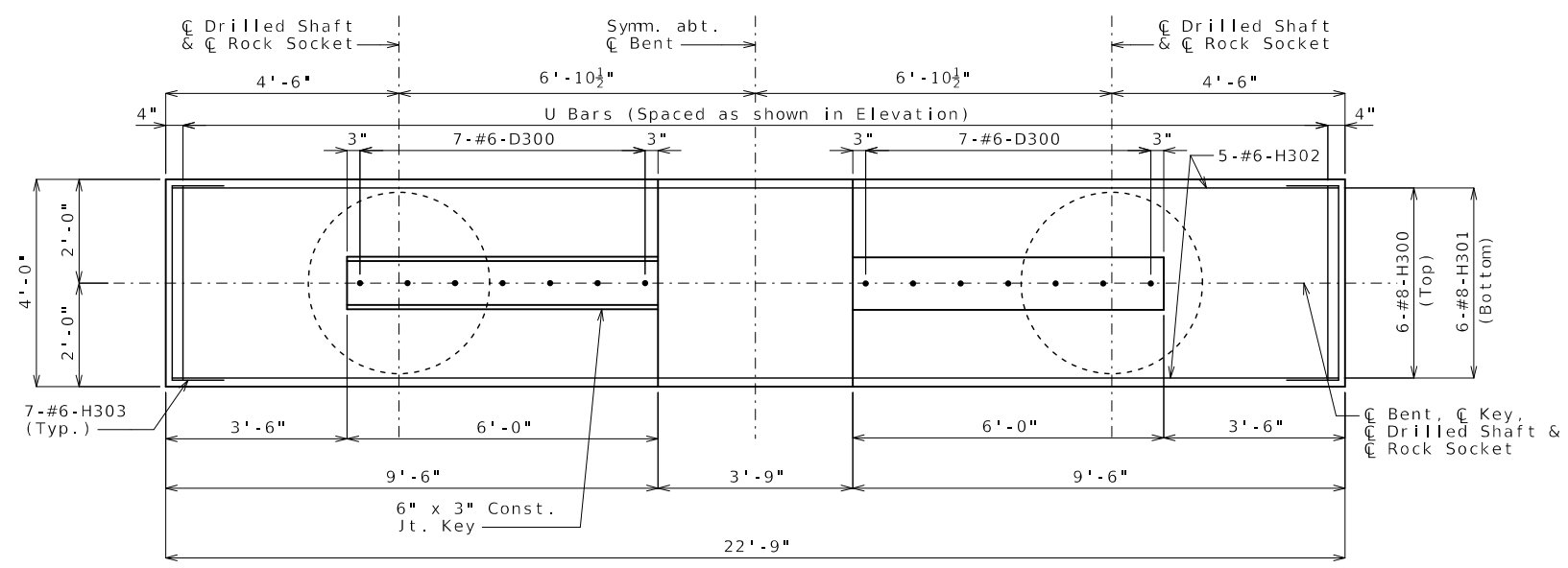
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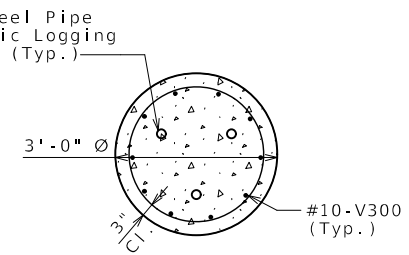
MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

105 WEST CAPITOL JEFFERSON CITY, MO 65102

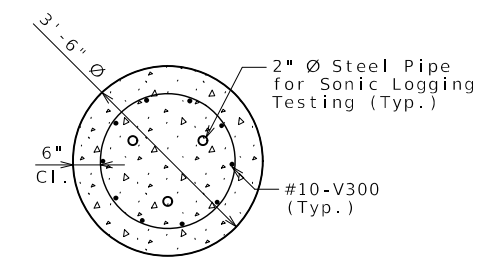
1-888-ASK-MODOT (1-888-275-6636)



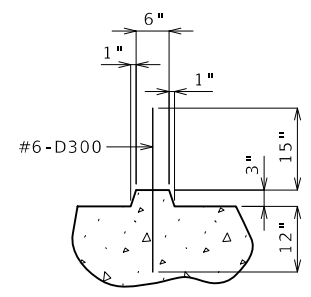
PLAN OF BEAM SHOWING REINFORCEMENT



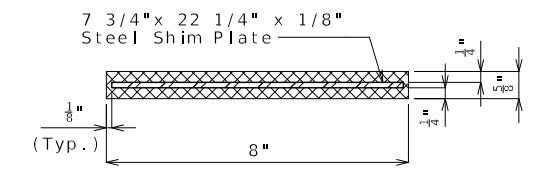
SECTION E-E (Rock Socket)



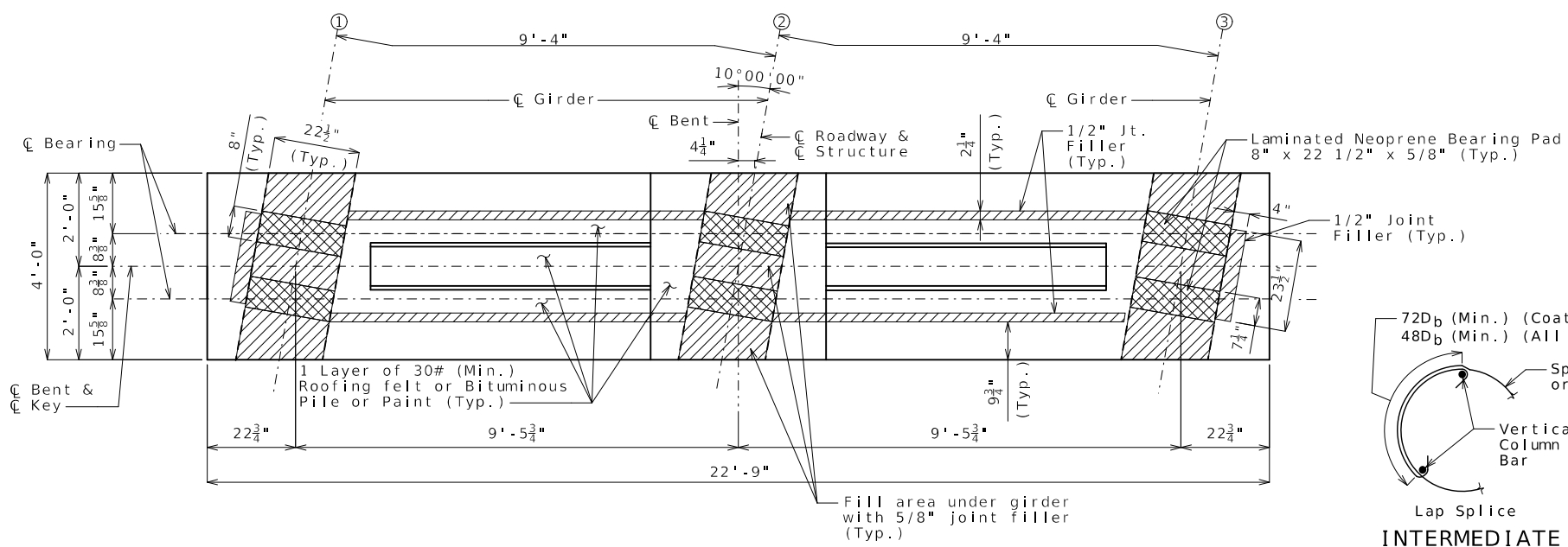
SECTION D-D (Drilled Shaft)



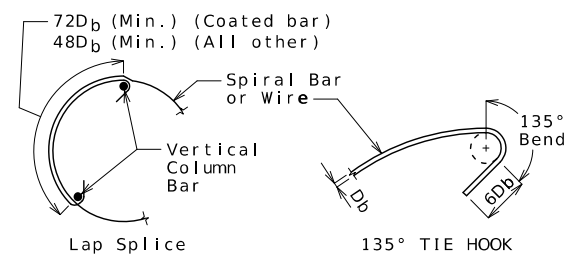
SECTION THRU KEY



TYPICAL SECTION THRU LAMINATED NEOPRENE BEARING PAD

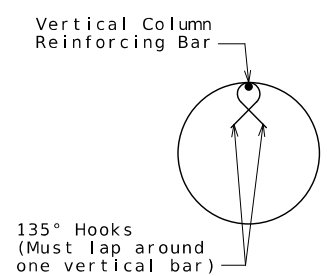


PLAN OF BEAM



INTERMEDIATE SPLICE OF SPIRALS

Standard 135-degree tie hooks that engage vertical column reinforcing bars shall be provided at each end of splice.

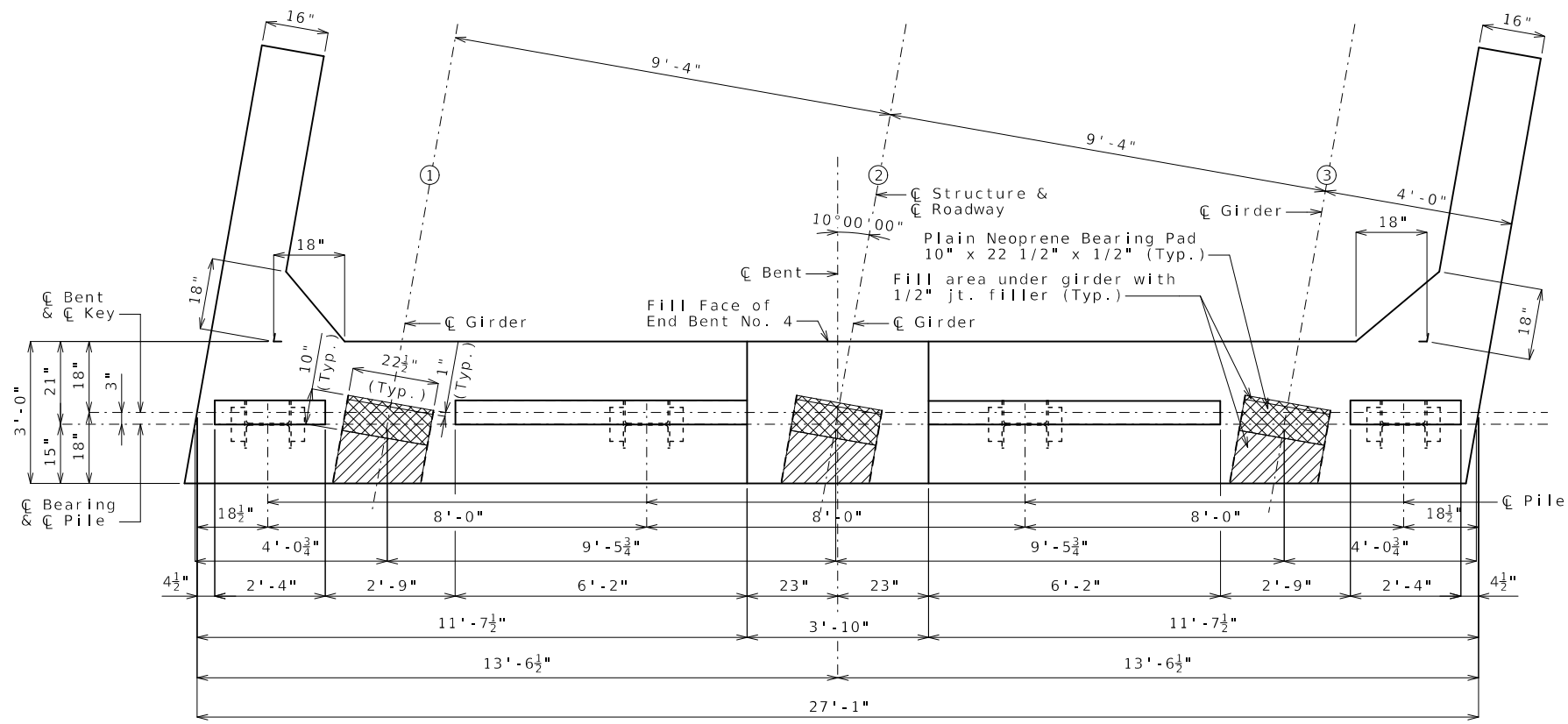


SEISMIC STIRRUP BAR

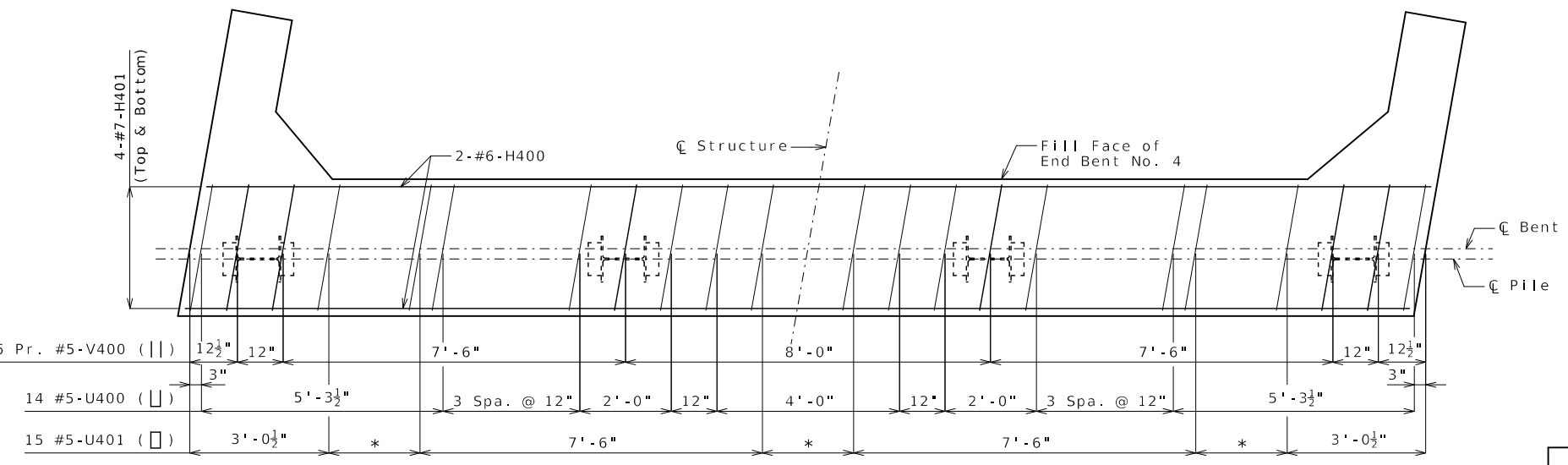
Note: For steps 2 inches or more, use 2 1/2" x 1/2" joint filler up vertical face.

Notes:
Work this sheet with Sheet No. 9.

DETAILS OF INTERMEDIATE BENT NO. 3



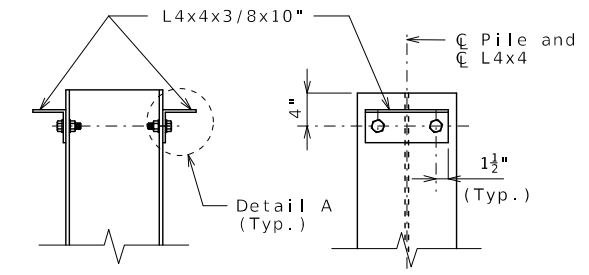
PLAN OF BEAM



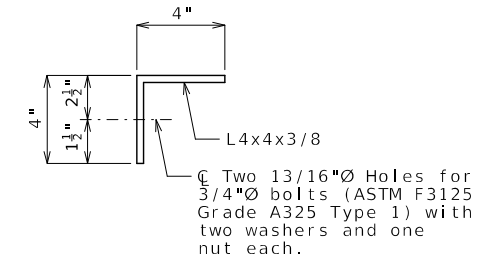
PLAN OF BEAM SHOWING REINFORCEMENT

* 4 Spa. @ 6"

Note: Keys & steps not shown for clarity.

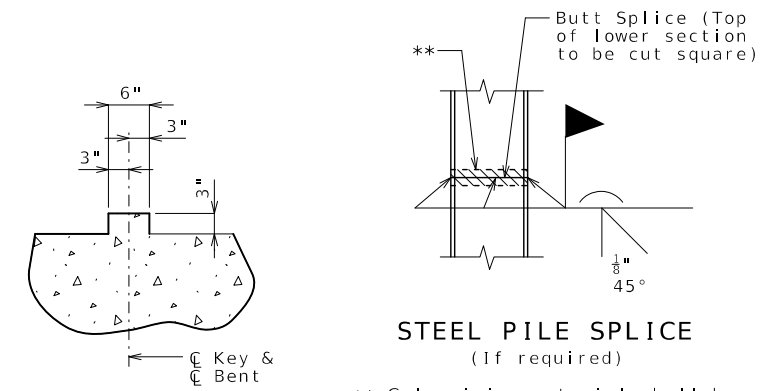


DETAILS OF HP PILE ANCHORS



DETAIL A

Angles shall be coated with a minimum of two coats of non-aluminum epoxy mastic primer to provide a dry film thickness of 4 mils minimum, 8 mils maximum, or galvanized in accordance with Sec 1081. Bolts, washers and nuts shall be galvanized in accordance with AASHTO M 232 (ASTM A153), Class C.



SECTION THRU KEY

STEEL PILE SPLICE

** Galvanizing material shall be omitted or removed one inch clear of weld locations in accordance with Sec 702.

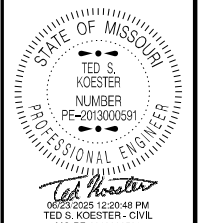
Notes:

- Work this sheet with Sheets No. 12 & 13.
- Reinforcing steel shall be shifted to clear piles. U bars shall clear piles at least 1 1/2 inches.
- The U bars and pairs of V bars shall be placed parallel to \bar{C} roadway.

Item	Quantity
Class 1 Excavation	cu. yard 40
Galvanized Structural Steel Pile (12 in.)	linear foot 84
Pile Point Reinforcement	pound 4
Class B Concrete (Substructure)	cu. yard 12.0

These quantities are included in the Estimated Quantities table on Sheet No. 2.

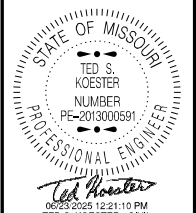
DETAILS OF END BENT NO. 4



DATE PREPARED
6/23/2025
ROUTE B STATE MO
DISTRICT BR SHEET NO. 11
COUNTY PIKE
JOB NO. JNE0052
CONTRACT ID.
PROJECT NO.
BRIDGE NO. A9431

DESCRIPTION	DATE

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION
105 WEST CAPITOL JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)

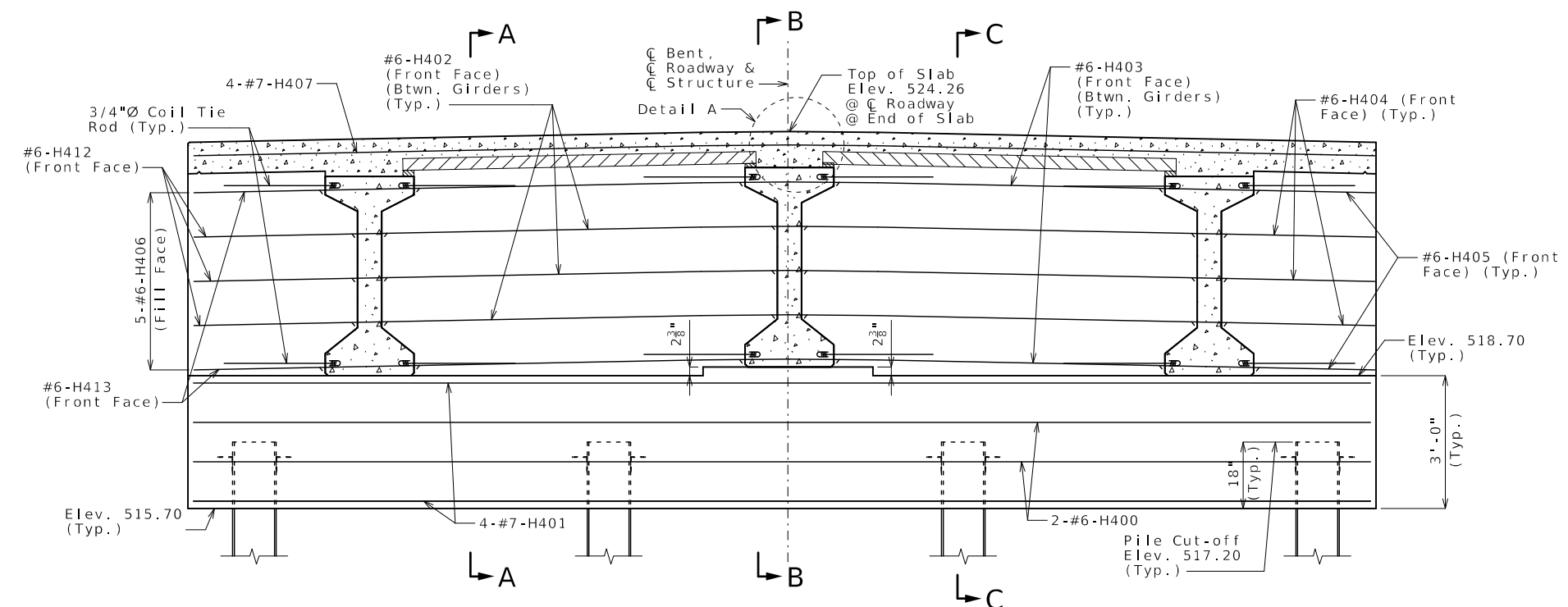


DATE PREPARED	
6/23/2025	
ROUTE	STATE
B	MO
DISTRICT	SHEET NO.
BR	12
COUNTY	
PIKE	
JOB NO.	
JNE0052	
CONTRACT ID.	
PROJECT NO.	
BRIDGE NO.	
A9431	

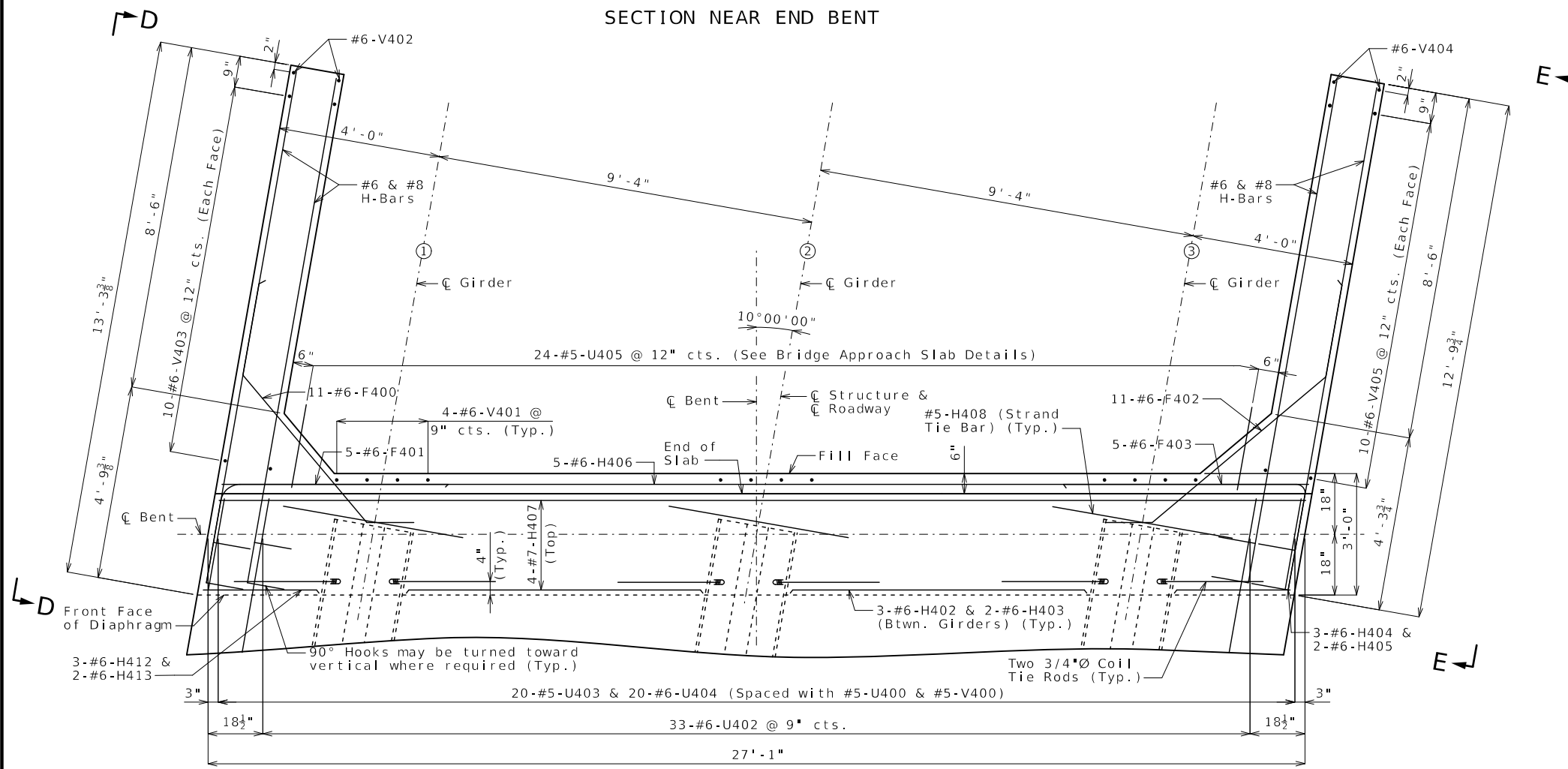
DATE	DESCRIPTION

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

105 WEST CAPITOL JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)

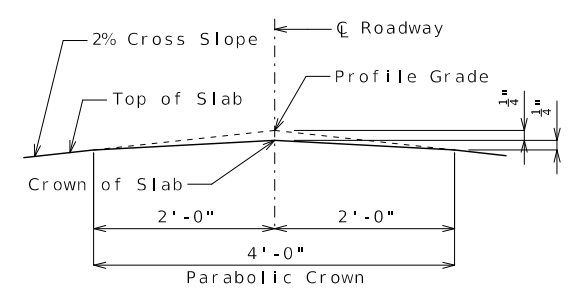


SECTION NEAR END BENT



PART PLAN

DETAILS OF END BENT NO. 4



DETAIL A

Notes:

For Sections A-A, B-B, C-C and Typical Elevation of Wings, see Sheet No. 13.

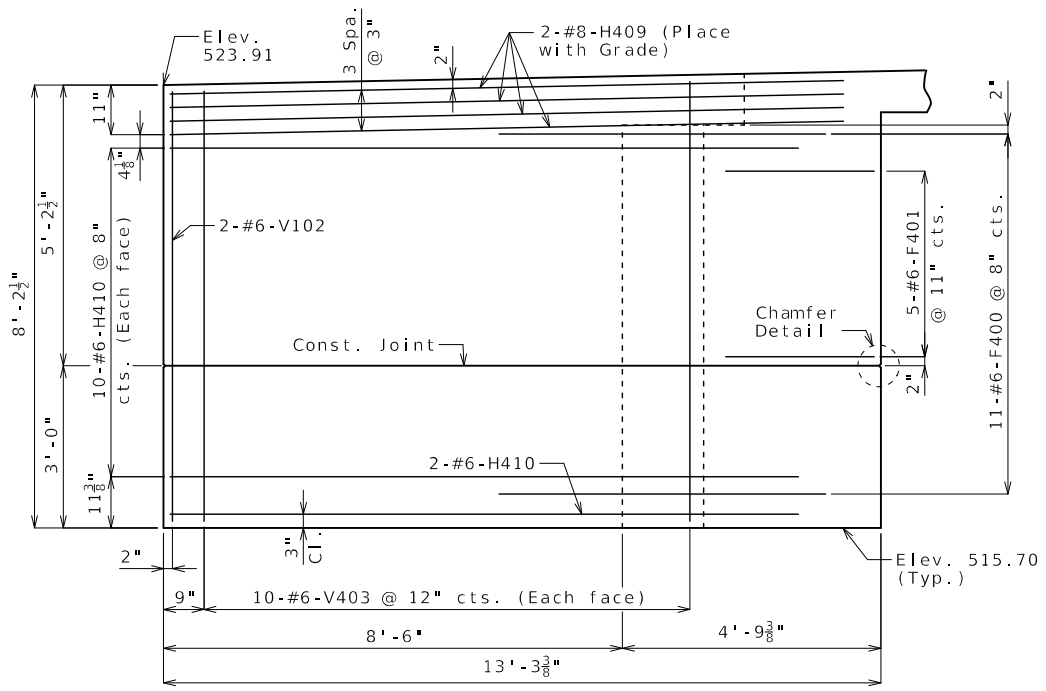
For details of End Bent No. 4 not shown, see Sheets No. 11 & 13.

All concrete in the end bent above top of beam and below top of slab shall be Class B-2.

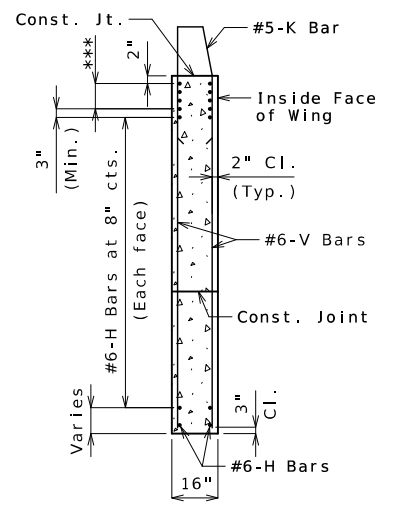
Strands at end of girders shall be field bent or, if necessary, cut in field to maintain 1 1/2-inch minimum clearance to fill face of end bent.

For location of coil ties & #5-H408 (strand tie bar), see Sheet No. 16.

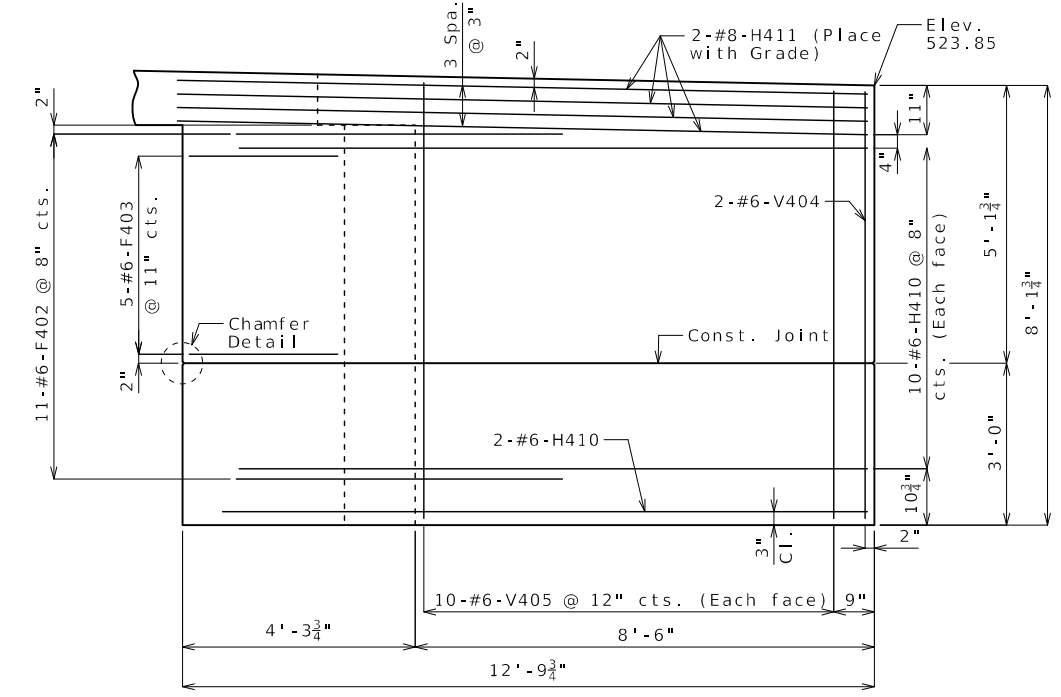
The #6-F400 & F402 bars shall be bent in field to clear girders.



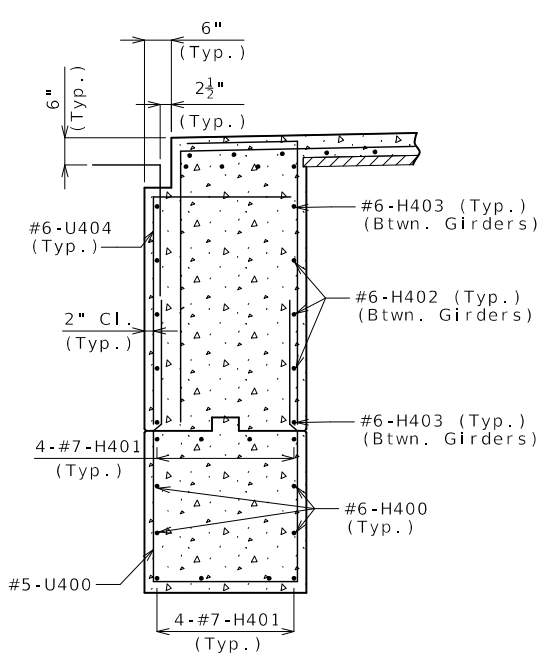
ELEVATION D-D



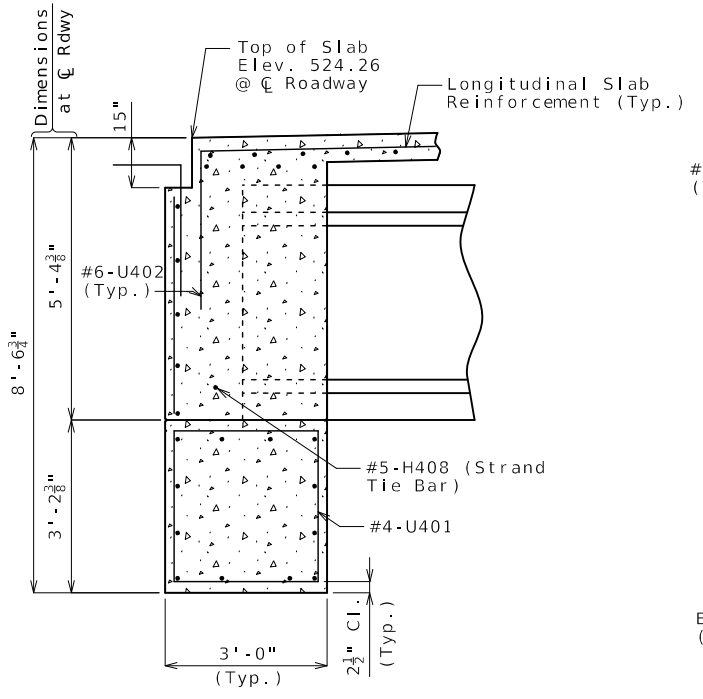
TYPICAL SECTION THRU WING
*** #8-H Bars at 3" cts. (Each face) (Place with grade)



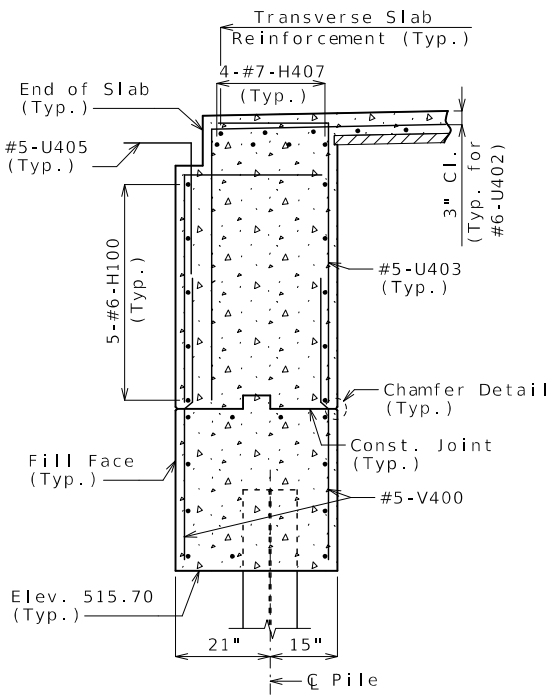
ELEVATION E-E



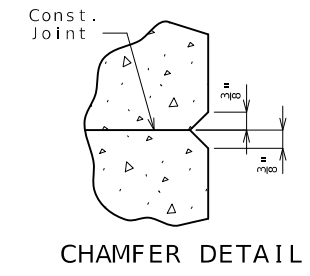
SECTION A-A



SECTION B-B



SECTION C-C



CHAMFER DETAIL

General Notes:
 For locations of Sections A-A, B-B, C-C, and Elevations D-D and E-E, see Sheet No. 12.
 Work this sheet with Sheet No. 11 & 12.
 For reinforcement of the barrier, see Sheet No. 26.
 For Detail of Vertical Drain at End Bents, see Sheet No. 6.

DATE PREPARED
6/23/2025

ROUTE B STATE MO
DISTRICT BR SHEET NO. 13

COUNTY PIKE
JOB NO. JNE0052
CONTRACT ID.

PROJECT NO.

BRIDGE NO. A9431

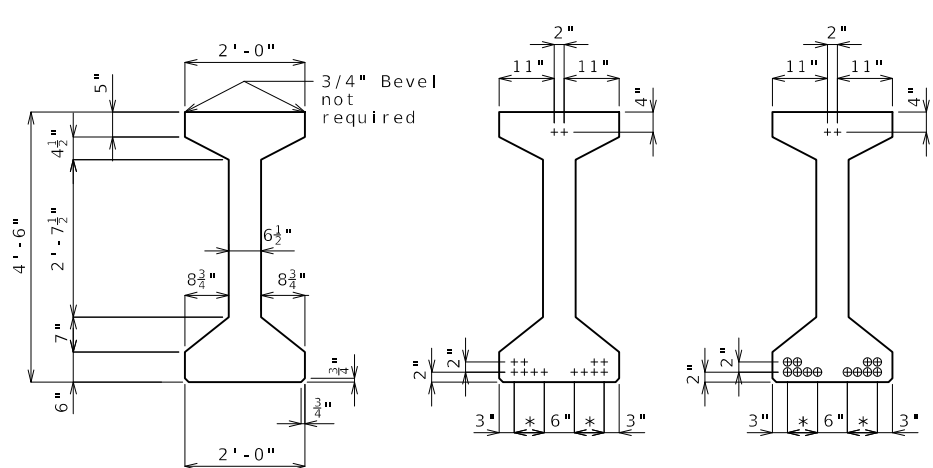
DESCRIPTION

DATE

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

105 WEST CAPITOL JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)

DETAILS OF END BENT NO. 4

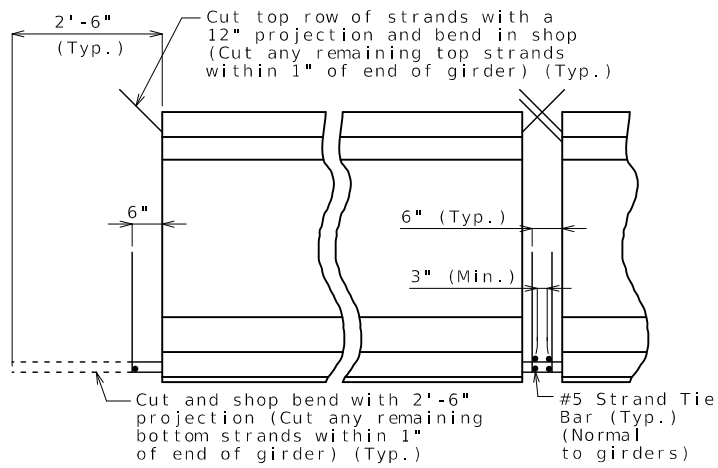


DIMENSIONS

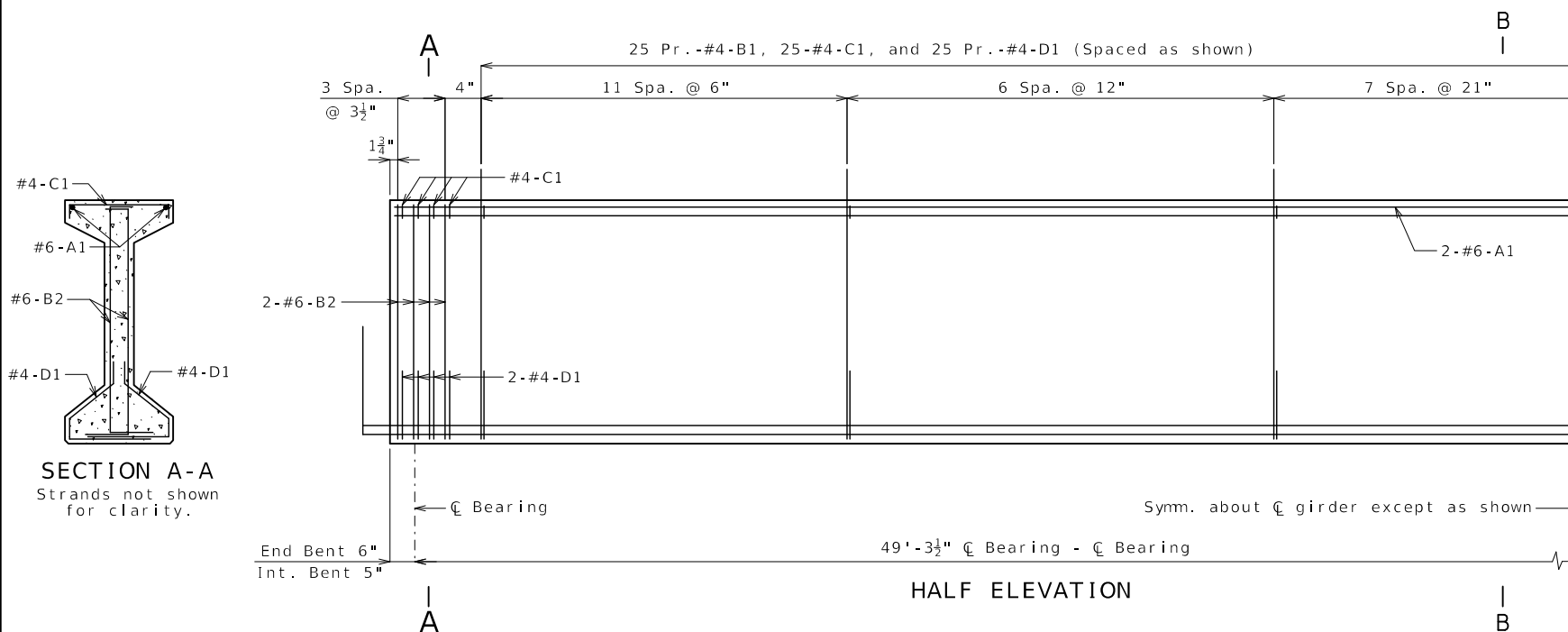
STRAND ARRANGEMENT

* 3 Spa. @ 2"

+ Indicates prestressing strand. ○ Indicates cut & shop bend with 2'-6" projection.

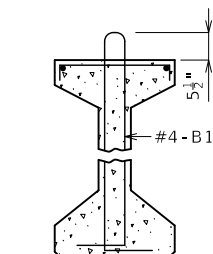


STRANDS AT GIRDER ENDS

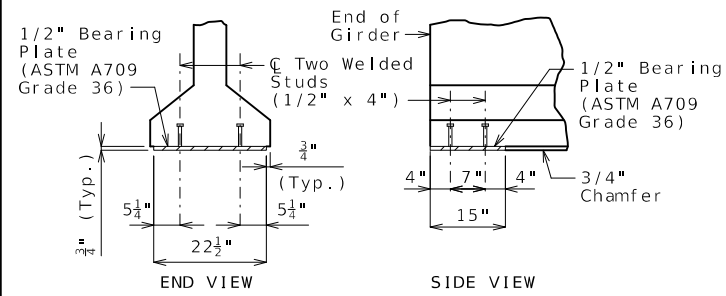


HALF ELEVATION

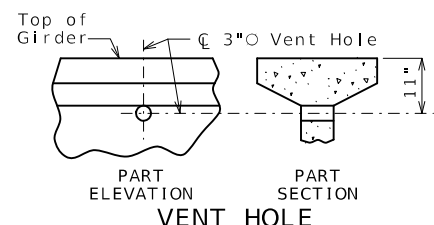
SECTION A-A
Strands not shown for clarity.



B1 BAR PERMISSIBLE ALTERNATE SHAPE

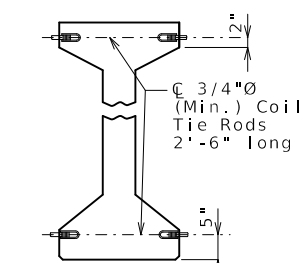


BEARING PLATE



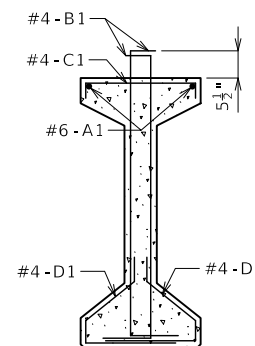
VENT HOLE

Place vent holes at or near upgrade 1/3 point of girders and clear reinforcing steel or strands by 1 1/2" minimum and steel intermediate diaphragm bolt connections by 6" minimum.



COIL TIES

Exclude coil tie at exterior face of exterior girders except at integral end bents.



SECTION B-B
Strands not shown for clarity.

BILL OF REINFORCING STEEL - EACH GIRDER				
NO.	SIZE & MARK	ACTUAL LENGTH	SHAPE	BENDING DIAGRAM
2	6 A1	49'-11 1/2"	20	SHAPE 10S
98	4 B1	5'-11"	11S	SHAPE 9S
16	6 B2	5'-3"	11S	SHAPE 11S
57	4 C1	2'-2"	10S	
114	4 D1	3'-0"	9S	

All dimensions are out to out.

Hooks and bends shall be in accordance with the CRSI Manual of Standard Practice for Detailing Reinforced Concrete Structures, Stirrup and Tie Dimensions.

Actual lengths are measured along centerline of bar to the nearest inch.

Minimum clearance to reinforcing shall be one inch.

All reinforcement shall be Grade 60.

The two D1 bars may be furnished as one bar at the fabricator's option.

All B1 bars shall be epoxy coated.

General Notes:

Concrete for prestressed girders shall be Class A-1 with $f'c = 7000$ psi and $f'ci = 5000$ psi.

Use 14 strands, 1/2"Ø Grade 270, with an initial prestress force of 434 kips.

Pretensioned members shall be in accordance with Sec 1029.

Fabricator shall be responsible for location and design of lifting devices.

Exterior and interior girders are the same except: coil ties, coil inserts for slab drains, holes for steel intermediate diaphragms.

For Girder Camber Diagram, see Sheet No. 21.

The 1 1/2"Ø holes shall be cast in the web for steel intermediate diaphragms. Drilling is not allowed. For location of holes and details of steel intermediate diaphragms, see Sheet No. 17.

For location of coil inserts at slab drains, see Sheet No. 20.

For location of coil ties at concrete bent diaphragms, see Sheets No. 4 & 18.



DATE PREPARED
6/23/2025

ROUTE B STATE MO

DISTRICT BR SHEET NO. 14

COUNTY PIKE

JOB NO. JNE0052

CONTRACT ID.

PROJECT NO.

BRIDGE NO. A9431

DESCRIPTION

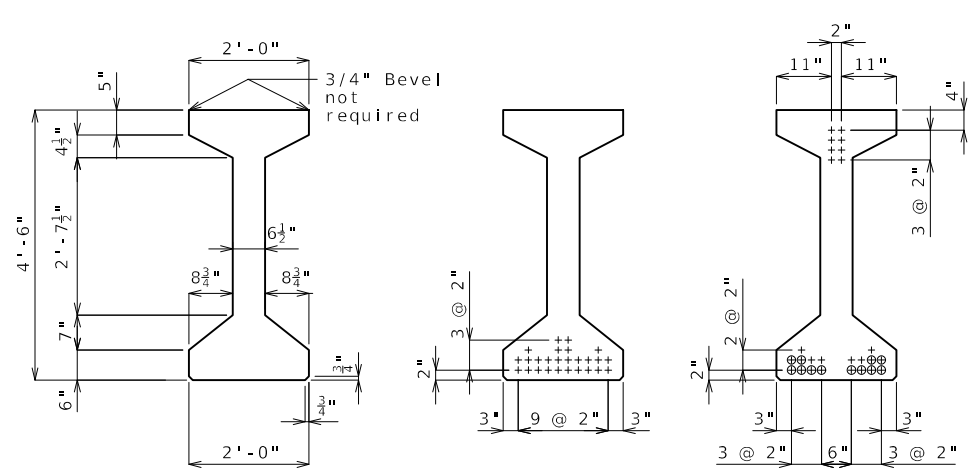
DATE

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

105 WEST CAPITOL JEFFERSON CITY, MO 65102

1-888-ASK-MODOT (1-888-275-6636)

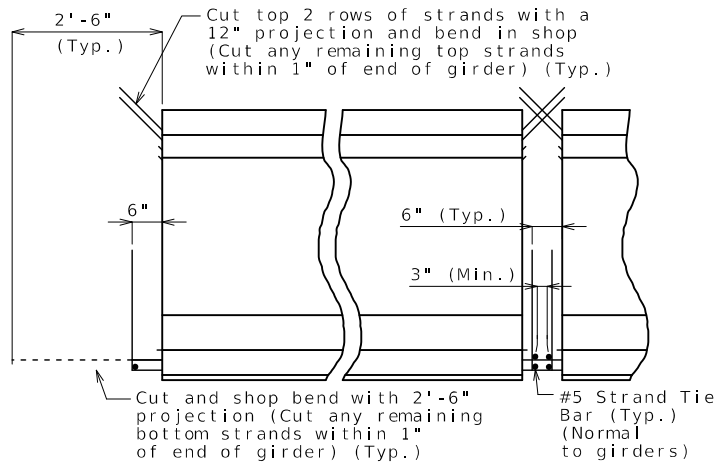
I-GIRDERS - SPAN (1-2)



DIMENSIONS

END OF GIRDER STRAND ARRANGEMENT

+ Indicates prestressing strand. ○ Indicates cut & shop bend with 2'-6" projection.



END BENT INTERMEDIATE BENT STRANDS AT GIRDER ENDS

BILL OF REINFORCING STEEL - EACH GIRDER				
NO.	SIZE & MARK	ACTUAL LENGTH	SHAPE	BENDING DIAGRAM
4	6 A1	41'-2"	20	
146	4 B1	5'-11"	11S	
16	6 B2	5'-3"	11S	
81	4 C1	2'-2"	10S	
162	4 D1	3'-0"	9S	

All dimensions are out to out.

Hooks and bends shall be in accordance with the CRSI Manual of Standard Practice for Detailing Reinforced Concrete Structures, Stirrup and Tie Dimensions.

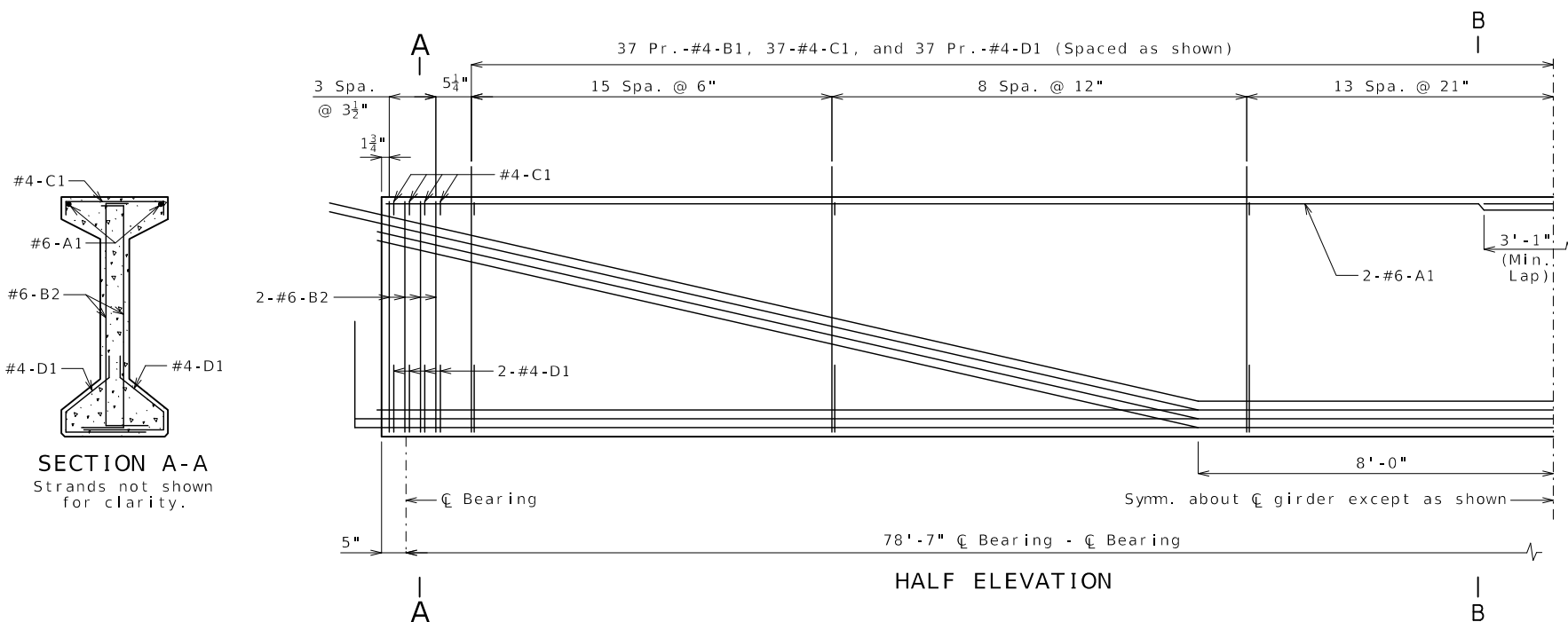
Actual lengths are measured along centerline of bar to the nearest inch.

Minimum clearance to reinforcing shall be one inch.

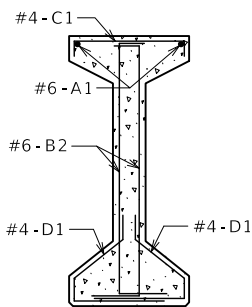
All reinforcement shall be Grade 60.

The two D1 bars may be furnished as one bar at the fabricator's option.

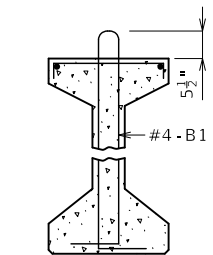
All B1 bars shall be epoxy coated.



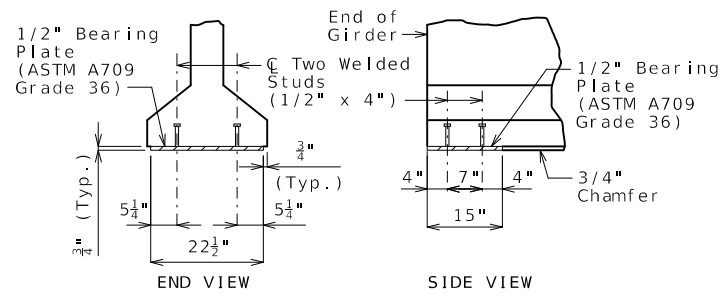
HALF ELEVATION



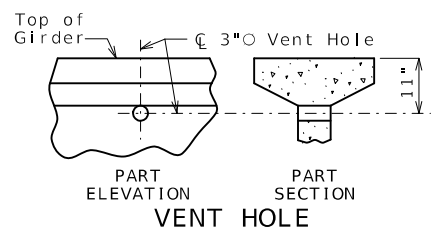
SECTION A-A Strands not shown for clarity.



B1 BAR PERMISSIBLE ALTERNATE SHAPE

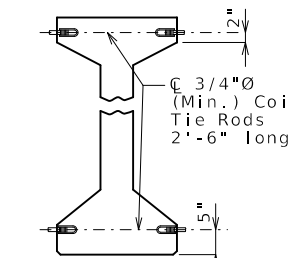


BEARING PLATE



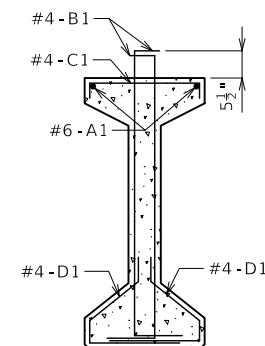
VENT HOLE

Place vent holes at or near upgrade 1/3 point of girders and clear reinforcing steel or strands by 1 1/2" minimum and steel intermediate diaphragm bolt connections by 6" minimum.



COIL TIES

Exclude coil tie at exterior face of exterior girders except at integral end bents.



SECTION B-B Strands not shown for clarity.

General Notes:

Concrete for prestressed girders shall be Class A-1 with f'c = 7000 psi and f'ci = 5000 psi.

Use 26 strands, 1/2"Ø Grade 270, with an initial prestress force of 806 kips.

Pretensioned members shall be in accordance with Sec 1029.

Fabricator shall be responsible for location and design of lifting devices.

Exterior and interior girders are the same except: coil ties, coil inserts for slab drains, holes for steel intermediate diaphragms.

For Girder Camber Diagram, see Sheet No. 21.

The 1 1/2"Ø holes shall be cast in the web for steel intermediate diaphragms. Drilling is not allowed. For location of holes and details of steel intermediate diaphragms, see Sheet No. 17.

For location of coil inserts at slab drains, see Sheet No. 20.

For location of coil ties at concrete bent diaphragms, see Sheet No. 18

I-GIRDERS - SPAN (2-3)



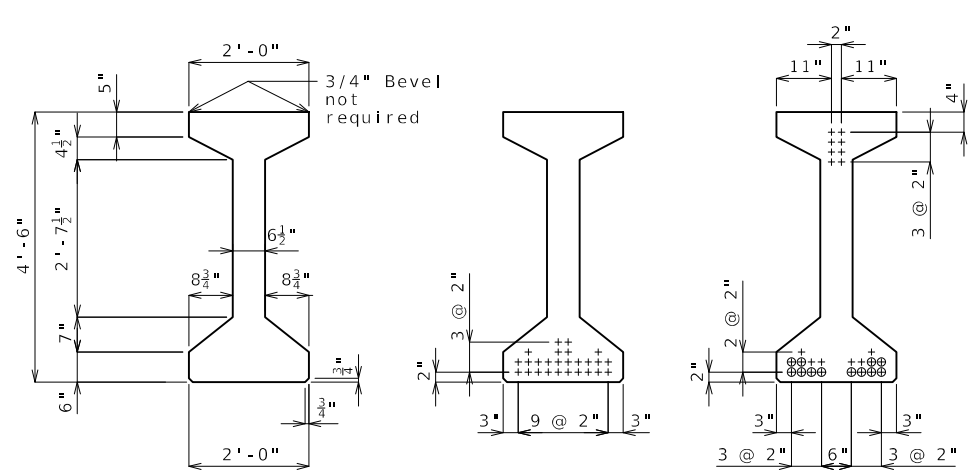
DATE PREPARED 6/23/2025
ROUTE B STATE MO
DISTRICT BR SHEET NO. 15

COUNTY PIKE
JOB NO. JNE0052
CONTRACT ID.
PROJECT NO.
BRIDGE NO. A9431

DATE	DESCRIPTION

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

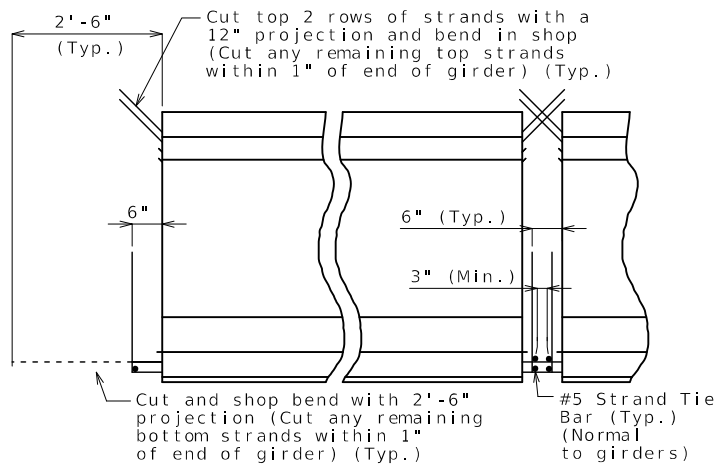
105 WEST CAPITOL JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)



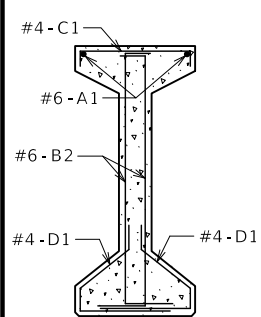
DIMENSIONS

STRAND ARRANGEMENT

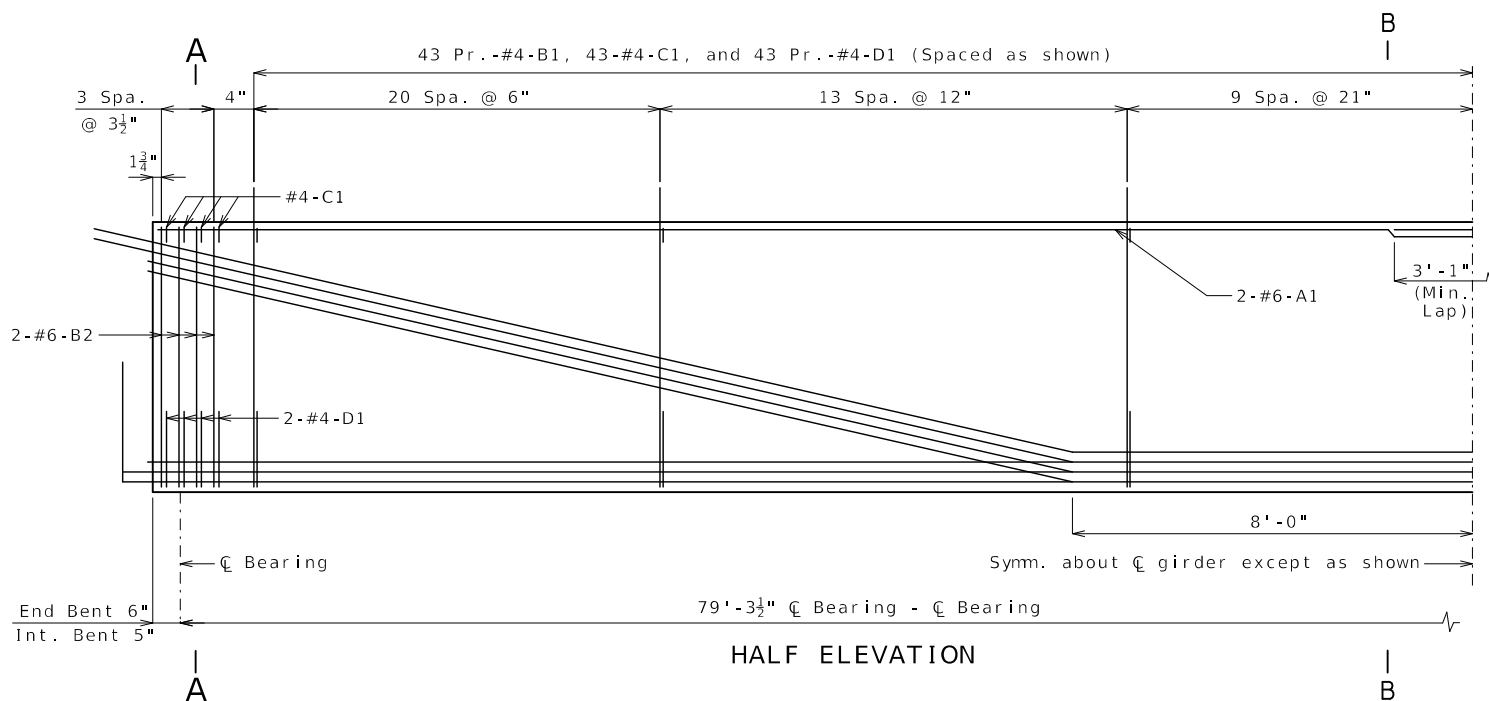
+ Indicates prestressing strand. ○ Indicates cut & shop bend with 2'-6" projection.



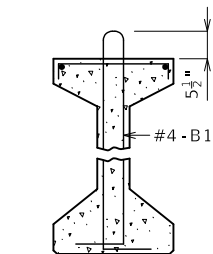
STRANDS AT GIRDER ENDS



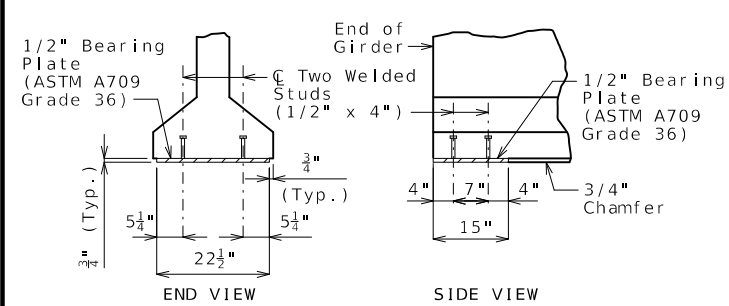
SECTION A-A
Strands not shown for clarity.



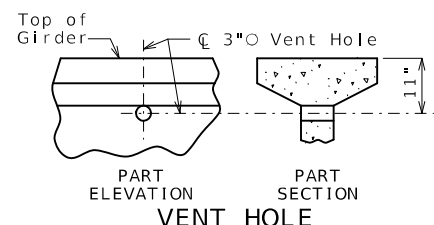
HALF ELEVATION



B1 BAR PERMISSIBLE ALTERNATE SHAPE

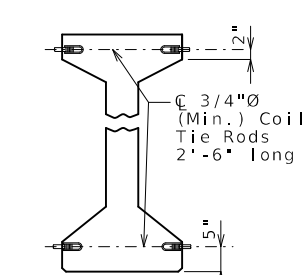


BEARING PLATE



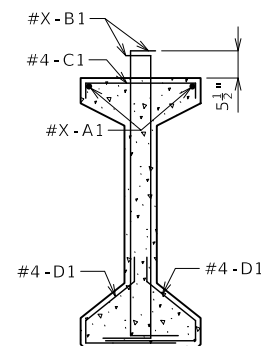
VENT HOLE

Place vent holes at or near upgrade 1/3 point of girders and clear reinforcing steel or strands by 1 1/2" minimum and steel intermediate diaphragm bolt connections by 6" minimum.



COIL TIES

Exclude coil tie at exterior face of exterior girders except at integral end bents.



SECTION B-B

Strands not shown for clarity.

BILL OF REINFORCING STEEL - EACH GIRDER				
NO.	SIZE & MARK	ACTUAL LENGTH	SHAPE	BENDING DIAGRAM
4	6 A1	4'-7"	20	
170	4 B1	5'-11"	11S	
16	6 B2	5'-3"	11S	
93	4 C1	2'-2"	10S	
186	4 D1	3'-0"	9S	

All dimensions are out to out.

Hooks and bends shall be in accordance with the CRSI Manual of Standard Practice for Detailing Reinforced Concrete Structures, Stirrup and Tie Dimensions.

Actual lengths are measured along centerline of bar to the nearest inch.

Minimum clearance to reinforcing shall be one inch.

All reinforcement shall be Grade 60.

The two D1 bars may be furnished as one bar at the fabricator's option.

All B1 bars shall be epoxy coated.

General Notes:

Concrete for prestressed girders shall be Class A-1 with $f'c = 7000$ psi and $f'ci = 5000$ psi.

Use 26 strands, 1/2"Ø Grade 270, with an initial prestress force of 806 kips.

Pretensioned members shall be in accordance with Sec 1029.

Fabricator shall be responsible for location and design of lifting devices.

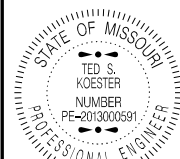
Exterior and interior girders are the same except: coil ties, coil inserts for slab drains, holes for steel intermediate diaphragms.

For Girder Camber Diagram, see Sheet No. 21.

The 1 1/2"Ø holes shall be cast in the web for steel intermediate diaphragms. Drilling is not allowed. For location of holes and details of steel intermediate diaphragms, see Sheet No. 17.

For location of coil inserts at slab drains, see Sheet No. 20.

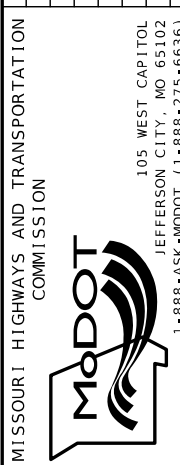
For location of coil ties at concrete bent diaphragms, see Sheets No. 12 & 18.



DATE PREPARED
6/23/2025
ROUTE **B** STATE **MO**
DISTRICT **BR** SHEET NO. **16**

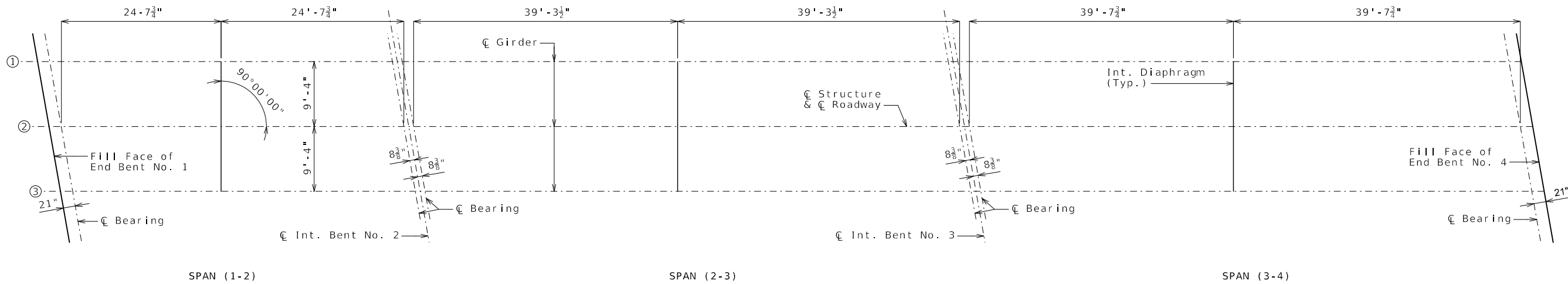
COUNTY
PIKE
JOB NO.
JNE0052
CONTRACT ID.
PROJECT NO.
BRIDGE NO.
A9431

DESCRIPTION	DATE



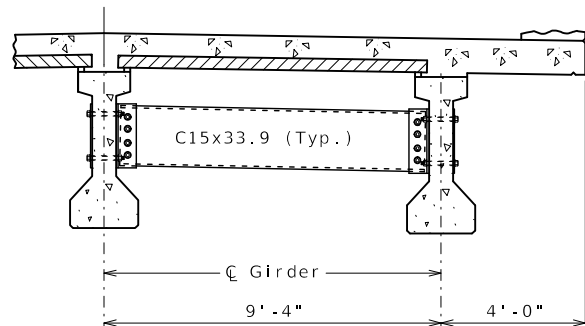
MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION
105 WEST CAPITOL JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)

I-GIRDERS - SPAN (3-4)



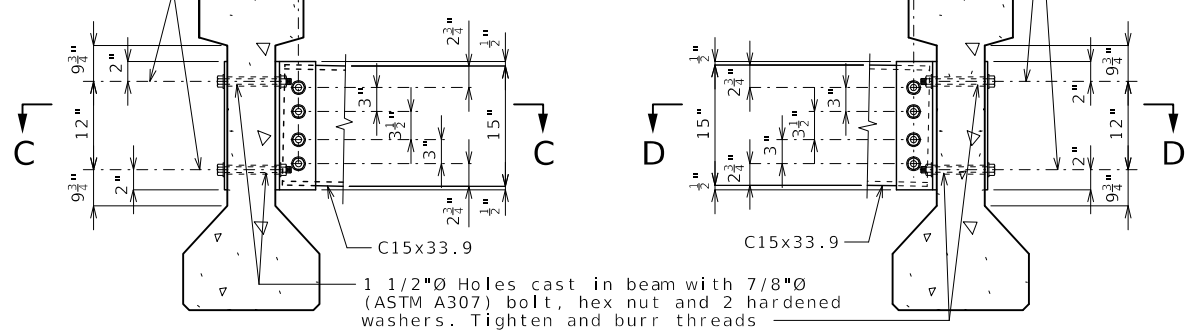
PLAN SHOWING LOCATION OF STEEL INTERMEDIATE DIAPHRAGMS

Note: Longitudinal dimensions are horizontal.



PART SECTION SHOWING INTERMEDIATE DIAPHRAGMS

C 1 1/16" Hole in 4" leg of 6 x 4 x 1/2 x 16" angle and in 4" x 3/8" x 16" plate
 C Four 1 1/16" x 2 1/4" horizontal slotted holes in 6" leg of 6 x 4 x 1/2 x 16" angle. Four 15/16" holes in channel, four 7/8" bolts (ASTM A307) ** with hex nuts, four 2 1/2" O.D. washers and 8 hardened washers *
 C 1 1/16" Hole in 4" leg of 6 x 4 x 1/2 x 16" angle and in 4" x 3/8" x 16" plate



SECTION THRU INT. GIRDER AT DIAPHRAGM

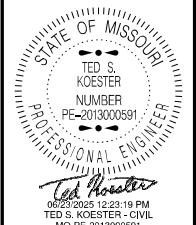
SECTION THRU EXT. GIRDER AT DIAPHRAGM

STEEL INTERMEDIATE DIAPHRAGMS

Detailed Aug. 2024
Checked May 2025

Note: This drawing is not to scale. Follow dimensions.

Sheet No. 17 of 32



DATE PREPARED 6/23/2025	
ROUTE B	STATE MO
DISTRICT BR	SHEET NO. 17
COUNTY PIKE	
JOB NO. JNE0052	
CONTRACT ID.	
PROJECT NO.	
BRIDGE NO. A9431	

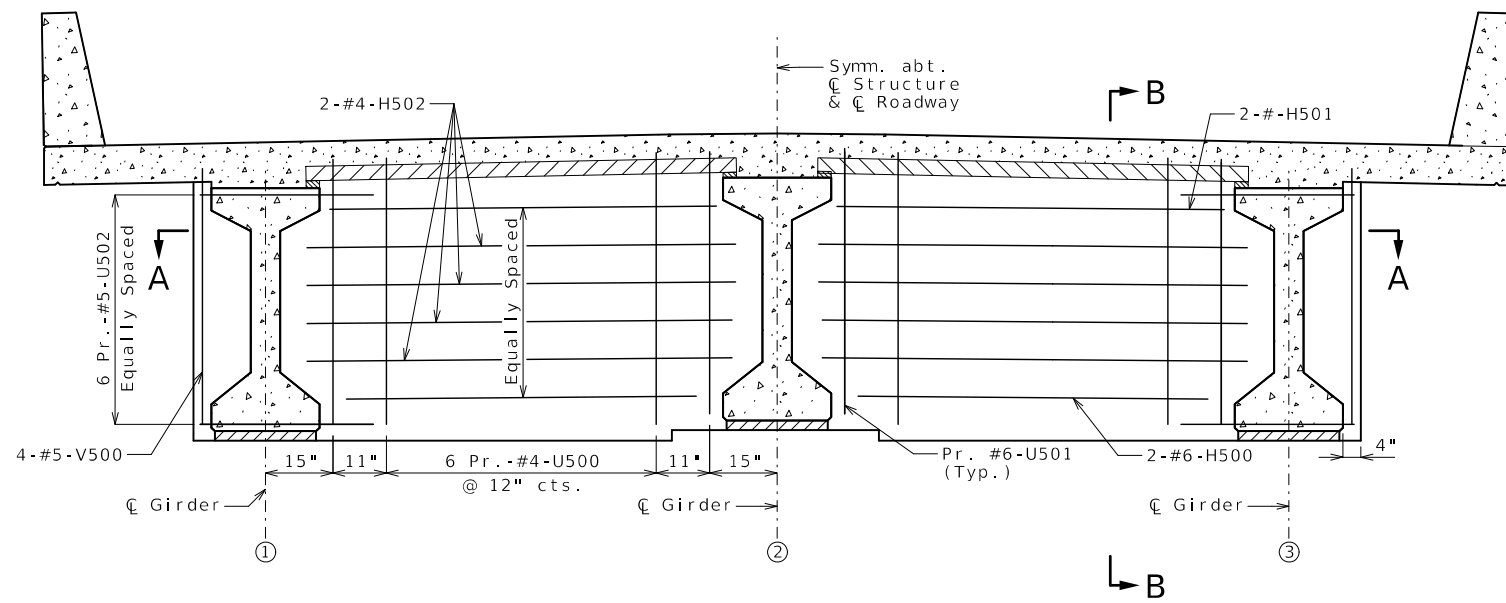
DESCRIPTION	DATE

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

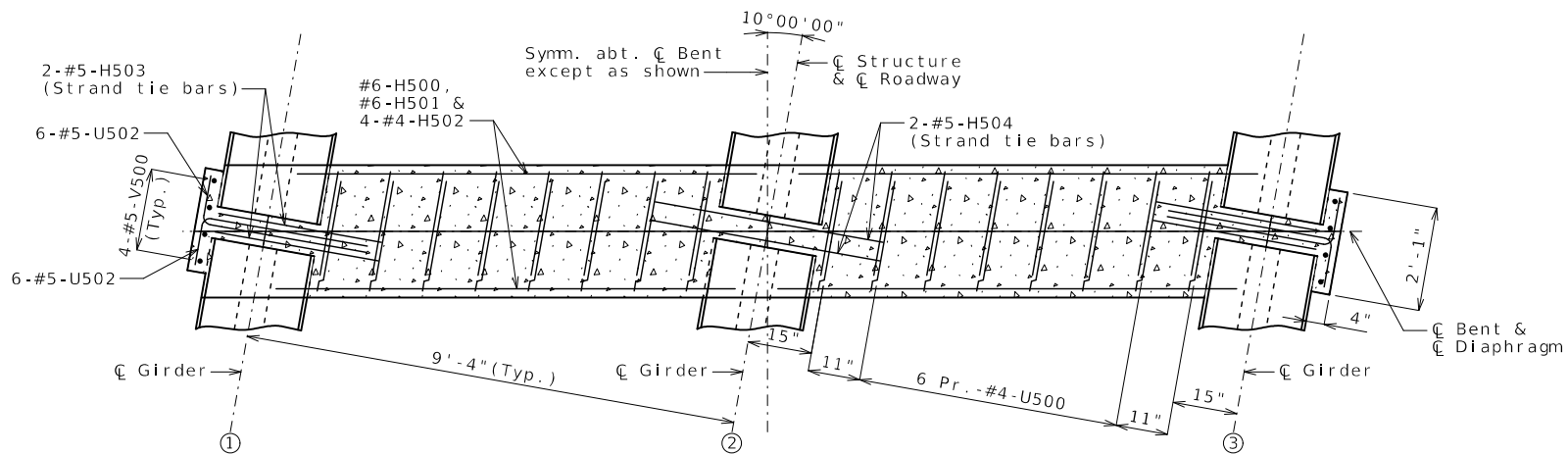
105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)

STEEL DIAPHRAGM NOTES:

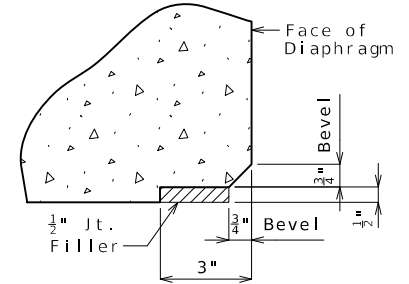
- * In lieu of 2 1/2" outside diameter washers, contractor may substitute a 3/16" (Min. thickness) plate with four 15/16" holes and one hardened washer per bolt.
- ** Bolts shall be tightened to provide a tension of one-half that specified in Sec 712 for high strength bolt installation. ASTM F3125 Grade A325 Type 1 bolts may be substituted for and installed in accordance with the requirements for the specified ASTM A307 bolts.
- All diaphragm materials including bolts, nuts, and washers shall be galvanized.
- Fabricated structural steel shall be ASTM A709 Grade 36 except as noted.
- Payment for furnishing and installing steel intermediate diaphragms will be considered completely covered by the contract unit price for Steel Intermediate Diaphragm for P/S Concrete Girders.
- Shop drawings will not be required for steel intermediate diaphragms and angle connections.



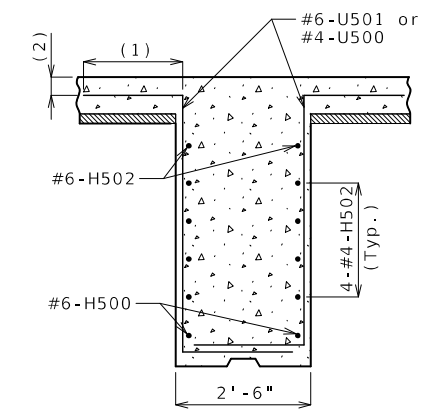
PART SECTION NEAR INTERMEDIATE BENT
(Normal to Centerline of Roadway)



SECTION A-A

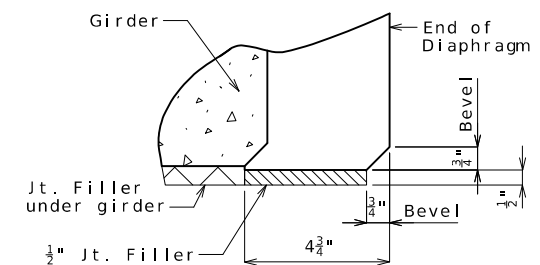


EDGE DETAIL



SECTION B-B

- (1) 15" (#4) & 22" (#6)
- (2) 3 1/4" (#4) & 3" (#6) CI.



END DETAIL

Notes:

- Diaphragms at intermediate bents shall be built vertical.
- For locations of #5-H503 & #5-H504 (strand tie bars) and coil tie rods, see Sheets No. 14 thru 16.
- All U bars in diaphragms shall be placed parallel to centerline of roadway.

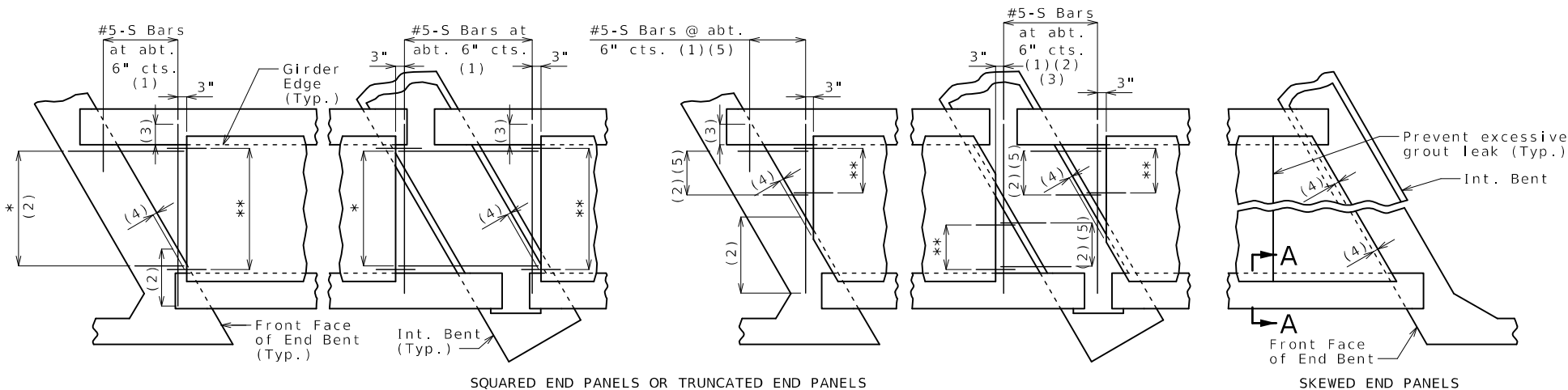
CONCRETE DIAPHRAGM AT INTERMEDIATE BENTS NO. 2 & 3

DATE PREPARED: 6/23/2025
 ROUTE: B STATE: MO
 DISTRICT: BR SHEET NO.: 18
 COUNTY: PIKE
 JOB NO.: JNE0052
 CONTRACT ID.:
 PROJECT NO.:
 BRIDGE NO.: A9431

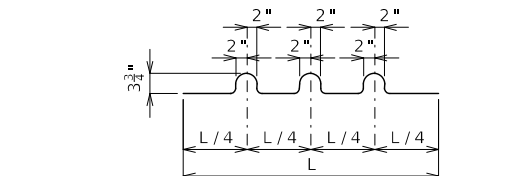
DATE	DESCRIPTION

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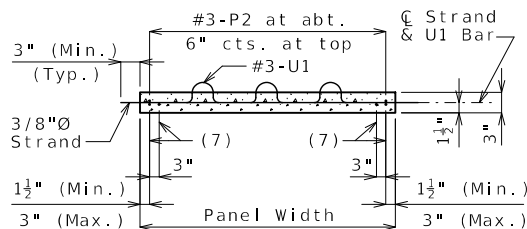


SQUARED END PANELS OR TRUNCATED END PANELS
PLAN SHOWING PANEL PLACEMENT



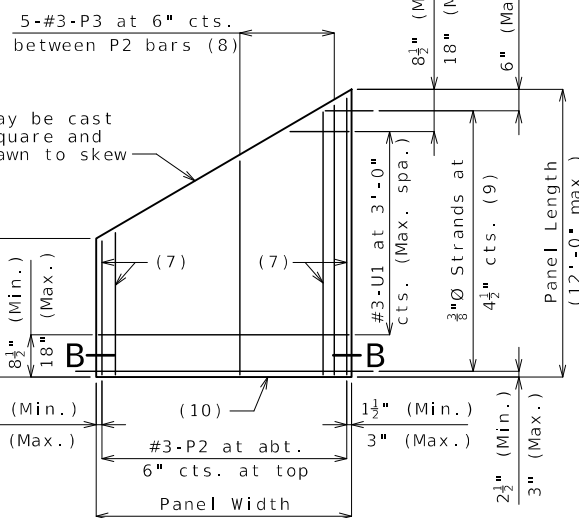
BENDING DIAGRAM FOR U1 BAR

U1 Bars may be oriented at right angles to location and spacing shown. U1 Bars shall be placed between P1 bars.

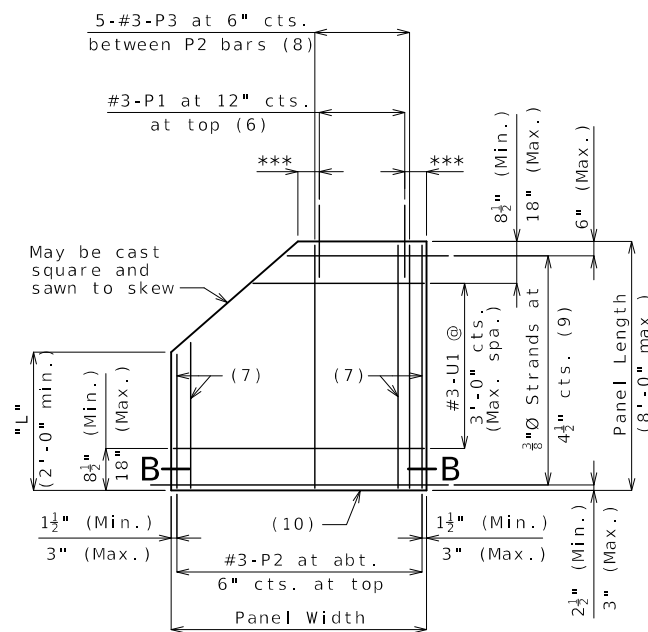


SECTION B-B

* #5-S Bars at abt. 9" cts. (1)
** #3-P1 at 12" cts. (End panels only)

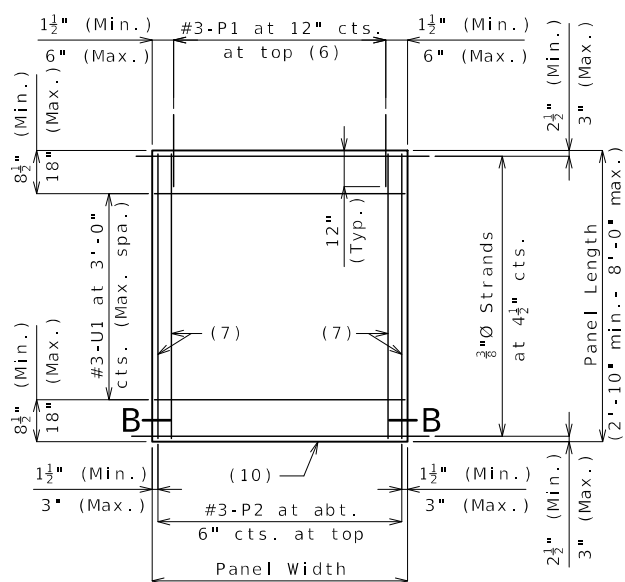


PLAN OF OPTIONAL SKEWED END PANEL

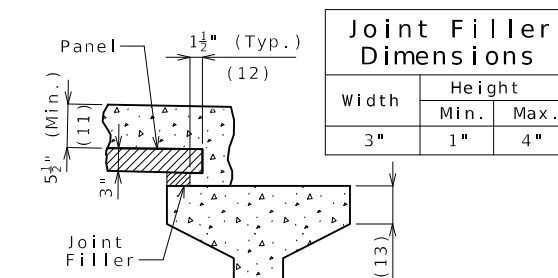


PLAN OF OPTIONAL TRUNCATED END PANEL

*** 3" (Min.), 6" (Max.)



PLAN OF SQUARED PANEL



SECTION A-A

Reference Notes:

- Plan of Panel Placement:**
- (1) S-bars shown are bottom steel in slab between panels and used with squared and truncated end panels only.
 - (2) Extend S-bars 18 inches beyond the front face of end bents and int. bents for squared and truncated end panels only.
 - (3) Extend S-bars 9 inches beyond edge of girder (Typ.).
 - (4) End panels shall be dimensioned 1/2" min. to 1 1/2" max. from the inside face of diaphragm.
 - (5) For truncated end panels, use a min. of #5-S bars at 6" crossings in openings, or min. 4x4-W7xW7.
- Plans of Panels:**
- (6) For end panels only, P1 bars shall be 2'-0" in length and embedded 12". P1 bars will not be required for panels at squared integral end bents.
 - (7) #3-P2 bars near edge of panel at bottom (under strands).
 - (8) Use #3-P3 bars if panel is skewed 45° or greater.
 - (9) Any strand 2'-0" or shorter shall have a #4 reinforcing bar on each side of it, centered between strands. Strands 2'-0" or shorter may then be deboned at the fabricator's option.
 - (10) Optional 1/2" x 45° Chamfer one or both sides at bottom.
- Section A-A:**
- (11) Slab thickness over prestressed panels varies due to girder camber. In order to maintain minimum slab thickness, it may be necessary to raise the grade uniformly throughout the structure. No payment will be made for additional labor or materials required for necessary grade adjustment.
 - (12) Contractor shall ensure proper consolidation under and between panels.
 - (13) At the contractor's option, the variation in slab thickness over prestressed panels may be eliminated or reduced by increasing and varying the girder top flange thickness. Dimensions shall be shown on the shop drawings.

General Notes:

Prestressed Panels:
Concrete for prestressed panels shall be Class A-1 with $f'c = 6,000$ psi, $f'ci = 4,000$ psi.

The top surface of all panels shall receive a scored finish with a depth of scoring of 1/8" perpendicular to the prestressing strands in the panels.

Prestressing tendons shall be high-tensile strength, uncoated, seven-wire, low-relaxation strands for prestressed concrete in accordance with AASHTO M 203 Grade 270, with nominal diameter of strand = 3/8" and nominal area = 0.085 sq.in. and minimum ultimate strength = 22.95 kips (270 ksi). Larger strands may be used with the same spacing and initial tension.

Initial prestressing force = 17.2 kips/strand.

The method and sequence of releasing the strands shall be shown on the shop drawings.

Suitable anchorage devices for lifting panels may be cast in panels, provided the devices are shown on the shop drawings and approved by the engineer. Panel lengths shall be determined by the contractor and shown on the shop drawings.

When squared end panels are used at skewed bents, the skewed portion shall be cast full depth. No separate payment will be made for additional concrete and reinforcing required.

Support from diaphragm forms is required under the optional skewed end until cast-in-place concrete has reached 3,000 psi compressive strength.

Prestressed panels shall be brought to saturated surface-dry (SSD) condition just prior to the deck pour. There shall be no free standing water on the panels or in the area to be cast.

The prestressed panel quantities are not included in the table of estimated quantities for the slab.

Reinforcing Steel:
All dimensions are out to out.

Hooks and bends shall be in accordance with the CRSI Manual of Standard Practice for Detailing Reinforced Concrete Structures, Stirrup and Tie Dimensions.

Minimum clearance to reinforcing steel shall be 1 1/2", unless otherwise shown.

If U1 bars interfere with placement of slab steel, U1 loops may be bent over, as necessary, to clear slab steel.

Deformed welded wire reinforcement (WWR) providing a minimum area of reinforcing perpendicular to strands of 0.22 sq in./ft, with spacing parallel to strands sufficient to ensure proper handling, may be used in lieu of the #3-P2 bars shown. Wire diameter shall not be larger than 0.375 inch. The above alternative reinforcement criteria may be used in lieu of the #3-P3 bars, when required, and placed over a width not less than 2 feet.

The following reinforcing steel shall be tied securely to the strands with the following maximum spacing in each direction:
#3-P2 bars at 16 inches.
WWR at 24 inches.

The #3-U1 bars shall be tied securely to #3-P2 bars, to WWR or to strands (when placed between P1 bars) at about 3-foot centers.

Minimum reinforcement steel length shall be 2'-0".

All reinforcement other than prestressing strands shall be epoxy coated.

Precast panels may be in contact with stirrup reinforcing in diaphragms.

S-bars are not listed in the bill of reinforcing.

Cost of S-bars will be considered completely covered by the contract unit price for the slab.

Joint Filler:
Joint filler shall be preformed fiber expansion joint material in accordance with Sec 1057 or expanded or extruded polystyrene bedding material in accordance with Sec 1073.

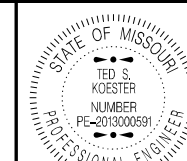
Use Slab Haunching Diagram on Sheet No. 21 for determining thickness of joint filler within the limits noted in the table of Joint Filler Dimensions.

Thicker material may be used on one or both sides of the girder to reduce cast-in-place concrete thickness to within tolerances.

The same thickness of preformed fiber expansion joint material shall be used under any one edge of any panel except at locations where top flange thickness may be stepped. The maximum change in thickness between adjacent panels shall be 1/2 inch. The polystyrene bedding material may be cut with a transition to match haunch height above top of flange.

Joint filler shall be glued to the girder. When thickness exceeds 1 1/2 inches, the joint filler shall be glued top and bottom. The glue used shall be the type recommended by the joint filler manufacturer.

Edges of panels shall be uniformly seated on the joint filler before slab reinforcement is placed.



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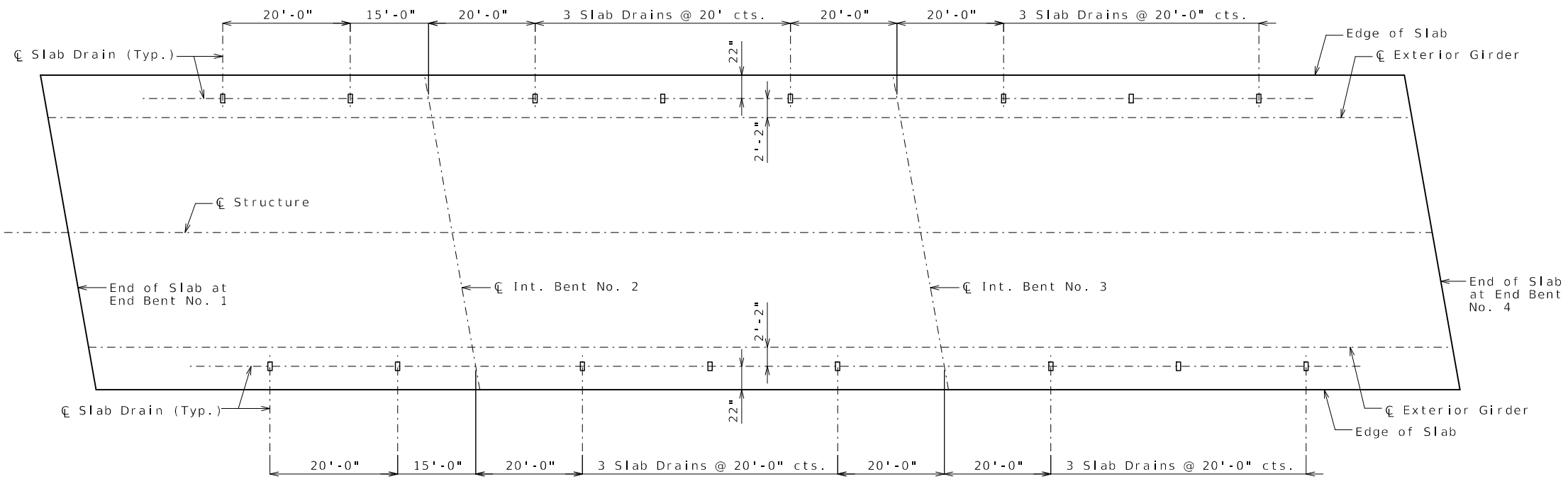
ROUTE B STATE MO
DISTRICT BR SHEET NO. 19

COUNTY PIKE
JOB NO. JNE0052
CONTRACT ID.

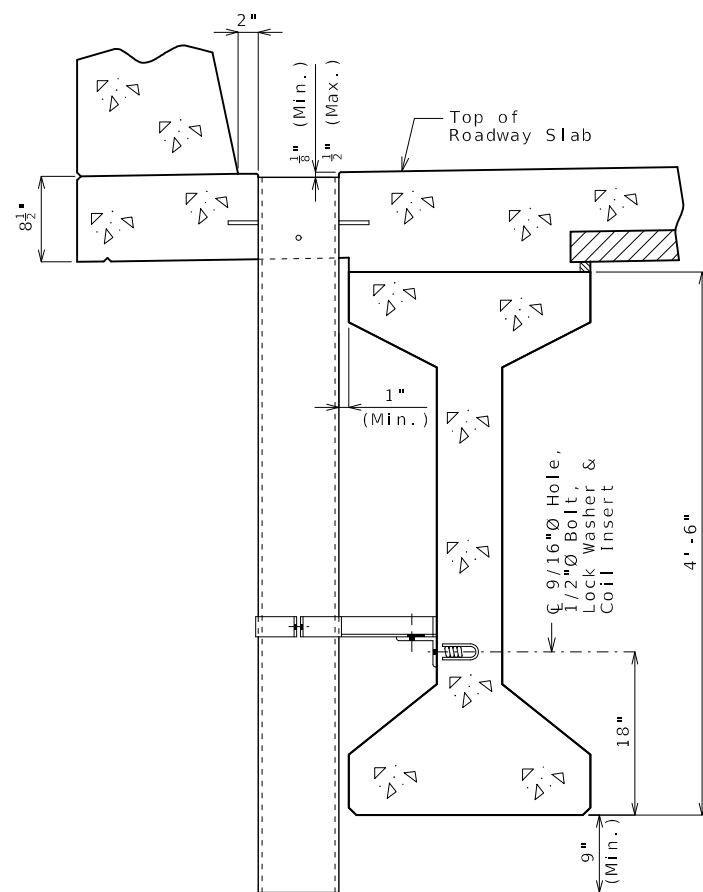
PROJECT NO.
BRIDGE NO. A9431

DESCRIPTION	DATE	
	DATE	DESCRIPTION

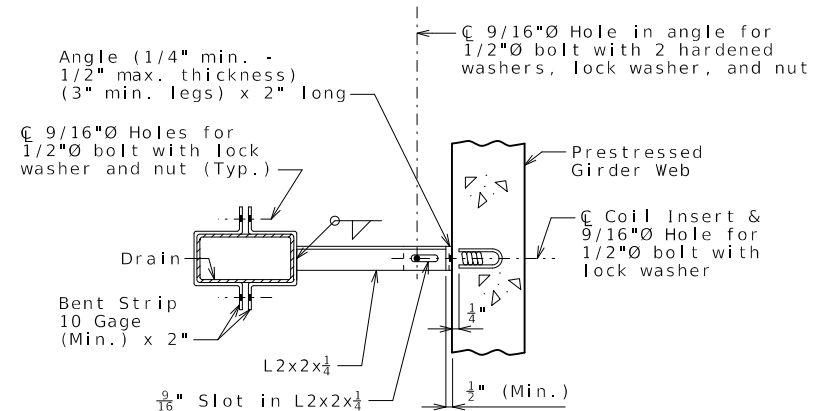
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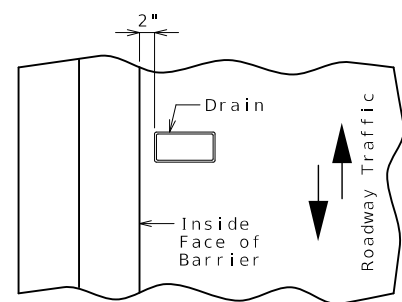
PLAN OF SLAB SHOWING SLAB DRAIN LOCATIONS



PART SECTION NEAR DRAIN

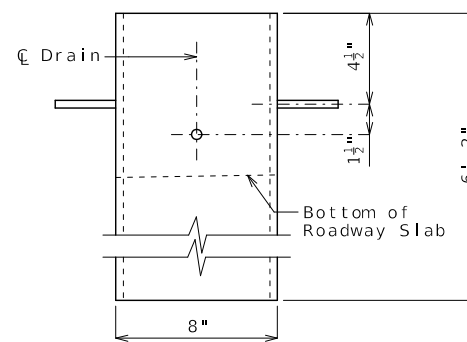


PART SECTION SHOWING BRACKET ASSEMBLY

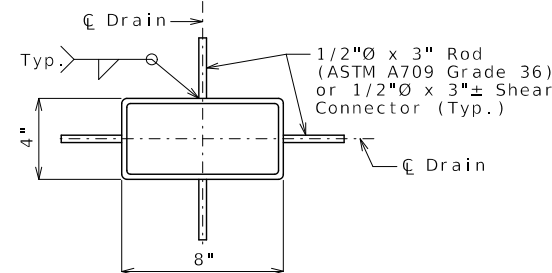


PART PLAN OF SLAB AT DRAIN

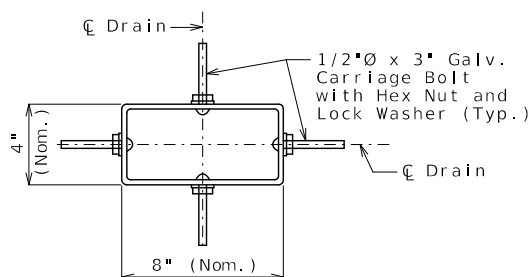
SLAB DRAINS



ELEVATION OF DRAIN



PLAN OF STEEL DRAIN OPTION



PLAN OF FRP DRAIN OPTION

General Notes:

Contractor shall have the option to construct either steel or FRP slab drains. All drains shall be of same type.

Slab drain bracket assembly shall be ASTM A709 Grade 36 steel.

Locate drains in slab by dimensions shown in Part Section Near Drain.

Reinforcing steel shall be shifted to clear drains.

The coil inserts and bracket assembly shall be galvanized in accordance with ASTM A123.

All bolts, hardened washers, lock washers and nuts shall be galvanized in accordance with AASHTO M 232 (ASTM A153), Class C.

All 1/2"Ø bolts shall be ASTM A307.

Shop drawings will not be required for the slab drains and the bracket assembly.

The coil insert required for the bracket assembly attachment shall be located on the prestressed girder shop drawings.

Coil inserts shall have a concrete pull-out strength (ultimate load) of at least 2,500 pounds in 5,000 psi concrete.

The bolt required to attach the slab drain bracket assembly to the prestressed girder web shall be supplied by the prestressed girder fabricator.

Notes for Steel Drain:

Slab drains may be fabricated of either 1/4" welded sheets of ASTM A709 Grade 36 steel or from 1/4" structural steel tubing ASTM A500 or A501.

Outside dimensions of drains are 8" x 4".

The drains shall be galvanized in accordance with ASTM A123.

Notes for FRP Drain:

Drains shall be machine filament-wound thermosetting resin tubing meeting the requirements of ASTM D2996 with the following exceptions:

Shape of drains shall be rectangular with outside nominal dimensions of 8" x 4".

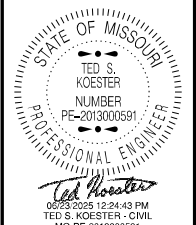
Minimum reinforced wall thickness shall be 1/4 inch.

The resin used shall be ultraviolet (UV) resistant and/or have UV inhibitors mixed throughout. Drains may have an exterior coating for additional UV resistance.

The color of the slab drain shall be gray (Federal Standard 26373). The color shall be uniform throughout the resin and any coating used.

The combination of materials used in the manufacture of the drains shall be tested for UV resistance in accordance with ASTM D4329 Cycle A. The representative material shall withstand at least 500 hours of testing with only minor discoloration and without any physical deterioration. The contractor shall furnish the results of the required ultraviolet testing prior to acceptance of the slab drains.

At the contractor's option, drains may be field cut. The method of cutting FRP slab drain shall be as recommended by the manufacturer to ensure a smooth, chip free cut.

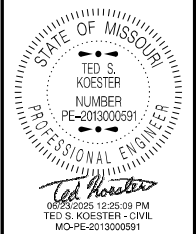


DATE PREPARED 6/23/2025	
ROUTE B	STATE MO
DISTRICT BR	SHEET NO. 20
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JOB NO. JNE0052	
CONTRACT ID.	
PROJECT NO.	
BRIDGE NO. A9431	

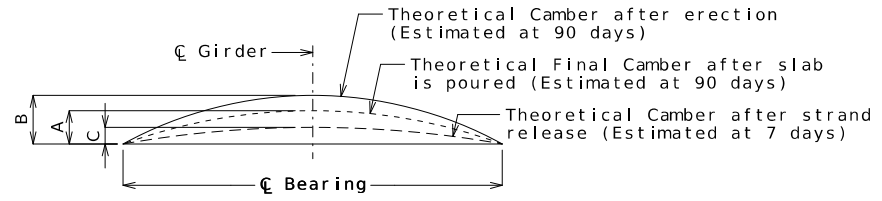
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CONTRACT ID.
PROJECT NO.
BRIDGE NO. A9431



Girder	Span (1-2)			Span (2-3)			Span (3-4)		
	A	B	C	A	B	C	A	B	C
Exterior	1/8"	3/8"	1/4"	1 1/4"	2"	1 1/4"	1 1/4"	2"	1 1/4"
Interior	1/4"			1 1/4"			1 1/4"		

GIRDER CAMBER DIAGRAM

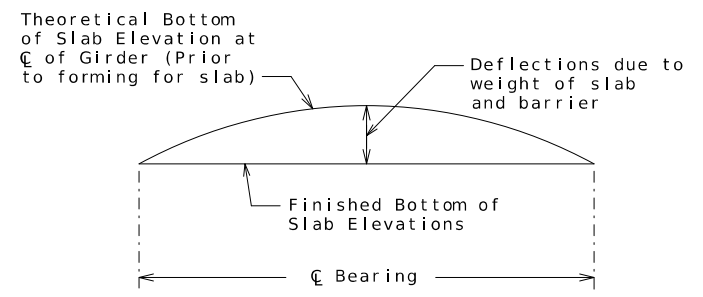
Conversion Factors for Girder Camber (Estimated at 90 days):

- SPAN (1-2)
0.25 pt. = 0.7125 x 0.5 pt.
- SPAN (2-3) & (3-4)
0.1 pt. = 0.314 x 0.5 pt.
0.2 pt. = 0.593 x 0.5 pt.
0.3 pt. = 0.813 x 0.5 pt.
0.4 pt. = 0.952 x 0.5 pt.

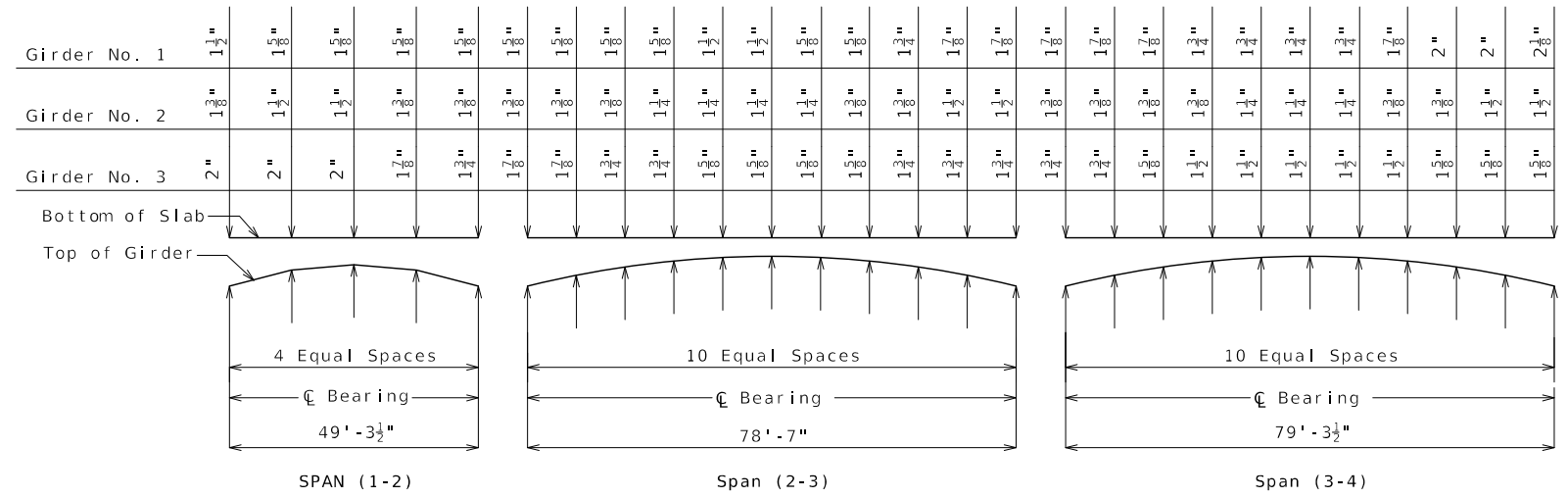
Theoretical Bottom of Slab Elevations at Centerline of Girder (Prior to forming for slab) (Estimated at 90 days)

Girder Number	Span (1-2) (49'-3 1/2" C Brg. - C Brg.)					Span (2-3) (78'-7" C Brg. - C Brg.)					Span (3-4) (79'-3 1/2" C Brg. - C Brg.)															
	C Brg.	.25	.50	.75	C Brg.	C Brg.	.10	.20	.30	.40	.50	.60	.70	.80	.90	C Brg.	C Brg.	.10	.20	.30	.40	.50	.60	.70	.80	.90
1	523.40	523.54	523.66	523.76	523.84	523.85	523.91	523.97	524.01	524.04	524.06	524.07	524.07	524.05	524.02	523.99	523.98	523.96	523.94	523.90	523.85	523.78	523.71	523.62	523.52	523.42
2	523.58	523.73	523.85	523.94	524.02	524.03	524.09	524.14	524.19	524.22	524.24	524.24	524.24	524.22	524.19	524.15	524.14	524.12	524.10	524.06	524.01	523.94	523.86	523.77	523.67	523.56
3	523.44	523.57	523.69	523.79	523.86	523.87	523.93	523.98	524.02	524.05	524.07	524.07	524.07	524.05	524.02	523.98	523.97	523.95	523.92	523.88	523.82	523.76	523.68	523.59	523.49	523.38

Elevations are based on a constant slab thickness of 8 1/2" and include allowance for theoretical dead load deflections due to weight of slab (including precast panel) and barrier.



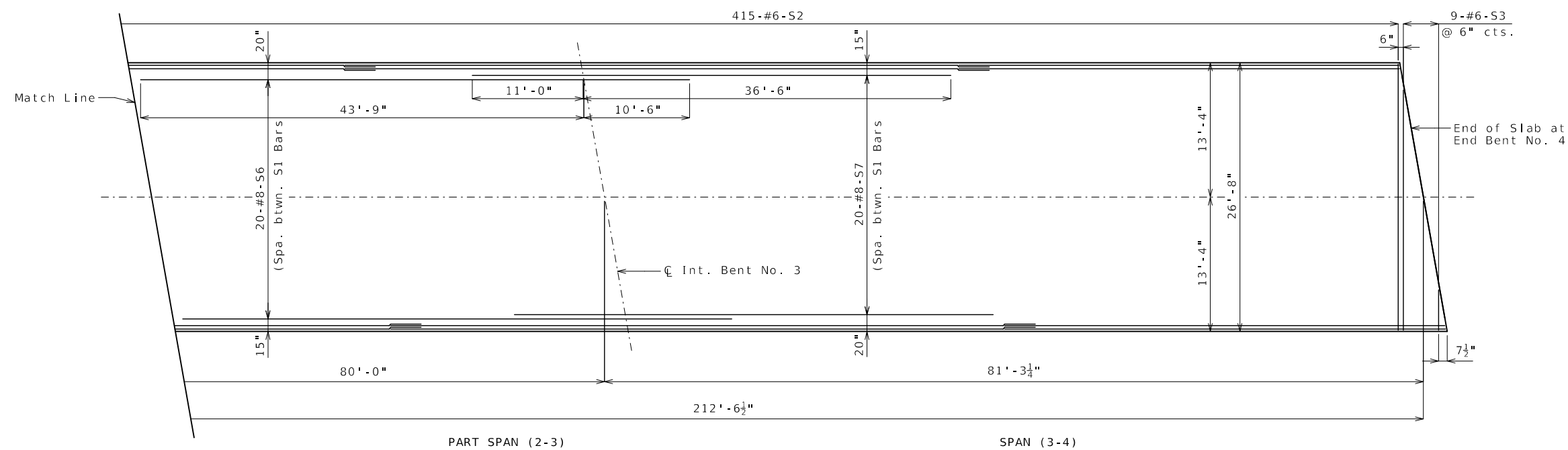
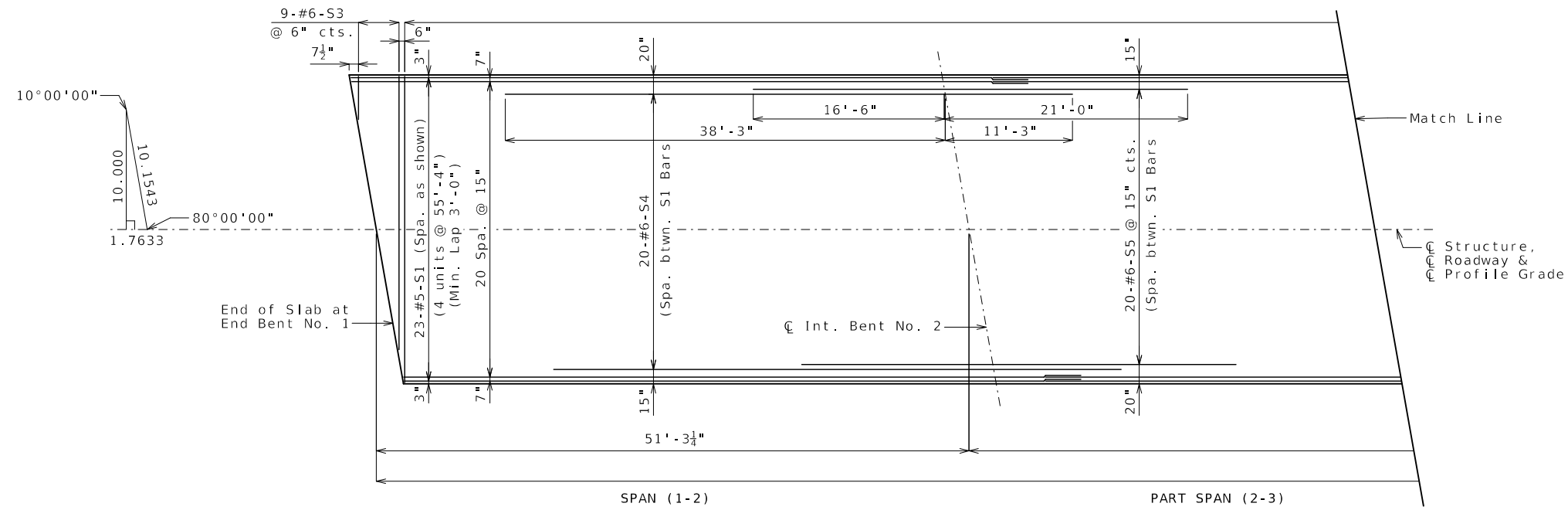
TYPICAL SLAB ELEVATIONS DIAGRAM



THEORETICAL SLAB HAUNCHING DIAGRAM (ESTIMATED AT 90 DAYS)

If beam camber is different from that shown in the camber diagram, in order to maintain minimum slab thickness, an adjustment of the slab haunches, an increase in slab thickness or a raise in grade uniformly throughout the structure shall be necessary. No payment will be made for additional labor or materials required for variation in haunching, slab thickness or grade adjustment.
Concrete in the slab haunches is included in the Estimated Quantities for Slab on Concrete I-Girder.

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Notes:

Longitudinal slab dimensions are measured horizontally.

For Slab Pouring Sequence & Section Thru Slab, see Sheet No. 24.

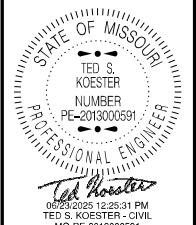
For Theoretical Slab Haunching Diagram and Theoretical Bottom of Slab Elevations, see Sheet No. 21.

For details and reinforcement of Type D Barrier, see Sheets No. 25 & 26.

For details of Precast Panels, see Sheet No. 19.

For details and locations of Slab Drains, see Sheet No. 20.

PLAN OF SLAB SHOWING TOP REINFORCEMENT

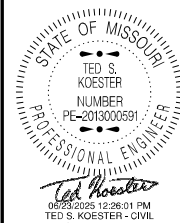


DATE PREPARED 6/23/2025	
ROUTE B	STATE MO
DISTRICT BR	SHEET NO. 22
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JOB NO. JNE0052	
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ROUTE B STATE MO
DISTRICT BR SHEET NO. 23

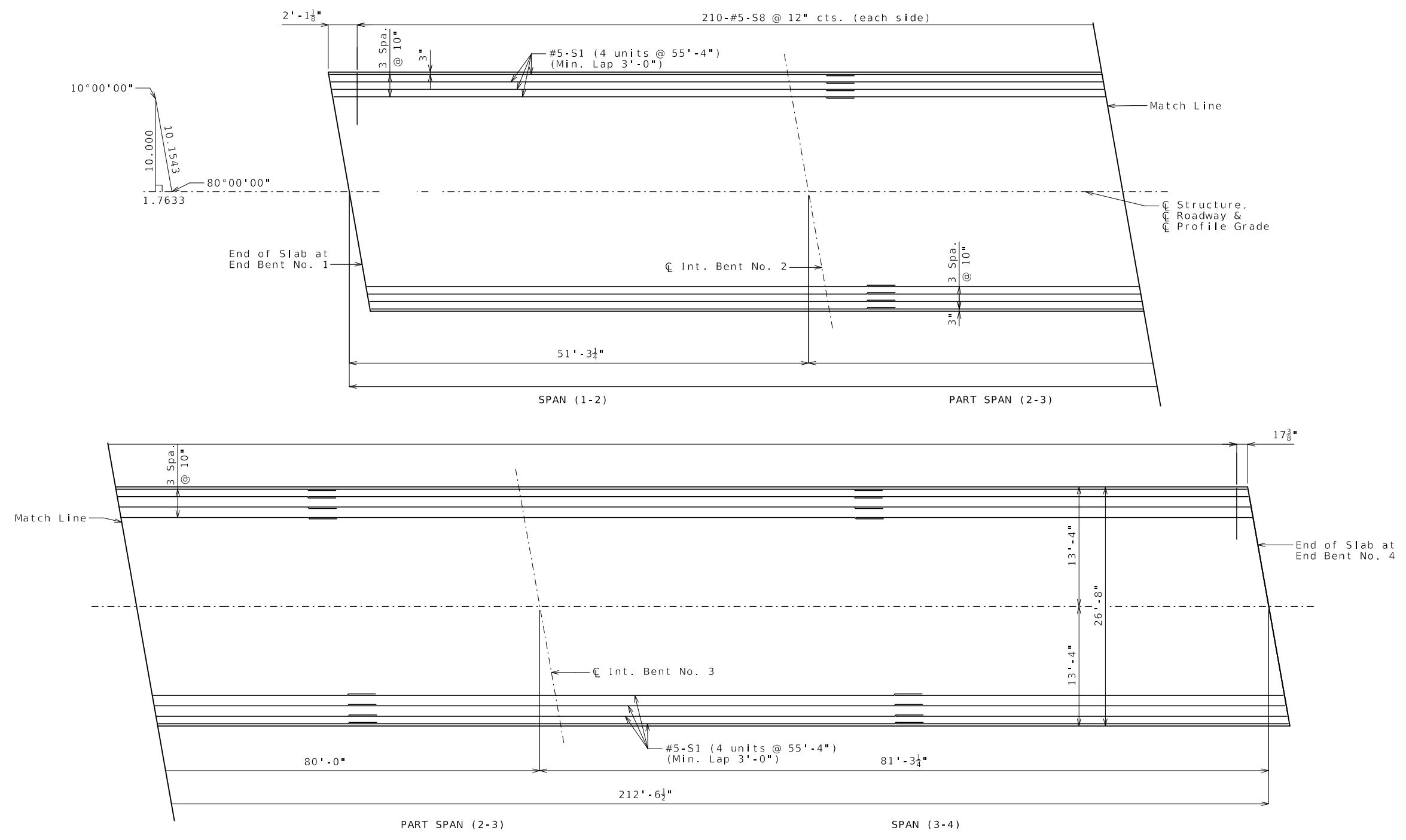
COUNTY
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PROJECT NO.

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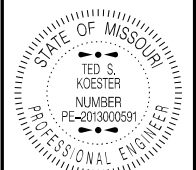
Notes:

Longitudinal slab dimensions are measured horizontally. For details and reinforcement of Type D Barrier, see Sheets No. 25 & 26.

For Slab Pouring Sequence & Section Thru Slab, see Sheet No. 24. For details of Precast Panels, see Sheet No. 19.

For Theoretical Slab Haunching Diagram and Theoretical Bottom of Slab Elevations, see Sheet No. 21. For details and locations of Slab Drains, see Sheet No. 20.

PLAN OF SLAB SHOWING BOTTOM REINFORCEMENT



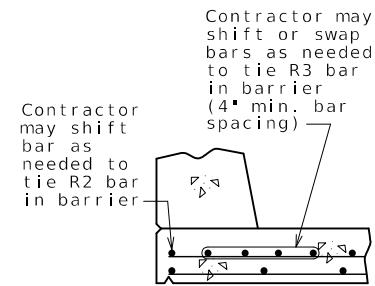
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ROUTE B STATE MO
DISTRICT BR SHEET NO. 24

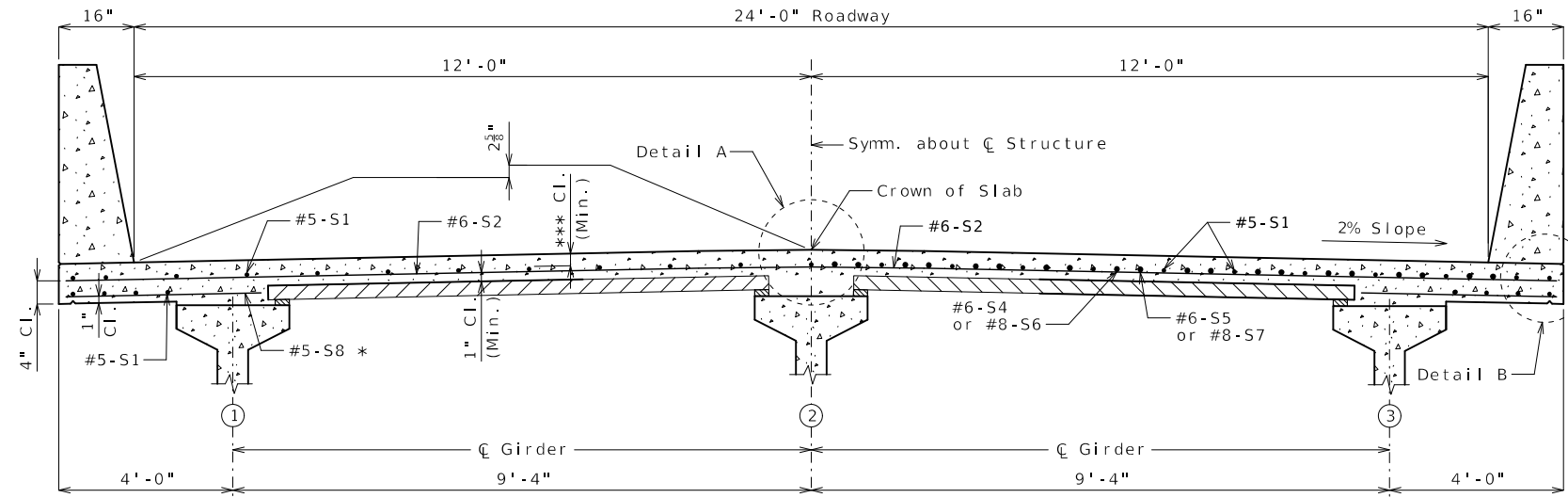
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OPTIONAL SHIFTING TOP BARS AT BARRIER

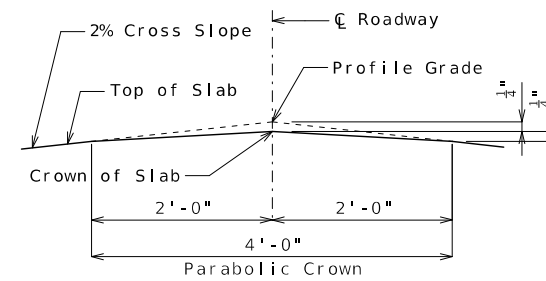
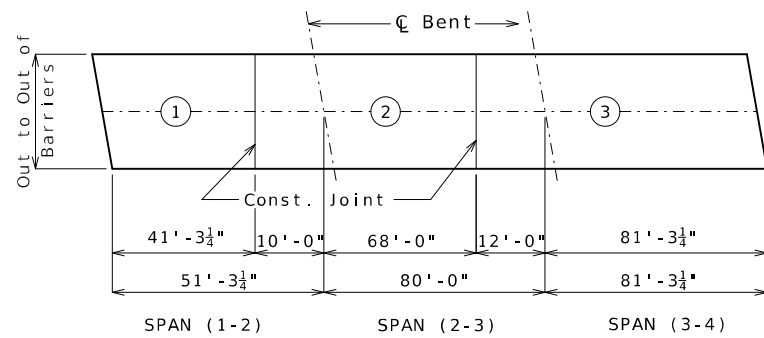


HALF SECTION NEAR MIDSPAN

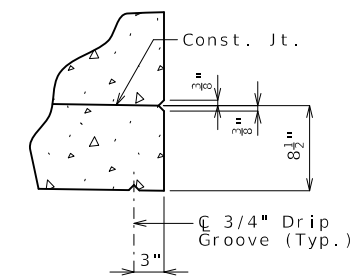
HALF SECTION NEAR INTERMEDIATE BENT

SECTION THRU SLAB

- * Alternate bar shape available, see barrier sheet.
- *** 3 1/8" (#5)
- 3" (#6)
- 2 3/4" (#8)



DETAIL A



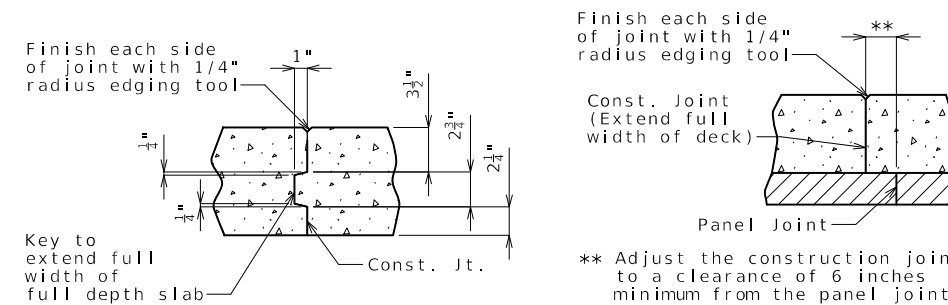
DETAIL B

	Sequence of Pours			Min. Rate of Pour Cu. Yds./Hr.
	Direction			
Basic Sequence	1	2	3	25
	End to 2	1 to 3	2 to 4	
Alternate pours to the basic sequence are subject to the approval of the engineer in accordance with Sec 703.				
Alternate A Pours	1 + 2	3		25
	End to 3	2 to End		
Alternate B Pours	1 + 2 + 3			25
	End to End			

The contractor shall furnish an approved retarder to retard the set of the concrete to 2.5 hours, and shall pour and satisfactorily finish the slab pours at the rate given.

The concrete diaphragm at the intermediate bents and integral end bents shall be poured a minimum of 30 minutes and a maximum of 2 hours before the slab is poured.

SLAB POURING SEQUENCE



FULL DEPTH SLAB

SLAB ON PANELS

SLAB CONSTRUCTION JOINT

Notes:

For details of precast prestressed panels, see Sheet No. 19.

For reinforcement of barrier not shown, see Sheet No. 25 & 26.

For Theoretical Bottom of Slab Elevations, Girder Camber Diagram and Theoretical Slab Haunching Diagram, see Sheet No. 21.

For Plan of Slab Showing Reinforcement, see Sheet No. 22 & 23.

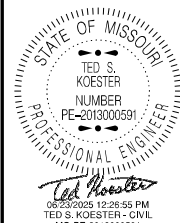
SLAB DETAILS

DESCRIPTION

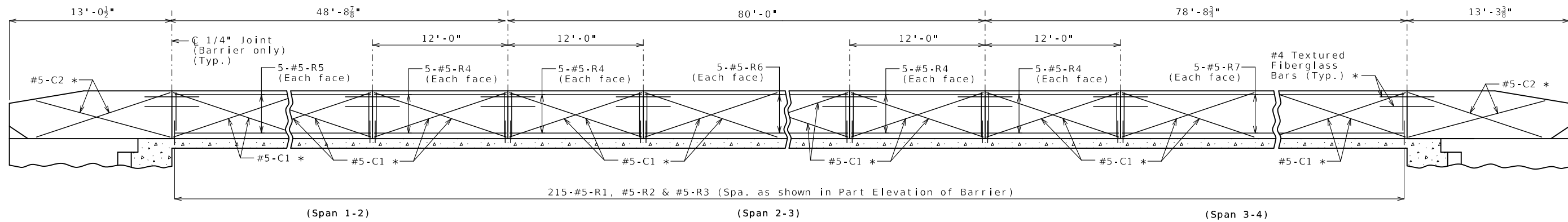
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MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

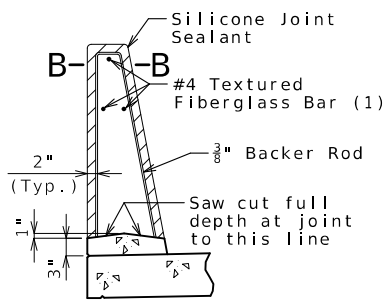




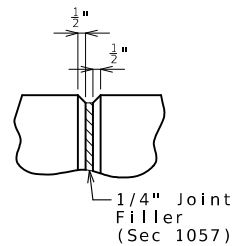
DATE PREPARED 6/23/2025	
ROUTE B	STATE MO
DISTRICT BR	SHEET NO. 25
COUNTY PIKE	
JOB NO. JNE0052	
CONTRACT ID.	
PROJECT NO.	
BRIDGE NO. A9431	



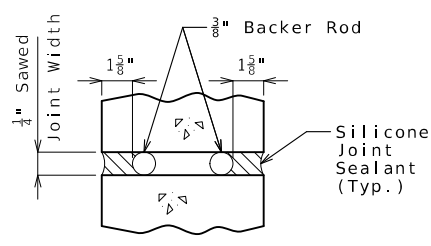
ELEVATION OF BARRIER
(Right barrier shown)
Longitudinal dimensions are horizontal.



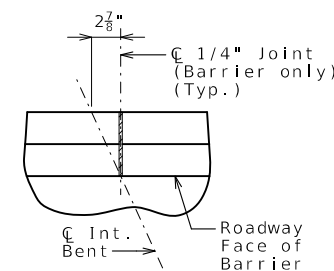
SECTION THRU SAW CUT JOINT



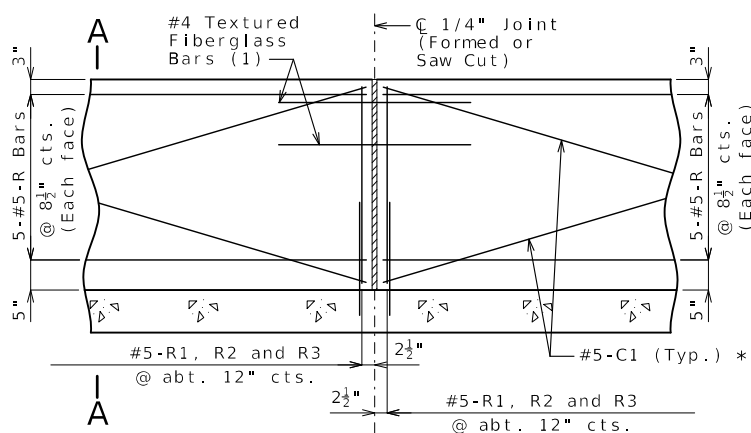
PART ELEVATION AT FORMED JOINT



SECTION B-B

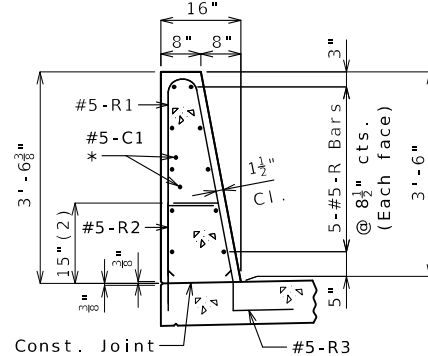


PART PLAN SHOWING JOINT LOCATION



PART ELEVATION OF BARRIER

(1) Four feet long, centered on joint, slip-formed option only

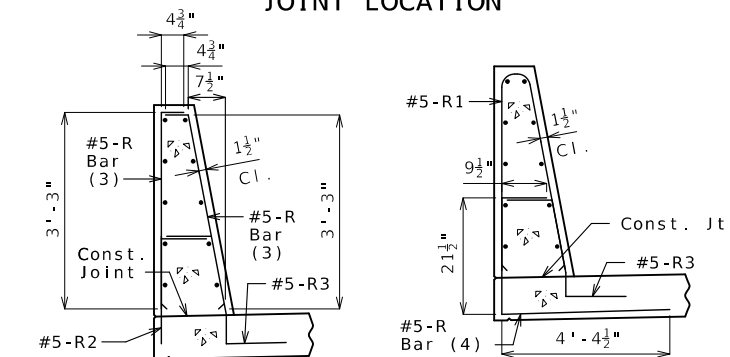


SECTION A-A

Use a minimum lap of 3'-1" for #5 horizontal barrier bars.

The cross-sectional area above the slab is 3.52 square feet.

(2) To top of bar



R-BAR PERMISSIBLE ALTERNATE SHAPE

(3) The R1 bar may be separated into two bars as shown, at the contractor's option, only when slip forming is not used. (All dimensions are out to out.)

(4) The R2 bar and #5 bottom transverse slab bar in cantilever (prestressed panels only) combination may be furnished as one bar as shown, at the contractor's option.

General Notes:

* Slip-formed option only.

Conventional forming or slip forming may be used. Saw cut joints may be used with conventional forming.

Top of barrier shall be built parallel to grade and barrier joints normal to grade.

All exposed edges of barrier shall have either a 1/2-inch radius or a 3/8-inch bevel, unless otherwise noted.

Payment for all concrete and reinforcement, complete in place, will be considered completely covered by the contract unit price for Type D Barrier per linear foot.

Concrete in barrier shall be Class B-1.

Measurement of barrier is to the nearest linear foot for each structure, measured along the outside top of slab from end of wing to end of wing.

Concrete traffic barrier delineators shall be placed on top of the barrier as shown on Missouri Standard Plan 617.10 and in accordance with Sec 617. Delineators on bridges with two-lane, two-way traffic shall have retroreflective sheeting on both sides. Concrete traffic barrier delineators will be considered completely covered by the contract unit price for Type D Barrier.

Joint sealant and backer rods shall be in accordance with Sec 717 for silicone joint sealant for saw cut and formed joints.

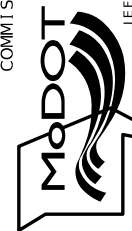
For slip-formed option, both sides of barrier shall have a vertically broomed finish and the top shall have a transversely broomed finish.

TYPE D BARRIER

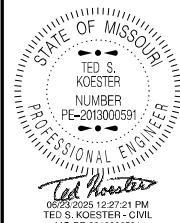
DESCRIPTION

DATE

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION



105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)



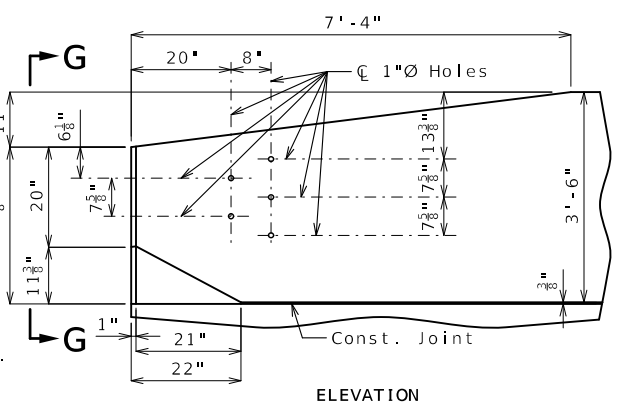
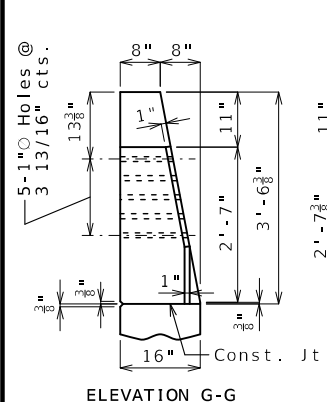
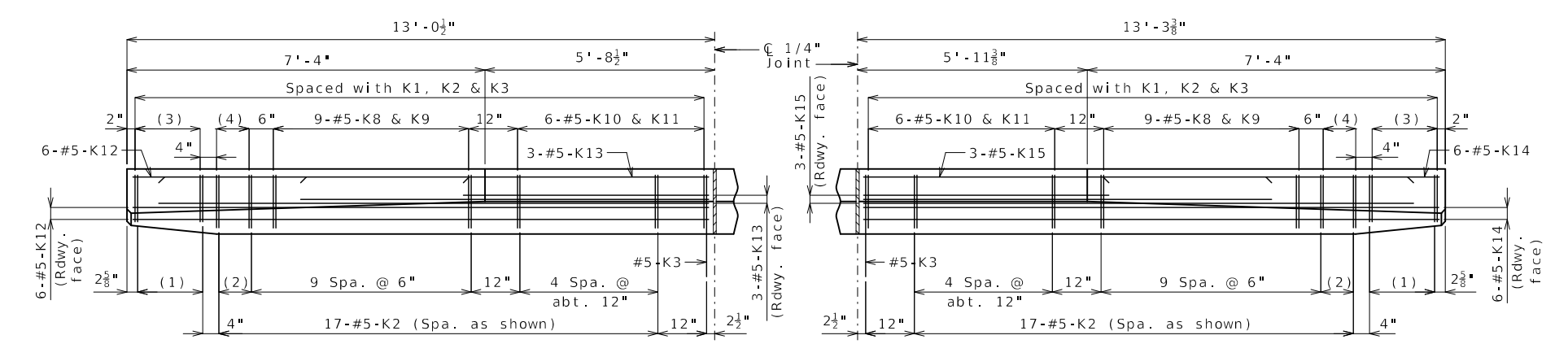
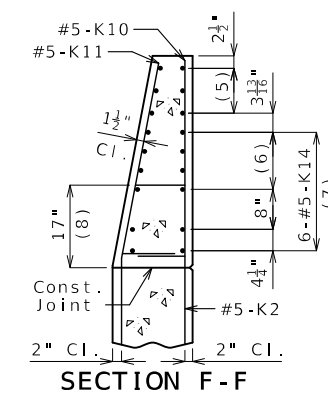
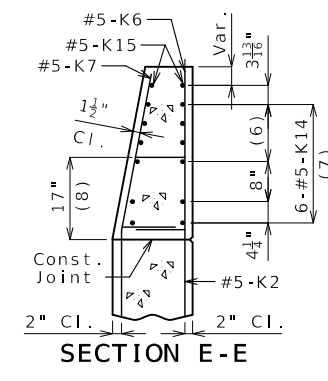
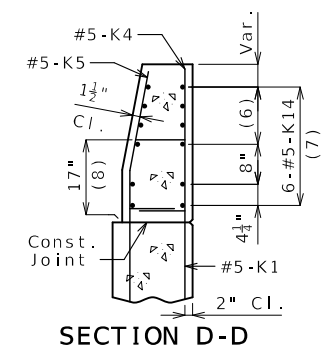
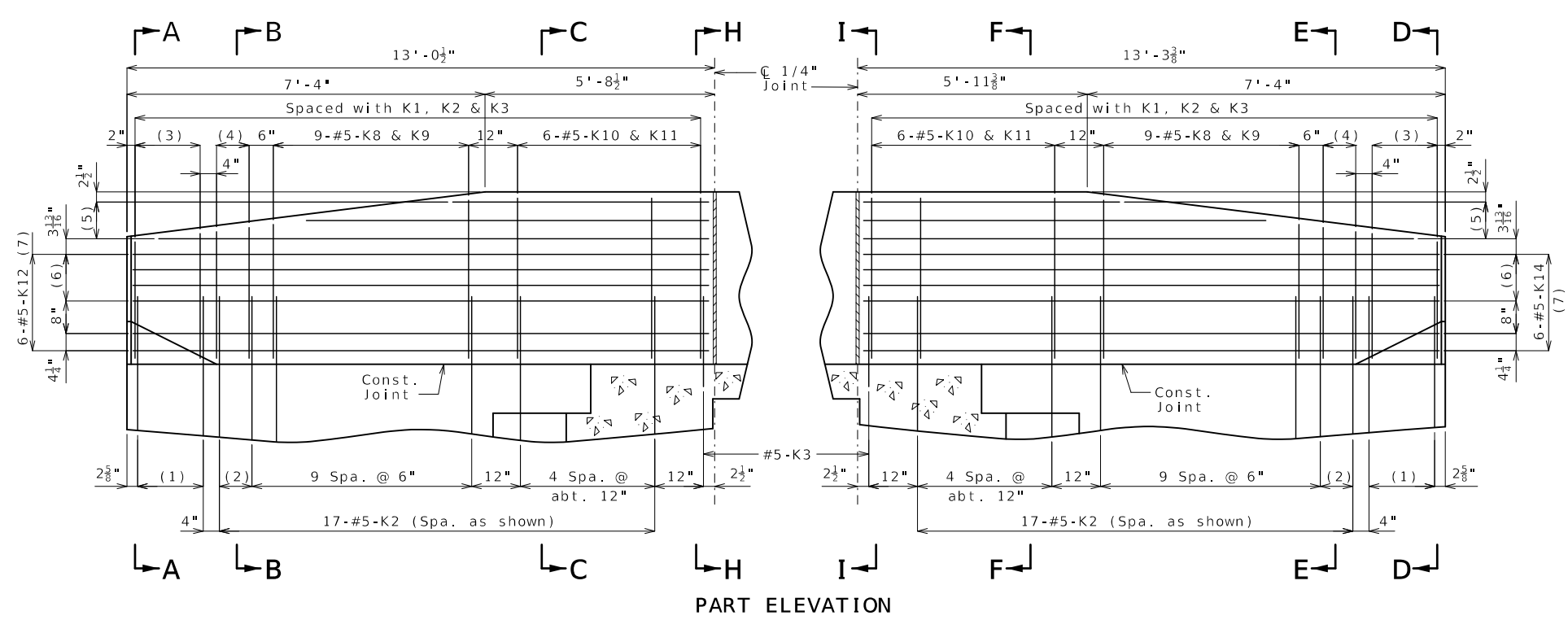
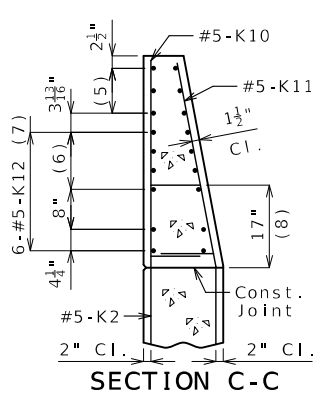
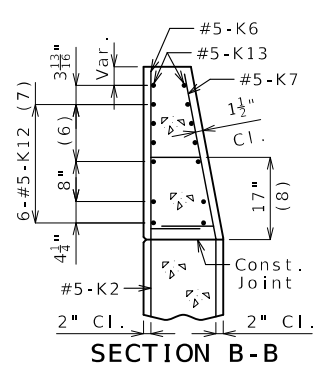
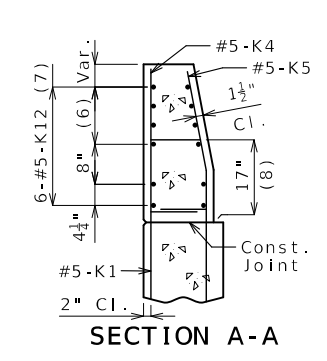
DATE PREPARED
6/23/2025
ROUTE B STATE MO
DISTRICT BR SHEET NO. 26
COUNTY PIKE
JOB NO. JNE0052
CONTRACT ID.

PROJECT NO.
BRIDGE NO. A9431

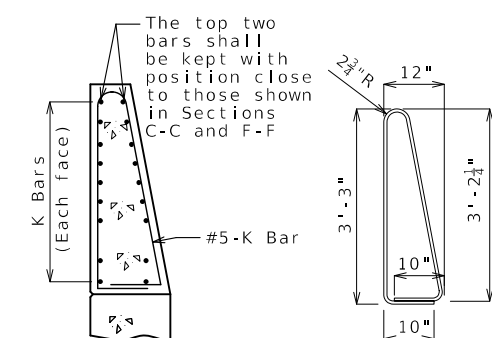
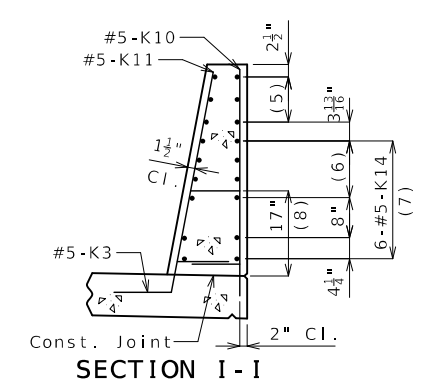
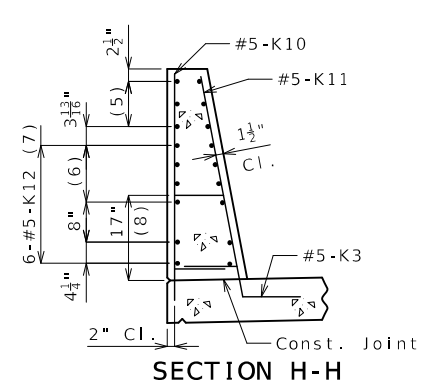
DESCRIPTION	DATE

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

 105 WEST CAPITOL
 JEFFERSON CITY, MO 65102
 1-888-ASK-MODOT (1-888-275-6636)



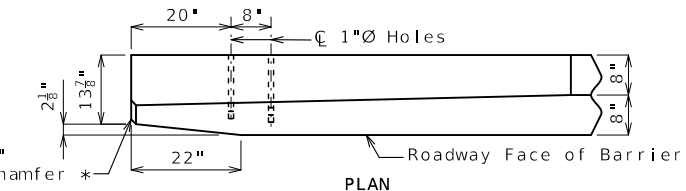
- (1) 5-#5-K1 @ 4" cts.
- (2) 2 spaces @ 4"
- (3) 5-#5-K4 & K5
- (4) 3-#5-K6 & K7
- (5) 3-#5-K13 or K15 @ 4 1/2" cts., each face
- (6) 3 spaces @ 3 1/8"
- (7) Spaced as shown, each face
- (8) To top of bar



K10-K11 BAR PERMISSIBLE ALTERNATE SHAPE
 (Other K bars not shown for clarity)

The K10-K11 bar combination may be furnished as one bar as shown, at the contractor's option.
 All dimensions are out to out.

* Transition to zero at Type A curb for gutter lines to match.



DETAILS OF GUARD RAIL ATTACHMENT

General Notes:

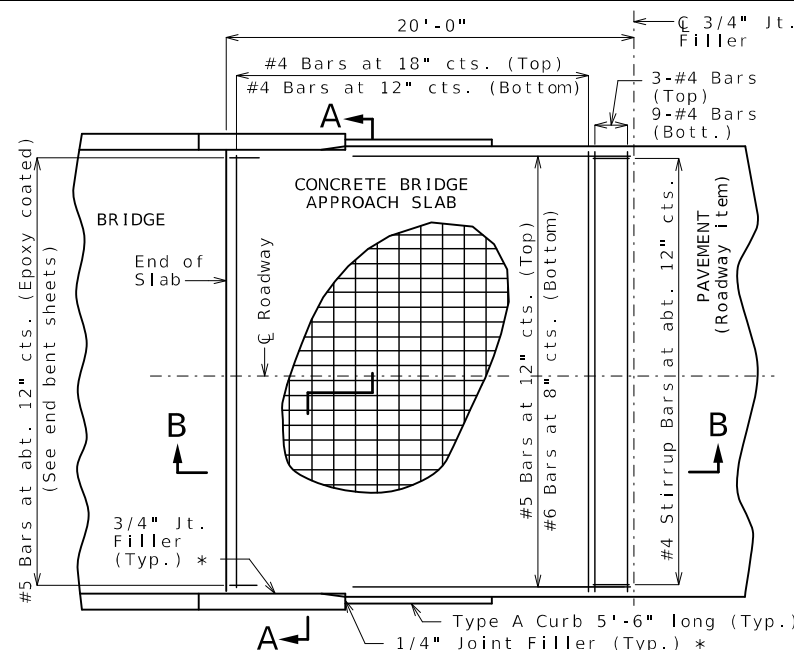
Concrete traffic barrier delineators shall be placed on top of the barrier as shown on Missouri Standard Plan 617.10 and in accordance with Sec 617. Delineators on bridges with two-lane, two-way traffic shall have retroreflective sheeting on both sides. Concrete traffic barrier delineators will be considered completely covered by the contract unit price for Type D Barrier.

Reinforcing Steel:

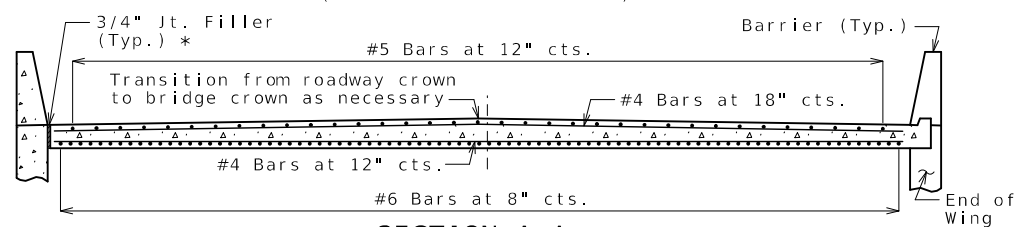
Minimum clearance to reinforcing steel shall be 1 1/2" except as shown for bars embedded into end bent.

TYPE D BARRIER AT END BENTS

(Left barrier shown, right barrier similar)

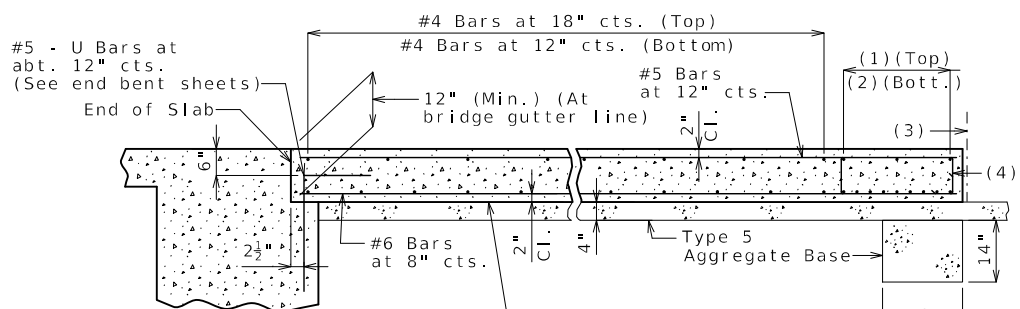


PART PLAN OF SQUARED STRUCTURE
(Skewed structure similar)



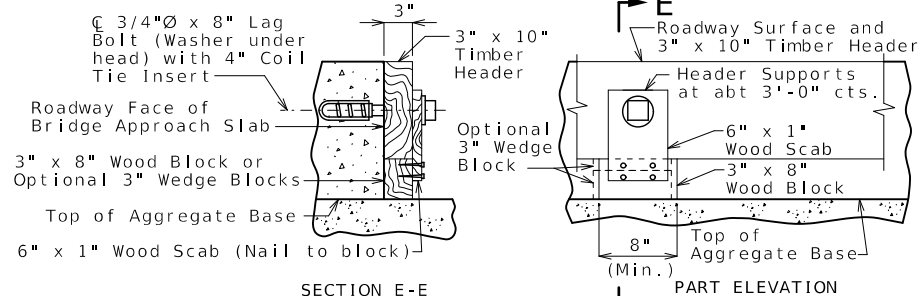
SECTION A-A

With the approval of the engineer, the contractor may crown the bottom of the approach slab to match the crown of the roadway surface.

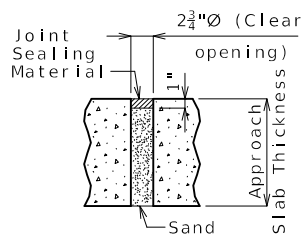


SECTION B-B
(Integral end bent)

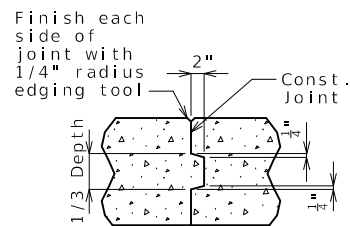
2 Layers of 4 Mil Polyethylene Sheeting between bridge approach slab and granular base in accordance with ASTM E 1745 Performance Class A



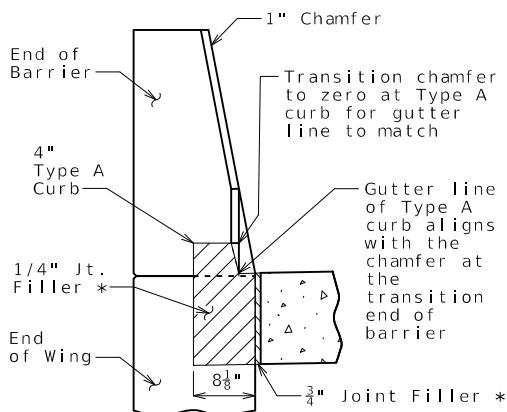
DETAILS OF TIMBER HEADER
Remove timber header when concrete pavement is placed.
OPTIONAL CONCRETE SLAB



UNDERSEAL ACCESS HOLE DETAIL
(If required)



CONSTRUCTION JOINT DETAIL



SECTION BETWEEN CURB AND BARRIER

- (1) 3-#4 Bars
- (2) 9-#4 Bars
- (3) 3/4" Jt. Filler
- (4) #4 Stirrup Bars at abt. 12" cts.; 2'-0" x 8" (Min.) out to out; Actual length = 5'-10" (Min.); 90° stirrup hook at bottom; Stirrup height (8") and actual length vary due to crown.

Notes For Concrete Slab Only:

All concrete for the bridge approach slab shall be in accordance with Sec 503 (f'c = 4,000 psi).

The reinforcing steel in the bridge approach slab shall be epoxy coated Grade 60 with fy = 60,000 psi.

Longitudinal construction joints in bridge approach slab shall be aligned with longitudinal construction joints in bridge slab.

Minimum clearance to reinforcing steel shall be 1 1/2", unless otherwise shown.

The reinforcing steel in the bridge approach slab shall be continuous. The transverse reinforcing steel may be made continuous by providing a minimum lap splice of 23 inches for #4 bars, or by mechanical bar splice.

All joint filler shall be in accordance with Sec 1057 for preformed fiber expansion joint filler except as noted.

Payment for furnishing all materials, labor and excavation necessary to construct the concrete bridge approach slab, including the timber header, underdrain, Type 5 aggregate base, joint filler, and all other appurtenances and incidental work as shown on this sheet, complete in place, will be considered completely covered by the contract unit price for Bridge Approach Slab (Minor) per square yard.

See Missouri Standard Plan 609.00 for details of Type A curb.

Drain pipe may be either 6" diameter corrugated metallic-coated pipe underdrain, 4" diameter corrugated polyvinyl chloride (PVC) drain pipe, or 4" diameter corrugated polyethylene (PE) drain pipe.

* Seal joint between vertical face of approach slab and wing with sealant in accordance with Sec 717 for silicone joint sealant for saw cut and formed joints.

Mechanical bar splices shall be in accordance with Sec 710.

General Notes:

Contractor shall have the option to construct either slab except as noted.

The contractor shall pour and satisfactorily finish the bridge slab before placing the bridge approach slab.

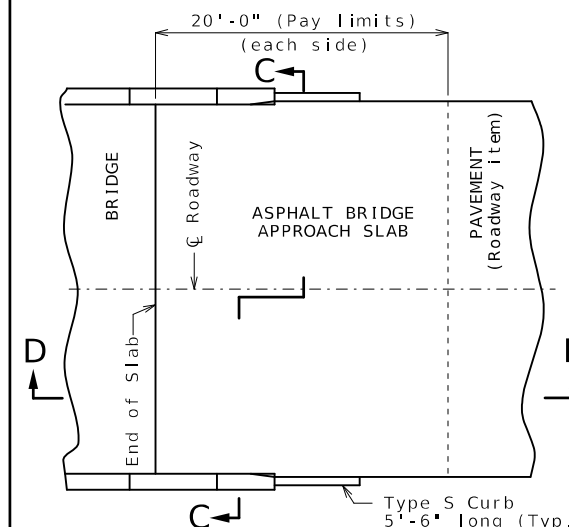
MoDOT Construction personnel will indicate the bridge approach slab used for this structure:

- Concrete Bridge Approach Slab
- Asphalt Bridge Approach Slab

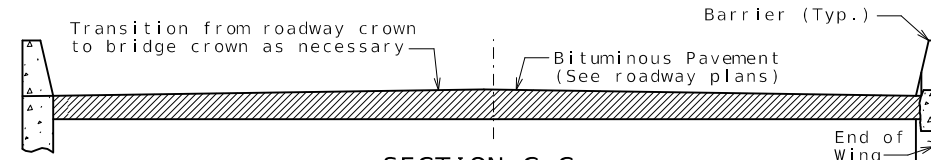
Notes For Asphalt Slab Only:

Payment for furnishing all materials, labor and excavation necessary to construct the asphalt bridge approach slab, including tack, curb, and Type 5 aggregate base within the pay limits shown, complete in place, will be considered completely covered by the contract unit price for Bridge Approach Slab (Minor) per square yard.

Application of tack is required between lifts per Sec 403.

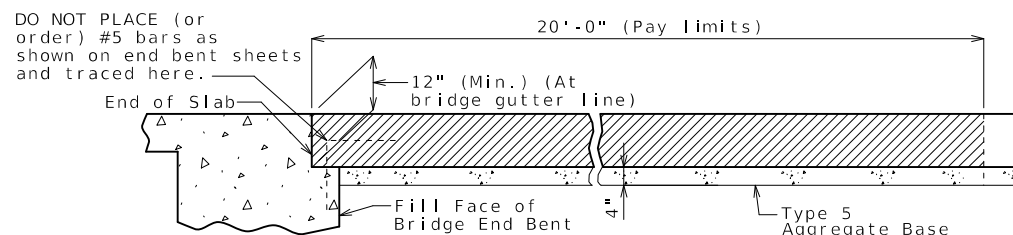


PART PLAN
(Squared structure shown, skewed structure similar)

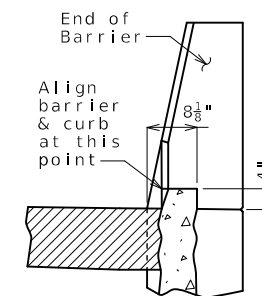


SECTION C-C

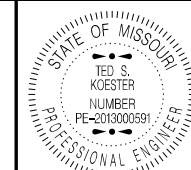
With the approval of the engineer, the contractor may crown the bottom of the approach slab to match the crown of the roadway surface.



SECTION D-D
OPTIONAL ASPHALT SLAB (NOT ALLOWED WITH CONCRETE PAVEMENT)



4" TYPE S CURB
See Missouri Standard Plan 609.00 for details of Type S curb.



DATE PREPARED
6/23/2025

ROUTE B STATE MO

DISTRICT BR SHEET NO. 27

COUNTY PIKE

JOB NO. JNE0052

CONTRACT ID.

PROJECT NO.

BRIDGE NO. A9431

DESCRIPTION

DATE

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

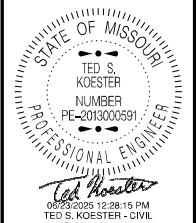
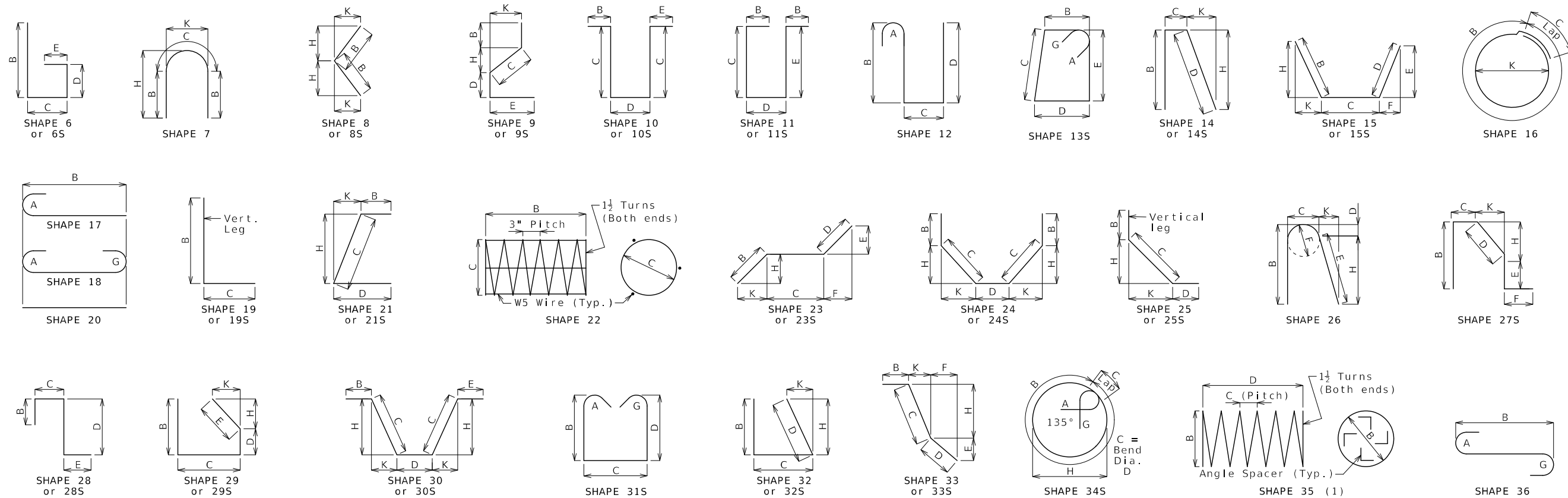
105 WEST CAPITOL JEFFERSON CITY, MO 65102

1-888-ASK-MODOT (1-888-275-6636)



BRIDGE APPROACH SLAB (MINOR)

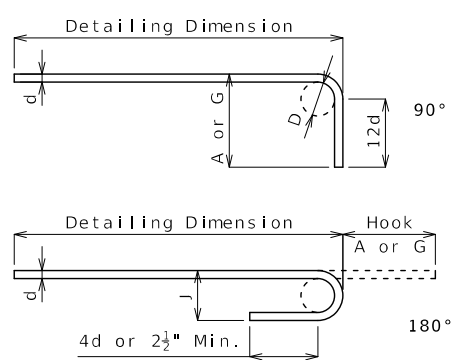
Integral end bents shown, non-integral end bent similar.



DATE PREPARED
6/23/2025
ROUTE B STATE MO
DISTRICT BR SHEET NO. 28
COUNTY PIKE
JOB NO. JNE0052
CONTRACT ID.
PROJECT NO.
BRIDGE NO. A9431

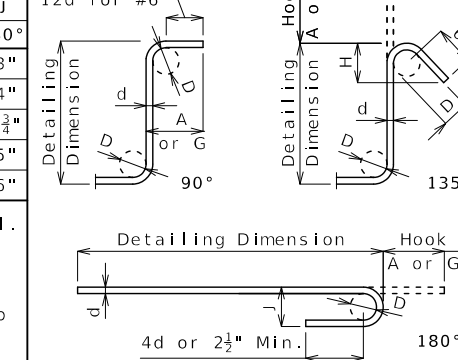
Finished Bend Diameters D and Hook Dimensions

Standard Pin Bend Shapes					
Size	Case	D	A or G		J
			90°	180°	180°
#4	1	3"	8"	6"	4"
#5	1	3 3/4"	10"	7"	5"
#6	1	4 1/2"	12"	8 1/4"	6"
	2	5 1/4"	14"	9 3/4"	7"
#7	2	6"	15"	11 1/2"	8 3/4"
	3	7"	16"	11"	8"
#8	2	8"	17"	13 3/4"	10"
	3	9 1/2"	19 1/2"	15 1/2"	11 3/4"
#9	1	10 3/4"	22"	17 1/2"	13 1/4"
#10	1	12"	24 1/2"	19 1/2"	14 7/8"
#14	1	18 1/4"	31 1/4"	27 1/2"	21 5/8"
#18	1	24"	41 1/2"	36 1/4"	28 1/2"

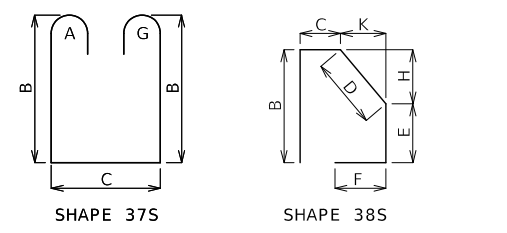


Stirrup Pin Bend Shapes (S)

Size	Case	D	A or G		H	J	
			90°	135°	180°	135°	180°
#4	2	2"	4 1/2"	4 1/2"	5"	2 5/8"	3"
	3	3"	5"	5 1/4"	6"	3"	4"
#5	2	2 1/2"	5 3/4"	5 3/4"	5 3/4"	3 3/8"	3 3/4"
	3	3 3/4"	6 1/4"	6 1/2"	7"	3 5/8"	5"
#6	1	4 1/2"	12"	7 3/4"	8 1/4"	4 5/8"	6"



Applicable for all grades of steel.
Case 1 applies to all reinforcement. Case 2 applies to all reinforcement except for galvanized bars. Case 3 applies to galvanized bars only.



BENDING DIAGRAMS

All dimensions are out to out. (1) Shall be a deformed or plain spiral bar or wire.
Shapes ending with an S shall be bent in accordance with stirrup pin bend shapes.
Unless otherwise noted, finished bending diameter D is the same for all bends of a shape.
Four angle or channel spacers are required for each column spiral. Spacers are to be placed on inside of spirals. Length and weight of column spirals do not include splices or spacers.

Reinforcing Steel Totals (Pounds)

Size	Substructure		Superstructure			Entire Bridge	
	Plain	Epoxy	Slab	Barrier	Slip Form	Plain	Epoxy
W5	0	0	0	0	0	0	0
4	0	0	329	0	0	0	329
5	517	0	9,541	9,679	589	517	19,809
6	7,561	0	26,105	0	0	7,561	26,105
7	0	0	658	0	0	0	658
8	1,500	0	6,576	0	0	1,500	6,576
9	0	0	0	0	0	0	0
10	8,728	0	0	0	0	8,728	0
11	0	0	0	0	0	0	0
14	0	0	0	0	0	0	0
18	0	0	0	0	0	0	0
By Type	18,306	0	43,209	9,679	589	18,306	53,477

All superstructure reinforcing steel shall be epoxy coated unless otherwise specified.

BENDING DIAGRAMS AND REINFORCING STEEL TOTALS

DESCRIPTION

DATE

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

105 WEST CAPITOL JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)

Bill of Reinforcing Steel

No. Req.	Size/ Mark	Location	Codes			Dimensions							Nom. Length	Actual Length	Weight
			C	SH	V	B	C	D	E	F	H	K			
				ft in.	ft in.	ft in.	ft in.	ft in.	ft in.	ft in.	ft in.	ft in.	ft in.	ft in.	lb
Substructure															
Int Bent 2															
14	6 D200	BEAM		20		2 6.00							2 6	2 6	53
6	8 H200	BEAM		18		22 6.00							24 4	24 4	390
6	8 H201	BEAM		20		22 6.00							22 6	22 6	360
10	6 H202	BEAM		20		22 6.00							22 6	22 6	338
14	6 H203	BEAM		10S			22.00	3 7.50					7 4	7	147
26	6 P200	BEAM		34S		8 7.75	4.50			2 9.00			10 4	10 2	397
2	6 P201	DRILLED SHAFT		35		2 9.00	6.00	53 1.00					944 11	923 10	2,773
21	5 U200	BEAM		13S		3 9.00	3 9.00	3 9.00	3 9.00				15 11	15 7	341
2	5 U201	BEAM		10S			22.00	3 9.00					7 5	7 2	15
14	5 U202	BEAM		10S			3 9.00	3 9.00					11 3	11	161
20	10 V200	DRILLED SHAFT		20		56 7.75							56 8	56 8	4,877
Int Bent 3															
14	6 D300	BEAM		20		2 6.00							2 6	2 6	53
6	8 H300	BEAM		18		22 6.00							24 4	24 4	390
6	8 H301	BEAM		20		22 6.00							22 6	22 6	360
10	6 H302	BEAM		20		22 6.00							22 6	22 6	338
14	6 H303	BEAM		10S			22.00	3 7.50					7 4	7	147
26	6 P300	BEAM		34S		8 7.75	4.50			2 9.00			10 4	10 2	397
2	6 P301	DRILLED SHAFT		35		2 9.00	6.00	41 2.00					738 11	721 10	2,168
21	6 U300	BEAM		13S		3 9.00	3 9.00	3 9.00	3 9.00				16 4	15 10	499
2	6 U301	BEAM		10S			22.00	3 9.00					7 5	7 1	21
14	6 U302	BEAM		10S			3 9.00	3 9.00					11 3	10 11	230
20	10 V300	DRILLED SHAFT		20		44 9.25							44 9	44 9	3,851
Superstructure															
End Bent 1															
11	6 F100	WING BRACE	E 15S			2 2.75	4 9.00	14.00	10.75	9.00	20.50	17.25	8 2	8 1	134
5	6 F101	DIAPHRAGM	E 23S			2 8.00	5 6.50						8 3	7 11	59
11	6 F102	WING BRACE	E 15S			14.00	5 7.00	2 2.75	17.25	20.50	9.00	10.75	9	8 11	147
5	6 F103	DIAPHRAGM	E 21S				2 8.00	6 0.00					2 7.50	5.50	8 8 8 7 64
4	6 H100	BEAM	E 20			26 10.00							26 10	26 10	161
8	6 H101	BEAM	E 20			26 10.00							26 10	26 10	322
6	6 H102	DIAPHRAGM	E 20			8 8.00							8 8	8 8	78
4	6 H103	DIAPHRAGM	E 20			7 2.00							7 2	7 2	43
6	6 H104	DIAPHRAGM	E 15			2 9.50	3 4.00			2 9.00		5.75	6 2	5 10	53
4	6 H105	DIAPHRAGM	E 15			2 9.50	2 7.00			2 9.00		5.75	5 5	5 1	31
5	6 H106	DIAPHRAGM	E 20			26 10.00							26 10	26 10	202
4	6 H107	SLAB	E 20			26 10.00							26 10	26 10	161
3	5 H108	STRAND TIE	E 20			4 6.00							4 6	4 6	14
8	8 H109	WING WALL	E 6			13 0.25	12.00						14	13 7	290
44	6 H110	WING WALL	E 6			11 8.00	12.00						12 8	12 4	815
8	8 H111	WING WALL	E 6			12 6.75	12.00						13 7	13 2	281
3	6 H112	DIAPHRAGM	E 21				2 9.50	3 4.00		2 9.00		5.75	6 2	6	27
2	6 H113	DIAPHRAGM	E 21				2 9.50	2 7.00		2 9.00		5.75	5 5	5 3	16
14	5 U100	BEAM	E 10S				5 4.00	2 8.50					13 5	13 2	192
15	4 U101	BEAM	E 13S			2 8.50	2 8.00	2 8.50	2 8.00				11 6	11 3	113
33	6 U102	DIAPHRAGM	E 19S			3 2.00	4 6.50						7 9	7 7	376
20	5 U103	DIAPHRAGM	E 10S				2 2.25	4 8.75					9 1	8 11	186
20	6 U104	DIAPHRAGM	E 19S			3 9.75	2 8.50						6 6	6 4	190
24	5 U105	APPROACH NOTCH	E 19S			2 0.00	15.00						3 3	3 2	79
12	5 V100	BEAM	E 20			5 4.00							5 4	5 4	67
12	6 V101	DIAPHRAGM	E 20			3 9.75							3 10	3 10	69
2	6 V102	WING	E 20			7 11.00							7 11	7 11	24
20	6 V103	WING	E 20	2		7 11.00							7 11	7 11	240
Incr. = 0.250"															
2	6 V104	WING	E 20			7 10.00							7 10	7 10	24
20	6 V105	WING	E 20	2		7 10.00							7 10	7 10	240

Nominal lengths are based on out to out dimensions shown in bending diagrams and are listed to the nearest inch for fabricator's use. Actual lengths are measured along centerline bar to the nearest inch. Weights are based on actual lengths.

All bars shall be Grade 60.

For bending diagrams and steel reinforcing totals, see Sheet No. 28.

Detailed Aug. 2024
Checked May 2025

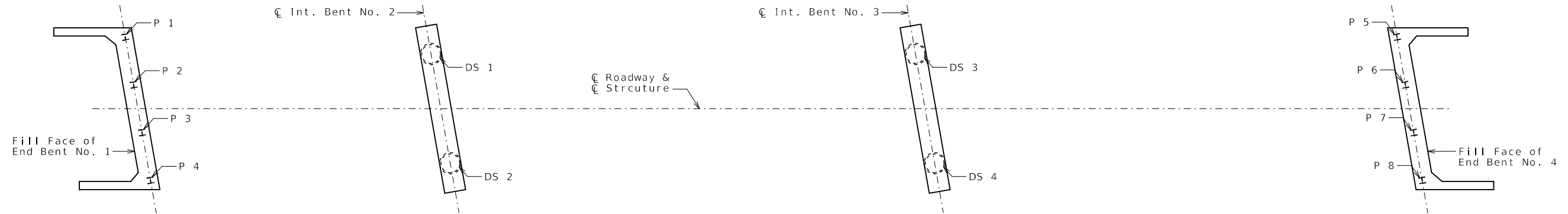
BILL OF REINFORCING STEEL

Note: This drawing is not to scale. Follow dimensions.

Sheet No. 29 of 32

Bill of Reinforcing Steel

No. Req.	Size/ Mark	Location	Codes			Dimensions							Nom. Length	Actual Length	Weight
			C	SH	V	B	C	D	E	F	H	K			
				ft in.	ft in.	ft in.	ft in.	ft in.	ft in.	ft in.	ft in.	ft in.	ft in.	ft in.	lb
		Incr. = 0.250"				8 0.00							8	8	238
End Bent 4															
11	6 F400	WING BRACE	E 15S			2 2.75	4 9.00	14.00	10.75	9.00	20.50	17.25	8 2	8 1	134
5	6 F401	DIAPHRAGM	E 23S			2 8.00	5 6.50						8 3	7 11	59
11	6 F402	WING BRACE	E 15S			14.00	5 7.00	2 2.75	17.25	20.50	9.00	10.75	9	8 11	147
5	6 F403	DIAPHRAGM	E 21S				2 8.00	6 0.00					2 7.50	5.50	8 8 8 7 64
4	6 H400	BEAM	E 20			26 10.00							26 10	26 10	161
8	7 H401	BEAM	E 20			26 10.00							26 10	26 10	439
6	6 H402	DIAPHRAGM	E 20			8 8.00							8 8	8 8	78
4	6 H403	DIAPHRAGM	E 20			7 2.00							7 2	7 2	43
6	6 H404	DIAPHRAGM	E 15			2 9.50	3 4.00			2 9.00		5.75	6 2	5 10	53
4	6 H405	DIAPHRAGM	E 15			2 9.50	2 7.00			2 9.00		5.75	5 5	5 1	31
5	6 H406	DIAPHRAGM	E 20			26 10.00							26 10	26 10	202
4	7 H407	SLAB	E 20			26 10.00							26 10	26 10	219
3	5 H408	STRAND TIE	E 20			4 6.00							4 6	4 6	14
8	8 H409	WING WALL	E 6			13 0.25	12.00						14	13 7	290
44	6 H410	WING WALL	E 6			11 8.00	12.00						12 8	12 4	815
8	8 H411	WING WALL	E 6			12 6.75	12.00						13 7	13 2	281
3	6 H412	DIAPHRAGM	E 21				2 9.50	3 4.00		2 9.00		5.75	6 2	6	27
2	6 H413	DIAPHRAGM	E 21				2 9.50	2 7.00		2 9.00		5.75	5 5	5 3	16
14	5 U400	BEAM	E 10S				5 4.00	2 8.50					13 5	13 2	192
15	5 U401	BEAM	E 13S			2 8.50	2 8.00	2 8.50	2 8.00				11 8	11 4	177
33	6 U402	DIAPHRAGM	E 19S			3 2.00	4 6.50						7 9	7 7	376
20	5 U403	DIAPHRAGM	E 10S				2 2.25	4 8.75					9 1	8 11	186
20	6 U404	DIAPHRAGM	E 19S			3 9.75	2 8.50						6 6	6 4	190
24	5 U405	APPROACH NOTCH	E 19S			2 0.00	15.00						3 3	3 2	79
12	5 V400	BEAM	E 20			5 4.00							5 4	5 4	67
12	6 V401	DIAPHRAGM	E 20			3 9.75							3 10	3 10	69
2	6 V402	WING	E 20			7 11.00							7 11	7 11	24
20	6 V403	WING	E 20	2		7 11.00							7 11	7 11	240
Incr. = 0.250"															
2	6 V404	WING	E 20			7 10.00							7 10	7 10	24
20	6 V405	WING	E 20	2		7 10.00							7 10	7 10	240
Incr. = 0.250"															
		Incr. = 0.250"				8 0.00									



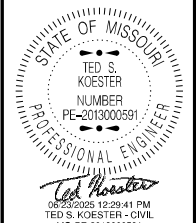
PART PLAN SHOWING PILE NUMBERING FOR RECORDING AS-BUILT PILE & DRILLED SHAFT DATA

As-Built Pile Data			
Pile No.	Length In Place (ft.)	Computed Nominal Axial Compressive Resistance (kips)	Remarks
End Bent No. 1			
P 1			
P 2			
P 3			
P 4			
End Bent No. 4			
P 5			
P 6			
P 7			
P 8			

As-Built Drilled Shaft Data				
Shaft No.	Top of Sound Rock (Elev.)	Tip of Casing (Elev.)	Bottom of Rock Socket (Elev.)	Remarks
Int. Bent No. 2				
DS 1				
DS 2				
Int. Bent No. 3				
DS 3				
DS 4				

Note:
 This sheet to be completed by MoDOT construction personnel.
 A. Pile type and grade
 B. Batter
 C. Driven to practical refusal

AS-BUILT PILE AND DRILLED SHAFT DATA



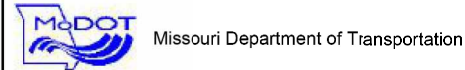
DATE PREPARED
6/23/2025

ROUTE B	STATE MO
DISTRICT BR	SHEET NO. 31
COUNTY PIKE	
JOB NO. JNE0052	
CONTRACT ID.	
PROJECT NO.	
BRIDGE NO. A9431	

DESCRIPTION	DATE

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

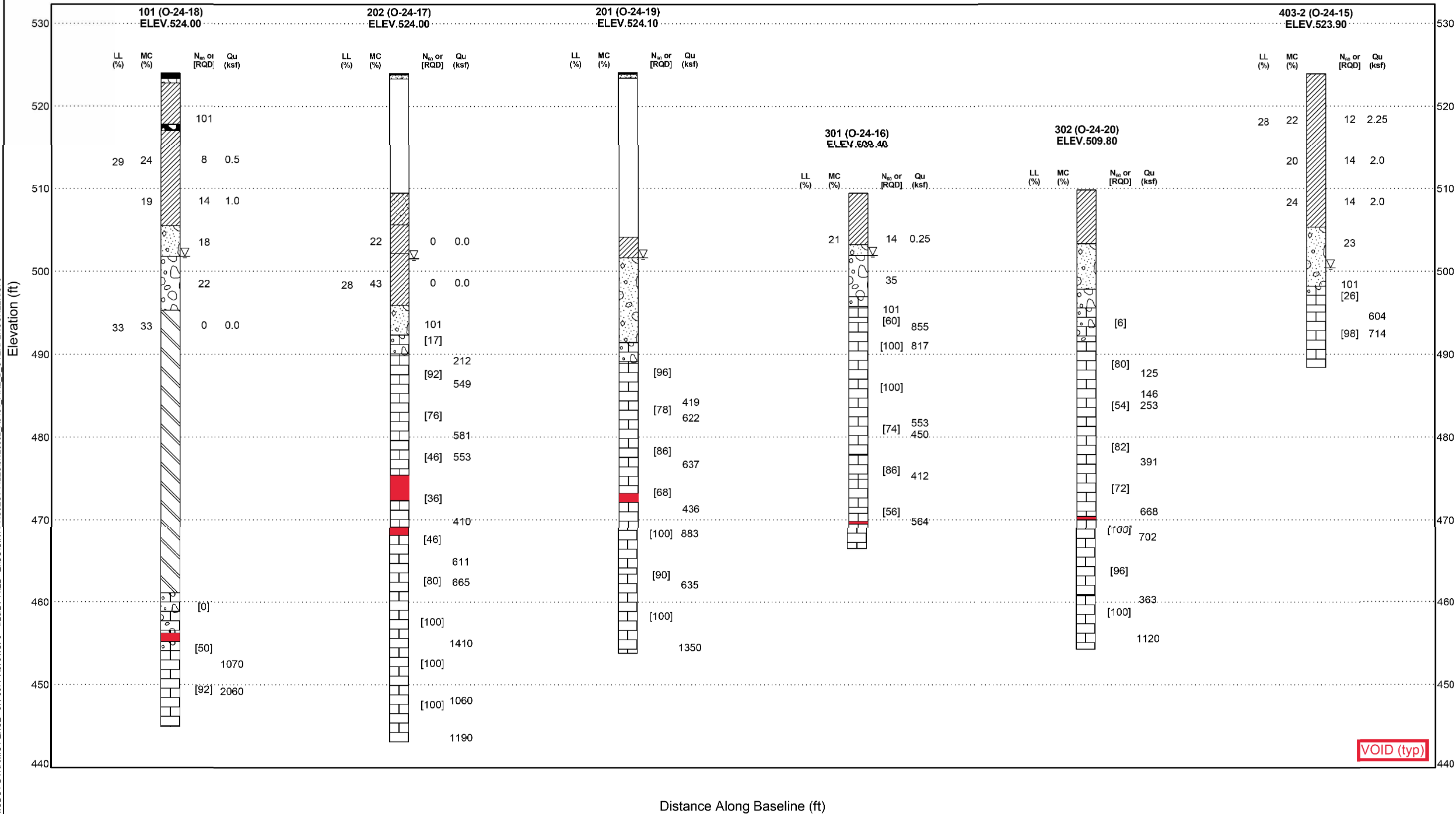
105 WEST CAPITOL JEFFERSON CITY, MO 65102
 1-888-ASK-MODOT (1-888-275-6636)



SUBSURFACE DIAGRAM

PROJECT NAME Bridge Replacemnt
 PROJECT LOCATION _____
 CLIENT _____
 PROJECT NUMBER JNE0052

- Asphalt
- Boulders and cobbles
- Highly Weathered Limestone
- Concrete
- USCS Poorly-graded Gravel
- USCS Poorly-graded Gravelly Sand
- No Core
- USCS Low Plasticity Sandy Clay
- USCS Low Plasticity Clay
- USCS Low to High Plasticity Clay
- Limestone



VOID (typ)

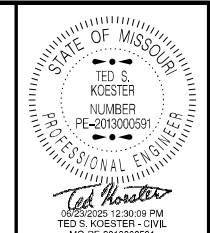
BORING DATA

Note: For locations of borings, see Sheet No. 1.

Note: This drawing is not to scale. Follow dimensions.

Sheet No. 32 of 32

Detailed Aug. 2024
 Checked May 2025



DATE PREPARED

6/23/2025

ROUTE B STATE MO

DISTRICT BR SHEET NO. 32

COUNTY PIKE

JOB NO. JNE0052

CONTRACT ID.

PROJECT NO.

BRIDGE NO. A9431

DESCRIPTION

DATE

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

105 WEST CAPITOL JEFFERSON CITY, MO 65102

1-888-ASK-MODOT (1-888-275-6636)

MoDOT logo

DESIGN DESIGNATION

A.A.D.T. - 2025 = 228
A.A.D.T. - 2045 = 252
DIR. DIST. (D) N/S = 49.8%/50.2%
T = 10.66%
V = 30 MPH

FUNCTIONAL CLASSIFICATION - MAJOR COLLECTOR

RIGHT OF WAY

NORMAL RIGHT OF WAY
TEMPORARY CONSTRUCTION EASEMENTS

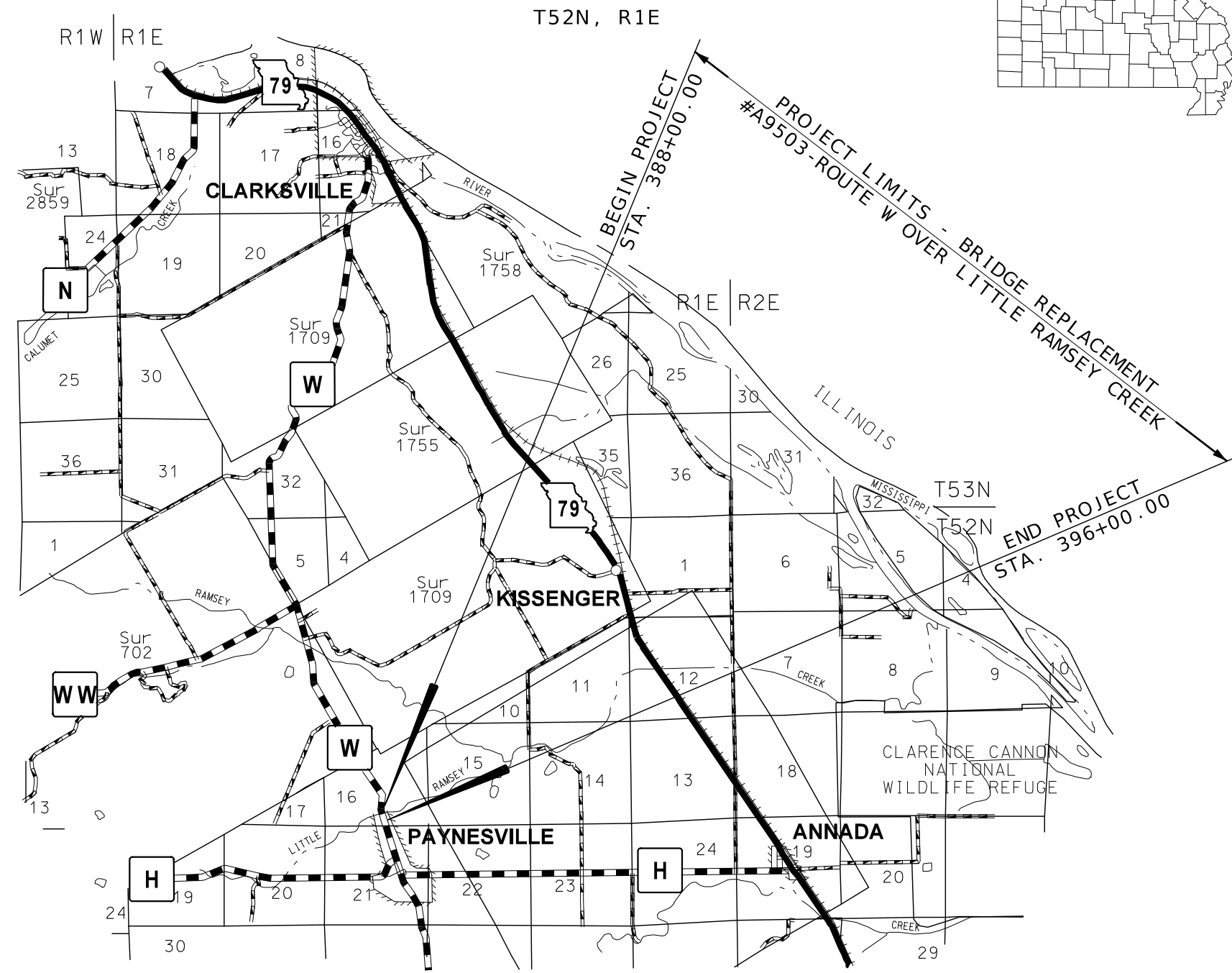
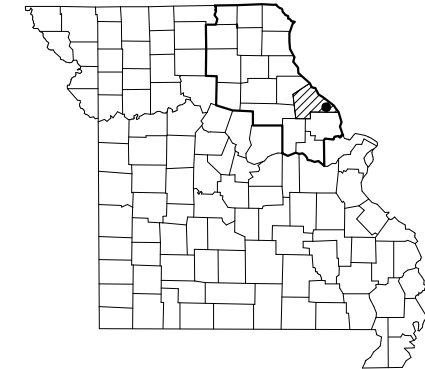
CONVENTIONAL SYMBOLS (USED IN PLANS)

	EXISTING	NEW
BUILDINGS AND STRUCTURES	[Symbol]	[Symbol]
GUARD RAIL	[Symbol]	[Symbol]
GUARD CABLE	[Symbol]	[Symbol]
CONCRETE RIGHT-OF-WAY MARKER	[Symbol]	[Symbol]
STEEL RIGHT-OF-WAY MARKER	[Symbol]	[Symbol]
LOCATION SURVEY MARKER	[Symbol]	[Symbol]
UTILITIES		
FIBER OPTICS	-FO-	-FO-
OVERHEAD CABLE TV	-OTV-	-OTV-
UNDERGROUND CABLE TV	-UTV-	-UTV-
OVERHEAD TELEPHONE	-OT-	-OT-
UNDERGROUND TELEPHONE	-UT-	-UT-
OVERHEAD POWER	-OE-	-OE-
UNDERGROUND POWER	-UE-	-UE-
SANITARY SEWER	-S-	-S-
STORM SEWER	-SS-	-SS-
GAS	-G-	-G-
WATER	-W-	-W-
MANHOLE	[Symbol]	[Symbol]
FIRE HYDRANT	[Symbol]	[Symbol]
WATER VALVE	[Symbol]	[Symbol]
WATER METER	[Symbol]	[Symbol]
DROP INLET	[Symbol]	[Symbol]
DITCH BLOCK	[Symbol]	[Symbol]
GROUND MOUNTED SIGN	[Symbol]	[Symbol]
LIGHT POLE	[Symbol]	[Symbol]
H-FRAME POWER POLE	[Symbol]	[Symbol]
TELEPHONE PEDESTAL	[Symbol]	[Symbol]
FENCE		
CHAIN LINK	[Symbol]	[Symbol]
WOVEN WIRE	[Symbol]	[Symbol]
GATE POST	[Symbol]	[Symbol]
BENCHMARK	[Symbol]	[Symbol]

NOTE: DASHED OR OPEN SYMBOLS INDICATE EXISTING FEATURES

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION PLANS FOR PROPOSED STATE HIGHWAY PIKE COUNTY ROUTE W BRIDGE REPLACEMENT

NORTHEAST DISTRICT
PIKE COUNTY



NOT TO SCALE

THE EXISTENCE AND APPROXIMATE LOCATION OF UTILITY FACILITIES KNOWN TO EXIST, AS SHOWN ON THE PLANS, ARE BASED ON THE BEST INFORMATION AVAILABLE TO THE COMMISSION AT THIS TIME. THIS INFORMATION IS PROVIDED BY THE COMMISSION "AS-IS" AND THE COMMISSION EXPRESSLY DISCLAIMS ANY REPRESENTATION OR WARRANTY AS TO THE COMPLETENESS, ACCURACY, OR SUITABILITY OF THE INFORMATION FOR ANY USE. RELIANCE UPON THIS INFORMATION IS DONE AT THE RISK AND PERIL OF THE USER, AND THE COMMISSION SHALL NOT BE LIABLE FOR ANY DAMAGES THAT MAY ARISE FROM ANY ERROR IN THE INFORMATION. IT IS, THEREFORE, THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY THE EXISTENCE, LOCATION AND STATUS OF ANY FACILITY. SUCH VERIFICATION INCLUDES DIRECT CONTACT WITH THE LISTED UTILITIES.

INDEX OF SHEETS

DESCRIPTION	SHEET NUMBER
TITLE SHEET	1
TYPICAL SECTIONS (TS) (1 SHEET)	2
QUANTITIES (QU) (3 SHEETS)	3
PLAN-PROFILE (PP)	4
SPECIAL SHEETS (SS) (2 SHEETS)	5-6
COORDINATE/REFERENCE POINTS (CP)	7
EROSION CONTROL SHEETS (EC)	8
TRAFFIC CONTROL SHEETS (TC)	9-11
BRIDGE DRAWINGS (B)	
A9503(STEEL ALTERNATE)	1-22
A9503(PRESTRESSED ALTERNATE)	1-22
CROSS SECTIONS (XS)	1-6



DATE PREPARED
6/27/2025
ROUTE **W** STATE **MO**
DISTRICT **NE** SHEET NO. **1**
COUNTY **PIKE**
JOB NO. **JNE0152**
CONTRACT ID.
PROJECT NO.
BRIDGE NO.

DESCRIPTION	DATE

LENGTH OF PROJECT

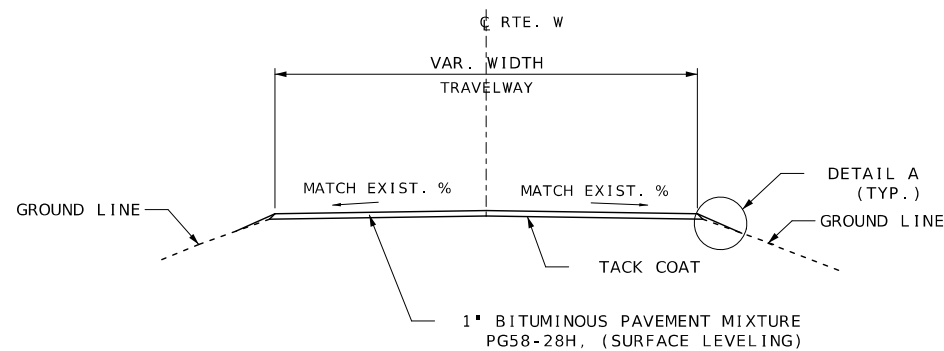
BEGINNING OF PROJECT	STATION 388+00.00
END OF PROJECT	STATION 396+00.00
APPARENT LENGTH	800.00 FEET
EQUATIONS AND EXCEPTIONS:	
NONE	0 FEET

TOTAL CORRECTIONS	0.00 FEET
NET LENGTH OF PROJECT	800.00 FEET
STATE LENGTH	0.152 MILES
FOR INFORMATION ONLY ESTIMATED DISTURBED ACRES	0.4 ACRES

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)

TITLE SHEET



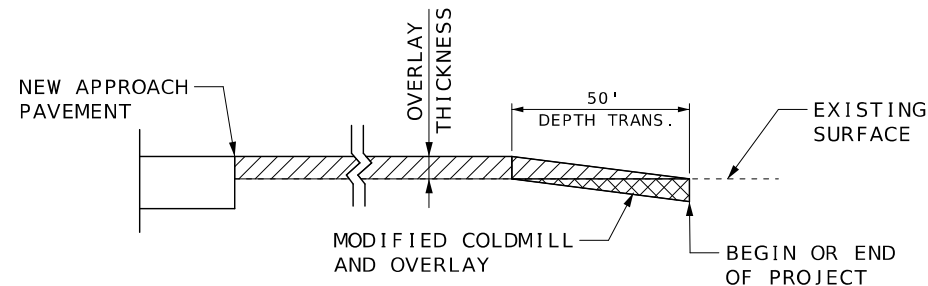
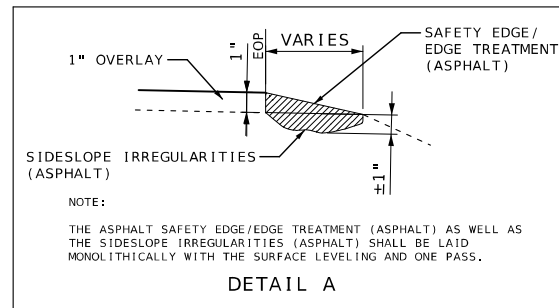
SECTION ON TANGENT SURFACE LEVELING OVERLAY

TYPICAL SECTION RTE. W

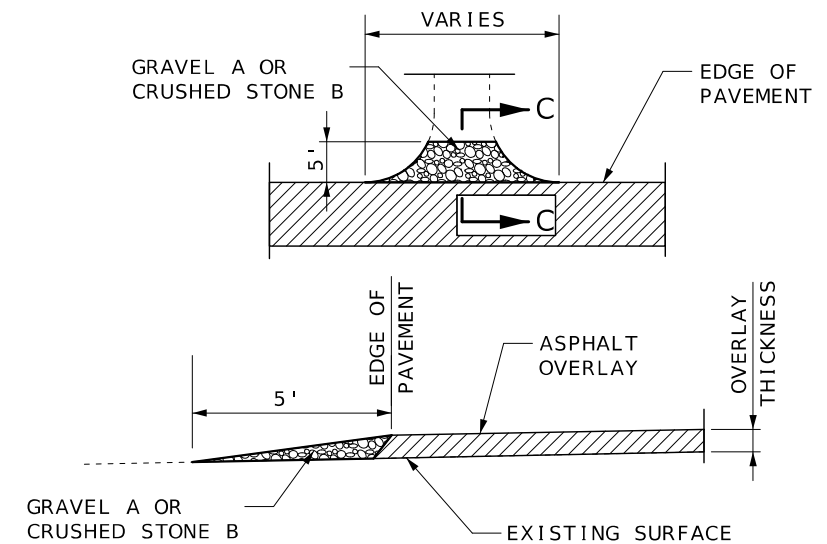
STA. 388+00.00 TO STA. 390+83.00

STA. 392+97.00 TO STA. 396+00.00

(BEGINS AND ENDS AT THE LIMITS OF THE RECENT ASPHALT OVERLAY LOG MILE 7.350 TO LOG MILE 7.500)

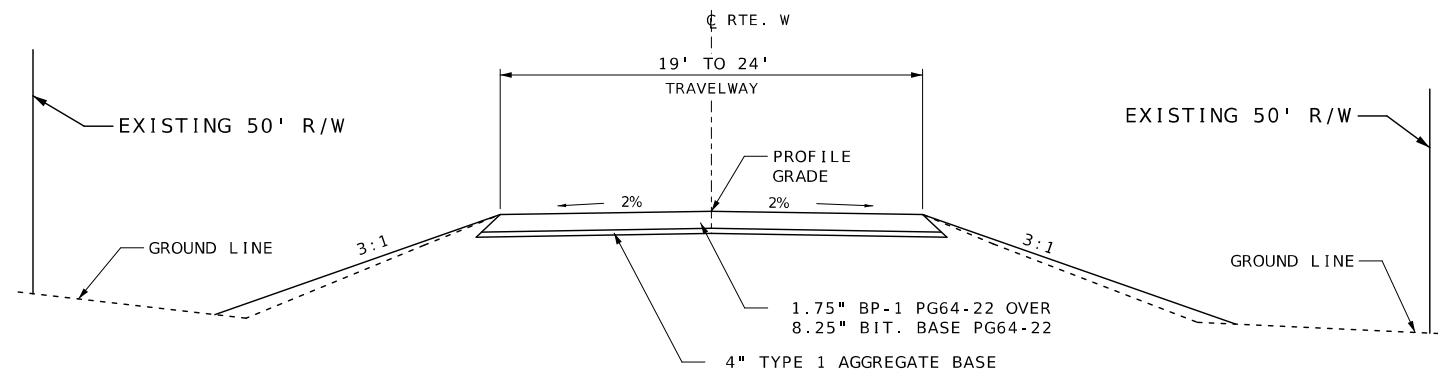


1" SURFACE LEVELING DEPTH TRANSITIONS



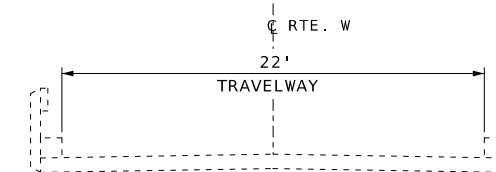
SECTION C-C TYPICAL AGGREGATE ENTRANCE (FIELD OR PRIVATE ENTRANCES)

- P.E. 388+47 LT P.E. 393+85 LT
- F.E. 389+75 RT P.E. 394+40 RT
- P.E. 392+97 LT P.E. 395+25 LT
- F.E. 393+12 RT

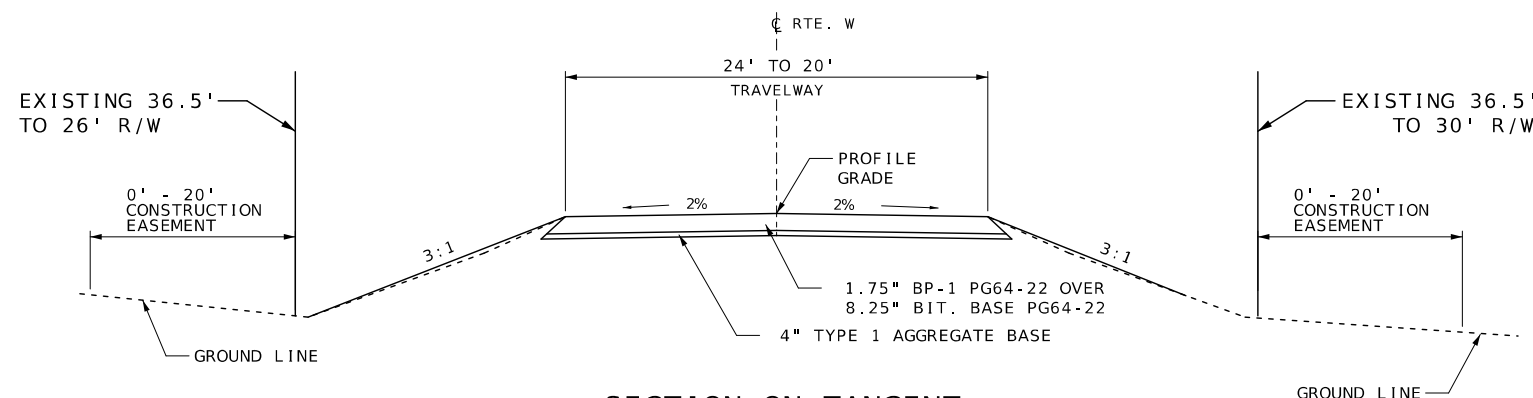


SECTION ON TANGENT TYPICAL SECTION RTE. W

STA. 390+83.00 TO STA. 391+11.83 (NORTH END OF BRIDGE)

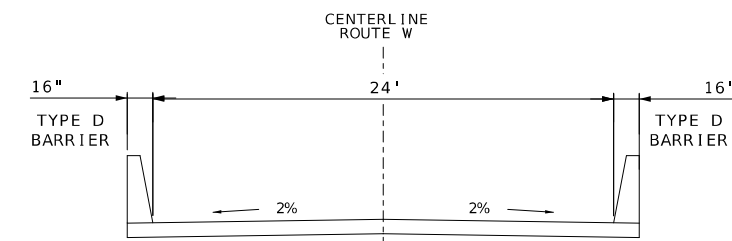


EXISTING BRIDGE TYPICAL SECTION STA. 391+36.31 TO STA. 392+43.67



SECTION ON TANGENT TYPICAL SECTION RTE. W

STA. 392+68.33 TO STA. 392+97.00 (SOUTH END OF BRIDGE)



PROPOSED BRIDGE #A9503 TYPICAL SECTION STA. 391+31.33 TO STA. 392+48.83

NOTE:
 STA. 391+11.83 TO STA. 391+31.83
 STA. 392+48.33 TO STA. 392+68.33
 20' MINOR BRIDGE APPROACH SLAB (BRIDGE ITEM)

DATE PREPARED
6/27/2025

ROUTE W	STATE MO
DISTRICT NE	SHEET NO. 2

COUNTY
PIKE

JOB NO.
JNE0152

CONTRACT ID.

PROJECT NO.

BRIDGE NO.

DATE	DESCRIPTION

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)

TYPICAL SECTION SHEET 1 OF 1

BITUMINOUS PAVEMENT MIXTURE PG58-28H, (SURFACE LEVELING)								
SHEET	STATION	STATION	LOCATION	LENGTH	THICKNESS	AVGE. WIDTH	BIT. PAVEMENT MIX. (SURFACE LEVELING)	REMARKS
				FT.	INCHES	FT.	TONS	
4	388+00.00	390+83.00	RTE W	283.00	1.00	20.25	34.46	NORTH END PAVEMENT TIE IN TO EXISTING OVERLAY
4	392+97.00	396+00.00	RTE W	303.00	1.00	18.5	33.70	SOUTH END PAVEMENT TIE IN TO EXISTING OVERLAY
4	388+00.00	396+00.00	RTE W	586.00	VAR.	VAR.	19.42	175 TONS PER MILE FOR SURFACE IRREGULARITIES
2	388+00.00	390+83.00	RTE W	283.00	VAR.	VAR.	3.4	SAFETY EDGE/EDGE TREATMENT-NORTH END
2	392+97.00	396+00.00	RTE W	303.00	VAR.	VAR.	3.6	SAFETY EDGE/EDGE TREATMENT-SOUTH END
							TOTAL	94.58
							USE	95.0

GRAVEL A OR CRUSHED STONE B						
SHEET	STATION	LOCATION	THICKNESS	AREA	QUANTITY	REMARKS
			INCHES	SQ. FT.	TONS	
4	388+47.00	RTE W	1	259	1.12	PE LT
4	389+75.00	RTE W	1	200	0.87	FE RT
4	392+97.00	RTE W	1	119	0.52	PE LT
4	393+12.00	RTE W	1	113	0.49	FE RT
4	393+85.00	RTE W	1	104	0.45	PE LT
4	394+40.00	RTE W	1	240	1.04	PE RT
4	395+25.00	RTE W	1	123	0.53	PE LT
				TOTAL	5.02	
				USE	6.0	

NOTE: FACTOR USED - 0.039 TONS PER SQ.YD. PER INCH

TYPE 2 ROCK BLANKET						
SHEET	STATION	STATION	FURNISHING	PLACING	PERMANENT EROSION CONTROL GEOTEXTILE S.Y.	REMARKS
			TYPE 2 ROCK BLANKET C.Y.	TYPE 2 ROCK BLANKET C.Y.		
4	391+04.00	391+70.00	269	269	448	SLOPE PROTECTION AROUND WEST END BENT
4	392+10.00	392+76.00	267	267	428	SLOPE PROTECTION AROUND EAST END BENT
		TOTAL	536	536	876	

DISPOSAL AND PLUGGING OF WELLS				
SHEET	STATION	LOCATION	QUANTITY	REMARKS
			LUMP SUM	
4,5	392+45	40' RT	1	EXISTING WELL SW CORNER OF BRIDGE
		TOTAL	1	

REFER TO STANDARD SPECIFICATION 202.10

TACK COAT							
SHEET	STATION	STATION	LOCATION	LENGTH	WIDTH	QUANTITY	REMARKS
				FT.	FT.	0.08 GAL/SY GALLONS	
4	388+00.00	390+83.00	RTE W	283.00	20.25	50.94	1" OVERLAY
4	390+83.00	391+11.83	RTE W	28.83	21.5	16.53	NORTH END APPROACH PAVEMENT
4	392+68.33	392+97.00	RTE W	28.67	22	16.82	SOUTH END APPROACH PAVEMENT
4	392+97.00	396+00.00	RTE W	303.00	20.42	55.00	1" OVERLAY
				TOTAL		139.29	
				USE		140.0	

NOTE: ESTIMATED FOR 3 LIFTS OF ASPHALT FOR APPROACH PAVEMENT AND 1 LIFT FOR 1" SURFACE LEVELING OVERLAY.

EARTHWORK						
SHEET	STATION	STATION	LOCATION	CLASS A	COMPACTING	REMARKS
				EXCAVATION C.Y.	EMBANKMENT C.Y.	
4	390+83.00	391+34.32	RTE W	94	34	NORTH END OF BRIDGE
4	391+34.32	391+65.46	RTE W	188	0	NORTH SPILL SLOPES
4	392+14.96	392+45.83	RTE W	238	6	SOUTH SPILL SLOPES
4	392+45.83	392+97.00	RTE W	125	23	SOUTH END OF BRIDGE
			TOTALS	645	63	

NOTE: EXTRA VOLUME FROM SPILL FILL = 413 C.Y.

10 INCHES, BITUMINOUS PAVEMENT							
SHEET	STATION	STATION	LOCATION	LENGTH	AVGE. WIDTH	QUANTITY	REMARKS
				FT.	FT.	S.Y.	
4	390+83.00	391+11.83	RTE W	28.83	21.5	68.87	NORTH END APPROACH PAVEMENT
4	392+68.33	392+97.00	RTE W	28.67	22	70.08	SOUTH END APPROACH PAVEMENT
				TOTAL		138.95	
				USE		139.0	

PAVEMENT MARKING					
SHEET	STATION	STATION	CLASS 1 PAVEMENT MARKING PAINT, 18-MIL, TYPE P BEADS		REMARKS
			4" YELLOW L.F.	4" WHITE L.F.	
5	388+00.00	396+00.00	1000.00	1600	WHITE EDGE LINES AND YELLOW CENTERLINES
		TOTALS	1000	1600	

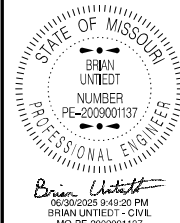
TYPE 1 AGGREGATE FOR BASE (4 IN. THICK)							
SHEET	STATION	STATION	LOCATION	LENGTH	AVGE. WIDTH	QUANTITY	REMARKS
				FT.	FT.	S.Y.	
4	390+83.00	391+11.83	RTE W	28.83	21.5	68.87	NORTH END APPROACH PAVEMENT BASE
4	392+68.33	392+97.00	RTE W	28.67	22	70.08	SOUTH END APPROACH PAVEMENT BASE
				TOTAL		138.95	
				USE		139.0	

REMOVAL OF IMPROVEMENTS					
SHEET	STATION	STATION	LOCATION	QUANTITY	REMARKS
				UNITS	
5	390+83.00	392+97.00	RTE. W	38.5 L.F.	SAW CUT AT BEGIN AND END OF NEW OPTIONAL PAVEMENT
5	390+83.00	391+53.25	RTE. W	115 S.Y.	REMOVE EXISTING PAVEMENT ON THE WEST END OF THE BRIDGE
5	392+43.71	392+97.00	RTE. W	120 S.Y.	REMOVE EXISTING PAVEMENT ON THE EAST END OF THE BRIDGE
			TOTAL	1 LUMP SUM	

SUBGRADE COMPACTION (6 INCH DEPTH)					
SHEET	STATION	STATION	LOCATION	LENGTH	REMARKS
				100 FT.	
4	390+83.00	391+31.83	RTE W	0.50	SUBGRADE PREPARATION FOR OPTIONAL PAVEMENT NORTH END OF BRIDGE
4	392+45.33	392+97.00	RTE W	0.50	SUBGRADE PREPARATION FOR OPTIONAL PAVEMENT SOUTH END OF BRIDGE
			TOTAL	1.00	

TEMPORARY EROSION CONTROL					
SHEET	SILT FENCE	ROCK DITCH CHECK	TYPE C BERM	SEDIMENT REMOVAL	REMARKS
	L.F.	L.F.	L.F.	C.Y.	
7	409	20	137	6	AS SHOWN ON PLANS-ADJUST FOR FIELD CONDITIONS
	TOTAL	409	20	137	6

SEDIMENT REMOVAL ESTIMATED AT 1 CY PER DITCH CHECK AND 1 CY PER 100' OF SILT FENCE



DATE PREPARED
6/27/2025

ROUTE **W** STATE **MO**

DISTRICT **NE** SHEET NO. **3**

COUNTY **PIKE**

JOB NO. **JNE0152**

CONTRACT ID.

PROJECT NO.

BRIDGE NO.

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)

MoDOT

QUANTITIES SHEET 1 OF 3

MISC. SEEDING AND MULCHING - COOL SEASON GRASSES	
NW QUAD	0.125
NE QUAD	0.125
SW QUAD	0.125
SE QUAD	0.125
TOTAL	0.50 ACRES
USE	1 LUMP SUM

MOBILIZATION	
QUANTITY = 1 LUMP SUM	

CONTRACTOR FURNISHED SURVEYING AND STAKING	
QUANTITY = 1 LUMP SUM	


ESTIMATE FACTORS	
PROVIDED FOR INFORMATION PURPOSES ONLY	
BITUMINOUS PAVEMENT MIXTURE PG 58-28H (BP-1) = 1.948 TON/CY	
TACK COAT (EXISTING SURFACE) = 0.08 GAL/SY	
GRAVEL A OR CRUSHED STONE B = 0.039 TONS PER S.Y. PER INCH	

CLEARING AND GRUBBING	
TOTAL	0.50 ACRES
USE	1 ACRE

SIGNS						PERFORATED SQUARE STEEL TUBE						REMARKS AND OTHER REQUIRED ITEMS		
SIGN NO.	SIGN SIZE	STATION	HORZ CLEAR IF NOT STD	LOCATION	SIGN DTL. SHT. NO.	2 IN. POST								
						POST NO.1	POST NO.2	TOTAL ITEM NO. 9031270A	ANCHORS				BREAKAWAY ASSEMBLY ITEM NO. 9031241	
									DRIVEN 12-GA. ITEM NO. 9031271A	DRIVEN 7-GA. ITEM NO. 9031273A	CONCRETE 7-GA. ITEM NO. 9031274			
LF	LF	LF	EA	EA	EA	EA								
1	12"x36"	391+23		NW CORNER		16.00		16.00	1.00					MARKER AT END OF BARRIER
	12"x36"	391+03		NW CORNER		16.00		16.00	1.00					MARKER 20' FROM END OF BARRIER
	12"x36"	390+83		NW CORNER		16.00		16.00	1.00					MARKER 40' FROM END OF BARRIER
2	12"x36"	392+23		NE CORNER		16.00		16.00	1.00					MARKER AT END OF BARRIER
	12"x36"	391+03		NE CORNER		16.00		16.00	1.00					MARKER 20' FROM END OF BARRIER
	12"x36"	390+83		NE CORNER		16.00		16.00	1.00					MARKER 40' FROM END OF BARRIER
3	12"x36"	392+57		SW CORNER		16.00		16.00	1.00					MARKER AT END OF BARRIER
	12"x36"	392+77		SW CORNER		16.00		16.00	1.00					MARKER 20' FROM END OF BARRIER
	12"x36"	392+97		SW CORNER		16.00		16.00	1.00					MARKER 40' FROM END OF BARRIER
4	12"x36"	392+57		SE CORNER		16.00		16.00	1.00					MARKER AT END OF BARRIER
	12"x36"	392+77		SE CORNER		16.00		16.00	1.00					MARKER 20' FROM END OF BARRIER
	12"x36"	392+97		SE CORNER		16.00		16.00	1.00					MARKER 40' FROM END OF BARRIER
SUBTOTAL								192.00	12.00	0.00	0.00	0.00		
TOTAL								192.0	12.00	0.0	0.0	0.0		

STANDARD SIGN ASSEMBLIES												SIGN SUMMARY								
SIGN NUMBER	STATION	LOCATION	TYPE										STANDARD SIGN OR SPECIAL SIGN NUMBER	SIGN DETAIL SHEET NO.	NO. EACH	SIZE, TYPE & SQUARE FEET				
			OM3-R	OM3-L												SIZE	FLAT SHEET SH ITEM NO. 9035004A	FLAT SHEET FLUORESCENT SHF * ITEM NO. 9035069A	STRUCTURAL ST ITEM NO. 9035011A	STRUCTURAL FLUORESCENT STF * ITEM NO. 9035071A
1	391+23	NW CORNER	3									TYPE III OBJECT MARKER (RIGHT)	STD.	3	12"x36"		9.0			
2	391+23	NE CORNER		3								TYPE III OBJECT MARKER (LEFT)	STD.	3	12"x36"		9.0			
3	392+57	SW CORNER		3								TYPE III OBJECT MARKER (LEFT)	STD.	3	12"x36"		9.0			
4	392+57	SE CORNER	3									TYPE III OBJECT MARKER (RIGHT)	STD.	3	12"x36"		9.0			
TOTAL			6	6											TOTAL		36			

* ORANGE, YELLOW & YELLOW/GREEN



DATE PREPARED
6/27/2025

ROUTE **W** STATE **MO**
DISTRICT **NE** SHEET NO. **3**

COUNTY
PIKE

JOB NO.
JNE0152

CONTRACT ID.


PROJECT NO.

BRIDGE NO.

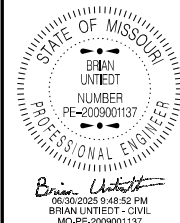
DESCRIPTION

DATE

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION



105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)



DATE PREPARED
6/27/2025

ROUTE W STATE MO
DISTRICT NE SHEET NO. 3

COUNTY PIKE

JOB NO. JNE0152

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DESCRIPTION	DATE

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

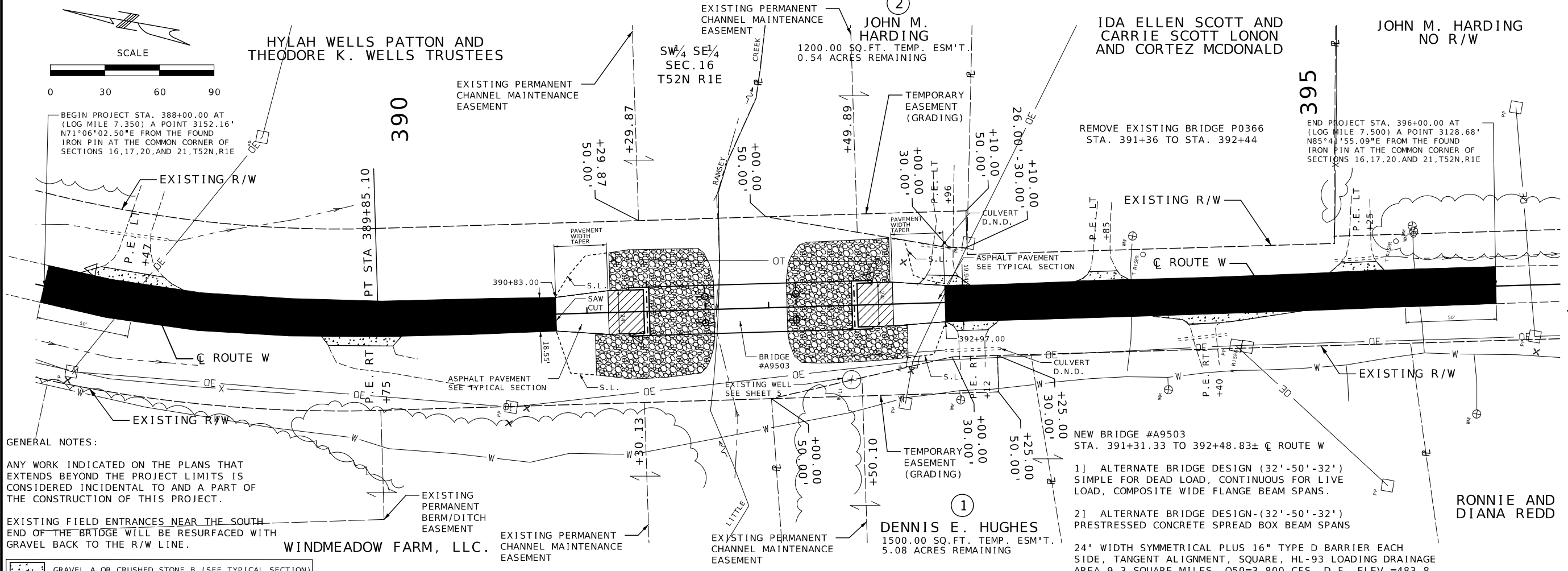
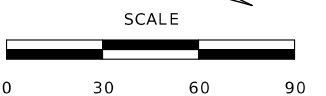
105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)

QUANTITY SHEET
SHEET 3 OF 3

SIGN	SIZE	AREA	QTY	TOTAL	QTY	TOTAL	SIGN	DESCRIPTION
IN.	SQ. FT.	EACH	AREA	RELOC.	RELOC.	NUM.		
			SQ. FT.	EACH	SQ. FT.			
WARNING SIGNS								
WO1-1L	48X48	16.00						TURN (SYMBOL LEFT ARROW)
WO1-1R	48X48	16.00						TURN (SYMBOL RIGHT ARROW)
WO1-2L	48X48	16.00						CURVE (SYMBOL LEFT ARROW)
WO1-2R	48X48	16.00						CURVE (SYMBOL RIGHT ARROW)
WO1-3L	48X48	16.00						REVERSE TURN (SYMBOL LEFT ARROW)
WO1-3R	48X48	16.00						REVERSE TURN (SYMBOL RIGHT ARROW)
WO1-4L	48X48	16.00						REVERSE CURVE (SYMBOL LEFT ARROW)
WO1-4R	48X48	16.00						REVERSE CURVE (SYMBOL RIGHT ARROW)
WO1-4bL	48X48	16.00						DOUBLE ARROW REVERSE CURVE (SYMBOL LT ARROWS)
WO1-4bR	48X48	16.00						DOUBLE ARROW REVERSE CURVE (SYMBOL RT ARROWS)
WO1-4cL	48X48	16.00						TRIPLE ARROW REVERSE CURVE (SYMBOL LT ARROWS)
WO1-4cR	48X48	16.00						TRIPLE ARROW REVERSE CURVE (SYMBOL RT ARROWS)
WO1-6	60X30	12.50						HORIZONTAL ARROW (SYMBOL)
WO1-6a	72X36	18.00						HORIZ. ARROW (SYMBOL ON PERMANENT BARRICADE)
WO1-7	60X30	12.50						DOUBLE HEAD HORIZONTAL ARROW (SYMBOL)
WO1-7a	72X36	18.00						DOUBLE HEAD HORIZ. ARROW (SYMBOL ON PERM. BARR.)
WO1-8	18X24	3.00						CHEVRON (SYMBOL)
WO1-8a	30X36	7.50						CHEVRON (SYMBOL FOR DIVIDED HIGHWAYS)
WO3-1	48X48	16.00						STOP AHEAD (SYMBOL)
WO3-2	48X48	16.00						YIELD AHEAD (SYMBOL)
WO3-3	48X48	16.00						SIGNAL AHEAD (SYMBOL)
WO3-4	48X48	16.00						BE PREPARED TO STOP
WO3-5	48X48	16.00						SPEED LIMIT AHEAD
WO4-1L	48X48	16.00						MERGE (SYMBOL FROM LEFT)
WO4-1R	48X48	16.00						MERGE (SYMBOL FROM RIGHT)
WO4-1aL	48X48	16.00						MERGE (ARROW SYMBOL)
WO4-1aR	48X48	16.00						MERGE (ARROW SYMBOL)
WO5-1	48X48	16.00						ROAD/BRIDGE/RAMP NARROWS
WO5-3	48X48	16.00						ONE LANE BRIDGE
WO5-5	48X48	16.00						NARROW LANES
WO6-1	48X48	16.00						DIVIDED HIGHWAY (SYMBOL)
WO6-2	48X48	16.00						DIVIDED HIGHWAY END (SYMBOL)
WO6-3	48X48	16.00						TWO WAY TRAFFIC (SYMBOL)
WO7-3a	30X24	5.00						NEXT XX MILES (PLAQUE)
WO8-1	48X48	16.00						BUMP
WO8-2	48X48	16.00						DIP
WO8-3	48X48	16.00						PAVEMENT ENDS
WO8-4	48X48	16.00						SOFT SHOULDER
WO8-5	48X48	16.00						SLIPPERY WHEN WET (SYMBOL)
WO8-6	48X48	16.00						TRUCK CROSSING (WITH FLAGS)
WO8-6c	48X48	16.00						TRUCK ENTRANCE
WO8-7	36X36	9.00						LOOSE GRAVEL
WO8-7a	36X36	9.00						FRESH OIL/LOOSE GRAVEL
WO8-9	48X48	16.00						LOW SHOULDER
WO8-11	48X48	16.00						UNEVEN LANES
WO8-12	48X48	16.00						NO CENTER LINE
WO8-15	48X48	16.00						GROOVED PAVEMENT
WO8-15P	30X24	5.00						MOTORCYCLE (PLAQUE)
WO8-17	48X48	16.00						SHOULDER DROP-OFF (SYMBOL)
WO8-17P	30X24	5.00						SHOULDER DROP-OFF (PLAQUE)
WO10-1	42RND.	9.62						RAILROAD CROSSING
WO12-1	24X24	4.00						DOUBLE DOWN ARROW (SYMBOL)
WO12-2	48X48	16.00						LOW CLEARANCE (SYMBOL)
WO12-2X	24X18	3.00						LOW CLEARANCE (PLAQUE)
WO12-2a	84X24	14.00						OVERHEAD LOW CLEARANCE (FEET AND INCHES)
WO12-4	120X60	50.00						LOW CLEARANCE XX FT XX IN XX MILES AHEAD
WO12-5	120X60	50.00						WIDTH RESTRICTION XX FT XX IN XX MILES AHEAD
WO13-1	30X30	6.25						ADVISORY SPEED (PLAQUE)
WO16-2	30X24	5.00	2	10			20B	XXX FEET (PLAQUE) 500FT
WO16-3	30X24	5.00						X MILE (PLAQUE)
WO20-1	48X48	16.00	2	32			2	ROAD/BRIDGE/RAMP WORK AHEAD
WO20-2	48X48	16.00						DETOUR AHEAD
WO20-3	48X48	16.00	2	32			20A, 20B	ROAD CLOSED AHEAD
WO20-4	48X48	16.00	2	32			7	ONE LANE ROAD AHEAD
WO20-5	48X48	16.00						RIGHT/CENTER/LEFT LANE CLOSED AHEAD
WO20-5a	48X48	16.00						2 RIGHT/CENTER/LEFT LANES CLOSED AHEAD
WO20-6a	48X48	16.00						RIGHT/CENTER/LEFT LANE CLOSED
WO20-7a	48X48	16.00	2	32			8	FLAGGER (SYMBOL, WITH FLAGS)
WO21-2	36X36	9.00						FRESH OIL
WO21-5	48X48	16.00						SHOULDER WORK AHEAD
WO22-1	48X48	16.00						BLASTING ZONE AHEAD
WO22-2	42X36	10.50						TURN OFF 2-WAY RADIO AND PHONE
WO22-3	42X36	10.50						END BLASTING ZONE
GO22-1	21X15	2.19						WET PAINT (ARROW PIVOTS)

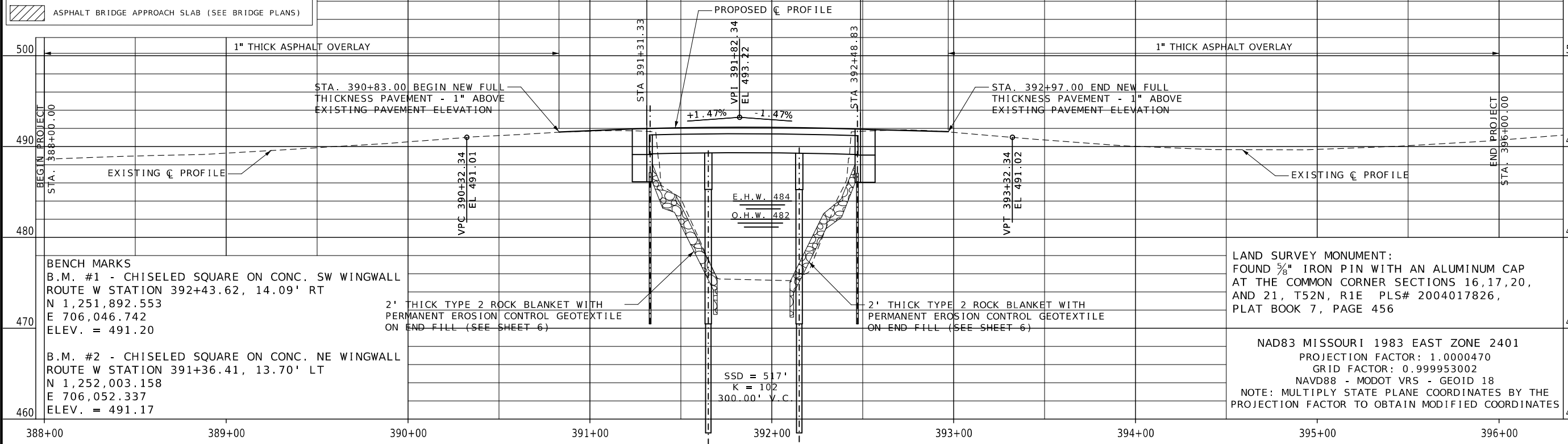
SIGN	SIZE	AREA	QTY	TOTAL	QTY	TOTAL	SIGN	DESCRIPTION
IN.	SQ. FT.	EACH	AREA	RELOC.	RELOC.	NUM.		
			SQ. FT.	EACH	SQ. FT.			
GUIDE SIGNS								
E05-1	36X48	12.00						GORE EXIT
E05-2	48X36	12.00						EXIT OPEN
E05-2a	48X36	12.00						EXIT CLOSED
GO20-1	60X24	10.00						ROAD WORK NEXT XX MILES
GO20-2	48X24	8.00						END ROAD WORK
GO20-4	36X18	4.50						PILOT CAR FOLLOW ME
GO20-4a	42X30	8.75						PILOT CAR IN USE WAIT & FOLLOW
GO20-4a	18X12	1.50						PILOT CAR IN USE WAIT & FOLLOW
GO20-5aP	36X24	6.00						WORK ZONE (PLAQUE)
MO4-8a	24X18	3.00						END DETOUR
MO4-9L	48X36	12.00						DETOUR (LEFT ARROW)
MO4-9R	48X36	12.00						DETOUR (RIGHT ARROW)
MO4-9P	48X12	4.00						STREET NAME (PLAQUE)
MO4-10L	48X18	6.00						DETOUR (ARROW LEFT)
MO4-10R	48X18	6.00						DETOUR (ARROW RIGHT)
REGULATORY SIGNS								
R1-1	48X48	13.25						STOP
R1-2	48TR1	6.93						YIELD
R1-2a	36X36	9.00						TO ONCOMING TRAFFIC (PLAQUE)
R1-3P	30X12	2.50						ALL WAY (PLAQUE)
R2-1	36X48	12.00						SPEED LIMIT XX
R3-1	48X48	16.00						NO RIGHT TURN (SYMBOL)
R3-2	48X48	16.00						NO LEFT TURN (SYMBOL)
R3-3	36X36	9.00						NO TURNS
R3-4	48X48	16.00						NO U-TURN (SYMBOL)
R3-7L	30X30	6.25						LEFT LANE MUST TURN LEFT
R3-7R	30X30	6.25						RIGHT LANE MUST TURN RIGHT
R4-1	36X48	12.00						DO NOT PASS
R4-2	36X48	12.00						PASS WITH CARE
R4-8a	36X48	12.00						KEEP LEFT (HORIZONTAL ARROW)
R4-7a	36X48	12.00						KEEP RIGHT (HORIZONTAL ARROW)
R5-1	30X30	6.25						DO NOT ENTER
R5-1a	36X24	6.00						WRONG WAY
R6-1L	54X18	6.75						ONE WAY ARROW (LEFT)
R6-1R	54X18	6.75						ONE WAY ARROW (RIGHT)
R6-2L	24X30	5.00						ONE WAY (LEFT)
R6-2R	24X30	5.00						ONE WAY (RIGHT)
R9-9	24X12	2.00						SIDEWALK CLOSED
R9-11L	24X18	3.00						SIDEWALK CLOSED AHEAD, (ARROW LEFT) CROSS HERE
R9-11R	24X18	3.00						SIDEWALK CLOSED AHEAD, (ARROW RIGHT) CROSS HERE
R10-6	24X36	6.00						STOP HERE ON RED (45° ARROW)
R11-2	48X30	10.00	2	20			29	ROAD CLOSED
R11-3a	60X30	12.50						ROAD CLOSED XX MILES AHEAD
R11-4	60X30	12.50						LOCAL TRAFFIC ONLY (8,5)
CONST-3A	60X48	20.00						ROAD CLOSED TO THRU TRAFFIC
CONST-3X	56X12	4.67						FINE SIGN
MISCELLANEOUS SIGNS								
CONST-5	48X36	12.00					60	POINT OF PRESENCE
CONST-5	96X48	32.00						POINT OF PRESENCE
CONST-7	48X24	8.00						RATE OUR WORK ZONE
CONST-7	72X36	18.00						RATE OUR WORK ZONE
CONST-8	48X36	12.00						WORK ZONE NO PHONE ZONE
SPECIAL	96X48	32.00	2	64	2	64	48A, 48B	BRIDGE CLOSURE AHEAD XX MILES
CONSTRUCTION SIGNS								
616-10.05				TOTAL				
CONSTRUCTION SIGNS				222				
RELOCATED SIGNS								
616-10.10				TOTAL				
RELOCATED SIGNS				64				

ITEM	TOTAL	DESCRIPTION
NUMBER	QTY	
6122008		IMPACT ATTENUATOR 40 MPH (SAND BARRELS)
6122009		IMPACT ATTENUATOR 45 MPH (SAND BARRELS)
6122010		IMPACT ATTENUATOR 50 MPH (SAND BARRELS)
6122012		IMPACT ATTENUATOR 55 MPH (SAND BARRELS)
6122014		IMPACT ATTENUATOR 60 MPH (SAND BARRELS)
6122017		IMPACT ATTENUATOR 65 MPH (SAND BARRELS)
6122019		IMPACT ATTENUATOR 70 MPH (SAND BARRELS)
6122020		REPLACEMENT SAND BARREL
6122030		IMPACT ATTENUATOR (RELOCATION)
6123000A		TRUCK OR TRAILER MOUNTED ATTENUATOR (TMA)
6161008		ADVANCED WARNING RAIL SYSTEM
6161012		BUOYS (BOATS KEEP OUT)
6161013		BUOYS (NO WAKE)
6161014		SPECIAL SIGN ASSEMBLY (BOATS KEEP OUT)
6161025	25	CHANNELIZER (TRIM LINE)
6161030	10	TYPE III MOVEABLE BARRICADE
6161033		DIRECTION INDICATOR BARRICADE
6161040		FLASHING ARROW PANEL
6161047		TYPE III OBJECT MARKER
6161055		SEQUENTIAL FLASHING WARNING LIGHT
6161070		TUBULAR MARKER
6161095		RADAR SPEED ADVISORY SYSTEM
6161096		CHANGEABLE MESSAGE SIGN, COMMISSION FURNISHED/RETAINED
6161098A		CHANGEABLE MESSAGE SIGN W/O COMM. INTERFACE - CONTRACTOR FURNISHED/RETAINED
6161099		CHANGEABLE MESSAGE SIGN WITH COMM. INTERFACE - CONTRACTOR FURNISHED/RETAINED
6162000A		WORK ZONE TRAFFIC SIGNAL SYSTEM
6162002		TEMPORARY LONG-TERM RUMBLE STRIPS
6173600D		TEMPORARY TRAFFIC BARRIER CONTRACTOR FURNISHED/RETAINED
6173602B		TEMPORARY TRAFFIC BARRIER CONTRACTOR FURNISHED/COMMISSION RETAINED
6174000A		TEMP. TRAFFIC BARRIER HEIGHT TRANSITION
6175010A		RELOCATING TEMPORARY TRAFFIC BARRIER
6176000B		TEMPORARY TRAFFIC BARRIER COMMISSION FURNISHED/RETAINED
6177000B		TEMP. TRAFFIC BARRIER HEIGHT TRANSITION COMMISSION FURNISHED/RETAINED
6208064A		TEMPORARY RAISED PAVEMENT MARKER
9029400		TEMPORARY TRAFFIC SIGNALS
9029401		TEMPORARY TRAFFIC SIGNALS AND LIGHTING



- GENERAL NOTES:
- ANY WORK INDICATED ON THE PLANS THAT EXTENDS BEYOND THE PROJECT LIMITS IS CONSIDERED INCIDENTAL TO AND A PART OF THE CONSTRUCTION OF THIS PROJECT.
- EXISTING FIELD ENTRANCES NEAR THE SOUTH END OF THE BRIDGE WILL BE RESURFACED WITH GRAVEL BACK TO THE R/W LINE.
- [Pattern] GRAVEL A OR CRUSHED STONE B (SEE TYPICAL SECTION)
 - [Pattern] ROCK BLANKET (SEE SHEET 6)
 - [Pattern] ASPHALT OVERLAY (SEE TYPICAL SECTION)
 - [Pattern] MODIFIED COLDMILLING DEPTH TRANSITION
 - [Pattern] ASPHALT BRIDGE APPROACH SLAB (SEE BRIDGE PLANS)

CLASS A EXCAVATION = 282 C.Y. (188 C.Y. FROM SPILL FILL)	CLASS A EXCAVATION = 363 C.Y. (238 C.Y. FROM SPILL FILL)	
COMPACTING EMBANKMENT = 34 C.Y.	COMPACTING EMBANKMENT = 29 C.Y. (6 C.Y. IN SPILL FILL)	
SUBGRADE COMPACTION = 0.50 STA.	SUBGRADE COMPACTION = 0.50 STA.	



BENCH MARKS

B.M. #1 - CHISELED SQUARE ON CONC. SW WINGWALL
 ROUTE W STATION 392+43.62, 14.09' RT
 N 1,251,892.553
 E 706,046.742
 ELEV. = 491.20

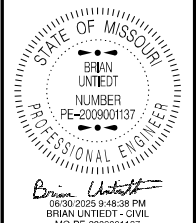
B.M. #2 - CHISELED SQUARE ON CONC. NE WINGWALL
 ROUTE W STATION 391+36.41, 13.70' LT
 N 1,252,003.158
 E 706,052.337
 ELEV. = 491.17

2' THICK TYPE 2 ROCK BLANKET WITH PERMANENT EROSION CONTROL GEOTEXTILE ON END FILL (SEE SHEET 6)

SSD = 517'
 K = 102
 300.00' V.C.

LAND SURVEY MONUMENT:
 FOUND 5/8" IRON PIN WITH AN ALUMINUM CAP AT THE COMMON CORNER SECTIONS 16,17,20, AND 21, T52N, R1E PLS# 2004017826, PLAT BOOK 7, PAGE 456

NAD83 MISSOURI 1983 EAST ZONE 2401
 PROJECTION FACTOR: 1.0000470
 GRID FACTOR: 0.999953002
 NAVD88 - MODOT VRS - GEOID 18
 NOTE: MULTIPLY STATE PLANE COORDINATES BY THE PROJECTION FACTOR TO OBTAIN MODIFIED COORDINATES



DATE PREPARED: 6/27/2025
 ROUTE: W STATE: MO
 DISTRICT: NE SHEET NO.: 4

COUNTY: PIKE
 JOB NO.: JNE0152
 CONTRACT ID.:
 PROJECT NO.:
 BRIDGE NO.:

DATE	DESCRIPTION

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

105 WEST CAPITOL
 JEFFERSON CITY, MO 65102
 1-888-ASK-MODOT (1-888-275-6636)

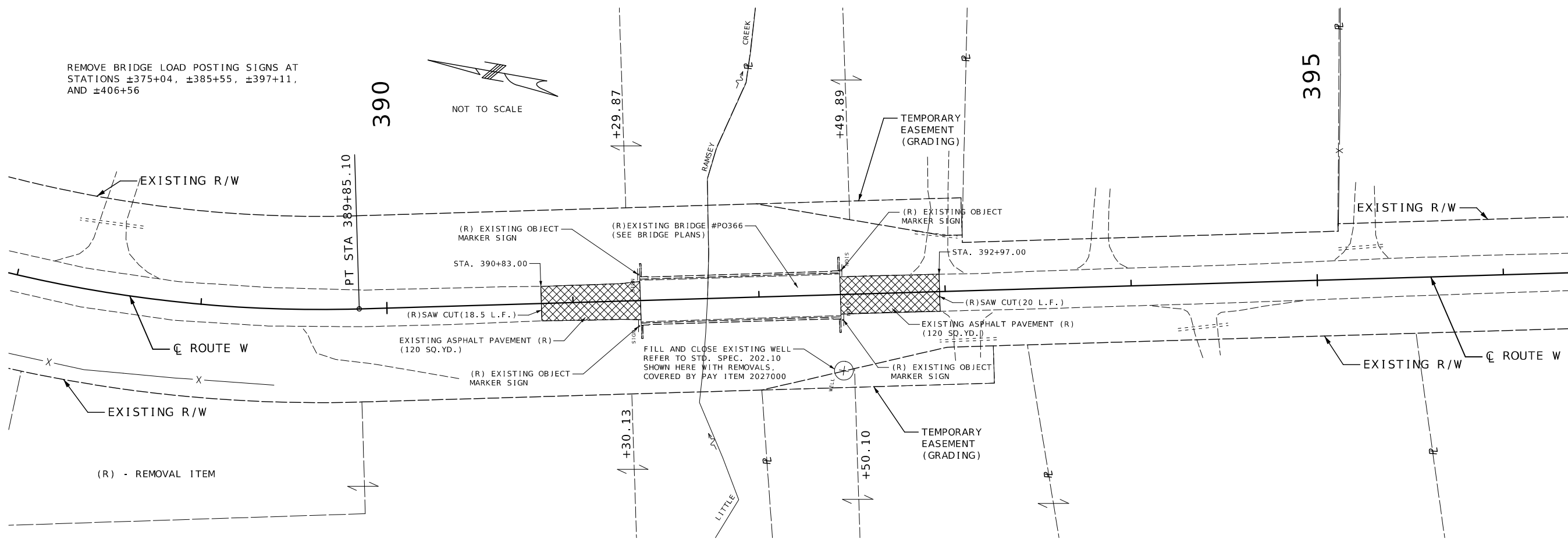
PLAN/PROFILE SHEET 1 OF 1

REMOVE BRIDGE LOAD POSTING SIGNS AT STATIONS ±375+04, ±385+55, ±397+11, AND ±406+56

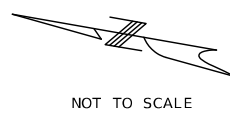
390

395

NOT TO SCALE



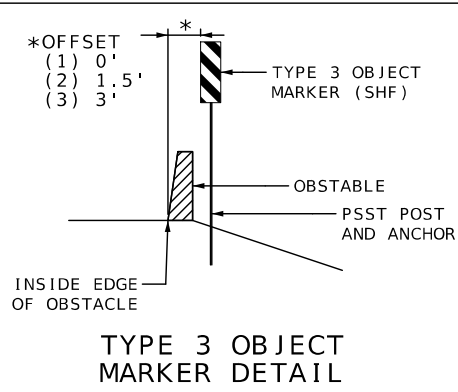
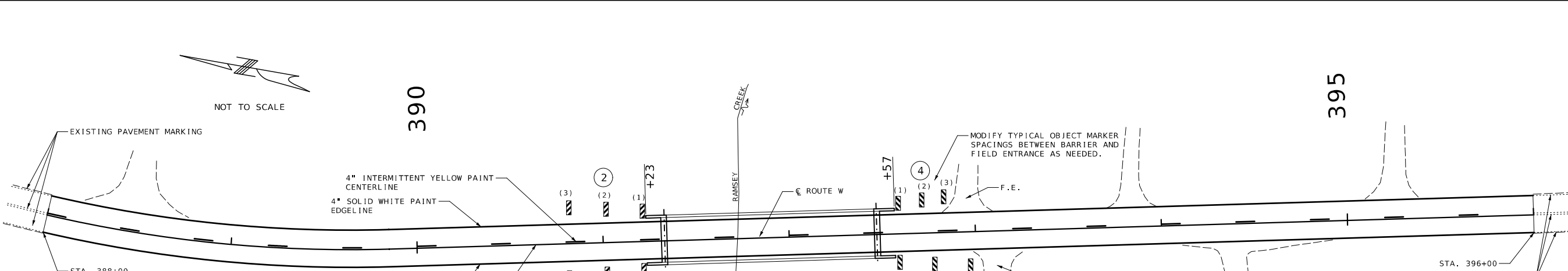
REMOVALS



390

395

NOT TO SCALE



TYPE 3 OBJECT MARKER DETAIL

(X) SIGN NUMBER

PAVEMENT MARKING NOTES:
MATCH EXISTING PAVEMENT MARKING AT PROJECT ENDS.
REFER TO MODOT EPG 620.2 AND MUTCD CHAPTER 3B FOR FURTHER GUIDANCE ON PAVEMENT MARKING.

TYPE III OBJECT MARKER NOTES:
POSTS LENGTHS TO BE SIZED TO LOCATION.
PLACE SIGNS AT MINIMUMS AND REMOVE REMAINDER OF POST LENGTH.
ONLY USE ENTIRE 16' POST LENGTH WHEN REQUIRED TO MEET MINIMUMS.
REFER TO MODOT EPG 903.17.4 AND MUTCD SECTION 2C.65 FOR GUIDANCE ON TYPE III OBJECT MARKERS.

PAVEMENT MARKING AND TYPE III OBJECT MARKERS

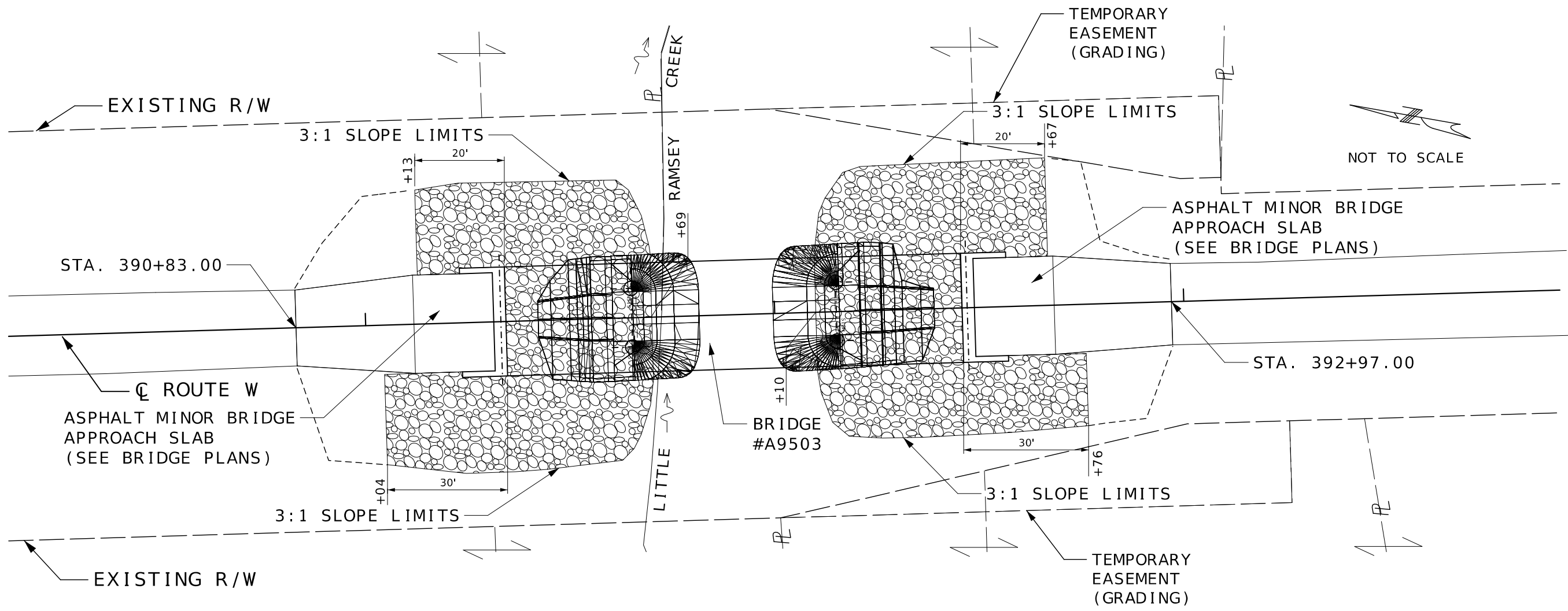
STATE OF MISSOURI
BRIAN UNTHIEDT
PROFESSIONAL ENGINEER
NUMBER PE-2009001137
DATE PREPARED 6/27/2025

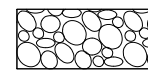
ROUTE	STATE
W	MO
DISTRICT	SHEET NO.
NE	5
COUNTY	
PIKE	
JOB NO.	JNE0152
CONTRACT ID.	
PROJECT NO.	
BRIDGE NO.	

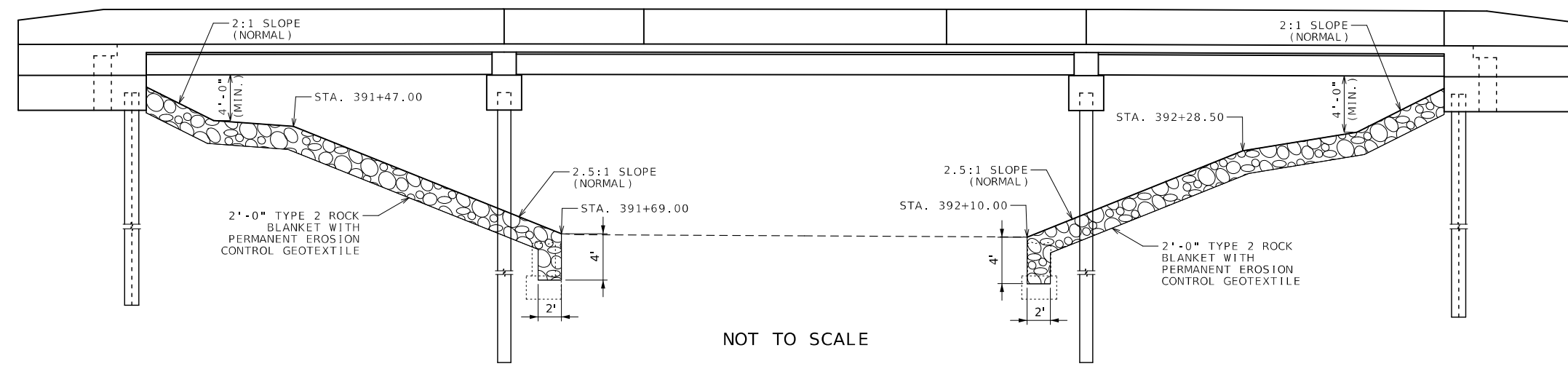
DATE	DESCRIPTION

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION
MODOT
105 WEST CAPITOL JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)

REMOVALS, PAVEMENT MARKING AND OBJECT MARKERS SPECIAL SHEET SHEET 1 OF 2



 ROCK BLANKET 2' DEPTH WITH PERMANENT EROSION CONTROL GEOTEXTILE (SEE BRIDGE PLANS, STD.PLAN 609.40U, AND ROADWAY CROSS SECTIONS)



DATE PREPARED
7/28/2025

ROUTE STATE
W MO

DISTRICT SHEET NO.
NE 6

COUNTY
PIKE

JOB NO.
JNE0152

CONTRACT ID.

PROJECT NO.

BRIDGE NO.

DESCRIPTION

DATE

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

105 WEST CAPITOL JEFFERSON CITY, MO 65102

1-888-ASK-MODOT (1-888-275-6636)



ROCK BLANKET SPECIAL SHEET SHEET 2 OF 2

ALL PROJECT COORDINATES HAVE BEEN PROJECTED FROM THE MISSOURI STATE PLANE COORDINATE (SPC) SYSTEM OF 1983 USING AN AVERAGE PROJECT PROJECTION (GRID TO GROUND) FACTOR. TO GET BACK TO STATE PLANE COORDINATES MULTIPLY THE PROJECT COORDINATES BY THE AVERAGE GRID FACTOR AS SHOWN IN THE "REFERENCE CONTROL INFORMATION" PORTION OF THIS TABLE.

PROJECT COORDINATE INFORMATION	
COORDINATE SYSTEM	MODIFIED STATE PLANE (GROUND)
HORIZONTAL DATUM	NAD 83(2011) EPOH 2010.0
VERTICAL DATUM	NAVD 88: GNSS DERIVED
GEOID MODEL	18
ELEVATIONS DETERMINED BY	DIFFERENTIAL LEVELING GPD - MODOT VRS
PROJECT PROJECTION FACTOR	1.00004700

REFERENCE CONTROL INFORMATION	
COORDINATE SYSTEM	MO COORDINATE SYSTEM 1983 - 2401 (MO EAST)
CONTROL STATION	MISSOURI CORS
DESIGNATION	MODOT ELSBERRY CORPS ARP
CORS_ID	MOEB
PID	DN5826
LATITUDE	39 10 44.08711 N
LONGITUDE	090 47 15.53925 E
NORTHING (M)	371331.3110
EASTING (M)	225146.4400
ZONE	2401 MO EAST

PROJECT AVERAGE GRID FACTOR	
PROJECT AVERAGE GRID FACTOR	1.00004700

EXAMPLE OF PROJECT COORDINATE TO S.P.C.

PROJECT NORTHING X AVERAGE GRID FACTOR = STATE PLANE NORTHING
PROJECT EASTING X AVERAGE GRID FACTOR = STATE PLANE EASTING

EXAMPLE: CONTROL POINT #102
N 1,251,886.54 X 1.000047 = N 1,251,945.38
E 706,077.55 X 1.000047 = E 706,110.74

LINEAR UNIT CONVERSION

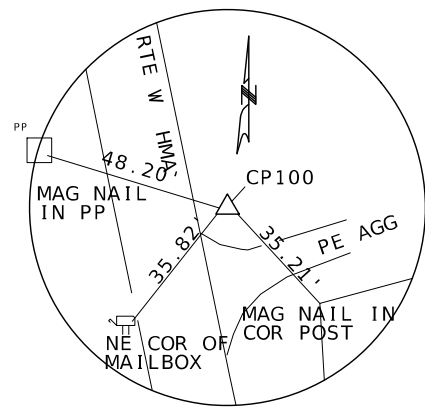
1 METER = 3.280833333 US SURVEY FEET (USFT)

COORDINATE POINT LISTING

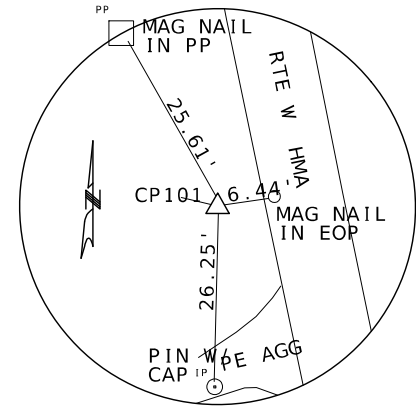
SHEET NO	STATION	LOCATION	OFFSET (USFT)	MODIFIED STATE PLANE (GROUND)			DESCRIPTION
				NORTHING (US SURVEY FT)	EASTING (US SURVEY FT)	ELEVATION (US SURVEY FT)	
PROJECT CONTROL POINTS							
N/A	383+83.64	RT	24.45	1,252,746.04	706,051.48	488.90	CONTROL POINT 105
4	388+24.13	LT	14.39	1,252,308.26	706,008.23	487.32	CONTROL POINT 104
4	391+28.08	RT	14.00	1,252,005.74	706,023.53	490.42	CONTROL POINT 103
4	392+55.72	LT	14.90	1,251,886.54	706,077.55	490.61	CONTROL POINT 102
4	396+42.98	RT	15.60	1,251,501.10	706,125.82	490.49	CONTROL POINT 101
N/A	402+02.35	LT	13.90	1,250,959.18	706,267.55	499.57	CONTROL POINT 100
ALIGNMENTS							
N/A	383+32.96	☉ RTE W	0.00	1,252,790.25	706,086.29	-	BEGINNING OF ALIGNMENT
N/A	386+83.80	☉ RTE W	0.00	1,252,447.68	706,010.57	-	PC STATION CURVE
4	388+00.00	☉ RTE W	0.00	1,252,332.68	705,994.78	-	BEGIN PROJECT - 1 INCH ASPHALT OVERLAY
4	389+85.10	☉ RTE W	0.00	1,252,148.60	706,008.40	-	PT STATION CURVE
4	390+32.34	☉ RTE W	0.00	1,252,102.32	706,017.91	491.01	VPC STATION PROFILE
4	390+83.00	☉ RTE W	0.00	1,252,052.70	706,028.15	491.79	BEGIN NEW FULL DEPTH PAVEMENT
4	391+34.34	☉ RTE W	0.00	1,252,002.44	706,038.50	-	FILL FACE NEW BRIDGE
4	391+82.34	☉ RTE W	0.00	1,251,955.41	706,048.18	493.22	VPI STATION PROFILE
4	392+45.84	☉ RTE W	0.00	1,251,893.23	706,060.99	-	FILL FACE NEW BRIDGE
4	392+97.00	☉ RTE W	0.00	1,251,843.10	706,071.31	491.56	END NEW FULL DEPTH PAVEMENT
4	393+32.34	☉ RTE W	0.00	1,251,808.49	706,078.44	491.02	VPT STATION PROFILE
4	396+00.00	☉ RTE W	0.00	1,251,546.33	706,132.42	-	END PROJECT - 1 INCH ASPHALT OVERLAY
N/A	404+29.94	☉ RTE W	0.00	1,250,733.45	706,299.81	-	END OF ALIGNMENT

CONTROL POINTS

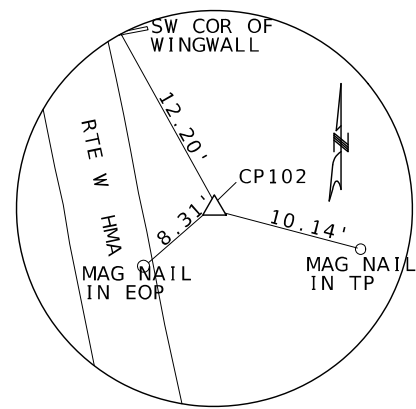
MO COORDINATE SYSTEM OF 1983, EAST ZONE 2401, MODOT VRS NAD83 NAVD88, GEOID = 18;
PROJECTION FACTOR 1.0000470



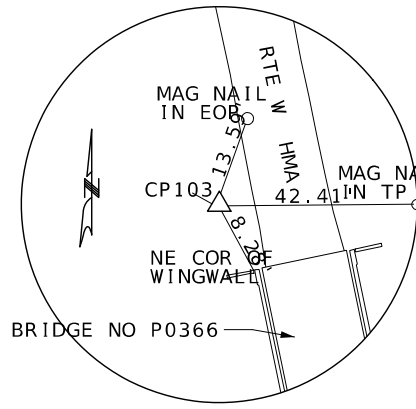
CONTROL POINT 100
SET 5/8" REBAR
N: 1250959.175
E: 706267.546
EL: 499.57



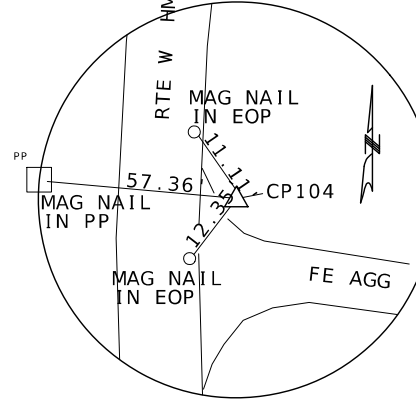
CONTROL POINT 101
SET 5/8" REBAR
N: 1251501.097
E: 706125.822
EL: 490.49



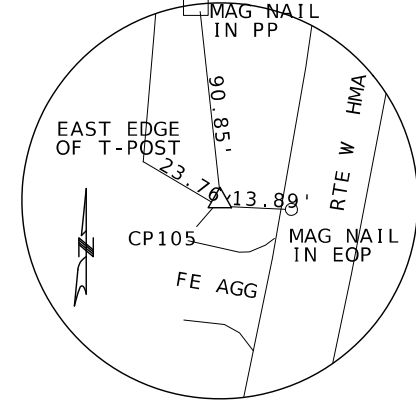
CONTROL POINT 102
SET 5/8" REBAR
N: 1251886.544
E: 706077.552
EL: 490.61



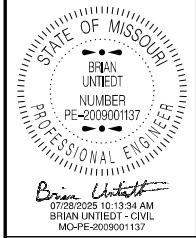
CONTROL POINT 103
SET 5/8" REBAR
N: 1252005.737
E: 706023.525
EL: 490.42



CONTROL POINT 104
SET 5/8" REBAR
N: 1252308.260
E: 706008.232
EL: 487.32



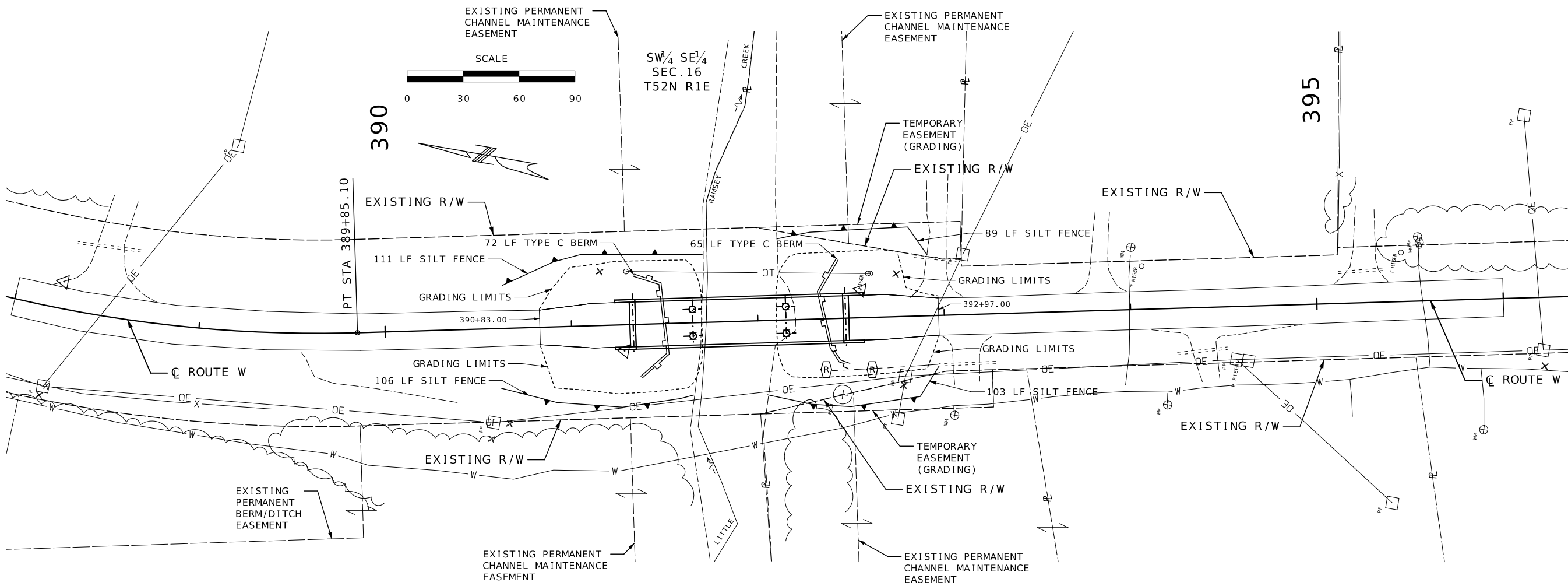
CONTROL POINT 105
SET 5/8" REBAR
N: 1252746.037
E: 706051.479
EL: 488.90



DATE PREPARED: 7/28/2025
ROUTE: W, STATE: MO
DISTRICT: NE, SHEET NO.: 7
COUNTY: PIKE
JOB NO.: JNE0152
CONTRACT ID.
PROJECT NO.
BRIDGE NO.

DESCRIPTION
DATE

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION
105 WEST CAPITOL JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)
MoDOT logo



GENERAL NOTES:

- INSTALL TEMPORARY EROSION CONTROL MEASURES PRIOR TO ANY SOIL DISTURBANCE.
- REFER TO MODOT ENGINEERING POLICY GUIDE.
- LOCATE DEVICES AS SHOWN OR ADJUST TO FIELD CONDITIONS AS DIRECTED BY THE ENGINEER.

FIELD NOTES:

TEMPORARY EROSION CONTROL LEGEND

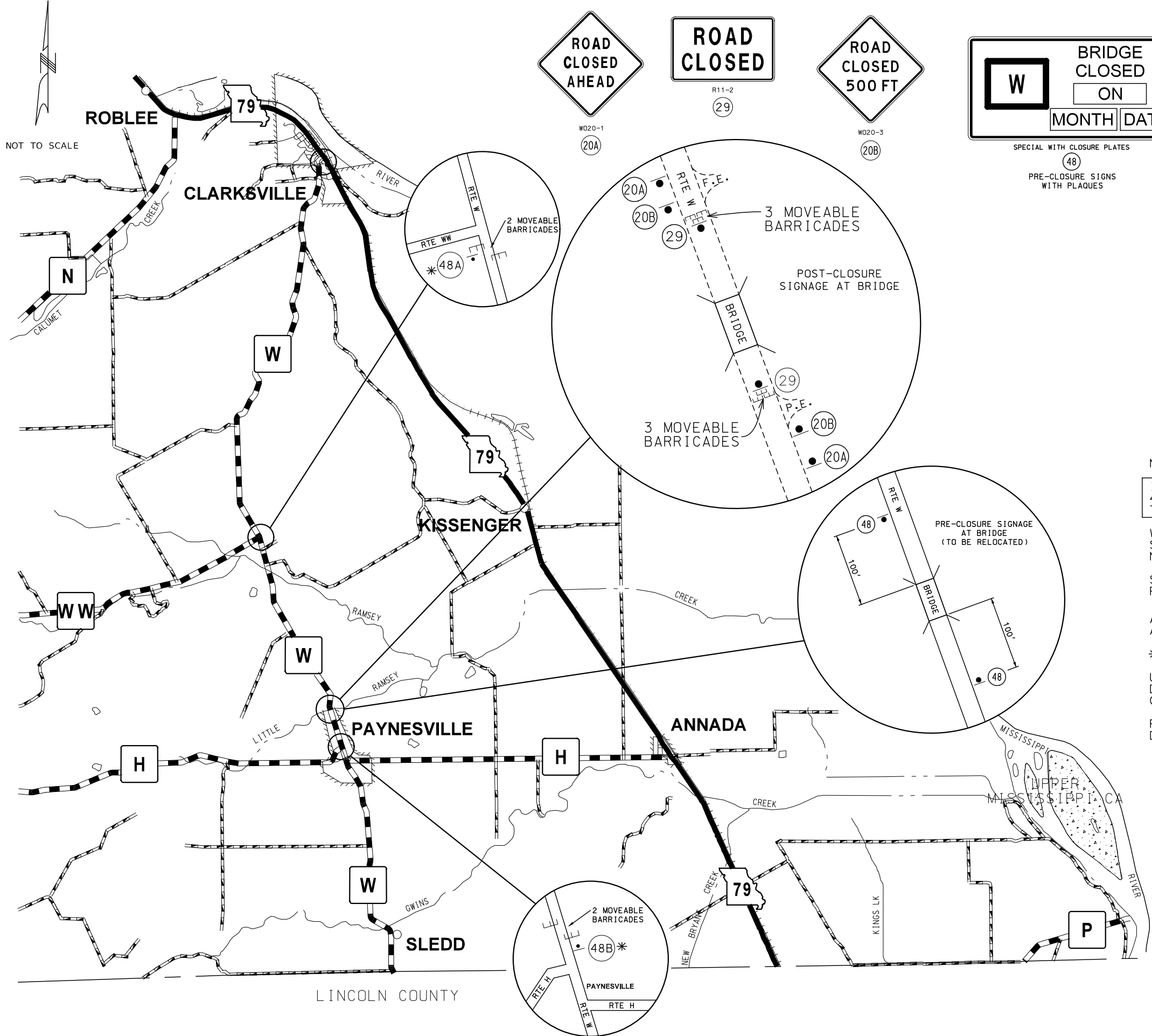
- TEMPORARY BERM TYPE C
- SILT FENCE
- ROCK DITCH CHECK

DATE PREPARED: 7/28/2025
 ROUTE: W DISTRICT: NE STATE: MO SHEET NO.: 8
 COUNTY: PIKE
 JOB NO.: JNE0152
 CONTRACT ID.:
 PROJECT NO.:
 BRIDGE NO.:

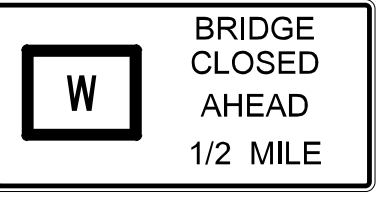
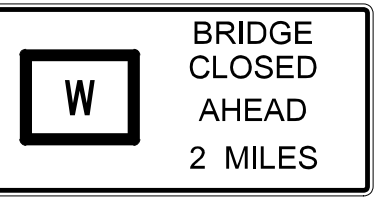
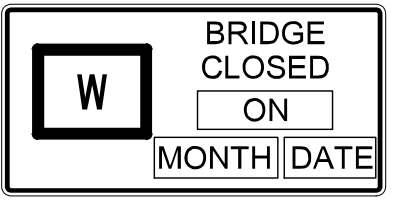
DATE	DESCRIPTION

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)



NOT TO SCALE



W020-1
20A

W020-3
20B

SPECIAL WITH CLOSURE PLATES
48
PRE-CLOSURE SIGNS WITH PLAQUES

SPECIAL
48A
POST-CLOSURE SIGN PLAQUES REMOVED

SPECIAL
48B
POST-CLOSURE SIGN PLAQUES REMOVED

NOTES:

INSTALL PRE-CLOSURE SIGNS WITH PLAQUES 48A & 48B A MINIMUM OF 2 WEEKS PRIOR TO CLOSURE.

WHEN BRIDGE CLOSURE OCCURS - REMOVE SPECIAL SIGN PLAQUES AND RELOCATE NOTED SIGNS.

SEE TRAFFIC CONTROL SHEET 3 OF 3 FOR SPECIAL SIGN AND PLAQUE DETAILS.



ALL SIGNS SHALL BE SPACED AT 500 FEET UNLESS OTHERWISE NOTED.

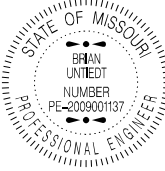
* LOCATE SIGNS 100' FROM INTERSECTION.

USE IN PLACE ALL SIGNS WHICH DO NOT CONFLICT WITH THIS PLAN. COVER OR REMOVE CONFLICTING SIGNS.

PLACE ALL SIGNS AS SHOWN OR AS DIRECTED BY THE ENGINEER.

TRAFFIC CONTROL LEGEND

-  SIGN (SINGLE SIDED)
-  TYPE III MOVEABLE BARRICADE



BRIAN UNTIED
PE-200900137
PROFESSIONAL ENGINEER

Brian Untied
06/30/2025 9:47:30 PM
BRIAN UNTIED - CIVIL
MO-PE-200900137

DATE PREPARED
6/27/2025

ROUTE W	STATE MO
DISTRICT NE	SHEET NO. 9

COUNTY
PIKE

JOB NO.
JNE0152


CONTRACT ID.

PROJECT NO.

BRIDGE NO.

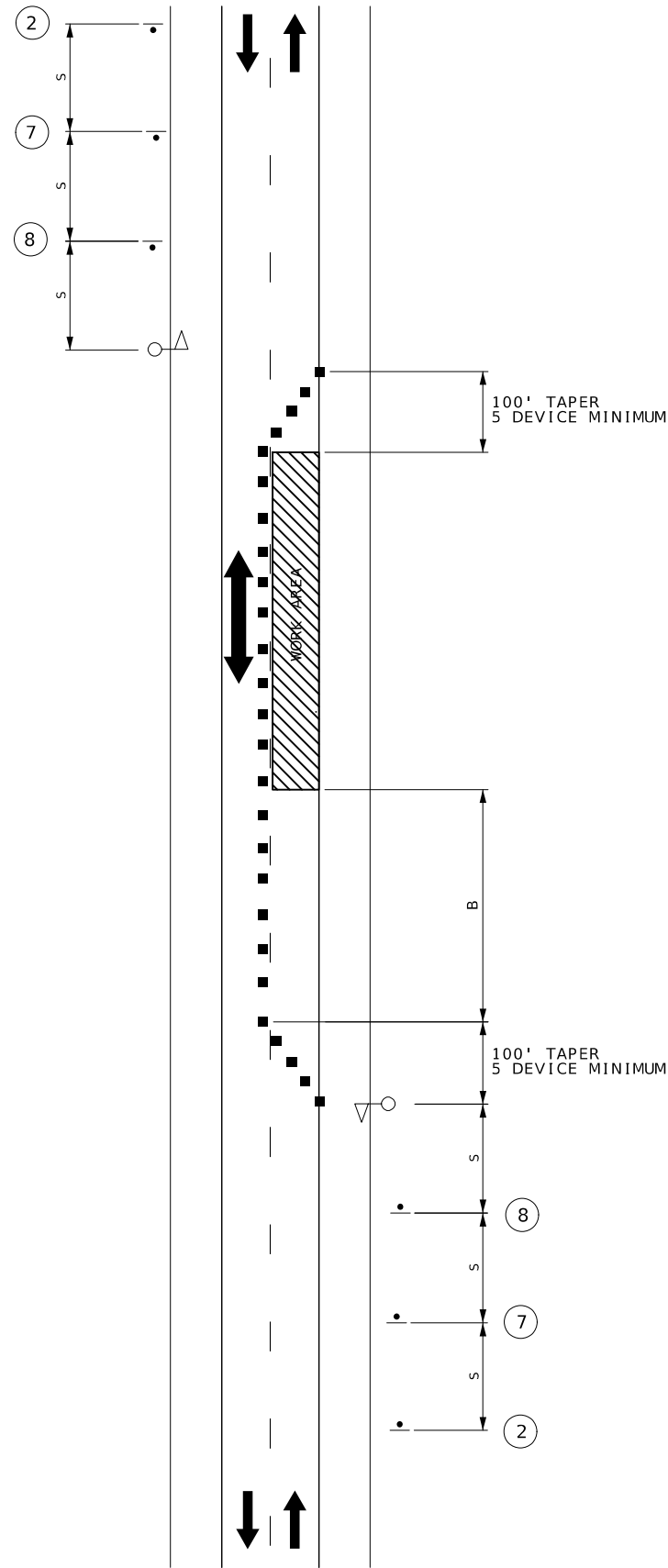
DATE	DESCRIPTION

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION



105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)

NOT TO SCALE



WO20-1

(2)



WO20-4

(7)



WO20-7a

(8)

NOTE:
REFER TO MODOT EPG 616.8 AND MUTCD PART 6 FOR FURTHER GUIDANCE.
SIGN AND DEVICE SPACING MAY BE ADJUSTED AS DIRECTED BY THE ENGINEER.

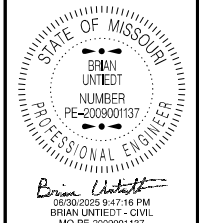
TRAFFIC CONTROL LEGEND

- SIGN (SINGLE SIDED)
- △ FLAGGER
- CHANNELIZER

SPEED POSTED (mph)	SIGN SPACING (ft)		TAPER LENGTH (ft)		OPTIONAL BUFFER LENGTH (FT)	CHANNELIZER SPACING (ft)	
	UNDIVIDED (S)		SHOULDER (1) (T1)	LANE (2) (T2)		TAPERS	BUFFER / WORK AREAS
0 - 35	200		35	100	250	25	40
40 - 45	350		35	100	360	25	80
50 - 55	500		35	100	495	25	80
60 - 70	1500		35	100	730	25	120

(1) Shoulder taper length based on 10 ft. (standard shoulder width).
(2) Lane taper length based on 12 ft. (standard lane width) offset.

LANE CLOSURE ON TWO-LANE ROAD USING FLAGGERS

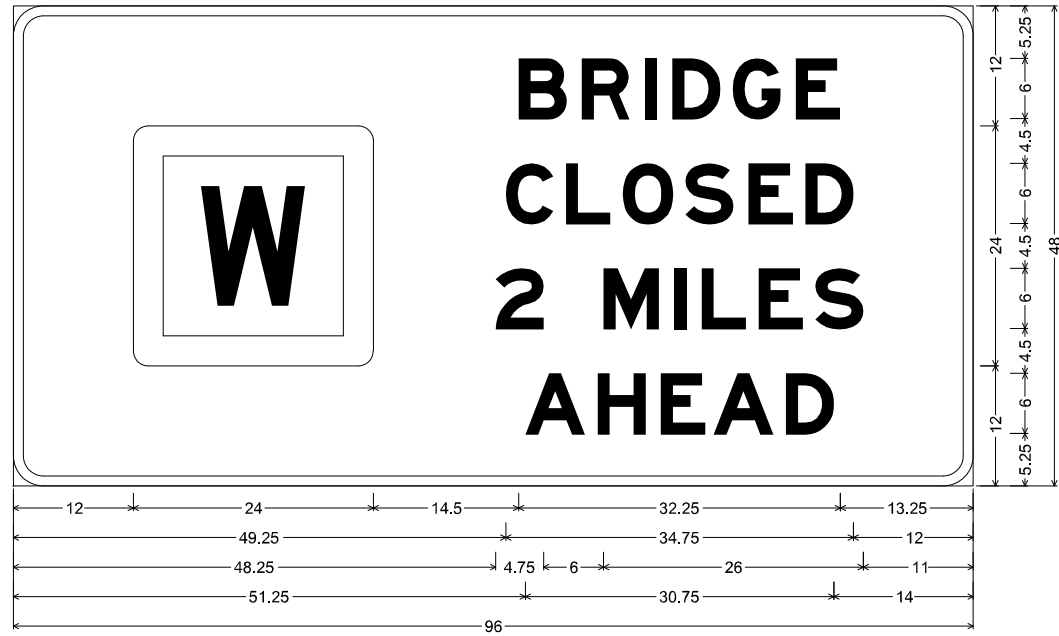


DATE PREPARED
6/27/2025
ROUTE STATE
W MO
DISTRICT SHEET NO.
NE 10
COUNTY
PIKE
JOB NO.
JNE0152
CONTRACT ID.
PROJECT NO.
BRIDGE NO.

DATE	DESCRIPTION

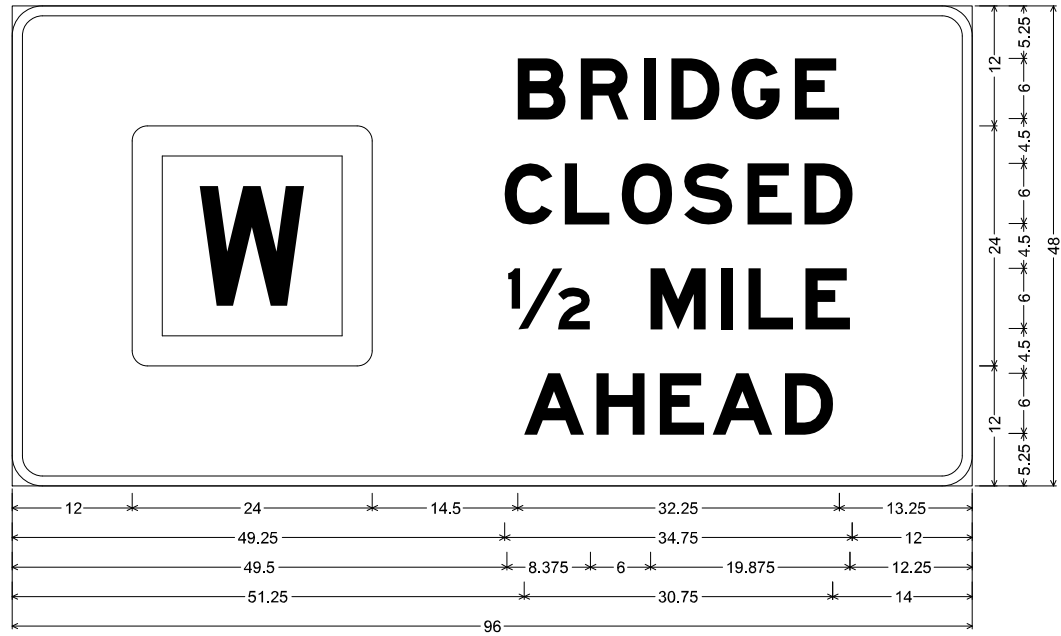
MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

 105 WEST CAPITOL JEFFERSON CITY, MO 65102
 1-888-ASK-MODOT (1-888-275-6636)



MO4-13 SHF-FLAT SHEET FLUORESCENT;
 3,000" Radius, 1,000" Border, Black on, Orange;
 "BRIDGE", E Mod; "CLOSED", E Mod; "2 MILES", E Mod; "AHEAD", E Mod;
 Table of letter and object lefts

W	B	R	I	D	G	E
12.000	50.500	56.875	63.125	65.875	71.875	78.250
C	L	O	S	E	D	
49.250	55.250	61.000	67.250	73.500	79.250	
2	M	I	L	E	S	
48.250	59.000	66.125	68.875	74.500	80.250	
A	H	E	A	D		
51.250	58.375	64.750	70.000	77.250		



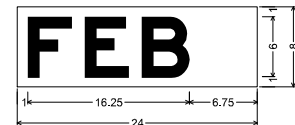
MO4-13 SHF-FLAT SHEET FLUORESCENT;
 3,000" Radius, 1,000" Border, Black on, Orange;
 "BRIDGE", E Mod; "CLOSED", E Mod; "1/2 MILE", E Mod; "AHEAD", E Mod;
 Table of letter and object lefts

W	B	R	I	D	G	E
12.000	50.500	56.875	63.125	65.875	71.875	78.250
C	L	O	S	E	D	
49.250	55.250	61.000	67.250	73.500	79.250	
1/2	M	I	L	E		
49.500	63.875	70.875	73.625	79.375		
A	H	E	A	D		
51.250	58.375	64.750	70.000	77.250		



SHF-FLAT SHEET FLUORESCENT;
 No border, Black on Orange;
 [JAN] E Mod;
 Table of letter and object lefts.

J	A	N
1,000	8,750	14,000



SHF-FLAT SHEET FLUORESCENT;
 No border, Black on Orange;
 [FEB] E Mod;
 Table of letter and object lefts.

F	E	B
1,000	8,750	12,375



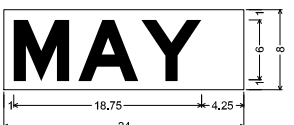
SHF-FLAT SHEET FLUORESCENT;
 No border, Black on Orange;
 [MAR] E Mod;
 Table of letter and object lefts.

M	A	R
1,000	7,750	15,000



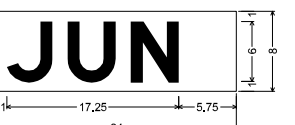
SHF-FLAT SHEET FLUORESCENT;
 No border, Black on Orange;
 [APR] E Mod;
 Table of letter and object lefts.

A	P	R
1,000	8,250	14,500



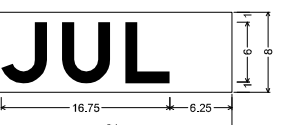
SHF-FLAT SHEET FLUORESCENT;
 No border, Black on Orange;
 [MAY] E Mod 75% spacing;
 Table of letter and object lefts.

M	A	Y
1,000	7,500	13,750



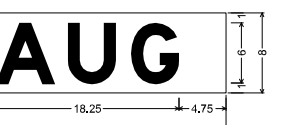
SHF-FLAT SHEET FLUORESCENT;
 No border, Black on Orange;
 [JUN] E Mod;
 Table of letter and object lefts.

J	U	N
1,000	7,125	13,375



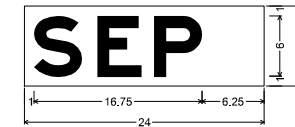
SHF-FLAT SHEET FLUORESCENT;
 No border, Black on Orange;
 [JUL] E Mod;
 Table of letter and object lefts.

J	U	L
1,000	7,000	13,375



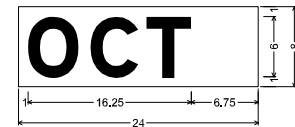
SHF-FLAT SHEET FLUORESCENT;
 No border, Black on Orange;
 [AUG] E Mod;
 Table of letter and object lefts.

A	U	G
1,000	8,250	14,500



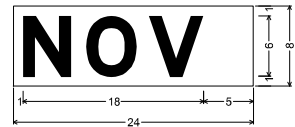
SHF-FLAT SHEET FLUORESCENT;
 No border, Black on Orange;
 [SEP] E Mod;
 Table of letter and object lefts.

S	E	P
1,000	7,250	13,000



SHF-FLAT SHEET FLUORESCENT;
 No border, Black on Orange;
 [OCT] E Mod;
 Table of letter and object lefts.

O	C	T
1,000	7,250	12,875



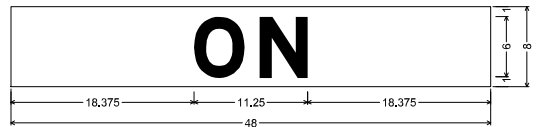
SHF-FLAT SHEET FLUORESCENT;
 No border, Black on Orange;
 [NOV] E Mod;
 Table of letter and object lefts.

N	O	V
1,000	7,250	13,500



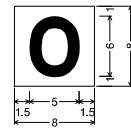
SHF-FLAT SHEET FLUORESCENT;
 No border, Black on Orange;
 [DEC] E Mod;
 Table of letter and object lefts.

D	E	C
1,000	7,250	13,000



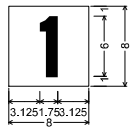
SHF-FLAT SHEET FLUORESCENT; No border, Black on Orange;
 [ON] E Mod;
 Table of letter and object lefts.

O	N
18,375	24,875



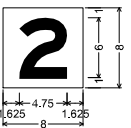
SHF-FLAT SHEET FLUORESCENT;
 No border, Black on Orange;
 [0] E Mod;
 Table of letter and object lefts.

0
1,500



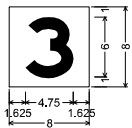
SHF-FLAT SHEET FLUORESCENT;
 No border, Black on Orange;
 [1] E Mod;
 Table of letter and object lefts.

1
3,125



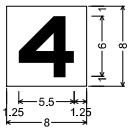
SHF-FLAT SHEET FLUORESCENT;
 No border, Black on Orange;
 [2] E Mod;
 Table of letter and object lefts.

2
1,625



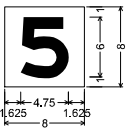
SHF-FLAT SHEET FLUORESCENT;
 No border, Black on Orange;
 [3] E Mod;
 Table of letter and object lefts.

3
1,625



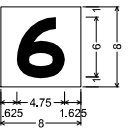
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 No border, Black on Orange;
 [4] E Mod;
 Table of letter and object lefts.

4
1,250



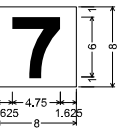
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 No border, Black on Orange;
 [5] E Mod;
 Table of letter and object lefts.

5
1,625



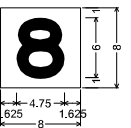
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 [6] E Mod;
 Table of letter and object lefts.

6
1,625



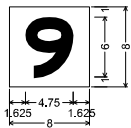
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 [7] E Mod;
 Table of letter and object lefts.

7
1,625



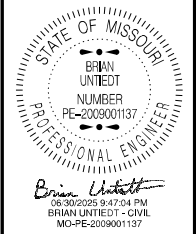
SHF-FLAT SHEET FLUORESCENT;
 No border, Black on Orange;
 [8] E Mod;
 Table of letter and object lefts.

8
1,625



SHF-FLAT SHEET FLUORESCENT;
 No border, Black on Orange;
 [9] E Mod;
 Table of letter and object lefts.

9
1,625



DATE PREPARED
 6/27/2025
 ROUTE W STATE MO
 DISTRICT NE SHEET NO. 11
 COUNTY PIKE
 JOB NO. JNE0152
 CONTRACT ID.
 PROJECT NO.
 BRIDGE NO.

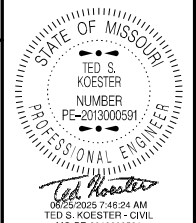
DESCRIPTION	DATE

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION
 MoDOT
 105 WEST CAPITOL
 JEFFERSON CITY, MO 65102
 1-888-ASK-MODOT (1-888-275-6636)

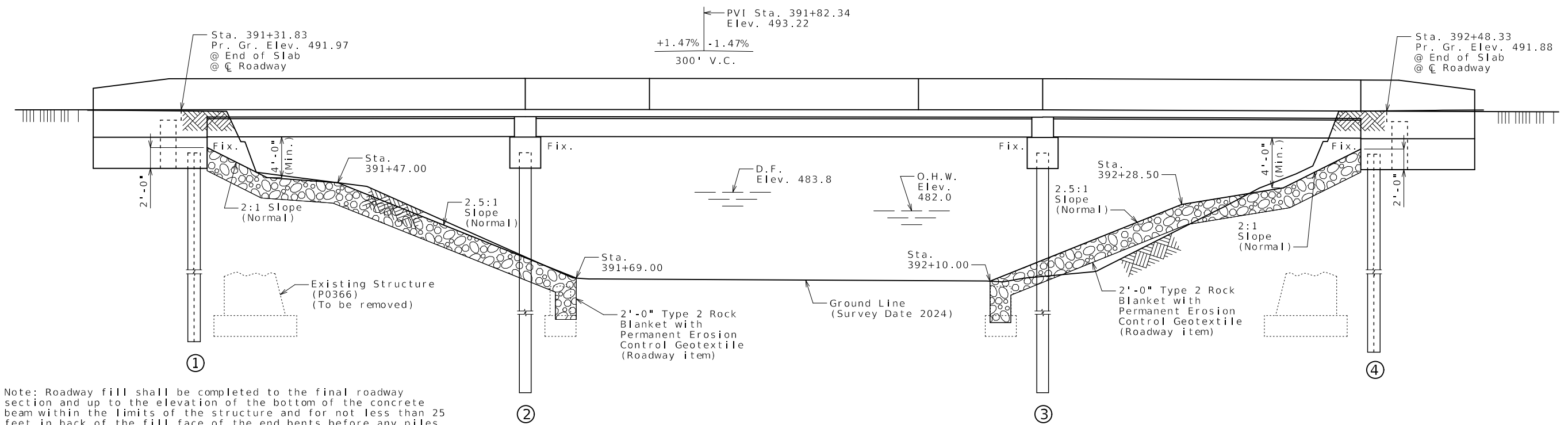
TRAFFIC CONTROL SHEET 3 OF 3

(32' - 50' - 32') PRESTRESSED CONCRETE SPREAD BOX BEAM SPANS

SEC/SUR 16 TWP 52N RGE 1E

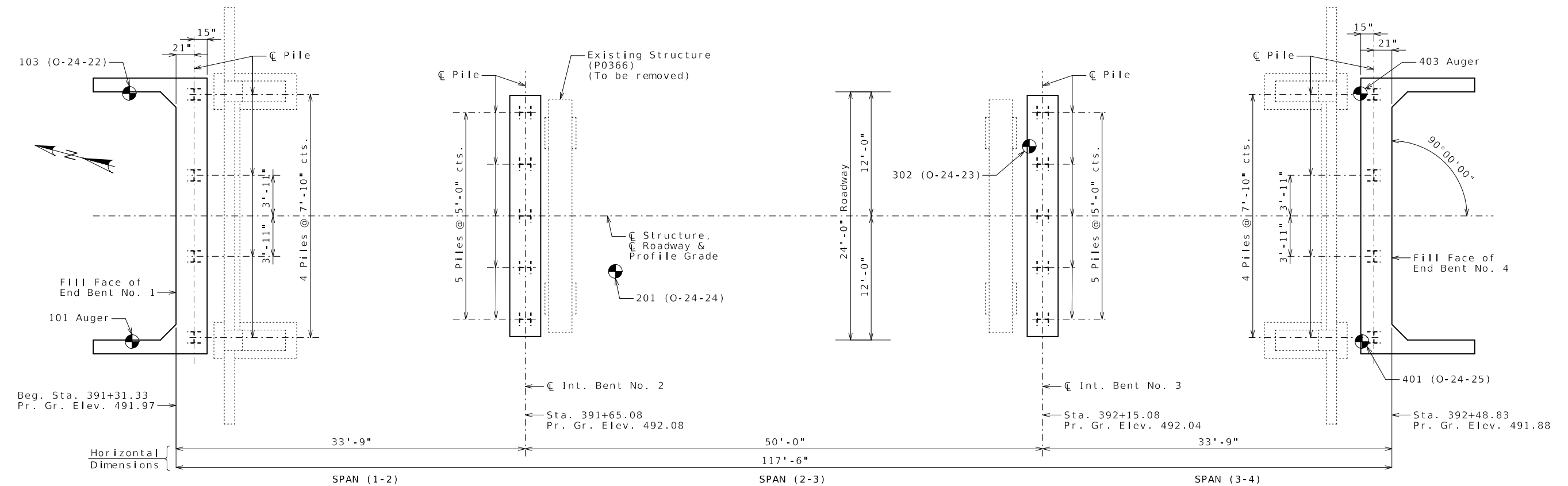


DATE PREPARED 6/25/2025	
ROUTE W	STATE MO
DISTRICT BR	SHEET NO. 1
COUNTY PIKE	
JOB NO. JNE0152	
CONTRACT ID.	
PROJECT NO.	
BRIDGE NO. A9503	



GENERAL ELEVATION

Note: Roadway fill shall be completed to the final roadway section and up to the elevation of the bottom of the concrete beam within the limits of the structure and for not less than 25 feet in back of the fill face of the end bents before any piles are driven for any bents falling within the embankment section.



PLAN

⊕ Indicates approximate location of borings.
For Notice and Disclaimer Regarding Boring Log Data, see Sheet No. 2.

B.M. CONTROL POINT 102; SET 5/8" REBAR;
N: 1251886.544; S: 706077.552; EL: 490.61
BRIDGE: ROUTE W OVER LITTLE RAMSEY CREEK
ROUTE W FROM ROUTE H TO ROUTE WW
ABOUT 0.5 MILES NORTH OF ROUTE H
BEGINNING STATION 391+31.33

Designed Aug. 2024
Detailed Sep. 2024
Checked Dec. 2024

PRESTRESSED
ALTERNATE

DATE	DESCRIPTION

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)

General Notes:

Design Specifications:

2020 AASHTO LRFD Bridge Design Specifications (9th Ed.)
 2023 AASHTO Guide Specifications for LRFD Seismic Bridge Design (3rd Ed.)
 Seismic Design Category = B
 Design earthquake response spectral acceleration coefficient at 1.0 second period, $S_{D1} = 0.227 g$
 Acceleration Coefficient (effective peak ground acceleration coefficient), $A_s = 0.187 g$

Design Loading:

Vehicular = HL-93
 Future Wearing Surface = 35 lb/sf
 Earth = 120 lb/cf
 Equivalent Fluid Pressure = 45 lb/cf (min.)
 Superstructure: Simply-Supported, Non-Composite for dead load.
 Continuous Composite for Live Load.

Design Unit Stresses:

Class B Concrete (Substructure) $f'c = 3,000 \text{ psi}$
 Class B-2 Concrete (Superstructure, except Prestressed Beams and Barrier) $f'c = 4,000 \text{ psi}$
 Class B-1 Concrete (Barrier) $f'c = 4,000 \text{ psi}$
 Reinforcing Steel (ASTM A706 Grade 60) $f_y = 60,000 \text{ psi}$
 Structural Steel HP Pile (ASTM A709 Grade 50S) $f_y = 50,000 \text{ psi}$

For prestressed box beam stresses, see Sheets No. 9 & 10.

Neoprene Pads:

Neoprene bearing pads shall be 60 durometer and shall be in accordance with Sec 716.

Joint Filler:

All joint filler shall be in accordance with Sec 1057 for preformed sponge rubber expansion and partition joint filler, except as noted.

Reinforcing Steel:

Minimum clearance to reinforcing steel shall be 1 1/2", unless otherwise shown.

Traffic Handling:

Structure to be closed during construction. Traffic to be maintained on other routes. See roadway plans for traffic control.

Miscellaneous:

Outline of existing work is indicated by light dashed lines.
 Heavy lines indicate new work.

Hydrologic Data	
Drainage Area	= 9.3 mi ²
Design Flood Frequency	= 50 years
Design Flood Discharge	= 3,800 cfs
Design Flood (D.F.) Elevation	= 483.8
Base Flood (100-year)	
Base Flood Elevation	= 484.2
Base Flood Discharge	= 4,400 cfs
Estimated Backwater	= 0.5 ft
Average Velocity thru Opening	= 9.5 ft/s
Freeboard (50-year)	
Freeboard	= 5.5 ft
Roadway Overtopping	
Overtopping Flood Discharge	= NA
Overtopping Flood Frequency	= >500 years
500-Year Flood Elevation	= 485.7

Estimated Quantities			
Item	Substr.	Superstr.	Total
Class 1 Excavation	cu. yard	60	60
Removal of Bridges (P0366)	lump sum		1
Bridge Approach Slab (Minor)	sq. yard	109	109
Galvanized Structural Steel Piles (14 in.)	linear foot	520	520
Pre-Bore for Piling	linear foot	160	160
Pile Point Reinforcement	each	18	18
Class B Concrete (Substructure)	cu. yard	39.2	39.2
Type D Barrier	linear foot		267
Slab on Concrete Beam	sq. yard	345	345
21 in., Prestressed Concrete Spread Box Beam	linear foot	340	340
Reinforcing Steel (Bridges)	pound	2280	2280
Slab Drain	each	10	10
Vertical Drain at End Bents	each		2
Plain Neoprene Bearing Pad	each	6	6
Laminated Neoprene Bearing Pad	each	12	12

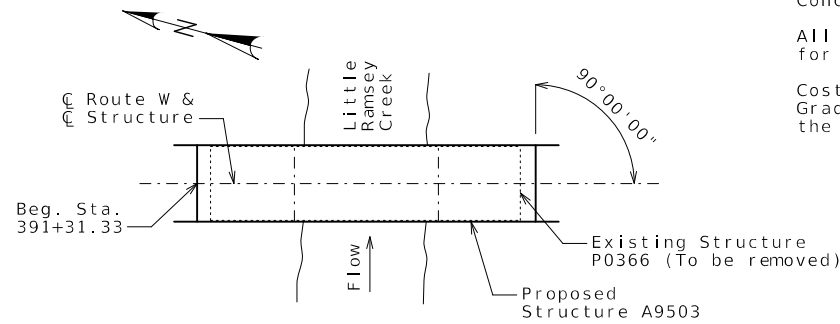
All concrete above the construction joint in the end bents is included with the Estimated Quantities for Slab on Concrete Beam.

All reinforcing steel in the end bents is included in the Estimated Quantities for Slab on Concrete Beam.

All reinforcement in the intermediate bent concrete diaphragms except reinforcement embedded in the beam cap is included in the Estimated Quantities for Slab on Concrete Beam.

All concrete above the intermediate beam cap is included in the Estimated Quantities for Slab on Concrete Beam.

Cost of L4x4 ASTM A709 Grade 36 HP pile anchors and 3/4-inch diameter ASTM F3125 Grade A325 Type 1 bolts, complete in place, will be considered completely covered by the contract unit price for Galvanized Structural Steel Piles (14 in.).



LOCATION SKETCH

Estimated Quantities for Slab on Concrete Beam		
Item		Total
Class B-2 Concrete	cu. yard	108
Reinforcing Steel (Galvanized)	pound	30,170

The table of Estimated Quantities for Slab on Concrete Beam represents the quantities used by the State in preparing the cost estimate for concrete slabs. The area of the concrete slab will be measured to the nearest square yard longitudinally from end of slab to end of slab and transversely from out to out of bridge slab (or with the horizontal dimensions as shown on the plan of slab). Payment for stay-in-place corrugated steel forms, conventional forms, all concrete and galvanized reinforcing steel will be considered completely covered by the contract unit price for the slab. Variations may be encountered in the estimated quantities but the variations cannot be used for an adjustment in the contract unit price.

Method of forming the slab shall be as shown on the plans and in accordance with Sec 703. All hardware for forming the slab to be left in place as a permanent part of the structure shall be coated in accordance with ASTM A123 or ASTM B633 with a thickness class SC 4 and a finish type I, II or III.

Slab shall be cast-in-place with conventional forms or stay-in-place corrugated steel forms. Precast prestressed panels will not be permitted.

Bridge deck surface may be finished with a vibratory screed.

Foundation Data					
Type	Design Data	Bent Number			
		1	2	3	4
Load Bearing Pile	Pile Type and Size	HP 14x73	HP 14x73	HP 14x73	HP 14x73
	Number	ea 4	5	5	4
	Approximate Length Per Each	ft 25	34	34	20
	Pile Point Reinforcement	ea 4	5	5	4
	Min. Galvanized Penetration (Elev.)	ft Full length	Full length	Full length	Full length
	Pile Driving Verification Method	DF	DF	DF	DF
	Resistance Factor	0.40	0.40	0.40	0.40
	Minimum Nominal Axial Compressive Resistance	kip 320	399	399	320

DF = FHWA-modified Gates Dynamic Pile Formula

Minimum Nominal Axial Compressive Resistance = $\frac{\text{Maximum Factored Loads}}{\text{Resistance Factor}}$

Pre-bore for piles at Bents No. 2 and 3 to elevation 460.7.

All piles shall be galvanized down to the minimum galvanized penetration (elevation).

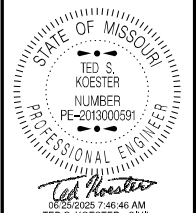
Pile point reinforcement need not be galvanized. Shop drawings will not be required for pile point reinforcement.

The contractor shall make every effort to achieve the minimum galvanized penetration (elevation) shown on the plans for all piles. Deviations in penetration less than 5 feet of the minimum will be considered acceptable provided the contractor makes the necessary corrections to ensure the minimum penetration is achieved on subsequent piles.

Notice and Disclaimer Regarding Boring Log Data

The locations of all subsurface borings for this structure are shown on the plan sheet(s) for this structure. The boring data for all locations indicated, as well as any other boring logs or other factual records of subsurface data and investigations performed by the department for the design of the project, are shown on Sheet No. 22 and may be included in the Electronic Bridge Deliverables. They will also be available from the Project Contact upon written request. No greater significance or weight should be given to the boring data depicted on the plan sheets than is given to the subsurface data available from the district or elsewhere.

The Commission does not represent or warrant that any such boring data accurately depicts the conditions to be encountered in constructing this project. A contractor assumes all risks it may encounter in basing its bid prices, time or schedule of performance on the boring data depicted here or those available from the district, or on any other documentation not expressly warranted, which the contractor may obtain from the Commission.

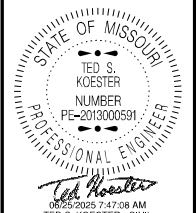


DATE PREPARED
 6/25/2025
 ROUTE STATE
 W MO
 DISTRICT SHEET NO.
 BR 2
 COUNTY
 PIKE
 JOB NO.
 JNE0152
 CONTRACT ID.
 PROJECT NO.
 BRIDGE NO.
 A9503

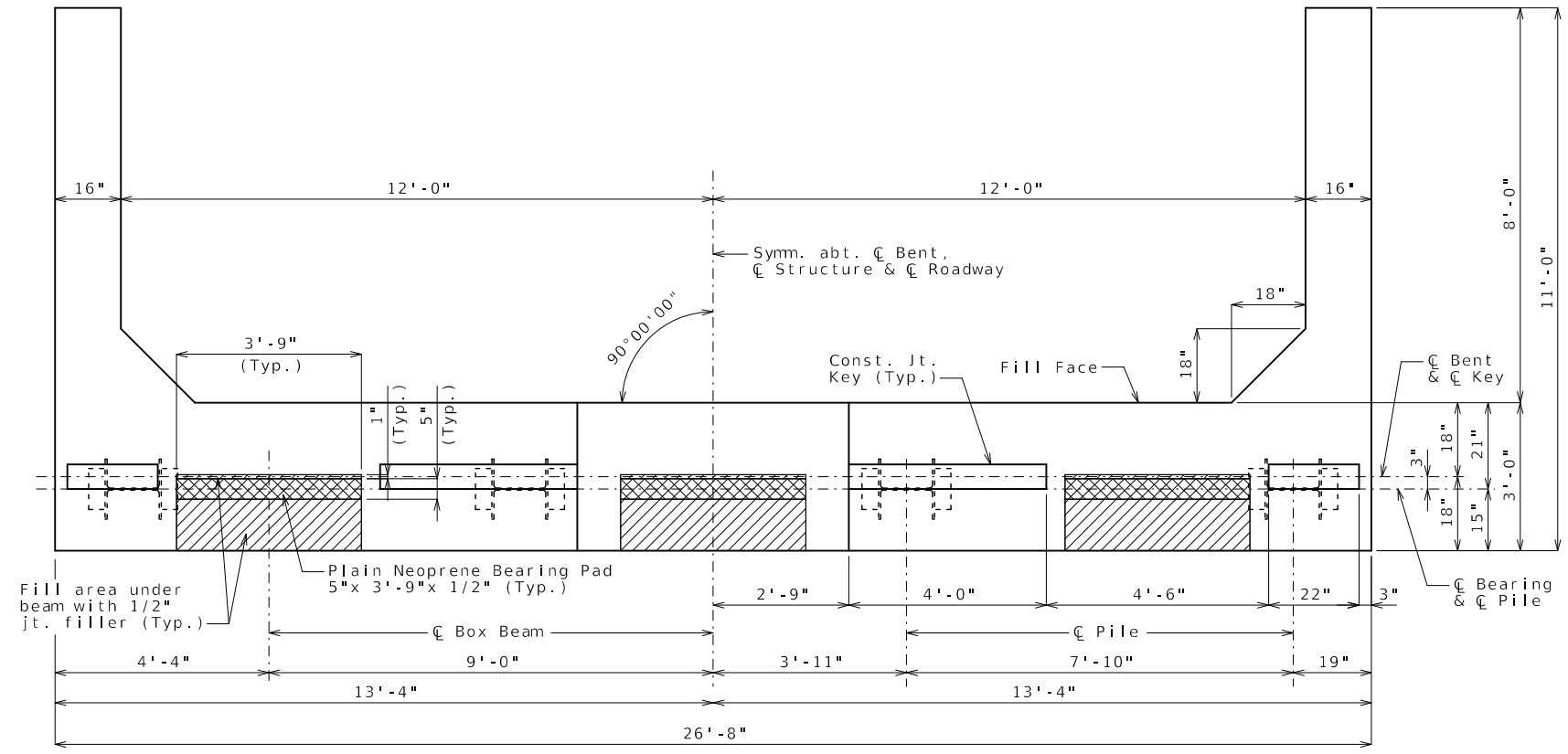
DESCRIPTION	DATE

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

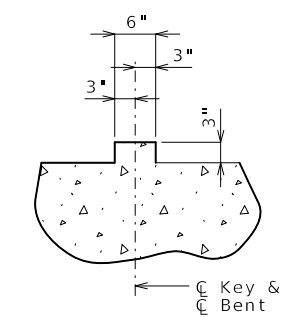
105 WEST CAPITOL
 JEFFERSON CITY, MO 65102
 1-888-ASK-MODOT (1-888-275-6636)



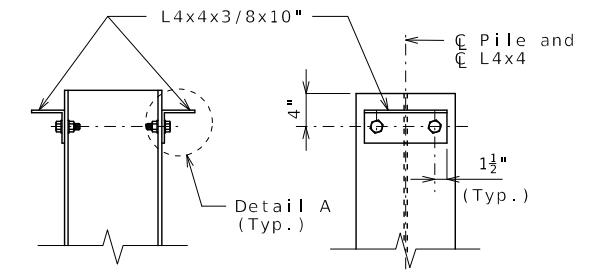
STATE OF MISSOURI
TED S. KOESTER
 NUMBER
 PE-2013000591
 PROFESSIONAL ENGINEER
 Ted Koester
 06/25/2025 7:47:08 AM
 TED S. KOESTER - CIVIL
 MO-PE-2013000591
 DATE PREPARED
6/25/2025
 ROUTE STATE
W MO
 DISTRICT SHEET NO.
BR 3
 COUNTY
PIKE
 JOB NO.
JNE0152
 CONTRACT ID.
 PROJECT NO.
 BRIDGE NO.
A9503



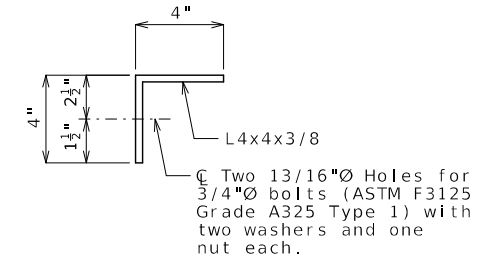
PLAN OF BEAM



SECTION THRU KEY



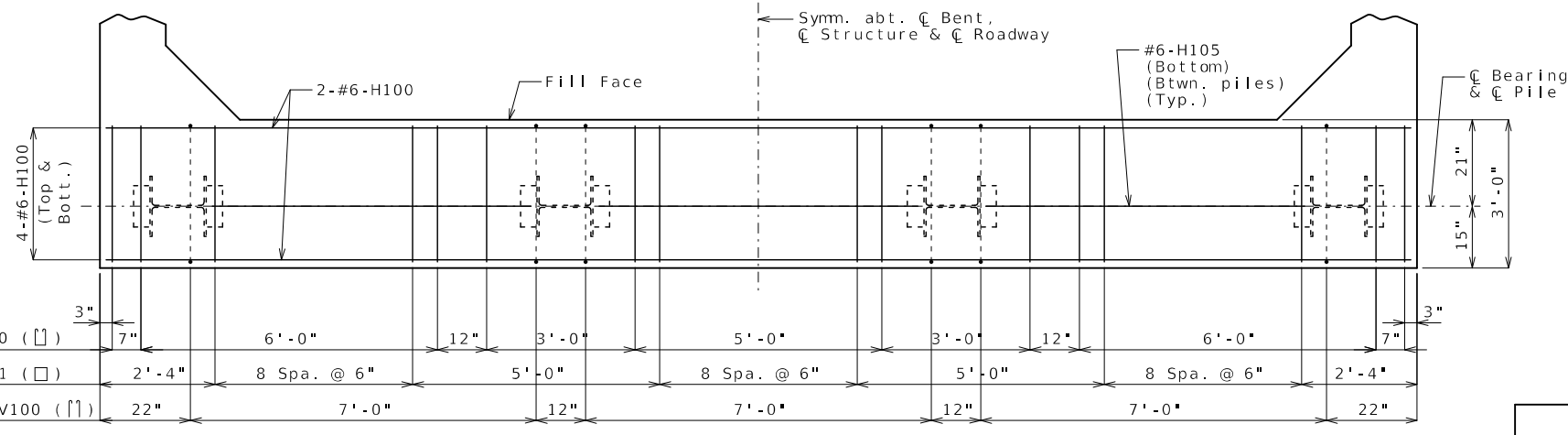
DETAILS OF HP PILE ANCHORS



DETAIL A

Angles shall be coated with a minimum of two coats of non-aluminum epoxy mastic primer to provide a dry film thickness of 4 mils minimum, 8 mils maximum, or galvanized in accordance with Sec 1081. Bolts, washers and nuts shall be galvanized in accordance with AASHTO M 232 (ASTM A153), Class C.

Notes:
 Work this sheet with Sheets No. 4 & 5.
 Reinforcement shall be shifted to clear piles. U bars shall clear piles by at least 1 1/2 inches.



PLAN OF BEAM SHOWING REINFORCEMENT

Keys and steps not shown for clarity.

Substructure Quantity Table			
Item		End Bent No. 1	End Bent No. 4
Class 1 Excavation	cu. yard	30	30
Galvanized Structural Steel Piles (14 in.)	linear foot	100	80
Pile Point Reinforcement	each	4	4
Class B Concrete (Substructure)	cu. yard	11.7	11.7

These quantities are included in the Estimated Quantities table on Sheet No. 2.

END BENTS NO. 1 & 4

Detailed Sep. 2024
 Checked Dec. 2024

Note: This drawing is not to scale. Follow dimensions.

Sheet No. 3 of 22

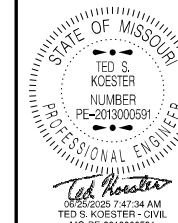
PRESTRESSED ALTERNATE

DESCRIPTION

DATE

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION





DATE PREPARED
6/25/2025

ROUTE W STATE MO

DISTRICT BR SHEET NO. 4

COUNTY PIKE

JOB NO. JNE0152

CONTRACT ID.

PROJECT NO.

BRIDGE NO. A9503

DESCRIPTION

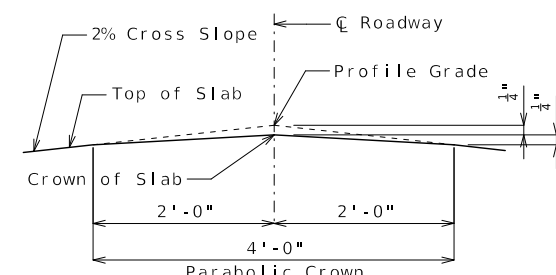
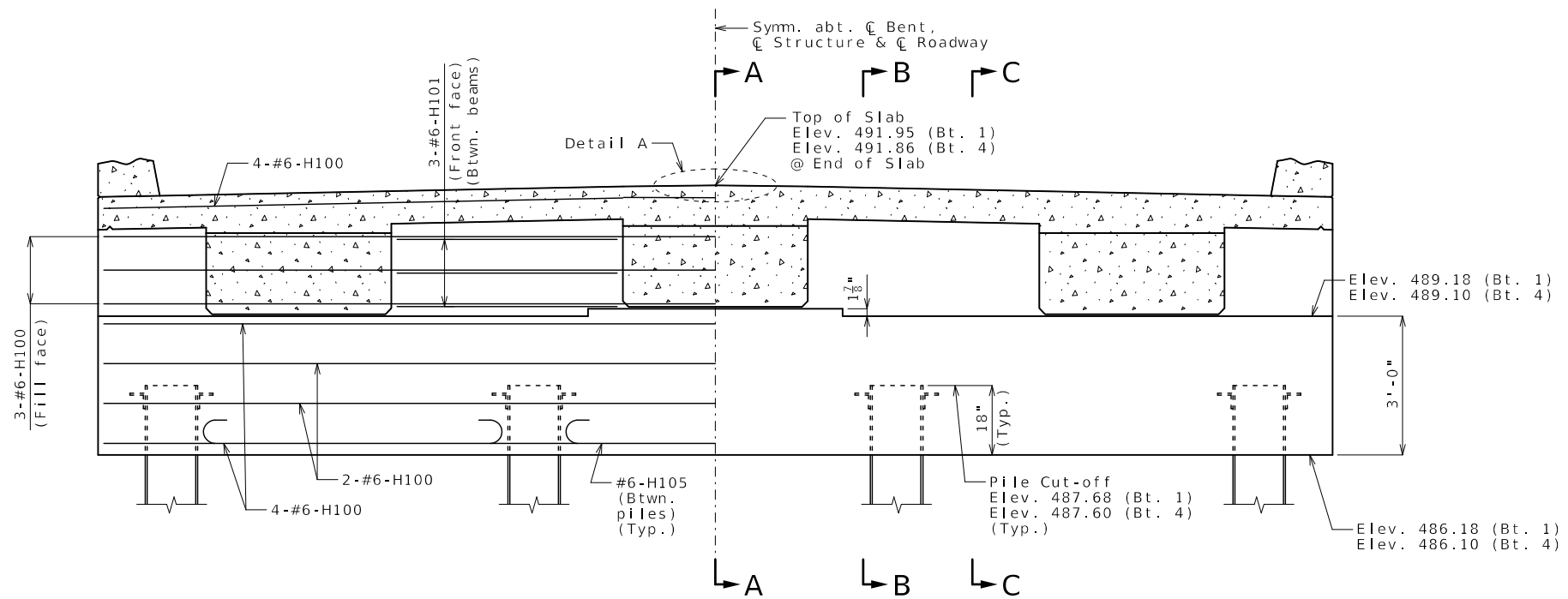
DATE

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

105 WEST CAPITOL JEFFERSON CITY, MO 65102

1-888-ASK-MODOT (1-888-273-6636)

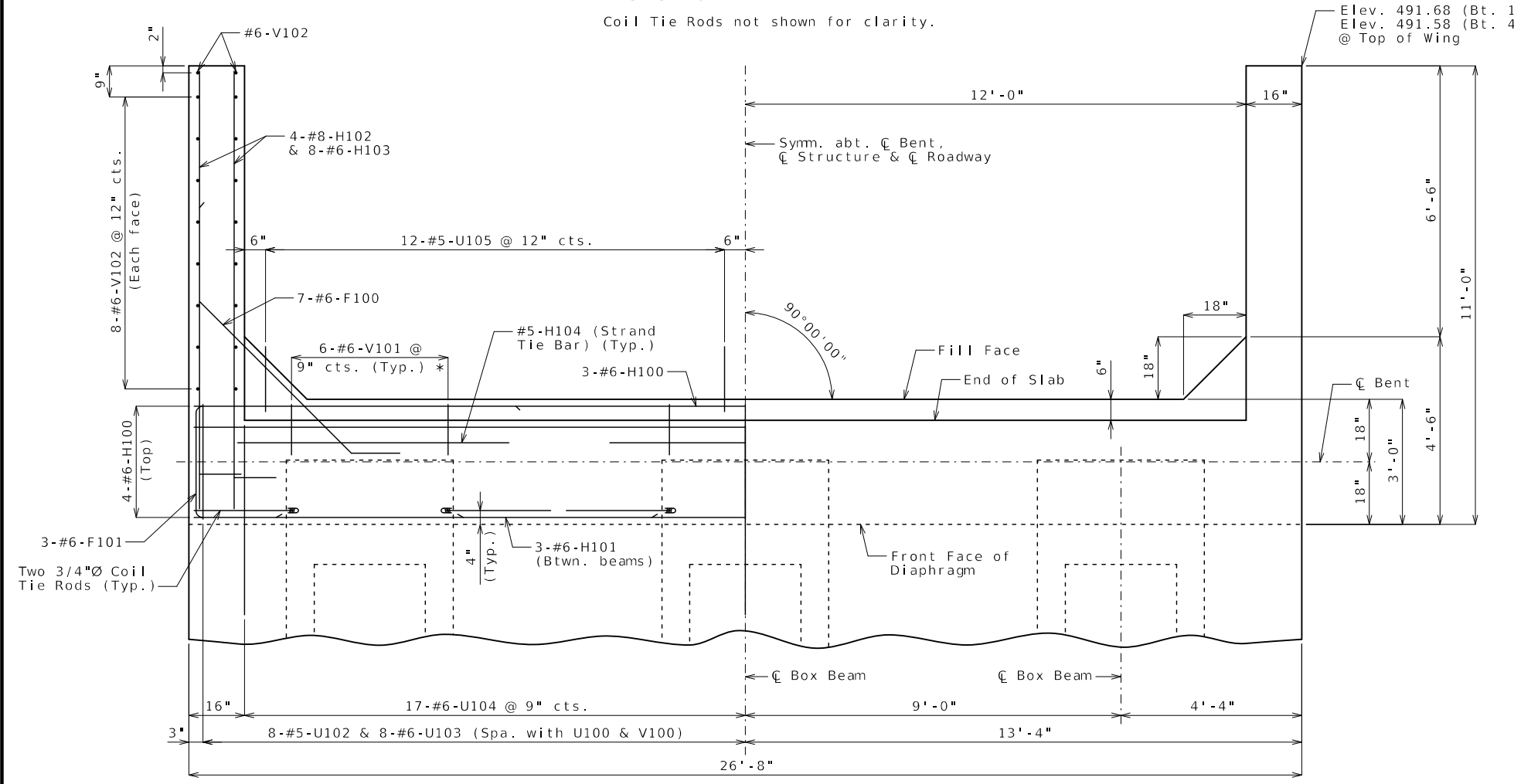
MoDOT



DETAIL A

SECTION NEAR END BENT

Coil Tie Rods not shown for clarity.



PART PLAN

* Centered behind beam

Notes:

Work this sheet with Sheets No. 3 & 5.

Strands at ends of beams shall be field bent or, if necessary, cut in field to maintain 1 1/2 inches minimum clearance to fill face of end bent.

For location of coil tie rods and #5-H104 (Strand Tie Bar), see Sheet No. 9.

All concrete in the end bent above top of beam and below top of slab shall be Class B-2.

For details of vertical drain at end bent, see Sheet No. 6.

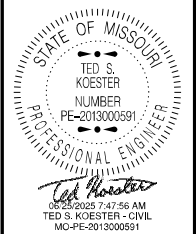
END BENTS NO. 1 & 4

Detailed Sep. 2024
Checked Dec. 2024

Note: This drawing is not to scale. Follow dimensions.

Sheet No. 4 of 22

PRESTRESSED ALTERNATE



DATE PREPARED
6/25/2025

ROUTE STATE
W MO

DISTRICT SHEET NO.
BR 5

COUNTY
PIKE

JOB NO.
JNE0152

CONTRACT ID.

PROJECT NO.

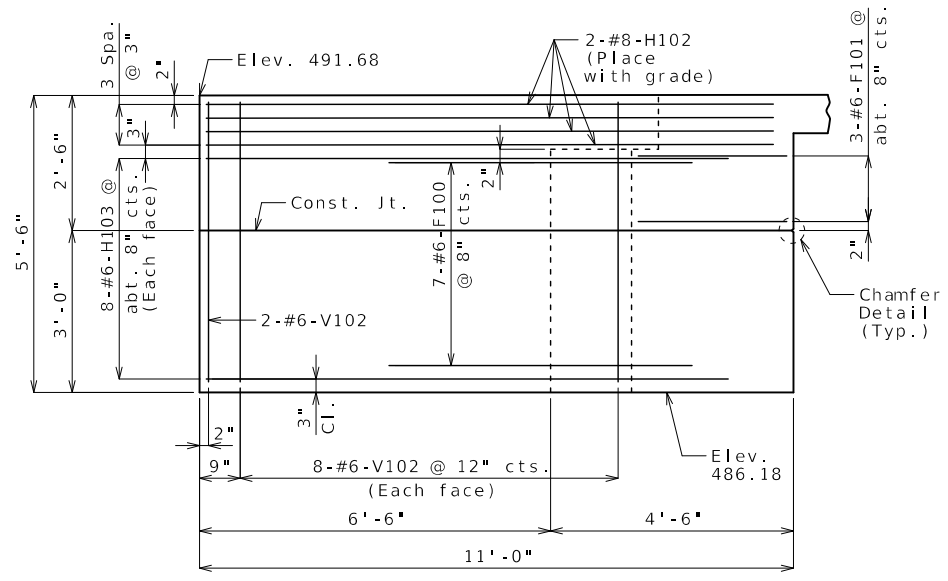
BRIDGE NO.
A9503

DESCRIPTION	DATE

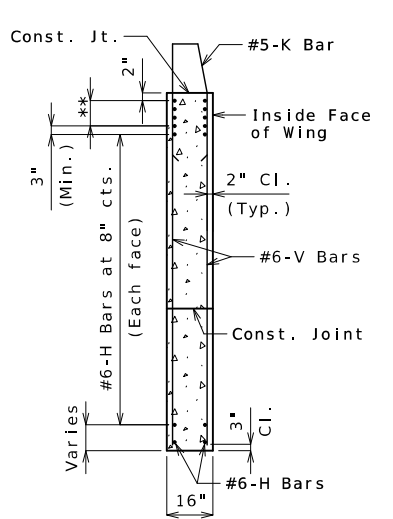
MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

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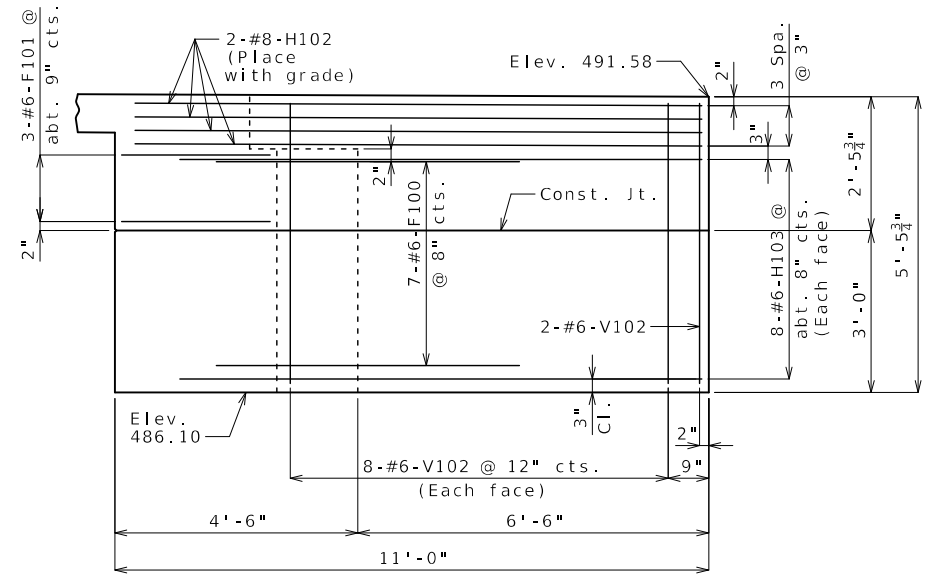
105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)



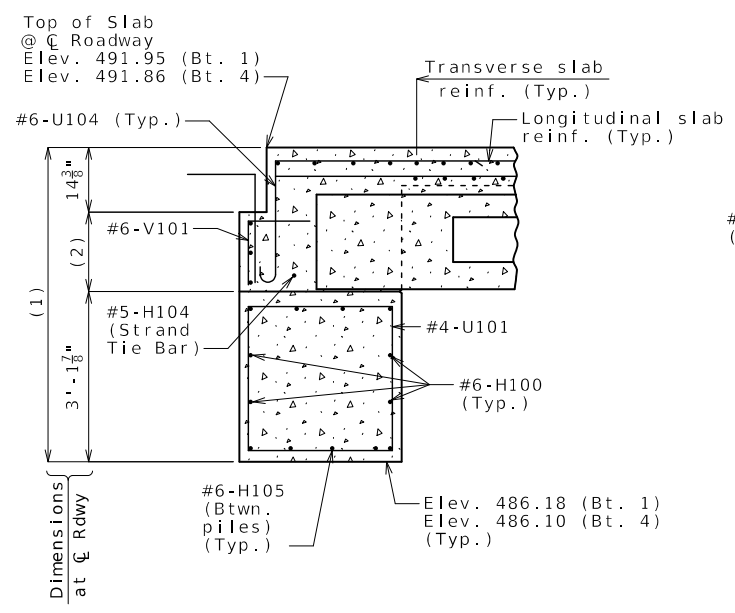
TYPICAL ELEVATION OF WING
END BENT NO. 1
Left wing shown, right wing similar.



TYPICAL SECTION
THRU WING
** #8-H Bars at 3" cts.
(Each face) (Place with grade)

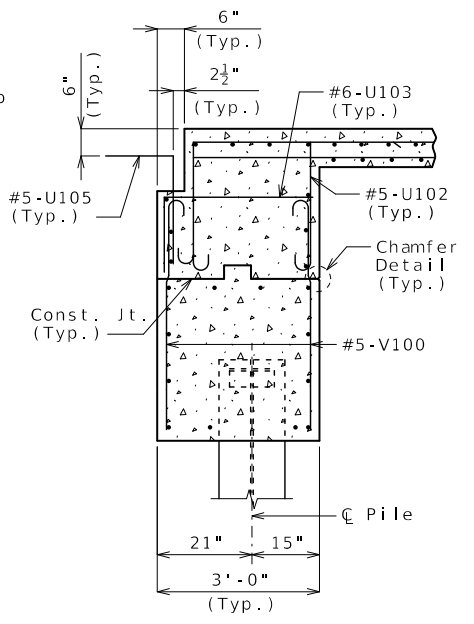


TYPICAL ELEVATION OF WING
END BENT NO. 4
Right wing shown, left wing similar.

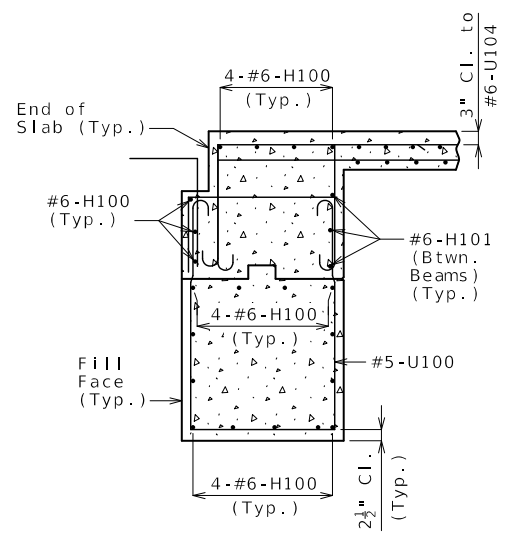


SECTION A-A

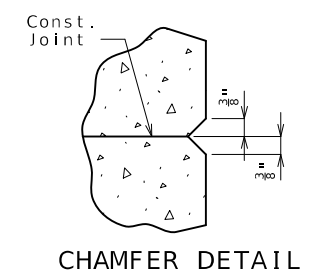
- (1) 5'-9 1/4" (Bt. 1)
5'-9 1/8" (Bt. 4)
- (2) 17" (Bt. 1)
16 7/8" (Bt. 4)



SECTION B-B



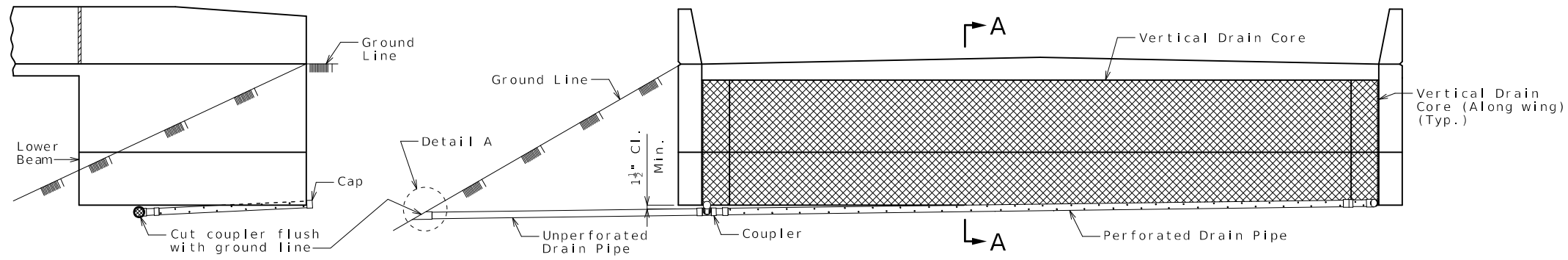
SECTION C-C



CHAMFER DETAIL

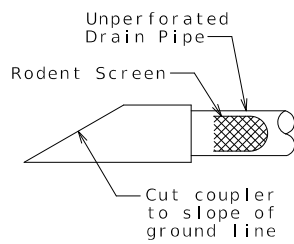
Note:
Work this sheet with Sheets No. 3 & 4.
For reinforcement in the barrier, see Sheet No. 17.

END BENTS NO. 1 & 4

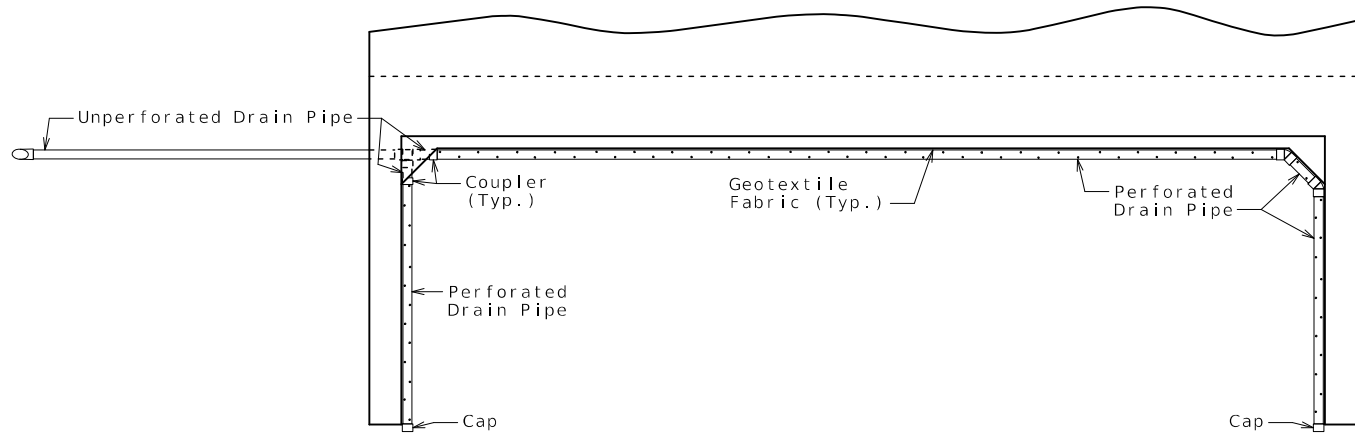


ELEVATION OF WING

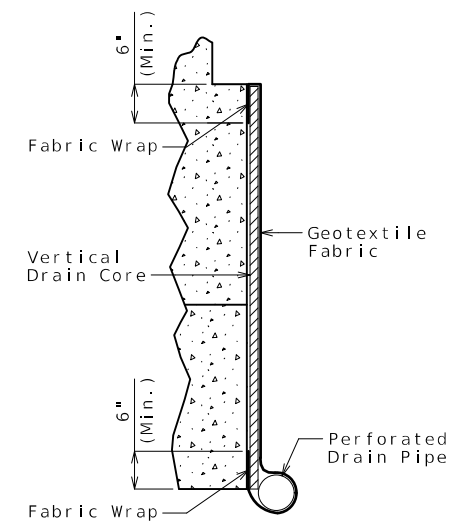
ELEVATION OF END BENT



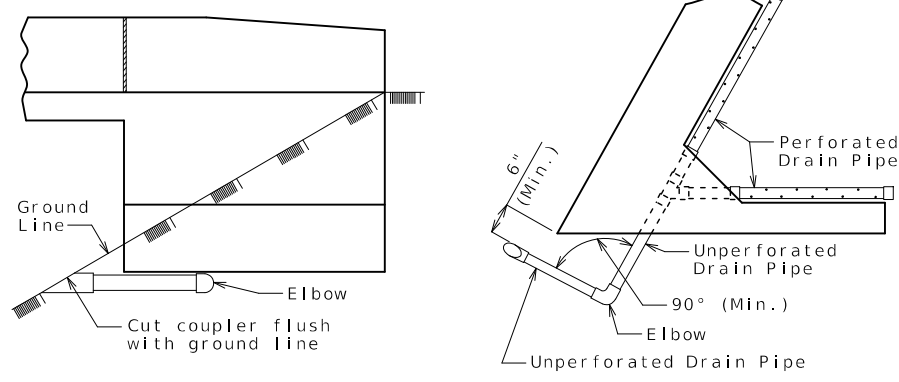
DETAIL A



PLAN OF END BENT



PART SECTION A-A
(Section thru wing similar)



ELEVATION OF WING

PART PLAN

OPTIONAL TURNED DRAIN

(Use only when straight drain is not practical.)

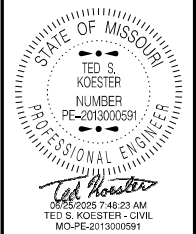
General Notes:

All drain pipe shall be sloped 1 to 2 percent.

Drain pipe may be either 6-inch diameter corrugated metallic-coated steel pipe underdrain, 4-inch diameter corrugated polyvinyl chloride (PVC) drain pipe, or 4-inch diameter corrugated polyethylene (PE) drain pipe.

Drain pipe shall be placed at fill face of end bent and inside face of wings. The pipe shall slope to lowest grade of ground line, also missing the lower beam of end bent by a minimum of 1 1/2 inches.

Perforated pipe shall be placed at fill face side and inside face of wings at the bottom of end bent and plain pipe shall be used where the vertical drain ends to the exit at ground line.



DATE PREPARED
6/25/2025

ROUTE W STATE MO

DISTRICT BR SHEET NO. 6

COUNTY
PIKE

JOB NO.
JNE0152

CONTRACT ID.

PROJECT NO.

BRIDGE NO.
A9503

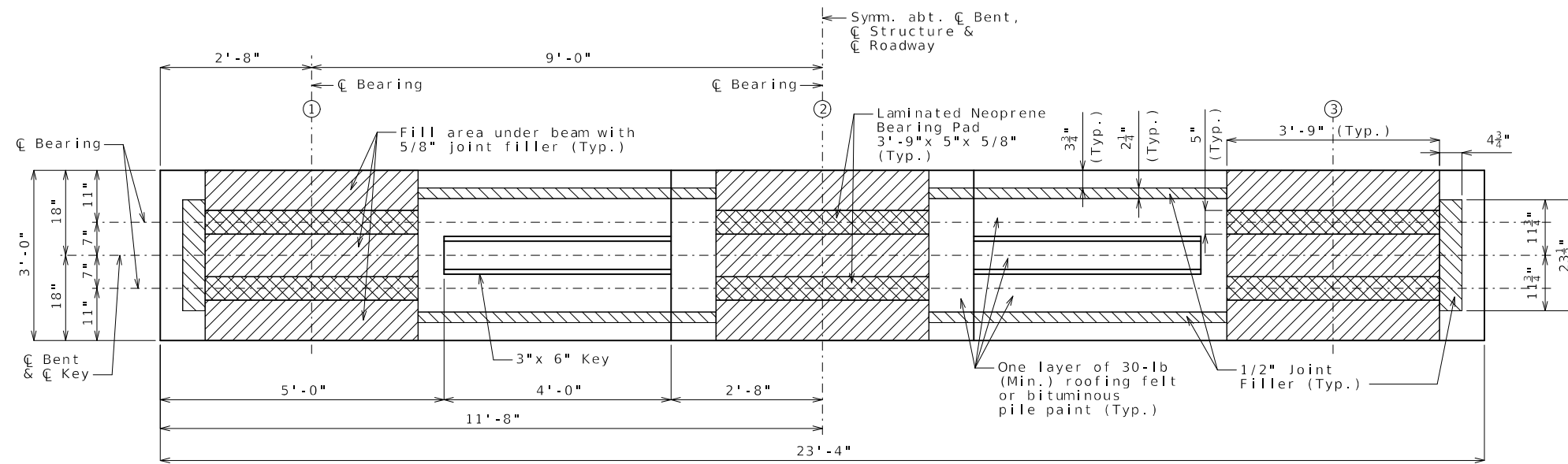
DATE	DESCRIPTION

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

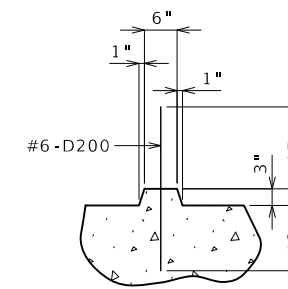
MoDOT

105 WEST CAPITOL
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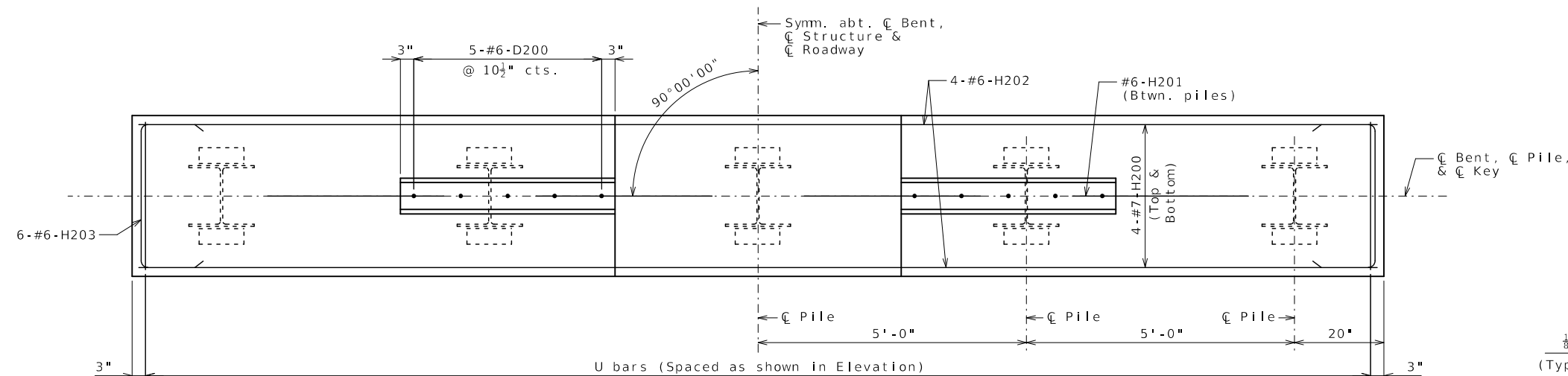
VERTICAL DRAIN AT END BENTS



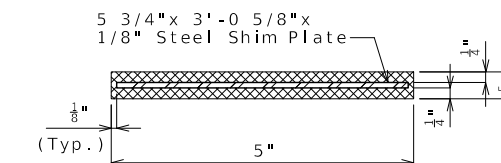
PLAN OF BEAM



SECTION THRU KEY



PLAN OF BEAM SHOWING REINFORCEMENT



TYPICAL SECTION THRU LAMINATED NEOPRENE BEARING PAD

Notes:

Work this sheet with Sheet No. 8.

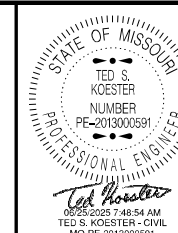
For steps 2 inches or more, use 2 1/4" x 1/2" joint filler up vertical face.

Substructure Quantity Table

Item	Unit	Int. Bent No. 2	Int. Bent No. 3
Galvanized Structural Steel Piles (14 in.)	linear foot	170	170
Pre-Bore for Piling	linear foot	85	75
Pile Point Reinforcement	each	5	5
Class B Concrete (Substructure)	cu. yard	7.9	7.9
Reinforcing Steel (Bridges)	pound	1140	1140

These quantities are included in the Estimated Quantities table on Sheet No. 2.

INTERMEDIATE BENTS NO. 2 & 3



DATE PREPARED
6/25/2025

ROUTE W STATE MO

DISTRICT BR SHEET NO. 7

COUNTY PIKE

JOB NO. JNE0152

CONTRACT ID.

PROJECT NO.

BRIDGE NO. A9503

DESCRIPTION

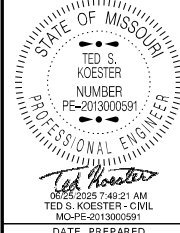
DATE

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

105 WEST CAPITOL JEFFERSON CITY, MO 65102

1-888-ASK-MODOT (1-888-275-6636)

MoDOT



DATE PREPARED
6/25/2025

ROUTE W STATE MO
DISTRICT BR SHEET NO. 8

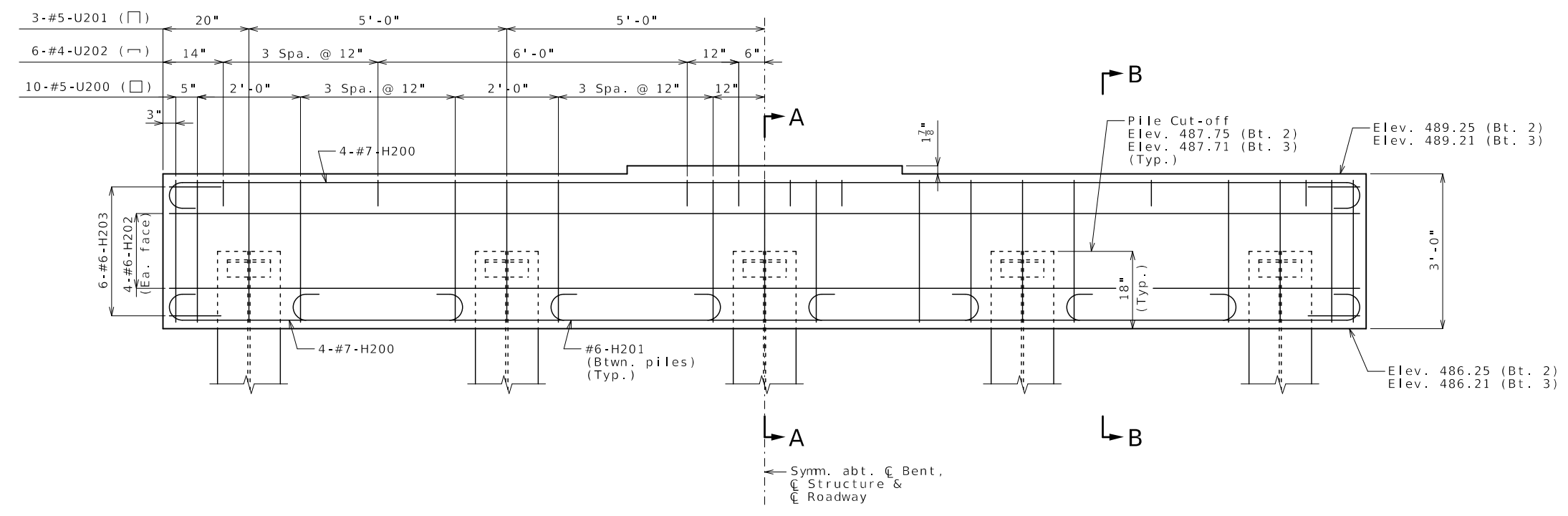
COUNTY PIKE
JOB NO. JNE0152
CONTRACT ID.

PROJECT NO.
BRIDGE NO. A9503

DESCRIPTION	DATE

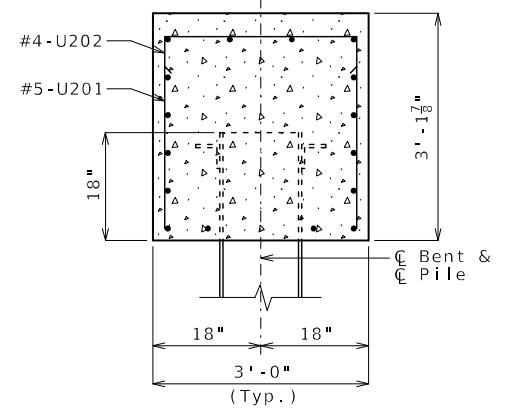
MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)

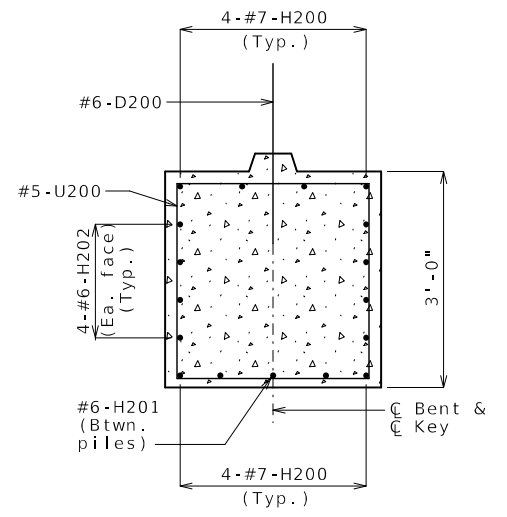


ELEVATION

Beam keys not shown for clarity.



SECTION A-A



SECTION B-B

Notes:
Work this sheet with Sheet No. 7.
Reinforcing steel shall be shifted to clear piles.
U bars shall clear piles by at least 1 1/2 inches.

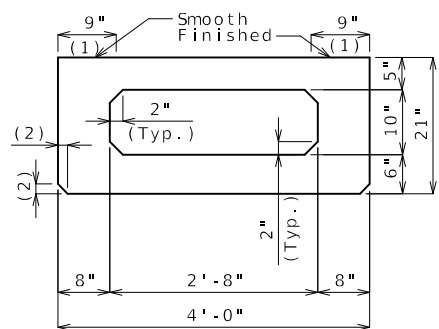
INTERMEDIATE BENTS NO. 2 & 3

Detailed Sep. 2024
Checked Dec. 2024

Note: This drawing is not to scale. Follow dimensions.

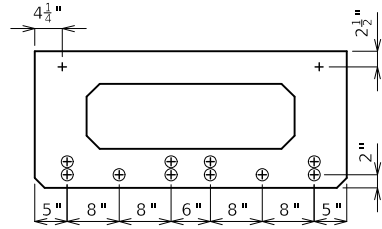
Sheet No. 8 of 22

PRESTRESSED ALTERNATE



DIMENSIONS

- (1) Fabricator shall apply a bond breaker to this region.
- (2) 1 1/2" (Typ.) (3/4" Optional)

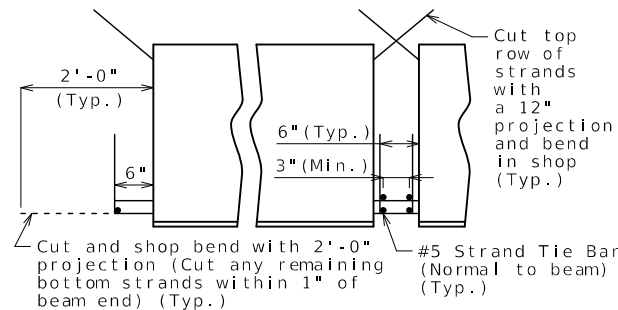


STRAND ARRANGEMENT

All strands are fully bonded unless otherwise noted.

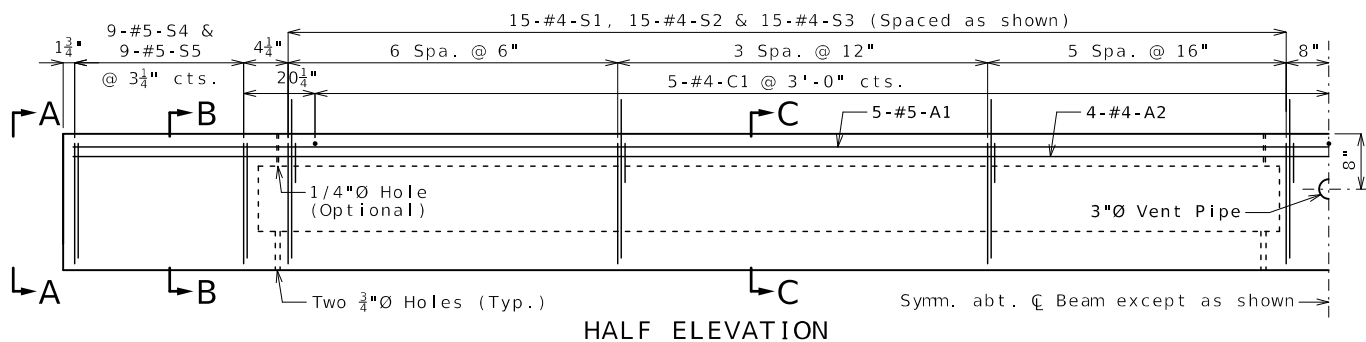
+ Indicates prestressing strand.

o Indicates cut and shop bend with 2'-0" projection.

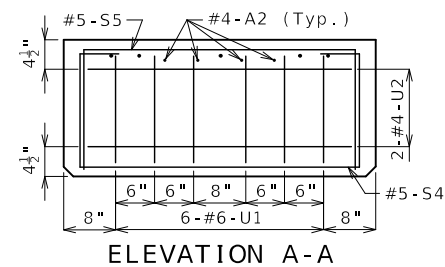


STRANDS AT BEAM ENDS

BILL OF REINFORCING STEEL - EACH BEAM									
NO.	SIZE & MARK	ACTUAL LENGTH	SHAPE	BENDING DIAGRAM					
10	5 A1	31'-10"	20						
8	4 A2	31'-10"	20						
9	4 C1	3'-7"	20						
30	4 S1	7'-0"	10S						
30	4 S2	6'-10"	51S						
30	4 S3	4'-6"	50S						
18	5 S4	7'-3"	10S						
18	5 S5	6'-4"	10S						
12	6 U1	4'-7"	10S						
4	4 U2	7'-4"	10S						

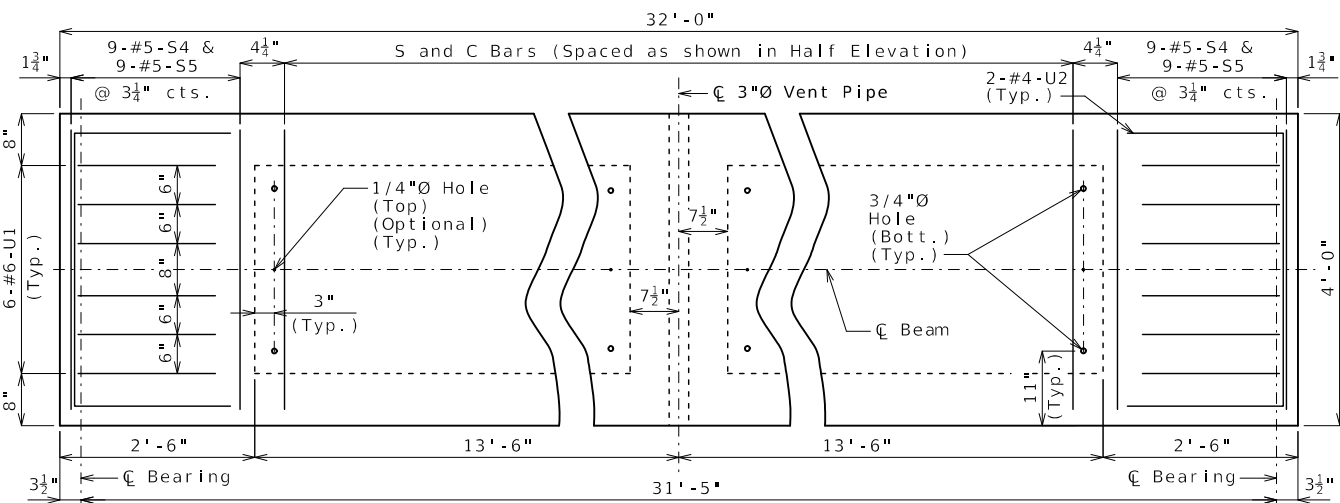


HALF ELEVATION

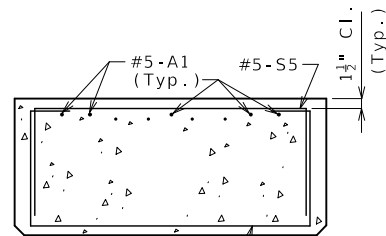


ELEVATION A-A

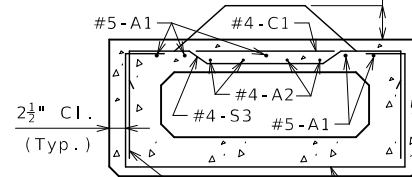
Strands not shown for clarity.



PART PLAN

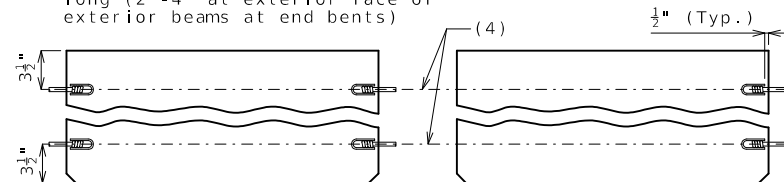


SECTION B-B

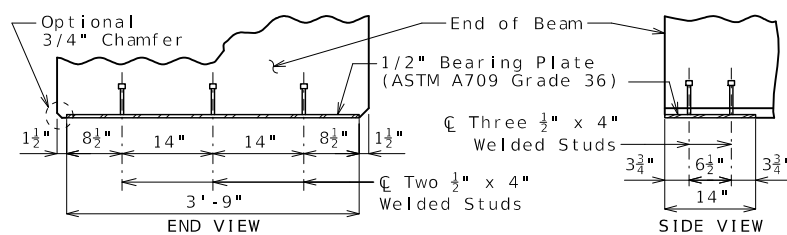


SECTION C-C

(4) 3/4" (Min.) Coil Tie Rods 2'-6" long (2'-4" at exterior face of exterior beams at end bents)



COIL TIES



BEARING PLATE

SPREAD BOX BEAMS - SPANS (1-2) AND (3-4)

Note: This drawing is not to scale. Follow dimensions.

Sheet No. 9 of 22

All dimensions are out to out. Use symmetry for dimensions not shown.

Hooks and bends shall be in accordance with the CRSI Manual of Standard Practice for Detailing Reinforced Concrete Structures, Stirrup and Tie Dimensions.

Actual lengths are measured along centerline of bar to the nearest inch.

Minimum clearance to reinforcing shall be one inch, unless otherwise shown.

All reinforcement shall be Grade 60.
All S2 bars shall be epoxy coated.

General Notes:

Concrete for prestressed beams shall be Class A-1 with f'c = 8,000 psi and f'ci = 6,500 psi.

Use 12 strands, 0.6"Ø Grade 270, with an initial prestress force of 527 kips.

Pretensioned members shall be in accordance with Sec 1029.

Fabricator shall be responsible for location and design of lifting devices.

Exterior and interior beams are the same except: coil ties, coil inserts for slab drains.

For Beam Camber Diagram, see Sheet No. 13.

For location of coil inserts at slab drains, see Sheet No. 12.

For location of coil ties at concrete bent diaphragms, see Sheets No. 4 and 11.



DATE PREPARED
6/25/2025

ROUTE STATE
W MO

DISTRICT SHEET NO.
BR 9

COUNTY
PIKE

JOB NO.
JNE0152

CONTRACT ID.

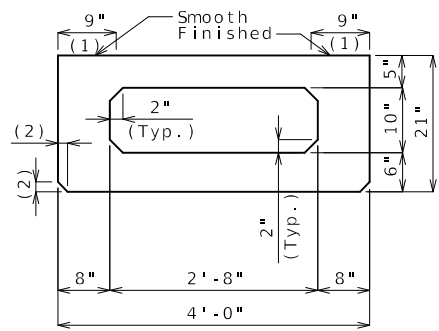
PROJECT NO.

BRIDGE NO.
A9503

DATE	DESCRIPTION

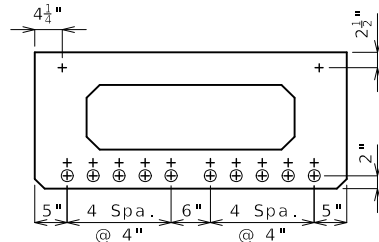
MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

105 WEST CAPITOL JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)



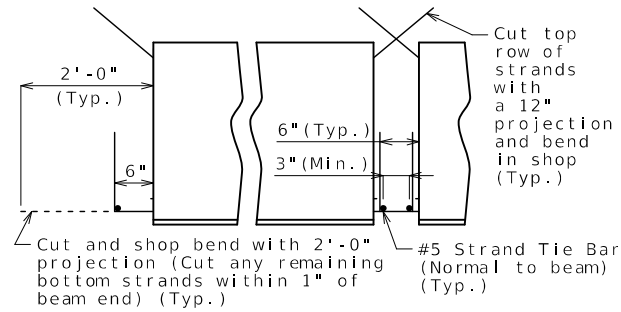
DIMENSIONS

- (1) Fabricator shall apply a bond breaker to this region.
- (2) 1 1/2" (Typ.) (3/4" Optional)



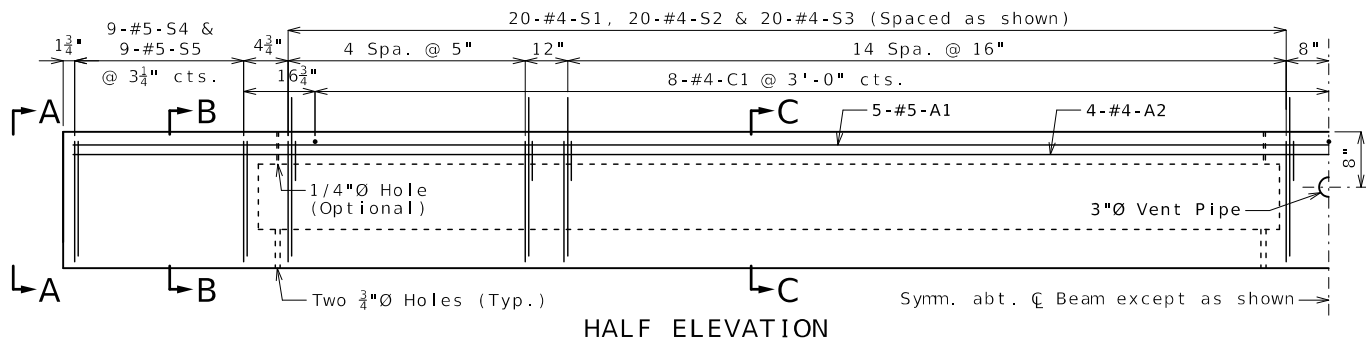
STRAND ARRANGEMENT

All strands are fully bonded unless otherwise noted.
 + Indicates prestressing strand.
 O Indicates cut and shop bend with 2'-0" projection.

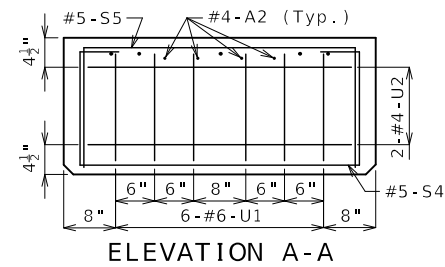


STRANDS AT BEAM ENDS

BILL OF REINFORCING STEEL - EACH BEAM				BENDING DIAGRAM	
NO.	SIZE & MARK	ACTUAL LENGTH	SHAPE		
10	5 A1	49'-3"	20	3'-7" (S1, S4)	
8	4 A2	49'-3"	20	3'-7" (S5)	
15	4 C1	3'-7"	20	18 1/2" (#4) 18 1/2" (#5)	
40	4 S1	7'-0"	10S	21" 17"	
40	4 S2	6'-10"	51S	3'-5 1/2" 2'-0" (U1) (U2)	
40	4 S3	4'-6"	50S	SHAPE 10S	
18	5 S4	7'-3"	10S	SHAPE 20	
18	5 S5	6'-4"	10S		
12	6 U1	4'-7"	10S	10" 2 1/2" 18" 2 1/2"	
4	4 U2	7'-4"	10S	SHAPE 50S	
				SHAPE 51S	

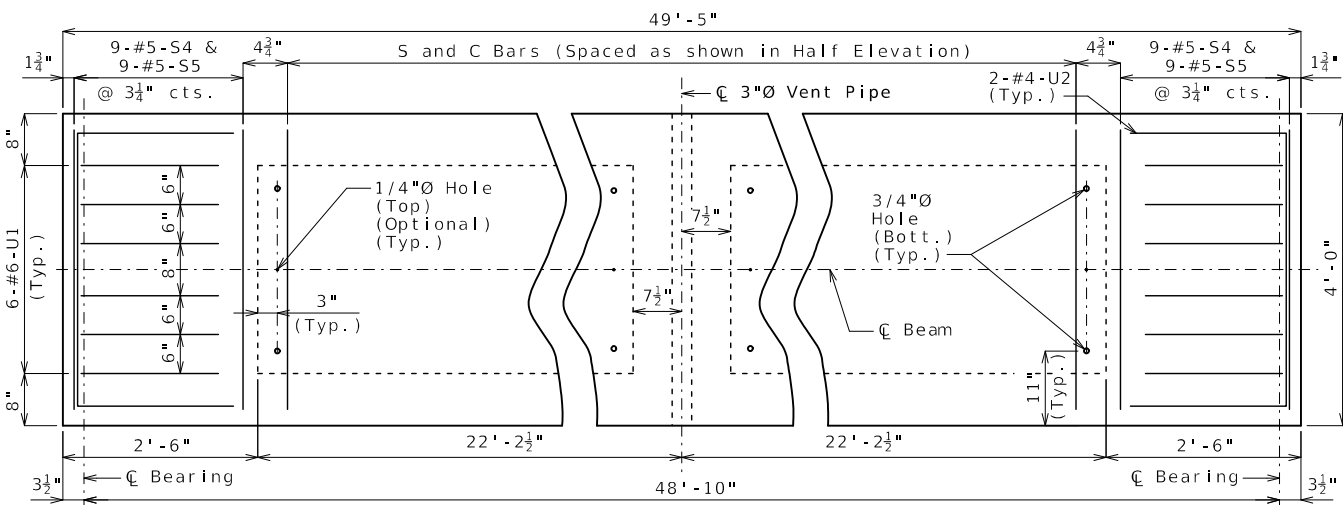


HALF ELEVATION

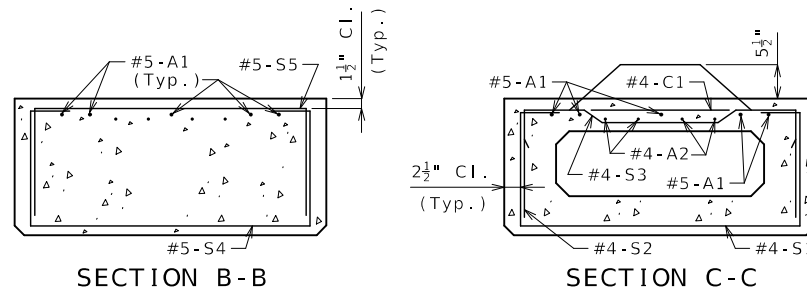


ELEVATION A-A

Strands not shown for clarity.

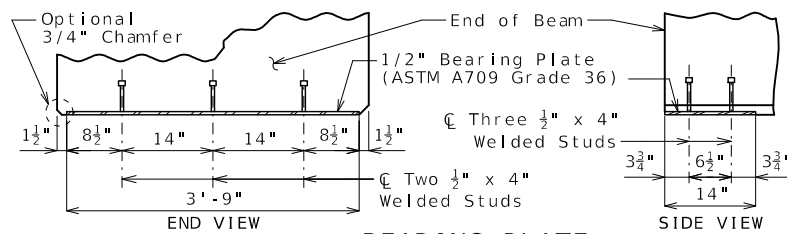


PART PLAN

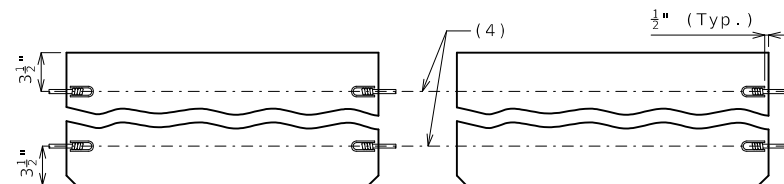


SECTION B-B

SECTION C-C



BEARING PLATE



COIL TIES

(4) @ 3/4"Ø (Min.) Coil Tie Rods 2'-6" Long

All dimensions are out to out. Use symmetry for dimensions not shown.

Hooks and bends shall be in accordance with the CRSI Manual of Standard Practice for Detailing Reinforced Concrete Structures, Stirrup and Tie Dimensions.

Actual lengths are measured along centerline of bar to the nearest inch.

Minimum clearance to reinforcing shall be one inch, unless otherwise shown.

All reinforcement shall be Grade 60.
 All S2 bars shall be epoxy coated.

General Notes:

Concrete for prestressed beams shall be Class A-1 with f'c = 8,000 psi and f'ci = 6,500 psi.

Use 22 strands, 0.6"Ø Grade 270, with an initial prestress force of 967 kips.

Pretensioned members shall be in accordance with Sec 1029.

Fabricator shall be responsible for location and design of lifting devices.

Exterior and interior beams are the same except: coil ties, coil inserts for slab drains.

For Beam Camber Diagram, see Sheet No. 13.

For location of coil inserts at slab drains, see Sheet No. 12.

For location of coil ties at concrete bent diaphragms, see Sheets No. 4 and 11.

STATE OF MISSOURI
 TED S. KOESTER
 NUMBER
 PE-2013000591
 PROFESSIONAL ENGINEER

DATE PREPARED
6/25/2025

ROUTE **W** STATE **MO**
 DISTRICT **BR** SHEET NO. **10**

COUNTY
PIKE

JOB NO.
JNE0152

CONTRACT ID.

PROJECT NO.

BRIDGE NO.
A9503

DESCRIPTION

DATE

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

105 WEST CAPITOL
 JEFFERSON CITY, MO 65102
 1-888-ASK-MODOT (1-888-275-6636)

SPREAD BOX BEAMS - SPAN (2-3)

PRESTRESSED ALTERNATE



DATE PREPARED
6/25/2025 7:50:38 AM
TED S. KOESTER - CIVIL
MC-PE-2013000591

ROUTE STATE
W MO

DISTRICT SHEET NO.
BR 11

COUNTY
PIKE

JOB NO.
JNE0152

CONTRACT ID.
X

PROJECT NO.
X

BRIDGE NO.
A9503

DESCRIPTION

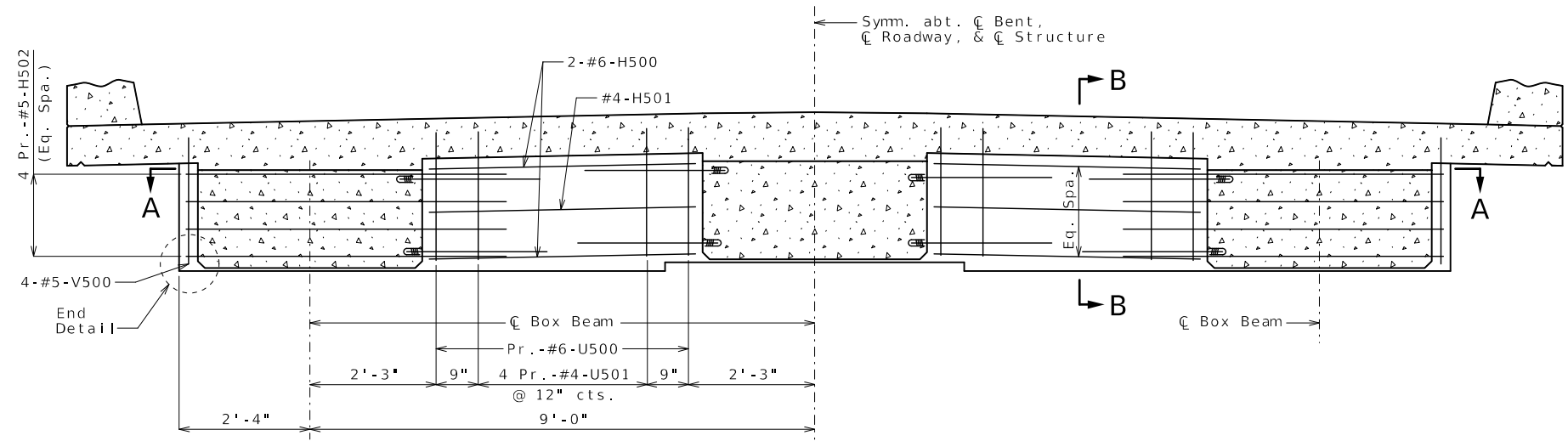
DATE

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

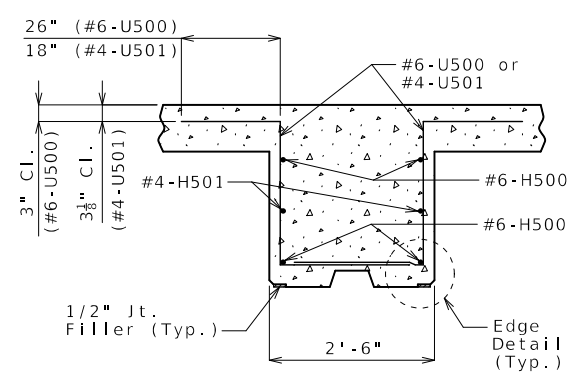
105 WEST CAPITOL JEFFERSON CITY, MO 65102

1-888-ASK-MODOT (1-888-275-6636)

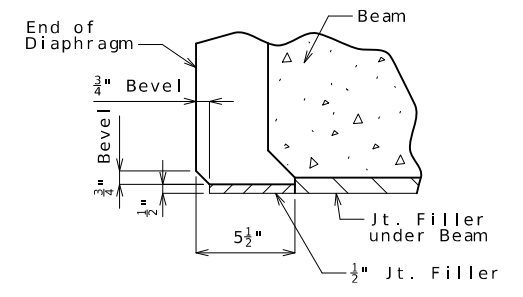
MoDOT



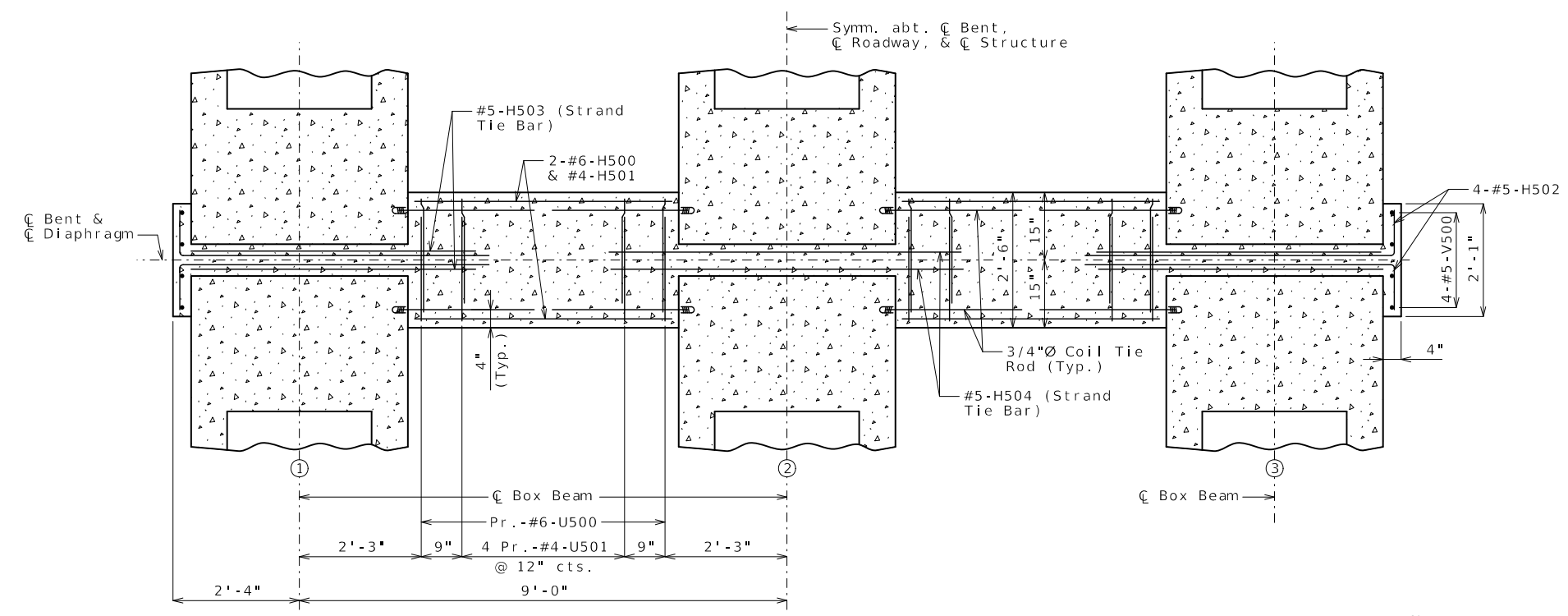
SECTION NEAR INTERMEDIATE BENT



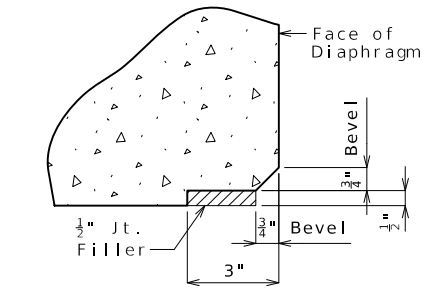
SECTION B-B



END DETAIL



SECTION A-A



EDGE DETAIL

Notes:
For locations of strand tie bars and coil tie rods, see Sheets No. 9 & 10.
Diaphragms at intermediate bents shall be built vertical.

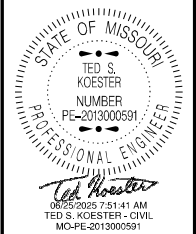
CONCRETE DIAPHRAGM AT INTERMEDIATE BENTS NO. 2 & 3

PRESTRESSED ALTERNATE

Detailed Sep. 2024
Checked Dec. 2024

Note: This drawing is not to scale. Follow dimensions.

Sheet No. 11 of 22



DATE PREPARED
6/25/2025

ROUTE STATE
W MO

DISTRICT SHEET NO.
BR 13

COUNTY
PIKE

JOB NO.
JNE0152

CONTRACT ID.

PROJECT NO.

BRIDGE NO.
A9503

DESCRIPTION	DATE

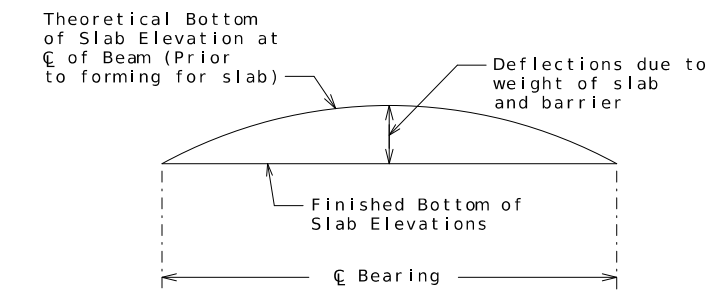
MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)

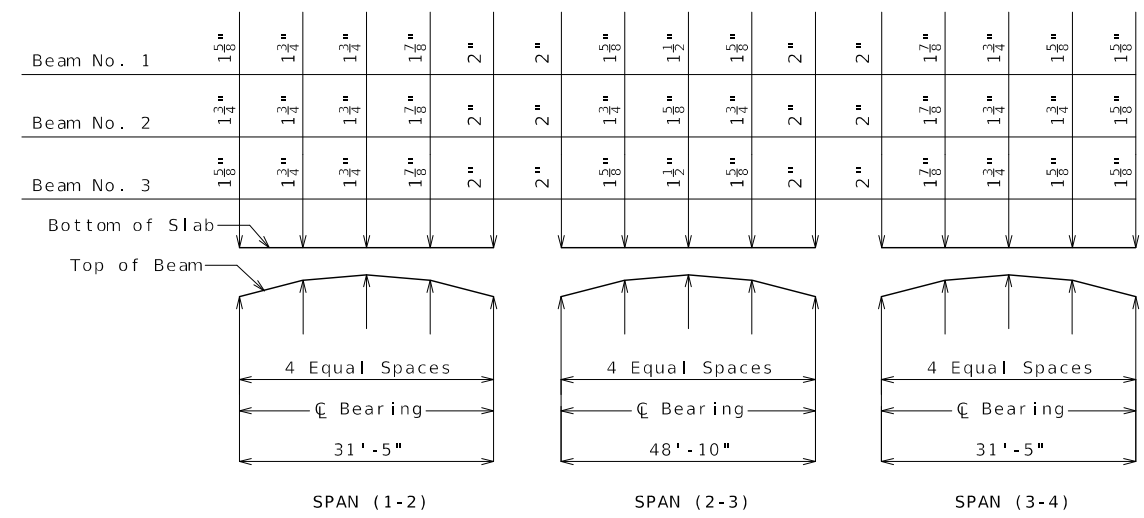
**Theoretical Bottom of Slab Elevations at Centerline of Beam
(Prior to forming for slab) (Estimated at 90 days)**

Beam Number	Span (1-2) (31'-5" $\text{\textcircled{C}}$ Brg. - $\text{\textcircled{C}}$ Brg.)				Span (2-3) (48'-10" $\text{\textcircled{C}}$ Brg. - $\text{\textcircled{C}}$ Brg.)				Span (3-4) (31'-5" $\text{\textcircled{C}}$ Brg. - $\text{\textcircled{C}}$ Brg.)						
	$\text{\textcircled{C}}$ Brg.	.25	.50	.75	$\text{\textcircled{C}}$ Brg.	$\text{\textcircled{C}}$ Brg.	.25	.50	.75	$\text{\textcircled{C}}$ Brg.	$\text{\textcircled{C}}$ Brg.	.25	.50	.75	$\text{\textcircled{C}}$ Brg.
1	491.11	491.15	491.18	491.20	491.21	491.22	491.27	491.28	491.25	491.18	491.17	491.15	491.12	491.08	491.02
2	491.27	491.31	491.34	491.36	491.37	491.38	491.43	491.45	491.41	491.34	491.33	491.31	491.28	491.24	491.18
3	491.11	491.15	491.18	491.20	491.21	491.22	491.27	491.28	491.25	491.18	491.17	491.15	491.12	491.08	491.02

Elevations are based on a constant slab thickness of 8 1/2" and include allowance for theoretical dead load deflections due to weight of slab (including precast panel) and barrier.



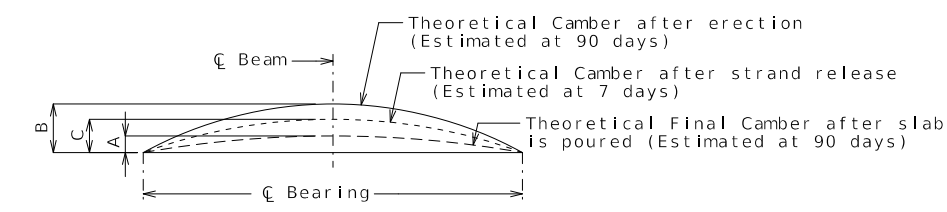
TYPICAL SLAB ELEVATIONS DIAGRAM



THEORETICAL SLAB HAUNCHING DIAGRAM (ESTIMATED AT 90 DAYS)

If beam camber is different from that shown in the camber diagram, in order to maintain minimum slab thickness, an adjustment of the slab haunches, an increase in slab thickness or a raise in grade uniformly throughout the structure shall be necessary. No payment will be made for additional labor or materials required for variation in haunching, slab thickness or grade adjustment.

Concrete in the slab haunches is included in the Estimated Quantities for Slab on Concrete Beam.

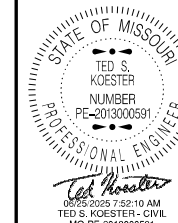


Beam	Span (1-2)			Span (2-3)			Span (3-4)		
	A	B	C	A	B	C	A	B	C
Exterior	1/4"	0"	1/4"	0.7"	1 1/2"	1"	1/4"	0"	1/4"
Interior	1/4"	0"	1/4"	0.7"	1 1/2"	1"	1/4"	0"	1/4"

BEAM CAMBER DIAGRAM

Conversion Factors for Beam Camber (Estimated at 90 days):

0.25 pt. = 0.7125 x 0.5 pt.



DATE PREPARED
6/25/2025

ROUTE STATE
W MO

DISTRICT SHEET NO.
BR 14

COUNTY
PIKE

JOB NO.
JNE0152

CONTRACT ID.

PROJECT NO.

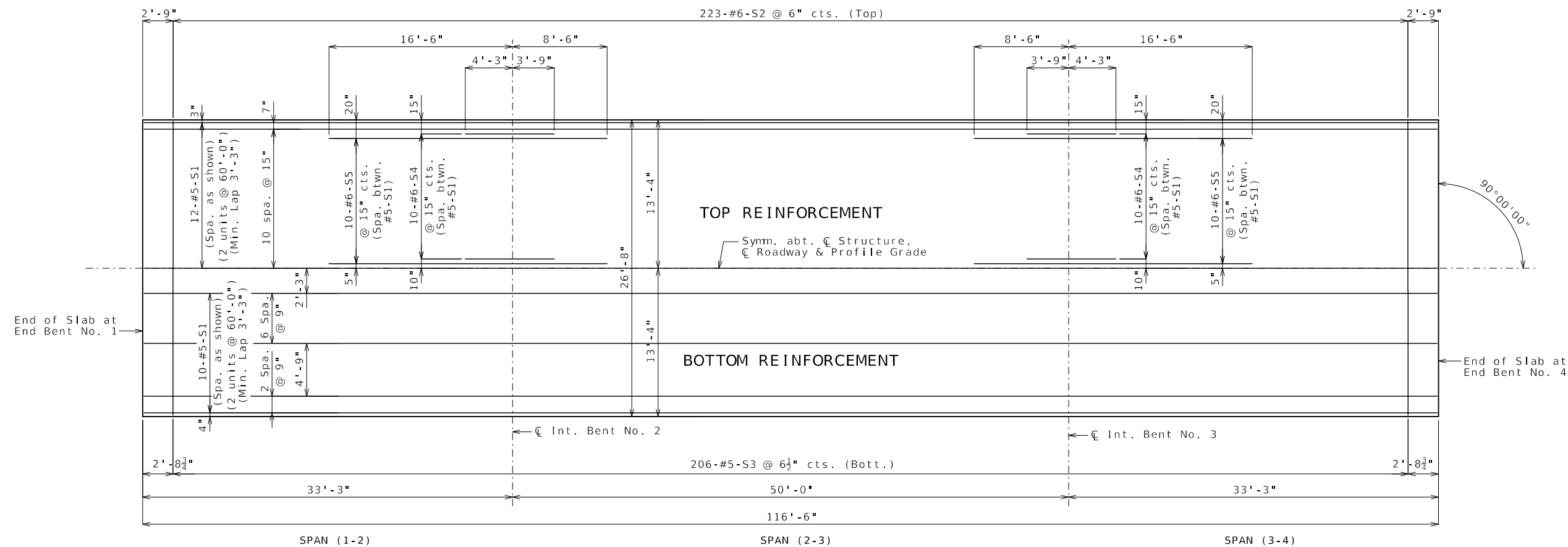
BRIDGE NO.
A9503

DESCRIPTION

DATE

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)

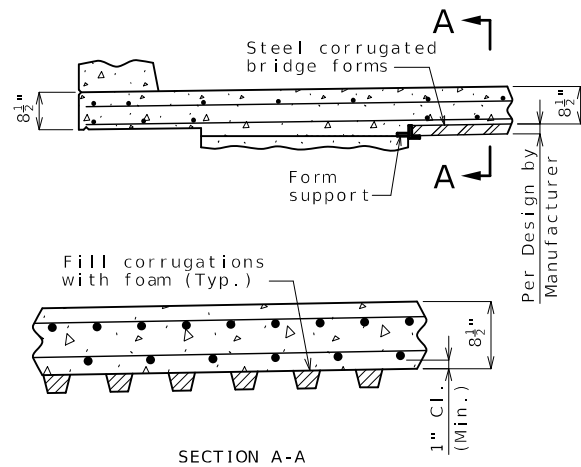


PLAN OF SLAB SHOWING REINFORCEMENT

Notes:

- Longitudinal slab dimensions are measured horizontally.
- For Section thru Slab and Slab Pouring Sequence, see Sheet No. 15.
- For details and reinforcement of barrier not shown, see Sheet No. 16.
- For Theoretical Slab Haunching Diagram and Theoretical Bottom of Slab Elevations, see Sheet No. 13.
- For details and locations of slab drains, see Sheet No. 12.

SLAB DETAILS



OPTIONAL STAY-IN-PLACE FORM DETAILS

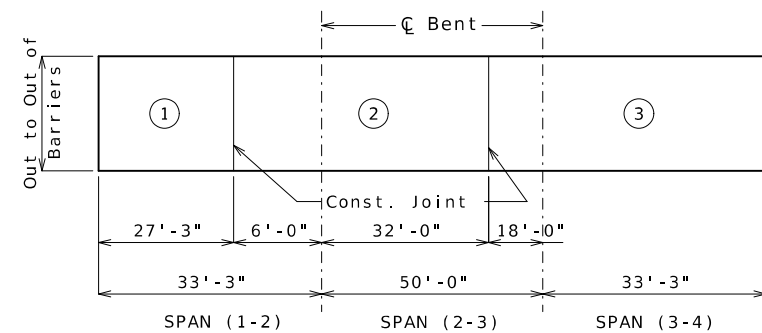
Stay-In-Place Forms:

Corrugated steel forms, supports, closure elements and accessories shall be in accordance with grade requirement and coating designation G165 of ASTM A653. Complete shop drawings of the permanent steel deck forms shall be required in accordance with Sec 1080.

Corrugations of stay-in-place forms shall be filled with an expanded polystyrene material. The polystyrene material shall be placed in the forms with an adhesive in accordance with the manufacturer's recommendations.

Form sheets shall not rest directly on the top of beam. Sheets shall be securely fastened to form supports with a minimum bearing length of one inch on each end. Form supports shall be placed in direct contact with the top of beam. Drilling holes in the beam will not be permitted. All steel fabrication and construction shall be in accordance with Sec 1080 and 712. Certified field welders will not be required for welding of the form supports.

The design of stay-in-place corrugated steel forms is per manufacturer which shall be in accordance with Sec 703 for false work and forms. Maximum actual weight of corrugated steel forms allowed shall be 4 psf assumed for beam loading.

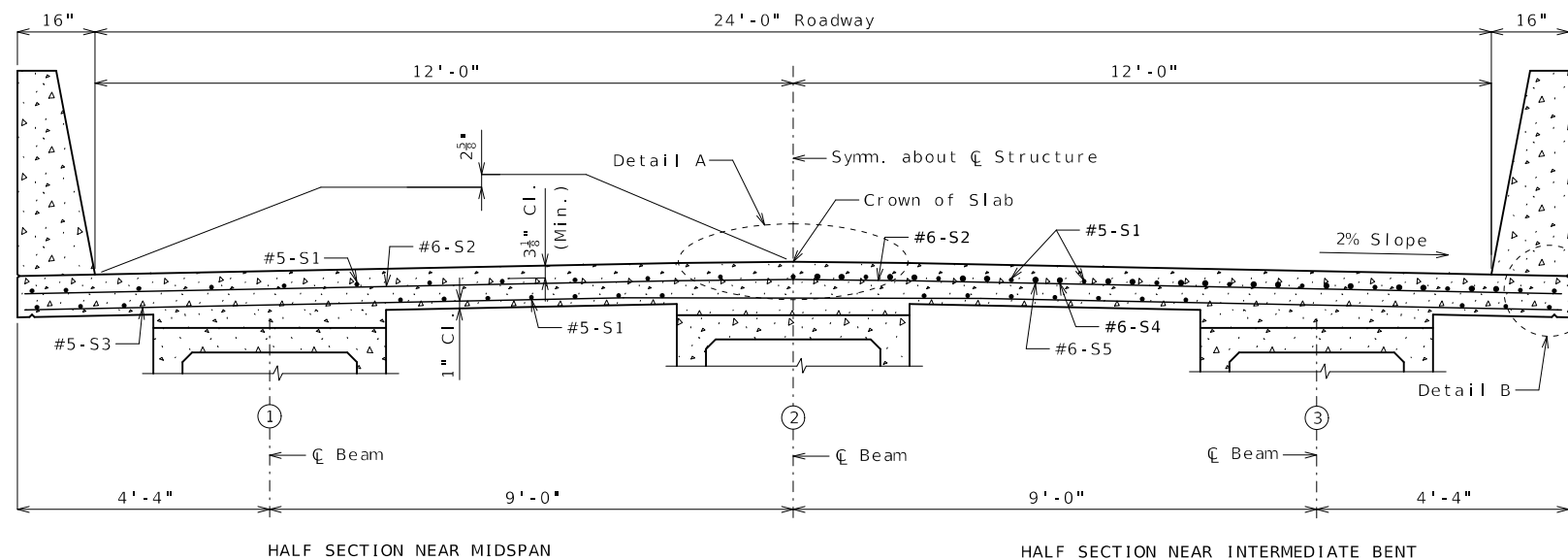


	Sequence of Pours			Min. Rate of Pour Cu. Yds./Hr.
	Direction			
Basic Sequence	1	2	3	25
	End to 2	1 to 3	2 to End	
Alternate pours to the basic sequence are subject to the approval of the engineer in accordance with Sec 703.				
Alternate A Pours	1 + 2	3		25
	End to 3	2 to End		
Alternate B Pours	1 + 2 + 3			25
	End to End			

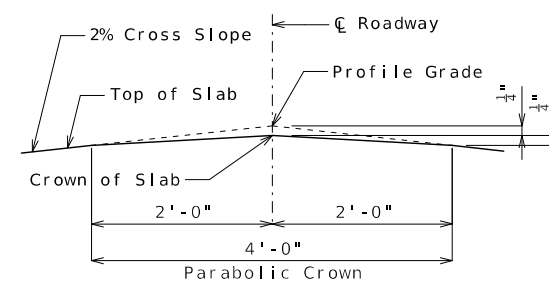
The contractor shall furnish an approved retarder to retard the set of the concrete to 2.5 hours, and shall pour and satisfactorily finish the slab pours at the rate given.

The concrete diaphragm at the intermediate bents and integral end bents shall be poured a minimum of 30 minutes and a maximum of 2 hours before the slab is poured.

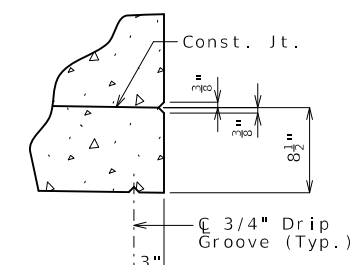
SLAB POURING SEQUENCE



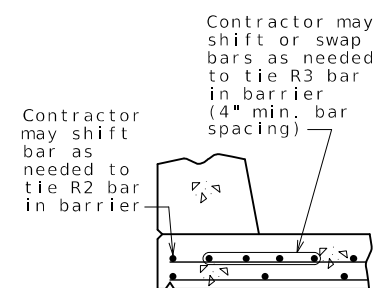
SECTION THRU SLAB



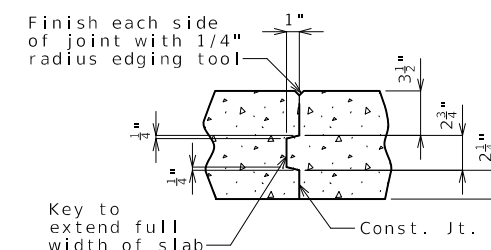
DETAIL A



DETAIL B



OPTIONAL SHIFTING TOP BARS AT BARRIER



SLAB CONSTRUCTION JOINT

Notes:

For reinforcement of barrier not shown, see Sheet No. 16.

For Theoretical Bottom of Slab Elevations, Girder Camber Diagram and Theoretical Slab Haunching Diagram, see Sheet No. 13.

For Plan of Slab Showing Reinforcement, see Sheet No. 14.

SLAB DETAILS

DATE PREPARED
6/25/2025

ROUTE	STATE
W	MO
DISTRICT	SHEET NO.
BR	15

COUNTY
PIKE

JOB NO.
JNE0152

CONTRACT ID.

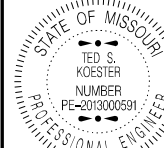
PROJECT NO.

BRIDGE NO.
A9503

DESCRIPTION	DATE

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)



DATE PREPARED
6/25/2025

ROUTE W STATE MO
DISTRICT BR SHEET NO. 16

COUNTY PIKE
JOB NO. JNE0152
CONTRACT ID.

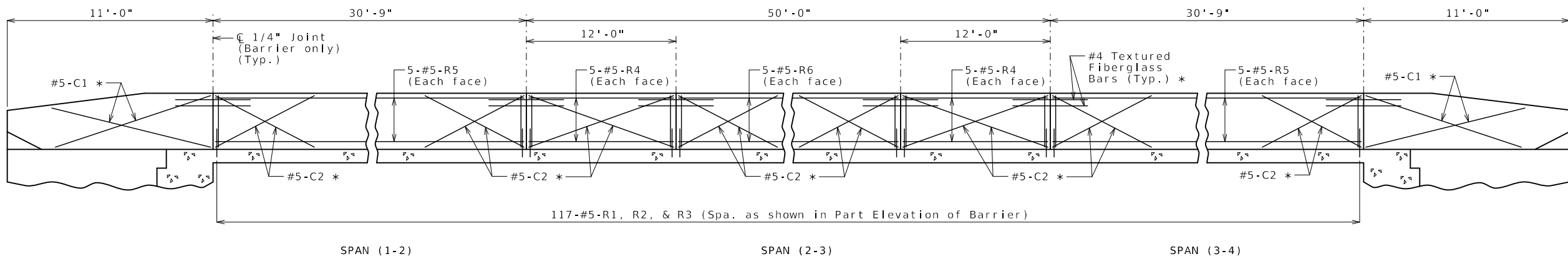
PROJECT NO.

BRIDGE NO. A9503

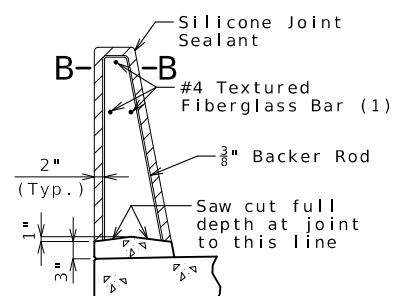
DATE	DESCRIPTION

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

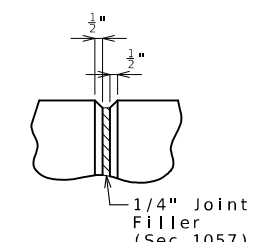
105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)



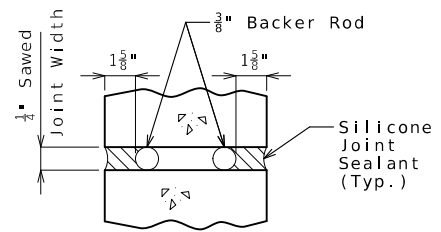
ELEVATION OF BARRIER
(Left barrier shown, right barrier similar)
Longitudinal dimensions are horizontal.



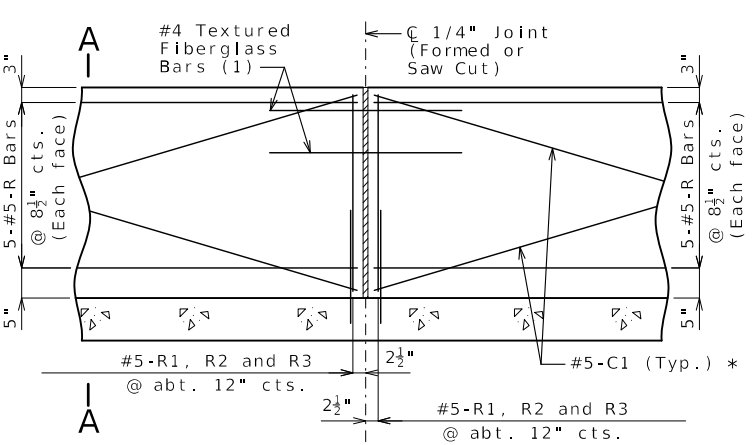
SECTION THRU SAW CUT JOINT



PART ELEVATION AT FORMED JOINT

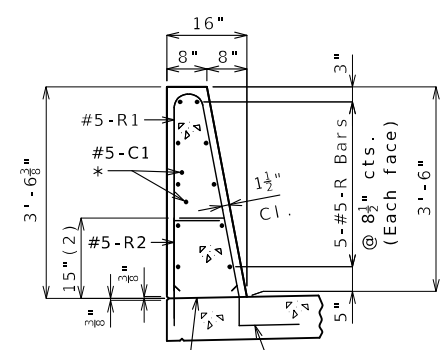


SECTION B-B



PART ELEVATION OF BARRIER

(1) Four feet long, centered on joint, slip-formed option only

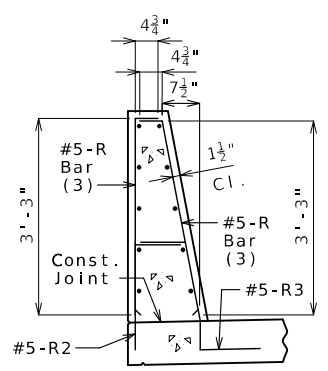


SECTION A-A

Use a minimum lap of 3'-1" for #5 horizontal barrier bars.

The cross-sectional area above the slab is 3.52 square feet.

(2) To top of bar



R-BAR PERMISSIBLE ALTERNATE SHAPE

(3) The R1 bar may be separated into two bars as shown, at the contractor's option, only when slip forming is not used. (All dimensions are out to out.)

General Notes:

* Slip-formed option only.

Conventional forming or slip forming may be used. Saw cut joints may be used with conventional forming.

Top of barrier shall be built parallel to grade and barrier joints (except at end bents) normal to grade.

All exposed edges of barrier shall have either a 1/2-inch radius or a 3/8-inch bevel, unless otherwise noted.

Payment for all concrete and reinforcement, complete in place, will be considered completely covered by the contract unit price for Type D Barrier per linear foot.

Concrete in barrier shall be Class B-1.

Measurement of barrier is to the nearest linear foot for each structure, measured along the outside top of slab from end of wing to end of wing.

Concrete traffic barrier delineators shall be placed on top of the barrier as shown on Missouri Standard Plan 617.10 and in accordance with Sec 617. Delineators on bridges with two-lane, two-way traffic shall have retroreflective sheeting on both sides. Concrete traffic barrier delineators will be considered completely covered by the contract unit price for Type D Barrier.

Joint sealant and backer rods shall be in accordance with Sec 717 for silicone joint sealant for saw cut and formed joints.

For slip-formed option, both sides of barrier shall have a vertically broomed finish and the top shall have a transversely broomed finish.

TYPE D BARRIER

Sheet No. 16 of 22

PRESTRESSED ALTERNATE



DATE PREPARED
6/25/2025

ROUTE STATE
W MO

DISTRICT SHEET NO.
BR 17

COUNTY
PIKE

JOB NO.
JNE0152

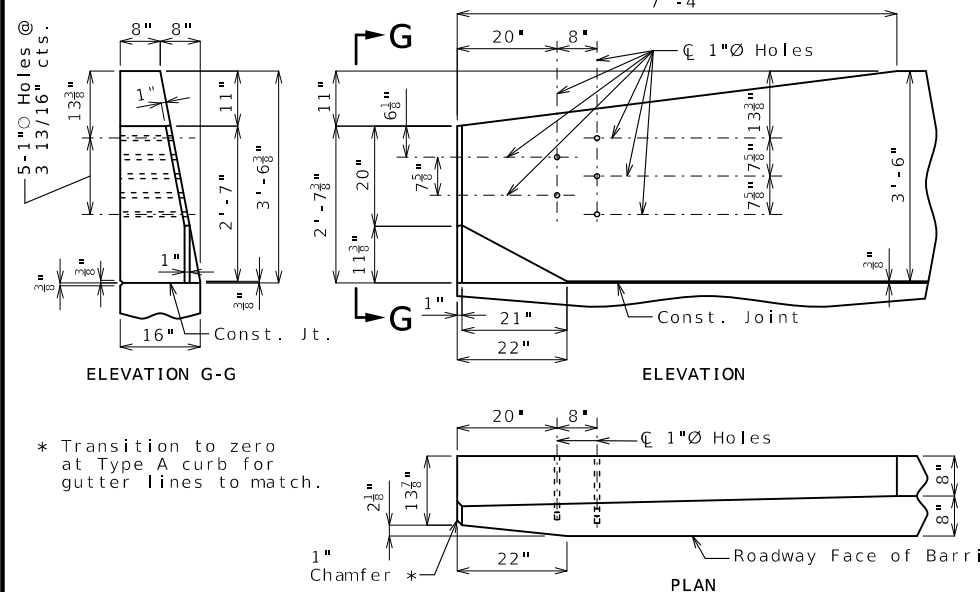
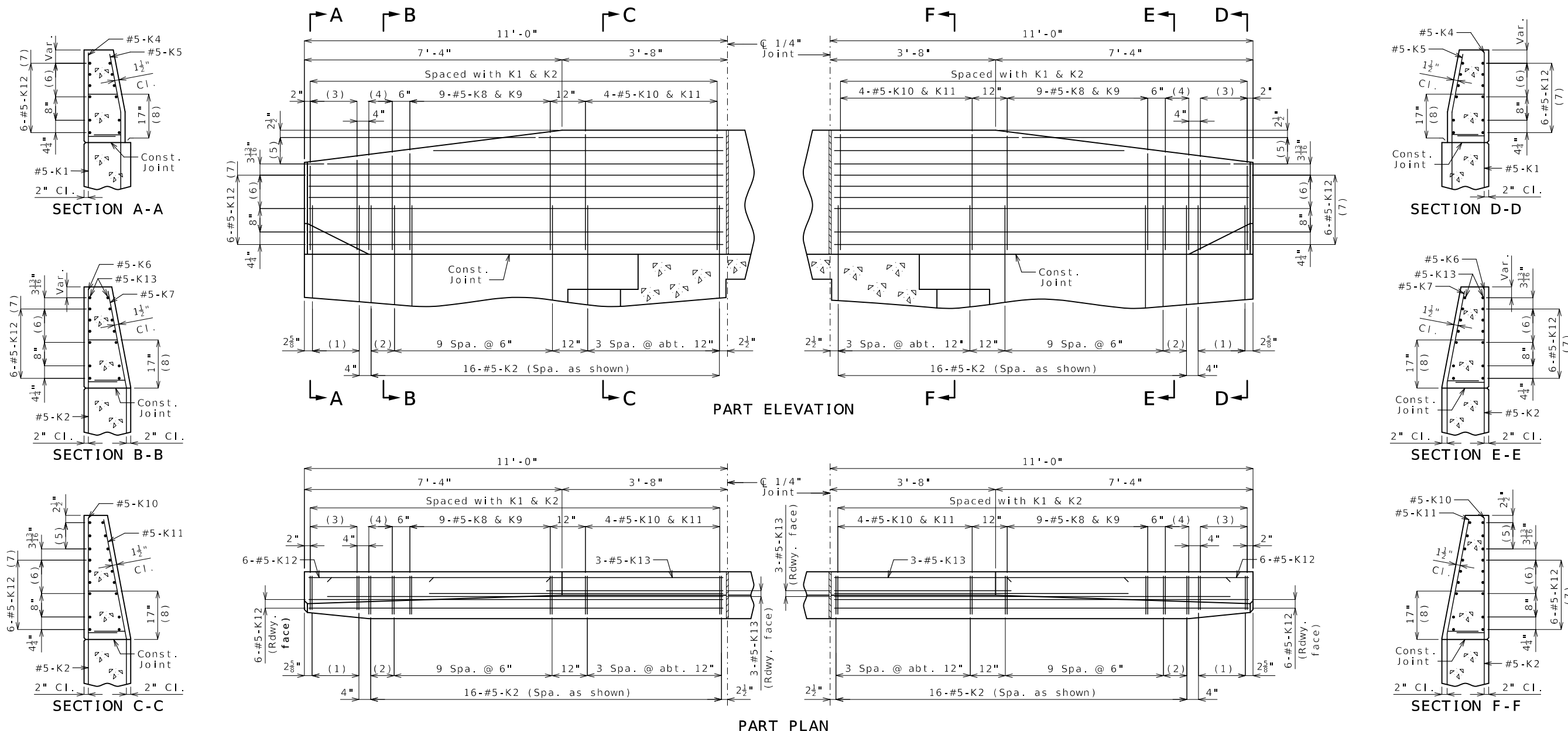
CONTRACT ID.

PROJECT NO.

BRIDGE NO.
A9503

DESCRIPTION	DATE

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION



- (1) 5-#5-K1 @ 4" cts.
- (2) 2 spaces @ 4"
- (3) 5-#5-K4 & K5
- (4) 3-#5-K6 & K7
- (5) 3-#5-K13 @ 4 1/2" cts., each face
- (6) 3 spaces @ 3 1/8"
- (7) Spaced as shown, each face
- (8) To top of bar

General Notes:

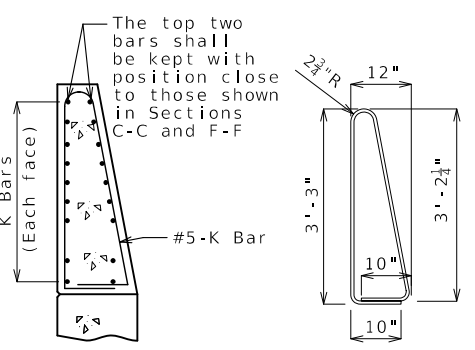
Concrete traffic barrier delineators shall be placed on top of the barrier as shown on Missouri Standard Plan 617.10 and in accordance with Sec 617. Delineators on bridges with two-lane, two-way traffic shall have retroreflective sheeting on both sides. Concrete traffic barrier delineators will be considered completely covered by the contract unit price for Type D Barrier.

Reinforcing Steel:

Minimum clearance to reinforcing steel shall be 1 1/2" except as shown for bars embedded into end bent.

TYPE D BARRIER AT END BENTS

(Left barrier shown, right barrier similar)

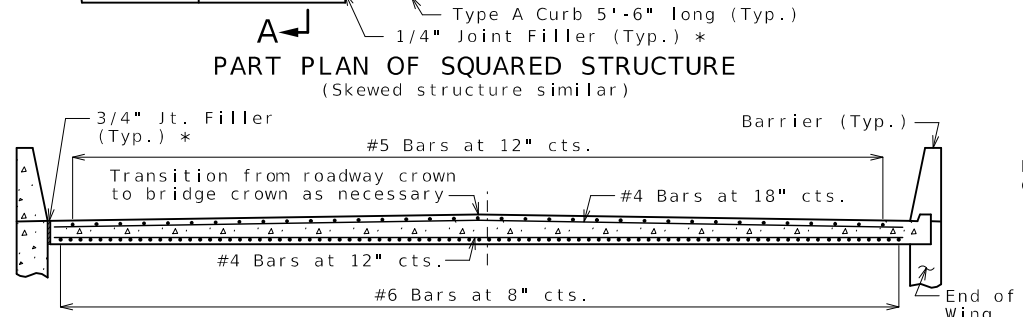
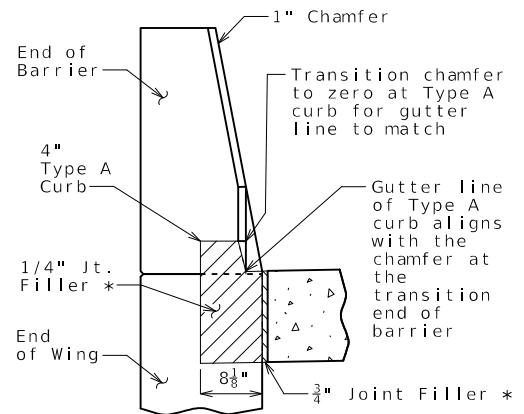
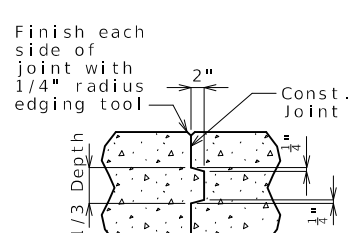
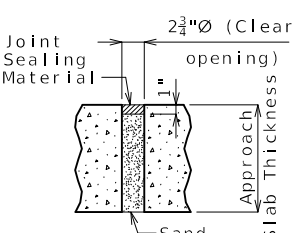
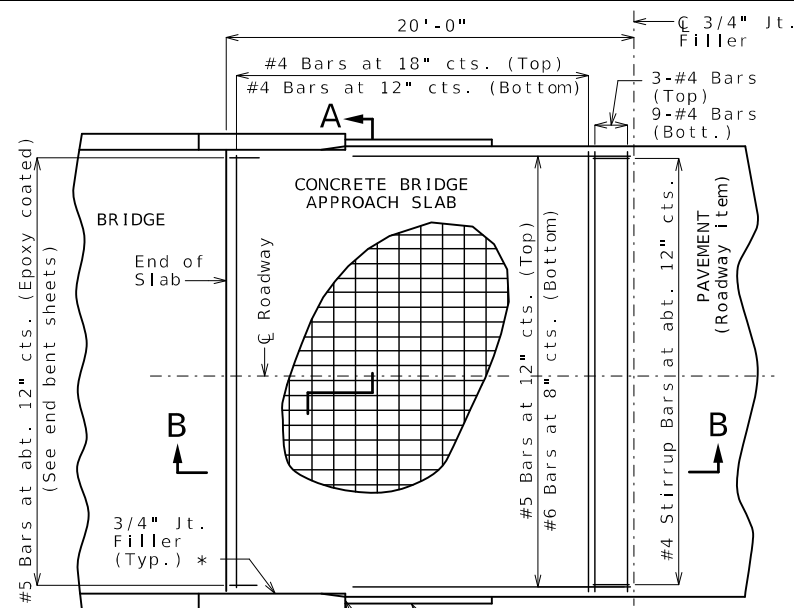


K10-K11 BAR PERMISSIBLE ALTERNATE SHAPE

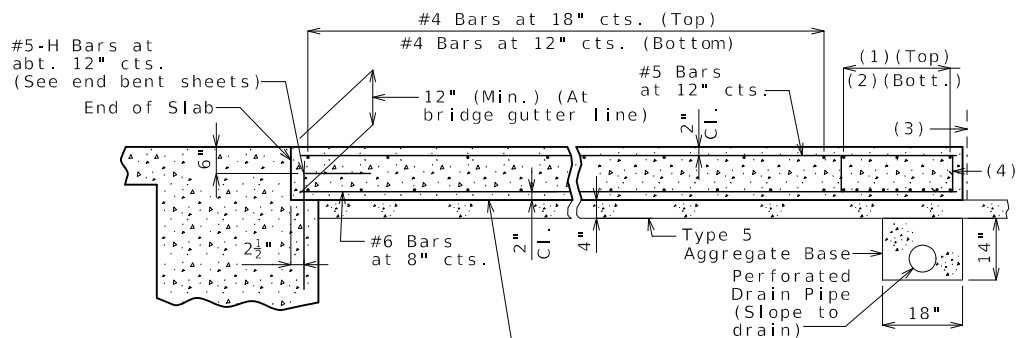
(Other K bars not shown for clarity)

The K10-K11 bar combination may be furnished as one bar as shown, at the contractor's option.

All dimensions are out to out.

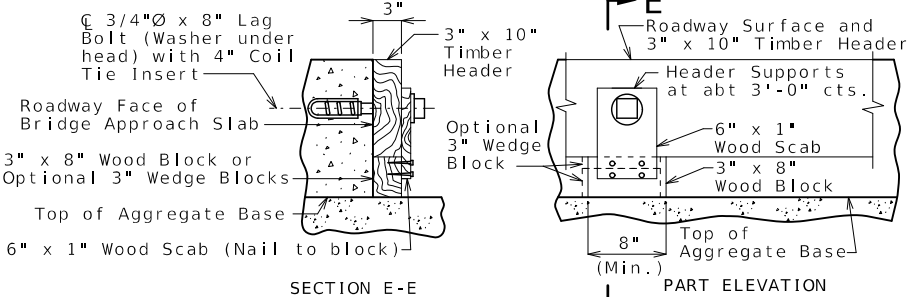


With the approval of the engineer, the contractor may crown the bottom of the approach slab to match the crown of the roadway surface.

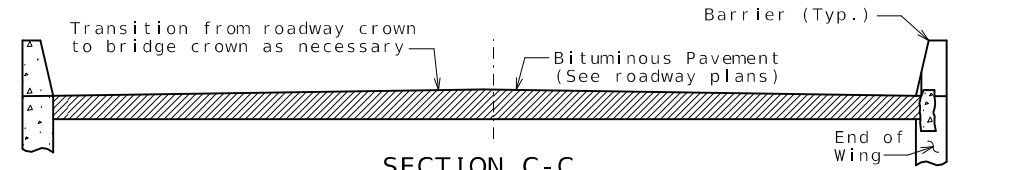


- (1) 3-#4 Bars
- (2) 9-#4 Bars
- (3) 3/4\"/>
- (4) #4 Stirrup Bars at abt. 12\"/>

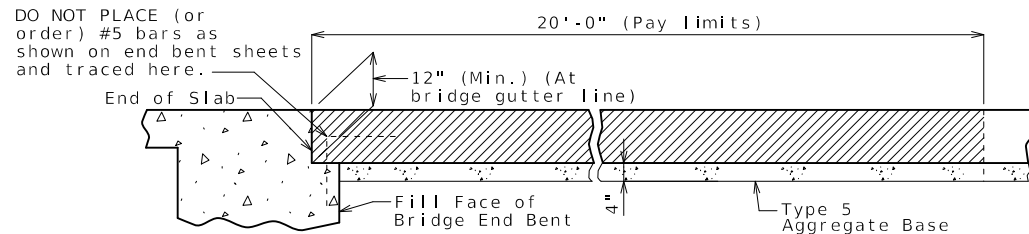
2 Layers of 4 Mil Polyethylene Sheeting between bridge approach slab and granular base in accordance with ASTM E 1745 Performance Class A



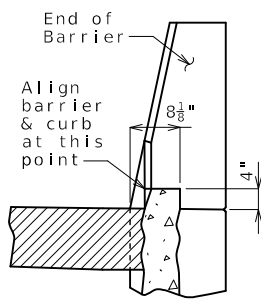
Remove timber header when concrete pavement is placed.
OPTIONAL CONCRETE SLAB



With the approval of the engineer, the contractor may crown the bottom of the approach slab to match the crown of the roadway surface.



OPTIONAL ASPHALT SLAB (NOT ALLOWED WITH CONCRETE PAVEMENT)

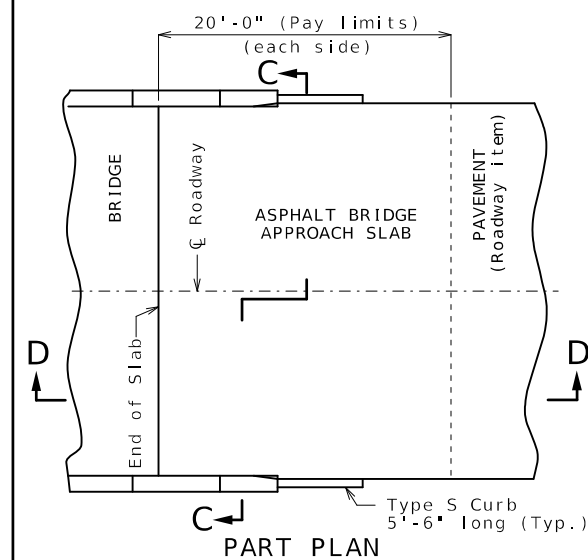


See Missouri Standard Plan 609.00 for details of Type S curb.

Notes For Concrete Slab Only:
All concrete for the bridge approach slab shall be in accordance with Sec 503 ($f'c = 4,000$ psi).
The reinforcing steel in the bridge approach slab shall be epoxy coated Grade 60 with $f_y = 60,000$ psi.
Longitudinal construction joints in bridge approach slab shall be aligned with longitudinal construction joints in bridge slab.
Minimum clearance to reinforcing steel shall be 1 1/2\", unless otherwise shown.
The reinforcing steel in the bridge approach slab shall be continuous. The transverse reinforcing steel may be made continuous by providing a minimum lap splice of 23 inches for #4 bars, or by mechanical bar splice.
Mechanical bar splices shall be in accordance with Sec 710.
All joint filler shall be in accordance with Sec 1057 for preformed fiber expansion joint filler except as noted.
Payment for furnishing all materials, labor and excavation necessary to construct the concrete bridge approach slab, including the timber header, underdrain, Type 5 aggregate base, joint filler, and all other appurtenances and incidental work as shown on this sheet, complete in place, will be considered completely covered by the contract unit price for Bridge Approach Slab (Minor) per square yard.
See Missouri Standard Plan 609.00 for details of Type A curb.
Drain pipe may be either 6\"/>

General Notes:
Contractor shall have the option to construct either slab except as noted.
The contractor shall pour and satisfactorily finish the bridge slab before placing the bridge approach slab.
MoDOT Construction personnel will indicate the bridge approach slab used for this structure:
 Concrete Bridge Approach Slab
 Asphalt Bridge Approach Slab

Notes For Asphalt Slab Only:
Payment for furnishing all materials, labor and excavation necessary to construct the asphalt bridge approach slab, including tack, curb, and Type 5 aggregate base within the pay limits shown, complete in place, will be considered completely covered by the contract unit price for Bridge Approach Slab (Minor) per square yard.
Application of tack is required between lifts per Sec 403.

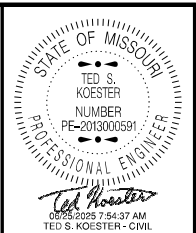
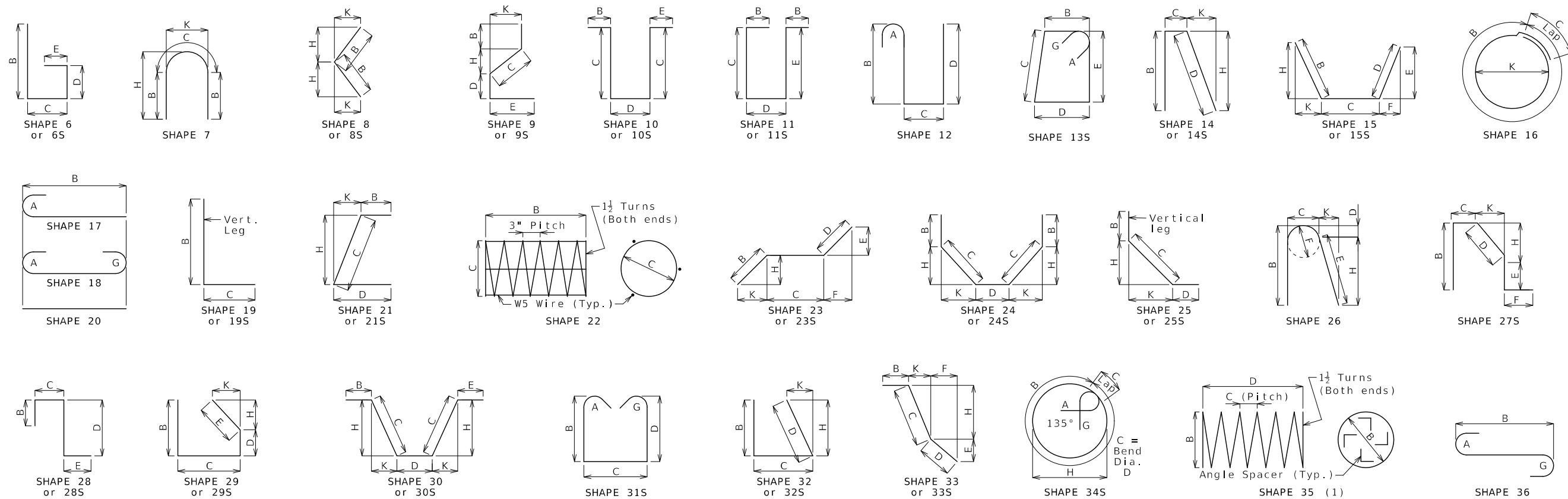


DATE PREPARED	
6/25/2025	
ROUTE	STATE
W	MO
DISTRICT	SHEET NO.
BR	18
COUNTY	
PIKE	
JOB NO.	
JNE0152	
CONTRACT ID.	
PROJECT NO.	
BRIDGE NO.	
A9503	

DATE	DESCRIPTION

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION
105 WEST CAPITOL JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)

BRIDGE APPROACH SLAB (MINOR)



DATE PREPARED: 6/25/2025

ROUTE	STATE
W	MO
DISTRICT	SHEET NO.
BR	19
COUNTY	
PIKE	
JOB NO.	
JNE0152	
CONTRACT ID.	
PROJECT NO.	
BRIDGE NO.	
A9503	

DATE	DESCRIPTION

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

105 WEST CAPITOL JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)

Finished Bend Diameters D and Hook Dimensions

Standard Pin Bend Shapes

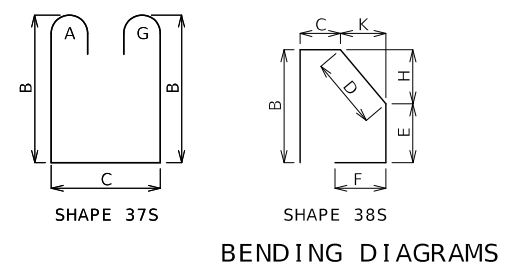
Size	Case	D	A or G			J
			90°	180°	180°	
#4	1	3"	8"	6"	4"	
#5	1	3 3/4"	10"	7"	5"	
#6	1	4 1/2"	12"	8 1/4"	6"	
#7	2	5 1/4"	14"	9 3/4"	7"	
	3	7"	15"	11 1/2"	8 3/4"	
#8	2	6"	16"	11"	8"	
	3	8"	17"	13 1/4"	10"	
#9	1	9 1/2"	19 1/2"	15 1/2"	11 3/8"	
#10	1	10 3/4"	22"	17 1/2"	13 1/4"	
#11	1	12"	24 1/2"	19 1/2"	14 7/8"	
#14	1	18 1/4"	31 1/4"	27 1/2"	21 5/8"	
#18	1	24"	41 1/2"	36 1/4"	28 1/2"	

Stirrups Pin Bend Shapes (S)

Size	Case	D	A or G			H	J
			90°	135°	180°		
#4	2	2"	4 1/2"	4 1/2"	5"	2 5/8"	3"
	3	3"	5"	5 1/4"	6"	3"	4"
#5	2	2 1/2"	5 3/4"	5 3/4"	5 3/4"	3 3/8"	3 3/4"
	3	3 3/4"	6 1/4"	6 1/2"	7"	3 5/8"	5"
#6	1	4 1/2"	12"	7 3/4"	8 1/4"	4 3/8"	6"

Applicable for all grades of steel.
Case 1 applies to all reinforcement. Case 2 applies to all reinforcement except for galvanized bars. Case 3 applies to galvanized bars only.

6d for #4 & #5, 12d for #6



BENDING DIAGRAMS

All dimensions are out to out. (1) Shall be a deformed or plain spiral bar or wire.

Shapes ending with an S shall be bent in accordance with stirrup pin bend shapes.

Unless otherwise noted, finished bending diameter D is the same for all bends of a shape.

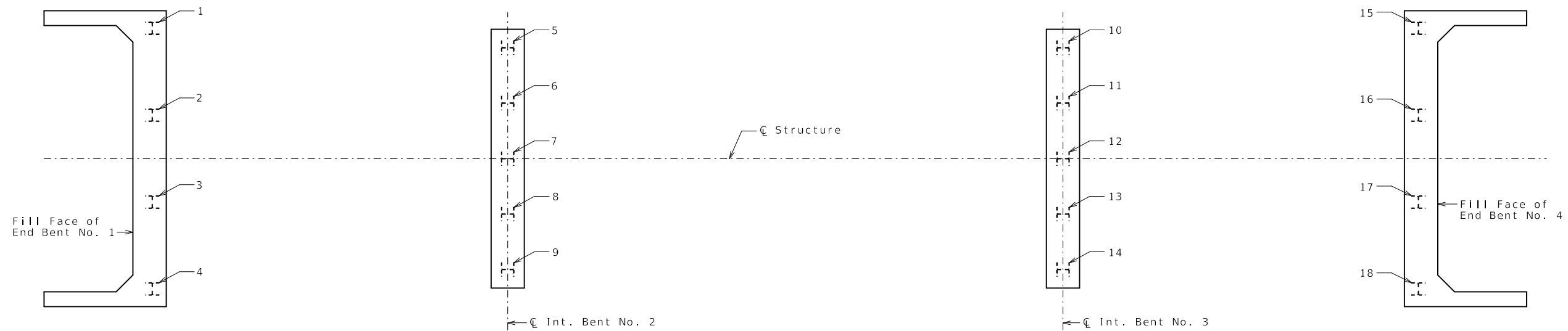
Four angle or channel spacers are required for each column spiral. Spacers are to be placed on inside of spirals. Length and weight of column spirals do not include splices or spacers.

Reinforcing Steel Totals (Pounds)

Size	Substructure		Superstructure			Entire Bridge	
	Plain	Galv.	Slab	Barrier	Slip Form	Plain	Galv.
W5	0	0	0	0	0	0	0
4	57	0	574	0	0	57	574
5	566	0	12,623	7,782	490	566	20,895
6	841	0	16,052	0	0	841	16,052
7	809	0	0	0	0	809	0
8	0	0	916	0	0	0	916
9	0	0	0	0	0	0	0
10	0	0	0	0	0	0	0
11	0	0	0	0	0	0	0
14	0	0	0	0	0	0	0
18	0	0	0	0	0	0	0
By Type	2,273	0	30,165	7,782	490	2,273	38,437

All superstructure reinforcing steel shall be galvanized unless otherwise specified.
Products used to repair damaged zinc coating shall not contain aluminum.

BENDING DIAGRAMS AND REINFORCING STEEL TOTALS



PART PLAN SHOWING PILE NUMBERING FOR RECORDING AS-BUILT PILE DATA

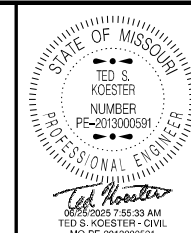
As-Built Pile Data			
Pile No.	Length in Place (ft)	Computed Nominal Axial Compressive Resistance (kips)	Remarks
			End Bent No. 1
1			
2			
3			
4			
			Int. Bent No. 2
5			
6			
7			
8			
9			

As-Built Pile Data			
Pile No.	Length in Place (ft)	Computed Nominal Axial Compressive Resistance (kips)	Remarks
			Int. Bent No. 3
10			
11			
12			
13			
14			

As-Built Pile Data			
Pile No.	Length in Place (ft)	Computed Nominal Axial Compressive Resistance (kips)	Remarks
			End Bent No. 4
15			
16			
17			
18			

Note:
 Indicate in remarks column:
 A. Pile type and grade
 B. Batter
 C. Driven to practical refusal

This sheet to be completed by MoDOT construction personnel.



DATE PREPARED
 6/25/2025
 ROUTE W STATE MO
 DISTRICT BR SHEET NO. 21
 COUNTY PIKE
 JOB NO. JNE0152
 CONTRACT ID.
 PROJECT NO.
 BRIDGE NO. A9503

DATE	DESCRIPTION

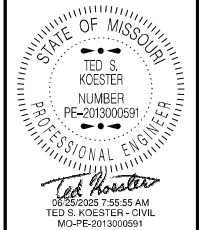
MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION
 MoDOT
 105 WEST CAPITOL
 JEFFERSON CITY, MO 65102
 1-888-ASK-MODOT (1-888-275-6636)



SUBSURFACE DIAGRAM

PROJECT NAME Bridge Replacement-MGK
 PROJECT LOCATION Over Little Ramsey Creek
 CLIENT _____
 PROJECT NUMBER NE0152

- USCS Low Plasticity Clay
- Shale
- USCS Low Plasticity Gravelly Clay
- Asphalt
- Concrete
- No Core
- USCS Well-graded Gravel
- Limestone
- USCS Low Plasticity Silty Clay



DATE PREPARED
 6/25/2025
 ROUTE W STATE MO
 DISTRICT BR SHEET NO. 22

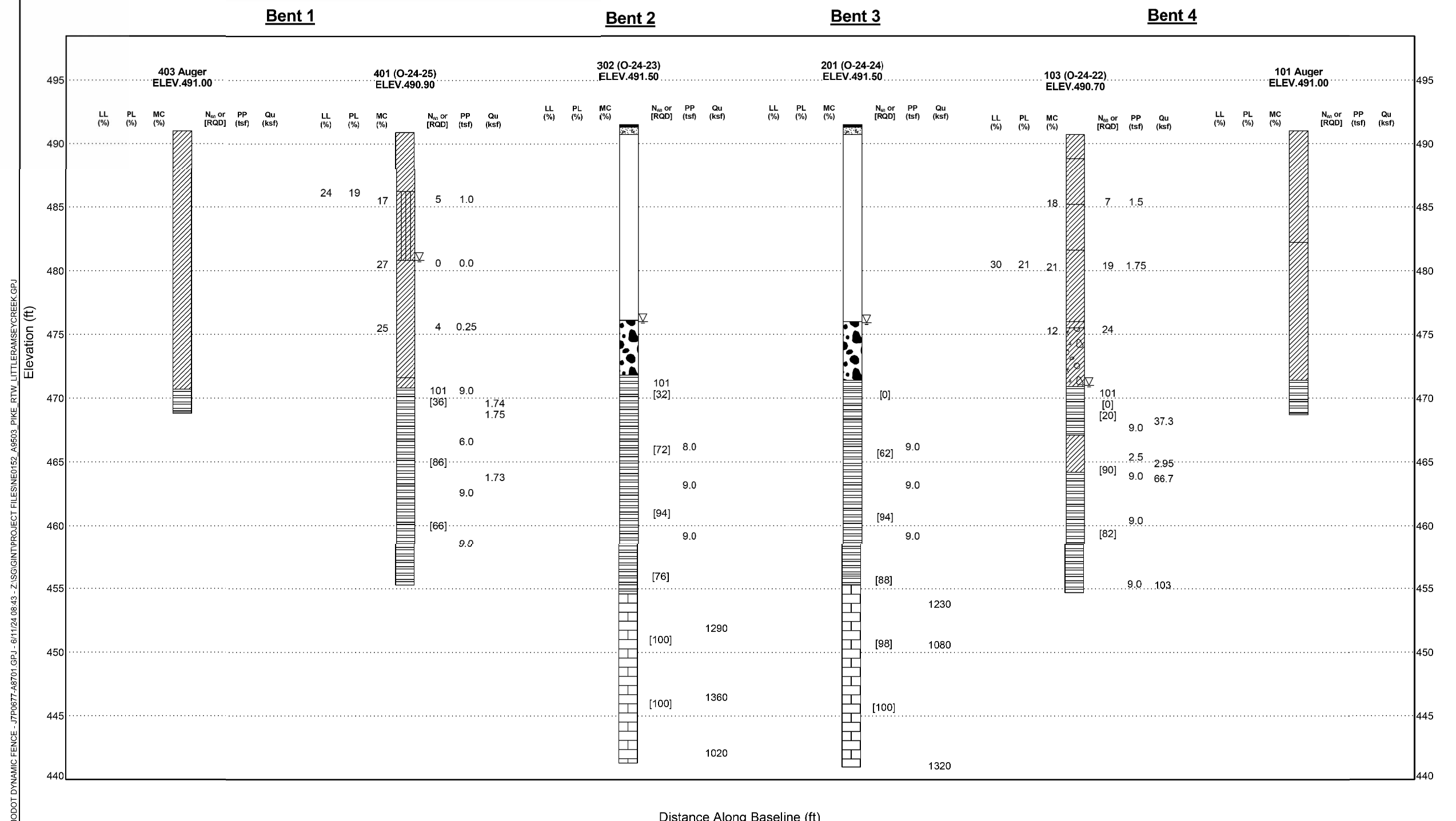
COUNTY
PIKE
 JOB NO.
JNE0152
 CONTRACT ID.

PROJECT NO.
 BRIDGE NO.
A9503

DATE	DESCRIPTION

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

 105 WEST CAPITOL JEFFERSON CITY, MO 65102
 1-888-ASK-MODOT (1-888-275-6636)



BORING DATA

Note: For locations of borings, see Sheet No. 1.

Note: This drawing is not to scale. Follow dimensions.

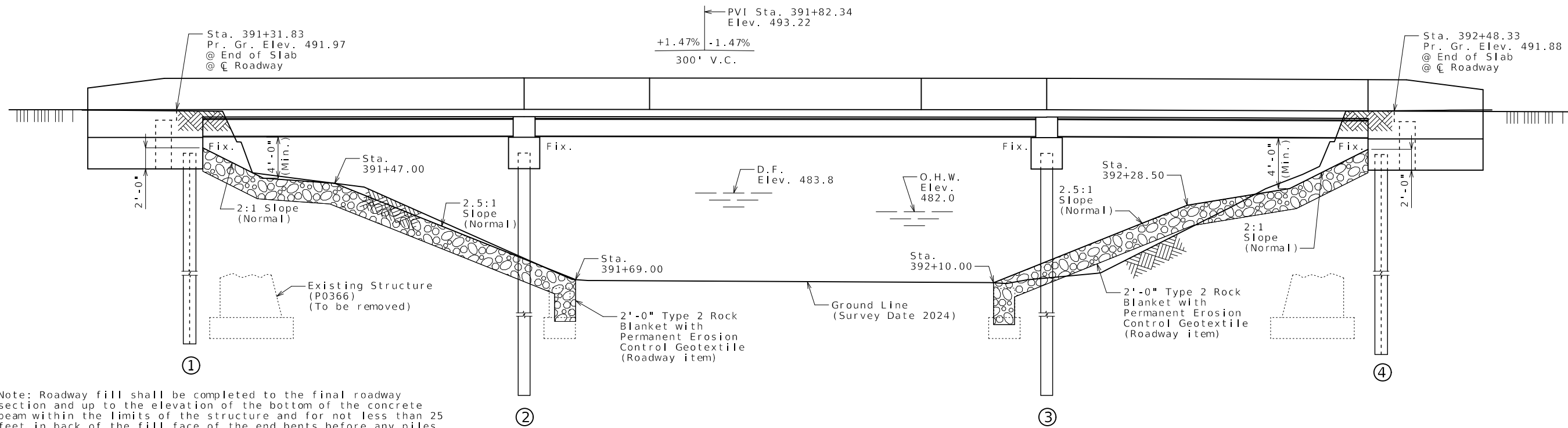
Sheet No. 22 of 22

Detailed Sep. 2024
 Checked Dec. 2024

PRESTRESSED ALTERNATE

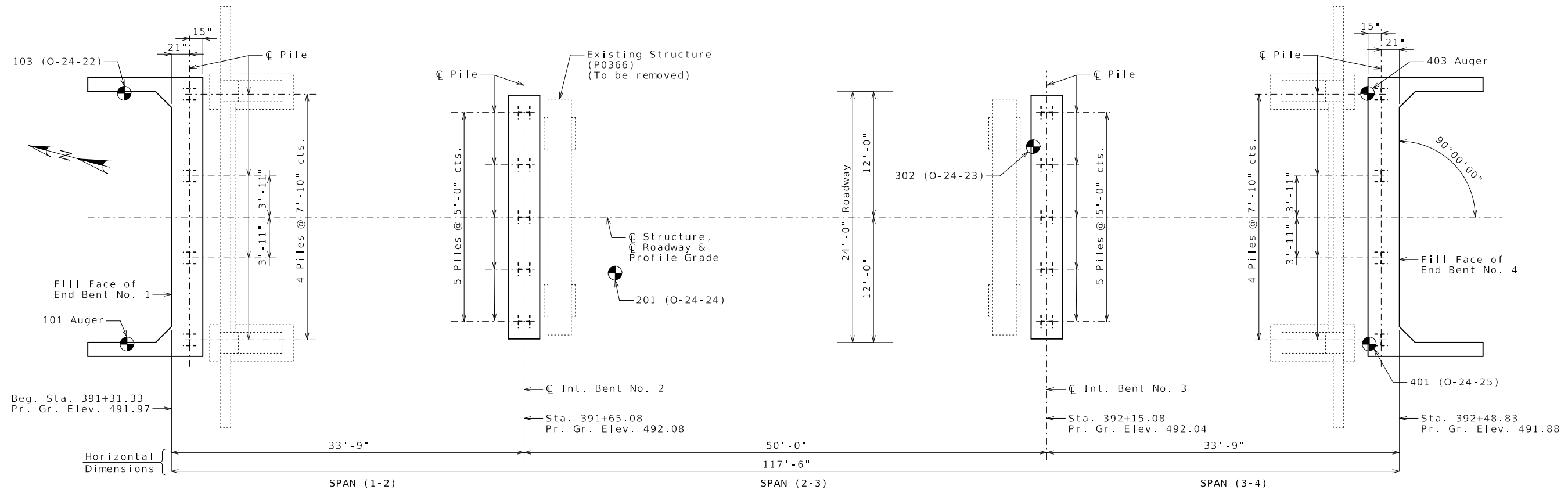
(32' - 50' - 32') COMPOSITE WIDE FLANGE BEAM SPANS

SEC/SUR 16 TWP 52N RGE 1E



Note: Roadway fill shall be completed to the final roadway section and up to the elevation of the bottom of the concrete beam within the limits of the structure and for not less than 25 feet in back of the fill face of the end bents before any piles are driven for any bents falling within the embankment section.

GENERAL ELEVATION



PLAN

⊕ Indicates approximate location of borings.

For Notice and Disclaimer Regarding Boring Log Data, see Sheet No. 2.

B.M. CONTROL POINT 102; SET 5/8" REBAR;
N: 1251886.544; S: 706077.552; EL: 490.61

BRIDGE: ROUTE W OVER LITTLE RAMSEY CREEK

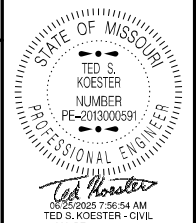
ROUTE W FROM ROUTE H TO ROUTE WW
ABOUT 0.5 MILES NORTH OF ROUTE H
BEGINNING STATION 391+31.33

Designed Oct. 2024
Detailed Nov. 2024
Checked Dec. 2024

Note: This drawing is not to scale. Follow dimensions.

Sheet No. 1 of 22

STEEL
ALTERNATE



DATE PREPARED 6/25/2025	
ROUTE W	STATE MO
DISTRICT BR	SHEET NO. 1
COUNTY PIKE	
JOB NO. JNE0152	
CONTRACT ID.	
PROJECT NO.	
BRIDGE NO. A9503	

DATE	DESCRIPTION

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)

General Notes:

Design Specifications:

2020 AASHTO LRFD Bridge Design Specifications (9th Ed.)
 2023 AASHTO Guide Specifications for LRFD Seismic Bridge Design (3rd Ed.)
 Seismic Design Category = B
 Design earthquake response spectral acceleration coefficient at 1.0 second period, $S_{D1} = 0.227 g$
 Acceleration Coefficient (effective peak ground acceleration coefficient), $A_s = 0.187 g$

Design Loading:

Vehicular = HL-93
 Future Wearing Surface = 35 lb/sf
 Earth = 120 lb/cf
 Equivalent Fluid Pressure = 45 lb/cf (min.)

Design Unit Stresses:

Class B Concrete (Substructure) $f'c = 3,000 \text{ psi}$
 Class B-2 Concrete (Superstructure, except Barrier) $f'c = 4,000 \text{ psi}$
 Class B-1 Concrete (Barrier) $f'c = 4,000 \text{ psi}$
 Reinforcing Steel (ASTM A706 Grade 60) $f_y = 60,000 \text{ psi}$
 Structural Steel (ASTM A709 Grade 50) $f_y = 50,000 \text{ psi}$
 Structural Steel HP Pile (ASTM A709 Grade 50S) $f_y = 50,000 \text{ psi}$
 Neoprene Pads:
 Neoprene bearing pads shall be 60 durometer and shall be in accordance with Sec 716.
 Joint Filler:
 All joint filler shall be in accordance with Sec 1057 for preformed sponge rubber expansion and partition joint filler, except as noted.

Reinforcing Steel:

Minimum clearance to reinforcing steel shall be 1 1/2", unless otherwise shown.

Traffic Handling:

Structure to be closed during construction. Traffic to be maintained on other routes. See roadway plans for traffic control.

Miscellaneous:

Outline of existing work is indicated by light dashed lines. Heavy lines indicate new work.

Hydrologic Data	
Drainage Area = 9.3 mi ²	
Design Flood Frequency = 50 years	
Design Flood Discharge = 3,800 cfs	
Design Flood (D.F.) Elevation = 483.8	
Base Flood (100-year)	
Base Flood Elevation = 484.2	
Base Flood Discharge = 4,400 cfs	
Estimated Backwater = 0.5 ft	
Average Velocity thru Opening = 9.5 ft/s	
Freeboard (50-year)	
Freeboard = 5.5 ft	
Roadway Overtopping	
Overtopping Flood Discharge = NA	
Overtopping Flood Frequency = >500 years	
500-Year Flood Elevation = 485.7	

Structural Steel Protective Coatings:

Protective Coating: System L in accordance with Sec 1081.

Prime Coat: The cost of the inorganic zinc prime coat will be considered completely covered by the contract unit price for the fabricated structural steel.

Field Coat(s): The color of the field coat(s) shall be Gray (Federal Standard #26373) The cost of the finish field coat will be considered completely covered by the contract unit price per sq. foot for Finish Field Coat (System L).

At the option of the contractor, the finish field coat may be applied in the shop. The contractor shall exercise extreme care during all phases of loading, hauling, handling, erection and pouring of the slab to minimize damage and shall be fully responsible for all repairs and cleaning of the coating systems as required by the engineer.

Estimated Quantities			
Item	Substr.	Superstr.	Total
Class 1 Excavation	cu. yard	60	60
Removal of Bridges (P0366)	lump sum		1
Bridge Approach Slab (Minor)	sq. yard	109	109
Galvanized Structural Steel Piles (14 in.)	linear foot	520	520
Pre-Bore for Piling	linear foot	160	160
Pile Point Reinforcement	each	18	18
Class B Concrete (Substructure)	cu. yard	39.0	39.0
Slab on Steel	sq. yard		345
Type D Barrier	linear foot		267
Reinforcing Steel (Bridges)	pound	2560	2560
Fabricated Structural Low Alloy Steel (I-Beam) A709, Grade 50	pound		39,060
Slab Drain	each		10
Finish Field Coat (System L)	sq. foot		2200
Vertical Drain at End Bents	each		2
Laminated Neoprene Bearing Pad	each		18

All concrete between the upper and lower construction joint in the end bents is included with the Estimated Quantities for Slab on Steel.

All reinforcing steel in the end bents is included in the Estimated Quantities for Slab on Steel.

All reinforcement in the intermediate bent concrete diaphragms except reinforcement embedded in the beam cap is included in the Estimated Quantities for Slab on Steel.

All concrete above the intermediate beam cap is included in the Estimated Quantities for Slab on Steel.

Cost of L4x4 ASTM A709 Grade 36 HP pile anchors and 3/4-inch diameter ASTM F3125 Grade A325 Type 1 bolts, complete in place, will be considered completely covered by the contract unit price for Galvanized Structural Steel Piles (14 in.).

Estimated Quantities for Slab on Steel		
Item		Total
Class B-2 Concrete	cu. yard	106
Reinforcing Steel (Galvanized)	pound	31,610

The table of Estimated Quantities for Slab on Steel represents the quantities used by the State in preparing the cost estimate for concrete slabs. The area of the concrete slab will be measured to the nearest square yard longitudinally from end of slab to end of slab and transversely from out to out of bridge slab (or with the horizontal dimensions as shown on the plan of slab). Payment for stay-in-place corrugated steel forms, conventional forms, all concrete and galvanized reinforcing steel will be considered completely covered by the contract unit price for the slab. Variations may be encountered in the estimated quantities but the variations cannot be used for an adjustment in the contract unit price.

Method of forming the slab shall be as shown on the plans and in accordance with Sec 703. All hardware for forming the slab to be left in place as a permanent part of the structure shall be coated in accordance with ASTM A123 or ASTM B633 with a thickness class SC 4 and a finish type I, II or III.

Slab shall be cast-in-place with conventional forms or stay-in-place corrugated steel forms. Precast prestressed panels will not be permitted.

Bridge deck surface may be finished with a vibratory screed.

Foundation Data						
Type	Design Data	Bent Number				
		1	2	3	4	
Load Bearing Pile	Pile Type and Size	HP 14x73	HP 14x73	HP 14x73	HP 14x73	
	Number	ea	4	5	5	4
	Approximate Length Per Each	ft	25	34	34	20
	Pile Point Reinforcement	ea	4	5	5	4
	Min. Galvanized Penetration (Elev.)	ft	Full length	Full length	Full length	Full length
	Pile Driving Verification Method		DF	DF	DF	DF
	Resistance Factor		0.40	0.40	0.40	0.40
	Minimum Nominal Axial Compressive Resistance	kip	321	386	386	321

DF = FHWA-modified Gates Dynamic Pile Formula

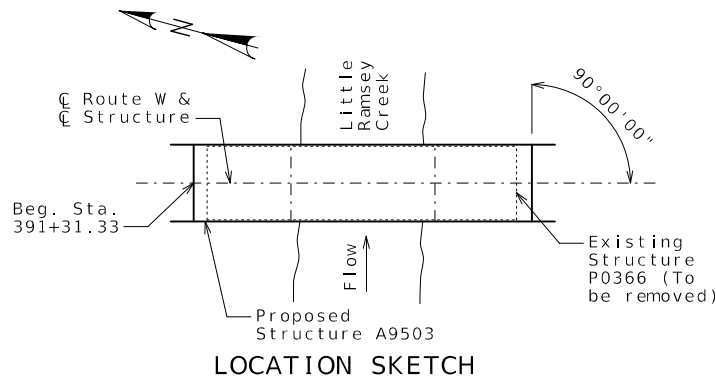
Minimum Nominal Axial Compressive Resistance = $\frac{\text{Maximum Factored Loads}}{\text{Resistance Factor}}$

Pre-bore for piles at Bents No. 2 and 3 to elevation 460.7.

All piles shall be galvanized down to the minimum galvanized penetration (elevation).

Pile point reinforcement need not be galvanized. Shop drawings will not be required for pile point reinforcement.

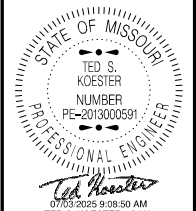
The contractor shall make every effort to achieve the minimum galvanized penetration (elevation) shown on the plans for all piles. Deviations in penetration less than 5 feet of the minimum will be considered acceptable provided the contractor makes the necessary corrections to ensure the minimum penetration is achieved on subsequent piles.



Notice and Disclaimer Regarding Boring Log Data

The locations of all subsurface borings for this structure are shown on the plan sheet(s) for this structure. The boring data for all locations indicated, as well as any other boring logs or other factual records of subsurface data and investigations performed by the department for the design of the project, are shown on Sheet No. 22 and may be included in the Electronic Bridge Deliverables. They will also be available from the Project Contact upon written request. No greater significance or weight should be given to the boring data depicted on the plan sheets than is given to the subsurface data available from the district or elsewhere.

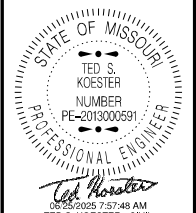
The Commission does not represent or warrant that any such boring data accurately depicts the conditions to be encountered in constructing this project. A contractor assumes all risks it may encounter in basing its bid prices, time or schedule of performance on the boring data depicted here or those available from the district, or on any other documentation not expressly warranted, which the contractor may obtain from the Commission.



DATE PREPARED
 7/3/2025
 ROUTE W STATE MO
 DISTRICT BR SHEET NO. 2
 COUNTY PIKE
 JOB NO. JNE0152
 CONTRACT ID.
 PROJECT NO.
 BRIDGE NO. A9503

DATE	DESCRIPTION

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION
 105 WEST CAPITOL
 JEFFERSON CITY, MO 65102
 1-888-ASK-MODOT (1-888-275-6636)



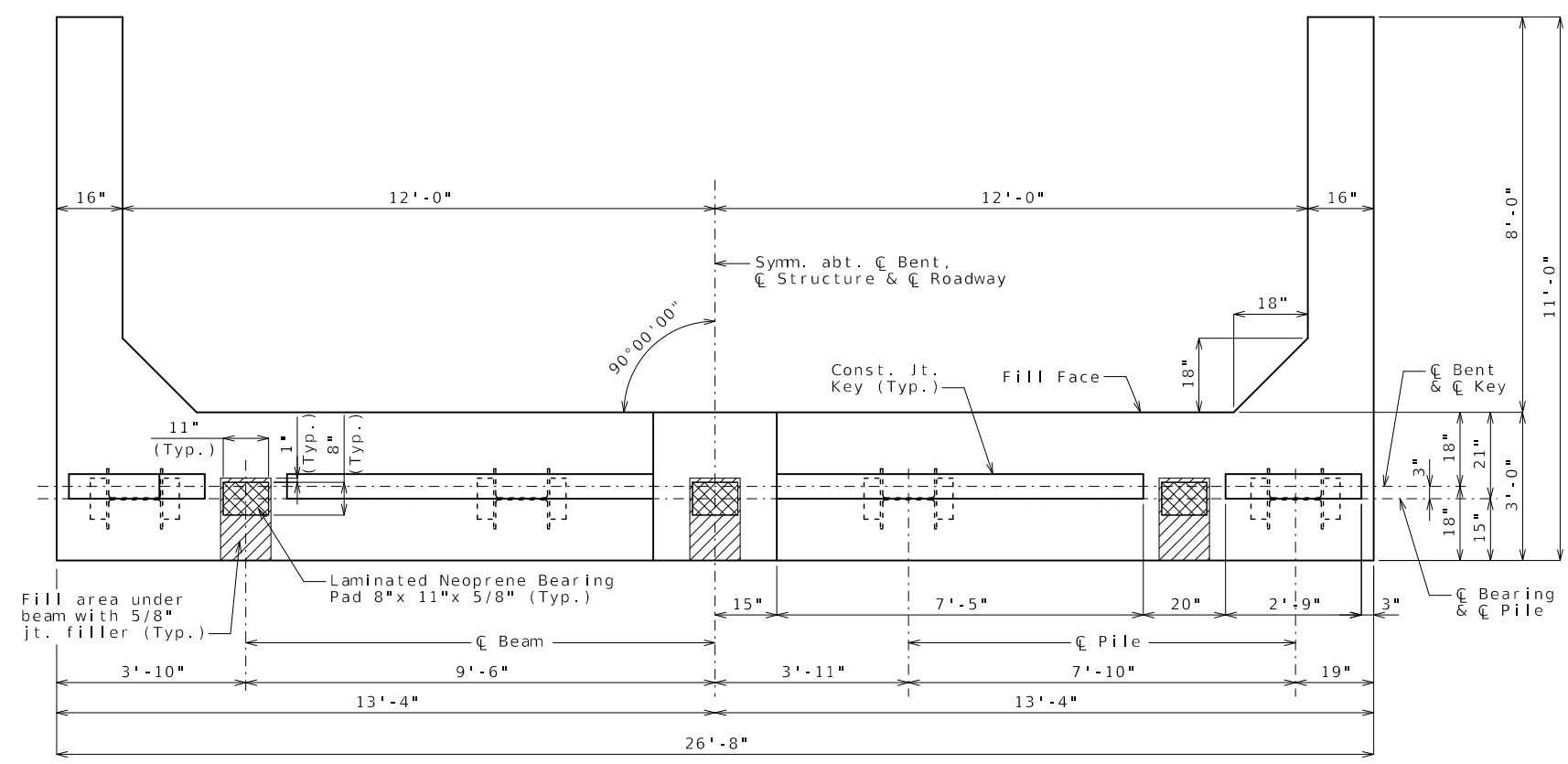
DATE PREPARED
6/25/2025
ROUTE W STATE MO
DISTRICT BR SHEET NO. 3

COUNTY
PIKE
JOB NO.
JNE0152
CONTRACT ID.

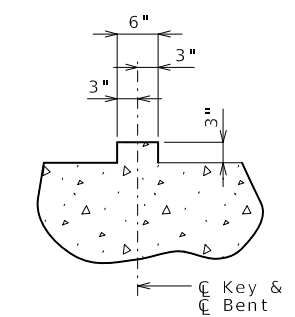
PROJECT NO.
BRIDGE NO.
A9503

DESCRIPTION	DATE

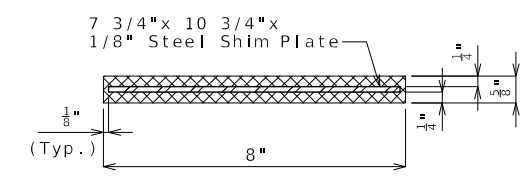
MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION
105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)



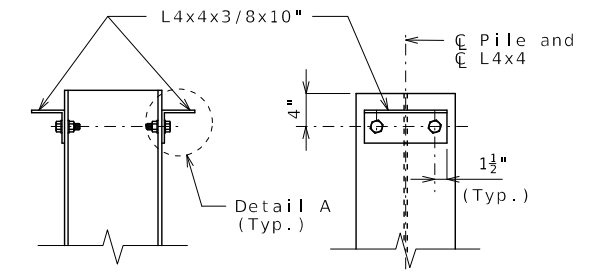
PLAN OF BEAM



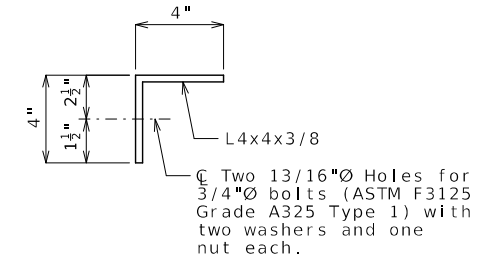
SECTION THRU KEY



TYPICAL SECTION THRU LAMINATED NEOPRENE BEARING PAD



DETAILS OF HP PILE ANCHORS

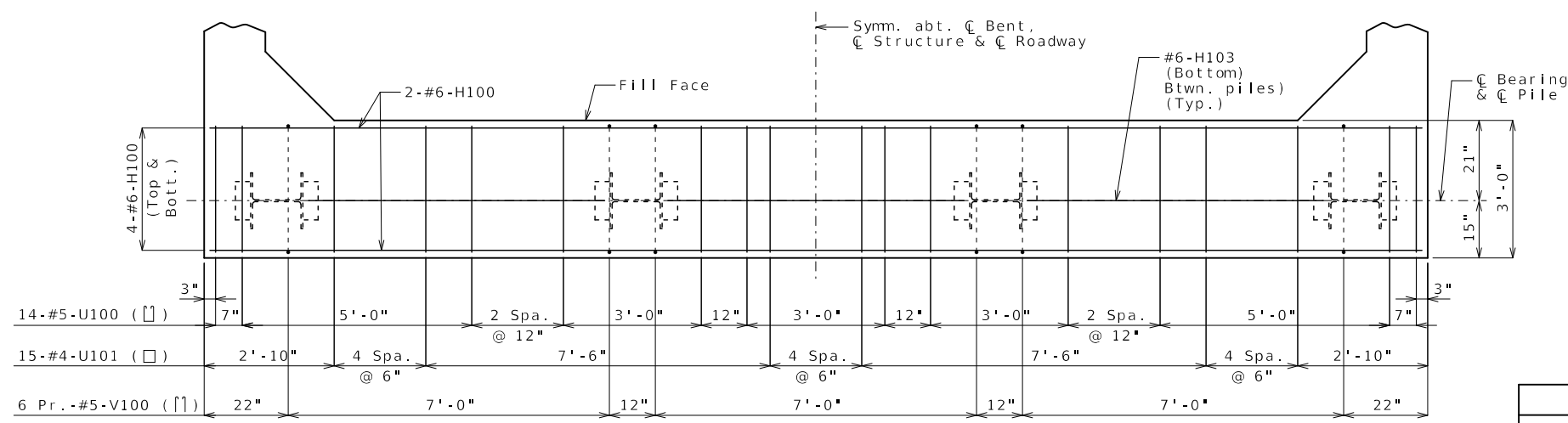


DETAIL A

Angles shall be coated with a minimum of two coats of non-aluminum epoxy mastic primer to provide a dry film thickness of 4 mils minimum, 8 mils maximum, or galvanized in accordance with Sec 1081. Bolts, washers and nuts shall be galvanized in accordance with AASHTO M 232 (ASTM A153), Class C.

Notes:

- Work this sheet with Sheets No. 4 & 5.
- Reinforcement shall be shifted to clear piles. U bars shall clear piles by at least 1 1/2 inches.



PLAN OF BEAM SHOWING REINFORCEMENT

Keys and steps not shown for clarity.

Item	End Bent No. 1	End Bent No. 4
Class 1 Excavation	cu. yard	30
Galvanized Structural Steel Piles (14 in.)	linear foot	100
Pile Point Reinforcement	each	4
Class B Concrete (Substructure)	cu. yard	X

These quantities are included in the Estimated Quantities table on Sheet No. 2.

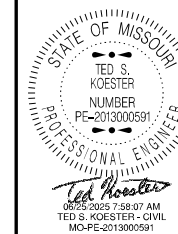
END BENTS NO. 1 & 4

Detailed Dec. 2024
Checked Dec. 2024

Note: This drawing is not to scale. Follow dimensions.

Sheet No. 3 of 22

STEEL ALTERNATE



DATE PREPARED
6/25/2025

ROUTE STATE
W MO

DISTRICT SHEET NO.
BR 4

COUNTY
PIKE

JOB NO.
JNE0152

CONTRACT ID.

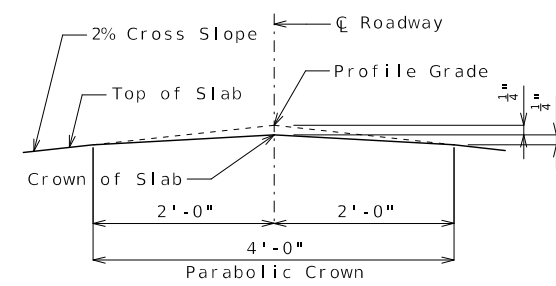
PROJECT NO.

BRIDGE NO.
A9503

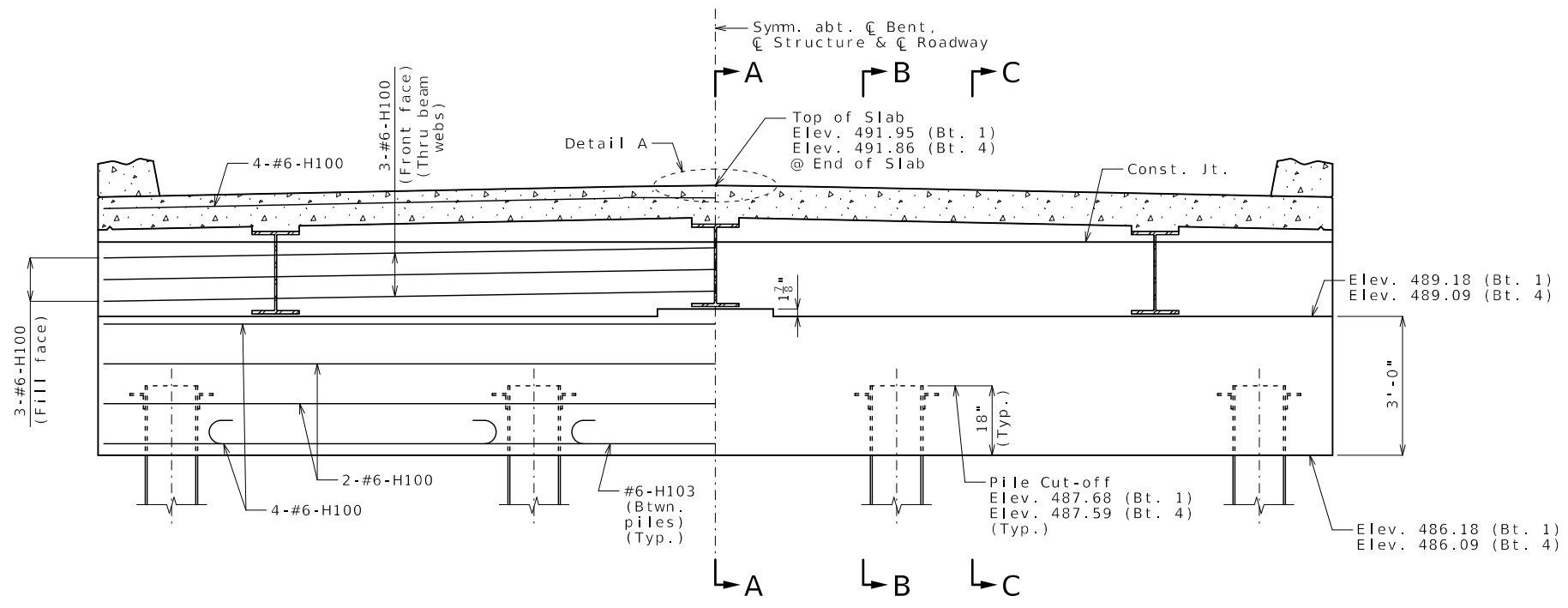
DATE	DESCRIPTION

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

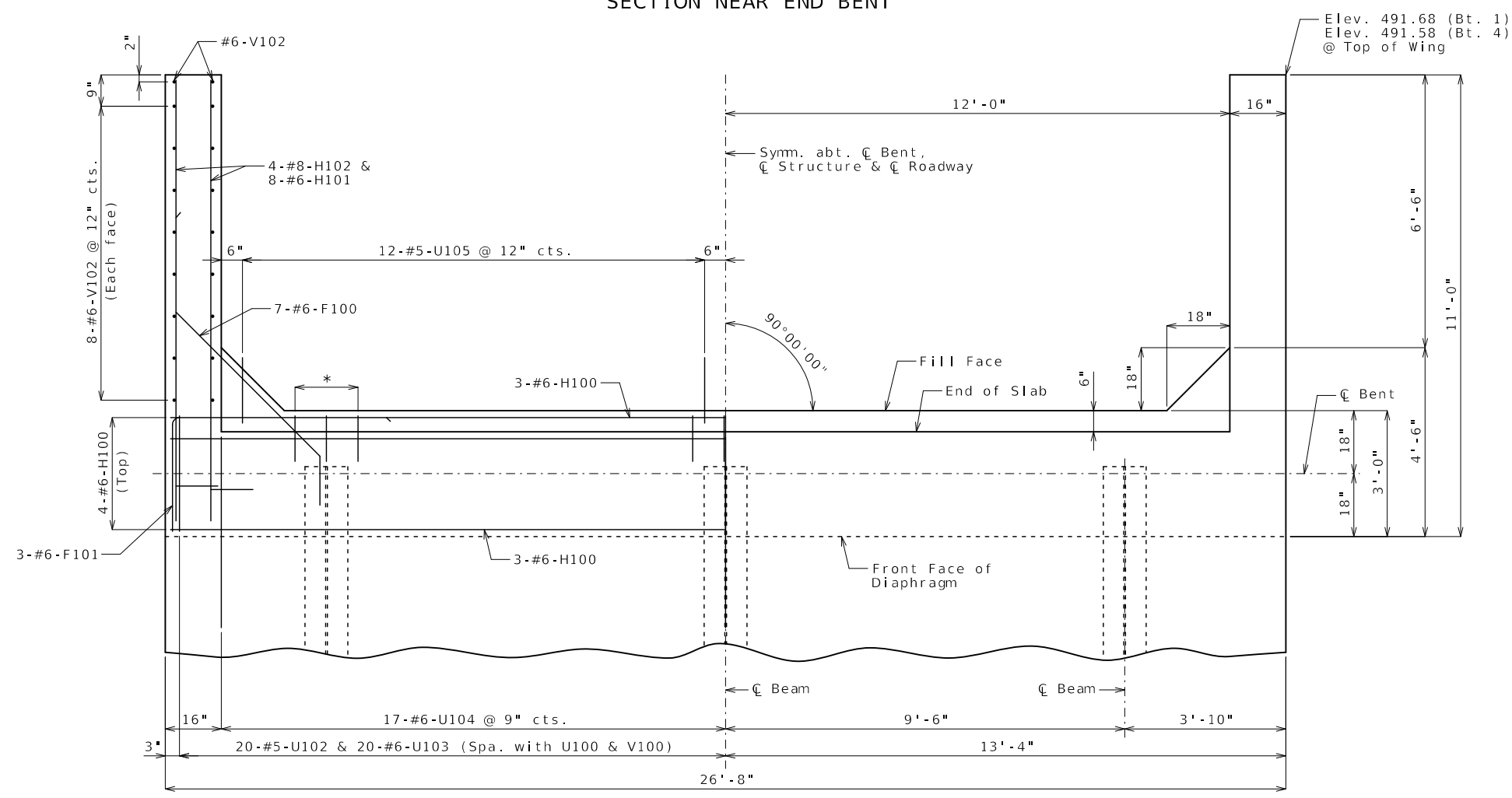
105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)



DETAIL A



SECTION NEAR END BENT



PART PLAN

* 3-#6-V101 @ 9" cts. (Centered behind beam) (Typ.)

END BENTS NO. 1 & 4

Notes:

Work this sheet with Sheets No. 3 & 5.

All concrete between the upper and lower construction joints in the end bents shall be Class B-2.

The concrete diaphragm at the end bents shall be poured a minimum of 12 hours before the slab is poured.

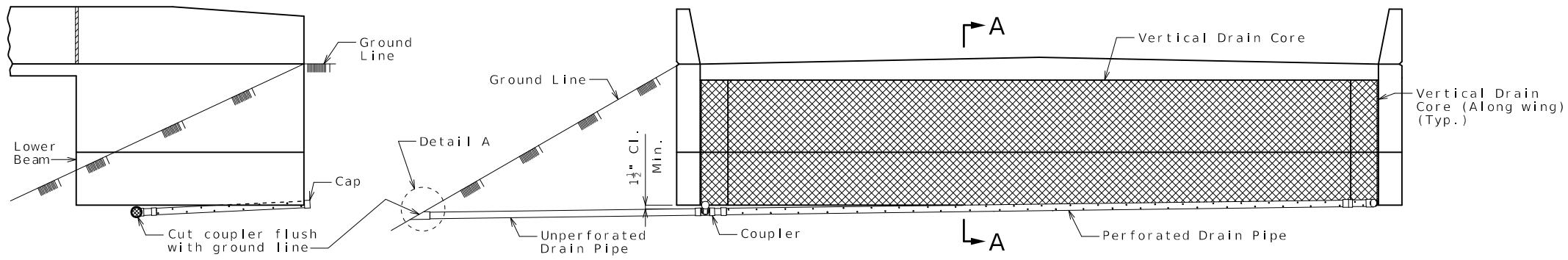
For details of vertical drain at end bent, see Sheet No. 6.

Detailed Dec. 2024
Checked Dec. 2024

Note: This drawing is not to scale. Follow dimensions.

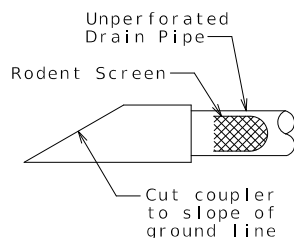
Sheet No. 4 of 22

STEEL ALTERNATE

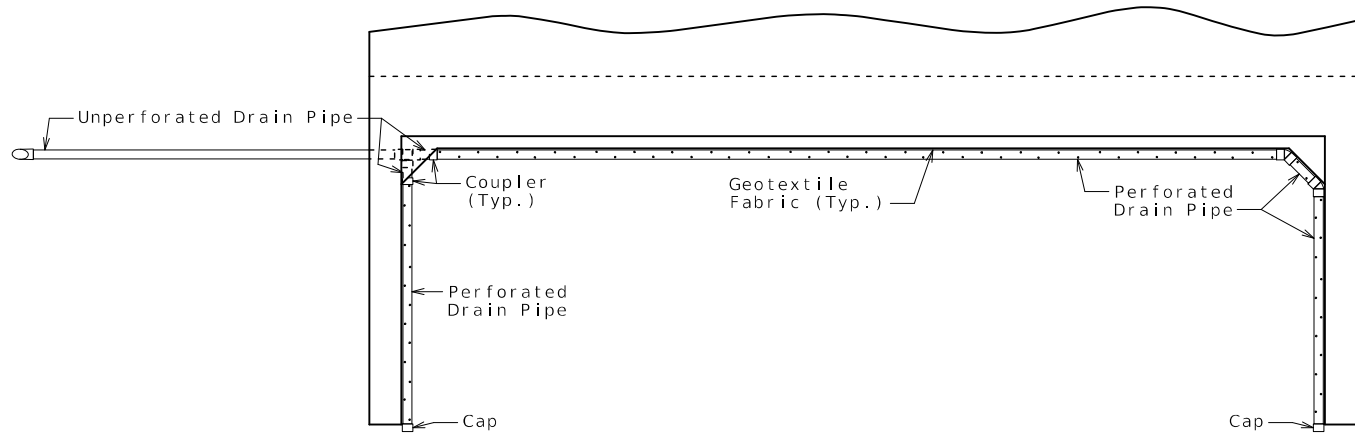


ELEVATION OF WING

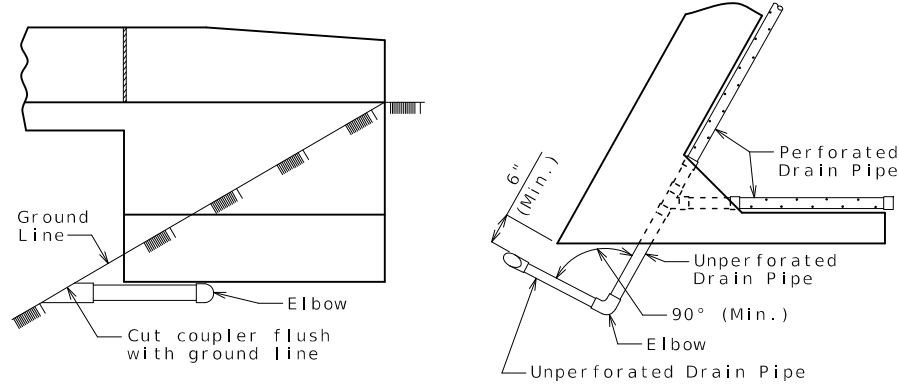
ELEVATION OF END BENT



DETAIL A



PLAN OF END BENT

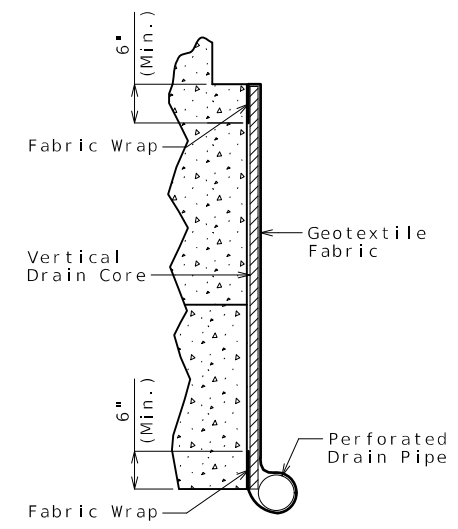


ELEVATION OF WING

PART PLAN

OPTIONAL TURNED DRAIN

(Use only when straight drain is not practical.)



PART SECTION A-A
(Section thru wing similar)

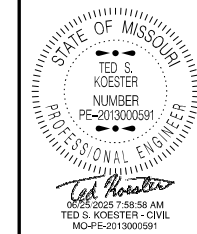
General Notes:

All drain pipe shall be sloped 1 to 2 percent.

Drain pipe may be either 6-inch diameter corrugated metallic-coated steel pipe underdrain, 4-inch diameter corrugated polyvinyl chloride (PVC) drain pipe, or 4-inch diameter corrugated polyethylene (PE) drain pipe.

Drain pipe shall be placed at fill face of end bent and inside face of wings. The pipe shall slope to lowest grade of ground line, also missing the lower beam of end bent by a minimum of 1 1/2 inches.

Perforated pipe shall be placed at fill face side and inside face of wings at the bottom of end bent and plain pipe shall be used where the vertical drain ends to the exit at ground line.



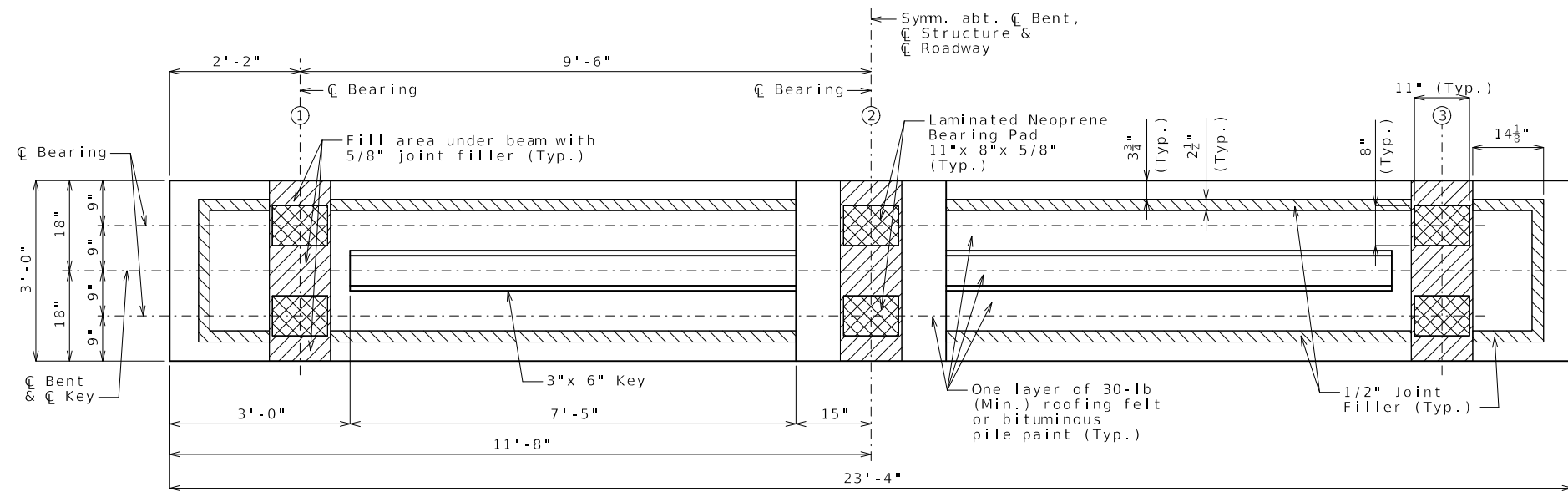
DATE PREPARED 6/25/2025	
ROUTE W	STATE MO
DISTRICT BR	SHEET NO. 6
COUNTY PIKE	
JOB NO. JNE0152	
CONTRACT ID.	
PROJECT NO.	
BRIDGE NO. A9503	

DESCRIPTION	DATE

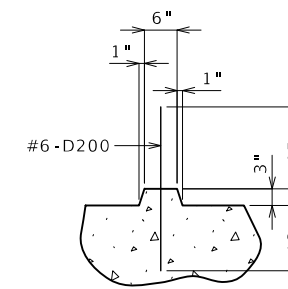
MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)

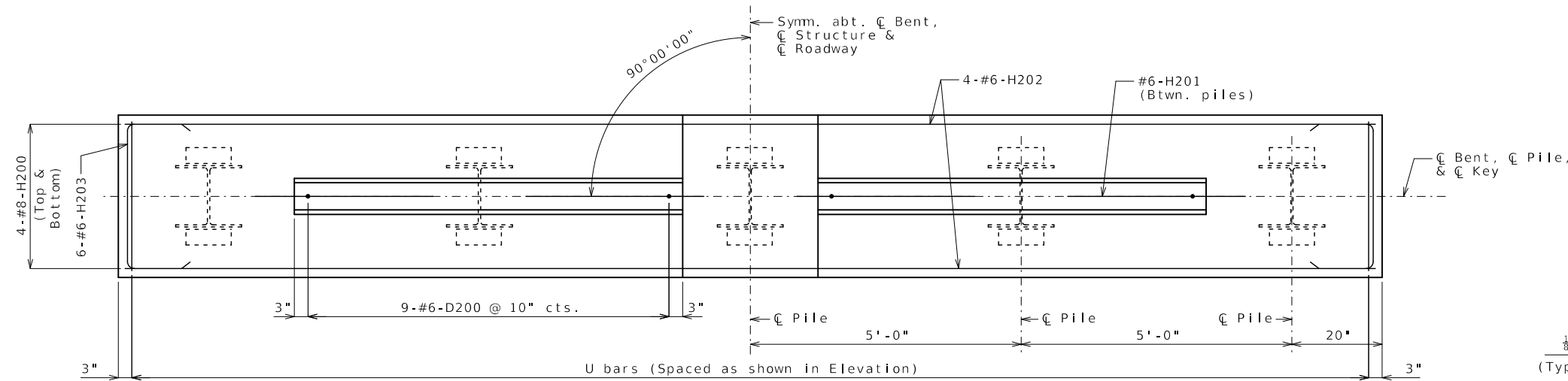
VERTICAL DRAIN AT END BENTS



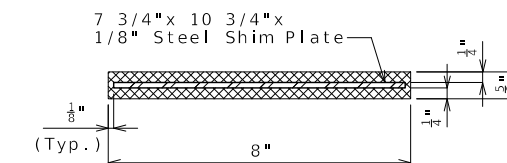
PLAN OF BEAM



SECTION THRU KEY



PLAN OF BEAM SHOWING REINFORCEMENT



TYPICAL SECTION THRU LAMINATED NEOPRENE BEARING PAD

Notes:

Work this sheet with Sheet No. 8.

For steps 2 inches or more, use 2 1/4"x 1/2" joint filler up vertical face.

All reinforcement in the intermediate bent concrete diaphragms except reinforcement embedded in the beam cap is included in the Estimated Quantities for Slab on Steel.

All concrete above the intermediate bent beam cap is included in the Estimated Quantities for Slab on Steel.

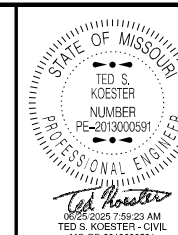
Concrete diaphragm below the construction joint shall be poured a minimum of 12 hours before the slab is poured.

Substructure Quantity Table

Item	Int. Bent No. 2	Int. Bent No. 3
Galvanized Structural Steel Piles (14 in.)	linear foot 170	170
Pre-Bore for Piling	linear foot 85	75
Pile Point Reinforcement	each 5	5
Class B Concrete (Substructure)	cu. yard 7.9	7.9
Reinforcing Steel (Bridges)	pound 1280	1280

These quantities are included in the Estimated Quantities table on Sheet No. 2.

INTERMEDIATE BENTS NO. 2 & 3



DATE PREPARED
6/25/2025

ROUTE W STATE MO

DISTRICT BR SHEET NO. 7

COUNTY PIKE

JOB NO. JNE0152

CONTRACT ID.

PROJECT NO.

BRIDGE NO. A9503

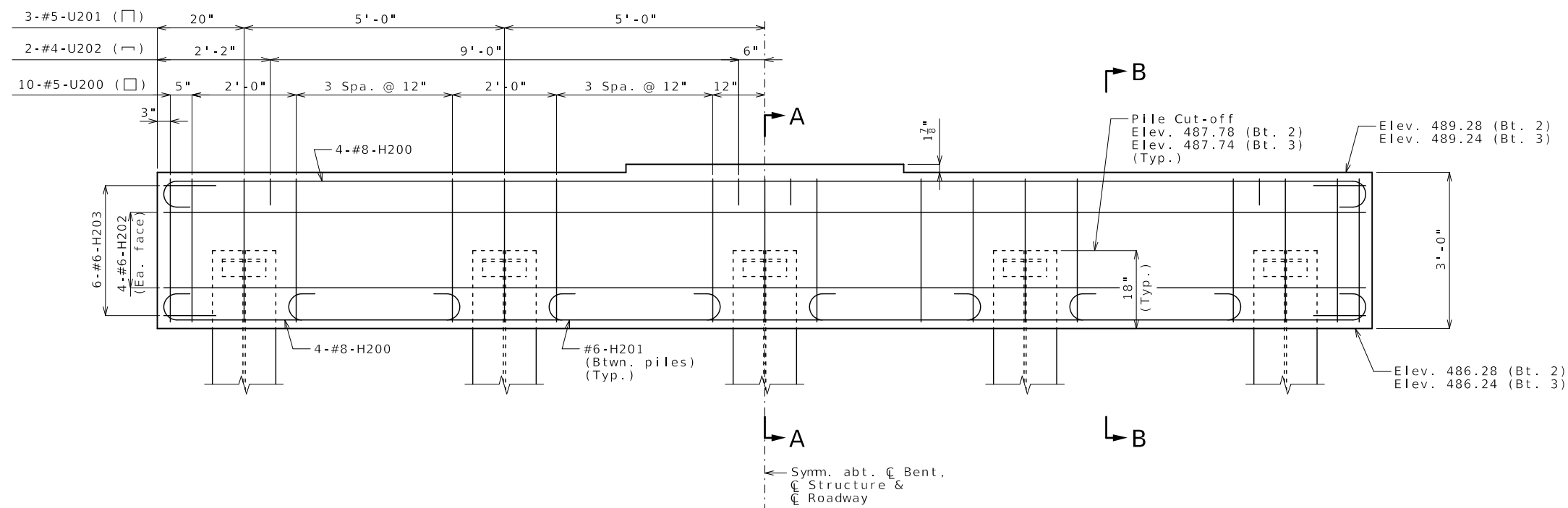
DESCRIPTION

DATE

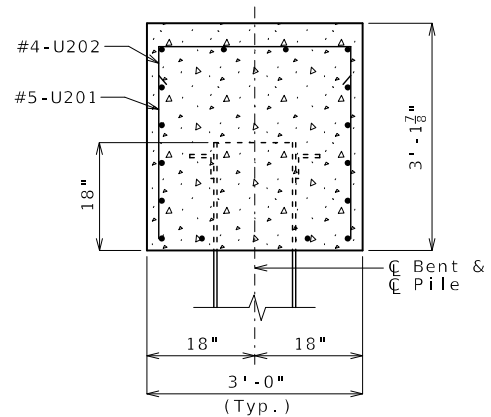
MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)

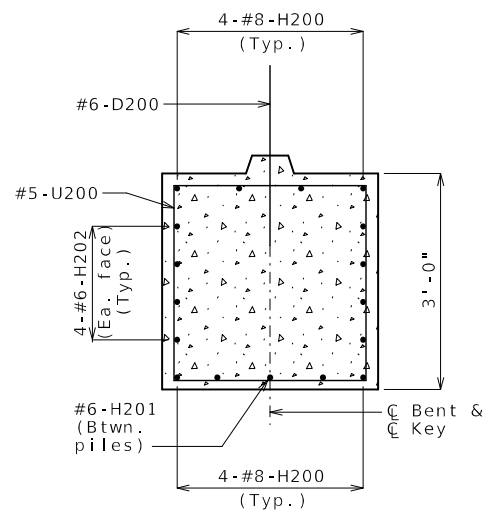




ELEVATION
Beam keys not shown for clarity.



SECTION A-A

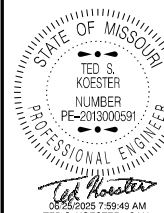


SECTION B-B

Notes:

Work this sheet with Sheet No. 7.

Reinforcing steel shall be shifted to clear piles.
U bars shall clear piles by at least 1 1/2 inches.



DATE PREPARED
6/25/2025

ROUTE STATE
W MO

DISTRICT SHEET NO.
BR 8

COUNTY
PIKE

JOB NO.
JNE0152

CONTRACT ID.

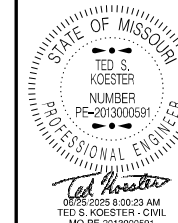
PROJECT NO.

BRIDGE NO.
A9503

DESCRIPTION	DATE

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)

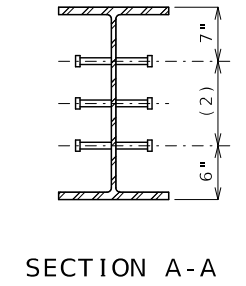
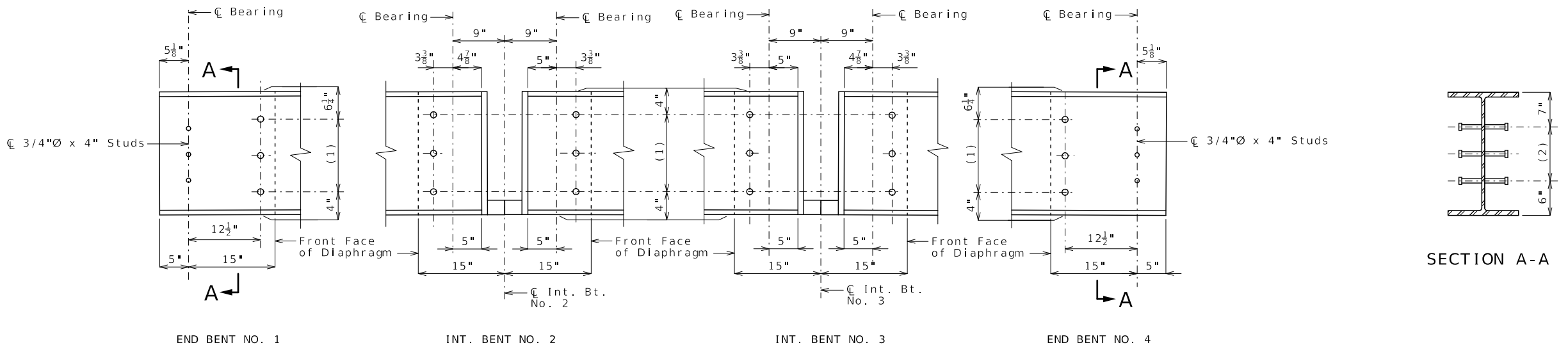
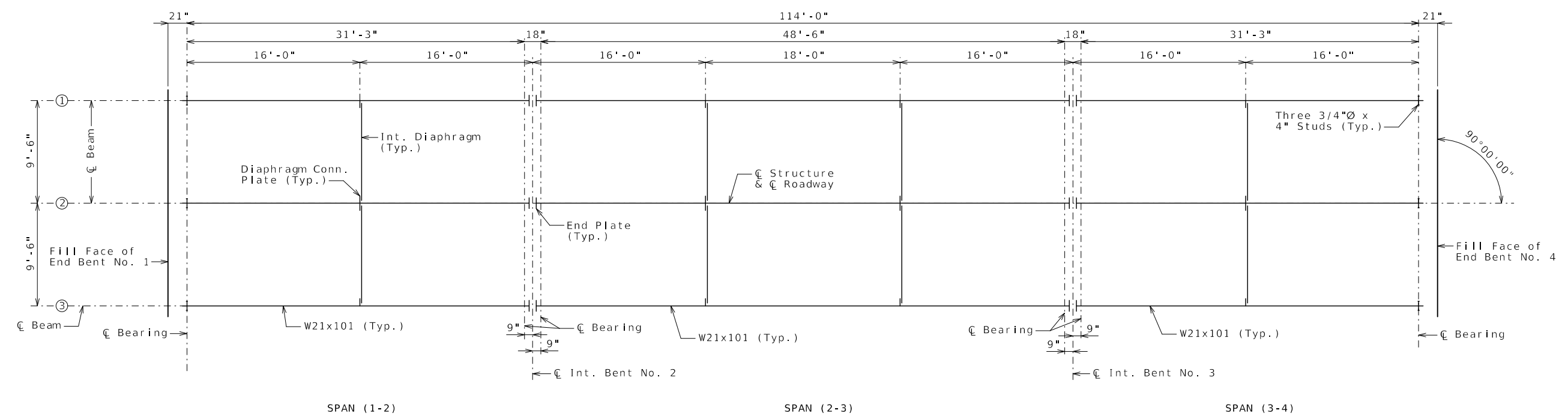


DATE PREPARED
6/25/2025
ROUTE W STATE MO
DISTRICT BR SHEET NO. 9
COUNTY PIKE
JOB NO. JNE0152
CONTRACT ID.
PROJECT NO.

BRIDGE NO.
A9503

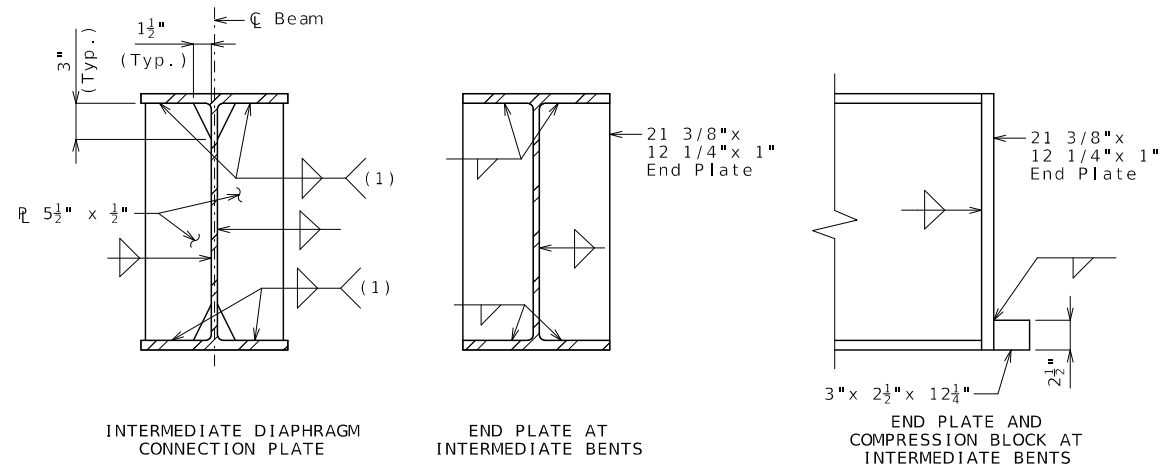
DATE	DESCRIPTION

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION
105 WEST CAPITOL JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)



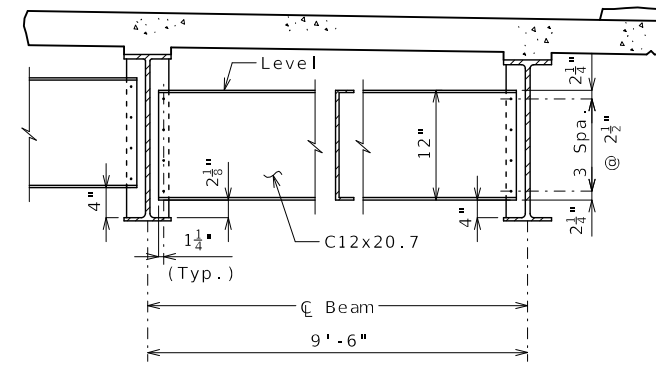
Notes:
 (1) Three 1 1/16"Ø holes in web (Equally spaced)
 (2) Three 3/4"Ø x 4" Studs (Equally spaced)
 Longitudinal dimension are horizontal.
 For details of intermediate diaphragms, connection plates and end plates, see Sheet No. 10.

STEEL DETAILS

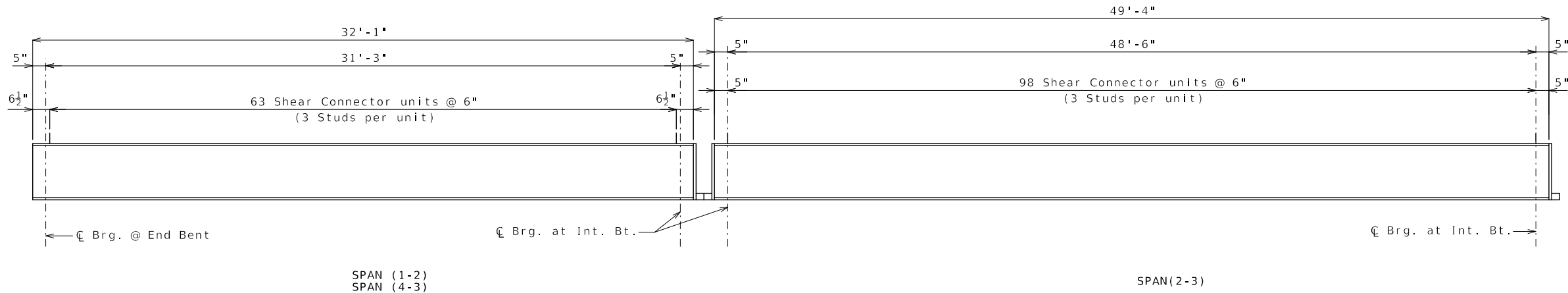


WELDING DETAILS

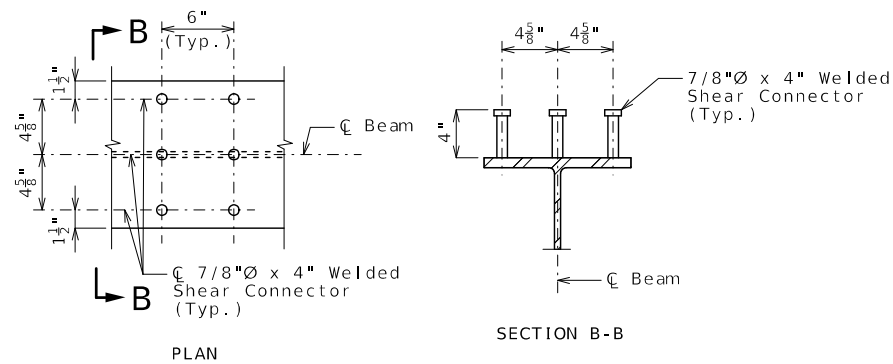
(1) Tight fit



TYPICAL PART SECTION SHOWING INTERMEDIATE DIAPHRAGMS



PART ELEVATION OF BEAM SHOWING SHEAR CONNECTOR SPACING



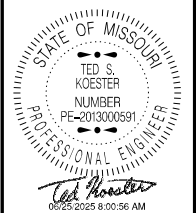
DETAILS OF SHEAR CONNECTORS

Weight of 1633 pounds of shear connectors is included in the weight of Fabricated Structural Low Alloy Steel (I-Beam) A709, Grade 50.

Shear connectors shall be in accordance with Sec 712, 1037 and 1080.

Note:
For location of steel intermediate diaphragms, see Sheet No. 9.

STEEL DETAILS



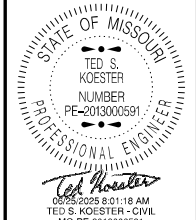
DATE PREPARED: 6/25/2025

ROUTE	STATE
W	MO
DISTRICT	SHEET NO.
BR	10
COUNTY	
PIKE	
JOB NO.	
JNE0152	
CONTRACT ID.	
PROJECT NO.	
BRIDGE NO.	
A9503	

DATE	DESCRIPTION

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)



DATE PREPARED
6/25/2025

ROUTE W STATE MO

DISTRICT BR SHEET NO. 11

COUNTY PIKE

JOB NO. JNE0152

CONTRACT ID.

PROJECT NO.

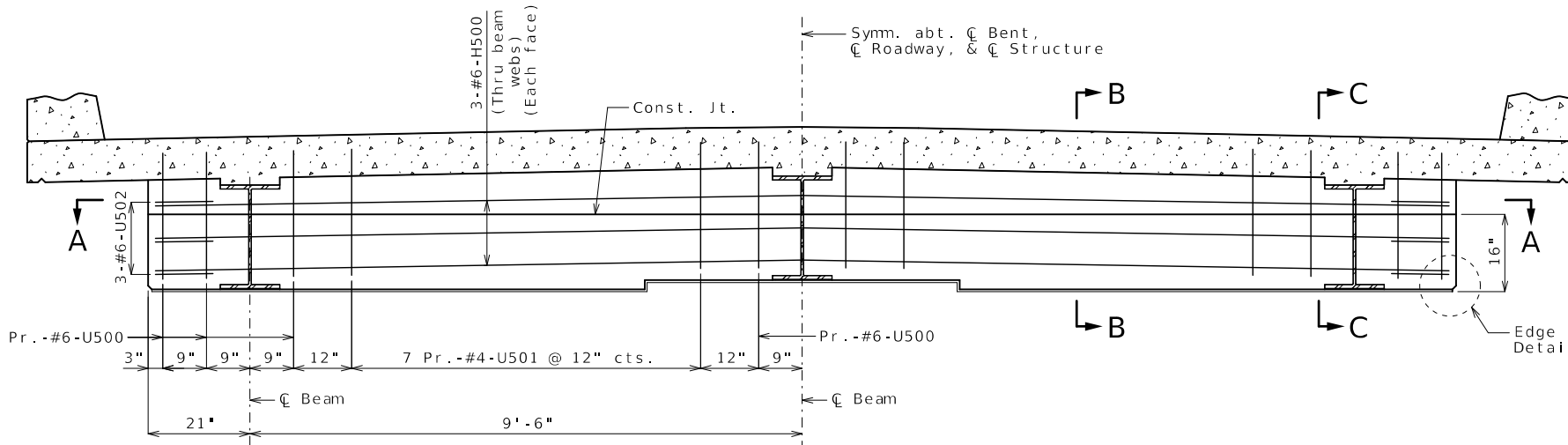
BRIDGE NO. A9503

DESCRIPTION

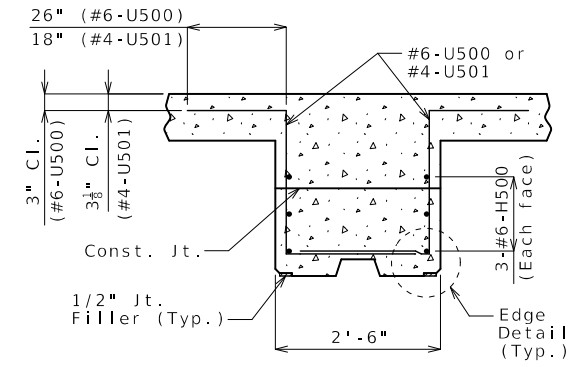
DATE

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

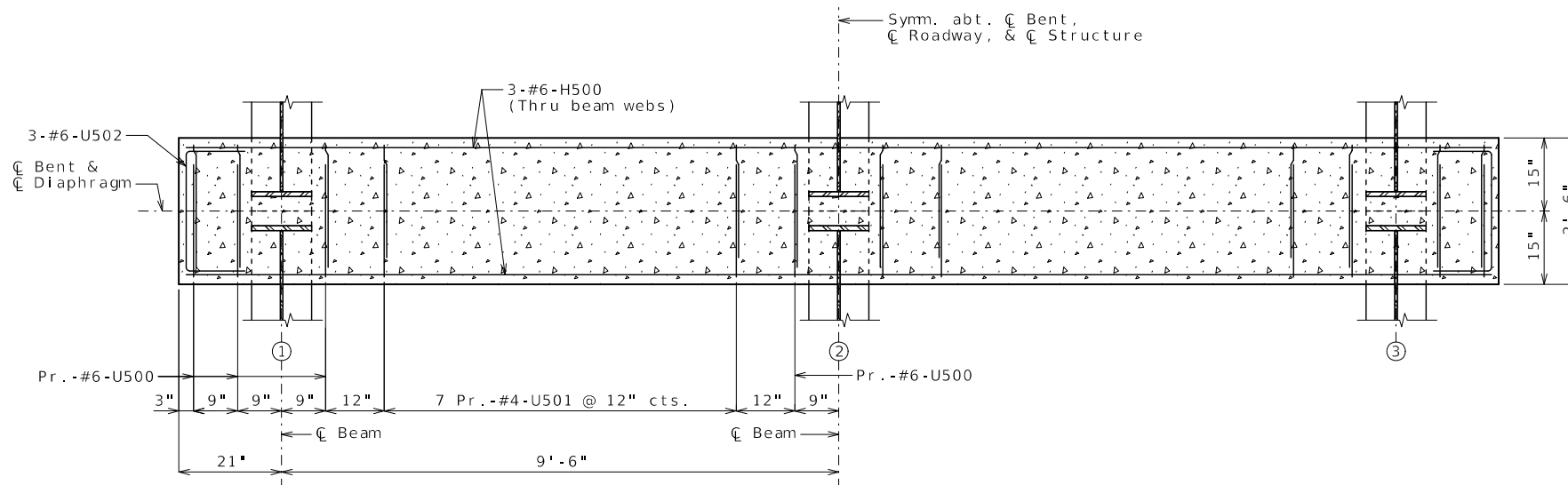
105 WEST CAPITOL JEFFERSON CITY, MO 65102 1-888-ASK-MODOT (1-888-275-6636)



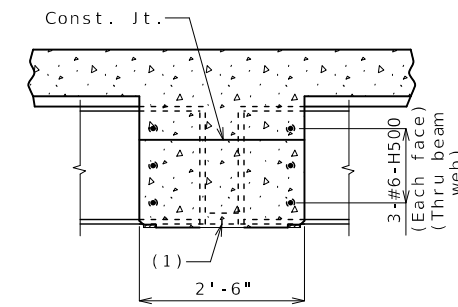
SECTION NEAR INTERMEDIATE BENT



SECTION B-B

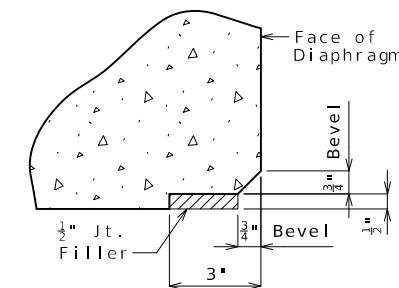


SECTION A-A



SECTION C-C

(1) Vertical face of compression blocks shall be in partial contact. Full contact throughout block height is not necessary.



EDGE DETAIL

Notes:

Diaphragms at intermediate bents shall be built vertical.

Concrete diaphragm below construction joint shall be poured a minimum of 12 hours before the slab is poured.

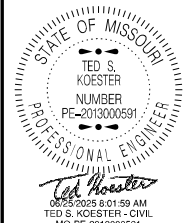
CONCRETE DIAPHRAGM AT INTERMEDIATE BENTS NO. 2 & 3

Detailed Dec. 2024
Checked Dec. 2024

Note: This drawing is not to scale. Follow dimensions.

Sheet No. 11 of 22

STEEL ALTERNATE



DATE PREPARED
6/25/2025

ROUTE STATE
W MO

DISTRICT SHEET NO.
BR 13

COUNTY
PIKE

JOB NO.
JNE0152

CONTRACT ID.

PROJECT NO.

BRIDGE NO.
A9503

DESCRIPTION

DATE

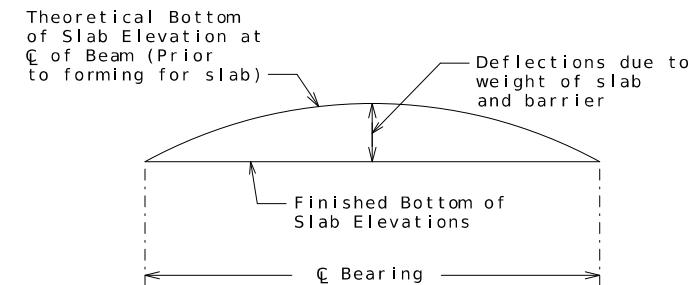
MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)

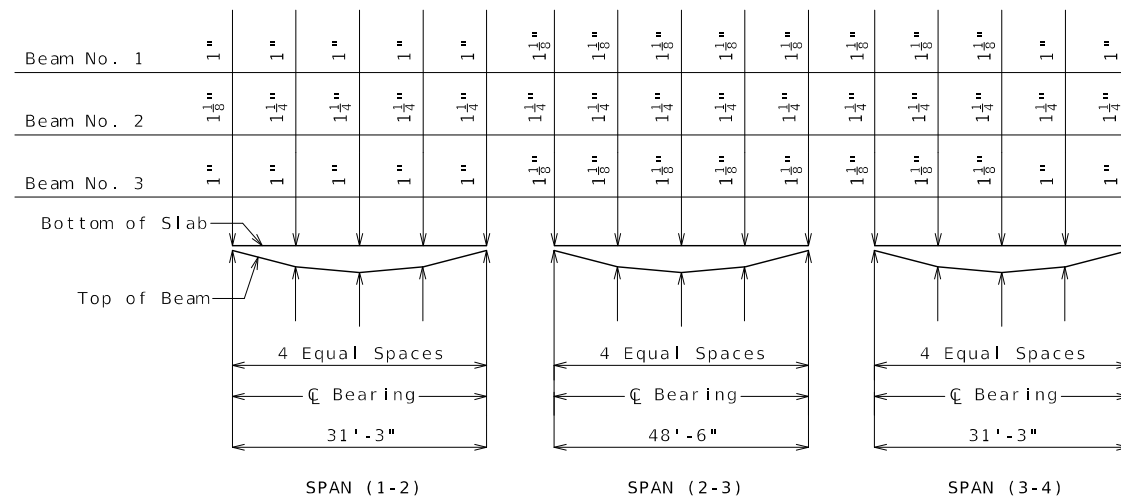
Theoretical Bottom of Slab Elevations at Centerline of Beam
(Prior to forming for slab) (Estimated at 90 days)

Beam Number	Span (1-2) (31'-5" C Brg. - C Brg.)				Span (2-3) (48'-10" C Brg. - C Brg.)				Span (3-4) (31'-5" C Brg. - C Brg.)						
	C Brg.	.25	.50	.75	C Brg.	C Brg.	.25	.50	.75	C Brg.	C Brg.	.25	.50	.75	C Brg.
1	491.10	491.15	491.19	491.20	491.20	491.21	491.33	491.37	491.31	491.17	491.16	491.15	491.13	491.08	491.01
2	491.27	491.32	491.36	491.37	491.37	491.38	491.50	491.54	491.48	491.34	491.33	491.32	491.30	491.25	491.18
3	491.10	491.15	491.19	491.20	491.20	491.21	491.33	491.37	491.31	491.17	491.16	491.15	491.13	491.08	491.01

Elevations are based on a constant slab thickness of 8 1/2 inches and include allowance for theoretical dead load deflections due to weight of slab and barrier.

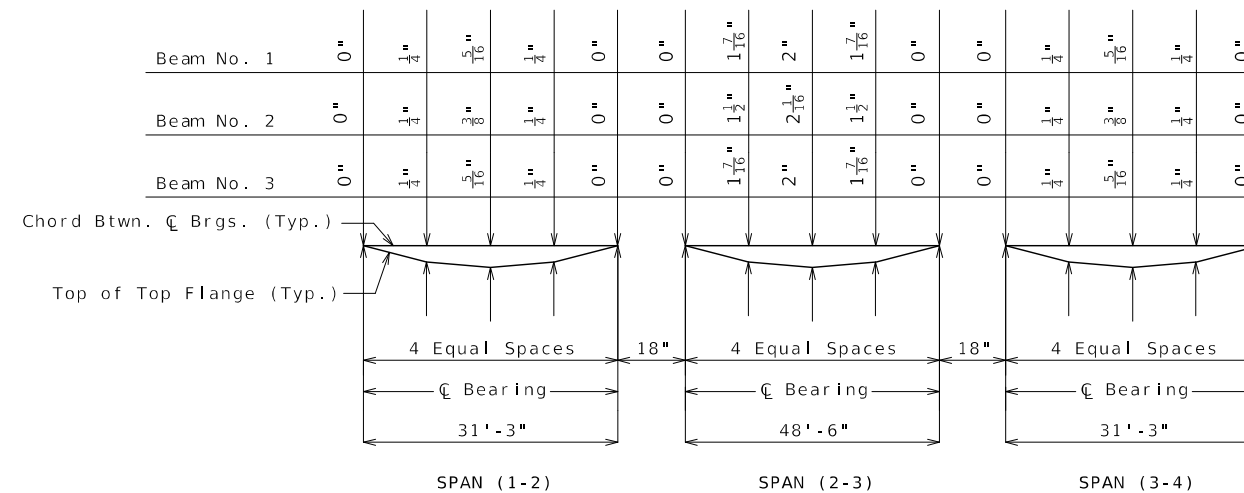


TYPICAL SLAB ELEVATIONS DIAGRAM



THEORETICAL SLAB HAUNCHING DIAGRAM (AFTER BARRIER PLACEMENT)

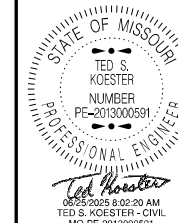
Haunching is estimated based on grade and bent elevations and dead load deflection shown. If elevations or deflections in the field vary, and adjustment of the slab haunches shall be necessary in order to maintain a constant 8 1/2-inch slab thickness.



TOTAL DEAD LOAD DEFLECTION

9% of dead load deflection is due to the weight of structural steel.

Dead load deflection includes weight of structural steel, concrete slab, and barrier.



DATE PREPARED
6/25/2025

ROUTE STATE
W MO

DISTRICT SHEET NO.
BR 14

COUNTY
PIKE

JOB NO.
JNE0152

CONTRACT ID.

PROJECT NO.

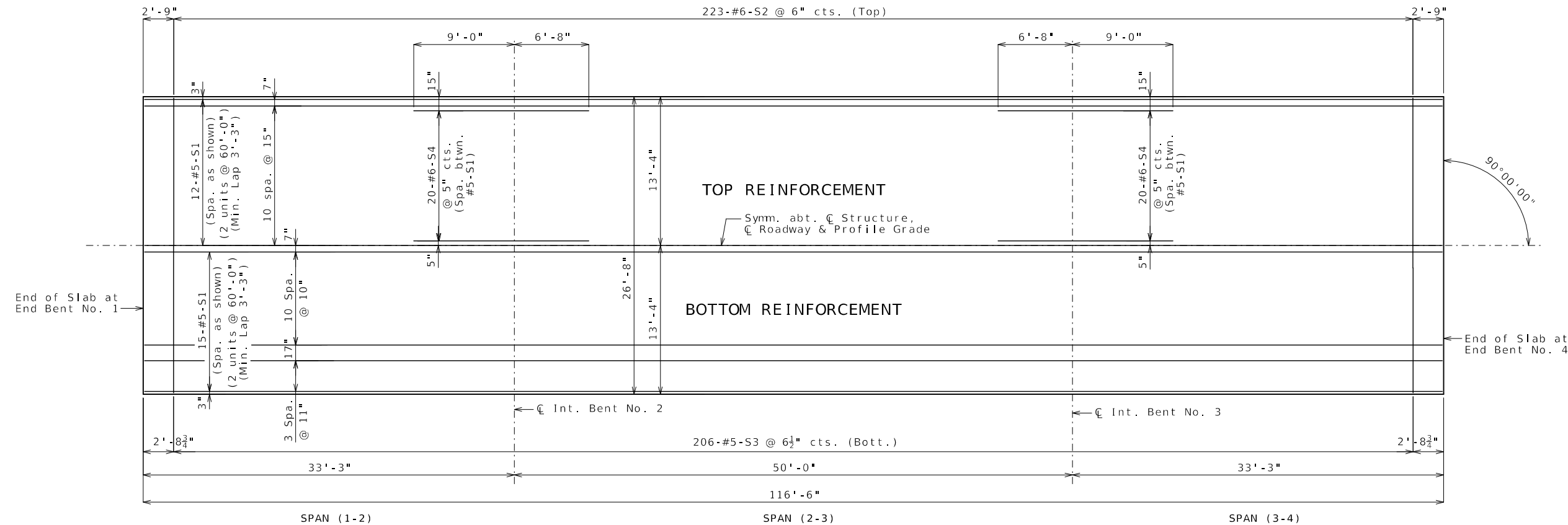
BRIDGE NO.
A9503

DESCRIPTION

DATE

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)



PLAN OF SLAB SHOWING REINFORCEMENT

Notes:

- Longitudinal slab dimensions are measured horizontally.
- For Section thru Slab and Slab Pouring Sequence, see Sheet No. 15.
- For details and reinforcement of barrier not shown, see Sheet No. 16.
- For Dead Load Deflection diagram, Beam Camber Diagram, and Theoretical Bottom of Slab Elevations, see Sheet No. 13.
- For details and locations of slab drains, see Sheet No. 12.

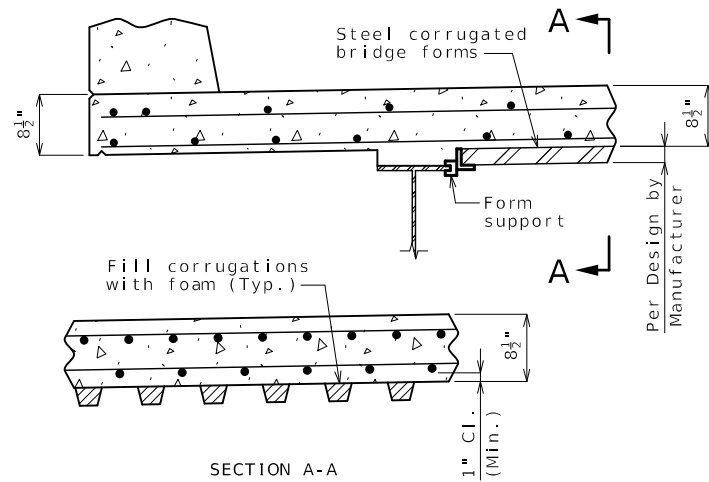
SLAB DETAILS

Detailed Nov. 2024
Checked Dec. 2024

Note: This drawing is not to scale. Follow dimensions.

Sheet No. 14 of 22

STEEL ALTERNATE



OPTIONAL STAY-IN-PLACE FORM DETAILS

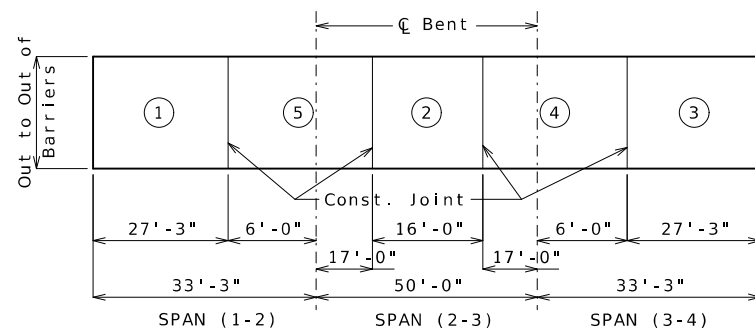
Stay-In-Place Forms:

Corrugated steel forms, supports, closure elements and accessories shall be in accordance with grade requirement and coating designation G165 of ASTM A653. Complete shop drawings of the permanent steel deck forms shall be required in accordance with Sec 1080.

Corrugations of stay-in-place forms shall be filled with an expanded polystyrene material. The polystyrene material shall be placed in direct contact with the adhesive in accordance with the manufacturer's recommendations.

Form sheets shall not rest directly on the top of beam flanges. Sheets shall be securely fastened to form supports with a minimum bearing length of one inch on each end. Form supports shall be placed in direct contact with the flange. Drilling holes in the beam flanges will not be permitted. All steel fabrication and construction shall be in accordance with Sec 1080 and 712. Certified field welders will not be required for welding of the form supports.

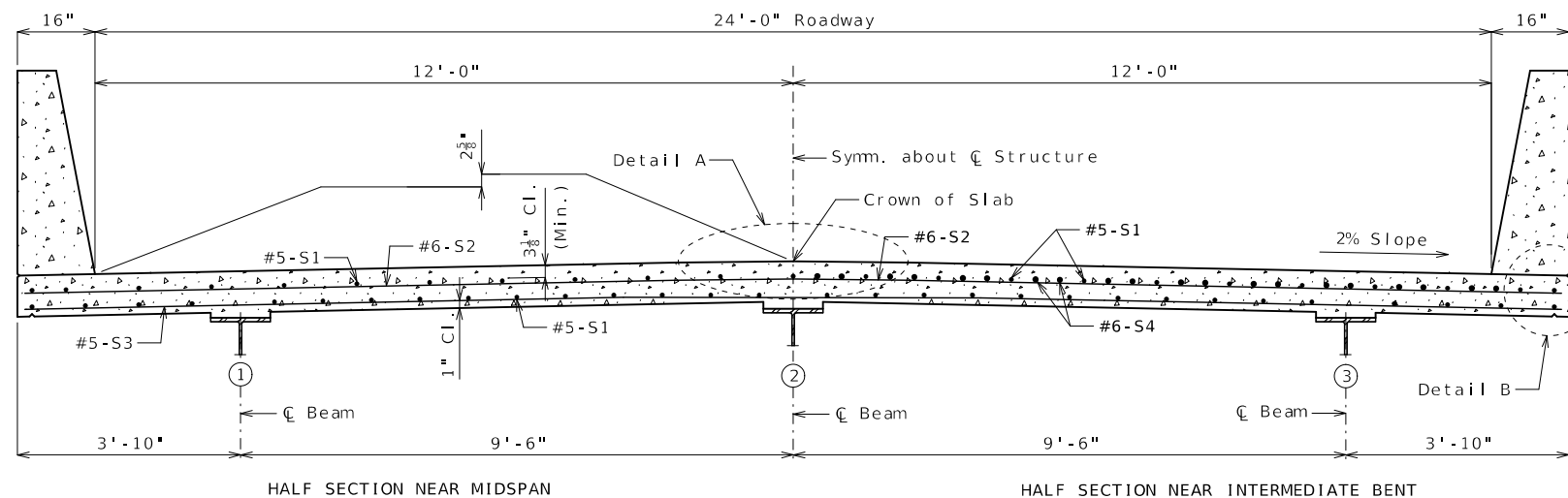
The design of stay-in-place corrugated steel forms is per manufacturer which shall be in accordance with Sec 703 for false work and forms. Maximum actual weight of corrugated steel forms allowed shall be 4 psf assumed for girder beam loading.



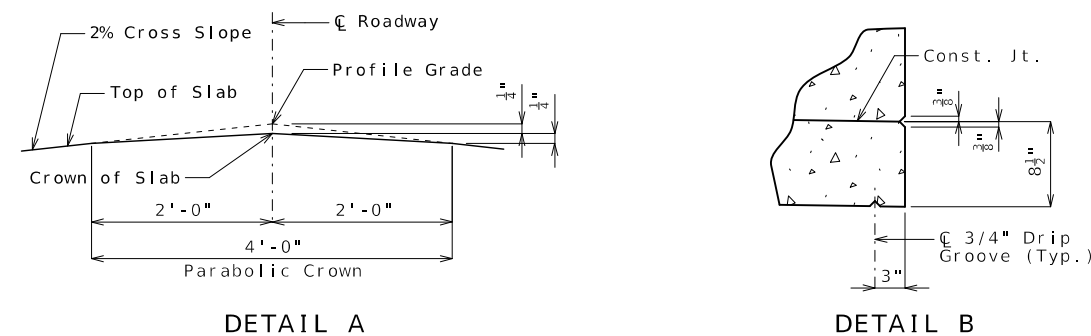
	Sequence of Pours					Min. Rate of Pour Cu. Yds./Hr.	
	Direction					With Retarder	No Retarder
Basic Sequence	1	2	3	4	5	25	25
Alternate pours to the basic skip sequence are subject to the approval of the engineer in accordance with Sec 703.							
Alternate A Pours	1	5 + 2	1 to 4	4 + 3	2 to End	25	25
Alternate B Pours	1 + 5 + 2	End to 4		4 + 3	2 to End	25	25
Alternate C Pours	1 + 5 + 2 + 4 + 3					25	25
End to End							

The contractor shall pour and satisfactorily finish the slab pours at the rate given. Retarder, if used, shall be an approved type and retard the set of concrete to 2.5 hours.

SLAB POURING SEQUENCE

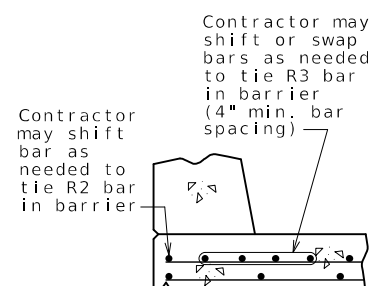


SECTION THRU SLAB

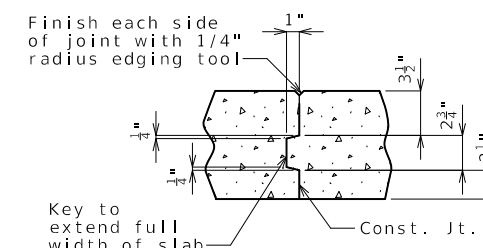


DETAIL A

DETAIL B



OPTIONAL SHIFTING TOP BARS AT BARRIER



SLAB CONSTRUCTION JOINT

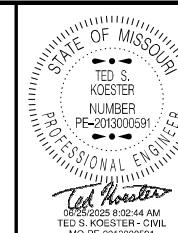
Notes:

For reinforcement of barrier not shown, see Sheet No. 16.

For Theoretical Bottom of Slab Elevations, Girder Camber Diagram and Theoretical Slab Haunching Diagram, see Sheet No. 13.

For Plan of Slab Showing Reinforcement, see Sheet No. 14.

SLAB DETAILS



DATE PREPARED
6/25/2025

ROUTE W STATE MO

DISTRICT BR SHEET NO. 15

COUNTY PIKE

JOB NO. JNE0152

CONTRACT ID.

PROJECT NO.

BRIDGE NO. A9503

DESCRIPTION

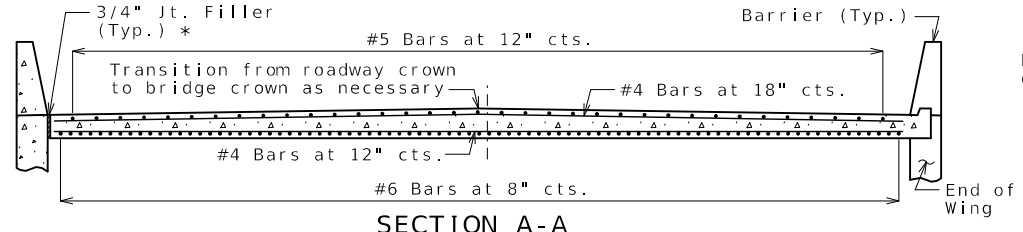
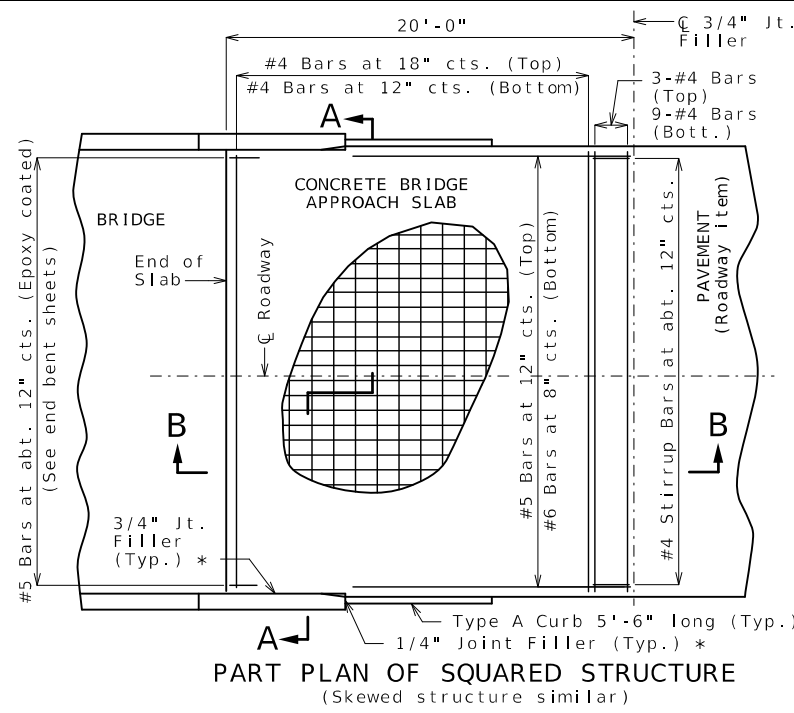
DATE

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

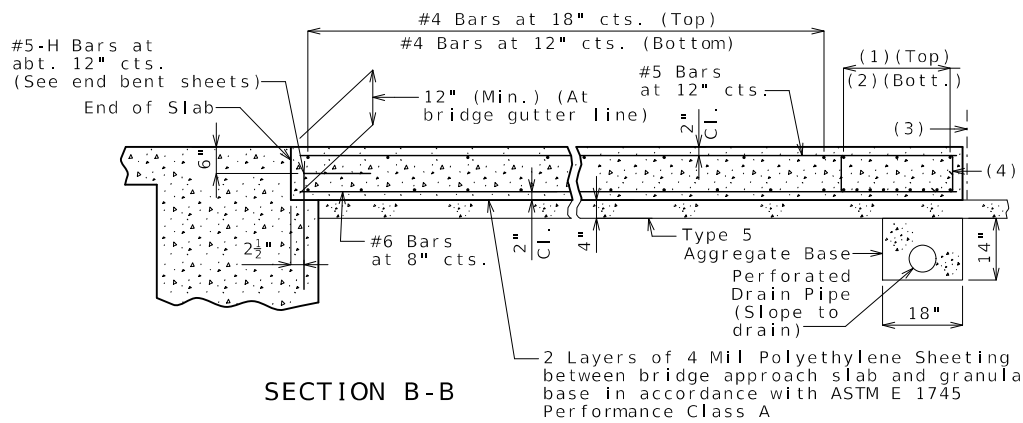
105 WEST CAPITOL JEFFERSON CITY, MO 65102

1-888-ASK-MODOT (1-888-275-6636)

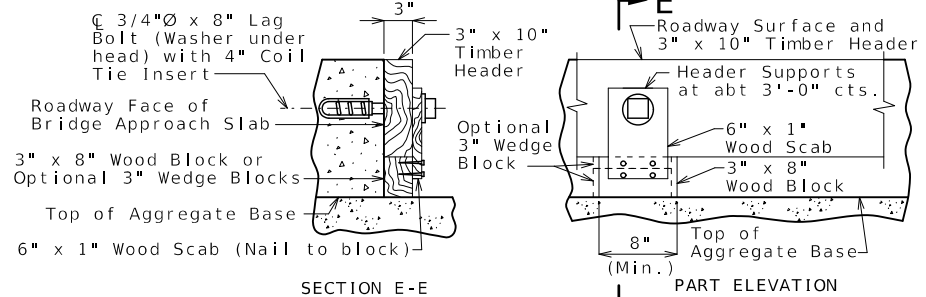
MoDOT



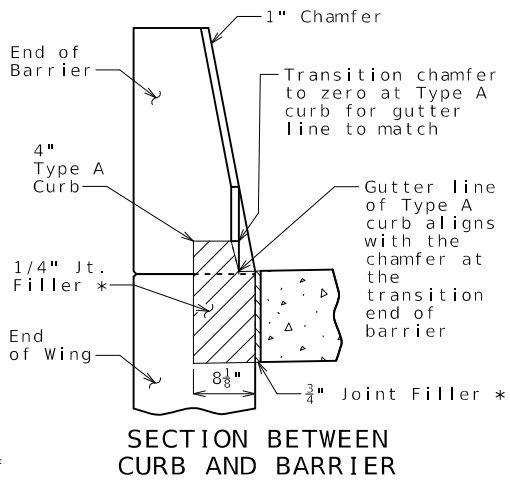
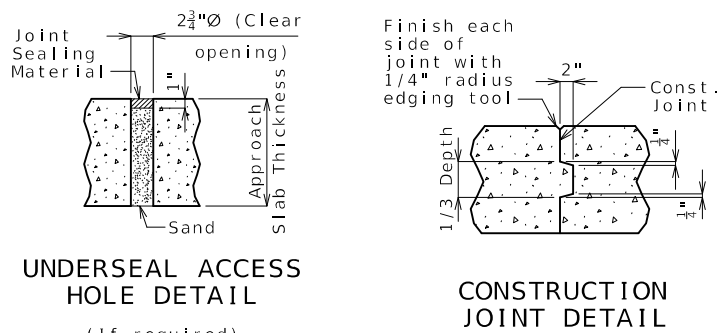
With the approval of the engineer, the contractor may crown the bottom of the approach slab to match the crown of the roadway surface.



SECTION B-B



REMOVE timber header when concrete pavement is placed.
OPTIONAL CONCRETE SLAB



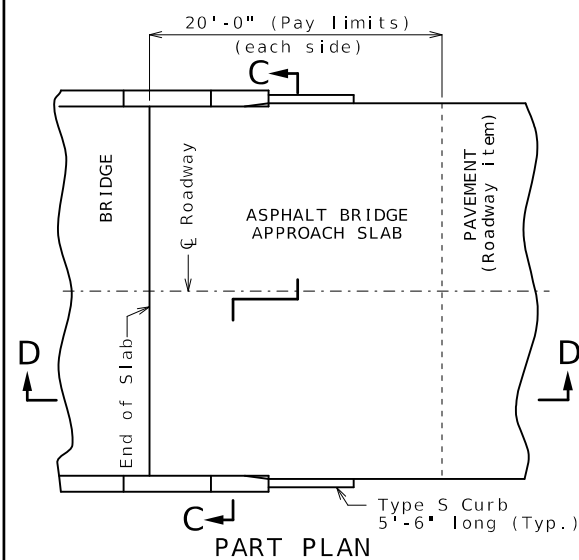
SECTION BETWEEN CURB AND BARRIER

- (1) 3-#4 Bars
- (2) 9-#4 Bars
- (3) 3/4" Jt. Filler
- (4) #4 Stirrup Bars at abt. 12" cts.; 2'-0" x 8" (Min.) out to out; Actual length = 5'-10" (Min.); 90° stirrup hook at bottom; Stirrup height (8") and actual length vary due to crown.

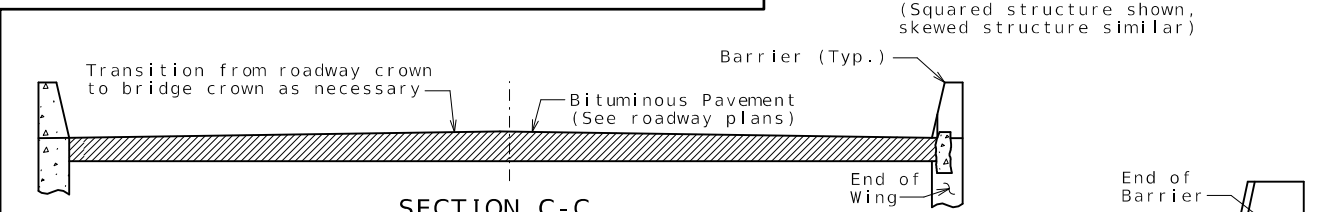
Notes For Concrete Slab Only:
All concrete for the bridge approach slab shall be in accordance with Sec 503 (f'c = 4,000 psi).
The reinforcing steel in the bridge approach slab shall be epoxy coated Grade 60 with fy = 60,000 psi.
Longitudinal construction joints in bridge approach slab shall be aligned with longitudinal construction joints in bridge slab.
Minimum clearance to reinforcing steel shall be 1 1/2", unless otherwise shown.
The reinforcing steel in the bridge approach slab shall be continuous. The transverse reinforcing steel may be made continuous by providing a minimum lap splice of 23 inches for #4 bars, or by mechanical bar splice.
Mechanical bar splices shall be in accordance with Sec 710.
All joint filler shall be in accordance with Sec 1057 for preformed fiber expansion joint filler except as noted.
Payment for furnishing all materials, labor and excavation necessary to construct the concrete bridge approach slab, including the timber header, underdrain, Type 5 aggregate base, joint filler, and all other appurtenances and incidental work as shown on this sheet, complete in place, will be considered completely covered by the contract unit price for Bridge Approach Slab (Minor) per square yard.
Drain pipe may be either 6" diameter corrugated metallic-coated pipe underdrain, 4" diameter corrugated polyvinyl chloride (PVC) drain pipe, or 4" diameter corrugated polyethylene (PE) drain pipe.
* Seal joint between vertical face of approach slab and wing with sealant in accordance with Sec 717 for silicone joint sealant for saw cut and formed joints.

General Notes:
Contractor shall have the option to construct either slab except as noted.
The contractor shall pour and satisfactorily finish the bridge slab before placing the bridge approach slab.
MoDOT Construction personnel will indicate the bridge approach slab used for this structure:
 Concrete Bridge Approach Slab
 Asphalt Bridge Approach Slab

Notes For Asphalt Slab Only:
Payment for furnishing all materials, labor and excavation necessary to construct the asphalt bridge approach slab, including tack, curb, and Type 5 aggregate base within the pay limits shown, complete in place, will be considered completely covered by the contract unit price for Bridge Approach Slab (Minor) per square yard.
Application of tack is required between lifts per Sec 403.

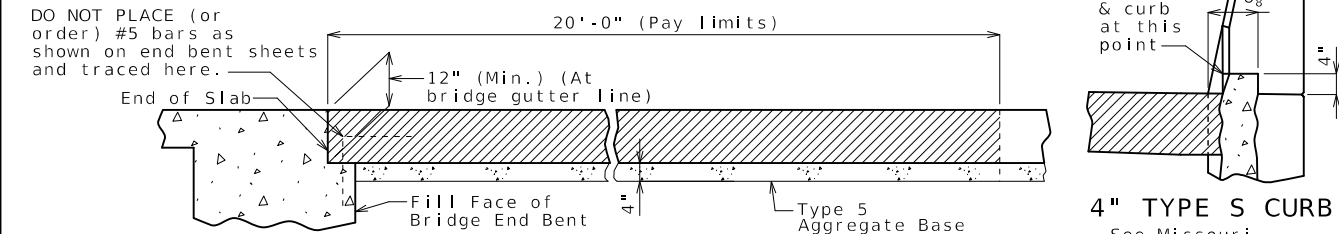


PART PLAN



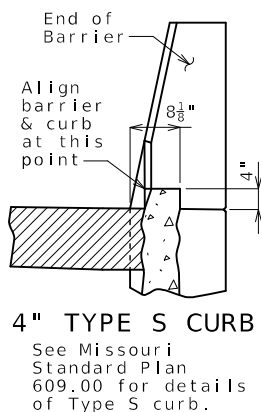
SECTION C-C

With the approval of the engineer, the contractor may crown the bottom of the approach slab to match the crown of the roadway surface.



SECTION D-D

OPTIONAL ASPHALT SLAB (NOT ALLOWED WITH CONCRETE PAVEMENT)



4" TYPE S CURB
See Missouri Standard Plan 609.00 for details of Type S curb.



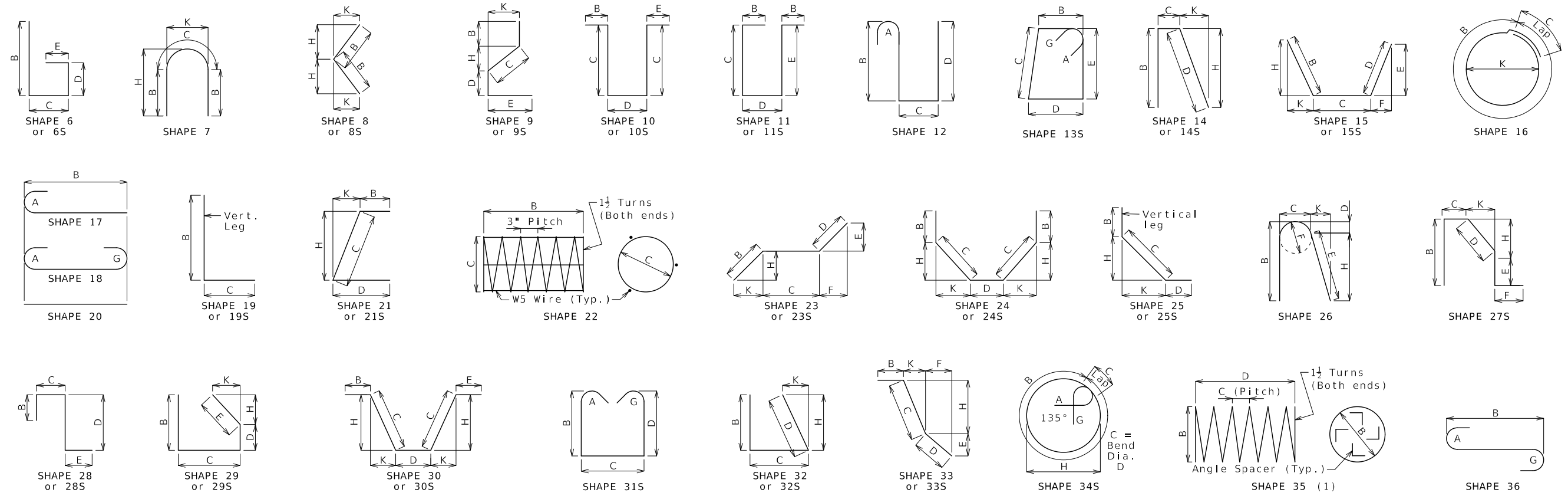
DATE PREPARED		6/25/2025	
ROUTE	STATE	DISTRICT	SHEET NO.
W	MO	BR	18
COUNTY			
PIKE			
JOB NO.			
JNE0152			
CONTRACT ID.			
PROJECT NO.			
BRIDGE NO.			
A9503			

DATE	DESCRIPTION

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION
105 WEST CAPITOL JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)



BRIDGE APPROACH SLAB (MINOR)



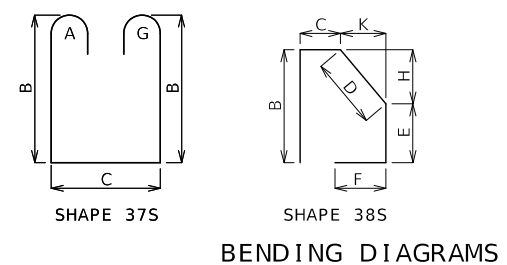
Finished Bend Diameters D and Hook Dimensions

Standard Pin Bend Shapes						
Size	Case	D	A or G		J	
			90°	180°	180°	180°
#4	1	3"	8"	6"	4"	
#5	1	3 3/4"	10"	7"	5"	
#6	1	4 1/2"	12"	8 1/4"	6"	
#7	2	5 1/4"	14"	9 3/4"	7"	
	3	7"	15"	11 1/2"	8 3/4"	
#8	2	6"	16"	11"	8"	
	3	8"	17"	13 1/4"	10"	
#9	1	9 1/2"	19 1/2"	15 1/2"	11 3/4"	
#10	1	10 3/4"	22"	17 1/2"	13 1/4"	
#11	1	12"	24 1/2"	19 1/2"	14 7/8"	
#14	1	18 1/4"	31 1/4"	27 1/2"	21 5/8"	
#18	1	24"	41 1/2"	36 1/4"	28 1/2"	

Stirrup Pin Bend Shapes (S)						
Size	Case	D	A or G		H	
			90°	135°	135°	180°
#4	2	2"	4 1/2"	4 1/2"	5"	2 5/8"
	3	3"	5"	5 1/4"	6"	3"
#5	2	2 1/2"	5 3/4"	5 3/4"	5 3/4"	3 3/4"
	3	3 3/4"	6 1/4"	6 1/2"	7"	3 7/8"
#6	1	4 1/2"	12"	7 3/4"	8 1/4"	4 7/8"

6d for #4 & #5, 12d for #6

Applicable for all grades of steel.
Case 1 applies to all reinforcement. Case 2 applies to all reinforcement except for galvanized bars. Case 3 applies to galvanized bars only.



SHAPE 37S SHAPE 38S
BENDING DIAGRAMS

All dimensions are out to out. (1) Shall be a deformed or plain spiral bar or wire.

Shapes ending with an S shall be bent in accordance with stirrup pin bend shapes.

Unless otherwise noted, finished bending diameter D is the same for all bends of a shape.

Four angle or channel spacers are required for each column spiral. Spacers are to be placed on inside of spirals. Length and weight of column spirals do not include splices or spacers.

Reinforcing Steel Totals (Pounds)

Size	Substructure		Superstructure			Entire Bridge	
	Plain	Galv.	Slab	Barrier	Slip Form	Plain	Galv.
W5	0	0	0	0	0	0	0
4	19	0	448	0	0	19	448
5	566	0	13,711	7,782	490	566	21,983
6	901	0	16,533	0	0	901	16,533
7	0	0	0	0	0	0	0
8	1,064	0	916	0	0	1,064	916
9	0	0	0	0	0	0	0
10	0	0	0	0	0	0	0
11	0	0	0	0	0	0	0
14	0	0	0	0	0	0	0
18	0	0	0	0	0	0	0
By Type	2,550	0	31,608	7,782	490	2,550	39,880

All superstructure reinforcing steel shall be galvanized unless otherwise specified.
Products used to repair damaged zinc coating shall not contain aluminum.

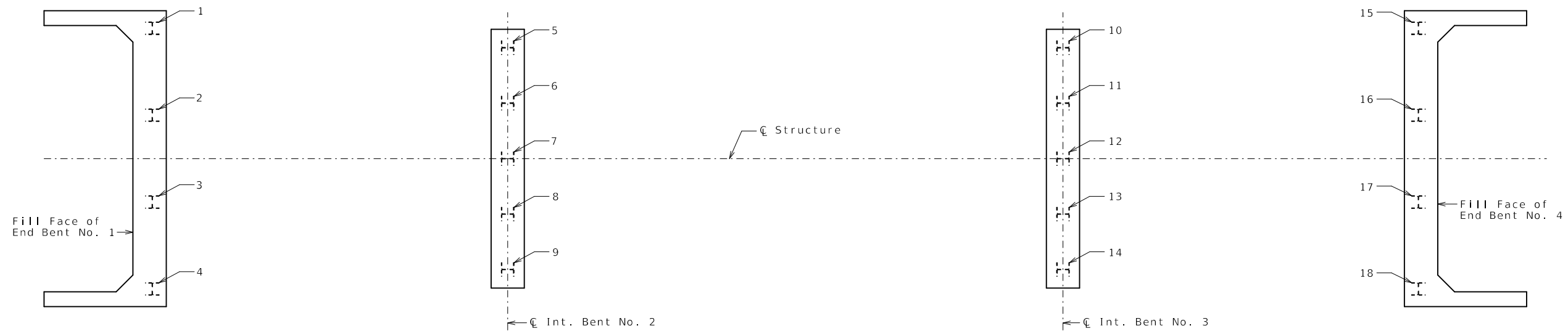
STATE OF MISSOURI
TED S. KOESTER
NUMBER
PE-2013000591
PROFESSIONAL ENGINEER
Ted Koester
08/25/2025 8:44:11 AM
TED S. KOESTER - CIVIL
MO-PE-2013000591

DATE PREPARED		6/25/2025	
ROUTE	STATE	W	MO
DISTRICT	SHEET NO.	BR	19
COUNTY PIKE			
JOB NO. JNE0152			
CONTRACT ID.			
PROJECT NO.			
BRIDGE NO. A9503			
DESCRIPTION			
DATE			

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)

BENDING DIAGRAMS AND REINFORCING STEEL TOTALS



PART PLAN SHOWING PILE NUMBERING FOR RECORDING AS-BUILT PILE DATA

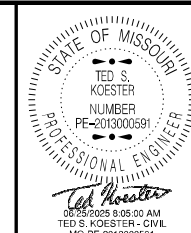
As-Built Pile Data			
Pile No.	Length in Place (ft)	Computed Nominal Axial Compressive Resistance (kips)	Remarks
			End Bent No. 1
1			
2			
3			
4			
			Int. Bent No. 2
5			
6			
7			
8			
9			

As-Built Pile Data			
Pile No.	Length in Place (ft)	Computed Nominal Axial Compressive Resistance (kips)	Remarks
			Int. Bent No. 3
10			
11			
12			
13			
14			

As-Built Pile Data			
Pile No.	Length in Place (ft)	Computed Nominal Axial Compressive Resistance (kips)	Remarks
			End Bent No. 4
15			
16			
17			
18			

Note:
 Indicate in remarks column:
 A. Pile type and grade
 B. Batter
 C. Driven to practical refusal

This sheet to be completed by MoDOT construction personnel.



DATE PREPARED
 6/25/2025
 ROUTE W STATE MO
 DISTRICT BR SHEET NO. 21
 COUNTY PIKE
 JOB NO. JNE0152
 CONTRACT ID.
 PROJECT NO.
 BRIDGE NO. A9503

DATE	DESCRIPTION

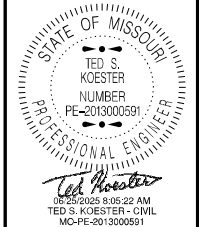
MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION
 MoDOT
 105 WEST CAPITOL
 JEFFERSON CITY, MO 65102
 1-888-ASK-MODOT (1-888-275-6636)



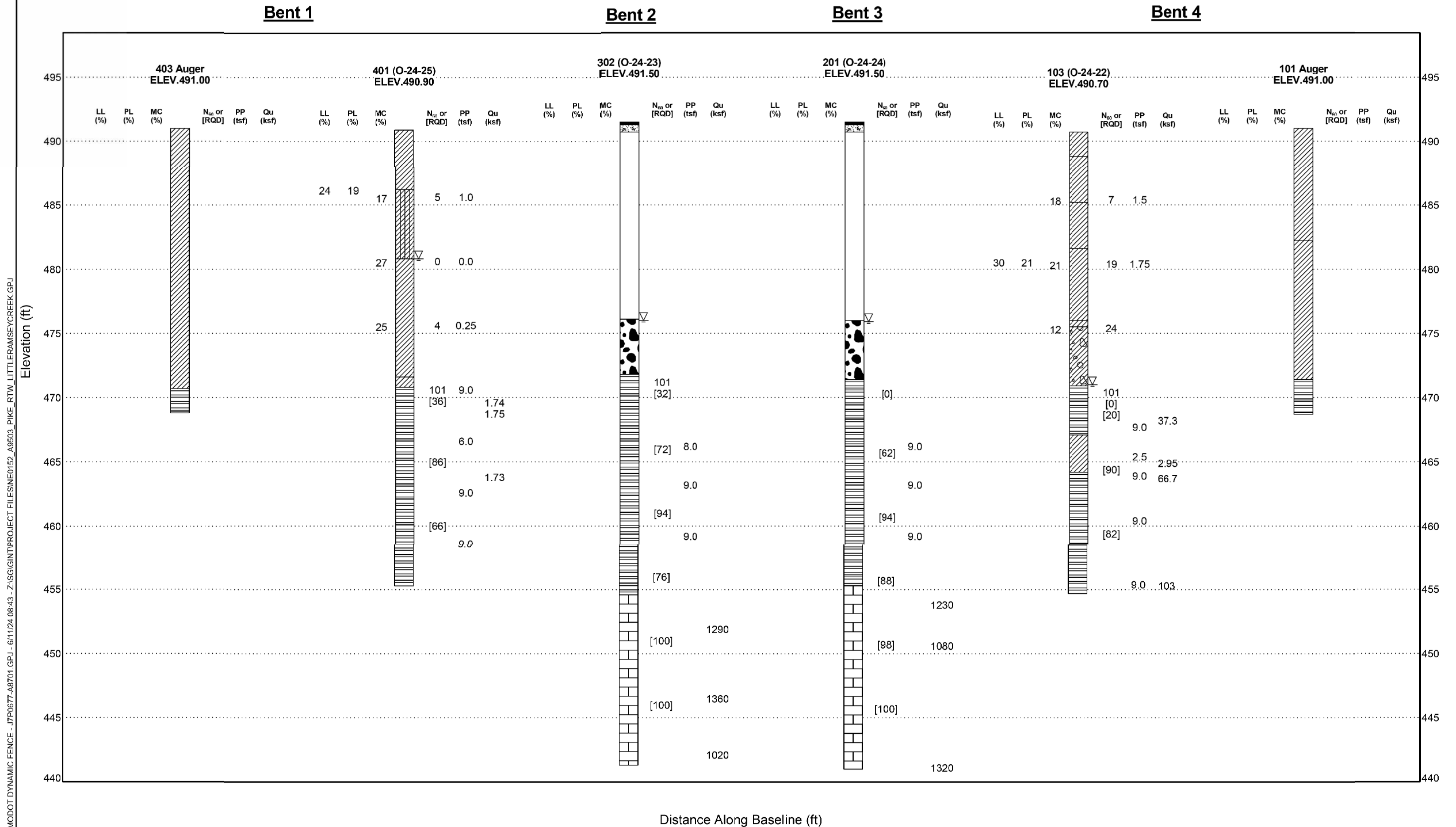
SUBSURFACE DIAGRAM

PROJECT NAME Bridge Replacement-MGK
 PROJECT LOCATION Over Little Ramsey Creek
 CLIENT _____
 PROJECT NUMBER NE0152

USCS Low Plasticity Clay	Shale	USCS Low Plasticity Gravelly Clay
Asphalt	Concrete	No Core
USCS Well-graded Gravel	Limestone	USCS Low Plasticity Silty Clay



DATE PREPARED
 6/25/2025
 ROUTE W STATE MO
 DISTRICT BR SHEET NO. 22
 COUNTY PIKE
 JOB NO. JNE0152
 CONTRACT ID. _____
 PROJECT NO. _____
 BRIDGE NO. A9503



BORING DATA

Note: For locations of borings, see Sheet No. 1.

Note: This drawing is not to scale. Follow dimensions.

Sheet No. 22 of 22

Detailed Sep. 2024
 Checked 2024

STEEL ALTERNATE

MODOT DYNAMIC FENCE - J7P0677-48701.GPJ - 6/11/24 08:43 - Z:\SG\GINT\PROJECT FILES\NE0152_A9503_PIKE_RTW_LITTLE Ramsey Creek.GPJ

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION



105 WEST CAPITOL
 JEFFERSON CITY, MO 65102
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