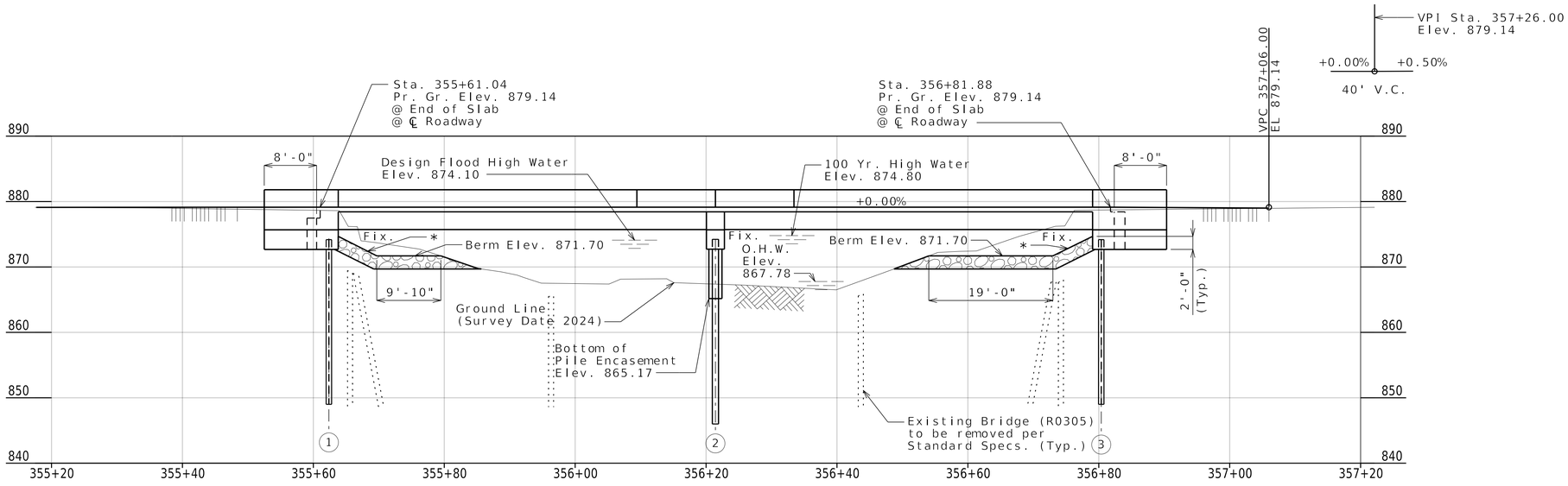
SEC/SUR 3 TWP 21N RGE 32W

(59'-59') PRESTRESSED CONCRETE SPREAD BOX BEAM SPANS



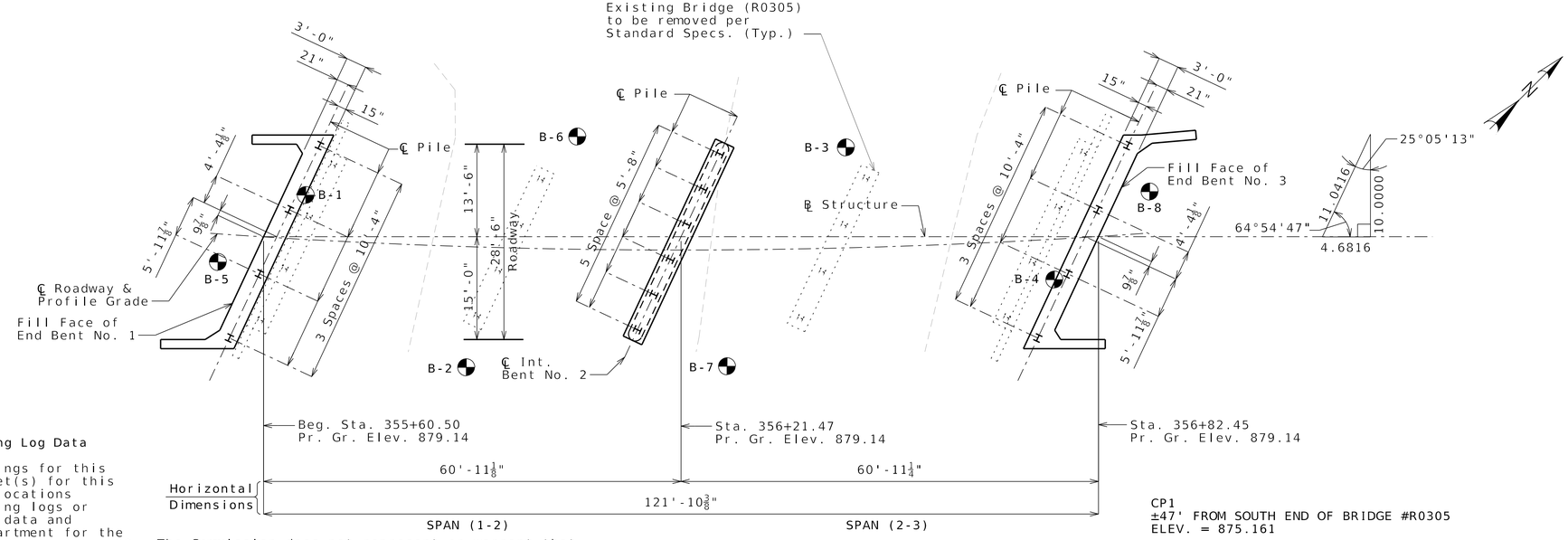
* 2:1 (H:V) Slope (Normal) with 2'-0" Type 2 Rock Blanket with Permanent Erosion Control Geotextile (Roadway Item) (Typ.)

GENERAL ELEVATION

HORIZONTAL CURVE INFORMATION

CURVE ℄ ROADWAY

PI 357+99.20
PC 351+93.97
PT 362+72.94
Δ 64°42'30.7" (LT)
D 5°59'50.3"
L 1,078.96' (ARC)
T 605.22'
R 955.36'
SE 5%



PLAN

℄ Indicates location of borings.

Notice and Disclaimer Regarding Boring Log Data

The locations of all subsurface borings for this structure are shown on the plan sheet(s) for this structure. The boring data for all locations indicated, as well as any other boring logs or other factual records of subsurface data and investigations performed by the department for the design of the project, are shown on Sheet(s) No. 28 thru 31 and may be included in the Electronic Bridge Deliverables. They will also be available from the Project Contact upon written request. No greater significance or weight should be given to the boring data depicted on the plan sheets than is given to the subsurface data available from the district or elsewhere.

The Commission does not represent or warrant that any such boring data accurately depicts the conditions to be encountered in constructing this project. A contractor assumes all risks it may encounter in basing its bid prices, time or schedule of performance on the boring data depicted here or those available from the district, or on any other documentation not expressly warranted, which the contractor may obtain from the Commission.

Designed Feb. 2026
Detailed Feb. 2026
Checked Feb. 2026

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

Sheet No. 1 of 31

CP1
±47' FROM SOUTH END OF BRIDGE #R0305
ELEV. = 875.161

CP2
±37.5' FROM NORTH END OF BRIDGE #R0305
ELEV. = 877.392

BRIDGE: ROUTE H OVER GOODIN HOLLOW

ROUTE H FROM BUS ROUTE 71 TO ROUTE I-49
ABOUT 0.3 MILES SW OF BUS ROUTE 71
BEGINNING STATION 355+60.50

STATE OF MISSOURI
DERRICK J. PRICE
NUMBER PE-2019032100
PROFESSIONAL ENGINEER
THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY.

DATE PREPARED 3/6/2026
ROUTE H | STATE MO
DISTRICT BR | SHEET NO. 1
COUNTY MCDONALD
JOB NO. JSR0143
CONTRACT ID.
PROJECT NO.
BRIDGE NO. A9734

DESCRIPTION	DATE

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

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Estimated Quantities

Item		Substr.	Superstr.	Total
Class 1 Excavation	cu. yard	85		85
Removal of Bridges (R0305)	lump sum			1
Bridge Approach Slab (Minor)	sq. yard		130	130
Galvanized Structural Steel Piles (12 in.)	linear foot	420		420
Pile Wave Analysis	each	1		1
Pre-Bore for Piling	linear foot	164		164
Pile Point Reinforcement	each	14		14
Class B Concrete (Substructure)	cu. yard	62.4		62.4
Type H Barrier	linear foot		276	276
Slab on Concrete Beam	sq. yard		418	418
21 in., Prestressed Concrete Spread Box Beam	linear foot		472	472
Reinforcing Steel (Bridges)	pound	2,860		2,860
Slab Drain	each		10	10
Vertical Drain at End Bents	each			2
Plain Neoprene Bearing Pad	each		8	8
Laminated Neoprene Bearing Pad	each		8	8

All concrete above the construction joint in the end bents is included in the Estimated Quantities for Slab on Concrete Beam.

All reinforcement in the end bents is included in the Estimated Quantities for Slab on Concrete Beam.

All reinforcement in the intermediate bent concrete diaphragms except reinforcement embedded in the beam cap is included in the Estimated Quantities for Slab on Concrete Beam.

All concrete above the intermediate beam cap is included in the Estimated Quantities for Slab on Concrete Beam.

Foundation Data

Type	Design Data		Bent Number 1	Bent Number 2	Bent Number 3
Load Bearing Pile	Pile Type and Size		HP 12x53	HP 12x53	HP 12x53
	Number	ea	4	6	4
	Approximate Length Per Each	ft	25	36	26
	Pile Point Reinforcement	ea	All	All	All
	Min. Galvanized Penetration (Elev.)	ft	Full Length	Full Length	Full Length
	Est. Max. Scour Depth 100 (Elev.)	ft	-	855	-
	Minimum Tip Penetration (Elev.)	ft	849	840	849
	Criteria for Min. Tip Penetration		*	Scour	*
	Pile Driving Verification Method		DF	WEAP	DF
	Resistance Factor		0.4	0.5	0.4
	Minimum Nominal Axial Compressive Resistance	kip	578	524	578

* Penetration of anticipated soft geotechnical layers

DF = FHWA-modified Gates Dynamic Pile Formula

WEAP = Wave Equation Analysis of Piles

Load Bearing Piles:
Minimum Nominal Axial Compressive Resistance = Maximum Factored Loads/Resistance Factor.

Prebore for piles at Bent No. 2 to elevation 840.0.

All piles shall be galvanized down to the minimum galvanized penetration (elevation).

Pile point reinforcement need not be galvanized. Shop drawings will not be required for pile point reinforcement.

HP Piles are anticipated to be driven to refusal on rock. Review all borings for depth of rock and restrict driving as appropriate to comply with hard rock driving criteria in accordance with Sec 702. When pile refusal on rock occurs, as approved by the engineer, the minimum nominal axial compressive resistance is verified and no additional pile driving verification method is required.

General Notes:

Design Specifications:

2020 AASHTO LRFD Bridge Design Specification (9th Ed.)

Seismic Design Category A (Nonseismic)

Design Loading:

Vehicular = HL-93
Future Wearing Surface = 35 lb/sf
Earth = 120 lb/cf
Equivalent Fluid Pressure 45 lb/cf (Min.)
Superstructure: Simply-Supported, Non-Composite for dead load.
Continuous Composite for live load.

Design Unit Stresses:

Class B Concrete (Substructure) f'c = 3,000 psi

Class B-2 Concrete (Superstructure, except Prestressed Beams and Barrier) f'c = 4,000 psi

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

Reinforcing Steel (ASTM A615 Grade 60) fy = 60,000 psi

Structural Steel HP Pile (ASTM A709 Grade 50) fy = 50,000 psi

For prestressed box beam stresses, see Sheet No. 13.

Neoprene Pads:

Neoprene bearing pads shall be 60 durometer and shall be in accordance with Sec 716.

Joint Filler:

All joint filler shall be in accordance with Sec 1057 for preformed sponge rubber expansion and partition joint filler, except as noted.

Reinforcing Steel:

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

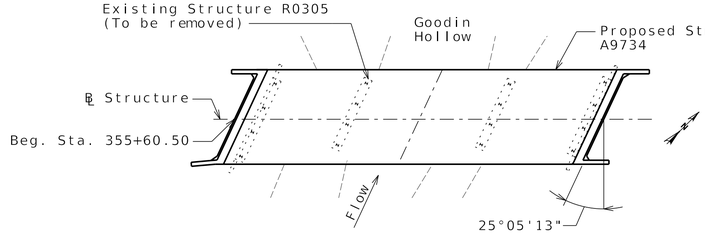
Minimum clearance between galvanized piles and uncoated (plain) reinforcing steel including bar supports shall be 1 1/2". Nylon, PVC, or polyethylene spacers shall be used to maintain clearance. Nylon cable ties shall be used to bind the spacers to the reinforcement.

Traffic Handling:

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

Hydrologic Data

Drainage Area = 5.5 mi²
Design Flood Frequency = 50 years
Design Flood Discharge = 3,290 cfs
Design Flood (D.F.) Elevation = 874.1
Base Flood (100-year)
Base Flood Elevation = 874.8
Base Flood Discharge = 4,600 cfs
Estimated Backwater = 1.2 ft
Average Velocity thru Opening = 9.6 ft/s
Freeboard (50-year)
Freeboard = 2.9 ft
Roadway Overtopping
Overtopping Flood Discharge = 4,600 cfs
Overtopping Flood Frequency = 100 years
Overtopping Flood Elevation = 874.8



LOCATION SKETCH

Estimated Quantities for Slab on Concrete Beam

Item		Total
Class B-2 Concrete	cu. yard	137
Reinforcing Steel (Epoxy Coated)	pound	42,790

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

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

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

STATE OF MISSOURI
DERRICK J. PRICE
NUMBER PE-2019032100
PROFESSIONAL ENGINEER
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DATE PREPARED 4/2/2026

ROUTE	STATE
H	MO
DISTRICT	SHEET NO.
BR	2

COUNTY MCDONALD

JOB NO. JSR0143

CONTRACT ID.

PROJECT NO.

BRIDGE NO. A9734

DATE	DESCRIPTION

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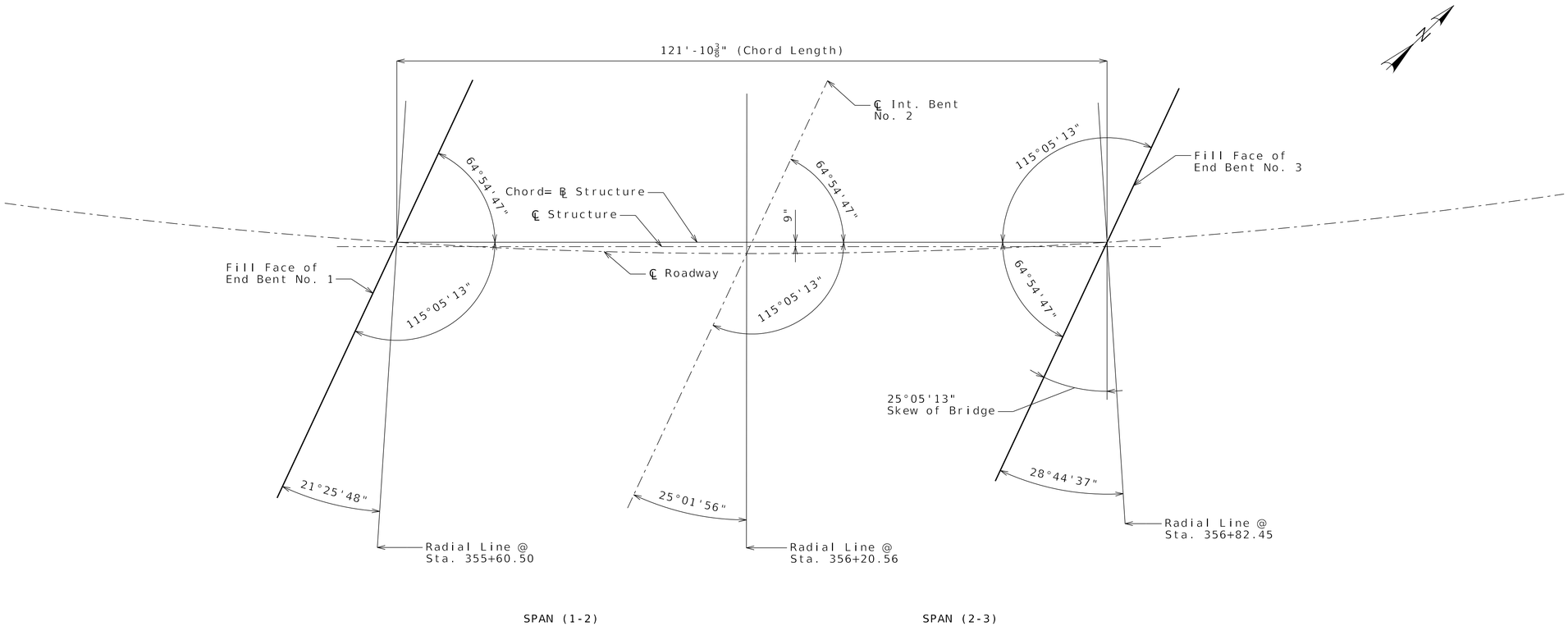
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Detailed Feb. 2026
Checked Feb. 2026

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PLAN

Notes:

All bents are parallel.

All dimensions are horizontal.

SUBSTRUCTURE LAYOUT

Detailed Feb. 2026
Checked Feb. 2026

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PROFESSIONAL ENGINEER
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DATE PREPARED 3/6/2026

ROUTE	STATE
H	MO
DISTRICT	SHEET NO.
BR	3

COUNTY: MCDONALD
JOB NO.: JSR0143
CONTRACT ID.:
PROJECT NO.:
BRIDGE NO.: A9734

DESCRIPTION	DATE

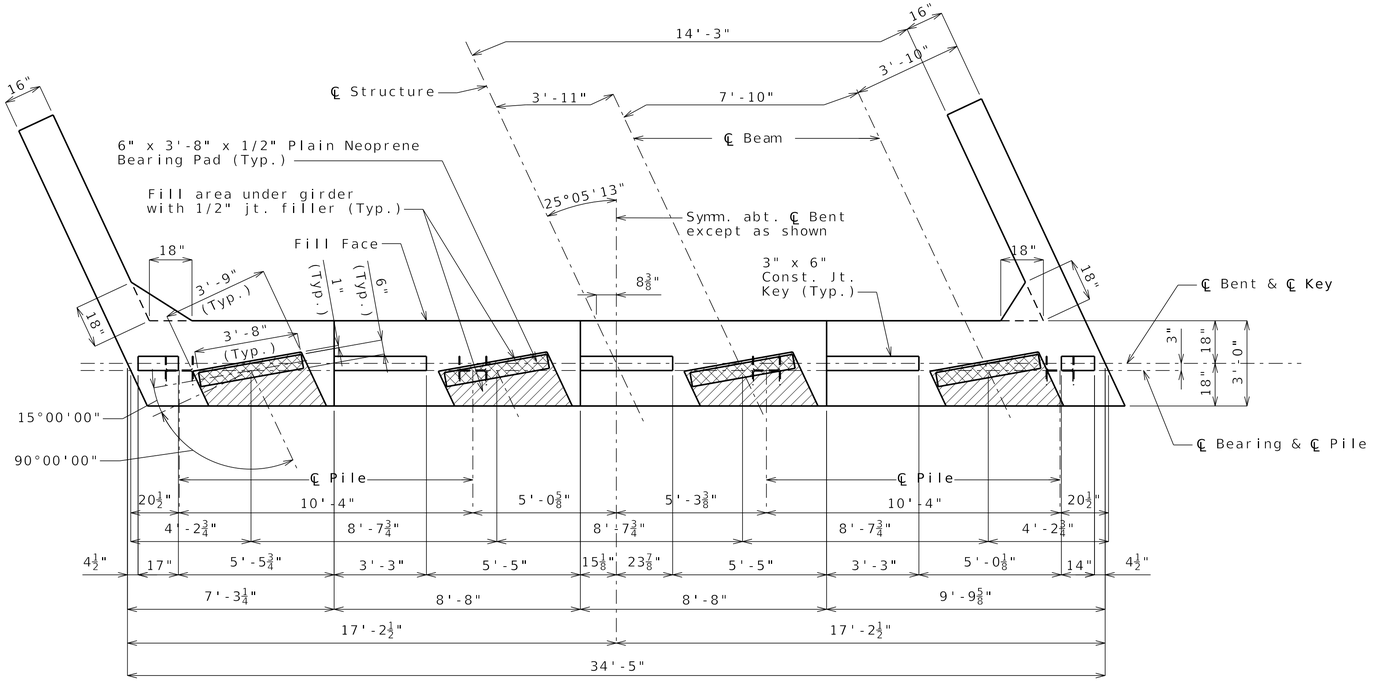
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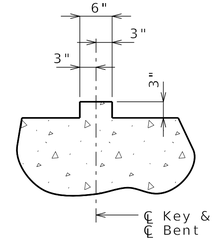
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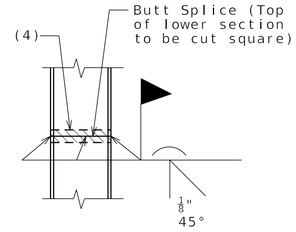
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PLAN OF BEAM



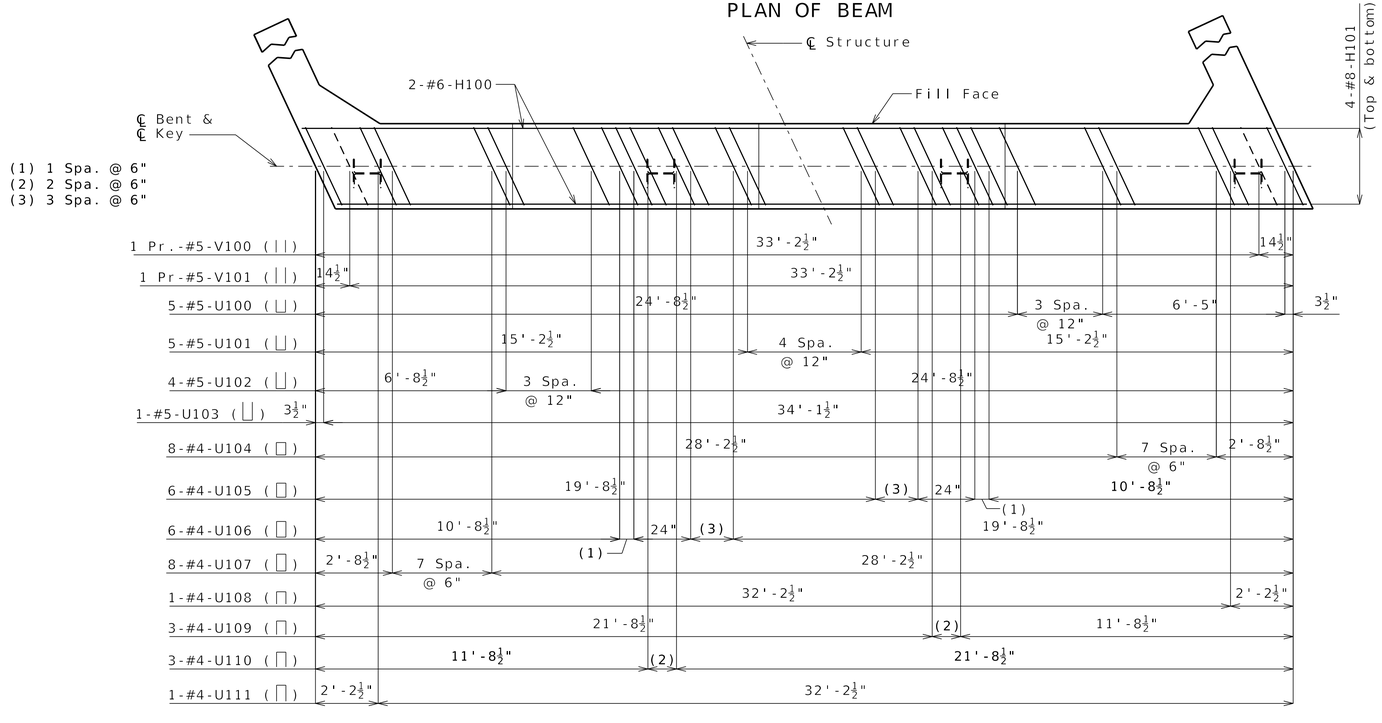
SECTION THRU KEY



STEEL PILE SPLICE

(If required)

(4) Galvanizing material shall be omitted or removed one inch clear of weld locations in accordance with Sec 702.



PLAN OF BEAM SHOWING REINFORCEMENT

Keys not shown for clarity.

General Notes:

Work this sheet with Sheets No. 5 & 6.

The U bars and pairs of V bars shall be placed parallel to centerline of roadway.

Reinforcement shall be shifted to clear piles. U bars shall clear piles by at least 1 1/2 inches.

Substructure Quantity Table for Bent No. 1		
Item		Quantity
Class 1 Excavation	cu. yard	35
Galvanized Structural Steel Piles (12 in.)	linear foot	100
Point Pile Reinforcement	each	4
Class B Concrete (Substructure)	cu. yard	16.3

These quantities are included in the Estimated Quantities table on Sheet No. 2.

END BENT NO. 1

Detailed Feb. 2026
Checked Feb. 2026

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PROFESSIONAL ENGINEER
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DATE PREPARED 3/6/2026

ROUTE	STATE
H	MO
DISTRICT	SHEET NO.
BR	4

COUNTY MCDONALD

JOB NO. JSR0143

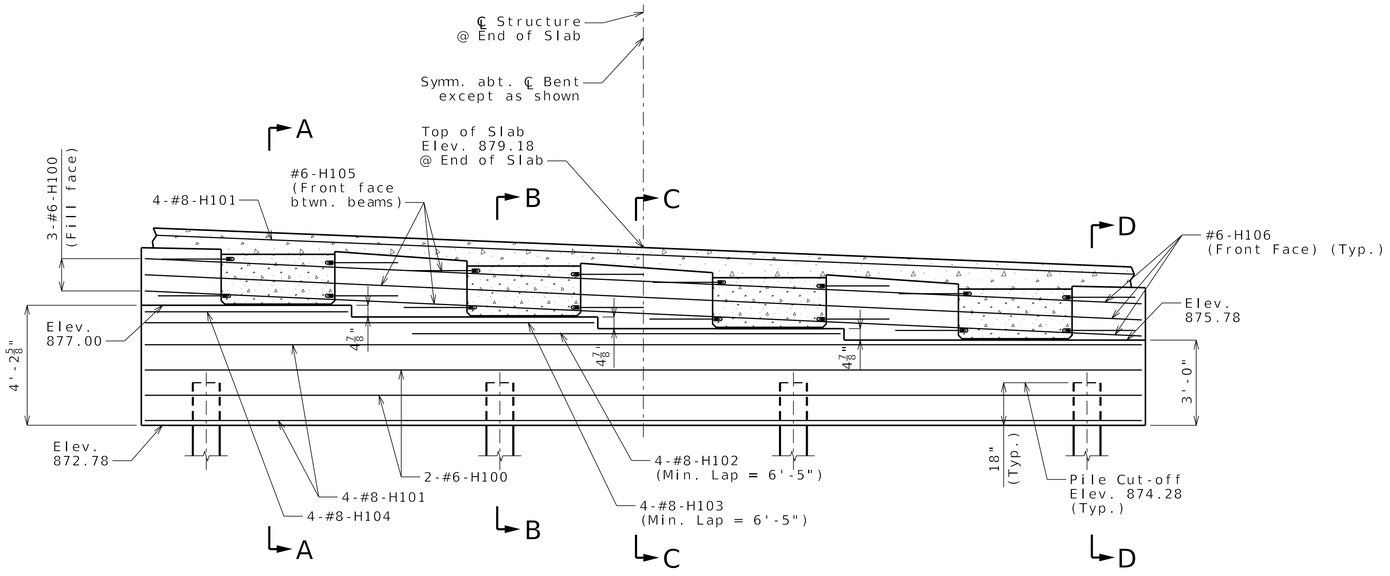
CONTRACT ID.

PROJECT NO.

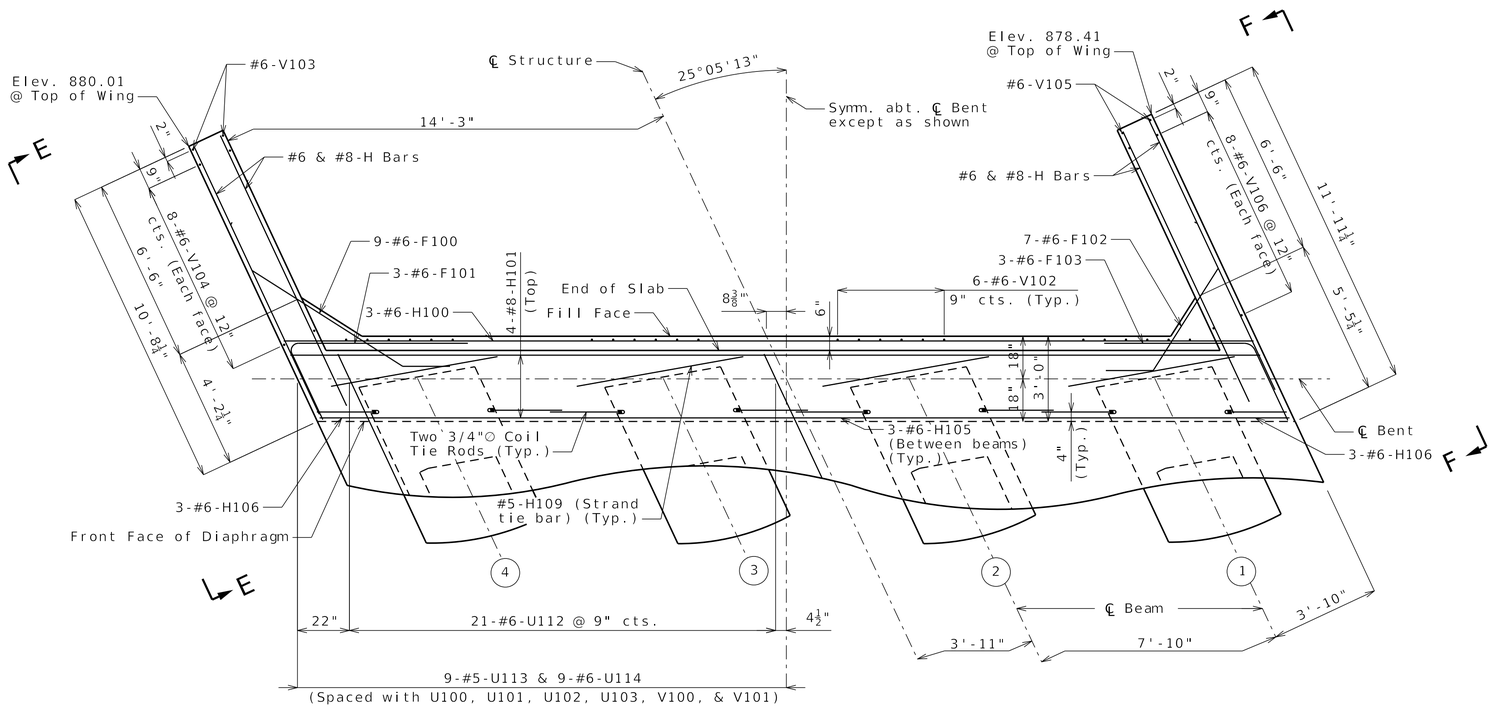
BRIDGE NO. A9734

DATE	DESCRIPTION

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SECTION NEAR END BENT



PART PLAN

END BENT NO. 1

General Notes:

Work this sheet with Sheets No. 4 & 6.

For Sections A-A, B-B, C-C & D-D and Elevations E-E & F-F, see Sheet No. 6.

The #6-F100 and #6-F102 bars shall be bent in the field to clear beams.

The U bars and pairs of V bars shall be placed parallel to centerline of roadway.

All concrete in the end bent above top of beam and below top of slab shall be Class B-2.

Strands at end of the beams shall be field bent or, if necessary, cut in field to maintain 1 1/2-inch minimum clearance to fill face of end bent.

For location of coil tie rods and #5-H109 (strand tie bar), see Sheet No.13.

For details of vertical drain at end bents, see Sheet No.7.

For details of bridge approach slab, see Sheets No. 22 & 23.

Detailed Feb. 2026
Checked Feb. 2026

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DATE PREPARED 3/6/2026
ROUTE H | STATE MO
DISTRICT BR | SHEET NO. 5
COUNTY MCDONALD
JOB NO. JSR0143
CONTRACT ID.
PROJECT NO.
BRIDGE NO. A9734

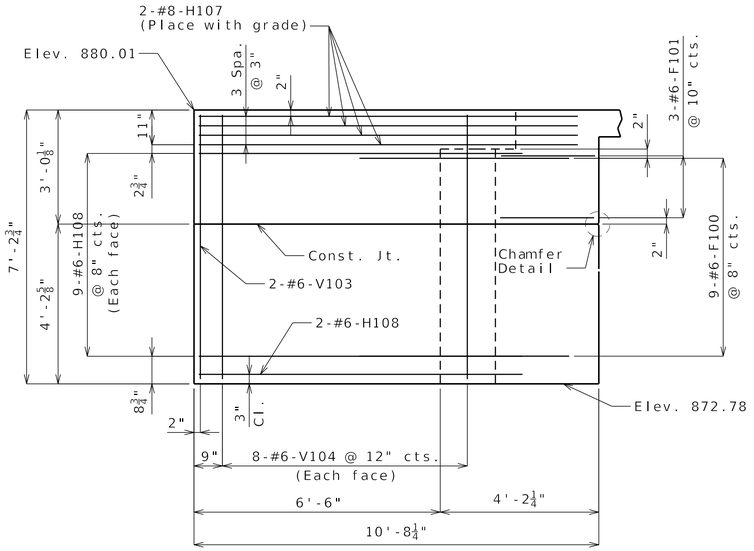
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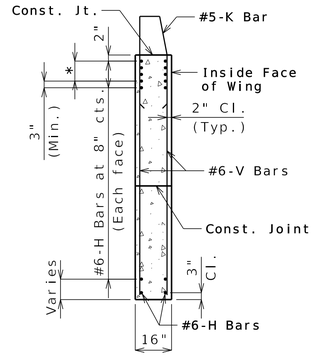
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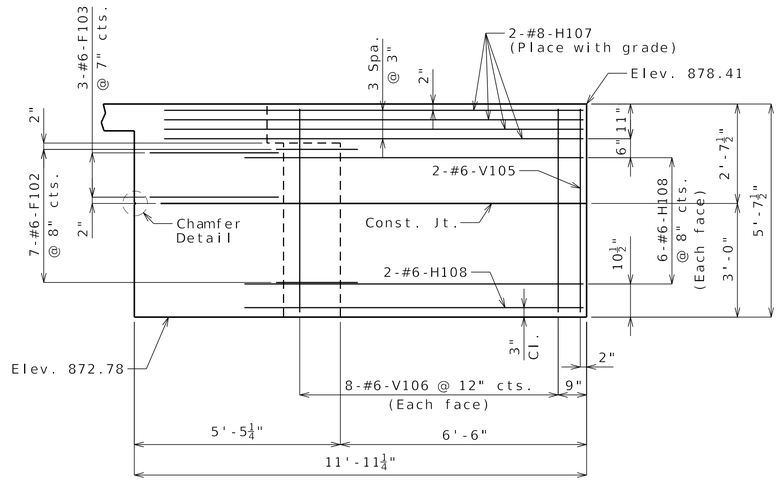
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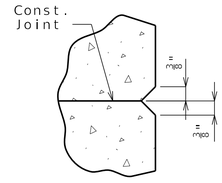
ELEVATION E-E



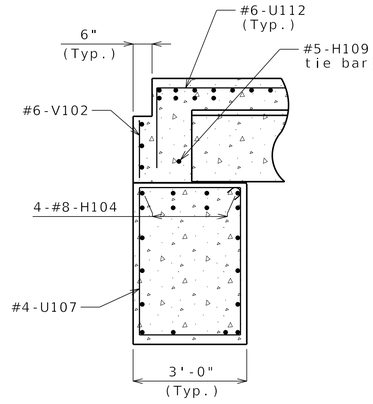
TYPICAL SECTION
THRU WING
(5) #8-H Bars at 3" cts.
(Each face)(Place with grade)



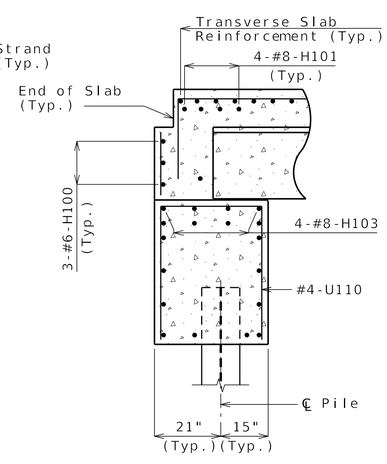
ELEVATION F-F



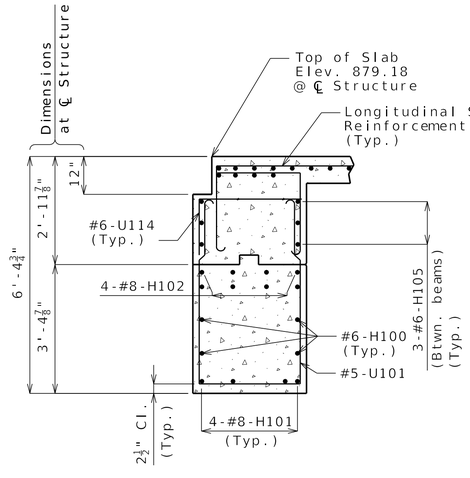
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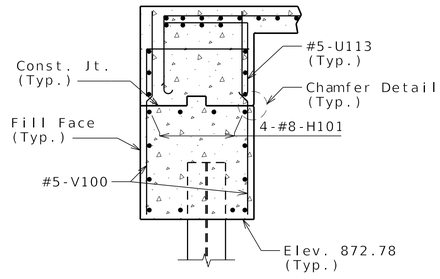
SECTION A-A



SECTION B-B



SECTION C-C



SECTION D-D

General Notes:

Work this sheet with Sheets No. 4 & 5.

For locations of Sections A-A, B-B, C-C, & D-D and Elevations E-E & F-F, see Sheet No. 5.

For reinforcement of the barrier, see Sheets No. 20 & 21.

END BENT NO. 1

Detailed Feb. 2026
Checked Feb. 2026

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

Sheet No. 6 of 31

B_A9734_006_JSR0143_EB1-3.dgn 3:21:06 PM 3/6/2026

STATE OF MISSOURI
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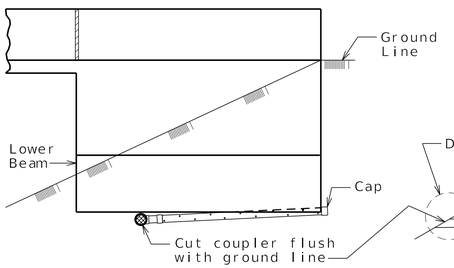
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ROUTE: H | STATE: MO
DISTRICT: BR | SHEET NO.: 6
COUNTY: MCDONALD
JOB NO.: JSR0143
CONTRACT ID.:
PROJECT NO.:
BRIDGE NO.: A9734

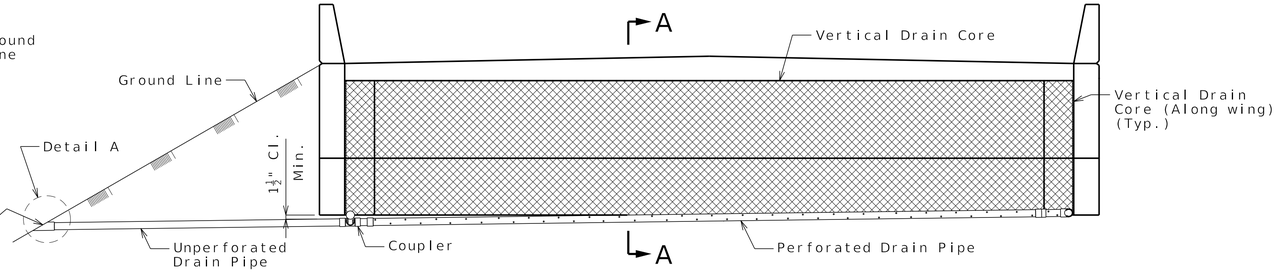
DESCRIPTION	DATE

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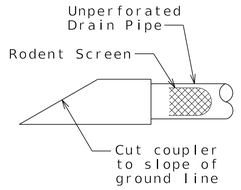
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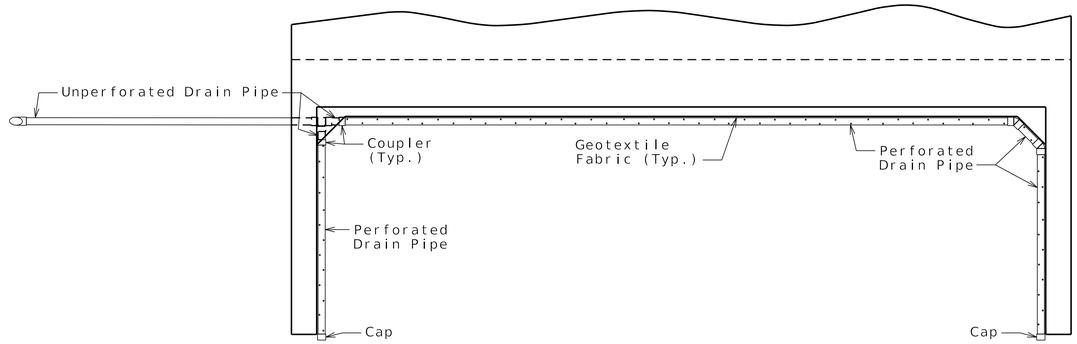
ELEVATION OF WING



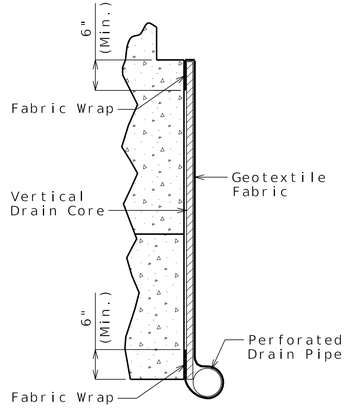
ELEVATION OF END BENT



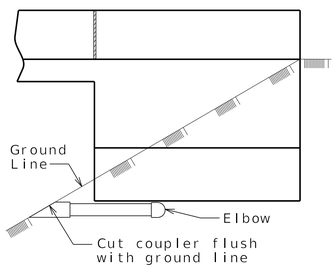
DETAIL A



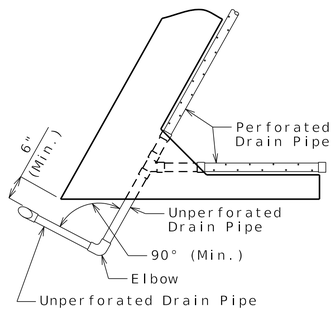
PLAN OF END BENT



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 Feb. 2026
Checked Feb. 2026

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

STATE OF MISSOURI
DERRICK L. PRICE
NUMBER PE-2019032100
PROFESSIONAL ENGINEER
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DATE PREPARED 3/6/2026

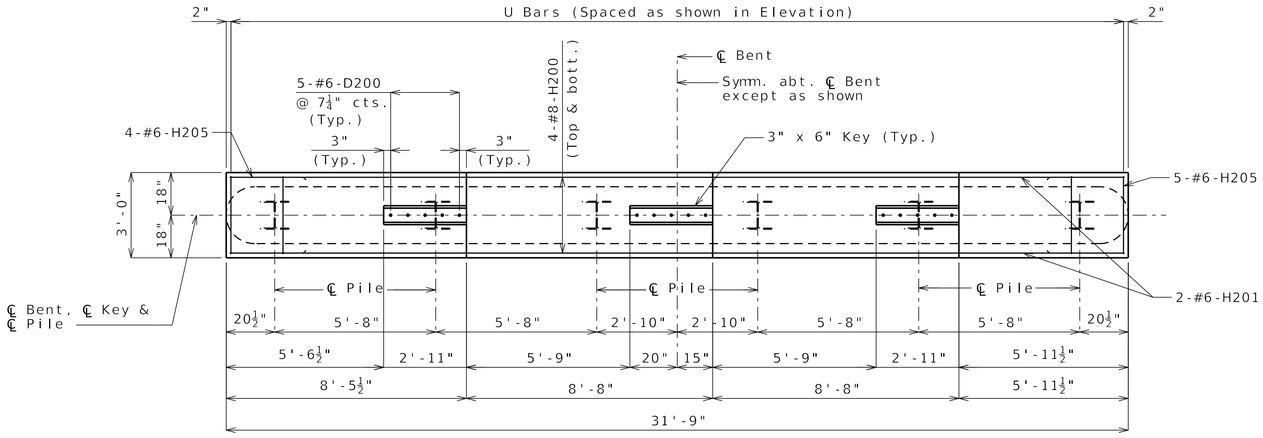
ROUTE	STATE
H	MO
DISTRICT	SHEET NO.
BR	7

COUNTY MCDONALD
JOB NO. JSR0143
CONTRACT ID.
PROJECT NO.
BRIDGE NO. A9734

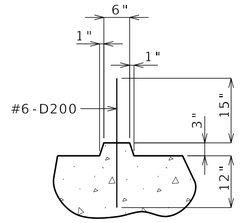
DESCRIPTION | DATE

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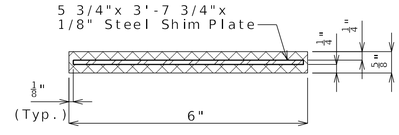
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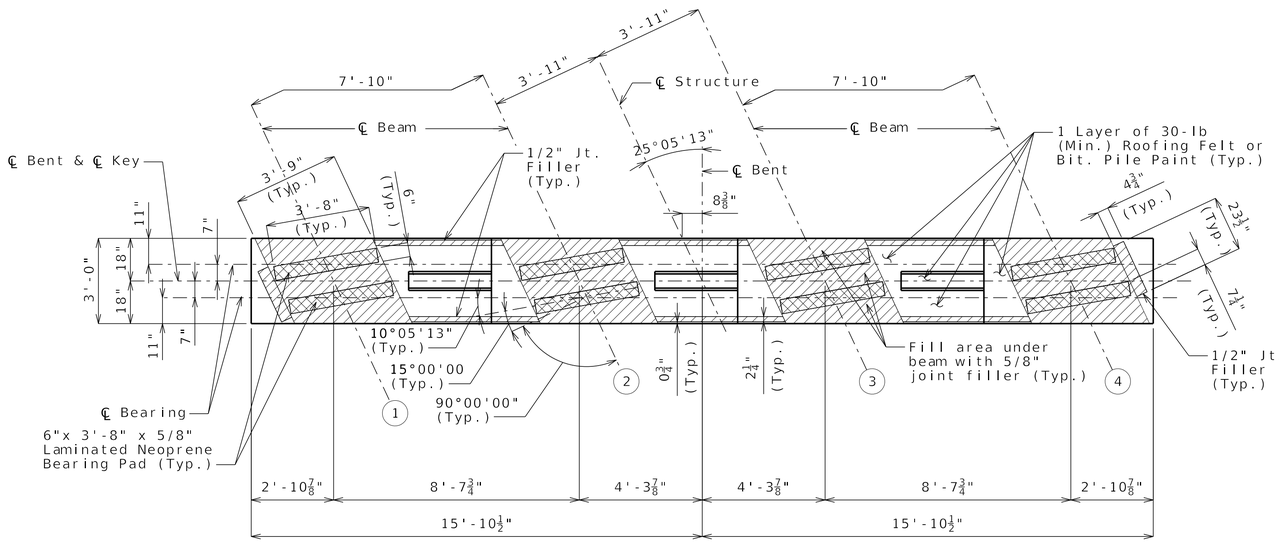
PLAN SHOWING REINFORCEMENT



SECTION THRU KEY



TYPICAL SECTION THRU LAMINATED NEOPRENE BEARING PAD



PLAN OF BEAM

General Notes:

Work this sheet with Sheet No. 9.

Reinforcing steel shall be shifted to clear piles. U bars shall clear piles by at least 1 1/2 inches.

For steps 2 inches or more, use 2 1/4 x 1/2 inch joint filler up vertical face.

Substructure Quantity Table for Bent No. 2

Item		Quantity
Class 1 Excavation	cu. yard	15
Galvanized Structural Steel Pile (12 in.)	linear foot	217
Pre-Bore for Piling	linear foot	164
Pile Point Reinforcement	each	6
Class B Concrete (Substructure)	cu. yard	30.0
Reinforcing Steel (Bridges)	pound	2,860

These quantities are included in the Estimated Quantities table on Sheet No. 2.

INTERMEDIATE BENT NO. 2

Detailed Feb. 2026
Checked Feb. 2026

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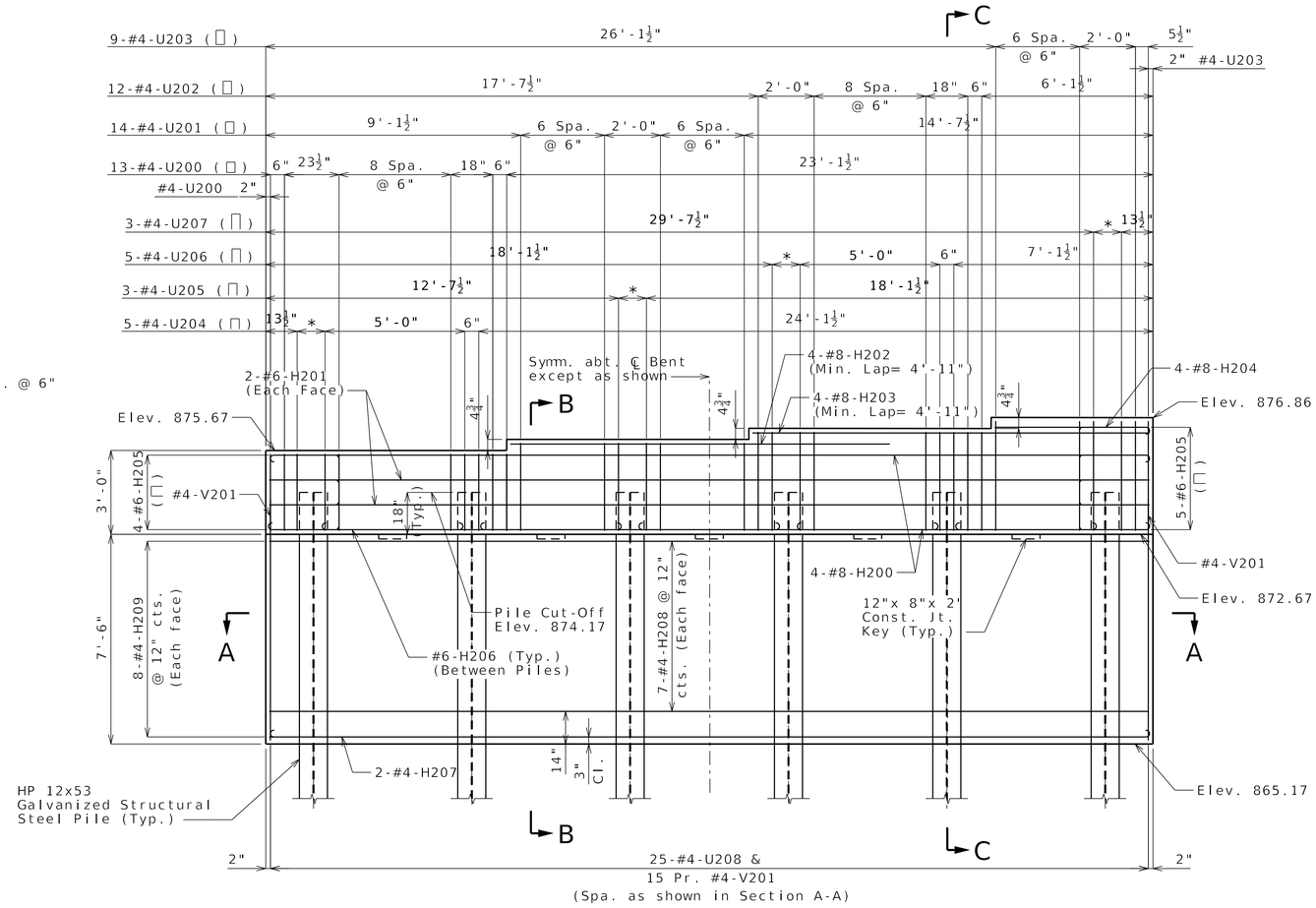
DATE PREPARED: 3/6/2026
ROUTE: H | STATE: MO
DISTRICT: BR | SHEET NO.: 8
COUNTY: MCDONALD
JOB NO.: JSR0143
CONTRACT ID.:
PROJECT NO.:
BRIDGE NO.: A9734

DESCRIPTION	DATE

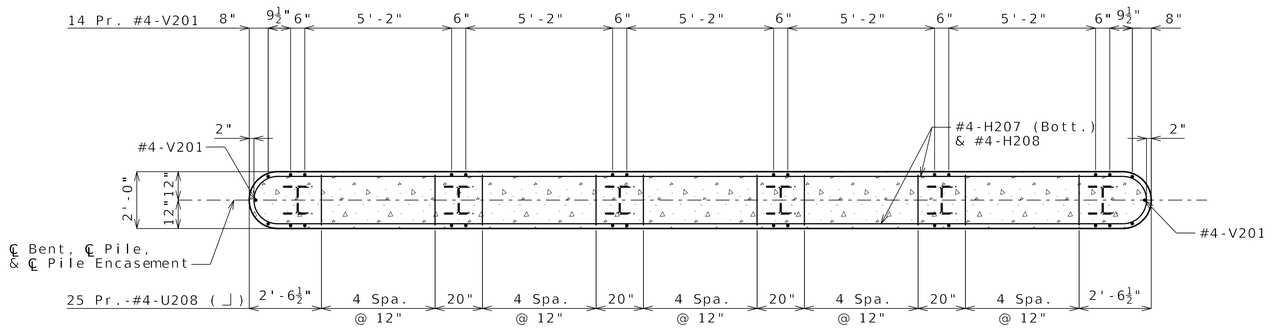
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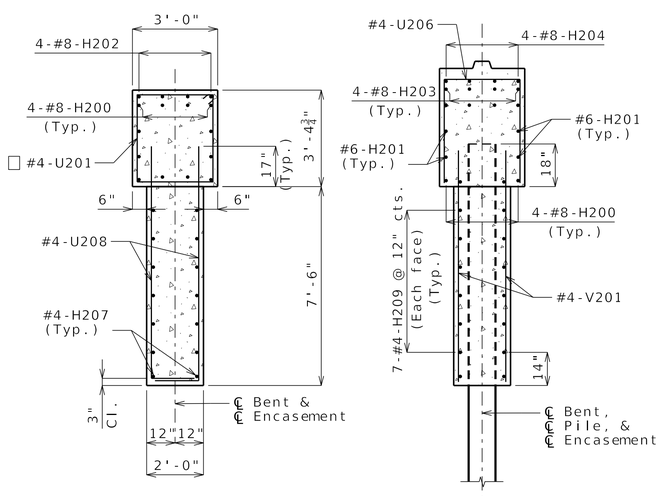
TREKK DESIGN GROUP, LLC



ELEVATION

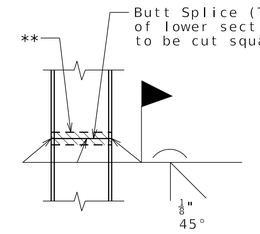


SECTION A-A



SECTION B-B

SECTION C-C



STEEL PILE SPLICE

(If required)

** Galvanizing material shall be omitted or removed one inch clear of weld locations in accordance with Sec 702.

General Notes:

Work this sheet with Sheet No. 8.

Reinforcing steel shall be shifted to clear piles. U bars shall clear piles by at least 1 1/2 inches.

For steps 2 inches or more, use 2 1/4 x 1/2 inch joint filler up vertical face.

INTERMEDIATE BENT NO. 2

Detailed Feb. 2026
Checked Feb. 2026

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STATE OF MISSOURI
DERRICK J. PRICE
NUMBER PE-2019032100
PROFESSIONAL ENGINEER
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DATE PREPARED 3/6/2026

ROUTE	STATE
H	MO
DISTRICT	SHEET NO.
BR	9

COUNTY MCDONALD

JOB NO. JSR0143

CONTRACT ID.

PROJECT NO.

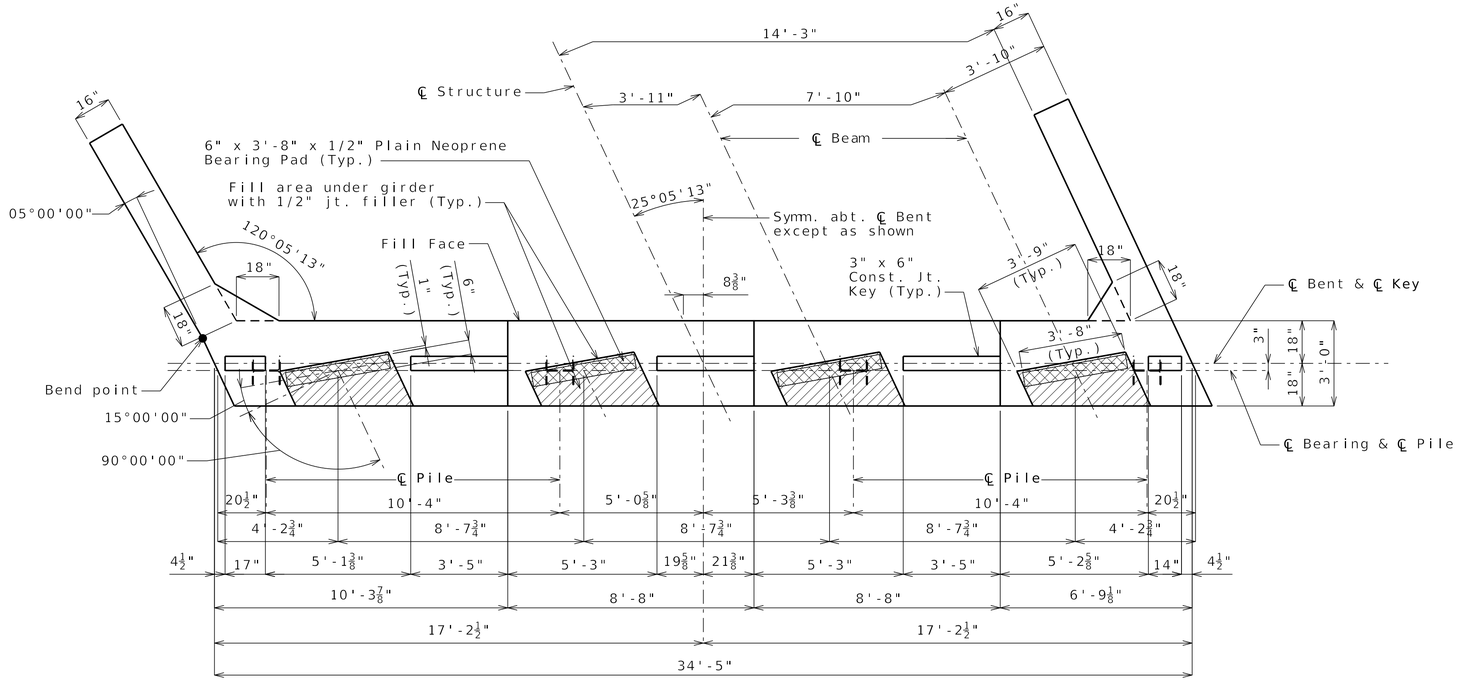
BRIDGE NO. A9734

DATE	DESCRIPTION

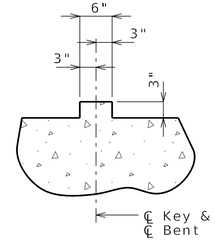
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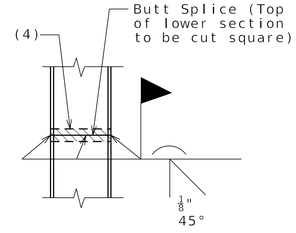
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PLAN OF BEAM

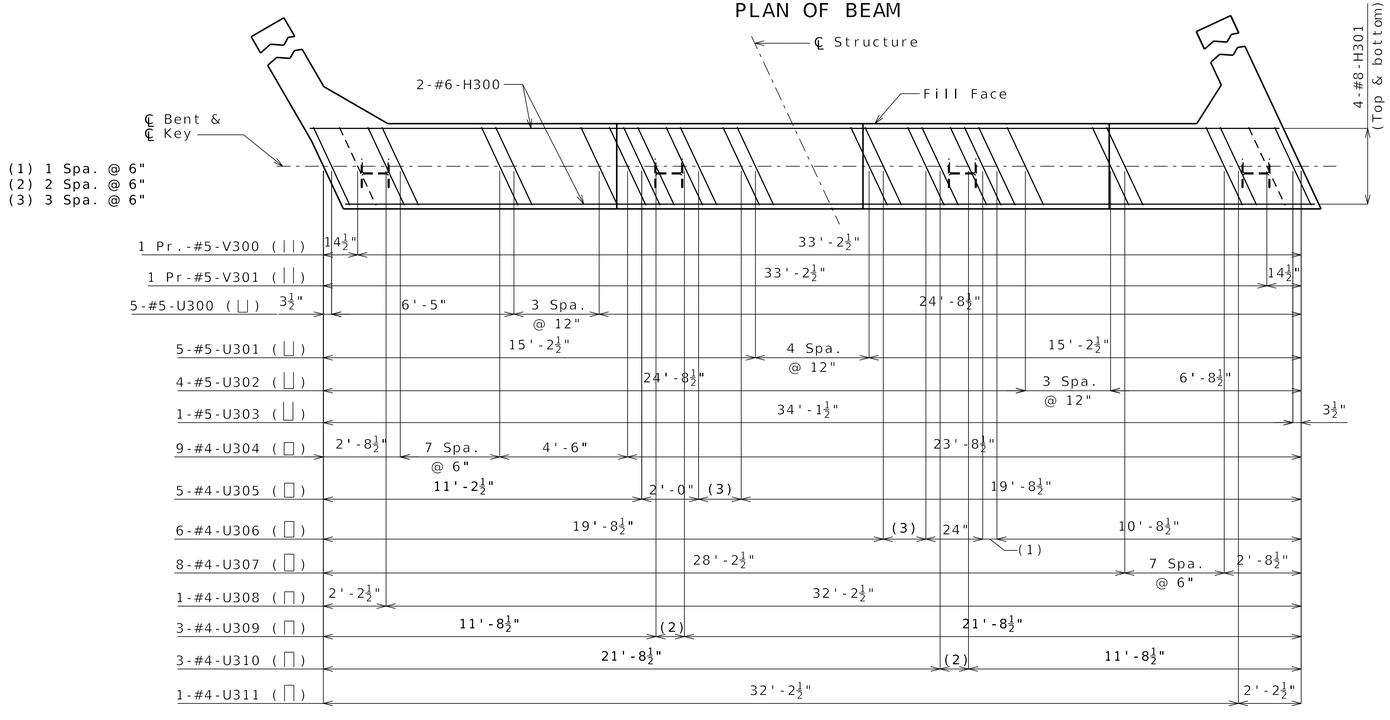


SECTION THRU KEY



STEEL PILE SPLICE
(If required)

(4) Galvanizing material shall be omitted or removed one inch clear of weld locations in accordance with Sec 702.



PLAN OF BEAM SHOWING REINFORCEMENT
Keys not shown for clarity.

General Notes:

Work this sheet with Sheets No. 11 & 12.

The U bars and pairs of V bars shall be placed parallel to centerline of roadway.

Reinforcement shall be shifted to clear piles. U bars shall clear piles by at least 1 1/2 inches.

Substructure Quantity Table for Bent No. 3		
Item		Quantity
Class 1 Excavation	cu. yard	35
Galvanized Structural Steel Piles (12 in.)	linear foot	103
Pile Point Reinforcement	each	4
Class B Concrete (Substructure)	cu. yard	16.1

These quantities are included in the Estimated Quantities table on Sheet No. 2.

END BENT NO. 3

Detailed Feb. 2026
Checked Feb. 2026

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PROFESSIONAL ENGINEER
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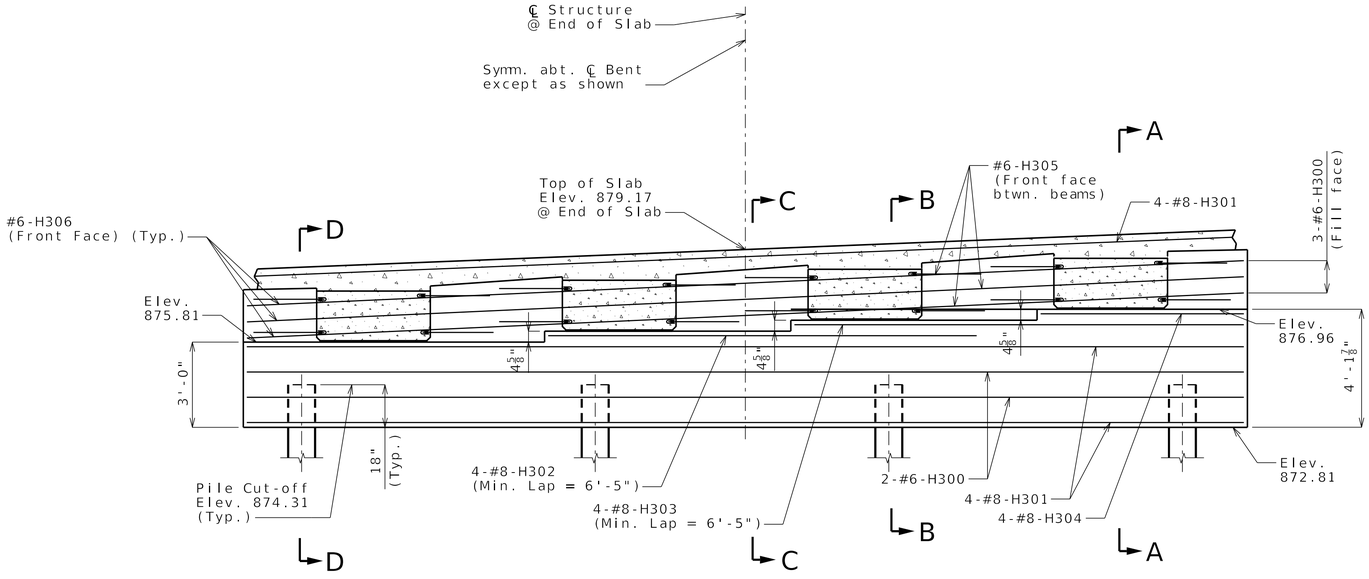
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DATE PREPARED 3/6/2026
ROUTE H | STATE MO
DISTRICT BR | SHEET NO. 10
COUNTY MCDONALD
JOB NO. JSR0143
CONTRACT ID.
PROJECT NO.
BRIDGE NO. A9734

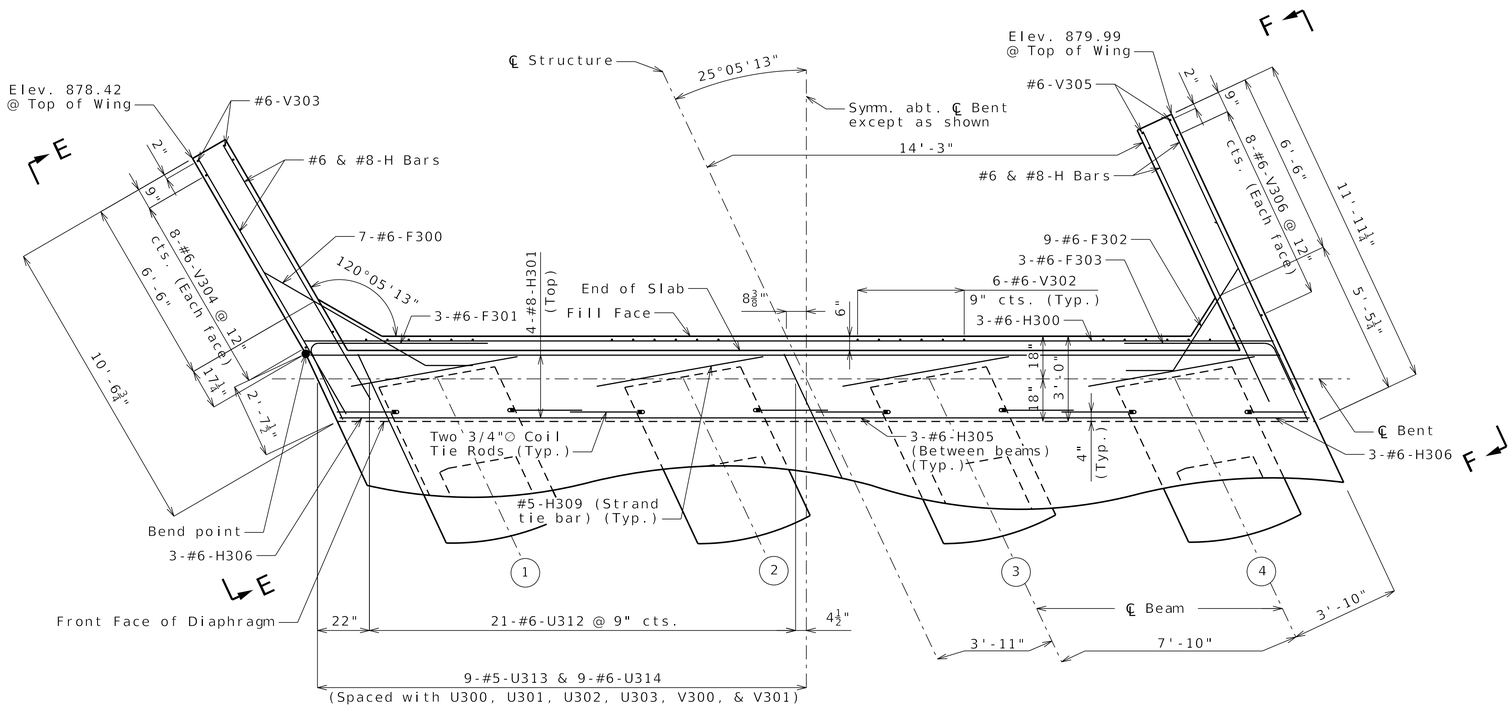
DESCRIPTION | DATE

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SECTION NEAR END BENT



PART PLAN

END BENT NO. 3

General Notes:

Work this sheet with Sheets No. 10 & 12.

For Sections A-A, B-B, C-C & D-D and Elevations E-E & F-F, see Sheet No. 12.

The #6-F300 and #6-F302 bars shall be bent in the field to clear beams.

The U bars and pairs of V bars shall be placed parallel to centerline of roadway.

All concrete in the end bent above top of beam and below top of slab shall be Class B-2.

Strands at end of the beams shall be field bent or, if necessary, cut in field to maintain 1 1/2-inch minimum clearance to fill face of end bent.

For location of coil tie rods and #5-H309 (strand tie bar), see Sheet No. 13.

For details of vertical drain at end bents, see Sheet No. 7.

For details of bridge approach slab, see Sheets No. 22 & 23.

Detailed Feb. 2026
Checked Feb. 2026

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DERRICK J. PRICE
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DATE PREPARED 3/6/2026

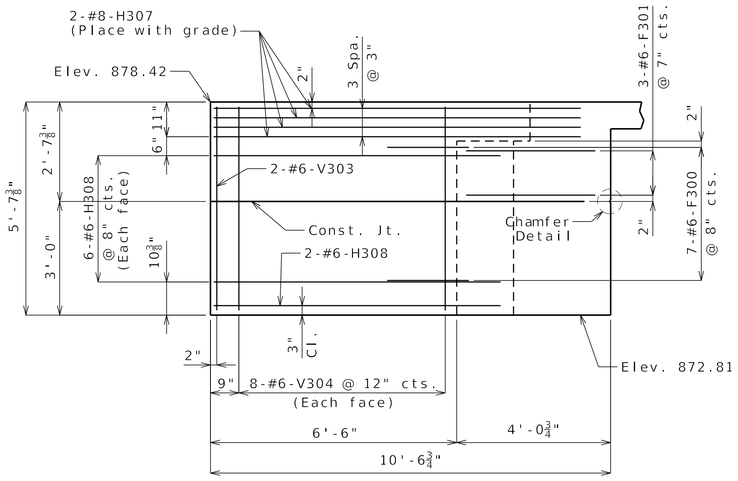
ROUTE	STATE
H	MO
DISTRICT	SHEET NO.
BR	11

COUNTY: MCDONALD
JOB NO.: JSR0143
CONTRACT ID.:
PROJECT NO.:
BRIDGE NO.: A9734

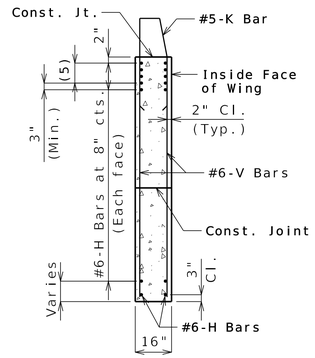
DATE	DESCRIPTION

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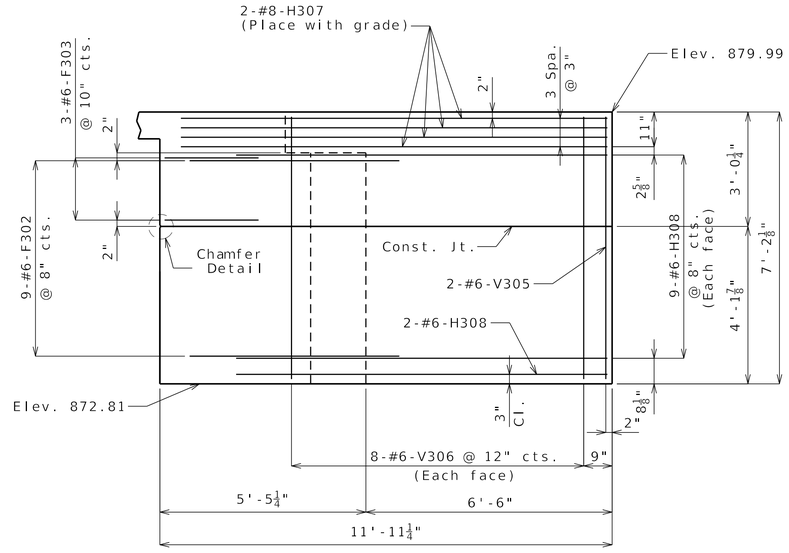


ELEVATION E-E

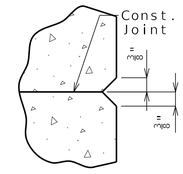


TYPICAL SECTION
THRU WING

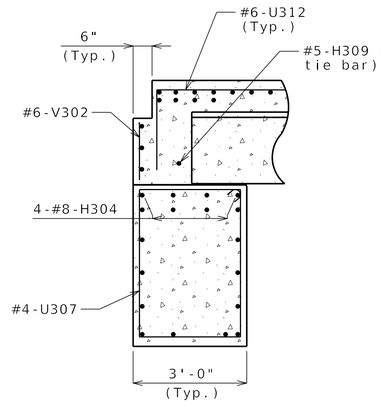
(5) #8-H Bars at 3" cts.
(Each face)(Place with grade)



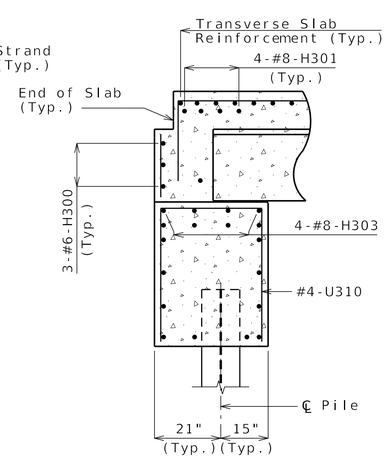
ELEVATION F-F



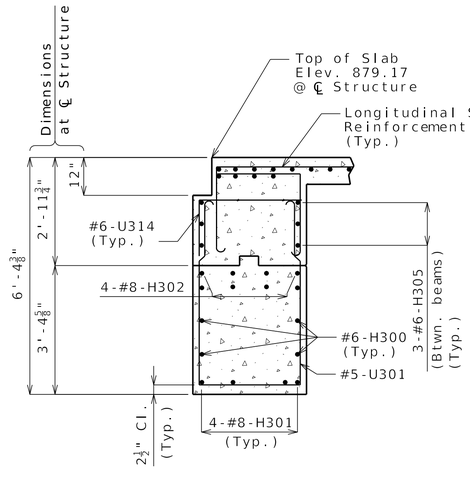
CHAMFER DETAIL



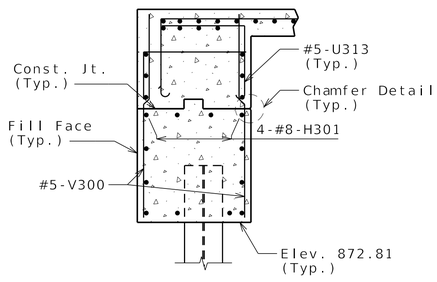
SECTION A-A



SECTION B-B



SECTION C-C



SECTION D-D

END BENT NO. 3

General Notes:

Work this sheet with Sheets No. 10 & 11.

For locations of Sections A-A, B-B, C-C, & D-D and Elevations E-E & F-F, see Sheet No. 11.

For reinforcement of the barrier, see Sheets No. 20 & 21.

Detailed Feb. 2026
Checked Feb. 2026

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

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STATE OF MISSOURI
DERRICK J. PRICE
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DATE PREPARED 3/6/2026

ROUTE	STATE
H	MO
DISTRICT	SHEET NO.
BR	12

COUNTY MCDONALD

JOB NO. JSR0143

CONTRACT ID.

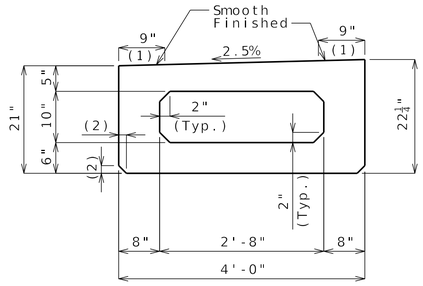
PROJECT NO.

BRIDGE NO. A9734

DESCRIPTION	DATE

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

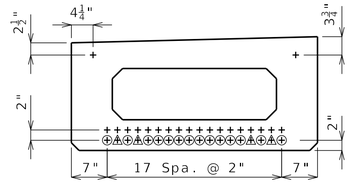
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DIMENSIONS

(1) Fabricator shall apply a bond breaker to this region excluding where joint filler will be applied.

(2) 1½" (Typ.) (¾" Optional)



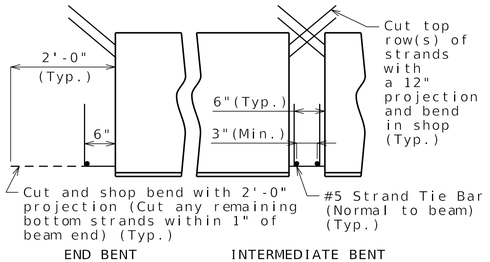
STRAND ARRANGEMENT

All strands are fully bonded unless otherwise noted.

\+ Indicates prestressing strand.

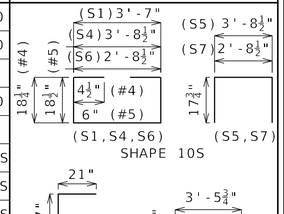
○ Indicates cut and shop bend with 2'-0" projection.

△ Indicates debonded for 6'-0" from end of beam.



STRANDS AT BEAM ENDS

BILL OF REINFORCING STEEL - EACH BEAM				
NO.	SIZE & MARK	ACTUAL LENGTH	SHAPE	BENDING DIAGRAM
5	5 A1	58'-9"	20	
4	4 A2	58'-9"	20	
18	4 C1	3'-7"	20	
48	5 S1	7'-3"	10S	
48	5 S2	6'-9"	51S	
48	4 S3	4'-6"	50S	
18	5 S4	7'-4"	10S	
18	5 S5	6'-6"	10S	
2	5 S6	6'-4"	10S	
2	5 S7	5'-6"	10S	
12	6 U1	4'-7"	10S	
4	4 U2	8'-4"	21S	



All dimensions are out to out. Use symmetry for dimensions not shown.

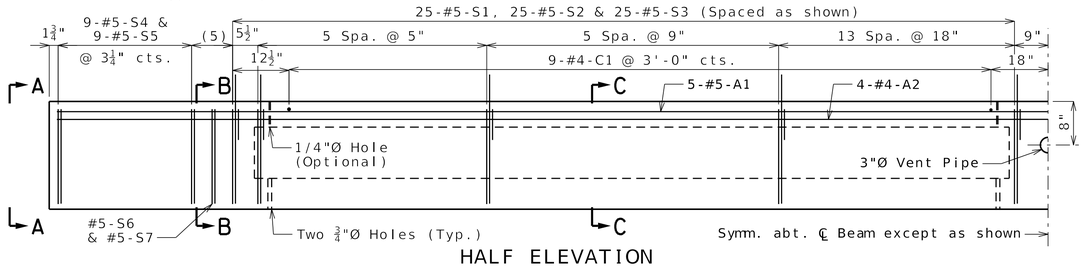
Hooks and bends shall be in accordance with the CRSI Manual of Standard Practice for Detailing Reinforced Concrete Structures, Stirrup and Tie Dimensions.

Actual lengths are measured along centerline of bar to the nearest inch.

Minimum clearance to reinforcing shall be one inch, unless otherwise shown.

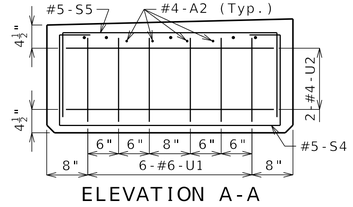
All reinforcement shall be ASTM A615 or A706 Grade 60.

All S2 bars shall be epoxy coated.



HALF ELEVATION

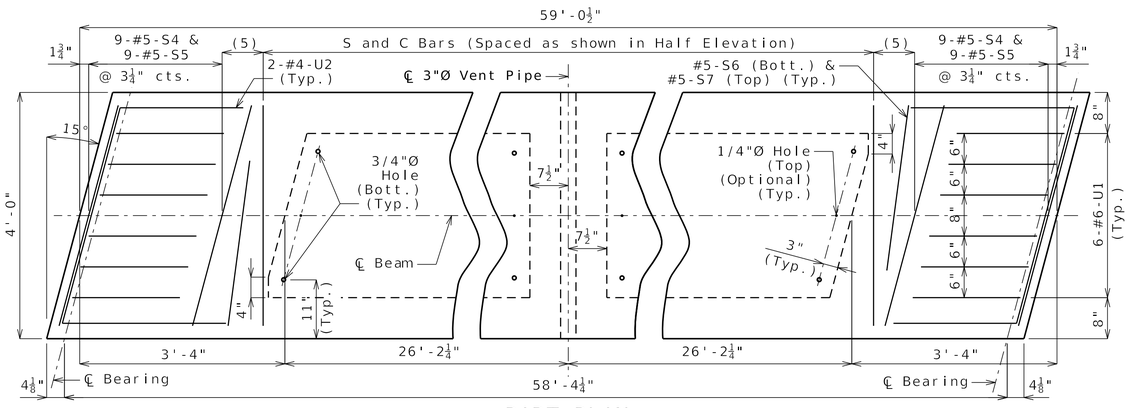
Dimensions taken along ℄ Beam.



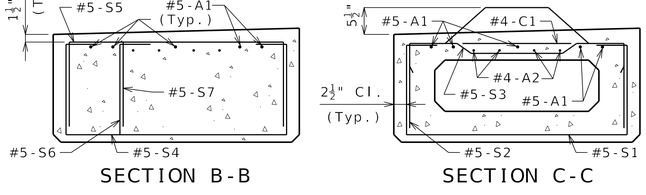
ELEVATION A-A

(5) 2 Spa. @ 4"

Strands not shown for clarity.



PART PLAN



SECTION B-B SECTION C-C

General Notes:

Concrete for prestressed beams shall be Class A-1 with f'c = 8000 psi and f'ci = 6500 psi.

Use 38 strands, 0.5"Ø Grade 270, with an initial prestress force of 1177 kips.

Pretensioned members shall be in accordance with Sec 1029.

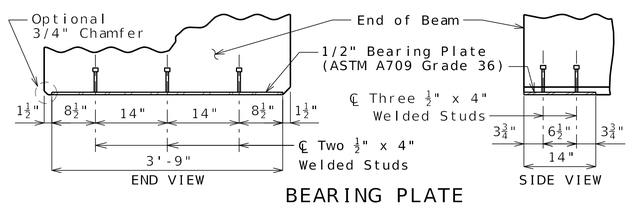
Fabricator shall be responsible for location and design of lifting devices.

Exterior and interior beams are the same except: coil ties, application of bond breaker, coil inserts for slab drains.

For Beam Camber Diagram, see Sheet No. 16.

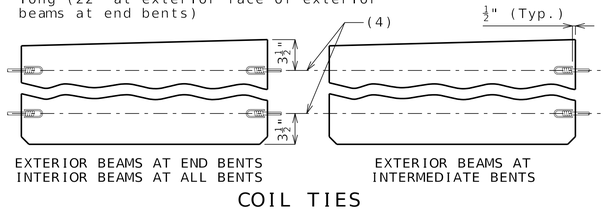
For location of coil inserts at slab drains, see Sheet No. 15.

For location of coil ties at concrete bent diaphragms, see Sheet No. 14.



BEARING PLATE

(4) ℄ 3/4"Ø (Min.) Coil Tie Rods 2'-6" long (22" at exterior face of exterior beams at end bents)



EXTERIOR BEAMS AT END BENTS
INTERIOR BEAMS AT ALL BENTS

EXTERIOR BEAMS AT INTERMEDIATE BENTS

COIL TIES

SPREAD BOX BEAMS - SPANS (1-2) AND (2-3)

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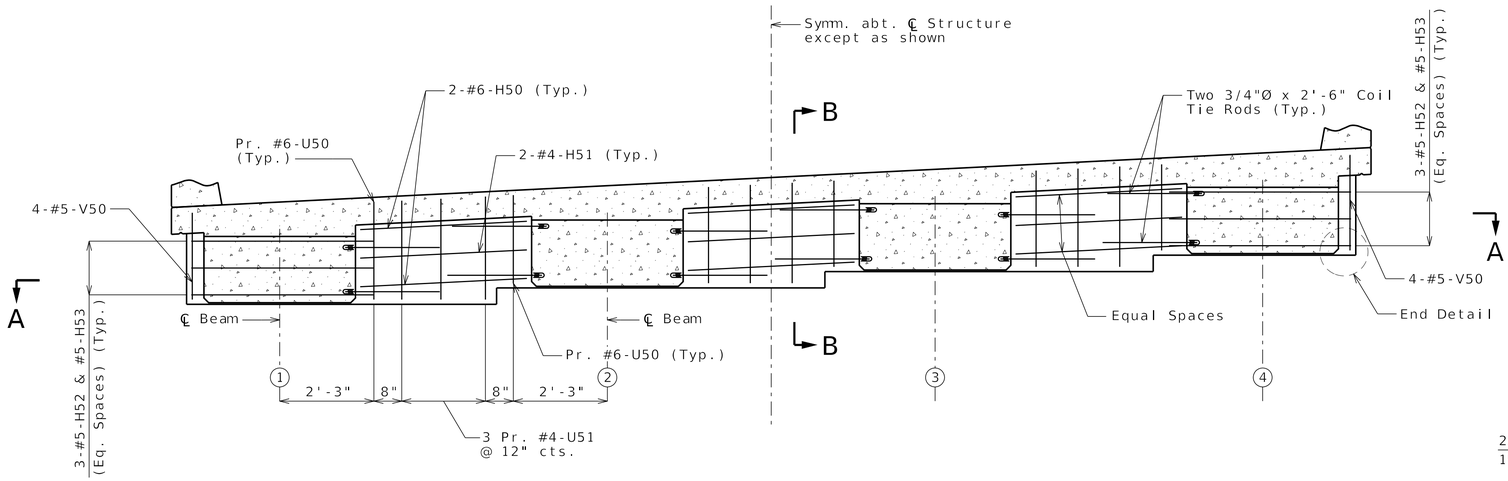
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PROJECT NO.
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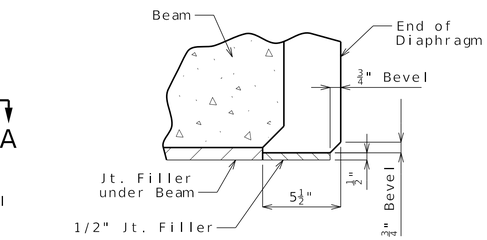
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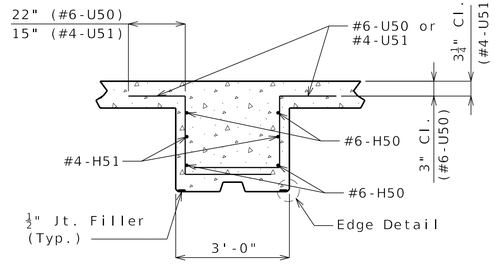


SECTION NEAR INTERMEDIATE BENT

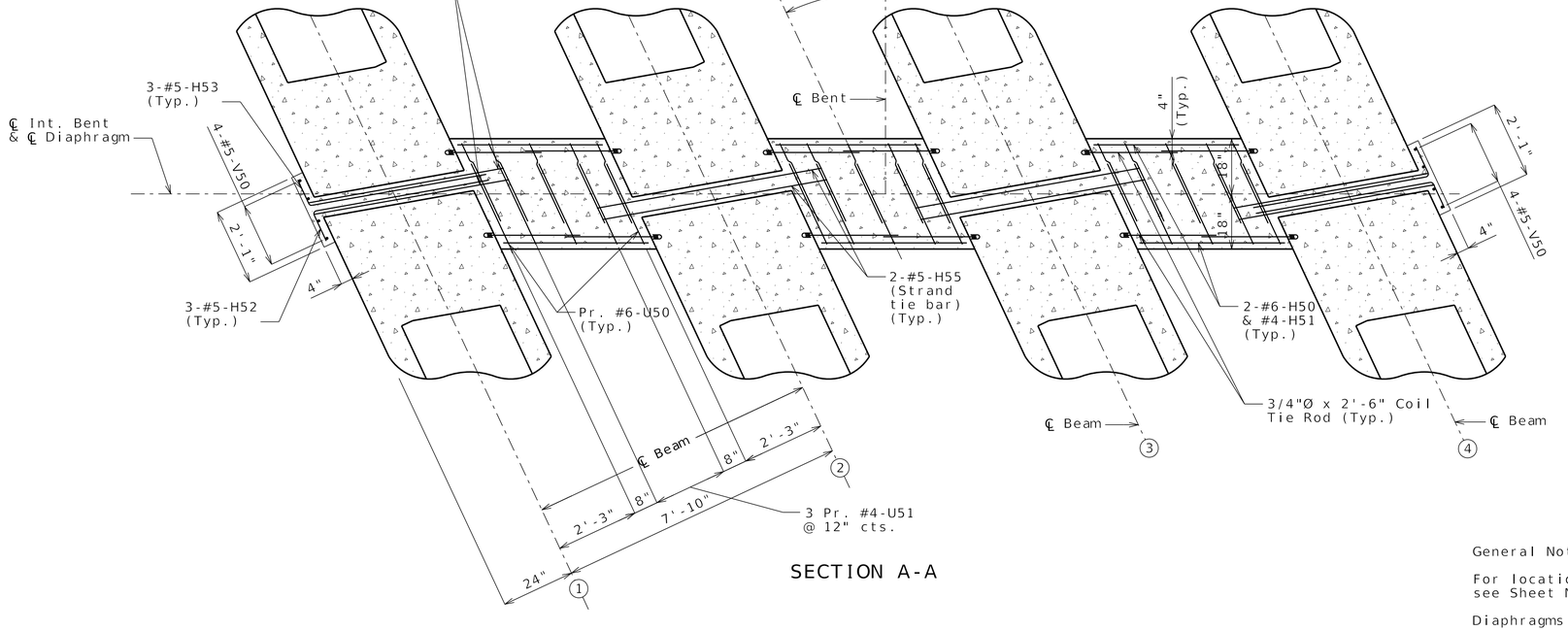
Normal to ℄ Structure



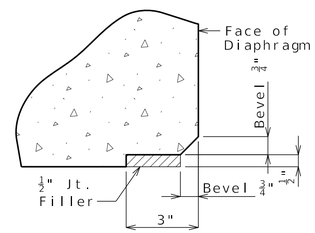
END DETAIL



SECTION B-B



SECTION A-A



EDGE DETAIL

General Notes:

For location of Strand Tie bars, and Coil Tie Rods, see Sheet No. 13.

Diaphragms at intermediate bents shall be built vertical.

All U bars in diaphragm are to be placed parallel to centerline of Roadway.

CONCRETE DIAPHRAGM AT INTERMEDIATE BENT NO. 2

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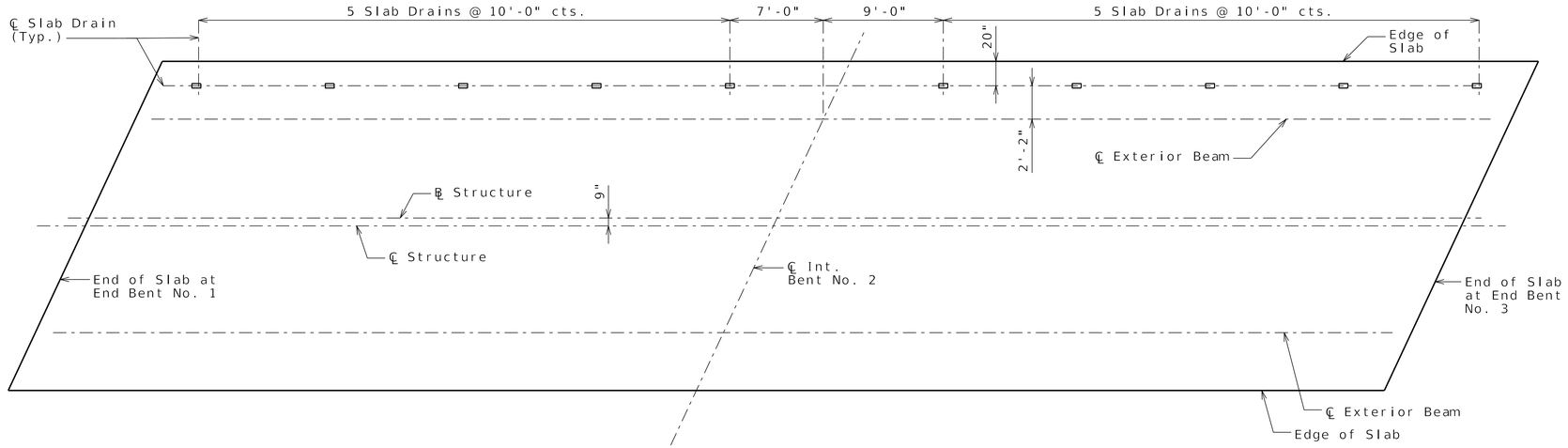
DATE PREPARED	3/6/2026
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DISTRICT	BR
SHEET NO.	14
COUNTY	MCDONALD
JOB NO.	JSR0143
CONTRACT ID.	
PROJECT NO.	
BRIDGE NO.	A9734

DESCRIPTION

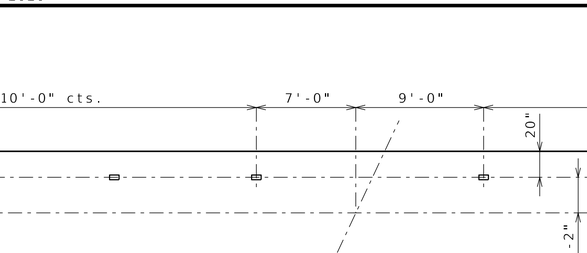
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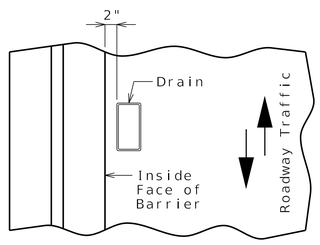


PLAN OF SLAB SHOWING SLAB DRAIN LOCATIONS

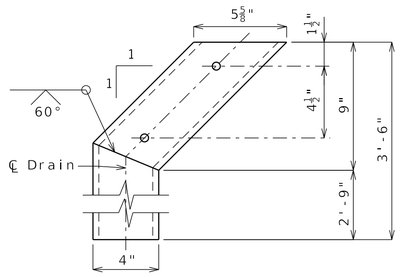


PART SECTION SHOWING BRACKET ASSEMBLY

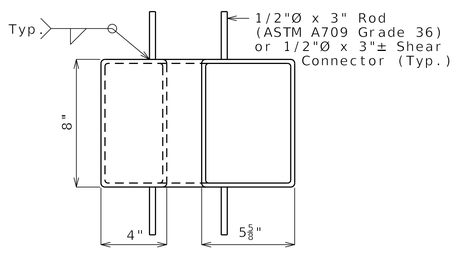
PART SECTION NEAR DRAIN



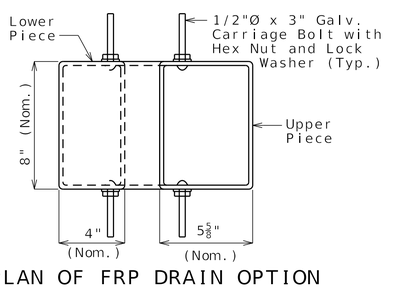
PART PLAN OF SLAB AT DRAIN



ELEVATION OF DRAIN



PLAN OF STEEL DRAIN OPTION



PLAN OF FRP DRAIN OPTION

General Notes:

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

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

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

Reinforcing steel shall be shifted to clear drains.

The coil inserts and bracket assembly shall be galvanized in accordance with ASTM A123.

All bolts, hardened washers, lock washers and nuts shall be galvanized in accordance with AASHTO M 232 (ASTM A153), Class C.

All 1/2"Ø bolts shall be ASTM A307.

Shop drawings will not be required for the slab drains and the bracket assembly.

The coil inserts required for the bracket assembly attachment shall be located on the prestressed beam shop drawings.

Coil inserts shall have a concrete pull-out strength (ultimate load) of at least 2,500 pounds in 5,000 psi concrete.

The bolts required to attach the slab drain bracket assembly to the prestressed beam shall be supplied by the prestressed beam fabricator.

Notes for Steel Drain:

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

Outside dimensions of drains are 8" x 4".

The drains shall be galvanized in accordance with ASTM A123.

Notes for FRP Drain:

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

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

Minimum reinforced wall thickness shall be 1/4 inch.

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

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

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

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

Both upper and lower drain pieces shall be rigidly connected to each other. Drain flow shall not be obstructed. Approval of the engineer is required.

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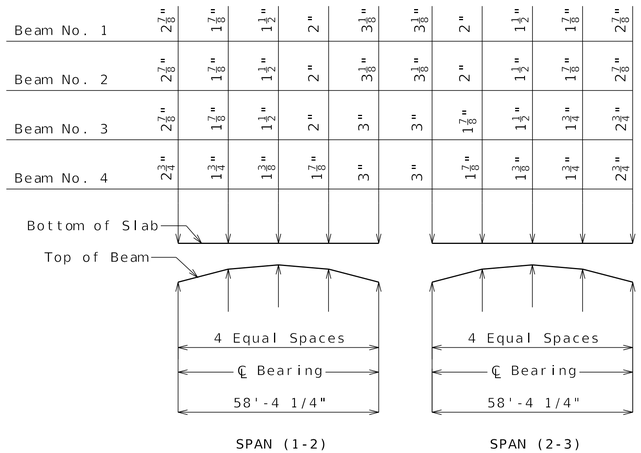
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SLAB DRAINS

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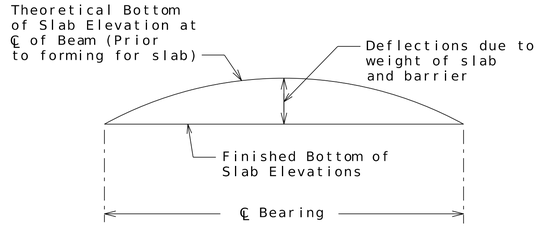


SPAN (1-2) SPAN (2-3)

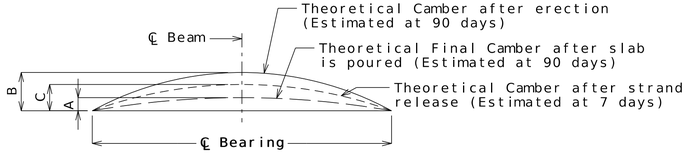
THEORETICAL SLAB HAUNCHING DIAGRAM (ESTIMATED AT 90 DAYS)

If beam camber is different from that shown in the camber diagram, in order to maintain minimum slab thickness, an adjustment of the slab haunches, an increase in slab thickness or a raise in grade uniformly throughout the structure shall be necessary. No payment will be made for additional labor or materials required for variation in haunching, slab thickness or grade adjustment.

Concrete in the slab haunches is included in the Estimated Quantities for Slab on Concrete Beam.



TYPICAL SLAB ELEVATIONS DIAGRAM



Girder	Span (1-2)			Span (2-3)		
	A	B	C	A	B	C
Exterior	$1\frac{1}{4}$"	$2\frac{5}{8}$"	$1\frac{1}{2}$"	$1\frac{1}{4}$"	$2\frac{5}{8}$"	$1\frac{1}{2}$"
Interior	$1\frac{1}{4}$"			$1\frac{1}{4}$"		

BEAM CAMBER DIAGRAM

Conversion Factors for Beam Camber (Estimated at 90 days):

0.25 pt. = 0.7125 x 0.5 pt.

Theoretical Bottom of Slab Elevations at Centerline of Beam (Prior to forming for slab) (Estimated at 90 days)										
Beam Number	Span (1-2) (58'-4 1/4" ℄ Brg. - ℄ Brg.)					Span (2-3) (58'-4 1/4" ℄ Brg. - ℄ Brg.)				
	℄ Brg.	.25	.50	.75	℄ Brg.	℄ Brg.	.25	.50	.75	℄ Brg.
1	877.86	877.91	877.91	877.87	877.78	877.79	877.88	877.93	877.93	877.89
2	878.26	878.31	878.31	878.26	878.18	878.18	878.27	878.32	878.31	878.27
3	878.67	878.71	878.71	878.66	878.57	878.57	878.65	878.70	878.70	878.65
4	879.07	879.11	879.11	879.05	878.96	878.96	879.04	879.09	879.08	879.03

Elevations are based on a constant slab thickness of 8 1/2" and include allowance for theoretical dead load deflections due to weight of slab including barrier.

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PROJECT NO.

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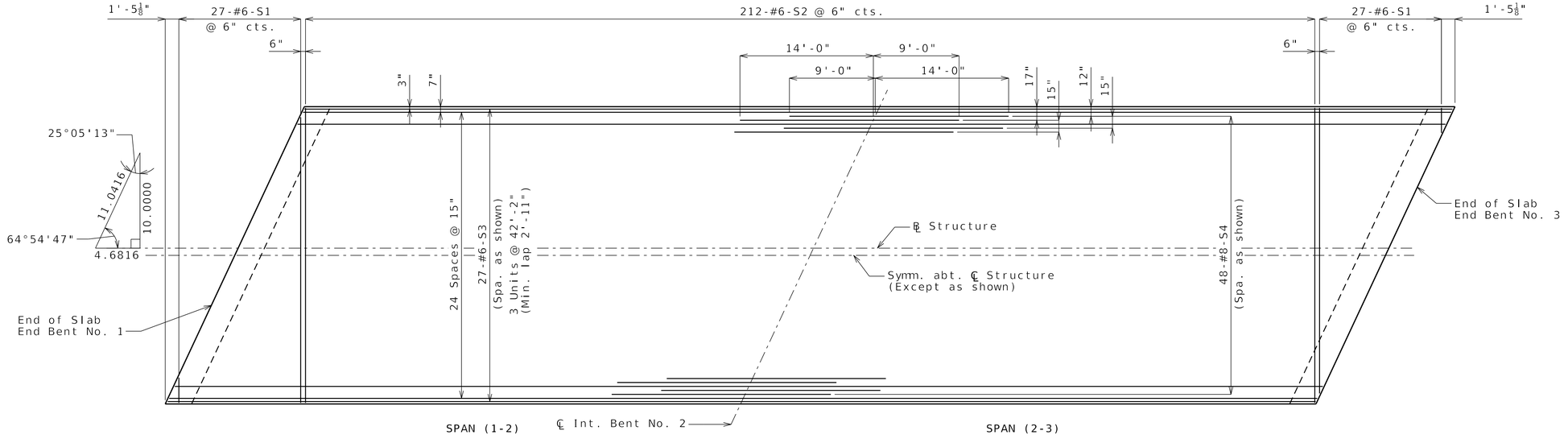
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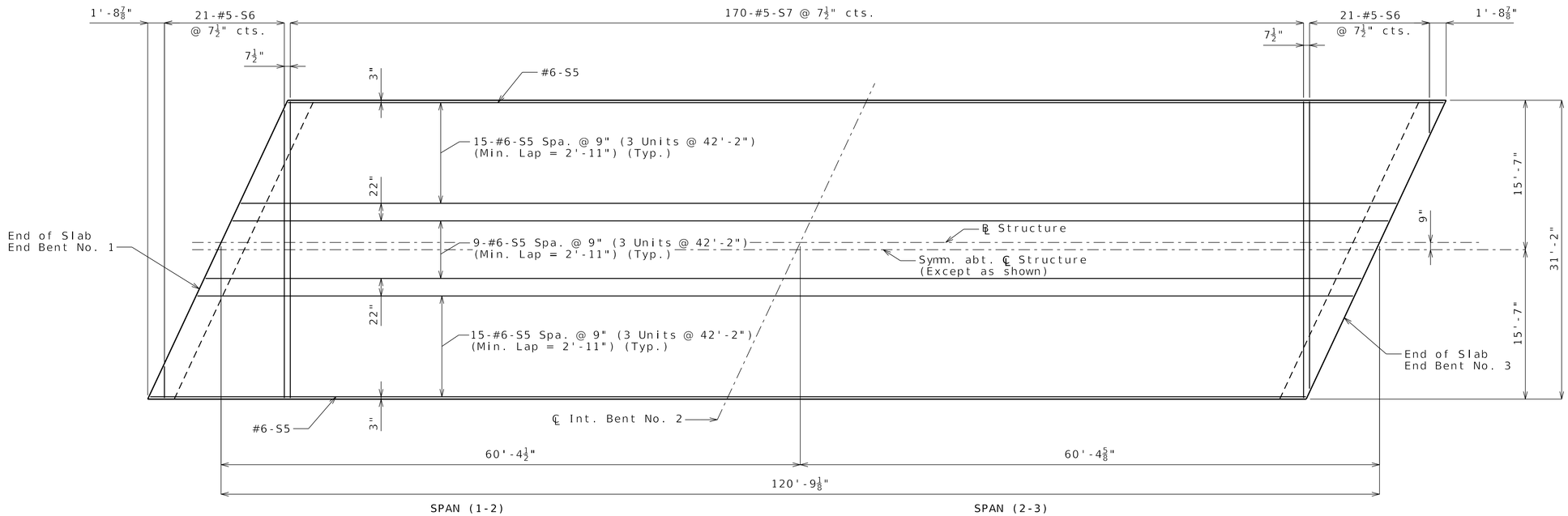
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TOP REINFORCEMENT



BOTTOM REINFORCEMENT

Notes:

Longitudinal slab dimensions are measured horizontally.

For Section Thru Slab and Slab Pouring Sequence, see Sheet No. 18.

For Details and Reinforcement of Safety Barrier Curb not shown, see Sheets No. 19 thru 21.

For Theoretical Bottom of Slab Elevations, Beam Camber Diagram and Theoretical Slab Haunching Diagram, see Sheet No. 16.

For details and locations of Slab Drains, see Sheet No. 15.

PLAN OF SLAB SHOWING REINFORCEMENT

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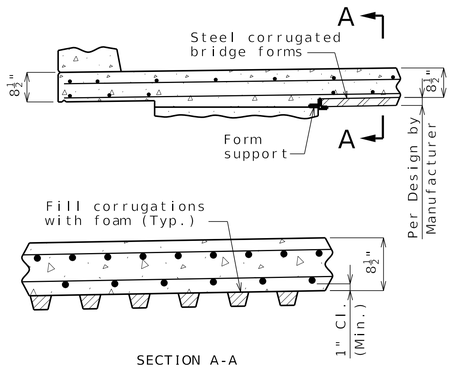
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SECTION A-A

OPTIONAL STAY-IN-PLACE FORM DETAILS

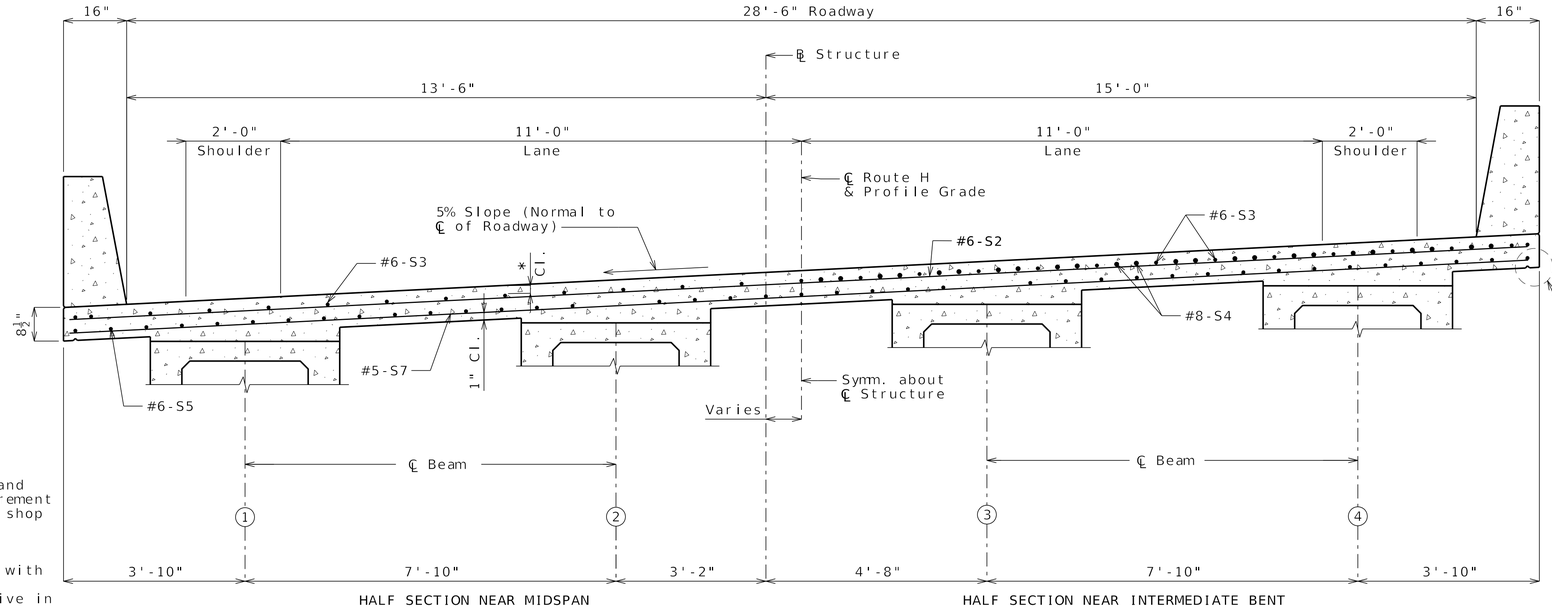
Stay-In-Place Forms:

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

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

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

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

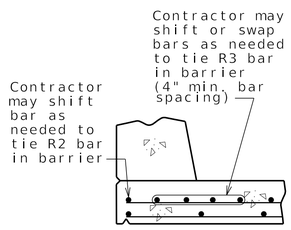


HALF SECTION NEAR MIDSPAN

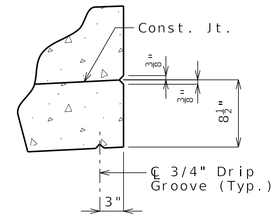
HALF SECTION NEAR INTERMEDIATE BENT

SECTION THRU SLAB

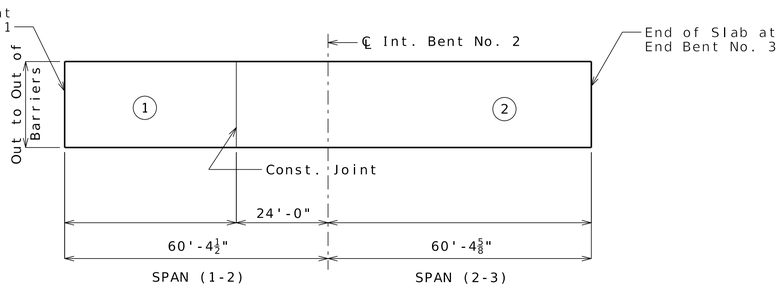
* 3" (#6)
2¾" (#8)



OPTIONAL SHIFTING TOP BARS AT BARRIER



DETAIL A

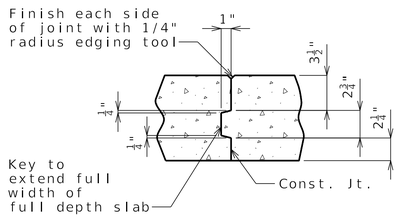


	Sequence of Pours		Min. Rate of Pour Cu. Yds./Hr.
	Direction		With Retarder
Basic Sequence	1	2	25
	End to 2	1 to End	
Alternate pours to the basic sequence are subject to the approval of the engineer in accordance with Sec 703.			
Alternate A Pours	1 + 2		30
	End to End		

The contractor shall furnish an approved retarder to retard the set of the concrete to 2.5 hours, and shall pour and satisfactorily finish the slab pours at the rate given.

The concrete diaphragm at the intermediate bents and integral end bents shall be poured a minimum of 30 minutes and a maximum of 2 hours before the slab is poured.

SLAB POURING SEQUENCE



FULL DEPTH SLAB

SLAB CONSTRUCTION JOINT

Notes:

For reinforcement of barrier not shown, see Sheets No. 19 thru 21.

For Theoretical Bottom of Slab Elevations, Girder Camber Diagram and Theoretical Slab Haunching Diagram, see Sheet No. 16.

For Plan of Slab Showing Reinforcement, see Sheet No. 17.

SLAB DETAILS

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ROUTE	STATE
H	MO
DISTRICT	SHEET NO.
BR	18

COUNTY MCDONALD

JOB NO. JSR0143

CONTRACT ID.

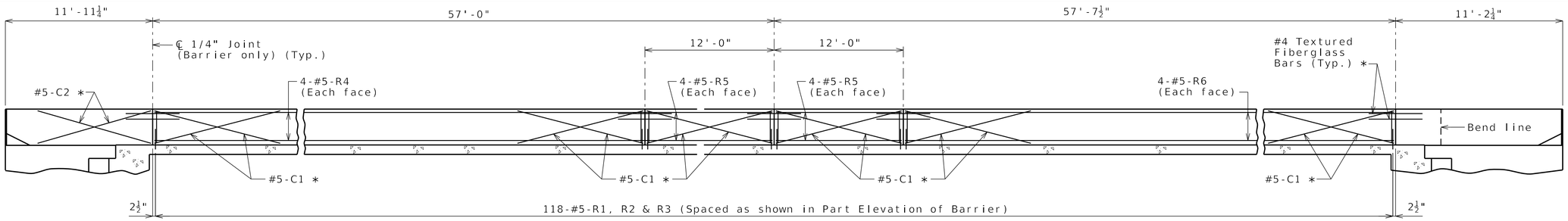
PROJECT NO.

BRIDGE NO. A9734

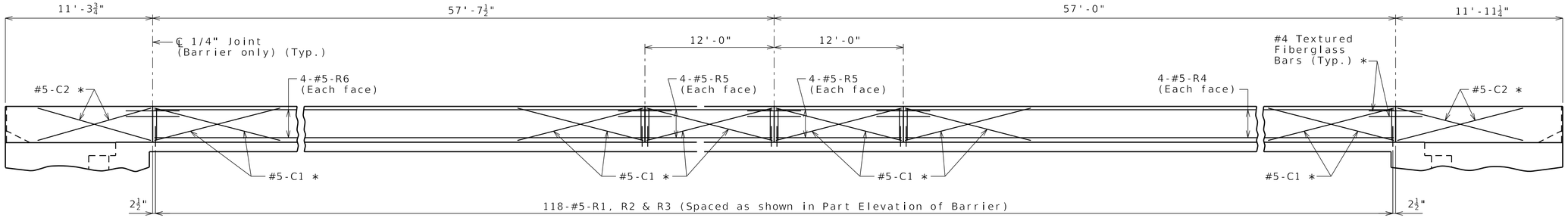
DESCRIPTION	DATE

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

TREKK DESIGN GROUP, LLC
1411 East 104th St.
Kansas City, MO 64131
Tel (816) 874-4655
Fax (816) 874-4675
www.trekkdesigngroup.com
Missouri Cert. of Authority 2002010300

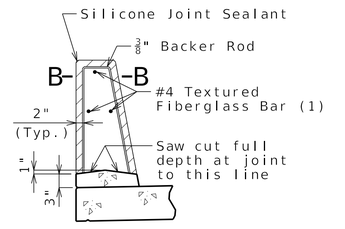


ELEVATION OF LEFT BARRIER

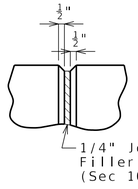


ELEVATION OF RIGHT BARRIER

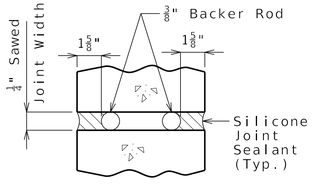
Longitudinal dimensions are horizontal.



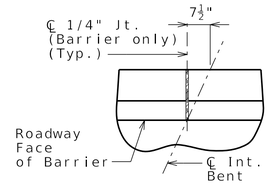
SECTION THRU SAW CUT JOINT



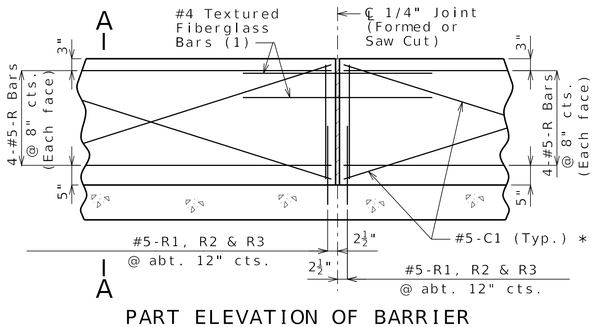
PART ELEVATION AT FORMED JOINT



SECTION B-B

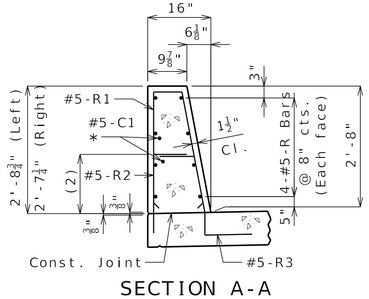


PART PLAN SHOWING JOINT LOCATION



PART ELEVATION OF BARRIER

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

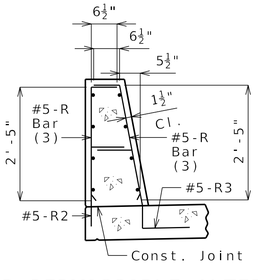


SECTION A-A

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

The cross-sectional area above the slab is:
2.92 square feet (Left Barrier)
2.83 square feet (Right Barrier)

(2) 15 1/2" To top of bar (Left Barrier)
13 7/8" To top of bar (Right Barrier)



R-BAR PERMISSIBLE ALTERNATE SHAPE

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

General Notes:

* Slip-formed option only.

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

Top of barrier shall be built parallel to grade and barrier joints (except at end bents) normal to grade.

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

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

Concrete in barrier shall be Class B-1.

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

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

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

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

TYPE H BARRIER

Detailed Feb. 2026
Checked Feb. 2026

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

STATE OF MISSOURI
DERRICK J. PRICE
NUMBER PE-2019032100
PROFESSIONAL ENGINEER
THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY.

DATE PREPARED 3/18/2026

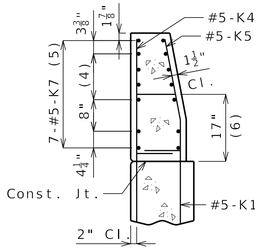
ROUTE	STATE
H	MO
DISTRICT	SHEET NO.
BR	19

COUNTY: MCDONALD
JOB NO.: JSR0143
CONTRACT ID.:
PROJECT NO.:
BRIDGE NO.: A9734

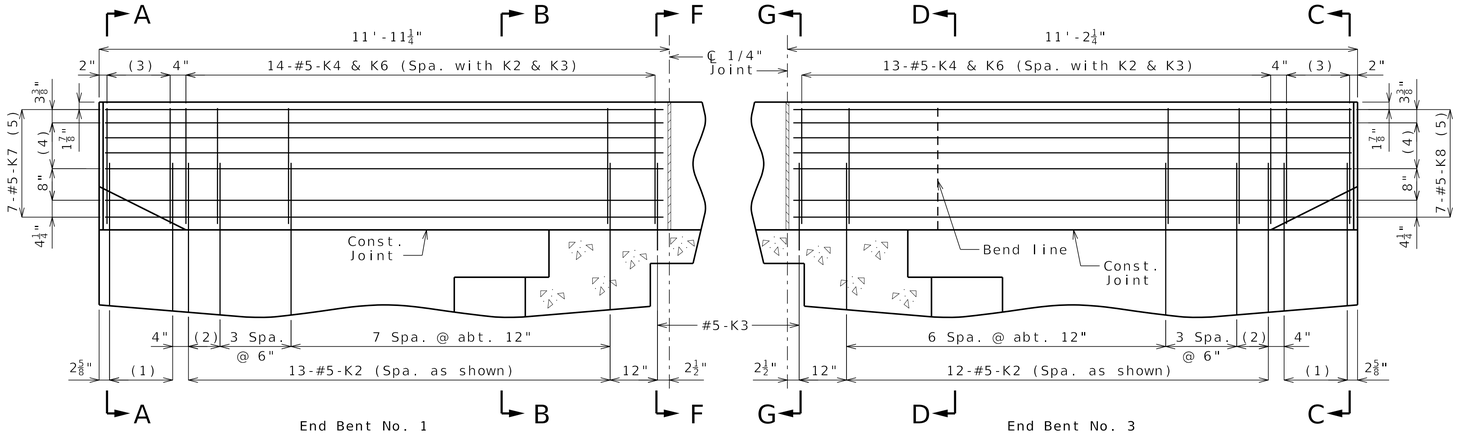
DESCRIPTION	DATE

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

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION
105 WEST CAPITOL
JEFFERSON CITY, MO 65102
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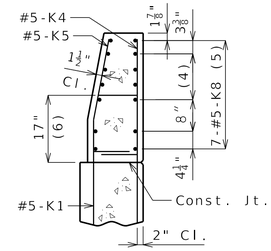


SECTION A-A



End Bent No. 1 — End Bent No. 3

PART ELEVATION



SECTION C-C

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

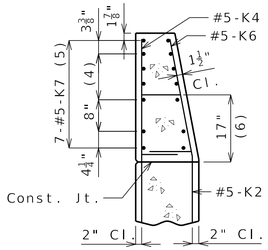
(2) 2 Spaces @ 4"

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

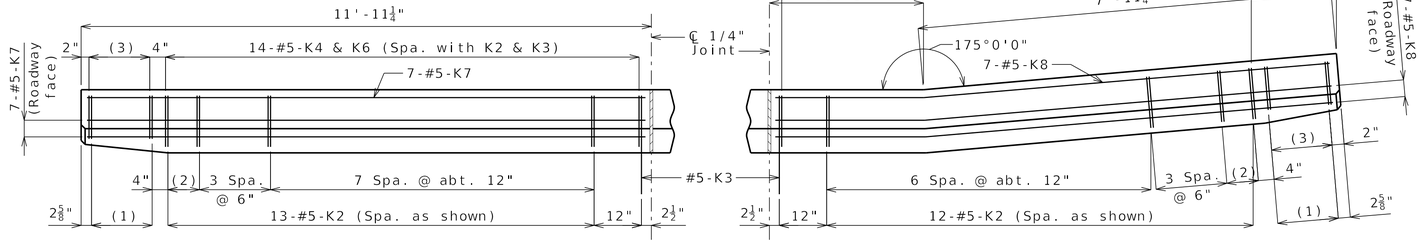
(4) 3 Spaces @ $3\frac{13}{16}$"

(5) Spaced as shown, each face

(6) To top of bar

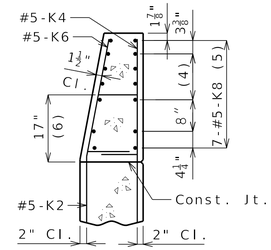


SECTION B-B

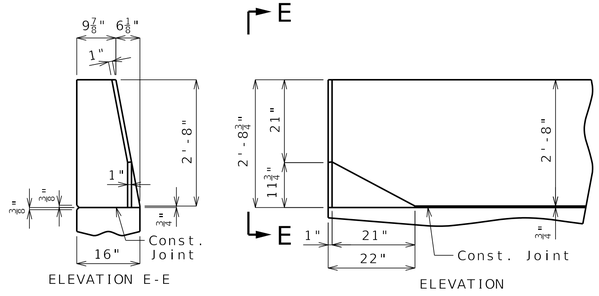


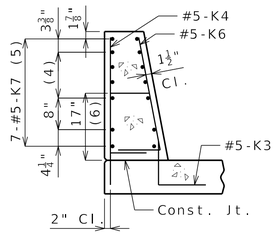
End Bent No. 1 — End Bent No. 3

PART PLAN

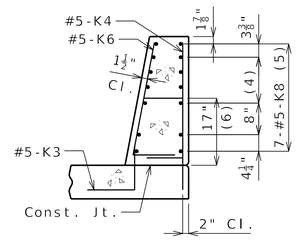


SECTION D-D

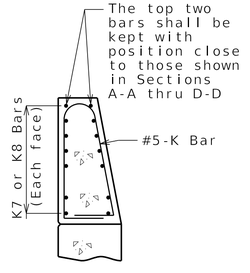


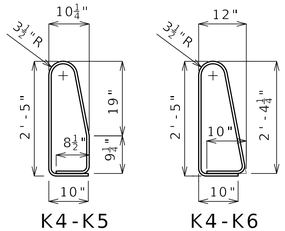


SECTION F-F



SECTION G-G





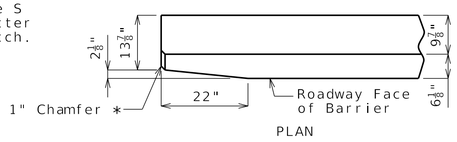
PERMISSIBLE ALTERNATE SHAPES

(Other K bars not shown for clarity)

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

All dimensions are out to out.

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



DETAILS OF END OF BARRIER

General Notes:

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

Reinforcing Steel:

Minimum clearance to reinforcing steel shall be 1 1/2" except as shown for bars embedded into end bent.

TYPE H LEFT BARRIER AT END BENTS

DERRICK L PRICE
NUMBER PE-2019032100
PROFESSIONAL ENGINEER
STATE OF MISSOURI
THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY.

DATE PREPARED 3/6/2026

ROUTE	STATE
H	MO
DISTRICT	SHEET NO.
BR	20

COUNTY MCDONALD

JOB NO. JSR0143

CONTRACT ID.

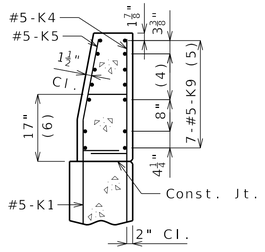
PROJECT NO.

BRIDGE NO. A9734

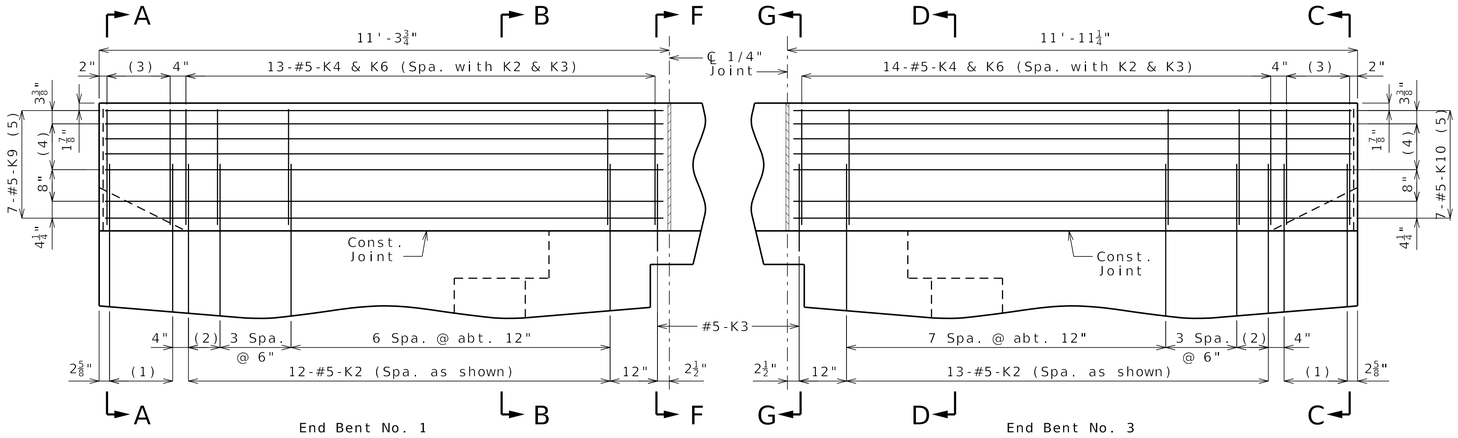
DATE	DESCRIPTION

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

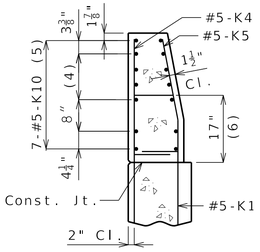
MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION
105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)
MoDOT
1411 East 104th St.
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Tel (816) 874-4655
Fax (816) 874-4875
www.trekdesigngroup.com
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TREK DESIGN GROUP, LLC



SECTION A-A



PART ELEVATION



SECTION C-C

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

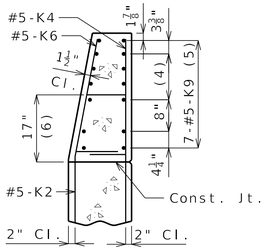
(2) 2 Spaces @ 4"

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

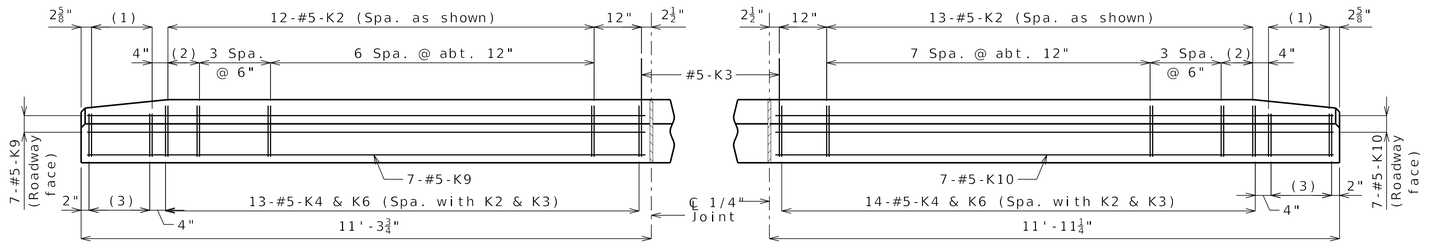
(4) 3 Spaces @ 3 13/16"

(5) Spaced as shown, each face

(6) To top of bar

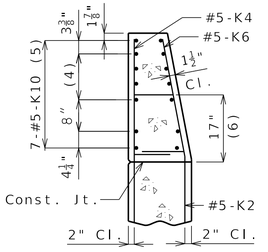


SECTION B-B

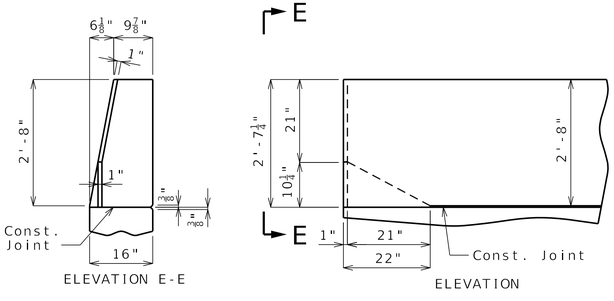


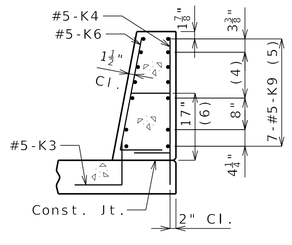
PART PLAN

End Bent No. 1 End Bent No. 3

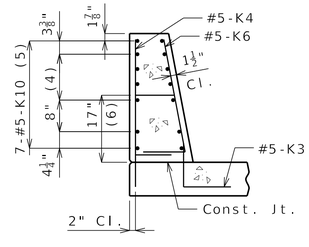


SECTION D-D

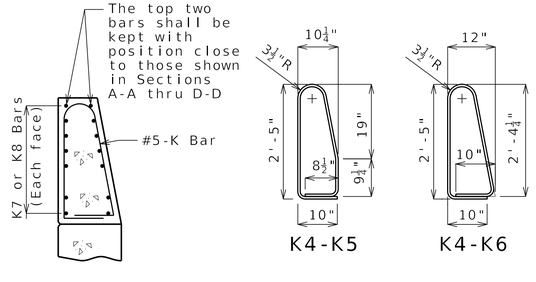




SECTION F-F



SECTION G-G

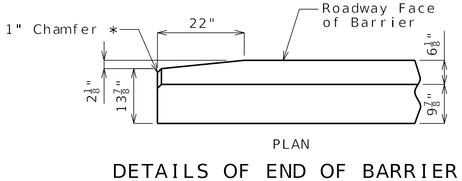


PERMISSIBLE ALTERNATE SHAPES

(Other K bars not shown for clarity)

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

All dimensions are out to out.



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

DETAILS OF END OF BARRIER

General Notes:

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

Reinforcing Steel:

Minimum clearance to reinforcing steel shall be 1 1/2" except as shown for bars embedded into end bent.

TYPE H RIGHT BARRIER AT END BENTS

Detailed Feb. 2026
Checked Feb. 2026

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

DERRICK L PRICE
NUMBER PE-2019032100
PROFESSIONAL ENGINEER
STATE OF MISSOURI
THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY.

DATE PREPARED 3/6/2026

ROUTE	STATE
H	MO
DISTRICT	SHEET NO.
BR	21

COUNTY MCDONALD

JOB NO. JSR0143

CONTRACT ID.

PROJECT NO.

BRIDGE NO. A9734

DATE	DESCRIPTION

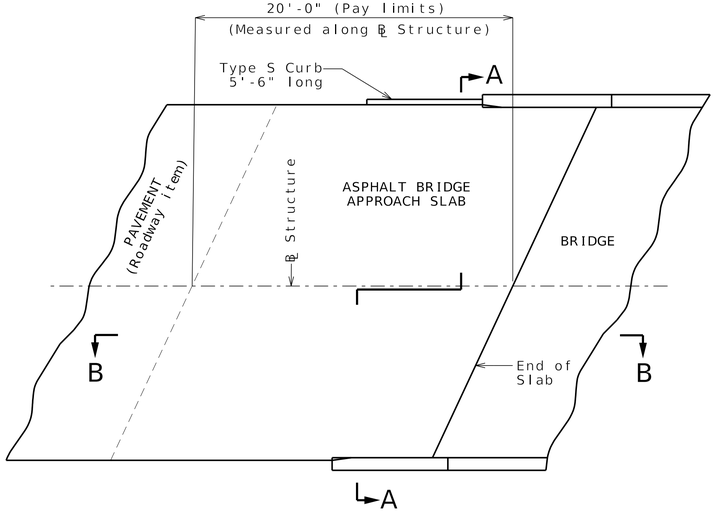
IF A SEAL IS PRESENT ON THIS SHEET IT HAS BEEN ELECTRONICALLY SEALED AND DATED.

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

1411 East 104th St.
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Tel: (816) 874-4655
Fax: (816) 874-4675
www.trekkdesigngroup.com

Missouri Cert. of Authority 2002010300

TREKK DESIGN GROUP, LLC



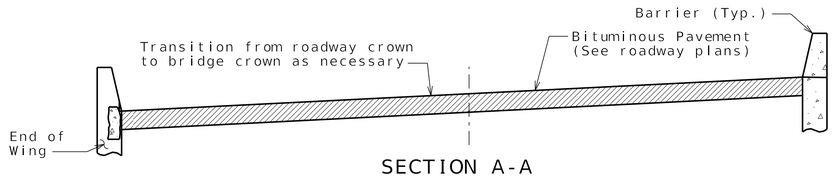
PART PLAN OF SKEWED STRUCTURE

General Notes:

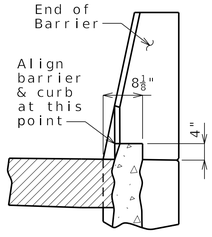
The contractor shall pour and satisfactorily finish the bridge slab before placing the bridge approach slab.

Payment for furnishing all materials, labor and excavation necessary to construct the asphalt bridge approach slab, including tack, curb, and Type 5 aggregate base within the pay limits shown, complete in place, will be considered completely covered by the contract unit price for Bridge Approach Slab (Minor) per square yard.

Application of tack is required between lifts per Sec 403.

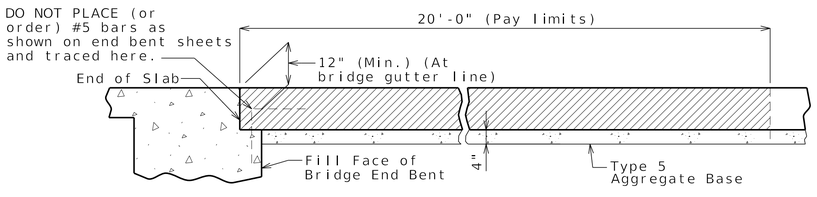


SECTION A-A



4" TYPE S CURB

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



SECTION B-B

(NOT ALLOWED WITH CONCRETE PAVEMENT)

BRIDGE ASPHALT APPROACH SLAB AT END BENT NO. 1 (MINOR)

Detailed Feb. 2026
Checked Feb. 2026

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

STATE OF MISSOURI
DERRICK J. PRICE
NUMBER PE-2019032100
PROFESSIONAL ENGINEER
THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY.

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

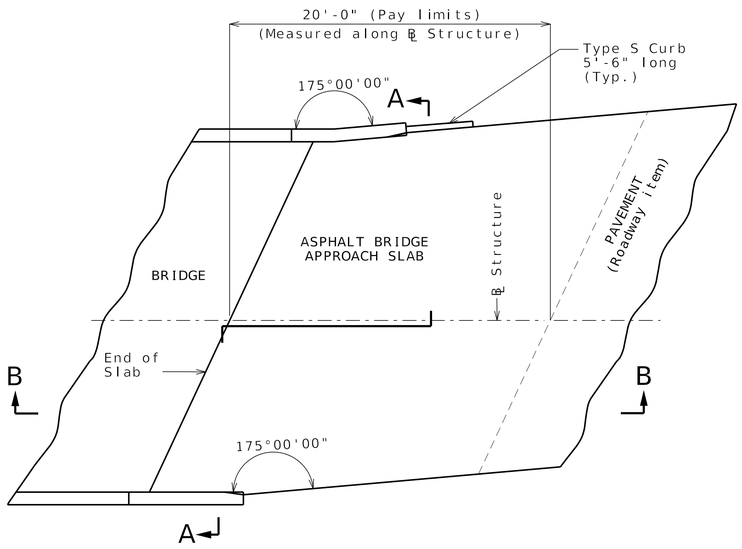
DATE PREPARED 3/6/2026

ROUTE	STATE
H	MO
DISTRICT	SHEET NO.
BR	22

COUNTY: MCDONALD
JOB NO.: JSR0143
CONTRACT ID.:
PROJECT NO.:
BRIDGE NO.: A9734

DESCRIPTION	DATE

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION
105 WEST CAPITOL
JEFFERSON CITY, MO 65102
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Missouri Cert. of Authority 2002010300
TREKK DESIGN GROUP, LLC



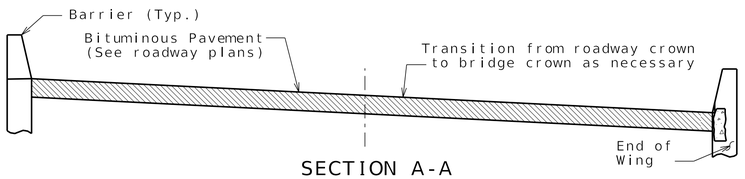
PART PLAN OF SKEWED STRUCTURE

General Notes:

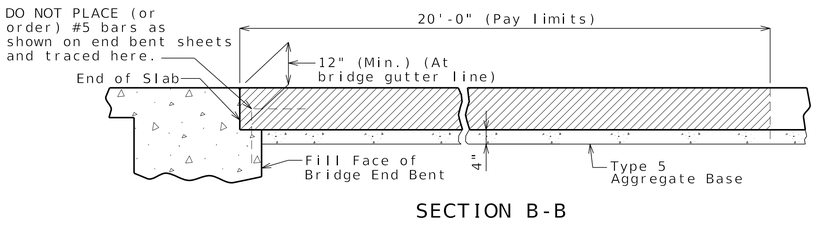
The contractor shall pour and satisfactorily finish the bridge slab before placing the bridge approach slab.

Payment for furnishing all materials, labor and excavation necessary to construct the asphalt bridge approach slab, including tack, curb, and Type 5 aggregate base within the pay limits shown, complete in place, will be considered completely covered by the contract unit price for Bridge Approach Slab (Minor) per square yard.

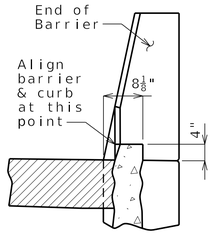
Application of tack is required between lifts per Sec 403.



SECTION A-A



SECTION B-B



4" TYPE S CURB

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

(NOT ALLOWED WITH CONCRETE PAVEMENT)

BRIDGE ASPHALT APPROACH SLAB AT END BENT NO. 3 (MINOR)

Detailed Feb. 2026
Checked Feb. 2026

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

B_A9734_023_JSR0143_AS North.dgn 3:21:34 PM 3/6/2026

DERRICK J. PRICE
NUMBER PE-2019032100
STATE OF MISSOURI
PROFESSIONAL ENGINEER
THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY.

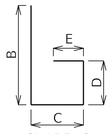
IF A SEAL IS PRESENT ON THIS SHEET IT HAS BEEN ELECTRONICALLY SEALED AND DATED.

DATE PREPARED 3/6/2026
ROUTE H | STATE MO
DISTRICT BR | SHEET NO. 23
COUNTY MCDONALD
JOB NO. JSR0143
CONTRACT ID.
PROJECT NO.
BRIDGE NO. A9734

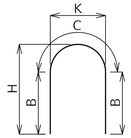
DESCRIPTION	DATE

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

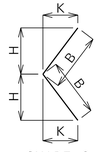
TREKK DESIGN GROUP, LLC
1411 East 104th St.
Kansas City, MO 64131
Tel (816) 874-4655
Fax (816) 874-4675
www.trekkdesigngroup.com
Missouri Cert. of Authority 2002010300



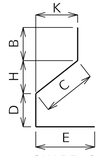
SHAPE 6
or 6S



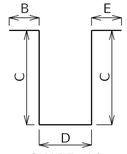
SHAPE 7



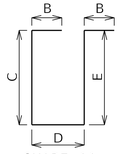
SHAPE 8
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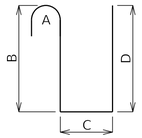
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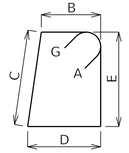
SHAPE 10
or 10S



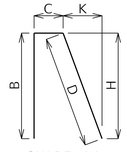
SHAPE 11
or 11S



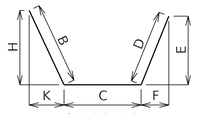
SHAPE 12



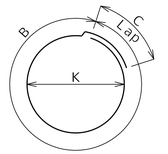
SHAPE 13S



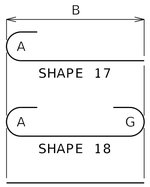
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or 14S



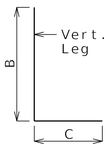
SHAPE 15
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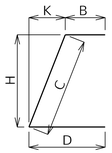
SHAPE 16



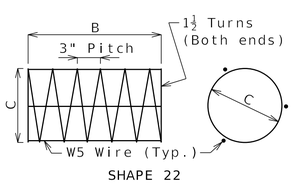
SHAPE 17
SHAPE 18
SHAPE 20



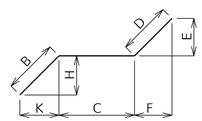
SHAPE 19
or 19S



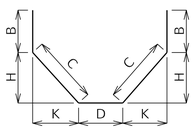
SHAPE 21
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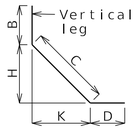
SHAPE 22



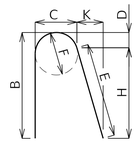
SHAPE 23
or 23S



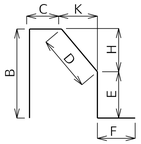
SHAPE 24
or 24S



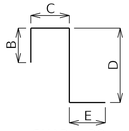
SHAPE 25
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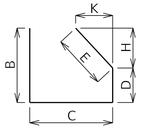
SHAPE 26



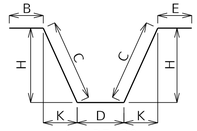
SHAPE 27S



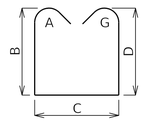
SHAPE 28
or 28S



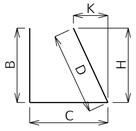
SHAPE 29
or 29S



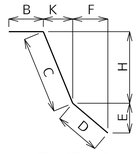
SHAPE 30
or 30S



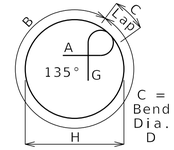
SHAPE 31S



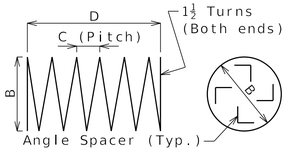
SHAPE 32
or 32S



SHAPE 33
or 33S



SHAPE 34S



SHAPE 35 (1)

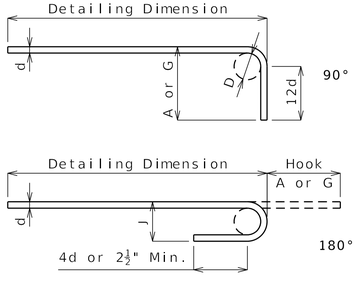


SHAPE 36

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"	9⅜"	7"
	3	7"	15"	11½"	8¾"
#8	2	6"	16"	11"	8"
	3	8"	17"	13¼"	10"
#9	1	9½"	19½"	15½"	11¾"
#10	1	10¾"	22"	17½"	13¼"
#11	1	12"	24½"	19½"	14⅞"
#14	1	18¼"	31¼"	27½"	21⅝"
#18	1	24"	41½"	36¾"	28½"

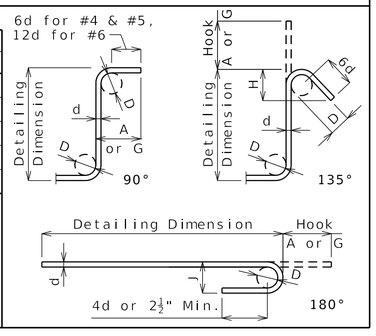


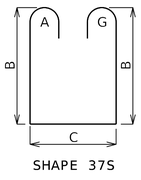
Stirrup Pin Bend Shapes (S)

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

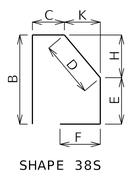
Applicable for all grades of steel.

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





SHAPE 37S



SHAPE 38S

BENDING DIAGRAMS

All dimensions are out to out.

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

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

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

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

Reinforcing Steel Totals (Pounds)

	Size	Substructure		Superstructure				Entire Bridge	
				Slab			Slip		
		Plain	Epoxy	Plain	Epoxy	Barrier	Form	Plain	Epoxy
By Size	W5	0	0	0	0	0	0	0	0
	4	1,424	0	0	677	0	0	1,424	677
	5	0	0	0	7,201	6,085	355	0	13,641
	6	356	0	0	28,111	0	0	356	28,111
	7	0	0	0	0	0	0	0	0
	8	1,077	0	0	6,797	0	0	1,077	6,797
	9	0	0	0	0	0	0	0	0
	10	0	0	0	0	0	0	0	0
	11	0	0	0	0	0	0	0	0
	14	0	0	0	0	0	0	0	0
	18	0	0	0	0	0	0	0	0
By Type		2,857	0	0	42,786	6,085	355	2,857	46,226

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

BENDING DIAGRAMS AND REINFORCING STEEL TOTALS

Detailed Feb. 2026
Checked Feb. 2026

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

STATE OF MISSOURI
DERRICK J. PRICE
NUMBER PE-2019032100
PROFESSIONAL ENGINEER
THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY.

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

DATE PREPARED 4/2/2026
ROUTE H | STATE MO
DISTRICT BR | SHEET NO. 24
COUNTY MCDONALD
JOB NO. JSR0143
CONTRACT ID.
PROJECT NO.
BRIDGE NO. A9734

DESCRIPTION	DATE

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

TREKK DESIGN GROUP, LLC
1411 East 104th St.
Kansas City, MO 64131
Tel (816) 874-4855
Fax (816) 874-4875
www.trekkdesigngroup.com
Missouri Cert. of Authority 2002010300

BILL OF REINFORCING

No. Req.	Size/ Mark	Location	Codes C	SH	V	Dimensions B ft	B in.	C ft	C in.	D ft	D in.	E ft	E in.	F ft	F in.	H ft	H in.	K ft	K in.	Nom. Length ft	Nom. Length in.	Actual Length ft	Actual Length in.	Weight lb
		SUBSTRUCTURE																						
		INTERMEDIATE BENT 2																						
15	6	D200 BEAM		20		2	6.000													2	6	2	6	56
8	8	H200 BEAM		18		31	6.000													33	4	33	4	712
4	6	H201 BEAM		20		31	6.000													31	6	31	6	189
4	8	H202 BEAM		20		13	7.000													13	7	13	7	145
4	8	H203 BEAM		20		14	2.000													14	2	14	2	151
4	8	H204 BEAM		17		5	6.000													6	5	6	5	69
9	6	H205 BEAM		10S				12.000	2	9.000										4	9	4	5	60
5	6	H206 BEAM		18		5	4.000													6	9	6	9	51
2	4	H207 WEBWALL		18		31	6.000													32	6	32	6	43
14	4	H208 WEBWALL		20		31	6.000													31	6	31	6	295
16	4	H209 WEBWALL		7			23.500	2	5.750							2	9.000		19.000	6	5	6	5	69
13	4	U200 BEAM		13S		2	9.000	2	9.000	2	9.000	2	9.000							11	9	11	6	100
14	4	U201 BEAM		13S		2	9.000	3	1.750	2	9.000	3	1.750							12	6	12	3	115
12	4	U202 BEAM		13S		2	9.000	3	6.500	2	9.000	3	6.500							13	4	13	1	105
9	4	U203 BEAM		13S		2	9.000	3	11.250	2	9.000	3	11.250							14	1	13	10	83
5	4	U204 BEAM		10S				2	9.000	2	9.000									8	3	8	1	27
3	4	U205 BEAM		10S				3	1.750	2	9.000									9	0	8	10	18
5	4	U206 BEAM		10S				3	6.500	2	9.000									9	10	9	8	32
3	4	U207 BEAM		10S				3	11.250	2	9.000									10	7	10	5	21
50	4	U208 WEBWALL		19S		8	8.000		20.000											10	4	10	3	342
30	4	V201 WEBWALL		20		8	8.000													8	8	8	8	174
		SUPERSTRUCTURE																						
		END BENT 1																						
9	6	F100 WING BRACE	E	15S			20.000	6	2.500		20.000		10.750		17.000		10.750		17.000	9	6	9	6	128
3	6	F101 DIAPHRAGM	E	21S				8	2.000	2	11.500			7	4.750	3	5.500			11	2	10	9	48
7	6	F102 WING BRACE	E	15S			20.000	4	2.500		20.000		17.000		10.750		17.000		10.750	7	7	7	5	78
3	6	F103 DIAPHRAGM	E	23S		2	11.750	7	0.000							2	8.500		15.000	10	0	9	11	45
7	6	H100 BEAM	E	20		34	1.000													34	1	34	1	358
12	8	H101 BEAM/DIAPH.	E	20		34	1.000													34	1	34	1	1092
4	8	H102 BEAM	E	20		15	1.000													15	1	15	1	161
4	8	H103 BEAM	E	20		15	0.000													15	0	15	0	160
4	8	H104 BEAM	E	20		6	4.000													6	4	6	4	68
9	6	H105 DIAPHRAGM	E	20		3	11.000													3	11	3	11	53
6	6	H106 DIAPHRAGM	E	20			20.000														20		20	15
16	8	H107 WINGWALL	E	20		10	6.000													10	6	10	6	449
34	6	H108 WINGWALL	E	20		9	1.000													9	1	9	1	464
4	5	H109 STRAND TIE	E	20		6	8.000													6	8	6	8	28
5	5	U100 BEAM/DIAPH.	E	37S		4	4.750	3	0.250											12	9	12	7	66
5	5	U101 BEAM/DIAPH.	E	37S		4	9.500	3	0.250											13	6	13	4	70
4	5	U102 BEAM/DIAPH.	E	37S		5	2.500	3	0.250											14	4	14	2	59
1	5	U103 BEAM/DIAPH.	E	37S		5	7.250	3	0.250											15	2	15	0	16
8	4	U104 BEAM	E	13S		3	0.250	2	8.000	3	0.250	2	8.000							12	1	11	10	63
6	4	U105 BEAM	E	13S		3	0.250	3	0.750	3	0.250	3	0.750							12	11	12	8	51
6	4	U106 BEAM	E	13S		3	0.250	3	5.750	3	0.250	3	5.750							13	9	13	6	54
8	4	U107 BEAM	E	13S		3	0.250	3	10.500	3	0.250	3	10.500							14	6	14	3	76
1	4	U108 BEAM	E	10S				2	8.000	3	0.250									8	4	8	2	5
3	4	U109 BEAM	E	10S				3	0.750	3	0.250									9	1	9	0	18
3	4	U110 BEAM	E	10S				3	5.750	3	0.250									9	11	9	10	20
1	4	U111 BEAM	E	10S				3	10.500	3	0.250									10	9	10	7	7
42	6	U112 DIAPHRAGM	E	19		2	4.000	4	5.500											6	9	6	8	421

BILL OF REINFORCING

No. Req.	Size/ Mark	LOCATION	Codes C	SH	V	Dimensions B ft	B in.	C ft	C in.	D ft	D in.	E ft	E in.	F ft	F in.	H ft	H in.	K ft	K in.	Nom. Length ft	Nom. Length in.	Actual Length ft	Actual Length in.	Weight lb
17	5	U113 BEAM/DIAPH.	E	37S		2	2.250	2	5.750											7	9	7	7	134
17	6	U114 DIAPHRAGM	E	19S			17.750	3	0.250											4	5	4	4	111
2	5	V100 BEAM/DIAPH.	E	20		5	4.000													5	4	5	4	11
2	5	V101 BEAM/DIAPH.	E	20		6	7.000													6	7	6	7	14
24	6	V102 DIAPHRAGM	E	20		1	5.000													1	5	1	5	51
2	6	V103 WINGWALL	E	20		6	11.000													6	11	6	11	21
16	6	V104 WINGWALL	E	20		6	11.000													6	11	6	11	166
2	6	V105 WINGWALL	E	20		5	4.000													5	4	5	4	16
16	6	V106 WINGWALL	E	20		5	4.000													5	4	5	4	128
		END BENT 3																						
7	6	F300 WING BRACE	E	15S			20.000	6	5.250		20.000		10.000		17.250		10.000		17.250	9	9	9	9	103
3	6	F301 DIAPHRAGM	E	21S				8	2.000	2	11.500					7	4.750	3	5.500	11	2	10	9	48
9	6	F302 WING BRACE	E	15S			20.000	4	2.500		20.000		17.000		10.750		17.000		10.750	7	7	7	5	100
3	6	F303 DIAPHRAGM	E	23S		2	11.750	7	0.000							2	8.500		15.000	10	0	9	11	45
7	6	H300 BEAM	E	20		34	1.000													34	1	34	1	358
12	8	H301 BEAM/DIAPH.	E	20		34	1.000													34	1	34	1	1092
4	8	H302 BEAM	E	20		15	1.000													15	1	15	1	161
4	8	H303 BEAM	E	20		14	6.000													14	6	14	6	155
4	8	H304 BEAM	E	20		5	10.000													5	10	5	10	62
9	6	H305 DIAPHRAGM	E	20		3	11.000													3	11	3	11	53
6	6	H306 DIAPHRAGM	E	20			20.000														20		20	15
16	8	H307 WINGWALL	E	20		10	6.000													10	6	10	6	449
34	6	H308 WINGWALL	E	20		9	1.000													9	1	9	1	464
4	5	H309 STRAND TIE	E	20		6	8.000													6	8	6	8	28
5	5	U300 BEAM/DIAPH.	E	37S		4	4.750	3	0.250											12	9	12	7	66
5	5	U301 BEAM/DIAPH.	E	37S		4	9.500	3	0.250											13	6	13	4	70
4	5	U302 BEAM/DIAPH.	E	37S		5	2.000	3	0.250											14	3	14	1	59
1	5	U303 BEAM/DIAPH.	E	37S		5	6.500	3	0.250											15	0	14	10	15
9	4	U304 BEAM	E	13S		3	0.250	2	8.000	3	0.250	2	8.000							12	1	11	10	71
5	4	U305 BEAM	E	13S		3	0.250	3	0.750	3	0.250	3	0.750							12	11	12	8	42
6	4	U306 BEAM	E	13S		3	0.250	3	5.250	3	0.250	3	5.250							13	7	13	5	54
8	4	U307 BEAM	E	13S		3	0.250	3	9.750	3	0.250	3	9.750							14	4	14	2	76
1	4	U308 BEAM	E	10S				2	8.000	3	0.250									8	4	8	2	5
3	4	U309 BEAM	E	10S				3	0.750	3	0.250									9	1	9	0	18
3	4	U310 BEAM	E	10S				3	5.250	3	0.250									9	10	9	9	20
1	4	U311 BEAM	E	10S				3	9.750	3	0.250									10	7	10	6	7
42	6	U312 DIAPHRAGM	E	19		2	4.000	4	5.500											6	9	6	8	421
17	5	U313 BEAM/DIAPH.	E	37S		2	2.250	2	5.750											7	9	7	7	134
17	6	U314 DIAPHRAGM	E	19S			17.750	3	0.250											4	5	4	4	111
2	5	V300 BEAM/DIAPH.	E	20		5	4.000													5	4	5	4	11
2	5	V301 BEAM/DIAPH.	E	20		6	6.000													6	6	6	6	14
24	6	V302 DIAPHRAGM	E	20		1	5.000													1	5	1	5	51
2	6	V303 WINGWALL	E	20		5	4.000													5	4	5	4	16
16	6	V304 WINGWALL	E	20		5	4.000													5	4	5	4	128
2	6	V305 WINGWALL	E	20		6	11.000													6	11	6	11	21
16	6	V306 WINGWALL	E	20		6	10.000													6	10	6	10	164

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

For bending diagrams and steel reinforcing totals, see Sheet No. 24.

Reinforcing steel (ASTM A615, A706 Grade 60) fy = 60,000 psi

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.

BILL OF REINFORCING STEEL

Detailed Feb. 2026
Checked Feb. 2026

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

STATE OF MISSOURI
DERRICK L PRICE
NUMBER PE-2019032100
PROFESSIONAL ENGINEER
THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY.

DATE PREPARED 3/6/2026
ROUTE H | STATE MO
DISTRICT BR | SHEET NO. 25
COUNTY MCDONALD
JOB NO. JSR0143
CONTRACT ID.
PROJECT NO.
BRIDGE NO. A9734

DESCRIPTION | DATE

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

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

TREKK DESIGN GROUP, LLC
1411 East 104th St.
Kansas City, MO 64131
Tel (816) 874-4655
Fax (816) 874-4675
www.trekkdesigngroup.com
Missouri Cert. of Authority 2002010300

BILL OF REINFORCING

No. Req.	Size/ Mark	Location	Codes C	SH	V	Dimensions B ft	B in.	C ft	C in.	D ft	D in.	E ft	E in.	F ft	F in.	H ft	H in.	K ft	K in.	Nom. Length ft	Nom. Length in.	Actual Length ft	Actual Length in.	Weight lb
		INTERMEDIATE DIAPHRAGMS																						
12	6 H50	DIAPHRAGM	E	20		3	11.000													3	11	3	11	71
6	4 H51	DIAPHRAGM	E	20		3	11.000													3	11	3	11	16
6	5 H52	DIAPHRAGM	E	21S				5	4.750		10.500					5	2.500	1	4.750	6	3	6	1	38
6	5 H53	DIAPHRAGM	E	23S		5	4.750		9.250							5	2.500	1	4.750	6	2	6	1	38
8	5 H54	STRAND TIE	E	20		5	8.000													5	8	5	8	47
8	5 H55	STRAND TIE	E	20		6	9.000													6	9	6	9	56
12	6 U50	DIAPHRAGM	E	28					22.000	2	1.000	3	0.250							6	11	6	7	119
18	4 U51	DIAPHRAGM	E	28					15.000	2	0.750	3	0.250							6	4	6	2	74
8	5 V50	DIAPHRAGM	E	20		2	4.000													2	4	2	4	19
		SLAB																						
54	6 S1	SLAB	E	20	V	2	7.000													2	7	2	7	1335
		INC. = 12.75"				30	4.000													30	4	30	4	
212	6 S2	SLAB	E	20		30	11.000													30	11	30	11	9845
81	6 S3	SLAB	E	20		42	2.000													42	2	42	2	5130
48	8 S4	SLAB	E	20		23	0.000													23	0	23	0	2948
117	6 S5	SLAB	E	20		42	2.000													42	2	42	2	7410
42	5 S6	SLAB	E	20	V	3	3.000													3	3	3	3	726
		INC. = 16.00"				29	11.000													29	11	29	11	
170	5 S7	SLAB	E	20		30	11.000													30	11	30	11	5482
		BARRIER																						
		TYPE H																						
20	5 K1	BARRIER	E	27S		3	5.000		9.250		5.375	2	11.750				5.250		1.000	7	7	7	5	155
50	5 K2	BARRIER	E	27S		3	5.000		9.250		14.500	2	2.750				14.250		2.750	7	8	7	5	387
4	5 K3	BARRIER	E	27S			22.500		9.250		14.500		7.750		12.000		14.250		2.750	5	6	5	2	22
74	5 K4	BARRIER	E	19S		2	5.000		10.000											3	3	3	2	244
20	5 K5	BARRIER	E	38S							19.250		9.500		8.250		18.750		4.250	3	1	3	0	63
54	5 K6	BARRIER	E	21S				2	4.875		10.000					2	4.250		6.000	2	6	2	4	131
7	5 K7	BARRIER	E	20		11	8.000													11	8	11	8	85
7	5 K8	BARRIER	E	33S				3	1.500	7	9.750	7	9.375		8.125	3	1.500			10	11	10	11	80
7	5 K9	BARRIER	E	20		11	0.000													11	0	11	0	80
7	5 K10	BARRIER	E	20		11	8.000													11	8	11	8	85
236	5 R1	BARRIER	E	14S		2	5.000		6.500	2	5.500					2	5.000		5.500	5	5	5	3	1292
236	5 R2	BARRIER	E	19S			20.500		9.500											2	6	2	5	595
236	5 R3	BARRIER	E	27S					9.500		15.250		5.000		12.000		15.000		3.000	3	6	3	4	820
16	5 R4	BARRIER	E	20		44	9.000													44	9	44	9	747
32	5 R5	BARRIER	E	20		11	9.000													11	9	11	9	392
16	5 R6	BARRIER	E	20		45	4.000													45	4	54	4	907
24	5 C1	SLIP FORM	E	20		12	0.000													12	0	12	0	300
6	5 C2	SLIP FORM	E	20		8	9.000													8	9	8	9	55

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

For bending diagrams and steel reinforcing totals, see Sheet No. 24.

Reinforcing steel (ASTM A615, A706 Grade 60) fy = 60,000 psi

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

SH = Required shape, see bending diagrams.

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

Detailed Feb. 2026
Checked Feb. 2026

BILL OF REINFORCING STEEL

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

STATE OF MISSOURI
DERRICK J. PRICE
NUMBER PE-2019032100
PROFESSIONAL ENGINEER
THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY.

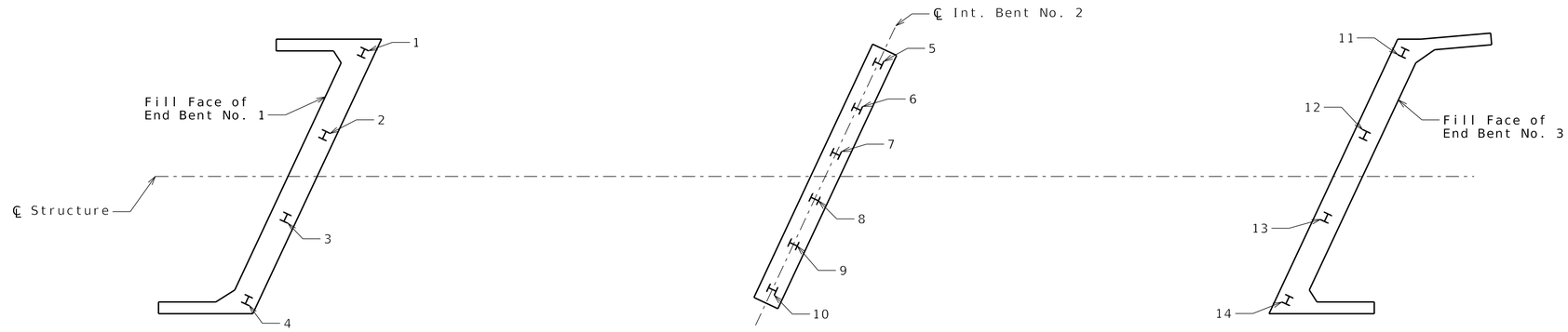
IF A SEAL IS PRESENT ON THIS SHEET IT HAS BEEN ELECTRONICALLY SEALED AND DATED.

DATE PREPARED 4/2/2026
ROUTE H | STATE MO
DISTRICT BR | SHEET NO. 26
COUNTY MCDONALD
JOB NO. JSR0143
CONTRACT ID.
PROJECT NO.
BRIDGE NO. A9734

DESCRIPTION | DATE

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

TREKK DESIGN GROUP, LLC
1411 East 104th St.
Kansas City, MO 64131
Tel (816) 874-4655
Fax (816) 874-4675
www.trekkdesigngroup.com
Missouri Cert. of Authority 2002010300



PART PLAN SHOWING PILE NUMBERING FOR RECORDING AS-BUILT PILE DATA

As-Built Pile Data			
Pile No.	Length in Place (ft)	Computed Nominal Axial Compressive Resistance (kips)	Remarks
			End Bent No. 1
1			
2			
3			
4			

As-Built Pile Data			
Pile No.	Length in Place (ft)	Computed Nominal Axial Compressive Resistance (kips)	Remarks
			Int. Bent No. 2
5			
6			
7			
8			
9			
10			
			End Bent No. 3
11			
12			
13			
14			

Note:
Indicate in remarks column:
A. Pile type and grade
B. Batter
C. Driven to practical refusal

This sheet to be completed by MoDOT construction personnel.

STATE OF MISSOURI
DERRICK L PRICE
NUMBER PE-2019032100
PROFESSIONAL ENGINEER
THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY.

DATE PREPARED 3/6/2026

ROUTE	STATE
H	MO
DISTRICT	SHEET NO.
BR	27

COUNTY MCDONALD

JOB NO. JSR0143

CONTRACT ID.

PROJECT NO.

BRIDGE NO. A9734

DATE	DESCRIPTION

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

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION
105 WEST CAPITOL
JEFFERSON CITY, MO 65102
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Bridge No. R0305 Over Goodin Hollow
331 Beckett Ln | Pineville, MO
Terracon Project No. B5255078

Terracon
4765 W Junction St
Springfield, MO

Boring Log No. B-1

Location: See Exploration Plan
Latitude: 36.582543° Longitude: -94.387412°
Elevation: 878.3 (Ft.)

Depth (Ft.)	Description	Elevation	Sample Type	Recovery (In.)	Field Test Results	Unconfined Compressive Strength (psi)	Water Content (%)	Atterberg Limits LL-PL-PI	Percent Fines
0.7	**ASPHALT**, 8" thick	877.63							
1.2	**AGGREGATE BASE COURSE**, 6" thick	877.13							
	FILL - GRAVELLY FAT CLAY WITH SAND (CH), dark brown to dark reddish brown, moist, medium stiff to stiff			5	6-8-7 N=15		12.3		
				6	9-7-7 N=14		11.4		
				7	2-2-3 N=5		18.8		
9.0		869.3		7	3-5-7 N=12		17.6		
	CLAYEY GRAVEL WITH SAND (GC), dark reddish brown and tan, moist, medium dense			6	8-8-8 N=16		12.6	32-13-19	
				6	8-9-9 N=18		18.2		28.0
23.5		854.8							
25.5	**POORLY GRADED GRAVEL WITH CLAY AND SAND (GP-GC)**, tan and brown, wet, medium dense	852.8		8	5-4-6 N=10		27.8		
	HIGHLY WEATHERED SHALE, gray to dark gray, fine-grained, intensely fractured, weak rock			1	50/1"		19.5		
33.5		844.8		0	50/0"				
	SHALE, gray to dark gray, fine-grained, moderately fractured, slightly weathered, weak to medium strong rock			50	REC: 98% RQD: 86%	2897			
40.0		838.3		60	REC: 100% RQD: 83%	5929			
41.5	**WEATHERED SHALE**, gray to dark gray, fine-grained, highly fractured, medium strong rock	836.8							
43.5	**SHALE**, gray to dark gray, fine-grained, moderately fractured, slightly weathered, medium strong rock	834.8		8.5	REC: 94% RQD: 67%				
	Boring Terminated at 43.5 Feet								

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (If any).
See Supporting Information for explanation of symbols and abbreviations.

Water Level Observations
19' While sampling
13' At completion of drilling
Cave-in at 15'

Drill Rig
CME 55

Hammer Type
Automatic

Driller
WA

Logged by
ALB

Boring Started
11-11-2025

Boring Completed
11-11-2025

Notes

Advancement Method
Continuous Flight Augers: 0' - 33.5'
Rock Coring: 33.5' - 43.5'

Abandonment Method
Boring backfilled with Auger Cuttings and/or Bentonite, Surface Capped with Asphalt

Bridge No. R0305 Over Goodin Hollow
331 Beckett Ln | Pineville, MO
Terracon Project No. B5255078

Terracon
4765 W Junction St
Springfield, MO

Boring Log No. B-2

Location: See Exploration Plan
Latitude: 36.582542° Longitude: -94.387295°
Elevation: 867.8 (Ft.)

Depth (Ft.)	Description	Elevation	Water Level Observations	Sample Type	Recovery (In.)	Field Test Results	Unconfined Compressive Strength (psi)	Water Content (%)	Atterberg Limits LL-PL-PI	Percent Fines
0.3	**TOPSOIL**, 4" thick	867.55								
0.5	**AGGREGATE BASE COURSE**, 2" thick	867.3								
	CLAYEY SAND WITH GRAVEL (SC), dark reddish brown, moist, medium dense				2	7-6-7 N=13		8.5		
					3	2-6-5 N=11		10.4		
6.0		861.8								
	CLAYEY GRAVEL WITH SAND (GC), dark brown and dark reddish brown, wet, medium dense				11	8-10-8 N=18		16.8		19.6
8.5		859.3								
	POORLY GRADED GRAVEL WITH CLAY AND SAND (GP-GC), dark brown and dark reddish brown, wet, medium dense				8	5-6-6 N=12		18.5		
13.5		854.3								
	CLAYEY GRAVEL WITH SAND (GC), dark brown and dark reddish brown, wet, medium dense				6	5-5-5 N=10		28.1		17.3
17.0		850.8								
	HIGHLY WEATHERED SHALE, gray to dark gray, fine-grained, intensely fractured, weak rock				1	50/1"		21.1		
24.0		843.8			1	50/1"		21.6		
	WEATHERED SHALE, gray to dark gray, fine-grained, moderately fractured, weak rock				12	REC: 100% RQD: 0%				
27.0		840.8			58	REC: 97% RQD: 51%	3441			
	SHALE, gray to dark gray, fine-grained, moderately fractured, slightly weathered, medium strong rock				48	REC: 100% RQD: 73%	4220			
33.5		834.3								
	Boring Terminated at 33.5 Feet									

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (If any).
See Supporting Information for explanation of symbols and abbreviations.

Water Level Observations
6' While sampling
6.5' At completion of drilling
Cave-in at 9'

Drill Rig
CME 55

Hammer Type
Automatic

Driller
WA

Logged by
ALB

Boring Started
11-12-2025

Boring Completed
11-12-2025

Notes

Advancement Method
Continuous Flight Augers: 0' - 23.5'
Rock Coring: 23.5' - 33.5'

Abandonment Method
Boring backfilled with Auger Cuttings and/or Bentonite

BORING DATA

Note: For locations of borings, see Sheet No. 1.

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

STATE OF MISSOURI
DERRICK J. PRICE
NUMBER PE-2019032100
PROFESSIONAL ENGINEER
THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY.

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

DATE PREPARED 3/6/2026
ROUTE H | STATE MO
DISTRICT BR | SHEET NO. 28
COUNTY MCDONALD
JOB NO. JSR0143
CONTRACT ID.
PROJECT NO.
BRIDGE NO. A9734

DESCRIPTION | DATE

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

TREKK DESIGN GROUP, LLC
1411 East 104th St.
Kansas City, MO 64131
Tel (816) 874-4665
Fax (816) 874-4675
www.trekkdesigngroup.com
Missouri Cert. of Authority 2002010300

Bridge No. R0305 Over Goodin Hollow
331 Beckett Ln | Pineville, MO
Terracon Project No. B5255078

Terracon
4765 W Junction St
Springfield, MO

Boring Log No. B-3

Location: See Exploration Plan

Latitude: 36.582713° Longitude: -94.387244°

Model Layer	Graphic Log	Depth (Ft.)	Elevation: 867.3 (Ft.)	Depth (Ft.)	Water Level Observations	Sample Type	Recovery (In.)	Field Test Results	Unconfined Compressive Strength (psi)	Water Content (%)	Atterberg Limits LL-PL-PI	Percent Fines
2		1.0	**AGGREGATE BASE COURSE**, 12" thick 866.3									
3		3.5	**POORLY GRADED SAND WITH CLAY AND GRAVEL (SP-SC)**, dark brown, medium dense 863.8				5	4-5-15 N=20		9.4		10.1
			POORLY GRADED GRAVEL WITH CLAY AND SAND (GP-GC), dark brown, moist, medium dense	5			5	5-7-9 N=16		13.8		
		8.5	858.8				4	5-7-7 N=14		14.3		
			GRAVELLY LEAN CLAY WITH SAND (CL), dark brown, wet, stiff to very stiff	10			5	5-5-5 N=10		22.6	34-16-18	
		17.5	849.8	15			5	3-9-11 N=20		26.6		
4		24.0	**HIGHLY WEATHERED SHALE**, gray to dark gray, fine-grained, intensely fractured, weak rock 843.3	20			2	50/2"		16.4		
			SHALE, gray to dark gray, fine-grained, moderately fractured, slightly weathered, weak to medium strong rock	25			1	50/1"		18.9		
							8	REC: 67% RQD: 0%				
							59	REC: 98% RQD: 93%	3905			
				30			48	REC: 100% RQD: 79%	1245			
		33.5	833.8									
			Boring Terminated at 33.5 Feet									

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (If any).

See Supporting Information for explanation of symbols and abbreviations.

Water Level Observations
- 9' While sampling
- 8.5' At completion of drilling
- Cave-in at 8'

Drill Rig
CME 55

Hammer Type
Automatic

Driller
WA

Logged by
ALB

Boring Started
11-12-2025

Boring Completed
11-12-2025

Notes

Advancement Method
Continuous Flight Augers: 0' - 23.5'
Rock Coring: 23.5' - 33.5'

Abandonment Method
Boring backfilled with Auger Cuttings and/or Bentonite

Facilities | Environmental | **Geotechnical** | Materials

Bridge No. R0305 Over Goodin Hollow
331 Beckett Ln | Pineville, MO
Terracon Project No. B5255078

Terracon
4765 W Junction St
Springfield, MO

Boring Log No. B-4

Location: See Exploration Plan

Latitude: 36.582737° Longitude: -94.387125°

Model Layer	Graphic Log	Depth (Ft.)	Elevation: 879.0 (Ft.)	Depth (Ft.)	Water Level Observations	Sample Type	Recovery (In.)	Field Test Results	Unconfined Compressive Strength (psi)	Water Content (%)	Atterberg Limits LL-PL-PI	Percent Fines
1		0.7	**ASPHALT**, 8" thick 878.33									
2		1.2	**AGGREGATE BASE COURSE**, 6" thick 877.83				5	8-6-4 N=10		8.6		
			FILL - POORLY GRADED GRAVEL WITH CLAY AND SAND (GP-GC), light reddish brown and tan, moist, loose to medium dense				3	2-2-2 N=4		10.3		
				5			4	2-2-2 N=4		15.1		
		8.0	871									
3			**CLAYEY GRAVEL WITH SAND (GC)**, reddish brown to dark reddish brown, wet, medium dense				6	4-8-6 N=14		20.0		
				10			5	6-6-6 N=12		14.8		23.8
				15								
							10	11-10-10 N=20		17.6	32-18-14	
		23.5	855.5	20								
4			**HIGHLY WEATHERED SHALE**, gray to dark gray, fine-grained, intensely fractured, weak rock				4	50/5"		23.2		
		29.0	850	25								
			SHALE, gray to dark gray, fine-grained, moderately fractured, slightly weathered, weak to medium strong rock				1	50/2"		16.9		
							2	REC: 33% RQD: 0%				
				30			51.5	REC: 95% RQD: 63%	2457			
							60	REC: 100% RQD: 90%	5076			
		38.5	840.5	35								
			Boring Terminated at 38.5 Feet									

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (If any).

See Supporting Information for explanation of symbols and abbreviations.

Water Level Observations
- 21' While sampling
- 19' At completion of drilling
- 19.8' After 24 hours

Drill Rig
CME 55

Hammer Type
Automatic

Driller
WA

Logged by
ALB

Boring Started
11-10-2025

Boring Completed
11-11-2025

Notes

Advancement Method
Continuous Flight Augers: 0' - 28.5'
Rock Coring: 28.5' - 38.5'

Abandonment Method
Boring backfilled with Auger Cuttings and/or Bentonite, Surface Capped with Asphalt

Facilities | Environmental | **Geotechnical** | Materials

BORING DATA

Note: For locations of borings, see Sheet No. 1.

Detailed Feb. 2026
Checked Feb. 2026

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

STATE OF MISSOURI
DERRICK J. PRICE
NUMBER PE-2019032100
PROFESSIONAL ENGINEER
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DATE PREPARED 3/6/2026

ROUTE	STATE
H	MO
DISTRICT	SHEET NO.
BR	29

COUNTY: MCDONALD
JOB NO.: JSR0143
CONTRACT ID.:
PROJECT NO.:
BRIDGE NO.: A9734

DESCRIPTION	DATE

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

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www.trekkdesigngroup.com
Missouri Cert. of Authority 2002010300

Bridge No. R0305 Over Goodin Hollow
331 Beckett Ln | Pineville, MO
Terracon Project No. B5255078

Terracon
4765 W Junction St
Springfield, MO

Boring Log No. B-5

Location: See Exploration Plan

Latitude: 36.582499° Longitude: -94.387418°

Depth (Ft.) Elevation: 879.1 (Ft.)

Model Layer	Graphic Log			Depth (Ft.)
1		0.7	**ASPHALT**, 8" thick 878.43	
2		1.2	**AGGREGATE BASE COURSE**, 6" thick 877.93	
3			**OVERBURDEN SOILS**	
		23.5	855.6	
4			**SHALE**	
		55.5	823.6	
			Auger Refusal at 55.5 Feet	

Water Level Observations
- 35' While drilling
- 17.5' At completion of drilling
- Cave-in at 29'

Sample Type | Recovery (In.) | Field Test Results | Unconfined Compressive Strength (psi) | Water Content (%) | Atterberg Limits LL-PL-PI | Percent Fines

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (If any).

See Supporting Information for explanation of symbols and abbreviations.

Notes

Advancement Method
Continuous Flight Auger

Abandonment Method
Boring backfilled with Auger Cuttings and/or Bentonite, Surface Capped with Asphalt

Drill Rig
CME 55

Hammer Type
Automatic

Driller
WA

Logged by
ALB

Boring Started
11-10-2025

Boring Completed
11-10-2025

Facilities | Environmental | **Geotechnical** | Materials

Bridge No. R0305 Over Goodin Hollow
331 Beckett Ln | Pineville, MO
Terracon Project No. B5255078

Terracon
4765 W Junction St
Springfield, MO

Boring Log No. B-6

Location: See Exploration Plan

Latitude: 36.582638° Longitude: -94.387340°

Depth (Ft.) Elevation: 866.7 (Ft.)

Model Layer	Graphic Log			Depth (Ft.)
2		1.0	**AGGREGATE BASE COURSE**, 12" thick 865.7	
3			**OVERBURDEN SOILS**	
		16.0	850.7	
4			**SHALE**	
		45.0	821.7	
			Auger Refusal at 45 Feet	

Water Level Observations
- 21' While drilling
- 7' At completion of drilling
- Cave-in at 36'

Sample Type | Recovery (In.) | Field Test Results | Unconfined Compressive Strength (psi) | Water Content (%) | Atterberg Limits LL-PL-PI | Percent Fines

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (If any).

See Supporting Information for explanation of symbols and abbreviations.

Notes

Advancement Method
Continuous Flight Auger

Abandonment Method
Boring backfilled with Auger Cuttings and/or Bentonite

Drill Rig
CME 55

Hammer Type
Automatic

Driller
WA

Logged by
ALB

Boring Started
11-11-2025

Boring Completed
11-11-2025

Facilities | Environmental | **Geotechnical** | Materials

BORING DATA

Note: For locations of borings, see Sheet No. 1.

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Detailed Feb. 2026
Checked Feb. 2026

STATE OF MISSOURI
DERRICK J. PRICE
NUMBER PE-2019032100
PROFESSIONAL ENGINEER
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DATE PREPARED 3/6/2026
ROUTE H | STATE MO
DISTRICT BR | SHEET NO. 30
COUNTY MCDONALD
JOB NO. JSR0143
CONTRACT ID.
PROJECT NO.
BRIDGE NO. A9734

DESCRIPTION | DATE

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

1441 East 104th St.
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Missouri Cert. of Authority 2002010300

TREKK DESIGN GROUP, LLC

Bridge No. R0305 Over Goodin Hollow
331 Beckett Ln | Pineville, MO
Terracon Project No. B5255078

Terracon
4765 W Junction St
Springfield, MO

Boring Log No. B-7

Location: See Exploration Plan

Latitude: 36.582618° Longitude: -94.387206°

Depth (Ft.) Elevation: 867.6 (Ft.)

Depth (Ft.)	Elevation	Description
1.0	866.6	**AGGREGATE BASE COURSE**, 12" thick
		OVERBURDEN SOILS
16.0	851.6	**SHALE**
44.0	823.6	***Auger Refusal at 44 Feet***

Water Level Observations
- 24' While drilling
- 8' At completion of drilling

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (If any).

See Supporting Information for explanation of symbols and abbreviations.

Notes

Advancement Method
Continuous Flight Auger

Abandonment Method
Boring backfilled with Auger Cuttings and/or Bentonite

Drill Rig
CME 55

Hammer Type
Automatic

Driller
WA

Logged by
ALB

Boring Started
11-11-2025

Boring Completed
11-11-2025

Bridge No. R0305 Over Goodin Hollow
331 Beckett Ln | Pineville, MO
Terracon Project No. B5255078

Terracon
4765 W Junction St
Springfield, MO

Boring Log No. B-8

Location: See Exploration Plan

Latitude: 36.582789° Longitude: -94.387124°

Depth (Ft.) Elevation: 878.6 (Ft.)

Depth (Ft.)	Elevation	Description
0.7	877.93	**ASPHALT**, 8" thick
1.2	877.43	**AGGREGATE BASE COURSE**, 6" thick
		OVERBURDEN SOILS
27.0	851.6	**SHALE**
56.5	822.1	***Auger Refusal at 56.5 Feet***

Water Level Observations
- 50' While drilling
- 19.5' At completion of drilling
- Cave-in at 28'

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (If any).

See Supporting Information for explanation of symbols and abbreviations.

Notes

Advancement Method
Continuous Flight Auger

Abandonment Method
Boring backfilled with Auger Cuttings and/or Bentonite, Surface Capped with Asphalt

Drill Rig
CME 55

Hammer Type
Automatic

Driller
WA

Logged by
ALB

Boring Started
11-10-2025

Boring Completed
11-10-2025

BORING DATA

Note: For locations of borings, see Sheet No. 1.

Detailed Feb. 2026
Checked Feb. 2026

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

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DERRICK J. PRICE
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DATE PREPARED 3/6/2026

ROUTE	STATE
H	MO
DISTRICT	SHEET NO.
BR	31

COUNTY: MCDONALD
JOB NO.: JSR0143
CONTRACT ID.:
PROJECT NO.:
BRIDGE NO.: A9734

DESCRIPTION | DATE

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION
105 WEST CAPITOL
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DESIGN DESIGNATION

A.A.D.T. - 2026 = 1,370
A.A.D.T. - 2046 = 1,513
D.H.V. = 9.02%
T = 11.06%
V = 45 M.P.H.
D = 33.9% / 66.1%

FUNCTIONAL CLASSIFICATION - MAJOR COLLECTOR

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	

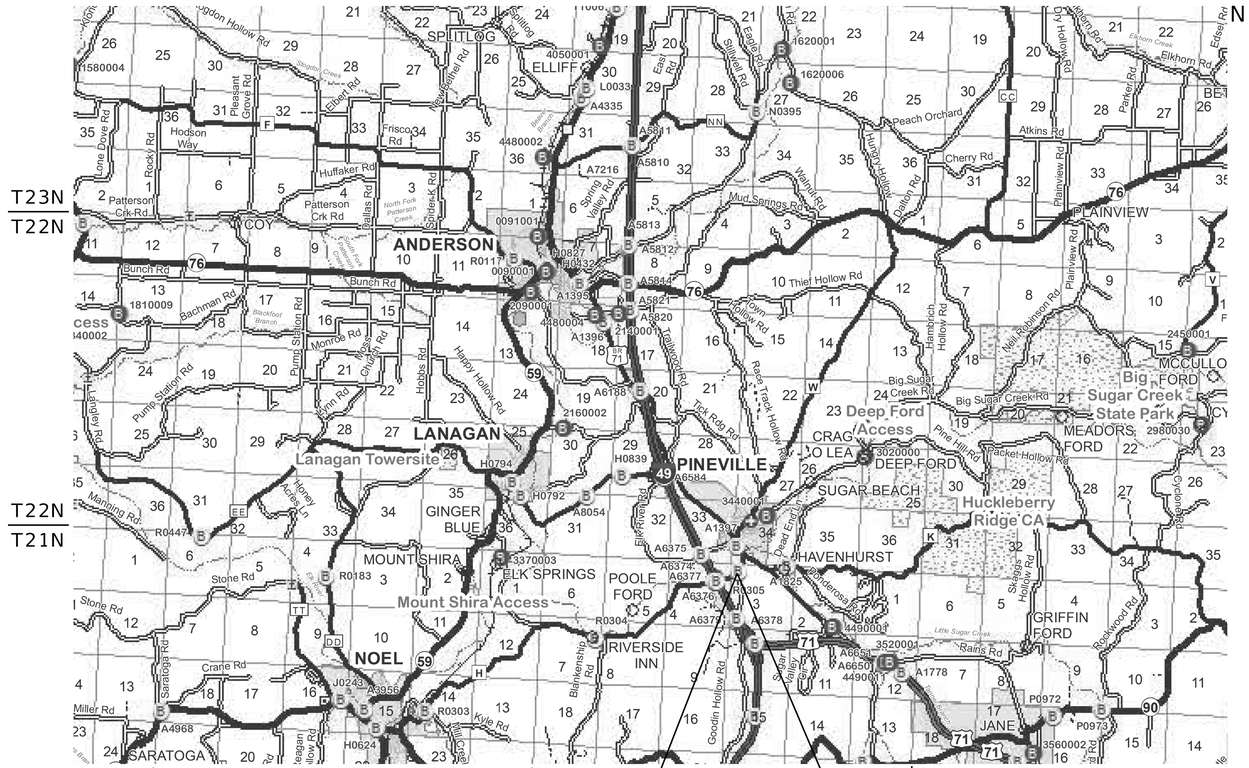
NOTE: DASHED OR OPEN SYMBOLS INDICATE EXISTING FEATURES

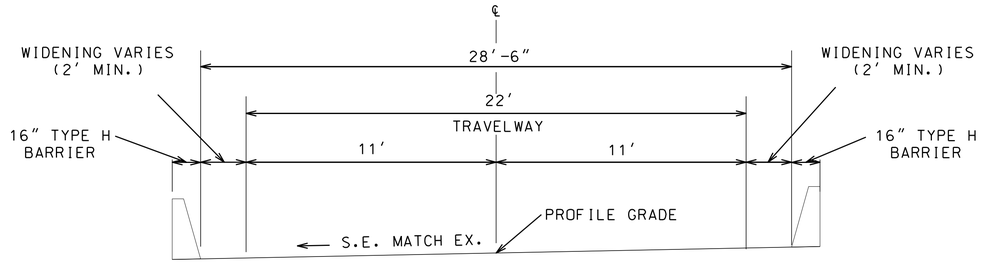
MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION
PLANS FOR PROPOSED
STATE HIGHWAY
McDONALD COUNTY



KEY MAP
LOCATION OF McDONALD COUNTY

N.T.S.

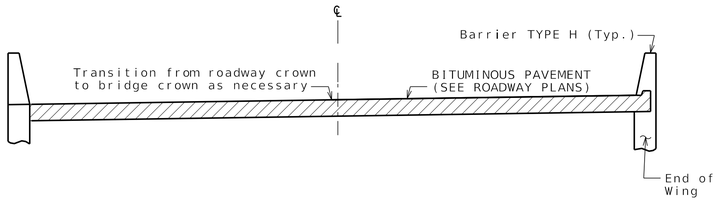

T23N
T22N
T22N
T21N
T21N
R34W | R33W
R33W | R32W
R32W | R31W
SPLITLOG
ELLIFF
ANDERSON
COY
LANAGAN
Lanagan Towersite
PINEVILLE
MOUNT SHIRA
ELK SPRINGS
POOLE FORD
RIVERSIDE INN
NOEL
SARATOGA
GINGER BLUE
Mount Shira Access
SUGAR BEACH
HAVENHURST
PLAINVIEW
DEEP FORD
CRAG O LEA
Big Sugar Creek State Park
MEADORS FORD
MCCULLO FORD
GRIFFIN FORD
JANE
Huckleberry Ridge CA
23 Deep Ford Access
Big Sugar Creek Rd
Thief Hollow Rd
Mud Springs Rd
Peach Orchard
Atkins Rd
Cherry Rd
Bunch Rd
Hudson Way
Huffaker Rd
Patterson Crk Rd
Bachman Rd
Monroe Rd
Happy Hollow Rd
Manning Rd
Stone Rd
Crane Rd
Miller Rd
Elbert Rd
Frisco Rd
Pleasant Grove Rd
Lone Dove Rd
Rocky Rd
Dallas Rd
Elsberry Rd
Hobbs Rd
Pump Station Rd
Chuckin Rd
Honey Acres Ln
Saratoga Rd
Blankenship Rd
Goodin Hollow Rd
Kyle Rd
Rees Track Hollow Rd
Tick Ridge Rd
Hollow Rd
Pine Hill Rd
Jacket Hollow Rd
Hamblich Hollow Rd
Neil Robinson Rd
Plainview Rd
Parker Rd
Elkhorn Rd
Ettsel Rd
Rockwood Rd
Skaggs Hollow Rd
Rains Rd
Little Sugar Creek
Deadmans Hollow Rd
Hunter Hollow Rd
Talton Rd
Wentzel Rd
Spring Valley Rd
Stiltwell Rd
Peavine Rd
Eastern Rd
Elbert Rd
Pleasant Grove Rd
Big Sugar Creek Rd
Sugar Creek



TYPICAL SECTION – ROUTE H

STA. 355+61.04 – STA. 356+81.88
(PROPOSED BRIDGE)

NOT TO SCALE



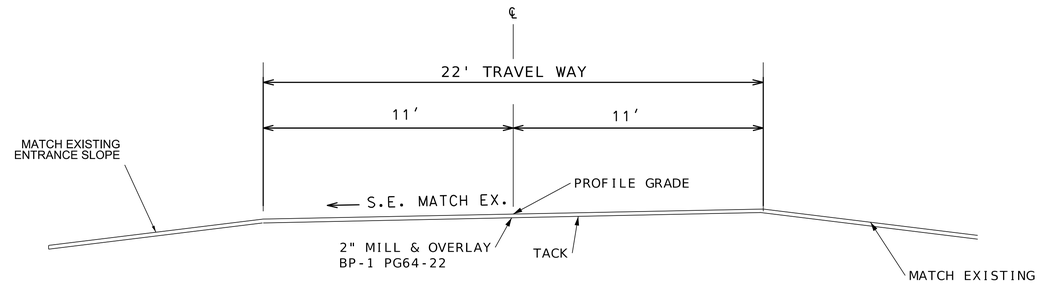
TYPICAL SECTION – ROUTE H

STA. 355+41.65 – STA. 355+61.04
STA. 356+81.88 – STA. 357+02.65
(PROPOSED BRIDGE APPROACH SLAB)

NOT TO SCALE

BASE TYPE	HMA DESIGN	PCCP DESIGN	SHOULDERS
6″ TYPE 1 AGGREGATE BASE	10″ HMA 2″ BP-1 W/ PG64-22 OVER 8″ BIT. BASE W/ PG64-22	8″ PCCP 15′ JOINT SPACING AND 1.25 INCH DOWELS	FULL DEPTH SHOULDER

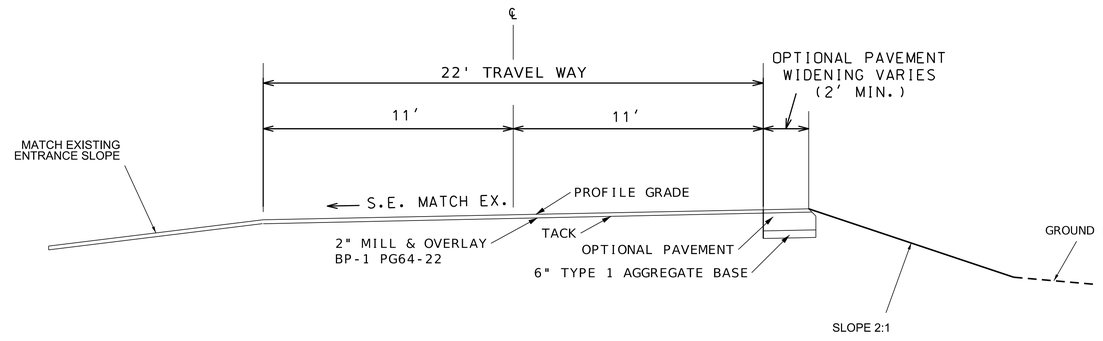
(1) SHOULDERS 4′ OR LESS IN WIDTH SHALL BE CONSTRUCTED AS FULL DEPTH PAVEMENT AS PART OF THE TRAVELWAY.



TYPICAL SECTION – ROUTE H

STA. 354+56.00 – STA. 355+05.00

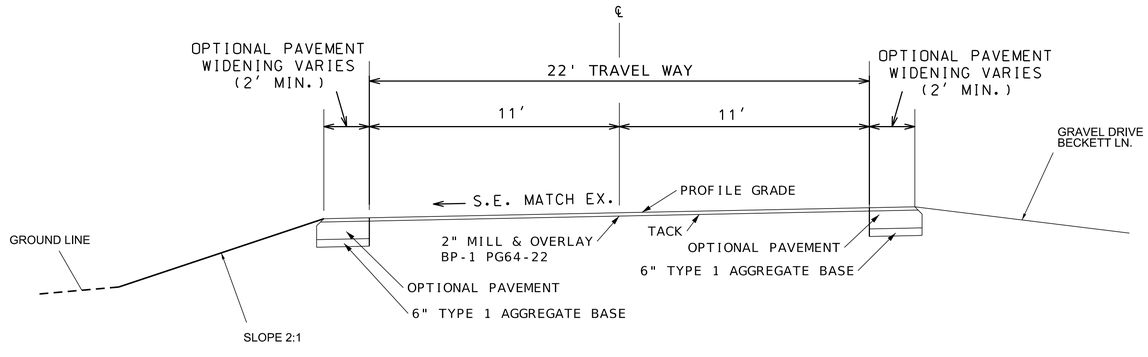
NOT TO SCALE



TYPICAL SECTION – ROUTE H

STA. 355+05.00 – STA. 355+41.65

NOT TO SCALE



TYPICAL SECTION – ROUTE H

STA. 357+02.65 – STA. 357+50.00

NOT TO SCALE

TYPICAL SECTION
SHEET 1 OF 1

STATE OF MISSOURI
JASON MICHAEL SHAFER
NUMBER PE-2010019596
PROFESSIONAL ENGINEER
I'M GRETCHEN HERE SEALED AND DATED ELECTRONICALLY

DATE PREPARED
3/27/2026

ROUTE	STATE
H	MO
DISTRICT	SHEET NO.
SW	2

COUNTY
MCDONALD

JOB NO.
JSR0143

CONTRACT ID.

PROJECT NO.

BRIDGE NO.

DESCRIPTION	DATE

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

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Authority 2002010300
TREK DESIGN GROUP, LLC

SEED AND MULCH

LOCATION	STATION	STATION	SEEDING - COOL SEASON GRASSES (ACRE)	MULCHING (ACRE)	REMARKS
ROUTE H	355+10.35	355+66.39	0.02	0.02	WEST END OF BRIDGE
ROUTE H	356+66.28	356+87.71	0.00	0.00	NORTH END OF BRIDGE
ROUTE H	356+66.28	357+50.00	0.01	0.01	EAST END OF BRIDGE
		TOTAL	0.10	0.10	

PIPE CULVERTS

LOCATION	STATION	STATION	SIDE	18" GROUP C (LF)	CLASS 3 EXCAVATION (CY)	TYPE A PIPE COLLAR (EA)	18" F.E.S. GROUP C (EA)
ROUTE H	0+39.41	0+47.41	RT	4	1	1	1
		TOTAL		4	1	1	1

PERMANENT EROSION CONTROL

LOCATION	STATION	SIDE	FURNISHING TYPE 2 ROCK BLANKET (CY)	PLACING TYPE 2 ROCK BLANKET (CY)	ROCK LINING CULVERT (CY)	PERMANENT EROSION CONTROL GEOTEXTILE (SY)
ROUTE H	355+32.83	RT			2	
ROUTE H	355+35.39	CL	151	151		226
ROUTE H	356+60.32	CL	106	106		159
		TOTAL	257	257	2	385

TEMPORARY EROSION CONTROL

LOCATION	STATION	STATION	SIDE	SILT FENCE (LF)	TYPE C TEMPORARY BERM (LF)	ROCK DITCH CHECK (LF)	SEDIMENT REMOVAL (CY)
ROUTE H	355+10	355+39	RT	31			1
ROUTE H	355+18	355+66	LT	47			1
ROUTE H	355+31		RT			8	1
ROUTE H	355+39	355+86	CL		116		
ROUTE H	356+46	357+01	CL		117		
ROUTE H	356+69		LT			8	1
ROUTE H	356+92		LT			8	1
ROUTE H	357+14		RT			8	1
ROUTE H	357+15		LT			8	1
ROUTE H	357+00	357+50	LT	51			1
ROUTE H	357+32		RT			8	1
ROUTE H	357+50		RT			8	1
			TOTAL	129	233	56	10

PAVEMENT MARKING

LOCATION	STATION	STATION	SIDE	4" WHITE CLASS 1 PAVEMENT MARKING PAINT WITH 18- MIL TYPE P BEADS (LF)	4" YELLOW CLASS 1 PAVEMENT MARKING PAINT WITH 18-MIL TYPE P BEADS (LF)
ROUTE H	354+56.00	357+50.00	LT	294	
ROUTE H	354+56.00	357+50.00	RT	294	
ROUTE H	354+56.00	357+50.00	CL		294
ROUTE H	354+56.00	357+50.00	CL		294
		TOTAL		588	588

BASE PAVEMENT & ENTRANCES

LOCATION	STATION	STATION	SIDE	OPTIONAL PAVEMENT (SY)	TYPE 1 AGG. FOR BASE (6 IN. THICK) (SY)	MILLING 2" (SY)	2" BP-1 PG 64-22 (TON)	TACK COAT 0.05 GAL/SY (GAL)	GRAVEL A CRUSHED STONE B 4" (SY)	REMARKS
ROUTE H	355+05.00	355+35.39	RT	24.5	25			1		GOODIN HOLLOW LN.
ROUTE H	355+05.00	355+37.37	RT	22.2	22			1		
ROUTE H	356+94.12	355+50.00	RT	16.9	17			1		
ROUTE H	357+09.08	357+50.00	LT	15.1	15			1		
ROUTE H	554+56.00	355+41.65	RT/LT			517	57.4	26		CANOE CAMP LN, GOODING HOLLOW LN. & ROUTE H
ROUTE H	357+02.65	357+50.00	RT/LT			107	11.8	5		
ROUTE H	357+05.00		RT						118	BECKETT LN.
			TOTAL	78.7	79	624	69.2	35	118	

MOBILIZATION

TOTAL	1 LUMP SUM

CONTRACTOR FURNISHED SURVEYING & STAKING

TOTAL	1 LUMP SUM

EARTHWORK

LOCATION	STATION	STATION	UNCLASSIFIED EXCAVATION (CY)	COMPACTING EMBANKMENT (CY)	REMARKS
ROUTE H	354+56.00	355+85.00	133	35	TO BRIDGE EXCEPTION
ROUTE H	356+45.00	357+50.00	143	10	FROM BRIDGE EXCEPTION
		TOTAL	276	45	

REMOVAL OF IMPROVEMENTS

SHEET	LOCATION	STATION	SIDE	DESCRIPTION	QUANTITY	UNITS
4	ROUTE H	395+14.00	RT	R1-1	1	EA
4	ROUTE H	355+67.23	RT	OM-3	1	EA
4	ROUTE H	356+70.11	RT	OM-3	1	EA
4	ROUTE H	355+82.67	LT	OM-3	1	EA
				TOTAL	1 LUMP SUM	

CLEARING AND GRUBBING

LOCATION	STATION	STATION	SIDE	CLEARING AND GRUBBING ACRE	REMARKS
ROUTE H	355+10.35	355+66.39	LT	0.5	SOUTH END OF BRIDGE
ROUTE H	356+66.28	356+87.71	RT	0.5	NORTH END OF BRIDGE
		TOTAL		1.00	

STATE OF MISSOURI
JASON MICHAEL SHAFER
NUMBER PE-2010019596
PROFESSIONAL ENGINEER
I'M DIGITALLY SIGN. SEALED AND DATED ELECTRONICALLY

DATE PREPARED
3/27/2026

ROUTE	STATE
H	MO

DISTRICT	SHEET NO.
SW	3

COUNTY
MCDONALD

JOB NO.
JSR0143

CONTRACT ID.

PROJECT NO.

BRIDGE NO.

DESCRIPTION	DATE

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

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

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

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

Missouri Cert. of Authority 2002010300

TREKK DESIGN GROUP, LLC

WARNING SIGNS

SIGN	SIZE IN.	AREA SQ.FT.	QTY EACH	TOTAL AREA SQ.FT.	QTY RELOC EACH	TOTAL RELOC SQ.FT.	SIGN NO.	DESCRIPTION
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	64.00			2	ROAD/BRIDGE/RAMP WORK AHEAD
WO20-2	48X48	16.00	2	32.00			18	DETOUR AHEAD
WO20-3	48X48	16.00	2	32.00			20	ROAD CLOSED AHEAD
WO20-3	48X48	16.00	2	32.00			20a	ROAD CLOSED AHEAD 500FT
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)

GUIDE SIGNS

SIGN	SIZE IN.	AREA SQ.FT.	QTY EACH	TOTAL SQ.FT.	QTY RELOC EACH	TOTAL RELOC SQ.FT.	SIGN NO.	DESCRIPTION
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	20.00			1	ROAD WORK NEXT XX MILES
GO20-2	48X24	8.00	2	16.00			26	END ROAD WORK
GO20-4	36X18	4.50						PILOT CAR FOLLOW ME
GO20-4a	42X30	8.75						PILOT CAR IN USE WAIT & FOLLOW
GO20-4a	18X12	1.50						PILOT CAR IN USE WAIT & FOLLOW
GO20-5aP	36X24	6.00						WORK ZONE (PLAQUE)
MO4-8a	24X18	3.00	2	6.00			52	END DETOUR
MO4-9L	48X36	12.00						DETOUR (LEFT)
MO4-9R	48X36	12.00						DETOUR (RIGHT)
MO4-9P	48X12	4.00						STREET NAME (PLAQUE)
MO4-10L	48X18	6.00						DETOUR ARROW (LEFT)
MO4-10R	48X18	6.00						DETOUR ARROW (RIGHT)

REGULATORY SIGNS

SIGN	SIZE IN.	AREA SQ.FT.	QTY EACH	TOTAL SQ.FT.	QTY RELOC EACH	TOTAL RELOC SQ.FT.	SIGN NO.	DESCRIPTION
R1-1	48X48	13.25						STOP
R1-2	48TRI.	6.93						YIELD
R1-2a	36X36	9.00						TO ONCOMING TRAFFIC (PLAQUE)
R1-3P	30X12	2.50						ALL WAY (PLAQUE)
R2-1	36X48	12.00						SPEED LIMIT XX
R3-1	48X48	16.00						NO RIGHT TURN (SYMBOL)
R3-2	48X48	16.00						NO LEFT TURN (SYMBOL)
R3-3	36X36	9.00						NO TURNS
R3-4	48X48	16.00						NO U-TURN (SYMBOL)
R3-7L	30X30	6.25						LEFT LANE MUST TURN LEFT
R3-7R	30X30	6.25						RIGHT LANE MUST TURN RIGHT
R4-1	36X48	12.00						DO NOT PASS
R4-2	36X48	12.00						PASS WITH CARE
R4-7a	36X48	12.00						KEEP RIGHT (HORIZONTAL ARROW)
R4-8a	36X48	12.00						KEEP LEFT (HORIZONTAL ARROW)
R5-1	30X30	6.25						DO NOT ENTER
R5-1a	36X24	6.00						WRONG WAY
R6-1L	54X18	6.75						ONE WAY ARROW (LEFT)
R6-1R	54X18	6.75						ONE WAY ARROW (RIGHT)
R6-2L	24X30	5.00						ONE WAY (LEFT)
R6-2R	24X30	5.00						ONE WAY (RIGHT)
R9-9	24X12	2.00						SIDEWALK CLOSED
R9-11L	24X18	3.00						SIDEWALK CLOSED AHEAD, (ARROW LEFT) CROSS HERE
R9-11R	24X18	3.00						SIDEWALK CLOSED AHEAD, (ARROW RIGHT) CROSS HERE
R10-6	24X36	6.00						STOP HERE ON RED (45^ ARROW)
R11-2	48X30	10.00	2	20.00			29	ROAD CLOSED
R11-3a	60X30	12.50						ROAD CLOSED XX MILES AHEAD LOCAL TRAFFIC ONLY
R11-4	60X30	12.50	1	12.50			55	ROAD CLOSED TO THRU TRAFFIC
CONST-3A	60X48	20.00						FINE SIGN
CONST-3X	56X12	4.67						SPEEDING/PASSING (PLATE)

MISCELLANEOUS SIGNS

SIGN	SIZE IN.	AREA SQ.FT.	QTY EACH	TOTAL SQ.FT.	QTY RELOC EACH	TOTAL RELOC SQ.FT.	SIGN NO.	DESCRIPTION
CONST-5	48X36	12.00						POINT OF PRESENCE
CONST-5	96X48	32.00	2	64.00			61	POINT OF PRESENCE
CONST-8	48X36	12.00	2	24.00			59	WORK ZONE NO PHONE ZONE
50A	60x36	15.00	5	75.00			50A	50A (MO4-12)
50B	60x36	15.00	5	75.00			50B	50B (MO4-12)
50C	60x36	15.00	4	60.00			50C	50C (MO4-12)
50D	60x36	15.00	1	15.00			50D	50D (MO4-12)
50E	60x36	15.00	1	15.00			50E	50E (MO4-12)
50F	60x36	15.00	3	45.00			50F	50F (MO4-12)
50G	60x36	15.00	1	15.00			50G	50G (MO4-12)

616-10.05 CONSTRUCTION SIGNS	TOTAL	623
616-10.10 RELOCATED SIGNS	TOTAL	

ITEM NUMBER	TOTAL QTY	EFFECTIVE: 07-01-2025 DESCRIPTION
6122008		IMPACT ATTENUATOR 40 MPH (SAND BARRELS)
6122009		IMPACT ATTENUATOR 45 MPH (SAND BARRELS)
6122010		IMPACT ATTENUATOR 50 MPH (SAND BARRELS)
6122012		IMPACT ATTENUATOR 55 MPH (SAND BARRELS)
6122014		IMPACT ATTENUATOR 60 MPH (SAND BARRELS)
6122017		IMPACT ATTENUATOR 65 MPH (SAND BARRELS)
6122019		IMPACT ATTENUATOR 70 MPH (SAND BARRELS)
6122020		REPLACEMENT SAND BARREL
6122030		IMPACT ATTENUATOR (RELOCATION)
6122040		WORK ZONE CRASH CUSHION (NARROW)
6122041		WORK ZONE CRASH CUSHION (RELOCATION)
6123001		TRUCK MOUNTED ATTENUATOR (TMA)
6161012		BUOYS (BOATS KEEP OUT)
6161013		BUOYS (NO WAKE)
6161014		SPECIAL SIGN ASSEMBLY (BOATS KEEP OUT)
6161020		CHANNELIZER (DRUM-LIKE)
6161022		CHANNELIZER (CONE)
6161025		CHANNELIZER (TRIM-LINE)
6161026		CHANNELIZER (VERTICAL PANEL)
6161030	10	TYPE 3 MOVEABLE BARRICADE
6161033		DIRECTION INDICATOR BARRICADE
6161040		FLASHING ARROW PANEL
6161047		TYPE 3 OBJECT MARKER
6161055		SEQUENTIAL FLASHING WARNING LIGHT
6161070		TUBULAR MARKER
6161095		RADAR SPEED ADVISORY SYSTEM
6161096		CHANGEABLE MESSAGE SIGN, COMMISSION FURNISHED/RETAINED
6161098A		CHANGEABLE MESSAGE SIGN WITHOUT COMM. INTERFACE, CONTRACTOR FURNISHED/RETAINED
6161099	8	CHANGEABLE MESSAGE SIGN WITH COMM. INTERFACE, CONTRACTOR FURNISHED/RETAINED
6162000A		WORK ZONE TRAFFIC SIGNAL SYSTEM
6162002		TEMPORARY LONG-TERM RUMBLE STRIPS
6173600D		TEMPORARY TRAFFIC BARRIER, CONTRACTOR FURNISHED/RETAINED
6173700B		TEMP. TRAFFIC BARRIER ANCHORED, CONTRACTOR FURNISHED/RETAINED
6173706		TEMP. TRAFFIC BARRIER STIFFNESS TRANSITION CONTRACTOR FURNISHED/RETAINED
6174000A		TEMP. TRAFFIC BARRIER HEIGHT TRANSITION, CONTRACTOR FURNISHED/RETAINED
6175010A		RELOCATING TEMPORARY TRAFFIC BARRIER
6175011B		RELOCATING TEMP. TRAFFIC BARRIER ANCHORED
6175013		RELOCATING TEMP. TRAFFIC BARRIER STIFFNESS
6175020A		RELOCATING TEMP. TRAFFIC BARRIER HEIGHT
6208064A		TEMPORARY RAISED PAVEMENT MARKER
9029400		TEMPORARY TRAFFIC SIGNALS
9029401		TEMPORARY TRAFFIC SIGNALS AND LIGHTING

SUMMARY OF QUANTITIES
2 OF 4

STATE OF MISSOURI
JASON MICHAEL SHAFER
NUMBER PE-2010019596
PROFESSIONAL ENGINEER
I AM AUTHORIZED VERIFY IMAGES SEALED AND DATED ELECTRONICALLY

DATE PREPARED: 3/27/2026

ROUTE	STATE
H	MO

DISTRICT	SHEET NO.
SW	3

COUNTY: MCDONALD
JOB NO.: JSR0143
CONTRACT ID.:
PROJECT NO.:
BRIDGE NO.:

DATE	DESCRIPTION

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

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

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www.trekdesigngroup.com

Missouri Cert. of Authority 2002010300

TREK DESIGN GROUP, LLC

ROUTE H
REMOVE EXISTING BRIDGE
BR. NO. R0305
(31'-47'-31') I-BEAM SPANS (COMPOSITE)
STA. 355+64.12 TO STA 565+70.30
L-112.00' W-22.00'
SK 21°38'24",27°23'16"

PROPOSED BRIDGE
BR. NO. A9734
(59'-59') PRESTRESSED CONCRETE
SPREAD BOX BEAM SPANS
STA. 355+61.04 TO STA 356+81.88
L-121.88' W-28.5'
SK 64°54'47",25°05'13"

ENCOUNTER CHURCH SWMO

NW 1/4 NW 1/4
SEC3, T21N, R32W

PC STA 351+93.97

N69°11'17"E

(DND)

EXISTING R/W

ENTRANCE STA 355+05.00
ASPHALT MILL AND OVERLAY
CANOE CAMP LN.

355

GOODIN HOLLOW CREEK

PI 357+99.20
PC 351+93.97
PT 362+72.94
Δ 64°42'30.7" (LT)
D 5°59'50.3"
L 1,078.96' (ARC)
T 605.22'
R 955.36'

(R) REMOVE AND REPLACE R1-1
RELOCATE STREET NAME SIGN
FOR GOODIN HOLLOW RD.

(R) OBJECT MARKERS

STA. 356+81.88 TO
STA. 357+02.65
BRIDGE APPROACH
(MINOR ROAD)

360

OBRIEN, DONALD E (TRUST)

S.L.

UT

ROUTE H ALIGNMENT

EXISTING R/W

GARDNER LAND LLC

BEGIN ROUTE H
STA. 354+56.00

END ROUTE H
STA. 357+50.00

VAISUK I
NVESTMENTS, LLC

KEY

2" MILL AND OVERLAY

OPTIONAL PAVEMENT

4" CRUSHED STONE

GOODIN HOLLOW RD.
ENTRANCE STA 355+05.00
ASPHALT WIDENING

(DND)

S.L.

TYPE 2
ROCK
BLANKET

4 LF OF 18"
CMP CULVERT
EXTENSION

STA. 355+41.65 TO
STA. 355+61.04
BRIDGE APPROACH
(MINOR ROAD)

ENTRANCE STA 357+05.00
GRAVEL DRIVE BECKETT LN.
4" CRUSHED STONE

DO NOT DISTURB
MAIL BOX OR SIGN

HADDOCK, MASON S.

STA. 355+25.25
37.13 RT. RTE. H ℄
1 - 18" GROUP C PIPE
4 LF
CLASS 3 EXCAVATION = 1 C.Y.

NELSON, TARA D.

JONES, KEVIN N

NELSON, BARRY

VAISUK I
NVESTMENTS, LLC

SCALE
0 50 100 150

NOTES

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

2. ALL BEARINGS BASED ON STATE PLANE WESTERN ZONE

3. PLEASE GIVE 24 HOUR NOTICE TO MCDONALD COUNTY TELEPHONE PRIOR TO CONSTRUCTION. SEE PROFILE SHEET FOR CONTACT INFORMATION.

4. THE APPROXIMATE LOCATION OF PROPERTY LINES 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.

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.

PLAN SHEET
SHEET 1 OF 1

STATE OF MISSOURI
JASON MICHAEL SHAFER
NUMBER PE-2010019596
PROFESSIONAL ENGINEER
I AM ELECTRONICALLY SEALING THESE SHEETS AND DATED ELECTRONICALLY.

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

DATE PREPARED
3/27/2026

ROUTE	STATE
H	MO
DISTRICT	SHEET NO.
SW	4

COUNTY
MCDONALD

JOB NO.
JSR0143

CONTRACT ID.

PROJECT NO.

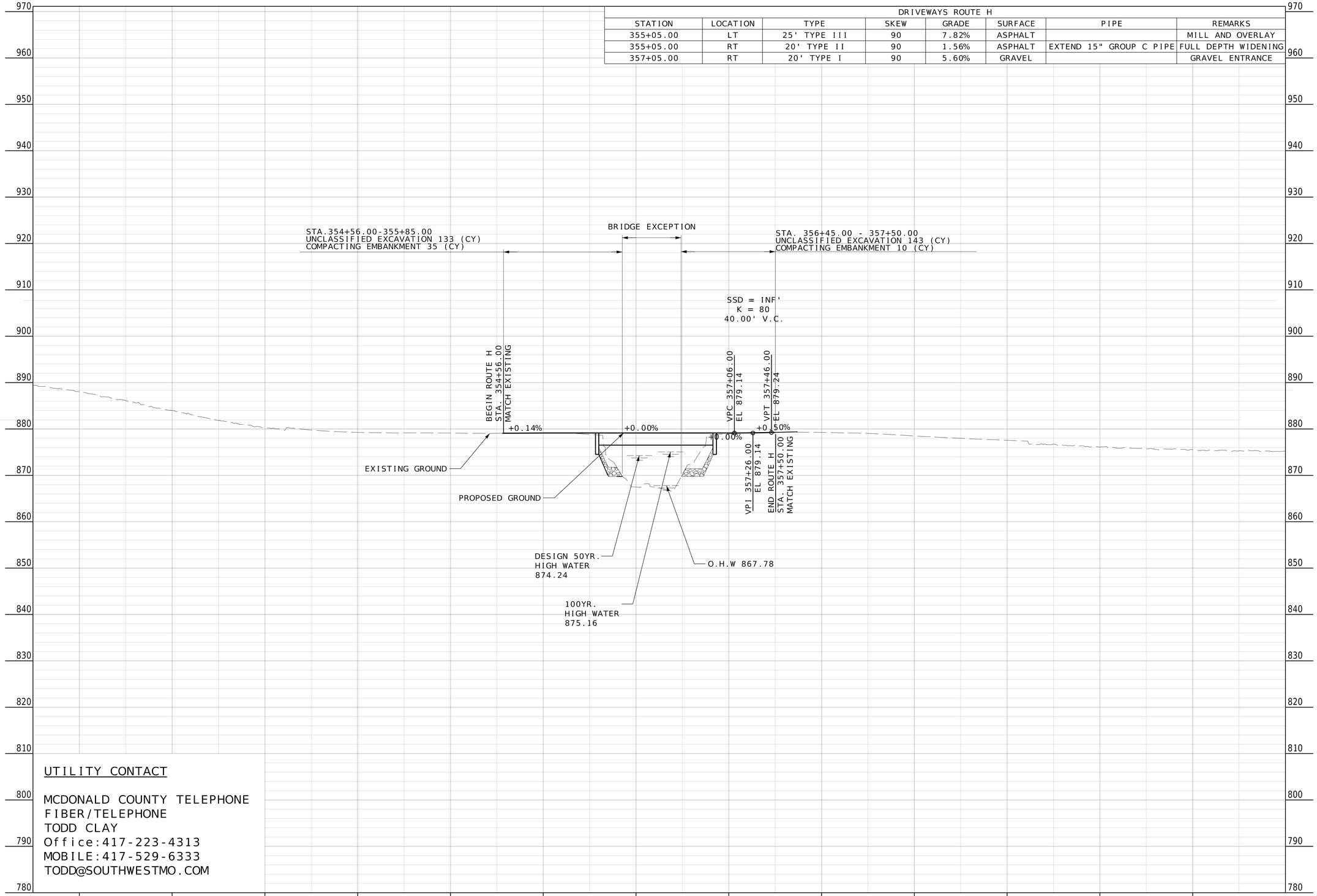
BRIDGE NO.

DATE	DESCRIPTION

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

TREKK DESIGN GROUP, LLC
1310 East 104th St.
Kansas City, MO 64131
Tel (816) 874-4655
Fax (816) 874-4675
www.trekkdesigngroup.com
Missouri Cert. of Authority 2002010300

DRIVEWAYS ROUTE H							
STATION	LOCATION	TYPE	SKEW	GRADE	SURFACE	PIPE	REMARKS
355+05.00	LT	25' TYPE III	90	7.82%	ASPHALT		MILL AND OVERLAY
355+05.00	RT	20' TYPE II	90	1.56%	ASPHALT	EXTEND 15" GROUP C PIPE	FULL DEPTH WIDENING
357+05.00	RT	20' TYPE I	90	5.60%	GRAVEL		GRAVEL ENTRANCE



UTILITY CONTACT

MCDONALD COUNTY TELEPHONE
FIBER/TELEPHONE
TODD CLAY
Office:417-223-4313
MOBILE:417-529-6333
TODD@SOUTHWESTMO.COM

PROFILE SHEET
SHEET 1 OF 1

STATE OF MISSOURI
JASON MICHAEL SHAFER
NUMBER PE-2010019596
PROFESSIONAL ENGINEER
I'M USING MY DIGITAL SIGNATURE.
SEALED AND DATED ELECTRONICALLY.

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

DATE PREPARED
3/27/2026

ROUTE	STATE
H	MO
DISTRICT	SHEET NO.
SW	5

COUNTY
MCDONALD

JOB NO.
JSR0143

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)

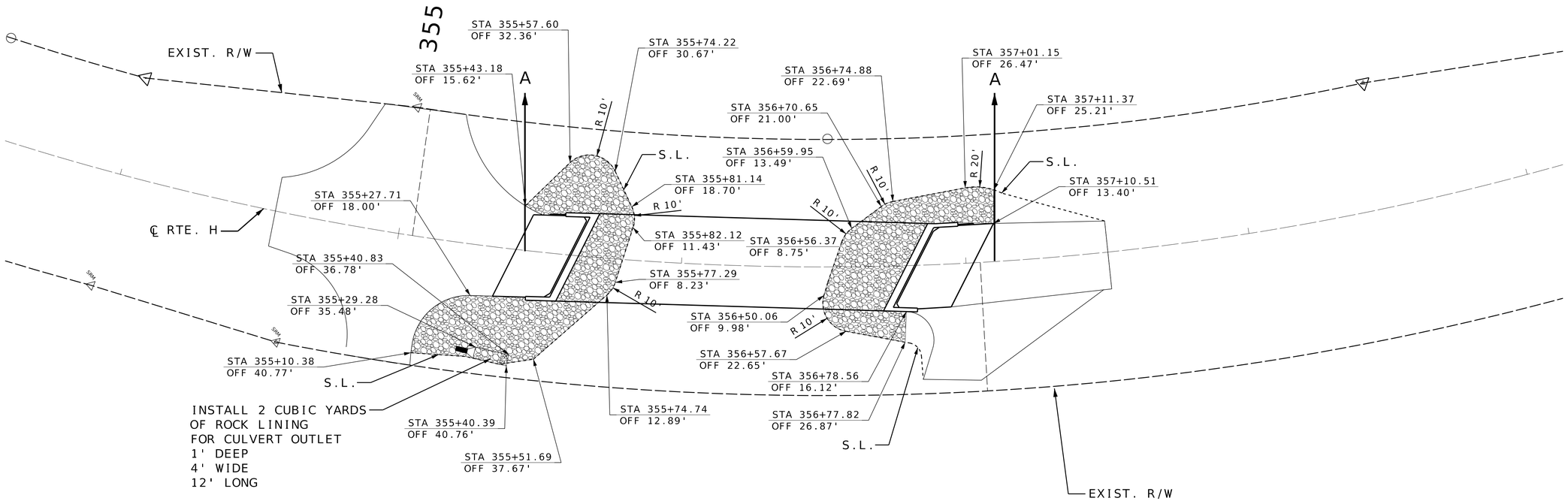
1510 East 104th St.
Kansas City, MO 64131
Tel (816) 874-4655
Fax (816) 874-4675
www.trekkdesigngroup.com

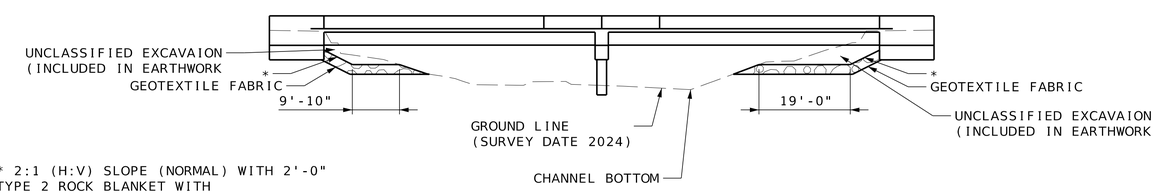
Missouri Cert. of Authority 2002010300

TREKK DESIGN GROUP, LLC

RTE. H
STA. 355+35.39 TO 355+82
FURNISH & PLACE 151 CY TYPE 2 ROCK BLANKET &
226 SY PERMANENT EROSION CONTORL GEOTEXTILE

RTE. H
STA. 356+60.32 TO 357+01
FURNISH & PLACE 106 CY TYPE 2 ROCK BLANKET &
159 SY PERMANENT EROSION CONTROL GEOTEXTILE





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

SECTION A-A
(NOT TO SCALE)

SCALE
0 20 40 60

PERMANENT EROSION CONTROL
SPECIAL SHEET
1 OF 2

STATE OF MISSOURI
JASON MICHAEL SHAFER
NUMBER PE-2010019596
PROFESSIONAL ENGINEER
I'M LEGALLY AND VERY DRUNK. SEALED AND DATED ELECTRONICALLY.

DATE PREPARED
3/27/2026

ROUTE	STATE
H	MO
DISTRICT	SHEET NO.
SW	6

COUNTY
MCDONALD

JOB NO.
JSR0143

CONTRACT ID.

PROJECT NO.

BRIDGE NO.

DESCRIPTION	DATE

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

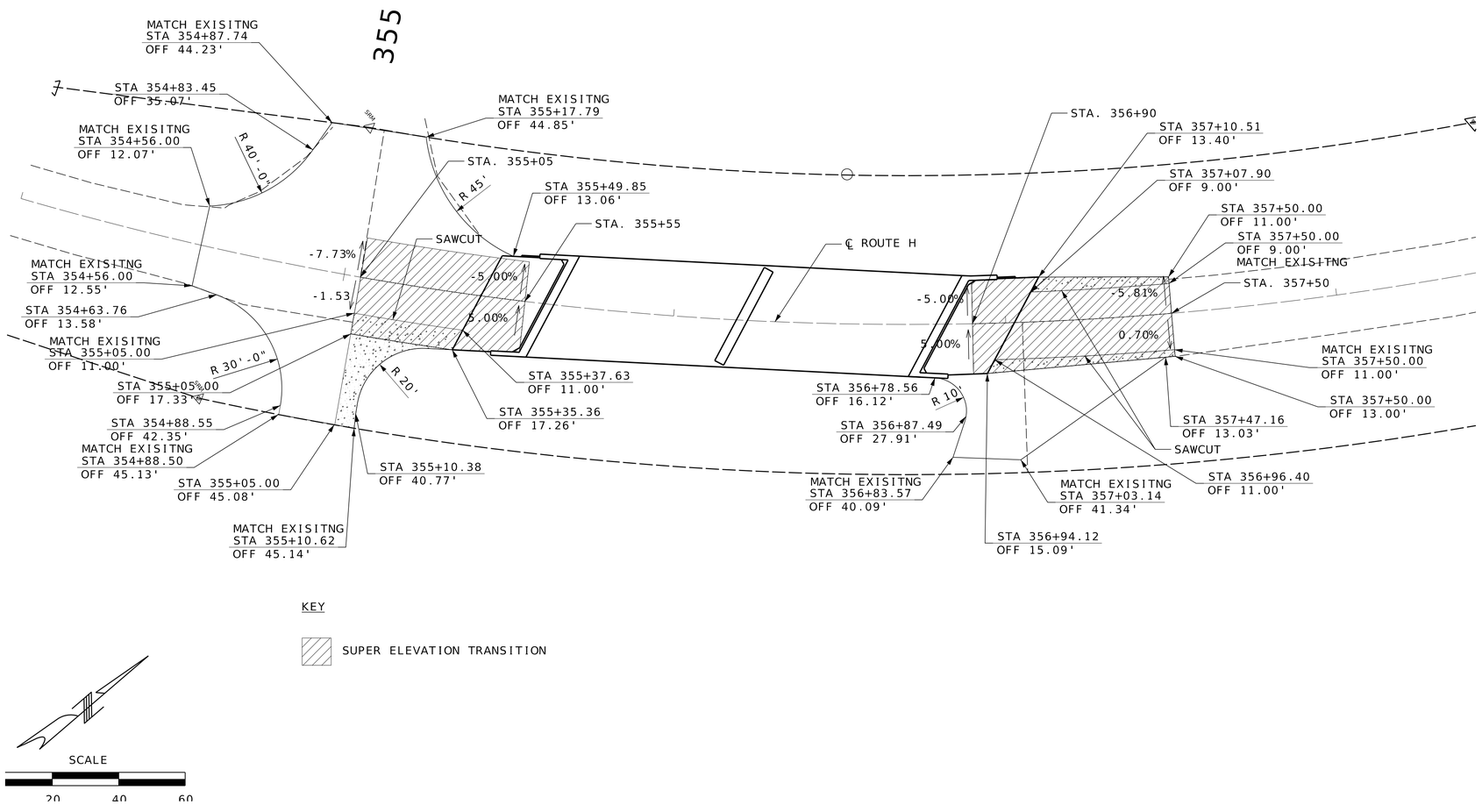
MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION
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Missouri Cert. of
Authority 2002010300

TREK DESIGN GROUP, LLC

006_SS_JSR0143_I20_Rock_Blanket.dgn 11:29:30 AM 3/27/2026



KEY

SUPER ELEVATION TRANSITION

SCALE

20 40 60

SUPER ELEVATION
& ENTRANCE DETAILS
SPECIAL SHEET
2 OF 2

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

STATE OF MISSOURI
JASON MICHAEL SHAFER
NUMBER PE-2010019596
PROFESSIONAL ENGINEER
I'M SORRY I HAD VERY BRIEF. SEALED AND DATED ELECTRONICALLY.

DATE PREPARED
3/27/2026

ROUTE	STATE
H	MO
DISTRICT	SHEET NO.
SW	7

COUNTY
MCDONALD

JOB NO.
JSR0143

CONTRACT ID.

PROJECT NO.

BRIDGE NO.

DATE	DESCRIPTION

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

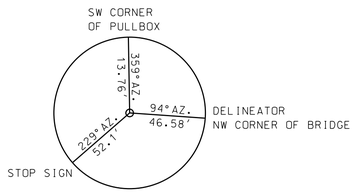
105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)

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

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Authority 2002010300

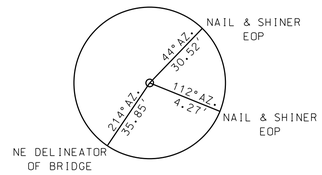
TREKK DESIGN GROUP, LLC

CPBM1



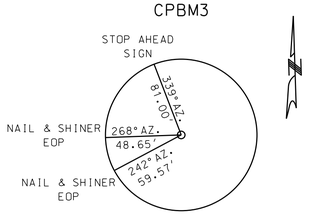
CONTROL POINT 1
±47' FROM SOUTH END OF BRIDGE
#0305
STA. 355+34.26
45.01' LT
COORDINATES
NORTHING = 151454.759
EASTING = 2821988.048
ELEVATION = 875.161

CPBM2



CONTROL POINT 2
±37.5' FROM NORTH END OF BRIDGE
#R0305
STA. 357+19.76
14.43' RT
COORDINATES
NORTHING = 151564.766
EASTING = 2822133.059
ELEVATION = 877.392

CPBM3



CONTROL POINT 3
±569' FROM NORTH END OF BRIDGE
#R0305
STA. 362+33.13
57.99' RT
COORDINATES
NORTHING = 152018.557
EASTING = 2822393.980
ELEVATION = 876.313

U.S. STATE PLANE 1983, MISSOURI WEST ZONE
NAD 1983 GEOID 18
VERTICAL DATUM: NAVD 1988
PROJECTION FACTOR:1.00009513

STATION AND OFFSET INFORMATION
TAKEN FROM C/L RTE. H

REFERENCE POINT
SHEET 1 OF 1

STATE OF MISSOURI
JASON MICHAEL SHAFER
NUMBER PE-2010019596
PROFESSIONAL ENGINEER
I HEREBY CERTIFY THAT THIS SHEET WAS PREPARED, SEALED AND DATED ELECTRONICALLY.

DATE PREPARED
2/24/2026

ROUTE	STATE
H	MO
DISTRICT	SHEET NO.
SW	8

COUNTY
MCDONALD

JOB NO.
JSR0143

CONTRACT ID.

PROJECT NO.

BRIDGE NO.

DESCRIPTION	DATE

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TREKK DESIGN GROUP, LLC

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

PROJECT COORDINATE INFORMATION	
COORDINATE SYSTEM	U.S. STATE PLANE 1983
HORIZONTAL DATUM	(MODOT VRS)(2011)(EPOCH:2010)
VERTICAL DATUM	NAVD 1988
GEOID MODEL	18
ELEVATIONS DETERMINED BY	CONVENTIONAL
PROJECT PROJECTION FACTOR	1.00009513

REFERENCE CONTROL INFORMATION	
COORDINATE SYSTEM	MODIFIED STATE PLANE
CONTROL STATION	MODOT GNSS
DESIGNATION	MODOT ANDERSON CORS ARP
CORS_ID	MOA2
PID	DN6071
LATITUDE	364103.39412
LONGITUDE	0942618.24745
NORTHING (M)	57435.916
EASTING (M)	855505.193
ZONE	2403 (MO-WEST)
PROJECT AVERAGE GRID FACTOR	0.99989925

EXAMPLE OF PROJECT COORDINATE TO S.P.C.

PROJECT NORTHING X AVERAGE GRID FACTOR
= STATE PLANE NORTHING
PROJECT EASTING X AVERAGE GRID FACTOR
= STATE PLANE EASTING

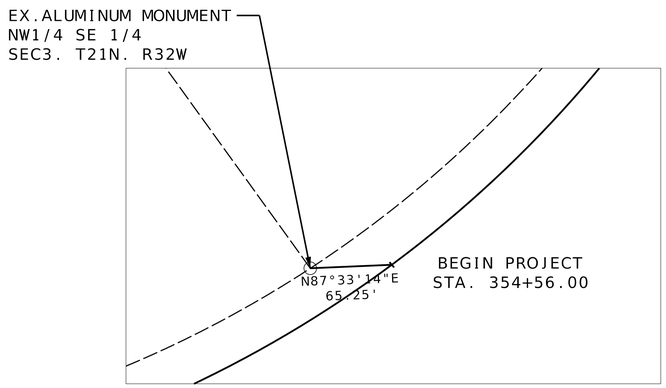
EXAMPLE: CONTROL POINT #___
N 54735.916 X 0.99989925 = N 54730.4014
E 855505.193 X 0.99989925 = E 855419.0009

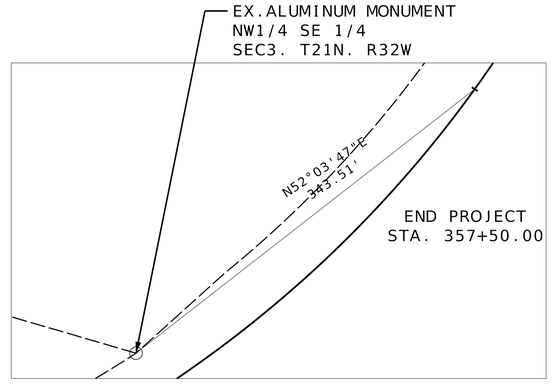
LINEAR UNIT CONVERSION

1 METER = 3.280833333 US SURVEY FEET (USFT)

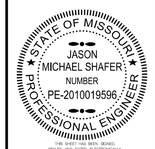
COORDINATE POINT LISTING

SHEET NO	STATION	LOCATION	OFFSET (USFT)	MODIFIED STATE PLANE (GROUND) NORTHING (US SURVEY FT)	EASTING (US SURVEY FT)	ELEVATION (US SURVEY FT)	DESCRIPTION
PROJECT CONTROL POINTS							
4	355+34.26	ROUTE H	45.01 l	151,454.76	2,821,988.05	875.16	CP 1
4	357+19.76	ROUTE H	14.43 rt	151,564.77	2,822,133.06	877.39	CP 2
4	362+33.13	ROUTE H	57.99' rt	152,018.56	2,822,393.98	876.31	CP 3
ALIGNMENTS							
4	349+50.0000	ROUTE H		151,159.70	2,821,499.70		START
4	351+93.97	ROUTE H		151,246.40	2,621,727.70		PC
4	362+72.94	ROUTE H		152,065.10	2,822,340.30		PCC
4	363+48.13	ROUTE H		152,140.00	2,822,346.10		HPE
4	364+23.02	ROUTE H		152,215.00	2,822,340.20		PT
4	368+81.29	ROUTE H		152,671.80	2,822,303.10		END





NOT TO SCALE



DATE PREPARED
3/27/2026

ROUTE	STATE
H	MO
DISTRICT	SHEET NO.
SW	9

COUNTY
MCDONALD

JOB NO.
JSR0143

CONTRACT ID.

PROJECT NO.

BRIDGE NO.

DESCRIPTION	DATE

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

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

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JEFFERSON CITY, MO 65102
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TREKK DESIGN GROUP, LLC

Traffic Control Legend, Sign Spacing, Device Spacing, Channelizing Taper Lengths And Recommended Maximum Speed Reductions

SIGN SPACING FOR ADVANCE SIGN SERIES (1) (2)		
PERMANENT POSTED SPEED MPH	UNDIVIDED HIGHWAYS (S)	DIVIDED HIGHWAYS (S)
0-35	200′	200′
40-45	350′	500′
50-55	500′	1000′
60-70	1000′	SA - 1000′ SB - 1500′ SC - 2640′

TAPER LENGTHS AND END TREATMENTS FOR CONCRETE BARRIER				
PERMANENT POSTED SPEED	MINIMUM LANE TAPER LENGTH (3)			
MPH	10′	11′	12′	END TREATMENT (4)
<40	160′	168′	176′	BARRIER HEIGHT TRANSITION
>40	160′	168′	176′	APPROVED CRASH CUSHION

TAPER LENGTHS AND SPACING FOR CHANNELIZERS							
PERMANENT POSTED SPEED	MINIMUM LANE TAPER LENGTH (L) (3)			MINIMUM SHOULDER TAPER LENGTH (T1)	BUFFER LENGTH	MAXIMUM CHANNELIZER SPACING	
MPH	10′	11′	12′	BASED ON 10′ SHOULDER	FT	THROUGH TAPER	THROUGH WORK AREA
0-35	205′	225′	245′	70′	250′	35′	40′
40-45	450′	495′	540′	150′	360′	40′	80′
50-55	550′	605′	660′	185′	495′	50′	80′
60-70	700′	770′	840′	235′	730′	60′	120′

** THE SA DIMENSION IS THE DISTANCE FROM THE TRANSITION OR POINT OF RESTRICTION TO THE FIRST SIGN.

THE SB DIMENSION IS THE DISTANCE BETWEEN THE FIRST AND SECOND SIGNS.

THE SC DIMENSION IS THE DISTANCE BETWEEN THE SECOND AND THIRD SIGNS.

(THE "FIRST SIGN" IS THE SIGN IN A THREE-SIGN SERIES THAT IS CLOSEST TO THE TEMPORARY TRAFFIC CONTROL ZONE. THE "THIRD SIGN" IS THE SIGN THAT IS FURTHEST UPSTREAM FROM THE TEMPORARY TRAFFIC CONTROL ZONE)

DETAILS NOTES:

(1) SPACING BETWEEN SIGNS AND SPACING BETWEEN LAST SIGN AND FLAGGER, BEGINNING OF TAPER, OF SIGNED CONDITION.

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

(3) TAPER LENGTHS SHOWN INCLUDE LENGTH REQUIRED FOR LANE AND 10' SHOULDER

(4) CONCRETE BARRIER MAY BE INSTALLED AT 8:1 FLARE RATE FROM THE SHOULDER POINT OF THE LIMITS OF THE CLEAR ZONE WHERE THE SIDE SLOPE IS 6:1 OR FLATTER

TAPER LENGTH (L)

L = W X P FOR 40 MPH OR MORE

$L = \frac{WP^2}{60}$ FOR 35 MPH OR LESS

L = TAPER LENGTH IN FEET

W = LATERAL SHIFT IN FEET

P = POSTED SPEED PRIOR TO ROAD WORK IN MPH

TRAFFIC CONTROL LEGEND

- SIGN (SINGLE SIDED)
- FLAGGER
- CHANNELIZER
- PROTECTIVE VEHICLE WITH WORK SIGN, FLASHING ARROW PANEL AND REAR-MOUNTED IMPACT ATTENUATOR UNIT.
- FLASHING ARROW PANEL
- CHANGEABLE MESSAGE BOARD
- BARRICADE
- DIRECTIONAL INDICATOR BARRICADE

LEGEND NOTE:

THE PROTECTIVE VEHICLE SIGN SHALL BE MOUNTED AT A RECOMMENDED HEIGHT OF 48 IN. ABOVE THE ROAD SURFACE.

GENERAL NOTES:

1. SEE STANDARD PLAN 616.10 FOR DETAILS AND ITEMS NOT SHOWN.
2. EXISTING SIGNS SHALL BE COVERED DURING WORKING HOURS ONLY IF IN CONFLICT WITH TRAFFIC CONTROL PLANS.
3. NO DIRECT PAYMENT WILL BE MADE FOR RELOCATING, COVERING, UNCOVERING OR REMOVING SIGNS.
4. CONES ALLOWABLE FOR DAYTIME OPERATIONS ON MINOR ROUTES ONLY.
5. LOCATE FLASHING ARROW PANEL AT BEGINNING OF TAPER WHEN FEASIBLE, ARROW PANELS ARE ALWAYS LOCATED BEHIND CHANNELIZERS OR CONES.

EPG TABLE 616.12 RECOMMENDED MAXIMUM SPEED REDUCTIONS	
ACTIVITY (I.E. WORKERS, EQUIPMENT OR MATERIAL) LOCATION	RECOMMENDED WORK ZONE SPEED REDUCTION (WHEN APPLICABLE)
10 FT. BEYOND EDGE OF TRAVELWAY TO EDGE OF RIGHT OF WAY	NO SPEED REDUCTION
IN TRAFFIC LANE OR WITHIN 10FT. OF THE TRAFFIC LANE	10 MPH
HEAD-TO-HEAD ON MULTILANE	10 MPH
SPECIAL CIRCUMSTANCES WITHIN A TEMPORARY TRAFFIC CONTROL WORK ZONE MAY WARRANT A LOWER SPEED LIMIT THAN RECOMMENDED ABOVE. ALL SPEED LIMIT REDUCTIONS GREATER THAN 10 MPH SHALL BE DOCUMENTED, SUBMITTED TO AND APPROVED BY THE DISTRICT WORK ZONE COORDINATOR.	

TRAFFIC CONTROL
SHEET 1 OF 6

STATE OF MISSOURI
JASON MICHAEL SHAFER
NUMBER PE-2010019596
PROFESSIONAL ENGINEER
I HEREBY CERTIFY THIS WORK WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MISSOURI.
SEALED AND DATED ELECTRONICALLY

DATE PREPARED 2/24/2026

ROUTE	STATE
H	MO
DISTRICT	SHEET NO.
SW	10

COUNTY MCDONALD

JOB NO. JSR0143

CONTRACT ID.

PROJECT NO.

BRIDGE NO.

DESCRIPTION	DATE

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MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

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

MoDOT

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www.trekkdesigngroup.com

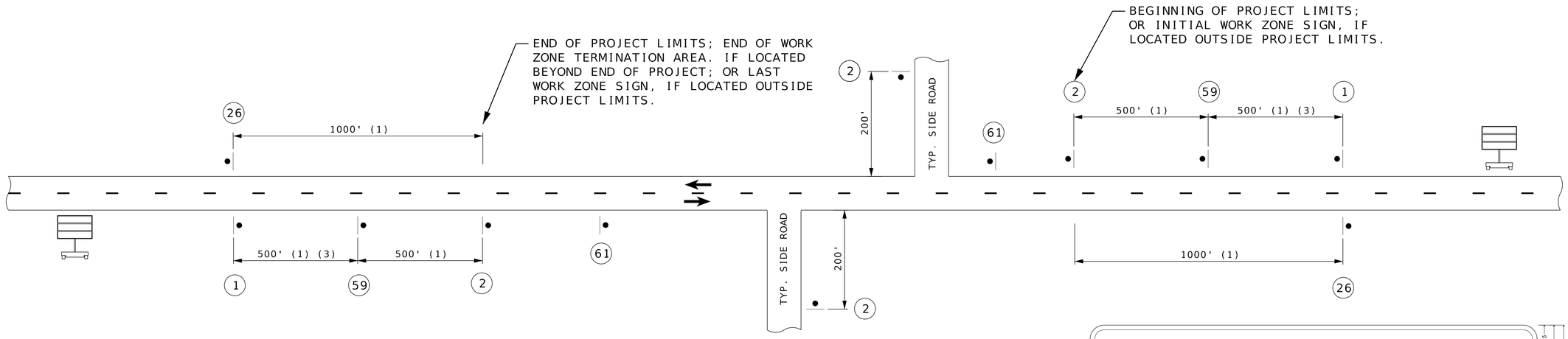
Missouri Cert. of Authority 2002010300

TREKK DESIGN GROUP, LLC

REVISED: 5/29/2025

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

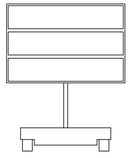
(UNDIVIDED HIGHWAY)

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

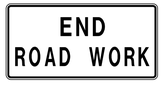
(2) CONST-5-96 SIGN IS PLACED IN A VISIBLE AREA WITHIN THE PROJECT LIMITS PROVIDED ITS PLACEMENT DOES NOT DISRUPT A SEQUENCE OF SIGNS. IF A VISIBLE LOCATION WITHIN THE PROJECT IS NOT AVAILABLE, THE SIGN MAY BE PLACED 500 FEET BEFORE SIGN CONST-7-72.

(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.

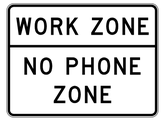


(4)



GO20-2

(26)



CONST-8

(59) (3)



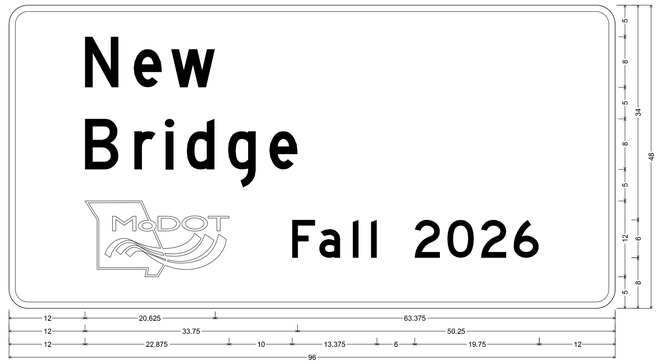
GO20-1

(1)



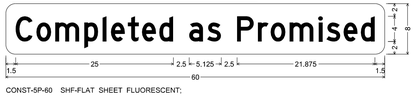
WO20-1

(2)



CONST-5 SH-FLAT SHEET;
3.000" Radius, 1.000" Border, White on, Blue;
"New", D; "Bridge", D; "Fall 2026", D;
Table of letter and object lefts

N	e	w												
12.000	19.750	25.625												
B	r	i	d	g	e									
12.000	19.875	24.875	28.125	34.750	41.250									
2	0	2	6											
12.000	44.875	49.125	54.500	57.375	64.250	69.375	74.750	79.875						



CONST-5P-60 SHF-FLAT SHEET FLUORESCENT;
1.500" Radius, No border, Yellow;
"Completed as Promised" Black, D 65% spacing;
Table of letter and object lefts

C	o	m	p	l	e	t	e	d	a	s				
1.500	4.875	7.875	12.375	15.375	16.625	19.375	21.500	24.250	29.000	31.875				
P	r	e	m	i	s	e	d							
36.625	39.875	41.875	44.875	49.500	50.750	53.500	56.250							

CONST-5-96

61 (2)

TRAFFIC CONTROL
SHEET 2 OF 6

STATE OF MISSOURI
JASON MICHAEL SHAFER
NUMBER PE-2010019596
PROFESSIONAL ENGINEER
THE SEAL AND WERE SIGNED, SEALED AND DATED ELECTRONICALLY.

DATE PREPARED
2/24/2026

ROUTE	STATE
H	MO
DISTRICT	SHEET NO.
SW	11

COUNTY
MCDONALD

JOB NO.
JSR0143

CONTRACT ID.

PROJECT NO.

BRIDGE NO.

DATE	DESCRIPTION

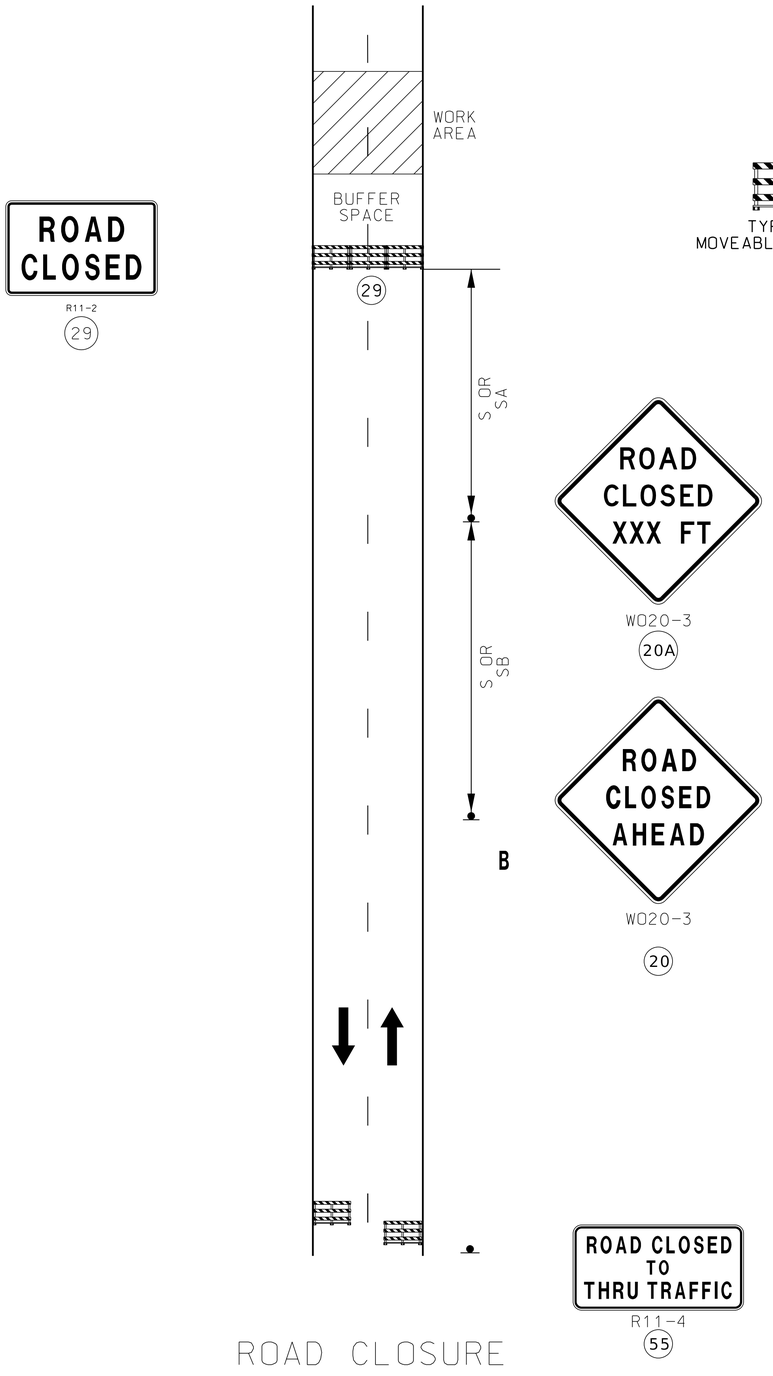
IF A SEAL IS PRESENT ON THIS SHEET IT HAS BEEN ELECTRONICALLY SEALED AND DATED.

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

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

Missouri Cert. of Authority 2002010300

TREKK DESIGN GROUP, LLC



TYPE III
MOVEABLE BARRICADE

ROAD CLOSURE

NOTES:

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

"ROAD CLOSED" SIGN MAY BE PLACED 7-10 FEET BEHIND THE BARRICADES AND AT A SIGN HEIGHT APPROPRIATE TO THE TYPE OF ROADWAY. ONE BARRICADE SHOULD BE REQUIRED TO COMPLETELY CLOSE EACH 8-FEET OF PAVEMENT. PAVED SHOULDERS SHALL BE INCLUDED IN THE AREA TO BE CLOSED.

IF USED, THE "ROAD CLOSED XX MILES AHEAD LOCAL TRAFFIC ONLY" OR "ROAD CLOSED TO THRU TRAFFIC" SIGN SHOULD BE LOCATED AT THE FIRST STATE ROUTE OR, UPON THE DISCRETION OF THE ENGINEER, ANY OTHER INTERSECTION IN ADVANCE OF THE CLOSURE. ADDITIONAL BARRICADES MAY BE USED AND OFFSET TO FACILITATE ACCESS FOR WORK VEHICLES, LOCAL TRAFFIC, ETC.

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

SUPPLEMENTAL WARNING METHODS MAY BE USED TO CALL ATTENTION TO THE WORK ZONE.

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

STATE OF MISSOURI
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NUMBER PE-2010019596
PROFESSIONAL ENGINEER
I HEREBY CERTIFY THIS WORK WAS PREPARED, SEALED AND DATED ELECTRONICALLY.

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

DATE PREPARED: 2/24/2026

ROUTE	STATE
H	MO
DISTRICT	SHEET NO.
SW	12

COUNTY: MCDONALD
JOB NO.: JSR0143
CONTRACT ID.:
PROJECT NO.:
BRIDGE NO.:

DESCRIPTION	DATE

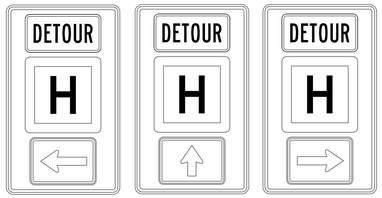
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TREKK DESIGN GROUP, LLC

REV.

TRAFFIC CONTROL
SHEET 3 OF 6

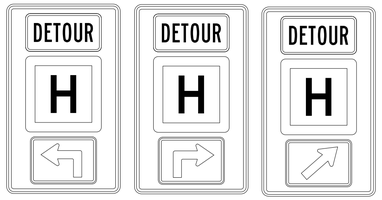
012_TC_03_JSR0143_TA8.dgn 10:26:52 AM 2/24/2026



50A

50B

50C



50D

50E

50F



50G



R11-4

55

W20-3

2



W20-2

18



M04-8a

52



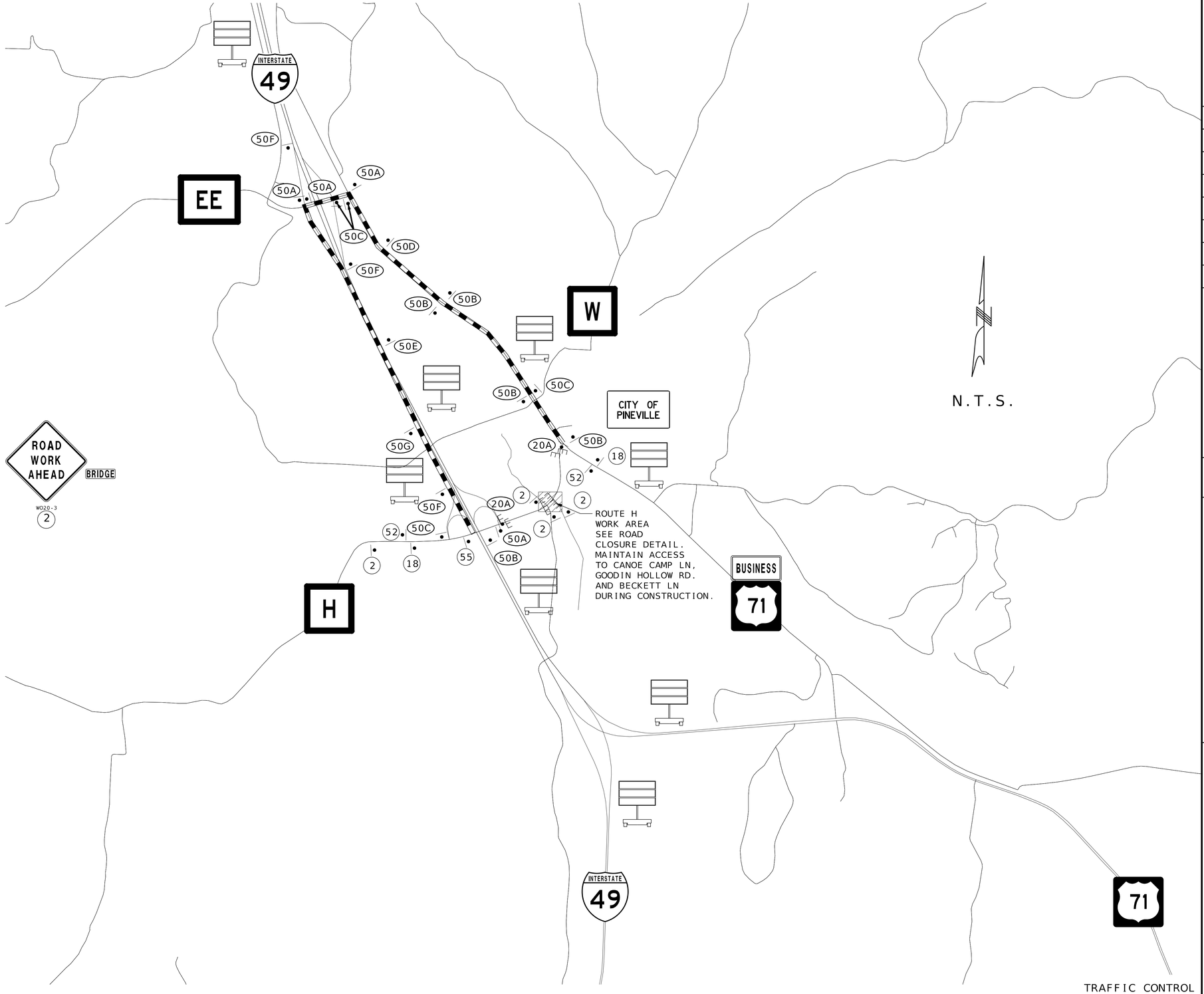
CHANGEABLE MESSAGE SIGN
FLASH 1-ROUTE H
BRIDGE
CLOSED
FLASH 2-DETOUR
AHEAD



TYPE III MOVABLE BARRICADE

NOTE:

ADD 2 CMS BOARDS ON I-49
TO INDICATE THAT BUSINESSES AND
SIDE ROADS ARE OPEN WEST OF THE PROJECT
AT EXIT 5. MESSAGING AND CMS PLACEMENT
TO BE APPROVED BY THE ENGINEER.



TRAFFIC CONTROL
SHEET 4 OF 6

STATE OF MISSOURI
JASON MICHAEL SHAFER
NUMBER PE-2010019596
PROFESSIONAL ENGINEER
HIS SEAL WAS VERIFIED, SIGNED, SEALED AND DATED ELECTRONICALLY.

DATE PREPARED
3/27/2026

ROUTE	STATE
H	MO
DISTRICT	SHEET NO.
SW	13

COUNTY
MCDONALD

JOB NO.
JSR0143

CONTRACT ID.

PROJECT NO.

BRIDGE NO.

DESCRIPTION	DATE

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

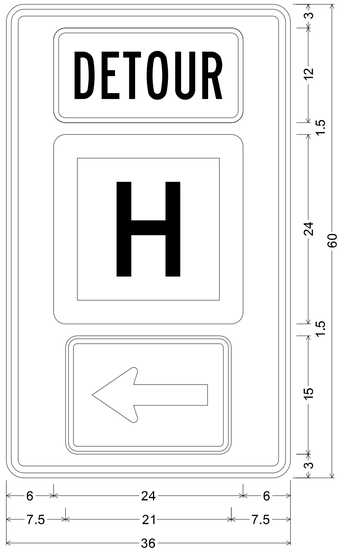
MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

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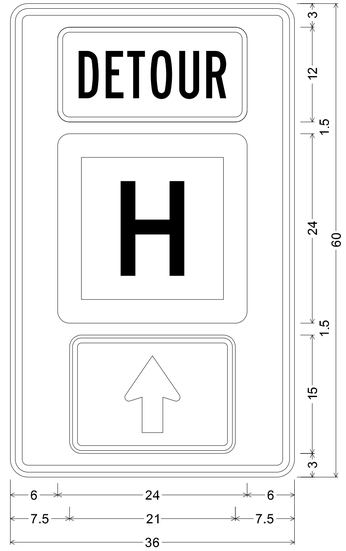
TREK DESIGN GROUP, LLC



SIGN NO.	50A
STATION	DETOUR SIGNS
ROADWAY	ROUTE H

MO4-12 SHF-FLAT SHEET FLUORESCENT;
2.250" Radius, 0.875" Border, 0.625" Indent, Black on Orange;
Table of letter and object lefts

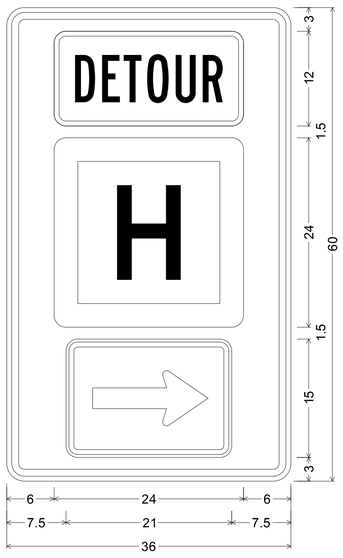
D/INB	6.000
H	6.000
2/INB	7.500



SIGN NO.	50B
STATION	DETOUR SIGNS
ROADWAY	ROUTE H

MO4-12 SHF-FLAT SHEET FLUORESCENT;
2.250" Radius, 0.875" Border, 0.625" Indent, Black on Orange;
Table of letter and object lefts

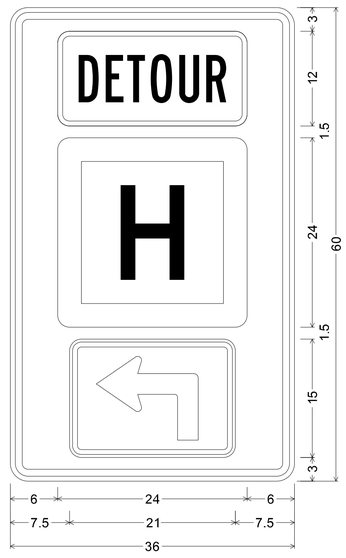
D/INB	6.000
H	6.000
2/INB	7.500



SIGN NO.	50C
STATION	DETOUR SIGNS
ROADWAY	ROUTE H

MO4-12 SHF-FLAT SHEET FLUORESCENT;
2.250" Radius, 0.875" Border, 0.625" Indent, Black on Orange;
Table of letter and object lefts

D/INB	6.000
H	6.000
2/INB	7.500



SIGN NO.	50D
STATION	DETOUR SIGNS
ROADWAY	ROUTE H

MO4-12 SHF-FLAT SHEET FLUORESCENT;
2.250" Radius, 0.875" Border, 0.625" Indent, Black on Orange;
Table of letter and object lefts

D/INB	6.000
H	6.000
2/INB	7.500

STATE OF MISSOURI
JASON MICHAEL SHAFER
NUMBER PE-2010019596
PROFESSIONAL ENGINEER
I HEREBY CERTIFY THIS SHEET WAS SIGNED, SEALED AND DATED ELECTRONICALLY.

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

DATE PREPARED
2/24/2026

ROUTE	STATE
H	MO
DISTRICT	SHEET NO.
SW	14

COUNTY
MCDONALD

JOB NO.
JSR0143

CONTRACT ID.

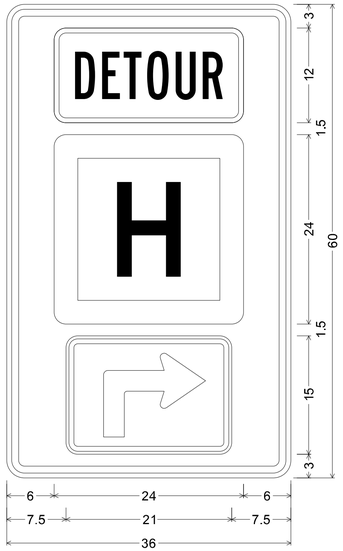
PROJECT NO.

BRIDGE NO.

DESCRIPTION	DATE

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

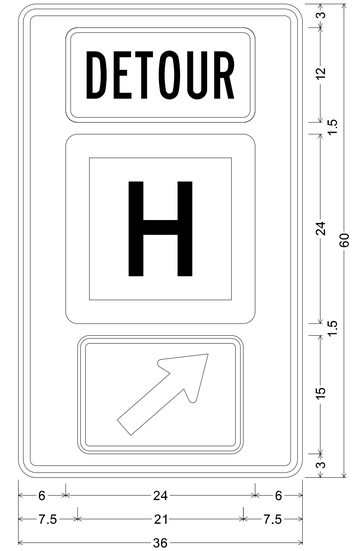
TREKK DESIGN GROUP, LLC
1310 East 104th St.
Kansas City, MO 64131
Tel (816) 874-4655
Fax (816) 874-4675
www.trekkdesigngroup.com
Missouri Cert. of Authority 2002010300



SIGN NO.	50E
STATION	DETOUR SIGNS
ROADWAY	ROUTE H

MO4-12 SHF-FLAT SHEET FLUORESCENT;
2.250" Radius, 0.875" Border, 0.625" Indent, Black on Orange;
Table of letter and object lefts

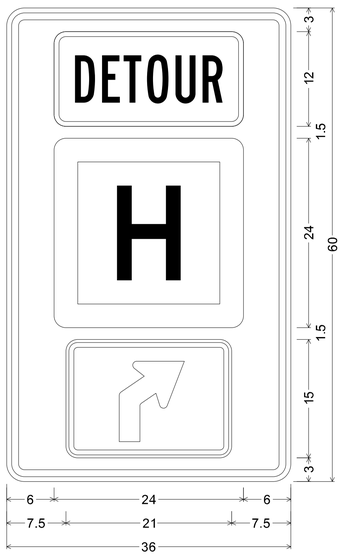
D,T,R	6.000
H	6.000
Z	7.500



SIGN NO.	50F
STATION	DETOUR SIGNS
ROADWAY	ROUTE H

MO4-12 SHF-FLAT SHEET FLUORESCENT;
2.250" Radius, 0.875" Border, 0.625" Indent, Black on Orange;
Table of letter and object lefts

D,T,R	6.000
H	6.000
Z	7.500



SIGN NO.	50G
STATION	DETOUR SIGNS
ROADWAY	ROUTE H

MO4-12 SHF-FLAT SHEET FLUORESCENT;
2.250" Radius, 0.875" Border, 0.625" Indent, Black on Orange;
Table of letter and object lefts

D,T,R	6.000
H	6.000
Z	7.500

STATE OF MISSOURI
JASON MICHAEL SHAFER
NUMBER PE-2010019596
PROFESSIONAL ENGINEER
I HEREBY CERTIFY THIS ITEM WAS PREPARED, SEALED AND DATED ELECTRONICALLY.

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

DATE PREPARED
2/24/2026

ROUTE	STATE
H	MO
DISTRICT	SHEET NO.
SW	15

COUNTY
MCDONALD

JOB NO.
JSR0143

CONTRACT ID.

PROJECT NO.

BRIDGE NO.

DESCRIPTION	DATE

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

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

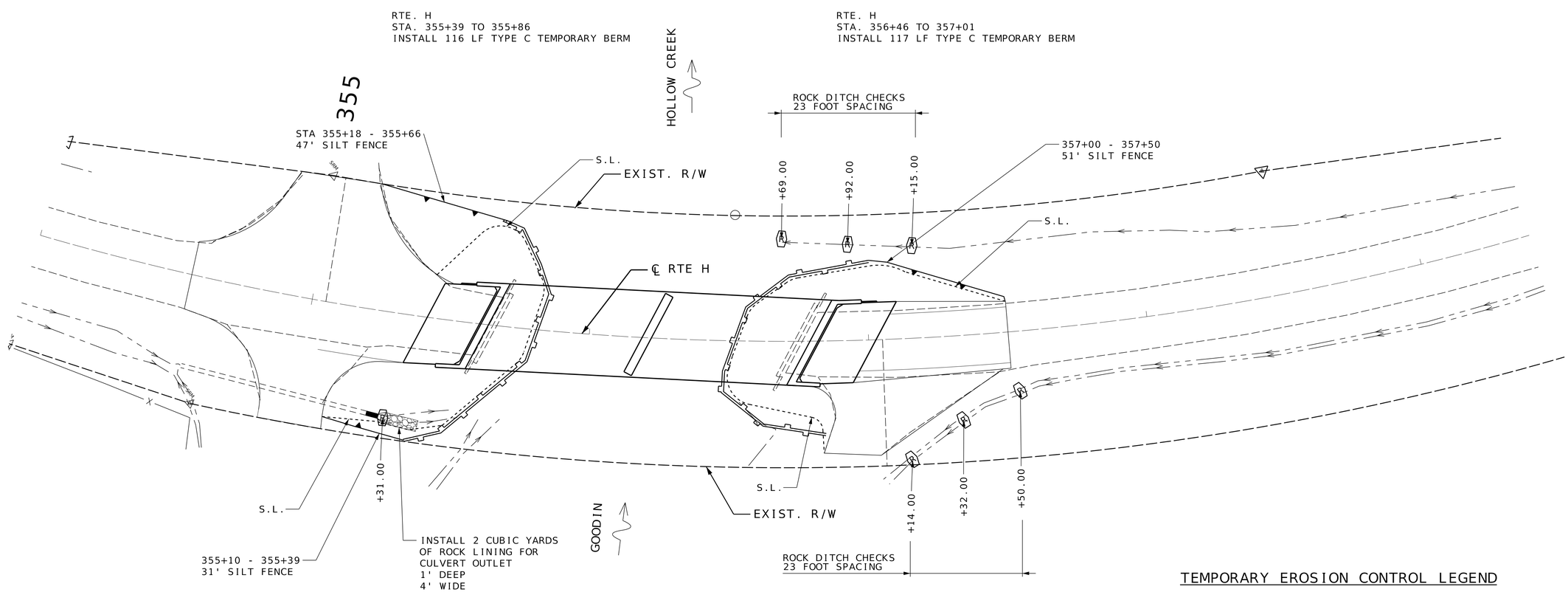
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www.trekkdesigngroup.com

Missouri Cert. of
Authority 2002010300

TREKK DESIGN GROUP, LLC

RTE. H
STA. 355+39 TO 355+86
INSTALL 116 LF TYPE C TEMPORARY BERM

RTE. H
STA. 356+46 TO 357+01
INSTALL 117 LF TYPE C TEMPORARY BERM



SCALE
0 20 40 60

TEMPORARY EROSION CONTROL LEGEND

- ROCK DITCH CHECK
- TEMPORARY BERM TYPE C
- SILT FENCE

TEMPORARY EROSION CONTROL
SHEET 1 OF 1

016_EC_JSR0143_I20.dgn 11:29:51 AM 3/27/2026

STATE OF MISSOURI
JASON MICHAEL SHAFER
NUMBER PE-2010019596
PROFESSIONAL ENGINEER
I'M LEGIT AND VERY HIGHLY SEALED, SEALED AND DATED ELECTRONICALLY.

DATE PREPARED
3/27/2026

ROUTE	STATE
H	MO
DISTRICT	SHEET NO.
SW	16

COUNTY
MCDONALD

JOB NO.
JSR0143

CONTRACT ID.

PROJECT NO.

BRIDGE NO.

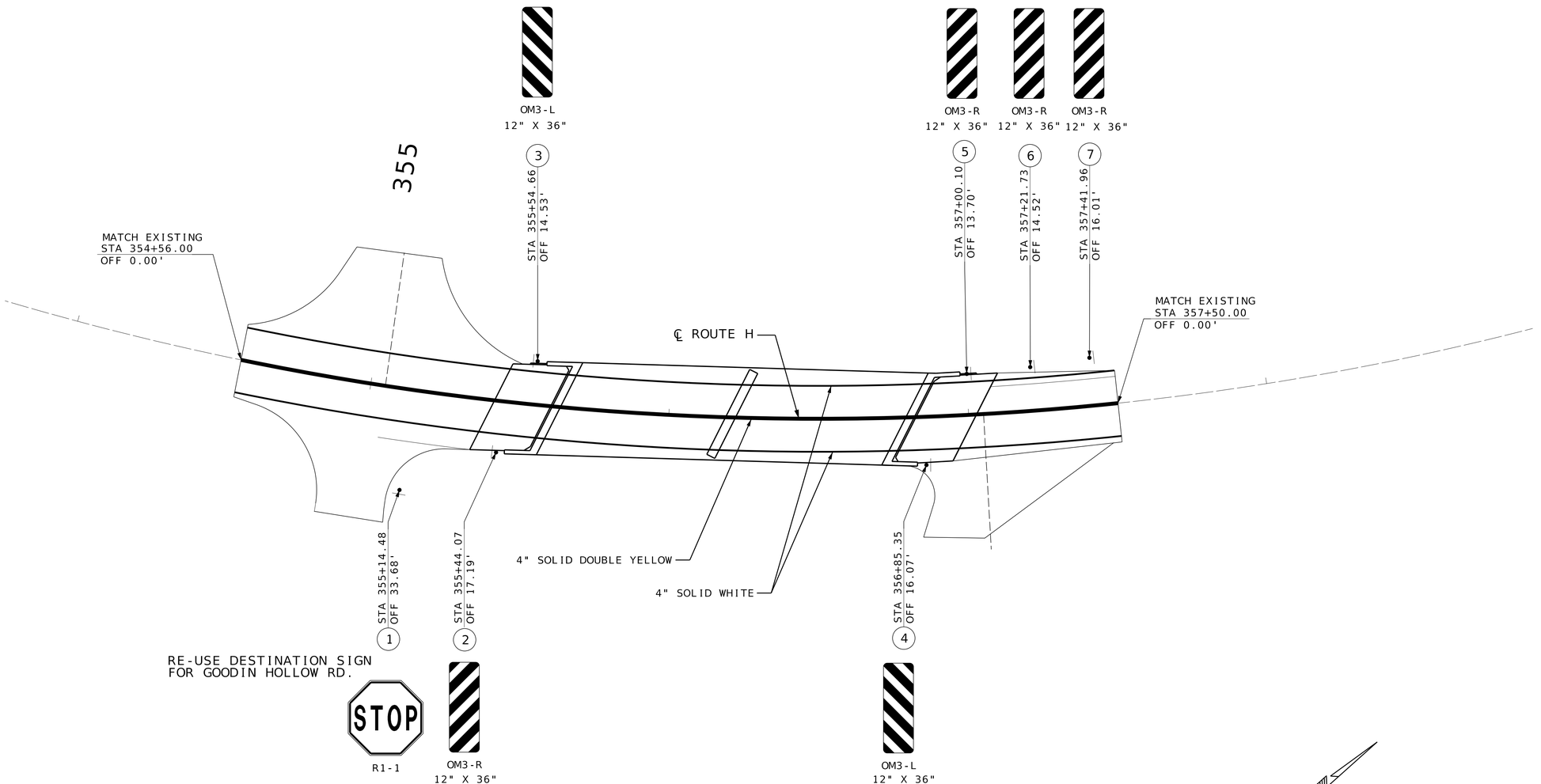
DESCRIPTION	DATE

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

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TREKK DESIGN GROUP, LLC

PI 357+99.20
PC 351+93.97
PT 362+72.94
Δ 64°42'30.7" (LT)
D 5°59'50.3"
L 1,078.96' (ARC)
T 605.22'
R 955.36'



SCALE
0 20 40 60

PAVEMENT MARKING & SIGNING
SHEET 1 OF 3

017_SN_PM_JSR0143_I20.dgn 11:29:55 AM 3/27/2026

STATE OF MISSOURI
JASON MICHAEL SHAFER
NUMBER PE-2010019596
PROFESSIONAL ENGINEER
I'M LEGALLY BOUND. SEALED AND DATED ELECTRONICALLY.

DATE PREPARED
3/27/2026

ROUTE	STATE
H	MO
DISTRICT	SHEET NO.
SW	17

COUNTY
MCDONALD

JOB NO.
JSR0143

CONTRACT ID.

PROJECT NO.

BRIDGE NO.

DATE	DESCRIPTION

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

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TREKK DESIGN GROUP, LLC

SIGNS						CONCRETE FOOTINGS EMBEDDED	STRUCTURAL STEEL POSTS*						PIPE POSTS*					BACKING BARS**				U-CHANNEL POST	PERFORATED SQUARE STEEL TUBE										BREAK-AWAY ASSEMBLY	REMARKS AND OTHER REQUIRED ITEMS
902 SIGNAL SIGNS TABULATED ON D-37A SHEET																						2-INCH POST						2.5-INCH POST					
																									ANCHORS						ANCHORS		
SIGN NO.	SIGN SIZE	STATION OR LOG MILE	HORIZ CLEAR IF NOT STD	LOCATION	SIGN DTL SHT NO.	ITEM NO. 9031010	POST DES NO.	POST NO. 1	POST NO. 2	POST NO. 3	LBS PER FT	TOTAL ITEM NO. 9031210	PIPE SIZE	POST NO. 1	POST NO. 2	LBS PER FT	TOTAL ITEM NO. 9031220	2" X 3/8" BARS AT 2.55 LBS/FT NO.	LGTH	TOTAL	TOTAL	ITEM NO. 9031250A	POST NO. 1	POST NO. 2	TOTAL ITEM NO. 9031270A	DRIVEN 12 GA. ITEM NO. 9031271A	DRIVEN 7 GA. ITEM NO. 9031273A	CONCRETE 7 GA. ITEM NO. 9031274	POST NO. 1	POST NO. 2	TOTAL ITEM NO. 9031280	2.25" INSERT (6 FT) ITEM NO. 9031272A	DRIVEN 7 GA. ITEM NO. 9031281A	CONCRETE 7 GA. ITEM NO. 9031285	ITEM NO. 9031241	
						CY		LF	LF	LF		LBS	IN	LF	LF		LBS	EACH	IN.	LF	LBS	LF	LF	LF	LF	EACH	EACH	EACH			EACH	EACH	EACH	EACH	
1	36"X36"	355+14		RT																											16			1		ROUTE H
2	12"X36"	355+44		RT																		16														ROUTE H
3	12"X36"	355+54		LT																		16														ROUTE H
4	12"X36"	356+85		RT																		16														ROUTE H
5	12"X36"	357+00		LT																		16														ROUTE H
6	12"X36"	357+21		LT																		16														ROUTE H
7	12"X36"	357+41		LT																		16														ROUTE H
SUBTOTAL																						96									16			1		
TOTAL																					**	96									16			1		

*BREAKAWAY ASSEMBLY IS INCIDENTAL FOR STRUCTURAL STEEL AND PIPE POSTS.
**BACKING BARS ARE TOTALED WITH STRUCTURAL STEEL OR PIPE POSTS.

ROUND PIPE POST AND FOOTING DATA TABLE

NOM. SIZE	WEIGHT		STUB LENGTH	FOOTING		CONCRETE
(IN.)	LBS/FT	LBS/IN		DIA.	DEPTH	C.Y.
2½	5.79	0.48	4'- 3½"	12"	4~6"	0.13
4	10.79	0.90	5'- 3½"	18"	5~6"	0.36

STRUCTURAL STEEL POST AND FOOTING DATA TABLE

POST DES. NO.	POST NOM. SIZE	POST WEIGHT LBS/FT	POST WEIGHT LBS/IN	POST STUB LENGTH	FOOTING DIA.	FOOTING LEVEL GROUND DEPTH	FOOTING LEVEL GROUND C.Y.	FOOTING 6:1 GRADE DEPTH	FOOTING 6:1 GRADE C.Y.	FOOTING 4:1 GRADE DEPTH	FOOTING 4:1 GRADE C.Y.	FOOTING 3:1 OR 2:1 GRADE DEPTH	FOOTING 3:1 OR 2:1 GRADE C.Y.
1	W6	9.0	0.75	3'-0"	15"	3'-0"	0.14	3'-2"	0.15	3'-3"	0.16	3'-6"	0.17
2	W6	15.0	1.25	4'-0"	24"	4'-0"	0.47	4'-2"	0.50	4'-3"	0.51	4'-6"	0.54
3	W8	18.0	1.50	4'-6"	28"	4'-6"	0.71	4'-8"	0.73	4'-9"	0.74	5'-0"	0.78
4	W10	22.0	1.83	5'-0"	36"	5'-0"	1.31	5'-2"	1.36	5'-3"	1.39	5'-6"	1.45
5	W10	26.0	2.17	5'-0"	36"	5'-0"	1.31	5'-3"	1.37	5'-5"	1.43	5'-9"	1.52
6	W12	35.0	2.92	5'-6"	36"	5'-6"	1.44	5'-9"	1.52	5'-11"	1.56	6'-3"	1.65

PAVEMENT
MARKING & SIGNING
SHEET 2 OF 3

EFFECTIVE: 07-01-2024

STATE OF MISSOURI
JASON MICHAEL SHAFER
NUMBER PE-2010019596
PROFESSIONAL ENGINEER
I'M DIGITALLY SIGNED. SEALED AND DATED ELECTRONICALLY.

DATE PREPARED
3/27/2026

ROUTE	STATE
H	MO
DISTRICT	SHEET NO.
SW	18

COUNTY
MCDONALD

JOB NO.
JSR0143

CONTRACT ID.

PROJECT NO.

BRIDGE NO.

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STANDARD SIGN ASSEMBLIES

SIGN NO.	STATION OR LOG MILE	LOCATION	SIGN, TYPE, DESIGNATION, SIZE & NUMBER OF EACH																			
			SHF OM3-L 12 x 36	SHF OM3-R 12 x 36	SHF R1-1 36 x 36	D3-1 STREET NAME																
1	355+14	RT			1	1																
2	355+44	RT		1																		
3	355+54	LT	1																			
4	356+85	RT	1																			
5	357+00	LT		1																		
6	357+21	LT		1																		
7	357+41	LT		1																		
TOTALS			2	4	1	1																

SIGN SUMMARY

EFFECTIVE: 10-01-2016

STANDARD OR SPECIAL SIGN DESIGNATION	SIGN DTL. SHT. NO.	NO. EACH	SIGN SIZE	TYPE & SQUARE FEET			
				FLAT SHEET SH ITEM NO. 9035004A	FLAT SHEET FLUORESCENT SHF* ITEM NO. 9035069A	STRUCTURAL ST ITEM NO. 9035011A	RE USE DESTINATION (EA) ITEM NO. 9039902
OM3-L STANDARD		2	12 x 36	6.00			
OM3-R STANDARD		4	12 x 36	12.00			
R1-1 STANDARD		1	36 x 36	9.00			
D3-1 STREET NAME		1	RELOCATE				1
TOTALS				27			1

*ORANGE, YELLOW AND YELLOW-GREEN

PAVEMENT
MARKING & SIGNING
SHEET 3 OF 3

STATE OF MISSOURI
JASON MICHAEL SHAFER
NUMBER PE-2010019596
PROFESSIONAL ENGINEER
I'M DIGITALLY SIGNED, SEALED AND DATED ELECTRONICALLY

DATE PREPARED
3/27/2026

ROUTE	STATE
H	MO
DISTRICT	SHEET NO.
SW	19

COUNTY
MCDONALD

JOB NO.
JSR0143

CONTRACT ID.

PROJECT NO.

BRIDGE NO.

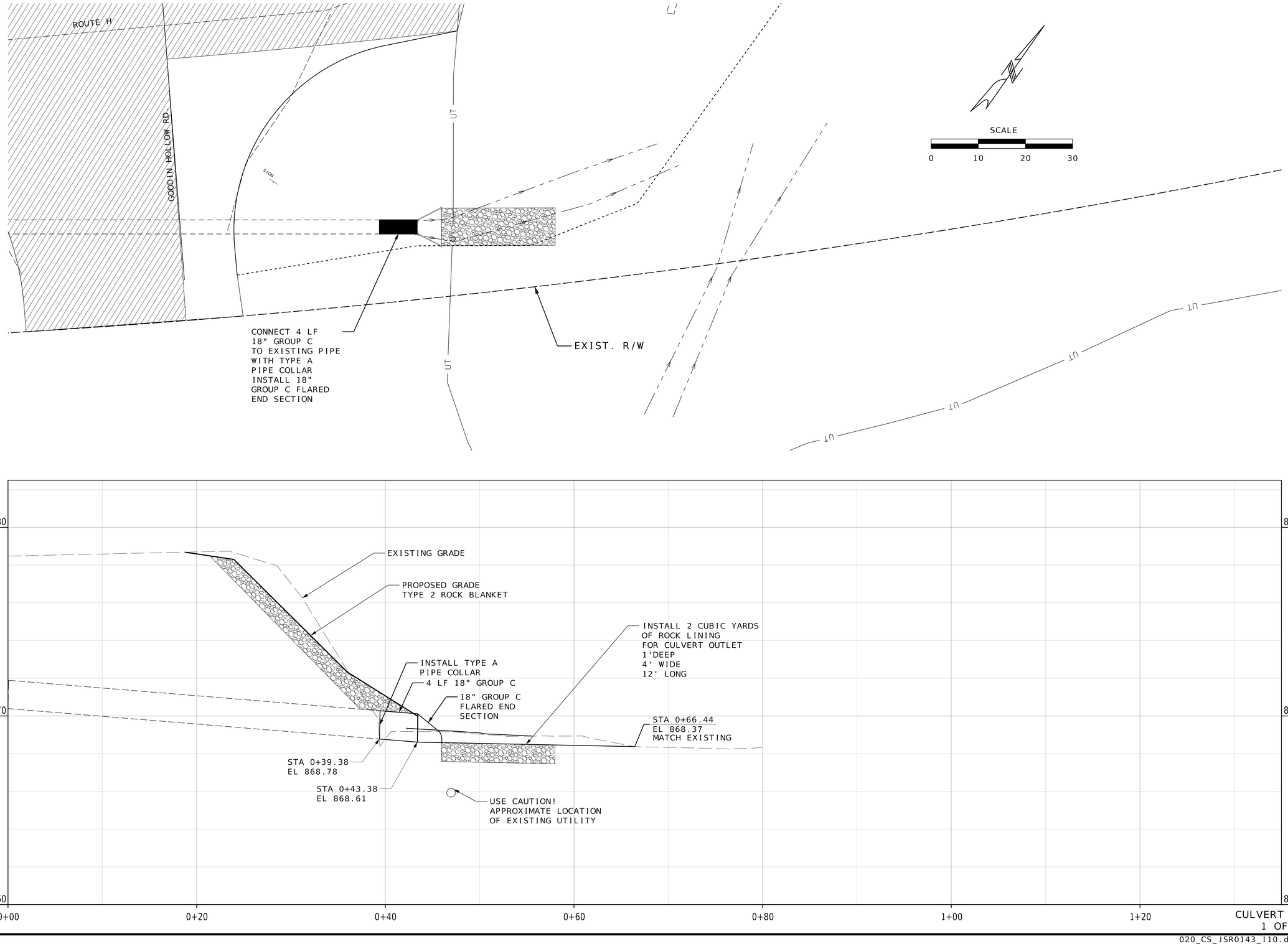
DESCRIPTION	DATE

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

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

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CULVERT SHEET
1 OF 1

STATE OF MISSOURI
JASON MICHAEL SHAFER
NUMBER PE-2010019596
PROFESSIONAL ENGINEER
I'M LEGALLY BOUND. SEALED AND DATED ELECTRONICALLY.

DATE PREPARED
3/27/2026

ROUTE	STATE
H	MO
DISTRICT	SHEET NO.
SW	20

COUNTY
MCDONALD

JOB NO.
JSR0143

CONTRACT ID.

PROJECT NO.

BRIDGE NO.

DATE	DESCRIPTION

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