

DESIGN DESIGNATION
 A.A.D.T. - 2023 = 9,792
 A.A.D.T. - 2043 = 15,667
 T = 6.6%
 V = 30 M.P.H.
 D = 75%/25%
 FUNCTIONAL CLASSIFICATION - MINOR ARTERIAL

NO RIGHT OF WAY WILL BE ACQUIRED WITH THIS PROJECT.

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION
 PLANS FOR PROPOSED
 STATE HIGHWAY



PHELPS COUNTY
ROLLA, MO

SECTION 6, T37N, R7W
 LATITUDE: 37°57'05" N
 LONGITUDE: 91°46'08" W



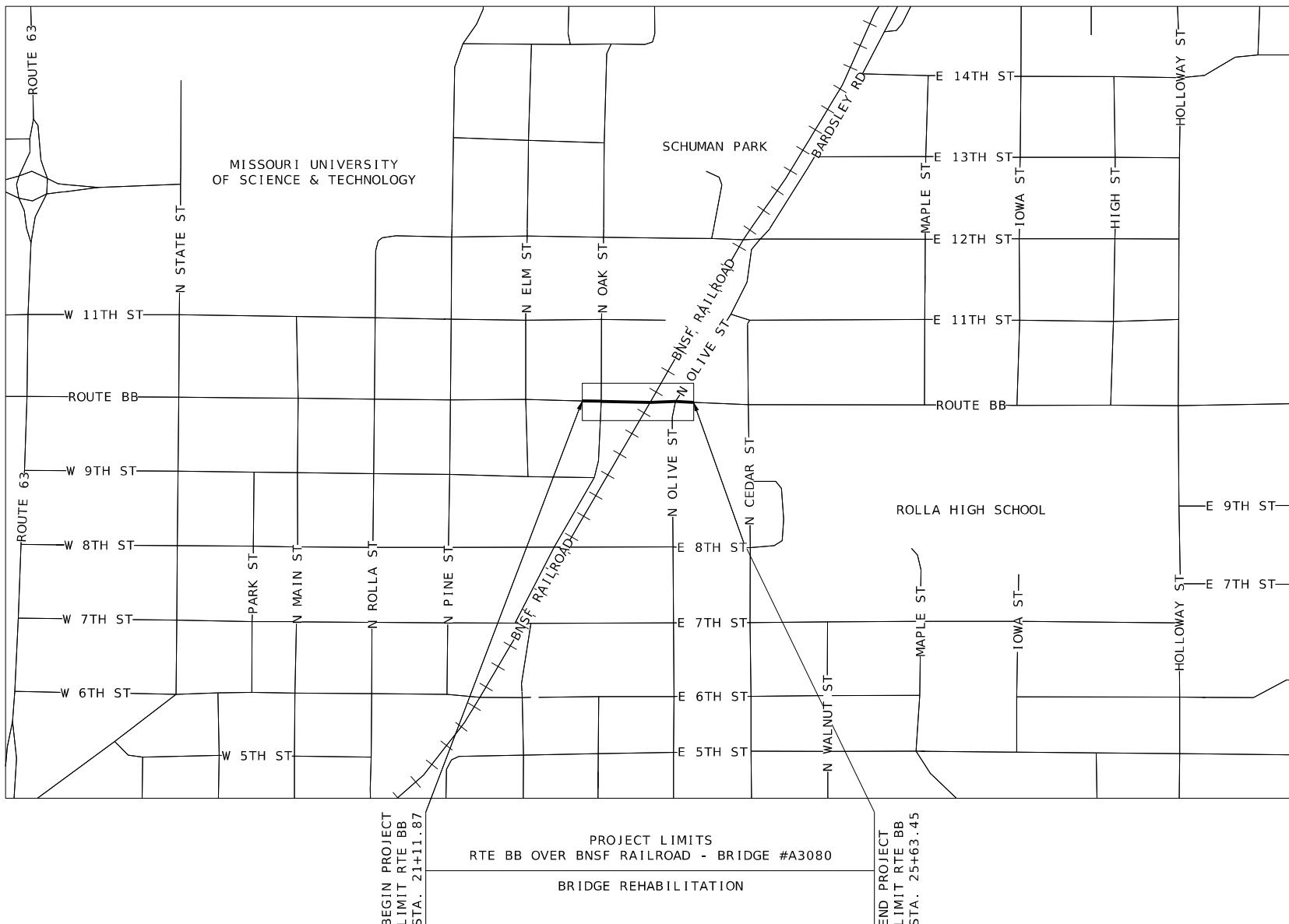
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CONVENTIONAL SYMBOLS
(USED IN PLANS)

	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	DI	
DITCH BLOCK		
GROUND MOUNTED SIGN	SIGN	
LIGHT POLE		
H-FRAME POWER POLE	PED	
TELEPHONE PEDESTAL		
FENCE	△	
CHAIN LINK	V	
WOVEN WIRE	X	
GATE POST	⊗	
BENCHMARK	BM	

NOTE: DASHED OR OPEN SYMBOLS INDICATE EXISTING FEATURES



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) (3 SHEETS)	3
PLAN SHEET (PL)	4
COORDINATE POINT SHEET (CP)	5
SPECIAL SHEET (SS)	6
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EROSION CONTROL SHEET (EC)	12
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BRIDGE DRAWINGS (B)	
A3080	1-6

ANDREA S. DAVIS PROFESSIONAL ENGINEER #	10/30/2025 3:20:40 PM Andrea S. Davis - Civil MO PE-2018021250
DATE PREPARED	
ROUTE BB	STATE MO
DISTRICT CD	SHEET NO. 1
COUNTY PHELPS	
JOB NO. JCD0089	
CONTRACT ID.	
PROJECT NO.	
BRIDGE NO.	

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

RAILROAD INFORMATION

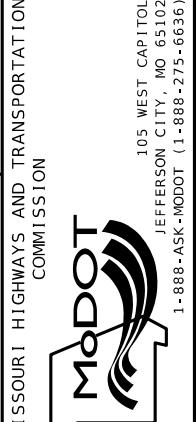
SUBDIVISION: BNSF CUBA
 LINE SEGMENT: 1002
 MILEPOST: 110.514

NOTE:

NO WORK IS ALLOWED WITHIN 25 FEET OF THE NEAREST TRACK UNLESS PROTECTED BY A FLAGGER. WHEN TRAINS APPROACH THE WORK SITE, ALL ACTIVITY WITHIN 50 FEET OF THE TRACK SHALL STOP UNTIL THE ENTIRE LENGTH OF THE TRAIN HAS PASSED THE WORK SITE.

LENGTH OF PROJECT

BEGINNING OF PROJECT	STA. 21+11.87
END OF PROJECT	STA. 25+63.45
APPARENT LENGTH	451.58 FEET
EQUATIONS AND EXCEPTIONS:	NONE



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THIS PAGE REFERS.

RTE. BB E

68'

54' ROADWAY

1' BUFFER

1' BUFFER

7'

7'

4' SIDEWALK

3' (1) TYPE B C&G

5' SHOULDER

12' LANE

EX. SLOPE

14' TWO-WAY LEFT TURN LANE

12' LANE

EX. SLOPE

5' SHOULDER

3' (1) TYPE B C&G

4' SIDEWALK

EX. GROUND

EX. PAVEMENT

EXISTING TYPICAL SECTION
ROUTE BB

STA. 21+11.87 TO STA. 21+31.87
STA. 25+43.45 TO STA. 25+63.45
(1) TREELAWN VARIES FROM 3' TO 0'

(2) *William Hayes, Jr.* (3)

PROPOSED TYPICAL SECTION
ROUTE BB

STA. 21+11.87 TO STA. 21+31.87
STA. 25+43.45 TO STA. 25+63.45

(1) TAPER TREELAWN FROM 3' TO 0'
(2) CURB AND GUTTER SLOPE - TAPERED FROM

RTE. BB C
68'

54' ROADWAY

12' LANE
2% SLOPE

14' TWO-WAY LEFT TURN LANE

12' LANE
2% SLOPE

7' SHOULDER

3' (1) TYPE B C&G (2)

4' SIDEWALK

7' SIDEWALK

1' BUFFER

EX. GROUND

NEW CONCRETE SIDEWALK (4" THICK)

NEW TYPE 5 AGGREGATE (4" THICK)

CONCRETE CURB & GUTTER

NEW TYPE 5 AGGREGATE (4" THICK)

COLD MILL 2" ASPHALT
2" BITUMINOUS PAVEMENT
MIXTURE BP-1 (PG 64-22)

EX. PAVEMENT

NEW CONCRETE SIDEWALK (4" THICK)

NEW TYPE 5 AGGREGATE (4" THICK)

CONCRETE CURB & GUTTER

NEW TYPE 5 AGGREGATE (4" THICK)

PROPOSED TYPICAL SECTION
ROUTE BB

STA. 21+11.87 TO STA. 21+31.87

STA. 25+43.45 TO STA. 25+63.45

(1) TAPER TREELAWN FROM 3' TO 0'
(2) CURB AND GUTTER SLOPE: TAPER FROM
EXISTING TO MATCH CROSS SLOPE AT BRIDGE

The diagram illustrates a cross-section of a roadway. At the top, it is labeled "RTE. BB €" and "66.75'". The total width of the "ROADWAY" is 53'. Below the roadway, a "TWO-WAY LEFT TURN LANE" is indicated with a curved arrow. The "LANE" widths are 12' each. The "SIDEWALK" widths are 7.5' each. "BARRIER" widths are 16.5" each. "CURB BLOCKOUT" dimensions are 5' and 2' 8". The "WEARING SURFACE" is described as "1.75" LATEX MODIFIED CONCRETE". The "SLOPE" is 1.5% on both sides of the turn lane. The "FENCE" height is 6' TALL CHAIN-LINK FENCE. The bottom of the diagram shows a dashed line with vertical markers indicating heights of 16.5", 9', 9', 9', 9', 9', 9', and 16.5" from the base level.

BRIDGE TYPICAL SECTION
ROUTE BB

BRIDGE LIMITS:
STA. 21+31.87 TO STA. 25+43.45

APPLICATION RATES:
BP-1 (PG64-22): 1.948 TON/CUYD COMPACTED MIXTURE
TACK COAT: 0.10 GAL/SQYD

PAVEMENT HISTORY:
CONSTRUCTED: 1975
OVERLAY: 2001

NOT TO SCALE

BRIDGE TYPICAL SECTION FOR INFORMATION ONLY
SEE BRIDGE SHEETS

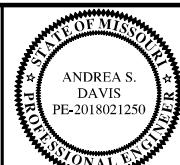
TYPICAL SECTION
SHEET 1 OF 1

The logo for HB Green, featuring the letters 'HB' in a stylized, blocky font.

\\hrgreen.com\hrq\Data\2022\2202603.04\CAD\Roadway\Plan_Sheets\02_TS_01_JCD0089_11.dwg 3:44:17 PM 10/27/2025

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MOBILIZATION	1 LUMP SUM
CONTRACTOR FURNISHED SURVEYING AND STAKING	1 LUMP SUM
RAILROAD PLAN SUBMITTAL	1 LUMP SUM



Andrea S. Davis

10/30/2025 3:20:56 PM
Andrea S. Davis - Civil
MO PE-2018021250

DATE PREPARED
10/27/2025

ROUTE STATE
BB MO

DISTRICT SHEET NO.
CD 3

COUNTY PHELPS

JOB NO. JCD0089

CONTRACT ID.

PROJECT NO.

BRIDGE NO.

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

REMOVAL OF IMPROVEMENTS							
PLAN SHEET NO.	STA.	STA.	LOC.	EA	SY	LF	DESCRIPTION
4	21+11.87	21+11.87	BOTH			54	SAWCUT ACROSS RTE BB
4	21+11.87	21+31.87	LT			20	CURB & GUTTER
4	21+11.87	21+31.84	LT		11		SIDEWALK
4	21+11.87	21+31.87	RT			20	CURB & GUTTER
4	21+11.87	21+31.93	RT		11		SIDEWALK
4	21+29.92		RT	1			PULLBOX
4	21+30.17		LT	1			PULLBOX
4	25+34.86	25+55.71	RT			21	CURB & GUTTER
4	25+34.61	25+55.59	RT		12		SIDEWALK
4	25+37.20		RT	1			PULLBOX
4	25+51.51	25+71.31	LT			20	CURB & GUTTER
4	25+52.27	25+71.31	LT		12		SIDEWALK
4	25+55.59	25+71.31	BOTH			57	SAWCUT ACROSS RTE BB
4	25+55.78		LT	1			PULLBOX
PAY TOTAL					1 LUMP SUM		

PAVEMENT MARKING									
PLAN SHEET NO.	STA.	STA.	LOC.	ROADWAY	CLASS 1 PAVEMENT MARKING PAINT TYPE P BEADS			PREFORMED THERMOPLASTIC PAVEMENT MARKING LEFT ARROW EACH	REMARKS
					4" SOLID WHITE LF	4" INTERMITTENT YELLOW LF	4" SOLID YELLOW LF		
13	19+27.50	28+08.30	LT	RTE BB	880.8				
13	19+27.50	28+08.30	LT	RTE BB		220.2			
13	19+27.50	28+08.30	RT	RTE BB		220.2			
13	19+27.20	28+08.30	RT	RTE BB			880.8		
13	19+27.20	27+16.70	RT	RTE BB	789.2				
13	20+15.23		RT	RTE BB				1	
13	23+22.73		-	RTE BB				1	
13	23+52.73		-	RTE BB				1	
SUBTOTAL		1670.0			440.4		1761.6	3	
PAY TOTAL		1670			2202			3	

PAVEMENT									
PLAN SHEET NO.	STA.	STA.	LOC.	ROADWAY	AREA SF	AREA SY	2" BITUMINOUS PAVEMENT BP-1 W/ PG 64-22 (1.948 TONS/CY)	COLDMILLING BITUMINOUS PAVEMENT FOR REMOVAL OF SURFACING (3 IN. THICK OR LESS) (SY)	
								REMARKS	
4	21+11.87	21+31.87	LT	RTE BB	480.0	53.3	5.8	5.3	53.3
4	21+11.87	21+31.87	RT	RTE BB	480.0	53.3	5.8	5.3	53.3
4	25+43.45	25+63.45	RT	RTE BB	480.0	53.3	5.8	5.3	53.3
4	25+43.45	25+63.45	LT	RTE BB	480.0	53.3	5.8	5.3	53.3
SUBTOTAL					23.2		21.2	213.2	
PAY TOTAL					24.0		22	214	

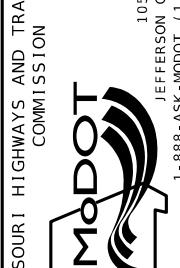
SIDEWALK, ADA & MEDIAN								
PLAN SHEET NO.	STA.	STA.	LOC.	ROADWAY	AREA SF	CONCRETE SIDEWALK 4 IN. SY	TYPE 5 AGGREGATE FOR BASE (4 IN. THICK) SY	REMARKS
4/6	21+06.87	21+31.84	LT	RTE BB	138.4	15.4	15.4	
4/6	21+06.87	21+31.93	RT	RTE BB	136.6	15.2	15.2	
4/6	25+34.61	25+60.59	RT	RTE BB	117.0	13.0	13.0	
4/6	25+52.29	25+76.31	LT	RTE BB	116.9	13.0	13.0	
SUBTOTAL					56.6		56.6	
PAY TOTAL					56.6		*	

* SEE AGGREGATE SUMMARY TABLE

CURB AND GUTTER						
PLAN SHEET NO.	STA.	STA.	LOC.	CURB & GUTTER TYPE B LF	TYPE 5 AGGREGATE FOR BASE (4 IN. THICK) SY	REMARKS
4/6	21+11.87	21+31.87	LT	20.0	6.7	
4/6	21+11.87	21+31.87	RT	20.0	6.7	
4/6	25+34.61	25+55.59	RT	21.0	7.0	
4/6	25+52.29	25+71.31	LT	20.0	6.7	
SUBTOTAL				81	27.1	
PAY TOTAL				81	*	

* SEE AGGREGATE SUMMARY TABLE

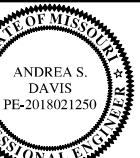
TYPE 5 AGGREGATE BASE	
	TYPE 5 AGGREGATE FOR BASE (4 IN. THICK) SY
	56.6
BASE UNDER SIDEWALK	27.1
SUBTOTAL	83.7
PAY TOTAL	84



HR GREEN, INC.
520 MARVILLE CENTRE DRIVE,
SUITE 100
ST. LOUIS, MISSOURI 63141
PHONE: (636) 519-0990
CORPORATE LICENSE #2002006608



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10/30/2025 3:21:14 PM
Andrea S. Davis - Civil
MO PE-2018021250

DATE PREPARED

10/27/2025

ROUTE BB STATE MO

DISTRICT CD SHEET NO. 3

COUNTY PHELPS

JOB NO. JCD0089

CONTRACT ID.

PROJECT NO.

BRIDGE NO.

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

TEMPORARY PAVEMENT MARKING								
PLAN SHEET NO.	STA.	STA.	LOC.	ROADWAY	4 IN. TEMP. PAVEMENT MARKING PAINT	PAVEMENT MARKING REMOVAL (SYMBOLS) EA	REMARKS	
					SOLID WHITE LF			
7	19+27.50	21+31.87	BOTH	RTE BB		920	1	REMOVALS BEFORE PHASE 1
7	21+31.87	25+63.45	LT	RTE BB		971	2	REMOVALS BEFORE PHASE 1
7	25+63.45	28+08.30	BOTH	RTE BB		1010		REMOVALS BEFORE PHASE 1
7	19+27.50	27+16.50	LT	RTE BB	1409	985		PHASE 1
7	19+27.50	21+31.87	LT	RTE BB		613		REMOVALS AFTER PHASE 1
7	25+63.45	27+60.50	LT	RTE BB		437		REMOVALS AFTER PHASE 1
8	19+27.50	28+08.30	RT	RTE BB	1472	1139		PHASE 2
8	19+27.50	28+08.30	RT	RTE BB		2611		REMOVALS AFTER PHASE 2
SUBTOTAL					2881	2124	6562	3
PAY TOTAL					5005		6562	3

TEMPORARY EROSION CONTROL								
PLAN SHEET NO.	ROADWAY	STA.	STA.	LOC.	SILT FENCE LF	SEDIMENT REMOVAL CY	REMARKS	
12	RTE BB	20+92.35	21+47.36	LT	67	1		
12	RTE BB	20+92.42	51+47.55	RT	68	1		
12	RTE BB	25+19.60	25+77.65	RT	70	1		
12	RTE BB	25+37.15	25+93.45	LT	69	1		
SUBTOTAL					274	4		
PAY TOTAL					274	4		

SEEDING & SOD							
PLAN SHEET NO.	STA.	STA.	ROADWAY	LOC.	AREA SF	TURF TYPE TALL FESCUE SODDING SY	REMARKS
4	21+11.87	21+31.87	RTE BB	LT	38.9	4.3	
4	21+11.87	21+31.87	RTE BB	RT	36.8	4.1	
4	25+34.61	25+55.59	RTE BB	LT	39.2	4.4	
4	25+52.29	25+71.31	RTE BB	RT	36.6	4.1	
SUBTOTAL					16.9		
PAY TOTAL					17		

UTILITY ADJUSTMENTS						
PLAN SHEET NO.	STA.	OFF.	LOC.	ROADWAY	PREFORMED PULLBOX CLASS 1 EA	REMARKS
4	21+29.92	28.5	RT	RTE BB	1	
4	21+30.17	23.5	LT	RTE BB	1	
4	25+37.20	28.6	RT	RTE BB	1	
4	25+55.78	28.8	LT	RTE BB	1	
SUBTOTAL					4	
PAY TOTAL					4	



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



QUANTITIES
SHEET 2 OF 3

SIGN	SIZE	AREA	QTY	TOTAL	QTY	TOTAL	RELOC	RELOC	SIGN	DESCRIPTION	SIGN	SIZE	AREA	QTY	TOTAL	RELOC	RELOC	SIGN	DESCRIPTION	ITEM NUMBER	TOTAL	EFFECTIVE: 07-01-2025		
WARNING SIGNS																								
WO1-1L	48X48	16.00								TURN (SYMBOL LEFT)	E05-1	36X48	12.00						GORE EXIT	6122008		IMPACT ATTENUATOR 40 MPH (SAND BARRELS)		
WO1-1R	48X48	16.00								TURN (SYMBOL RIGHT)	E05-2	48X36	12.00						EXIT OPEN	6122009		IMPACT ATTENUATOR 45 MPH (SAND BARRELS)		
WO1-2L	48X48	16.00								CURVE (SYMBOL LEFT)	E05-2a	48X36	12.00						EXIT CLOSED	6122010		IMPACT ATTENUATOR 50 MPH (SAND BARRELS)		
WO1-2R	48X48	16.00								CURVE (SYMBOL RIGHT)	GO20-1	60X24	10.00						ROAD WORK NEXT XX MILES	6122012		IMPACT ATTENUATOR 55 MPH (SAND BARRELS)		
WO1-3L	48X48	16.00								REVERSE TURN (SYMBOL LEFT)	GO20-2	48X24	8.00						END ROAD WORK	6122014		IMPACT ATTENUATOR 60 MPH (SAND BARRELS)		
WO1-3R	48X48	16.00								REVERSE TURN (SYMBOL RIGHT)	GO20-4	36X18	4.50						PILOT CAR FOLLOW ME	6122017		IMPACT ATTENUATOR 65 MPH (SAND BARRELS)		
WO1-4L	48X48	16.00	2	32.00	2	32.00	6A	REVERSE CURVE (SYMBOL LEFT)	GO20-4a	42X30	8.75							PILOT CAR IN USE WAIT & FOLLOW	6122019		IMPACT ATTENUATOR 70 MPH (SAND BARRELS)			
WO1-4R	48X48	16.00	2	32.00	2	32.00	6B	REVERSE CURVE (SYMBOL RIGHT)	GO20-4a	18X12	1.50							PILOT CAR IN USE WAIT & FOLLOW	6122020		REPLACEMENT SAND BARREL			
WO1-4bL	48X48	16.00								DOUBLE ARROW REVERSE CURVE (SYMBOL LEFT)	GO20-5aP	36X24	6.00						WORK ZONE (PLAQUE)	6122030		IMPACT ATTENUATOR (RELOCATION)		
WO1-4bR	48X48	16.00								DOUBLE ARROW REVERSE CURVE (SYMBOL RIGHT)	MO4-8a	24X18	3.00	4	12.00			END DETOUR	6122040		WORK ZONE CRASH CUSHION (NARROW)			
WO1-4cL	48X48	16.00								TRIPLE ARROW REVERSE CURVE (SYMBOL LEFT)	MO4-9L	48X36	12.00						DETOUR (LEFT)	6122041		WORK ZONE CRASH CUSHION (RELOCATION)		
WO1-4cR	48X48	16.00								TRIPLE ARROW REVERSE CURVE (SYMBOL RIGHT)	MO4-9R	48X36	12.00						DETOUR (RIGHT)	6123001		TRUCK MOUNTED ATTENUATOR (TMA)		
WO1-6	60X30	12.50								HORIZONTAL ARROW (SYMBOL)	MO4-9P	48X12	4.00						STREET NAME (PLAQUE)	6161012		BUOYS (BOATS KEEP OUT)		
WO1-6a	72X36	18.00								HORIZ. ARROW (SYMBOL ON PERMANENT BARRICADE)	MO4-10L	48X18	6.00						DETOUR ARROW (LEFT)	6161013		BUOYS (NO WAKE)		
WO1-7	60X30	12.50								DOUBLE HEAD HORIZONTAL ARROW (SYMBOL)	MO4-10R	48X18	6.00						DETOUR ARROW (RIGHT)	6161014		SPECIAL SIGN ASSEMBLY (BOATS KEEP OUT)		
WO1-7a	72X36	18.00								DOUBLE HEAD HORIZ. ARROW (SYMBOL ON PERM. BARR.)										6161020		CHANNELIZER (DRUM-LIKE)		
WO1-8	18X24	3.00								CHEVRON (SYMBOL)										6161022		CHANNELIZER (CONE)		
WO1-8a	30X36	7.50								CHEVRON (SYMBOL FOR DIVIDED HIGHWAYS)	R1-1	48X48	13.25						STOP	6161025	57	CHANNELIZER (TRIM-LINE)		
WO3-1	48X48	16.00								STOP AHEAD (SYMBOL)	R1-2	48TRI.	6.93						YIELD	6161026		CHANNELIZER (VERTICAL PANEL)		
WO3-2	48X48	16.00								YIELD AHEAD (SYMBOL)	R1-2a	36X36	9.00						TO ONCOMING TRAFFIC (PLAQUE)	6161030	20	TYPE 3 MOVEABLE BARRICADE		
WO3-3	48X48	16.00								SIGNAL AHEAD (SYMBOL)	R1-3P	30X12	2.50						ALL WAY (PLAQUE)	6161033		DIRECTION INDICATOR BARRICADE		
WO3-4	48X48	16.00								BE PREPARED TO STOP	R2-1	36X48	12.00						SPEED LIMIT XX	6161040		FLASHING ARROW PANEL		
WO4-1L	48X48	16.00								MERGE (SYMBOL FROM LEFT)	R3-1	48X48	16.00						NO RIGHT TURN (SYMBOL)	6161047		TYPE 3 OBJECT MARKER		
WO4-1R	48X48	16.00								MERGE (SYMBOL FROM RIGHT)	R3-2	48X48	16.00	2	32.00				NO LEFT TURN (SYMBOL)	6161055		SEQUENTIAL FLASHING WARNING LIGHT		
WO4-1aL	48X48	16.00								MERGE (LEFT)	R3-3	36X36	9.00						NO TURNS	6161070		TUBULAR MARKER		
WO4-1aR	48X48	16.00								MERGE (RIGHT)	R3-4	48X48	16.00						NO U-TURN (SYMBOL)	6161095		RADAR SPEED ADVISORY SYSTEM		
WO5-1	48X48	16.00	2	32.00	2	32.00	11	ROAD/BRIDGE/RAMP NARROWS	R3-7L	30X30	6.25							LEFT LANE MUST TURN LEFT	6161096		CHANGEABLE MESSAGE SIGN, COMMISSION FURNISHED/RETAINED			
WO5-3	48X48	16.00								ONE LANE BRIDGE	R3-7R	30X30	6.25						RIGHT LANE MUST TURN RIGHT					
WO5-5	48X48	16.00								NARROW LANES	R4-1	36X48	12.00						DO NOT PASS	6161098A	2**	CHANGEABLE MESSAGE SIGN WITHOUT COMM. INTERFACE, CONTRACTOR FURNISHED/RETAINED		
WO6-1	48X48	16.00								DIVIDED HIGHWAY (SYMBOL)	R4-2	36X48	12.00						PASS WITH CARE	6161099		CHANGEABLE MESSAGE SIGN WITH COMM. INTERFACE, CONTRACTOR FURNISHED/RETAINED		
WO6-2	48X48	16.00								DIVIDED HIGHWAY END (SYMBOL)	R4-7a	36X48	12.00						KEEP RIGHT (HORIZONTAL ARROW)					
WO6-3	48X48	16.00								TWO WAY TRAFFIC (SYMBOL)	R4-8a	36X48	12.00						KEEP LEFT (HORIZONTAL ARROW)	6162000A		WORK ZONE TRAFFIC SIGNAL SYSTEM		
WO7-3a	30X24	5.00								NEXT XX MILES (PLAQUE)	R5-1	30X30	6.25						DO NOT ENTER	6162002		TEMPORARY LONG-TERM RUMBLE STRIPS		
WO8-1	48X48	16.00								BUMP	R6-1L	54X18	6.75						WRONG WAY	6173600D	465**	TEMPORARY TRAFFIC BARRIER, CONTRACTOR FURNISHED/RETAINED		
WO8-2	48X48	16.00								DIP	R6-1R	54X18	6.75	1	6.75				ONE WAY ARROW (LEFT)	6173700B		TEMP. TRAFFIC BARRIER ANCHORED, CONTRACTOR FURNISHED/RETAINED		
WO8-3	48X48	16.00								PAVEMENT ENDS	R6-2L	24X30	5.00						ONE WAY (LEFT)	6173706		TEMP. TRAFFIC BARRIER STIFFNESS TRANSITION, CONTRACTOR FURNISHED/RETAINED		
WO8-4	48X48	16.00								SOFT SHOULDER	R9-9	24X12	2.00											

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12/4/2025

ROUTE BB STATE MO

DISTRICT CD SHEET NO. 4

COUNTY PHELPS

JOB NO. JCD0089

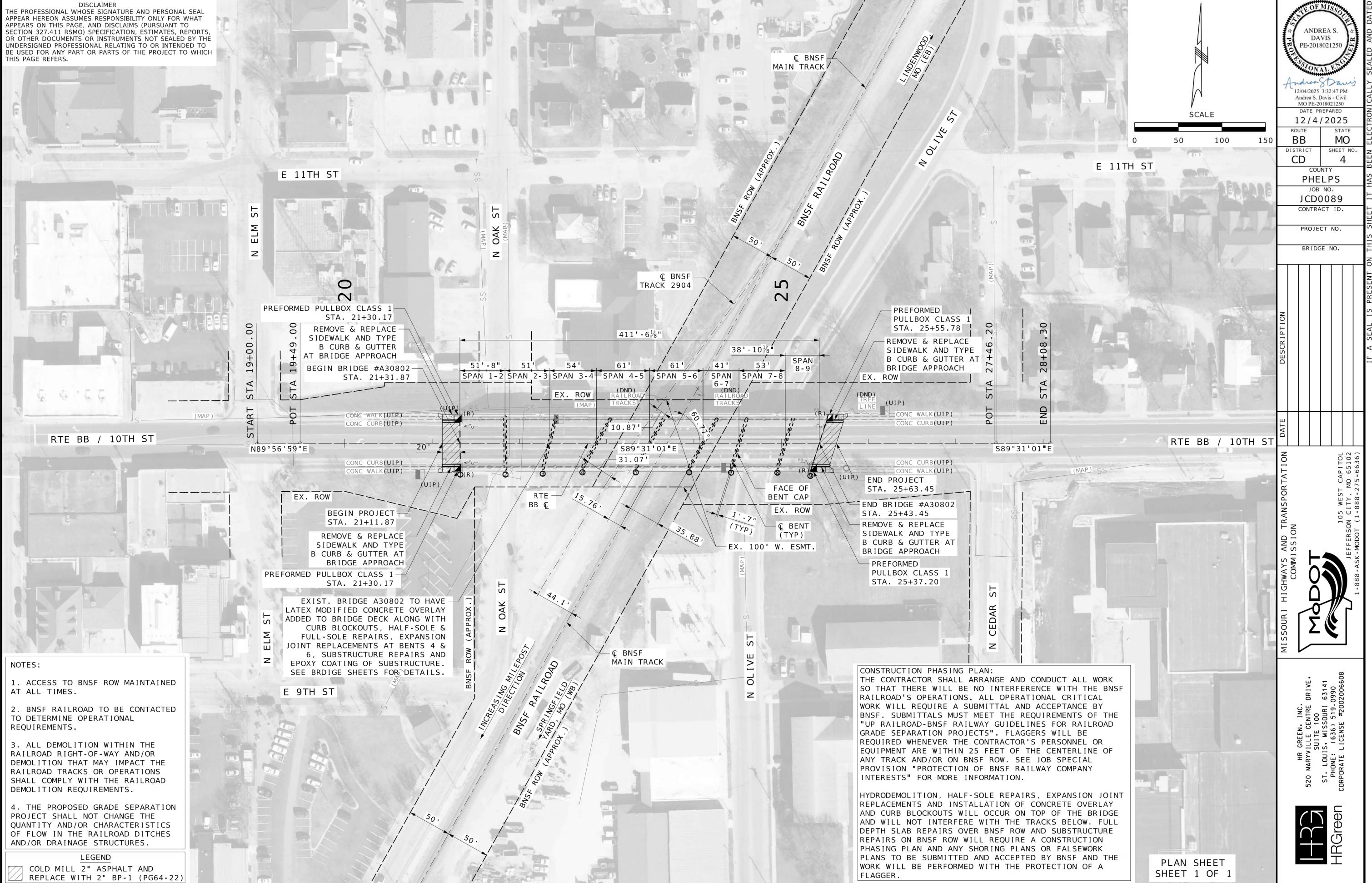
CONTRACT ID.

PROJECT NO.

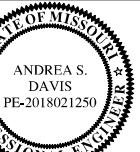
BRIDGE NO.

150

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ROUTE STATE

BB MO

DISTRICT SHEET NO.

CD 5

COUNTY

PHELPS

JOB NO.

JCD0089

CONTRACT ID.

PROJECT NO.

BRIDGE NO.

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

ALL PROJECT COORDINATES HAVE BEEN PROJECTED FROM THE MISSOURI STATE PLANE COORDINATE (SPC) SYSTEM OF 1983 USING AN AVERAGE PROJECT PROJECTION (GRID TO GROUND) FACTOR. TO GET BACK TO STATE PLANE COORDINATES MULTIPLY THE PROJECT COORDINATES BY THE AVERAGE GRID FACTOR AS SHOWN IN THE "REFERENCE CONTROL INFORMATION" PORTION OF THIS TABLE.

PROJECT COORDINATE INFORMATION

COORDINATE SYSTEM	MO COORDINATE SYSTEM OF 1983
HORIZONTAL DATUM	NAD83
VERTICAL DATUM	NAVD88
GEOID MODEL	GEOD 18
ELEVATIONS DETERMINED BY	GPS

PROJECT PROJECTION FACTOR 1.00005180

REFERENCE CONTROL INFORMATION

COORDINATE SYSTEM	MO COORDINATE SYSTEM OF 1983
CONTROL STATION	MISSOURI COR

DESIGNATION MODOT ST ROBERT CORS ARP

CORS_ID MOSR

PID DL6906

LATITUDE N37°49'14.66174"

LONGITUDE W092°09'15.38856"

NORTHING (M) 220592.8700

EASTING (M) 530437.7000

ZONE CENTRAL

PROJECT AVERAGE GRID FACTOR 0.99994820

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 #300

N 771,818.17 X 0.9994820 = N 771,838.187

E 1,851,173.566 X 0.99994820 = E 1,851,077.675

LINEAR UNIT CONVERSION

1 METER = 3.280833333 US SURVEY FEET (USFT)

COORDINATE POINT LISTING							
SHEET NO	STATION	LOCATION	OFFSET (USFT)	MODIFIED STATE PLANE (GROUND)			POINT ID
				NORTHING (US SURVEY FT)	EASTING (US SURVEY FT)	ELEVATION (US SURVEY FT)	
PROJECT CONTROL POINTS							
4	20+94.71	RT	28.2237	771,986.524	1,851,034.829	1,122.33	LARGE NAIL 101
4	23+84.44	RT	66.5005	771,945.806	1,851,324.235	1,109.48	MAG NAIL 102
4	23+84.34	LT	59.3807	772,071.683	1,851,325.196	1,099.96	LARGE NAIL 103
4	22+34.35	RT	135.4038	771,878.170	1,851,173.566	1,101.52	CUT CROSS 300
4	24+89.61	LT	117.1112	772,128.524	1,851,430.941	11,004.93	IRON ROD WITH CAP 301
ALIGNMENT							
ELEMENT	STATION	LENGTH (USFT)	BEARING	NORTHING (US SURVEY FT)	EASTING (US SURVEY FT)		DESCRIPTION
ALIGNMENT: RTE BB C							
TANGENT	19+00.00			772,015.932	1,850,840.367		START
TANGENT	19+49.00	49.00	N89°56'59"E	772,015.975	1,850,889.367		HPI
TANGENT	19+49.00			772,015.975	1,850,889.367		HPI
TANGENT	27+46.20	797.20	S89°31'01"E	772,009.254	1,851,686.539		HPI
TANGENT	27+46.20			772,009.254	1,851,686.539		HPI
TANGENT	28+08.30	62.10	S89°31'01"E	772,008.730	1,851,748.636		END

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

HR GREEN, INC.
520 MARVILLE CENTRE DRIVE,
SUITE 100
ST. LOUIS, MISSOURI 63141
PHONE: (636) 519-0990
CORPORATE LICENSE #2002006608

HRGreen

COORDINATE POINTS
SHEET 1 OF 1

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TRAFFIC CONTROL NOTES:

ANY EXISTING WARNING OR REGULATORY SIGNS (NOT SHOWN) THAT INTERFERE WITH THE TRAFFIC CONTROL SIGNING SHALL BE COMPLETELY COVERED OR REMOVED, NO DIRECT PAY.

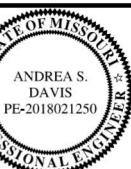
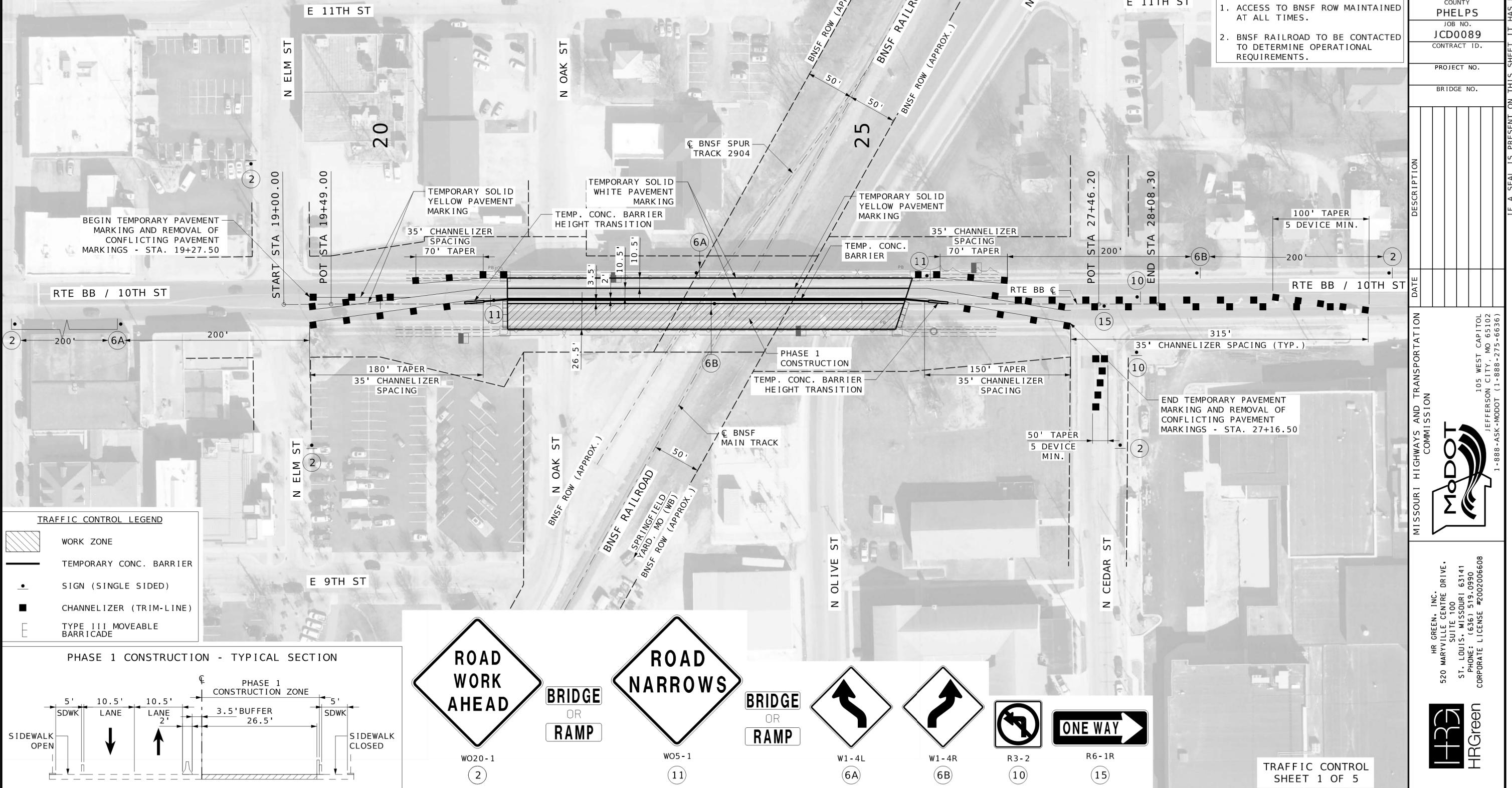
ALL TRAFFIC CONTROL SIGNS ARE TO BE NON-PORTABLE UNLESS OTHERWISE NOTED.

SEE STANDARD PLANS 616.10, 903.01 AND 909.03 FOR ADDITIONAL DETAILS REGARDING TRAFFIC CONTROL HIGHWAY SIGNING.

TEMPORARY TRAFFIC CONTROL SIGN AND DEVICE LOCATIONS MAY BE ADJUSTED UPON APPROVAL OF THE ENGINEER. WHERE TRAFFIC BACKUPS ARE EXPECTED BEYOND THE ADVANCED WARNING AREA, ADDITIONAL SIGNING MAY BE NEEDED AS DIRECTED BY THE ENGINEER.

ANY RELOCATION OF SIGNS AND DEVICES FOR TRAFFIC CONTROL DETOUR SHALL BE CONSIDERED INCIDENTAL. NO DIRECT PAY.

ALL WARNING SIGNS SHALL HAVE FLUORESCENT SHEETING.



Andrea S. Davis

12/04/2025 3:32:43 PM

Andrea S. Davis - Civil

MO PE-2018021250

DATE PREPARED

12/4/2025

0 50 100 150

SCALE

12/4/2025

ROUTE BB STATE MO

DISTRICT CD SHEET NO. 7

COUNTY PHELPS

JOB NO. JCD0089

CONTRACT ID.

PROJECT NO.

BRIDGE NO.

NOTES:

1. ACCESS TO BNSF ROW MAINTAINED AT ALL TIMES.

2. BNSF RAILROAD TO BE CONTACTED TO DETERMINE OPERATIONAL REQUIREMENTS.

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MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

MODOT

105 WEST CAPITOL

JEFFERSON CITY, MO 65102

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

DATE

DESCRIPTION

PHASE 1 CONSTRUCTION - TYPICAL SECTION

HR Green, Inc.

520 Marville Centre Drive,

Suite 100

St. Louis, Missouri 63141

Phone: (314) 519-0990

Corporate License #200206608

12/4/2025

3:27:45 PM

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TRAFFIC CONTROL NOTES:

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SEE STANDARD PLANS 616.10, 903.01 AND 909.03 FOR
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TEMPORARY TRAFFIC CONTROL SIGN AND DEVICE LOCATIONS MAY BE
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BE CONSIDERED INCIDENTAL. NO DIRECT PAY.

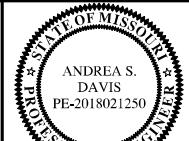
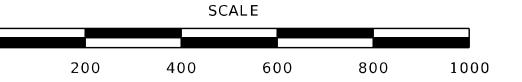
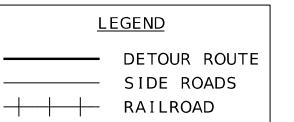
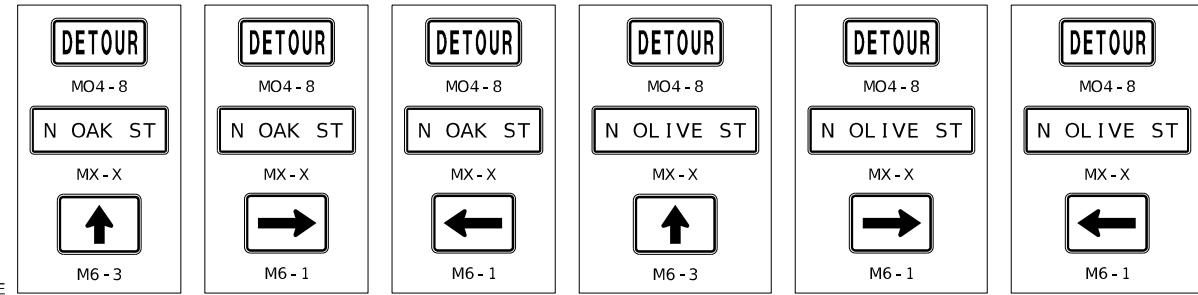
R11-2 SIGN ASSOCIATED WITH THE TYPE 3 MOVEABLE BARRICADES SHALL
BE MOUNTED ON POST 7-10 FEET BEHIND THE BARRICADE.

ALL WARNING SIGNS SHALL HAVE FLUORESCENT SHEETING.

STANDARD SIGN SPACING: 200'
BUFFER SPACE: 250'

NOTES:

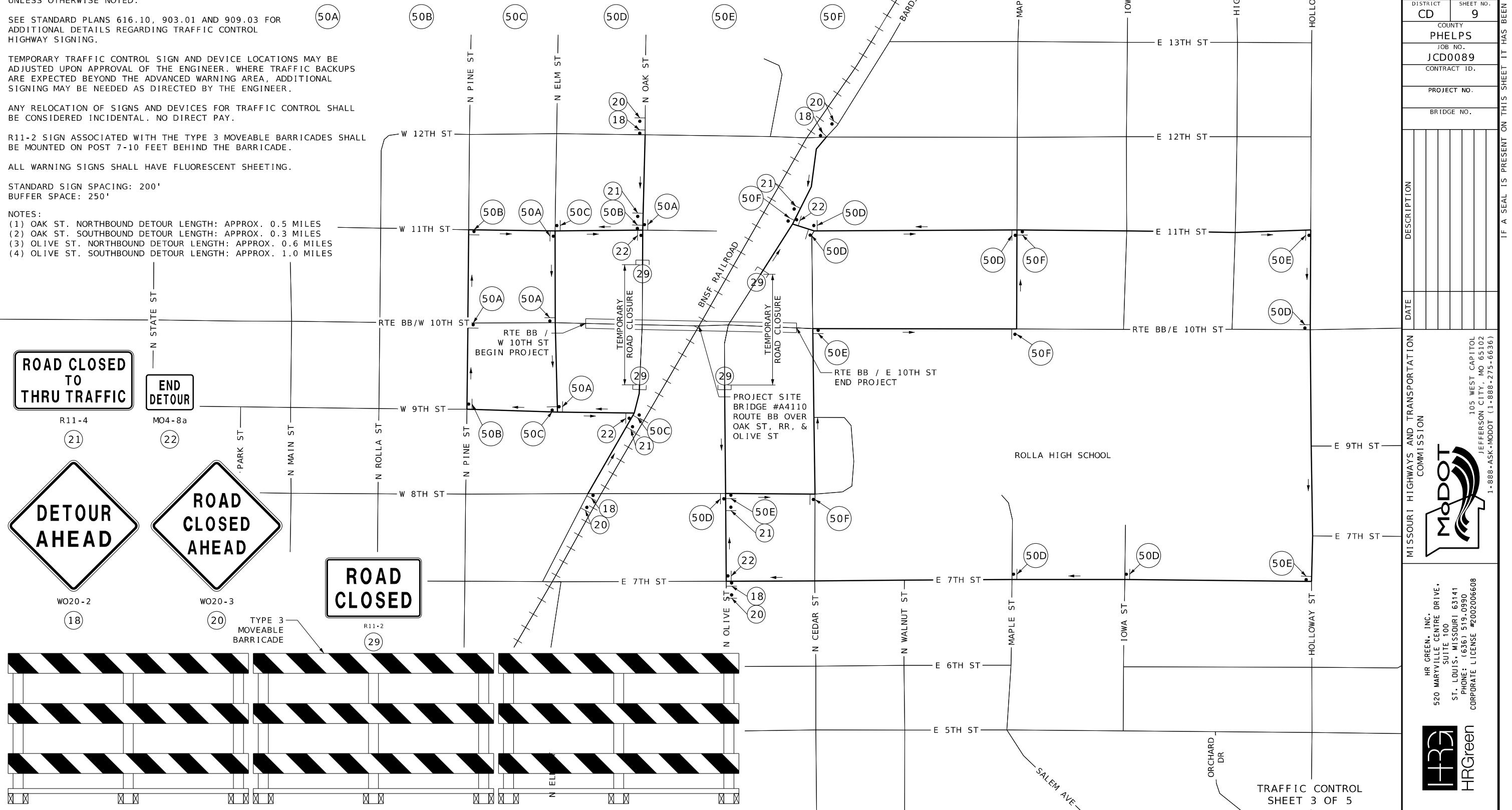
- (1) OAK ST. NORTHBOUND DETOUR LENGTH: APPROX. 0.5 MILES
- (2) OAK ST. SOUTHBOUND DETOUR LENGTH: APPROX. 0.3 MILES
- (3) OLIVE ST. NORTHBOUND DETOUR LENGTH: APPROX. 0.6 MILES
- (4) OLIVE ST. SOUTHBOUND DETOUR LENGTH: APPROX. 1.0 MILES



Andrea S. Davis

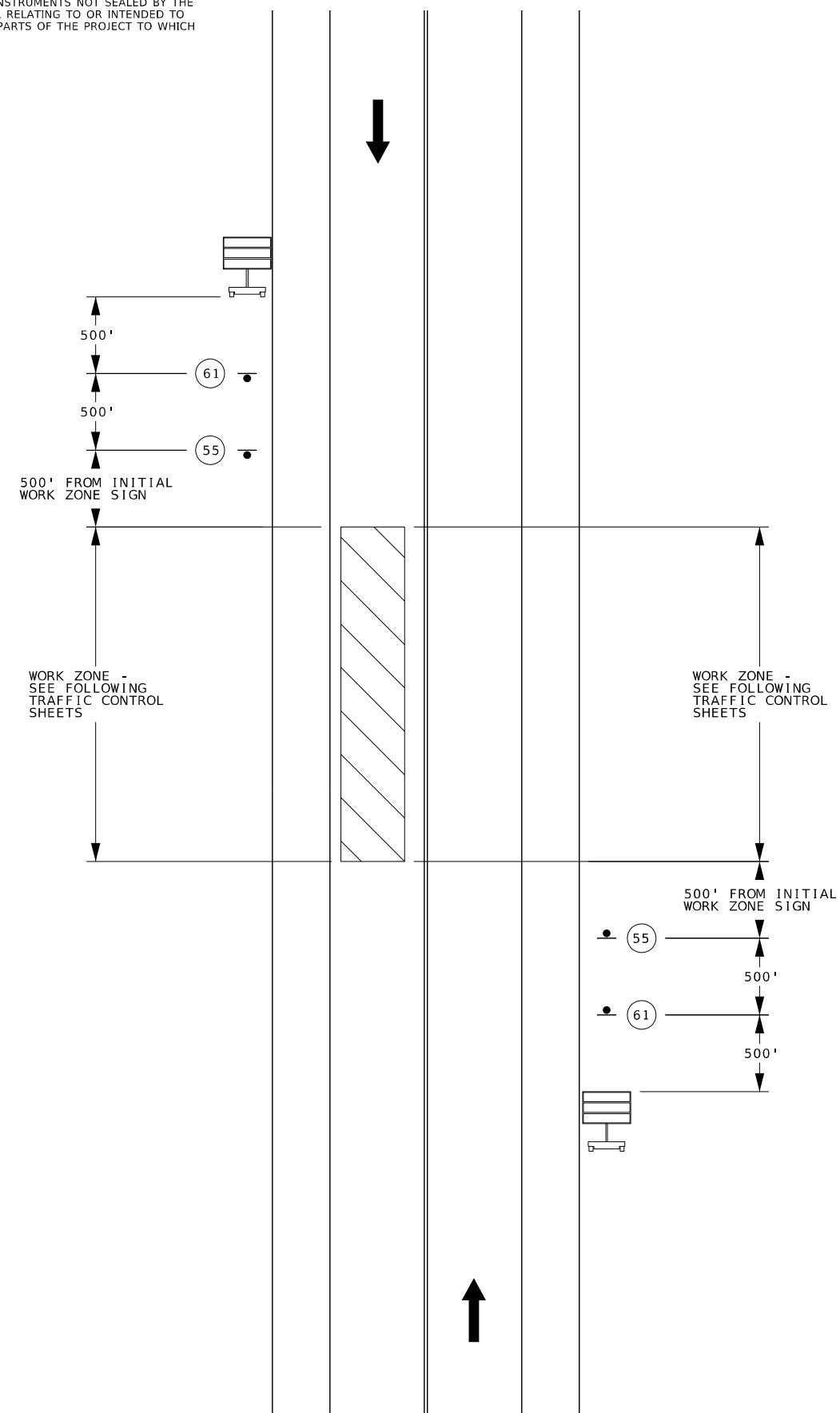
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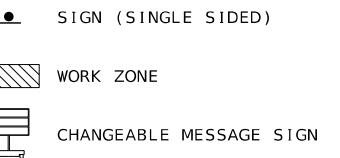


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BEGIN / END OF PROJECT SIGNING



TRAFFIC CONTROL LEGEND



NOTES :

OTHER SIGNS SUCH AS DETOUR OR ALTERNATE ROUTE SIGNING MAY BE USED OUTSIDE THE PROJECT LIMITS. SEE ADDITIONAL TRAFFIC CONTROL SHEETS FOR DETOUR SIGNAGE.

ANY EXISTING SIGNING THAT CONFLICTS WITH THE TRAFFIC CONTROL SIGNING SHALL BE COMPLETELY COVERED OR REMOVED.

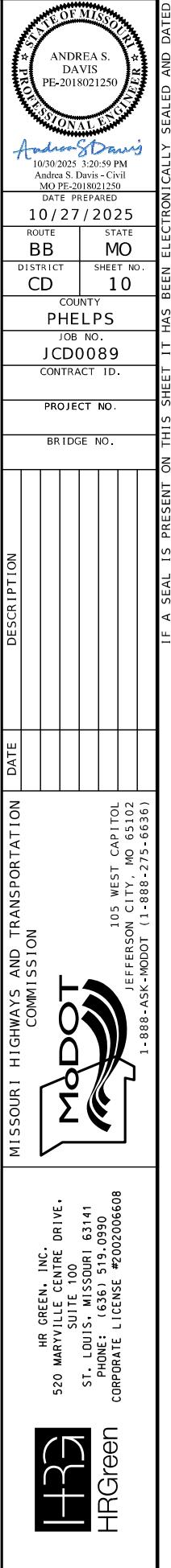
SIGN SPACING MAY BE ADJUSTED ACCORDING TO FIELD CONDITIONS. WHERE TRAFFIC BACKUPS ARE EXPECTED BEYOND THE ADVANCE WARNING AREA, ADDITIONAL SIGNING MAY BE NEEDED.

(1) CONST-5-96 SIGN IS PLACED IN A VISIBLE AREA WITHIN THE PROJECT LIMITS PROVIDED ITS PLACEMENT DOES NOT DISRUPT A SEQUENCE OF SIGNS. IF A VISIBLE LOCATION WITHIN THE PROJECT LIMITS IS NOT AVAILABLE, THE SIGN MAY BE PLACED 500 FEET BEFORE THE GO20-1 ROAD WORK XX MILES SIGN.

(2) THE "WORK ZONE NO PHONE ZONE" SIGN IS PLACED A MINIMUM OF 500 FEET BEFORE THE ROAD WORK AHEAD SIGN.



CONST-5P

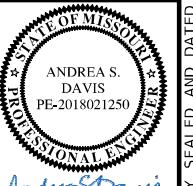


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SIDEWALK CLOSURE AND PEDESTRIAN DETOURS

TRAFFIC CONTROL LEGEND

- SIGN (SINGLE SIDED)
- ▨ WORK ZONE
- ▨ ADA COMPLIANT TYPE
- ▨ BARRICADE



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ROUTE BB STATE MO
DISTRICT CD SHEET NO. 11

COUNTY PHELPS

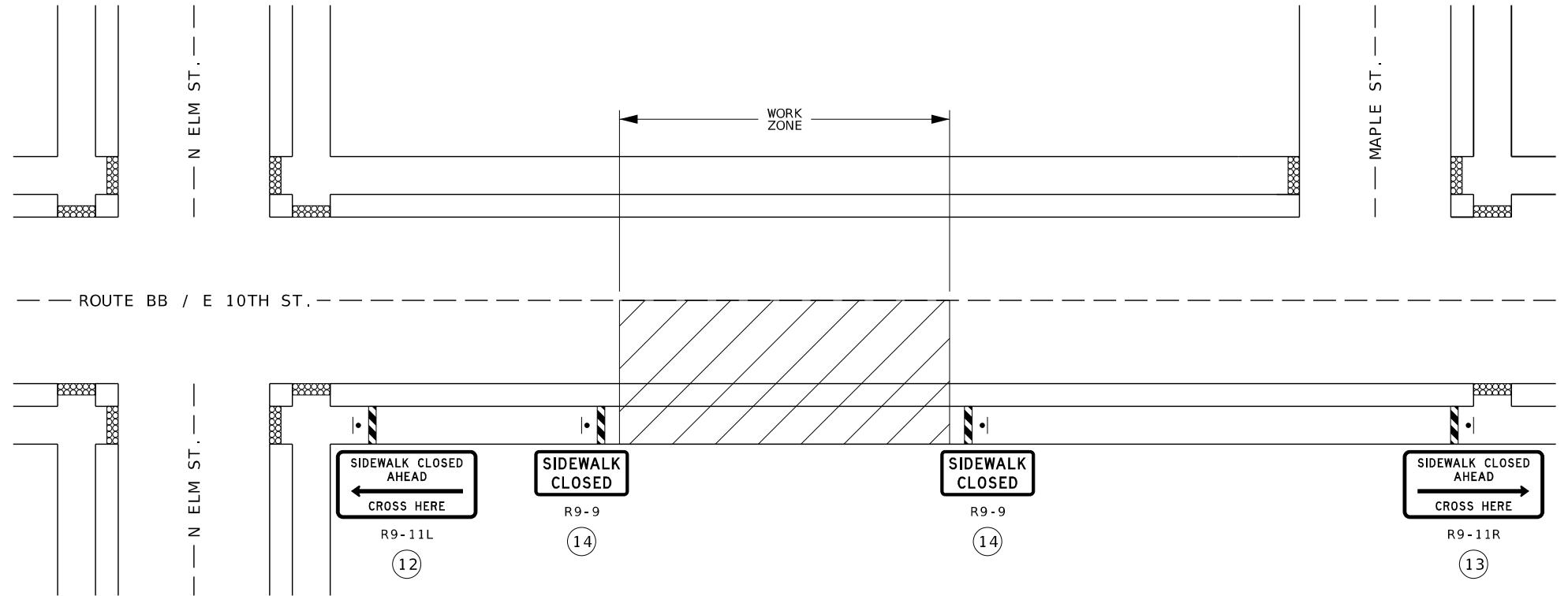
JOB NO. JCD0089

CONTRACT ID.

PROJECT NO.

BRIDGE NO.

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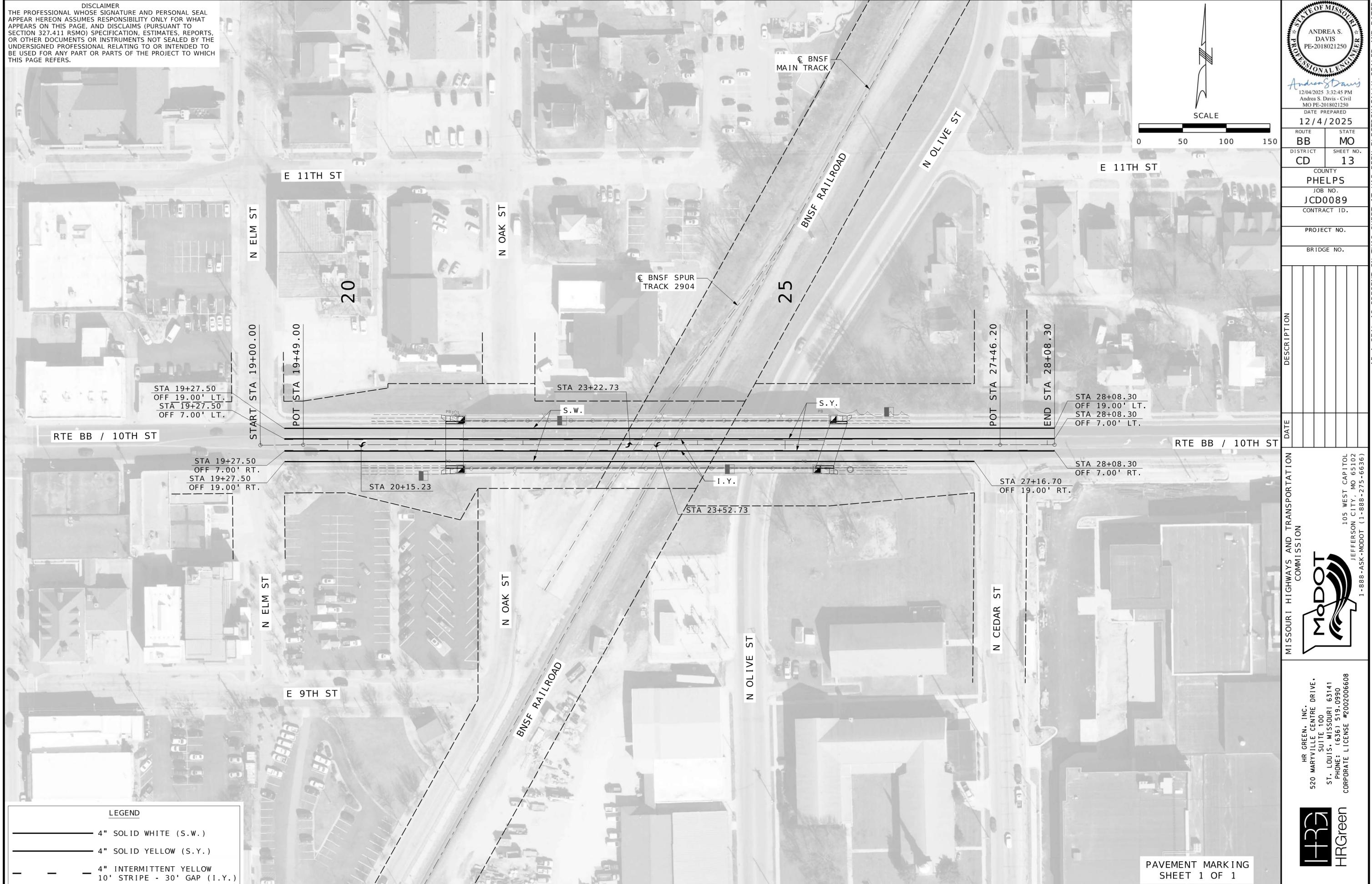
TRAFFIC CONTROL
SHEET 5 OF 5



HR GREEN, INC.
520 MARVILLE CENTRE DRIVE,
SUITE 100
ST. LOUIS, MISSOURI 63141
PHONE: (636) 519-0990
CORPORATE LICENSE #2002006608

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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ROUTE BB STATE MO

DISTRICT CD SHEET NO. 13

COUNTY PHELPS

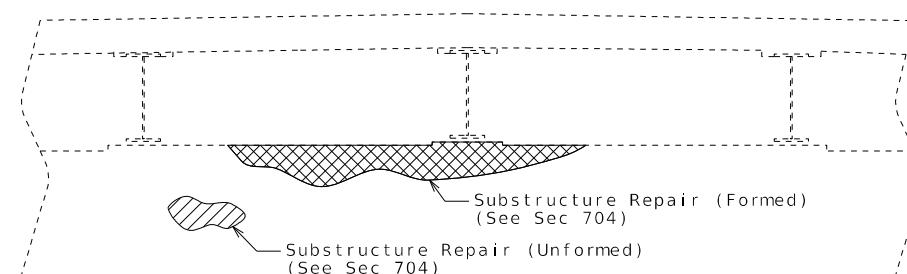
JOB NO. JCD0089

CONTRACT ID.

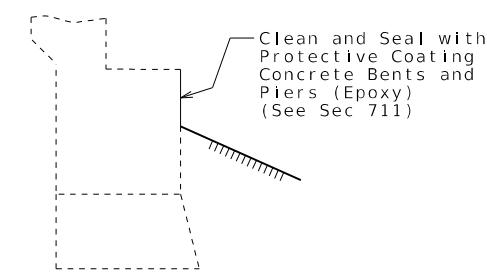
PROJECT NO.

BRIDGE NO.

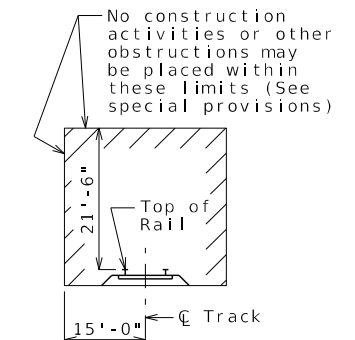
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DETAILS OF CONCRETE REPAIR
AT END BENTS NO. 1 & 9

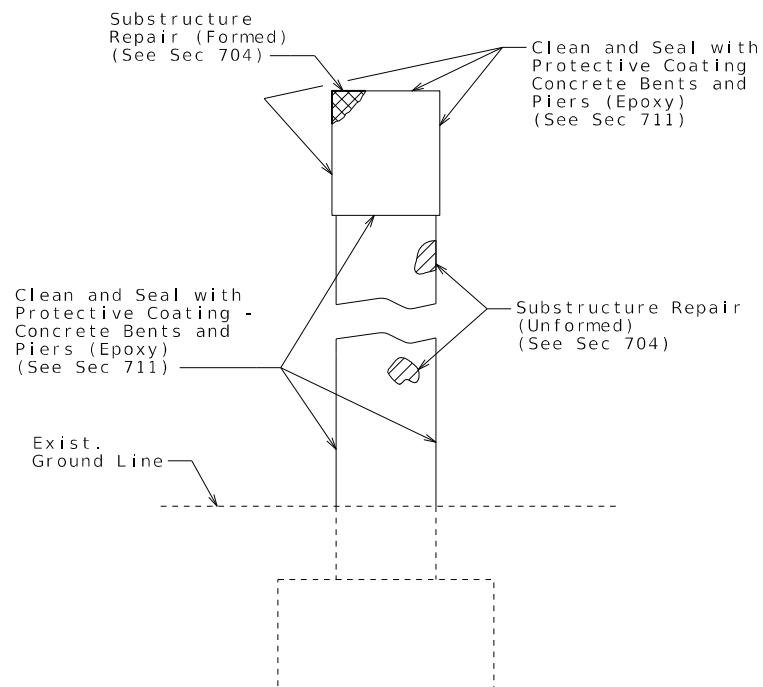


TYPICAL SECTION
THRU END BENTS NO. 1 & 9 SHOWING
PROTECTIVE COATING

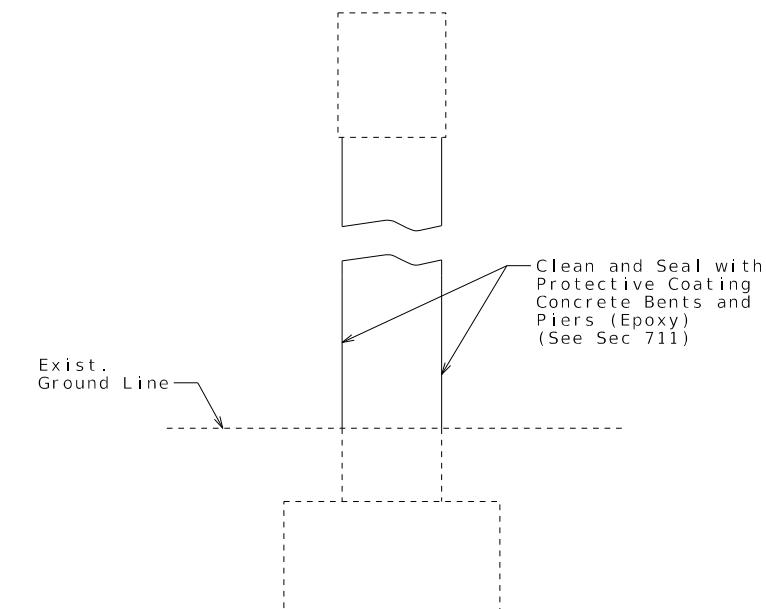


MINIMUM CONSTRUCTION
CLEARANCES

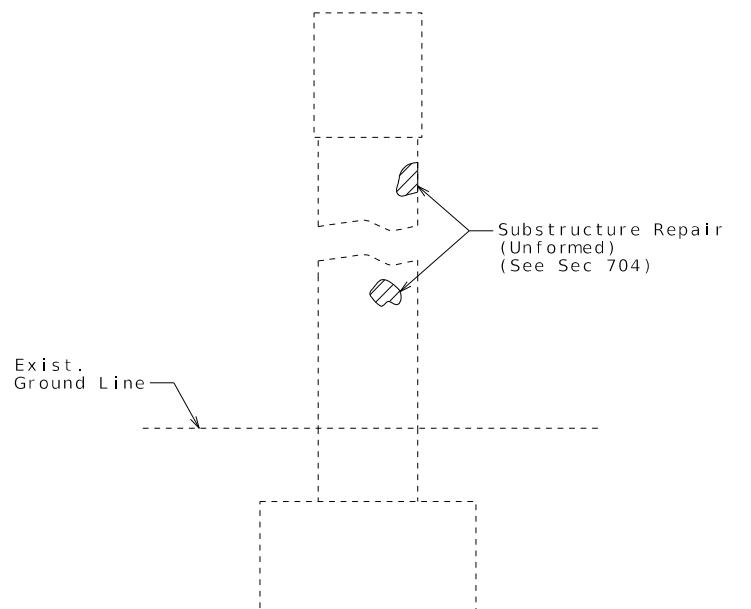
(Normal to railroad)
(Not to scale)



TYPICAL SECTION THRU
INT. BENTS NO. 4 & 6 SHOWING
SUBSTRUCTURE REPAIR &
PROTECTIVE COATING



TYPICAL SECTION THRU
INT. BENTS NO. 2, 7 & 8 SHOWING
PROTECTIVE COATING



TYPICAL SECTION THRU
INT. BENT NO. 2 SHOWING
SUBSTRUCTURE REPAIR

Notes:

The following locations shall be cleaned and sealed with Protective Coating - Concrete Bents and Piers (Epoxy) in accordance with Sec 711:

- All exposed substructure concrete at End Bents No. 1 & 9 and Intermediate Bents No. 4 & 6
- Columns of Intermediate Bents No. 2, 7 & 8

SUBSTRUCTURE REPAIR DETAILS



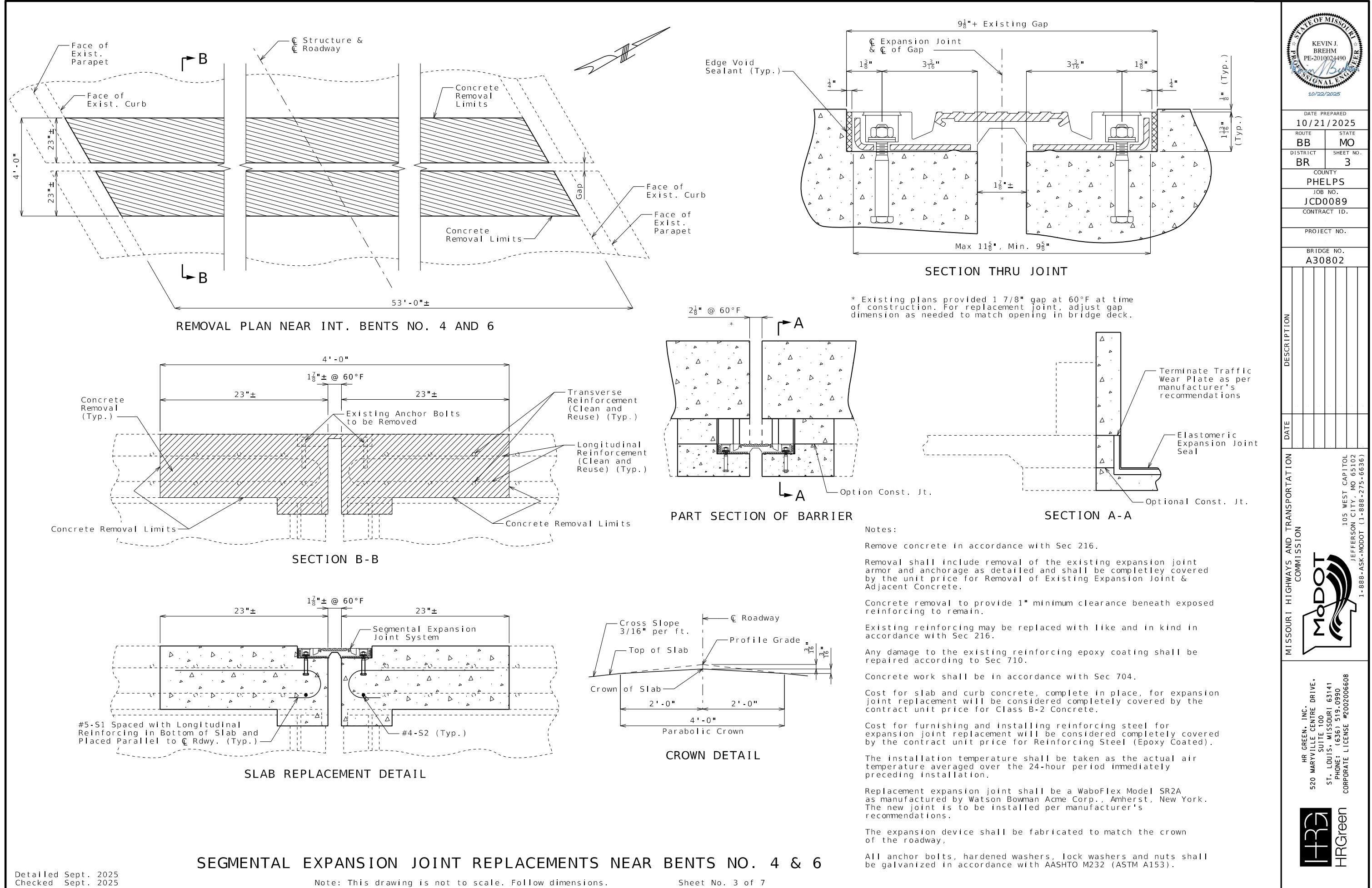
DATE PREPARED
10/21/2025
ROUTE BB STATE MO
DISTRICT BR SHEET NO. 2
COUNTY PHELPS
JOB NO. JCD0089
CONTRACT ID.
PROJECT NO.
BRIDGE NO. A30802

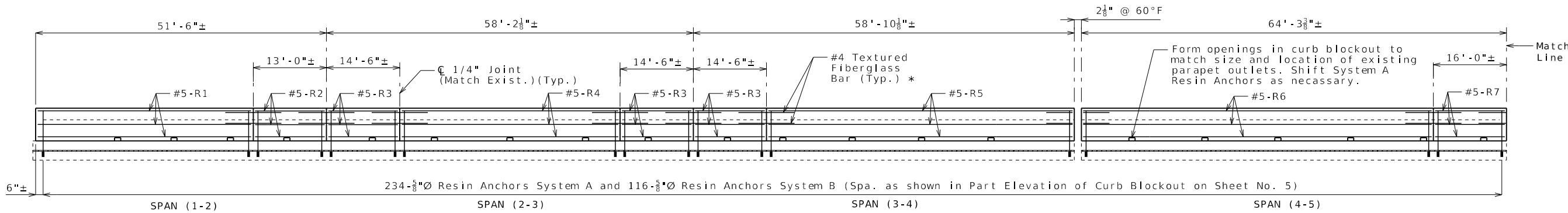
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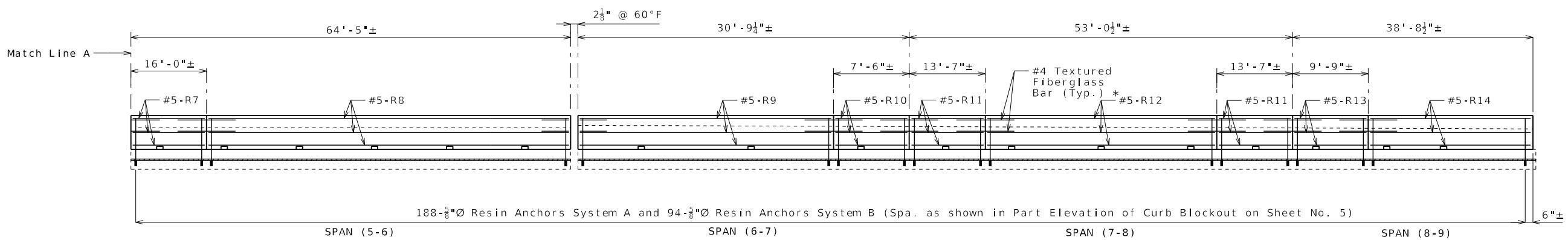




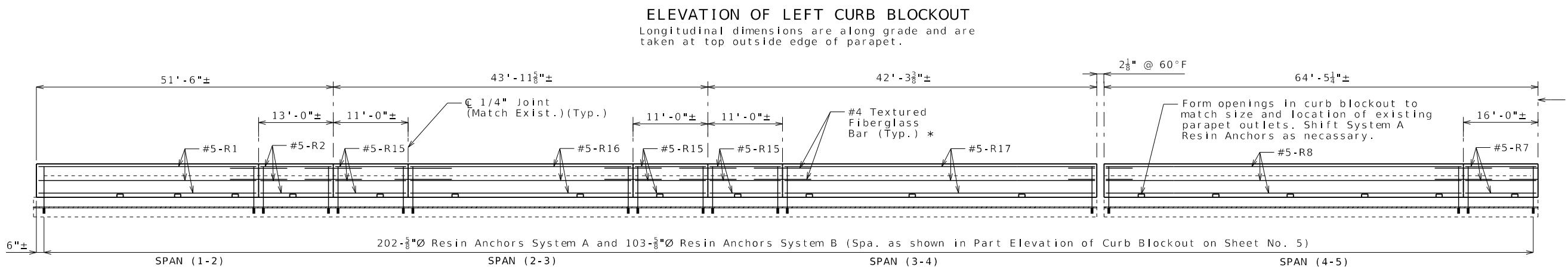


DATE PREPARED
10/21/2025
ROUTE BB STATE MO
DISTRICT BR SHEET NO. 4
COUNTY PHELPS
JOB NO. JCD0089
CONTRACT ID.
PROJECT NO.
BRIDGE NO. A30802

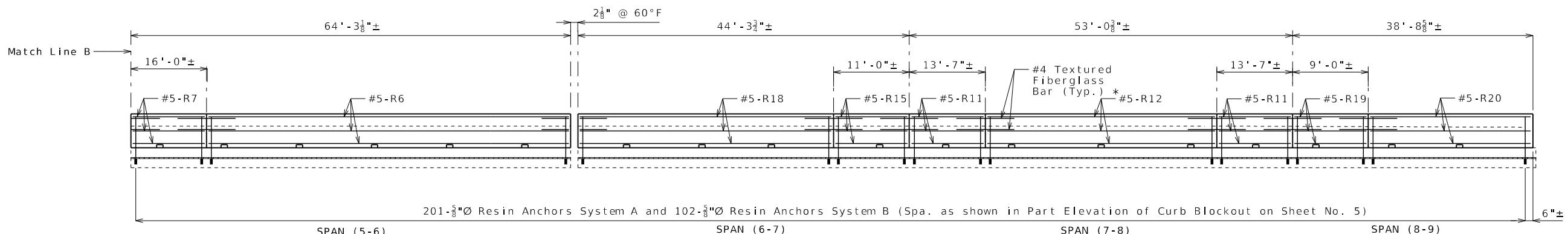
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DESCRIPTION



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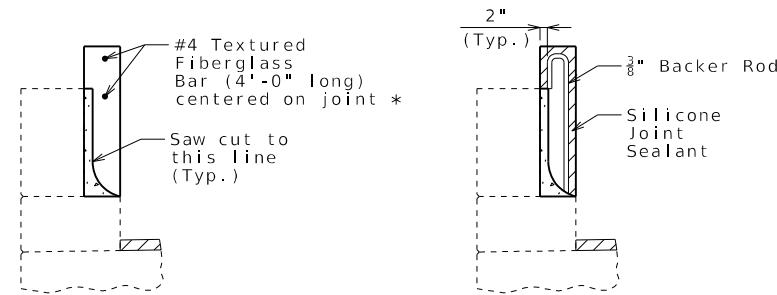


For Curb Blockout notes and anchor system details, see Sheet No. 5.

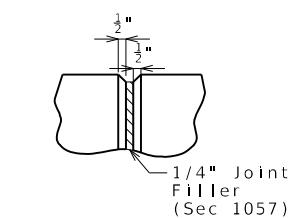
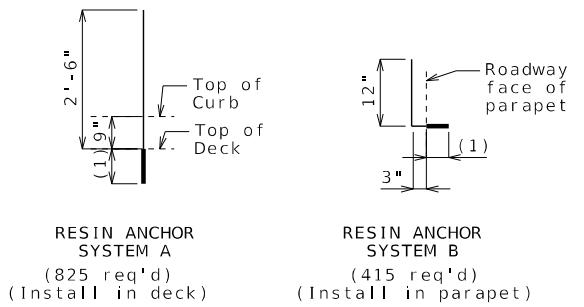
ELEVATION OF RIGHT CURB BLOCKOUT

Longitudinal dimensions are along grade and are taken at top outside edge of parapet.

CURB BLOCKOUT

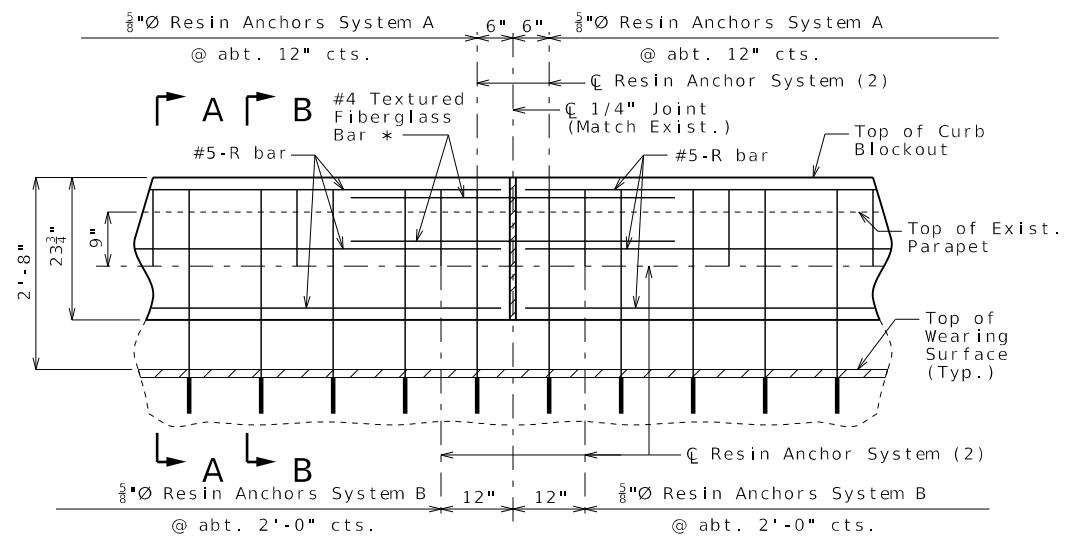


SECTION THRU SAW CUT JOINT

PART ELEVATION
AT FORMED JOINT

(1) Use manufacturer's embedment length (5" minimum embedment).

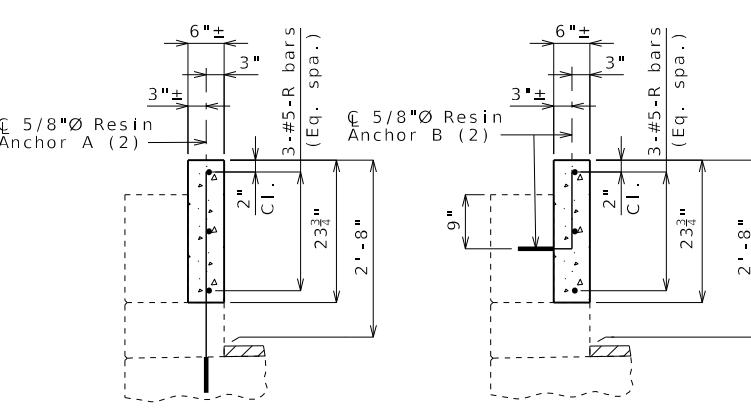
DETAILS OF RESIN ANCHORS



PART ELEVATION OF CURB BLOCKOUT

Detailed Aug. 2025
Checked Aug. 2025

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



SECTION A-A

SECTION B-B

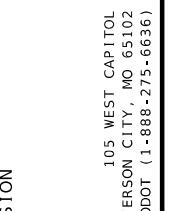
CURB BLOCKOUT

Sheet No. 5 of 7



DATE PREPARED
10/21/2025
ROUTE BB STATE MO
DISTRICT BR SHEET NO. 5
COUNTY PHELPS
JOB NO. JCD0089
CONTRACT ID.
PROJECT NO.
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DATE PREPARED
10/21/2025

ROUTE	STATE
BB	MO
DISTRICT	SHEET NO.
BR	6
COUNTY	
PHELPS	
JOB NO.	JCD0089
CONTRACT ID.	
PROJECT NO.	
BRIDGE NO.	A30802

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Finished Bend Diameters D and Hook Dimensions

Size	Case	D	A or G			J
			90°	180°	180°	
#4	1	3"	8"	6"	4"	
#5	1	3 3/4"	10"	7"	5"	
#6	1	4 1/2"	12"	8 1/4"	6"	
#7	2	5 1/4"	14"	9 3/4"	7"	
	3	7"	15"	11 1/2"	8 3/4"	
#8	2	6"	16"	11"	8"	
	3	8"	17"	13 1/4"	10"	
#9	1	9 1/2"	19 1/2"	15 1/2"	11 3/4"	
#10	1	10 3/4"	22"	17 1/2"	13 3/4"	
#11	1	12"	24 1/2"	19 1/2"	14 5/8"	
#14	1	18 1/4"	31 1/4"	27 1/2"	21 5/8"	
#18	1	24"	41 1/2"	36 1/4"	28 1/2"	

Stirrup Pin Bend Shapes (S)

Size	Case	D	A or G			H	J
			90°	135°	180°		
#4	2	2"	4 1/4"	4 1/2"	5"	2 7/8"	3"
	3	3"	5"	5 1/4"	6"	3"	4"
#5	2	2 1/2"	5 3/4"	5 3/4"	5 3/4"	3 5/8"	3 3/4"
	3	3 3/4"	6 1/4"	6 1/2"	7"	3 7/8"	5"
#6	1	4 1/2"	12"	7 3/4"	8 1/4"	4 5/8"	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

Reinforcing Steel Totals (Pounds)

Size	Superstructure		Entire Bridge
	Slab	Barrier	
By Size	4	180	0
By Size	5	582	2,535
By Type		762	2,535
By Type			3,297

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

Detailed Aug. 2025
Checked Aug. 2025

BENDING DIAGRAMS AND REINFORCING STEEL TOTALS
Note: This drawing is not to scale. Follow dimensions.

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Bill of Reinforcing Steel

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. 6.

Detailed Aug. 2025
Checked Aug. 2025

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

All bars shall be Grade 60.

Bill of Reinforcing Steel

odes: 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.



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BILL OF REINFORCING STEEL