

DESIGN DESIGNATION

A.A.D.T. - 2025 = 34,841
A.A.D.T. - 2045 = 36,900
D.H.V. = 5,393
T = 5.60%
V = 55 M.P.H.
D = 100%

FUNCTIONAL CLASSIFICATION - INTERSTATE

NO R/W REQUIRED

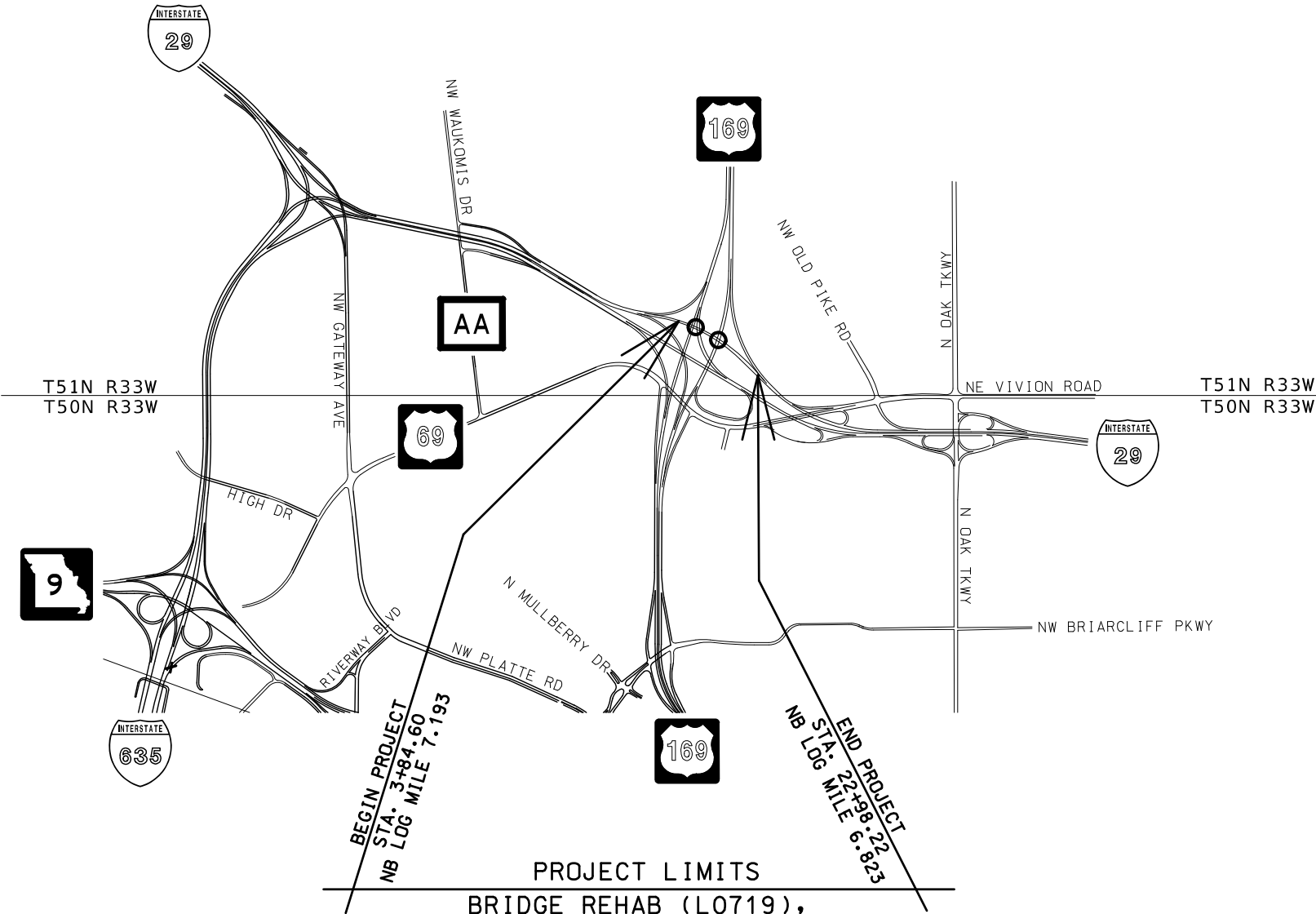
CONVENTIONAL SYMBOLS
(USED IN PLANS)

	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

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION
PLANS FOR PROPOSED
STATE HIGHWAY
CLAY COUNTY

SECTION 34, TOWNSHIP 51N, RANGE 33W



PROJECT LIMITS
BRIDGE REHAB (L0719),
BRIDGE REPLACEMENT (A1613),
FULL DEPTH PAVEMENT REPLACEMENT,
& GUARDRAIL

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) (3 SHEETS)	2
QUANTITIES (QU) (5 SHEETS)	3
PLAN-PROFILE (PP)	4-9
REFERENCE POINTS (RP)	10
COORDINATE POINTS (CP)	11
TRAFFIC CONTROL SHEETS (TC)	12-29
EROSION CONTROL SHEETS (EC)	30-32
SIGNING (SN)	33
BRIDGE DRAWINGS (B)	
A9693	1-31
L0719	1-8
CROSS SECTIONS (XS)	1-7

LENGTH OF PROJECT

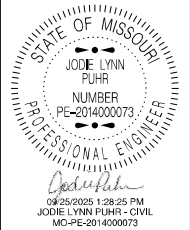
NORTHBOUND I-29	
BEGINNING OF PROJECT	STA. 3+84.60
END OF PROJECT	STA. 22+98.22

APPARENT LENGTH 1913.62 FEET

EQUATIONS AND EXCEPTIONS:

TOTAL CORRECTIONS	0 FEET
NET LENGTH OF PROJECT	1913.62 FEET
STATE LENGTH	0.362 MILES

FOR INFORMATION ONLY
ESTIMATED DISTURBED ACRES 0.1 ACRES

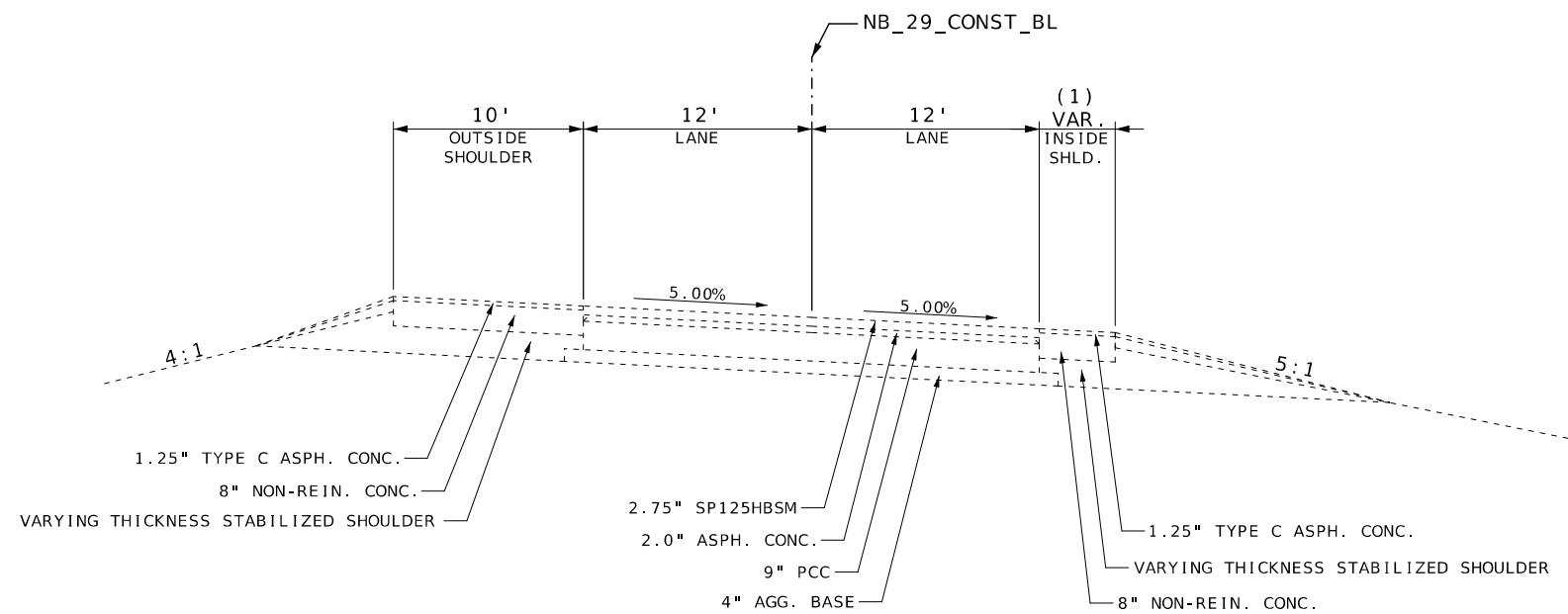


DATE PREPARED 9/25/2025
ROUTE 1-29 STATE MO
DISTRICT KC SHEET NO. 1
COUNTY CLAY
JOB NO. JKU0292
CONTRACT ID.
PROJECT NO.
BRIDGE NO.

DESCRIPTION	DATE

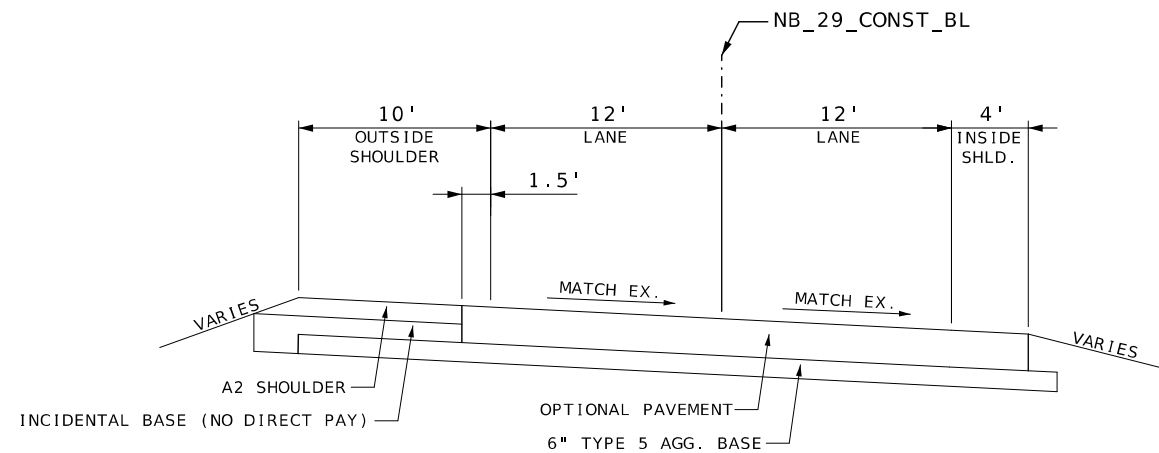
MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION
105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)
MoDOT logo

TITLE SHEET



EXISTING TYPICAL SECTION ON SUPERELEVATION

STA. 3+21.94 TO STA. 20+20.00



PROPOSED TYPICAL SECTION ON SUPERELEVATION

STA. 12+00.00 TO STA. 12+93.69
STA. 15+36.05 TO STA. 18+00.00

ESTIMATE FACTORS

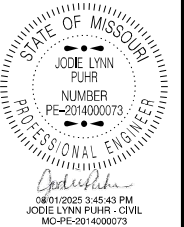
FOR INFORMATION PURPOSES ONLY

SP190C W/ PG 70-22	2.008 TON/YD ³
SP125C W/ PG 70-22	1.986 TON/YD ³

OPTIONAL PAVEMENT	
11.5" HMA	9.5" JPCP WIDENED SLAB
2" SP125C W/ PG 70-22	15 FT. JOINTS
OVER 9.5" SP190C W/ PG 70-22	AND 1 1/4" DOWELS

TYPICAL SECTION SHEET
SHEET 1 OF 3

NOT TO SCALE



DATE PREPARED
7/31/2025

ROUTE
1-29

STATE
MO

DISTRICT
KC

SHEET NO.
2

COUNTY

CLAY

JOB NO.

JKU0292

CONTRACT ID.

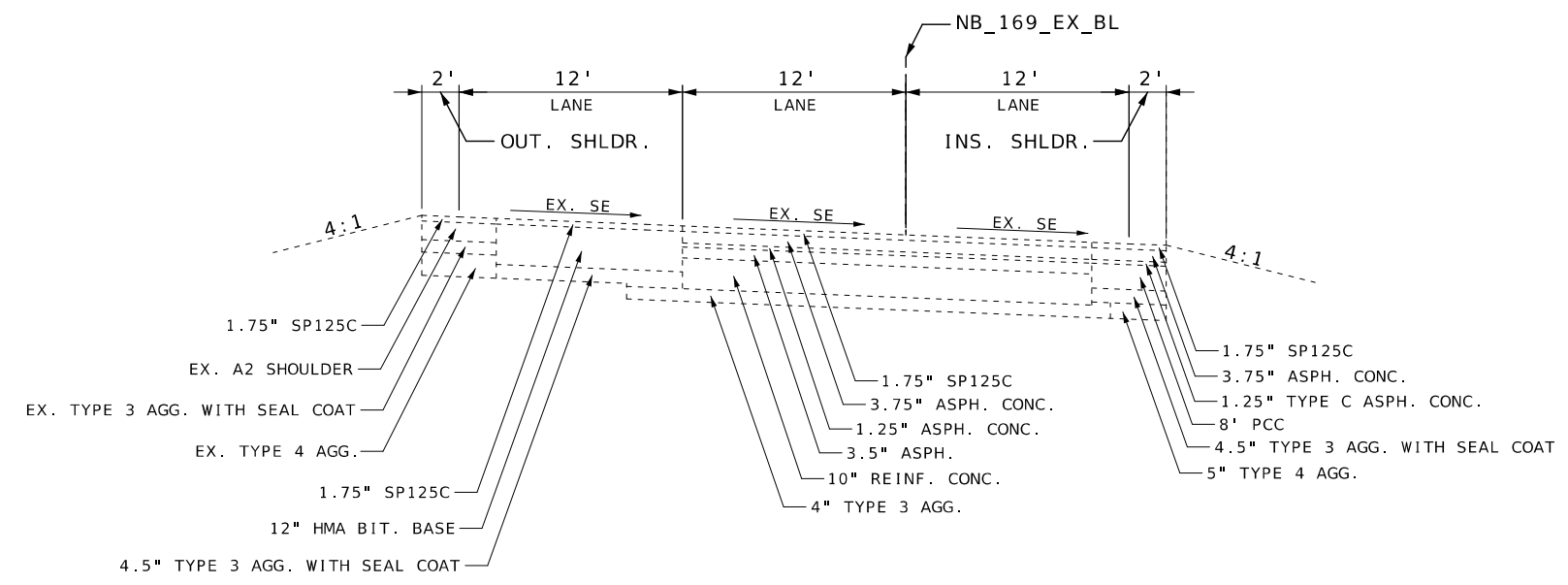
PROJECT NO.

BRIDGE NO.

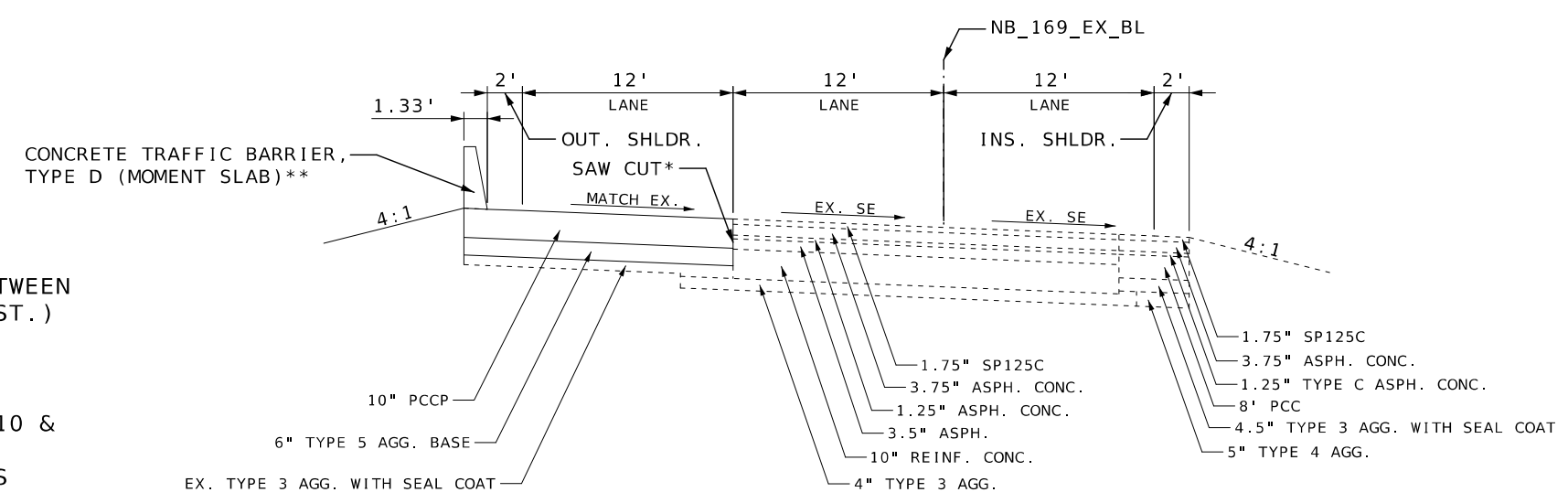
DESCRIPTION	DATE

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

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



EXISTING TYPICAL SECTION ON SUPERELEVATION
STA. 465+04.22 TO STA. 465+57.91



PROPOSED TYPICAL SECTION ON SUPERELEVATION
STA. 465+04.22 TO STA. 465+57.91

* SAW CUT AT JOINT BETWEEN
LANE 2 & 3 (MATCH EXIST.)

** SEE STD. PLAN 617.10 &
CROSS SECTION SHEETS
FOR ADDITIONAL DETAILS

NOT TO SCALE

STATE OF MISSOURI
JOELLE LYNN PUHR
NUMBER
PE-2014000073
PROFESSIONAL ENGINEER
08/01/2025 3:46:28 PM
JOELLE LYNN PUHR - CIVIL
MO-PE-2014000073

DATE PREPARED 7/31/2025	
ROUTE 1-29	STATE MO
DISTRICT KC	SHEET NO. 2
COUNTY CLAY	
JOB NO. JKU0292	
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)

REMOVAL OF IMPROVEMENTS					
PLAN SHEET NO.	ROADWAY	BEG STA.	END STA.	LOCATION	DESCRIPTION
4	NB_29_CONST_BL	3+84.60	8+36.34	LT.	456 L.F. EXIST. GUARDRAIL
5	NB_29_CONST_BL	8+95.48	8+98.28	LT.	38 L.F. EXIST. GUARDRAIL UNDER BR L0719
5	NB_29_CONST_BL	9+01.25	9+04.14	RT.	38 L.F. EXIST. GUARDRAIL UNDER BR L0719
5	NB_29_CONST_BL	10+13.41	10+70.73	LT. & RT.	115 L.F. EXIST. GUARDRAIL UNDER BR L0719
5	NB_29_CONST_BL	11+35.32	13+28.36	LT.	195 L.F. EXIST. GUARDRAIL
5	NB_29_CONST_BL	11+52.43	13+30.89	RT.	179 L.F. EXIST. GUARDRAIL
5	NB_29_CONST_BL	12+15.00	-	LT. & RT.	39 L.F. SAWCUT
5	NB_29_CONST_BL	12+15.00	13+41.82	LT. & RT.	517 S.Y. OF EX. PAVEMENT UP TO EX. BR A1613
5/6	NB169_EX_BL	464+46.16	466+60.57	RT.	214 L.F. EXIST. GUARDRAIL UNDER BR A1613
5/6	NB169_EX_BL	464+12.35	467+11.42	LT.	302 L.F. EXIST. GUARDRAIL UNDER BR A1613
6	NB_29_CONST_BL	14+85.87	18+00.00	LT. & RT.	1398 S.Y. OF EX. PAVEMENT FROM EX. BR A1613
6	NB_29_CONST_BL	18+00.00	-	LT. & RT.	44 L.F. SAWCUT
6	NB_29_CONST_BL	14+95.82	-	LT.	1 - EX. CATHODIC SYSTEM CONTROLLER & APRON
6	NB169_EX_BL	465+04.22	-	LT.	14 L.F. SAWCUT (FOR MOMENT SLAB)
6	NB169_EX_BL	465+09.18	466+12.55	LT.	54 L.F. SAWCUT (FOR MOMENT SLAB)
6	NB169_EX_BL	466+12.55	-	LT.	14 L.F. SAWCUT (FOR MOMENT SLAB)
6	NB169_EX_BL	465+09.18	466+12.55	LT.	85 S.Y. OF EXIST. PAVEMENT (FOR MOMENT SLAB)
6/7	NB_29_CONST_BL	14+89.97	20+60.52	LT.	576 L.F. EXIST. GUARDRAIL
6/7	NB_29_CONST_BL	15+00.77	23+35.72	RT.	832 L.F. EXIST. GUARDRAIL
20	NB US 169/NB I-29 SPLIT	-	-	LT.	EXIT ONLY SIGN ON SIGN TRUSS
20	NB US 169/NB I-29 SPLIT	-	-	LT.	GREEN PLAQUE COVER ON SIGN TRUSS
24	NB_29_CONST_BL	13+06.46	-	LT.	EXISTING SIGN ASSEMBLY (SPEED LIMIT & MINIMUM), POSTS & FOOTING
24	NB_29_CONST_BL	15+12.12	-	LT.	EXISTING PSST SIGN POST & FOOTING
24	NB169_EX_BL	465+34.03	-	RT.	EXISTING SPEED LIMIT SIGN ON BR A1613 PIER
24	NB169_EX_BL	465+45.85	-	LT.	EXISTING SPEED LIMIT SIGN ON BR A1613 PIER
					1 LUMP SUM

CONTRACTOR FURNISHED SURVEYING	
QUANTITY	1 LUMP SUM

MOBILIZATION	
QUANTITY	1 LUMP SUM

PAVEMENT														
PLAN SHEET NO.	BEG LOG	END LOG	ROADWAY	LOCATION	LENGTH	PAVEMENT WIDTH MAINLINE (TOTAL)	PAVEMENT WIDTH SHOULDER (TOTAL)	OPTIONAL PAVEMENT	A2 SHOULDER	TYPE 5 AGGREGATE FOR BASE (4 INCH. THICK)	CONCRETE APPROACH PAVEMENT	LINEAR GRADING CLASS 1	SUBGRADE COMPACTION (6-INCH DEPTH)	REMARKS
					FT.	FT.	FT.	S.Y.	S.Y.	S.Y.	S.Y.	STA.	100FT	
5	12+15.00	12+93.23	NB_29_CONST_BL	LT. & RT.	78.2	VARIES	VARIES	260.8	82.7	343.5		0.78	0.8	TIE INTO EX. SHOULDERS
5	12+93.23	13+17.27	NB_29_CONST_BL	LT. & RT.	24.0	40.7					88.3	0.24	0.2	SKewed CONCRETE APPROACH PAVEMENT
6	15+09.14	15+36.08	NB_29_CONST_BL	LT. & RT.	26.9	40.0					93.4	0.27	0.3	SKewed CONCRETE APPROACH PAVEMENT
6	15+36.08	18+00.00	NB_29_CONST_BL	LT. & RT.	263.9	VARIES	VARIES	938.3	293.1	1231.4		2.64	2.6	TIE INTO EX. SHOULDERS
SUBTOTALS								1199.1	375.8	1574.9	181.7	3.9	3.9	
SUBTOTALS - MOMENT SLAB												0.5	0.5	
PAY TOTALS								1199.1	375.8	1575	181.7	4.4	5	

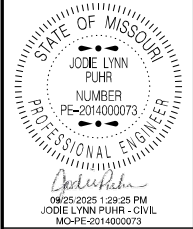
CONCRETE TRAFFIC BARRIER, TYPE D (MOMENT SLAB)										
PLAN SHEET NO.	ALIGNMENT	STATION	STATION	LOCATION	CONCRETE PAVEMENT (10 IN. NON-REINF)	TYPE 5 AGGREGATE FOR BASE (6 IN. THICK)	CONCRETE TRAFFIC BARRIER TYPE D (MOMENT SLAB)	LINEAR GRADING CLASS 1	SUBGRADE COMPACTION (6-INCH DEPTH)	REMARKS
6	NB169_EX_BL	465+04.22	465+57.91	LT.	92.7	92.7	53.7	0.5	0.5	
SUBTOTALS					92.7	92.7	53.7	0.5	0.5	
PAYTOTALS					92.7	93.0	54.0	*	*	

NOTES: SEE STD. PLAN 617.10 & CROSS SECTIONS FOR ADDITIONAL INFORMATION
* SEE PAVEMENT TABLE FOR SUBGRADE COMPACTION PAY TOTALS

EARTHWORK								
CROSS SECTION SHEET	ALIGNMENT	STATION	STATION	LOCATION	CLASS A EXCAVATION	EMBANKMENT IN PLACE	COMPACTING IN CUT	REMARKS
					C.Y.	C.Y.	STA.	
1-4	NB_29_CONST_BL	12+15.00	18+00.00	LT. & RT.	438.5	420.4	4.12	
4-6	NB169_EX_BL	464+82.22	465+65.91	LT. & RT.	70.3	52.9	-	SPILL SLOPES UNDER BR A9693
7	NB169_EX_BL	465+04.22	465+57.91	LT.	18.5	0.3	0.54	TYPE D MOMENT SLAB
SUBTOTALS					527.3	473.6	4.7	
PAYTOTALS					528.0	474.0	4.7	

NOTES: SEE CROSS SECTIONS FOR ADDITIONAL INFORMATION
ALL EARTHWORK VOLUMES ARE UNADJUSTED

SUMMARY OF QUANTITIES
SHEET 1 OF 5



DATE PREPARED 9/25/2025	
ROUTE 1-29	STATE MO
DISTRICT KC	SHEET NO. 3
COUNTY CLAY	
JOB NO. JKU0292	
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)

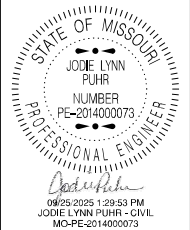
GUARDRAIL														
PLAN SHEET NO.	BEG LOG	END LOG	ALIGNMENT	STRUCTURE	LOCATION	LENGTH	MGS GUARDRAIL 6' POST 6' - 3" SPACING	MGS GUARDRAIL 8' POST 6' - 3" SPACING	MGS BLOCK & HEIGHT TRANSITION	TYPE 'A' CRASH WORTHY END TERMINAL (MASH) EACH	MGS BRIDGE APPROACH TRANS. SECT. (REGULAR/NO CURB) EACH	MGS END ANCHOR	SHAPING SLOPES CLASS III MOD. MAT. REQUIREMENT 100 FT.	REMARKS
						L.F.	L.F.	L.F.	EACH			EACH		
4	3+84.60	8+36.34	NB_29_CONST_BL	BR L0719	LT.	450.0	412.5				1	1	2	
5	8+92.46	8+95.49	NB_29_CONST_BL	UNDER BR L0719 WEST	LT.	50.0	50						0	R & R 50 L.F. OF EXIST. GR FOR ACCESS
5	11+35.32	13+19.67	NB_29_CONST_BL	BR L0719 & BR A9693	LT.	187.5	112.5				2		2	
5	11+52.43	13+28.75	NB_29_CONST_BL	BR L0719 & BR A9693	RT.	175.0	100				2		2	
5/6	464+46.16	466+60.57	NB169_EX_BL	UNDER BR A9693	RT.	214.3	150			1		1	1	
5/6	464+02.47	465+04.22	NB169_EX_BL	UNDER BR A9693	LT.	101.8	50				1	1	2	
5/6	465+57.91	467+19.16	NB169_EX_BL	UNDER BR A9693	LT.	162.5	75			1	1		1	
6/7	14+97.78	20+60.52	NB_29_CONST_BL	BR A9693	LT.	87.5		487.5		1	1		1	
6/7	15+09.53	22+98.22	NB_29_CONST_BL	BR A9693	RT.	75.0		725	1		1		1	TIE INTO EX. THRIE BEAM AT EX. SIGN TRUSS
SUBTOTALS							950.0	1212.5	1	3	9	3	12.0	
PAY TOTALS							950	1213	1	3	9	3	12	

PERMANENT PAVEMENT MARKING (STRIPING)							
PLAN SHEET NO.	BEG. STA.	END STA.	ALIGNMENT	CLASS 2 PAVEMENT MARKING PAINT (TYPE L BEADS)			REMARKS
				6" SOLID WHITE	6" INTERMITTENT WHITE	6" SOLID YELLOW	
				L.F.	L.F.	L.F.	
4	8+47.47	8+75.00	NB_29_CONST_BL	27.5	6.9	27.5	
5	8+75.00	14+15.00	NB_29_CONST_BL	540.0	135.0	540.0	
6	14+15.00	18+00.00	NB_29_CONST_BL	385.0	96.3	385.0	
15	-	-	NB I-29		75.8		REPLACEMENT OF REMOVED INT. WHITE FOR TC
SUBTOTALS				952.5	314.0	952.5	
PAY TOTALS				1267		953	

TEMPORARY PAVEMENT MARKING								
PLAN SHEET NO.	ROADWAY	TEMPORARY REMOVABLE MARKING PAINT		TEMPORARY REMOVABLE MARKING TAPE		PAVEMENT MARKING REMOVAL BEFORE	PAVEMENT MARKING REMOVAL AFTER	REMARKS
		4" SOLID WHITE	4" SOLID YELLOW	4" SOLID WHITE	4" SOLID YELLOW			
		L.F.	L.F.	L.F.	L.F.			
15	NB I-29	302.6	1005.1			75.8	1307.7	SEE TC SHEETS FOR LOCATION
16	NB I-29	373.9	947.7				1321.6	SEE TC SHEETS FOR LOCATION
18	SB US 169			956.0	3201.0		4157.0	SEE TC SHEETS FOR LOCATION
19	SB I-29			1220.0			1220.0	SEE TC SHEETS FOR LOCATION
20	NB US 169			1986.9	2063.7		4050.6	SEE TC SHEETS FOR LOCATION
21	NB US 169			1334.3	1334.3		2668.6	SEE TC SHEETS FOR LOCATION
SUBTOTALS		676.5	1952.8	5497.2	6599.0	75.8	14725.5	
PAYTOTALS		2630.0		5498.0	6599.0	14802.0		

ROCK BLANKET								
PLAN SHEET NO.	ALIGNMENT	STATION	STATION	LOCATION	FURNISHING TYPE 2 ROCK BLANKET	PLACING TYPE 2 ROCK BLANKET	EROSION CONTROL GEOTEXTILE	REMARKS
					C.Y.	C.Y.	S.Y.	
4/5	NB_29_CONST_BL	8+33.26	9+01.77	LT. & RT.	179.95	179.95	269.92	
5	NB_29_CONST_BL	10+41.81	11+55.43	LT. & RT.	377.83	377.83	566.75	
5	NB_29_CONST_BL	13+05.22	13+99.01	LT. & RT.	318.19	318.19	477.28	
6	NB_29_CONST_BL	14+41.64	15+24.08	LT. & RT.	281.95	281.95	422.93	
SUBTOTALS					1157.9	1157.9	1736.9	
PAYTOTALS					1158.0	1158.0	1737.0	

NOTE: SEE PLAN AND EROSION CONTROL SHEETS FOR ADDITIONAL INFORMATION



DATE PREPARED 9/25/2025	
ROUTE 1-29	STATE MO
DISTRICT KC	SHEET NO. 3
COUNTY CLAY	
JOB NO. JKU0292	
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)

SEEDING & MULCHING							
PLAN SHEET NO.	ALIGNMENT	STATION	STATION	LOCATION	SEEDING COOL SEASON GRASSES	MULCHING	REMARKS
					ACRE	ACRE	
21	NB_29_CONST_BL	3+35.00	8+75.00	LT. & RT.	-	-	
22	NB_29_CONST_BL	8+75.00	14+15.00	LT. & RT.	0.01	0.01	
23	NB_29_CONST_BL	14+15.00	19+55.00	LT. & RT.	0.05	0.05	
SUBTOTALS					0.06	0.06	
PAYTOTALS					0.1	0.1	

TEMPORARY EROSION CONTROL								
PLAN SHEET NO.	ALIGNMENT	STATION	STATION	LOCATION	SILT FENCE	ALT DITCH CHECK	SEDIMENT REMOVAL	REMARKS
					L.F.	L.F.	C.Y.	
21	NB_29_CONST_BL	3+35.00	8+75.00	LT. & RT.	101.5		1.0	
22	NB_29_CONST_BL	8+75.00	14+15.00	LT. & RT.	695.8	234.9	30.4	
23	NB_29_CONST_BL	14+15.00	19+55.00	LT. & RT.	764.6	38.8	11.5	
SUBTOTALS					1561.9	273.7	42.9	
PAYTOTALS					1562.0	274.0	43.0	

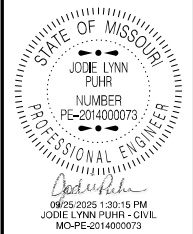
SIGNS					CONCRETE FOOTINGS EMBEDDED	PIPE POSTS*					PERFORATED SQUARE STEEL TUBE													EFFECTIVE: 07-01-2024	
902 SIGNAL SIGNS TABULATED ON D-37A SHEET						SIGN DTL SHT NO.	ITEM NO. 9031010 CY	PIPE SIZE IN	POST NO.1 LF	POST NO.2 LF	LBS PER FT	TOTAL ITEM NO. 9031220 LBS	POST NO.1 LF	POST NO.2 LF	2- INCH POST				2.5- INCH POST				BREAK- AWAY ASSEMBLY ITEM NO. 9031241	REMARKS AND OTHER REQUIRED ITEMS	
SIGN NO.	SIGN SIZE	STATION OR LOG MILE	LOCATION	TOTAL											ANCHORS		TOTAL		ANCHORS						
				ITEM NO. 9031270A	ITEM NO. 9031271A	ITEM NO. 9031273A	ITEM NO. 9031274	ITEM NO. 9031280	ITEM NO. 9031272A	ITEM NO. 9031281A	ITEM NO. 9031285														
				ITEM NO. 9031270A	ITEM NO. 9031271A	ITEM NO. 9031273A	ITEM NO. 9031274	ITEM NO. 9031280	ITEM NO. 9031272A	ITEM NO. 9031281A	ITEM NO. 9031285														
1	48x96	13+06.46	NB_29_CONST_BL, LT.	1	0.36	4	16.24		11.29	183.35	LF	LF	LF	EACH	EACH	EACH	LF	LF	LF	EACH	EACH	EACH	EACH		
2	18x60	15+12.12	NB_29_CONST_BL, LT.	1	0.34						14.4		14	1											
3	36x48	465+85.00	NB169_EX_BL RT.	1	0.34												12.5		13		1				
4	36x48	465+85.00	NB169_EX_BL LT.	1	0.34												11.4		11		1				
			SUBTOTAL		1.38						183.4			14	1					24		2			
			TOTAL		1.4						190			14	1					24		2			

*BREAKAWAY ASSEMBLY IS INCIDENTAL FOR STRUCTURAL STEEL AND PIPE POSTS.
**BACKING BARS ARE TOTALED WITH STRUCTURAL STEEL OR PIPE POSTS.

RELOCATION OF EXISTING SIGNS						
PLAN SHEET NO.	ALIGNMENT	STATION	LOCATION	SIGN SIZE	SIGN RELOCATION	REMARKS
					EACH	
24	NB_29_CONST_BL	15+12.12	30.5' LT.	18x60	1	RELOCATE EMERGENCY REFERENCE MARKER - D10-5
SUBTOTALS					1	
PAYTOTALS					1	

PERMANENT SIGNING						
PLAN SHEET NO.	ALIGNMENT	STATION	LOCATION	SIGN SIZE	SH-FLAT SHEET	REMARKS
					SF	
24	NB_29_CONST_BL	13+06.46	32.1' LT.	48x96	32.0	COMBINED SPEED LIMIT - R2-4a
24	NB169_EX_BL	465+85.00	21.2' LT.	36x48	12.0	SPEED LIMIT - R2-1
24	NB169_EX_BL	465+85.00	33.6' RT.	36x48	12.0	SPEED LIMIT - R2-1
SUBTOTALS					44.0	
PAYTOTALS					*	

* SEE SPECIAL SIGNING TABLE FOR PAY TOTAL



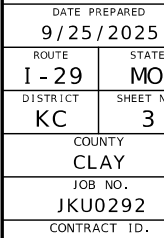
DATE PREPARED 9/25/2025	
ROUTE 1-29	STATE MO
DISTRICT KC	SHEET NO. 3
COUNTY CLAY	
JOB NO. JKU0292	
CONTRACT ID.	
PROJECT NO.	
BRIDGE NO.	

DESCRIPTION	DATE								

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

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

SIGN	SIZE	AREA	QTY	TOTAL	QTY	TOTAL	SIGN	DESCRIPTION	SIGN	SIZE	AREA	QTY	TOTAL	QTY	TOTAL	SIGN	DESCRIPTION	ITEM	TOTAL	EFFECTIVE: 07-01-2025	
IN.	SQ. FT.	EACH	SQ. FT.	EACH	SQ. FT.	NO.	IN.		SQ. FT.	EACH	SQ. FT.	EACH	SQ. FT.	NO.	NUMBER	QTY		DESCRIPTION			
WARNING SIGNS									GUIDE SIGNS									6122008		IMPACT ATTENUATOR 40 MPH (SAND BARRELS)	
WO1-1L	48X48	16.00						TURN (SYMBOL LEFT)	E05-1	36X48	12.00	1	12.00			49	GORE EXIT	6122009		IMPACT ATTENUATOR 45 MPH (SAND BARRELS)	
WO1-1R	48X48	16.00						TURN (SYMBOL RIGHT)	E05-2	48X36	12.00						EXIT OPEN	6122010		IMPACT ATTENUATOR 50 MPH (SAND BARRELS)	
WO1-2L	48X48	16.00						CURVE (SYMBOL LEFT)	E05-2a	48X36	12.00						EXIT CLOSED	6122012	1	IMPACT ATTENUATOR 55 MPH (SAND BARRELS)	
WO1-2R	48X48	16.00						CURVE (SYMBOL RIGHT)	GO20-1	60X24	10.00	2	20.00			1	ROAD WORK NEXT XX MILES	6122014		IMPACT ATTENUATOR 60 MPH (SAND BARRELS)	
WO1-3L	48X48	16.00						REVERSE TURN (SYMBOL LEFT)	GO20-2	48X24	8.00	2	16.00			26	END ROAD WORK	6122017		IMPACT ATTENUATOR 65 MPH (SAND BARRELS)	
WO1-3R	48X48	16.00						REVERSE TURN (SYMBOL RIGHT)	GO20-4	36X18	4.50						PILOT CAR FOLLOW ME	6122019		IMPACT ATTENUATOR 70 MPH (SAND BARRELS)	
WO1-4L	48X48	16.00						REVERSE CURVE (SYMBOL LEFT)	GO20-4a	42X30	8.75						PILOT CAR IN USE WAIT & FOLLOW	6122020		REPLACEMENT SAND BARREL	
WO1-4R	48X48	16.00	2	32.00			15R	REVERSE CURVE (SYMBOL RIGHT)	GO20-4a	18X12	1.50						PILOT CAR IN USE WAIT & FOLLOW	6122030	2	IMPACT ATTENUATOR (RELOCATION)	
WO1-4bL	48X48	16.00	4	64.00				DOUBLE ARROW REVERSE CURVE (SYMBOL LEFT)	GO20-5aP	36X24	6.00	5	30.00			54	WORK ZONE (PLAQUE)	6122040		WORK ZONE CRASH CUSHION (NARROW)	
WO1-4bR	48X48	16.00						DOUBLE ARROW REVERSE CURVE (SYMBOL RIGHT)	MO4-8a	24X18	3.00	3	9.00			52	END DETOUR	6122041		WORK ZONE CRASH CUSHION (RELOCATION)	
WO1-4cL	48X48	16.00						TRIPLE ARROW REVERSE CURVE (SYMBOL LEFT)	MO4-9L	48X36	12.00						DETOUR (LEFT)	6123001		TRUCK MOUNTED ATTENUATOR (TMA)	
WO1-4cR	48X48	16.00						TRIPLE ARROW REVERSE CURVE (SYMBOL RIGHT)	MO4-9R	48X36	12.00						DETOUR (RIGHT)	6161012		BUOYS (BOATS KEEP OUT)	
WO1-6	60X30	12.50						HORIZONTAL ARROW (SYMBOL)	MO4-9P	48X12	4.00						STREET NAME (PLAQUE)	6161013		BUOYS (NO WAKE)	
WO1-6a	72X36	18.00						HORIZ. ARROW (SYMBOL ON PERMANENT BARRICADE)	MO4-10L	48X18	6.00						DETOUR ARROW (LEFT)	6161014		SPECIAL SIGN ASSEMBLY (BOATS KEEP OUT)	
WO1-7	60X30	12.50						DOUBLE HEAD HORIZONTAL ARROW (SYMBOL)	MO4-10R	48X18	6.00						DETOUR ARROW (RIGHT)	6161020		CHANNELIZER (DRUM-LIKE)	
WO1-7a	72X36	18.00						DOUBLE HEAD HORIZ. ARROW (SYMBOL ON PERM. BARR.)	REGULATORY SIGNS									6161022		CHANNELIZER (CONE)	
WO1-8	18X24	3.00						CHEVRON (SYMBOL)	R1-1	48X48	13.25						STOP	6161025	214	CHANNELIZER (TRIM-LINE)	
WO1-8a	30X36	7.50						CHEVRON (SYMBOL FOR DIVIDED HIGHWAYS)	R1-2	48TRI.	6.93						YIELD	6161026		CHANNELIZER (VERTICAL PANEL)	
WO3-1	48X48	16.00						STOP AHEAD (SYMBOL)	R1-2a	36X36	9.00						TO ONCOMING TRAFFIC (PLAQUE)	6161030	29	TYPE 3 MOVEABLE BARRICADE	
WO3-2	48X48	16.00						YIELD AHEAD (SYMBOL)	R1-3P	30X12	2.50						ALL WAY (PLAQUE)	6161033	56	DIRECTION INDICATOR BARRICADE	
WO3-3	48X48	16.00						SIGNAL AHEAD (SYMBOL)	R2-1	36X48	12.00	9	108.00			4, 25	SPEED LIMIT XX	6161040	7	FLASHING ARROW PANEL	
WO3-4	48X48	16.00						BE PREPARED TO STOP	R3-1	48X48	16.00						NO RIGHT TURN (SYMBOL)	6161047		TYPE 3 OBJECT MARKER	
WO3-5	48X48	16.00						SPEED LIMIT AHEAD	R3-2	48X48	16.00						NO LEFT TURN (SYMBOL)	6161055	56	SEQUENTIAL FLASHING WARNING LIGHT	
WO4-1L	48X48	16.00						MERGE (SYMBOL FROM LEFT)	R3-3	36X36	9.00						NO TURNS	6161070		TUBULAR MARKER	
WO4-1R	48X48	16.00						MERGE (SYMBOL FROM RIGHT)	R3-4	48X48	16.00						NO U-TURN (SYMBOL)	6161095		RADAR SPEED ADVISORY SYSTEM	
WO4-1aL	48X48	16.00						MERGE (LEFT)	R3-7L	30X30	6.25						LEFT LANE MUST TURN LEFT	6161096	10	CHANGEABLE MESSAGE SIGN, COMMISSION FURNISHED/RETAINED	
WO4-1aR	48X48	16.00	4	64.00			6A	MERGE (RIGHT)	R3-7R	30X30	6.25						RIGHT LANE MUST TURN RIGHT			CHANGEABLE MESSAGE SIGN WITHOUT COMM. INTERFACE, CONTRACTOR FURNISHED/RETAINED	
WO5-1	48X48	16.00	3	48.00			43	ROAD/BRIDGE/RAMP NARROWS	R4-1	36X48	12.00						DO NOT PASS	6161098A		CHANGEABLE MESSAGE SIGN WITH COMM. INTERFACE, CONTRACTOR FURNISHED/RETAINED	
WO5-3	48X48	16.00						ONE LANE BRIDGE	R4-2	36X48	12.00						PASS WITH CARE			CHANGEABLE MESSAGE SIGN WITH COMM. INTERFACE, CONTRACTOR FURNISHED/RETAINED	
WO5-5	48X48	16.00	2	32.00			34	NARROW LANES	R4-7a	36X48	12.00						KEEP RIGHT (HORIZONTAL ARROW)	6161099		CHANGEABLE MESSAGE SIGN WITH COMM. INTERFACE, CONTRACTOR FURNISHED/RETAINED	
WO6-1	48X48	16.00						DIVIDED HIGHWAY (SYMBOL)	R4-8a	36X48	12.00						KEEP LEFT (HORIZONTAL ARROW)			WORK ZONE TRAFFIC SIGNAL SYSTEM	
WO6-2	48X48	16.00						DIVIDED HIGHWAY END (SYMBOL)	R5-1	30X30	6.25						DO NOT ENTER	6162000A		TEMPORARY LONG-TERM RUMBLE STRIPS	
WO6-3	48X48	16.00						TWO WAY TRAFFIC (SYMBOL)	R5-1a	36X24	6.00						WRONG WAY	6162002		TEMPORARY TRAFFIC BARRIER, CONTRACTOR FURNISHED/RETAINED	
WO7-3a	30X24	5.00	2	10.00			44A	NEXT XX MILES (PLAQUE)	R6-1L	54X18	6.75						ONE WAY ARROW (LEFT)	6173600D	308	CONTRACTOR FURNISHED/RETAINED	
WO8-1	48X48	16.00						BUMP	R6-1R	54X18	6.75						ONE WAY ARROW (RIGHT)			TEMP. TRAFFIC BARRIER ANCHORED, CONTRACTOR FURNISHED/RETAINED	
WO8-2	48X48	16.00						DIP	R6-2L	24X30	5.00						ONE WAY (LEFT)	6173700B		TEMP. TRAFFIC BARRIER STIFFNESS TRANSITION CONTRACTOR FURNISHED/RETAINED	
WO8-3	48X48	16.00						PAVEMENT ENDS	R6-2R	24X30	5.00						ONE WAY (RIGHT)			TEMP. TRAFFIC BARRIER HEIGHT TRANSITION, CONTRACTOR FURNISHED/RETAINED	
WO8-4	48X48	16.00						SOFT SHOULDER	R9-9	24X12	2.00						SIDEWALK CLOSED	6173706		RELOCATING TEMPORARY TRAFFIC BARRIER	
WO8-5	48X48	16.00						SLIPPERY WHEN WET (SYMBOL)	R9-11L	24X18	3.00						SIDEWALK CLOSED AHEAD, (ARROW LEFT) CROSS HERE			RELOCATING TEMP. TRAFFIC BARRIER ANCHORED	
WO8-6	48X48	16.00						TRUCK CROSSING									SIDEWALK CLOSED AHEAD, (ARROW RIGHT) CROSS HERE	6174000A		RELOCATING TEMP. TRAFFIC BARRIER STIFFNESS	
WO8-6c	48X48	16.00						TRUCK ENTRANCE	R9-11R	24X18	3.00						STOP HERE ON RED (45^ ARROW)	6175010A	494	RELOCATING TEMP. TRAFFIC BARRIER HEIGHT	
WO8-7	36X36	9.00						LOOSE GRAVEL	R10-6	24X36	6.00						ROAD CLOSED	6175011B		TEMPORARY RAISED PAVEMENT MARKER	
WO8-7a	36X36	9.00						FRESH OIL / LOOSE GRAVEL	R11-2	48X30	10.00	8	80.00			29	ROAD CLOSED XX MILES AHEAD	6175013		TEMPORARY TRAFFIC SIGNALS	
WO8-9	48X48	16.00						LOW SHOULDER	R11-3a	60X30	12.50						LOCAL TRAFFIC ONLY	9029400		TEMPORARY TRAFFIC SIGNALS AND LIGHTING	
WO8-11	48X48	16.00						UNEVEN LANES									CONST-3A	60X48	20.00		
WO8-12	48X48	16.00						NO CENTER LINE	CONST-3X	56X12	4.67						SPEEDING/PASSING (PLATE)				
WO8-15	48X48	16.00						GROOVED PAVEMENT	MISCELLANEOUS SIGNS												
WO8-15P	30X24	5.00						MOTORCYCLE (PLAQUE)	CONST-5	48X36	12.00	1	12.00				POINT OF PRESENCE				
WO8-17L	48X48	16.00						SHOULDER DROP-OFF (SYMBOL LEFT)	CONST-5	96X48	32.00	1	32.00				POINT OF PRESENCE				
WO8-17R	48X48	16.00						SHOULDER DROP-OFF (SYMBOL RIGHT)	CONST-8	48X36	12.00	2	24.00				WORK ZONE NO PHONE ZONE				
WO8-17P	30X24	5.00						SHOULDER DROP-OFF (PLAQUE)													
W10-1	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	2	12.50			44														



PROJECT NO.
BRIDGE NO.



MISSOURI HIGHWAYS AND TRANSPORTATION
COMMISSION

105 WEST CAPITOL
JEFFERSON CITY, MO 65102

* FROM PERMANENT SIGNING TABLE

NEW PAVEMENT STRIPING
NB_29_CONST_BL
STA. 8+47.47 TO 8+75.00 LT. & RT.

(R) 456 L.F. OF
EX. GUARDRAIL

6" INTERMITTENT WHITE (I.W.) CLASS 2 PAINT, TYPE L BEADS
6" SOLID WHITE (S.W.) CLASS 2 PAINT, TYPE L BEADS
6" SOLID YELLOW (S.Y.) CLASS 2 PAINT, TYPE L BEADS

RUBBALIZE EX. CONCRETE SLOPE PROTECTION
AND PLACE & FURNISH TYPE 2 ROCK BLANKET

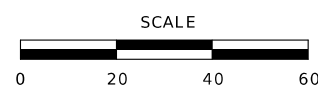
REHAB BR L0719
SEE BRIDGE PLANS

PI	11+97.59
PC	3+21.94
PT	20+20.00
Δ	34°30'1.8" (RT)
D	2°1'54.4"
L	1,698.06' (ARC)
T	875.65'
R	2,820.00'

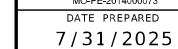
BEGIN PROJECT JKU0292
STA. 3+84.60

NOTE: 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

RUBBALIZE EXISTING SLOPE PROTECTION: NO
DIRECT PAY



PLAN SHEET
SHEET 1 OF 6



ROUTE	STATE
100	MO

1 - 29	MO
2 - 29	MO

DISTRICT SHEET
KC 4

RC	4
COUNTY	

CLAY

JOB NO.
LK110303

JK00292
CONTRACT ID.

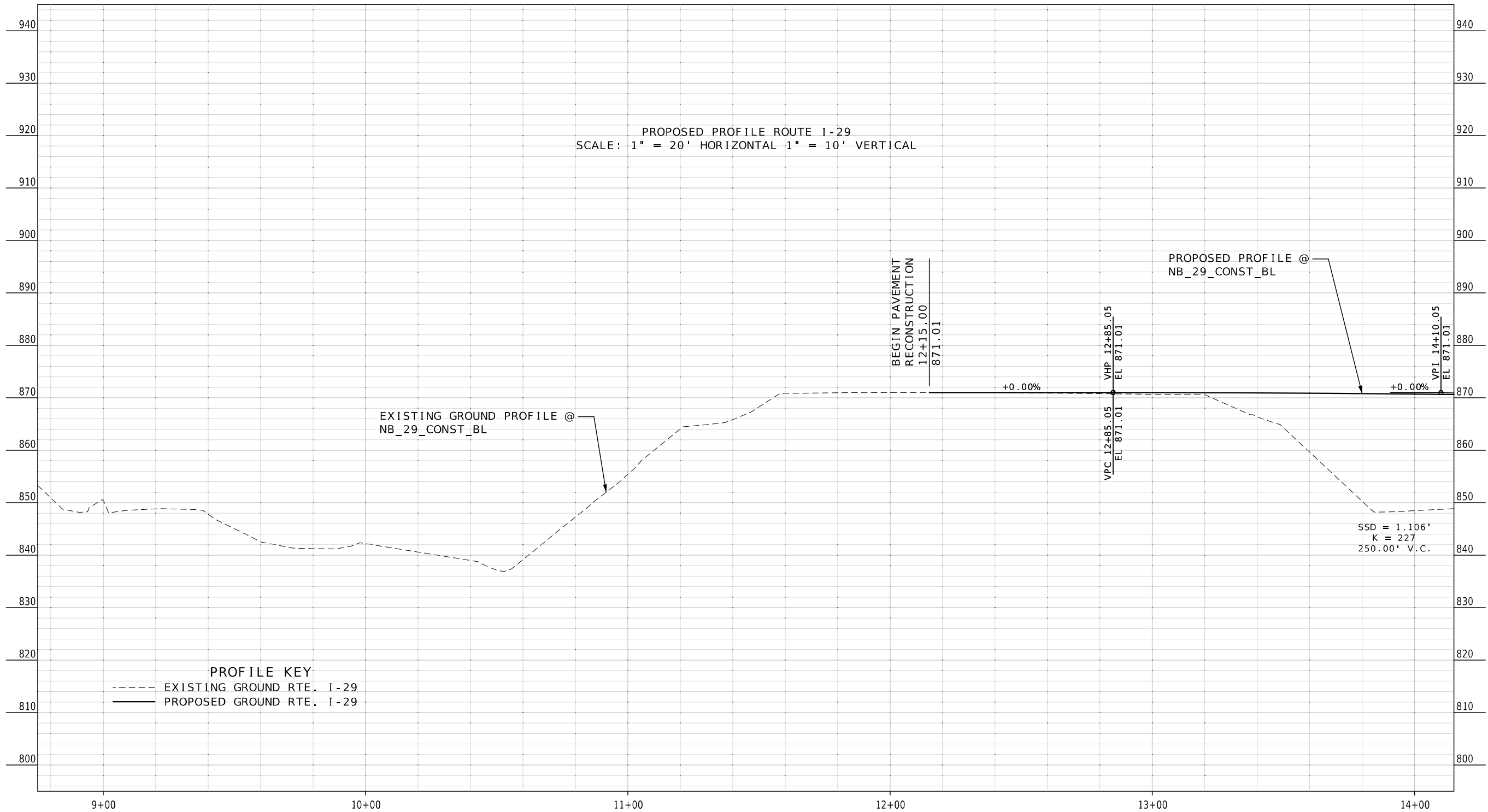
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PROJECT NO.

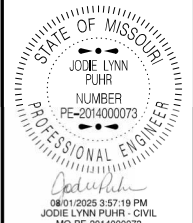
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[illegible]MISSOURI HIGHWAYS AND TRANSPORTATION
COMMISSION

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



PROFILE SHEET
SHEET 5 OF 6



DATE PREPARED
7/31/2025

ROUTE	STATE
I - 29	MO
DISTRICT	SHEET NO.
KC	8

COUNTY
CLAY

JOB NO.
JKU0292

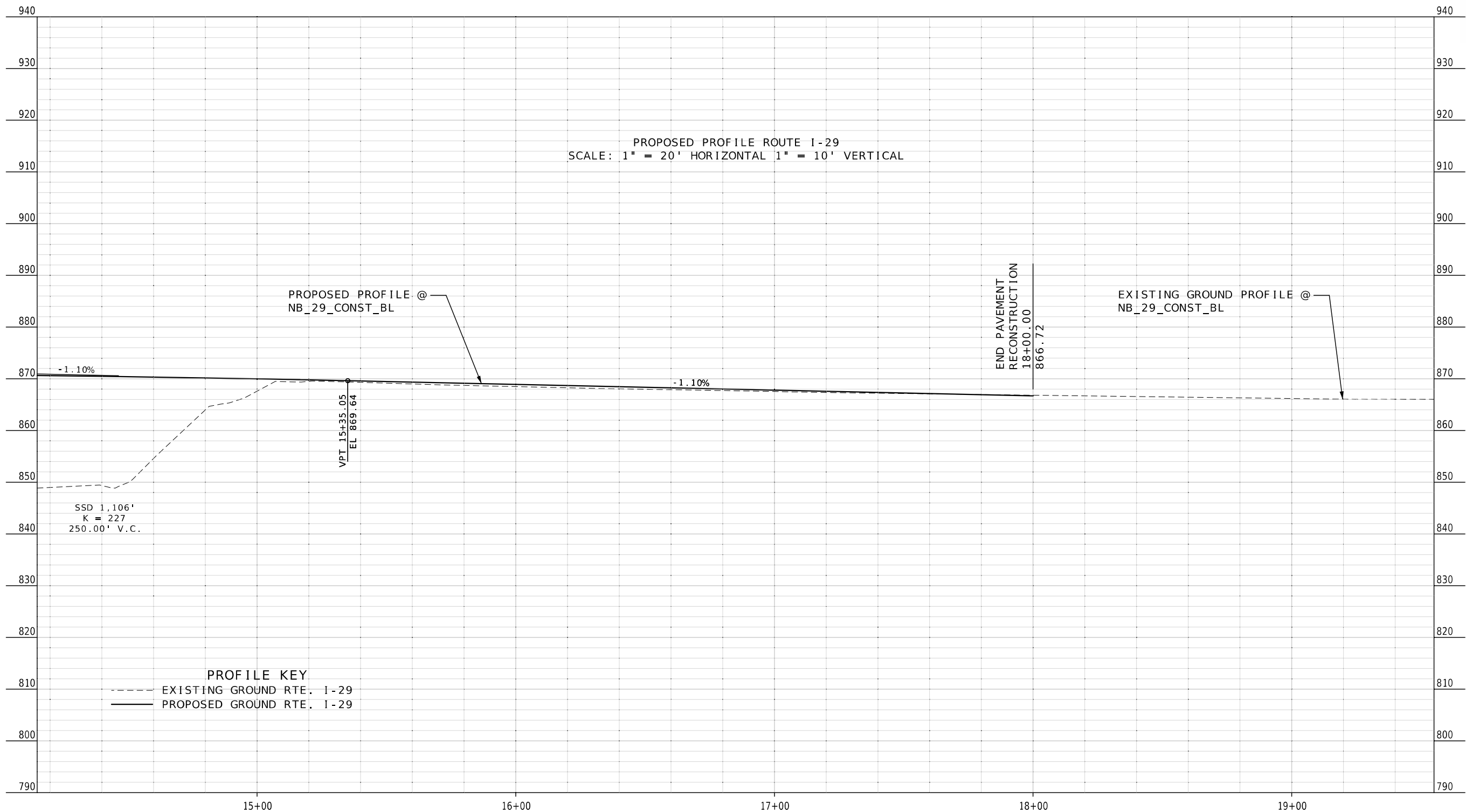
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PROJECT NO.

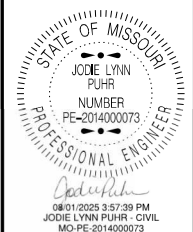
BRIDGE NO.

DATE	DESCRIPTION





PROFILE SHEET
SHEET 6 OF 6



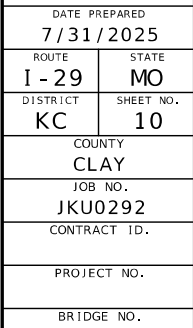
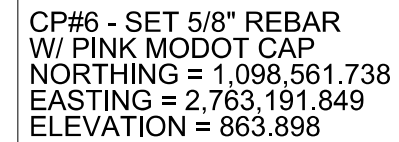
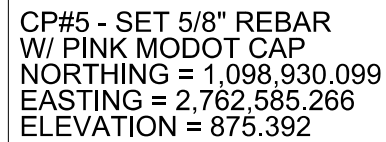
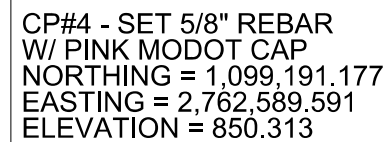
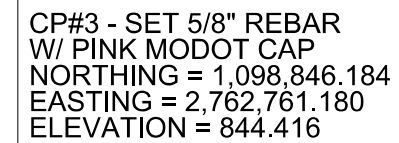
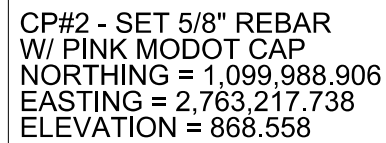
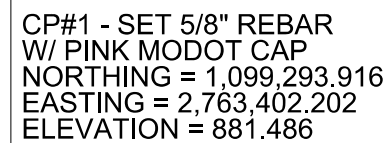
DATE PREPARED 7/31/2025	
ROUTE I-29	STATE MO
DISTRICT KC	SHEET NO. 9
COUNTY CLAY	
JOB NO. JKU0292	
CONTRACT ID.	
PROJECT NO.	
BRIDGE NO.	

DATE	DESCRIPTION

MISSOURI HIGHWAYS AND TRANSPORTATION
COMMISSION

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

REV.

[illegible]MISSOURI HIGHWAYS AND TRANSPORTATION
COMMISSION

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

NAD83

VERTICAL DATUM

NAVD88

GEOID MODEL

GEOID18

ELEVATIONS DETERMINED BY

GPS OBSERVATION

PROJECT PROJECTION FACTOR

1.00009636

REFERENCE CONTROL INFORMATION

COORDINATE SYSTEM

MO COORDINATE SYSTEM OF 1983

CONTROL STATION

MO GEOGRAPHIC REFERENCE SYSTEM

DESIGNATION

CL-14

CORS_ID

XX

PID

47014

LATITUDE

39°12'11.43062"

LONGITUDE

94°35'24.46562

NORTHING (M)

337007.9190

EASTING (M)

842215.2550

ZONE

WEST

PROJECT AVERAGE GRID FACTOR

0.99990365

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 #1
N 1,099,293.92 X 0.99990365 = N 1,099,188.00
E 2,763,402.20 X 0.99990365 = E 2,763,135.95

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							
	459+86.19	NB169_EX_BL	71.14 LT.	1,099,293.92	2,763,402.20	881.49	CP #1 - 5/8" REBAR W/ PINK MODOT CAP
	9+41.18	NB_29_CONST_BL	1068.14 LT.	1,099,988.91	2,763,217.74	868.56	CP #2 - 5/8" REBAR W/ PINK MODOT CAP
	9+96.55	NB_29_CONST_BL	160.80 RT.	1,098,846.18	2,762,761.18	844.42	CP #3 - 5/8" REBAR W/ PINK MODOT CAP
	7+03.01	NB_29_CONST_BL	93.37 LT.	1,099,191.18	2,762,589.59	850.31	CP #4 - 5/8" REBAR W/ PINK MODOT CAP
	7+90.28	NB_29_CONST_BL	153.10 RT.	1,098,930.10	2,762,585.27	875.39	CP #5 - 5/8" REBAR W/ PINK MODOT CAP
	467+34.31	NB169_EX_BL	80.41 LT.	1,098,561.74	2,763,191.85	863.90	CP #6 - 5/8" REBAR W/ PINK MODOT CAP
ALIGNMENTS							
	0+00.00	NB_29_CONST_BL	0	1,099,269.75	2,761,876.36	-	POT - NB_29_CONST_BL
	3+21.94	NB_29_CONST_BL	0	1,099,204.86	2,762,191.69	-	PC - NB_29_CONST_BL
	20+20.00	NB_29_CONST_BL	0	1,098,397.09	2,763,656.22	-	PT - NB_29_CONST_BL
	26+10.00	NB_29_CONST_BL	0	1,097,971.75	2,764,065.11	-	POT - NB_29_CONST_BL
	454+46.30	NB169_EX_BL	0	1,099,842.96	2,763,399.06	-	POT_NB169_EX_BL
	454+96.30	NB169_EX_BL	0	1,099,793.06	2,763,395.78	-	PC_NB169_EX_BL
	473+55.20	NB169_EX_BL	0	1,098,039.64	2,762,835.99	-	PT_NB169_EX_BL
	474+05.20	NB169_EX_BL	0	1,097,997.08	2,762,809.75	-	POT_NB169_EX_BL

STATE OF MISSOURI

JOE LYNN PUHR

NUMBER

PE-2014000073

PROFESSIONAL ENGINEER

08/01/2025 4:00:08 PM

JOE LYNN PUHR - CIVIL

MO-PE-2014000073

DATE PREPARED

7/31/2025

ROUTE

1 - 29

STATE

MO

DISTRICT

KC

SHEET NO.

11

COUNTY

CLAY

JOB NO.

JKU0292

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

COORDINATE POINT SHEET

SHEET 1 OF 1

Traffic Control Legend,
Sign Spacing, Device Spacing, Channelizing Taper Lengths
And Recommended Maximum Speed Reductions

SIGN SPACING FOR ADVANCE SIGN SERIES (1) (2)		
PERMANENT POSTED SPEED MPH	UNDIVIDED HIGHWAYS (S)	DIVIDED HIGHWAYS (S)
0-35	200'	200'
40-45	350'	500'
50-55	500'	1000'
60-70	1000'	SA - 1000' SB - 1500' SC - 2640'

TAPER LENGTH (L)
L = W X P FOR 40 MPH OR MORE
L = $\frac{WP^2}{60}$ FOR 35 MPH OR LESS
L = TAPER LENGTH IN FEET
W = LATERAL SHIFT IN FEET
P = POSTED SPEED PRIOR TO
ROAD WORK IN MPH

TRAFFIC CONTROL LEGEND

SIGN (SINGLE SIDED)

FLAGGER

CHANNELIZER

PROTECTIVE VEHICLE WITH
WORK SIGN, FLASHING ARROW
PANEL AND REAR-MOUNTED
IMPACT ATTENUATOR UNIT.

FLASHING ARROW PANEL

CHANGEABLE MESSAGE BOARD

BARRICADE

LEGEND NOTE:
THE PROTECTIVE VEHICLE SIGN SHALL
BE MOUNTED AT A RECOMMENDED HEIGHT
OF 48 IN. ABOVE THE ROAD SURFACE.

- GENERAL NOTES:
- SEE STANDARD PLAN 616.10 FOR DETAILS
AND ITEMS NOT SHOWN.
 - EXISTING SIGNS SHALL BE COVERED DURING WORKING HOURS
ONLY IF IN CONFLICT WITH TRAFFIC CONTROL PLANS.
 - NO DIRECT PAYMENT WILL BE MADE FOR RELOCATING,
COVERING, UNCOVERING OR REMOVING SIGNS.
 - CONES ALLOWABLE FOR DAYTIME OPERATIONS
ON MINOR ROUTES ONLY.
 - LOCATE FLASHING ARROW PANEL AT BEGINNING OF
TAPER WHEN FEASIBLE, ARROW PANELS ARE ALWAYS
LOCATED BEHIND CHANNELIZERS OR CONES.

TAPER LENGTHS AND END TREATMENTS FOR CONCRETE BARRIER				
PERMANENT POSTED SPEED MPH	MINIMUM LANE TAPER LENGTH (3)			END TREATMENT (4)
	10'	11'	12'	
<40	160'	168'	176'	BARRIER HEIGHT TRANSITION
>40	160'	168'	176'	APPROVED CRASH CUSHION

TAPER LENGTHS AND SPACING FOR CHANNELIZERS							
PERMANENT POSTED SPEED MPH	MINIMUM LANE TAPER LENGTH (L) (3)			MINIMUM SHOULDER TAPER LENGTH (T1) BASED ON 10' SHOULDER	BUFFER LENGTH FT	MAXIMUM CHANNELIZER SPACING	
						THROUGH TAPER	THROUGH WORK AREA
0-35	205'	225'	245'	70'	280'	35'	40'
40-45	450'	495'	540'	150'	400'	40'	80'
50-55	550'	605'	660'	185'	560'	50'	80'
60-70	700'	770'	840'	235'	840'	60'	120'

THE SA DIMENSION IS THE DISTANCE FROM THE TRANSITION OR POINT OF
RESTRICTION TO THE FIRST SIGN.

THE SB DIMENSION IS THE DISTANCE BETWEEN THE FIRST AND SECOND SIGNS.

THE SC DIMENSION IS THE DISTANCE BETWEEN THE SECOND AND THIRD SIGNS.

(THE "FIRST SIGN" IS THE SIGN IN A THREE-SIGN SERIES THAT IS CLOSEST TO
THE TEMPORARY TRAFFIC CONTROL ZONE. THE "THIRD SIGN" IS THE SIGN THAT
IS FURTHEST UPSTREAM FROM THE TEMPORARY TRAFFIC CONTROL ZONE)

- DETAILS NOTES:
- SPACING BETWEEN SIGNS AND SPACING BETWEEN LAST
SIGN AND FLAGGER, BEGINNING OF TAPER, OF SIGNED
CONDITION.
 - SPACING MAY BE ADJUSTED AS NECESSARY TO MEET
FIELD CONDITIONS.
 - TAPER LENGTHS SHOWN INCLUDE LENGTH REQUIRED
FOR LANE AND 10' SHOULDER
 - CONCRETE BARRIER MAY BE INSTALLED AT 8:1 FLARE
RATE FROM THE SHOULDER POINT OF THE LIMITS OF THE
CLEAR ZONE WHERE THE SIDE SLOPE IS 6:1 OR FLATTER

RECOMMENDED MAXIMUM SPEED REDUCTIONS	
ACTIVITY (I.E. WORKERS, EQUIPMENT OR MATERIAL) LOCATION	RECOMMENDED WORK ZONE SPEED REDUCTION (WHEN APPLICABLE)
10 FT. BEYOND EDGE OF TRAVELWAY TO EDGE OF RIGHT OF WAY	NO SPEED REDUCTION
IN TRAFFIC LANE OR WITHIN 10FT. OF THE TRAFFIC LANE	10 MPH
HEAD-TO-HEAD ON MULTILANE	10 MPH
SPECIAL CIRCUMSTANCES WITHIN A TEMPORARY TRAFFIC CONTROL WORK ZONE MAY WARRANT A LOWER SPEED LIMIT THAN RECOMMENDED ABOVE. ALL SPEED LIMIT REDUCTIONS GREATER THAN 10 MPH SHALL BE DOCUMENTED, SUBMITTED TO AND APPROVED BY THE DISTRICT WORK ZONE COORDINATOR.	

DATE PREPARED
7/31/2025

ROUTE
1 - 29

DISTRICT
KC

STATE
MO

SHEET NO.
12

COUNTY
CLAY

JOB NO.
JKU0292

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)



NOTES:

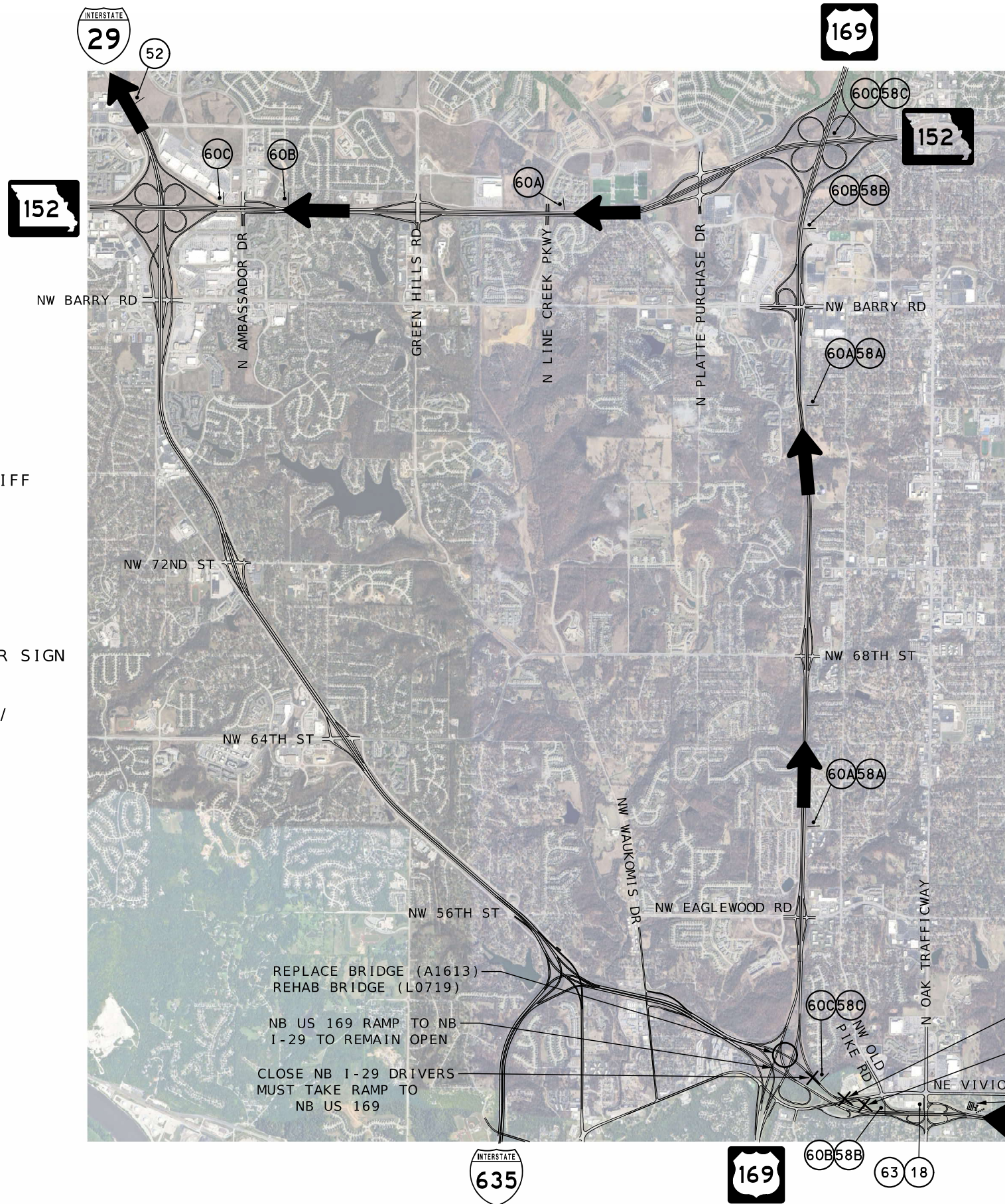
N OAK TRAFFICWAY/MO 283 & NB I-29 LOOP RAMP SHALL REMAIN OPEN

DRIVERS ON NW VIVION RD SHALL BE DETOURED TO NB I-29 VIA SB 169 TO BRIARCLIFF TO NB 169 TO NB I-29 SEE SHEET 3 OF 18

SEE ADDITIONAL TC SHEETS FOR RAMP, LANE CLOSURES, AND WEEKEND CLOSURE

SEE TRAFFIC CONTROL SHEET 18 OF 18 FOR NB I-29 DETOUR SIGN DETAILS

(1) ON-RAMPS FROM NB US 69/ VIVION ROAD SHALL BE OPEN DURING WEEKEND CLOSURE OF NB 169 TO ALLOW ALTERNATE ROUTE FOR TRAFFIC



END
DETOUR

MO4 - 8a

52



WO20 - 2

18



63



60A



60B



60C



58A



58B



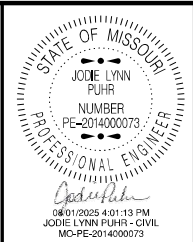
58C

- (1) CLOSE SB NW VIVION RD ON RAMP TO NB I-29
- (1) CLOSE NB NW VIVION RD ON RAMP TO NB I-29

CHANGEABLE MESSAGE SIGN
W/ 5 CHANNELIZERS @ 20' SPACING
LOCATION APPROVED BY ENGINEER

NORTHBOUND I-29
DETOUR SHEET
TRAFFIC CONTROL SHEET
SHEET 2 OF 18

NOT TO SCALE



DATE PREPARED 7/31/2025	
ROUTE I - 29	STATE MO
DISTRICT KC	SHEET NO. 13
COUNTY CLAY	
JOB NO. JKU0292	
CONTRACT ID.	
PROJECT NO.	
BRIDGE NO.	

DESCRIPTION	DATE

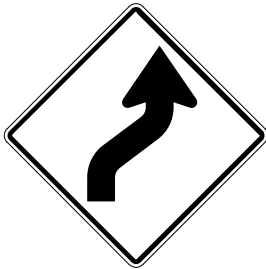
MISSOURI HIGHWAYS AND TRANSPORTATION
COMMISSION

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



R2-1

(25)



W01-4R

(15R)



W013-1

(44)

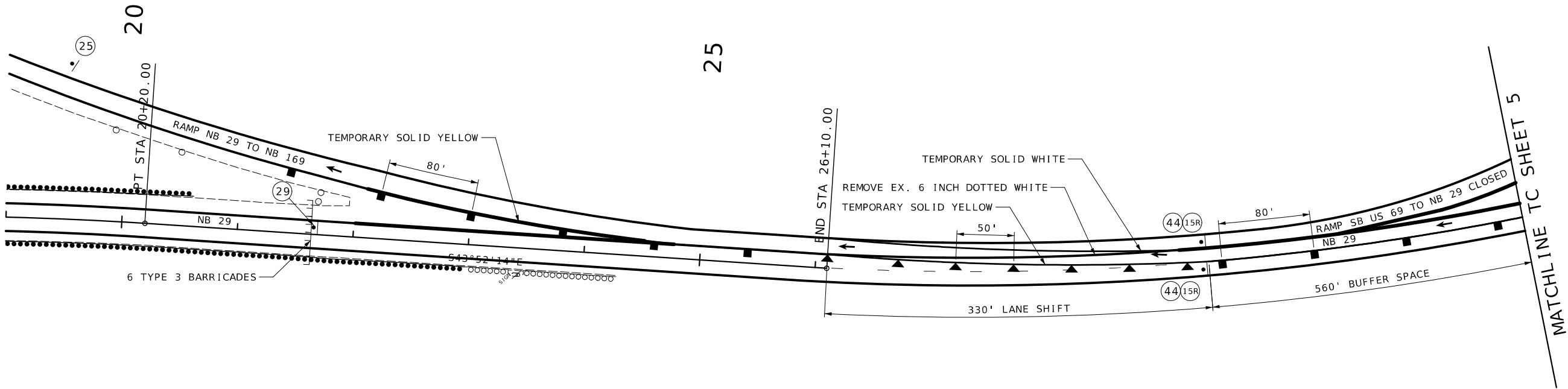
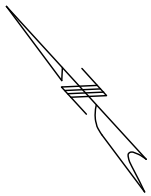


R11-2

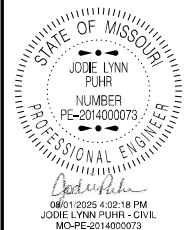
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TRAFFIC CONTROL LEGEND

- SIGN (SINGLE SIDED)
- ▲ DIRECT. IND. BARRIER
- CHANNELIZER
- E BARRICADE



TEMPORARY TRAFFIC CONTROL
NB I-29 CLSORE
SHEET 4 OF 18



DATE PREPARED 7/31/2025	
ROUTE I-29	STATE MO
DISTRICT KC	SHEET NO. 15
COUNTY CLAY	
JOB NO. JKU0292	
CONTRACT ID.	
PROJECT NO.	
BRIDGE NO.	

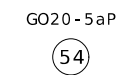
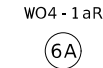
DATE	DESCRIPTION

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

MoDOT

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

●	SIGN (SINGLE SIDED)
▲	DIRECT. IND. BARRIER
■	CHANNELIZER
E	BARRICADE



SCALE

0 50 100 150





R11-2

(29)

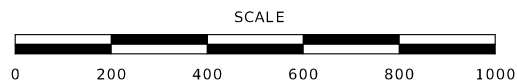
4 TYPE 3 MOVEABLE BARRICADES
CLOSE LOOP RAMP TO NB US 169

CHANGABLE MESSAGE SIGN
W/ 5 CHANNELIZERS @20'
SPACING LOCATION
APPROVED BY ENGINEER

5 TYPE 3 MOVEABLE BARRICADES
CLOSE NB US 169

6 TYPE 3 MOVEABLE BARRICADES
CLOSE NB US 169

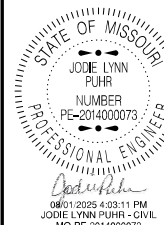
CHANGABLE MESSAGE SIGN
W/ 5 CHANNELIZERS @20'
SPACING LOCATION
APPROVED BY ENGINEER



NOTES:

1. NB US 169 SHALL BE CLOSED TEMPORARILY DURING DEMOLITION OF EXISTING BRIDGE A1613
2. TWO ADDITIONAL CMS BOARDS HAVE BEEN PROVIDED FOR ADVANCED WARNING AT THE FOLLOWING LOCATIONS: NB US 169 AT BRIARCLIFF PKWY & SB I-29 AT WAUKOMIS DR. THESE LOCATIONS ARE NOT SHOWN ON THE PLANS AND SHALL BE APPROVED BY ENGINEER.
3. US 69/VIVION RD ON-RAMPS TO NB I-29 SHALL BE OPEN DURING NB 169 WEEKEND CLOSURE
4. SEE SHEET TC SHEET 7 OF 18 FOR NB US 169 CLOSURE DETAILS
5. SEE SHEET TC SHEET 8 OF 18 FOR SB I-29 LOOP RAMP CLOSURE DETAILS

TEMPORARY TRAFFIC CONTROL
NB US 169 WEEKEND CLOSURE
CMS BOARD AND BARRICADE LOCATIONS
SHEET 6 OF 18



DATE PREPARED
7/31/2025

ROUTE
I-29

STATE
MO

DISTRICT
KC

SHEET NO.
17

COUNTY
CLAY

JOB NO.
JKU0292

CONTRACT ID.

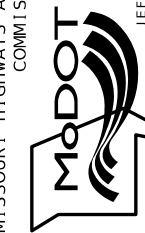
PROJECT NO.

BRIDGE NO.

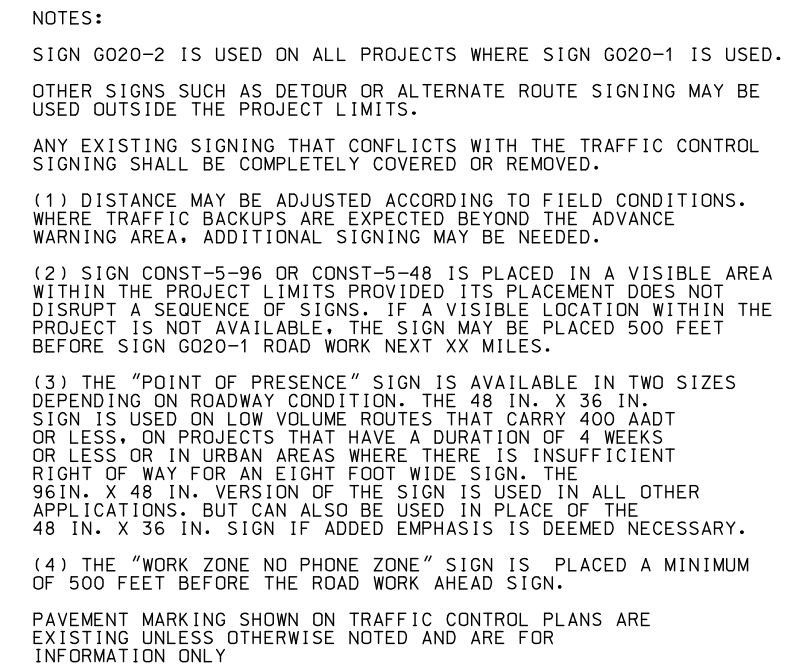
DESCRIPTION

DATE

MISSOURI HIGHWAYS AND TRANSPORTATION
COMMISSION



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



PAVEMENT MARKING SHOWN ON TRAFFIC CONTROL PLANS ARE
EXISTING UNLESS OTHERWISE NOTED AND ARE FOR
INFORMATION ONLY

Diagram illustrating the layout of signs for a bridge project:

- Top Left: A rectangular sign with a black border containing the text "ROAD WORK" and "NEXT XX MILES".
- Top Right: A rectangular sign with a black border containing the text "END ROAD WORK".
- Bottom Left: A circular sign with a black border containing the number "1".
- Bottom Right: A rectangular sign with a black border containing the text "WORK ZONE" and "NO PHONE ZONE".
- Bottom Center: A rectangular sign with a black border containing the text "Bridge Improvements" and "Spring 2026" with a logo for MDOT and a bridge.

NO SCALE

BEGIN/END
PROJECT SIGNING
TEMPORARY
TRAFFIC CONTROL
SHEET 11 OF 18



SEE TRAFFIC CONTROL SHEET 1 OF 18 FOR WORK ZONE SPEED LIMIT GUIDELINES.

SEE TRAFFIC CONTROL SHEET 1 OF 18 FOR SIGN SPACING, DEVICE SPACING AND CHANNELIZING TAPER LENGTHS.

REMOVE AND/OR MODIFY ANY EXISTING PAVEMENT MARKING AS NEEDED.

TEMPORARY PAVEMENT MARKING REQUIRED WITH LONG TERM CLOSURES.

THIS INFORMATION ALSO SHALL BE USED WHEN WORK IS BEING PERFORMED IN THE LANE ADJACENT TO THE MEDIAN ON A DIVIDED HIGHWAY. IN THIS CASE, THE LEFT LANE CLOSED SIGNS AND THE CORRESPONDING MERGE OR LANE ENDS SIGN SHALL BE SUBSTITUTED.

WHEN A SIDE ROAD INTERSECTS THE HIGHWAY WITHIN THE TTC ZONE ADDITIONAL
TTC DEVICES SHALL BE PLACED AS NEEDED.

AN ARROW BOARD SHALL BE USED WHEN A FREEWAY LANE IS CLOSED. WHEN MORE THAN ONE FREEWAY LANE IS CLOSED, A SEPARATE ARROW BOARD SHALL BE USED FOR EACH CLOSED LANE.

PAVEMENT MARKING SHOWN ON TRAFFIC CONTROL PLANS ARE
EXISTING UNLESS OTHERWISE NOTED AND ARE FOR
INFORMATION ONLY

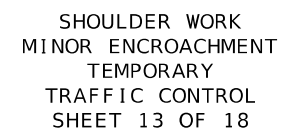
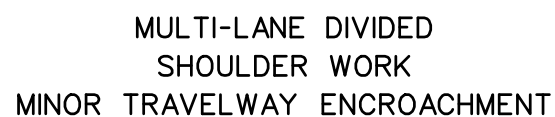
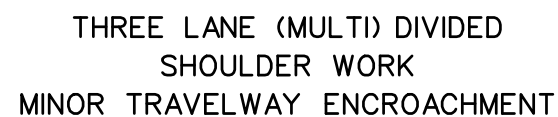
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STATIONARY LANE CLOSURE
ON DIVIDED HIGHWAY
TEMPORARY
TRAFFIC CONTROL
SHEET 12 OF 18



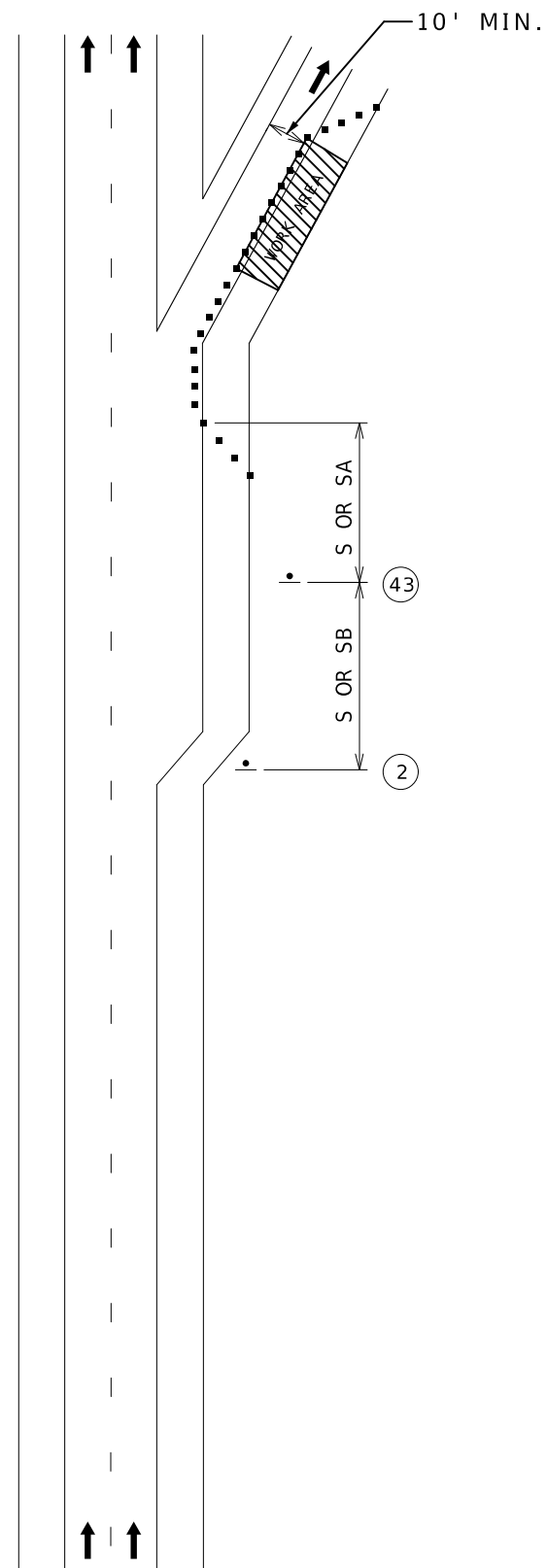
MISSOURI HIGHWAYS AND TRANSPORTATION
COMMISSION

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

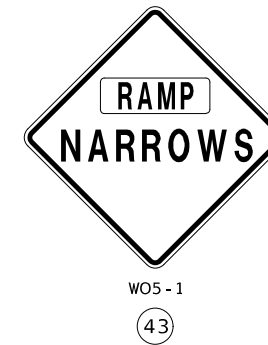


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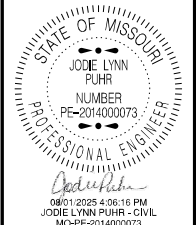


NOT TO SCALE



NOTES:

SEE TRAFFIC CONTROL SHEET 1 OF 18 FOR SIGN SPACING, DEVICE SPACING AND CHANNELIZING TAPER LENGTHS.



DATE PREPARED

7/31/2025

ROUTE	STATE
I - 29	MO

STATE
MO

DISTRICT	SHEET NO
KC	25

HEET NO
25

COUNTY
CLAY

JOB NO.
JKU0292

CONTRACT ID.

PROJECT NO.

BRIDGE NO.

[illegible]

PORTATION
ST CAPITOL
MO 65102
-275-6636)

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

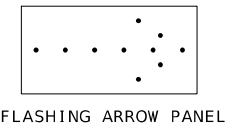


105 WEST CAPITOL
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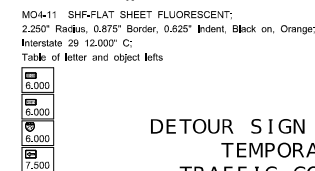
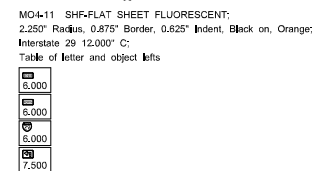
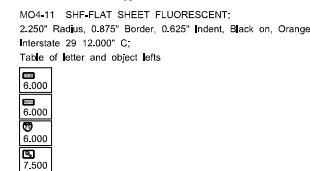
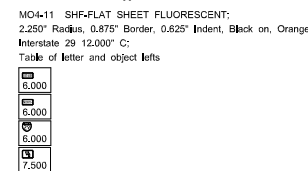
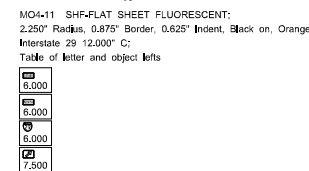
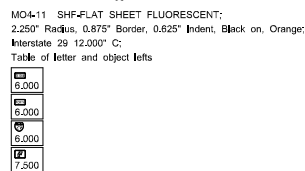
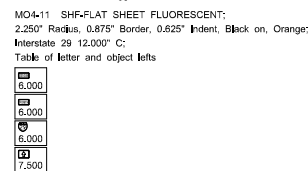
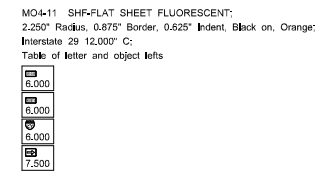
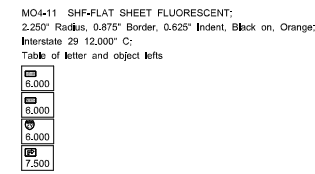
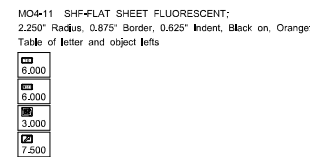
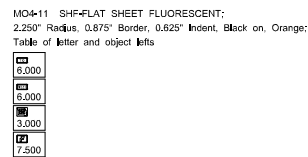
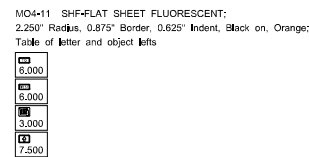
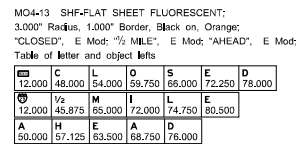
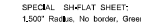
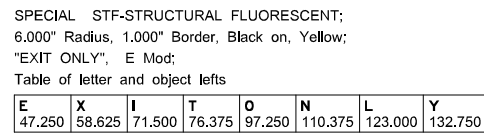
SEE TRAFFIC CONTROL SHEET 1 OF 18 FOR SIGN SPACING, DEVICE SPACING AND CHANNELIZING TAPER LENGTHS.

NOT TO SCALE

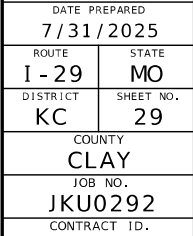


TEMPORARY TRAFFIC CONTROL
SHEET 15 OF 18

[illegible]



NOT TO SCALE



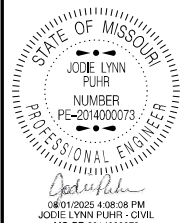
PROJECT NO.
BRIDGE NO.

[illegible]

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION



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



DATE PREPARED 7/31/2025	
ROUTE 1-29	STATE MO
DISTRICT KC	SHEET NO. 30
COUNTY CLAY	
JOB NO. JKU0292	
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)

TEMPORARY EROSION CONTROL LEGEND

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

BEGIN PROJECT JKU0292
STA. 3+84.60

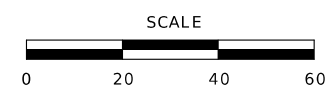
PI 11+97.59
PC 3+21.94
PT 20+20.00
Δ 34°30'1.8" (RT)
D 2°1'54.4"
L 1,698.06' (ARC)
T 875.65'
R 2,820.00'

NOTES:

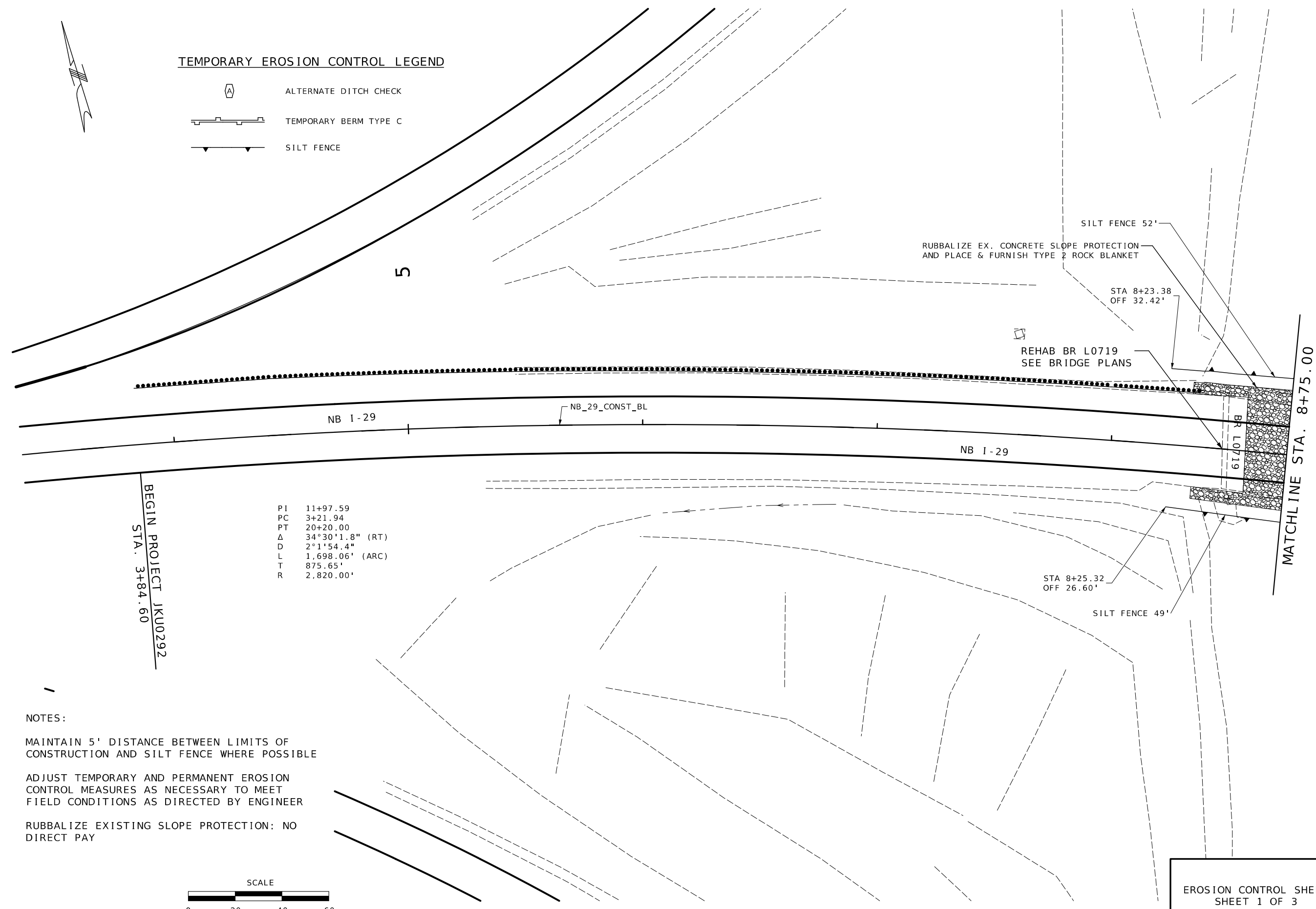
MAINTAIN 5' DISTANCE BETWEEN LIMITS OF CONSTRUCTION AND SILT FENCE WHERE POSSIBLE

ADJUST TEMPORARY AND PERMANENT EROSION CONTROL MEASURES AS NECESSARY TO MEET FIELD CONDITIONS AS DIRECTED BY ENGINEER

RUBBALIZE EXISTING SLOPE PROTECTION: NO DIRECT PAY

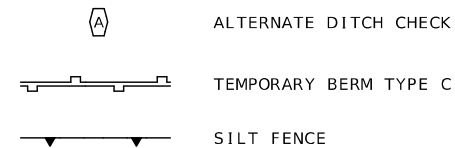


EROSION CONTROL SHEET
SHEET 1 OF 3



REV.

TEMPORARY EROSION CONTROL LEGEND

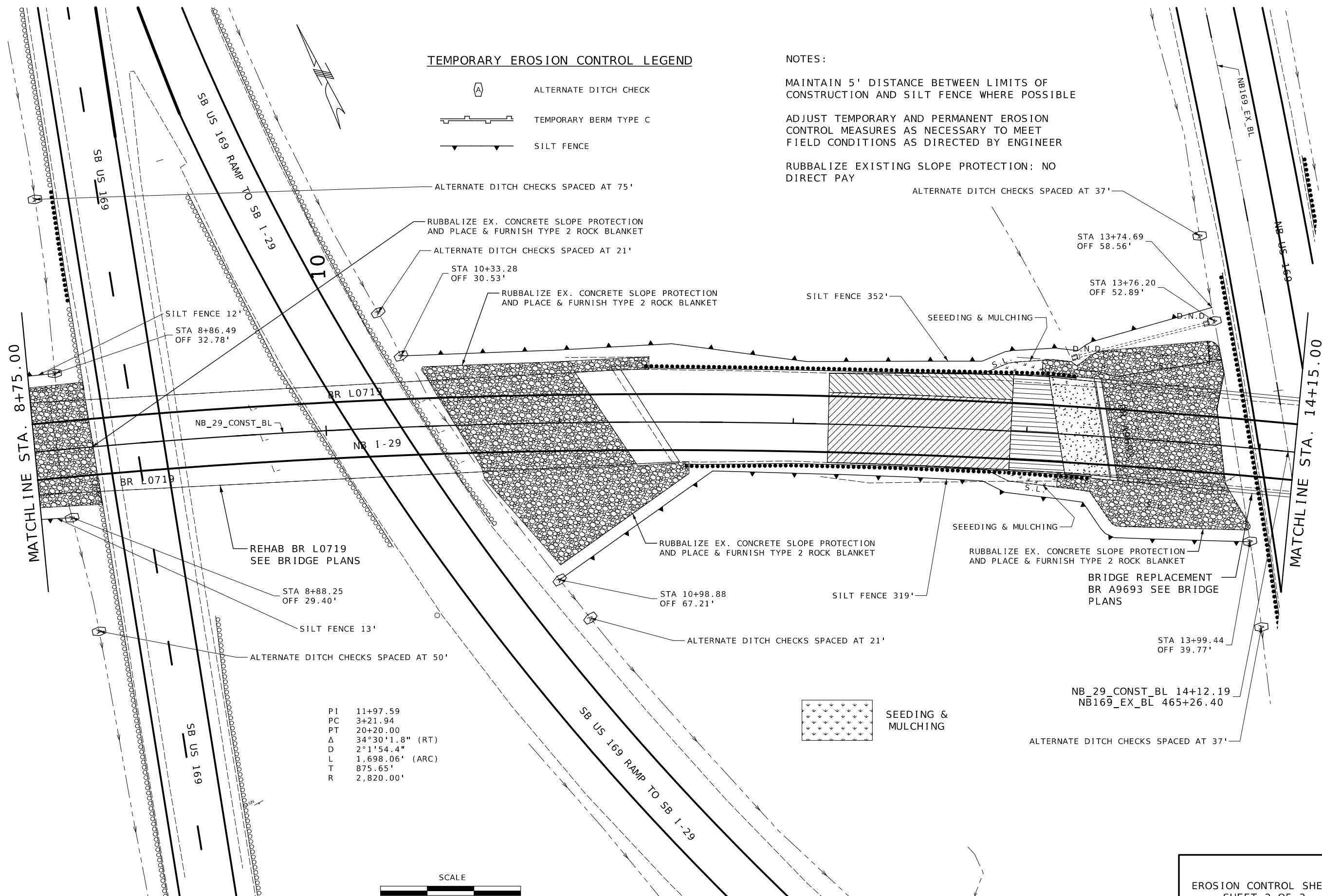


NOTES:

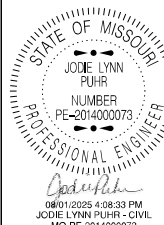
MAINTAIN 5' DISTANCE BETWEEN LIMITS OF CONSTRUCTION AND SILT FENCE WHERE POSSIBLE

ADJUST TEMPORARY AND PERMANENT EROSION CONTROL MEASURES AS NECESSARY TO MEET FIELD CONDITIONS AS DIRECTED BY ENGINEER

RUBBALIZE EXISTING SLOPE PROTECTION; NO DIRECT PAY



PI 11+97.59
PC 3+21.94
PT 20+20.00
Δ 34°30'1.8" (RT)
D 2°1'54.4"
L 1,698.06' (ARC)
T 875.65'
R 2,820.00'



DATE PREPARED
7/31/2025

ROUTE 1-29 STATE MO

DISTRICT KC SHEET NO. 31

COUNTY CLAY

JOB NO. JKU0292

CONTRACT ID.

PROJECT NO.

BRIDGE NO.

DESCRIPTION

DATE

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

105 WEST CAPITOL

JEFFERSON CITY, MO 65102

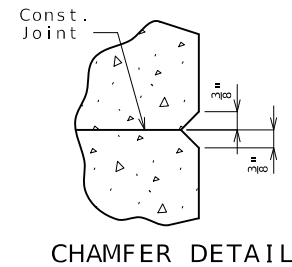
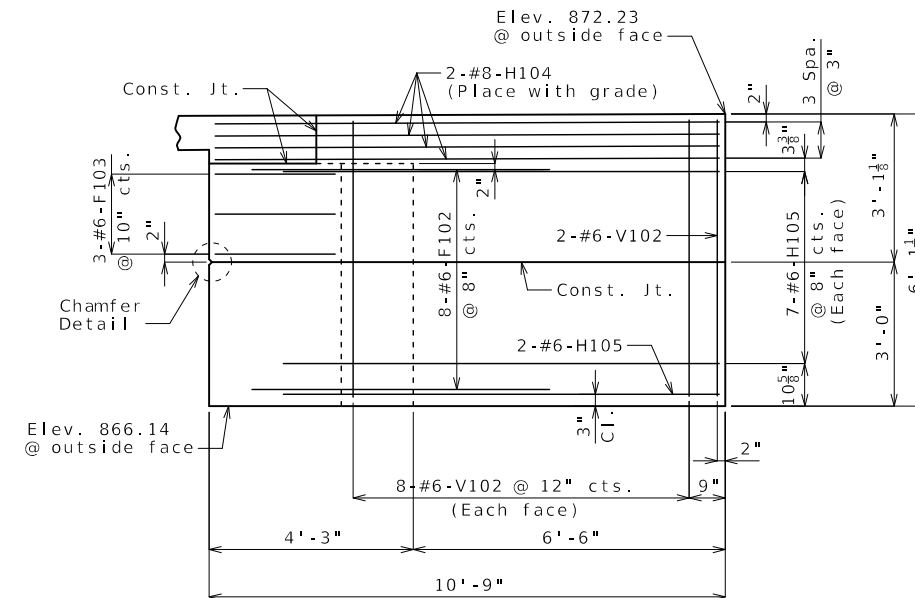
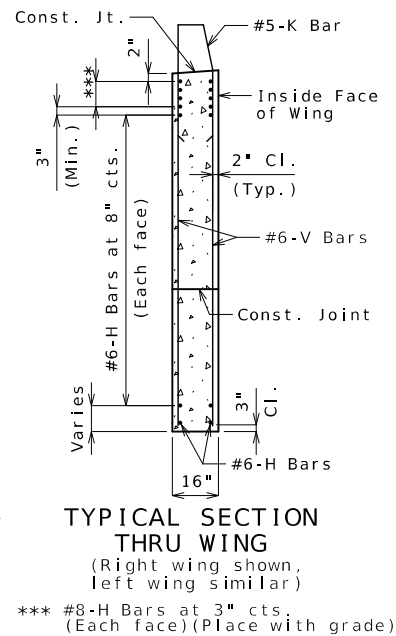
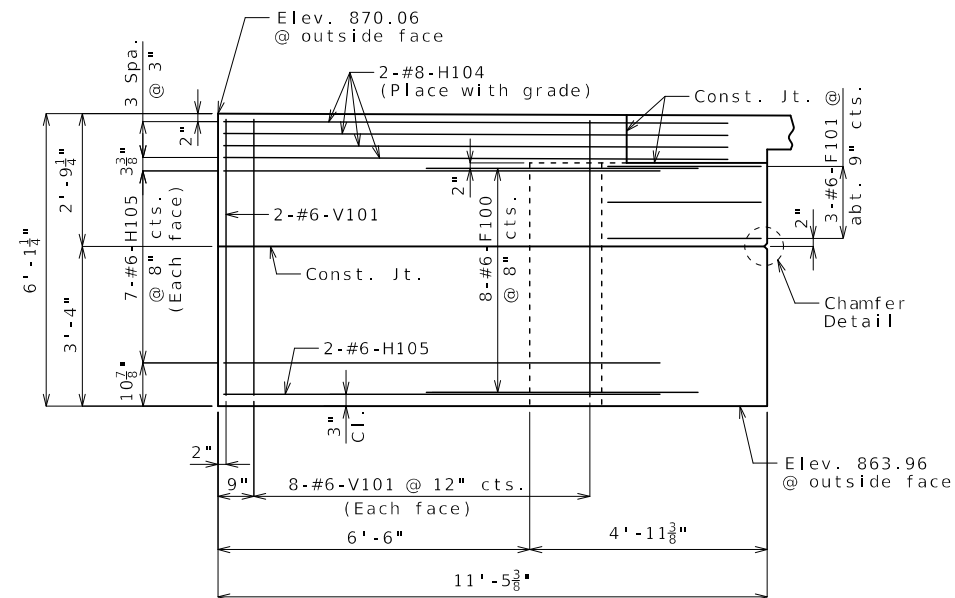
1-888-ASK-MODOT (1-888-275-6636)

MODOT

EROSION CONTROL SHEET

SHEET 2 OF 3

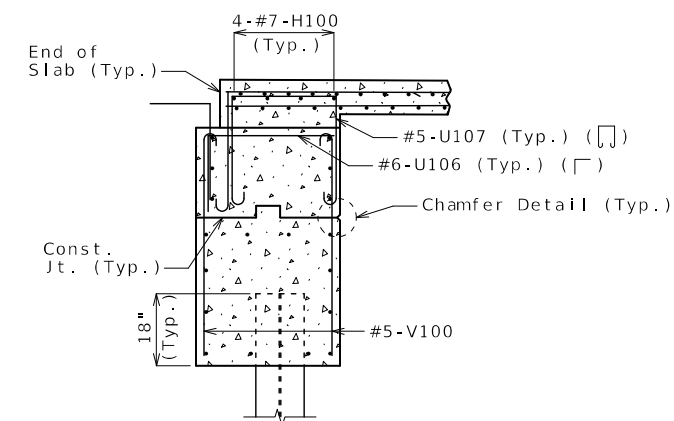
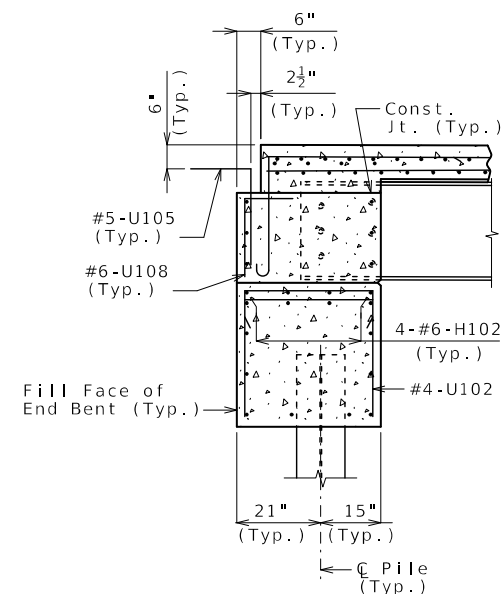
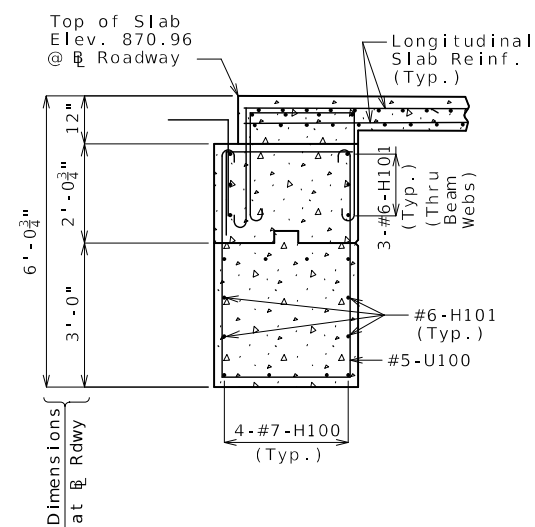
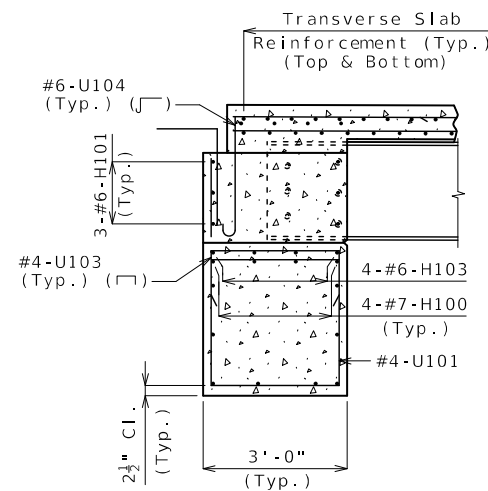
REV.



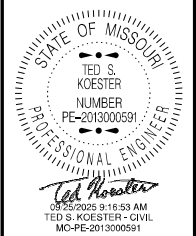
Notes:

Work this sheet with Sheets No. 3 & 4.

For reinforcement of the barrier, see Sheets No. 22 thru 24.



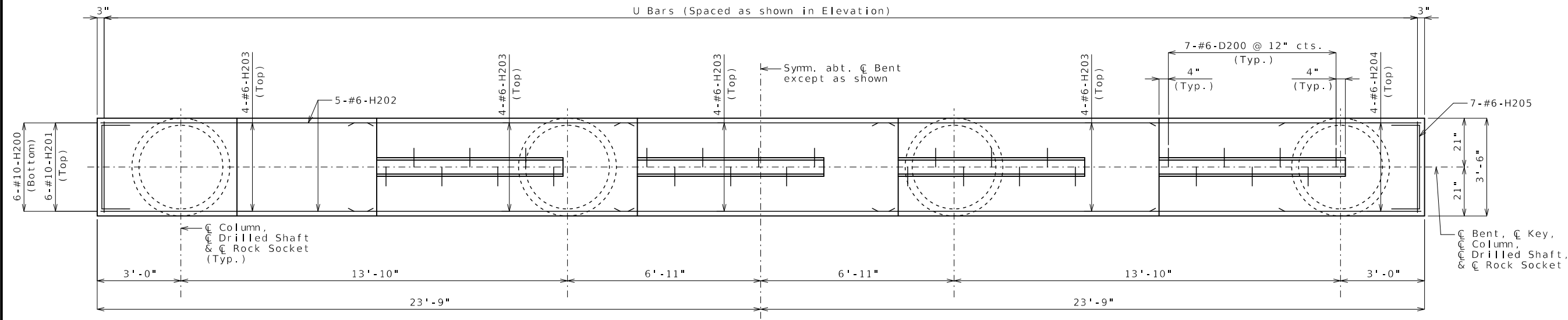
END BENT NO. 1



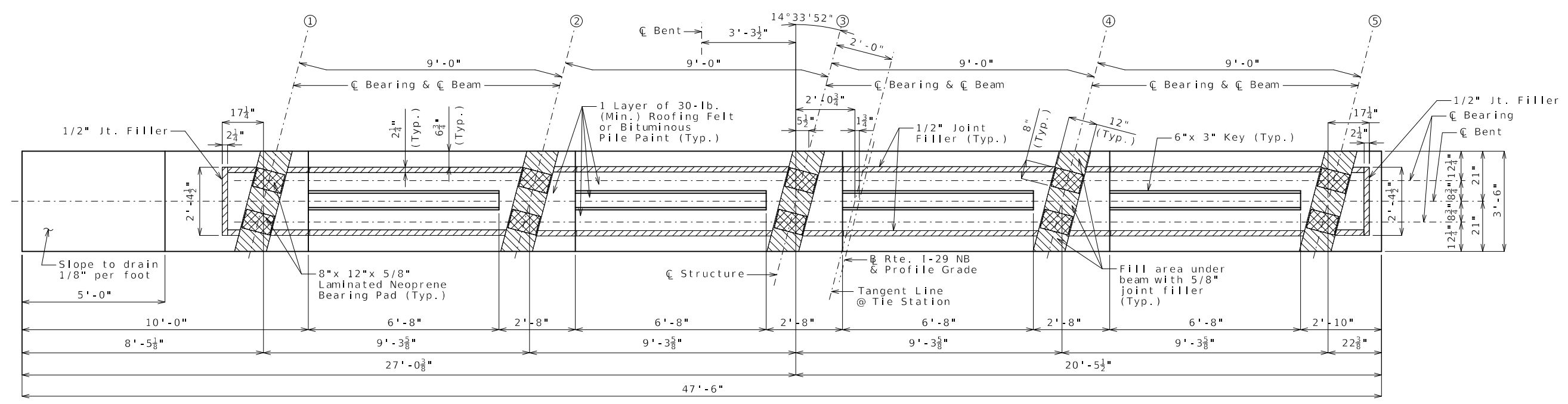
DATE PREPARED	
9/25/2025	
ROUTE	STATE
I - 29	MO
DISTRICT	SHEET NO.
BR	5
COUNTY	
CLAY	
JOB NO.	
JKU0292	
CONTRACT ID.	
PROJECT NO.	
BRIDGE NO.	
A9693	

[illegible]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



PLAN OF BEAM

Notes:
 Work this sheet with Sheets No. 7 & 9.
 For steps 2 inches or more, use 2 1/4 x 1/2 inch joint filler up vertical face.

INTERMEDIATE BENT NO. 2

STATE OF MISSOURI

TED S. KOESTER

NUMBER

PE-2013000591

PROFESSIONAL ENGINEER

Ted Koester

08/25/2025 9:17:20 AM

TED S. KOESTER - CIVIL

MO-PE-2013000591

DATE PREPARED

9/25/2025

ROUTE

1-29

STATE

MO

DISTRICT

BR

SHEET NO.

8

COUNTY

CLAY

JOB NO.

JKU0292

CONTRACT ID.

PROJECT NO.

BRIDGE NO.

A9693

DESCRIPTION

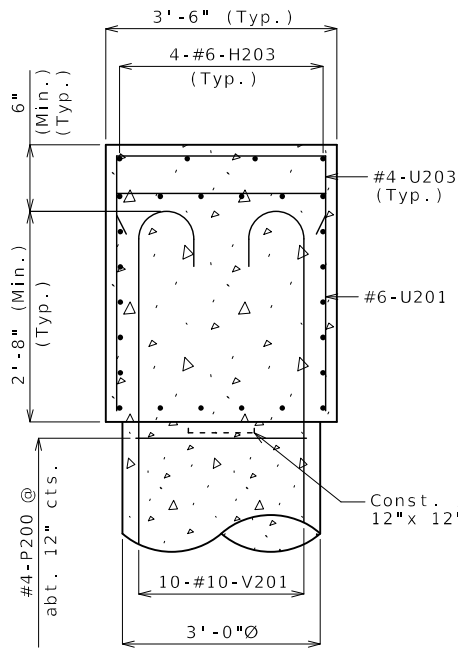
DATE

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

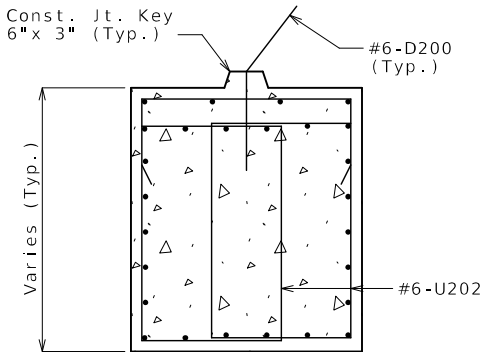
105 WEST CAPITOL

JEFFERSON CITY, MO 65102

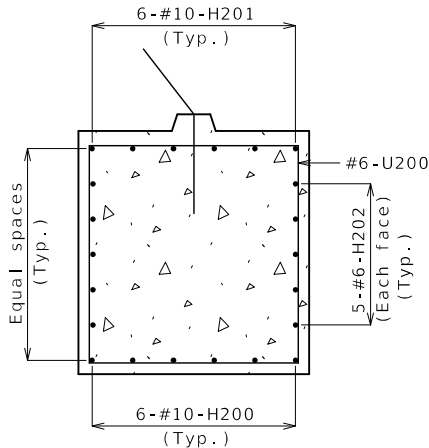
1-888-ASK-MODOT (1-888-273-6636)



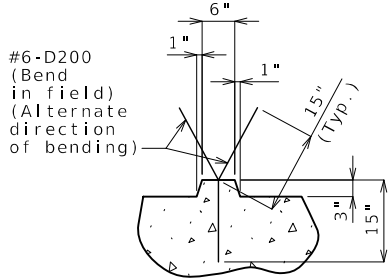
SECTION A-A



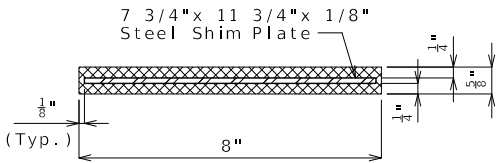
SECTION B-B



SECTION C-C



SECTION THRU KEY



TYPICAL SECTION THRU LAMINATED NEOPRENE BEARING PAD

Notes:

Work this sheet with Sheets No. 7 & 8.

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

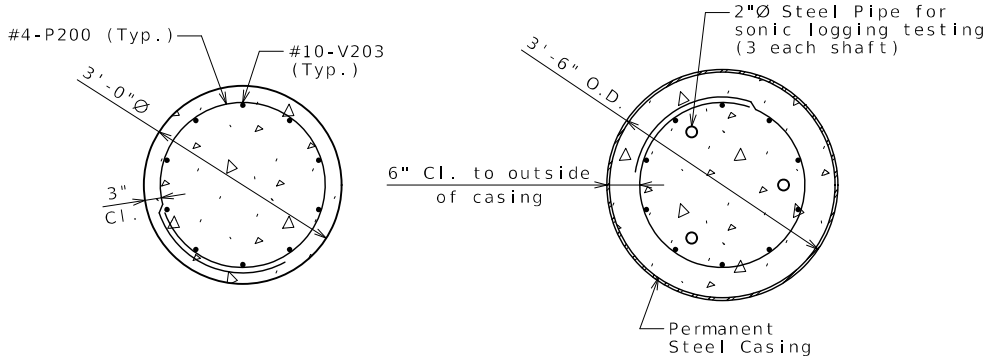
An additional 4 feet has been added to V-bar lengths and additional 32-#4-P200 bars have been added in the quantities, if required, for possible change in drilled shaft or rock socket length. The additional V-bar length shall be cut off or included in the reinforcement lap if not required. The additional 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 6-inch centers.

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

The cost of any required excavation to the top of the drilled shafts will be considered completely covered by the contract unit price for other items.

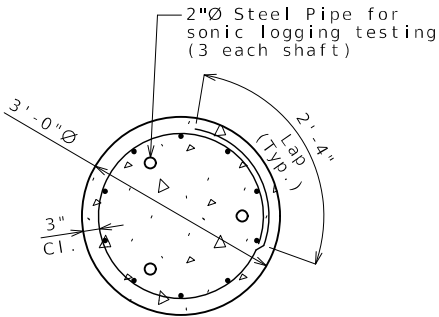
The tip of casing shall not extend into the rock socket elevation range reported in the Foundation Data table without approval by the engineer.

At the contractor's option, the hooks of vertical bars embedded in the beam cap may be oriented inward or outward.

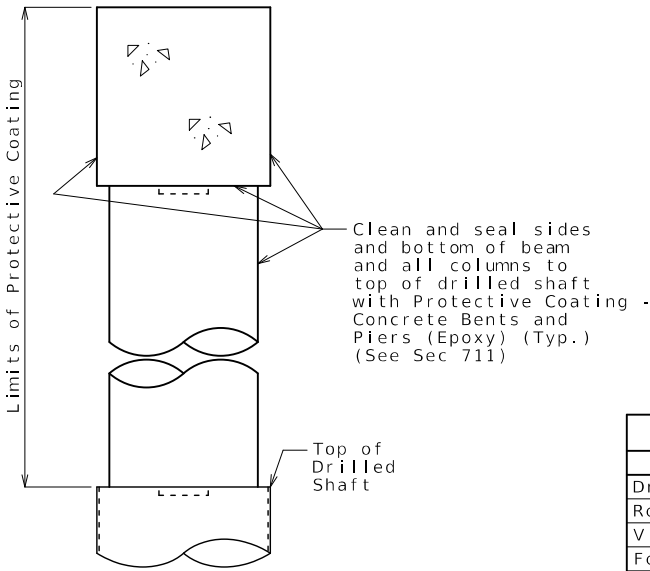


SECTION D-D (COLUMN)

SECTION E-E (DRILLED SHAFT)



SECTION F-F (ROCK SOCKET)



PART SECTION SHOWING CONCRETE PROTECTIVE COATING

Substructure Quantity Table for Bent No. 2		
Item		Quantity
Drilled Shafts (3 ft. 6 in. Dia.)	linear foot	32.4
Rock Sockets (3 ft. 0 in. Dia.)	linear foot	40.0
Video Camera Inspection	each	4
Foundation Inspection Holes	linear foot	80.0
Sonic Logging Testing	each	4
Class B Concrete (Substructure)	cu. yard	43.8
Reinforcing Steel (Epoxy Coated)	pound	14,210

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

All reinforcement in drilled shafts and rock sockets is included in the Substructure Quantities.

INTERMEDIATE BENT NO. 2

STATE OF MISSOURI
TED S. KOESTER
NUMBER
PE-2013000591
PROFESSIONAL ENGINEER
Ted Koester
09/25/2025 9:17:29 AM
TED S. KOESTER-CIVIL
MO-PE-2013000591

DATE PREPARED
9/25/2025

ROUTE
1-29

DISTRICT
BR

STATE
MO

SHEET NO.
9

COUNTY
CLAY

JOB NO.
JKU0292

CONTRACT ID.

PROJECT NO.

BRIDGE NO.
A9693

DESCRIPTION

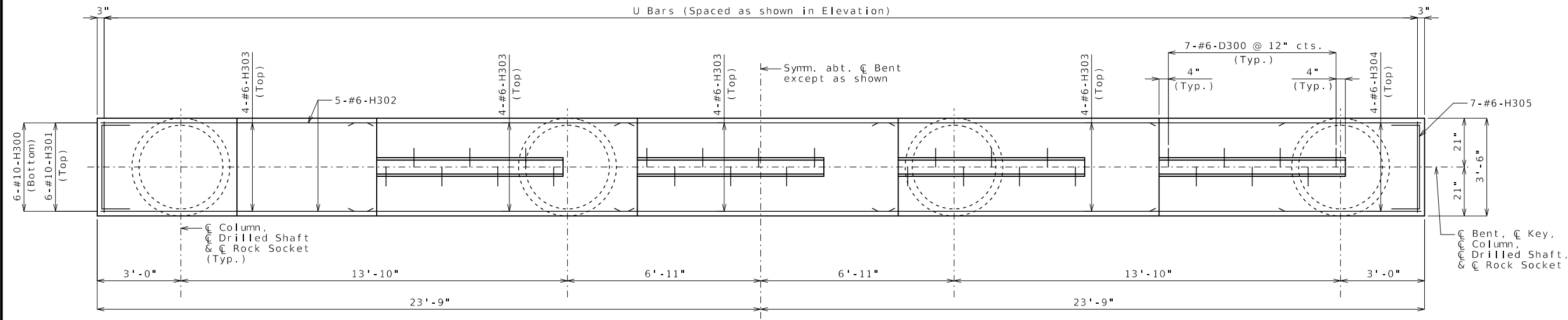
DATE

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

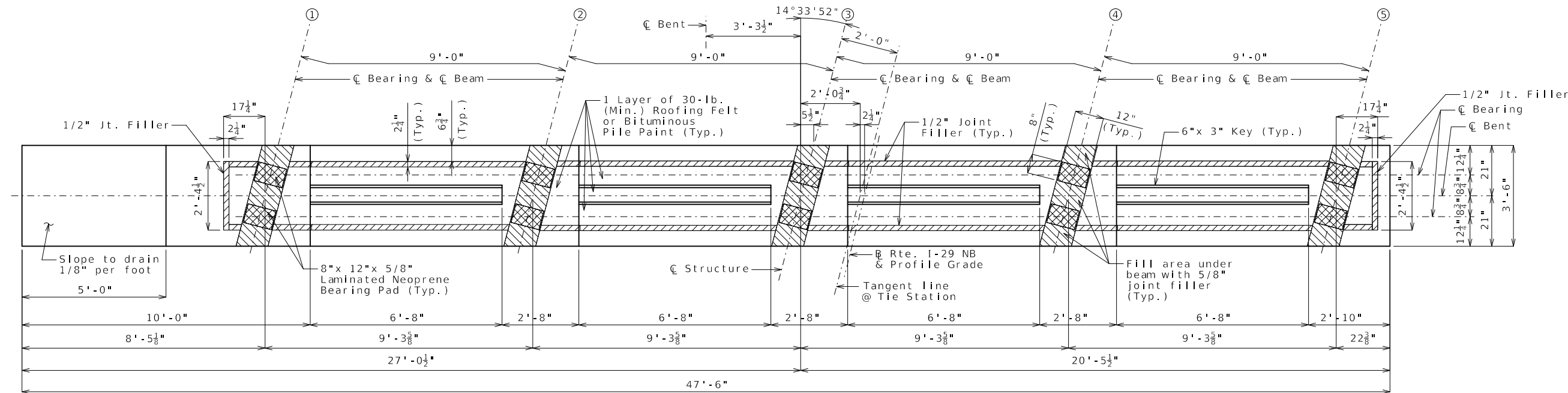
105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-273-6636)



(1) Slope 1/8" per foot to drain.



PLAN OF BEAM SHOWING REINFORCEMENT



PLAN OF BEAM

Notes:
 Work this sheet with Sheets No. 10 & 12.
 For steps 2 inches or more, use 2 1/4 x 1/2 inch joint filler up vertical face.

INTERMEDIATE BENT NO. 3

Detailed July 2025
 Checked Aug. 2025

Note: This drawing is not to scale. Follow dimensions. Sheet No. 11 of 31

STATE OF MISSOURI

TED S. KOESTER

NUMBER

PE-2013000591

PROFESSIONAL ENGINEER

Ted Koester

09/25/2025 9:17:53 AM

TED S. KOESTER-CIVIL

MO-PE-2013000591

DATE PREPARED

9/25/2025

ROUTE

1-29

STATE

MO

DISTRICT

BR

SHEET NO.

11

COUNTY

CLAY

JOB NO.

JKU0292

CONTRACT ID.

PROJECT NO.

BRIDGE NO.

A9693

DESCRIPTION

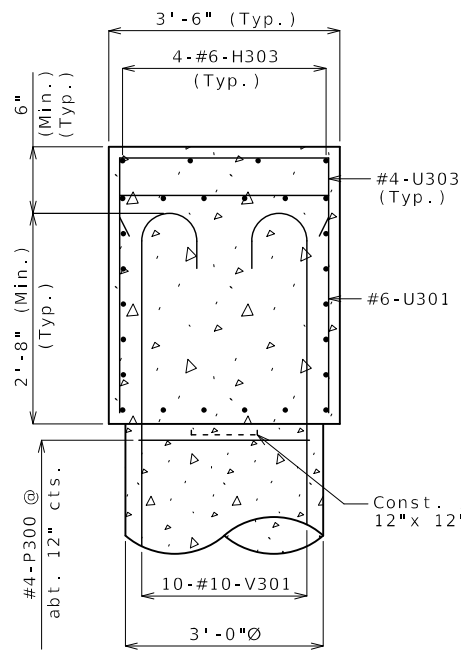
DATE

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

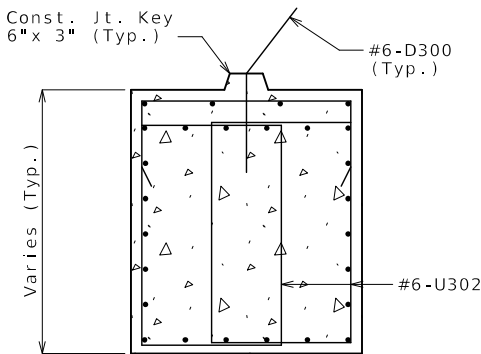
105 WEST CAPITOL

JEFFERSON CITY, MO 65102

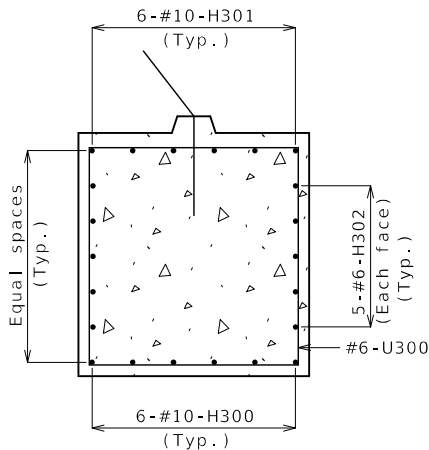
1-888-ASK-MODOT (1-888-273-6636)



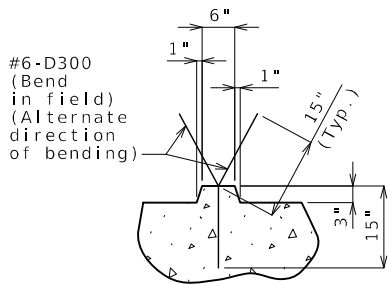
SECTION A-A



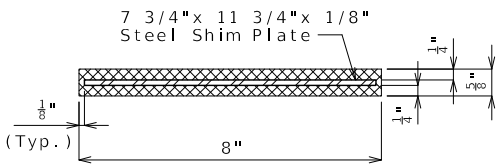
SECTION B-B



SECTION C-C



SECTION THRU KEY



TYPICAL SECTION THRU LAMINATED NEOPRENE BEARING PAD

Notes:

Work this sheet with Sheets No. 10 & 11.

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

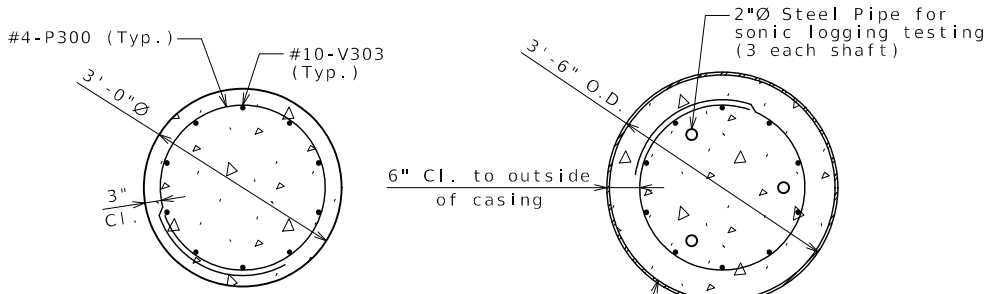
An additional 4 feet has been added to V-bar lengths and additional 32-#4-P300 bars have been added in the quantities, if required, for possible change in drilled shaft or rock socket length. The additional V-bar length shall be cut off or included in the reinforcement lap if not required. The additional 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 6-inch centers.

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

The cost of any required excavation to the top of the drilled shafts will be considered completely covered by the contract unit price for other items.

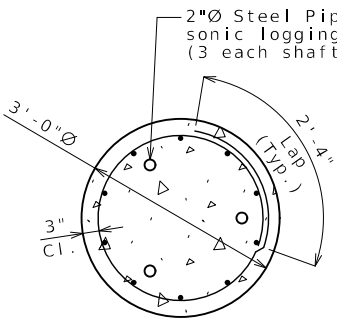
The tip of casing shall not extend into the rock socket elevation range reported in the Foundation Data table without approval by the engineer.

At the contractor's option, the hooks of vertical bars embedded in the beam cap may be oriented inward or outward.

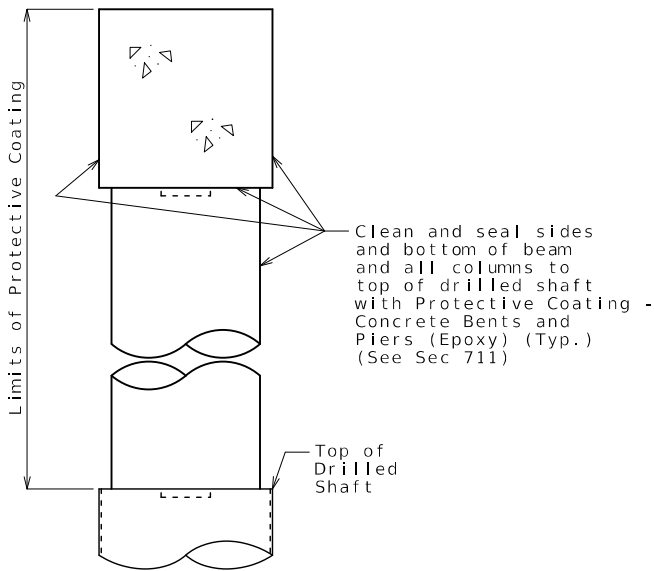


SECTION D-D (COLUMN)

SECTION E-E (DRILLED SHAFT)



SECTION F-F (ROCK SOCKET)



PART SECTION SHOWING CONCRETE PROTECTIVE COATING

Substructure Quantity Table for Bent No. 3		
Item		Quantity
Drilled Shafts (3 ft. 6 in. Dia.)	linear foot	37.6
Rock Sockets (3 ft. 0 in. Dia.)	linear foot	40.0
Video Camera Inspection	each	4
Foundation Inspection Holes	linear foot	80.0
Sonic Logging Testing	each	4
Class B Concrete (Substructure)	cu. yard	42.6
Reinforcing Steel (Epoxy Coated)	pound	14,250

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

All reinforcement in drilled shafts and rock sockets is included in the Substructure Quantities.

INTERMEDIATE BENT NO. 3

STATE OF MISSOURI

TED S. KOESTER

NUMBER

PE-2013000591

PROFESSIONAL ENGINEER

Ted Koester

09/25/2025 9:18:02 AM

TED S. KOESTER - CIVIL

MO-PE-2013000591

DATE PREPARED

9/25/2025

ROUTE

1-29

DISTRICT

BR

STATE

MO

SHEET NO.

12

COUNTY

CLAY

JOB NO.

JKU0292

CONTRACT ID.

PROJECT NO.

BRIDGE NO.

A9693

DESCRIPTION

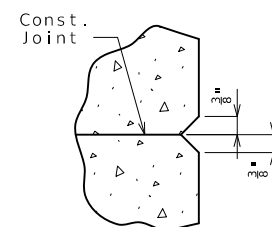
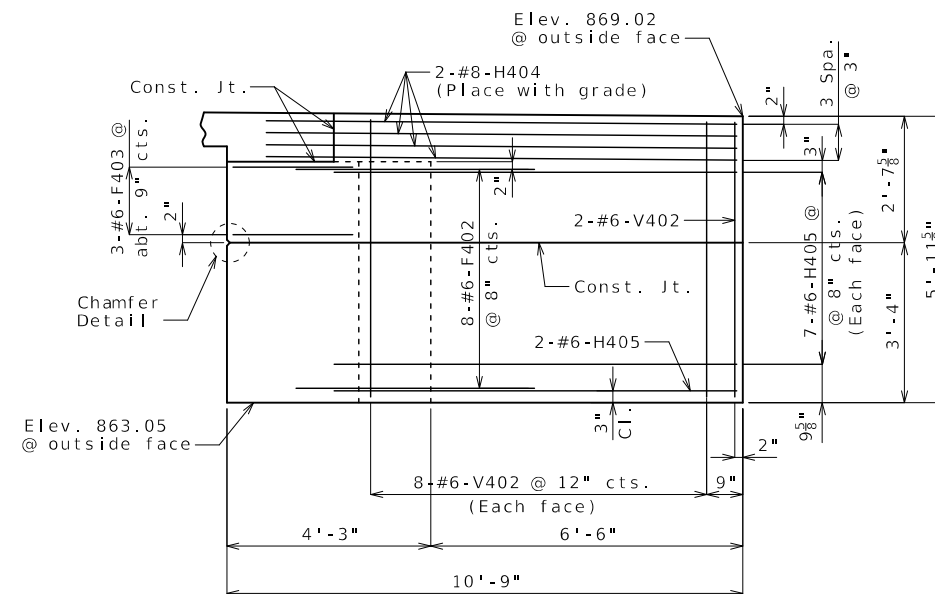
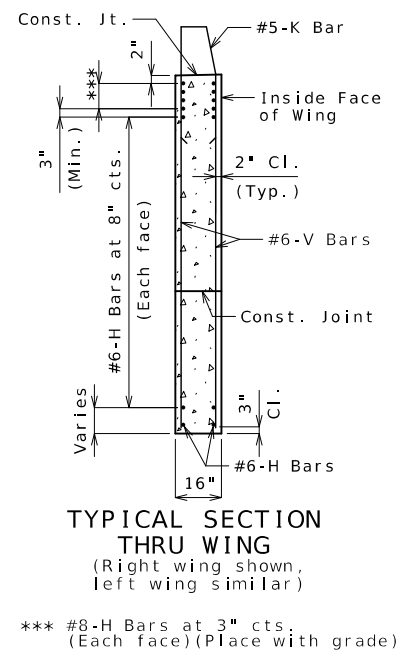
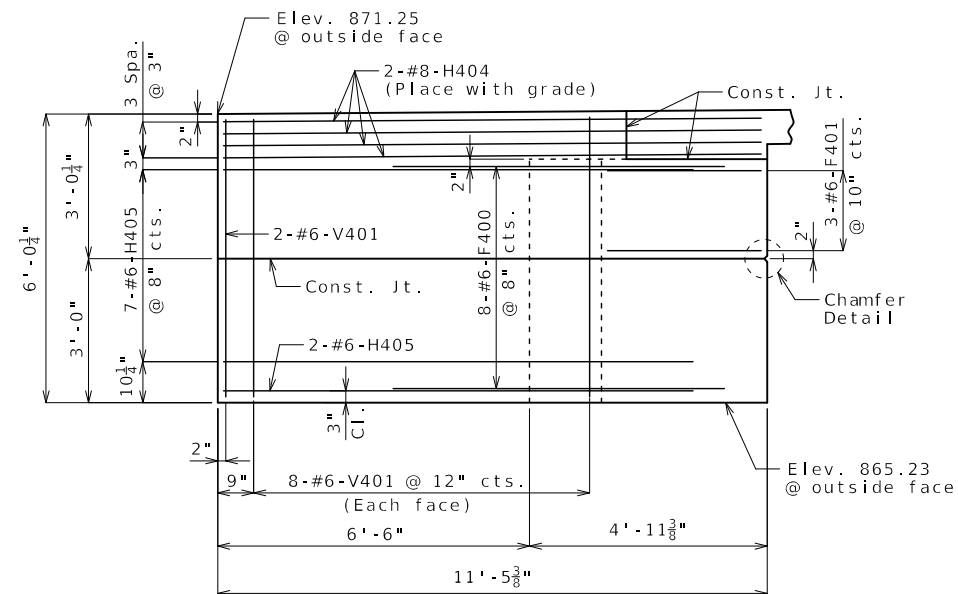
DATE

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

105 WEST CAPITOL

JEFFERSON CITY, MO 65102

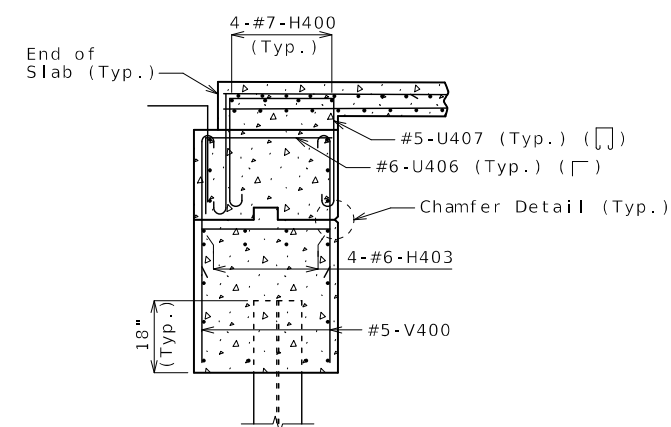
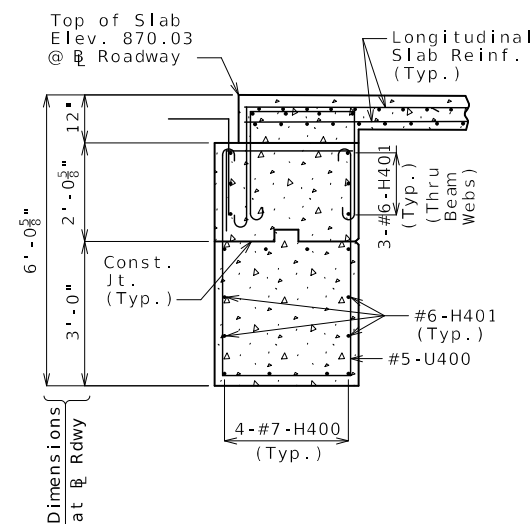
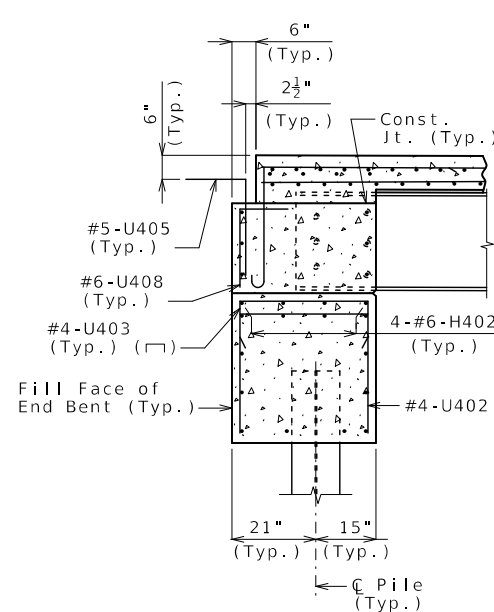
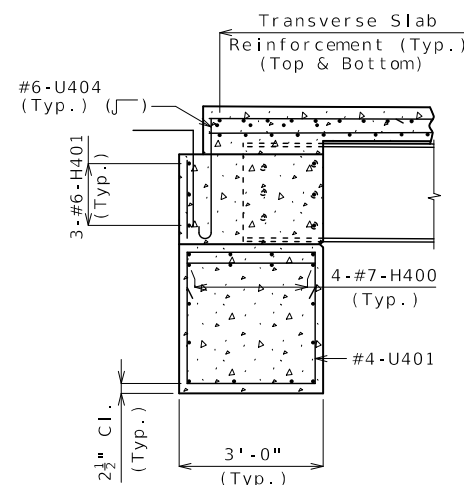
1-888-ASK-MODOT (1-888-273-6636)



Notes:

Work this sheet with Sheets No. 13 & 14.

For reinforcement of the barrier, see Sheets No. 22 thru 24.



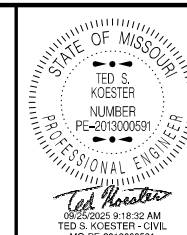
SECTION A-A

SECTION B-B

SECTION C-C

SECTION D-D

END BENT NO. 4



DATE PREPARED

9/25/202

ROUTE	ST
-------	----

I - 29 | M

DISTRICT	SHEET
----------	-------

BR	1
----	---

COUNTY

CLAY

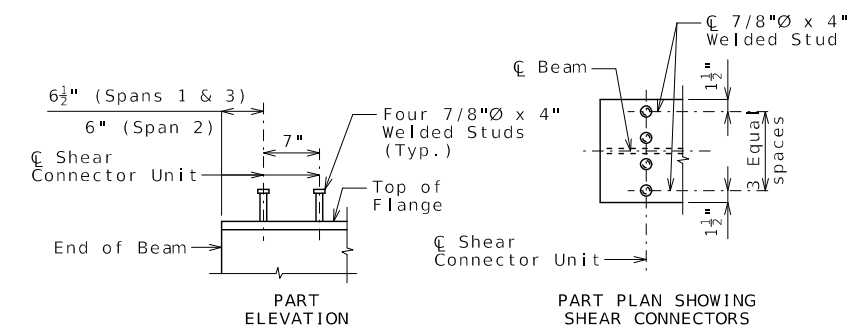
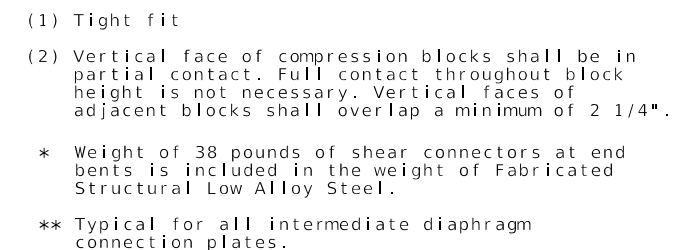
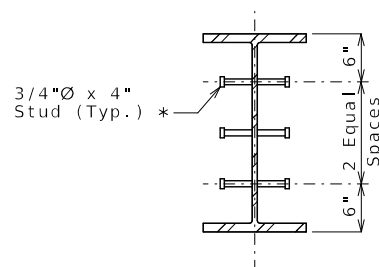
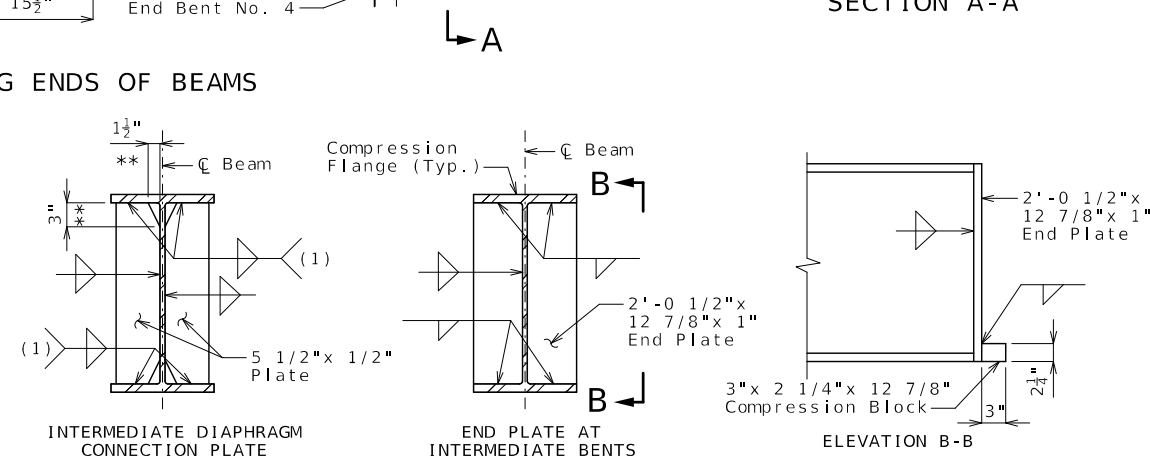
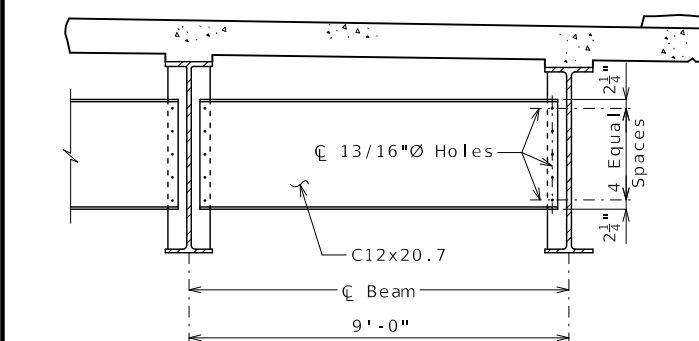
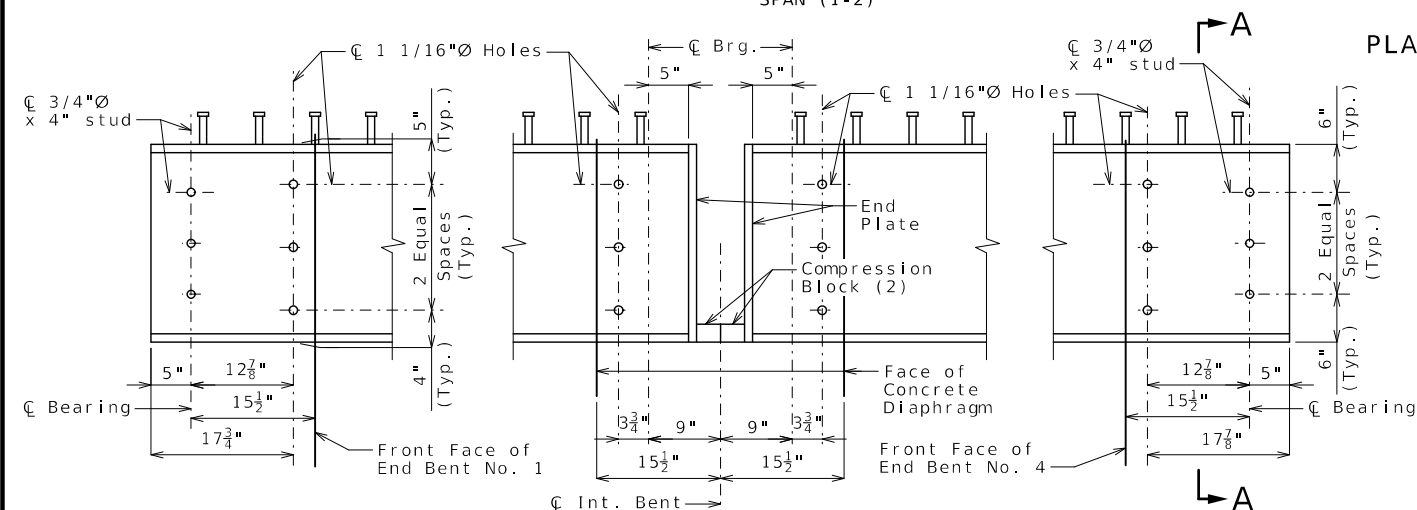
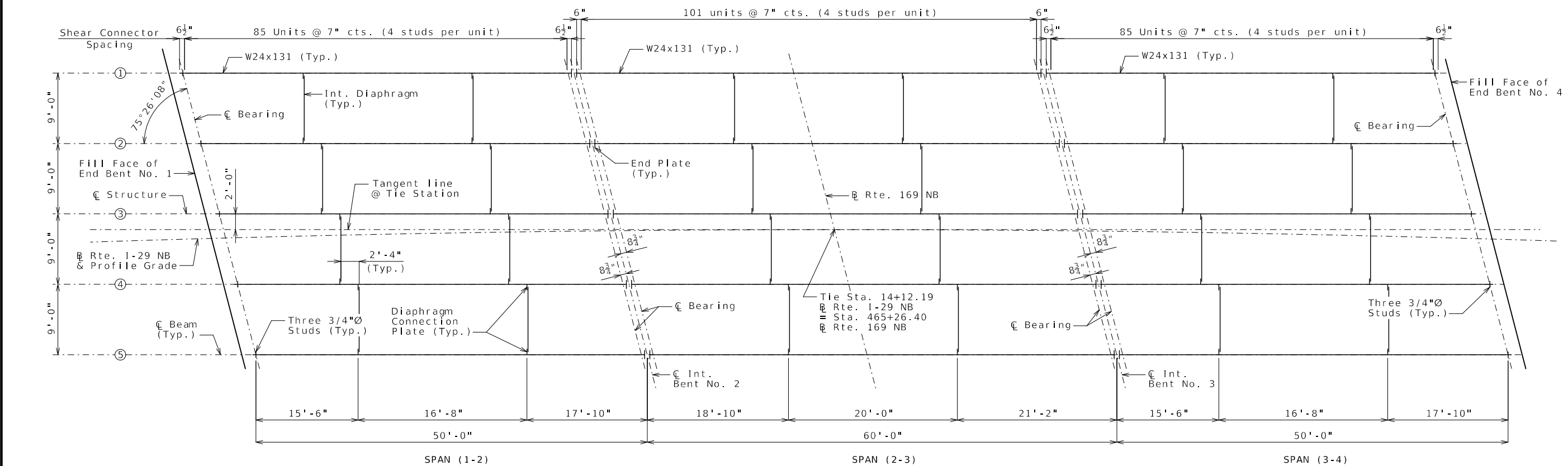
JOB NO.
11112222

JKU00292

CONTRACT ID

[illegible]MISSOURI HIGHWAYS AND TRANSPORTATION
COMMISSION

105 WEST CAPITOL
JEFFERSON CITY, MO 65102



DETAILS OF SHEAR CONNECTOR UNITS
(4 STUDS PER UNIT)

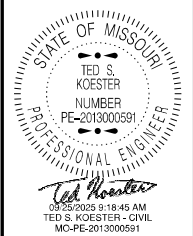
Weight of 4390 pounds of shear connectors is included in the weight of Fabricated Structural Low Alloy Steel.

Notes:

Longitudinal dimensions are horizontal from centerline bearing to centerline bearing.

Fabricated structural low alloy steel shall be ASTM A709 Grade 50, except as noted.

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



DATE PREPARED

9/25/2025

ROUTE	STATE
I 20	MO

1-29	MO
DISTRICT	SHEET NO.

DISTRICT	SHEET NO.
BR	16

DATE	FILE
COUNTY	

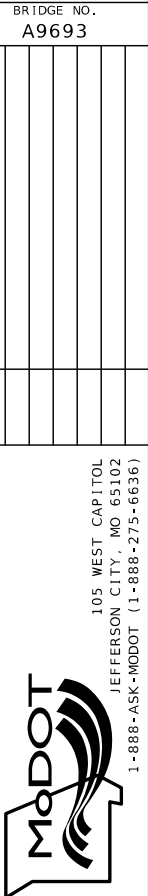
CLAY

JOB NO.
11110000

JKU0292
CONTRACT ID.

PROJECT NO.

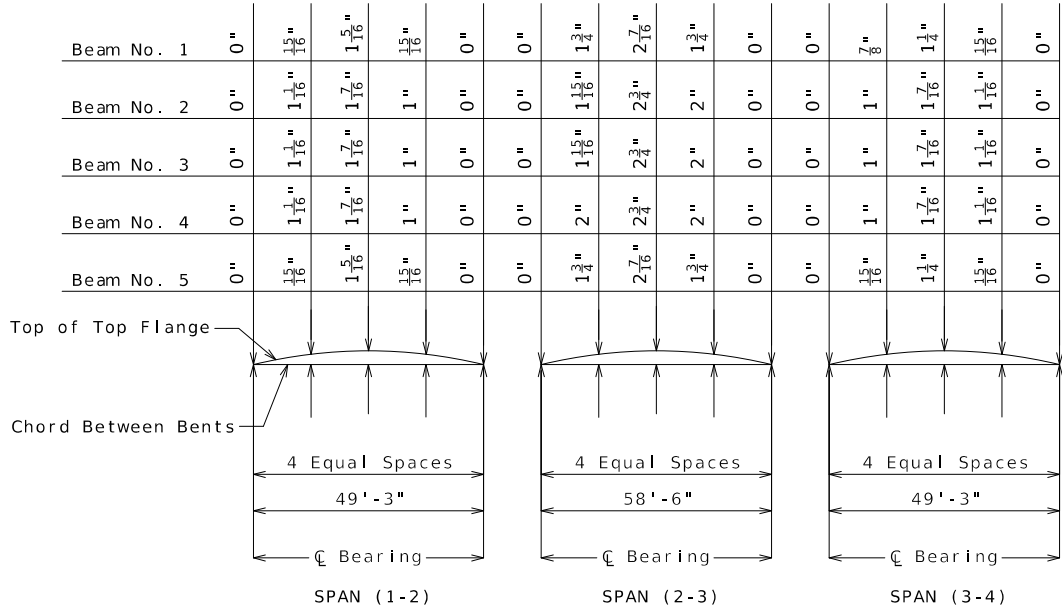
PROJECT NO.



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

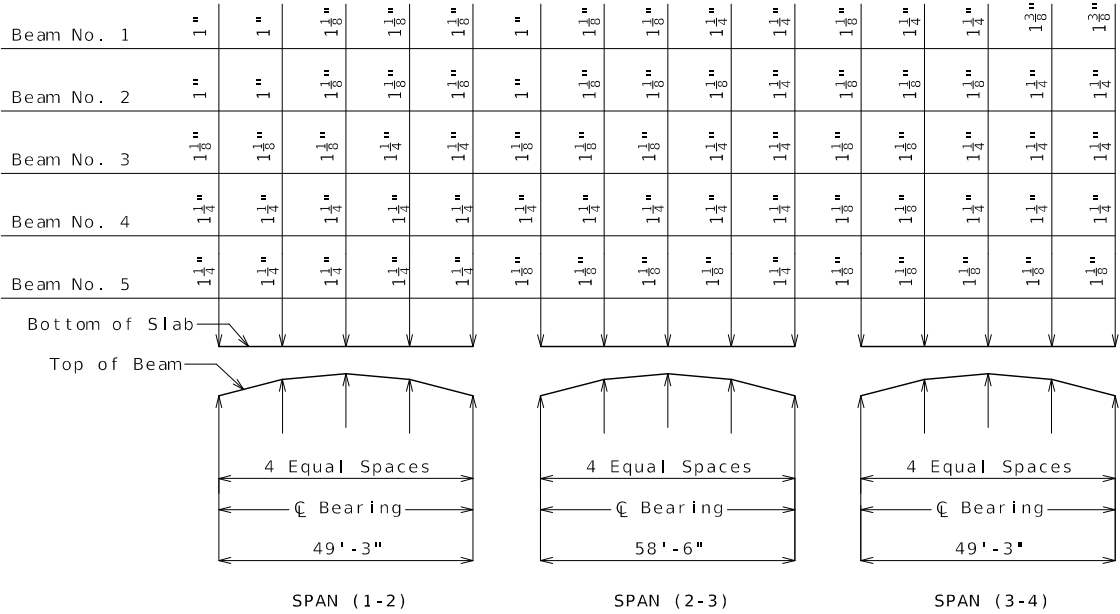
Theoretical Bottom of Slab Elevations at Centerline of Beam (Prior to forming for slab) (Estimated at 90 days)															
Beam Number	Span (1-2) (49'-3" C Brg. - C Brg.)					Span (2-3) (58'-6" C Brg. - C Brg.)					Span (3-4) (49'-3" C Brg. - C Brg.)				
	C Brg.	.25	.50	.75	C Brg.	C Brg.	.25	.50	.75	C Brg.	C Brg.	.25	.50	.75	C Brg.
1	871.32	871.34	871.31	871.24	871.12	871.11	871.16	871.13	871.00	870.79	870.78	870.76	870.70	870.59	870.44
2	870.86	870.89	870.87	870.78	870.66	870.65	870.71	870.69	870.55	870.33	870.32	870.31	870.25	870.14	869.97
3	870.40	870.43	870.41	870.32	870.20	870.19	870.25	870.23	870.09	869.86	869.85	869.84	869.78	869.67	869.50
4	869.95	869.97	869.95	869.86	869.74	869.73	869.79	869.77	869.62	869.39	869.38	869.37	869.32	869.20	869.03
5	869.49	869.50	869.48	869.40	869.28	869.26	869.31	869.28	869.14	868.93	868.92	868.90	868.83	868.72	868.56

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.

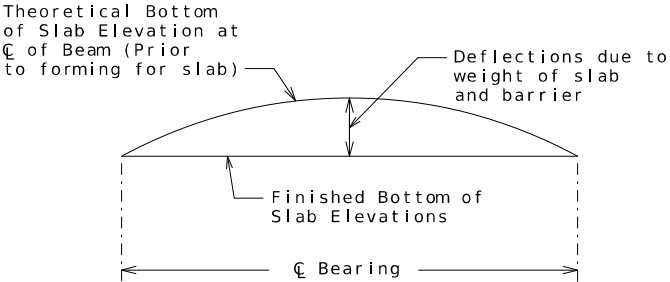


BEAM CAMBER DIAGRAM

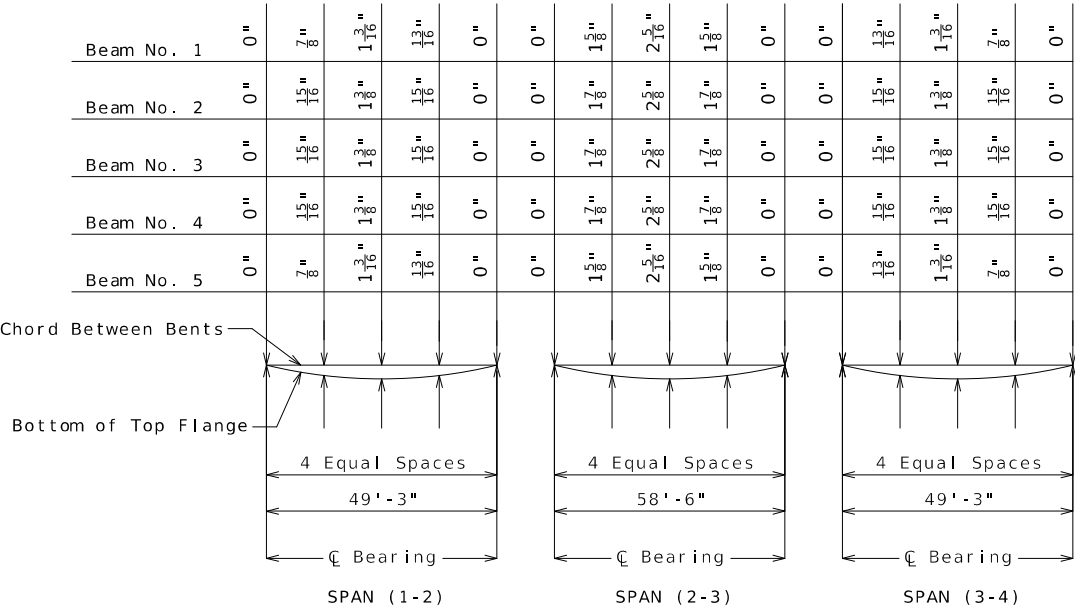
Camber includes allowance for vertical curve, and dead load deflection due to concrete slab, barrier, and structural steel.



THEORETICAL SLAB HAUNCHING DIAGRAM



TYPICAL SLAB ELEVATIONS DIAGM



DEAD LOAD DEFLECTION

Dead load deflection due to the weight of structural steel:
14% (Exterior beams)
12% (Interior beams)

Dead load deflection includes weight of structural steel, concrete slab, and barrier.

Dimensions (bottom of slab to top of beam) may vary if beam camber after erection differs from plan camber by more than the % of Dead Load Deflection due to weight of structural steel. No payment will be made for any adjustment in forming or additional concrete required for variation in haunching.

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

STATE OF MISSOURI

TED S. KOESTER

NUMBER

PE-2013000591

PROFESSIONAL ENGINEER

TED S. KOESTER

09/25/2025 9:18:57 AM

TED S. KOESTER - CIVIL

MO-PE-2013000591

DATE PREPARED

9/25/2025

ROUTE

1 - 29

STATE

MO

DISTRICT

BR

SHEET NO.

17

COUNTY

CLAY

JOB NO.

JKU0292

CONTRACT ID.

PROJECT NO.

BRIDGE NO.

A9693

DESCRIPTION

DATE

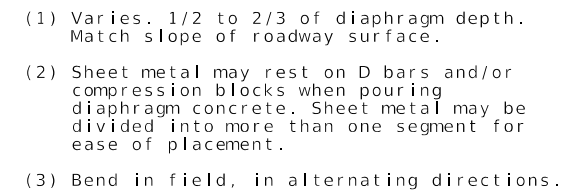
MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

MoDOT

105 WEST CAPITOL

JEFFERSON CITY, MO 65102

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



HALF SECTION SHOWING SHEET METAL

Technical drawing of a bridge deck cross-section, divided into two halves: "HALF SECTION SHOWING REINFORCEMENT" (left) and "HALF SECTION SHOWING SHEET METAL" (right).

Reinforcement Details (Left Half):

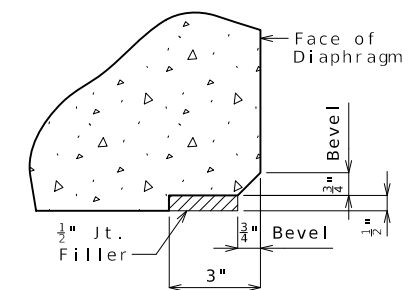
- Top reinforcement: 7 Pr. - #4-U500 @ 12" cts. (Typ.)
- Bottom reinforcement: 3-#6-H501
- Diaphragm reinforcement: 3-#6-H500
- Vertical spacing: 4-#5-V500 (Eq. Spa.)
- Typical spacing: 9" (Typ.)

Sheet Metal Details (Right Half):

- Sheet metal: 39'-7" x 12" x 10 ga. sheet metal along Int. Bent (2)
- Vertical dimensions: 15" (Min.), 2'-6"
- Horizontal dimension: 18"

Structural and Geometric Details:

- Centerline of Bent & Diaphragm
- Sym. abt. C Bent except as shown
- Angle: 14°33'52"
- Beam length: 9'-0"
- Overall length: 40'-2 3/8"
- Vertical clearance: 3 1/2" C.I. to sheet metal (Min.)



EDGE DETAIL

SECTION B-B
(Normal)

15" (#4)
22" (#6)

Symm. abt.
☉ Diaphragm
☉ Bent

3 1/4" C.I. (#4)
3" C.I. (#6)

#4-U500
or #6-U501

Const. Jt.
(Typ.) (1)

#6-D bar (3)

3-#6-H500
(Each face)
(Typ.)

Edge Detail
(Typ.)

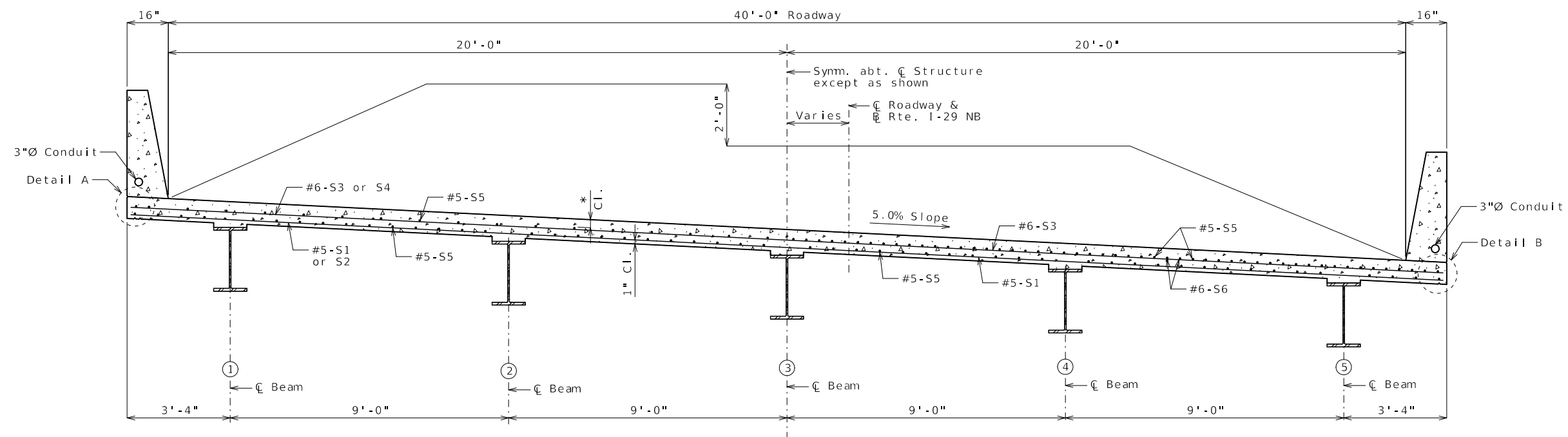
15" 15"
2'-6" (Typ.)

SECTION C-C
(Normal)

Symm. abt.
☉ Diaphragm
☉ Bent

39'-7"x 12"x 10 ga.
sheet metal along
☉ Int. Bent (Typ.) (2)

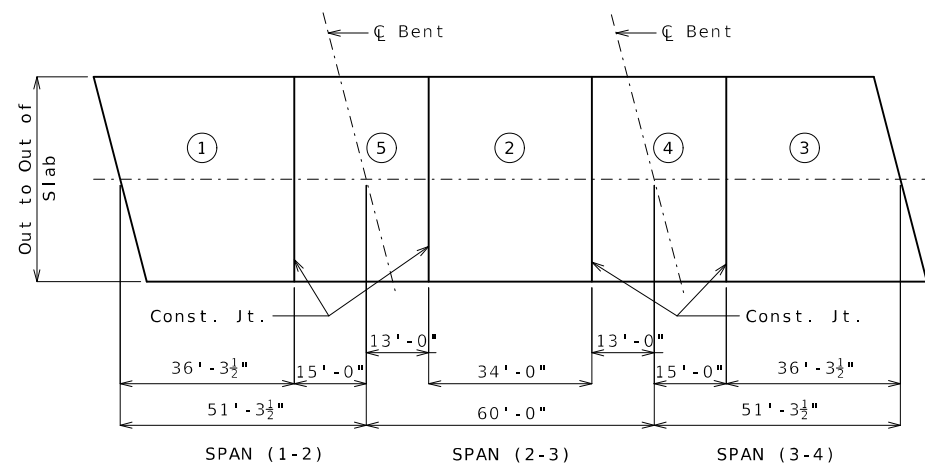
Sheet metal in concrete diaphragm shall be Grade 40 and coated in accordance with ASTM 653, coating designation G165. Sheet metal is included in the Estimated Quantities for Slab on Steel.



HALF SECTION NEAR MIDSPAN & END BENT

SECTION THRU SLAB

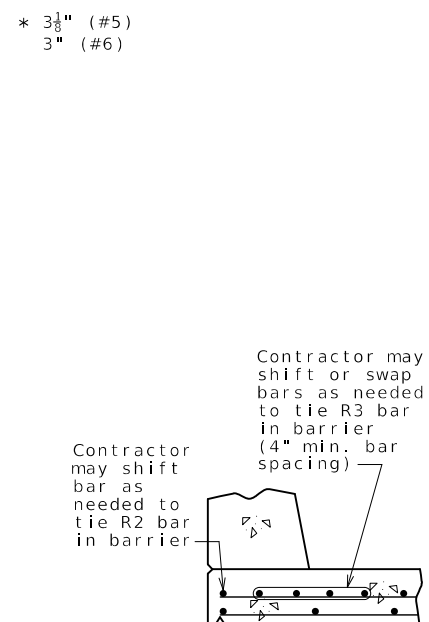
HALF SECTION NEAR INTERMEDIATE BENT



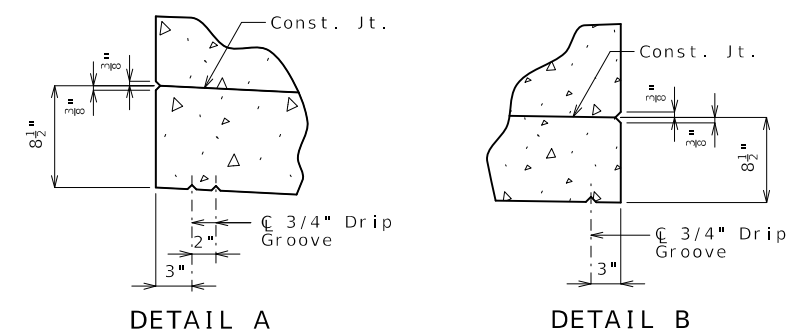
	Sequence of Pours					Min. Rate of Pour Cu. Yds./Hr.	
	Direction					With Retarder	No Retarder
Basic Sequence	1	2	3	4	5	25	25
	Either Direction						
Alternate pours to the basic skip sequence are subject to the approval of the engineer in accordance with Sec 703.							
Alternate A Pours	1	5 + 2		4 + 3		25	34
	End to 5		1 to 4		2 to End		
Alternate B Pours	1 + 5 + 2		4 + 3			25	34
	End to 4		2 to End				
Alternate C Pours	1 + 5 + 2 + 4 + 3					25	34
	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

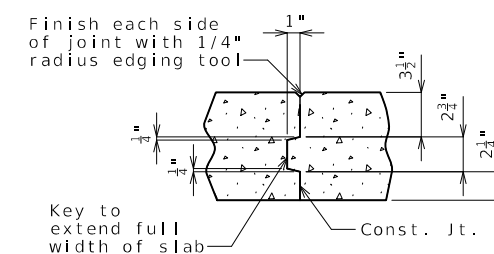


OPTIONAL SHIFTING
TOP BARS AT BARRIER



DETAIL A

DETAIL B



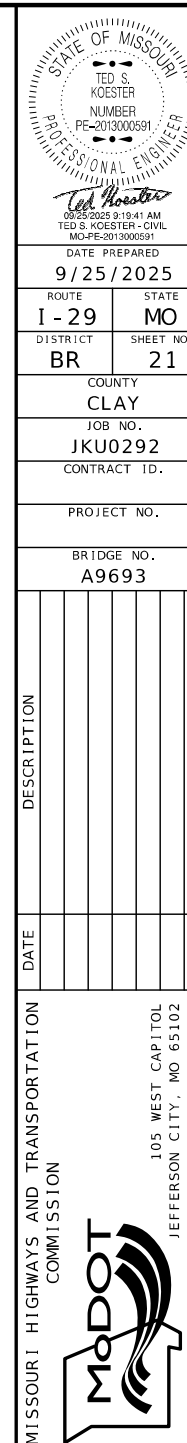
SLAB CONSTRUCTION JOINT

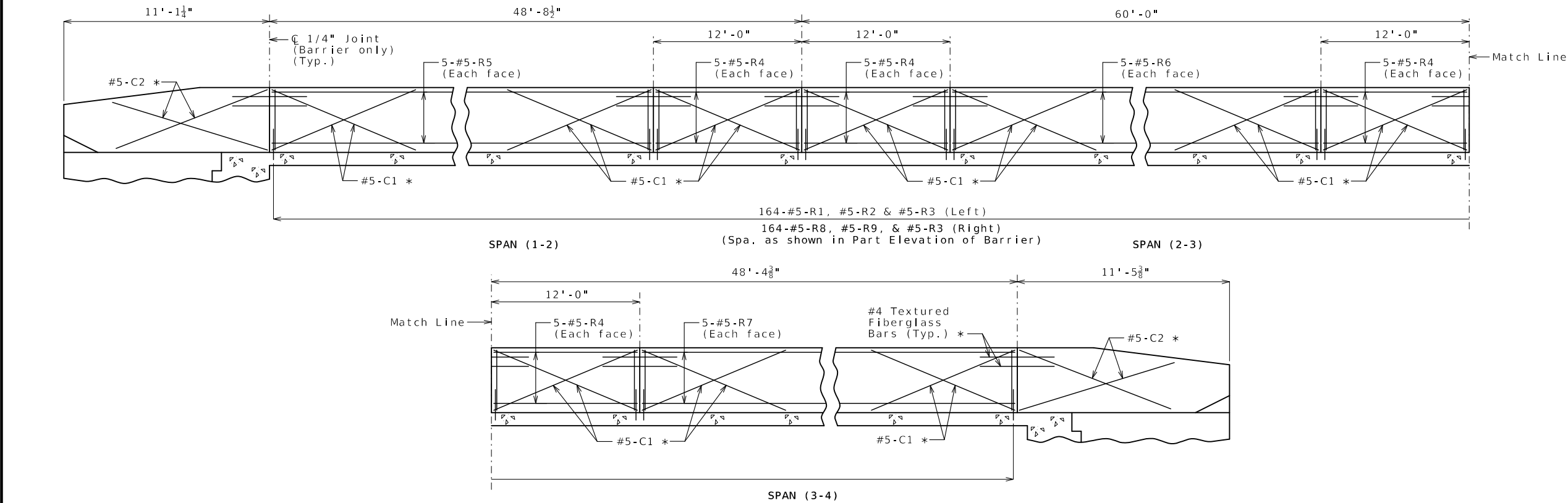
Notes:

For reinforcement of barrier not shown, see Sheet No. 22.

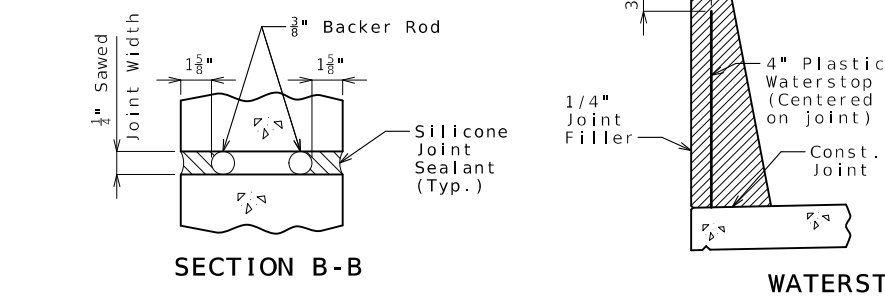
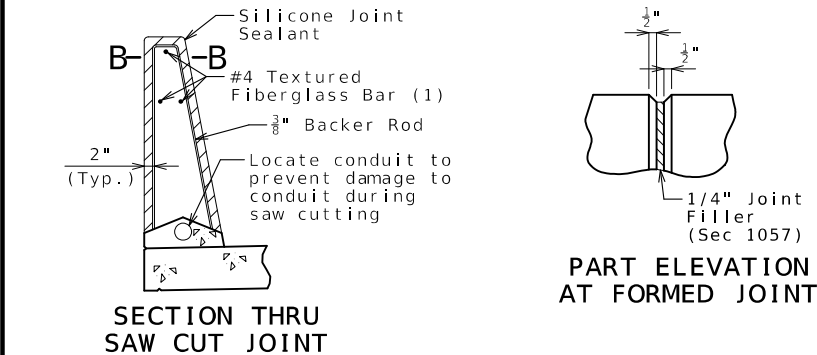
For Theoretical Bottom of Slab Elevations, Beam Camber Diagram, Theoretical Slab Haunching Diagram and Dead Load Deflection Diagram, see Sheet No. 17.

For Plan of Slab Showing Reinforcement and details of optional stay-in-place forms, see Sheet No. 20.

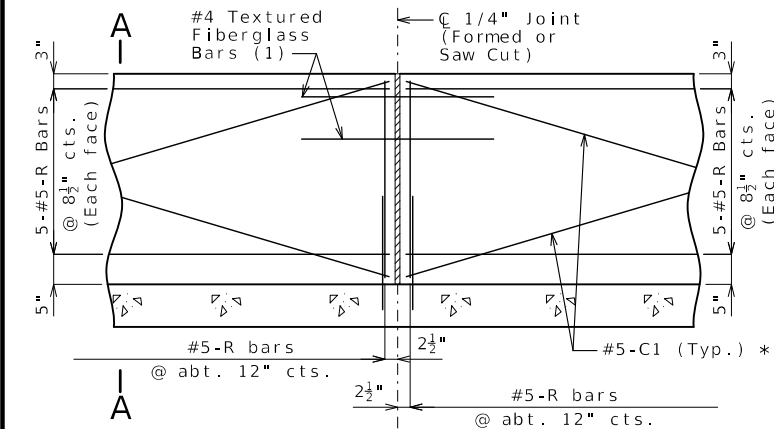




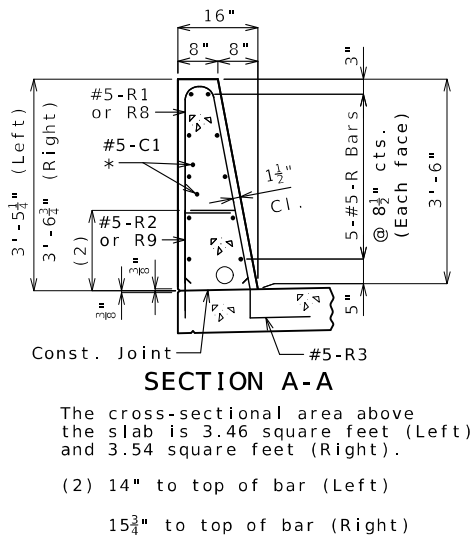
ELEVATION OF BARRIER
(Left barrier shown, right barrier similar except as shown)
Conduit not shown for clarity. See Sheet No. 25.
Longitudinal dimensions are horizontal.



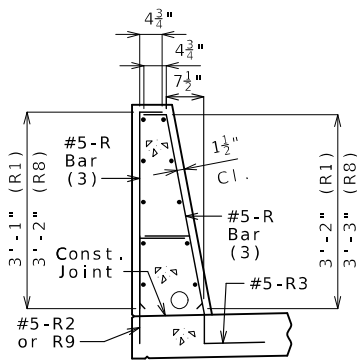
Plastic waterstop shall be placed in all formed joints, except structures with superelevation, use on lower joints only.
Cost of plastic waterstop, complete in place, will be considered completely covered by the contract unit price for Type D Barrier.



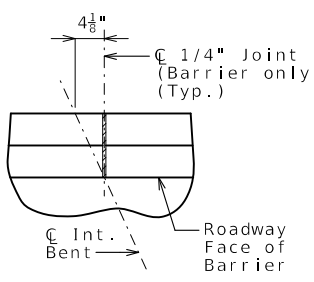
PART ELEVATION OF BARRIER
(1) Four feet long, centered on joint, slip-formed option only



SECTION A-A
The cross-sectional area above the slab is 3.46 square feet (Left) and 3.54 square feet (Right).
(2) 14" to top of bar (Left)
15 3/4" to top of bar (Right)



R-BAR PERMISSIBLE ALTERNATE SHAPE
(3) The R1 & R8 bars 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.)



PART PLAN SHOWING JOINT LOCATION

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.

Plastic waterstop shall not be used with saw cut joints.

STATE OF MISSOURI
TED S. KOESTER
NUMBER
PE-2013000591
PROFESSIONAL ENGINEER
Ted Koester
09/25/2025 9:19:51 AM
TED S. KOESTER - CIVIL
MC-PE-2013000591

DATE PREPARED
9/25/2025

ROUTE
1-29

DISTRICT
BR

STATE
MO

SHEET NO.
22

COUNTY
CLAY

JOB NO.
JKU0292

CONTRACT ID.

PROJECT NO.

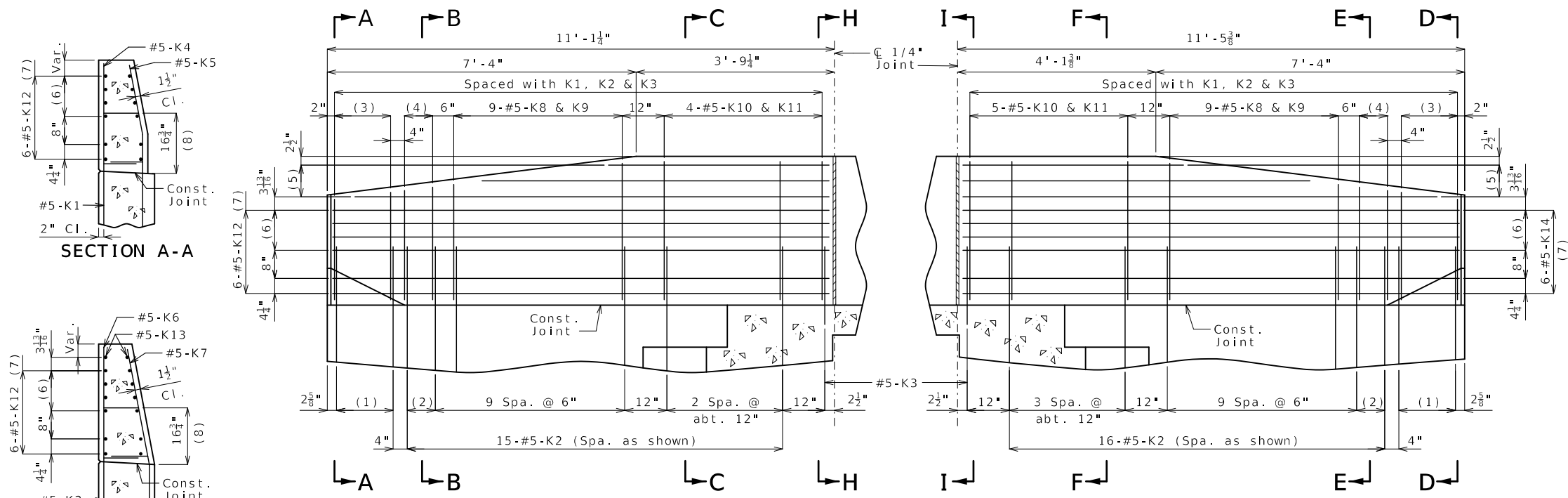
BRIDGE NO.
A9693

DESCRIPTION

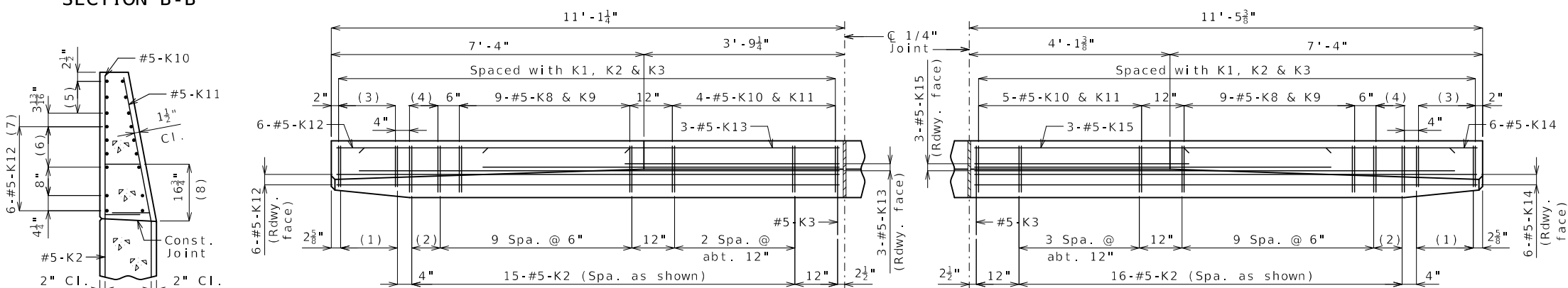
DATE

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

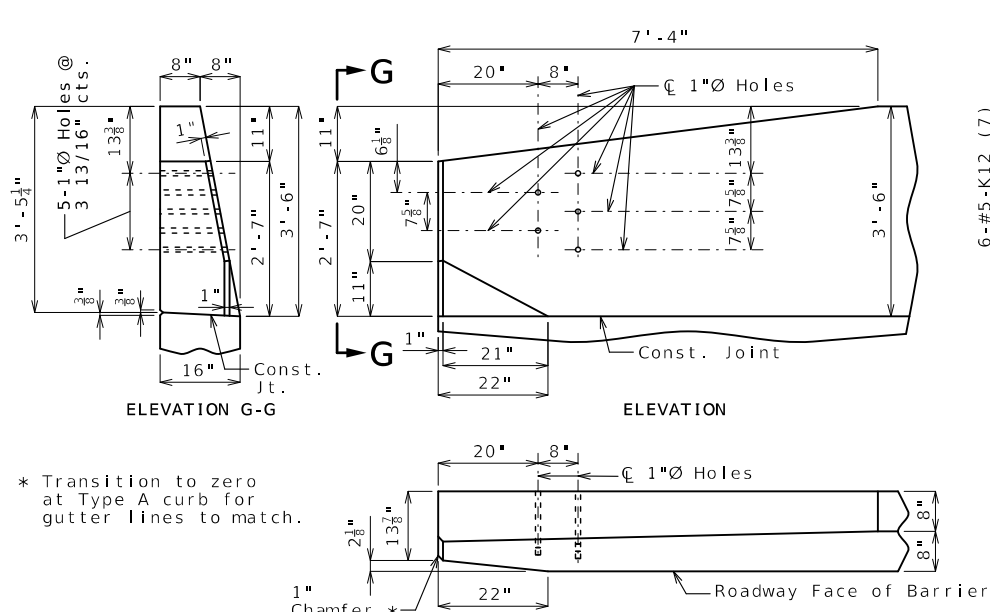
105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-273-6636)



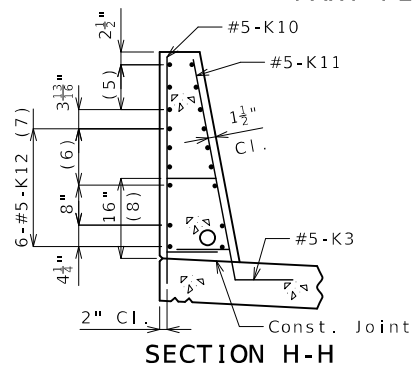
PART ELEVATION
(Conduit not shown for clarity.)



PART PLAN

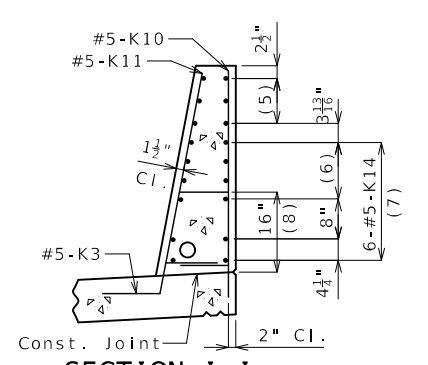


DETAILS OF GUARD RAIL ATTACHMENT

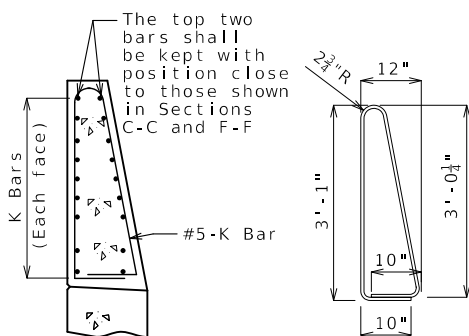


SECTION H-H

- (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 @ $4\frac{1}{2}$ " cts.,
each face
- (6) 3 spaces @ $3\frac{1}{16}$ "
- (7) Spaced as shown, each face
- (8) To top of bar



SECTION I - I

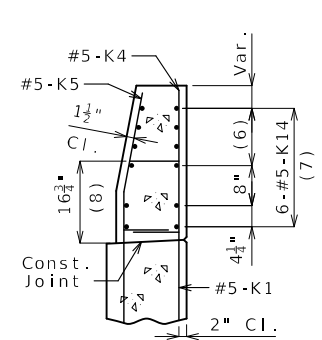


K10-K11 BAR PERMISSIBLE ALTERNATE SHAPE

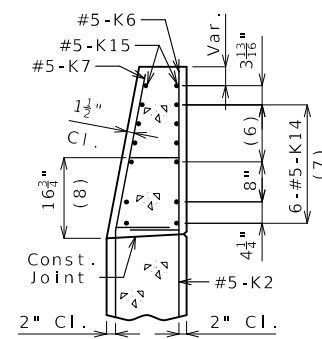
(Other K bars not shown for clarity)

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

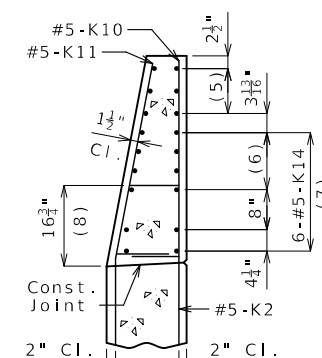
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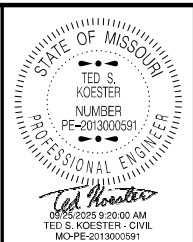
SECTION D-D



SECTION E-E



SECTION F-F



DATE PREPARED

9/25/2025

ROUTE	STATE
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I - 29	MO
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DISTRICT	SHEET NO.
BB	22

BR	23
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COUNTY
CLAY

CLAY
JOB NO.

JOB NO.
IKU0392

CONTRACT ID:

CONTRACT ID.

PROJECT NO.

[illegible]

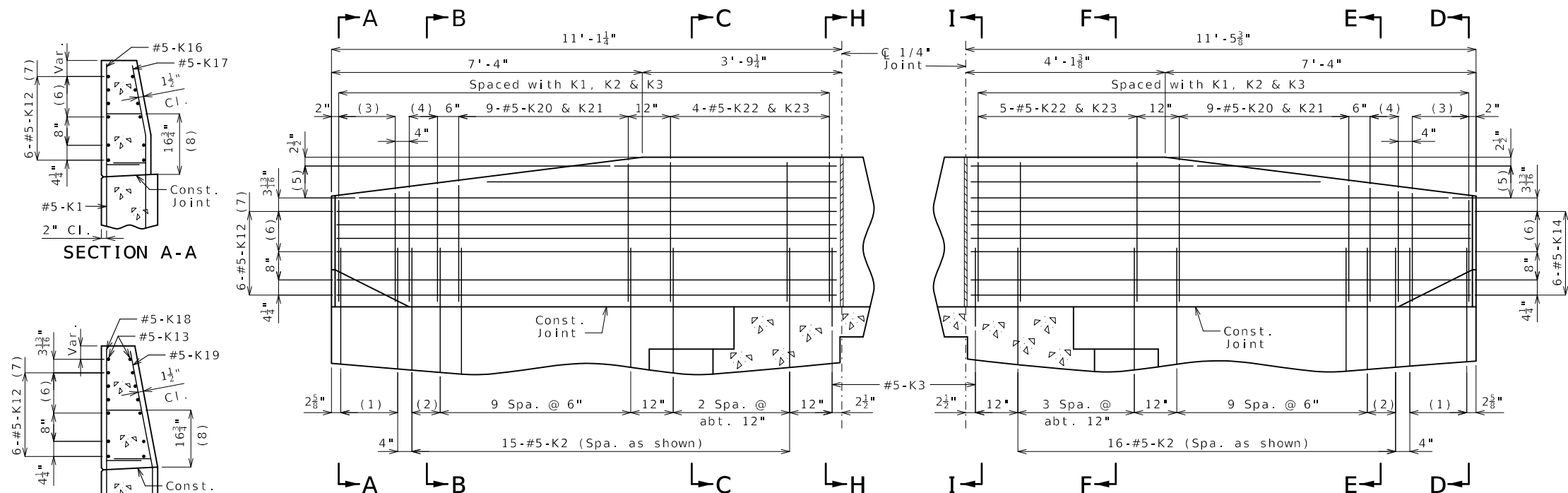
BRIDGE NO.

A9693

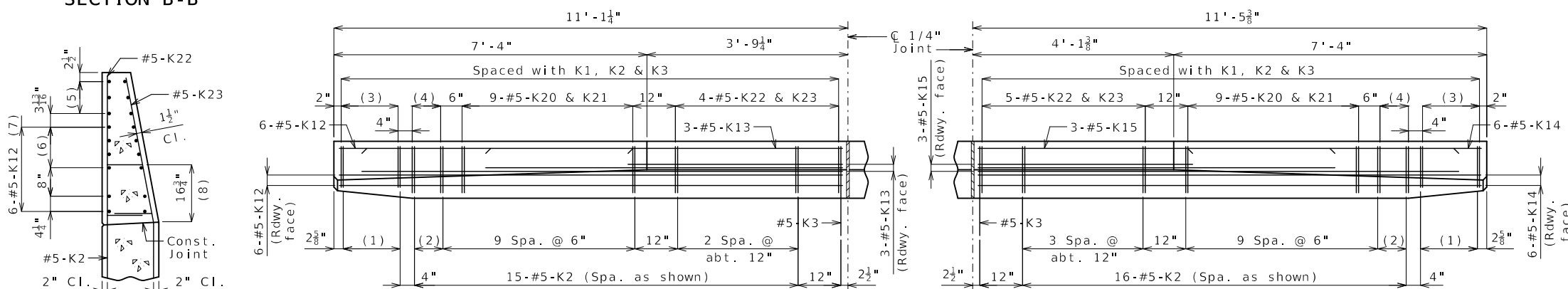
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MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

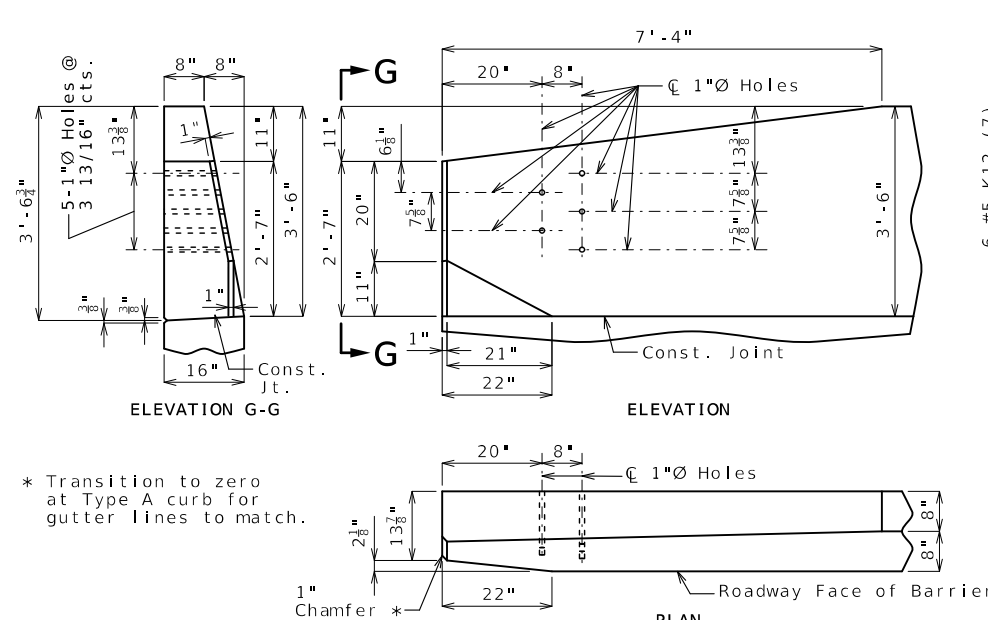
 105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)



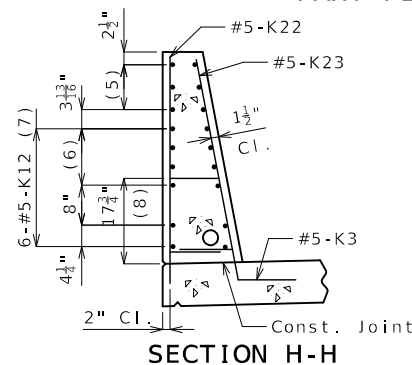
PART ELEVATION
(Conduit not shown for clarity.)



PART PLAN

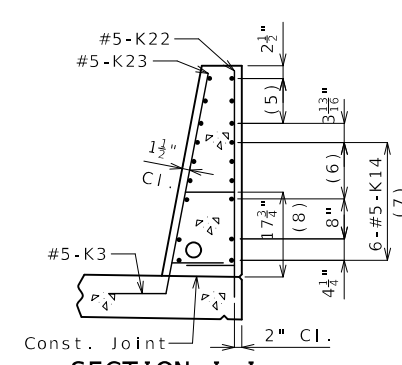


DETAILS OF GUARD RAIL ATTACHMENT

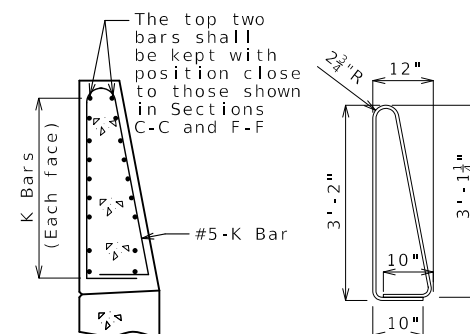


SECTION H-H

- (1) 5-#5-K1 @ 4" cts.
- (2) 2 spaces @ 4"
- (3) 5-#5-K16 & K17
- (4) 3-#5-K18 & K19
- (5) 3-#5-K13 or K15 @ $4\frac{1}{2}$ " cts.
each face
- (6) 3 spaces @ $3\frac{1}{16}$ "
- (7) Spaced as shown, each face
- (8) To top of bar



SECTION I - I

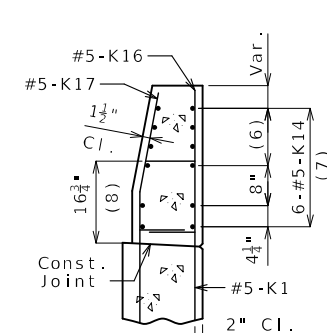


K22-K23 BAR PERMISSIBLE ALTERNATE SHAPE

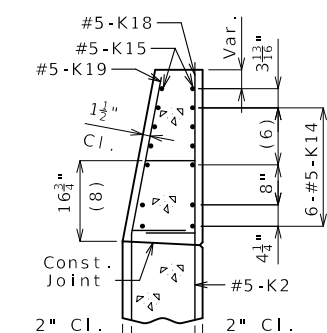
(Other K bars not shown for clarity)

The K22-K23 bar combination may be furnished as one bar as shown, at the contractor's option.

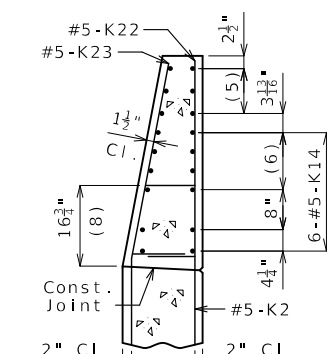
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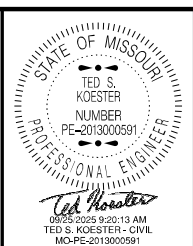
SECTION D-D



SECTION E-E



SECTION F-F



DATE PREPARED

9/25/2025

ROUTE	STATE
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I - 29	MO
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DISTRICT	SHEET NO.
BB	34

BR	24
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COUNTY
CLAY

CLAY
JOB NO.

JOB NO.
IKU0392

CONTRACT ID:

CONTRACT ID.

PROJECT NO.

[illegible]

BRIDGE NO.

A9693

[illegible]

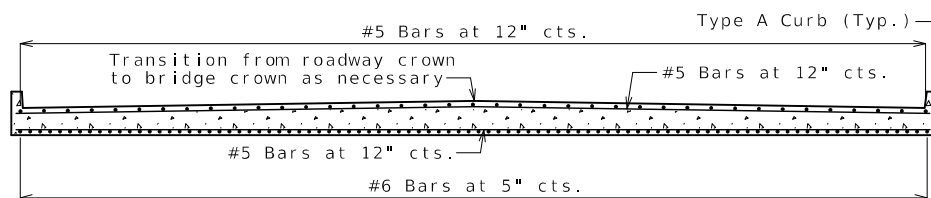
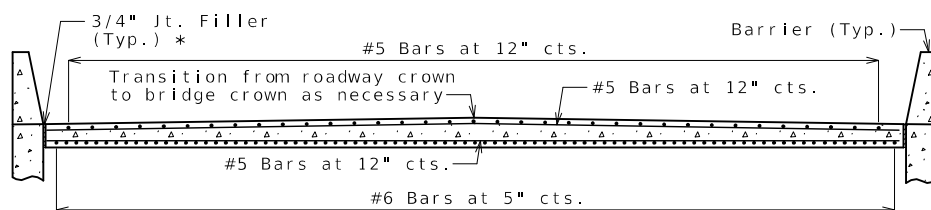
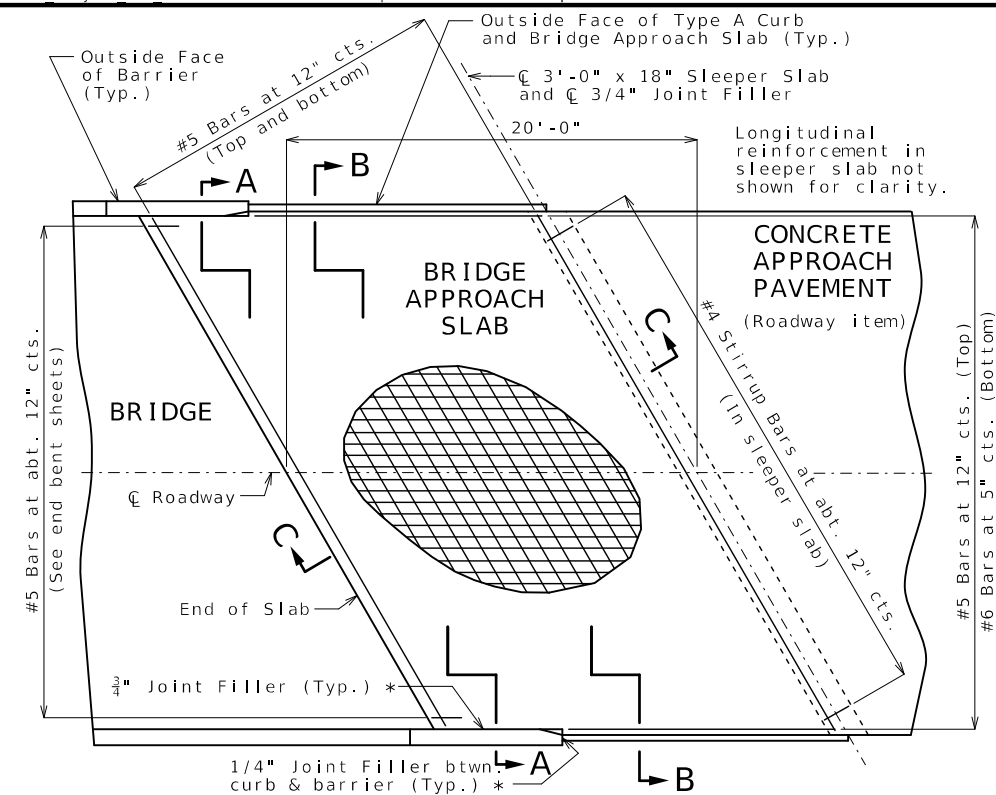
**MISSOURI HIGHWAYS AND TRANSPORTATION
COMMISSION**

 **MoDOT**

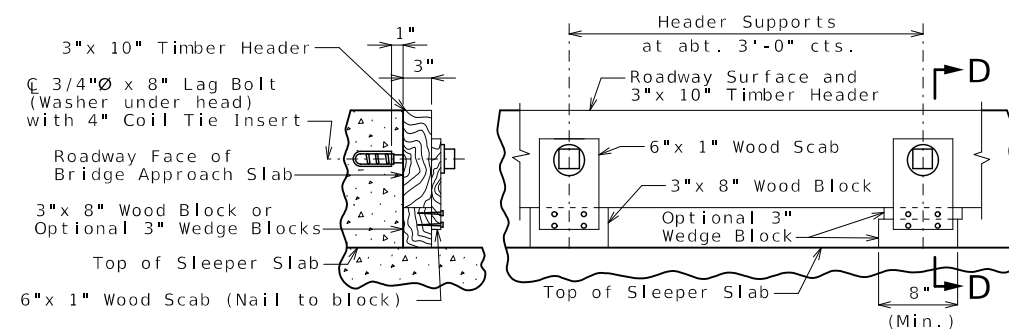
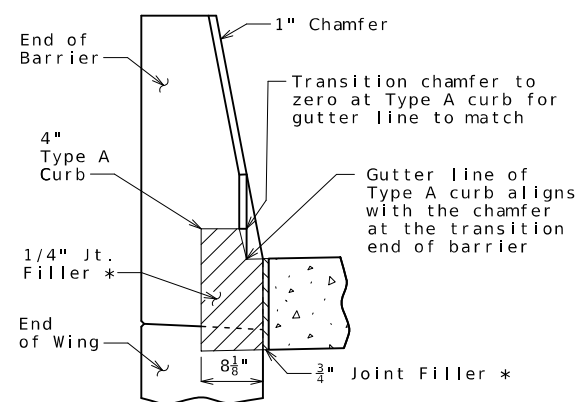
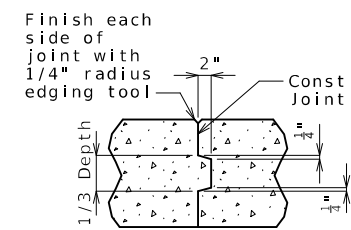
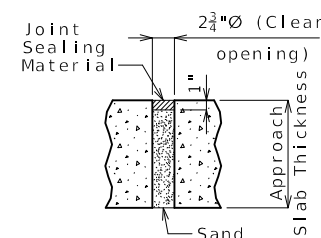
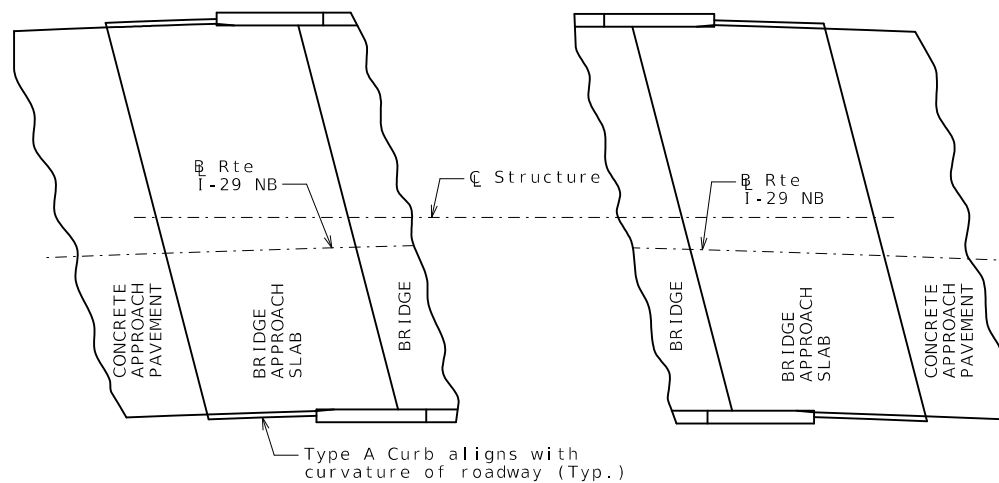
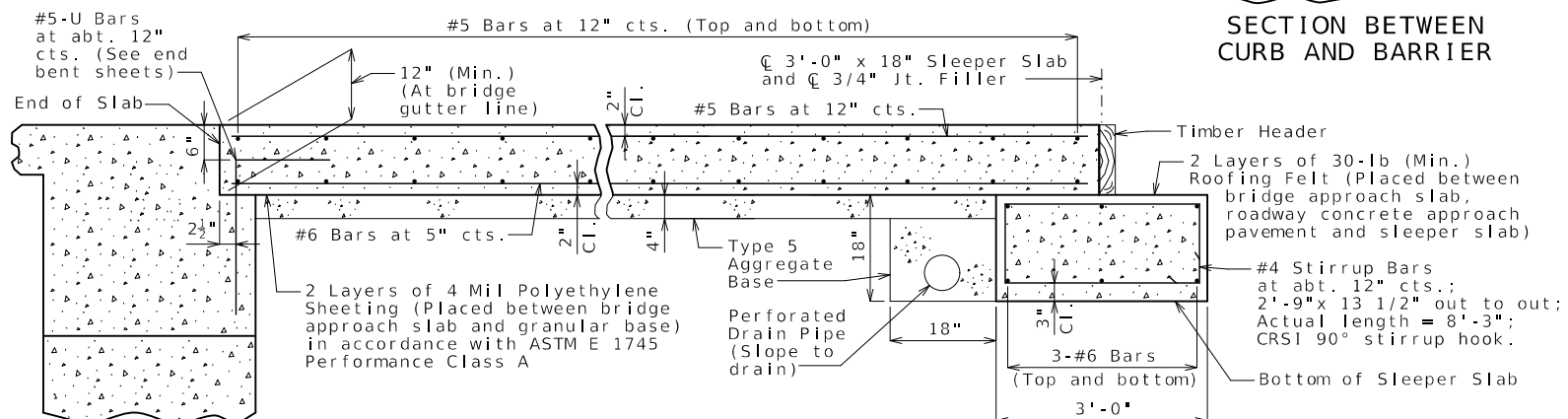
105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)



For details and reinforcement of Type D Barrier not shown, see Sheets No. 22 thru 24.



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



General Notes:

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

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

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.

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

The reinforcing steel in the bridge approach slab and the sleeper slab shall be continuous. The transverse reinforcing steel may be made continuous by providing a minimum lap splice of 24 inches for #5 bars and 40 inches for #6 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.

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

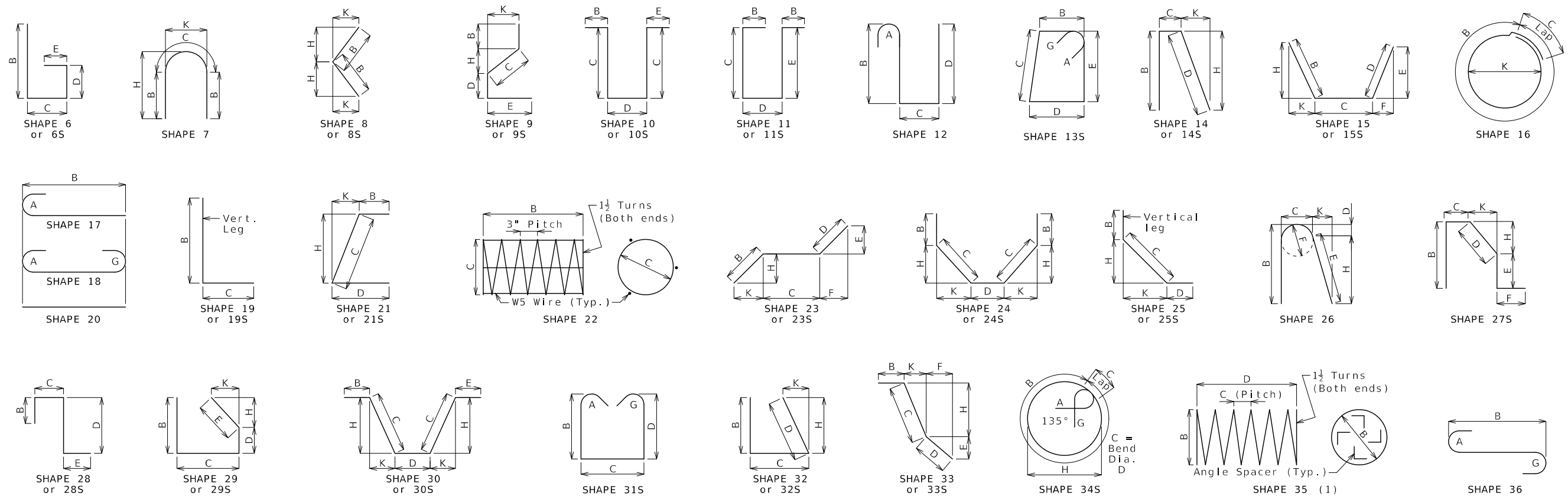
Longitudinal construction joints in approach slab and sleeper slab shall be aligned with longitudinal construction joints in bridge slab.

For concrete approach pavement details, see roadway plans.

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

Payment for furnishing all materials, labor and excavation necessary to construct the approach slab, including the timber header, sleeper slab, 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 (Major) per square yard.

* 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.



Finished Bend Dimensions 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	3¾"	10"	7"	5"
#6	1	4½"	12"	8¼"	6"
#7	2	5¼"	14"	9¾"	7"
	3	7"	15"	11½"	8¾"
#8	2	6"	16"	11"	8"
	3	8"	17"	13¼"	10"
#9	1	9½"	19½"	15½"	11¾"
#10	1	10¾"	22"	17½"	13¼"
#11	1	12"	24½"	19½"	14⅞"
#14	1	18¼"	31¼"	27½"	21⅝"
#18	1	24"	41½"	36¼"	28½"

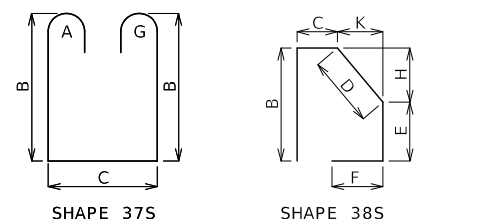
Stirrup Pin Bend Shapes (S)

Size	Case	D	A or G			H	J
			90°	135°	180°	135°	180°
#4	2	2"	4½"	4½"	5"	2⅞"	3"
	3	3"	5"	5¼"	6"	3"	4"
#5	2	2½"	5¾"	5¾"	5¾"	3⅝"	3¾"
	3	3¾"	6¼"	6¼"	7"	3⅝"	5"
#6	1	4½"	12"	7¾"	8¼"	4⅝"	6"

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.



BENDING DIAGRAMS

All dimensions are out to out.

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

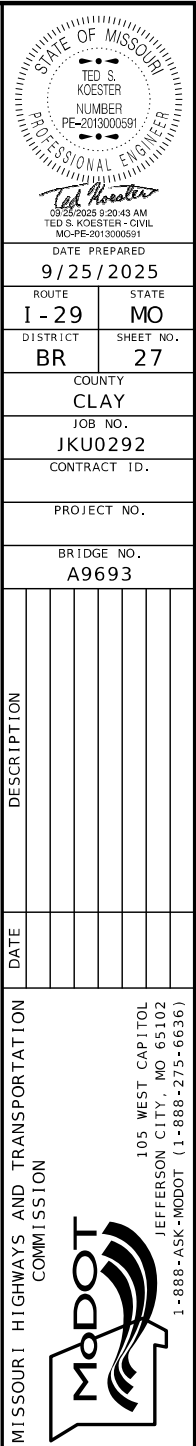
Unless otherwise noted,
finished bending diameter
D is the same for all
bends of a shape.

(1) Shall be a deformed or plain spiral bar or wire.

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)							
		Substructure		Superstructure			Entire Bridge	
	Size	Plain	Epoxy	Slab	Barrier	Slip Form	Plain	Epoxy
By Size	W5	0	0	0	0	0	0	0
	4	0	3,484	803	0	0	0	4,287
	5	0	0	28,914	9,505	574	0	38,993
	6	0	4,678	33,203	0	0	0	37,881
	7	0	0	2,150	0	0	0	2,150
	8	0	0	898	0	0	0	898
	9	0	0	0	0	0	0	0
	10	0	20,294	0	0	0	0	20,294
	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	0	28,456	65,968	9,505	574	0	104,503	

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



Bill of Reinforcing Steel																			
No. Req.	Size/ Mark	Location	Codes		Dimensions								Nom. Length	Actual Length	Weight				
					B	C	D	E	F	H	K								
			C	SH	V	ft	in.	ft	in.	ft	in.	ft	in.	ft	in.	ft	in.	lb	
		Substructure																	
		Int Bent 2																	
28	6 D200	BEAM	E	20		2	6.00							2	11	2	10	105	
6	10 H200	BEAM	E	20		47	3.00							47	11	47	10	1,220	
6	10 H201	BEAM	E	18		47	3.00							50	11	50	10	1,293	
10	6 H202	BEAM	E	20		47	3.00							47	11	47	10	710	
16	6 H203	BEAM	E	20		9	8.00							9	11	9	10	232	
4	6 H204	BEAM	E	20		6	0.00							6		6		36	
14	6 H205	BEAM	E	10S				12.00	3	1.50				5	11	4	10	102	
228	4 P200	COLUMN	E	16		7	10.25	2	4.00					2	6.00	10	10	1,536	
26	6 U200	BEAM	E	13S		3	3.00	3	4.50	3	3.00	3	4.50			14	7	550	
12	6 U201	BEAM	E	10S				3	4.50	3	3.00			10	11	9	10	174	
24	6 U202	BEAM	E	13S		2	2.00	3	4.50	2	2.00	3	4.50	12	5	11	11	430	
57	4 U203	BEAM	E	10S				14.00	3	3.00				5	7	5	5	206	
10	10 V200	COLUMN	E	17		43	8.00							45	11	45	10	1,940	
10	10 V201	COLUMN	E	17		43	1.00							44	11	44	10	1,915	
10	10 V202	COLUMN	E	17		42	7.00							44	11	44	10	1,893	
10	10 V203	COLUMN	E	17		42	0.00							43	11	43	10	1,868	
		Int Bent 3																	
28	6 D300	BEAM	E	20		2	6.00							2	11	2	10	105	
6	10 H300	BEAM	E	20		47	3.00							47	11	47	10	1,220	
6	10 H301	BEAM	E	18		47	3.00							50	11	50	10	1,293	
10	6 H302	BEAM	E	20		47	3.00							47	11	47	10	710	
16	6 H303	BEAM	E	20		9	8.00							9	11	9	10	232	
4	6 H304	BEAM	E	20		6	0.00							6		6		36	
14	6 H305	BEAM	E	10S				12.00	3	1.50				5	11	4	10	102	
228	4 P300	COLUMN	E	16		7	10.25	2	4.00					2	6.00	10	2	1,536	
26	6 U300	BEAM	E	13S		3	3.00	3	4.50	3	3.00	3	4.50			14	7	550	
12	6 U301	BEAM	E	10S				3	4.50	3	3.00			10	11	9	10	174	
24	6 U302	BEAM	E	13S		2	2.00	3	4.50	2	2.00	3	4.50	12	5	11	11	430	
57	4 U303	BEAM	E	10S				14.00	3	3.00				5	7	5	5	206	
10	10 V300	COLUMN	E	17		43	10.00							45	11	45	10	1,947	
10	10 V301	COLUMN	E	17		43	4.00							44	11	44	10	1,926	
10	10 V302	COLUMN	E	17		42	9.00							44	11	44	10	1,900	
10	10 V303	COLUMN	E	17		42	3.00							43	11	43	10	1,879	
		Superstructure																	
		End Bent 1																	
8	6 F100	WING BRACE	E	23S		20.25	4	6.75	20.25	16.00	12.25	16.00	12.25	7	11	7	10	94	
3	6 F101	DIAPHRAGM	E	23S		2	9.00	4	7.00			2	8.00	8.50	7	4	7	1	32
8	6 F102	WING BRACE	E	23S		20.25	5	10.00	20.25	12.25	16.00	12.25	16.00	9	3	9	2	110	
3	6 F103	DIAPHRAGM	E	21S			2	9.00	5	2.00		2	8.00	8.50	7	11	7	10	35
12	7 H100	BM & DIAPH	E	20		43	10.00							43	11	43	10	1,075	
10	6 H101	BM & DIAPH	E	20		43	10.00							43	11	43	10	658	
16	6 H102	BEAM	E	20		2	9.00							2	11	2	10	66	
4	6 H103	BEAM	E	20	1	4	9.00							4	11	4	10		
		Incr. = 2.625"				4	1.00							4	1	4	1	27	
16	8 H104	WING	E	20		10	6.00							10	11	10	10	449	
32	6 H105	WING	E	20		9	1.00							9	1	9	1	437	
36	5 U100	BEAM	E	37S		4	8.50	2	10.00					13	3	13		488	
10	4 U101	BEAM	E	13S		2	10.00	2	8.00	2	10.00	2	8.00	11	11	11	10	77	
7	4 U102	BEAM	E	10S				2	8.00	2	10.00			8	2	8		37	
31	4 U103	BEAM	E	10S				9.00	2	9.00				4	3	4	1	85	
56	6 U104	DIAPHRAGM	E	12		2	5.00	4	4.00					7	5	7	3	610	
40	5 U105	DIAPHRAGM	E	19S		2	0.00	15.00						3	11	3	10	132	
40	6 U106	DIAPHRAGM	E	19S		21.50	2	10.00						4	8	4	6	270	
40	5 U107	DIAPHRAGM	E	37S		2	6.50	2	3.75					8	5	8	2	341	
15	6 U108	DIAPHRAGM	E	19S		19.50	12.00							2	8	2	6	56	
8	5 V100	BEAM	E	17		4	8.50							5	4	5	4	45	

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.

For bending diagrams and steel reinforcing totals, see Sheet No. 27.

Detailed July 2025
Checked Aug. 2025

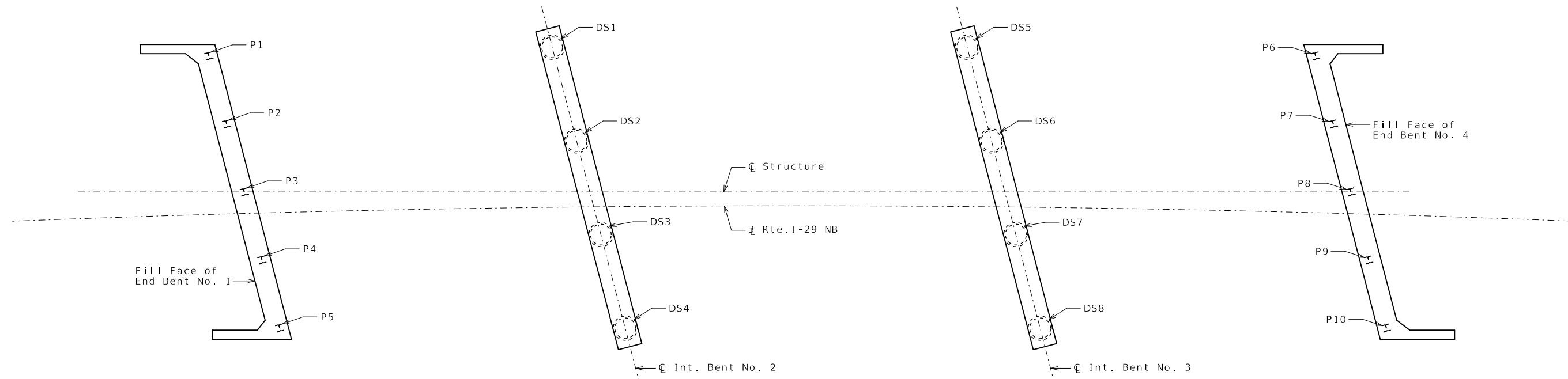
All bars shall be Grade 60.

BILL OF REINFORCING STEEL

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

Sheet No. 28 of 31

Bill of Reinforcing Steel																
No. Req.	Size/ Mark	Location	Codes			Dimensions								Nom. Length ft in.	Actual Length ft in.	Weight lb
						B ft in.	C ft in.	D ft in.	E ft in.	F ft in.	H ft in.	K ft in.				
18	6 V101	WING	E	20		5 10.00								5 10	5 10	158
18	6 V102	WING	E	20		5 9.00								5 11	5 10	155
		End Bent 4														
8	6 F400	WING BRACE	E	23S		20.25	4 6.75	20.25	16.00	12.25		12.25	7 11	7 10		94
3	6 F401	DIAPHRAGM	E	23S		2 9.00	4 7.00				2 8.00	8.50	7 4	7 1		32
8	6 F402	WING BRACE	E	23S		20.25	5 10.00	20.25	12.25	16.00		12.25	9 3	9 2		110
3	6 F403	DIAPHRAGM	E	21S			2 9.00	5 2.00			2 8.00	8.50	7 11	7 10		35
12	7 H400	BM & DIAPH	E	20		43 10.00							43 11	43 10		1,075
10	6 H401	BM & DIAPH	E	20		43 10.00							43 11	43 10		658
16	6 H402	BEAM	E	20		2 9.00							2 11	2 10		66
4	6 H403	BEAM	E	20	1	5 1.00							5 11	5 10		
		Incr. = 2.625"				4 5.00							4 5	4 5		29
16	8 H404	WING	E	20		10 6.00							10 6	10 6		449
32	6 H405	WING	E	20		9 1.00							9 1	9 1		437
36	5 U400	BEAM	E	37S		4 8.50	2 10.00						13 3	13		488
10	4 U401	BEAM	E	13S		2 10.00	2 8.00	2 10.00	2 8.00				11 11	11 10		77
7	4 U402	BEAM	E	10S			2 8.00	2 10.00					8 2	8		37
31	4 U403	BEAM	E	10S			9.00	2 9.00					4 3	4 1		85
56	6 U404	DIAPHRAGM	E	12		2 5.00	4 4.00						7 5	7 3		610
40	5 U405	DIAPHRAGM	E	19S		2 0.00	15.00						3 11	3 10		132
40	6 U406	DIAPHRAGM	E	19S		21.50	2 10.00						4 8	4 6		270
40	5 U407	DIAPHRAGM	E	37S		2 6.50	2 3.75						8 5	8 2		341
15	6 U408	DIAPHRAGM	E	19S		19.50	12.00						2 8	2 6		56
8	5 V400	BEAM	E	17		4 8.50							5 4	5 4		45
18	6 V401	WING	E	20		5 8.00							5 8	5 8		153
18	6 V402	WING	E	20		5 9.00							5 9	5 9		155
		Int Diaphragms														
12	6 H500	DIAPHRAGM	E	20		39 11.00							39 11	39 11		719
12	6 H501	DIAPHRAGM	E	6S		18.00	2 1.50	11.00					4 7	4 3		77
112	4 U500	DIAPHRAGM	E	28S			15.00	2 4.00	2 0.00				5 7	5 5		405
40	6 U501	DIAPHRAGM	E	28S			22.00	2 4.00	2 3.00				6 5	6 1		365
16	5 V500	DIAPHRAGM	E	20		2 6.00							2 11	2 10		42
		Slab														
243	5 S1	SLAB	E	20		42 5.00							42 11	42 10		10,750
32	5 S2	SLAB	E	20	2	40 1.00							40 11	40 10		
		Incr. = 28.875"				4 0.00							4	4		736
303	6 S3	SLAB	E	20		42 5.00							42 11	42 10		19,304
42	6 S4	SLAB	E	20	2	41 1.00							41 11	41 10		
		Incr. = 23.125"				2 7.00							2 7	2 7		1,377
264	5 S5	SLAB	E	20		55 10.00							55 11	55 10		15,374
132	6 S6	SLAB	E	20		30 0.00							30 11	30 10		5,948
		Barrier														
		Type D														
20	5 K1	BARRIER	E	27S		3 5.00	9.25	5.25	2 11.75			5.25	1.00	7 11	7 10	155
62	5 K2	BARRIER	E	27S		3 5.00	9.25	14.50	2 2.75			14.25	2.75	7 11	7 10	480
4	5 K3	BARRIER	E	27S		22.50	9.25	14.50	7.75	12.00		14.25	2.75	5 11	5 10	22
10	5 K4	BARRIER	E	19S	2	2 3.00	10.00							3 11	3 10	
		Incr. = 0.500"				2 5.00	10.00							3 3	3 2	32
10	5 K5	BARRIER	E	38S	2			18.50	8.25	8.25	18.00	4.00	2 11	2 10		
		Incr. = 0.500"						20.50	8.25	8.25	20.00	4.50	3 1	3		30
6	5 K6	BARRIER	E	19S		2 5.50	10.00						3 11	3 10		20
6	5 K7	BARRIER	E	21S			2 5.25	10.00			2 4.75	6.00	3 11	3 10		20
18	5 K8	BARRIER	E	19S	2	2 7.25	10.00						3 11	3 10		
		Incr. = 0.750"				3 1.25	10.00						3 11	3 10		67
18	5 K9	BARRIER	E	21S	2		2 7.25	10.00			2 6.50	6.50	3 11	3 10		
		Incr. = 0.750"					3 1.25	10.00			3 0.50	7.50	3 11	3 10		67
9	5 K10	BARRIER	E	19S		3 1.75	10.00						4 11	3 10		36
9	5 K11	BARRIER	E	21S			3 1.75	10.00			3 1.00	7.50	4 11	3 10		37



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

[illegible]

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
DS1				
DS2				
DS3				
DS4				
				Int. Bent No. 3
DS5				
DS6				
DS7				
DS8				

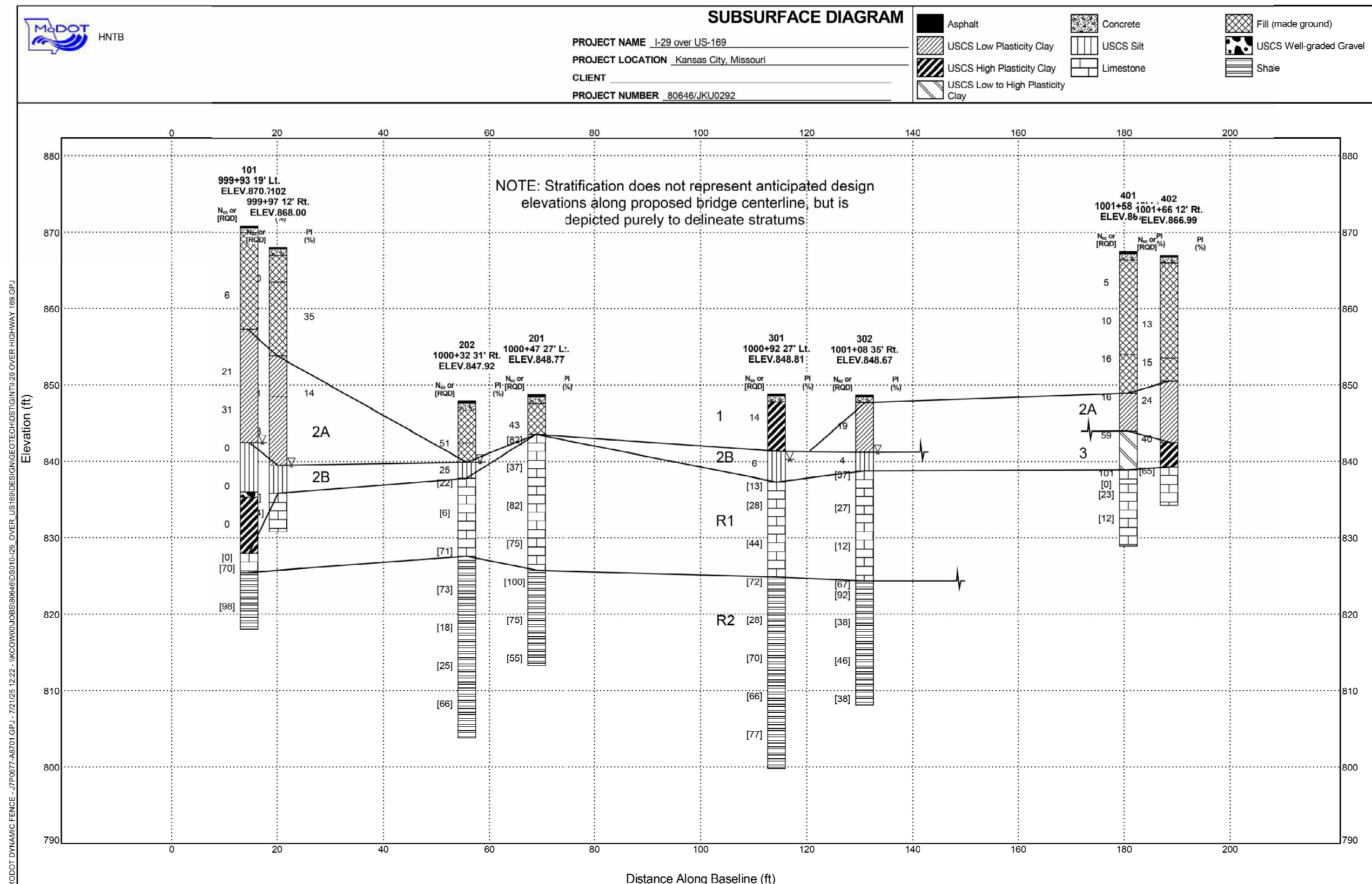
[illegible]

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.

AS-BUILT PILE AND DRILLED SHAFT DATA

[illegible]



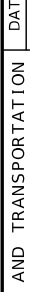
BORING DATA

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

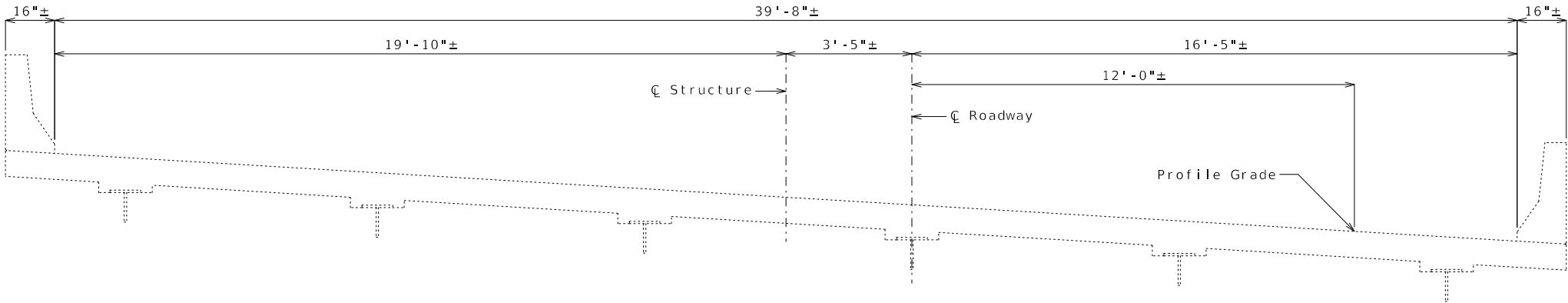
Detailed	July 2025
Checked	Aug. 2025

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

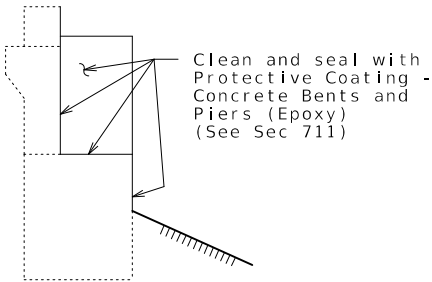
Sheet No. 31 of 31

		DATE PREPARED 9/25/2025	
ROUTE I - 29		STATE MO	
DISTRICT BR		SHEET NO. 31	
COUNTY CLAY			
JOB NO. JKU0292			
CONTRACT ID.			
PROJECT NO.			
BRIDGE NO. A9693			
MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION	DESCRIPTION	DATE	
		105 WEST CAPITOL JEFFERSON CITY, MO 65102	

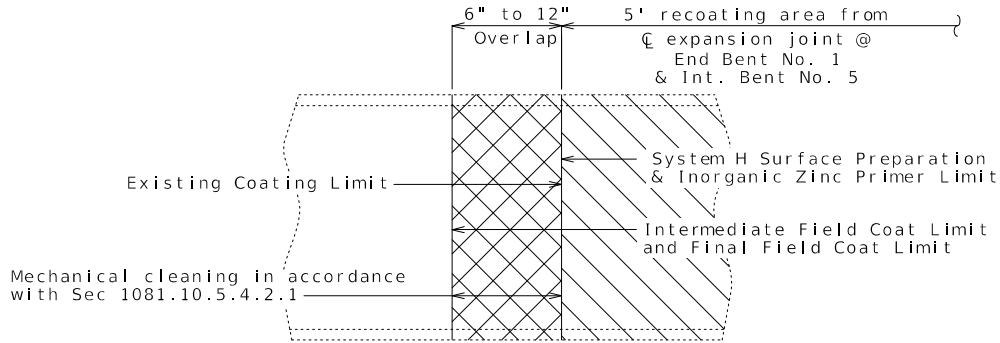
U.I.P. AND REHABILITATE EXISTING (50'-75'-75'-50') CONTINUOUS,
(41') SIMPLE WIDE FLANGE BEAM SPANS (SKEW: VARIES)



TYPICAL SECTION THRU EXISTING DECK

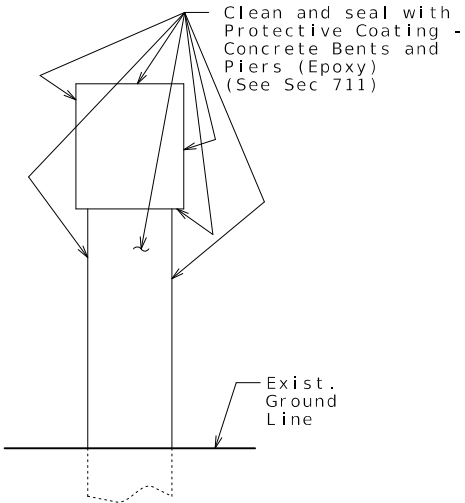


TYPICAL SECTION THRU
END BENTS NO. 1 & 4
SHOWING PROTECTIVE COATING



PART ELEVATION SHOWING LIMITS OF PAINT OVERLAP
(Vertical or horizontal paint limit. Horizontal limit shown)

Limits of Paint Overlap: System H shall overlap the existing coating between 6 inches and 12 inches in order to achieve maximum coverage at the paint limit of each complete system near the expansion and contraction areas. The final field coating shall be masked to provide crisp, straight lines and to prevent overspray beyond the overlap required.



TYPICAL SECTION THRU
INT. BENTS NO. 2 THRU 4
SHOWING PROTECTIVE COATING

Estimated Quantities		
Item		Total
Removal of Existing Expansion Joint & Adjacent Concrete	linear foot	86
Remove and Replace Barrier Curb	linear foot	19
Class B-2 Concrete	cu. yard	11.3
Substructure Repair (Formed)	sq. foot	350
Fiber Reinforced Polymer Wrap	sq. foot	453
Reinforcing Steel (Epoxy Coated)	pound	1780
Protective Coating - Concrete Bents and Piers (Epoxy)	lump sum	1
* Cleaning and Coating Existing Bearings	each	12
Surface Preparation for Recoating Structural Steel	sq. foot	800
Field Application of Inorganic Zinc Primer	sq. foot	800
Intermediate Field Coat (System H)	sq. foot	800
Finish Field Coat (System H)	sq. foot	800
Strip Seal Expansion Joint System	linear foot	86

* Bent No. 5

General Notes:

Design Specifications:

2002 AASHTO LFD (17th Ed.) Standard Specifications
Bridge Deck Rating = 6

Design Loading:

HS20-44 and Modified Military 24,000 lb Tandem Axle (1985 & New Construction)

Design Unit Stresses:

Class B-1 Concrete (Barrier Curb) f'c = 4,000 psi
Class B-2 Concrete (Superstructure except Barrier Curb) f'c = 4,000 psi
Reinforcing Steel (ASTM A615 Grade 60) fy = 60,000 psi

Miscellaneous:

All concrete repairs shall be in accordance with Sec 704, unless otherwise noted.

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

Contractor shall verify all dimensions in field before finalizing the shop drawings.

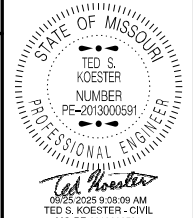
Bars bonded in existing concrete not removed shall be cleanly stripped and embedded into new concrete where possible. If length is available, existing bars shall extend into new concrete at least 40 diameters for plain bars and 30 diameters for deformed bars, unless otherwise noted.

Traffic Handling:

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

REPAIRS TO BRIDGE: ROUTE 1-29 NB
OVER ROUTE 169 SB & RAMP

ROUTE 1-29 NB FROM ROUTE 69 TO ROUTE 1-635
ABOUT 0.5 MILE WEST OF ROUTE 69
BEGINNING STATION 995+11.75± (Match Existing)



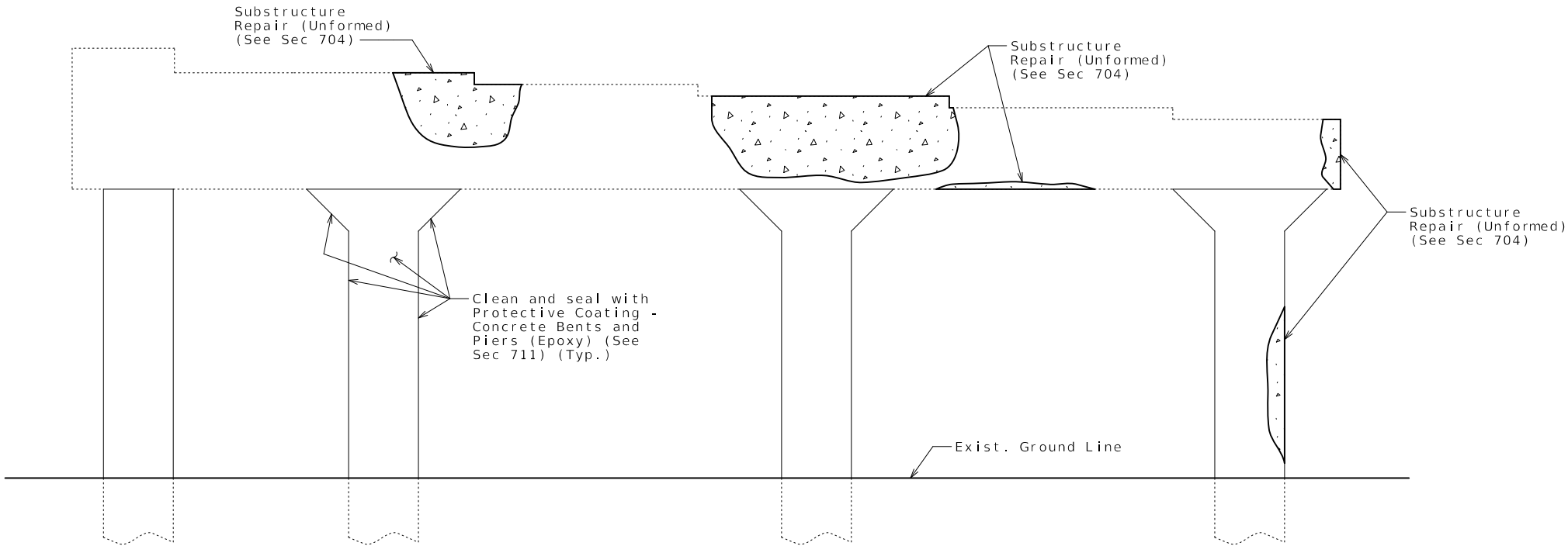
DATE PREPARED
9/25/2025
ROUTE 1-29
STATE MO
DISTRICT BR
SHEET NO. 1
COUNTY CLAY
JOB NO. JKU0292
CONTRACT ID.

PROJECT NO.
BRIDGE NO. L07194

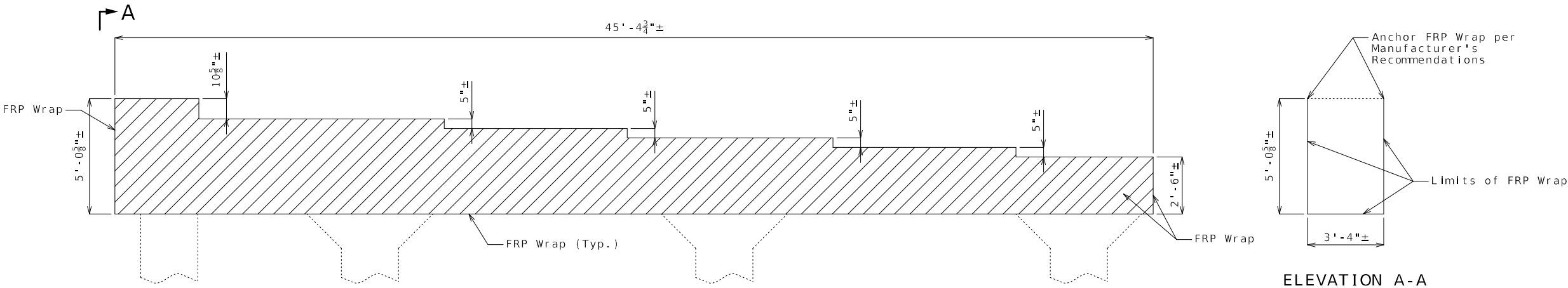
DESCRIPTION	DATE

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION
105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-273-6636)





PART ELEVATION AT INT. BENT NO. 5 SHOWING PROTECTIVE COATING AND SUBSTRUCTURE REPAIR



PART ELEVATION SHOWING FRP WRAP AT INT. BENT NO. 5

- Notes:
- Substructure repairs to be completed before placing FRP wrap.
 - Protective Coating - Concrete Bents and Piers (Epoxy) shall not be applied on the FRP system.
 - See special provisions.

INTERMEDIATE BENT CAP SHEAR STRENGTHENING USING FRP WRAP

Detailed July 2025
Checked July 2025

STATE OF MISSOURI

TED S. KOESTER

NUMBER

PE-2013000591

PROFESSIONAL ENGINEER

09/25/2025 9:28:46 AM

TED S. KOESTER - CIVIL

MO-PE-2013000591

DATE PREPARED

9/25/2025

ROUTE

1 - 29

STATE

MO

DISTRICT

BR

SHEET NO.

2

COUNTY

CLAY

JOB NO.

JKU0292

CONTRACT ID.

PROJECT NO.

BRIDGE NO.

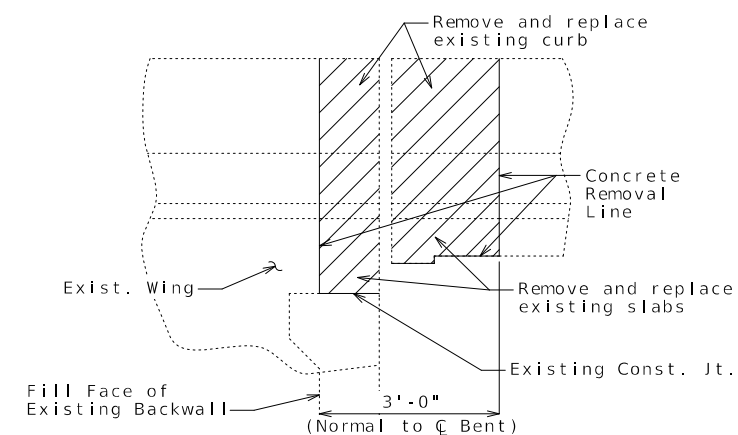
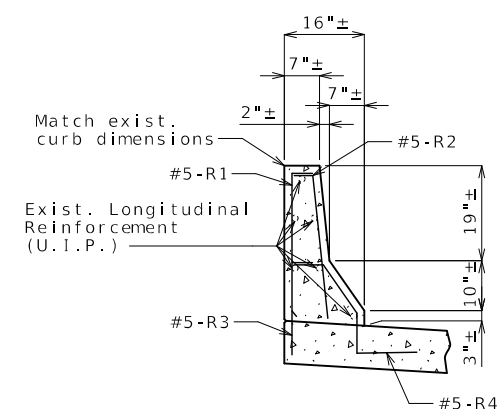
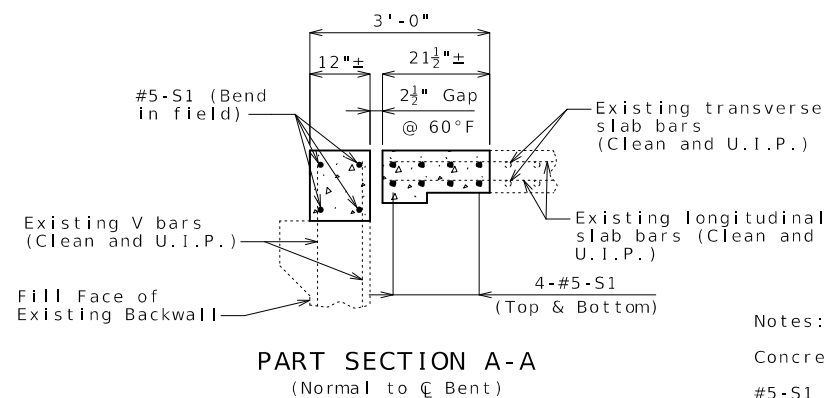
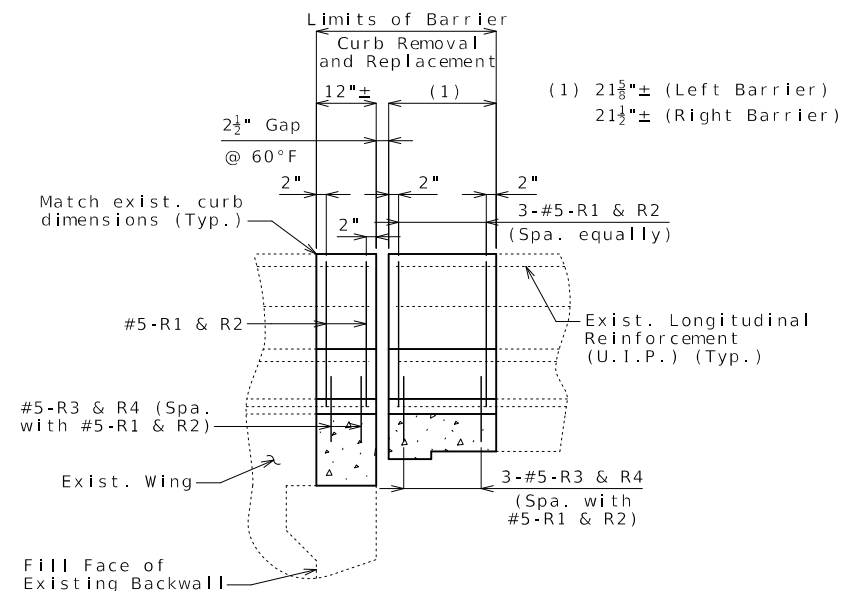
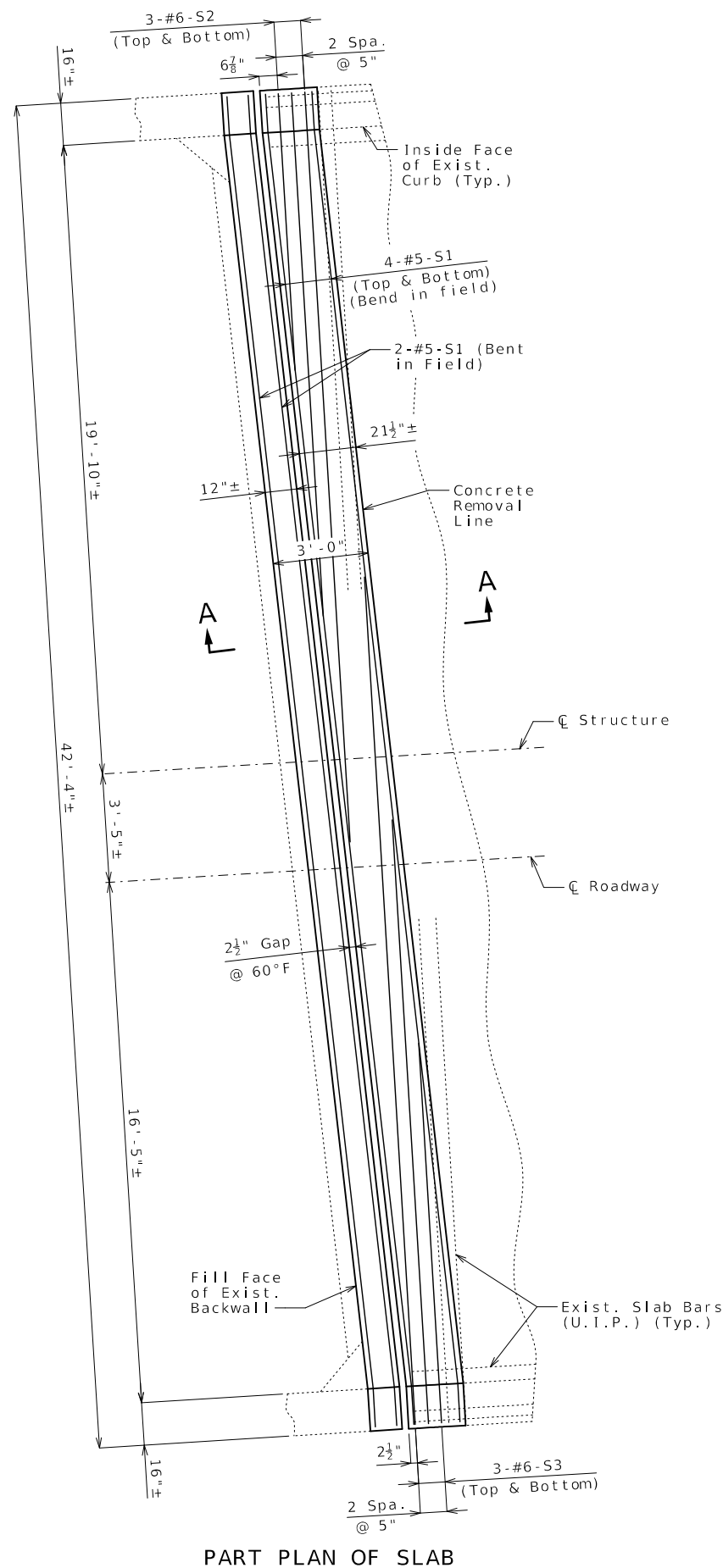
L07194

DESCRIPTION

DATE

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

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



Notes:

Concrete for slab replacement shall be Class B-2.

#5-S1 bars shall be shifted where necessary to clear shear connector studs on the expansion joint system.

Payment for slab concrete, complete in place, for expansion joint replacement will be considered completely covered by the contract unit price for Class B-2 Concrete.

Payment for furnishing and installing slab reinforcement will be considered completely covered by the contract unit price for Reinforcing Steel (Epoxy Coated).

Cost of removing existing expansion device and slab concrete within the limits shown will be considered completely covered by the contract unit price for Removal of Existing Expansion Joints & Adjacent Concrete.

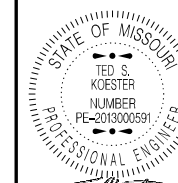
Concrete for barrier curb replacement shall be Class B-1.

Payment for curb removal and all new concrete and reinforcement for barrier curb, complete in place, will be considered completely covered by the contract unit price for Remove and Replace Barrier Curb.

All exposed edges of new barrier curb shall match existing barrier curb.

Joint armor and beams not shown for clarity.

The contractor shall use a mechanical bar splice for S-bars at the specified location. The total bar lengths for bars indicated in the bill of reinforcing steel are determined based on the bars being located flush to the face of the construction joint. No additional payment will be made for any additional bar lengths required for the mechanical bar splices. Mechanical bar splices shall be in accordance with Sec 706 or 710 except that no measurement will be made for mechanical bar splice and will be considered completely covered by the contract unit price for the Reinforcing Steel (Epoxy Coated).



Ted Hooster

09/25/2025 9:09:58 AM
TED S. KOESTER - CIV

MO-PE-2013000591

9/25/202

ROUTE	ST
-------	----

ROUTE	31
T 29	M

1 - 29	M
DISTRICT	SHEP

RD

BR	
COUNTY	

CLAY

CLAY

LOS AN

JOB NO.
UK110303

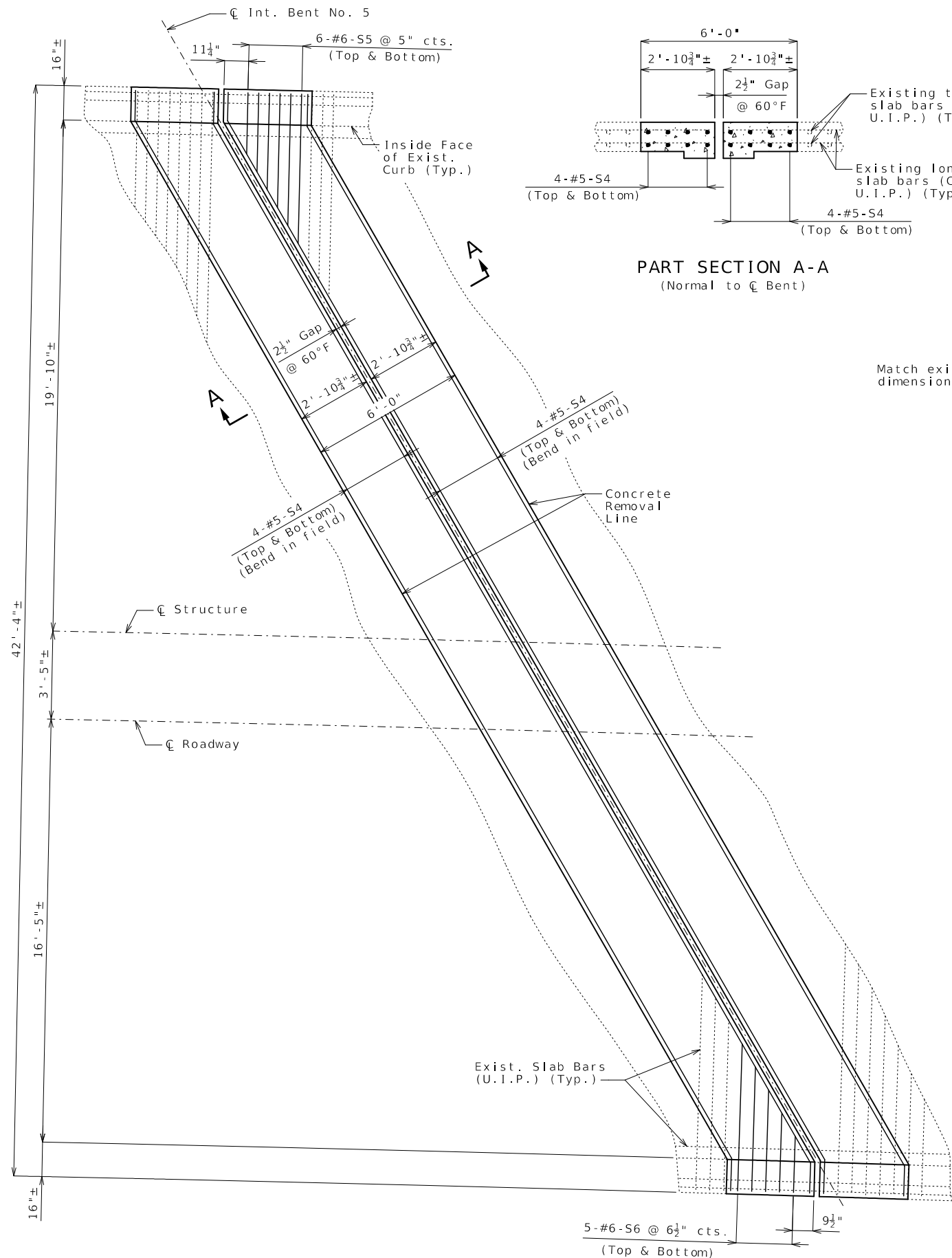
JK00292

CONTRACT ID

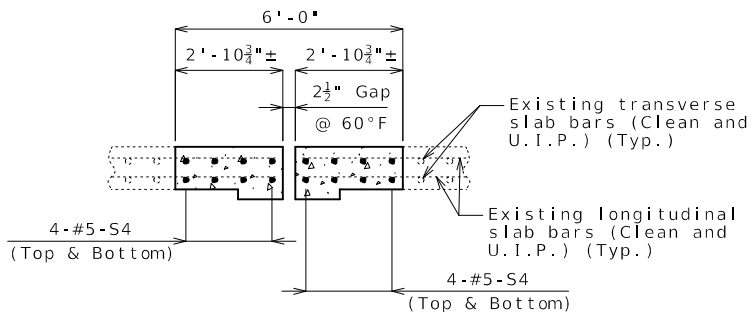
PROJECT NO.

BRIDGE NO.
107001[illegible]MISSOURI HIGHWAYS AND TRANSPORTATION
COMMISSION

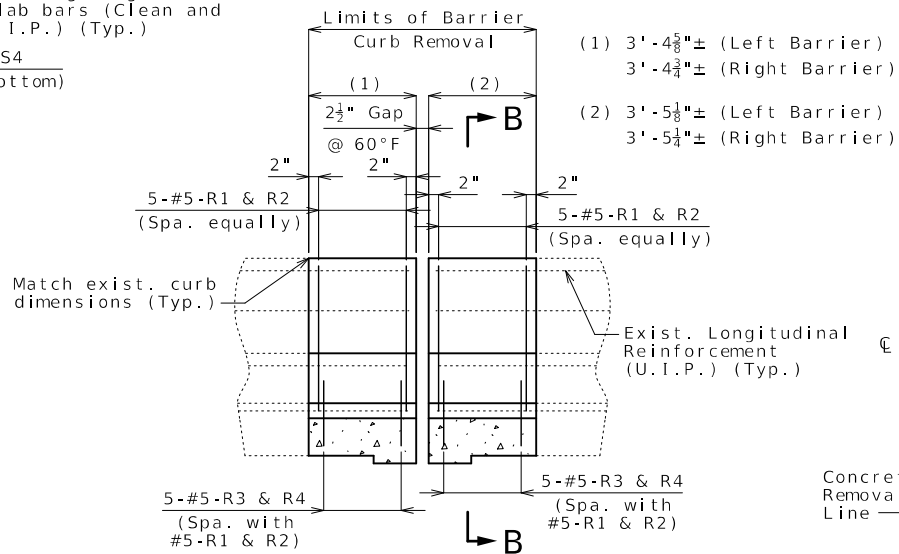
105 WEST CAPITOL
JEFFERSON CITY, MO 65102



PART PLAN OF SLAB

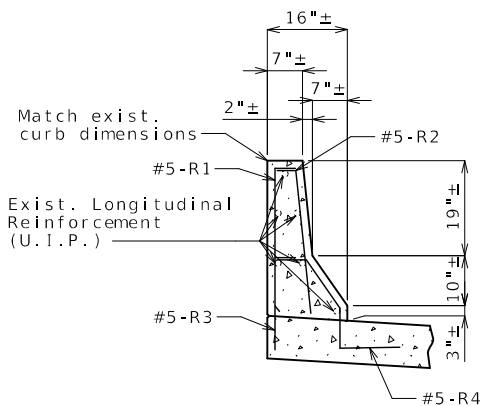


PART SECTION A-A
(Normal to C Bent)

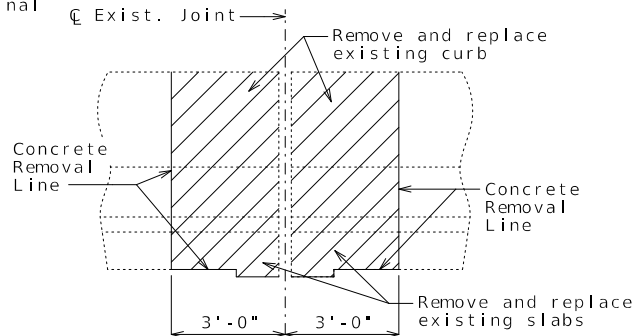


PART SECTION SHOWING
BARRIER CURB REINFORCEMENT

Notes:
Expansion joint system not shown for clarity.
Dimensions for barrier curb shown are along outside edge of slab.



PART SECTION B-B



PART ELEVATION AT
INT. BENT NO. 5
SHOWING CONCRETE REMOVAL
(Normal to C Bent)

Notes:

Concrete for slab replacement shall be Class B-2.

#5-S4 bars shall be shifted where necessary to clear shear connector studs on the expansion joint system.

Payment for slab concrete, complete in place, for expansion joint replacement will be considered completely covered by the contract unit price for Class B-2 Concrete.

Payment for furnishing and installing slab reinforcement will be considered completely covered by the contract unit price for Reinforcing Steel (Epoxy Coated).

Cost of removing existing expansion device and slab concrete within the limits shown will be considered completely covered by the contract unit price for Removal of Existing Expansion Joints & Adjacent Concrete.

Concrete for barrier curb replacement shall be Class B-1.

Payment for curb removal and all new concrete and reinforcement for barrier curb, complete in place, will be considered completely covered by the contract unit price for Remove and Replace Barrier Curb.

All exposed edges of new barrier curb shall match existing barrier curb.

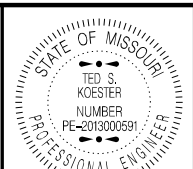
Joint armor and beams not shown for clarity.

The contractor shall use a mechanical bar splice for S-bars at the specified location. The total bar lengths for bars indicated in the bill of reinforcing steel are determined based on the bars being located flush to the face of the construction joint. No additional payment will be made for any additional bar lengths required for the mechanical bar splices. Mechanical bar splices shall be in accordance with Sec 706 or 710 except that no measurement will be made for mechanical bar splice and will be considered completely covered by the contract unit price for the Reinforcing Steel (Epoxy Coated).

DETAILS OF SLAB AND BARRIER CURB REPLACEMENT AT INT. BENT NO. 5

Note: This drawing is not to scale. Follow dimensions. Sheet No. 6 of 8

Detailed July 2025
Checked July 2025



DATE PREPARED
9/25/2025

ROUTE
1-29

STATE
MO

DISTRICT
BR

SHEET NO.
6

COUNTY
CLAY

JOB NO.
JKU0292

CONTRACT ID.

PROJECT NO.

BRIDGE NO.
L07194

DESCRIPTION

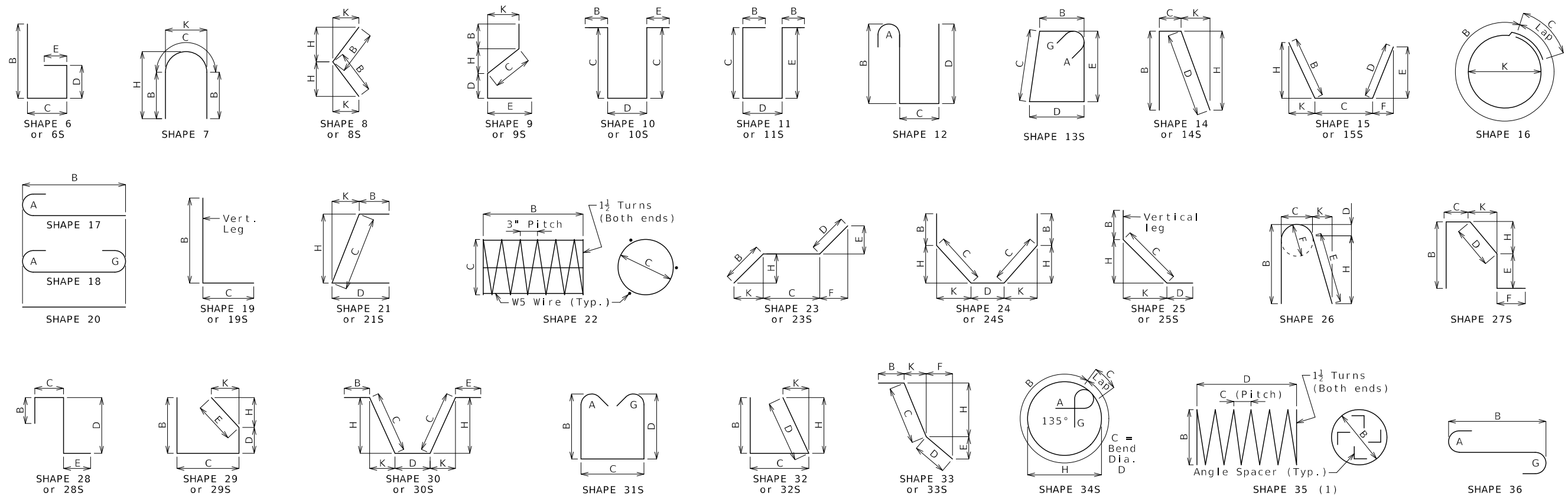
DATE

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

105 WEST CAPITOL
JEFFERSON CITY, MO 65102

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

MoDOT



Finished Bend Dimensions 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 $\frac{3}{4}$ "	10"	7"	5"
#6	1	4 $\frac{1}{4}$ "	12"	8 $\frac{1}{4}$ "	6"
#7	2	5 $\frac{1}{4}$ "	14"	9 $\frac{3}{4}$ "	7"
	3	7"	15"	11 $\frac{1}{2}$ "	8 $\frac{3}{4}$ "
#8	2	6"	16"	11"	8"
	3	8"	17"	13 $\frac{1}{4}$ "	10"
#9	1	9 $\frac{1}{2}$ "	19 $\frac{1}{2}$ "	15 $\frac{1}{2}$ "	11 $\frac{3}{4}$ "
#10	1	10 $\frac{3}{4}$ "	22"	17 $\frac{1}{2}$ "	13 $\frac{1}{4}$ "
#11	1	12"	24 $\frac{1}{2}$ "	19 $\frac{1}{2}$ "	14 $\frac{7}{8}$ "
#14	1	18 $\frac{1}{4}$ "	31 $\frac{1}{4}$ "	27 $\frac{1}{2}$ "	21 $\frac{5}{8}$ "
#18	1	24"	41 $\frac{1}{2}$ "	36 $\frac{1}{4}$ "	28 $\frac{1}{2}$ "

90°

180°

Stirrup Pin Bend Shapes (S)

Size	Case	D	A or G		H	J	
			90°	135°	180°	135°	180°
#4	2	2"	4 $\frac{1}{2}$ "	4 $\frac{1}{2}$ "	5"	2 $\frac{7}{8}$ "	3"
	3	3"	5"	5 $\frac{1}{4}$ "	6"	3"	4"
#5	2	2 $\frac{1}{2}$ "	5 $\frac{3}{4}$ "	5 $\frac{3}{4}$ "	5 $\frac{3}{4}$ "	3 $\frac{3}{8}$ "	3 $\frac{3}{4}$ "
	3	3 $\frac{3}{4}$ "	6 $\frac{1}{4}$ "	6 $\frac{1}{4}$ "	7"	3 $\frac{7}{8}$ "	5"
#6	1	4 $\frac{1}{2}$ "	12"	7 $\frac{3}{4}$ "	8 $\frac{1}{4}$ "	4 $\frac{5}{8}$ "	6"

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

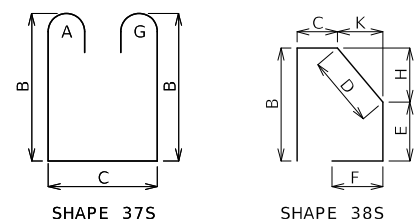
90°

135°

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.

180°



BENDING DIAGRAMS

All dimensions are out to out.

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.

(1) Shall be a deformed or plain spiral bar or wire.

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
By Size	W5	0	0	0	0	0	0	0
	4	0	0	0	0	0	0	0
	5	0	0	1,346	310	0	0	1,656
	6	0	0	421	0	0	0	421
	7	0	0	0	0	0	0	0
	8	0	0	0	0	0	0	0
	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		0	0	1,767	310	0	0	2,077

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

