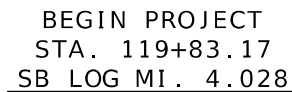


A.A.D.T. - 2024 = 550
A.A.D.T. - 2044 = 950
T = 10%
V = 45 M.P.H.
D = 52% (NB)

TEMPORARY EASEMENT NEEDED FOR THIS
PROJECT. NO NEW RIGHT OF WAY REQUIRED.

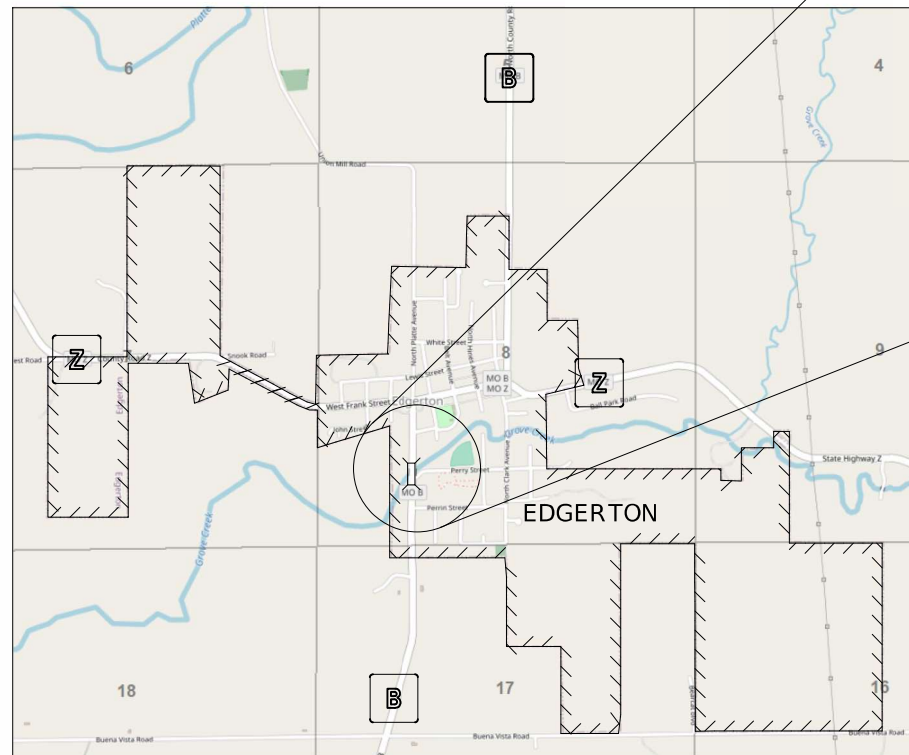
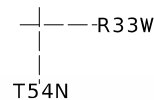
	EXISTING	NEW
BUILDINGS AND STRUCTURES		
GUARD RAIL		
GUARD CABLE		
CONCRETE RIGHT-OF-WAY MARKER		
STEEL RIGHT-OF-WAY MARKER		
LOCATION SURVEY MARKER		
UTILITIES		
FIBER OPTICS	- FO -	- FO -
OVERHEAD CABLE TV	- OTV -	- OTV -
UNDERGROUND CABLE TV	- UTV -	- UTV -
OVERHEAD TELEPHONE	- OT -	- OT -
UNDERGROUND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

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



REPLACE BRIDGE R0247
BUILD BRIDGE A9335
ROUTE B OVER GROVE CREEK

END PROJECT
STA. 125+62.25
SB LOG MI. 4.138



DESCRIPTION	SHEET NUMBER
TITLE SHEET -----	1
TYPICAL SECTIONS (TS) (3 SHEETS)---	2
QUANTITIES (QU) (4 SHEETS)-----	3
PLAN-PROFILE (PP)-----	4-5
RIGHT OF WAY (RW)-----	6
REFERENCE POINTS (RP)-----	7
COORDINATE POINTS (CP)-----	7
SPECIAL SHEETS (SS)-----	8-9
TRAFFIC CONTROL SHEETS (TC)-----	10-13
EROSION CONTROL SHEETS (EC)-----	14
SIGNING (SN)-----	15-20
CULVERT SECTIONS (CS)-----	21-22
PAVEMENT MARKING (PM)-----	23
BRIDGE DRAWINGS (B)	
A9335-----	1-20
CROSS SECTIONS (XS)-----	1-8

<i>Heather L. Barrows</i>					
06-17-2025 2:33:25 PM HEATHER R. BARROWS - CIVIL MO-PE-2016040670					
DATE PREPARED					
6/17/2025					
ROUTE			STATE		
B			MO		
DISTRICT			SHEET NO.		
KC			1		
COUNTY					
PLATTE					
JOB NO.					
J453492					
CONTRACT I.D.					
PROJECT NO.					
BRIDGE NO.					
A9335					
DESCRIPTION					
DATE					

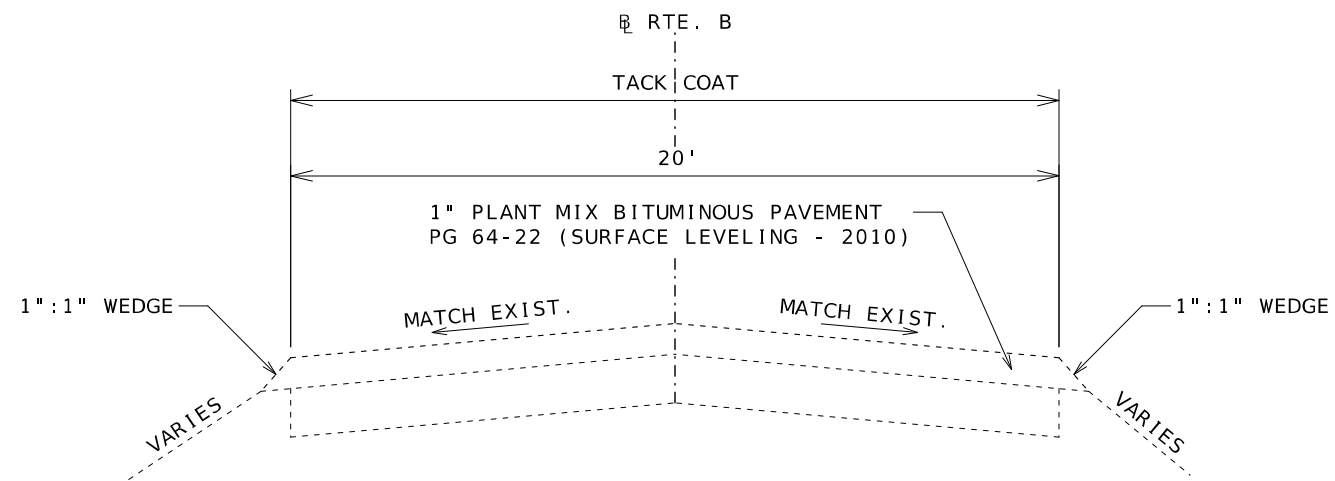
BEGINNING OF PROJECT	STA. 119+83.17
END OF PROJECT	STA. 125+62.25

APPARENT LENGTH	579.07 FEET
-----------------	-------------

EQUATIONS AND EXCEPTIONS:

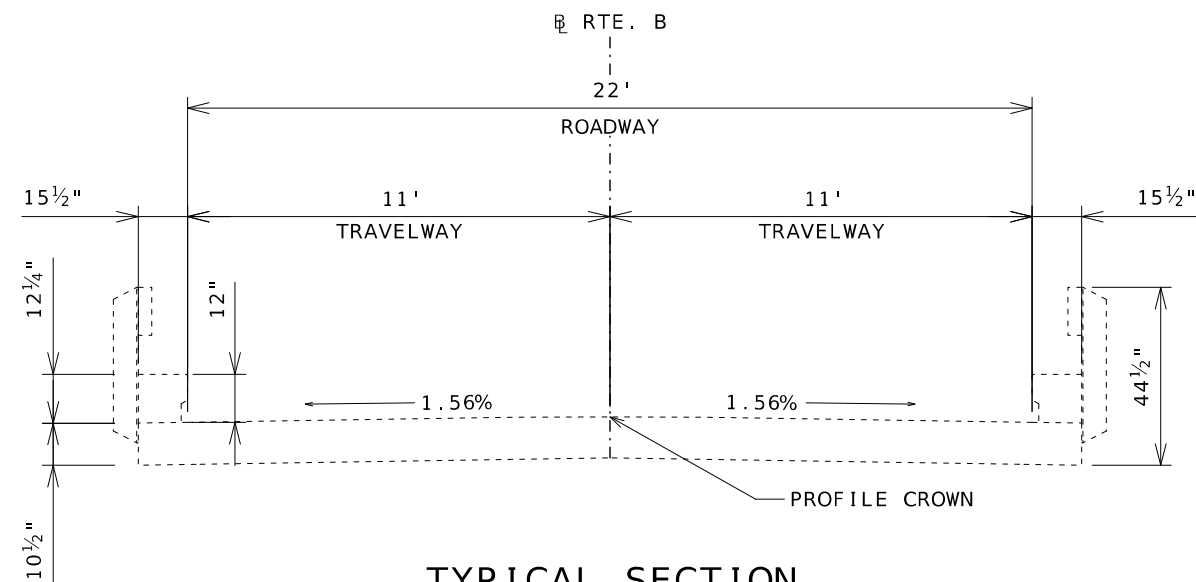
TOTAL CORRECTIONS	0	FEET
NET LENGTH OF PROJECT	579.07	FEET
STATE LENGTH	0.104	MILES
FOR INFORMATION ONLY ESTIMATED DISTURBED ACRES	1.005	ACRES


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



TYPICAL SECTION
EXISTING ROUTE B ON TANGENT

STA. 119+83.17 TO STA. 122+33.73
STA. 123+26.27 TO 125+62.25



TYPICAL SECTION
EXISTING BRIDGE ROUTE B

STA. 122+33.73 TO STA. 123+26.27

NOT TO SCALE

TYPICAL SHEET
SHEET 1 OF 3



01/27/2025 3:06:58 PM
HEATHER R. BARROWS - CIVIL
MO. DE. 2019010070

DATE PREPARED
1/27/2025

ROUTE	STATE
B	MO

DISTRICT	SHEET NO.
KC	2

COUNTY
PLATTE

JOB NO.
J4S3492

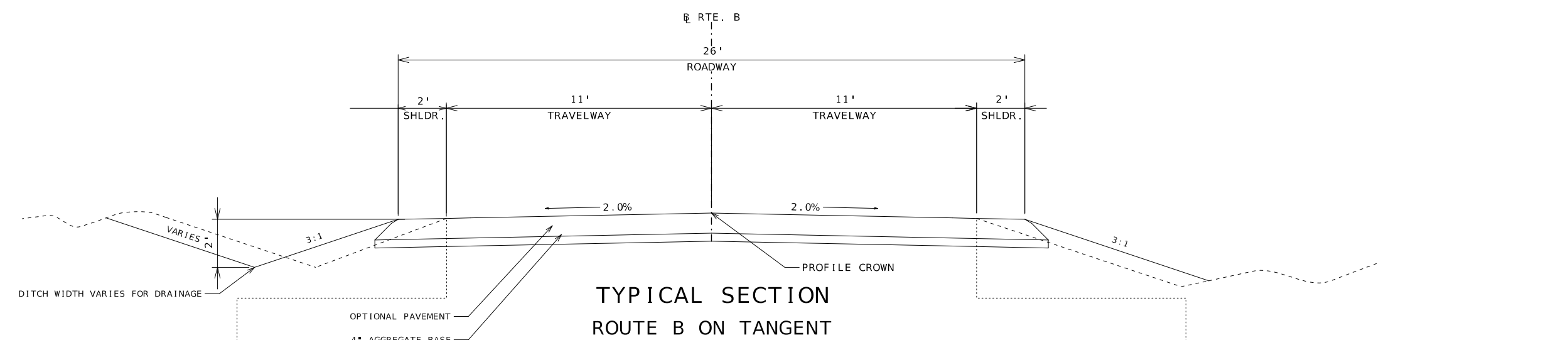
CONTRACT ID.

PROJECT NO.

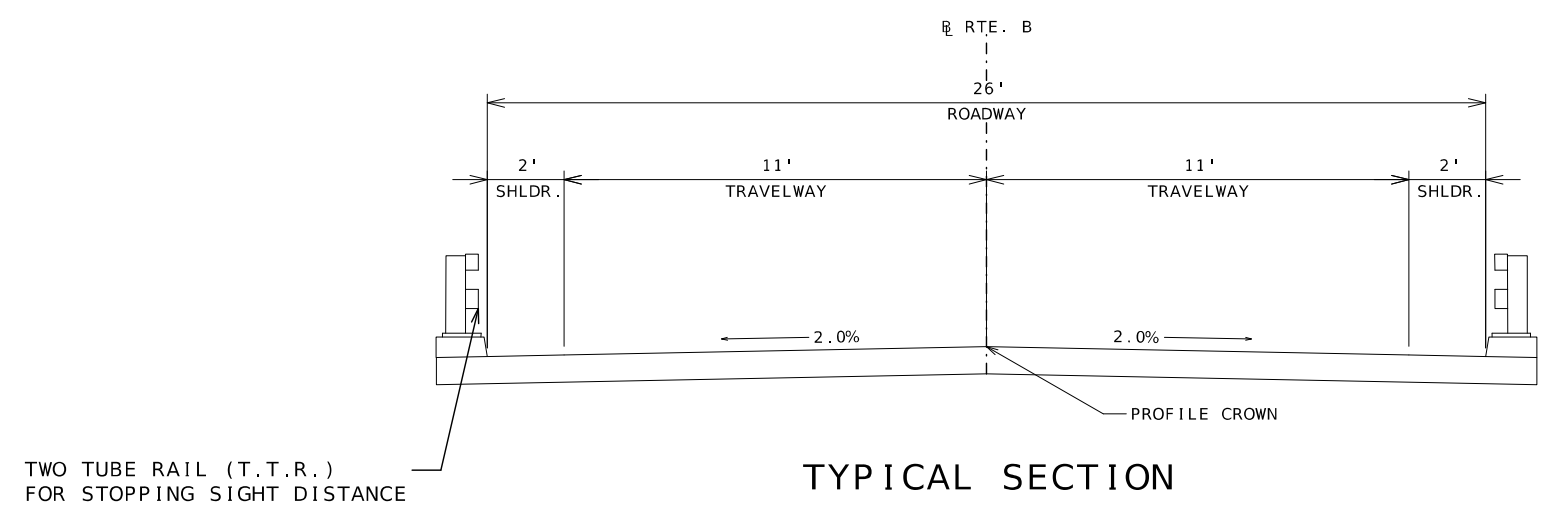
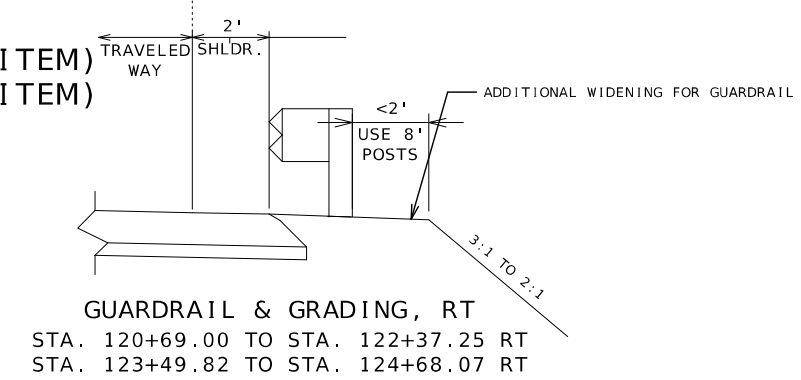
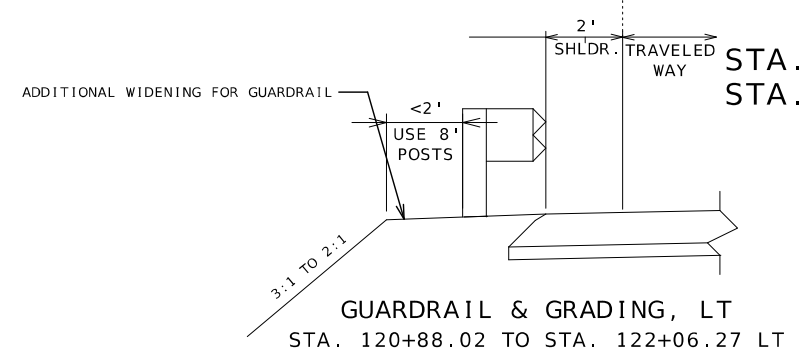
BRIDGE NO.
A9335

[illegible]MISSOURI HIGHWAYS AND TRANSPORTATION
COMMISSION

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



STA. 119+83.17 TO STA. 122+01.76
STA. 122+01.76 TO STA. 122+21.76 (BR APPR. SLAB — BRIDGE ITEM)
STA. 123+34.33 TO STA. 123+54.33 (BR APPR. SLAB — BRIDGE ITEM)
STA. 123+54.33 TO 125+62.25



STA. 122+21.76 TO STA. 123+34.33

FOR INFORMATION PURPOSES ONLY:

ESTIMATE FACTORS		
BP-1 w/ PG 64-22	1.998	TON/CY
BB w/ PG 64-22	2.014	TON/CY
TACK COAT	0.10	GAL/SQYD

OPTIONAL PAVEMENT:

8" JPCP
OVER 4" TYPE 1 AGGREGATE BASE

OR

10" HMA
2" BP-1 W/ PG 64-22
OVER 8" BB W/ PG 64-22
OVER 4" TYPE 1 AGGREGATE BASE

NOT TO SCALE

TYPICAL SHEET
SHEET 2 OF 3

STATE OF MISSOURI
HEATHER R. BARROWS
NUMBER
PE-2016040670
PROFESSIONAL ENGINEER

Heather R. Barrows
06/17/2025 2:35:03 PM
HEATHER R. BARROWS - CIVIL
MO-PE-2016040670

DATE PREPARED
6/17/2025

ROUTE
B

STATE
MO

DISTRICT
KC

SHEET NO.
2

COUNTY
PLATTE

JOB NO.
J4S3492

CONTRACT ID.

PROJECT NO.

BRIDGE NO.
A9335

DESCRIPTION	DATE

MISSOURI HIGHWAYS AND TRANSPORTATION
COMMISSION

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



MOBILIZATION
PAY TOTAL = 1 LUMP SUM

EARTHWORK					
STATION	STATION	LOCATION	CLASS A EXCAVATION	COMPACTING EMBANKMENT	REMARK
			CY	CY	
119+83.17	122+50.00	ROUTE B	819.1	79.7	
123+08.88	125+62.25	ROUTE B	354.4	63.7	
		SUBTOTAL	1,173.5	143.4	
		PAY TOTAL	1,174	144	

CLEARING AND GRUBBING						
SHEET	STATION	STATION	LOCATION	SIDE	AREA AC	REMARKS
4	121+02.79	122+82.67	ROUTE B	RT	0.17	NW QUADRANT
4	121+86.27	122+33.73	ROUTE B	LT	0.03	NE QUADRANT
4	122+62.68	123+46.87	ROUTE B	LT	0.05	SE QUADRANT
4	123+01.88	123+49.82	ROUTE B	RT	0.02	SW QUADRANT
4	124+42.93	125+23.32	ROUTE B	RT	0.09	SW QUADRANT
				SUBTOTAL	0.36	
				PAY TOTAL	1	

REMOVAL OF IMPROVEMENTS								
SHEET NO.	STATION	STATION	LOCATION	SIDE	DESCRIPTION	UNITS	QUANTITY	REMARKS
4	119+83.17		ROUTE B		FULL DEPTH SAW CUT	LF	20.1	
4	119+83.17	122+21.76	ROUTE B		EXIST. ASPHALT PAVEMENT	SY	604	
4	120+50.64		ROUTE B	LT	SIGN POST	EA	1	
4	120+38.39	120+78.49	ROUTE B	RT	CHAIN LINK FENCE	LF	140.7	
4	120+31.76	120+51.90	ROUTE B	LT	CULVERT	LF	20.2	PRIVATE DRIVE (CITY PARK)
4	120+34.35	120+57.69	ROUTE B	RT	CULVERT	LF	23.4	PRIVATE DRIVE (LIFT STATION)
4	121+08.04		ROUTE B	RT	SIGN POST	EA	1	
4	121+10.24		ROUTE B	LT	SIGN POST	EA	1	
4	121+46.55		ROUTE B	LT	SIGN POST	EA	2	
4	122+20.57		ROUTE B	LT	SIGN POST	EA	1	
4	122+23.68		ROUTE B	RT	SIGN POST	EA	1	
4	122+24.39		ROUTE B	RT	SIGN POST	EA	1	
4	123+14.74		ROUTE B	LT	SIGN POST	EA	1	
4	123+26.90		ROUTE B	LT	SIGN POST	EA	1	
4	123+32.66	124+02.03	ROUTE B	LT	EXIST. ASPHALT PAVEMENT	SY	111	W PERRY STREET
4	123+36.24		ROUTE B	RT	SIGN POST	EA	1	
4	123+40.83		ROUTE B	RT	SIGN POST	EA	1	
4	123+34.33	125+62.25	ROUTE B		EXIST. ASPHALT PAVEMENT	SY	576	
4	123+43.76	123+82.01	ROUTE B	LT	CULVERT	LF	38.3	W PERRY STREET
4	124+17.06	124+45.23	ROUTE B	LT	CULVERT	LF	28.2	PRIVATE DRIVE (206 N PLATTE AVE)
4	124+93.48	125+13.46	ROUTE B	RT	FENCE	LF	16.0	PRIVATE DRIVE (FIELD ENTRANCE)
4	125+62.25		ROUTE B		FULL DEPTH SAW CUT	LF	21.3	
					PAY TOTAL		1 LUMP SUM	

PAVEMENT TREATMENT									
SHEET NO.	STATION	STATION	LOCATION	SIDE	AVERAGE MAINLINE WIDTH	TYPE 1 AGGREGATE FOR BASE (4" THICK)	OPTIONAL PAVEMENT	LINEAR GRADING CLASS 1	REMARKS
					FT	SY	SY	STA	
4	119+83.17	122+01.76	ROUTE B	CENTER	26	603.2	603.2		FULL DEPTH PAVEMENT
4	123+54.33	125+62.25	ROUTE B	CENTER	26	575.4	575.4		FULL DEPTH PAVEMENT
4	120+27.18	120+57.20	ROUTE B	LT	10	27.0		0.3	PRIVATE DRIVE (CITY PARK)
4	120+33.84	120+55.83	ROUTE B	RT	10	19.4		0.2	PRIVATE DRIVE (LIFT STATION)
4	123+34.87	124+05.34	ROUTE B	LT	20	95.5	95.5	0.7	W PERRY STREET
4	124+16.45	124+54.93	ROUTE B	LT	13	35.9		0.4	PRIVATE DRIVE (206 N PLATTE AVE)
4	124+86.70	125+18.68	ROUTE B	RT	12	74.2		0.3	PRIVATE DRIVE (FIELD ENTRANCE)
					SUBTOTAL	1,430.6	1,274.10	1.9	
					PAY TOTAL	1,431	1,275	2.0	

SUMMARY OF QUANTITIES
SHEET 1 OF 4



Heather R. Barrows
01/27/2025 3:09:29 PM
HEATHER R. BARROWS - CIVIL
MO-PE-2016040670

DATE PREPARED
1/27/2025
ROUTE B STATE MO
DISTRICT KC SHEET NO. 3

COUNTY
PLATTE
JOB NO.
J4S3492
CONTRACT ID.

PROJECT NO.

BRIDGE NO.
A9335

DESCRIPTION	DATE								

MISSOURI HIGHWAYS AND TRANSPORTATION
COMMISSION

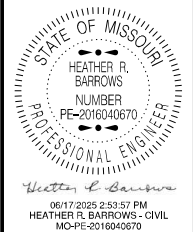
105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)

ROCK										
SHEET NO.	STATION	STATION	LOCATION	SIDE	TYPE 2 ROCK DITCH LINER		TYPE 2 ROCK BLANKET		PERMANENT EROSION CONTROL GEOTEXTILE	REMARK
					FURNISHING	PLACING	FURNISHING (2' THICK)	PLACING (2' THICK)		
					CY	CY	CY	CY	SY	
4 & 14	121+81.76	122+82.67	ROUTE B	CENTER			207.4	207.4	16.8	BRIDGE BENT 1
4 & 14	122+62.75	123+49.82	ROUTE B	CENTER			205.9	205.9	23.3	BRIDGE BENT 2
4 & 14	121+86.27	122+06.27	ROUTE B	LT	12.3	12.3			34.4	NE QUADRANT
4 & 14	122+17.25	122+49.39	ROUTE B	RT	30.4	30.4			88.4	NW QUADRANT
4 & 14	123+08.86	123+46.87	ROUTE B	LT	27.0	27.0			78.3	SE QUADRANT
SUBTOTAL					69.7	69.7	413.3	413.3	241.2	
PAY TOTAL					70	70	414	414	242	

GUARDRAIL									
SHEET NO.	STATION	STATION	LOCATION	SIDE	LENGTH	MGS GUARDRAIL SYSTEM 8' POSTS 6'-3" SPACING	MGS BRIDGE APPROACH TRANSITION SECTION WITHOUT CURB	TYPE A CRASHWORTHY END TERMINAL MASH	REMARKS
						FT	EA	EA	
4	120+99.00	122+37.25	ROUTE B	RT	138.25	50	1	1	NW QUADRANT
4	121+18.02	122+06.27	ROUTE B	LT	88.25		1	1	NE QUADRANT
4	124+38.07	123+49.82	ROUTE B	RT	88.25		1	1	SW QUADRANT
SUBTOTAL						50	3	3	
PAY TOTAL						50	3	3	

EROSION & SEDIMENT CONTROL												
SHEET NO.	STATION	STATION	OFFSET	LOCATION	SIDE	TEMPORARY						REMARKS
						SEDIMENT TRAP		ALT. DITCH CHECK	SEDIMENT REMOVAL	SILT FENCE	TYPE C BERM	
						EXC.	ROCK					
			FT			CY	CY	LF	CY	LF	LF	
14	119+83.17	121+86.27		ROUTE B	LT				3	202		NE QUADRANT
14	119+83.17	122+97.03		ROUTE B	RT				4	314		NW QUADRANT
14	123+56.12	125+62.25		ROUTE B	RT				4	308		SW QUADRANT
14	119+99.53		21	ROUTE B	LT			24	1			
14	120+00.04		19	ROUTE B	RT			18	1			
14	120+15.90		21	ROUTE B	LT			24	1			
14	120+16.92		20	ROUTE B	RT			19	1			
14	121+01.26		27	ROUTE B	LT			31	1			
14	121+06.43		29	ROUTE B	RT			27	1			
14	121+47.26		28	ROUTE B	LT			28	1			
14	121+54.09		27	ROUTE B	RT			29	1			
14	121+95.44		26	ROUTE B	LT	4.8	1.2		1			
14	122+01.74		27	ROUTE B	RT			27	1			
14	122+36.75			ROUTE B	CENTER				1		47	BRIDGE BENT 1
14	122+45.39		24	ROUTE B	RT	6.0	1.5		1			
14	123+26.76		24	ROUTE B	LT	6.6	1.7		1			
14	123+27.01			ROUTE B	CENTER				1		63	BRIDGE BENT 4
14	123+99.61		23	ROUTE B	LT			18	1			
14	124+59.57		23	ROUTE B	LT			15	1			
14	124+72.66		23	ROUTE B	LT			13	1			
14	124+85.76		23	ROUTE B	LT			13	1			
14	124+98.86		23	ROUTE B	LT			12	1			
14	125+11.96		23	ROUTE B	LT			12	1			
SUBTOTAL						17.4	4.4	310	31	824	110	
PAY TOTAL						17.4	4.4	310	31	824	110	

SUMMARY OF QUANTITIES
SHEET 2 OF 4



DATE PREPARED	
6/17/2025	
ROUTE	STATE
B	MO
DISTRICT	SHEET NO.
KC	3
COUNTY	
PLATTE	
JOB NO.	
J4S3492	
CONTRACT ID.	

PROJECT NO.
BRIDGE NO.
A9335

DESCRIPTION	DATE

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

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

ADDITIONAL MOBILIZATION FOR SEEDING
PAY TOTAL = 4 EACH

CONTRACTOR FURNISHED SURVEYING AND STAKING
PAY TOTAL = 1 LUMP SUM

DRAINAGE STRUCTURES							
SHEET NO.	STATION	LOCATION	SIDE	CLASS 3 EXCAVATION	GROUP C 24" FLARED END SECTION	GROUP C 24" PIPE	REMARKS
				CY	EA	LF	
4 & 8	120+41.44	ROUTE B	LT	13.3	2	23	PRIVATE DRIVE (CITY PARK)
4 & 8	120+45.04	ROUTE B	RT	17.1	2	25	PRIVATE DRIVE (LIFT STATION)
4 & 8	123+65.85	ROUTE B	LT	33.1	2	48	W PERRY STREET
4 & 9	124+31.26	ROUTE B	LT	21.1	2	32	PRIVATE DRIVE (206 N PLATTE AVE)
SUBTOTAL				84.6	8	128	
PAY TOTAL				85	8	128	

PAVEMENT MARKING							
SHEET NO.	STATION	STATION	LOCATION	4" WHITE HB WATERBORNE PAVEMENT MARKING	4" YELLOW HB INTERMITTENT WATERBORNE P'VMT MARKING	4" YELLOW HB WATERBORNE PAVEMENT MARKING	REMARKS
				LF	LF	LF	
23	119+83.17	122+21.76	CL		59.65		
23	122+21.76	125+62.25	CL		85.12	340.49	
23	119+83.17	125+62.25	EOP	1,158.16			
SUBTOTAL				1,158.16	144.77	340.49	
PAY TOTAL				1,159	485		

SEEDING AND MULCH						
STATION	STATION	LOCATION	SIDE	MULCHING	COOL SEASON MIXTURE	TEMPORARY SEEDING
				AC	AC	AC
119+83.17	121+86.27	ROUTE B	LT	0.4	0.2	0.2
119+83.17	122+93.29	ROUTE B	RT	0.6	0.3	0.3
123+05.96	125+62.25	ROUTE B	LT	0.4	0.2	0.2
123+46.42	125+62.25	ROUTE B	RT	0.4	0.2	0.2
SUBTOTAL				1.8	0.9	0.9
PAY TOTAL				1.8	0.9	0.9

MAILBOX POST				
SHEET NO.	STATION	LOCATION	WOOD POST 4" x 4"	REMARKS
			LF	
4 & 6	124+30.59	RT	8	REMOVE & RELOCATE
SUBTOTAL			8	
PAY TOTAL			8	

FENCING						
SHEET NO.	STATION	STATION	LOCATION	SIDE	CHAIN-LINK FENCE (60 IN)	MISC. (12 FT TUBE GATE)
					LF	EA
4	120+38.39	120+78.49	ROUTE B	RT	141	
4	125+02.25		ROUTE B	RT		1
SUBTOTAL					141	1
PAY TOTAL					141	1

SUMMARY OF QUANTITIES
SHEET 3 OF 4

STATE OF MISSOURI

HEATHER R. BARROWS

NUMBER

PE-2016040670

PROFESSIONAL ENGINEER

Heather R. Barrows

06/17/2025 2:57:56 PM

HEATHER R. BARROWS - CIVIL

MO-PE-2016040670

DATE PREPARED

6/17/2025

ROUTE

B

DISTRICT

KC

STATE

MO

SHEET NO.

3

COUNTY

PLATTE

JOB NO.

J4S3492

CONTRACT ID.

PROJECT NO.

BRIDGE NO.

A9335

DESCRIPTION

DATE

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

105 WEST CAPITOL

JEFFERSON CITY, MO 65102

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

MoDOT

REMOVE EX. PAVEMENT AND
BUILD OPTIONAL PAVEMENT
FROM STA. 119+83.17 TO
STA. 122+21.76 & FROM
STA. 123+34.33 TO STA.
125+62.25.

BUILD GUARDRAIL
NE QUADRANT BRIDGE
1 MGS BR. APPR. TRANS.
1 TYPE A CET (MASH)

STA. 120+41.44
PRIVATE DRIVE (CITY PARK):
BLD. 20'X10' GRAVEL
TYPE 1 DRIVEWAY LT
RADIUS: 10' LT & RT
Z 89°41'44" LT AH
REM. 24" EXIST. CMP
BLD. 24"X23' GRP C PIPE
BLD. 2-24" GRP C FES
L.G. = 0.3 STA

TEMPORARY CITY
PARK ENTRANCE
DURING CONSTR.

BUILD GUARDRAIL
NW QUADRANT BRIDGE
1 MGS BR. APPR. TRANS.
50.0' MGS GUARDRAIL
1 TYPE A CET (MASH)

STA. 120+45.04
PRIVATE DRIVE (LIFT STATION):
BLD. 16'X10' GRAVEL
TYPE 1 DRIVEWAY RT
RADIUS: 6' LT & RT
Z 88°49'42" RT BK
REM. 24" EXIST. CMP
BLD. 24"X25' GRP C PIPE
BLD. 2-24" GRP C FES
L.G. = 0.2 STA

PROP. TEMP.
CONSTR. EASTMENT

DND
(LIFT
STATION)

BR. APPROACH SLAB (BR ITEM)

BUILD TYPE 2 ROCK BLANKET

BUILD TYPE 2 ROCK DITCH LINER

*EXIST. UTILITIES TO BE RELOCATED BY OTHERS

SCALE



① RTE. B STA. 123+65.85
W PERRY ST. STA. 00+12.96
TO 00+44.00
BLD. 31'X20'
OPTIONAL PAVEMENT LT
RADIUS: 12' LT & 45' RT
Z 90°
REM. 24" EXIST. CMP
BLD. 24"X48' GRP C PIPE
BLD. 2-24" GRP C FES
L.G. = 0.7 STA

② STA. 124+31.26
PRIVATE DRIVE (206 N PLATTE AVE):
BLD. 20'X13' GRAVEL
TYPE 1 DRIVEWAY LT
RADIUS: 6' LT & 20' RT
Z 90°
REM. 24" EXIST. CMP
BLD. 24"X32' GRP C PIPE
BLD. 2-24" GRP C FES
L.G. = 0.4 STA

NOTE:

ALL BEARINGS SHOWN ARE
MODIFIED STATE PLANE
BEARINGS, WEST ZONE.
GRID FACTOR: 0.99990790

ANY WORK INDICATED ON THE
PLANS THAT EXTEND BEYOND
THE PROJECT LIMITS IS
CONSIDERED INCIDENTAL TO
AND A PART OF THE CON-
STRUCTION OF THIS PROJECT.

RIGHT OF WAY LIMITS FOR
THIS PROJECT EXTEND FROM
STATION 119+83.17 TO
STATION 125+62.25, A
DISTANCE OF 0.110 MILES.

NO CONSTRUCTION EQUIP-
MENT OR MATERIAL TO BE
STORED WITHIN PARK PROP-
ERTY THAT IS ACTIVELY
USED FOR RECREATIONAL
PURPOSES.



Heather R. Barrows

01/27/2025 3:14:51 PM
HEATHER R. BARROWS - CIVIL
MO-PE-2016040670

DATE PREPARED
1/27/2025

ROUTE B STATE MO

DISTRICT KC SHEET NO. 4

COUNTY PLATTE

JOB NO. J4S3492

CONTRACT ID.

PROJECT NO.

BRIDGE NO. A9335

DESCRIPTION

DATE

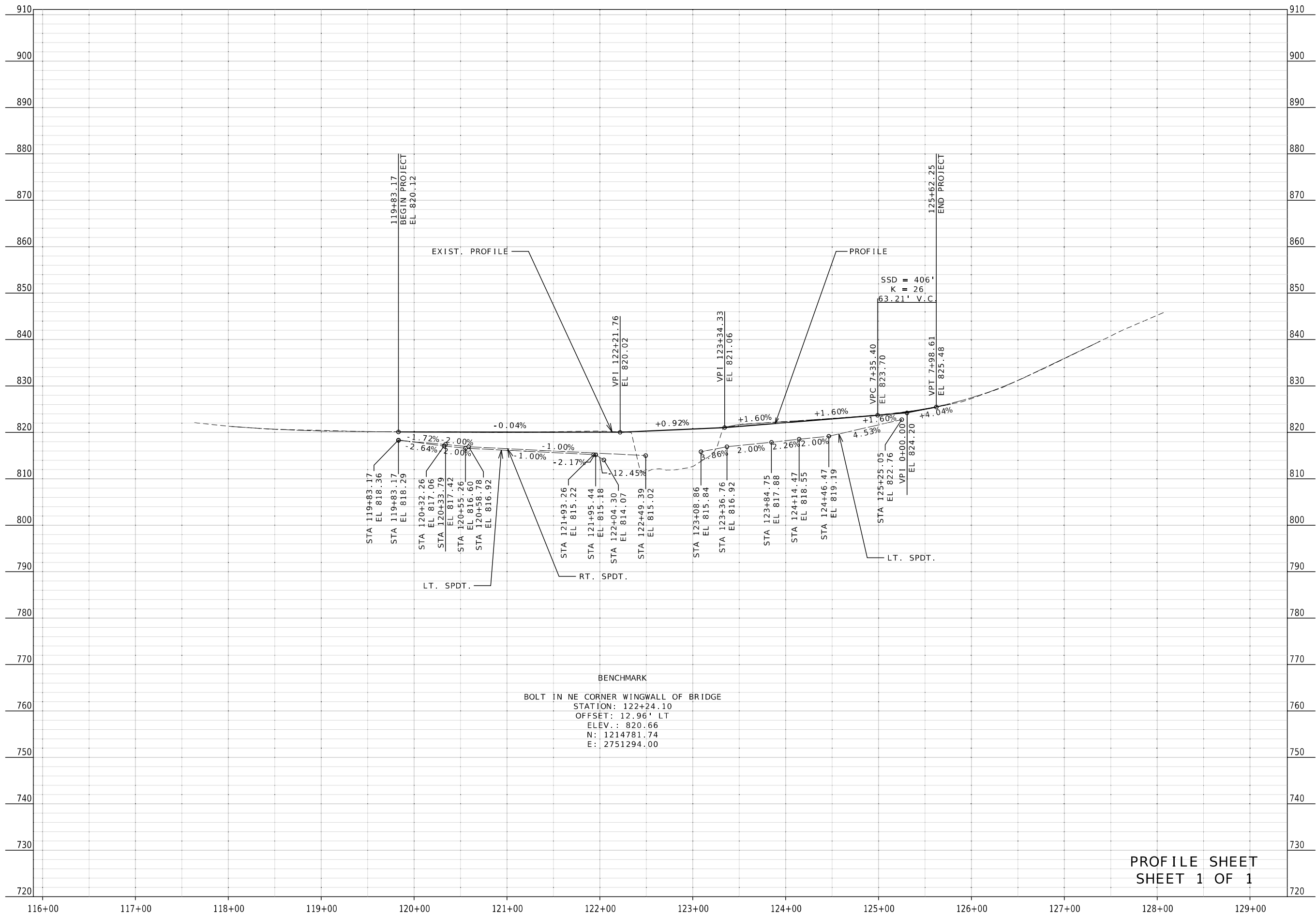
MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

105 WEST CAPITOL

JEFFERSON CITY, MO 65102

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

MoDOT



PROFILE SHEET
SHEET 1 OF 1



DATE PREPARED
1/27/2025

ROUTE	STATE
B	MO
DISTRICT	SHEET NO.
KC	5

COUNTY
PLATTE

JOB NO.
J4S3492

CONTRACT ID.

PROJECT NO.

BRIDGE NO.
A9335

DATE	DESCRIPTION

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

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

ALL PROJECT COORDINATES HAVE BEEN PROJECTED FROM THE MISSOURI STATE PLANE COORDINATE (SPC) SYSTEM OF 1983 USING AN AVERAGE PROJECT PROJECTION (GRID TO GROUND) FACTOR. TO GET BACK TO STATE PLANE COORDINATES MULTIPLY THE PROJECT COORDINATES BY THE AVERAGE GRID FACTOR AS SHOWN IN THE "REFERENCE CONTROL INFORMATION" PORTION OF THIS TABLE.		
PROJECT COORDINATE INFORMATION		
COORDINATE SYSTEM	MODIFIED STATE PLANE (GROUND)	
HORIZONTAL DATUM	NAD83	
VERTICAL DATUM	NAVD88	
GEOID MODEL	GEOID18	
ELEVATIONS DETERMINED BY	GPS OBSERVATION	
PROJECT PROJECTION FACTOR	1.00009211	
REFERENCE CONTROL INFORMATION		
COORDINATE SYSTEM	MO COORDINATE SYSTEM OF 1983	
CONTROL STATION	MO GEOGRAPHIC REFERENCE SYSTEM	
DESIGNATION	PL-63	
CORS_ID	XX	
PID	165063	
LATITUDE	39°30'18.60563"	
LONGITUDE	94°37'41.14303"	
NORTHING (M)	370537.8590	
EASTING (M)	838983.5490	
ZONE	WEST	
PROJECT AVERAGE GRID FACTOR	0.99990790	
EXAMPLE OF PROJECT COORDINATE TO S.P.C.		
PROJECT NORTHING X AVERAGE GRID FACTOR = STATE PLANE NORTHING PROJECT EASTING X AVERAGE GRID FACTOR = STATE PLANE EASTING		
EXAMPLE: CONTROL POINT # 1 N 1215682.167 X 0.99990790 = N 1215570.203 E 2751306.400 X 0.99990790 = E 2751053.005		
LINEAR UNIT CONVERSION		
1 METER = 3.280833333 US SURVEY FEET (USFT)		

COORDINATE POINT LISTING								
SHEET NO	STATION	LOCATION	OFFSET (USFT)	MODIFIED STATE PLANE (GROUND)			DESCRIPTION	GPK POINT ID
				NORTHING (US SURVEY FT)	EASTING (US SURVEY FT)	ELEVATION (US SURVEY FT)		
PROJECT CONTROL POINTS								
	113+23.58	RTE. B	12.92 LT	1,215,682.17	2,751,306.40	831.90	STEEL IN ASPHALT	CP #1
	123+48.48	RTE. B	19.62 RT	1,214,657.81	2,751,259.70	820.94	5/8" IRON BAR W/ ORANGE MODOT CONTROL CAP	CP #2
	130+37.31	RTE. B	15.56 LT	1,213,969.01	2,751,286.34	855.20	5/8" IRON BAR W/ ORANGE MODOT CONTROL CAP	CP #3
ALIGNMENTS								
	119+77.65	RTE. B	0	1,215,028.34	2,751,284.45	820.14	BEGINNING OF PROJECT	492
	125+46.14	RTE. B	0	1,214,459.91	2,751,276.59	824.72	END OF PROJECT	492
	122+33.73	RTE. B	0	1,214,829.32	2,751,281.70	820.73	POT	492

REFERENCE POINT LISTING		
CONTROL POINT NO. 1 STEEL IN ASPHALT N: 1215682.17 E: 2751306.40 STA.: 113+23.58 OFF.: 12.92 LT ELEV.: 831.90'	CONTROL POINT NO. 2 5/8" IRON BAR W/ ORANGE CONTROL CAP SW OF BR N: 1214657.812 E: 2751259.700 STA.: 123+48.48 OFF.: 19.62 RT ELEV.: 820.94'	CONTROL POINT NO. 3 5/8" IRON BAR W/ ORANGE CONTROL CAP N OF PRIVATE DRIVE AT 106 S PLATTE AVE. N: 1213969.011 E: 2751286.337 STA.: 130+37.31 OFF.: 15.56 LT ELEV.: 855.20'

STATE OF MISSOURI

HEATHER R. BARROWS

NUMBER

PE-2016040670

PROFESSIONAL ENGINEER

01/27/2025 3:16:18 PM

HEATHER R. BARROWS - CIVIL

MO-PE-2016040670

DATE PREPARED

1/27/2025

ROUTE

B

STATE

MO

DISTRICT

KC

SHEET NO.

7

COUNTY

PLATTE

JOB NO.

J4S3492

CONTRACT ID.

PROJECT NO.

BRIDGE NO.

A9335

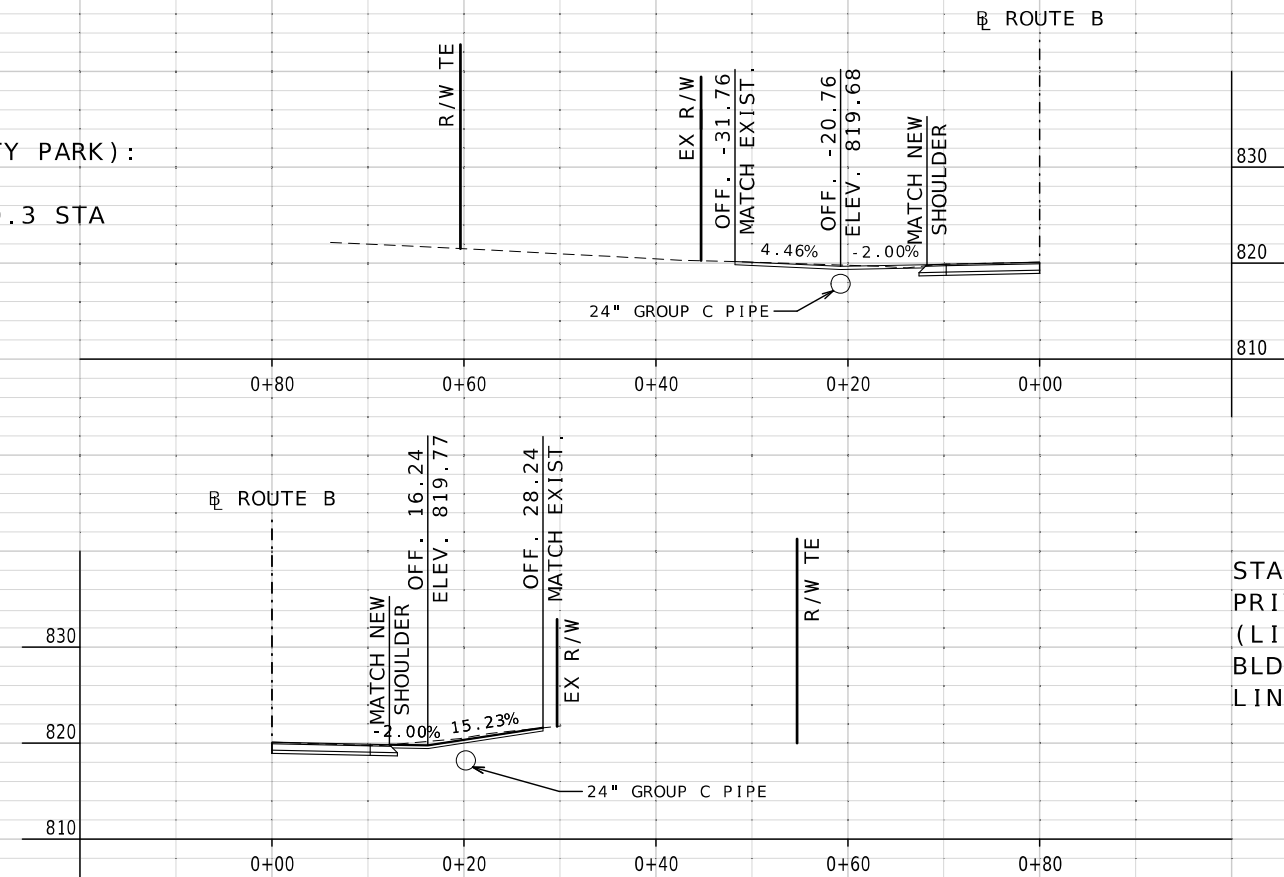
DESCRIPTION

DATE

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

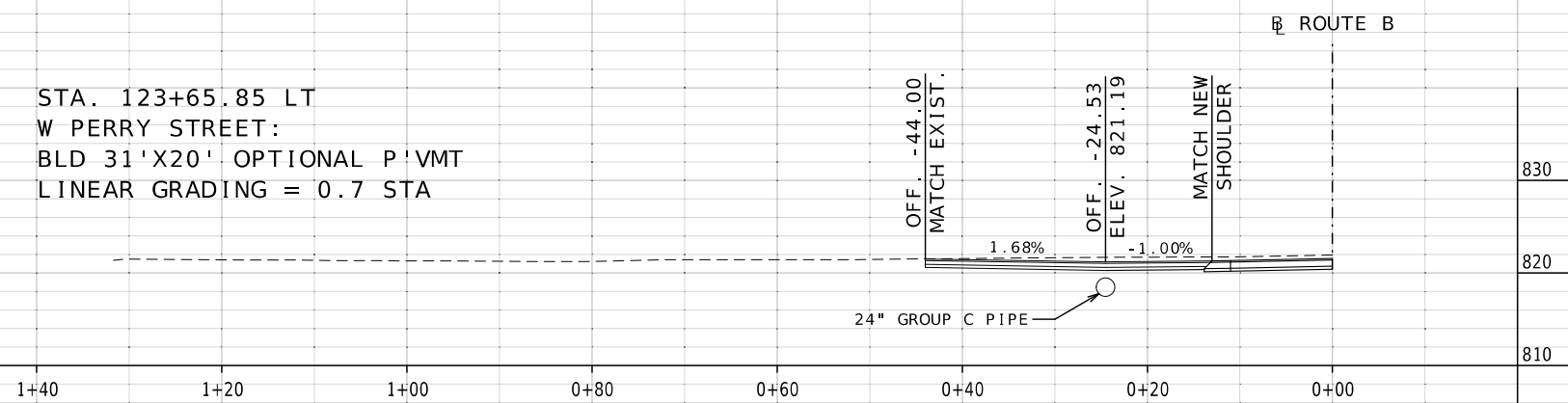
105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)

STA. 120+41.44 LT
PRIVATE DRIVE (CITY PARK):
BLD 20'X10' GRAVEL
LINEAR GRADING = 0.3 STA



STA. 120+45.04 RT
PRIVATE DRIVE
(LIFT STATION):
BLD 16'X10' GRAVEL
LINEAR GRADING = 0.2 STA

STA. 123+65.85 LT
W PERRY STREET:
BLD 31'X20' OPTIONAL P'VMT
LINEAR GRADING = 0.7 STA



Heather R. Barrows
01/28/2025 8:42:41 AM
HEATHER R. BARROWS, CIVIL
MO-PE-2016040670

DATE PREPARED

1/27/2025

ROUTE STATE

B MO

DISTRICT SHEET NO.

KC 8

COUNTY

PLATTE

JOB NO.

J4S3492

CONTRACT ID.

PROJECT NO.

BRIDGE NO.

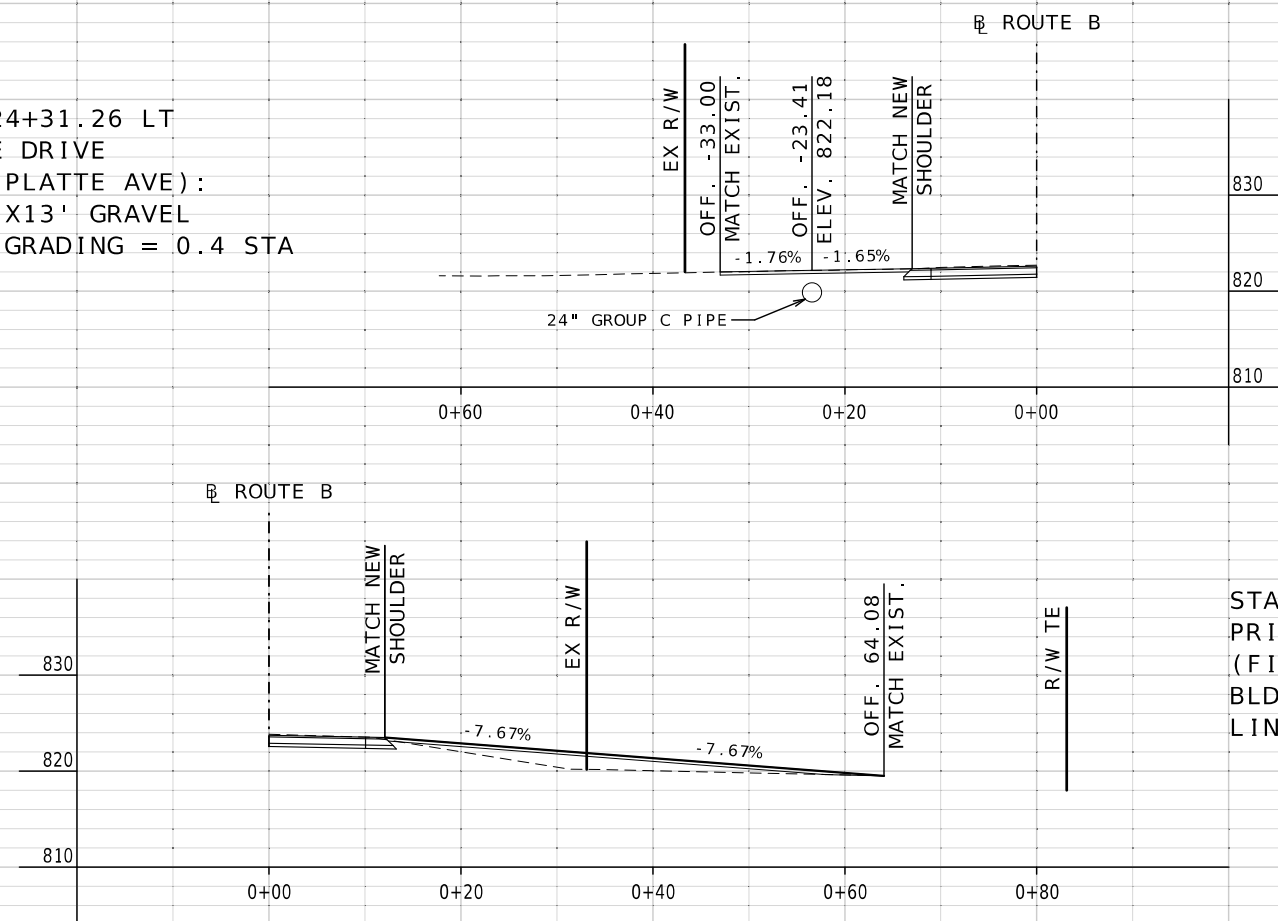
A9335

DESCRIPTION	DATE

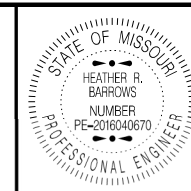
MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

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

STA. 124+31.26 LT
PRIVATE DRIVE
(206 N PLATTE AVE):
BLD 20'X13' GRAVEL
LINEAR GRADING = 0.4 STA



STA. 125+02.25 RT
PRIVATE DRIVE
(FIELD ENTRANCE):
BLD 52'X12' GRAVEL
LINEAR GRADING = 0.3 STA



Heather R. Barrows
01/28/2025 8:43:52 AM
HEATHER R. BARROWS - CIVIL
MO-PE-2016040670

DATE PREPARED
1/27/2025

ROUTE B	STATE MO
DISTRICT KC	SHEET NO. 9

COUNTY
PLATTE

JOB NO.
J4S3492

CONTRACT ID.

PROJECT NO.

BRIDGE NO.
A9335

DATE	DESCRIPTION

SIGN SPACING, DEVICE SPACING AND CHANNELIZING TAPER LENGTHS

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

TAPER LENGTHS AND SPACING OF CHANNELIZING DEVICES					
SPEED MPH	MINIMUM TAPER LENGTHS (L) FOR LANE WIDTHS (W)			MAXIMUM CHANNELIZER SPACING	
	10 FT	11 FT	12 FT	THROUGH TAPER	THROUGH WORK AREA
0-35	205	225	245	35	40
40-45	450	495	540	40	80
50-55	550	605	660	50	80
60-70	700	770	840	60	120

NOTES:

DIMENSIONS IN FEET UNLESS OTHERWISE NOTED.

(1) SPACING BETWEEN SIGNS AND SPACING BETWEEN LAST SIGN AND FLAGGER, BEGINNING OF TAPER, OR SIGNED CONDITION

(2) SPACINGS MAY BE ADJUSTED AS NECESSARY TO MEET FIELD CONDITIONS

LONGITUDINAL BUFFER SPACE (B)	
SPEED MPH	BUFFER SPACE
0-35	250
40-45	360
50-55	495
60-70	730

TAPER LENGTH (L):

L = WS FOR 40 MPH OR MORE

L = $\frac{WS^2}{60}$ FOR 35 MPH OR LESS

FOR SHOULDER TAPER USE L/3

WHERE:

L = TAPER LENGTH IN FEET

W = LATERAL SHIFT IN FEET

S = POSTED SPEED IN MPH

TRAFFIC CONTROL DEVICES

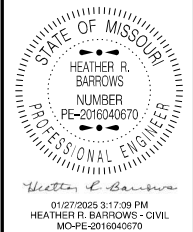
GENERAL NOTES:

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

TRAFFIC CONTROL LEGEND

-  SIGN (SINGLE SIDED)
-  SIGN (DOUBLE SIDED)
-  FLAGGER
-  DIRECTIONAL INDICATOR BARRICADE
-  CHANNELIZER
-  BARRICADE
-  CHANGEABLE MESSAGE BOARD
-  TRUCK MOUNTED ATTENUATOR W/ FLASHING ARROW

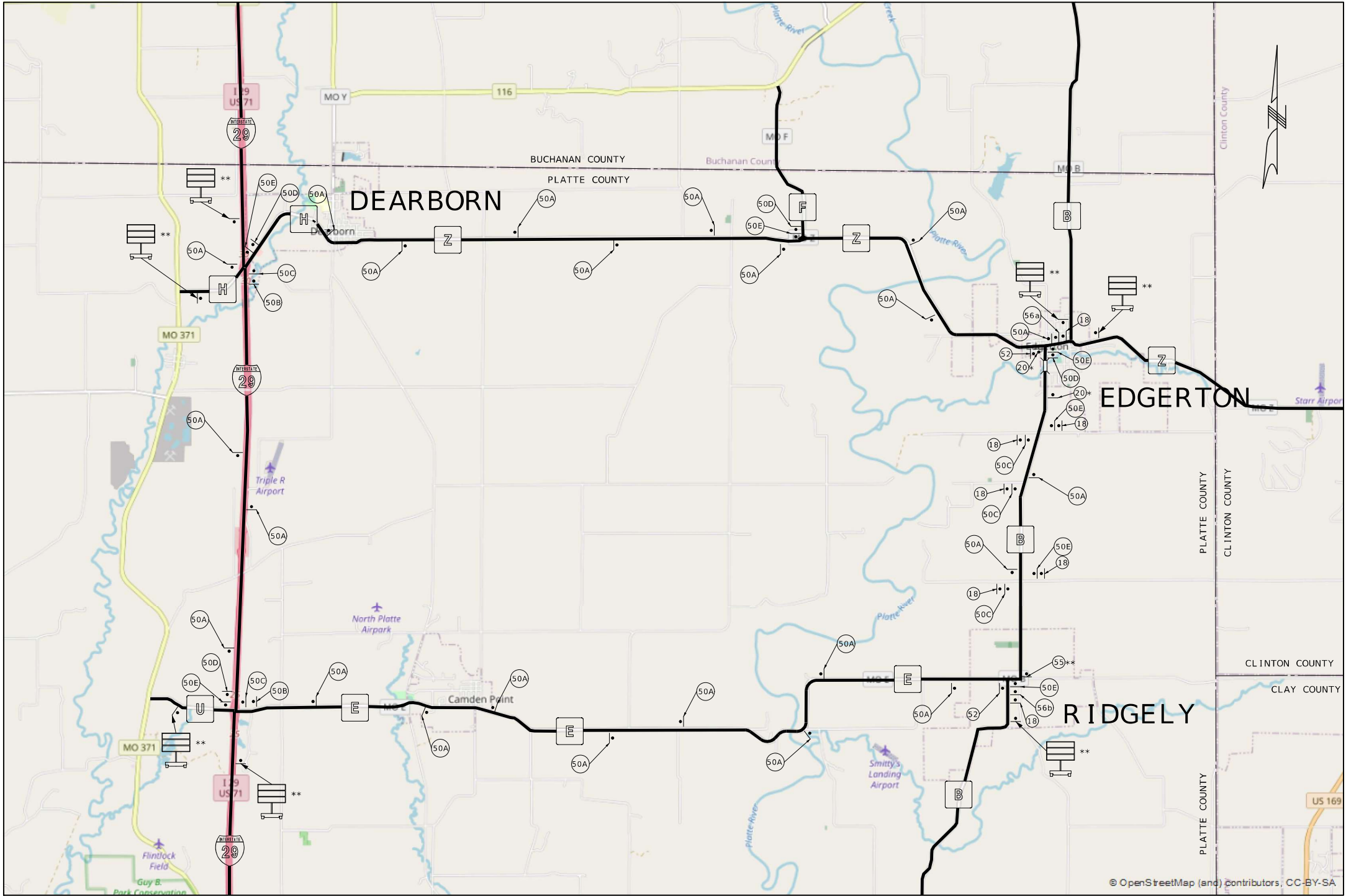
TEMPORARY
TRAFFIC CONTROL SHEET
SHEET 1 OF 4



DATE PREPARED 1/27/2025	
ROUTE B	STATE MO
DISTRICT KC	SHEET NO. 10
COUNTY PLATTE	
JOB NO. J4S3492	
CONTRACT ID.	
PROJECT NO.	
BRIDGE NO. A9335	

DESCRIPTION	DATE





DETOUR

M04-08

B

M1-5a

↑

M6-3

MO4-12

50A

DETOUR

M04-08

B

M1-5a

↗

M5-1R

MO4-12

50B

DETOUR

M04-08

B

M1-5a

→

M6-1

MO4-12

50C

DETOUR

M04-08

B

M1-5a

↖

M5-1L

MO4-12

50D

DETOUR

M04-08

B

M1-5a

←

M6-1

MO4-12

50E

B

CLOSED AHEAD

SPECIAL SIGN

56a

B

CLOSED 4 MILES AHEAD

SPECIAL SIGN

56b

END DETOUR

MO4-8a

52

DETOUR AHEAD

WO20-2

18

ROAD CLOSED AHEAD

WO20-3*

20

TRAFFIC CONTROL LEGEND

●

SIGN (SINGLE SIDED)

CHANGEABLE MESSAGE BOARD

TEMPORARY TRAFFIC CONTROL SHEET

SHEET 2 OF 4

*PLACE SB AND NB ROUTE B
**CMS WITH 5 CHANNELIZERS
NOT TO SCALE

STATE OF MISSOURI

HEATHER R. BARROWS

NUMBER

PE-2016040670

PROFESSIONAL ENGINEER

Heather R. Barrows

01/27/2025 3:23:26 PM

HEATHER R. BARROWS - CIVIL

MO-PE-2016040670

DATE PREPARED

1/27/2025

ROUTE

B

STATE

MO

DISTRICT

KC

SHEET NO.

11

COUNTY

PLATTE

JOB NO.

J4S3492

CONTRACT ID.

PROJECT NO.

BRIDGE NO.

A9335

DESCRIPTION

DATE

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

105 WEST CAPITOL

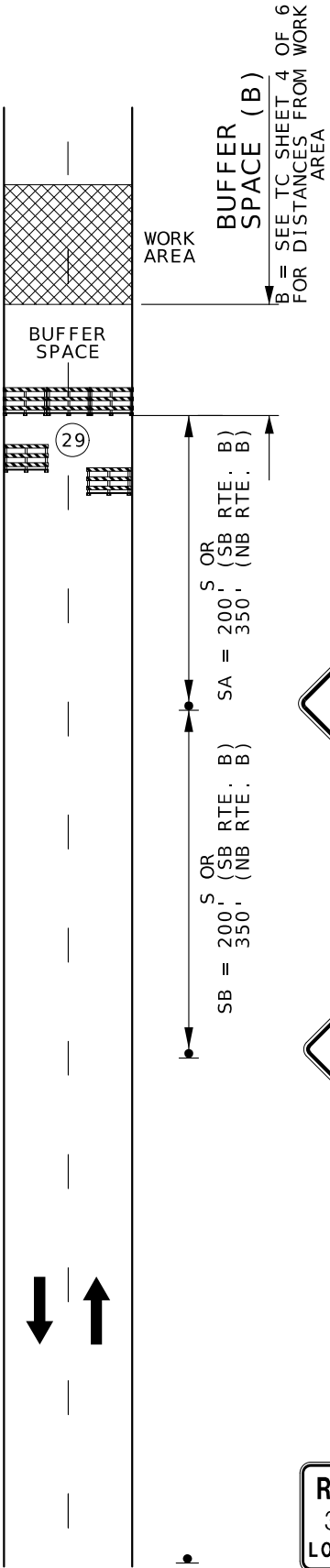
JEFFERSON CITY, MO 65102

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

MODOT



R11-2
(29)



*PLACE SB AND NB ROUTE B
**PLACE NB ROUTE B ONLY
***PLACE SB ROUTE B ONLY



R11-3a
(55)**



WO20-3a**



WO20-3a***



WO20-3*
(20)

NOTES:

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

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

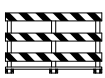
WHEN A SIDE ROAD INTERSECTS THE HIGHWAY WITHIN THE TTC ZONE ADDITIONAL TTC DEVICES SHALL BE PLACED AS NEEDED.

"ROAD CLOSED" SIGN MAY BE PLACED 7-10 FEET BEHIND THE BARRICADES AND AT A SIGN HEIGHT APPROPRIATE TO THE TYPE OF ROADWAY. ONE BARRICADE SHOULD BE REQUIRED TO COMPLETELY CLOSE EACH 8-FEET OF PAVEMENT. PAVED SHOULDERS SHALL BE INCLUDED IN THE AREA TO BE CLOSED.

IF USED, THE "ROAD CLOSED XX MILES AHEAD LOCAL TRAFFIC ONLY" OR "ROAD CLOSED TO THRU TRAFFIC" SIGN SHOULD BE LOCATED AT THE FIRST STATE ROUTE OR, UPON THE DISCRETION OF THE ENGINEER, ANY OTHER INTERSECTION IN ADVANCE OF THE CLOSURE. ADDITIONAL BARRICADES MAY BE USED AND OFFSETTED TO FACILITATE ACCESS FOR WORK VEHICLES, LOCAL TRAFFIC, ETC.

TRAFFIC CONTROL LEGEND

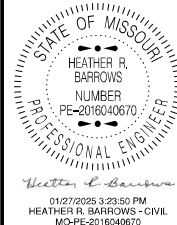
● SIGN (SINGLE SIDED)



TYPE 3 MOVEABLE BARRICADE
(SEE TC SHEET 4 OF 4
FOR PLACEMENT)

HIGHWAY CLOSURE ON
UNDIVIDED HIGHWAY
TEMPORARY
TRAFFIC CONTROL SHEET
SHEET 3 OF 4

ROUTE B CLOSURE



DATE PREPARED
1/27/2025

ROUTE B STATE MO

DISTRICT KC SHEET NO. 12

COUNTY
PLATTE

JOB NO.
J4S3492

CONTRACT ID.

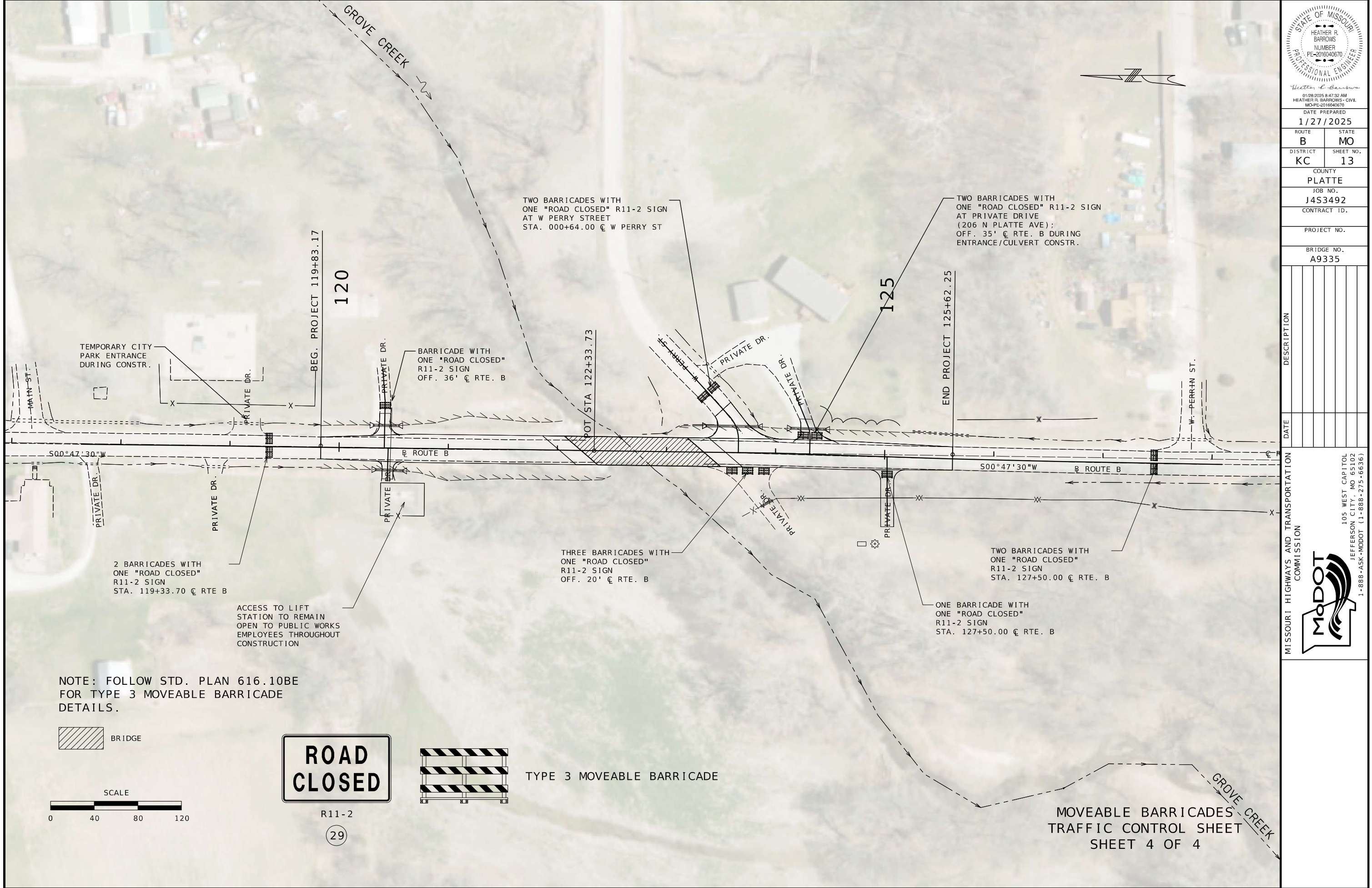
PROJECT NO.

BRIDGE NO.
A9335

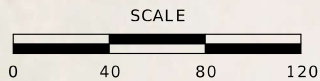
DESCRIPTION	DATE

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

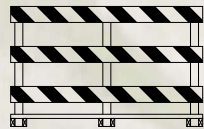
105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)



NOTE: FOLLOW STD. PLAN 616.10BE
FOR TYPE 3 MOVEABLE BARRICADE
DETAILS.



R11-2
29



TYPE 3 MOVEABLE BARRICADE



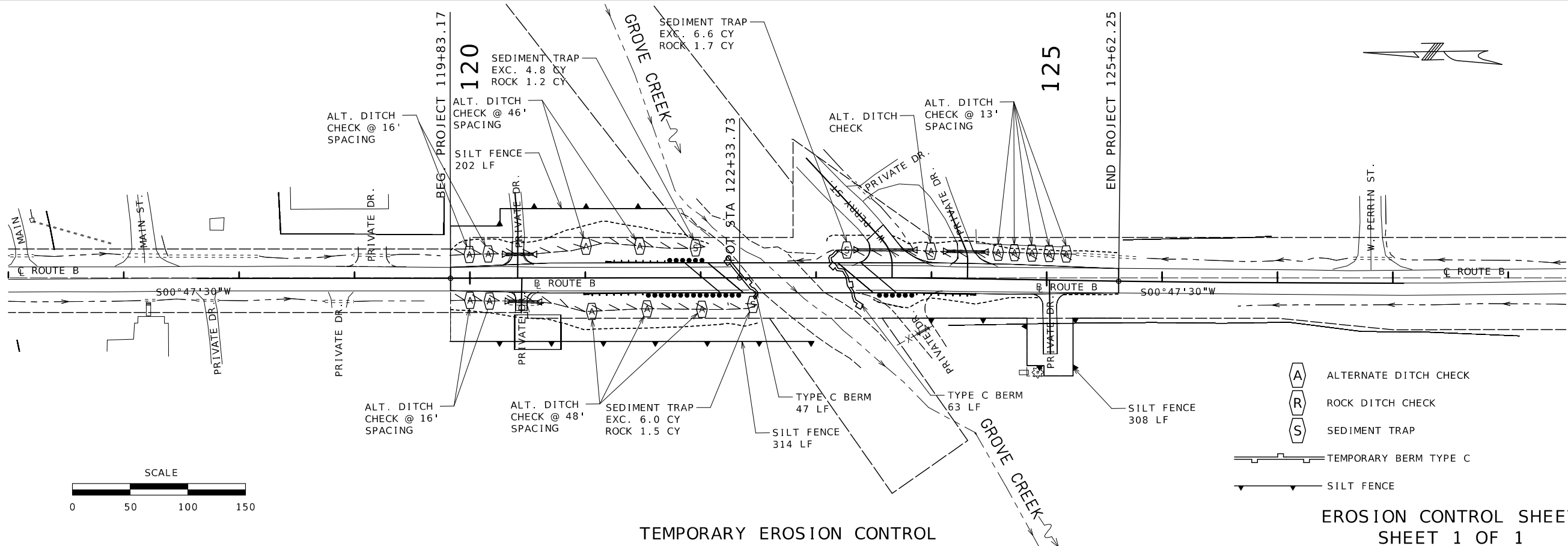
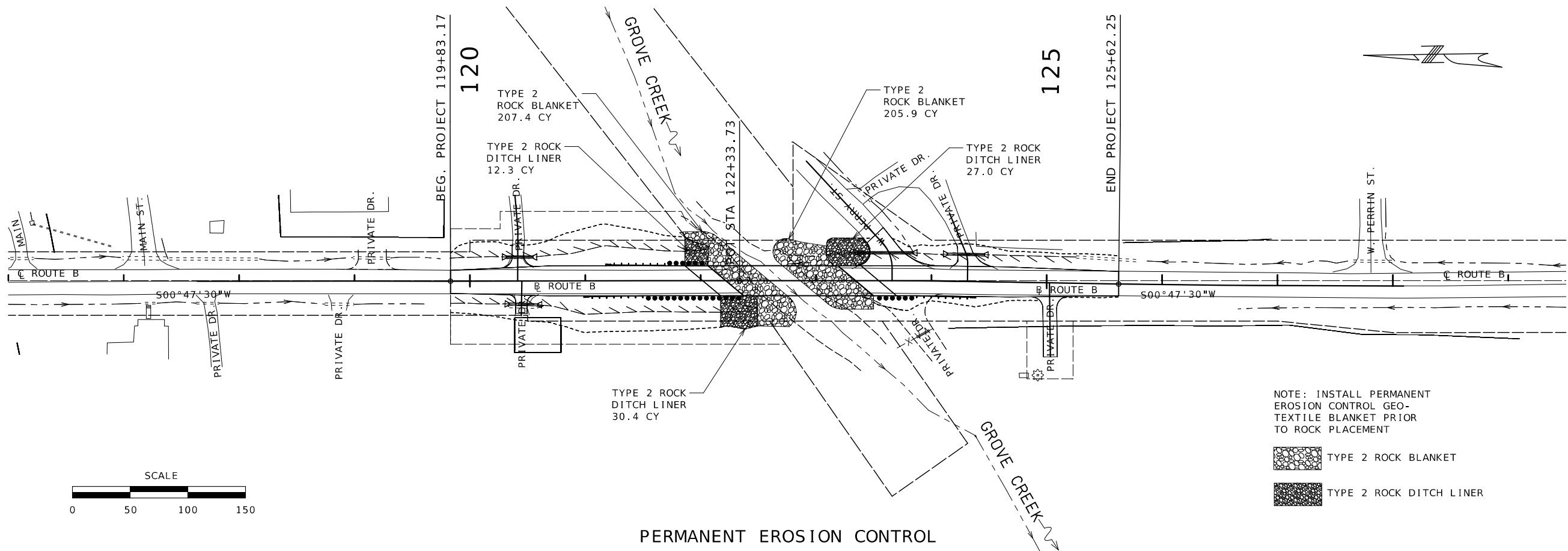
DATE PREPARED
1/27/2025
ROUTE B STATE MO
DISTRICT KC SHEET NO. 13
COUNTY PLATTE
JOB NO. J4S3492
CONTRACT ID.
PROJECT NO.

BRIDGE NO.
A9335

DESCRIPTION	DATE

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





HEATHER R. BARROWS
NUMBER
PE-2016040670
PROFESSIONAL ENGINEER

DATE PREPARED

1/28/2025

ROUTE B STATE MO

DISTRICT KC SHEET NO. 14

COUNTY PLATTE

JOB NO. J4S3492

CONTRACT ID.

PROJECT NO.

BRIDGE NO. A9335

DESCRIPTION

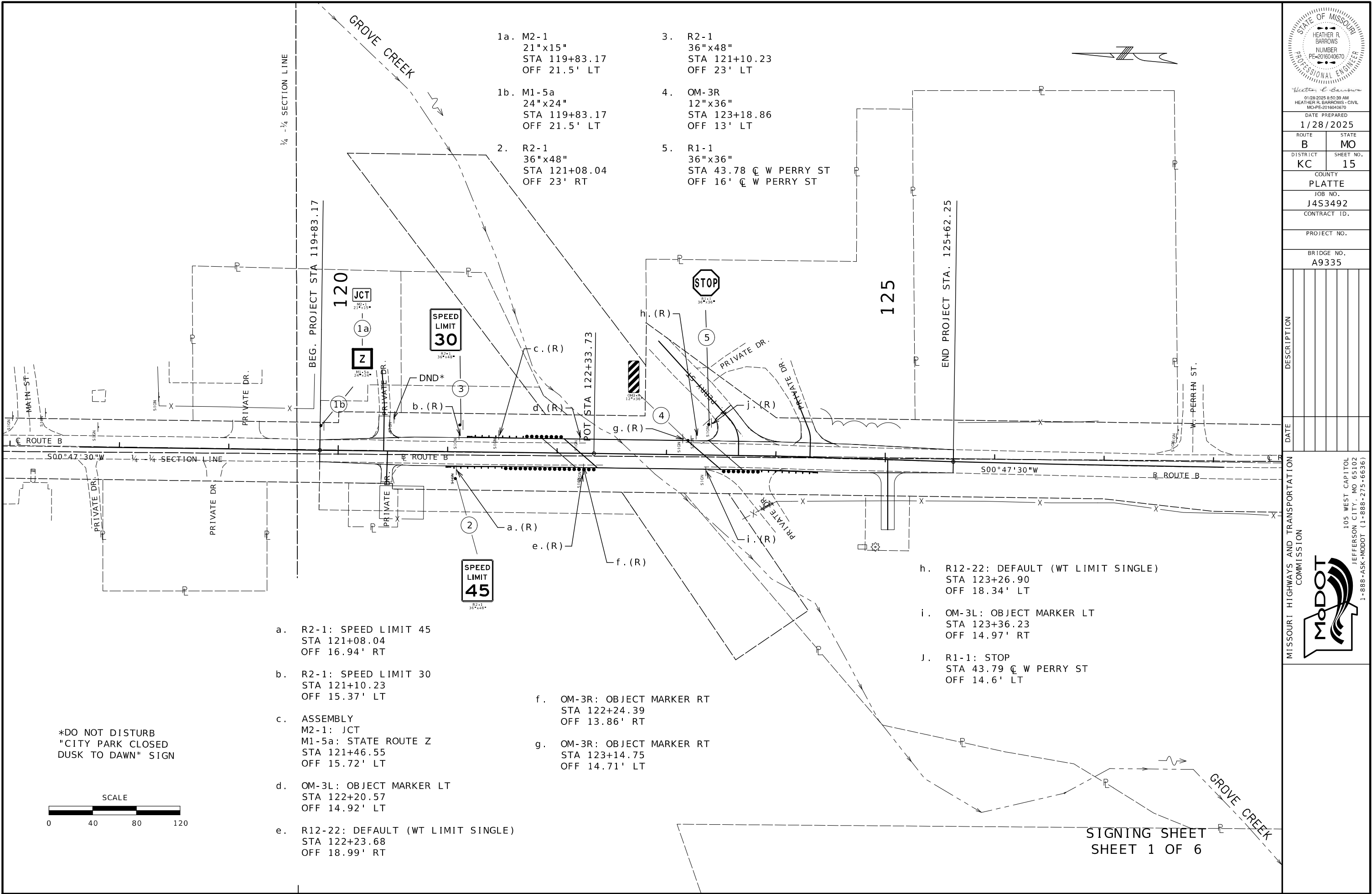
DATE

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

105 WEST CAPITOL JEFFERSON CITY, MO 65102

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

MODOT

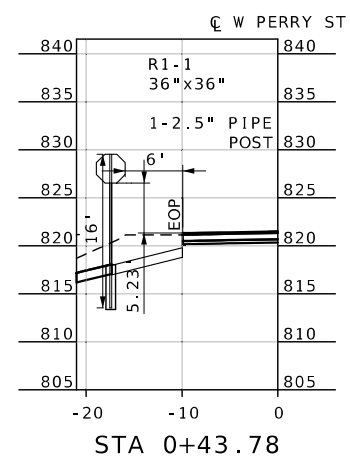
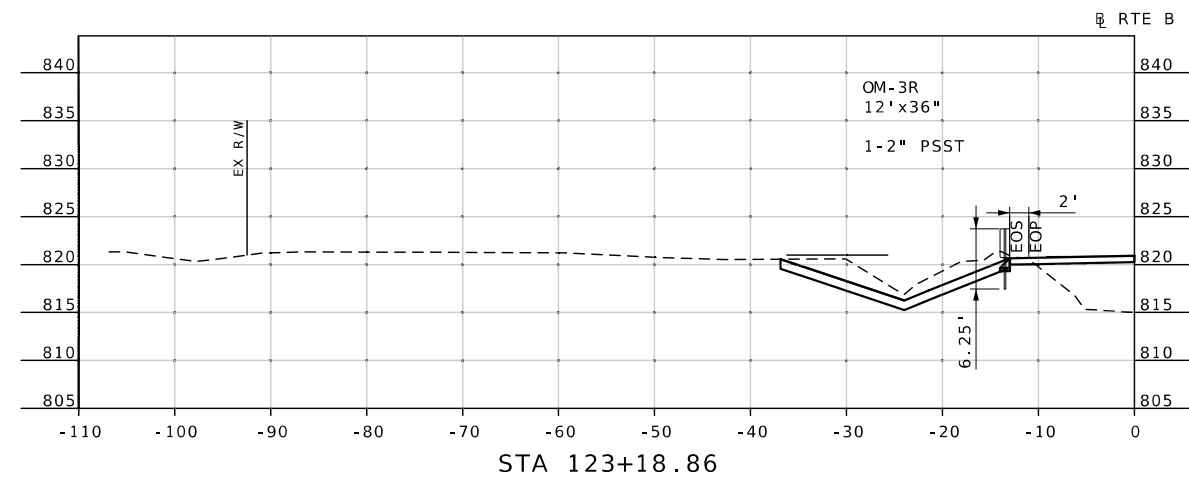
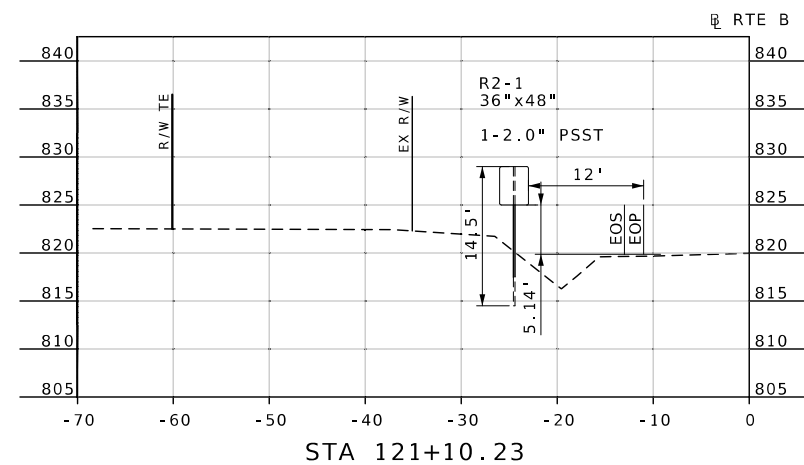
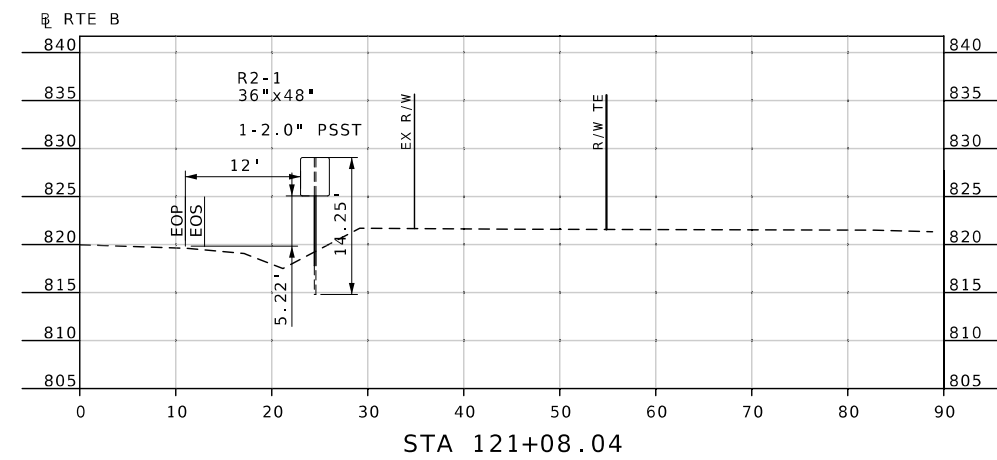
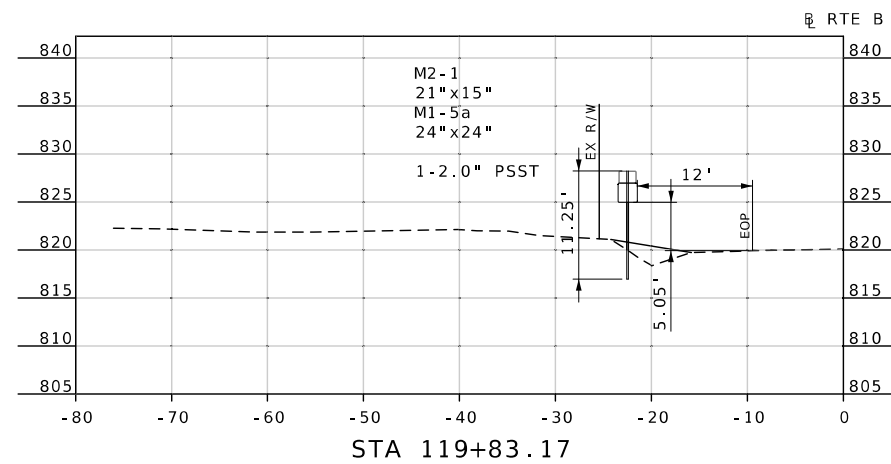


[illegible]

STRUCTURAL STEEL POST AND FOOTING DATA TABLE													
POST					FOOTING								
POST DES. NO.	NOM. SIZE	WEIGHT		STUB LENGTH	DIA.	LEVEL DEPTH	6:1 GRADE		4:1 GRADE		3:1 OR 2:1 GRADE		
		LBS/FT	LBS/IN				C.Y.	DEPTH	C.Y.	DEPTH	C.Y.	DEPTH	C.Y.
1	W6	9.0	0.75	3'-0"	15"	3'-0"	0.14	3'-0"	0.15	3'-3"	0.16	3'-6"	0.17
2	W6	19.0	1.25	4'-4"	24"	4'-4"	0.47	4'-2"	0.50	4'-4"	0.51	4'-6"	0.54
3	W8	18.0	1.50	4'-6"	28"	4'-6"	0.71	4'-8"	0.73	5'-0"	0.74	5'-6"	0.78
4	W10	22.0	1.83	5'-0"	36"	5'-0"	1.31	5'-2"	1.36	5'-3"	1.39	5'-6"	1.45
5	W10	26.0	2.17	5'-0"	36"	5'-0"	1.31	5'-3"	1.37	5'-5"	1.43	5'-9"	1.52
6	W12	35.0	2.92	5'-6"	36"	5'-6"	1.44	5'-9"	1.52	5'-11"	1.56	6'-3"	1.65

[illegible][illegible]

SIGNING SHEET
SHEET 3 OF 6



SIGNING SHEET
SHEET 6 OF 6



Hector C. Barrow

01/27/2025 3:29:05 PM
HEATHER R. BARROWS - CIVIL

MO-PE-2016040670
DATE PREPARED

1/27/2025

1/27/2023	
ROUTE	STATE

ROUTE	STATE
B	MO

B	MO
DISTRICT	SHEET NO.

DISTRICT SHEET NO.
KC 30

KC	ZU
COUNTY	

PLATTE

PLATTE

JOB NO.
1462402

J4S3492

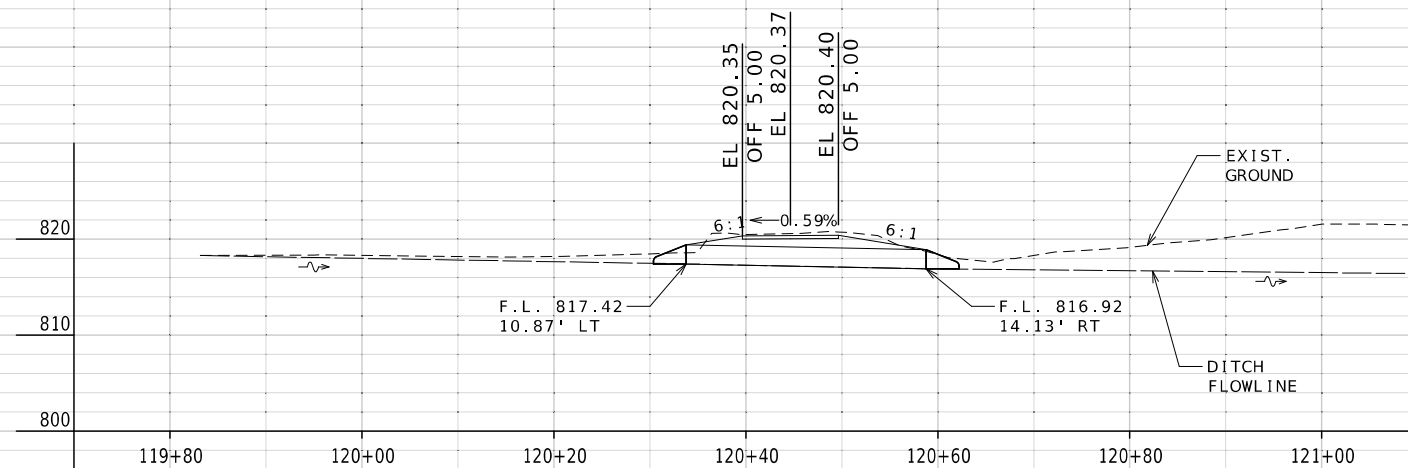
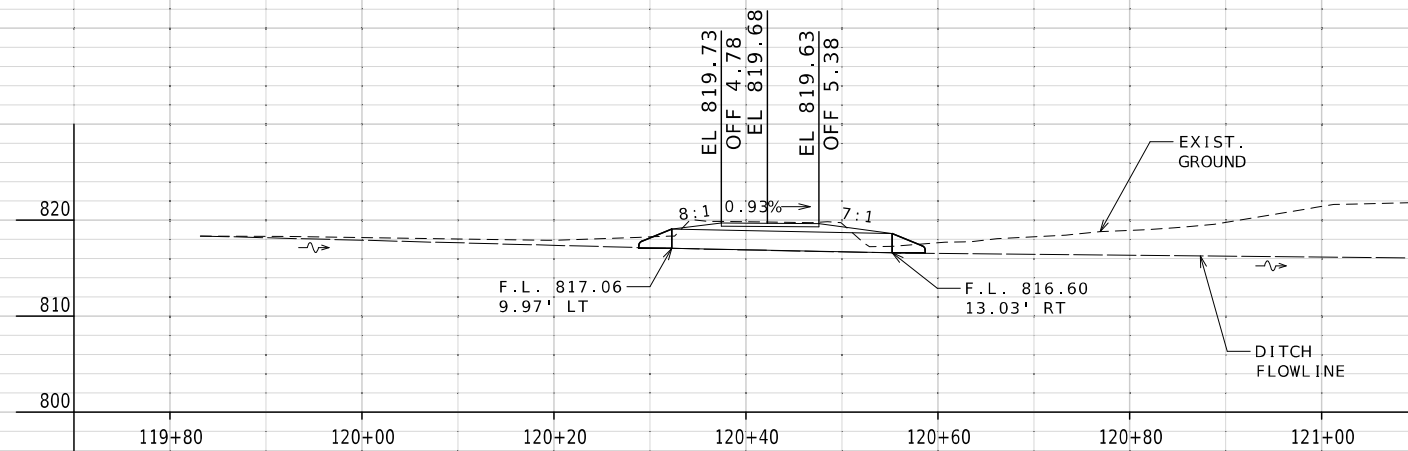
CONTRACT ID.

PROJECT NO.

BRIDGE NO.
10005[illegible]

MISSOURI HIGHWAYS AND TRANSPORTATION
COMMISSION

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



CULVERT	SECTIONS
SHEET	1 OF 2



01/27/2025 3:30:08 PM
HEATHER R. BARROWS - CIVIL
MO DE 0010010070

DATE PREPARED
1/27/2025

ROUTE	STATE
B	MO

DISTRICT KC	SHEET NO. 21
----------------	-----------------

COUNTY
PLATTE

JOB NO.
J4S3492

CONTRACT ID.

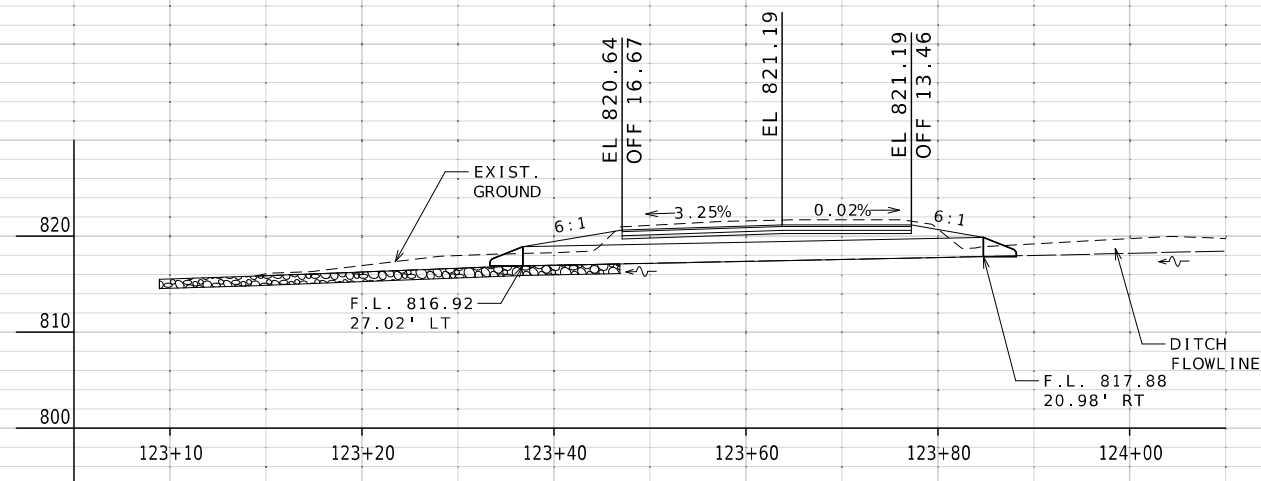
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BRIDGE NO.

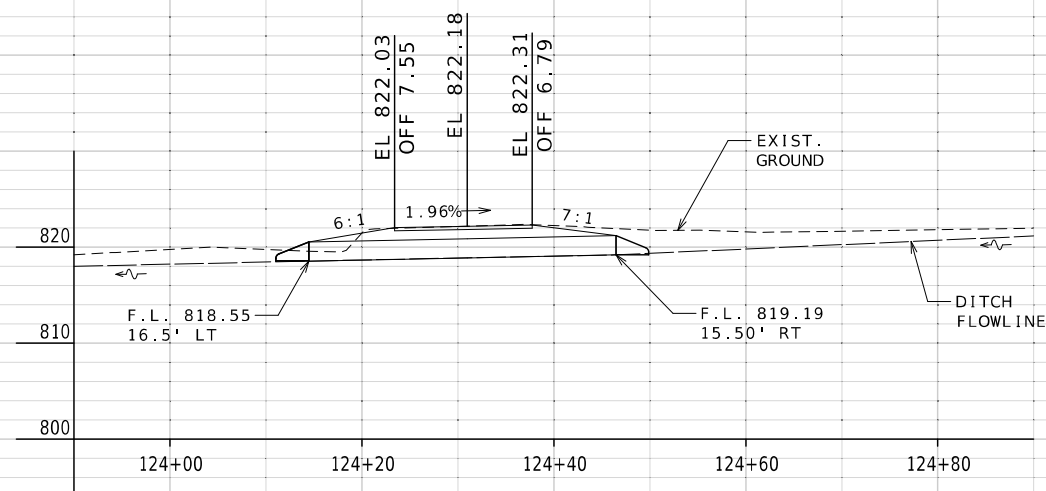
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MISSOURI HIGHWAYS AND TRANSPORTATION
COMMISSION

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



STA. 123+65.85 LT
W PERRY STREET:
BLD 24"X48' GROUP C PIPE
BLD 2-24" GROUP C FES
TYPE 2 ROCK DITCH LINER = 27 CY
CL. 3 EXC. - 33.1 C.Y.



STA. 124+31.26 LT
PRIVATE DRIVE
(206 N PLATTE AVE):
BLD 24"X32' GROUP C PIPE
BLD 2-24" GROUP C FES
CL. 3 EXC. - 21.1 C.Y.

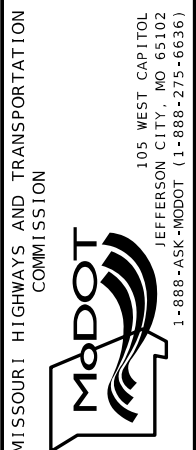
CULVERT SECTIONS
SHEET 2 OF 2

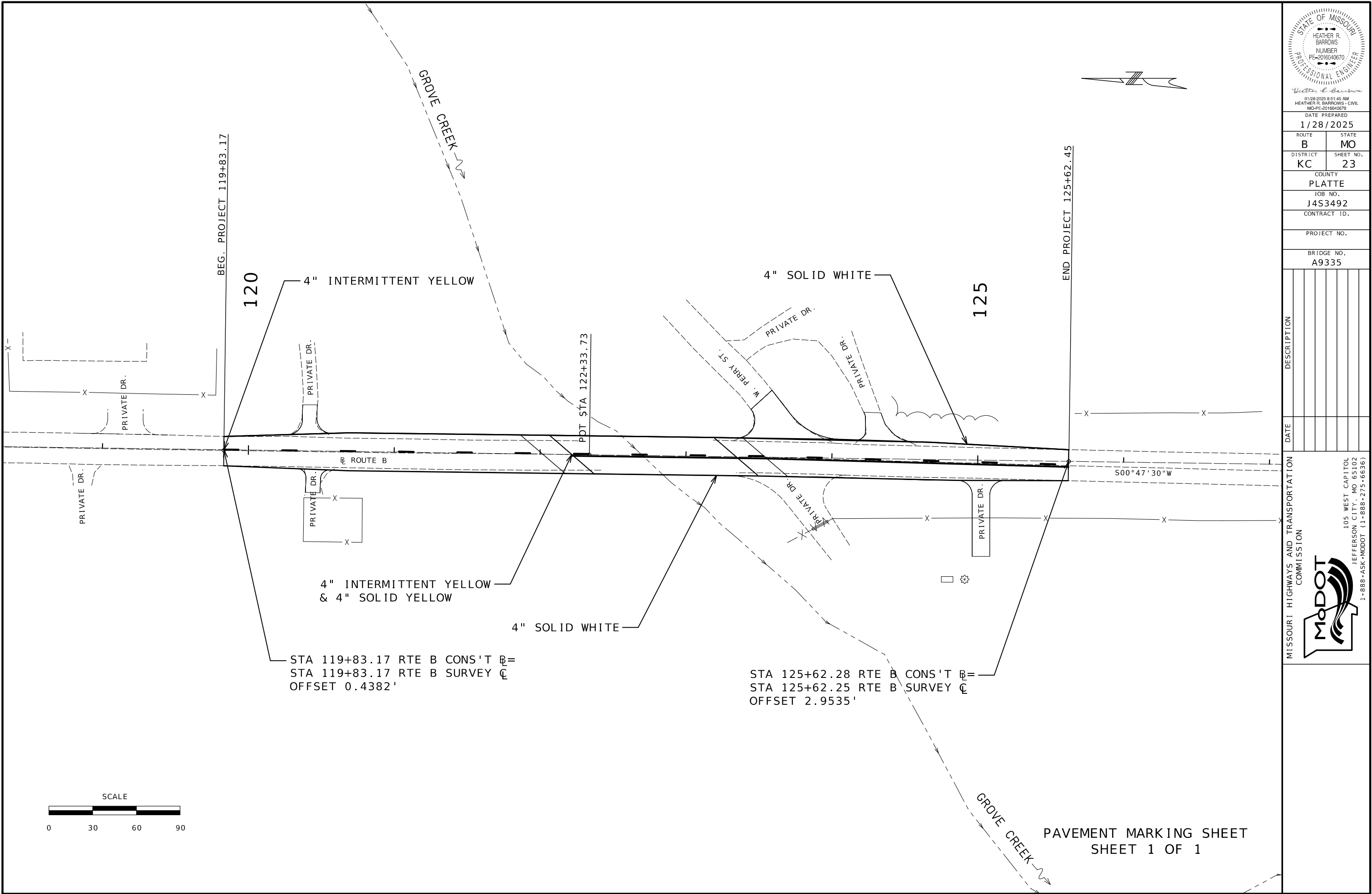


DATE PREPARED 1/27/2025	
ROUTE B	STATE MO
DISTRICT KC	SHEET NO. 22
COUNTY PLATTE	
JOB NO. J4S3492	
CONTRACT ID.	
PROJECT NO.	

BRIDGE NO. A9335

DESCRIPTION	DATE





DATE PREPARED
1/28/2025

ROUTE	STATE
B	MO
DISTRICT	SHEET NO.
KC	23

COUNTY
PLATTE

JOB NO.
J4S3492

CONTRACT ID.

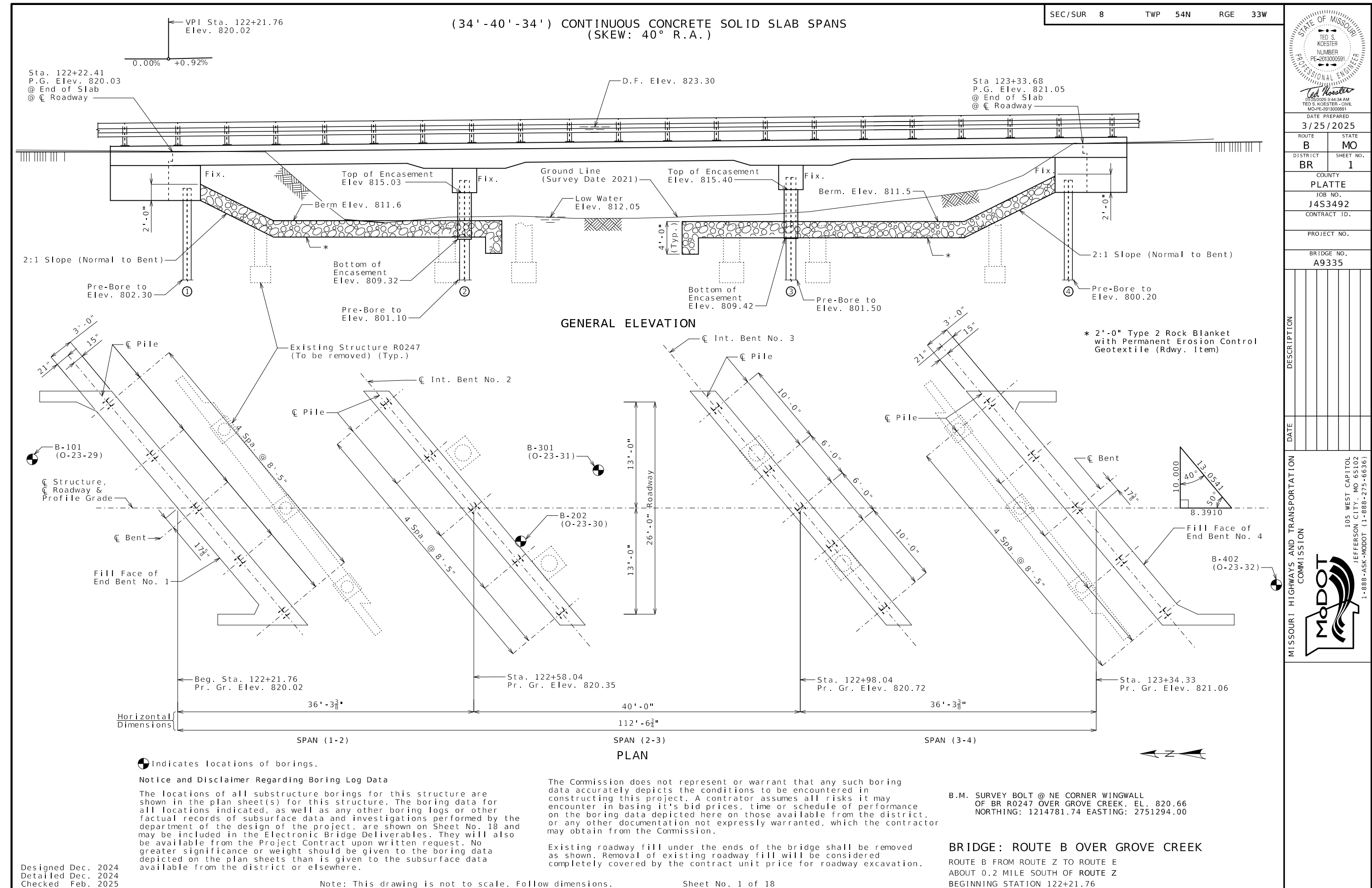
PROJECT NO.

BRIDGE NO.
A9335

DATE	DESCRIPTION

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

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



GENERAL NOTES:

Design Specifications:
2020 AASHTO LRFD Bridge Design Specifications (9th Ed.)

Seismic Design Category = A

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

Superstructure:
Simply-supported, shored for dead load. Continuous for live load.

Design Unit Stresses:
Class B Concrete (Substructure) f'c = 3,000 psi
Class B-1 Concrete (Barrier & Substructure) f'c = 4,000 psi
Class B-2 Concrete (Superstructure, except Barrier) f'c = 4,000 psi

Reinforcing Steel (ASTM A615 Grade 60) fy = 60,000 psi
Structural Steel HP Pile (ASTM A709 Grade 50) fy = 50,000 psi

Joint Filler:
All joint filler shall be in accordance with Sec 1057 for performance 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:
Outline of existing work is indicated by light dashed lines.
Heavy lines indicate new work.

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

Estimated Quantities			
Item	Substr.	Superstr.	Total
Class 1 Excavation	cu. yard	70	70
Removal of Bridges (R0247)	lump sum		1
Bridge Approach Slab (Minor)	sq. yard		117
Galvanized Structural Steel Piles (12 in.)	linear foot	165	165
Galvanized Structural Steel Piles (14 in.)	linear foot	170	170
Pre-Bore for Piling	linear foot	215	215
Pile Point Reinforcement	each	20	20
Class B Concrete (Substructure)	cu. yard	31.1	31.1
Class B-1 Concrete (Substructure)	cu. yard	63.2	63.2
Class B-2 Concrete (Superstructure Solid Slab)	cu. yard	279.1	279.1
Concrete Curb (Bridge Rail)	linear foot	249	249
Reinforcing Steel (Bridges)	pound		5,330
Reinforcing Steel (Epoxy Coated)	pound		50,400
Bridge Rail (Two Tube Structural Steel)	linear foot		251
Vertical Drain At End Bents	each	2	2

All concrete above the construction joint in the end bents and intermediate bent caps (including drop panels) is included with the superstructure quantities.

All concrete in the intermediate bent cap is included in the contract unit price for Class B-1 Concrete (Substructure).

All concrete in the intermediate encasement is included in the contract unit price for Class B Concrete (Substructure).

Foundation Data					
Type	Design Data	Bent Number			
		1	2	3	4
Load Bearing Pile	HP Pile Type and Size	HP 12x53	HP 14x72	HP 14x72	HP 12x53
	Number	5	5	5	5
	Approximate Length Per Each	15	17	17	18
	Pile Point Reinforcement	All	All	All	All
	Min. Galvanized Penetration (Elev.)	Full Length	Full Length	Full Length	Full Length
	Est. Max Scour Depth 100 (Elev.)	807.3	806.1	806.5	805.2
	Criteria for Min. Tip Penetration	Min. Embed.	Min. Embed.	Min. Embed.	Min. Embed.
	Pile Driving Verification Method	DF	DF	DF	DF
	Resistance Factor	0.4	0.4	0.4	0.4
	Minimum Nominal Axial Compressive Resistance	247	481	483	247

DF = FHWA-modified Gates Dynamic Pile Formula

Load Bearing Pile:
Minimum Nominal Axial Compressive Resistance = Maximum Factored Loads/Resistance Factor

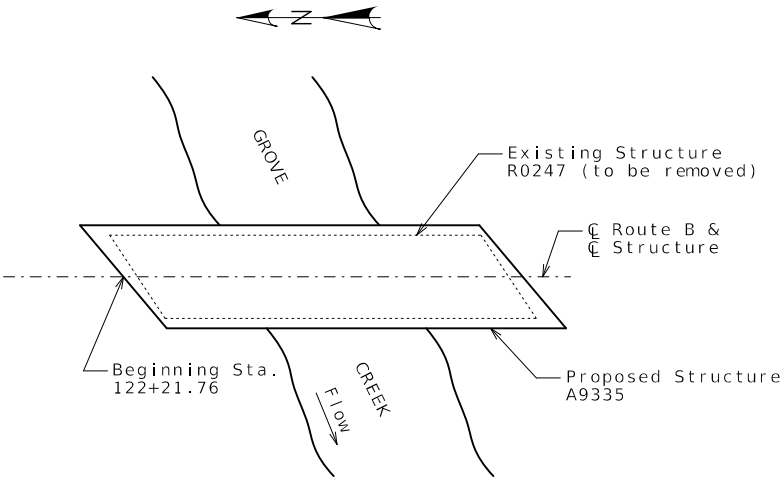
HP piles are anticipated to be driven to refusal on rock. Review all borings for depth of rock and restrict driving as appropriate to comply with hard rock driving criteria in accordance with Sec 702. When pile refusal on rock occurs, as approved by the engineer, the minimum nominal axial compressive resistance is verified and no additional pile driving verification method is required.

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

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

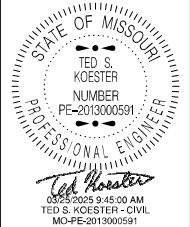
The contractor shall make every effort to achieve the minimum galvanized penetration (elevation) shown on the plans for all piles. Deviations in penetration less than 5 feet of the minimum will be considered acceptable provided the contractor makes the necessary corrections to ensure the minimum penetration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

Prebore for piles at Bent(s) No. 1,2,3 and 4 to elevation(s) 802.3, 801.1, 801.5 and 800.2, respectively.



LOCATION SKETCH

Hydrologic Data
Drainage Area = 10 mi ²
Design Flood Frequency = 50 years
Design Flood Discharge = 4800 cfs
Design Flood (D.F.) Elevation = 823.3
Base Flood (100-year)
Base Flood Elevation = 823.6
Base Flood Discharge = 5600 cfs
Estimated Backwater = -0.2 ft
Average Velocity thru Opening = 3.3 ft/s
Freeboard (50-year)
Freeboard = -5.0 ft
Roadway Overtopping
Overtopping Flood Discharge = 1320 cfs
Overtopping Flood Frequency < 10 years
Overtopping Flood Elevation = 819.9

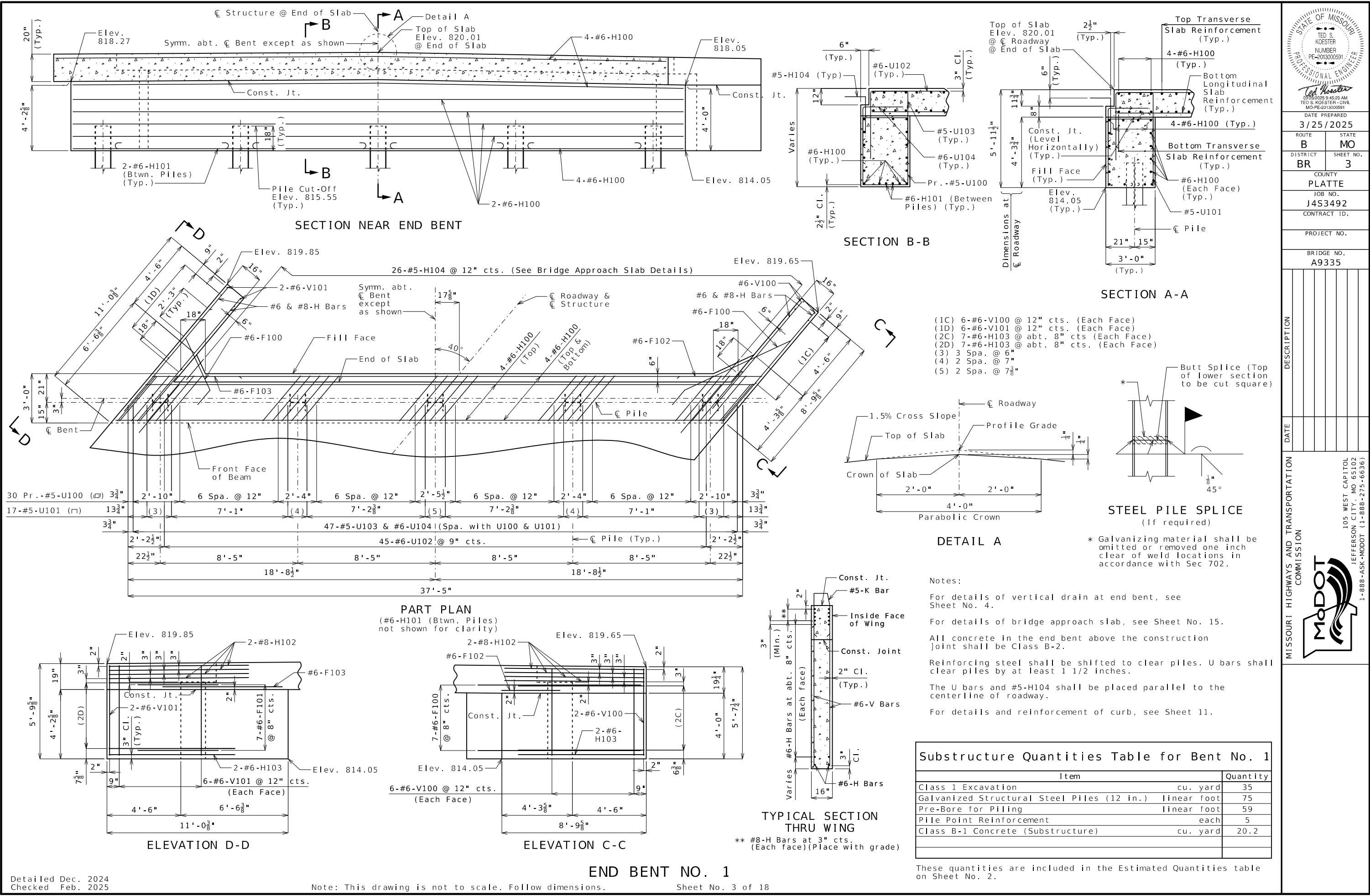


DATE PREPARED 3/25/2025	
ROUTE B	STATE MO
DISTRICT BR	SHEET NO. 2
COUNTY PLATTE	
JOB NO. J4S3492	
CONTRACT ID.	
PROJECT NO.	
BRIDGE NO. A9335	

DESCRIPTION	DATE								

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

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



STATE OF MISSOURI

TED S. KOESTER

NUMBER

PE-2013000591

PROFESSIONAL ENGINEER

Ted Koester

03/25/2025 9:45:29 AM

TED S. KOESTER-CIVIL

MO-PE-2013000591

DATE PREPARED

3/25/2025

ROUTE

B

STATE

MO

DISTRICT

BR

SHEET NO.

3

COUNTY

PLATTE

JOB NO.

J4S3492

CONTRACT ID.

PROJECT NO.

BRIDGE NO.

A9335

DESCRIPTION

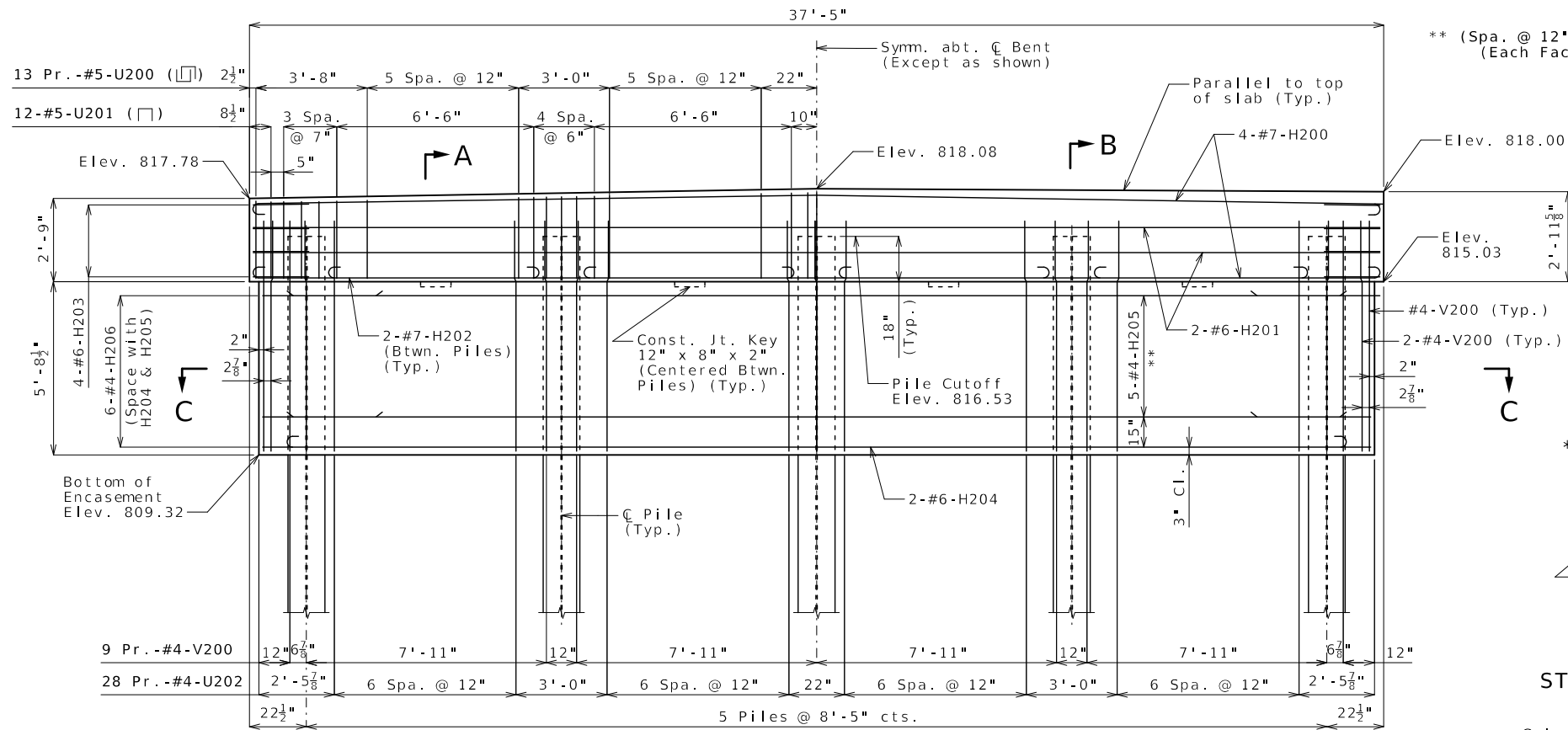
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MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

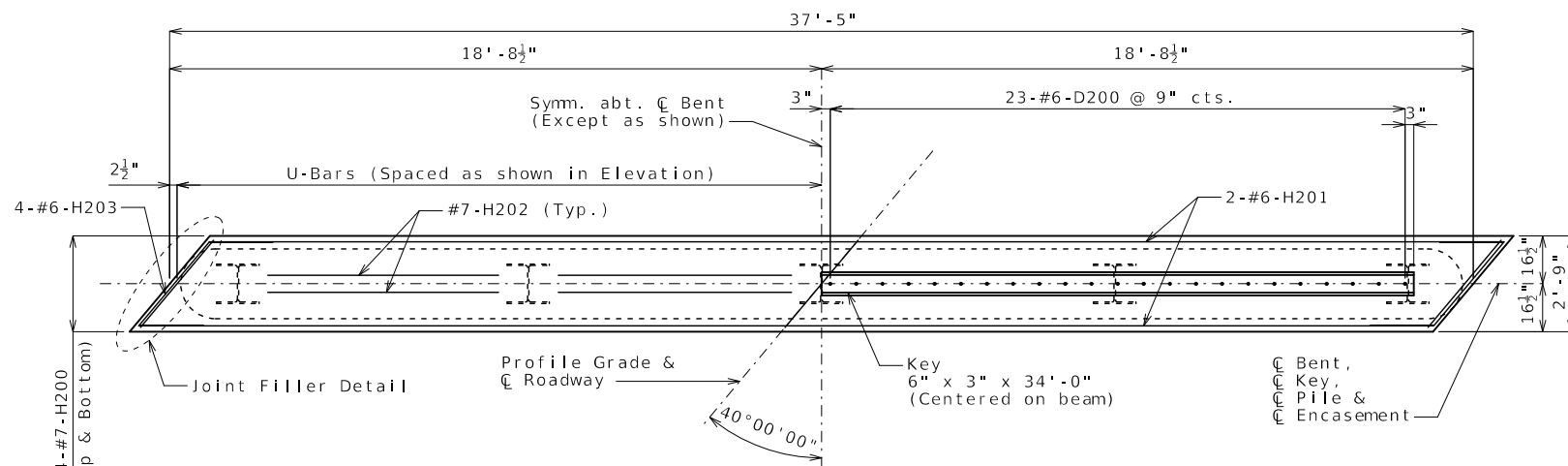
105 WEST CAPITOL

JEFFERSON CITY, MO 65102

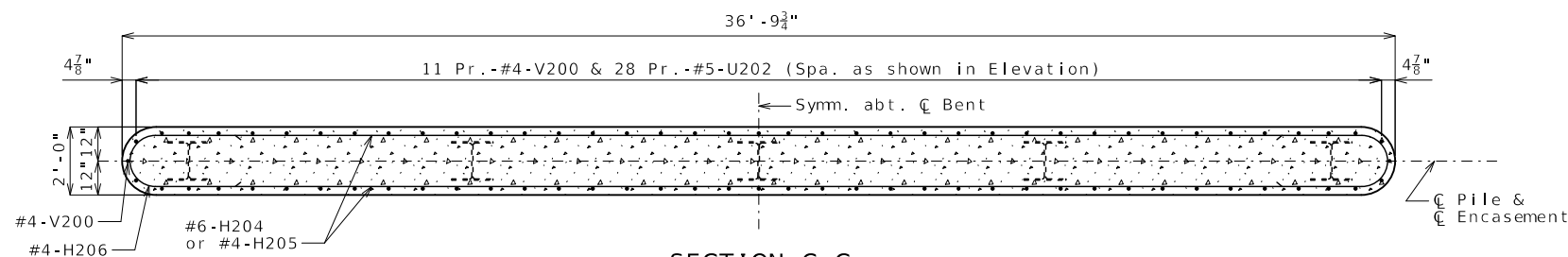
1-888-ASK-MODOT (1-888-275-6636)



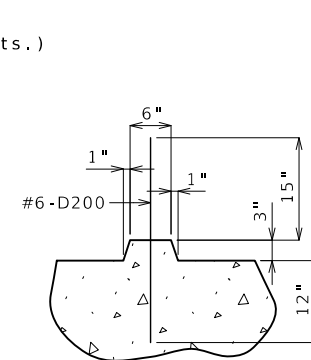
ELEVATION
Note: Key not shown for clarity.



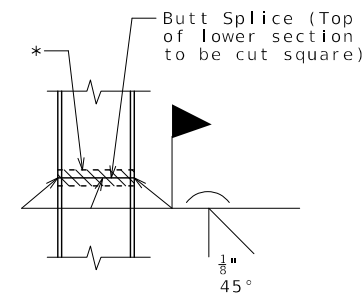
PLAN OF BEAM SHOWING REINFORCEMENT



SECTION C-C

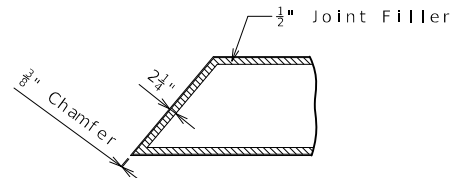


SECTION THRU KEY



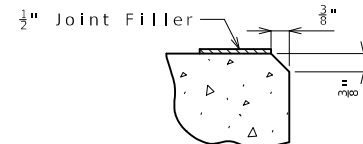
STEEL PILE SPLICE
(If required)

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

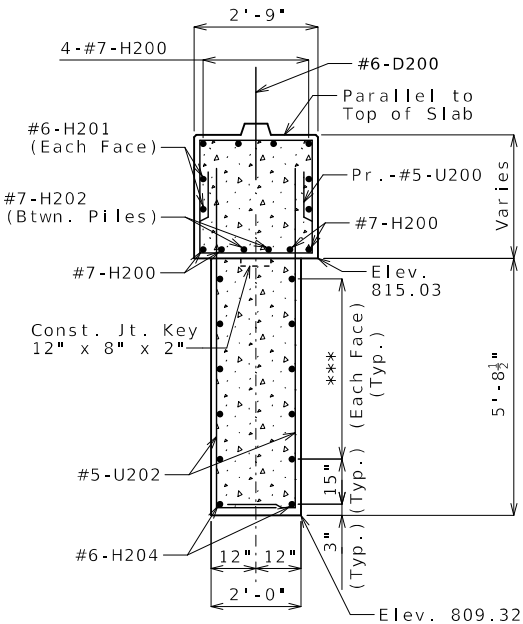


JOINT FILLER DETAIL

Note: Joint Filler to go around the entire beam cap.

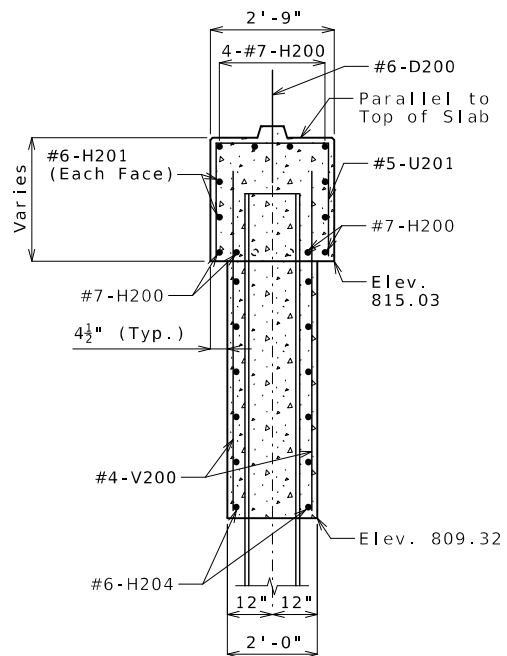


CHAMFER DETAIL AT TOP OF BEAM EDGES



SECTION A-A

*** 5-#4-H205 @ 12" cts.



SECTION B-B

Substructure Quantities for Bent No. 2

Item		Quantity
Galvanized Structural Steel Piles (14 in.)	linear foot	85
Pre-Bore for Piling	linear foot	41
Pile Point Reinforcement	each	5
Class B Concrete (Substructure)	cu. yard	15.2
Class B-1 Concrete (Substructure)	cu. yard	11.4
Reinforcing Steel (Bridges)	pound	2,510

Notes:

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

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

STATE OF MISSOURI

TED S. KOESTER

NUMBER

PE-2013000591

PROFESSIONAL ENGINEER

DATE PREPARED

3/25/2025

ROUTE

B

DISTRICT

BR

COUNTY

PLATTE

JOB NO.

J4S3492

CONTRACT ID.

PROJECT NO.

BRIDGE NO.

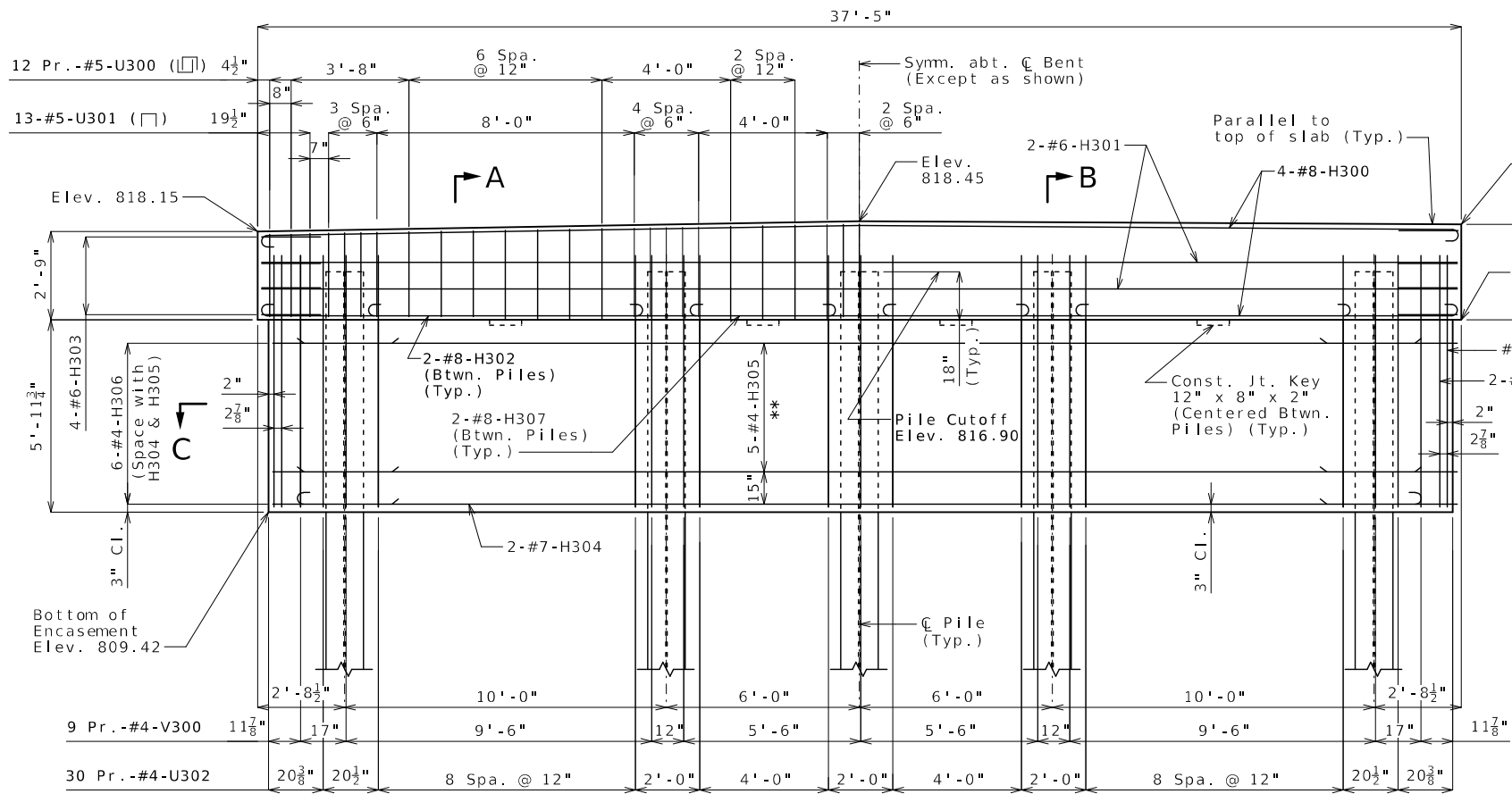
A9335

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

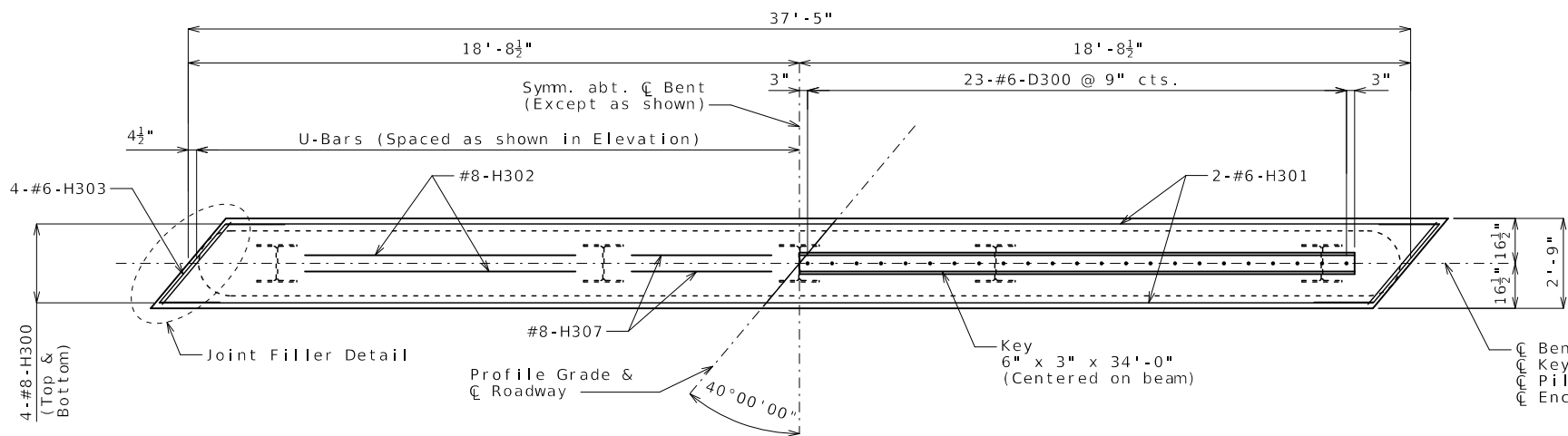
105 WEST CAPITOL

JEFFERSON CITY, MO 65102

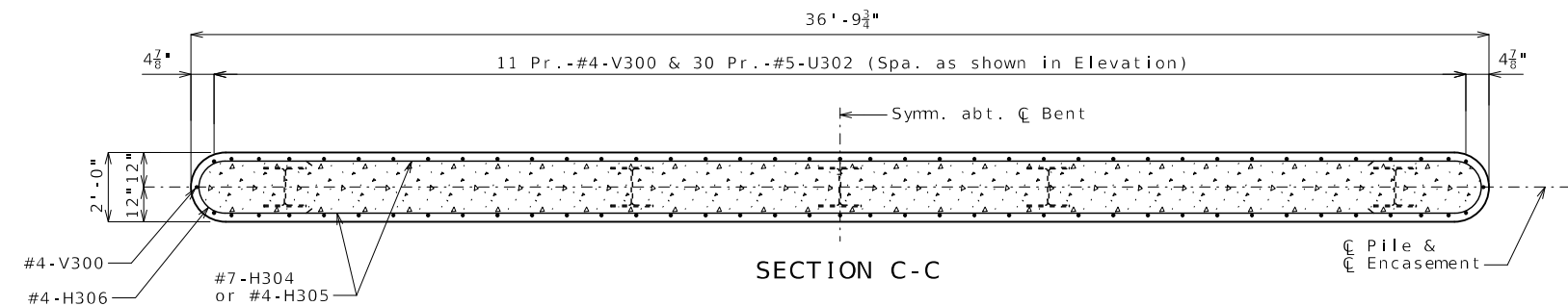
1-888-ASK-MODOT (1-888-275-6636)



ELEVATION
Note: Key not shown for clarity.



PLAN OF BEAM SHOWING REINFORCEMENT



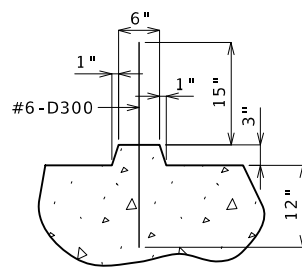
SECTION C-C

INTERMEDIATE BENT NO. 3

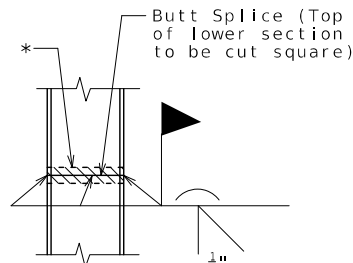
Note: This drawing is not to scale. Follow dimensions.

Sheet No. 6 of 18

** (Spa. @ 12" cts.)
(Each Face)

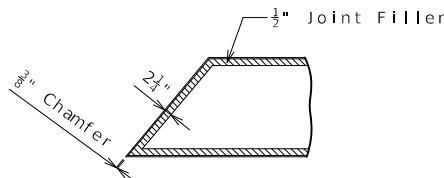


SECTION THRU KEY

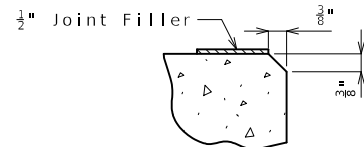


STEEL PILE SPLICE
(If required)

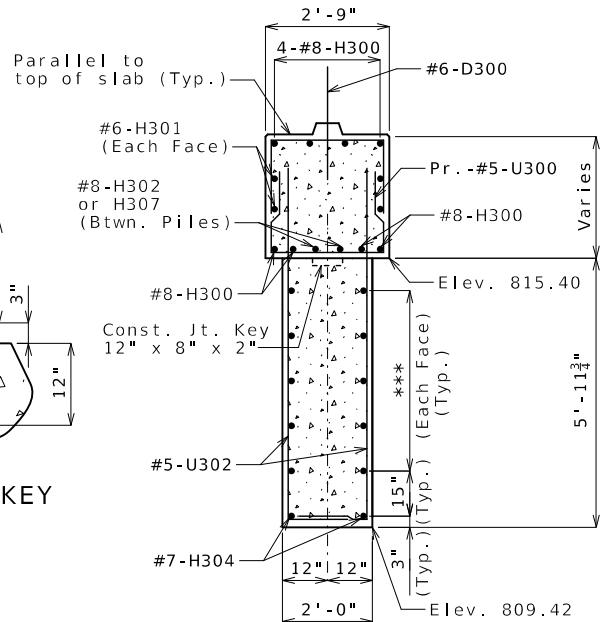
* Galvanizing material shall be omitted or removed one inch clear of weld locations in accordance with Sec 702.



JOINT FILLER DETAIL
Note: Joint Filler to go around the entire beam cap.

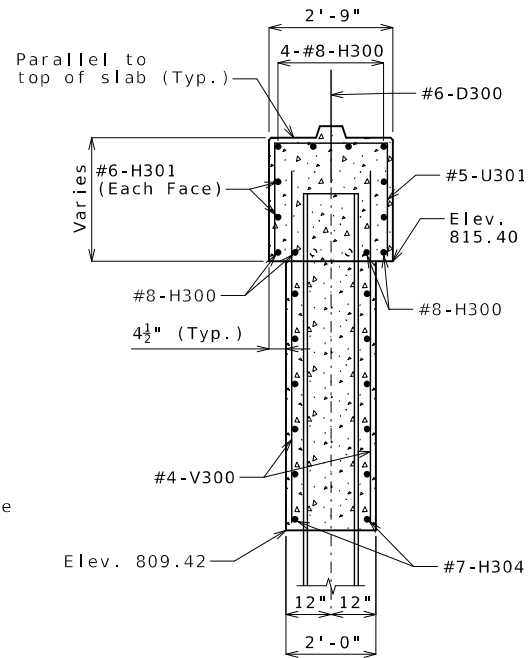


CHAMFER DETAIL AT TOP OF BEAM EDGES



SECTION A-A

*** 5-#4-H305 @ 12" cts.



SECTION B-B

Substructure Quantities for Bent No. 3

Item	Quantity
Galvanized Structural Steel Piles (14 in.)	linear foot 85
Pre-Bore for Piling	linear foot 40
Pile Point Reinforcement	each 5
Class B Concrete (Substructure)	cu. yard 15.9
Class B-1 Concrete (Substructure)	cu. yard 11.4
Reinforcing Steel (Bridges)	pound 2,820

Notes:

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

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

Detailed Jan. 2025
Checked Feb. 2025



DATE PREPARED
3/25/2025

ROUTE B STATE MO

DISTRICT BR SHEET NO. 6

COUNTY PLATTE

JOB NO. J4S3492

CONTRACT ID.

PROJECT NO.

BRIDGE NO. A9335

DESCRIPTION

DATE

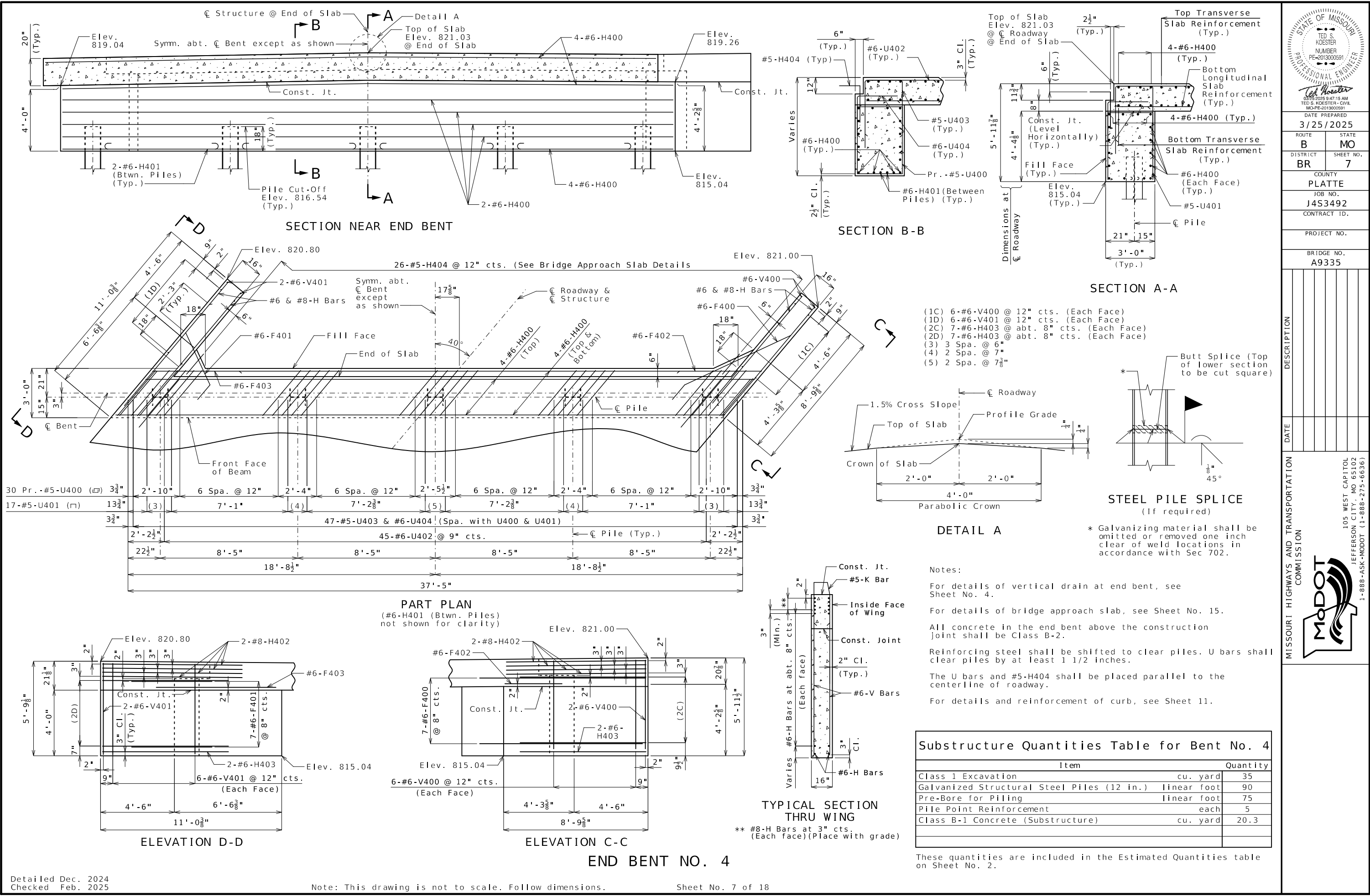
MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

105 WEST CAPITOL

JEFFERSON CITY, MO 65102

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

MoDOT



STATE OF MISSOURI

TED S. KOESTER

PROFESSIONAL ENGINEER

PE-2013000591

03/25/2025 9:47:15 AM

TED S. KOESTER-CIVIL

MO-PE-2013000591

DATE PREPARED
3/25/2025

ROUTE
B

DISTRICT
BR

COUNTY
PLATTE

JOB NO.
J4S3492

CONTRACT ID.

PROJECT NO.

BRIDGE NO.
A9335

DESCRIPTION

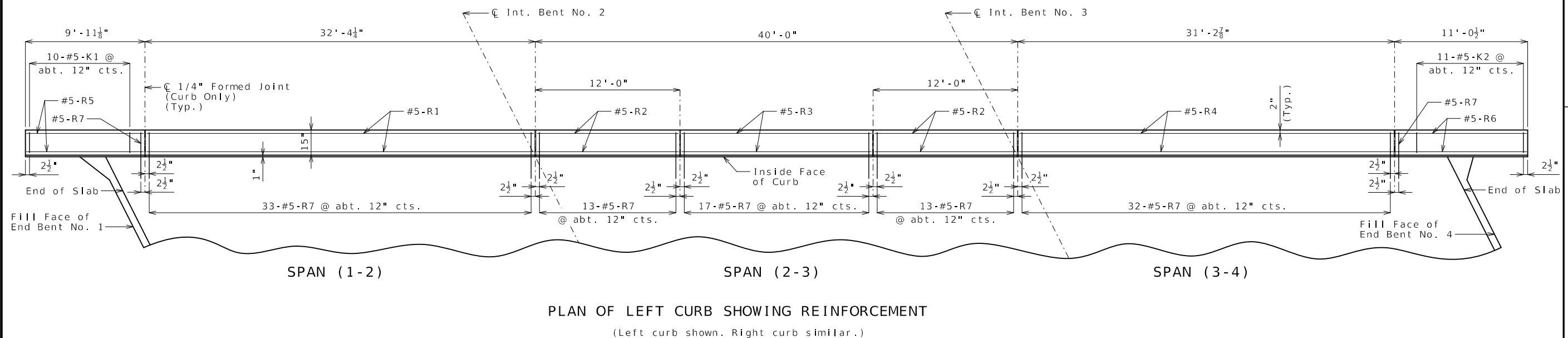
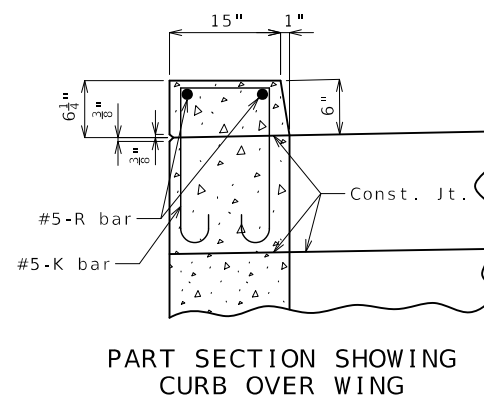
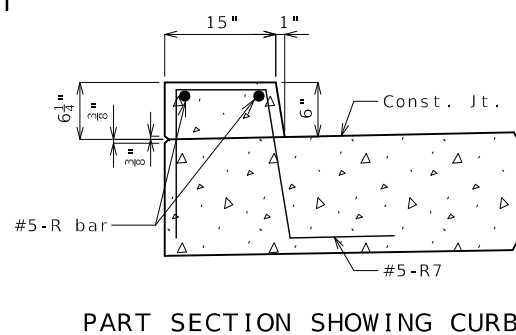
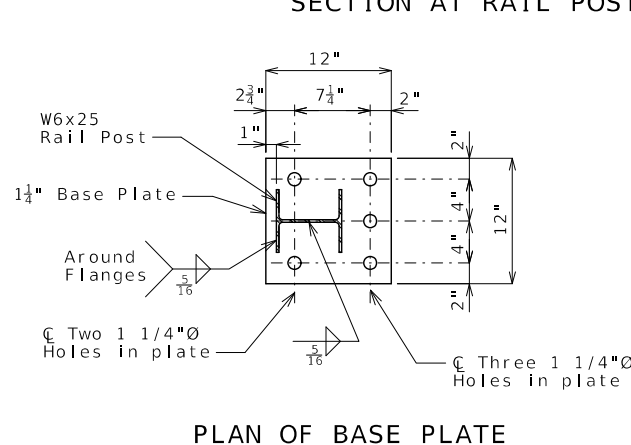
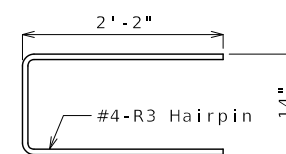
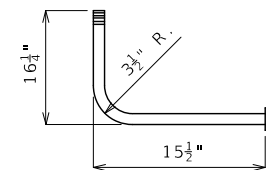
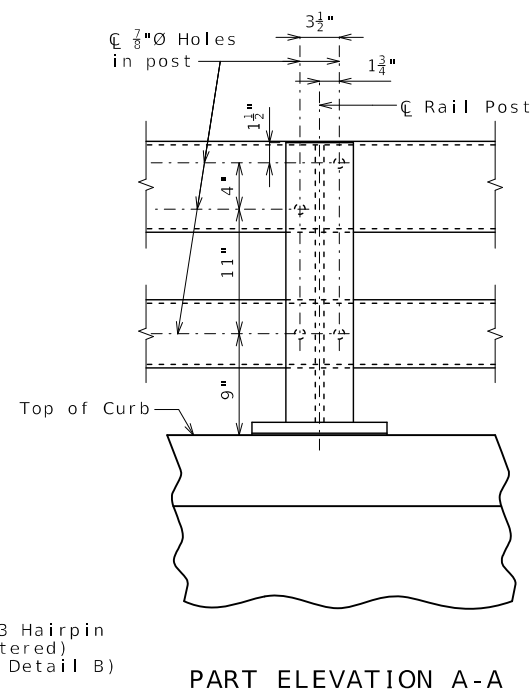
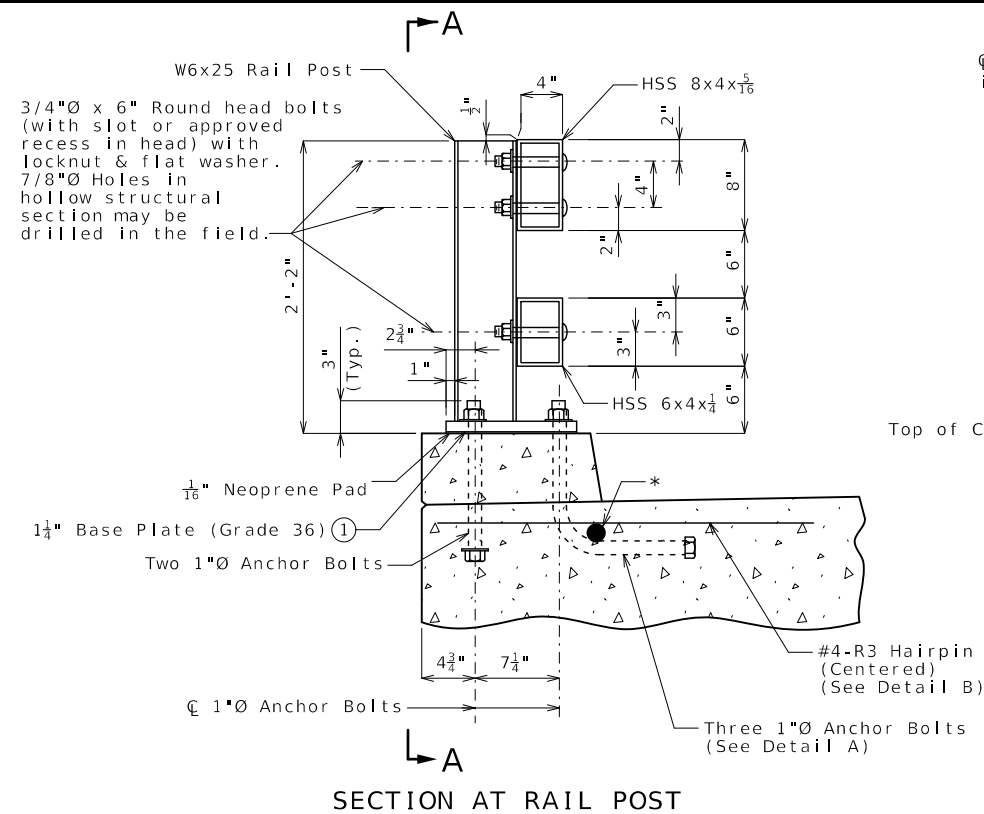
DATE

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

105 WEST CAPITOL

JEFFERSON CITY, MO 65102

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



* Tack weld same size bar (2'-8" long and centered) as slab longitudinal reinf. Optional to wrap bolt under slab long. reinf. provided that 1" clearance is maintained to bottom of slab.

① Bevel bottom of post (slope 2% or slab cross slope).

Bridge Rail Notes:

Rail posts shall be set perpendicular to roadway profile grade, vertically in cross section and aligned in accordance with Sec 713 except that the rail posts shall be aligned by the use of shims such that the post deviates not more than 1/2 inch from true horizontal alignment after final adjustment. The shims shall be 3" x 1 3/4" and placed between the post and the rail. The thickness of the shims shall be determined by the contractor and verified by the engineer before ordering material for this work.

Rail posts shall be seated on elastomeric pads having the same dimensions as the base plate and 1/16-inch thickness. Pads may be any elastomeric material, plain or fibered, having a hardness (Durometer) of 50 or greater, and certified by the manufacturer. Additional pads or half pads may be used for shimming for alignment. Post heights shown will increase by the thickness of the pad.

HSS = Hollow Structural Section

Dimensions of bridge rails are measured horizontally.

Bridge Rails will be measured to the nearest linear foot for each structure measured from end of wing to end of wing.

Payment for furnishing all materials and labor necessary to install Bridge Rail, complete in place, will be considered completely covered by the contract unit price for Bridge Rail (Two Tube Structural Steel) per linear foot.

Guardrail delineators shall be attached to the top of the guardrail post using galvanized anchorage as shown on Missouri Standard Plan 606.00 and in accordance with Sec 606. Delineators on bridges with two-lane, two-way traffic shall have retroreflective sheeting on both sides. Guardrail delineators will be considered completely covered by the contract unit price for Bridge Rail (Two Tube Structural Steel).

Curb Notes:

Top of curb shall be built parallel to grade.

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

Use a minimum lap of 2'-11" for #5-R bars.

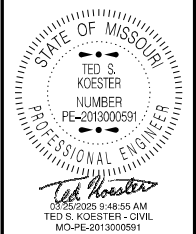
The cross-sectional area of curb above the slab = 0.66 sq. ft.

Concrete in the curb shall be Class B-2.

The curb shall be cured by application of Type 1-D Liquid Membrane-Forming Curing Compound in accordance with Sec 1055 and sealed in accordance with Sec 703. The contractor shall remove all curing compound in accordance with the manufacturer's recommendations before the concrete sealer is applied.

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

Payment for all concrete and reinforcement, complete in place, will be considered completely covered by the contract unit price for Concrete Curb (Bridge Rail) per linear foot.



DATE PREPARED
3/25/2025

ROUTE B	STATE MO
------------	-------------

DISTRICT	SHEET NO.
BR	11

COUNTY
PLATTE

JOB NO.
14S3492

CONTRACT ID.

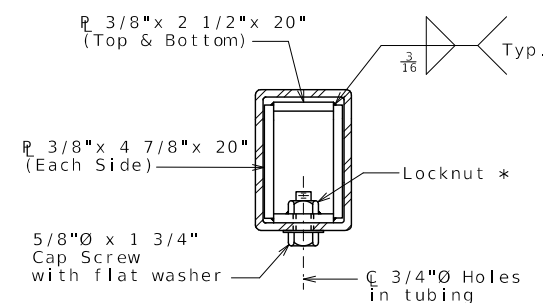
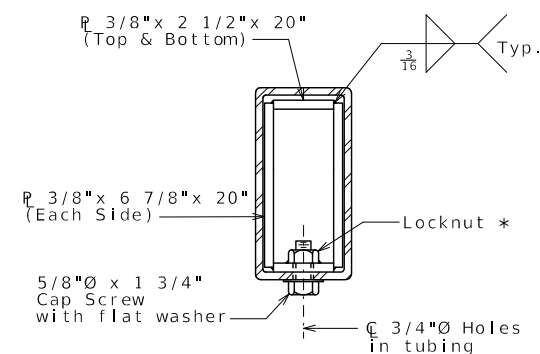
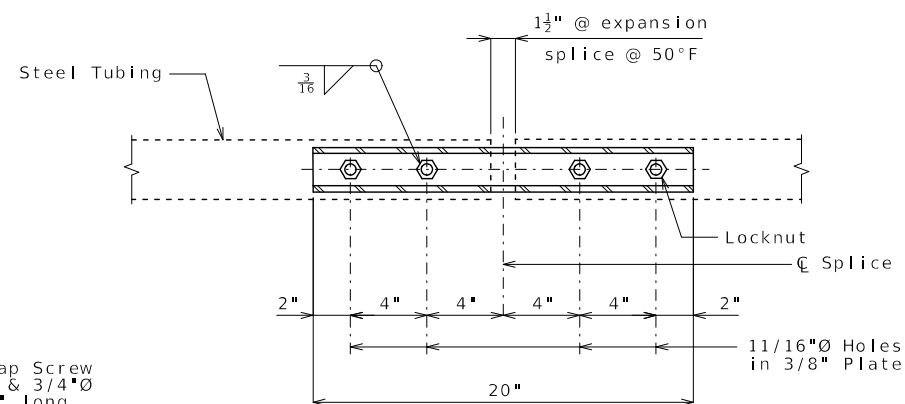
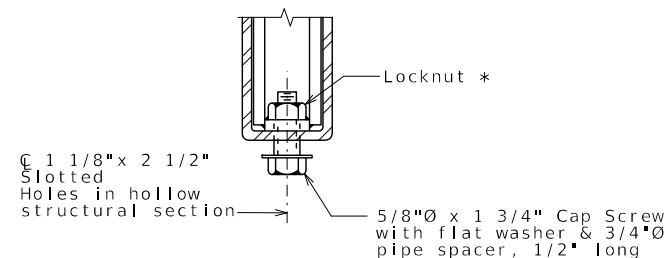
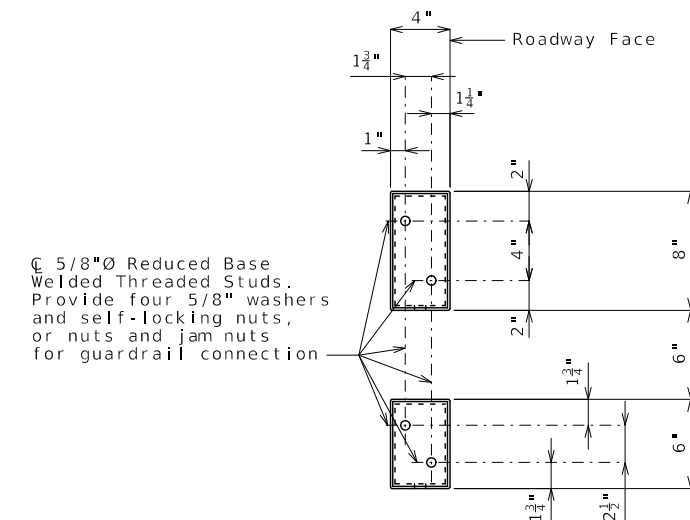
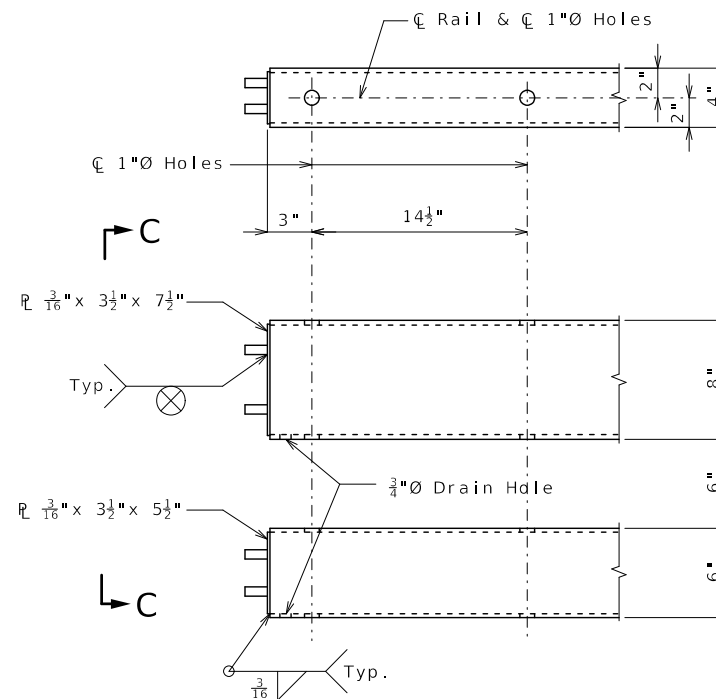
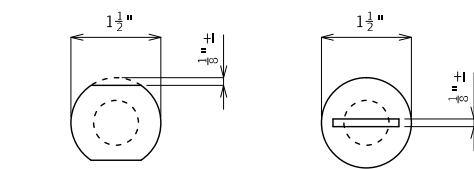
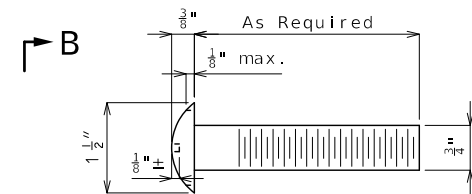
PROJECT NO.

BRIDGE NO.
A9335[illegible]

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

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

MISSOURI HIGHWAYS AND TRANSPORTATION
COMMISSION



Notes:

Fabrication of structural steel shall be in accordance with Sec 712 and 1080.

Hollow structural sections shall be in accordance with ASTM designation A 500 Grade B Structural Steel Tubing and shall meet the longitudinal CVN requirements of 15 ft-lbs at 0° F, see Sec 1080 for reporting.

All other steel shapes and plates shall be in accordance with AASHTO M 270 Grade 36 except posts shall be in accordance with AASHTO M 270, Grade 50.

All anchor bolts shall be ASTM F1554 Grade 36 with ASTM A563 Grade A hex nuts and ASTM F436 hardened washers.

Bolts, cap screws, and nuts shall be in accordance with ASTM designation A307 except for high strength bolts, nuts and washers noted which shall be in accordance with AASHTO M 164.

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

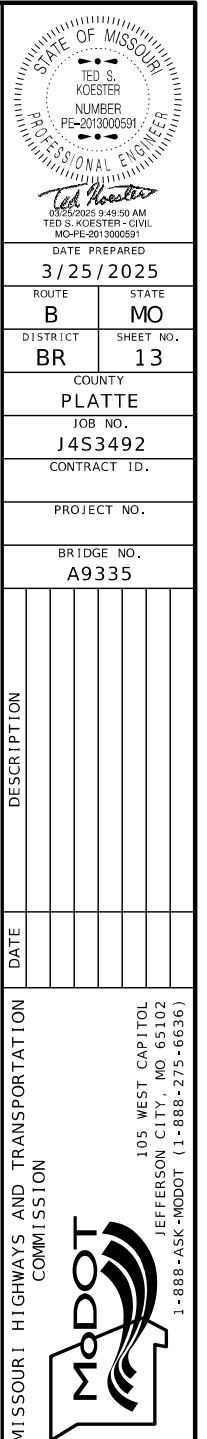
All posts, railing, rail splices, and angles shall be galvanized after shop fabrication in accordance with AASHTO M 111 and ASTM A385. Galvanized rail shall not be painted.

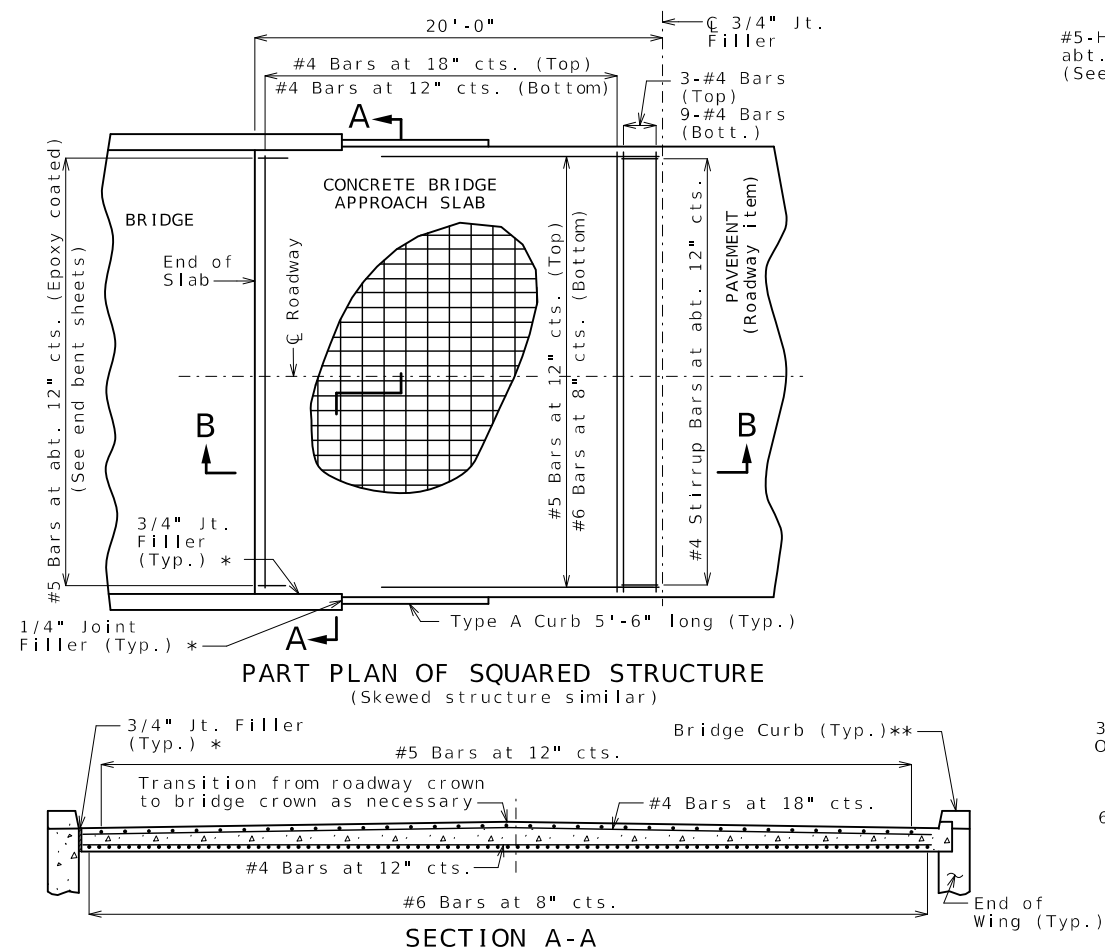
Railing shall be in accordance with Sec 713, except as noted.

All field drilled holes shall be coated with an approved zinc rich paint before erection.

HSS = Hollow Structural Section

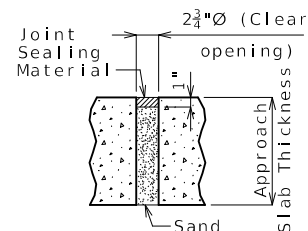
* Tack weld nut to plate.



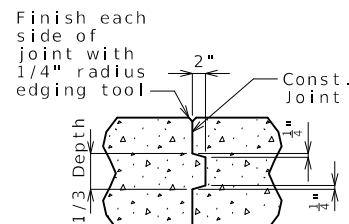


With the approval of the engineer, the contractor may crown the bottom of the approach slab to match the crown of the roadway surface.

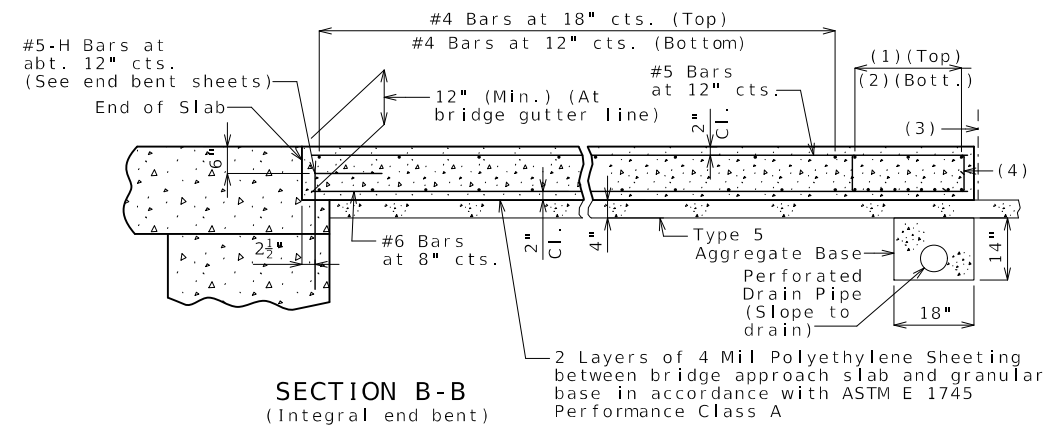
**Two Tube rail not shown for clarity.



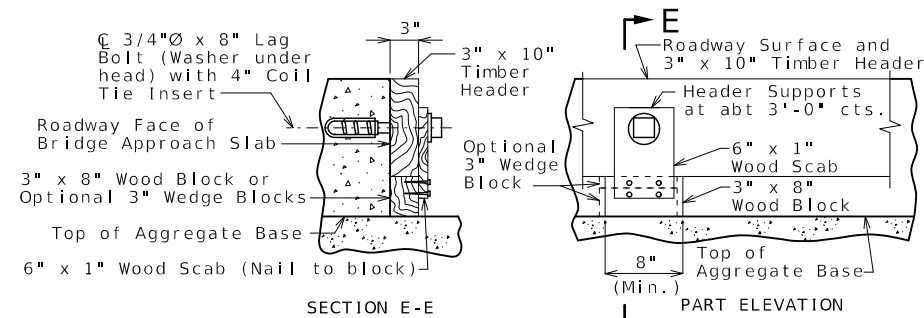
UNDERSEAL ACCESS
HOLE DETAIL
(If required)



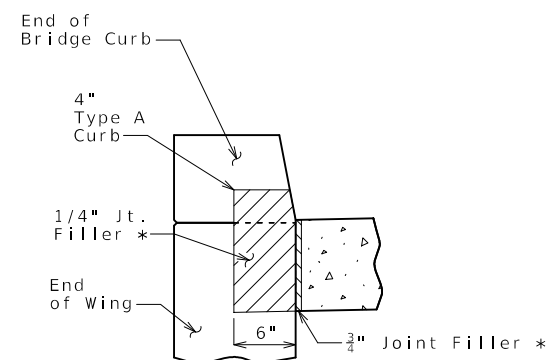
CONSTRUCTION JOINT DETAIL



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

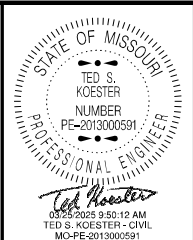


DETAILS OF TIMBER HEADER
Remove timber header when concrete pavement is placed.



SECTION BETWEEN TYPE A CURB
AND BRIDGE CURB

BRIDGE APPROACH SLAB (MINOR)



DATE PREPARED
3/25/2025

ROUTE B	STATE MO
------------	-------------

DISTRICT	SHEET NO.
BR	14

COUNTY
PLATTE

JOB NO.
1453492

CONTRACT ID.

PROJECT NO.

BRIDGE NO.
A9335[illegible]

MISSOURI HIGHWAYS AND TRANSPORTATION
COMMISSION

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

General Notes:

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

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

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

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

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

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

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

Mechanical bar splices shall be in accordance with Sec 710.

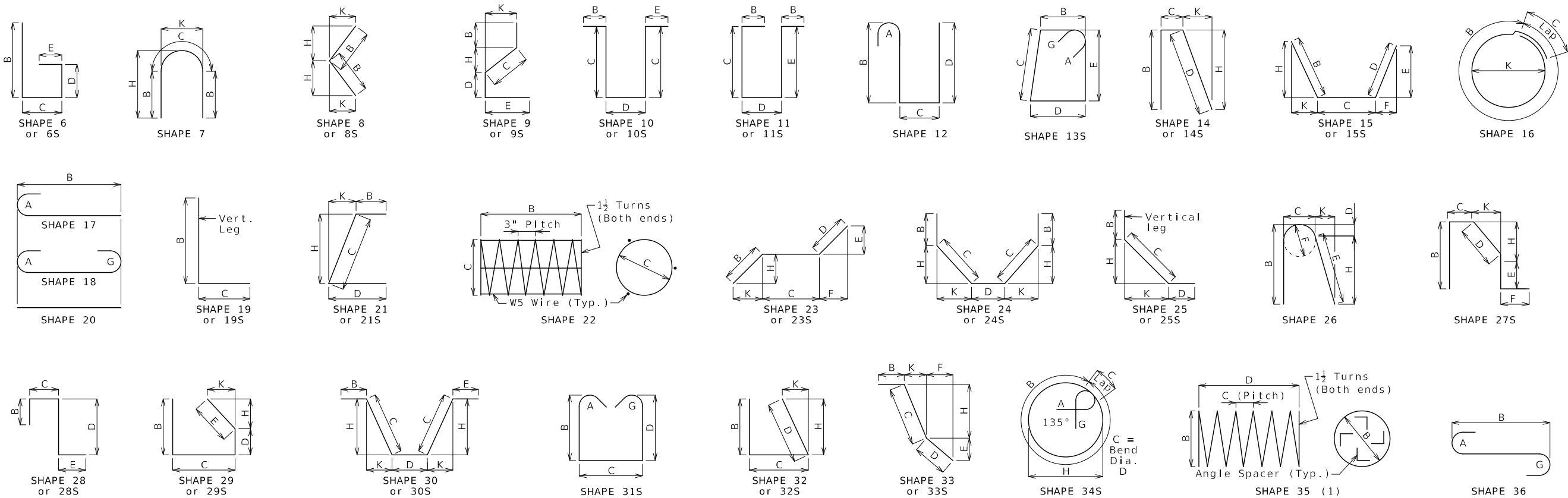
All joint filler shall be in accordance with Sec 1057 for preformed fiber expansion joint filler except as noted.

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

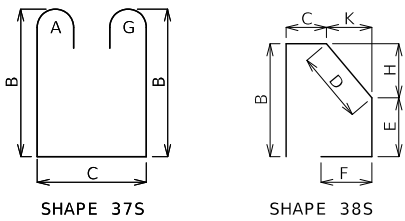
See Missouri Standard Plan 609.00 for details of Type A curb.

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

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



Finished Bend Dimensions D and Hook Dimensions						
Standard Pin Bend Shapes						
Size	Case	D	A or G		J	
			90°	180°	180°	
#4	1	3"	8"	6"	4"	
#5	1	3 3/4"	10"	7"	5"	
#6	1	4 1/2"	12"	8 1/4"	6"	
#7	2	5 1/4"	14"	9 3/4"	7"	
	3	7"	15"	11 1/2"	8 3/4"	
#8	2	6"	16"	11"	8"	
	3	8"	17"	13 1/4"	10"	
#9	1	9 1/2"	19 1/2"	15 1/2"	11 3/4"	
#10	1	10 3/4"	22"	17 1/2"	13 1/4"	
#11	1	12"	24 1/2"	19 1/2"	14 7/8"	
#14	1	18 1/4"	31 1/4"	27 1/2"	21 5/8"	
#18	1	24"	41 1/2"	36 1/4"	28 1/2"	
Stirrup Pin Bend Shapes (S)						
Size	Case	D	A or G		H	J
			90°	135°	180°	135°
#4	2	2"	4 1/2"	4 1/2"	5"	2 7/8"
	3	3"	5"	5 1/4"	6"	3"
#5	2	2 1/2"	5 3/4"	5 3/4"	5 3/4"	3 3/4"
	3	3 3/4"	6 1/4"	6 1/2"	7"	3 7/8"
#6	1	4 1/2"	12"	7 3/4"	8 1/4"	4 7/8"
Applicable for all grades of steel.						
Case 1 applies to all reinforcement. Case 2 applies to all reinforcement except for galvanized bars. Case 3 applies to galvanized bars only.						



BENDING DIAGRAMS

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

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

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

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

Reinforcing Steel Totals (Pounds)							
Size	Substructure		Superstructure			Entire Bridge	
	Plain	Epoxy	Slab	Barrier	Slip Form	Plain	Epoxy
W5	0	0	0	0	0	0	0
4	802	0	0	0	0	802	0
5	1,618	0	13,094	3,081	148	1,618	16,323
6	1,001	0	6,513	0	0	655	6,859
7	920	0	0	0	0	920	0
8	987	0	30,788	0	0	987	30,788
9	0	0	0	0	0	0	0
10	0	0	0	0	0	0	0
11	0	0	0	0	0	0	0
14	0	0	0	0	0	0	0
18	0	0	0	0	0	0	0
By Type	5,328	0	50,395	3,081	148	4,982	53,970

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

BENDING DIAGRAMS AND REINFORCING STEEL TOTALS

STATE OF MISSOURI

TED S. KOESTER

NUMBER

PE-2013000591

PROFESSIONAL ENGINEER

Ted Koester

03/25/2025 9:50:27 AM

TED S. KOESTER-CIVIL

MO-PE-2013000591

DATE PREPARED

3/25/2025

ROUTE

B

STATE

MO

DISTRICT

BR

SHEET NO.

15

COUNTY

PLATTE

JOB NO.

J4S3492

CONTRACT ID.

PROJECT NO.

BRIDGE NO.

A9335

DESCRIPTION

DATE

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

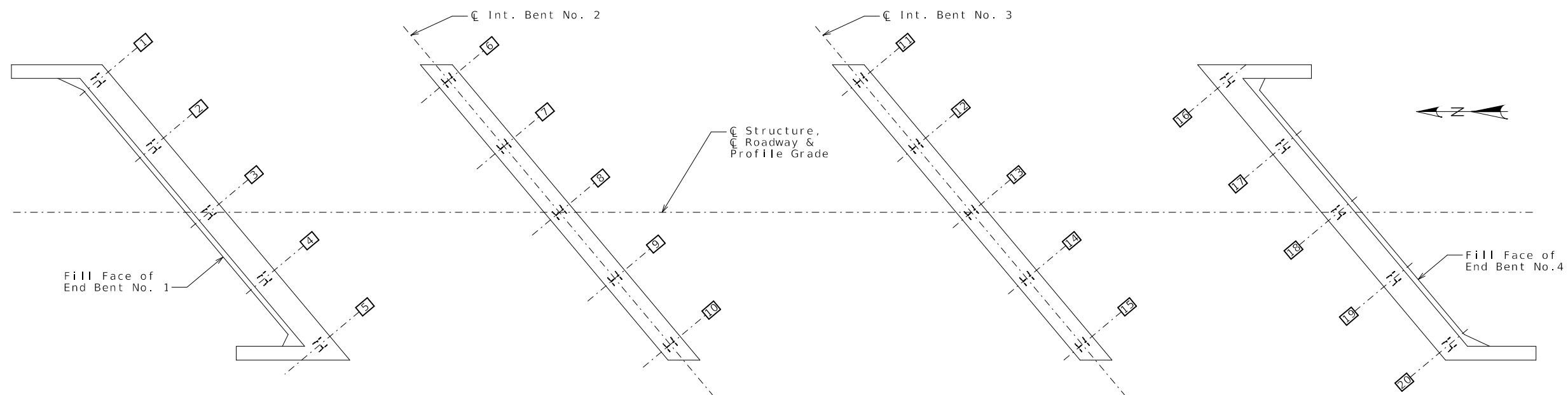
105 WEST CAPITOL

JEFFERSON CITY, MO 65102

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

MoDOT

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION



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

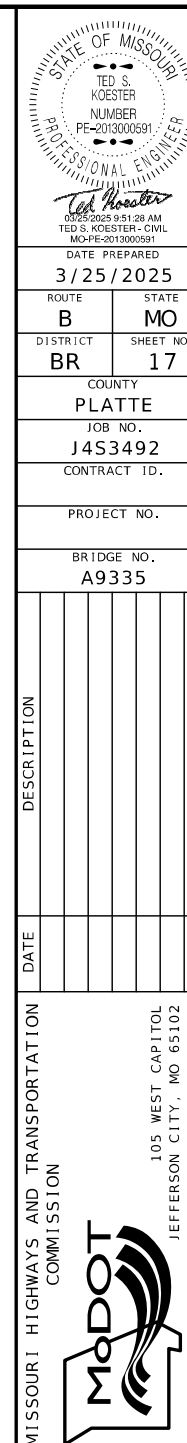
As-Built Pile Data			
Pile No.	Length in Place (ft)	Computed Nominal Axial Compressive Resistance (kips)	Remarks
End Bent No. 1			
1			
2			
3			
4			
5			
Intermediate Bent No. 2			
6			
7			
8			
9			
10			

As-Built Pile Data			
Pile No.	Length in Place (ft)	Computed Nominal Axial Compressive Resistance (kips)	Remarks
Intermediate Bent No. 3			
11			
12			
13			
14			
15			
End Bent No. 4			
16			
17			
18			
19			
20			

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

This sheet to be completed by MoDOT construction personnel.

AS-BUILT PILE DATA





03/25/2025 9:51:52 AM
TED S. KOESTER - CIVIL
MO-PE-2013000591

DATE PREPARED
3/25/2025

ROUTE	STATE
B	MO

DISTRICT	SHEET 1
BR	18

COUNTY
PLATTE

JOB NO.
J4S3492

CONTRACT ID.

PROJECT NO.

BRIDGE NO.
A9335[illegible]


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

301

SUBSURFACE DIAGRAM

PROJECT NAME Bridge Replacement

PROJECT LOCATION Over Grove Creek

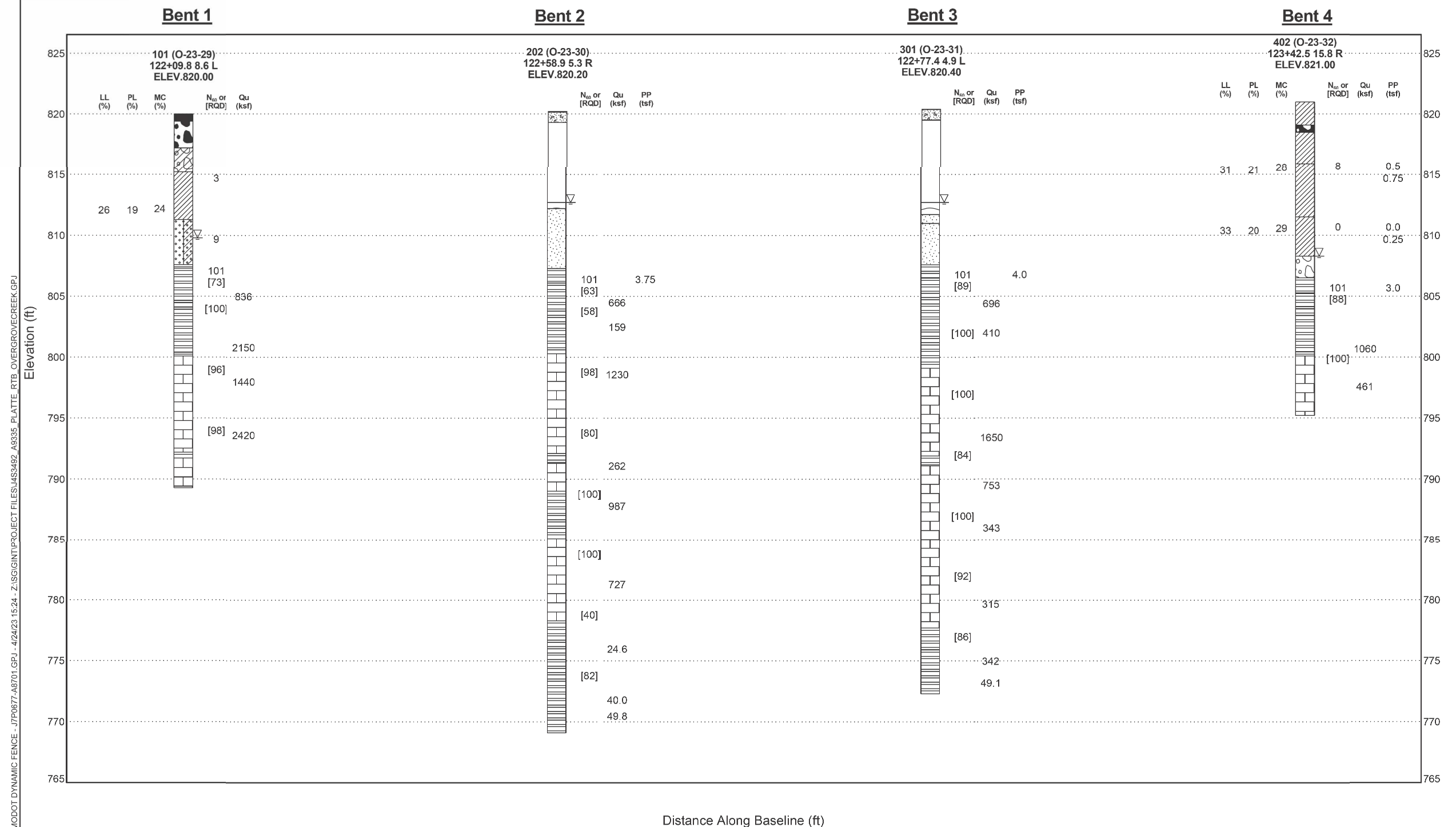
CLIENT _____

PROJECT NUMBER J4S3492

 Asphalt

 USCS Low Plasticity Clay Limestone

Water

 USCS Well-graded Gravel USCS Well-graded Sand with Clay Concrete USCS Poorly-graded Sand USCS Clayey Gravel Shale☐ No Core Boulders and cobbles

BORING DATA

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

Detailed Jan. 2025
Checked Feb. 2025

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

Sheet No. 18 of 18