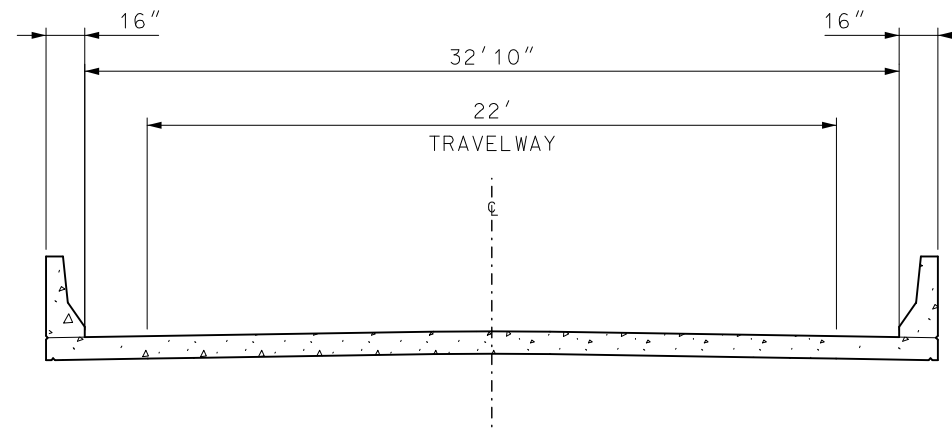
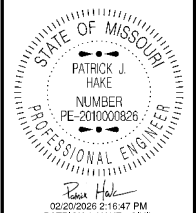


EXIST. TYPICAL SECTION RTE. 87




EXIST. TYPICAL SECTION ON BRIDGE A4607 - RTE. 87  
STA. 167+68.40 TO 170+66.80



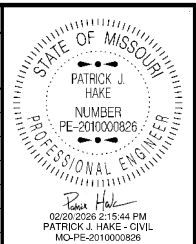
DATE PREPARED  
2/19/2026  
ROUTE 87 STATE MO  
DISTRICT CD SHEET NO. 2  
COUNTY COOPER  
JOB NO. JCD0023  
CONTRACT ID.  
PROJECT NO.  
BRIDGE NO.

DATE	DESCRIPTION

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



WARNING SIGNS										GUIDE SIGNS										EFFECTIVE: 07-01-2025		
SIGN	SIZE	AREA	QTY	TOTAL	QTY	TOTAL	SIGN	DESCRIPTION		SIGN	SIZE	AREA	QTY	TOTAL	QTY	TOTAL	SIGN	DESCRIPTION	ITEM	TOTAL	DESCRIPTION	
IN.	SQ. FT.	EACH	SQ. FT.	EACH	SQ. FT.	NO.				IN.	SQ. FT.	EACH	SQ. FT.	EACH	SQ. FT.	NO.		NUMBER	QTY			
WO1-1L	48X48	16.00						TURN (SYMBOL LEFT)		E05-1	36X48	12.00						GORE EXIT	6122008		IMPACT ATTENUATOR 40 MPH (SAND BARRELS)	
WO1-1R	48X48	16.00						TURN (SYMBOL RIGHT)		E05-2	48X36	12.00						EXIT OPEN	6122010		IMPACT ATTENUATOR 45 MPH (SAND BARRELS)	
WO1-2L	48X48	16.00						CURVE (SYMBOL LEFT)		E05-2a	48X36	12.00						EXIT CLOSED	6122012		IMPACT ATTENUATOR 50 MPH (SAND BARRELS)	
WO1-2R	48X48	16.00						CURVE (SYMBOL RIGHT)		GO20-1	60X24	10.00						ROAD WORK NEXT XX MILES	6122014		IMPACT ATTENUATOR 60 MPH (SAND BARRELS)	
WO1-3L	48X48	16.00						REVERSE TURN (SYMBOL LEFT)		GO20-2	48X24	8.00						END ROAD WORK	6122017		IMPACT ATTENUATOR 65 MPH (SAND BARRELS)	
WO1-3R	48X48	16.00						REVERSE TURN (SYMBOL RIGHT)		GO20-4	36X18	4.50						PILOT CAR FOLLOW ME	6122019		IMPACT ATTENUATOR 70 MPH (SAND BARRELS)	
WO1-4L	48X48	16.00						REVERSE CURVE (SYMBOL LEFT)		GO20-4a	42X30	8.75						PILOT CAR IN USE WAIT & FOLLOW	6122020		REPLACEMENT SAND BARREL	
WO1-4R	48X48	16.00						REVERSE CURVE (SYMBOL RIGHT)		GO20-4a	18X12	1.50						PILOT CAR IN USE WAIT & FOLLOW	6122030		IMPACT ATTENUATOR (RELOCATION)	
WO1-4bL	48X48	16.00						DOUBLE ARROW REVERSE CURVE (SYMBOL LEFT)		GO20-5aP	36X24	6.00						WORK ZONE (PLAQUE)	6122040		WORK ZONE CRASH CUSHION (NARROW)	
WO1-4bR	48X48	16.00						DOUBLE ARROW REVERSE CURVE (SYMBOL RIGHT)		MO4-8a	24X18	3.00						END DETOUR	6122041		WORK ZONE CRASH CUSHION (RELOCATION)	
WO1-4cL	48X48	16.00						TRIPLE ARROW REVERSE CURVE (SYMBOL LEFT)		MO4-9L	48X36	12.00						DETOUR (LEFT)	6123001		TRUCK MOUNTED ATTENUATOR (TMA)	
WO1-4cR	48X48	16.00						TRIPLE ARROW REVERSE CURVE (SYMBOL RIGHT)		MO4-9R	48X36	12.00						DETOUR (RIGHT)	6161012		BUOYS (BOATS KEEP OUT)	
WO1-6	60X30	12.50						HORIZONTAL ARROW (SYMBOL)		MO4-9P	48X12	4.00						STREET NAME (PLAQUE)	6161013		BUOYS (NO WAKE)	
WO1-6a	72X36	18.00						HORIZ. ARROW (SYMBOL ON PERMANENT BARRICADE)		MO4-10L	48X18	6.00						DETOUR ARROW (LEFT)	6161014		SPECIAL SIGN ASSEMBLY (BOATS KEEP OUT)	
WO1-7	60X30	12.50						DOUBLE HEAD HORIZONTAL ARROW (SYMBOL)		MO4-10R	48X18	6.00						DETOUR ARROW (RIGHT)	6161020		CHANNELIZER (DRUM-LIKE)	
WO1-7a	72X36	18.00						DOUBLE HEAD HORIZ. ARROW (SYMBOL ON PERM. BARR.)		REGULATORY SIGNS										6161022		CHANNELIZER (CONE)
WO1-8	18X24	3.00						CHEVRON (SYMBOL)		R1-1	48X48	13.25						STOP	6161025	31 *	CHANNELIZER (TRIM-LINE)	
WO1-8a	30X36	7.50						CHEVRON (SYMBOL FOR DIVIDED HIGHWAYS)		R1-2	48TRI.	6.93						YIELD	6161026		CHANNELIZER (VERTICAL PANEL)	
WO3-1	48X48	16.00						STOP AHEAD (SYMBOL)		R1-2a	36X36	9.00						TO ONCOMING TRAFFIC (PLAQUE)	6161030		TYPE 3 MOVEABLE BARRICADE	
WO3-2	48X48	16.00						YIELD AHEAD (SYMBOL)		R1-3P	30X12	2.50						ALL WAY (PLAQUE)	6161033		DIRECTION INDICATOR BARRICADE	
WO3-3	48X48	16.00						SIGNAL AHEAD (SYMBOL)		R2-1	36X48	12.00						SPEED LIMIT XX	6161040		FLASHING ARROW PANEL	
WO3-4	48X48	16.00						BE PREPARED TO STOP		R3-1	48X48	16.00						NO RIGHT TURN (SYMBOL)	6161047		TYPE 3 OBJECT MARKER	
WO3-5	48X48	16.00						SPEED LIMIT AHEAD		R3-2	48X48	16.00						NO LEFT TURN (SYMBOL)	6161055		SEQUENTIAL FLASHING WARNING LIGHT	
WO4-1L	48X48	16.00						MERGE (SYMBOL FROM LEFT)		R3-3	36X36	9.00						NO TURNS	6161070		TUBULAR MARKER	
WO4-1R	48X48	16.00						MERGE (SYMBOL FROM RIGHT)		R3-4	48X48	16.00						NO U-TURN (SYMBOL)	6161095		RADAR SPEED ADVISORY SYSTEM	
WO4-1aL	48X48	16.00						MERGE (LEFT)		R3-7L	30X30	6.25						LEFT LANE MUST TURN LEFT			CHANGEABLE MESSAGE SIGN, COMMISSION FURNISHED/RETAINED	
WO4-1aR	48X48	16.00						MERGE (RIGHT)		R3-7R	30X30	6.25						RIGHT LANE MUST TURN RIGHT	6161096		CHANGEABLE MESSAGE SIGN WITHOUT COMM.	
WO5-1	48X48	16.00	2	32.00			43	ROAD/BRIDGE/RAMP NARROWS		R4-1	36X48	12.00						DO NOT PASS			INTERFACE, CONTRACTOR FURNISHED/RETAINED	
WO5-3	48X48	16.00						ONE LANE BRIDGE		R4-2	36X48	12.00						PASS WITH CARE	6161098A	2	INTERFACE, CONTRACTOR FURNISHED/RETAINED	
WO5-5	48X48	16.00						NARROW LANES		R4-7a	36X48	12.00						KEEP RIGHT (HORIZONTAL ARROW)			CHANGEABLE MESSAGE SIGN WITH COMM.	
WO6-1	48X48	16.00						DIVIDED HIGHWAY (SYMBOL)		R4-8a	36X48	12.00						KEEP LEFT (HORIZONTAL ARROW)	6161099		INTERFACE, CONTRACTOR FURNISHED/RETAINED	
WO6-2	48X48	16.00						DIVIDED HIGHWAY END (SYMBOL)		R5-1	30X30	6.25						DO NOT ENTER	6162000A		WORK ZONE TRAFFIC SIGNAL SYSTEM	
WO6-3	48X48	16.00						TWO WAY TRAFFIC (SYMBOL)		R5-1a	36X24	6.00						WRONG WAY	6162002		TEMPORARY LONG-TERM RUMBLE STRIPS	
WO7-3a	30X24	5.00						NEXT XX MILES (PLAQUE)		R6-1L	54X18	6.75						ONE WAY ARROW (LEFT)			TEMPORARY TRAFFIC BARRIER, CONTRACTOR FURNISHED/RETAINED	
WO8-1	48X48	16.00						BUMP		R6-1R	54X18	6.75						ONE WAY ARROW (RIGHT)	6173600D		TEMP. TRAFFIC BARRIER ANCHORED, CONTRACTOR FURNISHED/RETAINED	
WO8-2	48X48	16.00						DIP		R6-2L	24X30	5.00						ONE WAY (LEFT)			TEMP. TRAFFIC BARRIER STIFFNESS TRANSITION, CONTRACTOR FURNISHED/RETAINED	
WO8-3	48X48	16.00						PAVEMENT ENDS		R6-2R	24X30	5.00						ONE WAY (RIGHT)	6173700B		TEMP. TRAFFIC BARRIER STIFFNESS TRANSITION, CONTRACTOR FURNISHED/RETAINED	
WO8-4	48X48	16.00						SOFT SHOULDER		R9-9	24X12	2.00						SIDEWALK CLOSED			TEMP. TRAFFIC BARRIER STIFFNESS TRANSITION, CONTRACTOR FURNISHED/RETAINED	
WO8-5	48X48	16.00						SLIPPERY WHEN WET (SYMBOL)		R9-11L	24X18	3.00						SIDEWALK CLOSED AHEAD, (ARROW LEFT) CROSS HERE	6173706		TEMP. TRAFFIC BARRIER HEIGHT TRANSITION, CONTRACTOR FURNISHED/RETAINED	
WO8-6	48X48	16.00						TRUCK CROSSING		R9-11R	24X18	3.00						SIDEWALK CLOSED AHEAD, (ARROW RIGHT) CROSS HERE	6174000A		RELOCATING TEMP. TRAFFIC BARRIER	
WO8-6c	48X48	16.00						TRUCK ENTRANCE		R10-6	24X36	6.00						STOP HERE ON RED (45° ARROW)	6175011B		RELOCATING TEMP. TRAFFIC BARRIER ANCHORED	
WO8-7	36X36	9.00						LOOSE GRAVEL		R11-2	48X30	10.00						ROAD CLOSED	6175013		RELOCATING TEMP. TRAFFIC BARRIER STIFFNESS	
WO8-7a	36X36	9.00						FRESH OIL / LOOSE GRAVEL		R11-3a	60X30	12.50						ROAD CLOSED XX MILES AHEAD	6175020A		RELOCATING TEMP. TRAFFIC BARRIER HEIGHT	
WO8-9	48X48	16.00						LOW SHOULDER		R11-4	60X30	12.50						LOCAL TRAFFIC ONLY	6208064A		TEMPORARY RAISED PAVEMENT MARKER	
WO8-11	48X48	16.00						UNEVEN LANES		CONST-3A	60X48	20.00						ROAD CLOSED TO THRU TRAFFIC	9029400		TEMPORARY TRAFFIC SIGNALS	
WO8-12	48X48	16.00						NO CENTER LINE		CONST-3X	56X12	4.67						FINE SIGN	9029401		TEMPORARY TRAFFIC SIGNALS AND LIGHTING	
WO8-15	48X48	16.00						GROOVED PAVEMENT		MISCELLANEOUS SIGNS												
WO8-15P	30X24	5.00						MOTORCYCLE (PLAQUE)		CONST-5	48X36	12.00						POINT OF PRESENCE				
WO8-17L	48X48	16.00						SHOULDER DROP-OFF (SYMBOL LEFT)		CONST-5	96X48	32.00						POINT OF PRESENCE				
WO8-17R	30X24	5.00						SHOULDER DROP-OFF (SYMBOL RIGHT)		CONST-8	48X36	12.00						WORK ZONE NO PHONE ZONE				
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	2	32.00			2	ROAD/BRIDGE/RAMP WORK AHEAD														
WO20-2	48X48	16.00						DETOUR AHEAD														
WO20-3	48X48	16.00						ROAD CLOSED AHEAD														
WO20-4	48X48	16.00	2	32.00			7	ONE LANE ROAD AHEAD		616-10.05								TOTAL				
WO20-5	48X48	16.00						RIGHT/CENTER/LEFT LANE CLOSED AHEAD		CONSTRUCTION SIGNS *								160				
WO20-5a	48X48	16.00						2 RIGHT/CENTER/LEFT LANES CLOSED AHEAD		616-10.10								TOTAL				
WO20-6a	48X48	16.00						RIGHT/CENTER/LEFT LANE CLOSED		RELOCATED SIGNS												
WO20-7a	48X48	16.00	2	32.00			8a	FLAGGER (SYMBOL)														
WO21-2	36X36	9.00						FRESH OIL														
WO21-5	48X48	16.00	2	32.00			21	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)														



DATE PREPARED  
2/19/2026

ROUTE 87 STATE MO  
DISTRICT CD SHEET NO. 3

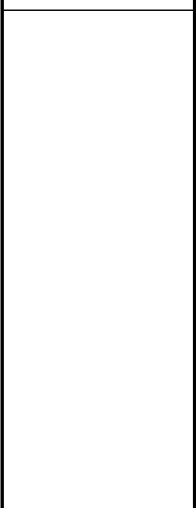
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JOB NO. JCD0023  
CONTRACT ID.

PROJECT NO.  
BRIDGE NO.

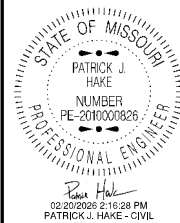
DESCRIPTION	DATE

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

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



6169901	1	LUMP SUM TEMPORARY TRAFFIC CONTROL (* ITEM INCLUDED)
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DATE PREPARED  
2/19/2026

ROUTE 87	STATE MO
DISTRICT CD	SHEET NO. 4

COUNTY  
COOPER

JOB NO.  
JCD0023

CONTRACT ID.

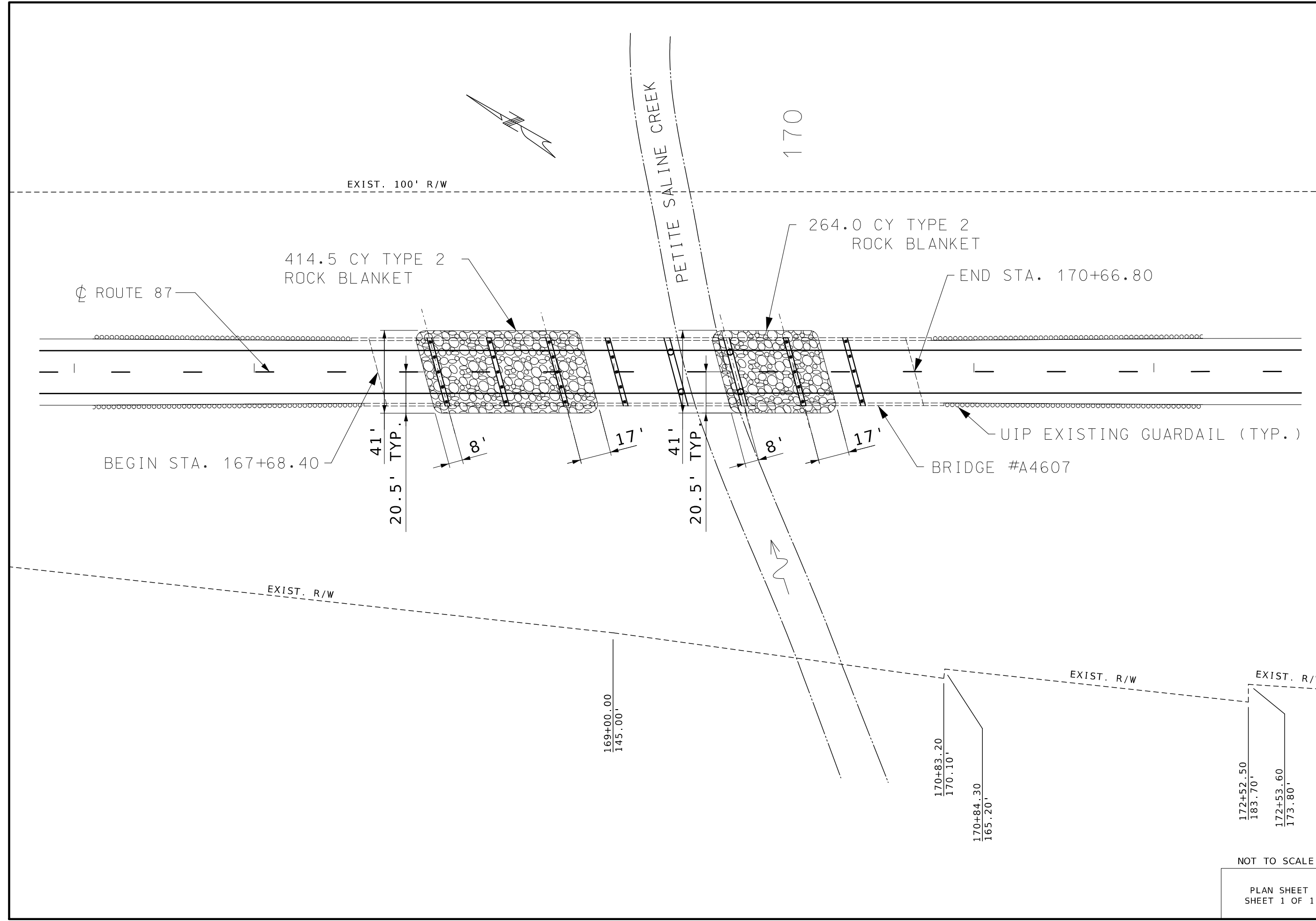
PROJECT NO.

BRIDGE NO.

DATE	DESCRIPTION

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

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



NOT TO SCALE

PLAN SHEET  
SHEET 1 OF 1









U.I.P. AND REHABILITATE EXISTING (9 @ 33') PRESTRESSED DOUBLE TEE GIRDER SPANS  
(SKEW: 20°00'00" R.A.)

SEC/SUR 17 TWP 48N RGE 16W



DATE PREPARED  
2/17/2026

ROUTE 87 STATE MO

DISTRICT BR SHEET NO. 1

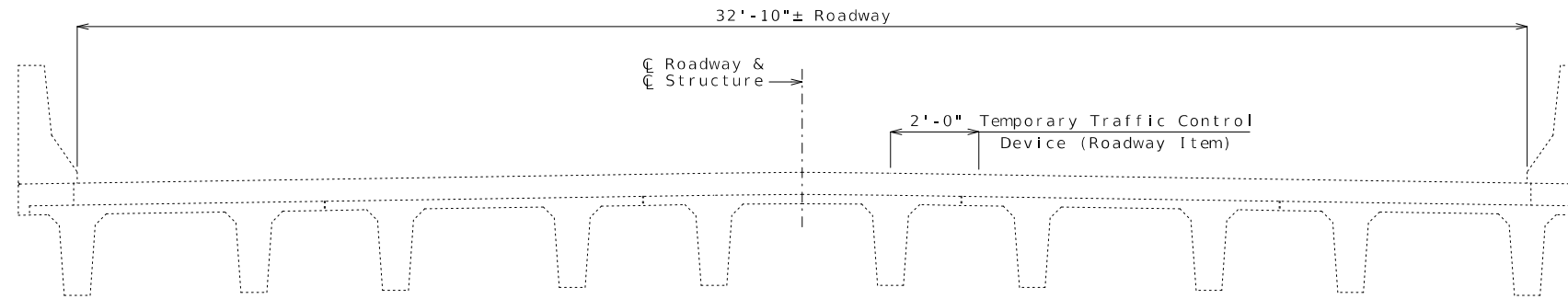
COUNTY COOPER

JOB NO. JCD0023

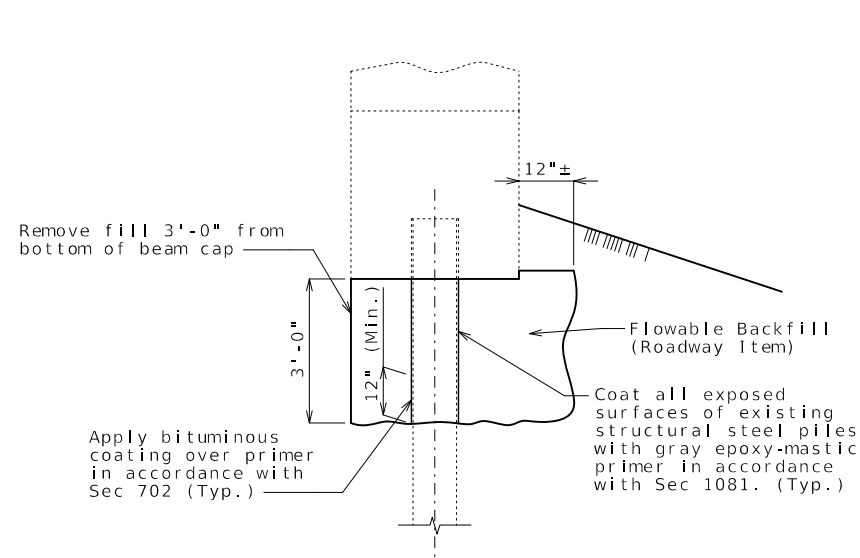
CONTRACT ID.

PROJECT NO.

BRIDGE NO. A46071



TYPICAL SECTION THRU EXISTING DECK

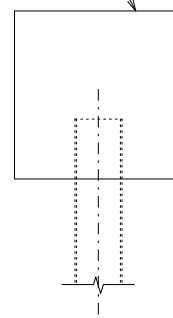


TYPICAL SECTION THRU END BENT NO. 1 SHOWING PROTECTIVE COATING AND FLOWABLE BACKFILL

For details of pile repair, see Sheet No. 2.

All exposed surfaces of the existing structural steel piles shall be recoated with one 6-mil thickness of gray epoxy-mastic primer applied over an SSPC-SP3 surface preparation in accordance with Sec 1081. The bituminous coating shall be applied one foot above the existing ground line and in accordance with Sec 702. These protective coatings will not be required below the normal low water line. The cost of surface preparation will be considered completely covered by the contract lump sum price for Surface Preparation for Applying Epoxy-Mastic Primer. The cost of the gray epoxy-mastic primer and bituminous coating will be considered completely covered by the contract lump sum price for Gray Epoxy-Mastic Primer.

Coat all surfaces of existing beam cap with gray epoxy-mastic primer in accordance with Sec 1081. (Typ.)



TYPICAL SECTION THRU INT. BENTS NO. 2 THRU 9 SHOWING PROTECTIVE COATING

Estimated Quantities		
Item		Total
Class 2 Excavation	Lump sum	1
Dewatering	Lump sum	1
Pile Encasement	each	30
Surface Preparation for Applying Epoxy-Mastic Primer	Lump sum	1
Gray Epoxy Mastic Primer	Lump sum	1
Steel Pile Repair	linear foot	5

General Notes:

Design Specifications:

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

Design Loading:

HS20-44 (1983 & New Construction)

Design Unit Stresses:

Class B Concrete (Pile Encasement)  $f'c = 3,000$  psi  
Reinforcing Steel (ASTM A706 Grade 60)  $f_y = 60,000$  psi

Miscellaneous:

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.

Traffic Handling:

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

REPAIRS TO BRIDGE: ROUTE 87 OVER PETITE SALINE CREEK

ROUTE 87 FROM ROUTE I-70 TO ROUTE Y ABOUT 1.3 MILES SOUTH OF ROUTE I-70 BEGINNING STATION 167+68.40± (Match Existing)

DESCRIPTION

DATE

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

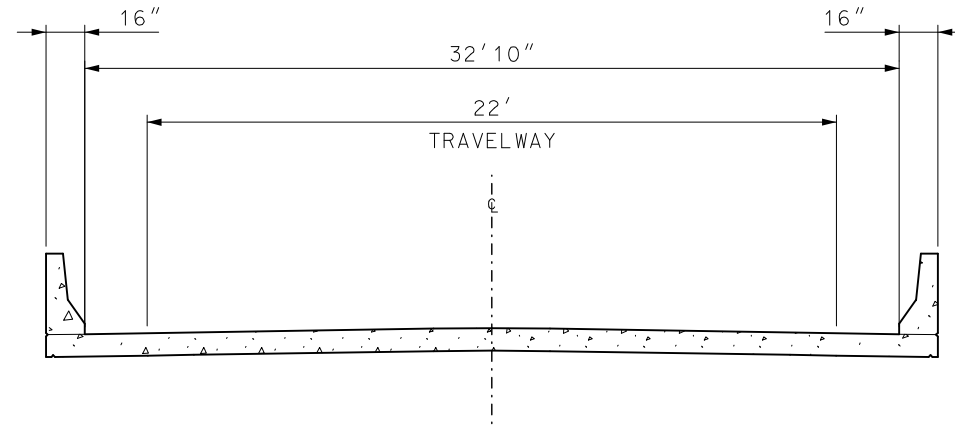
MoDOT

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

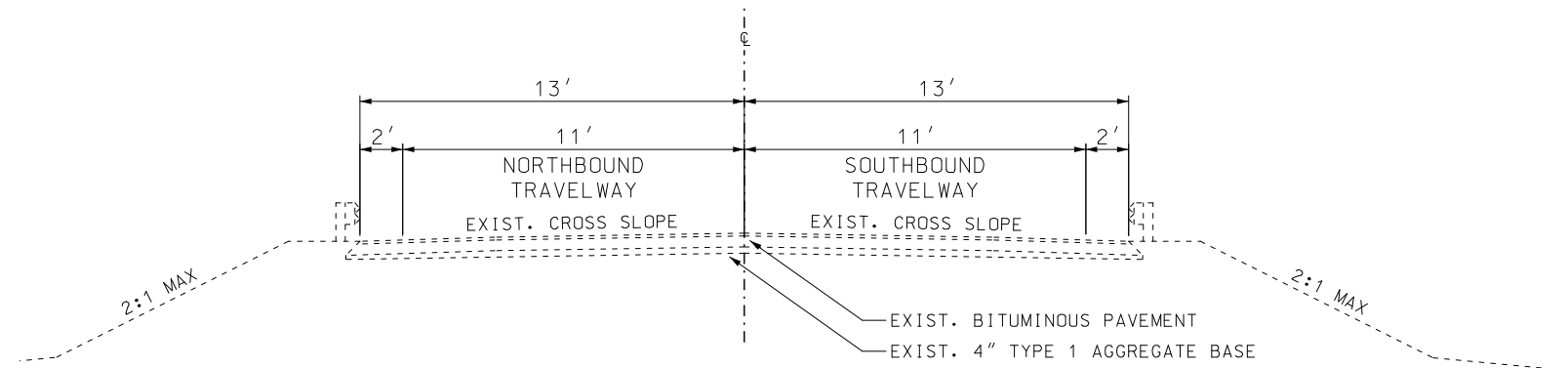




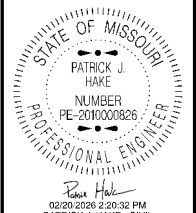




TYPICAL SECTION ON BRIDGE A4608 - RTE. 87  
STA. 257+11.90 TO STA. 259+05.30




EXIST. TYPICAL SECTION RTE. 87



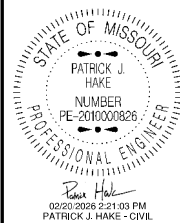
DATE PREPARED  
2/19/2026  
ROUTE 87 STATE MO  
DISTRICT CD SHEET NO. 2  
COUNTY COOPER  
JOB NO. JCD0024  
CONTRACT ID.  
PROJECT NO.  
BRIDGE NO.

DATE	DESCRIPTION

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







DATE PREPARED  
2/19/2026

ROUTE	STATE
87	MO
DISTRICT	SHEET NO.
CD	4

COUNTY  
COOPER

JOB NO.  
JCD0024

CONTRACT ID.

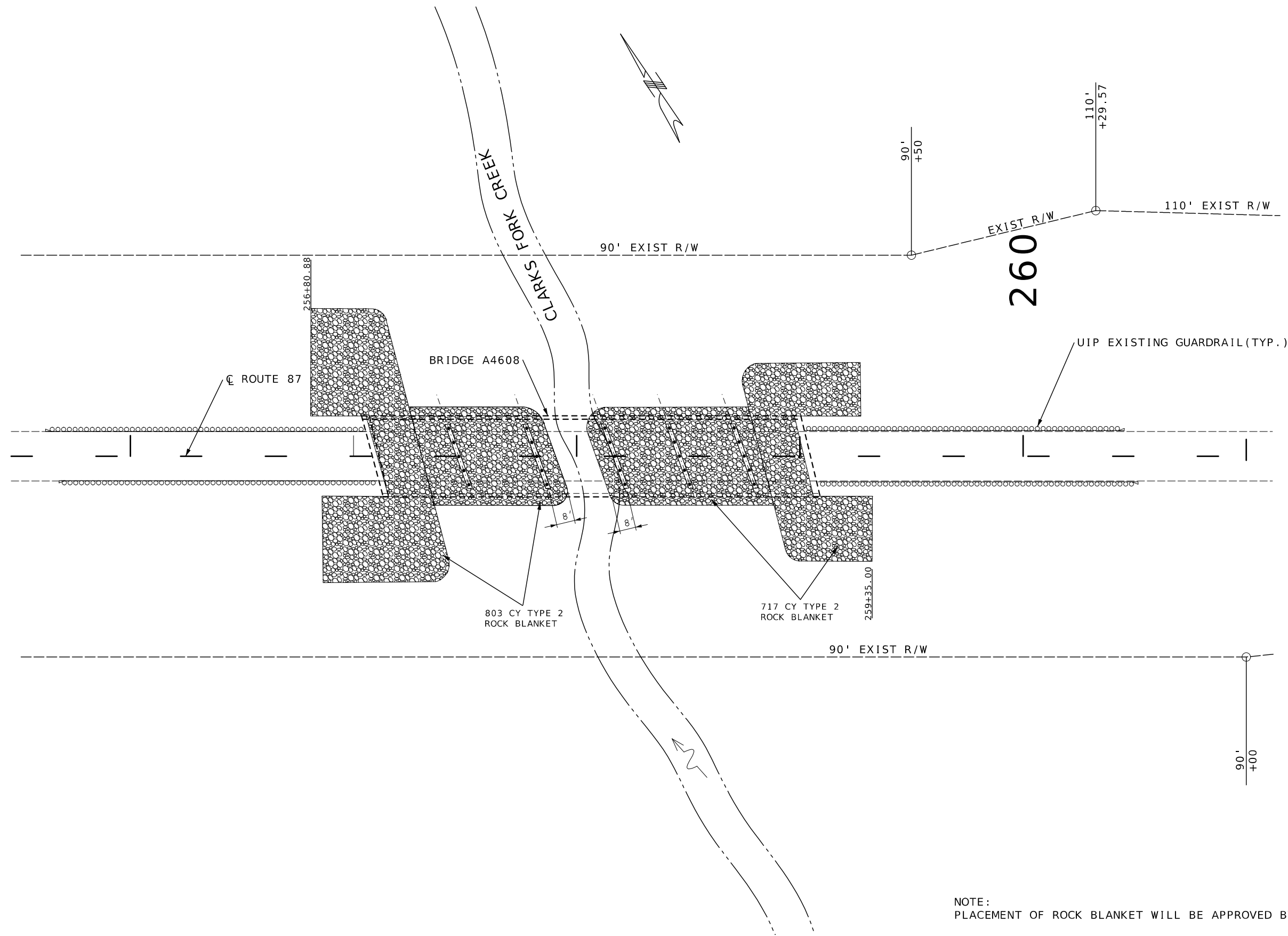
PROJECT NO.

BRIDGE NO.

DATE	DESCRIPTION

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

105 WEST CAPITOL  
JEFFERSON CITY, MO 65102  
1-888-ASK-MODOT (1-888-273-6636)



NOTE:  
PLACEMENT OF ROCK BLANKET WILL BE APPROVED BY THE ENGINEER.

NOT TO SCALE

PLAN SHEET  
1 OF 1











BILL OF REINFORCING STEEL - EACH PILE				
NO.	SIZE & MARK	ACTUAL LENGTH	SHAPE	BENDING DIAGRAM
Varies	4 P1	10'-0"	16	
8	5 V1	Varies	20	

Notes:  
 All dimensions are out to out.  
 Hooks and bends shall be in accordance with the CRSI Manual of Standard Practice for Detailing Reinforced Concrete Structures, Stirrup and Tie Dimensions.  
 Actual lengths are measured along centerline of bar to the nearest inch.  
 All bars shall be epoxy coated.

All exposed surfaces of the existing structural steel piles and sway bracing shall be recoated with one 6-mil thickness of gray epoxy-mastic primer applied over an SSPC-SP3 surface preparation in accordance with Sec 1081. The bituminous coating shall be applied one foot above and below the existing ground line and in accordance with Sec 702. These protective coatings will not be required below the normal low water line. The cost of surface preparation will be considered completely covered by the contract lump sum price for Surface Preparation for Applying Epoxy-Mastic Primer. The cost of the gray epoxy-mastic primer and bituminous coating will be considered completely covered by the contract lump sum price for Gray Epoxy-Mastic Primer.

General Notes:

All concrete for pile encasement shall be Class B ( $f'c = 3000$  psi).

The reinforcing steel shall be epoxy coated Grade 60 with  $f_y = 60,000$  psi

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

The exposed and accessible surfaces of the existing structural steel that will be encased in concrete shall be cleaned with a minimum of SSPC-SP-3 surface preparation and coated with a minimum of one coat of gray epoxy-mastic primer (non-aluminum) in accordance with Sec 1081 to produce a dry film thickness of not less than 3 mils before concrete is poured. The surface preparation and coating for piles shall extend a minimum of one foot outside the face of the pile encasement.

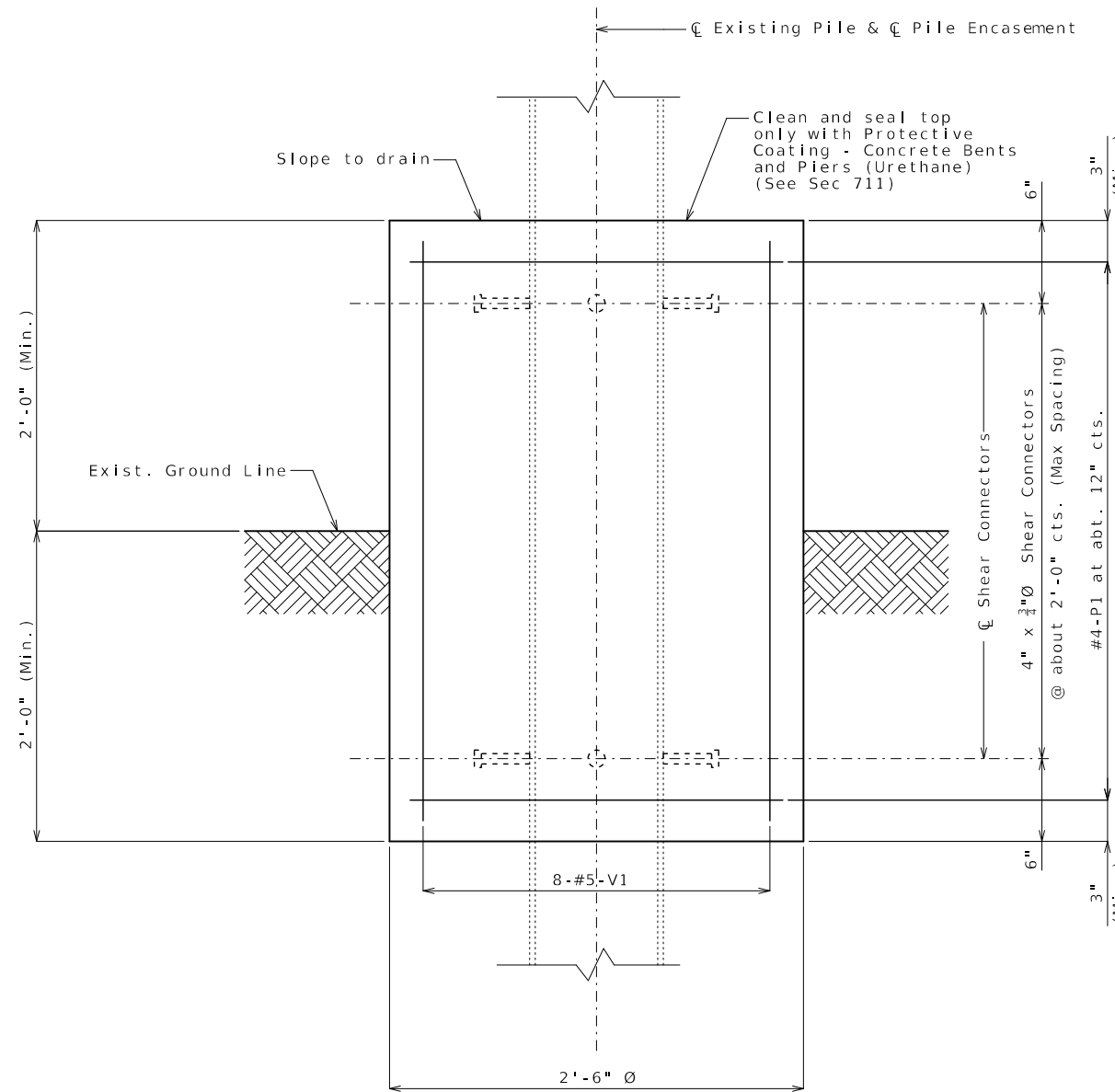
Cost of all concrete, reinforcement, shear connectors, surface preparation, coatings and any other incidental material or labor to complete pile encasement, complete in place, will be considered completely covered by the contract unit price for Pile Encasement.

Cost of all excavation will be considered completely covered by the contract lump sum price for Class 2 Excavation.

Cost of dewatering will be considered completely covered by the contract lump sum price for Dewatering. See special provisions.

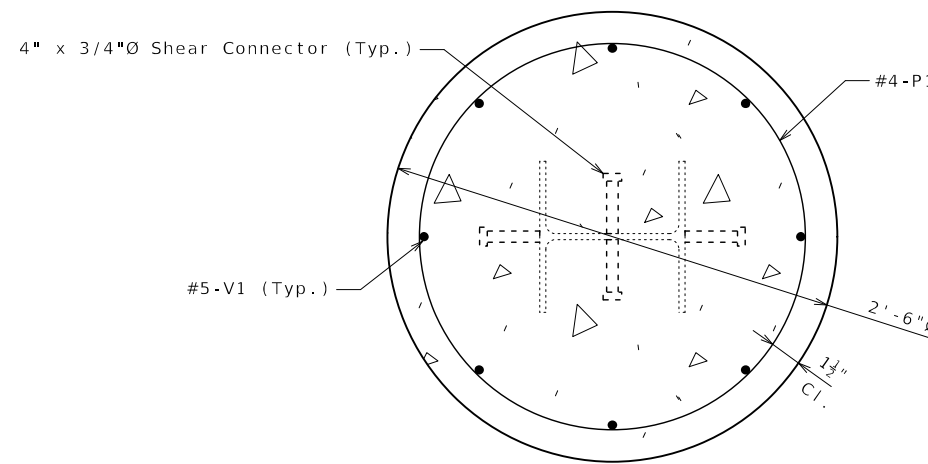
A FRP pile jacketing system may be used in lieu of pile encasement at the contractor's option. No additional payment will be made for this substitution. See special provisions.

Shear connectors shall be in accordance with Sec 712, 1037 and 1080.



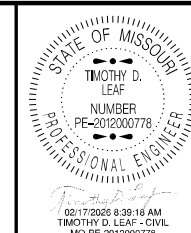
PART ELEVATION SHOWING PILE ENCASEMENT

Note: Existing sway bracing not shown for clarity. Shift reinforcing steel in the field to clear existing sway bracing.



SECTION SHOWING PILE ENCASEMENT

PILE ENCASEMENT AT INTERMEDIATE BENTS NO. 2 THRU 6



DATE PREPARED  
 2/17/2026  
 ROUTE 87 STATE MO  
 DISTRICT BR SHEET NO. 2  
 COUNTY COOPER  
 JOB NO. JCD0024  
 CONTRACT ID.

PROJECT NO.  
 BRIDGE NO. A46081

DATE	DESCRIPTION

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