MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

PLANS FOR PROPOSED STATE HIGHWAY DADE, MCDONALD, & TANEY COUNTIES

DESIGN DESIGNATION

US 160

A.A.D.T. – 2023= 1795
T = 15%
V = 55 M.P.H.
FUNCTIONAL CLASSIFICATION–MINOR ARTERIAL

I 49 SB

A.A.D.T. – 2023= 12742
T = 30%
V = 70 M.P.H.
FUNCTIONAL CLASSIFICATION–INTERSTATE

US 65 NB

A.A.D.T. – 2023= 30861
T = 17%
V = 65 M.P.H.
FUNCTIONAL CLASSIFICATION–FREEWAY

BU 65

A.A.D.T. – 2023= 9270
T = 2%
V = 35 M.P.H.
FUNCTIONAL CLASSIFICATION–MINOR ARTERIAL

BRANSON LANDING BLVD.

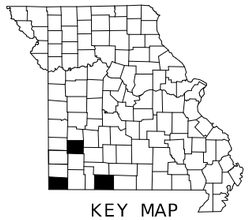
A.A.D.T. – 2023= 13497
T = 5%
V = 35 M.P.H.
FUNCTIONAL CLASSIFICATION–LOCAL

NO NEW R/W REQUIRED

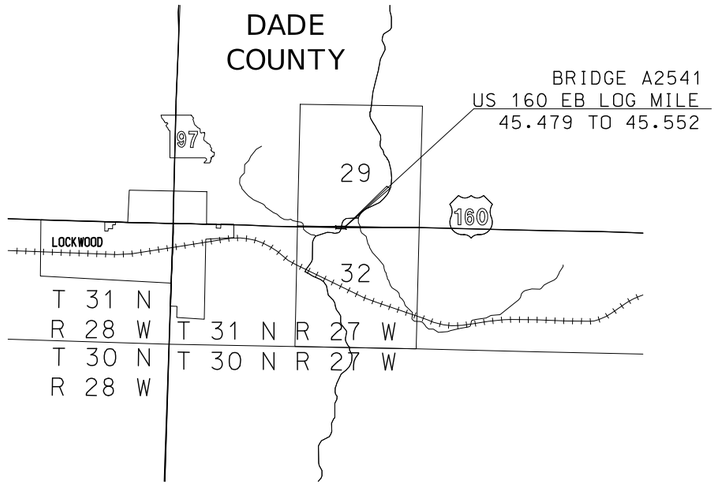
CONVENTIONAL SYMBOLS
(USED IN PLANS)

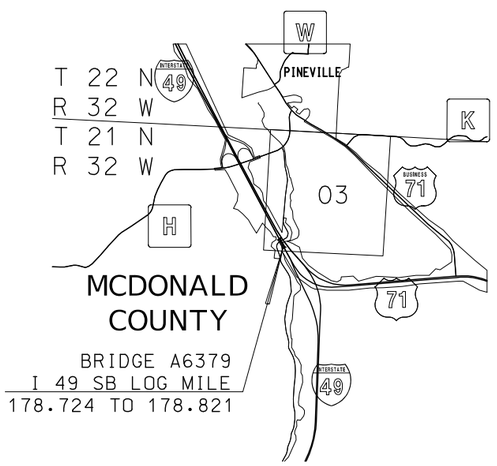
	EXISTING	NEW
BUILDINGS AND STRUCTURES		
GUARD RAIL		
GUARD CABLE		
CONCRETE RIGHT-OF-WAY MARKER		
STEEL RIGHT-OF-WAY MARKER		
LOCATION SURVEY MARKER		
UTILITIES		
FIBER OPTICS	–FO–	–FO–
OVERHEAD CABLE TV	–OTV–	–OTV–
UNDERGROUND CABLE TV	–UTV–	–UTV–
OVERHEAD TELEPHONE	–OT–	–OT–
UNDERGROUND TELEPHONE	–UT–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

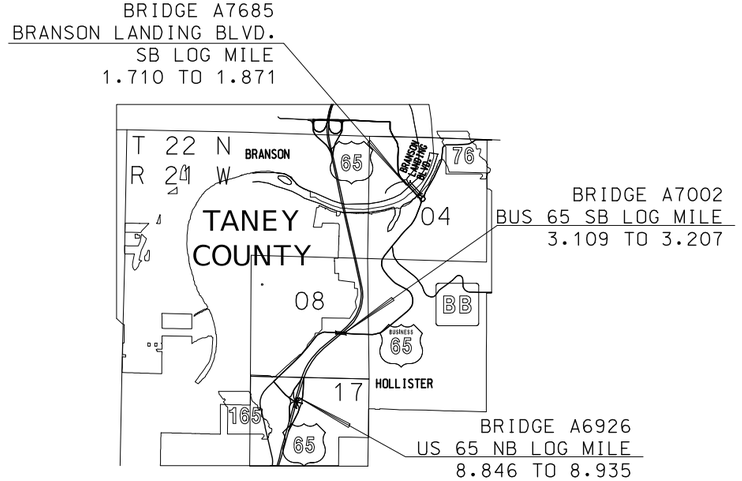
NOTE: DASHED OR OPEN SYMBOLS INDICATE EXISTING FEATURES



KEY MAP
LOCATION OF DADE, MCDONALD, & TANEY COUNTIES







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

LENGTH OF PROJECT

US 160 EB

BEGINNING OF PROJECT	LOG MILE 45.479
END OF PROJECT	LOG MILE 45.552
APPARENT LENGTH	385.44 FEET

I-49 SB

BEGINNING OF PROJECT	LOG MILE 178.724
END OF PROJECT	LOG MILE 178.821
APPARENT LENGTH	512.16 FEET

US 65 NB

BEGINNING OF PROJECT	LOG MILE 8.846
END OF PROJECT	LOG MILE 8.935
APPARENT LENGTH	469.92 FEET

BUS 65 SB

BEGINNING OF PROJECT	LOG MILE 3.109
END OF PROJECT	LOG MILE 3.207
APPARENT LENGTH	517.44 FEET

BRANSON LANDING BLVD. SB

BEGINNING OF PROJECT	LOG MILE 1.710
END OF PROJECT	LOG MILE 1.871
APPARENT LENGTH	850.08 FEET

TOTAL APPARENT LENGTH	2735.04 FEET
EQUATIONS AND EXCEPTIONS:	
NONE	0.00 FEET
TOTAL CORRECTIONS	0.00 FEET
NET LENGTH OF PROJECT	2735.04 FEET
STATE LENGTH	0.518 MILES
FOR INFORMATION ONLY ESTIMATED DISTURBED ACRES	0 ACRES

STATE OF MISSOURI
KARA JEAN RICHART
NUMBER PE-2023037997
PROFESSIONAL ENGINEER
Kara J. Richart
11/13/2024 11:29:22 AM
KARA JEAN RICHART - CIVIL
MO-PE-2023037997

DATE PREPARED
10/15/2024

ROUTE	STATE
VAR	MO
DISTRICT	SHEET NO.
SW	1

COUNTY
VARIOUS

JOB NO.
JSR0053

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)

REMOVAL OF IMPROVEMENTS					
LOG MILE	LOCATION	DESCRIPTON	UNITS	TOTAL	REMARKS
US 160 EB					
45.479	RT	GUARDRAIL	LF	125.0	BRIDGE ANCHOR, GUARDRAIL, & TURNDOWN
45.479	LT	GUARDRAIL	LF	125.0	BRIDGE ANCHOR, GUARDRAIL, & TURNDOWN
45.502	RT	SIGN	EACH	1	SONS CREEK SIGN
45.529	LT	SIGN	EACH	1	SONS CREEK SIGN
45.552	RT	GUARDRAIL	LF	125.0	BRIDGE ANCHOR, GUARDRAIL, & TURNDOWN
45.552	LT	GUARDRAIL	LF	125.0	BRIDGE ANCHOR, GUARDRAIL, & TURNDOWN
45.515	ALL	BRUSH & DEBRIS	CY	1350.0	DRIFT WOOOD AND DEBRIS AROUND BENTS
BU 65 SB					
3.129	ALL	SAW CUT	LF	95.0	SAW CUT FOR RELIEF JOINT
3.202	ALL	SAW CUT	LF	95.0	SAW CUT FOR RELIEF JOINT
1 LUMP SUM					

ROCK BLANKET					
LOG MILE	LOG MILE	LOCATION	FURNISHING ROCK BLANKET (CY)	PLACING ROCK BLANKET (CY)	REMARKS
US 160 EB					
45.502	45.507	BENT 1	500.0	500.0	AROUND END BENT
45.508	45.511	BENT 2	53.3	53.3	AROUND FOOTINGS
45.515	45.518	BENT 3	53.3	53.3	AROUND FOOTINGS
45.520	45.525	BENT 4	500.0	500.0	AROUND END BENT
		TOTAL	1106.6	1106.6	
		USE	1107	1107	

FULL DEPTH PAVEMENT REPAIR										
LOG MILE	LOG MILE	LENGTH (FT)	WIDTH (FT)	CONCTETE (SY)	SUBGRADE COMPACTION (SY)	TYPE 1 OPR 5 AGG. BASE (SY)	FULL DEPTH SAW CUT (L.F.)	DOWEL BARS (EACH)	TIE BARS (EACH)	REMARKS
US 160 EB										
45.487	45.498	60	42	280.00	28.0	28.0	42.0	168	24	BOTH LANES & BOTH SHOULDERS
45.534	45.545	60	42	280.00	28.0	28.0	42.0	168	24	BOTH LANES & BOTH SHOULDERS
			TOTAL	560.00	56.0	56.0	84.0	336	48	
			USE	560.0	56	56	84	336	48	

HIGH BUILD WATERBORNE PAVEMENT MARKING PAINT, TYPE L BEADS					
LOG MILE	LOG MILE	LOCATION	6" WHITE (L.F.)	6" YELLOW (L.F.)	REMARKS
I-49 NB					
61.498	61.551	RT	279.8		RIGHT EDGELINE
61.498	61.551	LT		279.8	LEFT EDGELINE
61.498	61.551	CL	70.0		INTERMITTENT BETWEEN LANES
US 65 NB					
8.846	8.935	RT	469.9		RIGHT EDGELINE
8.846	8.935	LT		469.9	LEFT EDGELINE
8.846	8.935	CL	117.5		DOUBLE SOLID CENTERLINE
		TOTAL	937.2	749.7	
		USE	938	750	

MOBILIZATION
1 LUMP SUM

CONTRACTOR FURNISHED SURVEYING AND STAKING
1 LUMP SUM

SUMMARY OF QUANTITIES
SHEET 1 OF 3

STATE OF MISSOURI
KARA JEAN RICHART
NUMBER PE-2023037997
PROFESSIONAL ENGINEER
Kara J. Richart
10/18/2024 9:36:30 AM
KARA JEAN RICHART - CIVIL
MO-PE-2023037997

DATE PREPARED
10/18/2024

ROUTE	STATE
VAR	MO
DISTRICT	SHEET NO.
SW	3

COUNTY
VARIOUS

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DESCRIPTION								
DATE								

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

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

STANDARD WATERBORNE PAVEMENT MARKING PAINT, TYPE P BEADS

LOG MILE	LOG MILE	LOCATION	4" WHITE (L.F.)	4" YELLOW (L.F.)	REMARKS
US 160 EB					
45.489	45.548	RT	311.5		RIGHT EDGELINE
45.489	45.548	LT	311.5		LEFT EDGELINE
45.489	45.548	CL		77.9	INTERMITTENT BETWEEN LANES
BU 65 SB					
3.109	3.207	RT	129.4		INTERMITTENT BETWEEN LANES
3.109	3.207	LT	129.4		INTERMITTENT BETWEEN LANES
3.109	3.207	CL RT		646.8	SOLID CENTERLINE & INTERMITTENT
3.109	3.207	CL LT		646.8	SOLID CENTERLINE & INTERMITTENT
BRANSON LANDING BLVD. SB					
1.710	1.871	RT	850.1		RIGHT EDGELINE
1.710	1.871	LT	850.1		LEFT EDGELINE
1.710	1.871	CL		1700.2	DOUBLE SOLID CENTERLINE
		TOTAL	2582.0	3071.7	
		USE	2582	3072	

PAVEMENT MARKING REMOVAL

LOG MILE	LOG MILE	LOCATION	PAINT (L.F.)	REMARKS
I-49 SB				
178.724	178.821	RT	512.2	RIGHT EDGELINE
178.724	178.821	LT	512.2	LEFT EDGELINE
178.724	178.821	CL RT & LT	128.0	INTERMITTENT BETWEEN LANES
US 65 NB				
8.846	8.935	RT	469.9	RIGHT EDGELINE
8.846	8.935	LT	469.9	LEFT EDGELINE
8.846	8.935	CL	117.5	INTERMITTENT BETWEEN LANES
BU 65 SB				
3.109	3.207	RT	129.4	INTERMITTENT BETWEEN LANES
3.109	3.207	LT	129.4	INTERMITTENT BETWEEN LANES
3.109	3.207	CL RT	646.8	SOLID CENTERLINE & INTERMITTENT
3.109	3.207	CL LT	646.8	SOLID CENTERLINE & INTERMITTENT
BRANSON LANDING BLVD. SB				
1.710	1.871	RT	850.1	RIGHT EDGELINE
1.710	1.871	LT	850.1	LEFT EDGELINE
1.710	1.871	CL	1700.2	DOUBLE SOLID CENTERLINE
		TOTAL	7162.5	
		USE	7163	

SLAB JACKING MATERIAL HIGH DENSITY POLYURETHANE

LOG MILE	LOG MILE	AREA (SY)	POLYURATHANE (LBS)	REMARKS
I-49 SB				
187.815	178.821	195	1800.0	APPROACH SLAB LIFT BENT 5
BU 65 SB				
3.129	3.134	190	1200.0	APPROACH SLAB LIFT BENT 1
3.197	3.202	190	1200.0	APPROACH SLAB LIFT BENT 5
		TOTAL	4200.0	
		USE	4200	

RELIEF JOINT

LOG MILE	LENGTH (FT)	OPEN CELL FOAM JOINT SEAL (L.F.)	REMARKS
BU 65 SB			
3.129	95	95.0	BETWEEN APPROACH SLAB & APPROACH PAVEMENT
3.202	95	95.0	BETWEEN APPROACH SLAB & APPROACH PAVEMENT
	TOTAL	190.0	
	USE	190	

GUARDRAIL

BEGIN LOG MILE	END LOG MILE	GUARDRAIL (LF)	BRIDGE APPROACH TRANITION SECTION (EACH)	BRIDGE ANCHOR SECTION (EACH)	CWT (EACH)
US 160 EB					
LEFT SIDE					
45.479	45.506	50.0	1	1	1
45.526	45.552	50.0	1	1	1
RIGHT SIDE					
45.479	45.506	50.0	1	1	1
45.526	45.552	50.0	1	1	1
	TOTAL	200.0	4	4	4
	USE	200	4	4	4

SUMMARY OF QUANTITIES
SHEET 2 OF 3

STATE OF MISSOURI
KARA JEAN RICHART
NUMBER PE-2023037997
PROFESSIONAL ENGINEER
KARA JEAN RICHART - CIVIL
MO-PE-2023037997

DATE PREPARED
10/18/2024

ROUTE	STATE
VAR	MO
DISTRICT	SHEET NO.
SW	3

COUNTY
VARIOUS
JOB NO.
JSR0053
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)

EFFECTIVE: 07-01-2024

SIGN	SIZE IN.	AREA SQ.FT.	QTY EACH	TOTAL AREA SQ.FT.	QTY RELOC EACH	TOTAL RELOC SQ.FT.	SIGN NUM.	DESCRIPTION
WARNING SIGNS								
WO1-1L	48X48	16.00						TURN (SYMBOL LEFT)
WO1-1R	48X48	16.00						TURN (SYMBOL RIGHT)
WO1-2L	48X48	16.00						CURVE (SYMBOL LEFT)
WO1-2R	48X48	16.00						CURVE (SYMBOL RIGHT)
WO1-3L	48X48	16.00						REVERSE TURN (SYMBOL LEFT)
WO1-3R	48X48	16.00						REVERSE TURN (SYMBOL RIGHT)
WO1-4L	48X48	16.00						REVERSE CURVE (SYMBOL LEFT)
WO1-4R	48X48	16.00						REVERSE CURVE (SYMBOL RIGHT)
WO1-4bL	48X48	16.00						DOUBLE ARROW REVERSE CURVE (SYMBOL LEFT)
WO1-4bR	48X48	16.00						DOUBLE ARROW REVERSE CURVE (SYMBOL RIGHT)
WO1-4cL	48X48	16.00						TRIPLE ARROW REVERSE CURVE (SYMBOL LEFT)
WO1-4cR	48X48	16.00						TRIPLE ARROW REVERSE CURVE (SYMBOL RIGHT)
WO1-6	60X30	12.50						HORIZONTAL ARROW (SYMBOL)
WO1-6a	72X36	18.00						HORIZ. ARROW (SYMBOL ON PERMANENT BARRICADE)
WO1-7	60X30	12.50						DOUBLE HEAD HORIZONTAL ARROW (SYMBOL)
WO1-7a	72X36	18.00						DOUBLE HEAD HORIZ. ARROW (SYMBOL ON PERM. BARR.)
WO1-8	18X24	3.00						CHEVRON (SYMBOL)
WO1-8a	30X36	7.50						CHEVRON (SYMBOL FOR DIVIDED HIGHWAYS)
WO3-1	48X48	16.00						STOP AHEAD (SYMBOL)
WO3-2	48X48	16.00						YIELD AHEAD (SYMBOL)
WO3-3	48X48	16.00						SIGNAL AHEAD (SYMBOL)
WO3-4	48X48	16.00						BE PREPARED TO STOP
WO3-5	48X48	16.00						SPEED LIMIT AHEAD
WO4-1L	48X48	16.00						MERGE (SYMBOL FROM LEFT)
WO4-1R	48X48	16.00						MERGE (SYMBOL FROM RIGHT)
WO4-1aL	48X48	16.00	1	16				MERGE (LEFT)
WO4-1aR	48X48	16.00	1	16				MERGE (RIGHT)
WO5-1	48X48	16.00						ROAD/BRIDGE/RAMP NARROWS
WO5-3	48X48	16.00						ONE LANE BRIDGE
WO5-5	48X48	16.00						NARROW LANES
WO6-1	48X48	16.00						DIVIDED HIGHWAY (SYMBOL)
WO6-2	48X48	16.00						DIVIDED HIGHWAY END (SYMBOL)
WO6-3	48X48	16.00						TWO WAY TRAFFIC (SYMBOL)
WO7-3a	30X24	5.00						NEXT XX MILES (PLAQUE)
WO8-1	48X48	16.00						BUMP
WO8-2	48X48	16.00						DIP
WO8-3	48X48	16.00						PAVEMENT ENDS
WO8-4	48X48	16.00						SOFT SHOULDER
WO8-5	48X48	16.00						SLIPPERY WHEN WET (SYMBOL)
WO8-6	48X48	16.00						TRUCK CROSSING
WO8-6c	48X48	16.00						TRUCK ENTRANCE
WO8-7	36X36	9.00						LOOSE GRAVEL
WO8-7a	36X36	9.00						FRESH OIL / LOOSE GRAVEL
WO8-9	48X48	16.00						LOW SHOULDER
WO8-11	48X48	16.00						UNEVEN LANES
WO8-12	48X48	16.00						NO CENTER LINE
WO8-15	48X48	16.00						GROOVED PAVEMENT
WO8-15P	30X24	5.00						MOTORCYCLE (PLAQUE)
WO8-17L	48X48	16.00						SHOULDER DROP-OFF (SYMBOL LEFT)
WO8-17R	48X48	16.00						SHOULDER DROP-OFF (SYMBOL RIGHT)
WO8-17P	30X24	5.00						SHOULDER DROP-OFF (PLAQUE)
W10-1	42RND.	9.62						RAILROAD CROSSING
WO12-1	24X24	4.00						DOUBLE DOWN ARROW (SYMBOL)
WO12-2	48X48	16.00						LOW CLEARANCE (SYMBOL)
WO12-2x	24X18	3.00						LOW CLEARANCE (PLAQUE)
WO12-2a	84X24	14.00						OVERHEAD LOW CLEARANCE (FEET AND INCHES)
WO12-4	120X60	50.00						LOW CLEARANCE XX FT XX IN XX MILES AHEAD
WO12-5	120X60	50.00						WIDTH RESTRICTION XX FT XX IN XX MILES AHEAD
WO13-1	30X30	6.25						ADVISORY SPEED (PLAQUE)
WO16-2	30X24	5.00	2	10				500 FEET (PLAQUE)
WO16-3	30X24	5.00						X MILE (PLAQUE)
WO20-1	48X48	16.00	6	96				ROAD/BRIDGE/RAMP WORK AHEAD
WO20-2	48X48	16.00	2	32				DETOUR AHEAD
WO20-3	48X48	16.00	4	64				ROAD CLOSED AHEAD
WO20-4	48X48	16.00						ONE LANE ROAD AHEAD
WO20-5	48X48	16.00	1	16				RIGHT/CENTER/LEFT LANE CLOSED AHEAD
WO20-5a	48X48	16.00	1	16				2 RIGHT/CENTER/LEFT LANES CLOSED AHEAD
WO20-6a	48X48	16.00	1	16				RIGHT/CENTER/LEFT LANE CLOSED
WO20-7a	48X48	16.00						FLAGGER (SYMBOL)
WO21-2	36X36	9.00						FRESH OIL
WO21-5	48X48	16.00						SHOULDER WORK / SHOULDER WORK AHEAD
WO22-1	48X48	16.00						BLASTING ZONE AHEAD
WO22-2	42X36	10.50						TURN OFF 2-WAY RADIO AND PHONE
WO22-3	42X36	10.50						END BLASTING ZONE
GO22-1	21X15	2.19						WET PAINT (ARROW PIVOTS)

SIGN	SIZE IN.	AREA SQ.FT.	QTY EACH	TOTAL SQ.FT.	QTY RELOC EACH	TOTAL RELOC SQ.FT.	SIGN NUM.	DESCRIPTION
GUIDE SIGNS								
E05-1	36X48	12.00						GORE EXIT
E05-2	48X36	12.00						EXIT OPEN
E05-2a	48X36	12.00						EXIT CLOSED
GO20-1	60X24	10.00						ROAD WORK NEXT XX MILES
GO20-2	48X24	8.00	2	16				END ROAD WORK
GO20-4	36X18	4.50						PILOT CAR FOLLOW ME
GO20-4a	42X30	8.75						PILOT CAR IN USE WAIT & FOLLOW
GO20-4a	18X12	1.50						PILOT CAR IN USE WAIT & FOLLOW
GO20-5aP	36X24	6.00	2	12				WORK ZONE (PLAQUE)
MO4-8a	24X18	3.00	2	6				END DETOUR
MO4-9L	48X36	12.00						DETOUR (LEFT)
MO4-9R	48X36	12.00						DETOUR (RIGHT)
MO4-9P	48X12	4.00						STREET NAME (PLAQUE)
MO4-10L	48X18	6.00						DETOUR ARROW (LEFT)
MO4-10R	48X18	6.00						DETOUR ARROW (RIGHT)
REGULATORY SIGNS								
R1-1	48X48	13.25						STOP
R1-2	48TRI.	6.93						YIELD
R1-2a	36X36	9.00						TO ONCOMING TRAFFIC (PLAQUE)
R1-3P	30X12	2.50						ALL WAY (PLAQUE)
R2-1	36X48	12.00	12	144				SPEED LIMIT XX
R3-1	48X48	16.00						NO RIGHT TURN (SYMBOL)
R3-2	48X48	16.00						NO LEFT TURN (SYMBOL)
R3-3	36X36	9.00						NO TURNS
R3-4	48X48	16.00						NO U-TURN (SYMBOL)
R3-7L	30X30	6.25						LEFT LANE MUST TURN LEFT
R3-7R	30X30	6.25						RIGHT LANE MUST TURN RIGHT
R4-1	36X48	12.00						DO NOT PASS
R4-2	36X48	12.00						PASS WITH CARE
R4-7a	36X48	12.00	2	24				KEEP RIGHT (HORIZONTAL ARROW)
R4-8a	36X48	12.00						KEEP LEFT (HORIZONTAL ARROW)
R5-1	30X30	6.25						DO NOT ENTER
R5-1a	36X24	6.00						WRONG WAY
R6-1L	54X18	6.75						ONE WAY ARROW (LEFT)
R6-1R	54X18	6.75						ONE WAY ARROW (RIGHT)
R6-2L	24X30	5.00						ONE WAY (LEFT)
R6-2R	24X30	5.00						ONE WAY (RIGHT)
R9-9	24X12	2.00						SIDEWALK CLOSED
R9-11L	24X18	3.00						SIDEWALK CLOSED AHEAD, (ARROW LEFT) CROSS HERE
R9-11R	24X18	3.00						SIDEWALK CLOSED AHEAD, (ARROW RIGHT) CROSS HERE
R10-6	24X36	6.00						STOP HERE ON RED (45^ ARROW)
R11-2	48X30	10.00	2	20				ROAD CLOSED
R11-3a	60X30	12.50	2	25				ROAD CLOSED XX MILES AHEAD LOCAL TRAFFIC ONLY
R11-4	60X30	12.50	2	25				ROAD CLOSED TO THRU TRAFFIC
CONST-3A	60X48	20.00						FINE SIGN
CONST-3X	56X12	4.67						SPEEDING/PASSING (PLATE)
MISCELLANEOUS SIGNS								
CONST-5	48X36	12.00						POINT OF PRESENCE
CONST-5	96X48	32.00						POINT OF PRESENCE
CONST-8	48X36	12.00	2	24				WORK ZONE NO PHONE ZONE
M04-8	24X12	2.00	24	48				DETOUR
M1-4	30X24	5.00	24	120				US ROUTE 160
M3-2	24X12	2.00	13	26				EAST
M3-4	24X12	2.00	11	22				WEST
M5-1L	21X15	2.20	2	4.4				ADV TURN ARROW-LEFT, 90 DEGREE
M5-1R	21X15	2.20	2	4.4				ADV TURN ARROW-RIGHT, 90 DEGREE
M6-1	21X15	2.20	7	15.4				STRAIGHT ARROW
M6-3	21X15	2.20	13	28.6				

616-10.05 CONSTRUCTION SIGNS	TOTAL
	847

616-10.10 RELOCATED SIGNS	TOTAL
	0

ITEM NUMBER	TOTAL QTY	DESCRIPTION
6122008		IMPACT ATTENUATOR 40 MPH (SAND BARRELS)
6122009		IMPACT ATTENUATOR 45 MPH (SAND BARRELS)
6122010		IMPACT ATTENUATOR 50 MPH (SAND BARRELS)
6122012		IMPACT ATTENUATOR 55 MPH (SAND BARRELS)
6122014		IMPACT ATTENUATOR 60 MPH (SAND BARRELS)
6122017		IMPACT ATTENUATOR 65 MPH (SAND BARRELS)
6122019		IMPACT ATTENUATOR 70 MPH (SAND BARRELS)
6122020		REPLACEMENT SAND BARREL
6122030		IMPACT ATTENUATOR (RELOCATION)
6123001		TRUCK MOUNTED ATTENUATOR (TMA)
6161008	6	ADVANCED WARNING RAIL SYSTEM
6161012		BUOYS (BOATS KEEP OUT)
6161013		BUOYS (NO WAKE)
6161014		SPECIAL SIGN ASSEMBLY (BOATS KEEP OUT)
6161025	400	CHANNELIZER (TRIM LINE)
6161030	16	TYPE III MOVEABLE BARRICADE
6161033		DIRECTION INDICATOR BARRICADE
6161040	2	FLASHING ARROW PANEL
6161047		TYPE III OBJECT MARKER
6161055	16	SEQUENTIAL FLASHING WARNING LIGHT
6161070		TUBULAR MARKER
6161095		RADAR SPEED ADVISORY SYSTEM
6161096		CHANGEABLE MESSAGE SIGN, COMMISSION FURNISHED/RETAINED
6161098A		CHANGEABLE MESSAGE SIGN W/O COMM. INTERFACE - CONTRACTOR FURNISHED/RETAINED
6161099	4	CHANGEABLE MESSAGE SIGN WITH COMM. INTERFACE - CONTRACTOR FURNISHED/RETAINED
6162000A		WORK ZONE TRAFFIC SIGNAL SYSTEM
6162002		TEMPORARY LONG-TERM RUMBLE STRIPS
6173600D		TEMPORARY TRAFFIC BARRIER CONTRACTOR FURNISHED/RETAINED
6173602B		TEMPORARY TRAFFIC BARRIER CONTRACTOR FURNISHED/COMMISSION RETAINED
6174000A		TEMP. TRAFFIC BARRIER HEIGHT TRANSITION
6175010A		RELOCATING TEMPORARY TRAFFIC BARRIER
6176000B		TEMPORARY TRAFFIC BARRIER COMMISSION FURNISHED/RETAINED
6177000B		TEMP. TRAFFIC BARRIER HEIGHT TRANSITION COMMISSION FURNISHED/RETAINED
6208064A		TEMPORARY RAISED PAVEMENT MARKER
9029400		TEMPORARY TRAFFIC SIGNALS
9029401		TEMPORARY TRAFFIC SIGNALS AND LIGHTING

SUMMARY OF QUANTITIES

SHEET 3 OF 3

STATE OF MISSOURI
KARA JEAN RICHART
NUMBER PE-2023037997
PROFESSIONAL ENGINEER
10/18/2024 9:33:23 AM
KARA JEAN RICHART - CIVIL
MO-PE-2023037997

DATE PREPARED: 10/18/2024
ROUTE: VAR
STATE: MO
DISTRICT: SW
SHEET NO.: 3
COUNTY: VARIOUS
JOB NO.: JSR0053
CONTRACT ID.:
PROJECT NO.:
BRIDGE NO.:

DESCRIPTION | DATE

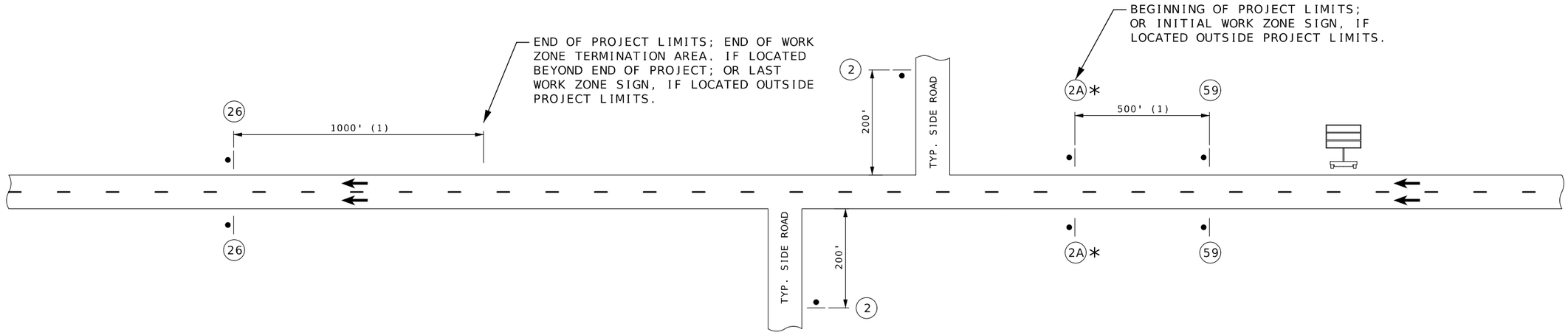
MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

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

REVISED: 4/10/2024

GENERAL NOTES:

1. ANY EXISTING SIGNS THAT CONFLICT WITH THE TRAFFIC CONTROL SIGNING SHALL BE COMPLETELY COVERED OR REMOVED.
2. TEMPORARY SIGNING SHOWN IS FOR WORK ON ONE SIDE OF THE ROAD. FOR WORK ON THE OTHER SIDE, REVERSE ORDER OF THE SIGNS AND CHANNELIZERS.
3. SIGNING SHOWN SHALL REMAIN IN PLACE UNTIL CONSTRUCTION IS COMPLETE.
4. ALTERNATE TRAFFIC CONTROL MAY BE USED AS NEEDED AT THE APPROVAL OF THE ENGINEER.
5. REFER TO STANDARD DRAWING 616.10, 619.10, AND 620.10 FOR ADDITIONAL DETAILS AND 903.03 FOR SIGN AND SIGN MOUNTING REQUIREMENTS.
6. SPEED LIMIT SIGNS INDICATING THE NORMAL SPEED LIMIT SHALL BE INSTALLED AT THE END OF THE WORK ZONE, PROVIDED NO FURTHER WORK ZONES WILL BE ENCOUNTERED WITHIN THE NEXT 1/2 MILE.
7. TEMPORARY SPEED LIMIT SIGNS SHALL BE COVERED OR REMOVED WHEN THE CONDITIONS REQUIRING REDUCED SPEEDS DO NOT EXIST.
8. NO DIRECT PAYMENT WILL BE MADE FOR THE RELOCATION OF CHANNELIZERS, CONSTRUCTION SIGNS, OR FLASHING ARROW PANEL.
9. ALL SIGNS SHALL BE PORTABLE MOUNT AND ARE TO BE MOVED AS WORK PROGRESSES, UNLESS OTHERWISE NOTED. ALL TRAFFIC CONTROL ITEMS SHALL BE REMOVED FROM THE ROADWAY DURING NON-WORKING HOURS.
10. THE CONTRACTOR SHALL BE RESPONSIBLE FOR IMPLEMENTING AND MAINTAINING PROPER TRAFFIC CONTROL SETUPS THROUGHOUT CONSTRUCTION AS DESCRIBED IN THESE PLANS OR AS APPROVED BY THE ENGINEER.
11. WHERE MINIMUM LANE WIDTHS CANNOT BE ACHIEVED ON THE SIDE STREETS, THE CONTRACTOR SHALL CLOSE HALF OF THE APPROACH AND POSITION A FLAGGER AT EACH END OF THE WORK AREA. LOCATION TO BE DETERMINED BY THE ENGINEER. ADVANCE FLAGGER SIGNING SHALL BE INSTALLED AS OUTLINED IN THE MUTCD.
12. THE CONTRACTOR SHALL MAINTAIN PUBLIC ACCESS TO ALL BUSINESSES AND STREETS. NO STREET OR ENTRANCE SHALL BE COMPLETELY BLOCKED.
13. SPACING & DISTANCES OF TRAFFIC CONTROL DEVICES ARE APPROXIMATE. THE EXACT LOCATIONS SHALL BE DETERMINED IN THE FIELD & APPROVED BY THE ENGINEER.
14. TRAFFIC CONTROL SHALL CONFORM TO THE LATEST EDITION OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD).
15. ADJUST ADVANCE WARNING SIGN SPACING TO AVOID SIGN PLACEMENT WITHIN THE LIMITS OF THE RAILROAD RIGHT OF WAY.



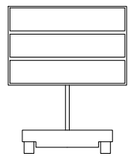
TYPICAL BEGINNING AND END OF PROJECT

(DIVIDED HIGHWAY)

(1) DISTANCE MAY BE ADJUSTED ACCORDING TO FIELD CONDITIONS. WHERE TRAFFIC BACKUPS ARE EXPECTED BEYOND THE ADVANCE WARNING AREA, ADDITIONAL SIGNING MAY BE NEEDED.

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

(3) CMS PLACEMENT SHALL BE APPROVED BY THE ENGINEER.



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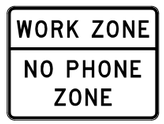
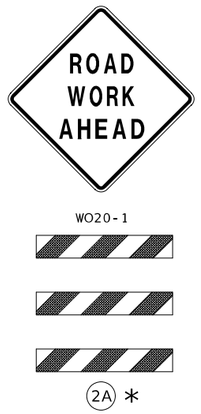


CONST-8

59 (2)



*SIGN 2A WITH AWRS MUST BE GROUND OR SKID MOUNTED.

NOT TO SCALE

TRAFFIC CONTROL SHEET 1 OF 15

STATE OF MISSOURI
KARA JEAN RICHART
NUMBER PE-2023037997
PROFESSIONAL ENGINEER
Kara J. Richart
10/31/2024 12:49:49 PM
KARA JEAN RICHART - CIVIL
MO-PE-2023037997

DATE PREPARED
9/26/2024

ROUTE	STATE
VAR	MO
DISTRICT	SHEET NO.
SW	4

COUNTY
VARIOUS

JOB NO.
JSR0053

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)

REVISED: 4/10/2024

GENERAL NOTES:

1. ANY EXISTING SIGNS THAT CONFLICT WITH THE TRAFFIC CONTROL SIGNING SHALL BE COMPLETELY COVERED OR REMOVED.
2. TEMPORARY SIGNING SHOWN IS FOR WORK ON ONE SIDE OF THE ROAD. FOR WORK ON THE OTHER SIDE, REVERSE ORDER OF THE SIGNS AND CHANNELIZERS.
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5. REFER TO STANDARD DRAWING 616.10, 619.10, AND 620.10 FOR ADDITIONAL DETAILS AND 903.03 FOR SIGN AND SIGN MOUNTING REQUIREMENTS.
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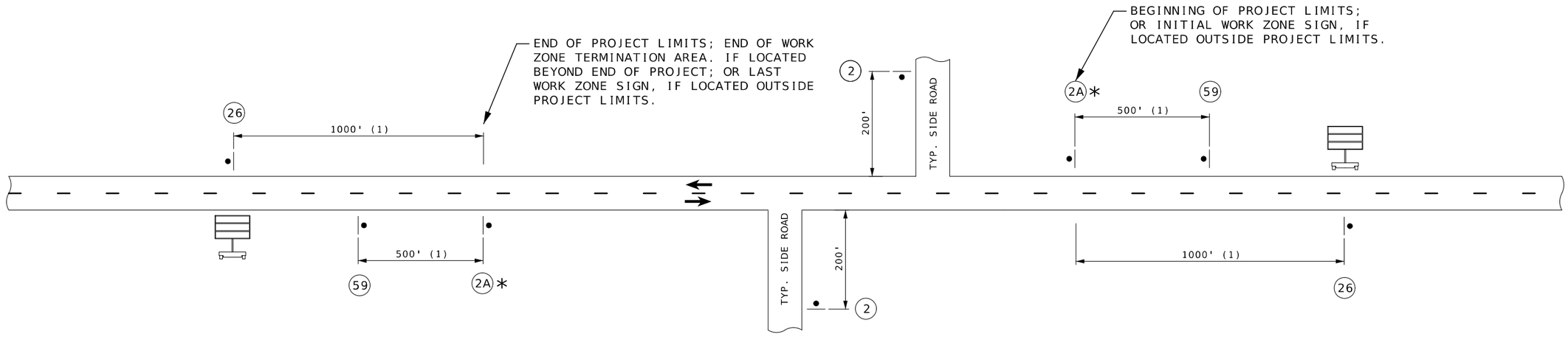


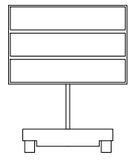
TYPICAL BEGINNING AND END OF PROJECT

(UNDIVIDED HIGHWAY)

(1) DISTANCE MAY BE ADJUSTED ACCORDING TO FIELD CONDITIONS. WHERE TRAFFIC BACKUPS ARE EXPECTED BEYOND THE ADVANCE WARNING AREA, ADDITIONAL SIGNING MAY BE NEEDED.

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

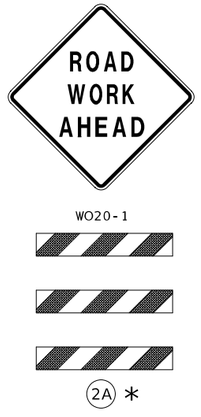
(3) CMS PLACEMENT SHALL BE APPROVED BY THE ENGINEER.



(3)

CONST-8

59 (2)



WO20-1

2A *

GO20-2

26

WO20-1

2

*SIGN 2A WITH AWRS MUST BE GROUND OR SKID MOUNTED.

NOT TO SCALE

TRAFFIC CONTROL
SHEET 2 OF 15

STATE OF MISSOURI
KARA JEAN RICHART
NUMBER PE-2023037997
PROFESSIONAL ENGINEER
Kara J. Richart
KARA JEAN RICHART - CIVIL
MO-PE-2023037997

DATE PREPARED
9/26/2024

ROUTE	STATE
VAR	MO
DISTRICT	SHEET NO.
SW	5

COUNTY
VARIOUS

JOB NO.
JSR0053

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)

REVISED: 8/3/2023

STATIONARY LANE CLOSURE ON A DIVIDED HIGHWAY

SPEED	SIGN SPACING (FT)	TAPER LENGTH (FT)		OPTIONAL	CHANNELIZER SPACING (FT)	
PERMANENT POSTED (MPH)	DIVIDED HIGHWAYS (S)	SHOULDER(1) (T1)	LANE(2) (T2)	BUFFER LENGTH (FT) (B)	TAPERS	BUFFER/ WORK AREAS
0-35	200	70	245	280	35	40
40-45	500	150	540	400	40	80
50-55	1000	185	660	560	50	80
60-70	SA - 1000 SB - 1500 SC - 2640	235	840	840	60	120

NOTES:

(1) SHOULDER TAPER LENGTH BASED ON 10 FT. (STANDARD SHOULDER WIDTH) OFFSET.
(2) LANE TAPER LENGTH BASED ON 12 FT. (STANDARD LANE WIDTH) OFFSET.

TEMPORARY PAVEMENT MARKING REQUIRED WITH LONG TERM CLOSURES.

REMOVE AND/OR MODIFY ANY EXISTING PAVEMENT MARKING AS NEEDED.

THIS INFORMATION ALSO SHALL BE USED WHEN WORK IS BEING PERFORMED IN THE LANE ADJACENT TO THE MEDIAN ON A DIVIDED HIGHWAY. IN THIS CASE, THE LEFT LANE CLOSED SIGNS AND THE CORRESPONDING MERGE OR LANE ENDS SIGNS SHALL BE SUBSTITUTED.

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

AN ARROW BOARD SHALL BE USED WHEN A FREEWAY LANE IS CLOSED.WHEN MORE THAN ONE FREEWAY LANE IS CLOSED, A SEPARATE ARROW BOARD SHALL BE USED FOR EACH CLOSED LANE.

WO20-1
2

WO20-5
5

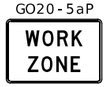
WO20-6a
6

WO4-1aL
6A

GO20-5aP

R2-1
54
4

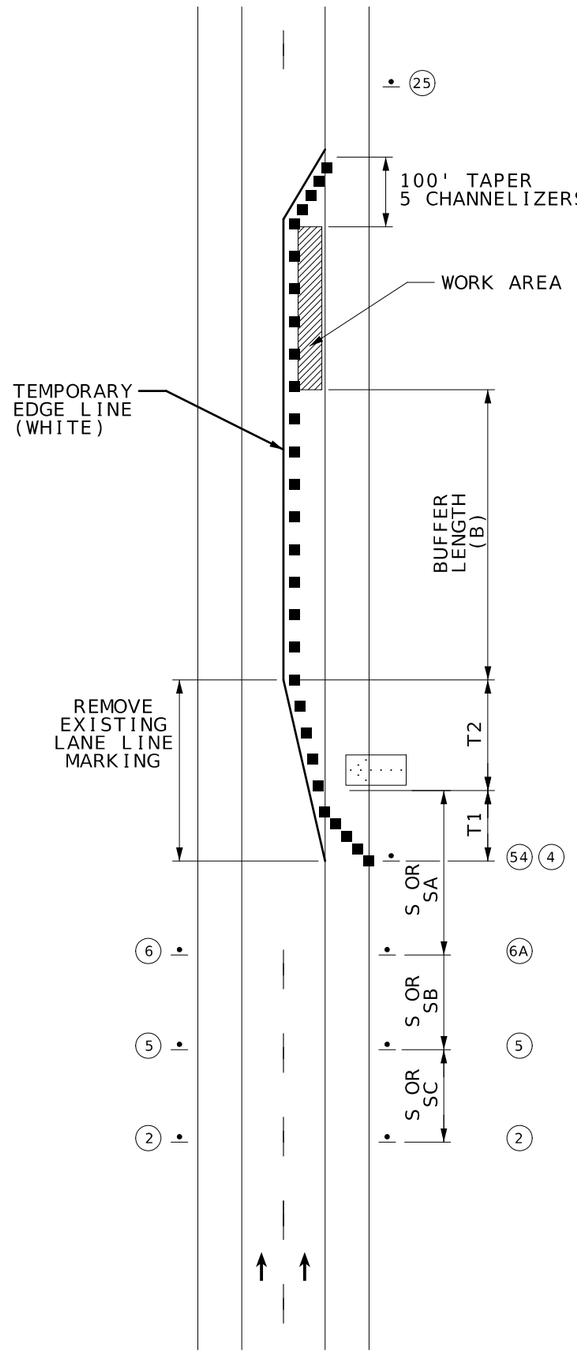
GO20-5aP



R2-1
54
4

R2-1
25
(NORMAL SPEED)

R2-1
25
(NORMAL SPEED)



NOT TO SCALE

TRAFFIC CONTROL
SHEET 3 OF 15

STATE OF MISSOURI
KARA JEAN RICHART
NUMBER PE-2023037997
PROFESSIONAL ENGINEER
Kara J. Richart
DIGITALLY SIGNED 12:30:34 PM
KARA JEAN RICHART - CIVIL
MO-PE-2023037997

DATE PREPARED
9/26/2024

ROUTE	STATE
VAR	MO
DISTRICT	SHEET NO.
SW	6

COUNTY
VARIOUS

JOB NO.
JSR0053

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)

REVISED: 8/27/2024

DOUBLE LANE CLOSURE ON A FREEWAY

SPEED	SIGN SPACING (FT)	TAPER LENGTH (FT)		OPTIONAL	LONGI-TUDINAL TRANSITION (X)	CHANNELIZER SPACING (FT)	
NORMAL POSTED (MPH)	DIVIDED (S)	SHOULDER(1) (T1)	LANE(2) (T2)	BUFFER LENGTH (FT) (B)		TAPERS	BUFFER/ WORK AREAS
0-35	200	70	245	250	490	35	40
40-45	500	150	540	360	1080	40	80
50-55	1000	185	660	495	1320	50	80
60-70	SA - 1000 SB - 1500 SC - 2640	235	840	730	1680	60	120

NOTES:

(1) SHOULDER TAPER LENGTH BASED ON 10 FT. (STANDARD SHOULDER WIDTH) OFFSET.
(2) LANE TAPER LENGTH BASED ON 12 FT. (STANDARD LANE WIDTH) OFFSET.

REMOVE AND/OR MODIFY ANY EXISTING PAVEMENT MARKING AS NEEDED.

TEMPORARY PAVEMENT MARKING REQUIRED WITH LONG TERM LANE CLOSURES.

ALTERNATIVE TEMPORARY TRAFFIC CONTROL SET-UPS SHOULD BE CONSIDERED WHEN REDUCTION IN CAPACITY CANNOT BE TOLERATED.

A FLASHING ARROW BOARD SHALL BE USED WHEN A FREEWAY LANE IS CLOSED. WHEN MORE THAN ONE FREEWAY LANE IS CLOSED, A SEPARATE FLASHING ARROW BOARD SHALL BE USED FOR EACH CLOSED LANE.

WO20-1

(2)

WO20-5a

(5A)

WO20-6a

(6)

WO4-1aL

(6A)

GO20-5aP

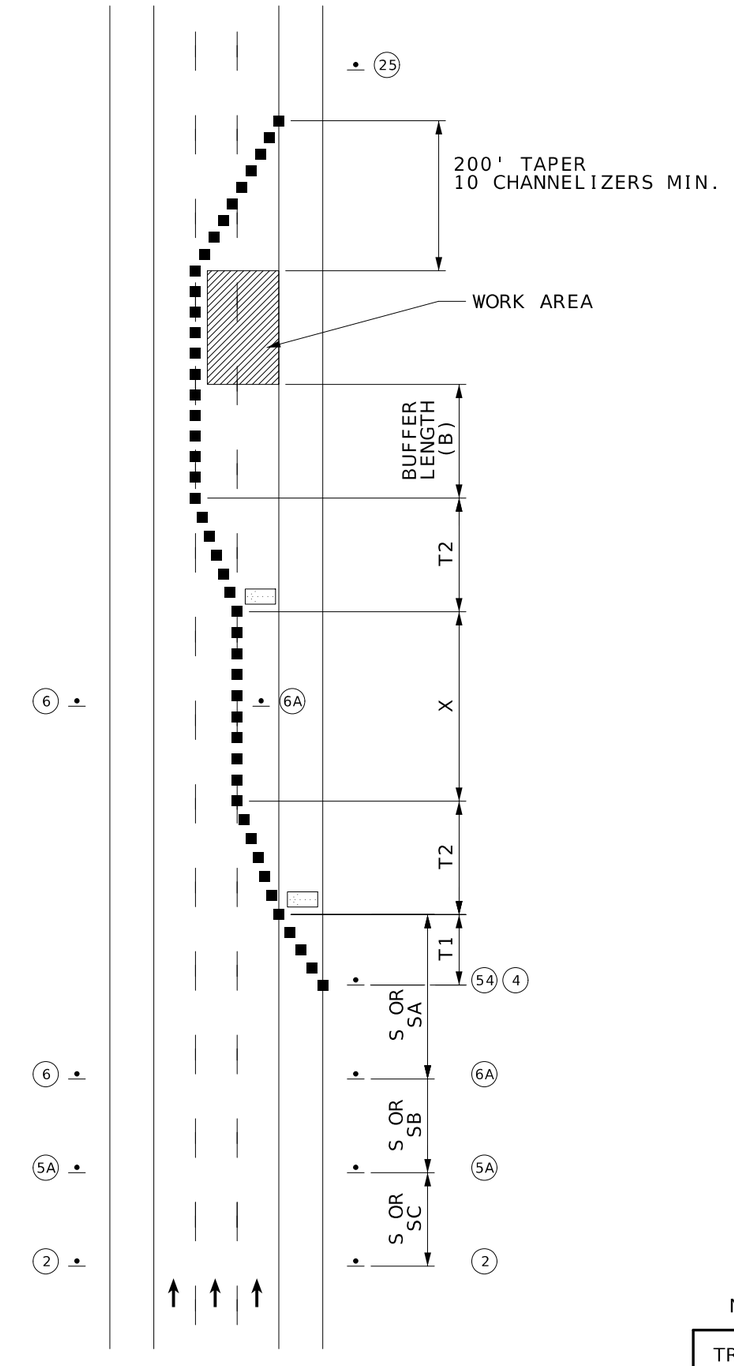
R2-1

(54)
(4)

R2-1

(25)

(NORMAL SPEED)



NOT TO SCALE

TRAFFIC CONTROL
SHEET 4 OF 15

STATE OF MISSOURI
KARA JEAN RICHART
NUMBER PE-2023037997
PROFESSIONAL ENGINEER
Kara J. Richart
KARA JEAN RICHART - CIVIL
MO-PE-2023037997

DATE PREPARED
9/26/2024

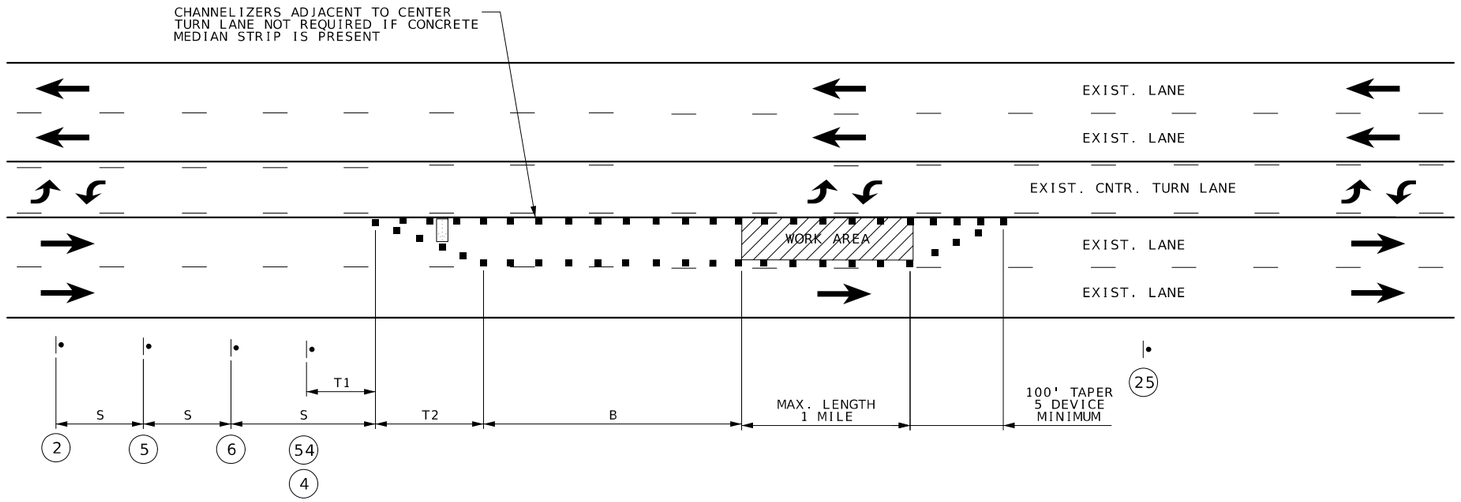
ROUTE VAR | STATE MO
DISTRICT SW | SHEET NO. 7
COUNTY VARIOUS
JOB NO. JSR0053
CONTRACT ID.
PROJECT NO.
BRIDGE NO.

DESCRIPTION | DATE

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

REVISED: 8/27/2024

PASSING LANE CLOSURE



SPEED	SIGN SPACING (FT)	TAPER LENGTH (FT)		OPTIONAL	CHANNELIZER SPACING (FT)	
PERMANENT POSTED (MPH)	UNDIVIDED HIGHWAYS (S)	SHOULDER(1) (T1)	LANE(2) (T2)	BUFFER LENGTH (FT) (B)	TAPERS	BUFFER/ WORK AREAS
0-35	200	70	245	250	35	40
40-45	350	150	540	360	40	80
50-55	500	185	660	495	50	80
60-70	1000	235	840	730	60	120

NOTES:

(1) SHOULDER TAPER LENGTH BASED ON 10 FT. (STANDARD SHOULDER WIDTH) OFFSET.
(2) LANE TAPER LENGTH BASED ON 12 FT. (STANDARD LANE WIDTH) OFFSET.

SEE BEGIN/END OF PROJECT SIGNING SHEET FOR ADDITIONAL SIGNS.

IN TAPER SECTIONS, QUANTITY OF CHANNELIZERS IS DOUBLED WHEN COMPARED TO MAXIMUM CHANNELIZER SPACING IN CHART.

TEMPORARY PAVEMENT MARKING REQUIRED WITH LONG TERM CLOSURE, NO DIRECT PAY.

NO DIRECT PAYMENT WILL BE MADE FOR RELOCATION OF CHANNELIZERS, SIGNS, AND FLASHING ARROW PANEL.

FOR SHORT TERM OPERATIONS WHERE IT IS NOT FEASIBLE TO MODIFY PAVEMENT MARKING, DEVICE SPACING IS ONE-HALF SPACING SHOWN IN TABLE.

SPEED LIMIT SIGNS INDICATING NORMAL SPEED LIMIT SHALL BE INSTALLED AT END OF THE WORK ZONE, PROVIDED NO FURTHER WORK ZONES WILL BE ENCOUNTERED WITHIN THE NEXT 1/2 MILE.

ALL SIGNS, EXCEPT "NO PHONE ZONE" AND "POINT OF PRESENCE", SHALL BE PORTABLE MOUNT AND ARE TO BE MOVED AS WORK PROGRESSES, UNLESS OTHERWISE NOTED. ALL TRAFFIC CONTROL ITEMS SHALL BE REMOVED FROM THE ROADWAY DURING NON-WORKING HOURS. SEE JOB SPECIAL PROVISIONS.

WORK WILL REQUIRE LANE CLOSURES UNLESS OTHERWISE APPROVED BY THE ENGINEER.

LAYOUT IS TYPICAL FOR EITHER DIRECTION.

SEE STANDARD DRAWING 616.10 FOR ADDITIONAL DETAILS.

WO20-1
(2)

WO20-5
(5)

WO20-6a
(6)

GO20-5aP
R2-1
(54)
(4)

R2-1
(25)
(NORMAL SPEED)

NOT TO SCALE

TRAFFIC CONTROL
SHEET 5 OF 15

STATE OF MISSOURI
KARA JEAN RICHART
NUMBER PE-2023037997
PROFESSIONAL ENGINEER
10/15/2024 10:30:36 AM
KARA JEAN RICHART - CIVIL
MO-PE-2023037997

DATE PREPARED
10/15/2024

ROUTE	STATE
VAR	MO
DISTRICT	SHEET NO.
SW	8

COUNTY
VARIOUS

JOB NO.
JSR0053

CONTRACT ID.

PROJECT NO.

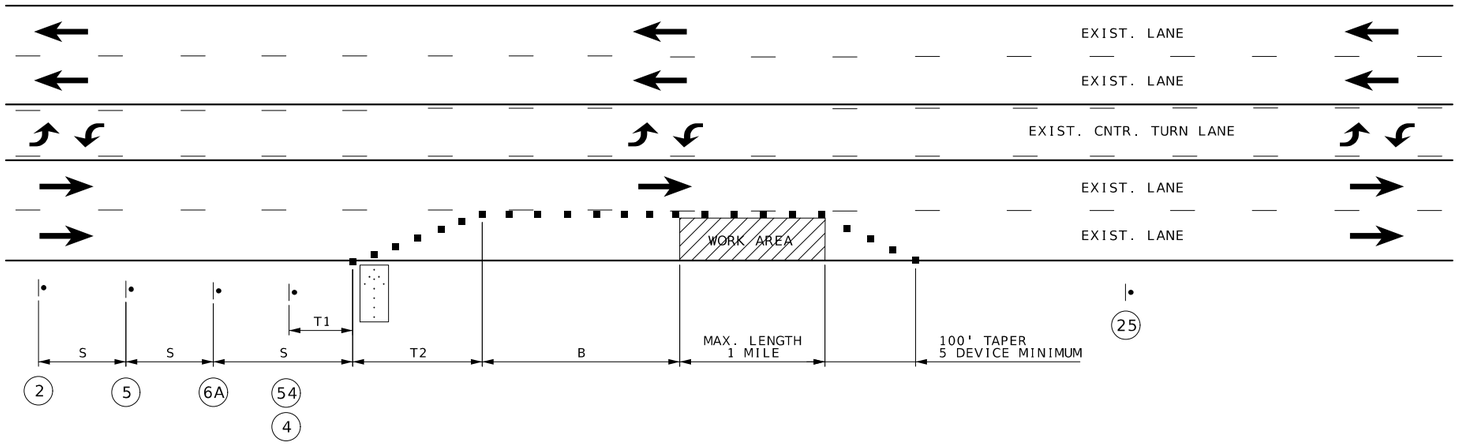
BRIDGE NO.

DESCRIPTION	DATE

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

REVISED: 8/27/2024

OUTSIDE LANE CLOSURE



SPEED	SIGN SPACING (FT)	TAPER LENGTH (FT)		OPTIONAL	CHANNELIZER SPACING (FT)	
PERMANENT POSTED (MPH)	UNDIVIDED HIGHWAYS (S)	SHOULDER(1) (T1)	LANE(2) (T2)	BUFFER LENGTH (FT) (B)	TAPERS	BUFFER/ WORK AREAS
0-35	200	70	245	250	35	40
40-45	350	150	540	360	40	80
50-55	500	185	660	495	50	80
60-70	1000	235	840	730	60	120

NOTES:

(1) SHOULDER TAPER LENGTH BASED ON 10 FT. (STANDARD SHOULDER WIDTH) OFFSET.
(2) LANE TAPER LENGTH BASED ON 12 FT. (STANDARD LANE WIDTH) OFFSET.

SEE BEGIN/END OF PROJECT SIGNING SHEET FOR ADDITIONAL SIGNS.

IN TAPER SECTIONS, QUANTITY OF CHANNELIZERS IS DOUBLED WHEN COMPARED TO MAXIMUM CHANNELIZER SPACING IN CHART.

TEMPORARY PAVEMENT MARKING REQUIRED WITH LONG TERM CLOSURE, NO DIRECT PAY.

NO DIRECT PAYMENT WILL BE MADE FOR RELOCATION OF CHANNELIZERS, SIGNS, AND FLASHING ARROW PANEL.

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SPEED LIMIT SIGNS INDICATING NORMAL SPEED LIMIT SHALL BE INSTALLED AT END OF THE WORK ZONE, PROVIDED NO FURTHER WORK ZONES WILL BE ENCOUNTERED WITHIN THE NEXT 1/2 MILE.

ALL SIGNS, EXCEPT "NO PHONE ZONE" AND "POINT OF PRESENCE", SHALL BE PORTABLE MOUNT AND ARE TO BE MOVED AS WORK PROGRESSES, UNLESS OTHERWISE NOTED. ALL TRAFFIC CONTROL ITEMS SHALL BE REMOVED FROM THE ROADWAY DURING NON-WORKING HOURS. SEE JOB SPECIAL PROVISIONS.

WORK WILL REQUIRE LANE CLOSURES UNLESS OTHERWISE APPROVED BY THE ENGINEER.

LAYOUT IS TYPICAL FOR EITHER DIRECTION.

SEE STANDARD DRAWING 616.10 FOR ADDITIONAL DETAILS.

WO20-1
(2)

WO20-5
(5)

WO4-1aL
(6A)

GO20-5aP

R2-1
(54)
(4)

R2-1
(25)
(NORMAL SPEED)

NOT TO SCALE

TRAFFIC CONTROL
SHEET 6 OF 15

STATE OF MISSOURI
KARA JEAN RICHART
NUMBER PE-2023037997
PROFESSIONAL ENGINEER
Kara J. Richart
10/15/2024 11:30:15 AM
KARA JEAN RICHART - CIVIL
MO-PE-2023037997

DATE PREPARED
10/15/2024

ROUTE	STATE
VAR	MO
DISTRICT	SHEET NO.
SW	9

COUNTY
VARIOUS

JOB NO.
JSR0053

CONTRACT ID.

PROJECT NO.

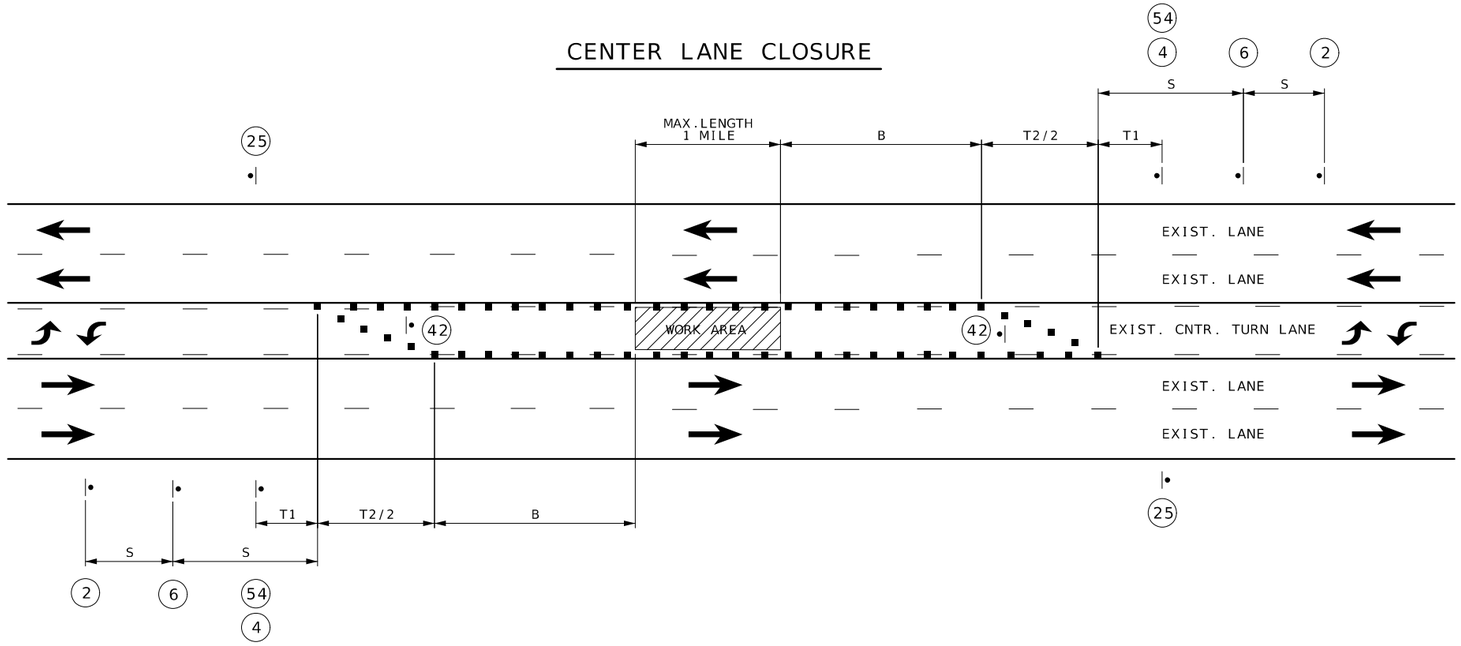
BRIDGE NO.

DESCRIPTION	DATE

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

REVISED: 8/27/2024

CENTER LANE CLOSURE



SPEED	SIGN SPACING (FT)	TAPER LENGTH (FT)		OPTIONAL	CHANNELIZER SPACING (FT)	
PERMANENT POSTED (MPH)	UNDIVIDED HIGHWAYS (S)	SHOULDER(1) (T1)	LANE(2) (T2)	BUFFER LENGTH (FT) (B)	TAPERS	BUFFER/ WORK AREAS
0-35	200	70	245	250	35	40
40-45	350	150	540	360	40	80
50-55	500	185	660	495	50	80
60-70	1000	235	840	730	60	120

NOTES:

(1) SHOULDER TAPER LENGTH BASED ON 10 FT. (STANDARD SHOULDER WIDTH) OFFSET.
(2) LANE TAPER LENGTH BASED ON 12 FT. (STANDARD LANE WIDTH) OFFSET.

SEE BEGIN/END OF PROJECT SIGNING SHEET FOR ADDITIONAL SIGNS.

IN TAPER SECTIONS, QUANTITY OF CHANNELIZERS IS DOUBLED WHEN COMPARED TO MAXIMUM CHANNELIZER SPACING IN CHART.

TEMPORARY PAVEMENT MARKING REQUIRED WITH LONG TERM CLOSURE, NO DIRECT PAY.

NO DIRECT PAYMENT WILL BE MADE FOR RELOCATION OF CHANNELIZERS, SIGNS, AND FLASHING ARROW PANEL.

FOR SHORT TERM OPERATIONS WHERE IT IS NOT FEASIBLE TO MODIFY PAVEMENT MARKING, DEVICE SPACING IS ONE-HALF SPACING SHOWN IN TABLE.

SPEED LIMIT SIGNS INDICATING NORMAL SPEED LIMIT SHALL BE INSTALLED AT END OF THE WORK ZONE, PROVIDED NO FURTHER WORK ZONES WILL BE ENCOUNTERED WITHIN THE NEXT 1/2 MILE.

ALL SIGNS, EXCEPT "NO PHONE ZONE" AND "POINT OF PRESENCE", SHALL BE PORTABLE MOUNT AND ARE TO BE MOVED AS WORK PROGRESSES, UNLESS OTHERWISE NOTED. ALL TRAFFIC CONTROL ITEMS SHALL BE REMOVED FROM THE ROADWAY DURING NON-WORKING HOURS. SEE JOB SPECIAL PROVISIONS.

WORK WILL REQUIRE LANE CLOSURES UNLESS OTHERWISE APPROVED BY THE ENGINEER.

SEE STANDARD DRAWING 616.10 FOR ADDITIONAL DETAILS.

WO20-1
(2)

WO20-6a
(6)

R4-7a
(42)

GO20-5aP

R2-1
(54)
(4)

R2-1
(25)
(NORMAL SPEED)

NOT TO SCALE

TRAFFIC CONTROL
SHEET 7 OF 15

STATE OF MISSOURI
KARA JEAN RICHART
NUMBER PE-2023037997
PROFESSIONAL ENGINEER
11/13/2024 11:13:42 AM
KARA JEAN RICHART - CIVIL
MO-PE-2023037997

DATE PREPARED
10/15/2024

ROUTE	STATE
VAR	MO
DISTRICT	SHEET NO.
SW	10

COUNTY
VARIOUS

JOB NO.
JSR0053

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)

TYPICAL CLOSURE OF EXISTING BRIDGES OR NON-TRAVERSABLE ROADS

SPEED	SIGN SPACING (FT.)		TAPER LENGTH (FT.)		OPTIONAL	CHANNELIZER SPACING (FT.)	
NORMAL POSTED (MPH)	UNDIVIDED (S)	DIVIDED (S)	SHOULDER (T1)	LANE (T2)	BUFFER LENGTH (FT.) (B)	TAPERS	BUFFER/ WORK AREAS
0-35	200	200	-	-	250	-	-
40-45	350	500	-	-	360	-	-
50-55	500	1000	-	-	495	-	-
60-70	1000	SA - 1000 SB - 1500 SC - 2640	-	-	730	-	-

TYPE OF ROADWAY	SIGN HEIGHT	MAXIMUM WORK ZONE LENGTH (L)
URBAN	1' PORTABLE 7' POST	1 MI.
RURAL UNDIVIDED	1' PORTABLE 5' POST	3 MI.

REFER TO EPG 606.1.3.5 CLOSURES OF EXISTING STREETS, ROADS, AND BRIDGES OR NON-TRAVERSABLE ROADS FOR BRIDGE AND/OR ROAD CLOSURES DESIGNATED NON-TRAVERSABLE

(1) THE ROAD CLOSED XX MILES AHEAD LOCAL TRAFFIC ONLY SIGN SHOULD BE LOCATED AT THE FIRST STATE ROUTE OR, UPON THE DISCRETION OF THE SUPERVISOR, ANY OTHER INTERSECTION IN ADVANCE OF THE CLOSURE.

(2) ADDITIONAL BARRICADES MAY BE USED AND OFFSET TO FACILITATE ACCESS FOR LOCAL TRAFFIC, ETC.

(3) THE USE OF TYPE D GUARDRAIL AND TYPE 4 OBJECT MARKERS VERSUS TYPE III BARRICADES AND TEMPORARY CONCRETE TRAFFIC BARRIERS ARE DEPENDENT UPON THE DISTRICT/CENTRAL OFFICE REPLACEMENT SCHEDULE.

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

FOR ADVANCE WARNING RAIL SYSTEM, REFER TO EPG 616.6.2.2 FLAGS AND ADVANCE WARNING RAIL SYSTEM (AWRS).

REFER TO STANDARD PLANS FOR HIGHWAY CONSTRUCTION 606.00 GUARDRAIL TYPE D FOR GUARDRAIL AND POST-MOUNTED TYPE III BARRICADES.

REFER TO STANDARD PLANS FOR HIGHWAY CONSTRUCTION 616.10 TEMPORARY TRAFFIC CONTROL DEVICES FOR TYPE III BARRICADES.

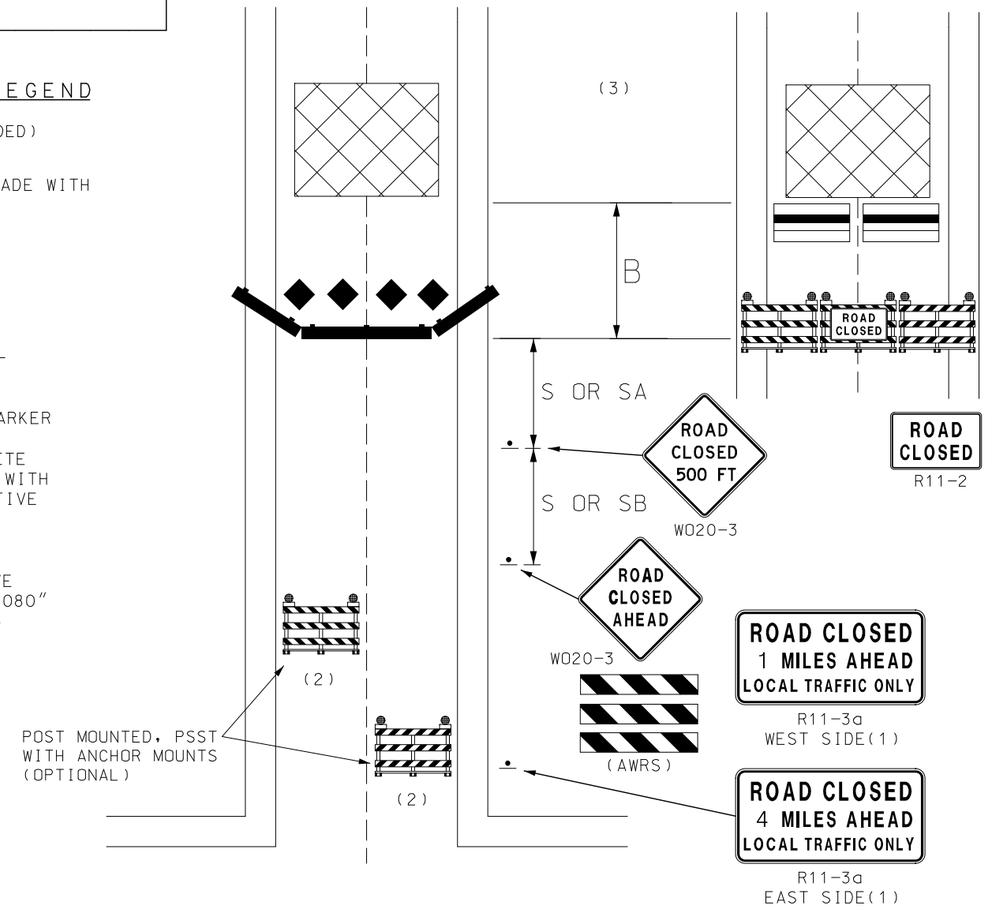
REFER TO STANDARD PLANS FOR HIGHWAY CONSTRUCTION 903.03 SIGN MOUNTING DETAILS DELINEATORS OBJECT MARKERS FOR TYPE 4 OBJECT MARKER.

REFER TO STANDARD PLANS FOR HIGHWAY CONSTRUCTION 617.20 TEMPORARY CONCRETE TRAFFIC BARRIER FOR CONCRETE BARRIERS.

REFER TO STANDARD PLANS FOR HIGHWAY CONSTRUCTION 1042 HIGHWAY SIGN MATERIAL FOR 6-INCH WIDE, 10-12-FOOT LONG RED RETROFLECTIVE SHEETING.

TRAFFIC CONTROL LEGEND

- SIGN (SINGLE SIDED)
- TYPE III BARRICADE WITH WARNING LIGHTS
- WORK SPACE
- TYPE D GUARDRAIL
- TYPE 4 OBJECT MARKER
- TEMPORARY CONCRETE TRAFFIC BARRIER WITH RED RETROREFLECTIVE SHEETING
- ASTM TYPE IV 6" RED REFLECTIVE SHEETING WITH 0.080" ALUMINUM BACKING



NOT TO SCALE

TRAFFIC CONTROL
SHEET 8 OF 15

STATE OF MISSOURI
KARA JEAN RICHART
NUMBER PE-2023037997
PROFESSIONAL ENGINEER
KARA JEAN RICHART - CIVIL
MO-PE-2023037997

DATE PREPARED
9/26/2024

ROUTE	STATE
VAR	MO
DISTRICT	SHEET NO.
SW	11

COUNTY
VARIOUS

JOB NO.
JSR0053

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)

NOTES:
SEE TC SHEET 8 OF 15 FOR BRIDGE CLOSUE LAYOUT.

WO20-3

(20)

WO20-2

(18)

R11-4

(13)

MO4-8a

(52)

MO4-8

M3-2

M1-4

M5-1R

(50A)

MO4-8

M3-2

M1-4

M5-1L

(50B)

MO4-8

M3-2

M1-4

M6-3

(50C)

MO4-8

M3-4

M1-4

M6-3

(51A)

MO4-8

M3-4

M1-4

M5-1R

(51B)

MO4-8

M3-4

M1-4

M5-1L

(51C)

MO4-8

M3-2

M1-4

M6-1

(50D)

MO4-8

M3-2

M1-4

M6-1

(50E)

MO4-8

M3-4

M1-4

M6-1

(51D)

MO4-8

M3-4

M1-4

M6-1

(51E)

NOT TO SCALE

TRAFFIC CONTROL
SHEET 9 OF 15

STATE OF MISSOURI
KARA JEAN RICHART
NUMBER PE-2023037997
PROFESSIONAL ENGINEER
Kara J. Richart
09/27/2024 12:54:09 PM
KARA JEAN RICHART - CIVIL
MO-PE-2023037997

DATE PREPARED
9/26/2024

ROUTE	STATE
VAR	MO
DISTRICT	SHEET NO.
SW	12

COUNTY
VARIOUS

JOB NO.
JSR0053

CONTRACT ID.

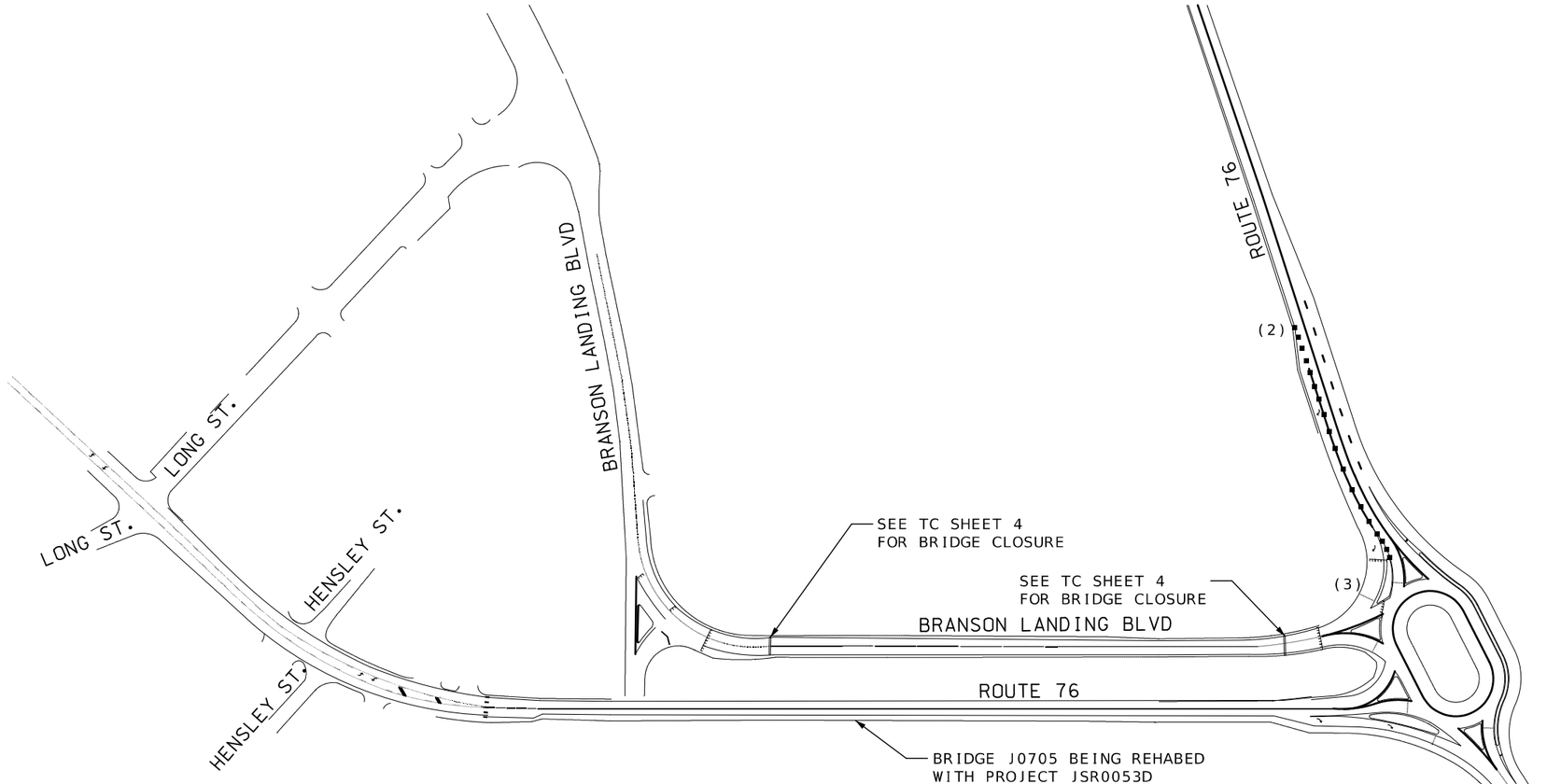
PROJECT NO.

BRIDGE NO.

DESCRIPTION	DATE

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

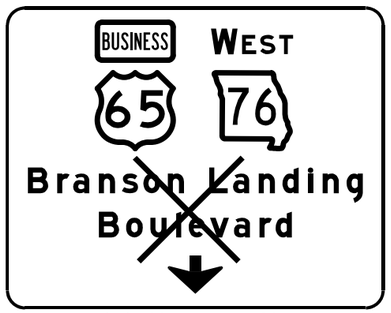
105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)



TRAFFIC CONTROL LEGEND

- SIGN (SINGLE SIDED)
- SIGN (DOUBLE SIDED)
- FLAGGER
- CONE
- CHANNELIZER
- BARRICADE
- CHANGEABLE MESSAGE BOARD

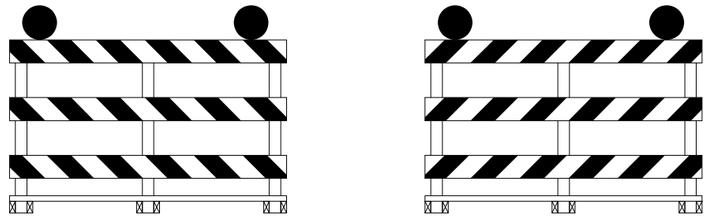
SPEED	CHANNELIZER SPACING (FT)	
PERMANENT POSTED (MPH)	TAPERS	BUFFER/ WORK AREAS
0-35	35	40
40-45	40	80
50-55	50	80
60-70	60	120



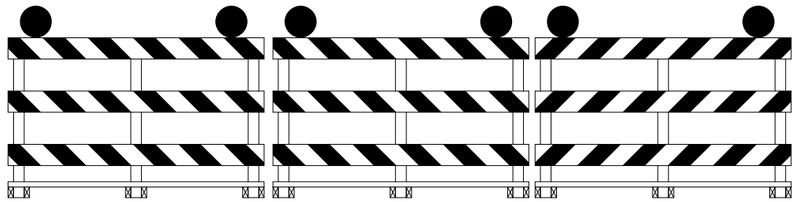
(1) COVER BRANSON LANDING BOULEVARD

(3) COVER BRANSON LANDING BOULEVARD

(2) COVER BRANSON LANDING BOULEVARD



TYPE III MOVABLE BARRICADES WITH TYPE B WARNING LIGHTS
SOFT CLOSURE (STAGGERED)



TYPE III MOVABLE BARRICADES WITH TYPE B WARNING LIGHTS
FULL CLOSURE

NOT TO SCALE

TRAFFIC CONTROL
SHEET 10 OF 15

STATE OF MISSOURI
KARA JEAN RICHART
NUMBER PE-2023037997
PROFESSIONAL ENGINEER
KARA JEAN RICHART - CIVIL
MO-PE-2023037997

DATE PREPARED
9/26/2024

ROUTE	STATE
VAR	MO
DISTRICT	SHEET NO.
SW	13

COUNTY
VARIOUS

JOB NO.
JSR0053

CONTRACT ID.

PROJECT NO.

BRIDGE NO.

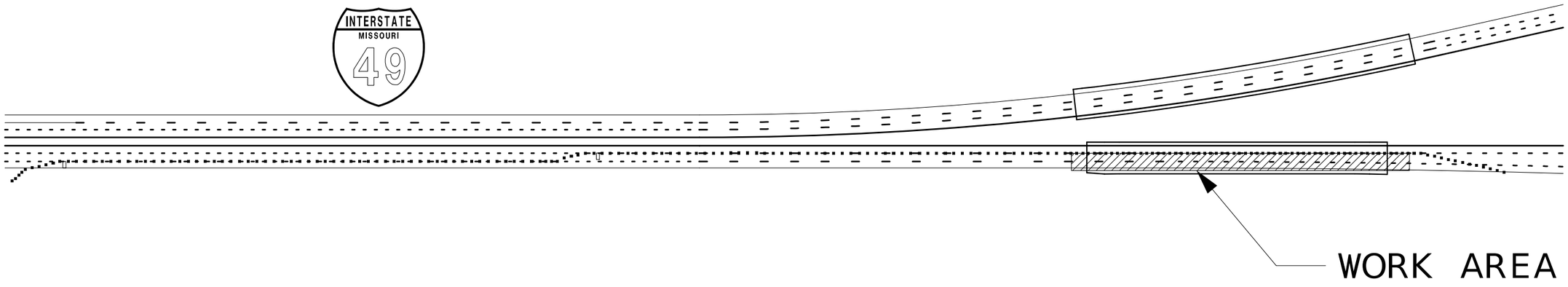
DESCRIPTION	DATE

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

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

I-49 SOUTH DOUBLE LANE CLOSURE
STAGE 1

NOTES:
SEE TC SHEET 4 OF 15 FOR SIGN AND DEVICE SPACING.



NOT TO SCALE

TRAFFIC CONTROL
SHEET 11 OF 15

STATE OF MISSOURI
KARA JEAN RICHART
NUMBER PE-2023037997
PROFESSIONAL ENGINEER
Kara J. Richart
2024/09/26 12:34:48 PM
KARA JEAN RICHART - CIVIL
MO-PE-2023037997

DATE PREPARED
9/26/2024

ROUTE	STATE
VAR	MO

DISTRICT	SHEET NO.
SW	14

COUNTY
VARIOUS

JOB NO.
JSR0053

CONTRACT ID.

PROJECT NO.

BRIDGE NO.

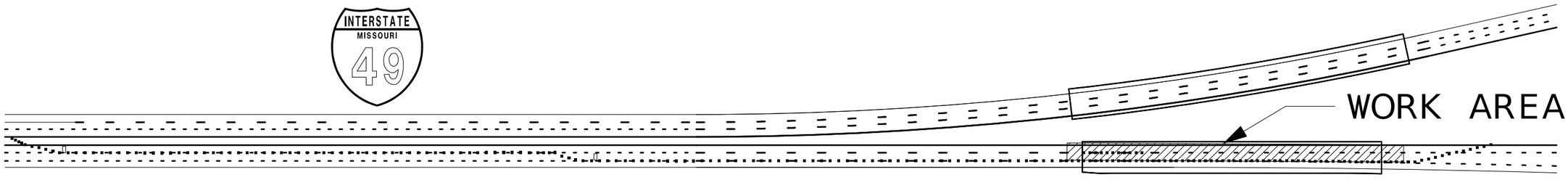
DESCRIPTION	DATE

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

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

I-49 SOUTH DOUBLE LANE CLOSURE
STAGE 2

NOTES:
SEE TC SHEET 4 OF 15 FOR SIGN AND DEVICE SPACEING.



NOT TO SCALE

TRAFFIC CONTROL
SHEET 12 OF 15

STATE OF MISSOURI
KARA JEAN RICHART
NUMBER PE-2023037997
PROFESSIONAL ENGINEER
Kara J. Richart
KARA JEAN RICHART - CIVIL
MO-PE-2023037997

DATE PREPARED
9/26/2024

ROUTE	STATE
VAR	MO
DISTRICT	SHEET NO.
SW	15

COUNTY
VARIOUS

JOB NO.
JSR0053

CONTRACT ID.

PROJECT NO.

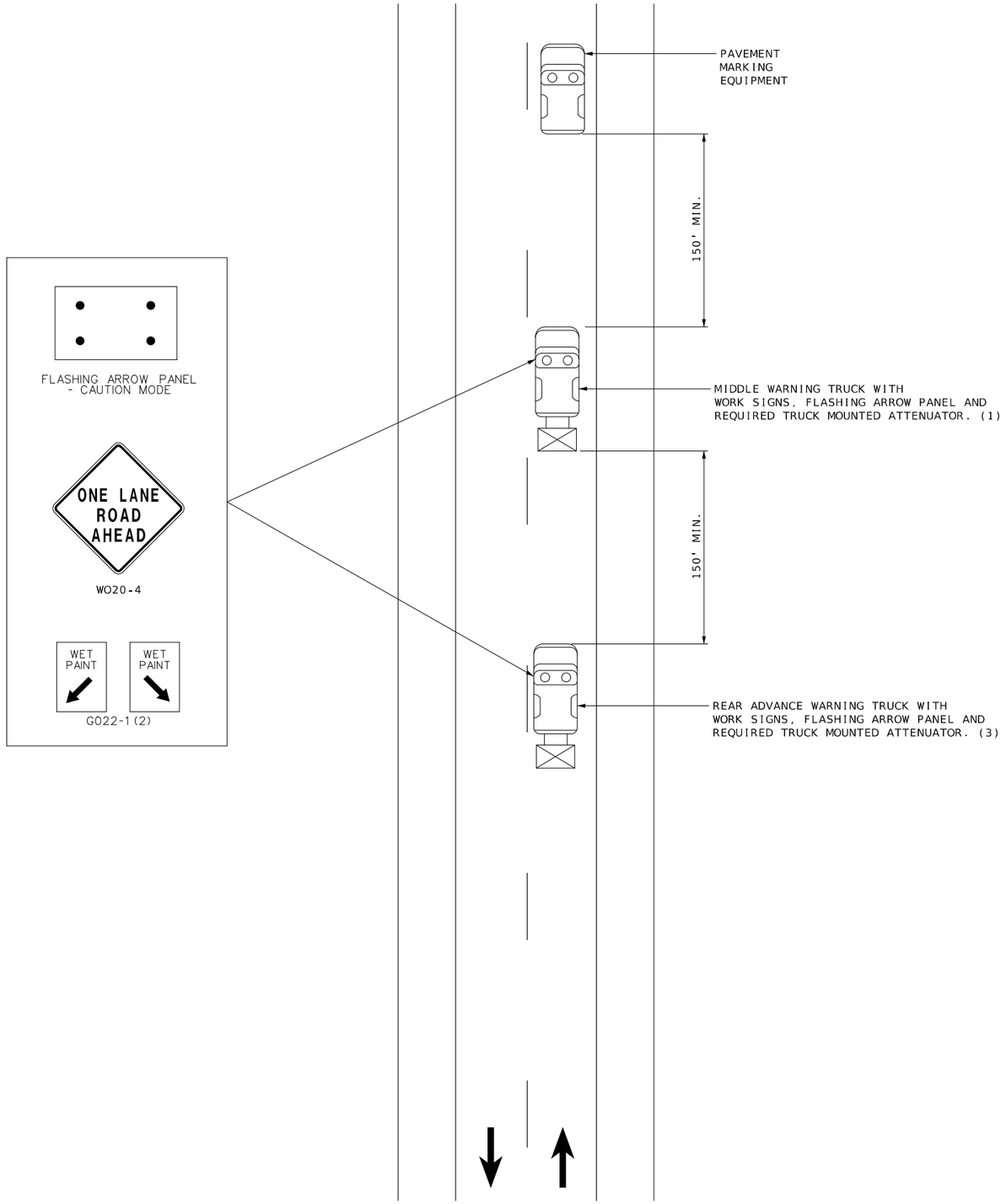
BRIDGE NO.

DESCRIPTION	DATE

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

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

REVISED: 2/5/2024



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 AND SIGNS 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.

NOT TO SCALE

TRAFFIC CONTROL
SHEET 13 OF 15

STATE OF MISSOURI
KARA JEAN RICHART
NUMBER PE-2023037997
PROFESSIONAL ENGINEER
Kara J. Richart
10/21/2024 12:04:30 PM
KARA JEAN RICHART - CIVIL
MO-PE-2023037997

DATE PREPARED
9/26/2024

ROUTE	STATE
VAR	MO
DISTRICT	SHEET NO.
SW	16

COUNTY
VARIOUS

JOB NO.
JSR0053

CONTRACT ID.

PROJECT NO.

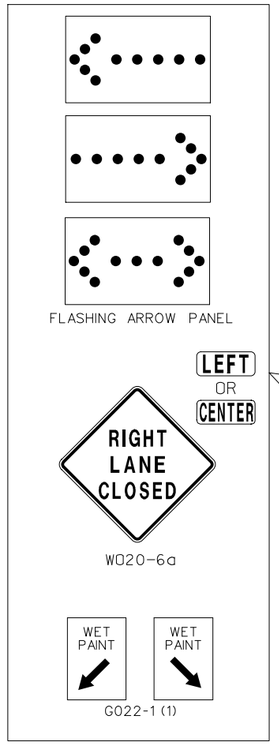
BRIDGE NO.

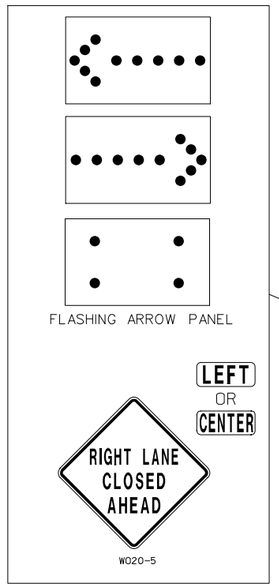
DESCRIPTION	DATE

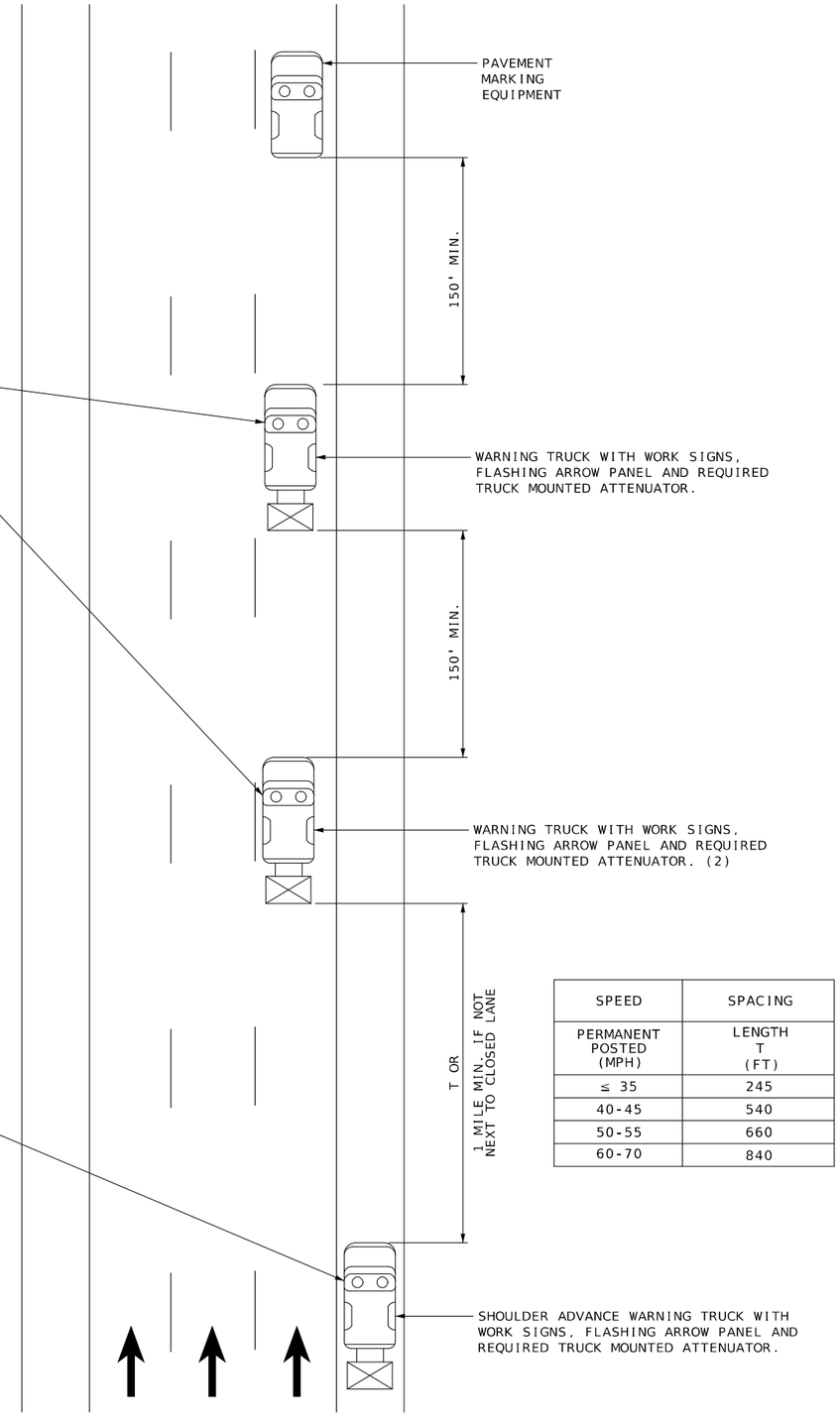
MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

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

REVISED: 2/5/2024







SPEED	SPACING
PERMANENT POSTED (MPH)	LENGTH T (FT)
≤ 35	245
40-45	540
50-55	660
60-70	840

STRIPING ON MULTI-LANE HIGHWAY

NOTES:

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

PROTECTIVE TRUCK 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.

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

(1) 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.

(2) WARNING TRUCK IS POSITIONED AT THE NO TRACK POINT OF THE PAVEMENT MARKING MATERIAL, OR SPACING SHOWN, WHICH EVER IS GREATER.

FLASHING ARROW PANELS SHALL, AS A MINIMUM, BE TYPE B, WITH A SIZE OF 60 X 30 INCHES.

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.

A FLASHING ARROW BOARD SHALL BE USED WHEN A FREEWAY LANE IS CLOSED. WHEN MORE THAN ONE LANE CLOSED, A SEPARATE FLASHING ARROW PANEL BOARD SHALL BE USED FOR EACH CLOSED LANE.

NOT TO SCALE

TRAFFIC CONTROL
SHEET 14 OF 15

STATE OF MISSOURI
KARA JEAN RICHART
NUMBER PE-2023037997
PROFESSIONAL ENGINEER
Kara J. Richart
09/27/2024 12:39:33 PM
KARA JEAN RICHART - CIVIL
MO-PE-2023037997

DATE PREPARED
9/26/2024

ROUTE	STATE
VAR	MO
DISTRICT	SHEET NO.
SW	17

COUNTY
VARIOUS

JOB NO.
JSR0053

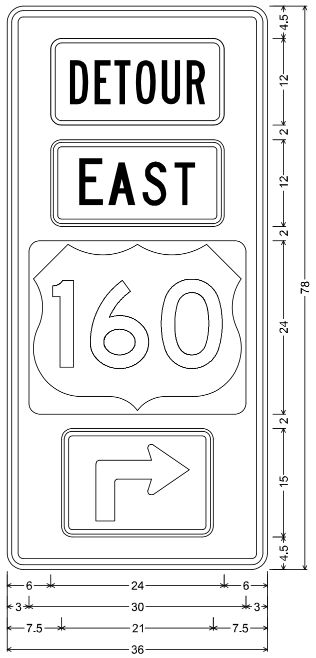
CONTRACT ID.

PROJECT NO.

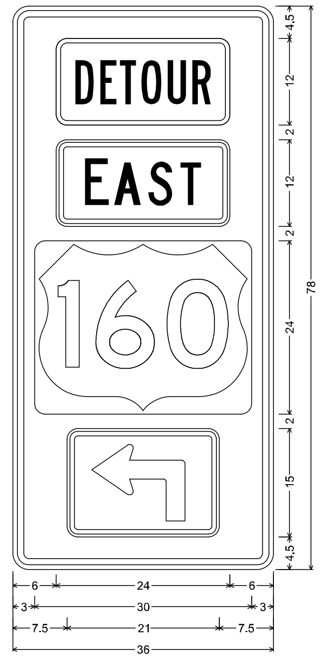
BRIDGE NO.

DESCRIPTION	DATE

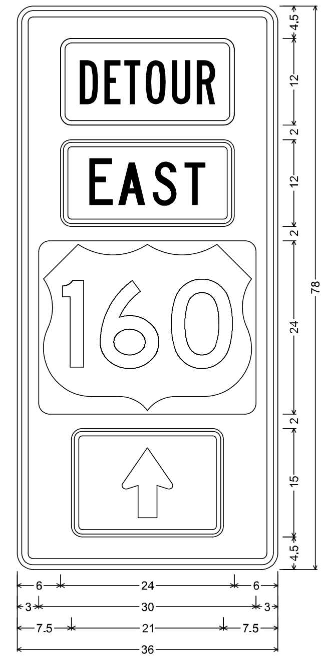
MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION
105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)



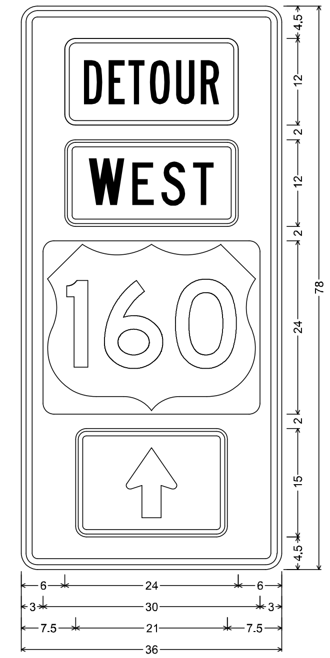
MO4-11 SHF-FLAT SHEET FLUORESCENT;
2.250" Radius, 0.875" Border, 0.625" Indent, Black on, Orange;
Table of letter and object lefts
6.000
6.000
3.000
7.500



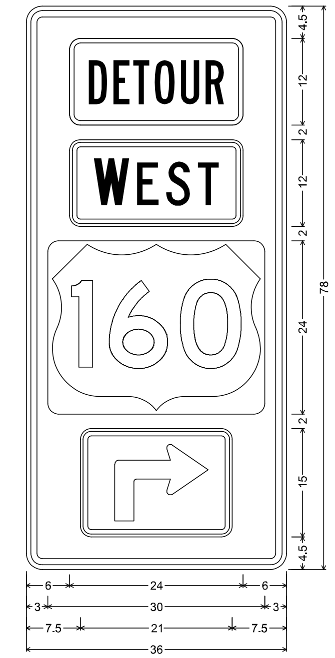
MO4-11 SHF-FLAT SHEET FLUORESCENT;
2.250" Radius, 0.875" Border, 0.625" Indent, Black on, Orange;
Table of letter and object lefts
6.000
6.000
3.000
7.500



MO4-11 SHF-FLAT SHEET FLUORESCENT;
2.250" Radius, 0.875" Border, 0.625" Indent, Black on, Orange;
Table of letter and object lefts
6.000
6.000
3.000
7.500



MO4-11 SHF-FLAT SHEET FLUORESCENT;
2.250" Radius, 0.875" Border, 0.625" Indent, Black on, Orange;
Table of letter and object lefts
6.000
6.000
3.000
7.500



MO4-11 SHF-FLAT SHEET FLUORESCENT;
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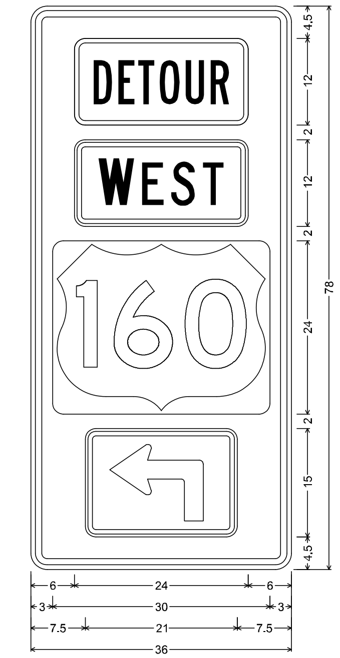

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2.250" Radius, 0.875" Border, 0.625" Indent, Black on, Orange;
Table of letter and object lefts
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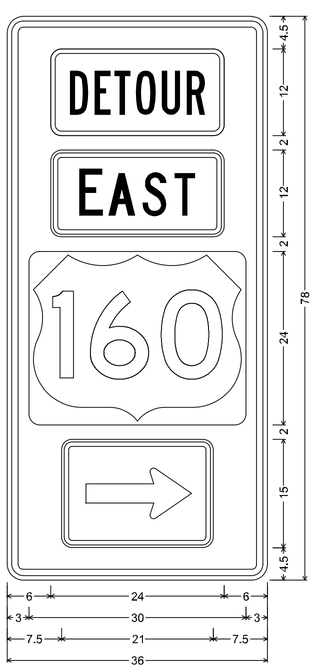

MO4-11 SHF-FLAT SHEET FLUORESCENT;
2.250" Radius, 0.875" Border, 0.625" Indent, Black on, Orange;
Table of letter and object lefts
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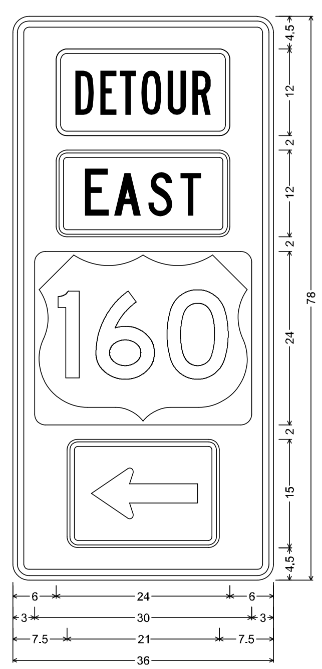

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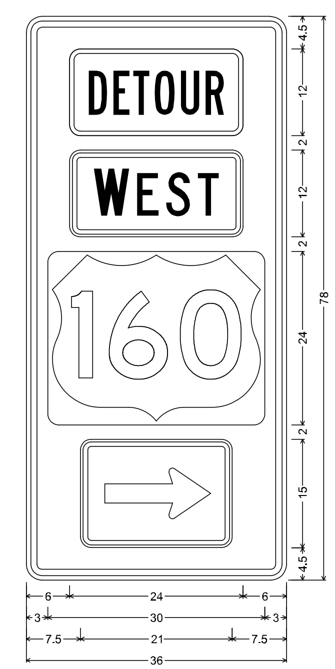

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2.250" Radius, 0.875" Border, 0.625" Indent, Black on, Orange;
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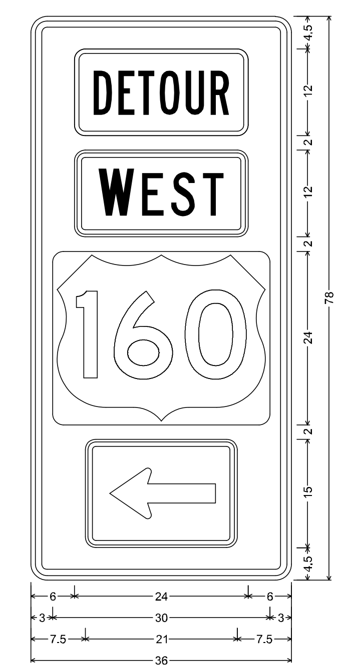


MO4-11 SHF-FLAT SHEET FLUORESCENT;
2.250" Radius, 0.875" Border, 0.625" Indent, Black on, Orange;
Table of letter and object lefts
6.000
6.000
3.000
7.500

STATE OF MISSOURI
KARA JEAN RICHART
NUMBER
PE-2023037997
PROFESSIONAL ENGINEER
KARA JEAN RICHART - CIVIL
MO-PE-2023037997

DATE PREPARED	9/26/2024
ROUTE VAR	STATE MO
DISTRICT SW	SHEET NO. 18
COUNTY	VARIOUS
JOB NO.	JSR0053
CONTRACT ID.	
PROJECT NO.	
BRIDGE NO.	

DESCRIPTION

DATE

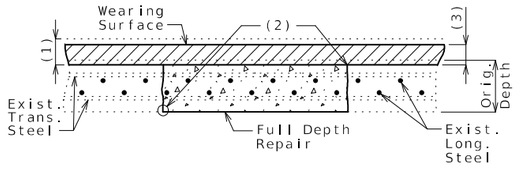
MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION
105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)

D-31

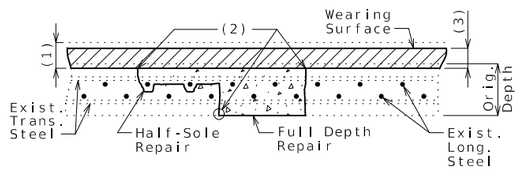
TRAFFIC CONTROL
SHEET 15 OF 15

U.I.P. AND REHABILITATE EXISTING (35'-45'-35') CONTINUOUS COMPOSITE WIDE FLANGE BEAM SPANS (SKEW: 35° LA)

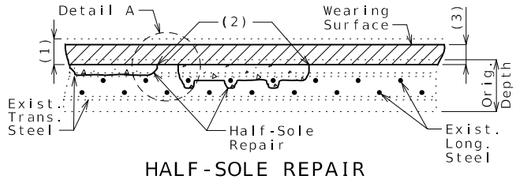
SEC/SUR 29 TWP 31N RGE 27W



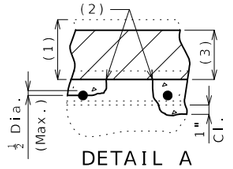
FULL DEPTH REPAIR



FULL DEPTH REPAIR WITH HALF-SOLE REPAIR

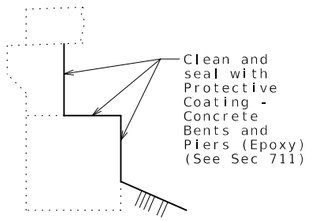


HALF-SOLE REPAIR

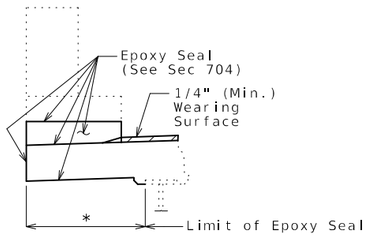


DETAIL A

Clearance around top bar and around bottom bar at the intersection of top bar shall be required when more than half the diameter of the top bar is exposed.

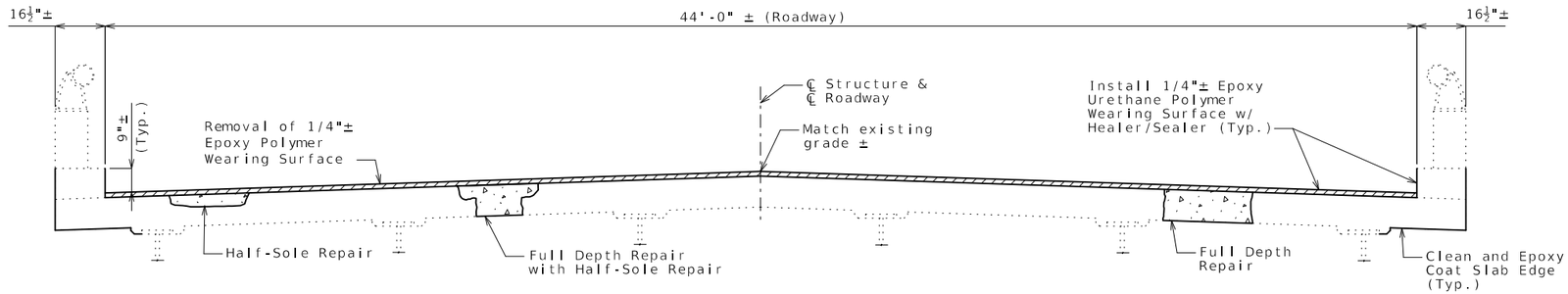


TYPICAL SECTION THRU END BENTS NO. 1 & 4 SHOWING PROTECTIVE COATING



TYPICAL SECTION OF EXISTING CURB SHOWING OUTLET

* To edge of beam ±

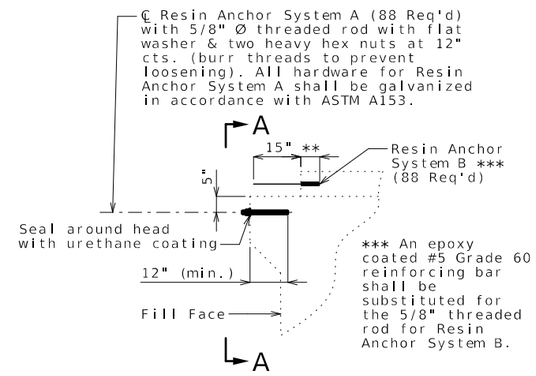


TYPICAL SECTION THRU EXISTING DECK

(1) Removal of existing 1/4"± Epoxy Polymer wearing surface

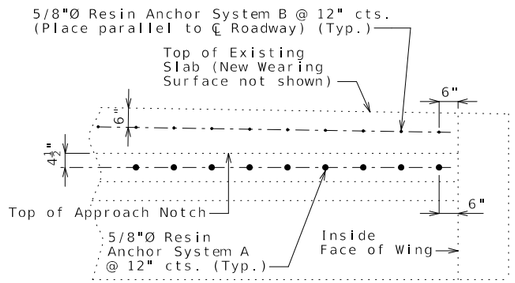
(2) 1" vertical side shall be established outside the deteriorated area

(3) 1/4" minimum Epoxy Urethane Polymer wearing surface



DETAILS OF APPROACH NOTCH RESIN ANCHOR SYSTEMS

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



PART ELEVATION A-A

General Notes:

Design Specifications:

2002 AASHTO LFD (17th Ed.) Standard Specifications
Bridge Deck Rating = 5

Design Loading:

H20-44 (1965) & HS20-44 (New Construction)

Design Unit Stresses:

Class B-2 Concrete (Half-Sole and Full Depth Repair) f'c = 4,000 psi
Reinforcing Steel (Grade 60) fy = 60,000 psi

Reinforcing Steel:

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

Concrete Protective Coatings:

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

Resin Anchors:

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

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

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

Miscellaneous:

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

All concrete repairs shall be in accordance with Sec 704, unless otherwise noted.

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 deformed bars, unless otherwise noted.

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

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

Contractor shall use micro-mill or similar to provide smooth surface, per the approval of the engineer.

Traffic Handling:

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

Estimated Quantities

Item		Total
Removal of Seal Coat or Polymer Wearing Surface	sq. foot	5,240
Bridge Approach Slab (Minor)	sq. yard	196
Epoxy Urethane Polymer Wearing Surface w\ Healer/Sealer	sq. yard	602
Barrier End Modification	each	4
Half-Sole Repair	sq. foot	350
Full Depth Repair	sq. foot	877
Cleaning and Epoxy Coating	sq. foot	877
Protective Coating-Concrete Bents and Piers (Epoxy)	lump sum	1
Vertical Drain At End Bents	each	2

REPAIRS TO BRIDGE: ROUTE 160 (MINOR) OVER SOUTH PRONG SONS CREEK

ROUTE 160 FROM ROUTE 97 TO ROUTE 39
ABOUT 1.3 MILES EAST OF ROUTE 97
BEGINNING STATION 443+33.00± (Match Existing)

Detailed June 2024
Checked Aug. 2024

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

STATE OF MISSOURI
TIMOTHY D. LEAF
NUMBER PE-2012000778
PROFESSIONAL ENGINEER
10/09/2024 12:05:57 PM
TIMOTHY D. LEAF - CIVIL
MO-PE-2012000778

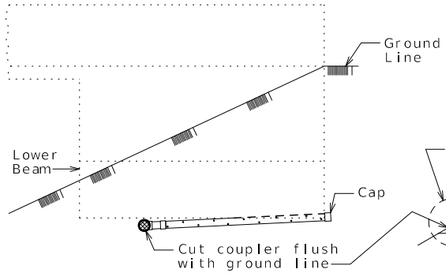
DATE PREPARED 10/9/2024

ROUTE	STATE
160	MO
DISTRICT	SHEET NO.
BR	1

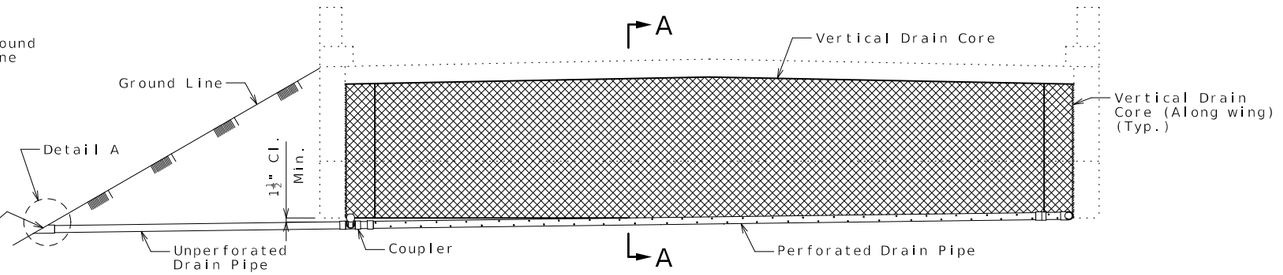
COUNTY: DADE
JOB NO.: JSR0053
CONTRACT ID.:
PROJECT NO.:
BRIDGE NO.: A25412

DESCRIPTION | DATE

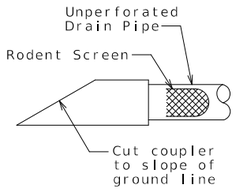
MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION
105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)



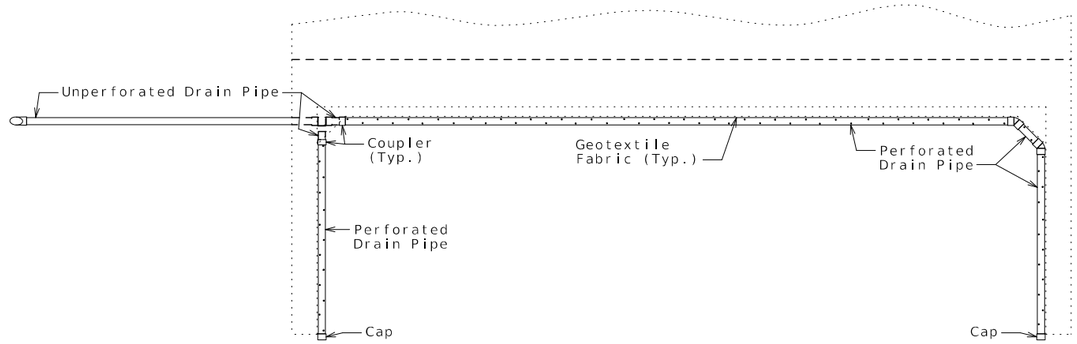
ELEVATION OF WING



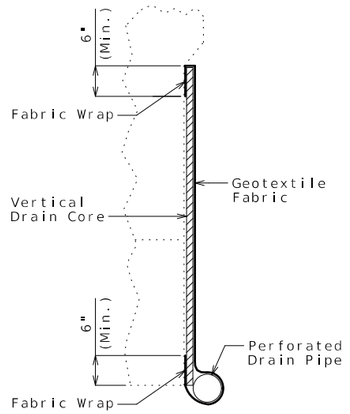
ELEVATION OF END BENT



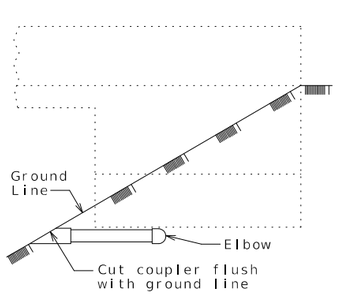
DETAIL A



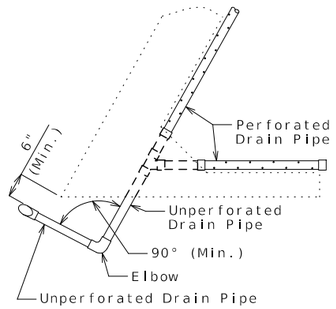
PLAN OF END BENT



PART SECTION A-A
(Section thru wing similar)



ELEVATION OF WING



PART PLAN

OPTIONAL TURNED DRAIN
(Use only when straight drain is not practical.)

General Notes:

All drain pipe shall be sloped 1 to 2 percent.

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

Drain pipe shall be placed at fill face of end bent and inside face of wings. The pipe shall slope to lowest grade of ground line, also missing the lower beam of end bent by a minimum of 1 1/2 inches.

Perforated pipe shall be placed at fill face side and inside face of wings at the bottom of end bent and plain pipe shall be used where the vertical drain ends to the exit at ground line.

VERTICAL DRAIN AT END BENTS

(Squared end bent shown, skewed end bent similar)

Detailed June 2024
Checked Aug. 2024

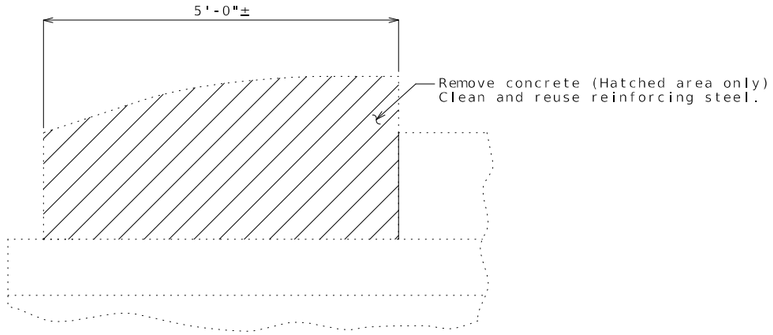
Note: This drawing is not to scale. Follow dimensions.

STATE OF MISSOURI
TIMOTHY D. LEAF
NUMBER PE-2012000778
PROFESSIONAL ENGINEER
10/09/2024 12:06:26 PM
TIMOTHY D LEAF - CIVIL
MO-PE-2012000778

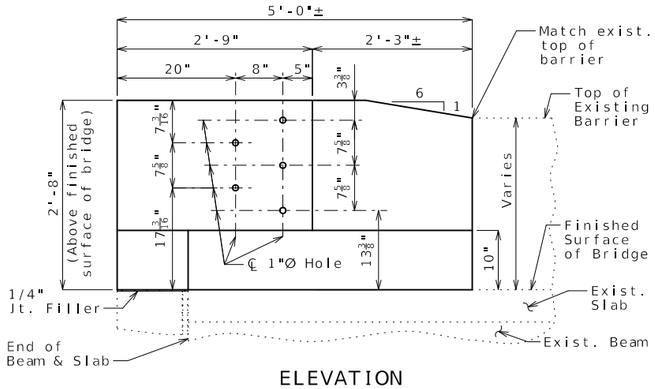
DATE PREPARED: 10/9/2024
ROUTE: 160 | STATE: MO
DISTRICT: BR | SHEET NO.: 2
COUNTY: DADE
JOB NO.: JSR0053
CONTRACT ID.:
PROJECT NO.:
BRIDGE NO.: A25412

DESCRIPTION | DATE

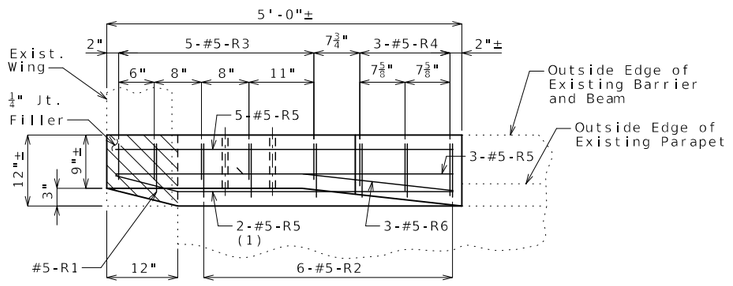
MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION
105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)



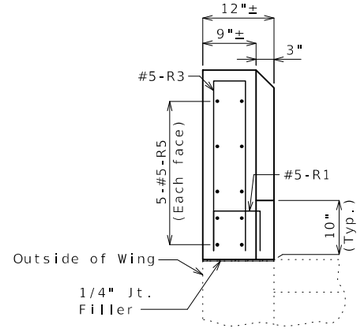
PART ELEVATION SHOWING CONCRETE REMOVAL



ELEVATION



PLAN (3)



ELEVATION A-A

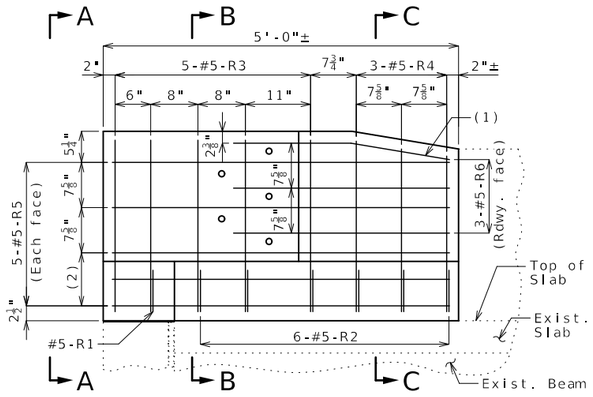
(1) Bend in field.

(2) 2 Spa. @ 4½"

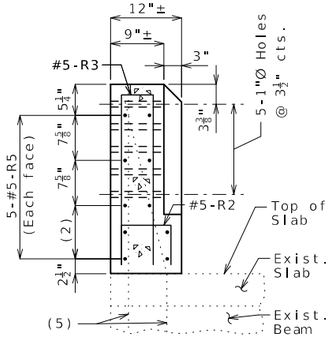
(3) Existing reinforcement not shown for clarity.

(4) Existing longitudinal reinforcement not shown for clarity.

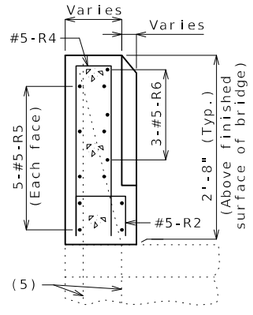
(5) Existing reinforcement embedded in beam (U.I.P.) (Bend in field as needed) (Typ.)



ELEVATION SHOWING REINFORCEMENT (3)



SECTION B-B (4)



SECTION C-C (4)

Notes:

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

All reinforcement in barrier end modification shall be epoxy coated.

Cost of removing existing barrier concrete, and cost of furnishing and installing new concrete, new reinforcing steel, and any other work incidental to the barrier end modification, complete in place, will be considered completely covered by the contract unit price for Barrier End Modification.

BARRIER MODIFICATION FOR GUARDRAIL ATTACHMENT

(Wearing surface not shown for clarity)

Detailed June 2024
Checked Aug. 2024

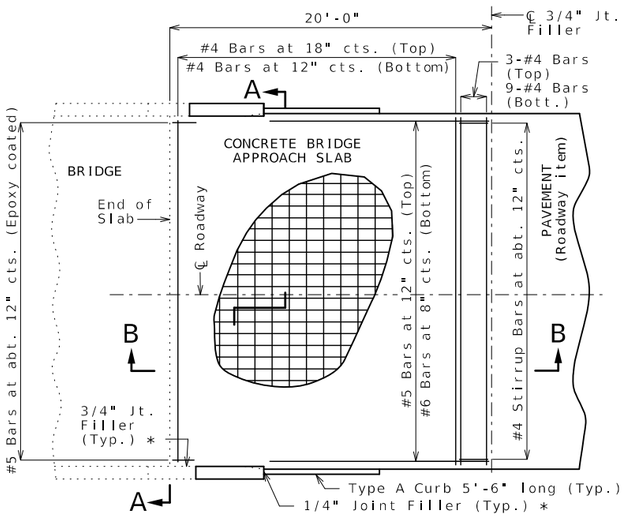
Note: This drawing is not to scale. Follow dimensions.

STATE OF MISSOURI
TIMOTHY D. LEAF
NUMBER PE-2012000778
PROFESSIONAL ENGINEER
10/09/2024 12:06:46 PM
TIMOTHY D. LEAF - CIVIL
MO-PE-2012000778

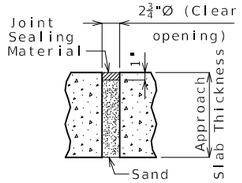
DATE PREPARED 10/9/2024
ROUTE 160 | STATE MO
DISTRICT BR | SHEET NO. 3
COUNTY DADE
JOB NO. JSR0053
CONTRACT ID.
PROJECT NO.
BRIDGE NO. A25412

DESCRIPTION | DATE

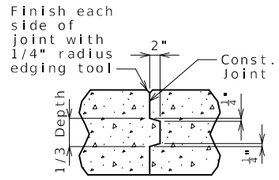
MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION
105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)



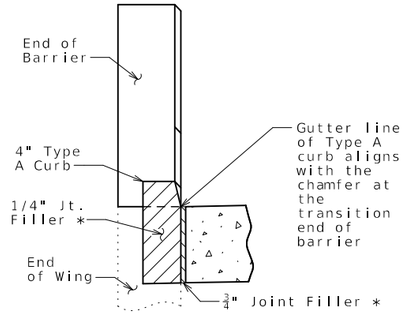
PART PLAN OF SQUARED STRUCTURE
(Skewed structure similar)



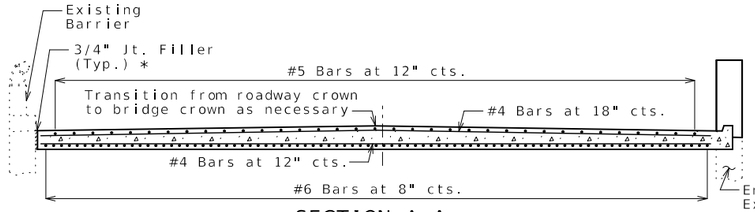
UNDERSEAL ACCESS HOLE DETAIL
(If required)



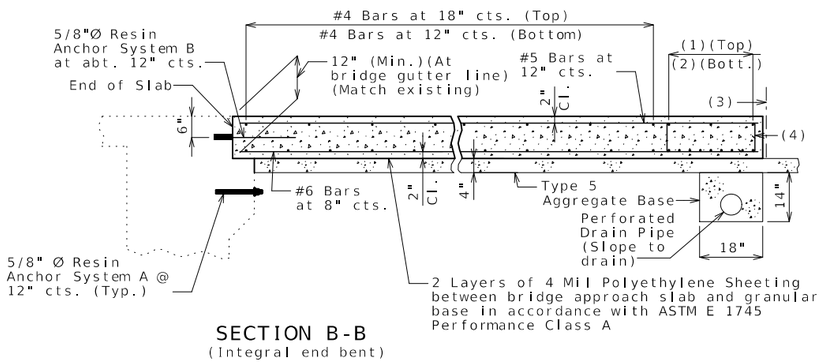
CONSTRUCTION JOINT DETAIL



SECTION BETWEEN BARRIER AND CURB



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.



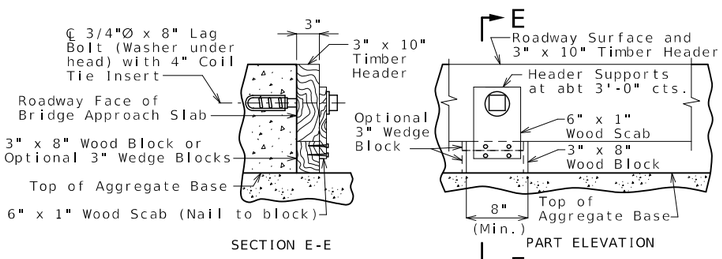
SECTION B-B
(Integral end bent)

(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.



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

CONCRETE SLAB

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 fy = 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.

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

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

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

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

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

STATE OF MISSOURI
TIMOTHY D. LEAF
NUMBER PE-2012000778
PROFESSIONAL ENGINEER
10/09/2024 12:07:04 PM
TIMOTHY D. LEAF - CIVIL
MO-PE-2012000778

DATE PREPARED
10/9/2024

ROUTE	STATE
160	MO
DISTRICT	SHEET NO.
BR	4

COUNTY
DADE

JOB NO.
JSR0053

CONTRACT ID.

PROJECT NO.

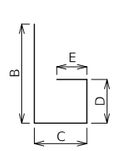
BRIDGE NO.
A25412

DATE	DESCRIPTION

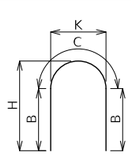
MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION
105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)

BRIDGE APPROACH SLAB (MINOR)

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



SHAPE 6
or 6S



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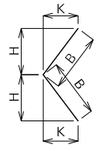

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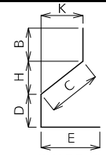

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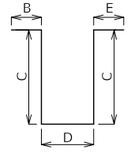

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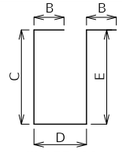

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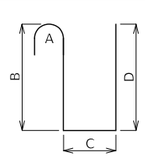

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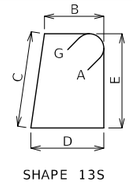

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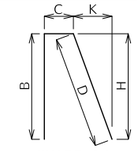

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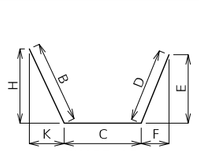

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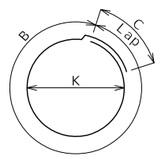

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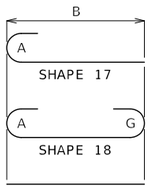
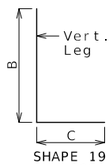


SHAPE 17
SHAPE 18
SHAPE 20



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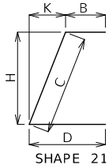

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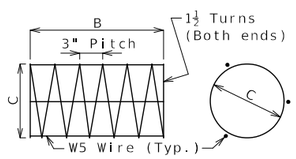

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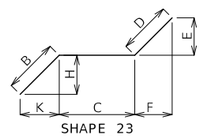

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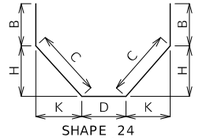

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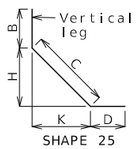

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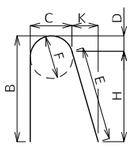

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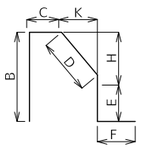

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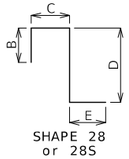

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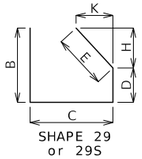

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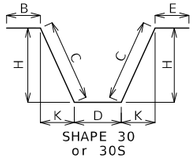

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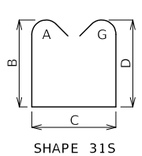

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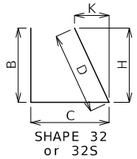

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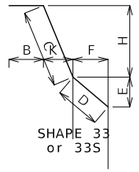

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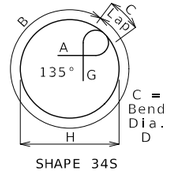
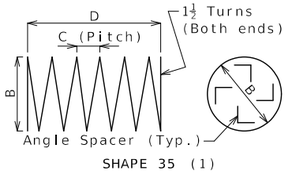
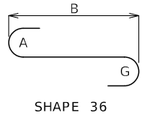


C = Bend Dia. D
SHAPE 34S



SHAPE 35 (1)



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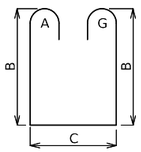
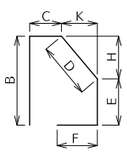


SHAPE 37S

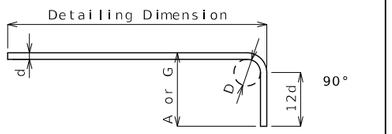


SHAPE 38S

Finished Bend Diameters D and Hook Dimensions

Standard Pin Bend Shapes

Size	Case	D	A or G		J
			90°	180°	180°
#4	1	3"	8"	6"	4"
#5	1	3¾"	10"	7"	5"
#6	1	4½"	12"	8¼"	6"
#7	2	5¼"	14"	9¾"	7"
	3	7"	15"	11½"	8¾"
#8	2	6"	16"	11"	8"
	3	8"	17"	13¼"	10"
#9	1	9½"	19½"	15½"	11¾"
#10	1	10¾"	22"	17½"	13¼"
#11	1	12"	24½"	19½"	14⅞"
#14	1	18¼"	31¼"	27½"	21⅝"
#18	1	24"	41½"	36¼"	28¼"

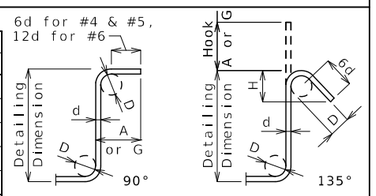


Stirrup Pin Bend Shapes (S)

Size	Case	D	A or G			H	J
			90°	135°	180°	135°	180°
#4	2	2"	4½"	4½"	5"	2⅞"	3"
	3	3"	5"	5¼"	6"	3"	4"
#5	2	2½"	5¾"	5¾"	5¾"	3⅝"	3¾"
	3	3¾"	6¼"	6½"	7"	3⅞"	5"
#6	1	4½"	12"	7¾"	8¼"	4⅝"	6"

Applicable for all grades of steel.

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



All dimensions are out to out.

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

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

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

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

BENDING DIAGRAMS

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.

Reinforcing Steel Totals (Pounds)

	Size	Substructure Plain	Substructure Epoxy	Superstructure Slab	Superstructure Barrier	Superstructure Slip Form	Entire Bridge Plain	Entire Bridge Epoxy
By Size	4	0	0	0	0	0	0	0
	5	0	0	0	453	0	0	453
	6	0	0	0	0	0	0	0
	7	0	0	0	0	0	0	0
	8	0	0	0	0	0	0	0
By Type		0	0	0	453	0	0	453

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

Bill of Reinforcing Steel

No. Req.	Size/ Mark	Location	Codes C	SH	V	Dimensions B ft in.	C ft in.	D ft in.	E ft in.	F ft in.	H ft in.	K ft in.	Nom. Length ft in.	Actual Length ft in.	Weight lb
		End Post Mod.													
4	5 R1	MODIFIED END	E	10S			7.00	8.00					1 10	1 7	7
24	5 R2	MODIFIED END	E	10S			7.00	9.00					1 11	1 8	42
20	5 R3	MODIFIED END	E	10S			2 5.00	6.00					5 4	5 1	106
12	5 R4	MODIFIED END	E	10S	4		2 4.75	7.00					5 5	5 2	
		Incr. = 2.000"					2 2.25	8.50					5 1	4 10	63
40	5 R5	MODIFIED END	E	20		4 9.00							4 9	4 9	198
12	5 R6	MODIFIED END	E	15S		11.25	2 1.50				1.25	11.25	3 1	2 11	37

STATE OF MISSOURI
TIMOTHY D. LEAF
NUMBER PE-2012000778
PROFESSIONAL ENGINEER
10/09/2024 12:07:23 PM
TIMOTHY D. LEAF - CIVIL
MO-PE-2012000778

DATE PREPARED 10/9/2024

ROUTE	STATE
160	MO
DISTRICT	SHEET NO.
BR	5

COUNTY DADE

JOB NO. JSR0053

CONTRACT ID.

PROJECT NO.

BRIDGE NO. A25412

DESCRIPTION

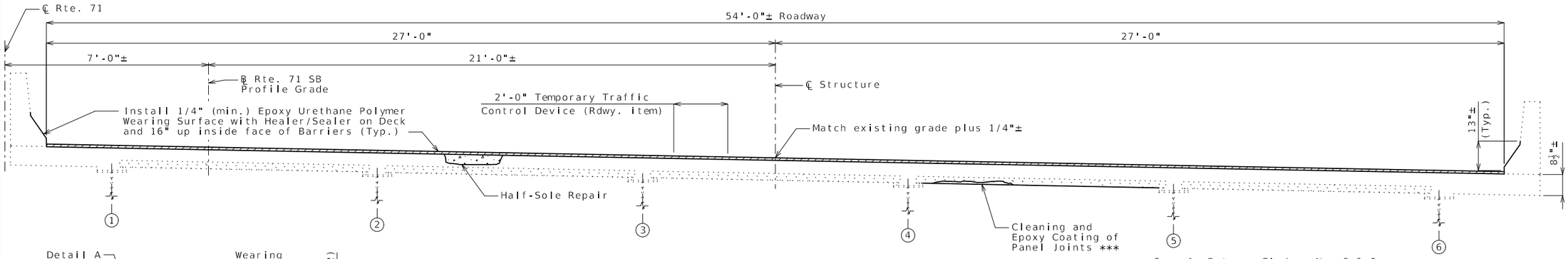
DATE

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

BENDING DIAGRAMS AND REINFORCING STEEL TOTALS

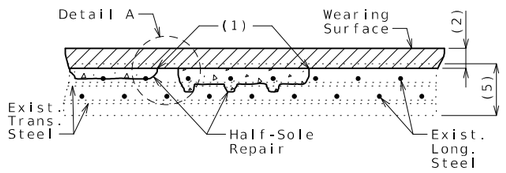
SEC/SUR 3 TWP 21N RGE 32W

U.I.P. AND REHABILITATE EXISTING (89'-110'-110'-89') CONTINUOUS COMPOSITE PLATE GIRDER SPANS

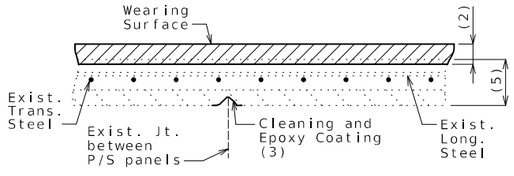


TYPICAL SECTION THRU EXISTING DECK

*** Span 1: Between Girders No. 5 & 6.
Span 2: Between Girders No. 4 & 6.
Span 3: Between Girders No. 1 & 5.
Span 4: Between Girders No. 3 & 5.



HALF-SOLE REPAIR



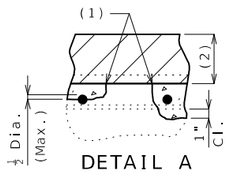
PRESTRESSED PANEL JOINT REPAIR
(TRANSVERSE SECTION SHOWN)

(1) 1" vertical side shall be established outside the deteriorated area.

(2) 1/4" minimum Epoxy-Urethane Polymer wearing surface with Healer Sealer.

(3) Remove all deteriorated concrete at transverse joint between prestressed panels and coat with epoxy.

(5) Original depth of deck.



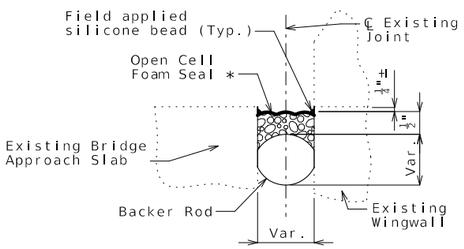
DETAIL A

Clearance around top bar and around bottom bar at the intersection of top bar shall be required when more than half the diameter of the top bar is exposed.

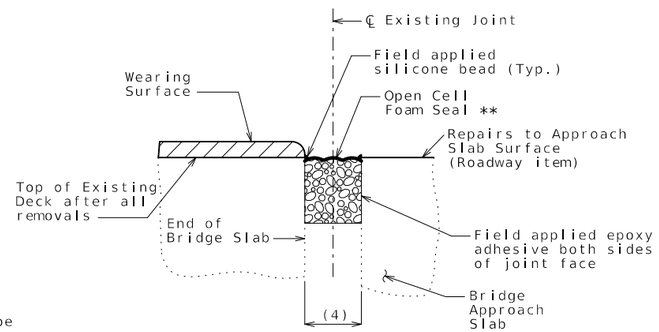
Estimated Quantities

	Item		Total
	Removal of Loose Concrete from Precast Panel Joints	lump sum	1
*	Epoxy Urethane Polymer Wearing Surface w/ Healer/Sealer	sq. yard	2,537
	Half-Sole Repair	sq. foot	300
	Cleaning and Epoxy Coating	sq. foot	300
	Open Cell Foam Joint Seal	linear foot	158

* Wearing surface area includes slab and 16" up along the roadway face of barriers (13" vertical height) from end of slab to end of slab. The contractor shall exercise care to ensure spillage over joint edge is prevented and that a neat line is obtained along any terminating edge of the wearing surface.



JOINT BETWEEN WINGWALL AND APPROACH SLAB



SECTION THRU JOINT AT END BENTS NO. 1 & 5

SKEW = 0°

** Manufacturer's recommended size

Open cell foam joint seal size (width and depth) shall be determined by the manufacturer.

The open cell foam joint seal shall be installed according to the manufacturer's recommendations.

The installation temperature shall be taken as the actual air temperature averaged over the 24-hour period immediately preceding installation.

(4) Allowed installation gap (±) normal to joint at roadway surface (see table)

	(4) Allowed Installation Gap (±) Normal to Joint at Roadway Surface at Air/Surface Temperature				Manufacturer	Seal Name
	@ 40°F	@ 50°F	@ 60°F	@ 70°F		
Wingwall/ Approach Slab	N/A	N/A	1.5"	N/A		
End Bent 1 Approach Slab	N/A	N/A	2.8"	N/A		
End Bent 5 Approach Slab	N/A	N/A	1.7"	N/A		

MoDOT construction personnel will record the manufacturer and seal name that was used.

General Notes:

Design Specifications:

2002 AASHTO LFD (17th Ed.) Standard Specifications
Bridge Deck Rating = 6

Design Loading:

HS20 Modified (2002 & New Construction)

Design Unit Stresses:

Class B-2 Concrete (Half-Sole Repair) f'c = 4,000 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.

Miscellaneous:

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

All concrete repairs shall be in accordance with Sec 704, unless otherwise noted.

Contractor shall verify all dimensions in field before ordering materials.

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

In order to maintain grade and a minimum thickness of wearing surface as shown on plans it may be necessary to use additional quantities of wearing surface at various locations throughout the structure. The cost of furnishing and installing the wearing surface will be considered completely covered in the contract unit price, including all additional labor, materials or equipment for variations in thickness of wearing surface.

Traffic Handling:

Traffic to be maintained on structure during construction. See roadway plans for traffic control.

REPAIRS TO BRIDGE: ROUTE I-49 SB OVER GOODIN HOLLOW CREEK AND GOODIN HALLOW COUNTY ROAD

ROUTE I-49 SB FROM ROUTE H TO ROUTE 71
ABOUT 0.7 MILE SOUTHEAST OF ROUTE H
BEGINNING STATION 711+52.00± (Match Existing)

STATE OF MISSOURI
TIMOTHY D. LEAF
NUMBER PE-2012000778
PROFESSIONAL ENGINEER
10/09/2024 12:05:37 PM
TIMOTHY.D.LEAF - CIVIL
MO-PE-2012000778

DATE PREPARED 10/9/2024
ROUTE I-49 | STATE MO
DISTRICT BR | SHEET NO. 1
COUNTY MCDONALD
JOB NO. JSR0053
CONTRACT ID.
PROJECT NO.
BRIDGE NO. A63791

DESCRIPTION | DATE

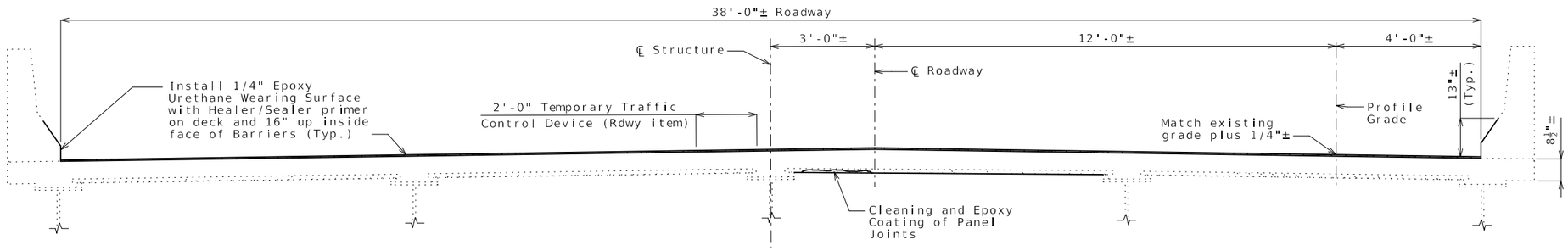
MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION
105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)

Detailed July 2024
Checked Aug. 2024

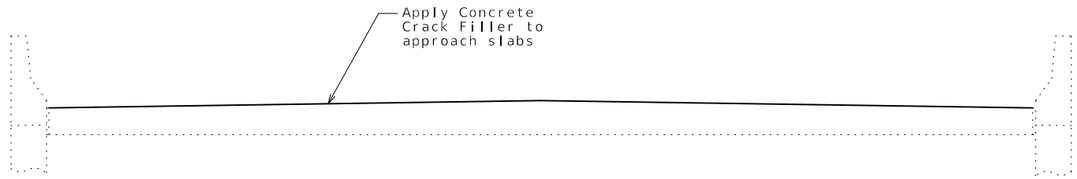
Note: This drawing is not to scale. Follow dimensions.

SEC/SUR 17 TWP 22N RGE 21W

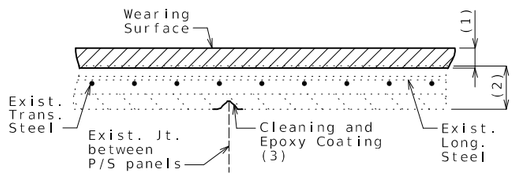
U.I.P. AND REHABILITATE EXISTING (92'-176'-92') CONTINUOUS COMPOSITE PLATE GIRDER SPANS



TYPICAL SECTION THRU EXISTING DECK



TYPICAL SECTION THRU EXISTING APPROACH SLAB



PRESTRESSED PANEL JOINT REPAIR
(TRANSVERSE SECTION SHOWN)

(1) 1/4" minimum Epoxy-Urethane Polymer wearing surface with Healer Sealer

(2) Original depth of deck

(3) Remove all deteriorated concrete at transverse joint between prestressed panels and coat with epoxy.

Estimated Quantities

	Item		Total
*	Removal of Loose Concrete from Precast Panel Joints	lump sum	1
*	Epoxy Urethane Polymer Wearing Surface w/ Healer/Sealer	sq. yard	1,638
	Concrete Crack Filler	sq. yard	211
	Cleaning and Epoxy Coating	sq. foot	150

* Wearing surface area includes slab and 16" up along the roadway face of barriers (13" vertical height) from end of slab to end of slab. The contractor shall exercise care to ensure spillage over joint edge is prevented and that a neat line is obtained along any terminating edge of the wearing surface.

General Notes:

Design Specifications:

2002 AASHTO LFD (17th Ed.) Standard Specifications
Bridge Deck Rating = 6

Design Loading:

HS20 Modified (2002 & New Construction)

Miscellaneous:

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

Lift sinking approach slabs at both ends of bridge (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 ordering materials.

In order to maintain grade and a minimum thickness of wearing surface as shown on plans it may be necessary to use additional quantities of wearing surface at various locations throughout the structure. The cost of furnishing and installing the wearing surface will be considered completely covered in the contract unit price, including all additional labor, materials or equipment for variations in thickness of wearing surface.

Traffic Handling:

Traffic to be maintained on structure during construction. See roadway plans for traffic control.

STATE OF MISSOURI
TIMOTHY D. LEAF
NUMBER PE-2012000778
PROFESSIONAL ENGINEER
10/09/2024 12:05:16 PM
TIMOTHY D. LEAF - CIVIL
MO-PE-2012000778

DATE PREPARED
10/9/2024

ROUTE	STATE
65	MO
DISTRICT	SHEET NO.
BR	1

COUNTY
TANEY

JOB NO.
JSR0053

CONTRACT ID.

PROJECT NO.

BRIDGE NO.
A69261

DESCRIPTION

DATE

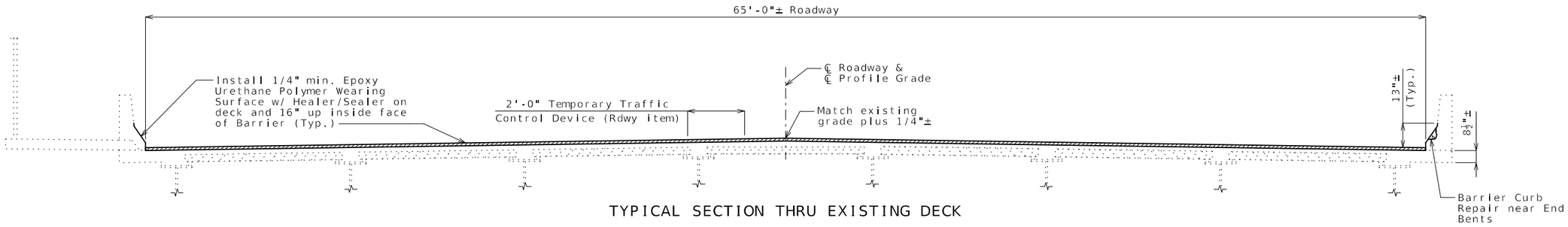
MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION
105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)

REPAIRS TO BRIDGE: ROUTE 65 NB OVER BUSINESS 65

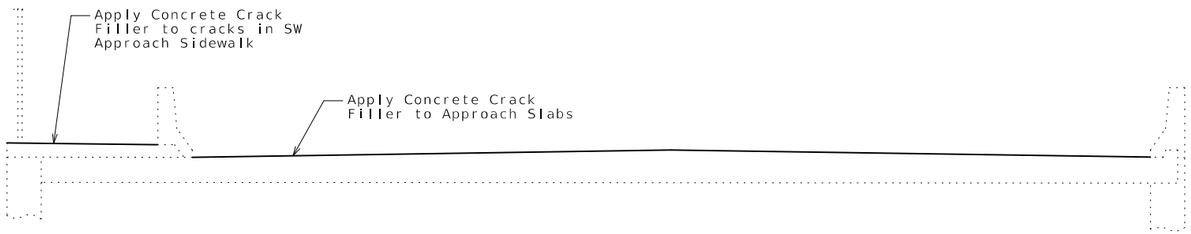
ROUTE 65 NB FROM ROUTE 265 TO ROUTE 76
ABOUT 2.6 MILES SOUTH OF ROUTE 76
BEGINNING STATION 761+47.75± (Match Existing)

U.I.P. AND REHABILITATE EXISTING (56'-120'-120'-56') CONTINUOUS COMPOSITE PLATE GIRDER SPANS (SKEW: 46°33'34" L.A.)

SEC/SUR 8 TWP 22N RGE 21W



TYPICAL SECTION THRU EXISTING DECK

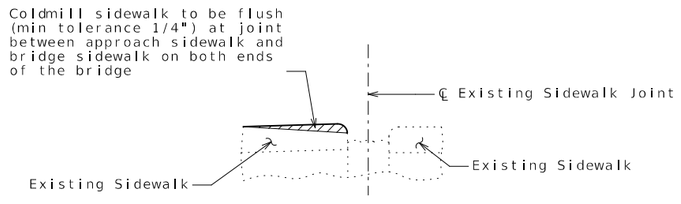


TYPICAL SECTION THRU EXISTING APPROACH SLAB

Estimated Quantities

	Item		Total
*	Epoxy Urethane Polymer Wearing Surface w/ Healer/Sealer	sq. yard	2,674
	Concrete Crack Filler	sq. yard	289
	Barrier Curb Repair	linear foot	20
	Coldmilling Concrete Pavement for Removal of Surface (Sidewalk)	lump sum	1

* Wearing surface area includes slab and 16" up along the roadway face of barriers (13" vertical height) from end of slab to end of slab. The contractor shall exercise care to ensure spillage over joint edge is prevented and that a neat line is obtained along any terminating edge of the wearing surface



SECTION THRU JOINT IN SIDEWALK PAVEMENT

On west side, coldmill the approach slab sidewalk adjacent to the bridge sidewalk.

On east side, coldmill the approach sidewalk adjacent to the roadway sidewalk.

Changes in level of 1/4 inch (6.4 mm) maximum shall be permitted to be vertical. Changes in level between 1/4 inch (6.4mm) and 1/2 inch (13 mm) shall be beveled with a slope not steeper than 1:2 (50.0%). Changes in level greater than 1/2 inch (13 mm) up to 6 inches shall have a 1:12 (8.3%) maximum slope. Changes in level greater than 6 inches (150 mm) shall comply with R407.

General Notes:

Design Specifications:

2002 AASHTO LFD (17th Ed.) Standard Specifications
Bridge Deck Rating = 7

Design Loading:

HS20-44 (2002 & New Construction)

Design Unit Stresses:

Class B-1 Concrete (Barrier Reparis) f'c = 4,000 psi

Miscellaneous:

All concrete repairs shall be in accordance with Sec 704, unless otherwise noted.

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, or ordering materials.

Cut 2" relief joint in approach pavement adjacent to approach slab and fill with open cell foam joint filler (Roadway item).

Mill back South West sidewalk to be ADA compliant.

In order to maintain grade and a minimum thickness of wearing surface as shown on plans it may be necessary to use additional quantities of wearing surface at various locations throughout the structure. The cost of furnishing and installing the wearing surface will be considered completely covered in the contract unit price, including all additional labor, materials or equipment for variations in thickness of wearing surface.

Traffic Handling:

Traffic to be maintained on structure during construction. See roadway plans for traffic control.

REPAIRS TO BRIDGE: BUSINESS ROUTE 65 OVER ROUTE 65

BUSINESS ROUTE 65 FROM ROUTE BB TO ROUTE 165
ABOUT 1.3 MILES SOUTH OF ROUTE BB
BEGINNING STATION 755+32.41± (Match Existing)

STATE OF MISSOURI
TIMOTHY D. LEAF
NUMBER PE-2012000778
PROFESSIONAL ENGINEER
10/09/2024 12:04:55 PM
TIMOTHY D LEAF - CIVIL
MO-PE-2012000778

DATE PREPARED 10/9/2024
ROUTE 65 | STATE MO
DISTRICT BR | SHEET NO. 1
COUNTY TANEY
JOB NO. JSR0053
CONTRACT ID.
PROJECT NO.
BRIDGE NO. A70021

DESCRIPTION | DATE

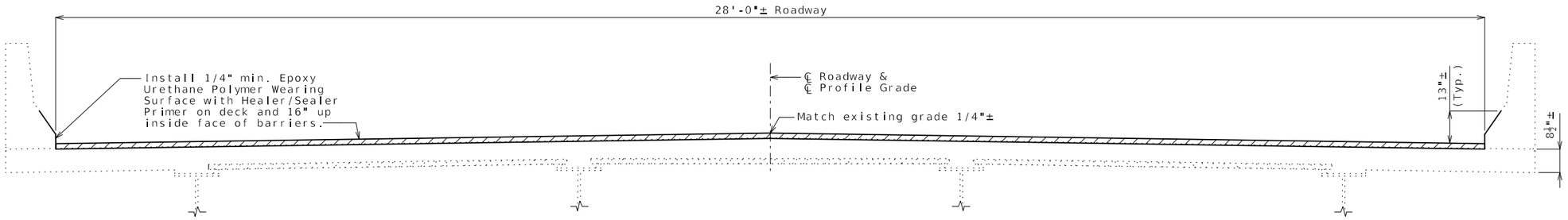
MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION
105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)

Detailed July 2024
Checked Aug. 2024

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

SEC/SUR 4 TWP 22N RGE 21W

U.I.P. AND REHABILITATE EXISTING (106'-106'-106') PRESTRESSED CONCRETE NU GIRDER SPANS (195'-195') CONTINUOUS COMPOSITE PLATE GIRDER SPANS (75') PRESTRESSED CONCRETE I-GIRDER SPAN (SKEW: VARIES)



TYPICAL SECTION THRU EXISTING DECK

Steel girders shown, prestressed girders similar.

Estimated Quantities

	Item		Total
*	Epoxy Urethane Polymer Wearing Surface w/ Healer/Sealer	sq. yard	2,680

* Wearing surface area includes slab and 16" up along the roadway face of barriers (13" vertical height) from end of slab to end of slab. The contractor shall exercise care to ensure spillage over joint edge is prevented and that a neat line is obtained along any terminating edge of the wearing surface.

General Notes:

Design Specifications:

2020 AASHTO LFRD Bridge Design Specifications (9th Ed.)
Bridge Deck Rating = 7

Design Loading:

HL-93 (2007 AASHTO LRFD 4th Edition and 2008 Interims)

Miscellaneous:

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

All concrete repairs shall be in accordance with Sec 704, unless otherwise noted.

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

Traffic Handling:

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

REPAIRS TO BRIDGE: BRANSON LANDING BLVD OVER WHITE RIVER

BRANSON LANDING BLVD FROM ROUTE 65 TO ROUTE 76/ BUISINESS 65
ABOUT 1.6 MILES SOUTHEAST OF ROUTE 65
BEGINNING STATION 651+90.25± (Match Existing)

STATE OF MISSOURI
TIMOTHY D. LEAF
NUMBER PE-2012000778
PROFESSIONAL ENGINEER
10/09/2024 12:04:17 PM
TIMOTHY D LEAF - CIVIL
MO-PE-2012000778

DATE PREPARED
10/9/2024

ROUTE	STATE
76	MO
DISTRICT	SHEET NO.
BR	1

COUNTY
TANEY

JOB NO.
JSR0053

CONTRACT ID.

PROJECT NO.

BRIDGE NO.
A76851

DESCRIPTION	DATE

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

Detailed July 2024
Checked Aug. 2024

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

DESIGN DESIGNATION

A.A.D.T. - 2023 = 13631
T = 1.7%
V = 35 M.P.H.

FUNCTIONAL CLASSIFICATION - MINOR ARTERIAL

NO NEW R/W REQUIRED

CONVENTIONAL SYMBOLS
(USED IN PLANS)

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

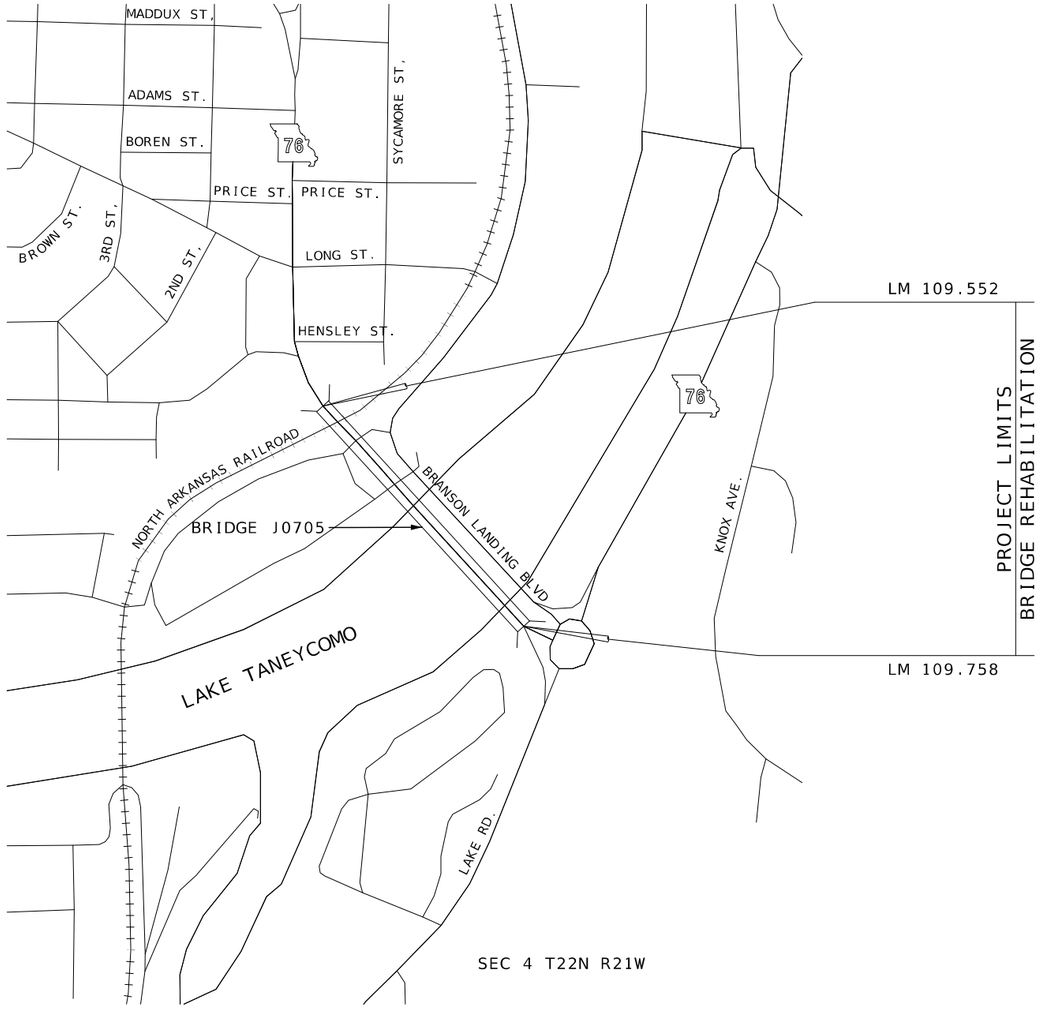
NOTE: DASHED OR OPEN SYMBOLS INDICATE EXISTING FEATURES

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

PLANS FOR PROPOSED STATE HIGHWAY

TANEY COUNTY

KEY MAP
LOCATION OF TANEY COUNTY



NOT TO SCALE

SEC 4 T22N R21W

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

LENGTH OF PROJECT

BEGINNING OF PROJECT	LM 109.552
END OF PROJECT	LM 109.758
APPARENT LENGTH	1087.68 FEET
EQUATIONS AND EXCEPTIONS:	
TOTAL CORRECTIONS	0 FEET
NET LENGTH OF PROJECT	1087.68 FEET
STATE LENGTH	0.206 MILES
FOR INFORMATION ONLY ESTIMATED DISTURBED ACRES	0 ACRES

STATE OF MISSOURI
KARA JEAN RICHART
NUMBER PE-2023037997
PROFESSIONAL ENGINEER
Kara J. Richart
KARA JEAN RICHART - CIVIL
MO-PE-2023037997

DATE PREPARED
9/26/2024

ROUTE	STATE
76	MO
DISTRICT	SHEET NO.
SW	1

COUNTY
TANEY

JOB NO.
JSR0053D

CONTRACT ID.

PROJECT NO.

BRIDGE NO.

DESCRIPTION	DATE

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

PAVEMENT MARKING REMOVAL						
ROUTE	LOG MILE	TO	LOG MILE	LOCATION	PAINT LF	REMARKS
MO 76	109.552	-	109.758	RT & LT	4360.0	BRIDGE J0705
				TOTAL	4360	

PAVEMENT MARKING							
					WATERBORNE PAINT, TYPE P BEADS		
ROUTE	LOG MILE	TO	LOG MILE	LOCATION	4" SOLID WHITE LF	4" SOLID YELLOW LF	REMARKS
76	109.552	-	109.758	RT & LT	2180.0	2180.0	BRIDGE J0705
				TOTALS	2180	2180	

CONTRACTOR FURNISHED SURVEYING AND STAKING
1 LUMP SUM

MOBILIZATION
1 LUMP SUM

SUMMARY OF QUANTITIES
SHEET 1 OF 2

STATE OF MISSOURI
KARA JEAN RICHART
NUMBER PE-2023037997
PROFESSIONAL ENGINEER
Kara J. Richart
KARA JEAN RICHART - CIVIL
MO-PE-2023037997

DATE PREPARED
9/26/2024

ROUTE	STATE
76	MO
DISTRICT	SHEET NO.
SW	3

COUNTY
TANEY

JOB NO.
JSR0053D

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)

EFFECTIVE: 07-01-2024

SIGN	SIZE IN.	AREA SQ.FT.	QTY EACH	TOTAL AREA SQ.FT.	QTY RELOC EACH	TOTAL RELOC SQ.FT.	SIGN NUM.	DESCRIPTION
WARNING SIGNS								
WO1-1L	48X48	16.00						TURN (SYMBOL LEFT)
WO1-1R	48X48	16.00						TURN (SYMBOL RIGHT)
WO1-2L	48X48	16.00						CURVE (SYMBOL LEFT)
WO1-2R	48X48	16.00						CURVE (SYMBOL RIGHT)
WO1-3L	48X48	16.00						REVERSE TURN (SYMBOL LEFT)
WO1-3R	48X48	16.00						REVERSE TURN (SYMBOL RIGHT)
WO1-4L	48X48	16.00						REVERSE CURVE (SYMBOL LEFT)
WO1-4R	48X48	16.00						REVERSE CURVE (SYMBOL RIGHT)
WO1-4bL	48X48	16.00						DOUBLE ARROW REVERSE CURVE (SYMBOL LEFT)
WO1-4bR	48X48	16.00						DOUBLE ARROW REVERSE CURVE (SYMBOL RIGHT)
WO1-4cL	48X48	16.00						TRIPLE ARROW REVERSE CURVE (SYMBOL LEFT)
WO1-4cR	48X48	16.00						TRIPLE ARROW REVERSE CURVE (SYMBOL RIGHT)
WO1-6	60X30	12.50						HORIZONTAL ARROW (SYMBOL)
WO1-6a	72X36	18.00						HORIZ. ARROW (SYMBOL ON PERMANENT BARRICADE)
WO1-7	60X30	12.50						DOUBLE HEAD HORIZONTAL ARROW (SYMBOL)
WO1-7a	72X36	18.00						DOUBLE HEAD HORIZ. ARROW (SYMBOL ON PERM. BARR.)
WO1-8	18X24	3.00						CHEVRON (SYMBOL)
WO1-8a	30X36	7.50						CHEVRON (SYMBOL FOR DIVIDED HIGHWAYS)
WO3-1	48X48	16.00						STOP AHEAD (SYMBOL)
WO3-2	48X48	16.00						YIELD AHEAD (SYMBOL)
WO3-3	48X48	16.00						SIGNAL AHEAD (SYMBOL)
WO3-4	48X48	16.00						BE PREPARED TO STOP
WO3-5	48X48	16.00						SPEED LIMIT AHEAD
WO4-1L	48X48	16.00						MERGE (SYMBOL FROM LEFT)
WO4-1R	48X48	16.00						MERGE (SYMBOL FROM RIGHT)
WO4-1aL	48X48	16.00						MERGE (LEFT)
WO4-1aR	48X48	16.00						MERGE (RIGHT)
WO5-1	48X48	16.00						ROAD/BRIDGE/RAMP NARROWS
WO5-3	48X48	16.00						ONE LANE BRIDGE
WO5-5	48X48	16.00						NARROW LANES
WO6-1	48X48	16.00						DIVIDED HIGHWAY (SYMBOL)
WO6-2	48X48	16.00						DIVIDED HIGHWAY END (SYMBOL)
WO6-3	48X48	16.00						TWO WAY TRAFFIC (SYMBOL)
WO7-3a	30X24	5.00						NEXT XX MILES (PLAQUE)
WO8-1	48X48	16.00						BUMP
WO8-2	48X48	16.00						DIP
WO8-3	48X48	16.00						PAVEMENT ENDS
WO8-4	48X48	16.00						SOFT SHOULDER
WO8-5	48X48	16.00						SLIPPERY WHEN WET (SYMBOL)
WO8-6	48X48	16.00						TRUCK CROSSING
WO8-6c	48X48	16.00						TRUCK ENTRANCE
WO8-7	36X36	9.00						LOOSE GRAVEL
WO8-7a	36X36	9.00						FRESH OIL / LOOSE GRAVEL
WO8-9	48X48	16.00						LOW SHOULDER
WO8-11	48X48	16.00						UNEVEN LANES
WO8-12	48X48	16.00						NO CENTER LINE
WO8-15	48X48	16.00						GROOVED PAVEMENT
WO8-15P	30X24	5.00						MOTORCYCLE (PLAQUE)
WO8-17L	48X48	16.00						SHOULDER DROP-OFF (SYMBOL LEFT)
WO8-17R	48X48	16.00						SHOULDER DROP-OFF (SYMBOL RIGHT)
WO8-17P	30X24	5.00						SHOULDER DROP-OFF (PLAQUE)
W10-1	42RND.	9.62						RAILROAD CROSSING
WO12-1	24X24	4.00						DOUBLE DOWN ARROW (SYMBOL)
WO12-2	48X48	16.00						LOW CLEARANCE (SYMBOL)
WO12-2x	24X18	3.00						LOW CLEARANCE (PLAQUE)
WO12-2a	84X24	14.00						OVERHEAD LOW CLEARANCE (FEET AND INCHES)
WO12-4	120X60	50.00						LOW CLEARANCE XX FT XX IN XX MILES AHEAD
WO12-5	120X60	50.00						WIDTH RESTRICTION XX FT XX IN XX MILES AHEAD
WO13-1	30X30	6.25						ADVISORY SPEED (PLAQUE)
WO16-2	30X24	5.00						XXX FEET (PLAQUE)
WO16-3	30X24	5.00						X MILE (PLAQUE)
WO20-1	48X48	16.00	4	64				ROAD/BRIDGE/RAMP WORK AHEAD
WO20-2	48X48	16.00	3	48				DETOUR AHEAD
WO20-3	48X48	16.00	4	64				ROAD CLOSED AHEAD
WO20-4	48X48	16.00						ONE LANE ROAD AHEAD
WO20-5	48X48	16.00						RIGHT/CENTER/LEFT LANE CLOSED AHEAD
WO20-5a	48X48	16.00						2 RIGHT/CENTER/LEFT LANES CLOSED AHEAD
WO20-6a	48X48	16.00						RIGHT/CENTER/LEFT LANE CLOSED
WO20-7a	48X48	16.00						FLAGGER (SYMBOL)
WO21-2	36X36	9.00						FRESH OIL
WO21-5	48X48	16.00						SHOULDER WORK / SHOULDER WORK AHEAD
WO22-1	48X48	16.00						BLASTING ZONE AHEAD
WO22-2	42X36	10.50						TURN OFF 2-WAY RADIO AND PHONE
WO22-3	42X36	10.50						END BLASTING ZONE
GO22-1	21X15	2.19						WET PAINT (ARROW PIVOTS)

SIGN	SIZE IN.	AREA SQ.FT.	QTY EACH	TOTAL SQ.FT.	QTY RELOC EACH	TOTAL RELOC SQ.FT.	SIGN NUM.	DESCRIPTION
GUIDE SIGNS								
E05-1	36X48	12.00						GORE EXIT
E05-2	48X36	12.00						EXIT OPEN
E05-2a	48X36	12.00						EXIT CLOSED
GO20-1	60X24	10.00	2	20				ROAD WORK NEXT XX MILES
GO20-2	48X24	8.00	2	16				END ROAD WORK
GO20-4	36X18	4.50						PILOT CAR FOLLOW ME
GO20-4a	42X30	8.75						PILOT CAR IN USE WAIT & FOLLOW
GO20-4a	18X12	1.50						PILOT CAR IN USE WAIT & FOLLOW
GO20-5aP	36X24	6.00						WORK ZONE (PLAQUE)
MO4-8a	24X18	3.00	2	6				END DETOUR
MO4-9L	48X36	12.00						DETOUR (LEFT)
MO4-9R	48X36	12.00						DETOUR (RIGHT)
MO4-9P	48X12	4.00						STREET NAME (PLAQUE)
MO4-10L	48X18	6.00						DETOUR ARROW (LEFT)
MO4-10R	48X18	6.00						DETOUR ARROW (RIGHT)
REGULATORY SIGNS								
R1-1	48X48	13.25						STOP
R1-2	48TRI.	6.93						YIELD
R1-2a	36X36	9.00						TO ONCOMING TRAFFIC (PLAQUE)
R1-3P	30X12	2.50						ALL WAY (PLAQUE)
R2-1	36X48	12.00						SPEED LIMIT XX
R3-1	48X48	16.00						NO RIGHT TURN (SYMBOL)
R3-2	48X48	16.00						NO LEFT TURN (SYMBOL)
R3-3	36X36	9.00						NO TURNS
R3-4	48X48	16.00						NO U-TURN (SYMBOL)
R3-7L	30X30	6.25						LEFT LANE MUST TURN LEFT
R3-7R	30X30	6.25						RIGHT LANE MUST TURN RIGHT
R4-1	36X48	12.00						DO NOT PASS
R4-2	36X48	12.00						PASS WITH CARE
R4-7a	36X48	12.00						KEEP RIGHT (HORIZONTAL ARROW)
R4-8a	36X48	12.00						KEEP LEFT (HORIZONTAL ARROW)
R5-1	30X30	6.25						DO NOT ENTER
R5-1a	36X24	6.00						WRONG WAY
R6-1L	54X18	6.75						ONE WAY ARROW (LEFT)
R6-1R	54X18	6.75						ONE WAY ARROW (RIGHT)
R6-2L	24X30	5.00						ONE WAY (LEFT)
R6-2R	24X30	5.00						ONE WAY (RIGHT)
R9-9	24X12	2.00	2	4				SIDEWALK CLOSED
R9-11L	24X18	3.00						SIDEWALK CLOSED AHEAD, (ARROW LEFT) CROSS HERE
R9-11R	24X18	3.00						SIDEWALK CLOSED AHEAD, (ARROW RIGHT) CROSS HERE
R10-6	24X36	6.00						STOP HERE ON RED (45^ ARROW)
R11-2	48X30	10.00	2	20				ROAD CLOSED
R11-3a	60X30	12.50	2	25				ROAD CLOSED 0.5 MILES AHEAD LOCAL TRAFFIC ONLY
R11-4	60X30	12.50	1	12.5				ROAD CLOSED TO THRU TRAFFIC
CONST-3A	60X48	20.00						FINE SIGN
CONST-3X	56X12	4.67						SPEEDING/PASSING (PLATE)
MISCELLANEOUS SIGNS								
CONST-5	48X36	12.00						POINT OF PRESENCE
CONST-5	96X48	32.00						POINT OF PRESENCE
CONST-8	48X36	12.00	2	24				WORK ZONE NO PHONE ZONE
M4-11	36x78	19.50	22	429				STACKED DETOUR SIGN
M04-13	96X48	32.00	1	12				76 CLOSED 1.5 MILES AHEAD
M04-13	96X48	32.00	1	32				76 CLOSED 3 MILES AHEAD

616-10.05 CONSTRUCTION SIGNS	TOTAL
	777

616-10.10 RELOCATED SIGNS	TOTAL
	0

ITEM NUMBER	TOTAL QTY	DESCRIPTION
6122008		IMPACT ATTENUATOR 40 MPH (SAND BARRELS)
6122009		IMPACT ATTENUATOR 45 MPH (SAND BARRELS)
6122010		IMPACT ATTENUATOR 50 MPH (SAND BARRELS)
6122012		IMPACT ATTENUATOR 55 MPH (SAND BARRELS)
6122014		IMPACT ATTENUATOR 60 MPH (SAND BARRELS)
6122017		IMPACT ATTENUATOR 65 MPH (SAND BARRELS)
6122019		IMPACT ATTENUATOR 70 MPH (SAND BARRELS)
6122020		REPLACEMENT SAND BARREL
6122030		IMPACT ATTENUATOR (RELOCATION)
6123001		TRUCK MOUNTED ATTENUATOR (TMA)
6161008		ADVANCED WARNING RAIL SYSTEM
6161012		BUOYS (BOATS KEEP OUT)
6161013		BUOYS (NO WAKE)
6161014		SPECIAL SIGN ASSEMBLY (BOATS KEEP OUT)
6161025		CHANNELIZER (TRIM LINE)
6161030	16	TYPE III MOVEABLE BARRICADE
6161033		DIRECTION INDICATOR BARRICADE
6161040		FLASHING ARROW PANEL
6161047		TYPE III OBJECT MARKER
6161055		SEQUENTIAL FLASHING WARNING LIGHT
6161070		TUBULAR MARKER
6161095		RADAR SPEED ADVISORY SYSTEM
6161096		CHANGEABLE MESSAGE SIGN, COMMISSION FURNISHED/RETAINED
6161098A		CHANGEABLE MESSAGE SIGN W/O COMM. INTERFACE - CONTRACTOR FURNISHED/RETAINED
6161099	6	CHANGEABLE MESSAGE SIGN WITH COMM. INTERFACE - CONTRACTOR FURNISHED/RETAINED
6162000A		WORK ZONE TRAFFIC SIGNAL SYSTEM
6162002		TEMPORARY LONG-TERM RUMBLE STRIPS
6173600D	70	TEMPORARY TRAFFIC BARRIER CONTRACTOR FURNISHED/RETAINED
6173602B		TEMPORARY TRAFFIC BARRIER CONTRACTOR FURNISHED/COMMISSION RETAINED
6174000A		TEMP. TRAFFIC BARRIER HEIGHT TRANSITION
6175010A		RELOCATING TEMPORARY TRAFFIC BARRIER
6176000B		TEMPORARY TRAFFIC BARRIER COMMISSION FURNISHED/RETAINED
6177000B		TEMP. TRAFFIC BARRIER HEIGHT TRANSITION COMMISSION FURNISHED/RETAINED
6208064A		TEMPORARY RAISED PAVEMENT MARKER
9029400		TEMPORARY TRAFFIC SIGNALS
9029401		TEMPORARY TRAFFIC SIGNALS AND LIGHTING
6169902	2	ADA COMPLIANT MOVEABLE BARRICADE

SUMMARY OF QUANTITIES
SHEET 2 OF 2

KARA JEAN RICHART NUMBER PE-2023037997 PROFESSIONAL ENGINEER
Kara J. Richart
DIGITALLY SIGNED BY KARA JEAN RICHART - CIVIL MO-PE-2023037997

DATE PREPARED: 9/26/2024
ROUTE: 76 | STATE: MO
DISTRICT: SW | SHEET NO.: 3
COUNTY: TANEY
JOB NO.: JSR0053D
CONTRACT ID.:
PROJECT NO.:
BRIDGE NO.:

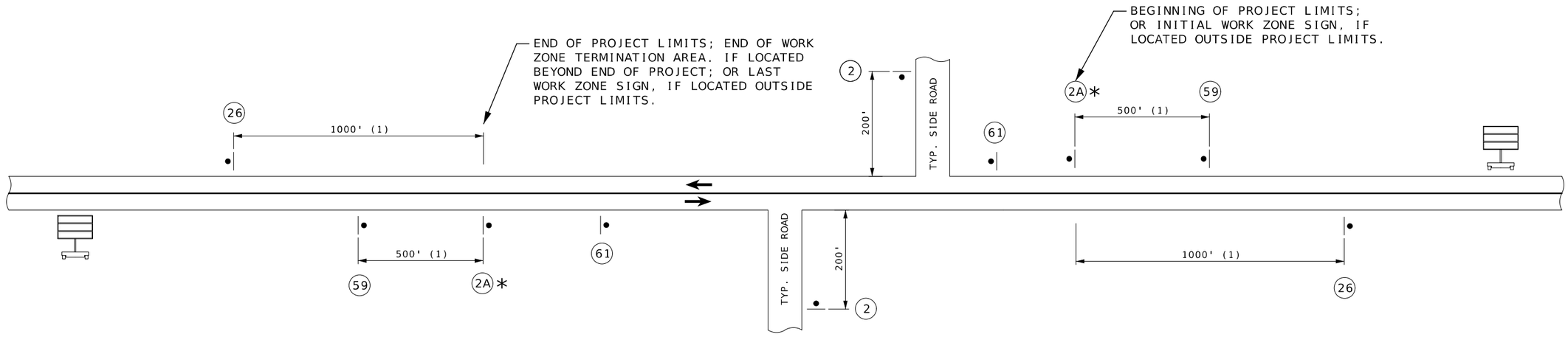
DESCRIPTION | DATE

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

REVISED: 4/10/2024

GENERAL NOTES:

1. ANY EXISTING SIGNS THAT CONFLICT WITH THE TRAFFIC CONTROL SIGNING SHALL BE COMPLETELY COVERED OR REMOVED.
2. TEMPORARY SIGNING SHOWN IS FOR WORK ON ONE SIDE OF THE ROAD. FOR WORK ON THE OTHER SIDE, REVERSE ORDER OF THE SIGNS AND CHANNELIZERS.
3. SIGNING SHOWN SHALL REMAIN IN PLACE UNTIL CONSTRUCTION IS COMPLETE.
4. ALTERNATE TRAFFIC CONTROL MAY BE USED AS NEEDED AT THE APPROVAL OF THE ENGINEER.
5. REFER TO STANDARD DRAWING 616.10, 619.10, AND 620.10 FOR ADDITIONAL DETAILS AND 903.03 FOR SIGN AND SIGN MOUNTING REQUIREMENTS.
6. SPEED LIMIT SIGNS INDICATING THE NORMAL SPEED LIMIT SHALL BE INSTALLED AT THE END OF THE WORK ZONE, PROVIDED NO FURTHER WORK ZONES WILL BE ENCOUNTERED WITHIN THE NEXT 1/2 MILE.
7. TEMPORARY SPEED LIMIT SIGNS SHALL BE COVERED OR REMOVED WHEN THE CONDITIONS REQUIRING REDUCED SPEEDS DO NOT EXIST.
8. NO DIRECT PAYMENT WILL BE MADE FOR THE RELOCATION OF CHANNELIZERS, CONSTRUCTION SIGNS, OR FLASHING ARROW PANEL.
9. ALL SIGNS SHALL BE PORTABLE MOUNT AND ARE TO BE MOVED AS WORK PROGRESSES, UNLESS OTHERWISE NOTED. ALL TRAFFIC CONTROL ITEMS SHALL BE REMOVED FROM THE ROADWAY DURING NON-WORKING HOURS.
10. THE CONTRACTOR SHALL BE RESPONSIBLE FOR IMPLEMENTING AND MAINTAINING PROPER TRAFFIC CONTROL SETUPS THROUGHOUT CONSTRUCTION AS DESCRIBED IN THESE PLANS OR AS APPROVED BY THE ENGINEER.
11. WHERE MINIMUM LANE WIDTHS CANNOT BE ACHIEVED ON THE SIDE STREETS, THE CONTRACTOR SHALL CLOSE HALF OF THE APPROACH AND POSITION A FLAGGER AT EACH END OF THE WORK AREA. LOCATION TO BE DETERMINED BY THE ENGINEER. ADVANCE FLAGGER SIGNING SHALL BE INSTALLED AS OUTLINED IN THE MUTCD.
12. THE CONTRACTOR SHALL MAINTAIN PUBLIC ACCESS TO ALL BUSINESSES AND STREETS. NO STREET OR ENTRANCE SHALL BE COMPLETELY BLOCKED.
13. SPACING & DISTANCES OF TRAFFIC CONTROL DEVICES ARE APPROXIMATE. THE EXACT LOCATIONS SHALL BE DETERMINED IN THE FIELD & APPROVED BY THE ENGINEER.
14. TRAFFIC CONTROL SHALL CONFORM TO THE LATEST EDITION OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD).
15. ADJUST ADVANCE WARNING SIGN SPACING TO AVOID SIGN PLACEMENT WITHIN THE LIMITS OF THE RAILROAD RIGHT OF WAY.



TYPICAL BEGINNING AND END OF PROJECT

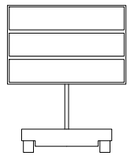
(UNDIVIDED HIGHWAY)

(1) DISTANCE MAY BE ADJUSTED ACCORDING TO FIELD CONDITIONS. WHERE TRAFFIC BACKUPS ARE EXPECTED BEYOND THE ADVANCE WARNING AREA, ADDITIONAL SIGNING MAY BE NEEDED.

(2) 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 IS NOT AVAILABLE, THE SIGN MAY BE PLACED 500 FEET BEFORE SIGN CONST-7-72.

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

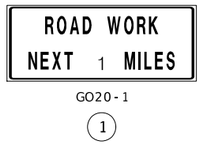
(4) CMS PLACEMENT SHALL BE APPROVED BY THE ENGINEER.



(4)

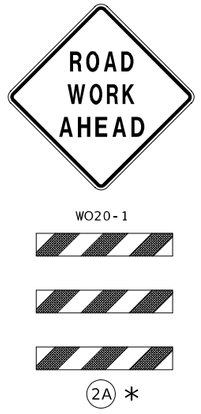
CONST-8

59 (3)



GO20-1

1



WO20-1

2A *

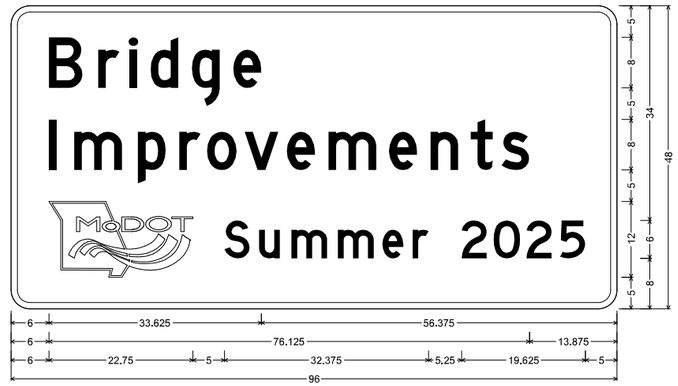
GO20-2

26

WO20-1

2

* SIGN 2A WITH AWRS MUST BE GROUND OR SKID MOUNTED.



CONST-5-96 SH-FLAT SHEET:
3.000" Radius, 1.000" Border, White on, Blue:
"Bridge", D; "Improvements", D; "Summer 2025", D 90% spacing;
Table of letter and object lefts

B 6.000	r 13.750	l 18.750	d 22.125	g 28.625	e 35.250							
l 6.000	m 10.000	p 20.125	r 26.625	o 31.000	v 37.000	e 43.750	m 50.250	e 59.875	n 66.500	t 72.875	s 77.625	
▬ 6.000	S 33.750	u 39.250	m 44.375	m 51.750	e 58.875	r 63.625	2 71.375	0 76.500	2 81.625	5 87.000		

61

NOT TO SCALE

TRAFFIC CONTROL SHEET 1 OF 5

STATE OF MISSOURI
KARA JEAN RICHART
NUMBER PE-2023037997
PROFESSIONAL ENGINEER
Kara J. Richart
10/15/2024 12:20:39 PM
KARA JEAN RICHART - CIVIL
MO-PE-2023037997

DATE PREPARED
10/15/2024

ROUTE	STATE
76	MO
DISTRICT	SHEET NO.
SW	4

COUNTY
TANEY

JOB NO.
JSR0053D

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)

WO20-3

20A

WO20-3

20

WO20-2

18

MO4-8a

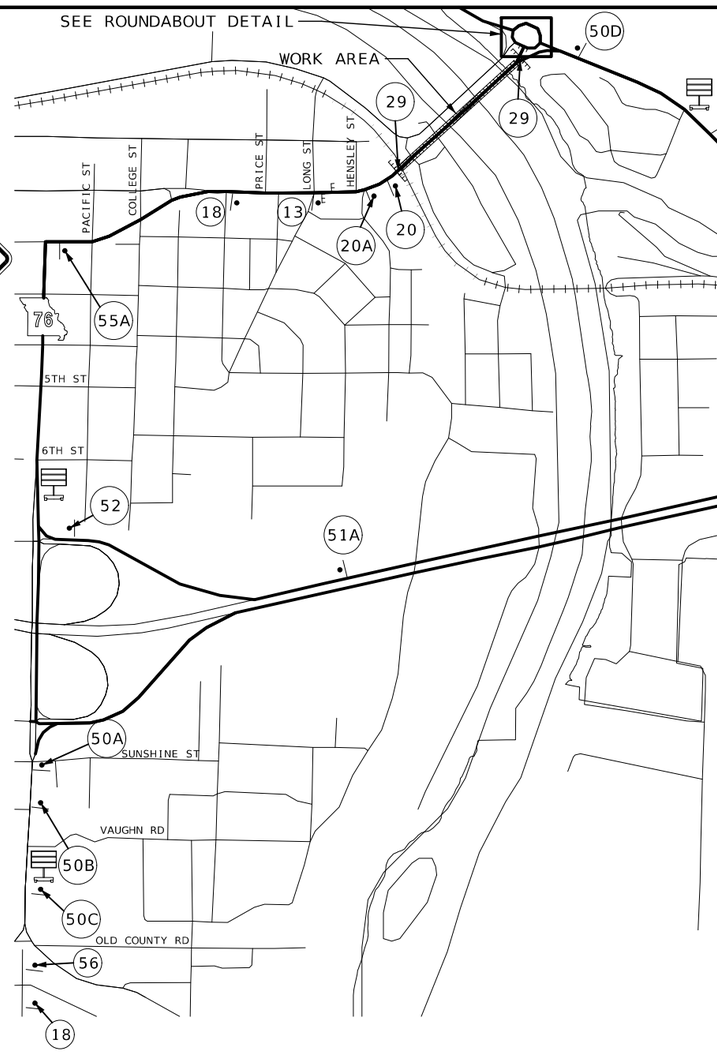
52

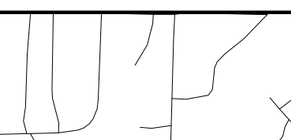
R11-4

13

R11-3a

55A



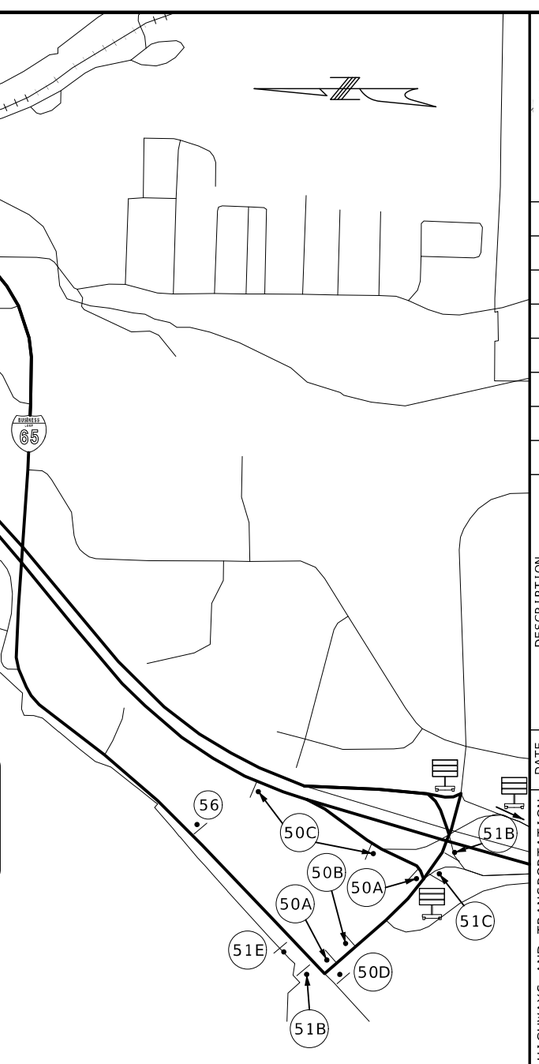


SPECIAL

56

SPECIAL

56

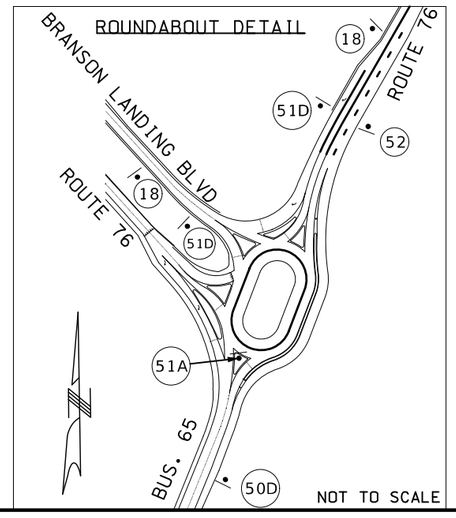


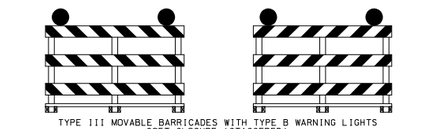
R11-2

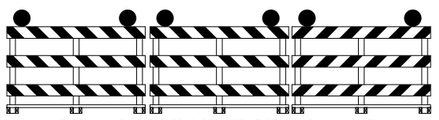
29

NOTES:

CONFLICTING SIGNS SHALL BE COVERED







TYPE III MOVABLE BARRICADE WITH TYPE B WARNING LIGHTS

CHANGEABLE MESSAGE BOARD

NOT TO SCALE

TRAFFIC CONTROL
SHEET 2 OF 5

STATE OF MISSOURI
KARA JEAN RICHART
NUMBER PE-2023037997
PROFESSIONAL ENGINEER

Kara J. Richart

DIGITALLY SIGNED 12:10:39 PM
KARA JEAN RICHART - CIVIL
MO-PE-2023037997

DATE PREPARED
9/26/2024

ROUTE	STATE
76	MO
DISTRICT	SHEET NO.
SW	5

COUNTY
TANEY

JOB NO.
JSR0053D

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)

MoDOT

TYPICAL CLOSURE OF EXISTING BRIDGES OR NON-TRAVERSABLE ROADS

SPEED	SIGN SPACING (FT.)		TAPER LENGTH (FT.)		OPTIONAL	CHANNELIZER SPACING (FT.)	
NORMAL POSTED (MPH)	UNDIVIDED (S)	DIVIDED (S)	SHOULDER (T1)	LANE (T2)	BUFFER LENGTH (FT.) (B)	TAPERS	BUFFER/ WORK AREAS
0-35	200	200	-	-	250	-	-
40-45	350	500	-	-	360	-	-
50-55	500	1000	-	-	495	-	-
60-70	1000	SA - 1000 SB - 1500 SC - 2640	-	-	730	-	-

TYPE OF ROADWAY	SIGN HEIGHT	MAXIMUM WORK ZONE LENGTH (L)
URBAN	1' PORTABLE 7' POST	1 MI.
RURAL UNDIVIDED	1' PORTABLE 5' POST	3 MI.

REFER TO EPG 606.1.3.5 CLOSURES OF EXISTING STREETS, ROADS, AND BRIDGES OR NON-TRAVERSABLE ROADS FOR BRIDGE AND/OR ROAD CLOSURES DESIGNATED NON-TRAVERSABLE

(1) THE ROAD CLOSED XX MILES AHEAD LOCAL TRAFFIC ONLY SIGN SHOULD BE LOCATED AT THE FIRST STATE ROUTE OR, UPON THE DISCRETION OF THE SUPERVISOR, ANY OTHER INTERSECTION IN ADVANCE OF THE CLOSURE.

(2) ADDITIONAL BARRICADES MAY BE USED AND OFFSET TO FACILITATE ACCESS FOR LOCAL TRAFFIC, ETC.

(3) THE USE OF TYPE D GUARDRAIL AND TYPE 4 OBJECT MARKERS VERSUS TYPE III BARRICADES AND TEMPORARY CONCRETE TRAFFIC BARRIERS ARE DEPENDENT UPON THE DISTRICT/CENTRAL OFFICE REPLACEMENT SCHEDULE.

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

FOR ADVANCE WARNING RAIL SYSTEM, REFER TO EPG 616.6.2.2 FLAGS AND ADVANCE WARNING RAIL SYSTEM (AWRS).

REFER TO STANDARD PLANS FOR HIGHWAY CONSTRUCTION 606.00 GUARDRAIL TYPE D FOR GUARDRAIL AND POST-MOUNTED TYPE III BARRICADES.

REFER TO STANDARD PLANS FOR HIGHWAY CONSTRUCTION 616.10 TEMPORARY TRAFFIC CONTROL DEVICES FOR TYPE III BARRICADES.

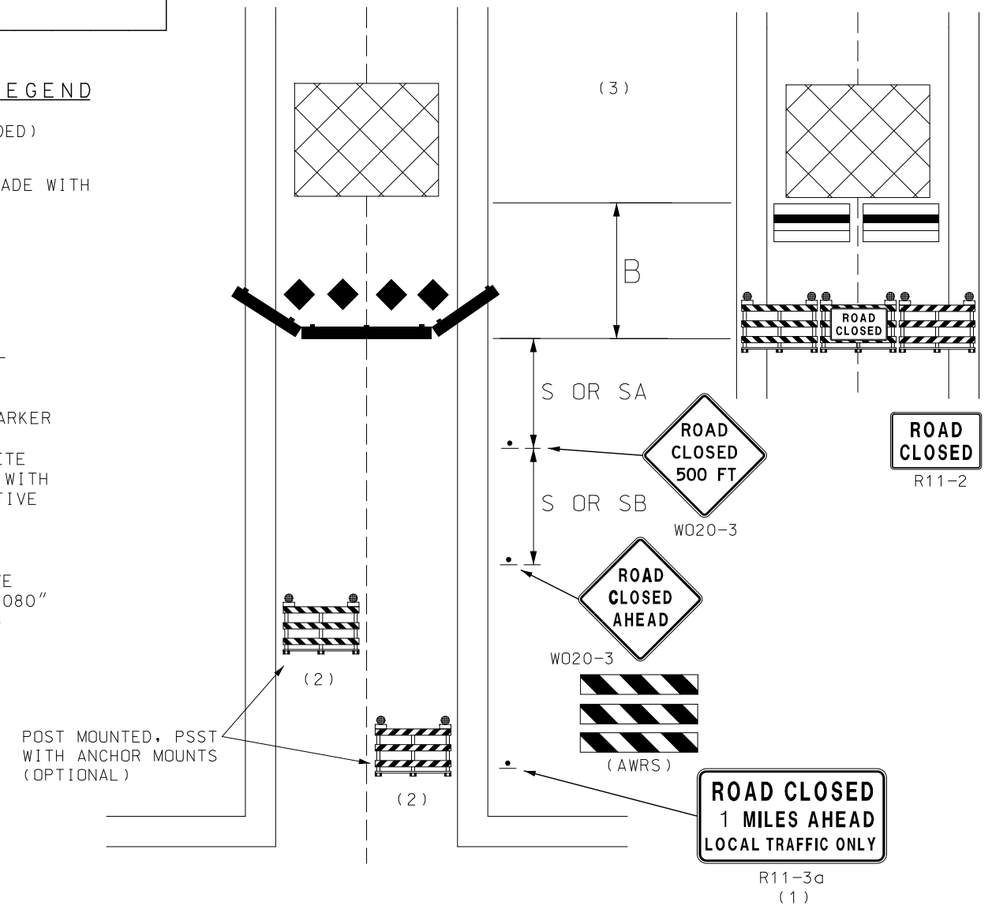
REFER TO STANDARD PLANS FOR HIGHWAY CONSTRUCTION 903.03 SIGN MOUNTING DETAILS DELINEATORS OBJECT MARKERS FOR TYPE 4 OBJECT MARKER.

REFER TO STANDARD PLANS FOR HIGHWAY CONSTRUCTION 617.20 TEMPORARY CONCRETE TRAFFIC BARRIER FOR CONCRETE BARRIERS.

REFER TO STANDARD PLANS FOR HIGHWAY CONSTRUCTION 1042 HIGHWAY SIGN MATERIAL FOR 6-INCH WIDE, 10-12-FOOT LONG RED RETROFLECTIVE SHEETING.

TRAFFIC CONTROL LEGEND

- SIGN (SINGLE SIDED)
- TYPE III BARRICADE WITH WARNING LIGHTS
- WORK SPACE
- TYPE D GUARDRAIL
- TYPE 4 OBJECT MARKER
- TEMPORARY CONCRETE TRAFFIC BARRIER WITH RED RETROREFLECTIVE SHEETING
- ASTM TYPE IV 6" RED REFLECTIVE SHEETING WITH 0.080" ALUMINUM BACKING



NOT TO SCALE

TRAFFIC CONTROL
SHEET 3 OF 5

KARA JEAN RICHART
NUMBER PE-2023037997
PROFESSIONAL ENGINEER
STATE OF MISSOURI
09/27/2024 12:13:25 PM
KARA JEAN RICHART - CIVIL
MO-PE-2023037997

DATE PREPARED
9/26/2024

ROUTE	STATE
76	MO
DISTRICT	SHEET NO.
SW	6

COUNTY
TANEY

JOB NO.
JSR0053D

CONTRACT ID.

PROJECT NO.

BRIDGE NO.

DESCRIPTION

DATE

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

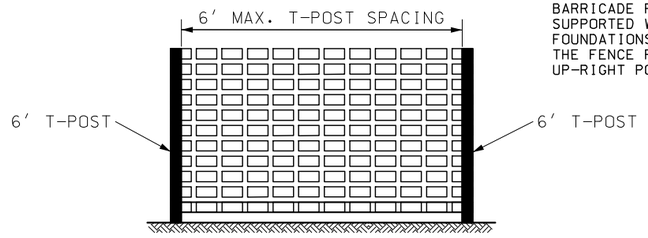
105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)

REVISED: 11-19-2018

NOTES:

1. NO DIRECT PAYMENT WILL BE MADE FOR ORANGE SAFETY FENCE AS REQUIRED AROUND EXCAVATION OF SIDEWALK & CURB RAMP AREAS.
2. SEE JSP's FOR PEDESTRIAN TRAFFIC DEVICES.
3. WORKING AREAS SHALL BE GUARDED FROM PEDESTRIAN ACCESS BY BARRICADE FENCING 36" TO 48" IN HEIGHT WITH A GAP NO GREATER THAN 6" FROM THE GROUND AND HOLES NO GREATER THAN 4" IN ANY DIRECTION.
4. PEDESTRIAN ACCESS ON SIDEWALK SHALL BE PROVIDED WITH A WIDTH NOT LESS THAN 4' OF SMOOTH STABLE SURFACING ADJACENT TO BARRICADE FENCING FOR ACCESS TO THE MAIN BUILDING.
5. SIDEWALK RAMP CLOSURES FOR RECONSTRUCTION SHALL BE PERFORMED WITH ADA COMPLIANT MOVEABLE BARRICADES. TWO BARRICADES PER PEDESTRIAN APPROACH. ONE SIDEWALK CLOSED SIGN WILL BE PLACED UPON ONE BARRICADE FOR EACH APPROACH, NO MORE THAN ONE 5' SECTION OF SIDEWALK RAMP SHALL BE CLOSED LEADING TO THE MAIN BUILDING AT ANY TIME ADJACENT TO THE WORK AREA.

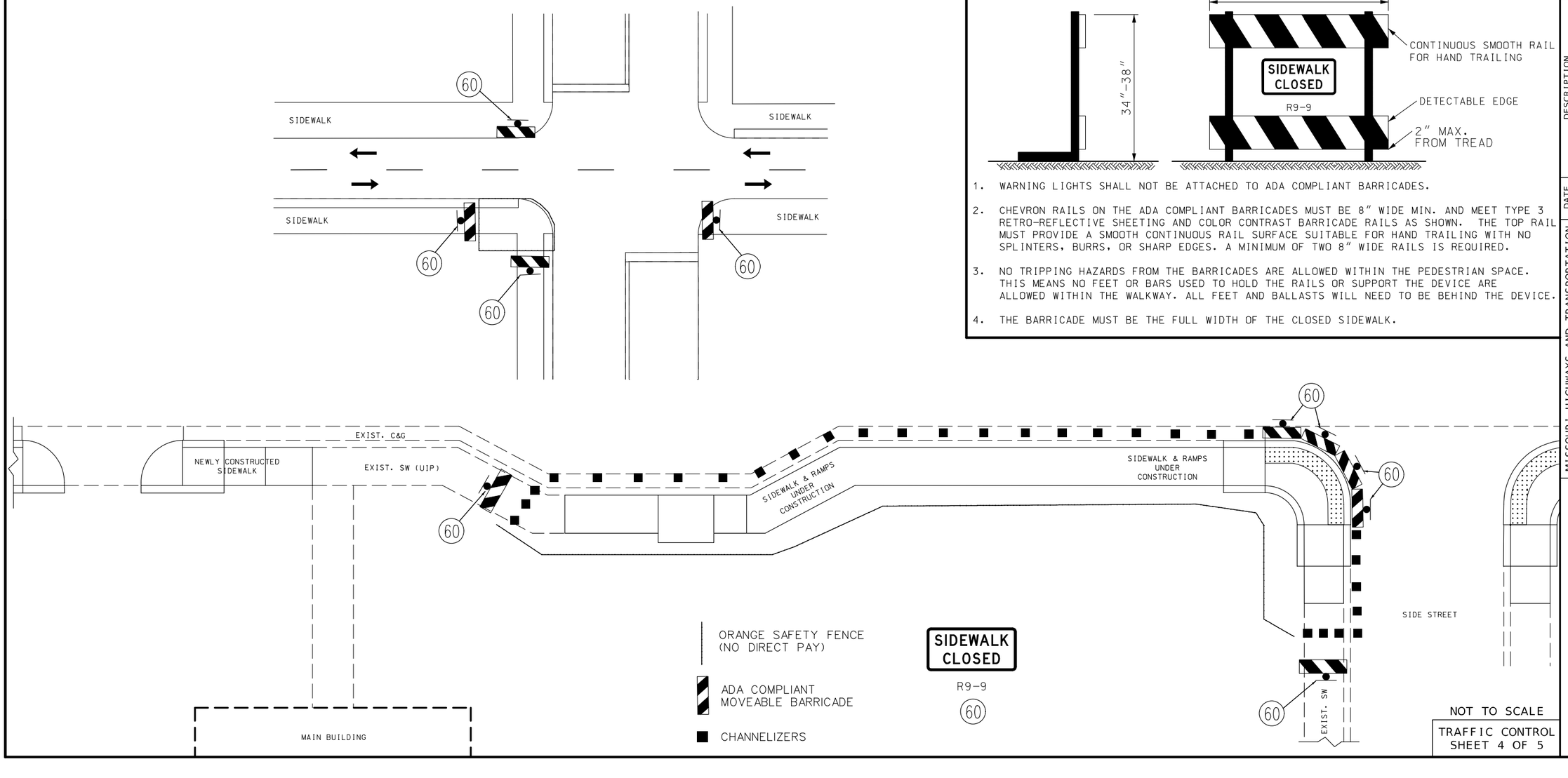
ORANGE PLASTIC SAFETY FENCE



NO DIRECT PAY.
PLASTIC SAFETY NETTING USED FOR BARRICADE FENCING SHALL BE SUPPORTED WITH T-POST. ADEQUATE FOUNDATIONS, AND BALLAST SO THAT THE FENCE REMAINS TAUT AND IN AN UP-RIGHT POSITION.

DUAL-LANE TYPICAL SIDEWALK CLOSURE

NOT TO SCALE



ADA COMPLIANT MOVEABLE BARRICADE

1. WARNING LIGHTS SHALL NOT BE ATTACHED TO ADA COMPLIANT BARRICADES.
2. CHEVRON RAILS ON THE ADA COMPLIANT BARRICADES MUST BE 8" WIDE MIN. AND MEET TYPE 3 RETRO-REFLECTIVE SHEETING AND COLOR CONTRAST BARRICADE RAILS AS SHOWN. THE TOP RAIL MUST PROVIDE A SMOOTH CONTINUOUS RAIL SURFACE SUITABLE FOR HAND TRAILING WITH NO SPLINTERS, BURRS, OR SHARP EDGES. A MINIMUM OF TWO 8" WIDE RAILS IS REQUIRED.
3. NO TRIPPING HAZARDS FROM THE BARRICADES ARE ALLOWED WITHIN THE PEDESTRIAN SPACE. THIS MEANS NO FEET OR BARS USED TO HOLD THE RAILS OR SUPPORT THE DEVICE ARE ALLOWED WITHIN THE WALKWAY. ALL FEET AND BALLASTS WILL NEED TO BE BEHIND THE DEVICE.
4. THE BARRICADE MUST BE THE FULL WIDTH OF THE CLOSED SIDEWALK.

NOT TO SCALE

TRAFFIC CONTROL
SHEET 4 OF 5

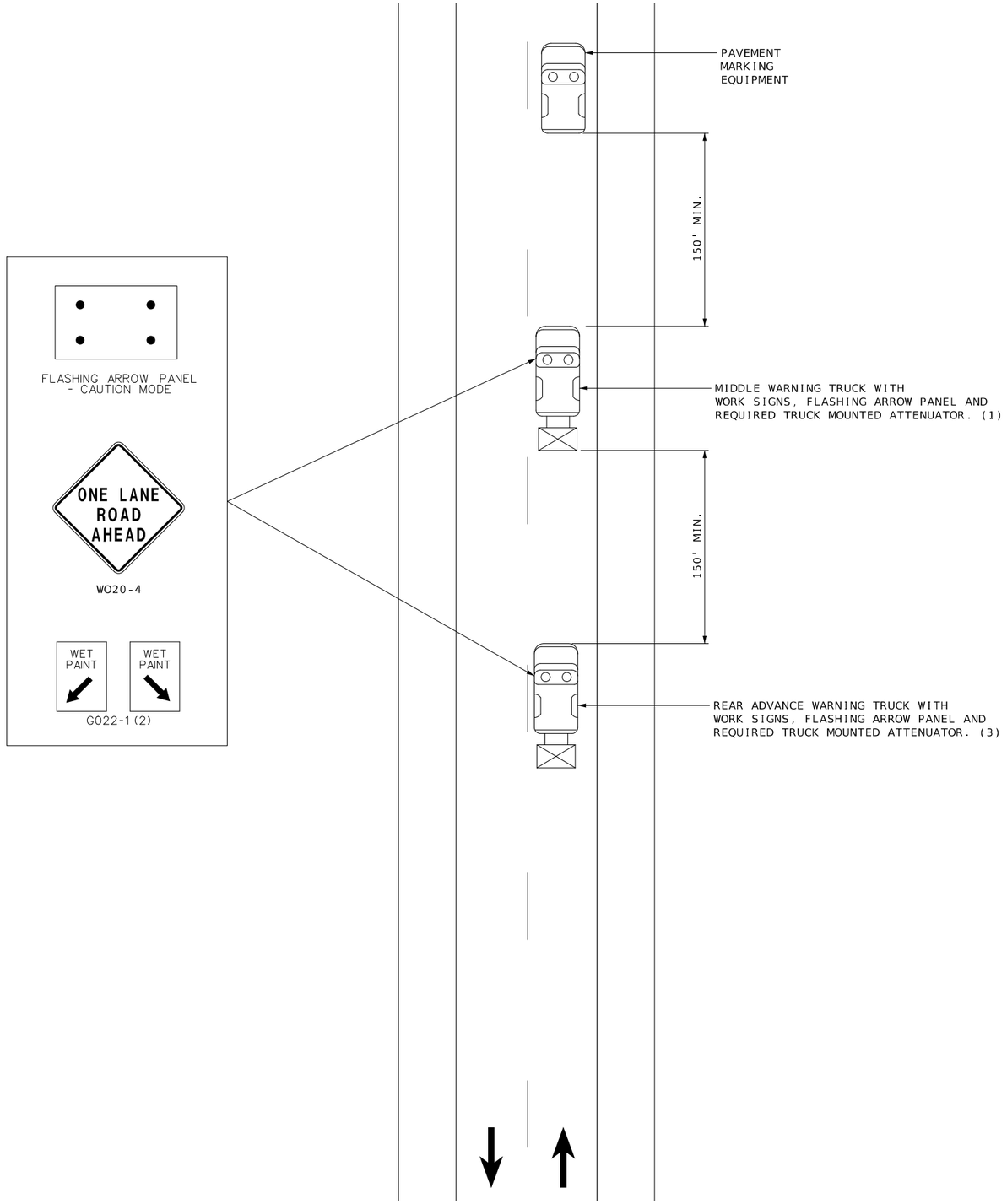
STATE OF MISSOURI
KARA JEAN RICHART
NUMBER PE-2023037997
PROFESSIONAL ENGINEER
Kara J. Richart
2025.12.11 12:11:59 PM
KARA JEAN RICHART - CIVIL
MO-PE-2023037997

DATE PREPARED: 9/26/2024
ROUTE: 76 | STATE: MO
DISTRICT: SW | SHEET NO.: 7
COUNTY: TANEY
JOB NO.: JSR0053D
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)

REVISED: 2/5/2024



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 AND SIGNS 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.

NOT TO SCALE

TRAFFIC CONTROL
SHEET 5 OF 5

STATE OF MISSOURI
KARA JEAN RICHART
NUMBER PE-2023037997
PROFESSIONAL ENGINEER
Kara J. Richart
09/27/2024 12:11:31 PM
KARA JEAN RICHART - CIVIL
MO-PE-2023037997

DATE PREPARED
9/26/2024

ROUTE	STATE
76	MO
DISTRICT	SHEET NO.
SW	8

COUNTY
TANEY

JOB NO.
JSR0053D

CONTRACT ID.

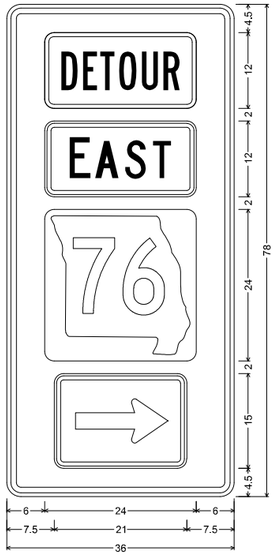
PROJECT NO.

BRIDGE NO.

DESCRIPTION	DATE

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

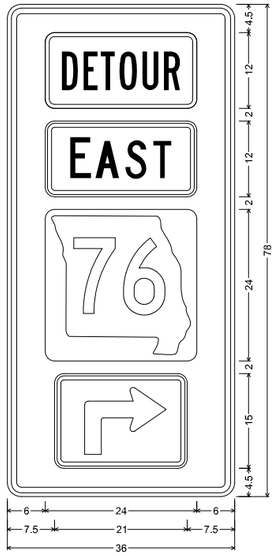
105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)



MO4-11 SHF-FLAT SHEET FLUORESCENT;
2.250" Radius, 0.875" Border, 0.625" Indent, Black on, Orange;
Table of letter and object lefts

6.000	
6.000	
6.000	
7.500	

SIGN NO.	50A
STATION	
ROADWAY	



MO4-11 SHF-FLAT SHEET FLUORESCENT;
2.250" Radius, 0.875" Border, 0.625" Indent, Black on, Orange;
Table of letter and object lefts

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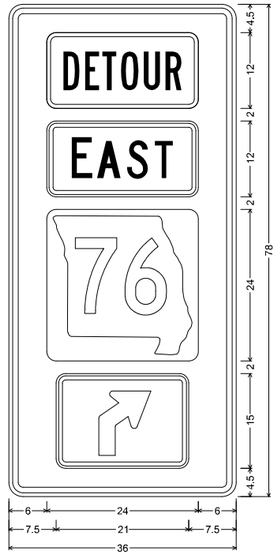
6.000	
6.000	
7.500	

SIGN NO.	50B
STATION	
ROADWAY	



MO4-11 SHF-FLAT SHEET FLUORESCENT;
2.250" Radius, 0.875" Border, 0.625" Indent, Black on, Orange;
Table of letter and object lefts

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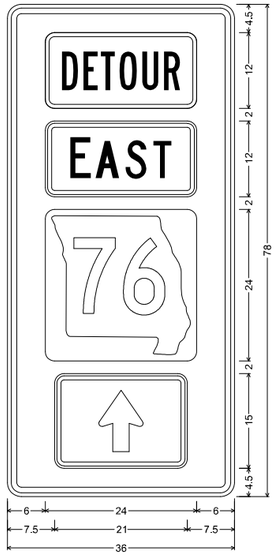
6.000	
7.500	

SIGN NO.	50C
STATION	
ROADWAY	



MO4-11 SHF-FLAT SHEET FLUORESCENT;
2.250" Radius, 0.875" Border, 0.625" Indent, Black on, Orange;
Table of letter and object lefts

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6.000	
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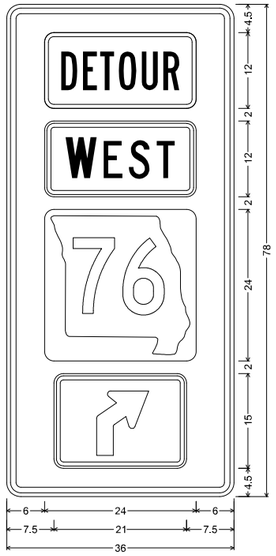
SIGN NO.	50D
STATION	
ROADWAY	



MO4-11 SHF-FLAT SHEET FLUORESCENT;
2.250" Radius, 0.875" Border, 0.625" Indent, Black on, Orange;
Table of letter and object lefts

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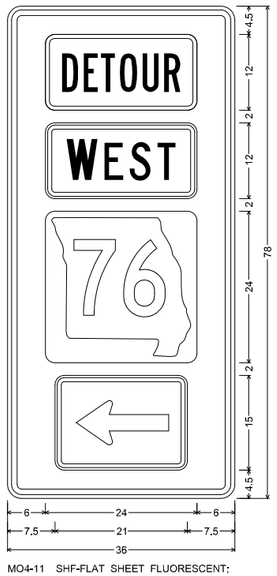
6.000	
7.500	

SIGN NO.	51A
STATION	
ROADWAY	



MO4-11 SHF-FLAT SHEET FLUORESCENT;
2.250" Radius, 0.875" Border, 0.625" Indent, Black on, Orange;
Table of letter and object lefts

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6.000	
7.500	

SIGN NO.	51B
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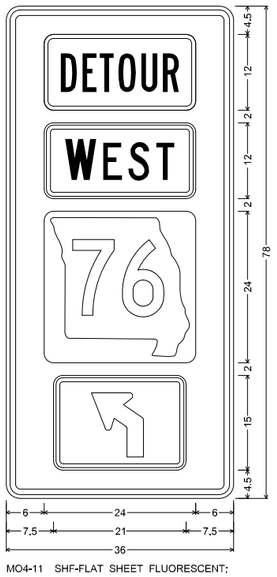
ROADWAY	



MO4-11 SHF-FLAT SHEET FLUORESCENT;
2.250" Radius, 0.875" Border, 0.625" Indent, Black on, Orange;
Table of letter and object lefts

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6.000	
7.500	

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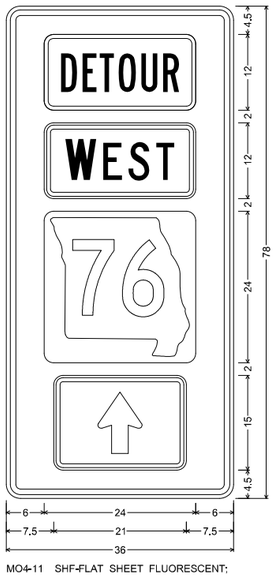

MO4-11 SHF-FLAT SHEET FLUORESCENT;
2.250" Radius, 0.875" Border, 0.625" Indent, Black on, Orange;
Table of letter and object lefts

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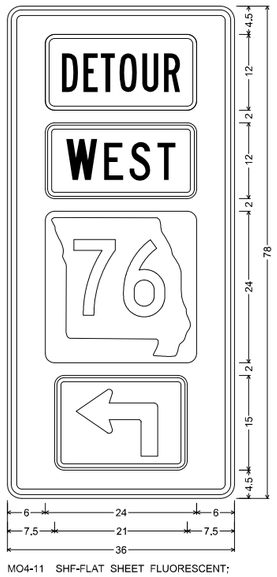
6.000	
6.000	
7.500	

SIGN NO.	51D
STATION	
ROADWAY	



MO4-11 SHF-FLAT SHEET FLUORESCENT;
2.250" Radius, 0.875" Border, 0.625" Indent, Black on, Orange;
Table of letter and object lefts

6.000	
6.000	
6.000	
7.500	

SIGN NO.	51E
STATION	
ROADWAY	

SIGNING SHEET
SHEET 1 OF 2

STATE OF MISSOURI
KARA JEAN RICHART
NUMBER PE-2023037997
PROFESSIONAL ENGINEER
09/30/2024 10:23:20 AM
KARA JEAN RICHART - CIVIL
MO-PE-2023037997

DATE PREPARED
9/27/2024

ROUTE	STATE
76	MO
DISTRICT	SHEET NO.
SW	9

COUNTY
TANEY

JOB NO.
JSR0053D

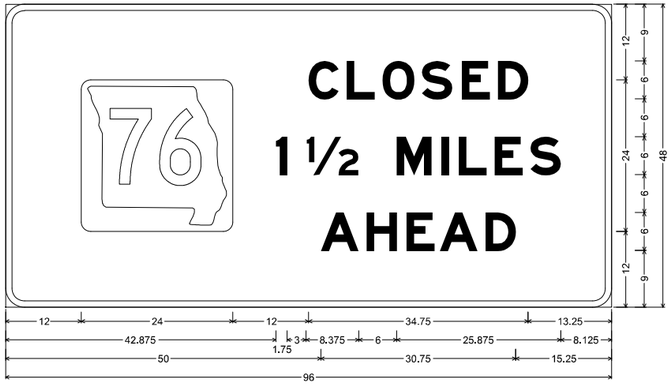
CONTRACT ID.

PROJECT NO.

BRIDGE NO.

DESCRIPTION	DATE

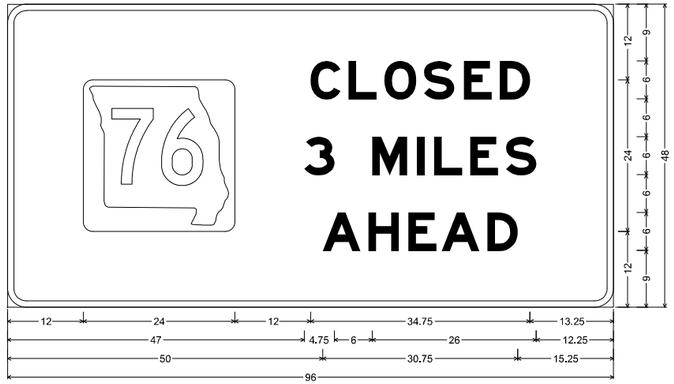
MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION
105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)



MO4-13 SHF-FLAT SHEET FLUORESCENT;
3.000" Radius, 1.000" Border, Black on, Orange;
"CLOSED", E Mod; "1 ½ MILES", E Mod; "AHEAD", E Mod;
Table of letter and object lefts

76 12.000	C 48.000	L 54.000	O 59.750	S 66.000	E 72.250	D 78.000
I 42.875	½ 47.625	M 62.000	I 69.000	L 71.750	E 77.500	S 83.125
A 50.000	H 57.125	E 63.500	A 68.750	D 76.000		

SIGN NO.	56
STATION	
ROADWAY	



MO4-13 SHF-FLAT SHEET FLUORESCENT;
3.000" Radius, 1.000" Border, Black on, Orange;
"CLOSED", E Mod; "3 MILES", E Mod; "AHEAD", E Mod;
Table of letter and object lefts

76 12.000	C 48.000	L 54.000	O 59.750	S 66.000	E 72.250	D 78.000
3 47.000	M 57.750	I 64.875	L 67.625	E 73.250	S 79.000	
A 50.000	H 57.125	E 63.500	A 68.750	D 76.000		

SIGN NO.	56
STATION	
ROADWAY	

STATE OF MISSOURI
KARA JEAN RICHART
NUMBER PE-2023037997
PROFESSIONAL ENGINEER
Kara J. Richart
09/30/2024 10:23:38 AM
KARA JEAN RICHART - CIVIL
MO-PE-2023037997

DATE PREPARED
9/27/2024

ROUTE	STATE
76	MO
DISTRICT	SHEET NO.
SW	10

COUNTY
TANEY

JOB NO.
JSR0053D

CONTRACT ID.

PROJECT NO.

BRIDGE NO.

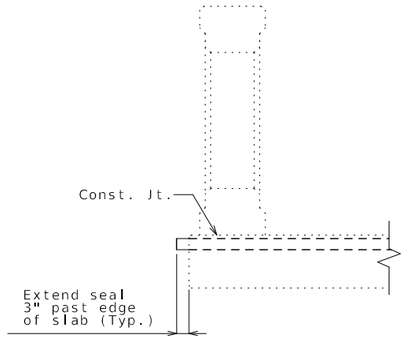
DESCRIPTION	DATE

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

SIGNING SHEET
SHEET 2 OF 2

U.I.P. AND REHABILITATE EXISTING (55') PRESTRESSED I-GIRDER SPAN (5 @ 195') CONCRETE DECK WITH SPANDREL BEAMS ON OPEN SPANDREL CONCRETE ARCH SPANS (55') PRESTRESSED CONCRETE I-GIRDER SPAN (SKEW: SQUARE)

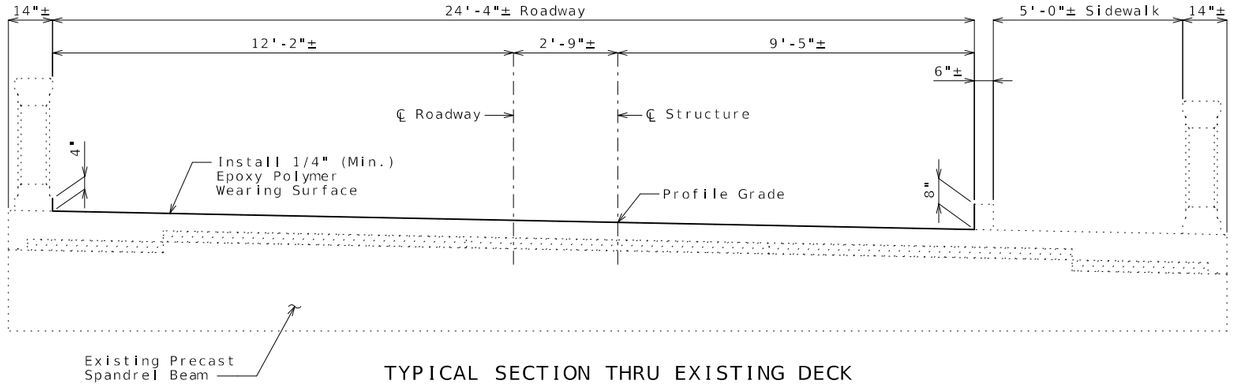
SEC/SUR 4 TWP 22N RGE 21W



SECTION THRU EDGE OF SLAB NEAR JOINT

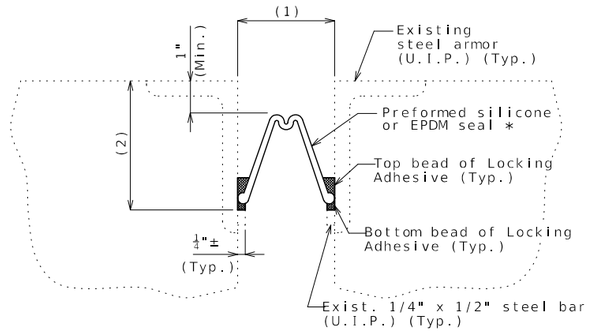
DETAIL OF SEAL

* Double hump seal shown in figure. Actual shape of seal may be double or single hump as per manufacturer.



TYPICAL SECTION THRU EXISTING DECK

(Spans (2-3) thru (6-7) shown, Spans (1-2) and (7-8) similar)



SECTION THRU JOINT AT INT. BENTS NO. 3 & 4

General Notes:

The seal shall be installed in joints in one continuous piece without field splices. Factory splicing will be permitted for joints in excess of 53 feet.

The installation temperature shall be taken as the actual air temperature averaged over the 24-hour period immediately preceding installation.

(1) Allowed installation gap (±) normal to joint at roadway surface (see table)

(2) Installation depth (±) per manufacturer's recommendation

Estimated Quantities

Item		Total
Removal of Existing Expansion Joint Seal or Sealant	linear foot	60
Epoxy Polymer Wearing Surface	sq. yard	3118
Substructure Repair (Formed)	sq. foot	113
Superstructure Repair (Unformed)	sq. foot	699
Protective Coating - Concrete Bents and Piers (Epoxy)	lump sum	1
Preformed Silicone or EPDM Expansion Joint Seal	linear foot	60

Allowed Transverse Preformed Silicone or EPDM Joint Seals

Manufacturer	Seal Name	Movement Parallel to Roadway	(1) Allowed Installation Gap Normal to Joint at Roadway Surface at Air/Surface Temperature				Type Used (✓)
			@ 40°F	@ 50°F	@ 60°F	@ 70°F	
Watson Bowman Acme Wabo (Preformed Silicone Joint Seal)	Wabo SPS-225	1⅝"	2¼"	2⅛"	2"	1⅞"	☐
D S Brown (EPDM Joint Seal)	V-Seal V-300	1⅝"	2¼"	2⅛"	2"	1⅞"	☐

MoDOT Construction personnel will indicate the type of seal used.

General Notes:

Design Specifications:

2002 AASHTO LFD (17th Ed.) Standard Specifications
Bridge Deck Rating = 7

Design Loading:

HS20-44 Modified (New Construction)

Miscellaneous:

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

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

Polymer and aggregate shall be applied to bridge deck, 4" up baluster and 8" up curb. Aggregate shall be light colored.

The contractor shall exercise care to ensure spillage over joint edges is prevented and that a neat line is obtained along any terminating edge of the polymer wearing surface.

Traffic Handling:

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

REPAIRS TO BRIDGE: ROUTE 76 OVER LAKE TANEYCOMO (WHITE RIVER) & MNA RR

ROUTE 76 FROM ROUTE 65 TO ROUTE J
ABOUT 1.1 MILES EAST OF ROUTE 65
BEGINNING STATION 648+68.92± (Match Existing)

STATE OF MISSOURI
TED S. KOESTER
NUMBER PE-2013000591
PROFESSIONAL ENGINEER
THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY.

DATE PREPARED 9/27/2024

ROUTE	STATE
76	MO
DISTRICT	SHEET NO.
BR	1

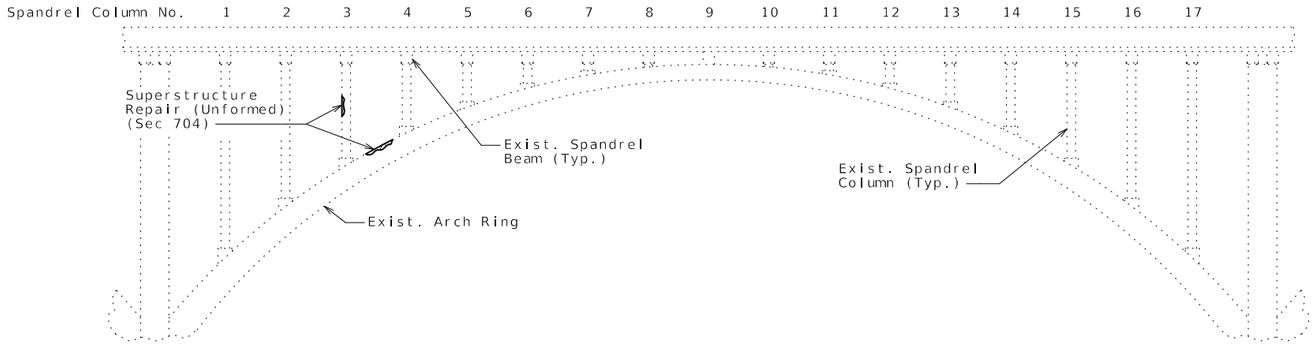
COUNTY: TANEY
JOB NO.: JSR0053D
CONTRACT ID.:
PROJECT NO.:
BRIDGE NO.: J07053

DESCRIPTION | DATE

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

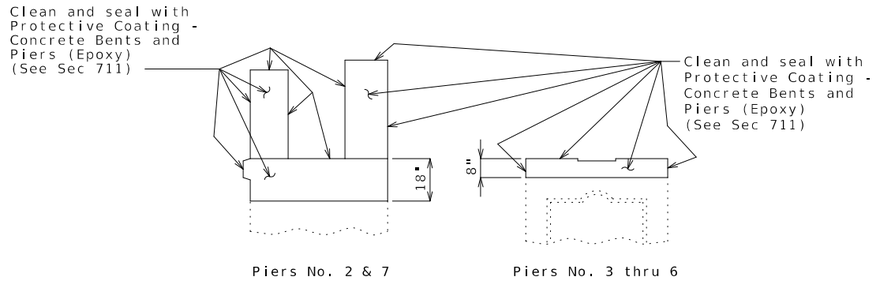
Detailed Sept. 2024
Checked Sept. 2024

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

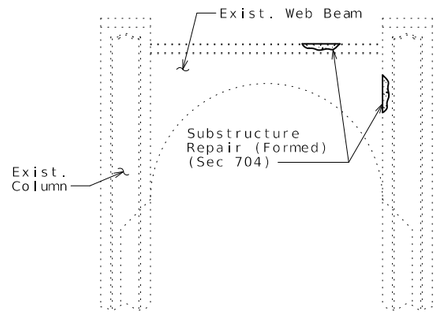


TYPICAL ELEVATION SHOWING SUPERSTRUCTURE REPAIR

(Spans (3-4) thru (6-7) shown, Span (2-3) similar)



TYPICAL SECTION THRU PIERS NO. 2 THRU 7 SHOWING PROTECTIVE COATING



TYPICAL PIER SHOWING SUBSTRUCTURE REPAIR

(Piers No. 3 thru 6 shown, Piers No. 2 & 7 similar)

Table of Superstructure Repair

Span	Location (Looking ahead station)	Superstructure Repair (sq. ft.)	Span	Location (Looking ahead station)	Superstructure Repair (sq. ft.)	Span	Location (Looking ahead station)	Superstructure Repair (sq. ft.)
(2-3)	Left Spandrel Column No. 3	15	(3-4)	Left Spandrel Column No. 17	2	(5-6)	Left Arch Ring Edge at Spandrel Column No. 7	4
(2-3)	Left Spandrel Column No. 12	3	(4-5)	Right Spandrel Column No. 1	6	(5-6)	Left Arch Ring Edge at Spandrel Column No. 8	6
(2-3)	Left Arch Ring Edge at Spandrel Column No. 12	3	(4-5)	Left Spandrel Column No. 2	12	(5-6)	Right Arch Ring Edge at Spandrel Column No. 8	15
(2-3)	Left Spandrel Column No. 13	15	(4-5)	Left Spandrel Column No. 3	35 *	(5-6)	Left Arch Ring Edge at Spandrel Column No. 11	4
(2-3)	Left Spandrel Column No. 14	25	(4-5)	Left Spandrel Column No. 4	8	(5-6)	Right Arch Ring Edge at Spandrel Column No. 11	3
(2-3)	Left Spandrel Column No. 15	25	(4-5)	Left Spandrel Column No. 5	11	(5-6)	Left Arch Ring Edge at Spandrel Column No. 13	4
(2-3)	Left Spandrel Column No. 16	15	(4-5)	Right Spandrel Column No. 5	2	(5-6)	Left Spandrel Column No. 14	6
(2-3)	Left Spandrel Column No. 17	25	(4-5)	Left Spandrel Column No. 6	6	(5-6)	Right Spandrel Column No. 14	10
(3-4)	Left Spandrel Column No. 2	24	(4-5)	Right Spandrel Column No. 6	4	(5-6)	Left Spandrel Column No. 16	8
(3-4)	Left Spandrel Column No. 3	25 *	(4-5)	Left Spandrel Column No. 12	2	(6-7)	Right Spandrel Column No. 1	4
(3-4)	Left Spandrel Column No. 4	12	(4-5)	Right Spandrel Column No. 12	5	(6-7)	Right Spandrel Column No. 2	6
(3-4)	Right Spandrel Column No. 5	4	(4-5)	Left Spandrel Column No. 13	10	(6-7)	Left Spandrel Column No. 3	2
(3-4)	Left Spandrel Column No. 6	15	(4-5)	Left Spandrel Column No. 15	20	(6-7)	Left Spandrel Column No. 4	7
(3-4)	Right Spandrel Column No. 6	1	(4-5)	Right Spandrel Column No. 15	23 *	(6-7)	Right Spandrel Column No. 4	3
(3-4)	Left Arch Ring Edge at Spandrel Column No. 9	23 *	(4-5)	Right Spandrel Column No. 17	2	(6-7)	Left Spandrel Column No. 5	5
(3-4)	Left Spandrel Column No. 12	30	(5-6)	Right Arch Ring Edge at Spandrel Column No. 2	2	(6-7)	Right Arch Ring Edge at Spandrel Column No. 8	17 *
(3-4)	Right Spandrel Column No. 12	6	(5-6)	Right Spandrel Column No. 2	8	(6-7)	Right Arch Ring Edge at Spandrel Column No. 11	2
(3-4)	Left Spandrel Column No. 13	50	(5-6)	Left Spandrel Column No. 3	15	(6-7)	Left Spandrel Column No. 13	2
(3-4)	Right Spandrel Column No. 13	8	(5-6)	Right Spandrel Column No. 5	15	(6-7)	Left Spandrel Column No. 14	2
(3-4)	Left Spandrel Column No. 14	10	(5-6)	Right Arch Ring Edge at Spandrel Column No. 6	4	(6-7)	Left Spandrel Column No. 15	3
(3-4)	Left Spandrel Column No. 15	20	(5-6)	Left Spandrel Column No. 6	5	(6-7)	Left Spandrel Column No. 16	7
(3-4)	Right Spandrel Column No. 15	10	(5-6)	Right Spandrel Column No. 6	5	(6-7)	Left Spandrel Column No. 17	5

* Deep Repair

Table of Substructure Repair

Bent No.	Location (Looking ahead station)	Substructure Repair (sq. ft.)
2	Left Column	10
3	Left Column	20
3	Web Beam	3
4	Right Column	10
4	Web Beam	15
5	Left Column	10
5	Right Column	10
6	Right Column	20
7	Left Column	5
7	Web Beam	10

Detailed Sept. 2024
Checked Sept. 2024

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

STATE OF MISSOURI
TED S. KOESTER
NUMBER PE-2013000591
PROFESSIONAL ENGINEER
THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY.

DATE PREPARED 9/27/2024
ROUTE 76 | STATE MO
DISTRICT BR | SHEET NO. 2
COUNTY TANEY
JOB NO. JSR0053D
CONTRACT ID.
PROJECT NO.
BRIDGE NO. J07053

DESCRIPTION | DATE

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