DESIGN DESIGNATION

ROUTE A BRIDGE

A.A.D.T. - 2025 = 1,151
A.A.D.T. - 2045 = 1,669
D.H.V. = 9.10%
T = 10.00%
V = 55 M.P.H.
D = 49.2%/50.8%

FUNCTIONAL CLASSIFICATION-MAJOR COLLECTOR

NO RIGHT OF WAY ACQUISITION

CONVENTIONAL SYMBOLS
(USED IN PLANS)

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

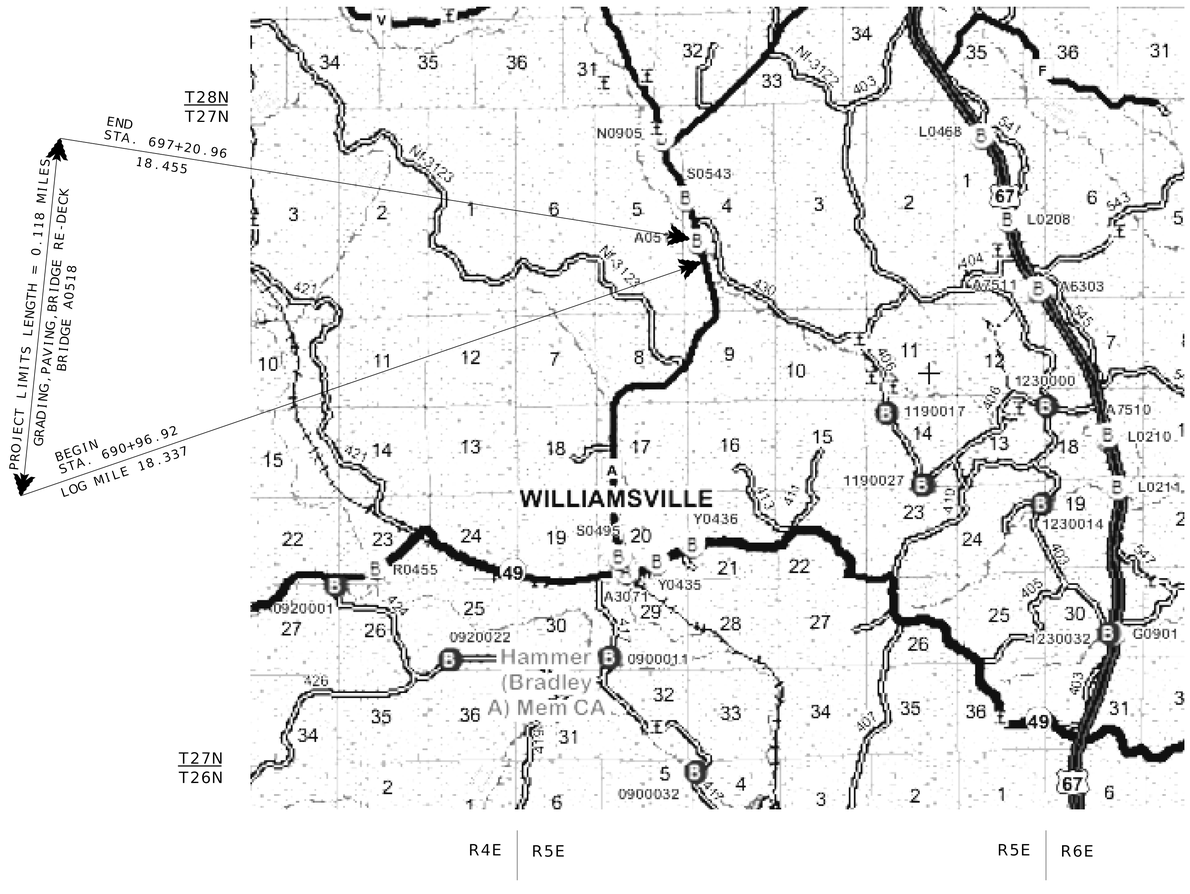
NOTE: DASHED OR OPEN SYMBOLS INDICATE EXISTING FEATURES

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION
PLANS FOR PROPOSED
STATE HIGHWAY A
WAYNE COUNTY



KEY MAP
LOCATION OF WAYNE COUNTY

N.T.S



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
SPECIAL SHEETS (SS)	5
REFERENCE POINTS (RP)	6
COORDINATE POINTS (CP)	7
TRAFFIC CONTROL SHEETS (TC)(2 SHEETS)	8-9
EROSION CONTROL SHEETS (EC)	10
BRIDGE DRAWINGS (B)	
BRIDGE A05181	1-10
CROSS SECTION SHEETS (XS)	1-5

LENGTH OF PROJECT

BEGINNING OF ROUTE A	STA. 690+96.92
END OF ROUTE A	697+20.96
APPARENT LENGTH	624.04 FEET
EQUATIONS AND EXCEPTIONS:	NONE
TOTAL CORRECTIONS	0.00 FEET
NET LENGTH	624.04 FEET

NET LENGTH OF PROJECT	624.04 FEET
STATE LENGTH	0.118 MILES
FOR INFORMATION ONLY ESTIMATED DISTURBED ACRES	0.40 ACRES

STATE OF MISSOURI
TAWN A. NUGENT
NUMBER E-2002024022
REGISTERED PROFESSIONAL ENGINEER
THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY.

DATE PREPARED
9/21/2026

ROUTE	STATE
A	MO
DISTRICT	SHEET NO.
SE	1

COUNTY
WAYNE

JOB NO.
J9S3815

CONTRACT ID.

PROJECT NO.

BRIDGE NO.

DESCRIPTION	DATE

IF A SEAL IS PRESENT ON THIS SHEET IT HAS BEEN ELECTRONICALLY SEALED AND DATED.

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

1510 East 10th St.
Kansas City, MO 64131
Tel: (816) 874-4655
Fax: (816) 874-4675
www.trekkdesigngroup.com

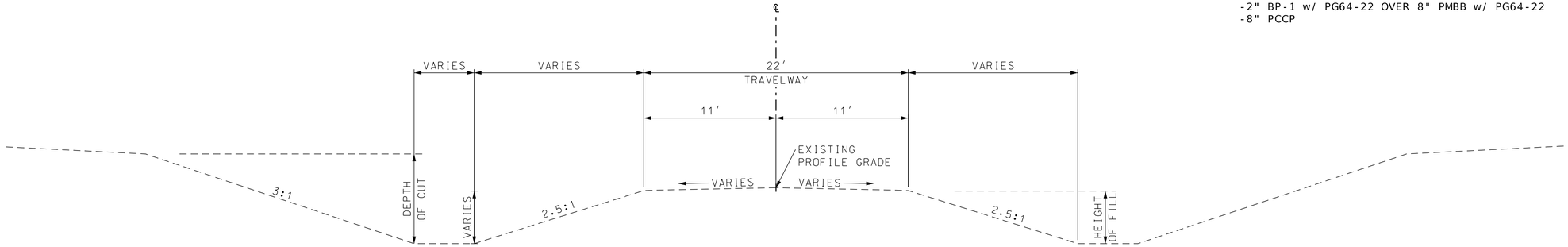
Missouri Cert. of Authority 2002010300

TREKK DESIGN GROUP, LLC

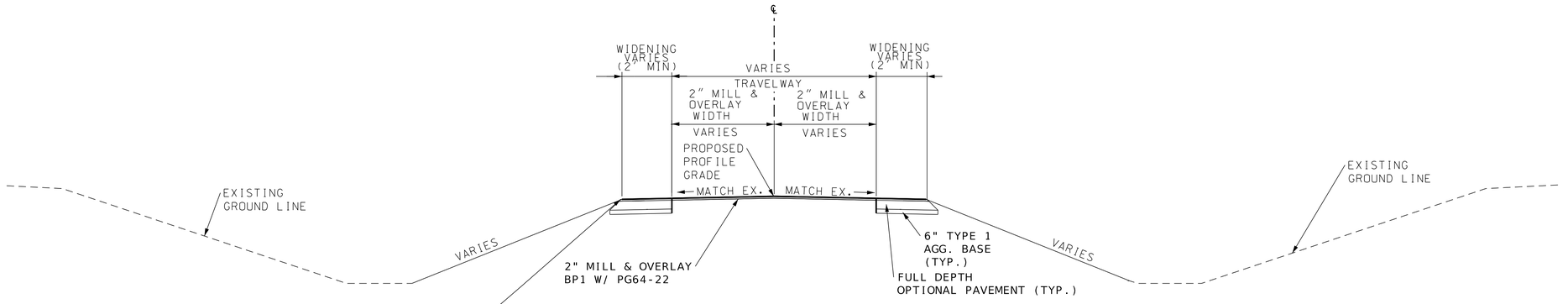
FINAL PLANS

OPTIONAL PAVEMENT

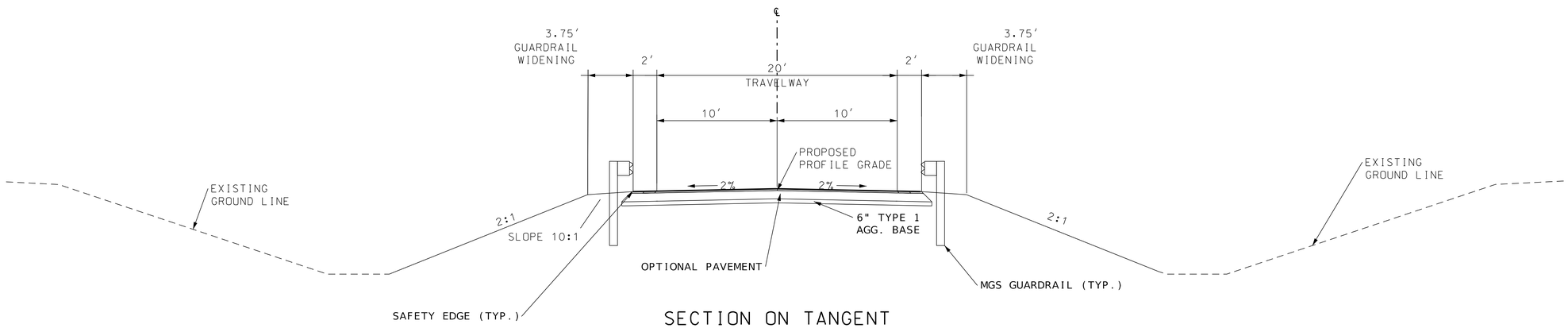
-2" BP-1 w/ PG64-22 OVER 8" PMBB w/ PG64-22
-8" PCCP



SECTION ON TANGENT
EXISTING TYPICAL SECTION ROUTE A
STA. 691+33.55 TO 696+67.37



SECTION ON TANGENT
PROPOSED TYPICAL SECTION ROUTE A
STA. 691+33.55 TO 692+47.19
STA. 695+52.82 TO 696+67.37



SECTION ON TANGENT
PROPOSED TYPICAL SECTION ROUTE A
STA. 692+47.19 TO 693+02.19
STA. 694+97.82 TO 695+52.82

NOT TO SCALE

ROUTE A
TYPICAL SECTION
SHEET 1 OF 1

STATE OF MISSOURI
TAWN A. NUGENT
NUMBER E-2002024022
REGISTERED PROFESSIONAL ENGINEER

THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY.

DATE PREPARED
7/14/2026

ROUTE	STATE
A	MO
DISTRICT	SHEET NO.
SE	2

COUNTY
WAYNE

JOB NO.
J9S3815

CONTRACT ID.

PROJECT NO.

BRIDGE NO.
A05181

IF A SEAL IS PRESENT ON THIS SHEET IT HAS BEEN ELECTRONICALLY SEALED AND DATED.

DESCRIPTION	DATE

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

1310 East 104th St.
Kansas City, MO 64131
Tel: (816) 874-4655
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www.trekkdesigngroup.com

Missouri Cert. of Authority 2002010300

TREKK DESIGN GROUP, LLC

FINAL PLANS

REV.

002_TS_J9S3815_I5.dgn 9:41:45 AM 7/14/2026

MOBILIZATON	
TOTAL	1 LUMP SUM

ADDITIONAL MOBILIZATION FOR SEEDING	
TOTAL	1 EACH

CONTRACTOR FURNISHED SURVEYING	
TOTAL	1 LUMP SUM

RESURFACING

LOCATION	STATION	STATION	AREA (SF)	COLDMILLING (SY)	BP-1 PG64-22 2" (TON)	TACK COAT 0.10 GAL/SY (GAL)	REMARKS
ROUTE A	691+33.55	692+47.19	1886.4	209.6	23.2	21.0	SOUTH OF BRIDGE
ROUTE A	695+52.82	696+67.37	1951.9	216.9	24.0	21.7	NORTH OF BRIDGE
SUBTOTAL				426.5	47.2	42.7	
TOTAL W/ 5% VAR.				448	49.6	45	

BASE AND PAVEMENT

LOCATION	STATION	STATION	SIDE	AREA (SF)	OPTIONAL PAVEMENT (SY)	TYPE 1 AGG (6") (SY)	REMARKS
ROUTE A	690+96.92	691+33.55	RT	134.1	14.9	15	WIDENING FOR GUARDRAIL
ROUTE A	691+33.55	694+47.19	LT	399.2	44.4	44	
ROUTE A	691+33.55	694+47.19	RT	339.4	37.7	38	
ROUTE A	692+47.19	693+02.19	LT/RT	1327.4	147.5	148	
ROUTE A	694+97.94	695+52.82	LT/RT	1316.9	146.3	146	
ROUTE A	695+52.82	696+67.37	RT	386.4	42.9	43	
ROUTE A	695+52.82	696+67.37	LT	312.0	34.7	35	
ROUTE A	696+67.37	697+20.96	LT	173.6	19.3	19	WIDENING FOR GUARDRAIL
			TOTAL	4254.9	487.7	488	

PAVEMENT MARKING

LOCATION	STATION	STATION	SIDE	4" WHITE HIGH BUILD WATERBORNE PVMT MARKING PAINT WITH TYPE P BEADS (LF)	4" YELLOW HIGH BUILD WATERBORNE PVMT MARKING PAINT WITH TYPE P BEADS (LF)	REMARKS
ROUTE A	690+96.92	696+67.37	RT	570		
ROUTE A	691+33.55	697+20.96	LT	534		
ROUTE A	691+33.55	693+22.19	CL		189	SOLID
ROUTE A	691+33.55	696+67.37	CL		133	INTERMITTENT
		TOTAL		1104	322	

GUARDRAIL

LOCATION	STATION	STATION	SIDE	MGS BRIDGE ANCHOR SECTION (EA)	MGS GUARDRAIL (LF)	"TYPE A" MASH CRASHWORTHY END TERMINAL (EA)	REMARKS
ROUTE A	690+96.92	693+15.48	RT	1	125	1	ADJACENT LANE
ROUTE A	691+33.55	693+29.32	LT	1	100	1	OPPOSING LANE
ROUTE A	694+71.18	696+59.17	RT	1	100	1	OPPOSING LANE
ROUTE A	694+84.91	697+20.96	LT	1	150	1	ADJACENT LANE
			TOTAL	4	475	4	

EARTHWORK

LOCATION	STATION	STATION	UNCLASSIFIED EXCAVATION (CY)*	COMPACTING EMBANKMENT (CY)*	EMBANKMENT IN PLACE (CY)*	MODIFIED LINEAR GRADING CLASS 2 (STA)	REMARKS
ROUTE A	690+96.92	693+02.50	223	178	108	2.1	TO BRIDGE EXCEPTION
ROUTE A	694+97.34	697+20.96	359	287	63	2	FROM BRIDGE EXCEPTION
		TOTAL	582	465	171	4.1	

(*) INDICATES FOR INFORMATIONAL PURPOSES ONLY

PERMANENT EROSION CONTROL

LOCATION	STATION	STATION	SIDE	FURNISHING TYPE 2 ROCK BLANKET (CY)	PLACING TYPE 2 ROCK BLANKET (CY)	PERMANENT EROSION CONTROL GEOTEXTILE (SY)	REMARKS
ROUTE A	692+47.19	693+47.13	LT/RT	263	263	394	SOUTH OF BRIDGE
ROUTE A	694+48.92	695+52.82	LT/RT	342	342	513	NORTH OF BRIDGE
			TOTAL	605	605	907	

SEED AND MULCH

LOCATION	STATION	STATION	SIDE	SEEDING - COOL SEASON GRASSES (ACRE)	REMARKS
ROUTE A	691+33.55	692+47.19	LT	0.05	SOUTH OF BRIDGE
ROUTE A	691+33.55	692+47.19	RT	0.05	SOUTH OF BRIDGE
ROUTE A	695+52.82	696+67.37	LT	0.06	NORTH OF BRIDGE
ROUTE A	695+52.82	696+67.37	RT	0.06	NORTH OF BRIDGE
TOTAL				1 LUMP SUM	

CLEARING AND GRUBBING

LOCATION	STATION	STATION	SIDE	CLEARING AND GRUBBING ACRE	REMARKS
ROUTE A	691+33.55	692+46.68	LT/RT	0.09	WEST OF BRIDGE
ROUTE A	695+52.94	696+67.37	LT/RT	0.11	EAST OF BRIDGE
			TOTAL	1.00	

TEMPORARY EROSION CONTROL

LOCATION	STATION	STATION	SIDE	SILT FENCE (LF)	TYPE C BERM (LF)	ROCK DITCH CHECK (LF)
ROUTE A	691+22.67	693+07.92	LT	191		
ROUTE A	690+86.22	692+88.14	RT	203		
ROUTE A	692+88.14	693+45.17	LT/RT		134	
ROUTE A	693+06.22		LT			8
ROUTE A	694+56.58	695+01.65	LT//RT		114	
ROUTE A	695+01.65	697+53.25	LT	259		
ROUTE A	694+45.00		RT			8
ROUTE A	694+65.00		RT			8
ROUTE A	695+03.00		RT			8
ROUTE A	695+41.00		RT			8
ROUTE A	696+41.00		RT			8
			TOTAL	653	248	48

REMOVAL OF IMPROVEMENTS

LOCATION	STATION	OFFSET	SIDE	REMOVAL (EA)	REMARKS
ROUTE A	692+79	15.6	RT	1	OM-3
ROUTE A	692+92	16.1	LT	1	OM-3
ROUTE A	692+97	13.7	RT	1	OM-3
ROUTE A	693+10	14.0	LT	1	OM-3
ROUTE A	693+12	12.5	RT	1	OM-3
ROUTE A	693+25	12.4	LT	1	OM-3
ROUTE A	694+72	15.4	RT	1	OM-3
ROUTE A	694+88	12.4	LT	1	OM-3
ROUTE A	694+90	16.3	RT	1	OM-3
ROUTE A	695+03	13.6	LT	1	OM-3
ROUTE A	695+05	17.3	RT	1	OM-3
ROUTE A	695+20	15.5	LT	1	OM-3
			TOTAL	1 LUMP SUM	

SUMMARY OF QUNATITIES
SHEET 1 OF 2

IF A SEAL IS PRESENT ON THIS SHEET IT HAS BEEN ELECTRONICALLY SEALED AND DATED.

STATE OF MISSOURI
TAWN A. NUGENT
NUMBER E-2002020422
REGISTERED PROFESSIONAL ENGINEER
THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY.

DATE PREPARED
10/14/2026

ROUTE	STATE
A	MO
DISTRICT	SHEET NO.
SE	3

COUNTY
WAYNE

JOB NO.
J9S3815

CONTRACT ID.

PROJECT NO.

BRIDGE NO.

DATE	DESCRIPTION

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

1310 East 10th St.
Kansas City, MO 64131
Tel (816) 874-4655
Fax (816) 874-4675
www.trekkdesigngroup.com

Missouri Cert. of Authority 2002010300

TREKK DESIGN GROUP, LLC

FINAL PLANS

SIGN	SIZE IN.	AREA SQ.FT.	QTY EACH	TOTAL AREA SQ.FT.	QTY RELOC EACH	TOTAL RELOC SQ.FT.	SIGN NO.	DESCRIPTION
WARNING SIGNS								
WO1-1L	48X48	16.00						TURN (SYMBOL LEFT)
WO1-1R	48X48	16.00						TURN (SYMBOL RIGHT)
WO1-2L	48X48	16.00						CURVE (SYMBOL LEFT)
WO1-2R	48X48	16.00						CURVE (SYMBOL RIGHT)
WO1-3L	48X48	16.00						REVERSE TURN (SYMBOL LEFT)
WO1-3R	48X48	16.00						REVERSE TURN (SYMBOL RIGHT)
WO1-4L	48X48	16.00						REVERSE CURVE (SYMBOL LEFT)
WO1-4R	48X48	16.00						REVERSE CURVE (SYMBOL RIGHT)
WO1-4bL	48X48	16.00						DOUBLE ARROW REVERSE CURVE (SYMBOL LEFT)
WO1-4bR	48X48	16.00						DOUBLE ARROW REVERSE CURVE (SYMBOL RIGHT)
WO1-4cL	48X48	16.00						TRIPLE ARROW REVERSE CURVE (SYMBOL LEFT)
WO1-4cR	48X48	16.00						TRIPLE ARROW REVERSE CURVE (SYMBOL RIGHT)
WO1-6	60X30	12.50						HORIZONTAL ARROW (SYMBOL)
WO1-6a	72X36	18.00						HORIZ. ARROW (SYMBOL ON PERMANENT BARRICADE)
WO1-7	60X30	12.50						DOUBLE HEAD HORIZONTAL ARROW (SYMBOL)
WO1-7a	72X36	18.00						DOUBLE HEAD HORIZ. ARROW (SYMBOL ON PERM. BARR.)
WO1-8	18X24	3.00						CHEVRON (SYMBOL)
WO1-8a	30X36	7.50						CHEVRON (SYMBOL FOR DIVIDED HIGHWAYS)
WO3-1	48X48	16.00						STOP AHEAD (SYMBOL)
WO3-2	48X48	16.00						YIELD AHEAD (SYMBOL)
WO3-3	48X48	16.00						SIGNAL AHEAD (SYMBOL)
WO3-4	48X48	16.00						BE PREPARED TO STOP
WO3-5	48X48	16.00						SPEED LIMIT AHEAD
WO4-1L	48X48	16.00						MERGE (SYMBOL FROM LEFT)
WO4-1R	48X48	16.00						MERGE (SYMBOL FROM RIGHT)
WO4-1aL	48X48	16.00						MERGE (LEFT)
WO4-1aR	48X48	16.00						MERGE (RIGHT)
WO5-1	48X48	16.00						ROAD/BRIDGE/RAMP NARROWS
WO5-3	48X48	16.00						ONE LANE BRIDGE
WO5-5	48X48	16.00						NARROW LANES
WO6-1	48X48	16.00						DIVIDED HIGHWAY (SYMBOL)
WO6-2	48X48	16.00						DIVIDED HIGHWAY END (SYMBOL)
WO6-3	48X48	16.00						TWO WAY TRAFFIC (SYMBOL)
WO7-3a	30X24	5.00						NEXT XX MILES (PLAQUE)
WO8-1	48X48	16.00						BUMP
WO8-2	48X48	16.00						DIP
WO8-3	48X48	16.00						PAVEMENT ENDS
WO8-4	48X48	16.00						SOFT SHOULDER
WO8-5	48X48	16.00						SLIPPERY WHEN WET (SYMBOL)
WO8-6	48X48	16.00						TRUCK CROSSING
WO8-6c	48X48	16.00						TRUCK ENTRANCE
WO8-7	36X36	9.00						LOOSE GRAVEL
WO8-7a	36X36	9.00						FRESH OIL / LOOSE GRAVEL
WO8-9	48X48	16.00						LOW SHOULDER
WO8-11	48X48	16.00						UNEVEN LANES
WO8-12	48X48	16.00						NO CENTER LINE
WO8-15	48X48	16.00						GROOVED PAVEMENT
WO8-15P	30X24	5.00						MOTORCYCLE (PLAQUE)
WO8-17L	48X48	16.00						SHOULDER DROP-OFF (SYMBOL LEFT)
WO8-17R	48X48	16.00						SHOULDER DROP-OFF (SYMBOL RIGHT)
WO8-17P	30X24	5.00						SHOULDER DROP-OFF (PLAQUE)
W10-1	42RND.	9.62						RAILROAD CROSSING
WO12-1	24X24	4.00						DOUBLE DOWN ARROW (SYMBOL)
WO12-2	48X48	16.00						LOW CLEARANCE (SYMBOL)
WO12-2x	24X18	3.00						LOW CLEARANCE (PLAQUE)
WO12-2a	84X24	14.00						OVERHEAD LOW CLEARANCE (FEET AND INCHES)
WO12-4	120X60	50.00						LOW CLEARANCE XX FT XX IN XX MILES AHEAD
WO12-5	120X60	50.00						WIDTH RESTRICTION XX FT XX IN XX MILES AHEAD
WO13-1	30X30	6.25						ADVISORY SPEED (PLAQUE)
WO16-2	30X24	5.00						XXX FEET (PLAQUE)
WO16-3	30X24	5.00						X MILE (PLAQUE)
WO20-1	48X48	16.00						ROAD/BRIDGE/RAMP WORK AHEAD
WO20-2	48X48	16.00	5	80.00			18	DETOUR AHEAD
WO20-3	48X48	16.00	3	48.00			20	ROAD CLOSED AHEAD
WO20-3A	48X48	16.00	2	32.00			20A	ROAD CLOSED 500 FT
WO20-5	48X48	16.00						RIGHT/CENTER/LEFT LANE CLOSED AHEAD
WO20-5a	48X48	16.00						2 RIGHT/CENTER/LEFT LANES CLOSED AHEAD
WO20-6a	48X48	16.00						RIGHT/CENTER/LEFT LANE CLOSED
WO20-7a	48X48	16.00						FLAGGER (SYMBOL)
WO21-2	36X36	9.00						FRESH OIL
WO21-5	48X48	16.00						SHOULDER WORK / SHOULDER WORK AHEAD
WO22-1	48X48	16.00						BLASTING ZONE AHEAD
WO22-2	42X36	10.50						TURN OFF 2-WAY RADIO AND PHONE
WO22-3	42X36	10.50						END BLASTING ZONE
GO22-1	21X15	2.19						WET PAINT (ARROW PIVOTS)

SIGN	SIZE IN.	AREA SQ.FT.	QTY EACH	TOTAL SQ.FT.	QTY RELOC EACH	TOTAL RELOC SQ.FT.	SIGN NO.	DESCRIPTION
GUIDE SIGNS								
E05-1	36X48	12.00						GORE EXIT
E05-2	48X36	12.00						EXIT OPEN
E05-2a	48X36	12.00						EXIT CLOSED
GO20-1	60X24	10.00						ROAD WORK NEXT XX MILES
GO20-2	48X24	8.00						END ROAD WORK
GO20-4	36X18	4.50						PILOT CAR FOLLOW ME
GO20-4a	42X30	8.75						PILOT CAR IN USE WAIT & FOLLOW
GO20-4a	18X12	1.50						PILOT CAR IN USE WAIT & FOLLOW
GO20-5aP	36X24	6.00						WORK ZONE (PLAQUE)
MO4-8a	24X18	3.00	2	6.00			52	END DETOUR
MO4-9L	48X36	12.00						DETOUR (LEFT)
MO4-9R	48X36	12.00						DETOUR (RIGHT)
MO4-9P	48X12	4.00						STREET NAME (PLAQUE)
MO4-10L	48X18	6.00						DETOUR ARROW (LEFT)
MO4-10R	48X18	6.00						DETOUR ARROW (RIGHT)
REGULATORY SIGNS								
R1-1	48X48	13.25						STOP
R1-2	48TRI.	6.93						YIELD
R1-2a	36X36	9.00						TO ONCOMING TRAFFIC (PLAQUE)
R1-3P	30X12	2.50						ALL WAY (PLAQUE)
R2-1	36X48	12.00						SPEED LIMIT XX
R3-1	48X48	16.00						NO RIGHT TURN (SYMBOL)
R3-2	48X48	16.00						NO LEFT TURN (SYMBOL)
R3-3	36X36	9.00						NO TURNS
R3-4	48X48	16.00						NO U-TURN (SYMBOL)
R3-7L	30X30	6.25						LEFT LANE MUST TURN LEFT
R3-7R	30X30	6.25						RIGHT LANE MUST TURN RIGHT
R4-1	36X48	12.00						DO NOT PASS
R4-2	36X48	12.00						PASS WITH CARE
R4-7a	36X48	12.00						KEEP RIGHT (HORIZONTAL ARROW)
R4-8a	36X48	12.00						KEEP LEFT (HORIZONTAL ARROW)
R5-1	30X30	6.25						DO NOT ENTER
R5-1a	36X24	6.00						WRONG WAY
R6-1L	54X18	6.75						ONE WAY ARROW (LEFT)
R6-1R	54X18	6.75						ONE WAY ARROW (RIGHT)
R6-2L	24X30	5.00						ONE WAY (LEFT)
R6-2R	24X30	5.00						ONE WAY (RIGHT)
R9-9	24X12	2.00						SIDEWALK CLOSED
R9-11L	24X18	3.00						SIDEWALK CLOSED AHEAD, (ARROW LEFT) CROSS HERE
R9-11R	24X18	3.00						SIDEWALK CLOSED AHEAD, (ARROW RIGHT) CROSS HERE
R10-6	24X36	6.00						STOP HERE ON RED (45^ ARROW)
R11-2	48X30	10.00	2	20.00			29	ROAD CLOSED
							55B3	ROAD CLOSED XX MILES AHEAD
R11-3a	60X30	12.50	4	50.00			55B4	LOCAL TRAFFIC ONLY
R11-4	60X30	12.50	2	25.00			55	ROAD CLOSED TO THRU TRAFFIC
CONST-3A	60X48	20.00						FINE SIGN
CONST-3X	56X12	4.67						SPEEDING/PASSING (PLATE)
MISCELLANEOUS SIGNS								
CONST-5	48X36	12.00						POINT OF PRESENCE
CONST-5	96X48	32.00						POINT OF PRESENCE
CONST-8	48X36	12.00						WORK ZONE NO PHONE ZONE
MO4-12	36X78	19.50	3	58.50			50A	CUSTOM DETOUR SIGN
MO4-12	36X78	19.50	3	58.50			50B	CUSTOM DETOUR SIGN
MO4-12	36X78	19.50	1	19.50			50C	CUSTOM DETOUR SIGN
MO4-12	36X78	19.50	3	58.50			50D	CUSTOM DETOUR SIGN
MO4-12	36X78	19.50	6	117.00			50F	CUSTOM DETOUR SIGN
MO4-12	36X78	19.50	2	39.00			50G	CUSTOM DETOUR SIGN
MO4-12	36X78	19.50	3	58.50			50H	CUSTOM DETOUR SIGN
MO4-12	36X78	19.50	3	58.50			50J	CUSTOM DETOUR SIGN

616-10.05 CONSTRUCTION SIGNS	TOTAL
	729

616-10.10 RELOCATED SIGNS	TOTAL

ITEM NUMBER	TOTAL QTY	EFFECTIVE: 07-01-2025 DESCRIPTION
6122008		IMPACT ATTENUATOR 40 MPH (SAND BARRELS)
6122009		IMPACT ATTENUATOR 45 MPH (SAND BARRELS)
6122010		IMPACT ATTENUATOR 50 MPH (SAND BARRELS)
6122012		IMPACT ATTENUATOR 55 MPH (SAND BARRELS)
6122014		IMPACT ATTENUATOR 60 MPH (SAND BARRELS)
6122017		IMPACT ATTENUATOR 65 MPH (SAND BARRELS)
6122019		IMPACT ATTENUATOR 70 MPH (SAND BARRELS)
6122020		REPLACEMENT SAND BARREL
6122030		IMPACT ATTENUATOR (RELOCATION)
6122040		WORK ZONE CRASH CUSHION (NARROW)
6122041		WORK ZONE CRASH CUSHION (RELOCATION)
6123001		TRUCK MOUNTED ATTENUATOR (TMA)
6161012		BUOYS (BOATS KEEP OUT)
6161013		BUOYS (NO WAKE)
6161014		SPECIAL SIGN ASSEMBLY (BOATS KEEP OUT)
6161020		CHANNELIZER (DRUM-LIKE)
6161022		CHANNELIZER (CONE)
6161025		CHANNELIZER (TRIM-LINE)
6161026		CHANNELIZER (VERTICAL PANEL)
6161030	10	TYPE 3 MOVEABLE BARRICADE
6161033		DIRECTION INDICATOR BARRICADE
6161040		FLASHING ARROW PANEL
6161047		TYPE 3 OBJECT MARKER
6161055		SEQUENTIAL FLASHING WARNING LIGHT
6161070		TUBULAR MARKER
6161095		RADAR SPEED ADVISORY SYSTEM
6161096		CHANGEABLE MESSAGE SIGN, COMMISSION FURNISHED/RETAINED
6161098A	2	CHANGEABLE MESSAGE SIGN WITHOUT COMM. INTERFACE, CONTRACTOR FURNISHED/RETAINED
6161099		CHANGEABLE MESSAGE SIGN WITH COMM. INTERFACE, CONTRACTOR FURNISHED/RETAINED
6162000A		WORK ZONE TRAFFIC SIGNAL SYSTEM
6162002		TEMPORARY LONG-TERM RUMBLE STRIPS
6173600D		TEMPORARY TRAFFIC BARRIER, CONTRACTOR FURNISHED/RETAINED
6173700B		TEMP. TRAFFIC BARRIER ANCHORED, CONTRACTOR FURNISHED/RETAINED
6173706		TEMP. TRAFFIC BARRIER STIFFNESS TRANSITION CONTRACTOR FURNISHED/RETAINED
6174000A		TEMP. TRAFFIC BARRIER HEIGHT TRANSITION, CONTRACTOR FURNISHED/RETAINED
6175010A		RELOCATING TEMPORARY TRAFFIC BARRIER
6175011B		RELOCATING TEMP. TRAFFIC BARRIER ANCHORED
6175013		RELOCATING TEMP. TRAFFIC BARRIER STIFFNESS
6175020A		RELOCATING TEMP. TRAFFIC BARRIER HEIGHT
6208064A		TEMPORARY RAISED PAVEMENT MARKER
9029400		TEMPORARY TRAFFIC SIGNALS
9029401		TEMPORARY TRAFFIC SIGNALS AND LIGHTING

SUMMARY OF QUNATITIES
SHEET 2 OF 2

STATE OF MISSOURI
TAWN A. NUGENT
NUMBER E-2002024022
REGISTERED PROFESSIONAL ENGINEER

THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY.

DATE PREPARED
7/14/2026

ROUTE	STATE
A	MO
DISTRICT	SHEET NO.
SE	3

COUNTY
WAYNE

JOB NO.
J9S3815

CONTRACT ID.

PROJECT NO.

BRIDGE NO.
A05181

DESCRIPTION	DATE

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

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

1310 East 104th St.
Kansas City, MO 64131
Tel (816) 874-4855
Fax (816) 874-4875
www.trekdesigngroup.com

Missouri Cert. of Authority 2002010300

TREK DESIGN GROUP, LLC

FINAL PLANS

IF A SEAL IS PRESENT ON THIS SHEET IT HAS BEEN ELECTRONICALLY SEALED AND DATED.

SECTION 4, TOWNSHIP 27 NORTH, RANGE 5 EAST

HENSON FARMS INC

BRATTON, WESLEY & JULIAETTA

690

695

700

START STA 690+00.00

END STA 700+00.08

TYPE 2 ROCK BLANKET WITH PERMANENT EROSION CONTROL GEOTEXTILE (SEE SPECIAL SHEET FOR QUANTITIY)

STA 692+47.19 OFF 12.00' LT

STA 692+47.19 OFF 8.05' LT

STA 691+33.55 OFF 12.00' LT MATCH EXISTING

STA 691+33.55 OFF 7.93' LT

BM#4

BEGIN CONSTRUCTION STA 691+33.55 MATCH EXIST.

CP#103

STA 690+96.92 OFF 8.34 RT MATCH EXISTING

STA 690+96.92 OFF 12.00' MATCH EXISTING

4" SOLID WHITE

STA 691+33.55 OFF 8.34 RT

SAWCUT

BEGIN OPTIONAL PAVEMENT STA 692+47.19

STA 692+47.19 OFF 8.89' RT

STA 692+47.19 OFF 12.00' RT

INSTALL BRIDGE ANCHOR SECTION AND 125 LF MGS GUARDRAIL WITH TYPE A CRASHWORTHY END TERMINAL

CP#102

INSTALL MGS BRIDGE ANCHOR SECTION AND 100 LF MGS GUARDRAIL WITH TYPE A CRASHWORTHY END TERMINAL

20' BRIDGE APPROACH SLAB (MINOR) STA 693+02.19 -693+22.19 (BRIDGE ITEM)

EXISTING R/W

END 4" SOLID YELLOW

4" SOLID WHITE

4" INTERMITTENT YELLOW

EXISTING R/W

INSTALL MGS BRIDGE ANCHOR SECTION AND 100 LF MGS GUARDRAIL WITH TYPE A CRASHWORTHY END TERMINAL

OTTER CREEK

REDECK EXISTING BRIDGE A0518 STA. 693+22.19 TO 694+77.82 (SEE BRIDGE PLANS)

CP#101

20' BRIDGE APPROACH SLAB (MINOR) STA/ 694+77.82-694+97.82 (BRIDGE ITEM)

STA 695+52.82 OFF 12.00'

STA 695+52.82 OFF 9.20'

STA 695+52.82 OFF 8.69' RT

STA 695+52.82 OFF 12.00' RT

TYPE 2 ROCK BLANKET WITH PERMANENT EROSION CONTROL GEOTEXTILE (SEE SPECIAL SHEET FOR QUANTITY)

INSTALL BRIDGE ANCHOR SECTION AND 150 LF MGS GUARDRAIL WITH TYPE A CRASHWORTHY END TERMINAL

END OPTIONAL PAVEMENT STA 695+52.82

STA 696+67.37 OFF 8.76' LT MATCH EXISTING

STA 697+20.96 OFF 12.00' LT

STA 697+20.96 OFF 10.00' LT

STA 697+20.96 OFF 8.76' LT MATCH EXISTING

END CONSTRUCTION STA 696+67.37 MATCH EXISTING

N14°17'46"W

SAWCUT

STA 696+67.37 OFF 7.42' RT MATCH EXISITNG

STA 696+67.37 OFF 12.00' RT

SCALE

0 50 100 150

1. ANY ITEMS OF WORK BEYOND THE PROJECT LIMITS ARE INCIDENTAL TO, AND A PART OF THE CONSTRUCTION OF THIS PROJECT.
2. EXISTING RIGHT-OF-WAY LINES ARE APPROXIMATE AND FOR INFORMATION ONLY. THE CONTRACTOR SHALL VERIFY LOCATION.
3. ALL BEARINGS ARE BASED ON STATE PLANE BEARINGS, EASTERN ZONE.

STA 691+33.55 - STA 693+02.50
223 CY UNCLASSIFIED EXCAVATION
296 CY COMPACTING EMBANKMENT
108 CY EMBANKMENT IN PLACE

BRIDGE EXCEPTION

STA 694+97.94 - 696+67.37
359 CY UNCLASSIFIED EXCAVATION
350 CY COMPACTING EMBANKMENT
63 CY EMBANKMENT IN PLACE

BEGIN CONSTRUCTION STA 691+33.55 MATCH EX.

VPI 692+47.19 EL 470.26

VHP 695+49.39 EL 470.78

VPI 695+52.82 EL 470.91

END CONSTRUCTION STA 696+67.37 MATCH EX.

+1.64% +1.64% +0.42% +0.42% +0.00% +0.44% +0.44% -0.50% -0.50%

VPC 691+77.19 EL 469.11

VPT 693+17.19 EL 470.55

VPC 694+77.82 EL 470.57

VPC 694+97.82 EL 470.66

VPT 696+07.82 EL 470.63

SSD = 955'
K = 115
140.00' V.C.

SSD = 1,202'
K = 117
110.00' V.C.

DESIGN H.W. ELEV 465.00

L.W. ELEV 458.00

480 470 460 450 440

688+00 689+00 690+00 691+00 692+00 693+00 694+00 695+00 696+00 697+00 698+00 699+00 700+00

PLAN & PROFILE
SHEET 1 OF 1

OZARK BORDER ELECTRIC CORP.
JOHN WALKER JR.
TEL: 573-785-4631
JWALKER@OZARKBORDER.ORG

SHO-ME TECHNOLOGIES
VERNON LEIGHTY
VLEIGHTY@SHOWMEPOWER.COM

WINDSTREAM COMMUNICATION
JOHN ROSS
TEL - 570-772-0133
JOHN.H.ROSS@GOKINETIC.COM

BENCHMARK 2
A CHISLED SQUARE IN THE NORTH END OF THE EAST GUARD RAIL
NORTHING:433831.9089
EASTING:811517.4580
ELEV:471.2880

BENCHMARK 3
A CHISLED SQUARE IN THE SOUTH END OF THE WEST GUARD RAIL
NORTHING:433689.4709
EASTING:811530.7761
ELEV:471.3250

STATE OF MISSOURI
TAWN A. NUGENT
NUMBER 2002024022
REGISTERED PROFESSIONAL ENGINEER

THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY.

IF A SEAL IS PRESENT ON THIS SHEET IT HAS BEEN ELECTRONICALLY SEALED AND DATED.

DATE PREPARED
9/21/2026

ROUTE	STATE
A	MO
DISTRICT	SHEET NO.
SE	4

COUNTY
WAYNE

JOB NO.
J9S3815

CONTRACT ID.

PROJECT NO.

BRIDGE NO.

DESCRIPTION	DATE

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

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

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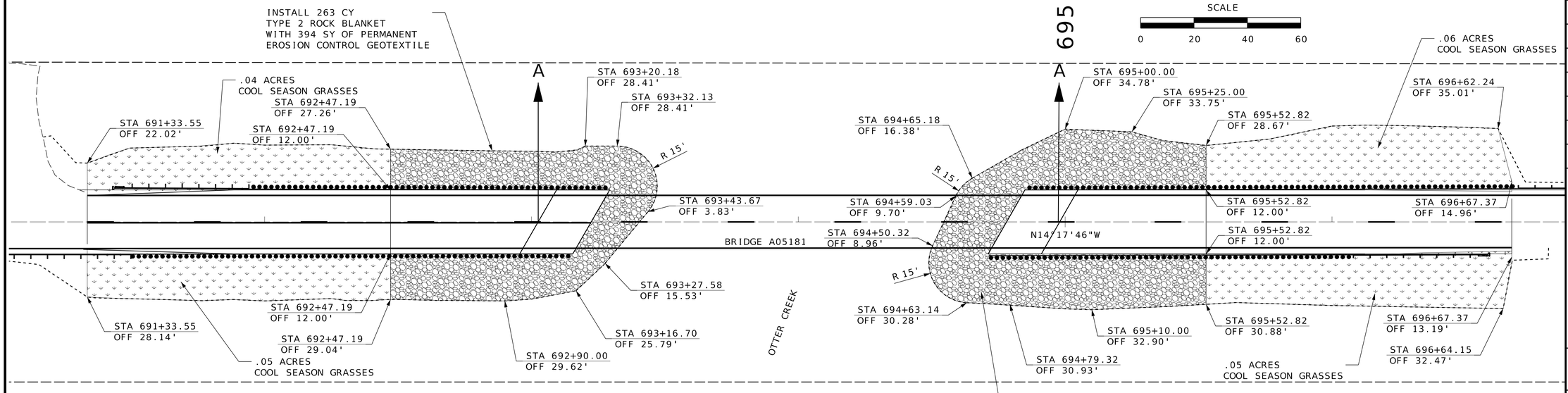
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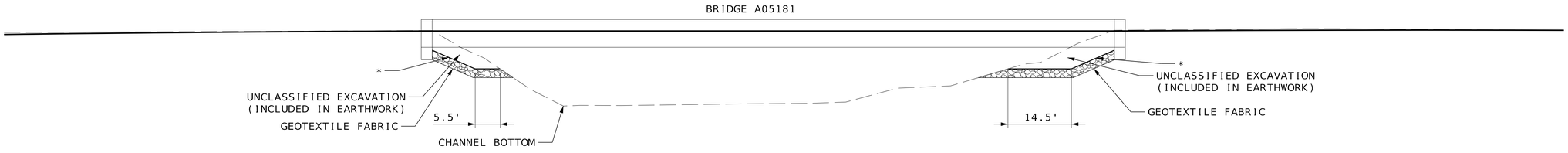
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FINAL PLANS

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9/21/2026





* 2:1 (H:V) SLOPE (NORMAL) WITH 2'-0"
TYPE 2 ROCK BLANKET WITH
PERMANENT EROSION CONTROL
GEOTEXTILE (ROADWAY ITEM)
(TYP.)

SECTION A-A
(NOT TO SCALE)

SPECIAL SHEET
SHEET 1 OF 1

STATE OF MISSOURI
TAWN A. NUGENT
NUMBER E-2002024022
REGISTERED PROFESSIONAL ENGINEER

THIS SHEET WAS SIGNED, SEALED AND DATED ELECTRONICALLY.

DATE PREPARED
7/14/2026

ROUTE	STATE
A	MO
DISTRICT	SHEET NO.
SE	5

COUNTY
WAYNE

JOB NO.
J9S3815

CONTRACT ID.

PROJECT NO.

BRIDGE NO.
A05181

DESCRIPTION	DATE

IF A SEAL IS PRESENT ON THIS SHEET IT HAS BEEN ELECTRONICALLY SEALED AND DATED.

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

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

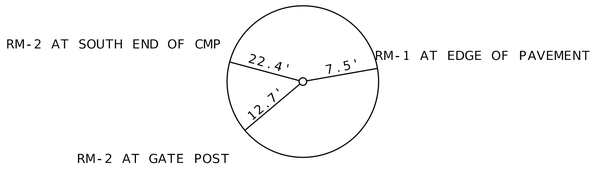
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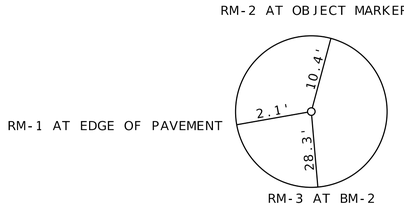
FINAL PLANS

ROUTE A REFERENCE POINTS
MISSOURI STATE PLANE GROUND COORDINATE SYSTEM
EASTERN ZONE, NAD-83 2011, NAVD-88
PROJECT AVERAGE GRID FACTOR = 0.99991554589
PROJECT PROJECTION FACTOR = 1.000084461246



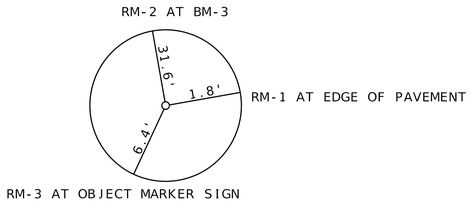
CONTROL PNT. #100
5/8" REBAR WITH PINK CAP SET BELOW
SURFACE ON THE WEST SIDE OF ROUTE A
AND SOUTH OF AN ENTRANCE.

COORDINATES
NORTHING = 434,704.463
EASTING = 811,266.301
ELEVATION = 469.504



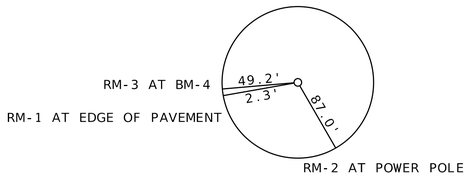
CONTROL PNT. #101
5/8" REBAR WITH PINK CAP SET BELOW
SURFACE NEAR THE NE CORNER
OF BRIDGE A0518.

COORDINATES
NORTHING = 433,859.627
EASTING = 811,512.086
ELEVATION = 470.320



CONTROL PNT. #102
5/8" REBAR WITH PINK CAP SET BELOW
SURFACE NEAR THE SW CORNER
OF BRIDGE A0518.

COORDINATES
NORTHING = 433,658.684
EASTING = 811,537.425
ELEVATION = 470.232



CONTROL PNT. #103
5/8" REBAR WITH PINK CAP SET BELOW
SURFACE NEAR IN THE EAST
RIGHT OF WAY OF ROUTE A.

COORDINATES
NORTHING = 433,221.405
EASTING = 811,674.554
ELEVATION = 465.577

REFERENCE POINTS
SHEET 1 OF 1

STATE OF MISSOURI
TAWN A. NUGENT
NUMBER E-2002024022
REGISTERED PROFESSIONAL ENGINEER

THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY.

DATE PREPARED
7/14/2026

ROUTE	STATE
A	MO
DISTRICT	SHEET NO.
SE	6

COUNTY
WAYNE

JOB NO.
J9S3815

CONTRACT ID.

PROJECT NO.

BRIDGE NO.
A05181

DESCRIPTION	DATE

IF A SEAL IS PRESENT ON THIS SHEET IT HAS BEEN ELECTRONICALLY SEALED AND DATED.

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

MoDOT

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

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FINAL PLANS

REV.

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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 COORDINATE INFORMATION	
COORDINATE SYSTEM	MO SPC 83
HORIZONTAL DATUM	NAD83 2011
VERTICAL DATUM	NAVD88
GEOID MODEL	2018
ELEVATIONS DETERMINED BY	DIFFERENTIAL LEVELING
PROJECT PROJECTION FACTOR	1.00008446

REFERENCE CONTROL INFORMATION	
COORDINATE SYSTEM	MO SPC 83
CONTROL STATION	MOSL
DESIGNATION	MODOT SILVA CORS ARP
CORS_ID	MOSL
PID	DN5838
LATITUDE	371038.1451
LONGITUDE	902752.4443
NORTHING (M)	149124.3320
EASTING (M)	253146.3270
ZONE	EAST
PROJECT AVERAGE GRID FACTOR	0.9999155

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 #CP101
N 433822.986X 0.9999155 = N 433859.627
E 811443.550 X 0.9999155 = E 811512.086

LINEAR UNIT CONVERSION

1 METER = 3.280833333 US SURVEY FEET (USFT)

COORDINATE POINT LISTING

SHEET NO	STATION	LOCATION	OFFSET (USFT)	MODIFIED STATE PLANE (GROUND) NORTHING (US SURVEY FT)	EASTING (US SURVEY FT)	ELEVATION (US SURVEY FT)	DESCRIPTION	GPK POINT ID
PROJECT CONTROL POINTS								
N/A	N/A	RTE A	N/A	434,704.46	811,266.30	469.50	5/8" Rebar w/ Pink Cap	CP100
4	694+99.09	RTE A	12.83RT	433,859.63	811,512.09	470.32	5/8" Rebar w/ Pink Cap	CP101
4	692+98.11	RTE A	12.225LT	433,658.69	811,537.43	470.23	5/8" Rebar w/ Pink Cap	CP102
4	N/A	RTE A	N/A	433,221.41	811,674.55	465.58	5/8" Rebar w/ Pink Cap	CP103
ALIGNMENTS								
4	690+00.00	RTE A	0	433,372.82	811,622.88		START	
4	700+00.084	RTE A	0	434,341.94	811,375.93		END	

IF A SEAL IS PRESENT ON THIS SHEET IT HAS BEEN ELECTRONICALLY SEALED AND DATED.

STATE OF MISSOURI
TAWN A. NUGENT
NUMBER E-2002024022
REGISTERED PROFESSIONAL ENGINEER

THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY.

DATE PREPARED
7/14/2026

ROUTE	STATE
A	MO
DISTRICT	SHEET NO.
SE	7

COUNTY
WAYNE

JOB NO.
J9S3815

CONTRACT ID.

PROJECT NO.

BRIDGE NO.
A05181

DESCRIPTION	DATE

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION
105 WEST CAPITOL
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FINAL PLANS

REV.

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WO20-2

18



WO20-3

20



WO20-3

20A



CHANGEABLE MESSAGE SIGN
FLASH 1-ROUTE A
BRIDGE CLOSED
FLASH 2-DETOUR
AHEAD



TYPE III MOVABLE
BARRICADE WITH R11-2
ROAD CLOSED SIGN



R11-2

29



MO4-8a

52



R11-3a

55B3



R11-3a

55B4



MO4-8



MO4-8



MO4-8



MO4-8



M3-1



M3-1



M3-1



M3-1



M1-5A



M1-5A



M1-5A



M1-5A



M6-3

50A



M6-1

50B



M6-1

50C



M5-1L

50D



MO4-8



MO4-8



MO4-8



MO4-8



M3-3



M3-3



M3-3



M3-3



M1-5A



M1-5A



M1-5A



M1-5A



M6-3

50F



M6-1

50G



M6-1

50H

M5-1R

50J

NOT TO SCALE

TRAFFIC CONTROL
SHEET 1 OF 2

IF A SEAL IS PRESENT ON THIS SHEET IT HAS BEEN ELECTRONICALLY SEALED AND DATED.

STATE OF MISSOURI
TAWN A. NUGENT
NUMBER E-2002024022
REGISTERED PROFESSIONAL ENGINEER

THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY.

DATE PREPARED
7/14/2026

ROUTE	STATE
A	MO
DISTRICT	SHEET NO.
SE	8

COUNTY
WAYNE

JOB NO.
J9S3815

CONTRACT ID.

PROJECT NO.

BRIDGE NO.
A05181

DESCRIPTION	DATE

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

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

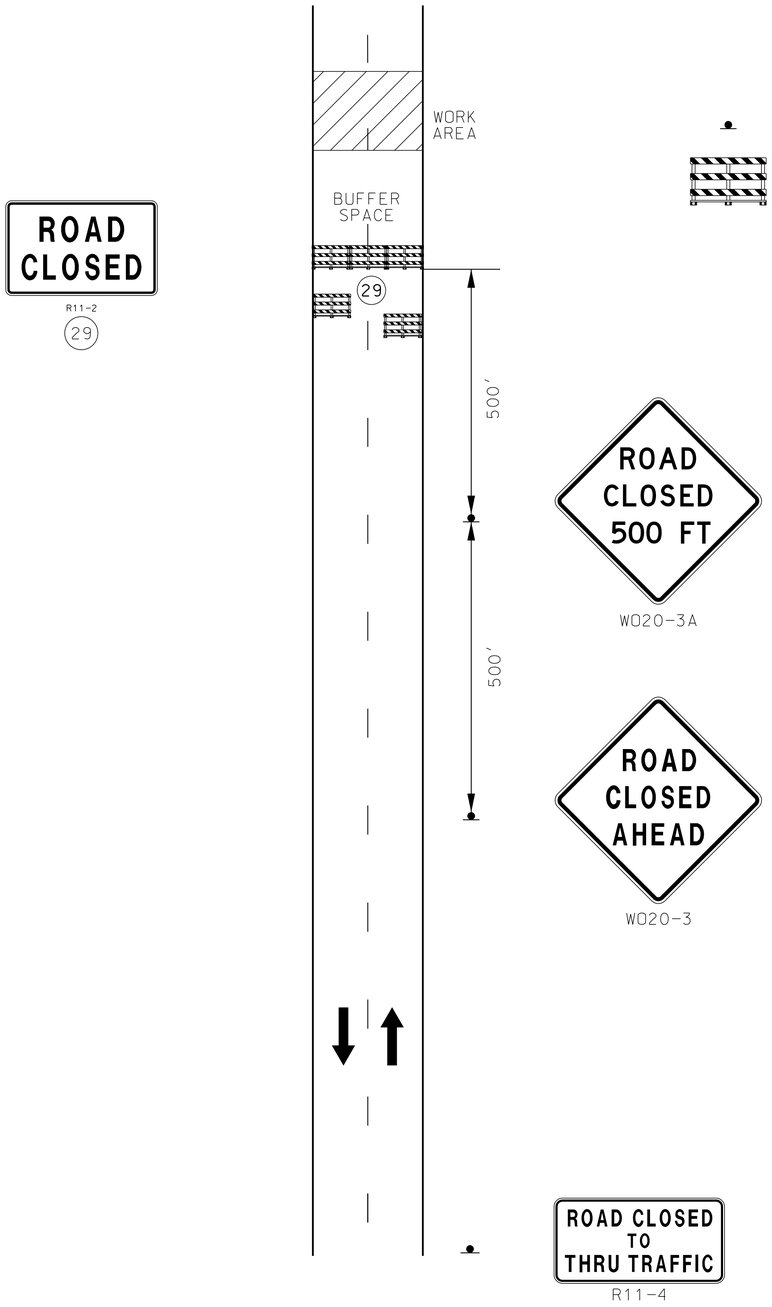
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TREKK DESIGN GROUP, LLC

FINAL PLANS

REV.



ROAD CLOSURE
ON TWO LANE ROAD

SIGN

TYPE III
MOVEABLE BARRICADE

NOTES:

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 OFFSET TO FACILITATE ACCESS FOR WORK VEHICLES, LOCAL TRAFFIC, ETC.

TRAFFIC CONTROL SHOULD BE REMOVED AS SOON AS PRACTICAL AFTER CONDITION FOR THE CLOSURE NO LONGER EXISTS.

SEE STANDARD PLAN 616.10 FOR USE OF THE BARRICADES AND SIGNS.

THE OPPOSITE SIDE OF THE WORK SPACE WILL HAVE THE SAME ROADWAY/BRIDGE CLOSURE SET-UP.

TAPER LENGTHS AND SPACING OF CHANNELIZING DEVICES						
SPEED (P) MPH	MINIMUM TAPER LENGTHS (L) FOR LANE WIDTHS (W)			MINIMUM TAPER SHOULDER (T1)	MAXIMUM CHANNELIZER SPACING	
	10 FT	11 FT	12 FT		THROUGH TAPER	THROUGH WORK AREA
0-35	205 FT	225 FT	245 FT	70	35 FT	50 FT
40-45	450 FT	495 FT	540 FT	150	40 FT	100 FT
50-55	550 FT	605 FT	660 FT	185	50 FT	100 FT
60-70	700 FT	770 FT	840 FT	235	60 FT	100 FT

(1) SHOULDER TAPER LENGTH BASED ON 10' (STANDARD SHOULDER WIDTH) OFFSETS.

(2) TAPER LENGTHS MA BE ADJUSTED TO ACCOMODATE CROSSROADS, CURVES, RAMPS, INTERSECTIONS, OR OTHER GEOMETRIC FEATURES.

(3) SPACING MAY BE REDUCED TO DISCOURAGE TRAFFIC ENCROACHMENT.

(4) SPACING MAY BE REDUCED TO ONE-HALF AT INTERSECTIONS.

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

(1) SPACING MAY BE ADJUSTED AS NECESSARY TO MEET FIELD CONDITIONS.

STATE OF MISSOURI
TAWIN A. NUGENT
NUMBER E-2002024022
REGISTERED PROFESSIONAL ENGINEER

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DATE PREPARED
7/14/2026

ROUTE	STATE
A	MO
DISTRICT	SHEET NO.
SE	9

COUNTY
WAYNE

JOB NO.
J9S3815

CONTRACT ID.

PROJECT NO.

BRIDGE NO.
A05181

DESCRIPTION	DATE

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Tel (816) 874-4655
Fax (816) 874-4675
www.trekkdesigngroup.com

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TREKK DESIGN GROUP, LLC

FINAL PLANS

REV.

TRAFFIC CONTROL
SHEET 2 OF 2

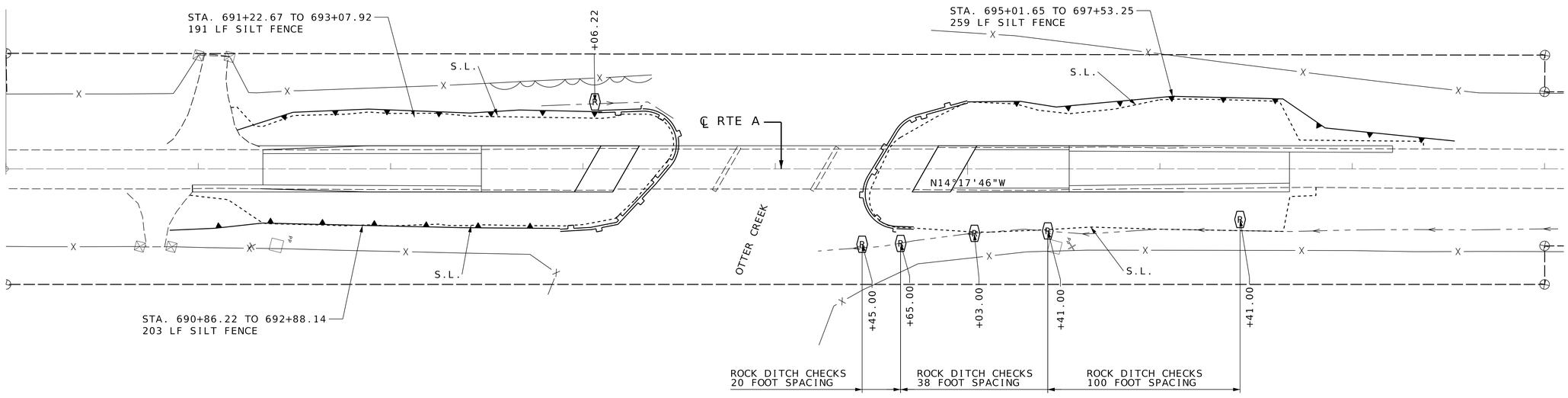
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690

RTE. A
STA 692+88.14 TO 693+45.17
INSTALL 134' LF TYPE C TEMPORARY BERM

695

RTE. A
STA 694+56.58 TO 697+53.25
INSTALL 114' LF TYPE C TEMPORARY BERM



TEMPORARY EROSION CONTROL LEGEND

- TEMPORARY BERM TYPE C
- SILT FENCE
- (R) ROCK DITCH CHECK

SCALE

0 30 60 90

TEMPORARY EROSION CONTROL
SHEET 1 OF 1

010_EC_J9S3815_I30.dgn 9:41:55 AM 7/14/2026

STATE OF MISSOURI
TAWN A. NUGENT
NUMBER E-2002024022
REGISTERED PROFESSIONAL ENGINEER

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DATE PREPARED
7/14/2026

ROUTE	STATE
A	MO
DISTRICT	SHEET NO.
SE	10

COUNTY
WAYNE

JOB NO.
J9S3815

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PROJECT NO.

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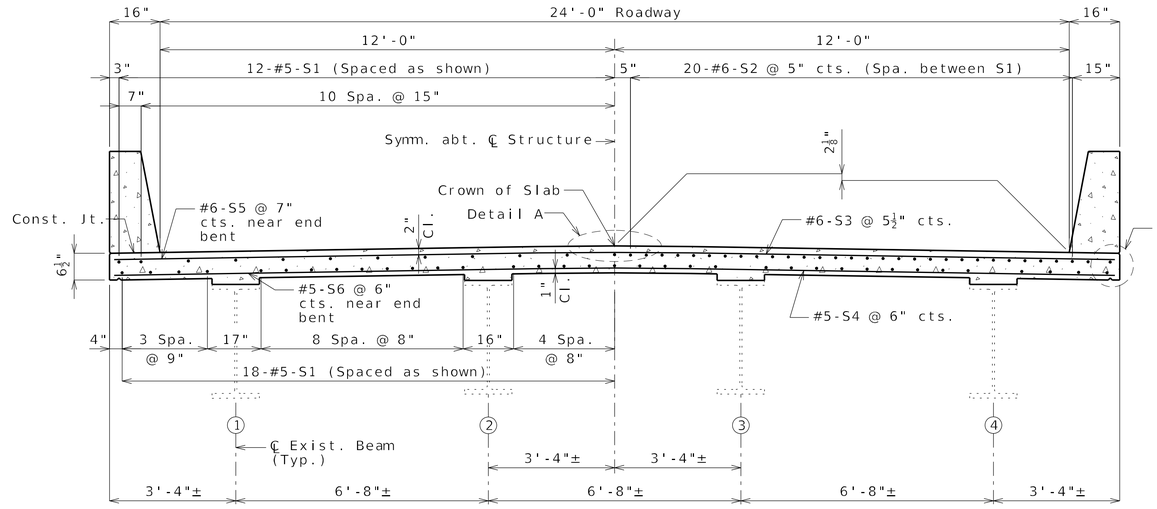
SEC/SUR 4 TWP 27 N RGE 5 E

U.I.P., WIDEN, REDECK AND MAKE COMPOSITE EXISTING (51', 51', 51') SIMPLE WIDE FLANGE BEAM SPANS

Table Showing S2 Bar Lengths			
Int. Bent No. 2		Int. Bent No. 3	
Span 1	Span 2	Span 2	Span 3
5'-0"	5'-0"	5'-0"	5'-0"

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

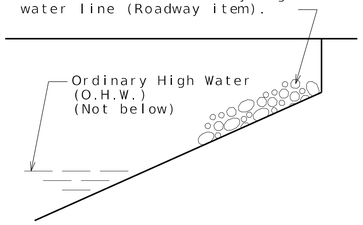
** Unless otherwise shown.



HALF SECTION NEAR MIDSPAN AND END BENT HALF SECTION NEAR INT. BENT

TYPICAL SECTION THRU SLAB

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).



OPTIONAL RUBBLIZED BRIDGE DECK

General Notes:

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

Design Loading:
H15-44 (1953) (Existing)
HS20-44 (New Construction)
35 lb/sf Future Wearing Surface
Earth - 120 lb/cf, Equivalent Fluid Pressure 45 lb/cf
Fatigue Stress - Case III

Design Unit Stresses:

Class B-1 Concrete (Barrier)	f'c = 4,000 psi
Class B-2 Concrete (End Bents, Intermediate Bents & Superstructure, except Barrier)	f'c = 4,000 psi
Reinforcing Steel (ASTM A615 Grade 60)	fy = 60,000 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:
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.

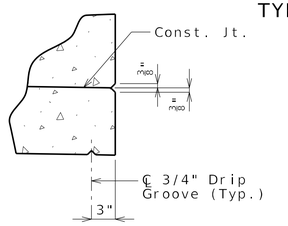
Roadway surfacing adjacent to bridge ends shall match new bridge slab surface. (Roadway item)

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

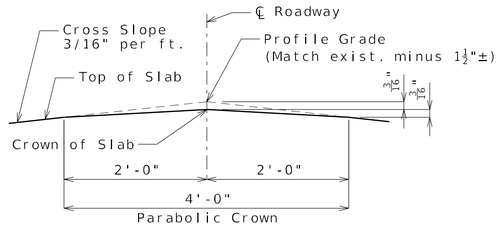
The area exposed by the removal of concrete and not covered with new concrete shall be coated with an approved qualified special mortar in accordance with Sec 704.

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

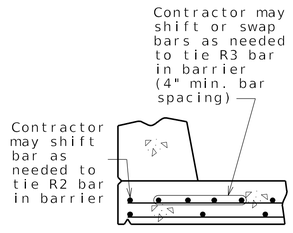
Traffic Handling:
Structure to be closed during construction. See roadway plans for traffic control.



DETAIL B



DETAIL A



OPTIONAL SHIFTING TOP BARS AT BARRIER

Estimated Quantities

Item		Total
Removal of Existing Bridge Deck	sq. foot	3826
Bridge Approach Slab (Minor)	sq. yard	109
Slab on Steel	sq. yard	458
Type H Barrier	linear foot	308
Substructure Repair (Formed)	sq. foot	320
Substructure Repair (Unformed)	sq. foot	60
Shear Connectors	each	1296
Slab Drain	each	24

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

Estimated Quantities for Slab on Steel

Item		Total
Class B-2 Concrete	cu. yard	104.0
Reinforcing Steel (Epoxy Coated)	pound	34,100

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

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

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

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

REPAIRS TO BRIDGE: ROUTE A OVER OTTER CREEK

ROUTE A FROM ROUTE 67 WEST TO ROUTE 49
ABOUT 4.4 MILES EAST OF ROUTE 49
BEGINNING STATION 693+22.19± (MATCH EXISTING)

STATE OF MISSOURI
KANDI SPRAGGS NUMBER PE-2014000089
PROFESSIONAL ENGINEER
09/15/2026 1:58:45 PM
Kandi R. Spraggs - Civil
MO PE-2014000089

DATE PREPARED 9/15/2026

ROUTE A | STATE MO
DISTRICT SE | SHEET NO. 1
COUNTY WAYNE
JOB NO. J9S3815
CONTRACT ID.
PROJECT NO.
BRIDGE NO. A05181

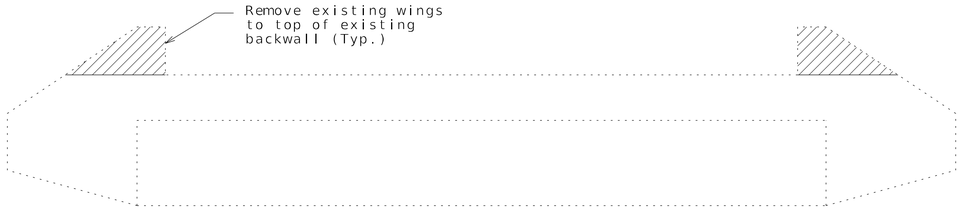
DESCRIPTION | DATE

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TREK DESIGN GROUP, LLC



DETAILS OF CONCRETE REMOVAL AT END BENTS

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

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

General Notes:

Stay-In-Place Forms:

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

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

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

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

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:

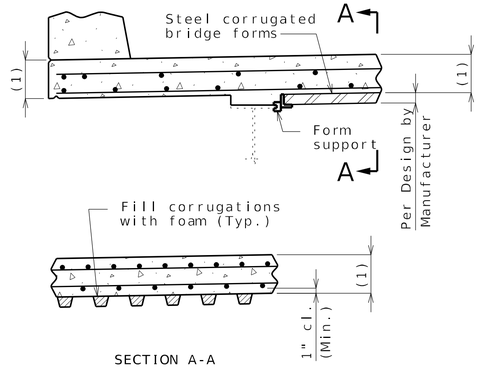
The contractor shall provide bracing necessary for lateral and torsional stability of the beams during construction of the concrete slab and remove the bracing after the slab has attained 75% design strength. Contractor shall not weld on or drill holes in the beams. The cost for furnishing, installing, 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.

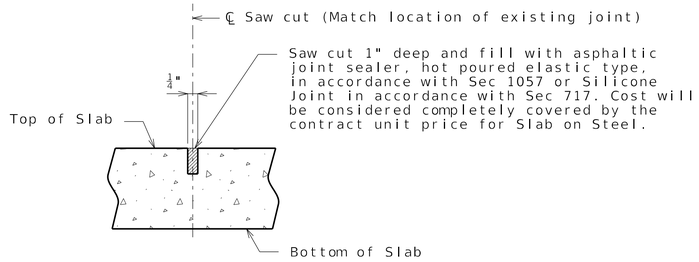
Alternate pour sequences may be submitted to the engineer for approval. Keyed construction joints shall be provided between pours.

Haunching:

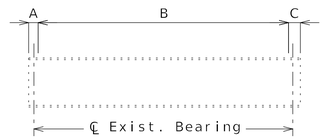
(1) Slab is to be considered a uniform thickness as shown on the plans. Haunching will vary. See front sheet for slab thickness.



OPTIONAL STAY-IN-PLACE FORM DETAILS

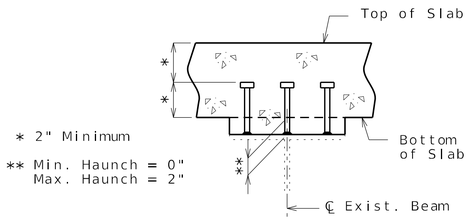


TYPICAL SECTION THRU SAW CUT AT INTERMEDIATE BENTS

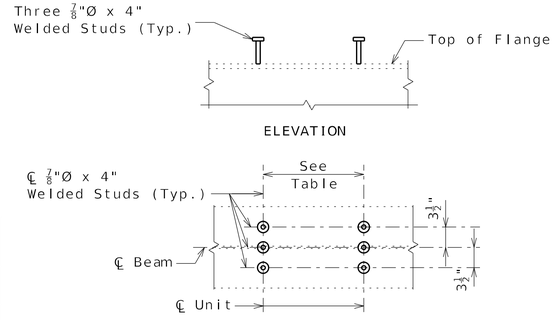


ELEVATION SHOWING SHEAR CONNECTOR SPACING

TABLE SHOWING SHEAR CONNECTOR UNIT SPACING				
Span	S.C. per unit	A	B	C
1	3	9"±	36 Units @ 17" cts.	6"±
2	3	7½"±	36 Units @ 17" cts.	7½"±
3	3	6"±	36 Units @ 17" cts.	9"±
Total shear connectors required				1296



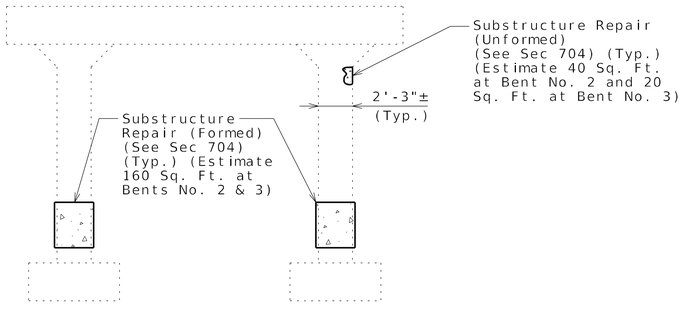
SECTION THRU EXIST. BEAM SHOWING SHEAR CONNECTORS



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.



ELEVATION OF INT. BENTS NO. 2 & 3 SHOWING SUBSTRUCTURE REPAIR

STATE OF MISSOURI
KANDI SPRAGGS
NUMBER PE-2014000089
PROFESSIONAL ENGINEER
09/15/2026 1:59:25 PM
Kandi R. Spraggs - Civil
MO PE-2014000089

DATE PREPARED 9/15/2026

ROUTE	STATE
A	MO
DISTRICT	SHEET NO.
SE	2

COUNTY WAYNE

JOB NO. J9S3815

CONTRACT ID.

PROJECT NO.

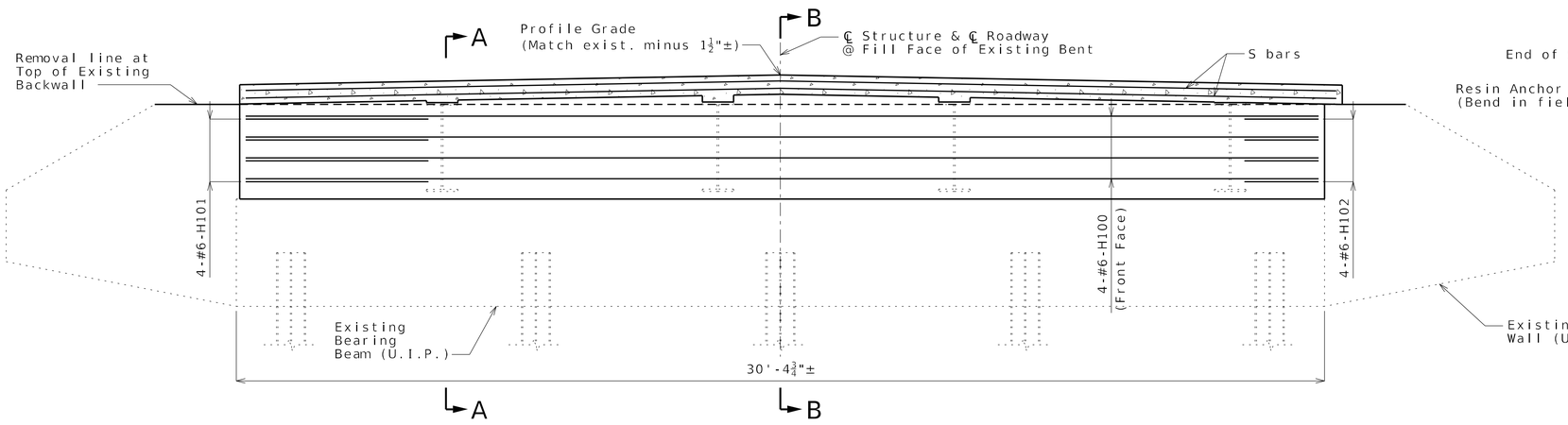
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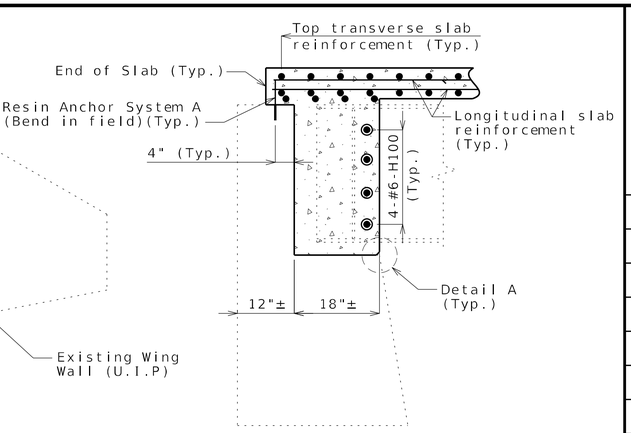
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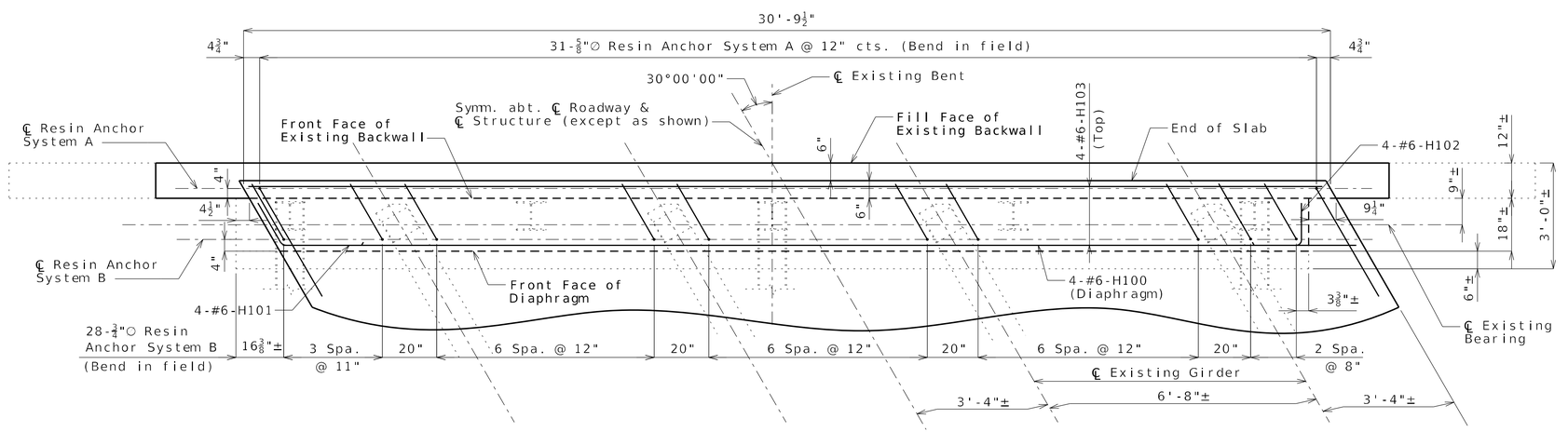
SECTION NEAR END BENTS

Existing steel end diaphragms and bearing stiffeners not shown for clarity (leave-in-place).

Resin anchors and Type H Barrier not shown for clarity.

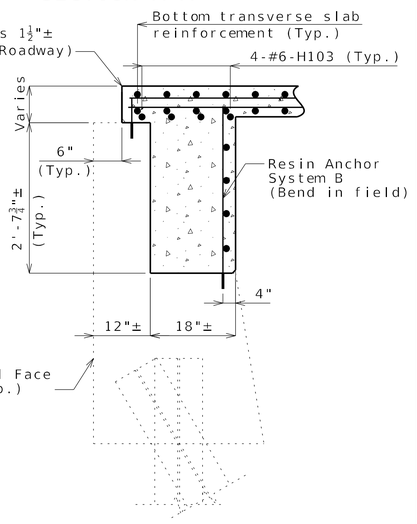


SECTION A-A

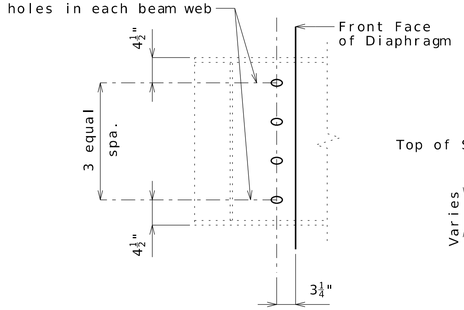


PLAN

Existing steel end diaphragms not shown for clarity (leave-in-place).

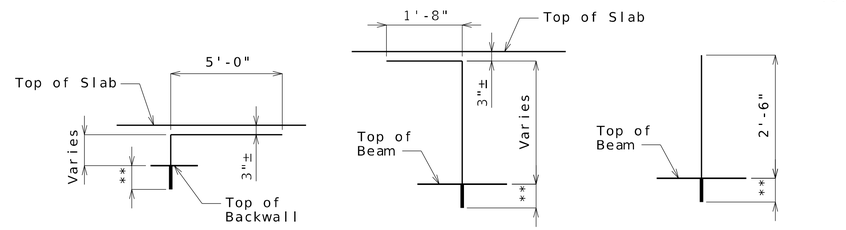


SECTION B-B



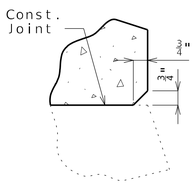
DETAIL OF WEB HOLES AT END BENTS

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



DETAILS OF RESIN ANCHOR SYSTEMS

** Manufacturer's recommended embedment length (5" min.)



Notes:

The contractor shall use one of the qualified resin anchor systems in accordance with Sec 1039.

Cost of furnishing and installing the resin anchor systems, complete in place, will be considered completely covered by the contract unit price for Slab on Steel.

The minimum embedment depth in concrete with f'c = 4,000 psi for the resin anchor systems shall be that required to meet the minimum ultimate pullout strength in accordance with Sec 1039 but shall not be less than 5".

An epoxy coated #5 Grade 60 reinforcing bar shall be substituted for the 5/8" ∅ threaded rod.

An epoxy coated #6 Grade 60 reinforcing bar shall be substituted for the 3/4" ○ threaded rod.

The exposed and accessible surfaces of the existing structural steel and bearings that will be encased in concrete shall be cleaned with a minimum of SSPC-SP-3 surface preparation and coated with a minimum of one coat of gray epoxy-mastic primer (non-aluminum) in accordance with Sec 1081 to produce a dry film 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.

Resin Anchor Systems A & B shall be placed parallel to centerline of roadway.

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. 6 & 7 of 10.

DETAILS OF END BENTS NO. 1 & 4

Detailed Oct. 2025
Checked Oct. 2025

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

STATE OF MISSOURI
KANDI SPRAGGS
NUMBER PE-2014000089
PROFESSIONAL ENGINEER
09/15/2026 1:59:25 PM
Kandi R. Spraggs - Civil
MO PE-2014000089

DATE PREPARED
9/15/2026

ROUTE	STATE
A	MO
DISTRICT	SHEET NO.
SE	3

COUNTY
WAYNE

JOB NO.
J9S3815

CONTRACT ID.

PROJECT NO.

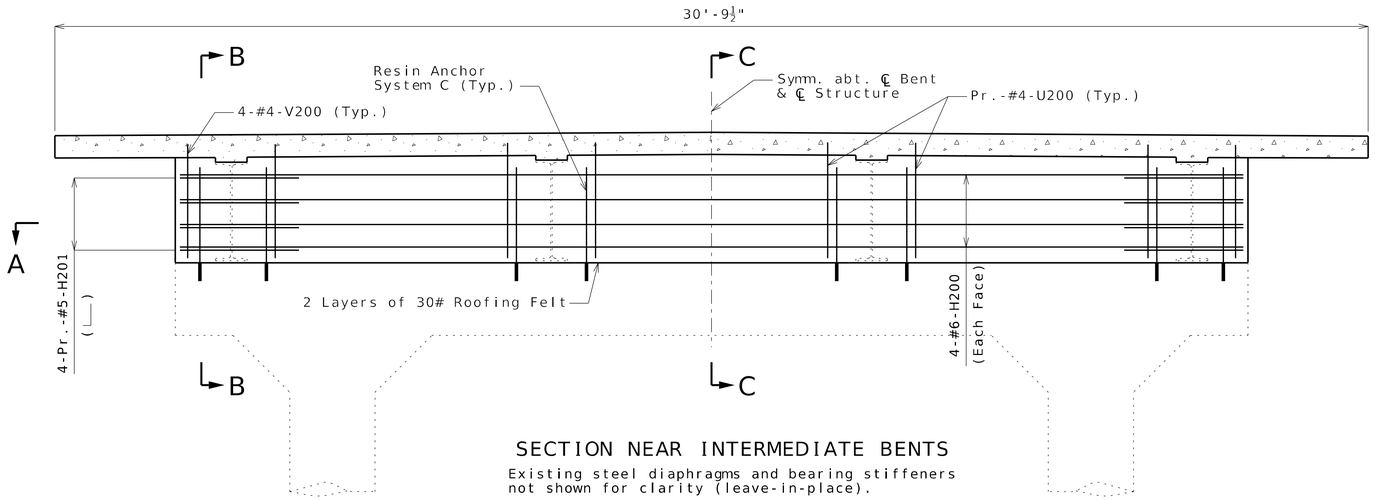
BRIDGE NO.
A05181

DESCRIPTION	DATE

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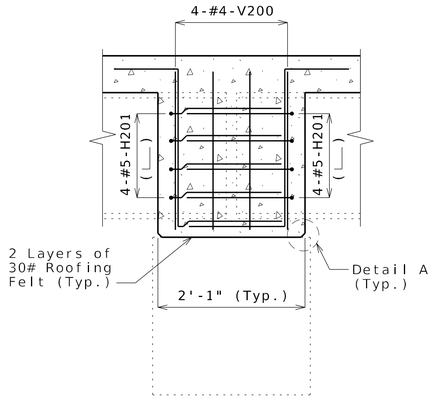
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JEFFERSON CITY, MO 65102
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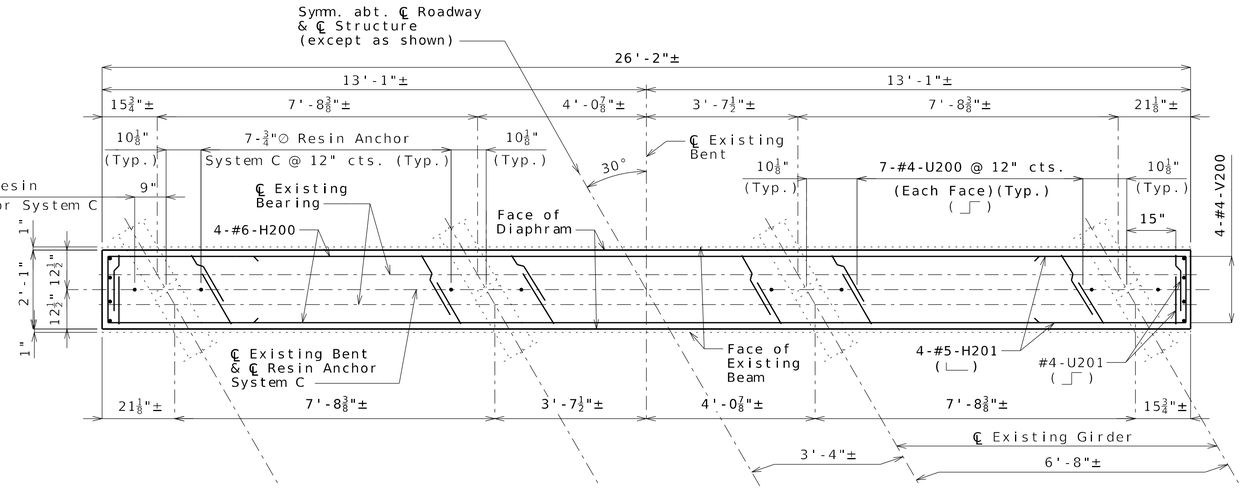


SECTION NEAR INTERMEDIATE BENTS

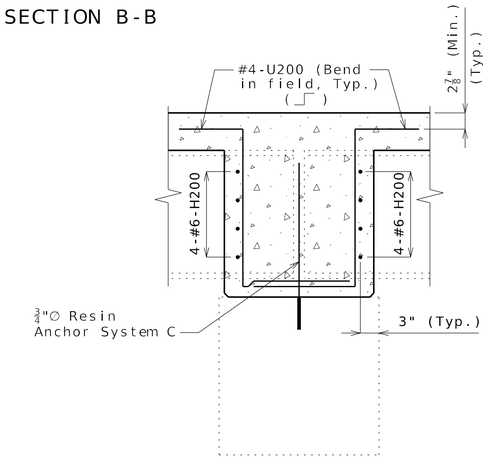
Existing steel diaphragms and bearing stiffeners not shown for clarity (leave-in-place).



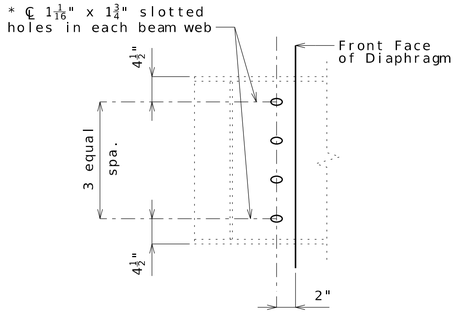
SECTION B-B



SECTION A-A

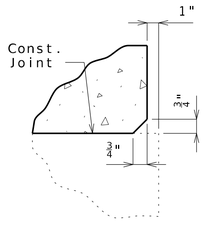


SECTION C-C



DETAILS OF WEB HOLES AT INT. BENTS

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



DETAIL A

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 SSPC-SP-3 surface preparation and coated with a minimum of one coat of gray epoxy-mastic primer (non-aluminum) in accordance with Sec 1081 to produce a dry film 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 in the intermediate bent diaphragms 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 notes and details of Resin Anchor System C, see Sheet No. 3.

DETAILS OF CONCRETE DIAPHRAGMS AT INTERMEDIATE BENTS NO. 2 & 3

Detailed Oct. 2025
Checked Oct. 2025

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

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PROFESSIONAL ENGINEER

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COUNTY
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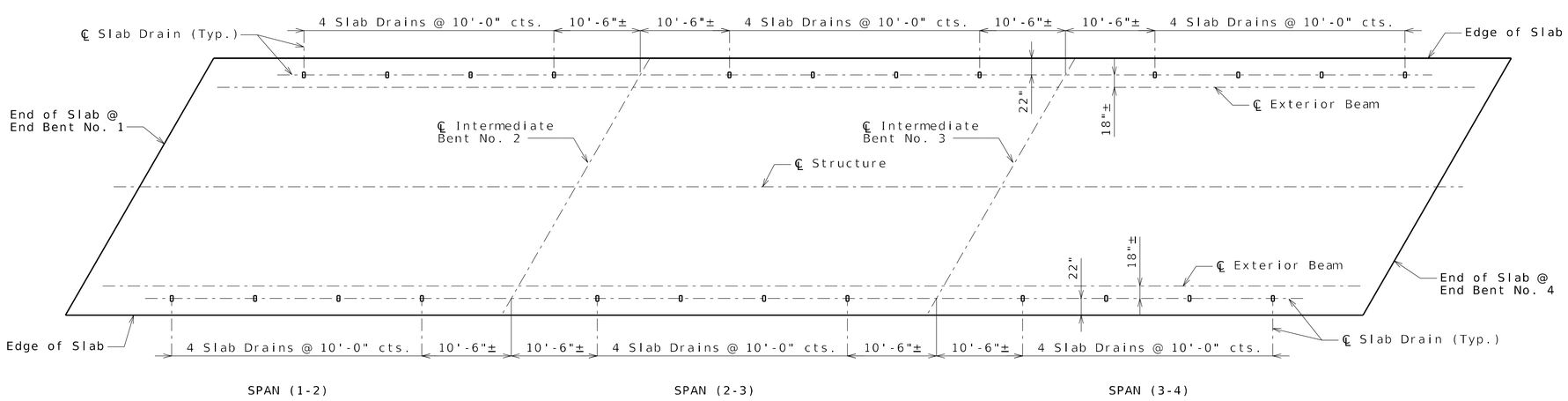
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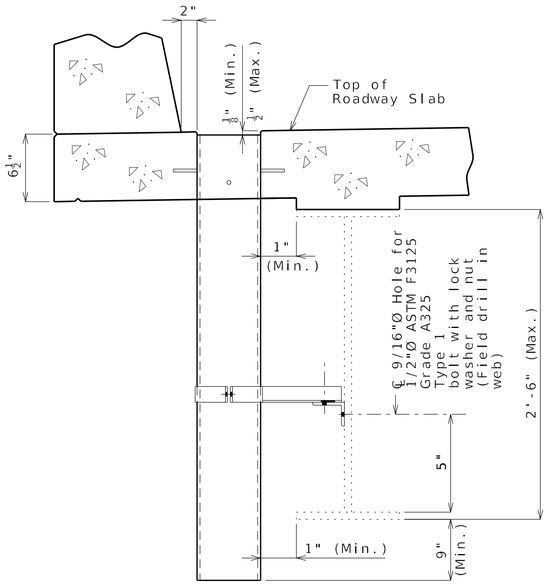
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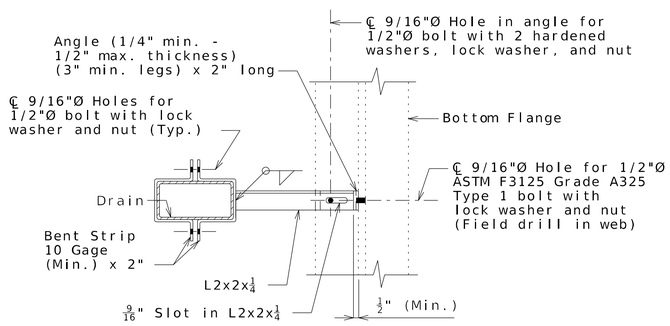
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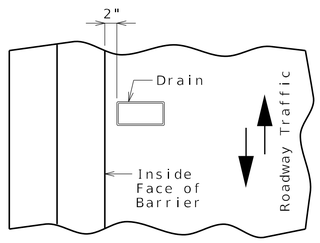
PLAN OF SLAB SHOWING SLAB DRAIN LOCATIONS



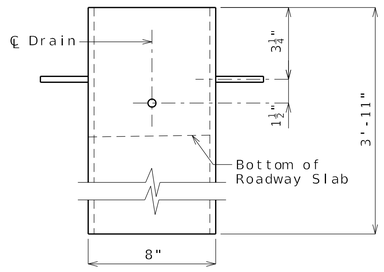
PART SECTION NEAR DRAIN



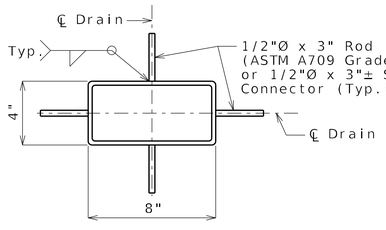
PART SECTION SHOWING BRACKET ASSEMBLY



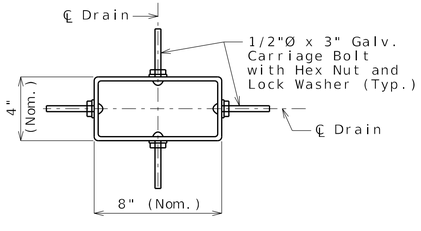
PART PLAN OF SLAB AT DRAIN



ELEVATION OF DRAIN



PLAN OF STEEL DRAIN OPTION



PLAN OF FRP DRAIN OPTION

General Notes:

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

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

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

Reinforcing steel shall be shifted to clear drains.

The 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-inch diameter 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.

Notes for Steel Drain:

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

Outside dimensions of drains are 8" x 4".

The drains shall be galvanized in accordance with ASTM A123.

Notes for FRP Drain:

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

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

Minimum reinforced wall thickness shall be 1/4 inch.

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

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

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

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

SLAB DRAINS

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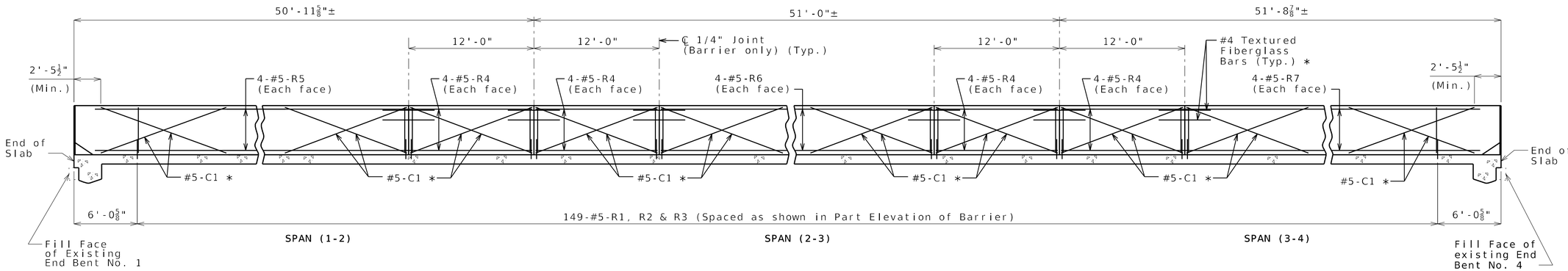
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COUNTY: WAYNE
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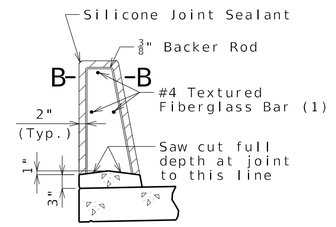
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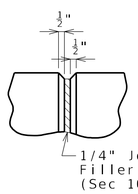
ELEVATION OF BARRIER

(Left barrier shown, right barrier similar)

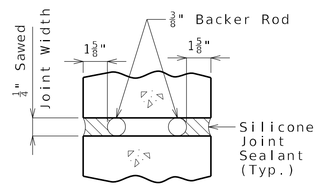
Longitudinal dimensions are horizontal.



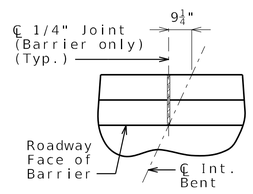
SECTION THRU
SAW CUT JOINT



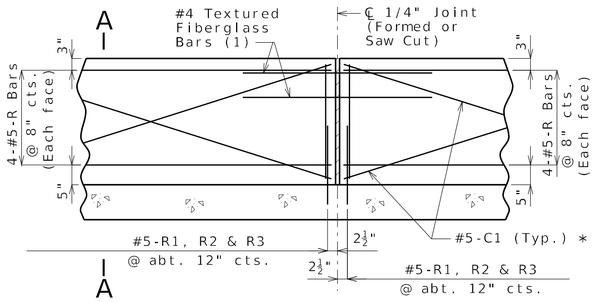
PART ELEVATION
AT FORMED JOINT



SECTION B-B

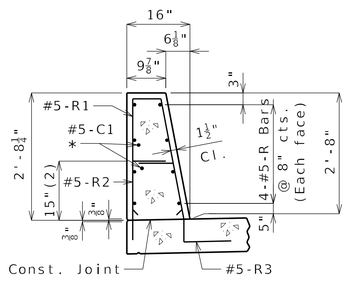


PART PLAN SHOWING
JOINT LOCATION



PART ELEVATION OF BARRIER

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

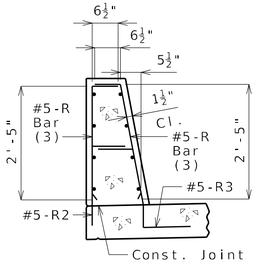


SECTION A-A

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

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

(2) To top of bar



R-BAR PERMISSIBLE ALTERNATE SHAPE

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

General Notes:

* Slip-formed option only.

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

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

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

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

Concrete in barrier shall be Class B-1.

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

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

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

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

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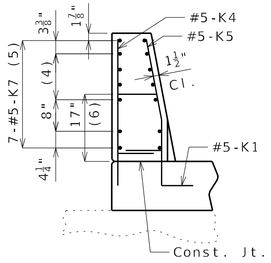
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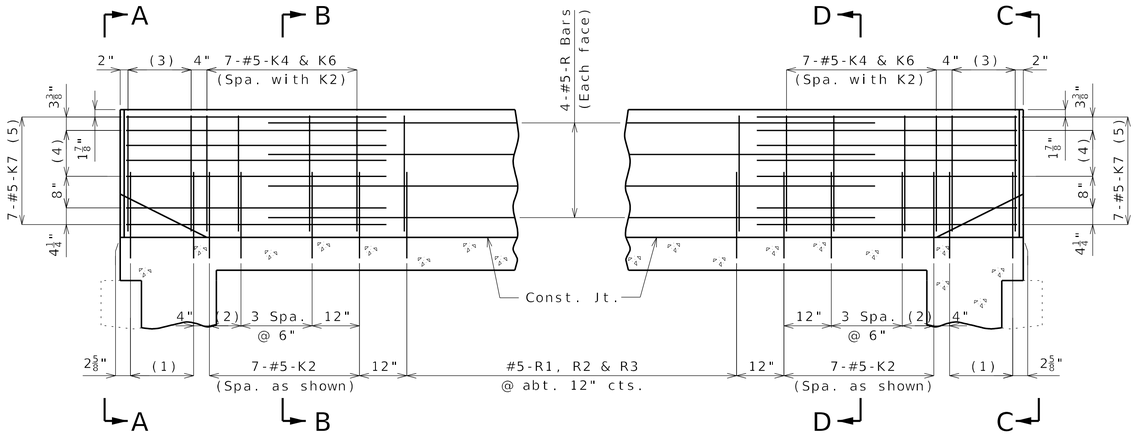
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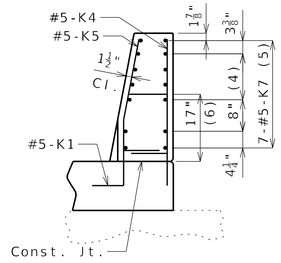
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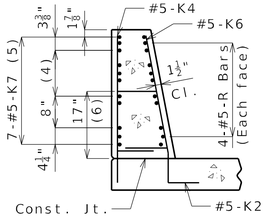
ELEVATION A-A



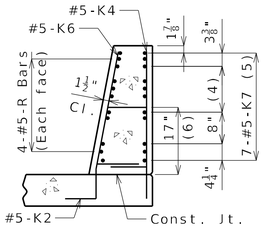
PART ELEVATION



ELEVATION C-C



SECTION B-B



SECTION D-D

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

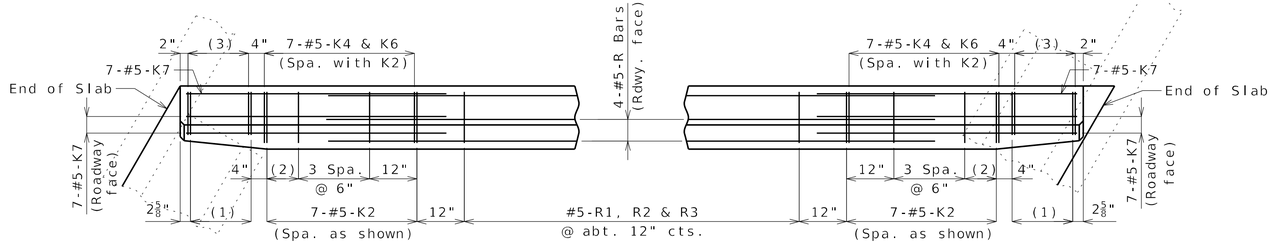
(2) 2 Spaces @ 4"

(3) 5-#5-K4 and 5-#5-K5, spaced with K1

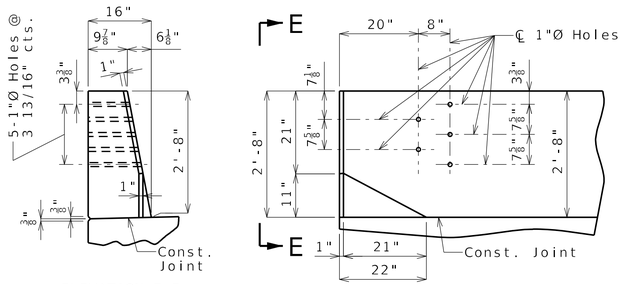
(4) 3 Spaces @ $3\frac{13}{16}$"

(5) Spaced as shown, each face

(6) To top of bar

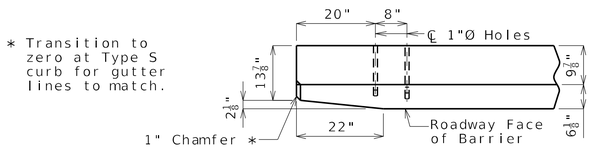


PART PLAN



ELEVATION E-E

ELEVATION



PLAN

DETAILS OF GUARD RAIL ATTACHMENT

General Notes:

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

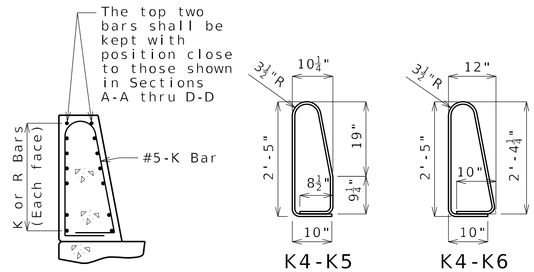
Reinforcing Steel:

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

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

TYPE H BARRIER AT END BENTS

(Left barrier shown, right barrier similar)



K4-K5 K4-K6

PERMISSIBLE ALTERNATE SHAPES

(Other K bars not shown for clarity)

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

All dimensions are out to out.

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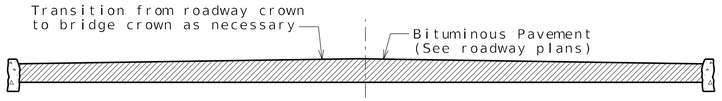
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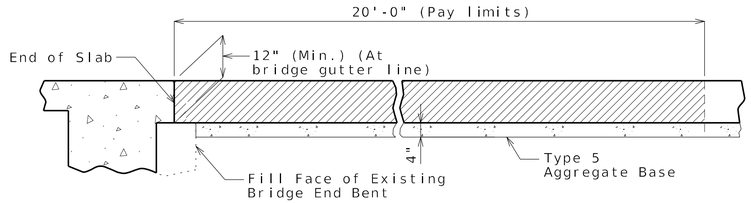
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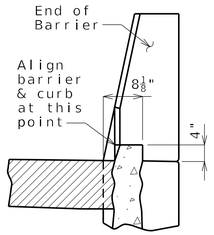


SECTION C-C

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

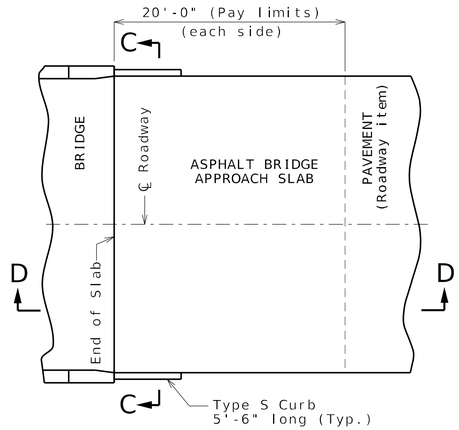


SECTION D-D



4" TYPE S CURB

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



PART PLAN

(Squared structure shown, skewed structure similar)

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.

BRIDGE APPROACH SLAB (MINOR)

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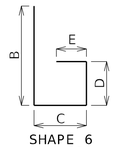
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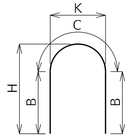
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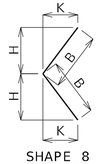
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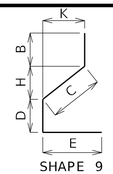
SHAPE 6
or 6S



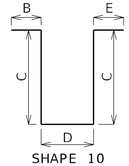
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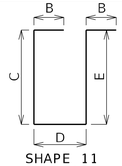
SHAPE 8
or 8S



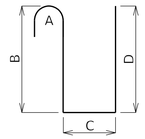
SHAPE 9
or 9S



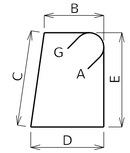
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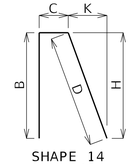
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or 11S



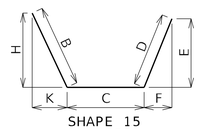
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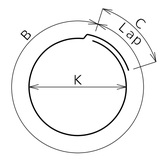
SHAPE 13S



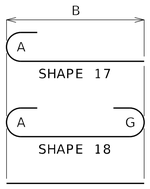
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or 14S



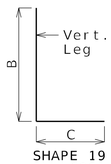
SHAPE 15
or 15S



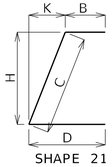
SHAPE 16



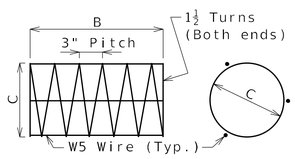
SHAPE 17
SHAPE 18
SHAPE 20



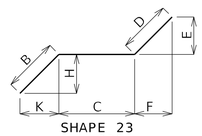
SHAPE 19
or 19S



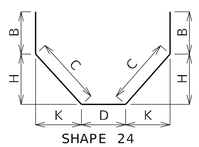
SHAPE 21
or 21S



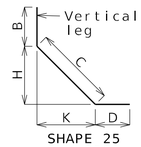
SHAPE 22



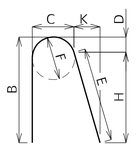
SHAPE 23
or 23S



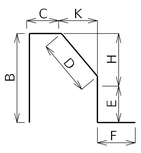
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or 24S



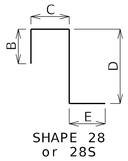
SHAPE 25
or 25S



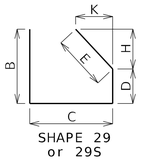
SHAPE 26



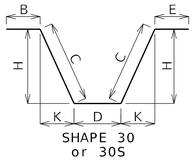
SHAPE 27S



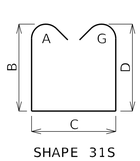
SHAPE 28
or 28S



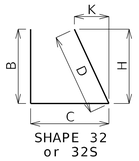
SHAPE 29
or 29S



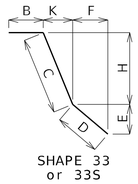
SHAPE 30
or 30S



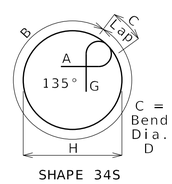
SHAPE 31S



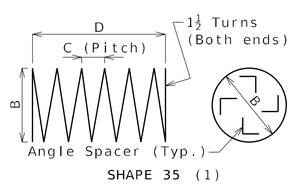
SHAPE 32
or 32S



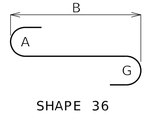
SHAPE 33
or 33S



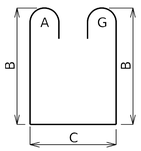
SHAPE 34S



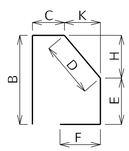
SHAPE 35 (1)



SHAPE 36



SHAPE 37S

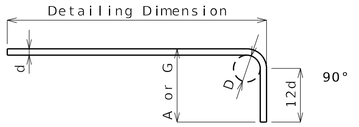


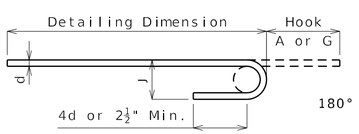
SHAPE 38S

Finished Bend Diameters D and Hook Dimensions

Standard Pin Bend Shapes

Size	Case	D	A or G		J
			90°	180°	180°
#4	1	3"	8"	6"	4"
#5	1	3¾"	10"	7"	5"
#6	1	4½"	12"	8¼"	6"
#7	2	5¼"	14"	9¾"	7"
	3	7"	15"	11½"	8¾"
#8	2	6"	16"	11"	8"
	3	8"	17"	13¼"	10"
#9	1	9½"	19½"	15½"	11¾"
#10	1	10¾"	22"	17½"	13¼"
#11	1	12"	24½"	19½"	14⅞"
#14	1	18¼"	31¼"	27½"	21⅝"
#18	1	24"	41½"	36¼"	28½"



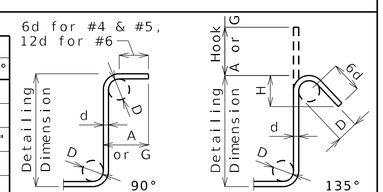


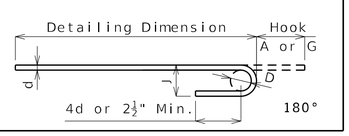
Stirrup Pin Bend Shapes (S)

Size	Case	D	A or G			H	J
			90°	135°	180°	135°	180°
#4	2	2"	4½"	4½"	5"	2⅞"	3"
	3	3"	5"	5¼"	6"	3"	4"
#5	2	2½"	5¾"	5¾"	5¾"	3⅝"	3¾"
	3	3¾"	6¼"	6½"	7"	3⅞"	5"
#6	1	4½"	12"	7¾"	8¼"	4⅜"	6"

Applicable for all grades of steel.

Case 1 applies to all reinforcement. Case 2 applies to all reinforcement except for galvanized bars. Case 3 applies to galvanized bars only.





BENDING DIAGRAMS

All dimensions are out to out.

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

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

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

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

Reinforcing Steel Totals (Pounds)

	Size	Substructure		Superstructure			Entire Bridge	
		Plain	Epoxy	Slab	Barrier	Slip Form	Plain	Epoxy
By Size	4	0	0	396	0	0	0	396
	5	0	0	18392	6600	501	0	25493
	6	0	0	15310	0	0	0	15310
By Type		0	0	34098	6600	501	0	41199

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

STATE OF MISSOURI
KANDI SPRAGGS
NUMBER PE-2014000089
PROFESSIONAL ENGINEER
09/15/2026 1:59:26 PM
Kandi R. Spraggs - Civil
MO PE-2014000089

DATE PREPARED
9/15/2026

ROUTE	STATE
A	MO
DISTRICT	SHEET NO.
SE	9

COUNTY
WAYNE

JOB NO.
J9S3815

CONTRACT ID.

PROJECT NO.

BRIDGE NO.
A05181

DESCRIPTION	DATE

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MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

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

1310 East 104th St.
Kansas City, MO 64131
Tel (816) 874-4655
Fax (816) 874-4675
www.trekdesigngroup.com

Missouri Cert. of Authority 2002010300

TREK DESIGN GROUP, LLC

BENDING DIAGRAMS AND REINFORCING STEEL TOTALS

Detailed Oct. 2025
Checked Oct. 2025

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

Bill of Reinforcing Steel

No. Req.	Size/ Mark	Location	Codes C	SH	V	Dimensions B ft	B in.	C ft	C in.	D ft	D in.	E ft	E in.	F ft	F in.	H ft	H in.	K ft	K in.	Nom. Length ft	Nom. Length in.	Actual Length ft	Actual Length in.	Weight lb
		END BENTS																						
8	6 H100	DIAPHRAGM	E	20		29	0.000													29	0	29	0	348
8	6 H101	DIAPHRAGM	E	15S			15.750	3	0.500								13.625		7.875	4	4	4	3	51
8	6 H102	DIAPHRAGM	E	19S			13.500		18.750											2	8	2	6	30
		INT BENTS																						
16	6 H200	DIAPHRAGM	E	20		25	11.000													25	11	25	11	623
32	5 H201	DIAPHRAGM	E	19S			21.750	3	8.250											5	6	5	5	181
84	4 U200	DIAPHRAGM	E	28S					15.000	3	0.000	23.250								6	2	6	0	337
8	4 U201	DIAPHRAGM	E	28S					15.000	2	9.250	20.250								5	9	5	7	30
16	4 V200	DIAPHRAGM	E	20		2	9.000													2	9	2	9	29
		SLAB																						
174	5 S1	SLAB	E	20		53	7.000													53	7	53	7	9724
80	6 S2	SLAB	E	20		10	0.000													10	0	10	0	1202
304	6 S3	SLAB	E	20		26	5.000													26	5	26	5	12062
278	5 S4	SLAB	E	20		26	5.000													26	5	26	5	7660
48	6 S5	SLAB	E	20	2 V	2	2.000													2	2	2	2	994
		INC = 12.125 INCH				25	4.875													25	5	25	5	
56	5 S6	SLAB	E	20	2 V	2	6.000													2	6	2	6	827
		INC = 10.375 INCH				25	10.125													25	10	25	10	
		BARRIER																						
20	5 K1	BARRIER	E	27S			20.500		9.250		5.375	14.750		12.000		5.250		1.000		5	2	4	10	101
28	5 K2	BARRIER	E	27S			20.500		9.250		17.250	3.000		12.000		17.000		3.250		5	2	4	10	141
48	5 K4	BARRIER	E	19S		2	5.000		10.000											3	3	3	2	159
20	5 K5	BARRIER	E	38S							19.250	9.500		8.250		18.750		4.250		3	1	3	0	63
28	5 K6	BARRIER	E	21S				2	4.875		10.000					2	4.250	6.000		3	3	3	1	90
56	5 K7	BARRIER	E	20		5	6.000													5	6	5	6	321
298	5 R1	BARRIER	E	14S		2	5.000		6.500	2	5.500					2	5.000	5.500		5	5	5	3	1632
298	5 R2	BARRIER	E	19S			18.500		9.500											2	4	2	3	699
298	5 R3	BARRIER	E	27S					9.500		15.250	3.000		12.000		15.000		3.000		3	4	3	1	958
64	5 R4	BARRIER	E	20		11	9.000													11	9	11	9	784
16	5 R5	BARRIER	E	20		35	9.000													35	9	35	9	597
16	5 R6	BARRIER	E	20		26	9.000													26	9	26	9	446
16	5 R7	BARRIER	E	20		36	6.000													36	6	36	6	609
		SLIP FORM																						
40	5 C1	SLIP FORM	E	20		12	0.000													12	0	12	0	501

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

For bending diagrams and steel reinforcing totals, see Sheet No. 9.

Detailed Oct. 2025
Checked Oct. 2025

All bars shall be ASTM A615 Grade 60.

BILL OF REINFORCING STEEL

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

Sheet No. 10 of 10

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

SH = Required shape, see bending diagrams.

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

STATE OF MISSOURI
KANDI SPRAGGS
NUMBER PE-2014000089
PROFESSIONAL ENGINEER

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MO PE-2014000089

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Missouri Cert. of Authority 2002010300

TREKK DESIGN GROUP, LLC

DESIGN DESIGNATION

A.A.D.T. - 2027 = 787
A.A.D.T. - 2047 = 869
D.H.V. = 11.80%
T = 9.45%
V = 55 M.P.H.

FUNCTIONAL CLASSIFICATION- MINOR COLLECTOR

NORMAL RIGHT OF WAY REQUIRED

CONVENTIONAL SYMBOLS
(USED IN PLANS)

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

NOTE: DASHED OR OPEN SYMBOLS INDICATE EXISTING FEATURES

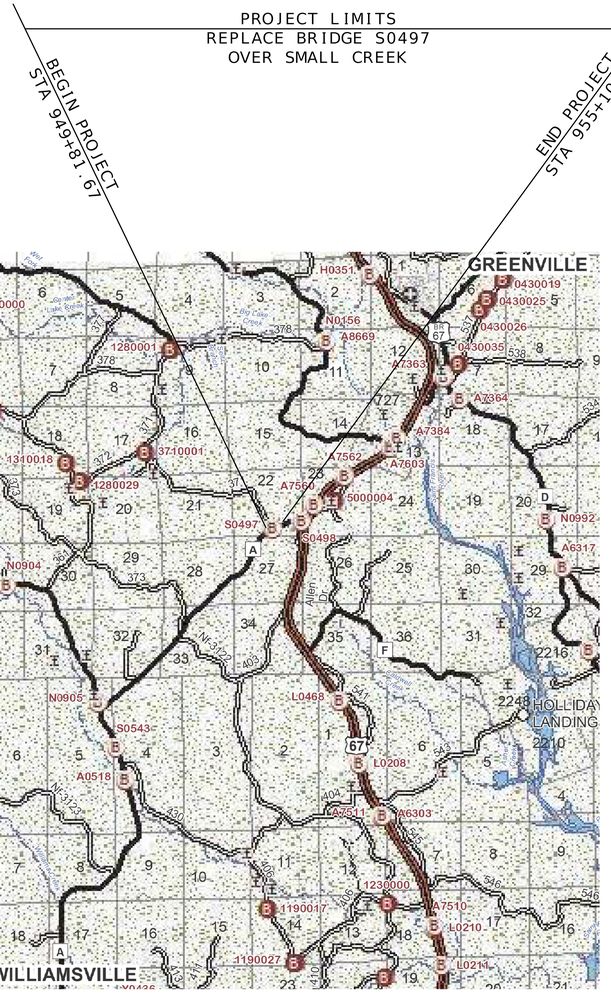
MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

PLANS FOR PROPOSED STATE HIGHWAY

WAYNE COUNTY



KEY MAP
LOCATION OF WAYNE COUNTY



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
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PLAN-PROFILE (PP)	4-5
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REFERENCE POINTS (RP)	7
SPECIAL SHEETS (SS)	8
TRAFFIC CONTROL SHEETS (TC)	9-10
EROSION CONTROL SHEETS (EC)	11
BRIDGE DRAWINGS (B)	
A9541	1-5

LENGTH OF PROJECT

BEGINNING OF PROJECT	STA.	949+81.67
END OF PROJECT	STA.	955+10.19
APPARENT LENGTH		528.52 FEET
EQUATIONS AND EXCEPTIONS:		
TOTAL CORRECTIONS		0 FEET
NET LENGTH OF PROJECT		528.52 FEET
STATE LENGTH		0.100 MILES
FOR INFORMATION ONLY ESTIMATED DISTURBED ACRES		0.35 ACRES

STATE OF MISSOURI
SEIJI SHIMBO
NUMBER PE-2017019046
PROFESSIONAL ENGINEER
Seiji Shimbo
10/14/2026 10:38:58 AM
SEIJI SHIMBO - CIVIL
MO-PE-2017019046

DATE PREPARED: 10/14/2026

ROUTE	STATE
A	MO
DISTRICT	SHEET NO.
SE	1

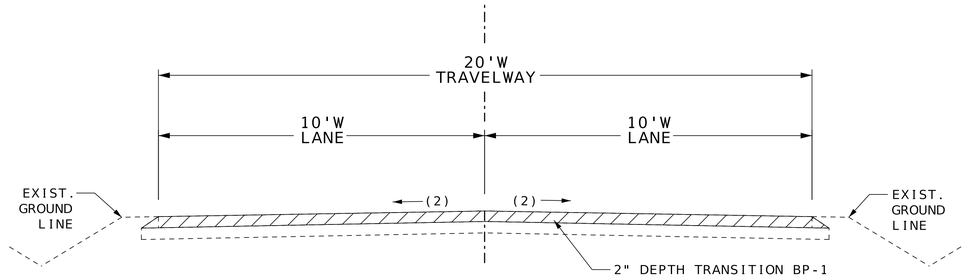
COUNTY: WAYNE
JOB NO.: JSE0147
CONTRACT ID.:
PROJECT NO.:
BRIDGE NO.:

DESCRIPTION	DATE

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

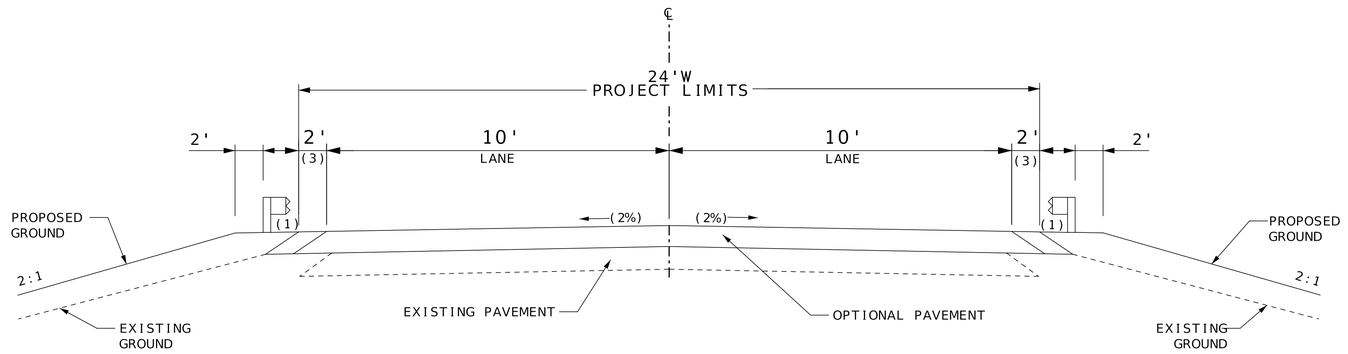
ESTIMATE FACTORS	
ASPHALTIC CONCRETE MIX (BP-1, PG64-22)	2.026 TONS/CY
TACK COAT	0.10 GAL/SY

OPTIONAL PAVEMENT
2" BITUMINUS PAVEMENT MIXTURE (BP-1, PG64-22) 8" BITUMINUS PAVEMENT MIXTURE (BASE, PG64-22) 6" TYPE 1 AGGREGATE BASE
8" PCCP (10' JOINT SPACING AND 1.25" DOWEL BARS) 6" TYPE 1 AGGREGATE BASE



TYPICAL SECTION
ROUTE A
BEGIN AND END PROJECT

STA. 949+81.67 TO STA. 950+31.67
STA. 954+60.19 TO STA. 955+10.19



TYPICAL SECTION
ROUTE A
PROPOSED TRAVELED WAY

STA. 950+31.67 TO STA. 954+60.19

NOTES:

- ROUTE A OVER SMALL CREEK TO BE CLOSED DURING CONSTRUCTION.

(1) INCLUDE SAFETY EDGE AT NO DIRECT PAY ON FULL DEPTH PAVEMENT. REFER TO STANDARD PLAN 401.00.
(2) MATCH EXISTING TRAVELWAY CROSS SLOPE.
(3) SHOULDERS TAPER FROM 0' TO 2' AT STA. 950+31.67 TO STA. 950+81.67
SHOULDERS TAPER FROM 2' TO 0' AT STA. 954+10.19 TO STA. 954+60.19

TYPICAL SECTION SHEET
SHEET 1 OF 1

DRAWING NOT TO SCALE. FOLLOW DIMENSIONING.

STATE OF MISSOURI
SEIJI SHIMBO
NUMBER PE-2017019046
PROFESSIONAL ENGINEER
Seiji Shimbo
10/14/2026 10:40:55 AM
SEIJI SHIMBO - CIVIL
MO-PE-2017019046

DATE PREPARED
10/14/2026

ROUTE	STATE
A	MO
DISTRICT	SHEET NO.
SE	2

COUNTY
WAYNE

JOB NO.
JSE0147

CONTRACT ID.

PROJECT NO.

BRIDGE NO.

DESCRIPTION	DATE

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

PAVEMENT AND TACK

STA.	STA.	LOCATION	LENGTH (FT)	WIDTH (FT)	DEPTH (IN)	AREA (SY)	BP-1 PG64-22 2.026 TONS/CY (TONS)	TACK COAT 0.10 GAL/SY (GAL)	REMARKS
949+81.67	950+31.67	RTE. A	50	20	2	111.11	12.51	11.11	BEGIN PROJECT
954+60.19	955+10.19	RTE. A	50	20	2	111.11	12.51	11.11	END PROJECT
						TOTAL	25.02	22.22	
						USE	25.1	23	

OPTIONAL PAVEMENT

STA.	STA.	LOCATION	LENGTH (FT)	WIDTH (FT)	OPTIONAL FULL DEPTH PAVEMENT (SY)	TYPE 1 AGGREGATE FOR BASE 6" (SY)	REMARKS
950+31.67	954+60.19	RTE. A	428.52	24	1142.72	1142.72	NEW PAVEMENT
				TOTAL	1142.72	1142.72	
				USE	1142.8	1142.8	

SEE TYPICAL SECTION SHEET FOR SHOULDER WIDTHS AND TAPERS.

GUARDRAIL

STA.	STA.	LOCATION	MGS GUARDRAIL (LF)	TYPE A CRASHWORTHY END TERMINAL (MASH) (EA)	MODIFIED SHAPING SLOPES CLASS III (LF)	REMARKS
950+81.71	951+56.71	RTE. A RT	75	1	80	SW CORNER
952+94.20	953+31.70	RTE. A RT	37.5	1	80	SE CONER
951+60.01	951+85.01	RTE. A LT	25	1	80	NW CORNER
953+22.50	954+10.00	RTE. A LT	87.5	1	80	NE CORNER
		TOTAL	225	4	320	
		USE	225	4	320	

GRADING AND EARTHWORK

STA.	STA.	LOCATION	WIDTH (FT)	GRAVEL A OR CRUSHED STONE B (TON)	LINEAR GRADING CLASS 2 (STA)	ESTIMATED EARTHWORK CUT * (CY)	ESTIMATED EARTHWORK FILL * (CY)	REMARKS
953+51.73	953+79.06	RTE A RT	15	3	0.2	-	-	REGRADE ENTRANCE
950+31.67	954+60.19	RTE A	VARIES	-	4.3	226	350	
			TOTAL	3.0	4.5	226.0	350.0	
			USE	3	4.5	226	350	

PLACE GRAVEL AT ENTRANCES AS DIRECTED BY ENGINEER.
* ESTIMATED CUT AND FILL IS FOR INFORMATIONAL PURPOSES ONLY, REGRADING OF NEW ROADWAY IS INCLUDED IN LINEAR GRADING CLASS 2.

ROCK BLANKET

STA.	STA.	LOCATION	FURNISHING TYPE 2 ROCK BLANKET (CY)	PLACING TYPE 2 ROCK BLANKET (CY)	FURNISHING TYPE 2 ROCK DITCH LINER (CY)	PLACING TYPE 2 ROCK DITCH LINER (CY)	PERMANENT EROSION CONTROL GEOTEXTILE (SY)	REMARKS
952+54.58	952+97.00	RTE A LT	5.4	5.4	10.1	10.1	54.6	
951+69.60	952+05.54	RTE A RT	6.6	6.6	12.0	12.0	65.94	
		TOTAL	12.0	12.0	22.1	22.1	120.5	
		USE	12	12	23	23	121	

PAVEMENT MARKING

STA.	STA.	LENGTH (FT)	4" WHITE CLASS 1 PAVEMENT MARKING PAINT (18-MIL, TYPE P BEADS) (FT)	4" YELLOW CLASS 1 PAVEMENT MARKING PAINT (18-MIL, TYPE P BEADS) (FT)	REMARKS
949+81.67	955+10.19	528.52	1057.04	1057.04	
		TOTAL	1057.04	1057.04	
		USE	1058	1058	

SEE PAVEMENT MARKING LOG JSP.

MULCHING AND SEEDING

STA.	STA.	LOCATION	COOL SEASON GRASSES (AC)	MULCHING (AC)	REMARKS
953+31.70	954+66.00	RTE A RT	0.20	0.20	SOUTH OF BRIDGE
950+40.24	954+65.93	RTE A LT	0.13	0.13	NORTH OF BRIDGE
		TOTAL	0.33	0.33	
		USE	0.4	0.4	

REMOVAL OF IMPROVMENTS

STA.	STA.	LOCATION	REMARKS
951+70.05	953+02.10	RTE A, RT&LT	OBJECT MARKERS (6)
1 LUMP SUM			

TEMPORARY EROSION CONTROL

STA.	STA.	LOCATION	SILT FENCE (FT)	ROCK DITCH CHECK (FT)	SEDIMENT REMOVAL (CY)	REMARKS
950+31.53	950+94.77	RTE A RT	64	-	1	
953+84.17	954+60.62	RTE A RT	76	-	1	
950+32.29	951+44.03	RTE A LT	112	-	1	
VARIOUS	VARIOUS	RTE A RT&LT	-	88	8	
		TOTAL	252	88	11	
		USE	252	88	11	

TEMPORARY EROSION CONTROL TO BE PLACED AS DIRECTED BY ENGINEER.

MODIFIED COLDMILLING

STA.	STA.	LOCATION	LENGTH (FT)	WIDTH (FT)	AREA (SY)	REMARKS
949+81.67	950+31.67	RTE A	50	20	111.11	BEGIN PROJECT
954+60.19	955+10.19	RTE A	50	20	111.11	END PROJECT
				TOTAL	222.22	
				USE	223	

CONTRACTOR SURVEYING AND STAKING
1 LUMP SUM

MOBILIZATION
1 LUMP SUM

SUMMARY OF QUANTITIES
SHEET 1 OF 2

STATE OF MISSOURI
SEIJI SHIMBO
NUMBER PE-2017019046
PROFESSIONAL ENGINEER
Seiji Shimbo
10/14/2026 11:13:18 AM
SEIJI SHIMBO - CIVIL
MO-PE-2017019046

DATE PREPARED
10/14/2026

ROUTE	STATE
A	MO
DISTRICT	SHEET NO.
SE	3

COUNTY
WAYNE

JOB NO.
JSE0147

CONTRACT ID.

PROJECT NO.

BRIDGE NO.

DESCRIPTION

DATE

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

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

SIGN	SIZE IN.	AREA SQ.FT.	QTY EACH	TOTAL AREA SQ.FT.	QTY RELOC EACH	TOTAL RELOC SQ.FT.	SIGN NO.	DESCRIPTION
WARNING SIGNS								
WO1-1L	48X48	16.00						TURN (SYMBOL LEFT)
WO1-1R	48X48	16.00						TURN (SYMBOL RIGHT)
WO1-2L	48X48	16.00						CURVE (SYMBOL LEFT)
WO1-2R	48X48	16.00						CURVE (SYMBOL RIGHT)
WO1-3L	48X48	16.00						REVERSE TURN (SYMBOL LEFT)
WO1-3R	48X48	16.00						REVERSE TURN (SYMBOL RIGHT)
WO1-4L	48X48	16.00						REVERSE CURVE (SYMBOL LEFT)
WO1-4R	48X48	16.00						REVERSE CURVE (SYMBOL RIGHT)
WO1-4bL	48X48	16.00						DOUBLE ARROW REVERSE CURVE (SYMBOL LEFT)
WO1-4bR	48X48	16.00						DOUBLE ARROW REVERSE CURVE (SYMBOL RIGHT)
WO1-4cL	48X48	16.00						TRIPLE ARROW REVERSE CURVE (SYMBOL LEFT)
WO1-4cR	48X48	16.00						TRIPLE ARROW REVERSE CURVE (SYMBOL RIGHT)
WO1-6	60X30	12.50						HORIZONTAL ARROW (SYMBOL)
WO1-6a	72X36	18.00						HORIZ. ARROW (SYMBOL ON PERMANENT BARRICADE)
WO1-7	60X30	12.50						DOUBLE HEAD HORIZONTAL ARROW (SYMBOL)
WO1-7a	72X36	18.00						DOUBLE HEAD HORIZ. ARROW (SYMBOL ON PERM. BARR.)
WO1-8	18X24	3.00						CHEVRON (SYMBOL)
WO1-8a	30X36	7.50						CHEVRON (SYMBOL FOR DIVIDED HIGHWAYS)
WO3-1	48X48	16.00						STOP AHEAD (SYMBOL)
WO3-2	48X48	16.00						YIELD AHEAD (SYMBOL)
WO3-3	48X48	16.00						SIGNAL AHEAD (SYMBOL)
WO3-4	48X48	16.00						BE PREPARED TO STOP
WO3-5	48X48	16.00						SPEED LIMIT AHEAD
WO4-1L	48X48	16.00						MERGE (SYMBOL FROM LEFT)
WO4-1R	48X48	16.00						MERGE (SYMBOL FROM RIGHT)
WO4-1aL	48X48	16.00						MERGE (LEFT)
WO4-1aR	48X48	16.00						MERGE (RIGHT)
WO5-1	48X48	16.00						ROAD/BRIDGE/RAMP NARROWS
WO5-3	48X48	16.00						ONE LANE BRIDGE
WO5-5	48X48	16.00						NARROW LANES
WO6-1	48X48	16.00						DIVIDED HIGHWAY (SYMBOL)
WO6-2	48X48	16.00						DIVIDED HIGHWAY END (SYMBOL)
WO6-3	48X48	16.00						TWO WAY TRAFFIC (SYMBOL)
WO7-3a	30X24	5.00						NEXT XX MILES (PLAQUE)
WO8-1	48X48	16.00						BUMP
WO8-2	48X48	16.00						DIP
WO8-3	48X48	16.00						PAVEMENT ENDS
WO8-4	48X48	16.00						SOFT SHOULDER
WO8-5	48X48	16.00						SLIPPERY WHEN WET (SYMBOL)
WO8-6	48X48	16.00						TRUCK CROSSING
WO8-6c	48X48	16.00						TRUCK ENTRANCE
WO8-7	36X36	9.00						LOOSE GRAVEL
WO8-7a	36X36	9.00						FRESH OIL / LOOSE GRAVEL
WO8-9	48X48	16.00						LOW SHOULDER
WO8-11	48X48	16.00						UNEVEN LANES
WO8-12	48X48	16.00						NO CENTER LINE
WO8-15	48X48	16.00						GROOVED PAVEMENT
WO8-15P	30X24	5.00						MOTORCYCLE (PLAQUE)
WO8-17L	48X48	16.00						SHOULDER DROP-OFF (SYMBOL LEFT)
WO8-17R	48X48	16.00						SHOULDER DROP-OFF (SYMBOL RIGHT)
WO8-17P	30X24	5.00						SHOULDER DROP-OFF (PLAQUE)
W10-1	42RND.	9.62						RAILROAD CROSSING
WO12-1	24X24	4.00						DOUBLE DOWN ARROW (SYMBOL)
WO12-2	48X48	16.00						LOW CLEARANCE (SYMBOL)
WO12-2x	24X18	3.00						LOW CLEARANCE (PLAQUE)
WO12-2a	84X24	14.00						OVERHEAD LOW CLEARANCE (FEET AND INCHES)
WO12-4	120X60	50.00						LOW CLEARANCE XX FT XX IN XX MILES AHEAD
WO12-5	120X60	50.00						WIDTH RESTRICTION XX FT XX IN XX MILES AHEAD
WO13-1	30X30	6.25						ADVISORY SPEED (PLAQUE)
WO16-2	30X24	5.00						XXX FEET (PLAQUE)
WO16-3	30X24	5.00						X MILE (PLAQUE)
WO20-1	48X48	16.00						ROAD/BRIDGE/RAMP WORK AHEAD
WO20-2	48X48	16.00	3	48.00				DETOUR AHEAD
WO20-3	48X48	16.00	4	64.00				ROAD CLOSED AHEAD
WO20-4	48X48	16.00						ONE LANE ROAD AHEAD
WO20-5	48X48	16.00						RIGHT/CENTER/LEFT LANE CLOSED AHEAD
WO20-5a	48X48	16.00						2 RIGHT/CENTER/LEFT LANES CLOSED AHEAD
WO20-6a	48X48	16.00						RIGHT/CENTER/LEFT LANE CLOSED
WO20-7a	48X48	16.00						FLAGGER (SYMBOL)
WO21-2	36X36	9.00						FRESH OIL
WO21-5	48X48	16.00						SHOULDER WORK / SHOULDER WORK AHEAD
WO22-1	48X48	16.00						BLASTING ZONE AHEAD
WO22-2	42X36	10.50						TURN OFF 2-WAY RADIO AND PHONE
WO22-3	42X36	10.50						END BLASTING ZONE
GO22-1	21X15	2.19						WET PAINT (ARROW PIVOTS)

SIGN	SIZE IN.	AREA SQ.FT.	QTY EACH	TOTAL SQ.FT.	QTY RELOC EACH	TOTAL RELOC SQ.FT.	SIGN NO.	DESCRIPTION
GUIDE SIGNS								
E05-1	36X48	12.00						GORE EXIT
E05-2	48X36	12.00						EXIT OPEN
E05-2a	48X36	12.00						EXIT CLOSED
GO20-1	60X24	10.00						ROAD WORK NEXT XX MILES
GO20-2	48X24	8.00						END ROAD WORK
GO20-4	36X18	4.50						PILOT CAR FOLLOW ME
GO20-4a	42X30	8.75						PILOT CAR IN USE WAIT & FOLLOW
GO20-4a	18X12	1.50						PILOT CAR IN USE WAIT & FOLLOW
GO20-5aP	36X24	6.00						WORK ZONE (PLAQUE)
MO4-8a	24X18	3.00	3	9.00				END DETOUR
MO4-9L	48X36	12.00						DETOUR (LEFT)
MO4-9R	48X36	12.00						DETOUR (RIGHT)
MO4-9P	48X12	4.00						STREET NAME (PLAQUE)
MO4-10L	48X18	6.00						DETOUR ARROW (LEFT)
MO4-10R	48X18	6.00						DETOUR ARROW (RIGHT)
REGULATORY SIGNS								
R1-1	48X48	13.25						STOP
R1-2	48TRI.	6.93						YIELD
R1-2a	36X36	9.00						TO ONCOMING TRAFFIC (PLAQUE)
R1-3P	30X12	2.50						ALL WAY (PLAQUE)
R2-1	36X48	12.00						SPEED LIMIT XX
R3-1	48X48	16.00						NO RIGHT TURN (SYMBOL)
R3-2	48X48	16.00						NO LEFT TURN (SYMBOL)
R3-3	36X36	9.00						NO TURNS
R3-4	48X48	16.00						NO U-TURN (SYMBOL)
R3-7L	30X30	6.25						LEFT LANE MUST TURN LEFT
R3-7R	30X30	6.25						RIGHT LANE MUST TURN RIGHT
R4-1	36X48	12.00						DO NOT PASS
R4-2	36X48	12.00						PASS WITH CARE
R4-7a	36X48	12.00						KEEP RIGHT (HORIZONTAL ARROW)
R4-8a	36X48	12.00						KEEP LEFT (HORIZONTAL ARROW)
R5-1	30X30	6.25						DO NOT ENTER
R5-1a	36X24	6.00						WRONG WAY
R6-1L	54X18	6.75						ONE WAY ARROW (LEFT)
R6-1R	54X18	6.75						ONE WAY ARROW (RIGHT)
R6-2L	24X30	5.00						ONE WAY (LEFT)
R6-2R	24X30	5.00						ONE WAY (RIGHT)
R9-9	24X12	2.00						SIDEWALK CLOSED
R9-11L	24X18	3.00						SIDEWALK CLOSED AHEAD, (ARROW LEFT) CROSS HERE
R9-11R	24X18	3.00						SIDEWALK CLOSED AHEAD, (ARROW RIGHT) CROSS HERE
R10-6	24X36	6.00						STOP HERE ON RED (45^ ARROW)
R11-2	48X30	10.00	2	20.00				ROAD CLOSED
R11-3a	60X30	12.50	1	12.50				ROAD CLOSED XX MILES AHEAD LOCAL TRAFFIC ONLY
R11-4	60X30	12.50	1	12.50				ROAD CLOSED TO THRU TRAFFIC
CONST-3A	60X48	20.00						FINE SIGN
CONST-3X	56X12	4.67						SPEEDING/PASSING (PLATE)
MISCELLANEOUS SIGNS								
CONST-5	48X36	12.00						POINT OF PRESENCE
CONST-5	96X48	32.00						POINT OF PRESENCE
CONST-8	48X36	12.00						WORK ZONE NO PHONE ZONE
SPECIAL	36X60	15.00	16	240.00				DETOUR ROUTE ASSEMBLY

616-10.05 CONSTRUCTION SIGNS	TOTAL
	406

616-10.10 RELOCATED SIGNS	TOTAL

EFFECTIVE: 07-01-2025

ITEM NUMBER	TOTAL QTY	DESCRIPTION
6122008		IMPACT ATTENUATOR 40 MPH (SAND BARRELS)
6122009		IMPACT ATTENUATOR 45 MPH (SAND BARRELS)
6122010		IMPACT ATTENUATOR 50 MPH (SAND BARRELS)
6122012		IMPACT ATTENUATOR 55 MPH (SAND BARRELS)
6122014		IMPACT ATTENUATOR 60 MPH (SAND BARRELS)
6122017		IMPACT ATTENUATOR 65 MPH (SAND BARRELS)
6122019		IMPACT ATTENUATOR 70 MPH (SAND BARRELS)
6122020		REPLACEMENT SAND BARREL
6122030		IMPACT ATTENUATOR (RELOCATION)
6122040		WORK ZONE CRASH CUSHION (NARROW)
6122041		WORK ZONE CRASH CUSHION (RELOCATION)
6123001		TRUCK MOUNTED ATTENUATOR (TMA)
6161012		BUOYS (BOATS KEEP OUT)
6161013		BUOYS (NO WAKE)
6161014		SPECIAL SIGN ASSEMBLY (BOATS KEEP OUT)
6161020		CHANNELIZER (DRUM-LIKE)
6161022		CHANNELIZER (CONE)
6161025		CHANNELIZER (TRIM-LINE)
6161026		CHANNELIZER (VERTICAL PANEL)
6161030	10	TYPE 3 MOVEABLE BARRICADE
6161033		DIRECTION INDICATOR BARRICADE
6161040		FLASHING ARROW PANEL
6161047		TYPE 3 OBJECT MARKER
6161055		SEQUENTIAL FLASHING WARNING LIGHT
6161070		TUBULAR MARKER
6161095		RADAR SPEED ADVISORY SYSTEM
6161096		CHANGEABLE MESSAGE SIGN, COMMISSION FURNISHED/RETAINED
6161098A		CHANGEABLE MESSAGE SIGN WITHOUT COMM. INTERFACE, CONTRACTOR FURNISHED/RETAINED
6161099	3	CHANGEABLE MESSAGE SIGN WITH COMM. INTERFACE, CONTRACTOR FURNISHED/RETAINED
6162000A		WORK ZONE TRAFFIC SIGNAL SYSTEM
6162002		TEMPORARY LONG-TERM RUMBLE STRIPS
6173600D		TEMPORARY TRAFFIC BARRIER, CONTRACTOR FURNISHED/RETAINED
6173700B		TEMP. TRAFFIC BARRIER ANCHORED, CONTRACTOR FURNISHED/RETAINED
6173706		TEMP. TRAFFIC BARRIER STIFFNESS TRANSITION CONTRACTOR FURNISHED/RETAINED
6174000A		TEMP. TRAFFIC BARRIER HEIGHT TRANSITION, CONTRACTOR FURNISHED/RETAINED
6175010A		RELOCATING TEMPORARY TRAFFIC BARRIER
6175011B		RELOCATING TEMP. TRAFFIC BARRIER ANCHORED
6175013		RELOCATING TEMP. TRAFFIC BARRIER STIFFNESS
6175020A		RELOCATING TEMP. TRAFFIC BARRIER HEIGHT
6208064A		TEMPORARY RAISED PAVEMENT MARKER
9029400		TEMPORARY TRAFFIC SIGNALS
9029401		TEMPORARY TRAFFIC SIGNALS AND LIGHTING

STATE OF MISSOURI
SEIJI SHIMBO
NUMBER PE-2017019046
PROFESSIONAL ENGINEER
Seiji Shimbo
10/14/2026 11:14:36 AM
SEIJI SHIMBO - CIVIL
MO-PE-2017019046

DATE PREPARED
10/14/2026

ROUTE	STATE
A	MO
DISTRICT	SHEET NO.
SE	3

COUNTY
WAYNE

JOB NO.
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PROJECT NO.

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DESCRIPTION	DATE

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

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

SUMMARY OF QUANTITIES
SHEET 2 OF 2

PLAN

950

955

BEGIN PROJECCT
STA 949+81.67

END PROJECCT
STA 955+10.19

25' MGS GUARDRAIL WITH
TYPE A CRASHWORTHY END TERMINAL

37.5' MGS GUARDRAIL
(SEE BRIDGE PLANS)

PROPOSED BOX CULVERT
(SEE BRIDGE PLANS)

FULL DEPTH OPTION PAVEMENT
STA 950+31.69 TO STA 954+60.11

87.5' MGS GUARDRAIL WITH
TYPE A CRASHWORTHY END TERMINAL

ROCK DITCH LINER

LIMITS OF CONSTRUCTION

EXIST. EASEMENT

R/W LINE

EXIST. R/W

(R) OBJECT MARKERS

EXIST. RTE A ℄

30' MIN

9'

6'

MILL/FILL
STA 949+81.69 TO
STA 950+31.69

75' MGS GUARDRAIL WITH
TYPE A CRASHWORTHY END TERMINAL

2' TYPE 2 ROCK BLANKET WITH
PERMANENT EROSION CONTROL GEOTEXTILE

37.5' MGS GUARDRAIL
(SEE BRIDGE PLANS)

TYPE I DRWY. RT.
STA. 953+66.00
-4% GRADE TO EXIST.
MATHC EXIST. WIDTH

MILL/FILL
STA 954+60.11 TO
STA 955+10.11

SCALE
0 20 40 60

NOTES:
- PRIVATE ENTRANCE AT STA 953+66 TO REMAIN OPEN AND MAINTAINED WITHIN RIGHT OF WAY DURING DURATION OF PROJECT.

PLAN/PROFILE SHEET
SHEET 1 OF 2

STATE OF MISSOURI
SEIJI SHIMBO
NUMBER PE-2017019046
PROFESSIONAL ENGINEER
Seiji Shimbo
10/14/2026 11:16:49 AM
SEIJI SHIMBO - CIVIL
MO-PE-2017019046

DATE PREPARED
10/14/2026

ROUTE	STATE
A	MO
DISTRICT	SHEET NO.
SE	4

COUNTY
WAYNE

JOB NO.
JSE0147

CONTRACT ID.

PROJECT NO.

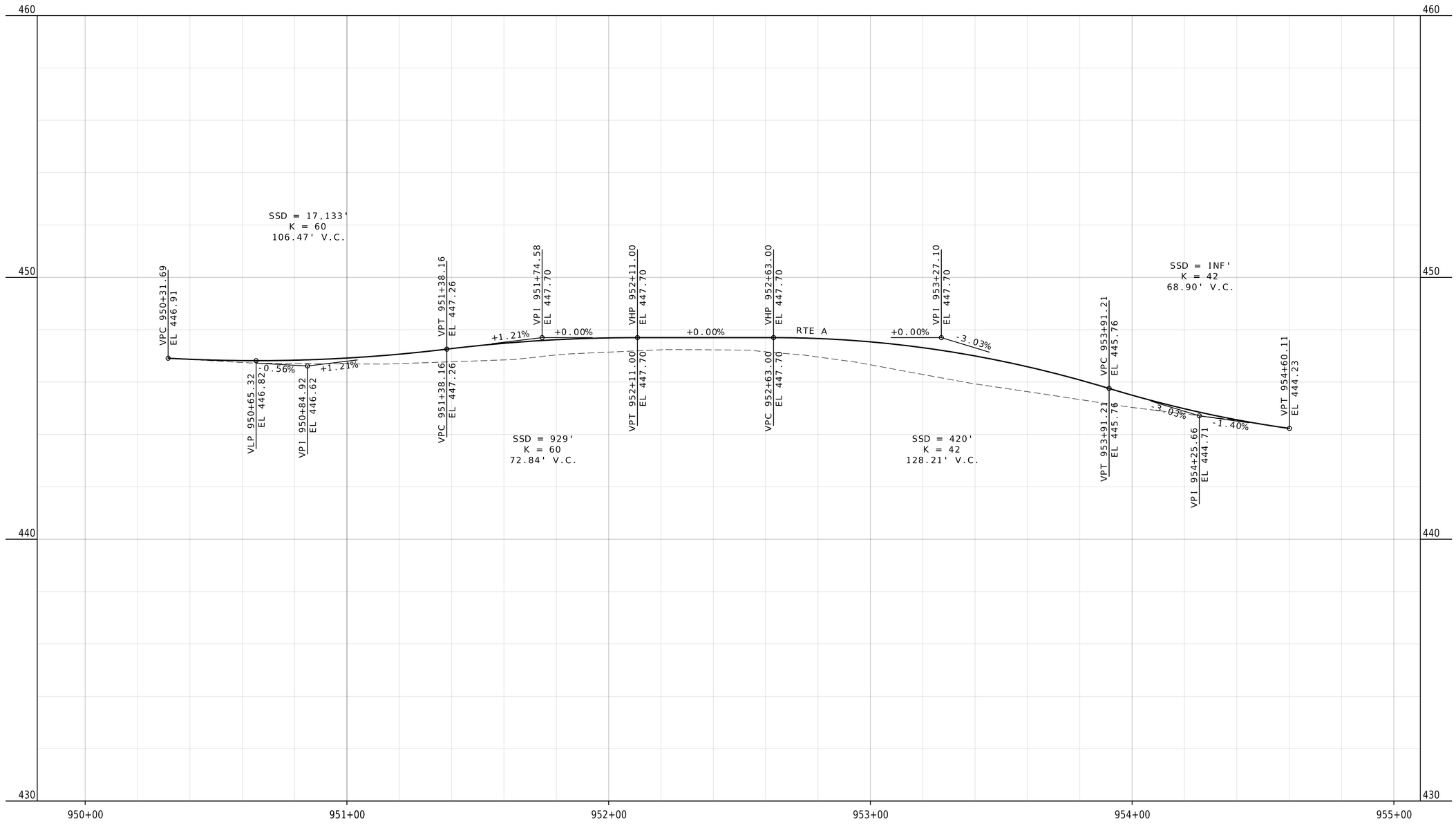
BRIDGE NO.

DESCRIPTION

DATE

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

PROPOSED PROFILE
GRADE RTE A



PLAN/PROFILE SHEET
SHEET 2 OF 2

STATE OF MISSOURI
SEIJI SHIMBO
NUMBER PE-2017019046
PROFESSIONAL ENGINEER

Seiji Shimbo
10/14/2026 11:17:47 AM
SEIJI SHIMBO - CIVIL
MO-PE-2017019046

DATE PREPARED
10/14/2026

ROUTE	STATE
A	MO
DISTRICT	SHEET NO.
SE	5

COUNTY
WAYNE

JOB NO.
JSE0147

CONTRACT ID.

PROJECT NO.

BRIDGE NO.

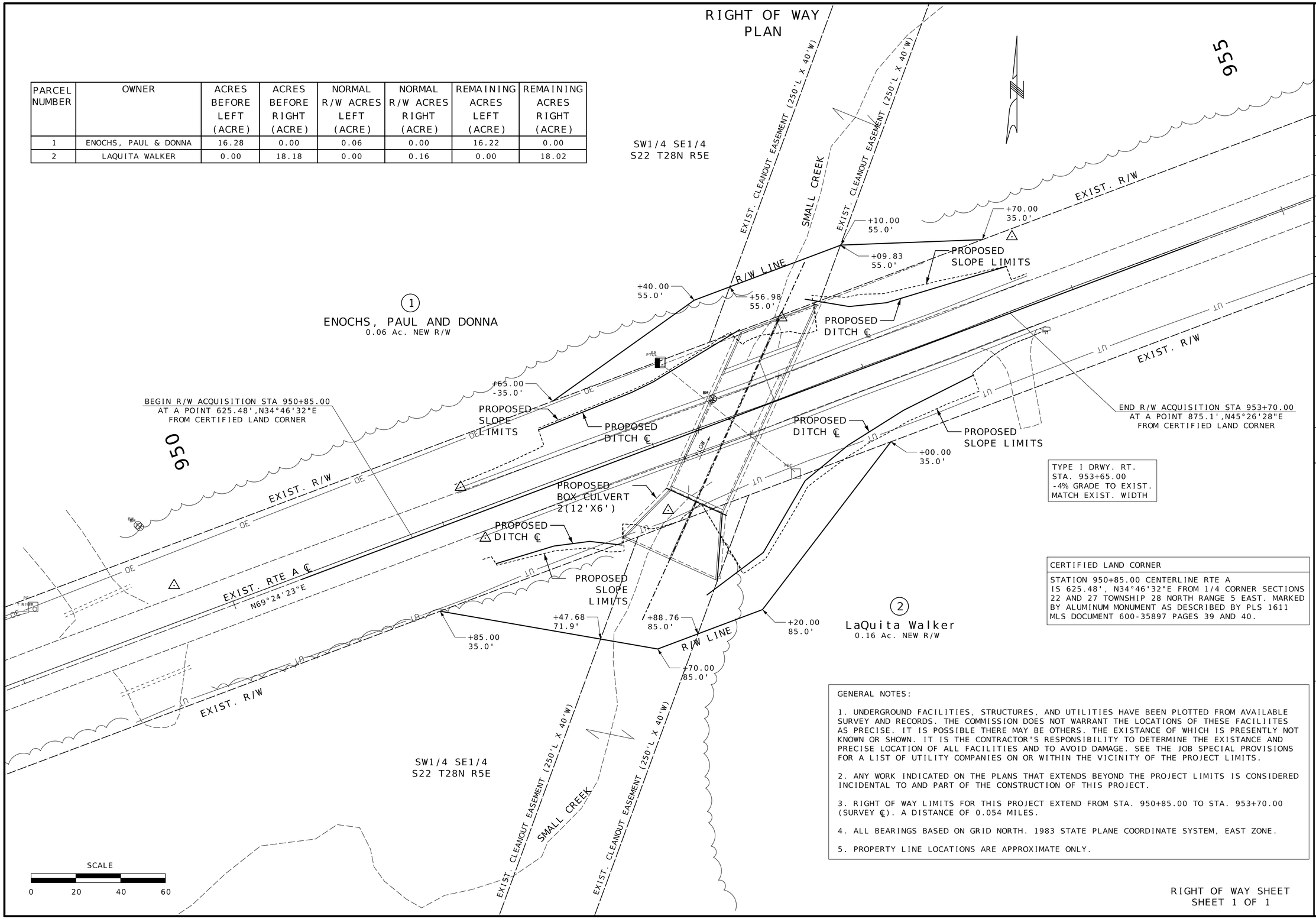
DATE	DESCRIPTION

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

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

RIGHT OF WAY PLAN

PARCEL NUMBER	OWNER	ACRES BEFORE LEFT (ACRE)	ACRES BEFORE RIGHT (ACRE)	NORMAL R/W ACRES LEFT (ACRE)	NORMAL R/W ACRES RIGHT (ACRE)	REMAINING ACRES LEFT (ACRE)	REMAINING ACRES RIGHT (ACRE)
1	ENOCHS, PAUL & DONNA	16.28	0.00	0.06	0.00	16.22	0.00
2	LAQUITA WALKER	0.00	18.18	0.00	0.16	0.00	18.02



CERTIFIED LAND CORNER

STATION 950+85.00 CENTERLINE RTE A IS 625.48', N34°46'32"E FROM 1/4 CORNER SECTIONS 22 AND 27 TOWNSHIP 28 NORTH RANGE 5 EAST. MARKED BY ALUMINUM MONUMENT AS DESCRIBED BY PLS 1611 MLS DOCUMENT 600-35897 PAGES 39 AND 40.

GENERAL NOTES:

1. UNDERGROUND FACILITIES, STRUCTURES, AND UTILITIES HAVE BEEN PLOTTED FROM AVAILABLE SURVEY AND RECORDS. THE COMMISSION DOES NOT WARRANT THE LOCATIONS OF THESE FACILIITES AS PRECISE. IT IS POSSIBLE THERE MAY BE OTHERS. THE EXISTANCE OF WHICH IS PRESENTLY NOT KNOWN OR SHOWN. IT IS THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE THE EXISTANCE AND PRECISE LOCATION OF ALL FACILITIES AND TO AVOID DAMAGE. SEE THE JOB SPECIAL PROVISIONS FOR A LIST OF UTILITY COMPANIES ON OR WITHIN THE VICINITY OF THE PROJECT LIMITS.

2. ANY WORK INDICATED ON THE PLANS THAT EXTENDS BEYOND THE PROJECT LIMITS IS CONSIDERED INCIDENTAL TO AND PART OF THE CONSTRUCTION OF THIS PROJECT.

3. RIGHT OF WAY LIMITS FOR THIS PROJECT EXTEND FROM STA. 950+85.00 TO STA. 953+70.00 (SURVEY ℄). A DISTANCE OF 0.054 MILES.

4. ALL BEARINGS BASED ON GRID NORTH. 1983 STATE PLANE COORDINATE SYSTEM, EAST ZONE.

5. PROPERTY LINE LOCATIONS ARE APPROXIMATE ONLY.

RIGHT OF WAY SHEET
SHEET 1 OF 1

STATE OF MISSOURI
SEIJI SHIMBO
NUMBER PE-2017019046
PROFESSIONAL ENGINEER
Seiji Shimbo
10/14/2026 11:18:29 AM
SEIJI SHIMBO - CIVIL
MO-PE-2017019046

DATE PREPARED
10/14/2026

ROUTE	STATE
A	MO
DISTRICT	SHEET NO.
SE	6

COUNTY
WAYNE

JOB NO.
JSE0147

CONTRACT ID.

PROJECT NO.

BRIDGE NO.

DESCRIPTION

DATE

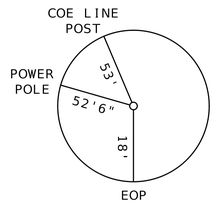
MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION
105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)

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 COORDINATE INFORMATION	
COORDINATE SYSTEM	MO SPC
HORIZONTAL DATUM	NAD 83 (2011)
VERTICAL DATUM	NAVD88
GEOID MODEL	2018
ELEVATIONS DETERMINED BY	DIFFERENTIAL LEVELING
PROJECT PROJECTION FACTOR	1.00008331

REFERENCE CONTROL INFORMATION	
COORDINATE SYSTEM	MO SPC
CONTROL STATION	MOSL
DESIGNATION	MODOT SILVA CORS ARP
CORS_ID	MOSL
PID	DN5838
LATITUDE	371038.14499
LONGITUDE	902752.44435
NORTHING (M)	149124.3280
EASTING (M)	253146.3270
ZONE	EAST
PROJECT AVERAGE GRID FACTOR	0.99991670

CP-100

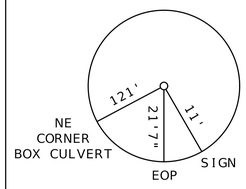


SET 5/8"X24" REBAR WITH PLASTIC CAP 0.4' DEEP IN NORTH R/W RTE A

STATE PLAIN COORDINATES EAST ZONE

E: 825316.163
N: 453677.254
ELEV: 426.897

CP-101

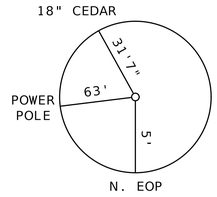


SET 5/8"X24" REBAR WITH PLASTIC CAP 0.4' DEEP IN NORTH R/W RTE A

STATE PLAIN COORDINATES EAST ZONE

E: 823696.987
N: 453078.489
ELEV: 444.570

CP-102

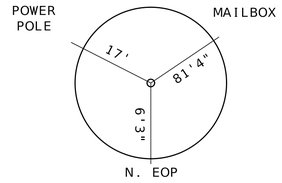


SET 5/8"X24" REBAR WITH PLASTIC CAP 0.4' DEEP IN NORTH R/W RTE A 250' WEST OF BOX CULVERT

STATE PLAIN COORDINATES EAST ZONE

E: 823322.841
N: 452922.768
ELEV: 446.270

CP-103



SET 5/8"X24" REBAR WITH PLASTIC CAP 0.4' DEEP IN NORTH R/W RTE A

STATE PLAIN COORDINATES EAST ZONE

E: 822763.539
N: 452637.942
ELEV: 454.360

BENNCH TABLE

BM1
CHISIED SQUARE
SE CORNER COCENT
ELEV: 434.79

BM2
CHISLED SQUARE
NW CORNER BR S0497
ELEV: 447.54

BM3
COTTON PICKER SPINDLE
IN STUMP OF TWIN
18" CEDAR
ELEV: 448.93

COORDINATE POINT LISTING

SHEET NO	STATION	LOCATION	OFFSET (USFT)	MODIFIED STATE PLANE (GROUND) NORTHING (US SURVEY FT)	EASTING (US SURVEY FT)	ELEVATION (US SURVEY FT)	DESCRIPTION	GPK POINT ID
PROJECT CONTROL POINTS								
4	971+09.14	N RTE. A	-22.625	453,677.254	825,316.163	426.897	SET 5/8" REBAR W/ PLASTIC CAP 0.4' DEEP IN NORTH R/W OF ROUTE A	CP100
4	953+82.82	N RTE. A	-31.645	453,078.489	823,696.987	444.570	SET 5/8" REBAR W/ PLASTIC CAP 0.4' DEEP IN NORTH R/W OF ROUTE A	CP101
4	949+77.81	N RTE. A	-17.476	452,922.768	823,322.841	446.270	SET 5/8" REBAR W/ PLASTIC CAP 0.4' DEEP IN NORTH R/W OF ROUTE A	CP102
4	943+54.06	N RTE. A	-16.665	452,637.942	822,763.539	454.360	SET 5/8" REBAR W/ PLASTIC CAP 0.4' DEEP IN NORTH R/W OF ROUTE A	CP103
ALIGNMENTS								
4	949+26.00	CL RTE A	0.000	452,888.193	823,250.509		BEGIN PROJECT	
4	955+81.12	CL RTE A	0.000	453,118.621	823,893.761		END PROJECT	

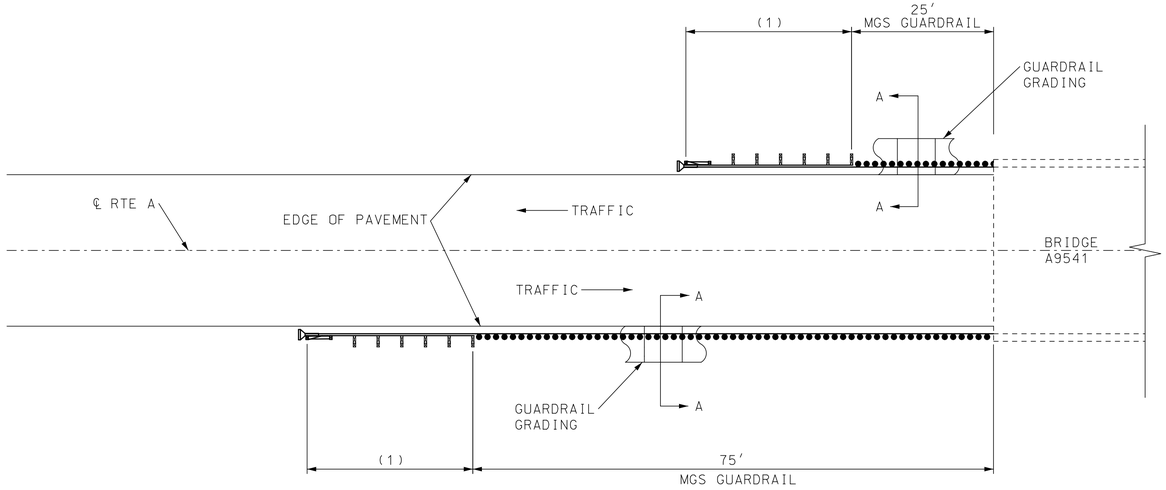
REFERENCE / COORDINATE POINTS
SHEET 1 OF 1

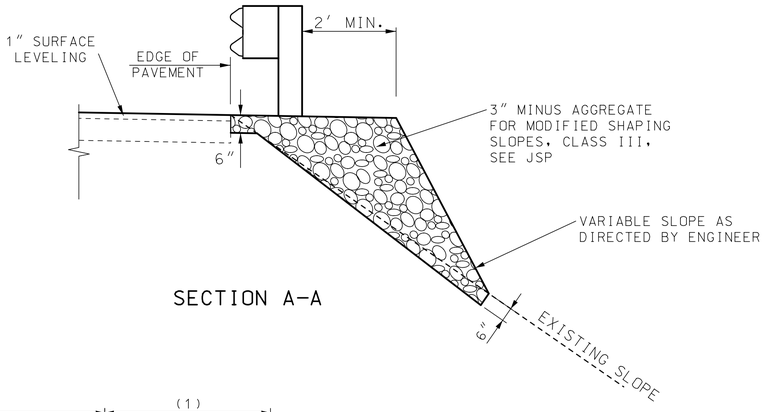
STATE OF MISSOURI
SEIJI SHIMBO
NUMBER PE-2017019046
PROFESSIONAL ENGINEER
Seiji Shimbo
10/14/2026 11:19:19 AM
SEIJI SHIMBO - CIVIL
MO-PE-2017019046

DATE PREPARED: 10/14/2026
ROUTE: A | STATE: MO
DISTRICT: SE | SHEET NO.: 7
COUNTY: WAYNE
JOB NO.: JSE0147
CONTRACT ID.:
PROJECT NO.:
BRIDGE NO.:

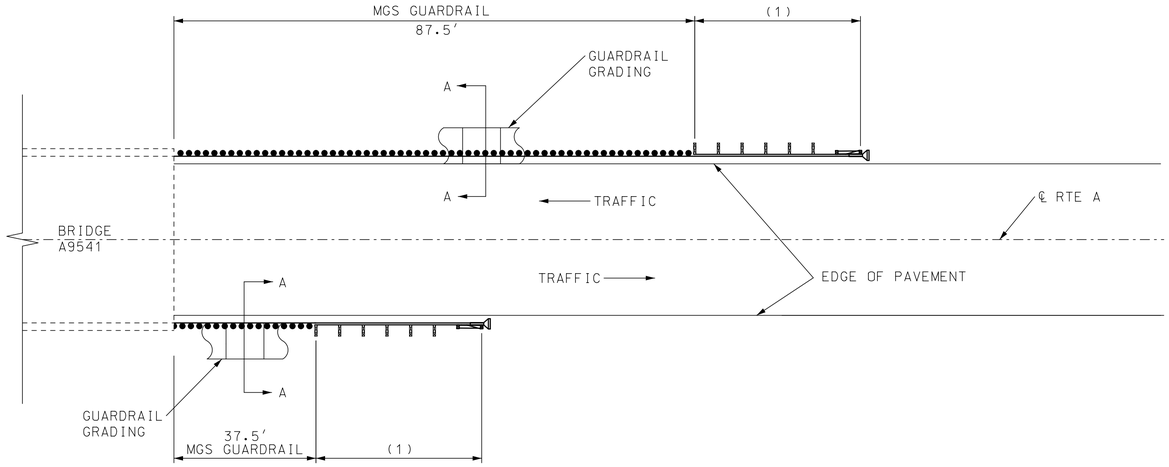
DESCRIPTION | DATE

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





SECTION A–A



TYPICAL GUARDRAIL AND GRADING LIMITS

NOTES:

SEE STD 606.81 FOR GRADING LIMITS
OF MODIFIED SHAPING SLOPES CLASS III.

(1) TYPE A CRASHWORTHY END TERMINAL (MASH)

SPECIAL SHEET
SHEET 1 OF 1
DRAWING NOT TO SCALE

STATE OF MISSOURI
SEIJI SHIMBO
NUMBER PE-2017019046
PROFESSIONAL ENGINEER
Seiji Shimbo
10/14/2026 11:28:04 AM
SEIJI SHIMBO - CIVIL
MO-PE-2017019046

DATE PREPARED
10/14/2026

ROUTE	STATE
A	MO
DISTRICT	SHEET NO.
SE	8

COUNTY
WAYNE

JOB NO.
JSE0147

CONTRACT ID.

PROJECT NO.

BRIDGE NO.

DESCRIPTION	DATE

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

END DETOUR
MO4-8a
52

ROAD CLOSED
R11-2
29

DETOUR AHEAD
WO20-2
18

ROAD CLOSED AHEAD
WO20-3
20

ROAD CLOSED 500 FT
WO20-3
21

DETOUR
MO4-8
A
M1-5a
M6-1
50A

DETOUR
MO4-8
A
M1-5a
M5-1L
50B

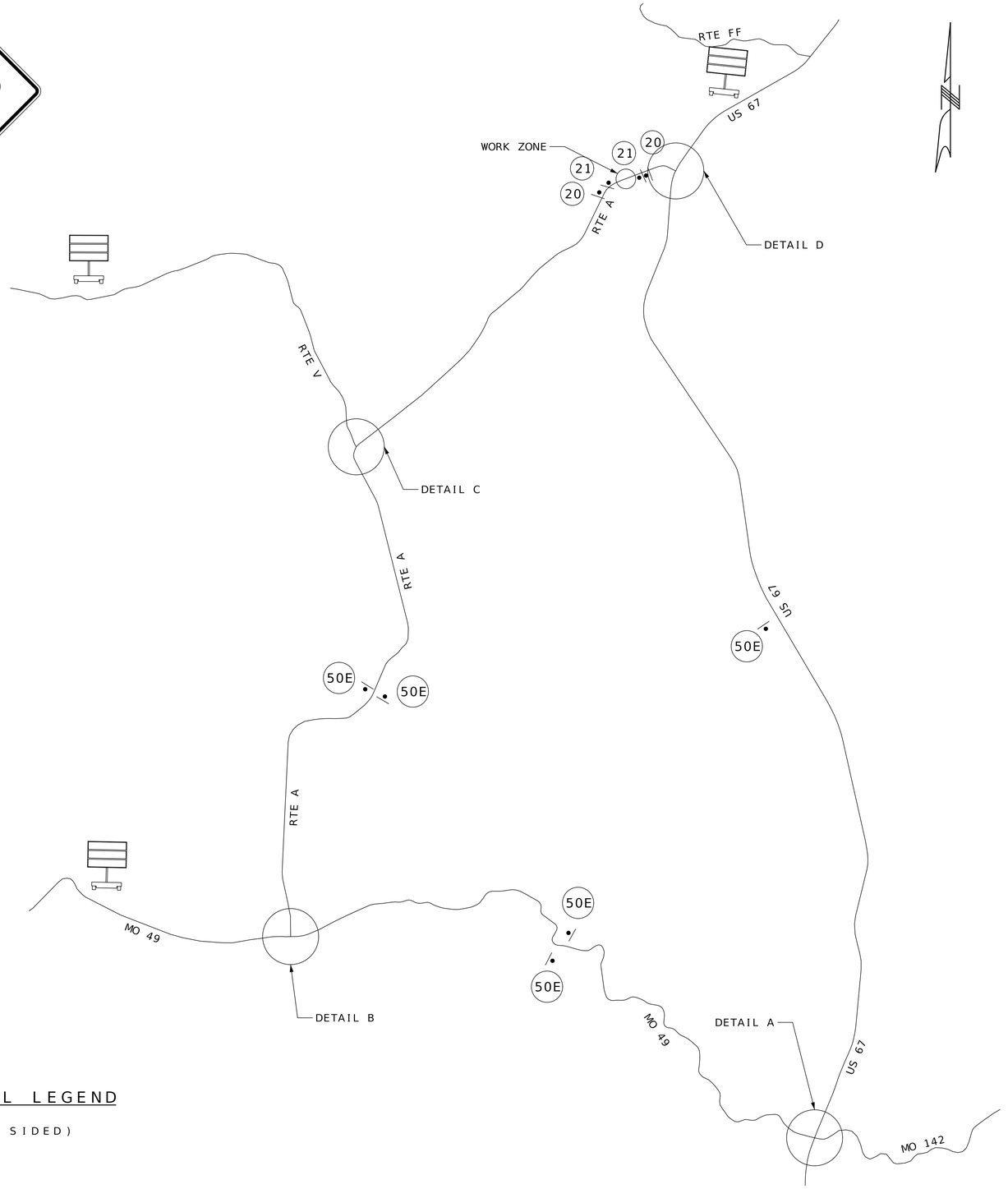
DETOUR
MO4-8
A
M1-5a
M6-1
50C

DETOUR
MO4-8
A
M1-5a
M5-1R
50D

ROAD CLOSED
4 MILES AHEAD
LOCAL TRAFFIC ONLY
R11-3a
55

ROAD CLOSED
TO
THRU TRAFFIC
R11-4
54

DETOUR
MO4-8
A
M1-5a
M6-3
50E



TRAFFIC CONTROL LEGEND

- SIGN (SINGLE SIDED)
- BARRICADE
- CHANGEABLE MESSAGE BOARD

TRAFFIC CONTROL
SHEET 1 OF 2
NOT TO SCALE

STATE OF MISSOURI
SEIJI SHIMBO
NUMBER PE-2017019046
PROFESSIONAL ENGINEER
Seiji Shimbo
10/14/2026 12:22:47 PM
SEIJI SHIMBO - CIVIL
MO-PE-2017019046

DATE PREPARED
10/14/2026

ROUTE	STATE
A	MO
DISTRICT	SHEET NO.
SE	9

COUNTY
WAYNE

JOB NO.
JSE0147

CONTRACT ID.

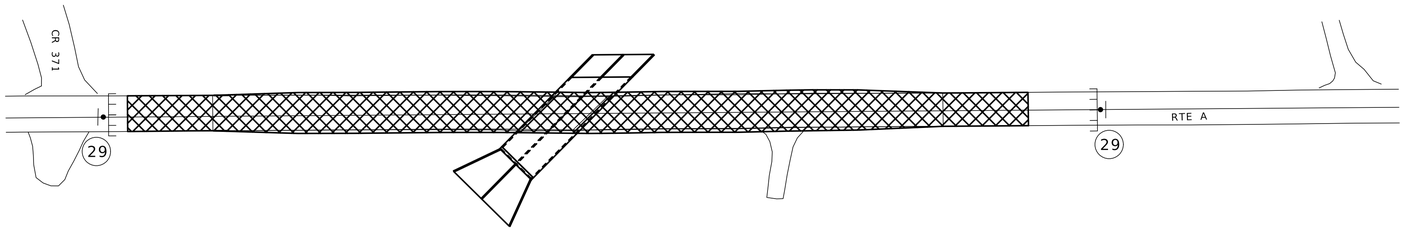
PROJECT NO.

BRIDGE NO.

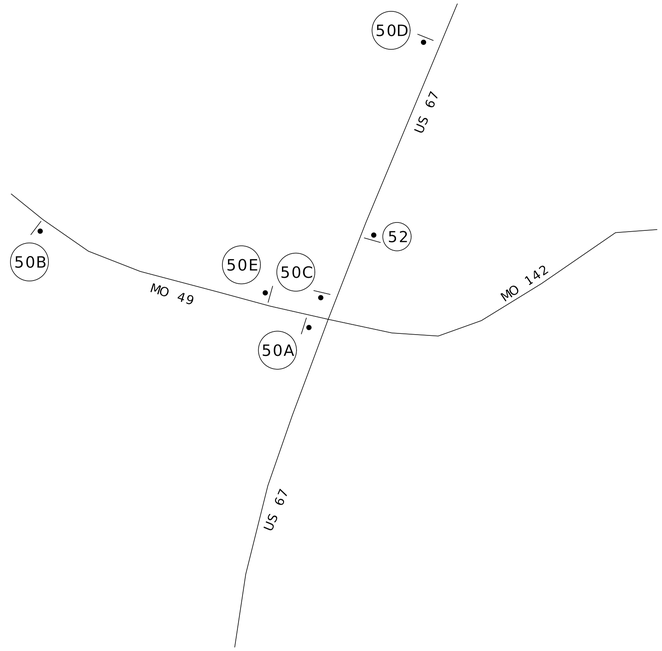
DESCRIPTION	DATE

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

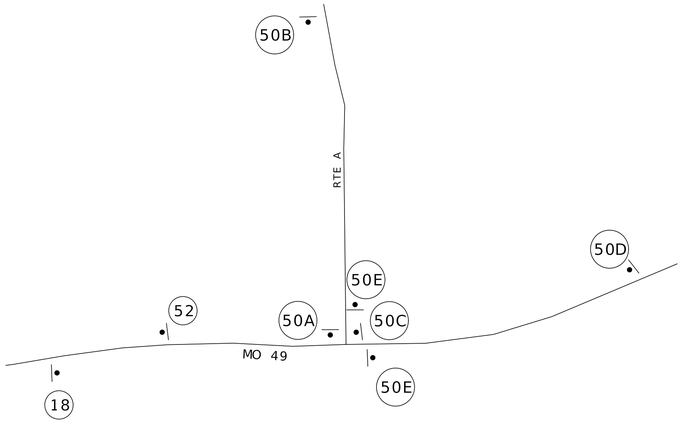
WORK ZONE



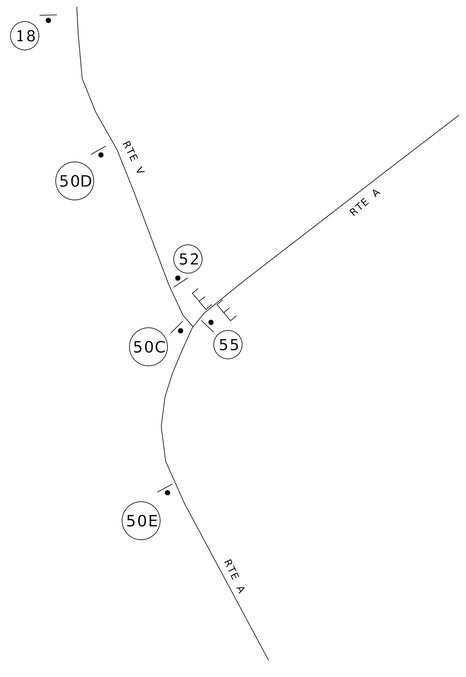
DETAIL A



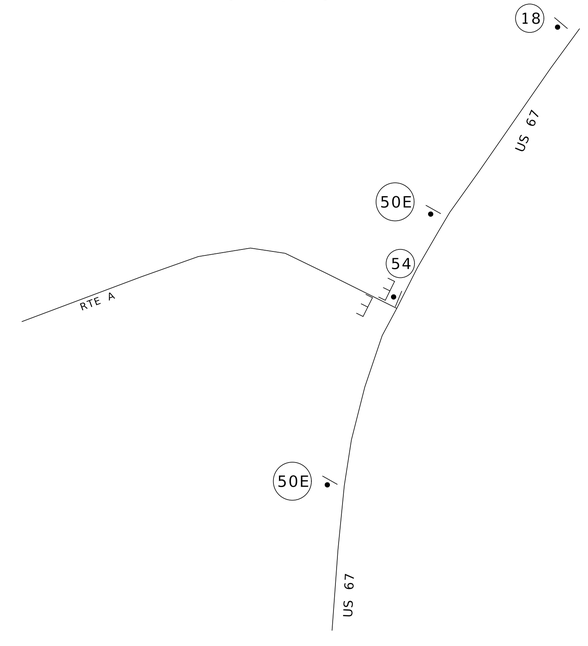
DETAIL B



DETAIL C



DETAIL D



TRAFFIC CONTROL
SHEET 2 OF 2
NOT TO SCALE

STATE OF MISSOURI
SEIJI SHIMBO
NUMBER PE-2017019046
PROFESSIONAL ENGINEER
Seiji Shimbo
10/14/2026 12:23:41 PM
SEIJI SHIMBO - CIVIL
MO-PE-2017019046

DATE PREPARED	
10/14/2026	
ROUTE: A	STATE: MO
DISTRICT: SE	SHEET NO.: 10
COUNTY: WAYNE	
JOB NO.: JSE0147	
CONTRACT ID.	
PROJECT NO.	
BRIDGE NO.	

DESCRIPTION	DATE

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

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

EROSION CONTROL

TEMPORARY EROSION CONTROL LEGEND

R — ROCK DITCH CHECK

SILT FENCE

950

955

112' SILT FENCE

EXIST. R/W

OE

R/W LINE

3' MIN

6'

EXIST. EASEMENT

EXIST. RTE A ℄

SIGN

UT

64' SILT FENCE

76' SILT FENCE

SCALE

0 20 40 60

NOTES:
- LOCATIONS ARE APPROXIMATE.
- EROSION CONTROL DEVICES TO BE PLACED AS DIRECTED BY ENGINEER.

EROSION CONTROL
SHEET 1 OF 1

STATE OF MISSOURI
SEIJI SHIMBO
NUMBER PE-2017019046
PROFESSIONAL ENGINEER

Seiji Shimbo
10/14/2026 11:31:59 AM
SEIJI SHIMBO - CIVIL
MO-PE-2017019046

DATE PREPARED
10/14/2026

ROUTE	STATE
A	MO
DISTRICT	SHEET NO.
SE	11

COUNTY
WAYNE

JOB NO.
JSE0147

CONTRACT ID.

PROJECT NO.

BRIDGE NO.

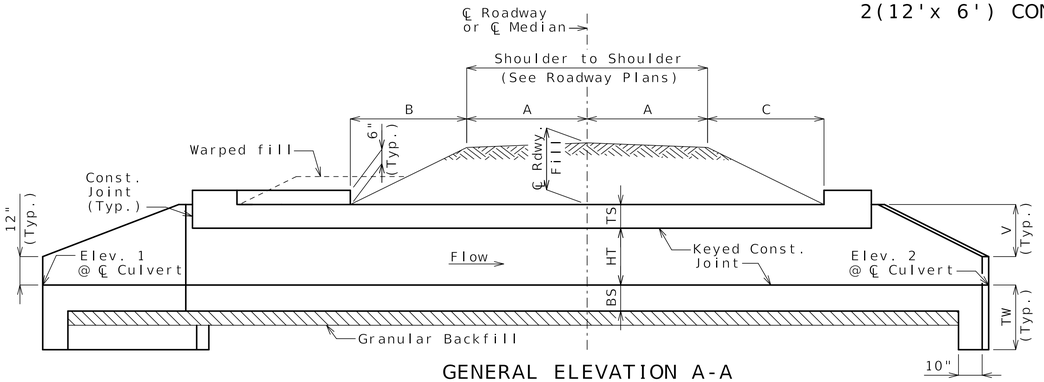
DESCRIPTION	DATE

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

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

2(12'x 6') CONCRETE BOX CULVERT

SEC/SUR 22 TWP 28N RGE 5E



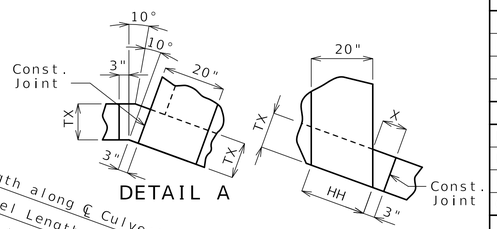
GENERAL ELEVATION A-A

Note: Guardrail not shown for clarity.

Construction joint key not shown for clarity, see standard plans for details.

If any part of the barrel is exposed, the roadway fill shall be warped to provide 12 inches minimum cover. (Roadway Item)

If unsuitable material is encountered, excavation of unsuitable material and furnishing and placing of granular backfill shall be in accordance with Sec 206.



DETAIL A

DETAIL B

PLAN OF LAYOUT DIMENSIONS

Layout Dimensions

Var.	Equation	Dim.	Var.	Equation	Dim.	Var.	Equation	Dim.
S	- - -	12'-0"	K	(S + TI/2)(sec Z)	17'-5¼"	BB	(A + B)(sec Z)	26'-11½"
HT	- - -	6'-0"	L	AA + BB + CC + DD + EE	118'-9⅜"	CC	(A + C)(sec Z)	27'-8½"
TS	- - -	15"	M	N(cos 20°)	4⅛"	DD	R + M + N + 20"	30'-2⅛"
BS	- - -	11"	N	3" + TX(tan 10°)	4⅜"	EE	E(sec Z)	20'-11⅜"
TX	- - -	8"	O	I + YY	7¾"	HH	20"(sec Z)	2'-4¼"
TI	- - -	8"	P	2V[sec(Z + 20°)]	29'-6⅞"	II	20"(cos Z)	14⅛"
A	- - -	15'-9¼"	Q	TX(cos 20°)	7½"	KK	S + TI/2 + U	22'-6⅞"
B	- - -	3'-3½"	R	P(cos 20°)	27'-9½"	LL	(AA + BB + DD)(cos Z)	49'-7"
C	- - -	3'-9⅞"	T	G(sec Z)	17'-8⅛"	MM	3"[cos Z + cos(Z - 20°)]	4⅞"
D	II + MM + RR	28'-4⅝"	U	(R + M)(tan 20°)	10'-2⅞"	QQ	TX(cos Z)	5⅝"
E	G + O + 20"	14'-9¾"	V	HT + TS - 12"	6'-3"	RR	P[cos(Z - 20°)]	26'-9⅜"
F	2S + 2TX + TI	26'-0"	W	2A + B + C + D + E + SS	100'-2⅞"	SS	F(sin Z)	18'-4⅜"
G	2V	12'-6"	X	3" + TX(tan Z)	11"	TT	TX[sin(20°- Z)]	N/A
H	(A + C + E)(tan Z)	34'-4⅞"	Y	TX(sin 20°)	2¾"	YY	TX(sin Z)	5⅝"
I	3"(cos Z)	2⅛"	Z	Skew Angle	45°	TW	Max{3'-4" or (BS + 12")}	3'-4"
J	(AA + BB + DD)(sin Z)	49'-7"	AA	F(tan Z)/2	13'-0"			

Hydrologic Data

Drainage Area = 1.3 mi^2
Design Flood Frequency = 1.3 years
Design Flood Discharge = 200 cfs
Design Flood (D.F.) Elevation = 445.9
Base Flood (100-year)
Base Flood Elevation = 446.4
Base Flood Discharge = 1,600 cfs
Estimated Backwater = 1.2 ft
Outlet Velocity = 6.8 ft/s
Roadway Overtopping
Overtopping Flood Discharge = 560 cfs
Overtopping Flood Frequency = 5 years
Overtopping Flood Elevation = 447.1

Elevations

Upstream (Elev. 1) = 438.95
Downstream (Elev. 2) = 438.73
Pr. Gr. at Tie Sta. = 447.70

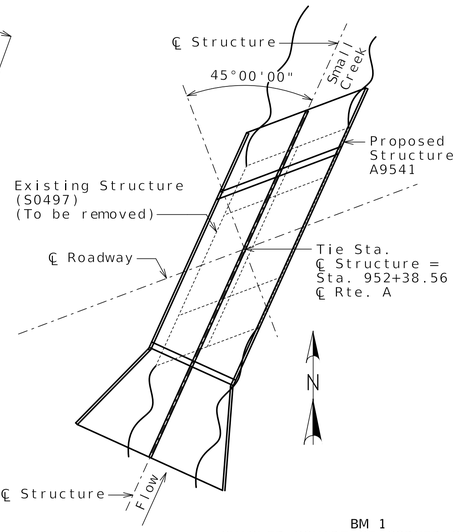
Fill Heights

℄ Rdwy at ℄ Culvert = 2.1 ft
Design (All units) = 2 ft

Dimensions are based on end units.
Fill heights are measured from the top of top slab to the top of earth fill or roadway.

Estimated Quantities

			Final
Class 4 Excavation	cu. yard	270	
Dewatering	lump sum	1	
Removal of Bridges (S0497)	lump sum	1	
Class B-1 Concrete (Culverts-Bridge)	cu. yard	255.3	
Reinforcing Steel (Culverts-Bridge)	pound	31,230	
Bridge Guardrail (W Beam)	linear. ft	75	



LOCATION SKETCH

BM 1
CHISLED SQUARE SE CORNER CONCENT
ELEV. = 434.79'

BM 2
CHISLED SQUARE NW CORNER OF BRIDGE S0497
ELEV. = 447.54'

BM 3
CPS IN STUMP TWIN 18" CEDAR
ELEV. = 448.93'

General Notes:

Design Specifications:
2010 AASHTO LRFD Bridge Design Specifications and 2010 Interim Revisions

Design Loading:
Vehicular = HL-93 minus lane load, Earth = 120 lb/cf
Equivalent Fluid Pressure = 30 lb/cf (min.), 60 lb/cf (max.)

Design Unit Stresses:
Class B-1 Concrete (Box Culvert) f'c = 4,000 psi
Reinforcing Steel (ASTM A615 Grade 60) fy = 60,000 psi

Standard Plans:
703.37, 703.43, 703.46, 703.47

Miscellaneous:
MoDOT Construction personnel will indicate the type of box culvert constructed:
☐ Precast Concrete Box used
☐ Cast-in-Place Concrete Box used

When alternate precast concrete box sections are used, the minimum distance from inside face of headwalls to precast sections measured along the shortest wall shall be 3 feet. Reinforcement and dimensions for wings and headwalls shall be in accordance with Missouri Standard Plans.

Channel bottom shall be graded within the right of way for transition of channel bed to culvert openings. Channel banks shall be tapered to match culvert openings. (Roadway Item)

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

CULVERT-BRIDGE: ROUTE A OVER SMALL CREEK

ROUTE A FROM ROUTE 67 TO ROUTE V
ABOUT 0.5 MILES EAST OF ROUTE 67
TIE STA. 952+38.56 (℄ ROUTE A = ℄ STRUCTURE)

STATE OF MISSOURI
TIMOTHY D. LEAF
NUMBER PE-2012000778
PROFESSIONAL ENGINEER
07/01/2026 3:10:41 PM
TIMOTHY D. LEAF - CIVIL
MO-PE-2012000778

DATE PREPARED
7/1/2026

ROUTE	STATE
A	MO
DISTRICT	SHEET NO.
BR	1

COUNTY
WAYNE

JOB NO.
JSE0147

CONTRACT ID.

PROJECT NO.

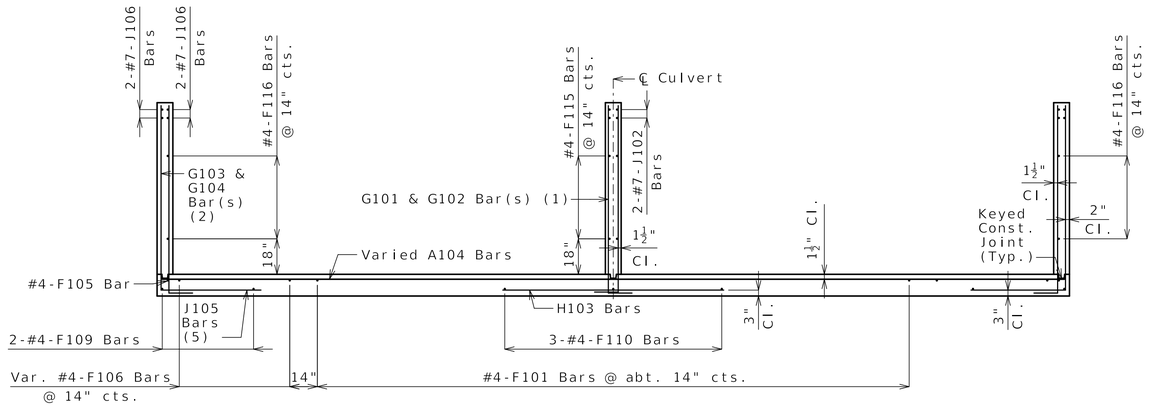
BRIDGE NO.
A9541

DATE	DESCRIPTION

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

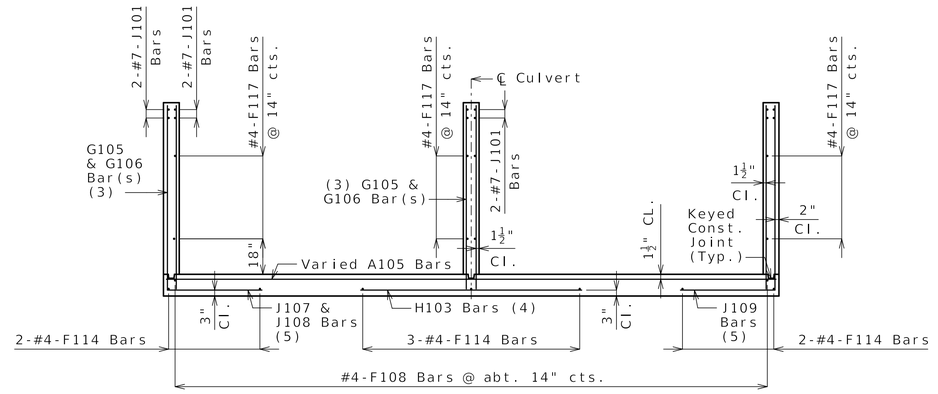
Designed Dec. 2025
Detailed Dec. 2025
Checked Mar. 2026

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



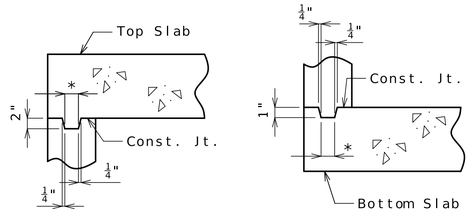
UPSTREAM FLARED WING REINFORCEMENT
SYMMETRICAL ABOUT ℄ CULVERT

(1) G102 is to be placed 12" away from shortest G101 bar.
(2) G104 is to be placed 12" away from shortest G103 bar (towards toewall).



DOWNSTREAM WING REINFORCEMENT
SYMMETRICAL ABOUT ℄ CULVERT

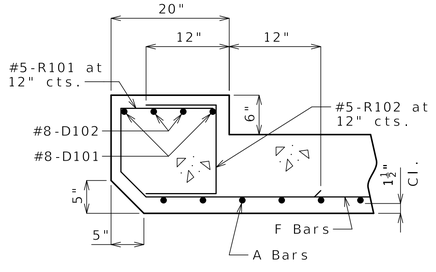
(3) G105 is to be placed 12" away from the longest G106 bar.



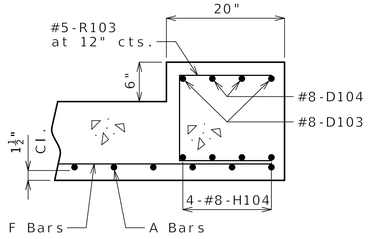
KEYED CONSTRUCTION JOINTS

Exterior wall shown, interior wall similar

∗ Approximately one third of wall thickness



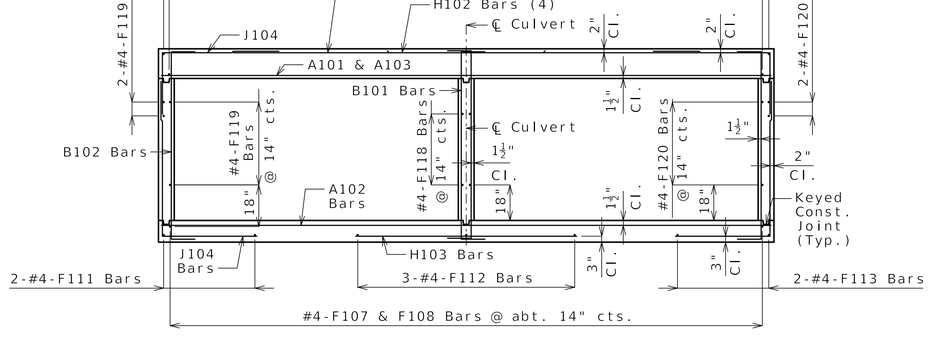
SECTION THRU
UPSTREAM HEADWALL



SECTION THRU
DOWNSTREAM HEADWALL

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

** Unless otherwise shown.



BARREL REINFORCEMENT
SYMMETRICAL ABOUT ℄ CULVERT

Notes:

(4) Spaced along centerline of structure. Fan A bars and H bars as necessary to conform to structure alignment. Maintain 4-inch minimum spacing.

(5) Spaced along outside edge of slab. Fan horizontal leg of J bars as necessary to conform to struture alignment.

SECTIONS THRU CULVERTS SHOWING REINFORCEMENT

Detailed Dec. 2025
Checked Mar. 2026

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

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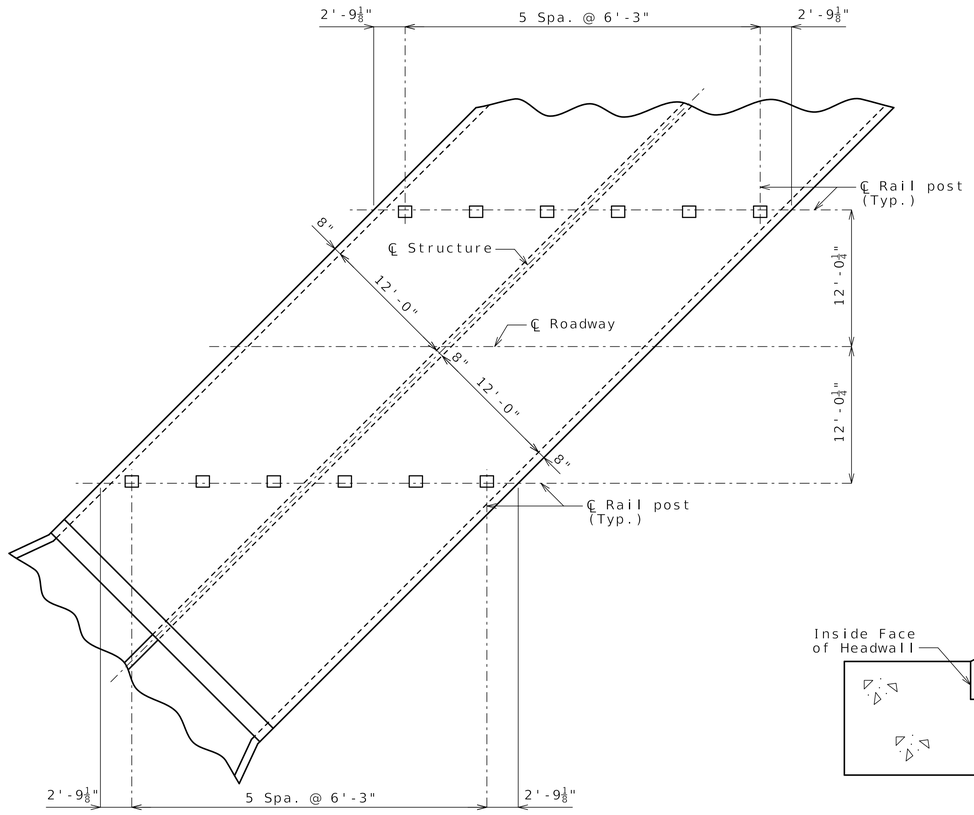
DATE PREPARED: 7/1/2026

ROUTE	STATE
A	MO
DISTRICT	SHEET NO.
BR	2

COUNTY: WAYNE
JOB NO.: JSE0147
CONTRACT ID.:
PROJECT NO.:
BRIDGE NO.: A9541

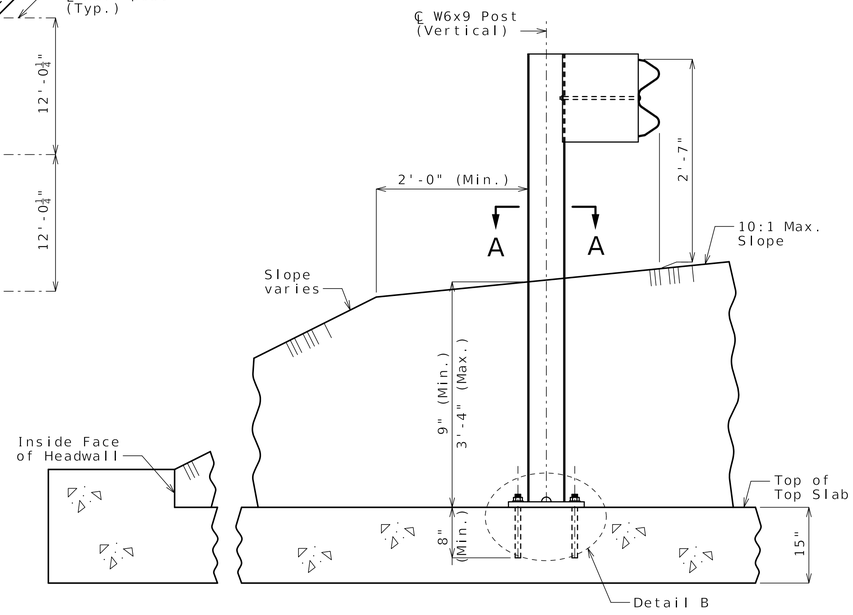
DESCRIPTION	DATE

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



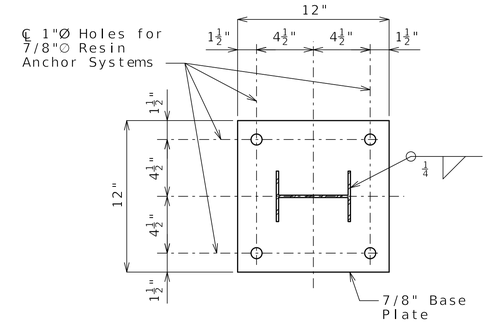
PART PLAN SHOWING POST LOCATIONS

Reinforcement in top slab of culvert may be shifted to clear anchor bolts by ½ inch, but shall not be spaced less than 4".

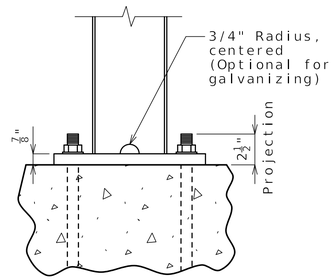


PART SECTION THRU TOP SLAB SHOWING RAIL POST ATTACHMENT

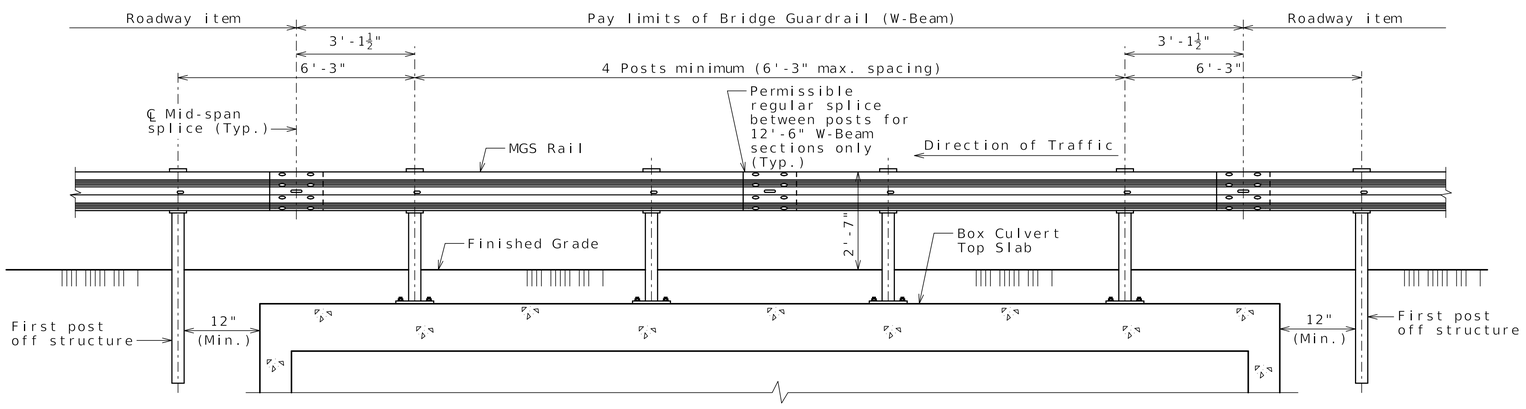
(Far from headwall)



SECTION A-A



DETAIL B



TYPICAL ELEVATION

General Notes:

Furnishing and installing posts and guardrail on culvert as shown on this sheet will be considered completely covered by the contract unit price for Bridge Guardrail (W-Beam).

Furnishing and installing posts and guardrail on culvert shall be in accordance with Sec 606 except as shown.

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

Posts and base plates shall be fabricated from ASTM A709 Grade 36 steel and galvanized.

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

The contractor shall use one of the qualified resin anchor systems in accordance with Sec 1039.

Cost of furnishing and installing the resin anchor systems, complete in place, will be considered completely covered by the contract unit price for Bridge Guardrail (W-beam).

The minimum embedment depth in concrete with f'c = 4,000 psi for the resin anchor systems shall be that required to meet the minimum ultimate pullout strength in accordance with Sec 1039 but shall not be less than 8 inches.

See Missouri Standard Plans drawing 606.50 for details not shown.

MIDWEST GUARDRAIL SYSTEM (MGS) ON BOX CULVERT

Detailed Feb. 2026
Checked Mar. 2026

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

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PROFESSIONAL ENGINEER
07/01/2026 3:11:14 PM
TIMOTHY D. LEAF - CIVIL
MO-PE-2012000778

DATE PREPARED
7/1/2026

ROUTE	STATE
A	MO
DISTRICT	SHEET NO.
BR	3

COUNTY
WAYNE

JOB NO.
JSE0147

CONTRACT ID.

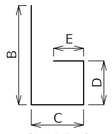
PROJECT NO.

BRIDGE NO.
A9541

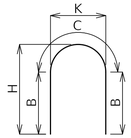
DESCRIPTION

DATE

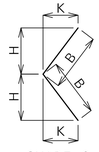
MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION
105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)



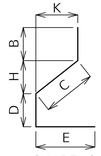
SHAPE 6
or 6S



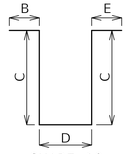
SHAPE 7



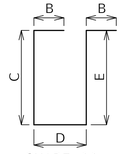
SHAPE 8
or 8S



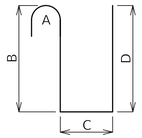
SHAPE 9
or 9S



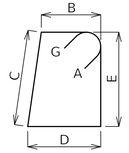
SHAPE 10
or 10S



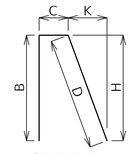
SHAPE 11
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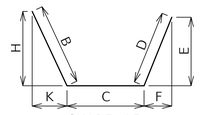
SHAPE 12



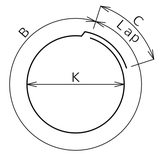
SHAPE 13S



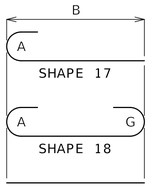
SHAPE 14
or 14S



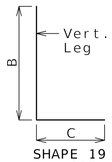
SHAPE 15
or 15S



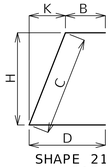
SHAPE 16



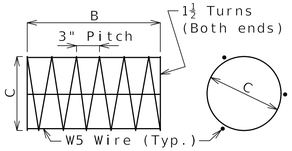
SHAPE 17
SHAPE 18
SHAPE 20



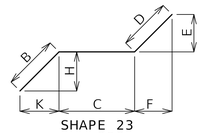
SHAPE 19
or 19S



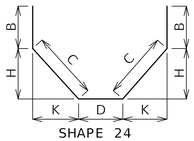
SHAPE 21
or 21S



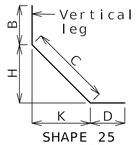
SHAPE 22



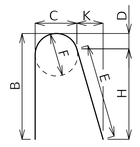
SHAPE 23
or 23S



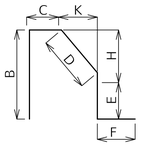
SHAPE 24
or 24S



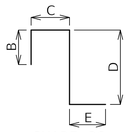
SHAPE 25
or 25S



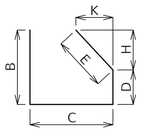
SHAPE 26



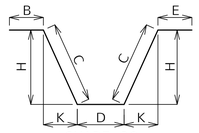
SHAPE 27S



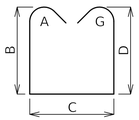
SHAPE 28
or 28S



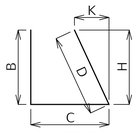
SHAPE 29
or 29S



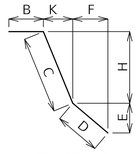
SHAPE 30
or 30S



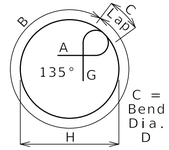
SHAPE 31S



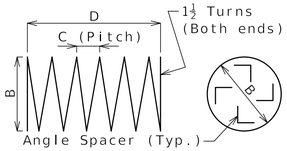
SHAPE 32
or 32S



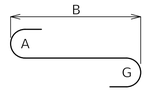
SHAPE 33
or 33S



C =
Bend
Dia.
D
SHAPE 34S



SHAPE 35 (1)

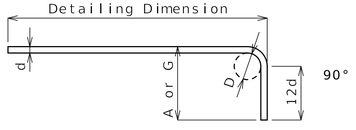


SHAPE 36

Finished Bend Diameters D and Hook Dimensions

Standard Pin Bend Shapes

Size	Case	D	A or G		J
			90°	180°	180°
#4	1	3"	8"	6"	4"
#5	1	3¾"	10"	7"	5"
#6	1	4½"	12"	8¼"	6"
#7	2	5¼"	14"	9¾"	7"
	3	7"	15"	11½"	8¾"
#8	2	6"	16"	11"	8"
	3	8"	17"	13¼"	10"
#9	1	9½"	19½"	15½"	11¾"
#10	1	10¾"	22"	17½"	13¼"
#11	1	12"	24½"	19½"	14⅞"
#14	1	18¼"	31¼"	27½"	21⅝"
#18	1	24"	41½"	36¾"	28½"

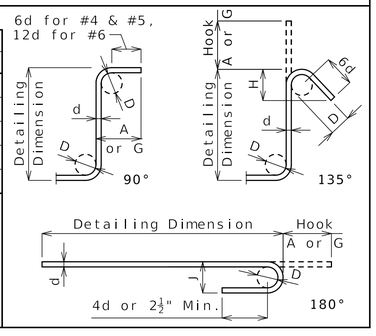


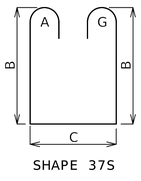
Stirrup Pin Bend Shapes (S)

Size	Case	D	A or G			H	J
			90°	135°	180°	135°	180°
#4	2	2"	4½"	4½"	5"	2⅝"	3"
	3	3"	5"	5¼"	6"	3"	4"
#5	2	2½"	5¾"	5¾"	5¾"	3⅝"	3¾"
	3	3¾"	6¼"	6½"	7"	3⅞"	5"
#6	1	4½"	12"	7¾"	8¼"	4⅝"	6"

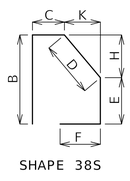
Applicable for all grades of steel.

Case 1 applies to all reinforcement. Case 2 applies to all reinforcement except for galvanized bars. Case 3 applies to galvanized bars only.





SHAPE 37S



SHAPE 38S

BENDING DIAGRAMS

All dimensions are out to out.

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

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

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

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

Reinforcing Steel Totals (Pounds)

		Substructure		Superstructure			Entire Bridge	
	Size	Plain	Galv.	Slab	Barrier	Slip Form	Plain	Galv.
By Size	W5	0	0	0	0	0	0	0
	4	9,782	0	0	0	0	9,782	0
	5	7,951	0	0	0	0	7,951	0
	6	11,344	0	0	0	0	11,344	0
	7	1,348	0	0	0	0	1,348	0
	8	807	0	0	0	0	807	0
	9	0	0	0	0	0	0	0
	10	0	0	0	0	0	0	0
	11	0	0	0	0	0	0	0
	14	0	0	0	0	0	0	0
	18	0	0	0	0	0	0	0
By Type		31,232	0	0	0	0	31,232	0

All superstructure reinforcing steel shall be galvanized unless otherwise specified.

Products used to repair damaged zinc coating shall not contain aluminum.

BENDING DIAGRAMS AND REINFORCING STEEL TOTALS

Detailed Dec. 2025
Checked Mar. 2026

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

STATE OF MISSOURI
TIMOTHY D. LEAF
NUMBER PE-2012000778
PROFESSIONAL ENGINEER
07/01/2026 3:11:23 PM
TIMOTHY D. LEAF - CIVIL
MO-PE-2012000778

DATE PREPARED
7/1/2026

ROUTE	STATE
A	MO
DISTRICT	SHEET NO.
BR	4

COUNTY
WAYNE

JOB NO.
JSE0147

CONTRACT ID.

PROJECT NO.

BRIDGE NO.
A9541

DESCRIPTION	DATE

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

Bill of Reinforcing Steel

No. Req.	Size/ Mark	Location	Codes C	SH	V	Dimensions B ft in.	C ft in.	D ft in.	E ft in.	F ft in.	H ft in.	K ft in.	Nom. Length ft in.	Actual Length ft in.	Weight lb
		CULVERT													
88	6 A101	TOP SLAB-BOTT		20		25 9.00							25 9	25 9	3,404
124	5 A102	BOTT SLAB-TOP		20		25 9.00							25 9	25 9	3,330
36	6 A103	TOP SLAB-BOTT		20	1	25 2.00							25 2	25 2	
		Incr. = 8.000"				22.00							1 10	1 10	730
45	6 A104	BOTT SLAB-TOP		20	1	46 0.00							46	46	
		Incr. = 5.500"				26 0.00							26	26	2,433
38	5 A105	BOTT SLAB-TOP		20	1	25 6.00							25 6	25 6	
		Incr. = 7.500"				2 4.00							2 4	2 4	552
144	5 B101	INT WALL		10S			12.00	7 10.00					9 10	9 7	1,439
143	5 B102	EXT WALLS		10S			12.00	7 10.00					9 10	9 7	1,429
2	8 D101	UPSTRM HDWL		20		25 9.00							25 9	25 9	138
2	8 D102	UPSTRM HDWL		20		8 0.00							8	8	43
2	8 D103	DWNSTRM HDWL		20		36 5.00							36 5	36 5	194
2	8 D104	DWNSTRM HDWL		20		8 0.00							8	8	43
24	5 E101	TOE WALL		20		4 1.00							4 1	4 1	102
23	4 F101	TOP SLAB-TOP		20		37 0.00							37	37	568
23	4 F102	TOP SLAB-TOP		20	1	49 9.00							49 9	49 9	
		Incr. = 13.875"				24 3.00							24 3	24 3	568
23	4 F103	TOP SLAB-BOTT		20		37 0.00							37	37	568
23	4 F104	TOP SLAB-BOTT		20	1	49 7.00							49 7	49 7	
		Incr. = 13.750"				24 5.00							24 5	24 5	568
2	4 F105	UPSTRM WINGS		23		29 9.50	2 7.00				10 2.25	28 0.00	32 5	32 3	43
16	4 F106	BOTT SLAB-TOP		20	2	25 11.00							25 11	25 11	
		Incr. = 38.375"				3 6.00							3 6	3 6	157
46	4 F107	BOTT SLAB-TOP		20		41 3.00							41 3	41 3	1,268
23	4 F108	BOTT SLAB-TOP		20	1	53 9.00							53 9	53 9	
		Incr. = 13.625"				28 9.00							28 9	28 9	634
4	4 F109	BOTT SLAB-BOTT		23	2	29 1.75	3 8.25				9 11.50	27 4.75	32 10	32 9	
		Incr. = 2.000"				29 8.75	3 0.00				10 2.00	27 11.25	32 9	32 7	87
3	4 F110	BOTT SLAB-BOTT		20		31 1.00							31 1	31 1	62
2	4 F111	BOTT SLAB-BOTT		20	1	37 5.00							37 5	37 5	
		Incr. = 47.000"				33 6.00							33 6	33 6	47
3	4 F112	BOTT SLAB-BOTT		20	1	51 0.00							51	51	
		Incr. = 56.000"				41 8.00							41 8	41 8	93
2	4 F113	BOTT SLAB-BOTT		20	1	59 4.00							59 4	59 4	
		Incr. = 50.000"				55 2.00							55 2	55 2	76
7	4 F114	BOTT SLAB-BOTT		20		47 4.00							47 4	47 4	221
4	4 F115	UPSTRM INT WING		20	1	28 5.00							28 5	28 5	
		Incr. = 63.375"				12 7.00							12 7	12 7	55
8	4 F116	UPSTRM EXT WINGS		20	2	29 11.00							29 11	29 11	
		Incr. = 67.000"				13 2.00							13 2	13 2	115
12	4 F117	DWNSTRM WINGS		20	3	19 2.00							19 2	19 2	
		Incr. = 39.625"				9 3.00							9 3	9 3	114
8	4 F118	INTERIOR WALL		20		37 0.00							37	37	198
6	4 F119	EXTERIOR WALL		20		58 10.00							58 10	58 10	236
12	4 F120	EXTERIOR WALL		20		43 5.00							43 5	43 5	348

Bill of Reinforcing Steel

No. Req.	Size/ Mark	Location	Codes C	SH	V	Dimensions B ft in.	C ft in.	D ft in.	E ft in.	F ft in.	H ft in.	K ft in.	Nom. Length ft in.	Actual Length ft in.	Weight lb
27	5 G101	UPSTRM INT WING		20	1	7 11.00							7 11	7 11	
		Incr. = 2.625"				2 2.00							2 2	2 2	142
1	5 G102	UPSTRM INT WING		19S		23.50	6.00						2 6	2 4	2
58	5 G103	UPSTRM EX WINGS		20	2	7 11.00							7 11	7 11	
		Incr. = 2.500"				2 0.00							2	2	300
2	5 G104	UPSTRM EX WINGS		19S		22.50	6.00						2 5	2 3	5
3	5 G105	DWNSTRM WINGS		20		7 11.00							7 11	7 11	25
51	5 G106	DWNSTRM WINGS		20	1	7 8.00							7 8	7 8	
		Incr. = 1.375"				2 0.00							2	2	257
46	6 H101	TOP SLAB-TOP		20		19 8.00							19 8	19 8	1,359
50	6 H102	TOP SLAB-TOP		20		6 6.00							6 6	6 6	488
209	6 H103	BOTTOM SLAB		20		9 4.00							9 4	9 4	2,930
4	8 H104	DWNSTRM HDWL		20		36 5.00							36 5	36 5	389
12	7 J101	DWNSTRM WINGS		23		18 7.75	3 6.50				6 2.50	17 7.00	22 2	22	540
4	7 J102	US INT WING		23		28 10.00	3 2.75				6 2.75	28 1.75	32 1	31 10	260
256	4 J103	EX WALLS/TOP SLB		19		2 7.00	4 11.25						7 6	7 5	1,268
229	4 J104	EX WALLS/BOT SLB		19		6 8.00	4 0.00						10 8	10 7	1,619
92	4 J105	UPSTRM EXT WINGS		19	2	7 11.00	4 0.00						11 11	11 10	
		Incr. = 1.375"				2 11.50	4 0.00						7	6 10	574
8	7 J106	UPSTRM EXT WINGS		23		30 5.75	3 2.75				6 2.75	29 10.00	33 9	33 6	548
1	4 J107	DS EAST WING		19		7 11.00	4 0.00						11 11	11 10	8
23	4 J108	DS EAST WING		19S	1	7 10.00	4 0.00						11 10	11 9	
		Incr. = 2.625"				2 11.50	4 0.00						7	6 10	143
23	4 J109	DS WEST WING		19S	1	7 11.00	4 0.00						11 11	11 10	
		Incr. = 2.625"				3 0.50	4 0.00						7 1	6 11	144
26	5 R101	UPSTRM HDWL		27S		17.00	13.75	6.00	2 2.50		4.25	4.25	5 3	5 1	138
26	5 R102	UPSTRM HDWL		10			10.50	18.00					3 3	3	81
35	5 R103	DWNSTRM HDWL		10			17.00	18.00					4 4	4 1	149

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

For bending diagrams and steel reinforcing totals, see Sheet No. 4.

All bars shall be (ASTM A615 Grade 60)

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

SH = Required shape, see bending diagrams.

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

Detailed Dec. 2025
Checked Mar. 2026

BILL OF REINFORCING STEEL

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

STATE OF MISSOURI
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PROFESSIONAL ENGINEER
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DATE PREPARED 7/1/2026

ROUTE A | STATE MO
DISTRICT BR | SHEET NO. 5
COUNTY WAYNE
JOB NO. JSE0147
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PROJECT NO.
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