#### DESIGN DESIGNATION

A.A.D.T. - 2026 = 633 A.A.D.T. - 2046 = 737 D.H.V. = 9.84% T = 24.06% V = 55 M.P.H. D = 52.5%/47.5%

FUNCTIONAL CLASSIFICATION - MAJOR COLLECTOR

#### NO NEW RIGHT OF WAY

#### CONVENTIONAL SYMBOLS

(USED IN PLANS	5)	
	EXISTING	NEW
BUILDINGS AND STRUCTURES GUARD RAIL GUARD CABLE CONCRETE RIGHT-OF-WAY MARKER STEEL RIGHT-OF-WAY MARKER LOCATION SURVEY MARKER UTILITIES	0000 0000 177 ()	·····
FIBER OPTICS OVERHEAD CABLE TV UNDERGROUND CABLE TV OVERHEAD TELEPHONE UNDERGROUND TELEPHONE OVERHEAD POWER UNDERGROUND POWER SANITARY SEWER STORM SEWER GAS WATER	- FOOTVUTV OT UT OE UE SS G W	- FO - OTV - UTV - OT - OE - UE - S - SS - G - W
MANHOLE	SAN HYD	)
FIRE HYDRANT	wv C	)
WATER VALVE	₩ <sup>V</sup> .C	)
WATER METER	****	)
DROP INLET	· _	
DITCH BLOCK	=	<b>=</b>
GROUND MOUNTED SIGN	SIGN	-
LIGHT POLE		]
H-FRAME POWER POLE		
TELEPHONE PEDESTAL FENCE CHAIN LINK WOVEN WIRE GATE POST	——————————————————————————————————————	
BENCHMARK	BM (X	)

NOTE: DASHED OR OPEN SYMBOLS INDICATE EXISTING FEATURES

## MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

# PLANS FOR PROPOSED STATE HIGHWAY

SCOTT COUNTY

BRIDGE #A9506

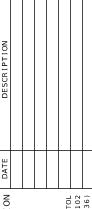
## BRIDGE REPLACEMENT EX. BRIDGE N0761 **GENERAL** Bleda WATKINS WA 25 27 0670013 CRD 416 MORLE Brooks Junction BLODGET HAYWOOD CITY 55 R13E R14E

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

#### INDEX OF SHEETS

DESCRIPTION	SHEET NUMBER
TITLE SHEET	1
TYPICAL SECTIONS (TS) (1 SHEET)	2
QUANTITIES (QU) (2 SHEETS)	3
PLAN-PROFILE (PP)	4
COORDINATE POINTS (CP)	5
SPECIAL SHEETS (SS)	6 - 7
TRAFFIC CONTROL SHEETS (TC)	8
BRIDGE DRAWINGS (B)	
A9506	1-29

SELI SHIMBO CIVIL.  SELIS SHIMBO  PE-20170199046  SELIS SHIMBO CIVIL.  MONET SELIS SHIMBO CIVIL.  MONET SELIS SHIMBO CIVIL.  MONET SELIS SHIMBO CIVIL.  MONET SELIS SHIMBO CIVIL.						
1	0 / 9		02	5		
ROU"	-		ST.	ATE		
C			MO			
DISTR	ICT	9	HEE	T NO	٥.	
SI	_			1		
	SC	ЭТ	Т			
	JOB	NO	٠.			
	J9S					
CONTRACT ID.						
PROJECT NO.						
BRIDGE NO.						



#### LENGTH OF PROJECT

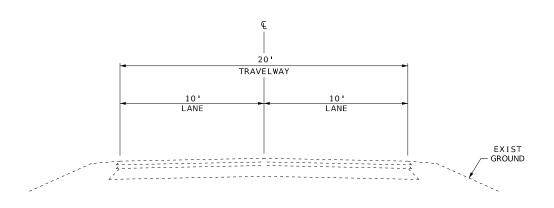
BEGINNING OF PROJECT STA. 124 + 15.00
END OF PROJECT STA. 127 + 00.00

APPARENT LENGTH 285.00 FEET

EQUATIONS AND EXCEPTIONS:



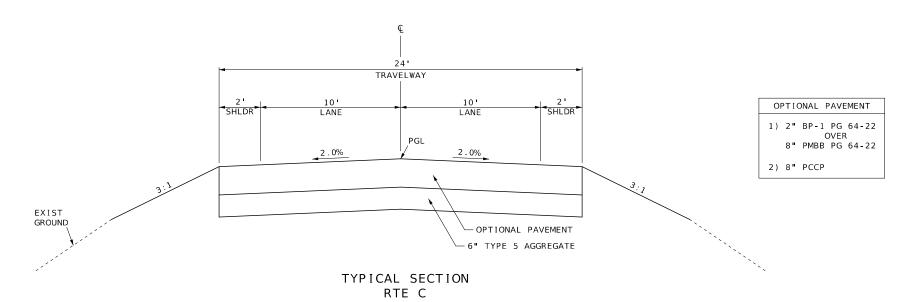
TOTAL CORRECTIONS	0.00	FEET
NET LENGTH OF PROJECT	285.00	FEET
STATE LENGTH	0.054	MILES
FOR INFORMATION ONLY ESTIMATED DISTURBED ACRES	0.5	ACRES



### EXISTING TYPICAL SECTION RTE C

STA 124+15.00 TO STA 127+00.00

EXISTING BR N0761 STA 124+76.95 TO STA 125+99.91



STA 124+15.00 TO STA 127+00.00

BR A9506 STA 124+66.03 TO STA 126+10.98

NOTE:

ANY EXIST PAVT SHOWN IS FOR INFORMATIONAL PURPOSES ONLY. LAYERS MAY VARY FROM TYPICAL SECTIONS.

DRAWING NOT TO SCALE. FOLLOW DIMENSIONS.

SELI SHIMBO NIMBER PE-2017019046

Seiji Shimbe 10114/2012 113259, AM SEUI SHIMBO - CIVIL MO-PE-2017019046

DATE PREPARED

10/14/2025

ROUTE STATE

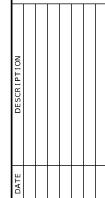
C MO

SE 2

COUNTY
SCOTT

JOB NO.
J9S3727
CONTRACT ID.

PROJECT NO.



HIGHWAYS AND TRANSPORTATION
COMMISSION

105 WEST CAPITOL

TYPICAL SECTION SHEET 1 OF 1

## CLEARING AND GRUBBING NO DIRECT PAY FOR CLEARING AND GRUBBING

REMOVAL (	OF IMPROVEMENTS
DESCRIPTION	REMARKS
12 OBJECT MARKERS	3 AT EACH CORNER OF BRIDGE
LUMP SUM ONE	

	MODIFIED LINEAR GRADING CLASS 2								
					MOD LINEAR				
					GRADING				
SHEET	STA	STA	LOC	LENGTH	CLASS 2	REMARKS			
				(FT)	(STA)				
4	124+15.00	127+00.00	CL	285.00	2.85				
				TOTAL	2.9				

	OPTIONAL PAVEMENT AND AGGREGATE BASE								
						OPTIONAL	6" TYPE 5		
SHEET	STA	STA	LOC	LENGTH	WIDTH	PAVT	AGGR	REMARKS	
				(FT)	(FT)	(SY)	(SY)		
6	124+15.00	124+34.03	CL	19.03	24.00	50.75	50.7		
6	124.34.03	124+46.03	CL	VAR	24.00	32.00	32.0		
6	126+30.98	126+42.98	CL	VAR	24.00	32.00	32.0		
6	126+42.98	127+00.00	CL	57.02	24.00	152.06	152.1		
				TOTAL		266.9	267		

MOBILIZATION
LUMP SUM ONE

## CONTRACTOR FURNISHED SURVEYING AND STAKING LUMP SUM ONE

	PAVEMENT MARKING								
				CLASS 1 HIGH	BUILD PAINT				
				TYPE P	BEADS				
				4" INT	4" SOLID				
STA	STA	LENGTH	LOC	YELLOW	WHITE	REMARKS			
		(FT)		(LF)	(LF)				
124+15.00	127+00.00	285.00	CL	71.3		CENTERLINE			
124+15.00	127+00.00	285.00	LT/RT		570.0	EDGEL I NE			
			TOTAL	72	570				

	GUARDRA I L									
					MGS BRIDGE APPROACH TRANSITION	MGS	TYPE A CRASHWORTHY END TERMINAL	TYPE C CRASHWORTHY END TERMINAL	MODIFIED SHAPING SLOPES	
SHEET	STA	STA	LOC	LENGTH (FT)	SECTION (EA)	GUARDRAIL (FT)	(MASH) (EA)	(MASH) (EA)	CLASS III (100F)	REMARKS
4	123+78.78	124+67.03	LT	88.25	1		1		1.2	NORTHWEST QUAD OF BR A9506
4	124+19.03	124+43.03	RT	24.00				1	0.3	SOUTHWEST QUAD OF BR A9506
4	126+09.98	126+98.23	RT	88.25	1		1		1.2	SOUTHEAST QUAD OF BR A9506
4	126+33.98	128+09.73	LT	175.75	1	87.5	1		2.1	NORTHEAST QUAD OF BR A9506
			TOTAL		3	88	3	1	5	

USE ALTERNATE GRADING LIMITS FOR CRASHWORTHY END TERMINALS.

	POROUS BACKFILL							
	POROUS							
SHEET	STA	LOC	BACKFILL	REMARKS				
			(CY)					
6	124+66.03	CL	31.4					
6	126+10.98	CL	31.4					
		TOTAL	63					
POROUS B	POROUS BACKFILL SHALL BE GRADES 3,4,0R 5.							

GRAVEL A OR CRUSHED STONE B							
	GRAVEL A						
				CRUSHED			
SHEET	STA	LOC	THICK	STONE B	REMARKS		
			(IN)	(TON)			
*ADD QUA	NTITY	•		10.0			
TOTAL 10							
* LOCATIONS TO BE DETERMINED BY THE ENGINEER.							

TYPE 2 ROCK BLANKET										
					TYP	E 2				
			AVG		ROCK B	LANKET	GEOTEXTILE			
SHEET	SECTION	DEPTH	WIDTH	LENGTH	FURNISH	PLACE	FABRIC	REMARKS		
		(FT)	(FT)	(FT)	(CY)	(CY)	(SY)			
7	A-A TO B-B	2	32.5	20	48.1	48.1	92.2			
7	В-В ТО С-С	2	46.5	30	103.3	103.3	178.3			
7	C-C TO D-D	2	65.0	10	48.1	48.1	80.0			
7	D-D TO E-E	2	53.5	26	103.0	103.0	174.8			
7	E-E TO F-F	2	38.0	34	95.7	95.7	170.0			
7	F-F TO G-G	2	45.0	16	53.3	53.3	96.0			
7	H-H TO I-I	2	30.5	27	61.0	61.0	118.5			
7	I-I TO J-J	2	39.0	40	115.6	115.6	204.4			
7	J-J TO K-K	2	67.5	37	185.0	185.0	306.3			
7	K-K TO L-L	2	83.0	12	73.8	73.8	120.0			
7	L-L TO M-M	2	57.0	26	109.8	109.8	184.9			
7	M-M TO N-N	2	33.5	27	67.0	67.0	127.5			
-				TOTAL	1064	1064	1853			

TEMPORARY EROSION CONTROL									
	SILT	ROCK	SEDIMENT	TYPE C					
SHEET	FENCE	DITCH CHECK	REMOVAL	BERM					
	(LF)	(LF)	(CY)	(LF)					
7	264.0	80.0	6.6	250.0					
TOTAL	264	80	7	250					

SEEDING AND MULCH									
				COOL SEASON TEMPORARY					
				SEEDING AND	SEEDING AND				
SHEET	STA	STA	LOC	MULCHING	MULCHING	REMARKS			
				(AC)	(AC)				
4	124+15.00	127+00.00	LT	0.09	0.25				
4	124+15.00	127+00.00	RT	0.08	0.25				
			TOTAL	0.2	0.5				
USE 1 LUMP SUM									
NOTE: SEEDING ACRES FOR INFORMATION ONLY									

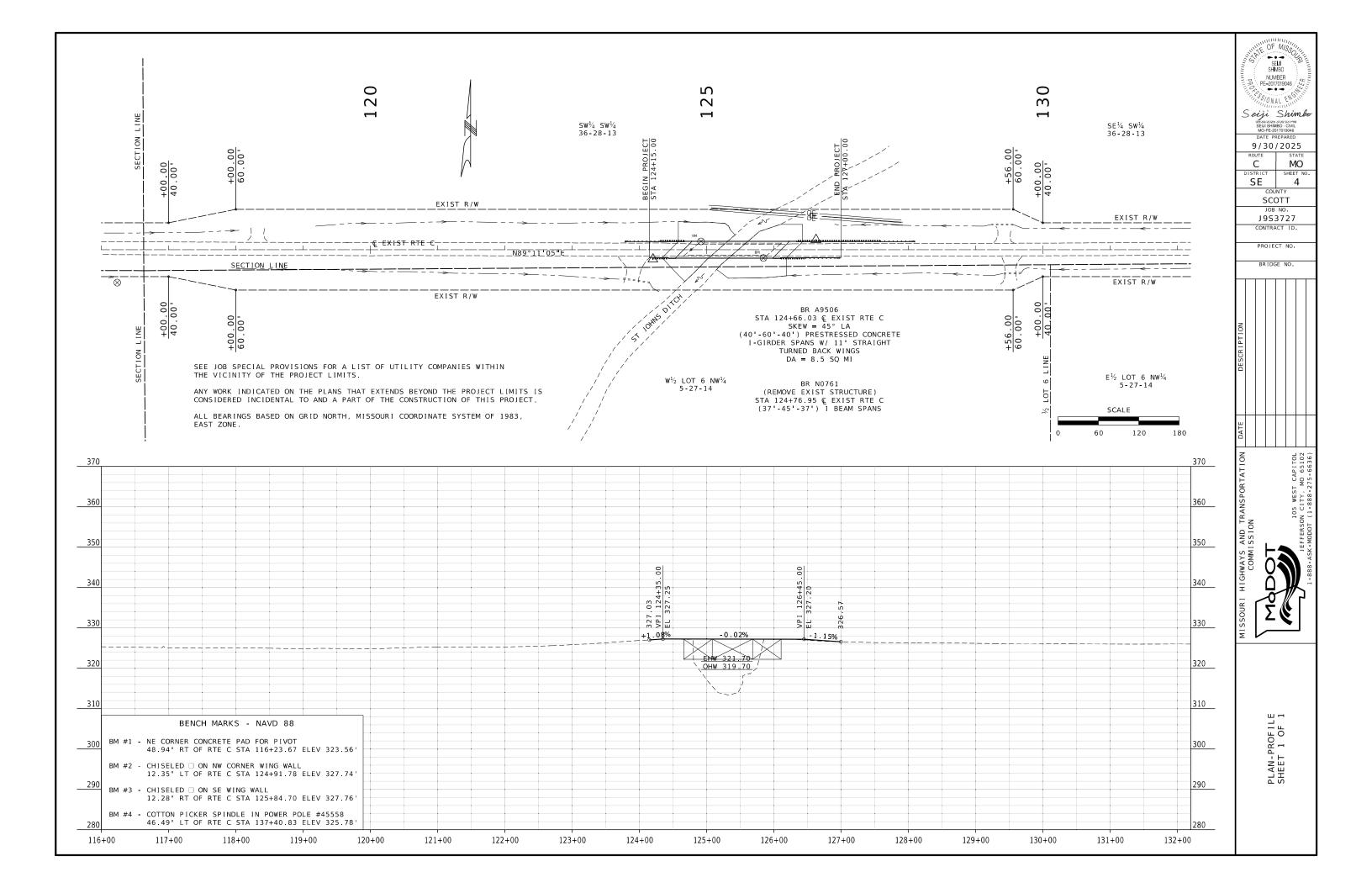
Seji	10/14/2029 11:33:38 AM SEUI SHIMBO - CIVIL MO-PE-2017019046								
	REPARED								
ROUTE	1/2025 STATE								
C	MO								
DISTRICT	SHEET NO.								
1 6-									
SE	3								
COL	JNTY OTT								
SC	JNTY OTT								
SCOO	OTT NO. 3727								
SCOO	JNTY OTT								
SCI SCI JOB J 9 S CONTR.	OTT NO. 3727								
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DESCRIPTION						
DATE						
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UANTITY SHEE' SHEET 1 OF 2

	ITOTAL	LOTY TOTAL	ı	1		I I OTV	ITOTALI			1	1	EEEECTIVE: 07 01 2025	
		L QTY TOTAL		١,,,,	.	1 1 1 1	TOTAL					EFFECTIVE: 07-01-2025	WILL OF MISOLICE
	· .	RELOC RELOC SIGN	SIGN	SIZE	1	QTY  TOTAL RELOC					TOTAL		TILL OUT
IN. SQ.FT.	EACH SQ.FT.	. EACH SQ.FT. NO. DESCRIPTION		IN.	SQ.FT.	EACH SQ FT EACH	SQ.FT.	NO.	DESCRIPTION	NUMBER	QTY	DESCRIPTION	SEUI E
	WAR	NING SIGNS				GUIDE SI	GNS			6122008		IMPACT ATTENUATOR 40 MPH (SAND BARRELS)	SHIMBO E
WO1-1L 48X48 16.00		TURN (SYMBOL LEFT)	E05-1	36X48	8 12.00				GORE EXIT	6122009		IMPACT ATTENUATOR 45 MPH (SAND BARRELS)	PE-2017019046
WO1-1R 48X48 16.00		TURN (SYMBOL RIGHT)	E05-2	48X36	6 12.00				EXIT OPEN	6122010		IMPACT ATTENUATOR 50 MPH (SAND BARRELS)	THE STONAL ENGINEER
WO1-2L 48X48 16.00		CURVE (SYMBOL LEFT)	E05-2a	48X36	6 12.00				EXIT CLOSED	6122012		IMPACT ATTENUATOR 55 MPH (SAND BARRELS)	WOUNT ENTE
WO1-2R 48X48 16.00		CURVE (SYMBOL RIGHT)	GO20-1	60X24	4 10.00				ROAD WORK NEXT XX MILES	6122014		IMPACT ATTENUATOR 60 MPH (SAND BARRELS)	Seiji Shimbo
WO1-3L 48X48 16.00		REVERSE TURN (SYMBOL LEFT)	GO20-2	48X24	4 8.00				END ROAD WORK	6122017		IMPACT ATTENUATOR 65 MPH (SAND BARRELS)	VSIZSIZUZS 1.40.13 FW SEIJI SHIMBO - CIVIL
WO1-3R 48X48 16.00		REVERSE TURN (SYMBOL RIGHT)	GO20-4	36X18	8 4.50				PILOT CAR FOLLOW ME	6122019		IMPACT ATTENUATOR 70 MPH (SAND BARRELS)	MO-PE-2017019046 DATE PREPARED
WO1-4L 48X48 16.00		REVERSE CURVE (SYMBOL LEFT)	GO20-4a		_				PILOT CAR IN USE WAIT & FOLLOW	6122020		REPLACEMENT SAND BARREL	9/22/2025
WO1-4R 48X48 16.00		REVERSE CURVE (SYMBOL RIGHT)	GO20-4a						PILOT CAR IN USE WAIT & FOLLOW	6122030		IMPACT ATTENUATOR (RELOCATION)	ROUTE STATE
WO1-4bL 48X48 16.00		DOUBLE ARROW REVERSE CURVE (SYMBOL LEFT)	GO20-5aP						WORK ZONE (PLAQUE)	6122040		WORK ZONE CRASH CUSHION (NARROW)	с мо
WO1-4bR 48X48 16.00		DOUBLE ARROW REVERSE CURVE (SYMBOL RIGHT)	MO4 - 8a		3.00				END DETOUR	6122041		WORK ZONE CRASH CUSHION (RELOCATION)	DISTRICT SHEET NO.
WO1-4cL 48X48 16.00		TRIPLE ARROW REVERSE CURVE (SYMBOL LEFT)	MO4 - 9L		6 12.00				DETOUR (LEFT)	6123001		TRUCK MOUNTED ATTENUATOR (TMA)	SE 3
WO1-4cR 48X48 16.00		TRIPLE ARROW REVERSE CURVE (SYMBOL RIGHT)	MO4 - 9R		6 12.00				DETOUR (RIGHT)	6161012		BUOYS (BOATS KEEP OUT)	COUNTY
WO1-6 60X30 12.50		HORIZONTAL ARROW (SYMBOL)	MO4 - 9P		2 4.00				STREET NAME (PLAQUE)	6161013		BUOYS (NO WAKE)	SCOTT
WO1-6a 72X36 18.00		HORIZ. ARROW (SYMBOL ON PERMANENT BARRICADE)	MO4 - 10L						DETOUR ARROW (LEFT)	6161014		SPECIAL SIGN ASSEMBLY (BOATS KEEP OUT)	JOB NO.
WO1-7 60X30 12.50		DOUBLE HEAD HORIZONTAL ARROW (SYMBOL)	MO4-10L						DETOUR ARROW (RIGHT)	6161020		CHANNELIZER (DRUM-LIKE)	J9S3727
			MO4-10K	46/10	5   0.00	DECILI ATORY	CICNC		DETOUR ARROW (RIGHT)	1			CONTRACT ID.
WO1 -7a 72X36 18.00		DOUBLE HEAD HORIZ. ARROW (SYMBOL ON PERM. BARR.)	D1 1	40)/4/	12.25	REGULATORY	3 I GN3		CTOR	6161022		CHANNELIZER (CONE)	
WO1-8 18X24 3.00		CHEVRON (SYMBOL)	R1-1		3 13.25				STOP	6161025		CHANNELIZER (TRIM-LINE)	PROJECT NO.
WO1-8a 30X36 7.50	<del>                                     </del>	CHEVRON (SYMBOL FOR DIVIDED HIGHWAYS)	R1-2		6 93	+ + + -			YIELD	6161026	1.0	CHANNELIZER (VERTICAL PANEL)	BRIDGE NO.
WO3-1 48X48 16.00		STOP AHEAD (SYMBOL)	R1-2a		5 9.00				TO ONCOMING TRAFFIC (PLAQUE)	6161030	10	TYPE 3 MOVEABLE BARRICADE	BRIDGE NO.
WO3 - 2 48X48 16.00		YIELD AHEAD (SYMBOL)	R1-3P		2 2.50				ALL WAY (PLAQUE)	6161033	-	DIRECTION INDICATOR BARRICADE	
WO3 - 3 48X48 16.00		SIGNAL AHEAD (SYMBOL)	R2-1		8 12.00				SPEED LIMIT XX	6161040		FLASHING ARROW PANEL	
WO3-4 48X48 16.00		BE PREPARED TO STOP	R3-1	<del>                                     </del>	8 16.00				NO RIGHT TURN (SYMBOL)	6161047	1	TYPE 3 OBJECT MARKER	
WO3-5 48X48 16.00		SPEED LIMIT AHEAD	R3-2	<del>                                     </del>	8 16.00				NO LEFT TURN (SYMBOL)	6161055		SEQUENTIAL FLASHING WARNING LIGHT	
WO4-1L 48X48 16.00		MERGE (SYMBOL FROM LEFT)	R3-3	<del>                                     </del>	9.00				NO TURNS	6161070		TUBULAR MARKER	
WO4-1R 48X48 16.00		MERGE (SYMBOL FROM RIGHT)	R3-4		8 16.00				NO U-TURN (SYMBOL)	6161095		RADAR SPEED ADVISORY SYSTEM	8
WO4-1aL 48X48 16.00		MERGE (LEFT)	R3-7L	30X30	0 6.25				LEFT LANE MUST TURN LEFT			CHANGEABLE MESSAGE SIGN,	<u> </u>
WO4-1aR 48X48 16.00		MERGE (RIGHT)	R3-7R	30X30	0 6.25				RIGHT LANE MUST TURN RIGHT	6161096		COMMISSION FURNISHED/RETAINED	#
WO5-1 48X48 16.00		ROAD/BRIDGE/RAMP NARROWS	R4-1	36X48	8 12.00				DO NOT PASS			CHANGEABLE MESSAGE SIGN WITHOUT COMM.	SC
WO5-3 48X48 16.00		ONE LANE BRIDGE	R4-2	36X48	12.00				PASS WITH CARE	6161098	2	INTERFACE, CONTRACTOR FURNISHED/RETAINED	
WO5-5 48X48 16.00		NARROW LANES	R4-7a	36X48	8 12.00				KEEP RIGHT (HORIZONTAL ARROW)			CHANGEABLE MESSAGE SIGN WITH COMM.	
WO6-1 48X48 16.00		DIVIDED HIGHWAY (SYMBOL)	R4-8a	36X48	8 12.00				KEEP LEFT (HORIZONTAL ARROW)	6161099		INTERFACE, CONTRACTOR FURNISHED/RETAINED	
WO6-2 48X48 16.00		DIVIDED HIGHWAY END (SYMBOL)	R5-1	30X30	0 6.25				DO NOT ENTER	6162000	4	WORK ZONE TRAFFIC SIGNAL SYSTEM	
WO6-3 48X48 16.00		TWO WAY TRAFFIC (SYMBOL)	R5-1a	36X24	4 6.00				WRONG WAY	6162002		TEMPORARY LONG-TERM RUMBLE STRIPS	
WO7-3a 30X24 5.00		NEXT XX MILES (PLAQUE)	R6-1L	54X18	8 6.75				ONE WAY ARROW (LEFT)			TEMPORARY TRAFFIC BARRIER,	
WO8-1 48X48 16.00		BUMP	R6-1R		8 6.75				ONE WAY ARROW (RIGHT)	6173600		CONTRACTOR FURNISHED/RETAINED	
WO8-2 48X48 16.00		DIP	R6-2L		5.00				ONE WAY (LEFT)			TEMP TRAFFIC BARRIER ANCHORED,	[A]
WO8-3 48X48 16.00		PAVEMENT ENDS	R6-2R	<del>                                     </del>	5.00				ONE WAY (RIGHT)	6173700	3	CONTRACTOR FURNISHED/RETAINED	
WO8-4 48X48 16.00		SOFT SHOULDER	R9-9		2 2.00				SIDEWALK CLOSED			TEMP. TRAFFIC BARRIER STIFFNESS TRANSITION	TOL 102 36)
WO8-5 48X48 16.00		SLIPPERY WHEN WET (SYMBOL)	1						SIDEWALK CLOSED AHEAD,	6173706		CONTRACTOR FURNISHED/RETAINED	1TC 1TC 51(63)
WO8-6 48X48 16.00		TRUCK CROSSING	R9-11L	24X18	3.00				(ARROW LEFT) CROSS HERE			TEMP. TRAFFIC BARRIER HEIGHT TRANSITION,	SPORTATI WEST CAPIT TY, MO 651 888-275-663
WO8-6c 48X48 16.00		TRUCK ENTRANCE	1		3.00				SIDEWALK CLOSED AHEAD,	6174000	۵	CONTRACTOR FURNISHED/RETAINED	T C MC
WO8 -7 36X36 9.00		LOOSE GRAVEL	H <sub>R9-11R</sub>	24X18	3.00				(ARROW RIGHT) CROSS HERE	6175010		RELOCATING TEMPORARY TRAFFIC BARRIER	PO FS',
WO8-7a 36X36 9.00		FRESH OIL / LOOSE GRAVEL	R10-6		6 6.00				STOP HERE ON RED (45^ ARROW)	6175011		RELOCATING TEMP. TRAFFIC BARRIER ANCHORED	ANS. 05 W CIT CIT 2
WO8-9 48X48 16.00		LOW SHOULDER	R11-2	<del>                                     </del>	0 10 00	2 20.00			ROAD CLOSED	6175013	1	RELOCATING TEMP. TRAFFIC BARRIER STIFFNESS	RA 105
WO8-11 48X48 16.00		UNEVEN LANES		4073	3 10.00	2 20.00			ROAD CLOSED XX MILES AHEAD	6175020	\	RELOCATING TEMP. TRAFFIC BARRIER HEIGHT	TO SO
WO8-11 48X48 16.00		NO CENTER LINE	R11-3a	60 X 3 (	12 50				LOCAL TRAFFIC ONLY	6208064		TEMPORARY RAISED PAVEMENT MARKER	ND S I (
WO8-12 48X48 16.00 WO8-15 48X48 16.00		GROOVED PAVEMENT	-		0 12.50				ROAD CLOSED TO THRU TRAFFIC	9029400		TEMPORARY TRAFFIC SIGNALS	I S I
			CONST-3A						FINE SIGN			TEMPORARY TRAFFIC SIGNALS AND LIGHTING	SY AND
		MOTORCYCLE (PLAQUE)	CONST-3X		_					9029401		TEMPORART TRAFFIC SIGNALS AND LIGHTING	€ Ø <b>\</b>
WO8 - 17L 48X48 16.00		SHOULDER DROP-OFF (SYMBOL LEFT)	CONST-3X	3011	2 4.67	MICCELLANEOU	IC CICN	· ·	SPEEDING/PASSING (PLATE)	1			¥ 0 0 1 88 88
WO8-17R 48X48 16.00		SHOULDER DROP-OFF (SYMBOL RIGHT)	CONCT. 5	401/2		MISCELLANEOU	15 5 1 G N	5	DOLLIT OF BRECENCE	4			
WO8-17P 30X24 5.00		SHOULDER DROP-OFF (PLAQUE)	CONST 5						POINT OF PRESENCE	-		l	
W10-1 42RND 9.62		RAILROAD CROSSING	CONST-5						POINT OF PRESENCE			l	
WO12-1 24X24 4.00	<del>                                     </del>	DOUBLE DOWN ARROW (SYMBOL)	CONST-8						WORK ZONE NO PHONE ZONE			l	9   <b>2 (6</b>
WO12-2 48X48 16.00		LOW CLEARANCE (SYMBOL)	SPECIAL	96X48	32.00	2 64.00			RTE XX CLOSED XX MILES AHEAD			l	SS / ~ 🖍 /
W012-2x 24X18 3.00		LOW CLEARANCE (PLAQUE)	-				1					l	\frac{1}{2}
WO12-2a 84X24 14.00		OVERHEAD LOW CLEARANCE (FEET AND INCHES)	1									ļ	
WO12-4 120X60 50.00		LOW CLEARANCE XX FT XX IN XX MILES AHEAD	1									l	
WO12-5 120X60 50.00		WIDTH RESTRICTION XX FT XX IN XX MILES AHEAD	1									l	
WO13-1 30X30 6.25		ADVISORY SPEED (PLAQUE)	1									l	
WO16-2 30X24 5.00		XXX FEET (PLAQUE)										l	
WO16-3 30X24 5.00		X MILE (PLAQUE)								]		l	
WO20-1 48X48 16.00		ROAD/BRIDGE/RAMP WORK AHEAD								]			
WO20-2 48X48 16.00		DETOUR AHEAD								]		l	H. S.
WO20-3 48X48 16.00	4 64.00	ROAD CLOSED AHEAD	616-10	.05		TOTAL						l	EE 2
WO20-4 48X48 16.00		ONE LANE ROAD AHEAD	CONSTR	UCT I	<u>N S</u> IGN	NS 148						l	SHI
WO20-5 48X48 16.00		RIGHT/CENTER/LEFT LANE CLOSED AHEAD	616-10	10			TOTAL					l	
WO20-5a 48X48 16.00		2 RIGHT/CENTER/LEFT LANES CLOSED AHEAD	RELOCA		SIGNS							l	7≺
WO20-6a 48X48 16.00		RIGHT/CENTER/LEFT LANE CLOSED											는 :::
WO20-7a 48X48 16.00		FLAGGER (SYMBOL)	1									l	QUANT I
WO21-2 36X36 9.00		FRESH OIL	] * NO DID	ECT DA	Y FOD D	ELOCATION OF TEMPORA	BA LDVE	: 1	NTROL OR DEVICES			l	AA SH
WO21-5 48X48 16.00		SHOULDER WORK / SHOULDER WORK AHEAD	1 NO DIKI	LCI PA	AT FOR KI	LLOCATION OF TEMPORA	AL IRAFI	10 00	WINGE ON DEVICES.			l	♂.
WO22-1 48X48 16.00		BLASTING ZONE AHEAD	1									l	
WO22-2 42X36 10.50		TURN OFF 2-WAY RADIO AND PHONE	1									l	
WO22-2 42X36 10.50		END BLASTING ZONE	1									l	
GO22-1 21X15 2.19		WET PAINT (ARROW PIVOTS)	1									l	
2.19	<u> </u>	1	_									l	
1												l	



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 COORDIN	ATE INFORMATION				
COORDINATE SYSTEM	MO SPC 83				
HORIZONTAL DATUM	NAD83 2011				
VERTICAL DATUM	MODOT GNSS NETWORK				
GEOID MODEL	2018				
ELEVATIONS	DIFFERENTIAL ELEVATIONS				
DETERMINED BY					
PROJECT PROJECTION	FACTOR 1.0000000				
REFERENCE CONTROL INFORMATION					

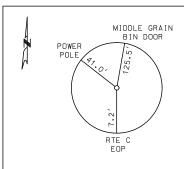
PROJECT PROJECTIV		.000000		
REFERENCE CONT	TROL	INFOR	MAT	ION
COORDINATE SYSTE	м мс	SPC 83		
CONTROL STATION	MC	OCH		
DESIGNATION	MODO	T CHARL	ESTO	N CORS ARP
CORS_ID	MOCH			
PID	DM41	18		
LATITUDE	3655	05.2247	4	
LONGITUDE	8919	07.5863	1	
NORTHING (M)	1210	17.9250		
EASTING (M)	3552	50.6190		
ZONE	EAST			<u> </u>
PROJECT AVERAGE	GRID	FACTOR	1	.0000000

PROJECT AVERAGE GRID FACTOR 1.0000000
PROJECT NORTHING X AVERAGE GRID FACTOR
= STATE PLANE NORTHING
PROJECT EASTING X AVERAGE GRID FACTOR
= STATE PLANE EASTING
EXAMPLE: CONTROL POINT #100
N 440283.138 X 1.00000000 = N 440283.14
E 1089487.638 X 1.00000000 = E 1089487.64

#### LINEAR UNIT CONVERSION

1 METER = 3.280833333 US SURVEY FEET (USFT)

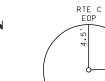
					COORDIN	ATE POINT LI	STING	MILLE OF	F M/SSOCIALINATION SELII
				MODIFIE	MODIFIED STATE PLANE (GROUND)				SEII SEII
			OFFSET	NORTH I NG	EASTING	ELEVATION		PROPERTY OF THE PROPERTY OF TH	ÍMBO =
SHEET NO	STATION	LOCATION	(USFT)	(US SURVEY FT)	(US SURVEY FT)	(US SURVEY FT)	DESCRIPTION	PE-20	JMBER 017019046 55
PROJECT CO	ONTROL PO	INTS				•		11/588/0	WAL ENGINEERS
	113+21.37	RTE C	20.30' LT	440283.14	1089487.64	326.33	5/8" REBAR W/ PINK CAP ON NORTH SIDE OF RTE C AND WEST OF ENTRANCE TO GRAIN BINS	Seiji	AL IIII
4	124+20.33	RTE C	14 19' RT	440264.27	1090586.97	325.29	5/8" REBAR W/ PINK CAP ON SOUTH SIDE OF RTE C AND EAST OF A FIELD ENTRANCE	Sey	Shimbo
4	126+62.74	RTE C	14.70' LT	440296.60	1090828.93	324.68	5/8" REBAR W/ PINK CAP ON EAST SIDE OF BRIDGE N0761 AND NORTH SIDE OF RTE C	MO-PE-	20 1.55.25 FW HMBO - CIVIL -2017019046 PREPARED
	137+68.05	RTE C	9.90' RT	440287.72	1091934.51	326.53	5/8" REBAR W/ PINK CAP ON SOUTH SIDE OF RTE C		2/2025
AL I GNMENTS	5							ROUTE	STATE
	113+21.37	RTE C		440265.38	1089666.54		BEGIN RTE C	DISTRICT	MO SHEET NO.
	155+00.00	RTE C		440322.30	1093666.14		END RTE C	SE	5
									DUNTY
									COTT
									3727
								CONTR	RACT ID.
								PPOI	ECT NO.
								FRO)	
								BRIC	DGE NO.
								<u> </u>	



CONTROL PT #100

X = 1089487.64Y = 440283.14Z = 326.33STA 113+21.37 OFF 20.30' LT

CP#100 - 5/8" REBAR W/ PLASTIC CAP 0.2 MI WEST OF BR N0761 ON NORTH SIDE OF RTE C AND WEST OF GRAIN BIN FIELD ENTRANCE



CONTROL PT #101

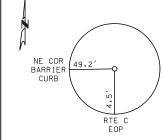
SW COR BARRIER

CURB

43.3

X = 1090586.97Y = 440264.27Z = 325.29STA 124+20.33 OFF 14.19' RT

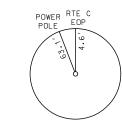
CP#101 -  $\frac{5}{8}$ " REBAR W/ PLASTIC CAP WEST SIDE OF BR N0761 ON SOUTH SIDE OF RTE C AND EAST OF FIELD ENTRANCE



CONTROL PT #102

X = 1090828.93Y = 440296.60'Z = 324.68STA 126+62.74 OFF 14.70' LT

CP#102 - 5/8" REBAR W/ PLASTIC CAP EAST SIDE OF BR N0761 NORTH SIDE OF RTE C



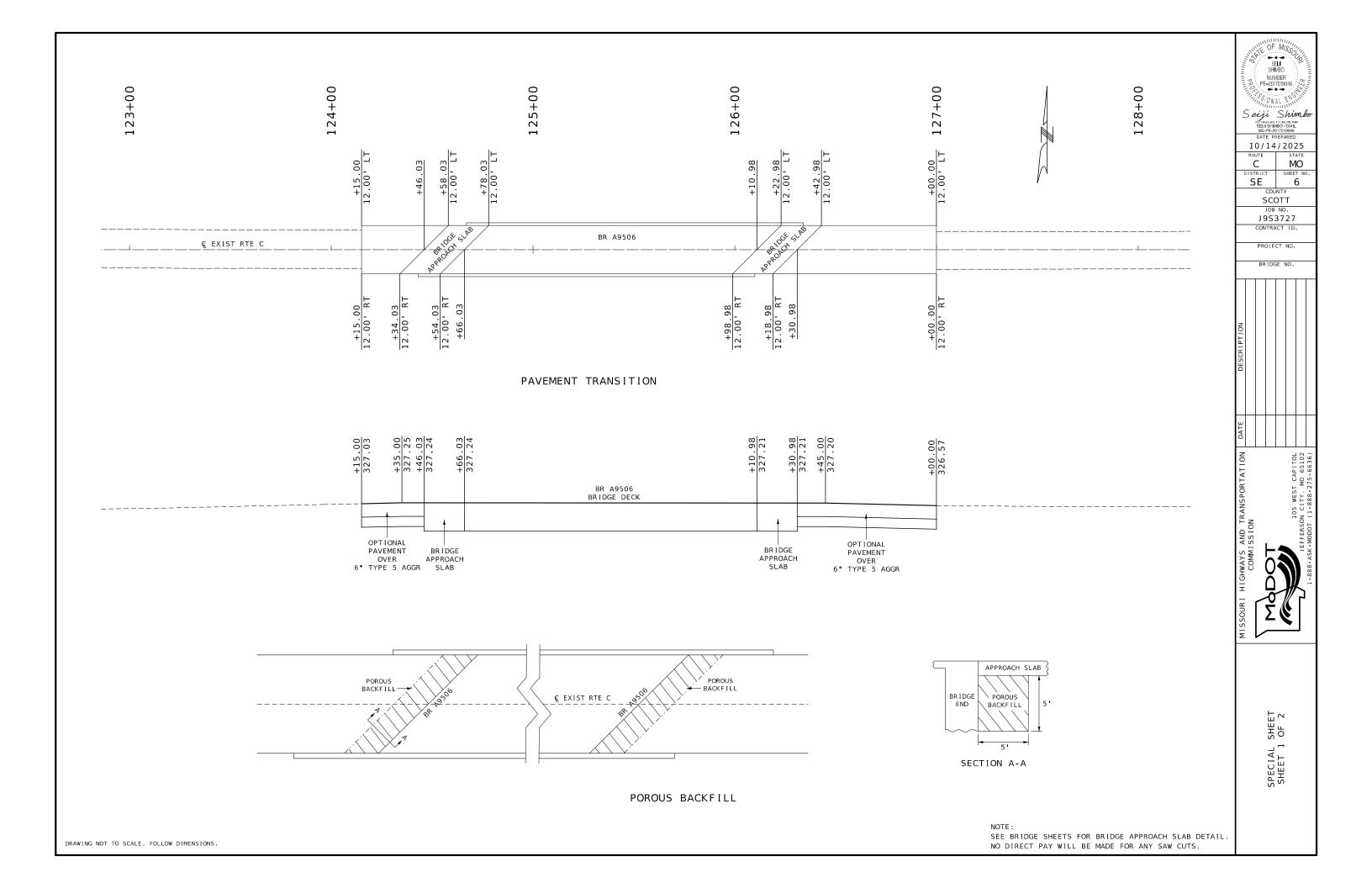
CONTROL PT #103

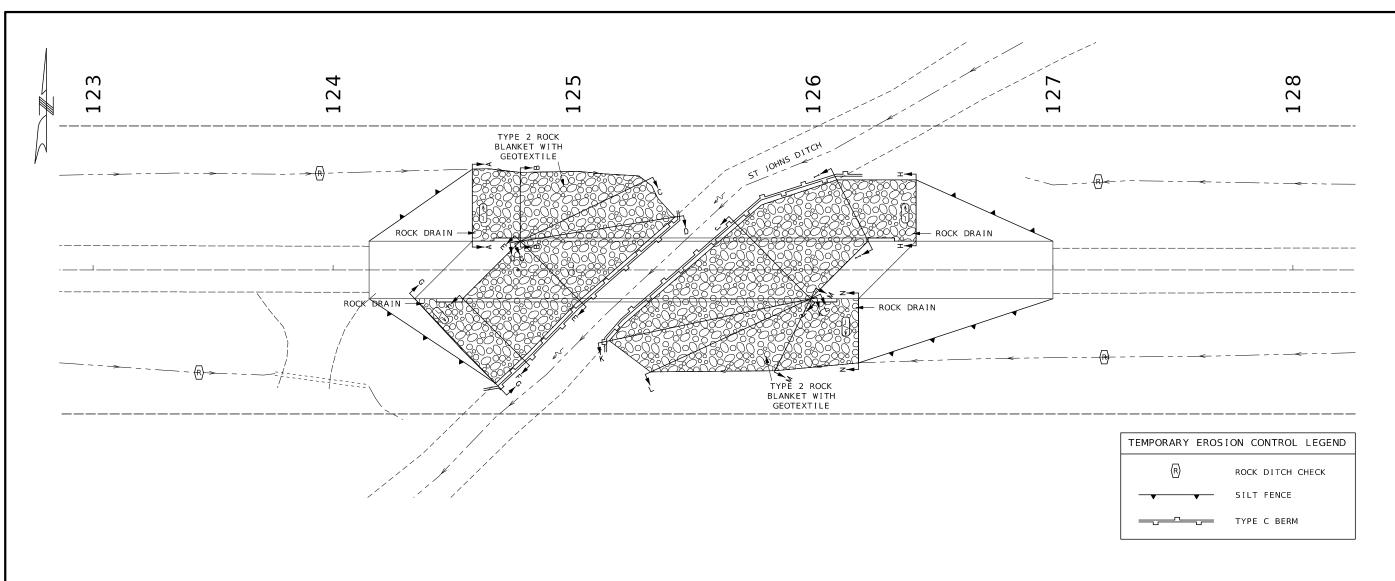
X = 1091934.51'Y = 440287.72'Z = 326.53STA 137+68.05 OFF 9.90' RT

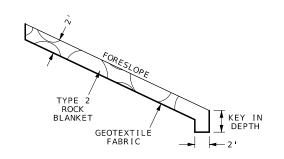
CP#103 - 5/8" REBAR W/ PLASTIC CAP 0.2 MI EAST OF BR N0761 SOUTH SIDE OF RTE C



REFERENCE CONTROL INFORMATION COORDINATE POINTS CONTROL POINTS SHEET 1 OF 1







ROCK BLANKET TYPICAL

2.1	TYPE 2 ROCK			2 '
2 '	BLANKET			ζ.
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GEOTEXTI	LE	2		
FABRIC				

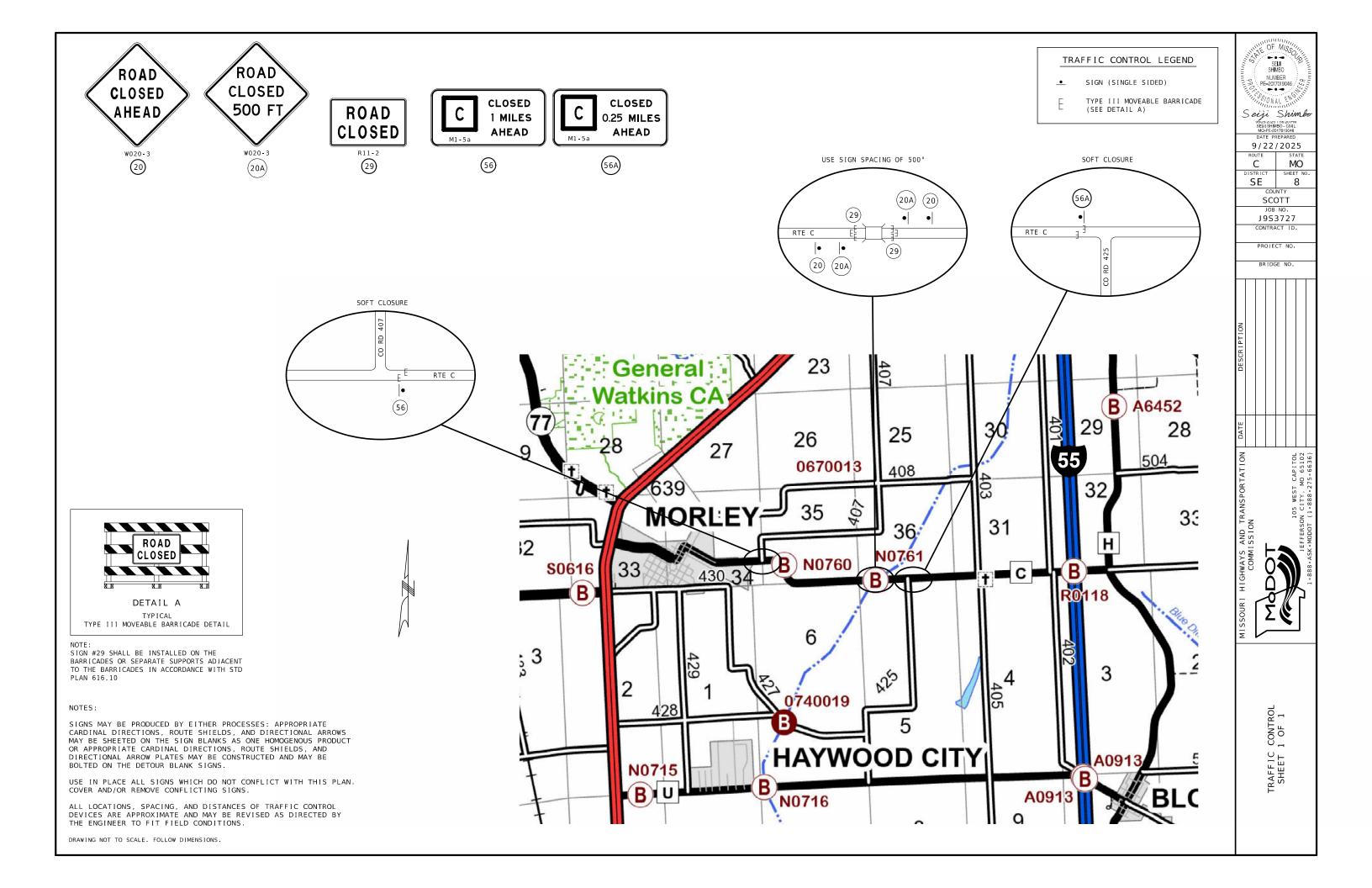
ROCK DRAIN DETAIL

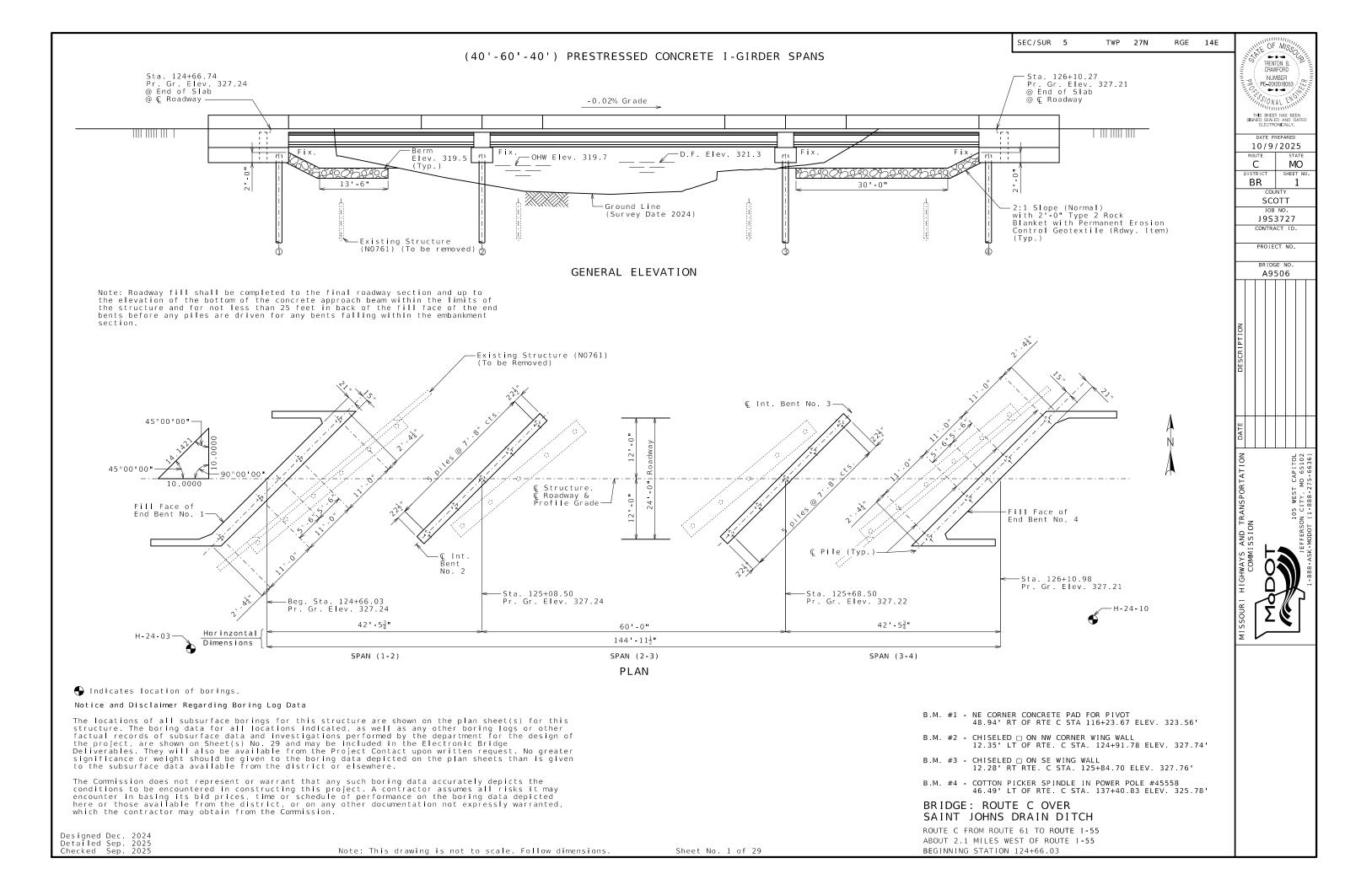
NOTE:
SLOPES ARE APPROXIMATE AND MAY BE ADJUSTED TO MATCH
FIELD CONDITIONS AS APPROVED BY THE ENGINEER.
SEE QUANTITY SHEETS FOR ROCK CALCULATION DATA.
DRAWING NOT TO SCALE. FOLLOW DIMENSIONS.

SEC A-A B-B	FORESLOPE  3.1:1	SECTION WIDTH (FT)	KEY IN DEPTH (FT)	LENGTH BETWEEN (FT)
		30	3.0	
D D	2 1 1			20
D-D	3.1:1	29	3.0	30
C-C	7.2:1	58	3.0	
D-D	5.2:1	66	3.0	10
E-E	2.7:1	35	3.0	26
F-F	2.8:1	35	3.0	34
G-G	3.9:1	49	3.0	16
н-н	3.3:1	26	3.0	
I - I	2.3:1	29	3.0	27
J - J	3.3:1	43	3.0	40
K-K	6.7:1	86	3.0	37
L-L	7.6.1	74	3.0	12
M-M			3.0	26
N - N	3.9:1	27	3.0	27

Seiji Shimbo
Seiji Shimbo ROUTE MO SHEET NO. SE SCOTT JOB NO.
J953727
CONTRACT ID. PROJECT NO.

> SPECIAL SHEET SHEET 2 OF 2





Estimated	d Quantiti	e s		
I t em		Substr.	Superstr.	Total
Class 1 Excavation	cu. yard	90		90
Removal of Bridges (N0761)	lump sum			1
Bridge Approach Slab (Minor)	sq. yard		109	109
Galvanized Cast-In-Place Concrete Piles (14 in.)	linear foot	473		473
Dynamic Pile Testing	each	4		4
Pile Point Reinforcement	each	18		18
Class B Concrete (Substructure)	cu. yard	59.2		59.2
Slab on Concrete I-Girder	sq. yard		425	425
Type H Barrier	linear foot		334	334
Type 2 (32 in.), Prestressed Concrete I-Girder	linear foot		559	559
Reinforcing Steel (Bridges)	pound	4100		4100
Steel Intermediate Diaphragm for P/S Concrete Gird	ers each		3	3
Slab Drain	each		24	24
Vertical Drain at End Bents	each			2
Plain Neoprene Bearing Pad	each		8	8
Laminated Neoprene Bearing Pad	each		16	16

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

All reinforcement in the end bents and all reinforcement in cast-in-place pile at end bents is included in the Estimated Quantities for Slab on Concrete J-Girder.

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

All concrete above the intermediate beam cap is included in the Estimated Quantities for Slab on Concrete 1-Girder.

Estimated Quantities for Slab on Concrete I-Girder	
I t em	Total
Class B-2 Concrete cu. yard	147
Reinforcing Steel (Epoxy Coated) pound	36,690
Reinforcing Steel (Plain) pound	440

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

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

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

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

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

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

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

Foundation Data					
				Bent Number	
Туре	Design Data	1	2	3	4
	Pile Type and Size	CECIP 14"	CECIP 14"	CECIP 14"	CECIP 14"
	Number ea	4	5	5	4
	Approximate Length Per Each ft	24	31	26	23
	Pile Point Reinforcement ea	AII	AII	AII	AII
	Min. Galvanized Penetration (Elev.) ft	Full Length	Full Length	Full Length	Full Length
Load	Est. Max. Scour Depth (Elev.) ft	-	312.02	316.02	-
Bearing Pile	Minimum Tip Penetration (Elev.) ft	297.95	290.67	295.66	298.92
, , , ,	Criteria for Min. Tip Penetration	lateral stability	lateral stability	lateral stability	lateral stability
	Pile Driving Verification Method	DT	DT	DT	DT
	Resistance Factor	0.65	0.65	0.65	0.65
	Minimum Nominal Axial Compressive Resistance kip	235	272	272	235

CECIP = Closed Ended Cast-In- Place concrete pile DT = Dynamic Testing

Minimum Nominal Axial Compressive Resistance = Maximum Factored Loads
Resistance Factor

The CIP Piles for End Bent No. 1 and Intermediate Bent No. 2 shall not be driven below elevation 279.96 due to liquefiable soils without engineer of record's approval.

The CIP Piles for Intermediate Bent No. 3 and End Bent No. 4 shall not be driven below elevation 294.26 due to liquefiable soils without engineer of record's approval.

Estimated Maximum Scour Depth (Elevation) shown is for verifying Minimum Nominal Axial Compressive Resistance using dynamic testing only where pile resistance contribution above this elevation shall not be considered.

Test piles must be driven and a Preliminary Test Report is to be provided before driving any other piles. See special provisions.

Dynamic pile restrike testing is not required on this project.

Hydrologic Data
Drainage Area = 8.5 mi <sup>2</sup>
Design Flood Frequency = 50 (years)
Design Flood Discharge = 620 (cfs)
Design Flood (D.F.) Elevation = 321.3 (ft)
Base Flood (100-year)
Base Flood Elevation = 321.6 (ft)
Base Flood Discharge = 660 (cfs)
Estimated Backwater = 0.0 (ft)
Average Velocity thru Opening = $1.4$ (ft/s)
Freeboard (50 year)
Freeboard = 2.3 (ft)
Roadway Overtopping
Overtopping Flood Discharge = N/A (cfs)
Overtopping Flood Frequency > 500 (year)
500-year Flood Elevation = 322.0 (ft)

#### General Notes:

Design Specifications:

2020 AASHTO LRFD Bridge Design Specifications (9th Ed.) Seismic Performance Category = C (Seismic Details)

Design earthquake response spectral acceleration coefficient at 1.0 second period,  $S_{\rm D1}$  = 0.402g

Acceleration Coefficient (effective peak ground acceleration coefficient),  $A_s = 0.376g$ 

Design Loading:

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

Design Unit Stresses:

Class B Concrete (Substructure)	f'c = 3,000  psi
Class B-1 Concrete (Barrier & CIP Pile)	f'c = 4,000  psi
Class B-2 Concrete (Superstructure, except	f'c = 4,000  psi
Prestressed Girders and Barrier)	
Reinforcing Steel (ASTM A706 Grade 60)	fy = 60,000  psi
Welded or Seamless steel shell (pipe) for	fy = 50.000  psi
CIP pile (ASTM A252 Modified Grade 3)	·

For prestressed girder stresses, see Sheets No. 15 & 16.

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

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

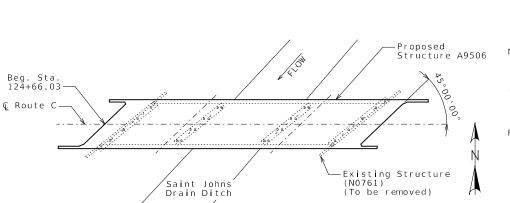
Reinforcing Steel:

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

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

Traffic Handling:

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



LOCATION SKETCH



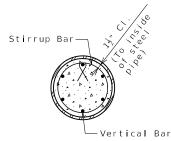
10/9/2025 C MO SHEET NO 2 BR SCOTT

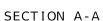
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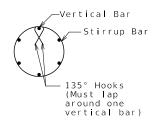
PROJECT NO.

A9506

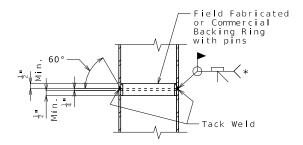
## GALVANIZED CLOSED ENDED CAST-IN-PLACE (CECIP) CONCRETE PILE WITHOUT PILE POINT REINFORCEMENT





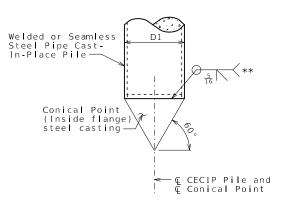


DETAIL OF SEISMIC STIRRUP BAR



#### STEEL PIPE PILE SPLICE

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



#### MANUFACTURED CONICAL PILE POINT

(Omit closure plate)

\*\* If the conical pile point is not pre-beveled, place a 3/8" bevel at 40 degrees on the pipe.

Galvanized Closed Ended Cast-In-Place (CECIP) Concrete Pile Data					
Bent Number	1	2	3	4	
D1, CECIP Pile (O.D.)	14"	14"	14"	14"	
Min. Nominal Wall Thickness	0.625"	0.625"	0.625"	0.625"	
Closure Plate Thickness	3/4"	3/4"	3/4	3 / 4 •	
Pile Point Reinforcement	Conical	Conical	Conical	Conical	
Vertical Bars	6-#5-V103	6-#5-V200	6-#5-V300	6-#5-V403	
L1, Length of Vertical Bars	5'-3"	5 ' <b>-</b> 3 <b>'</b>	5 ' <b>-</b> 3 <b>'</b>	5'-3"	
Upper Stirrup Bars	3-#4-P100	3-#4-P200	3-#4-P300	3-#4-P400	
Lower Stirrup Bars	5-#4-P100	5-#4-P200	5-#4-P300	5-#4-P400	

Notes:

Welded or seamless steel shell (pipe) shall be ASTM A252 Modified Grade 3 (fy = 50,000 psi) with physical and chemical requirements that meet ASTM A572 Grade 50. Pipe certification and source material certification shall be required.

Concrete for cast-in-place pile shall be Class B-1.

Steel for closure plate shall be ASTM A709 Grade 50.

Steel for cruciform pile point reinforcement shall be ASTM A709 Grade 50.

Steel casting for conical pile point reinforcement shall be ASTM A148 Grade 90-60.

The minimum wall thickness of any spot or local area of any type shall not be more than 12.5% under the specified nominal wall thickness.

The contractor shall determine the pile wall thickness required to avoid damage from all driving activities, but wall thickness shall not be less than the minimum specified. No additional payment will be made for furnishing a thicker pile wall than specified on the plans.

Closure plate shall not project beyond the outside diameter of the pipe pile. Satisfactory weldments may be made by beveling tip end of pipe or by use of inside backing rings. In either case, proper gaps shall be used to obtain weld penetration full thickness of pipe. Payment for furnishing and installing closure plate will be considered completely covered by the contract unit price for Galvanized Cast-In-Place Concrete Piles.

Splices of pipe for cast-in-place concrete pile shall be made watertight and to the full strength of the pipe above and below the splice to permit hard driving without damage. Pipe damaged during driving shall be replaced without cost to the state. Pipe sections used for splicing shall be at least 5 feet in length.

The hooks of vertical bars embedded in the beam cap should not be turned outward, away from the pile core.

Closure plate need not be galvanized.

Reinforcing steel for cast-in-place piles is included in the Bill of Reinforcing Steel.

All reinforcement for cast-in-place pile at end bents is included in the Estimated Quantities for Slab on Concrete I-Girder. Reinforcement for cast-in-place pile at intermediate bents is included in the substructure quantity tables.

For Foundation Data table, see Sheet No. 2.

TECHTON B. CRAWFORD NUMBER PE-2012018033

THIS SHEET HAS BEEN SIGNED, SEALED AND DA

10/9/2025

ROUTE STATE
C MO

DISTRICT SHEET NO.

BR 3

JOB NO.
J9S3727
CONTRACT ID.

PROJECT NO.

DESCRIPTION

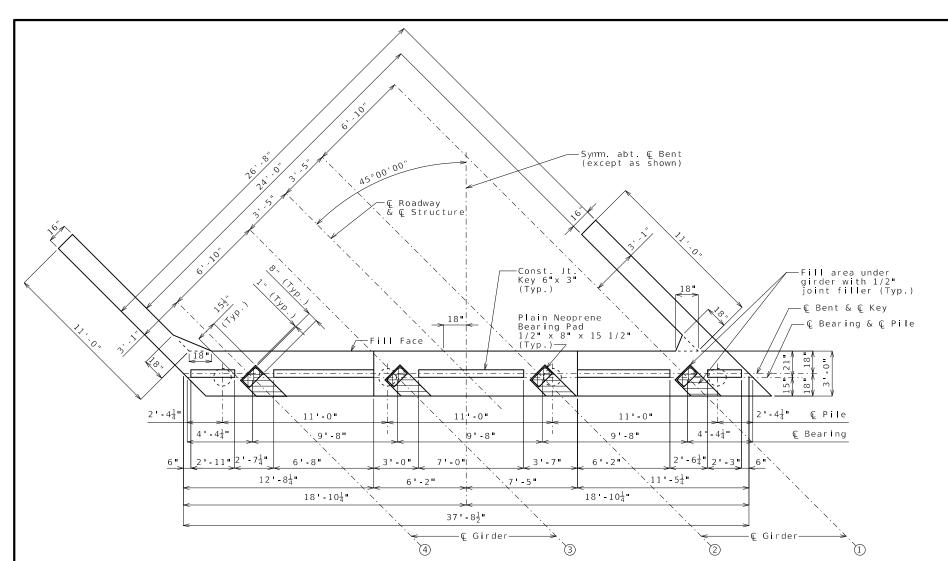
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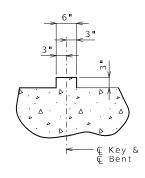
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DESCRIPTION				
DATE				

TRENTON B. CRAWFORD

10/9/2025

SCOTT

JOB NO.
J9S3727

CONTRACT ID.

PROJECT NO.

MO SHEET NO

4

C

BR

PE-2012018053



PLAN OF BEAM

Substructure Quantity Table for Bent	No. 1
I t em	Quantity
Class 1 Excavation cu. ya	rd 45
Galvanized Cast-In-Place Concrete Piles (14 in.) linear fo	ot 96
Dynamic Pile Testing ea	ch 1
Pile Point Reinforcement ea	ch 4
Class B Concrete (Substructure) cu. ya	rd 16.1

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

#### Notes:

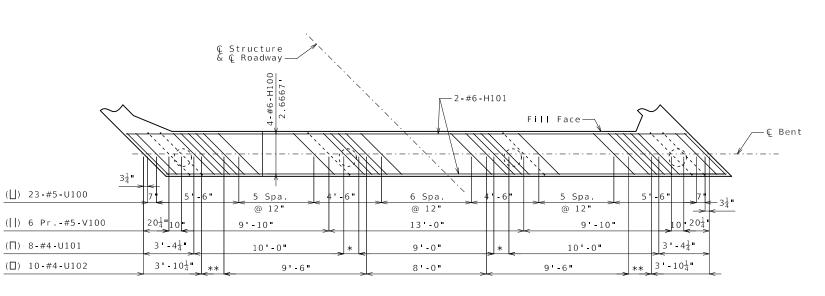
Work this sheet with Sheets No. 5 & 6.

For details of vertical drain at end bent, see Sheet No. 7.

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

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

For details of bridge approach slab, see Sheet No. 25.

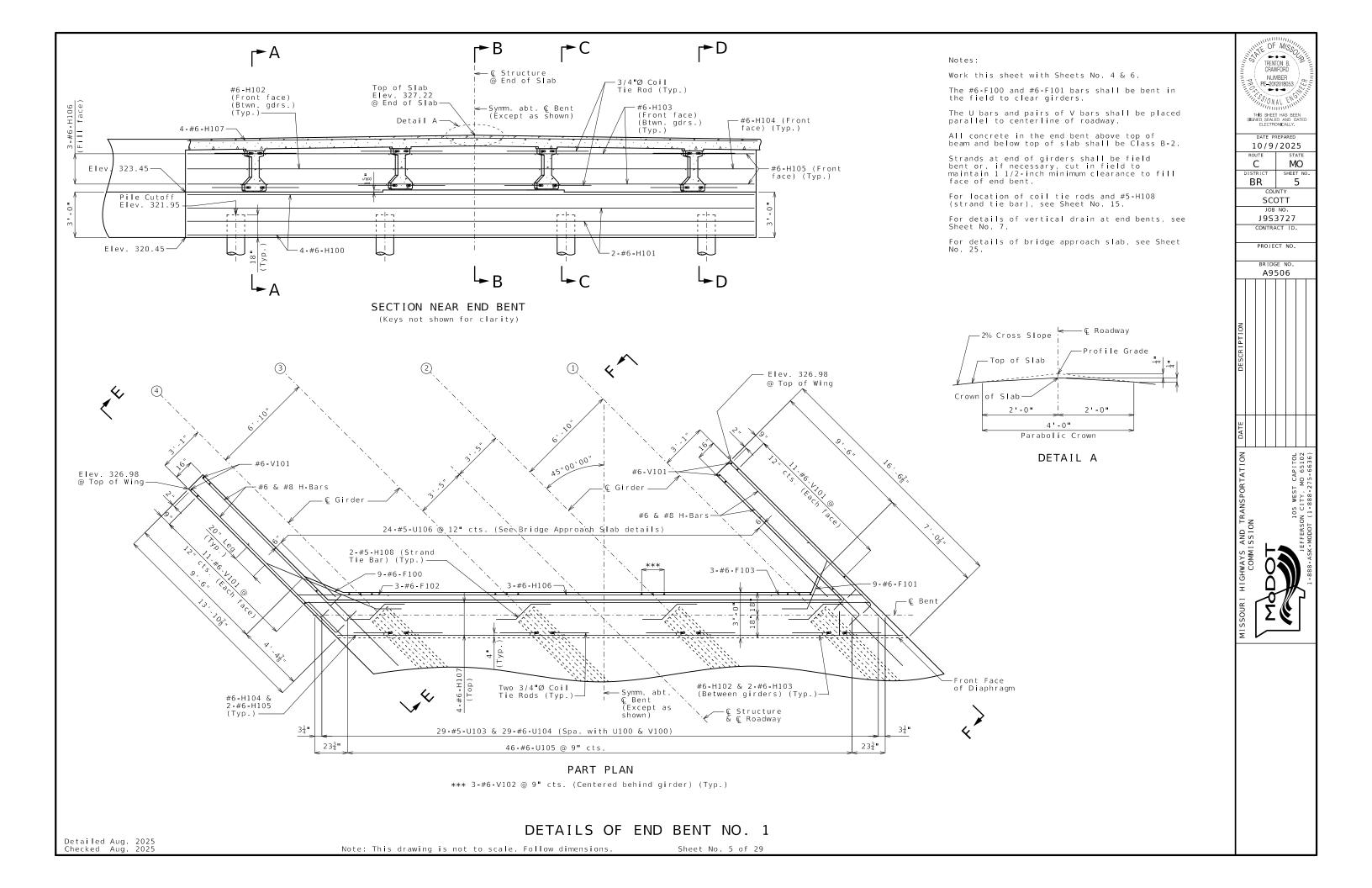


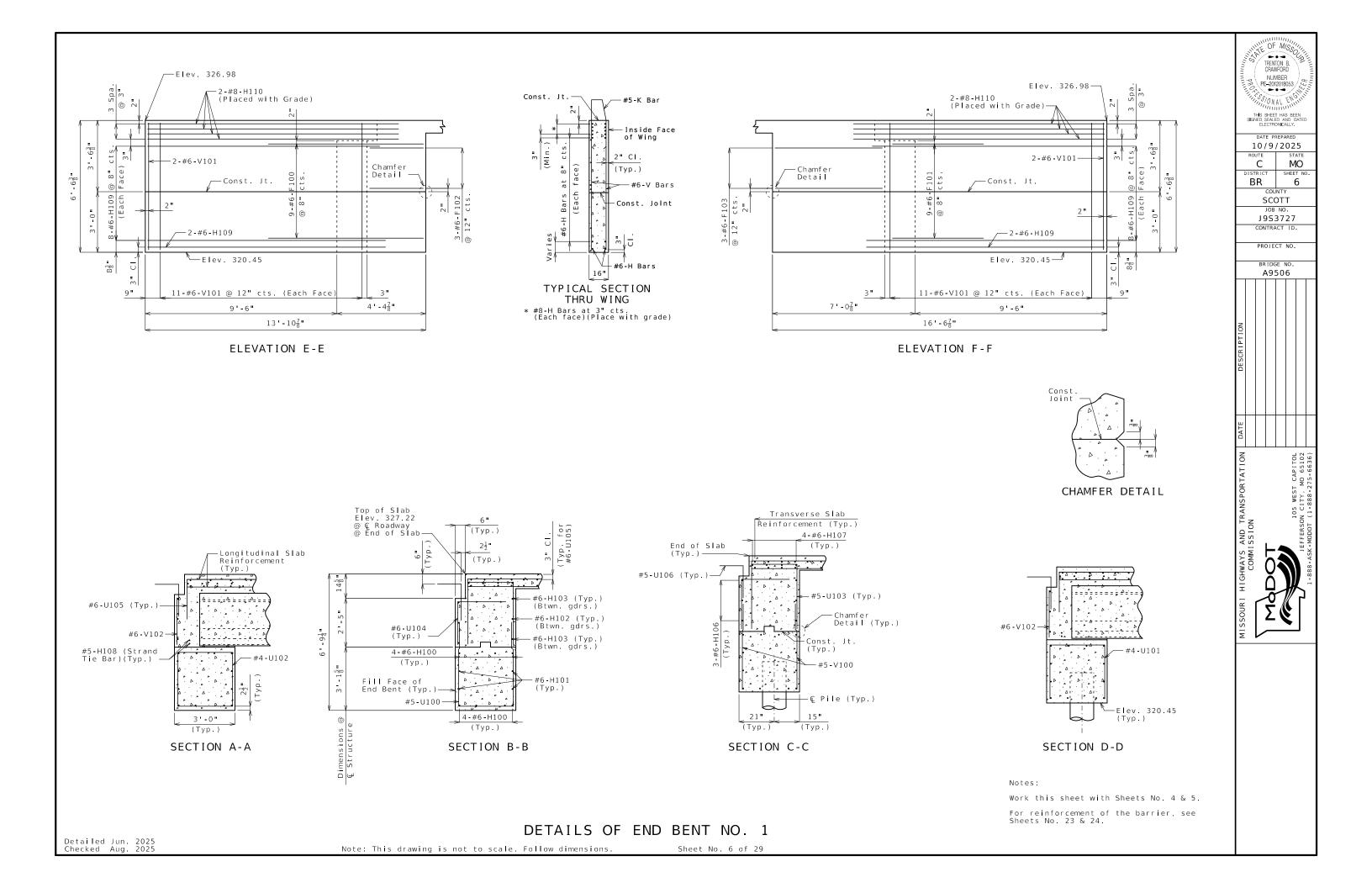
#### PLAN OF BEAM SHOWING REINFORCEMENT

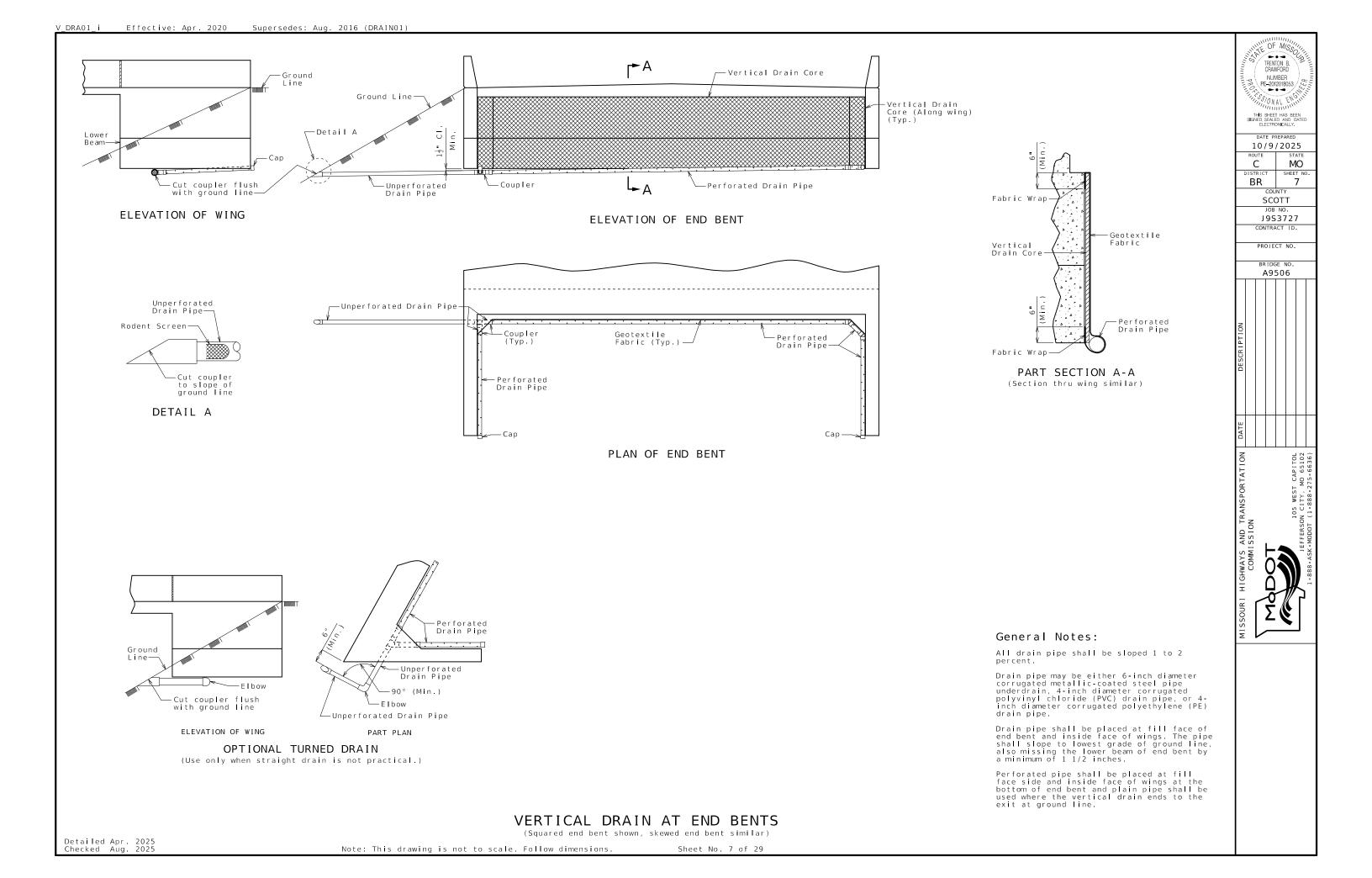
(Steps and keys not shown for clarity.)

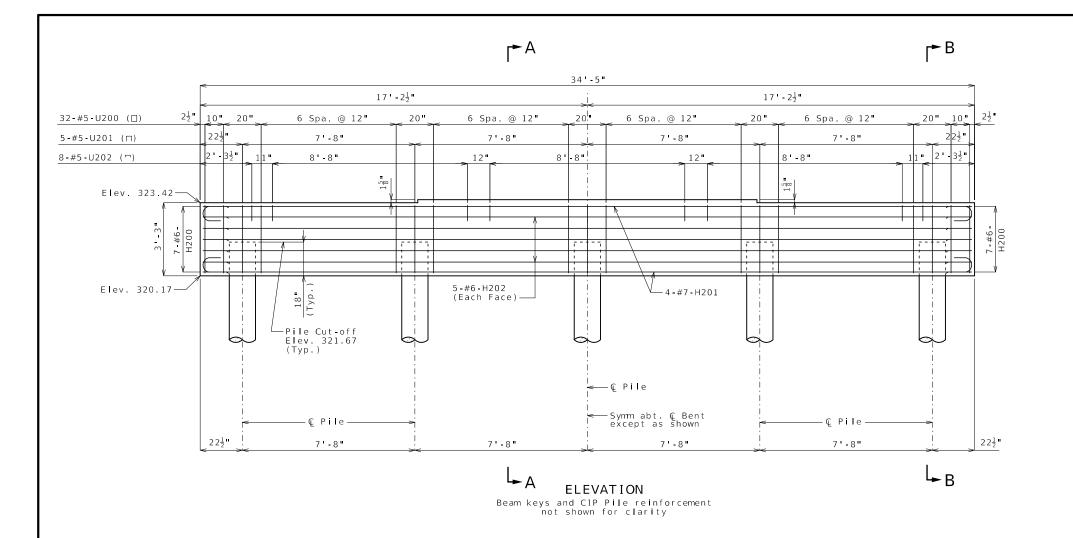
\* 2 Spa.@6' \*\* 3 Spa.@6'

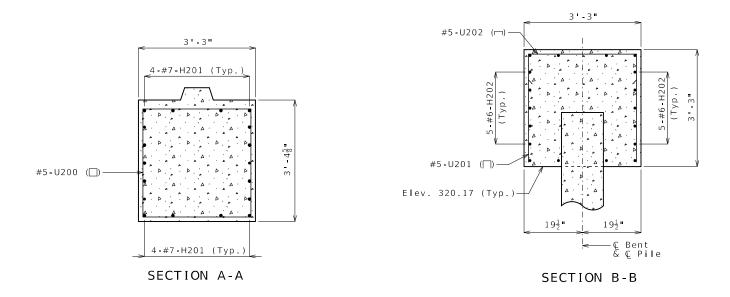
#### DETAILS OF END BENT NO. 1











Item  Galvanized Cast-In-Place Concrete Piles (14 in.)  Dynamic Pile Testing		Quantity 155
<u> </u>		155
Dynamic Pile Testing		
	each	1
Pile Point Reinforcement	each	5
Class B Concrete (Substructure)	cu. yard	13.5
Reinforcing Steel (Bridges)	pound	2050

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

#### Notes:

Work this sheet with Sheet No. 9.

For details of galvanized cast-in-place concrete piles, see Sheet No. 3.

#### DETAILS OF INTERMEDIATE BENT NO. 2

Detailed Aug. 2025 Checked Aug. 2025



THIS SHEET HAS BE SIGNED, SEALED AND

10/9/2025

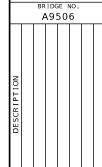
ROUTE STATE
C MO

DISTRICT SHEET NO.
BR 8

SCOTT
JOB NO.
J9S3727

CONTRACT ID.

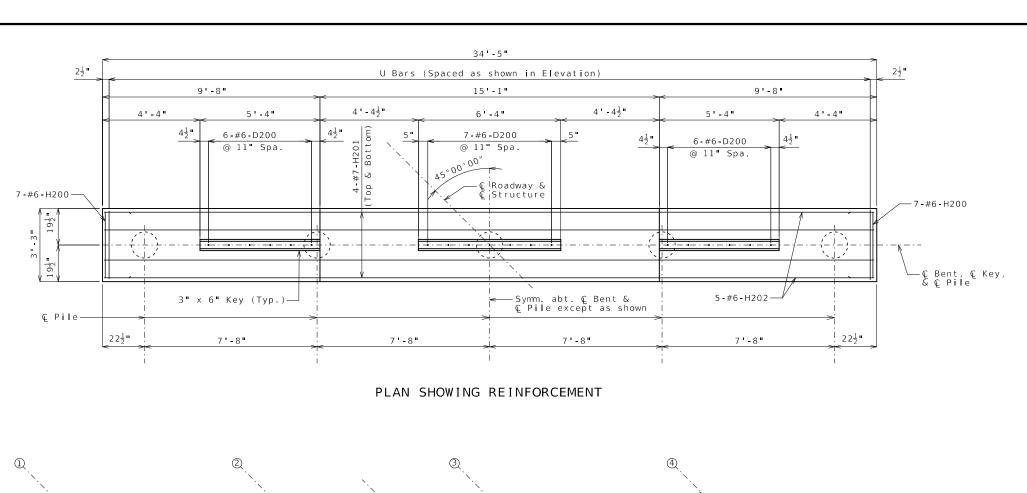
PROJECT NO.

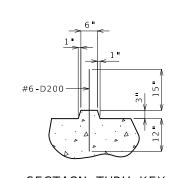


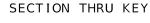
COMMISSION
COMMISSION
COMMISSION

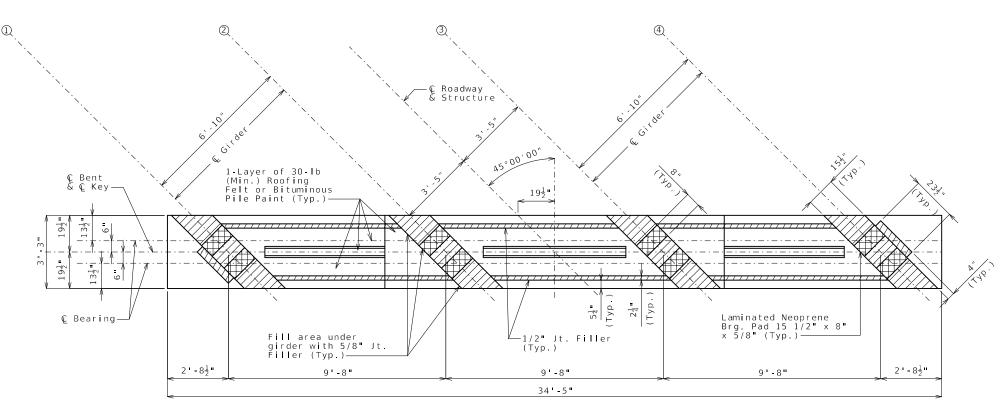
TODOT

105 WEST CAPITOL
LEFFERSON CITY, MO 65102

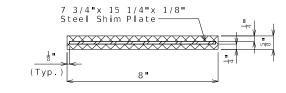








PLAN OF BEAM



TYPICAL SECTION THRU LAMINATED NEOPRENE BEARING PAD

Note:

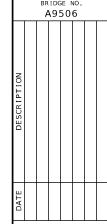
Work this sheet with Sheet No. 8.

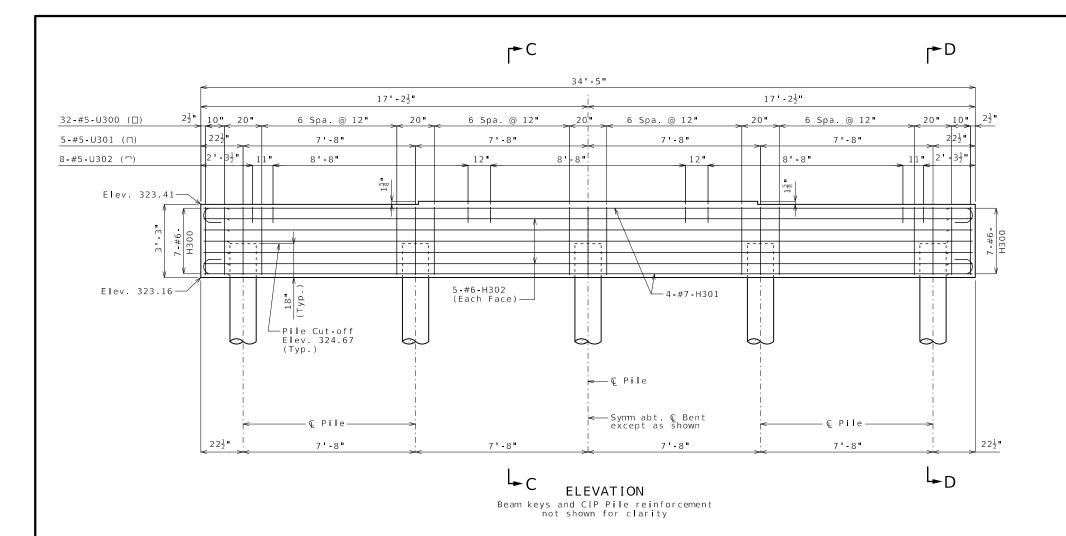


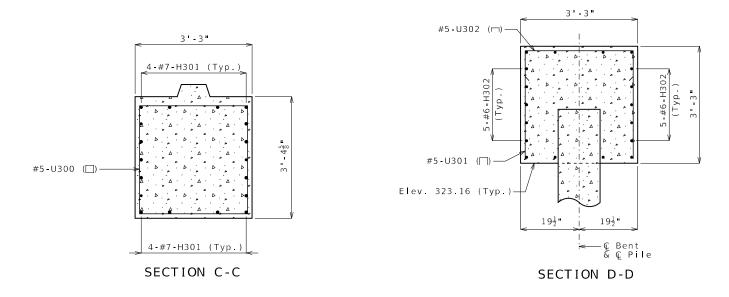
10/9/2025 С MO 9

BR SCOTT JOB NO. J9S3727

CONTRACT ID PROJECT NO.







Substructure Quantity Table for Bent N	o. 3
Item	Quantity
Galvanized Cast-In-Place Concrete Piles (14 in.) linear foo	t 130
Dynamic Pile Testing eac	h 1
Pile Point Reinforcement eac	h 5
Class B Concrete (Substructure) cu. yar	d 13.5
Reinforcing Steel (Bridges) poun	d 2050

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

Notes:

Work this sheet with Sheet No. 11.

For details of galvanized cast-in-place concrete piles, see Sheet No. 3.

DETAILS OF INTERMEDIATE BENT NO. 3

Detailed Aug. 2025 Checked Aug. 2025

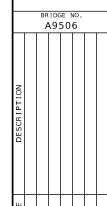
Note: This drawing is not to scale. Follow dimensions.

Sheet No. 10 of 29

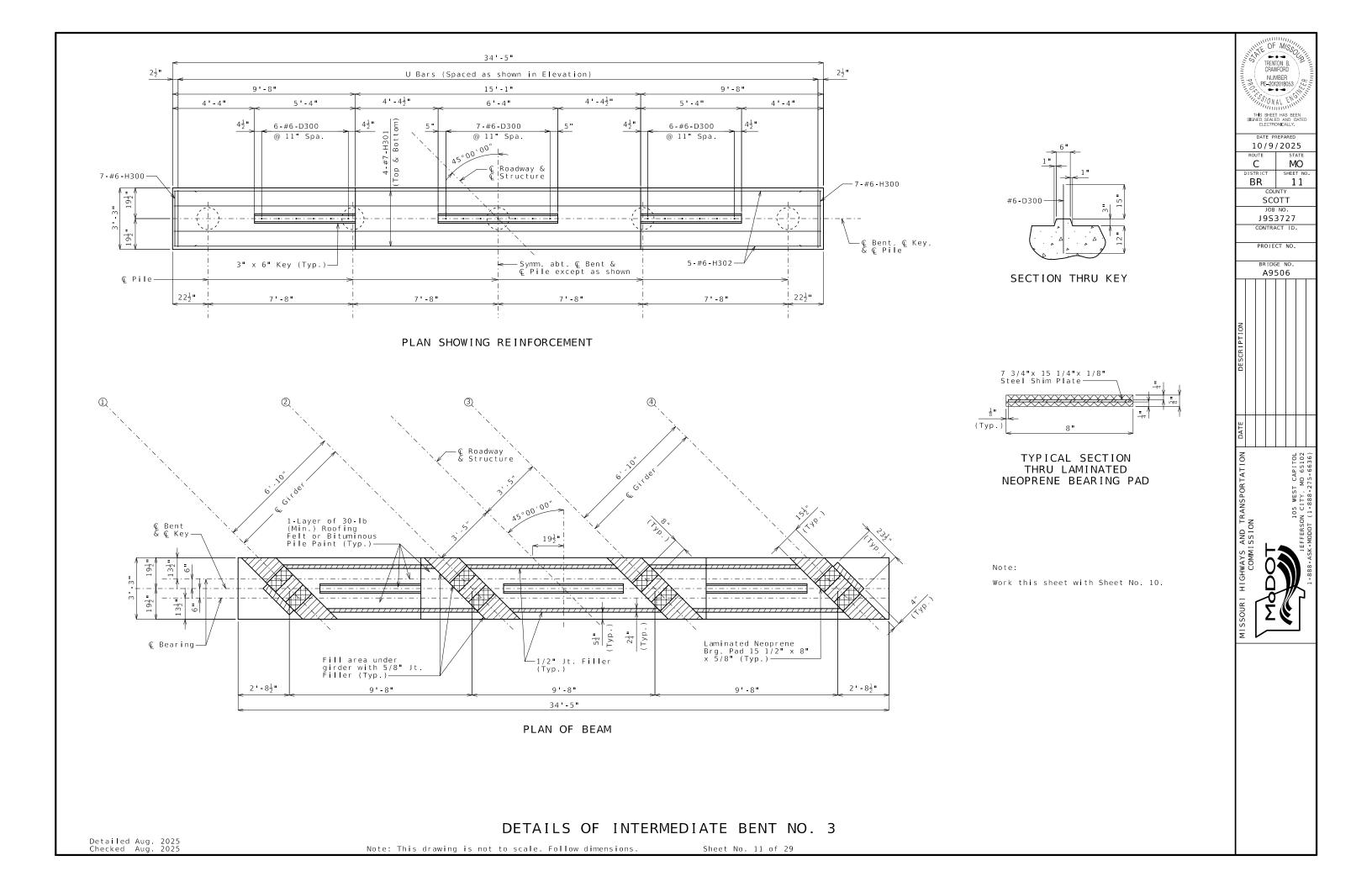


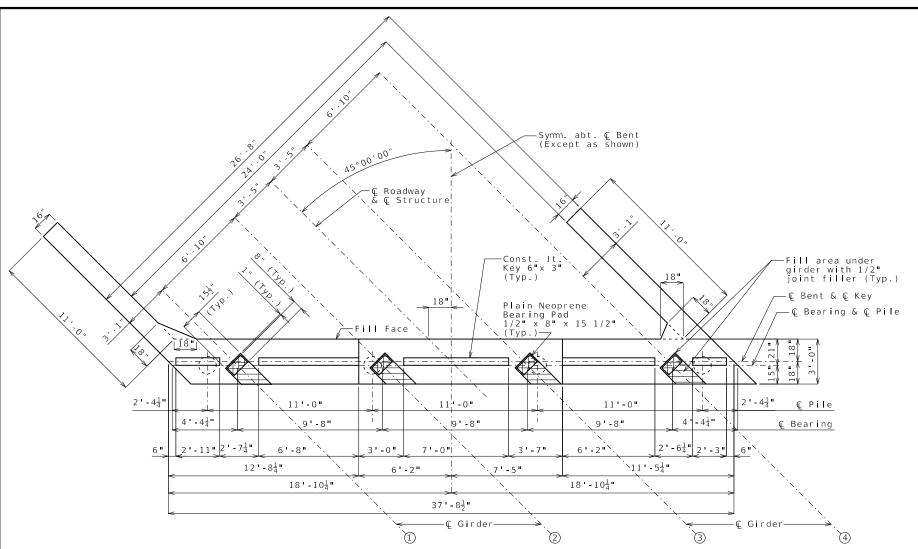
10/9/2025 ROUTE MO BR 10 SCOTT JOB NO. J9S3727

CONTRACT ID PROJECT NO.









→	6"
3"	3"
Δ.	Ç Key & Ç Bent

SECTION THRU KEY

DESCRIPTION												
DATE												

TRENTON B. CRAWFORD NUMBER PE-2012018053 INSSIONAL EN

10/9/2025

SCOTT JOB NO. J9S3727

CONTRACT ID.

PROJECT NO.

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SSOUR! HIGHWAYS AND TRANSPORTATION	COMMISSION	HOQ	105 WEST CAPITOL	JEFFERSON CITY, MO 65102	1-888-ASK-MODOT (1-888-275-6636)
SSOURI		Σ			

#### PLAN OF BEAM

Substructure Quantity Table for Bent No	0.4
I t em	Quantity
Class 1 Excavation cu. yard	45
Galvanized Cast-In-Place Concrete Piles (14 in.) linear foot	92
Dynamic Pile Testing each	1
Pile Point Reinforcement each	4
Class B Concrete (Substructure) cu. yard	16.1

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

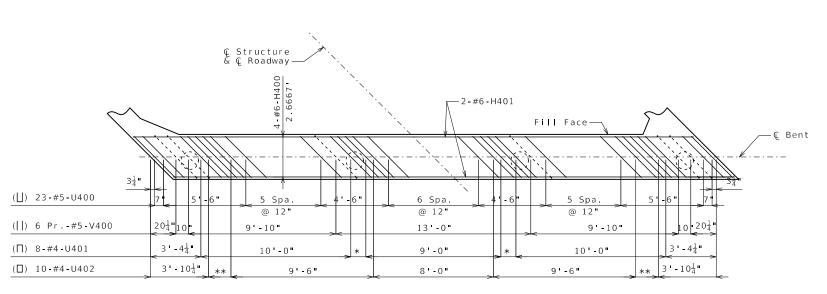
#### Notes:

Work this sheet with Sheets No. 13 & 14.

For details of vertical drain at end bent, see Sheet No. 7.

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

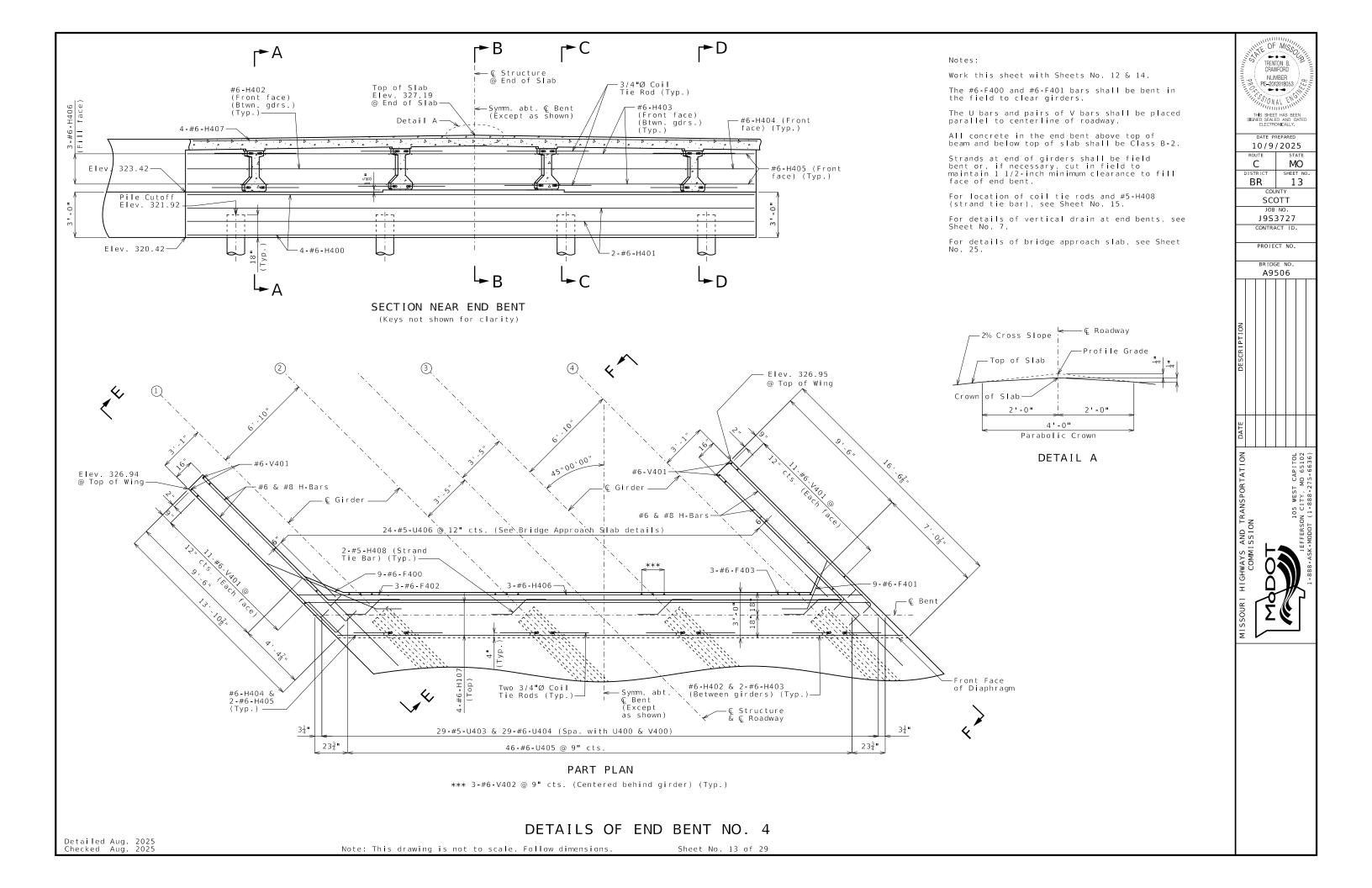
Reinforcing steel shall be shifted to clear piles. U bars shall clear pile by at least 1 1/2 inches.

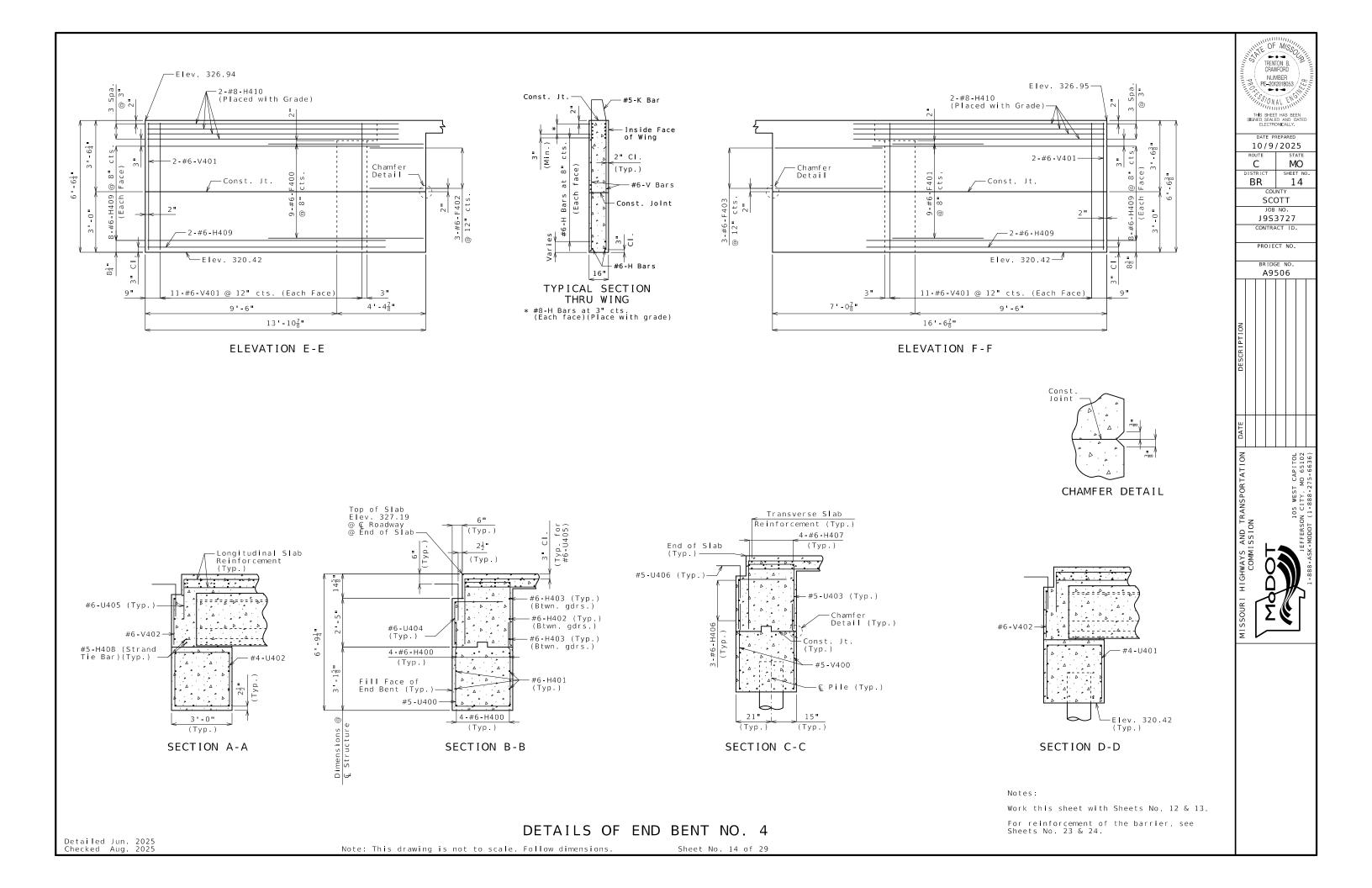


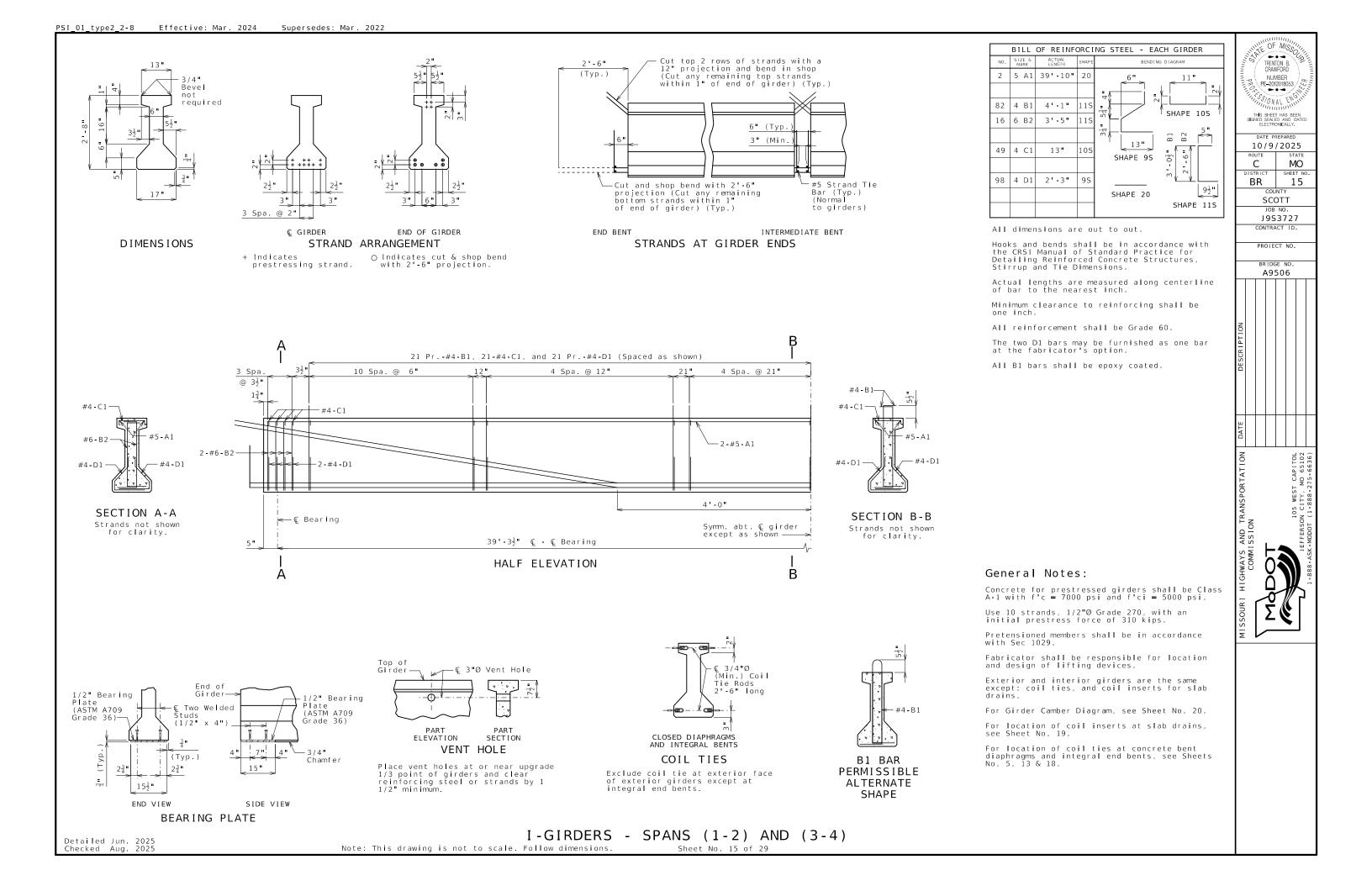
#### PLAN OF BEAM SHOWING REINFORCEMENT

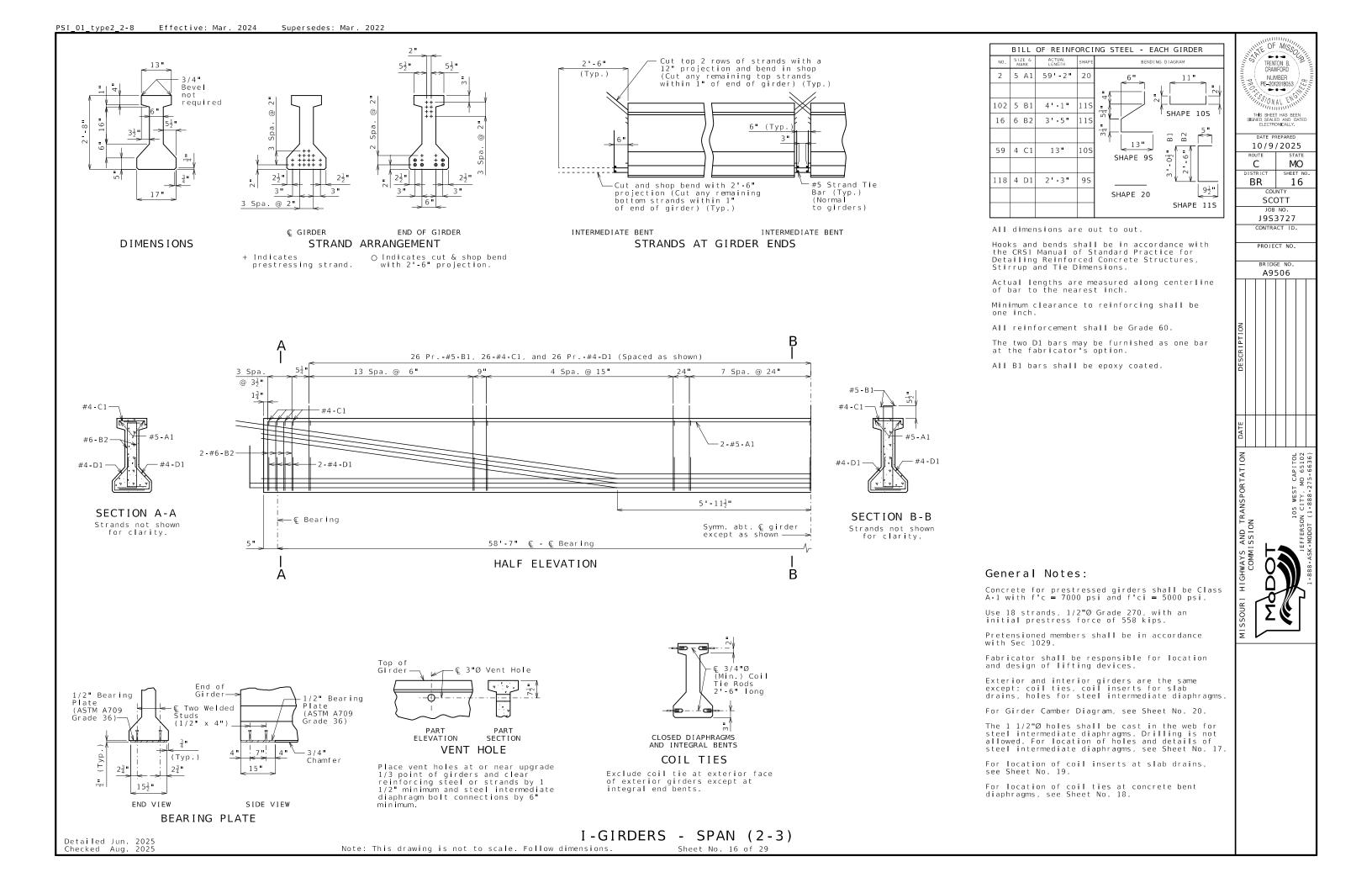
(Steps and keys not shown for clarity)

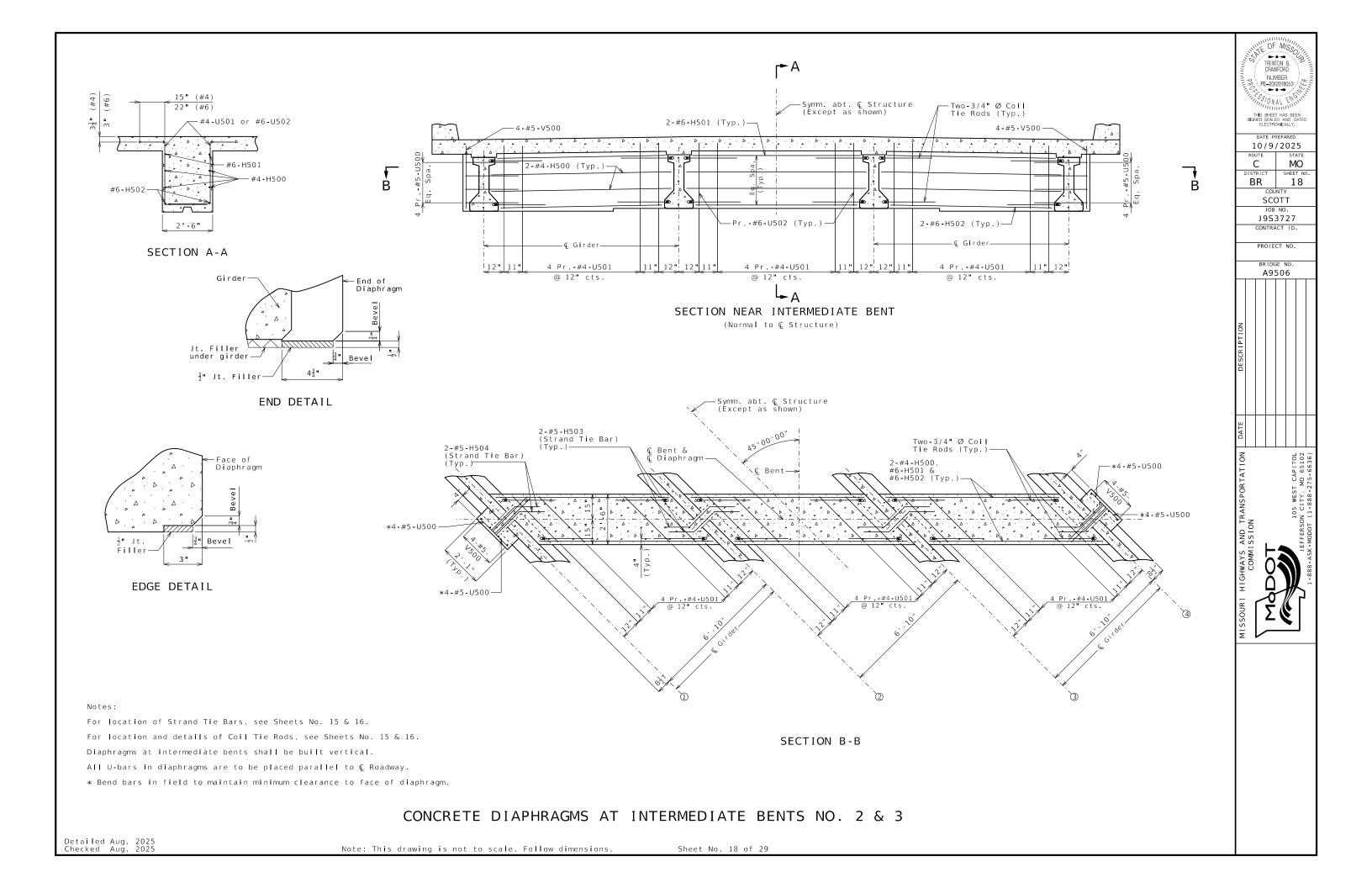
#### DETAILS OF END BENT NO. 4











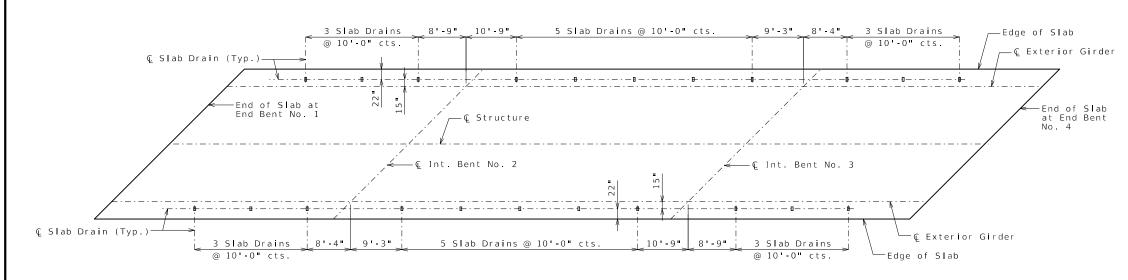
-Top of Roadway Slab

1" (Min.)

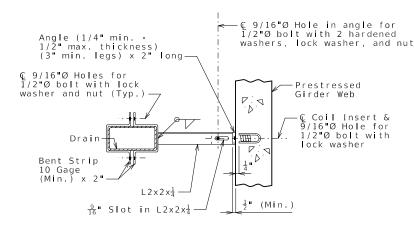
PART SECTION NEAR DRAIN

D . Q

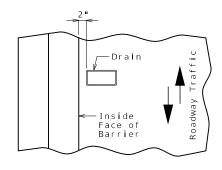
€ 9/16"Ø 1/2"Ø Bol Lock Wash Coil Inse



#### PLAN OF SLAB SHOWING SLAB DRAIN LOCATIONS



PART SECTION SHOWING BRACKET ASSEMBLY



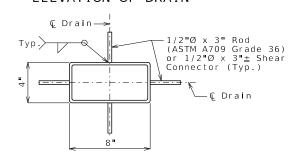
PART PLAN OF SLAB AT DRAIN



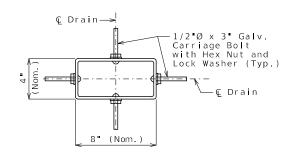
PLAN OF FRP DRAIN OPTION

# © Drain Bottom of Roadway Slab

ELEVATION OF DRAIN



PLAN OF STEEL DRAIN OPTION



General Notes:

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

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

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

Reinforcing steel shall be shifted to clear drains.

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

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

AII 1/2"Ø bolts shall be ASTM A307.

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

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

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

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

#### Notes for Steel Drain:

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

Outside dimensions of drains are 8" x 4".

The drains shall be galvanized in accordance with ASTM A123.

#### Notes for FRP Drain:

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

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

Minimum reinforced wall thickness shall be 1/4 inch.

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

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

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

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



THIS SHEET HAS BEEN SIGNED, SEALED AND DA

DATE PREPARED

10/9/2025

ROUTE STATE
C MO

DISTRICT SHEET NO
BR 19

COUNTY
SCOTT

JOB NO.

J9S3727

CONTRACT ID.



SOURI HIGHWAYS AND TRANSPORTATION
COMMISSION

MADOT

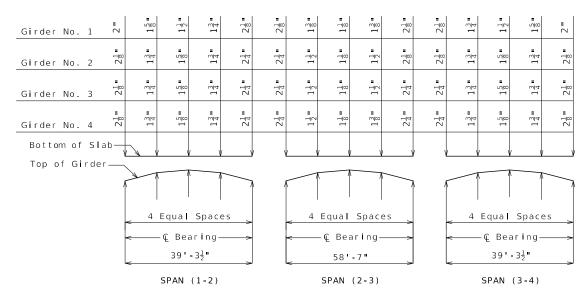
105 WEST CAPITOL

1-888-ASK-MODOT (11888-275-6636)

Detailed Jun. 2025 Checked Aug. 2025

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

Sheet No. 19 of 29



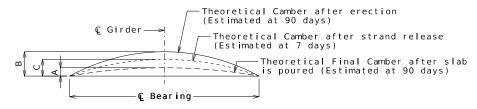
#### THEORETICAL SLAB HAUNCHING DIAGRAM (ESTIMATED AT 90 DAYS)

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

Concrete in the slab haunches is included in the Estimated Quantities for Slab on Concrete I-Girder.

	Theoretical Bottom of Slab Elevations at Centerline of Girder (Prior to forming for slab) (Estimated at 90 days)																
Girder Span (1-2) $(39'-3\frac{1}{2}"$ © Brg © Brg.)						Span (	pan (2-3) (58'-7" © Brg © Brg.)   Span (3-4) (39'-3½" © Brg © Br										
Number	€ Brg.	. 25	.50	. 75	© Brg.	€ Brg.	. 25	. 50	. 75	€ Brg.	ℚ Brg.	. 25	.50	. 75	© Brg.		
1	326.33	326.34	326.34	326.33	326.32	326.32	326.38	326.40	326.37	326.31	326.31	326.32	326.32	326.31	326.30		
2	326.47	326.48	326.48	326.47	326.46	326.46	326.52	326.54	326.51	326.45	326.45	326.46	326.46	326.45	326.44		
3	326.47	326.48	326.48	326.47	326.46	326.46	326.52	326.55	326.52	326.45	326.45	326.46	326.46	326.45	326.44		
4	326.33	326.34	326.35	326.34	326.32	326.32	326.38	326.41	326.38	326.31	326.31	326.32	326.33	326.32	326.30		

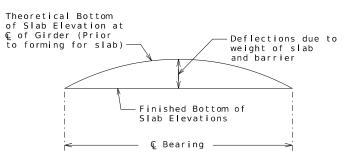
Elevations are based on a constant slab thickness of 8 1/2" and include allowance for theoretical dead load deflections due to weight of slab and barrier.



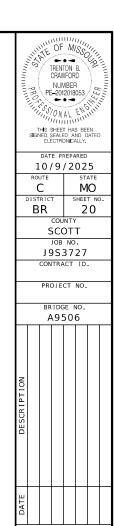
Girder	S	pan (1-2	2)	S	pan (2-3	3)	Span (3-4)					
Girder	Α	В	С	Α	В	С	Α	В	С			
Exterior	5m	3"	1 "	1 <del>1</del> "	2 <del>1</del> 8	1층"	<u>5</u> <b></b>	3,11	1 "			
Interior	1/2 <b>"</b>	4	2	1"	28	18	1/2 H	4	2			

#### GIRDER CAMBER DIAGRAM

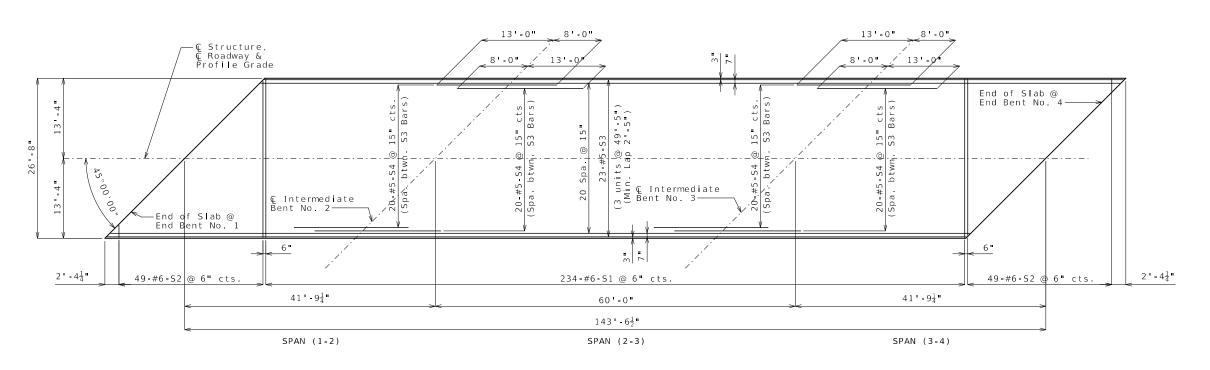
Conversion Factors for Girder Camber (Estimated at 90 days):  $0.25 \text{ pt.} = 0.7125 \times 0.5 \text{ pt.}$ 



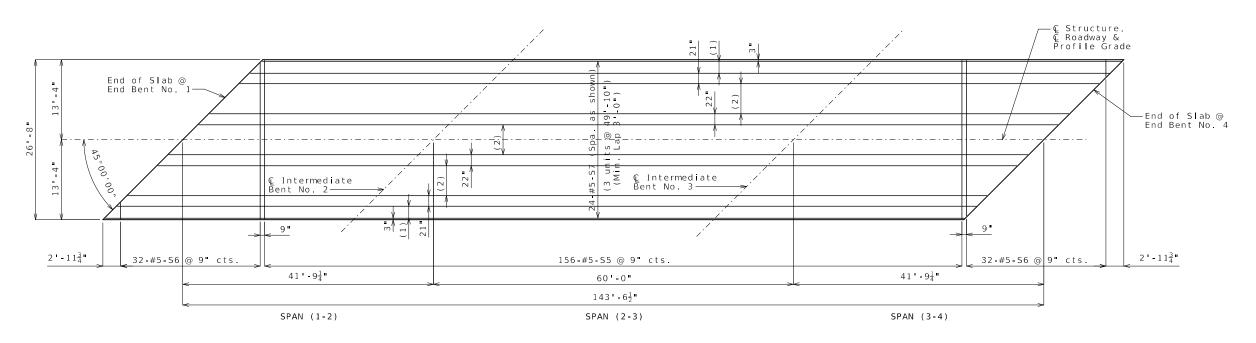
TYPICAL SLAB ELEVATIONS DIAGRAM







#### PLAN OF SLAB SHOWING TOP REINFORCEMENT



#### PLAN OF SLAB SHOWING BOTTOM REINFORCEMENT

(1) 2 Spa. @ 12" (2) 5 Spa. @ 12"

Longitudinal slab dimensions are measured horizontally.

For Theoretical Slab Haunching Diagram, see Sheet No. 20.

For Section Thru Slab and Slab Pouring Sequence, see Sheet No. 22.

For Theoretical Bottom of Slab Elevations, see Sheet No. 20.

For details and locations of Slab Drains, see Sheet No. 19.

For details and reinforcement of barrier not shown, see Sheets No. 23 & 24.

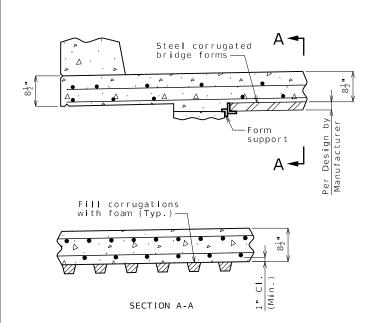
#### PLAN OF SLAB SHOWING REINFORCEMENT

Detailed Aug. 2025 Checked Aug. 2025





SLAB CONSTRUCTION JOINT



OPTIONAL STAY-IN-PLACE FORM DETAILS

Stay-In-Place Forms:

Detailed Aug. 2025

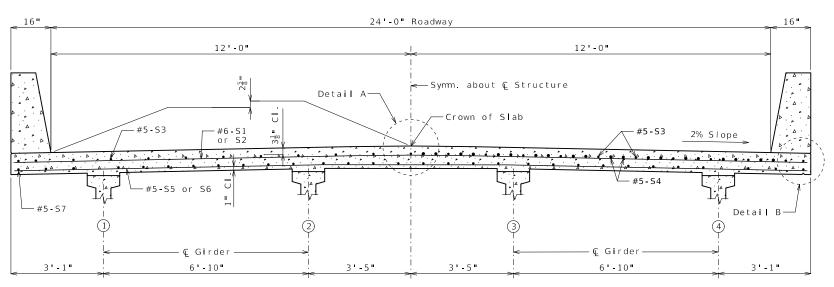
Corrugated steel forms, supports, closure elements and accessories shall be in accordance with grade requirement and coating designation G165 of ASTM A653. Complete shop drawings of the permanent steel deck forms shall be required in accordance with Sec 1080.

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

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

The design of stay-in-place corrugated steel forms is per manufacturer which shall be in accordance with Sec 703 for false work and forms.

Maximum actual weight of corrugated steel forms allowed shall be 4 psf assumed for girder loading.

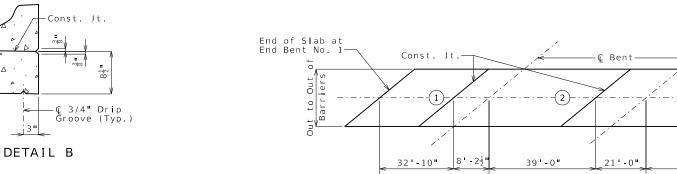


HALF SECTION NEAR MIDSPAN

SECTION THRU SLAB

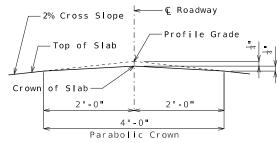
 $41 - 9\frac{1}{2}$ 

SPAN (1-2)



|--|

OPTIONAL SHIFTING TOP BARS AT BARRIER



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

60'-0"

SPAN (2-3)

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

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

#### SLAB POURING SEQUENCE

#### Notes:

For reinforcement of barrier not shown, see Sheets No. 23 & 24.

HALF SECTION NEAR INTERMEDIATE BENT

41'-91"

 $41 - 9\frac{1}{2}$ 

SPAN (3-4)

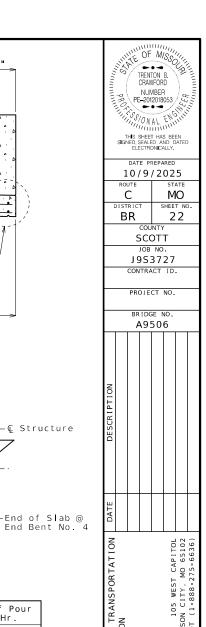
For Theoretical Bottom of Slab Elevations, Girder Camber Diagram and Theoretical Slab Haunching Diagram, see Sheet No. 20.

For Plan of Slab Showing Reinforcement, see Sheet No. 21.

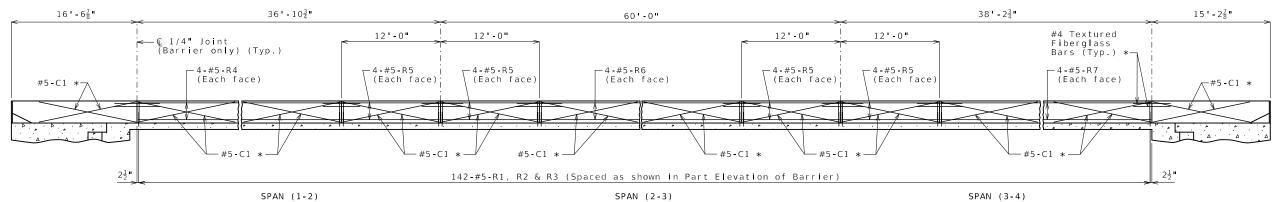
## DETAIL A

#### SLAB DETAILS

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

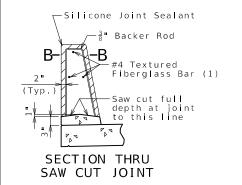


- © Structure

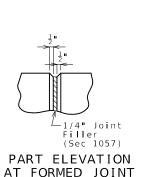


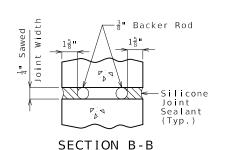
#### ELEVATION OF BARRIER

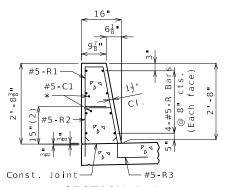
(Left barrier shown, right barrier similar) Longitudinal dimensions are horizontal.



Detailed June 2025 Checked Aug. 2025





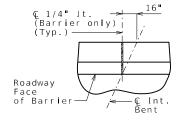


#### SECTION A-A

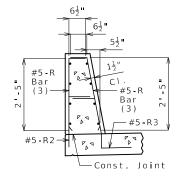
Use a minimum lap of 2'-6" for #5 horizontal barrier bars.

The cross-sectional area above the slab is 2.89 square feet.

(2) To top of bar



PART PLAN SHOWING JOINT LOCATION



#### R-BAR PERMISSIBLE ALTERNATE SHAPE

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





TRENTON B. CRAWFORD

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10/9/2025

SCOTT J9S3727 CONTRACT ID.

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

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

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.

Concrete in barrier shall be Class B-1.

General Notes:

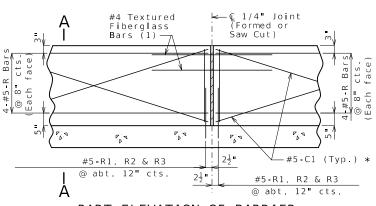
\* Slip-formed option only.

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 H Barrier.

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

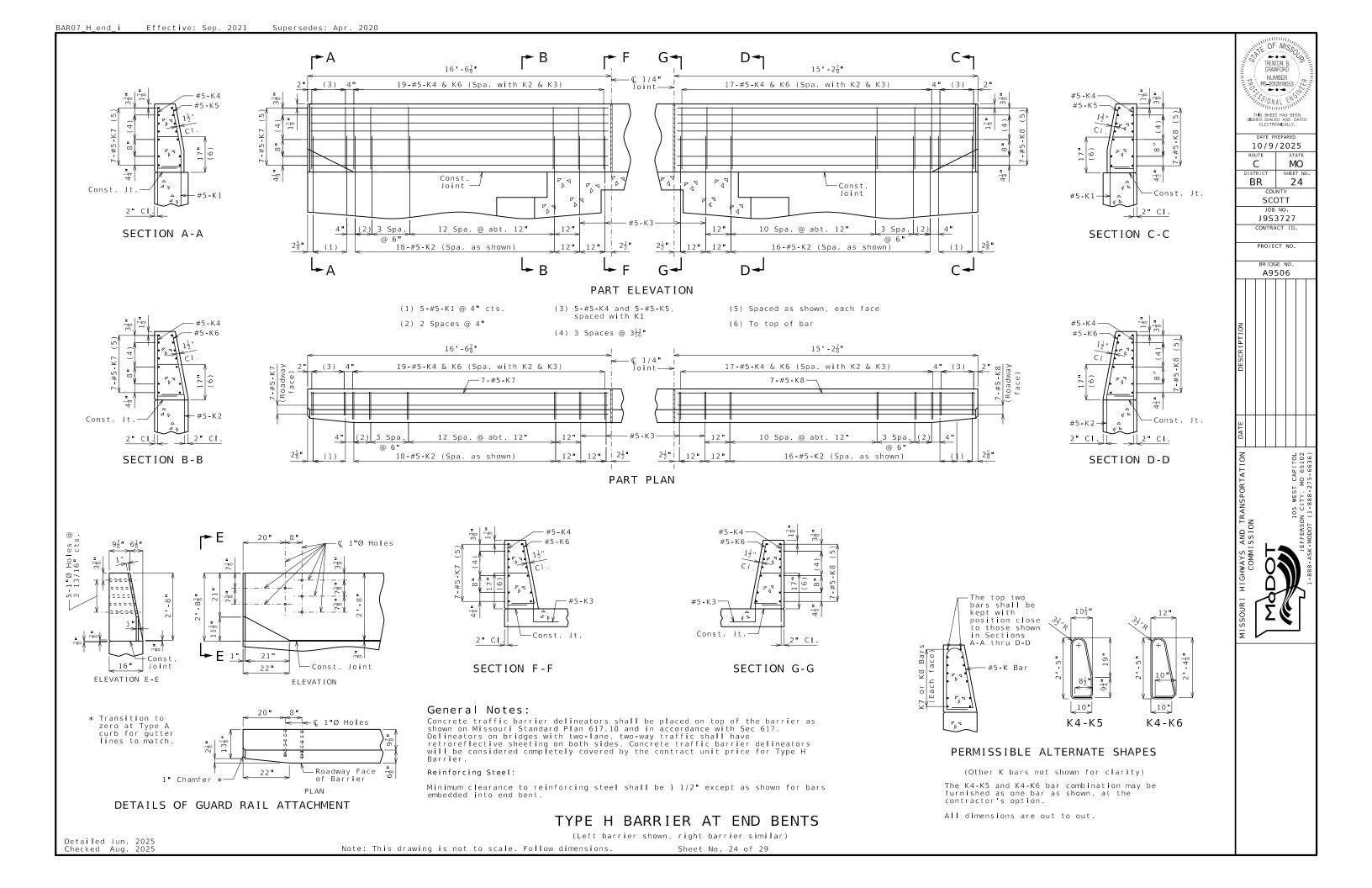
For slip-formed option, both sides of barrier shall have a vertically broomed finish and the top shall have a transversely broomed finish.

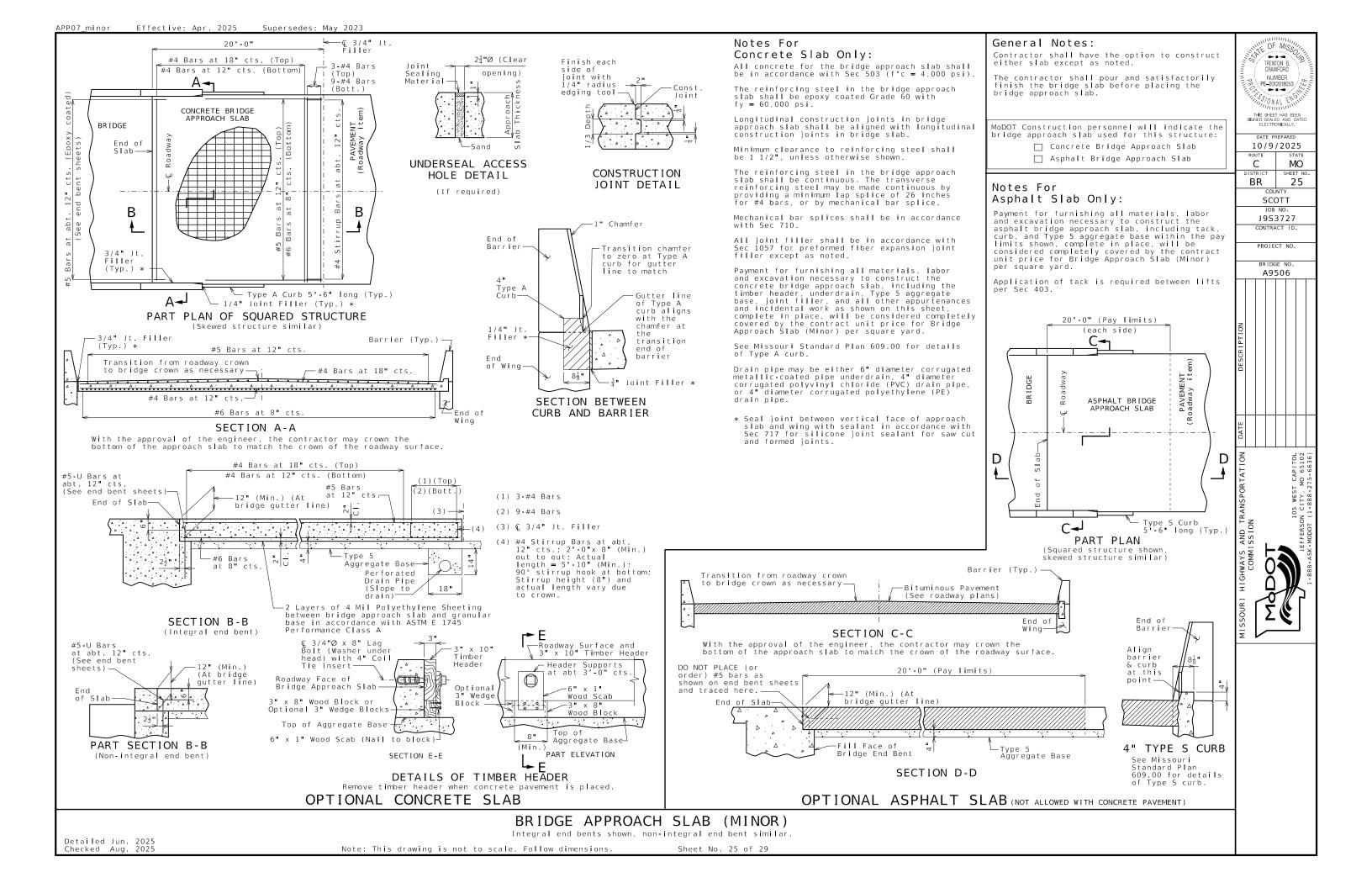


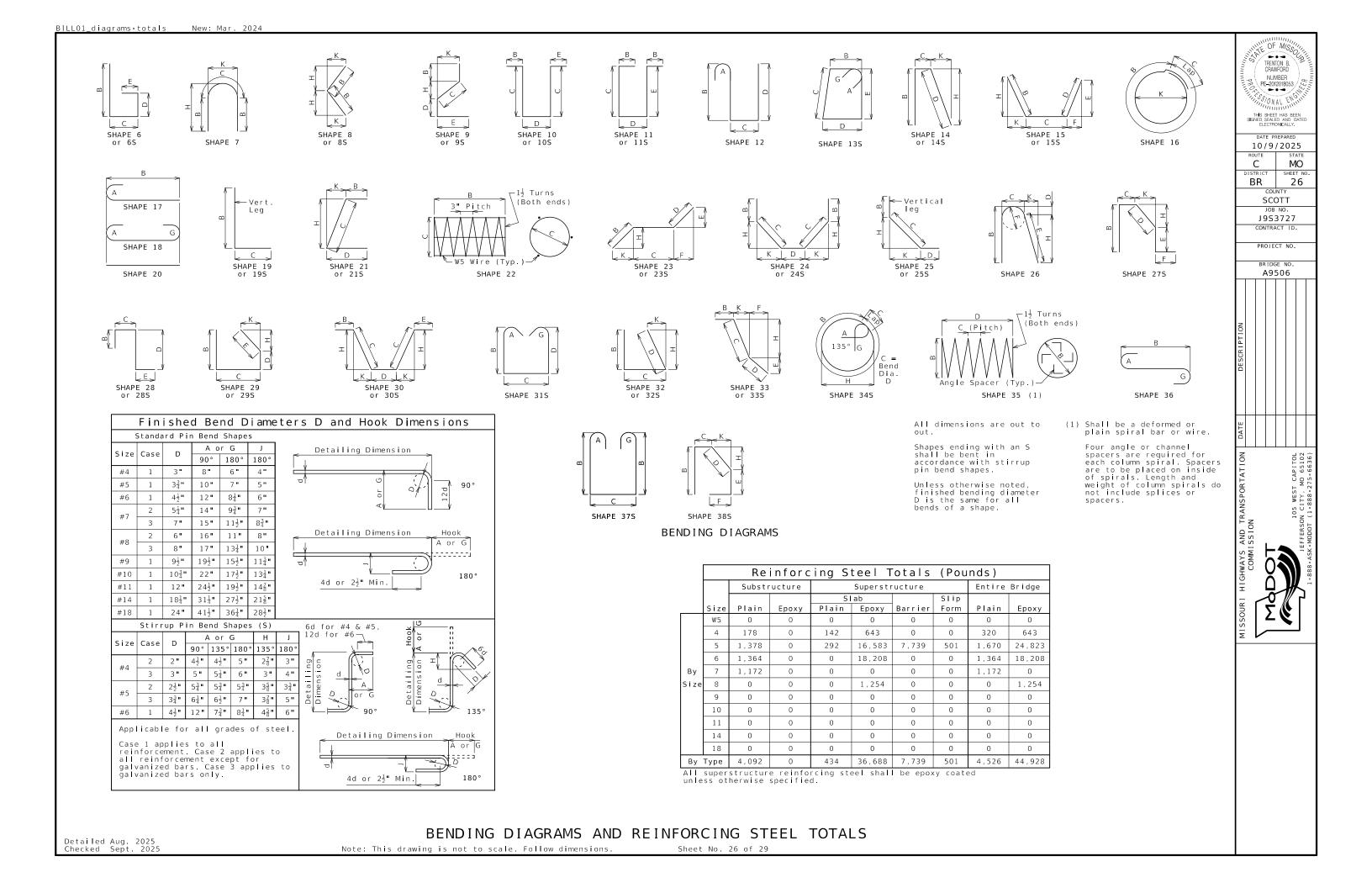
PART ELEVATION OF BARRIER

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

#### TYPE H BARRIER







			ļ	Bill	of Rei	nforcing	Steel										Bill	of Rei	nforci	ng Ste	ee I				11
						Dimensions			Nom.	Actual									Dimension	S		Nom.	Actual		1   <i>i</i>
No. Size/		Codes	_	С	D	E				Length	Weight	No.	Size/		Codes		С	D	E	F	Н	K Length		Weight	1   1
Req. Mark	Location	C SH	V ft in.	ft in.	ft in.	ft in ft	in. ft	in. ft	in. ft in	. ft in	. Ib	Req.	Mark	Location	C SH		ft in.	ft in.	ft in.	ft in.	ft in f				4   3
	Substructure												6 H401 6 H402	BEAM DIAPHRAGM	E 20	37 5.00 8 8.00				<del>                                     </del>	+	37 5 8 8		_	4
	Substructure												6 H403	DIAPHRAGM	E 20	7 4.00					+	7 4			11
	Int Bent 2												6 H404	DIAPHRAGM	E 20	3 9 00						3 9	3 9	_	11
19 6 D200	BEAM	20	2 6.00						2 6	2 6	71		6 H405	DIAPHRAGM	E 20	3 1.00						3 1	3 1	19	] [
14 6 11200	DEAM	100		12.00	2 2 0 00					4 0	0.0		6 H406	DIAPHRAGM	E 20	37 5.00				<u> </u>	++	37 5			4
14 6 H200 8 7 H201	BEAM BEAM	105	34 2.00	12.00	3 0.00				35 10	4 8	98 586		6 H407 5 H408	DIAPHRAGM STRAND TIE	E 23S	37 5 00 15 2		15.25	10.75	10.75	10.75	37 5 10.75 4	37 5 3 11		┪┝
10 6 H202	BEAM	20	34 2.00						34 2		513		5 H409	WING	E 19S	12 0.50			10.75	10.75	10.75	13 1	12 11	_	11
												16	8 H410	WING	E 19	13 6.00	17.00	)				14 11	1 14 8	627	] [
40 4 P200	CIP PILE	345	2 6.75	2.00				9.75	3 6	3 4	89		4 D 400	CID DILE	2.46	2 6 71	. 2.00	-		<u> </u>	- 75	2 6	1 2 4	7.1	┨┞
32 5 U200	BEAM	135	3 0.00	3 0 00	3 0 00	3 0 00			12 11	1 12 7	420	32	4 P400	CIP PILE	345	2 6.75	2.00			<del></del>	9.75	3 6	3 4	71	-
5 5 U201	BEAM	105	3 0.00		3 0.00				9	8 9	46	23	5 U400	BEAM	E 10S		5 2.00	3 10.50				14 3	14	336	1 🗀
8 5 U202	BEAM	105		12.00	3 0.00				5	4 9	40		4 U401	BEAM	E 10S			3 10.50				9 5	9 2	49	Ĵ L
20 5 1/200	CID DILE	1.7	F 2.00						5 10	F 10	102		4 U402	BEAM	E 13S	3 10.5	0 2 9.00		2 9.00	<u> </u>		14	13 9		41
30 5 V200	CIP PILE	1/	5 3.00						5 10	5 10	183		5 U403 6 U404	DIAPHRAGM DIAPHRAGM	E 10S	2 1 00	3 10.50	3 2.00		<u> </u>		9	8 9 5 10		+
	Int Bent 3									1			6 U405	DIAPHRAGM	E 19S		0 5 3.00					8 1	7 11		1 L
19 6 D300	BEAM	20	2 6.00						2 6	2 6	71	24	5 U406	APPROACH NOTCH	E 19S	2 0.00						3 6	3 5	86	] [
14 6 11222	DE AAA	100		12.00	2 2 0 00				<del>    -</del>	A C	0.0		E 1/400	DEAM		F 2 2	+			<u> </u>			+	+	<b>∤</b> ├
14 6 H300 8 7 H301	BEAM BEAM	105	34 2.00	12.00	3 0.00				5 35 10	4 8	98 586		5 V400 6 V401	BEAM WING	E 20	5 2.00				<u> </u>	+	5 2	5 2 6 3	65 451	
10 6 H302		20	34 2.00						34 2	_	513		6 V402	DIAPHRAGM	E 20	2 1.00	_					2 1	2 1		11
													5 V403	CIP PILE	17	5 3.00						5 10	5 10		] [
40 4 P300	CIP PILE	345	2 6.75	2.00				9.75	3 6	3 4	89			Tat Dia-t	$\sqcup$					<u> </u>	-			-	<b> </b>
32 5 U300	BEAM	135	3 0 00	3 0 00	3 0.00	3 0 00			12 11	1 12 7	420	24	4 H500	Int Diaphragms DIAPHRAGM	E 20	8 8.00	)			<u> </u>	<del></del>	8 8	8 8	139	- I [
5 5 U301	BEAM	105	3 0.00		3 0.00				9	8 9	46		6 H501	DIAPHRAGM	E 20	7 10.0						7 10			1   =
8 5 U302	BEAM	105		12.00	3 0.00				5	4 9	40		6 H502	DIAPHRAGM	E 20	7 4.00						7 4			Ĭ
30 5 1/300	CID DILE	1.7	F 2.00						5 10	- 10	100		5 H503	STRAND TIE	E 235	15.2			10.75	10.75		10.75 4	3 11		-   °
30 5 V300	CIP PILE	17	5 3.00						5 10	5 10	183	8	5 H504	STRAND TIE	E 23S	15.2	5 19.00	)		<u> </u>	10.75	10.75 2 10	0 2 9	23	4
	Superstructure											32	5 U500	DIAPHRAGM	E 19S	2 7.75	11.50					3 7	3 6	117	11
													4 U501	DIAPHRAGM	E 28S			2 10.50				7 2			11
0 6 5100	End Bent 1		20.00	6 11 7	- 20 00	7 75	10.50	7 75 4		1.0		24	6 U502	DIAPHRAGM	E 28S		22.00	2 10.50	3 0.00	<u> </u>		7 9	7 5	267	- [_
9 6 F100 9 6 F101	WING BRACE WING BRACE	E 15S	_	6 11.75					18.50 10 4 7.75 6 11		140 91	16	5 V500	DIAPHRAGM	E 20	3 2.00	)			<u> </u>	+	3 2	3 2	53	<b>-    </b>
3 6 F102	DIAPHRAGM	E 21S	20.00		3 10.00				2.25 9 9	_	44	10	3 4300	DIAITIKAGN	20	3 2.00	/					3 2	+	+ 33	1 L
3 6 F103	DIAPHRAGM	E 15S	3 10.00	5 11.00			2	8.50 2 8	8.50 9 9	9 7	43			Slab											]   2
0 6 11100	DEAM	E 20	27 5 00						27 5	27 5	450		6 S1	SLAB	E 20	26 5.00	_			<u> </u>	++		1 26 10	9,285	4   =
8 6 H100 4 6 H101	BEAM BEAM	E 20	37 5.00 37 5.00						37 5	37 5 37 5	450 225	98	6 S2	SLAB Incr. = 6.000"	E 20	2 26 0.00	_				<del></del>	26	26	2,061	1   5
3 6 H102	DIAPHRAGM	E 20	8 8.00						8 8	_	39			11161. 0.000		1 0.00	<u></u>						+	12,001	1   5
6 6 H103	DIAPHRAGM	E 20	7 4.00						7 4		66			SLAB		49 5.00						49 5		3,556	] ] 2
2 6 H104	DIAPHRAGM	E 20	3 9.00						3 9		11	80	5 S4	SLAB	E 20	21 0.00				<u> </u>	++	21	21	1,752	ءِ   ا
4 6 H105 3 6 H106	DIAPHRAGM DIAPHRAGM	E 20	3 1.00 37 5.00						37 5	3 1	19 169	156 64	5 S5 5 S6	SLAB SLAB	E 20	26 5.00 2 25 11.0					<del></del>	26 5 25 11	26 5 1 25 11		<u>ٔ ا</u> ا
4 6 H107			37 5.00							37 5		"	3 30	Incr. = 9.000"		2 8.00						2 8			
8 5 H108		E 23S	15.25			10.75	10.75 1	10.75 1	10.75 4	3 11	33														] ] ,
36 6 H109 16 8 H110	WING WING	E 19S	12 0.50 13 6.00							12 11	698 627	72	5 S7	SLAB	E 20	49 10.0	0				<del></del>	49 10	0 49 10	3,742	-     -
10   8   11110	WING	L 19	13 0.00	17.00	1				14 11	14 0	027			Barrier									+	+	1   5
32 4 P100	CIP PILE	345	2 6.75	2.00				9.75	3 6	3 4	71														
22 5	8541			F 2 2 2	2 15 = :	<u> </u>				1	222			Type H		1			2			1 00 =	<del></del>		<b>↓</b> ] -
23 5 U100 8 4 U101	BEAM BEAM	E 10S			3 10.50				9 5		336 49		5 K1 5 K2	BARRIER BARRIER	E 27S				2 11.75		5.25 14.25	1.00 7 7 2.75 7 11	7 5 1 7 10		1   5
10 4 U102			3 10.50						14	13 9	92		5 K3	BARRIER	E 275	22.5						2.75 5 6			1 1
29 5 U103	DIAPHRAGM	E 10S		2 11.00	3 2.00				9	8 9	265	92	5 K4	BARRIER	E 19S			)				3 11	1 3 10	304	
29 6 U104			2 1.00						6	5 10	254		5 K5	BARRIER	E 38S		2 5 2 2	19.25		8.25			1 3 10		<b>↓</b>
46 6 U105 24 5 U106			2 10.00	5 3.00 18.00					8 1 3 6		1		5 K6 5 K7	BARRIER BARRIER	E 21S	_	2 5.00	10.00		<del></del>	2 4.25	6.00 3 11	1 3 10 16 3		$\left\{ \right\}$
1 27 3 0100	ATTROACH NOTCH	_ 133	2 0.00	10.00	1					+	- 50		5 K8	BARRIER	E 20	14 11.0				<u> </u>			1 14 11		1
12 5 V100			5 2.00						5 2		65														11
48 6 V101		E 20	6 3.00			<u> </u>			6 3		451		5 R1	BARRIER	E 145	2 5.00		2 5.50			2 5.00	5.50 5 5	_		<b>↓</b> [
12 6 V102 24 5 V103		E 20	2 1.00 5 3.00						2 1	2 1	38 146		5 R2 5 R3	BARRIER BARRIER	E 19S	20.5	0 9.50 9.50		5.00	12.00	15.00	3.00 3 6		_	$\left\{ \right\}$
1 24 3 V103	CIF PILE	1 /	3 3.00						3 10	, , 10	140		5 R4	BARRIER	E 20	_		13.23	3.00	12.00	13.00	36 7		_	1 I
	End Bent 4											32	5 R5	BARRIER	E 20	11 9.00	)					11 9		392	] [
9 6 F400		E 15S		6 11.75					18.50 10 4		140		5 R6	BARRIER	E 20	_	_					35 9			<b>↓</b>
9 6 F401 3 6 F402		E 15S E 21S	20.00	3 6.75	20.00			18.50	7.75 6 11 2.25 9 9		91	16	5 R7	BARRIER	E 20	37 11.0	U			-	+	37 11	1 37 11	633	$\{ \mathbf{I} \}$
3 6 F402			3 10.00						8.50 9 9	_				Slip-Form		1	+						+	+	
												40	5 C1	SLIP FORM	E 20	12 0.00	)					12	12	501	] [
8 6 H400	BEAM	E 20	37 5.00						37 5	37 5	450														] [

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

All bars shall be ASTM A706 Grade 60.

BILL OF REINFORCING STEEL

Codes: C = Required coatings, where E = Epoxy Coated and <math>G = Galvanized.

SH = Required shape, see bending diagrams.

V = Sets of varied bars and number of bars of each length. Bar dimensions vary in equal increments between dimensions shown on this line and the following line and the actual length dimension shown on this line and the following line vary by the specified increment.

For bending diagrams and steel reinforcing totals, see Sheet No. 26.

Detailed Aug. 2025 Checked Sep. 2025

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

Sheet No. 27 of 29

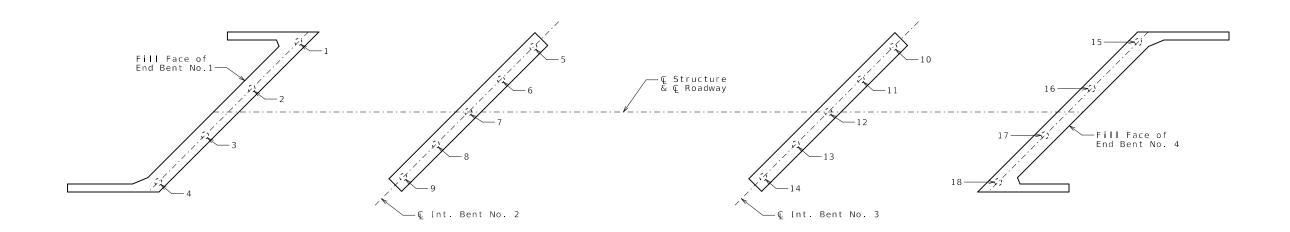
TRENTON B. CRAWFORD NUMBER PE-2012018053 SONAL E 10/9/2025 ROUTE MO

DISTRICT SHEET NO BR 27

SCOTT JOB NO. J9S3727 CONTRACT ID.

PROJECT NO. BRIDGE NO.

A9506



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

	As-Built Pile Data										
Pile No.	Length in Place (ft)	PDA Nom. Axial Compressive Resistance (kips)		Actual End of Drive Blow Count (blows/in.)	Remarks						
					End Bent No. 1						
1											
2											
3											
4											
					Int. Bent No. 2						
5											
6											
7											
8											
9											

Note:
Indicate in remarks column:
A. Pile type and grade
B. Batter
C. Driven to practical refusal
D. PDA test pile
E. Minimum tip elevation controlled
(Use when actual blow count is less than PDA blow count due to minimum tip elevation requirement. A plus sign (+) shall be placed after the PDA nominal axial compressive resistance value indicating actual value is higher than PDA value.)

This sheet to be completed by MoDOT construction personnel.

	As-Built Pile Data										
Pile No.	Length in Place (ft)	PDA Nom.	PDA End of Drive Blow Count	Actual End of	Remarks						
					Int. Bent No. 3						
10											
11											
12											
13											
14											
					End Bent No. 4						
15											
16											
17											
18											

TRENTON B.
CRAWFORD
NUMBER
PE-2012018053

10/9/2025

SCOTT JOB NO. J9S3727 CONTRACT ID. PROJECT NO.

A9506

MO SHEET NO

28

ROUTE

BR

Detailed Aug. 2025 Checked Aug. 2025

Effective: Apr. 2021 Supersedes: Aug. 2018 BOR01 BoringLogTemplate TRENTON B.
CRAWFORD
NUMBER
PE-2012018053 H-24-10 ELEV.321.00 H-24-03 330 10/9/2025 С MO 320 BR 29 SCOTT JOB NO. J9S3727 CONTRACT ID. PROJECT NO. 300 300 W. S. A9506 290 290 ELEVATION (ft-MSL) 270 260 260 250 240 230 **CPT MATERIAL GRAPHICS ELECTRONIC CONE PENETROMETER SOUNDING** Sensitive, Fine Grained Soils Organic Soils, Peats Clays-Clay to Silty Clay Silt Mixtures-Clay Silt to Silty Clay Sand Mixtures-Sitty Sand to Sandy Sitt 1265

Sand Mixtures-Sitty Sand to Sandy Sitt DOWNHOLE SHEAR WAVE VERDITY Sands-Clean Sand to Silty Sand Gravelly Sand to Sand Very Stiff Clay to Clayey Sand SUBSURFACE PROFILE Very Stiff Fine Grained Solls PROJECT NUMBER WATER LEVEL MEASURED DOWNHOLE PROJECT: Bridge Replacement J9S3727 BT CPT TERMINATION DEPTH XXX CPT REFUSAL DATE Robertson et al (1990) Q<sub>t</sub> vs F<sub>r</sub> - MAI = 10 LOCATION: 2 Miles East of Morley 1/29/25 BORING DATA Note: For locations of borings, see Sheet No. 1. Detailed Apr. 2025 Checked Aug. 2025 Note: This drawing is not to scale. Follow dimensions. Sheet No. 29 of 29

#### DESIGN DESIGNATION

A.A.D.T. - 2026 = 412A.A.D.T. - 2046 = 474D.H.V. = 7.3% V = 55 M.P.H.

D (E/W) = 50.0% / 50.0%

FUNCTIONAL CLASSIFICATION - MINOR COLLECTOR

NO NEW RIGHT OF WAY

## CONVENTIONAL SYMBOLS

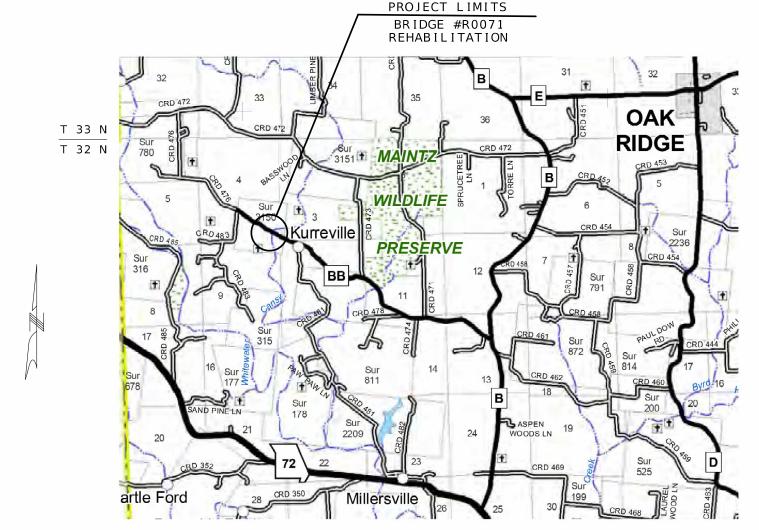
	EXISTING	NEW
BUILDINGS AND STRUCTURES GUARD RAIL GUARD CABLE CONCRETE RIGHT-OF-WAY MARKER STEEL RIGHT-OF-WAY MARKER LOCATION SURVEY MARKER UTILITIES	0000 0000 177 77	
FIBER OPTICS OVERHEAD CABLE TV UNDERGROUND CABLE TV OVERHEAD TELEPHONE UNDERGROUND TELEPHONE OVERHEAD POWER UNDERGROUND POWER SANITARY SEWER STORM SEWER GAS WATER	- FOOTVUTV OT UT OE UE SS G W	-FO- -OTV- -UTV- -OT- -UT- -OE- -S- -SS- -G-
MANHOLE	SAN HYD	)
FIRE HYDRANT	WV C	)
WATER VALVE	wv C	)
WATER METER	₩"	)
DROP INLET	· [	
DITCH BLOCK	=	<b>=</b>
GROUND MOUNTED SIGN	SIGN	-
LIGHT POLE		]
H-FRAME POWER POLE		
TELEPHONE PEDESTAL FENCE CHAIN LINK WOVEN WIRE GATE POST	——— V ———— X	<i>'</i> ——
BENCHMARK	™⊗	)

NOTE: DASHED OR OPEN SYMBOLS INDICATE EXISTING FEATURES

# MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

# PLANS FOR PROPOSED STATE HIGHWAY

## CAPE GIRARDEAU COUNTY



R 11 E | R 12 E

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

#### INDEX OF SHEETS

DESCRIPTION	SHEET NUMBER
TITLE SHEET	1
TYPICAL SECTIONS (TS) (1 SHEET)	2
QUANTITIES (QU) (2 SHEETS)	3
PLAN-PROFILE (PP)	4
COORDINATE POINTS (CP)	5
SPECIAL SHEETS (SS)	6 - 8
TRAFFIC CONTROL SHEETS (TC)	9
SIGNING (SN)	10
BRIDGE DRAWINGS (B)	
R00711	1 - 11

SHI SHI NUM PE-201 NUM SHI NUM SHI NUM SHI NUM SHI SHI SHI MO-PE-20	1:57:31 PM 1BO - CIVIL 017019046							
9/25	DATE PREPARED 9/25/2025							
ROUTE BB	MO STATE							
SE	SHEET NO.							
CAPE GI	RARDEAU							
	<sub>NO</sub> . 3776							
CONTRACT ID.								
PROJE	CT NO.							
BRIDO	GE NO.							



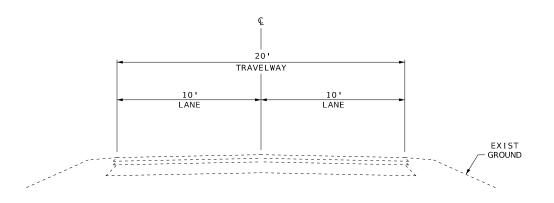
#### LENGTH OF PROJECT

BEGINNING OF PROJECT STA. 25 + 61.73 STA. 27 + 73.56 END OF PROJECT 211.83 FEET APPARENT LENGTH

EQUATIONS AND EXCEPTIONS:



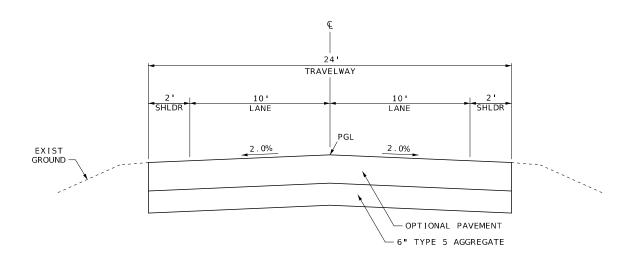
TOTAL CORRECTIONS	0.00	FEET
NET LENGTH OF PROJECT	211.83	FEET
STATE LENGTH	0.040	MILES
FOR INFORMATION ONLY ESTIMATED DISTURBED ACRES	0.5	ACRES



# EXISTING TYPICAL SECTION RTE BB

STA 25+61.73 TO STA 27+73.56

BR R0071 STA 25+81.73 TO STA 27+53.56



#### TYPICAL SECTION RTE BB

STA 25+61.73 TO STA 27+73.56

BR R00711 STA 25+81.73 TO STA 27+53.56

NOTE:
ANY EXIST PAVT SHOWN IS FOR INFORMATIONAL PURPOSES ONLY.
LAYERS MAY VARY FROM TYPICAL SECTIONS.

DRAWING NOT TO SCALE. FOLLOW DIMENSIONS.

OPTIONAL PAVEMENT

1) 2" BP-1 PG 64-22 OVER 8" PMBB PG 64-22

2) 8" PCCP

SELI SHIMBO NUMBER PE-2017019046

Seiji Shimbz USHZOLUZO I JUNED O CIVIL MO-PE-2017019046

9/22/2025

ROUTE STATE

BB MO

DISTRICT SHEET NO.

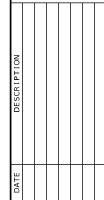
SE 2

CAPE GIRARDEAL

JOB NO.
J9S3776
CONTRACT ID.

PROJECT NO.

BRIDGE NO.



COMMISSION

COMMISSION

105 WEST CAPITOL

105 WEST CAPITOL

107 WEST CAPITOL

TYPICAL SECTION SHEET 1 OF 1

	CLEAR	I NG	AND GRU	JBB I N	IG	
NO D	IRECT PAY	FOR	CLEARING	AND	GRUBBING	

REMOVAL (	OF IMPROVEMENTS					
DESCRIPTION	REMARKS					
12 OBJECT MARKERS	3 AT EACH CORNER OF BRIDGE					
134' OF GUARDRAIL	NOT ATTACHED TO BRIDGE					
LUMP SUM ONE						

	MODIFIED LINEAR GRADING CLASS 2									
					MOD LINEAR					
					GRADING	APPROX EARTHWORK				
SHEET	STA	STA	LOC	LENGTH	CLASS 2	CUT	CUT FILL			
				(FT)	(STA)	CY	CY			
4	25+61.73	27+73.56	CL	211.83	2.12	240.0	155.6			
				TOTAL	2.2					

	OPTIONAL PAVEMENT AND AGGREGATE BASE										
						OPTIONAL	6" TYPE 5				
SHEET	STA	STA	LOC	LENGTH	WIDTH	PAVT	AGGR	REMARKS			
				(FT)	(FT)	(SY)	(SY)				
7	25+61.73	25+81.73	CL	20.00	24.00	53.33	53.3				
7	27+53.56	27+73.56	CL	20.00	24.00	53.33	53.3				
					TOTAL	106.7	107				

MO	OB I L I ZA	ATION
l	_UMP_SUM	ONE

#### CONTRACTOR FURNISHED SURVEYING AND STAKING LUMP SUM ONE

PAVEMENT MARKING										
	CLASS 1 HIGH BUILD PAINT									
				TYPE P BEADS						
				4" INT	4" SOLID	4" SOLID				
STA	STA	LENGTH	LOC	YELLOW	YELLOW	WHITE	REMARKS			
		(FT)		(LF)	(LF)	(LF)				
25+61.73	27+73.56	211.83	CL	53.0	211.8		CENTERLINE			
25+61.73	27+73.56	211.83	LT/RT			423.7	EDGEL I NE			
			TOTAL	2	:65	424				

	POROUS BACKFILL								
	POROUS								
SHEET	STA	LOC	BACKFILL	REMARKS					
			(CY)						
7	25+81.73	CL	22.2						
7	27+53.56	CL	22.2						
	TOTAL 45								
POROUS B	ACKFILL SH	ALL BE GF	RADES 3,4,OR 5.						

	GRAVEL A OR CRUSHED STONE B								
	GRAVEL A								
CRUSHED									
SHEET	STA	LOC	THICK	STONE B	REMARKS				
			(IN)	(TON)					
*ADD QUA	NTITY			10.0					
	TOTAL 10								
* LOCATI	* LOCATIONS TO BE DETERMINED BY THE ENGINEER.								

	TYPE 2 ROCK BLANKET								
					TYP	'E 2			
			AVG		ROCK B	LANKET	GEOTEXTILE		
SHEET	SECTION	DEPTH	WIDTH	LENGTH	FURNISH	PLACE	FABRIC	REMARKS	
		(FT)	(FT)	(FT)	(CY)	(CY)	(SY)		
8	A-A TO B-B	2	21.0	17	26.4	26.4	56.7		
8	B-B TO C-C	2	42.5	20	63.0	63.0	110.0		
8	C-C TO D-D	2	62.5	23	106.5	106.5	177.6		
8	D-D TO E-E	2	70.5	19	99.2	99.2	163.6		
8	E-E TO F-F	2	52.5	26	101.1	101.1	177.7		
8	F-F TO G-G	2	21.5	20	31.9	31.9	67.8		
8	H-H TO I-I	2	63.5	41	192.9	192.9	330.3		
8	I-I TO J-J	2	84.0	20	124.4	124.4	202.2		
8	J-J TO K-K	2	91.0	15	101.1	101.1	163.3		
8	K-K TO L-L	2	77.0	26	148.3	148.3	242.7		
8	L-L TO M-M	2	52.0	40	154.1	154.1	271.1		
				TOTAL	1149	1149	1963		

	TEMPORARY EROSION CONTROL									
	SILT	ROCK	SEDIMENT	TYPE C						
SHEET	FENCE	DITCH CHECK	REMOVAL	BERM						
	(LF)	(LF)	(CY)	(LF)						
8	115.0	25.0	3.2	249.0						
TOTAL	115	25	4	249						

	SEEDING AND MULCH								
	COOL SEASON TEMPORARY								
	SEEDING AND   SEEDING AND								
SHEET	STA	STA	LOC	MULCHING	MULCHING	REMARKS			
				(AC)	(AC)				
4	25+61.73	27+73.56	LT	0.04	0.25				
4	25+61.73	27+73.56	RT	0.03	0.25				
			TOTAL	0.1	0.5				
USE 1 LUMP SUM									
NOTE: SEEDING ACRES FOR INFORMATION ONLY									

OF Moore	
OF M/SS	
SEUI E	
NUMBER PE-2017019046	
PE-2017019040	
11,88/ONAL ENGLISH	
Slain A	

Seiji Shimb SEIJI SHIMBO - CIVIL MC-PE-2017019046 DATE PREPARED 9/24/2025

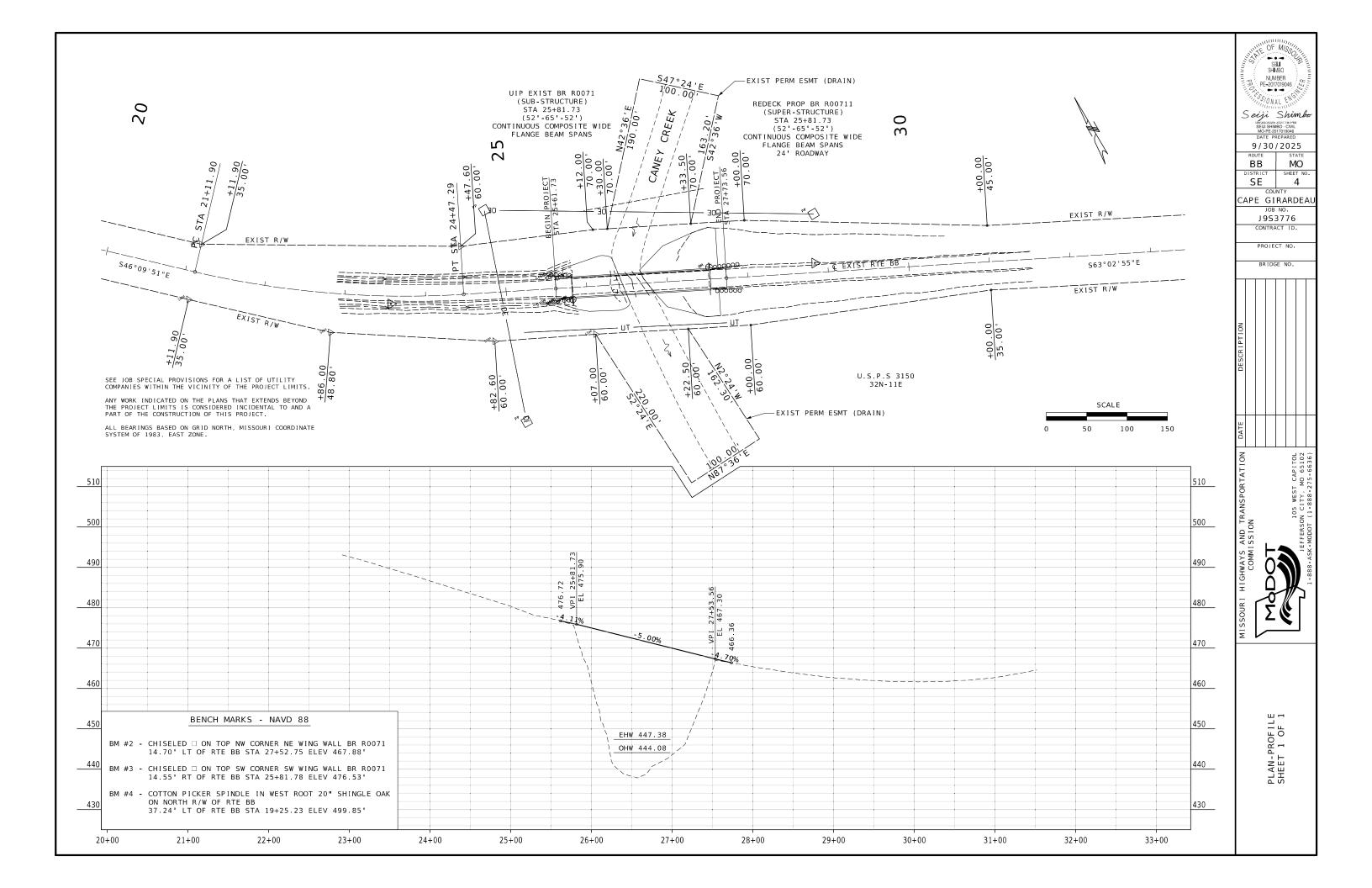
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COUNTY
CAPE GIRARDEAU
JOB NO.
J953776
CONTRACT ID.

PROJECT NO.

QUANTITY SHEET SHEET 1 OF 2

1.				TOTAL OTY	TOTAL				1				OTY TOTAL			1	EFFECTIVE: 07-01-2025		· MIIIII
March   19th	SIGN	SIZE	\ ADEA		1 1	ICN		SIGN	517	,	ت ا ۸		l ' l l	IGN	ITEM	$  _{\pm c}$		1111	E OF MISSON
Value   Valu	SIGN			`			DECCRIPTION	J SIGN	1			<b>I</b>						17.7	6
1.		IN.	SQ FI			NO.	DESCRIPTION		IN	SQ.F	L EA			DESCRIPTION	_	_		# 7	
Column   C				WARNING S	SIGNS				1		_	GU	IDE SIGNS		_			= -0	NUMBER : = =
Column   C								l	_		_					_		100	
Color   Colo									_		_				_			11/1	SONAL ENGLISH
Column   C								l	_		_					_		_	Minimus.
Column   C									_		_				_			uš	NEDIZUZO 1.04.40 FM
1.								l	_		_				_			s	EIJI SHIMBO - CIVIL MO-PE-2017019046
March   Marc											_				_		, , ,		
Column   C								<b>H</b>	_						_				
Mode							· · · · · · · · · · · · · · · · · · ·		_		_				_		·		
State   1.5 to   1.							,				_					_			
March   Marc									_						_				
March   1985							,	<b>H</b>	_		_				_		` '		
Wideland									_		_				_			CAPE	
March   1975							,	<b>H</b>	_		_				_			i	
Company   Comp									_						_		·		
Control   Cont								11011 1011	.   .07.	10   0.00		REGUL	ATORY SIGNS	percent runter (treint)	_	_	, ,	1	ONTRACT ID.
Control   Cont								R1-1	48X	48 13.2	5	1,2002	T T T T T T T T T T T T T T T T T T T	STOP	_	_		<b>—</b>	PROJECT NO.
According   Acco	WO1-8a										_				_			l '	
Miles   1,000   1,00	WO3 - 1														_				BRIDGE NO.
STOT   Mark   100	WO3 - 2						YIELD AHEAD (SYMBOL)		_		_				_			<u> </u>	
STATE   1970   1.00	WO3 - 3								_						_				
Color   Colo	WO3 - 4							l	_		_					_			
SCH   1970   15   16	WO3 - 5						SPEED LIMIT AHEAD		_		_				_			1	
Color   Colo	WO4 - 1L	48X48	16.00				MERGE (SYMBOL FROM LEFT)	R3-3	36X	36 9.00	)			NO TURNS	6161070		TUBULAR MARKER	1	
March   1966   1970	WO4 - 1R								_		_				_			[ 등	
CAMPACE   1980	WO4-1aL	48X48	16.00				MERGE (LEFT)	R3-7L	30X	30 6.25	5			LEFT LANE MUST TURN LEFT			CHANGEABLE MESSAGE SIGN,	<b> </b> =	
Part   1999	WO4 - 1 aR	48X48	16.00				MERGE (RIGHT)		_					RIGHT LANE MUST TURN RIGHT	6161096				
March   18-09	WO5 - 1	48X48	16.00				ROAD/BRIDGE/RAMP NARROWS	R4-1	36X	48 12.0	0			DO NOT PASS			CHANGEABLE MESSAGE SIGN WITHOUT COMM.	[5]	
Second   1.5 Sec	WO5 - 3	48X48	16.00				ONE LANE BRIDGE	R4-2	36X	48 12.0	0			PASS WITH CARE	6161098	A	2 INTERFACE, CONTRACTOR FURNISHED/RETAINED	当	
MARC   14848   15.99	WO5 - 5	48X48	16.00				NARROW LANES	R4-7a	36X	48 12.0	0			KEEP RIGHT (HORIZONTAL ARROW	)		CHANGEABLE MESSAGE SIGN WITH COMM.	1	
00-51 00-50	WO6 - 1	48X48	16.00				DIVIDED HIGHWAY (SYMBOL)	R4-8a	36X	48 12.0	0			KEEP LEFT (HORIZONTAL ARROW)	6161099	)	INTERFACE, CONTRACTOR FURNISHED/RETAINED		
00-31 SECUL 5.00   SECUR 5.00   SECUL 5.00   SECUR 5.00   SECUL 5.00	WO6 - 2	48X48	16.00				DIVIDED HIGHWAY END (SYMBOL)	R5-1	30X	30 6.25	5			DO NOT ENTER	6162000	Α	WORK ZONE TRAFFIC SIGNAL SYSTEM	1	
MODEL   MODE	WO6 - 3	48X48	16.00				TWO WAY TRAFFIC (SYMBOL)	R5-1a	36X	24 6.00	)			WRONG WAY	6162002	:	TEMPORARY LONG-TERM RUMBLE STRIPS	1	
MARCH   MARC	WO7-3a	30X24	5.00				NEXT XX MILES (PLAQUE)	R6-1L	54X	18 6.75	5			ONE WAY ARROW (LEFT)			TEMPORARY TRAFFIC BARRIER,		
ASSAULT   1.00	WO8 - 1	48X48	16.00				BUMP	R6-1R	54X	18 6.75	5			ONE WAY ARROW (RIGHT)	6173600	D	CONTRACTOR FURNISHED/RETAINED		
MASS   16.08	WO8 - 2	48X48	16.00				DIP		24X	30 5.00	)			ONE WAY (LEFT)	_		TEMP. TRAFFIC BARRIER ANCHORED,		
MILES AND ALTERS AND A	WO8 - 3	48X48	16.00				PAVEMENT ENDS		_					ONE WAY (RIGHT)	6173700	В	CONTRACTOR FURNISHED/RETAINED		
MILES AND ALTERS AND A	WO8 - 4							R9-9	24X	12 2.00	)							Ó	TOL 102
No.	WO8 - 5						, ,	<b> </b>							6173706			Ę	\P.I 65 -66
No.								R9-11L	24X	18 3.00	)				┨			ĮŹ	7,5 A
MANUAL   16.00   LOW SPOULDER   R11-2   48X0   10.00   2   20.00   NAME CLOSED XX MILES AHEAD   6175031   RELOCATING FERM. TREFTIC BARRIES STIFFRESS # 8   175024								 	2.414	10 2 00								ğ	:ST ', 3-2
MANUAL   16.00   LOW SPOULDER   R11-2   48X0   10.00   2   20.00   NAME CLOSED XX MILES AHEAD   6175031   RELOCATING FERM. TREFTIC BARRIES STIFFRESS # 8   175024									_						_			ISI	W T T T T X 888
NOS-12   48X48   16.00   NO CENTER LINE   R11-36   69X30   12.50   NODE CALL THAFFIC ONLY   \$2080644   TEMPORARY TRAFFIC SIGNALS AND LIGHT   R11-46   89X30   12.50   NODE COLOSED TO THAIL THAFFIC   \$923400   TEMPORARY TRAFFIC SIGNALS AND LIGHT   R11-46   89X30   12.50   NODE COLOSED TO THAIL THAFFIC   \$923400   TEMPORARY TRAFFIC SIGNALS AND LIGHT   R11-46   89X30   12.50   NODE COLOSED TO THAIL THAFFIC   \$923400   TEMPORARY TRAFFIC SIGNALS AND LIGHT   R11-46   89X30   12.50   NODE COLOSED TO THAIL THAFFIC   \$923400   TEMPORARY TRAFFIC SIGNALS AND LIGHT   R11-46   89X30   12.50   NODE COLOSED TO THAIL THAFFIC   \$923400   TEMPORARY TRAFFIC SIGNALS AND LIGHT   R11-46   89X30   12.50   NODE COLOSED TO THAIL THAFFIC   \$923400   TEMPORARY TRAFFIC SIGNALS AND LIGHT   R11-46   89X30   12.50   NODE COLOSED TO THAIL THAFFIC   \$923400   TEMPORARY TRAFFIC SIGNALS AND LIGHT   R11-46   89X30   12.50   NODE COLOSED TO THAIL THAFFIC   \$923400   TEMPORARY TRAFFIC SIGNALS AND LIGHT   R11-46   89X30   12.50   NODE COLOSED TO THAIL THAFFIC   \$92480   \$923400   TEMPORARY TRAFFIC SIGNALS AND LIGHT   R11-46   89X30   12.50   NODE COLOSED TO THAIL THAFFIC   \$92480   \$92400   TEMPORARY TRAFFIC SIGNALS AND LIGHT   R11-46   \$92480   TEMPORARY TRAFFIC SIGNALS AND LIGHT   R11-46   TEMPORARY TRAFFIC SIGNALS AND LIGHT   R11-46   TEMPORARY TRAFFIC SIGNALS AND LIGHT   R11-46   TEMPORARY TRAFFIC SIGNALS AND								<b>H</b>	_		_	20.00			_			Ž	105 1 C
NOS-12   48X48   16.00   NO CENTER LINE   R11-36   69X30   12.50   NODE CALL THAFFIC ONLY   \$2080644   TEMPORARY TRAFFIC SIGNALS AND LIGHT   R11-46   89X30   12.50   NODE COLOSED TO THAIL THAFFIC   \$923400   TEMPORARY TRAFFIC SIGNALS AND LIGHT   R11-46   89X30   12.50   NODE COLOSED TO THAIL THAFFIC   \$923400   TEMPORARY TRAFFIC SIGNALS AND LIGHT   R11-46   89X30   12.50   NODE COLOSED TO THAIL THAFFIC   \$923400   TEMPORARY TRAFFIC SIGNALS AND LIGHT   R11-46   89X30   12.50   NODE COLOSED TO THAIL THAFFIC   \$923400   TEMPORARY TRAFFIC SIGNALS AND LIGHT   R11-46   89X30   12.50   NODE COLOSED TO THAIL THAFFIC   \$923400   TEMPORARY TRAFFIC SIGNALS AND LIGHT   R11-46   89X30   12.50   NODE COLOSED TO THAIL THAFFIC   \$923400   TEMPORARY TRAFFIC SIGNALS AND LIGHT   R11-46   89X30   12.50   NODE COLOSED TO THAIL THAFFIC   \$923400   TEMPORARY TRAFFIC SIGNALS AND LIGHT   R11-46   89X30   12.50   NODE COLOSED TO THAIL THAFFIC   \$923400   TEMPORARY TRAFFIC SIGNALS AND LIGHT   R11-46   89X30   12.50   NODE COLOSED TO THAIL THAFFIC   \$92480   \$923400   TEMPORARY TRAFFIC SIGNALS AND LIGHT   R11-46   89X30   12.50   NODE COLOSED TO THAIL THAFFIC   \$92480   \$92400   TEMPORARY TRAFFIC SIGNALS AND LIGHT   R11-46   \$92480   TEMPORARY TRAFFIC SIGNALS AND LIGHT   R11-46   TEMPORARY TRAFFIC SIGNALS AND LIGHT   R11-46   TEMPORARY TRAFFIC SIGNALS AND LIGHT   R11-46   TEMPORARY TRAFFIC SIGNALS AND								KII-Z	467	30 10.0	0 2	2 20.00				_		FR	SON
MOR-157   MOR-								D11-32	608	30 12 5	_					_		9 5	ER ODC
MOSIST   M									_							_		A I	
MOS-177   48X48   16.00     SHOULDER DROP-OFF (SYMBOL LEFT)   CONST-3X 56X12   4.67   SPECITIO(PASSING (PLATE)											_					_		ΥS	L XS A
MISCAL   16,00   SHOULDER ROPO-OFF     17,000   SHOULDER ROPO-OFF   17,000											_				-		TELL GIVACT THAT I'VE STORM LES THE ETOTT INC	₩ O	
MOBILITY   30X24   5.00   SHOULDER DROP-OFF (PLAQUE)   CONST-5   88X86   12.00   POINT OF PRESENCE								· · · · · · ·	1 - 0 //	/ / / / /		MISCEL	ANEOUS SIGNS				1	ᡖ	× 111 %
MID-1   A28ND.   9.62								CONST - 5	48X	36 12.0	0			POINT OF PRESENCE				Ξ	
MO12-1   24X24   4.00   DOUBLE DOWN ARROW (SYMBOL)   SPECIAL   98X46   12.00   WORK ZONE NO PHONE ZONE	W10-1										_								\Q \ \ \\ \
M012-2 48X48 16.00   LOW CLEARANCE (FINDAL)   SPECIAL 96X48 32.00 2 64.00   RTE XX CLOSED XX MILES AHEAD   M012-22 84X24 14.00   LOW CLEARANCE (FIET AND INCHES)   RTE XX CLOSED XX MILES AHEAD   M012-25 120X60 50.00   LOW CLEARANCE XX IN XX MILES AHEAD   LOW CLEARANCE XX IN XX MILES AHEAD   M012-5 120X60 50.00   WIDTH RESTRICTION XX FT XX IN XX MILES AHEAD   M012-5 120X60 50.00   WIDTH RESTRICTION XX FT XX IN XX MILES AHEAD   M012-5 120X60 50.00   WIDTH RESTRICTION XX FT XX IN XX MILES AHEAD   M012-5 120X60 50.00   WIDTH RESTRICTION XX FT XX IN XX MILES AHEAD   M016-5 30X24 5.00   XX XX FEET (PLAQUE)   WIDTH RESTRICTION XX FT XX IN XX MILES AHEAD   M020-1 46X48 16.00   ROAD/SRIDGE (RAMP WORK AHEAD   M020-1 46X48 16.00   DETOUR AHEAD   M020-2 46X48 16.00   ROAD/SRIDGE (RAMP WORK AHEAD   M020-3 46X48 16.00   ROAD/SRIDGE (RAMP WORK AHEAD   M020-3 46X48 16.00   RIGHT/CENTER/LEFT LANE CLOSED AHEAD   M020-3 46X48 16.00   RIGHT/CENTER/LEFT LANE CLOSED AHEAD   M020-1 46X48 16.00											_							اڳ [	Ž / ( )
## ## ## ## ## ## ## ## ## ## ## ## ##											_	2 64.00						S	<b>4 2</b>
MOI2-4   120   1	W012-2x	24X18	3.00				LOW CLEARANCE (PLAQUE)											I	ننر
WOIZE-5   120X60   50.00   WIDTH RESTRICTION XX FT XX IN XX MILES AHEAD   WOIZE-1   100X30   6.25   ADVISORY SPEED (PLAQUE)   ADVISORY SPEED (PLAQ	WO12-2a	84X24	14.00				OVERHEAD LOW CLEARANCE (FEET AND INCHES)											_ ≥	
MO13-1   30/30   6.25	WO12-4	120X60	50.00																
MO16-2   30X24   5.00	WO12-5	120X60	50.00				WIDTH RESTRICTION XX FT XX IN XX MILES AHEAD											l	
X   S   S   S   S   S   S   S   S   S							ADVISORY SPEED (PLAQUE)											l	
WO20-1   48X48   16.00							XXX FEET (PLAQUE)											l	
## WO20-2 48X48 16.00   DETOUR AHEAD																		l	
## ROAD CLOSED AHEAD   G16-10.05   TOTAL   ## WO20-4   48X48   16.00   ONE LANE ROAD AHEAD   CONSTRUCTION SIGNS   148   ## WO20-5   48X48   16.00   RIGHT/CENTER/LEFT LANE CLOSED AHEAD   G16-10.10   TOTAL   ## WO20-5a   48X48   16.00   RIGHT/CENTER/LEFT LANE CLOSED AHEAD   RELOCATED SIGNS   ## WO20-7a   48X48   16.00   RIGHT/CENTER/LEFT LANE CLOSED WIG020-7a   48X48   16.00   RIGHT/CENTER/LEFT LANE CLOSED WIG020-7a   48X48   16.00   RIGHT/CENTER/LEFT LANE CLOSED   ## WO21-2   36X36   9.00   FRESH OIL   SHOULDER WORK / SHOULDER WORK AHEAD   ## WO21-2   48X48   16.00   BLASTING ZONE AHEAD   ## WO22-3   42X36   10.50   END BLASTING ZONE   ## WO22-3						_												l	
NO   10   10   10   10   10   10   10   1	WO20-2					_		<u> </u>										l	- Z
WO20-5   48X48   16.00	WO20-3			4   64.00		_		1					<u> </u>					l	ш
WO20-5   48X48   16.00	WO20-4	-								ON SIG	iNS	148						l	S S
VOCU-5a   48X48   16.00								1		CICNIC			TOTAL					l	≻ ~
W022-1 48X48 16.00 BLASTING ZONE AHEAD W022-2 42X36 10.50 TURN OFF 2-WAY RADIO AND PHONE W022-3 42X36 10.50 END BLASTING ZONE						_		KELOCA	AIED	S I GNS								l	<u> </u>
W022-1 48X48 16.00 BLASTING ZONE AHEAD W022-2 42X36 10.50 TURN OFF 2-WAY RADIO AND PHONE W022-3 42X36 10.50 END BLASTING ZONE																		l	<u> </u>
W022-1 48X48 16.00 BLASTING ZONE AHEAD W022-2 42X36 10.50 TURN OFF 2-WAY RADIO AND PHONE W022-3 42X36 10.50 END BLASTING ZONE																		l	AP HE
W022-1 48X48 16.00 BLASTING ZONE AHEAD W022-2 42X36 10.50 TURN OFF 2-WAY RADIO AND PHONE W022-3 42X36 10.50 END BLASTING ZONE								* NO DIF	RECT F	PAY FOR I	RELOC	ATION OF	TEMPORARY TRAFFIC	C CONTROL OR DEVICES.				l	S S
WO22-2 42X36 10.50 TURN OFF 2-WAY RADIO AND PHONE WO22-3 42X36 10.50 END BLASTING ZONE					+													l	J
WO22-3 42X36 10.50 END BLASTING ZONE																		l	
		-				_												l	
0022-1   21013   2.17																		l	
	0022-1	21712	2.19				MET LUTINI (MUUOM LIANIS)	I										l	
																		l	



					CC	OORDINATE PO	INT LISTING	
				MODIFIE	D STATE PLANE (	(GROUND)		
			OFFSET	NORTH I NG	EASTING	ELEVATION		GPK
SHEET NO	STATION	LOCATION	(USFT)	(US SURVEY FT)	(US SURVEY FT)	(US SURVEY FT	) DESCRIPTION	POINT ID
PROJECT CO	NTROL POINT	S						,
	38+53.54	RTE BB	20.96' RT	599022.86	1016377.68	514.06	5/8" REBAR W/ PLASTIC CAP 0.4' DEEP IN SOUTH R/W OF ROUTE BB	CP100
4	28+83.92	RTE BB	11.77' LT	599491.51	1015528.20	462.68	5/8" REBAR W/ PLASTIC CAP 0.3' DEEP IN NORTHERLY R/W OF ROUTE BB	CP101
4	23+57.19	RTE BB	9.82' RT	599714.36	1015049.86	488.83	5/8" REBAR W/ PLASTIC CAP 0.3' DEEP IN SOUTHERLY R/W OF ROUTE BB	CP102
	17+42.67	RTE BB	8.99' LT	600126.56	1014592.07	503.38	5/8" REBAR W/ PLASTIC CAP 0.4' DEEP IN NORTHERLY R/W OF ROUTE BB AT RESIDENCE #3546	CP103
AL I GNMENTS	5							,
	14+40.62	RTE BB		600225.48	1014305.93		BEGIN RTE BB	
	15+82.32	RTE BB		600185.27	1014441.80		PC	
	18+55.82	RTE BB		600049.15	1014676.03		PT	
	21+11.90	RTE BB		599871.80	1014860.75		PC	
4	24+47.29	RTE BB		599678.90	1015133.66		PT	
	40+59.99	RTE BB		598947.97	1016571.21		PC	
	42+67.69	RTE BB		598871.08	1016763.84		PT	
	43+70.19	RTE BB		598841.85	1016862.09		РОТ	
	43+70.50	RTE BB		598841.76	1016862.38		STATION EQUATION: STA 43+70.50 BK = STA 53+22.80 AH	
	57+69.89	RTE BB		598714.26	1017290.91		END RTE BB	

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 COORD	ΙN	ATE INFOR	MATION			
COORDINATE SYSTE	Μ	MO SPC 83				
HORIZONTAL DATUM	1	NAD83(2011	)			
VERTICAL DATUM		NAVD88				
GEOID MODEL		2018				
ELEVATIONS		DIEEEDENTI	AL LEVELING			
DETERMINED BY		DITTERENTI	AL LEVELING			
PROJECT PROJECTI	ON	FACTOR	1.000042168464			
REFERENCE CON	TR	OL INFORM	IAT I ON			
COORDINATE SYSTE	М	MO SPC 83				
CONTROL STATION		MOPT				
DESIGNATION	MC	DOT PATTON CORS ARP				
CORS_ID	MC	OPT				
PID	DR	R7391				
LATITUDE	37	73127.91539				
LONGITUDE 90		00047.19032				
NORTHING (M) 18		37761.6660				
EASTING (M)	29	3036.8440				
ZONE	EΑ	ST				
PROJECT AVERAGE	GR	ID FACTOR	0.999957833			

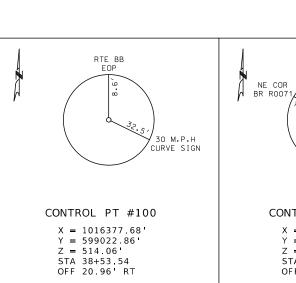
EXAMPLE OF PROJECT COORDINATE TO S.P.C.

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

EXAMPLE: CONTROL POINT #100  $N 599022.856 \times 0.999957833 = N 598997.597$  $E 1016377.682 \times 0.999957833 = E 1016334.825$ 

LINEAR UNIT CONVERSION

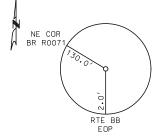
1 METER = 3.280833333 US SURVEY FEET (USFT)

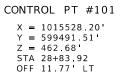


CP#100 - 5/8" X 24" REBAR W/ PLASTIC

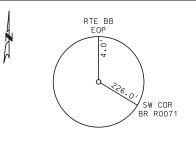
CONTROL POINT CAP 0.4' DEEP IN SOUTH

R/W OF RTE BB





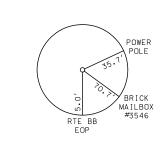
CP#101 - 5/8" X 24" REBAR W/ PLASTIC CONTROL POINT CAP 0.3' DEEP IN NORTHERLY R/W OF RTE BB





X = 1015049.86Y = 599714.36'Z = 488.83STA 23+57.19 OFF 9.82' RT

CONTROL POINT CAP 0 3 DEEP IN SOUTHERLY R/W OF RTE BB



#### CONTROL PT #103

X = 1014592.07Y = 600126.56'Z = 503.38STA 17+42.67 OFF 8 99' LT

CP#102 - \%" X 24" REBAR W/ PLASTIC | CP#104 - \%" X 24" REBAR W/ PLASTIC CONTROL POINT CAP 0.4' DEEP IN NORTHERLY R/W OF RTE BB AT RESIDENCE #3546

9/22/2025 ВВ MO SHEET NO SE 5 CAPE GIRARDEAU J9S3776 CONTRACT ID. PROJECT NO.

SEIJI SHIMBO NUMBER PE-2010

Seiji Shimbo USICOVENDED INDIAH PMM SEJII SHIMBO - CIVIL MO-PE-2017019046

ENCE CONTROL INFORMATION COORDINATE POINTS CONTROL POINTS SHEET 1 OF 1 REFER

# GRADING LIMITS AROUND FOOTINGS DETAIL BR R00711 STREAM BED

SELI SHIMBO NUMBER PE-2017019046

Seiji Shimbo USIZOIZUZO I:1U:00 PM SEIJI SHIMBO - CIVIL MO-DE-2017-019046

9/22/2025

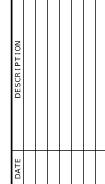
3122	2023
ROUTE	STATE
BB	MO
DISTRICT	SHEET NO
SE	6

CAPE GIRARDEAU

JOB NO.
J9S3776
CONTRACT ID.

PROJECT NO.

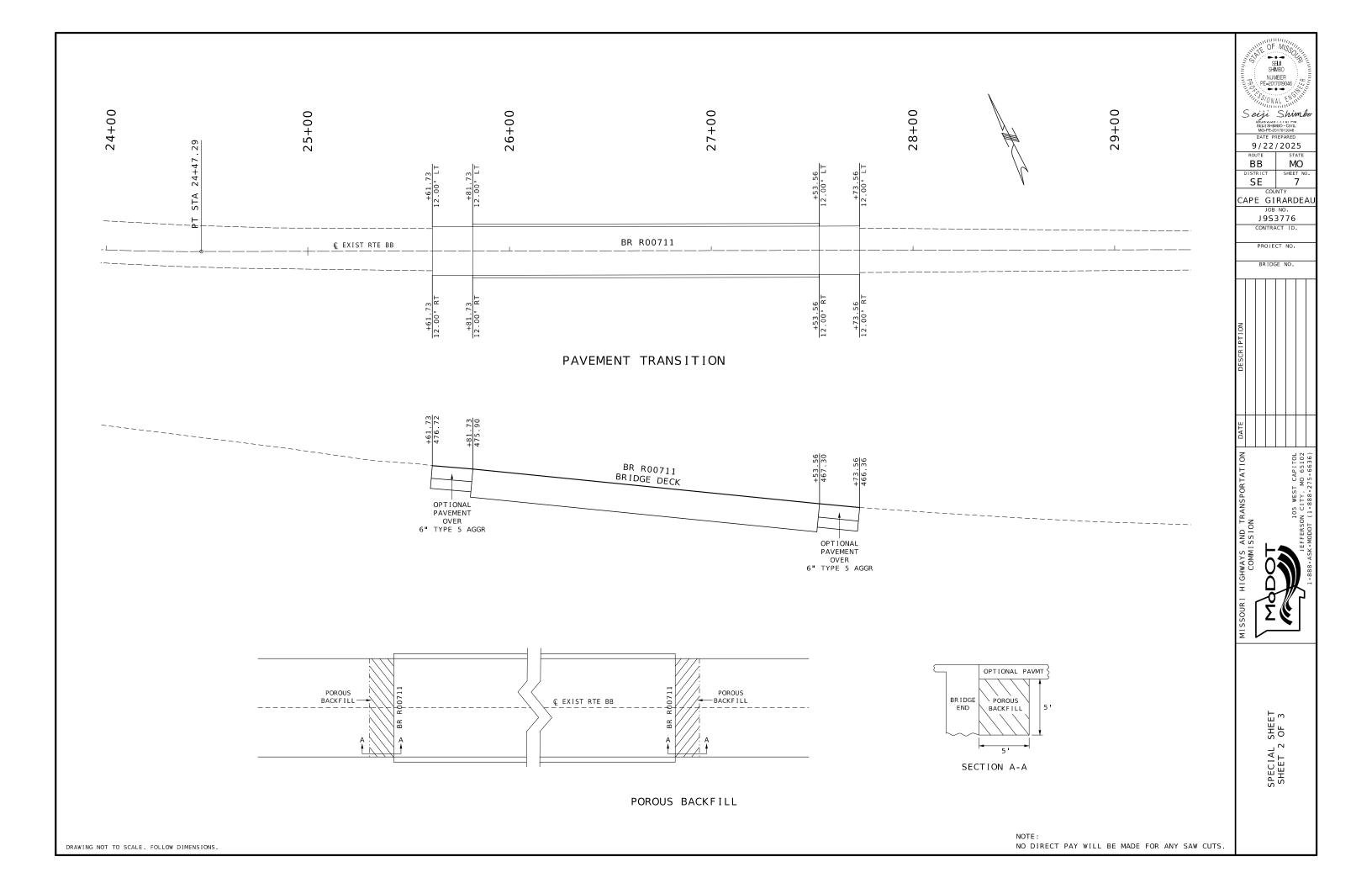
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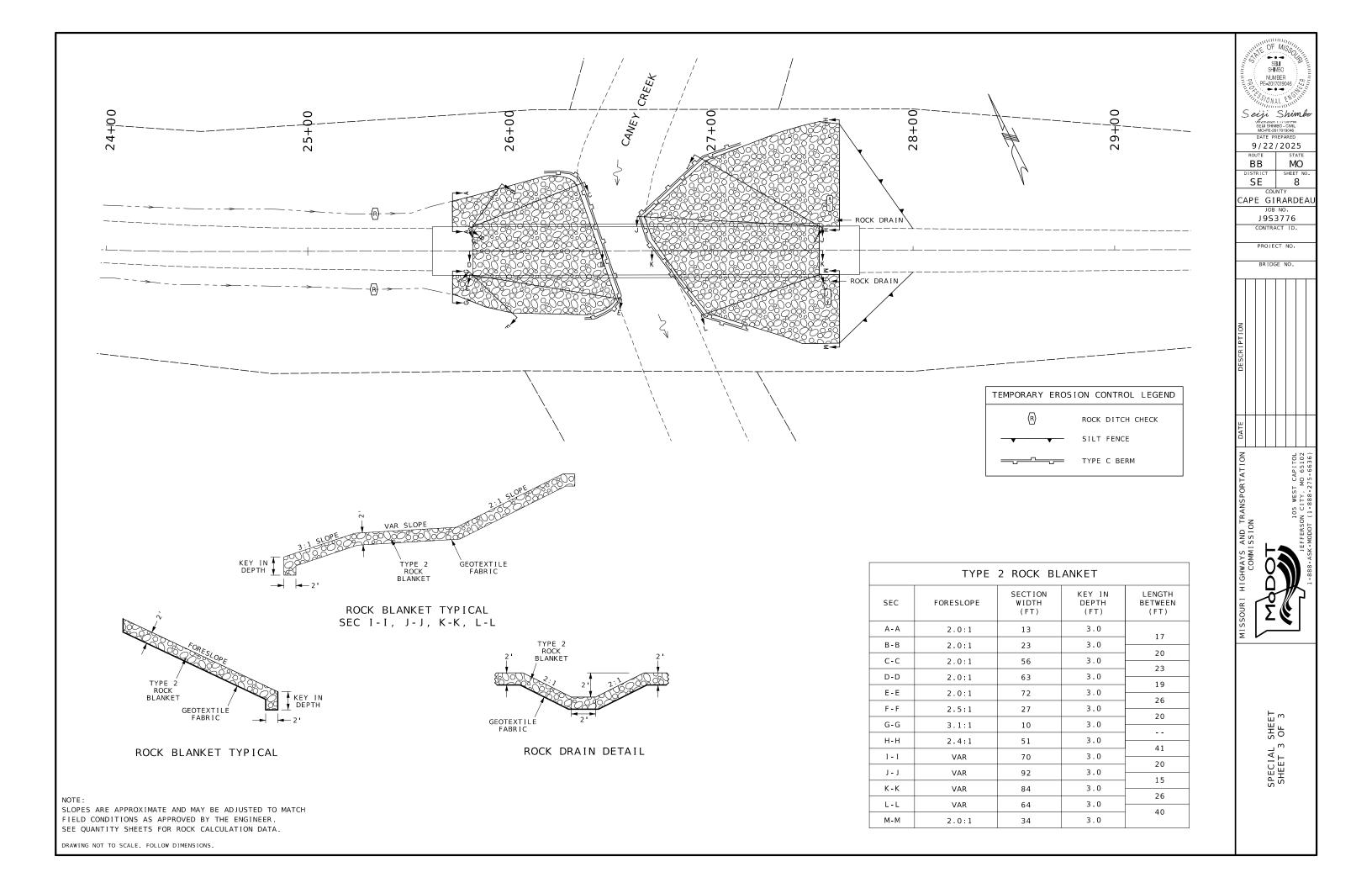


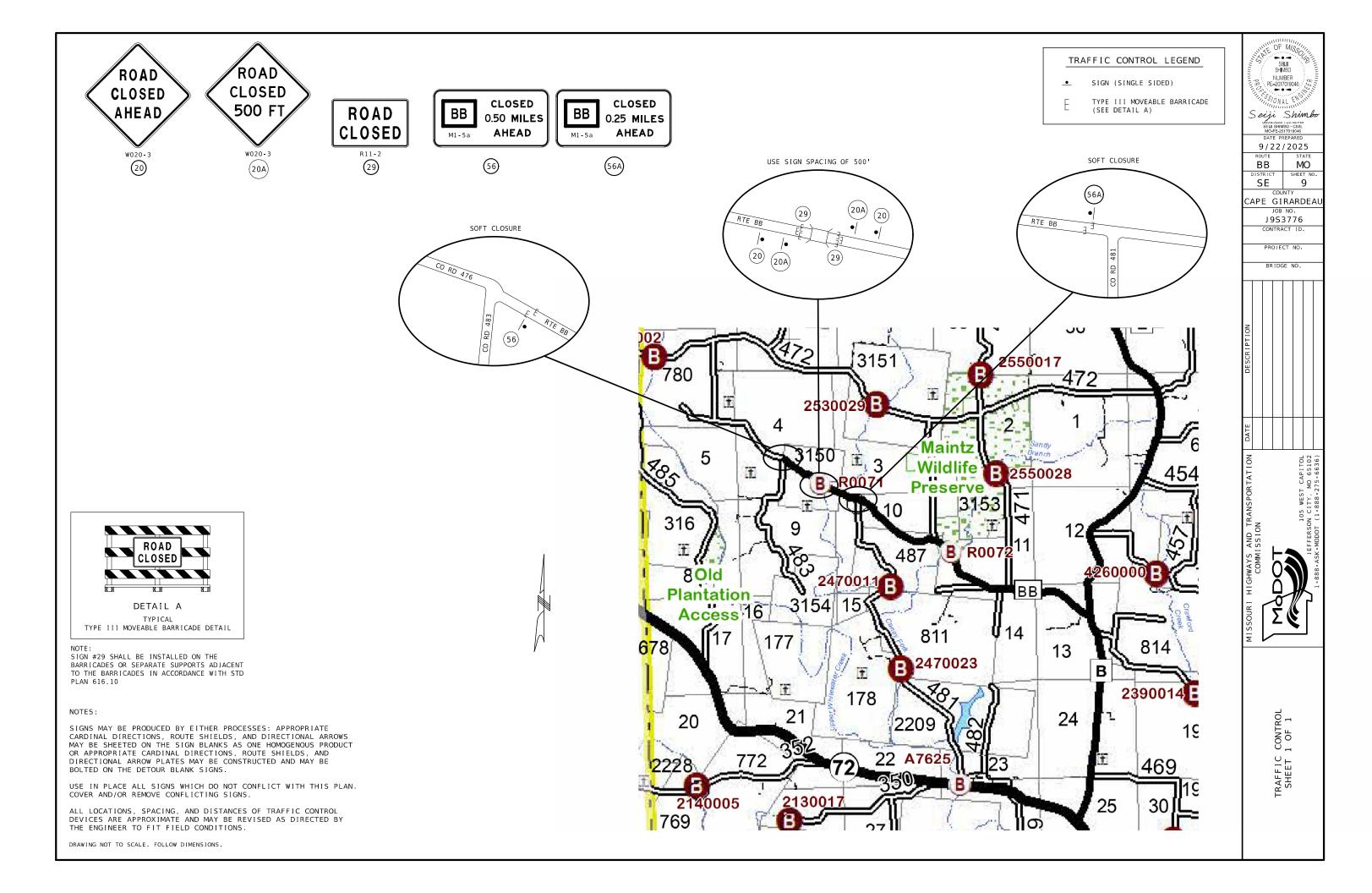
COMMISSION

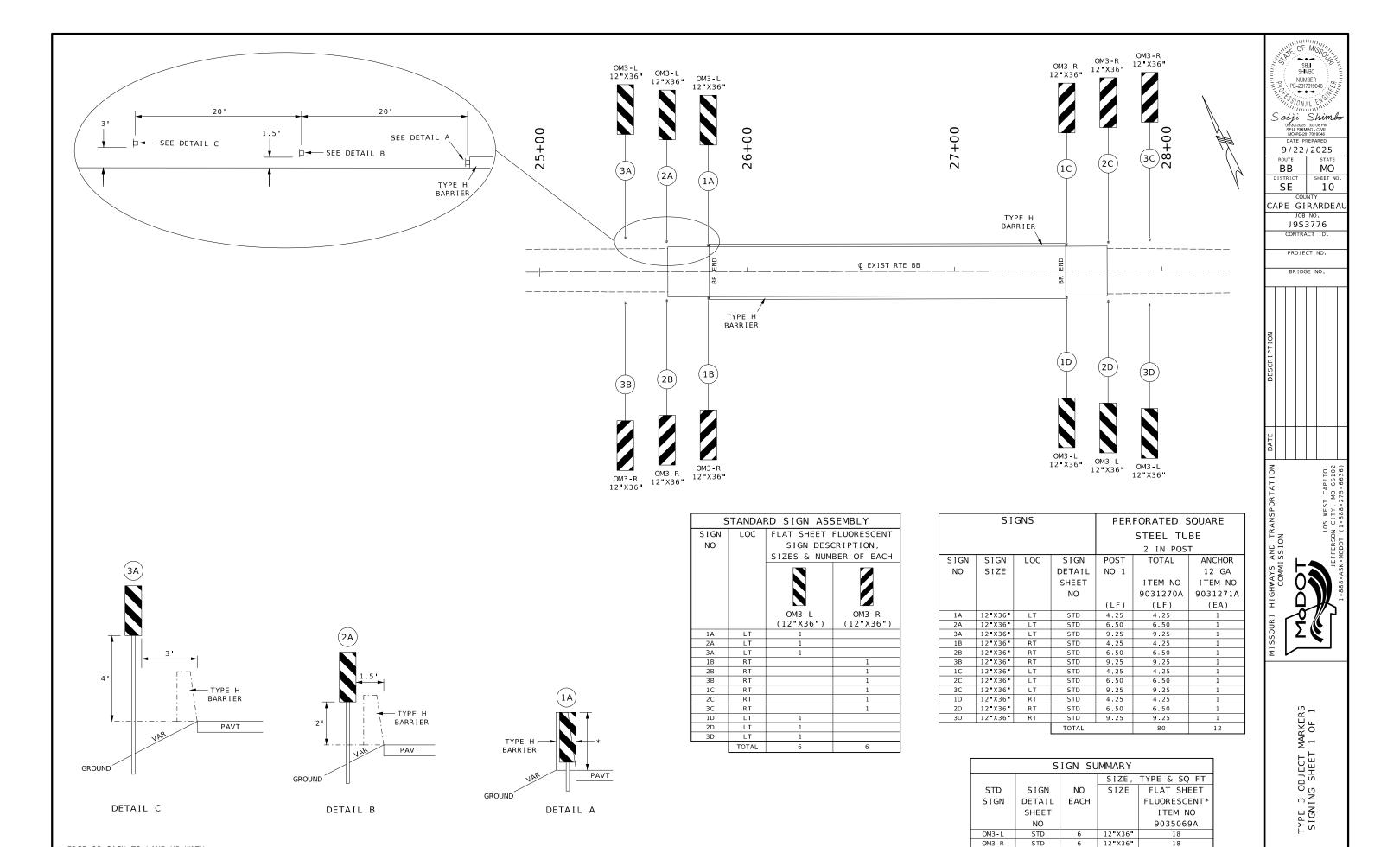
105 WEST CAPITOL

SPECIAL SHEET SHEET 1 OF 3









TOTAL

36

\*ORANGE, YELLOW & YELLOW/GREEN

\* EDGE OF SIGN TO LINE UP WITH EDGE OF TYPE H BARRIER

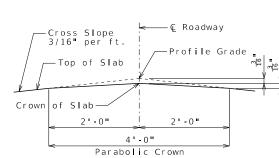
DRAWING NOT TO SCALE. FOLLOW DIMENSIONS

Table Showing								
S2 Bar Lengths								
Int. Bei	nt No. 2	Int. Bent No. 3						
Span 1	Span 2	Span 2	Span 3					
18'-6"	19'-6"	19'-6"	18'-6"					

	Lap Length Splices **
Bar Size	Splice Length
4	2'-7"
5	3'-3"
6	3'-10"
7	4'-11"

\*\* Unless otherwise shown.

#### U.I.P. AND REDECK EXISTING (52'-65'-52') CONTINUOUS COMPOSITE WIDE FLANGE BEAM SPANS



DETAIL A

#### 16" 24'-0" Roadway 16" 12'-0" 12'-0" 12-#5-S1 (Spaced as shown) 20-#6-S2 @ 5 cts (Spa between S1) 15" 10 Spa. @ 15" Symm. abt. @ Structure -> Crown of Slab-Detail A Const. Jt -#6-S3 @ 6" cts. —Detail B #5-S4 @ 6" cts. 9 Spa. @ 8" Spa 4 Spa. @ 8 € Existing 18-#5-S1 (Spaced as shown) Beam (Typ.) (1) (4) 3 -8 ± 3 8 ± 2'-4"± 7'-4"± 7 - 4 "± 2 ' - 4 "±

HALF SECTION NEAR MIDSPAN

HALF SECTION NEAR INT. BENT

#### TYPICAL SECTION THRU SLAB

#### General Notes:

Design Specifications: 2002 AASHTO LFD (17th Ed.) Standard Specifications Seismic Performance Category C

#### Design Loading:

H15-44 (1961) (Existing) HS20-44 (New Construction) No Future Wearing Surface Earth - 120 lb/cf, Equivalent Fluid Pressure 45 lb/cf (Min.) Fatigue Stress - Case III

#### Design Unit Stresses:

Class B-1 Concrete (Barrier) Class B-2 Concrete (End Bents & Superstructure, f'c = 4.000 psif'c = 4 000 nsiexcept Barrier) Reinforcing Steel (ASTM A615 Grade 60) fy = 60,000 psiStructural Carbon Steel (ASTM A709 Grade 36) fy = 36,000 psi

#### Joint Filler

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

#### Reinforcing Steel:

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

#### Concrete Protective Coatings:

Protective coating for concrete bents and piers (Epoxy) shall be applied as shown on the bridge plans and in accordance with Sec 711.

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

Roadway surfacing adjacent to bridge ends shall match new bridge slab surface. (Roadway item)

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

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

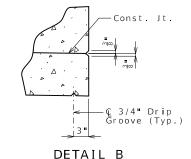
The area exposed by the removal of concrete and not covered with new concrete shall be coated with an approved qualified special mortar in accordance with Sec 704.

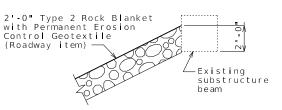
For adjusted beam deflection due to the weight of the new deck and barriers, see Bridge Electronic Deliverables.

Rubblized concrete from the existing bridge deck that qualifies as clean fill may be placed on spill slopes at end bents above ordinary high water line (Roadway item).

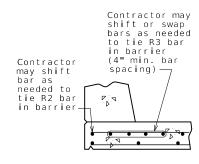
#### Traffic Handling:

Structure to be closed during construction. See roadway plans for traffic





ROCK BLANKET ON SPILL SLOPES



OPTIONAL SHIFTING TOP BARS AT BARRIER

Estimated Quantities									
I t em		Total							
Removal of Existing Bridge Deck	sq. foot	4,748							
Slab on Steel	sq. yard	509							
Type H Barrier	linear foot	344							
Protective Coating - Concrete Bents and Piers (Epoxy)	lump sum	1							
Shear Connectors	each	160							
Strengthening Existing Beams	lump sum	1							
Slab Drain	each	10							
Non-Destructive Testing	linear foot	41							
<u> </u>									

Cost of any required excavation for bridge will be considered completely covered by the contract unit price for other items

Estimated Quantities for Slab on St	eel
I t em	Total
Class B-2 Concrete cu. yard	115
Reinforcing Steel (Epoxy Coated) pound	40,310

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

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

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

For Optional Stay-In-Place Form Details, see Sheet No. 2.

#### REPAIRS TO BRIDGE: ROUTE BB OVER CANEY CREEK

ROUTE BB FROM ROUTE B TO END OF STATE MAINTENANCE ABOUT 3.3 MILES NORTHWEST OF ROUTE B BEGINNING STATION 25+82.00± (MATCH EXISTING)

TIMOTHY D

NUMBER E-20120007

10/7/2025

CAPE GIRARDEA

J9S3776

CONTRACT ID

PROJECT NO.

R00711

MO

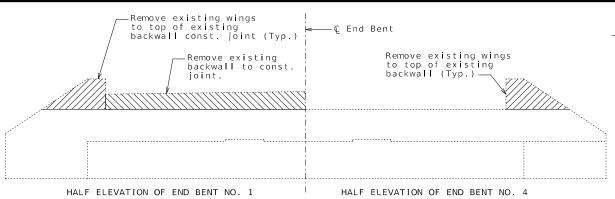
SHEET NO

1

BB

BR

",,,,,ONAL S



#### DETAILS OF CONCRETE REMOVAL AT END BENTS

The cost of concrete removal as shown will be considered completely covered by the contract unit price for Removal of Existing Bridge Deck. Vertical backwall and wingwall reinforcement to be cut off one inch below concrete removal surface and the resulting holes shall be filled with a qualified special mortar.

A smooth, level surface shall be provided at Bents No. 1 & 4 removal lines.

#### General Notes:

#### Stay-In-Place Forms:

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

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

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

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

#### Pouring and Finishing Slab:

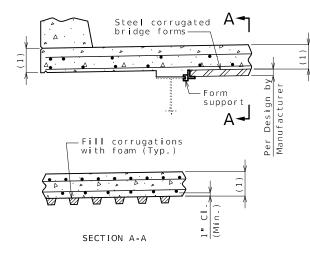
The contractor shall provide bracing necessary for lateral and torsional stability of the beams during construction of the concrete slab and remove the bracing after the slab has attained 75% design strength. Contractor shall not weld on or drill holes in the beams. The cost for furnishing, installing, and removing bracing will be considered completely covered by the contract unit price for Slab on Steal

Slab shall be poured upgrade from end to end at a minimum rate of 25 cubic yards per hour.

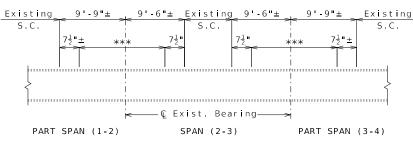
Alternate pour sequences may be submitted to the engineer for approval. Keyed construction joints shall be provided between pours.

#### Haunching

(1) Slab is to be considered a uniform thickness as shown on the plans. Haunching will vary. See front sheet for slab thickness.



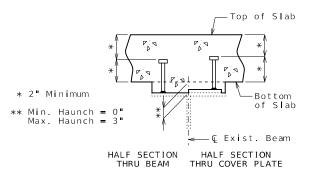
OPTIONAL STAY-IN-PLACE FORM DETAILS



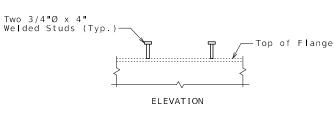
\*\*\* 10 Shear Connector Units @ 2'-0" cts. (2 - 3/4"Ø x 4" S.C. per unit)

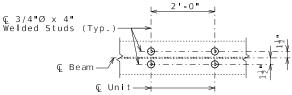
# ELEVATION SHOWING SHEAR CONNECTOR SPACING

(160 Shear connectors required)



SECTION THRU EXIST.
BEAM SHOWING
SHEAR CONNECTORS



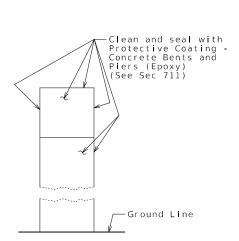


PLAN OF SHEAR CONN. (2 PER UNIT)

#### DETAILS OF SHEAR CONNECTORS

The cost of supplying and installing shear connectors will be considered completely covered by the contract unit price for Shear Connectors.

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



TYPICAL SECTION THRU
INT. BENTS NO. 2 & 3 SHOWING
PROTECTIVE COATING



TIMOTHY D. LEAF

NUMBER

PE-2012000778

710/07/2025 11:06:47 AM TIMOTHY D. LEAF - CIVIL MO-PE-2012000778

10/7/2025

CAPE GIRARDEA

J9S3776

CONTRACT ID.

PROJECT NO.

R00711

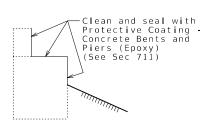
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SHEET NO

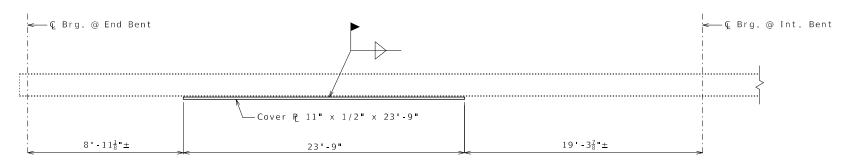
2

BB

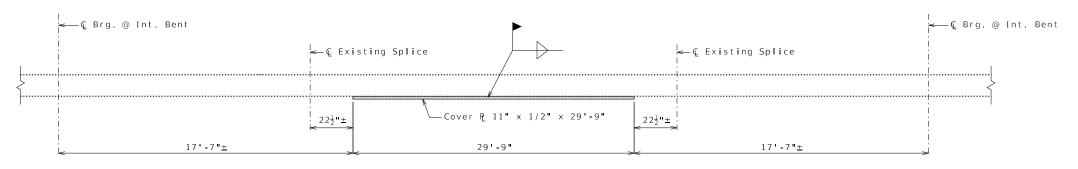
BR



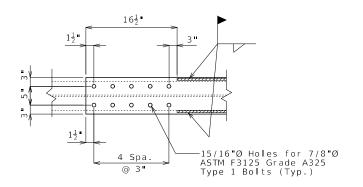
TYPICAL SECTION THRU
END BENTS NO. 1 & 4 SHOWING
PROTECTIVE COATING



# PART ELEVATION OF EXTERIOR BEAM SHOWING COVER PLATE INSTALLATION SPAN (1-2) & (4-3)



PART ELEVATION OF EXTERIOR BEAM SHOWING COVER PLATE INSTALLATION SPAN (2-3)



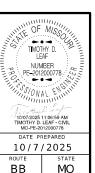
TYPICAL DETAIL OF THE ENDS OF COVER PLATES (BOTTOM VIEW)

Detailed July 2025 Checked Sep. 2025

### STRENGTHENING EXISTING BEAMS

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

Sheet No. 3 of 11

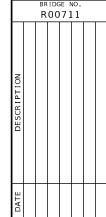


BR 3 COUNTY CAPE GIRARDEAL

SHEET NO

J9S3776

PROJECT NO.



ISSOURI HIGHWAYS AND TRANSPORTATION
COMMISSION
105 WEST CAPITOL
JEFFERSON CITY, MO 65102

#### Notes:

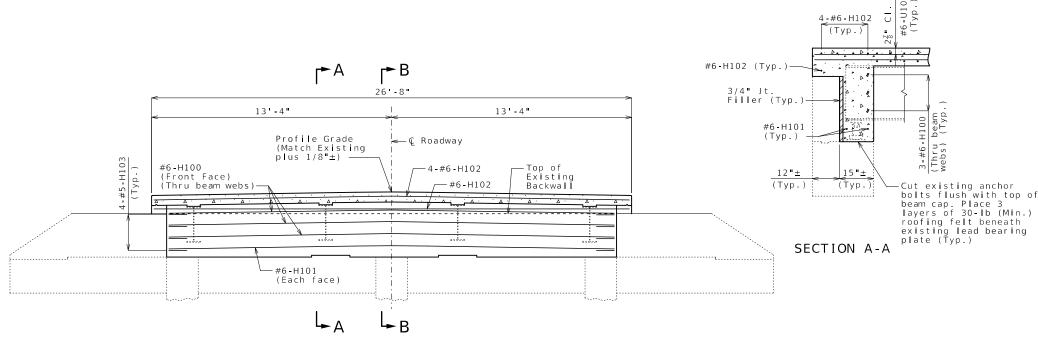
Beam with end-bolted cover plates shall be installed in the following sequence after existing bridge deck is removed:

- 1. Drill holes in cover plate and flange.
- 2. Clean faying surfaces. (See Special Provisions)
- 3. Install and tighten bolts.
- 4. Weld cover plate to flange.

Fabricated Structural Steel shall be ASTM A709 Grade 36, except as noted.

Payment for 3008 pounds of new cover plates, complete in place, will be considered completely covered by the contract lump sum price for Strengthening Existing Beams.

Notch toughness is required for all cover plates.



#### SECTION B-B

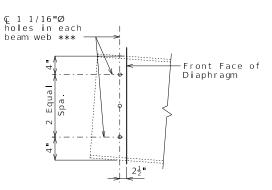
Top of Slab (Match Exist. plus 1/8"±) —

3 layers of 30-lb

(Min.) Roofing

Felt (Typ.)-

#6-U100



Transverse Slab

Reinforcement (Typ.)

Reinforcement (Typ.)

- #5 **-** U101

Chamfer

Detail

(Typ.)

#### SECTION NEAR END BENT

Existing steel end diaphragms and bearings not shown for clarity (leave in place). U bars not shown for clarity.

#### CHAMFER DETAIL

#### DETAILS OF WEB HOLES AT END BENT

\*\*\* Cost of field drilling holes in existing wide flange beam webs will be considered completely covered by the contract unit price for Slab on Steel.

#### 26'-8" Fill Face of End Bent & End of Slab-© Roadway ——⇒ Front Face of -4-#5-H103 Existing Backwall--#6-H102 (Typ.) 3-#6-H100 © Existing (Thru beam webs) Bearing Face of Diaphragm #6-H101 (Bottom) © Existing Beam 7 ' - 4 " <u>+</u> 2'-4"± 7 4 ± 7 ' - 4 "<u>+</u> 2'-4"± 28-#6-U100 7 Spa. @ 7 Spa. @ 7 Spa. @ & 28-#5-U101 abt. $10\frac{1}{2}$ abt. 10½" abt. $10\frac{1}{2}$ 25'-0"±

PART PLAN

The exposed and accessible surfaces of the existing structural steel and bearings that will be encased in concrete shall be cleaned with a minimum of SSPC-SP-3 surface preparation and coated with a minimum of one coat of gray epoxy-mastic primer (non-aluminum) in accordance with Sec 1081 to produce a dry fill thickness of not less than 3 mils before concrete is poured. The surface preparation and coating for beams shall extend a minimum of one foot outside the face of the beam encasement. Payment for cleaning and coating steel to be encased in concrete will be considered completely covered by the contract unit price for Slab on Steel.

All concrete and reinforcement is included in the Table of Estimated Quantities for Slab on Steel and will be considered completely covered by the contract unit price for Slab on Steel.

For details and reinforcement of barrier not shown, see Sheets No. 8 & 9.

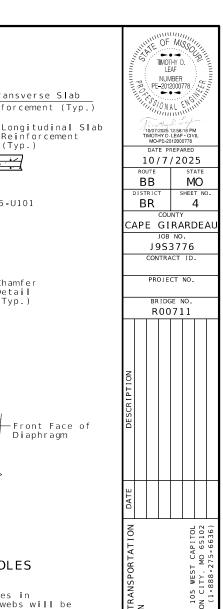
The H100 bars are segmented for ease of placement through beam web holes. The total bar length for H100 bars shown in Bill of Reinforcing Steel allows for one lap splice with a length of 3'-10". Actual bar segment lengths to be determined by contractor for ease of installing bars. The contractor may use a mechanical bar splice in lieu of a lap splice. When a mechanical bar splice is used, the actual bar segment length will be determined by the contractor to accommodate manufacturer's recommendations for installation and ease of construction. The cost of furnishing and installing the bar splices will be considered completely covered by the contract unit price for Slab on Steel. No adjustment of the quantity of reinforcing steel will be allowed for the use of mechanical bar splices.

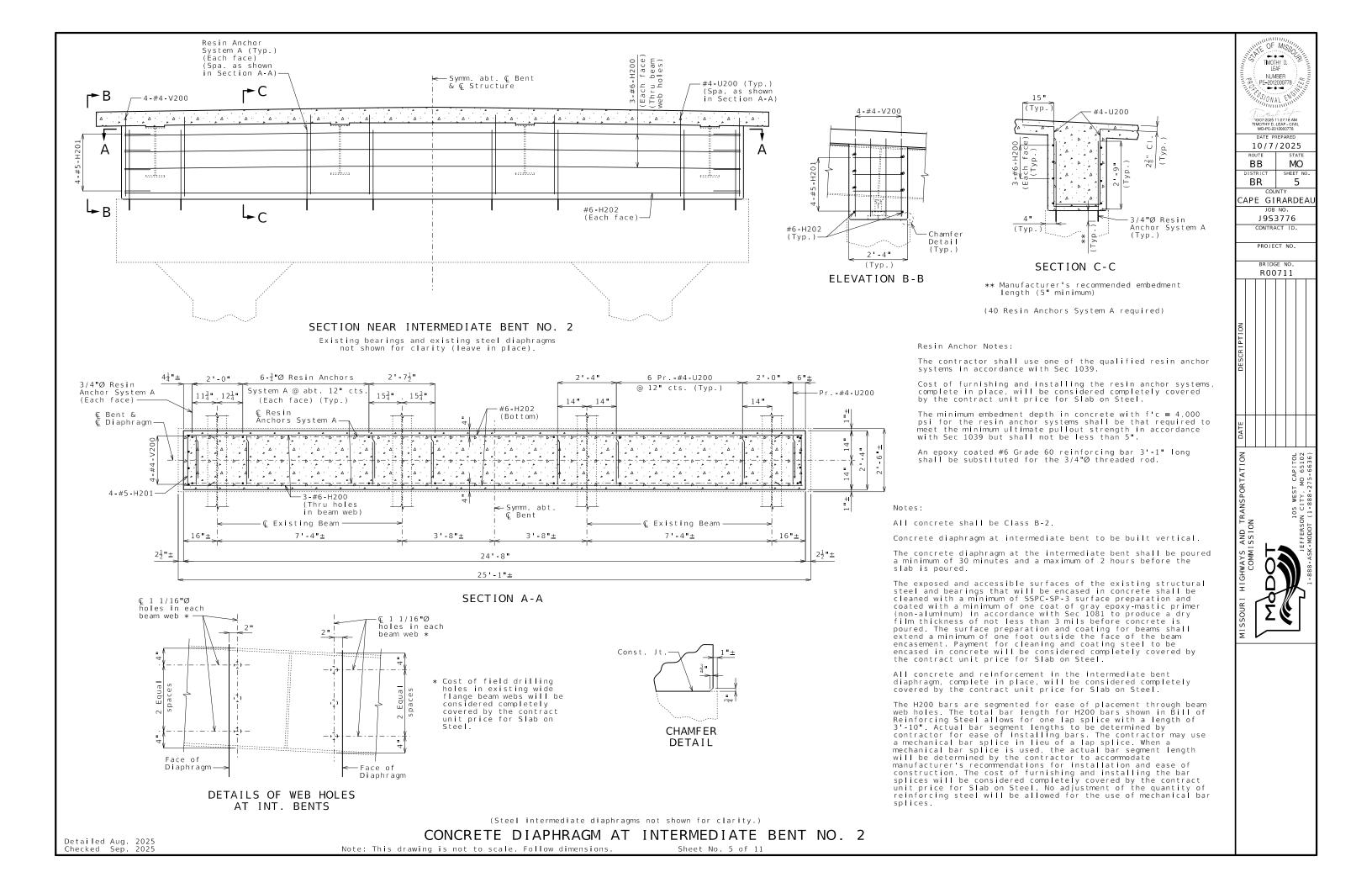
#### END BENT NO. 1

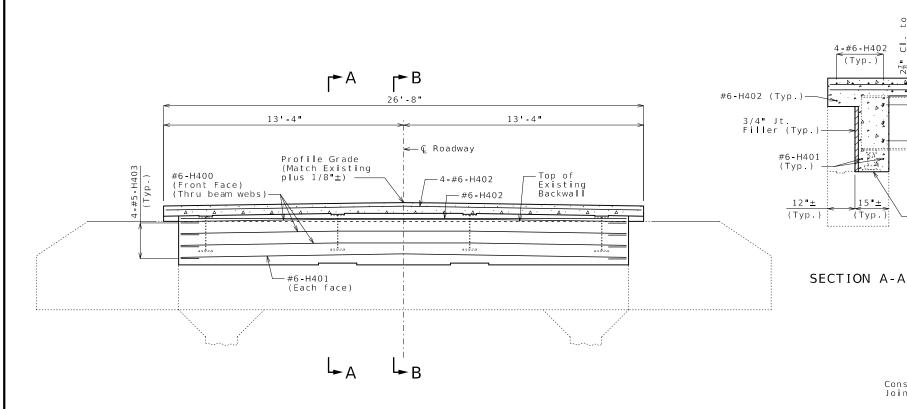
Detailed Aug. 2025 Checked Sep. 2025

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

Sheet No. 4 of 11

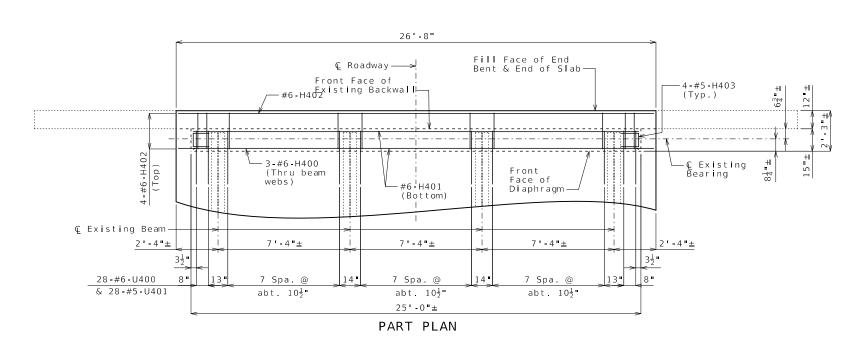






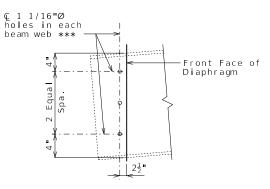
#### SECTION NEAR END BENT

Existing steel end diaphragms and bearings not shown for clarity (leave in place). U bars not shown for clarity.



## Transverse Slab Top of Slab Reinforcement (Typ.) (Match Exist. plus 1/8"±)— -Longitudinal Slab Reinforcement (Typ.) #6-U400 #5-U401 3 layers of 30-lb - Chamfer (Min.) Roofing Felt (Typ.)—— Detail (Typ.)

#### SECTION B-B



#### DETAILS OF WEB HOLES AT END BENT

\*\*\* Cost of field drilling holes in existing wide flange beam webs will be considered completely covered by the contract unit price for Slab on Steel.

4-#6-H402

`(Typ.)

Typ.

O

-Cut existing anchor bolts flush with top of beam cap. Place 3 layers of 30-lb (Min.) roofing felt beneath

existing lead bearing

plate (Typ.)

CHAMFER DETAIL

The exposed and accessible surfaces of the existing structural steel and bearings that will be encased in concrete shall be cleaned with a minimum of SSPC-SP-3 surface preparation and coated with a minimum one coat of gray epoxymastic primer (non-aluminum) in accordance with Sec 1081 to produce a dry fill thickness of not less than 3 mils before concrete is poured. The surface preparation and coating for beams shall extend a minimum of one foot outside the face of the beam encasement. Payment for cleaning and coating steel to be encased in concrete will be considered completely covered by the contract unit price for Slab on Steel.

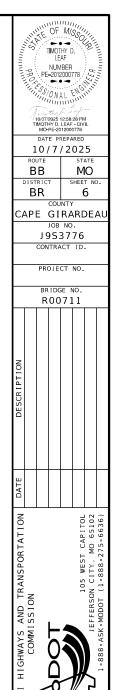
All concrete and reinforcement is included in the Table of Estimated Quantities for Slab on Steel and will be considered completely covered by the contract unit price for Slab on Steel.

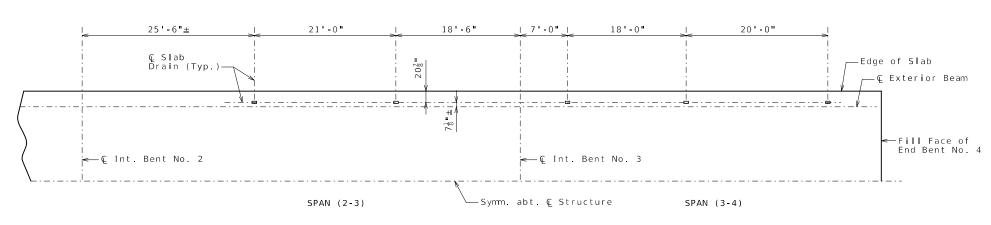
For details and reinforcement of barrier not shown, see Sheets No. 8 & 9.

The H400 bars are segmented for ease of placement through beam web holes. The total bar length for H400 bars shown in Bill of Reinforcing Steel allows for one lap splice with a length of 3'-10". Actual bar segment lengths to be determined by contractor for ease of installing bars. The contractor may use a determined by contractor for ease of installing bars. The contractor may use a mechanical bar splice in lieu of a lap splice. When a mechanical bar splice is used, the actual bar segment length will be determined by the contractor to accommodate manufacturer's recommendations for installation and ease of construction. The cost of furnishing and installing the bar splices will be considered completely covered by the contract unit price for Slab on Steel. No adjustment of the quantity of reinforcing steel will be allowed for the use of mechanical bar splices.

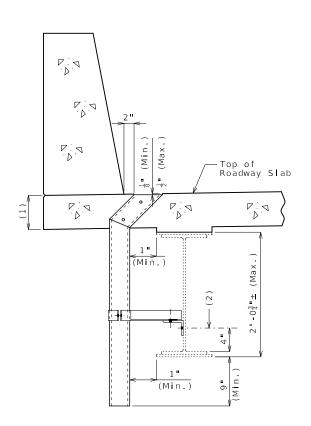
#### END BENT NO. 4

Detailed Sep. 2025 Checked Sep. 2025





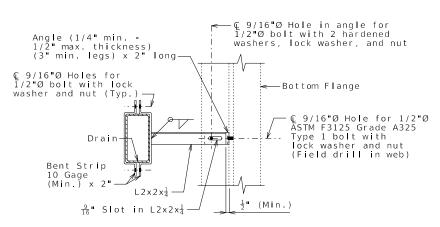
PART PLAN OF SLAB SHOWING SLAB DRAIN LOCATIONS



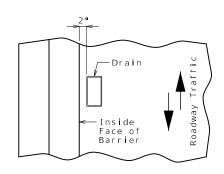
#### PART SECTION NEAR DRAIN

Detailed Aug. 2025

(2) © 9/16"Ø Hole for 1/2"Ø ASTM F3125 Grade A325 Type 1 bolt with lock washer and nut (Field drill in web)



PART SECTION SHOWING BRACKET ASSEMBLY



PART PLAN OF SLAB AT DRAIN

#### SLAB DRAINS

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

#### Sheet No. 7 of 11

ELEVATION OF DRAIN

PLAN OF STEEL DRAIN OPTION

PLAN OF FRP DRAIN OPTION

Piece

(Nom.)

-1/2"Ø x 3" Rod (ASTM A709 Grade 36)

or 1/2"Ø x 3"± Shear

-1/2"Ø x 3" Galv. Carriage Bolt with

-Upper

Piece

Hex Nut and Lock ກ Washer (Typ.)

Connector (Typ.)

#### General Notes:

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

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

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

Reinforcing steel shall be shifted to clear drains.

and nuts shall be galvanized in accordance with AASHTO M 232 (ASTM A153), Class C.

All 1/2 Ø bolts shall be ASTM A307, except

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

The bolt hole for the bracket assembly attachment shall be shifted to the minimum extent necessary to field drill in the existing web.

(1) See front sheet for slab thickness.

#### Notes for Steel Drain:

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

Outside dimensions of drains are 8" x 4".

The drains shall be galvanized in accordance with ASTM A123.

#### Notes for FRP Drain:

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

Shape of drains shall be rectangular with outside nominal dimensions of  $8\,{}^{\rm w}$  x  $4\,{}^{\rm w}$  .

Minimum reinforced wall thickness shall be

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

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

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

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

Both upper and lower drain pieces shall be rigidly connected to each other. Drain flow shall not be obstructed. Approval of the engineer is required.

---TIMOTHY D. LEAF NUMBER PE-2012000778

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10/7/2025 ВВ MO

CAPE GIRARDEA

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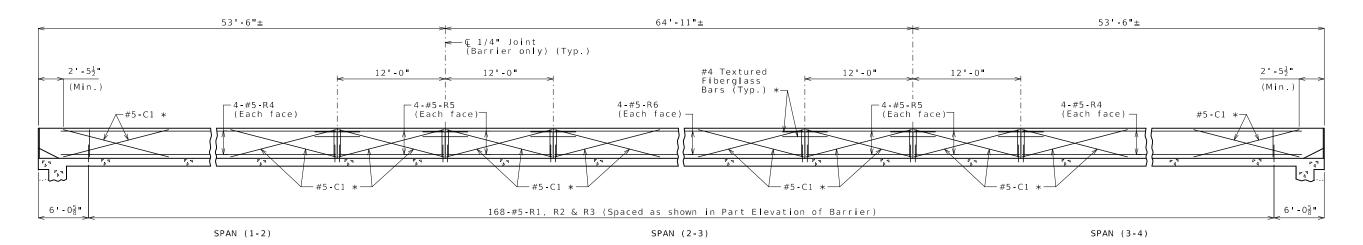
SIONAL

SHEET NO BR 7

PROJECT NO.

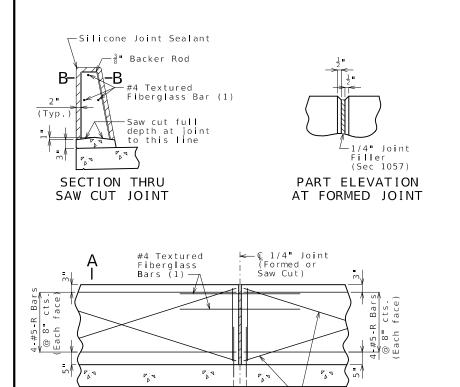
# The bracket assembly shall be galvanized in accordance with ASTM A123. All bolts, hardened washers, lock washers

CONTRACT ID.



#### ELEVATION OF BARRIER

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



#### PART ELEVATION OF BARRIER

#5-R1, R2 & R3

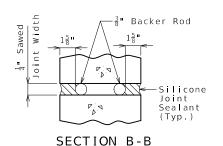
@ abt. 12" cts.

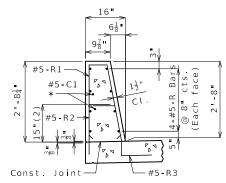
Detailed July 2025 Checked Sep. 2025 -#5-C1 (Typ.) \*

#5-R1, R2 & R3

@ abt. 12" cts.

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



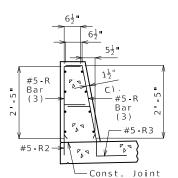


## SECTION A-A

Use a minimum lap of 2'-6" for #5 horizontal barrier bars.

The cross-sectional area above the slab is 2.89 square feet.

(2) To top of bar



#### R-BAR PERMISSIBLE ALTERNATE SHAPE

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

#### General Notes:

st Slip-formed option only.

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

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

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

Payment for all concrete and reinforcement, complete in place, will be considered completely covered by the contract unit price for Type H 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 slab to end of slab.

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 H 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. TIMOTHY D. LEAF PE-2012000778

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10/7/2025

ROUTE STATE
BB MO

SHEET NO

8

CAPE GIRARDEA

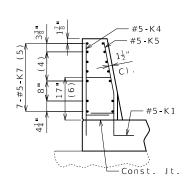
BR

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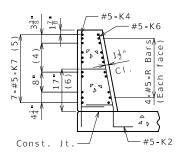
PROJECT NO.

DE 50 CR 11 ON A 11 ON

TYPE H BARRIER



**ELEVATION A-A** 



SECTION B-B

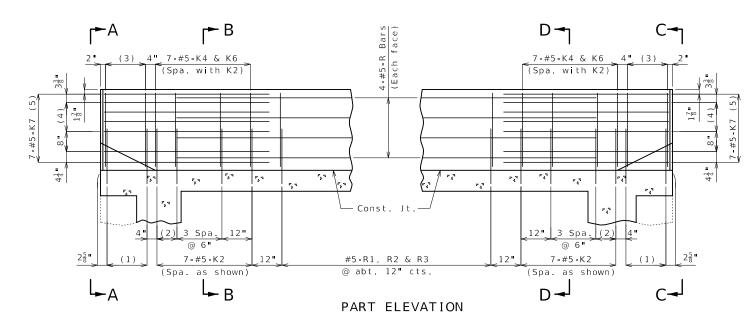
**┌─** E

1" Chamfer \*

DETAILS OF GUARD RAIL ATTACHMENT

21"

22"



- (1) 5-#5-K1 @ 4" cts.
- (2) 2 Spaces @ 4"

-¢ 1"Ø Holes

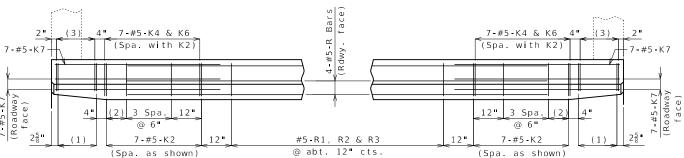
└─Const. Joint

-Ç 1"Ø Holes

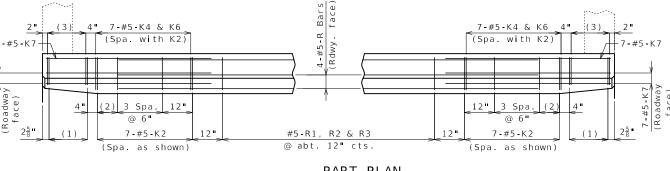
Roadway Face of Barrier

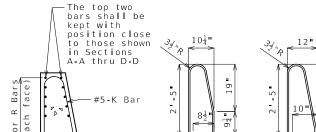
ELEVATION

- (3) 5-#5-K4 and 5-#5-K5, spaced with K1
- (4) 3 Spaces @ 3<sup>13</sup><sub>16</sub>
- (5) Spaced as shown, each face
- (6) To top of bar



PART PLAN





#5-K2-

#5-K4

#5-K5

## PERMISSIBLE ALTERNATE SHAPES

(Other K bars not shown for clarity)

\_10"

K4-K5

10"

K4-K6

The K4-K5 and K4-K6 bar combination may be furnished as one bar as shown, at the contractor's option.

All dimensions are out to out.



## General Notes:

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

#### Reinforcing Steel:

Minimum clearance to reinforcing steel shall be 1 1/2".

Use a minimum lap of 2'-6" between K7 bars and R bars.

## TYPE H BARRIER AT END BENTS

(Left barrier shown, right barrier similar)

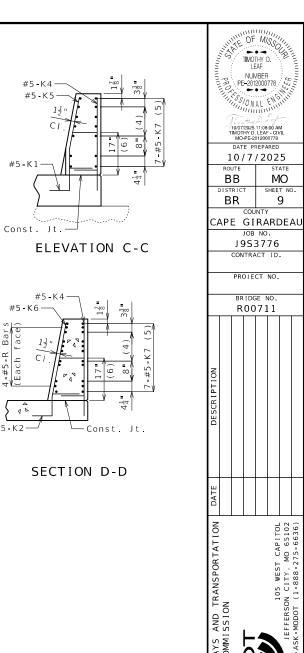
Detailed Aug. 2025 Checked Sep. 2025

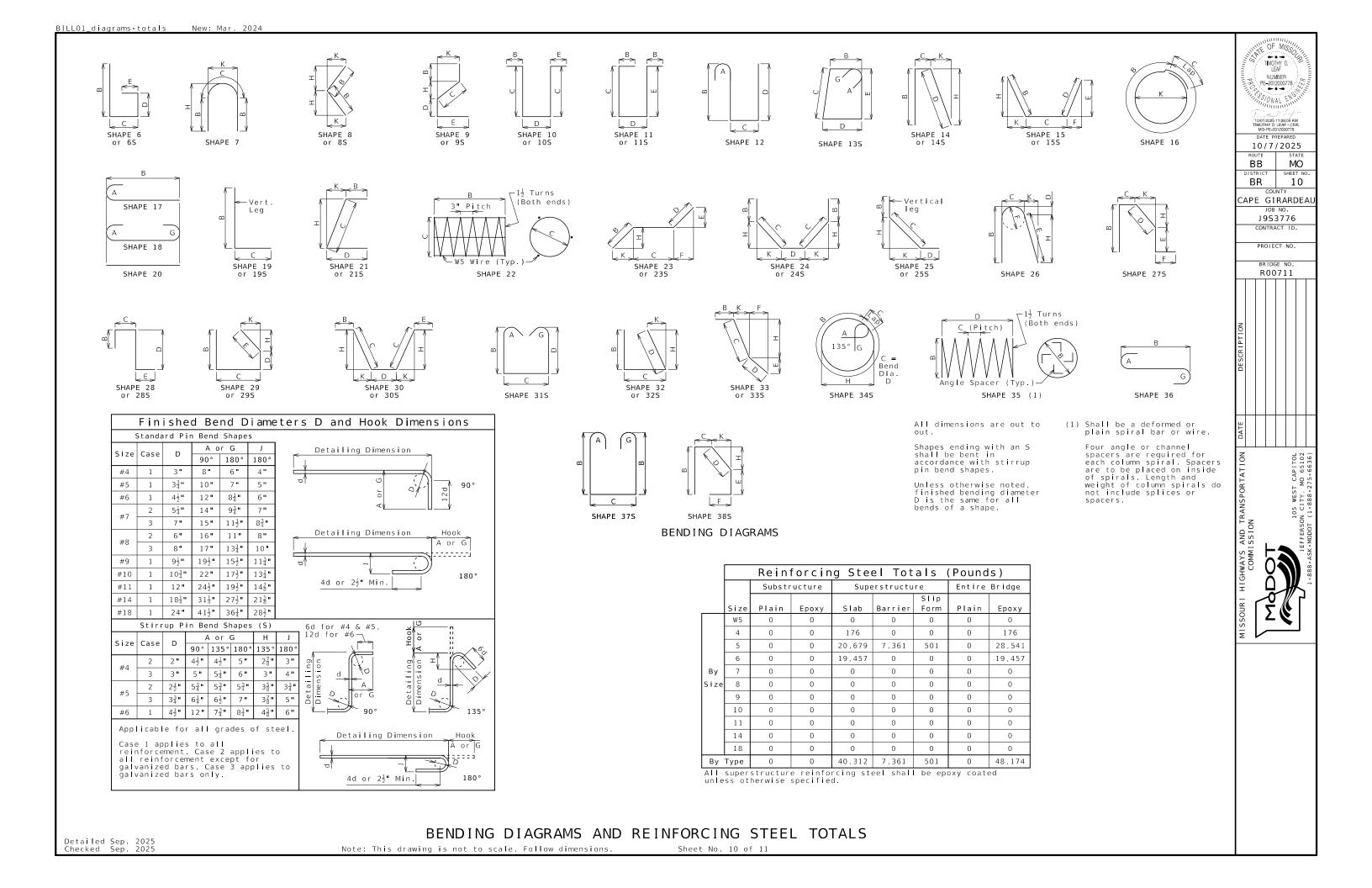
ELEVATION E-E

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

5-1"Ø Holes @ 3 13/16" cts.

Note: This drawing is not to scale. Follow dimensions. Sheet No. 9 of 11





BILLO2 data New: Mar. 2024

Bill of Reinforcing Steel  Dimensions  Nom. Actual													Bill of Reinforcing Steel											Julia	OF MISSO			
No.	Size/	_	Codes		С	D	E	F	Н	K	Length	Length	Weight	-1 1	Size/		Codes		С	D	imension E	F H		Length	Actual Length	Weight	I IIIIIII	LEAF :
Req.	Mark	Location (	C SH	V ft in.	ft in.	ft in.	ft in. f	t in.	ft in.	ft in.	ft in	. ft in	. Ib	Req.	Mark	Location	C SH \	/ft in.	ft in.	ft in.	ft in.	ft in. ft in.	ft in.	ft in.	ft in.	Ιb		NUMBER PE-2012000778
		Superstructure																									11,58	SONAL ENGINEERS
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28	6 U100	DIAPHRAGM E	E 21S		2 11 00	2 11.00			2 11.00	1.75	5 10	5 8	238														BE	
	5 U101		E 6S						2 11.00	1.,5	5 5		151														BR	11
		End Bent 4																									CAPE	GIRARDEA
	6 H400 6 H401		E 20 E 20	28 7.00							28 7			+														JOB NO. 953776
5	6 H402 5 H403	DIAPHRAGM E	E 20 E 10S	26 5.00	10.50	10.00					26 5 2 7	26 5	198														CC	ONTRACT ID.
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Nomin Liste	nal leng	ths are based on e nearest inch fo	out t	o out dime	ensions use. Ac	shown in tual lend	bending doths are m	iagrams easured	and are along			ΔΙΙ	hars sha	all he	Grade 60	0		Codes: (	C = Requi	red coati	ngs, wh	ere E = Epoxy Co	ated and G	G = Galv	van <b>i</b> zed.			

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.

SH = Required shape, see bending diagrams.

V = Sets of varied bars and number of bars of each length. Bar dimensions vary in equal increments between dimensions shown on this line and the following line and the actual length dimension shown on this line and the following line vary by the specified increment.

For bending diagrams and steel reinforcing totals, see Sheet No. 10.

BILL OF REINFORCING STEEL

Detailed Sep. 2025 Checked Sep. 2025

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

Sheet No. 11 of 11