DESIGN DESIGNATION

V = 55 M.P.H.

A.A.D.T. - 2026 = 1,560 A.A.D.T. - 2046 = 1,784 D.H.V. = 12.1% T = 4.19%

FUNCTIONAL CLASSIFICATION - MAJOR COLLECTOR

NEW R/W REQUIRED: TEMPORARY EASEMENTS S9 T45N R13W

CONVENTIONAL SYMBOLS

BUILDINGS AND STRUCTURES GUARD RAIL GUARD CABLE CONCRETE RIGHT-OF-WAY MARKER STEEL RIGHT-OF-WAY MARKER LOCATION SURVEY MARKER UTILITIES	EXISTING DESCRIPTION OCCUPANT OCC	NEW
FIBER OPTICS OVERHEAD CABLE TV UNDERGROUND CABLE TV OVERHEAD TELEPHONE UNDERGROUND TELEPHONE OVERHEAD POWER UNDERGROUND POWER SANITARY SEWER STORM SEWER GAS WATER	- FO- -OTV- -UTV- - OT- - UT- - OE- - UE- - S- - SS- - G- - W-	-UTV- -OT- -UT- -OE-
MANHOLE	SAN HYD)
FIRE HYDRANT	WV	Ĵ
WATER VALVE	wv wm)
WATER METER	WIVI)
DROP INLET	DI	
DITCH BLOCK	=	<u>=</u>
GROUND MOUNTED SIGN	SIGN — u	_
LIGHT POLE		
H-FRAME POWER POLE		
TELEPHONE PEDESTAL FENCE CHAIN LINK WOVEN WIRE GATE POST	PED	-
BENCHMARK	\otimes)

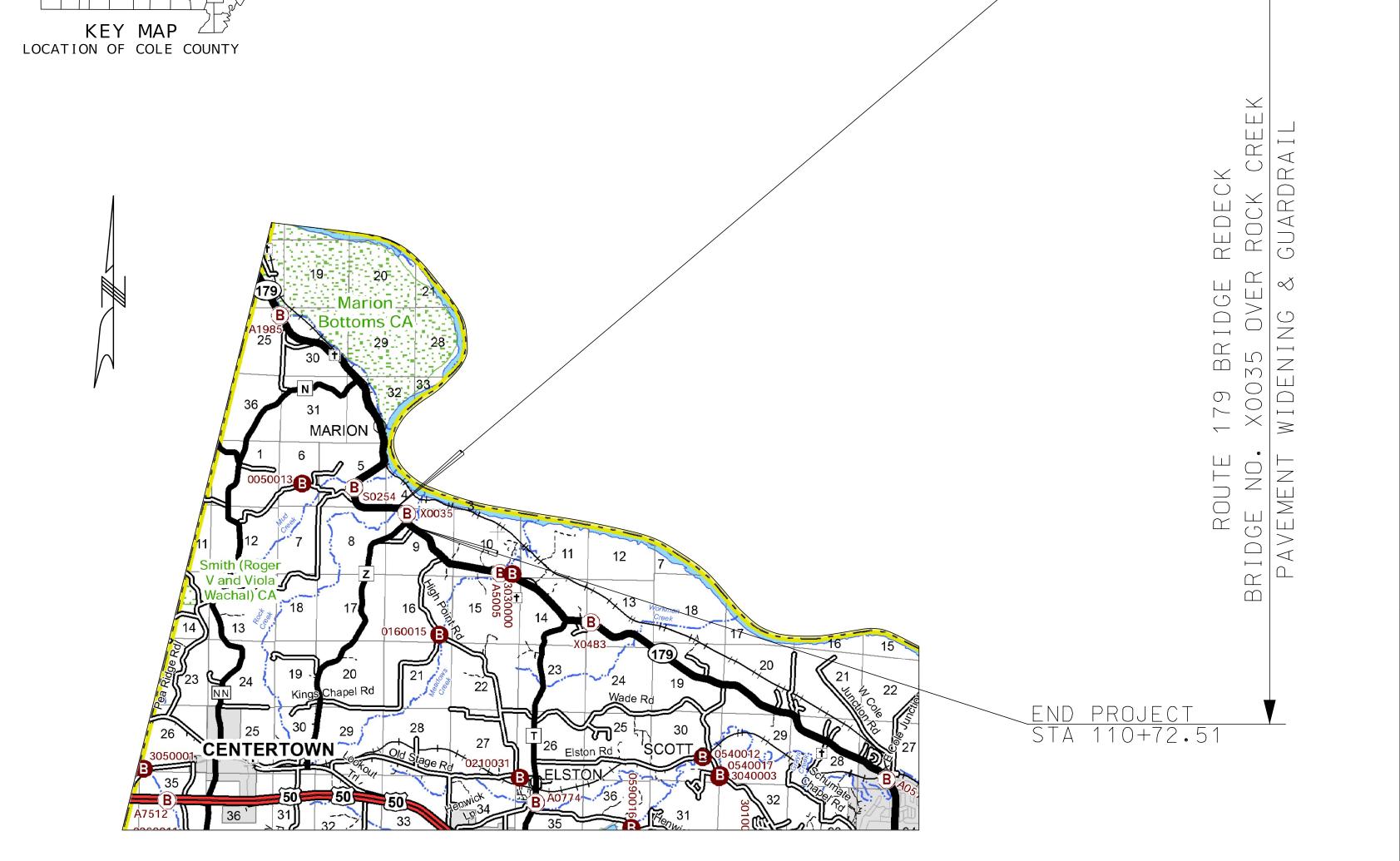
NOTE: DASHED OR OPEN SYMBOLS INDICATE EXISTING FEATURES

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

PLANS FOR PROPOSED STATE HIGHWAY COLE COUNTY

S9 T45N R13W

BEGIN PROJECT



NOT TO SCALE

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

INDEX OF SHEETS

DESCRIPTION	SHEET NUMBER
TITLE SHEET	- 1
TYPICAL SECTIONS (TS) (1 SHEET)	- 2
QUANTITIES (QU) (2 SHEETS)	- 3
PLAN-PROFILE (PP)	- 4
RIGHT OF WAY (RW)	- 5
REFERENCE & COORDINATE POINTS (RP/CP)	- 6
TRAFFIC CONTROL SHEETS (TC)	- 7-11
EROSION CONTROL SHEETS (EC)	- 12
SIGNING SHEETS (SN)	- 13-14
CROSS SECTIONS (XS)	- 1 - 7
BRIDGE DRAWINGS (B)	
X00351	1 - 13

GREGORY G. LEARY NUMBER PE-026654 Prong J Leary 09/29/2025 6:14:05 AM GREGORY G. LEARY - CIVIL MO-PE-026654							
	PREPARED 3 / 2025						
ROUTE	STATE						
179	MO_						
DISTRICT	SHEET NO.						
CD							
COUNTY							
COLE							
_							
JC	OB NO.						
J C I	DB NO.						
J C I	OB NO.						
J CI CONT	DB NO.						
J C CONT	DB NO. D0074 RACT ID.						
J C CONT	DB NO. DOOT4 RACT ID. JECT NO.						
J C CONT	DB NO. DOOT4 RACT ID. JECT NO.						
J C CONT	DB NO. DOOT4 RACT ID. JECT NO.						
J C CONT	DB NO. DOOT4 RACT ID. JECT NO.						

LENGTH OF PROJECT

BEGINNING OF PROJECT	STA.	104+81.78
END OF PROJECT	STA.	110+72.51
APPARENT LENGTH		590.73

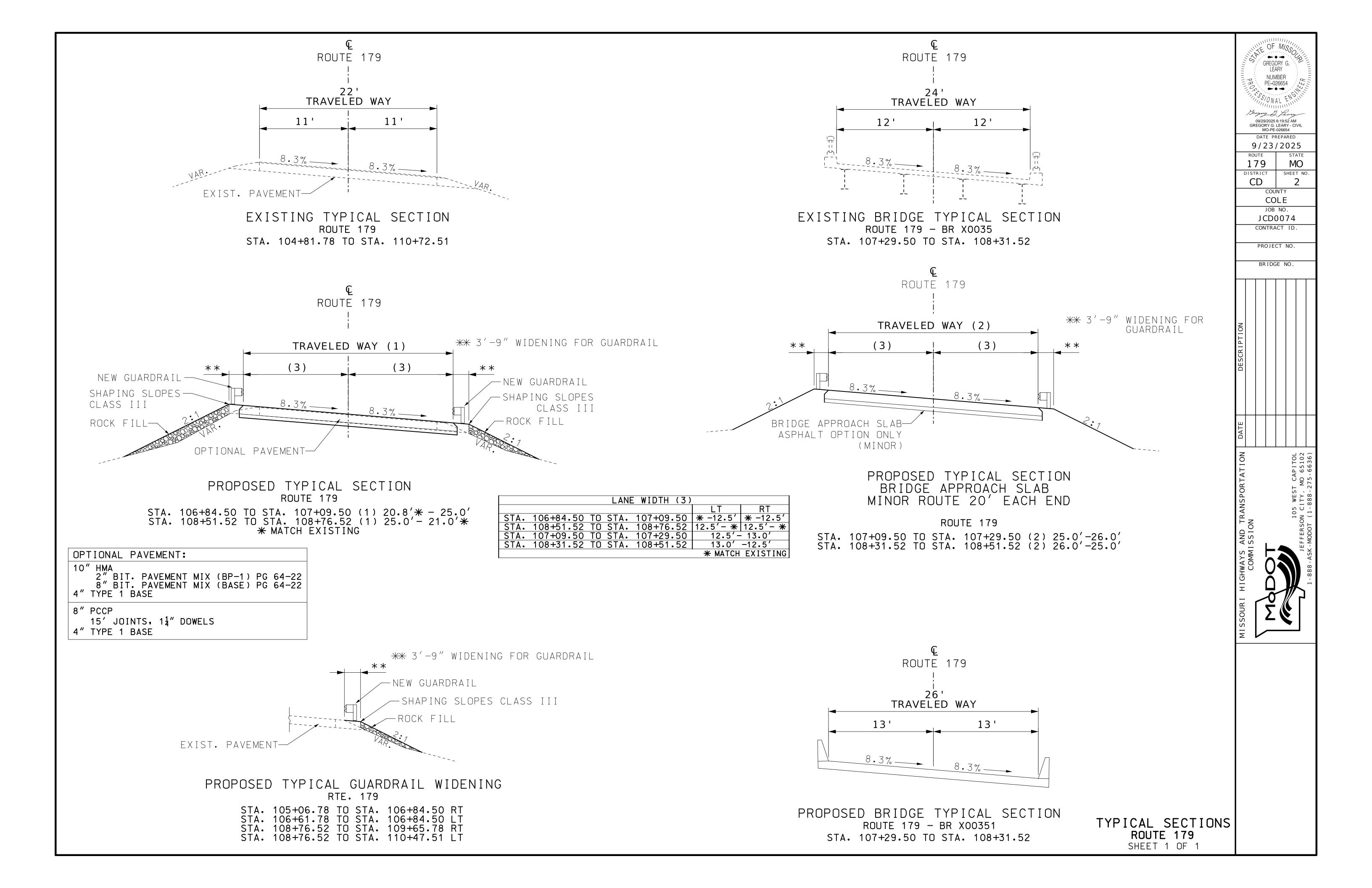
EQUATIONS AND EXCEPTIONS:

NONE

FEET



0	FEET
590.73	FEET
0.112	MILES
0.5	ACRE
	590.73



	GRAVEL (A) OR CRUSHED STONE (B)								
					GRAVEL (A) OR				
		LENGTH	QUANTITY	THICKNESS	CRUSHED STONE (B)				
STATION	LOCATION	(FT)	(SY)	(IN)	(TONS)	REMARKS			
106+45.00	ROUTE 179 LT	46'	61.1	2	4.8	FIELD ENTRANCE FOR PARCEL 3 TO R/W LINE			
			TOTAL	4.8					
				USF	5				

ESTIMATE FACTOR:

GRAVEL (A) OR CRUSHED STONE (B) = 0.039 TON/SY/IN

OPTIONAL PAVEMENT								
STATION LENGTH PAVING WIDTH QUANTITY								
FROM	TO	LOCATION	(FT)	(FT)	(SY)	REMARKS		
106+84.50	107+09.50	ROUTE 179	25.0	23	63.9	PAVEMENT WIDTH VARIES 20.8'-25.0'		
108+51.52	108+51.52							
				TOTAL	127.8			
				USE	128			

	TYPE 1 AGGREGATE FOR BASE (4 IN.)								
STA	ATION		LENGTH	PAVING WIDTH	QUANTITY				
FROM	TO	LOCATION	(FT)	(FT)	(SY)	REMARKS			
106+84.50	107+09.50	ROUTE 179	25.0	23	63.9	PAVEMENT WIDTH VARIES 20.8'-25.0'			
108+51.52	108+76.52	ROUTE 179	25.0	23	63.9	PAVEMENT WIDTH VARIES 25.0'-21.0'			
				TOTAL	127.8				
				USE	128				

	TYPE 2 ROCK BLANKET									
				FURNISHING	PLACING	PERMANENT				
		AREA	DEPTH	TYPE 2	TYPE 2	EROSION CONTROL				
				ROCK BLANKET	ROCK BLANKET	GEOTEXTILE				
STATION	LOCATION	(S.F.)	(FT.)	(C.Y.)	(C.Y.)	(S.Y.)	REMARKS			
107+09.50	ROUTE 179	2518.4	2	186.5	186.5	279.8	NORTH SPILL FILL			
			TOTAL	186.5	186.5	279.8				
			USE	187	187	280				

		TEMPORARY	EROS I O	N CONTRO	L QUANTII	TIES
				ROCK		
			SILT	DITCH	SEDIMENT	
			FENCE	CHECK	REMOVAL	
STATION	STATION	LOCATION	L.F.	L.F.	CY	REMARKS
104+68.41	107+58.97	ROUTE 179 RT	290.6		2.9	RT SLOPE LIMIT
106+49.95	107+59.21	ROUTE 179 LT	109.3		1.1	LT SLOPE LIMIT
107+59.21	107+58.97	ROUTE 179 LT & RT	90.0		0.9	SPILL FILL
108+24.43	110+03.70	ROUTE 179 RT	179.3		1.8	RT SLOPE LIMIT
108+22.08	110+93.43	ROUTE 179 LT	271.4		2.7	LT SLOPE LIMIT
107+58.97		ROUTE 179 RT		9.0	1.0	1 ROCK DITCH CHECK AT 9 LF
107+59.21		ROUTE 179 LT		9.0	1.0	1 ROCK DITCH CHECK AT 9 LF
108+24.43		ROUTE 179 RT		9.0	1.0	1 ROCK DITCH CHECK AT 9 LF
108+22.08		ROUTE 179 LT		9.0	1.0	1 ROCK DITCH CHECK AT 9 LF
		TOTALS	940.6	36.0	13.4	
		USE	941	36	13	

	GUARDRA I L									
					6.5 FT POST		TYPE A	SHAPING		
					BR I DGE	ASYMMETR I CAL	MASH	SLOPES		
				MGS	ANCHOR	TRANSITION	CRASHWORTHY	(GUARDRAIL)		
				GUARDRAIL	SECTION	SECTION	END TERMINAL	CL III		
SHEET	STATION	STATION	LOCATION	(LF)	(EA)	(EA)	(EA)	STA	REMARKS	
4	105+19.20	107+29.50	ROUTE 179 RT	137.5	1	1	1	2.1		
4	106+61.44	107+29.50	ROUTE 179 LT	0	1	1	1	0.8		
4	108+31.52	109+53.06	ROUTE 179 RT	50.0	1	1	1	1.3		
4	108+31.52	110+35.25	ROUTE 179 LT	137.5	1	1	1	2.1		
		_	TOTAL	325	4	4	4	6.3		
			USE	325	4	4	4	7.0		

REMO	REMOVAL OF IMPROVEMENTS							
STA 591+14 - RT	REMOVE WEIGHT RESTRICTION SIGN							
STA 110+29 - LT	REMOVE WEIGHT RESTRICTION SIGN							
106+85 - 107+26, RT & LT	REMOVE 6 OBJECT MARKERS							
108+35 - 108+75, RT & LT	REMOVE 6 OBJECT MARKERS							
106+85.55 LT	REMOVE CHEVRON AND SIGNPOST							
108+73.49 LT	REMOVE CHEVRON AND SIGNPOST							
109+48.85 RT	RELOCATE JEFFERSON CITY 12MI SIGN ON NEW SIGNPOSTS							
109+52.32 LT	REMOVE & RELOCATE CHEVRON ON NEW SIGNPOST							
110+29.22 LT	REMOVE & RELOCATE CHEVRON ON NEW SIGNPOST							
106+84.50 - 107+29.50	REMOVE 107 SY EXISTING PAVEMENT							
108+31.52 - 108+76.52	REMOVE 111 SY EXISTING PAVEMENT							
	1 LUMP SUM							

		PAV	/EMENT MA	RKING	
CLASS 1	MARKIN	G PAINT (18-MI	L, TYPE F	BEADS)	
			4"	4 "	
			SOLID	SOLID	
	ТО		WHITE	YELLOW	
STA	STA	LOCATION	FT.	FT.	REMARKS
106+84.50	108+76.52	ROUTE 179 C/L		384.0	DOUBLE YELLOW CENTER STRIPE
106+84.50	108+76.52	ROUTE 179 RT & LT	384.0		SOLID WHITE EDGELINES
		TOTAL	384.0	384.0	
		USE	384	384	

NOTE: CONTRAST MARKING WILL BE REQUIRED FOR THE CONCRETE OPTION AT NO DIRECT PAY

		E.	ARTHWORK		
			FURNISHING	PLACING	
			ROCK FILL	ROCK FILL	
STATION	STATION	LOCATION	(C.Y.)	(C.Y.)	REMARKS
104+94.20	106+84.50	ROUTE 179 RT & LT	80.0	80.0	GUARDRAIL WIDENING
106+84.50	107+29.50	ROUTE 179 LT & RT	87.0	87.0	
108+31.52	108+76.52	ROUTE 179 LT & RT	100.0	100.0	
108+76.52	110+60.25	ROUTE 179 LT & RT	99	99	GUARDRAIL WIDENING
		TOTAL	366.0	366.0	
		USE	366	366	

		SUBGR	ADING A	AND SHOULDER	RING, CL	ASS 1
STATION			LENGTH	PAVING WIDTH	QUANTITY	
FROM	TO	LOCATION	(FT)	(FT)	(100 FT)	REMARKS
106+84.50	107+09.50	ROUTE 179	25.0	23	0.3	PAVEMENT WIDTH VARIES 20.8'-25.0'
108+51.52	108+76.52	ROUTE 179	25.0	23	0.3	PAVEMENT WIDTH VARIES 25.0'-21.0'
				TOTAL	0.6	
				USE	1	

SEEDING AND MULCHING-COOL SEASON GRASSES

1 LUMP SUM

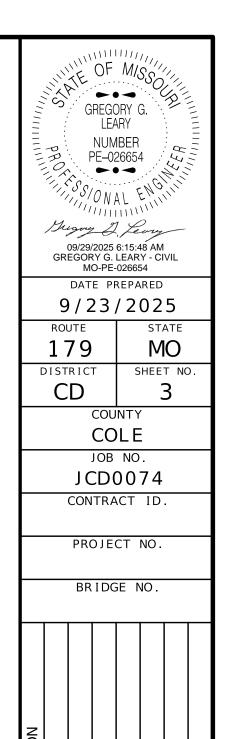
CONTRACTOR FURNISHED SURVEY AND STAKING
1 LUMP SUM

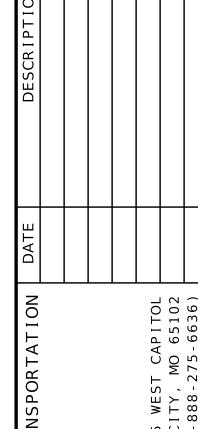
MOBILIZATION
1 LUMP SUM

CLEARING AND GRUBBING

1 ACRE

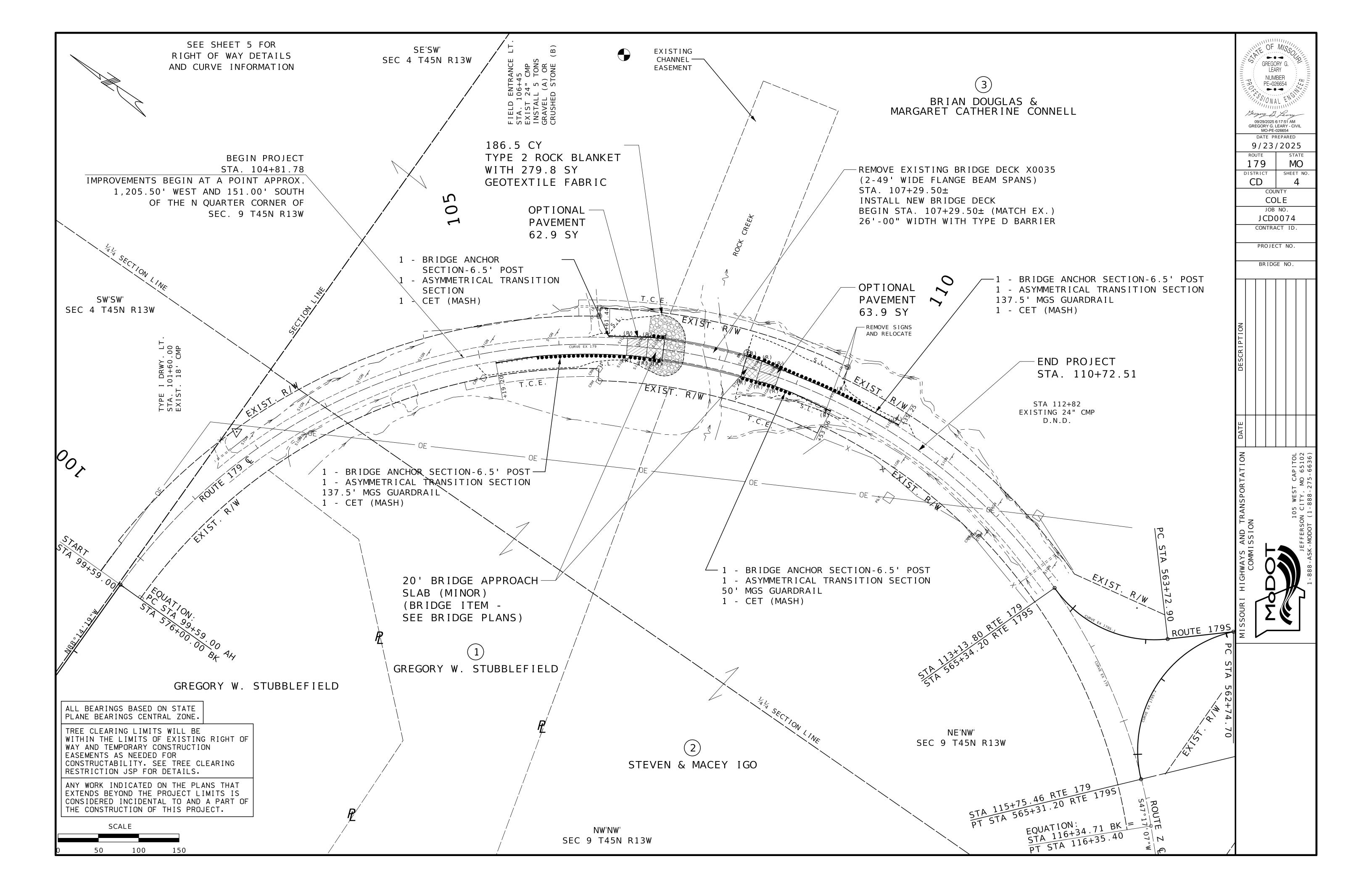
SUMMARY OF QUANTITIES
SHEET 1 OF 2

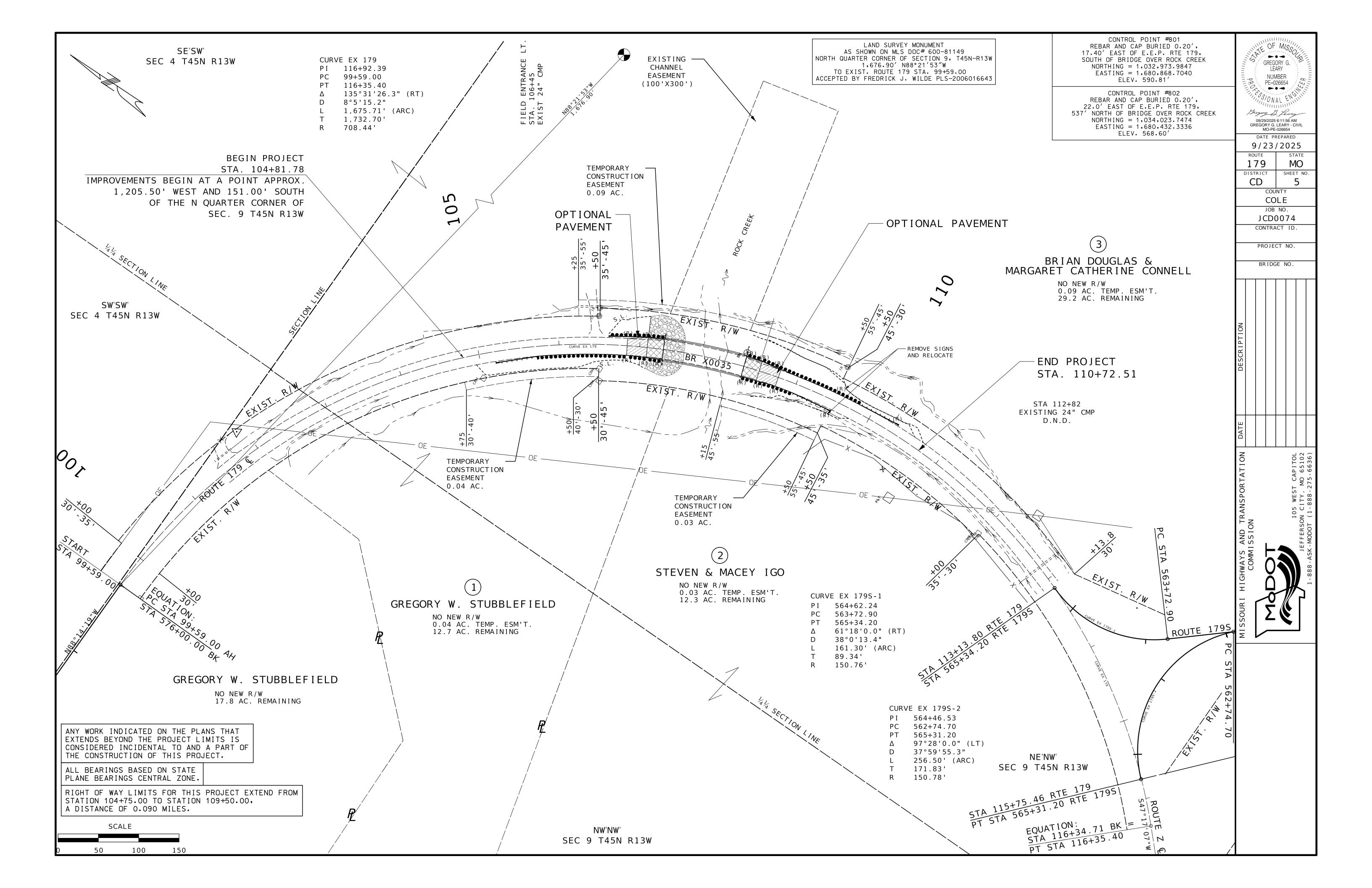






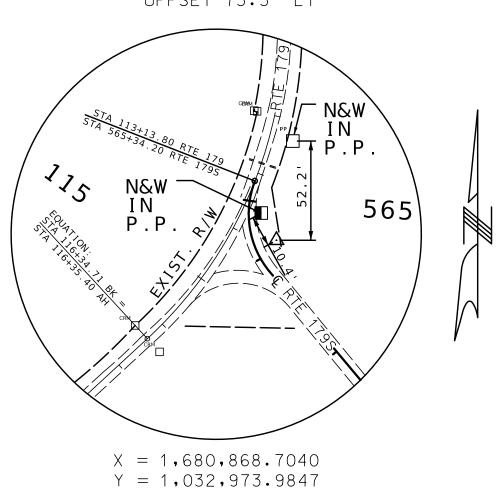
			_	TOTAL OTY TOTAL		П	1		I I OTV	ΙτοταιΙ	·		1	FFFCTIVE: 07 01 2025	Γ
CICN	C 1 7		$\bigcup_{\alpha \in \mathcal{M}}$	TOTAL QTY TOTAL		CICN				TOTAL		I T = N A		EFFECTIVE: 07-01-2025	OF MISSO
SIGN				AREA RELOCRELOC SIG		SIGN			QTY TOTAL RELOC				TOTAL		AL CONTRACTOR
	IN.	SQ.FT	EACH	SQ.FT. EACH SQ.FT. NO	. DESCRIPTION		IN.	SQ.FT.	EACH SQ.FT. EACH		DESCRIPTION	NUMBER	_	DESCRIPTION	GREGORY G.
		_	_ 1	WARNING SIGNS			T =		GUIDE SI	GNS		6122008		IMPACT ATTENUATOR 40 MPH (SAND BARRELS)	NUMBER =
		8 16.00			TURN (SYMBOL LEFT)	E05 - 1		12.00			GORE EXIT	6122009		IMPACT ATTENUATOR 45 MPH (SAND BARRELS)	PE-026654
WO1 - 1R		8 16.00			TURN (SYMBOL RIGHT)	E05-2		12.00			EXIT OPEN	6122010		IMPACT ATTENUATOR 50 MPH (SAND BARRELS)	11,500 NAL ENGILLI
WO1 - 2L		8 16.00			CURVE (SYMBOL RICHT)	E05 - 2a	+	12.00			EXIT CLOSED	6122012	+	IMPACT ATTENUATOR 55 MPH (SAND BARRELS)	
WO1 - 2R		8 16.00 8 16.00			CURVE (SYMBOL RIGHT)	GO20 - 1	48X24	10.00			ROAD WORK NEXT XX MILES END ROAD WORK	6122014		IMPACT ATTENUATOR 60 MPH (SAND BARRELS)	Gregory J. Levry 09/29/2025 6:21:08 AM
WO1 - 3L					REVERSE TURN (SYMBOL LEFT)	GO20 - 2						6122017		IMPACT ATTENUATOR 65 MPH (SAND BARRELS)	09/29/2025 6:21:08 AM GREGORY G. LEARY - CIVIL MO-PE-026654
WO1 - 3R		8 16.00			REVERSE TURN (SYMBOL RIGHT)	GO20 - 4	36X18	+			PILOT CAR FOLLOW ME	6122019		IMPACT ATTENUATOR 70 MPH (SAND BARRELS) REPLACEMENT SAND BARREL	DATE PREPARED
WO1 - 4L WO1 - 4R		8 16.00 8 16.00			REVERSE CURVE (SYMBOL LEFT) REVERSE CURVE (SYMBOL RIGHT)	GO20 - 4a GO20 - 4a					PILOT CAR IN USE WAIT & FOLLOW PILOT CAR IN USE WAIT & FOLLOW			IMPACT ATTENUATOR (RELOCATION)	9/23/2025
WO1 - 4K					DOUBLE ARROW REVERSE CURVE (SYMBOL LEFT)	GO20-4a GO20-5aP	+	+			WORK ZONE (PLAQUE)	6122030		WORK ZONE CRASH CUSHION (NARROW)	ROUTE STATE MO
WO1 - 4bC		8 16.00			DOUBLE ARROW REVERSE CURVE (SYMBOL RIGHT)	MO4 - 8a	24X18		2 6.00	5.2	END DETOUR	6122040		WORK ZONE CRASH CUSHION (RELOCATION)	DISTRICT SHEET NO.
WO1-46K					TRIPLE ARROW REVERSE CURVE (SYMBOL LEFT)	MO4 - 9L		12.00	2 0.00	32	DETOUR (LEFT)	6123001	_	TRUCK MOUNTED ATTENUATOR (TMA)	CD 3
WO1-4CE WO1-4CR		8 16.00			TRIPLE ARROW REVERSE CURVE (SYMBOL RIGHT)	MO4 - 9R		12.00				6161012		BUOYS (BOATS KEEP OUT)	COUNTY
WO1 - 6		0 12.50			HORIZONTAL ARROW (SYMBOL)	MO4 - 9P	48X12					6161013	_	BUOYS (NO WAKE)	COLE
WO1-6a		6 18.00			HORIZ. ARROW (SYMBOL ON PERMANENT BARRICADE)	MO4 - 10L	1					6161014		SPECIAL SIGN ASSEMBLY (BOATS KEEP OUT)	JOB NO.
WO1 - 7		0 12.50			DOUBLE HEAD HORIZONTAL ARROW (SYMBOL)	MO4 - 10R					` ` `	6161020		CHANNELIZER (DRUM-LIKE)	JCD0074
WO1 - 7 a		6 18.00			DOUBLE HEAD HORIZ. ARROW (SYMBOL ON PERM. BARR.)	1.0.1.201	10/(10	0.00	REGULATORY	SIGNS	je z reen runten (n. zen r	6161022		CHANNELIZER (CONE)	CONTRACT ID.
WO1 - 8	18X2		- 		CHEVRON (SYMBOL)	R1-1	48X48	13.25			STOP	6161025		CHANNELIZER (TRIM-LINE)	PROJECT NO.
WO1-8a	30X3				CHEVRON (SYMBOL FOR DIVIDED HIGHWAYS)	R1 - 2		6.93				6161026	_	CHANNELIZER (VERTICAL PANEL)	1
WO3 - 1		8 16.00			STOP AHEAD (SYMBOL)	R1-2a	-	9.00			TO ONCOMING TRAFFIC (PLAQUE)	6161030		TYPE 3 MOVEABLE BARRICADE	BRIDGE NO.
WO3 - 2		8 16.00			YIELD AHEAD (SYMBOL)	1	30X12					6161033		DIRECTION INDICATOR BARRICADE	
WO3 - 3		8 16.00	+		SIGNAL AHEAD (SYMBOL)	R2-1	+	12.00				6161040		FLASHING ARROW PANEL	
WO3 - 4	48X4	8 16.00	О		BE PREPARED TO STOP	R3-1		16.00				6161047		TYPE 3 OBJECT MARKER]
WO3 - 5	48X4	8 16.00	0		SPEED LIMIT AHEAD	R3-2	48X48	16.00			NO LEFT TURN (SYMBOL)	6161055		SEQUENTIAL FLASHING WARNING LIGHT]
WO4 - 1L	48X4	8 16.00	o		MERGE (SYMBOL FROM LEFT)	R3-3	36X36	9.00				6161070		TUBULAR MARKER	$ \hspace{.08cm} $
WO4 - 1R	48X4	8 16.00	o		MERGE (SYMBOL FROM RIGHT)	R3-4	+	16.00				6161095	_	RADAR SPEED ADVISORY SYSTEM	
WO4-1aL	48X4	8 16.00	0		MERGE (LEFT)	R3-7L	30X30	6.25			LEFT LANE MUST TURN LEFT			CHANGEABLE MESSAGE SIGN,	 =
WO4-1aR	48X4	8 16.00	0		MERGE (RIGHT)	R3 - 7R	30X30	6.25			RIGHT LANE MUST TURN RIGHT	6161096		COMMISSION FURNISHED/RETAINED	
WO5 - 1	48X4	8 16.00	0		ROAD/BRIDGE/RAMP NARROWS	R4-1	36X48	12.00			DO NOT PASS			CHANGEABLE MESSAGE SIGN WITHOUT COMM.	
WO5 - 3	48X4	8 16.00	0		ONE LANE BRIDGE	R4-2	36X48	12.00			PASS WITH CARE	6161098	A 2	INTERFACE, CONTRACTOR FURNISHED/RETAINED	
WO5 - 5	48X4	8 16.00	0		NARROW LANES	R4-7a	36X48	12.00			KEEP RIGHT (HORIZONTAL ARROW)			CHANGEABLE MESSAGE SIGN WITH COMM.	
WO6 - 1	48X4	8 16.00	0		DIVIDED HIGHWAY (SYMBOL)	R4-8a	36X48	12.00			KEEP LEFT (HORIZONTAL ARROW)	6161099		INTERFACE, CONTRACTOR FURNISHED/RETAINED]
WO6 - 2	48X4	8 16.00	0		DIVIDED HIGHWAY END (SYMBOL)	R5 - 1	30X30	6.25			DO NOT ENTER	6162000	A	WORK ZONE TRAFFIC SIGNAL SYSTEM	
WO6 - 3	48X4	8 16.00	0		TWO WAY TRAFFIC (SYMBOL)	R5-1a	+	6.00				6162002		TEMPORARY LONG-TERM RUMBLE STRIPS	
WO7-3a		4 5.00			NEXT XX MILES (PLAQUE)	R6-1L		6.75			ONE WAY ARROW (LEFT)			TEMPORARY TRAFFIC BARRIER,	
WO8 - 1		8 16.00			BUMP	R6-1R		6.75			1	6173600	_	CONTRACTOR FURNISHED/RETAINED	
WO8 - 2		8 16.00			DIP	R6-2L	24X30				ONE WAY (LEFT)			TEMP. TRAFFIC BARRIER ANCHORED,	
WO8 - 3		8 16.00			PAVEMENT ENDS	R6 - 2R	+	5.00				6173700		CONTRACTOR FURNISHED/RETAINED	
WO8 - 4		8 16.00			SOFT SHOULDER	R9-9	24X12	2.00			SIDEWALK CLOSED	6172706		TEMP. TRAFFIC BARRIER STIFFNESS TRANSITION	1 - E
WO8 - 5		8 16.00			SLIPPERY WHEN WET (SYMBOL)		24710	2 00			· ·	6173706		CONTRACTOR FURNISHED/RETAINED	4T 1 4P 1 65
WO8 - 6		8 16.00			TRUCK CROSSING TRUCK ENTRANCE	R9-11L	24/10	3.00			(ARROW LEFT) CROSS HERE	6174000		TEMP. TRAFFIC BARRIER HEIGHT TRANSITION, CONTRACTOR FURNISHED/RETAINED	7 T C C C MO
WO8 - 6 c WO8 - 7		8 16.00 6 9.00			LOOSE GRAVEL	R9-11R	24X18	3 00				6174000 6175010		RELOCATING TEMPORARY TRAFFIC BARRIER	POI FST Y,
WO8 - 7 a		6 9.00			FRESH OIL / LOOSE GRAVEL	R10-6		6.00			STOP HERE ON RED (45^ ARROW)	6175010		RELOCATING TEMPORARY TRAILING BARRIER ANCHORED	NSP WE
WO8 - 7 a		8 16.00			LOW SHOULDER	R11-2		10.00	2 20.00	20		6175011		RELOCATING TEMP. TRAFFIC BARRIER STIFFNESS	1 () -
WO8 - 11					UNEVEN LANES	111 2	+0/30	10.00	20.00	25		6175013		RELOCATING TEMP. TRAFFIC BARRIER HEIGHT	NO TOS
WO8 - 12			+		NO CENTER LINE	∥ R11-3a	60X30	12.50	2 25.00	55A		6208064		TEMPORARY RAISED PAVEMENT MARKER	S I C
WO8 - 15					GROOVED PAVEMENT	R11-4					ROAD CLOSED TO THRU TRAFFIC	9029400		TEMPORARY TRAFFIC SIGNALS	I S I
WO8 - 15P					MOTORCYCLE (PLAQUE)	CONST - 3A	+	_				9029401		TEMPORARY TRAFFIC SIGNALS AND LIGHTING	Y S MIM A S A S A S A S A S A S A S A S A S A
WO8 - 17L					SHOULDER DROP-OFF (SYMBOL LEFT)	CONST - 3X	-				SPEEDING/PASSING (PLATE)			—	
WO8 - 17R					SHOULDER DROP-OFF (SYMBOL RIGHT)		·	1	MISCELLANEOU	SIGNS	,,	•	ı		B X 1 1 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3
WO8 - 17P					SHOULDER DROP-OFF (PLAQUE)	CONST - 5	48X36	12.00	2 24.00		POINT OF PRESENCE				
		9.62			RAILROAD CROSSING	CONST - 5	+	+			POINT OF PRESENCE				- \(\) \(\)
WO12-1					DOUBLE DOWN ARROW (SYMBOL)	CONST-8	48X36	12.00			WORK ZONE NO PHONE ZONE				🕹 🗲 🚺
WO12-2	48X4	8 16.00	0		LOW CLEARANCE (SYMBOL)		36X78	19.50	11 214.50	50A					
W012-2x	24X1	8 3.00			LOW CLEARANCE (PLAQUE)		36X78	19.50	5 97.50	50B					MI SSOUI
WO12-2a	84X2	4 14.00	0		OVERHEAD LOW CLEARANCE (FEET AND INCHES)		36X78	19.50	5 97.50	50C					Σ
WO12-4					LOW CLEARANCE XX FT XX IN XX MILES AHEAD		36X78	19.50	1 19.50	50D					
WO12-5	120X6	50 50.00	0		WIDTH RESTRICTION XX FT XX IN XX MILES AHEAD		36X78	19.50	1 19.50	50E					
WO13-1		0 6.25			ADVISORY SPEED (PLAQUE)			19.50	11 214.50	50F					
WO16-2		4 5.00			XXX FEET (PLAQUE)		+	19.50	1 19.50	50G					
WO16-3		4 5.00			X MILE (PLAQUE)			19.50	1 19.50	50H					
WO20 - 1		8 16.00		10.00	ROAD/BRIDGE/RAMP WORK AHEAD		+	19.50	4 78.00	50 J					
		8 16.00			DETOUR AHEAD	<u> </u>	+	19.50	4 78.00	50K					
WO20 - 3					ONE LANE BOAD ALEAD		+	19.50	1 19.50	50L					
WO20-4				32.00	ONE LANE ROAD AHEAD	616 10		19.50	1 19.50 TOTAL	50M					
WO20 - 5					RIGHT/CENTER/LEFT LANE CLOSED AHEAD	616-10		VI CICNIC	TOTAL						
WO20-5a WO20-6a					2 RIGHT/CENTER/LEFT LANES CLOSED AHEAD RIGHT/CENTER/LEFT LANE CLOSED			N SIGNS	1157	TOTAL					
WO20-6a WO20-7a						616-10 RELOCA		ICNIC		IOTAL					
WO20 - 7a WO21 - 2					FLAGGER (SYMBOL) FRESH OIL	INELUCA	ובט 5	באוט ז							
WO21-2 WO21-5					SHOULDER WORK / SHOULDER WORK AHEAD	1									
		8 16.00			BLASTING ZONE AHEAD	1									
		6 10.50			TURN OFF 2-WAY RADIO AND PHONE	1							SU	MMARY OF QUANTITIES	
WO22-2 WO22-3					END BLASTING ZONE	1								-	
GO22-1				8.76	WET PAINT (ARROW PIVOTS)	1								SHEET 2 OF 2	
<u> </u>					, , , , , , , , , , , , , , , , , , , ,	J									





CONTROL POINT #801

REBAR W/ CAP BURIED 0.2'
19.4' EAST OF E.E.P. RTE. 179
SOUTH OF BRIDGE OVER ROCK CREEK
STA. 113+85.47
OFFSET 73.3' LT



Z = 590.81

CONTROL POINT

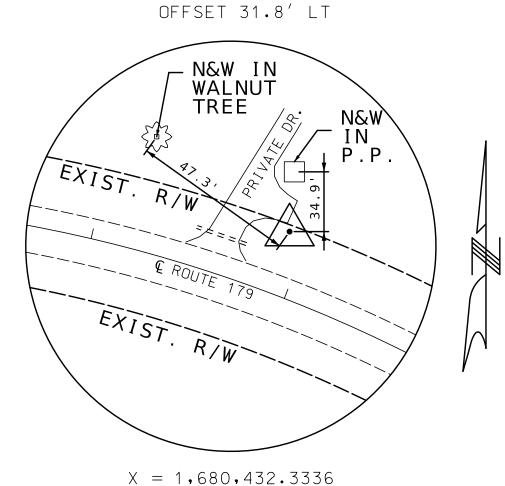
#802

REBAR W/ CAP BURIED 0.2'

22.0' EAST OF E.E.P. RTE. 179

537' NORTH OF BRIDGE OVER ROCK CREEK

STA. 101+90.85

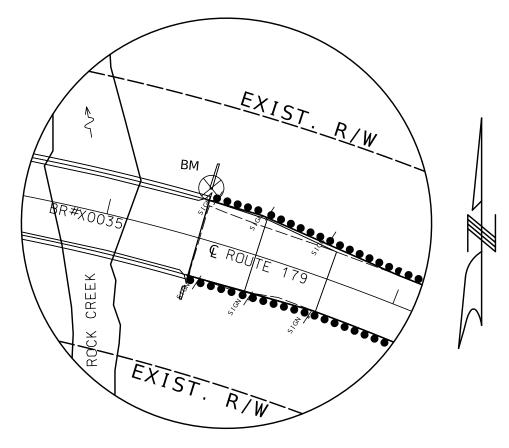


Y = 1,034,023.7474

Z = 568.60

BENCHMARK

CHISELED "" ON
S.E. WING WALL ON BRIDGE
OVER ROCK CREEK RTE 179
STA. 108+31.09
OFFSET 17.4' LT.



X = 1,680,864.1590 Y = 1,033,551.1500Z = 570.10

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 MULTIPY 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	MODIFIED STATE PLANE
HORIZONTAL DATUM	NAD83
VERTICAL DATUM	NGVD88
GEOID MODEL	
ELEVATIONS	
DETERMINED BY	
PROJECT PROJECTION	FACTOR 1.00008950

DETERMINED BY			
PROJECT PROJECTI	ON	FACTOR	1.00008950
REFERENCE CON	TR	OL INFORM	IAT I ON
COORDINATE SYSTE	M		
CONTROL STATION			
DESIGNATION	МО	DOT JEFF C	ITY CORS ARP
CORS_ID	МО	JC	
PID	DL	6141	
LATITUDE	38	34 47.2964	13
LONGITUDE	92	17 40.7472	28
NORTHING (M)	30	4807.7473	
EASTING (M)	51	7892.1060	
ZONE			

PROJECT AVERAGE GRID FACTOR 0.99991050

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 #801 N 1,032,973.9847 X 0.9999105 = N 1,032,881.5335 E1,680,868.7040 X 0.9999105 = E 1,680,718.2663

LINEAR UNIT CONVERSION

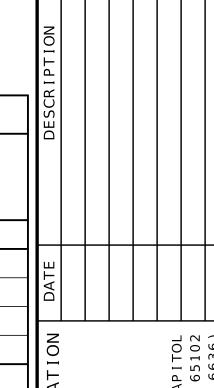
1 METER = 3.280833333 US SURVEY FEET (USFT)

					COORDINATE F	POINT LISTIN	G	
				MOD I F I E	D STATE PLANE (GROUND)		
			OFFSET	NORTHING	EASTING	ELEVATION		GPK
SHEET NO	STATION	LOCATION	(USFT)	(US SURVEY FT)	(US SURVEY FT)	(US SURVEY FT)	DESCRIPTION	POINT ID
PROJECT CC	NTROL POINTS	S		•				
4	113+85.47	RTE 179	73.3' LT	1,032,974.000	1,680,868.700	590.81	REBAR WITH CAP BURIED 0.2'	801
4	101+90.85	RTE 179	31.8' LT	1,034,023.800	1,680,432.300	568.60	REBAR WITH CAP BURIED 0.2'	802
4	108+31.09	RTE 179	17.4' LT	1,033,551.150	1,680,864.159	570.10	CHISELED " U ON S.E. WING WALL ON BRIDGE OVER	500
							ROCK CREEK ROUTE 179	
AL I GNMENTS		-						
	253+05.19	RTE 54		980,900.19880	1,719,805.82440		BEGINNING OF EXISTING C/L MEDIAN ROUTE 54	RTE 54

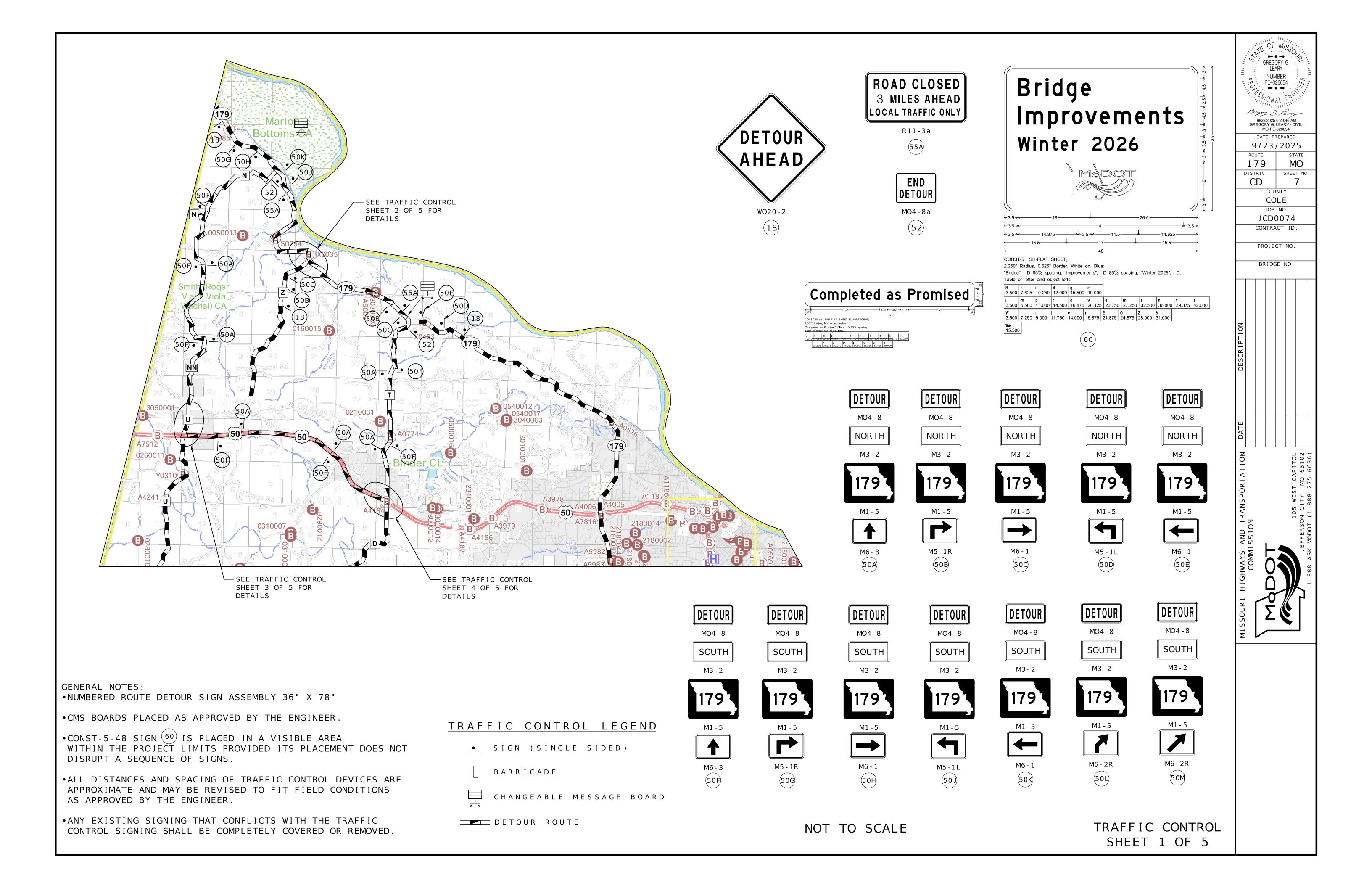
4	101+90.85	RIE 1/9	31.8 LI	1,034,023.800	1,680,432.300	308.00	REBAR WITH CAP BURIED 0.2	802
4	108+31.09	RTE 179	17.4' LT	1,033,551.150	1,680,864.159	570.10	CHISELED " U ON S.E. WING WALL ON BRIDGE OVER	500
							ROCK CREEK ROUTE 179	
I GNMENT	S		-		-			
	253+05.19	RTE 54		980,900.19880	1,719,805.82440		BEGINNING OF EXISTING C/L MEDIAN ROUTE 54	RTE 54
	340+26.65	RTE 54		974,841.25370	1,713,532.62500		END OF EXISTING C/L MEDIAN ROUTE 54	RTE 54
	576+00.00	RTE 179		1,034,038.56000	1,680,194.72370		BEGINNING OF ALIGNMENT FOR RTE 179 TO THE NORTH	179NORTH
	584+50.05	RTE 179		1,034,064.68710	1,679,345.07540			
	99+59.00	RTE 179		1,034,038.56010	1,680,194.72370		BEGINNING OF RTE 179 P.C. CURVE EX 179	179_Z
	116+34.71	RTE 179		1,032,809.92720	1,680,653.52110		EQUATION	179_Z
	116+35.40	RTE 179		1,032,809.92720	1,680,653.52110		P.T. CURVE EX 179	179_Z
	128+53.77	RTE 179		1,031,983.44690	1,679,758.33410			179_Z
	544+22.20	RTE 179		1,031,735.30840	1,682,391.34110		BEGINNING OF RTE 179SOUTH	PLAN179SOUTH
	557+36.60	RTE 179		1,032,466.18560	1,681,298.88250		P.C. CURVE 179S-3	PLAN179SOUTH
	560+61.30	RTE 179		1,032,682.30630	1,681,058.01210		P.T. CURVE 179S-3	PLAN179SOUTH
	563+72.90	RTE 179		1,032,921.06400	1,680,857.78890		P.C. CURVE 179S-1	PLAN179SOUTH
	565+34.20	RTE 179		1,033,072.74530	1,680,832.85950		P.T. CURVE 179S-1	PLAN179SOUTH

COORDINATE POINT AND REFERENCE POINT SHEET SHEET 1 OF 1

GREGORY G. LEARY NUMBER PE-026654 Gregory J. Leony 09/29/2025 6:17:21 AM GREGORY G. LEARY - CIVIL MO-PE-026654 DATE PREPARED 9/23/2025 179 MO DISTRICT SHEET NO. CD 6 COUNTY COLE JOB NO. JCD0074 CONTRACT ID. PROJECT NO. BRIDGE NO.







BRIDGE X0035 CLOSURE



NUMBER PE-026654 9/23/2025 179 COUNTY COLE JOB NO. JCD0074 CONTRACT ID. PROJECT NO. BRIDGE NO.

NOT TO SCALE

TRAFFIC CONTROL SHEET 2 OF 5

ROUTE 179 DETOUR THROUGH CENTERTOWN



NOT TO SCALE

TRAFFIC CONTROL LEGEND

• SIGN (SINGLE SIDED)

CHANGEABLE MESSAGE BOARD

E BARRICADE

DETOUR ROUTE

OF M/SSONAL LEARY
NUMBER
PE-026654

DATE PREPARED
9/23/2025
ROUTE STATE
179 MO
DISTRICT SHEET NO.
CD 9

COUNTY
COLE
JOB NO.
JCD0074
CONTRACT ID.

PROJECT NO.

ISSOURI HIGHWAYS AND TRANSPORTATION
COMMISSION

MODI

105 WEST CAPITOL
JEFFERSON CITY, MO 65102

TRAFFIC CONTROL SHEET 3 OF 5

ROUTE 179 DETOUR AT ROUTE T



9/23/2025 COLE JOB NO. JCD0074 CONTRACT ID. PROJECT NO. BRIDGE NO.



PE-02
PE-02 Gregory J. Leony 09/29/2025 6:21:24 AM GREGORY G. LEARY - CIVIL MO-PE-026654

DATE PREPARED 9/23/2025 MO SHEET NO.

CD COUNTY COLE JOB NO.

JCD0074 CONTRACT ID.

PROJECT NO.

BRIDGE NO.

NOTES:

UPON APPROVAL OF THE ENGINEER, THE CONTRACTOR MAY PROVIDE ADDITIONAL PROTECTIVE TRUCKS EQUIPPED WITH PROPER WARNING DEVICES.

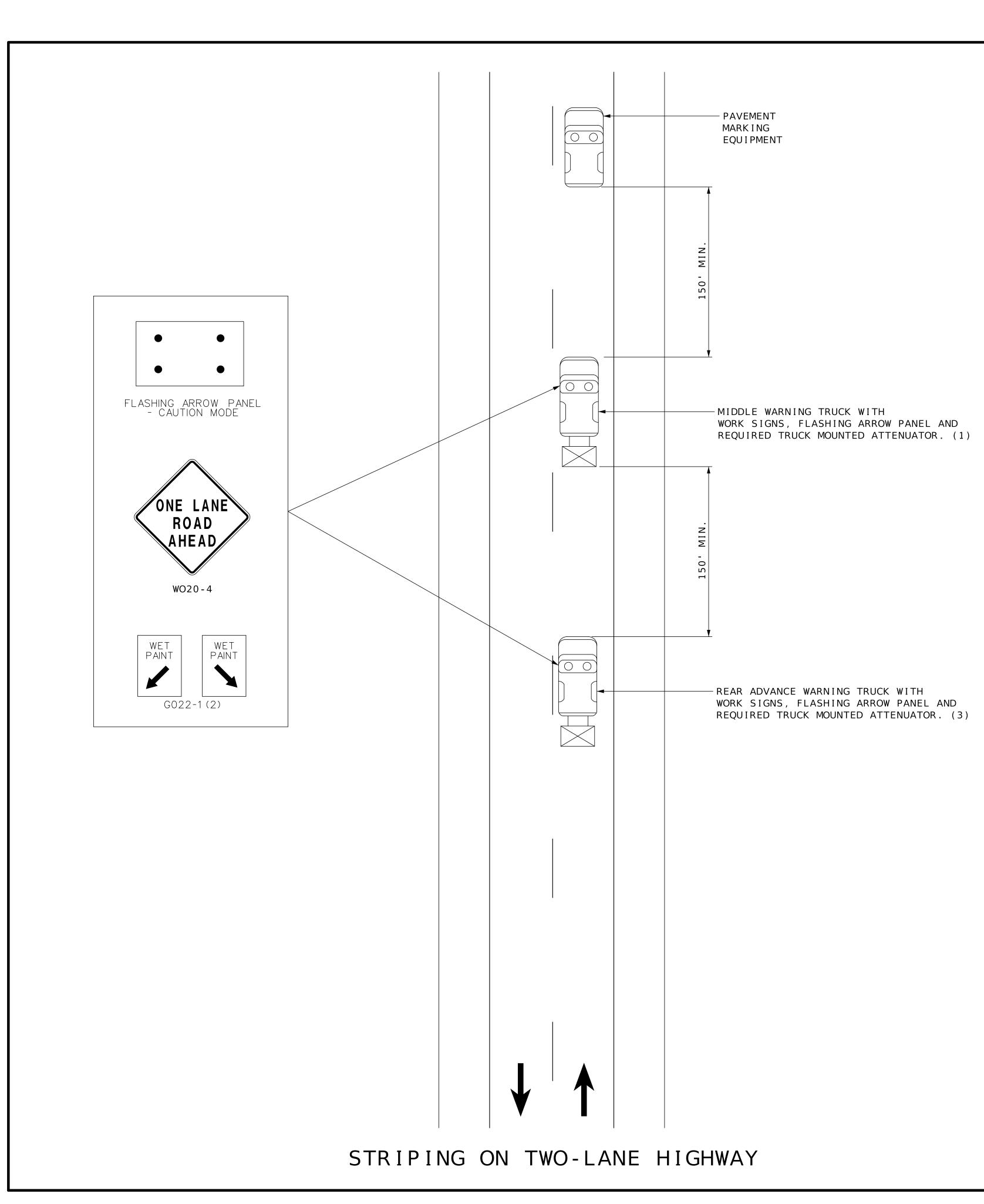
PROTECTIVE TRUCKS AND WORK VEHICLES SHALL DISPLAY HIGH-INTENSITY ROTATING, FLASHING, OSCILLATING, OR STROBE LIGHTS.

VEHICLE HAZARD WARNING SIGNALS SHALL NOT BE USED INSTEAD OF THE VEHICLE'S HIGH-INTENSITY ROTATING, FLASHING, OSCILLATING, OR STROBE LIGHTS.

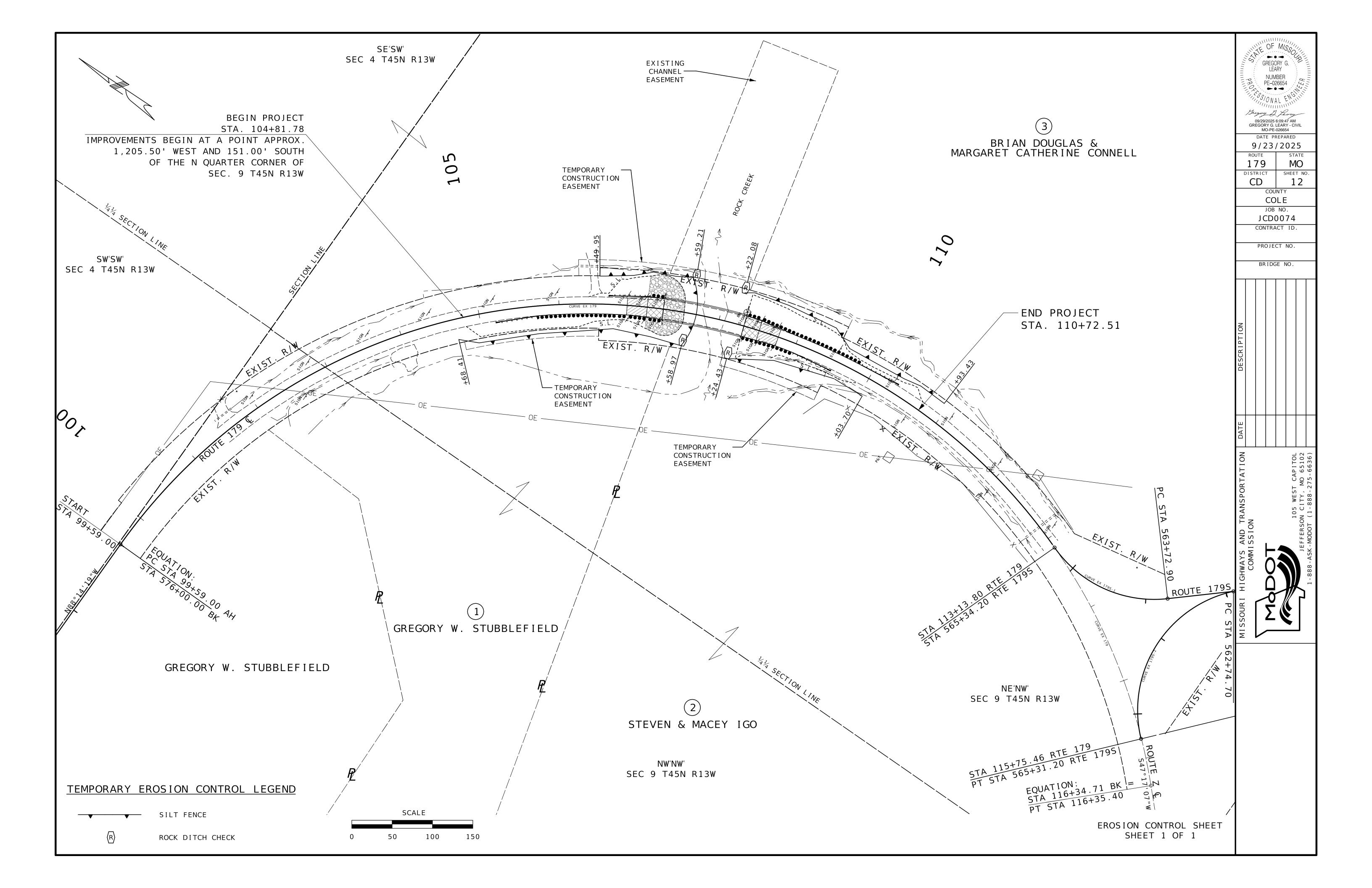
VEHICLE-MOUNTED SIGNS SHALL BE MOUNTED IN A MANNER SUCH THAT THEY ARE NOT OBSCURED BY EQUIPMENT OR SUPPLIES. SIGN LEGENDS ON VEHICLE-MOUNTED SIGNS SHALL BE COVERED OR TURNED FROM VIEW WHEN WORK IS NOT IN PROGRESS.

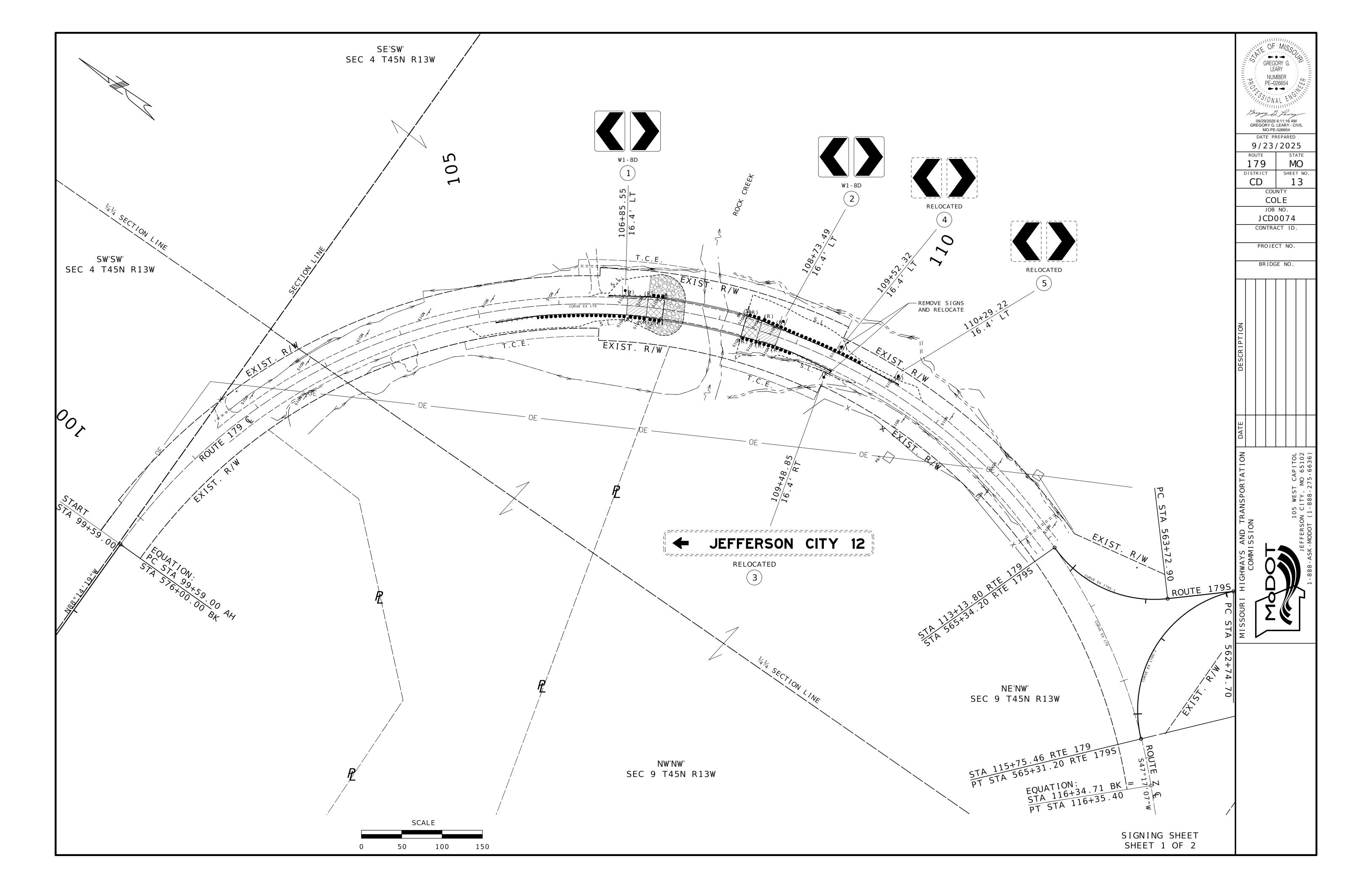
FLASHING ARROW PANELS SHALL BE INCIDENTAL TO TRUCK MOUNTED ATTENUATORS, WHEREVER USED. NO ADDITIONAL PAYMENT WILL BE MADE.

- (1) TRUCK IS OPTIONAL ON TWO-LANE UNDIVIDED HIGHWAYS IF SIGNING AND ARROW BOARD ARE MOUNTED ON THE PAVEMENT MARKING EQUIPMENT.
- (2) WET PAINT SIGNS ARE INSTALLED TO INDICATE THE SIDE IN WHICH THE PAVEMENT MARKING MATERIAL IS BEING APPLIED. AT THE CONTRACTOR'S OPTION, A FRONT FACING WET PAINT SIGN MAY BE INSTALLED ON THE LEFT SIDE OF THE PAVEMENT MARKING EQUIPMENT.
- (3) REAR WARNING TRUCK IS POSITIONED AT THE NO TRACK POINT OF THE PAVEMENT MARKING MATERIAL, OR VERTICAL OR HORIZONTAL CURVES THAT RESTRICT SIGHT DISTANCE, OR SPACING SHOWN, WHICHEVER IS GREATER.



TEMPORARY TRAFFIC CONTROL STRIPING SHEET 5 OF 5





			SIGNS				CONCRETE		ΓRU			TEEL	PΙ	ΡE	POS	TS*			BACk		j	4 - I N		U-		FORAT	ED :	SQU	ARE ST	ΓEEL Τ	UBE	EFFECTIVE: 07-01-2024
							FOOT INGS			POS	TS^*								BARS	5**		SQUA	AR E	CHANNEL		2.5-	I NCH	POS	ST ***		BREAK -	
902	SIGN	AL SIG	NS TABULATE	D ON D-	37A SHEET		EMBEDDED															STEEL		POST		TOTA	L 2.	25"	ANCH	IORS	AWAY	
				HOR I Z								TOTAL				TOT	AL					POST	BASE		POSTPO	ST	INS	SERT	DRIVEN (CONCRETE	ASSEMBLY	REMARKS
SIGN	l s	I GN	STATION	CLEAR		SIGN		POST	POST	POST	OST LB	s	PIPEPC	STPO	ST LB	s		2 "	X 3/8	" BAR	s				NO.1NO	. 2	(6	FT)	7 GA.	7 GA.		AND
NO.	S	IZE	OR		LOCATION							R ITEM NO.					NO.					ITEM NO.	ITEM NO.	ITEM NO.					ITEM NO.	ITEM NO.	ITEM NO.	OTHER REQUIRED ITEMS
			LOG MILE			SHT	9031010	NO.				9031210				T 9031	_						9031005	9031250A					9031281A		9031241	
				STD		l NO. I	CY	1 1	LF	LF	LF	LBS	IN L	FL				_	IN.		LBS	LF	EACH	LF	T LF L	F LF		ACH	EACH	EACH	EACH	
1	18	X24	106+85.55		ΙΤ	 				 						 			1						16	16	 			1		
$\frac{1}{2}$		X24	108+73.49		 I T																				16	16				1		
3			109+48.85		RT																				16 1	5 32				2	2	RELOCATED SIGN
4			109+52.32		LT																<u> </u>				16	16				1		RELOCATED SIGN
<u> </u>		X24	110+29.22		LT																				16	16				1		RELOCATED SIGN
		7,21	110123122																						1 -					-		TELESCATED STOR
										+								+														
						+ +				+								+	 						+ +				+			
					CLIDITO	$\frac{1}{1}$																				0.6				6		
				ŀ	SUBTO			4												_					4	96				Ö		
					TC	TAL						(IS INC									**					96				6	2	

*BREAKAWAY ASSEMBLY IS INCIDENTAL FOR STRUCTURAL STEEL AND PIPE POSTS.

**BACKING BARS ARE TOTALED WITH STRUCTURAL STEEL OR PIPE POSTS.

***PSST POST SHALL BE CUT IN THE FIELD TO MEET THE MINIMUM SIGN MOUNTING HEIGHT AS SHOWN IN STD PLAN 903.03 AT NO DIRECT PAY.

	S	GN SU	MMARY	
				SIZE, TYPE, & SQUARE FEET
				FLAT SHEET
STANDARD SIGN	SIGN			FLUORESCENT
OR	DETAIL			SHF
SPECIAL SIGN NUMBER	SHEET		SIZE	ITEM NO.
	NO.	QTY.	(IN.)	903-50.69A
CHEVRON (W1-8D)	STD.	2	18X24	6
			TOTAL	6.00
			USE	6

		STA	NDARD SIGN AS	SEMBLI	ES		
				FLAT	Γ SHEET	FLUORES	CENT
				SHF	SH	SH	SH
SIGN NO	STATION		LOCATION	W1 - 8D			
1	106+85.55	16.4'LT	RTE 179	1			
2	108+73.49	16.4'LT	RTE 179	1			
			TOTAL	2			

* ORANGE, YELLOW & YELLOW/GREEN

NUMBER PE-026654 Gregory J. Levry 09/29/2025 6:16:53 AM GREGORY G. LEARY - CIVIL MO-PE-026654 DATE PREPARED 9/23/2025 DISTRICT SHEET NO. CD 14 COUNTY COLE JOB NO. JCD0074 CONTRACT ID. PROJECT NO. BRIDGE NO.

GREGORY G.
LEARY

ISSOURI HIGHWAYS AND TRANSPORTATION
COMMISSION

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

SIGNING SHEET SHEET 2 OF 2

D-30

D-29

DETAIL A

© 3/4" Drip

Grove (Typ.)

— Const. Jt.

© 3/4" Drip

DETAIL B

Groove (Typ.)

General Notes:

U.I.P., REDECK AND MAKE COMPOSITE EXISTING (49', 49') WIDE FLANGE BEAM SPANS (SKEW: VARIES)

Estimated Quantities

Item

Protective Coating - Concrete Bents and Piers (Urethane)

Surface Preparation for Applying Epoxy-Mastic Primer

Removal of Existing Bridge Deck

Bridge Approach Slab (Minor)

Strengthening Existing Beams

* Gray Epoxy-Mastic Primer

Slab on Steel

Slab Drain

Type D Barrier

Shear Connectors

Design Specifications:

2002 AASHTO LFD (17th Ed.) Standard Specifications Seismic Performance Category A

Design Loading:

H10 (1931) (Existing) HS20-44 (New Construction) 35 lb/sf Future Wearing Surface Earth - 120 lb/cf, Equivalent Fluid Pressure 45 lb/cf Fatique Stress - Case II

Design Unit Stresses:

Class B-1 Concrete (Barrier) f'c = 4,000 psiClass B-2 Concrete (Superstructure, except Barrier) f'c = 4,000 psiReinforcing Steel (ASTM A615 Grade 60) fy = 60,000 psiStructural Steel (ASTM A709 Grade 50) fv = 50,000 psi

Joint Filler:

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

Reinforcing Steel:

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

Miscellaneous:

Protective coating for concrete bents and piers (Urethane) 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 bars, unless otherwise noted.

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.

Dimensions are based on existing bridge plans. Contractor shall verify all dimensions in field.

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.

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).

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

Structural Steel Protective Coating:

Protective Coating: Gray epoxy-mastic primer in accordance with Sec

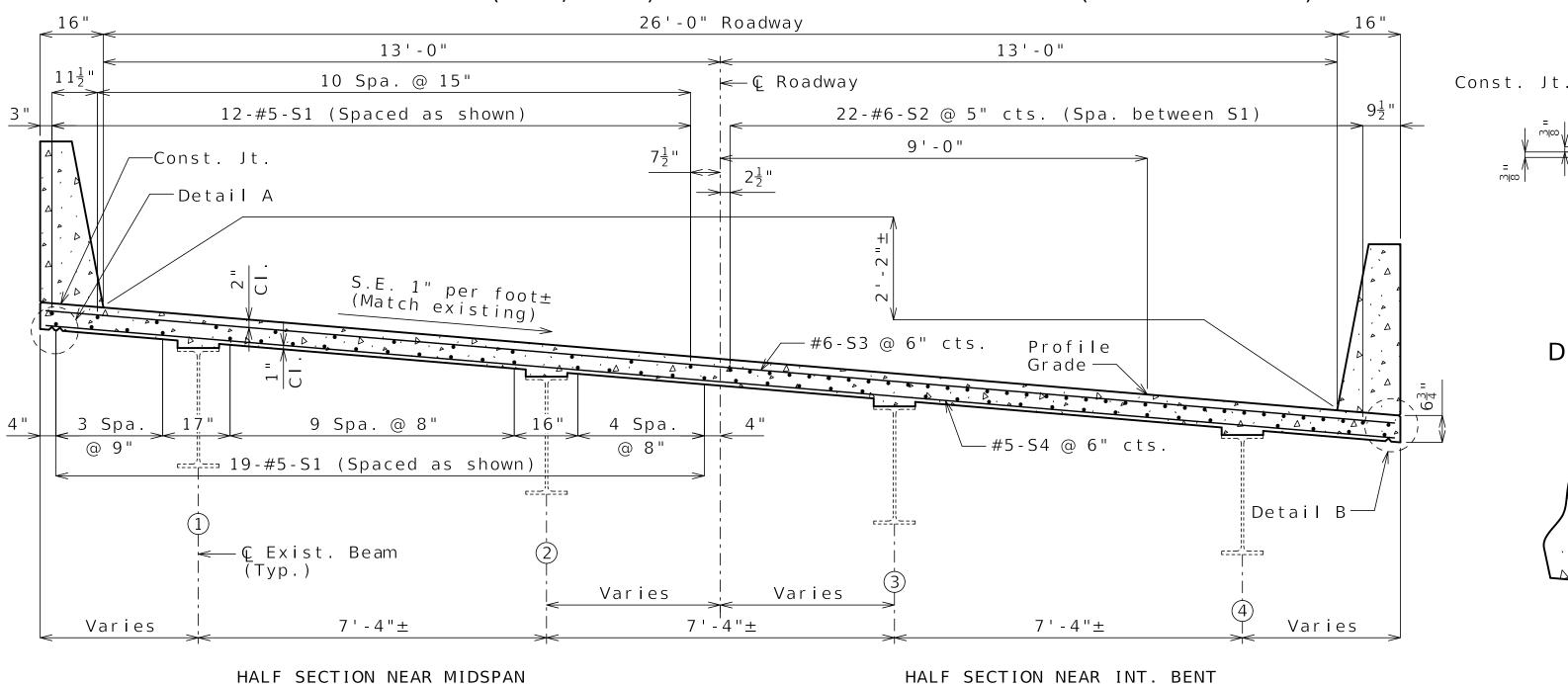
Surface Preparation: Surface preparation of the existing steel shall be in accordance with Sec 1081 for gray epoxy-mastic primer. The cost of surface preparation will be considered completely covered by the contract lump sum price for Surface Preparation for Applying Epoxy-Mastic Primer.

Prime Coat: The cost of the prime coat will be considered completely covered by the contract lump sum price for Gray Epoxy-Mastic Primer.

For locations of protective coatings on beams, see Sheet No. 6.

Traffic Handling:

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



TYPICAL SECTION THRU SLAB

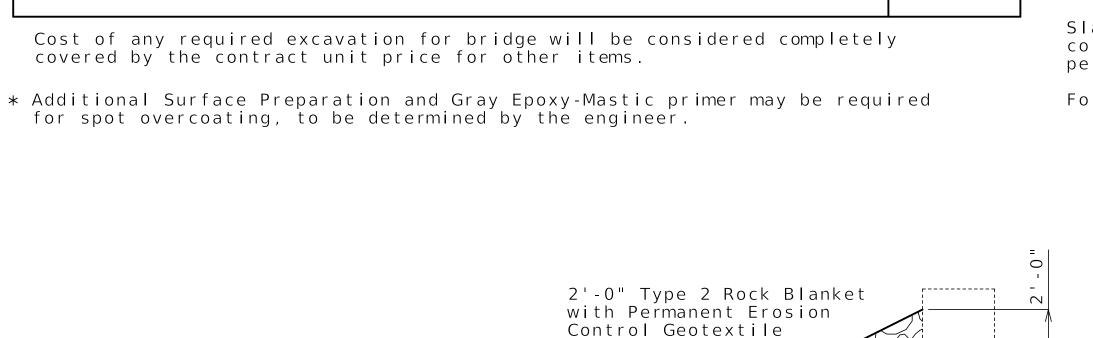
	I t em		Tot
Class B-2 Concrete		cu. yard	7.5
Reinforcing Steel	(Epoxy Coated)	pounc	24,9

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.



Total

2,755

118

322

202

856

10

-Existing

b e am

substructure

sq. foot

sq. yard

sq. yard

lump sum

lump sum

lump sum

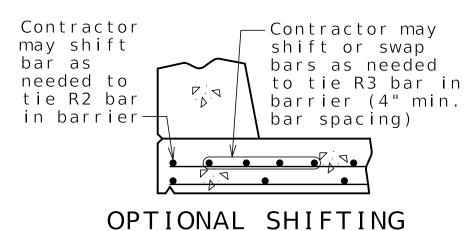
lump sum

each

each

linear foot





TOP BARS AT BARRIER

REPAIRS TO BRIDGE: ROUTE 179 OVER ROCK CREEK ROUTE 179 FROM ROUTE Z TO ROUTE N

ABOUT 0.1 MILE NORTH OF ROUTE Z

BEGINNING STATION 107+29.50± (MATCH EXISTING)

PROJECT NO. BRIDGE NO. X00351 AND SSI(

OF MISS

TIMOTHY D.

LEAF NUMBER

PE-2012000778

. ---

1,300NAL ENG

09/15/2025 8:57:26 AM TIMOTHY D. LEAF - CIVIL MO-PE-2012000778

DATE PREPARED

9/15/2025

COUNTY

COLE

JOB NO.

JCD0074

CONTRACT ID.

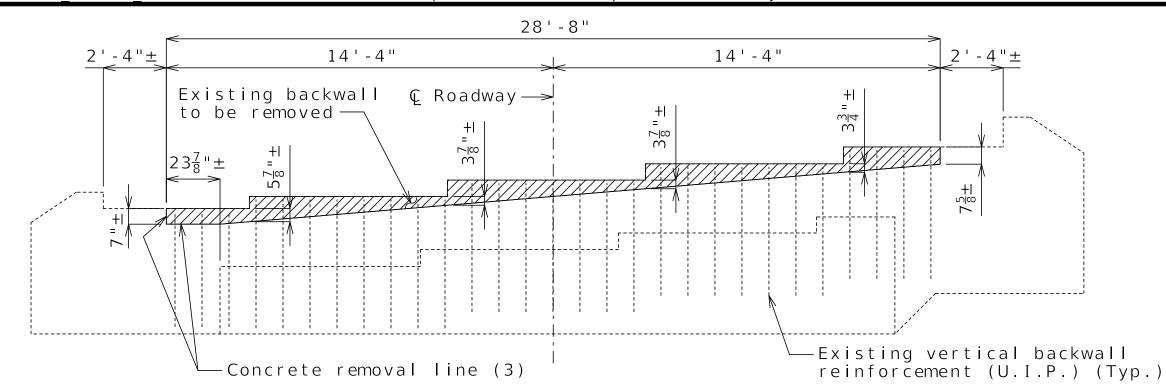
MO

SHEET NO.

179

DISTRICT

(Roadway item) -



DETAILS OF CONCRETE REMOVAL AT END BENTS

End Bent No. 1 shown, End Bent No. 3 similar (Existing structural steel not shown for clarity.)

The cost of concrete removal as shown will be considered completely covered by the contract unit price for Removal of Existing Bridge Deck.

A smooth, level surface shall be provided at Bent No. 1 & 3 removal lines.

(3) Use 1" deep saw cut at fill face of backwall. Match slope of existing roadway superelevation Existing vertical backwall reinforcement shall be cleaned and used in place. Horizontal reinforcement embedded in existing concrete not removed shall be used in place where possible. Any existing reinforcement not reused shall be cut off one inch below concrete removal surface and the resulting holes shall be filled with a qualified special mortar.

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.

The contractor shall provide a method of preventing the direct contact of the stay-in-place forms and connection components with uncoated weathering steel members that is approved by the engineer.

Pouring and Finishing Slab:

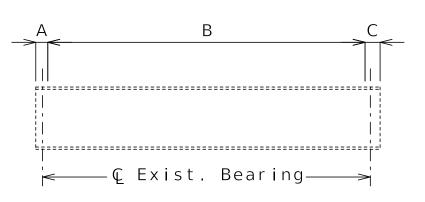
The contractor shall provide bracing necessary for lateral and torsional stability of the beams during construction of the concrete slab and remove the bracing after the slab has attained 75% design strength. Contractor shall not weld on or drill holes in the beams. The cost for furnishing, installing,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

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.

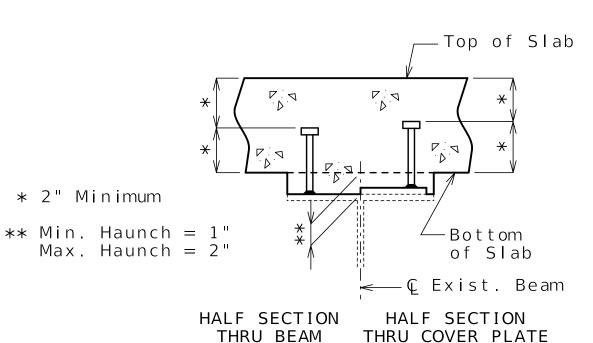
Haunching:

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

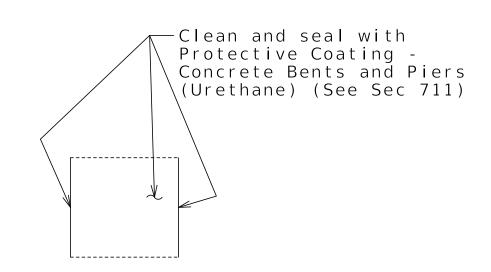


ELEVATION SHOWING SHEAR CONNECTOR SPACING

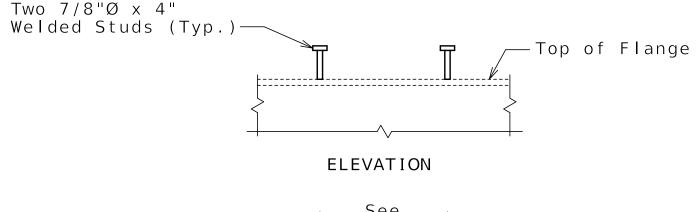
TABLE SHOWING SHEAR CONNECTOR UNIT SPACING												
Girder	S.C. per unit	А	В	С								
1	2	11 ¹ / ₄ "±	54 Units @ 11" cts.	11 ¹ / ₄ "±								
2	2	8 ¹ / ₄ "±	54 Units @ 11" cts.	8 ¹ / ₄ "±								
3	2	10½"±	53 Units @ 11" cts.	10½"±								
4	2	7 3 "±	53 Units @ 11" cts.	7 ³ / ₈ "±								
	Total sh	856										



SECTION THRU EXIST. BEAM SHOWING SHEAR CONNECTORS



TYPICAL SECTION THRU INT. BENT 2 SHOWING PROTECTIVE COATING



TIMOTHY D.

LEAF

NUMBER

PE-2012000778 . ---

09/15/2025 8:57:40 AM TIMOTHY D. LEAF - CIVIL MO-PE-2012000778

DATE PREPARED

9/15/2025

COUNTY COLE

JOB NO. JCD0074

CONTRACT ID.

PROJECT NO.

BRIDGE NO.

X00351

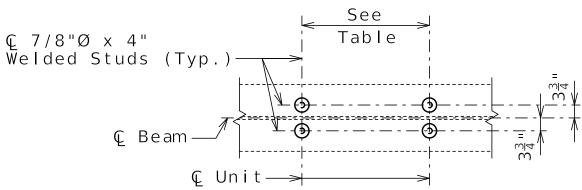
MO

SHEET NO.

179

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III,SSIONAL E

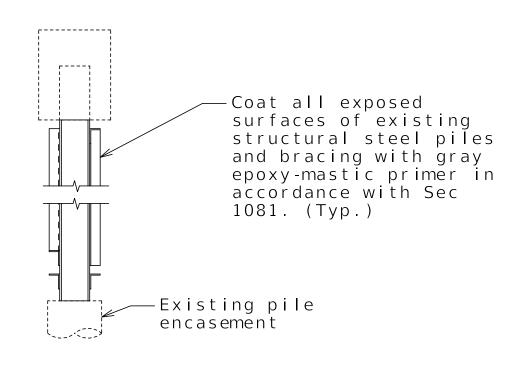


PLAN OF SHEAR CONN. (2 PER UNIT)

DETAILS OF SHEAR CONNECTORS

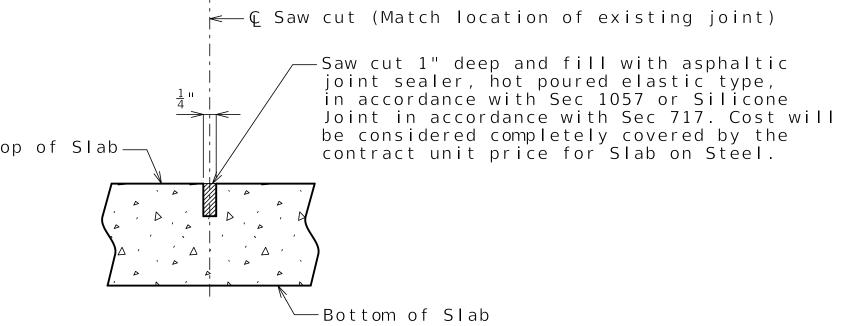
The cost of supplying and installing shear connectors will be considered completely covered by the contract unit price for Shear Connectors.

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

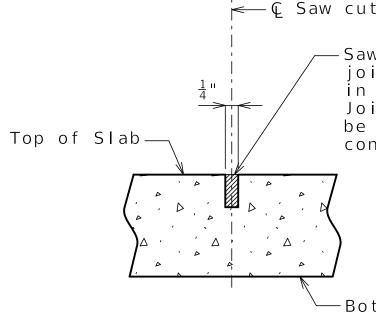


SECTION THRU INT. BENT NO. 2 SHOWING RECOATING OF PILES

All exposed surfaces of the existing structural steel piles shall be recoated with one 6-mil thickness of gray epoxy-mastic primer applied over an SSPC-SP3 surface preparation in accordance with Sec 1081. The cost of surface preparation will be considered completely covered by the contract lump sum price for Surface Preparation for Applying Epoxy-Mastic Primer. The cost of the gray epoxy-mastic primer will be considered completely covered by the contract lump sum price for Gray Epoxy-Mastic Primer.



TYPICAL SECTION THRU SAW CUT AT INTERMEDIATE BENT



Detailed Apr. 2025 Checked July 2025 the 3/4-inch diameter threaded rod.

Steel corrugated A

support

bridge forms-

Fill corrugations

VA VA VA VA

SECTION A-A

System A

(56 Reg'd at End Bents;

23 Reg'd at Int. Bent No. 2)

accordance with Sec 1039.

price for Slab on Steel.

be less than 5 inches.

OPTIONAL STAY-IN-PLACE

FORM DETAILS

┌─ Top of

Beam Cap

DETAILS OF RESIN ANCHOR SYSTEMS

(2) Manufacturer's recommended embedment length (5 inches minimum)

The contractor shall use one of the qualified resin anchor systems in

Cost of furnishing and installing the resin anchor systems, complete

in place, will be considered completely covered by the contract unit

The minimum embedment depth in concrete with f'c = 4,000 psi for the

ultimate pullout strength in accordance with Sec 1039 but shall not

An epoxy coated #6 Grade 60 reinforcing bar shall be substituted for

resin anchor systems shall be that required to meet the minimum

with foam (Typ.)

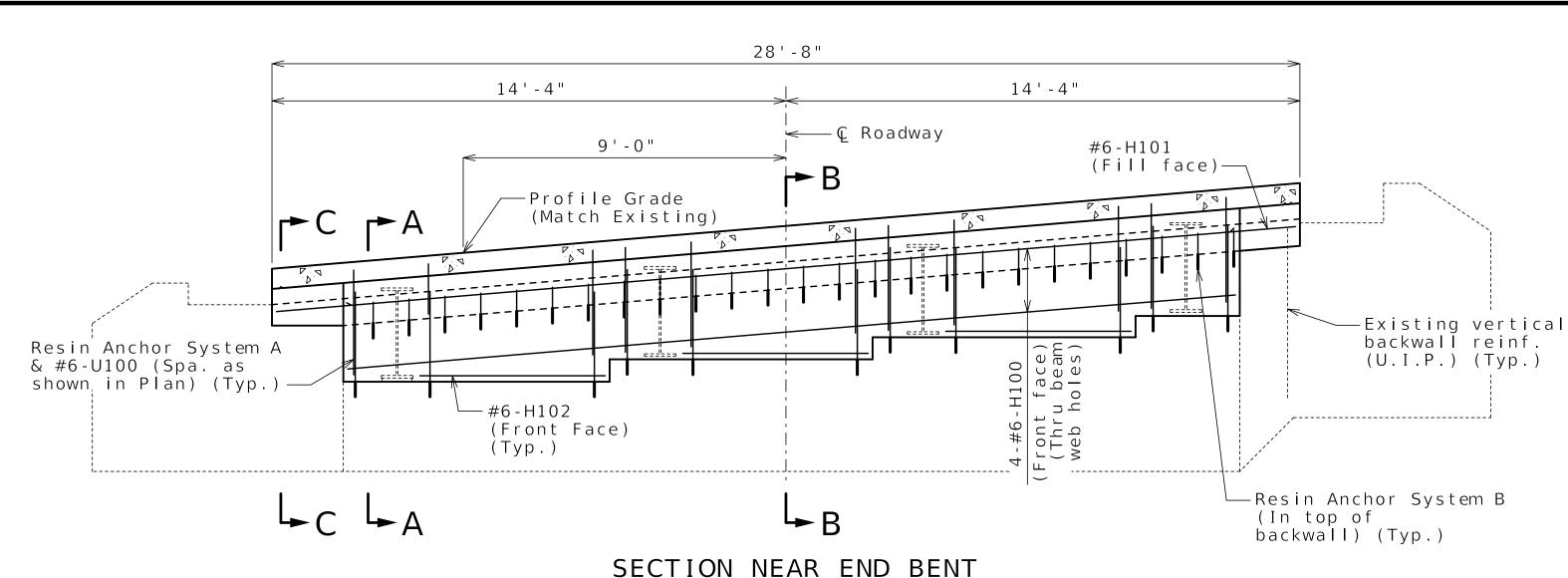
21"

-Top of

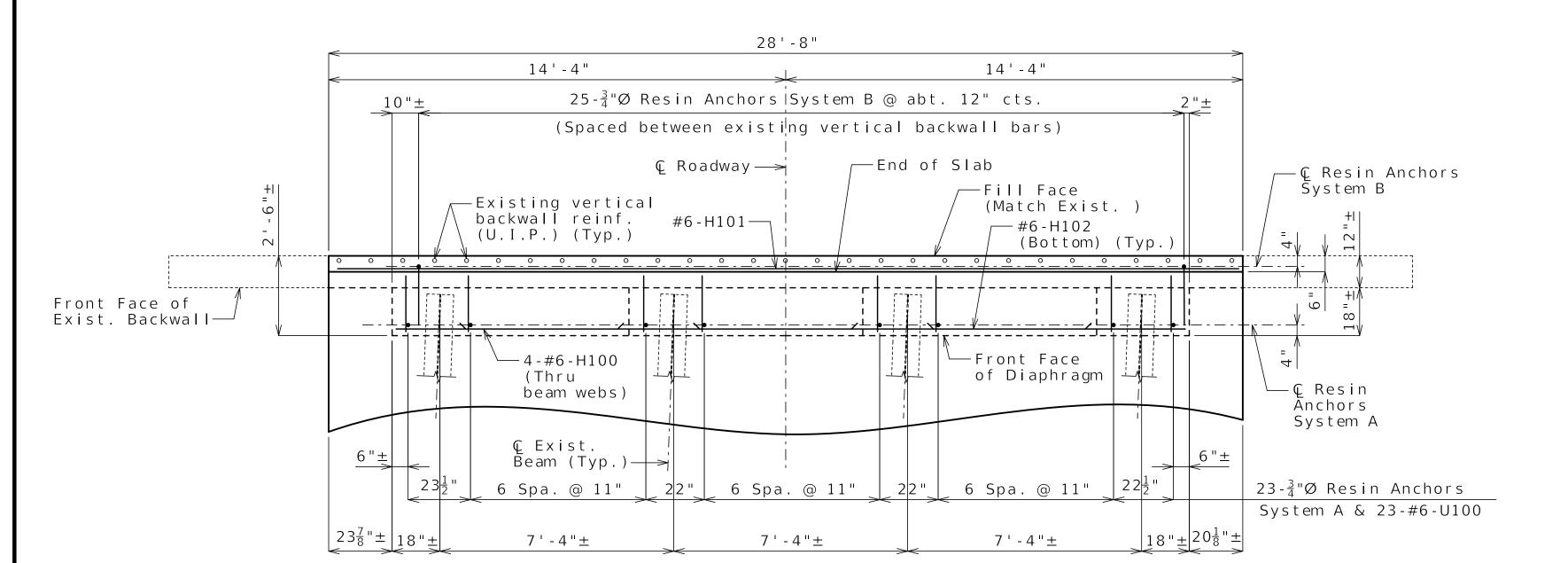
System B

(51 Reg'd. at End Bents)

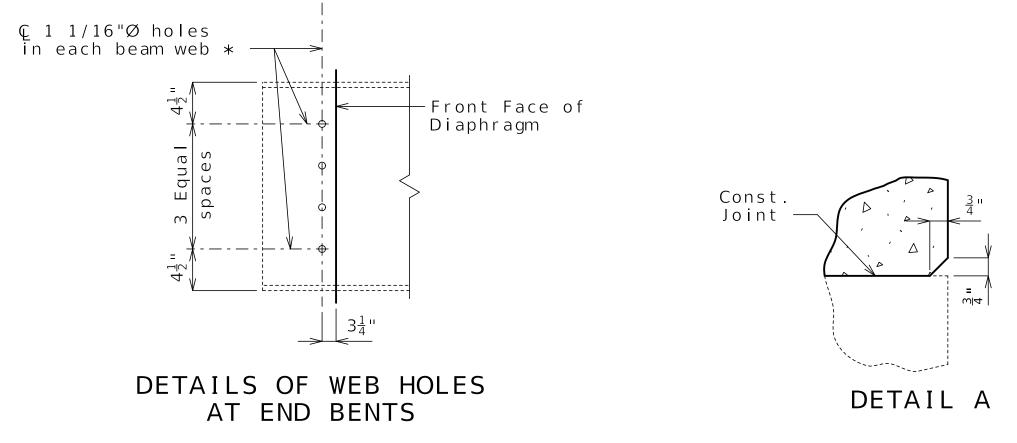
Backwall



Slab reinforcement and existing steel diaphragms not shown for clarity.



PLAN
Slab reinforcement not shown for clarity.

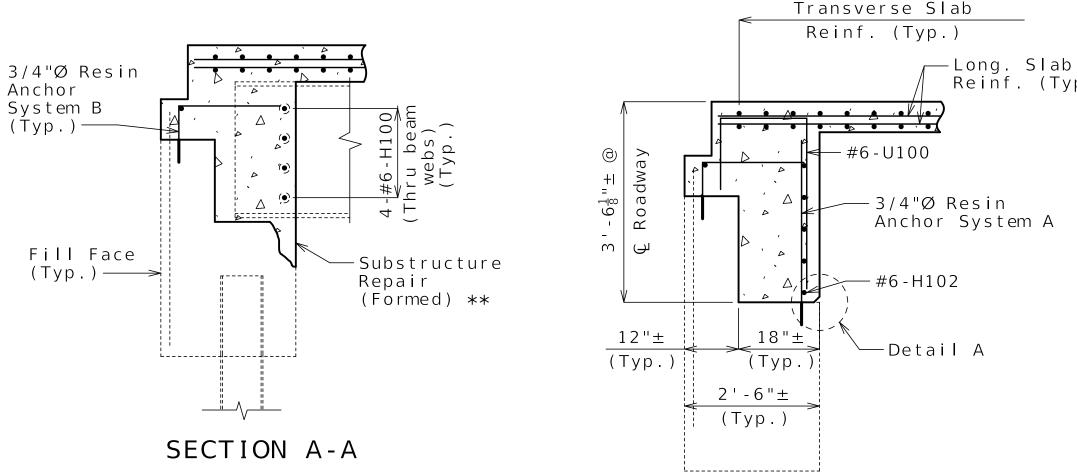


* Cost of field drilling holes in existing wide flange beam webs will be considered completely covered by the contract unit price for Slab on Steel.

END BENT NO. 1

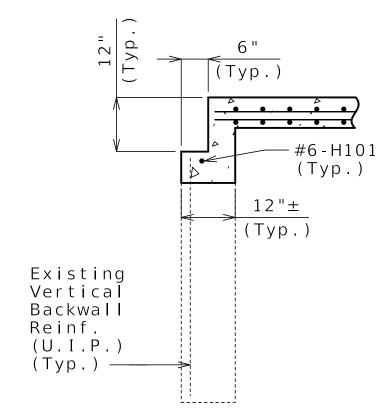
Detailed Aug. 2025 Checked Aug. 2025 Note: This drawing is not to scale. Follow dimensions.

Sheet No. 3 of 13



** See Sec 704. Pour monolithically with diaphragm. No direct pay.

SECTION B-B



SECTION C-C

Notes:

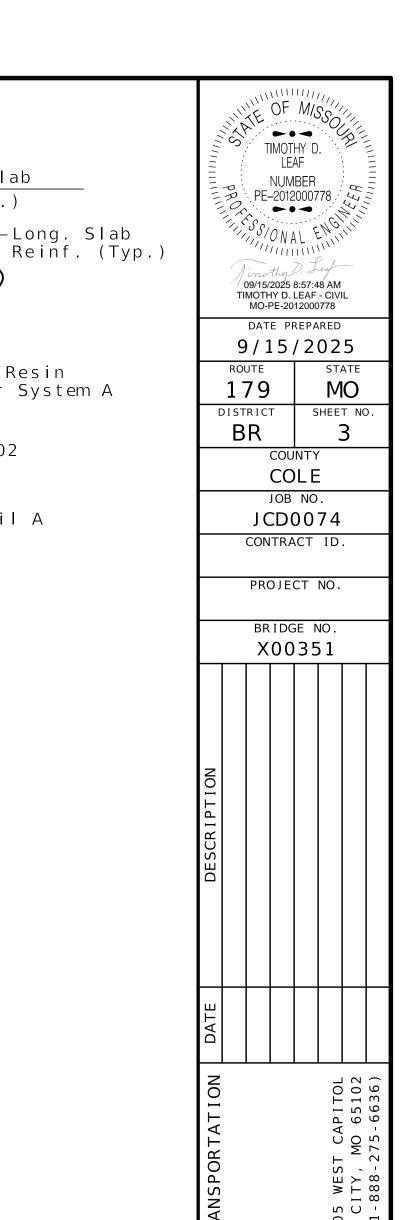
The exposed and accessible surfaces of the existing structural steel and bearings that will be encased in concrete shall be cleaned with a minimum of one coat of grey epoxy-mastic primer (non-aluminum) in accordance with Sec 1081 to produce a dry fill thickness of not less than 3 mils before concrete 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.

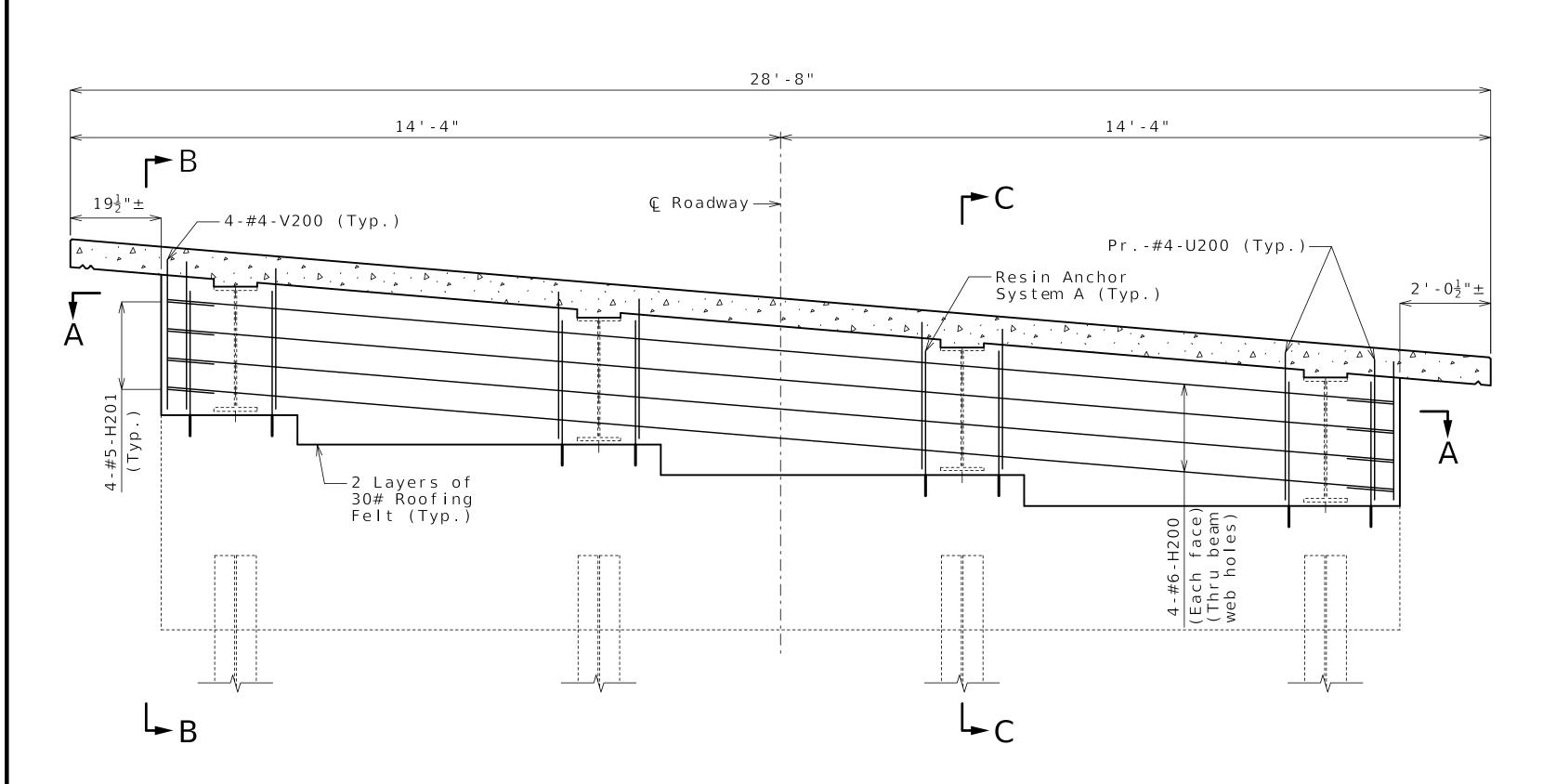
All concrete and reinforcement is included in the Table of Estimated Quantities for Slab on Steel and will be considered completely covered by the contract unit price for Slab on Steel.

For details and reinforcement of Barrier not shown, see Sheets No. 9 & 10.

For notes and details of resin anchor systems, see Sheet No. 2.

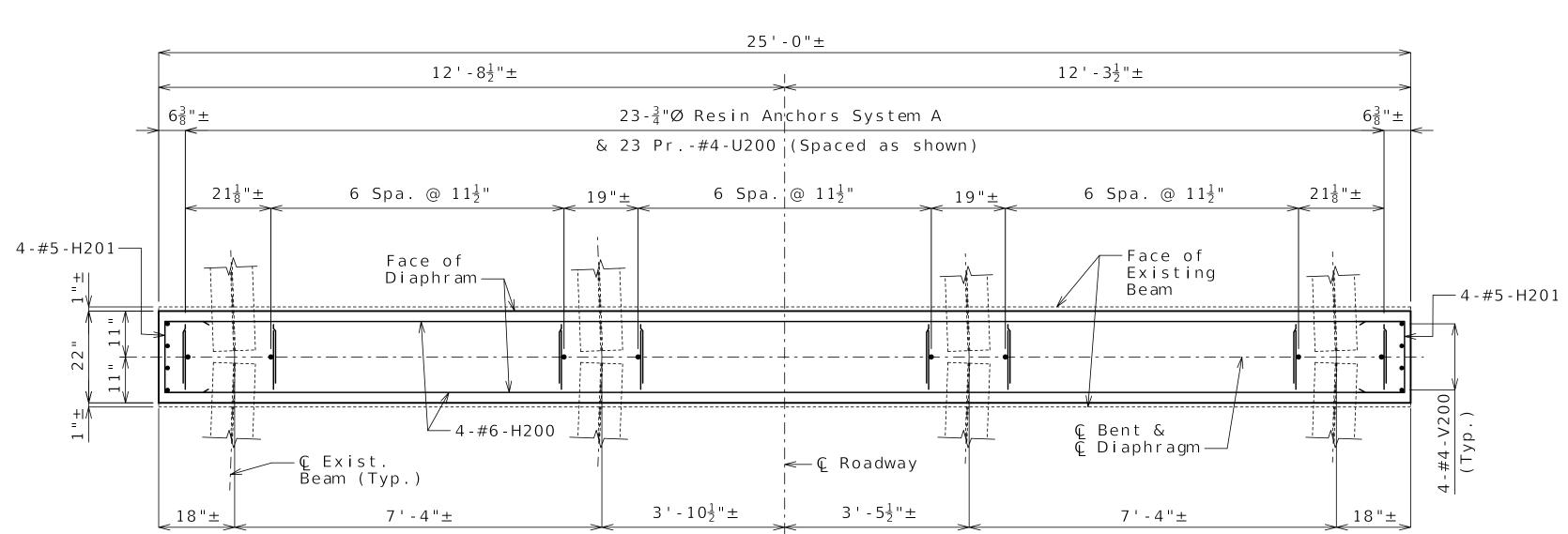
The H100 bars are segmented for ease of placement through beam web holes. The total bar length for H100 bars shown in Bill of Reinforcing Steel allows for one lap splice with a length of 3'-10". Actual bar segment lengths to be determined by contractor for ease of installing bars. The contractor may 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.





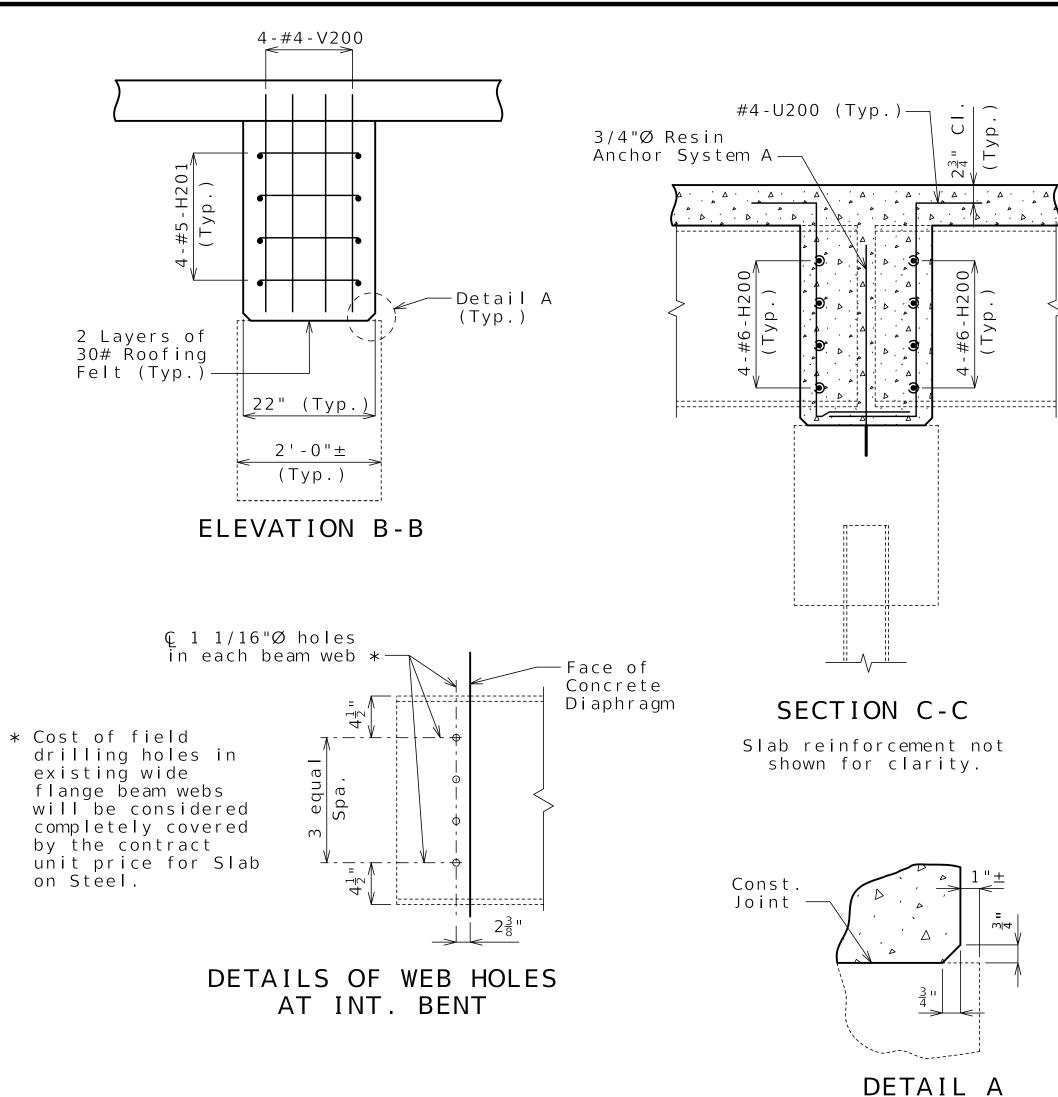
SECTION NEAR INTERMEDIATE BENT

(Looking ahead station)
(Existing steel diaphragms not shown for clarity.)



SECTION A-A

Dimensions shown are along © Bent.



Notes:

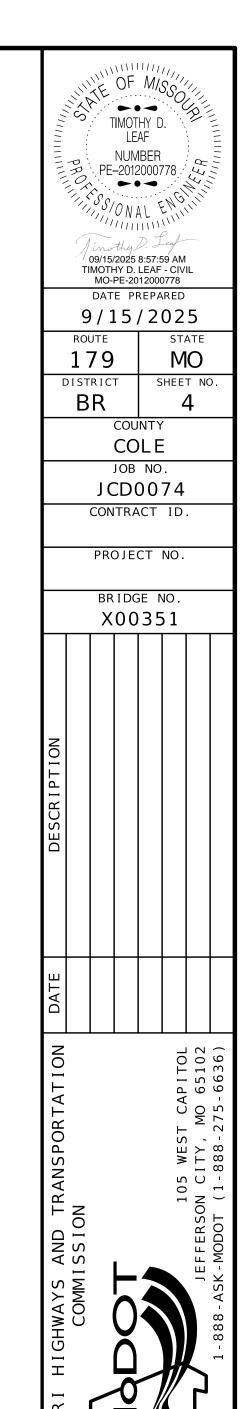
The exposed and accessible surfaces of the existing structural steel and bearings that will be encased in concrete shall be cleaned with a minimum of one coat of gray epoxy-mastic primer (non-aluminum) in accordance with Sec 1081 to produce a dry fill thickness of not less than 3 mils before concrete 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.

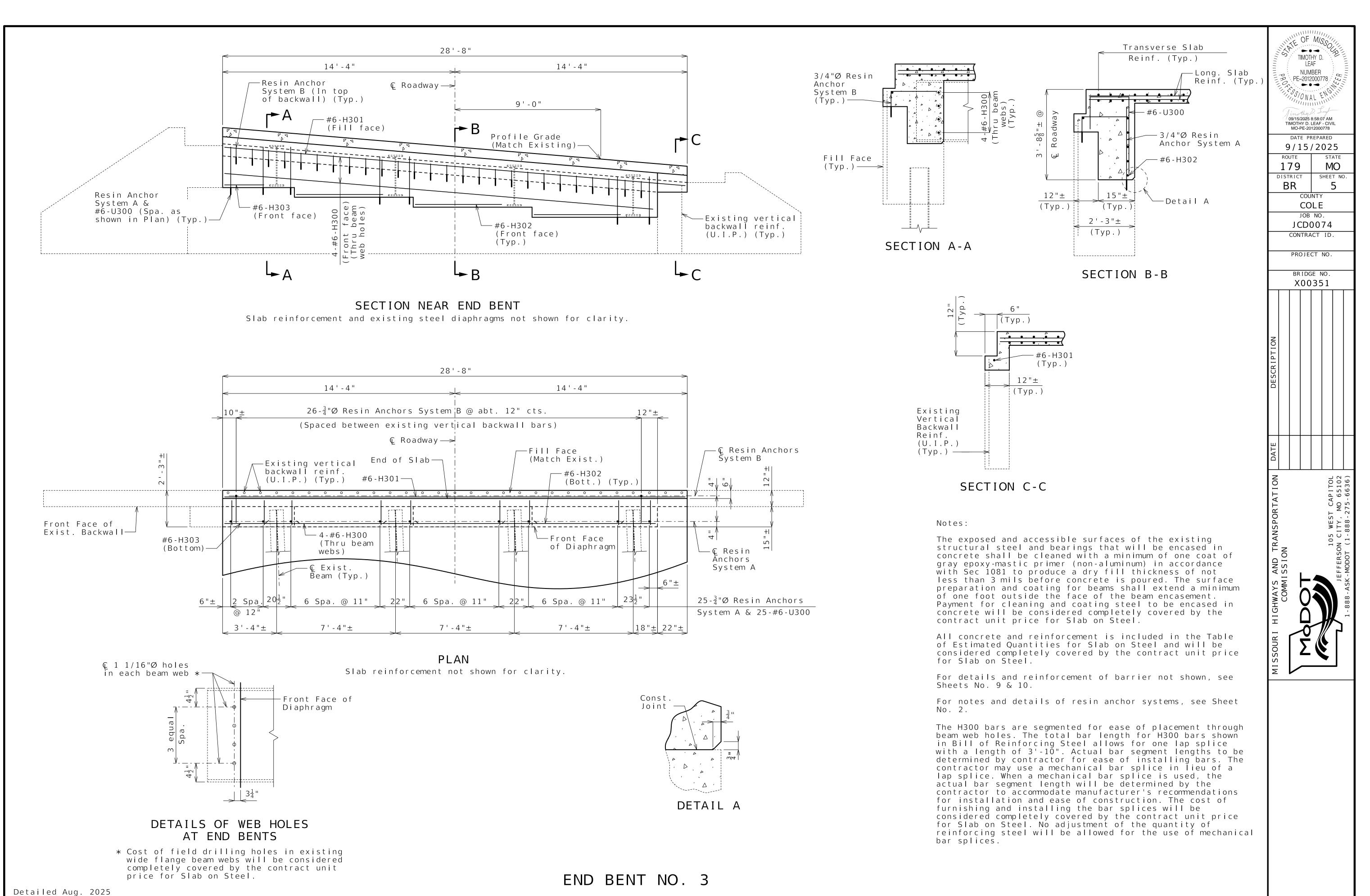
- All concrete and reinforcement is included in the Table of Estimated Quantities for Slab on Steel and will be considered completely covered by the contract unit price for Slab on Steel.
- For details and reinforcement of barrier not shown, see Sheets No. 9 & 10.
- For notes and details of resin anchor systems, see Sheet No. 2.

The H200 bars are segmented for ease of placement through girder web holes. The total bar length for H200 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.

INTERMEDIATE BENT NO. 2

Detailed May 2025 Checked June 2025

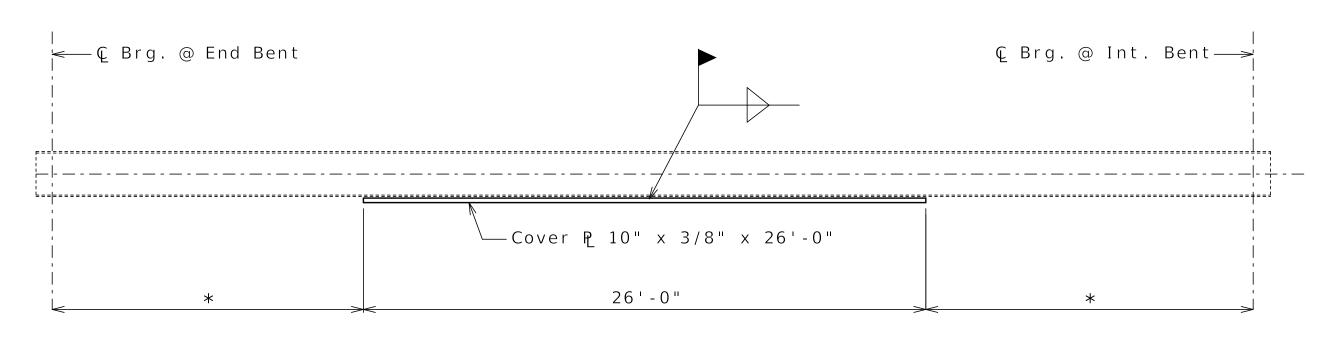




Note: This drawing is not to scale. Follow dimensions.

Checked Aug. 2025

Sheet No. 5 of 13



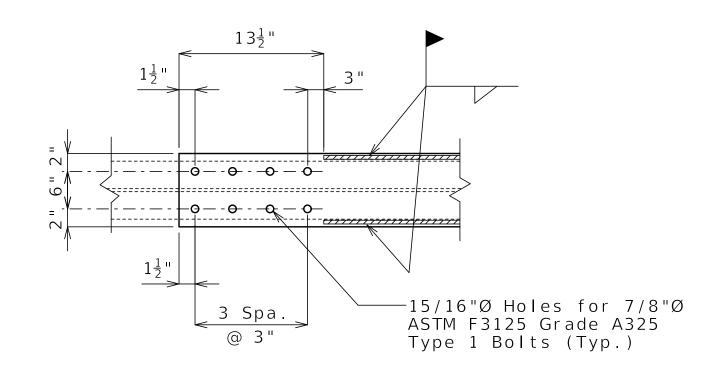
PART ELEVATION OF BEAM SHOWING COVER PLATE INSTALLATION ALL BEAMS IN SPAN (1-2) AND SPAN (2-3)

* Girder 1: 11'-10⁷/₈"±

Girder 2: 11'-7⁵/₈"±

Girder 3: 11'-4¹/₂"±

Girder 4: 11'-1³/₈"±



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

Notes:

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

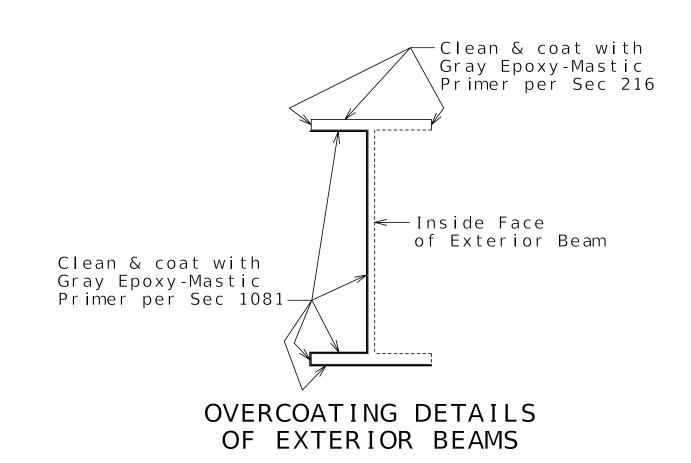
- 1. Drill holes in cover plate and flange.
- 2. Clean faying surfaces. (See Special Provisions)
- 3. Install and tighten bolts.
- 4. Weld cover plate to flange.

Fabricated Structural Steel shall be ASTM A709 Grade 50, except as noted.

Payment for 2658 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.

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



STRENGTHENING EXISTING BEAMS & MISC. DETAILS

Detailed Apr. 2025 Checked June 2025

TIMOTHY D. LEAF NUMBER PE-2012000778 09/15/2025 8:58:16 AM TIMOTHY D. LEAF - CIVIL MO-PE-2012000778 DATE PREPARED 9/15/2025 179 DISTRICT COUNTY COLE JOB NO. JCD0074 CONTRACT ID. PROJECT NO. BRIDGE NO. X00351

Detailed May 2025

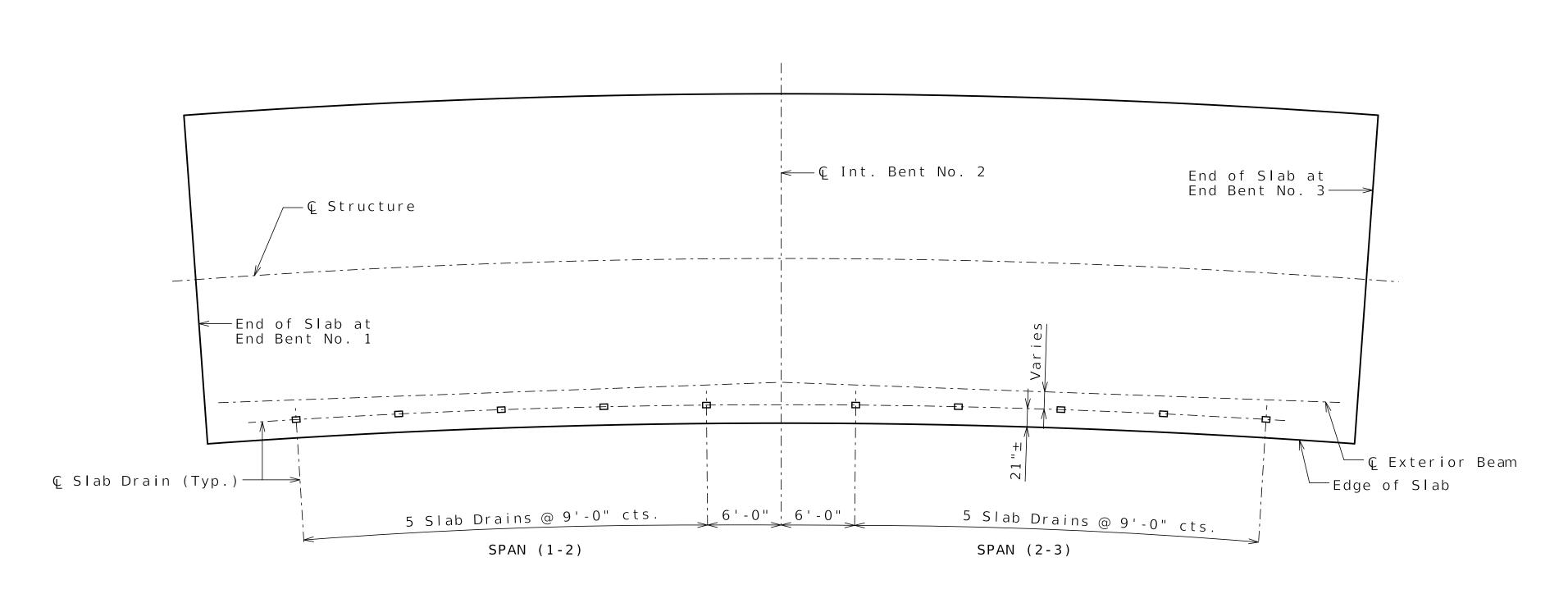
Checked June 2025

(Min.)

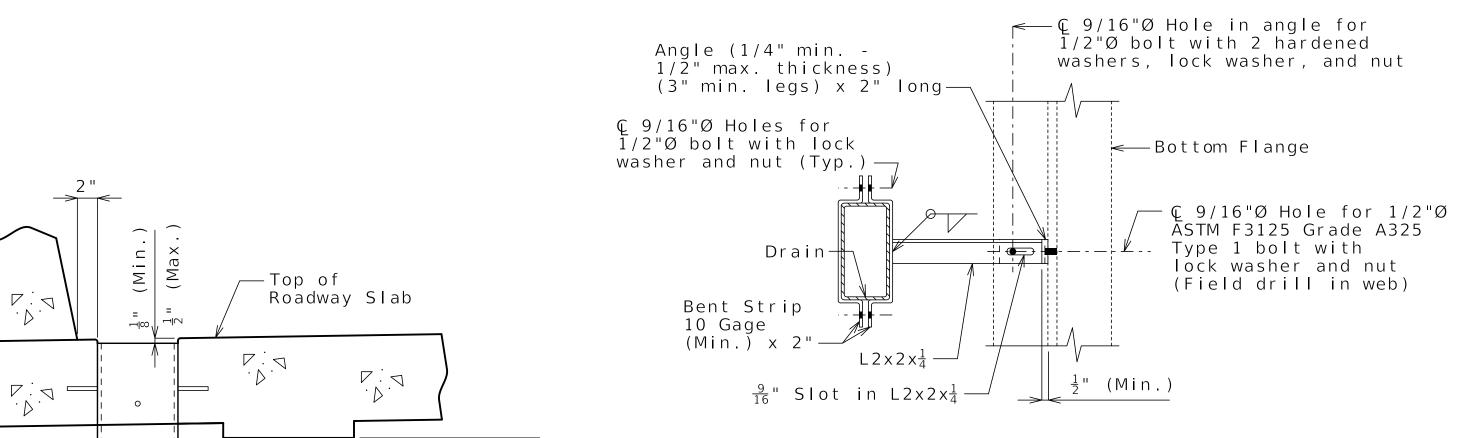
1" (Min.)

PART SECTION NEAR DRAIN

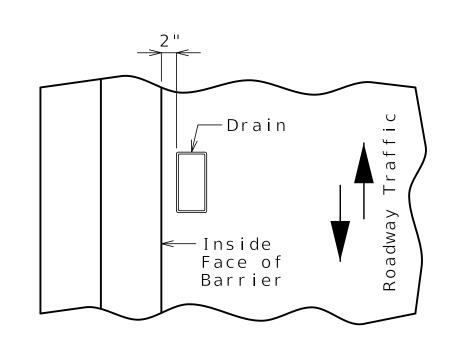
- s — a



PLAN OF SLAB SHOWING SLAB DRAIN LOCATIONS



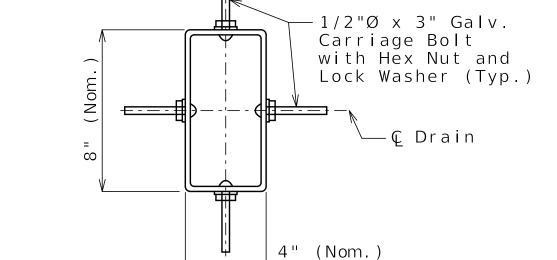
PART SECTION SHOWING BRACKET ASSEMBLY



PART PLAN OF SLAB AT DRAIN

SLAB DRAINS

Note: This drawing is not to scale. Follow dimensions. Sheet No. 7 of 13



← C Drain

PLAN OF STEEL DRAIN OPTION

-Bottom of

1/2"Ø x 3" Rod

Connector (Typ.)

(ASTM A709 Grade 36)

or 1/2"Ø x 3"± Shear

-¢ Drain

Roadway

Slab

← C Drain

4 ''

ELEVATION OF DRAIN

← Drain—

PLAN OF FRP DRAIN OPTION

General Notes:

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

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

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

Reinforcing steel shall be shifted to clear drains.

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

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

All 1/2"Ø bolts shall be ASTM A307, except as shown.

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" x 4".

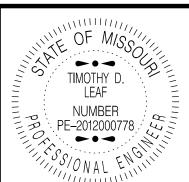
Minimum reinforced wall thickness shall be 1/4 inch.

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 recommended by the manufacturer to ensure a smooth, chip free cut.



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TIMOTHY D. LEAF - CIVIL
MO-PE-2012000778

DATE PREPARED

9 / 15 / 2025

ROUTE STATE

179 MO

DISTRICT SHEET NO.

BR 7

COUNTY

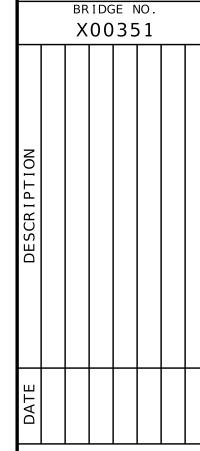
COLE

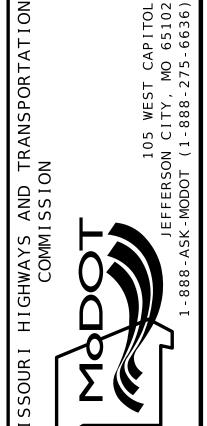
JCD0074

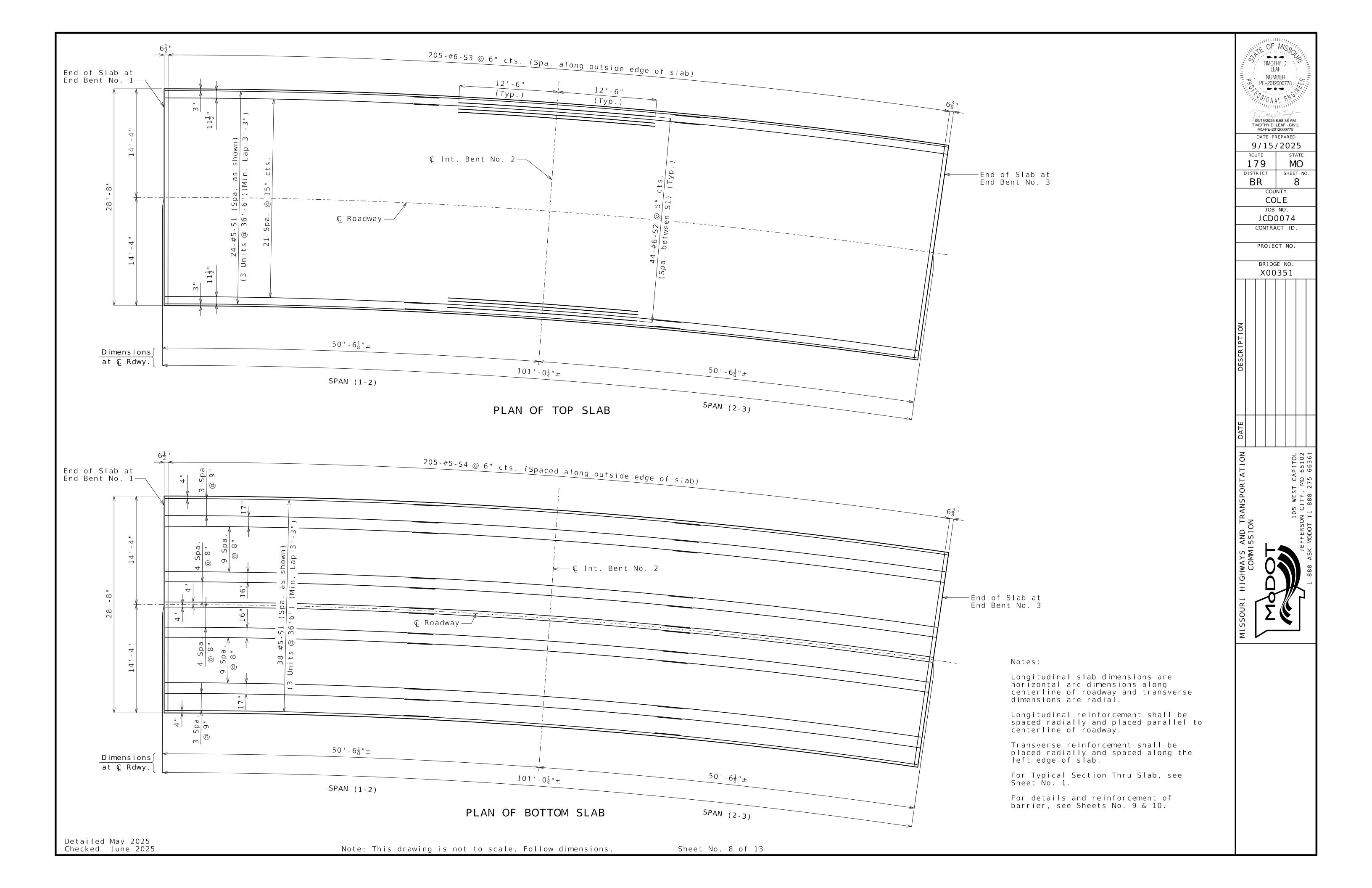
CONTRACT ID.

JOB NO.

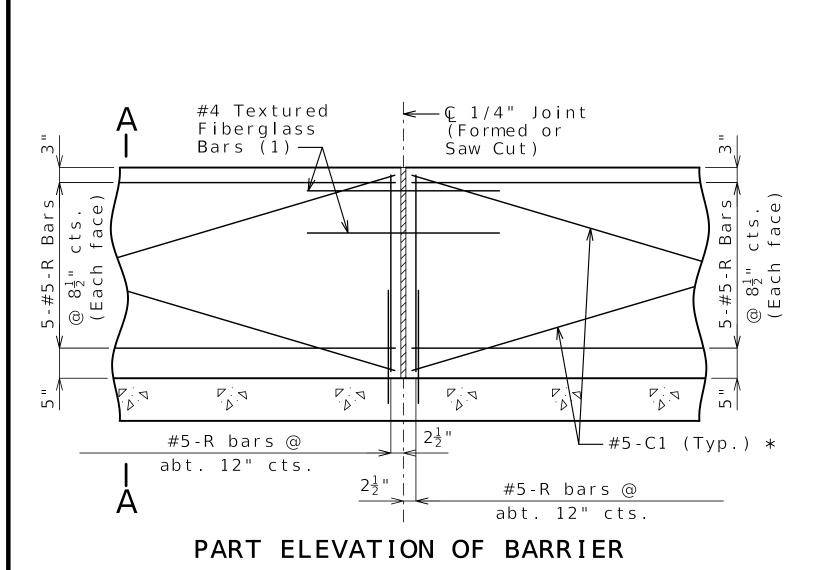
PROJECT NO.







Longitudinal dimensions are horizontal arc dimensions along outside edge of curb.

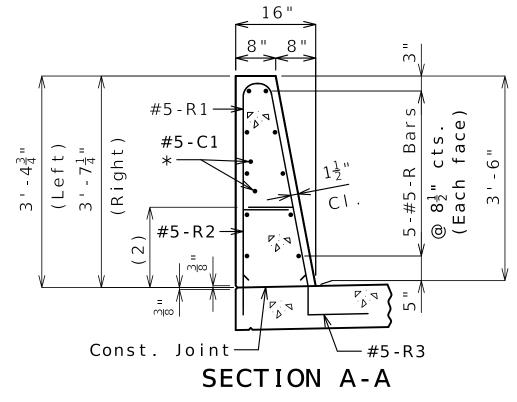


(1) Four feet long, centered on joint,

slip-formed option only

Detailed Apr. 2025

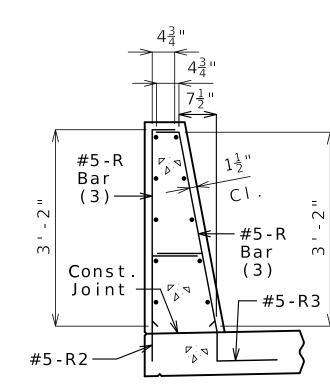
Checked June 2025



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

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

(2) 16" (Left) 13 1/2" (Ŕight) 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.)

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

Concrete in barrier shall be Class B-1.

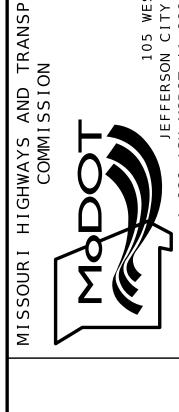
Measurement of barrier is to the nearest linear foot for each structure, measured along the outside top of slab from end of slab to end of slab.

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 D Barrier.

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

Plastic waterstop shall not be used with



Joint sealant and backer rods shall be in

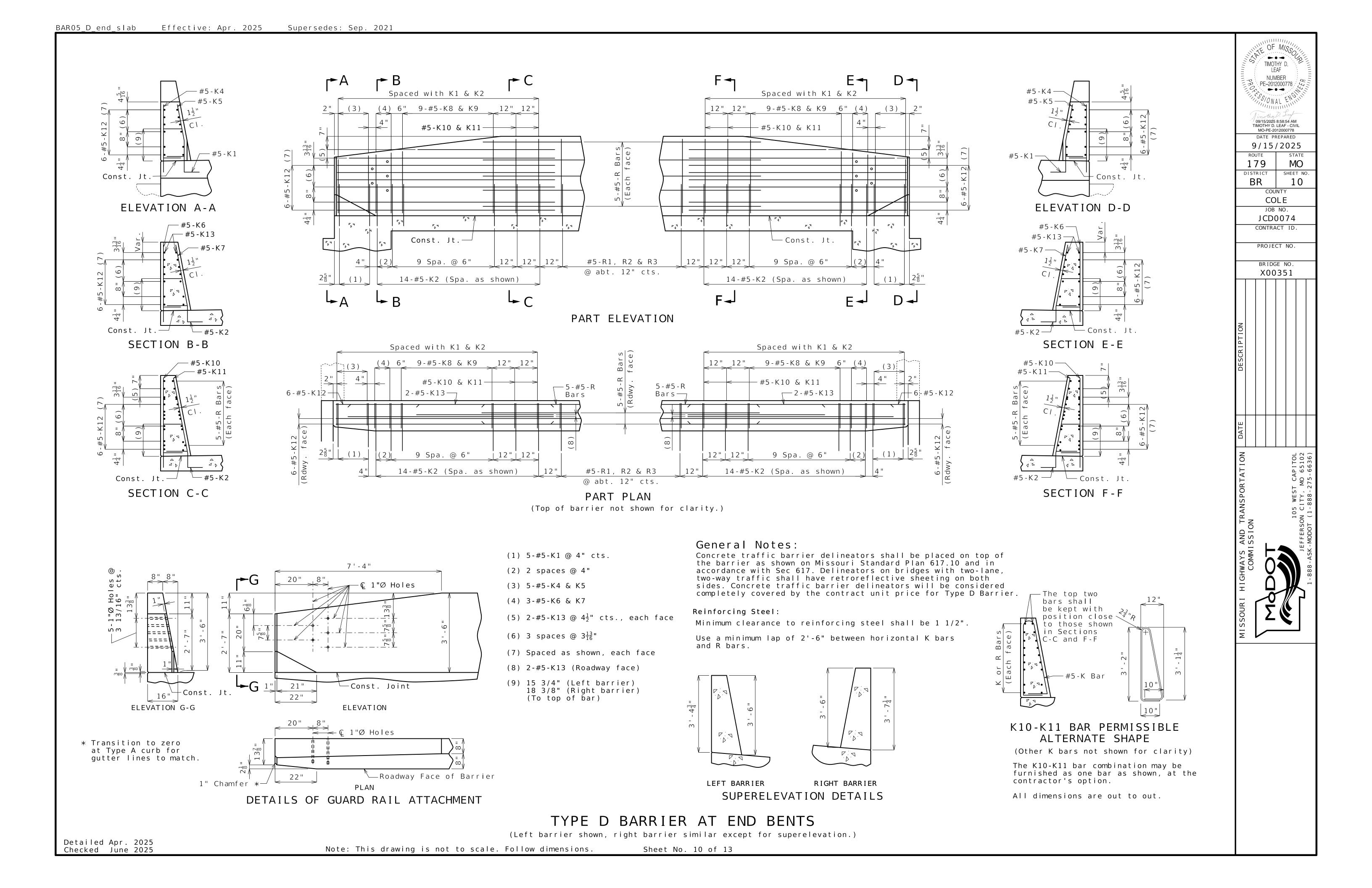
transversely broomed finish.

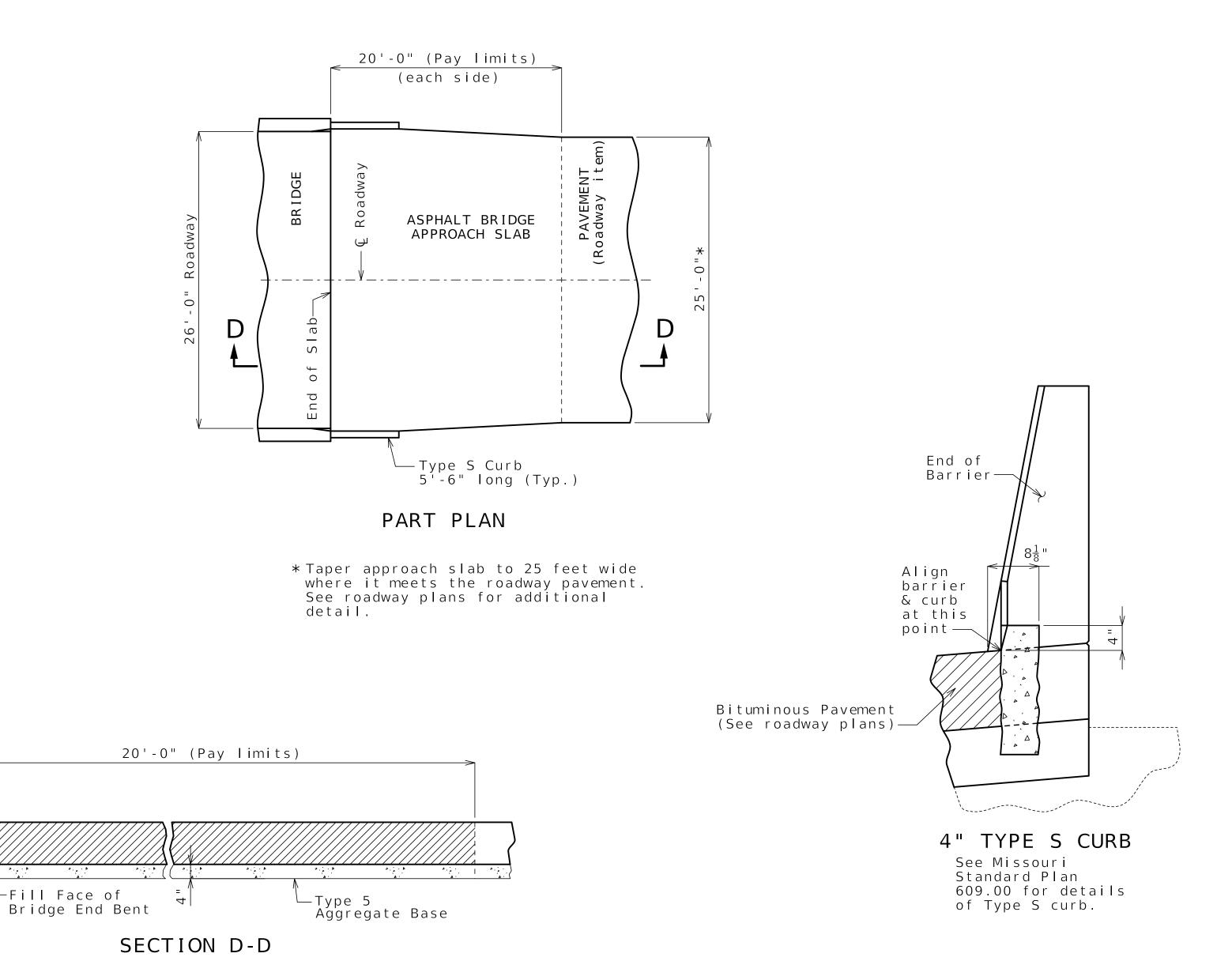
saw cut joints.

TYPE D BARRIER

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

Sheet No. 9 of 13





General Notes:

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

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

Application of tack is required between lifts per Sec 403.

ASPHALT SLAB

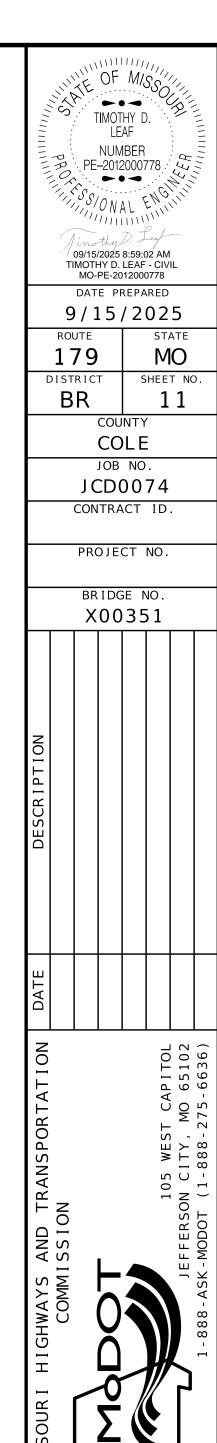
BRIDGE APPROACH SLAB (MINOR)

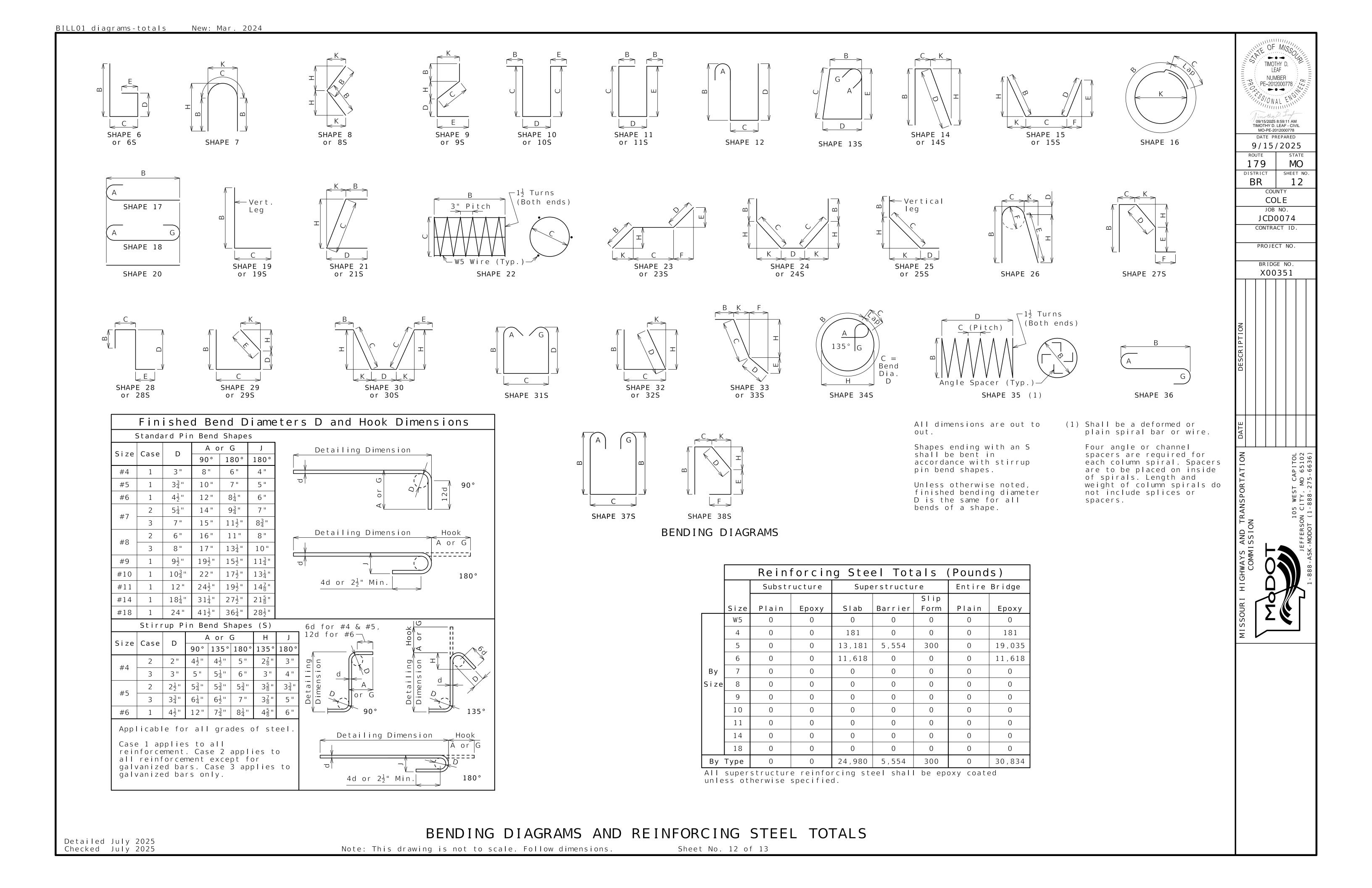
Detailed Apr. 2025 Checked June 2025

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

End of Slab—

Sheet No. 11 of 13





	Bill of Reinforcing Steel														OF MISSO										
			<u> </u>			Di	imensions -	_		No		\c t u a l								Dimensions	· · · ·	Nom			TIMOTHY D. LEAF
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		Superstructure																							18810 NAL ENGLIS
		End Bent 1												-											Tinothy D. Lest
4	6 H100	DIAPHRAGM	E 20	28 8.00						28	8 2	28 8	172		+										09/15/2025 8:59:19 AM TIMOTHY D. LEAF - CIVIL MO-PE-2012000778
1	6 H101	DIAPHRAGM	E 20	28 5.00						28		28 5	43												DATE PREPARED
3	6 H102	DIAPHRAGM	E 20	5 2.00						5	2 !	5 2	23												9/15/2025
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																									DISTRICT SHEET NO
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3	6 H302	DIAPHRAGM	E 20	5 4.00						5	4 !	5 4	24												JOB NO. JCD0074
	6 H303	DIAPHRAGM	E 20	2 5.00						2	5 2	2 5	4												CONTRACT ID.
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																									PROJECT NO.
	6 H200	Int Diaphragm	E 20	20 0 00						20	0 7	000	244												BRIDGE NO.
8	6 H200 5 H201	D I APHRAGM D I APHRAGM	E 20 E 10S		10.00	17.00				28	1 2	28 8 2 10	344 24	+	+						+			+	X00351
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8	4 V200	DIAPHRAGM	E 20	2 9.00						2	9 2	2 9	15	+										+	
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		Incr. = 0.500"		2 6.25	10.00					3	4 3	3 3	66												7
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		Incr. = 0.500"				20.50	9.50	8.25		4.50 3	2	3 1	63												TRANSPORTATION 105 WEST CAPITOL ON CITY, MO 65102
12	5 K6	BARR I ER	E 19S	2 6.75	10.00					3	5 -	3 3	41												ORT ST (
12	5 K7	BARRIER	E 21S		2 6.75	10.00			2 6.00	6.25 3	5 3	3 4	42		+									-	VSP WE:
36	5 K8	BARR I ER		4 2 8.50	10.00					3	7	3 5													RAN 105
		Incr. = 0.750"		3 2.50	10.00					4	1 3	3 11	138												D TR. ION
36	5 K9	BARRIER	E 21S	4	2 8.50	10.00			2 7.75	6.75 3	7 :	3 6			+										
		Incr. = 0.750"			3 2.50				3 1.75	7.75 4	1 4	4	141												
Q	5 K10	BARR I ER	E 19S	3 3.00	10.00					1	1 /	1	33												YAY Y
8	5 K10		E 21S		3 3.00	10.00			3 2.25	7.75 4	1 4	4	33		+										HIGHWAYS COMMI
48	5 K12	BARRIER	E 20	9 7.00						9	7 9	9 7	480												
16	5 K13	BARRIER Incr. = 12.000"	E 20	4 8 10.00 5 10.00							11 8	8 105 10	122	-	+										
				3 20.00																					Noss 2
172	5 R1	BARRIER	E 26				3 0.50	5.50	2 11.75	6.75 6	10	6 7	1,181	_											185
88 172	5 R2 5 R3	BARR I ER BARR I ER	E 19S	21.00	9.50	15.25	3.25	12.00	15.00	3.00 3	4	2 5 3 2	222 568	1											Σ
40	5 R4	BARRIER	E 20	11 9.00			0.10			11	9 1	11 9	490												
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20 84	5 R6 5 R7		E 19S		 					31	3 3	31 3 2 3	652 197	-											
					3.33					_															
	E C1	Slip-Form	E 30	12 0 00						1.3	1	1 7	300												
24	5 C1	SLIP FORM	E 20	12 0.00						12		1 2	300	+	_									+	
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liste	iai ien ed to t	gths are based on ne nearest inch fo	out or fa	to out alme bricator's	use Ac	snown in C tual lenat	ths are me	ıayı ams easured	sanuare Nalong			All h	vare cha	all bo	Grade 60	\cap		coues:	c = kequ	red coatings, where E =	Lpuxy Coate	;u anu 6 = 6	aivanized	•	

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

All bars shall be Grade 60.

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. 12.

BILL OF REINFORCING STEEL

Detailed July 2025 Checked July 2025

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

Sheet No. 13 of 13