

DESIGN DESIGNATION

A.A.D.T. - 2024 = 3256
 A.A.D.T. - 2044 = 4637
 T = 5.7%
 V = 55 M.P.H.

FUNCTIONAL CLASSIFICATION- MAJOR COLLECTOR

NO NEW RIGHT OF WAY



CONVENTIONAL SYMBOLS
(USED IN PLANS)

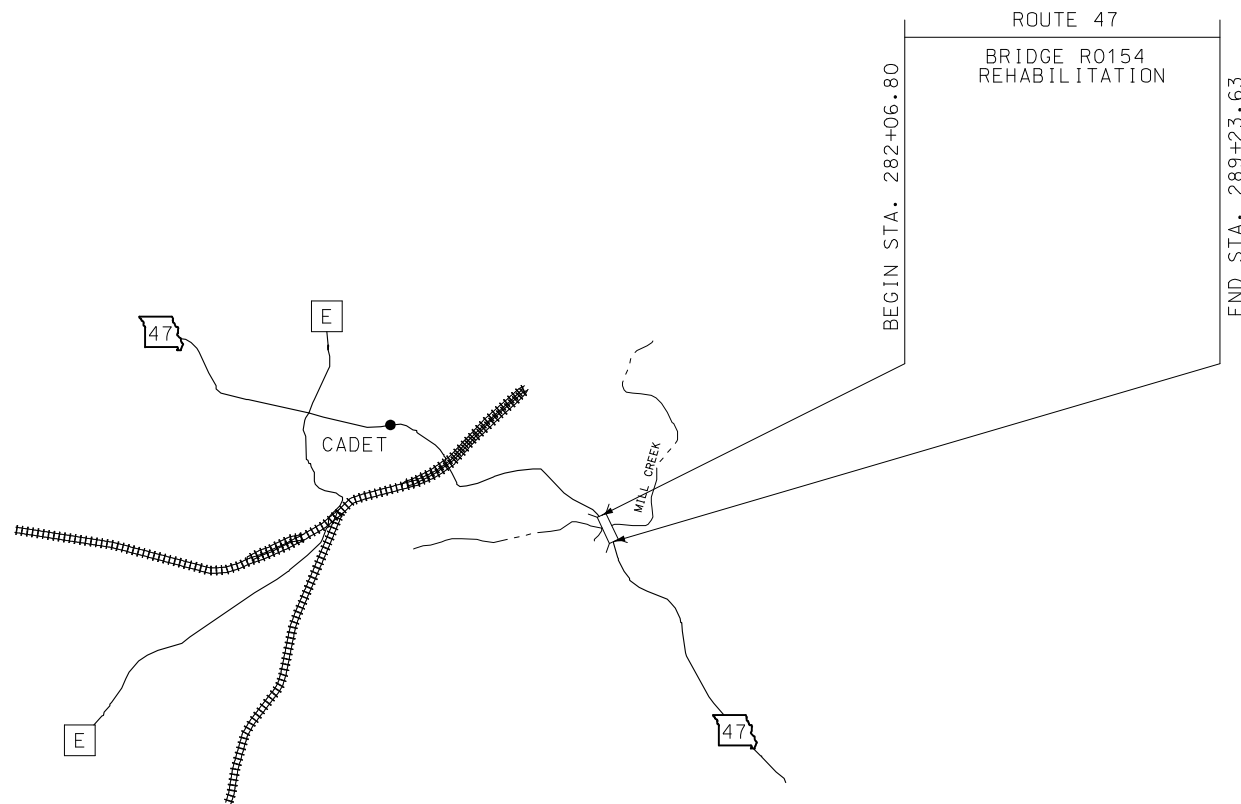
	EXISTING	NEW
BUILDINGS AND STRUCTURES		
GUARD RAIL		
GUARD CABLE		
CONCRETE RIGHT-OF-WAY MARKER		
STEEL RIGHT-OF-WAY MARKER		
LOCATION SURVEY MARKER		
UTILITIES		
FIBER OPTICS	-FO-	-FO-
OVERHEAD CABLE TV	-OTV-	-OTV-
UNDERGROUND CABLE TV	-UTV-	-UTV-
OVERHEAD TELEPHONE	-OT-	-OT-
UNDERGROUND TELEPHONE	-UT-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

NOTE: DASHED OR OPEN SYMBOLS INDICATE EXISTING FEATURES

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

PLANS FOR PROPOSED STATE HIGHWAY

WASHINGTON COUNTY



NOT TO SCALE

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

INDEX OF SHEETS

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DATE PREPARED
12/27/2024 6:38:46 AM

ROUTE 47 STATE MO

DISTRICT CD SHEET NO. 1

COUNTY WASHINGTON

JOB NO. J553540

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)

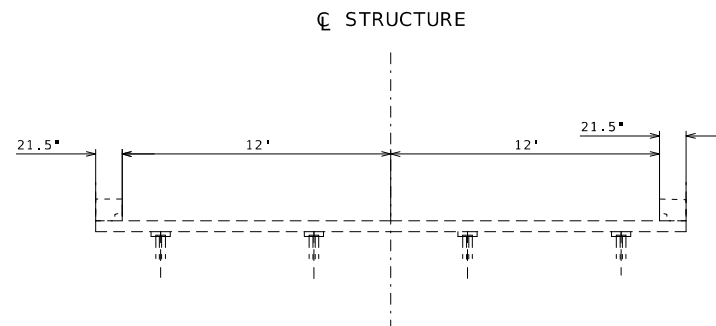
LENGTH OF PROJECT

ROUTE 47	
BEGINNING OF PROJECT	STA. 282+06.80
END OF PROJECT	STA. 289+23.63

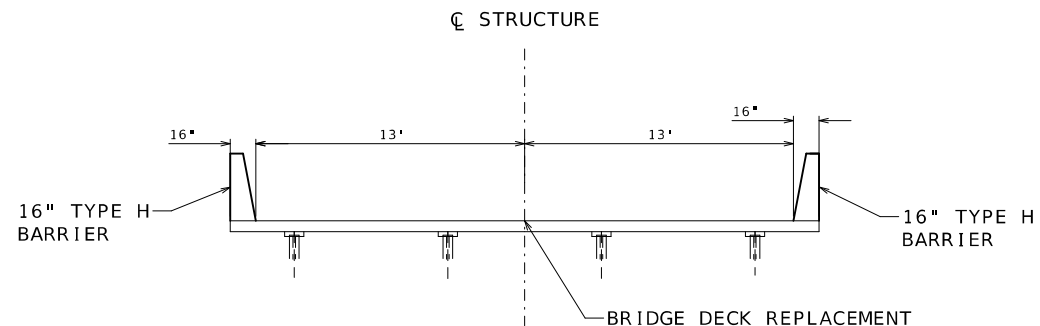
APPARENT LENGTH 0.136 MILES

EQUATIONS AND EXCEPTIONS:
NONE

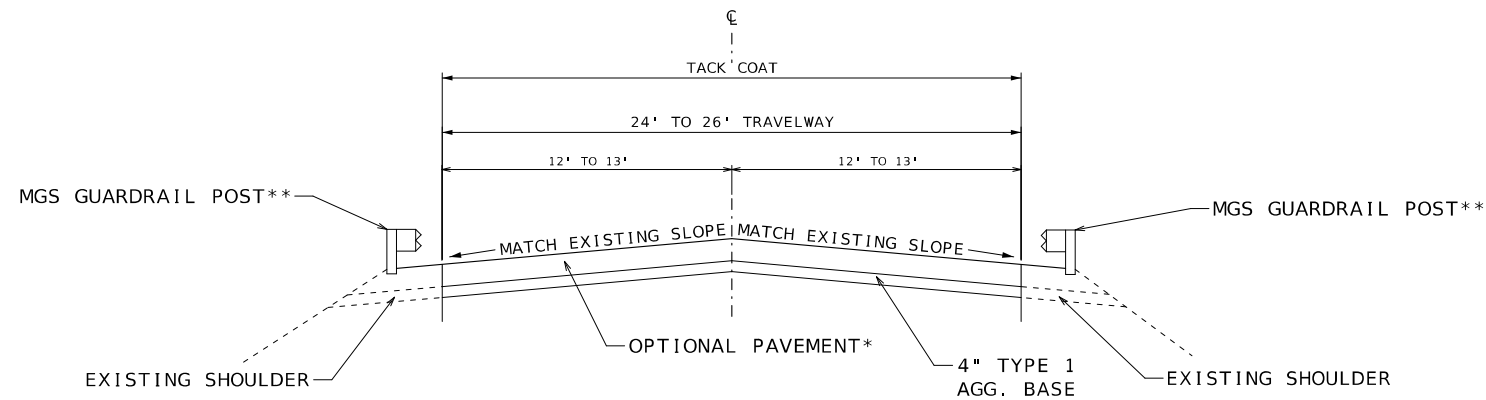
TOTAL CORRECTIONS	0.000 FEET
NET LENGTH OF PROJECT	716.83 FEET
STATE LENGTH	0.136 MILES
FOR INFORMATION ONLY	
ESTIMATED DISTURBED ACRES	0.4 ACRES



ROUTE 47
EXIST. TYPICAL BRIDGE SECTION
BRIDGE #R0514
STATION 285+08.88 TO STATION 286+91.38



ROUTE 47
PROPOSED TYPICAL BRIDGE SECTION
BRIDGE R05141
STATION 285+08.88 TO STATION 286+91.38



ROUTE 47
ROADWAY TYPICAL SECTION
STA. 284+38.88 TO STA. 284+88.88
STA. 287+11.38 TO STA. 287+61.38

NOTE:
SEE BRIDGE DRAWING FOR DETAILS OF
BRIDGE APPROACH SLAB (MINOR)
STA. 284+88.88 TO STA. 285+08.88
STA. 286+91.38 TO STA. 287+11.38

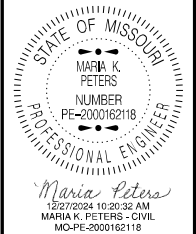
PAVEMENT OPTIONS CONSIST OF:
ASPHALT: 2" BIT. PAVEMENT MIX (BP-1) PG64-22 OVER
10" BIT. PAVEMENT MIX (BASE) PG64-22
CONCRETE: 12" JPCP

*NOTE: PAVEMENT AND SHOULDER OPTIONS CONSIST OF:
ASPHALT: 2" BIT. PAVEMENT MIX (BP-1) PG64-22 OVER
8" BIT. PAVEMENT MIX (BASE) PG64-22
CONCRETE: 8" JPCP

**NOTE: SHAPING SLOPES USED FOR BEHIND
BRIDGE TRANSITION SECTION AND CET

NOT TO SCALE

TYPICAL SECTION
SHEET 1 OF 1



DATE PREPARED	
12/27/2024	
ROUTE	STATE
47	MO
DISTRICT	SHEET NO.
CD	2
COUNTY	
WASHINGTON	
JOB NO.	
J5S3540	
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)

REMOVAL OF IMPROVEMENTS				
APPROXIMATE STATION	LOCATION	ITEM	QTY	REMARKS
284+68	47 LT/RT	SIGNS W/POSTS	2 EA	OBJECT MARKER
284+88	47 LT/RT	SIGNS W/POSTS	2 EA	OBJECT MARKER
285+08	47 LT/RT	SIGNS W/POSTS	2 EA	OBJECT MARKER
286+90	47 LT/RT	SIGNS W/POSTS	2 EA	OBJECT MARKER
287+12	47 LT/RT	SIGNS W/POSTS	2 EA	OBJECT MARKER
287+30	47 LT/RT	SIGNS W/POSTS	2 EA	OBJECT MARKER
284+38.88	47	EXISTING PAVEMENT	194.4 SY	INCLUDE SAWCUT
386+91.38	47	EXISTING PAVEMENT	194.4 SY	INCLUDE SAWCUT
	47	SIGNS W/POSTS	2 EA	WEIGHT RESTRICTION SIGNS
		TOTAL	1	LUMP SUM

MOBILIZATION
1 LUMP SUM

PAVEMENT MARKING					
STATION	STATION	LENGTH FEET	4" YELLOW WATERBORNE PAINT WITH TYPE P BEADS	4" WHITE WATERBORNE PAINT WITH TYPE P BEADS	REMARKS
282+06.80	289+23.63	717	1434	1,434	EDGELINE AND DBL CL
		TOTAL	1,434	1,434	

OPTIONAL PAVEMENT (8" JPCP OR 10" ASPHALT CONCRETE PAVEMENT)						
STA.	STA.	4" TYPE 1 BASE SY	OPTIONAL PAVEMENT SY	CLASS 1 LINEAR GRADING STA.	CONCRETE SHOULDER RUMBLE STA.	REMARKS
284+38.88	284+88.88	136.6	136.6	0.7	1.4	NORTH SIDE APPROACH PAVMENT
287+11.38	287+61.38	136.6	136.6	0.7	1.4	SOUTH SIDE APPROACH PAVMENT
	TOTALS	273	273.2	1.4	2.8	

MGS GUARDRAIL - 8' POST							
STATION	STATION	LOCATION	8' POST MGS GUARDRAIL LF	MGS BRIDGE APPROACH TRANS. SECT. (REG./ NO CURB) EA	TYPE A CRASHWORTHY END TERMINAL (MASH) EA	SHAPING SLOPES CL 3 STA	REMARKS
283+01.70	285+02.82	RT	112.5	1.00	1.00	0.9	NW CORNER R0514
283+13.82	285+14.94	LT	112.5	1.00	1.00	0.9	NE CORNER R0514
286+85.32	288+23.94	RT	50.0	1.00	1.00	0.9	SW CORNER R0514
286+97.44	288+98.56	LT	112.5	1.00	1.00	0.9	SE CORNER R0514
		TOTAL	387.50	4.00	4.00	3.60	SHAPING SLOPES FOR BRIDGE APPROACH SECTION/CET
		USE	388	4.0	4.0	4	

PERMANENT EROSION CONTROL						
STATION	STATION	LOCATION	FURNISHING TYPE 2 ROCK BLANKET CY	PLACING TYPE 2 ROCK BLANKET CY	PERMANENT EROSION CONTROL GEOTEXTILE SY	REMARKS
284+89	285+31	ROUTE 47	262.0	262.0	393.0	BRIDGE R0514 NORTH SIDE
286+68	287+11	ROUTE 47	262.0	262.0	393.0	BRIDGE R0514 SOUTH SIDE
		TOTAL	524.0	524.0	786.0	
		USE	524	524	786	

TEMPORARY EROSION CONTROL						
STATION	STATION	LOCATION	ROCK DITCH CHECK LF	SEDIMENT REMOVAL CY	TYPE B BERM LF	REMARKS
282+06.80	285+02.82	ROUTE 47	60	3.0		BRIDGE R0514 NW CORNER
282+06.80	285+14.94	ROUTE 47	60	3.0		BRIDGE R0514 NE CORNER
286+85.44	289+23.63	ROUTE 47	12	3.0		BRIDGE R0514 SW CORNER
286+97.44	289+23.63	ROUTE 47	12	3.0		BRIDGE R0514 SE CORNER
285+50		ROUTE 47			130.0	BRIDGE R0514 NORTH
286+52		ROUTE 47			130.0	BRIDGE R0514 SOUTH
		TOTAL	144	12	260	

CONTRACTOR FURNISHED SURVEYING AND STAKING
LUMP SUM 1

SEEDING - COOL SEASON MIXTURE				
STATION	STATION	LOCATION	SEEDING COOL SEASON MIXTURE ACRE	REMARKS
284+39.5	285+02.82	ROUTE 47	0.1	BRIDGE R0514 NW CORNER
384+39.5	285+14.94	ROUTE 47	0.1	BRIDGE R0514 NE CORNER
286+85.44	287+61.23	ROUTE 47	0.1	BRIDGE R0514 SW CORNER
286+97.44	287+61.23	ROUTE 47	0.1	BRIDGE R0514 SE CORNER
		TOTAL	0.4	AS NEEDED
		USE	1.0	



DATE PREPARED
2/6/2025

ROUTE 47 STATE MO
DISTRICT CD SHEET NO. 3

COUNTY WASHINGTON

JOB NO. J553540

CONTRACT ID.

PROJECT NO.

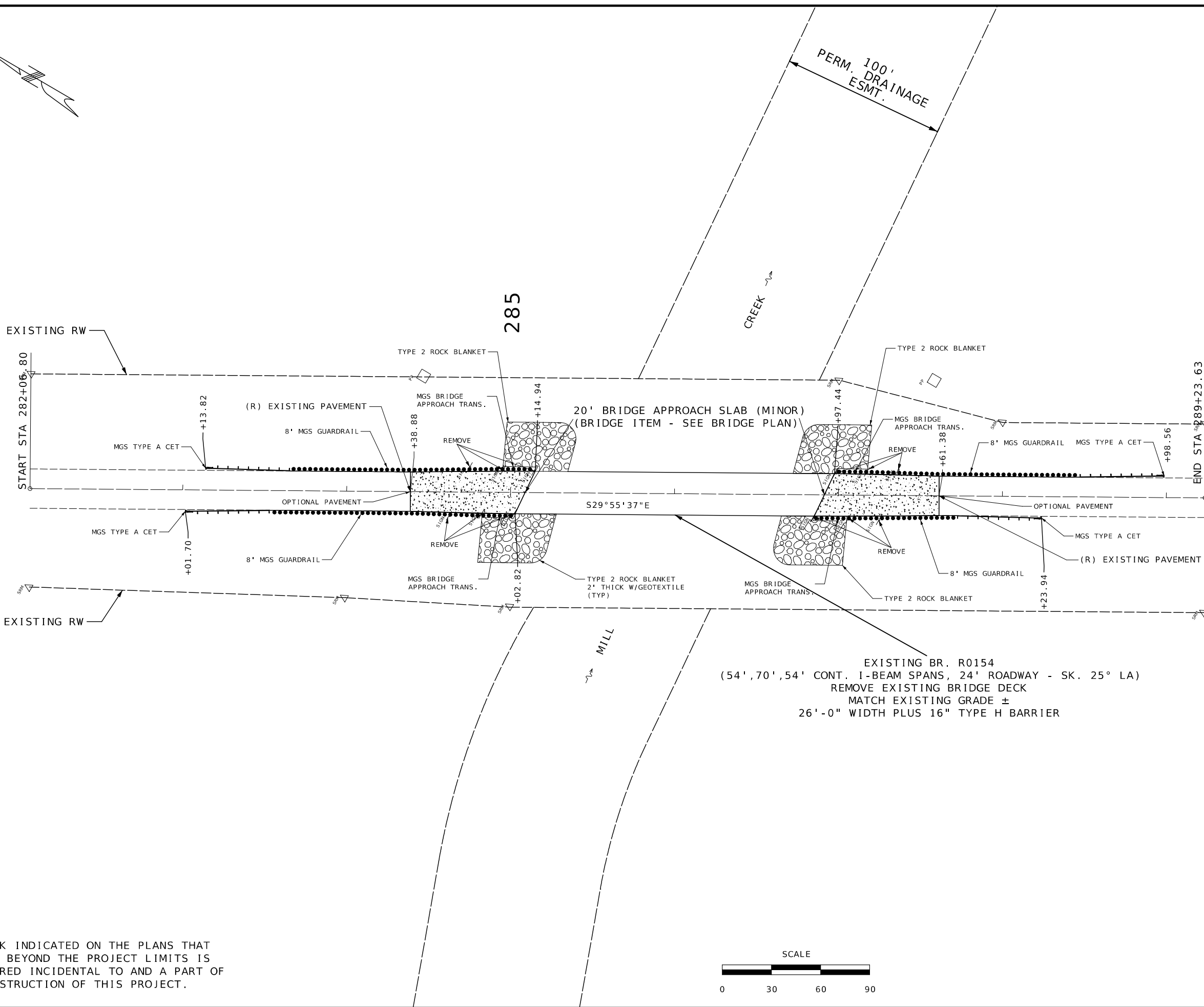
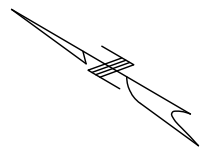
BRIDGE NO.

DATE	DESCRIPTION

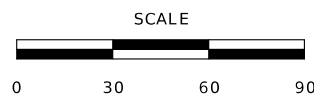
MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

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

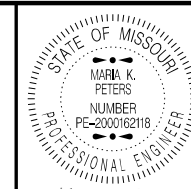




ANY WORK INDICATED ON THE PLANS THAT EXTENDS BEYOND THE PROJECT LIMITS IS CONSIDERED INCIDENTAL TO AND A PART OF THE CONSTRUCTION OF THIS PROJECT.



PLAN SHEET
1 OF 1



DATE PREPARED
12/27/2024

ROUTE 47 STATE MO

DISTRICT CD SHEET NO. 4

COUNTY WASHINGTON

JOB NO. J553540

CONTRACT ID.

PROJECT NO.

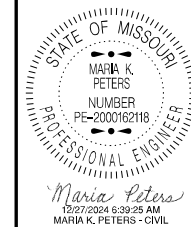
BRIDGE NO.

DATE	DESCRIPTION

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

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

PLAN SHEET
SHEET 1 OF 1



DATE PREPARED
12/27/2024 6:39:25 AM
MARIA K. PETERS - CIVIL
MO-PE-2000162118

ROUTE 47 STATE MO
DISTRICT CD SHEET NO. 5

COUNTY WASHINGTON
JOB NO. J553540
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)

TRAFFIC CONTROL PLAN
SHEET 1 OF 8

TRAFFIC CONTROL LEGEND

- [Symbol] BARRICADE
- [Symbol] CHANGEABLE MESSAGE BOARD
- [Symbol] SIGN (SINGLE SIDED)



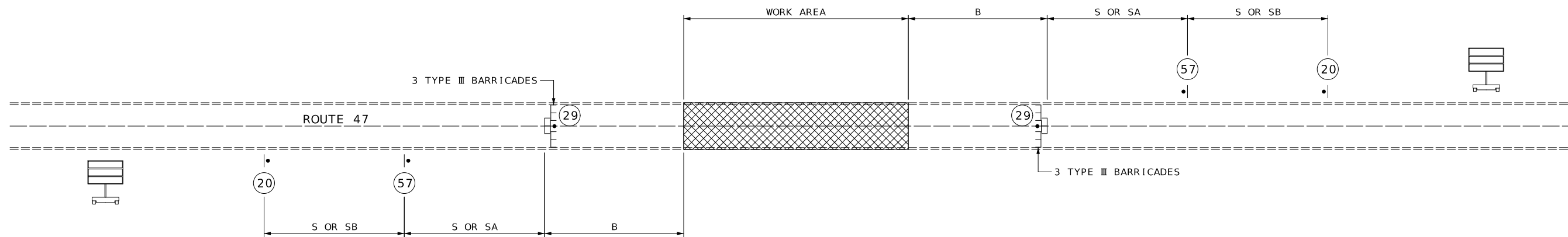
WO20-3
(20)



R11-2
(29) (1)



WO20-3
(57)



SPEED PERMANENT POSTED (MPH)	SIGN SPACING (FT.)		RECOMMENDED BUFFER LENGTH (FT.) (B)
	UNDIVIDED (S)	DIVIDED (S)	
0-35	200	200	250
40-45	350	500	360
50-55	500	1000	495
60-70	1000	SA - 1000	730
		SB - 1500	
		SC - 2640	

TYPE OF ROADWAY	SIGN HEIGHT (MINIMUM)
URBAN	1' PORTABLE 7' POST
RURAL DIVIDED	1' PORTABLE 7' POST
RURAL UNDIVIDED	1' PORTABLE 5' POST

NOTES:

(1) USE LIGHTWEIGHT ROAD CLOSED SIGN PLACED ON THE CENTER BARRICADE LOCATED AT THE FULL CLOSURE OR PLACE RIGID SIGN 7 TO 10 FEET BEHIND THE BARRICADES AT THE SIGN HEIGHT APPROPRIATE FOR THE ROADWAY TYPE.

ONE BARRICADE SHOULD BE REQUIRED TO COMPLETELY CLOSE EACH 8- FEET OF PAVEMENT. PAVED SHOULDERS SHALL BE INCLUDED IN THE AREA TO BE CLOSED.

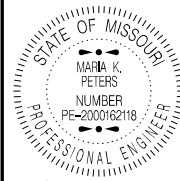
THE LOCATION OF THE CHANGEABLE MESSAGE BOARDS WILL BE APPROVED BY THE ENGINEER.

SIGN SPACING MAY BE ADJUSTED TO MEET FIELD CONDITIONS.

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

FOR URBAN LOW SPEED, MIN. SIGN SPACING IS 100 FEET.

ROAD CLOSURE



DATE PREPARED
12/27/2024

ROUTE 47 STATE MO

DISTRICT CD SHEET NO. 6

COUNTY WASHINGTON

JOB NO. J5S3540

CONTRACT ID.

PROJECT NO.

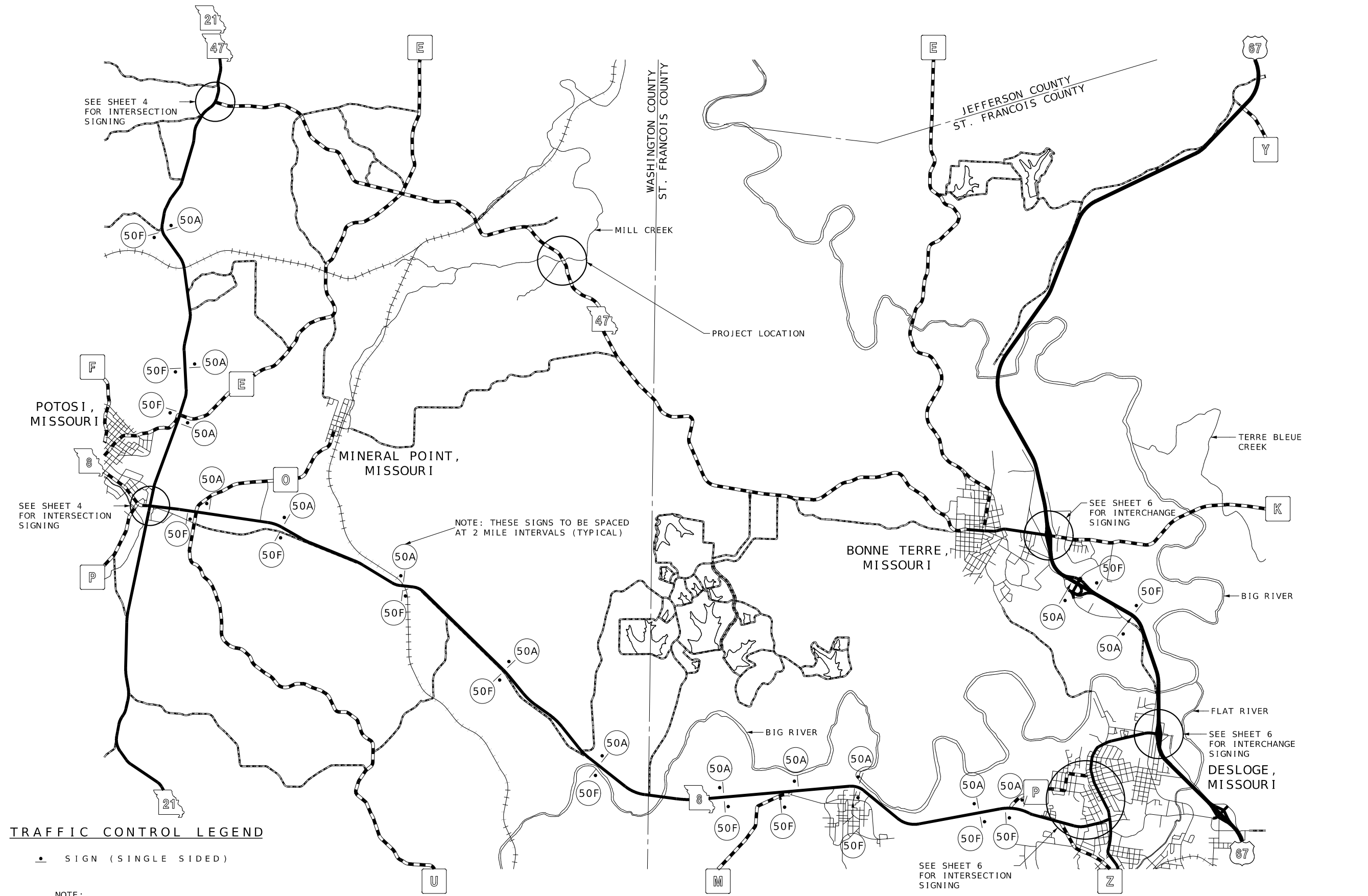
BRIDGE NO.

DATE	DESCRIPTION

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION



TRAFFIC CONTROL PLAN
SHEET 2 OF 8



TRAFFIC CONTROL LEGEND

• SIGN (SINGLE SIDED)

NOTE:
SEE SHEET 4 FOR SIGN LEGEND
SEE TRAFFIC CONTROL SHEET 1 OF 8 FOR SIGN SPACING AT INTERSECTIONS

NOT TO SCALE

**ROUTE 47
DETOUR SIGNING**



WO20-2
18

 MO4-8	 MO4-8	 MO4-8	 MO4-8	 MO4-8	 MO4-8	 MO4-8	 MO4-8	 MO4-8	 MO4-8	 MO4-8	 MO4-8	 MO4-8	 MO4-8
 M3-1	 M3-1	 M3-1	 M3-1	 M3-1	 M3-1	 M3-1	 M3-3	 M3-3	 M3-3	 M3-3	 M3-3	 M3-3	 M3-3
 M1-5	 M1-5	 M1-5	 M1-5	 M1-5	 M1-5	 M1-5	 M1-5	 M1-5	 M1-5	 M1-5	 M1-5	 M1-5	 M1-5
 M6-3	 M5-1R	 M6-1	 M5-1L	 M6-1	 M5-2R	 M6-2R	 M6-3	 M5-1R	 M6-1	 M5-1L	 M6-1	 M5-2R	 M6-2R
50A	50B	50C	50D	50E	50L	50M	50F	50G	50H	50J	50K	50N	50P

 MO4-8a 52	 R11-3a 55B
------------------	-------------------

 SPECIAL 56A	 SPECIAL 56B
--------------------	--------------------

SPECIAL
56C

NOTE:
SEE SHEET 12 FOR SIGN 56A, SIGN 56B, AND SIGN 56C DIMENSIONS.

ROUTE 47
DETOUR SIGNING



DATE PREPARED
12/27/2024

ROUTE 47	STATE MO
DISTRICT CD	SHEET NO. 7

COUNTY
WASHINGTON

JOB NO.
J553540

CONTRACT ID.

PROJECT NO.

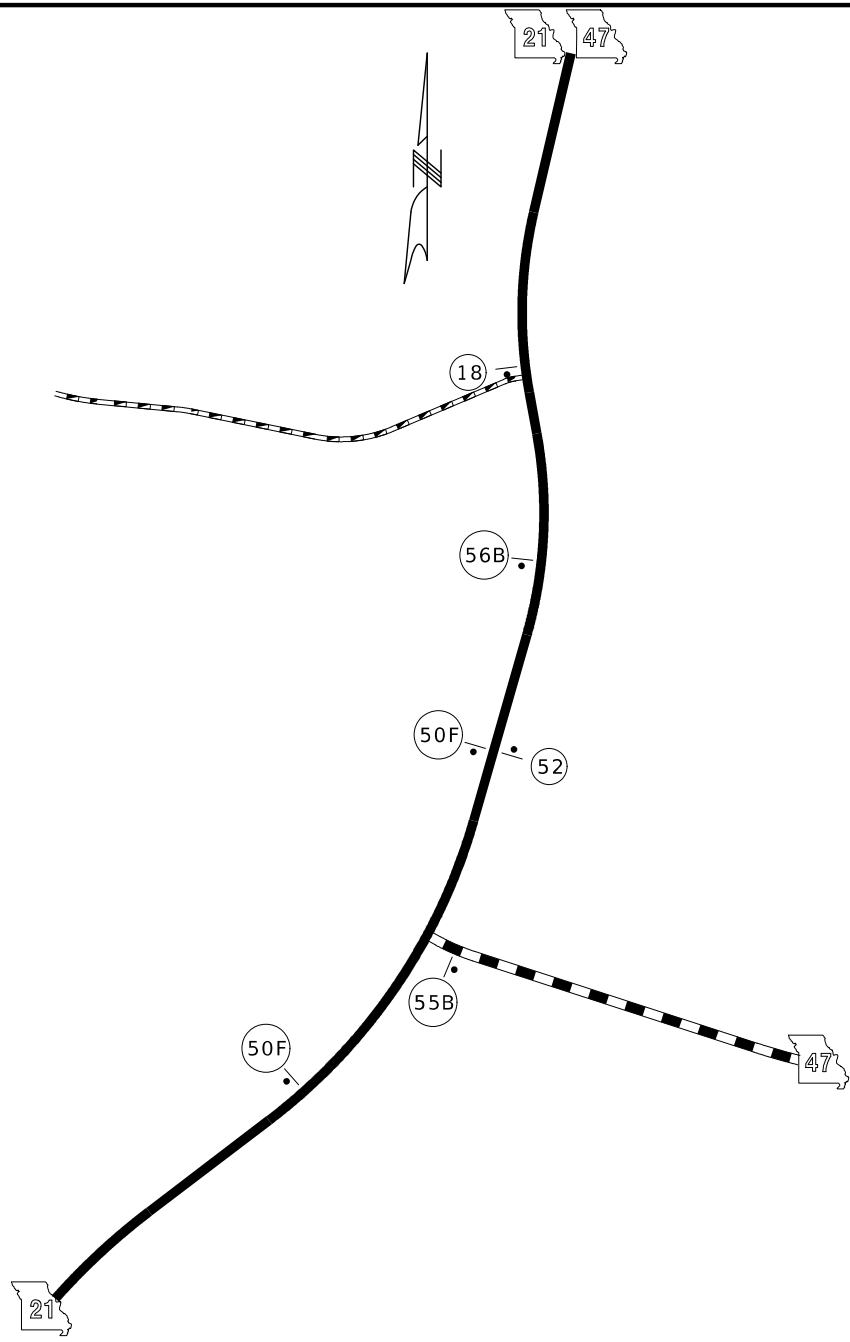
BRIDGE NO.

DATE	DESCRIPTION

MISSOURI HIGHWAYS AND TRANSPORTATION
COMMISSION

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

TRAFFIC CONTROL PLAN
SHEET 3 OF 8



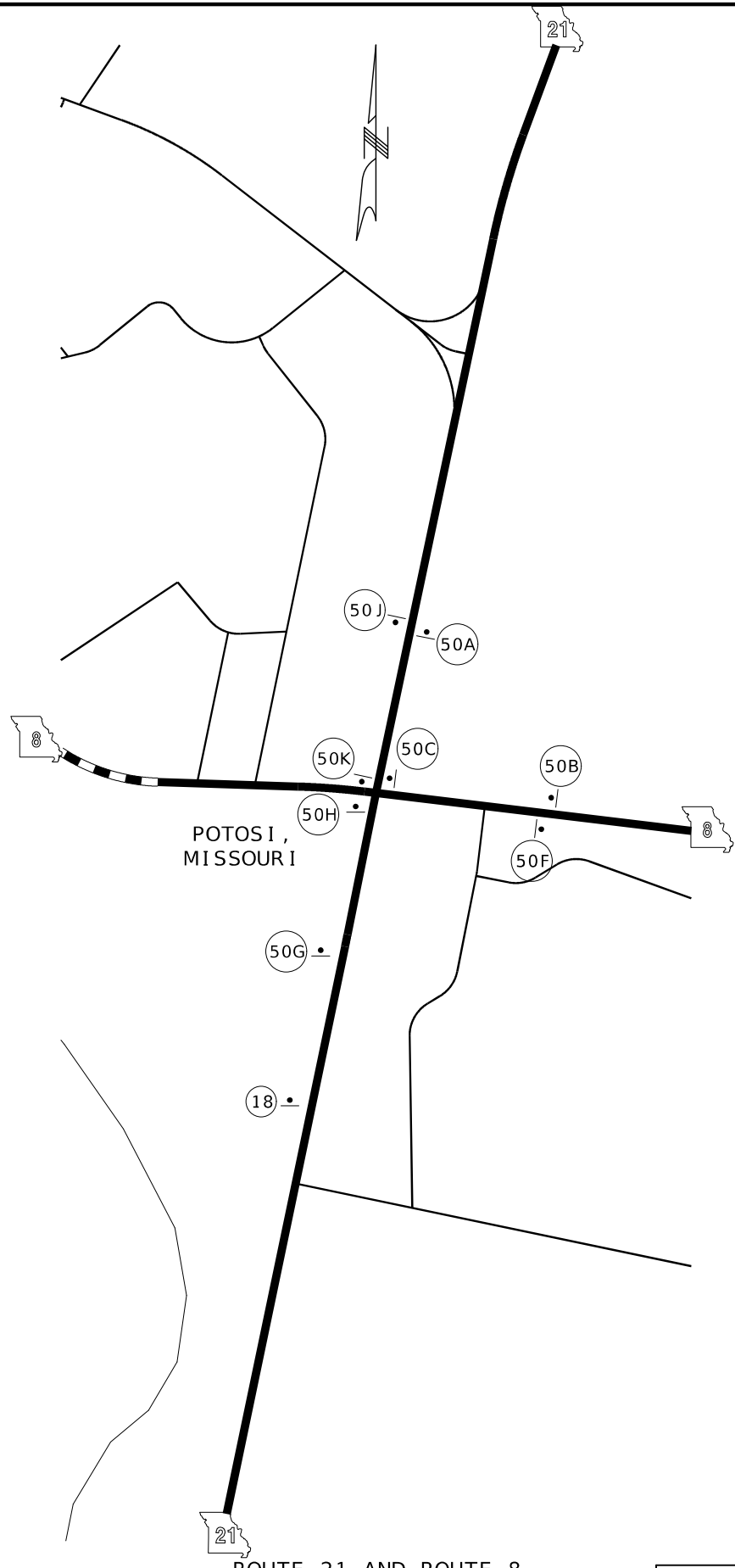
TRAFFIC CONTROL LEGEND

• SIGN (SINGLE SIDED)

NOTE:
SEE SHEET 3 FOR SIGN LEGEND

ROUTE 47 AND ROUTE 21
INTERSECTION

NOT TO SCALE



ROUTE 21 AND ROUTE 8
INTERSECTION

ROUTE 47
DETOUR SIGNING



DATE PREPARED
12/27/2024

ROUTE 47	STATE MO
DISTRICT CD	SHEET NO. 8

COUNTY
WASHINGTON
JOB NO.
J553540
CONTRACT ID.

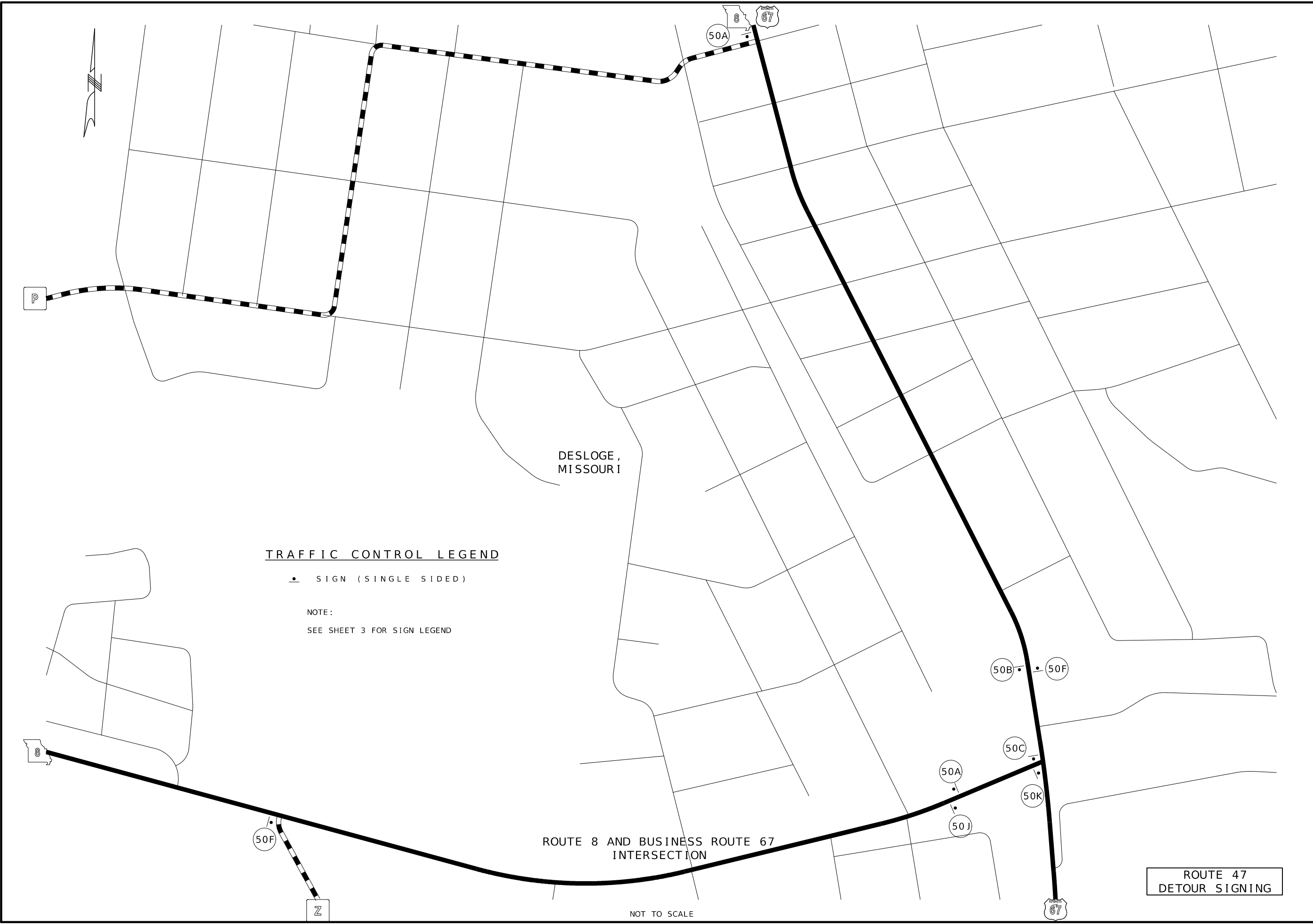
PROJECT NO.
BRIDGE NO.

DATE	DESCRIPTION

MISSOURI HIGHWAYS AND TRANSPORTATION
COMMISSION

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

TRAFFIC CONTROL PLAN
SHEET 4 OF 8



TRAFFIC CONTROL LEGEND

• SIGN (SINGLE SIDED)

NOTE:
SEE SHEET 3 FOR SIGN LEGEND

ROUTE 8 AND BUSINESS ROUTE 67
INTERSECTION

ROUTE 47
DETOUR SIGNING

NOT TO SCALE

STATE OF MISSOURI
MARIA K. PETERS
NUMBER PE-2000162118
PROFESSIONAL ENGINEER

DATE PREPARED
12/27/2024

ROUTE 47	STATE MO
DISTRICT CD	SHEET NO. 9

COUNTY
WASHINGTON

JOB NO.
J5S3540

CONTRACT ID.

PROJECT NO.

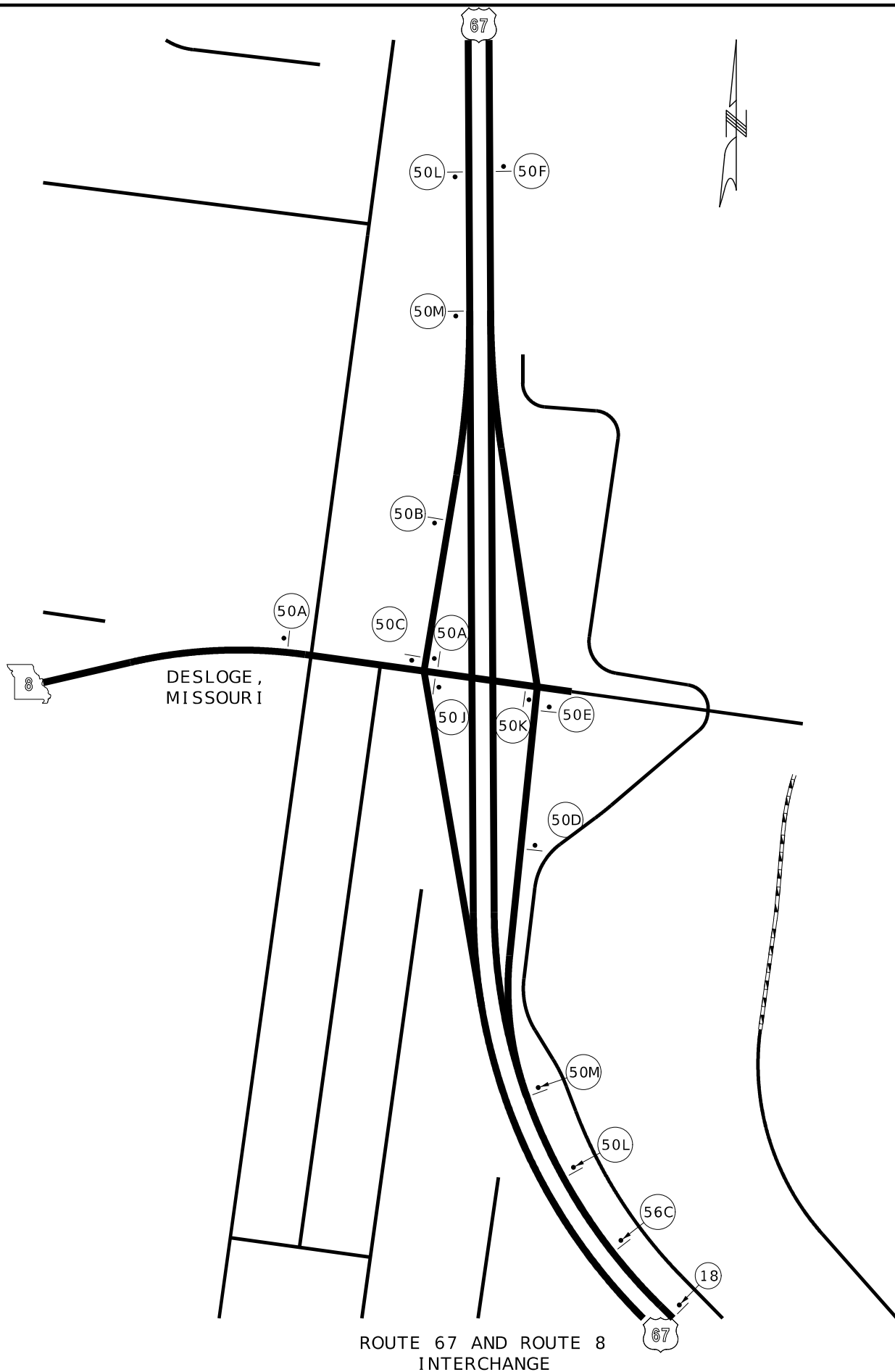
BRIDGE NO.

DATE	DESCRIPTION

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

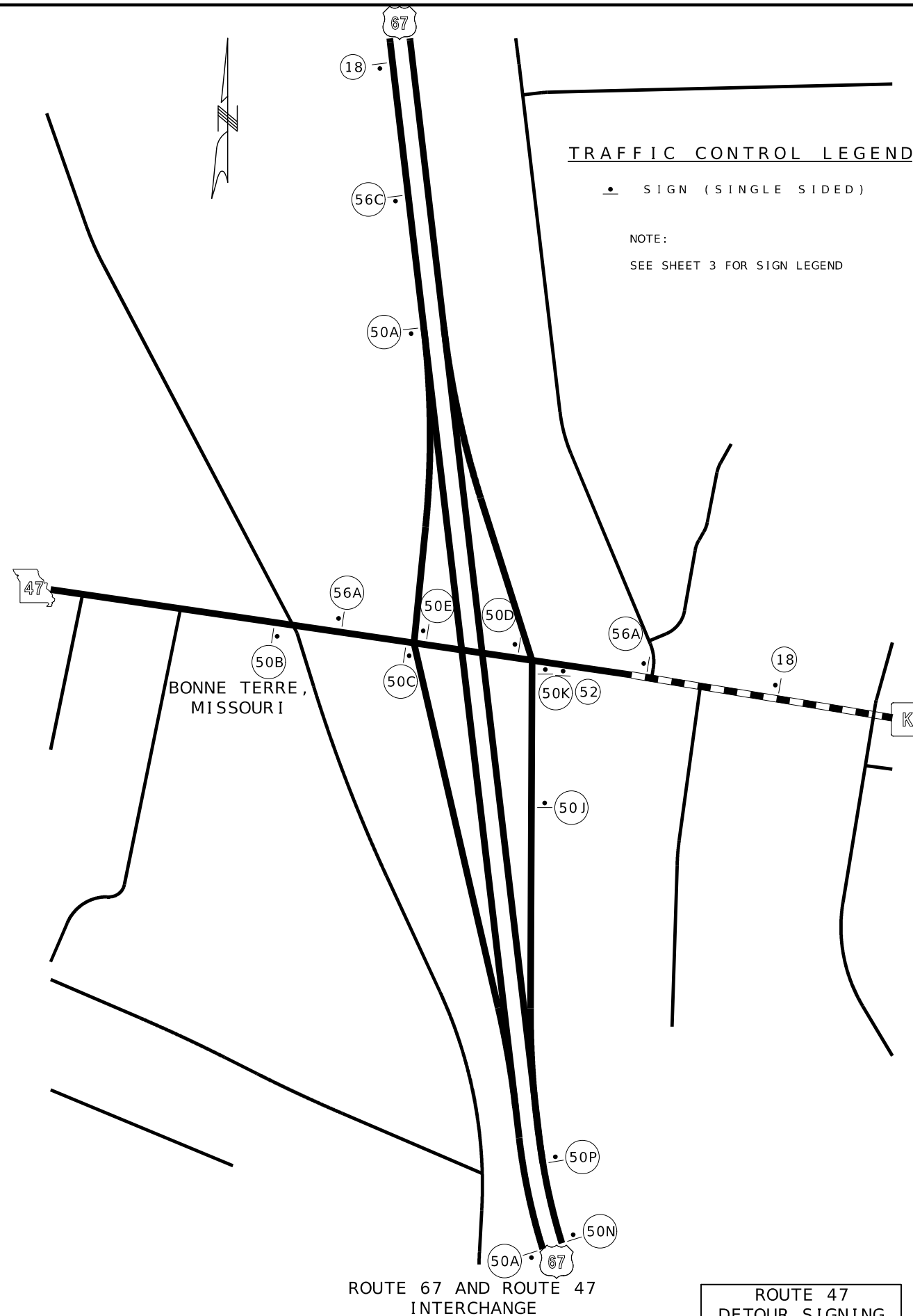
105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)

TRAFFIC CONTROL PLAN
SHEET 5 OF 8



ROUTE 67 AND ROUTE 8 INTERCHANGE

NOT TO SCALE



ROUTE 67 AND ROUTE 47 INTERCHANGE

ROUTE 47 DETOUR SIGNING

TRAFFIC CONTROL LEGEND

• SIGN (SINGLE SIDED)

NOTE:
SEE SHEET 3 FOR SIGN LEGEND



Maria Peters
12/27/2024 6:42:51 AM
MARIA K. PETERS - CIVIL
MO-PE-200162118

DATE PREPARED
12/27/2024

ROUTE	STATE
47	MO
DISTRICT	SHEET NO.
CD	10

COUNTY
WASHINGTON

JOB NO.
J5S3540

CONTRACT ID.

PROJECT NO.

BRIDGE NO.

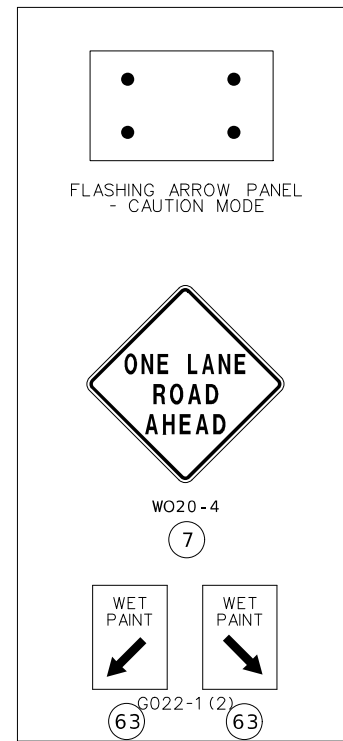
DATE	DESCRIPTION

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

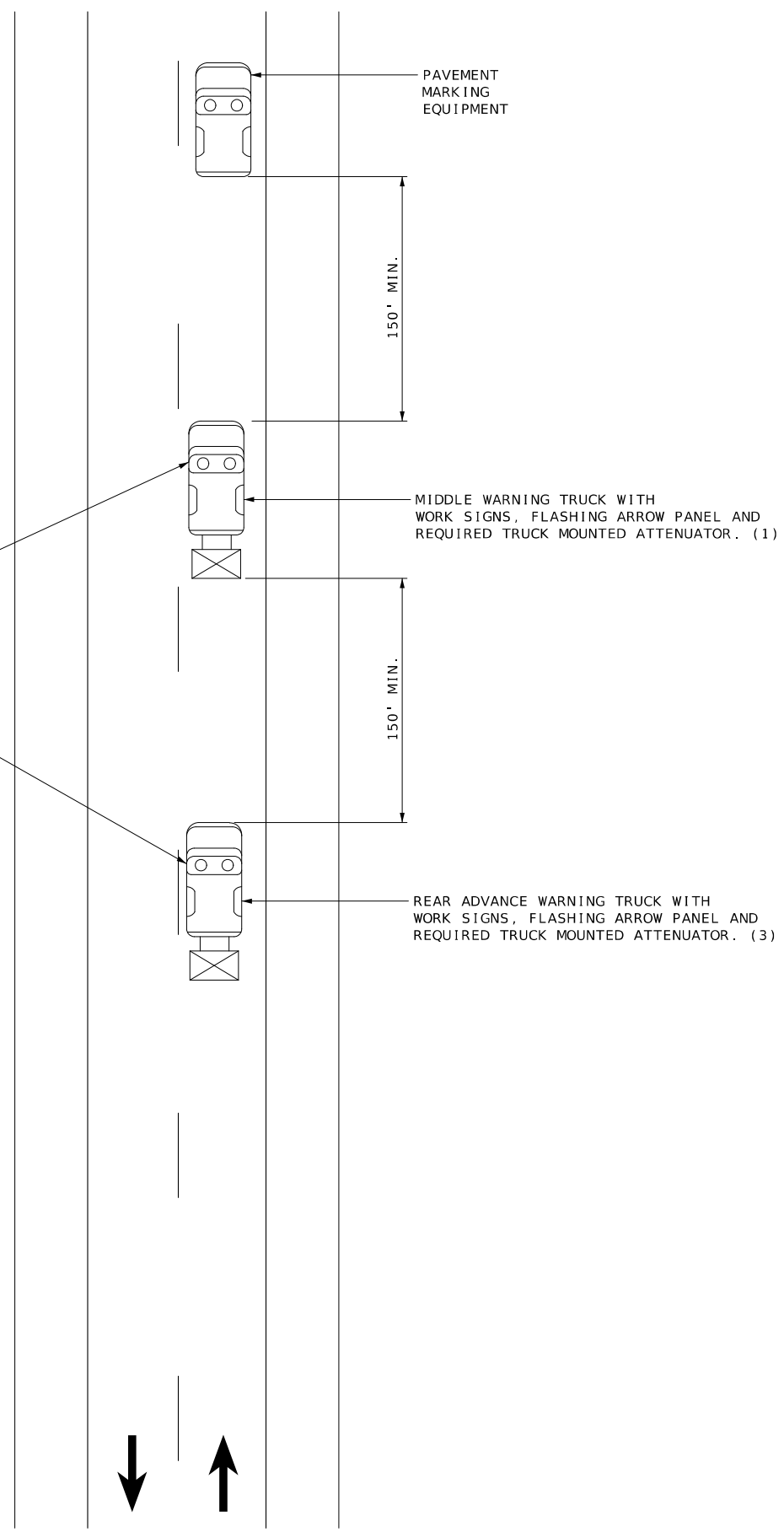


105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)

TRAFFIC CONTROL PLAN
SHEET 6 OF 8



STRIPING ON TWO-LANE HIGHWAY



NOTES:

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

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

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

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

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

(1) TRUCK IS OPTIONAL ON TWO-LANE UNDIVIDED HIGHWAYS IF SIGNING AND ARROW BOARD ARE MOUNTED ON THE PAVEMENT MARKING EQUIPMENT.

(2) WET PAINT SIGNS ARE INSTALLED TO INDICATE THE SIDE IN WHICH THE PAVEMENT MARKING MATERIAL IS BEING APPLIED. AT THE CONTRACTOR'S OPTION, A FRONT FACING WET PAINT SIGN MAY BE INSTALLED ON THE LEFT SIDE OF THE PAVEMENT MARKING EQUIPMENT.

(3) REAR WARNING TRUCK IS POSITIONED AT THE NO TRACK POINT OF THE PAVEMENT MARKING MATERIAL, OR VERTICAL OR HORIZONTAL CURVES THAT RESTRICT SIGHT DISTANCE, OR SPACING SHOWN, WHICHEVER IS GREATER.

STRIPING OPERATION

NOT TO SCALE



DATE PREPARED
12/27/2024

ROUTE **47** STATE **MO**
DISTRICT **CD** SHEET NO. **11**

COUNTY
WASHINGTON

JOB NO.
J5S3540
CONTRACT ID.

PROJECT NO.

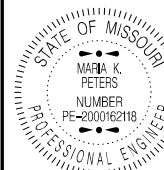
BRIDGE NO.

DESCRIPTION	DATE

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

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

TRAFFIC CONTROL PLAN
SHEET 7 OF 8



STATE OF MISSOURI
 MARIA K. PETERS
 NUMBER PE-200162118
 PROFESSIONAL ENGINEER

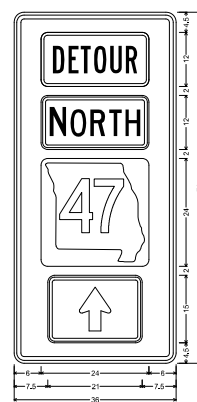
DATE PREPARED
 12/27/2024
 ROUTE 47 STATE MO
 DISTRICT CD SHEET NO. 12
 COUNTY WASHINGTON
 JOB NO. J553540
 CONTRACT ID.

PROJECT NO.
 BRIDGE NO.

DESCRIPTION	DATE

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION
 105 WEST CAPITOL JEFFERSON CITY, MO 65102
 1-888-ASK-MODOT (1-888-273-6636)

TRAFFIC CONTROL PLAN
 SHEET 8 OF 8



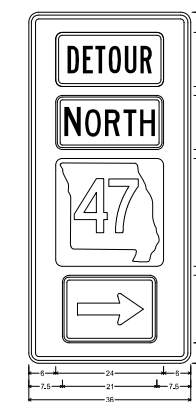
MO4-11 SHIF-FLAT SHEET FLUORESCENT:
 2.250" Radius, 0.875" Border, 0.625" Inset, Black on, Orange
 Table of letter and object belts

1	0.500
2	1.000
3	1.500
4	2.000
5	2.500



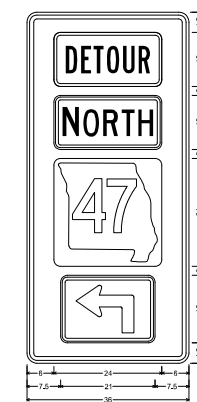
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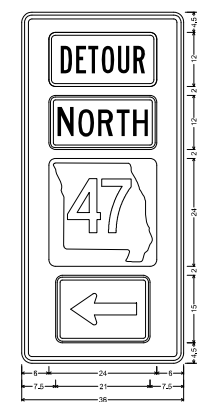
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 Table of letter and object belts

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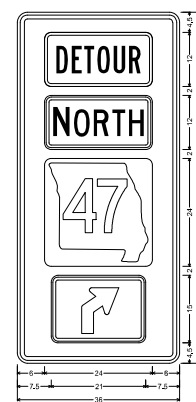
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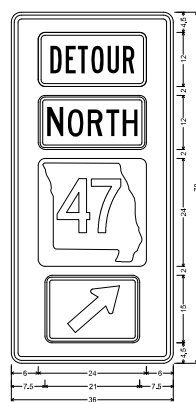
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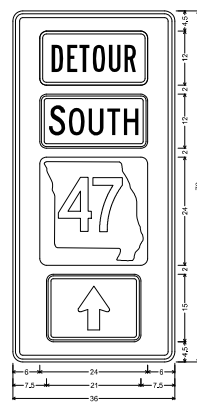
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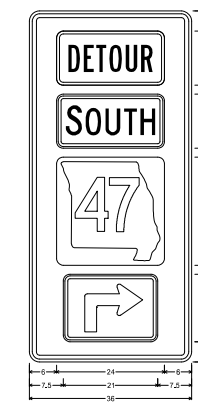
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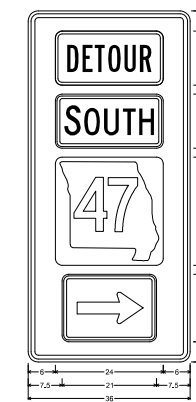
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5	2.500



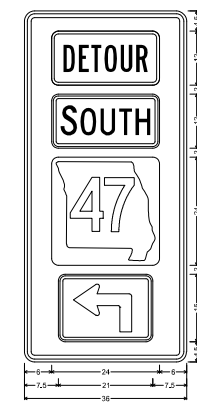
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 Table of letter and object belts

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3	1.500
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5	2.500



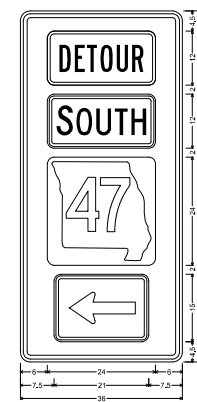
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 Table of letter and object belts

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3	1.500
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5	2.500



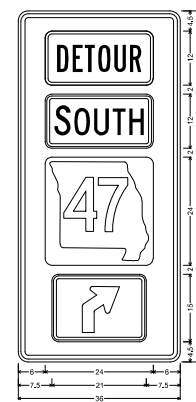
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 Table of letter and object belts

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3	1.500
4	2.000
5	2.500



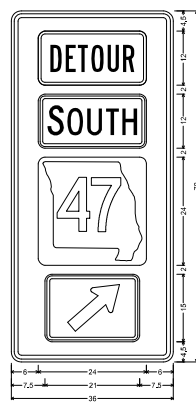
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 Table of letter and object belts

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3	1.500
4	2.000
5	2.500



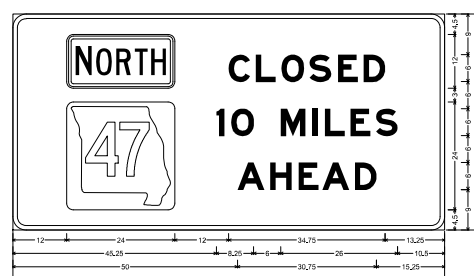
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 Table of letter and object belts

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2	1.000
3	1.500
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5	2.500



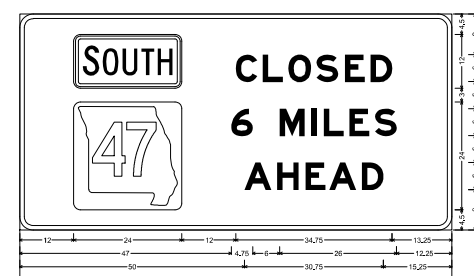
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 Table of letter and object belts

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5	2.500



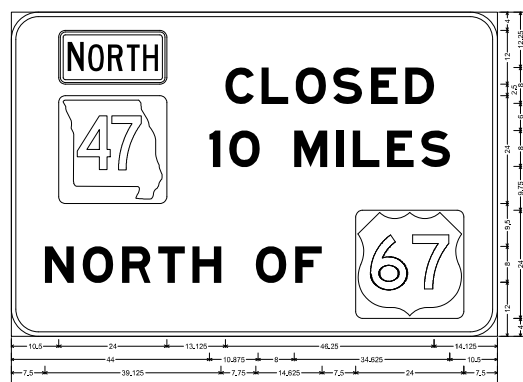
MO4-13 SHIF-FLAT SHEET FLUORESCENT:
 3.000" Radius, 1.500" Border, Black on, Orange
 "CLOSED", "E MILE", "MILES", "E MILE", "AHEAD", "E MILE"
 Table of letter and object belts

C	L	O	S	E	D		
15,000	64,000	24,000	18,750	18,000	72,000		
15,000	64,000	24,000	18,750	18,000	72,000		
A	H	E	M	I	L	E	S
50,000	57,125	63,000	68,750	74,000	79,000	84,000	89,000



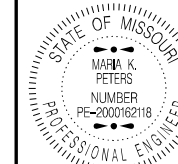
MO4-13 SHIF-FLAT SHEET FLUORESCENT:
 3.000" Radius, 1.500" Border, Black on, Orange
 "CLOSED", "E MILE", "MILES", "E MILE", "AHEAD", "E MILE"
 Table of letter and object belts

C	L	O	S	E	D		
15,000	64,000	24,000	18,750	18,000	72,000		
15,000	64,000	24,000	18,750	18,000	72,000		
A	H	E	M	I	L	E	S
50,000	57,125	63,000	68,750	74,000	79,000	84,000	89,000



SPECIAL SHIF-FLAT SHEET FLUORESCENT:
 4.500" Radius, 3.000" Border, Black on, Orange
 "CLOSED", "E MILE", "MILES", "E MILE", "NORTH OF", "E MILE"
 Table of letter and object belts

C	L	O	S	E	D		
15,000	64,000	24,000	18,750	18,000	72,000		
15,000	64,000	24,000	18,750	18,000	72,000		
A	H	E	M	I	L	E	S
50,000	57,125	63,000	68,750	74,000	79,000	84,000	89,000



DATE PREPARED
12/27/2024

ROUTE 47 STATE MO

DISTRICT CD SHEET NO. 13

COUNTY WASHINGTON

JOB NO. J553540


CONTRACT ID.

PROJECT NO.

BRIDGE NO. R0514

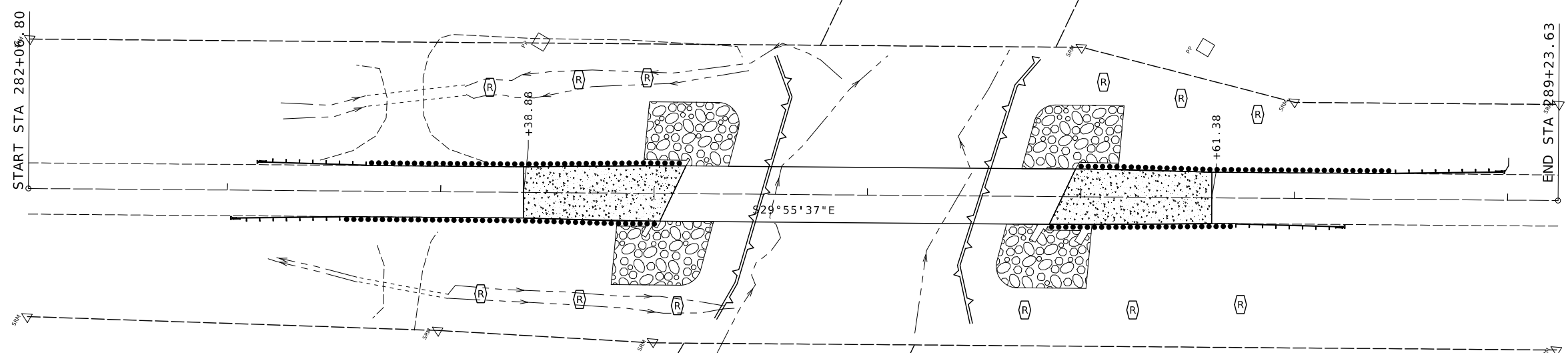
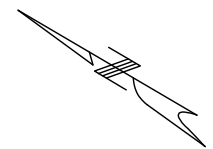
DATE	DESCRIPTION

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION



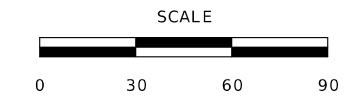
105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)

EROSION CONTROL SHEET
SHEET 1 OF 1



TEMPORARY EROSION CONTROL LEGEND

-  ROCK DITCH CHECK
-  TEMPORARY BERM TYPE B





DATE PREPARED
1/8/2025

ROUTE 47 STATE MO

DISTRICT BR SHEET NO. 1

COUNTY WASHINGTON

JOB NO. J5S3540

CONTRACT ID.

PROJECT NO.

BRIDGE NO. R05141

DESCRIPTION

DATE

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

105 WEST CAPITOL JEFFERSON CITY, MO 65102

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

MoDOT

REPAIRS TO BRIDGE: ROUTE 47 OVER MILL CREEK

ROUTE 47 FROM RTE. E TO RTE. 67

ABOUT 2.8 MILES EAST OF RTE. E

BEGINNING STATION 285+09.5± (MATCH EXISTING)

Table Showing S2 Bar Lengths

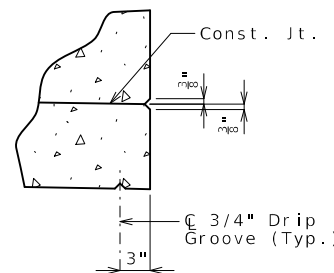
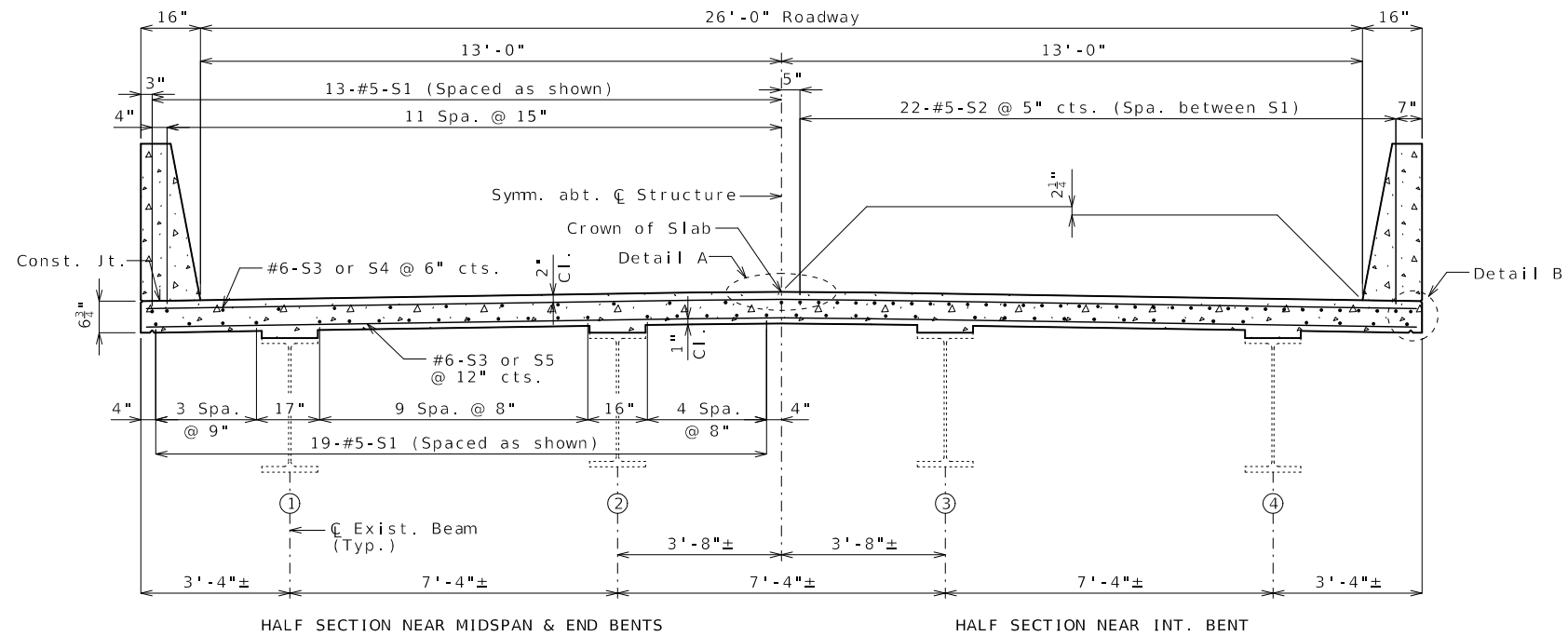
Int. Bent No. 2		Int. Bent No. 3	
Span 1	Span 2	Span 2	Span 3
13'-0"	13'-3"	13'-3"	13'-0"

Required Lap Length For Bar Splices **

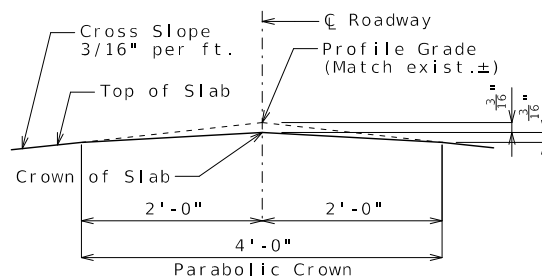
Bar Size	Splice Length
4	2'-7"
5	3'-3"
6	3'-10"
7	4'-11"

** Unless otherwise shown.

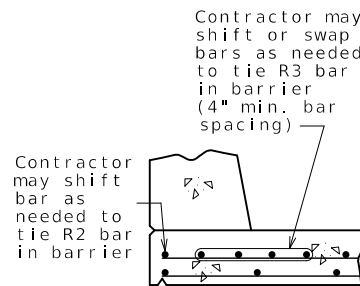
U.I.P., REDECK AND MAKE COMPOSITE EXISTING (54'- 70'- 54') CONTINUOUS WIDE FLANGE BEAM SPANS (SKEW: 25° L.A.)



DETAIL B



DETAIL A



OPTIONAL SHIFTING TOP BARS AT BARRIER

Estimated Quantities

Item	Quantity	Total
Removal of Existing Bridge Deck	sq. foot	4,980
Approach Slab (Minor)	sq. yard	127
Slab on Steel	sq. yard	574
Type H Barrier	linear foot	361
Protective Coating - Concrete Bents and Piers (Epoxy)	lump sum	1
Strengthening Existing Beams	lump sum	1
Cleaning & Coating Existing Bearings	each	4
Slab Drain	each	28
Non-Destructive Testing	linear foot	25

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	Quantity	Total
Class B-2 Concrete	cu. yard	108
Reinforcing Steel (Epoxy Coated)	pound	38,030

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 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 1, 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.

General Notes:

Design Specifications:

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

Design Loading:

HS15-44 (1961) (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 (Superstructure, except Barrier) $f'c = 4,000$ psi
Reinforcing Steel (ATSM 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:

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

Bars bonded in existing concrete not removed shall be cleanly stripped and embedded into new concrete where possible. If length is available, existing bars shall extend into new concrete at least 40 diameters for plain bars and 30 diameters for deformed 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.

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

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

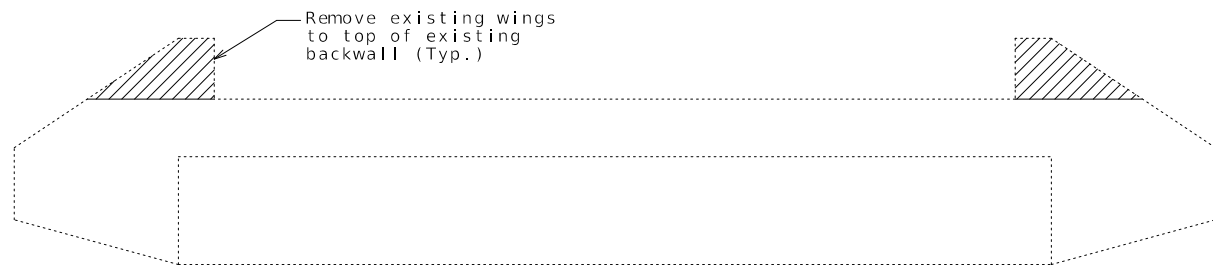
Rubblized concrete from the existing bridge deck that qualifies as clean fill may be placed on spill slopes at end bents above ordinary high water line (Roadway item).

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

Bridge deck surface may be finished with a vibratory screed.

Traffic Handling:

Structure to be closed during construction.
See Roadway Plans for traffic control.



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 End 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:

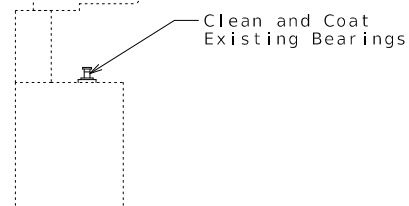
The contractor shall provide bracing necessary for lateral and torsional stability of the beams during construction of the concrete slab and remove the bracing after the slab has attained 75% design strength. Contractor shall not weld on or drill holes in the beams. The cost for furnishing, installing,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

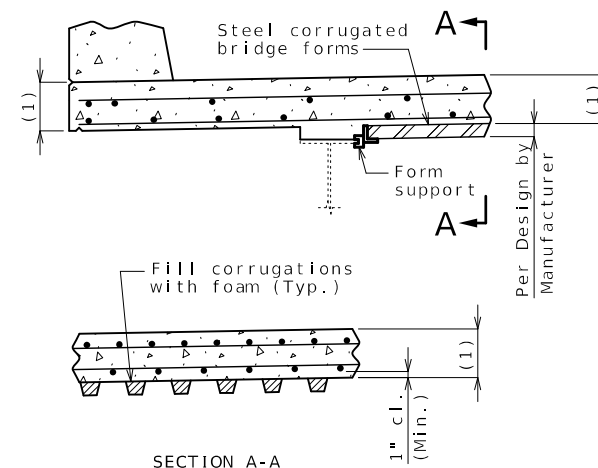
Alternate pour sequences may be submitted to the engineer for approval. Keyed construction joints shall be provided between pours.

Haunching:

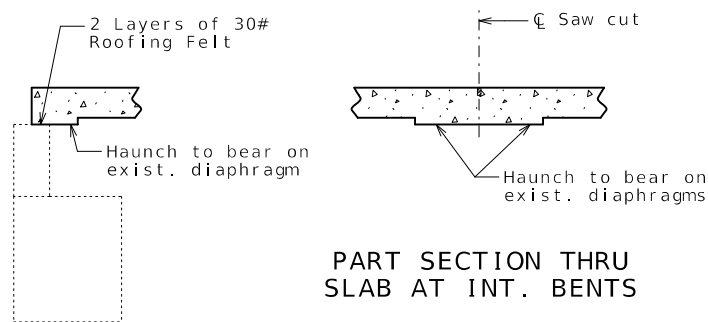
(1) Slab is to be considered a uniform thickness as shown on the plans. Haunching will vary. See front sheet for slab thickness.



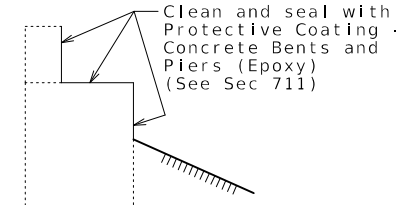
TYPICAL SECTION THRU END BENT NO. 1 SHOWING CLEANING & PROTETIVE COATING OF BEARING



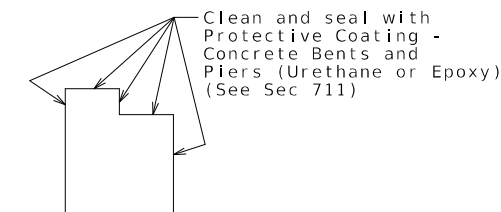
OPTIONAL STAY-IN-PLACE FORM DETAILS



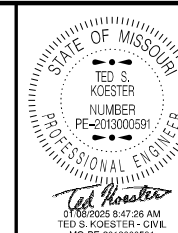
PART SECTION THRU SLAB AT END BENTS



TYPICAL SECTION THRU END BENTS 1 & 4 SHOWING PROTECTIVE COATING



TYPICAL SECTION THRU INT. BENTS 2 & 3 SHOWING PROTECTIVE COATING



DATE PREPARED
1/8/2025

ROUTE 47 STATE MO

DISTRICT BR SHEET NO. 2

COUNTY WASHINGTON

JOB NO. J5S3540

CONTRACT ID.

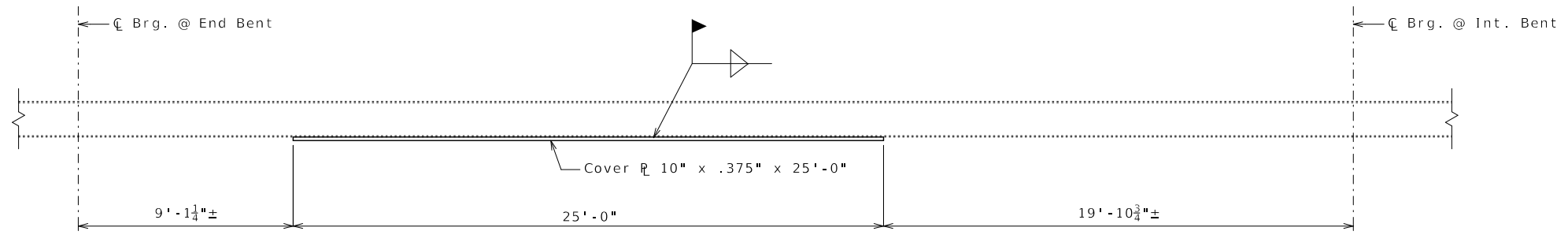
PROJECT NO.

BRIDGE NO. R05141

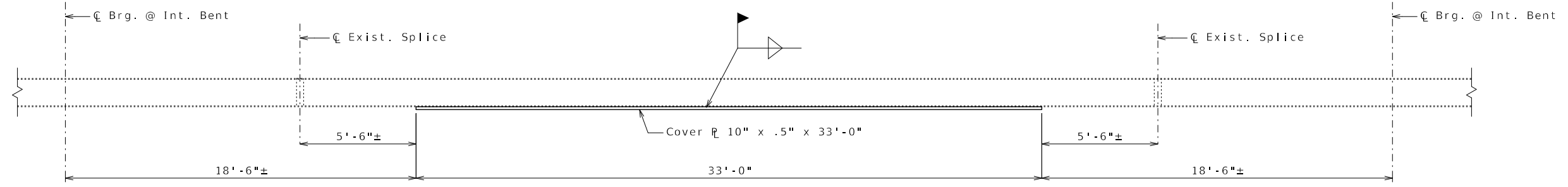
DATE	DESCRIPTION

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

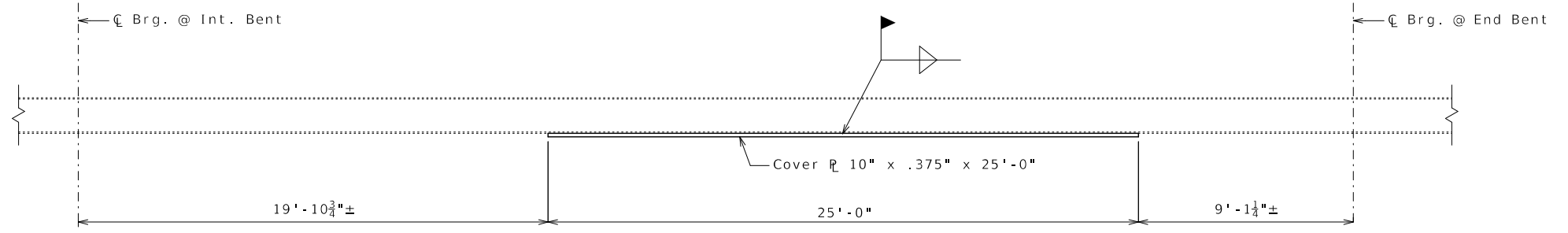
105 WEST CAPITOL JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)



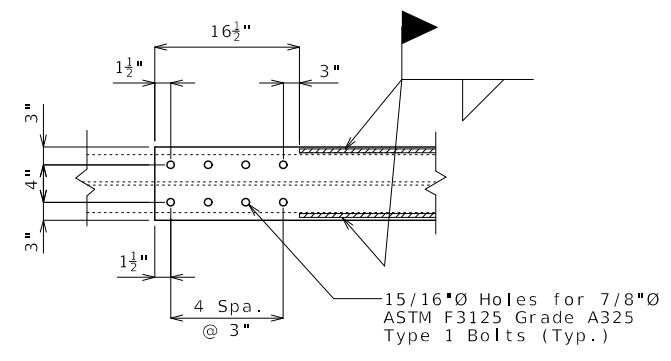
PART ELEVATION OF EXTERIOR BEAM SHOWING COVER PLATE INSTALLATION SPAN (1-2)



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



PART ELEVATION OF EXTERIOR BEAM SHOWING COVER PLATE INSTALLATION SPAN (3-4)



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

Notes:

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

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

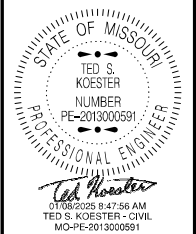
Fabricated Structural Steel shall be ASTM A709 Grade 36, except as noted.

Payment for 2,400 pounds of new cover plates complete in place will be considered completely covered by the contract lump sum price for Strengthening Existing Beams.

Notch toughness is required for all cover plates.

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

STRENGTHENING EXISTING BEAMS

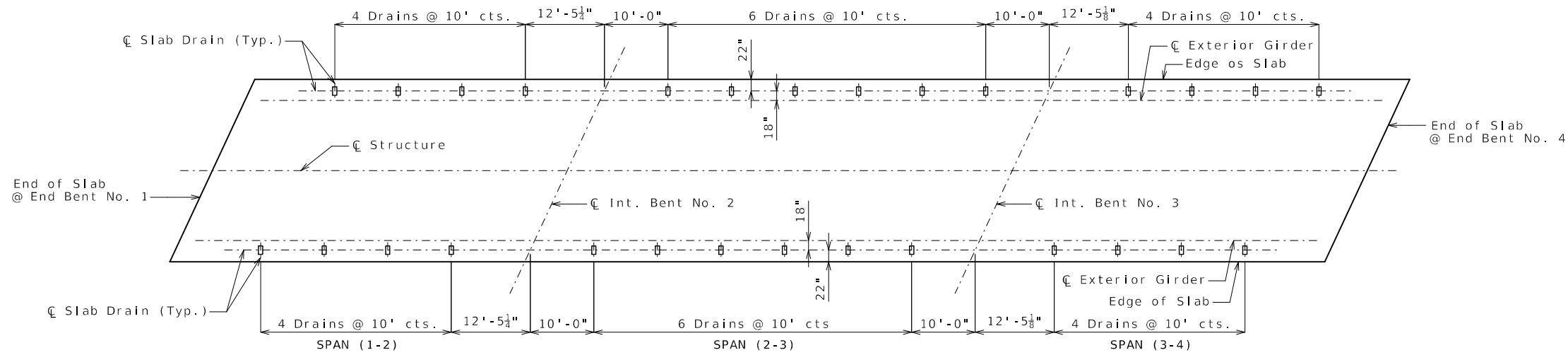


DATE PREPARED 1/8/2025	
ROUTE 47	STATE MO
DISTRICT BR	SHEET NO. 3
COUNTY WASHINGTON	
JOB NO. J5S3540	
CONTRACT ID.	
PROJECT NO.	
BRIDGE NO. R05141	

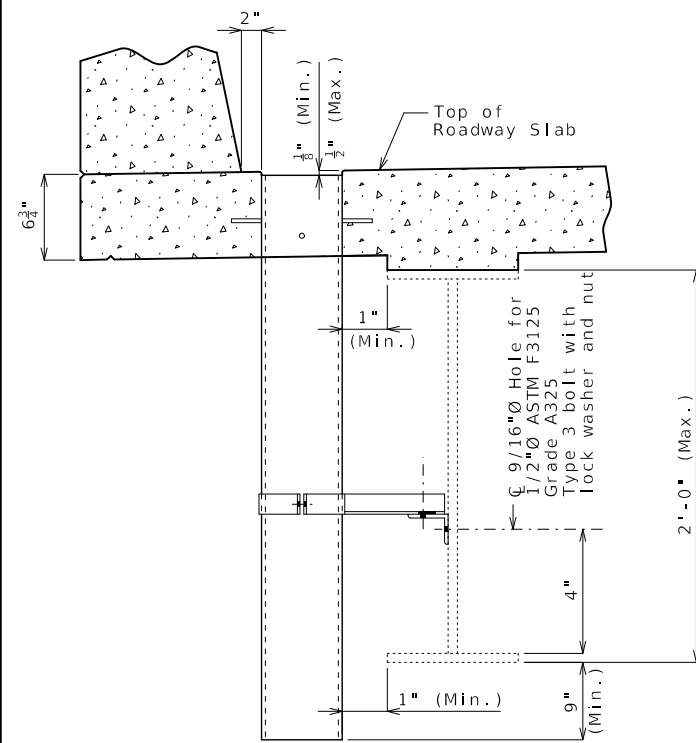
DATE	DESCRIPTION

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

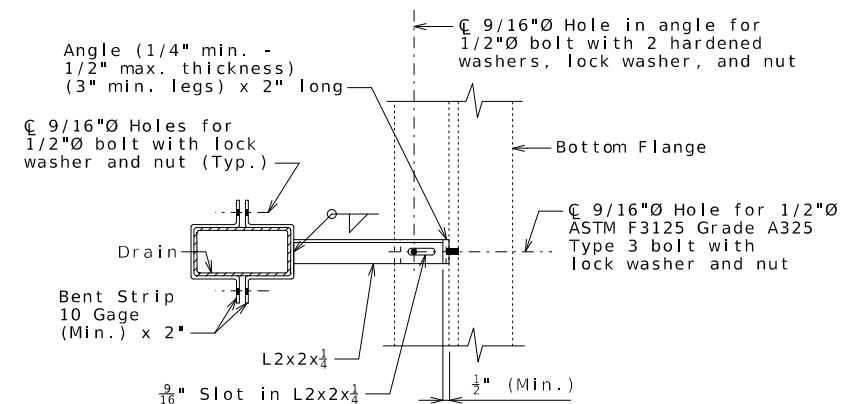
105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)



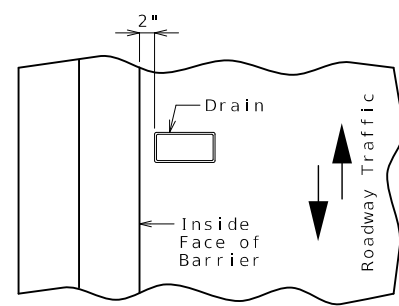
PLAN OF SLAB SHOWING SLAB DRAIN LOCATIONS



PART SECTION NEAR DRAIN

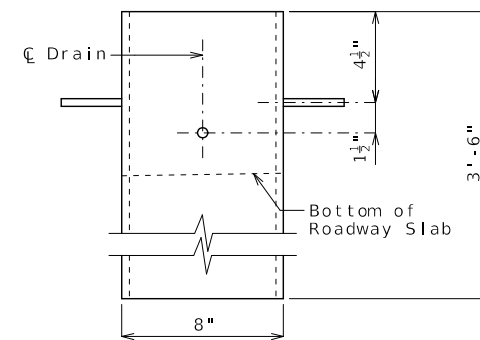


PART SECTION SHOWING BRACKET ASSEMBLY

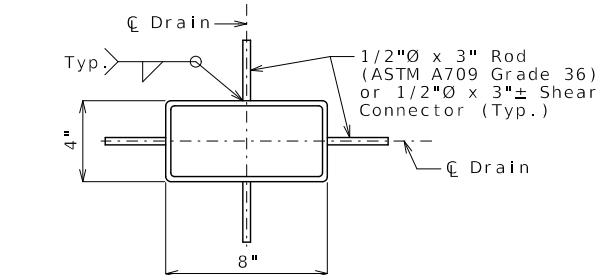


PART PLAN OF SLAB AT DRAIN

SLAB DRAINS



ELEVATION OF DRAIN



PLAN OF STEEL DRAIN OPTION

General Notes:

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

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

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

Reinforcing steel shall be shifted to clear drains.

The 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 located on the plate girder shop drawings.

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.

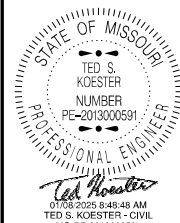
DATE PREPARED
1/8/2025

ROUTE 47	STATE MO
DISTRICT BR	SHEET NO. 4
COUNTY WASHINGTON	
JOB NO. J5S3540	
CONTRACT ID.	
PROJECT NO.	
BRIDGE NO. R05141	

DATE	DESCRIPTION

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

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



DATE PREPARED
1/8/2025

ROUTE
47

STATE
MO

DISTRICT
BR

SHEET NO.
5

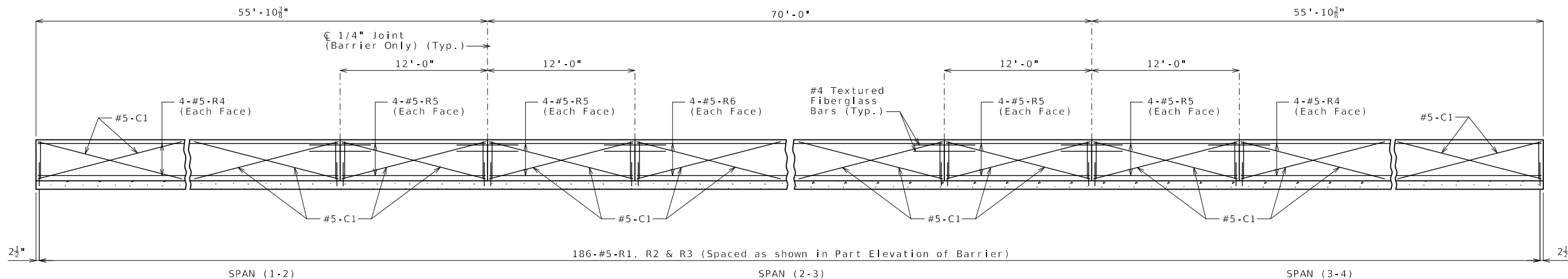
COUNTY
WASHINGTON

JOB NO.
J5S3540

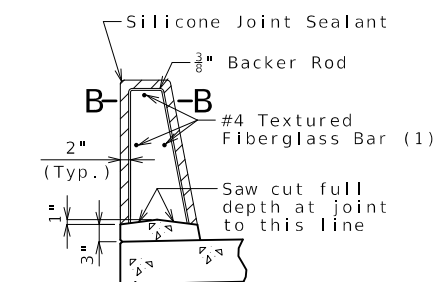
CONTRACT ID.

PROJECT NO.

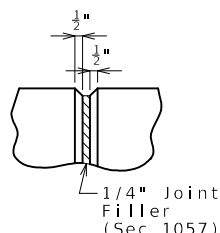
BRIDGE NO.
R05141



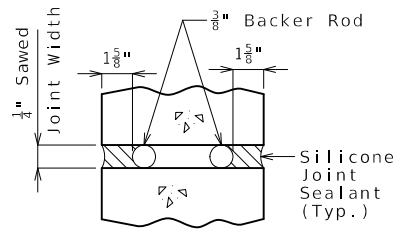
ELEVATION OF BARRIER
(Left barrier shown, right barrier similar)
Longitudinal dimensions are horizontal.



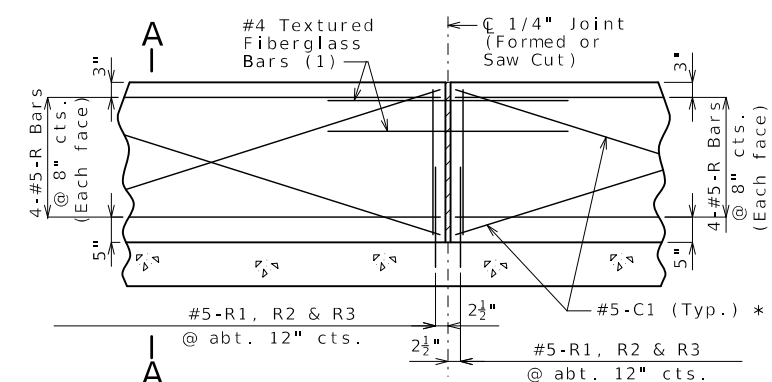
SECTION THRU SAW CUT JOINT



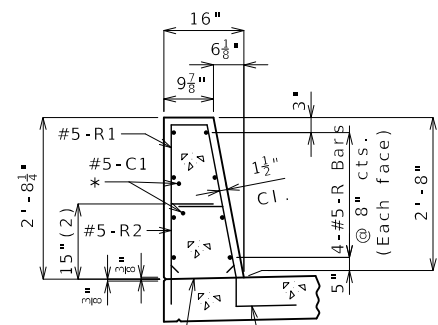
PART ELEVATION AT FORMED JOINT



SECTION B-B

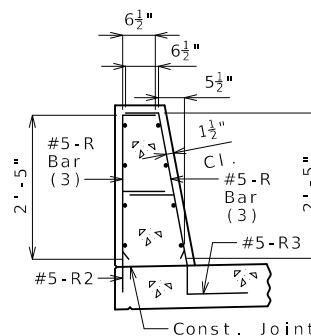


PART ELEVATION OF BARRIER
(1) Four feet long, centered on joint, slip-formed option only



SECTION A-A

Use a minimum lap of 3'-1" for #5 horizontal barrier bars.
The cross-sectional area above the slab is 2.89 square feet.
(2) To top of bar



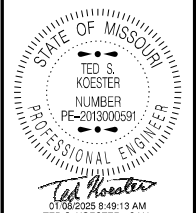
R-BAR PERMISSIBLE ALTERNATE SHAPE

(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.)

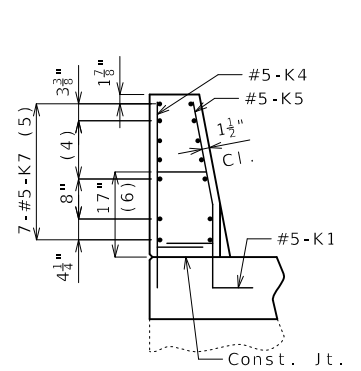
General Notes:

- * 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 (except at end bents) normal to grade.
- All exposed edges of barrier shall have either a 1/2-inch radius or a 3/8-inch bevel, unless otherwise noted.
- 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 wing to end of wing.
- Concrete traffic barrier delineators shall be placed on top of the barrier as shown on Missouri Standard Plan 617.10 and in accordance with Sec 617. Delineators on bridges with two-lane, two-way traffic shall have retroreflective sheeting on both sides. Concrete traffic barrier delineators will be considered completely covered by the contract unit price for Type H Barrier.
- Joint sealant and backer rods shall be in accordance with Sec 717 for silicone joint sealant for saw cut and formed joints.
- For slip-formed option, both sides of barrier shall have a vertically broomed finish and the top shall have a transversely broomed finish.
- Plastic waterstop shall not be used with saw cut joints.

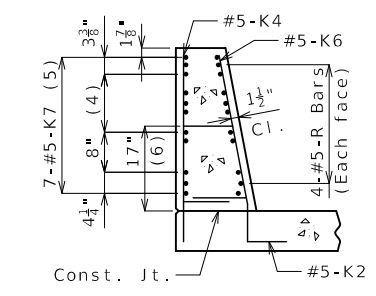
DESCRIPTION	DATE



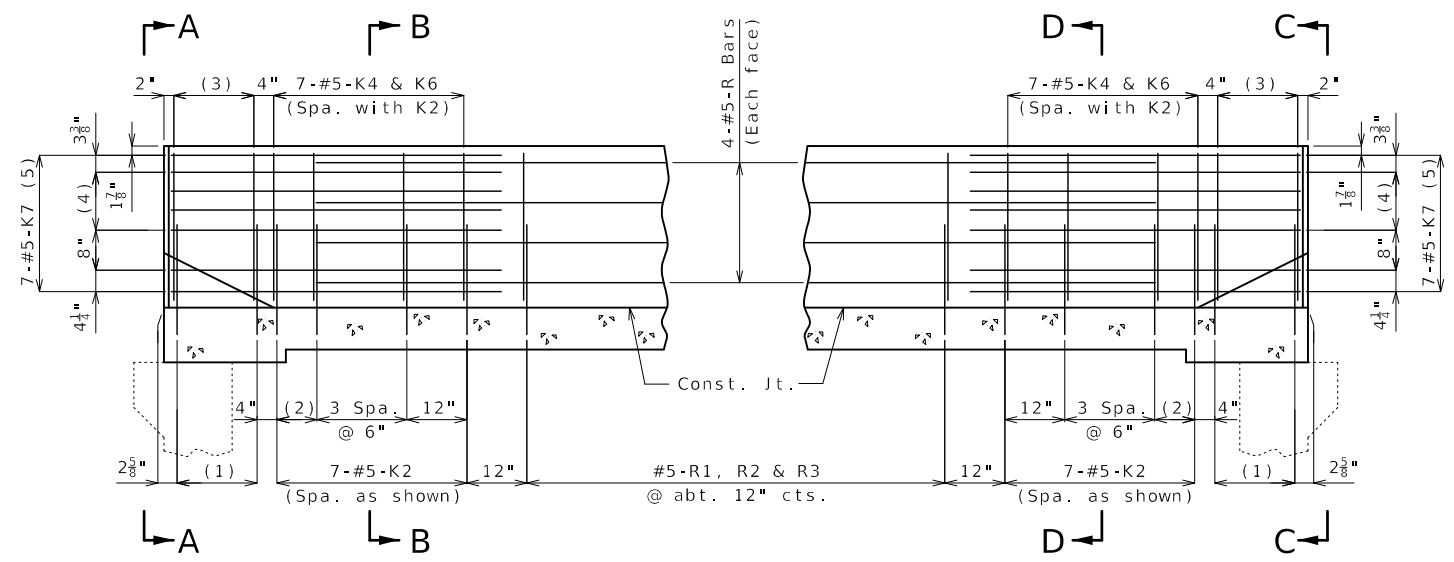
DATE PREPARED 1/8/2025	
ROUTE 47	STATE MO
DISTRICT BR	SHEET NO. 6
COUNTY WASHINGTON	
JOB NO. J5S3540	
CONTRACT ID.	
PROJECT NO.	
BRIDGE NO. R05141	



ELEVATION A-A

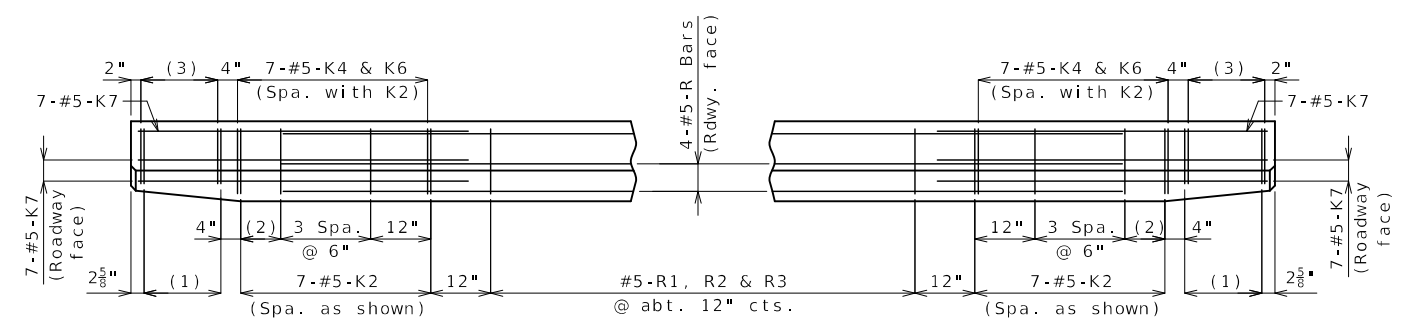


SECTION B-B

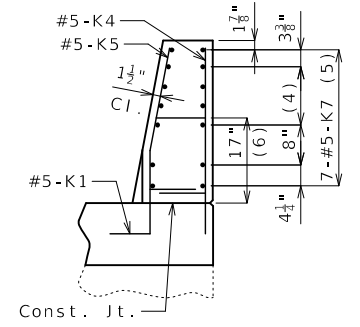


PART ELEVATION

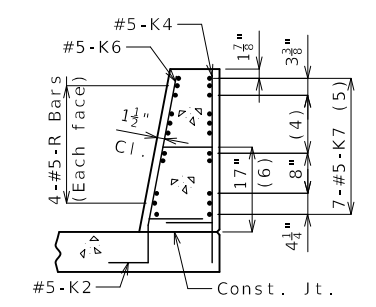
- (1) 5-#5-K1 @ 4" cts.
- (2) 2 Spaces @ 4"
- (3) 5-#5-K4 and 5-#5-K5, spaced with K1
- (4) 3 Spaces @ 3 1/8"
- (5) Spaced as shown, each face
- (6) To top of bar



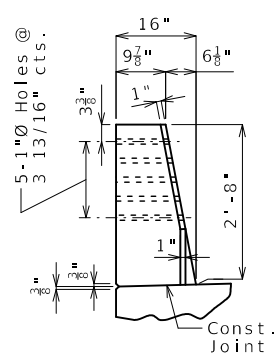
PART PLAN



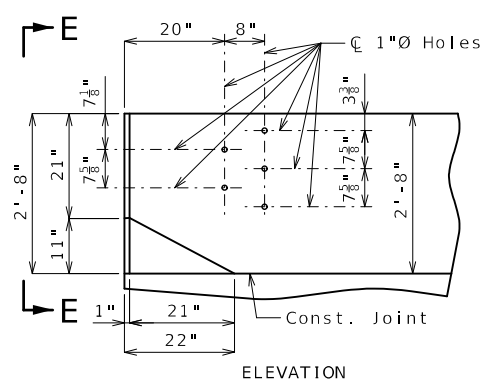
ELEVATION C-C



SECTION D-D

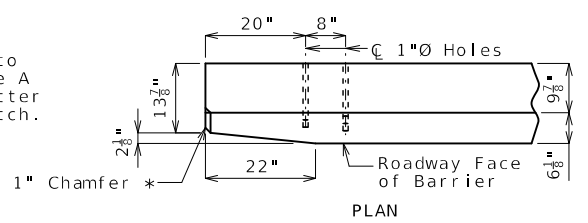


ELEVATION E-E



ELEVATION

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



PLAN

DETAILS OF GUARD RAIL ATTACHMENT

General Notes:

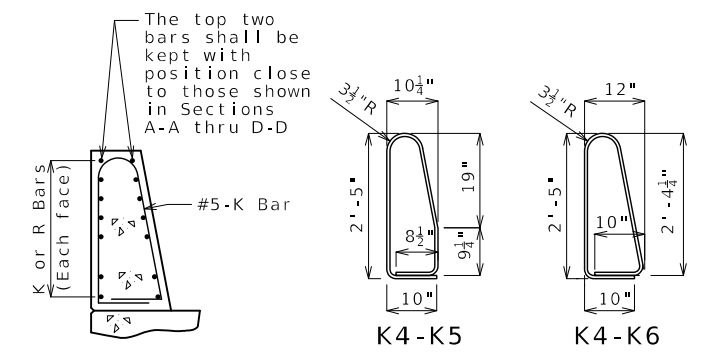
Concrete traffic barrier delineators shall be placed on top of the barrier as shown on Missouri Standard Plan 617.10 and in accordance with Sec 617. Delineators on bridges with two-lane, two-way traffic shall have retroreflective sheeting on both sides. Concrete traffic barrier delineators will be considered 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 3'-1" between K7 bars and R bars.

TYPE H BARRIER AT END BENTS

(Left barrier shown, right barrier similar)

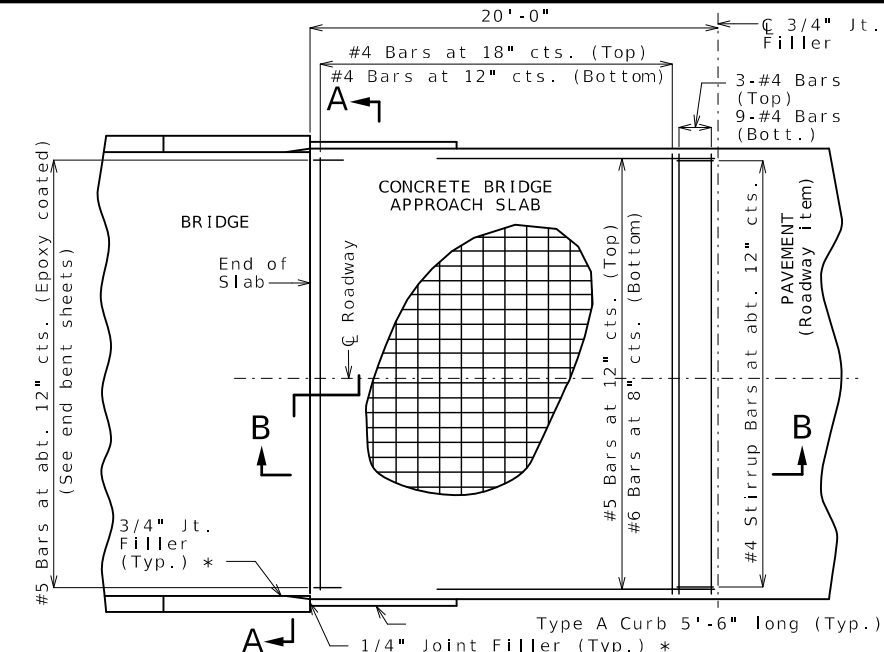


PERMISSIBLE ALTERNATE SHAPES

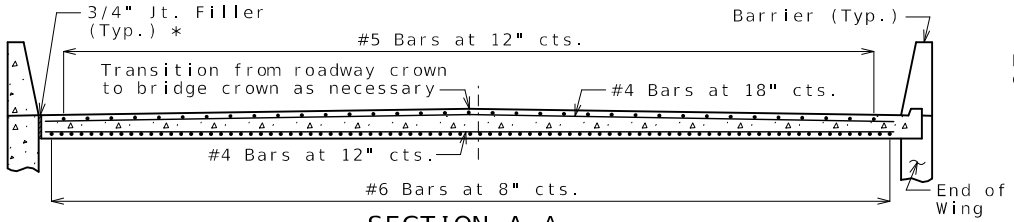
(Other K bars not shown for clarity)

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.

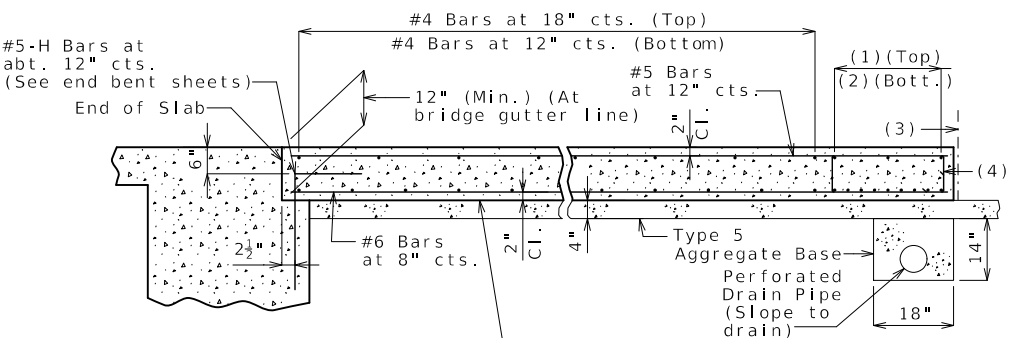


PART PLAN OF SQUARED STRUCTURE
(Skewed structure similar)

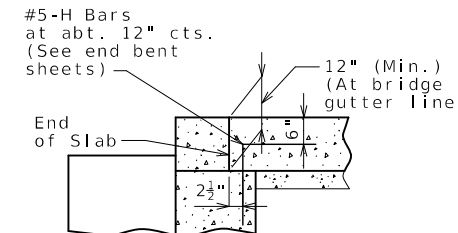


SECTION A-A

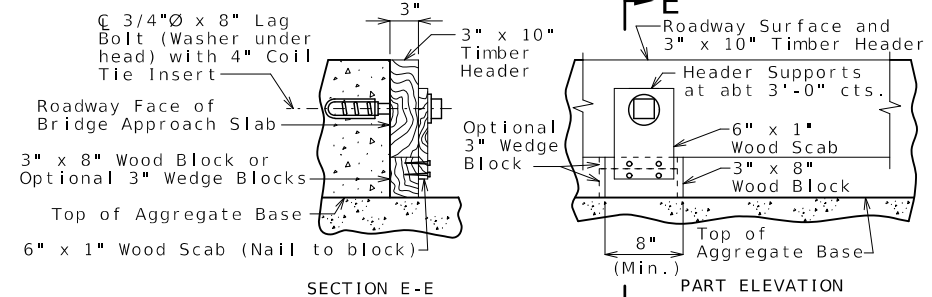
With the approval of the engineer, the contractor may crown the bottom of the approach slab to match the crown of the roadway surface.



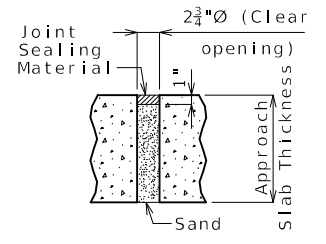
SECTION B-B
(Integral end bent)



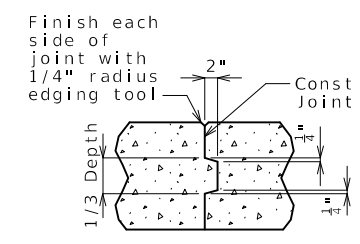
PART SECTION B-B
(Non-integral end bent)



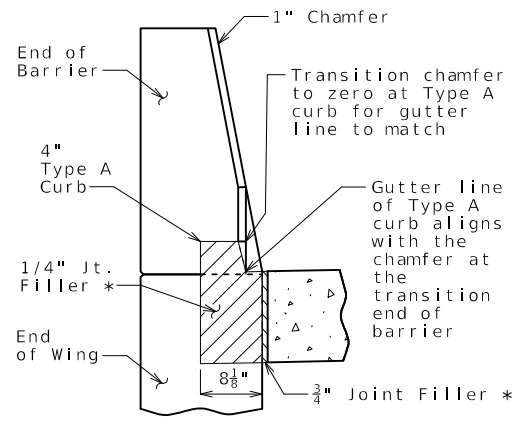
DETAILS OF TIMBER HEADER
Remove timber header when concrete pavement is placed.
OPTIONAL CONCRETE SLAB



UNDERSEAL ACCESS HOLE DETAIL
(If required)



CONSTRUCTION JOINT DETAIL



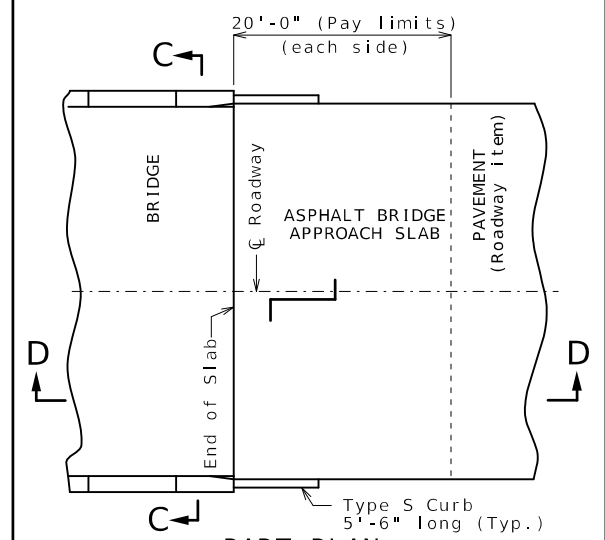
SECTION BETWEEN CURB AND BARRIER

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

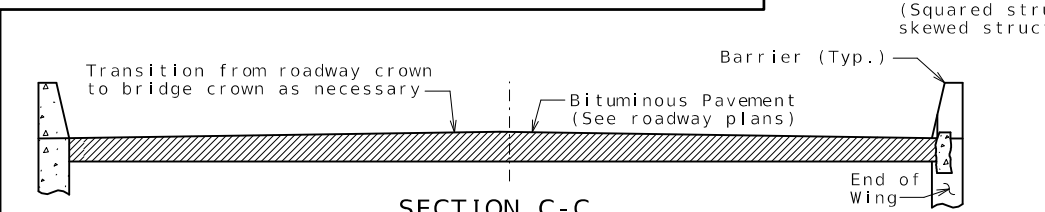
Notes For Concrete Slab Only:
All concrete for the bridge approach slab shall be in accordance with Sec 503 ($f'c = 4,000$ psi).
The reinforcing steel in the bridge approach slab shall be epoxy coated Grade 60 with $f_y = 60,000$ psi.
Longitudinal construction joints in bridge approach slab shall be aligned with longitudinal construction joints in bridge slab.
Minimum clearance to reinforcing steel shall be 1 1/2", unless otherwise shown.
The reinforcing steel in the bridge approach slab shall be continuous. The transverse reinforcing steel may be made continuous by providing a minimum lap splice of 23 inches for #4 bars, or by mechanical bar splice.
Mechanical bar splices shall be in accordance with Sec 710.
All joint filler shall be in accordance with Sec 1057 for preformed fiber expansion joint filler except as noted.
Payment for furnishing all materials, labor and excavation necessary to construct the concrete bridge approach slab, including the timber header, underdrain, Type 5 aggregate base, joint filler, and all other appurtenances and incidental work as shown on this sheet, complete in place, will be considered completely covered by the contract unit price for Bridge Approach Slab (Minor) per square yard.
Drain pipe may be either 6" diameter corrugated metallic-coated pipe underdrain, 4" diameter corrugated polyvinyl chloride (PVC) drain pipe, or 4" diameter corrugated polyethylene (PE) drain pipe.
* Seal joint between vertical face of approach slab and wing with sealant in accordance with Sec 717 for silicone joint sealant for saw cut and formed joints.

General Notes:
Contractor shall have the option to construct either slab except as noted.
The contractor shall pour and satisfactorily finish the bridge slab before placing the bridge approach slab.
MoDOT Construction personnel will indicate the bridge approach slab used for this structure:
 Concrete Bridge Approach Slab
 Asphalt Bridge Approach Slab

Notes For Asphalt Slab Only:
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.

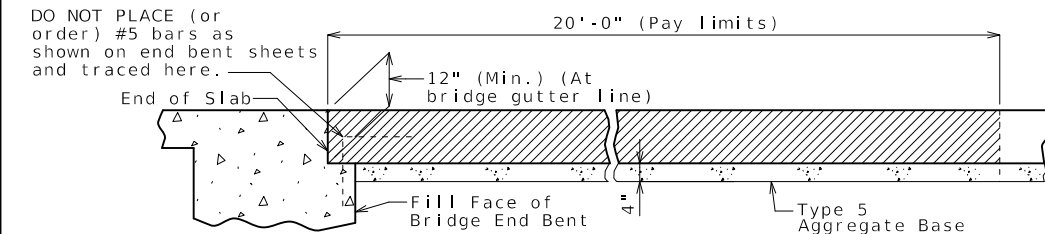


PART PLAN
(Squared structure shown, skewed structure similar)



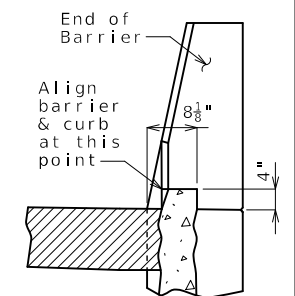
SECTION C-C

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

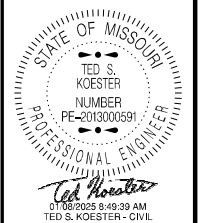


SECTION D-D

OPTIONAL ASPHALT SLAB (NOT ALLOWED WITH CONCRETE PAVEMENT)



4" TYPE S CURB
See Missouri Standard Plan 609.00 for details of Type S curb.



DATE PREPARED	
1/8/2025	
ROUTE	STATE
47	MO
DISTRICT	SHEET NO.
BR	7
COUNTY	
WASHINGTON	
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J5S3540	
CONTRACT ID.	
PROJECT NO.	
BRIDGE NO.	
R05141	

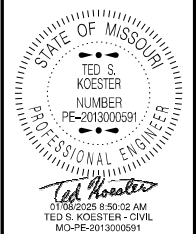
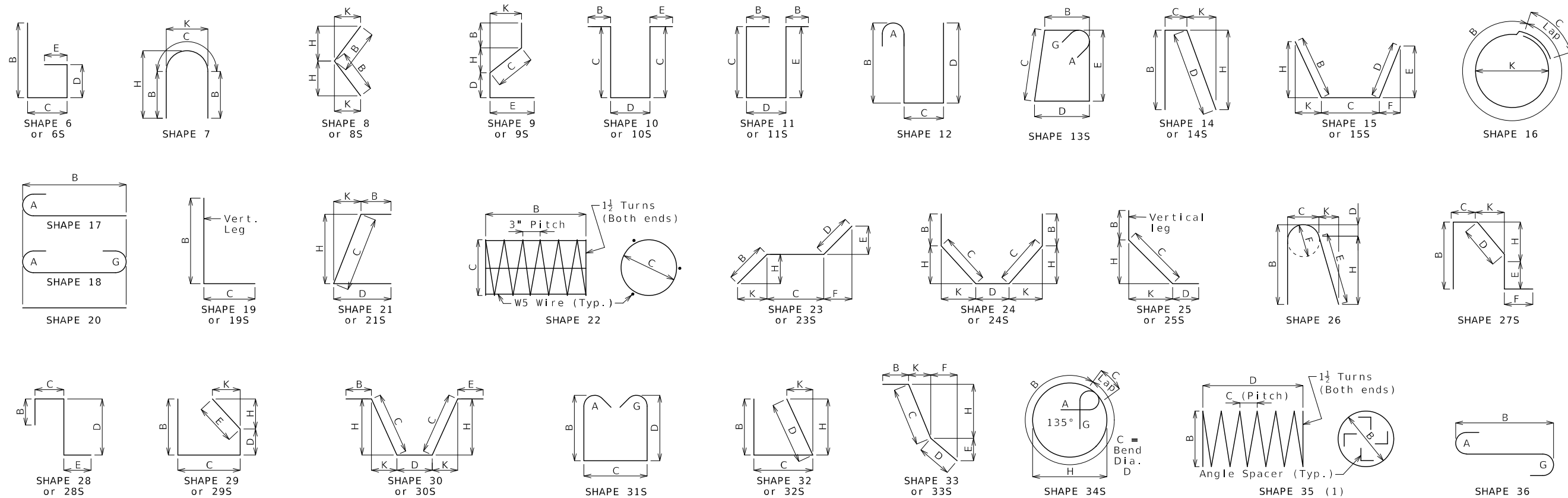
DATE	DESCRIPTION

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



BRIDGE APPROACH SLAB (MINOR)

Integral end bents shown, non-integral end bent similar.



DATE PREPARED
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WASHINGTON
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CONTRACT ID.
PROJECT NO.
BRIDGE NO.
R05141

Finished Bend Diameters D and Hook Dimensions

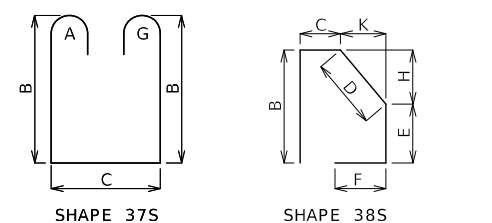
Standard Pin Bend Shapes

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

Stirrup Pin Bend Shapes (S)

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

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

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

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

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

Reinforcing Steel Totals (Pounds)

Size	Substructure		Superstructure			Entire Bridge	
	Plain	Epoxy	Slab	Barrier	Slip Form	Plain	Epoxy
W5	0	0	0	0	0	0	0
4	0	0	0	0	0	0	0
5	0	0	14,763	8,560	501	0	23,824
6	0	0	23,263	0	0	0	23,263
7	0	0	0	0	0	0	0
8	0	0	0	0	0	0	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	0	0	38,026	8,560	501	0	47,087

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

BENDING DIAGRAMS AND REINFORCING STEEL TOTALS

DESCRIPTION

DATE

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

MoDOT

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

Bill of Reinforcing Steel													
No. Req.	Size/ Mark	Location	Dimensions							Nom. Length	Actual Length	Weight	
			Codes C SH V	B ft. in.	C ft. in.	D ft. in.	E ft. in.	F ft. in.	H ft. in.				K ft. in.
		Superstructure											
		Slab											
252	5 S1	SLAB	E 20	47 0.00							47 0	47 0	12,353
88	5 S2	SLAB	E 20	26 3.00							26 3	26 3	2,410
505	6 S3	SLAB	E 20	28 5.00							28 5	28 5	21,554
50	6 S4	SLAB	E 20	28 2.50							28 3	28 3	
		Incr. = 12.875"		2 6.00							2 6	2 6	1,155
24	6 S5	SLAB	E 20	27 1.88							27 2	27 2	
		Incr. = 25.750"		3 6.88							3 7	3 7	554
		Barrier											
		Type H											
20	5 K1	BARRIER	E 27S	3 8.00	9.25	5.25	3 2.75		5.25	1.00	8 1	7 11	165
28	5 K2	BARRIER	E 27S	3 8.00	9.25	14.50	2 5.75		14.25	2.75	8 2	7 11	231
48	5 K4	BARRIER	E 19S	2 5.00	10.00						3 3	3 2	159
20	5 K5	BARRIER	E 38S	8.25	9.50	19.25			18.75	4.25	3 1	2 9	57
28	5 K6	BARRIER	E 21S		2 5.00	10.00		2 4.25	6.00		3 3	3 2	92
56	5 K7	BARRIER	E 20	10 0.00							10 0	10 0	584
372	5 R1	BARRIER	E 14S	2 5.00	6.50	2 5.50			2 5.00	5.50	5 5	5 3	2,035
372	5 R2	BARRIER	E 19S	20.50	9.50						2 6	2 5	937
372	5 R3	BARRIER	E 27S		9.50	15.25	5.00	12.00	15.00	3.00	3 6	3 4	1,295
32	5 R4	BARRIER	E 20	43 7.38							43 8	43 8	1,456
64	5 R5	BARRIER	E 20	11 9.00							11 9	11 9	784
16	5 R6	BARRIER	E 20	45 9.00							50 4	50 4	765
		Slip-Form											
40	5 C1	SLIP FORM	E 20	12 0.00							12	12	501

Bill of Reinforcing Steel													
No. Req.	Size/ Mark	Location	Dimensions							Nom. Length	Actual Length	Weight	
			Codes C SH V	B ft. in.	C ft. in.	D ft. in.	E ft. in.	F ft. in.	H ft. in.				K ft. in.

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

All bars shall be Grade 60.

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.

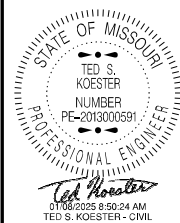
For bending diagrams and steel reinforcing totals, see Sheet No. 8.

BILL OF REINFORCING STEEL

Detailed Oct. 2024
Checked Oct. 2024

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

Sheet No. 9 of 9



DATE PREPARED
1/8/2025

ROUTE 47 STATE MO

DISTRICT BR SHEET NO. 9

COUNTY WASHINGTON

JOB NO. J5S3540

CONTRACT ID.

PROJECT NO.

BRIDGE NO. R05141

DATE	DESCRIPTION

