

STATE	PROJECT NUMBER	SHEET NO.
MISSISSIPPI	BR-0023-02(058)	1

GENERAL INDEX

INCLUDED THIS PROJECT	BEGIN WITH SHEET
<input checked="" type="checkbox"/> ROADWAY	1
<input checked="" type="checkbox"/> PERMANENT SIGNS	1001
<input type="checkbox"/> TRAFFIC SIGNALS	2001
<input type="checkbox"/> ITS COMPONENTS	3001
<input type="checkbox"/> LIGHTING	4001
<input type="checkbox"/> (RESERVED)	5001
<input checked="" type="checkbox"/> ROADWAY STANDARD DWGS	6001
<input type="checkbox"/> BOX CULVERT STD. DRAWINGS (LRFD)	7001
<input checked="" type="checkbox"/> BOX CULVERT STD. DRAWINGS (STD. SPEC.)	7501
<input checked="" type="checkbox"/> BRIDGE	8001
<input checked="" type="checkbox"/> CROSS SECTIONS	9001

STATE OF MISSISSIPPI
MISSISSIPPI DEPARTMENT OF TRANSPORTATION

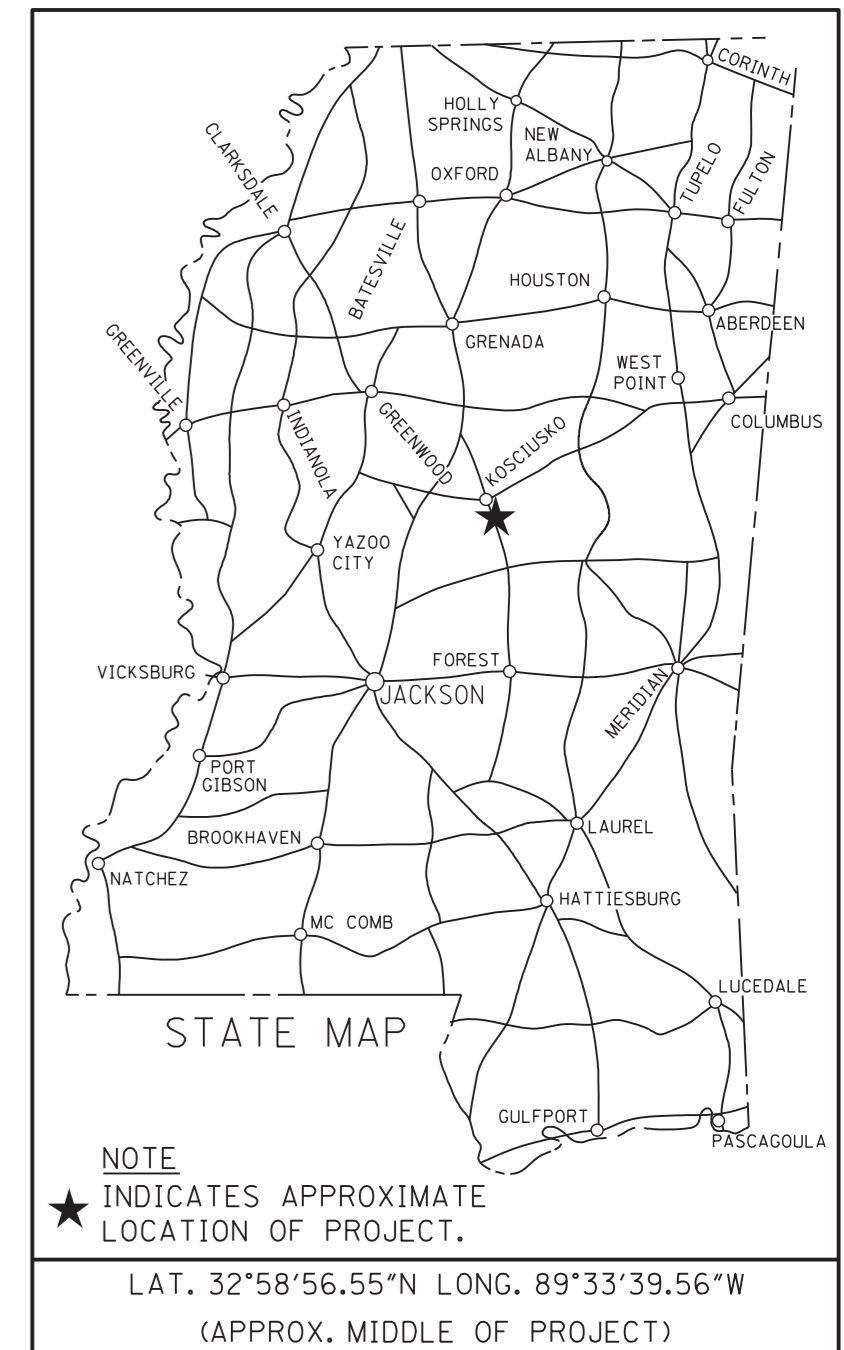
PLAN AND PROFILE OF PROPOSED STATE HIGHWAY FEDERAL AID PROJECT NO. BR-0023-02(058)

SR 35 BRIDGE REPLACEMENT FROM THE LEAKE CO. LINE TO KOSCIUSKO ATTALA COUNTY

FMS. CONST. NO. 103334/301000

SCALES

PLAN	1 IN. = 100 FT.
PROFILE {	HOR. 1 IN. = 100 FT.
	VERT. 1 IN. = 10 FT.
LAYOUT	1 IN. = 2,500 FT.



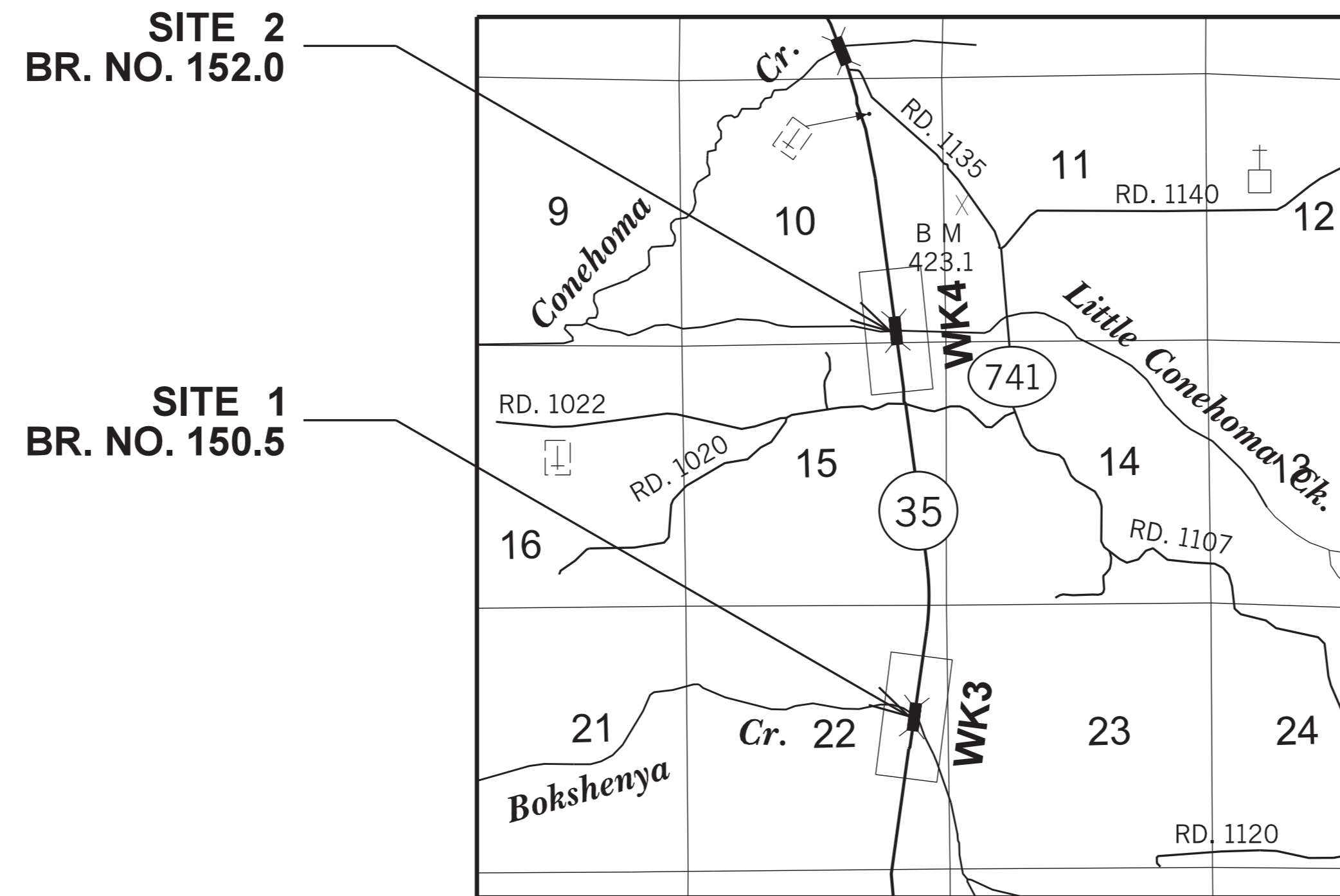
BRIDGE STRUCTURES REQ'D.

BRIDGE NO. 150.5
SR 35 @ BOKSHENYA CREEK
STA. 1506 + 58.88 TO STA. 1509 + 61.13
SPANS: 3 @ 100'
SKEW: NORMAL TO CENTERLINE
TOTAL LENGTH: 302' - 3"

BRIDGE NO. 152.0
SR 35 @ LITTLE CONEHOMA CREEK
STA. 1583 + 71.88 TO STA. 1586 + 58.63
SPANS: 2 @ 80', 1 @ 115'
SKEW: 5° LT. FWD.
TOTAL LENGTH: 277 - 3"

BOX BRIDGES REQ'D.

NONE



EQUATIONS

1584 + 48.500 BK = 1584 + 58.000 AH = -9.500 FT.

EXCEPTIONS

NONE

ROADWAY DESIGN & SIGNING

DESIGN CONTROL		
65 MPH = V (SPEED DESIGN)		
ADT (2019) = 4,700 ; ADT (2039) = 6,600		
DHV = 730 ; D = 60 % T = 12 %		
PERMITS ACQUIRED BY MDOT		
WETLANDS AND WATERS PERMITS (NECESSARY FOR ULTIMATE IMPROVEMENTS ONLY):		
	WATERS	WETLANDS
NATIONWIDE #14	<input type="checkbox"/> N	<input type="checkbox"/> N
NATIONWIDE (OTHER)*	<input type="checkbox"/> Y	<input type="checkbox"/> Y
GENERAL*	<input type="checkbox"/> N	<input type="checkbox"/> N
INDIVIDUAL (404)*	<input type="checkbox"/> N	<input type="checkbox"/> N
* ACQUISITION OF PERMITS FOR TEMPORARY IMPACTS DURING CONSTRUCTION ARE THE RESPONSIBILITY OF THE CONTRACTOR		
STORMWATER PERMIT <input checked="" type="checkbox"/> Y		
Y	REQUIRED, SCNOI SUBMITTED BY MDOT (DISTURBED AREA = 5 ACRES)	
S	REQUIRED, SCNOI TO BE SUBMITTED BY CONTRACTOR (1 TO 4.99 ACRES)	
N	NO STORMWATER PERMIT REQUIRED (<1 ACRE)	
APPROVED BY: _____		

P S & E DATE: 06/10/2019

APPROVED: _____
DEPUTY EXECUTIVE DIRECTOR / CHIEF ENGINEER
EXECUTIVE DIRECTOR




ADDENDUM

STATE	PROJECT NO.
MISS.	BR-0023-02(058)

DESCRIPTION OF SHEET	WKG. NO.	SH. NO.	DESCRIPTION OF SHEET	WKG. NO.	SH. NO.
<u>TITLE SHEET, DETAILED INDEX, AND GENERAL NOTES - (5)</u>			<u>STANDARD DRAWINGS - ROADWAY DESIGN SHEETS (2017) - (60)</u>		
TITLE SHEET	-	1	BRIDGE END PAVEMENT WITH RAIL, OVERLAY, AND SLEEPER SLAB (NEW CONSTRUCTION)	BE-1	6007
DETAILED INDEX	DI-1	2	BRIDGE END PAVEMENT RAIL (33.5" RAIL HEIGHT)	BER-1	6009
DETAILED INDEX	DI-2	3	PAVEMENT MARKING DETAILS FOR 2-LANE & 4-LANE DIVIDED ROADWAYS	PM-1	6051
GENERAL NOTES	GN-1	4	RUMBLE STRIPES 2-LANE HIGHWAYS (ASPHALT LANES, 2-FT ASPHALT SHOULDERS)	RS-1	6064
GENERAL NOTES	GN-2	5	TYPICAL TEMPORARY EROSION CONTROL / SEDIMENT CONTROL APPLICATIONS	ECD-1	6101
			DETAILS OF SEDIMENT BARRIER APPLICATIONS	ECD-2	6102
<u>TYPICAL SECTIONS - (5)</u>			DETAILS OF SILT FENCE INSTALLATION	ECD-3	6103
TYPICAL SECTIONS - SR 35 NEW CONSTRUCTION	TS-1	6	DITCH CHECK STRUCTURES, TYPICAL APPLICATIONS AND DETAILS	ECD-4	6104
TYPICAL SECTIONS - SR 35 WIDENING & OVERLAY	TS-2	7	TEMPORARY EROSION, SEDIMENT, AND WATER POLLUTION CONTROL MEASURES (SILT FENCE AND HAY BALE DITCH CHECKS)	ECD-5	6105
TYPICAL SECTIONS - SR 35 DETOUR	TS-3	8	DETAILS OF EROSION CONTROL WATTLE DITCH CHECK	ECD-6	6106
TYPICAL SECTIONS - BRIDGE END SHOULDER DETAIL	TS-4	9	DETAILS OF EROSION CONTROL SILT DIKE DITCH CHECK	ECD-7	6107
TYPICAL SECTIONS - BRIDGE END PAVEMENT DETAIL & PAVED APRON	TS-5	10	ROCK DITCH CHECK	ECD-8	6108
			ROCK FILTER DAM	ECD-9	6109
<u>QUANTITY SHEETS - (11)</u>			ROCK DITCH CHECK WITH SUMP EXCAVATION AND ROCK FILTER DAM	ECD-10	6110
SUMMARY OF QUANTITIES	SQ-1	11	TYPICAL APPLICATIONS AND DETAILS FOR INLET CONSTRUCTION	ECD-11	6111
SUMMARY OF QUANTITIES	SQ-2	12	INLET PROTECTION DETAILS FOR SEDIMENT CONTROL STONE ON GRADES AND SAGS	ECD-12	6112
SUMMARY OF QUANTITIES	SQ-3	13	INLET PROTECTION DETAILS OF WATTLES	ECD-13	6113
			INLET PROTECTION DETAILS OF MANUFACTURED INLET PROTECTION DEVICE	ECD-14	6114
			INLET PROTECTION DETAILS OF SANDBAGS	ECD-15	6115
ESTIMATED QUANTITIES - REMOVAL ITEMS	EQ-1	14	STABILIZED CONSTRUCTION ENTRANCE	ECD-16	6116
ESTIMATED QUANTITIES - EARTHWORK AND GUARDRAIL	EQ-2	15	TEMPORARY CULVERT STREAM CROSSING	ECD-17	6117
ESTIMATED QUANTITIES - PAVEMENT MARKINGS AND BRIDGE END PAVEMENT	EQ-3	16	TEMPORARY STREAM DIVERSION	ECD-18	6118
ESTIMATED QUANTITIES - BOX CULVERTS, PIPES, & EROSION CONTROL	EQ-4	17	TEMPORARY STREAM DIVERSION (BOX EXTENSION)	ECD-19	6119
ESTIMATED QUANTITIES - DRIVEWAYS, SIDE DRAINS, AND PAVED FLUMES	EQ-5	18	FLOATING TURBIDITY CURTAIN	ECD-20	6120
ESTIMATED QUANTITIES - STANDARD ROADSIDE SIGNS	EQ-6	19	DETAILS OF EROSION CONTROL SANDBAG DITCH CHECK	ECD-21	6121
ESTIMATED QUANTITIES - TRAFFIC CONTROL ITEMS	EQ-7	20	SEDIMENT RETENTION BARRIER	ECD-22	6122
ESTIMATED QUANTITIES - TRAFFIC CONTROL SIGNS	EQ-8	21	DETAILS OF TYPICAL DITCH TREATMENTS	DT-1	6123
			DITCH TREATMENT INSTALLATION DETAIL FOR SOIL REINFORCING MAT	DT-1A	6124
<u>RIGHT-OF-WAY AND EASEMENT COORDINATE SHEETS (1)</u>			TYPICAL TEMPORARY EROSION CONTROL MEASURES (SLOPE DRAIN AND TYPE A SILT BASIN)	BAS-A	6125
RIGHT-OF-WAY AND EASEMENT COORDINATES	RCS-1	22	EROSION CONTROL BLANKET	ECB-1	6131
			GUARDRAIL: "W" BEAM (WOOD POSTS)	GR-1	6201
<u>PLAN & PROFILE SHEETS - (4)</u>			GUARDRAIL: THRIE BEAM (WOOD POSTS)	GR-1A	6202
STA. 1499+50.00 TO STA. 1516+50.00 - SITE 1	3	23	GUARDRAIL: "W" BEAM (STEEL POSTS)	GR-1B	6203
STA. 0+00.00 TO STA. 17+12.56 - SITE 1 DETOUR	3A	24	GUARDRAIL: BRIDGE END SECTION-TYPE I (WOOD POSTS) (NEW CONSTRUCTION)	GR-2F	6210
STA. 1576+50.00 TO STA. 1593+00.00 - SITE 2	4	25	GUARDRAIL: BRIDGE END SECTION-TYPE I (STEEL POSTS) (NEW CONSTRUCTION)	GR-2G	6211
STA. 0+00.00 TO STA. 16+53.06 - SITE 2 DETOUR	4A	26	GUARDRAIL: TYPICAL INSTALLATION AT BRIDGE APPROACHES FOR 2-LANE, 2-WAY HIGHWAY	GR-4A	6215
			GUARDRAIL: RUB RAIL HARDWARE	GR-RR	6218
			GUARDRAIL: MISCELLANEOUS HARDWARE	GR-HW	6221
<u>SPECIAL DESIGN SHEETS - (17)</u>			STANDARD ROADSIDE SIGN ASSEMBLY AND INSTALLATION	SN-4	6306
CONSTRUCTION SIGNING	CS-1	27	STANDARD ROADSIDE SIGN ASSEMBLY AND INSTALLATION	SN-4A	6307
TRAFFIC CONTROL PLAN - PHASE 1 (SITE 1)	TC-1	28	TYPICAL INSTALLATION AND DETAILS OF DELINEATORS AND DISTANCE REFERENCE SIGNS	SN-8	6314
TRAFFIC CONTROL PLAN - PHASE 2 (SITE 1)	TC-2	29	TYPICAL GUARDRAIL DELINEATION	SN-8C	6317
TRAFFIC CONTROL PLAN - PHASE 3 (SITE 1)	TC-3	30	SIGNING DETAILS FOR BRIDGE APPROACHES	SN-9	6318
TRAFFIC CONTROL PLAN - PHASE 1 (SITE 2)	TC-4	31	TRAFFIC CONTROL PLAN WITH FLAGGER (ONE-LANE CLOSURE OF TWO-WAY TRAFFIC)	TCP-1	6351
TRAFFIC CONTROL PLAN - PHASE 2 (SITE 2)	TC-5	32	SHORT DURATION CLOSING OF TWO-LANE TWO-WAY HIGHWAYS	TCP-6	6356
TRAFFIC CONTROL PLAN - PHASE 3 (SITE 2)	TC-6	33	HIGHWAY SIGN AND BARRICADE DETAILS FOR CONSTRUCTION PROJECTS	TCP-8	6358
GUARDRAIL (TEMPORARY): TYPICAL INSTALLATION AT DETOUR BRIDGE ENDS	SD-TGR-1	34			
PAVEMENT MARKINGS (SITE 1) - STA. 1499+50.00 TO STA. 1516+50.00	PM-1	35			
PAVEMENT MARKINGS (SITE 2) - STA. 1576+50.00 TO STA. 1593+00.00	PM-2	36			
EROSION CONTROL PLAN - SITE 1	ECP-3	37			
EROSION CONTROL PLAN - SITE 1 - RIPARIAN BUFFER DETAILS	ECP-RB-3	38			
EROSION CONTROL PLAN - SITE 1 - DETOUR	ECP-3A	39			
EROSION CONTROL PLAN - SITE 2	ECP-4	40			
EROSION CONTROL PLAN - SITE 2 - RIPARIAN BUFFER DETAILS	ECP-RB-4	41			
EROSION CONTROL PLAN - SITE 2 - DETOUR	ECP-4A	42			
VEGETATION SCHEDULE	VS-1	43			
<u>PERMANENT SIGNING PLANS - (2)</u>					
PERMANENT SIGNING PLAN - SITE 1	PSP-1	1001			
PERMANENT SIGNING PLAN - SITE 2	PSP-2	1002			

PS & E PLANS - 06/10/19		
FMS CON. # 103334/301000		
REVISIONS		
DATE	SHEET NO.	BY
07-08-19	23,24,25,26,37,39,	
	40, & 42	JMR
07-15-19	10 & 11	JMR
10-07-19	11, 12 & 13	JMR

REVISION	MISSISSIPPI DEPARTMENT OF TRANSPORTATION	
	DETAILED INDEX	
DATE		
	PROJ. NO.: BR-0023-02(058) COUNTY: ATTALA	
DESIGN TEAM	FA	CHECKED _____ DATE _____
WORKING NUMBER	DI-1	
SHEET NUMBER	2	

10/7/2019 9:08:45 AM DI-1.DGN MISSISSIPPI DEPARTMENT OF TRANSPORTATION

STATE	PROJECT NO.
MISS.	BR-0023-02(058)

DESCRIPTION OF SHEET

WKG. NO. SH. NO.

STANDARD DRAWINGS - ROADWAY DESIGN SHEETS (2017) - (CONTINUED)

TRAFFIC CONTROL PLAN MOBILE OPERATIONS MULTILANE ROADS AND TWO-LANE ROADS
 TRAFFIC CONTROL PLAN: UNEVEN PAVEMENT DETAILS
 TEMPORARY STRIPING FOR TRAFFIC CONTROL 2-LANE AND 4-LANE DIVIDED HIGHWAYS
 LOCATION OF R16-3 SIGNS (SPEEDING FINES DOUBLE)
 TRAFFIC CONTROL DETAILS DRUM PLACEMENT AND SHOULDER CLOSURE
 RIGHT-OF-WAY MARKER
 RURAL DRIVEWAYS
 TYPICAL GRADING TRANSITION BETWEEN CUTS AND FILLS
 MISCELLANEOUS DETAIL SHEET, 1. STACKED PIPE JOINTS, 2. EXCAVATION AT GRADE POINTS
 DETAILS OF PAVED FLUMES
 PIPE CULVERT INSTALLATION
 FLEXIBLE PIPE CULVERT INSTALLATION
 CONCRETE PIPE COLLAR
 FLARED END SECTION FOR CONCRETE PIPE

TCP-9 6359
 TCP-12 6362
 TCP-13 6363
 TCP-15 6365
 TCP-16 6366
 RW-1 6401
 RD-1 6403
 GT-1 6404
 MDS-1 6425
 PF-1 6426
 PI-1 6501
 PI-2 6502
 PC-1 6503
 FE-1 6530

BRIDGE (BOX CULVERT) STANDARD DRAWINGS - 1997 (7)

COLLAR DETAILS FOR BOX STRUCTURES
 EXTENSION DETAILS FOR LENGTHENING EXISTING BOX CULVERTS
 BASIC CULVERT DWG - SINGLE CELL - HEIGHT 6 FT. - SPANS 6-20 FT.
 BASIC CULVERT DWG - SINGLE CELL - HEIGHT 6 FT. - SPANS 6-20 FT.
 WINGS W/ 3:1 SLOPES - SINGLE CELL - HEIGHT 6-12 FT. - SPANS 6-24 FT.
 WINGS W/ 3:1 SLOPES - SINGLE CELL - HEIGHT 6-12 FT. - SPANS 6-24 FT.
 WINGS W/ 3:1 SLOPES - SINGLE CELL - HEIGHT 6-12 FT. - SPANS 6-24 FT.

ICJ-1-97 7504
 ICX-1-97 7506
 IBS-6-2W-97 7507
 IBS-6-2W-97 7508
 IWS-3-97 7515
 IWS-3-97 7516
 IWS-3-97 7517


CROSS SECTIONS - (39)

MAINLINE (SR 35) - SITE 1 - STA. 1498+00.00 TO STA. 1517+50.00
 DETOUR (SR 35) - SITE 1 - STA. 0+00.00 TO STA. 17+12.56
 MAINLINE (SR 35) - SITE 2 - STA. 1575+00.00 TO STA. 1595+00.00
 DETOUR (SR 35) - SITE 2 - STA. 0+00.00 TO STA. 16+53.06

9001-9010
 9011-9019
 9020-9030
 9031-9039

TOTAL SHEETS (EXCLUDING BRIDGE SHEETS) - 151
 (SEE SHEET 8001 FOR BRIDGE SHEETS)

7/19/2019 1:51:00:42 DI.DGN

		MISSISSIPPI DEPARTMENT OF TRANSPORTATION	
		DETAILED INDEX	
			
		PROJ. NO.: BR-0023-02(058) COUNTY: ATTALA	
		WORKING NUMBER	
		DI-2	
		SHEET NUMBER	
		3	
REVISION	BY	DATE	FILENAME: DI.DGN
			DESIGN TEAM FA CHECKED DATE

STATE	PROJECT NO.
MISS.	BR-0023-02(058)

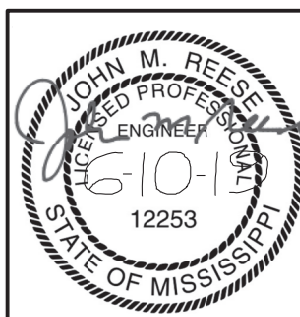
GENERAL NOTES

- ① THE LOCATION AND SPACING OF SIGNS, SHOWN ON THE TRAFFIC CONTROL PLANS, ARE APPROXIMATE AND MAY BE ADJUSTED AS NECESSARY TO FIT FIELD CONDITIONS.
- ② ALL TRAFFIC CONTROL DEVICES ON THIS PROJECT SHALL COMPLY WITH PART VI OF THE MUTCD (LATEST EDITION).
- ③ ALL PLASTIC DRUMS SHALL HAVE A BALLASTING COLLAR MADE FROM RECYCLED TRUCK TIRES OR OTHER SUITABLE MATERIAL.
- ④ 25% SHRINKAGE FACTOR USED IN THE EARTHWORK CALCULATIONS IS FOR DESIGN ESTIMATING PURPOSES ONLY.
- ⑤ THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTING EXISTING STRUCTURES SUCH AS, BUT NOT LIMITED TO, PIPES, INLETS, APRONS, AND BRIDGES FROM DAMAGE WHICH MIGHT OCCUR DURING CONSTRUCTION. THE CONTRACTOR SHALL REPLACE OR REPAIR, AS DIRECTED BY THE ENGINEER, ANY STRUCTURES DAMAGED DURING THE LIFE OF THE CONTRACT. NO PAYMENT WILL BE MADE FOR REPLACEMENT OR REPAIR OF DAMAGED ITEMS.
- ⑥ THE TOP THREE FEET AND VARIABLE OF THE DESIGN SOIL (BOTH NATURAL AND EMBANKMENT) SHALL BE CONSTRUCTED OF SOIL CLASSIFIED AS B-9 OR BETTER, PER AASHTO DESIGNATION M 145-91, EXCEPT AT UNDERCUT LOCATIONS DESIGNATED ON THE PLANS OR AS DIRECTED BY THE ENGINEER TO RECEIVE CLASS B-9-6 BORROW EXCAVATION. EXTREME CARE SHALL BE EXERCISED IN UNDERCUT AREAS, AND THE UNDERCUT DEPTH MAY BE ADJUSTED AT CROSS DRAINS AS DIRECTED BY THE ENGINEER. FOR ADDITIONAL DETAILS THE CONTRACTOR IS REFERRED TO THE NOTICE TO BIDDERS ON DESIGN SOIL MATERIAL IN THE CONTRACT PROPOSAL DOCUMENT.
- ⑦ ALL PIPE JOINTS ARE TO BE WRAPPED IN 24-INCH WIDE TYPE V GEOTEXTILE FABRIC. ALL PICKUP HOLES SHALL BE PLUGGED WITH PLASTIC INSERTS AND BITUMINOUS SEALER TO THE SATISFACTION OF THE ENGINEER (NOT A SEPARATE PAY ITEM).
- ⑧ VOIDS CREATED BY THE REMOVAL OF, BUT NOT LIMITED TO, POSTS, CONCRETE ANCHORS, AND FOOTINGS SHALL BE BACKFILLED AND TAMPED IN ACCORDANCE WITH SECTION 203 OF THE MISSISSIPPI STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, THE COST OF WHICH WILL BE ABSORBED IN OTHER ITEMS BID.
- ⑨ UTILITIES ON THE DRAWINGS ARE SHOWN IN THEIR ORIGINAL LOCATION BASED UPON THE BEST INFORMATION AVAILABLE TO THE ENGINEER. UTILITIES THAT WERE FOUND TO BE IN CONFLICT WITH CONSTRUCTION HAVE BEEN RELOCATED. PERMITS ARE ON FILE WITH THE DEPARTMENT SHOWING THE APPROXIMATE LOCATION OF UTILITIES RELOCATED WITHIN THE RIGHT-OF-WAY. THE ENGINEER CAN NOT AND DOES NOT WARRANT THAT THIS INFORMATION IS COMPLETE OR ACCURATE. THE CONTRACTOR MUST COORDINATE DIRECTLY WITH THE INVOLVED UTILITY OWNERS TO HAVE UNDERGROUND UTILITY LINES FIELD LOCATED IN ADVANCE OF CONSTRUCTION.
- ⑩ WORK ON STRUCTURES FOR THIS PROJECT REQUIRES EXCAVATION IN THE IMMEDIATE VICINITY OF TRAFFIC AND ADJACENT PROPERTIES. THEREFORE, THE RISK OF A FAILURE OCCURRING DURING EXCAVATION REQUIRES THAT EXTREME CAUTION BE EXERCISED. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PLACING WHAT BRACING, SHORING, OR GROUND SUPPORT SYSTEM THAT IS DEEMED NECESSARY TO PREVENT A FAILURE AND PROTECT THE PERSONS WORKING NEAR THE EXCAVATION, THE PUBLIC THAT MAY BE ABOVE THE EXCAVATION, OR ANY STRUCTURES ADJACENT TO THE EXCAVATION. ALL COSTS FOR DESIGNING, DRAWING, AND CONSTRUCTING THE FACILITY SHALL BE INCLUDED IN THE PRICE BID FOR CONTRACT ITEMS.
- ⑪ SOME WORK IS REQUIRED OUTSIDE THE PROJECT LIMITS. NO ADDITIONAL COMPENSATION WILL BE MADE FOR SUCH WORK EXCEPT AS PROVIDED BY SPECIFIC PAY ITEMS INCLUDED IN THE PLANS.
- ⑫ WIRE FENCE BACKING WILL BE REQUIRED FOR ALL SILT FENCE. (SEE WK. NO. ECD-3)
- ⑬ FULL COLLARS ARE TO BE USED AT ALL BOX CULVERT EXTENSIONS AND AT ALL BOX CULVERT CONSTRUCTION JOINTS. (SEE WK. NO. ICJ-1 FOR DETAILS)
- ⑭ FOR LIST OF PUBLIC UTILITIES, SEE WK. NO. 3.
- ⑮ FLUORESCENT ORANGE SHEETING SHALL BE USED ON ALL CONSTRUCTION AND TRAFFIC CONTROL SIGNS EXCEPT FOR THOSE DESIGNATED ON THE PLANS TO BE BLACK LEGEND AND BORDER ON WHITE BACKGROUND.
- ⑯ VEGETATIVE MATERIAL WILL BE REMOVED PRIOR TO PLACEMENT OF GRANULAR MATERIAL. THE COST OF WHICH SHALL BE ABSORBED IN OTHER ITEMS BID.

GENERAL NOTES (CONT.)

- ⑰ ALL DIMENSIONS AND SPACINGS FOR BRIDGE RAIL CONNECTORS SHALL BE VERIFIED IN THE FIELD BY THE CONTRACTOR PRIOR TO FABRICATION.
- ⑱ THE CONTRACTOR SHALL COVER ANY TEMPORARY TRAFFIC CONTROL SIGNS SHOWN IN THE TRAFFIC CONTROL PLAN THAT DO NOT APPLY TO THE CURRENT PHASE.
- ⑲ REMOVAL OF RAISED PAVEMENT MARKERS THAT ARE IN CONFLICT WITH REQUIRED CONSTRUCTION IS NOT CONSIDERED A SEPARATE PAY ITEM. COST TO BE ABSORBED IN OTHER ITEMS BID.
- ⑳ REMOVAL OF OBJECT MARKERS IS NOT CONSIDERED A SEPARATE PAY ITEM, AND SHALL BE ABSORBED IN OTHER ITEMS BID.
- ㉑ WHERE MILLING IS REQUIRED, THE CONTRACTOR SHALL PROVIDE OUTLETS IN THE EXISTING SHOULDERS AT SUFFICIENT INTERVALS TO PREVENT POOLING OR STANDING WATER ON THE MILLED SURFACE, THE COST OF WHICH SHALL BE ABSORBED IN OTHER ITEMS BID.
- ㉒ THE EROSION CONTROL DEVICES REFERENCED IN THESE PLANS ARE A MINIMUM REQUIREMENT. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO ENSURE THAT SILT DOES NOT LEAVE THE RIGHT OF WAY OR CONTAMINATE WATERS OF THE U.S. DURING CONSTRUCTION. THE CONTRACTOR SHALL SUBMIT AN EROSION CONTROL PLAN PRIOR TO COMMENCEMENT OF WORK AND MAINTAIN THE PLAN DURING CONSTRUCTION. ANY ADDITIONAL SILT BASINS NOT SHOWN IN THE PLANS SHALL BE INCLUDED IN THE CONTRACTOR'S EROSION CONTROL PLAN PRIOR TO SUBMITTING FOR APPROVAL.
- ㉓ PRIOR TO EARTHWORK OPERATIONS, THE EXISTING TOP 6" TOPSOIL IS TO BE STRIPPED AND STOCKPILED. AFTER THE GRADING OPERATIONS ARE COMPLETED, SAID TOPSOIL SHALL BE PLACED ON ALL AREAS THAT ARE NOT TO BE PAVED OR OTHERWISE PROTECTED, IN ACCORDANCE WITH SECTION 211 OF THE SPECIFICATIONS, OR THE VEGETATION SCHEDULE (SEE WK. NO. VS-1). EXISTING TOPSOIL AND ALL COSTS ASSOCIATED WITH STRIPPING, HAULING, STOCKPILING, AND PLACEMENT OF THE EXISTING TOPSOIL IS TO BE ABSORBED IN OTHER EARTHWORK ITEMS.
- ㉔ FOR CLEARING LIMITS ADJACENT TO THE STREAMS AT STATIONS 1508+00 & 1585+00, SEE WORKING NUMBERS ECP-RB-3 AND ECP-RB-4. THE CLEARING LIMITS SHOWN ON THESE SHEETS ARE ONLY FOR THE RIPARIAN BUFFER. CLEARING LIMITS AT OTHER LOCATIONS SHOULD STILL APPLY.
- ㉕ THE CONTRACTOR IS RESPONSIBLE FOR FIELD-VERIFICATION OF EXISTING GRADES AND MAKING ADJUSTMENTS AS NECESSARY WITH THE APPROVAL OF THE PROJECT ENGINEER.
- ㉖ TEMPORARY STRIPING SHALL CONFORM TO FINISHED STRIPE SPECIFICATIONS FOR ALIGNMENT, NEATNESS, AND STRAIGHTNESS.
- ㉗ IF COLORS ARE USED ON PLAN/PROFILE SHEETS, THEY ARE INTENDED TO VISUALLY EASE THE LOCATION OF ELEMENTS FOR USERS OF THESE DRAWINGS. ALTHOUGH THE INTENT IS TO CATEGORIZE EVERYTHING AS EITHER EXISTING OR PROPOSED, IT IS THE END USER'S RESPONSIBILITY TO ENSURE ALL ELEMENTS ARE INTERPRETED CORRECTLY, REGARDLESS OF COLOR.
- ㉘ SEE BRIDGE PLANS FOR DETAILED INDEX SHEET(S), ESTIMATED AND SUMMARY OF QUANTITY SHEETS, AND EROSION CONTROL SHEETS.
- ㉙ ALL ADDENDA TO THESE PLANS WILL BE POSTED TO WWW.MDOT.MS.GOV UNDER THE PROPOSAL ADDENDA COLUMN. BIDDERS ARE ADVISED THAT HARD COPIES OF ANY ADDENDA FOR THIS PROJECT WILL NOT BE MAILED. IT IS THE BIDDER'S RESPONSIBILITY TO CHECK AND SEE IF ANY ADDENDA HAVE BEEN POSTED FOR THIS PROJECT.

6/19/2019 7:28:52 AM CN, DGN


		MISSISSIPPI DEPARTMENT OF TRANSPORTATION	
		GENERAL NOTES	
			
		PROJ. NO.: BR-0023-02(058) COUNTY: ATTALA	
		WORKING NUMBER GN-1	
		SHEET NUMBER 4	
REVISION	BY	DATE	FILENAME: GN.DGN
			DESIGN TEAM FA CHECKED DATE

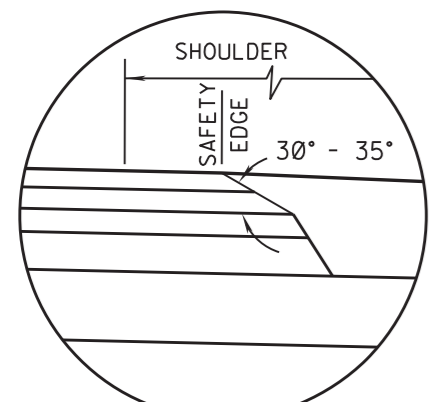
STATE	PROJECT NO.
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GENERAL NOTES (CONT.)

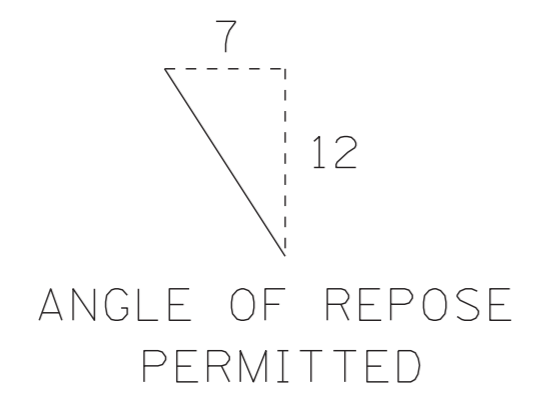
- 30 THE COST FOR REMOVAL OF ALL HEADWALLS AND WINGWALLS (PIPES, BOX CULVERTS, AND BOX BRIDGES) SHALL BE ABSORBED IN OTHER ITEMS BID.
- 31 THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING AND RELOCATING MAIL BOXES AS NECESSARY TO MAINTAIN CONTINUOUS MAIL SERVICE THROUGHOUT THE LIFE OF THE PROJECT, THE COST OF WHICH SHALL BE ABSORBED IN OTHER ITEMS BID.
- 32 THE BRIDGE DECKS SHALL BE GROOVED AND ALL BRIDGE JOINTS SHALL BE SEALED PRIOR TO OPENING THE BRIDGES TO TRAFFIC.
- 33 STORAGE OF FLAMMABLE MATERIALS WILL NOT BE ALLOWED UNDER ANY BRIDGE STRUCTURES.
- 34 INSTALLATION DATES SHALL BE CLEARLY WRITTEN IN BOLD BLACK MARKINGS ON THE BACK BOTTOM HALF OF ALL SIGNS WITH A PERMANENT MARKING STICK THAT IS WATERPROOF, FADE RESISTANT, AND MARKS ON WET OR DRY SURFACES.
- 35 ALL POST, PIPE, AND I-BEAM LENGTHS IN THESE PLANS ARE ESTIMATES. POST LENGTHS FOR ALL SIGNS SHALL BE VERIFIED IN THE FIELD BY THE CONTRACTOR PRIOR TO FABRICATION.
- 36 ALL EXISTING SIGNS WHICH ARE TO BE REMOVED AS A PART OF THIS PROJECT THAT ARE NOT IN CONFLICT WITH CONSTRUCTION SHALL REMAIN IN PLACE UNTIL NEW SIGNS ARE INSTALLED UNLESS NOTED OR DIRECTED OTHERWISE BY THE PROJECT ENGINEER. ROADWAY SIGNS THAT ARE IN CONFLICT WITH CONSTRUCTION SHALL BE REMOVED AND RELOCATED BY THE CONTRACTOR AS DIRECTED BY THE ENGINEER, THE COST OF WHICH SHALL BE ABSORBED IN OTHER ITEMS BID.
- 37 ALL EXISTING SIGNS AND SUPPORTS REMOVED UNDER THIS PROJECT SHALL BECOME THE PROPERTY OF THE CONTRACTOR AND ARE NOT A SEPARATE PAY ITEM.
- 38 DIRECT-APPLIED LEGEND, BORDER, AND/OR SHIELDS ARE TO BE USED ON ALL GUIDE SIGNS. DIGITALLY PRODUCED SIGN COPY, SHIELDS, LEGEND, SYMBOLS, OR IMAGES WILL NOT BE ALLOWED WITHOUT WRITTEN APPROVAL FROM MDOT'S PROJECT ENGINEER.
- 39 EXISTING DRAIN PIPES, CULVERTS, CROSS DRAINS, AND OTHER DRAINAGE STRUCTURES THAT ARE TO REMAIN SHALL BE CLEANED OF SILT, TRASH, AND DEBRIS SATISFACTORILY TO THE ENGINEER. ALL COSTS OF SAID CLEANING WILL BE CONSIDERED SUBSIDIARY TO THE CONTRACT AND WILL NOT BE MEASURED AND PAID FOR DIRECTLY. EXISTING DRAIN PIPES, CULVERTS, SIDE DRAINS, AND CROSS DRAINS WITHIN THE PROJECT LIMITS THAT ARE NOT TO BE UTILIZED SHALL BE REMOVED OR COMPLETELY PLUGGED WITH FLOWABLE FILL, AND THE COST TO BE ABSORBED IN OTHER ITEMS BID.
- 40 ALL PAVEMENT MARKING SHALL BE FIELD LOCATED BY THE ENGINEER AND THE CONTRACTOR AT THE NEAREST PRACTICAL LOCATION INDICATED ON THE PLAN SHEETS.
- 41 ALL PROPOSED PAVEMENT MARKINGS, GUARDRAIL, AND PERMANENT SIGNING SHALL BE INSTALLED BEFORE OPENING THE NEW FACILITY TO TRAFFIC, UNLESS DIRECTED AND SPECIFICALLY APPROVED OTHERWISE BY THE ENGINEER.
- 42 DOUBLE DROP THERMOPLASTIC WILL BE USED ON ALL BRIDGE DECKS. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO PROTECT PREFORMED JOINT MATERIAL. ANY DAMAGE CAUSED BY THE THERMOPLASTIC WILL BE REPAIRED AT NO COST TO THE STATE.
- 43 PRIOR TO CONSTRUCTION, THE CONTRACTOR IS TO CONTACT MR. JAMES MOONEY OF TEXAS EASTERN AT (662) 289-2991 OR (601) 594-9264 ABOUT CONSTRUCTION GUIDELINES NEAR THEIR GAS PIPELINE.

6/19/2019 7:28:52 AM GN.DGN

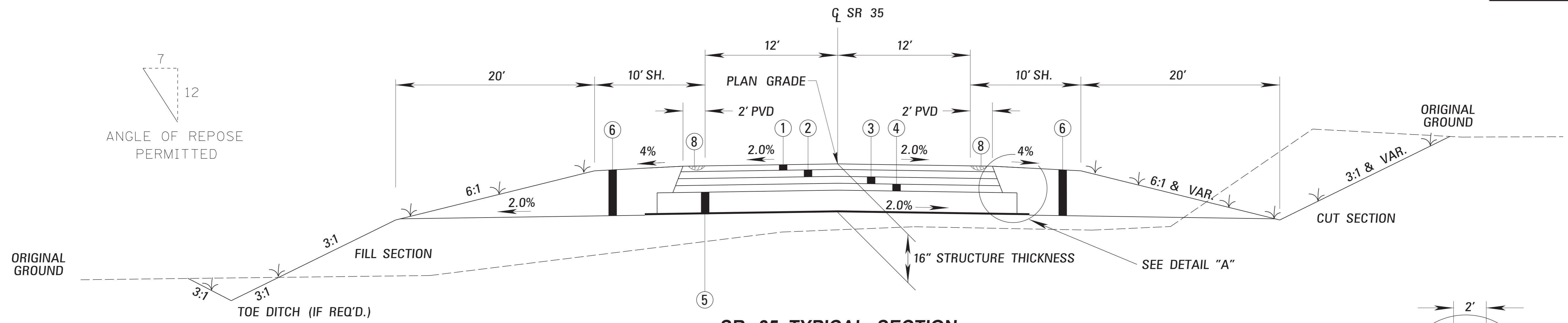
		MISSISSIPPI DEPARTMENT OF TRANSPORTATION	
		GENERAL NOTES	
			
		PROJ. NO.: BR-0023-02(058) COUNTY: ATTALA	
		WORKING NUMBER GN-2	
		SHEET NUMBER 5	
REVISION	BY	DATE	FILENAME: <u>GN.DGN</u>
			DESIGN TEAM <u>FA</u> CHECKED _____ DATE _____



SAFETY EDGE REQ'D
 TOP 2 LIFTS ONLY
 (NOT A PAY ITEM)
 NEW CONSTRUCTION



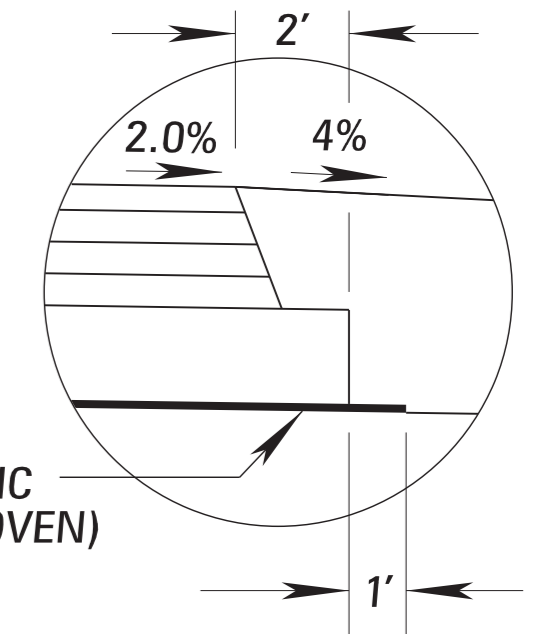
ANGLE OF REPOSE
 PERMITTED



SR 35 TYPICAL SECTION
 NEW CONSTRUCTION

- SITE 1
 STA. 1504+25.00 TO STA. 1512+75.00
- BRIDGE SITE 1
 STA. 1506+58.88 TO STA. 1509+61.13
- SITE 2
 STA. 1583+00.00 TO STA. 1589+50.00
- BRIDGE SITE 2
 STA. 1583+71.88 TO STA. 1586+58.63

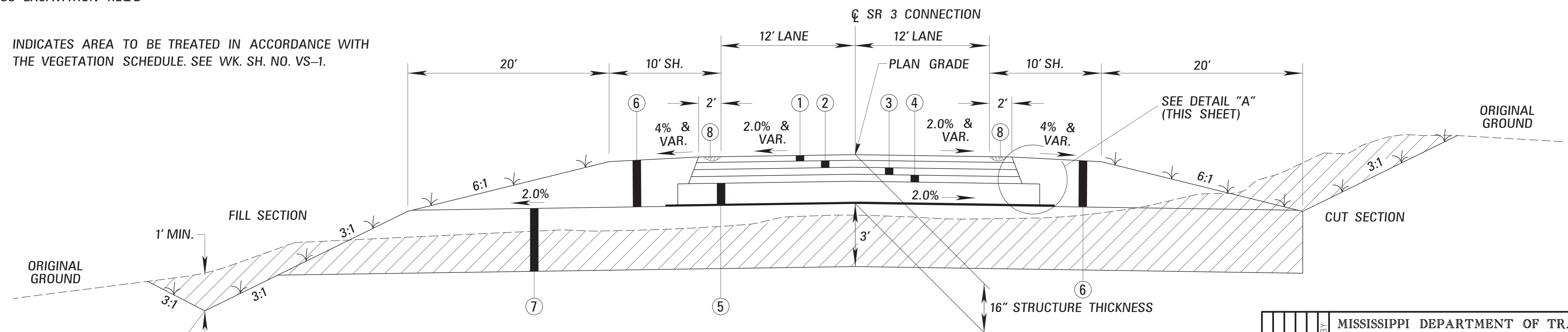
- ① 1.50" 9.5-mm, MT, ASPHALT PAVEMENT (1 @ 1.50") REQ'D.
 - ② 2.00" 12.5-mm, MT, ASPHALT PAVEMENT (1 @ 2.00") REQ'D.
 - ③ 2.25" 19-mm, MT, ASPHALT PAVEMENT (1 @ 2.25") REQ'D.
 - ④ 2.25" 19-mm, ST, ASPHALT PAVEMENT (1 @ 2.25") REQ'D.
 - ⑤ 8.00" CRUSHED STONE BASE W/GEOTEXTILE FABRIC TYPE V (NON-WOVEN)
 - ⑥ 16" & VARIABLE DEPTH GRANULAR SHOULDER MATERIAL (CLASS 3, GROUP "D")
 - ⑦ 36" & VARIABLE DEPTH BORROW MATERIAL (CLASS B9-6) REQ'D
 - ⑧ RUMBLE STRIPE REQ'D
- /// DENOTES EXCESS EXCAVATION REQ'D



GEOTEXTILE FABRIC
 TYPE V (NON-WOVEN)

DETAIL "A"

INDICATES AREA TO BE TREATED IN ACCORDANCE WITH
 THE VEGETATION SCHEDULE. SEE WK. SH. NO. VS-1.

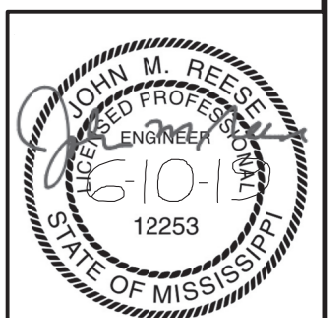


SR 35 TYPICAL SECTION
 NEW CONSTRUCTION - UNDERCUT REQ'D.

- SITE 2
 STA. 1579+75.00 TO STA. 1583+00.00

PROPOSED DITCH (IF REQ'D.)
 SEE PLANS & CROSS SECTIONS
 FOR LOCATIONS & LINING

MISSISSIPPI DEPARTMENT OF TRANSPORTATION	
TYPICAL SECTIONS	
SR 35	
NEW CONSTRUCTION	
PROJ. NO.: BR-0023-02(058)	
COUNTY: ATTALA	
DATE	FILENAME: TS.DGN
DESIGN TEAM	FA
CHECKED	DATE
REVISION	BY

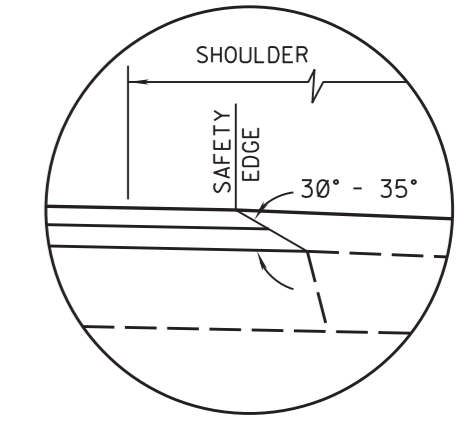
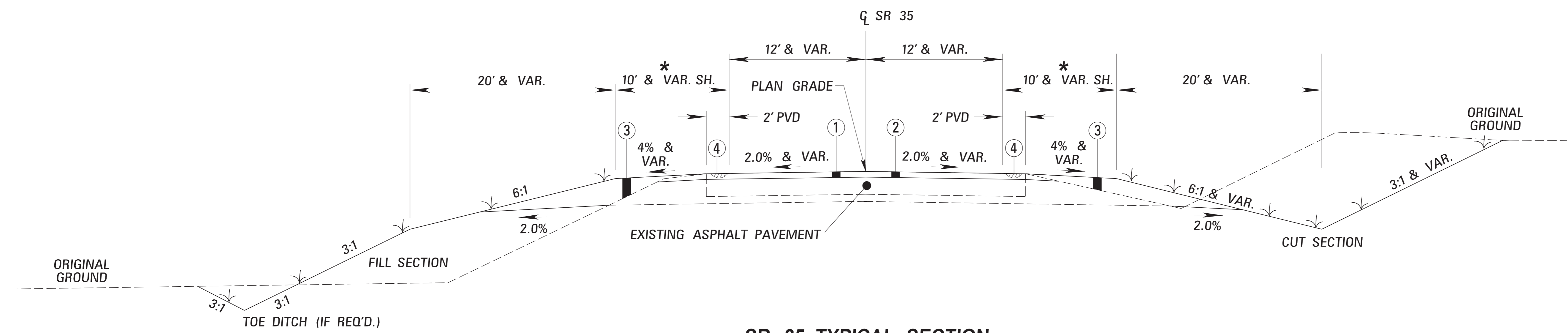


WORKING NUMBER
TS-1
 SHEET NUMBER
6

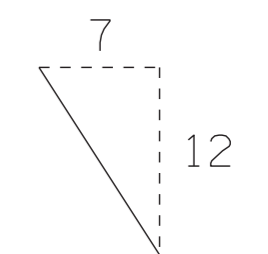
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STATE	PROJECT NO.
MISS.	BR-0023-02(058)

DATA FOR PAVEMENT DETERMINATION		
2019 ADT	=	4,700 Current
2029 ADT	=	5,600
2039 ADT	=	6,600 Design
DHV	=	730
D	=	60 % of DHV
T	=	12 % of ADT
T (Total)	=	12 % of ADT
18K (Rigid)	=	1,445 / 1000
18K (Flex)	=	935 / 1000
Design CBR	=	



SAFETY EDGE REQ'D
TOP 2 LIFTS ONLY
(NOT A PAY ITEM)
OVERLAY



ANGLE OF REPOSE
PERMITTED

SR 35 TYPICAL SECTION
WIDENING & OVERLAY

* TRANSITION SHOULDER TO EXISTING WIDTH IN LAST 100'.

SITE 1
STA. 1499+50.00 TO STA. 1504+25.00
STA. 1512+75.00 TO STA. 1516+50.00

SITE 2
STA. 1576+50.00 TO STA. 1579+75.00
STA. 1589+50.00 TO STA. 1593+00.00

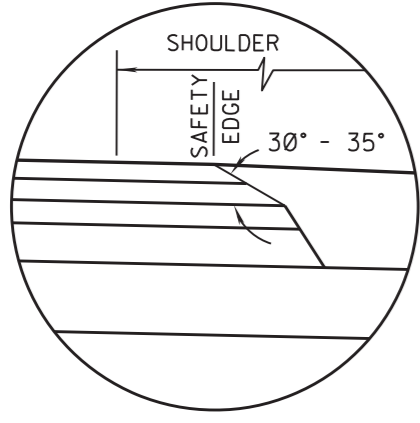
- ① 1.50" 9.5-mm, MT, ASPHALT PAVEMENT (1 @ 1.50") REQ'D.
- ② 1.50" COLD MILLING REQ'D
- ③ VARIABLE DEPTH GRANULAR MATERIAL (CL. 3, GP. D) REQ'D
- ④ RUMBLE STRIPE REQ'D

INDICATES AREA TO BE TREATED IN ACCORDANCE WITH THE VEGETATION SCHEDULE. SEE WK. SH. NO. VS-1.

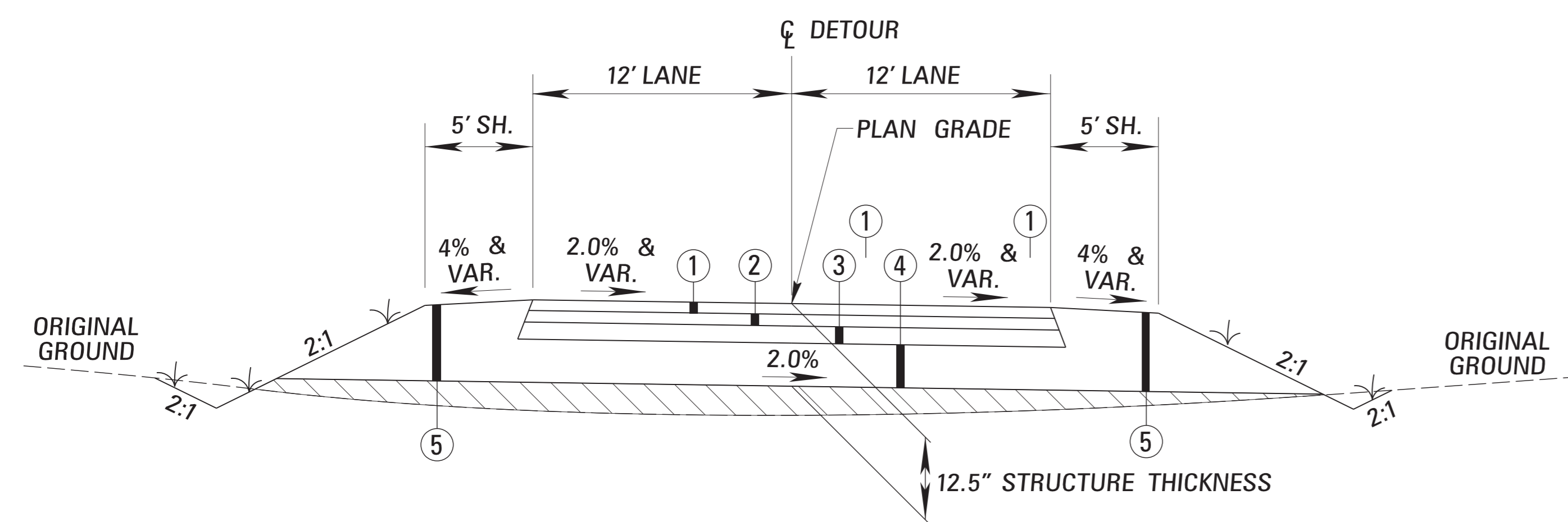
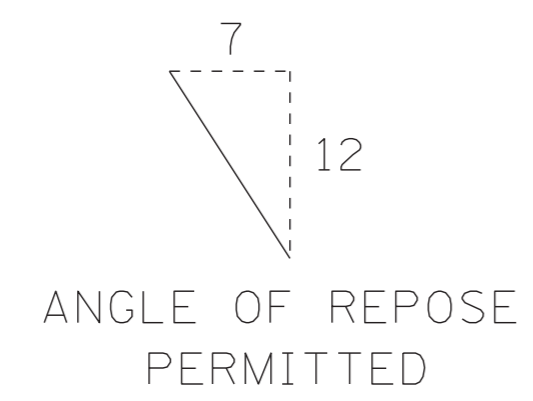
MISSISSIPPI DEPARTMENT OF TRANSPORTATION	
TYPICAL SECTIONS	
SR 35	
WIDENING & OVERLAY	
PROJ. NO.: BR-0023-02(058)	
COUNTY: ATTALA	
DATE	FILENAME: TS.DGN
DESIGN TEAM	FA
CHECKED	DATE
WORKING NUMBER	TS-2
SHEET NUMBER	7

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STATE	PROJECT NO.
MISS.	BR-0023-02(058)

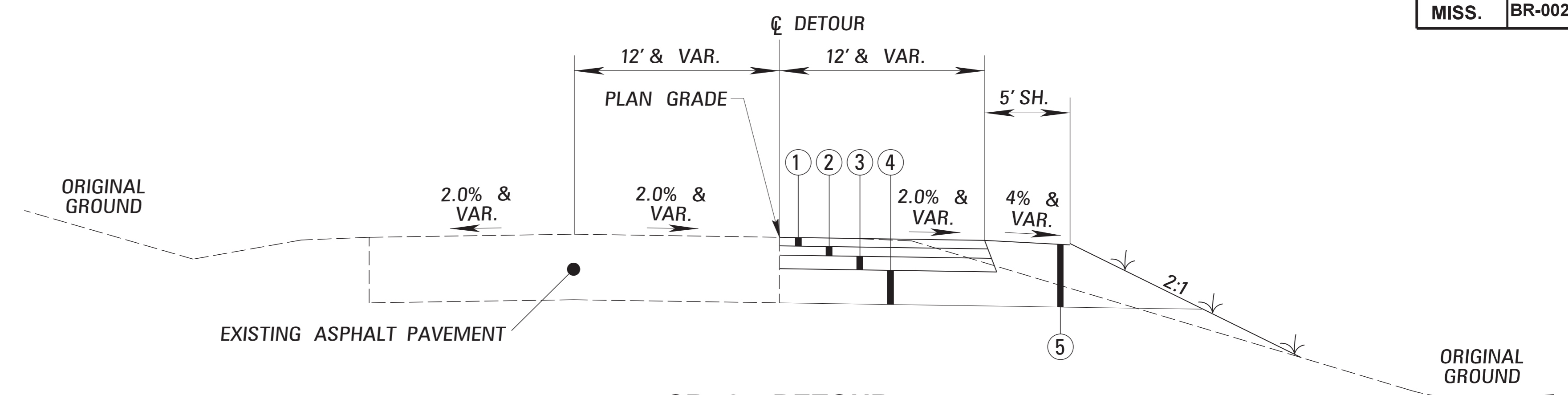


SAFETY EDGE REQ'D
TOP 2 LIFTS ONLY
(NOT A PAY ITEM)
NEW CONSTRUCTION



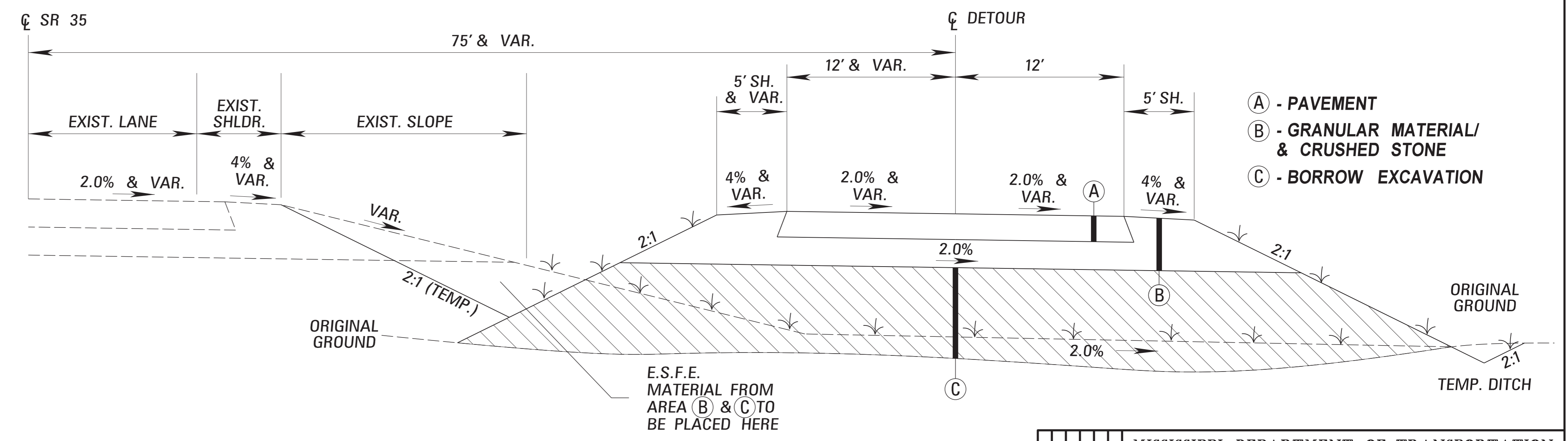
**SR 35 DETOUR
TYPICAL SECTION**
 DETOUR ROAD 1
 STA. 2+47.05 TO STA. 14+65.23
 DETOUR BRIDGE 1
 STA. 7+73.00 TO STA. 9+10.00
 DETOUR ROAD 2
 STA. 2+51.64 TO STA. 14+06.15
 DETOUR BRIDGE 2
 STA. 8+05.00 TO STA. 9+95.00

- NOTES:**
1. WHEN NO LONGER NEEDED, THE DETOUR SHALL BE REMOVED TO NATURAL GROUND OR AS DIRECTED BY THE ENGINEER.
 2. AREA (A) WILL BE REMOVED AND PAID FOR UNDER APPROPRIATE PAY ITEMS.
 3. AREA (B) & (C) WILL BE INCLUDED IN THE REMOVAL OF THE DETOUR ROAD AND WILL BECOME E.S.F.E.. AREA (B) & (C) MAY BE REMOVED AS EXCESS EXCAVATION AS DIRECTED BY THE ENGINEER OR MAY BE USED AS F.M.E. AT ANOTHER SITE. PAYMENT WILL BE MADE FOR EXCESS EXCAVATION OR F.M.E., BUT NOT FOR BOTH. AREA (B) MAY BE SALVAGED AND USED AT ANOTHER SITE, PROVIDED IT MEETS SPECIFICATIONS. PAYMENT FOR AREA (B) WILL NOT BE MADE AS EXCESS EXCAVATION WHEN THE MATERIAL IS SALVAGED.



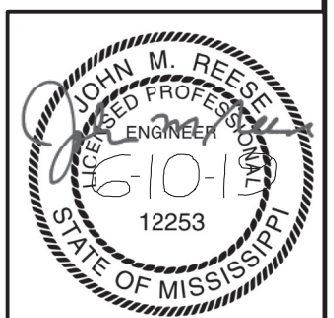
**SR 35 DETOUR
TYPICAL SECTION**
 DETOUR ROAD 1
 STA. 0+00.00 TO STA. 2+47.05
 STA. 14+65.23 TO STA. 17+12.56
 DETOUR ROAD 2
 STA. 0+00.00 TO STA. 2+51.64
 STA. 14+06.15 TO STA. 16+53.06

- ① 1.50" 9.5-mm, MT, ASPHALT PAVEMENT (1 @ 1.50") REQ'D.
- ② 2.00" 12.5-mm, MT, ASPHALT PAVEMENT (1 @ 2.00") REQ'D.
- ③ 3.00" 19-mm, ST, ASPHALT PAVEMENT (1 @ 3.00") REQ'D.
- ④ 6.00" & VARIABLE DEPTH GRANULAR MATERIAL (CLASS 3 /GROUP D) REQ'D
- ⑤ 12.50" & VARIABLE DEPTH GRANULAR MATERIAL (CLASS 3 /GROUP D) REQ'D



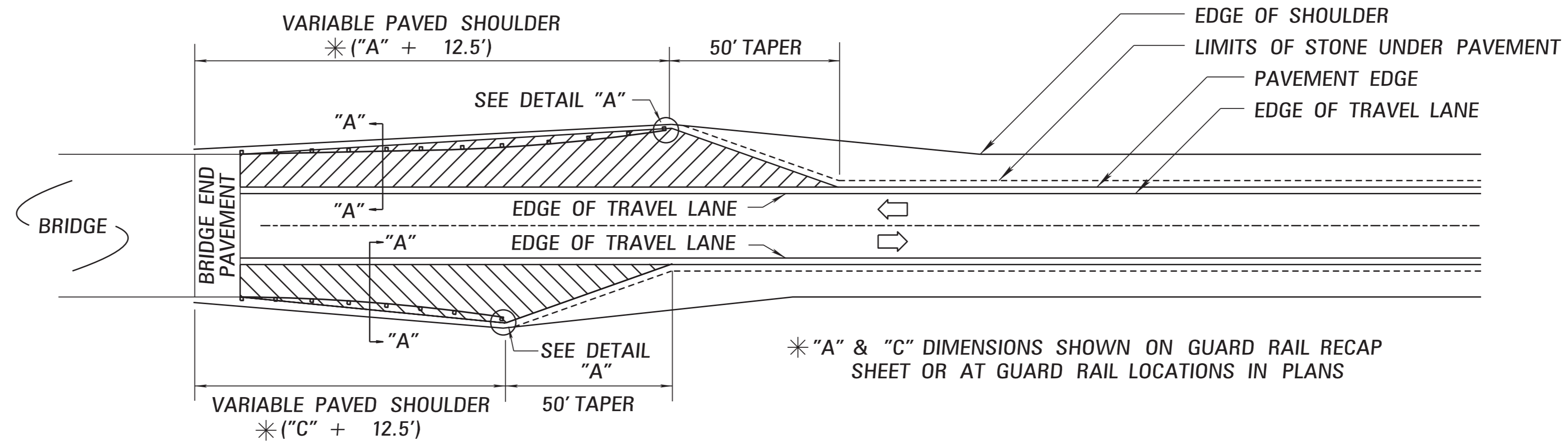
INDICATES AREA TO BE TREATED IN ACCORDANCE WITH THE VEGETATION SCHEDULE. SEE WK. SH. NO. VS-1.

MISSISSIPPI DEPARTMENT OF TRANSPORTATION TYPICAL SECTIONS	
SR 35 DETOUR ROAD	
PROJ. NO.: BR-0023-02(058) COUNTY: ATTALA	
DATE	FILENAME: TS.DGN
DESIGN TEAM	FA
CHECKED	DATE
WORKING NUMBER	TS-3
SHEET NUMBER	8



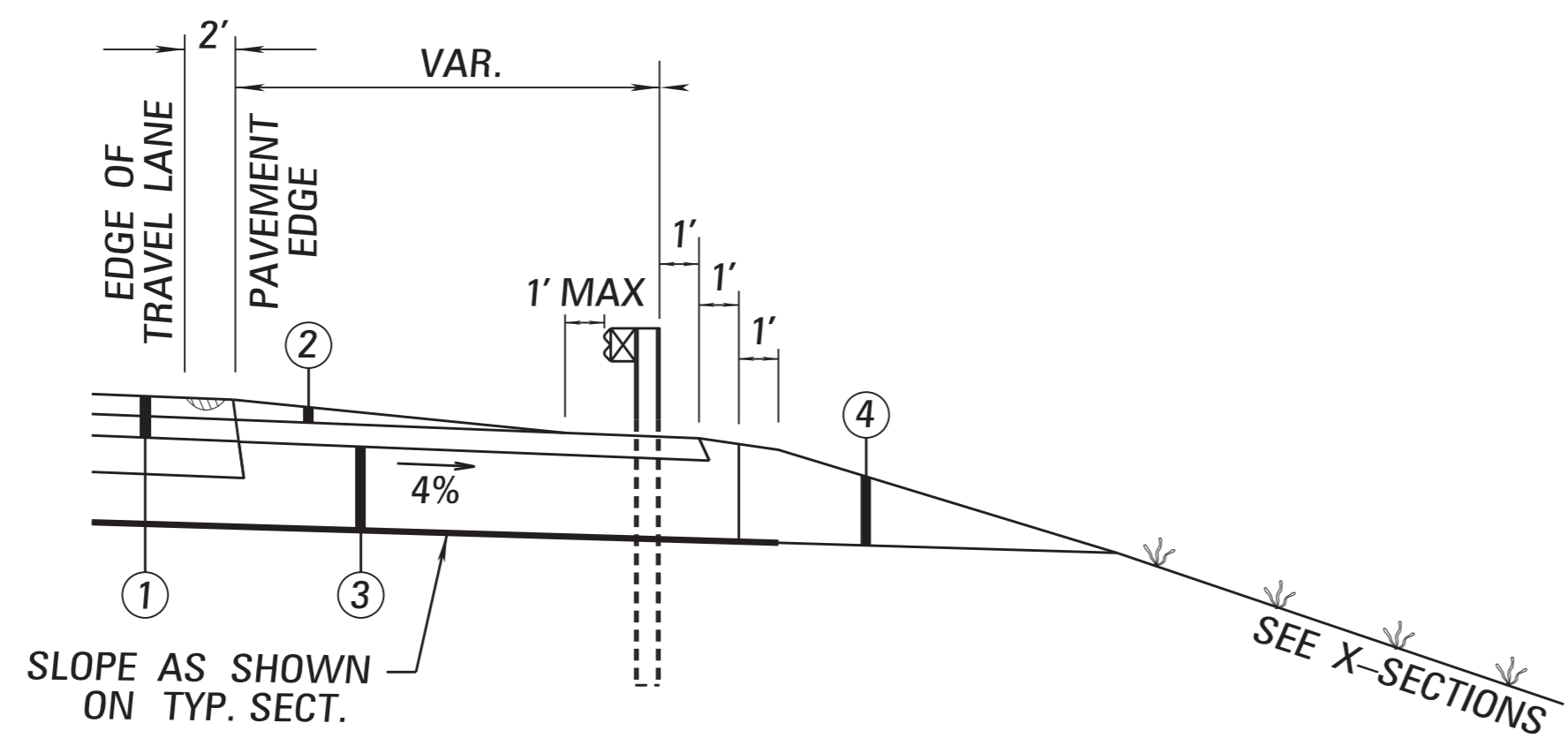
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STATE	PROJECT NO.
MISS.	BR-0023-02(058)



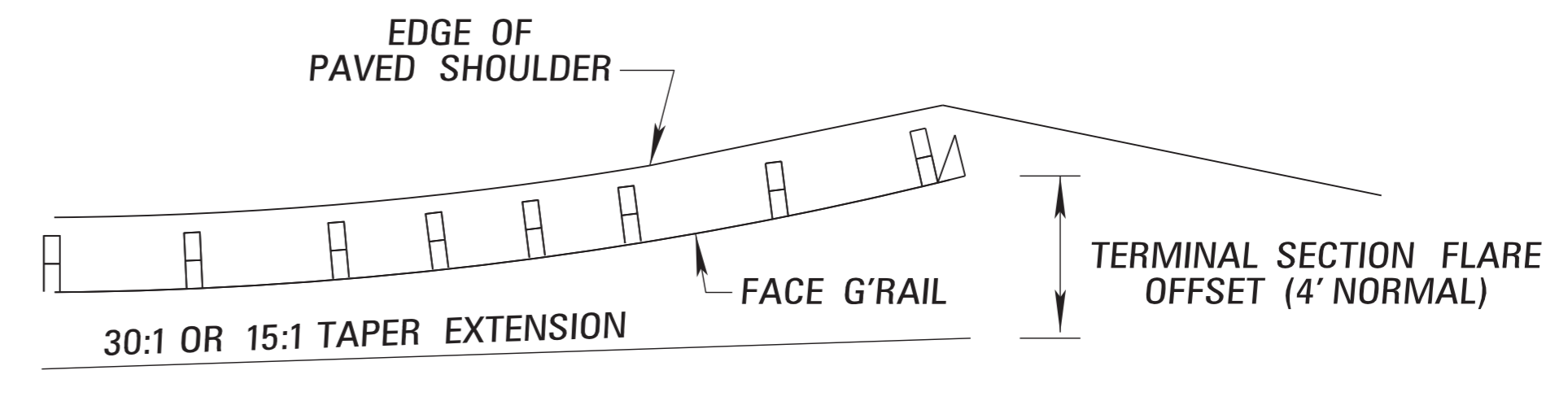
DETAIL OF PAVED SHOULDERS AT BRIDGE ENDS

(SEE SECTION "A"- "A")



SECTION A-A

- ① TOP 2 LIFTS OF ASPHALT AS SHOWN ON TYPICAL SECTION.
- ② TOP LIFT OF ASPHALT TO BE TAPERED
- ③ VAR. DEPTH CRUSHED STONE BASE W/GEOTEXTILE FABRIC TYPE V (NON-WOVEN)
- ④ VAR. DEPTH GRANULAR MATERIAL (CLASS 3/GROUP D) REQ'D

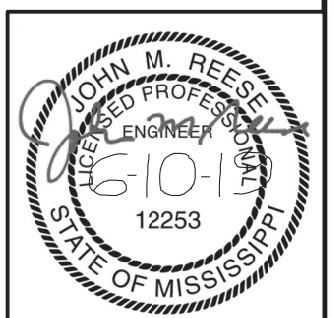


DETAIL "A"

(SEE GUARD RAIL INSTALLATION SHEETS FOR OTHER DETAILS)

NOT TO SCALE

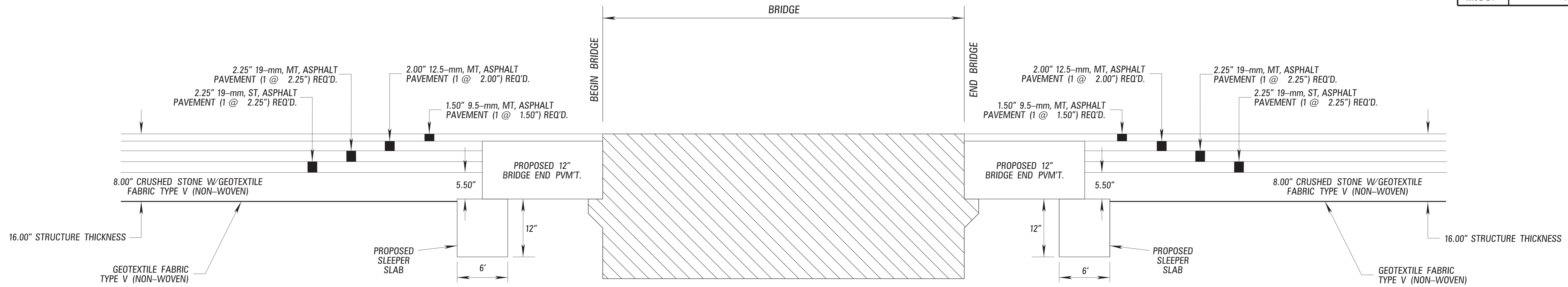
MISSISSIPPI DEPARTMENT OF TRANSPORTATION	
TYPICAL SECTIONS	
SR 35	
BRIDGE END SHOULDER	
DETAIL	
PROJ. NO.: BR-0023-02(058)	
COUNTY: ATTALA	
REVISION	BY
DATE	FILENAME: TS.DGN
DESIGN TEAM	FA
CHECKED	DATE
WORKING NUMBER	TS-4
SHEET NUMBER	9



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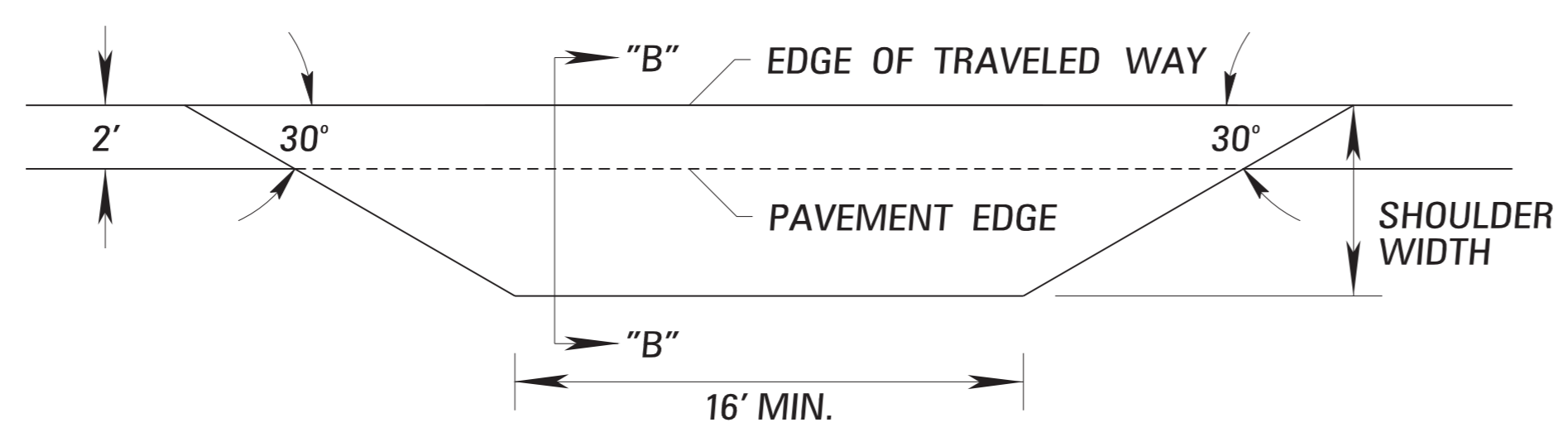
1st O.REV.

STATE	PROJECT NO.
MISS.	BR-0023-02(058)

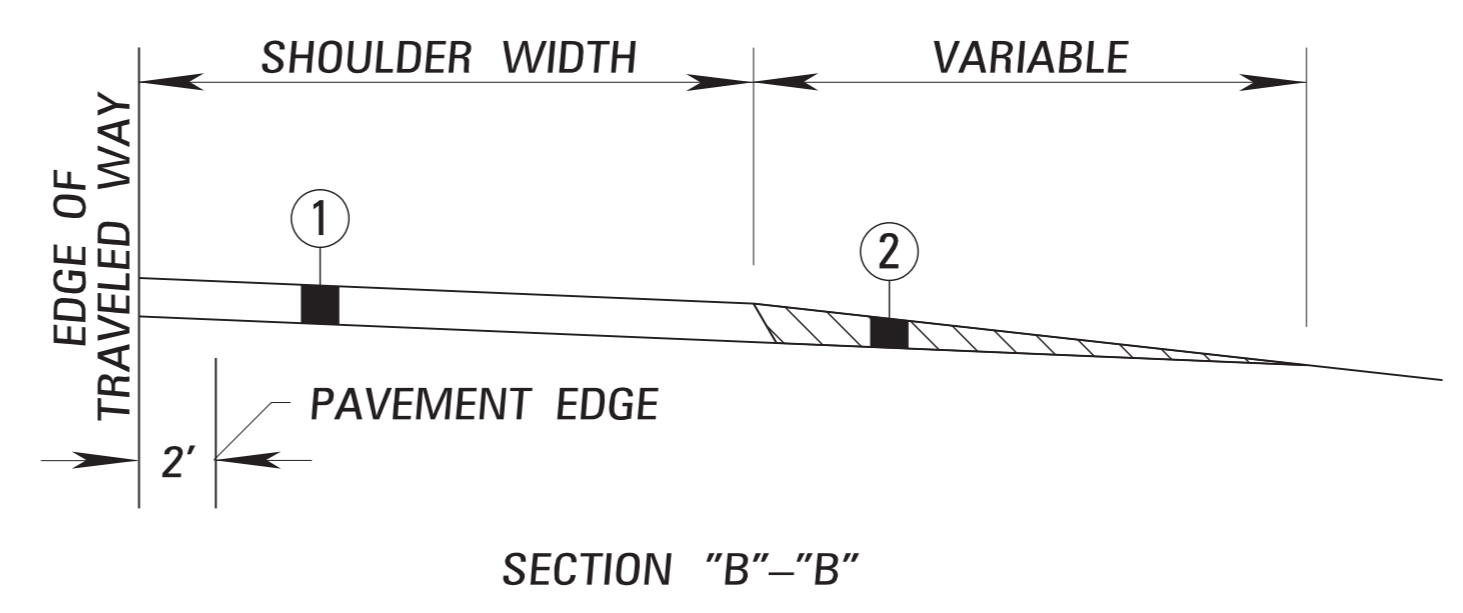


SR 35 TYPICAL SECTION
BRIDGE END PAVEMENT

NOTE:
SEE SHEET BE-1 FOR ADDITIONAL
BRIDGE END PAVEMENT DETAILS.



NOTE:
SEE SHEET RD-1 FOR ADDITIONAL
RURAL DRIVEWAY DETAILS.



- ① TOP 2 LIFTS OF ASPHALT AS SHOWN ON TYPICAL SECTION.
- ② VARIABLE DEPTH GRANULAR MATERIAL AS SHOWN ON TYPICAL SECTION.

TYPICAL SECTION
PAVED APRON

NOT TO SCALE

MISSISSIPPI DEPARTMENT OF TRANSPORTATION TYPICAL SECTIONS		
SR 35 BRIDGE END PAVEMENT DETAIL & PAVED APRON		
PROJ. NO.: BR-0023-02(058) COUNTY: ATTALA		
REVISION DATE DESIGN TEAM FA CHECKED DATE	WORKING NUMBER TS-5 SHEET NUMBER 10	

7/15/2019 09:33:37 TS.DGN

ADDENDUM

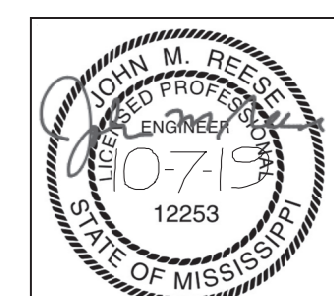
STATE	PROJECT NO.
MISS	BR-0023-02(058)

SUMMARY OF QUANTITIES (SHEET 1)

PAY ITEM NO.	PAY ITEM	UNIT	ATTALA : 103334-301000	
			Prelim	Final
201-B001	Clearing and Grubbing	ACRE	13	
202-A001	Removal of Obstructions	LS	1	
202-B007	Removal of Asphalt Pavement, All Depths	SY	11,114	
202-B158	Removal of Guard Rail, Including Rails, Posts and Terminal Ends	LF	1,220	
202-B191	Removal of Pipe, 8" And Above	LF	48	
202-B241	Removal of Traffic Stripe	MI	1	
203-A001	Unclassified Excavation, FM, AH	CY	6,537	
203-EX020	Borrow Excavation, AH, FME, Class B9	CY	34,914	
203-EX021	Borrow Excavation, AH, FME, Class B9-6	CY	2,967	
203-F001	Channel Excavation, FM	CY	1,158	
203-G001	Excess Excavation, FM, AH	CY	23,725	
206-A001	Structure Excavation	CY	65	
206-B001	Select Material for Undercuts, Contractor Furnished, FM	CY	24	
209-A005	Geotextile Stabilization, Type V, Non-Woven	SY	6,245	
213-C001	Superphosphate	TON	6	
216-A001	Solid Sodding	SY	197	
217-A001	Ditch Liner	SY	245	
219-A001	Watering	KGAL	4	
220-A001	Insect Pest Control	ACRE	6	
221-A001	Concrete Paved Ditch	CY	21	
223-A001	Mowing	ACRE	11	
224-A001	Soil Reinforcing Mat	SY	1,426	
225-A001	Grassing	ACRE	11	
225-B001	Agricultural Limestone	TON	31	
225-C001	Mulch, Vegetative Mulch	TON	21	
226-A001	Temporary Grassing	ACRE	11	
234-A001	Temporary Silt Fence	LF	6,840	
235-A001	Temporary Erosion Checks	EA	70	
237-A002	Wattles, 20"	LF	150	
245-A001	Silt Dike	LF	150	
246-A002	Sandbags	EA	450	
247-A001	Temporary Stream Diversion	EA	1	
249-A001	Riprap for Erosion Control	TON	122	
304-B002	Granular Material, Class 3, Group D	TON	10,350	
304-F001	3/4" and Down Crushed Stone Base	TON	2,900	
	OR			
304-F002	Size 610 Crushed Stone Base	TON	2,900	
	OR			
304-F003	Size 825B Crushed Stone Base	TON	2,900	
403-A002	12.5-mm, MT, Asphalt Pavement	TON	1,583	
403-A005	19-mm, MT, Asphalt Pavement	TON	448	
403-A006	19-mm, ST, Asphalt Pavement	TON	1,475	

- ① ② ③
- ③
- ④
- ⑤
- ⑪
- ⑬
- ⑧
- ⑥
- ⑨
- ⑩
- ⑦ ⑫
- ⑦
- ⑦
- ⑦
- ⚠

- ① Includes, but not limited to, aprons, parapets, fence, footings, and/or other underground obstructions.
- ② Includes 0.17 acre for temporary easements.
- ③ Br. No. 150.5, Spans 7 @ 20'
Br. No. 152.0, Spans 5 @ 20'
- ④ Includes removal of bridge end section, terminal end section, rail, posts, blockouts, hardware, etc. (as measured from beginning of bridge end section to end of terminal end section), and object markers.
- ⑤ Does not include abandoned utility lines.
- ⑥ Includes 154 SY adjacent to paved flumes and 43 SY around underdrain outlet aprons at bridge ends.
- ⑦ Includes 20% increase from calculated quantity.
- ⑧ To be used for unsuitable material found at box culverts.
- ⑨ Includes 18 CY for paved flumes and 3 CY for underdrain outlet aprons.
- ⑩ Required at box culvert extension.
- ⑪ Relocated channel sta. 1508+00 to sta. 1512+50 RT
- ⑫ Includes 603 tons for driveways.
- ⑬ Includes 48 CY for box culverts and 17 CY for pipe culverts.

Revised Quantity	JMR	By	Date	<p>MISSISSIPPI DEPARTMENT OF TRANSPORTATION SUMMARY OF QUANTITIES</p> 	
	JMR				<p>PROJ NO: BR-0023-02(058) COUNTY: ATTALA</p>
07/15/2019	10/07/2019	Design Team	EA	Checked	Date
				Working Number	SQ-1
				Sheet Number	11


ADDENDUM

STATE	PROJECT NO.
MISS	BR-0023-02(058)

SUMMARY OF QUANTITIES (SHEET 2)

PAY ITEM NO.	PAY ITEM	UNIT	ATTALA : 103334-301000	
			Prelim	Final
403-A014	9.5-mm, MT, Asphalt Pavement	TON	1,600	
406-D001	Fine Milling of Bituminous Pavement, All Depths	SY	4,744	
407-A001	Asphalt for Tack Coat	GAL	2,306	
413-E001	Sawing and Sealing Transverse Joints in Asphalt Pavement	LF	188	
423-A001	Rumble Strips, Ground In	MI	1	
502-A001	Reinforced Cement Concrete Bridge End Pavement	SY	404	
601-A001	Class "B" Structural Concrete	CY	63	
601-B001	Class "B" Structural Concrete, Minor Structures	CY	1	
602-A001	Reinforcing Steel	LBS	9,196	
603-ALT003	18" Type A Alternate Pipe	LF	200	① ②
603-ALT006	24" Type A Alternate Pipe	LF	48	①
603-CA026	24" Reinforced Concrete Pipe, Class III	LF	48	
603-CB004	24" Reinforced Concrete End Section	EA	1	
605-AA001	Geotextile for Subsurface Drainage, Type III	SY	152	
605-T001	4" Perforated Pipe for Underdrains	LF	216	
605-U001	4" Non-perforated Pipe for Underdrains	LF	72	
605-W001	Filter Material for Combination Storm Drain and/or Underdrains, Type A, FM	CY	10	
605-W002	Filter Material for Combination Storm Drain and/or Underdrains, Type B, FM OR	CY	136	
605-W003	Filter Material for Combination Storm Drain and/or Underdrains, Type C, FM	CY	136	
606-B001	Guard Rail, Class A, Type 1	LF	550	
606-D022	Guard Rail, Bridge End Section, Type I	EA	8	
606-E005	Guard Rail, Terminal End Section, Flared	EA	8	
615-A002	Concrete Bridge End Barrier, 33.5"	LF	80	
617-A001	Right-of-Way Marker	EA	23	
618-A001	Maintenance of Traffic	LS	1	
618-C001	Construction and Removal of Detour Bridge (Site 1 - Sta 7+73 to Sta 9+10)	LS	1	
618-C001	Construction and Removal of Detour Bridge (Site 2 - Sta 8+05 to Sta 9+95)	LS	1	
618-E001	Detour Bridge Piling	LF	5,125	
618-F001	Detour Bridge PDA Test Pile	LS	1	
619-A1003	Temporary Traffic Stripe, Continuous White, Paint	LF	11,412	
619-A2003	Temporary Traffic Stripe, Continuous Yellow, Paint	LF	5,532	
619-A2008	Temporary Traffic Stripe, Continuous Yellow, Type 1 or 2 Tape	LF	3,900	
619-A4003	Temporary Traffic Stripe, Skip Yellow, Paint	LF	3,400	
619-A5003	Temporary Traffic Stripe, Detail, Type 1 Tape	LF	5,000	
619-C7001	Two-Way Yellow Reflective High Performance Raised Marker	EA	85	
619-D1001	Standard Roadside Construction Signs, Less than 10 Square Feet	SF	128	
619-D2001	Standard Roadside Construction Signs, 10 Square Feet or More	SF	559	
619-F3001	Delineators, Guard Rail, White	EA	32	
619-G4001	Barricades, Type III, Double Faced	LF	24	
619-G4005	Barricades, Type III, Single Faced	LF	144	
619-G5001	Free Standing Plastic Drums	EA	81	

- ① See Working Number EQ-5 for pipe alternates.
- ② Quantity includes 96 LF temporary pipe.

Revision	By	<p>MISSISSIPPI DEPARTMENT OF TRANSPORTATION SUMMARY OF QUANTITIES</p> 
Date	FILENAME: SQ SHEETS Design Team EA Checked Date	Sheet Number 12


ADDENDUM

STATE	PROJECT NO.
MISS	BR-0023-02(058)

SUMMARY OF QUANTITIES (SHEET 3)

PAY ITEM NO.	PAY ITEM	UNIT	ATTALA : 103334-301000	
			Prelim	Final
619-G7001	Warning Lights, Type "B"	EA	6	
619-K1001	Installation and Removal of Guard Rail, Type I, Class A	LF	200	
619-K2001	Installation and Removal of Guard Rail, Bridge End Section	EA	8	
619-K4001	Installation and Removal of Guardrail, Terminal End Section	EA	8	
620-A001	Mobilization	LS	1	
621-A001	Field Laboratory	EA	1	
626-C001	6" Thermoplastic Double Drop Edge Stripe, Continuous White	LF	6,680	①
626-D002	6" Thermoplastic Double Drop Traffic Stripe, Skip Yellow	LF	3,340	②
626-E002	6" Thermoplastic Double Drop Traffic Stripe, Continuous Yellow	LF	800	
627-L001	Two-Way Yellow Reflective High Performance Raised Markers	EA	43	
630-A003	Standard Roadside Signs, Sheet Aluminum, 0.125" Thickness	SF	43	
630-C003	Steel U-Section Posts, 3.0 lb/ft	LF	75	
630-F006	Delineators, Guard Rail, White	EA	40	
630-G005	Type 3 Object Markers, OM-3R or OM-3L, Post Mounted	EA	8	
699-A001	Roadway Construction Stakes	LS	1	
815-A007	Loose Riprap, Size 300	TON	2,780	
815-E001	Geotextile under Riprap	SY	3,417	
815-F002	Sediment Control Stone	TON	50	

- ① Includes 1,150 LF for bridges.
- ② Includes 575 LF for bridges.

Revision	MISSISSIPPI DEPARTMENT OF TRANSPORTATION		
	SUMMARY OF QUANTITIES		
Date	By	PROJ NO: BR-0023-02(058)	Working Number
		COUNTY: ATTALA	SQ-3
	FILENAME: SQ SHEETS	Sheet Number	13
	Design Team EA	Checked	Date

STATE	PROJECT NO.
MISS.	BR-0023-02(058)

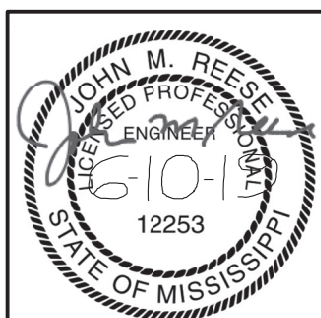
REMOVAL OF PAVEMENT				
WORK. SH. NO.	STATION TO STATION		ASPHALT	REMARKS
3	1504 + 25	1507 + 09	884	
3	1508 + 49	1512 + 75	1,325	
3A	0 + 70	7 + 73	1,590	DETOUR ROAD
3A	9 + 10	16 + 42	1,668	DETOUR ROAD
4	1579 + 75	1584 + 49	1,475	
4	1585 + 58	1589 + 50	1,220	
4A	0 + 70	8 + 05	1,669	DETOUR ROAD
4A	9 + 95	15.83	1,283	DETOUR ROAD
		UNIT	SQ. YD.	
		TOTAL	11,114	

REMOVAL OF GUARDRAIL			
WORK. SH. NO.	STATION	LIN. FT.	REMARKS
3	1507 + 07	105	LT.
3	1507 + 07	205	RT.
3	1508 + 47	205	LT.
3	1508 + 47	105	RT.
4	1584 + 50	105	LT.
4	1584 + 50	200	RT.
4	1585 + 50	190	LT.
4	1585 + 50	105	RT.
		UNIT	LIN. FT.
		TOTAL	1,220

REMOVAL OF OBSTRUCTIONS				
WORK. SH. NO.	STATION TO STATION		SPANS	REMARKS
3	1507 + 07	1508 + 47	7 @ 20'	EXISTING BR. NO. 150.5
4	1584 + 50	1585 + 50	5 @ 20'	EXISTING BR. NO. 152.0
		UNIT	LUMP SUM	
		TOTAL	100%	

REMOVAL OF PIPES 8" & ABOVE					
WORK. SH. NO.	STATION	LIN. FT.	SIZE	TYPE	REMARKS
3	1514 + 11	25	24"	RCP	
3	1515 + 53	23	18"	CMP	
		UNIT	LIN. FT.		
		TOTAL	48		

REVISION		BY		MISSISSIPPI DEPARTMENT OF TRANSPORTATION	
DATE		DESIGN TEAM		ESTIMATED QUANTITIES	
FILENAME: EQ.DGN		FA		SR 35	
DESIGN TEAM		CHECKED		REMOVAL ITEMS	
DATE		DATE		PROJ. NO.: BR-0023-02(058)	
DESIGN TEAM		CHECKED		COUNTY: ATTALA	
DATE		DATE		WORKING NUMBER	
DESIGN TEAM		CHECKED		EQ-1	
DATE		DATE		SHEET NUMBER	
DESIGN TEAM		CHECKED		14	



6/19/2019 7:25:28 AM EQ.DGN

STATE	PROJECT NO.
MISS.	BR-0023-02(058)

ESTIMATED EARTHWORK QUANTITIES								
WK. SH. NUMBER	CUT	FILL	BORROW (B9)	BORROW (B9-6)	UNCLASSIFIED EXCAVATION	EXCAVATION		REMARKS
						EXCESS	CHANNEL	
3	2,587	9,909	7,839			11,163		MAINLINE
3A	566	14,307	13,854				1,158	DETOUR
4	2,927	6,565	4,223	2,967		12,562		MAINLINE
4A	457	9,363	8,997					DETOUR
UNITS	CY	CY	CY	CY		CY	CY	
SUB-TOTALS	6,537	40,144	34,914	2,967		23,725	1,158	
			CUT = UNCLASSIFIED EXCAVATION =		6,537			
BORROW (B9) = FILL - (CUT /1 + S.F.) =								
40,144 - (6,537 / (1 + 0.25)) =								
UNITS			CY	CY	CY	CY	CY	
TOTALS			34,914	2,967	6,537	23,725	1,158	

GUARDRAIL REQUIRED

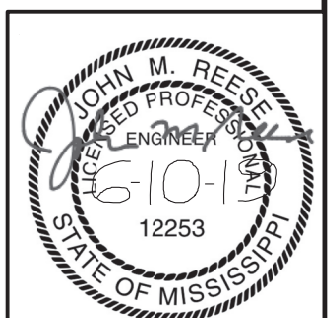
WORK NO.	STATION	STATE STD. (INSTAL.)	DIST. A	DIST. B	DIST. C	DIST. D	GUARD RAIL	TERMINAL SECTION	BR. END SECTION TYPE "I"	WHITE DELIN.	REMARKS
3	1506 + 48.88	GR-4A	155.65'	112.5'			112.5'	1	1	6	RIGHT
3	1506 + 48.88	GR-4A			68.15'	25.0'	25.0'	1	1	4	LEFT
3	1509 + 71.13	GR-4A			68.15'	25.0'	25.0'	1	1	4	RIGHT
3	1509 + 71.13	GR-4A	155.65'	112.5'			112.5'	1	1	6	LEFT
4	1583 + 59.96	GR-4A	155.65'	112.5'			112.5'	1	1	6	RIGHT
4	1583 + 63.80	GR-4A			68.15'	25.0'	25.0'	1	1	4	LEFT
4	1586 + 67.20	GR-4A			68.15'	25.0'	25.0'	1	1	4	RIGHT
4	1586 + 71.04	GR-4A	155.65'	112.5'			112.5'	1	1	6	LEFT
UNITS							FEET	EACH	EACH	EACH	
TOTALS							550.0'	8	8	40	

TEMPORARY GUARDRAIL REQUIRED

WORK NO.	STATION	STATE STD. (INSTAL.)	GUARD RAIL	TERMINAL SECTION	BR. END SECTION TYPE "H"	WHITE DELIN.	REMARKS
3A	7 + 73.00	SDTGR-1	50	2	2	8	4 DELIN. LT, 4 DELIN. RT, 25' GUARDRAIL LT, 25' GUARDRAIL RT
3A	9 + 10.00	SDTGR-1	50	2	2	8	4 DELIN. LT, 4 DELIN. RT, 25' GUARDRAIL LT, 25' GUARDRAIL RT
4A	8 + 05.00	SDTGR-1	50	2	2	8	4 DELIN. LT, 4 DELIN. RT, 25' GUARDRAIL LT, 25' GUARDRAIL RT
4A	9 + 95.00	SDTGR-1	50	2	2	8	4 DELIN. LT, 4 DELIN. RT, 25' GUARDRAIL LT, 25' GUARDRAIL RT
UNITS			FEET	EACH	EACH	EACH	
TOTALS			200	8	8	32	

6/19/2019 7:25:40 AM EQ.DGN

MISSISSIPPI DEPARTMENT OF TRANSPORTATION	
ESTIMATED QUANTITIES	
SR 35	
EARTHWORK & GUARDRAIL	
PROJ. NO.: BR-0023-02(058)	
COUNTY: ATTALA	
FILENAME: EQ.DGN	WORKING NUMBER
DESIGN TEAM: FA	EQ-2
CHECKED: _____	SHEET NUMBER
DATE: _____	15



STATE	PROJECT NO.
MISS.	BR-0023-02(058)

SUMMARY OF PAVEMENT MARKINGS

WK. SH. NO.	STATION TO STATION	PAINT				THERMOPLASTIC DOUBLE DROP						HIGH PERFORMANCE COLD PLASTIC OR INVERTED PROFILE THERMOPLASTIC				MARKERS				REMARKS								
		CONTINUOUS		DETAIL	LEGEND	SKIP		CONTINUOUS		LEGEND		EDGE		DETAIL		SKIP		DETAIL	CONTINUOUS		SKIP		RED CLEAR	YELLOW		CLEAR		
		WHITE	YELLOW			WHITE	YELLOW	WHITE	WHITE	WHITE	YELLOW	WHITE	YELLOW	WHITE	YELLOW	WHITE	YELLOW		WHITE		YELLOW	WHITE		YELLOW	1 WAY	2 WAY	1 WAY	2 WAY
PMD-1	1499 + 50 TO 1516 + 50																											
PMD-2	1576 + 50 TO 1593 + 00																											
	UNITS																											
	TOTAL																											

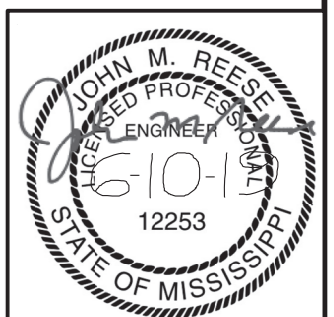
* INCLUDES 1,150 LF FOR BRIDGES.
 ** INCLUDES 575 LF FOR BRIDGES

BRIDGE END PAVEMENT REQUIRED

WORK NO.	BRIDGE ABUT. STATION	W ₁	W ₂	W _B	W	A	B	ANGLE "Z"	PAV'MT.	JOINT	33.5" RAIL	43.5" RAIL	TYPE "A" FILTER MATERIAL	TYPE "B" OR "C" FILTER MATERIAL	4" PERFORATED DRAIN PIPE	4" NON-PERFORATED DRAIN PIPE	GEOTEXTILE TYPE III FABRIC	UNDERDRAIN * OUTLET APRON		SOLID SOD (2' AROUND OUTLET APRON)	REMARKS
																		NO.	CONC.		
3	1506 + 58.88	22	22	44	46.83	20	20	0	100.93	46.83	20		2.3	34.0	54	18	37.8	2	0.726	10.7	
3	1509 + 61.13	22	22	44	46.83	20	20	0	100.93	46.83	20		2.3	34.0	54	18	37.8	2	0.726	10.7	
4	1583 + 71.88	22	22	44	46.83	17.95	22.05	5	100.93	47.01	20		2.3	34.0	54	18	37.8	2	0.726	10.7	
4	1586 + 58.63	22	22	44	46.83	17.95	22.05	5	100.93	47.01	20		2.3	34.0	54	18	37.8	2	0.726	10.7	
									UNITS	SQ. YARDS	LIN. FEET	LIN. FEET		CU. YARDS	CU. YARDS	LIN. FEET	LIN. FEET	SQ. YARDS	CU. YARDS	SQ. YARDS	
									TOTAL	403.70	187.69	80		9.2	136.0	216	72	151.2	2.904	42.8	

* UNDERDRAIN OUTLET APRON TO BE PAID FOR AS CONCRETE PAVED DITCH (0.363 CY PER APRON)

6/19/2019 7:28:32 AM EQ.DGN MISSISSIPPI DEPARTMENT OF TRANSPORTATION

MISSISSIPPI DEPARTMENT OF TRANSPORTATION ESTIMATED QUANTITIES							
SR 35 PAVEMENT MARKINGS AND BRIDGE END PAVEMENT PROJ. NO.: BR-0023-02(058) COUNTY: ATTALA							
<table border="1"> <tr> <th>REVISION</th> <th>DATE</th> <th>BY</th> </tr> <tr> <td> </td> <td> </td> <td> </td> </tr> </table>	REVISION	DATE	BY				
REVISION	DATE	BY					
FILENAME: EQ.DGN	WORKING NUMBER EQ-3						
DESIGN TEAM: FA	CHECKED: DATE						
	SHEET NUMBER 16						

STATE	PROJECT NO.
MISS.	BR-0023-02(058)

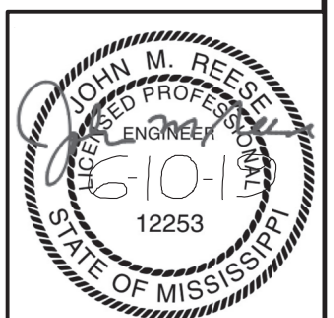
BOX CULVERT REQUIRED													
WK. SH. NO.	STATION	SIZE	LENGTH	SKEW	STANDARD DRAWINGS REQUIRED	CLASS "B" CONC.	REINF. STEEL	STRUC. EXCAV.		SELECT MAT'L	MAX. COVER	COVER	REMARKS
								EST. DEPTH	CUBIC YARDS				
4	1590 + 45	8' X 6'	23' (LT.) 29' (RT.)	NONE	ICJ-1-97, ICX-1-97, IBS-6-2W-97, IWS-3-97	62.7	9,196	1'	48.0	23.2	10'	4'	1997 STANDARDS. EXTENSION 23' LT. AND 29' RT.
					UNITS	CU. YDS.	LBS.		CU. YDS.	CU. YDS.			
					TOTAL	62.7	9,196		48.0	23.2			

PIPE CULVERT DRAINAGE STRUCTURES																		
WK. SH. NO.	STATION	TYPE	CLASS	SKEW	PIPE CULVERTS				END SECTIONS				STANDARD	CLASS "B" CONC. (MINOR)	STRUC. EXCAV.		COVER	REMARKS
					24"				24"						EST. DEPTH	CU. YDS.		
4	1577 + 00	RCP	III	45° RT. FWD.	48'				1				PI-1, FE-1, PC-1	0.493	2.0'	17.0	4.0'	EXTENSION, RT., 0.41 CY CONC. FOR COLLAR, 0.083 CY CONC FOR TOE WALL
				UNITS	L.F.				EA.				CU. YDS.		CU. YDS.			
				TOTALS	48				1				0.493		17.0			

ESTIMATED EROSION CONTROL ITEMS								
WK. SH. NO.	TEMPORARY EROSION CHECKS	WATTLES (20")	SANDBAGS	SILT DIKE	RIPRAP FOR EROSION CONTROL	SILT FENCE	TEMPORARY STREAM DIVERSION	REMARKS
ECP-3	23	50	149	50	40	3,040		
ECP-3A	17	36	108	36	30	650		
ECP-4	10	21	63	21	17	2,400	1	
ECP-4A	20	43	130	43	35	750		
UNITS	EACH	LF	EACH	LF	TON	LF		
TOTAL	70	150	450	150	122	6,840	1	

ESTIMATED PERMANENT EROSION CONTROL ITEMS						
WK. SH. NO.	STATION	DITCH LINER (SY)	SOIL REINF. MAT (SY)	300# RIP RAP (TON)	GEO-TEXTILE (SY)	REMARKS
3	1500 + 50 - 1508 + 00, LT			1,280	1,579	
3	1504 + 50 - 1506 + 50, RT	89				
3	1506 + 50 - 1507 + 50, RT		89			
3	1508 + 00 - 1513 + 00, RT			1,360	1,674	
3	1512 + 00 - 1517 + 00, RT		312			
4	1576 + 00 - 1577 + 50, LT	67				
4	1577 + 00, RT			80	101	AT END OF PIPE
4	1578 + 00 - 1578 + 50, LT	22				
4	1578 + 50 - 1585 + 00, LT		579			
4	1580 + 50 - 1585 + 00, RT		401			
4	1586 + 00 - 1587 + 50, RT	67				
4	1590 + 50, LT			60	63	AT END OF BOX CULVERT
4	1593 + 00 - 1593 + 50, RT		45			
	UNITS	SY	SY	TON	SY	
	TOTAL	245	1,426	2,780	3,417	

REVISION	BY	DATE	MISSISSIPPI DEPARTMENT OF TRANSPORTATION
			ESTIMATED QUANTITIES
			SR 35
			BOX CULVERTS, PIPES, &
			EROSION CONTROL
			PROJ. NO.: BR-0023-02(058)
			COUNTY: ATTALA
			WORKING NUMBER
			EQ-4
			SHEET NUMBER
			17
			FILENAME: EQ.DGN
			DESIGN TEAM FA CHECKED DATE



6/19/2019 7:28:52 AM @M.E.Q. DGN

STATE	PROJECT NO.
MISS.	BR-0023-02(058)


DRIVEWAYS REQUIRED										SIDE DRAINS REQUIRED											
WK. SH. NO.	STATION	LT. OR RT.	WIDTH (FT.)	LENGTH (FT.)	PAVED AREA (SY)	ASPHALT 2", 12.5 ST (TONS)	ASPHALT 2.25" 19 ST (TONS)	CONCRETE (SY)	GRAN. MAT. 6" CL 3, GP D	REMARKS	LESS THAN 4% *						LT. OR RT.	STATION	WK. SH. NO.		
											TYPE A ALT. PIPE					R.C.P. CL. III					
											18"	24"	30"	36"	48"	18"				24"	48"
3	1514+11	RT.	16	60	26.54	2.19	2.92		37.15	PIPE FROM DETOUR TO REMAIN								RT.	1514+11	3	
3	1515+53	LT.	16	85	26.54	2.19	2.92		52.63		56							LT.	1515+53	3	
3A	14+72	RT.	16	40					24.77			48						RT.	14+72	3A	
4	1577+59	LT.	20	50	30.09	2.48	3.31		38.70	DRY								LT.	1577+59	4	
4	1578+21	RT.	16	100	26.54	2.19	2.92		61.92	DRY								RT.	1578+21	4	
4	1581+00	LT.	16	45	26.54	2.19	2.92		27.86		48							LT.	1581+00	4	
4	1588+71	RT.	26	125	35.43	2.92	3.90		125.78	DRY								RT.	1588+71	4	
4	1589+00	LT.	16	85	26.54	2.19	2.92		52.63	DRY								LT.	1589+00	4	
4A	1+71	RT.	16	95					58.82	DRY								RT.	1+71	4A	
4A	4+50	LT.	16	35					21.67	TEMPORARY PIPE	48							LT.	4+50	4A	
4A	12+06	LT.	26	35					35.22	TEMPORARY PIPE	48							LT.	12+06	4A	
4A	12+06	RT.	26	65					65.40	DRY								RT.	12+06	4A	
UNITS						TON	TON		TON		LF	LF						UNITS			
TOTALS						16.35	21.80		602.56		200	48							TOTALS		

*TYPE A ALT. PIPE:
 ZINC COATED CORRUGATED METAL PIPE, 12 GAUGE (2.67"x0.50" CORRUGATION) OR
 ALUMINUM COATED CORRUGATE METAL PIPE, 14 GAUGE (2.67"x0.05" CORRUGATION) OR
 POLYMERIC COATED CORRUGATED METAL PIPE, 16 GAUGE (2.67"x0.50" CORRUGATION) OR
 REINFORCED CONCRETE PIPE, CLASS III OR
 CORRUGATED POLYETHYLENE PIPE OR
 POLY VINYL CHLORIDE (PVC) PIPE

CONCRETE PAVED FLUME REQUIRED					
WK. SH. NO.	STATION	APPROX. LENGTH	PAVED FLUME	SOLID SODDING	REMARKS
3	1506 + 48.88	100	5.20	44.4	RIGHT
3	1506 + 48.88	40	2.08	17.8	LEFT
3	1509 + 71.13	90	4.68	40.0	RIGHT
3	1509 + 71.13	45	2.34	20.0	LEFT
4	1586 + 67.20	35	1.82	15.6	RIGHT
4	1586 + 71.04	35	1.82	15.6	LEFT
UNIT			CY	SY	
TOTALS			17.93	153.3	

PLAN DIVISION
 MISSISSIPPI DEPARTMENT OF TRANSPORTATION

6/19/2019 7:28:58 AM EQ.DGN

MISSISSIPPI DEPARTMENT OF TRANSPORTATION ESTIMATED QUANTITIES	
SR 35 DRIVEWAYS, SIDE DRAINS, AND PAVED FLUMES PROJ. NO.: BR-0023-02(058) COUNTY: ATTALA	
REVISION DATE	WORKING NUMBER EQ-5 SHEET NUMBER 18
FILENAME: EQ.DGN DESIGN TEAM: FA CHECKED: _____ DATE: _____	

SUMMARY OF TRAFFIC CONTROL ITEMS REQUIRED

Table with columns: WORKING NUMBER, PHASE OF CONST., TEMPORARY PAINT OR TAPE, TRAFFIC TAPE, STRIPE TAPE, RAISED MARKERS, BARRICADES, WARNING LIGHTS, FREE STANDING PLASTIC DRUMS, TRAFFIC CONTROL SIGNS, and REMARKS. Includes sections for CONSTRUCTION SIGNING, SITE ONE, SITE TWO, and TOTALS.

6/19/2019 2:28:42 PM EQ.DGN

Mississippi Department of Transportation logo and project details: MISSISSIPPI DEPARTMENT OF TRANSPORTATION, ESTIMATED QUANTITIES, SR 35 TRAFFIC CONTROL ITEMS, PROJ. NO.: BR-0023-02(058), COUNTY: ATTALA, WORKING NUMBER EQ-7, SHEET NUMBER 20.

STATE	PROJECT NO.
MISS.	BR-0023-02(058)

RIGHT-OF-WAY MARKERS

ROW MARKER NAME / STAMP MARKER AS:	ALIGNMENT	STATION	OFFSET	NORTHING	EASTING
103334-301000-100	SR35	1499+00.000	50.369	1261783.013	760966.315
103334-301000-101	SR35	1500+45.000	-80.000	1261948.423	760863.065
103334-301000-102	SR35	1500+45.000	-49.676	1261943.165	760892.930
103334-301000-103	SR35	1507+50.000	-120.000	1262649.679	760945.921
103334-301000-104	SR35	1508+00.000	170.000	1262648.635	761240.198
103334-301000-105	SR35	1508+50.000	-100.000	1262744.696	760982.958
103334-301000-106	SR35	1511+50.000	-100.000	1263040.152	761034.980
103334-301000-107	SR35	1512+75.000	110.000	1263126.843	761263.474
103334-301000-108	SR35	1512+75.000	170.000	1263116.439	761322.565
103334-301000-109	SR35	1517+00.000	-50.188	1263573.182	761179.409
103334-301000-110	SR35	1517+00.000	49.812	1263555.841	761277.894
103334-301000-111	SR35	1576+25.000	-50.081	1269516.381	760796.884
103334-301000-112	SR35	1576+25.000	49.919	1269528.964	760896.089
103334-301000-113	SR35	1577+40.000	120.000	1269651.867	760951.144
103334-301000-114	SR35	1578+50.000	-110.000	1269732.054	760709.132
103334-301000-115	SR35	1580+00.000	120.000	1269909.801	760918.431
103334-301000-116	SR35	1581+50.000	-110.000	1270029.670	760671.385
103334-301000-117	SR35	1583+10.000	-70.000	1270193.431	760690.936
103334-301000-118	SR35	1583+60.000	-80.000	1270241.776	760674.724
103334-301000-119	SR35	1585+75.000	150.000	1270474.582	760877.040
103334-301000-120	SR35	1592+00.000	-80.000	1271065.676	760570.229
103334-301000-121	SR35	1593+50.000	-50.192	1271218.234	760580.927
103334-301000-122	SR35	1593+50.000	49.808	1271230.816	760680.132

EASEMENT COORDINATES


ALIGNMENT	STATION	OFFSET	NORTHING	EASTING
SR35	1515+30.000	-120.000	1263417.863	761081.176
SR35	1515+30.000	-65.584	1263408.427	761134.767
SR35	1515+76.000	-120.000	1263463.166	761089.153
SR35	1515+76.000	-61.418	1263453.008	761146.847
SR35	1588+43.000	115.353	1270736.092	760808.948
SR35	1588+43.000	160.000	1270741.710	760853.240
SR35	1588+77.000	-129.000	1270739.077	760562.259
SR35	1588+77.000	-80.000	1270745.243	760610.870
SR35	1588+99.000	108.113	1270790.737	760794.720
SR35	1588+99.000	160.000	1270797.265	760846.194
SR35	1589+23.000	-129.000	1270784.712	760556.471
SR35	1589+23.000	-80.000	1270790.877	760605.082

IF MARKERS FIELD LOCATION IS DIFFERENT THAN SHOWN IN THIS TABLE, ENTER THE CORRECT VALUES IN THE LINE BELOW THE MARKER AND THEN PLACE A LINE THROUGH INCORRECT VALUES.

GPS CONTROL NOTES

HORIZONTAL DATUM: NAD 83 (2011) MS EAST 2301 (US SURVEY FEET)		
HORIZONTAL MONUMENT	NORTH	EAST
AP26	1221999.875	768644.450
KOSC	1306629.606	767406.070
YRK1	1285180.880	756232.990
VERTICAL DATUM: NAVD 88 (US SURVEY FEET)		
VERTICAL MONUMENT	ELEVATION	
YRK1	399.96	
19V84	422.59	
ALL AZIMUTHS AND DISTANCES ARE GRID VALUES, US SURVEY FEET THE FOLLOWING VALUES WERE CALCULATED AT A FOUND 2" PIPE, LOCATED AT THE CENTER QUARTER OF SECTION 15, TOWNSHIP 14 NORTH, RANGE 7 EAST		
CONVERSION VALUES	PROJECT AVERAGE	
GROUND TO GRID (COMBINED) FACTOR	1.000008044	
GRID TO GEODETIC AZIMUTH	-0 23 58.91808	

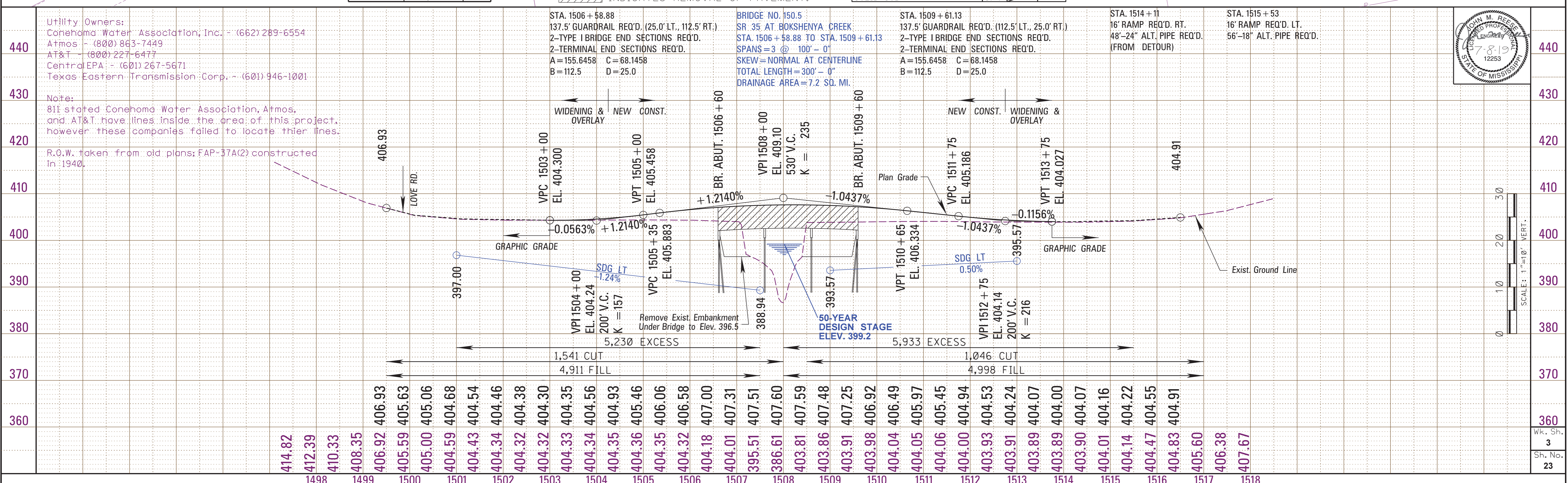
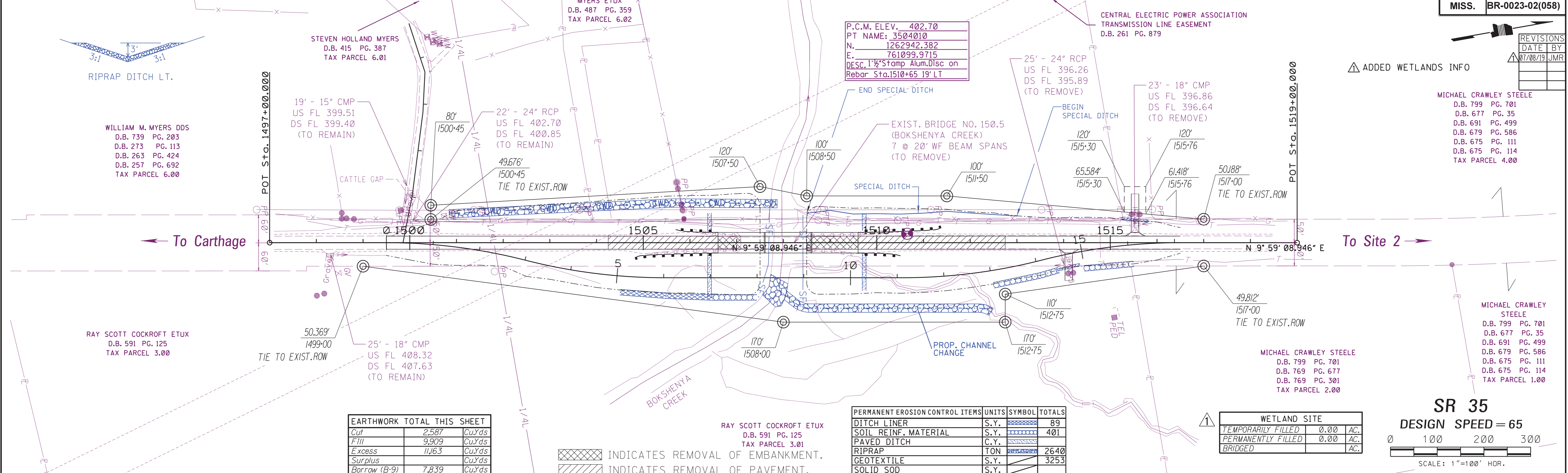
6/10/2019 7:28:58 AM: M:\RCS\dgn

				REVISION	MISSISSIPPI DEPARTMENT OF TRANSPORTATION RIGHT-OF-WAY AND EASEMENT COORDINATES PROJ. NO.: BR-0023-02(058) COUNTY: ATTALA FILENAME: RCS.DGN DESIGN TEAM: FA CHECKED: DATE:	 WORKING NUMBER RCS-1 SHEET NUMBER 22
				DATE		

1st O.REV.

STATE	PROJECT NO.
MISS.	BR-0023-02(058)

REVISIONS	
DATE	BY
07/08/19	JMR



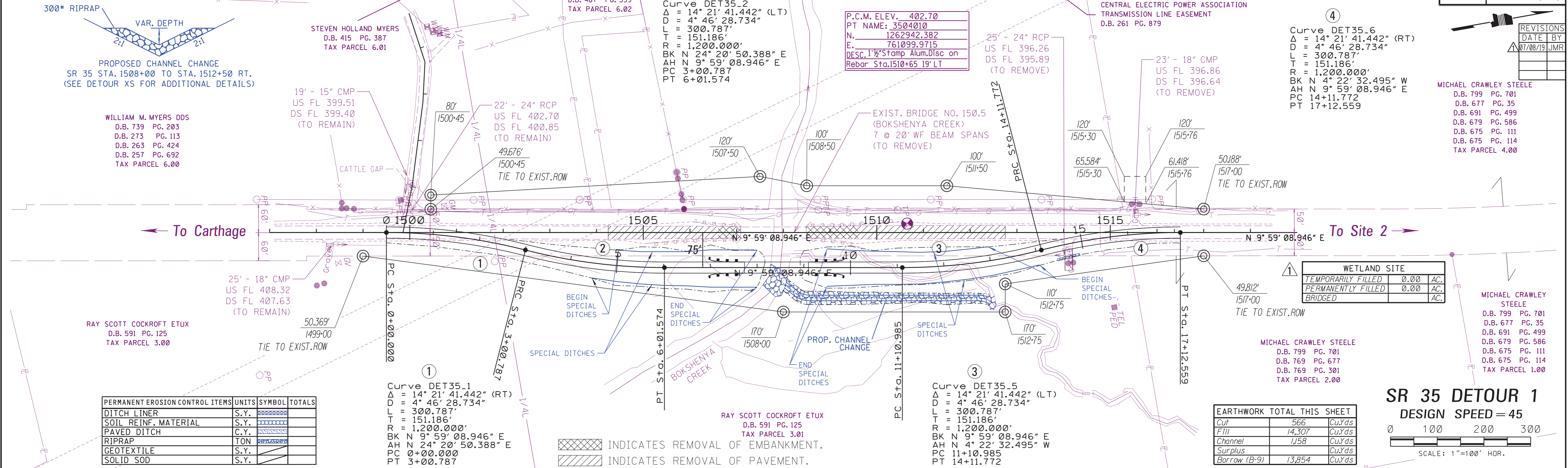
7/8/2019 09:10:02 WK3.DGN



1st O.REV.

STATE	PROJECT NO.
MISS.	BR-0023-02(058)

REVISIONS	
DATE	BY
07/08/19	JMR

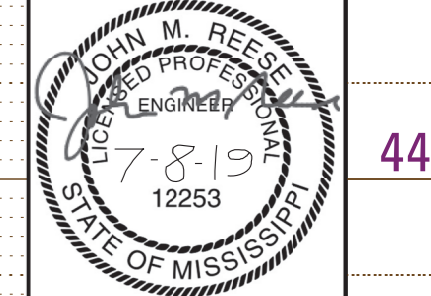
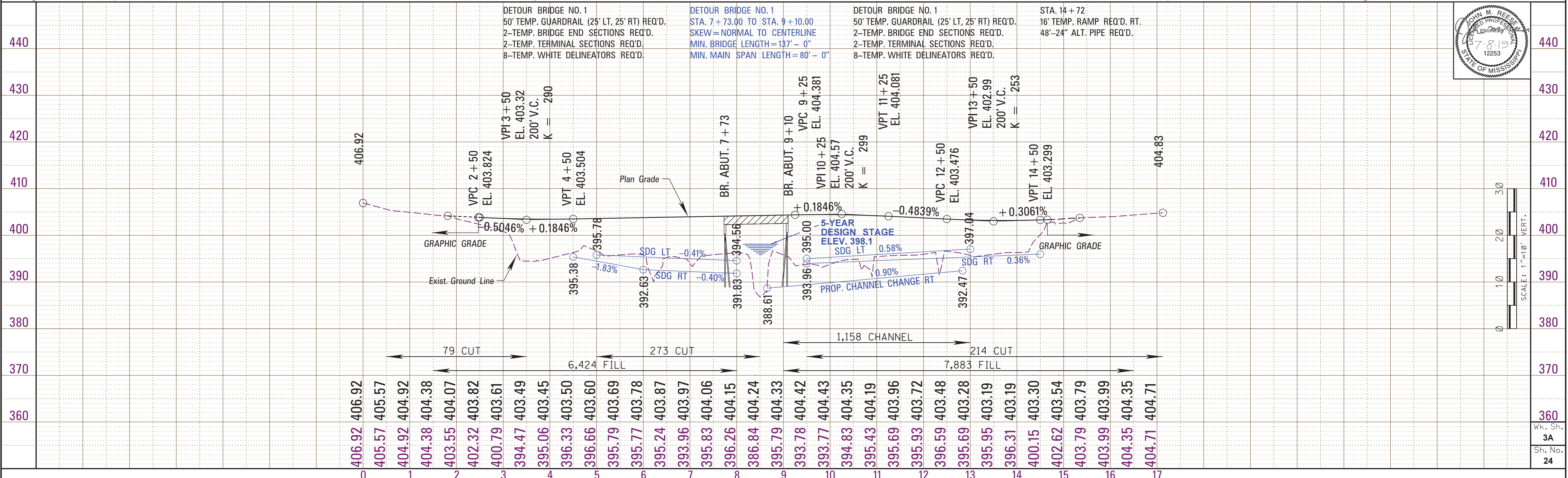
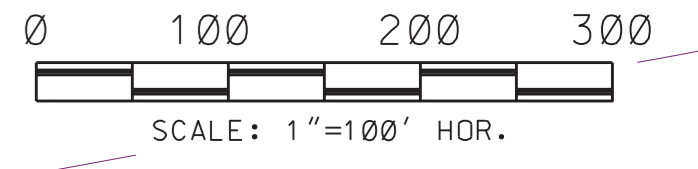


PERMANENT EROSION CONTROL ITEMS	UNITS	SYMBOL	TOTALS
DITCH LINER	S.Y.	[Symbol]	
SOIL REINF. MATERIAL	S.Y.	[Symbol]	
PAVED DITCH	C.Y.	[Symbol]	
RIPRAP	TON	[Symbol]	
GEOTEXTILE	S.Y.	[Symbol]	
SOLID SOD	S.Y.	[Symbol]	

EARTHWORK TOTAL THIS SHEET		
Cut	566	Cu.Yds
Fill	14,307	Cu.Yds
Channel	1,158	Cu.Yds
Surplus		Cu.Yds
Borrow (B-9)	13,854	Cu.Yds

SR 35 DETOUR 1

DESIGN SPEED = 45



1st O.REV.

BETTY H. DAVIS
D.B. 559 PG. 497
TAX PARCEL 1.00

P.C.M. ELEV. 407.81
PT NAME: 3504013
N. 1270582.713
E. 760730.472
DESC. 1-1/2" Stamp Alum. Disc on
Rebar Sta. 1587+00 18' RT

TEXAS EASTERN
TRANSMISSION
D.B. 499 PG. 565
TAX PARCEL 5.00

ROBERT G. ATWOOD
D.B. 529 PG. 224
D.B. 531 PG. 382
TAX PARCEL 6.00

STATE	PROJECT NO.
MISS.	BR-0023-02(058)

REVISIONS	
DATE	BY
07/08/19	JMR

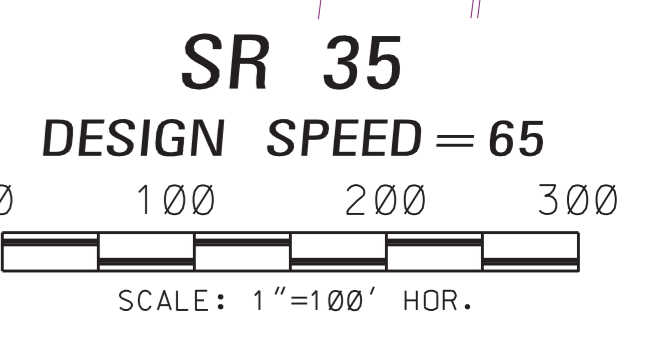
REVISIED WETLANDS INFO

WETLAND SITE		
TEMPORARILY FILLED	0.20	AC.
PERMANENTLY FILLED	0.01	AC.
BRIDGED		AC.

P.C.M. ELEV. 415.03
PT NAME: 3504014
N. 1271976.587
E. 760515.229
DESC. 1-1/2" Stamp Alum. Disc on
Rebar Sta. 1601+05.59 20' LT

BARBARA SUGGETT
D.B. 214 PG. 48
TAX PARCEL 11.00

WILLIAM CHAPMAN ETUX
D.B. 593 PG. 554
TAX PARCEL 10.00



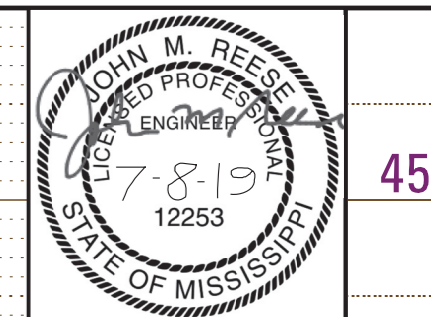
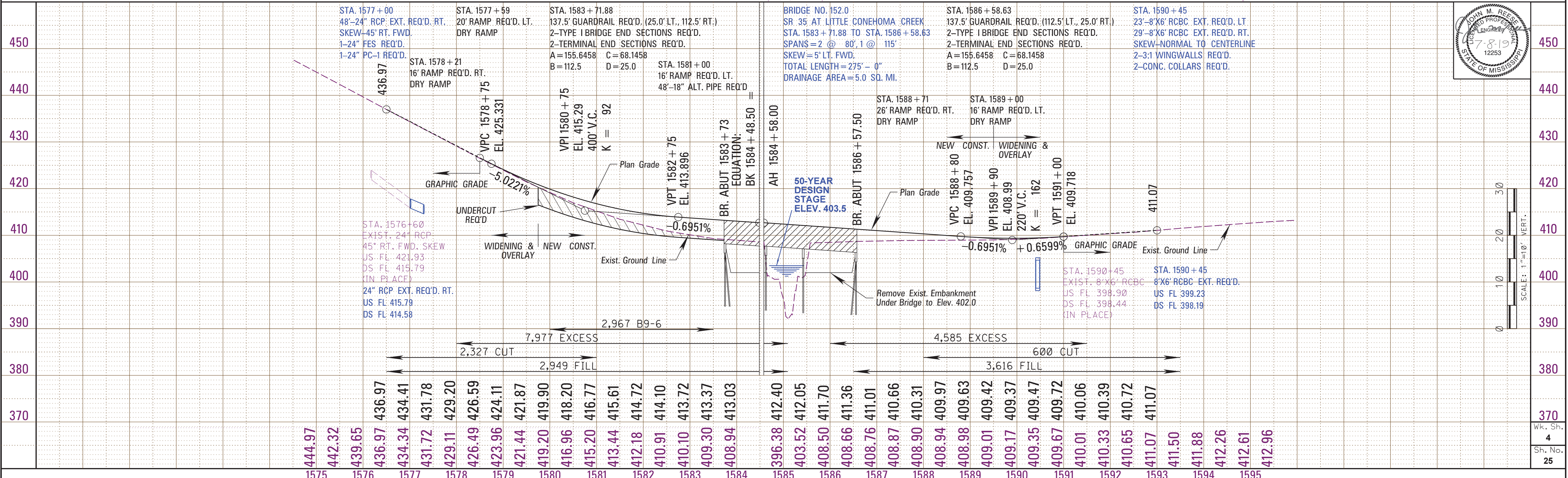
P.C.M. ELEV. 463.67
PT NAME: 3504012
N. 1268965.404
E. 760895.852
DESC. 1-1/2" Stamp Alum. Disc on
Rebar Sta. 1570+65 21' LT

EARTHWORK TOTAL THIS SHEET		
Cut	2,927	Cu.Yds.
Fill	6,565	Cu.Yds.
Excess	12,562	Cu.Yds.
Surplus		Cu.Yds.
Borrow (B-9)	4,223	Cu.Yds.
Borrow (B9-6)	2,967	Cu.Yds.

PERMANENT EROSION CONTROL ITEMS	UNITS	SYMBOL	TOTALS
DITCH LINER	S.Y.		156
SOIL REINF. MATERIAL	S.Y.		1025
PAVED DITCH	C.Y.		
RIPRAP	TON		140
GEOTEXTILE	S.Y.		164
SOLID SOD	S.Y.		

THOMAS MEED DAVIS
D.B. 731 PG. 312
TAX PARCEL 1.02

INDICATES REMOVAL OF EMBANKMENT.
 INDICATES REMOVAL OF PAVEMENT.



1st O.REV.

STATE	PROJECT NO.
MISS.	BR-0023-02(058)

Cut	457	Cu.Yds
Fill	9,363	Cu.Yds
Excess		Cu.Yds
Surplus		Cu.Yds
Borrow (B-9)	8,997	Cu.Yds

①
Curve DET35_1
Δ = 14° 21' 41.442" (RT)
D = 4° 46' 28.734"
L = 300.787'
T = 151.186'
R = 1,200.000'
BK N 7° 13' 41.542" W
AH N 7° 07' 59.899" E
PC 0+00.000
PT 3+00.787

②
Curve DET35_2
Δ = 14° 21' 41.442" (LT)
D = 4° 46' 28.734"
L = 300.787'
T = 151.186'
R = 1,200.000'
BK N 7° 07' 59.899" E
AH N 7° 13' 41.542" W
PC 3+00.787
PT 6+01.574

P.C.M. ELEV. 407.81
PT NAME: 3504013
N. 1270582.713
E. 760730.472
DESC. 1-1/2" Stamp Alum. Disc on Rebar Sta. 1587+00 18' RT

TEXAS EASTERN TRANSMISSION
D.B. 499 PG. 565
TAX PARCEL 5.00

④
Curve DET35_6
Δ = 14° 21' 41.442" (RT)
D = 4° 46' 28.734"
L = 300.787'
T = 151.186'
R = 1,200.000'
BK N 21° 35' 22.984" W
AH N 7° 13' 41.542" W
PC 13+52.272
PT 16+53.059

ROBERT G. ATWOOD
D.B. 529 PG. 224
D.B. 531 PG. 382
TAX PARCEL 6.00

DATE	BY
07/08/19	JMR

△ REVISED WETLANDS INFO

P.C.M. ELEV. 463.67
PT NAME: 3504012
N. 1268965.404
E. 760895.852
DESC. 1-1/2" Stamp Alum. Disc on Rebar Sta. 1570+65 21' LT

P.C.M. ELEV. 415.03
PT NAME: 3504014
N. 1271976.587
E. 760515.229
DESC. 1-1/2" Stamp Alum. Disc on Rebar Sta. 1601+05.59 20' LT

TEMPORARILY FILLED	0.20	AC.
PERMANENTLY FILLED	0.01	AC.
BRIDGED		AC.

PERMANENT EROSION CONTROL ITEMS	UNITS	SYMBOL	TOTALS
DITCH LINER	S.Y.	[Symbol]	
SOIL REINF. MATERIAL	S.Y.	[Symbol]	
PAVED DITCH	C.Y.	[Symbol]	
RIPRAP	TON	[Symbol]	
GEOTEXTILE	S.Y.	[Symbol]	
SOLID SOD	S.Y.	[Symbol]	

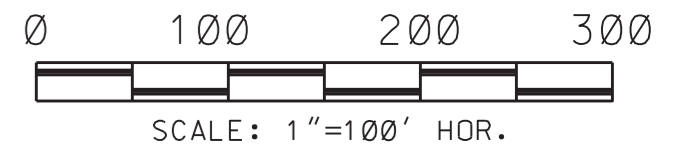
THOMAS MEED DAVIS
D.B. 731 PG. 312
TAX PARCEL 1.02

[Symbol] INDICATES REMOVAL OF EMBANKMENT.
[Symbol] INDICATES REMOVAL OF PAVEMENT.

BARBARA SUGGETT
D.B. 214 PG. 48
TAX PARCEL 11.00

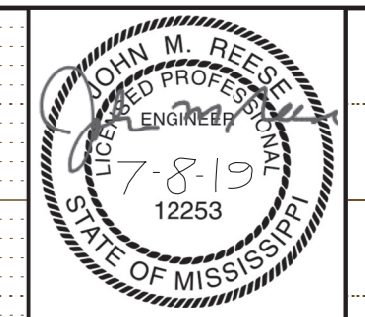
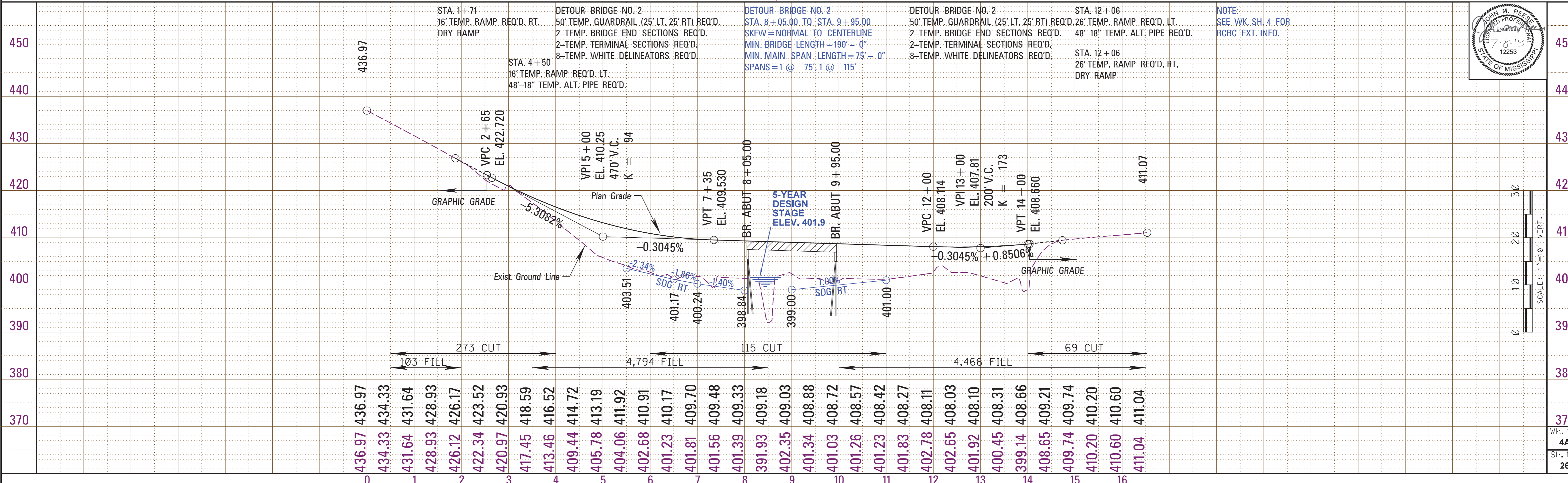
WILLIAM CHAPMAN ETUX
D.B. 593 PG. 554
TAX PARCEL 10.00

SR 35 DETOUR 2
DESIGN SPEED = 45

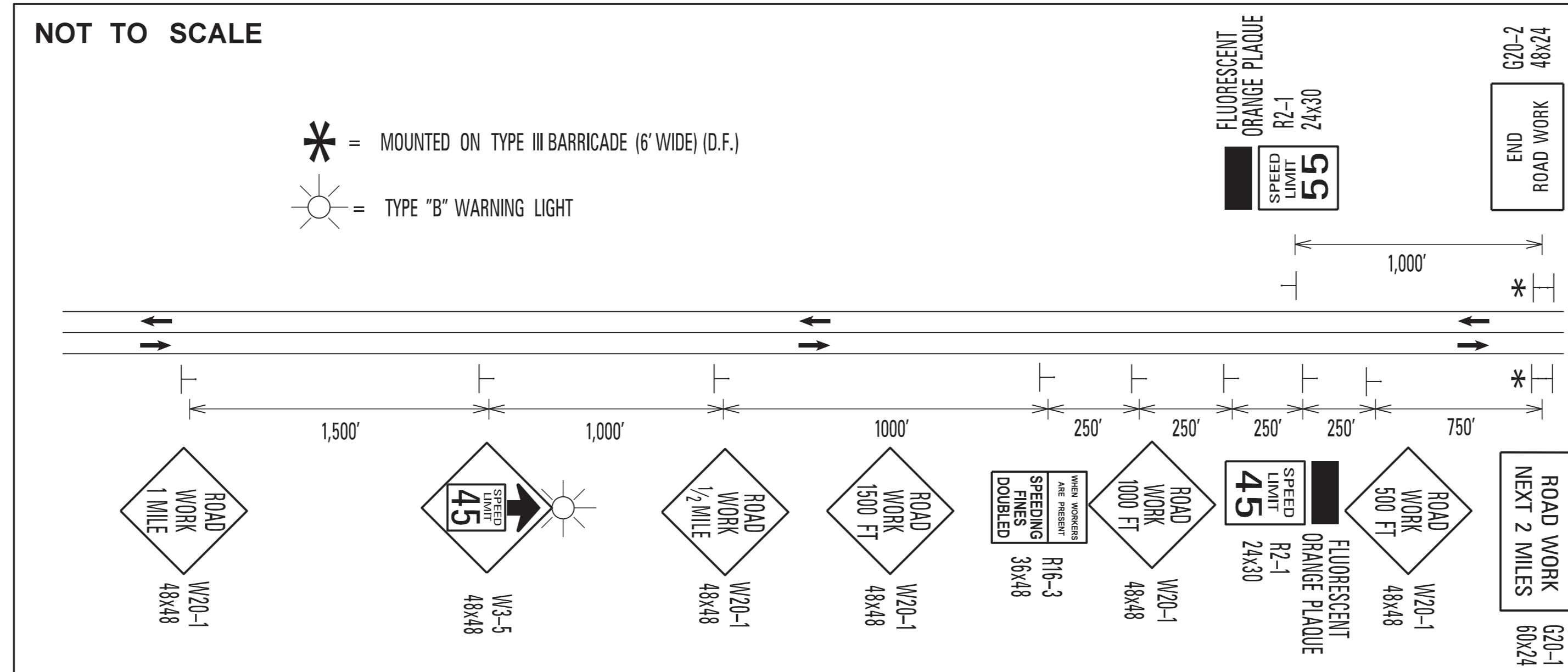


ROADWAY DESIGN DIVISION MISSISSIPPI DEPARTMENT OF TRANSPORTATION

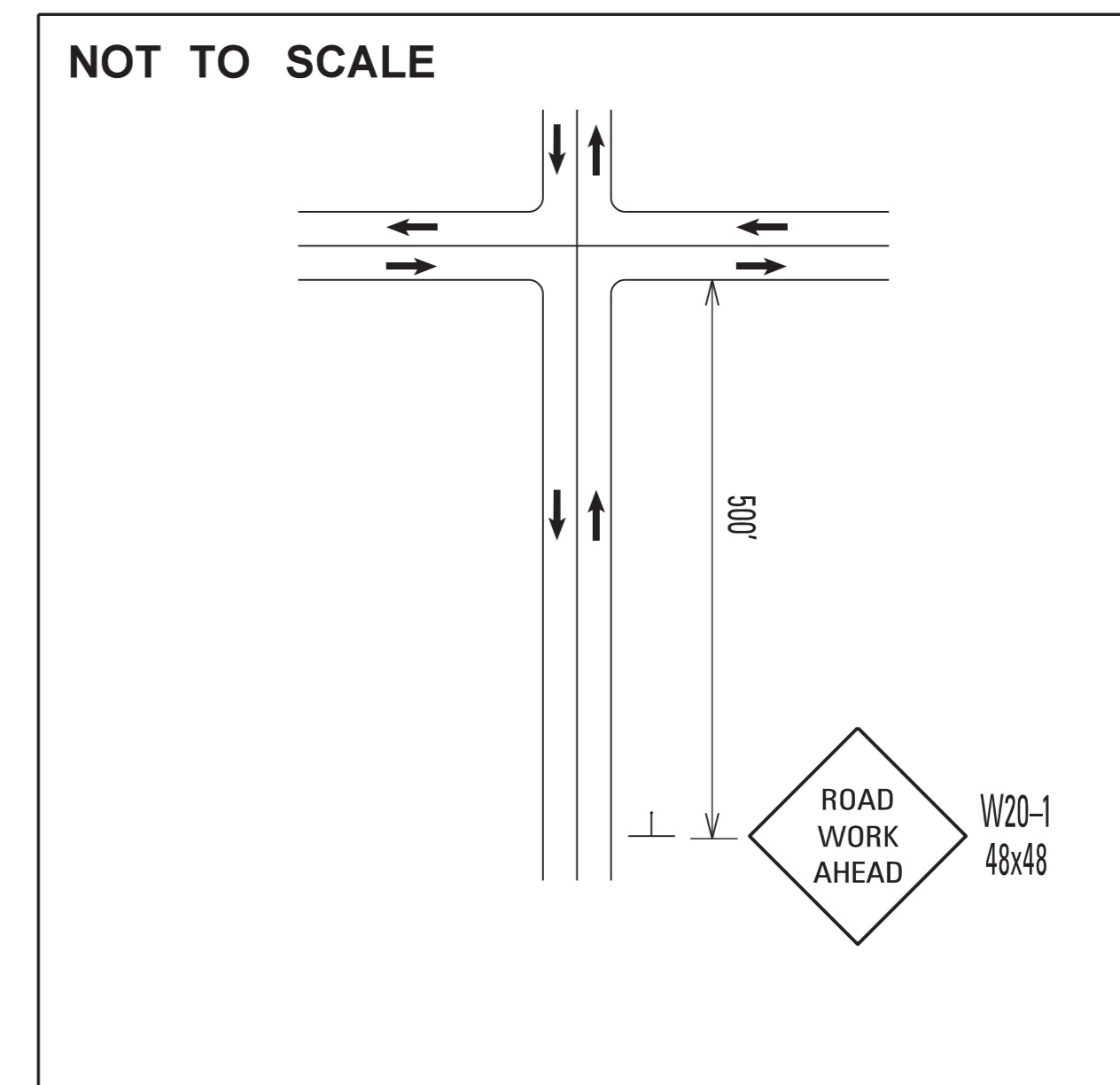
7/8/2019 1:03:39:58 WK4A.DGN



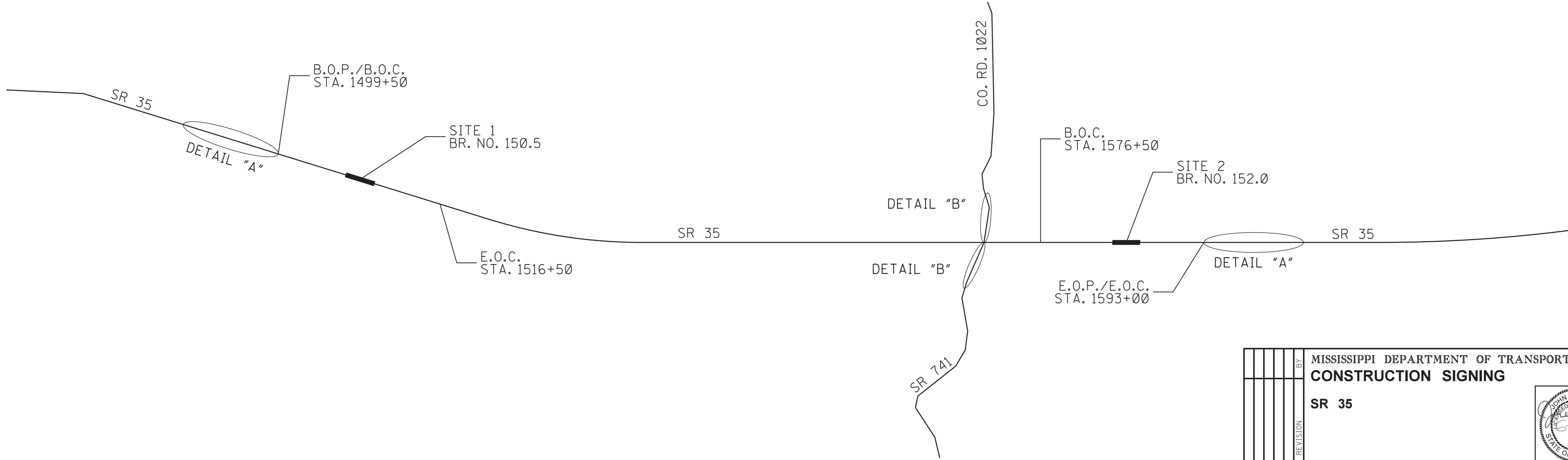
SHEET TOTAL	
G20-1 (60X24)	2
G20-2 (48X24)	2
R2-1 (24X30)	4
R16-3 (36X48)	2
W3-5 (48X48)	2
W20-1 (48X48)	12
TYPE III BARRICADE (D.F.) (6' WIDE)	4
WARNING LIGHT (TYPE "B")	2



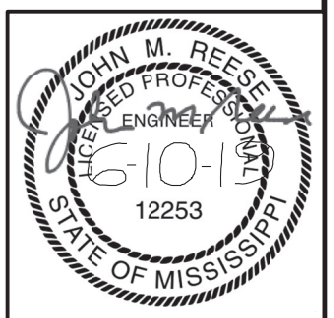
DETAIL "A"



DETAIL "B"

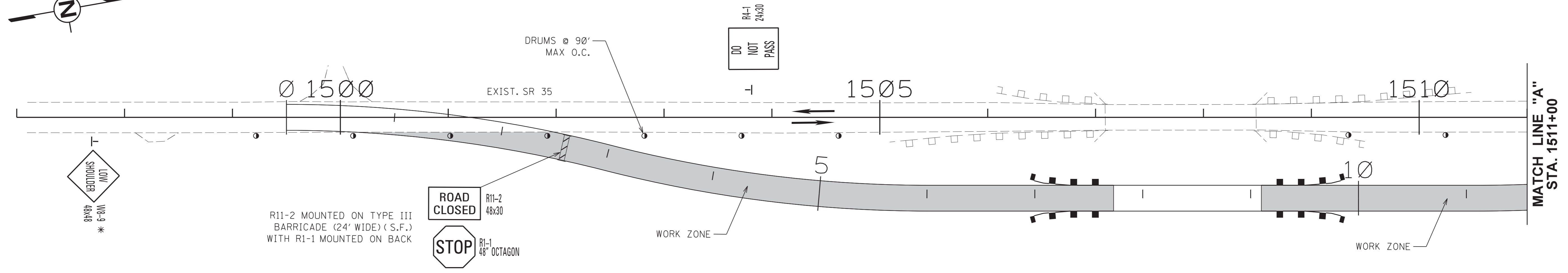
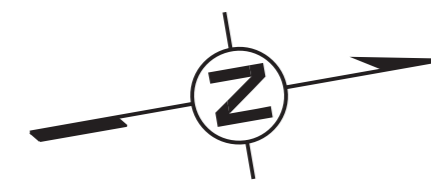


MISSISSIPPI DEPARTMENT OF TRANSPORTATION	
CONSTRUCTION SIGNING	
SR 35	
PROJ. NO.: BR-0023-02(058)	
COUNTY: ATTALA	
FILENAME: CS-1.DGN	WORKING NUMBER
DATE	CS-1
DESIGN TEAM: FA	SHEET NUMBER
CHECKED	27
DATE: 10/24/18	



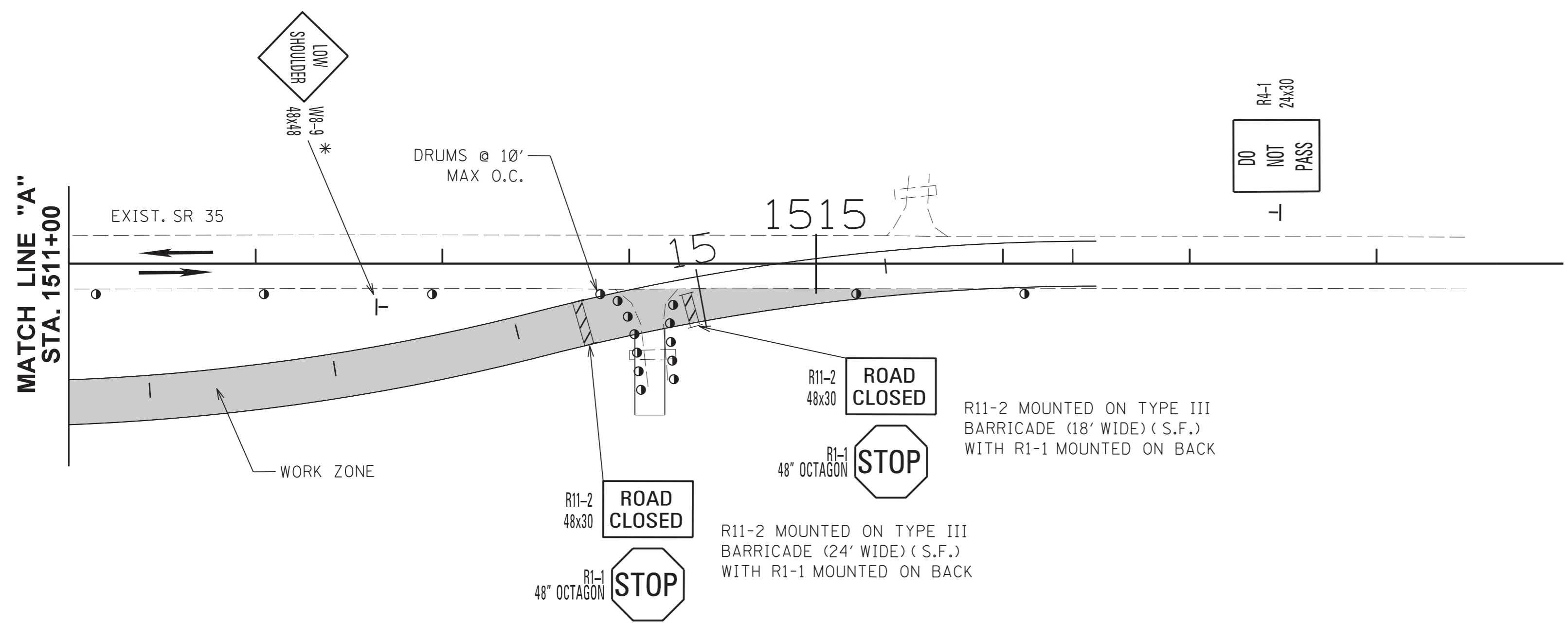
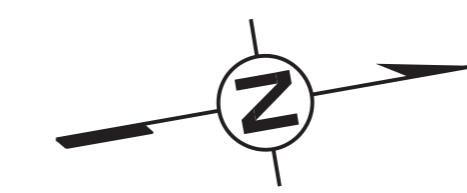
6/19/2019 7:26 AM CS-1.DGN

STATE	PROJECT NO.
MISS.	BR-0023-02(058)



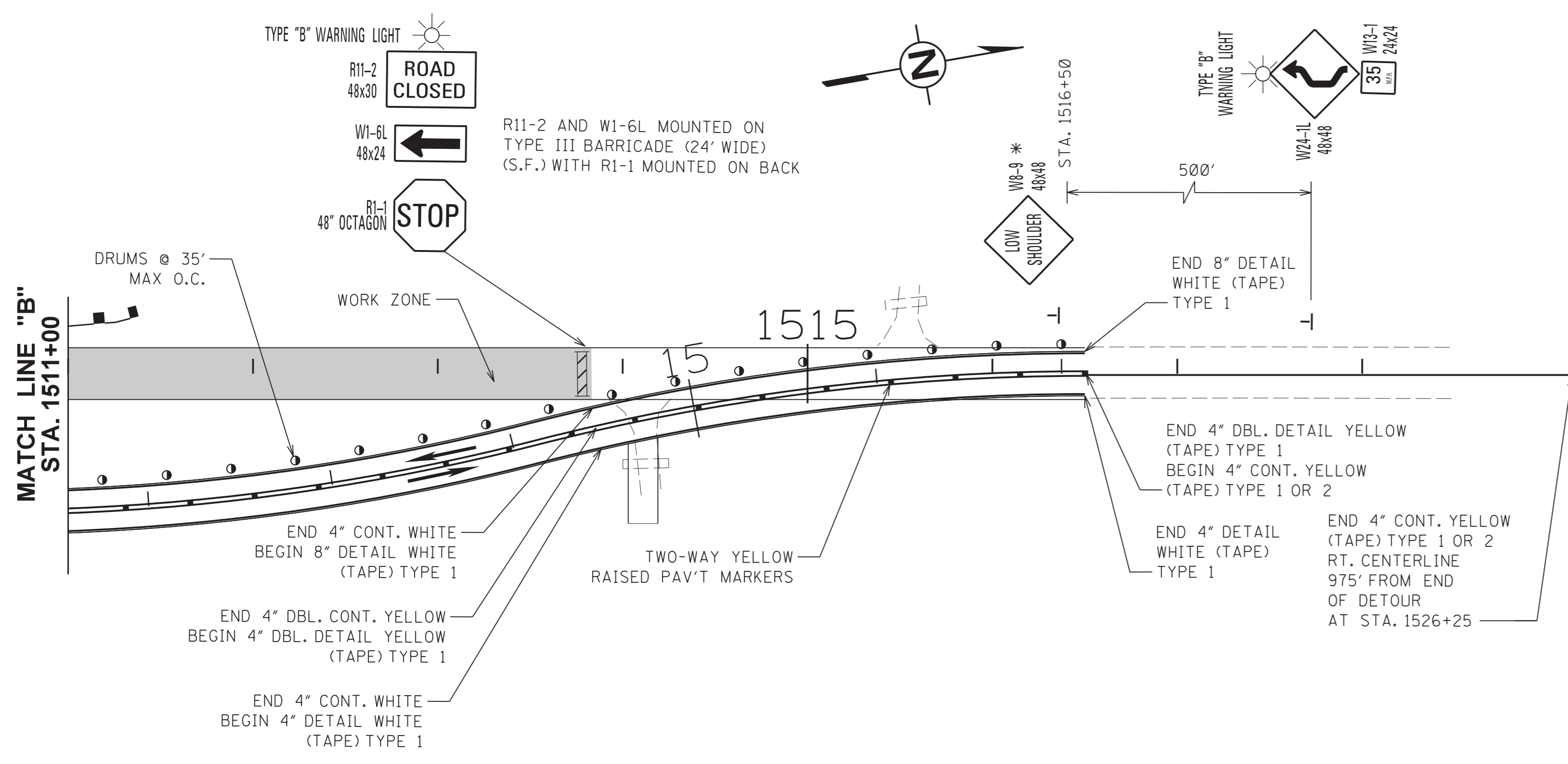
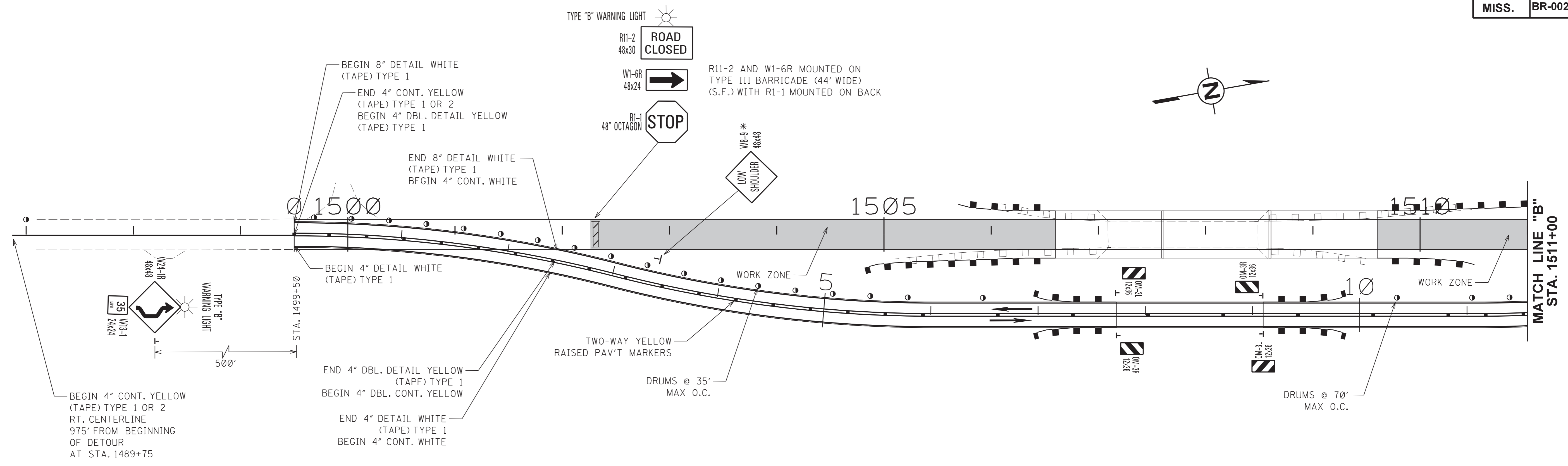
* REQUIRED WHEN PAVEMENT EDGE DROP-OFF EXCEEDS 1/2".
SIGN SHALL BE COVERED OR REMOVED WHEN NOT IN USE.

PROGRAM PLAN DIVISION MISSISSIPPI DEPARTMENT OF TRANSPORTATION



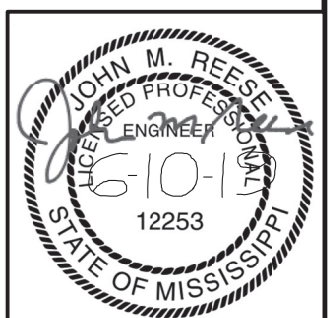
6/19/2019 7:28:52 AM TC-1-SITE1.DGN

MISSISSIPPI DEPARTMENT OF TRANSPORTATION TRAFFIC CONTROL PLAN		
PHASE 1 SR 35 (SITE 1)		
PROJ. NO.: BR-0023-02(058) COUNTY: ATTALA		
REVISION	BY	WORKING NUMBER TC-1
DATE	FILENAME: TC-1-SITE1.DGN	SHEET NUMBER 28
DESIGN TEAM: FA	CHECKED: DATE 10/24/18	



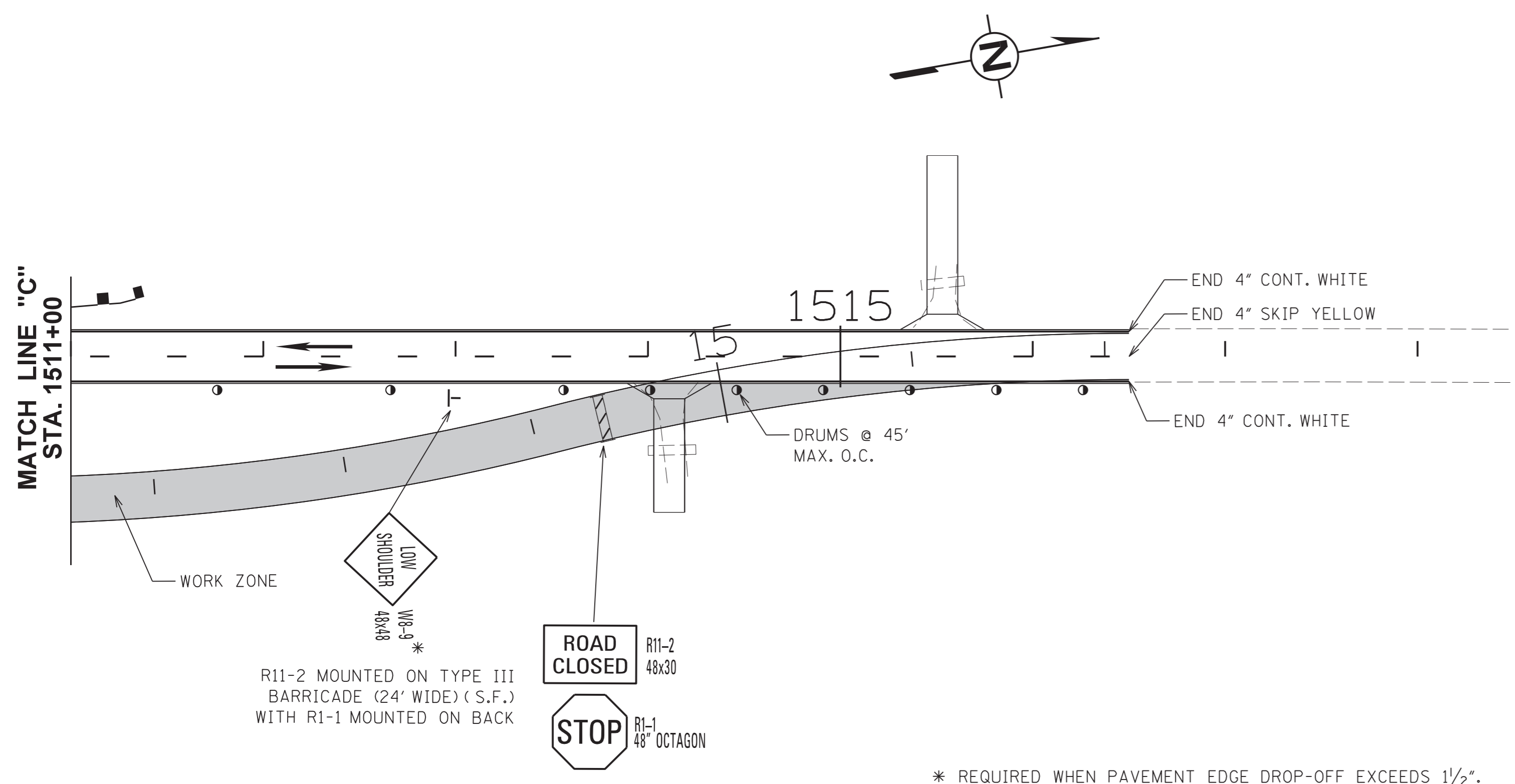
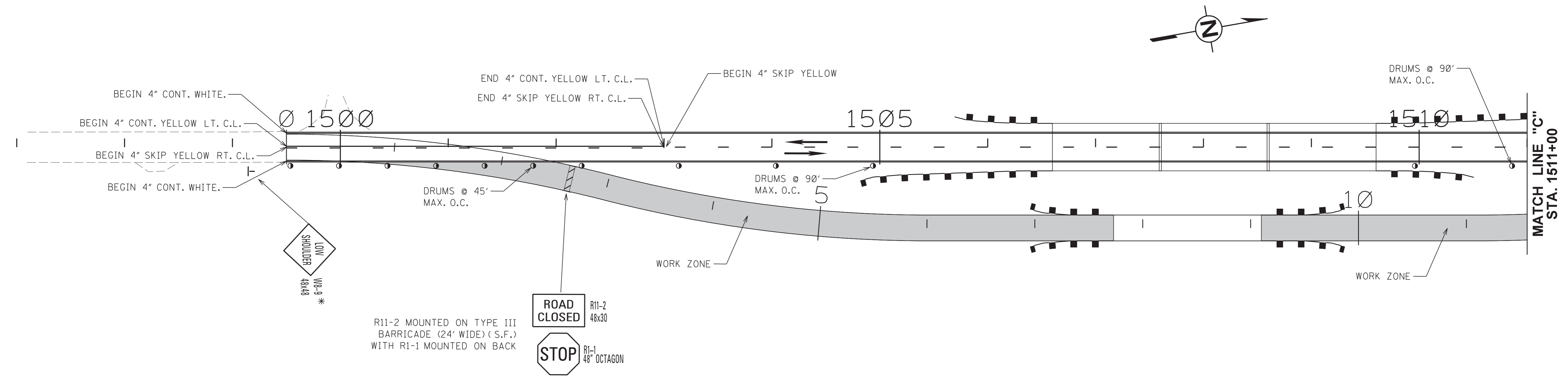
* REQUIRED WHEN PAVEMENT EDGE DROP-OFF EXCEEDS 1/2".
SIGN SHALL BE COVERED OR REMOVED WHEN NOT IN USE.

MISSISSIPPI DEPARTMENT OF TRANSPORTATION	
TRAFFIC CONTROL PLAN	
PHASE 2	
SR 35 (SITE 1)	
PROJ. NO.: BR-0023-02(058)	
COUNTY: ATTALA	
DATE	FILENAME: TC-2-SITE1.DGN
DESIGN TEAM	FA
CHECKED	DATE 10/24/18
WORKING NUMBER	TC-2
SHEET NUMBER	29



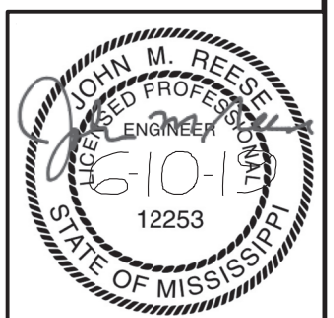
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STATE	PROJECT NO.
MISS.	BR-0023-02(058)



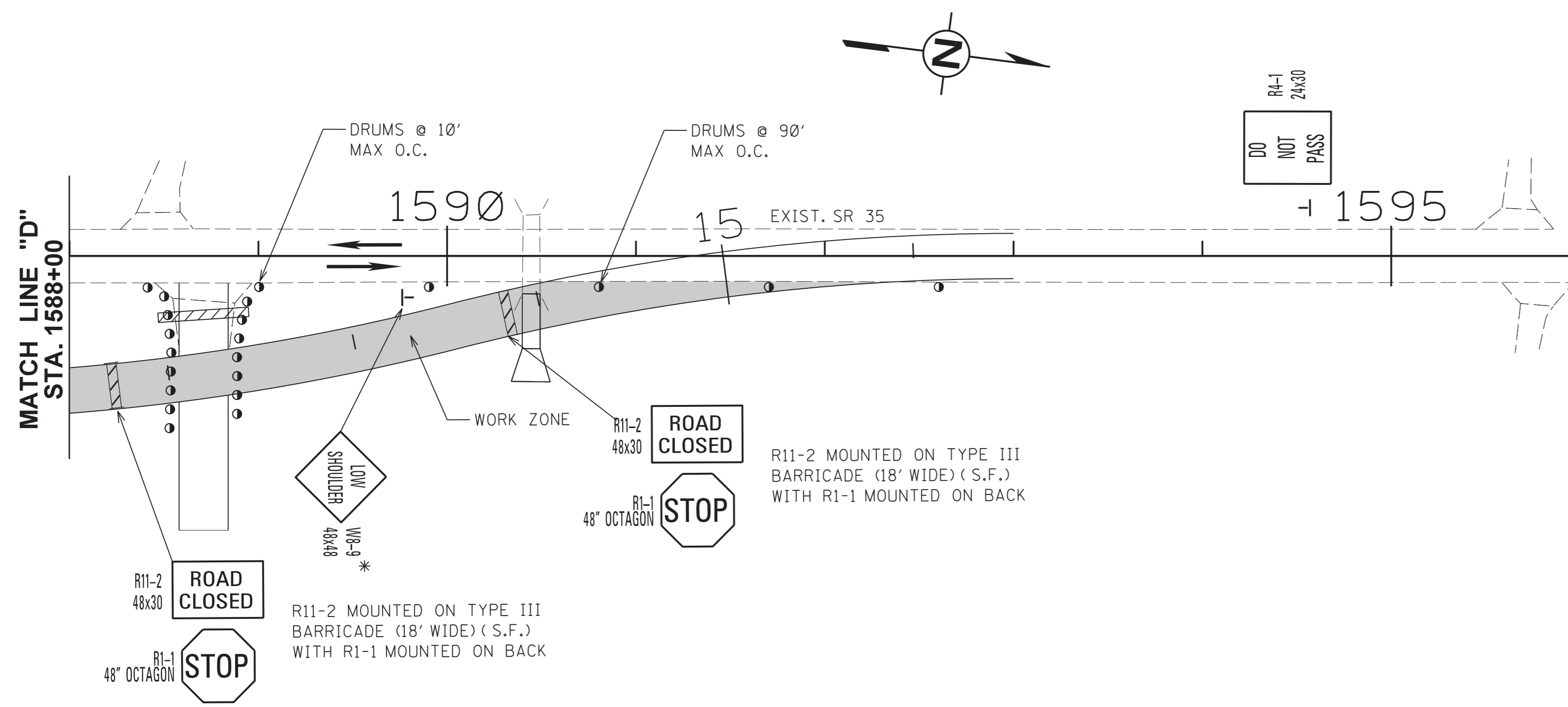
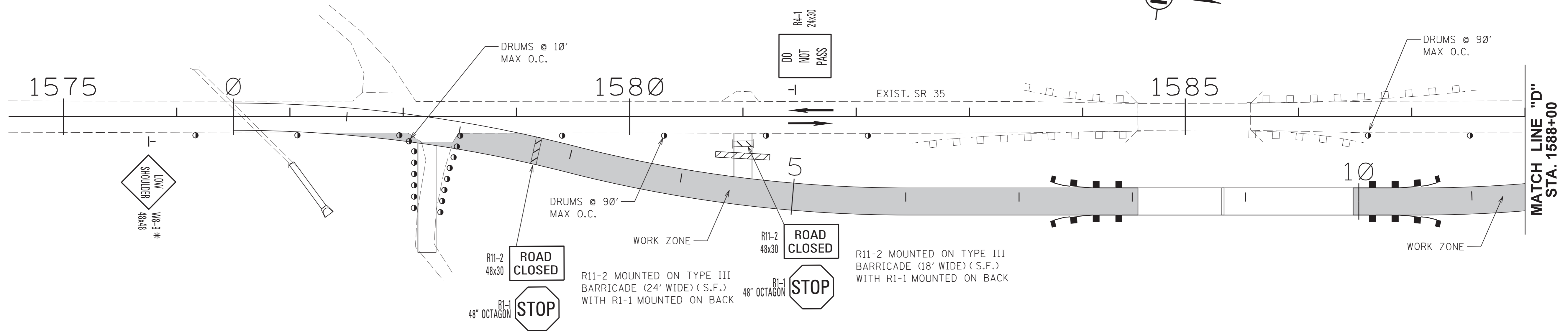
* REQUIRED WHEN PAVEMENT EDGE DROP-OFF EXCEEDS 1/2". SIGN SHALL BE COVERED OR REMOVED WHEN NOT IN USE.

MISSISSIPPI DEPARTMENT OF TRANSPORTATION	
TRAFFIC CONTROL PLAN	
PHASE 3	
SR 35 (SITE 1)	
PROJ. NO.: BR-0023-02(058)	
COUNTY: ATTALA	
FILENAME: TC-3-SITE1.DGN	WORKING NUMBER
DESIGN TEAM: FA	TC-3
CHECKED: DATE 10/24/18	SHEET NUMBER
	30

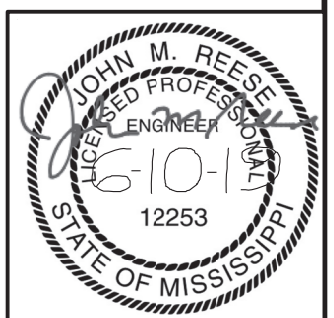


6/19/2019 7:28:42 AM TC-3-SITE1.DGN

* REQUIRED WHEN PAVEMENT EDGE DROP-OFF EXCEEDS 1/2".
SIGN SHALL BE COVERED OR REMOVED WHEN NOT IN USE.



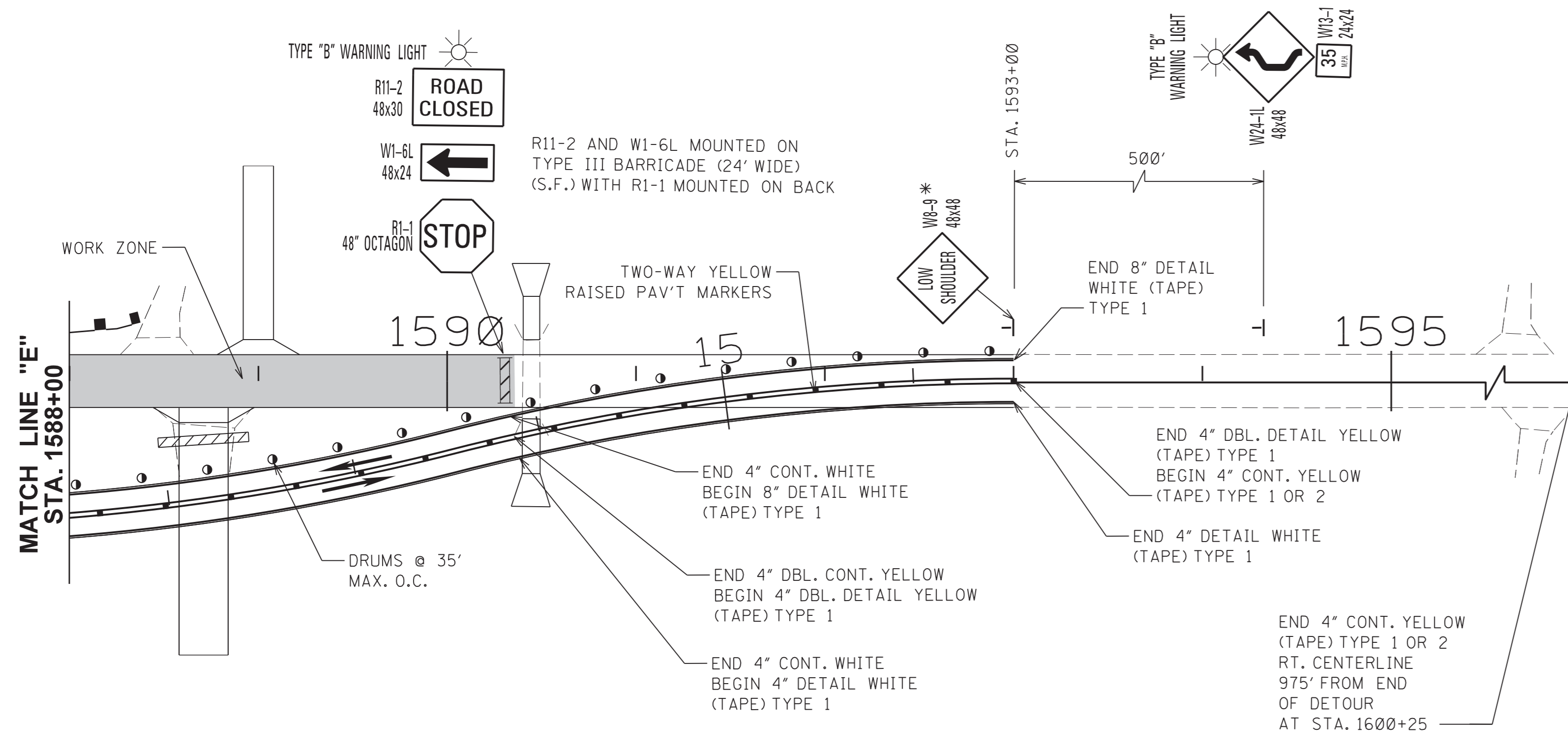
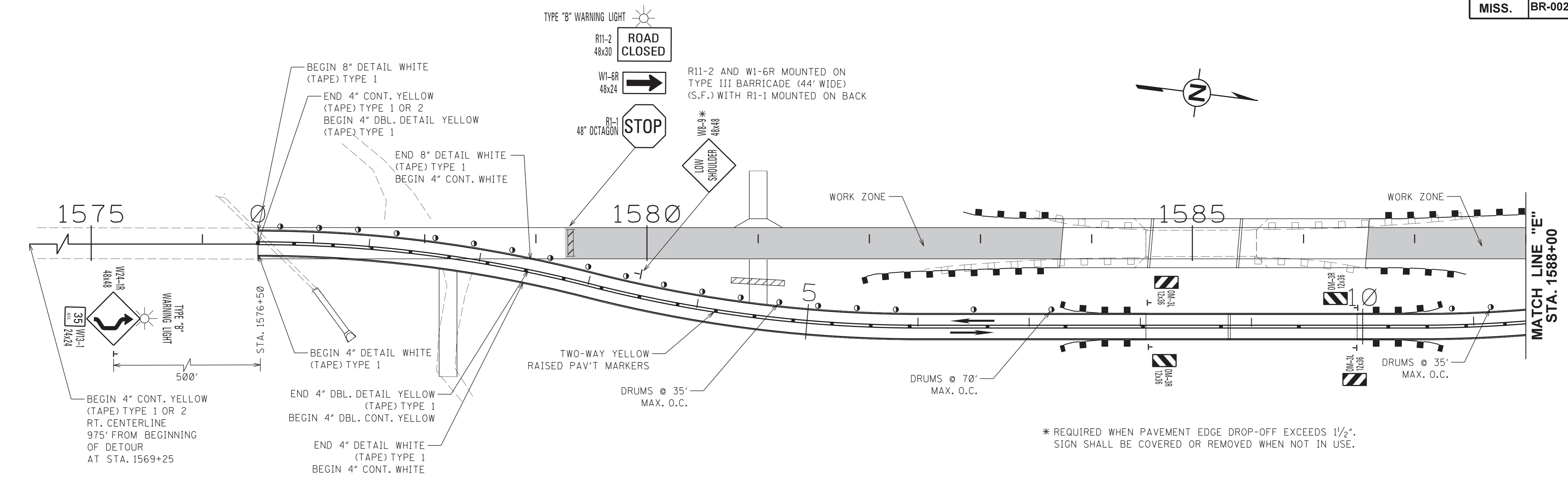
MISSISSIPPI DEPARTMENT OF TRANSPORTATION	
TRAFFIC CONTROL PLAN	
PHASE 1	
SR 35 (SITE 2)	
PROJ. NO.: BR-0023-02(058)	
COUNTY: ATTALA	
DATE	FILENAME: TC-4-SITE2.DGN
DESIGN TEAM	FA
CHECKED	DATE 10/24/18
WORKING NUMBER	TC-4
SHEET NUMBER	31



6/19/2019 7:28:25 AM TC-4-SITE2.DGN

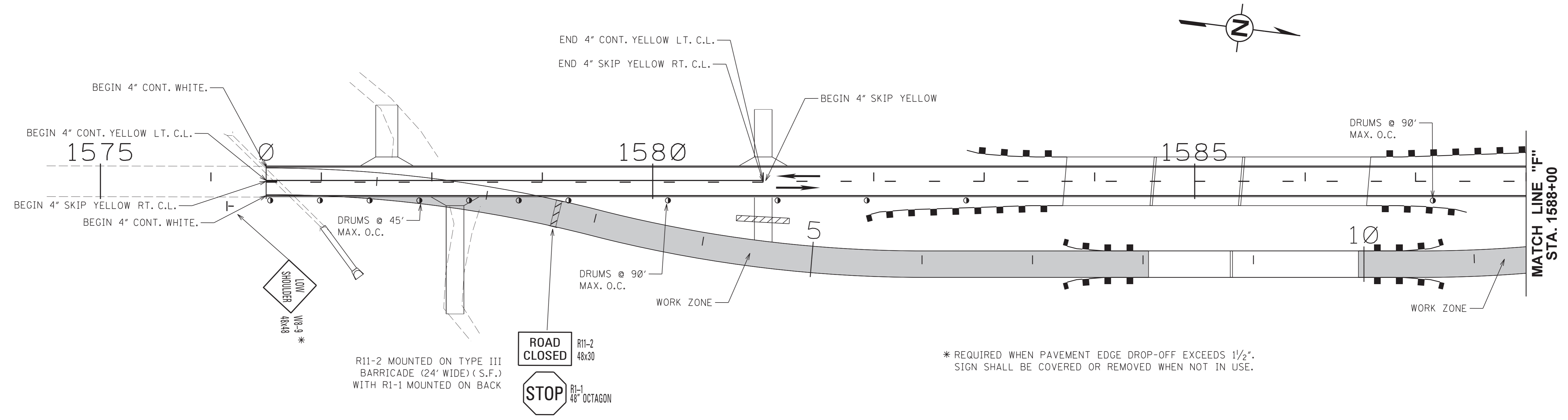
6/19/2019 7:28:52 AM TC-5-SITE2.DGN

PLAN DIVISION
MISSISSIPPI DEPARTMENT OF TRANSPORTATION

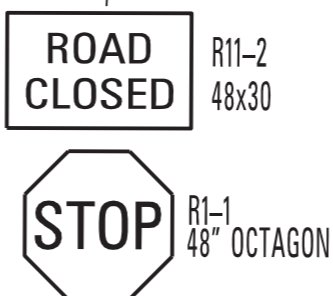


MISSISSIPPI DEPARTMENT OF TRANSPORTATION TRAFFIC CONTROL PLAN		
PHASE 2 SR 35 (SITE 2)		
PROJ. NO.: BR-0023-02(058) COUNTY: ATTALA		WORKING NUMBER TC-5
FILENAME: TC-5-SITE2.DGN DESIGN TEAM: FA CHECKED: _____ DATE: 10/24/18	SHEET NUMBER 32	

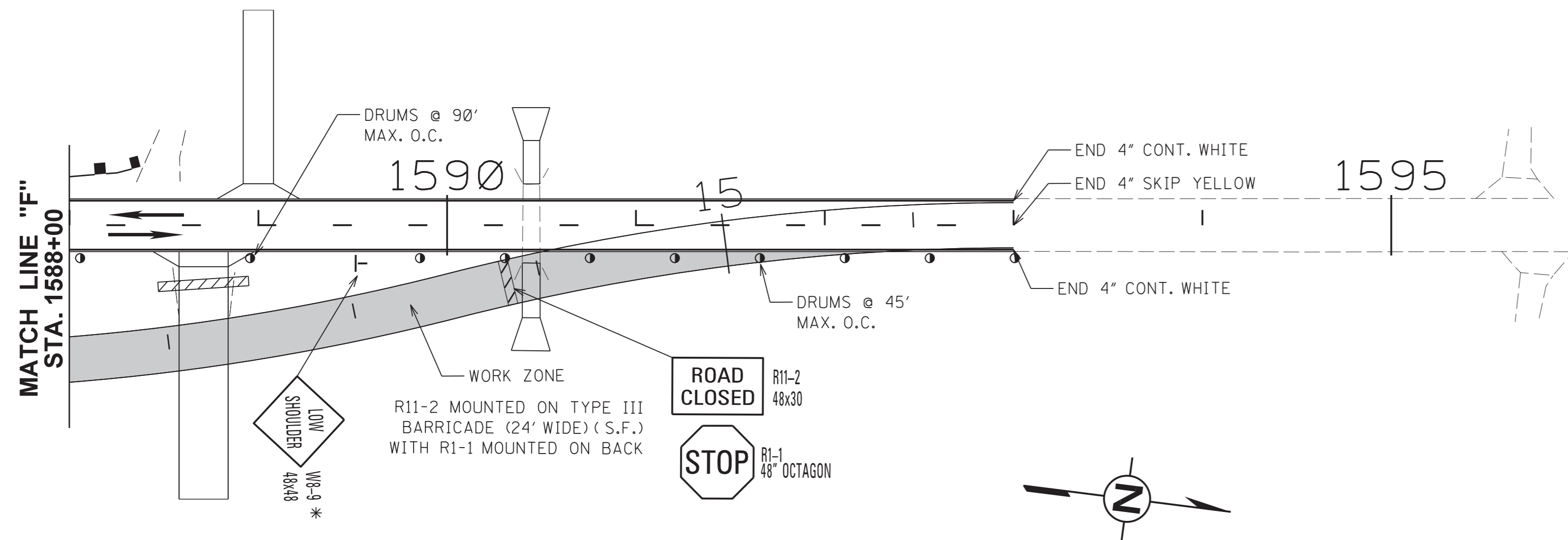
STATE	PROJECT NO.
MISS.	BR-0023-02(058)



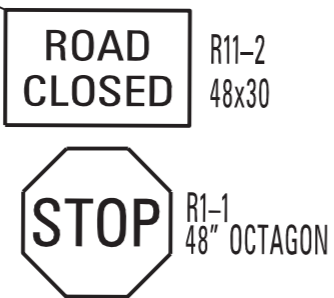
R11-2 MOUNTED ON TYPE III BARRICADE (24' WIDE) (S.F.) WITH R1-1 MOUNTED ON BACK



* REQUIRED WHEN PAVEMENT EDGE DROP-OFF EXCEEDS 1/2". SIGN SHALL BE COVERED OR REMOVED WHEN NOT IN USE.

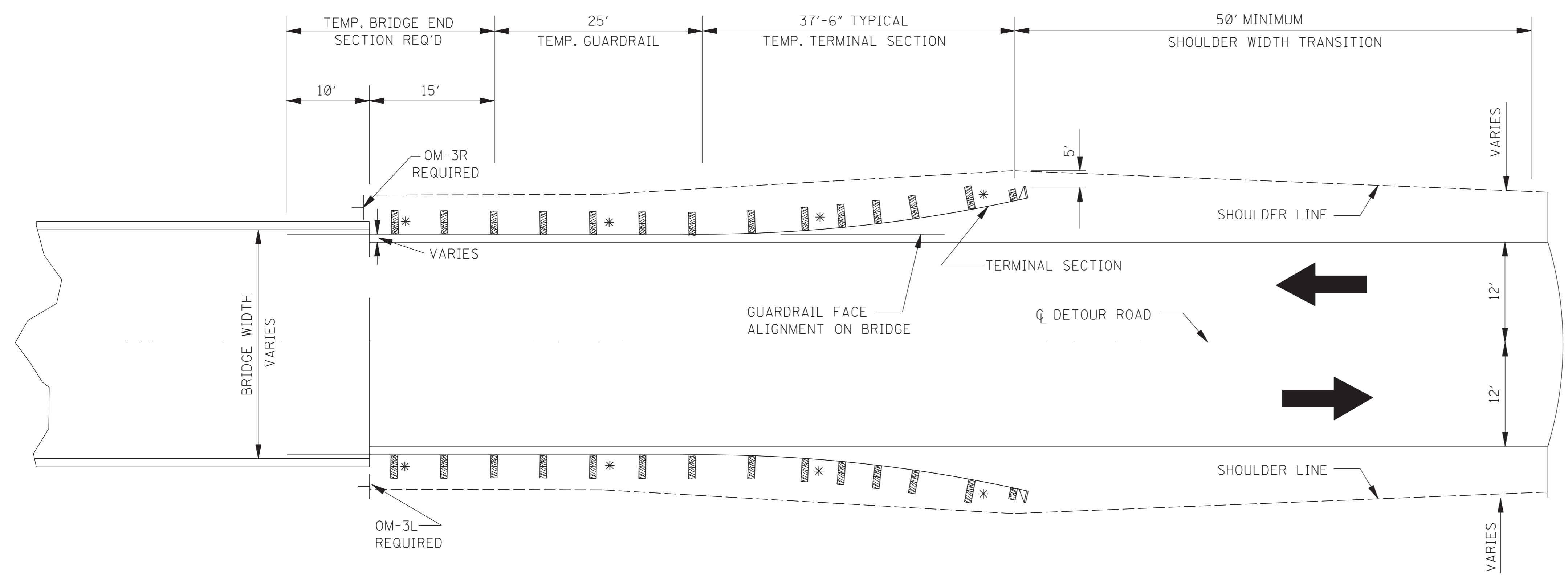


R11-2 MOUNTED ON TYPE III BARRICADE (24' WIDE) (S.F.) WITH R1-1 MOUNTED ON BACK



MISSISSIPPI DEPARTMENT OF TRANSPORTATION		
TRAFFIC CONTROL PLAN		
PHASE 3		WORKING NUMBER TC-6
SR 35 (SITE 2)		
PROJ. NO.: BR-0023-02(058)		SHEET NUMBER 33
COUNTY: ATTALA		
DATE	FILENAME: TC-6-SITE2.DGN	
DESIGN TEAM	FA	CHECKED
		DATE 10/24/18

6/10/2019 7:28:52 AM TC-6-SITE2.DGN



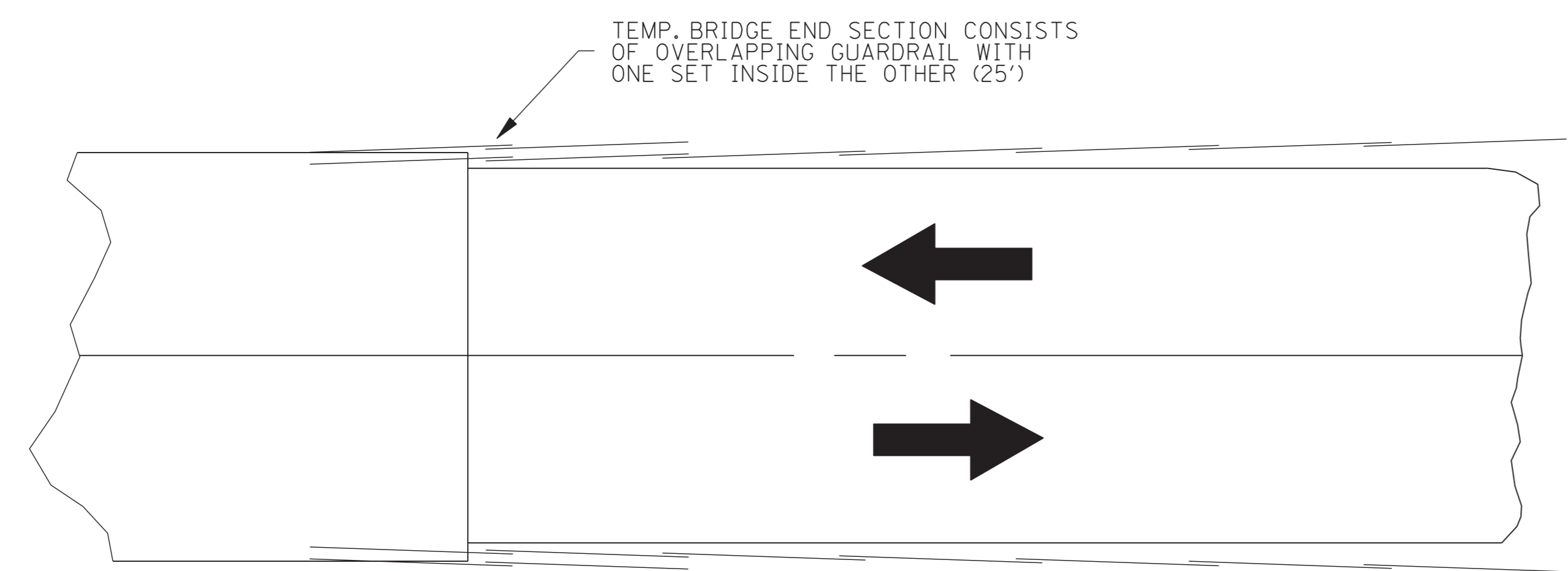
PLAN
(TEMPORARY GUARDRAIL)
 NOTE: TYPICAL FOR EACH END OF BRIDGE.

LEGEND

* SINGLE WHITE DELINEATOR REQUIRED (4 REQUIRED PER INSTALLATION)

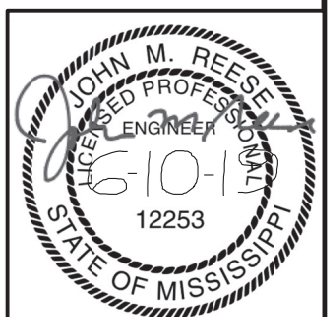
← INDICATES DIRECTION OF TRAFFIC

- GENERAL NOTES:
1. GUARDRAIL TO BE INSTALLED PRIOR TO PLACEMENT OF TRAFFIC ON DETOUR ROAD.
 2. FOR OTHER DETAILS OF GUARDRAIL INSTALLATION, SEE THE APPROPRIATE STANDARD DRAWINGS.
 3. BOLT BRIDGE END SECTION TO BRIDGE RAIL AS PER STANDARD PLAN (TO BE PAID FOR UNDER PAY ITEM 619-K2001).
 4. POST SPACING TO BE 6'-3" UNLESS OTHERWISE NOTED OR AS DIRECTED BY THE ENGINEER.
 5. FOR DETAILS PERTINENT TO INSTALLATION OF THE TERMINAL SECTION, SEE MANUFACTURER'S SPECIFICATIONS AND DRAWINGS.

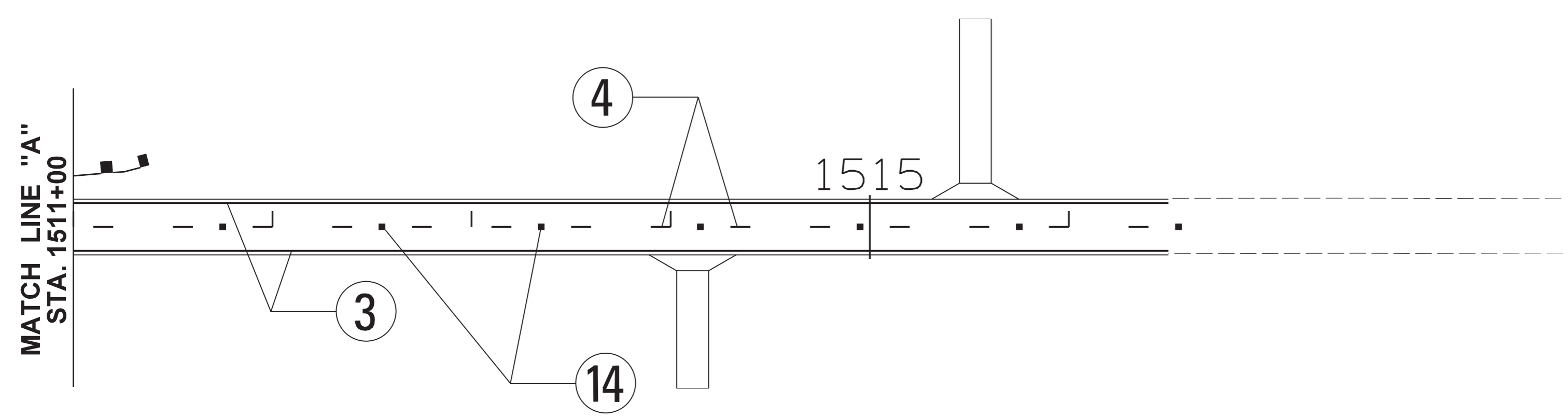
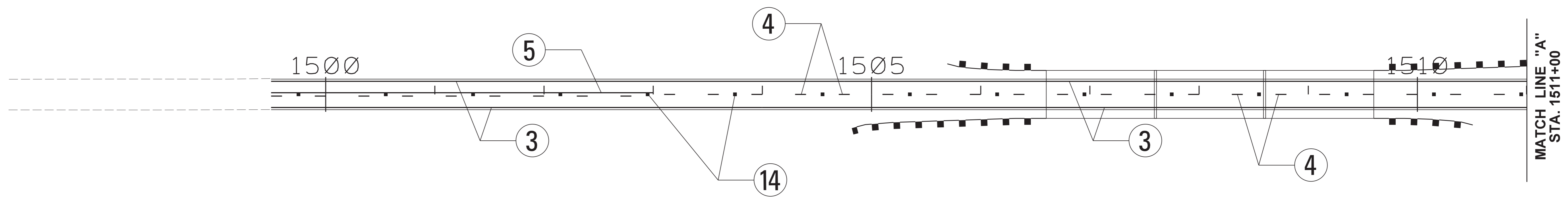


DETAIL SHOWING GUARDRAIL SECTION LAPS AND OVERLAPS

6/19/2019 7:26 AM SD-TGR-1.DGN

REVISION		BY		DATE	
MISSISSIPPI DEPARTMENT OF TRANSPORTATION GUARDRAIL (TEMPORARY): TYPICAL INSTALLATION AT DETOUR BRIDGE ENDS (DISTRICT 2)					
PROJ. NO.: BR-0023-02(058) COUNTY: ATTALA				 WORKING NUMBER SD-TGR-1	
FILENAME: SD-TGR-1.DGN DESIGN TEAM: FA CHECKED: DATE:					
SHEET NUMBER 34					

STATE	PROJECT NO.
MISS.	BR-0023-02(058)



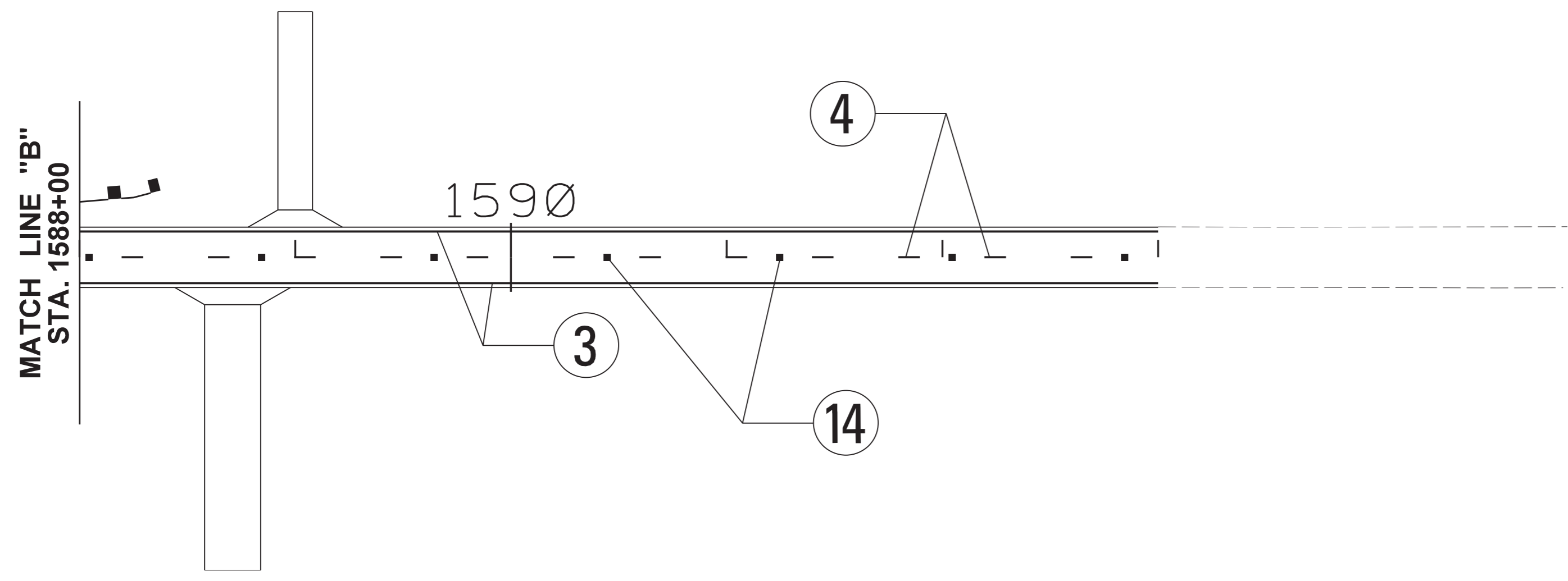
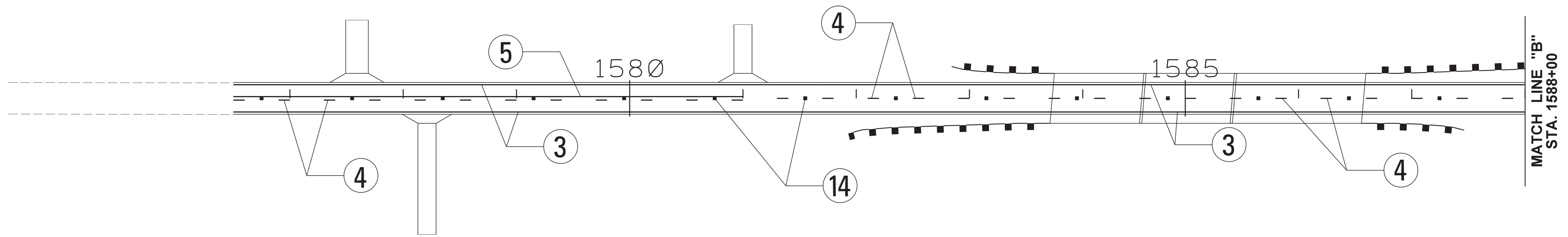
PAVEMENT MARKING				
SYMBOL	DESCRIPTION	TYPE	QUANTITY	
(1)	TRAFFIC STRIPE (SKIP WHITE)			
(2)	TRAFFIC STRIPE (CONT. WHITE)			
(3)	EDGE STRIPE (CONT. WHITE)		3,400' **	
(4)	TRAFFIC STRIPE (SKIP YELLOW)		1,700' **	
(5)	TRAFFIC STRIPE (CONT. YELLOW)		350'	
(6)	DET. STRIPE (6" EQ. LENGTH) (WHITE)	THERMO-PLASTIC		
(7)	DET. STRIPE (6" EQ. LENGTH) (YELLOW)			
(8)	DET. STRIPE (12" EQ. LENGTH) (WHITE)			
(9)	DET. STRIPE (12" EQ. LENGTH) (YELLOW)			
(10)	DET. STRIPE (18" EQ. LENGTH) (WHITE)			
(11)	DET. STRIPE (18" EQ. LENGTH) (YELLOW)			
(12)	LEGEND (24" EQ. LENGTH) (WHITE)			
(13)	LEGEND (SYMBOL) (WHITE)			
(14)	TWO-WAY YELLOW REFLEC. RAISED MARKER		MARKERS	22
(15)	TWO-WAY CLEAR REFLEC. RAISED MARKERS			
(16)	RED-CLEAR REFLECTIVE RAISED MARKERS			
(17)	EDGE STRIPE (CONT. WHITE)	COLD PLASTIC		
(18)	TRAFFIC STRIPE (SKIP YELLOW)			
(19)	TRAFFIC STRIPE (CONT. YELLOW)			

- * INCLUDES 600' FOR BRIDGES.
- ** INCLUDES 300' FOR BRIDGES.

MISSISSIPPI DEPARTMENT OF TRANSPORTATION PAVEMENT MARKINGS SR 35 (SITE 1)		
PROJ. NO.: BR-0023-02(058) COUNTY: ATTALA		
REVISION DATE	FILENAME: PM-1-SITE1.DGN DESIGN TEAM: FA CHECKED: _____ DATE: _____	WORKING NUMBER PM-1 SHEET NUMBER 35

6/10/2019 7:28:52 AM PM-1-SITE1.DGN

PLANNING DIVISION
MISSISSIPPI DEPARTMENT OF TRANSPORTATION



PAVEMENT MARKING				
SYMBOL	DESCRIPTION	TYPE	QUANTITY	
(1)	TRAFFIC STRIPE (SKIP WHITE)			
(2)	TRAFFIC STRIPE (CONT. WHITE)			
(3)	EDGE STRIPE (CONT. WHITE)		3,280 *	
(4)	TRAFFIC STRIPE (SKIP YELLOW)		1,640 **	
(5)	TRAFFIC STRIPE (CONT. YELLOW)		450'	
(6)	DET. STRIPE (6" EQ. LENGTH) (WHITE)	THERMO-PLASTIC		
(7)	DET. STRIPE (6" EQ. LENGTH) (YELLOW)			
(8)	DET. STRIPE (12" EQ. LENGTH) (WHITE)			
(9)	DET. STRIPE (12" EQ. LENGTH) (YELLOW)			
(10)	DET. STRIPE (18" EQ. LENGTH) (WHITE)			
(11)	DET. STRIPE (18" EQ. LENGTH) (YELLOW)			
(12)	LEGEND (24" EQ. LENGTH) (WHITE)			
(13)	LEGEND (SYMBOL) (WHITE)			
(14)	TWO-WAY YELLOW REFLEC. RAISED MARKER		MARKERS	21
(15)	TWO-WAY CLEAR REFLEC. RAISED MARKERS			
(16)	RED-CLEAR REFLECTIVE RAISED MARKERS			
(17)	EDGE STRIPE (CONT. WHITE)	COLD PLASTIC		
(18)	TRAFFIC STRIPE (SKIP YELLOW)			
(19)	TRAFFIC STRIPE (CONT. YELLOW)			

* INCLUDES 550' FOR BRIDGES.
 ** INCLUDES 275' FOR BRIDGES.

MISSISSIPPI DEPARTMENT OF TRANSPORTATION PAVEMENT MARKINGS SR 35 (SITE 2)		
PROJ. NO.: BR-0023-02(058) COUNTY: ATTALA		
REVISION DATE	FILENAME: PM-2-SITE2.DGN DESIGN TEAM: FA CHECKED: _____ DATE: _____	WORKING NUMBER PM-2 SHEET NUMBER 36

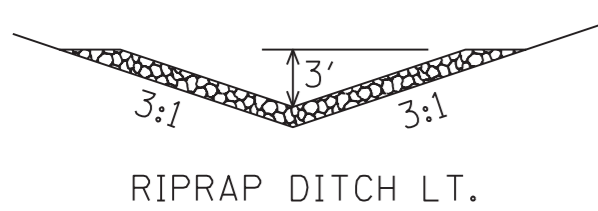
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 PLANNING DIVISION
 MISSISSIPPI DEPARTMENT OF TRANSPORTATION

1st O.REV.

FMS CON: 103334/301000

STATE PROJECT NO.

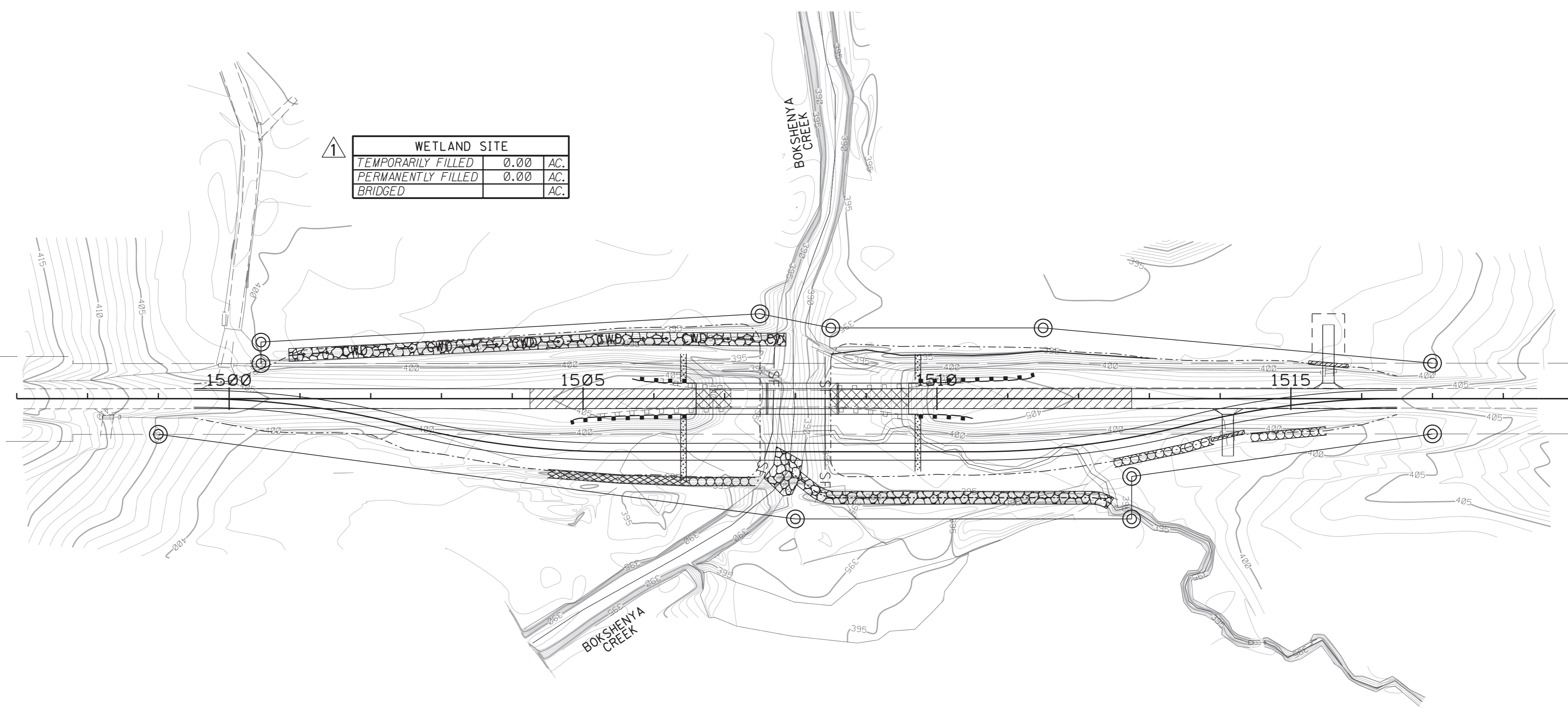
MISS. BR-0023-02(058)



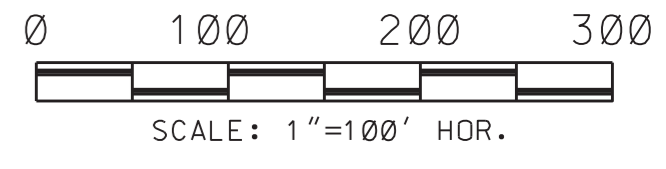
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BRIDGED		AC.

ADDED WETLANDS INFO

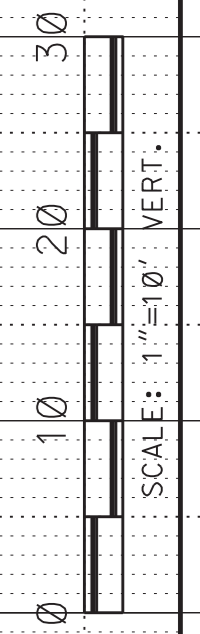
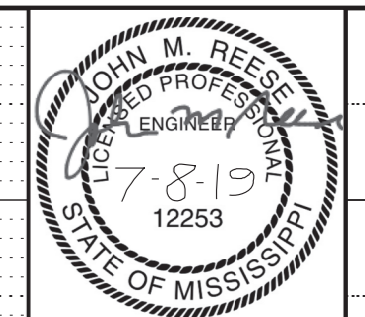
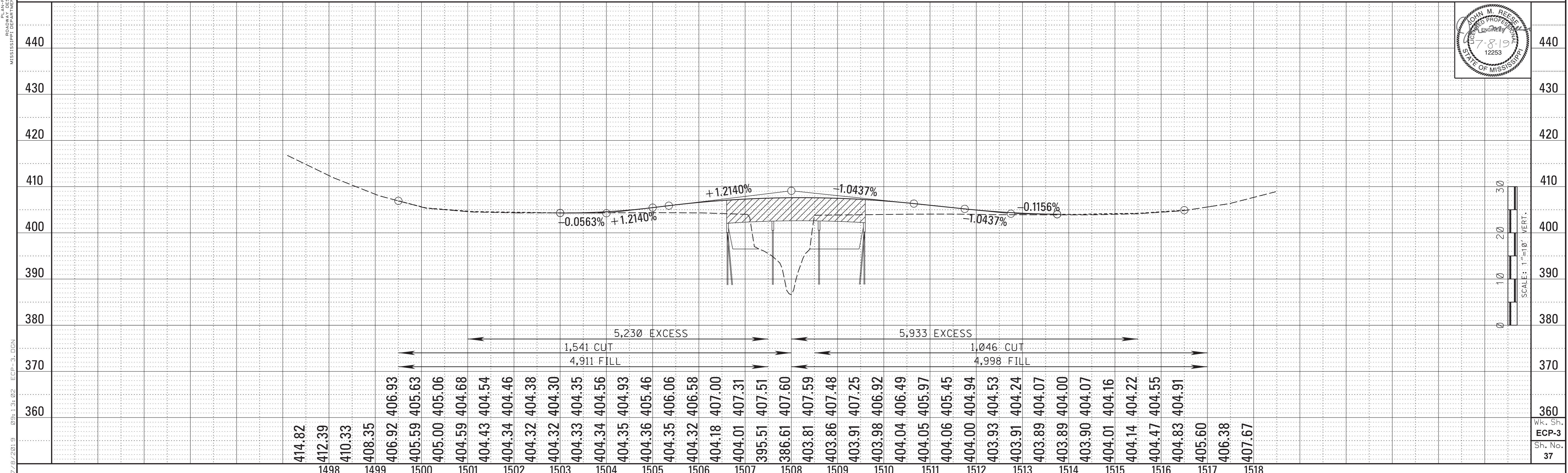
REVISIONS		
DATE	BY	
07/08/19	JMR	

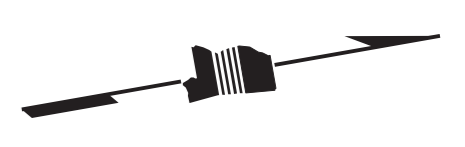


TEMPORARY EROSION CONTROL ITEMS	UNITS	SYMBOL	TOTALS
SILT FENCE	L.F.	SF	
SUPER SILT FENCE	L.F.	SSF	
WATTLES, 12"	L.F.		
WATTLES, 20"	L.F.		
TRIANGULAR SILT DIKE	L.F.		
SANDBAGS	L.F.		
RIPRAP	TON		
EROSION CHECKS	BALE		
TYPE D SILT BASINS	EACH		



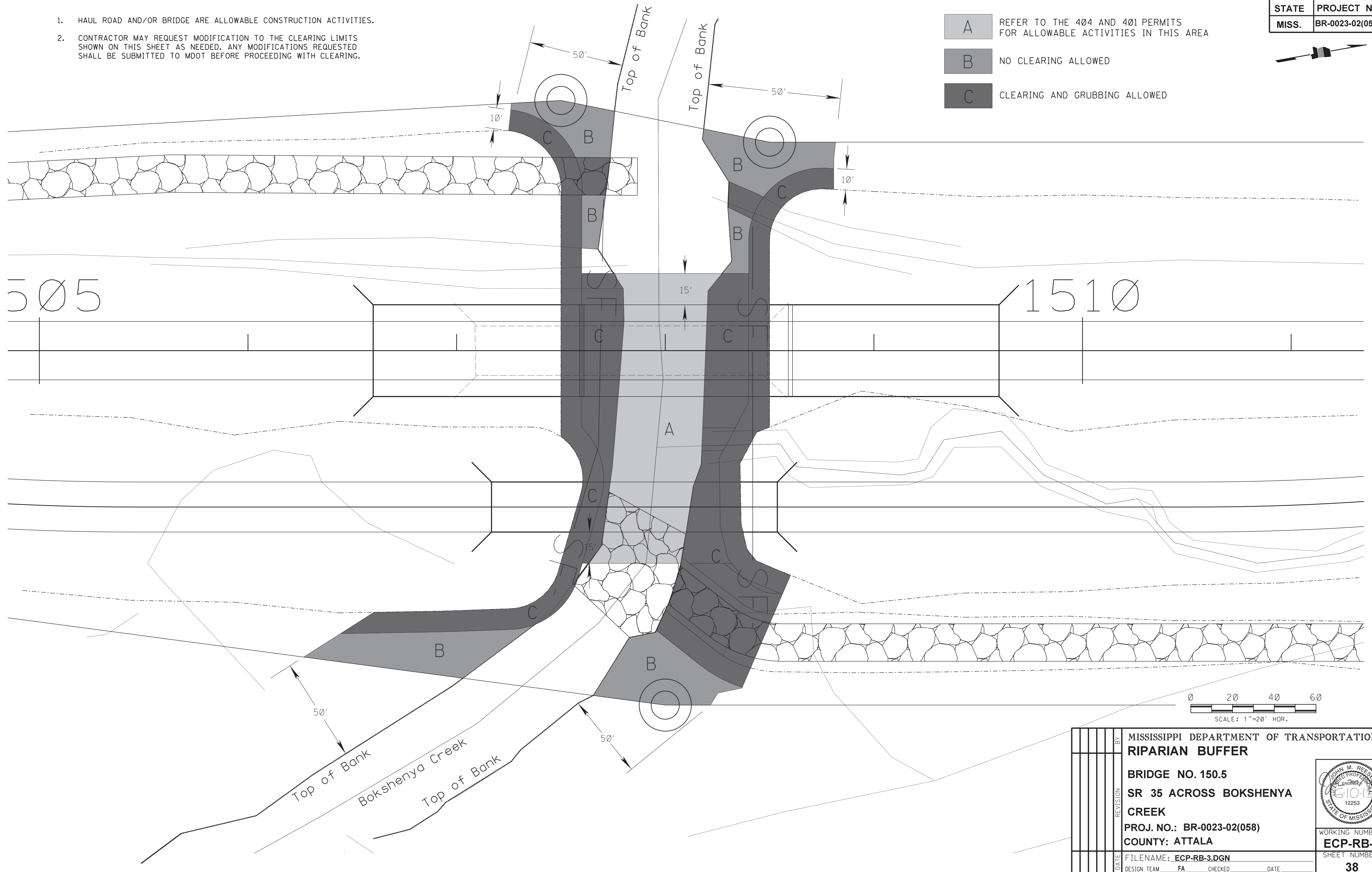
L. W. WATKINS
ROADWAY DESIGN DIVISION
MISSISSIPPI DEPARTMENT OF TRANSPORTATION





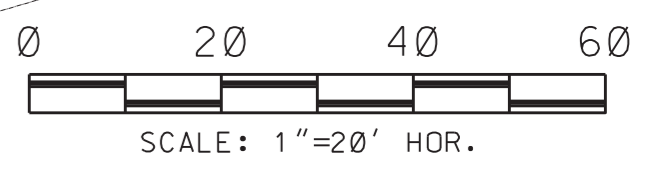
- HAUL ROAD AND/OR BRIDGE ARE ALLOWABLE CONSTRUCTION ACTIVITIES.
- CONTRACTOR MAY REQUEST MODIFICATION TO THE CLEARING LIMITS SHOWN ON THIS SHEET AS NEEDED. ANY MODIFICATIONS REQUESTED SHALL BE SUBMITTED TO MDOT BEFORE PROCEEDING WITH CLEARING.

- A** REFER TO THE 404 AND 401 PERMITS FOR ALLOWABLE ACTIVITIES IN THIS AREA
- B** NO CLEARING ALLOWED
- C** CLEARING AND GRUBBING ALLOWED

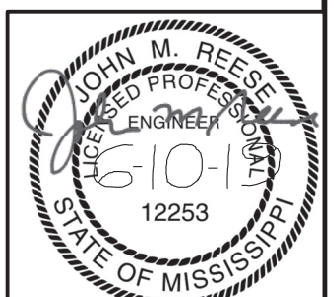


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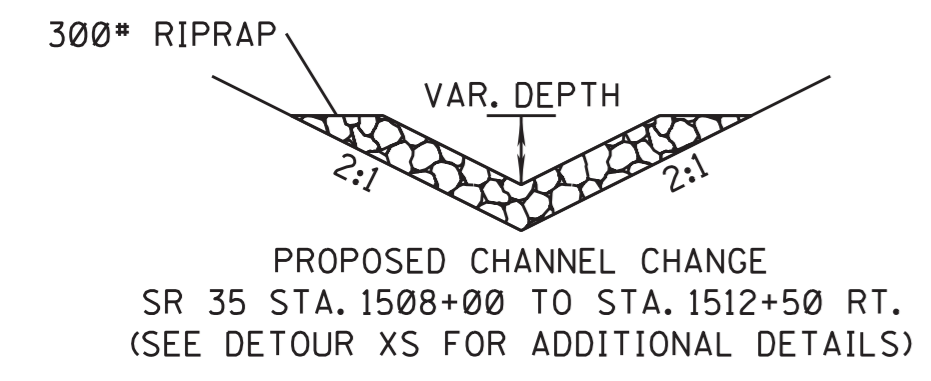


MISSISSIPPI DEPARTMENT OF TRANSPORTATION	
RIPARIAN BUFFER	
BRIDGE NO. 150.5	
SR 35 ACROSS BOKSHENYA CREEK	
PROJ. NO.: BR-0023-02(058)	
COUNTY: ATTALA	
DATE	FILENAME: ECP-RB-3.DGN
DESIGN TEAM	FA
CHECKED	DATE
WORKING NUMBER	ECP-RB-3
SHEET NUMBER	38



1st O.REV.

STATE	PROJECT NO.
MISS.	BR-0023-02(058)

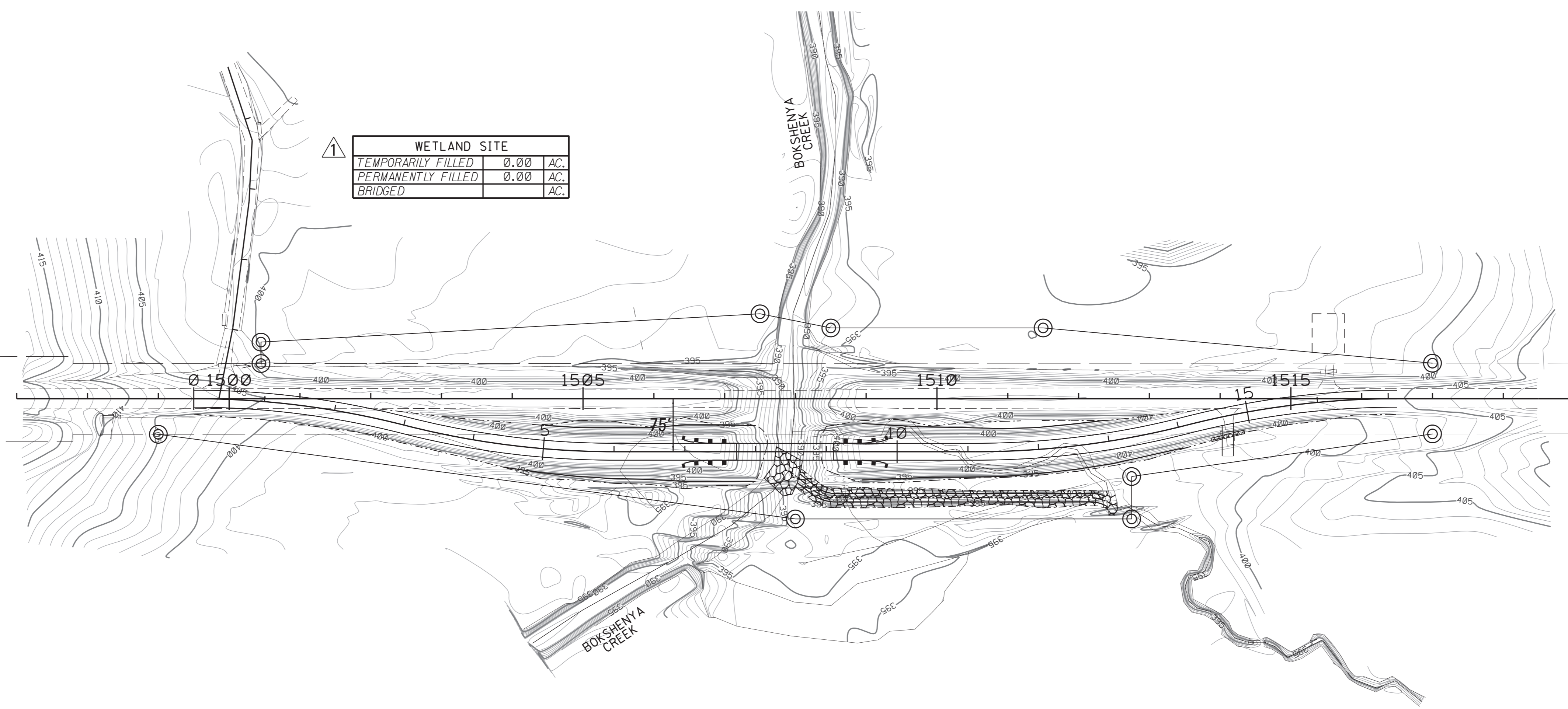


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BRIDGED		AC.

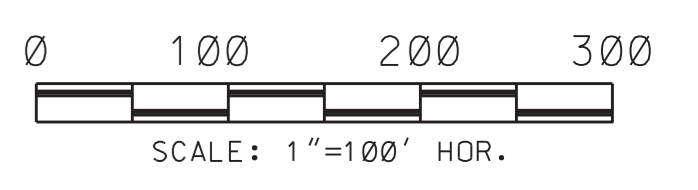
REVISIONS

DATE	BY
07/08/19	JMR

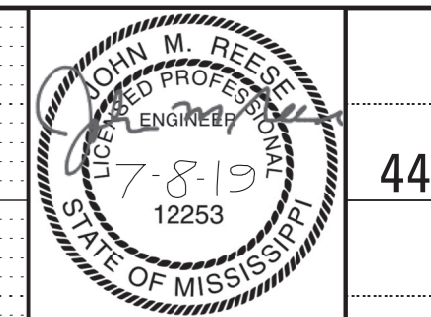
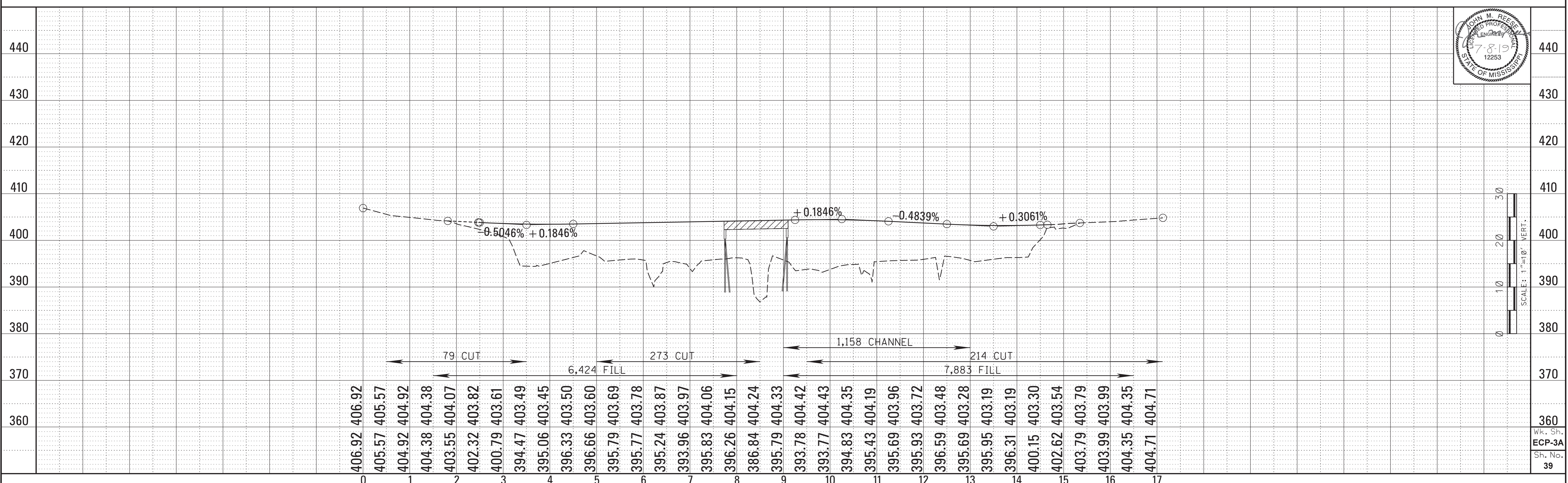
ADDED WETLANDS INFO



TEMPORARY EROSION CONTROL ITEMS	UNITS	SYMBOL	TOTALS
SILT FENCE	L.F.	SF	
SUPER SILT FENCE	L.F.	SSF	
WATTLES, 12"	L.F.		
WATTLES, 20"	L.F.		
TRIANGULAR SILT DIKE	L.F.		
SANDBAGS	L.F.		
RIPRAP	TON		
EROSION CHECKS	BALE		
TYPE D SILT BASINS	EACH		



7/8/2019 03:13:05 ECP-3A.DGN MISSISSIPPI DEPARTMENT OF TRANSPORTATION



1st O.REV.

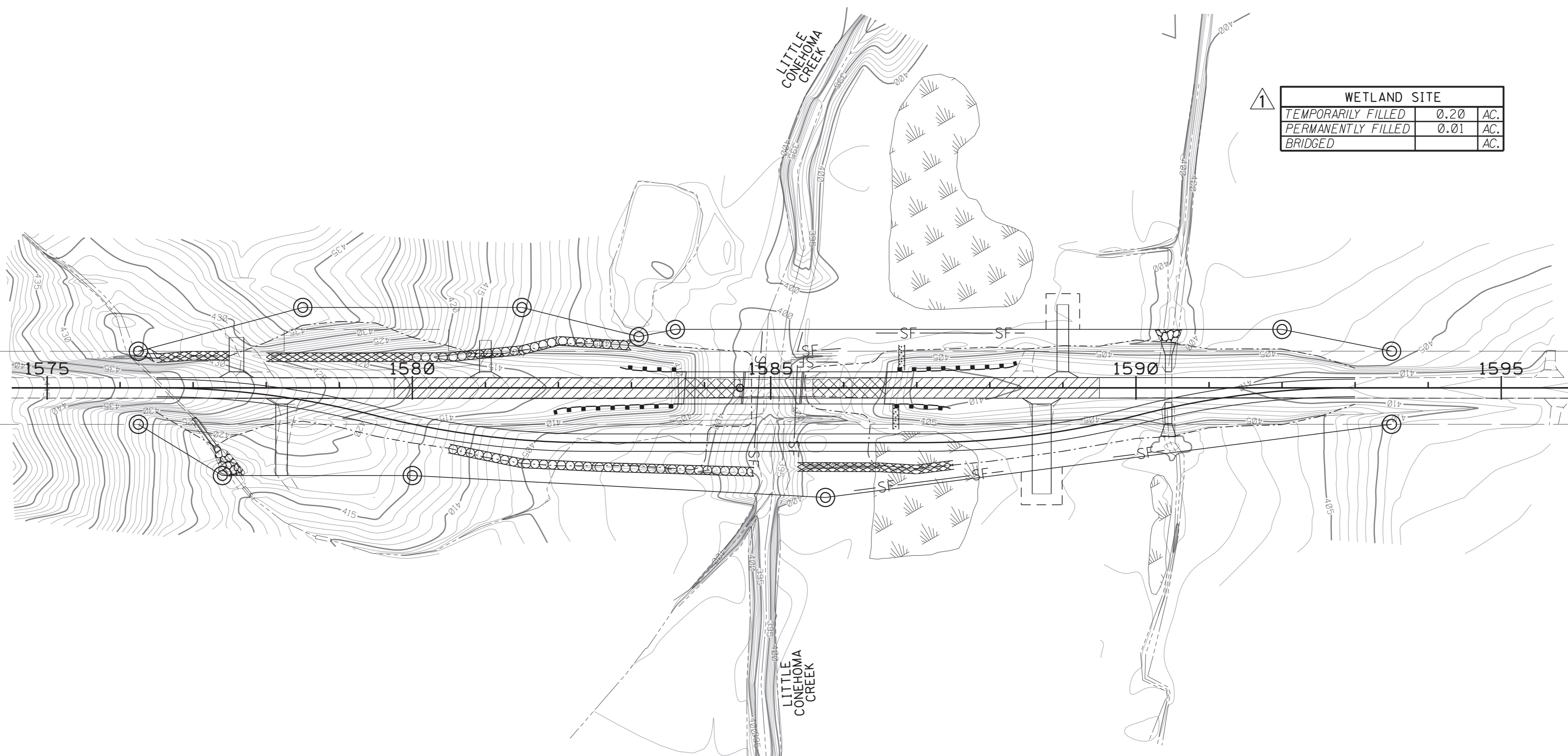
FMS CON: 103334/301000

STATE	PROJECT NO.
MISS.	BR-0023-02(058)

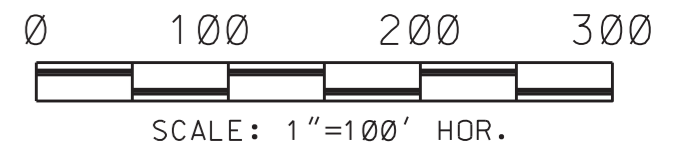
REVISIONS		
DATE	BY	
07/08/19	JMR	

△ REVISED WETLANDS INFO

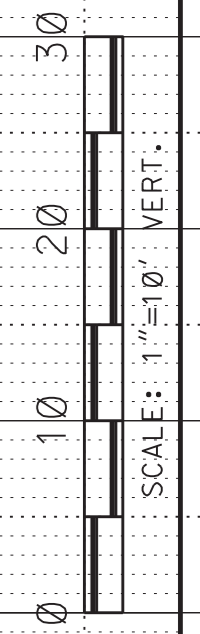
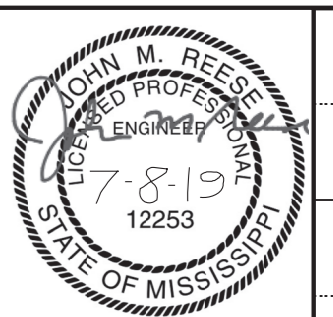
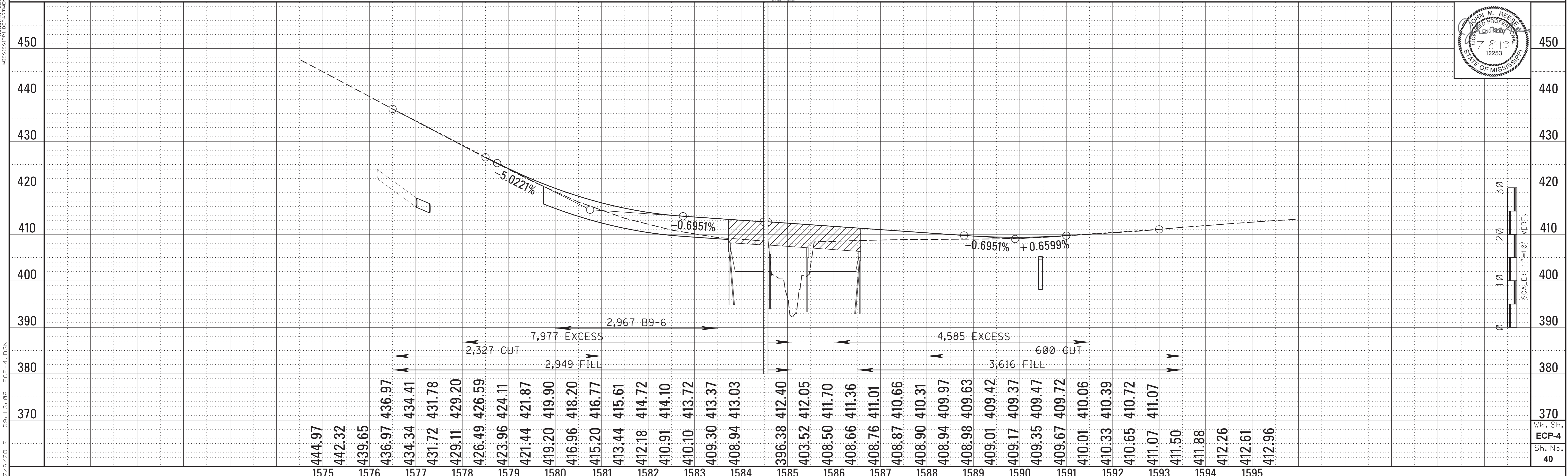
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PERMANENTLY FILLED	0.01	AC.
BRIDGED		AC.

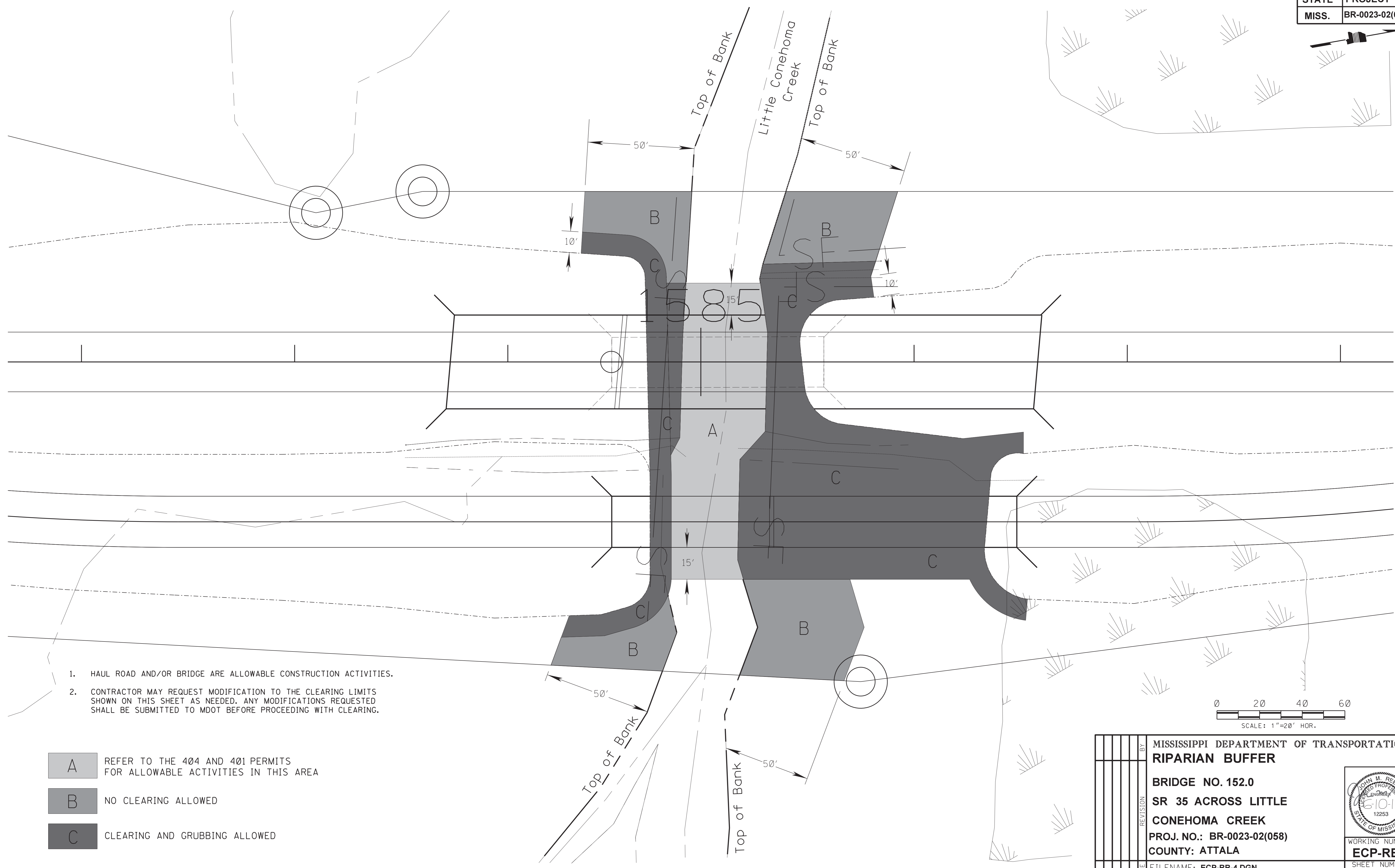


TEMPORARY EROSION CONTROL ITEMS	UNITS	SYMBOL	TOTALS
SILT FENCE	L.F.	-SF-	
SUPER SILT FENCE	L.F.	-SSF-	
WATTLES, 12"	L.F.		
WATTLES, 20"	L.F.		
TRIANGULAR SILT DIKE	L.F.		
SANDBAGS	L.F.		
RIPRAP	TON		
EROSION CHECKS	BALE		
TYPE D SILT BASINS	EACH		



L. W. WATKINS
ROADWAY DESIGN DIVISION
MISSISSIPPI DEPARTMENT OF TRANSPORTATION



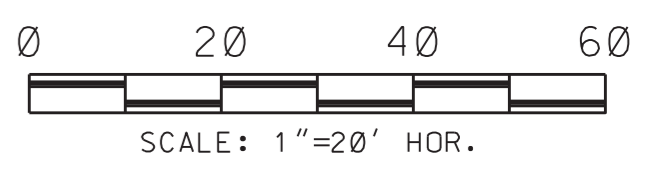


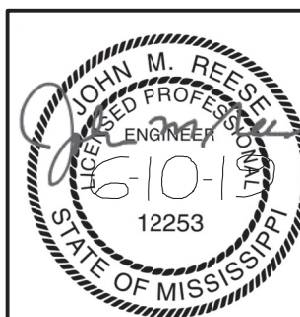
1. HAUL ROAD AND/OR BRIDGE ARE ALLOWABLE CONSTRUCTION ACTIVITIES.
2. CONTRACTOR MAY REQUEST MODIFICATION TO THE CLEARING LIMITS SHOWN ON THIS SHEET AS NEEDED. ANY MODIFICATIONS REQUESTED SHALL BE SUBMITTED TO MDOT BEFORE PROCEEDING WITH CLEARING.

A REFER TO THE 404 AND 401 PERMITS FOR ALLOWABLE ACTIVITIES IN THIS AREA

B NO CLEARING ALLOWED

C CLEARING AND GRUBBING ALLOWED



REVISION	BY	DATE	MISSISSIPPI DEPARTMENT OF TRANSPORTATION RIPARIAN BUFFER BRIDGE NO. 152.0 SR 35 ACROSS LITTLE CONEHOMA CREEK PROJ. NO.: BR-0023-02(058) COUNTY: ATTALA	 WORKING NUMBER ECP-RB-4 SHEET NUMBER 41		
FILENAME:	ECP-RB-4.DGN		DESIGN TEAM	FA	CHECKED	DATE

6/19/2019 7:28:54 AM ECP-RB-4.DGN

1st O.REV.

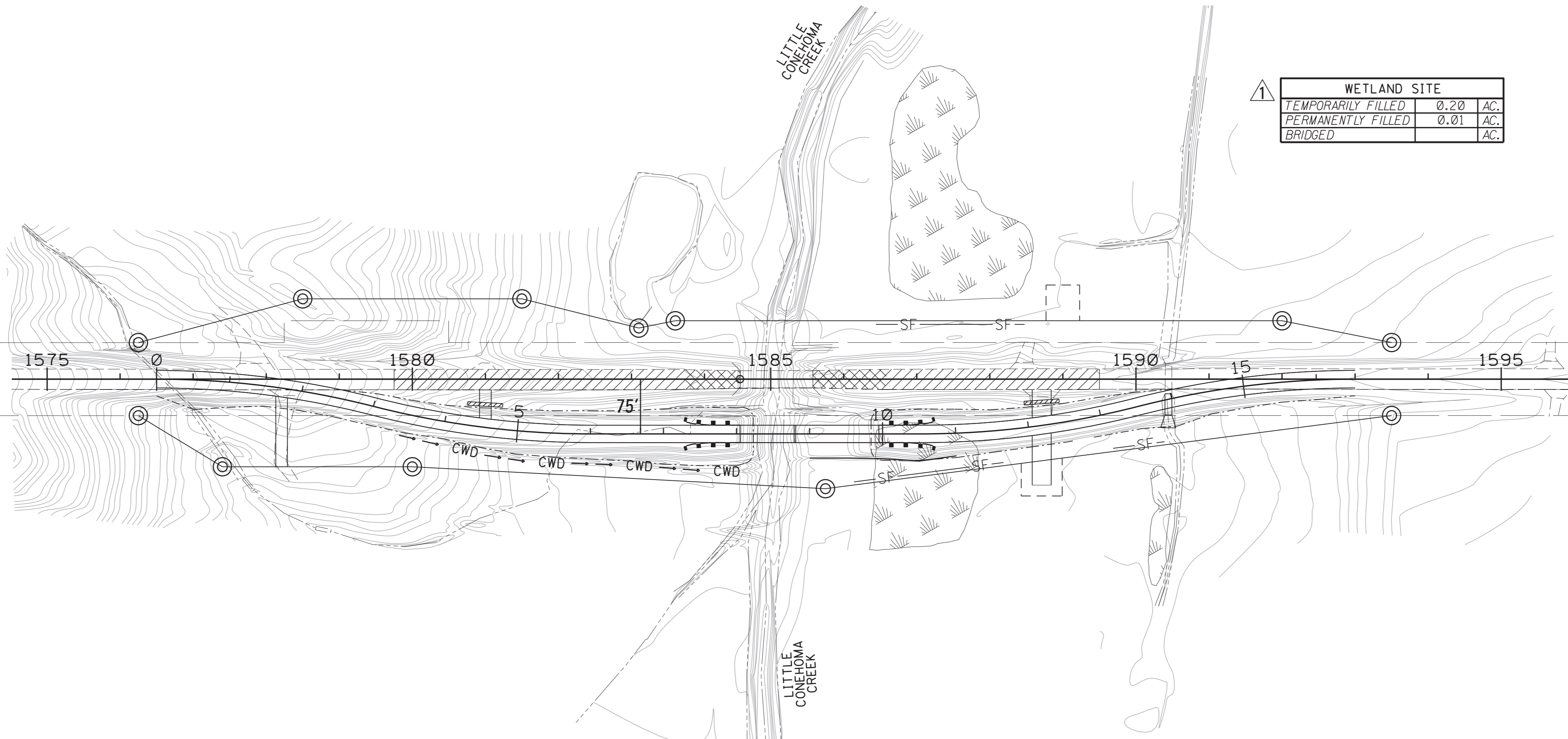
FMS CON: 103334/301000

STATE	PROJECT NO.
MISS.	BR-0023-02(058)

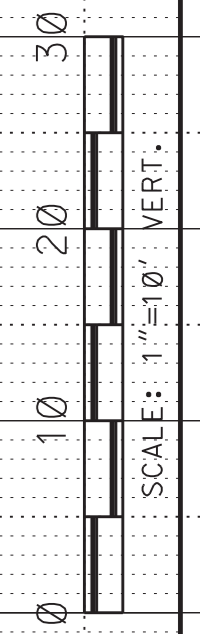
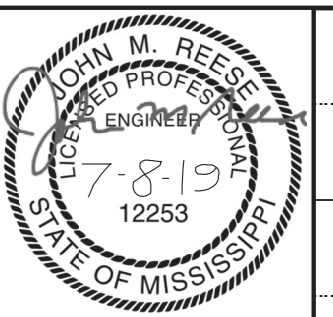
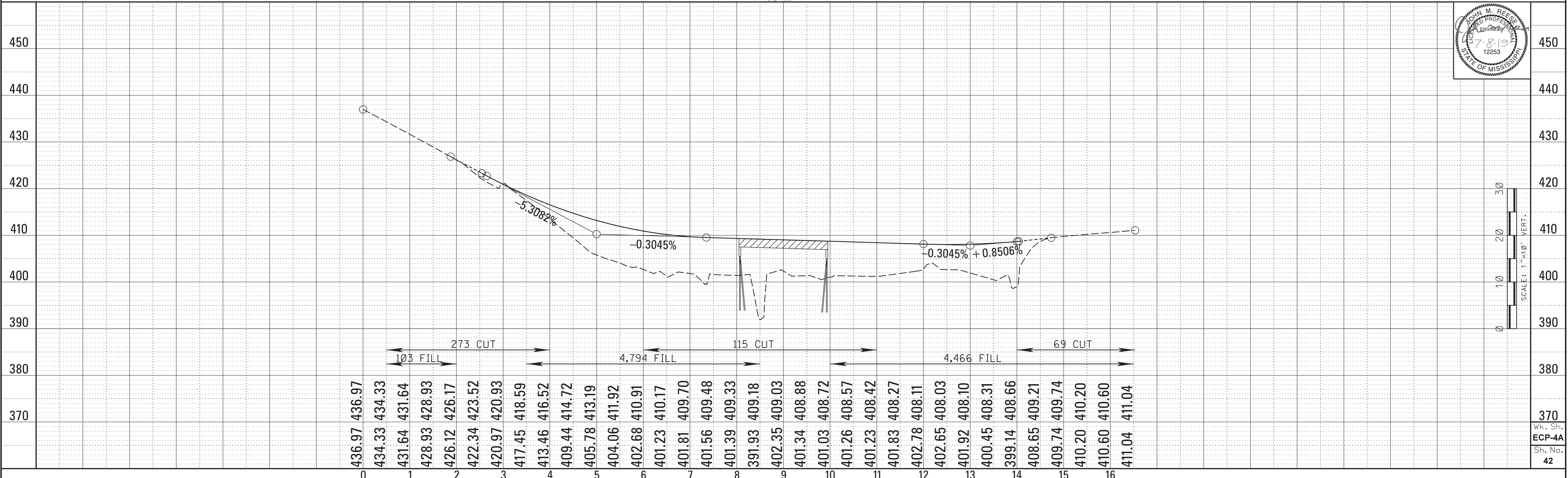
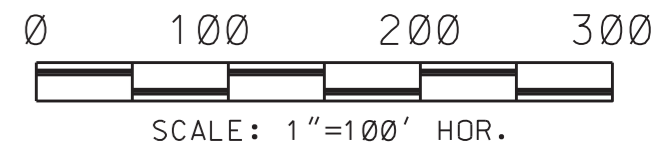
REVISIONS	
DATE	BY
07/08/19	JMR

△ REVISED WETLANDS INFO

WETLAND SITE		
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PERMANENTLY FILLED	0.01	AC.
BRIDGED		AC.



TEMPORARY EROSION CONTROL ITEMS	UNITS	SYMBOL	TOTALS
SILT FENCE	L.F.	SF	
SUPER SILT FENCE	L.F.	SSF	
WATTLES, 12"	L.F.		
WATTLES, 20"	L.F.		
TRIANGULAR SILT DIKE	L.F.		
SANDBAGS	L.F.		
RIPRAP	TON		
EROSION CHECKS	BALE		
TYPE D SILT BASINS	EACH		



7/8/2019 11:03:08 ECP-4A.DGN ROADWAY DESIGN DIVISION MISSISSIPPI DEPARTMENT OF TRANSPORTATION

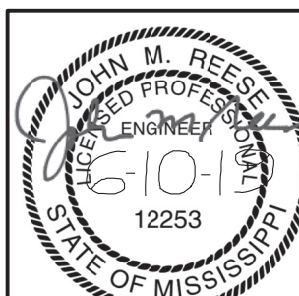
VEGETATION SCHEDULE

EROSION CONTROL ITEMS		SEASONAL APPLICATIONS-DATES & RATES				REQUIREMENTS
		SPRING & SUMMER		FALL & WINTER		
PAY ITEM NO.	ITEMS	RATES	DATES	RATES	DATES	
225-A001	STANDARD GROUND PREPARATION	PER SQ.YD.	MARCH 1 TO SEPTEMBER 1	PER SQ.YD.	SEPTEMBER 1 TO MARCH 1	GROUND PREPARATION REQUIRED ON AREAS TO RECEIVE SOLID SODDING OR SEEDING, AS APPLICABLE.
225-B001	AGRICULTURAL LIMESTONE	3 TONS/ACRE	MARCH 1 TO SEPTEMBER 1		SEPTEMBER 1 TO MARCH 1	LIMESTONE SHALL BE MECHANICALLY SPREAD UNIFORMLY AND INCORPORATED INTO THE SOIL PRIOR TO PLANTING.
225-A001	COMBINATION FERTILIZER (13-13-13)	250 LBS./ACRE	MARCH 1 TO SEPTEMBER 1		SEPTEMBER 1 TO MARCH 1	FERTILIZER SHALL BE MECHANICALLY SPREAD UNIFORMLY AND INCORPORATED INTO THE SOIL PRIOR TO PLANTING.
① 213-C001	SUPERPHOSPHATE	0.5 TONS/ACRE (EST.)	MARCH 1 TO DECEMBER 1			SUPERPHOSPHATE (FOR BID ITEM PURPOSES).
② 225-A001	SEEDING (BERMUDAGRASS)	80 LBS./ACRE	MARCH 1 TO SEPTEMBER 1			SEED REQUIRED ON DISTURBED AREAS. UNHULLED SEED MAY BE REQUIRED DURING THE DORMANT SEASON AS DIRECTED.
② 225-A001	SEEDING (TALL FESCUE)		MARCH 1 TO SEPTEMBER 1	100 LBS./ACRE	OCTOBER 1 TO MARCH 1	SEED REQUIRED ON DISTURBED AREAS.
③ 225-A001	SEEDING (CRIMSON CLOVER)			20 LBS./ACRE	AUGUST 1 TO APRIL 1	SEED REQUIRED ON DISTURBED AREAS.
225-C001	MULCH - VEGETATIVE MULCH	2 TONS ACRE (EST.)	MARCH 1 TO SEPTEMBER 1	2 TONS/ACRE (EST.)	SEPTEMBER 1 TO MARCH 1	THE ENGINEER WILL DESIGNATE THE RATES OF APPLICATION (SEE SUBSECTION 215.03.3).
216-A001	SOLID SODDING	PER SQ.YD.	MARCH 1 TO SEPTEMBER 1	PER SQ. YD.	SEPTEMBER 1 TO MARCH 1	SOLID SOD REQUIRED ON AREAS SPECIFIED IN THE CONTRACT OR BY THE ENGINEER.
219-A001	WATERING	20 GALS./S.Y. (EST.)	MARCH 1 TO SEPTEMBER 1	20 GALS. S.Y. (EST.)	SEPTEMBER 1 TO MARCH 1	TO BE USED AS DIRECTED IN THE PLANTING AND ESTABLISHING SOLID SOD.
④ 220-A001	INSECT PEST CONTROL	PER ACRE		PER ACRE		SEE SECTION 220.
TEMPORARY EROSION CONTROL ITEMS						
226-A001	LIGHT GROUND PREPARATION	PER SQ.YD.		PER SQ.YD.		APPROXIMATELY HALF SQ. YD. STANDARD GROUND PREPARATION
226-A001	COMBINATION FERTILIZER (13-13-13)	250 LBS./ACRE				QUANTITY BASED ON LIGHT GROUND PREPARATION
226-A001	SEEDING (BROWN TOP MILLET)	20 LBS./ACRE	APRIL 1 TO AUGUST 31			QUANTITY BASED ON LIGHT GROUND PREPARATION
226-A001	SEEDING (RYE GRASS)			25 LBS./ACRE	SEPTEMBER 1 TO MARCH 31	QUANTITY BASED ON LIGHT GROUND PREPARATION
226-A001	SEEDING (OATS)			90 LBS./ACRE	SEPTEMBER 1 TO DECEMBER 15	QUANTITY BASED ON LIGHT GROUND PREPARATION
226-A001	VEGETATIVE MATERIAL FOR MULCH	2 TON /ACRE (EST.)		2 TON /ACRE (EST.)		QUANTITY BASED ON LIGHT GROUND PREPARATION

- ① ALL AREAS THAT HAVE BEEN VEGETATED, UNDER THIS CONTRACT FOR AT LEAST (60) SIXTY DAYS, SHALL RECEIVE ADDITIONAL APPLICATION(S) OF FERTILIZER(S) OF THE TYPE(S) AND RATE(S) OF APPLICATIONS AS DETERMINED BY SOIL TESTS OR AS DIRECTED DURING THE GROWING SEASONS THE CONTRACT IS IN FORCE. GROUND PREPARATION WILL NOT BE REQUIRED FOR THE ADDITIONAL APPLICATIONS. PAYMENT FOR ALL FERTILIZERS ACCEPTABLY APPLIED AS AN ADDITIONAL APPLICATION(S) WILL BE MADE IN ACCORDANCE WITH SUPERPHOSPHATE BID ITEM 213-C001.
- ② PROPOSAL QUANTITIES ESTIMATED ON THE BASIS THAT 100% OF THE ACREAGE WILL BE SEEDED.
- ③ PROPOSAL QUANTITIES ESTIMATED ON THE BASIS THAT 50% OF THE ACREAGE WILL BE SEEDED.
- ④ QUANTITY ESTIMATED ON THE BASIS 50% OF THE ACREAGE VEGETATED MAY REQUIRE TREATMENT.

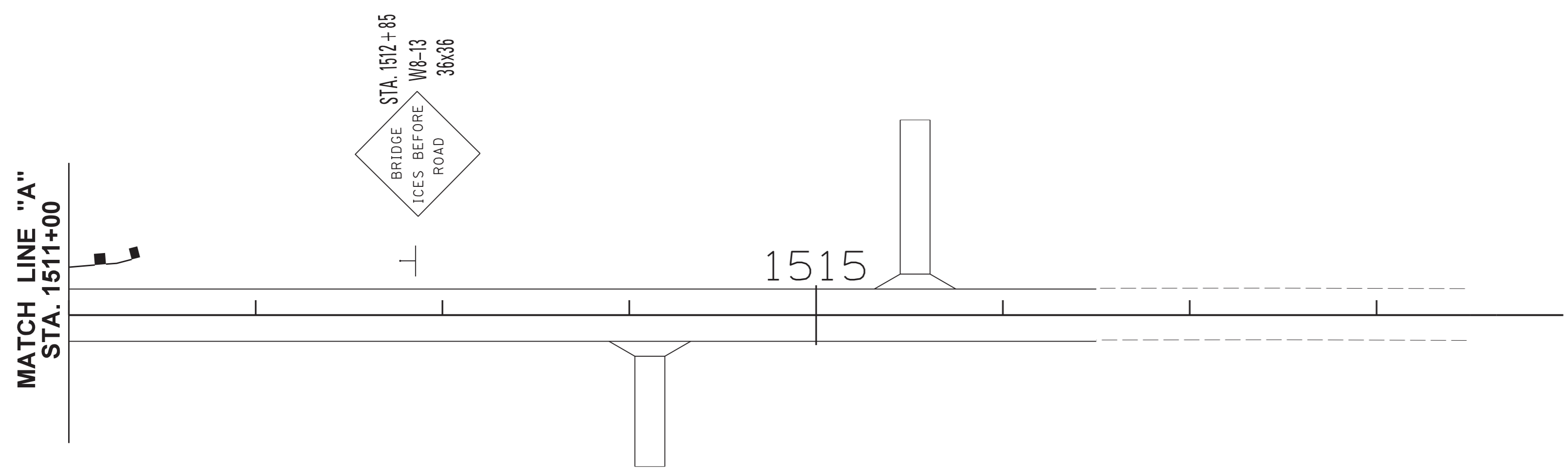
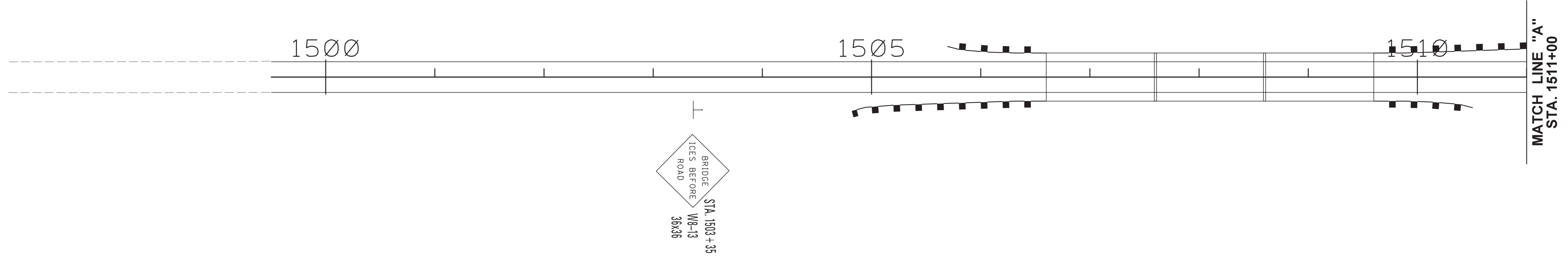
TEMPORARY EROSION CONTROL ITEMS REQUIRED FOR DETOURS	
ITEM	RATE
STANDARD GROUND PREPARATION	
COMBINATION FERTILIZER (13-13-13)	500 LBS/ACRE
SEEDING (BERMUDAGRASS)	10 LBS/ACRE
SEEDING (TALL FESCUE)	20 LBS/ACRE
VEGETATIVE MATERIAL FOR MULCH	2 TONS/ACRE

6/19/2019 7:28:26 AM VS-1.DGN

REVISION	BY	DATE	MISSISSIPPI DEPARTMENT OF TRANSPORTATION VEGETATION SCHEDULE DISTRICT 1 OR 2 RURAL-PAVE/GUARDRAIL/BRIDGE EXCLUDING MS DELTA PROJ. NO.: BR-0023-02(058) COUNTY: ATTALA
FILENAME: VS-1.DGN DESIGN TEAM: FA CHECKED: DATE:			 WORKING NUMBER VS-1 SHEET NUMBER 43

STATE	PROJECT NO.
MISS.	BR-0023-02(058)

NOTE:
SEE STANDARD DRAWING SN-9 FOR
OBJECT MARKERS AND OTHER
INFORMATION AT BRIDGE APPROACHES.

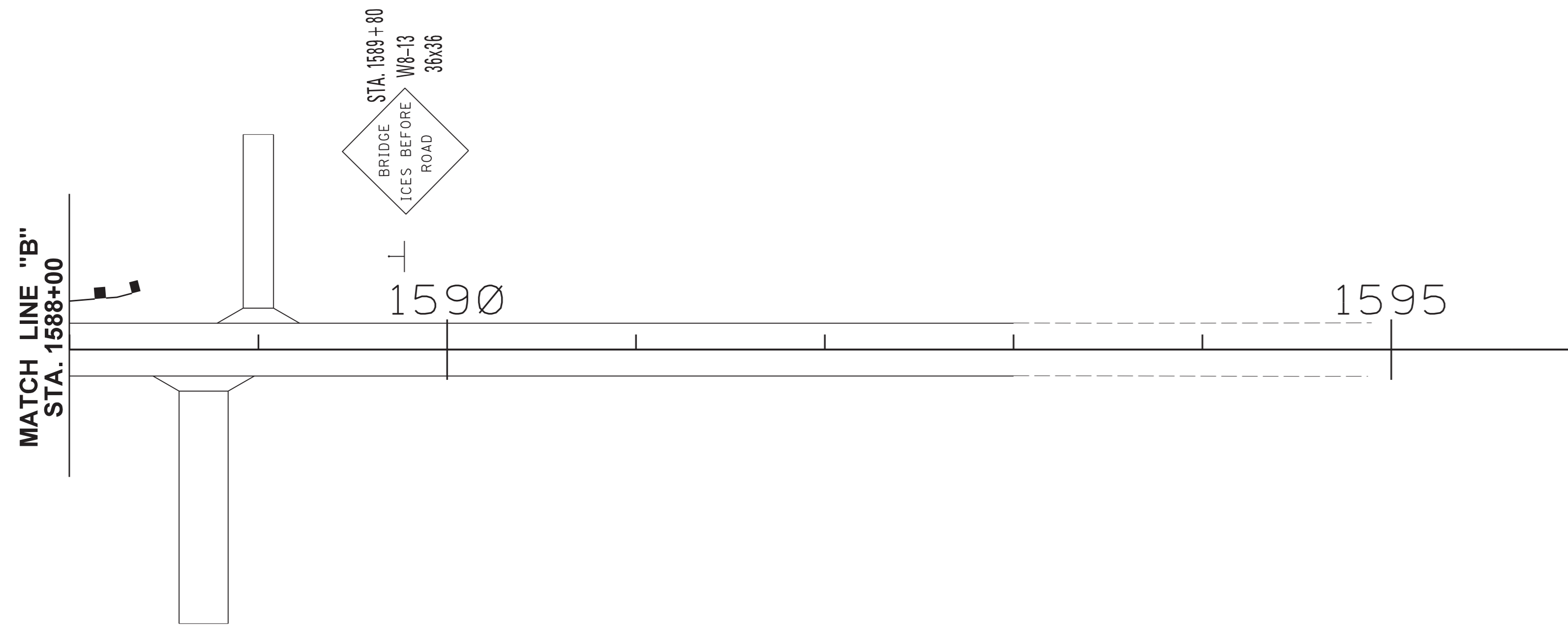
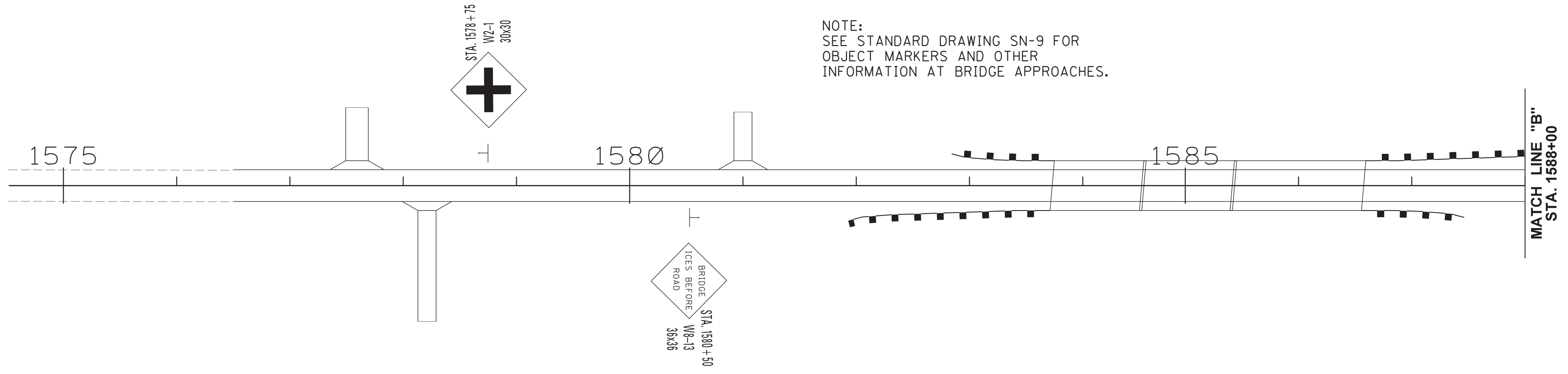


6/19/2019 7:28:44 AM PSP-1 - SITE1.DGN

MISSISSIPPI DEPARTMENT OF TRANSPORTATION PERMANENT SIGNING SR 35 (SITE 1)		
PROJ. NO.: BR-0023-02(058) COUNTY: ATTALA		
FILENAME: PSP-1-SITE1.DGN DESIGN TEAM: FA CHECKED: _____ DATE: _____	WORKING NUMBER PSP-1 SHEET NUMBER 1001	

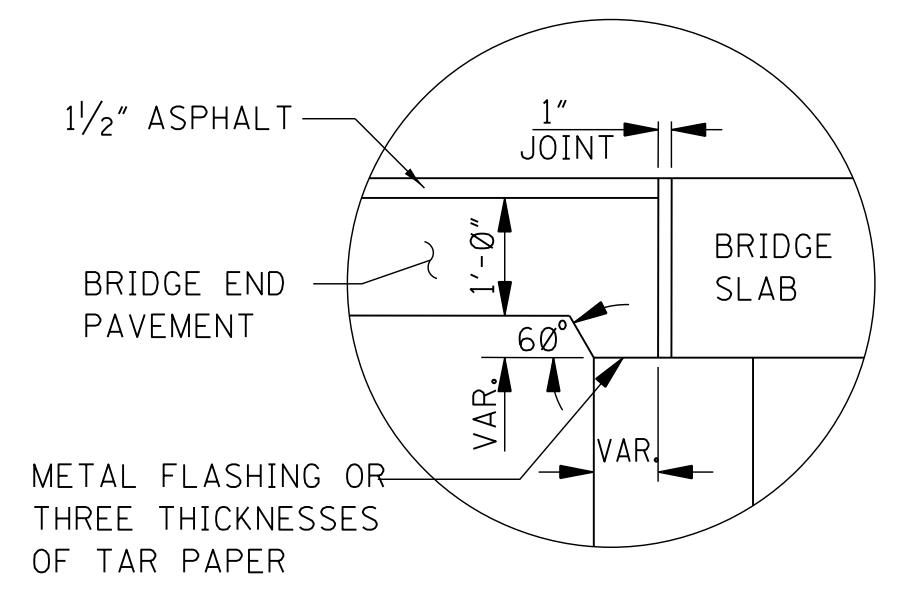
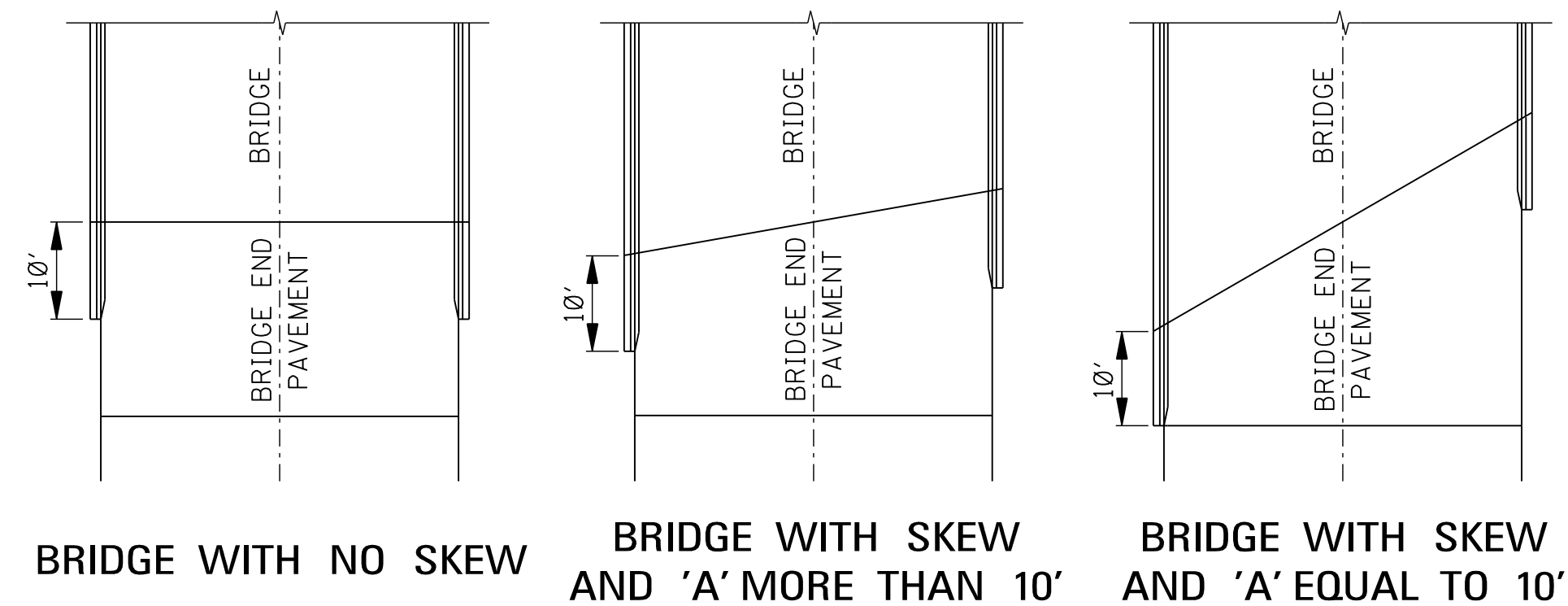
STATE	PROJECT NO.
MISS.	BR-0023-02(058)

NOTE:
SEE STANDARD DRAWING SN-9 FOR
OBJECT MARKERS AND OTHER
INFORMATION AT BRIDGE APPROACHES.

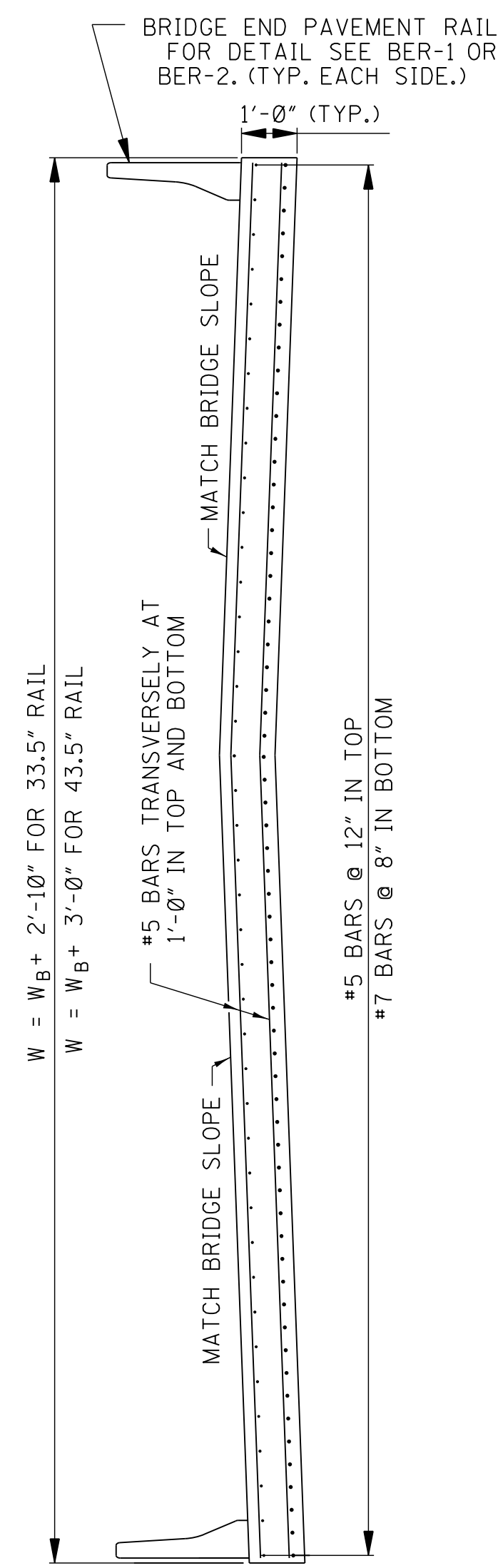


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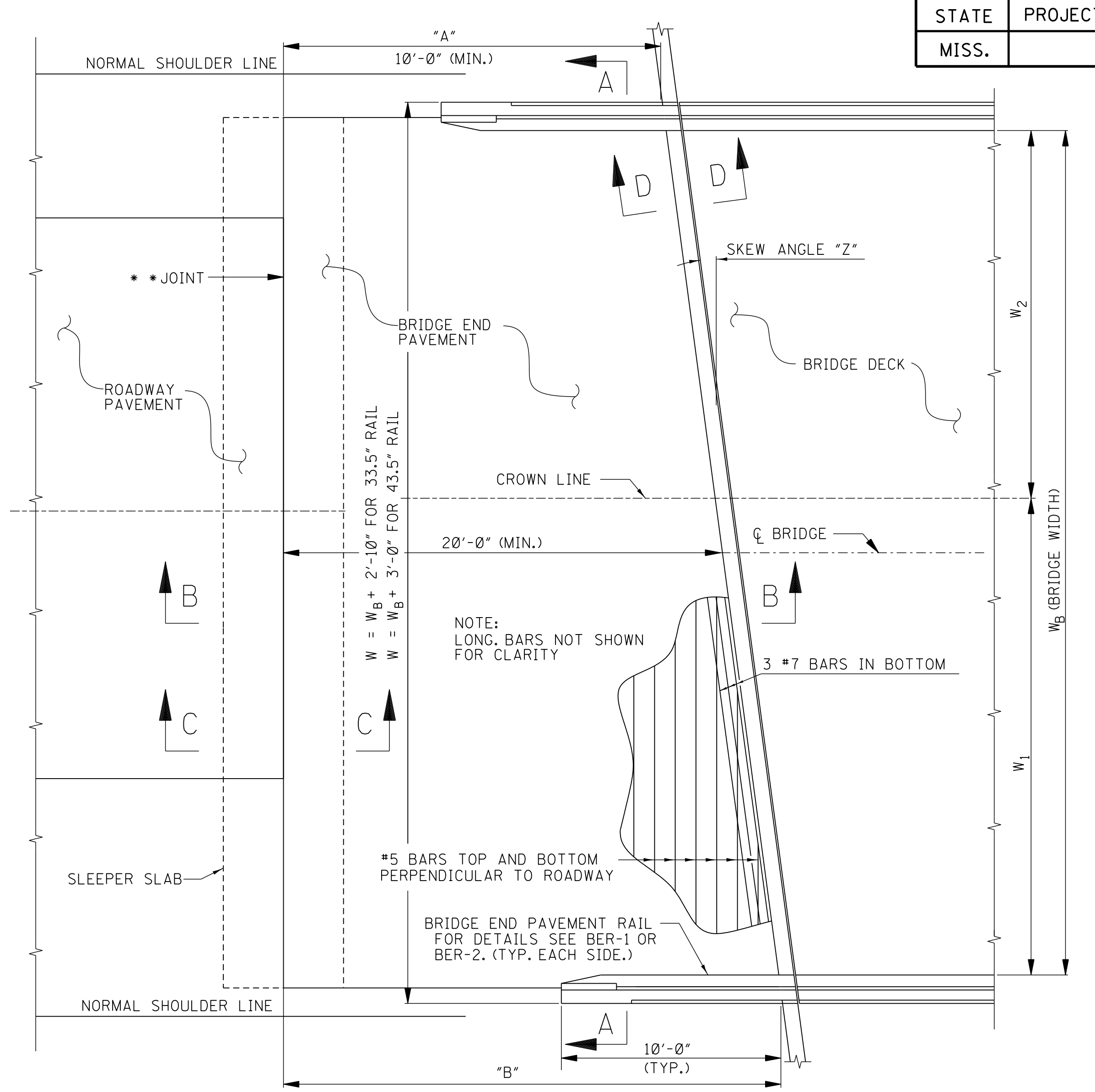
MISSISSIPPI DEPARTMENT OF TRANSPORTATION PERMANENT SIGNING		
SR 35 (SITE 2)		
PROJ. NO.: BR-0023-02(058) COUNTY: ATTALA		WORKING NUMBER PSP-2
DATE	FILENAME: PSP-2-SITE2.DGN	SHEET NUMBER 1002
DESIGN TEAM	FA	CHECKED
		DATE



DETAIL SHOWING METHOD OF SEATING BRIDGE END PAVEMENT ON BRIDGES WITH NO PAVING BRACKET

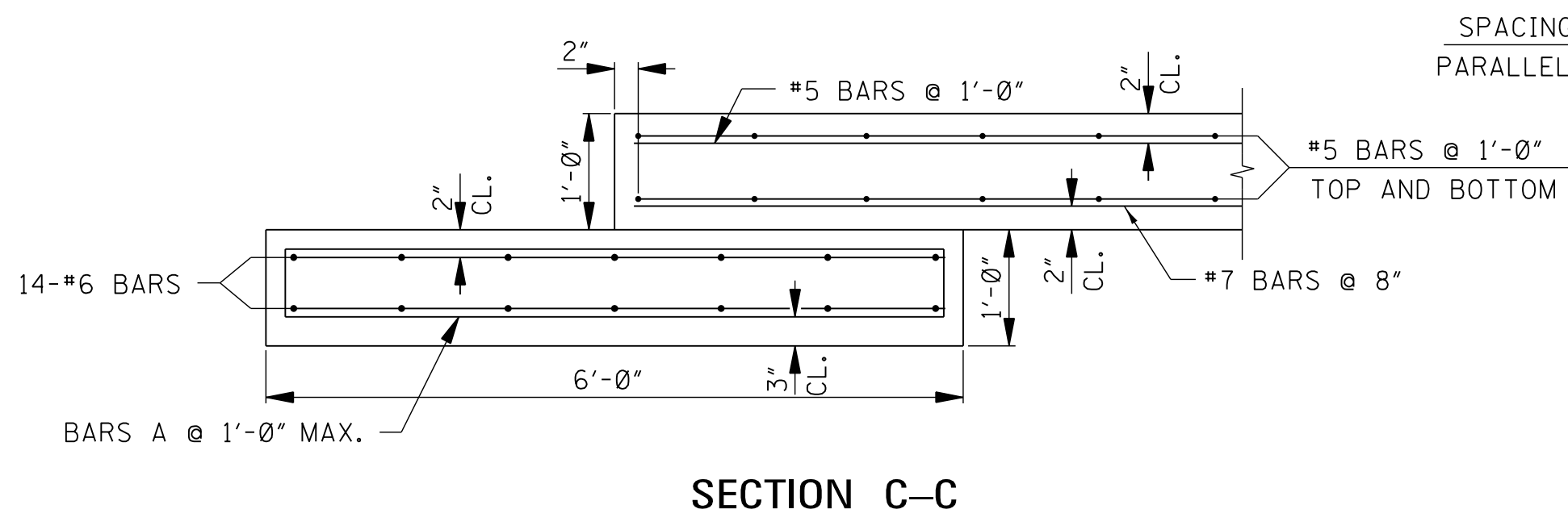


SECTION A-A



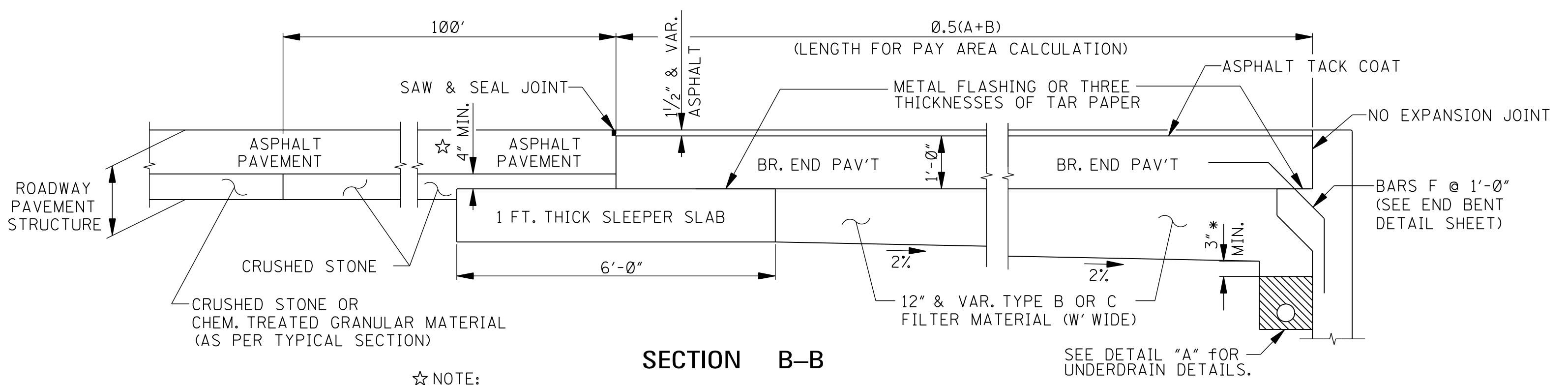
PLAN AT BRIDGE END

****NOTE:**
1" PREMOLDED EXPANSION JOINT SEALED WITH POURED JOINT FILLER (DOWELED). THIS JOINT REQUIRED ONLY IF ROADWAY PAVEMENT IS CONCRETE.



SECTION C-C

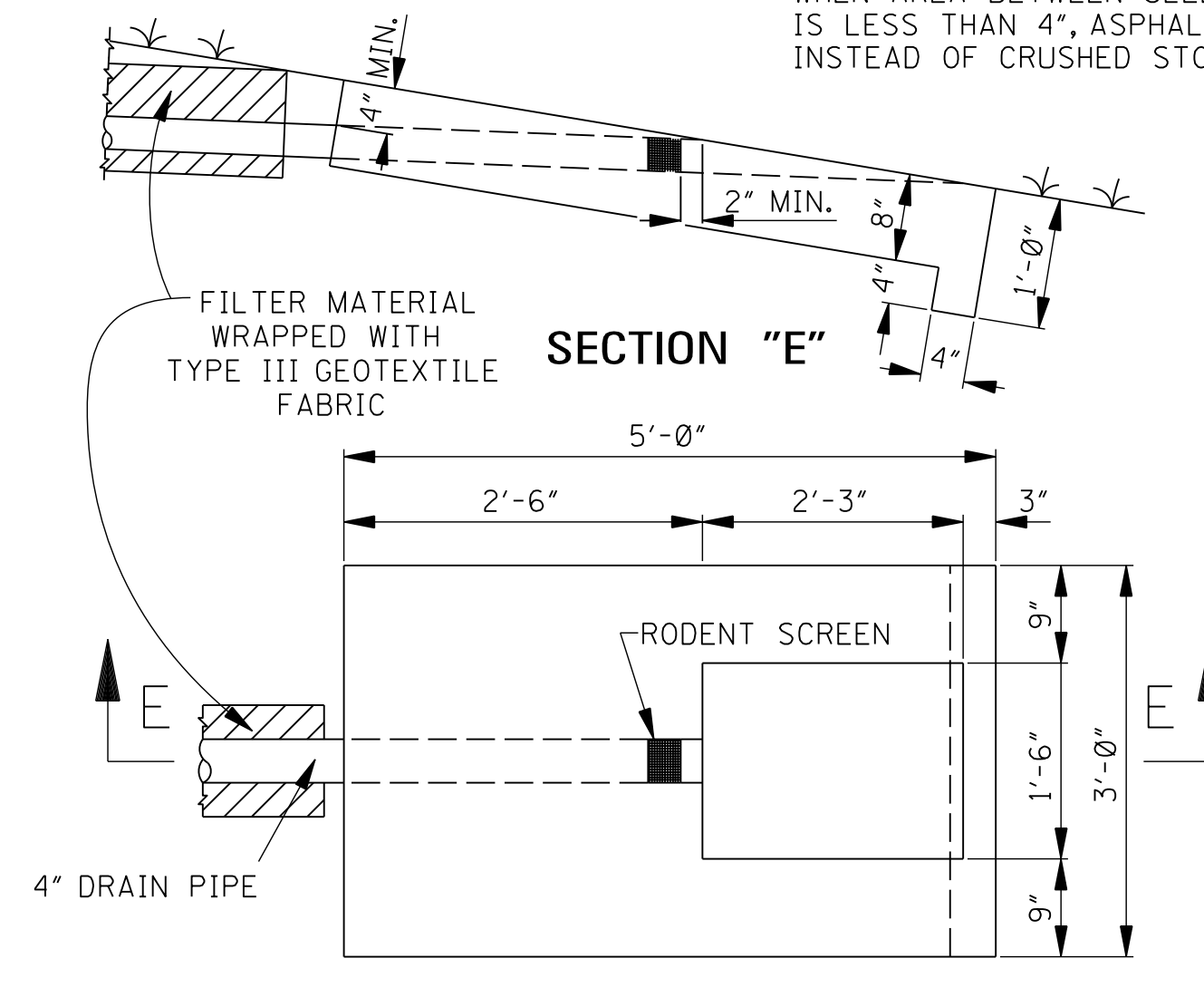
SECTION D-D



SECTION B-B

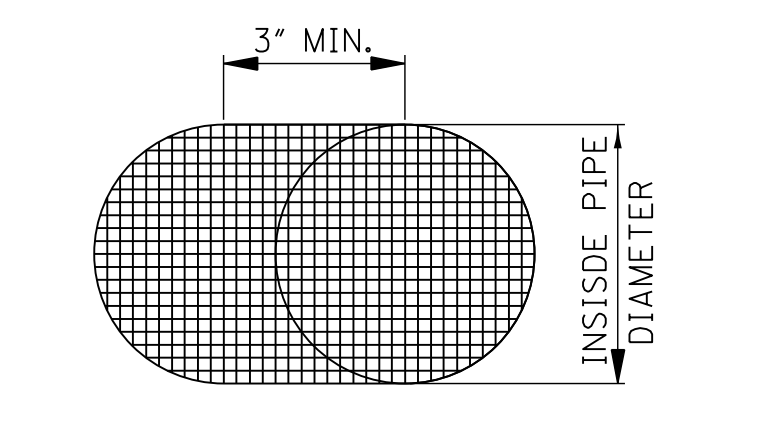
☆NOTE:
WHEN AREA BETWEEN SLEEPER SLAB AND ASPHALT IS LESS THAN 4", ASPHALT SHOULD BE USED INSTEAD OF CRUSHED STONE.

*** NOTE:**
ADJUST AS NECESSARY TO ENSURE PROPER DRAINAGE.



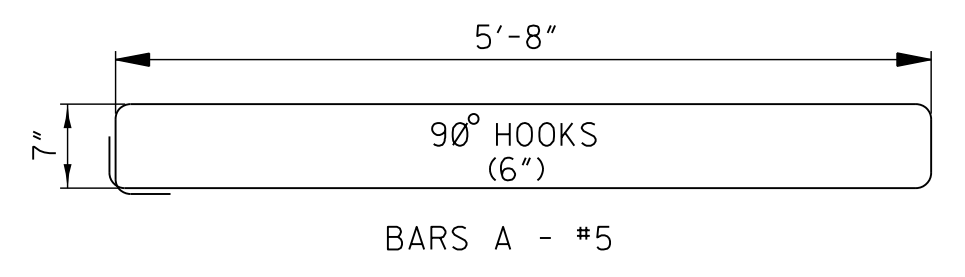
SECTION "E"

OUTLET APRON DETAIL

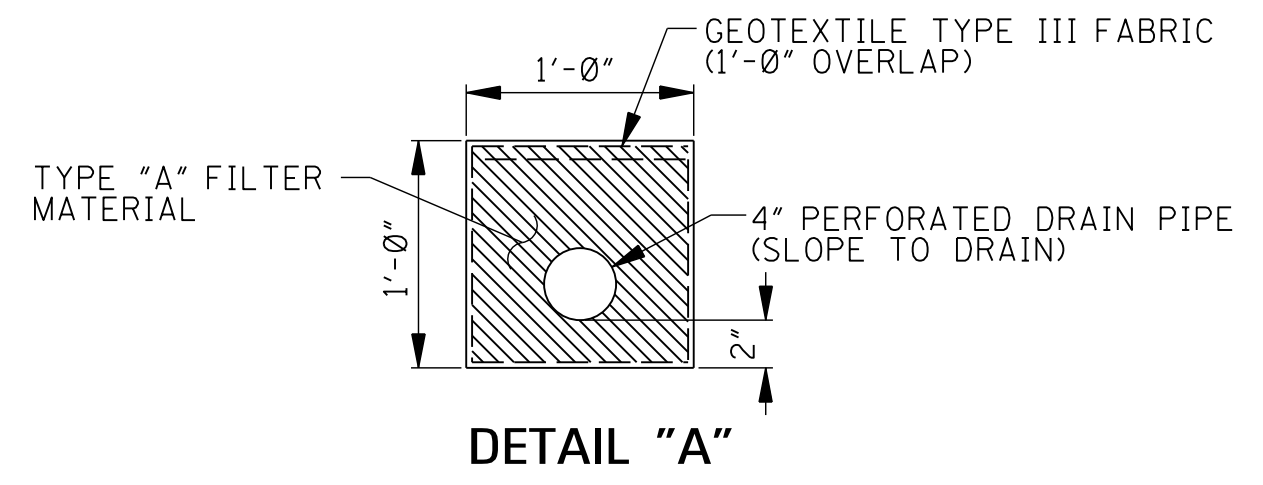


DETAIL OF RODENT SCREEN

3x3 GALVANIZED HARDWARE CLOTH 0.063 WIRE OR EQUAL FORMED TO FIT SNUG TO INSIDE OF PIPE. (COST ABSORBED)



BAR BENDING DETAILS
DIMENSIONS ARE OUT TO OUT



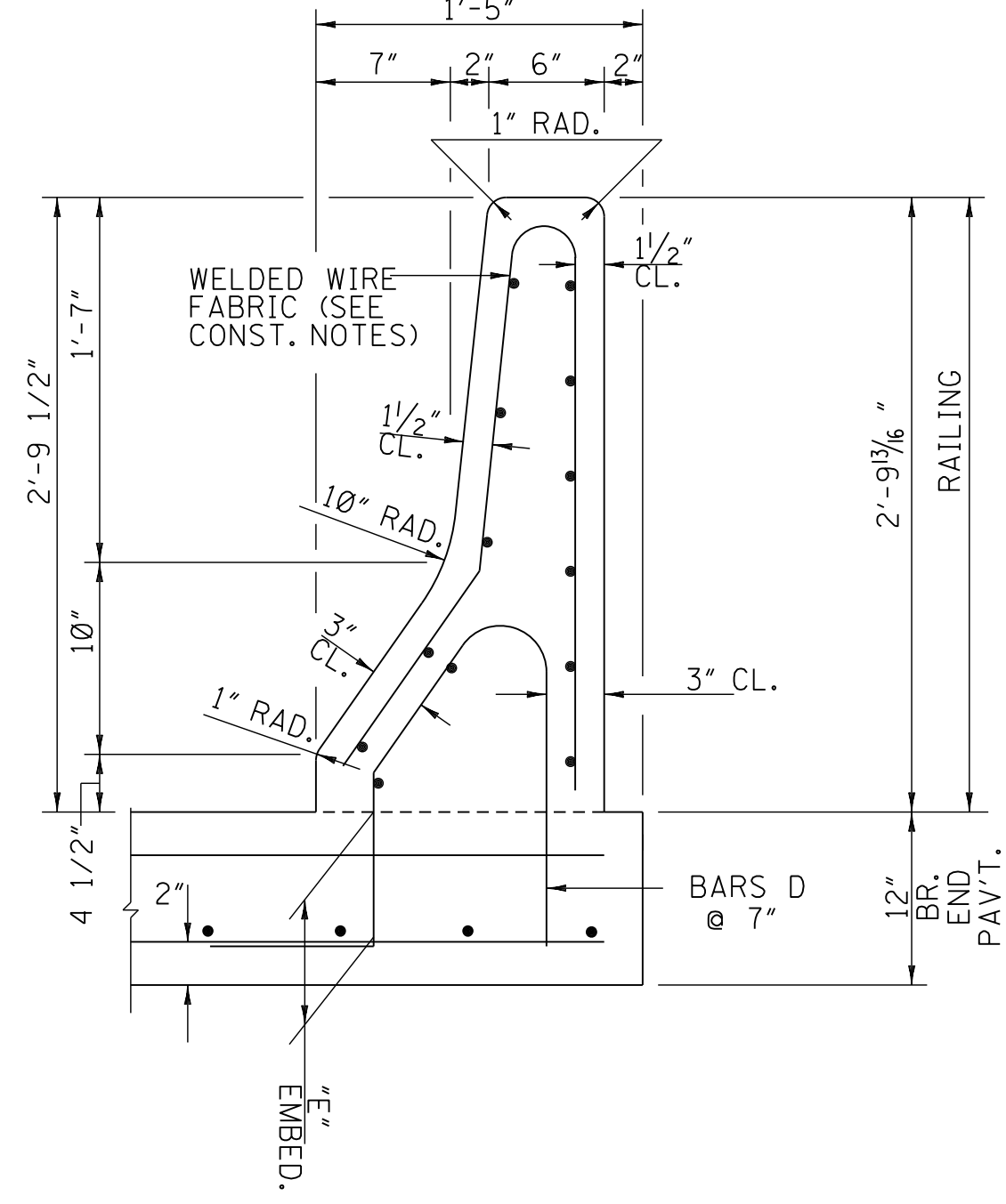
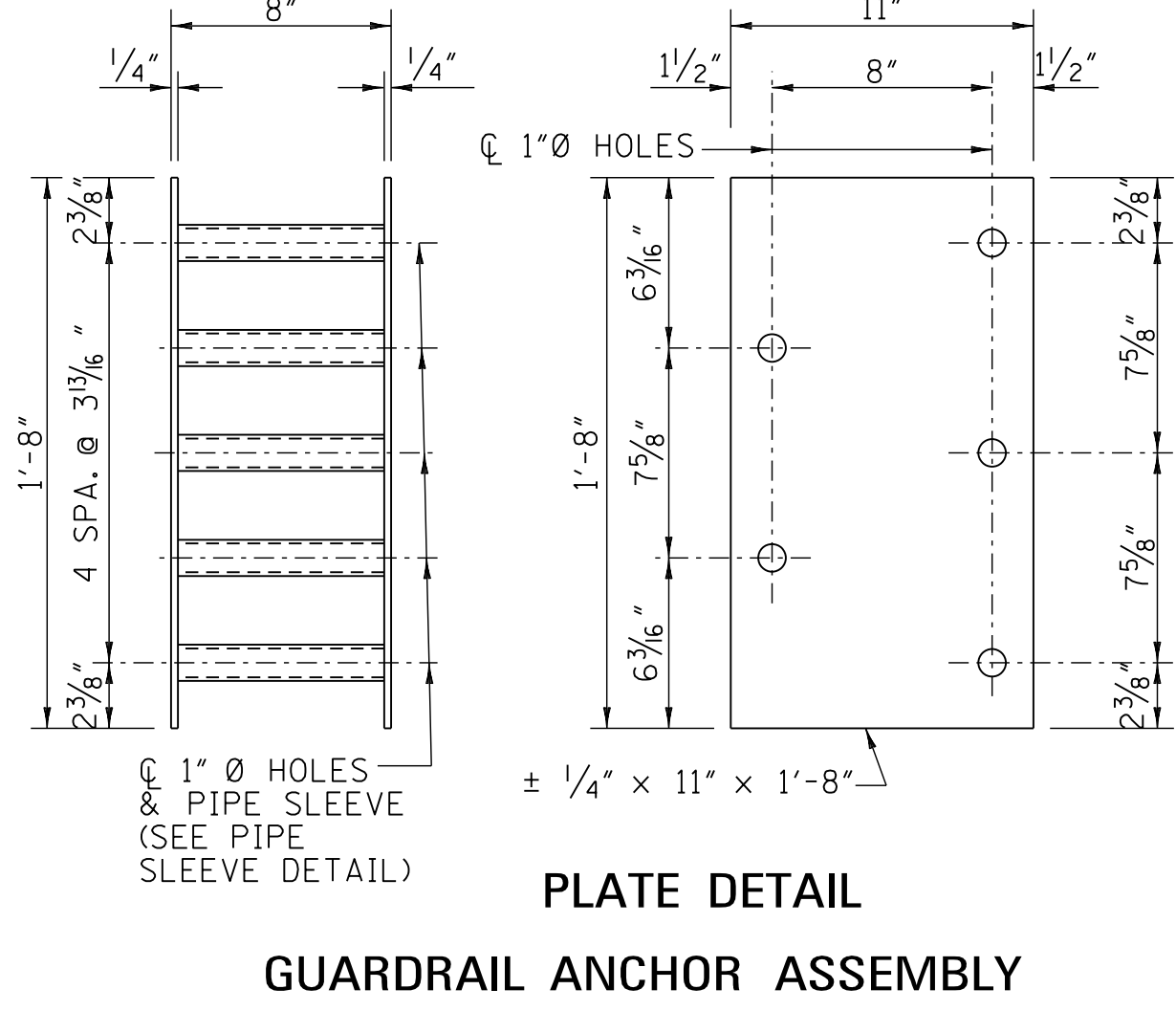
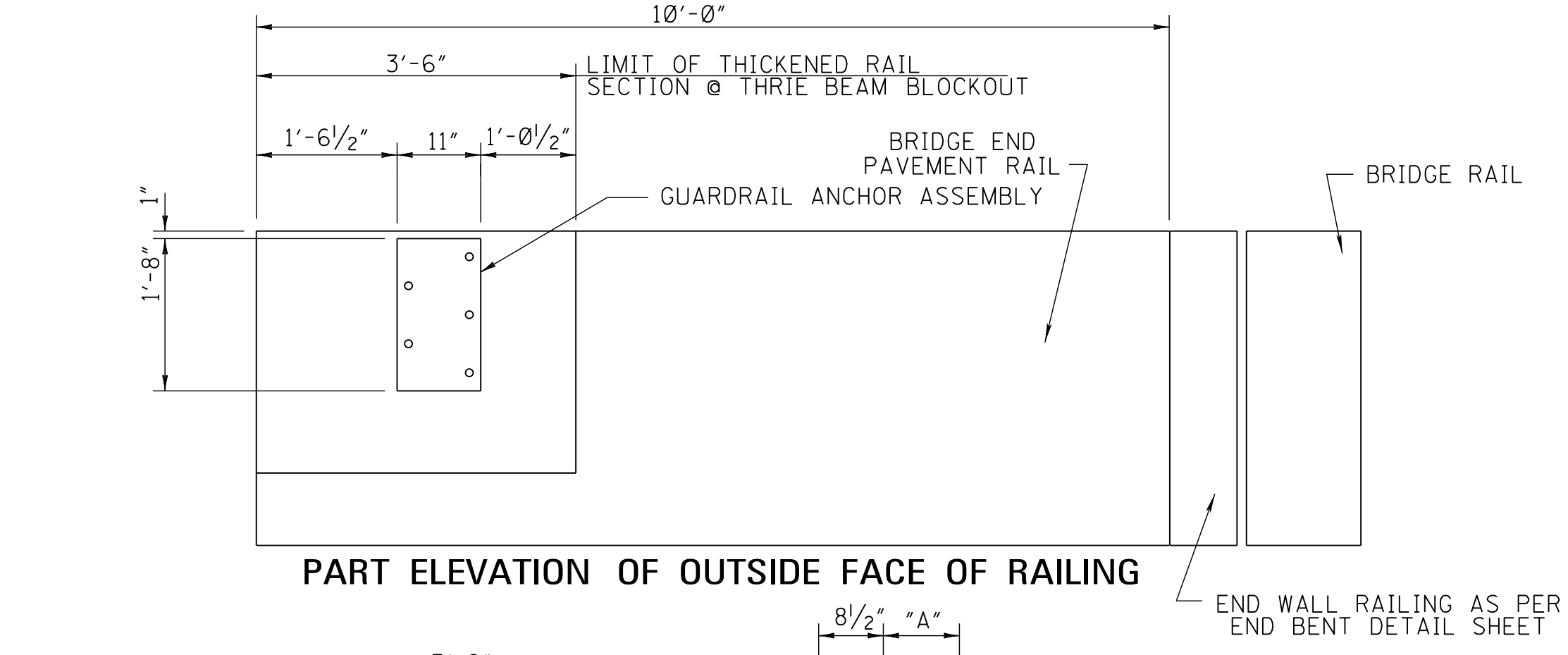
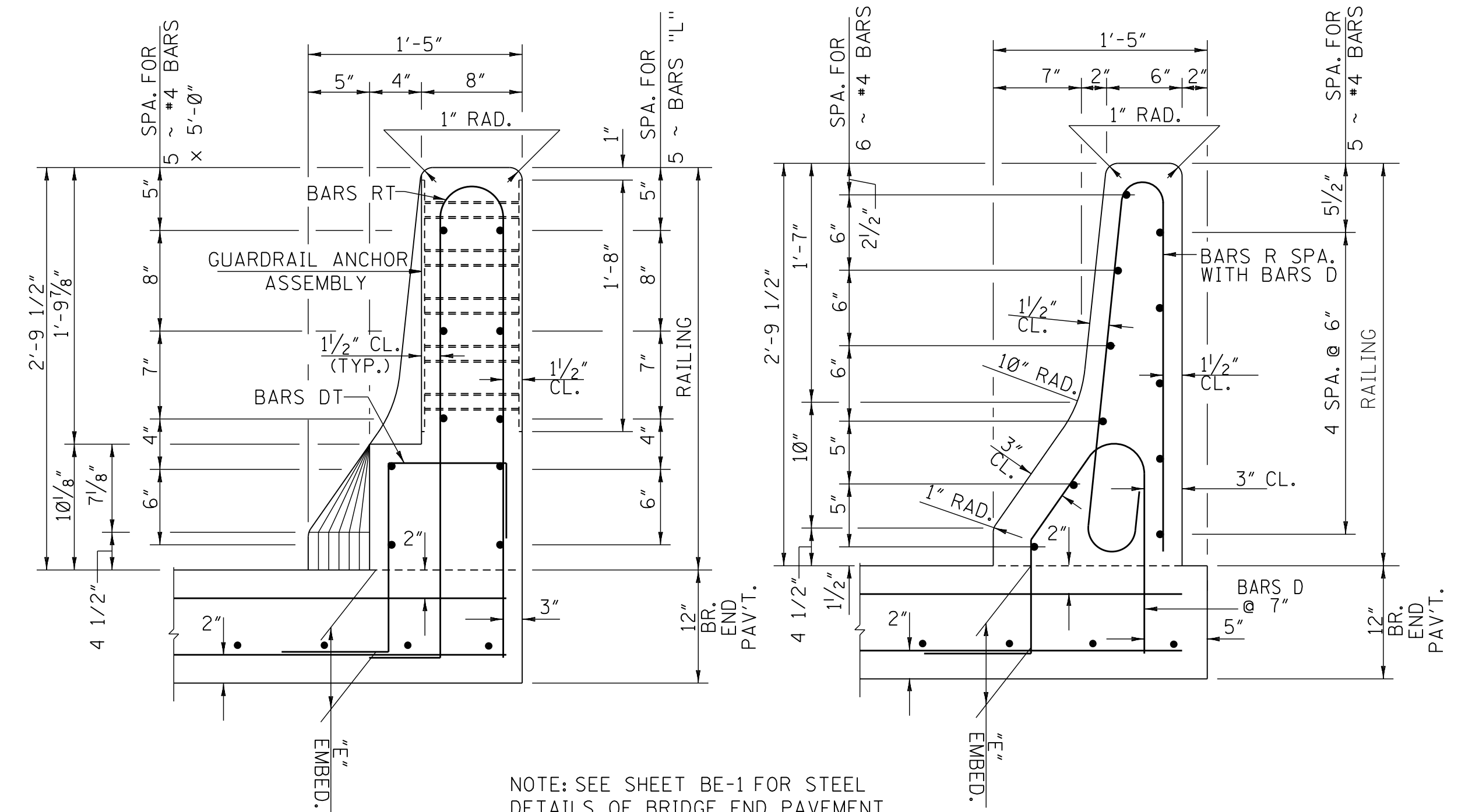
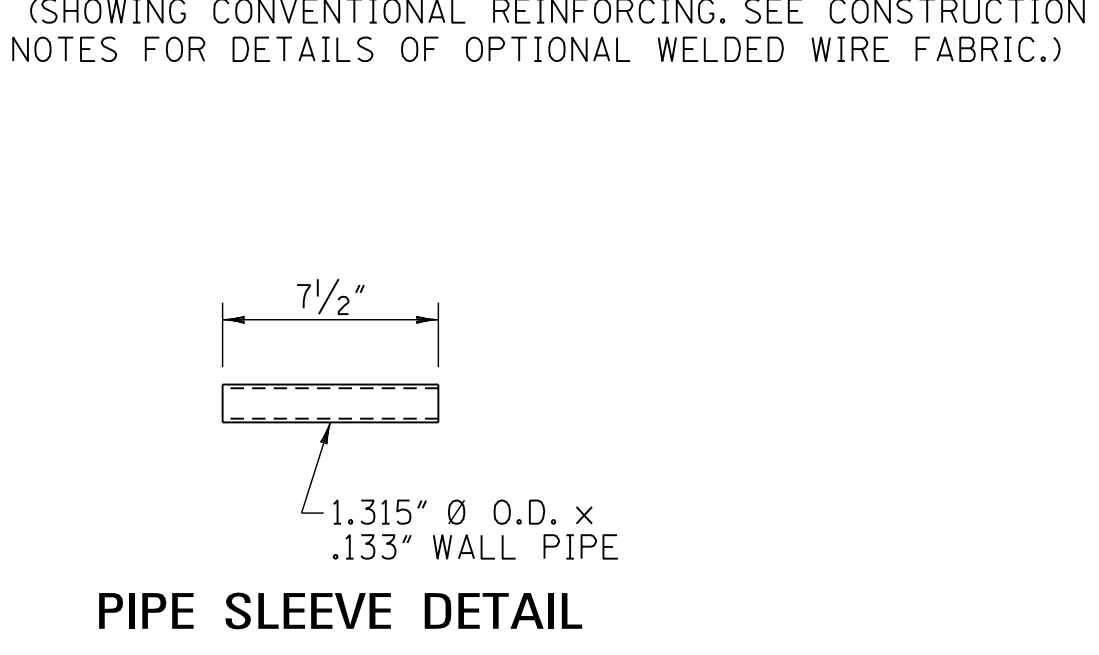
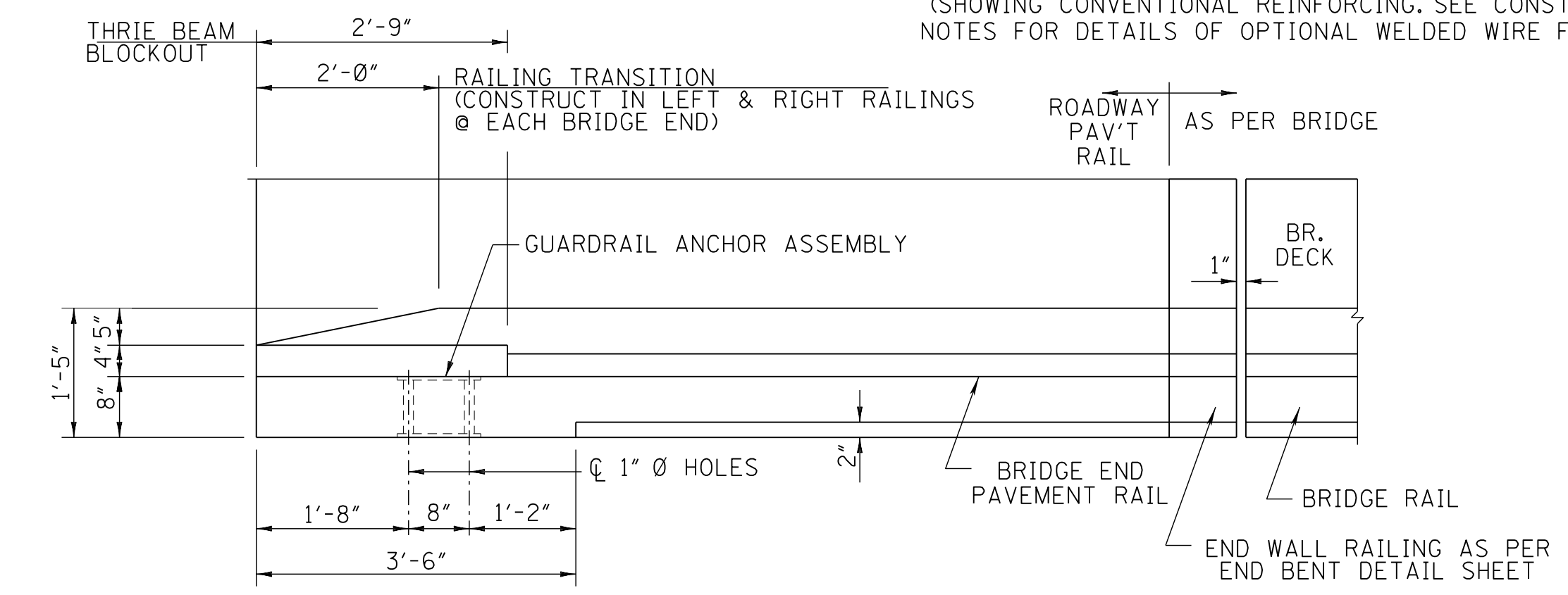
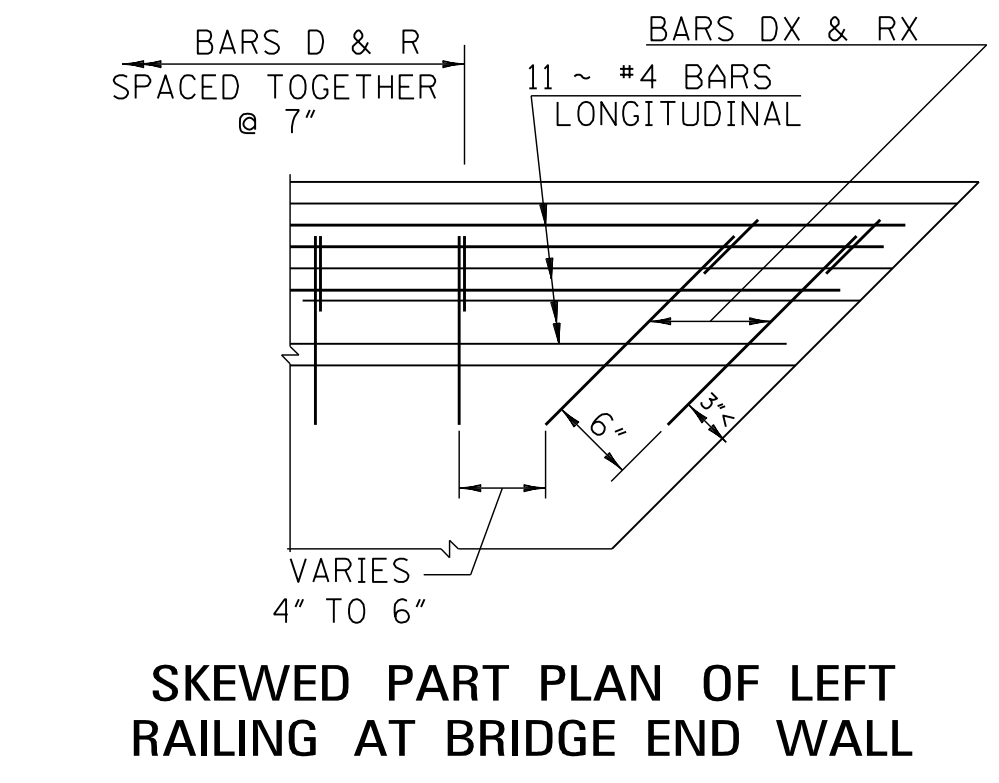
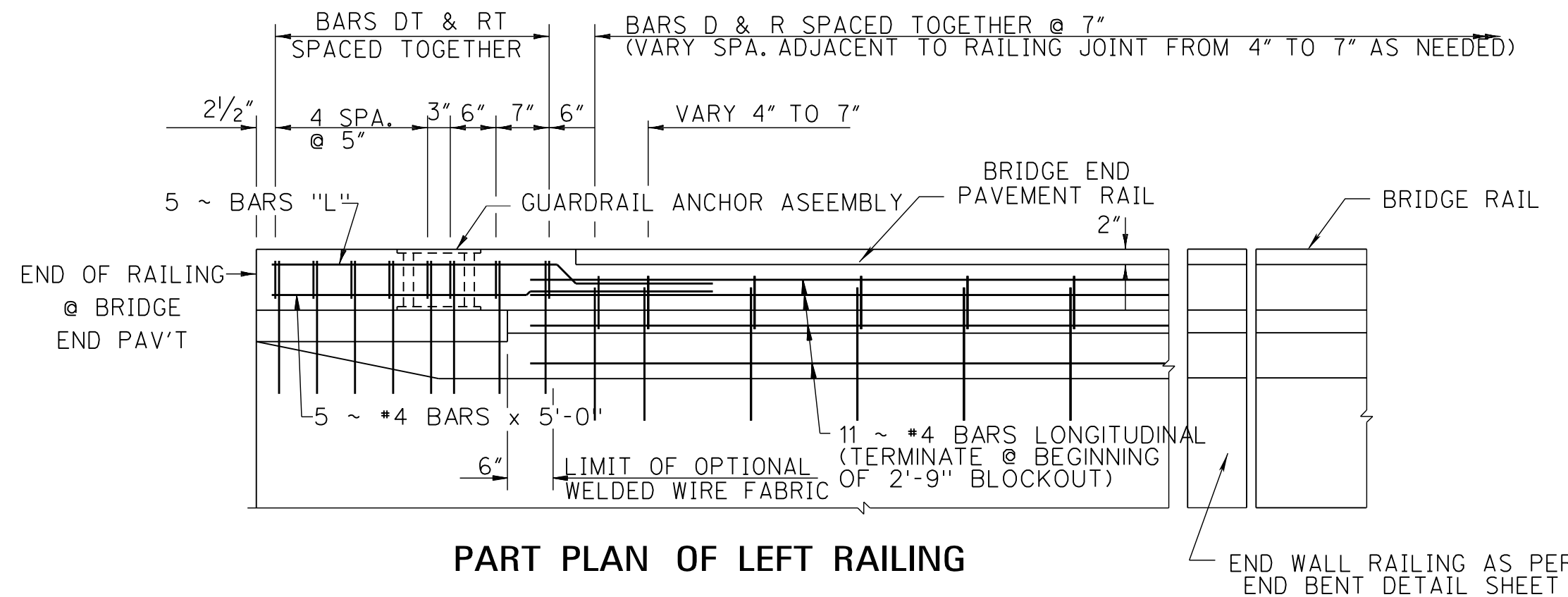
DETAIL "A"

- NOTES:**
- 0.363 C.Y. CLASS "C" CONCRETE REQUIRED FOR APRON.
 - SMALL ANIMAL GUARDS SHALL BE REQUIRED ON ALL EXPOSED PIPE OPENINGS BY THE END OF THE WORK DAY INSTALLED.
 - 4" PERFORATED DRAIN PIPE TO BE INSTALLED UNDER THE ROADWAY AND 2' OUTSIDE OF THE SHOULDER. 4" NON-PERFORATED DRAIN PIPE TO BE INSTALLED FOR THE REMAINDER OF THE OUTLET APRON.
 - UNDERDRAIN OUTLETS SHALL BE REQUIRED ON BOTH SIDES OF THE ROADWAY IN NORMAL CROWN SECTIONS AND ONLY ON THE LOW SIDE OF SUPERELEVATED SECTIONS.

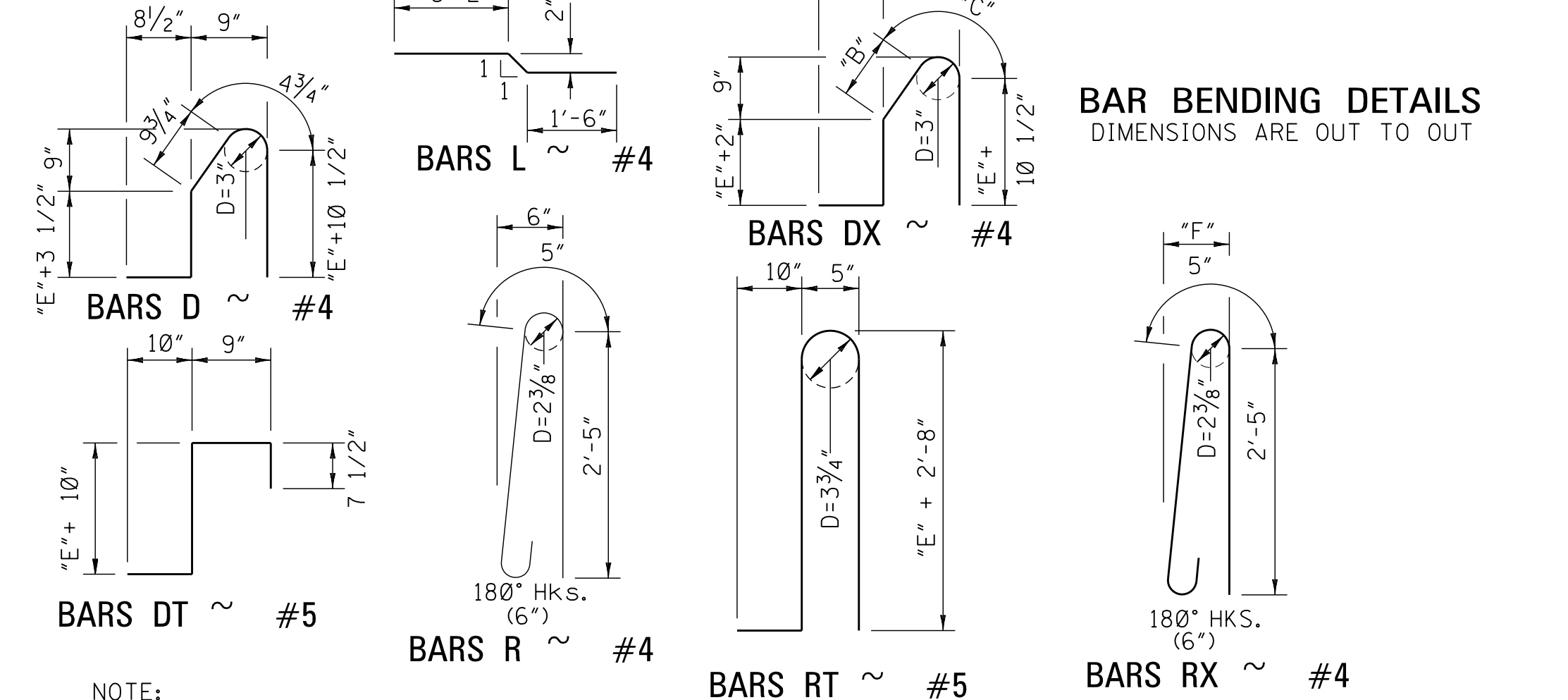
- GENERAL NOTES:**
- IF BRIDGE END PAVEMENT IS CONSTRUCTED IN MORE THAN ONE SECTION, LONGITUDINAL CONSTRUCTION JOINTS WITH TIE BARS SHALL BE USED. TIE BARS SHALL BE #5 BARS, 2'-6" LONG AND SPACED 2'-6" O.C.. SUCH CONSTRUCTION SHALL BE USED WHERE INDICATED ON PLANS.
 - DIMENSIONS "A" AND "B" ARE BASED ON A MID-LENGTH OF 20'-0", EXCEPT IN NO CASE SHALL "A" BE LESS THAN 10'-0".
 - SEE QUANTITY SECTION OF PLANS FOR DIMENSIONS "W", "W1", "W2", "A", "B", SKEW ANGLE "Z", AND QUANTITIES.
 - REINFORCEMENT (DEFORMED) MAY BE FURNISHED FULL LENGTH OR MAY BE SPLICED. IF BARS ARE SPLICED, THEY SHALL BE SPLICED NOT LESS THAN 30 DIAMETERS.
 - IF TOP LIFT OF ASPHALT IS GREATER THAN 1.5", THE LIFT SHALL BE TRANSITIONED TO 1.5" ACROSS THE LENGTH OF THE BRIDGE END PAVEMENT.
 - THE BRIDGE END PAVEMENT PAY ITEM INCLUDES BRIDGE END PAVEMENT, SLEEPER SLAB, AND METAL FLASHING. ALL OTHER ITEMS SHOWN ON THIS SHEET WILL BE PAID AS INDICATED ELSEWHERE IN THE PLANS.
 - CLASS "B" CONCRETE REQUIRED FOR SLEEPER SLAB AND BRIDGE END PAVEMENT. CLASS "AA" CONCRETE MAY BE USED WITH APPROVAL OF THE ENGINEER (NO COST ADJUSTMENT WILL BE MADE).

BY		MISSISSIPPI DEPARTMENT OF TRANSPORTATION ROADWAY DESIGN DIVISION STANDARD PLAN	
REVISION		BRIDGE END PAVEMENT WITH RAIL, OVERLAY, AND SLEEPER SLAB (NEW CONSTRUCTION)	
DATE		ISSUE DATE: AUGUST 01, 2017	

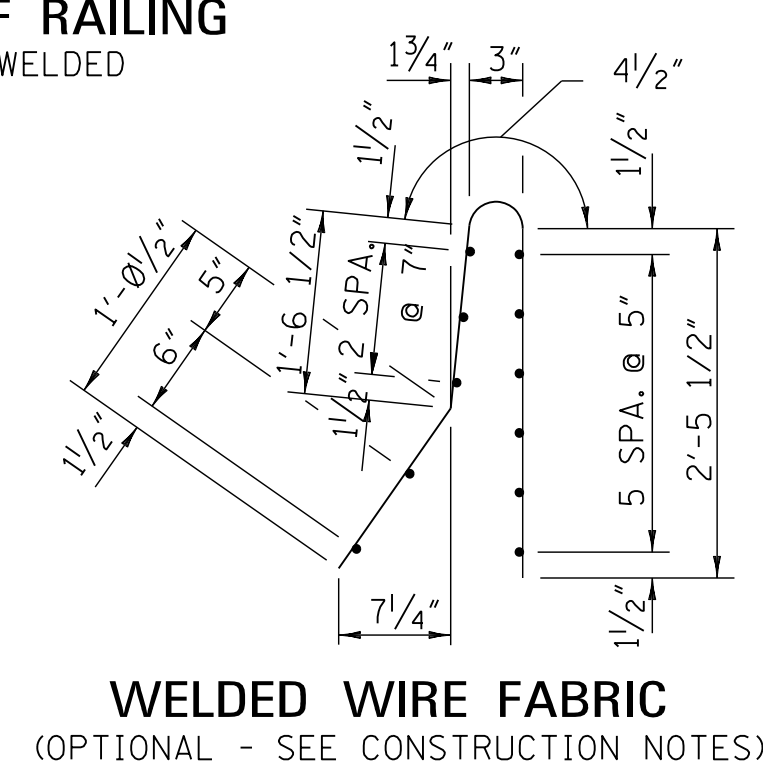
WORKING NUMBER
BE-1
SHEET NUMBER
6007



- CONSTRUCTION NOTES:**
- FABRICATE GUARDRAIL ANCHOR ASSEMBLY BY TACK WELDING EACH END OF PIPE SLEEVES TO PLATES. PLATES SHALL BE ASTM A 36 STEEL. PIPES SHALL BE ASTM 120. GALVANIZE COMPLETE ASSEMBLIES AFTER FABRICATION PER ASTM A 153.
 - ATTACH ASSEMBLIES SECURELY TO THE FORMS PRIOR TO POURING RAILING CONCRETE TO ASSURE THAT EXPOSED SURFACES OF THE ASSEMBLIES WILL BE FLUSH WITH THE CONCRETE SURFACES.
 - GUARDRAIL ANCHOR ASSEMBLIES SHALL BE INSTALLED IN BOTH LEFT AND RIGHT RAILINGS AT EACH END OF ALL BRIDGES.
 - WELDED WIRE FABRIC MEETING THE REQUIREMENTS OF ASTM A 497 AND DETAILS SHOWN ON THIS SHEET MAY BE USED AS AN OPTION TO CONVENTIONAL RAILING REINFORCING. LONGITUDINAL WIRES SHALL BE SPACED AS SHOWN IN THE BAR BENDING DETAILS AND VERTICAL WIRES SHALL BE D8 SPACED AT 4".
 - WELDED WIRE FABRIC SHALL NOT BE USED IN THE 2'-9" THRIE BEAM BLOCKOUT. REINFORCEMENT FOR THE 2'-9" THRIE BEAM BLOCKOUT SHALL CONSIST OF CONVENTIONAL REINFORCING AS SHOWN IN DETAILS ON THIS SHEET. THE LONGITUDINAL BARS OF THE CONVENTIONAL REINFORCING SHALL EXTEND BEYOND THE 2'-9" THRIE BEAM BLOCKOUT INTO THE WELDED WIRE FABRIC A MINIMUM DISTANCE OF 1'-6".
 - BRIDGE END PAVEMENT RAIL SHALL BE CONSTRUCTED AND PAID FOR IN ACCORDANCE WITH SECTION 813 OF THE STANDARD SPECIFICATIONS.
 - 4" DIAMETER WEEP HOLES TO BE PLACED IN THE BRIDGE END PAVEMENT RAIL WHERE REQUIRED TO REDUCE PONDING.
 - IF TOP LIFT OF ASPHALT IS ANYTHING OTHER THAN 1.5", THE LIFT SHALL BE TRANSITIONED TO 1.5" ACROSS THE LENGTH OF THE BRIDGE END PAVEMENT.

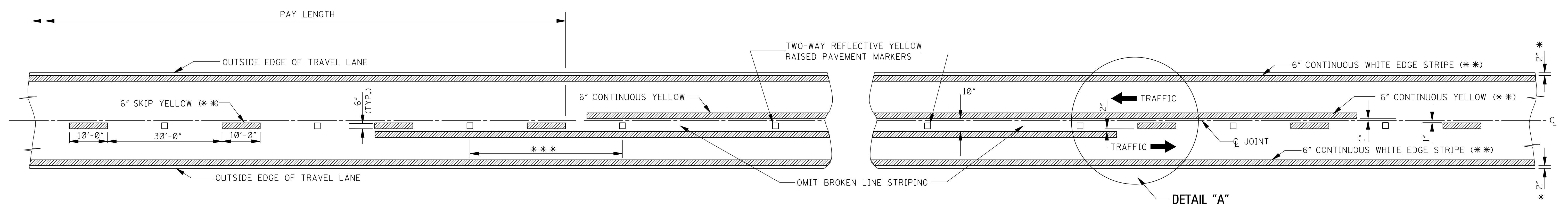


SKEW (DEG)	BARS DX ~ #4			BARS RX ~ #4
	"A"	"B"	"C"	"F"
0	9"	9 3/4"	5"	6"
5	9"	9 3/4"	5"	6"
10	9"	9 3/4"	5"	6"
15	9 1/4"	10"	5"	6 1/4"
20	9 1/2"	10"	5"	6 1/4"
25	10"	10 1/2"	5"	6 1/2"
30	10 1/4"	10 1/2"	5"	7"
35	11"	11 1/4"	4 3/4"	7 1/4"
40	11 3/4"	11 3/4"	4 3/4"	7 3/4"
45	1' - 0 1/4"	1' - 0 3/4"	4 1/2"	8 1/2"
50	1' - 2"	1' - 1 3/4"	4 1/2"	9 1/4"
55	1' - 3 3/4"	1' - 2 1/2"	4 1/2"	10 1/2"



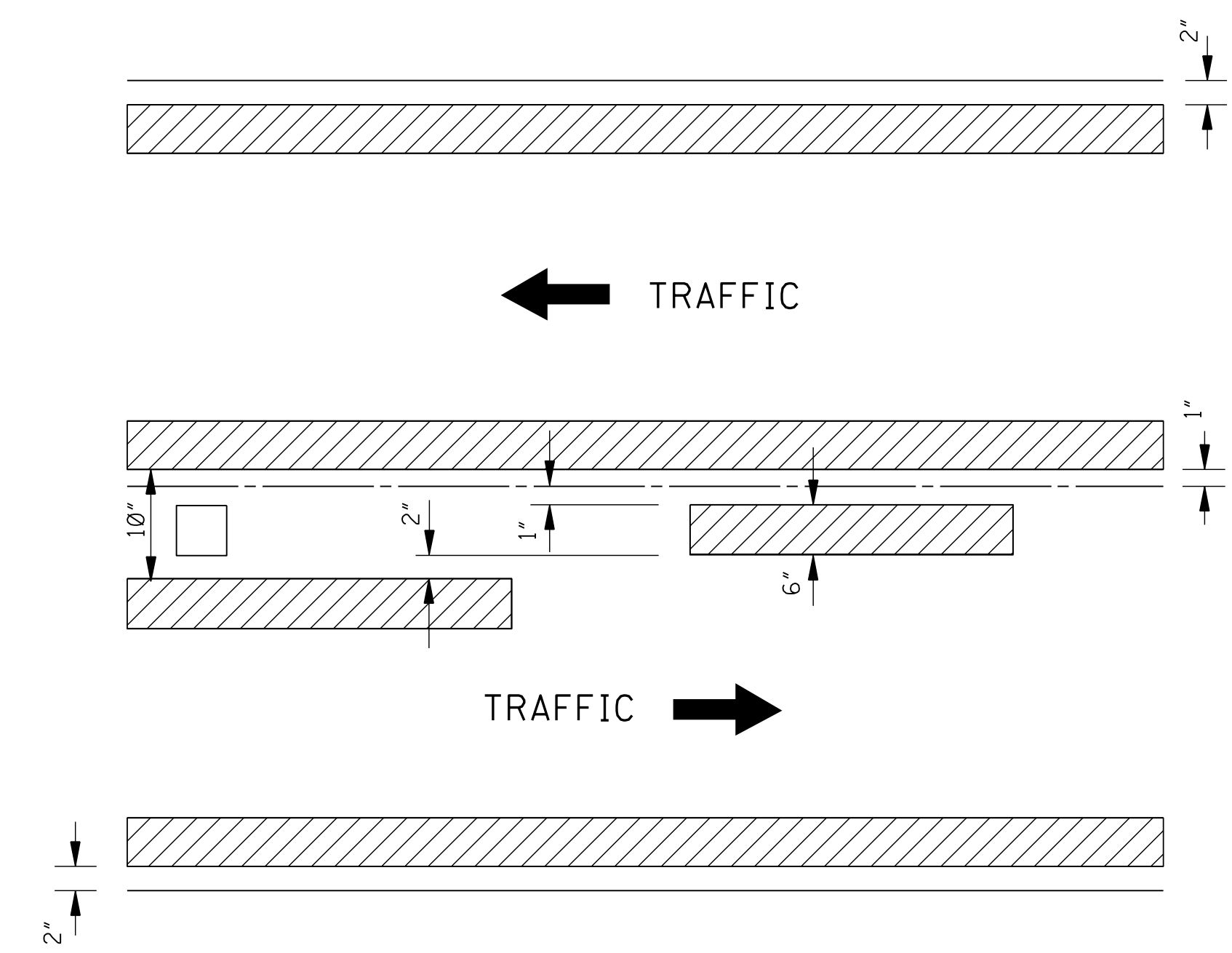
DESIGN DATA
 SPECIFICATIONS.....A.A.S.H.T.O. LRFD 2007 WITH 2009 INTERIMS.
 CONCRETE.....CLASS "AA"(4,000 PSI)
 REINFORCING.....ASTM A 615 GRADE 60 (Fy = 60 KSI)

BY		MISSISSIPPI DEPARTMENT OF TRANSPORTATION ROADWAY DESIGN DIVISION STANDARD PLAN	
REVISION		33.5" BRIDGE END PAVEMENT RAIL	
DATE			
ISSUE DATE:		AUGUST 01, 2017	



TWO-WAY TRAFFIC
(ASPHALT OR CONCRETE PAVEMENT)

NOTE: THE CRITERIA FOR NO-PASSING ZONES CAN BE FOUND IN THE MDT ROADWAY DESIGN MANUAL, SECTION 11-1.01.



DETAIL "A"

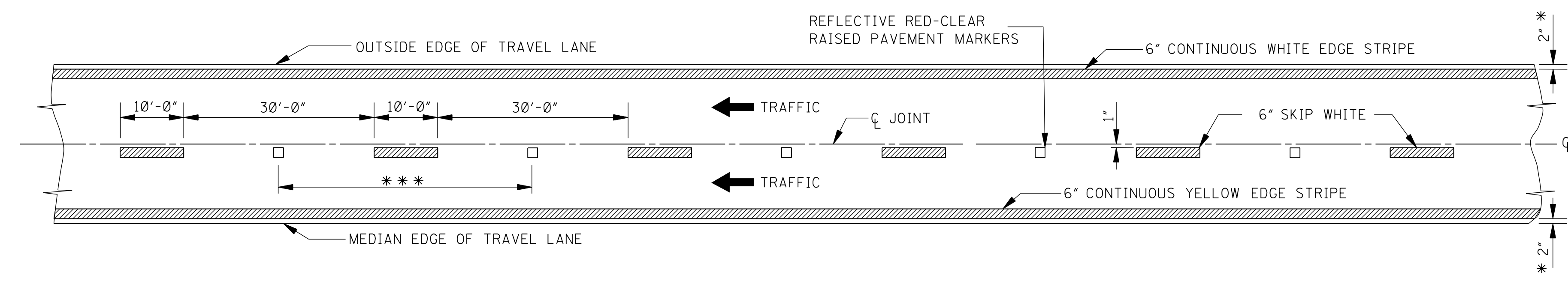
GENERAL NOTES:

- * 1. 2" UNLESS SHOWN ELSEWHERE ON THE PLANS. FOR STRIPING ON RUMBLE STRIP SECTIONS REFER TO WK. SHEETS RS-1, RS-2, AND RS-3.
- ** 2. EDGE STRIPE SHALL BE SAME MATERIAL AS LANE-LINE STRIPE (PAINT OR PLASTIC AS INDICATED IN PAY ITEMS).
- *** 3. SPACING OF REFLECTIVE RAISED PAVEMENT MARKERS IS AS FOLLOWS:

	URBAN AREA (ft-in)	RURAL AREA (ft-in)
TANGENT SECTIONS	40'-0"	80'-0"
HORIZONTAL CURVES	40'-0"	40'-0"
INTERCHANGE LIMITS	40'-0"	+ 40'-0"

† NOTE: ON THE MAIN FACILITY, REFLECTIVE RED-CLEAR RAISED PAVEMENT MARKERS ON A 40'-0" SPACING WILL BE REQUIRED ON LANE-LINE(S) THROUGH ALL INTERCHANGE AREAS BEGINNING 1000' IN ADVANCE (IN DIRECTION OF TRAFFIC) OF THE EXIT RAMP TAPER AND CONTINUING THROUGH THE INTERCHANGE TO THE END OF THE ENTRANCE RAMP TAPER.

4. PAVEMENT MARKERS SHALL BE HIGH PERFORMANCE REFLECTIVE RAISED PAVEMENT MARKERS AS LISTED IN THE MDT "APPROVED SOURCES OF MATERIALS."



4-LANE WITH ONE-WAY TRAFFIC

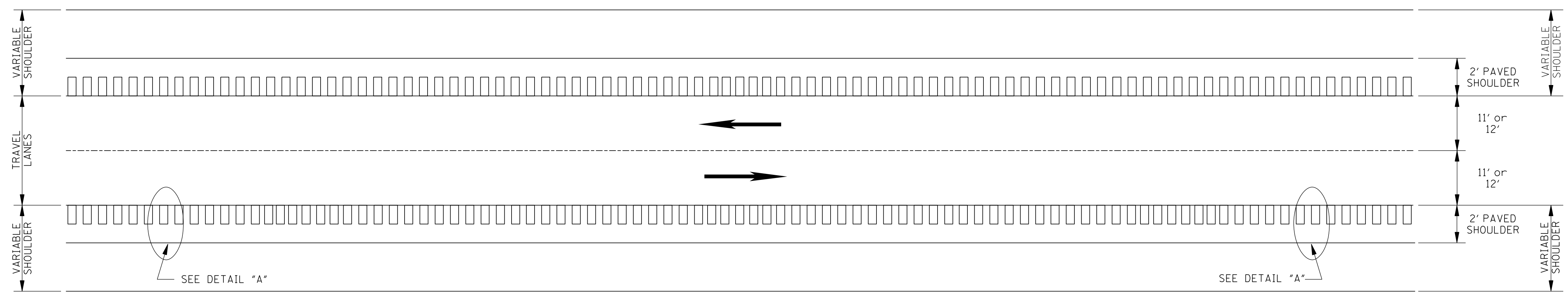
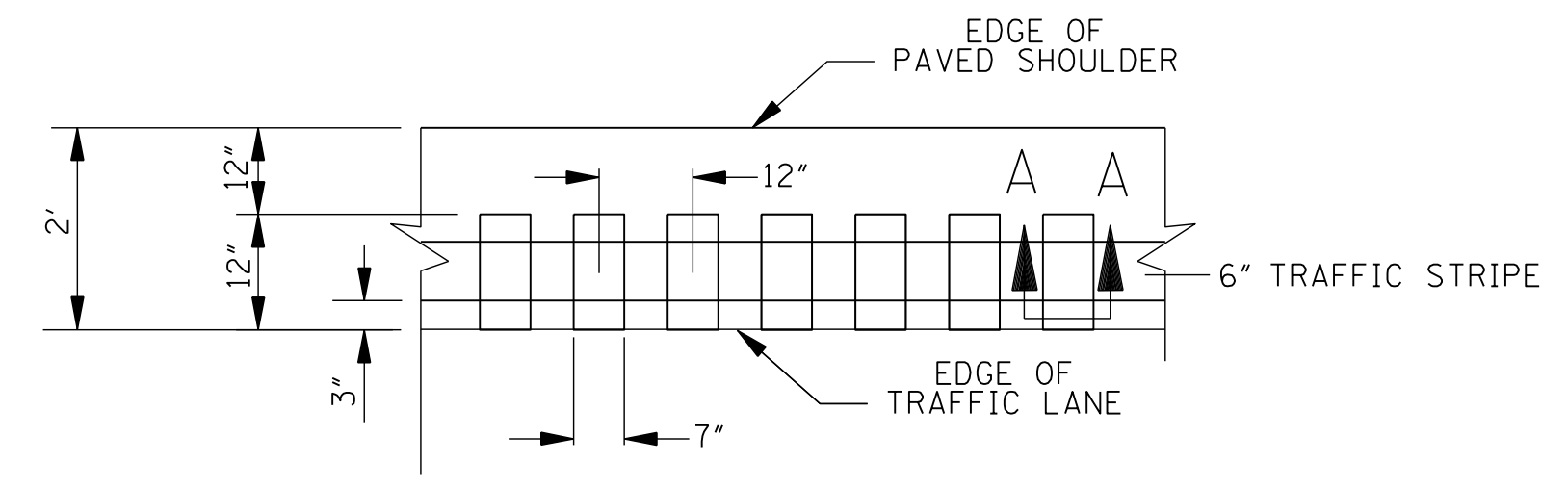
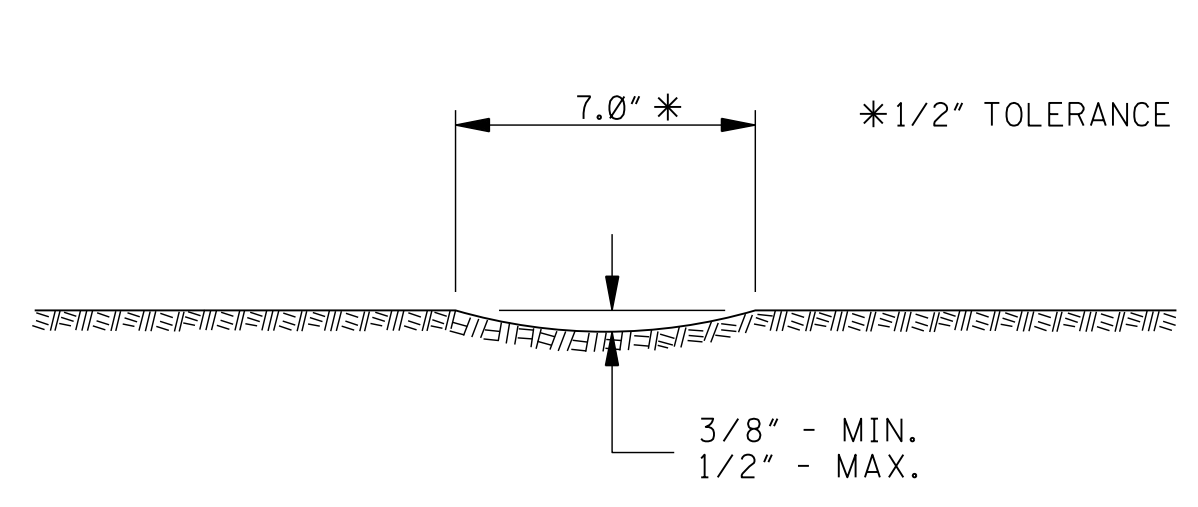
BY	MISSISSIPPI DEPARTMENT OF TRANSPORTATION ROADWAY DESIGN DIVISION STANDARD PLAN
REVISION	PAVEMENT MARKING DETAILS FOR 2-LANE AND 4-LANE DIVIDED ROADWAYS
DATE	ISSUE DATE: AUGUST 01, 2017



WORKING NUMBER
PM-1
SHEET NUMBER
6051

GENERAL NOTES

1. GROUND-IN RUMBLE STRIPES SHALL BE APPLIED ON LEFT AND RIGHT SHOULDERS OF ALL PAVED SHOULDERS ON THIS PROJECT
2. GROUND-IN RUMBLE STRIPES SHALL BE OMITTED ACROSS PUBLIC INTERSECTING ROADWAYS OR OTHER INTERRUPTIONS IN NORMAL SHOULDER WIDTH AS DIRECTED BY THE ENGINEER
3. COST TO BE PAID FOR USING APPROPRIATE PAY ITEMS
4. GROUND-IN RUMBLE STRIPES SHALL BE APPLIED TO:
 - A. MAINLINE
 - B. INTERSECTING ROADWAY IF OVERLAID OR RECONSTRUCTED BEYOND NORMAL MAINLINE R.O.W.
 - C. ANY ROADWAY WITH EXISTING RUMBLE STRIPES PRIOR TO CONSTRUCTION.
5. DO NOT USE WHERE TRAVEL LANE IS LESS THAN 11' WIDE.

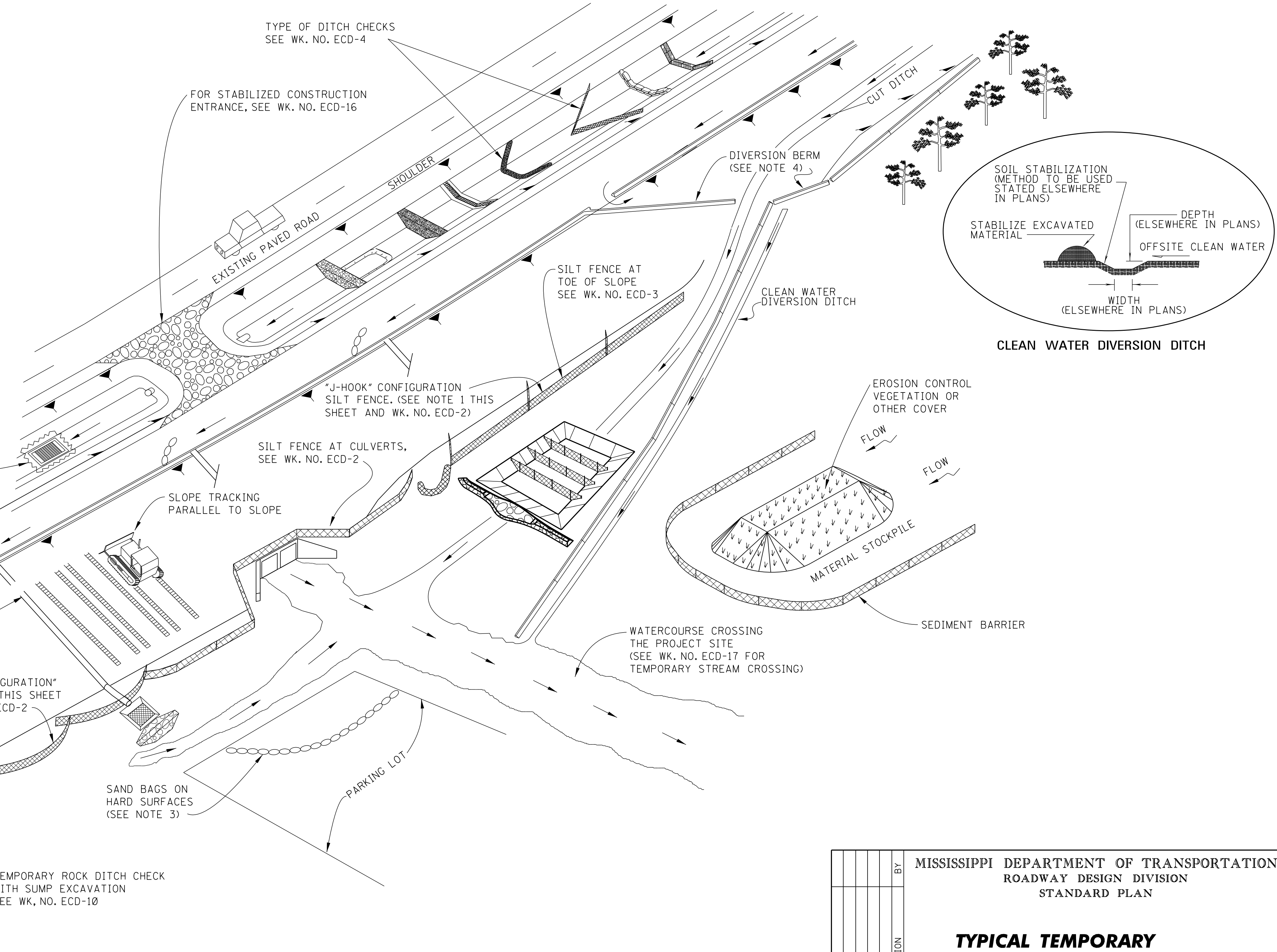


PLAN
NOT TO SCALE

BY		MISSISSIPPI DEPARTMENT OF TRANSPORTATION ROADWAY DESIGN DIVISION STANDARD PLAN	
REVISION		RUMBLE STRIPES 2-LANE HIGHWAYS (ASPHALT LANES, 2-FT ASPHALT SHOULDERS)	
DATE			
ISSUE DATE:		AUGUST 01, 2017	
		 WORKING NUMBER RS-1 SHEET NUMBER 6064	

GENERAL NOTES:

1. "J-HOOK" CONFIGURATION SILT FENCE APPLICATIONS SHOULD BE USED IN CONJUNCTION WITH PERIMETER SILT FENCE WHEN STORMWATER RUNOFF IS IN TWO DIRECTIONS (DOWN A FILL SLOPE AND DOWN GRADIENT ALONG THE RIGHT-OF-WAY).
2. "SMILE CONFIGURATION" APPLICATIONS SHOULD BE USED AS PERIMETER SILT FENCE WHEN THERE IS ONE-DIRECTIONAL FLOW DOWN A SLOPE.
3. SAND BAGS CAN BE USED AS DIVERSION BERMS TO PREVENT SEDIMENT FROM BEING WASHED ONTO OR ACROSS HARD SURFACES, OR TO HELP SLOW SHEET FLOW VELOCITY WHEN DRAINING AWAY FROM HARD SURFACES.
4. FOR SHORTER SLOPES AND/OR SLOPES THAT ARE LESS STEEP, DIVERSION BERMS CAN BE USED TO SAFELY CONVEY STORMWATER AWAY FROM OR AROUND A DENUDED AREA. THEY CAN BE CONSTRUCTED USING MANUFACTURED SILT DIKE OR BY CONSTRUCTING A TEMPORARY EARTH BERM AND TRENCH WITH GEOTEXTILE OR POLYETHYLENE SHEETING PROTECTION.
5. TEMPORARY DEWATERING STRUCTURES CAN BE USED DURING CULVERT CONSTRUCTION, STREAM DIVERSIONS, OR OTHER CONSTRUCTION ACTIVITIES WHERE TURBID WATERS NEED TO BE CLARIFIED BEFORE RELEASE.
6. THE ABUTMENT SLOPE TOE BERM SHALL BE 3 FT. TALL. THE BERM MAY BE CONSTRUCTED WITH ROCK IN ACCORDANCE WITH REQUIREMENTS FOR ROCK DITCH CHECKS ON WK. NO. ECD-8 OR WITH SOIL IN ACCORDANCE WITH WK. NO. BAS-A. IF BERM IS USED, IT MUST BE GRASSED.



ABUTMENT SLOPE TOE BERM
SEE NOTE 6.

FOR TURBIDITY CURTAIN
SEE WK. NO. ECD-20

FOR TEMPORARY STREAM
CROSSING SEE WK.
NO. ECD-17.

FOR INLET PROTECTION
SEE WK. NO. ECD-11

TEMPORARY EARTH BERM
AND SLOPE DRAINS
SEE WK. NO. BAS-A.

TEMPORARY BRUSH
BARRIER SEE
WK. NO. ECD-2.

SILT FENCE
"SMILE CONFIGURATION"
SEE NOTE 2 THIS SHEET
AND WK. NO. ECD-2

SAND BAGS ON
HARD SURFACES
(SEE NOTE 3)

TEMPORARY ROCK DITCH CHECK
WITH SUMP EXCAVATION
SEE WK. NO. ECD-10

SLOPE TRACKING
PARALLEL TO SLOPE

SILT FENCE AT CULVERTS,
SEE WK. NO. ECD-2

"J-HOOK" CONFIGURATION
SILT FENCE. (SEE NOTE 1 THIS
SHEET AND WK. NO. ECD-2)

TYPE OF DITCH CHECKS
SEE WK. NO. ECD-4

FOR STABILIZED CONSTRUCTION
ENTRANCE, SEE WK. NO. ECD-16

SILT FENCE AT
TOE OF SLOPE
SEE WK. NO. ECD-3

DIVERSION BERM
(SEE NOTE 4)

CLEAN WATER
DIVERSION DITCH


WATERCOURSE CROSSING
THE PROJECT SITE
(SEE WK. NO. ECD-17 FOR
TEMPORARY STREAM CROSSING)

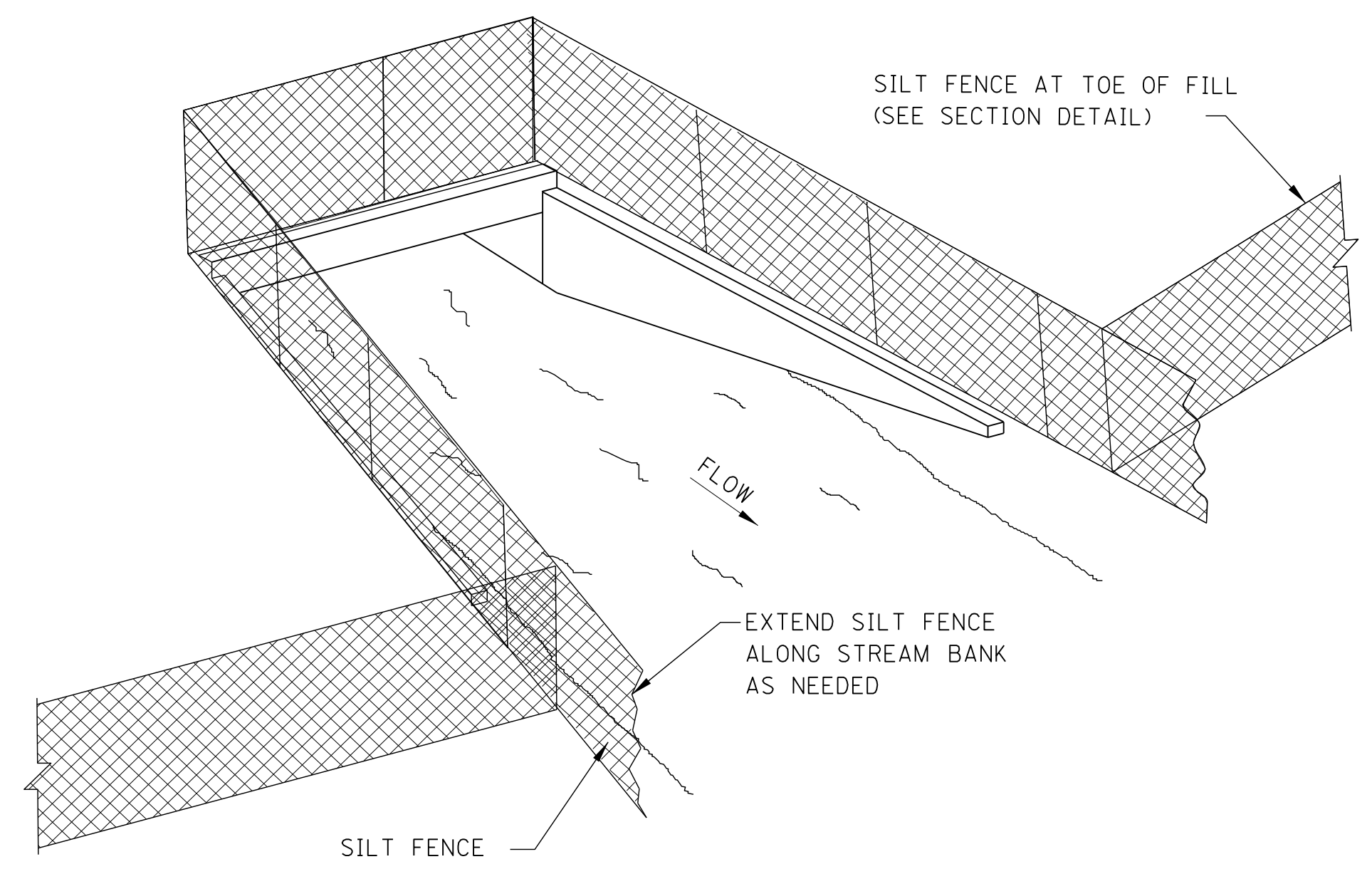
EROSION CONTROL
VEGETATION OR
OTHER COVER

MATERIAL STOCKPILE

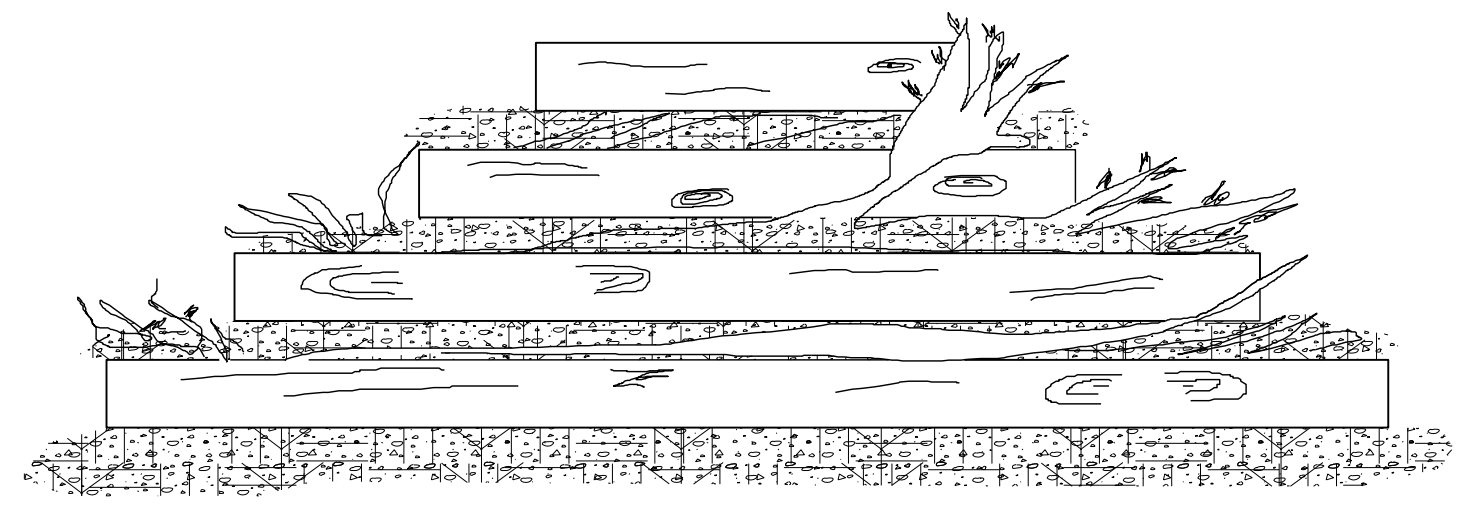
SEDIMENT BARRIER

CLEAN WATER DIVERSION DITCH

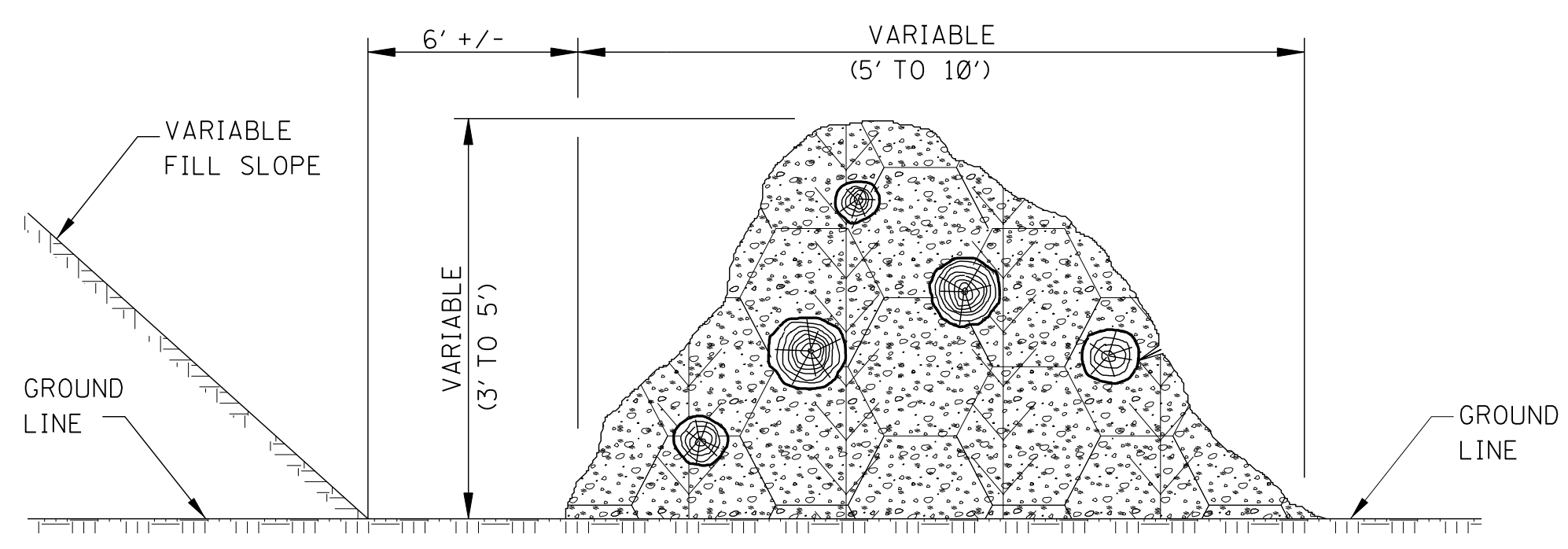
BY	MISSISSIPPI DEPARTMENT OF TRANSPORTATION ROADWAY DESIGN DIVISION STANDARD PLAN		
REVISION	<p>TYPICAL TEMPORARY EROSION / SEDIMENT CONTROL APPLICATIONS</p> 		
DATE	ISSUE DATE:	AUGUST 01, 2017	
	WORKING NUMBER	ECD-1	
	SHEET NUMBER	6101	



SEDIMENT BARRIER AT CROSS DRAIN



FRONT ELEVATION



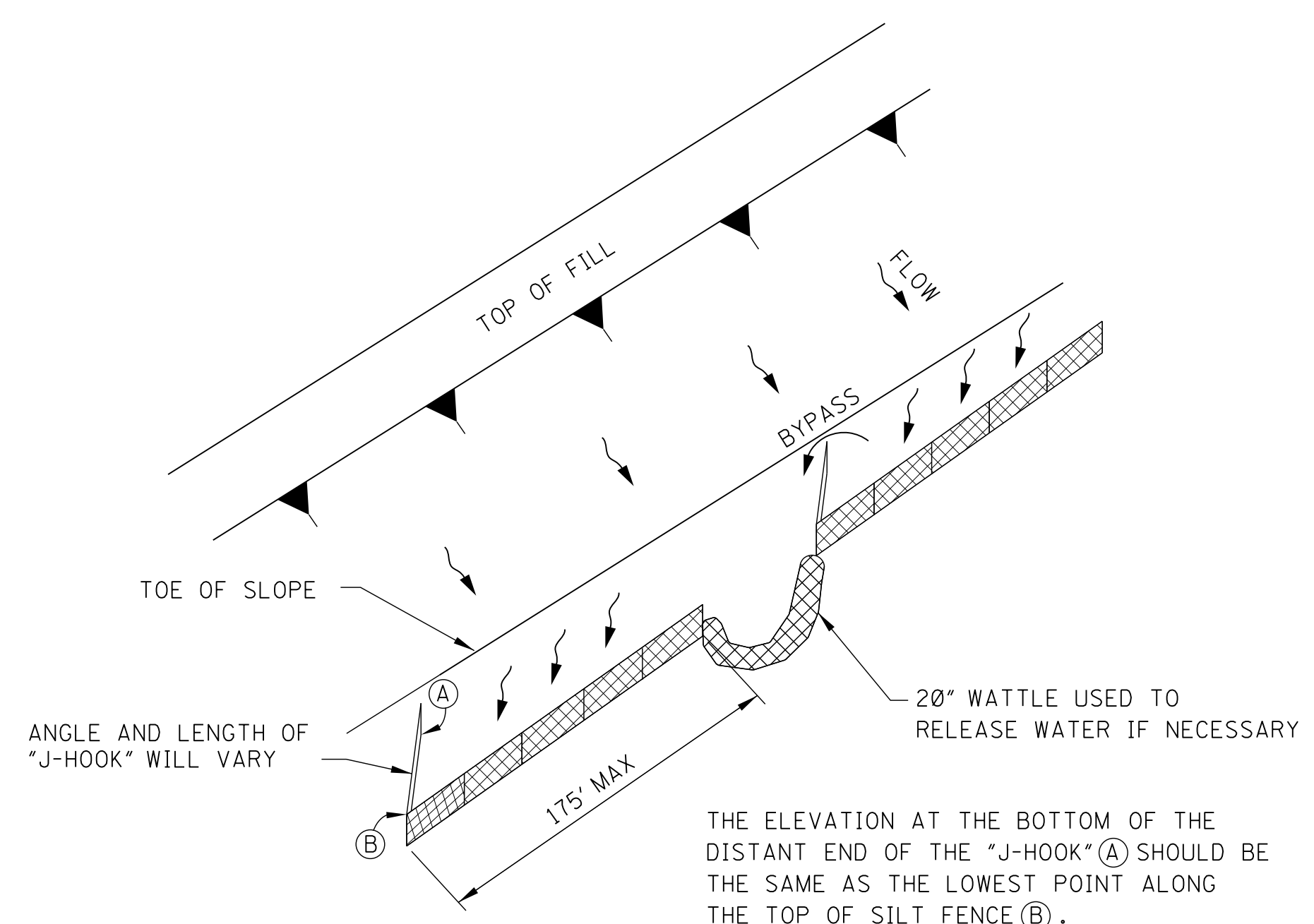
SIDE ELEVATION

TEMPORARY BRUSH BARRIER

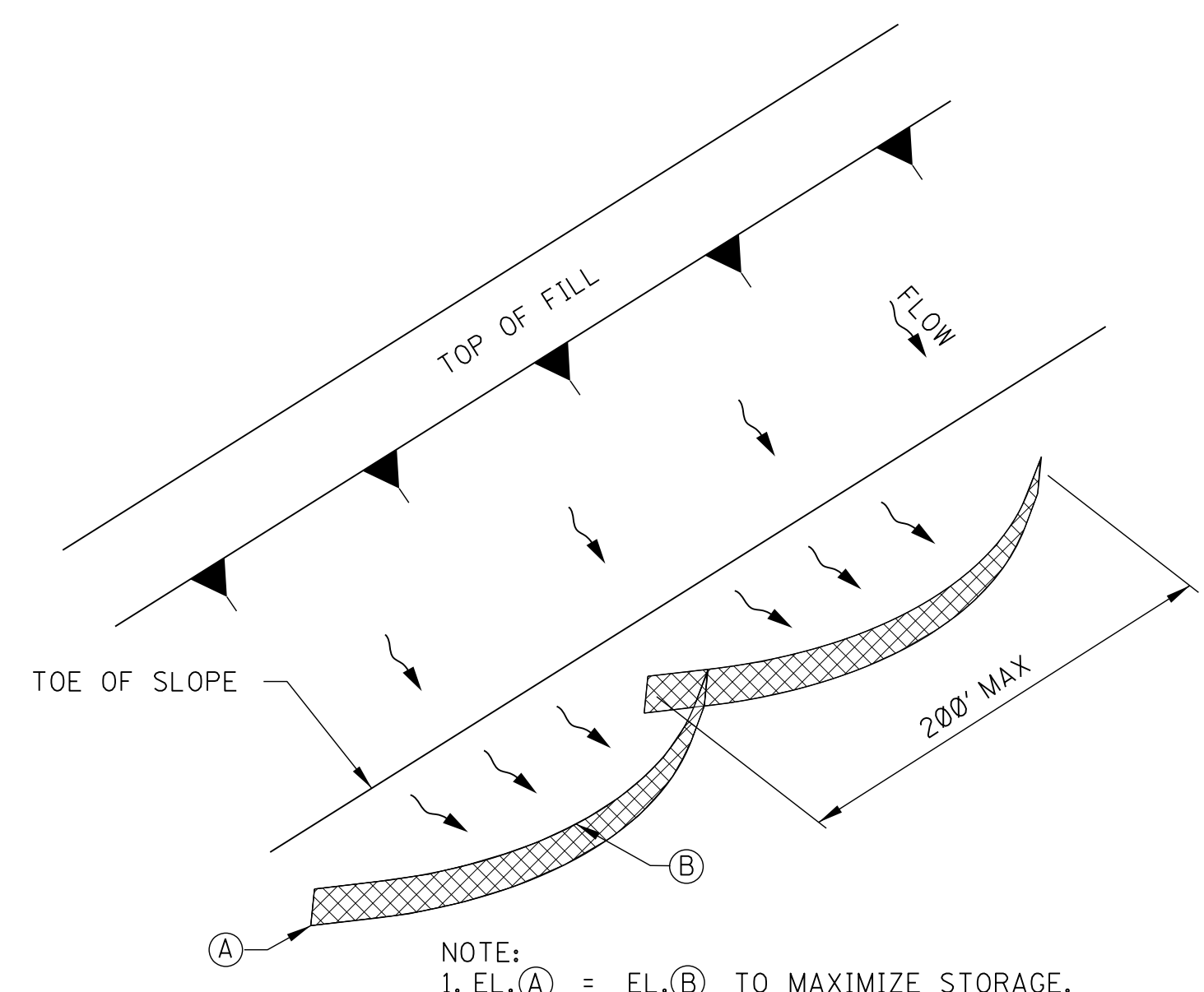
NOTES:

- BRUSH BARRIER MAY BE USED WHERE NATURAL GROUND IS LEVEL OR SLOPING AWAY FROM PROJECT.
- PLACE BRUSH, LOG AND TREE LAPS APPROXIMATELY PARALLEL TO TOE OF FILL SLOPE WITH SOME OF THE HEAVIER MATERIALS BEING PLACED ON TO TO PROPERLY SECURE THE BARRIER AS DETAILED AT LOCATIONS SHOWN ON PLANS OR AS DIRECTED OR PERMITTED BY THE ENGINEER.
- TO ALLOW WATER TO SEEP THROUGH BRUSH BARRIER, INTERMINGLE THE BRUSH, LOG AND TREE LAPS SO AS NOT TO FORM A SOLID DAM.
- THE BRUSH BARRIER MAY BE CHOKED WITH FILTER FABRIC. THE COST OF FABRIC TO BE INCLUDED IN OTHER ITEMS BID.
- TEMPORARY BRUSH BARRIER WILL NOT BE MEASURED FOR SEPARATE PAYMENT.

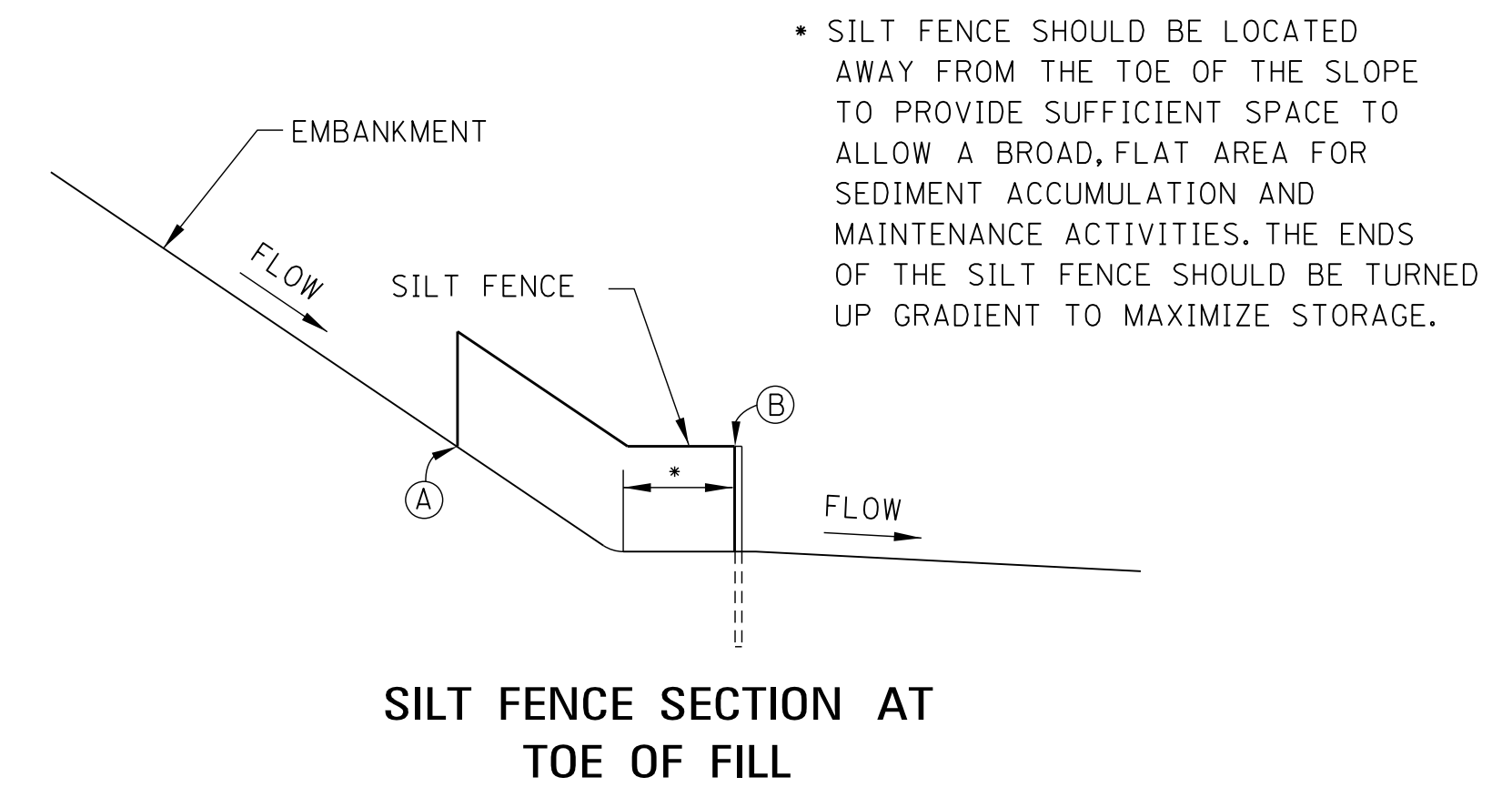
NOTE: ANCHOR AND INSTALL SILT FENCE PER DETAILS SHOWN ON WK. NO. ECD-3




"J-HOOK" SILT FENCE APPLICATION

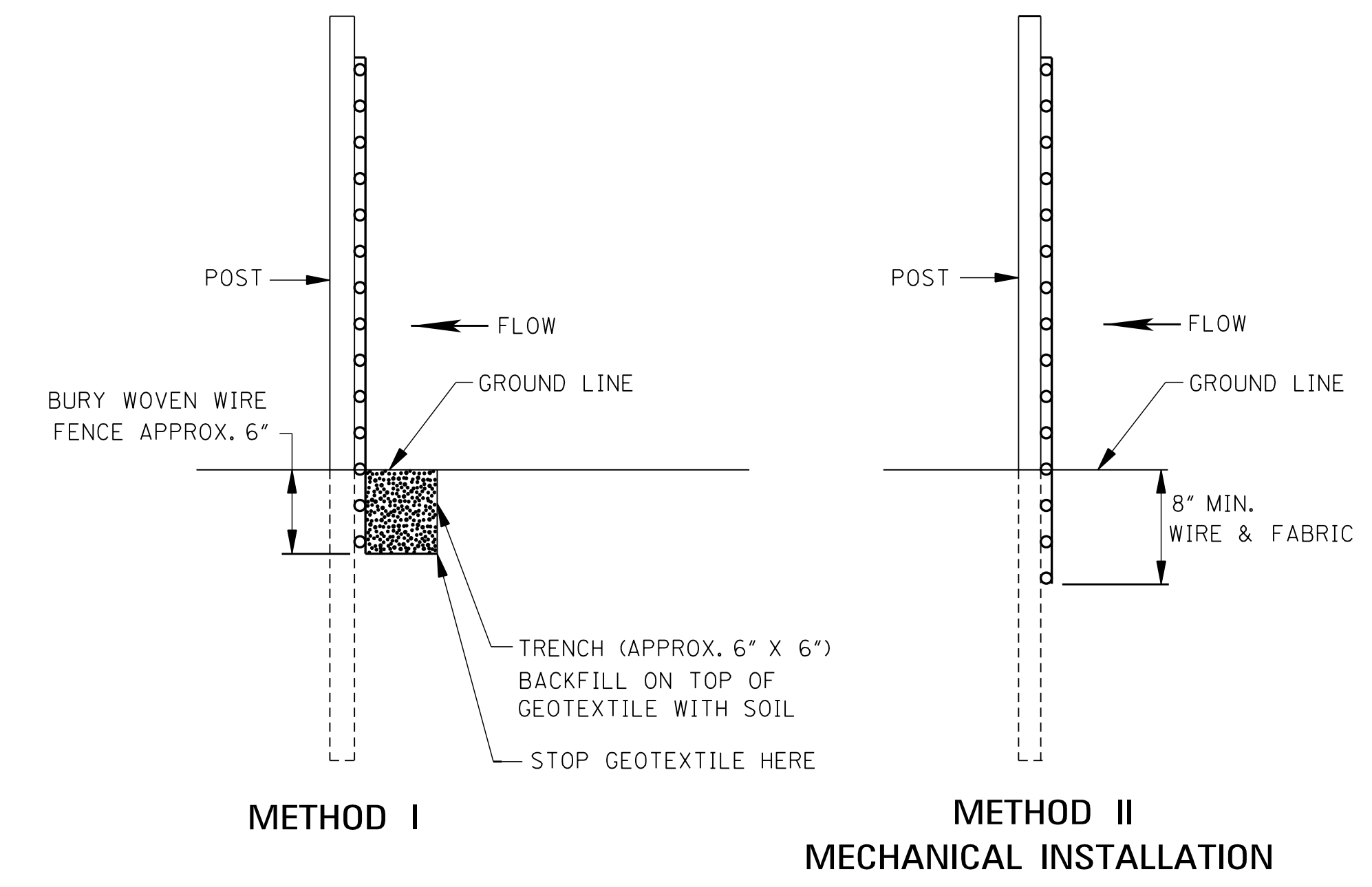
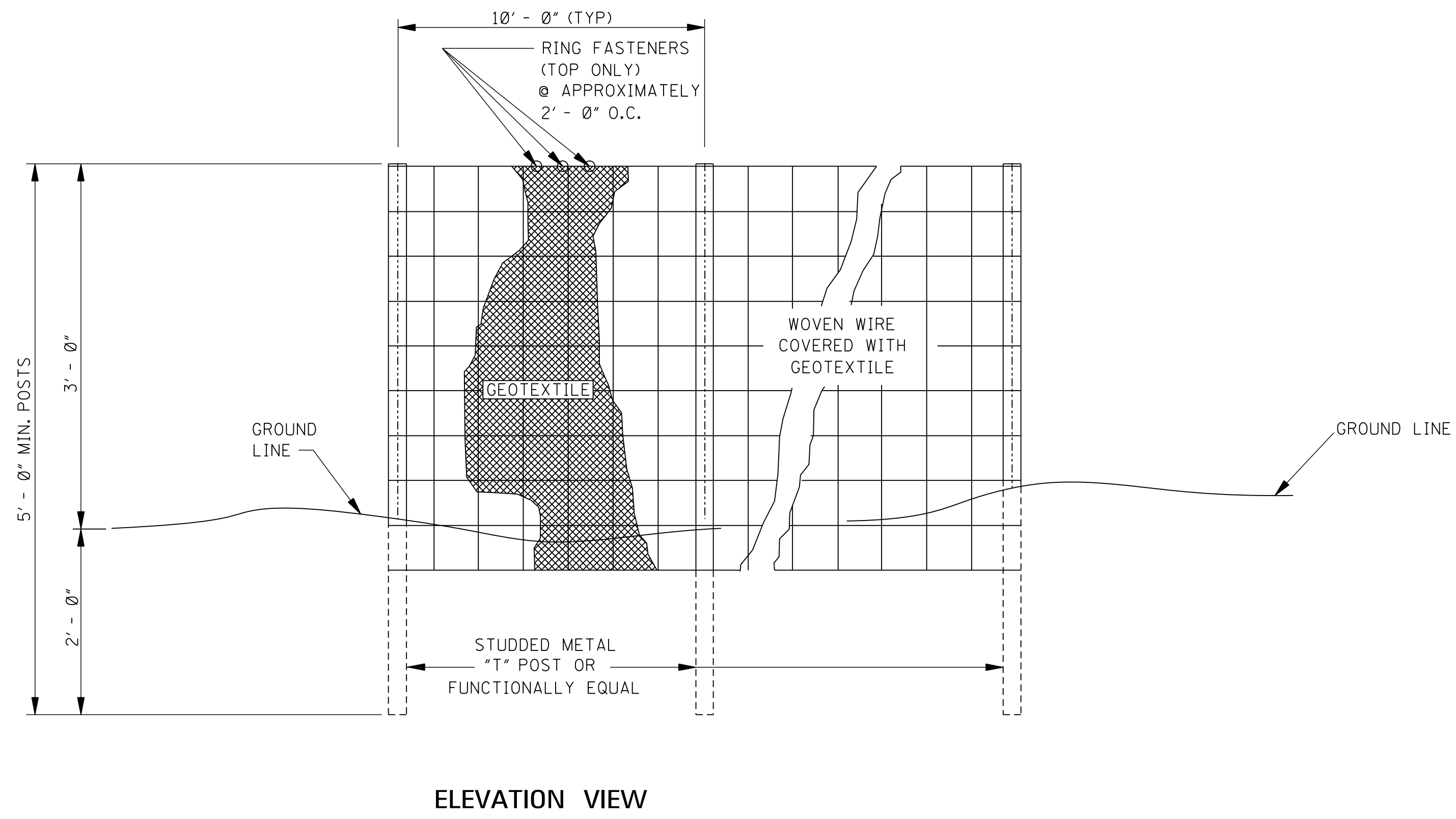


"SMILE-CONFIGURATION" SILT FENCE APPLICATION

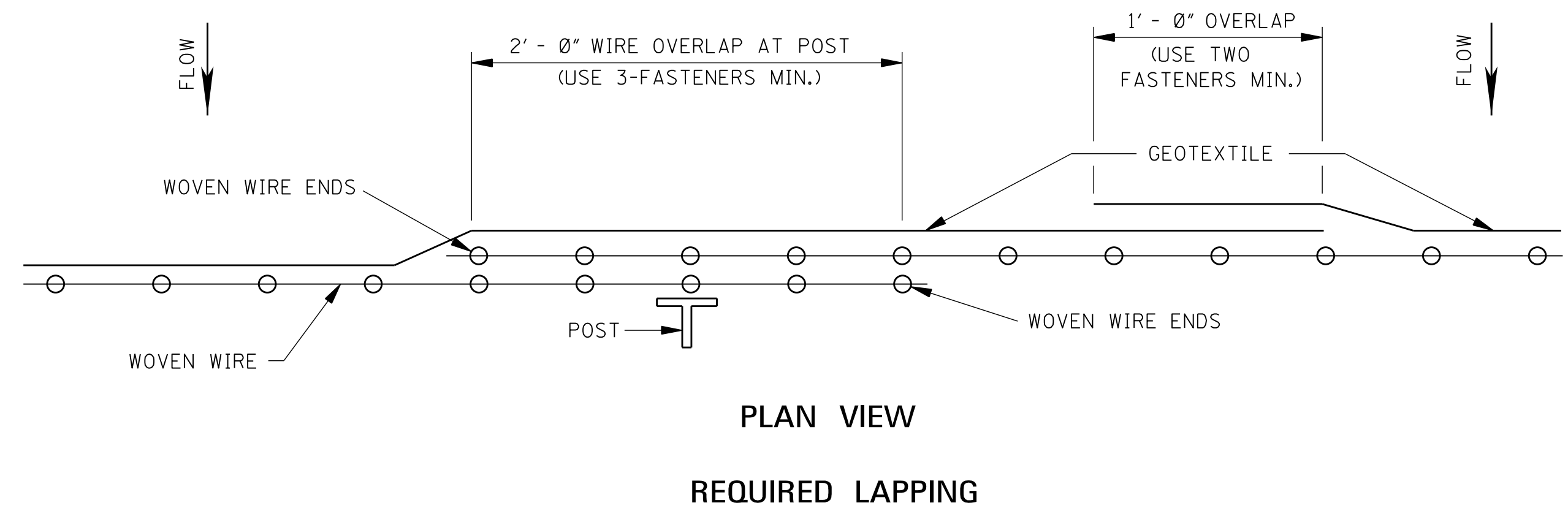


SILT FENCE SECTION AT TOE OF FILL

BY		MISSISSIPPI DEPARTMENT OF TRANSPORTATION ROADWAY DESIGN DIVISION STANDARD PLAN	
REVISION		<p>DETAILS OF SEDIMENT BARRIER APPLICATIONS</p> 	
DATE			
ISSUE DATE: AUGUST 01, 2017		WORKING NUMBER ECD-2	SHEET NUMBER 6102



SIDE VIEW



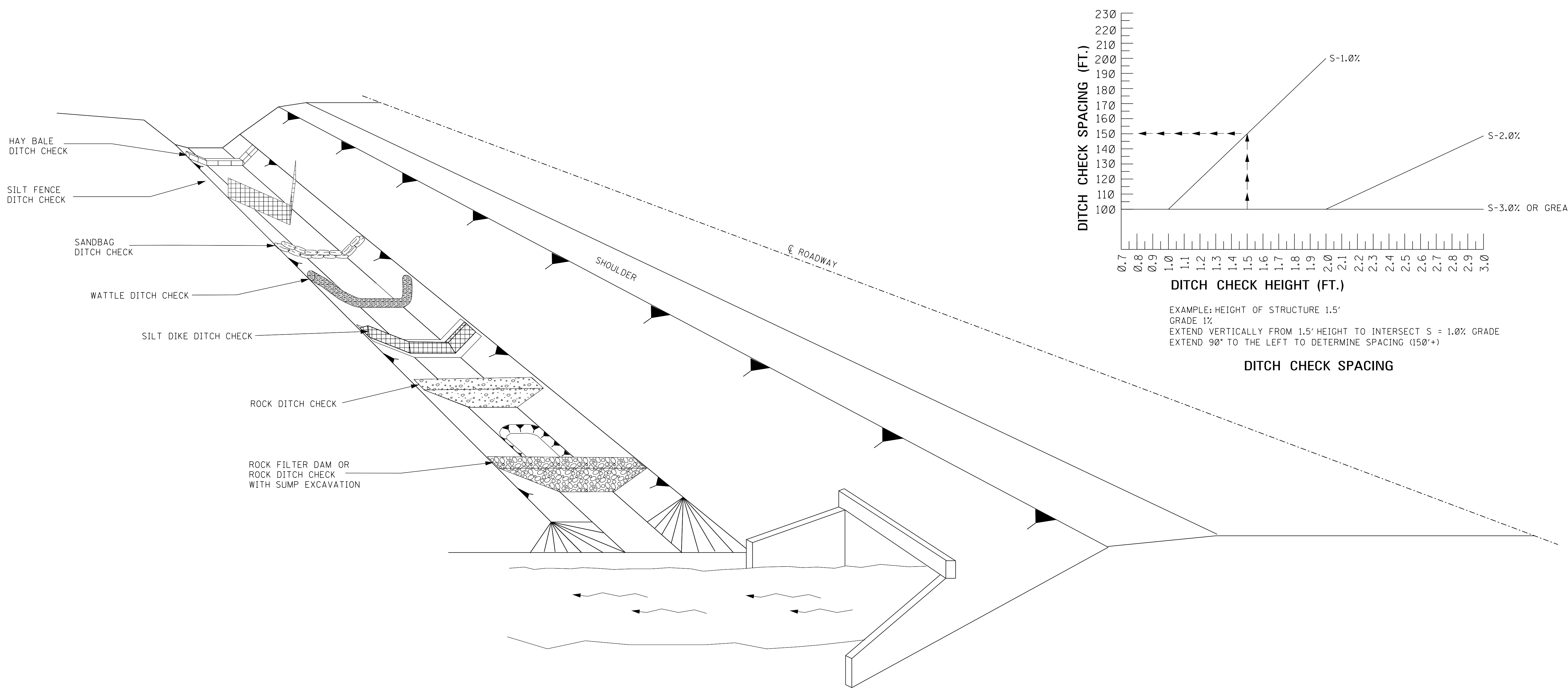
GENERAL NOTES:

- SILT FENCES SHOULD BE USED IN AREAS WHERE FLOW IS NOT SEVERE.
- SILT FENCES ARE TEMPORARY SEDIMENT CONTROL ITEMS THAT SHOULD BE ERECTED OPPOSITE ERODIBLE AREAS SUCH AS NEWLY GRADED FILL SLOPES AND ADJACENT TO STEAMS AND CHANNELS.
- SILT FENCE SHOULD BE PLACED WELL INSIDE RIGHT-OF-WAY AND ALONG EDGE OF CLEARING LIMITS. THIS WILL ALLOW ROOM FOR BACK-UP FENCE IF FIRST FENCE BECOMES FULL.
- WHENEVER POSSIBLE SILT FENCE SHOULD BE CONSTRUCTED ACROSS A LEVEL AREA IN THE SHAPE OF A SMILE. THIS AIDS IN PONDING OF RUNOFF AN FACILITATES SEDIMENTATION.
- THE CONTRACTOR MAY ELECT TO USE EITHER METHOD I OR METHOD II. COST TO BE LINEAR FEET OF SILT FENCE.
- METHOD II INSTALLATION SHALL BE ACCOMPLISHED USING AN IMPLEMENT THAT IS MANUFACTURED FOR THE APPLICATION AND PROVIDES A CONFIGURATION MEETING THE REQUIREMENTS OF DETAIL.
- WIRE SHALL BE A MINIMUM OF 32" IN WIDTH AND SHALL HAVE A MINIMUM OF 6 LINE WIRES WITH 12" STAY SPACING.
- GEOTEXTILE FABRIC MEETING THE TYPE II MATERIAL REQUIREMENTS AND INSTALLED ACCORDING TO SPECIFICATION MAY BE USED WITHOUT WIRE FENCE.

BY	MISSISSIPPI DEPARTMENT OF TRANSPORTATION ROADWAY DESIGN DIVISION STANDARD PLAN		
REVISION			
DATE	ISSUE DATE: AUGUST 01, 2017		

DETAILS OF SILT FENCE INSTALLATION

WORKING NUMBER ECD-3
SHEET NUMBER 6103




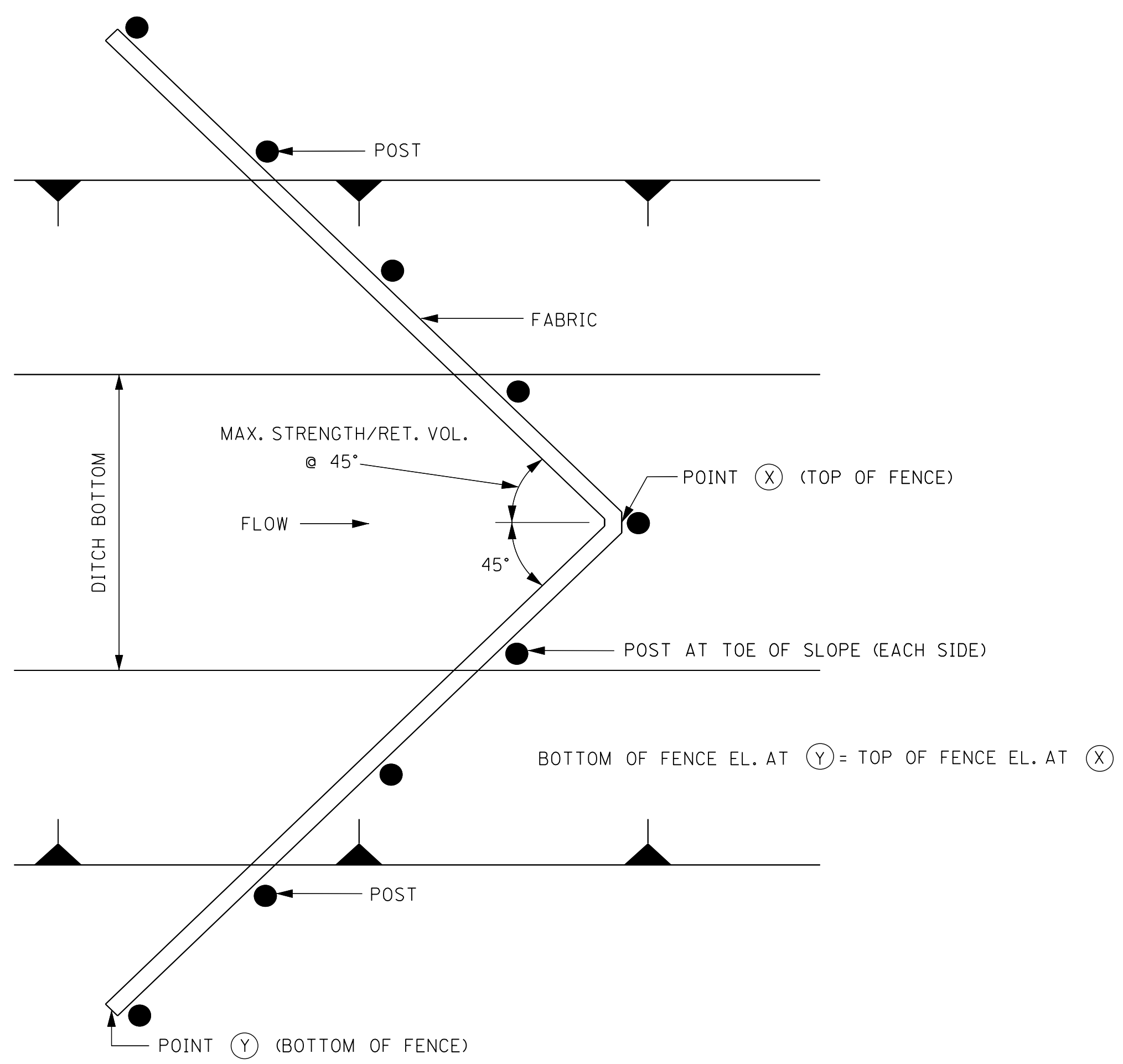
EXAMPLE: HEIGHT OF STRUCTURE 1.5'
 GRADE 1%
 EXTEND VERTICALLY FROM 1.5' HEIGHT TO INTERSECT S = 1.0% GRADE
 EXTEND 90° TO THE LEFT TO DETERMINE SPACING (150'+)

GENERAL NOTES:

1. THE DITCH CHECK PERSPECTIVE ILLUSTRATES A TOOL BOX OF TEMPORARY PRACTICES THAT MAY BE USED. DITCH CHECKS ARE INSTALLED TO CONTROL RUNOFF VELOCITY AND THUS REDUCE EROSION AND PROVIDE FOR TRAPPING OF SEDIMENTS.
2. SELECTION OF THE APPROPRIATE DITCH CHECK SHOULD BE A FUNCTION OF CONSTRUCTION PHASE, DRAINAGE AREA, DITCH GRADIENT, SOIL TYPE, ECONOMY AND SAFETY.
3. DITCH CHECKS CAN BE REMOVED FOR MAINTENANCE AND/OR REPLACEMENT BUT MUST REMAIN IN PLACE UNTIL UPSLOPE AREAS HAVE BEEN PERMANENTLY STABILIZED. MAINTENANCE INCLUDES REMOVAL OF SEDIMENT BEGINNING WHEN SEDIMENT ACCUMULATION REACHES 1/3 THE CAPACITY OR HEIGHT OF THE STRUCTURE AND NEVER ALLOWING FOR SEDIMENT TO ACCUMULATE MORE THAN 1/2 THE VOLUME OR HEIGHT OF THE DITCH CHECK STRUCTURE.
4. HAY BALES SHOULD BE USED TO INTERCEPT LOW VOLUME FLOWS IN LOW TO MODERATE GRADIENT DITCHES.
5. SILT FENCE DITCH CHECKS SHOULD BE USED WHERE IT HAS BEEN DETERMINED THAT HAY BALE CHECKS ARE INADEQUATE. SILT FENCE DITCH CHECKS SHOULD BE USED TO INTERCEPT LOW VOLUME FLOWS IN LOW TO MODERATE GRADIENT DITCHES.
6. SANDBAG DITCH CHECKS SHOULD BE USED FOR VELOCITY REDUCTION AND MINIMAL SEDIMENT TRAPPING IN CONCRETE PAVED DITCHES OR IN DITCHES THAT HAVE ROCK BOTTOMS.
7. WATTLE DITCH CHECKS CAN BE USED FOR VELOCITY REDUCTION AND CONTROL OF SEDIMENT TRANSPORT UNDER LOW TO MEDIUM FLOW CONDITIONS.
8. SILT DIKES CAN BE USED IN DITCHES WITH CONCENTRATED FLOWS WITHIN THE CLEAR ZONE WHERE RIPRAP CAN NOT BE USED, AS CONSTRUCTION PROGRESSES.
9. ROCK DITCH CHECKS WITH SUMP EXCAVATION CAN BE PLACED IN DITCHES TO ASSURE ON-SITE SEDIMENT TRAPPING REQUIREMENTS ARE MET. DITCH CHECK WITH SUMP EXCAVATION IS USED WHEN DITCHES RECEIVE DRAINAGE FROM CUT OR FILL SLOPES OR OTHER CRITICAL AREAS WHERE SOIL EROSION IS EXPECTED. DRAINAGE AREA FOR A TEMPORARY SEDIMENT TRAP SHOULD BE LIMITED TO 3 ACRES. THEY CAN BE USED IN SERIES TO INCREASE ON-SITE SEDIMENT TRAPPING EFFICIENCY.
10. DITCH CHECKS, IN NO CASE, SHALL BE PLACED IN LIVE STREAMS.
11. CONFIGURATION AND SPACING MAY BE ADJUSTED IF APPROVED BY THE ENGINEER TO ACCOMMODATE TRAVELWAY SAFETY, WATER FLOW, OR SOIL AND INSTALLATION CHALLENGES.

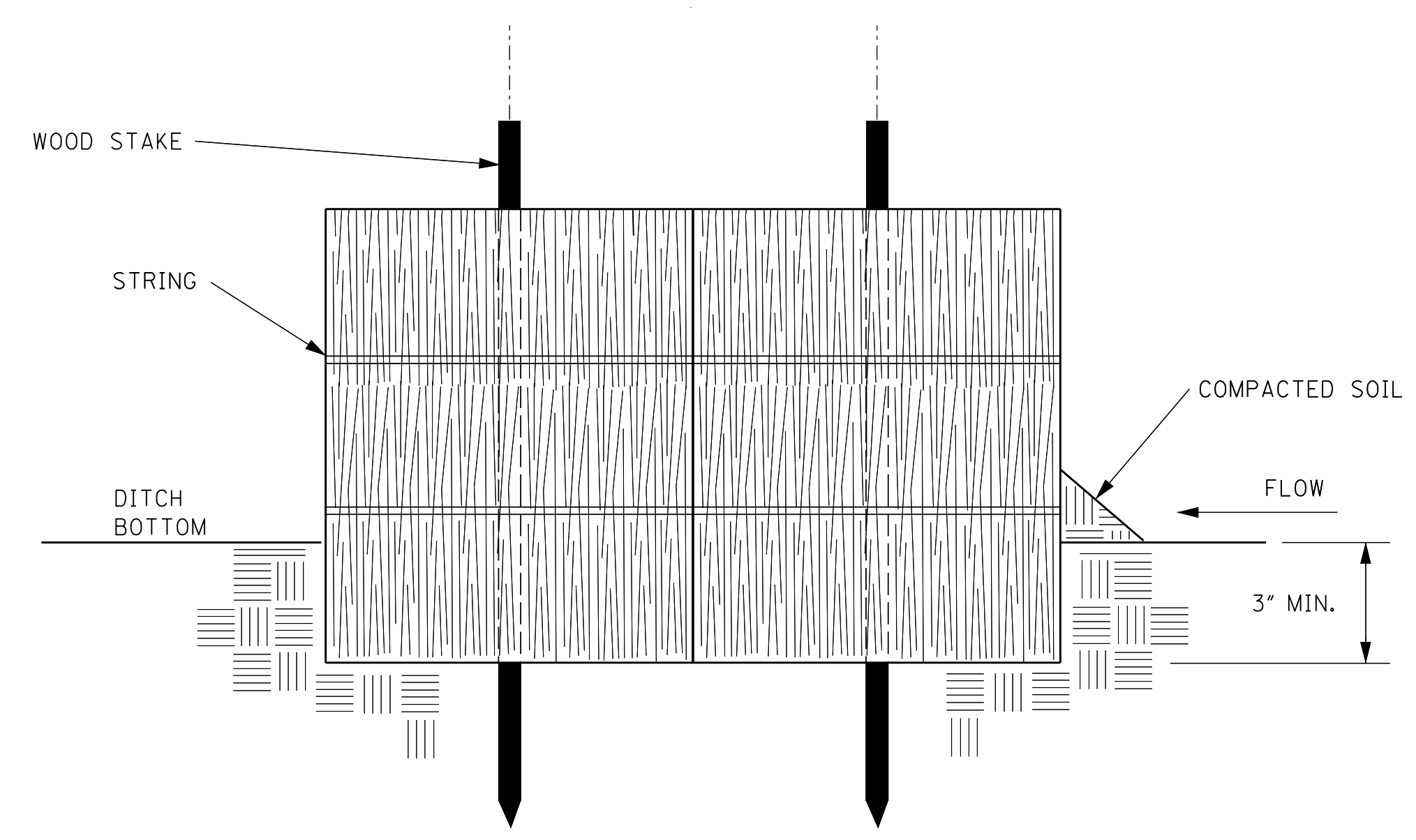
MISSISSIPPI DEPARTMENT OF TRANSPORTATION ROADWAY DESIGN DIVISION STANDARD PLAN	
DITCH CHECK STRUCTURES, TYPICAL APPLICATIONS AND DETAILS	
DATE	ISSUE DATE: AUGUST 01, 2017
REVISION	
BY	


 WORKING NUMBER
 ECD-4
 SHEET NUMBER
 6104

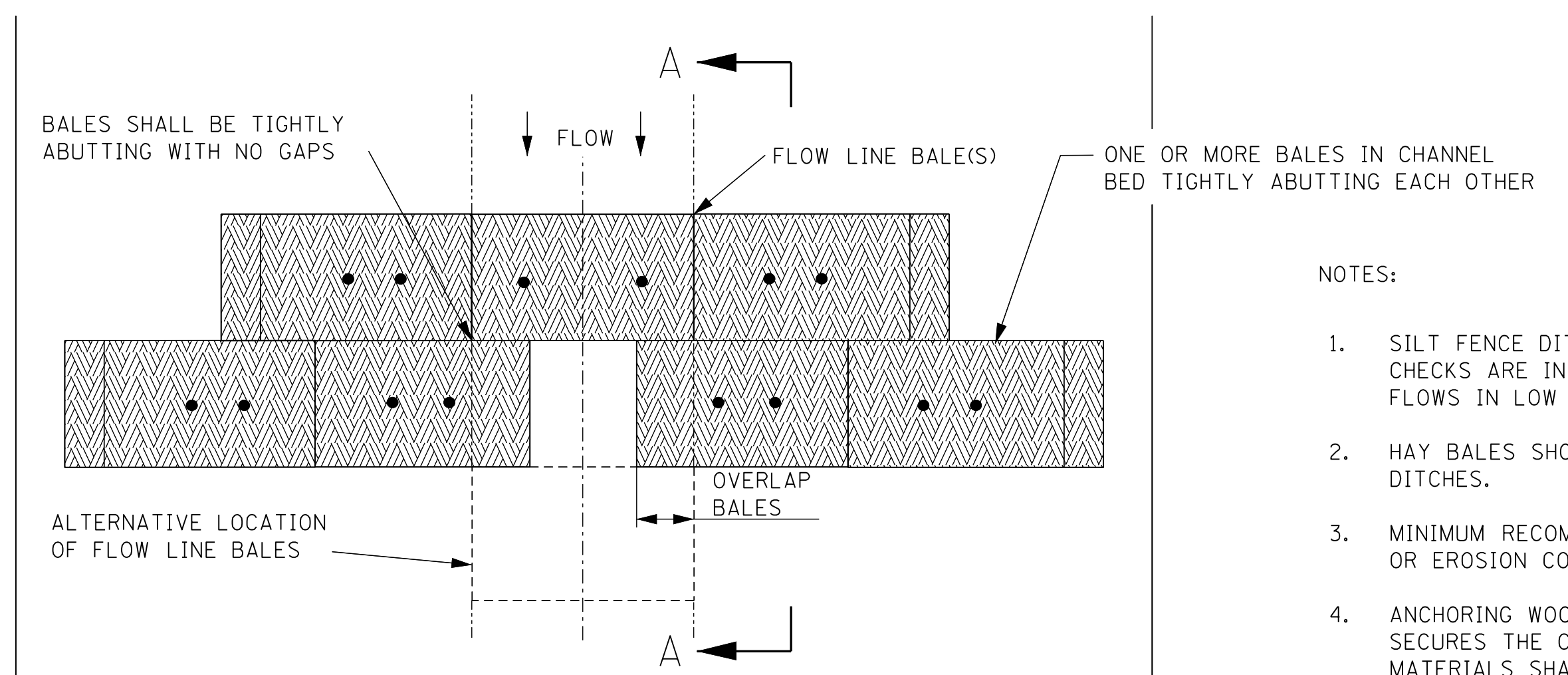


PLAN VIEW

- NOTES:
1. ANCHOR AND INSTALL PER DETAILS FOR SILT FENCE SPACING GUIDELINES ON WK. NO. ECD-4.
 2. A "W" SHAPE MAY BE USED FOR WIDER DITCHES.



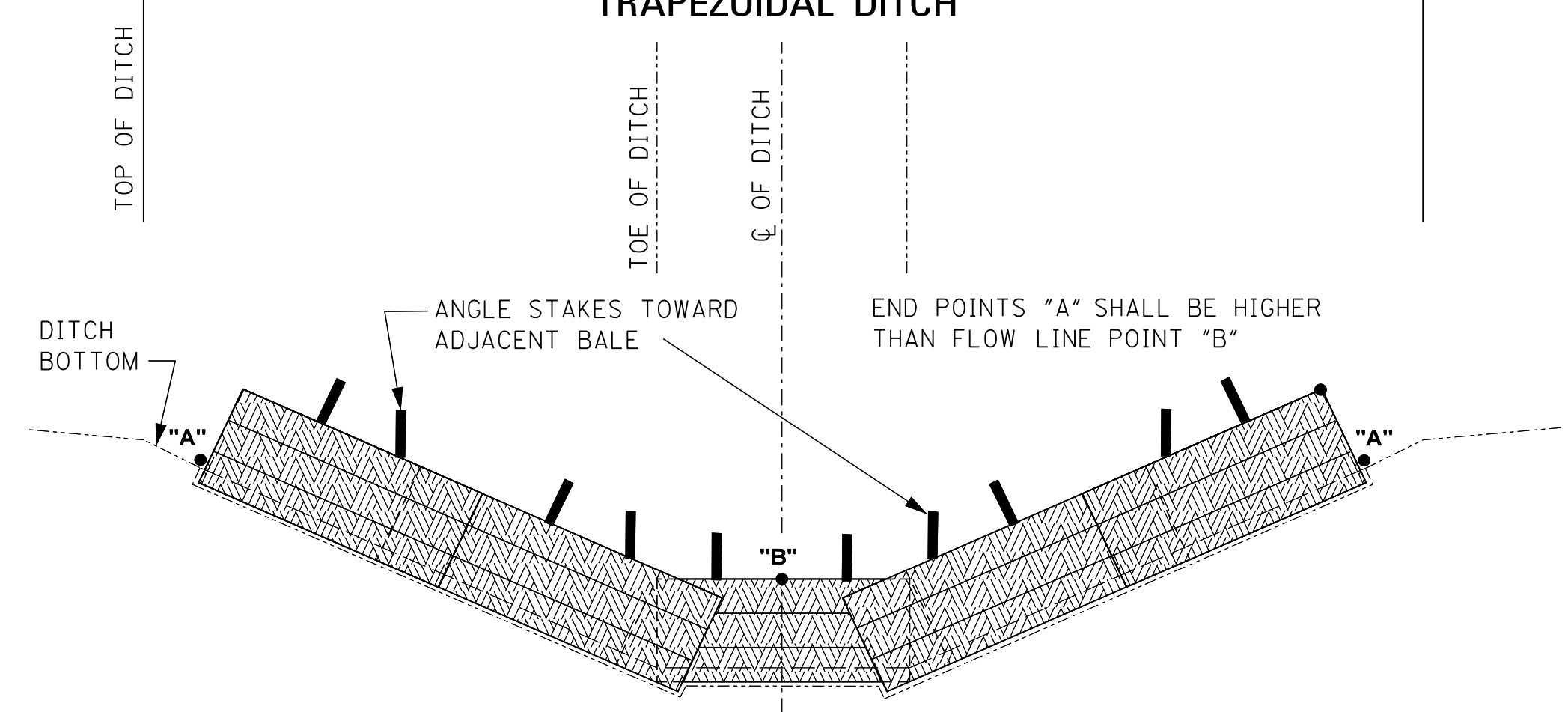
SECTION A-A



PLAN VIEW
TRAPEZOIDAL DITCH


NOTES:

1. SILT FENCE DITCH CHECKS SHOULD BE USED WHERE IT HAS BEEN DETERMINED THAT HAY BALE CHECKS ARE INADEQUATE. SILT FENCE DITCH CHECKS SHOULD BE USED TO INTERCEPT LOW VOLUME FLOWS IN LOW TO MODERATE GRADIENT DITCHES.
2. HAY BALES SHOULD BE USED TO INTERCEPT LOW VOLUME FLOWS IN LOW TO MODERATE GRADIENT DITCHES.
3. MINIMUM RECOMMENDED CHECK SPACING IS 100 FEET UNLESS SHOWN OTHERWISE ON THE PLANS OR EROSION CONTROL PLAN APPROVED BY THE ENGINEER. SEE SPACING GUIDANCE ON WK. NO. ECD-4.
4. ANCHORING WOOD STAKES SHALL BE SIZED, SPACED, AND BE OF A MATERIAL THAT EFFECTIVELY SECURES THE CHECK. A MINIMUM OF TWO STAKES PER BALE IS REQUIRED. ALL NON-DEGRADABLE MATERIALS SHALL BE REMOVED WHEN NO LONGER NEEDED.
5. BALES SHALL BE EMBEDDED IN THE SOIL A MINIMUM OF 3 INCHES.
6. BALES SHALL BE PLACED IN A ROW WITH ENDS TIGHTLY ABUTTING THE ADJACENT BALES. THE BALES SHALL BE PLACED WITH BINDINGS PARALLEL TO THE GROUND.
7. SOIL IS COMPACTED ALONG THE BASE OF THE UPSTREAM FACE TO PREVENT PIPING.
8. MULTIPLE ADJACENT ROWS OF BALES ARE REQUIRED AS SHOWN.

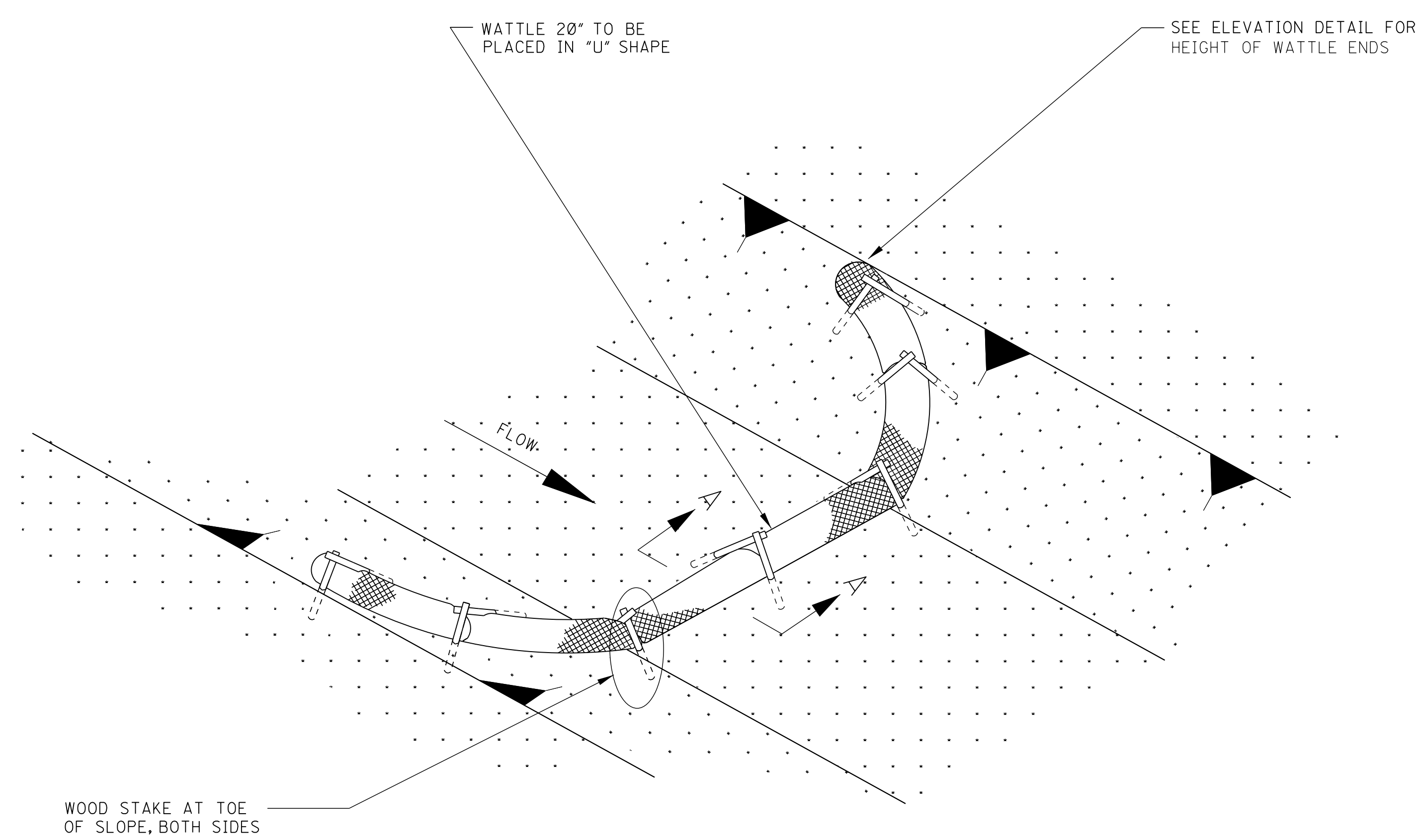


PROFILE VIEW
TRAPEZOIDAL DITCH

BY	MISSISSIPPI DEPARTMENT OF TRANSPORTATION ROADWAY DESIGN DIVISION STANDARD PLAN
REVISION	TEMPORARY EROSION, SEDIMENT, AND WATER POLLUTION CONTROL MEASURES (SILT FENCE AND HAY BALE DITCH CHECKS)
DATE	ISSUE DATE: AUGUST 01, 2017



WORKING NUMBER
ECD-5
SHEET NUMBER
6105



DETAIL (DITCH CHECK)

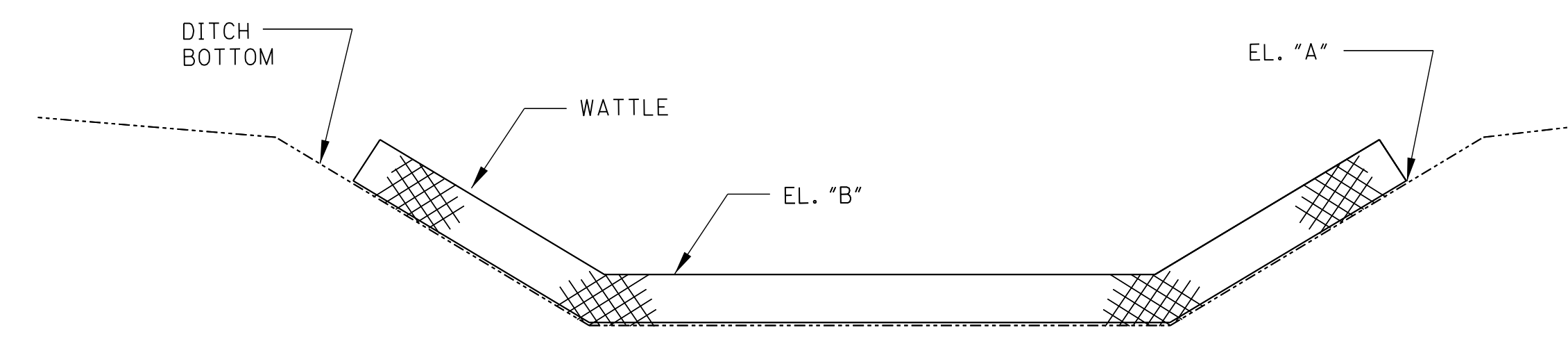
WOOD STAKE AT TOE OF SLOPE, BOTH SIDES

WATTLE 20" TO BE PLACED IN "U" SHAPE

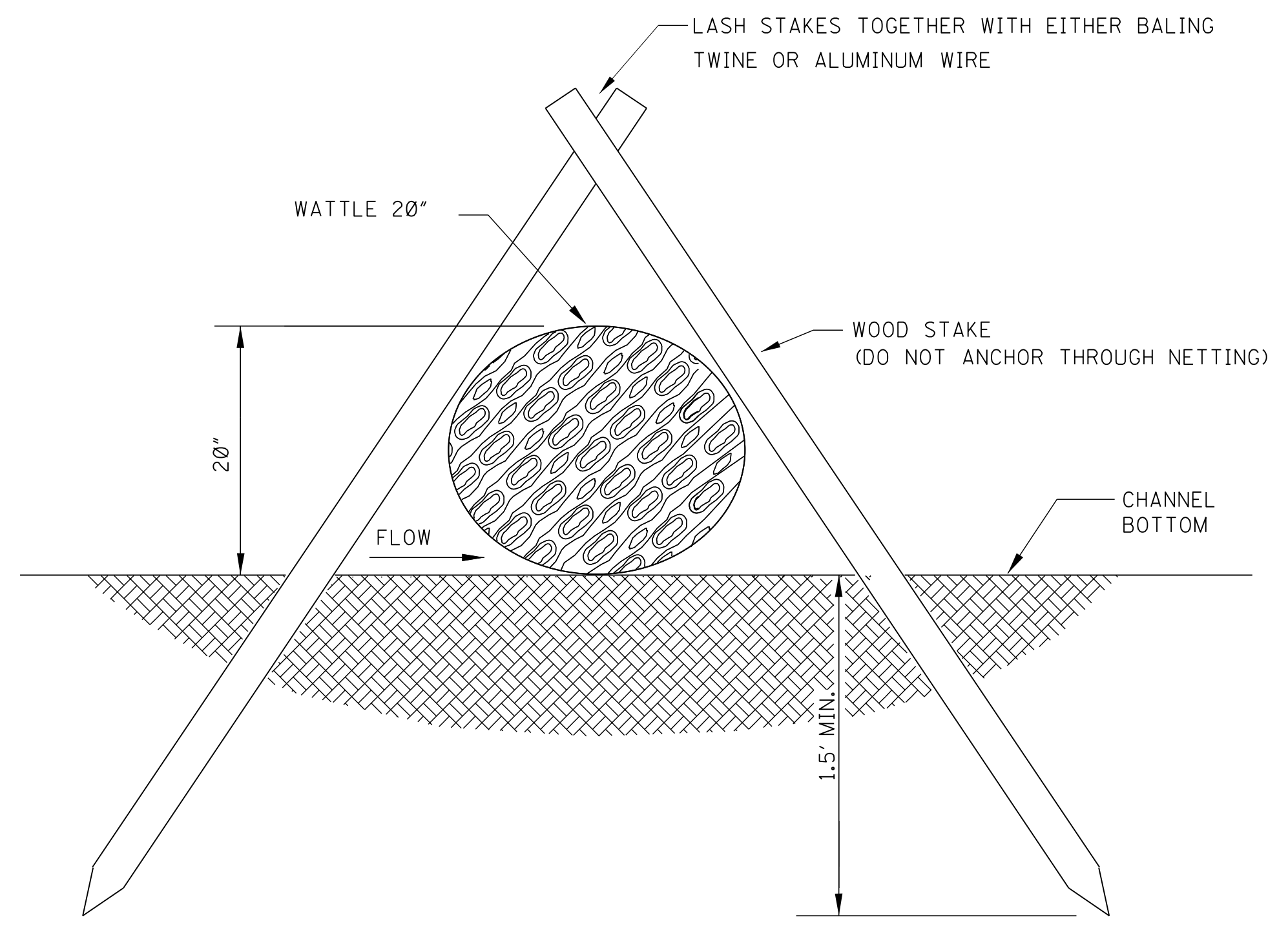
SEE ELEVATION DETAIL FOR HEIGHT OF WATTLE ENDS

FLOW

NOTE: END POINTS "A" SHALL BE HIGHER THAN FLOWLINE POINT "B".



ELEVATION DETAIL

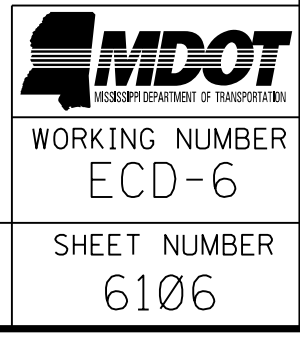


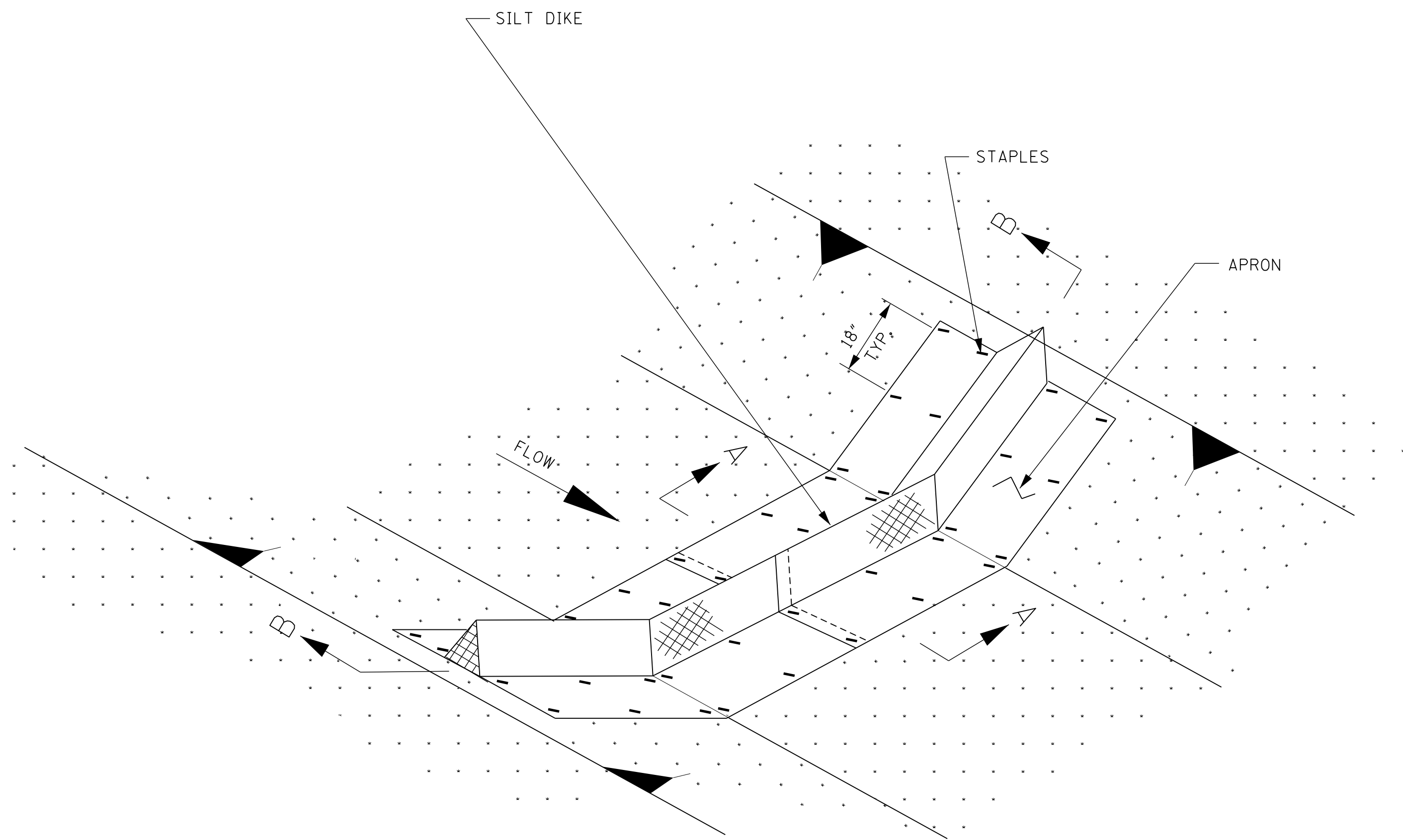
SECTION A-A

NOTES:

1. WATTLE DITCH CHECKS CAN BE USED FOR VELOCITY REDUCTION AND CONTROL OF SEDIMENT TRANSPORT UNDER LOW TO MEDIUM FLOW CONDITIONS.
2. THE PLACEMENT INTERVAL BETWEEN WATTLE DITCH CHECK SHALL BE 100' UNLESS SHOWN OTHERWISE ON THE PLANS OR EROSION CONTROL PLAN APPROVED BY THE ENGINEER. SEE SPACING GUIDANCE ON WK. NO. ECD-4.
3. ANCHORING WOOD STAKES SHALL BE SIZED, SPACED, DRIVEN, AND BE OF A MATERIAL THAT EFFECTIVELY SECURES THE CHECK. STAKE SPACING SHALL BE A MAXIMUM OF THREE FEET. ALL NON-DEGRADABLE MATERIALS SHALL BE REMOVED WHEN NO LONGER NEEDED.
4. TRENCHING OF WATTLES MAY BE NECESSARY IF PIPING BECOMES EVIDENT.
5. WATTLES SHOULD NOT BE USED IN HARD BOTTOM CHANNELS.
6. IN THE EVENT WATTLES CANNOT BE SECURED IN PLACE USING WOOD STAKES, SAND BAGS MAY BE USED IN LIEU OF WOOD STAKES IN ORDER TO SECURE THE WATTLES IN PLACE. IF SANDS BAGS ARE USED IN THIS APPLICATION THEY WILL NOT BE A SEPARATE PAY ITEM.

BY		MISSISSIPPI DEPARTMENT OF TRANSPORTATION ROADWAY DESIGN DIVISION STANDARD PLAN	
REVISION		DETAILS OF EROSION CONTROL WATTLE DITCH CHECK	
DATE			
ISSUE DATE:		AUGUST 01, 2017	
WORKING NUMBER		ECD-6	
SHEET NUMBER		6106	



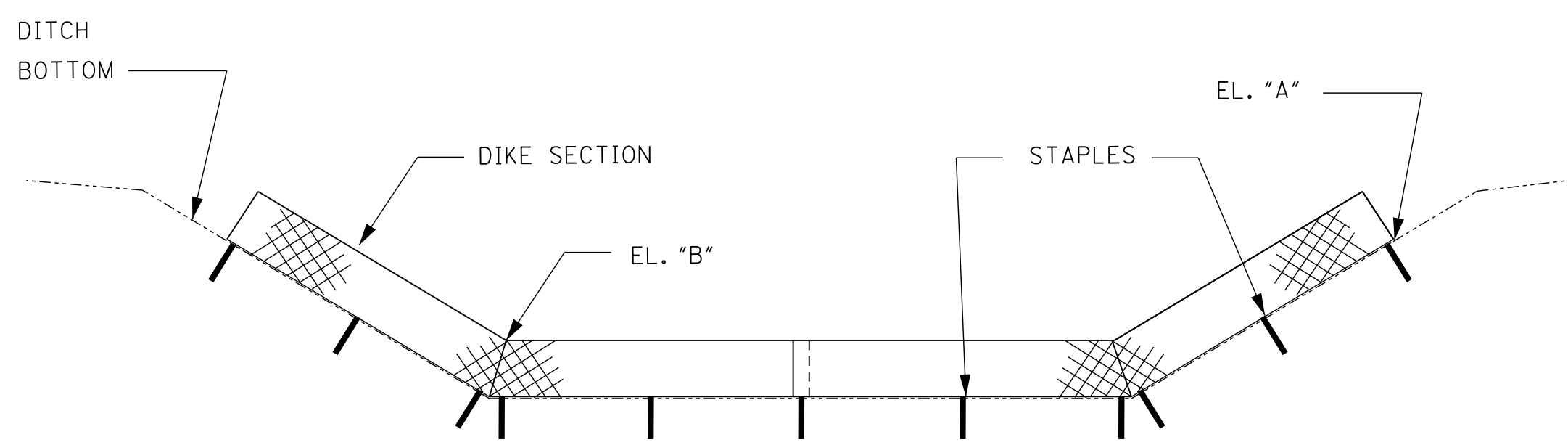


NOTES:

NOTES:

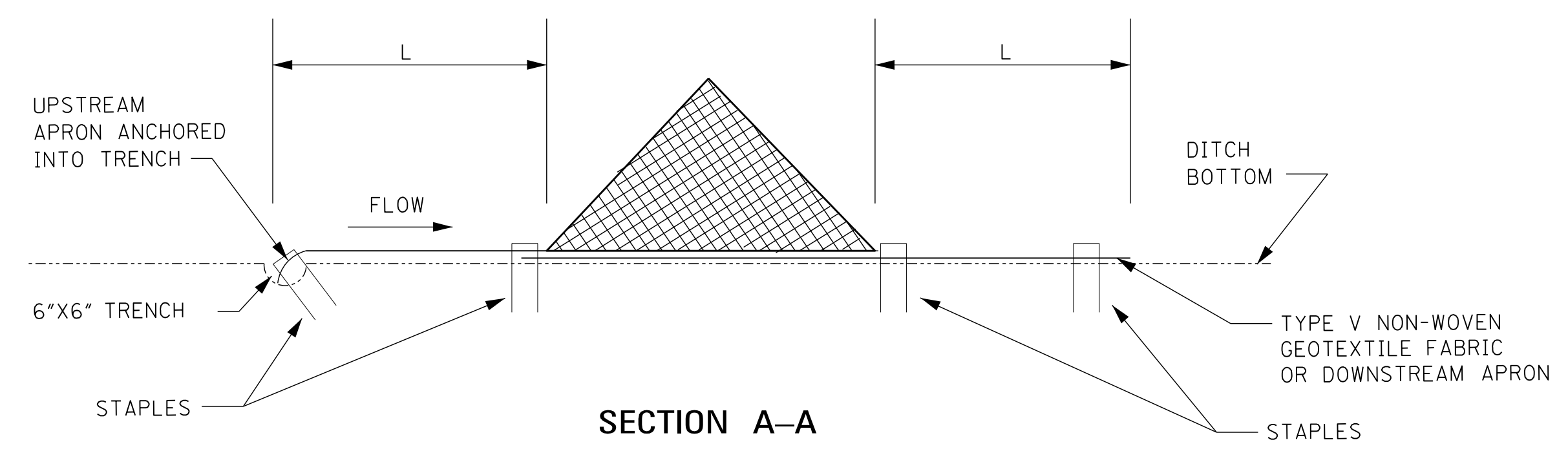
- SILT DIKES CAN BE USED IN DITCHES WITH CONCENTRATED FLOWS WITHIN THE CLEAR ZONE WHERE RIPRAP CANNOT BE USED.
- SILT DIKES MAY ALSO BE USED:
 - IN AREAS WHERE CONSTRUCTION TRAFFIC TRAVELS (AS SHOWN ON WK. NO. ECD-16), PROVIDED THE SILT DIKE REBOUNDS TO ITS ORIGINAL SHAPE. SILT DIKES WHICH DO NOT REBOUND TO THEIR ORIGINAL SHAPE SHALL BE REPLACED BY THE CONTRACTOR AT NO ADDITIONAL EXPENSE TO THE DEPARTMENT.
 - AT THE ENDS OF AND ALONG THE EDGES OF CONSTRUCTION ROADS THAT CROSS THE WATERS OF THE U.S. (AS SHOWN ON WK. NO. ECD-17).
- THE PLACEMENT INTERVAL BETWEEN SILT DIKE DITCH CHECK SHALL BE 100' UNLESS SHOWN OTHERWISE ON THE PLANS OR EROSION CONTROL PLAN APPROVED BY THE ENGINEER. SEE SPACING GUIDANCE ON WK. NO. ECD-4.
- INSTALLATION SHALL BE IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.
- THE TRIANGULAR SILT DIKE SHAPE IS ONLY SHOWN FOR DEPICTION PURPOSES. OTHER SHAPED SILT DIKES MAY BE USED.
- WHEN THE SILT DIKE, USED AS A DITCH CHECK, IS MANUFACTURED WITH AN APRON ON ONE SIDE ONLY, THE SILT DIKE SHALL BE INSTALLED AS SHOWN IN SECTION A-A. THE APRON SHALL BE INSTALLED ON THE UPSTREAM SIDE AND TYPE V NON-WOVEN GEOTEXTILE FABRIC INSTALLED ON THE DOWNSTREAM SIDE.
- THE COST OF THE FABRIC SHALL BE INCLUDED IN OTHER ITEMS BID.

PLAN VIEW



POINT "A" SHALL BE HIGHER THAN POINT "B" TO ENSURE THAT WATER FLOWS OVER THE DIKE AND NOT AROUND THE ENDS

SECTION B-B

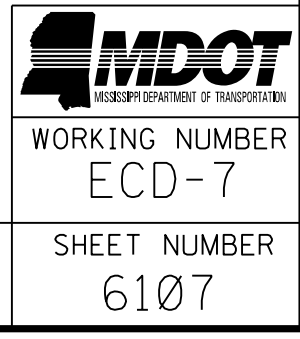


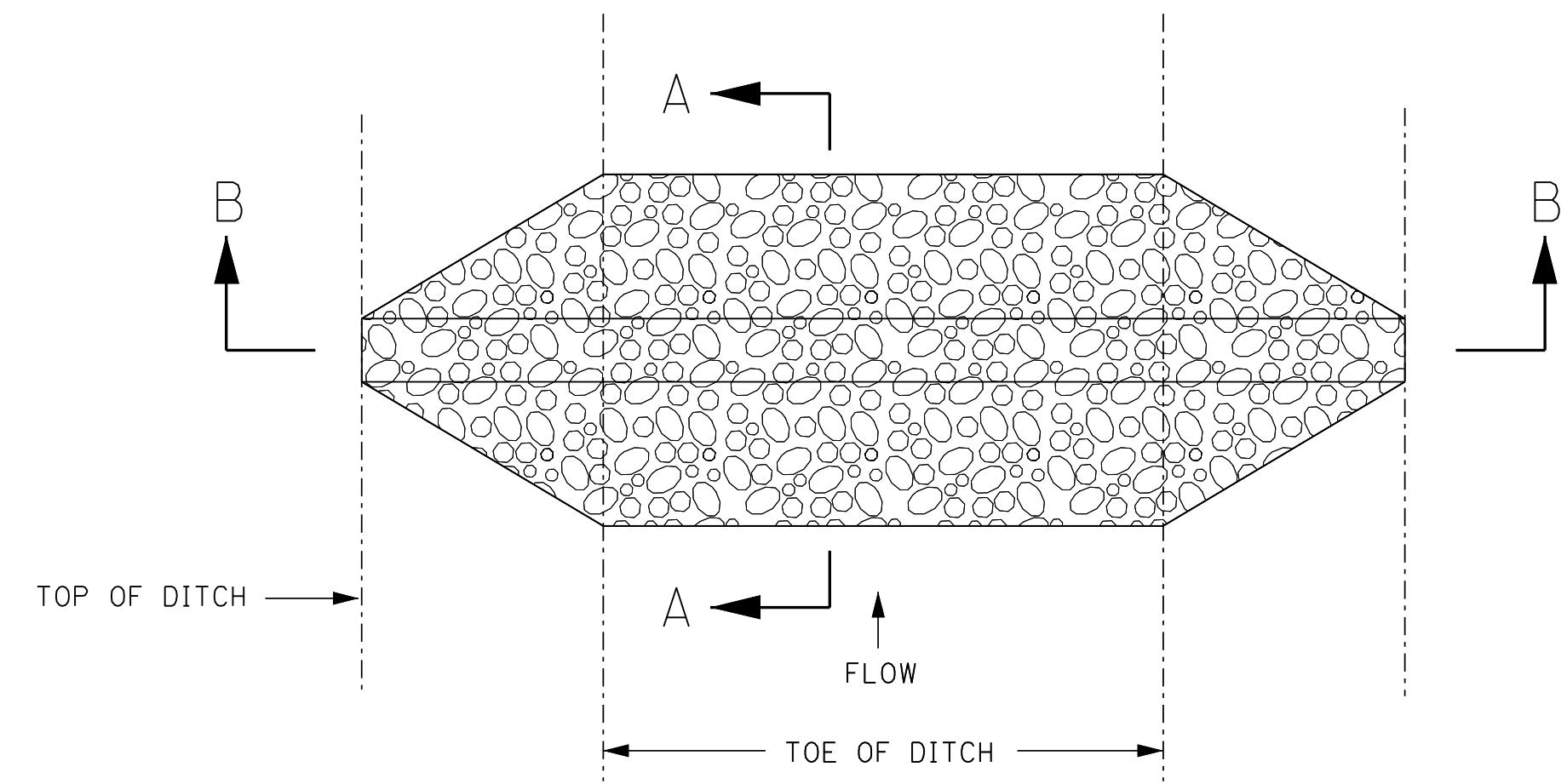
NOTE: STAPLES SHALL BE PLACED WHERE THE UNITS OVERLAP AND IN THE CENTER OF THE UNIT

SECTION A-A

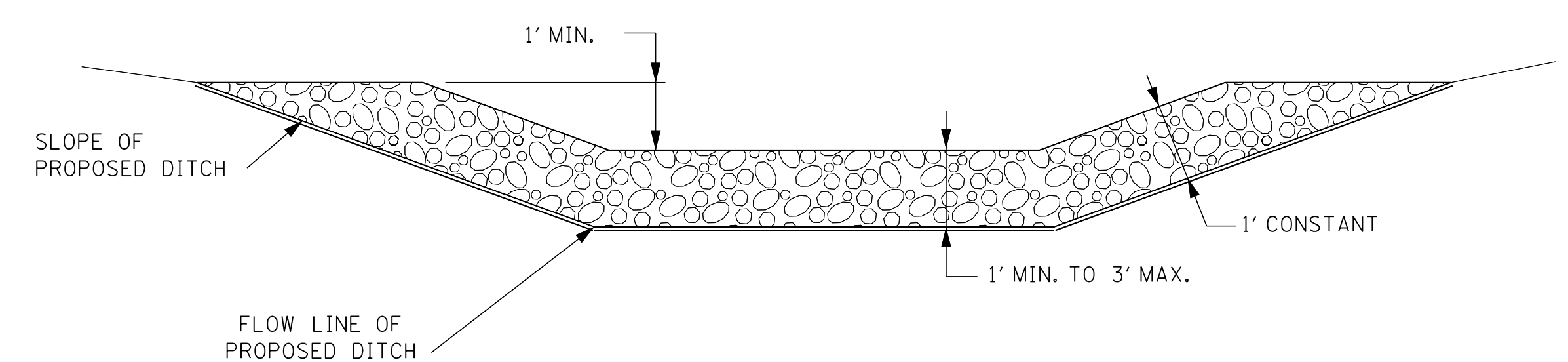
SILT DIKE INSTALLATION FOR ROADWAY DITCHES

BY		MISSISSIPPI DEPARTMENT OF TRANSPORTATION ROADWAY DESIGN DIVISION STANDARD PLAN	
REVISION		DETAILS OF EROSION CONTROL SILT DIKE DITCH CHECK	
DATE			
ISSUE DATE:		AUGUST 01, 2017	
WORKING NUMBER		ECD-7	
SHEET NUMBER		6107	

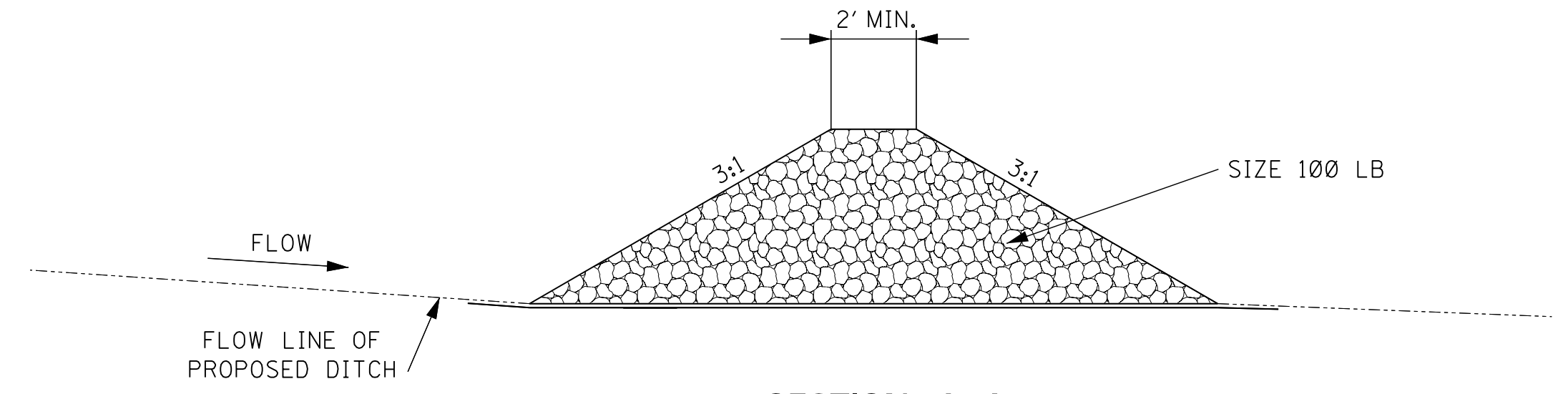




PLAN VIEW
DETAIL FOR TRAPEZOIDAL DITCH

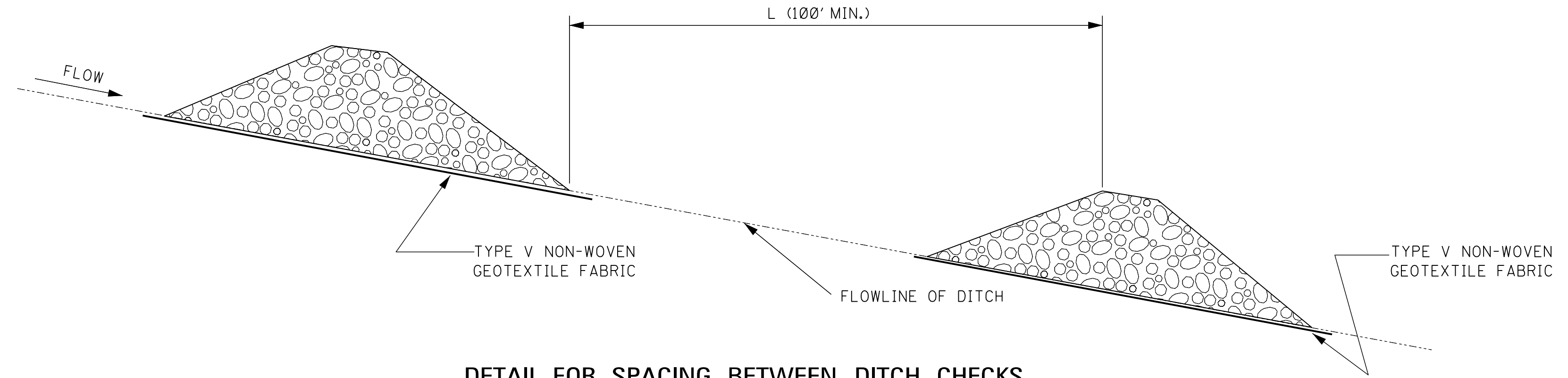


SECTION B-B



SECTION A-A

TEMPORARY ROCK DITCH CHECKS IN ROADSIDE DITCHES

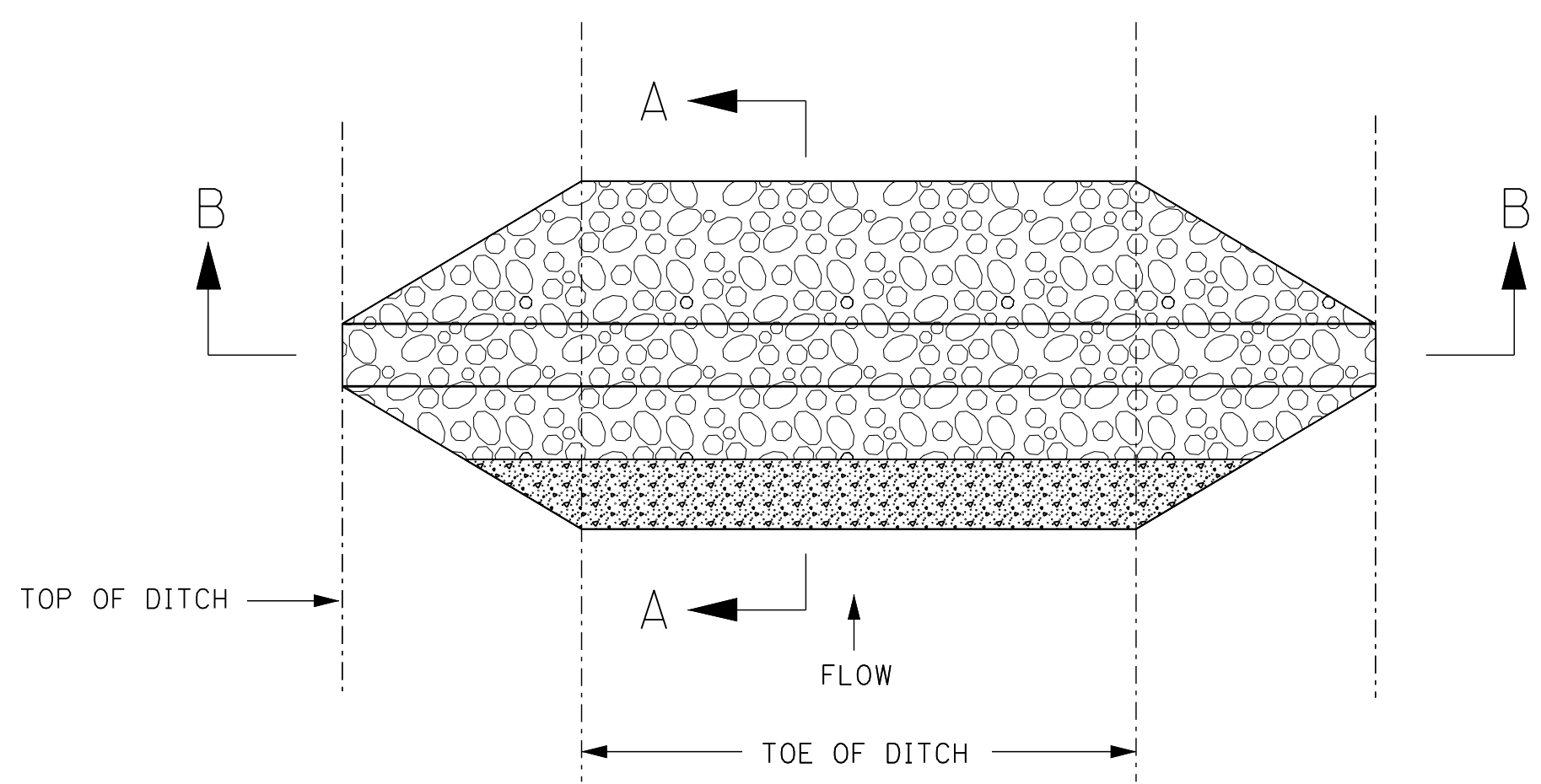


DETAIL FOR SPACING BETWEEN DITCH CHECKS

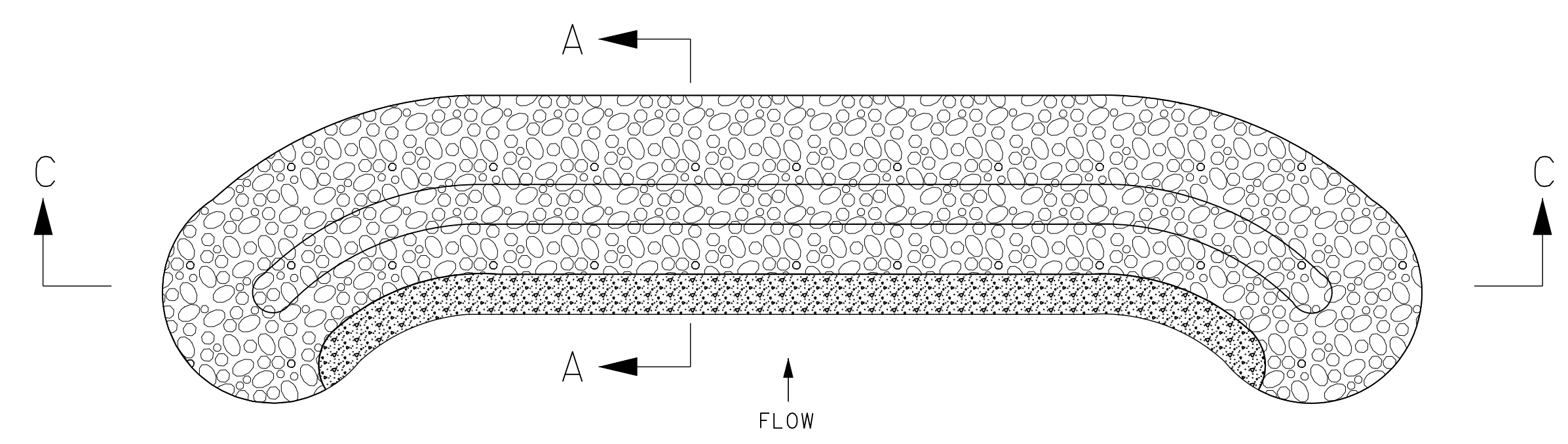
NOTES:

1. ROCK DITCH CHECKS SHOULD ONLY BE USED FOR REDUCING THE VELOCITY OF FLOWING WATER.
2. MINIMUM SPACING FOR ROCK DITCH CHECKS IS 100 FEET UNLESS OTHERWISE SHOWN ON THE PLANS OR EROSION CONTROL PLAN APPROVED BY THE ENGINEER. SEE SPACING GUIDANCE ON WK. NO. ECD-4.
3. ROCK DITCH CHECKS SHOULD ONLY BE USED UP-GRADIENT OF AND ALONG WITH ADDITIONAL DOWN-GRADIENT SEDIMENT CONTROL BEST MANAGEMENT PRACTICES (BMP'S).
4. THE COST OF FABRIC SHALL BE INCLUDED IN OTHER ITEMS BID.

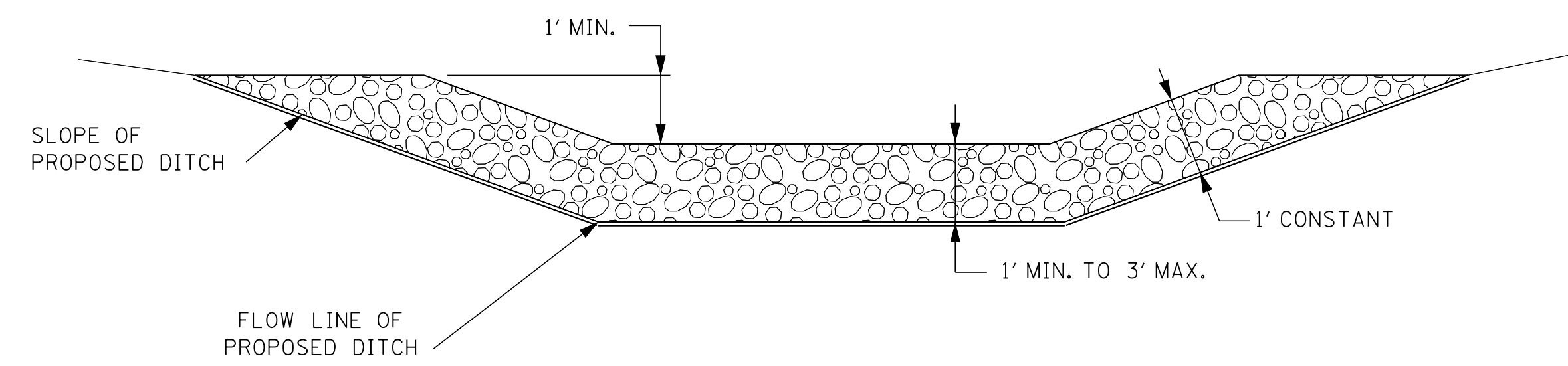
BY		MISSISSIPPI DEPARTMENT OF TRANSPORTATION ROADWAY DESIGN DIVISION STANDARD PLAN	
REVISION		ROCK DITCH CHECK	
DATE		ISSUE DATE: AUGUST 01, 2017	
		 WORKING NUMBER ECD-8 SHEET NUMBER 6108	



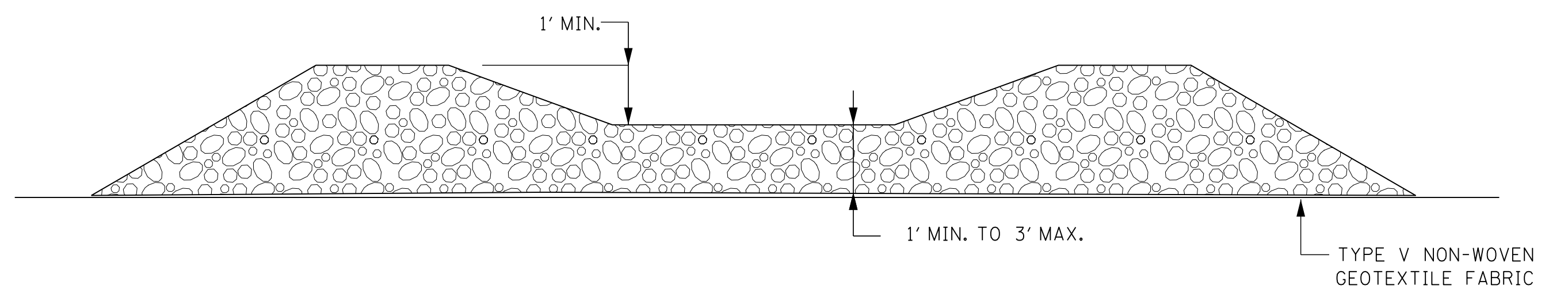
PLAN VIEW
DETAIL FOR TRAPEZOIDAL DITCH



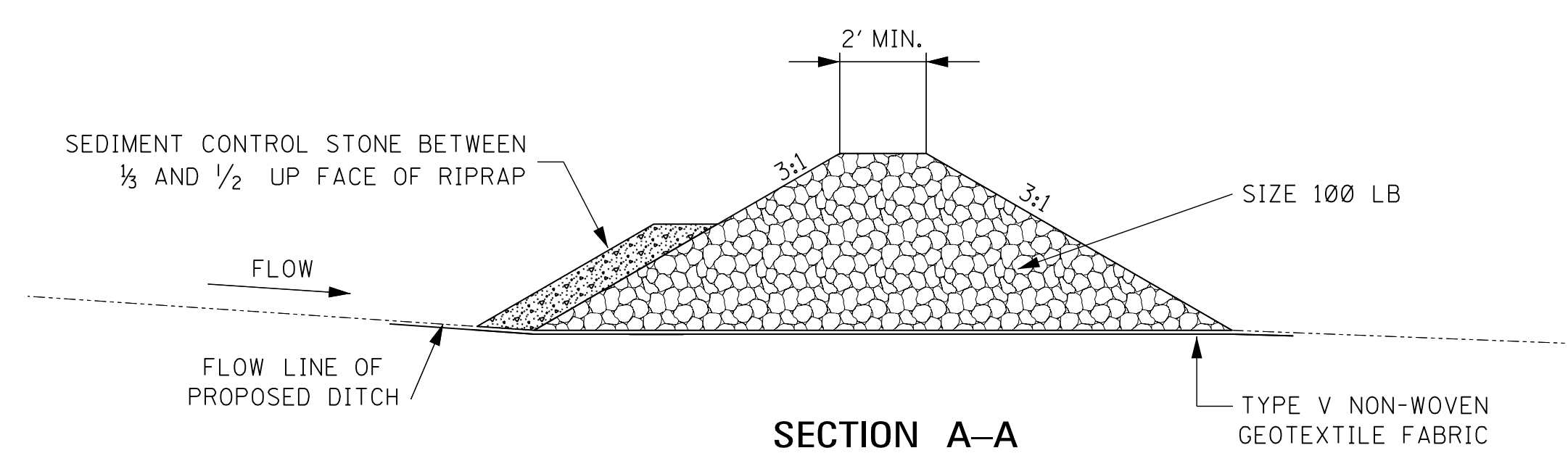
PLAN VIEW
DETAIL FOR USE OTHER THAN DITCH



SECTION B-B



SECTION C-C



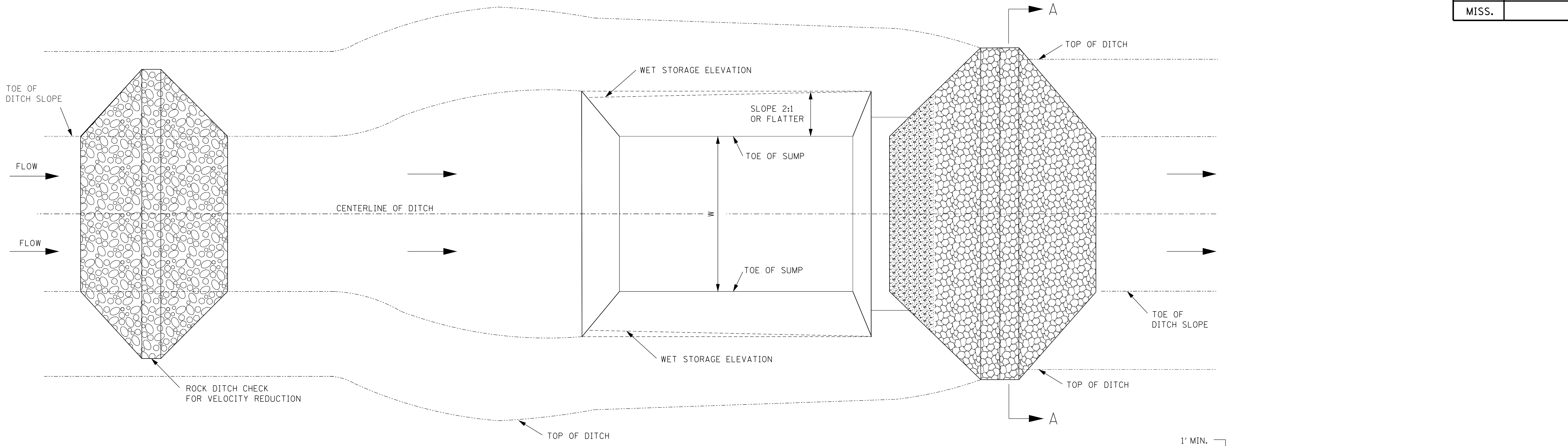
SECTION A-A

TEMPORARY ROCK DITCH CHECKS IN ROADSIDE DITCHES

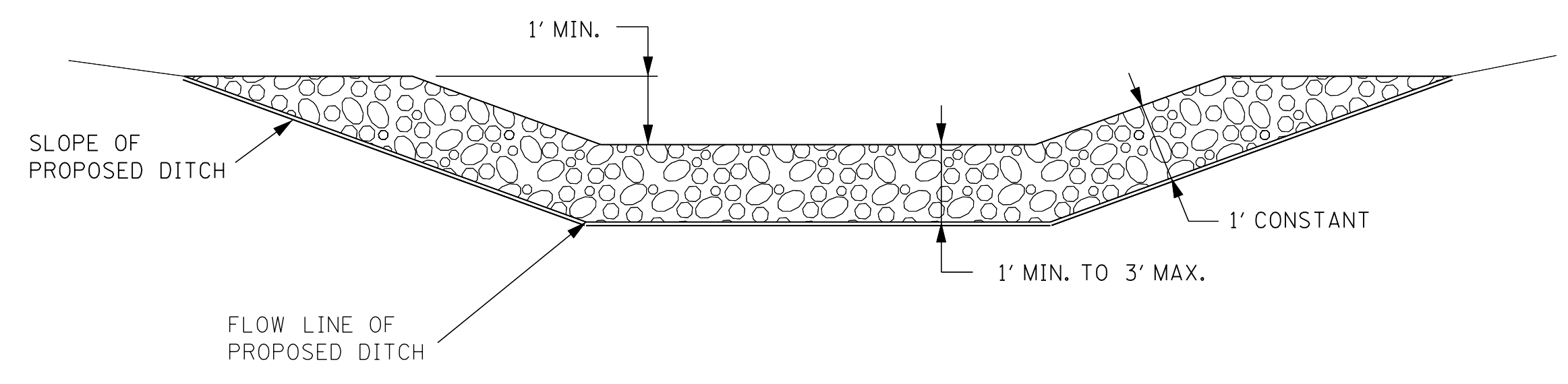
GENERAL NOTES:

1. ROCK FILTER DAMS (RFD) MAY BE USED AS A DISCHARGE STRUCTURE WHILE WORKING WITH HIGHLY EROSIIVE SOIL. RFD'S MAY BE USED AS PART OF A "BMP TRAIN" AND MAY BE USED IN SUCCESSION AT A MINIMUM SPACING OF 100 FT. OR PER THE EROSION CONTROL PLAN APPROVED BY THE ENGINEER.
2. THE COST OF THE FABRIC SHALL BE INCLUDED IN OTHER ITEMS BID.

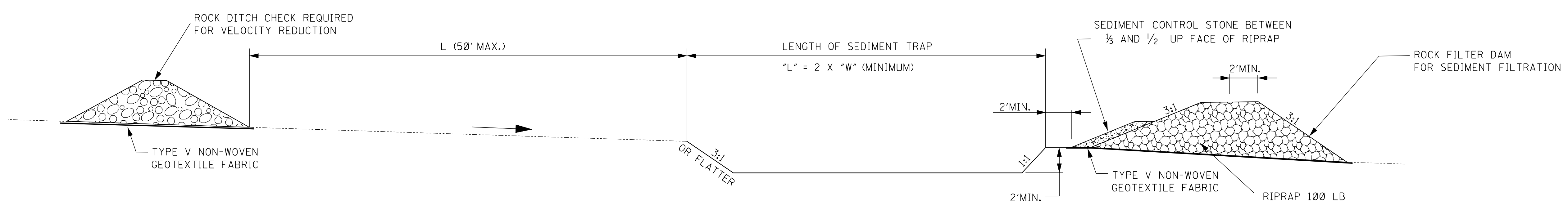
		MISSISSIPPI DEPARTMENT OF TRANSPORTATION ROADWAY DESIGN DIVISION STANDARD PLAN	
		ROCK FILTER DAM	
		 WORKING NUMBER ECD-9 SHEET NUMBER 6109	
BY		ISSUE DATE: AUGUST 01, 2017	
REVISION			
DATE			



PLAN VIEW



SECTION A-A

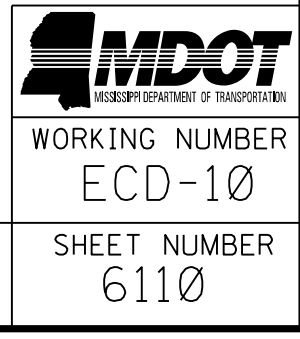


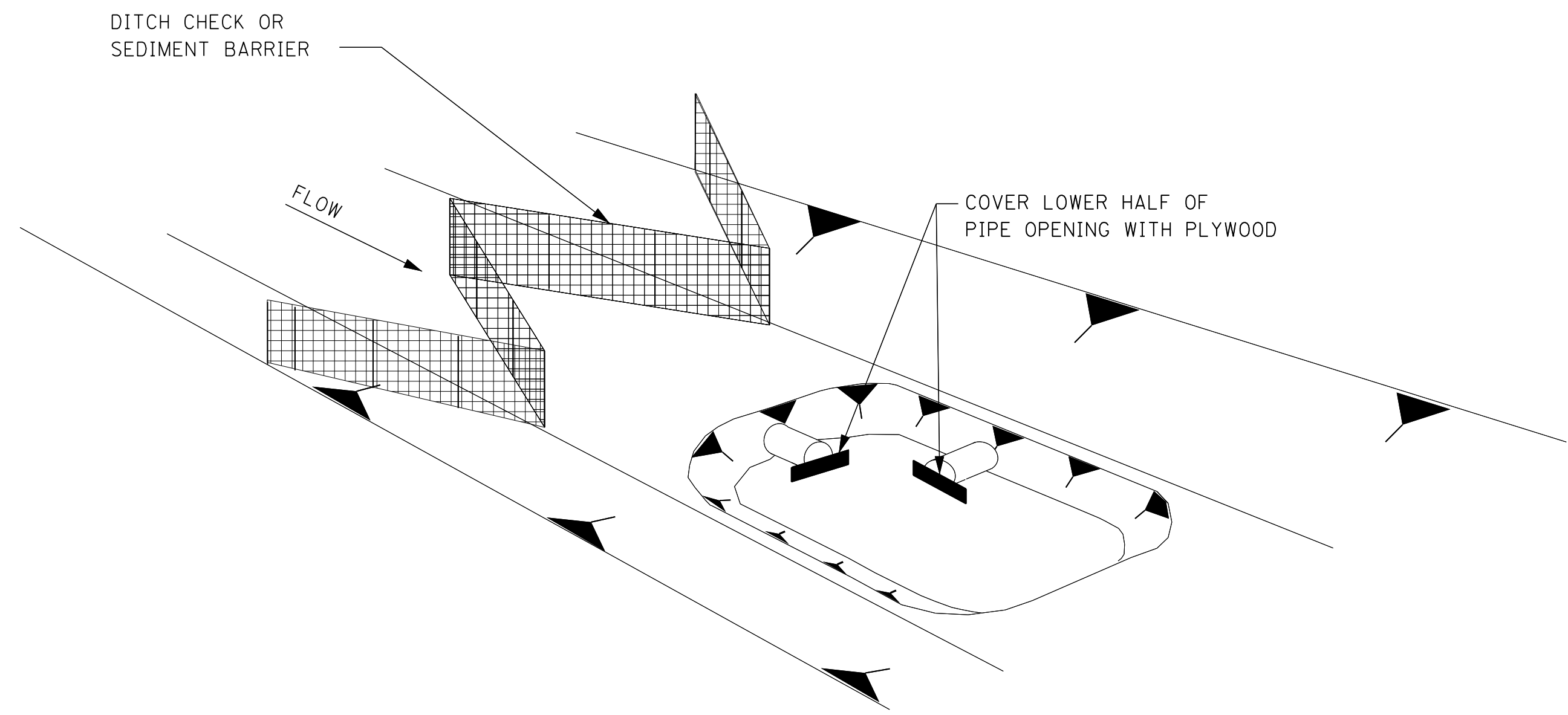
PROFILE VIEW

NOTES:

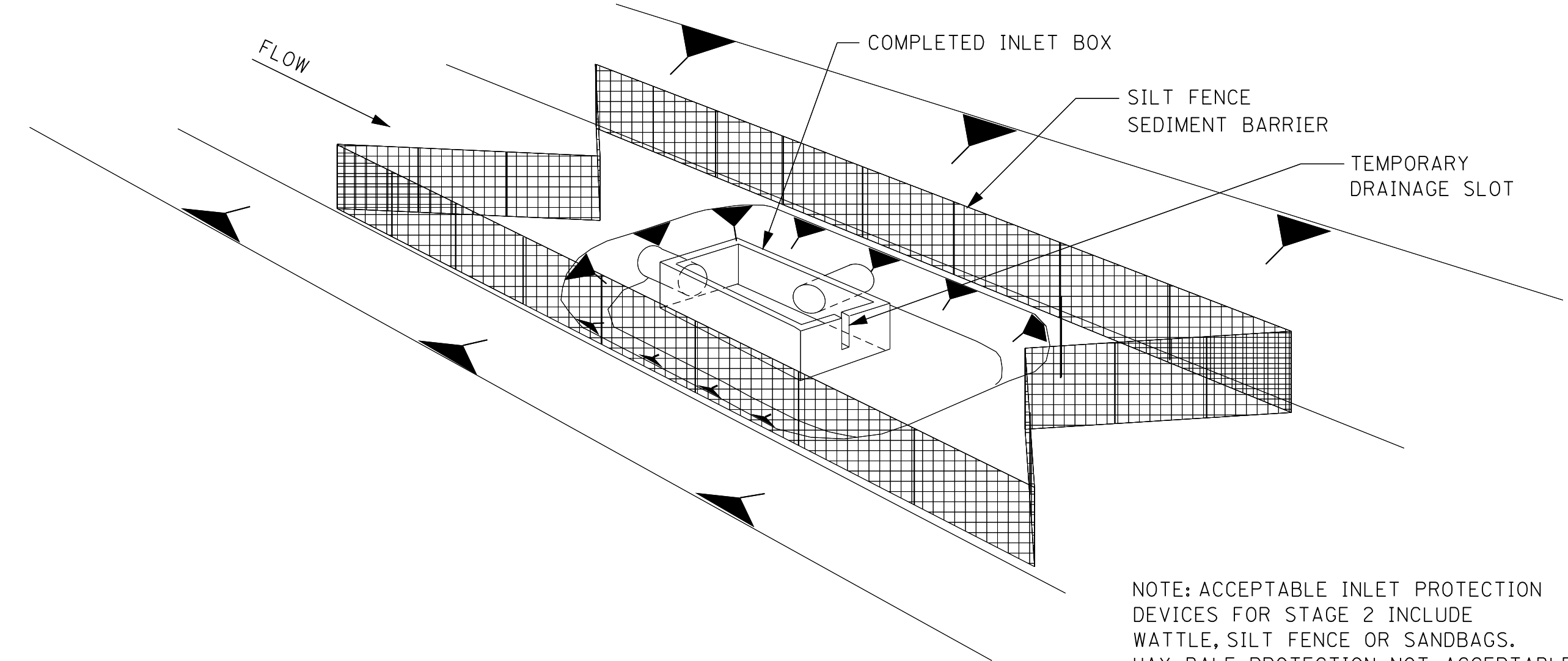
- ROCK DITCH CHECKS WITH SUMP EXCAVATION CAN BE PLACED IN DITCHES TO ASSURE ON-SITE SEDIMENT TRAPPING REQUIREMENTS ARE MET. DITCH CHECK WITH SUMP EXCAVATION IS USED WHEN DITCHES RECEIVE DRAINAGE FROM CUT OR FILL SLOPES OR OTHER CRITICAL AREAS WHERE SOIL EROSION IS EXPECTED. DRAINAGE AREA FOR A TEMPORARY SEDIMENT TRAP SHOULD BE LIMITED TO 3 ACRES. THEY CAN BE USED IN SERIES TO INCREASE ON-SITE SEDIMENT TRAPPING EFFICIENCY.
- THE COST OF THE FABRIC SHALL BE INCLUDED IN OTHER ITEMS BID.

MISSISSIPPI DEPARTMENT OF TRANSPORTATION ROADWAY DESIGN DIVISION STANDARD PLAN	
ROCK DITCH CHECK WITH SUMP EXCAVATION AND ROCK FILTER DAM	
BY	
REVISION	
DATE	ISSUE DATE: AUGUST 01, 2017
WORKING NUMBER	ECD-10
SHEET NUMBER	6110



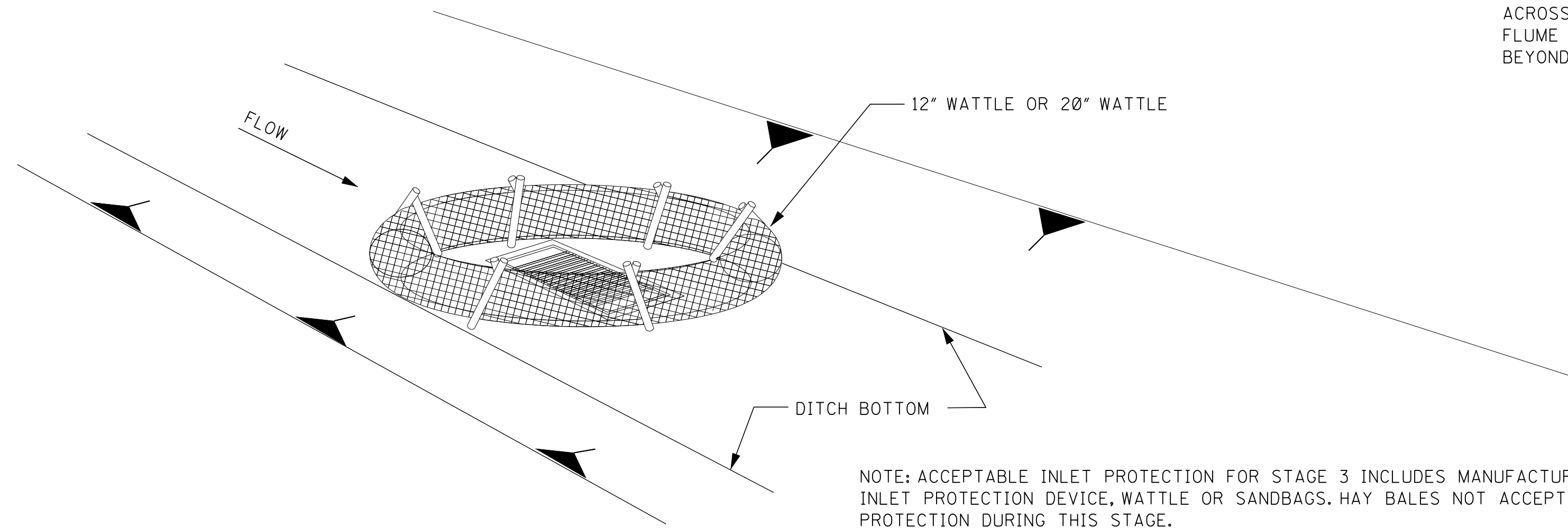


STAGE 1
INLET/JUNCTION BOX LOCATION EXCAVATED



STAGE 2
INLET/JUNCTION BOX
CONSTRUCTED BUT NOT BACKFILLED

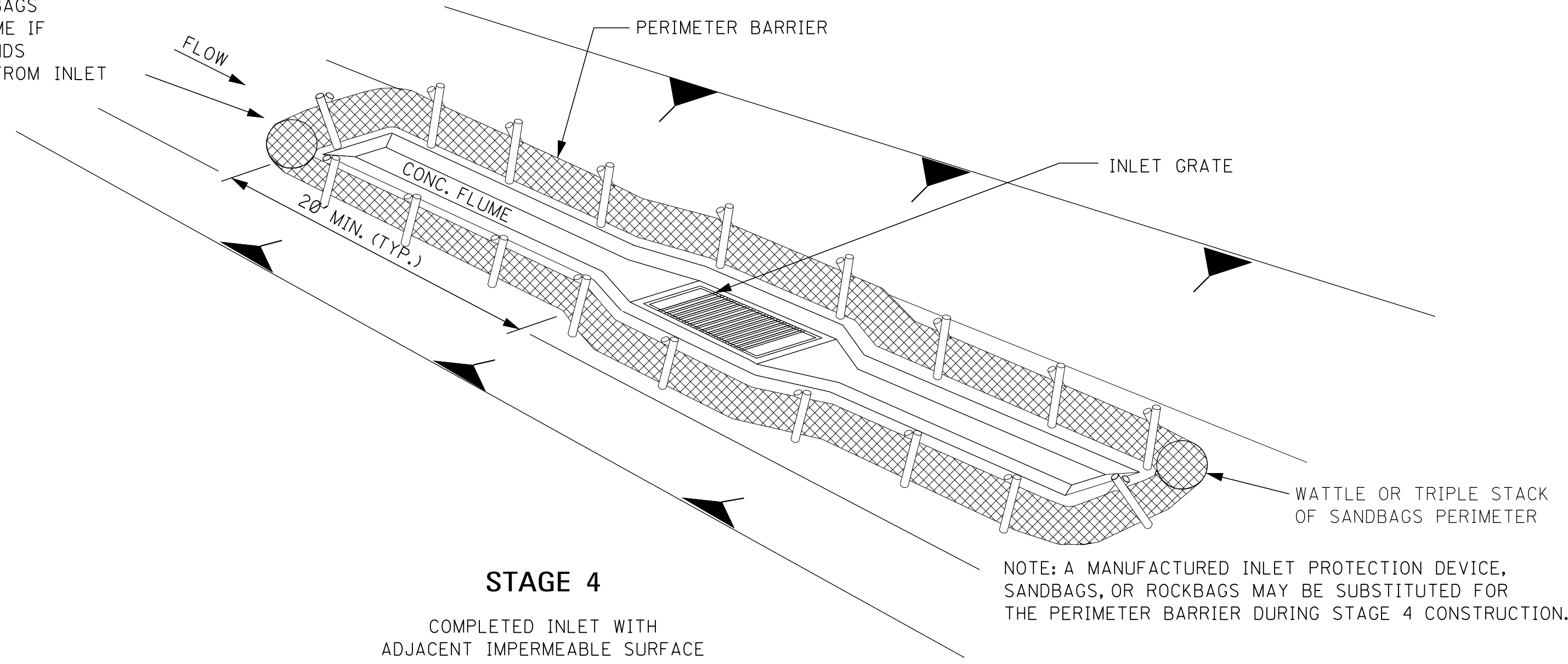
NOTE: ACCEPTABLE INLET PROTECTION DEVICES FOR STAGE 2 INCLUDE WATTLE, SILT FENCE OR SANDBAGS. HAY BALE PROTECTION NOT ACCEPTABLE DURING THIS PHASE.



STAGE 3
INLET CONSTRUCTED AND BACKFILLED

NOTE: ACCEPTABLE INLET PROTECTION FOR STAGE 3 INCLUDES MANUFACTURED INLET PROTECTION DEVICE, WATTLE OR SANDBAGS. HAY BALES NOT ACCEPTABLE PROTECTION DURING THIS STAGE.

PLACE SANDBAGS ACROSS FLUME IF FLUME EXTENDS BEYOND 20' FROM INLET



STAGE 4
COMPLETED INLET WITH
ADJACENT IMPERMEABLE SURFACE

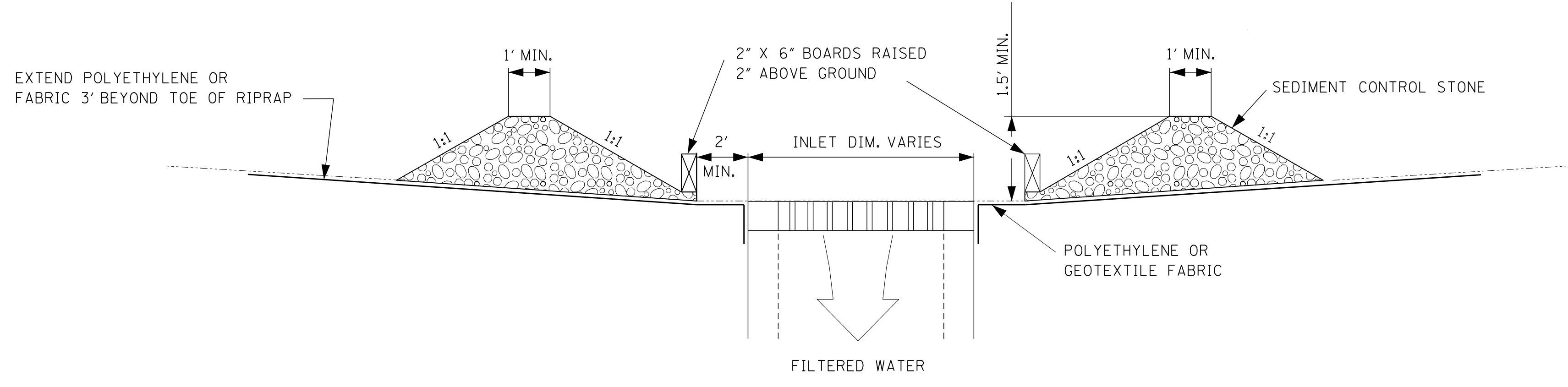
NOTE: A MANUFACTURED INLET PROTECTION DEVICE, SANDBAGS, OR ROCKBAGS MAY BE SUBSTITUTED FOR THE PERIMETER BARRIER DURING STAGE 4 CONSTRUCTION.

DITCH INLET CONSTRUCTION STAGES

NOTES:

1. DRAINAGE STRUCTURE BACKFILL SHOULD BE PLACED IN STAGE 1 IMMEDIATELY AFTER PIPE INSTALLATION. INLET CONSTRUCTION SHOULD COMMENCE AS SOON AS POSSIBLE AND BE CONTINUOUS THROUGH COMPLETION.
2. CONFIGURATIONS MAY BE ADJUSTED WITH APPROVAL OF THE ENGINEER FOR TRAVELWAY SAFETY, WATER FLOW, OR SOIL AND INSTALLATION CHALLENGES.
3. DURING STAGE 1 AND STAGE 2, SILT FENCE MAY BE REQUIRED UPSLOPE OF THE INLET EXCAVATION AS DIRECTED BY THE ENGINEER.
4. IF SILT FENCE IS INSTALLED AROUND THE INLET INSTALLATION IT SHOULD BE IN A CONFIGURATION THAT WILL ALLOW INLET CONSTRUCTION.
5. FOR INLET PROTECTION TO BE USED IN STAGES 1 AND 2 OF CONSTRUCTION, SEE WK. NO. ECD-12.

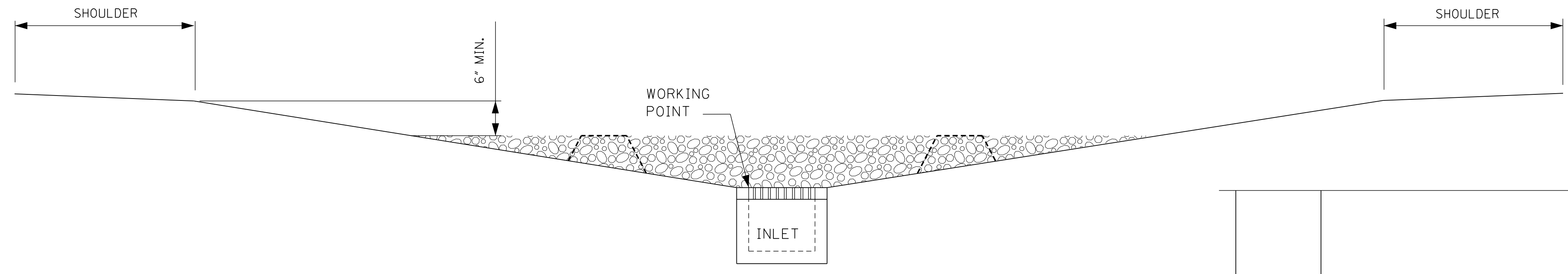
BY		MISSISSIPPI DEPARTMENT OF TRANSPORTATION ROADWAY DESIGN DIVISION STANDARD PLAN	
REVISION		<p>TYPICAL APPLICATIONS AND DETAILS FOR INLET CONSTRUCTION</p> 	
DATE			
ISSUE DATE:		AUGUST 01, 2017	
WORKING NUMBER		ECD-11	
SHEET NUMBER		6111	



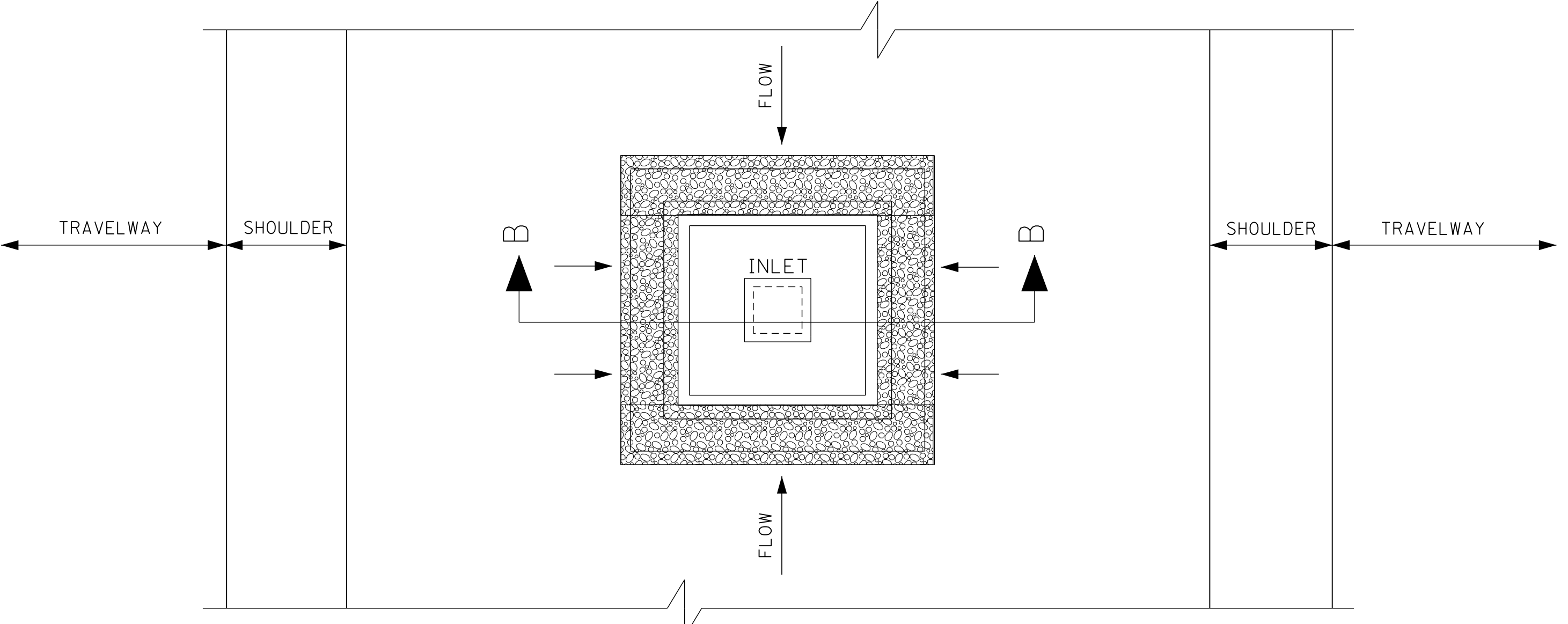
SECTION B-B

NOTES:

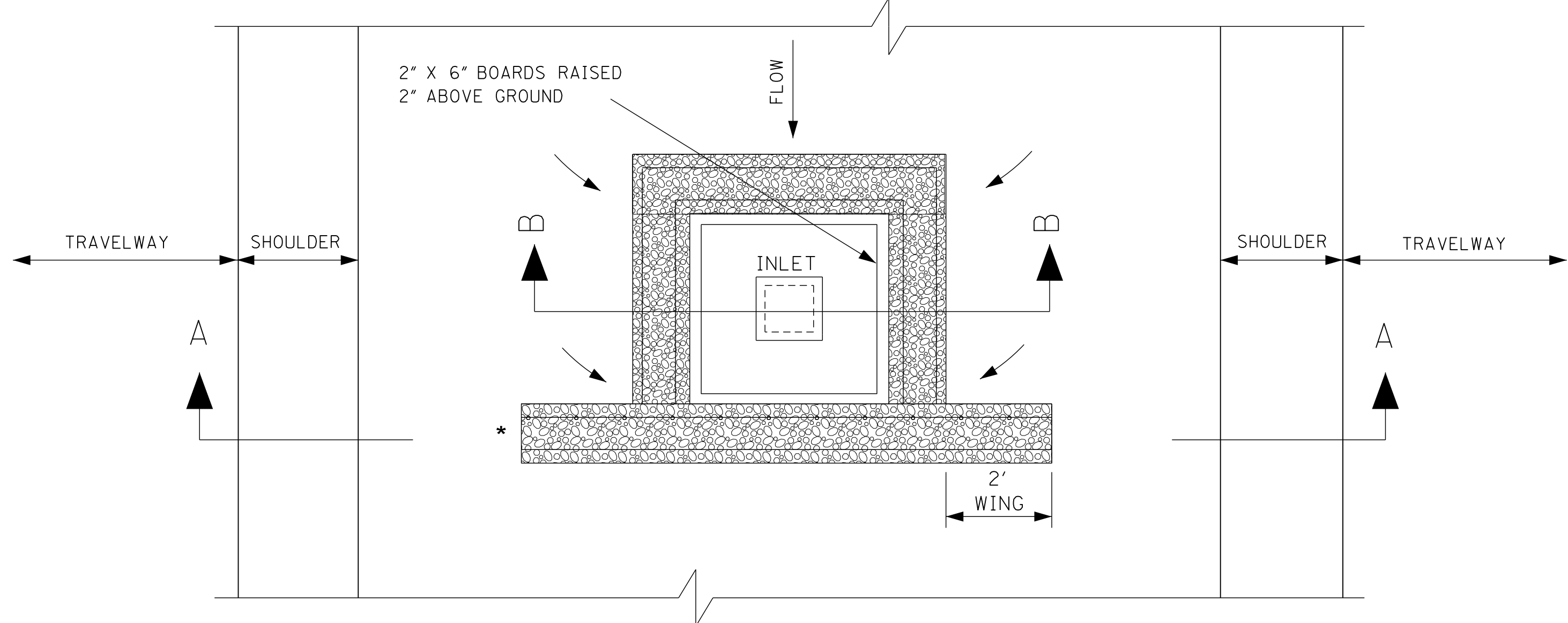
1. THE ELEVATION OF THE TOP OF THE REQUIRED SEDIMENT CONTROL STONE BERM SHOULD BE 1.5' ABOVE THE ELEVATION OF THE INLET WORKING POINT AND SHALL BE A MINIMUM OF 6" BELOW THE ELEVATION OF THE OUTSIDE EDGE OF THE INSIDE SHOULDER.
2. THIS SEDIMENT CONTROL STONE INLET PROTECTION SHALL BE UTILIZED DURING STAGE 1 AND STAGE 2 INLET CONSTRUCTION. SEE WK. NO. ECD-11.
3. 2" X 6" BOARDS MAY BE REPLACED WITH WIRE MESH WITH OPENINGS LESS THAN 1" X 1". COST OF WHICH SHALL BE INCLUDED IN OTHER ITEMS BID.
4. THE COST OF POLYETHYLENE AND/OR FABRIC SHALL BE INCLUDED IN OTHER ITEMS BID.



SECTION A-A




PLAN - IN SAG



PLAN - ON GRADE

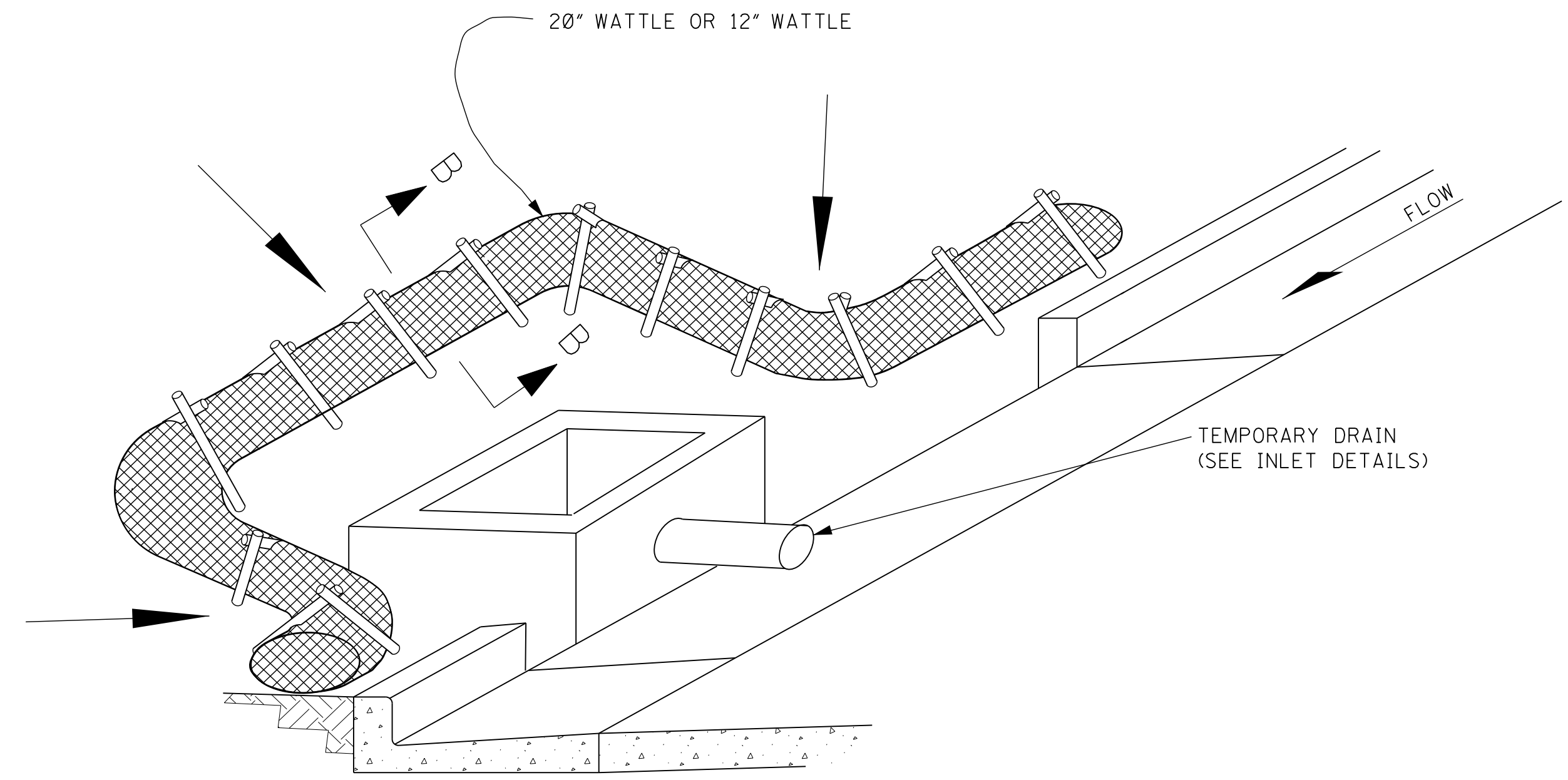
* CONSTRUCT WINGS TO PREVENT BYPASS

MISSISSIPPI DEPARTMENT OF TRANSPORTATION ROADWAY DESIGN DIVISION STANDARD PLAN	
INLET PROTECTION DETAILS FOR SEDIMENT CONTROL STONE ON GRADES AND SAGS	
BY	
REVISION	
DATE	ISSUE DATE: AUGUST 01, 2017

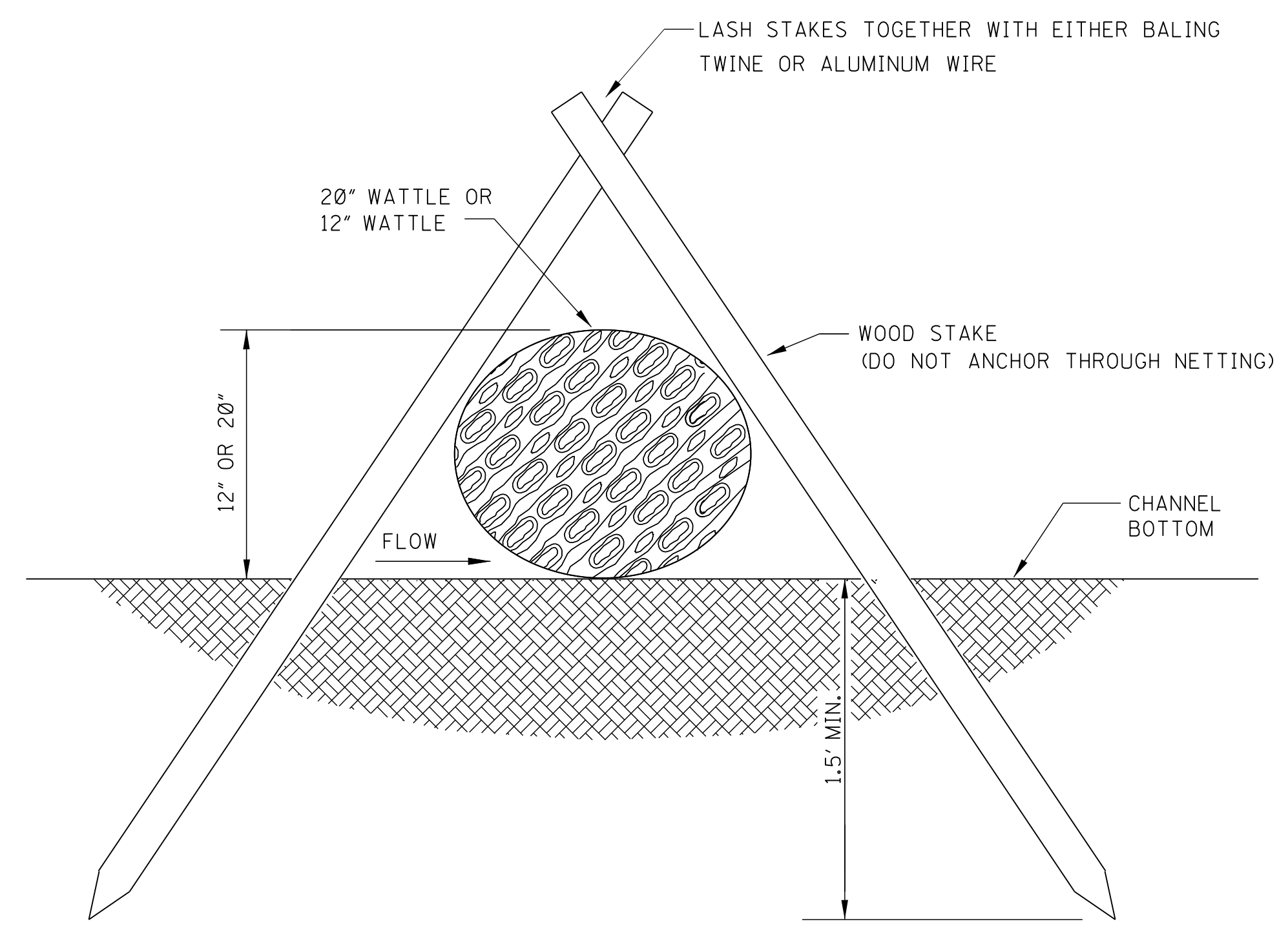


WORKING NUMBER
ECD-12
SHEET NUMBER
6112

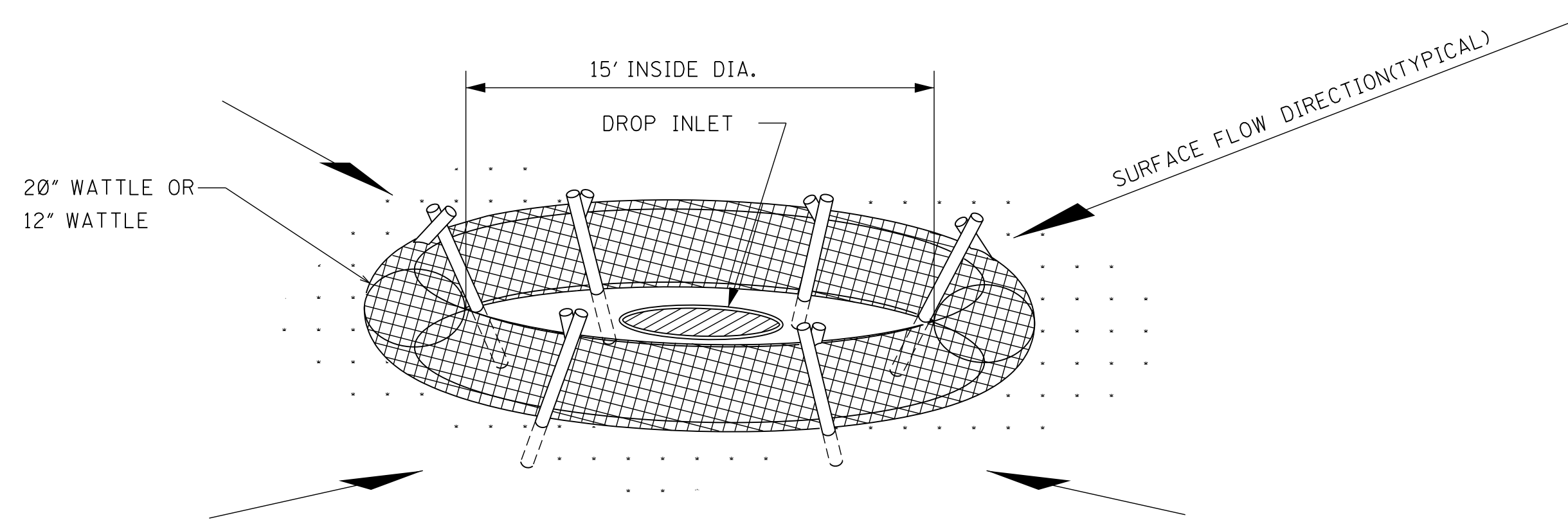
NOTE: SILT FENCE OR SANDBAGS MAY ALSO BE USED FOR THIS APPLICATION.
HAY BALES NOT ACCEPTABLE DURING THIS STAGE.



CURB INLET PROTECTION (STAGE 2)
SINGLE OR DOUBLE WING INLET




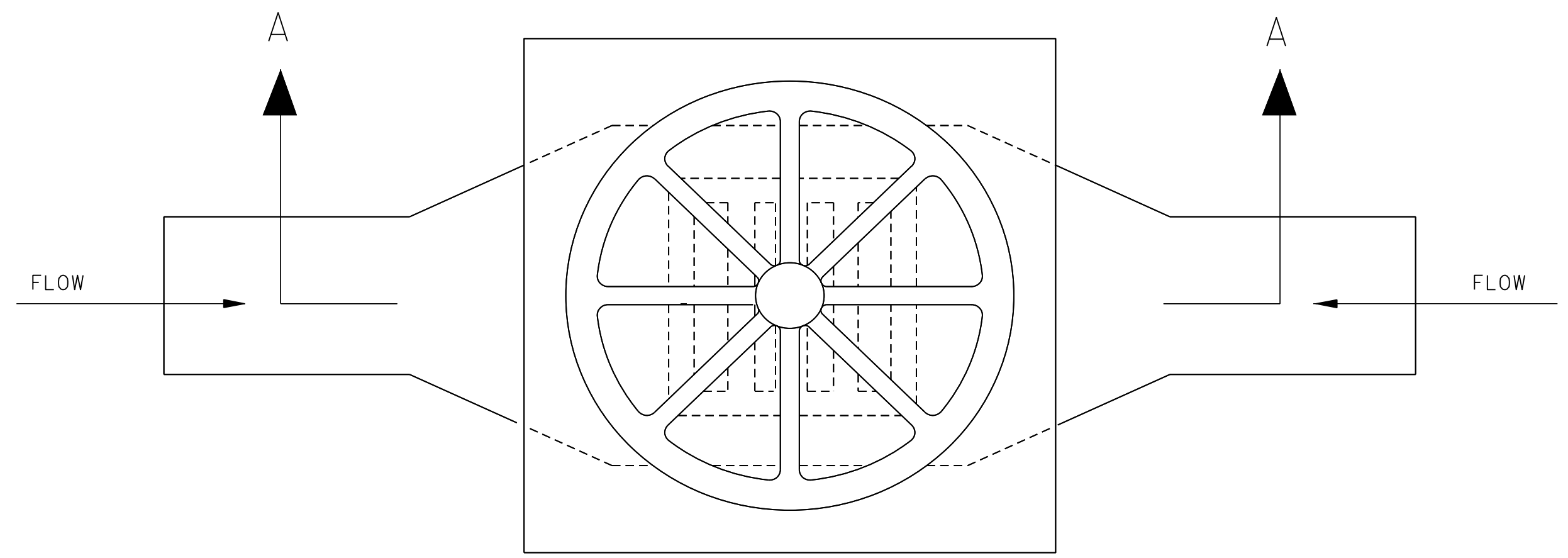
SECTION B-B



DROP INLET PROTECTION

- NOTES:
- ANCHORING STAKES SHALL BE SIZED, SPACED, AND BE OF A MATERIAL THAT EFFECTIVELY SECURES THE WATTLE. STAKE SPACING SHALL BE A MAXIMUM OF THREE FEET.
 - OVERLAP ENDS OF WATTLES PER MANUFACTURER'S RECOMMENDATIONS (1' MIN., 3' MAX.)
 - TRENCHING OF WATTLES MAY BE NECESSARY IF PIPING BECOMES EVIDENT.
 - IN THE EVENT WATTLES CANNOT BE SECURED IN PLACE USING WOOD STAKES, SANDBAGS MAY BE USED IN LIEU OF WOOD STAKES IN ORDER TO SECURE WATTLES IN PLACE. COST OF SANDBAGS USED IN THIS APPLICATION SHALL BE INCLUDED IN OTHER ITEMS BID.

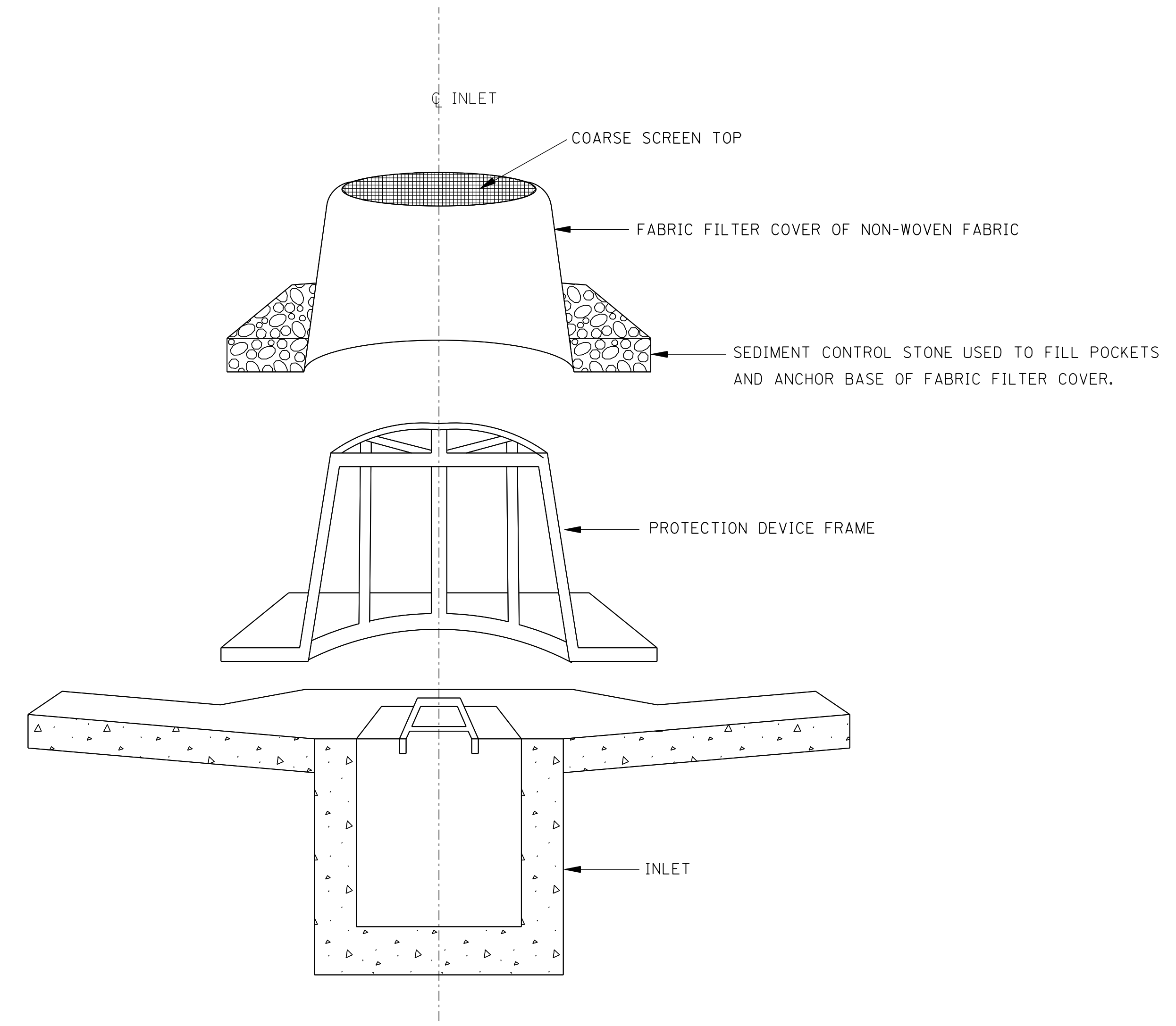
BY		MISSISSIPPI DEPARTMENT OF TRANSPORTATION ROADWAY DESIGN DIVISION STANDARD PLAN	
REVISION		<p align="center">INLET PROTECTION DETAILS OF WATTLES</p> 	
DATE			
ISSUE DATE:		AUGUST 01, 2017	
WORKING NUMBER		ECD-13	
SHEET NUMBER		6113	



PLAN

NOTES:

1. FRAMES WITH EITHER SQUARE OR CIRCULAR BASES MAY BE USED. SELECTED FRAME BASE SHOULD PROVIDE BEST SEAL AROUND THE INLET AS DIRECTED BY THE ENGINEER.
2. FILL POCKETS AROUND BASE OF FILTER COVER WITH SEDIMENT CONTROL STONE. THE COST OF SEDIMENT CONTROL STONE USED IN THIS APPLICATION SHALL BE INCLUDED IN OTHER ITEMS BID.
3. USE ONLY DURING STAGE 3 OR STAGE 4 INLET CONSTRUCTION. SEE WK. NO. ECD-11.
4. FOR MEDIAN INLET PROTECTION, THE ELEVATION OF THE COARSE SCREEN TOP SHALL BE A MINIMUM OF 6" BELOW THE ELEVATION OF THE OUTSIDE EDGE OF THE INSIDE SHOULDER.

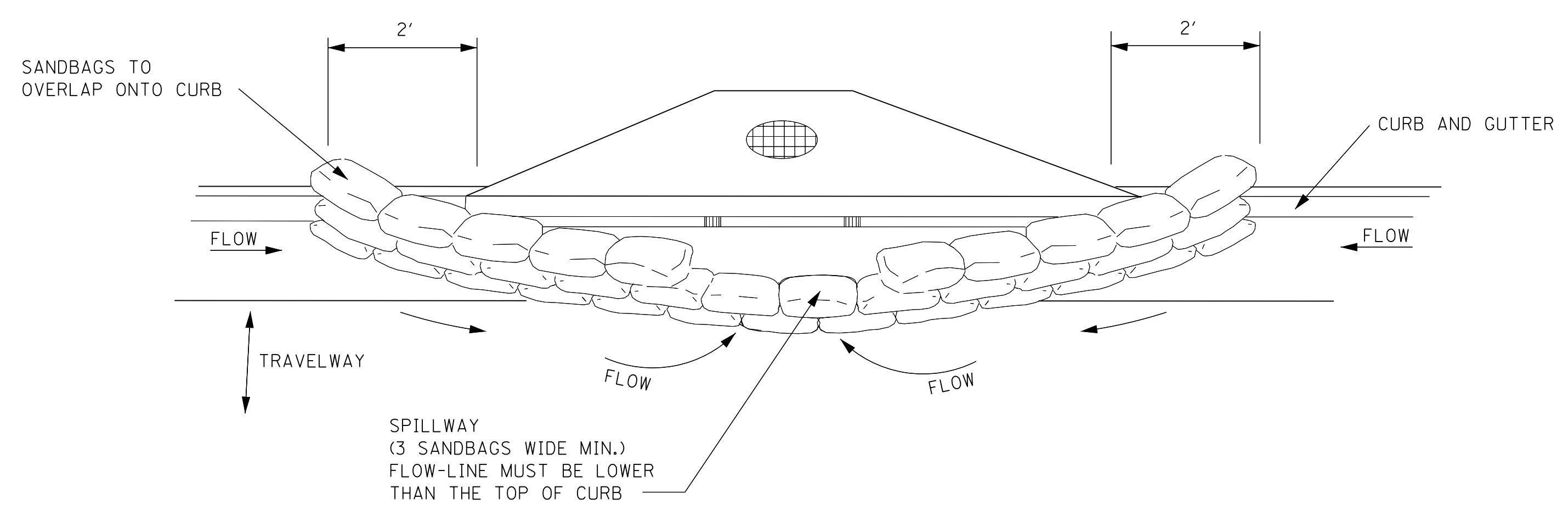


SECTION "A-A"

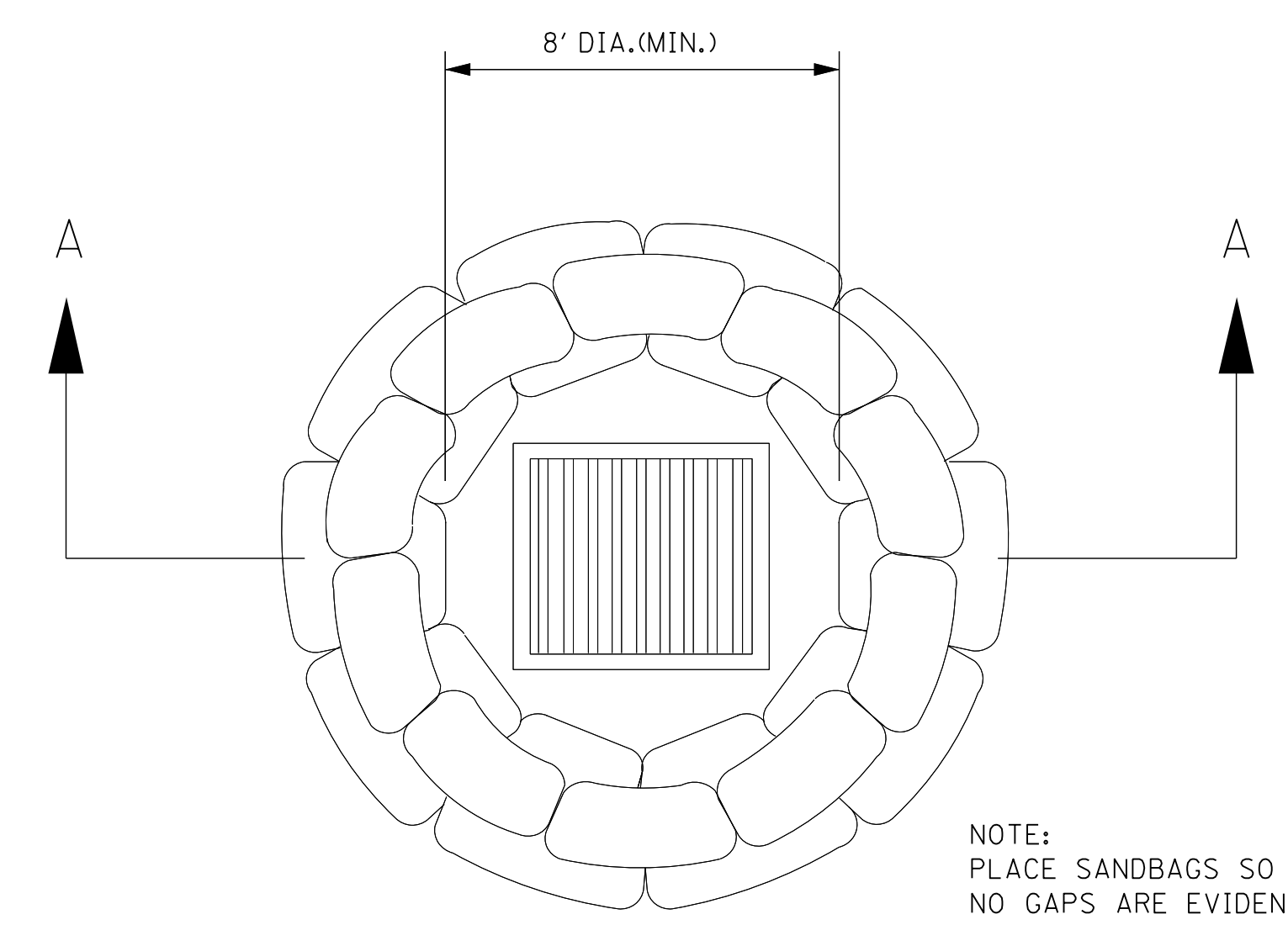
				BY	MISSISSIPPI DEPARTMENT OF TRANSPORTATION ROADWAY DESIGN DIVISION STANDARD PLAN
				REVISION	INLET PROTECTION DETAILS OF MANUFACTURED INLET PROTECTION DEVICE
				DATE	
				ISSUE DATE:	AUGUST 01, 2017



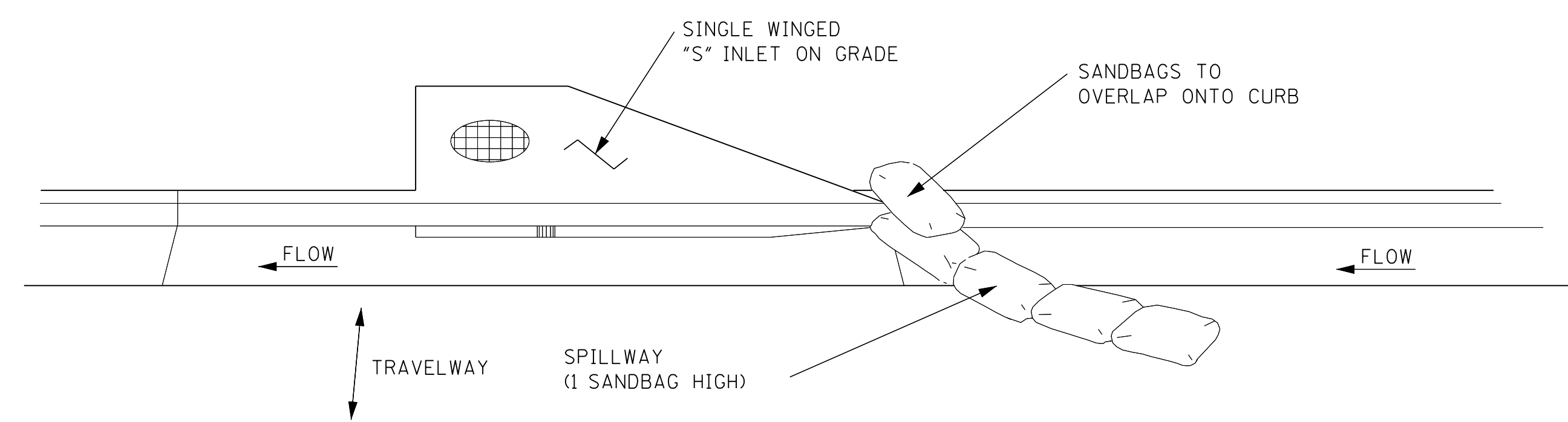
WORKING NUMBER
ECD-14
SHEET NUMBER
6114



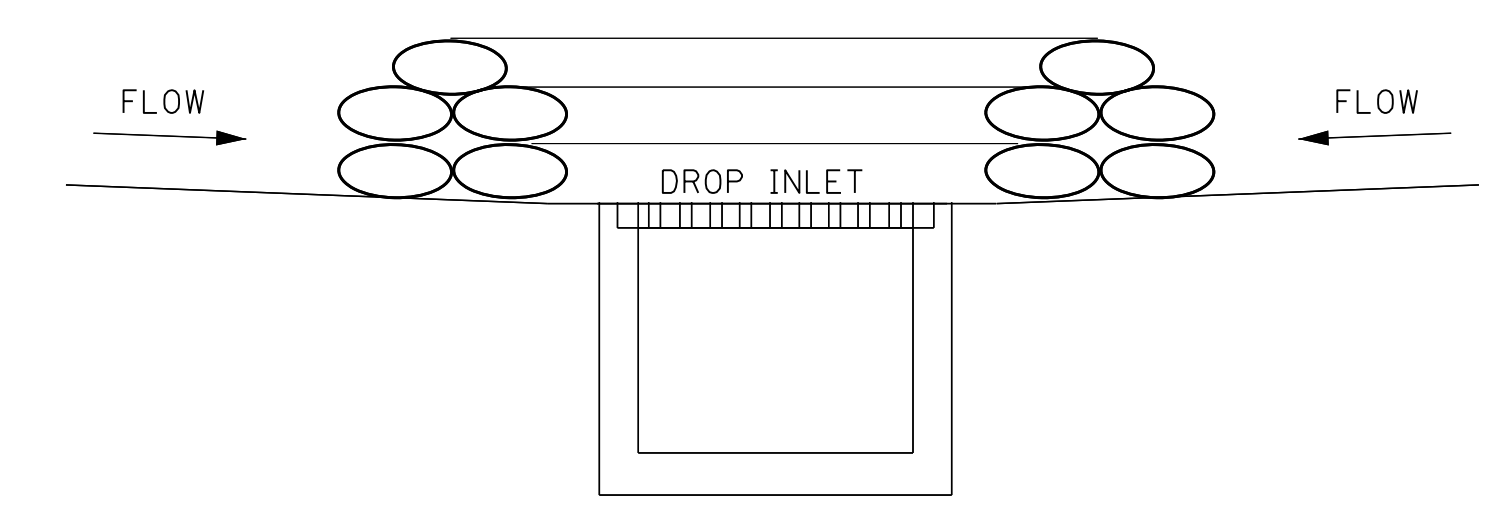
TYPICAL (SANDBAG) PROTECTION FOR INLET IN SAG



DROP INLET
PLAN VIEW



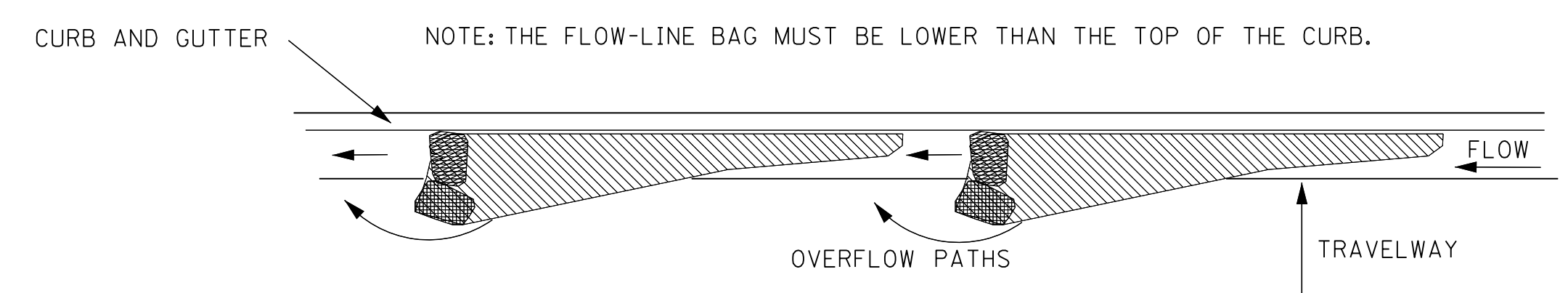
TYPICAL (SANDBAG) PROTECTION FOR INLET ON GRADE



SECTION A-A
SANDBAG BARRIER

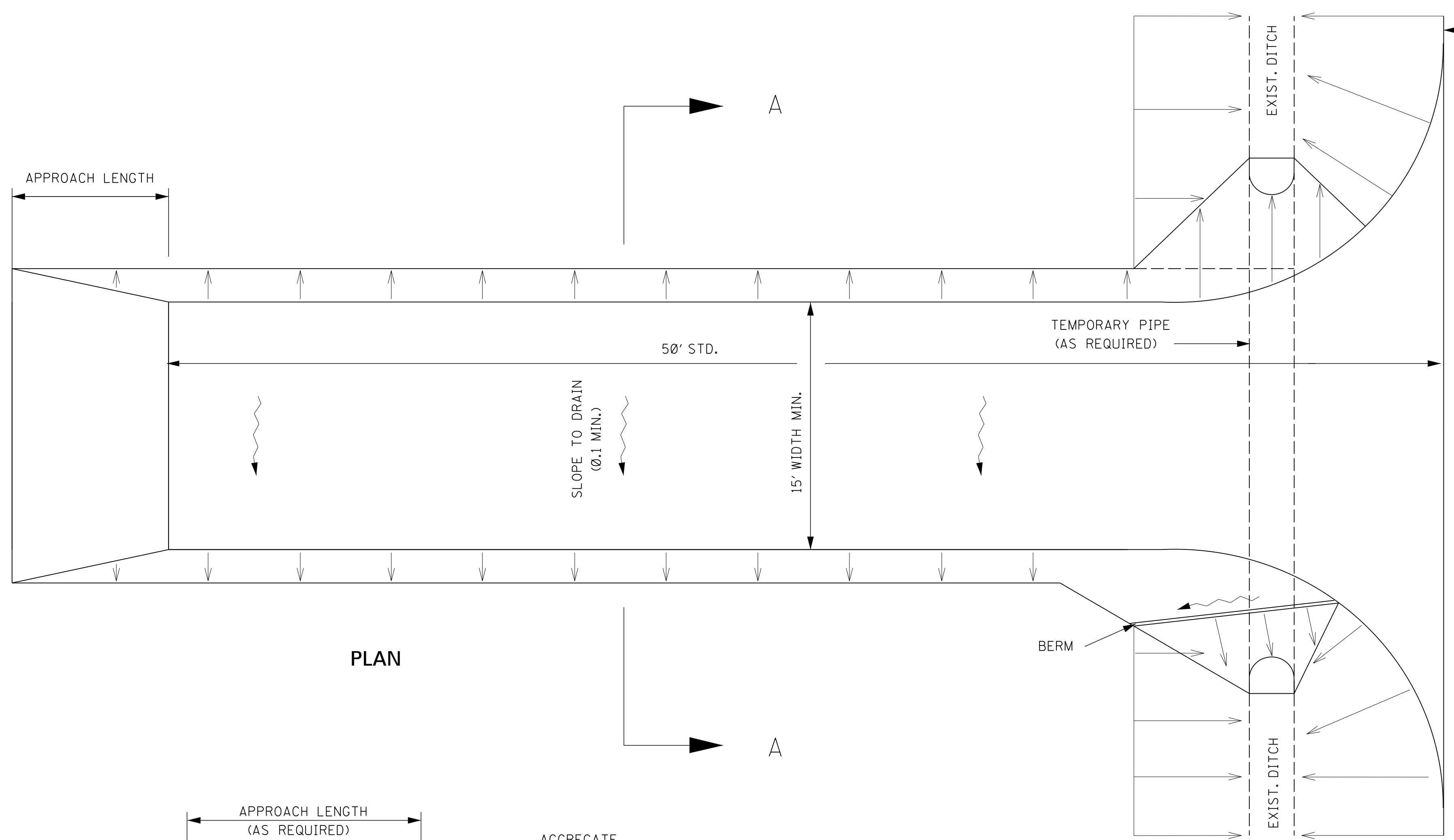
CURB INLET PROTECTION NOTES:

1. THIS CURB INLET PROTECTION METHOD CAN BE USED DURING ANY STAGE OF BASE AND PAVEMENT CONSTRUCTION.
2. BAG HEIGHT AND NUMBER OF BAGS SHOULD BE BASED ON CURB HEIGHT AND USE OF TRAVELWAY.
3. SEDIMENT SHOULD BE CONTROLLED PRIOR TO ENTERING GUTTER. GUTTER CHECKS AND INLET PROTECTION ARE FOR SECONDARY CONTROL.
4. REMOVE ACCUMULATED SEDIMENT AFTER EVERY RAINFALL. SWEEP SEDIMENT FROM HARD SURFACES AND DISPOSE OF APPROPRIATELY AWAY FROM INLETS AND/OR WATER BODIES.
5. IF DENUDED AREAS EXIST BEHIND THE INLET, A SEDIMENT BARRIER SHOULD BE INSTALLED AROUND ITS PERIMETER TO CONTROL SEDIMENT.



CURB AND GUTTER SEDIMENT
CONTAINMENT SYSTEM

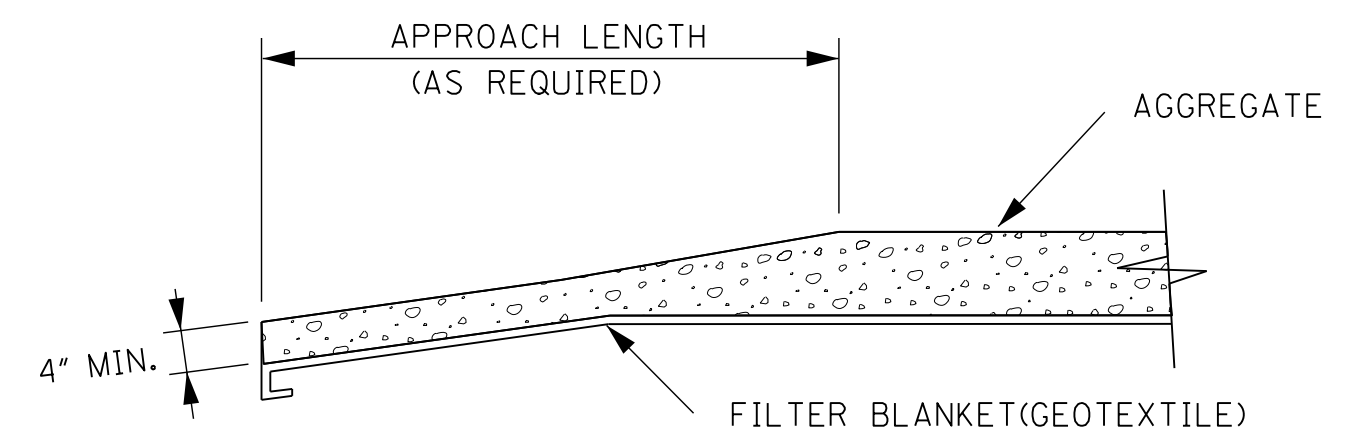
BY		MISSISSIPPI DEPARTMENT OF TRANSPORTATION ROADWAY DESIGN DIVISION STANDARD PLAN	
REVISION		<p align="center">INLET PROTECTION DETAILS OF SANDBAGS</p> 	
DATE			
ISSUE DATE:		AUGUST 01, 2017	
WORKING NUMBER		ECD-15	
SHEET NUMBER		6115	



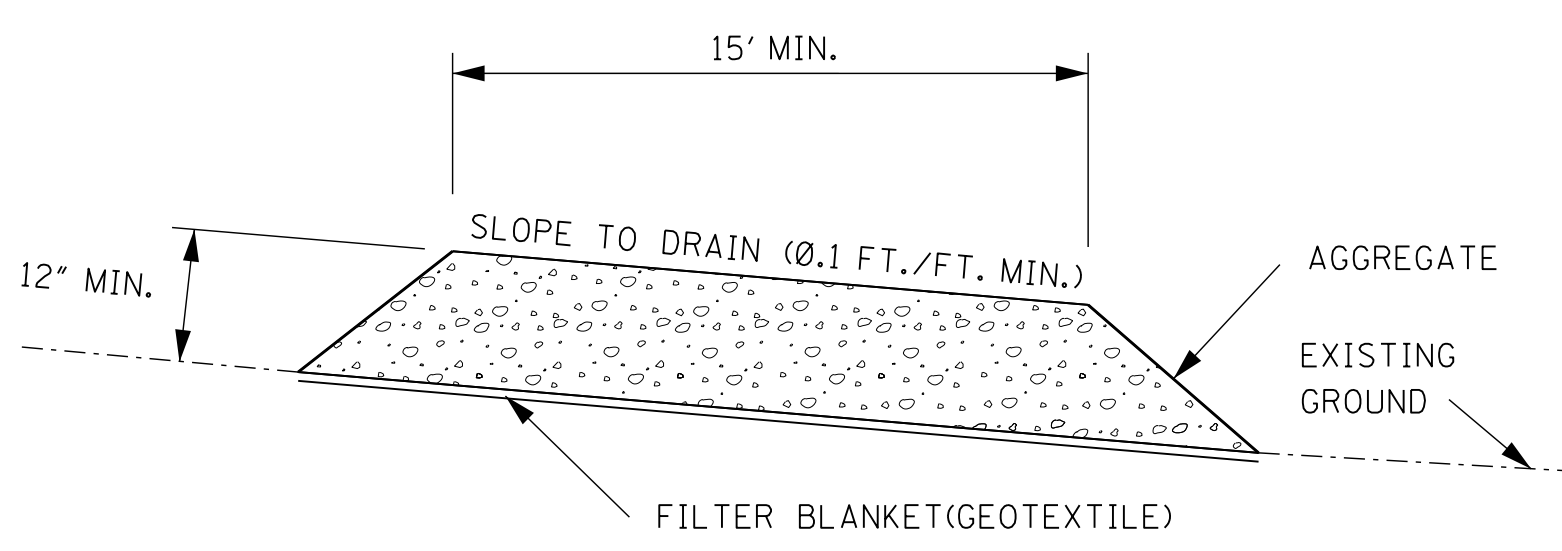
GENERAL NOTES:

1. A STABILIZED CONSTRUCTION ENTRANCE SHALL BE CONSTRUCTED AT POINTS OF EGRESS FROM UNSTABILIZED AREAS OF THE PROJECT TO PUBLIC ROADS WHERE OFFSITE TRACKING OF MUD COULD OCCUR. TRAFFIC FROM UNSTABILIZED AREAS OF THE PROJECT SHALL BE DIRECTED THRU THE STABILIZED ENTRANCE. BARRIERS, FLAGGING, OR OTHER POSITIVE MEANS SHALL BE USED AS REQUIRED TO LIMIT AND DIRECT VEHICULAR EGRESS ACROSS THE STABILIZED ENTRANCE.
2. THE CONTRACTOR MAY PROPOSE AN ALTERNATIVE TECHNIQUE TO MINIMIZE OFFSITE TRACKING OF SEDIMENT. THE ALTERNATIVE MUST BE REVIEWED AND APPROVED BY THE ENGINEER PRIOR TO ITS USE.
3. ALL MATERIALS SPILLED, DROPPED, OR TRACKED ONTO PUBLIC ROADS (INCLUDING THE STABILIZED CONSTRUCTION ENTRANCE AGGREGATE AND CONSTRUCTION MUD) SHOULD BE REMOVED DAILY, OR MORE FREQUENTLY IF SO DIRECTED BY THE ENGINEER.
4. SIZE III STABILIZER AGGREGATE OR LARGER SHALL BE USED.
5. THE STABILIZED CONSTRUCTION ENTRANCE SHALL BE MAINTAINED IN A CONDITION THAT WILL ALLOW IT TO PERFORM ITS FUNCTION TO PREVENT OFFSITE TRACKING. THE STABILIZED CONSTRUCTION ENTRANCE SHOULD BE RINSED WHEN NECESSARY TO MOVE ACCUMULATED MUD DOWNWARD THRU THE STONE. ADDITIONAL STABILIZATION OF THE VEHICULAR ROUTE LEADING TO THE STABILIZED ENTRANCE MAY BE REQUIRED TO LIMIT THE MUD TRACKED.
6. THE NOMINAL SIZE OF A STANDARD STABILIZED CONSTRUCTION ENTRANCE IS 15' X 50' UNLESS OTHERWISE SHOWN IN THE EROSION CONTROL PLAN.
7. COSTS OF ALL ITEMS ON THIS SHEET SHALL BE INCLUDED IN OTHER ITEMS BID.

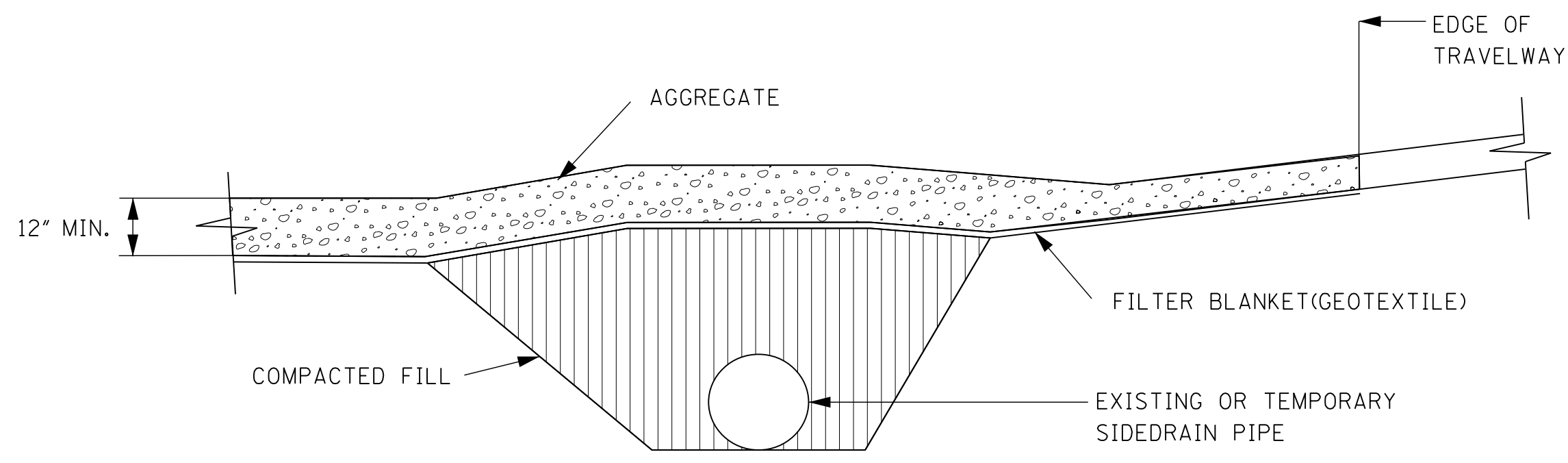
PLAN



TRANSITION DETAIL



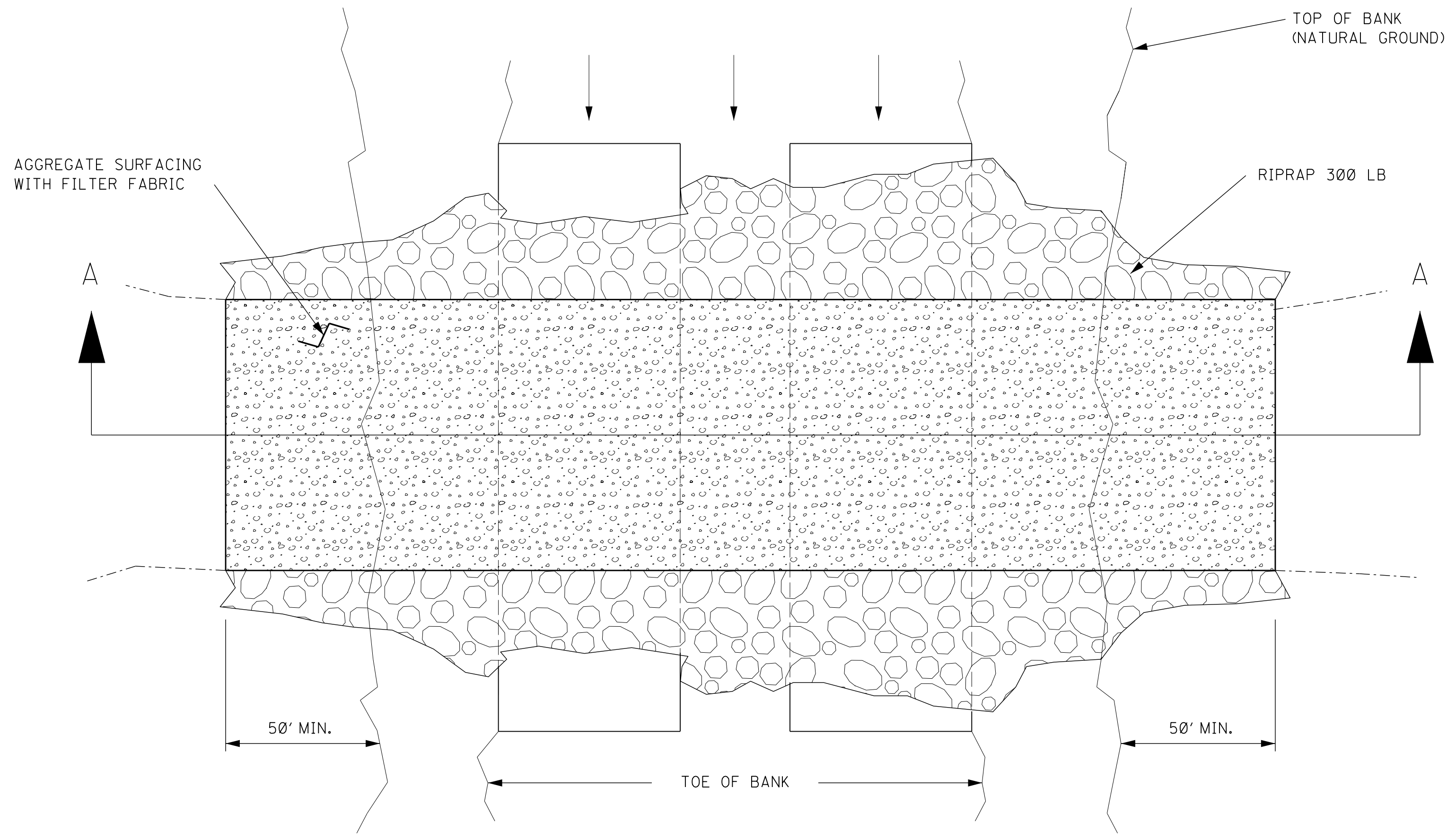
SECTION A-A



RURAL CONNECTION DETAIL

MISSISSIPPI DEPARTMENT OF TRANSPORTATION ROADWAY DESIGN DIVISION STANDARD PLAN	
STABILIZED CONSTRUCTION ENTRANCE	
WORKING NUMBER ECD-16	SHEET NUMBER 6116
ISSUE DATE: AUGUST 01, 2017	

TEMPORARY CULVERT STREAM CROSSING

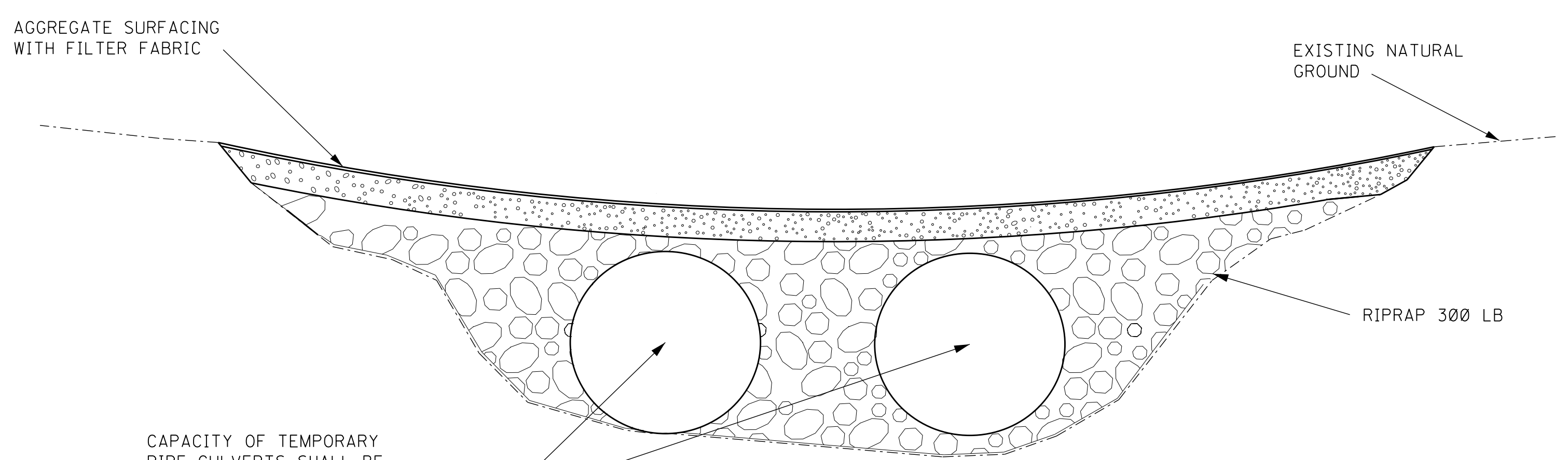


PLAN VIEW

GENERAL NOTES:


1. TEMPORARY CULVERT STREAM CROSSINGS PROVIDE A MEANS FOR VEHICLES AND EQUIPMENT TO SAFELY CROSS A WATERCOURSE WHILE MINIMIZING DAMAGE TO THE CHANNEL AND/OR BANKS.
2. TEMPORARY CULVERT STREAM CROSSINGS, WHEN PERMITTED BY THE ENGINEER, SHALL BE CONSTRUCTED TO SAFELY PASS EXPECTED MEAN WATER FLOW OF THE STREAM FOR THE TIME OF YEAR AND LENGTH OF TIME THAT THEY ARE INSTALLED.
3. TEMPORARY STREAM CROSSINGS SHALL BE DESIGNED TO ENSURE STRUCTURAL INTEGRITY AND STABILITY, AND MAINTAIN NORMAL DOWNSTREAM FLOWS. THE USE OF INSTREAM CROSSINGS AND INSTREAM AGGREGATE FILL SHOULD BE MINIMIZED TO THE EXTENT PRACTICABLE.
4. A CONTINUOUS PROGRAM OF EFFECTIVE EROSION AND SEDIMENT CONTROL MEASURES SHOULD BE IMPLEMENTED PRIOR TO AND CONCURRENT WITH ANY TYPE OF CONSTRUCTION ACTIVITY WITHIN THE BANKS OF A STREAM. WHEN A CROSSING IS NO LONGER NEEDED, THE STREAMBED AND STREAM BANKS SHALL BE RESTORED TO PRE-DISTURBANCE CONDITIONS, OR SUCH A CONDITION THAT PROVIDES SUBSTANTIALLY EQUIVALENT PROTECTION OF WATER QUALITY.
5. LOCATIONS OR TYPES OF TEMPORARY CULVERT STREAM CROSSINGS WILL NOT BE SHOWN ON THE PLANS AS REQUIRED ITEMS.
6. THE CONTRACTOR MAY PROPOSE OTHER OPTIONS FOR TEMPORARY CROSSINGS SUCH AS STEEL/TIMBER BRIDGE OR MATS.
7. THE DETAILS PROVIDED DEPICT A TYPICAL TEMPORARY CULVERT STREAM CROSSING.
8. ALL COSTS FOR MATERIALS, LABOR, EQUIPEMENT, CONSTRUCTION, REMOVAL, AND MAINTENANCE SHALL BE INCLUDED IN OTHER ITEMS BID.

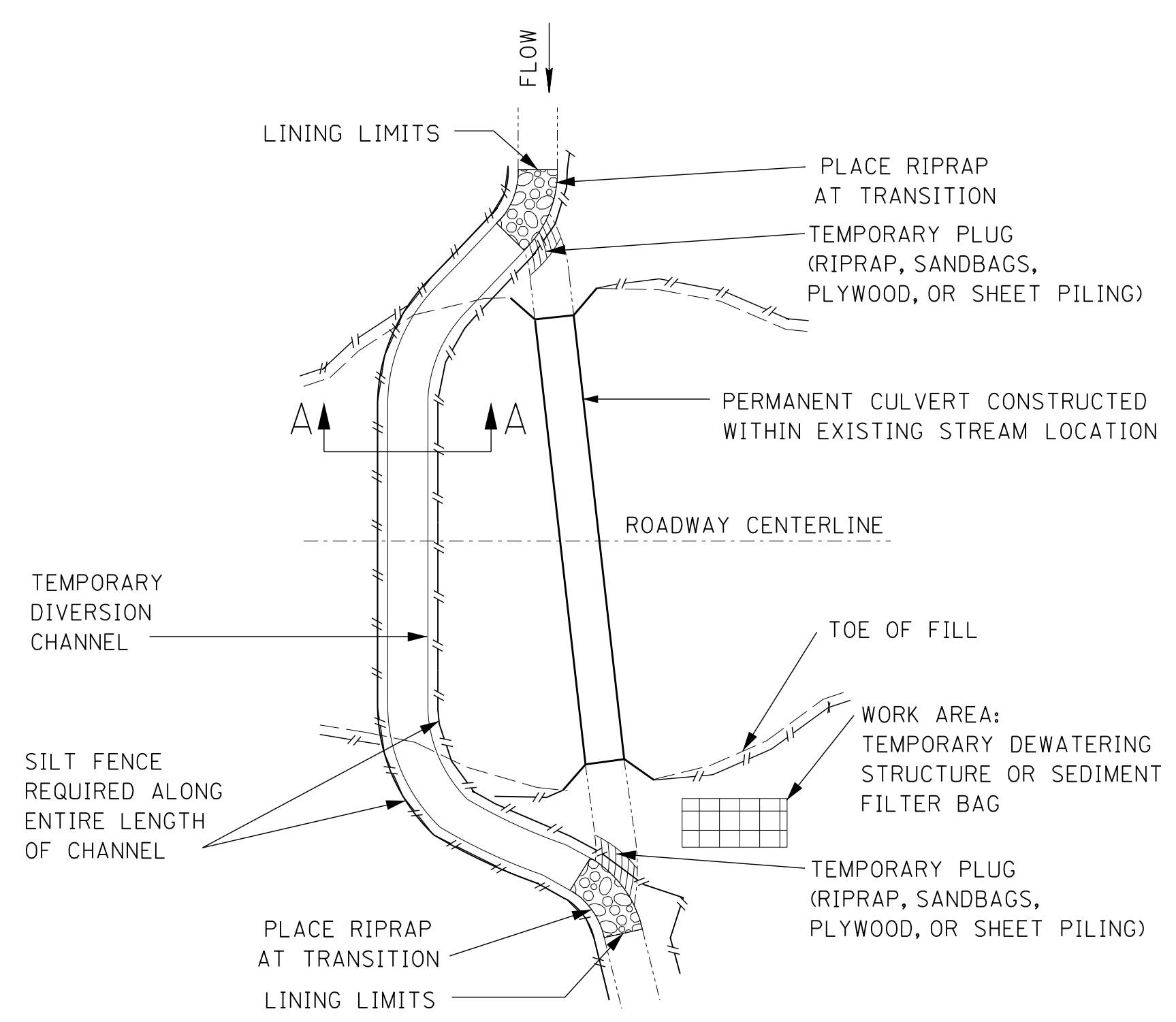
TEMPORARY CULVERT STREAM CROSSING



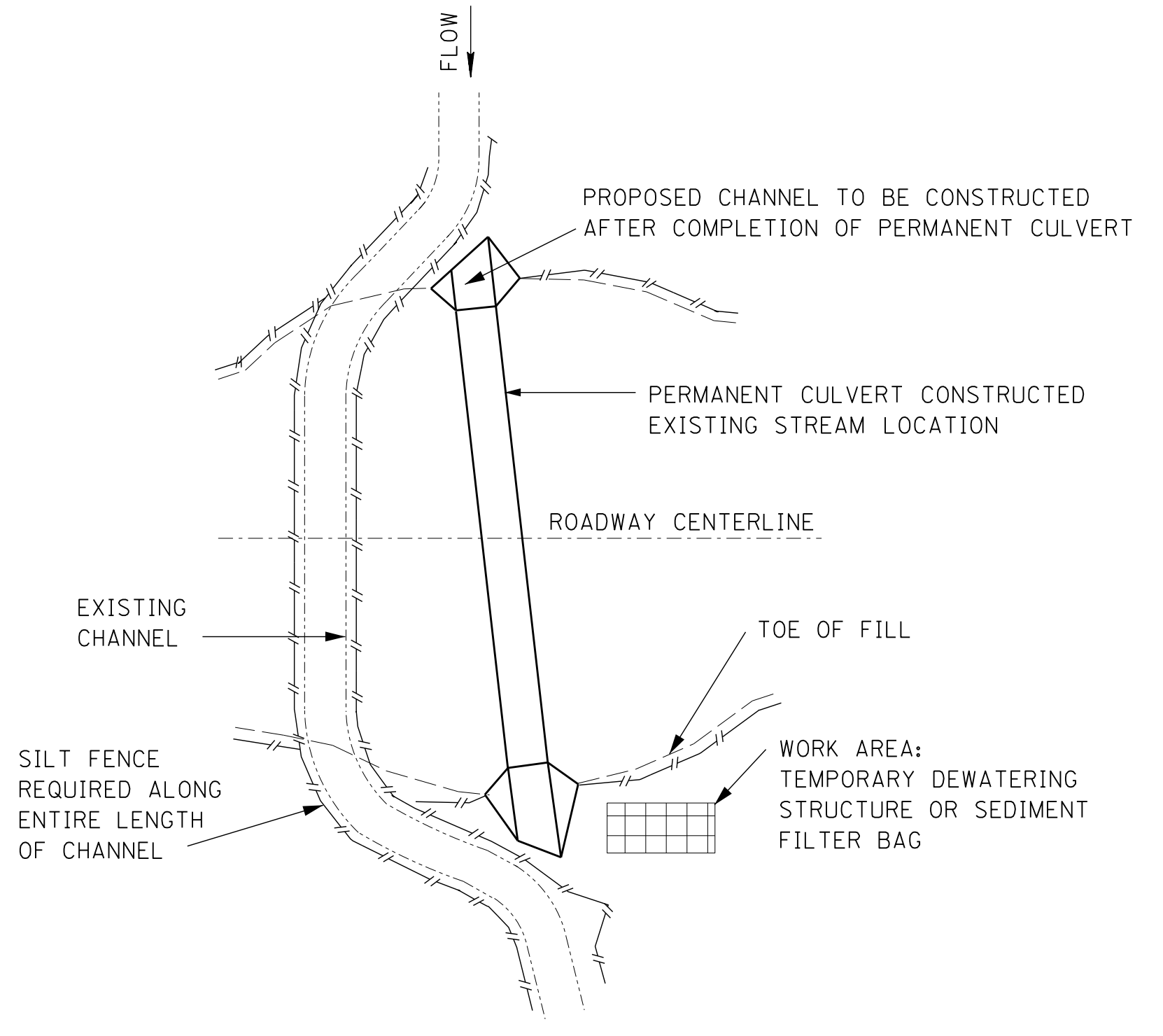
CAPACITY OF TEMPORARY PIPE CULVERTS SHALL BE BASED ON A STORM FREQUENCY DETERMINED BY THE CONTRACTOR.

SECTION A-A

BY		MISSISSIPPI DEPARTMENT OF TRANSPORTATION ROADWAY DESIGN DIVISION STANDARD PLAN	
REVISION		<p>TEMPORARY CULVERT STREAM CROSSING</p> 	
DATE			
ISSUE DATE:		AUGUST 01, 2017	
WORKING NUMBER		ECD-17	
SHEET NUMBER		6117	



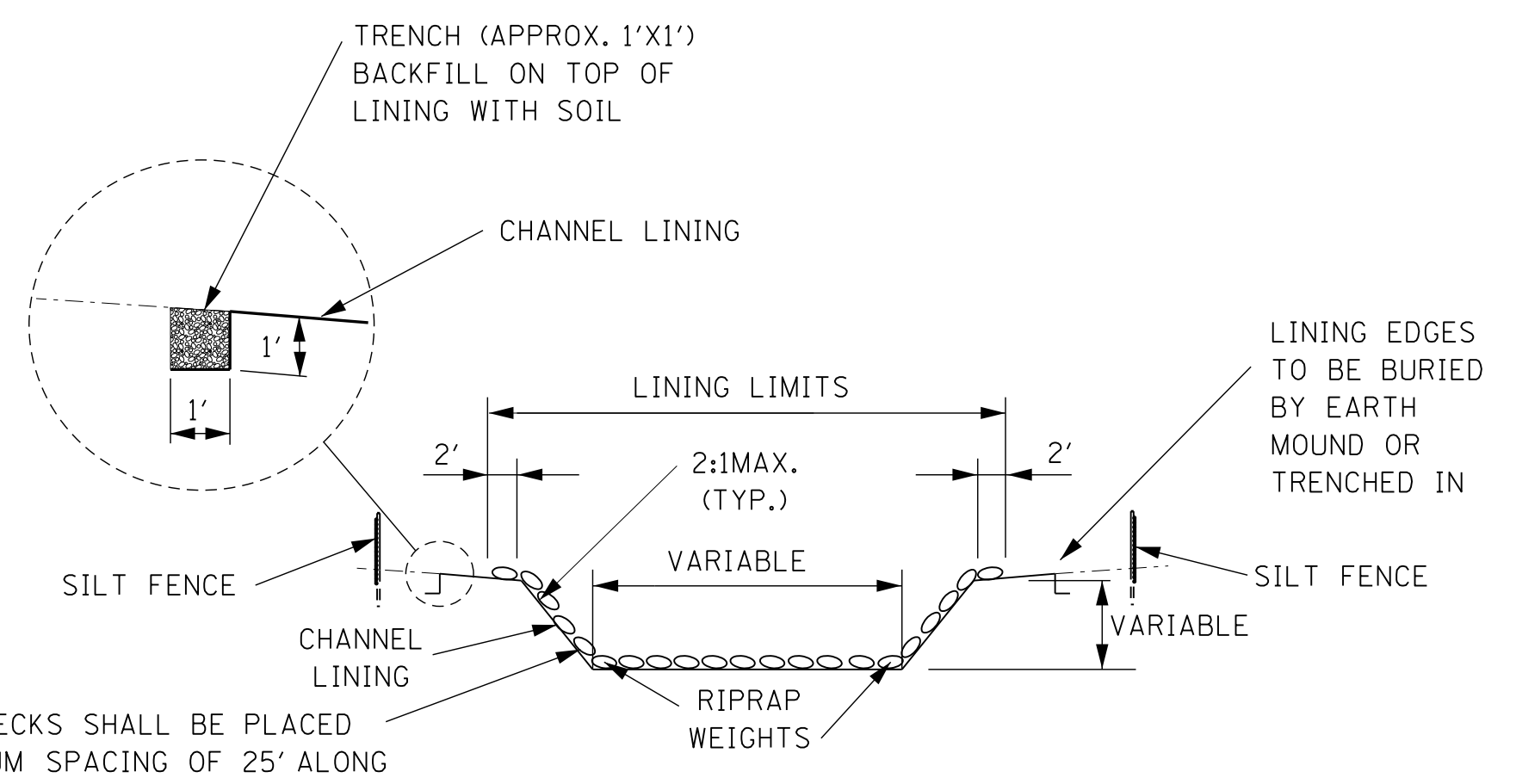
CULVERT CONSTRUCTED WITHIN EXISTING STREAM



CULVERT CONSTRUCTED OUTSIDE EXISTING STREAM

GENERAL NOTES:

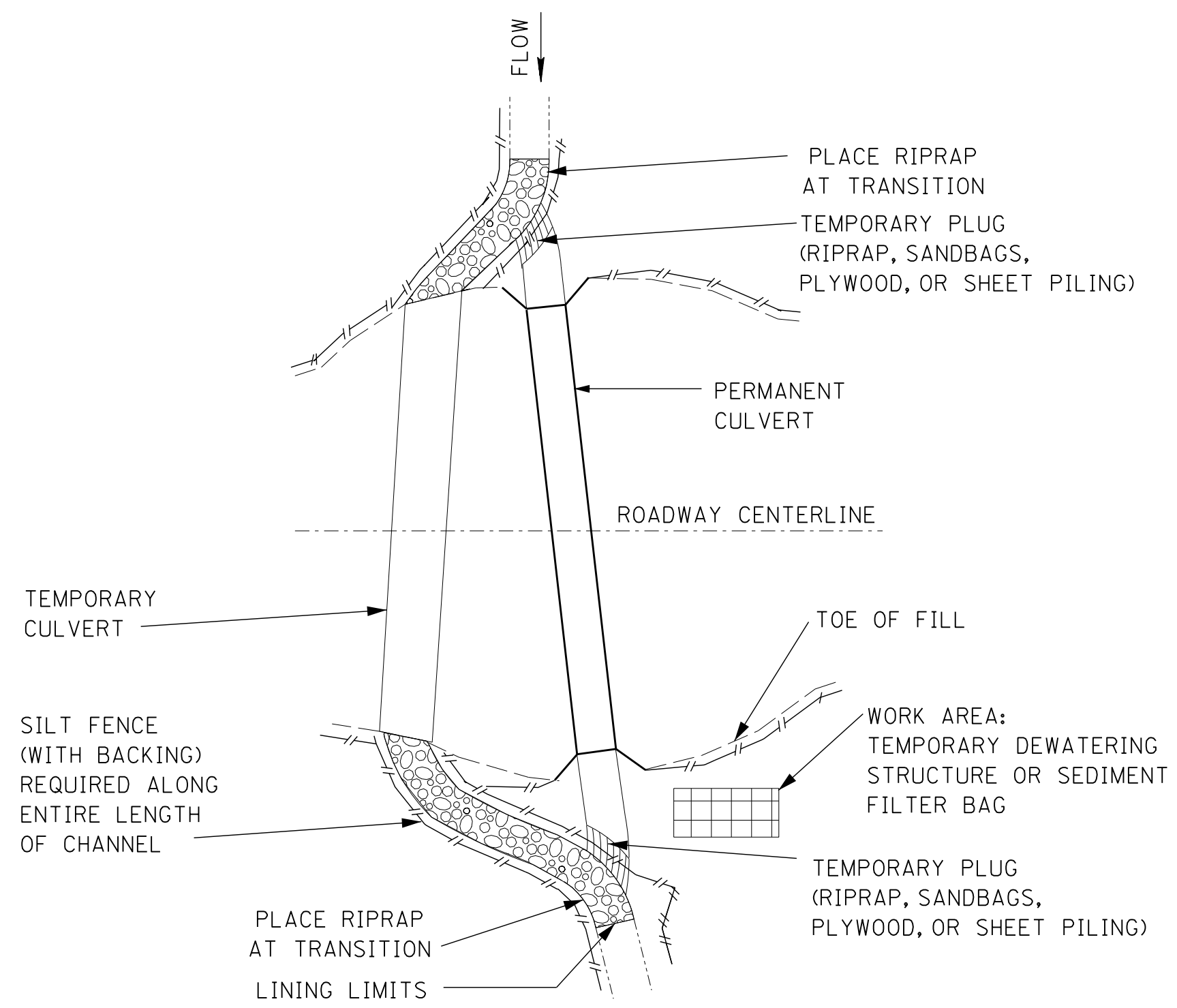
- TEMPORARY DIVERSION CHANNELS MAY BE USED TO DIVERT NORMAL STREAM PATH FLOW FROM AN ERODIBLE AREA UNTIL SUCH AREAS CAN BE STABILIZED.
- TYPE III FILTER FABRIC OR PRE-FAB DITCH LINER MAY BE USED FOR CHANNEL LINING.
- RIPRAP WITH FILTER FABRIC MAY BE USED FOR CHANNEL FLOW VELOCITIES OF 3 FPS TO 9 FPS. THE RIPRAP SHALL BE SIZE 300 LB.
- LOCATIONS OR TYPES OF TEMPORARY DIVERSIONS WILL NOT BE SHOWN ON THE PLANS.
- DIVERSION CHANNEL SHALL BE STABILIZED AND INSPECTED BY THE ENGINEER BEFORE FLOW IS DIVERTED.
- DURING CONSTRUCTION OF DIVERSION CHANNEL, DAMAGE TO THE EXISTING STREAM, CANOPY REMOVAL, AND DEPTH OF THE CHANNEL CONSTRUCTION SHOULD BE MINIMIZED.
- CONSTRUCTION OF THE CHANNEL RELOCATIONS AND CULVERTS SHALL PROCEED AS FOLLOWS:
 - CONSTRUCT A MEANDERING TEMPORARY CHANNEL CHANGE ADJACENT TO THE PROPOSED CULVERT TO DIVERT WATER TEMPORARILY DURING THE CULVERT CONSTRUCTION. TEMPORARY EROSION CONTROL MEASURES SHALL BE INSTALLED IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS.
 - RELOCATE CHANNEL AND CONSTRUCT CULVERT SIMULTANEOUSLY.
 - SOD AND/OR RIPRAP RECONSTRUCTED BANKS AT TRANSITIONS. THE UPPER CHANNEL PLUG IS TO REMAIN IN PLACE UNTIL SUBNOTE 7.1 THROUGH 7.4 UNDER THIS HEADING ARE COMPLETED TO INSURE THAT ALL CONSTRUCTION IS IN THE DRY.
 - IF AN EARTH PLUG IS NECESSARY AT THE DOWNSTREAM END OF THE CHANNEL IT SHOULD BE REMOVED FIRST, THEN REMOVE THE UPPER PLUG TO RELEASE WATER INTO THE RECONSTRUCTED CHANNEL.
 - PLUGS SHOULD REMAIN IN PLACE UNTIL PERMANENT STABILIZATION OF THE NEW WATER COURSE IS COMPLETED. REMOVAL OF PLUGS SHOULD ONLY BE PERFORMED FOLLOWING ACCEPTANCE OF ALL STABILIZATION WORK BY THE ENGINEER.
- THE DETAILS PROVIDED DEPICT TYPICAL TEMPORARY DIVERSION CHANNELS.
- THE CONTRACTOR MAY PROPOSE THE USE OF OTHER DIVERSION OPTIONS SUCH AS PIPING, PUMPING OR STAGED CONSTRUCTION.
- THE EFFECTIVE AREA OF FLOW IN THE TEMPORARY CHANNEL OR CULVERT SHALL BE A MINIMUM OF ONE-HALF THAT OF THE EXISTING STRUCTURE.
- INSTALLATION OF FILTER FABRIC SHALL BEGIN AT THE DOWNSTREAM END AND PROGRESS UPSTREAM. EDGES OF ADJACENT FILTER FABRIC SHALL OVERLAP AT LEAST 1 FOOT. THE ENDS OF THE FILTER FABRIC SHALL BE SECURELY HELD IN PLACE WITH RIPRAP.
- THE COST OF THE TEMPORARY DEWATERING STRUCTURE OR SEDIMENT FILTER BAG SHALL BE INCLUDED IN OTHER ITEMS BID.




SECTION A-A

RIPRAP CHECKS SHALL BE PLACED AT A MAXIMUM SPACING OF 25' ALONG THE SIDES AND BOTTOM OF THE CHANNEL IN ORDER TO PROPERLY SECURE THE FABRIC. RIPRAP SHOULD BE PLACED AT LEAST 2 FEET WIDE AND 1 FOOT HIGH.

TEMPORARY DIVERSION CHANNEL WITH GEOTEXTILE FABRIC

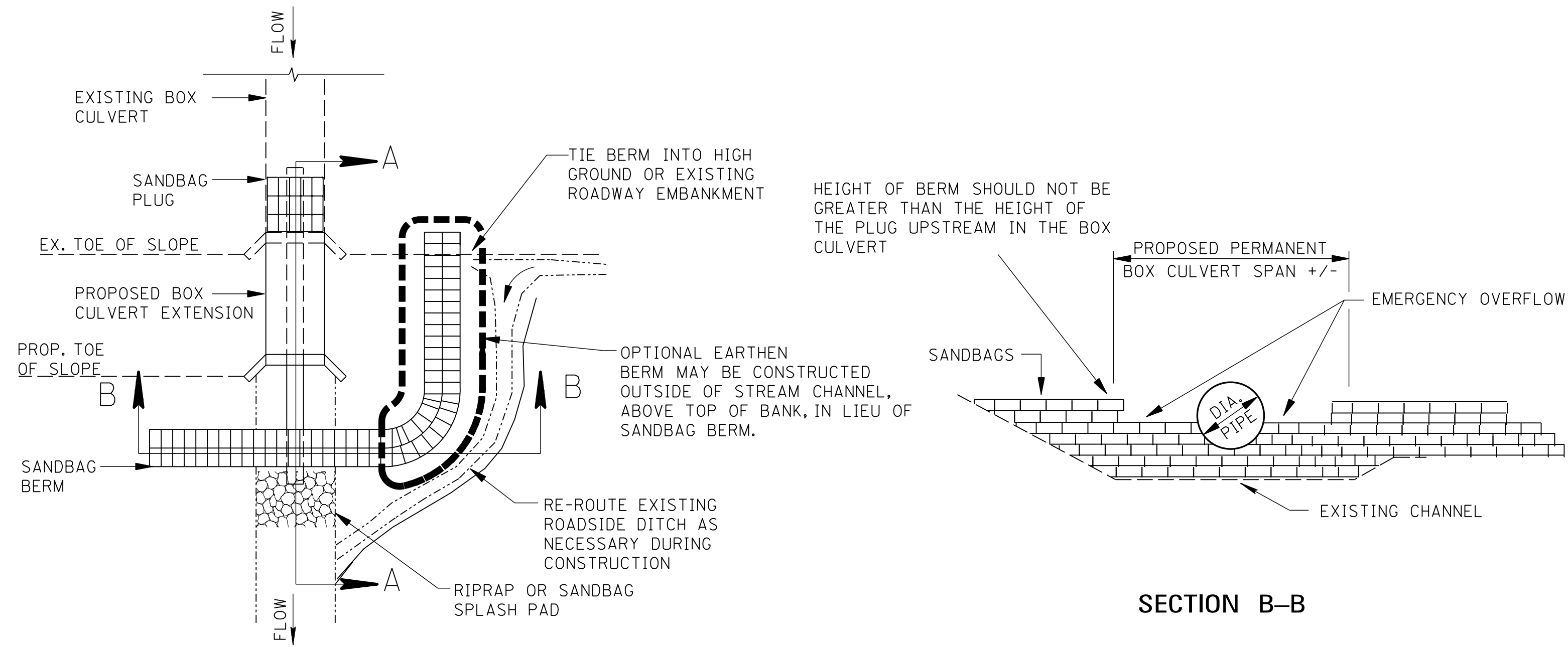


TEMPORARY CULVERT USED DURING CONSTRUCTION

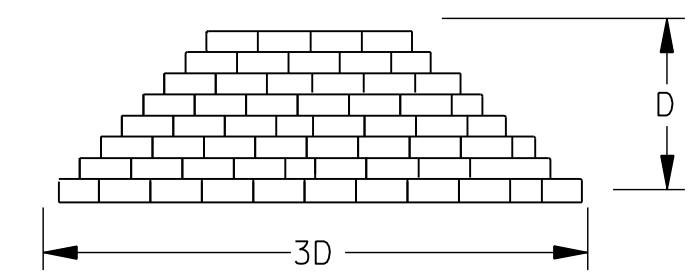
		BY		MISSISSIPPI DEPARTMENT OF TRANSPORTATION	
		REVISION		ROADWAY DESIGN DIVISION	
		DATE		STANDARD PLAN	
				TEMPORARY STREAM DIVERSION	
				 WORKING NUMBER ECD-18 SHEET NUMBER 6118	
				ISSUE DATE: AUGUST 01, 2017	

MAXIMUM SPAN FOR PIPE SUPPORTS, FEET					
DIAMETER OF PIPE (IN.)	STEEL THICKNESS (IN.)				
	0.064	0.079	0.109	0.138	0.168
2" x 1/2" CORRUGATION					
24	13	15	20		
36	12	15	20	25	
48	11	14	19	25	30
60		14	19	24	29
72			18	24	29
5" X 1" OR 3" X 1" CORRUGATION					
36	9	11			
48	9	11	15		
60	8	10	14	18	
72	8	10	14	18	22

FOR PIPE SIZES NOT SHOWN REFER TO NEXT LARGER SIZE



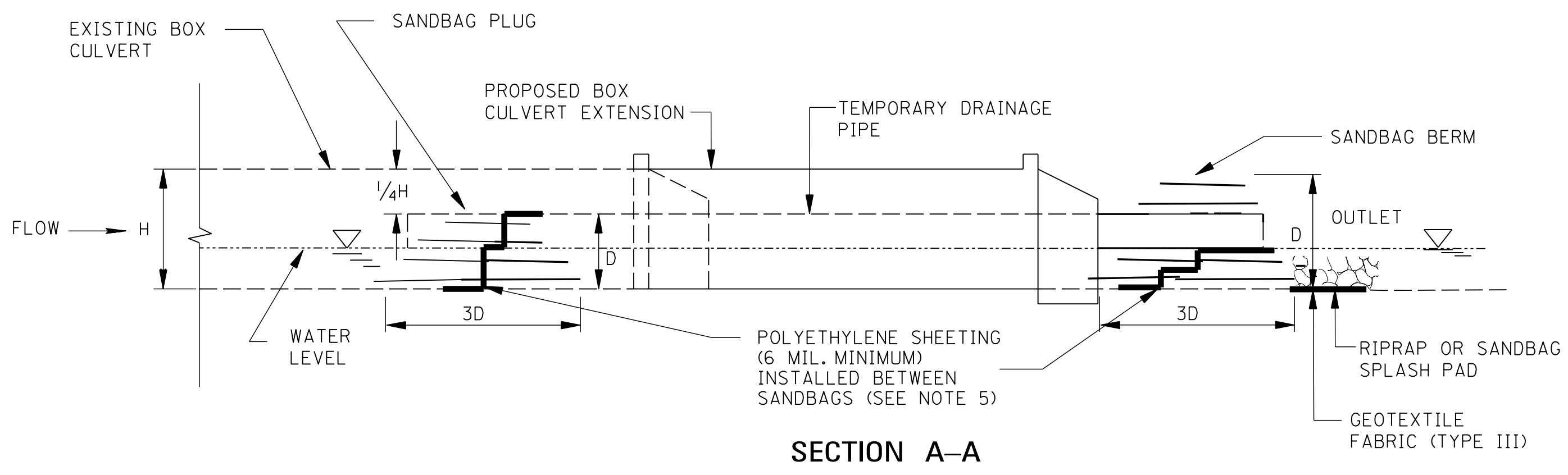
PLAN VIEW



SANDBAG PLUG & BERM CROSS SECTION
(SEE NOTE 4)

GENERAL NOTES:

- SUSPENDED PIPE DIVERSIONS MAY BE USED TO ALLOW BOX CULVERT EXTENSIONS TO BE CONSTRUCTED, WHILE SEPARATED FROM FLOWING WATER, THUS REDUCING SEDIMENTATION. OPTIONAL FLEXIBLE PIPE DIVERSION MAY BE UTILIZED ON STREAMS WITH INTERMITTENT FLOW WHERE THE DURATION OF CONSTRUCTION IS EXPECTED TO BE BRIEF.
- EXCAVATION SLOPES FOR BOX CULVERT EXTENSIONS SHALL BE PROTECTED WITH TYPE III FILTER FABRIC PRIOR TO CONSTRUCTION OF THE BOX.
- SUSPENDED PIPE DIVERSIONS MAY BE USED WHERE ADVERSE IMPACTS WILL NOT BE CAUSED BY WATER PONDED UPSTREAM OF THE PIPE.
- THE SANDBAG PLUG AT THE UPSTREAM END OF THE SUSPENDED PIPE DIVERSION SHOULD BE CONSTRUCTED TO A HEIGHT EQUAL TO THREE QUARTERS OF THE RISE OF THE BOX CULVERT.
- POLYETHYLENE SHEETING (6 MIL. MINIMUM) SHALL BE PLACED INSIDE THE SANDBAG PLUG IN THE BOX CULVERT AND IN THE SANDBAG BERM WITHIN THE CHANNEL IN ORDER TO PROVIDE THE BEST POSSIBLE SEAL. SANDBAGS ON THE DOWNSTREAM SIDE OF THE SHEETING SHOULD BE PLACED FIRST, AND THEN SHEETING PLACED ON THESE BAGS. AS MUCH AS POSSIBLE, THE SHEETING SHOULD BE FITTED AROUND THE PIPE. SANDBAGS SHOULD THEN BE PLACED ON THE SHEETING. WHERE MULTIPLE SHEETS ARE USED, THEY SHOULD OVERLAP A MINIMUM OF 18 INCHES.
- THE PROPOSED CULVERT CONSTRUCTION SHALL BE SEALED FROM THE EXISTING STREAM BY MEANS OF A SANDBAG BERM WHICH SHOULD BE AT THE SAME HEIGHT AS THE PLUG INSIDE THE BOX CULVERT. THIS BERM SHOULD BE TIED INTO EITHER HIGH GROUND ADJACENT TO THE CHANNEL OR THE EXISTING ROADWAY EMBANKMENT. IT SHALL BE PROVIDED WITH A SPILLWAY EQUAL IN WIDTH TO THE BOX CULVERT AND AT A HEIGHT LOWER THAN THE REST OF THE BERM.
- THE TEMPORARY DRAINAGE PIPE SHALL BE SUPPORTED AT ALL JOINTS AND AT INTERVALS NOT TO EXCEED MAXIMUM VALUES SPECIFIED IN THE TABLE "MAXIMUM SPAN FOR PIPE SUPPORTS". SUPPORTS MAY CONSIST OF SANDBAGS, CONCRETE BLOCKS, WOODEN FRAMES, OR ANY OTHER MATERIAL SUFFICIENT TO SUPPORT THE WEIGHT OF THE PIPE WHEN IT IS FLOWING FULL. SUPPORTS AT JOINTS SHALL BE A MINIMUM OF 18 INCHES IN LENGTH, ALONG THE TEMPORARY DRAINAGE PIPE AND CENTERED ON THE JOINT. SUPPORTS SHOULD "CRADLE" THE TEMPORARY DRAINAGE PIPE TO ENSURE THAT IT WILL NOT ROLL DURING CONSTRUCTION OF THE BOX CULVERT.
- ALL PIPE JOINTS SHALL BE PROPERLY Banded OR OTHERWISE PROVIDED WITH A REASONABLE SEAL AGAINST LEAKAGE.
- THE OPTIONAL FLEXIBLE PIPE DIVERSION USING PUMPS MAY BE USED AS AN ALTERNATE FOR SUSPENDED PIPE DIVERSIONS (UPSTREAM AND DOWNSTREAM).
- CONSTRUCTION SHALL PROCEED AS FOLLOWS:
 - INSTALL TEMPORARY DRAINAGE PIPE ON ITS SUPPORTS INSIDE THE CULVERT TO BE EXTENDED.
 - CONSTRUCT THE SANDBAG PLUG AT THE UPSTREAM END OF THE SUSPENDED PIPE DIVERSION.
 - CONSTRUCT THE SANDBAG BERM AT THE DOWNSTREAM END OF THE SUSPENDED PIPE DIVERSION.
 - ONCE THE BOX CULVERT EXTENSION HAS BEEN COMPLETED, REMOVE THE DOWNSTREAM SANDBAG STRUCTURE, EXCEPT FOR THOSE BAGS NEEDED TO SUPPORT THE END OF THE PIPE. THE UPSTREAM SANDBAG STRUCTURE SHOULD THEN BE REMOVED GRADUALLY, IN ORDER TO ALLOW THE UPSTREAM WATER LEVEL TO DRAW DOWN AT A SAFE RATE.
 - REMOVE THE TEMPORARY DRAINAGE PIPE, SUPPORTS AND ANY REMAINING SANDBAGS.
- TEMPORARY DRAINAGE PIPE, SANDBAG PLUGS, BERMS, AND SUPPORTS SHOULD BE INSPECTED WEEKLY OR AFTER EVERY RAIN EVENT. ANY NEEDED REPAIRS SHALL BE DONE IMMEDIATELY. ANY DEBRIS WHICH HAS ACCUMULATED AT THE INLET OF THE SUSPENDED PIPE DIVERSION SHALL BE IMMEDIATELY REMOVED.
- RIPRAP MAY BE SUBSTITUTED FOR SANDBAGS.

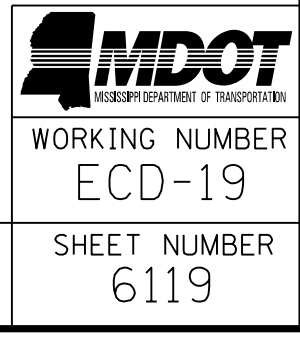


SECTION A-A

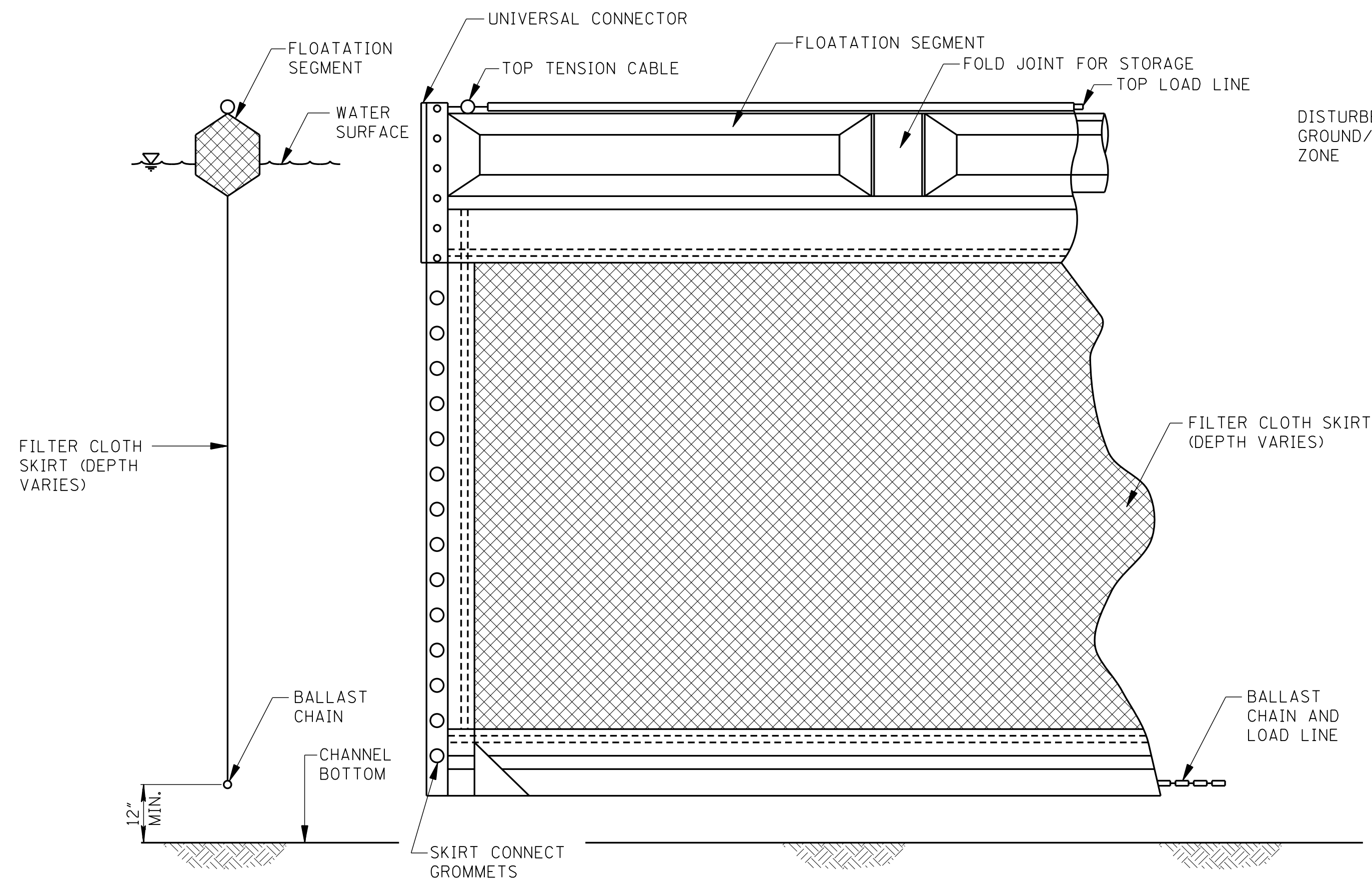
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DATE	ISSUE DATE: AUGUST 01, 2017

TEMPORARY STREAM DIVERSION (BOX EXTENSIONS)

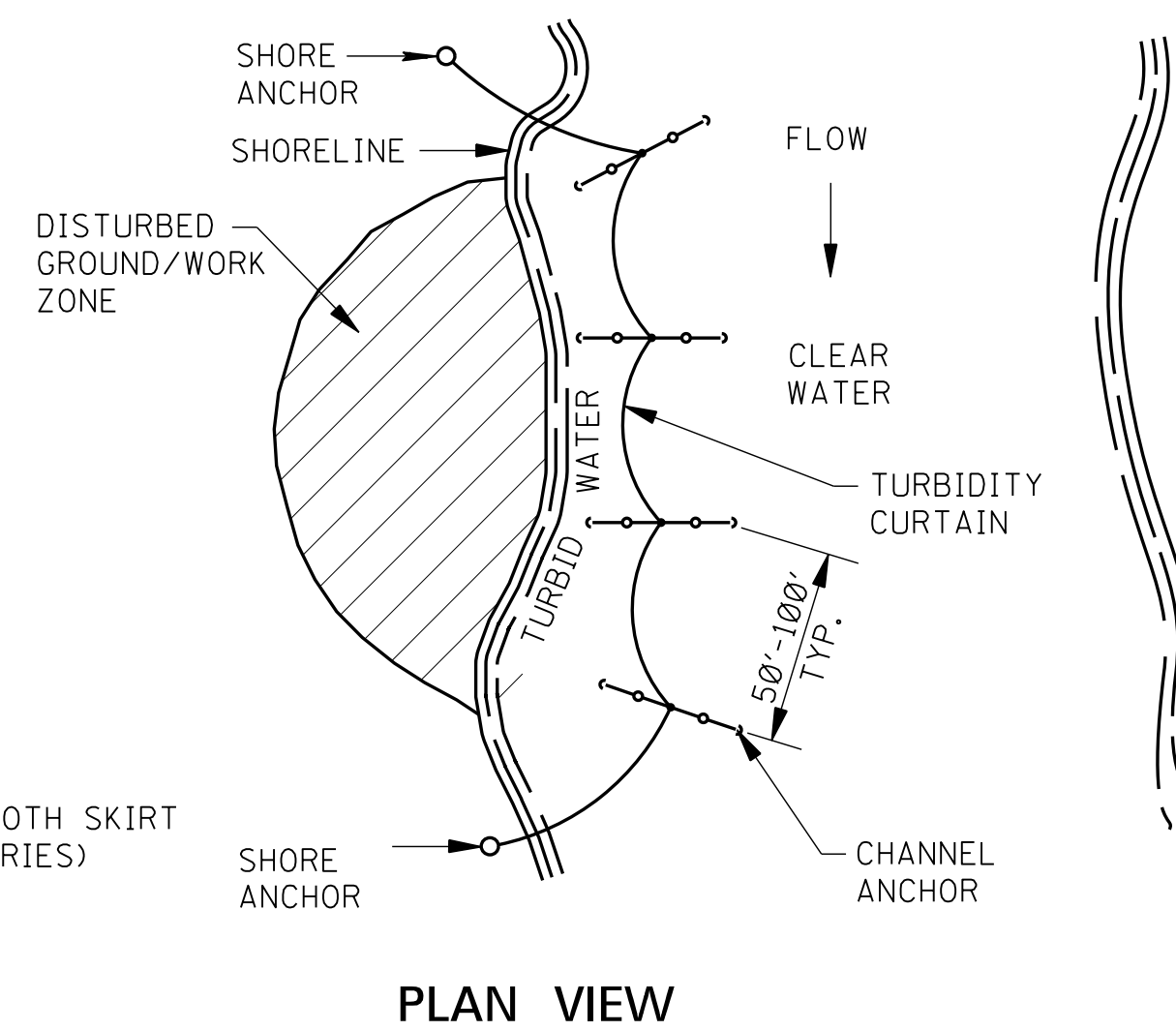
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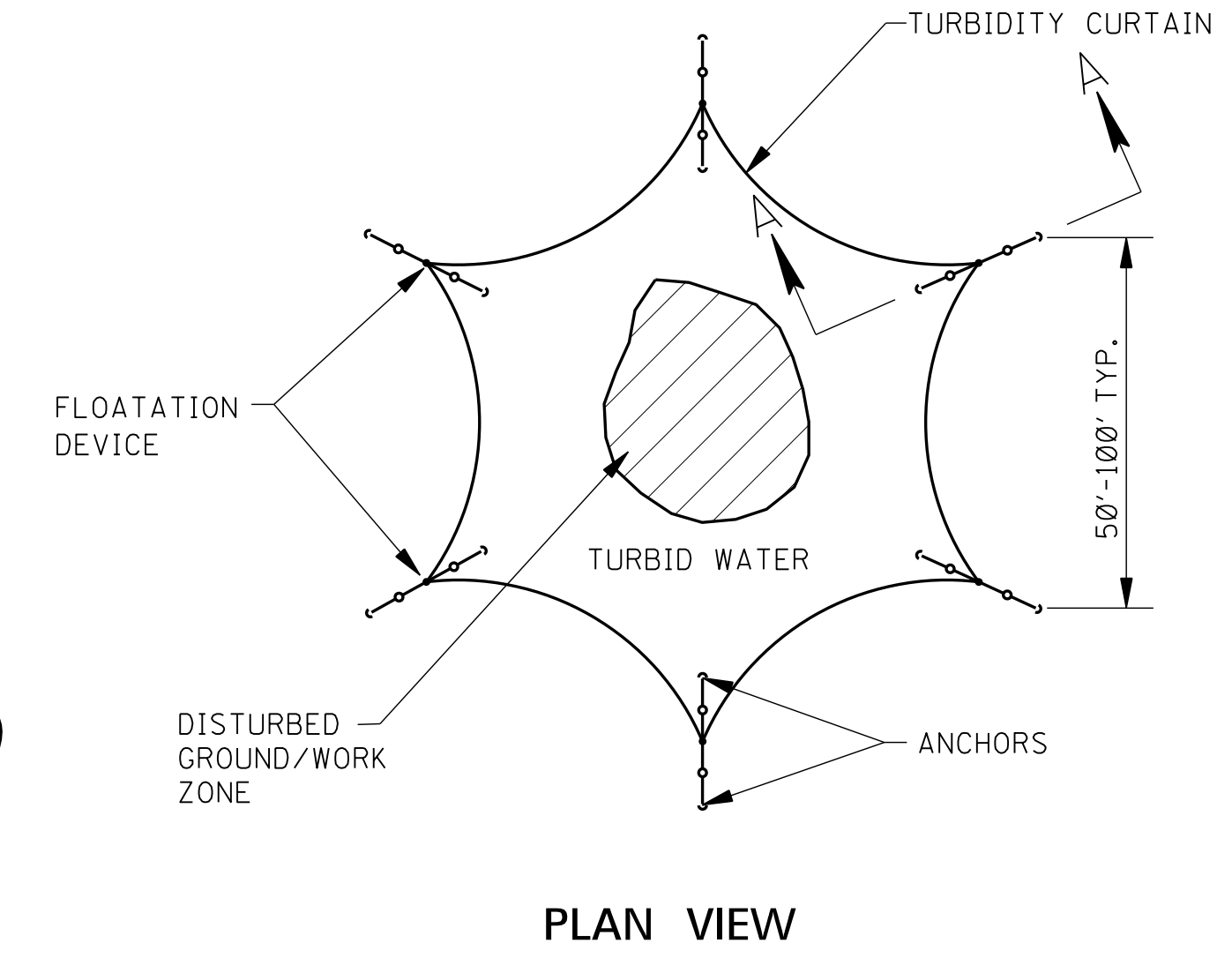
FLOATING TURBIDITY CURTAIN



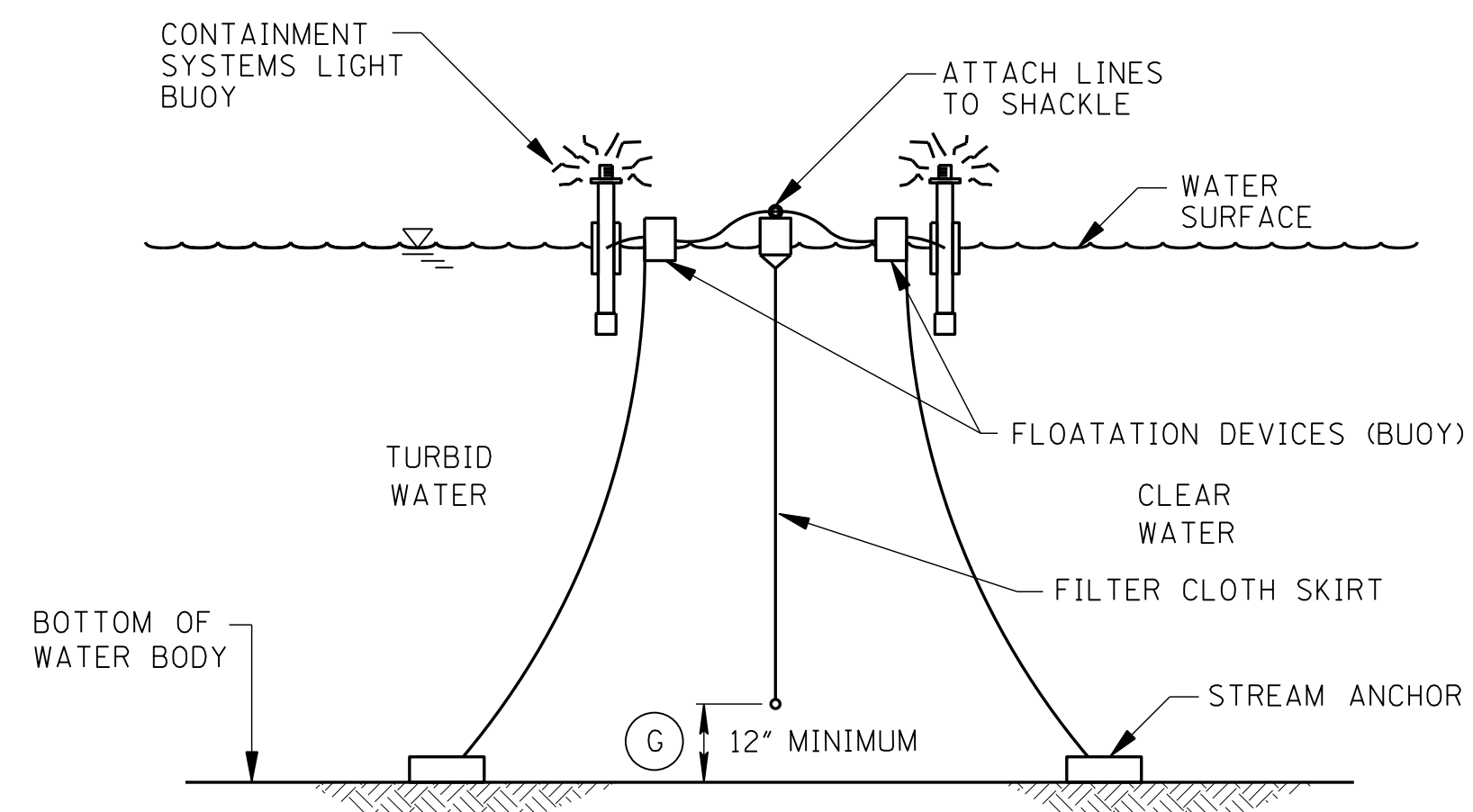
TYPICAL ANCHORING PLAN FOR SHORELINE/RIVER EDGE WORK



TYPICAL ANCHORING PLAN FOR MID CHANNEL WORK (BRIDGE PIER, CAISSON, ETC.)



TYPICAL ANCHORING SECTION



SECTION A-A

AUTOMATIC FLASHING LIGHT BUOY (ON AT DUSK-OFF AT DAWN) 100' ON CENTER SHALL BE USED IN NAVIGABLE CHANNELS ONLY

EROSION CONTROL PLAN LEGEND: FLOATING TURBIDITY CURTAIN

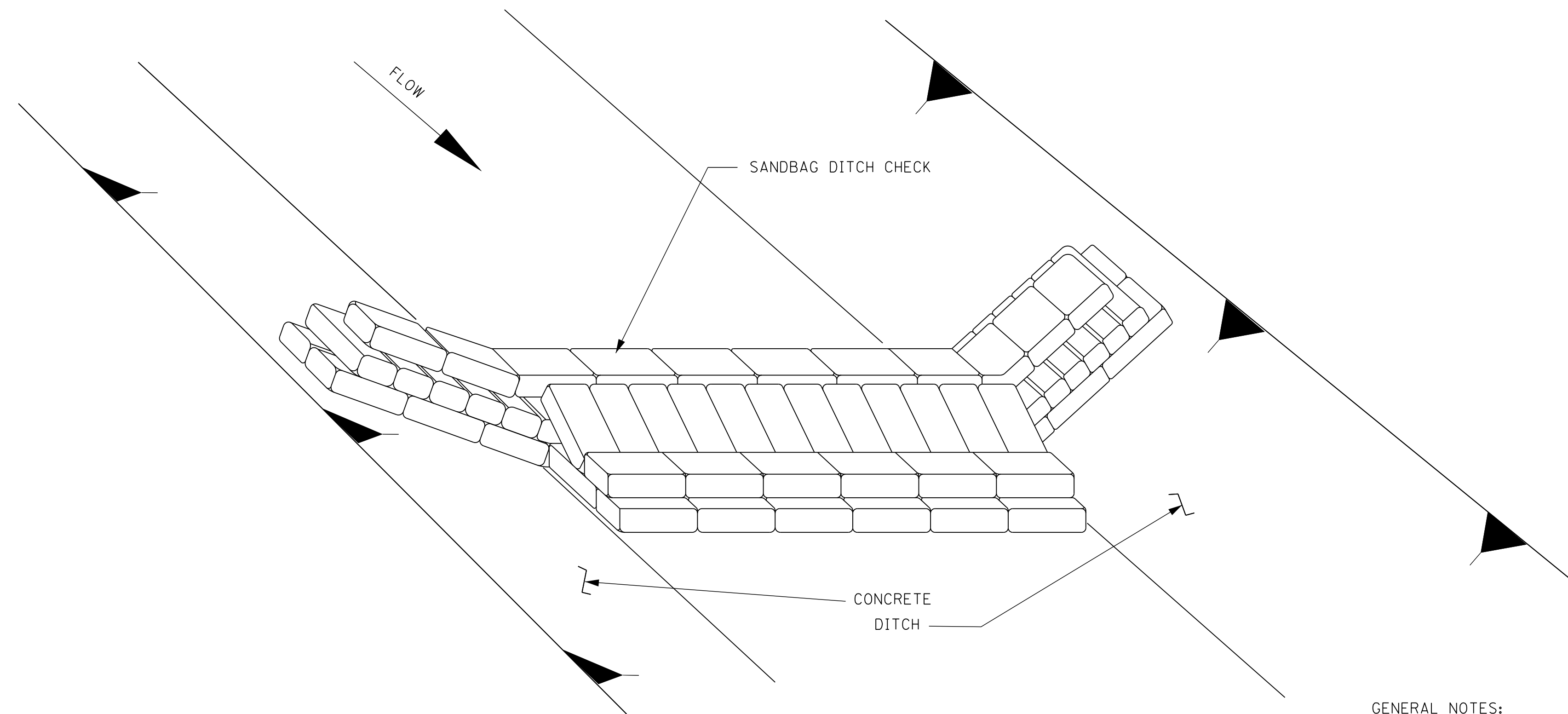
GENERAL NOTES:

- FLOATING TURBIDITY CURTAINS (ALSO KNOWN AS TURBIDITY BARRIERS OR SILT CURTAINS) CREATE A BARRIER TO PREVENT TURBID WATER FROM ENTERING CLEAR WATER. FLOATING TURBIDITY CURTAINS SHOULD BE USED TO ISOLATE ACTIVE CONSTRUCTION AREAS WITHIN OR ADJACENT TO A BODY OF WATER TO MINIMIZE THE MIGRATION OF SILT LADEN WATER OUT OF THE CONSTRUCTION ZONE.
- TURBIDITY CURTAINS SHALL NOT BE INSTALLED PERPENDICULAR ACROSS THE MAIN FLOW OF A SIGNIFICANT BODY OF MOVING WATER.
- FLOATING TURBIDITY CURTAINS SHOULD NOT BE USED WHERE THE ANTICIPATED FLOW VELOCITIES WILL EXCEED 5 FT/SEC.
- TURBIDITY CURTAINS SHALL BE ANCHORED TO PREVENT DRIFT SHOREWARD OR DOWNSTREAM. ANCHORAGE SHALL BE INSTALLED ON BOTH SHORE AND STREAM SIDE. CURTAINS SHOULD BE INSTALLED AS CLOSE TO PROJECT SITE AS POSSIBLE. BARRIERS SHOULD BE A BRIGHT COLOR (YELLOW OR "INTERNATIONAL" ORANGE ARE RECOMMENDED) THAT WILL ATTRACT THE ATTENTION OF NEARBY BOATERS.
- SHORE ANCHORS SHALL CONSIST OF A POST WITH DEADMAN OR APPROVED EQUAL. STREAM ANCHORS SHALL BE OF SUFFICIENT SIZE TO STABILIZE THE BARRIER WITH NUMBER AND SPACING DEPENDENT ON WATERWAY VELOCITIES AND MANUFACTURER'S RECOMMENDATIONS.
- IN SHALLOW WATER (2 FEET OF DEPTH OR LESS) A TURBIDITY CURTAIN MAY BE INSTALLED ON STAKES DRIVEN INTO THE BED OF THE WATER BODY.
- FABRIC SECTIONS SHALL BE CONNECTED END TO END WITH MINIMUM 5/8" DIAMETER POLYPROPYLENE ROPE. FABRIC SHALL BE SEAMED TOGETHER IN A MANNER THAT RETAINS THE OVERALL TENSILE STRENGTH.
- DESIGN OF CURTAIN AND ANCHORAGE SHALL BE IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS. FILTER CLOTH SKIRT SHOULD BE ABLE TO WITHSTAND THE FORCES IMPARTED ON IT DUE TO THE EXPECTED WIND VELOCITY OR STREAM VELOCITY. FABRIC SHALL BE MADE OF A NON-DETERIORATING MATERIAL, SUCH AS PLASTIC OR NYLON, WHICH WILL ALLOW WATER TO PASS THROUGH WHILE STILL RETAINING SEDIMENT.
- THE TURBIDITY CURTAIN AND ADJACENT WORK AREAS SHALL NOT BE DISTURBED 12 HOURS PRIOR TO REMOVAL FROM THE WATER BODY. MAINTENANCE SHALL BE PERFORMED AS NEEDED. CONTRACTOR SHALL REMOVE THE CURTAIN AT COMPLETION OF WORK IN A MANNER THAT WILL PREVENT SILTATION OF THE WATERWAY. DURING REMOVAL, EXTREME CARE SHOULD BE TAKEN NOT TO DISTURB ANY SEDIMENT DEPOSITS.
- MAINTAIN 12" MINIMUM GAP BETWEEN SKIRT BOTTOM AND CHANNEL BOTTOM TO PREVENT ACCUMULATED SEDIMENT FROM PULLING TOP OF CURTAIN BELOW WATER SURFACE.
- IN WIND OR WAVE ACTION SITUATIONS, THE MAXIMUM DEPTH OF THE CURTAIN SHALL BE 12 FEET.
- CONCENTRATED FLOWS SHALL NOT DISCHARGE BEYOND FLOATING TURBIDITY CURTAIN. CURTAINS ARE NOT TO BE INSTALLED ACROSS FLOWING BODY OF WATER.
- WHEN INSTALLED IN A NAVIGABLE WATERWAY, BUOYS SHOULD BE LIT ACCORDING TO REGULATORY AGENCY STANDARDS.
- WHEN ESTIMATING THE LENGTH OF THE TURBIDITY CURTAIN, ALLOW 10 TO 20 PERCENT VARIANCE IN STRAIGHT LINE MEASUREMENT.
- PAYMENT FOR FLOATING TURBIDITY CURTAIN SHALL INCLUDE ALL MATERIAL AND ALL LABOR NECESSARY FOR CONSTRUCTION, MAINTENANCE, AND REMOVAL OF TURBIDITY CURTAIN.
- ONLY FLOATING TURBIDITY CURTAINS LISTED ON THE APPROVED PRODUCTS LIST MAY BE USED.

BY	MISSISSIPPI DEPARTMENT OF TRANSPORTATION ROADWAY DESIGN DIVISION STANDARD PLAN		
REVISION			
DATE	ISSUE DATE: AUGUST 01, 2017		

FLOATING TURBIDITY CURTAIN

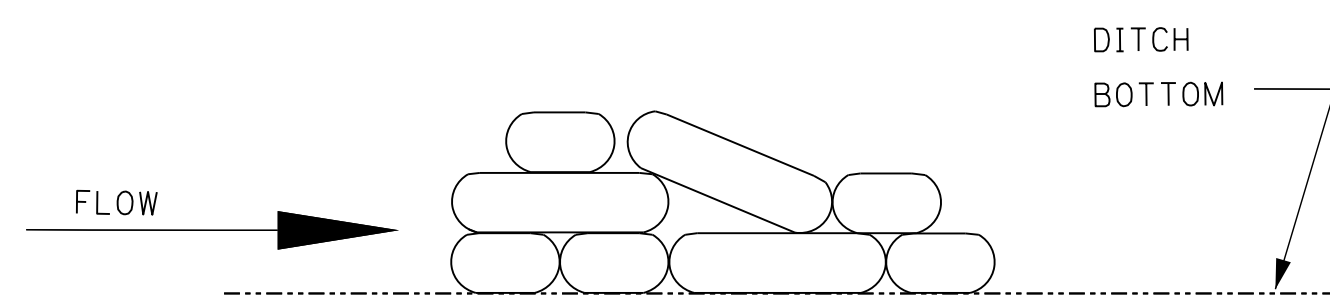
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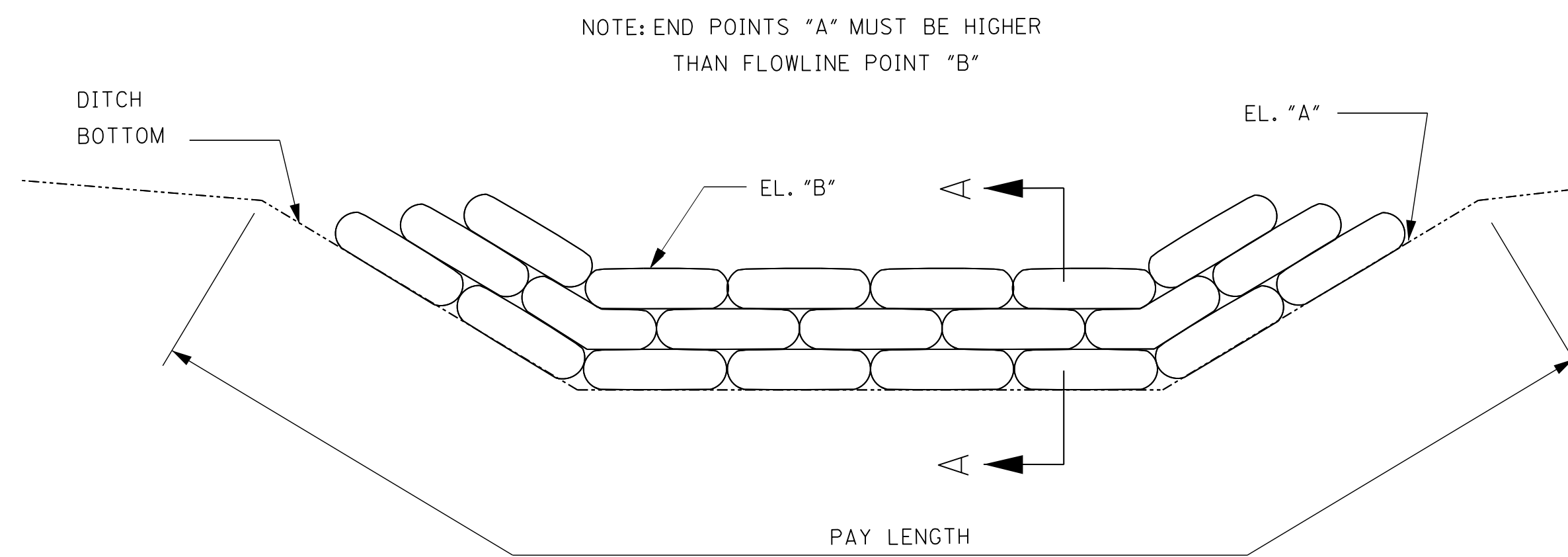
DETAIL (DITCH CHECK)

GENERAL NOTES:

1. SANDBAG DITCH CHECKS ARE USED FOR VELOCITY REDUCTION AND MINIMAL SEDIMENT TRAPPING IN CONCRETE PAVED DITCHES OR IN DITCHES WITH ROCKY BOTTOMS.
2. MINIMUM RECOMMENDED PLACEMENT INTERVAL BETWEEN SANDBAG DITCH CHECK IS 100' UNLESS SHOWN OTHERWISE ON THE PLANS OR APPROVED BY THE ENGINEER. SEE SPACING GUIDANCE ON WK. NO. ECD-4.
3. PREVENTING SEDIMENT FROM ENTERING A PAVED DITCH IS PREFERABLE TO CAPTURING SEDIMENT WITHIN PAVED DITCH.
4. ROCKBAGS MAY BE USED IN LIEU OF SANDBAGS, ONLY WHEN PAY ITEM FOR ROCKBAGS IS INCLUDED IN THE CONTRACT.



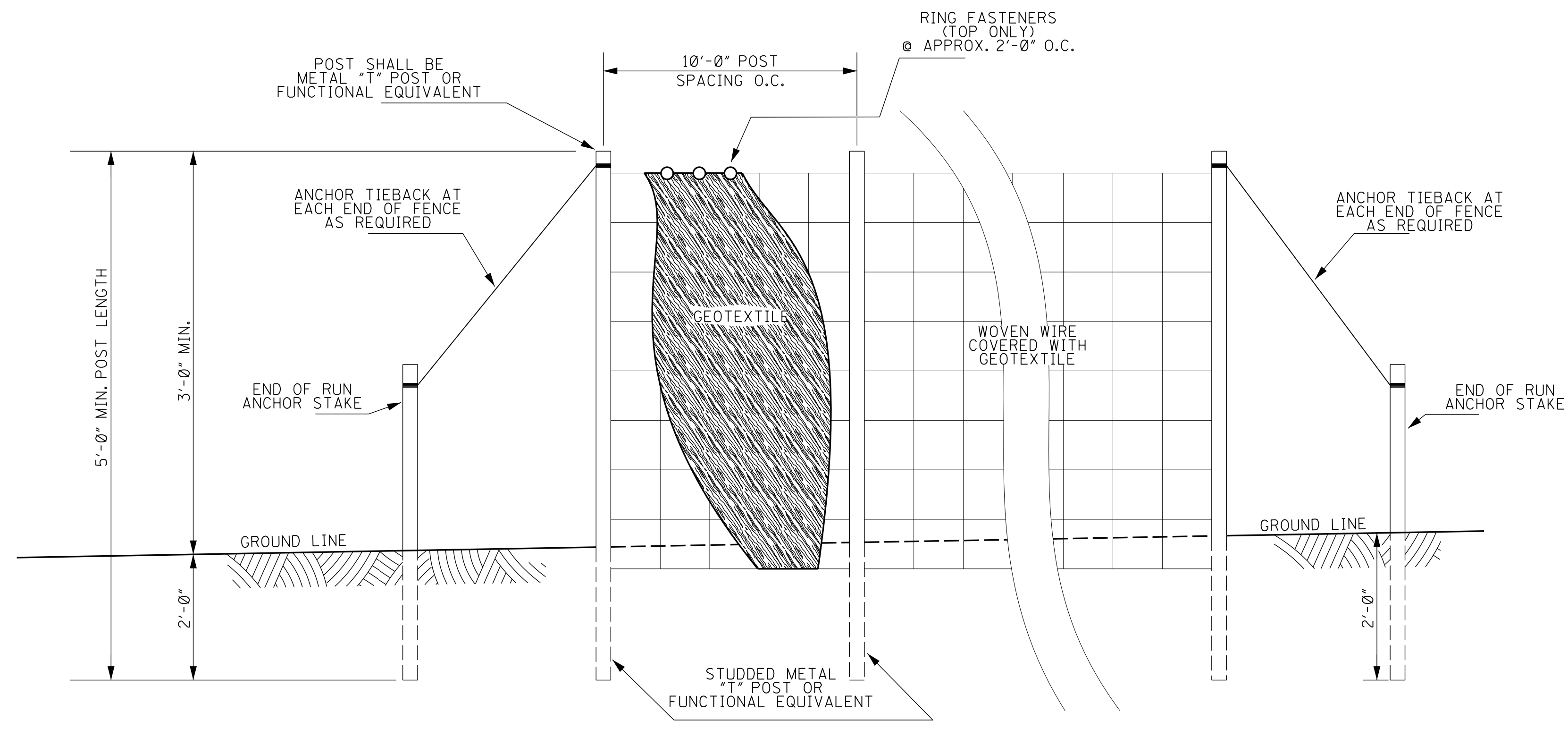
**SECTION A-A
(IN DITCH BOTTOM)**



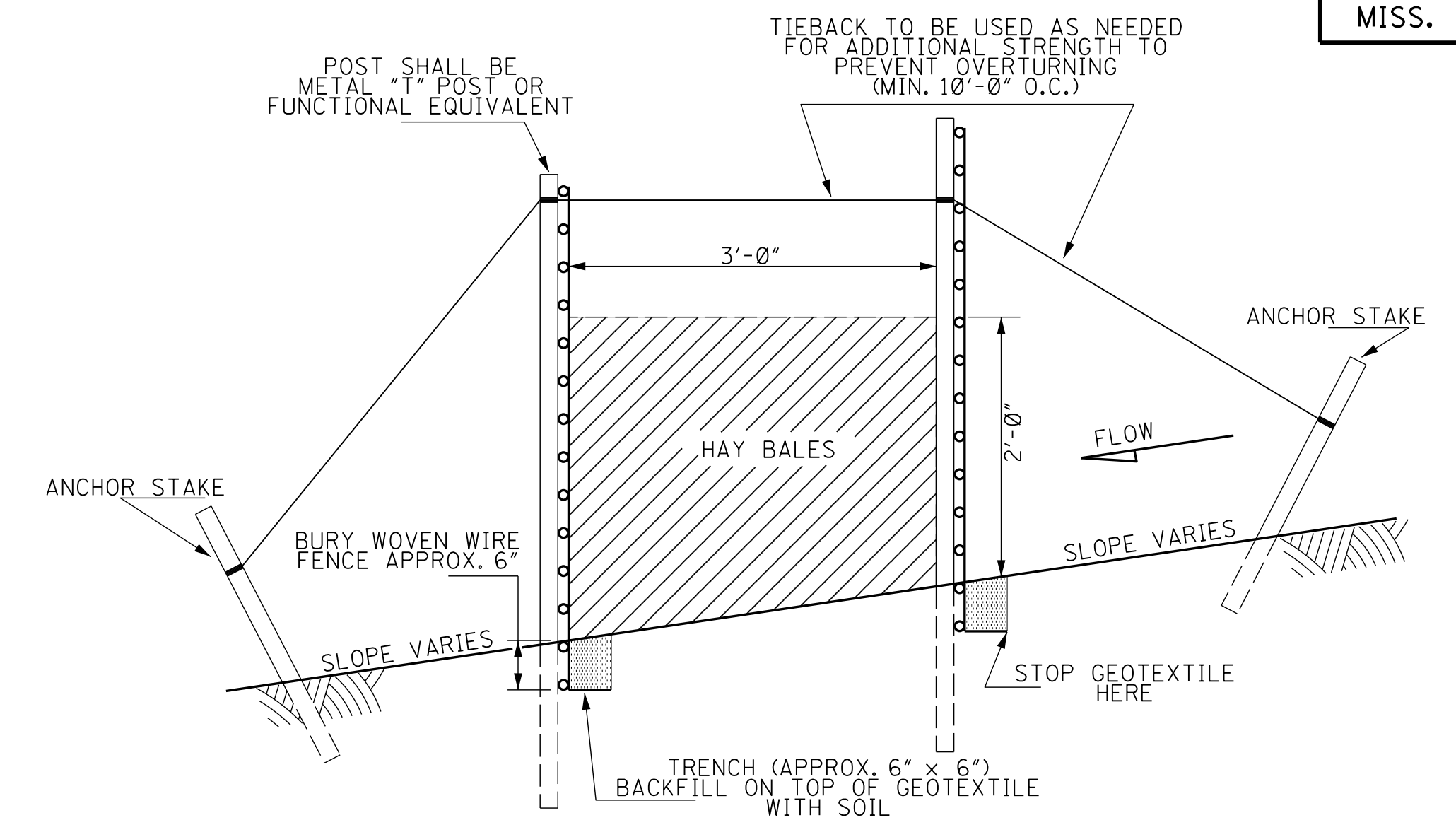
ELEVATION DETAIL

		MISSISSIPPI DEPARTMENT OF TRANSPORTATION ROADWAY DESIGN DIVISION STANDARD PLAN	
		DETAILS OF EROSION CONTROL SANDBAG DITCH CHECK	
BY			
REVISION			
DATE		ISSUE DATE: AUGUST 01, 2017	
		WORKING NUMBER ECD-21	SHEET NUMBER 6121

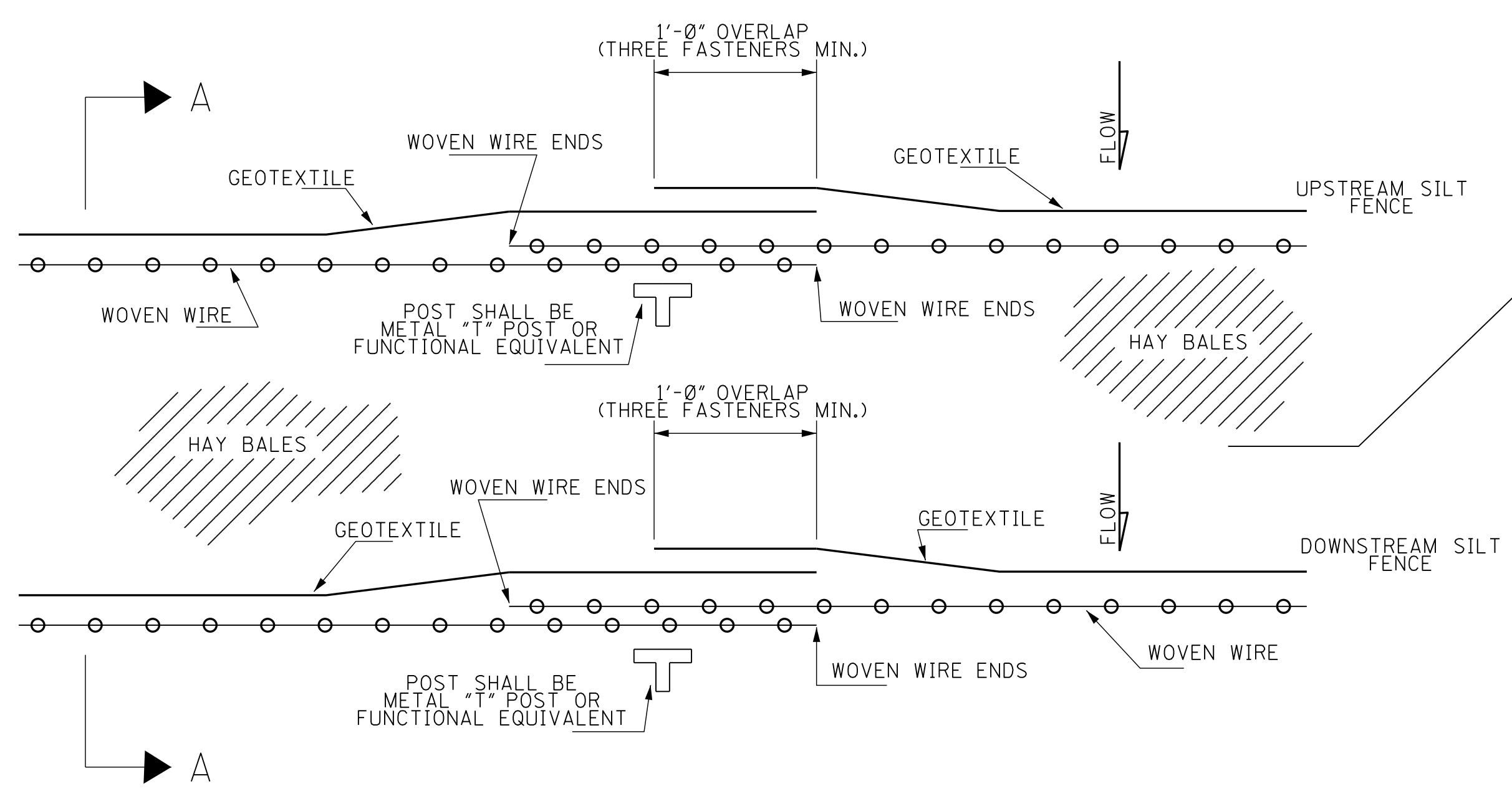




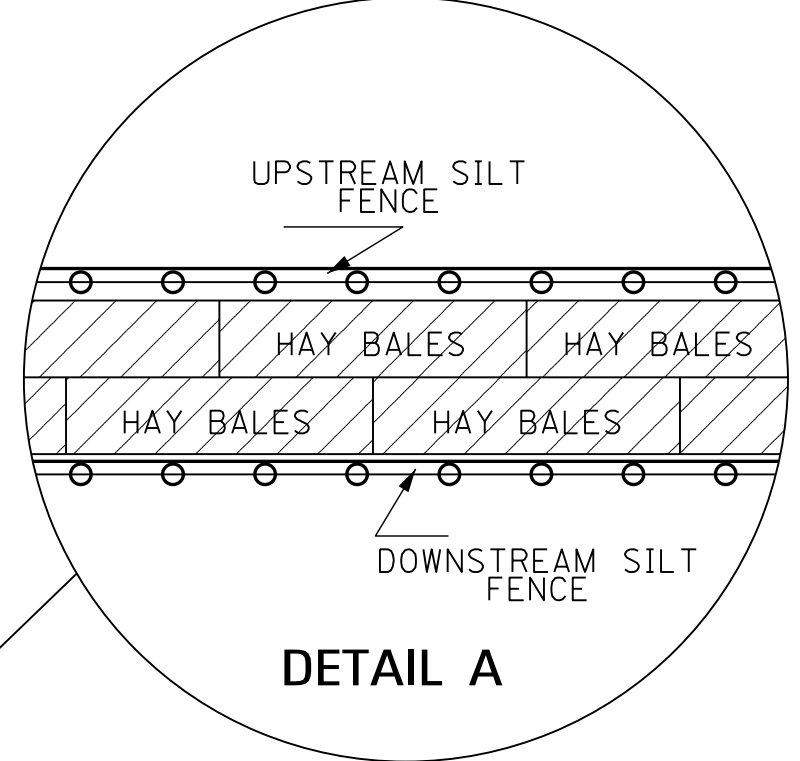
ELEVATION VIEW



SIDE VIEW SECTION A-A METHOD I

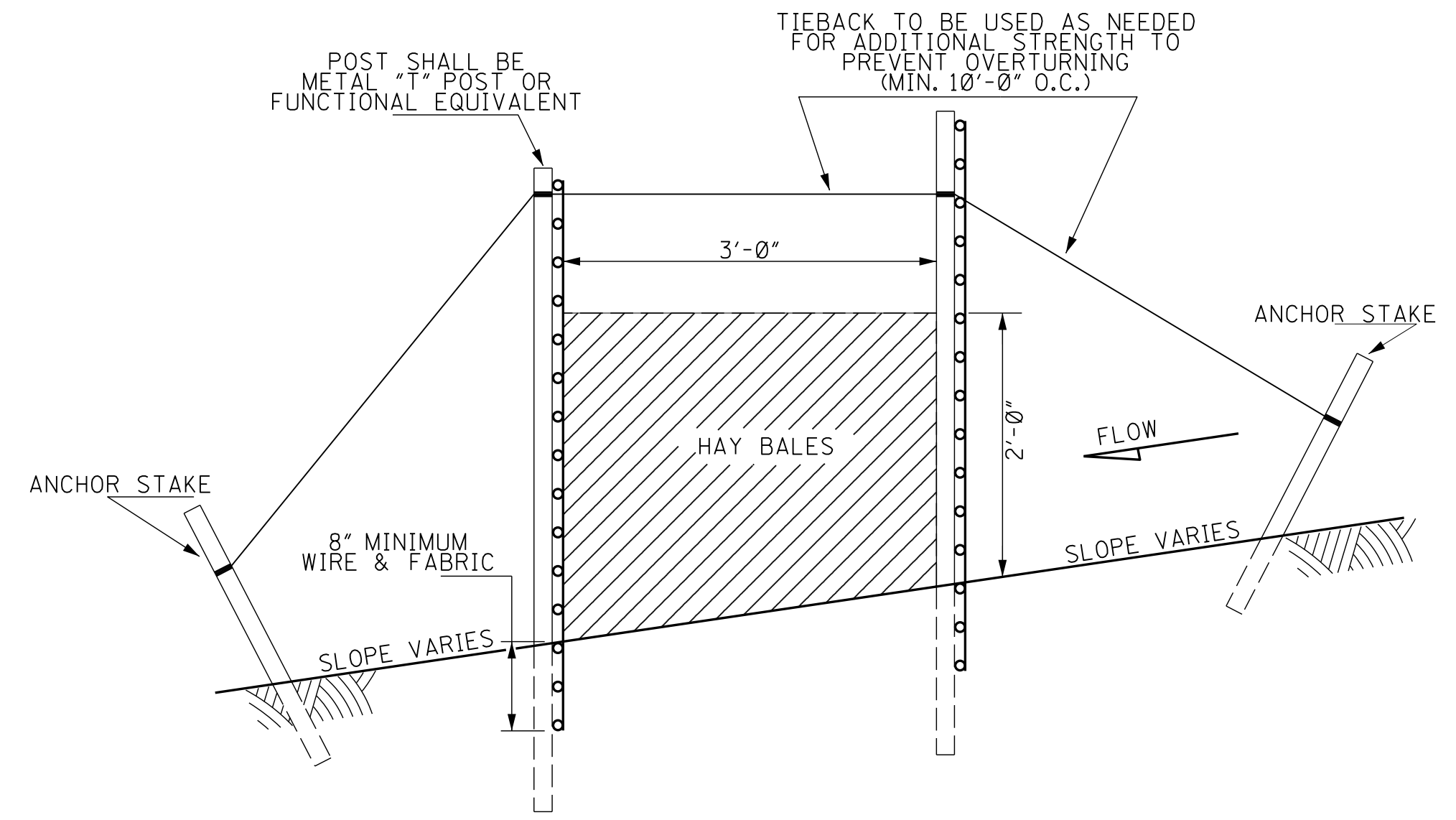


PLAN VIEW REQUIRED LAPPING




GENERAL NOTES:

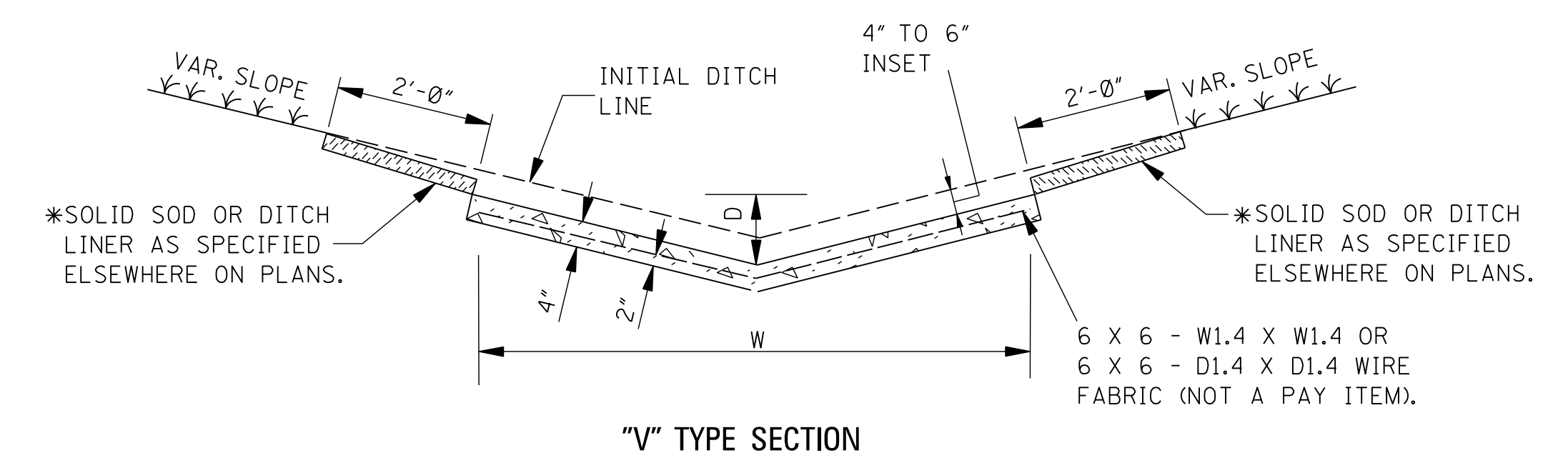
- RETENTION BARRIERS SHOULD BE USED IN AREAS WHERE FLOW IS NOT SEVERE.
- RETENTION BARRIERS ARE TEMPORARY SEDIMENT CONTROL ITEMS THAT SHOULD BE ERECTED OPPOSITE ERODIBLE AREAS SUCH AS NEWLY GRADED FILL SLOPES AND ADJACENT TO STREAMS AND CHANNELS.
- RETENTION BARRIERS SHOULD BE PLACED WELL INSIDE RIGHT-OF-WAY AND ALONG EDGE OF CLEARING LIMITS. THIS WILL ALLOW ROOM FOR A BACK-UP FENCE IF FIRST FENCE BECOMES FULL.
- THE CONTRACTOR MAY ELECT TO USE EITHER METHOD I OR METHOD II. COST TO BE LINEAR FEET OF SEDIMENT RETENTION BARRIER.
- METHOD II INSTALLATION SHALL BE ACCOMPLISHED USING AN IMPLEMENT THAT IS MANUFACTURED FOR THE APPLICATION AND PROVIDES CONFIGURATION MEETING THE REQUIREMENTS OF THE DETAIL.
- WIRE SHALL BE MINIMUM OF 32" IN WIDTH AND SHALL HAVE A MINIMUM OF 6 LINE WIRES WITH 12" STAY SPACING.
- GEOTEXTILE FABRIC MEETING THE TYPE II MATERIAL REQUIREMENTS AND INSTALLED ACCORDING TO SPECIFICATION MAY BE USED WITHOUT WIRE FENCE.



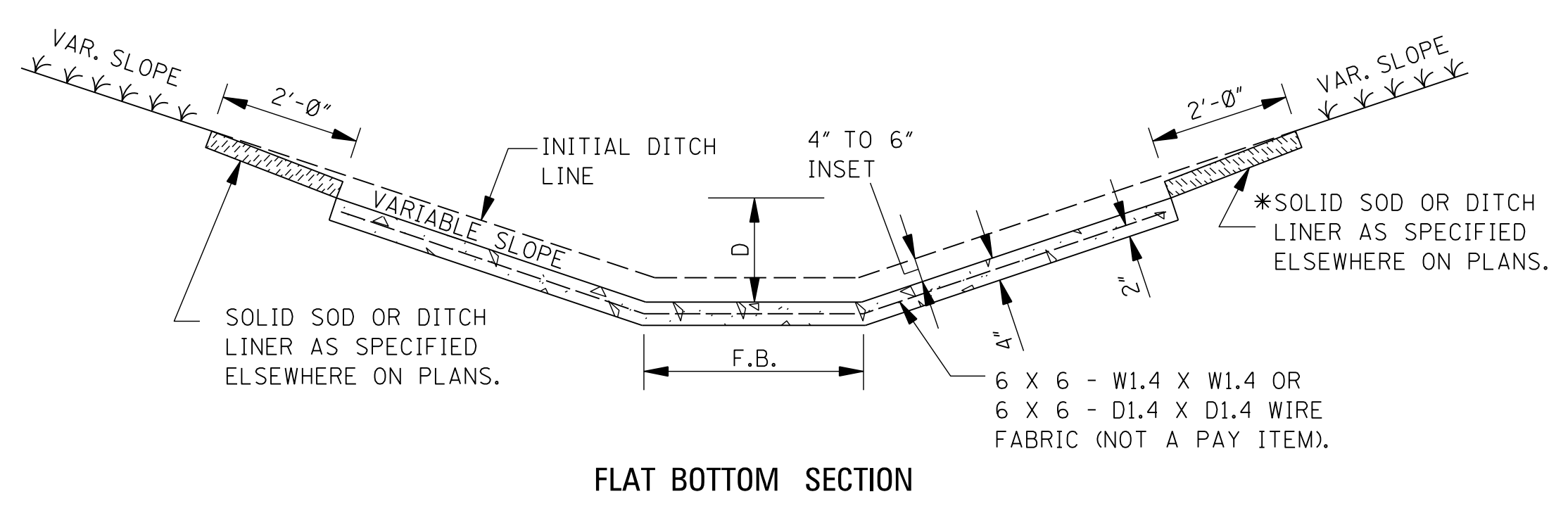
SIDE VIEW SECTION A-A METHOD II MECHANICAL INSTALLATION

MISSISSIPPI DEPARTMENT OF TRANSPORTATION ROADWAY DESIGN DIVISION STANDARD PLAN	
SEDIMENT RETENTION BARRIER	
BY	
REVISION	
DATE	ISSUE DATE: AUGUST 01, 2017

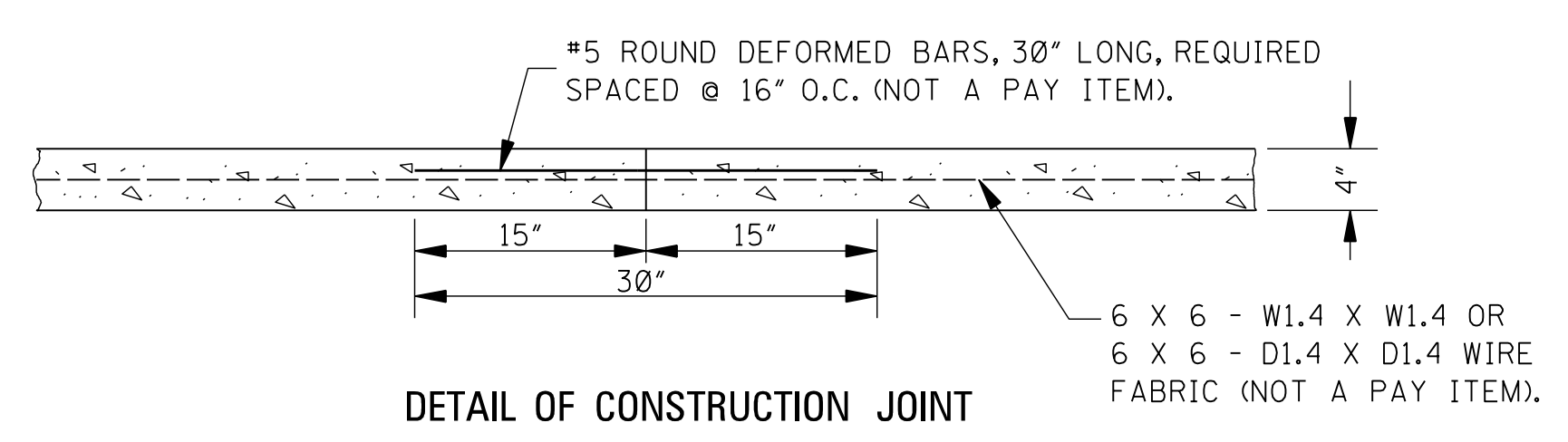

 WORKING NUMBER
 ECD-22
 SHEET NUMBER
 6122



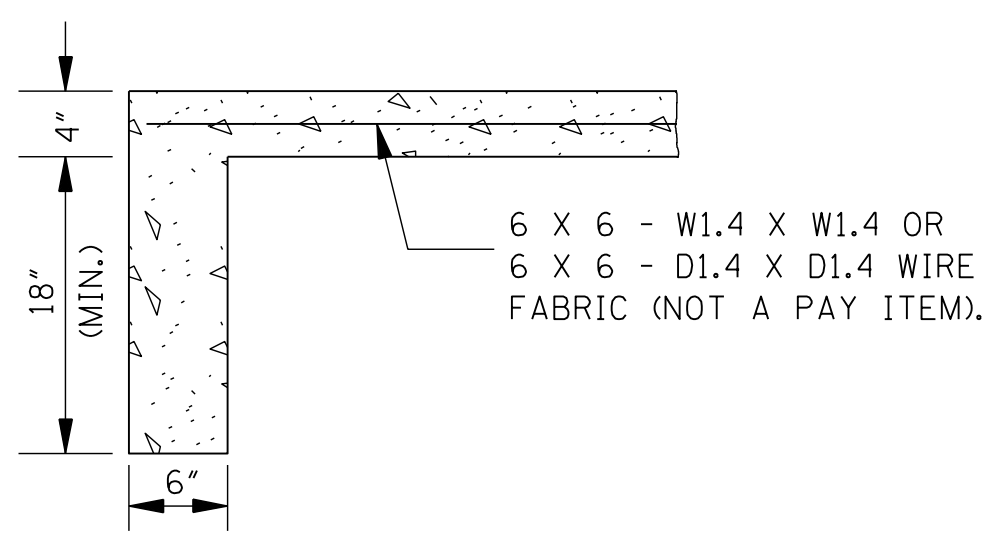
"V" TYPE SECTION



FLAT BOTTOM SECTION



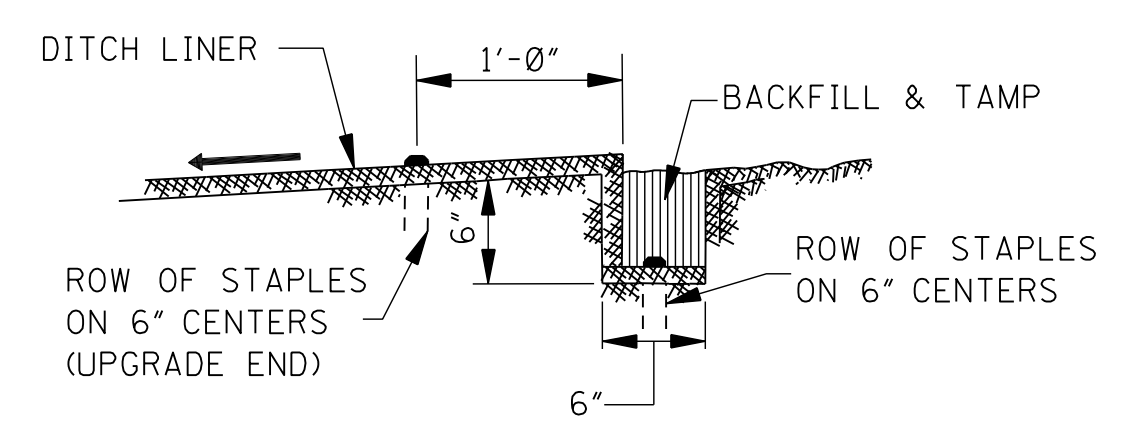
DETAIL OF CONSTRUCTION JOINT



DETAIL OF TOE WALL
NOTE: TOE WALL REQUIRED UPSTREAM AND DOWNSTREAM.

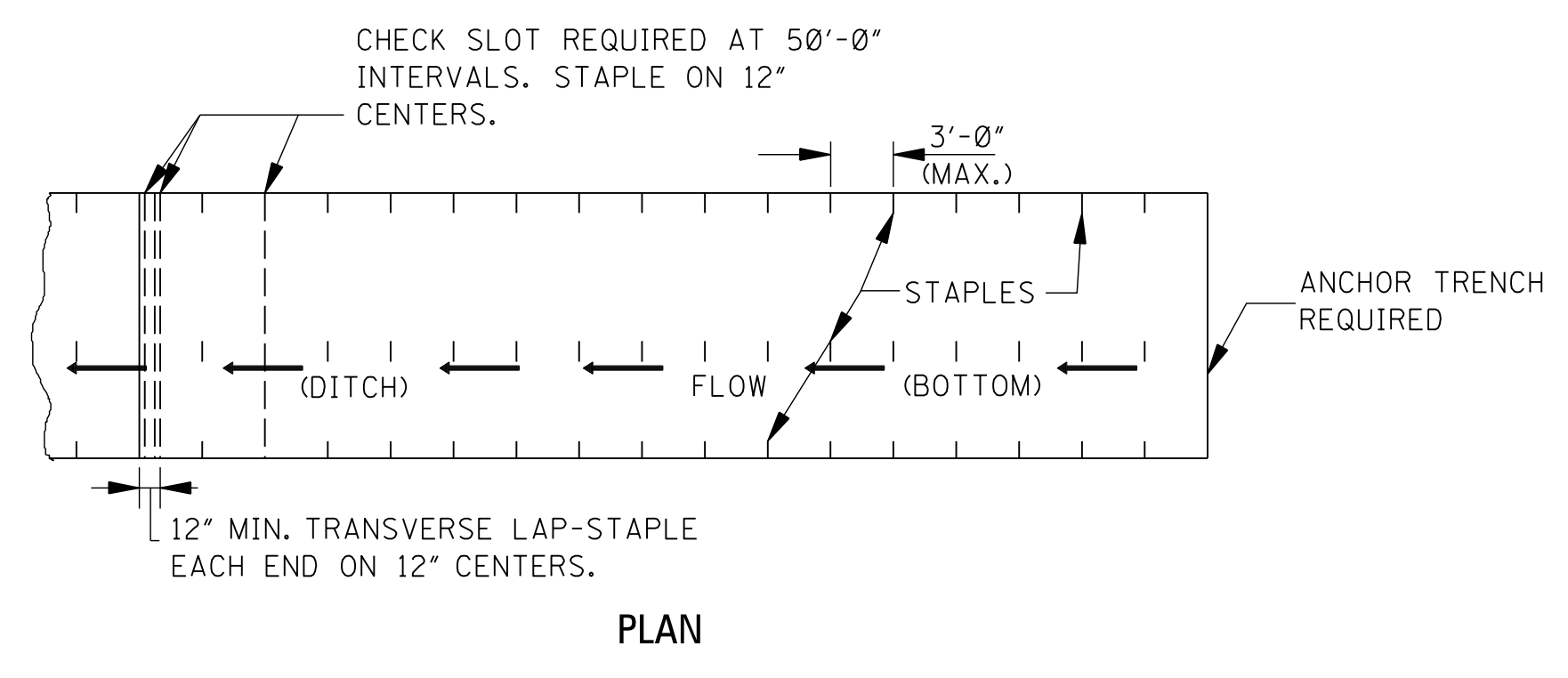
CONCRETE PAVED DITCH

- NOTES:
- CONCRETE PAVED DITCHES SHALL BE GROOVED AT 20'-0" INTERVALS. THE GROOVES SHALL BE CUT TO A DEPTH OF NOT LESS THAN 1".
 - DIMENSIONS D & W ARE AS FOLLOWS:
D(MINIMUM) = 6"
D(NOMINAL) = 9"
W(MINIMUM) = 24"
 - CHAIR SUPPORTS FOR THE WIRE MESH WILL NOT BE REQUIRED. HOWEVER, THE CONTRACTOR SHALL PLACE THE WIRE MESH IN A SATISFACTORY AND WORKMANLIKE MANNER TO ENSURE THAT THE FINAL POSITION IS REASONABLY NEAR THE POSITION INDICATED.
 - * CENTER ROW OF STAPLES MAY BE OMITTED ON DITCH LINER.

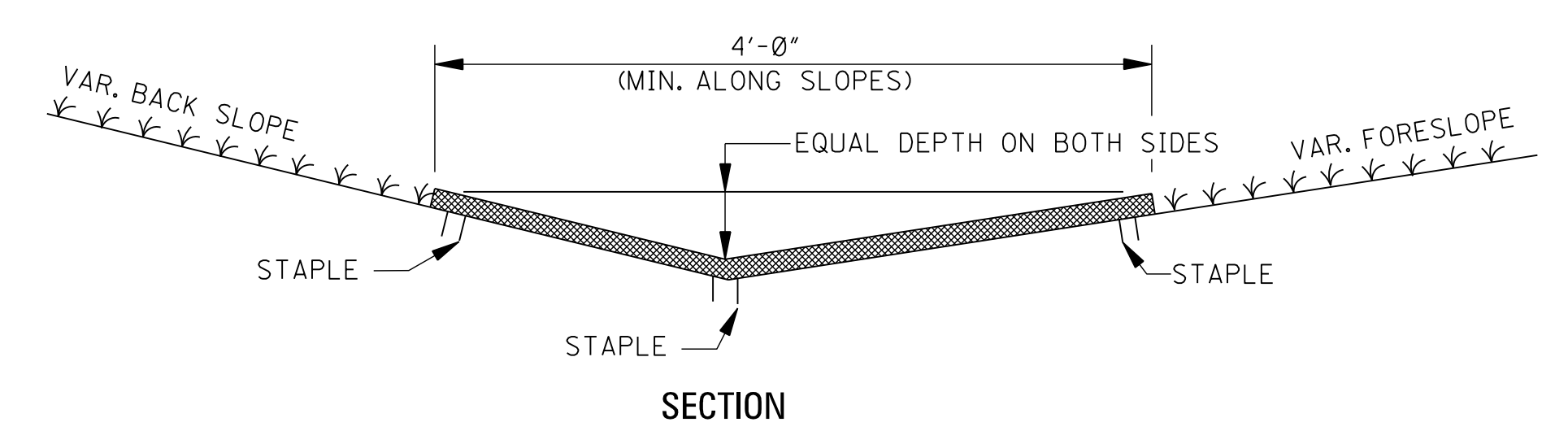


ANCHOR TRENCH DETAIL

NOTE: ANCHOR TRENCH REQUIRED AT THE BEGINNING AND ENDING OF EACH AREA TO BE COVERED, EXCEPT DOWNSTREAM END ADJOINING A STRUCTURE.



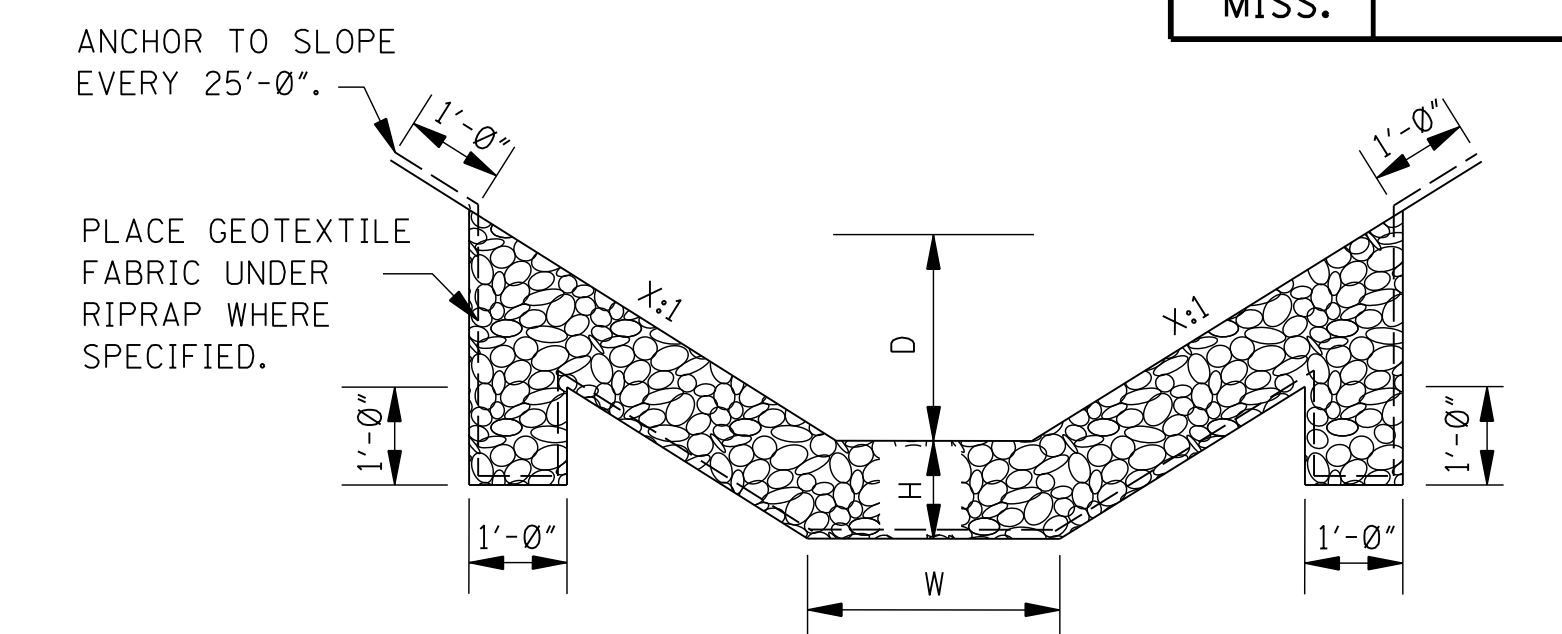
PLAN



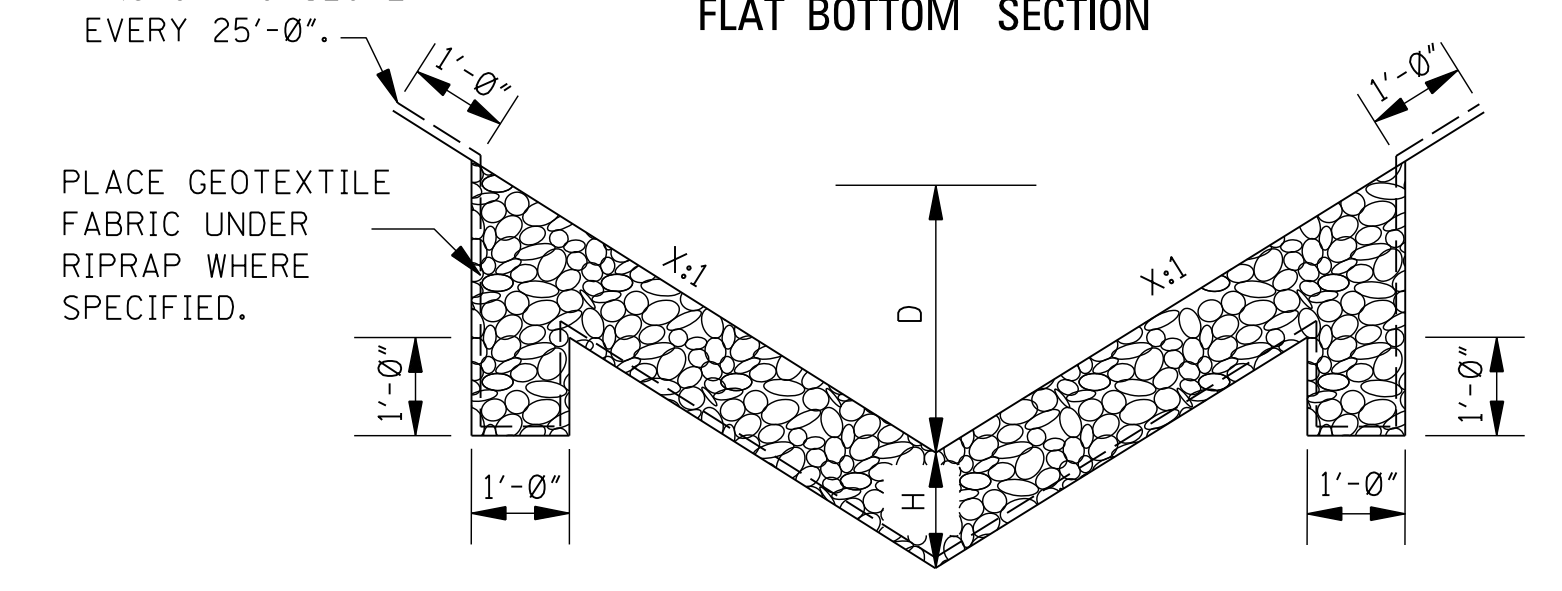
SECTION

DITCH LINER TREATMENT (EXCELSIOR BLANKET, JUTE MESH OR EROSION CONTROL FABRIC)

NOTE: DITCHES TREATED WITH DITCH LINER WILL BE VEGETATED PRIOR TO TREATMENT, UNLESS OTHERWISE INDICATED.



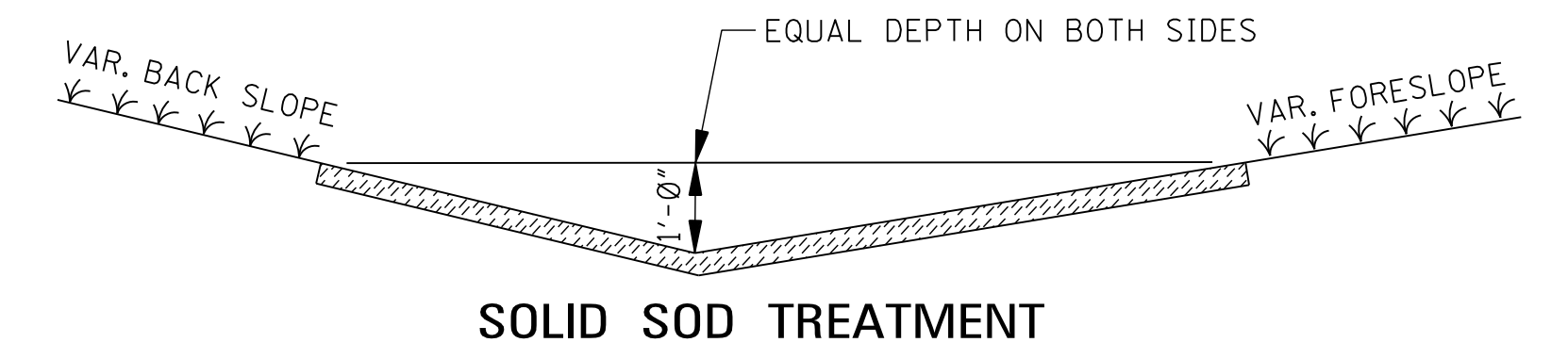
FLAT BOTTOM SECTION



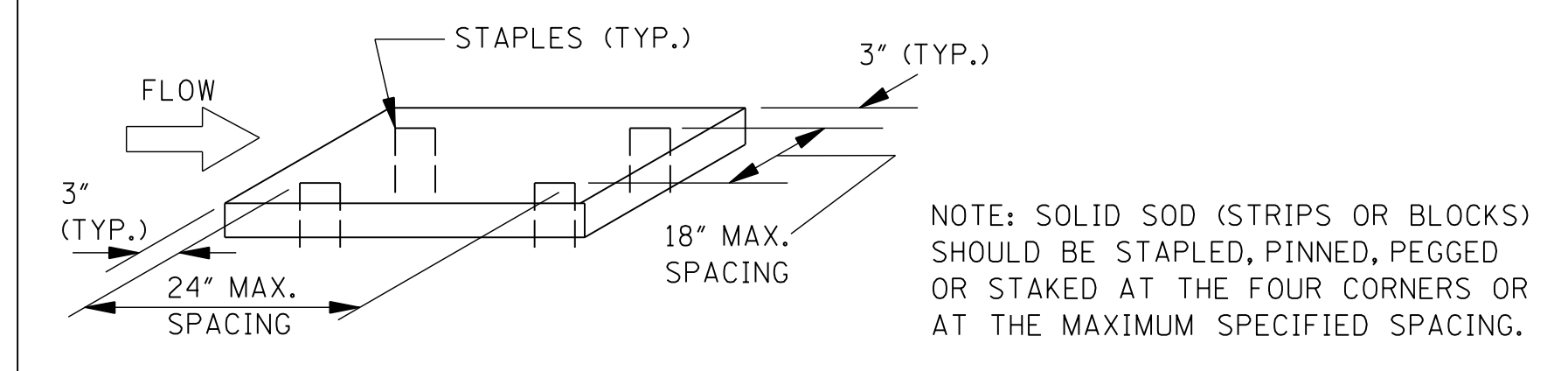
"V" TYPE SECTION
RIPRAP TREATMENT

- NOTES:
- DIMENSIONS D, W AND X ARE VARIABLE AND ARE SHOWN ELSEWHERE ON THE PLANS.
 - THE RIPRAP SIZE AND MINIMUM DEPTH "H" FOR RIPRAP TREATMENT ARE AS FOLLOWS.

RIPRAP SIZE & MINIMUM DEPTH "H"	
H (in)	RIPRAP SIZE (lbs)
12"	100
18"	300



SOLID SOD TREATMENT



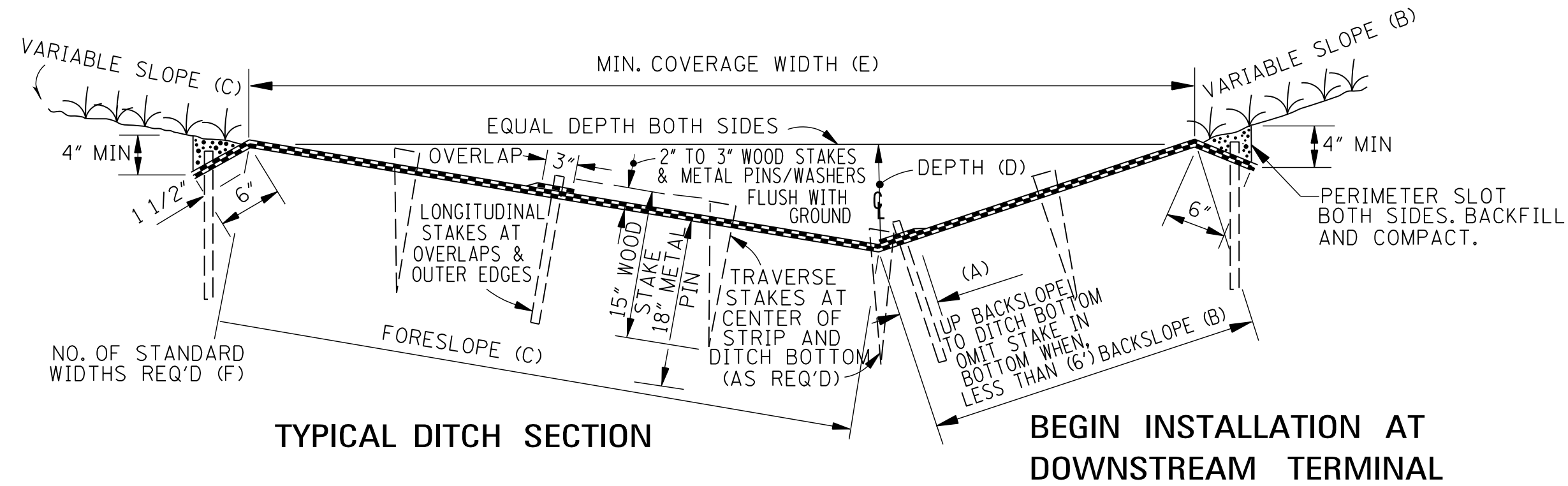
- GENERAL NOTE:
- FOR LOCATION OF APPROPRIATE DITCH TREATMENTS, SEE PLAN SHEETS AS DENOTED BY THE FOLLOWING LEGEND OR AS DIRECTED BY THE ENGINEER:

- DITCH LINER
- SOLID SOD
- CONCRETE PAVED DITCH
- RIPRAP

BY	MISSISSIPPI DEPARTMENT OF TRANSPORTATION ROADWAY DESIGN DIVISION STANDARD PLAN
REVISION	
DATE	ISSUE DATE: AUGUST 01, 2017

DETAILS OF TYPICAL DITCH TREATMENTS

WORKING NUMBER DT-1
SHEET NUMBER 6123

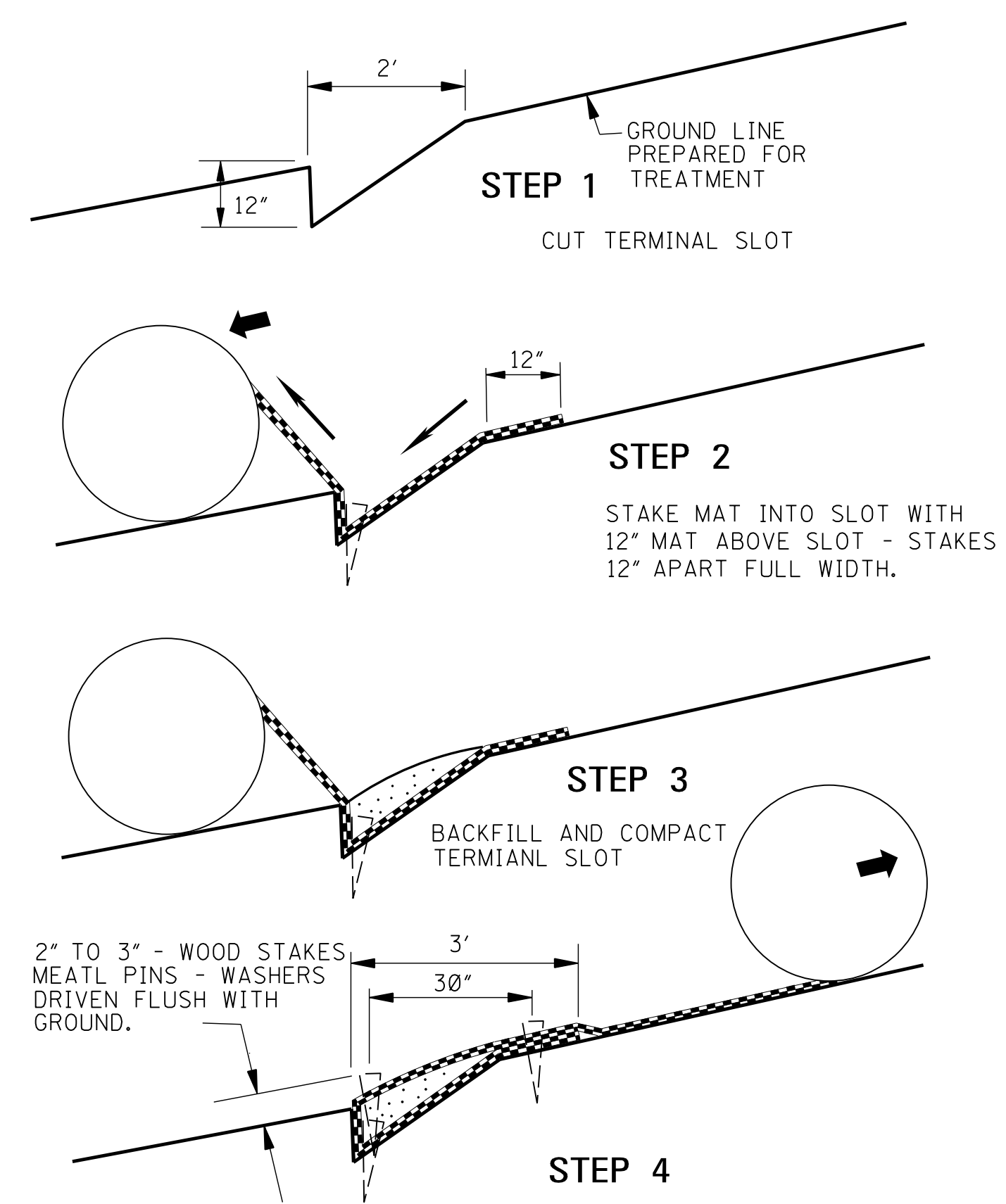


TYPICAL DITCH SECTION

MAT PLACEMENT TABLE

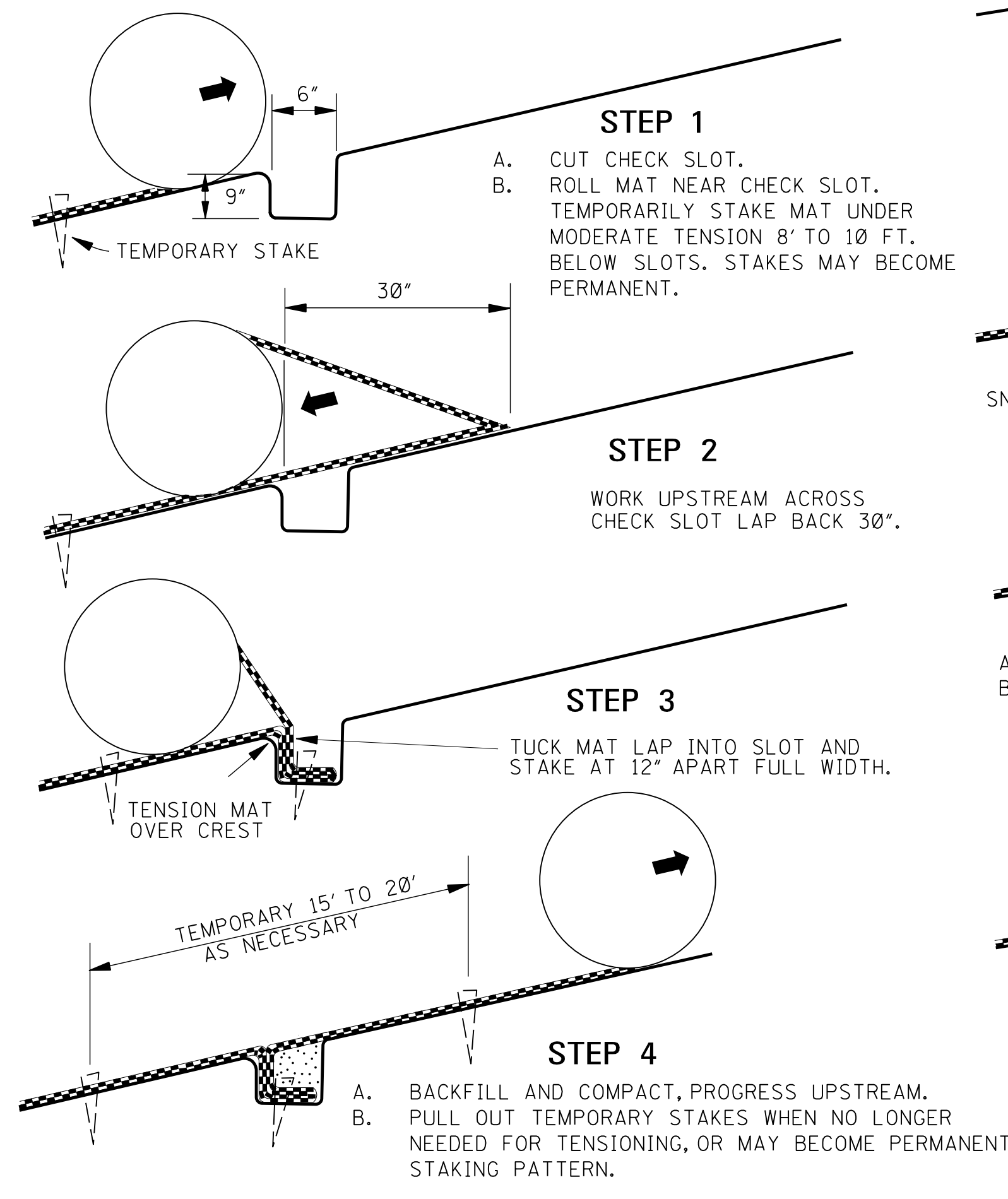
DIMENSIONS OF MAT PLACEMENT IN DITCH (INDIVIDUAL 38" WIDTH ROLLS)					
ELEMENTS OF MAT PLACEMENT	SIDE SLOPE COMBINATIONS FORESLOPE - BACKSLOPE				
	3:1 & 3:1	4:1 & 3:1	6:1 & 3:1	6:1 & 4:1	6:1 & 6:1
(A) UP BACKSLOPE TO DITCH BOTTOM	1' - 7"	1' - 1"	0' - 4"	0' - 10"	0' - 1 1/2"
(B) BACKSLOPE	4' - 0"	3' - 6"	2' - 9"	3' - 3"	3' - 5 1/2"
(C) FORESLOPE	4' - 0"	4' - 6"	5' - 3"	4' - 9"	5' - 5 1/2"
(D) DEPTH OF COVERAGE	1' - 3"	1' - 1"	0' - 10"	0' - 9"	0' - 11"
(E) WIDTH OF COVERAGE	7' - 7"	7' - 8"	7' - 9"	7' - 10"	10' - 9"
(F) MINIMUM NUMBER OF STAND WIDTH STRIPES	3	3	3	3	4
(B)+(C) TOTAL COVERAGE ON SLOPES	8' - 0"	8' - 0"	8' - 0"	8' - 0"	10' - 11"
SQ. YDS./LIN. FT.	0.89	0.89	0.89	0.89	1.22
MULTI-WIDTH WELDED SEAM MAT (WELDED 38" WIDTH STRIPS)					
(B)+(C) TOTAL COVERAGE MULTI-WIDTH ROLLS	8' - 3"	8' - 3"	8' - 3"	8' - 3"	11' - 3 1/2"
SQ. YDS./LIN. FT.	0.92	0.92	0.92	0.92	1.25

BEGIN INSTALLATION AT DOWNSTREAM TERMINAL



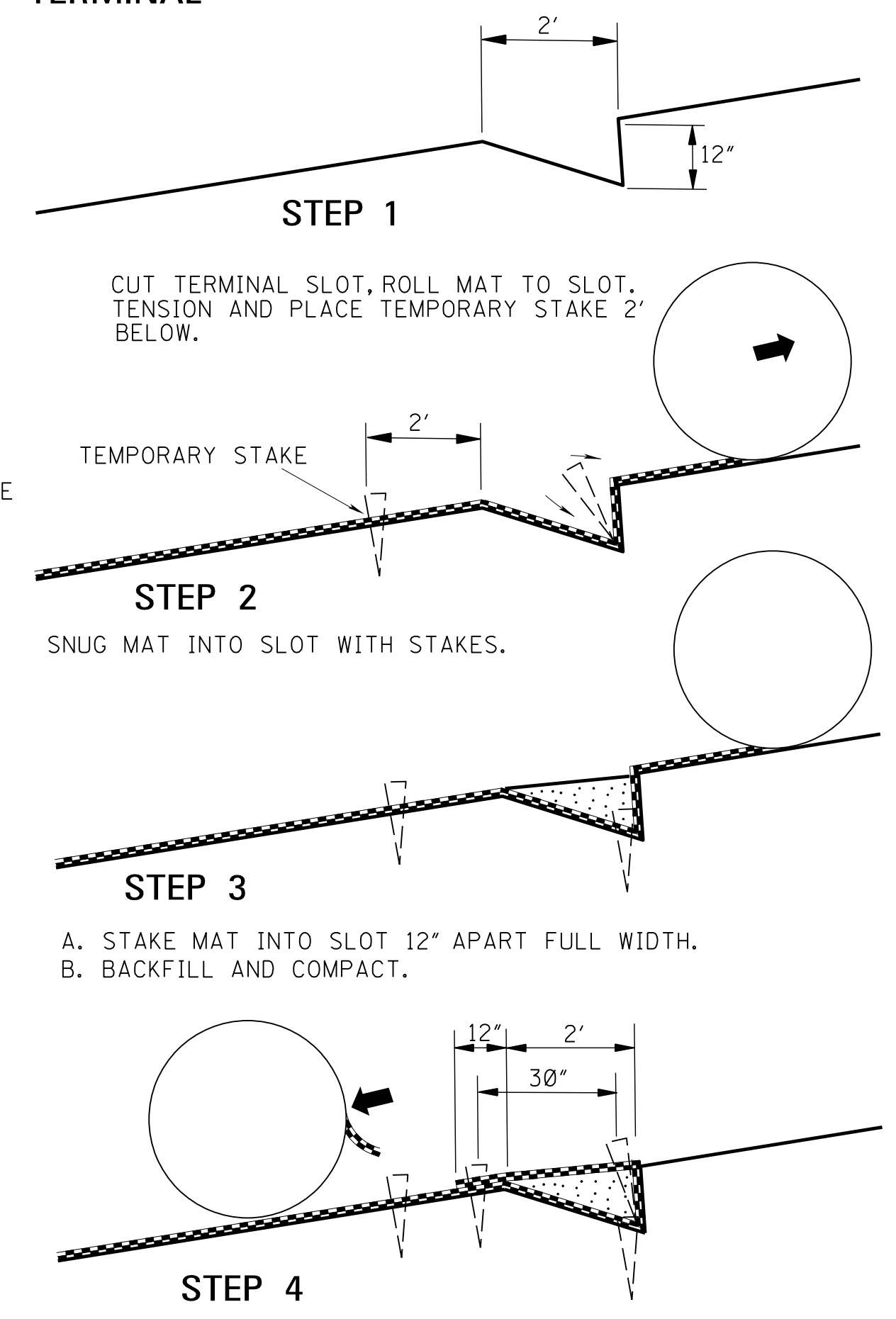
- A. ROLL MAT UPSTREAM OVER BACKFILLED TERMINAL.
- B. STAKE MAT DOWN TO ANCHOR TERMINAL, 18" APART ACROSS IN TWO ROWS.
- C. PROGRESS UPSTREAM WITH ROLL.

25 - FOOT INTERVAL TRANSVERSE CHECK SLOT (FOR INDIVIDUAL ROLLS*)



* WHEN MULTI-WIDTH (WELDED SEAM) ROLLS ARE USED, OMIT EXCAVATED CHECK SLOT AND REPLACE WITH A ROW OF STAKES ONE FOOT APART AT 25-FT. INTERVALS (SEE DETAILS). TEMPORARY STAKES NOT REQUIRED.

END INSTALLATION AT UPSTREAM TERMINAL



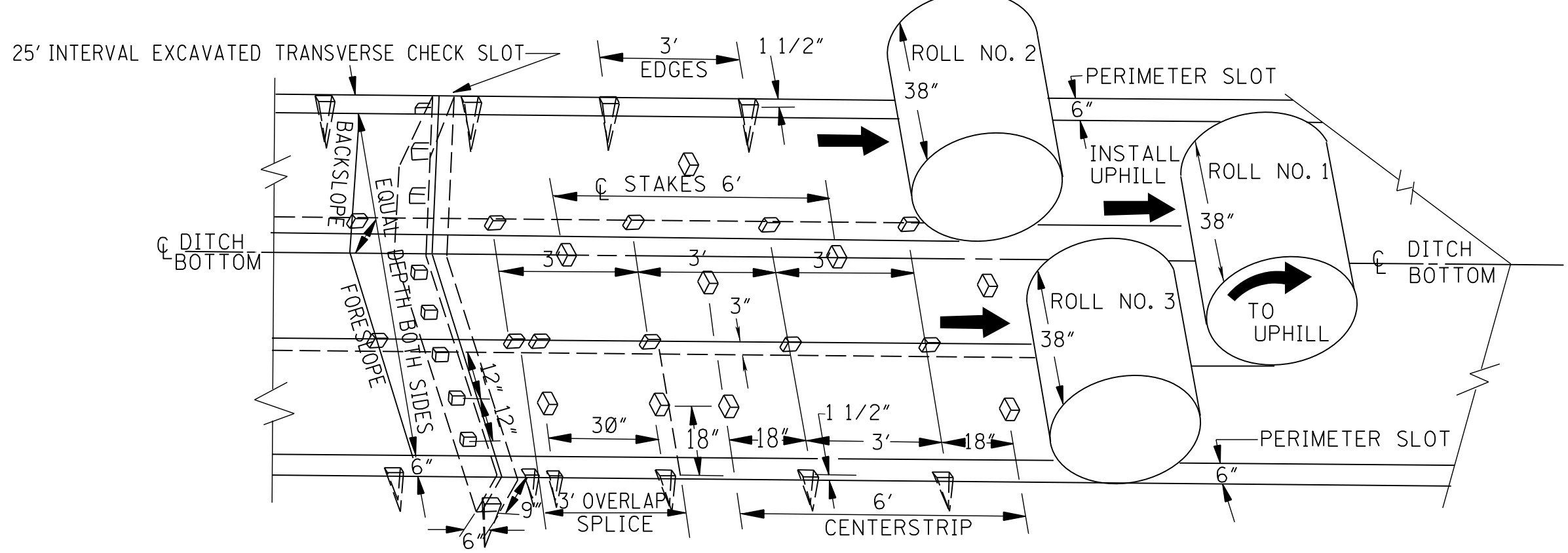
- A. REVERSE MAT. ROLL DIRECTION TO OVERLAY SLOT BY 3 FEET.
- B. STAKE MAT TO ANCHOR TERMINAL, 18" APART ACROSS IN TWO ROWS.
- C. TEMPORARY STAKES MAY BE REMOVED OR DRIVEN TO REMAIN.
- D. CUT ROLL OF MAT EVENLY FULL WIDTH.
- E. ADJOINING DITCH TREATMENTS SHALL BE ANCHORED APPROPRIATELY.

GENERAL INSTRUCTIONS:

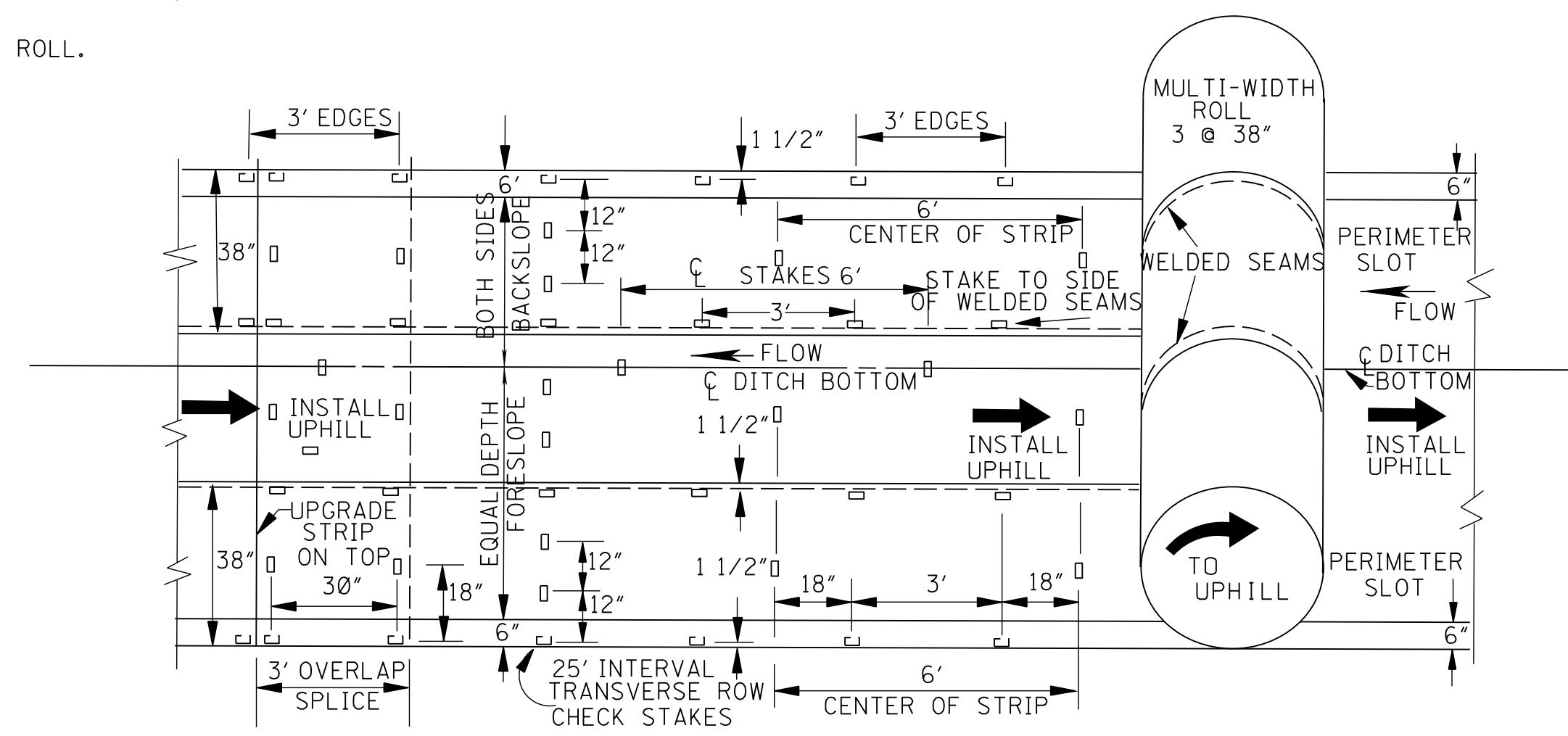
1. BEGIN INSTALLATION AT DOWNSTREAM TERMINAL AND PROGRESS UPSTREAM.
2. FIRST ROLL IS ALIGNED FROM DITCH BOTTOM UP BACKSLOPE (SEE MAT PLACEMENT TABLE) AND UNDER MODERATE TENSION TEMPORARILY STAKED TO MAINTAIN PROPER DESIGN COVERAGE ALIGNMENT.
3. WORKING OUTWARD FROM DITCH BOTTOM TO EDGES, SUBSEQUENT ADJACENT ROLLS FOLLOW IN STAGGERED SEQUENCE UNDER MODERATE TENSION.
4. OVERLAP MAT SEAMS 3 INCHES AND STAKE AT 3-FT. INTERVALS WITH STAKES ALIGNED LONGITUDINALLY TO DITCH AND DIAGONAL EDGE OF STAKE TO THE UPSTREAM. OUTER EDGES (PERIMETER) OF MAT ARE STAKED SIMILARLY.
5. STAKE THE CENTER OF EACH MAT STRIP AND WHEN REQUIRED ALONG THE DITCH BOTTOM AT 6-FT. INTERVALS STAGGERED BETWEEN THE 3-FT. SPACING OF OVERLAP AND OUTER EDGE STAKES WITH THE BROADSIDE TO THE FLOW DIRECTION AND DIAGONAL EDGE TOWARD THE SLOPE.
6. USE 3-FT. OVERLAP AT END OF MAT ROLL SPLICES WITH UPGRADE STRIP ON TOP, STAKED IN TWO ROWS 30 INCHES APART, AND STAKES 18 INCHES APART FULL WIDTH.
7. TRANSVERSE CHECK SLOTS 6 INCHES WIDE BY 9 INCHES DEEP ARE EXCAVATED AT 25-FT. INTERVALS WITH STAKES 12 INCHES APART FULL WIDTH OF TREATMENT. WELDED SEAM MULTI-WIDTH MAT WILL HAVE SIMILAR TRANSVERSE CHECKS OMITTING EXCAVATED SLOTS ONLY.
8. END INSTALLATION AT UPSTREAM TERMINAL. TEMPORARY STAKING MAY BE PLACED TO BECOME PART OF PERMANENT STAKING PATTERN.

GENERAL NOTES:

1. WHEN METAL PINS WITH WASHERS ARE PERMITTED IN PLACE OF WOOD STAKES, THE METAL PINS ARE DRIVEN TO ASSURE THAT THE WASHERS WITH MAT UNDERNEATH ARE FLUSH WITH THE GROUND LEAVING NO PROJECTION OF THE PINS ABOVE THE GROUND LINE.
2. SOIL REINFORCING MAT SHALL BE USED WHERE SHOWN ON THE PLANS, OR AS DIRECTED BY THE ENGINEER.



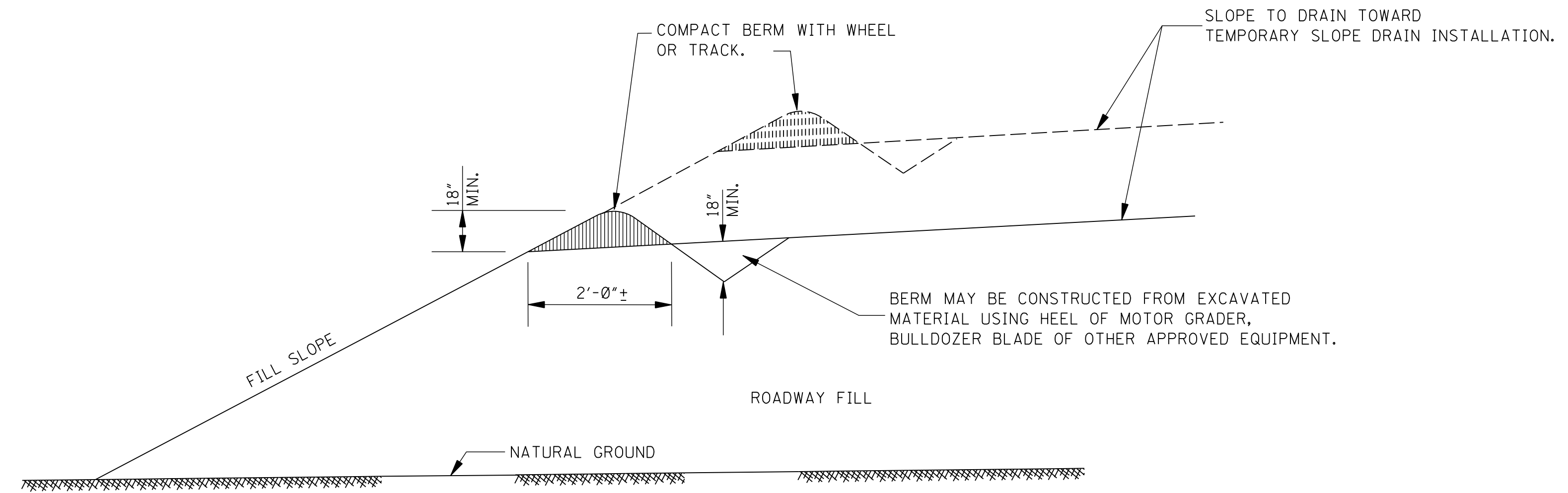
SEQUENTIAL ROLL RUN OUT IN DITCH WITH STAKING DETAIL



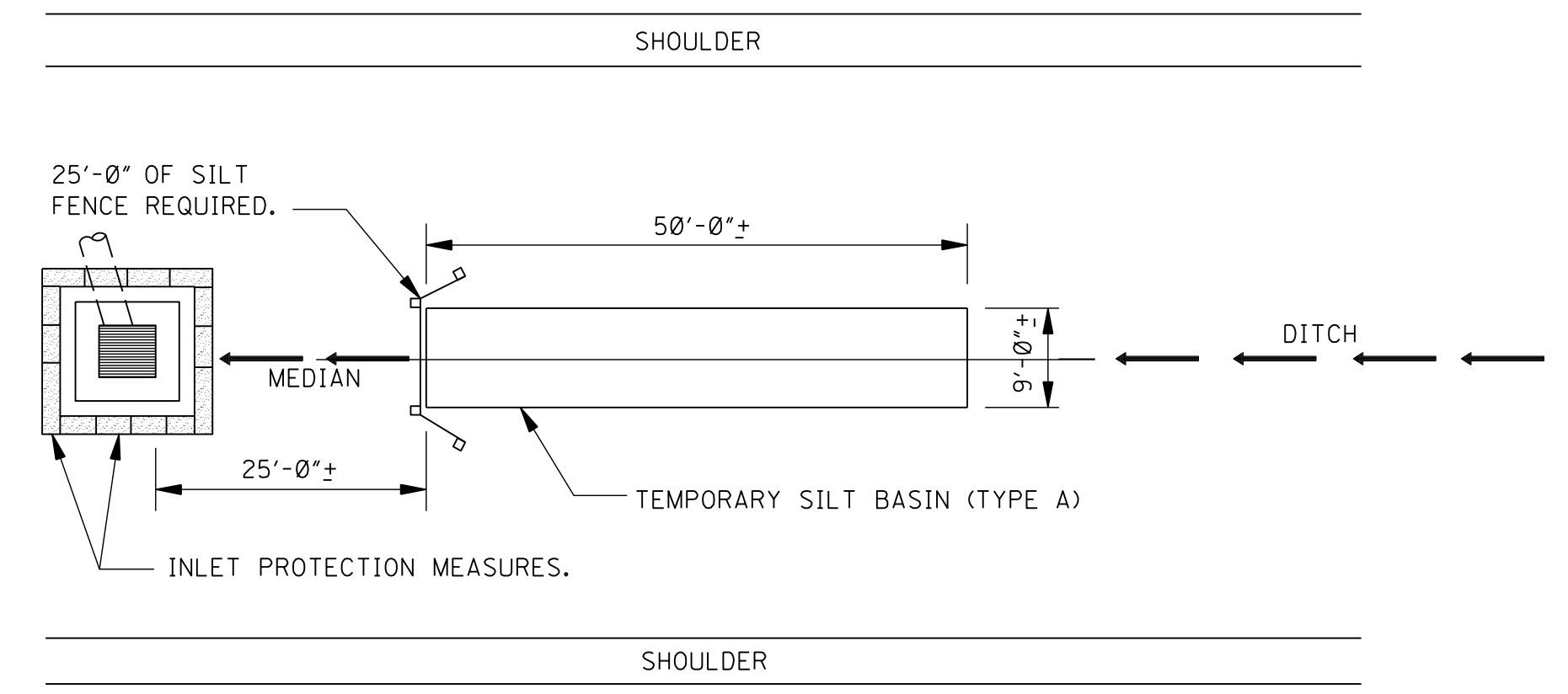
MULTI-WIDTH WELDED SEAM MAT RUN OUT IN DITCH WITH STAKING DETAIL

BY	MISSISSIPPI DEPARTMENT OF TRANSPORTATION ROADWAY DESIGN DIVISION STANDARD PLAN
REVISION	DITCH TREATMENT INSTALLATION DETAIL FOR SOIL REINFORCING MAT
DATE	ISSUE DATE: AUGUST 01, 2017

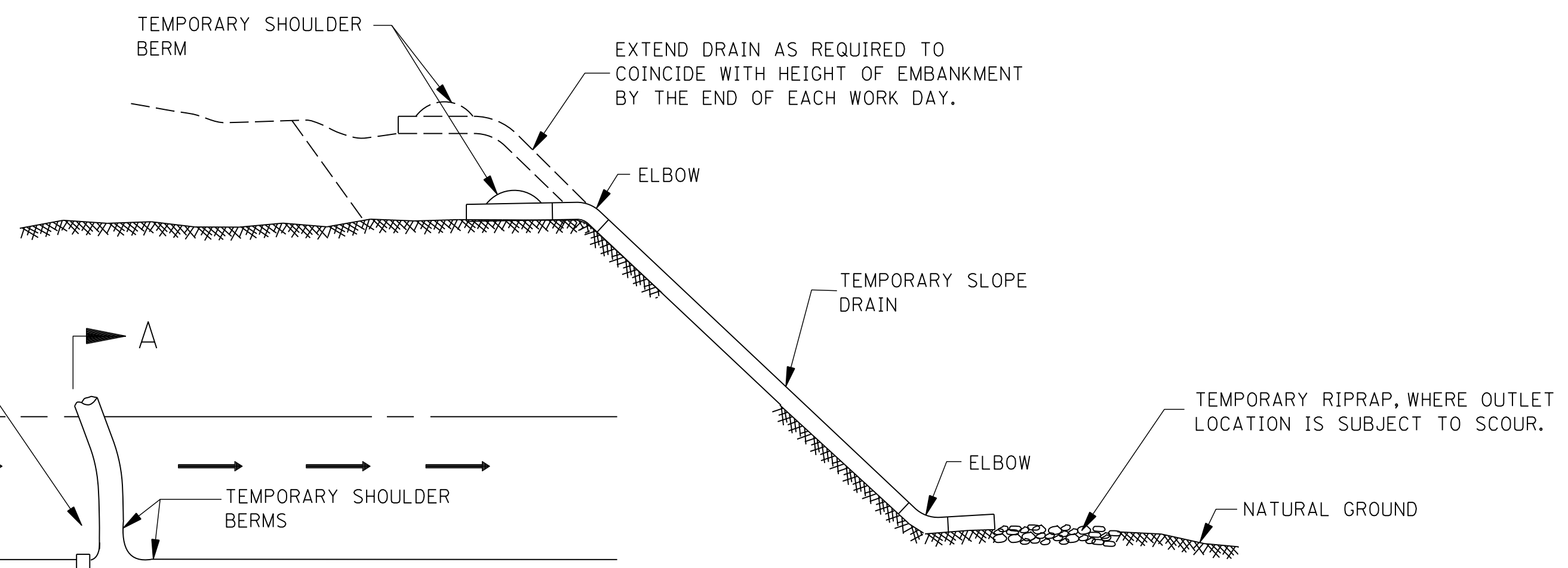
WORKING NUMBER
DT-1A
SHEET NUMBER
6124



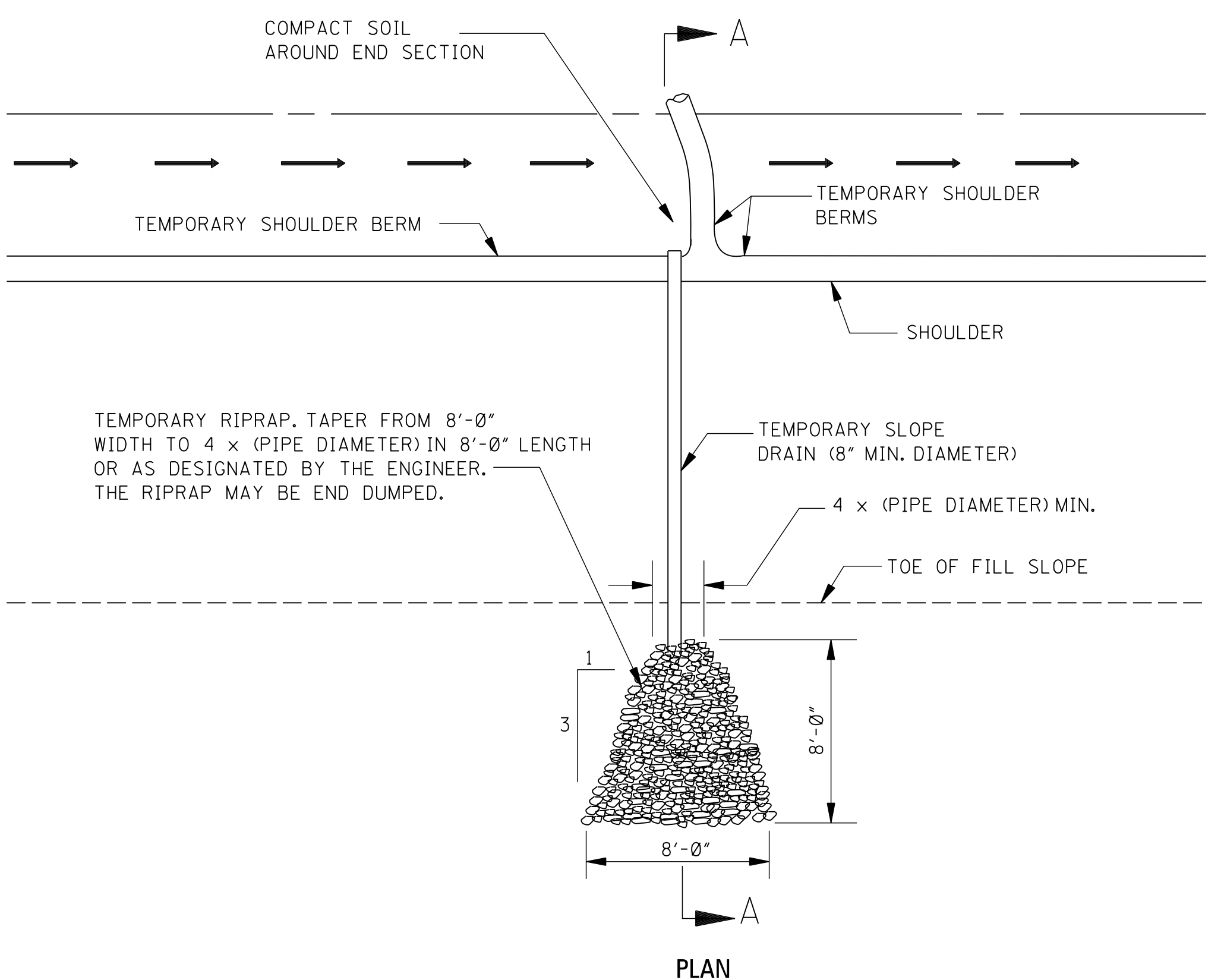
TEMPORARY SHOULDER BERM



TEMPORARY MEDIAN SILT BASIN (TYPE A)



SECTION A-A

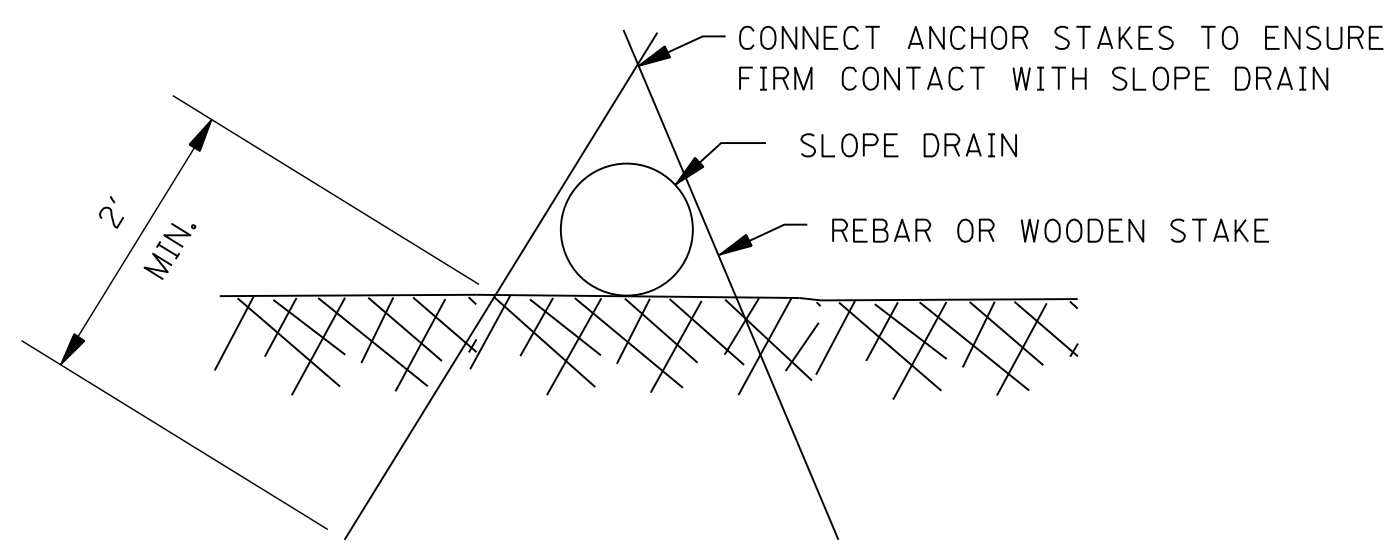


PLAN

TEMPORARY SLOPE DRAIN

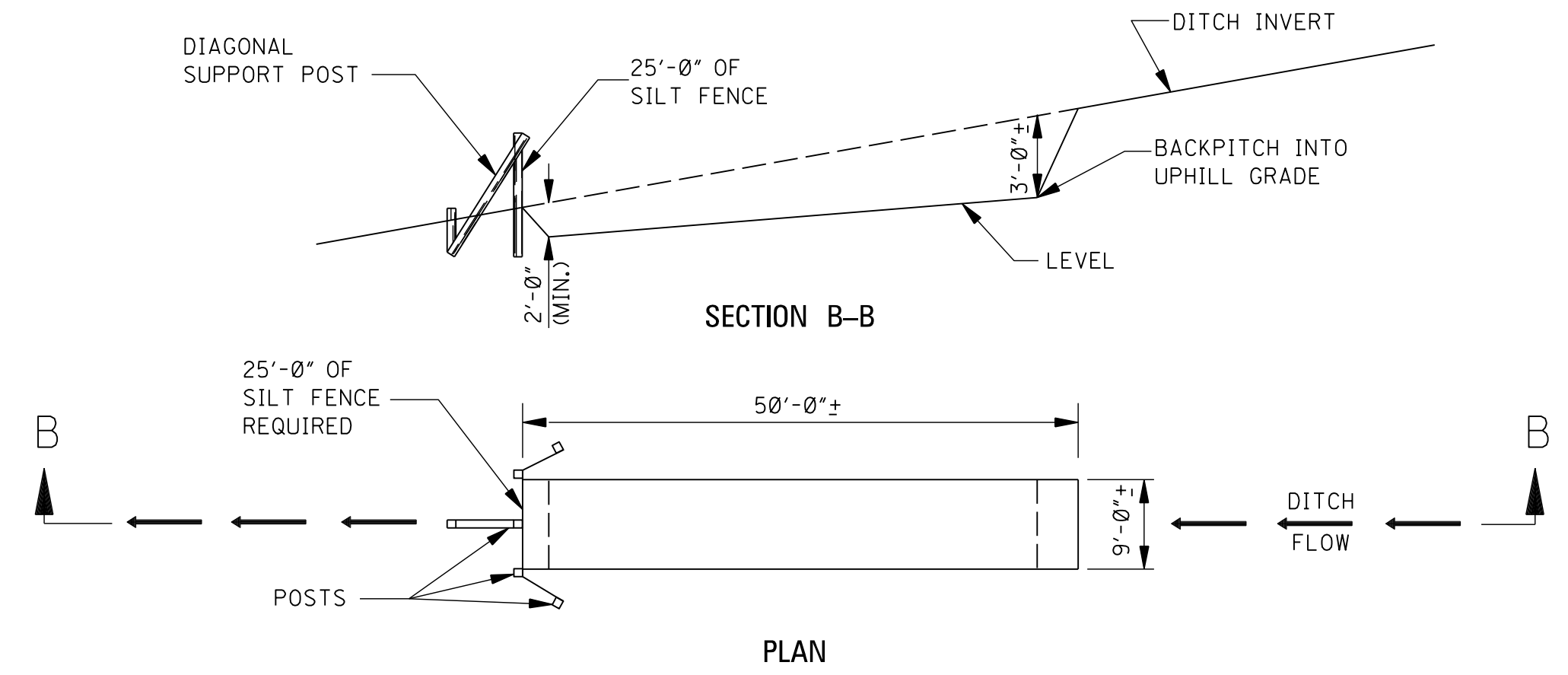
NOTE: TEMPORARY SLOPE DRAINS TO BE PLACED AT LOW POINT OF ALL SAG VERTICAL CURVES. INTERMEDIATE LOCATIONS TO BE PLACED AS DESIGNATED OR DEEMED APPROPRIATE BY THE CONTRACTOR AND APPROVED BY THE ENGINEER.

THE COST OF SHOULDER BERM, STAKING, AND OUTFLOW PROTECTION SHALL BE INCLUDED IN OTHER ITEMS BID.



RECOMMENDED ANCHOR DETAIL

NOTE: CONTRACTOR MAY PROPOSE ALTERNATE ANCHORING DETAIL. ENGINEER'S APPROVAL WILL BE BASED ON PERFORMANCE



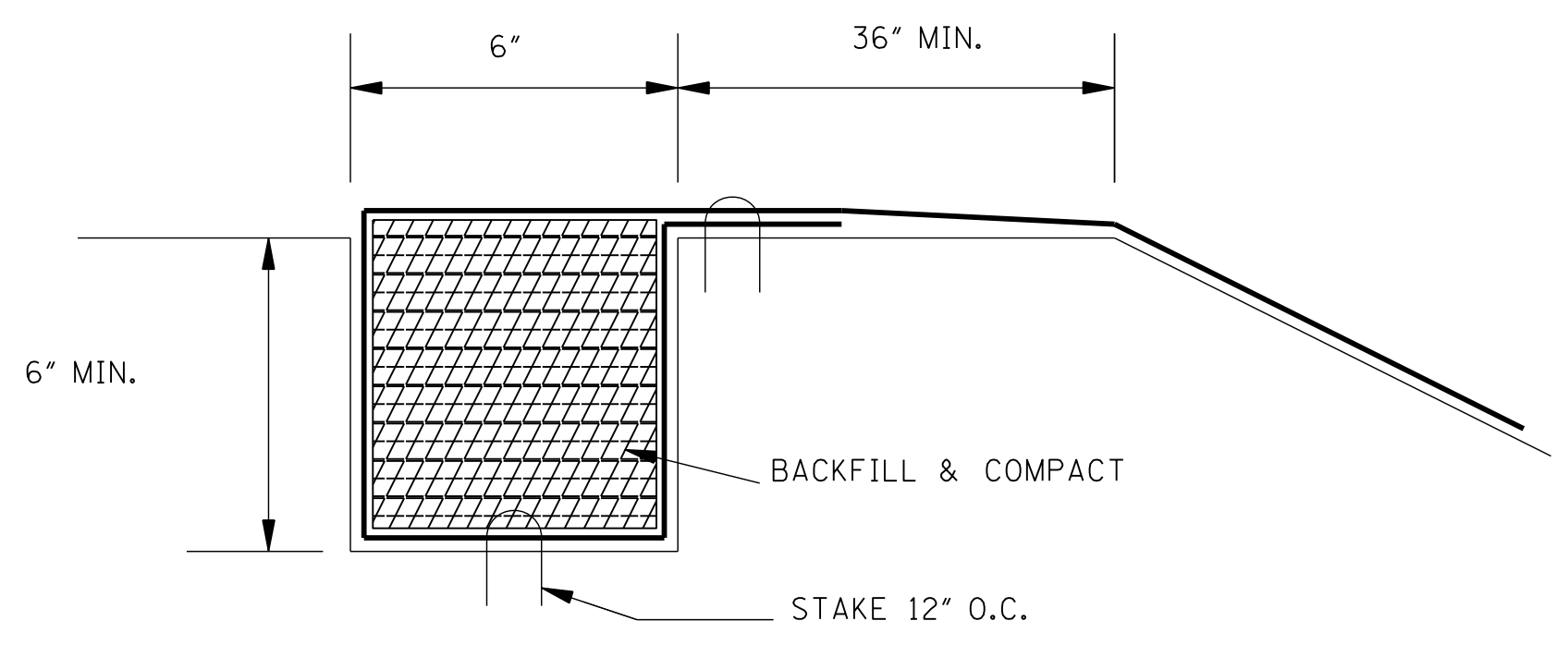
SECTION B-B

PLAN

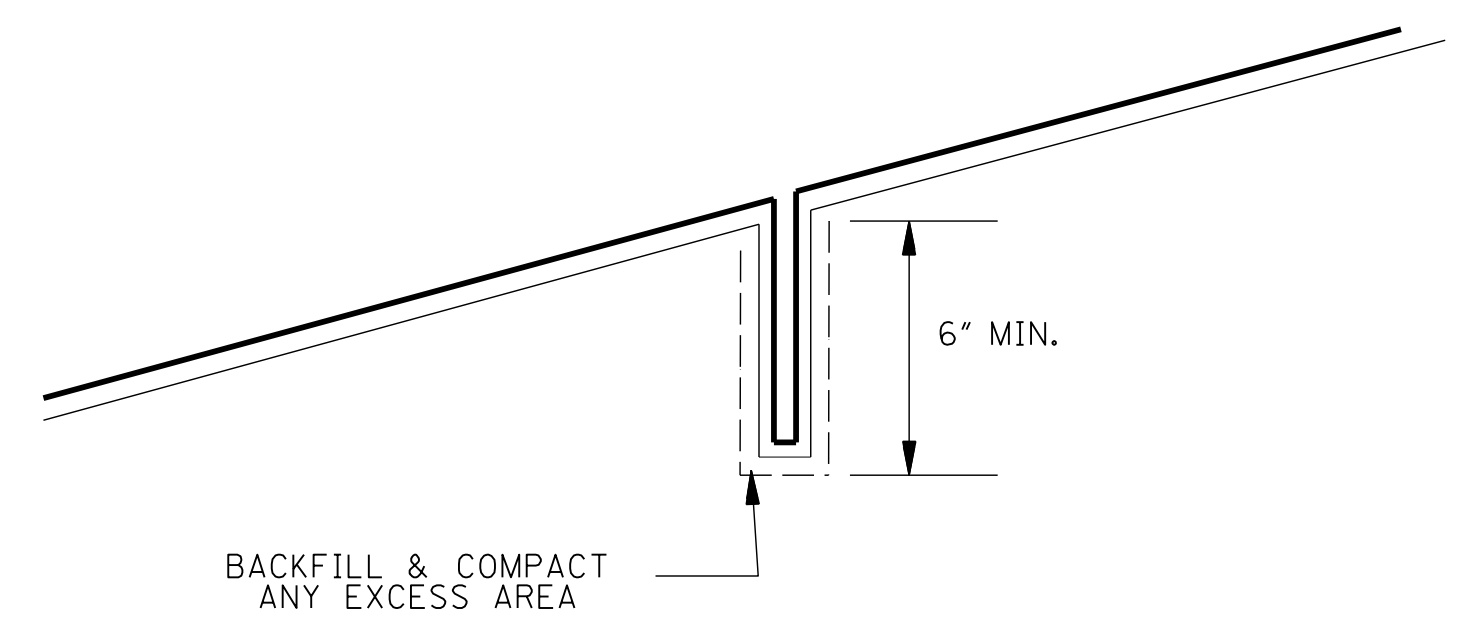
TEMPORARY SILT BASIN (TYPE A)

NOTE: TEMPORARY SILT BASIN (TYPE A) CAN BE USED IN SURFACE DRAIN DITCHES AND SIDE DITCHES AT THE END OF CUT SECTIONS, IMMEDIATELY PRECEDING DITCH INLETS AND JUST BEFORE THE WATER (RUNOFF) LEAVES THE RIGHT-OF-WAY OR ENTERS A WATER COURSE. TYPE A SILT BASINS WILL NOT BE MEASURED FOR SEPARATE PAYMENT.

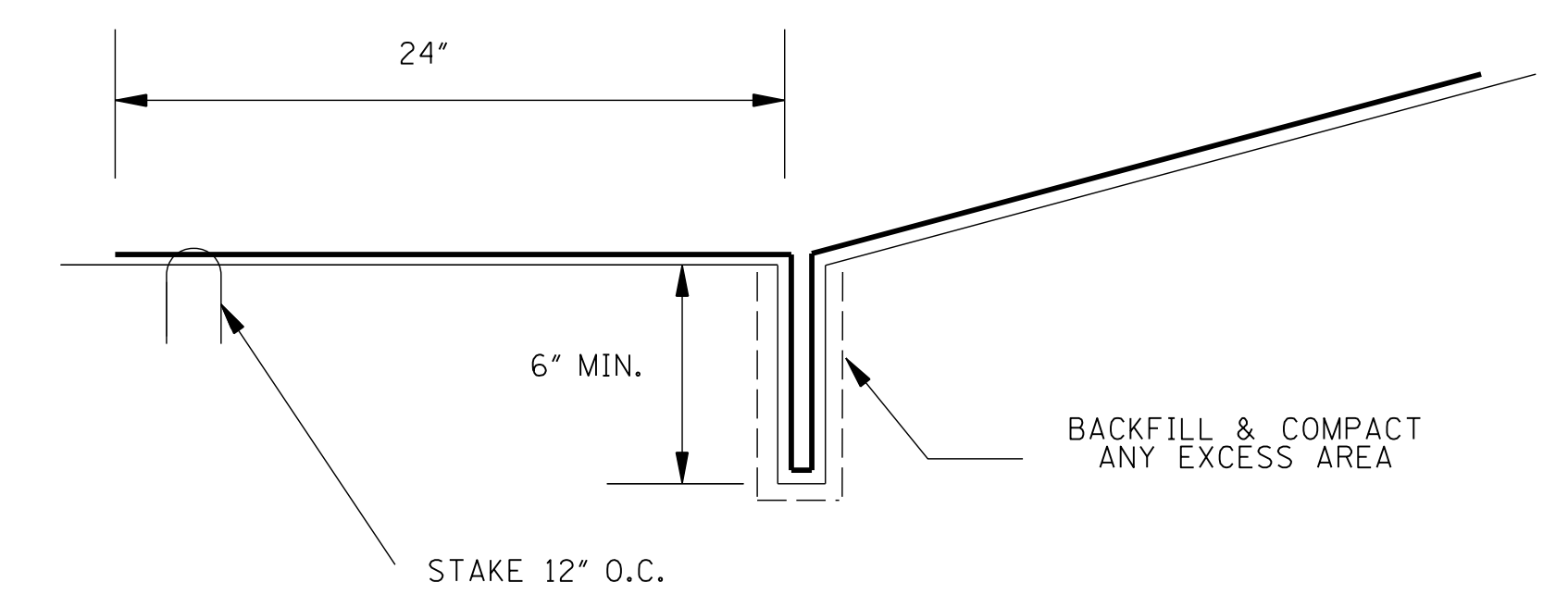
MISSISSIPPI DEPARTMENT OF TRANSPORTATION ROADWAY DESIGN DIVISION STANDARD PLAN	
TYPICAL TEMPORARY EROSION CONTROL MEASURES (SLOPE DRAIN AND TYPE A SILT BASIN)	
BY	
REVISION	
DATE	ISSUE DATE: AUGUST 01, 2017
WORKING NUMBER	BAS-A
SHEET NUMBER	6125



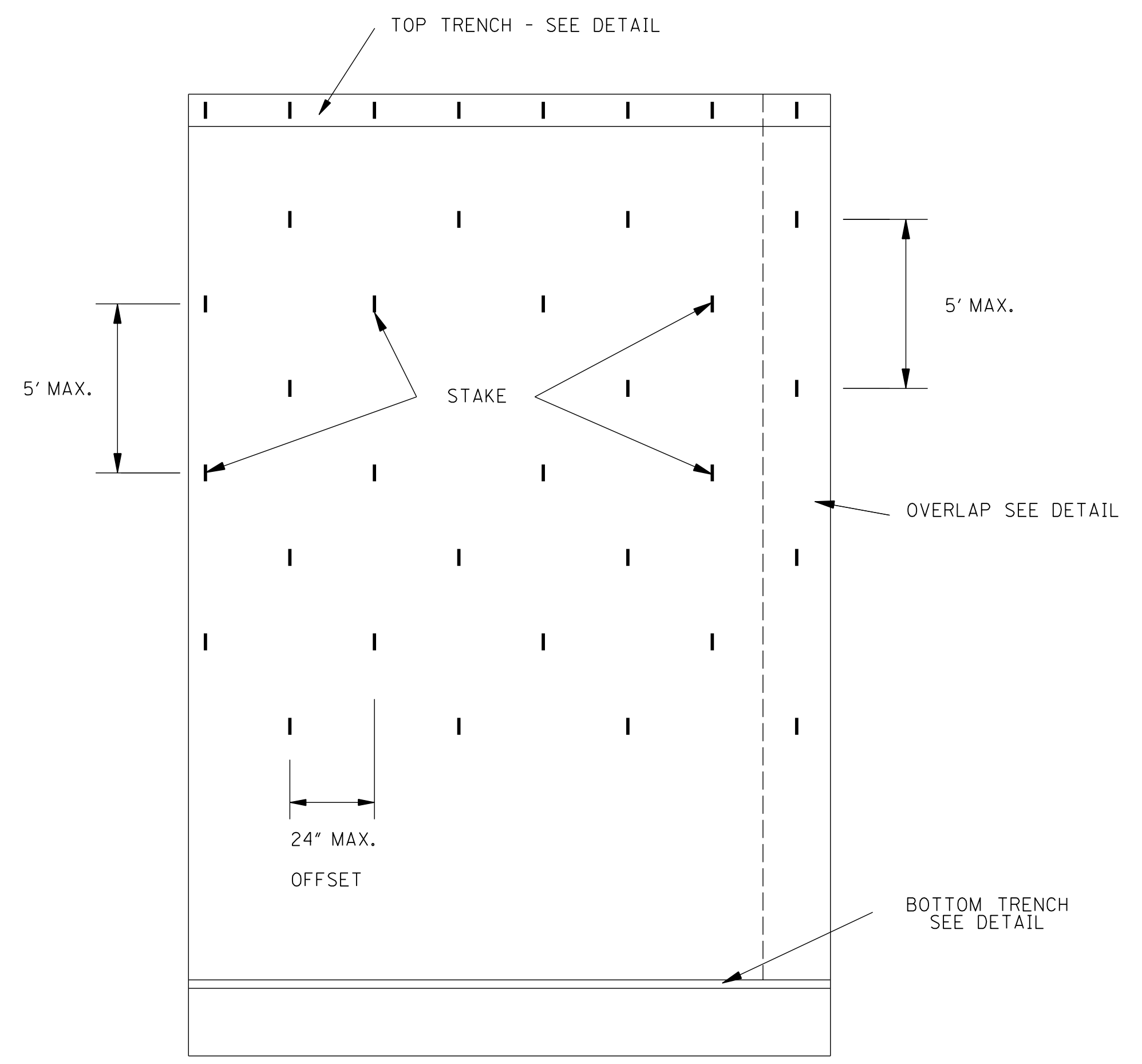
DETAIL OF TOP TRENCH



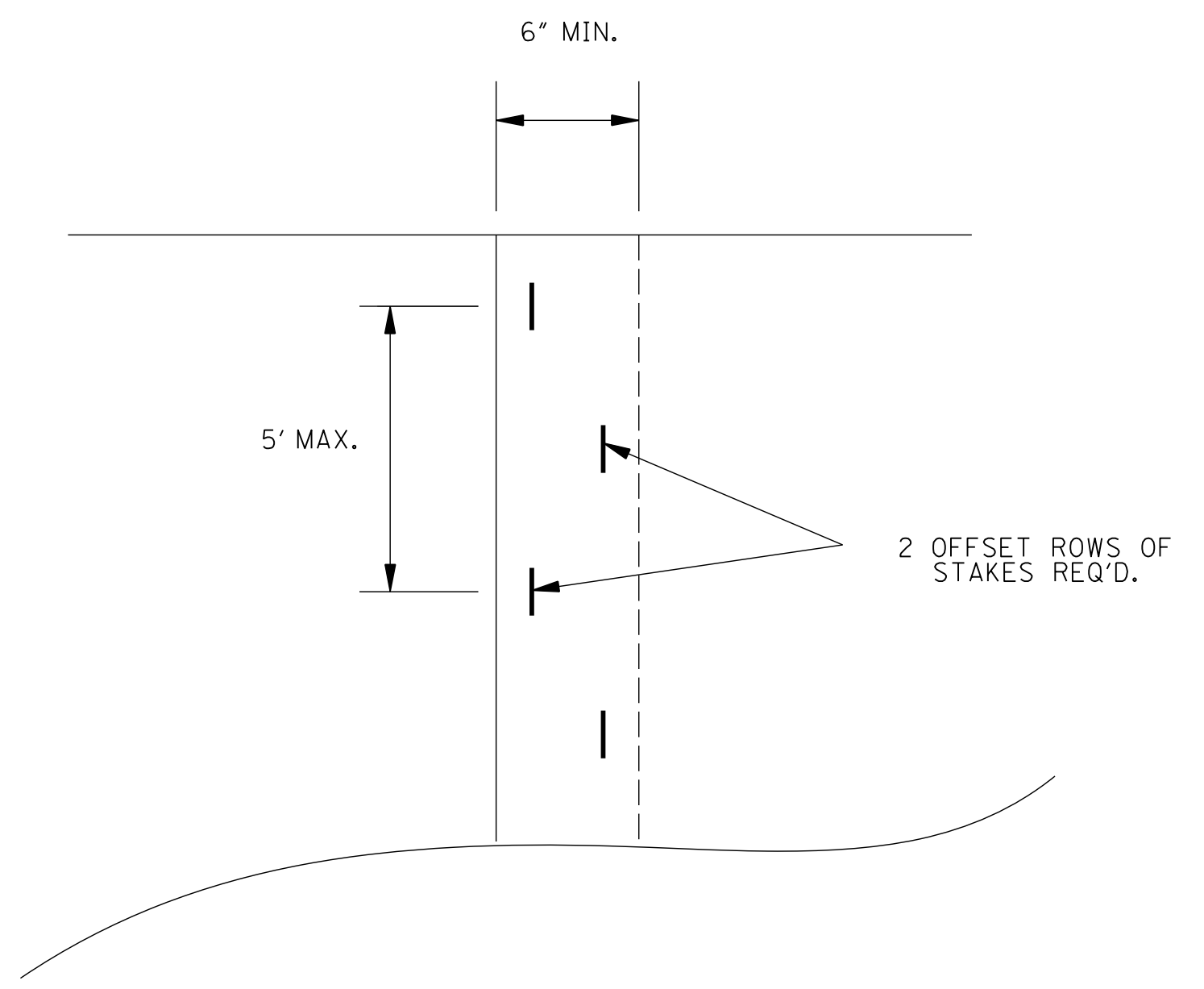
DETAIL OF INTERMEDIATE TRENCH



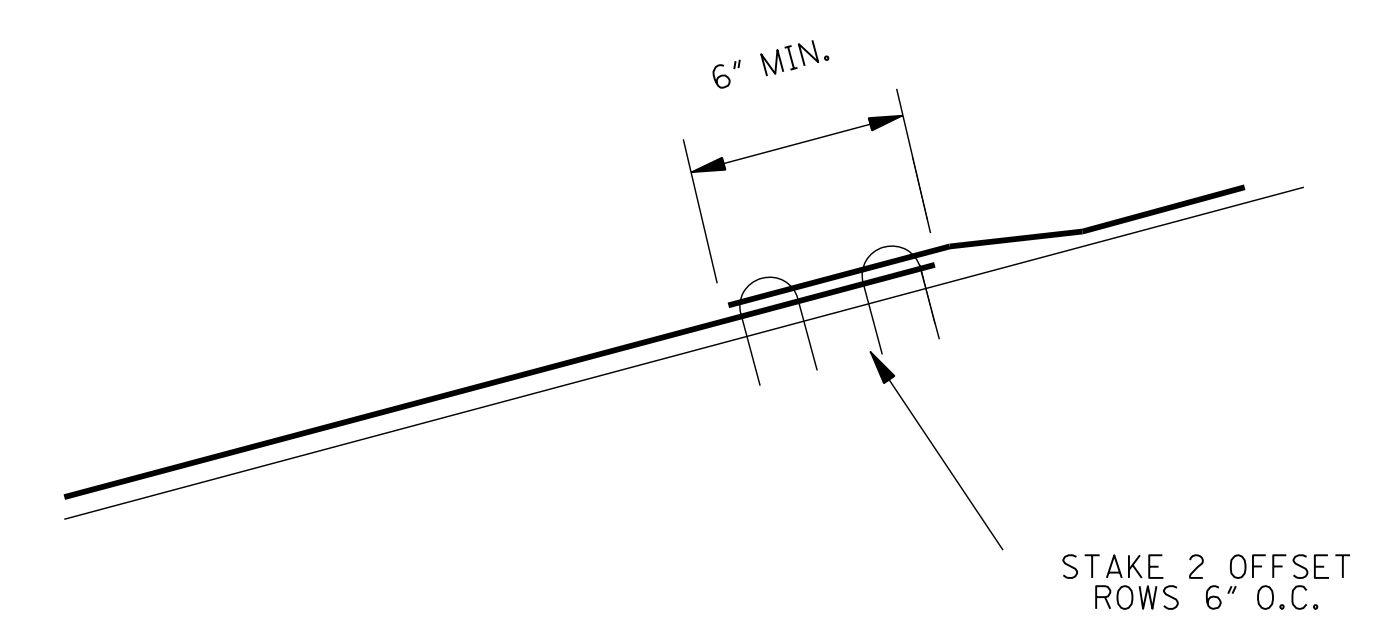
DETAIL OF BOTTOM TRENCH



DETAIL OF EROSION CONTROL BLANKET

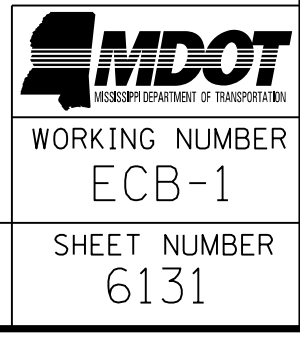


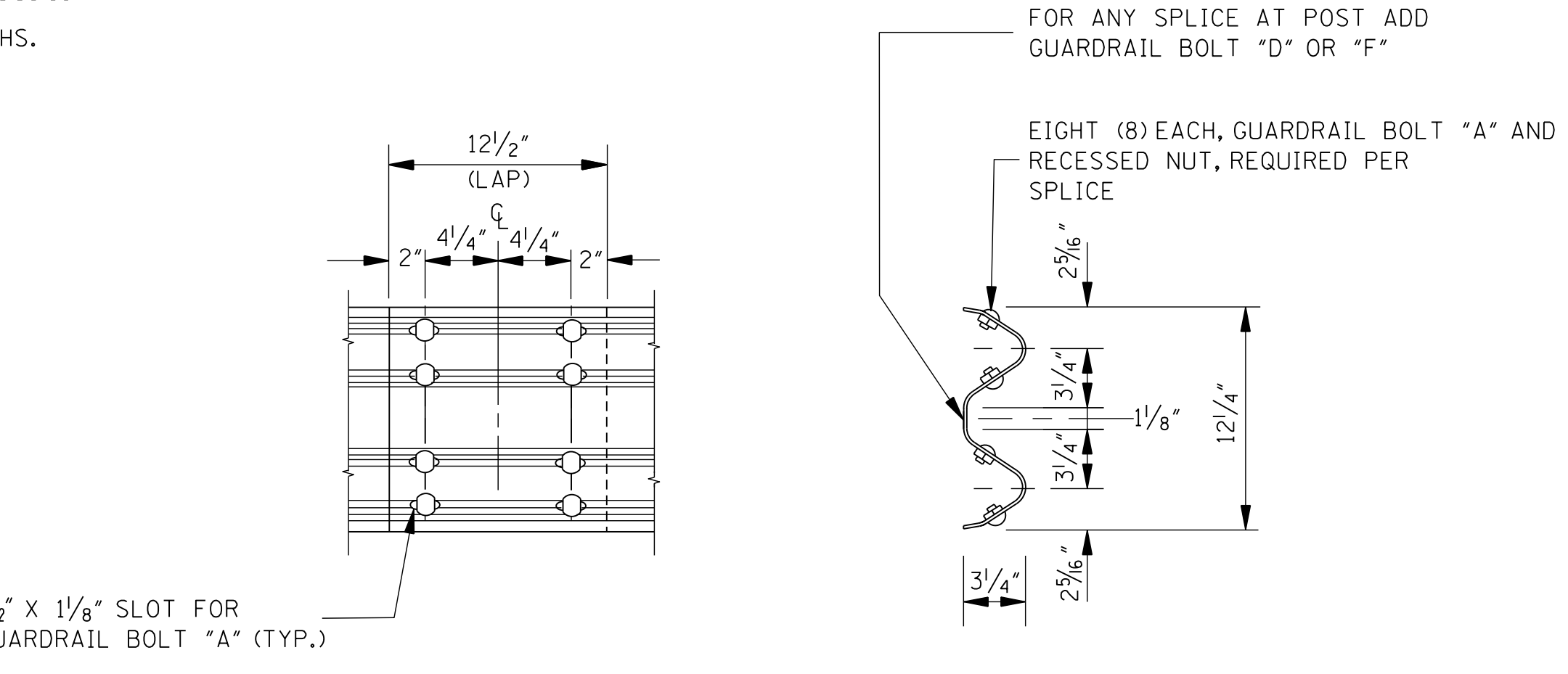
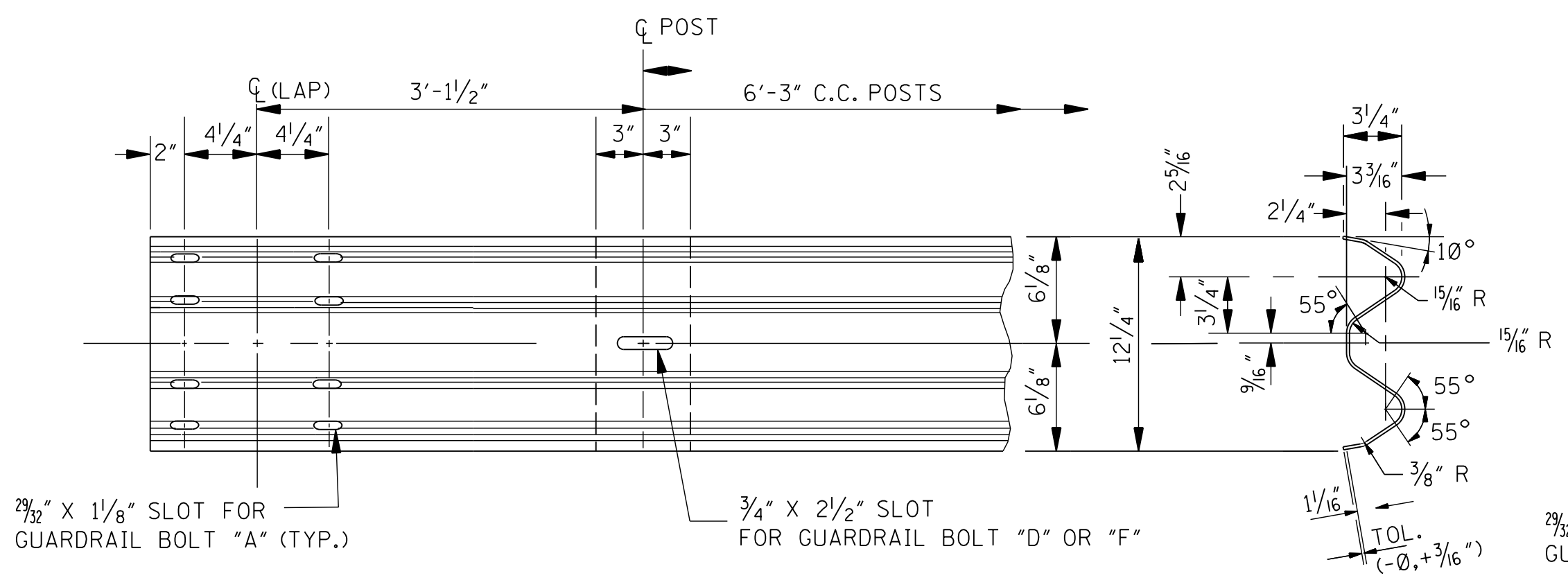
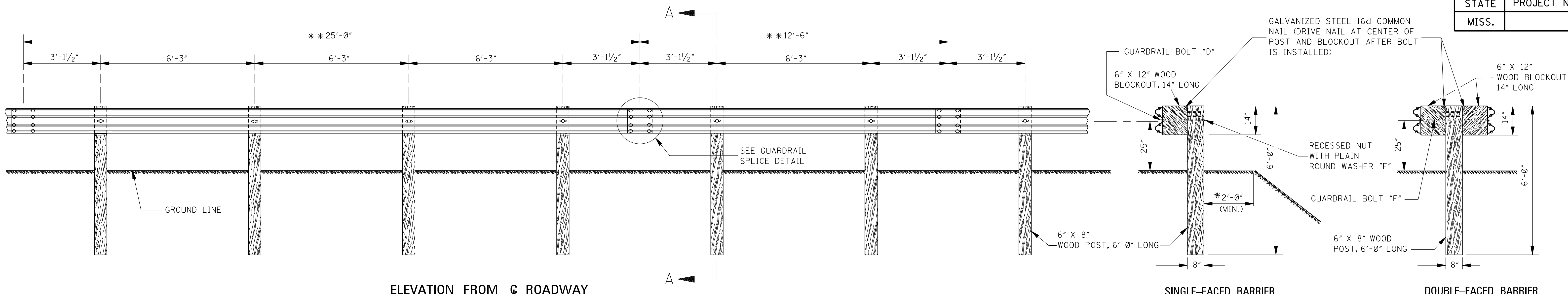
DETAIL OF LONGITUDINAL OVERLAP



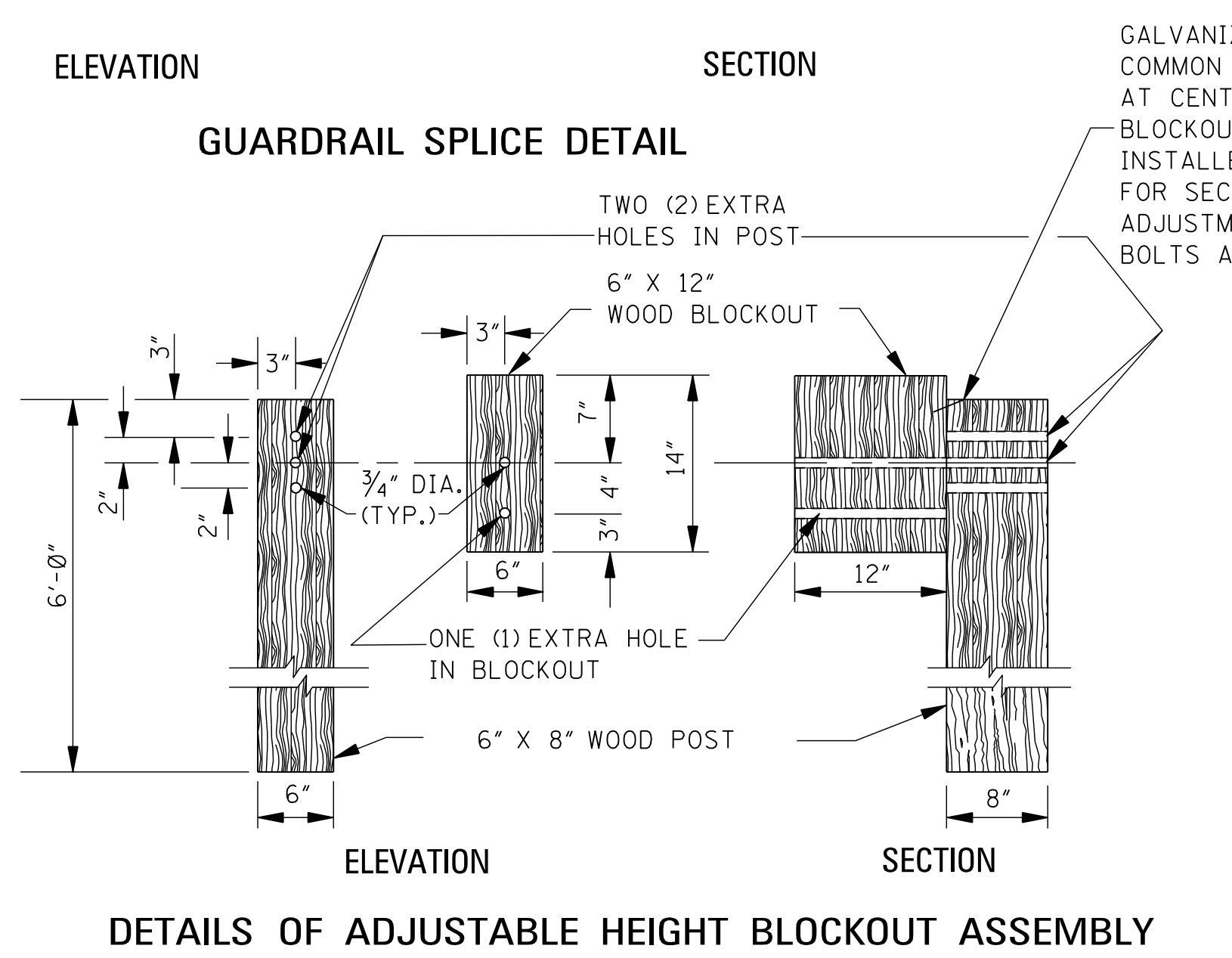
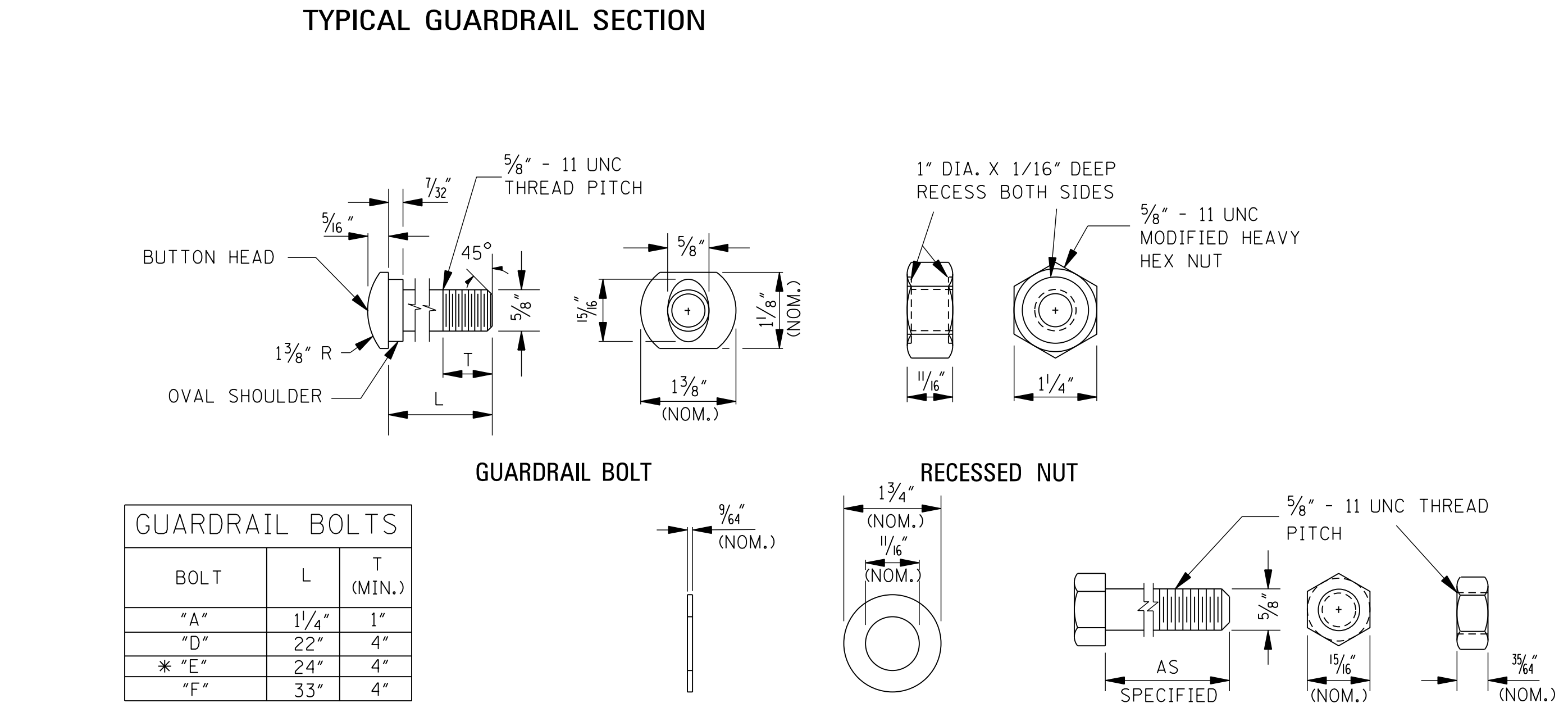
DETAIL OF TRANSVERSE OVERLAP

BY		MISSISSIPPI DEPARTMENT OF TRANSPORTATION ROADWAY DESIGN DIVISION STANDARD PLAN	
REVISION		EROSION CONTROL BLANKET	
DATE			
ISSUE DATE:		AUGUST 01, 2017	
WORKING NUMBER		ECB-1	
SHEET NUMBER		6131	





- GENERAL NOTES:**
- GUARDRAIL SHALL MEET THE REQUIREMENTS OF AASHTO M 180, CLASS A, TYPE 1 UNLESS OTHERWISE DESIGNATED.
 - GUARDRAIL SHALL BE SINGLE FACED UNLESS OTHERWISE DESIGNATED.
 - GUARDRAIL SECTIONS SHALL BE LAPPED IN THE DIRECTION OF TRAFFIC FLOW FOR THE LANE NEAREST THE GUARDRAIL. THE ONLY EXCEPTION NOTED IS THAT GUARDRAIL SHALL BE LAPPED FOR APPROACHING TRAFFIC ON A BRIDGE WITH 2-WAY TRAFFIC.
 - ALL WOOD POSTS AND BLOCKOUTS SHALL BE TREATED TIMBER IN ACCORDANCE WITH MISSISSIPPI DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS.
 - FOR OTHER DETAILS OF POSTS, POST ACCESSORIES, FASTENERS & RAIL ELEMENTS, SEE AASHTO-AGC-ARTBA JOINT TASK FORCE NO. 13, TITLED "A GUIDE TO STANDARDIZED HIGHWAY BARRIER HARDWARE," LATEST EDITION.



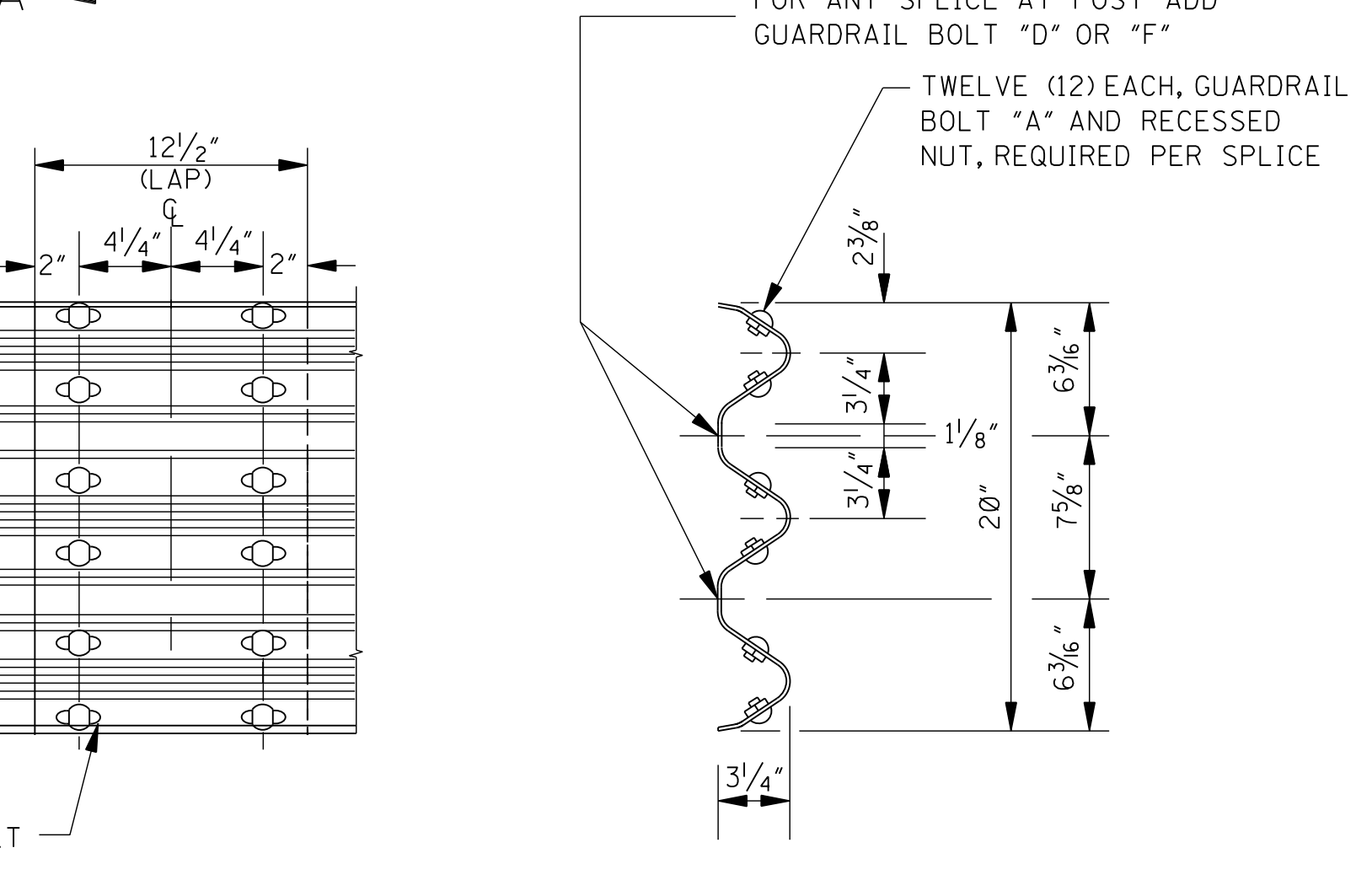
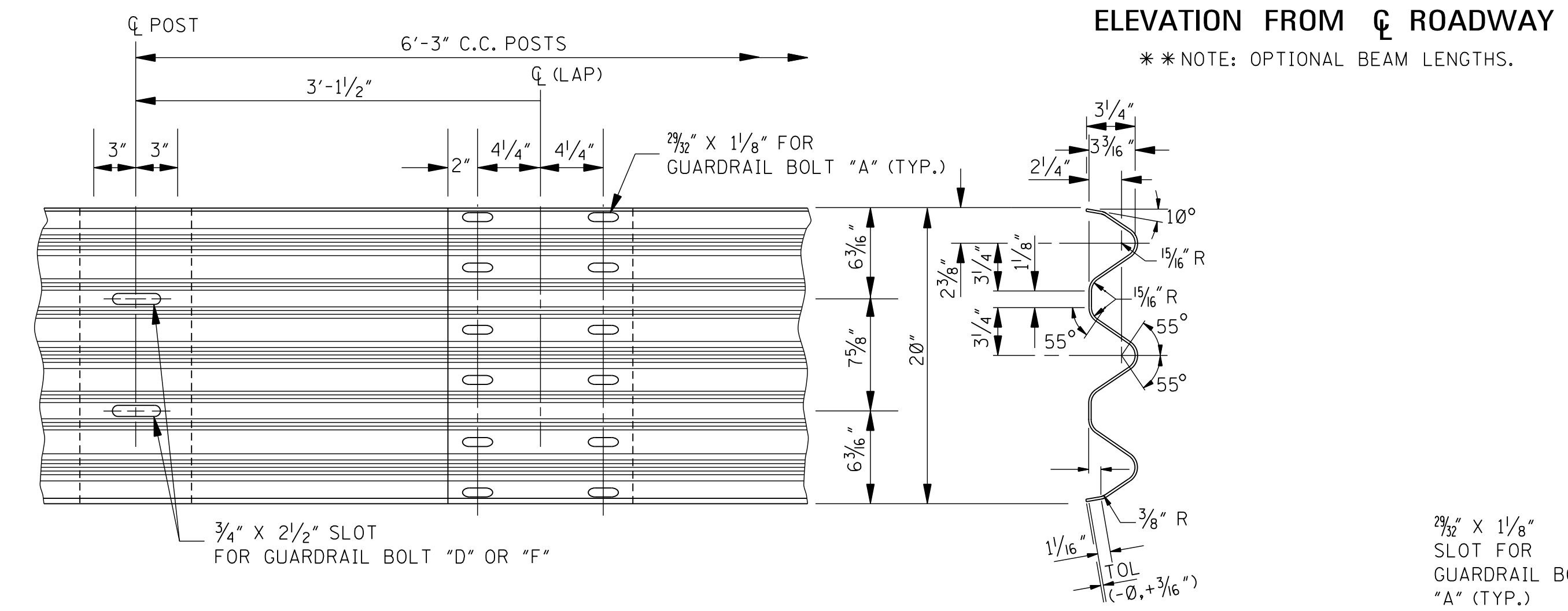
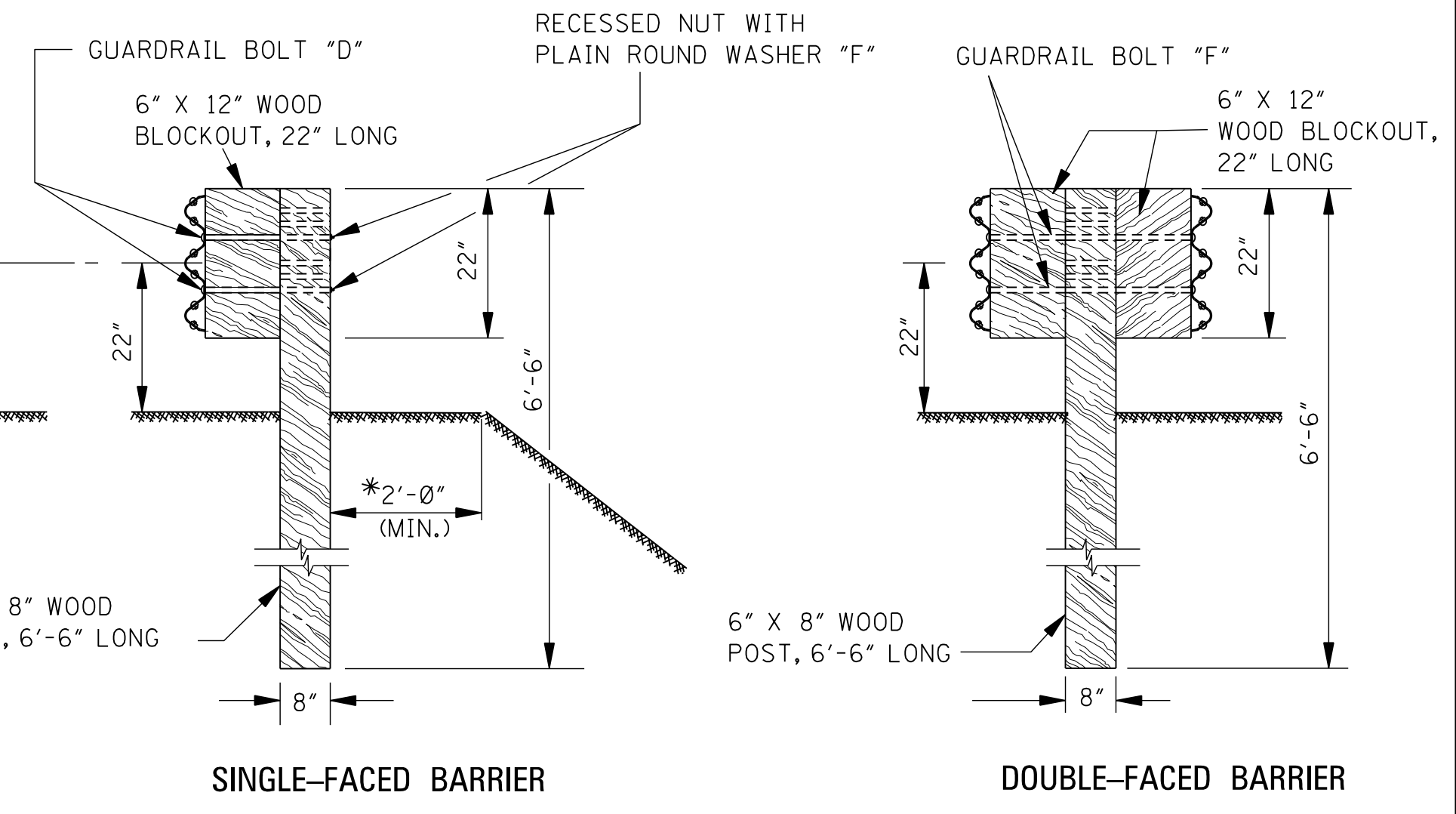
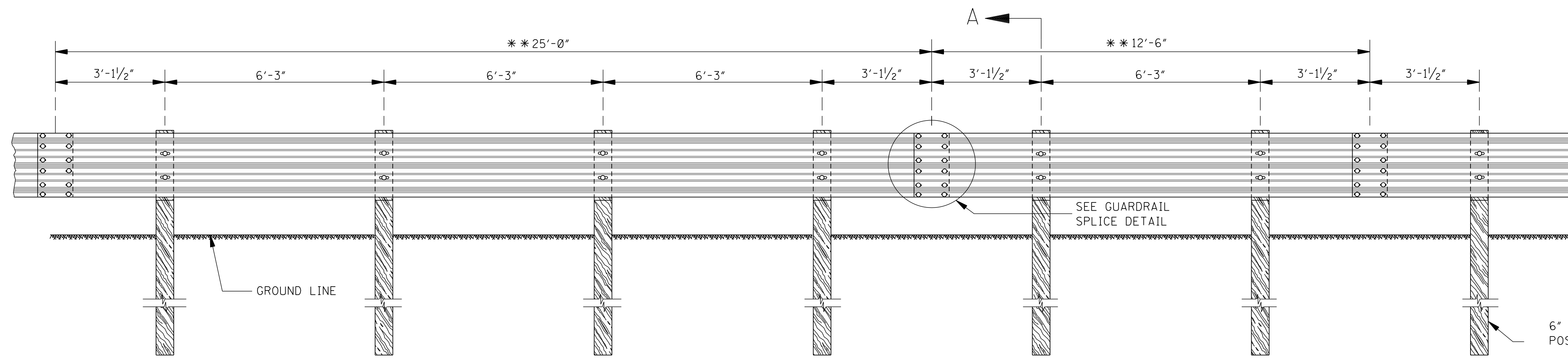
- NOTES:**
- ALL GUARDRAIL BOLTS ARE 5/8" - 11 UNC THREAD PITCH.
 - IF ANY BOLT EXTENDS MORE THAN 1/4" FROM THE NUT, THE BOLT SHOULD BE TRIMMED BACK.
 - GUARDRAIL BOLT "E" IS USED FOR SINGLE-FACED BARRIER WITH 10" X 10" WOOD POST AND 6" X 12" WOOD BLOCKOUT.

- NOTES:**
- ON INITIAL INSTALLATION, THE BLOCKOUT SHALL BE ATTACHED TO THE BOTTOM HOLE IN THE POST, OTHER HOLES IN THE POST AND BLOCKOUT ARE FOR FUTURE 2" HEIGHT ADJUSTMENT WHEN THE ROADWAY IS RESURFACED.
 - FOR THE SECOND HEIGHT ADJUSTMENT, ONE (1) HEX NUT AND BOLT "D", 22" LONG FOR SINGLE-FACED BARRIER OR BOLT "F", 33" LONG FOR DOUBLE-FACED BARRIER, WITH TWO (2) PLAIN ROUND WASHERS "F", ONE (1) UNDER HEAD AND ONE (1) UNDER NUT, ARE REQUIRED PER POST IN ADDITION TO THE STANDARD GUARDRAIL BOLT AND RECESSED NUT.
 - HOLE DETAILS ARE REQUIRED ON ALL WOOD POSTS AND BLOCKOUTS.
 - WOOD POSTS ARE FABRICATED FROM 6" X 8" TREATED TIMBER AND BLOCKOUTS ARE FABRICATED FROM 6" X 12" TREATED TIMBER UNLESS SPECIFIED OTHERWISE ON THE PLANS.
 - ALL HOLES IN BOTH POSTS AND BLOCKOUTS ARE 3/4" IN DIAMETER.

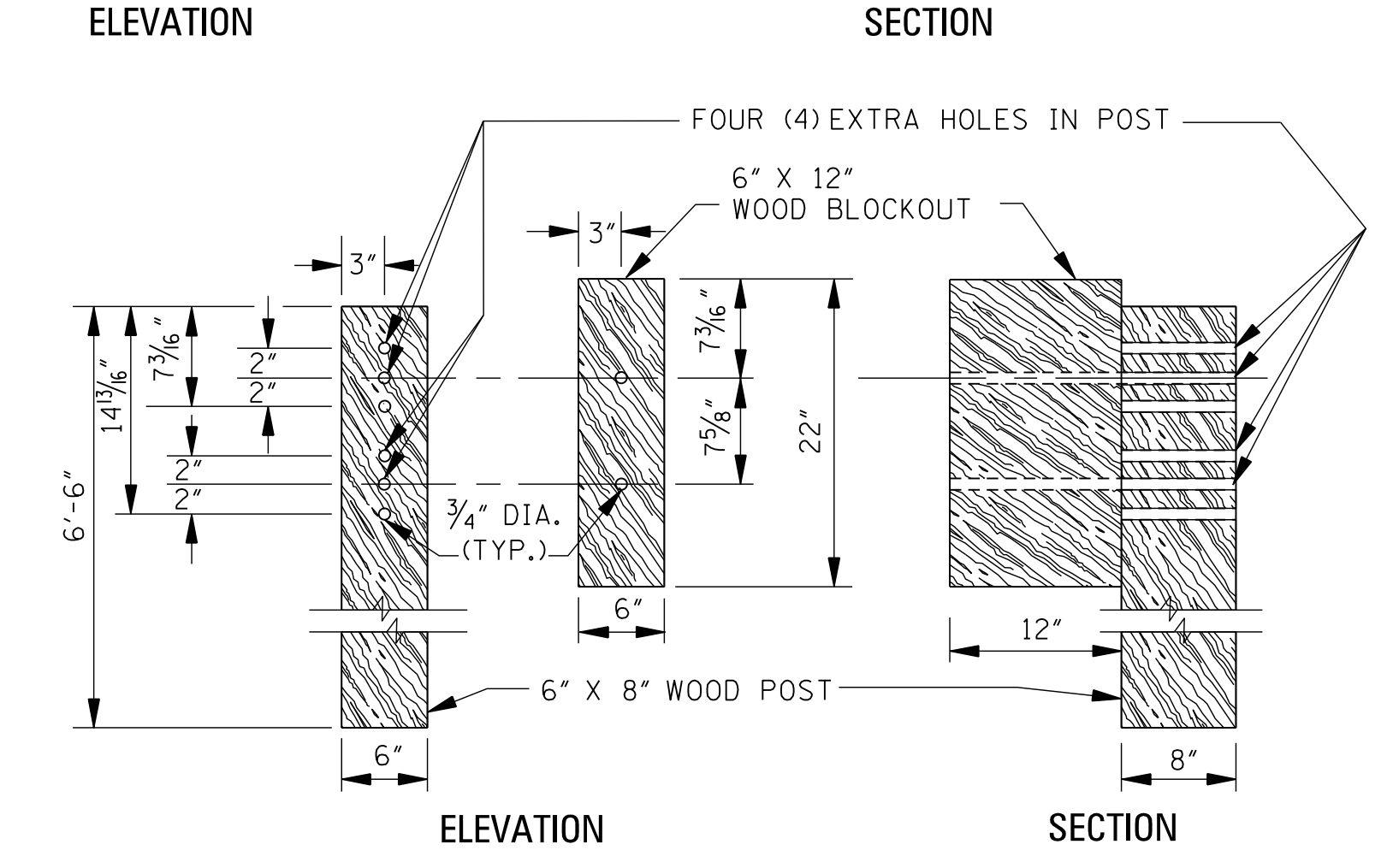
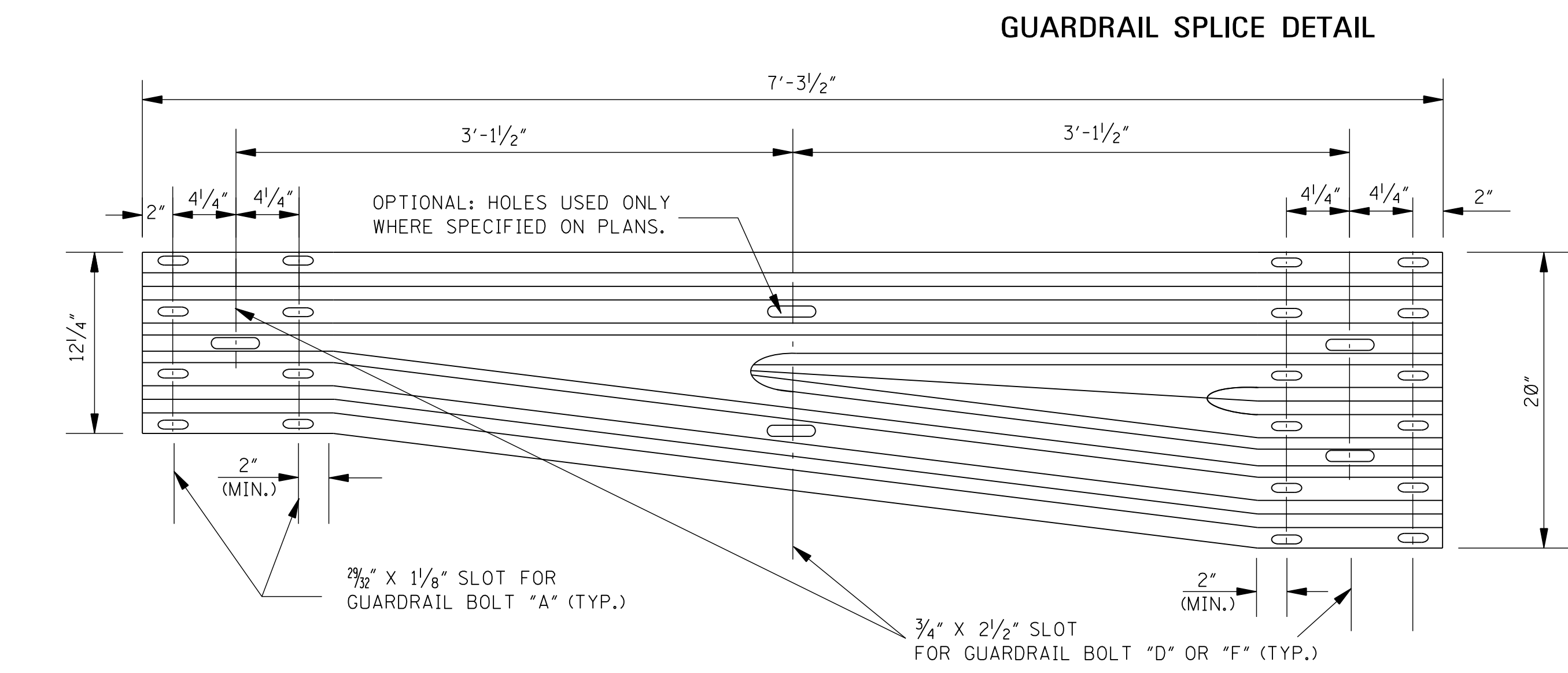
BY	MISSISSIPPI DEPARTMENT OF TRANSPORTATION ROADWAY DESIGN DIVISION STANDARD PLAN
REVISION	
DATE	ISSUE DATE: AUGUST 01, 2017

**GUARDRAIL:
"W" BEAM
(WOOD POSTS)**

WORKING NUMBER	GR-1
SHEET NUMBER	6201



TYPICAL GUARDRAIL SECTION




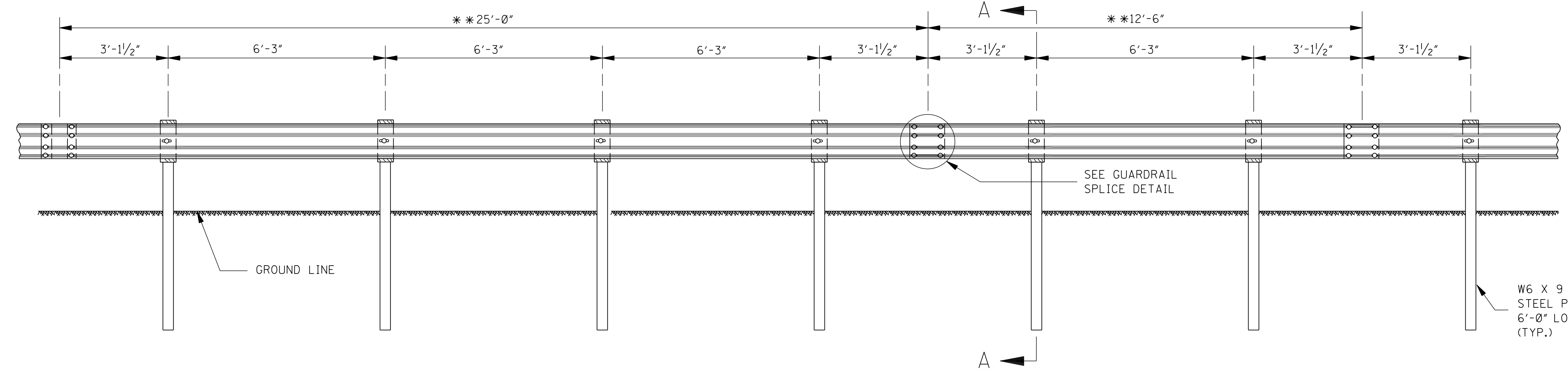
"W" THRIE-BEAM TRANSITION SECTION
NOTE: THE CROSS-SECTIONAL DIMENSIONS FOR THE "W" AND THRIE BEAM ENDS OF THE TRANSITION SECTION ARE THE SAME AS THEIR RESPECTIVE TYPICAL GUARDRAIL SECTIONS.

DETAILS OF ADJUSTABLE HEIGHT BLOCKOUT ASSEMBLY

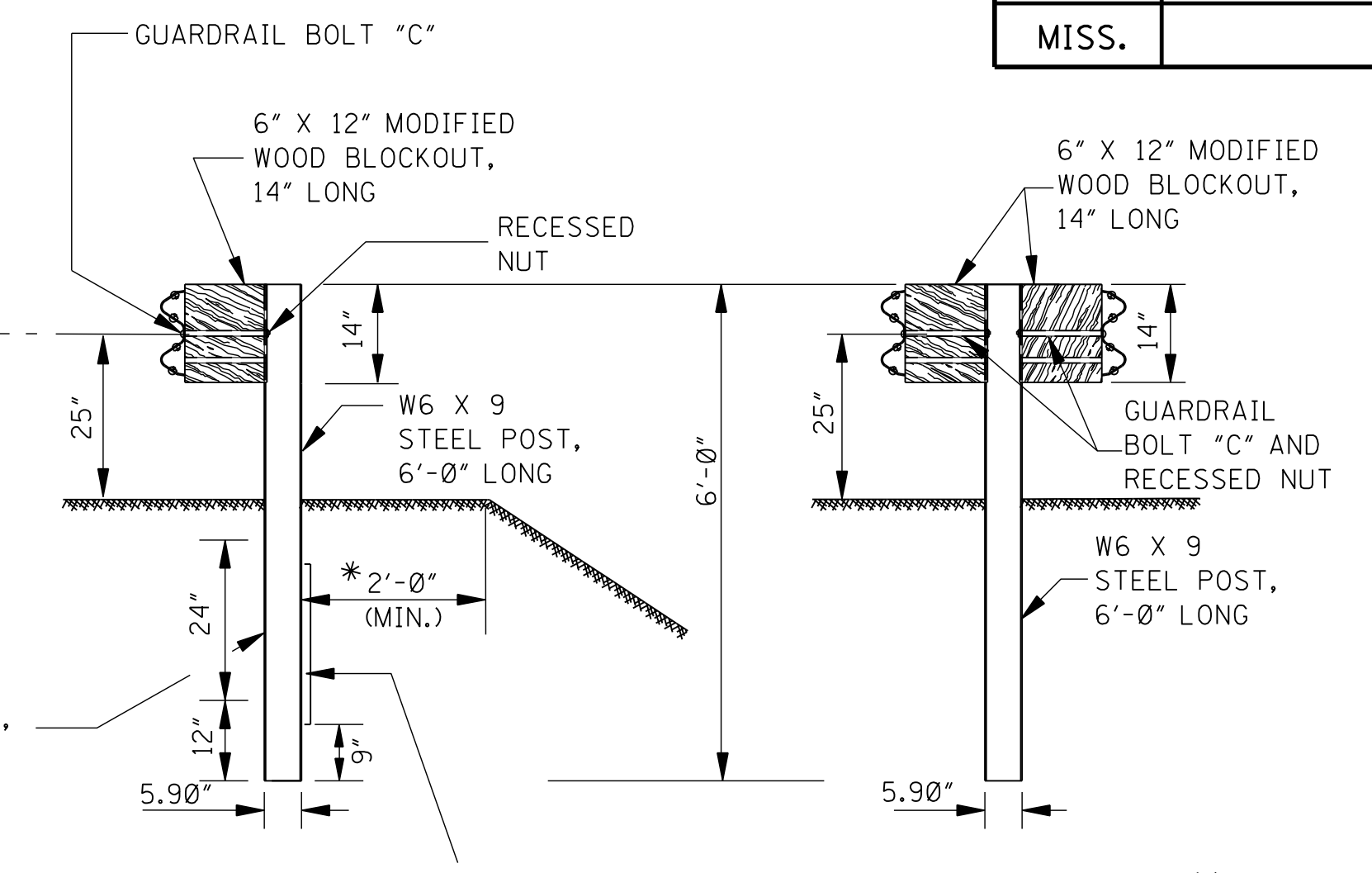
- NOTES:
- ON INITIAL INSTALLATION, THE TOP OF THE BLOCKOUT SHALL BE FLUSH WITH THE TOP OF THE POST. THE ADDITIONAL HOLES IN THE POST AND BLOCKOUT ARE FOR FUTURE 2" HEIGHT ADJUSTMENTS WHEN THE ROADWAY IS RESURFACED.
 - HOLE DETAILS ARE REQUIRED ON ALL WOOD POSTS AND BLOCKOUTS.
 - WOOD POSTS ARE FABRICATED FROM 6" X 8" TREATED TIMBER AND BLOCKOUTS ARE FABRICATED FROM 6" X 12" TREATED TIMBER UNLESS SPECIFIED OTHERWISE ON THE PLANS.
 - ALL HOLES IN BOTH POSTS AND BLOCKOUTS ARE 3/4" IN DIAMETER.

- GENERAL NOTES:
- GUARDRAIL SHALL MEET THE REQUIREMENTS OF AASHTO M 180, CLASS A, TYPE 1 UNLESS OTHERWISE DESIGNATED.
 - GUARDRAIL SHALL BE SINGLE FACED UNLESS OTHERWISE DESIGNATED.
 - GUARDRAIL SECTIONS SHALL BE LAPPED IN THE DIRECTION OF TRAFFIC FLOW FOR THE LANE NEAREST THE GUARDRAIL. THE ONLY EXCEPTION NOTED IS THAT GUARDRAIL SHALL BE LAPPED FOR APPROACHING TRAFFIC ON A BRIDGE WITH 2-WAY TRAFFIC.
 - ALL WOOD POSTS AND BLOCKOUTS SHALL BE TREATED TIMBER IN ACCORDANCE WITH MISSISSIPPI DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS.
 - FOR FASTENER DETAILS NOT FOUND ON THIS SHEET, SEE SHEET GR-1.
 - FOR OTHER DETAILS OF POSTS, POST ACCESSORIES, FASTENERS & RAIL ELEMENTS, SEE AASHTO-AGC-ARTBA JOINT TASK FORCE NO. 13, TITLED "A GUIDE TO STANDARDIZED HIGHWAY BARRIER HARDWARE," LATEST EDITION.

BY		MISSISSIPPI DEPARTMENT OF TRANSPORTATION ROADWAY DESIGN DIVISION STANDARD PLAN	
REVISION		<p>GUARDRAIL: THRIE BEAM (WOOD POSTS)</p> 	
DATE	ISSUE DATE: AUGUST 01, 2017		
		WORKING NUMBER GR-1A	SHEET NUMBER 6202

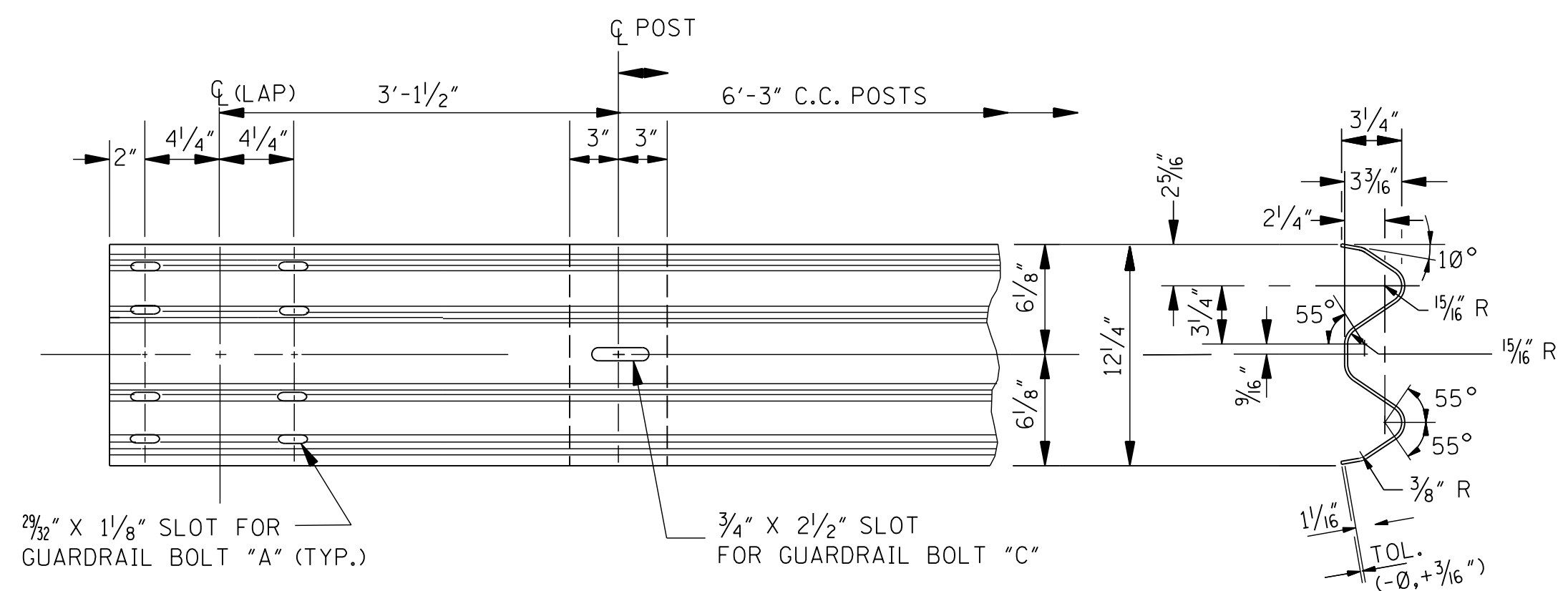


ELEVATION FROM ϕ ROADWAY
 ** NOTE: OPTIONAL BEAM LENGTHS.

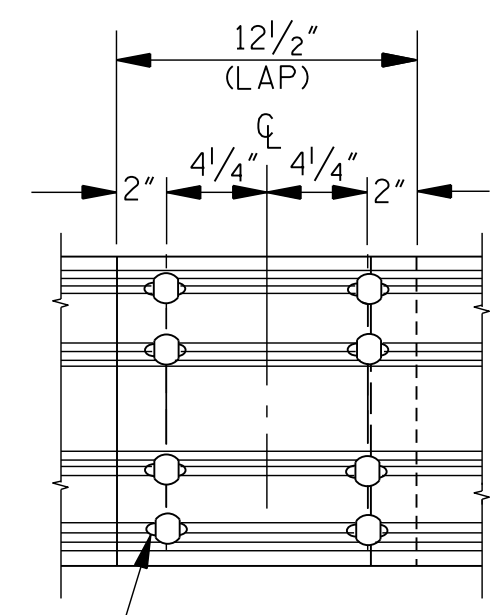


SINGLE-FACED BARRIER **DOUBLE-FACED BARRIER**
SECTION A-A
 * NOTE: UNLESS SPECIFIED OTHERWISE ON THE PLANS.

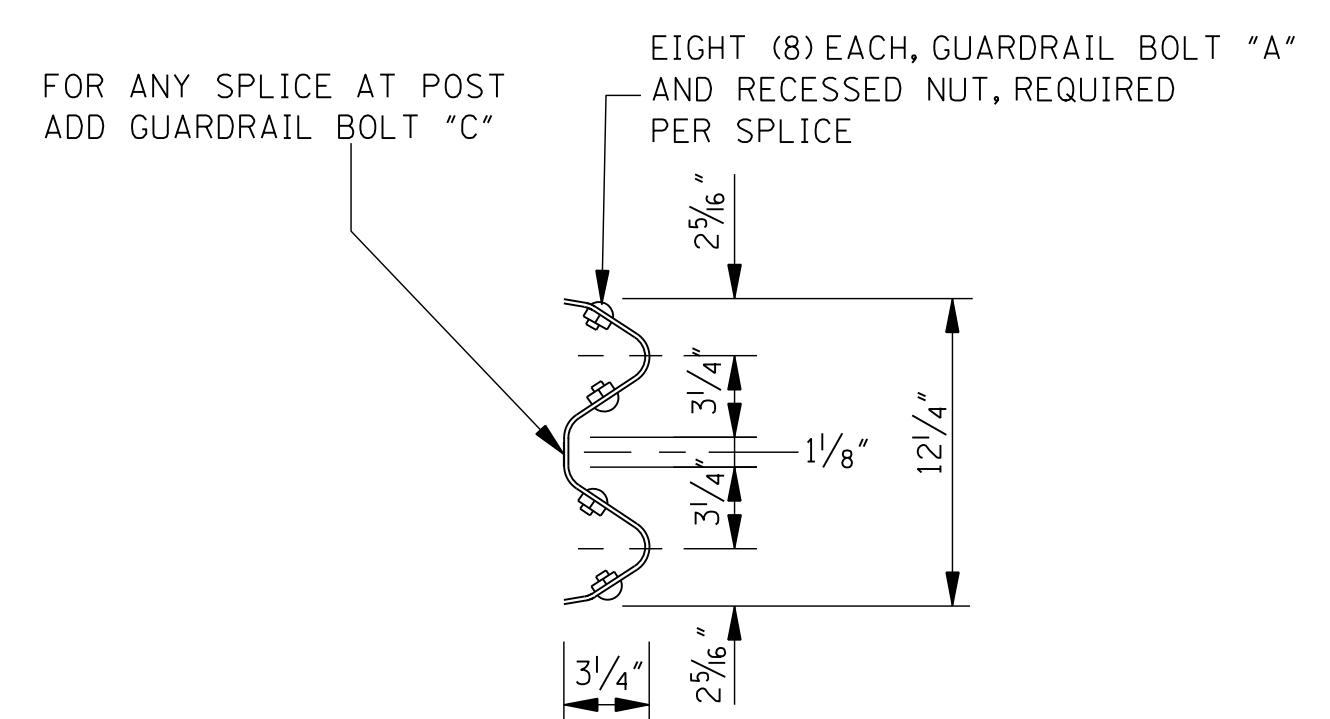
OPTIONAL: 24" X 12" STEEL SOIL BEARING PLATE, 1/4" THICK, WELDED TO POST WHERE SPECIFIED ON PLANS. WELD TOP, BOTTOM AND THREE 3" WELDS ON EACH SIDE.



TYPICAL GUARDRAIL SECTION

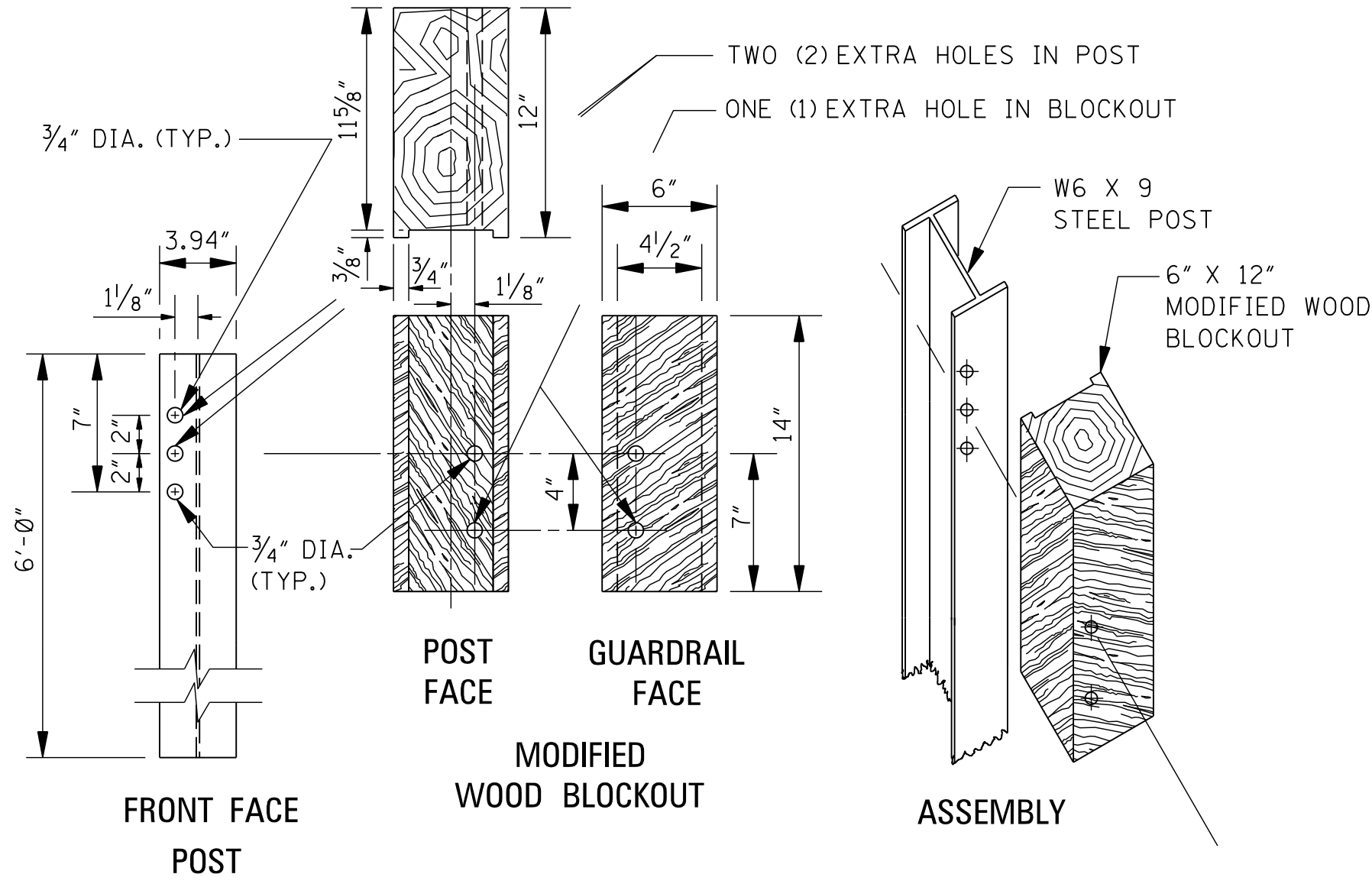


ELEVATION

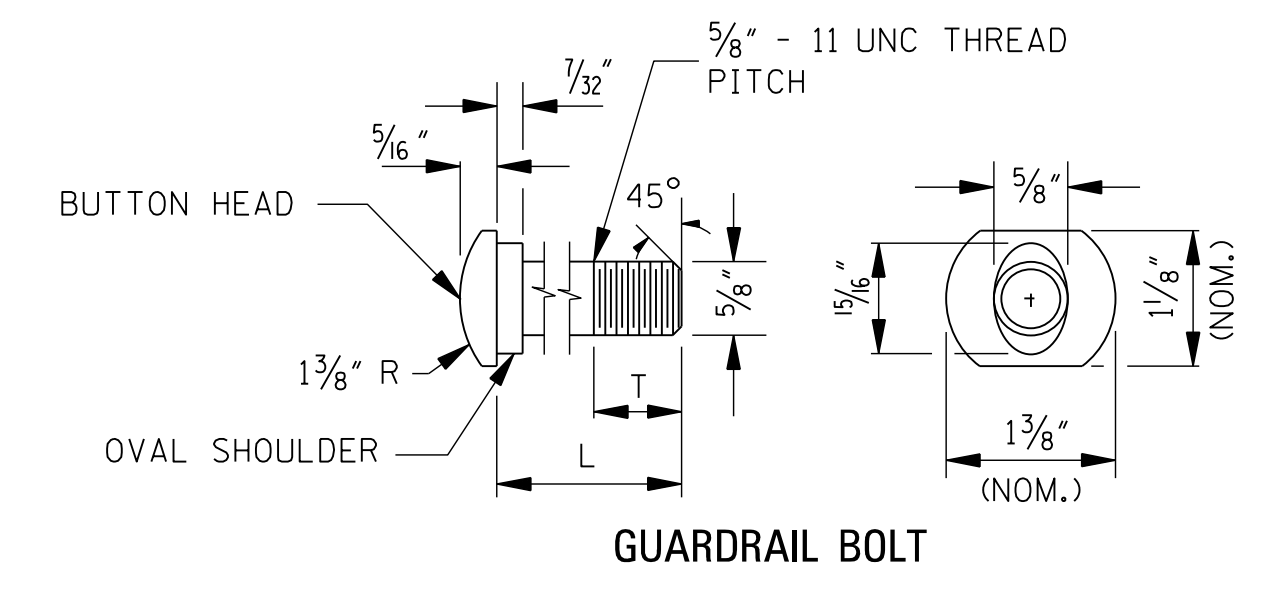


SECTION

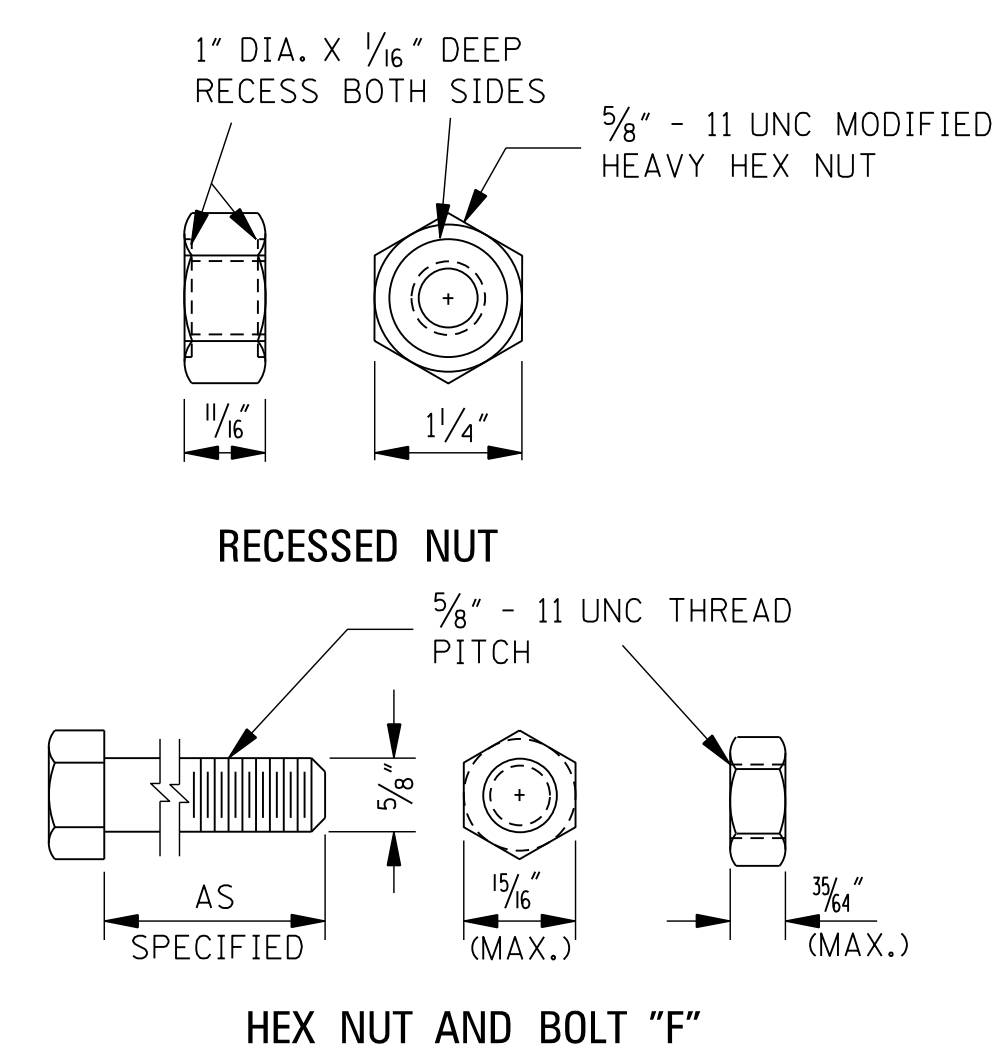
GUARDRAIL SPLICE DETAIL



DETAILS OF ADJUSTABLE HEIGHT BLOCKOUT ASSEMBLY



GUARDRAIL BOLTS		
BOLT	L	T (MIN.)
"A"	1 1/4"	1"
"B"	12"	4"
"C"	14"	4"



HEX NUT AND BOLT "F"

- NOTES:
- ALL GUARDRAIL BOLTS ARE 5/8" - 11 UNC THREAD PITCH.
 - IF ANY BOLT EXTENDS MORE THAN 1/4" FROM THE NUT, THE BOLT SHOULD BE TRIMMED BACK.

FASTENER DETAILS

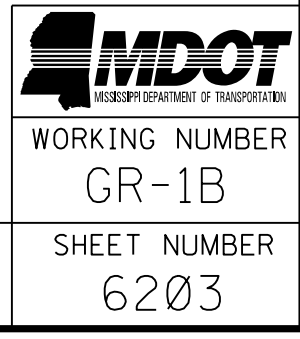
- NOTES:
- ON INITIAL INSTALLATION, THE MODIFIED WOOD BLOCKOUT SHALL BE FASTENED TO THE BOTTOM HOLE IN THE STEEL POST. OTHER HOLES IN THE STEEL POST AND THE MODIFIED WOOD BLOCKOUT ARE FOR FUTURE 2" HEIGHT ADJUSTMENTS WHEN THE ROADWAY IS RESURFACED.
 - AN ADDITIONAL GUARDRAIL BOLT "C" AND RECESSED NUT IS REQUIRED FOR THE SECOND HEIGHT ADJUSTMENT.
 - HOLE DETAILS ARE REQUIRED ON ALL STEEL POSTS AND MODIFIED WOOD BLOCKOUTS.
 - STEEL POSTS ARE FABRICATED FROM W6 X 9 STRUCTURAL STEEL SHAPES.
 - MODIFIED WOOD BLOCKOUTS ARE FABRICATED FROM 6" X 12" TREATED TIMBER UNLESS SPECIFIED OTHERWISE ON THE PLANS.
 - ALL HOLES IN BOTH STEEL POSTS AND MODIFIED WOOD BLOCKOUTS ARE 3/4" IN DIAMETER.

- GENERAL NOTES:
- GUARDRAIL SHALL MEET THE REQUIREMENTS OF AASHTO M 180, CLASS A, TYPE 1 UNLESS OTHERWISE DESIGNATED.
 - GUARDRAIL SHALL BE SINGLE FACED UNLESS OTHERWISE DESIGNATED.
 - GUARDRAIL SECTIONS SHALL BE LAPPED IN THE DIRECTION OF TRAFFIC FLOW FOR THE LANE NEAREST THE GUARDRAIL. THE ONLY EXCEPTION NOTED IS THAT GUARDRAIL SHALL BE LAPPED FOR APPROACHING TRAFFIC ON A BRIDGE WITH 2-WAY TRAFFIC.
 - STEEL POSTS SHALL CONFORM TO ASTM A36 (EXCEPT ULTRASONIC TESTING). THEY SHALL BE GALVANIZED IN ACCORDANCE WITH AASHTO M 111 EXCEPT WHEN CORROSION RESISTANT STEEL IS REQUIRED IN WHICH CASE POSTS SHALL CONFORM TO AASHTO SPECIFICATIONS FOR CORROSION RESISTANCE AND SHALL NOT BE PAINTED OR GALVANIZED. NO PUNCHING, DRILLING OR CUTTING WILL BE PERMITTED AFTER GALVANIZING EXCEPT FOR HOLES TO MOUNT GUARDRAIL DELINEATORS.
 - ALL MODIFIED WOOD BLOCKOUTS SHALL BE TREATED TIMBER IN ACCORDANCE WITH MISSISSIPPI DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS.
 - FOR OTHER DETAILS OF POSTS, POST ACCESSORIES, FASTENERS & RAIL ELEMENTS, SEE AASHTO-AGC-ARTBA JOINT TASK FORCE NO. 13, TITLED "A GUIDE TO STANDARDIZED HIGHWAY BARRIER HARDWARE," LATEST EDITION.

BY		MISSISSIPPI DEPARTMENT OF TRANSPORTATION ROADWAY DESIGN DIVISION STANDARD PLAN	
REVISION	DATE	ISSUE DATE: AUGUST 01, 2017	
	DATE		

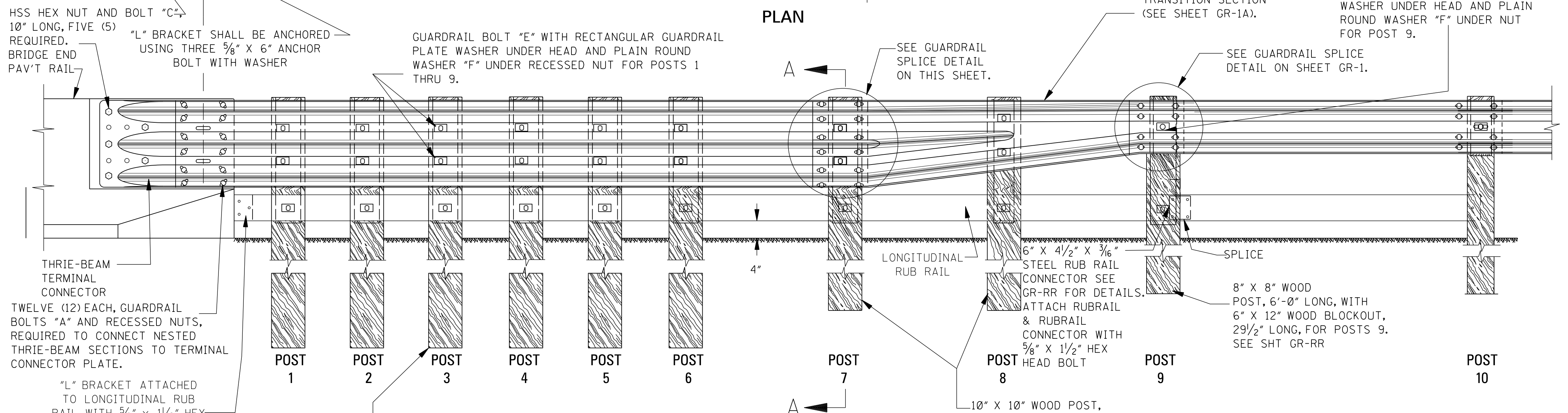
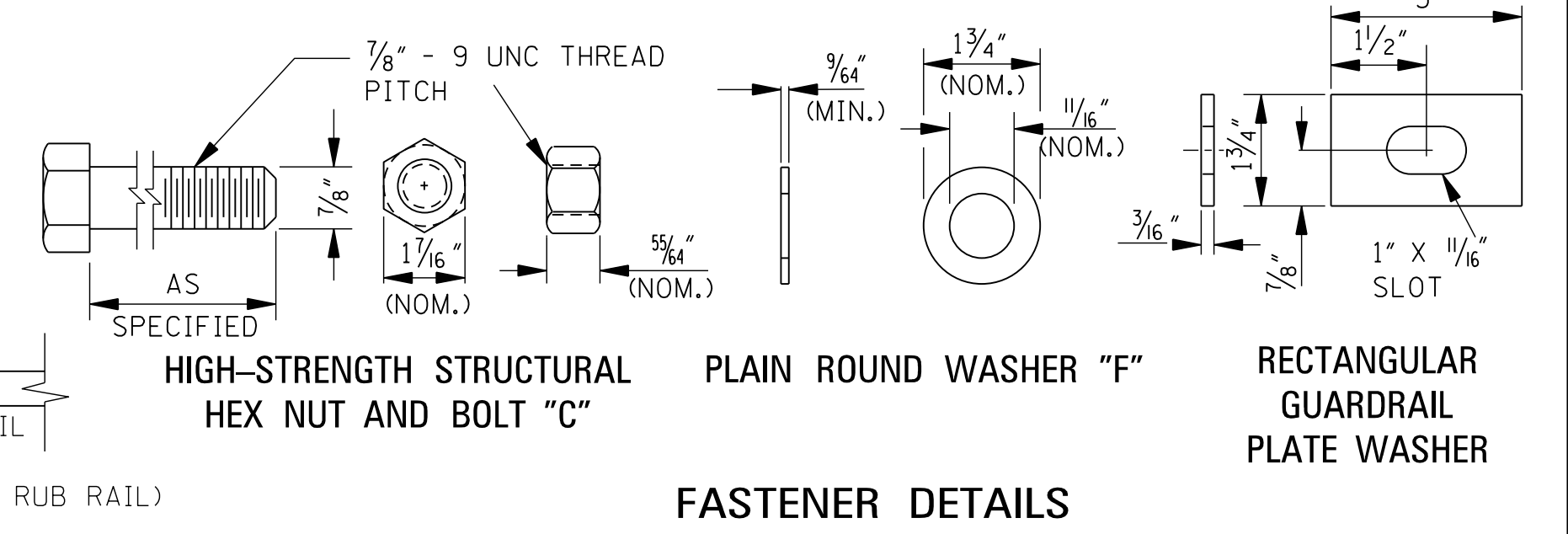
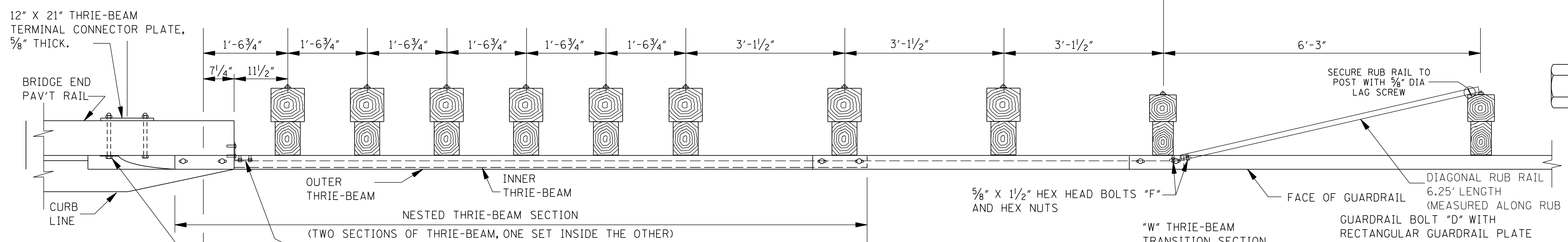
**GUARDRAIL:
"W" BEAM
(STEEL POSTS)**

WORKING NUMBER GR-1B	SHEET NUMBER 6203
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PAY LIMITS FOR TYPE "I" BRIDGE END SECTION

STANDARD "W" BEAM GUARDRAIL INSTALLATION
(SEE SHEET GR-1)



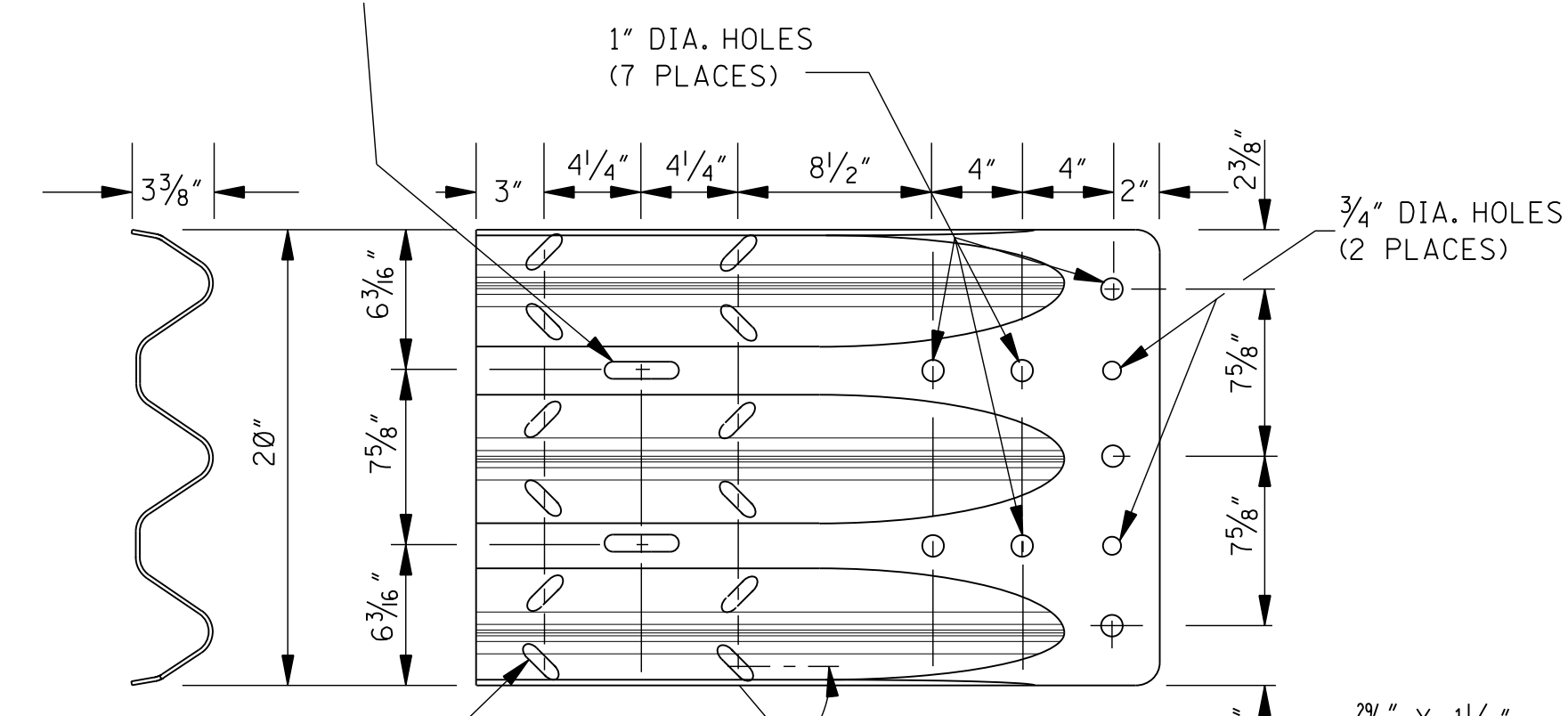
GENERAL NOTES:

1. THIS GUARDRAIL TRANSITION IS APPROPRIATE FOR CONNECTION TO A GUARDRAIL ANCHOR ASSEMBLY CAST INTO A VERTICAL CONCRETE SHAPE, AS SHOWN ON SHEETS BER-1 & BER-2. THIS GUARDRAIL TRANSITION SHALL NOT BE MOUNTED DIRECTLY TO A CONCRETE SAFETY SHAPE.
2. SEE RAILING DETAILS IN BRIDGE DRAWINGS FOR OTHER DETAILS.

GENERAL NOTES (CONTINUED):

3. GUARDRAIL SHALL MEET THE REQUIREMENTS OF AASHTO M 180, CLASS A, TYPE 1 UNLESS OTHERWISE DESIGNATED.
4. THE TYPE "I" TRANSITION IS USED ON BOTH LEFT AND RIGHT SIDES OF EACH BRIDGE APPROACH WITH 2-WAY TRAFFIC AND THE GUARDRAIL SECTIONS SHALL BE LAPPED IN THE DIRECTION OF THE APPROACHING TRAFFIC.
5. ALL WOOD POSTS AND BLOCKOUTS SHALL BE TREATED TIMBER IN ACCORDANCE WITH MISSISSIPPI DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS.
6. FOR FASTENER DETAILS NOT FOUND ON THIS SHEET, SEE SHEET GR-1.
7. DETAILS PERTINENT TO THE STANDARD INSTALLATION OF "W" AND THRIE-BEAM SECTIONS NOT SPECIFICALLY MODIFIED ON THIS SHEET WILL BE FOUND ON SHEETS GR-1 AND GR-1A, RESPECTIVELY.
8. FOR OTHER DETAILS OF POSTS, POST ACCESSORIES, FASTENERS & RAIL ELEMENTS, SEE AASHTO-AGC-ARTBA JOINT TASK FORCE NO. 13, TITLED "A GUIDE TO STANDARDIZED HIGHWAY BARRIER HARDWARE," LATEST EDITION.
9. THE TOP OF THE RAIL AT POST 7 IS AT 32" AND WILL BE TRANSITIONED TO THE NORMAL W-BEAM TOP OF RAIL HEIGHT OF 31.125" AT POST 10.

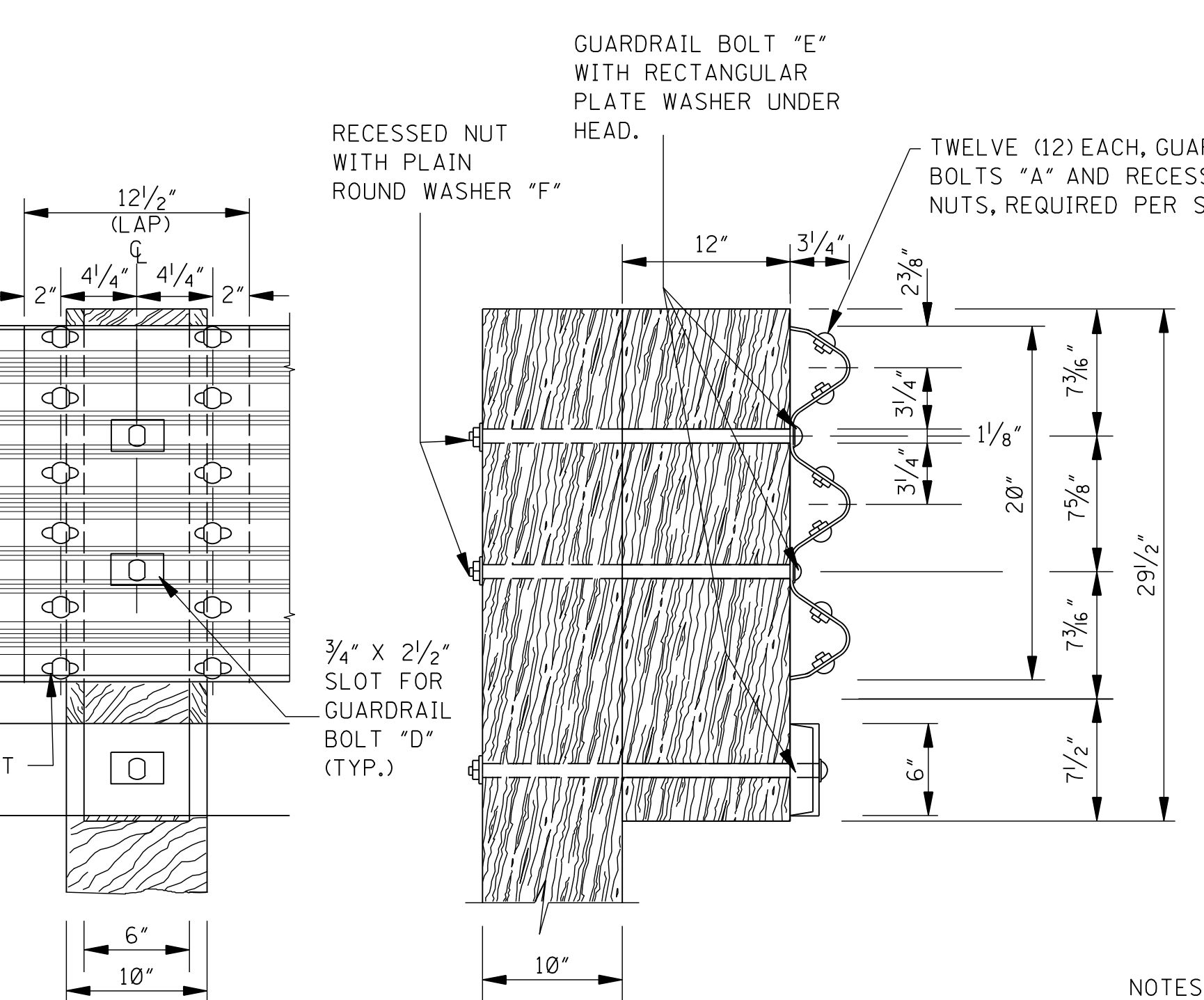
OPTIONAL: 3/4" x 2 1/2" GUARDRAIL BOLT SLOT (TYP.). HOLES USED ONLY WHERE SPECIFIED ON PLANS.



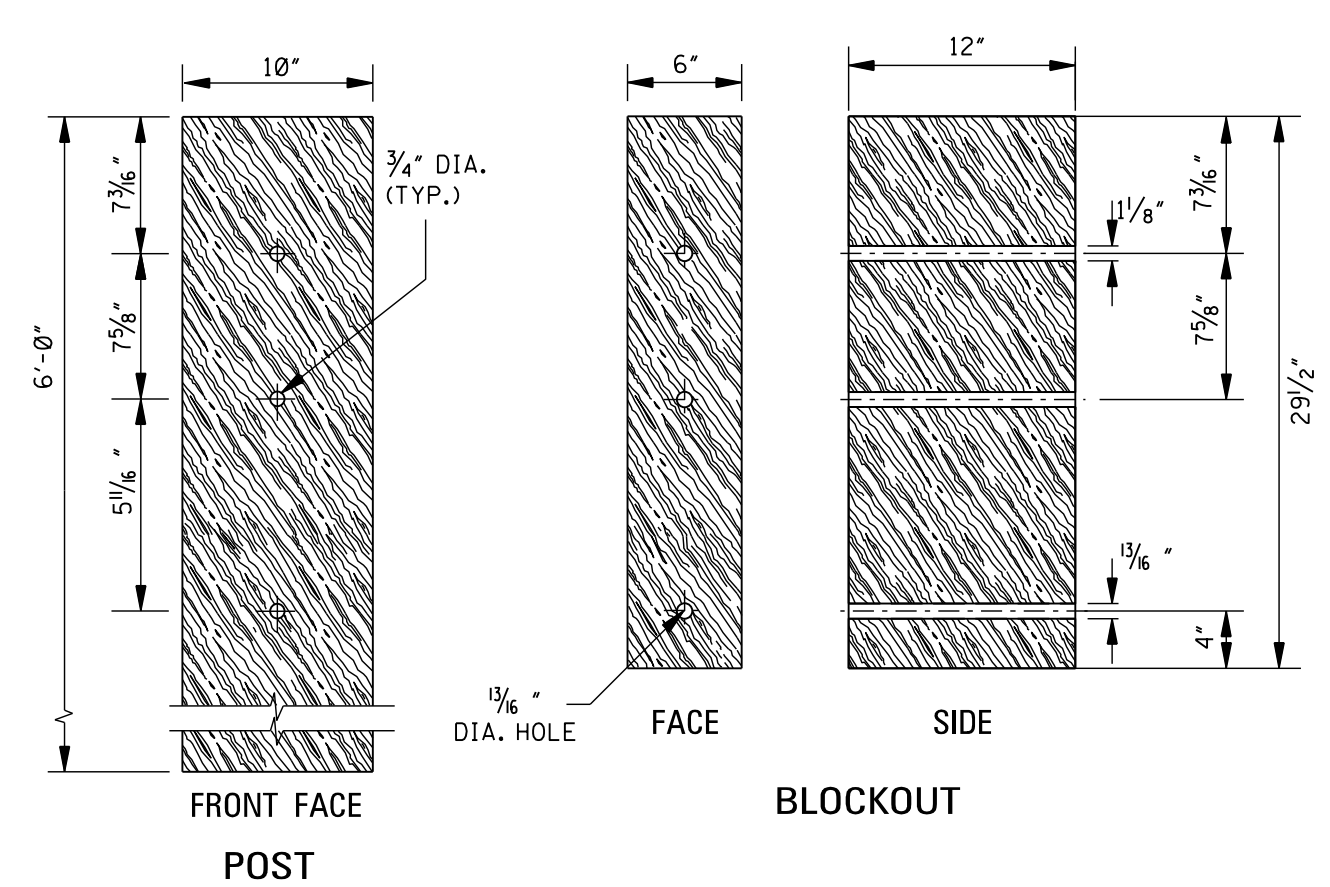
THRIE-BEAM TERMINAL CONNECTOR

NOTES:

1. THE THRIE-BEAM TERMINAL CONNECTOR SHALL BE AASHTO M 180 CORRUGATED SHEET STEEL, CLASS B, TYPE 1.
2. ALTERNATIVELY, THE SPLICE SLOTS CAN BE ORIENTED PARALLEL TO THE LONGITUDINAL AXIS OF THE TERMINAL CONNECTOR. HOWEVER, THE 50° SLOT VERSION IS EASIER TO INSTALL WHERE SEVERAL GUARDRAIL SECTIONS ARE NESTED TOGETHER.



GUARDRAIL SPLICE DETAIL (POST 7)

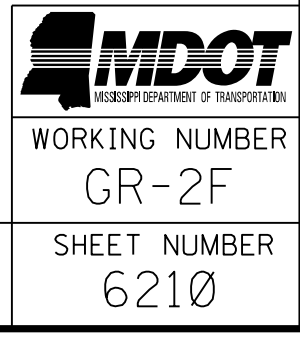


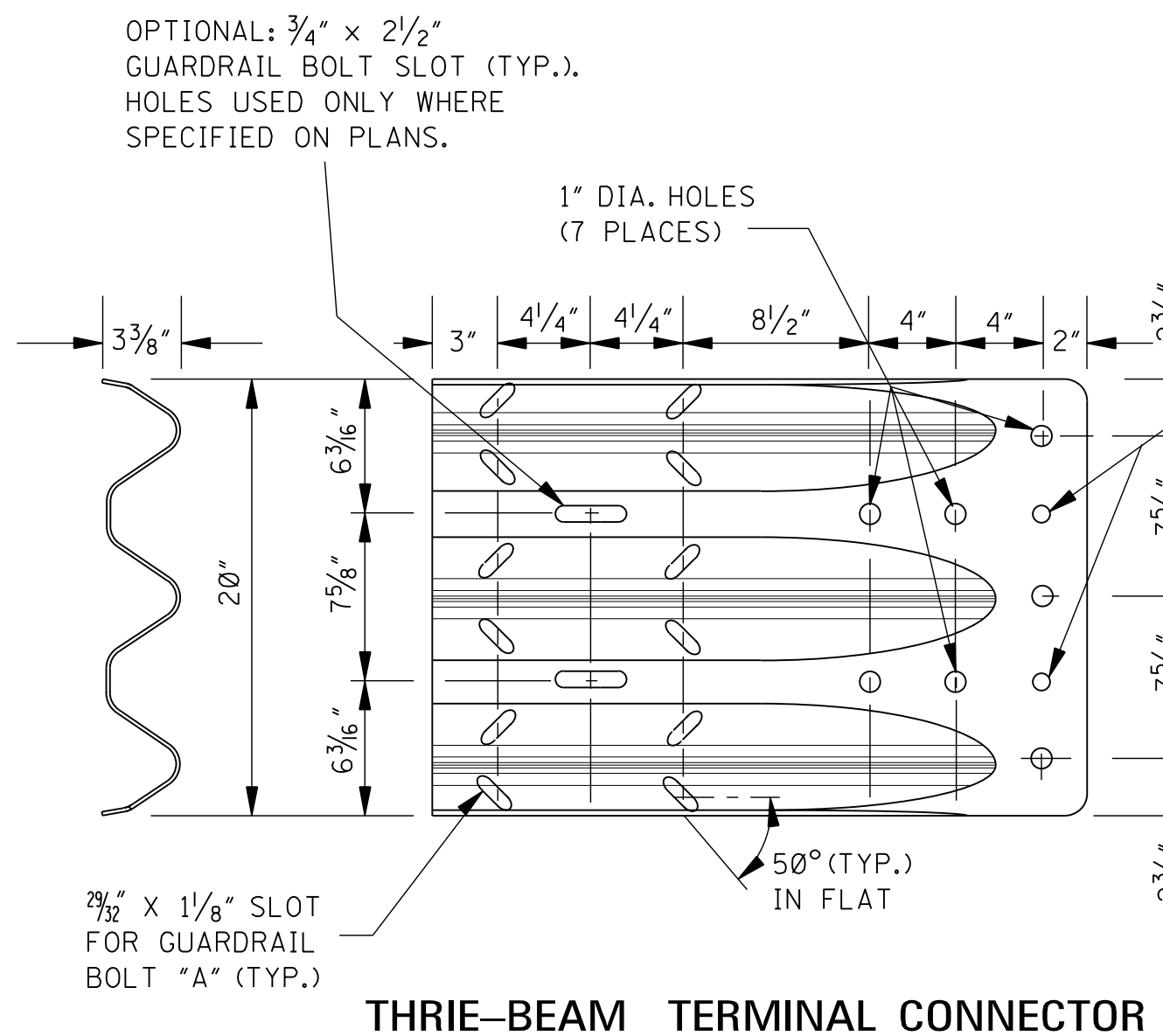
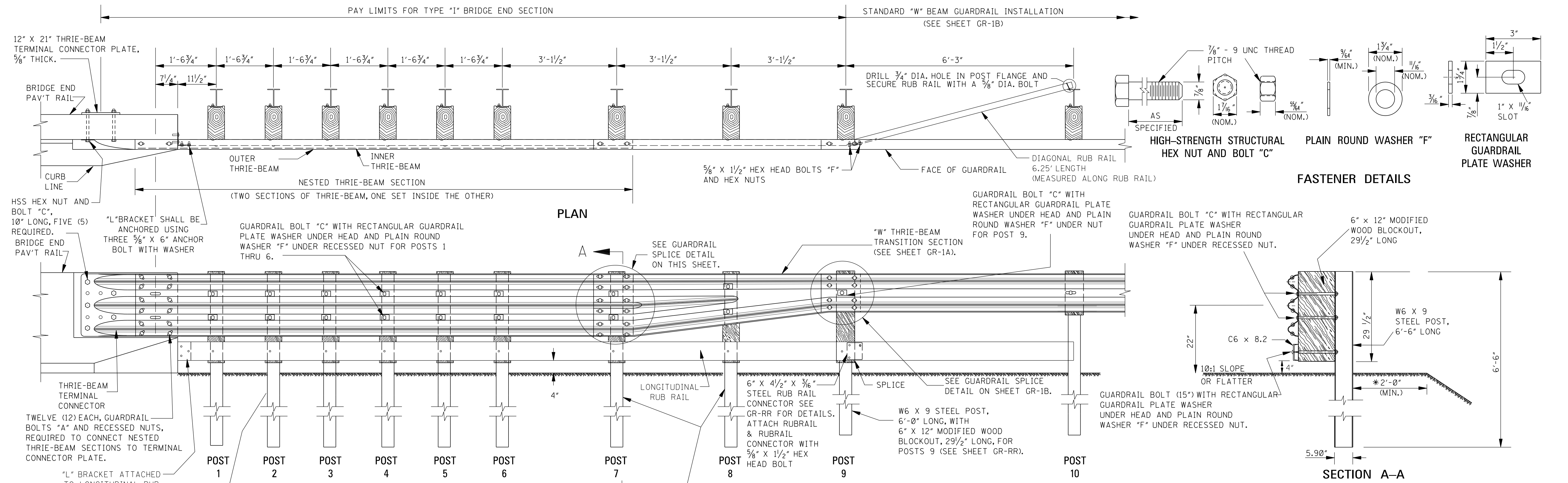
DETAILS OF THRIE-BEAM POST AND BLOCKOUT (POST 1 THRU POST 8)

NOTES:

1. HOLE DETAILS ARE REQUIRED ON ALL WOOD POSTS AND BLOCKOUTS.
2. WOOD POSTS AND BLOCKOUTS ARE FABRICATED FROM TREATED TIMBER UNLESS SPECIFIED OTHERWISE ON THE PLANS.
3. ALL HOLES IN BOTH POSTS AND BLOCKOUTS ARE 3/4" IN DIAMETER.

MISSISSIPPI DEPARTMENT OF TRANSPORTATION ROADWAY DESIGN DIVISION STANDARD PLAN	
GUARDRAIL: BRIDGE END SECTION TYPE "I" (WOOD POSTS) (NEW CONSTRUCTION)	
BY	
REVISION	
DATE	ISSUE DATE: AUGUST 01, 2017
WORKING NUMBER	GR-2F
SHEET NUMBER	6210

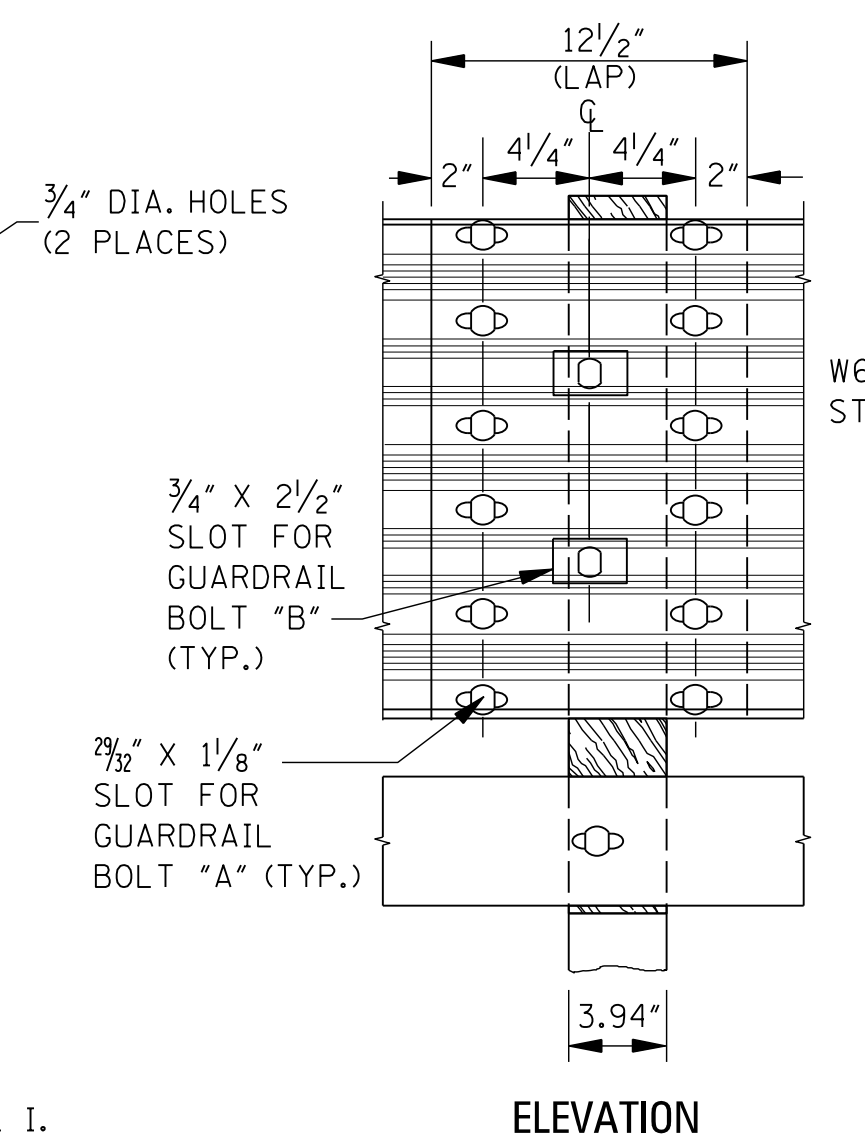




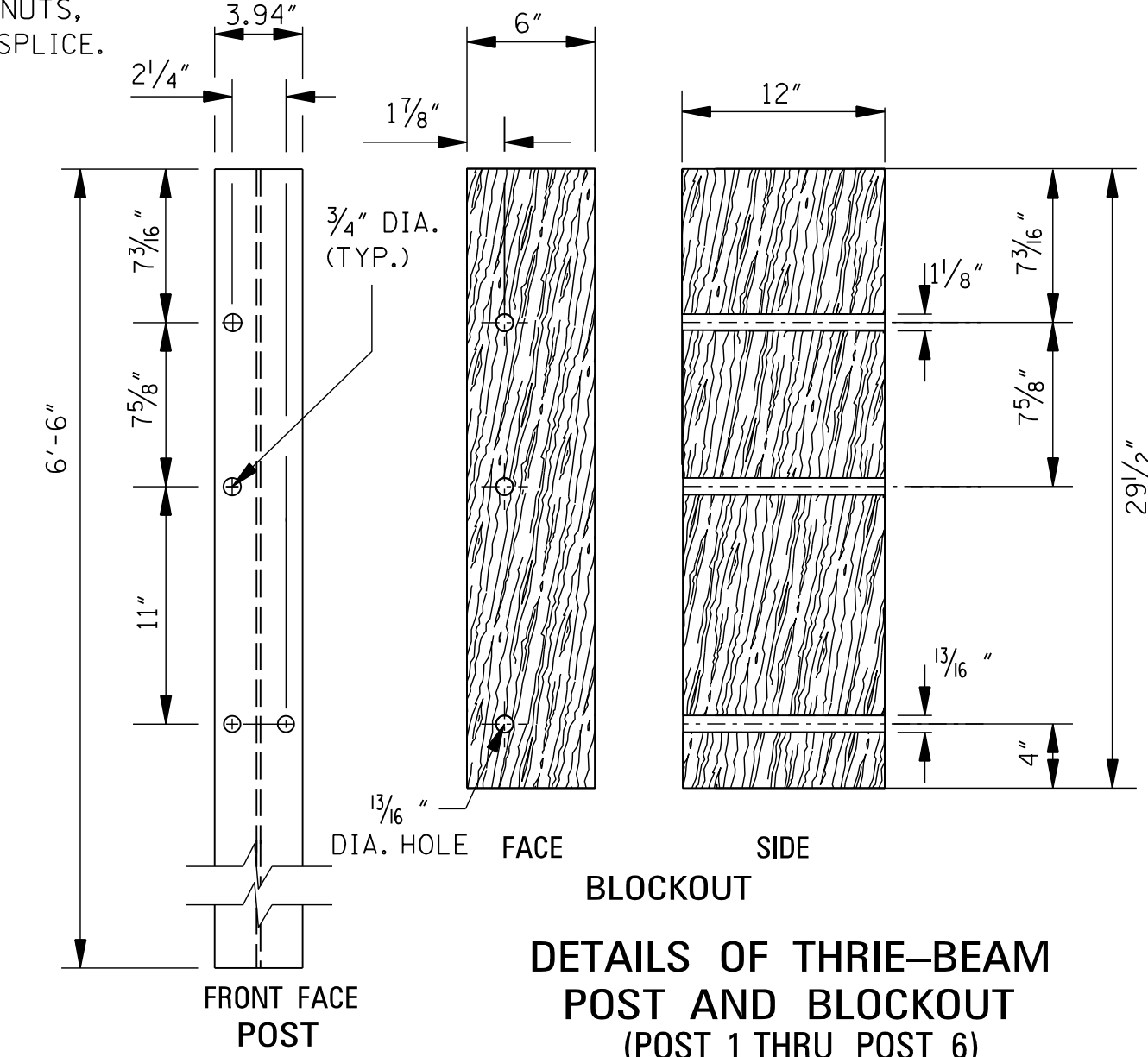
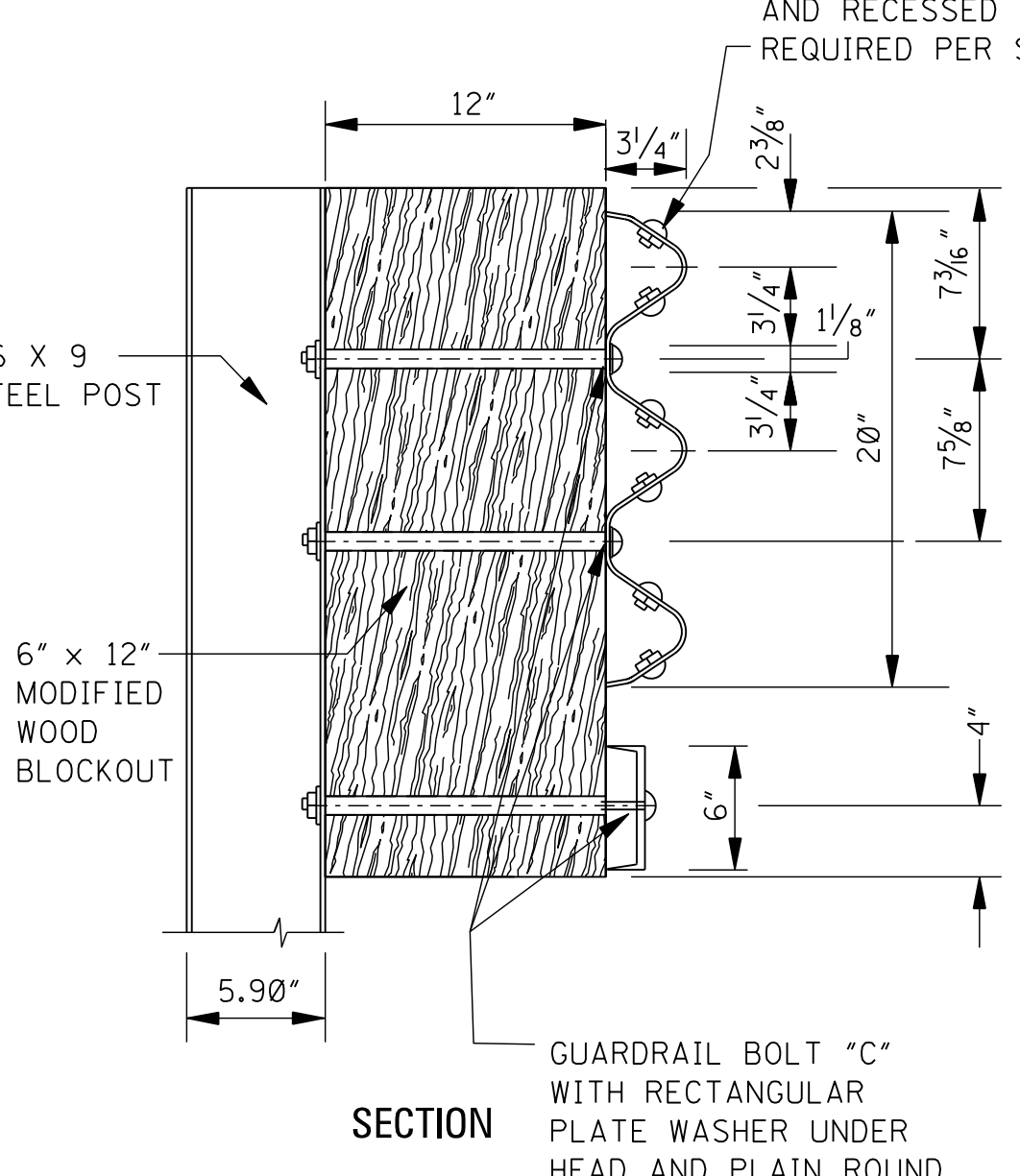
THRIE-BEAM TERMINAL CONNECTOR

NOTES:

1. THE THRIE-BEAM TERMINAL CONNECTOR SHALL BE AASHTO M 180 CORRUGATED SHEET STEEL, CLASS B, TYPE 1.
2. ALTERNATIVELY, THE SPLICE SLOTS CAN BE ORIENTED PARALLEL TO THE LONGITUDINAL AXIS OF THE TERMINAL CONNECTOR. HOWEVER, THE 50° SLOT VERSION IS EASIER TO INSTALL WHERE SEVERAL GUARDRAIL SECTIONS ARE NESTED TOGETHER.



GUARDRAIL SPLICE DETAIL (POST 7)



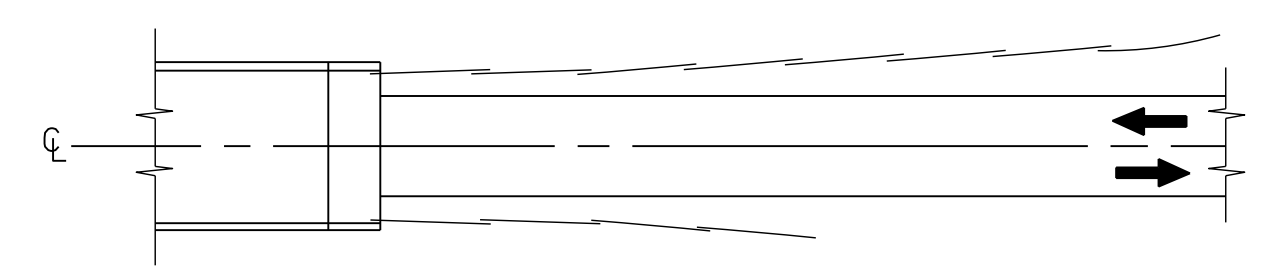
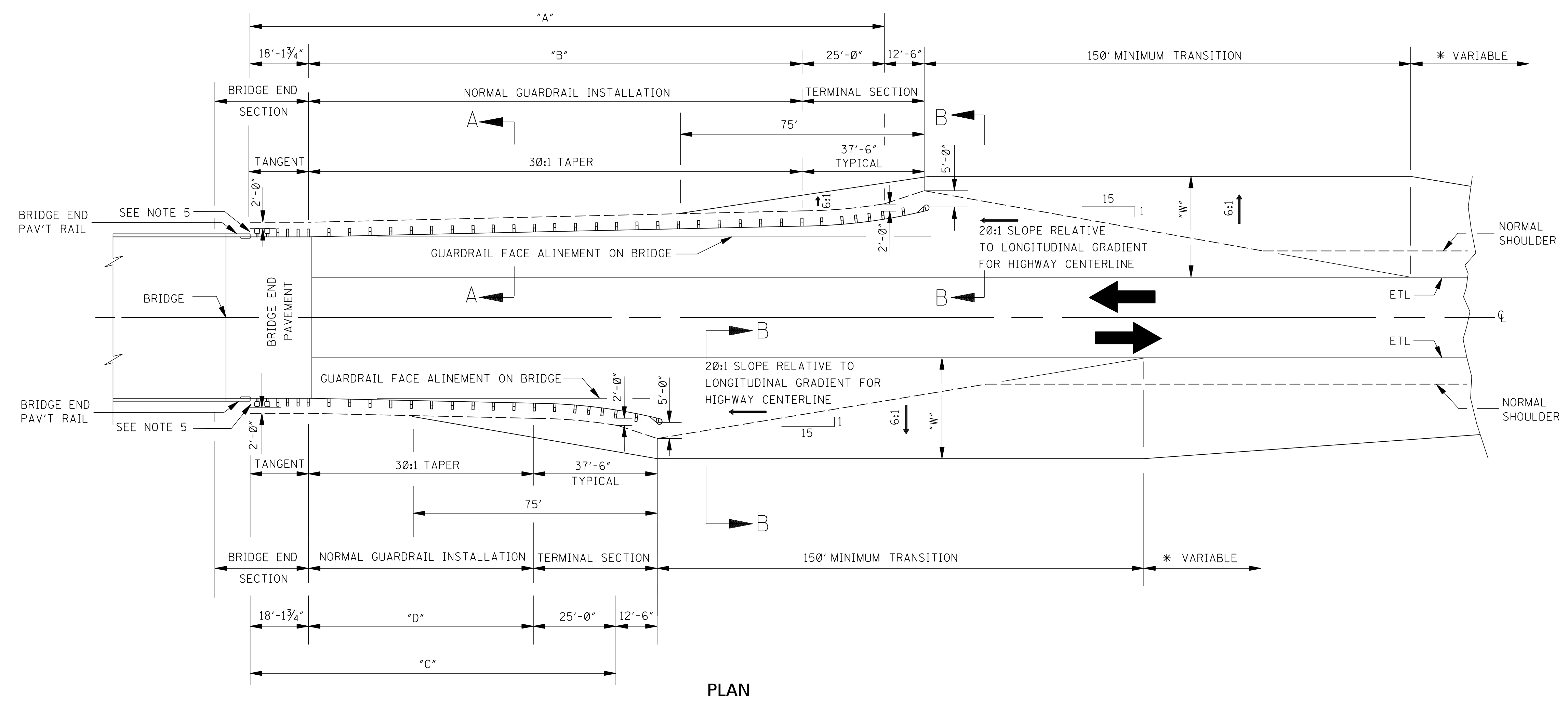
NOTES:

1. HOLE DETAILS ARE REQUIRED FOR POSTS AND BLOCKOUTS 1 THRU 8.
2. STEEL POSTS ARE FABRICATED FROM W6 X 9 STRUCTURAL STEEL SHAPES.
3. ALL HOLES IN BOTH POSTS AND BLOCKOUTS ARE 3/4\"/>

- GENERAL NOTES (CONTINUED):
3. GUARDRAIL SHALL MEET THE REQUIREMENTS OF AASHTO M 180, CLASS A, TYPE 1 UNLESS OTHERWISE DESIGNATED.
 4. THE TYPE "I" TRANSITION IS USED ON BOTH LEFT AND RIGHT SIDES OF EACH BRIDGE APPROACH WITH 2-WAY TRAFFIC AND THE GUARDRAIL SECTIONS SHALL BE LAPPED IN THE DIRECTION OF APPROACHING TRAFFIC.
 5. POSTS SHALL CONFORM TO AASHTO M 270/M 270 (ASTM A 709/A 709M) GRADE 250 STEEL UNLESS CORROSION RESISTANT STEEL IS REQUIRED IN WHICH CASE GRADE 50W STEEL SHALL BE USED. THE STRUCTURAL W6 X 9 DIMENSIONS ARE DEFINED IN AASHTO M 160M (ASTM A 6M). THE SECTION SHOULD BE ZINC-COATED PER AASHTO M 111 (ASTM A 123) AFTER CUTTING, DRILLING OR PUNCHING. CORROSION RESISTANT STEEL SHOULD NOT BE ZINC COATED, PAINTED OR OTHERWISE TREATED. GUARDRAIL IS EXEMPT FROM THE FRACTURE-CRITICAL TOUGHNESS IN AASHTO M 270/A 270 M.
 6. FOR FASTENER DETAILS NOT FOUND ON THIS SHEET, SEE SHEET GR-1B.
 7. DETAILS PERTINENT TO THE STANDARD INSTALLATION OF "W" AND THRIE-BEAM SECTIONS NOT SPECIFICALLY MODIFIED ON THIS SHEET WILL BE FOUND ON SHEETS GR-1B AND GR-1C, RESPECTIVELY.
 8. FOR OTHER DETAILS OF POSTS, POST ACCESSORIES, FASTENERS & RAIL ELEMENTS, SEE AASHTO-AGC-ARTBA JOINT TASK FORCE NO. 13 GUIDE TITLED "A GUIDE TO STANDARDIZED HIGHWAY BARRIER HARDWARE", LATEST EDITION.
 9. ALL WOOD BLOCKOUTS SHALL BE TREATED TIMBER IN ACCORDANCE WITH MISSISSIPPI DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS..
 10. FOR DETAIL OF NOTCH IN MODIFIED WOOD BLOCKOUTS, SEE SHEET GR-1B.

MISSISSIPPI DEPARTMENT OF TRANSPORTATION ROADWAY DESIGN DIVISION STANDARD PLAN	
GUARDRAIL: BRIDGE END SECTION TYPE "I" (STEEL POSTS) (NEW CONSTRUCTION)	
BY	
REVISION	
DATE	ISSUE DATE: AUGUST 01, 2017
WORKING NUMBER	GR-2G
SHEET NUMBER	6211

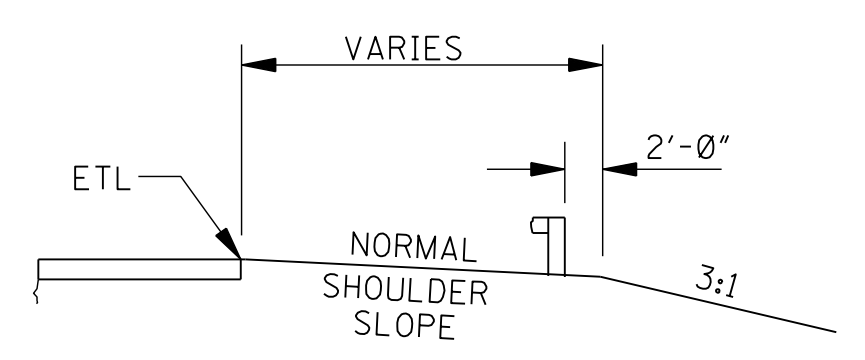
* NOTE: IF FORESLOPE, SHOWN ELSEWHERE ON PLANS, IS OTHER THAN 6:1, TRANSITION WILL OCCUR IN AREA SHOWN.



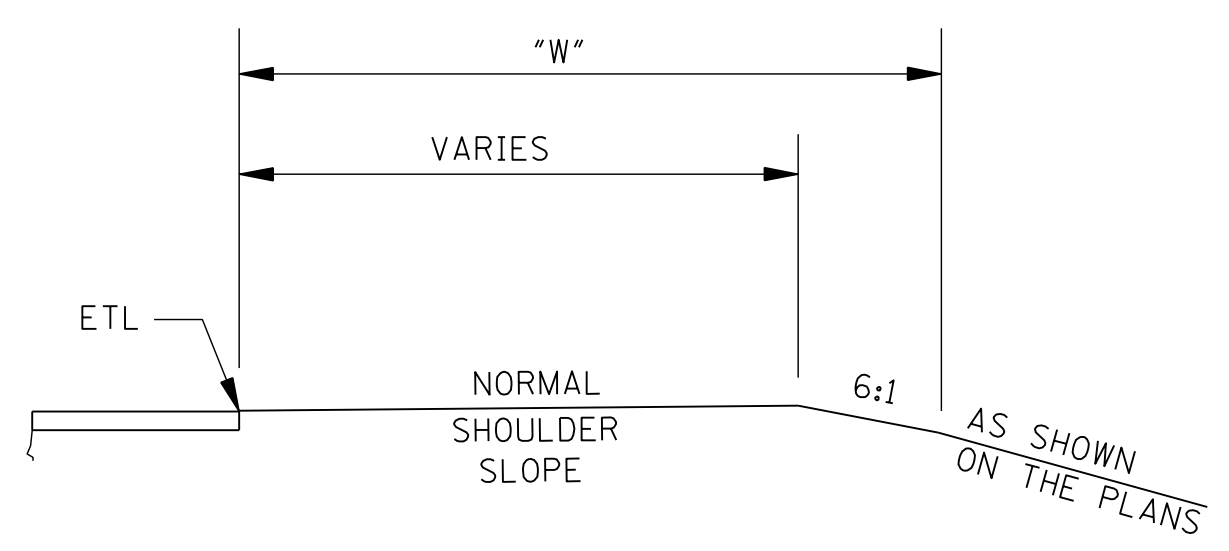
DETAIL OF GUARDRAIL SECTION LAPS

GENERAL NOTES:

- VALUES FOR "A", "B", "C" AND "D" WILL BE SHOWN ELSEWHERE ON THE PLANS.
- FOR DETAILS PERTINENT TO INSTALLATION OF THE TERMINAL SECTION, SEE MANUFACTURER'S SPECIFICATIONS AND DRAWINGS OR ELSEWHERE ON PLANS
- GUARDRAIL SECTIONS SHALL BE LAPPED IN THE DIRECTION OF TRAFFIC APPROACHING THE BRIDGE.
- THE OVERALL LENGTH OF GUARDRAIL IS MEASURED FROM THE CONNECTING END ON THE BRIDGE.
- IN THE ABSENCE OF A BRIDGE END PAVEMENT RAIL, CONNECT THE BRIDGE END SECTION TO THE BRIDGE RAIL (SEE WK. NOS. GR-2 THRU GR-2C). THE SHOULDER WIDTH AT THE BRIDGE END PAVEMENT RAIL OR BRIDGE END RAIL SHOULD BE SUFFICIENTLY WIDE TO PROVIDE A MINIMUM OF 2'-0" BEHIND THE BACK OF POST BEFORE THE SLOPE BREAK (HINGEPOINT).
- TYPE, DETAILS AND LIMITS OF GUARDRAIL BRIDGE END SECTION WILL BE SHOWN ELSEWHERE ON THE PLANS.
- W = SHOULDER WIDTH + FORESLOPE WIDTH. DIMENSIONS FOUND ELSEWHERE ON THE PLANS.



SECTION A-A

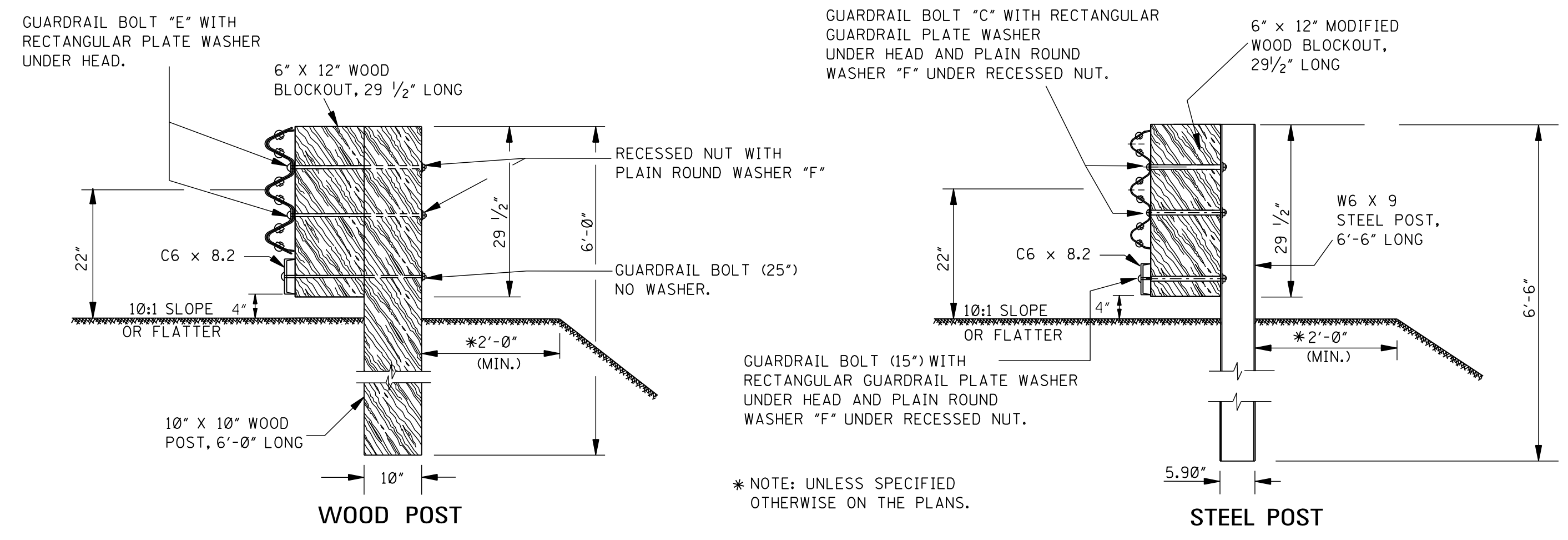


SECTION B-B

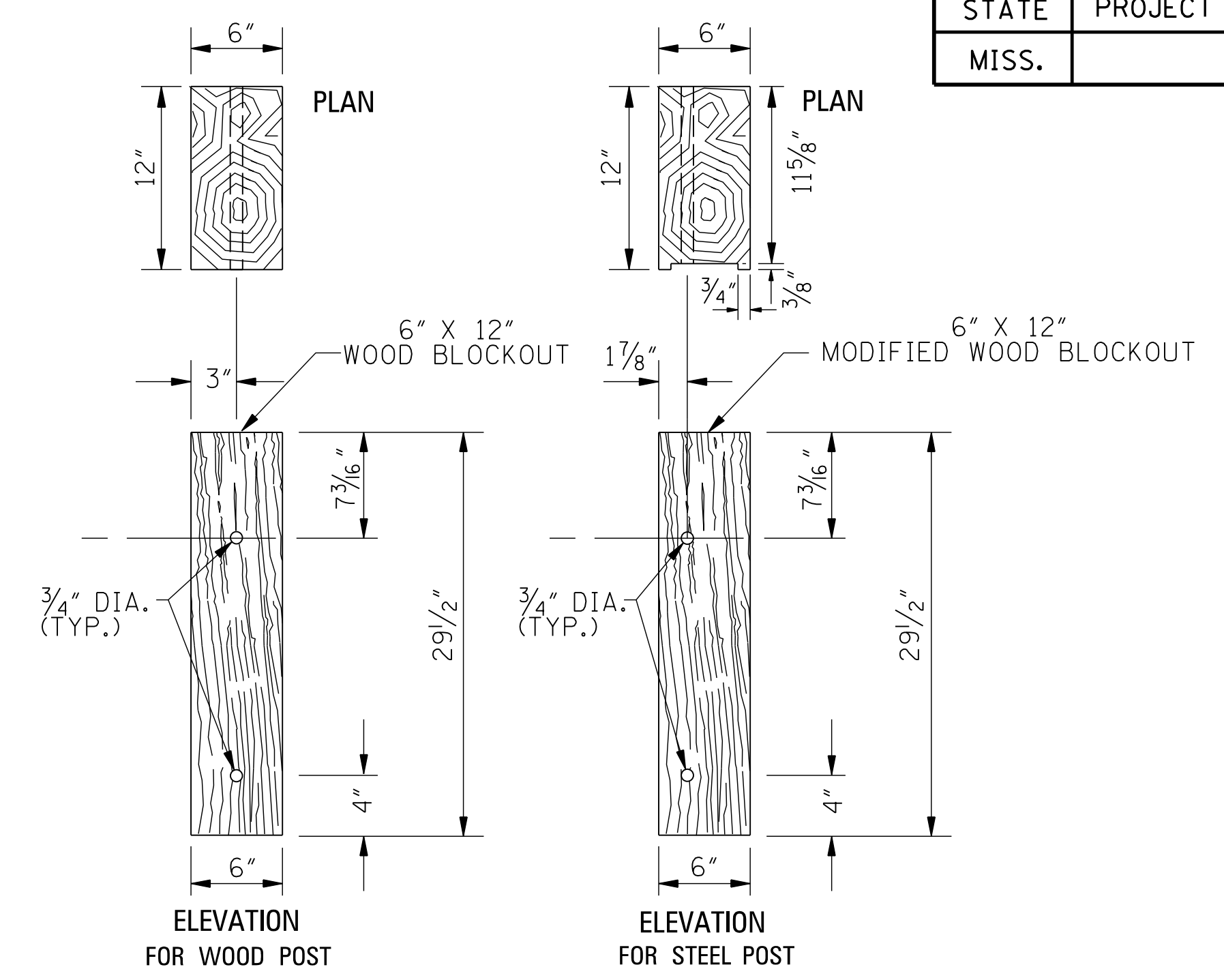
BY		MISSISSIPPI DEPARTMENT OF TRANSPORTATION ROADWAY DESIGN DIVISION STANDARD PLAN	
REVISION		<p align="center">GUARDRAIL: TYPICAL INSTALLATION AT BRIDGE APPROACHES FOR 2-LANE, 2-WAY HIGHWAY</p>	
DATE			
ISSUE DATE:		AUGUST 01, 2017	



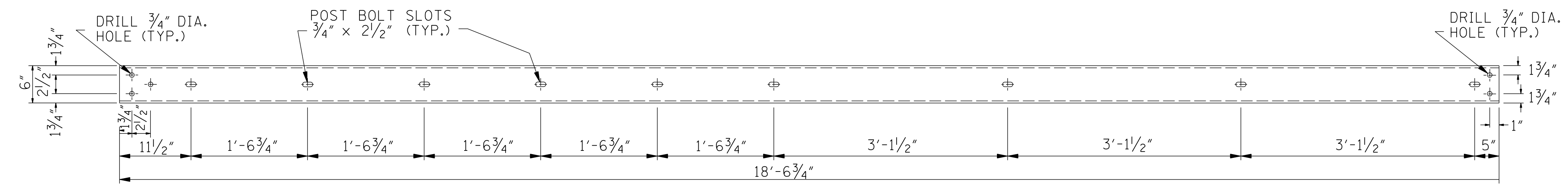
WORKING NUMBER
GR-4A
SHEET NUMBER
6215



PROFILE VIEW OF POSTS

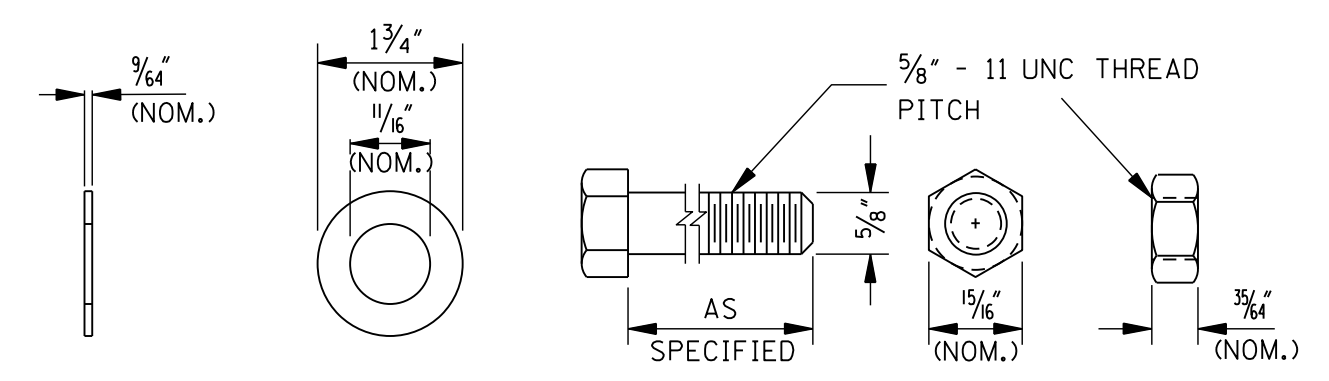


BLOCKOUT FOR POST 9 OF TYPE "I" BRIDGE END SECTION

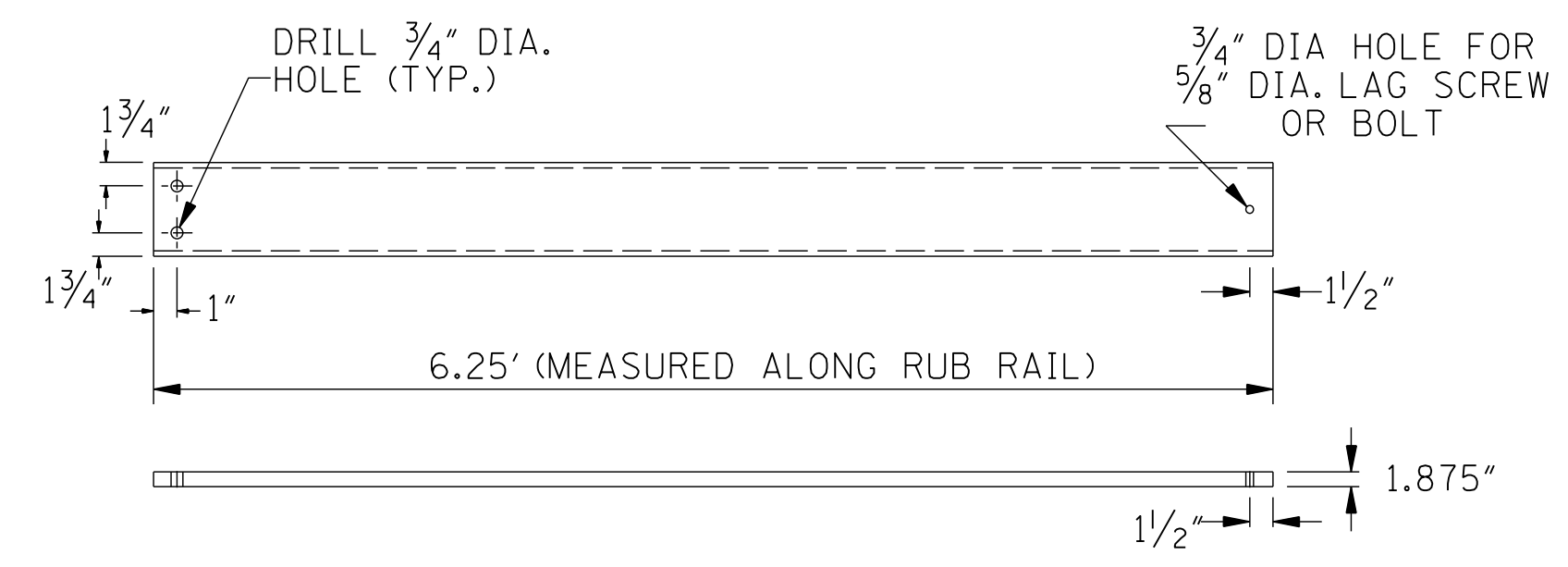


C6 x 8.2 LONGITUDINAL RUB RAIL

CROSS-SECTION VIEW OF C6 x 8.2



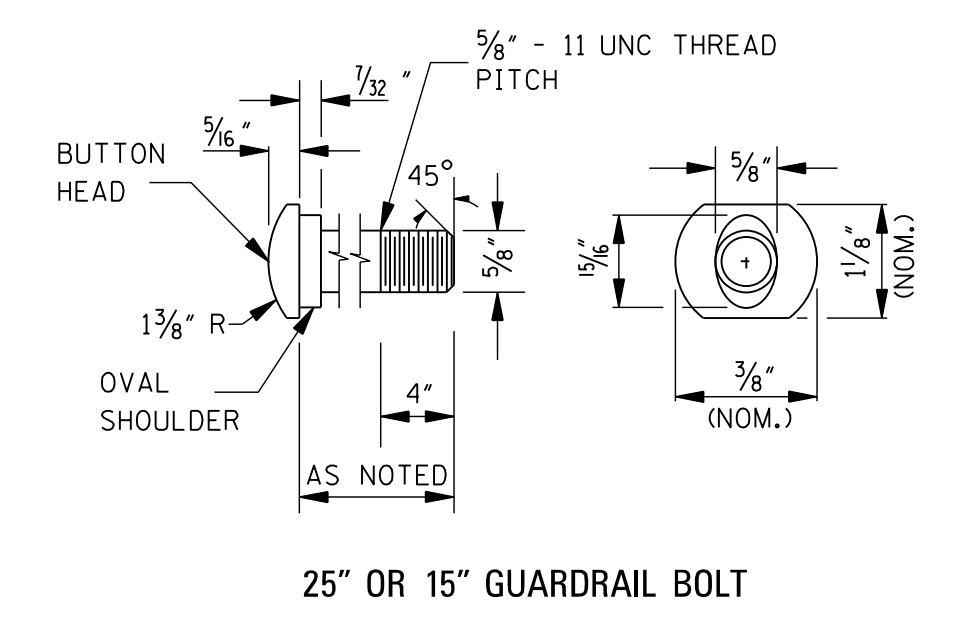
PLAIN ROUND WASHER "F" HEX NUT AND BOLT "F"



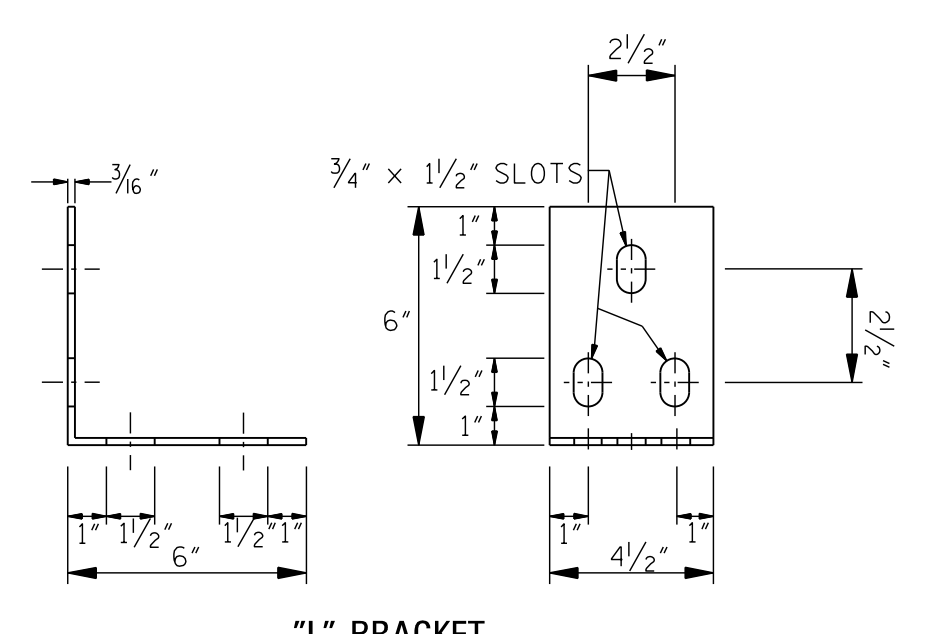
DIAGONAL RUB RAIL

GENERAL NOTES:

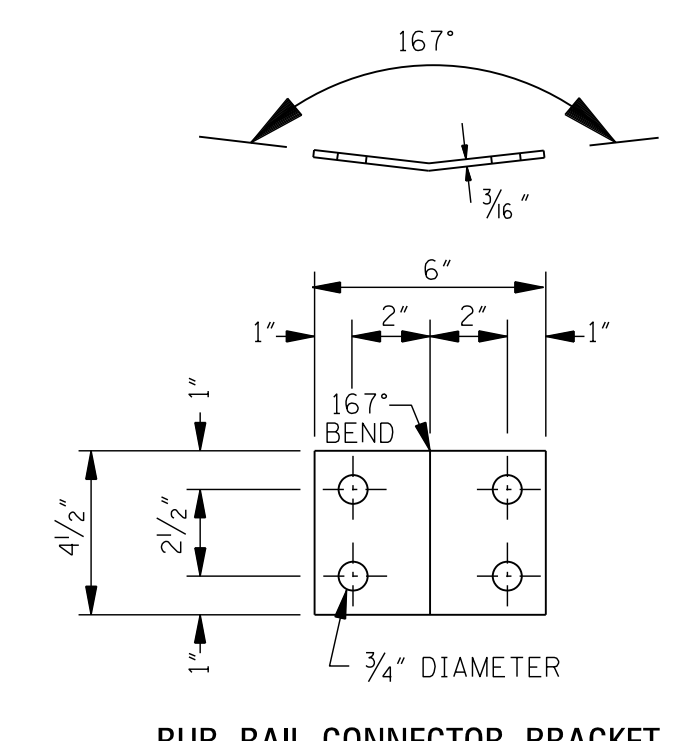
1. POSTS 1 THROUGH 9 REQUIRE AN ADDITIONAL HOLE TO ATTACH LOWER BLOCKOUTS. STEEL POST REQUIRE 2 HOLES ON EITHER SIDE OF THE POST.
2. RUBRAIL BLOCKOUTS SHALL BE SECURED WITH 5/8\"/>



25" OR 15" GUARDRAIL BOLT

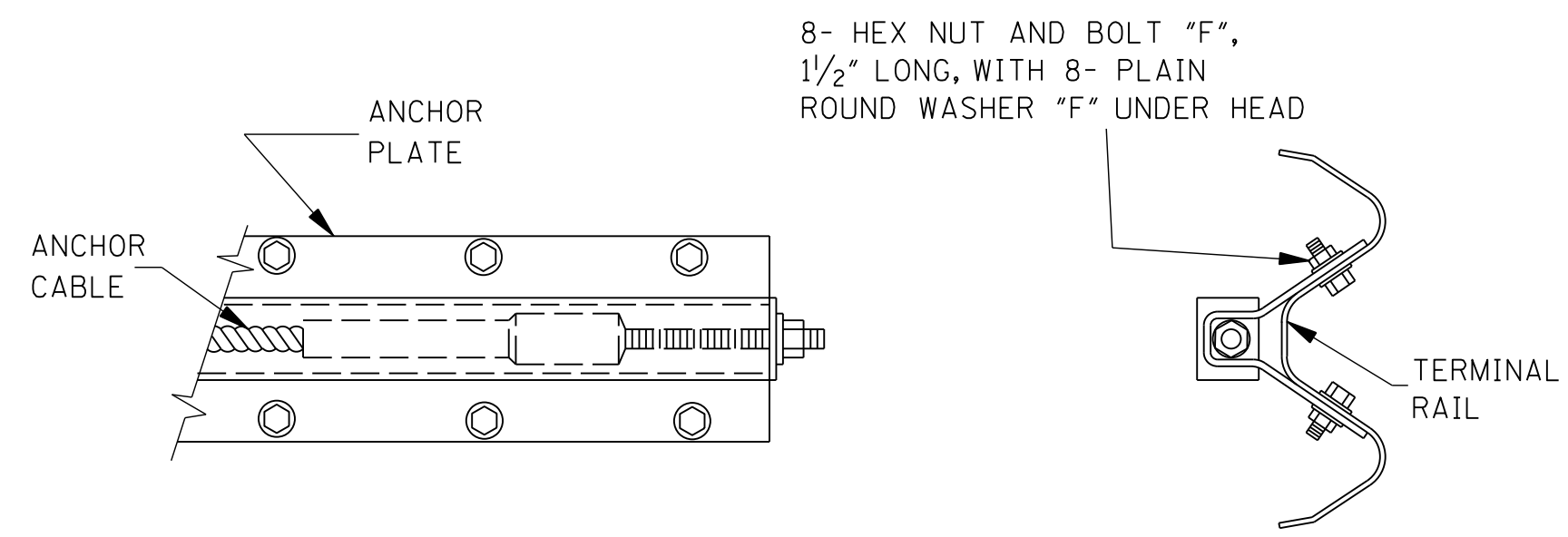


"L" BRACKET

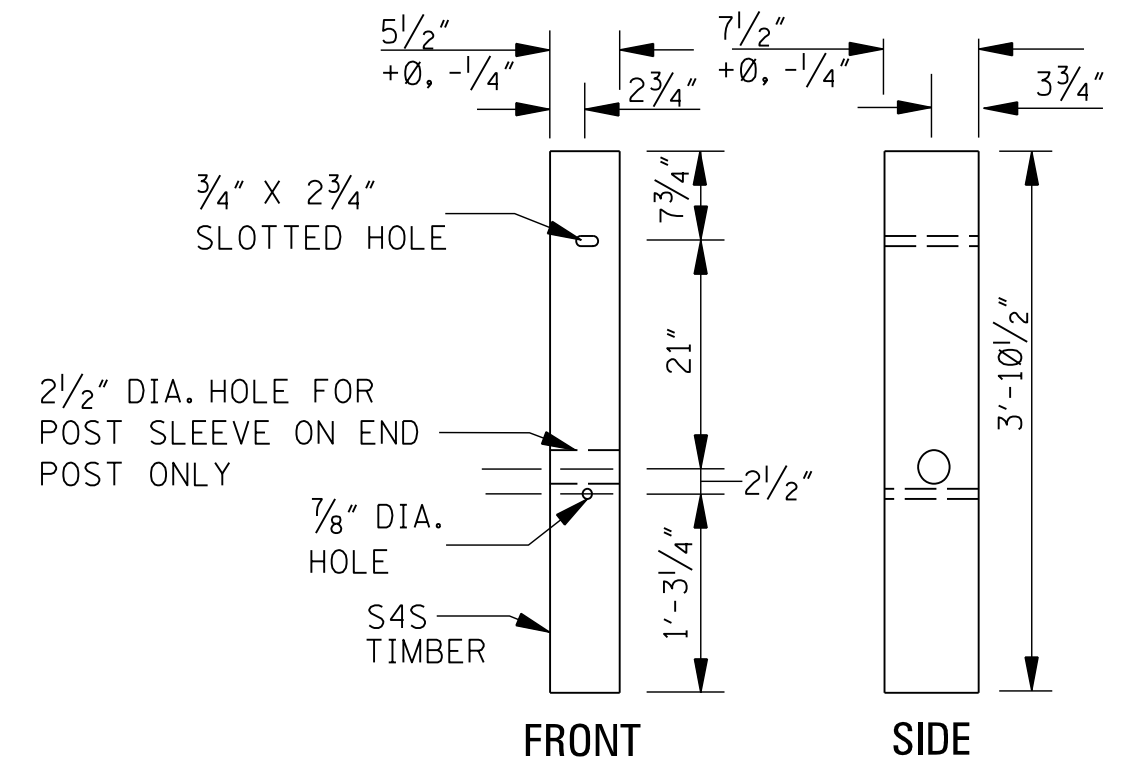


RUB RAIL CONNECTOR BRACKET

BY		MISSISSIPPI DEPARTMENT OF TRANSPORTATION ROADWAY DESIGN DIVISION STANDARD PLAN	
REVISION		<p align="center">GUARDRAIL: RUB RAIL HARDWARE</p> 	
DATE			
ISSUE DATE:		AUGUST 01, 2017	
WORKING NUMBER		GR-RR	
SHEET NUMBER		6218	

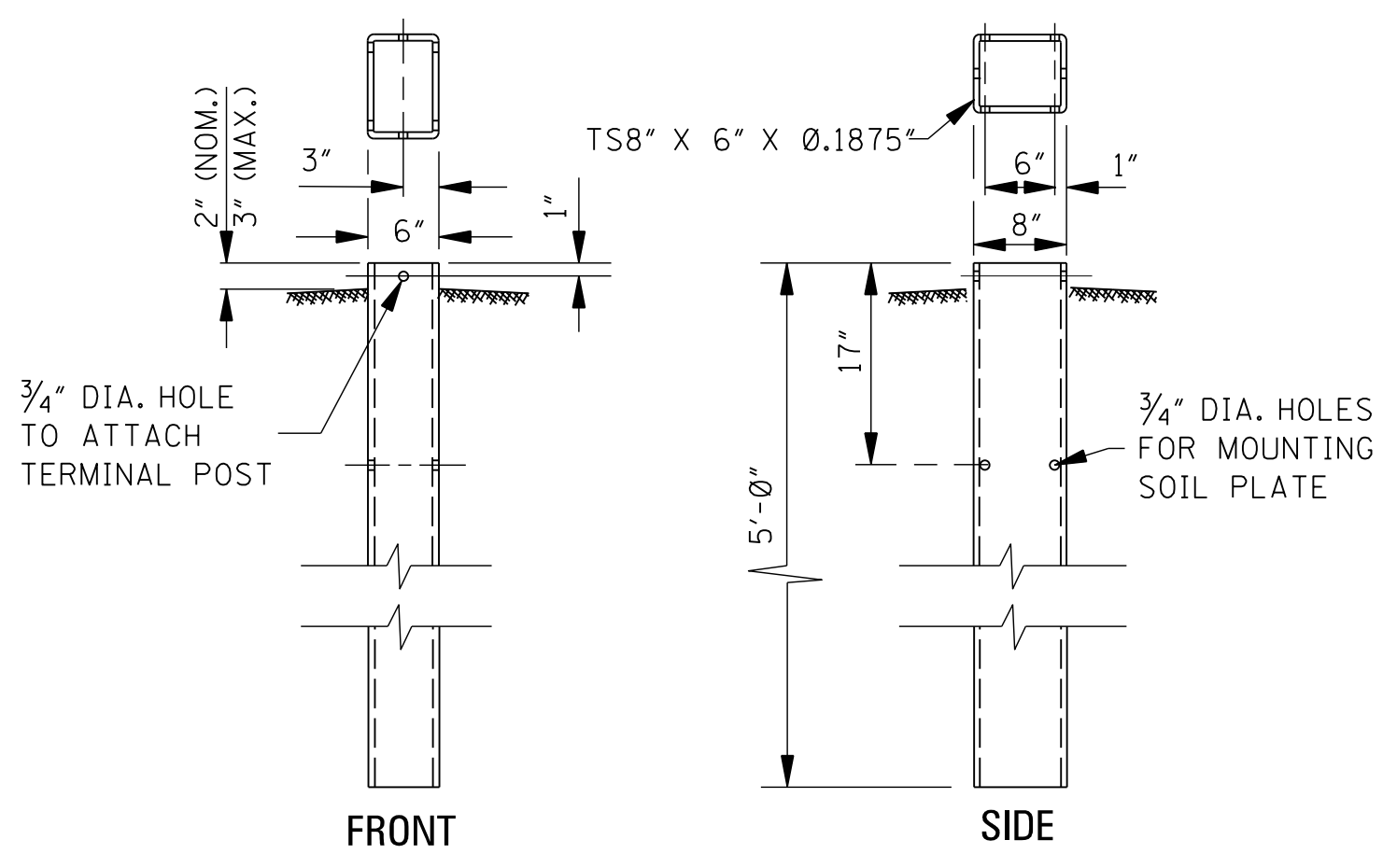


ANCHOR PLATE ASSEMBLY DETAILS



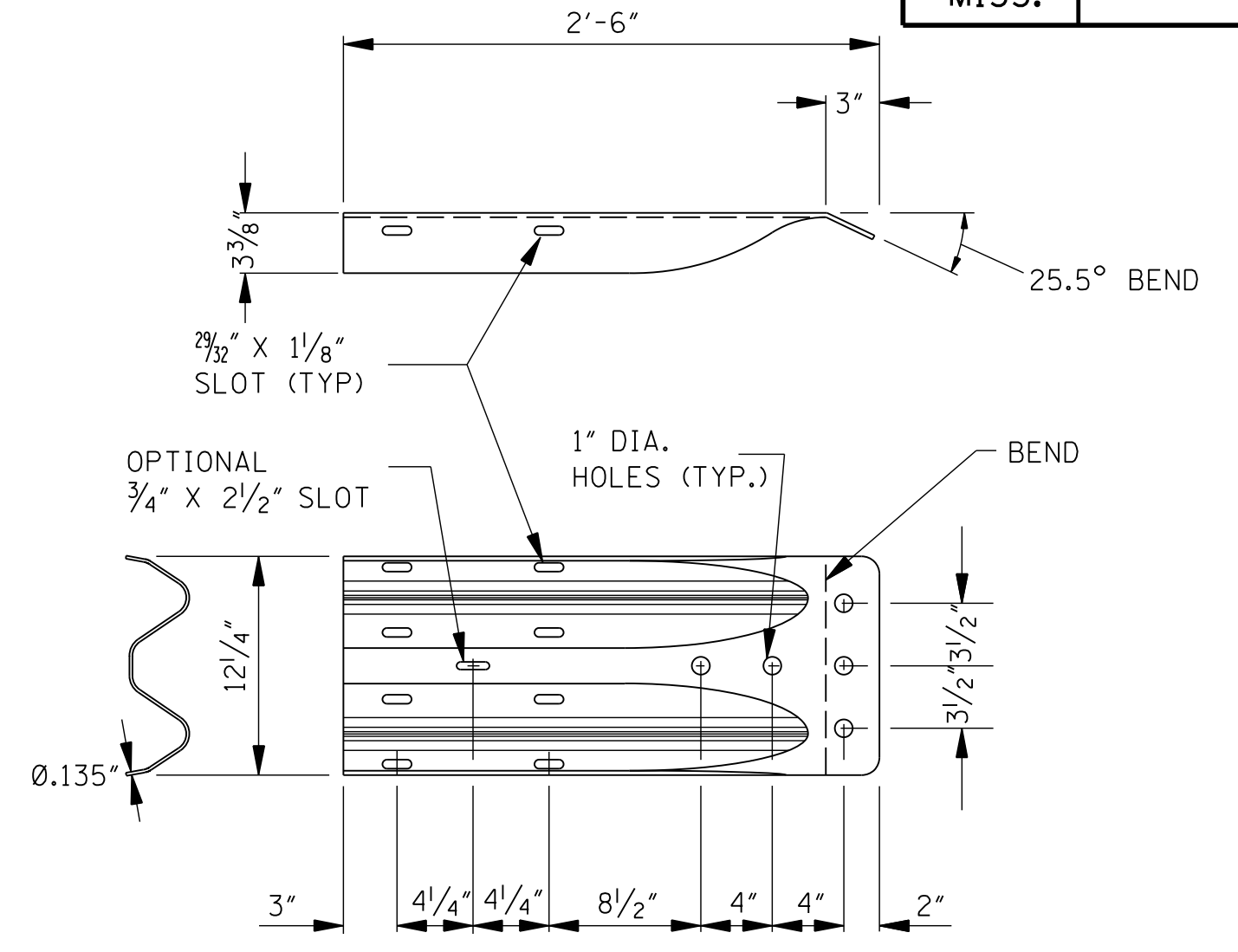
TERMINAL POST FOR FOUNDATION TUBE INSTALLATION

NOTE: TERMINAL POST SHALL BE MADE OF S4S TIMBER WITH 2 STRESS GRADE OF 1200 lbs/in.



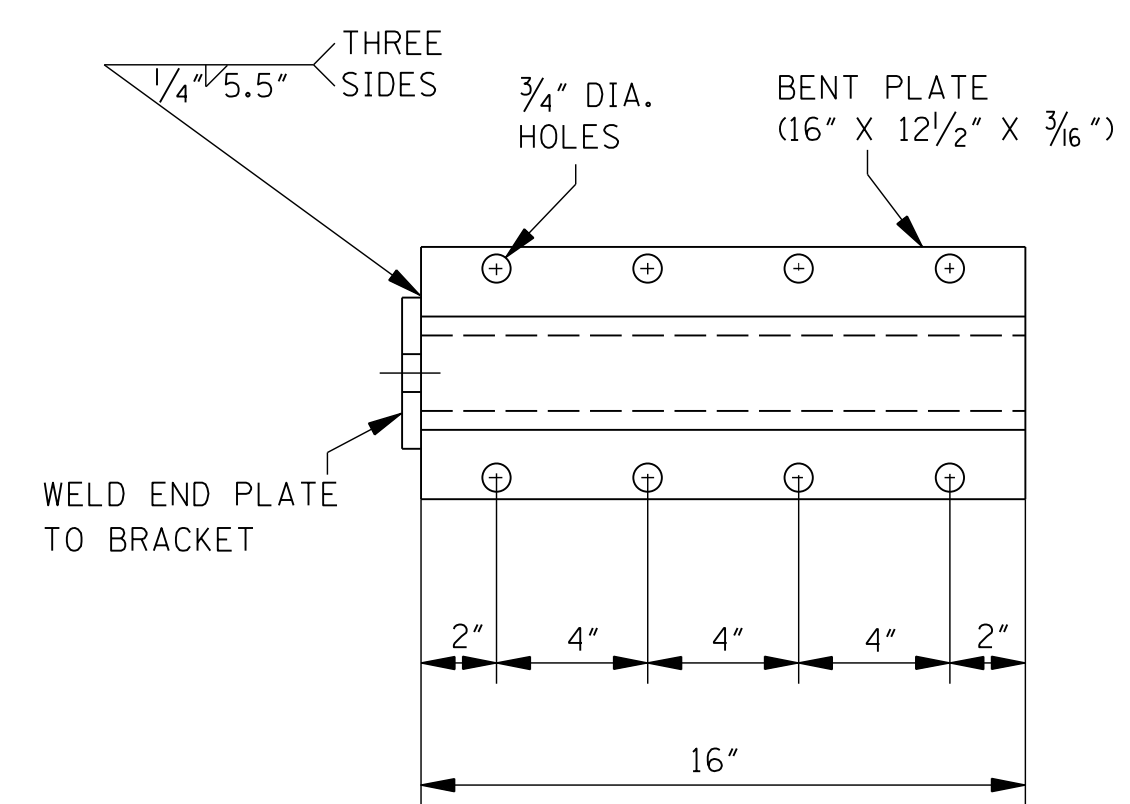
STEEL TUBE ANCHOR

NOTE: TERMINAL POST SHALL BE ABLE TO SLIDE INTO THE TOP OF THIS SECTION SO THE ACTUAL INSIDE DIMENSIONS OF THIS GALVANIZED TUBE CANNOT BE LESS THAN 7 1/2" X 5 1/2".

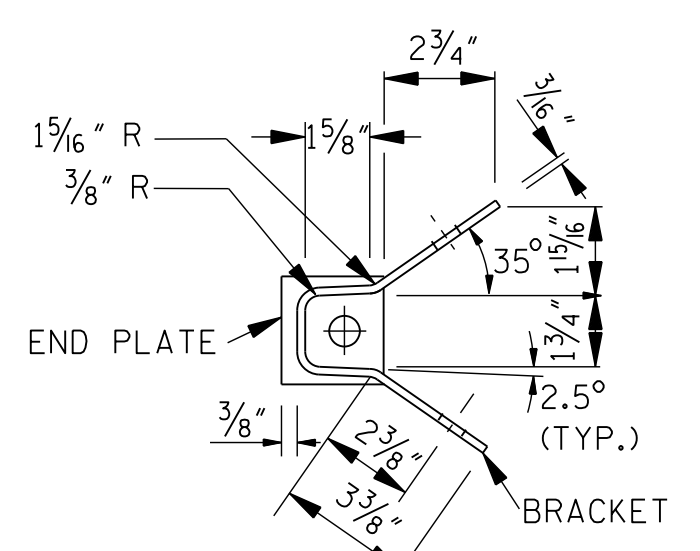


"W" BEAM TERMINAL CONNECTOR PLATE

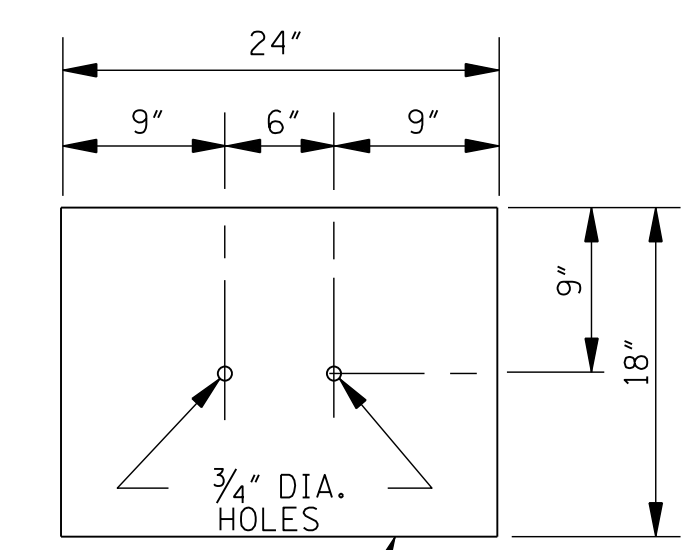
- NOTES:
1. THE "W" BEAM TERMINAL CONNECTOR SHALL BE AASHTO M 180 CORRUGATED SHEET STEEL, CLASS B, TYPE 1.
 2. SPLICE-BOLT SLOTS MAY ALSO BE ORIENTED AT 50° (ON THE FLAT) INSTEAD OF 0° AS SHOWN.



ANCHOR PLATE

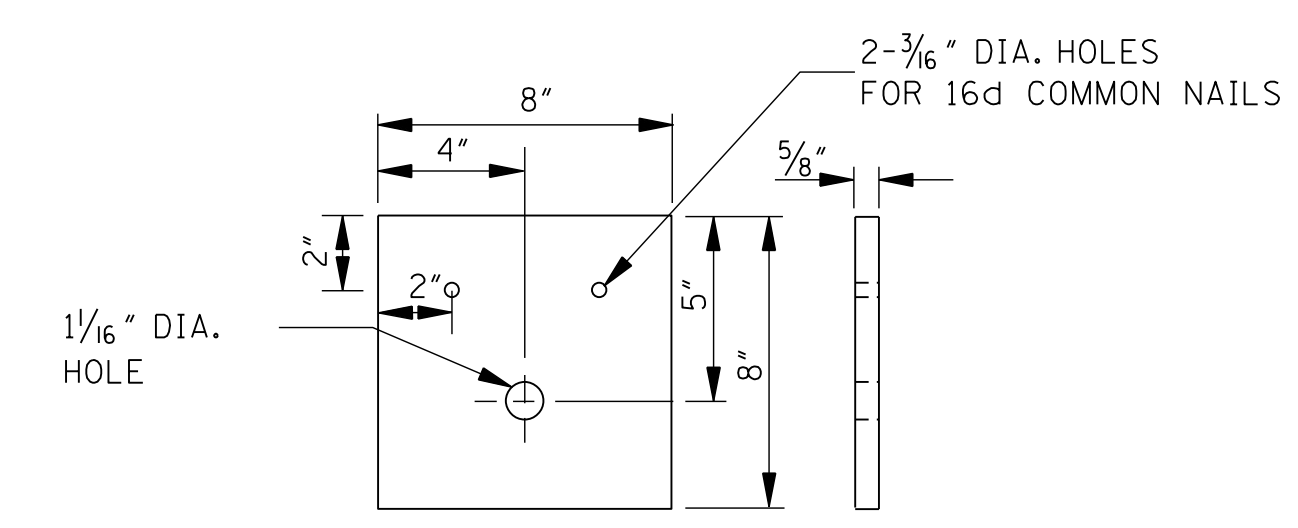


BRACKET

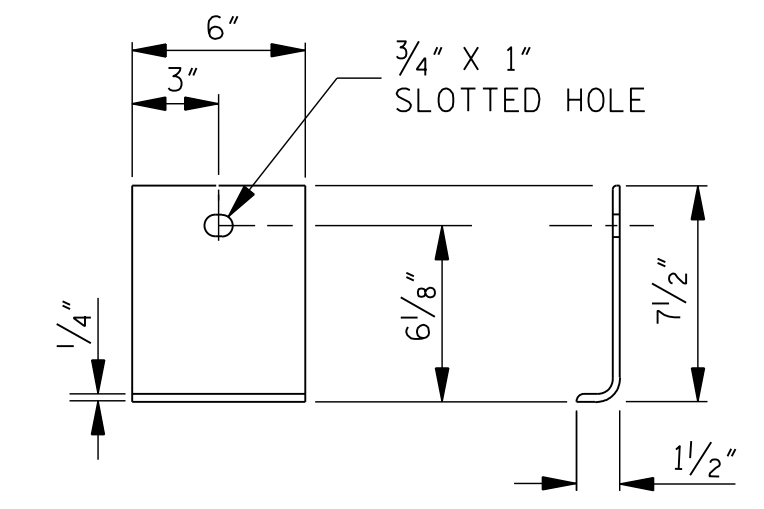


SOIL PLATE

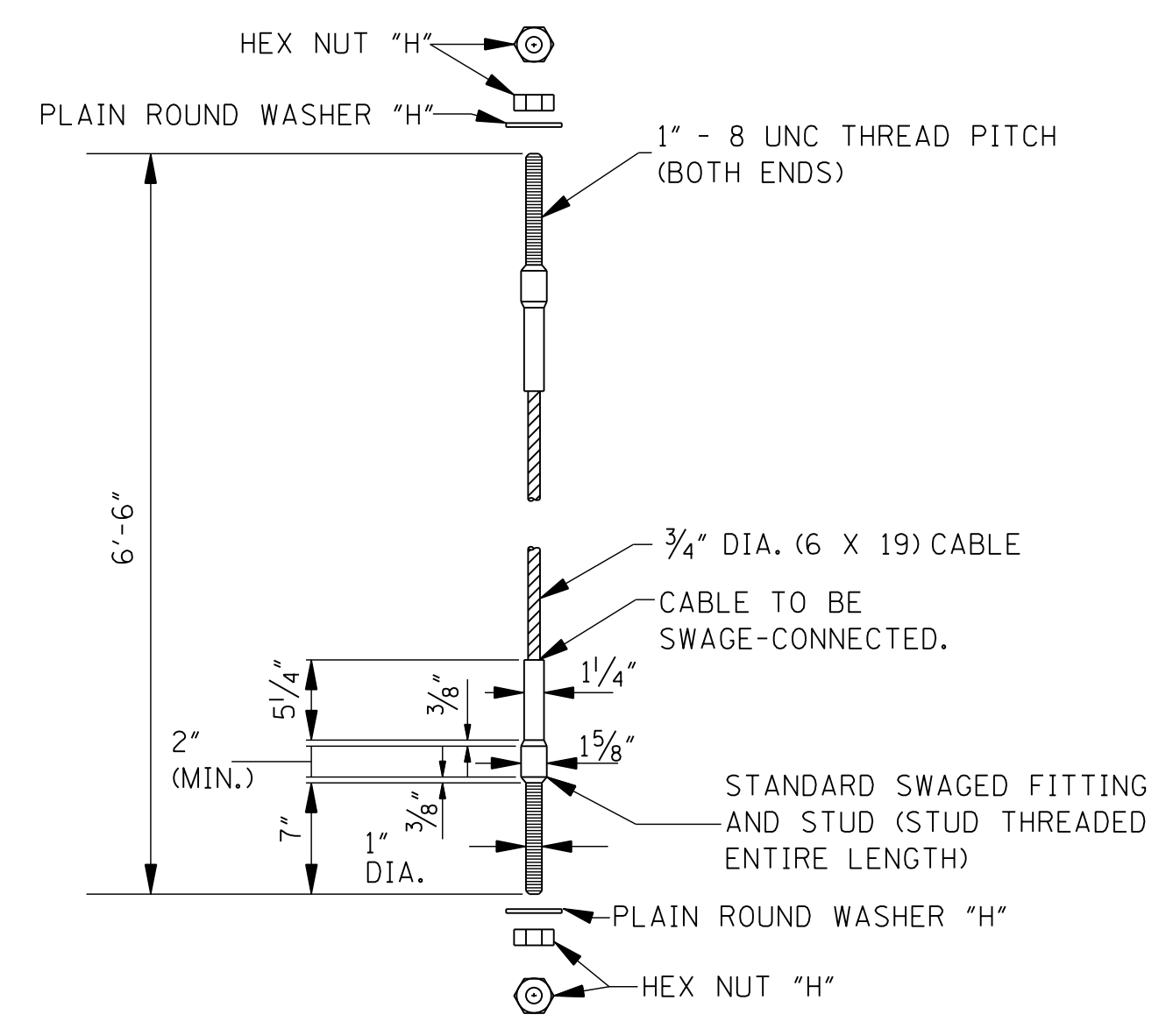
NOTE: 2 REQUIRED



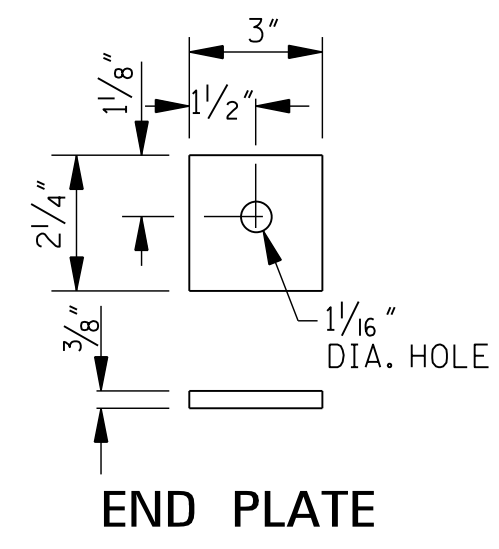
BEARING PLATE



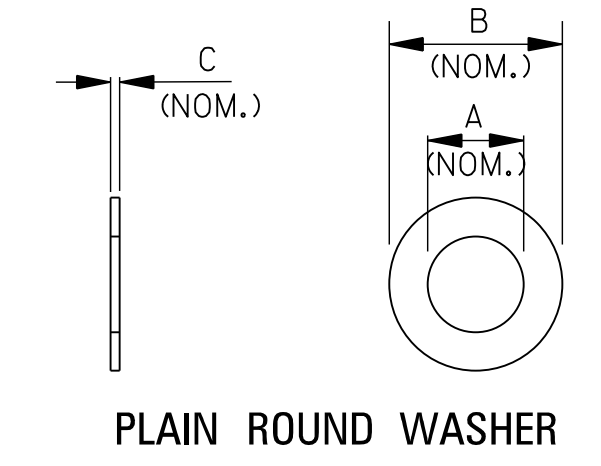
SHELF ANGLE BRACKET



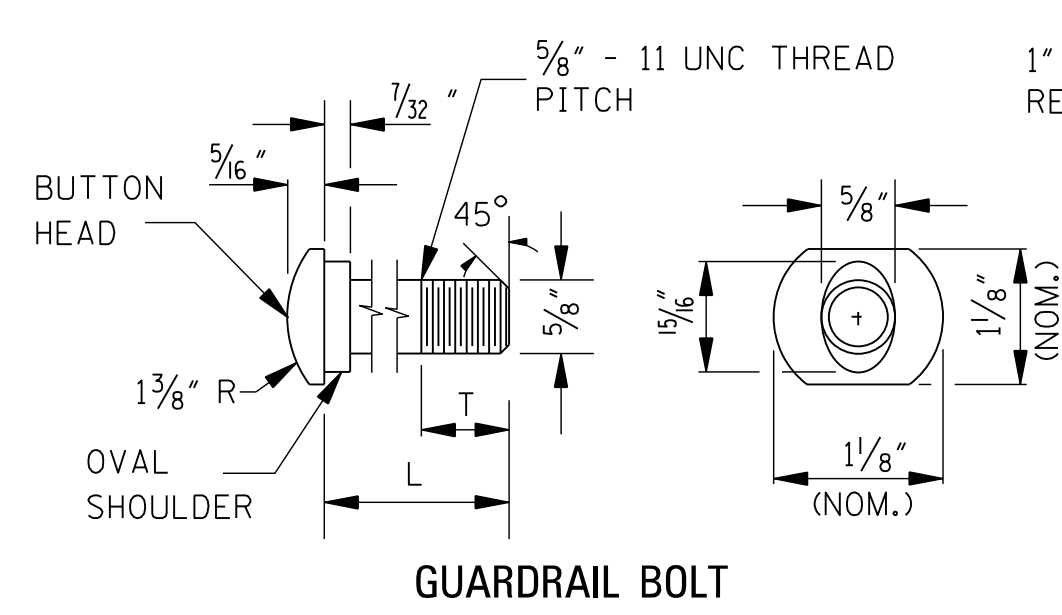
CABLE ANCHOR ASSEMBLY



END PLATE



PLAIN ROUND WASHERS			
WASHER	A (NOM.)	B (NOM.)	C (NOM.)
"F"	1 1/16"	1 3/4"	9/64"
"H"	1 1/16"	2"	3/64"

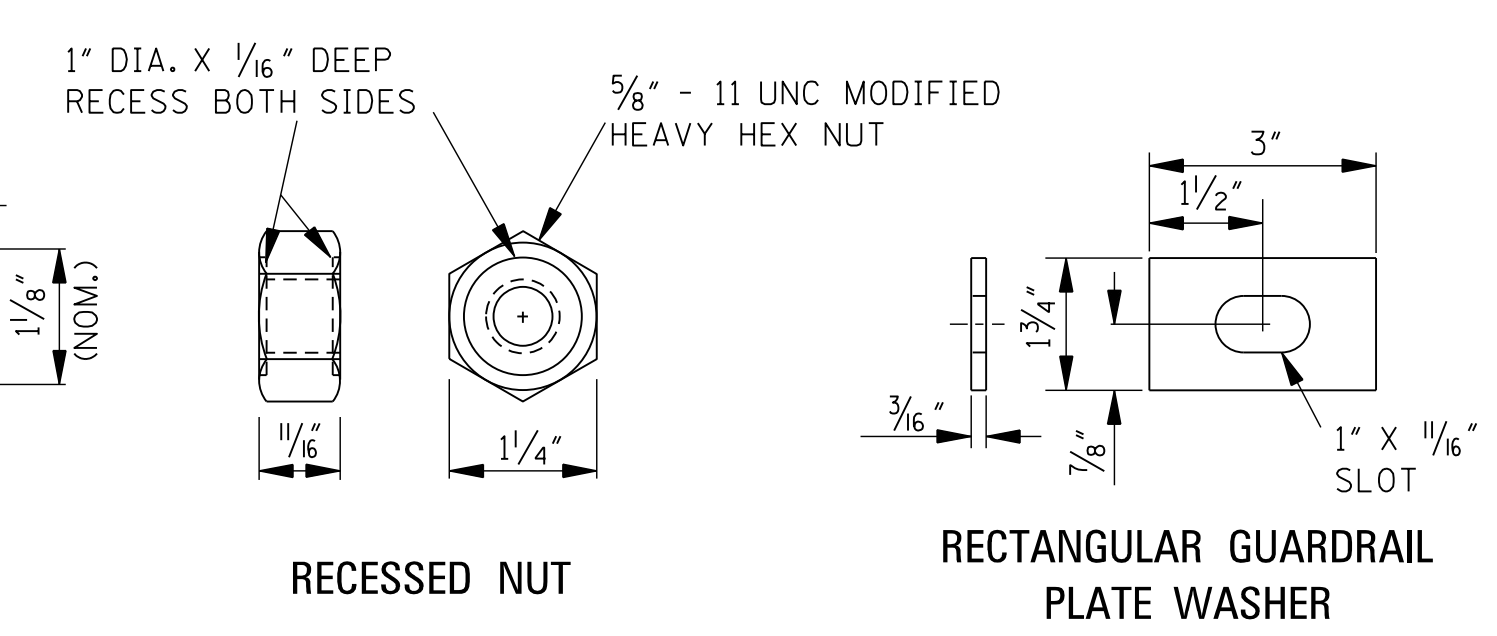


GUARDRAIL BOLT

GUARDRAIL BOLTS		
BOLT	L	T (MIN.)
"A"	1 1/4"	1"
"B"	12"	4"
"C"	14"	4"
"D"	22"	4"
"E"	24"	4"
"F"	33"	4"
	2"	1 3/4"
	10"	4"
	25"	4"

- NOTES:
1. ALL GUARDRAIL BOLTS ARE 5/8" - 11 UNC THREAD PITCH.
 2. IF ANY BOLT EXTENDS MORE THAN 1/4" FROM THE NUT, THE BOLT SHOULD BE TRIMMED BACK.

FASTENER DETAILS

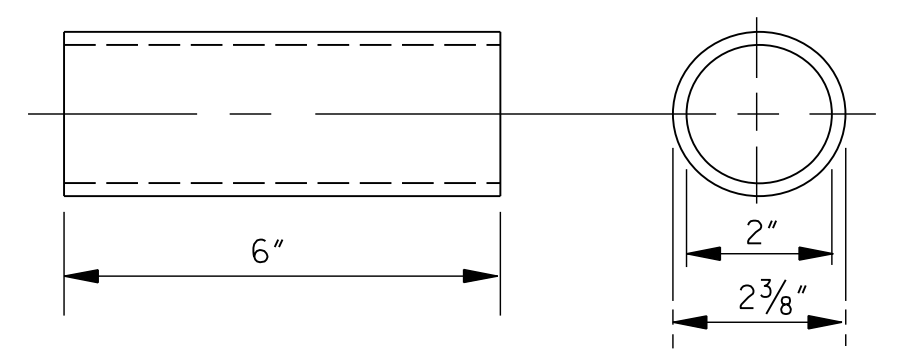


RECESSED NUT

RECTANGULAR GUARDRAIL PLATE WASHER

HEX NUT AND BOLT "F"

HEX NUT "H"

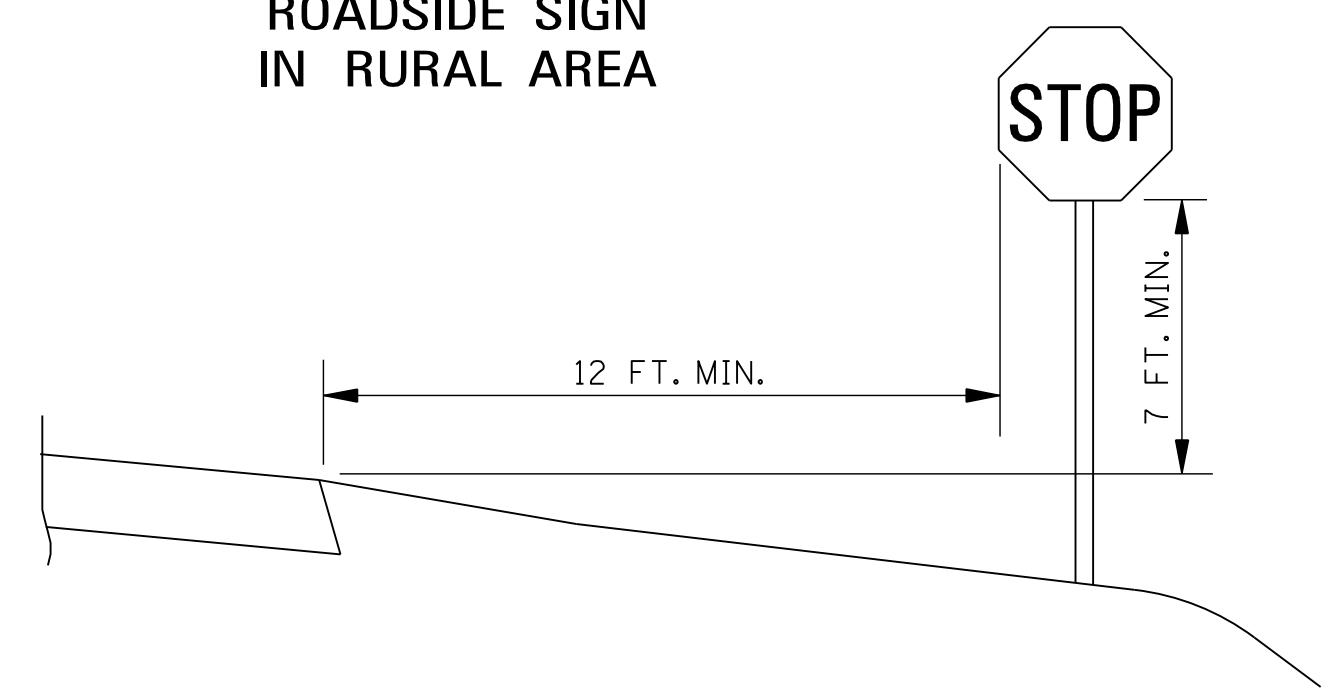


BREAKAWAY TERMINAL POST SLEEVE

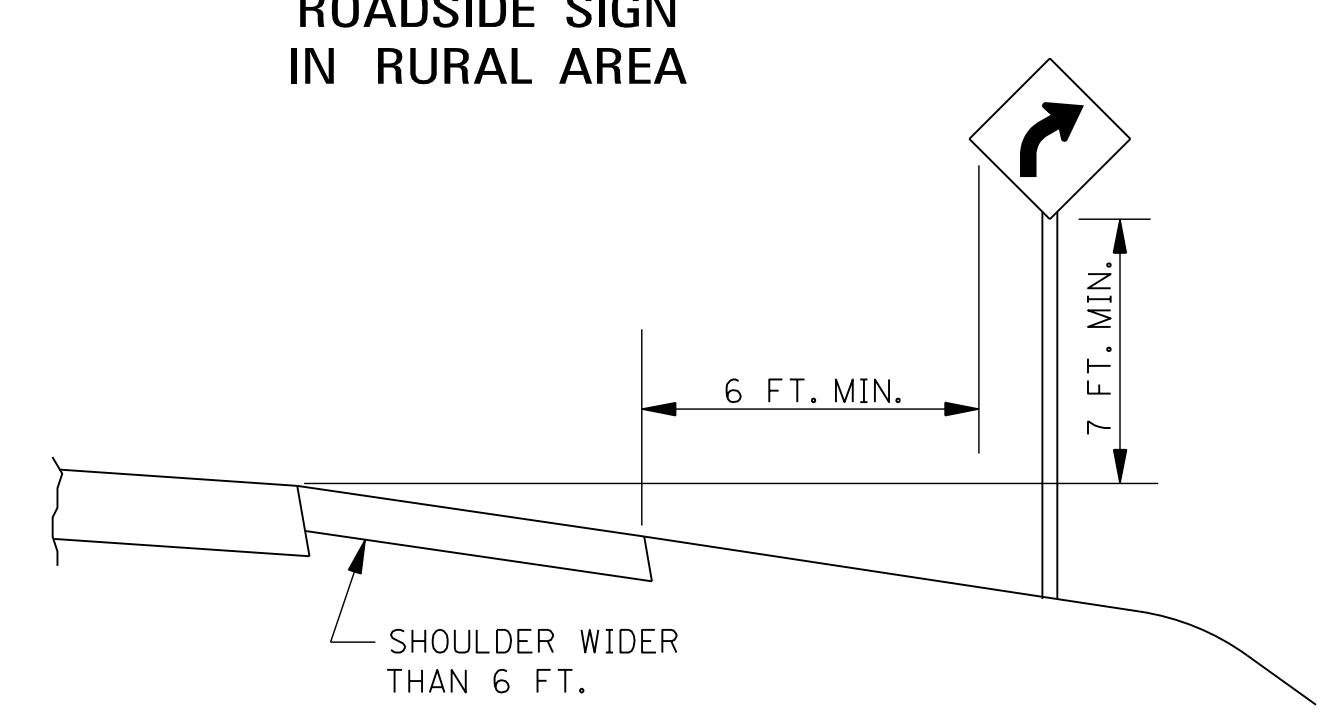
BY	MISSISSIPPI DEPARTMENT OF TRANSPORTATION ROADWAY DESIGN DIVISION STANDARD PLAN
REVISION	GUARDRAIL: MISCELLANEOUS HARDWARE
DATE	ISSUE DATE: AUGUST 01, 2017

WORKING NUMBER GR-HW
 SHEET NUMBER 6221

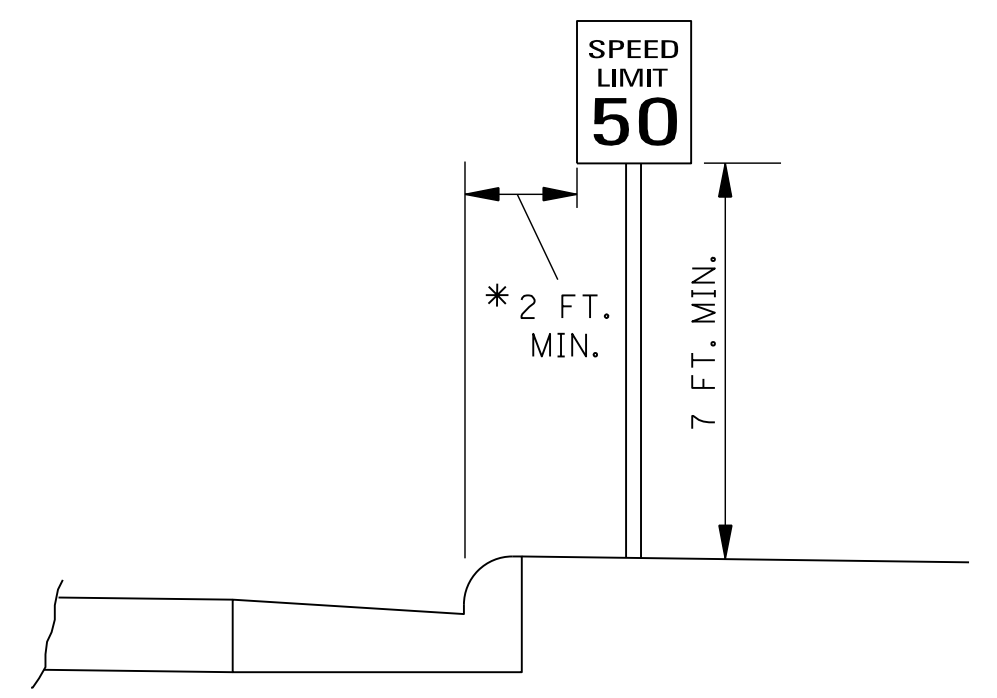
ROADSIDE SIGN IN RURAL AREA



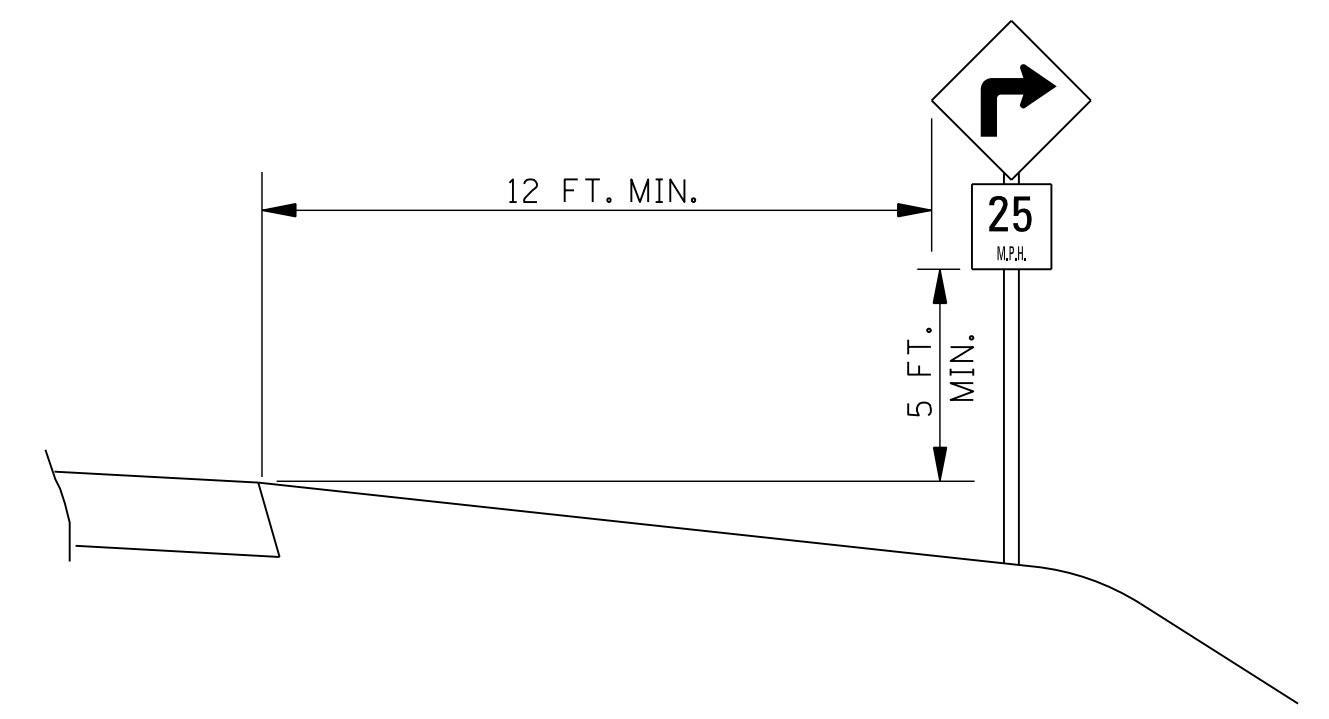
ROADSIDE SIGN IN RURAL AREA



ROADSIDE SIGN IN BUSINESS, COMMERCIAL, OR RESIDENTIAL AREA

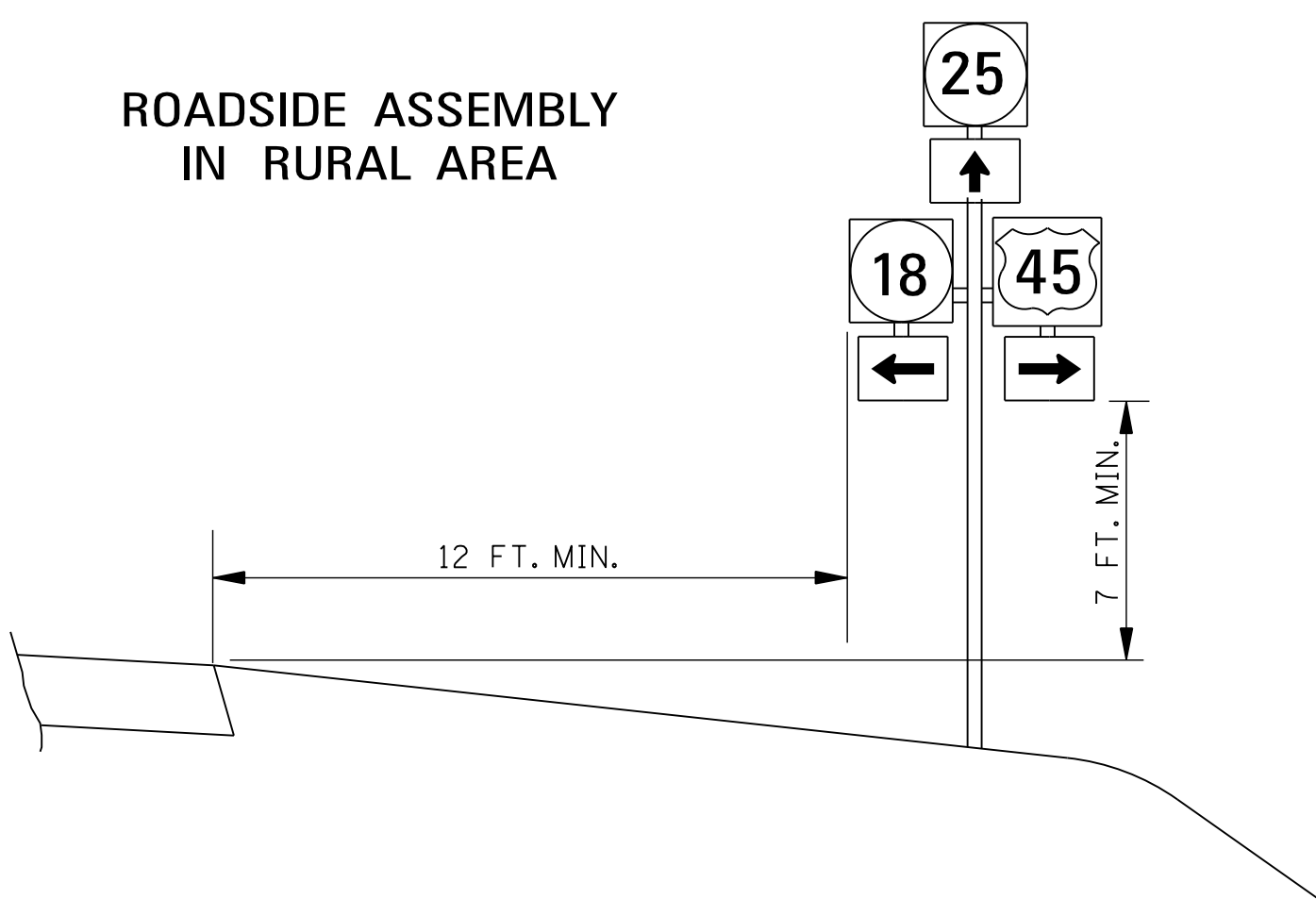


WARNING SIGN WITH ADVISORY SPEED PLAQUE IN RURAL AREA

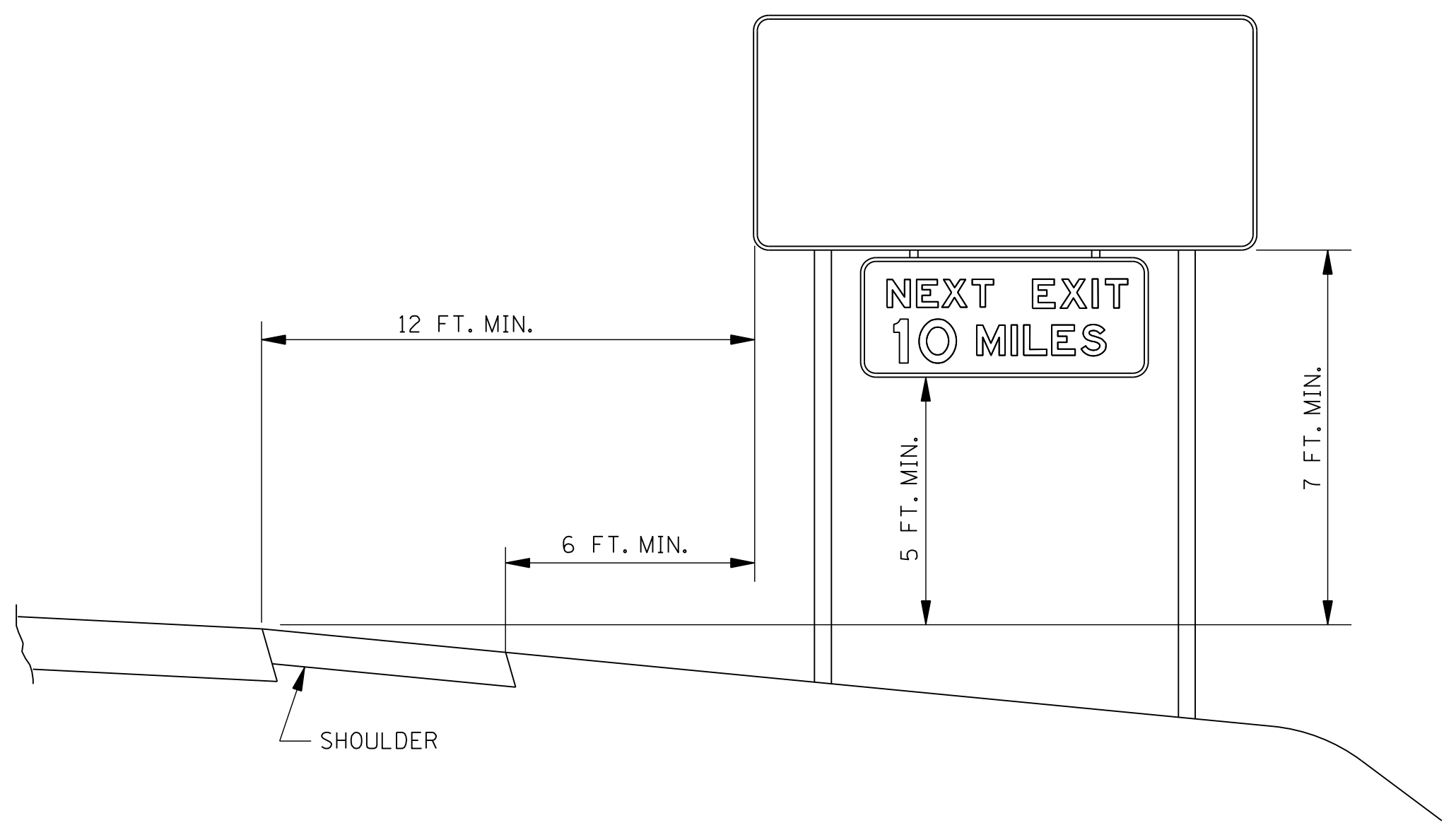


* THE 2 FT. MINIMUM OFFSET APPLIES ONLY TO STANDARD SIGNS MOUNTED ON U-POSTS. ALL STANDARD SIGNS MOUNTED ON PIPE WILL BE OFFSET A MINIMUM OF 4 FT.. RAMP DESTINATION SIGNS WILL BE OFFSET 4 FT. FROM THE SHOULDERS.

ROADSIDE ASSEMBLY IN RURAL AREA



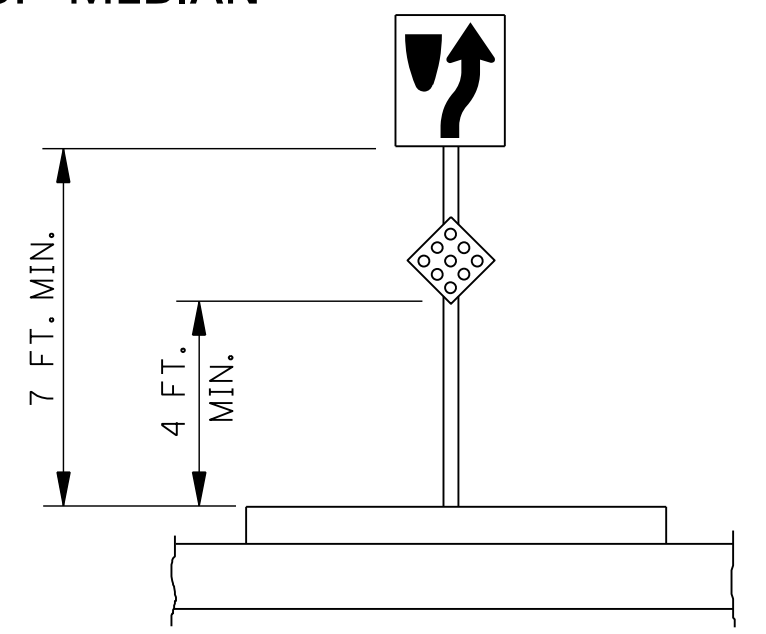
INTERSTATE OR FREEWAY SIGN WITH SECONDARY SIGN



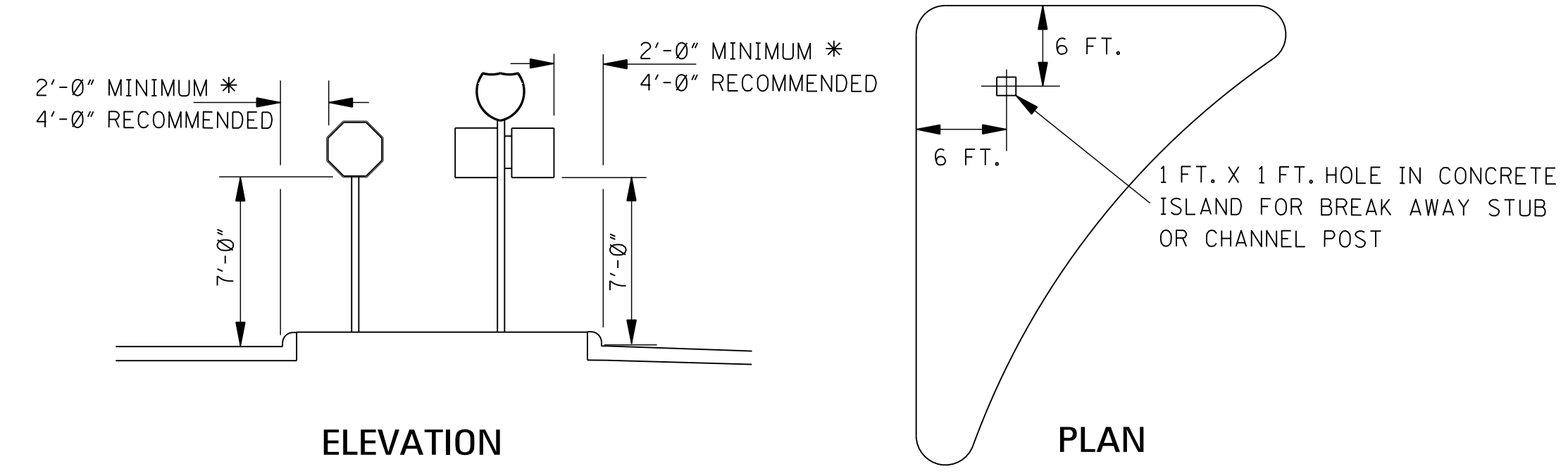
OVERHEAD SIGN



SIGN ON NOSE OF MEDIAN



SIGNS IN ISLANDS OR BEHIND CURB USING U-POSTS OR PIPE POSTS

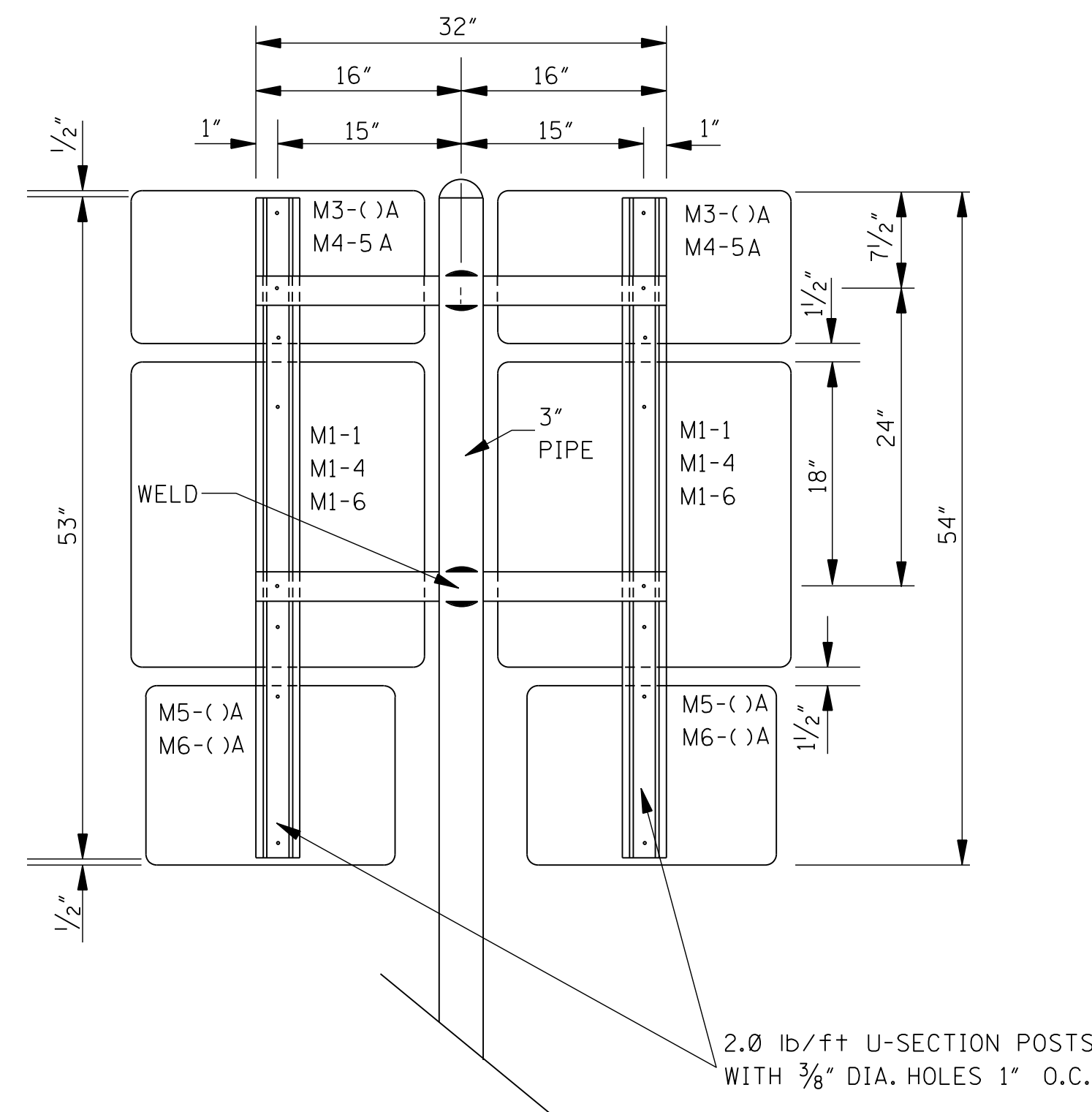
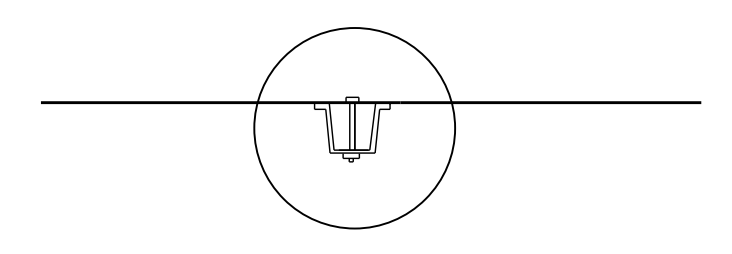
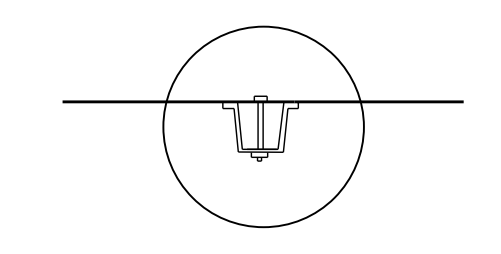
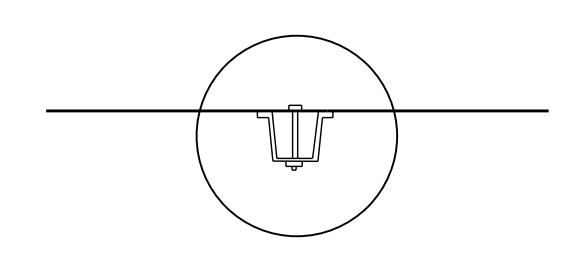
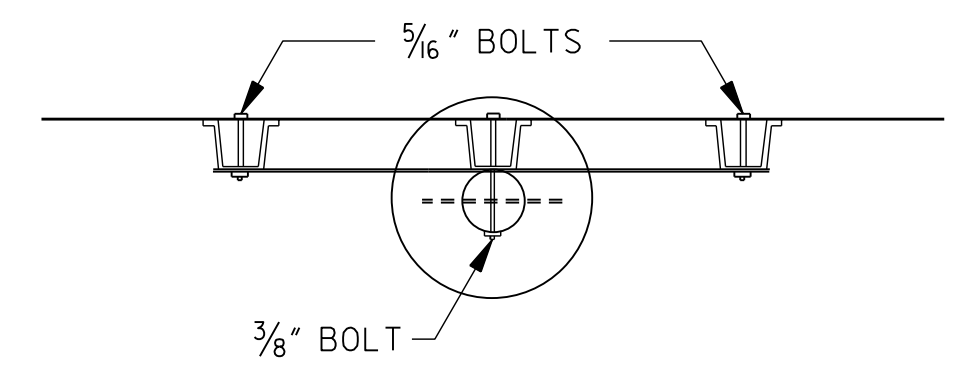
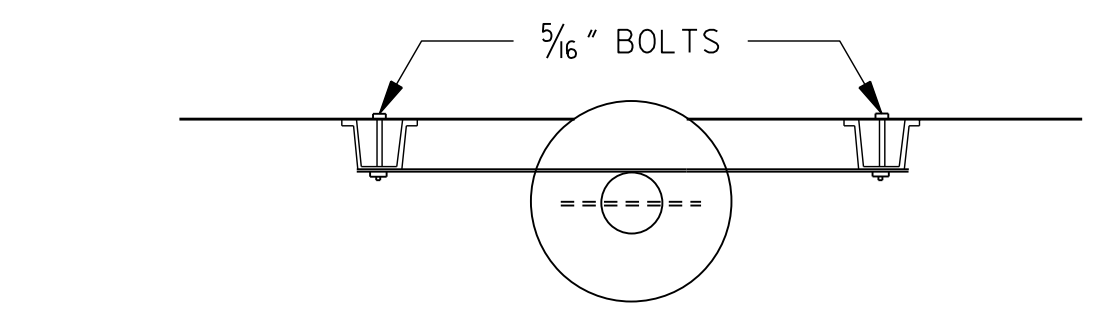


GENERAL NOTES:

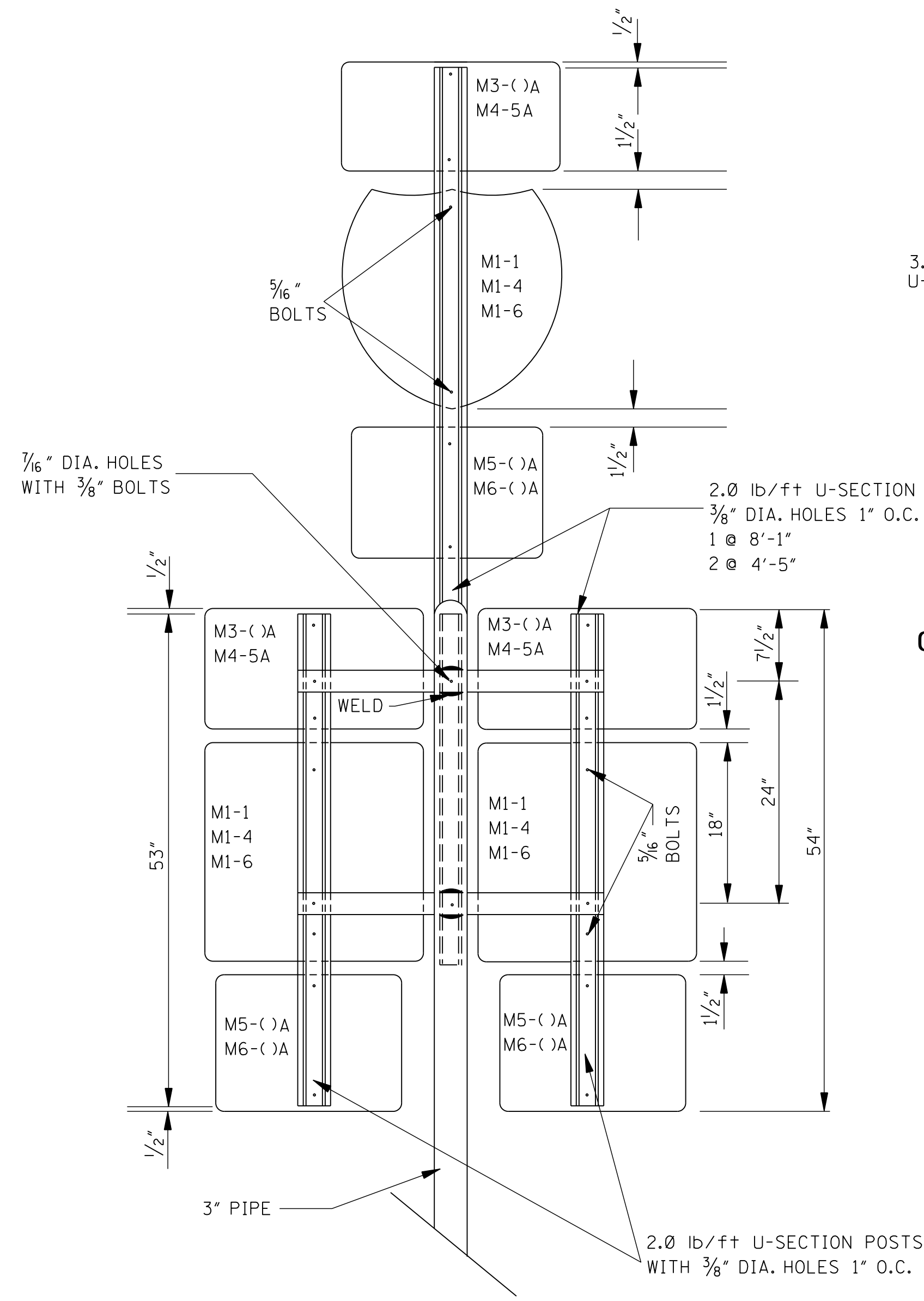
- SEE SECTION 2A-19 OF THE MUTCD FOR REDUCED LATERAL OFFSET DISTANCES THAT MAY BE USED IN AREAS WHERE LATERAL OFFSETS ARE LIMITED, AND IN BUSINESS, COMMERCIAL, OR RESIDENTIAL AREAS WHERE SIDEWALK WIDTH IS LIMITED OR WHERE EXISTING POLES ARE CLOSE TO THE CURB.
- SIGNS SHALL BE LOCATED OUTSIDE THE CLEAR ZONE UNLESS PLACED ON A BREAKAWAY OR YIELDING SUPPORT.

* THE 2 FT. MINIMUM OFFSET APPLIES ONLY TO STANDARD SIGNS MOUNTED ON U-POSTS. ALL STANDARD SIGNS MOUNTED ON PIPE WILL BE OFFSET A MINIMUM OF 4 FT.. RAMP DESTINATION SIGNS WILL BE OFFSET 4 FT. FROM THE SHOULDERS.

MISSISSIPPI DEPARTMENT OF TRANSPORTATION ROADWAY DESIGN DIVISION STANDARD PLAN	
STANDARD ROADSIDE SIGN ASSEMBLY AND INSTALLATION	
BY	
REVISION	
DATE	ISSUE DATE: AUGUST 01, 2017
WORKING NUMBER	SN-4
SHEET NUMBER	6306

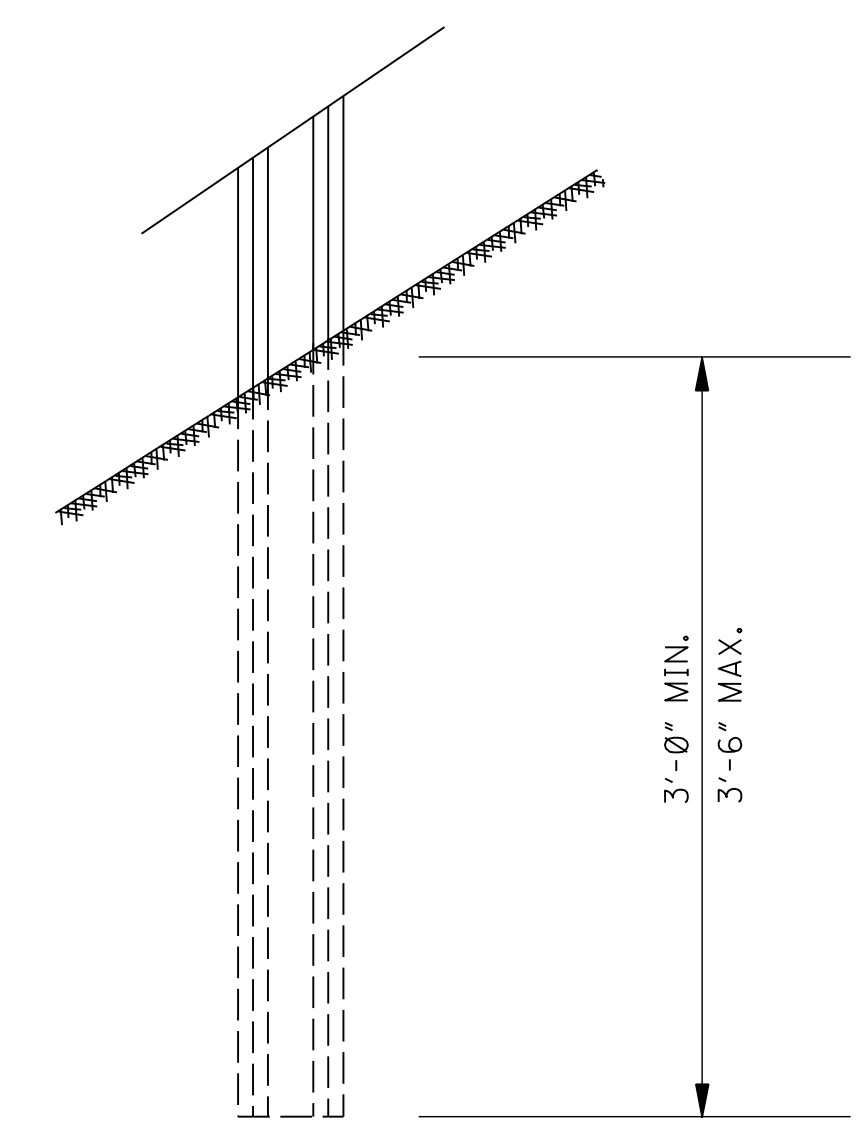
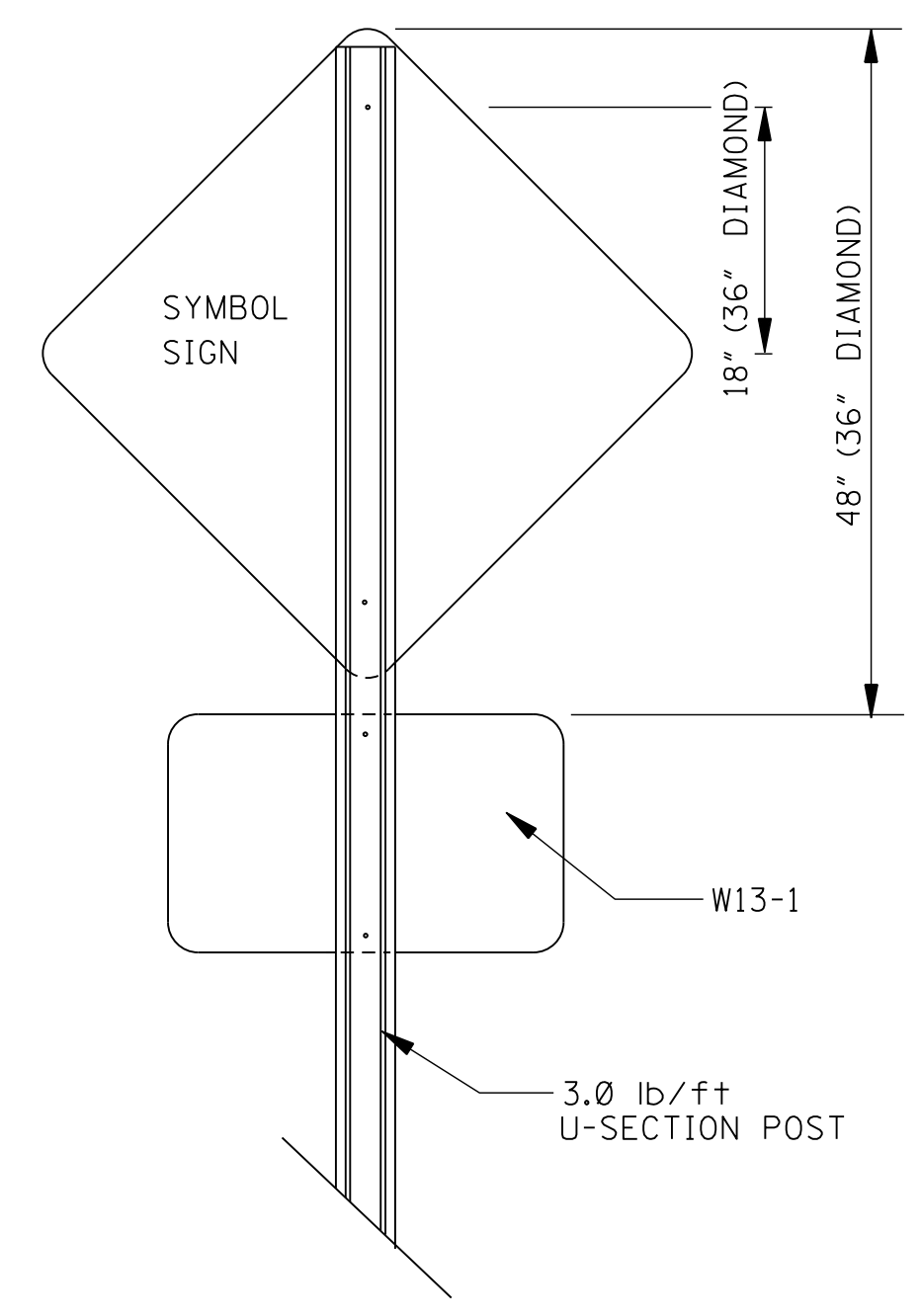
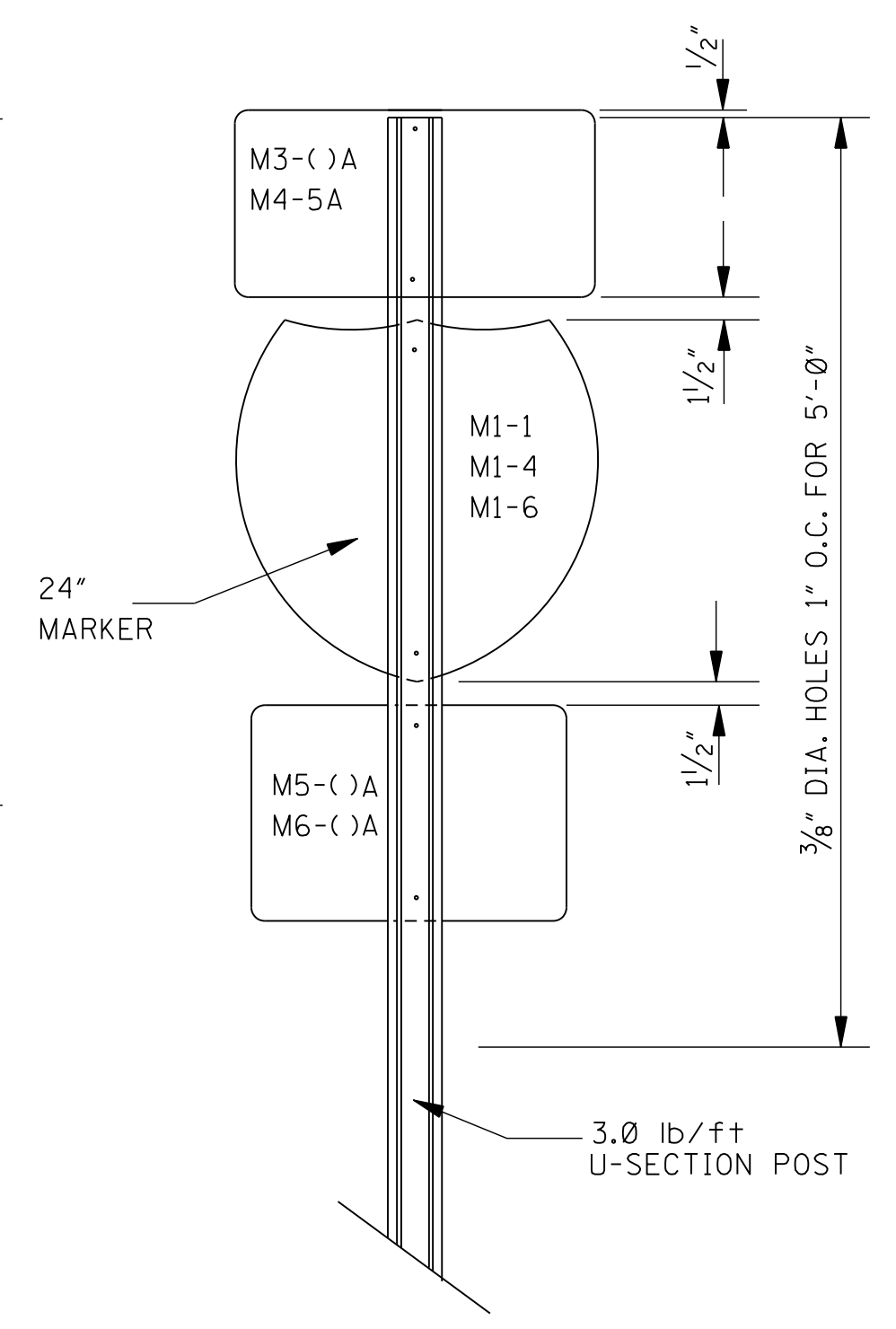
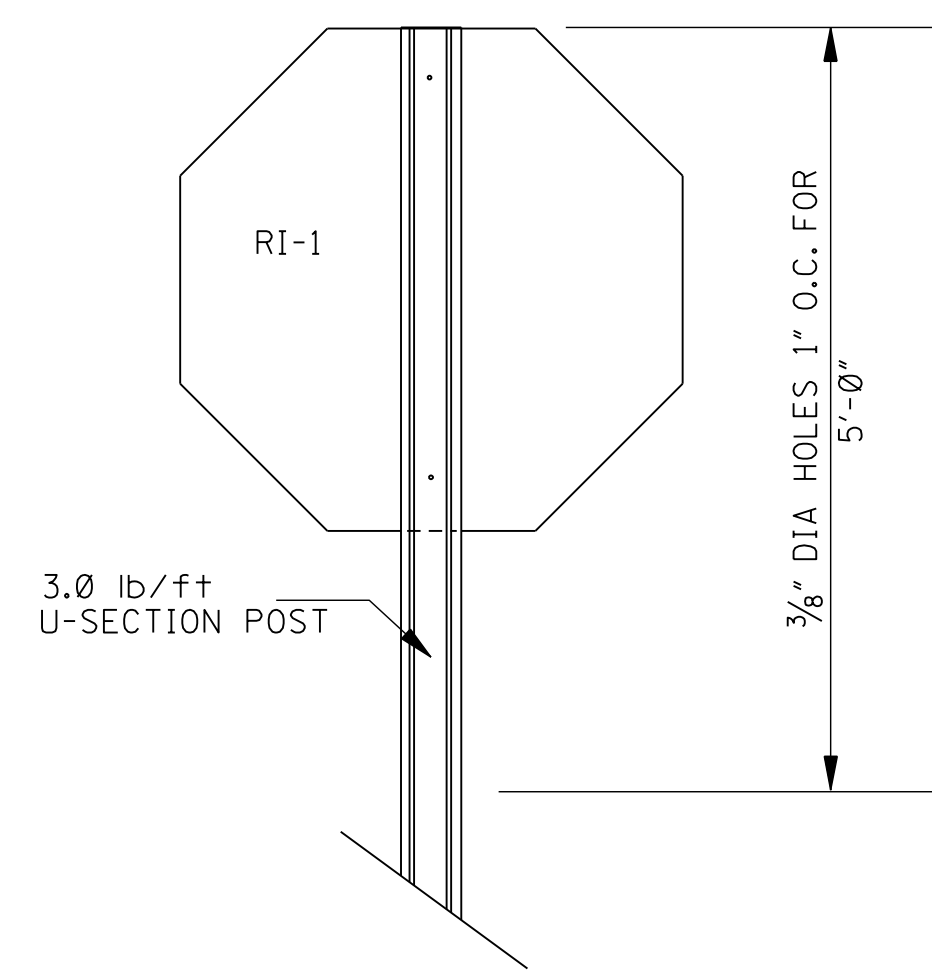


TYPICAL ROUTE ASSEMBLY



TYPICAL STACKED ROUTE ASSEMBLY

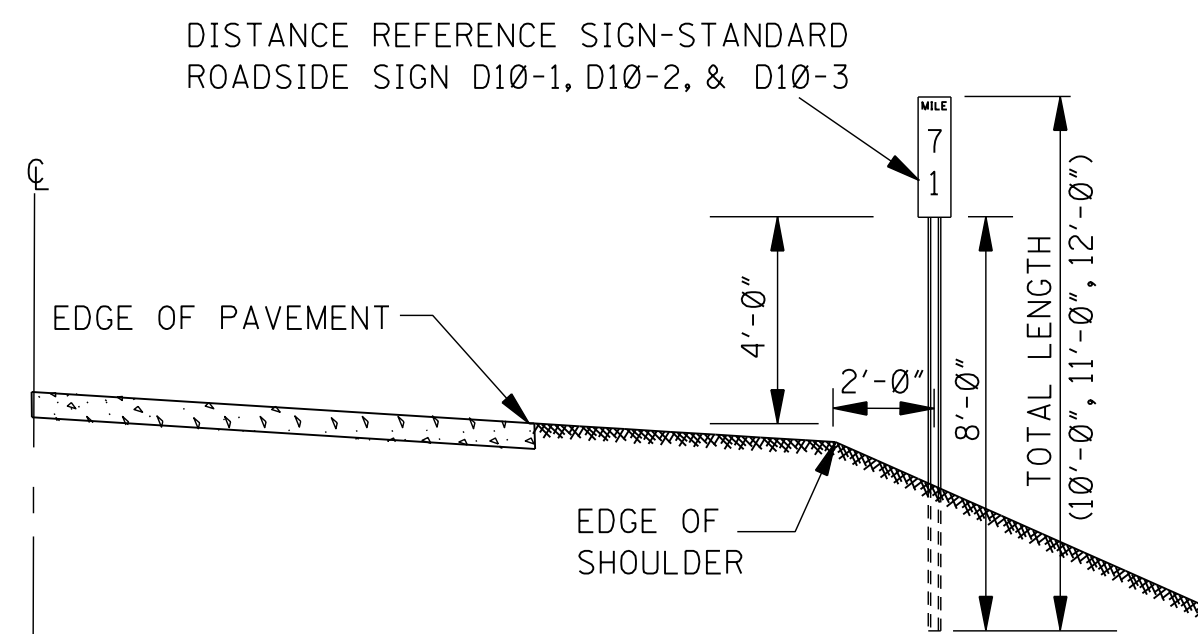
TYPICAL ASSEMBLY OF
"FLAT TOPPED" REGULATORY
OR WARNING SIGN MOUNTED ON
A SINGLE U-SECTION POST



FOOTING DETAIL FOR
U-SECTION POSTS

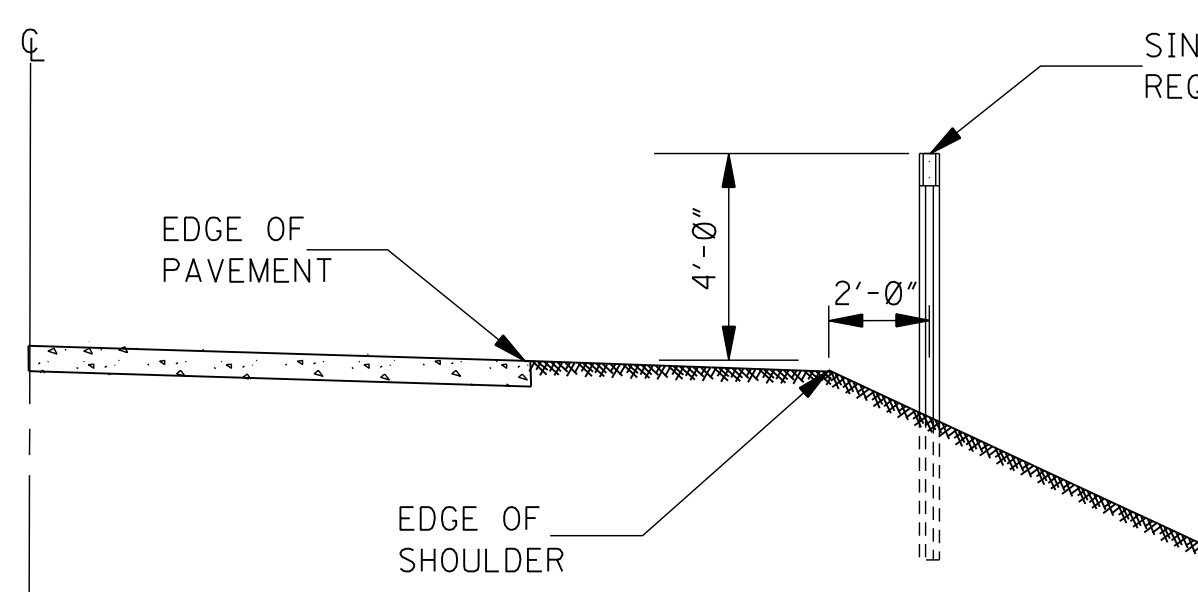
- GENERAL NOTES:
- UNLESS OTHERWISE SPECIFIED, HORIZONTAL BRACES ARE 3/16" X 2 1/2" X VARIABLE LENGTH FLAT STEEL BARS. BARS ARE WELDED TO PIPE AS SHOWN. WHEN FABRICATION IS COMPLETE, POST SHALL BE GALVANIZED AS PER SECTION 630 OF THE STANDARD SPECIFICATION.
 - HOLES IN FLAT BARS ARE 3/8" DIAMETER.
 - SIGNS ARE FASTENED TO FLAT BARS AND U-SECTION POST WITH 5/16" BOLTS, WITH FLAT WASHER AND LOCK-NUTS.
 - GROUND PLATE NOT REQUIRED ON U-SECTION POST.
 - SEE WK. NO. SN-4B FOR DETAIL OF 3" PIPE FOOTING DETAIL.

BY		MISSISSIPPI DEPARTMENT OF TRANSPORTATION ROADWAY DESIGN DIVISION STANDARD PLAN	
REVISION		<p align="center">STANDARD ROADSIDE SIGN ASSEMBLY AND INSTALLATION</p> 	
DATE			
ISSUE DATE:		AUGUST 01, 2017	
WORKING NUMBER		SN-4A	
SHEET NUMBER		6307	

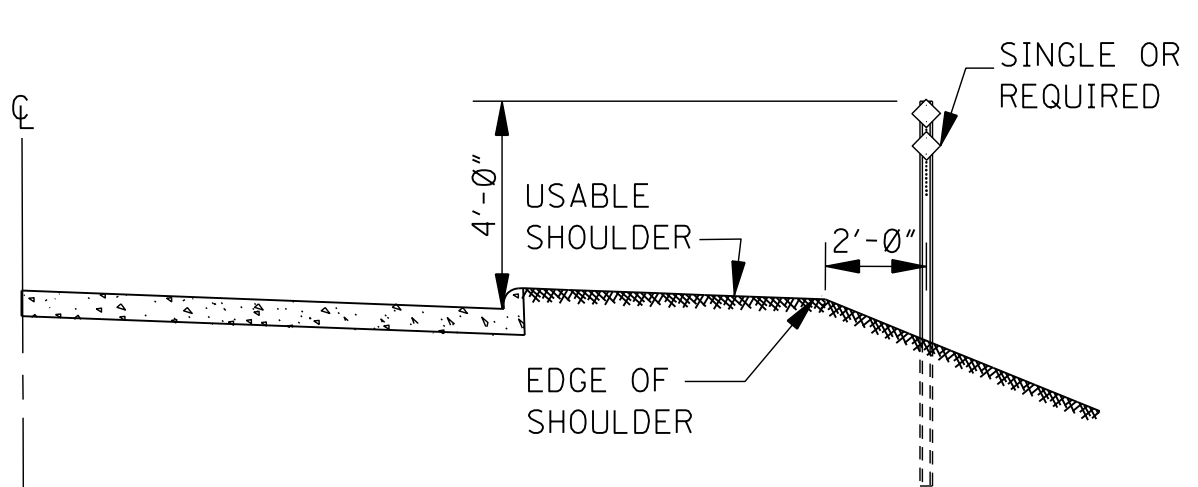


DISTANCE REFERENCE SIGN MOUNTING ON OUTSIDE SHOULDER ALONG MAIN FACILITY

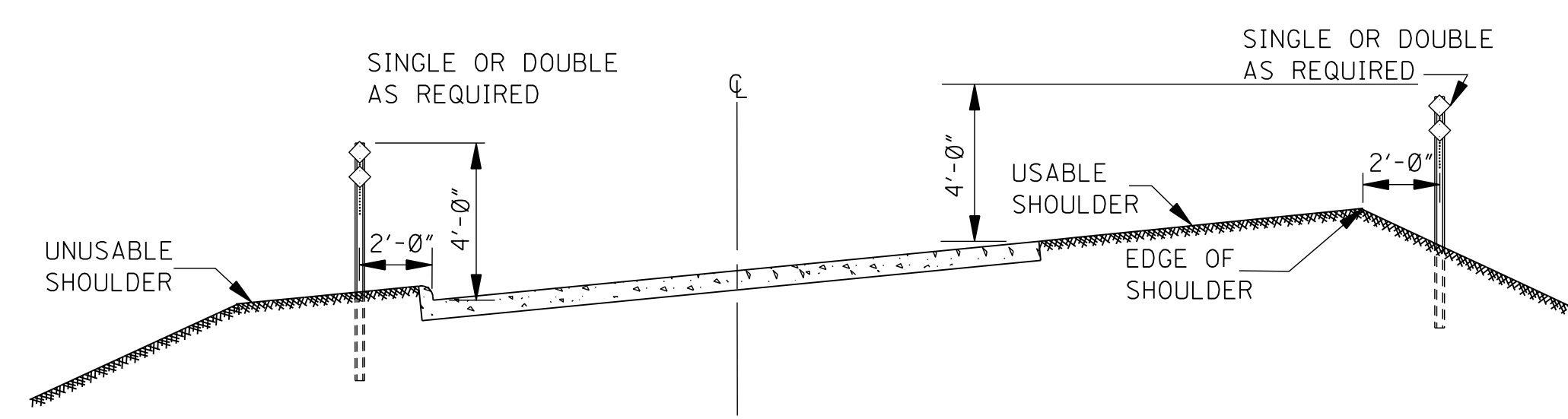
NOTE: SIGN MOUNTING ON LEFT LANE SHOULDER SHALL BE 90° OPPOSITE THE RIGHT LANE STATION. IF CONDITIONS ARE SUCH THAT MILE SIGN CANNOT BE LOCATED WITHIN 50 FEET OF ITS TRUE LOCATION, IT SHALL BE OMITTED ENTIRELY.



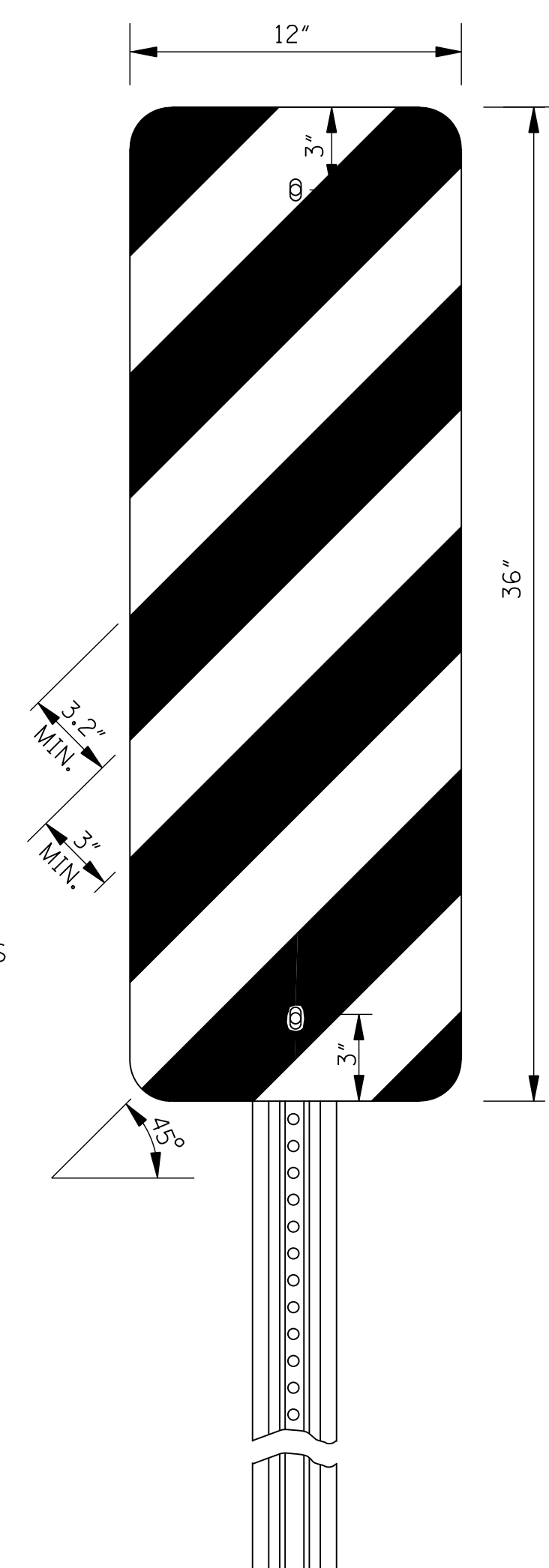
DELINEATOR MOUNTING ON OUTSIDE SHOULDER ALONG MAIN FACILITY OR RAMP



DELINEATOR MOUNTING ON OUTSIDE SHOULDER WITH MOUNTABLE CURB ALONG MAIN FACILITY OR RAMP

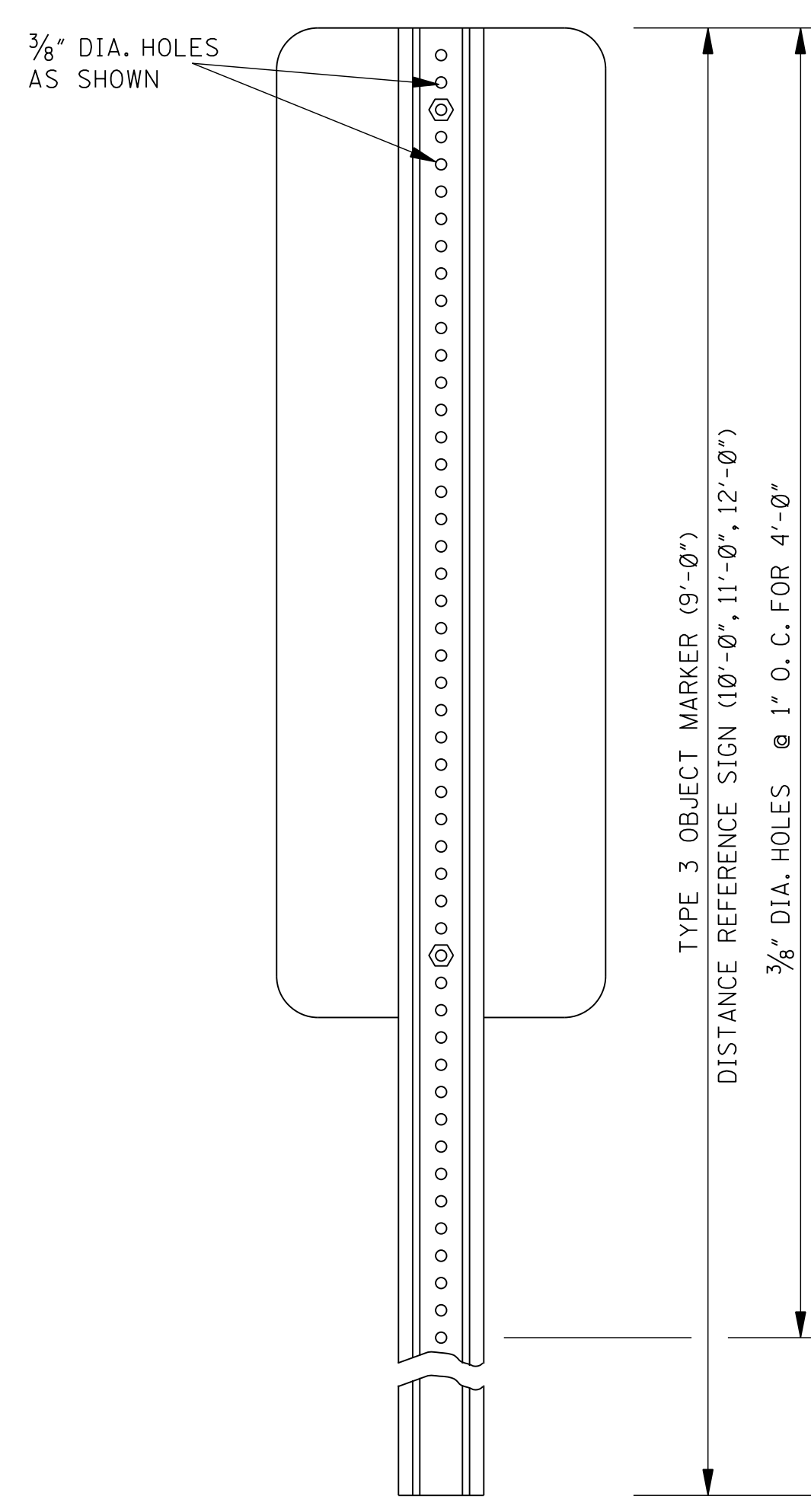


DELINEATOR MOUNTING ON INTERCHANGE LOOPS WITH UNMOUNTABLE CURB ON INSIDE



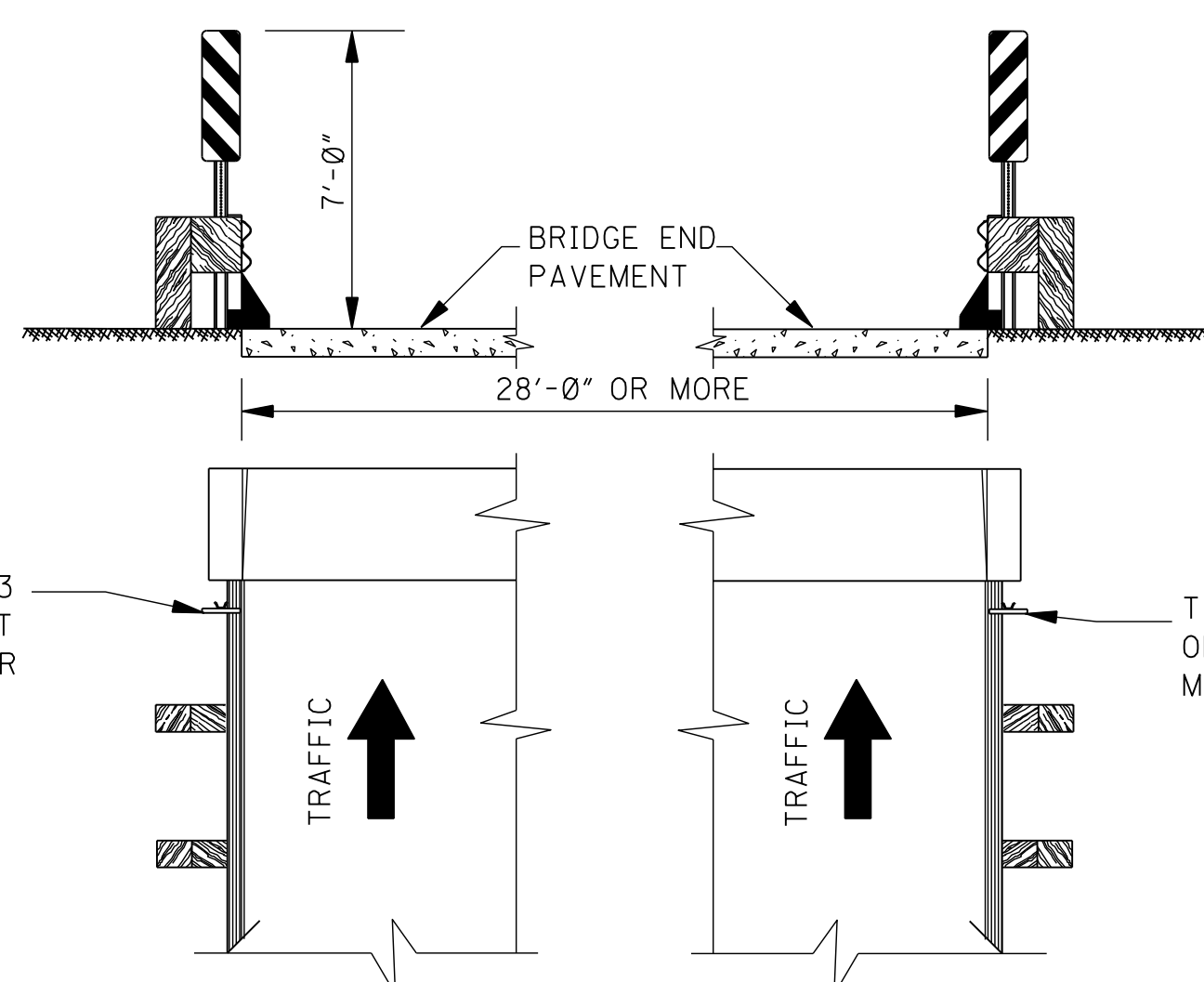
DETAIL OF TYPE 3 OBJECT MARKER

NOTE: COLORS- BLACK AND YELLOW. STRIPING SHOWN ABOVE FOR RIGHT SIDE ONLY. STRIPES SLANT DOWNWARD TO THE RIGHT FOR LEFT SIDE OF BRIDGE END. SEE DETAIL BELOW.

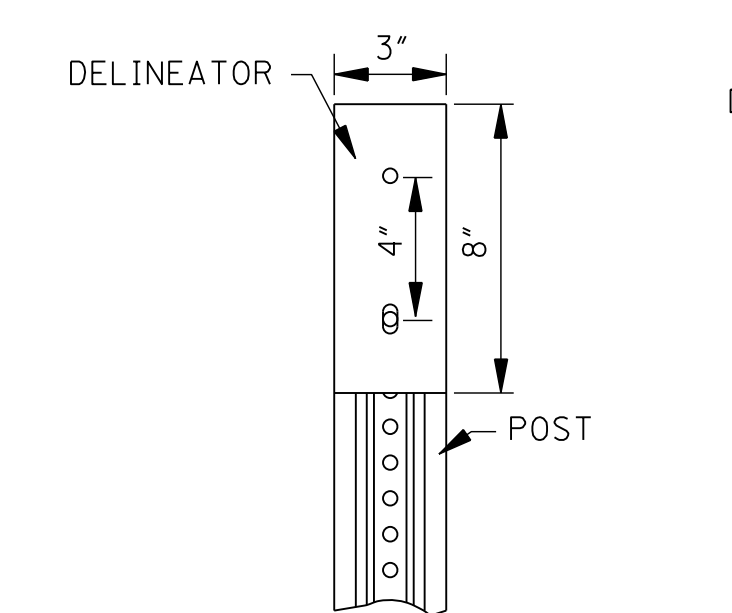


REAR VIEW OF TYPE 3 OBJECT MARKER OR DISTANCE REFERENCE SIGN ASSEMBLY

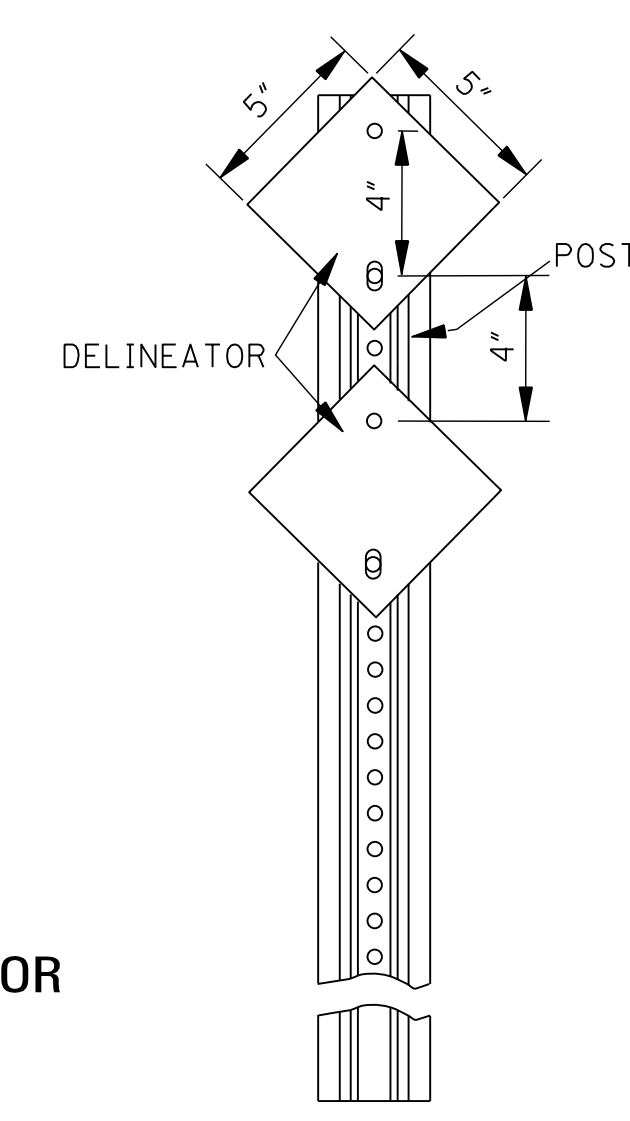
NOTE: TYPE 3 OBJECT MARKER AND DISTANCE REFERENCE SIGNS SHALL BE FASTENED TO U-SECTION POSTS WITH 3/8" DIA. BLIND FASTENERS OF THE COLLAR TYPE.



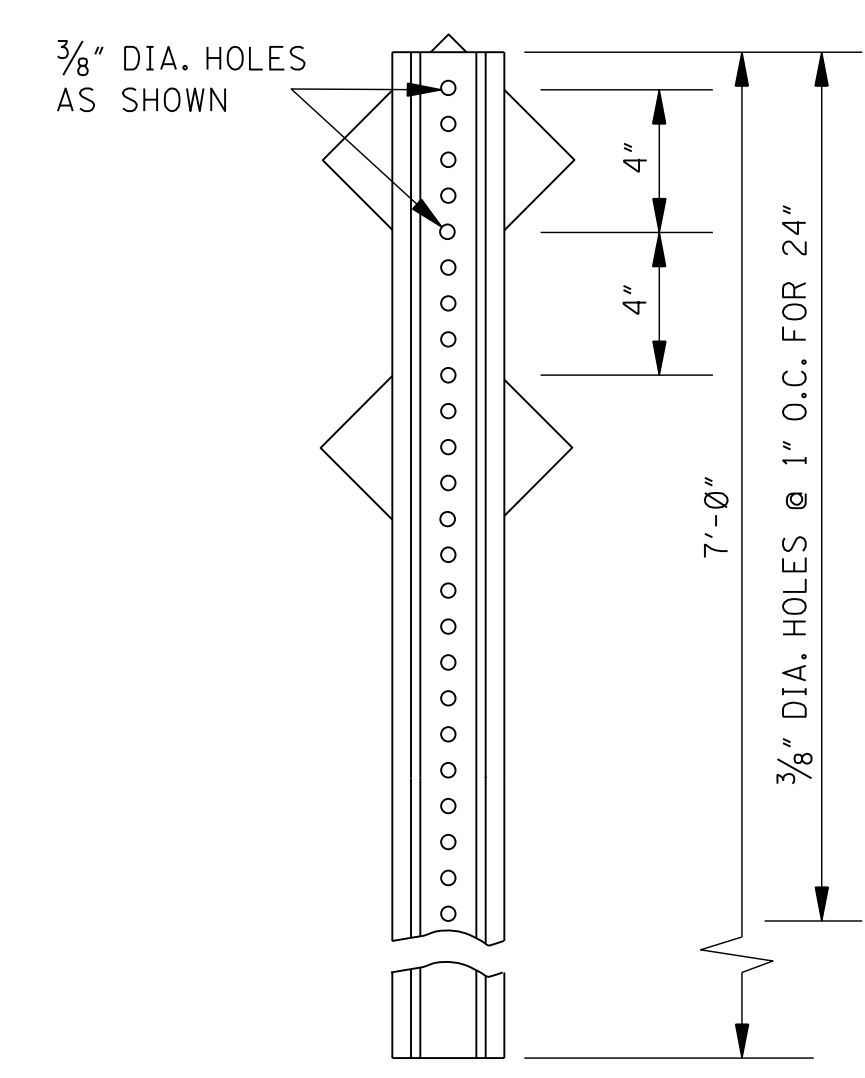
DETAIL OF TYPE 3 OBJECT MARKER INSTALLATION



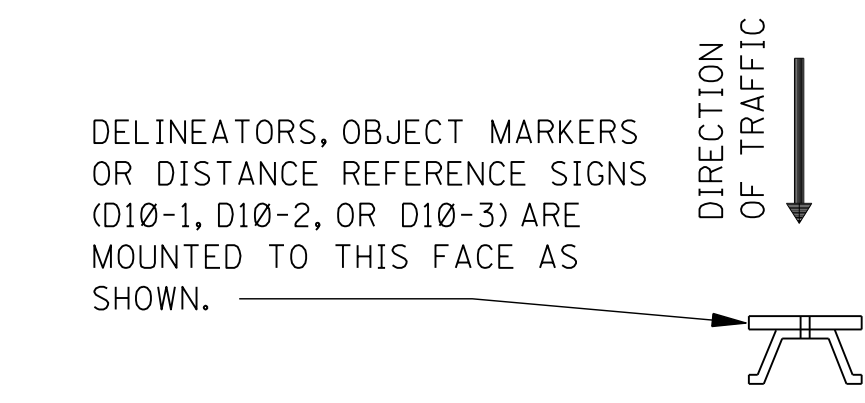
DETAIL OF SINGLE WHITE OR SINGLE YELLOW DELINEATOR



DETAIL OF DOUBLE WHITE OR DOUBLE YELLOW DELINEATOR



REAR VIEW OF DELINEATOR ASSEMBLY



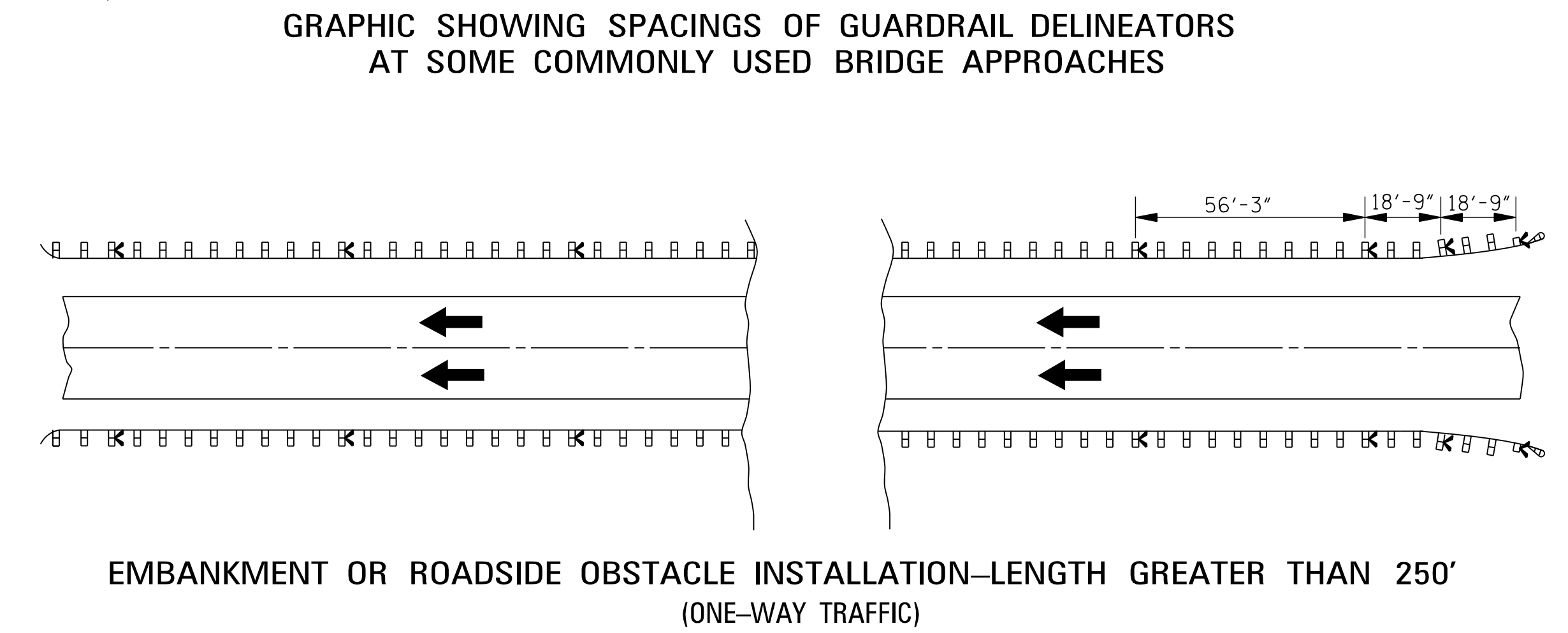
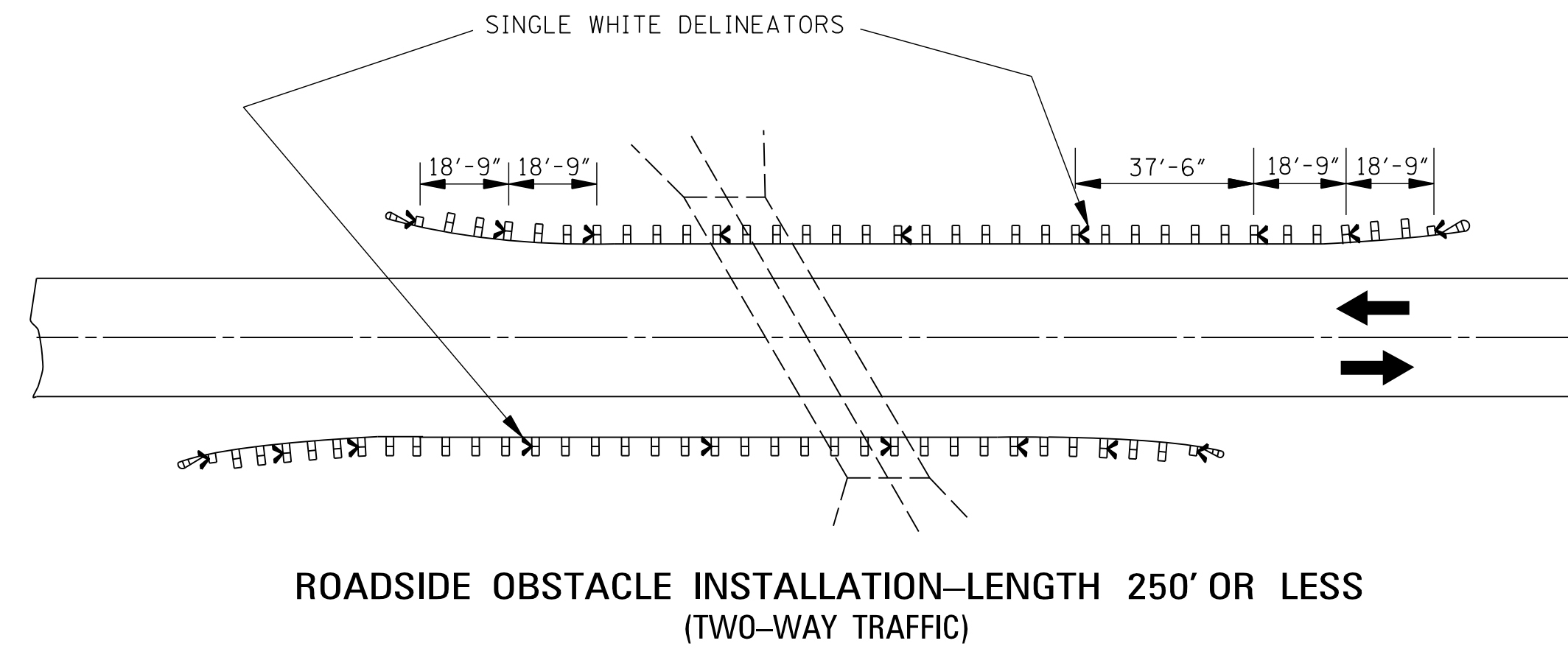
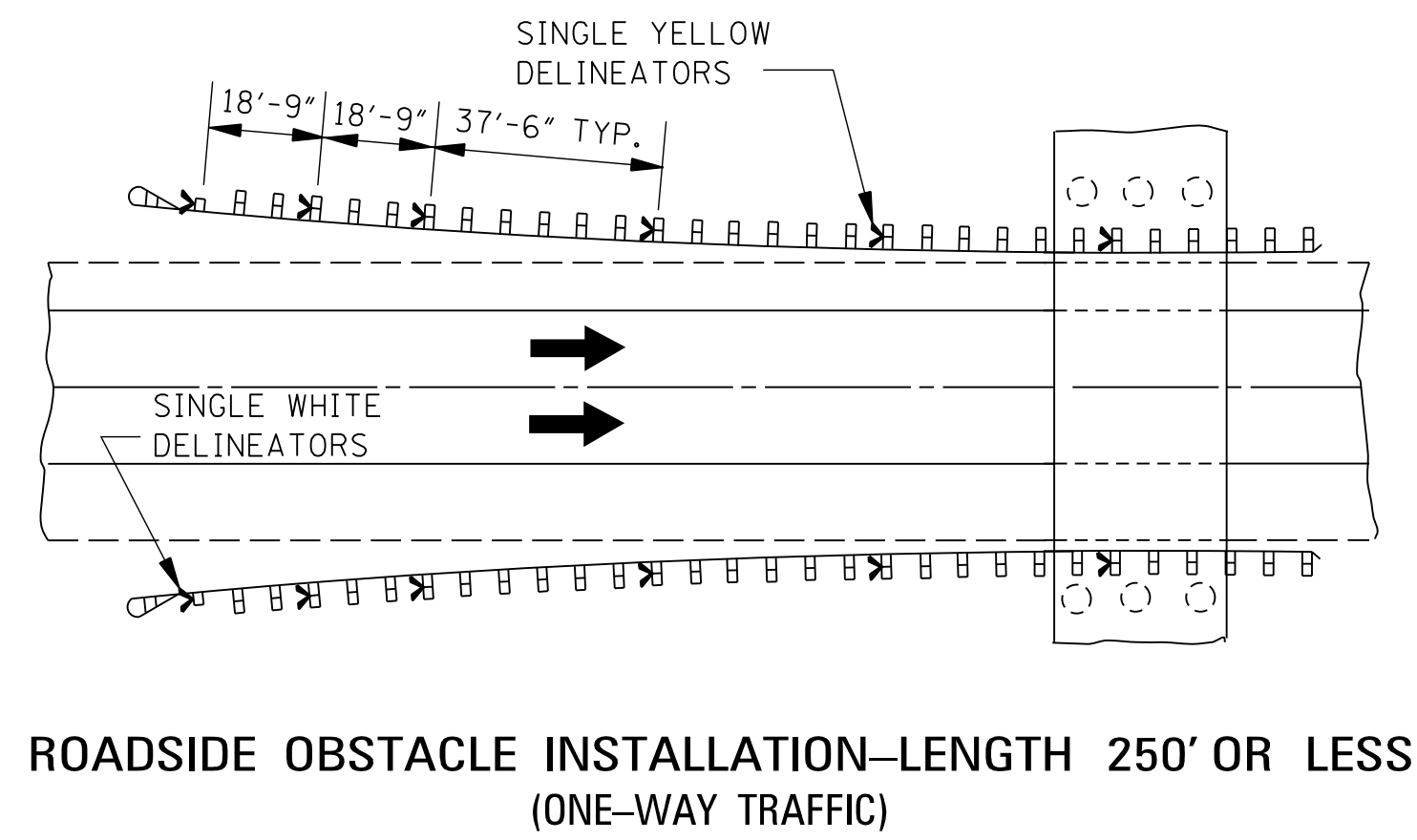
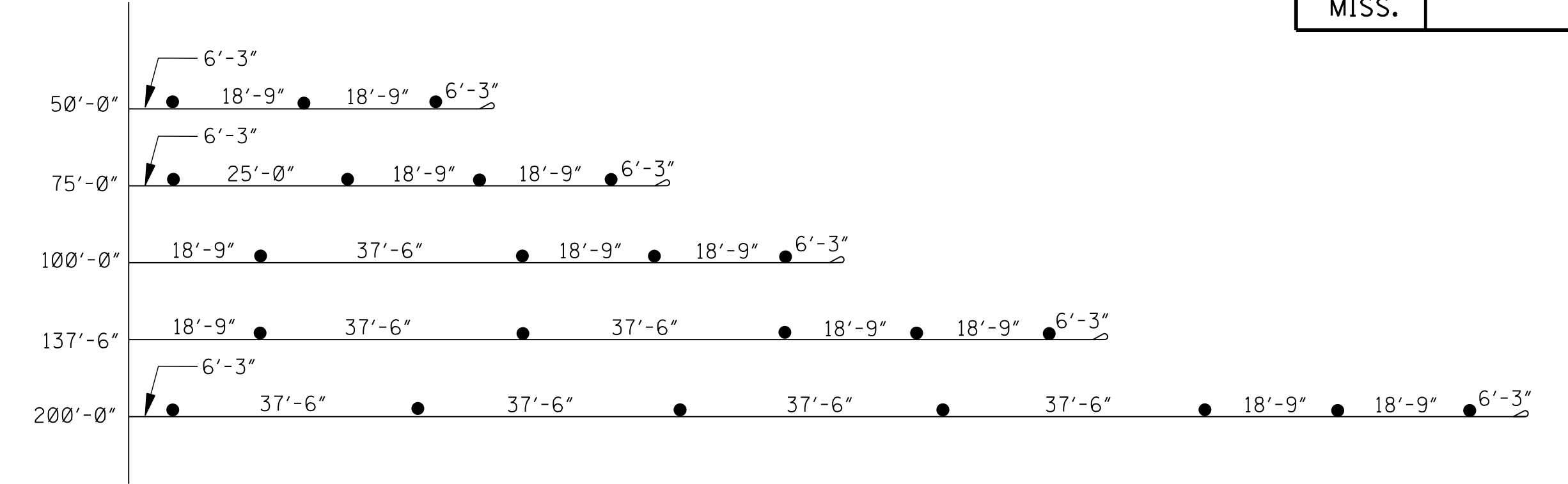
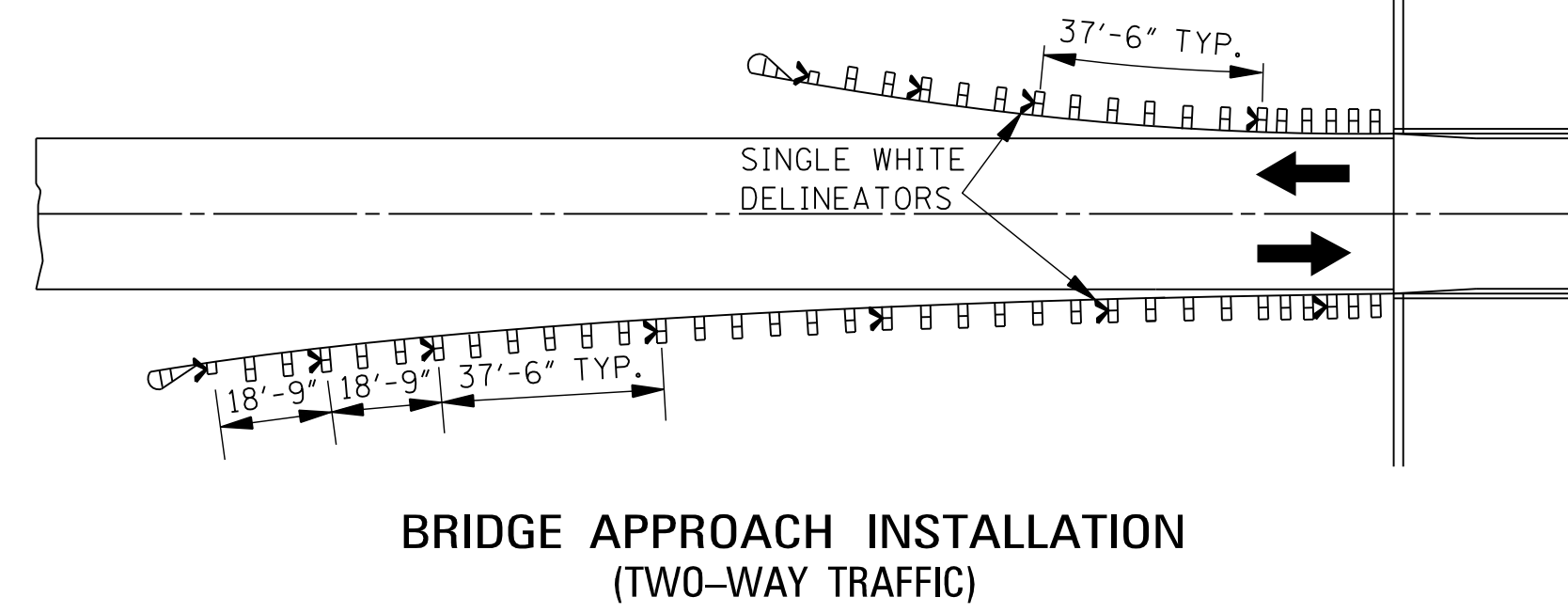
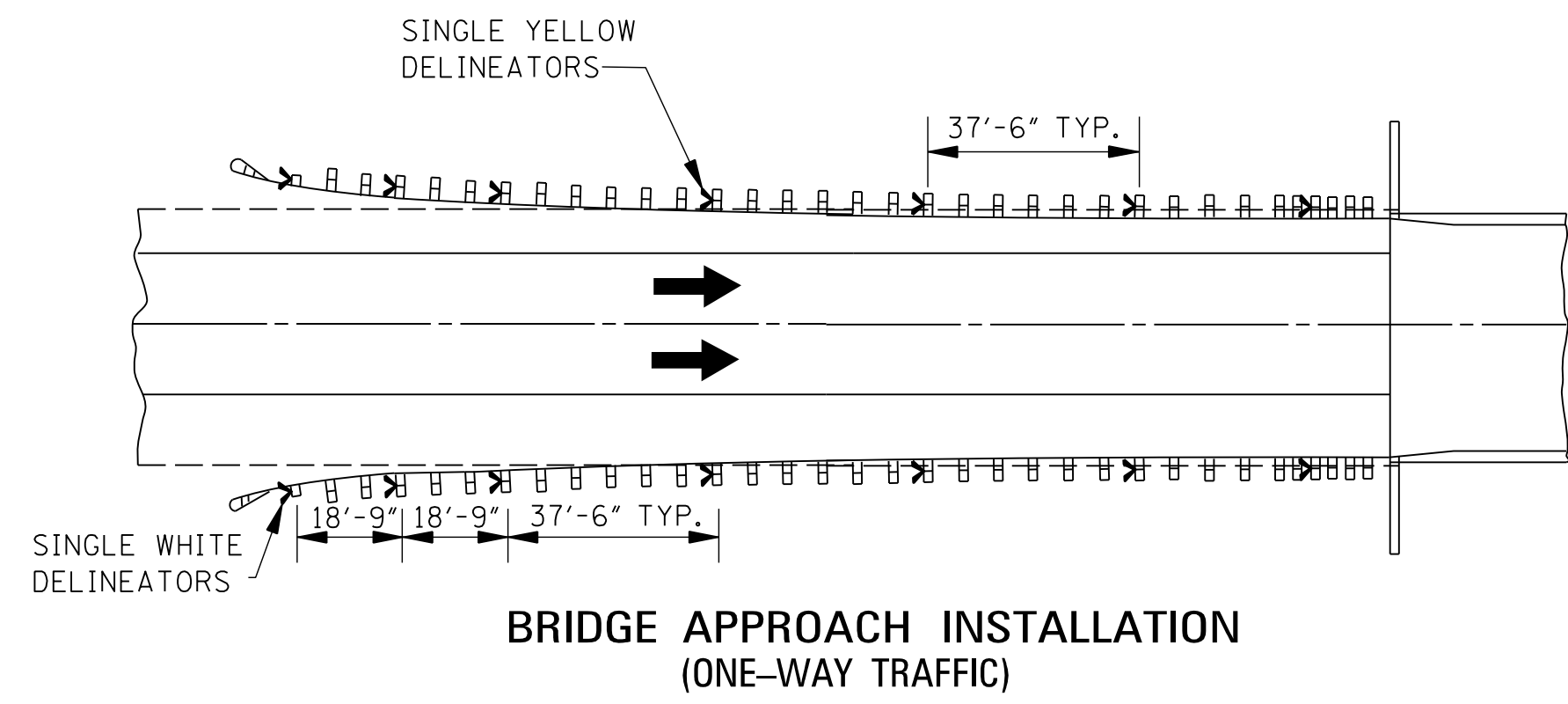
MOUNTING DETAIL

NOTE: DELINEATORS SHALL BE FASTENED TO U-SECTION POSTS WITH 1/4" DIA. BLIND FASTENERS OF THE COLLAR TYPE.

GENERAL NOTES:

1. DELINEATORS AND TYPE 3 OBJECT MARKER SHALL BE REFLECTIVE SHEETING ON 0.080" THICK ALUMINUM SHEET OR 14 GAGE GALVANIZED SHEET STEEL.
2. DELINEATOR, TYPE 3 OBJECT MARKER AND DISTANCE REFERENCE SIGN POSTS SHALL BE GALVANIZED STEEL. THE POSTS SHALL BE FABRICATED BEFORE THE METAL IS GALVANIZED.
3. WEIGHT WITHOUT GROUND PLATES:
 A. DELINEATOR POST 7'-0" - 2.0 lb/ft TO 2.5 lb/ft
 B. TYPE 3 OBJECT MARKER POST 9'-0" - 2.5 lb/ft TO 3.0 lb/ft
 C. DISTANCE REFERENCE SIGN POST 10'-0", 11'-0", & 12'-0" - 3.0 lb/ft TO 3.5 lb/ft
4. UNIT PRICE OF DELINEATORS AND TYPE 3 OBJECT MARKERS SHALL INCLUDE COST OF POST. DISTANCE REFERENCE SIGN POST WILL BE PAID FOR PER FOOT.
5. RADIUS IN BENDS OF POST CROSS SECTION NOT TO EXCEED 3/8" FOR HOT ROLLED SECTION.
6. GROUND PLATE NOT REQUIRED ON U-SECTION POST.

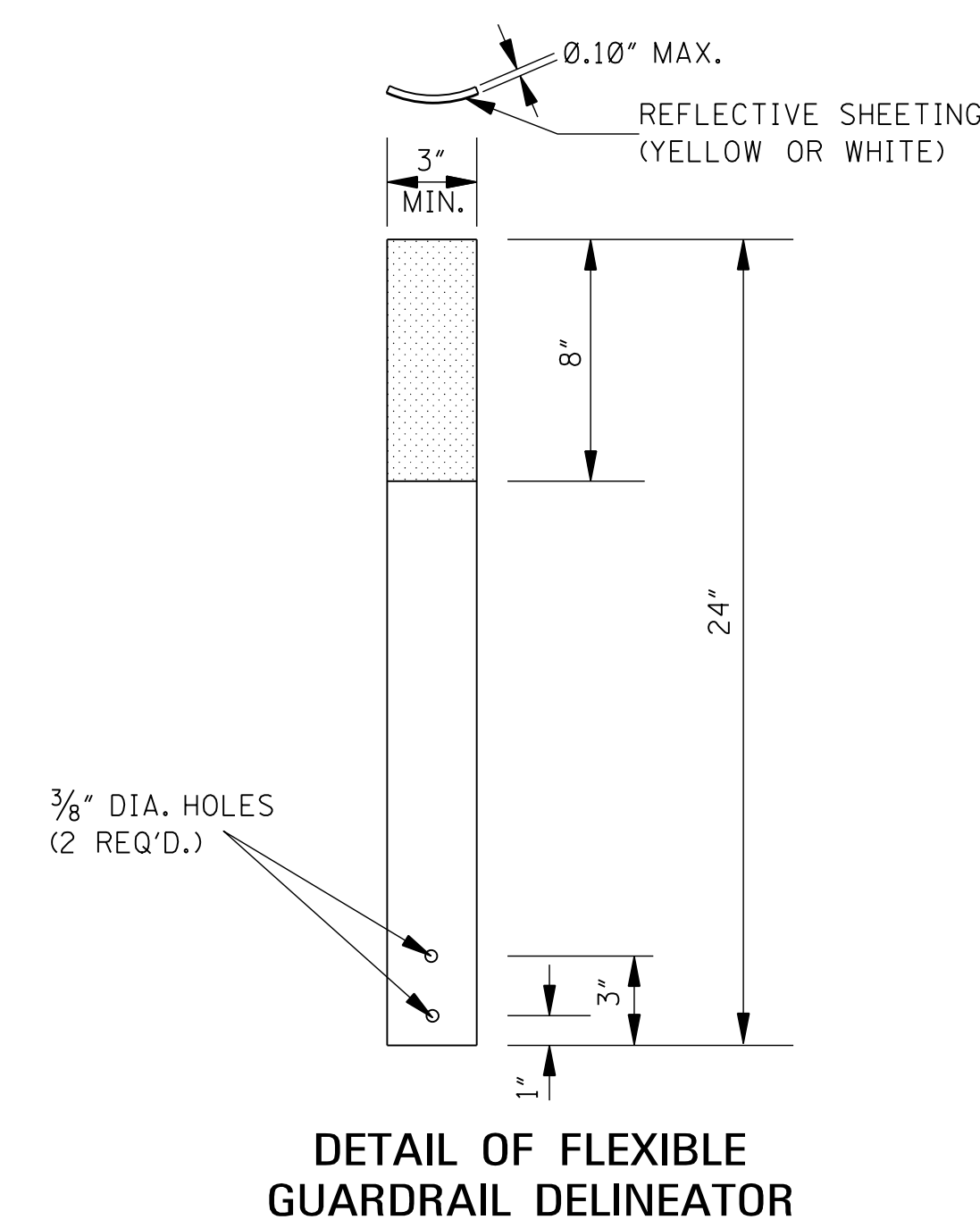
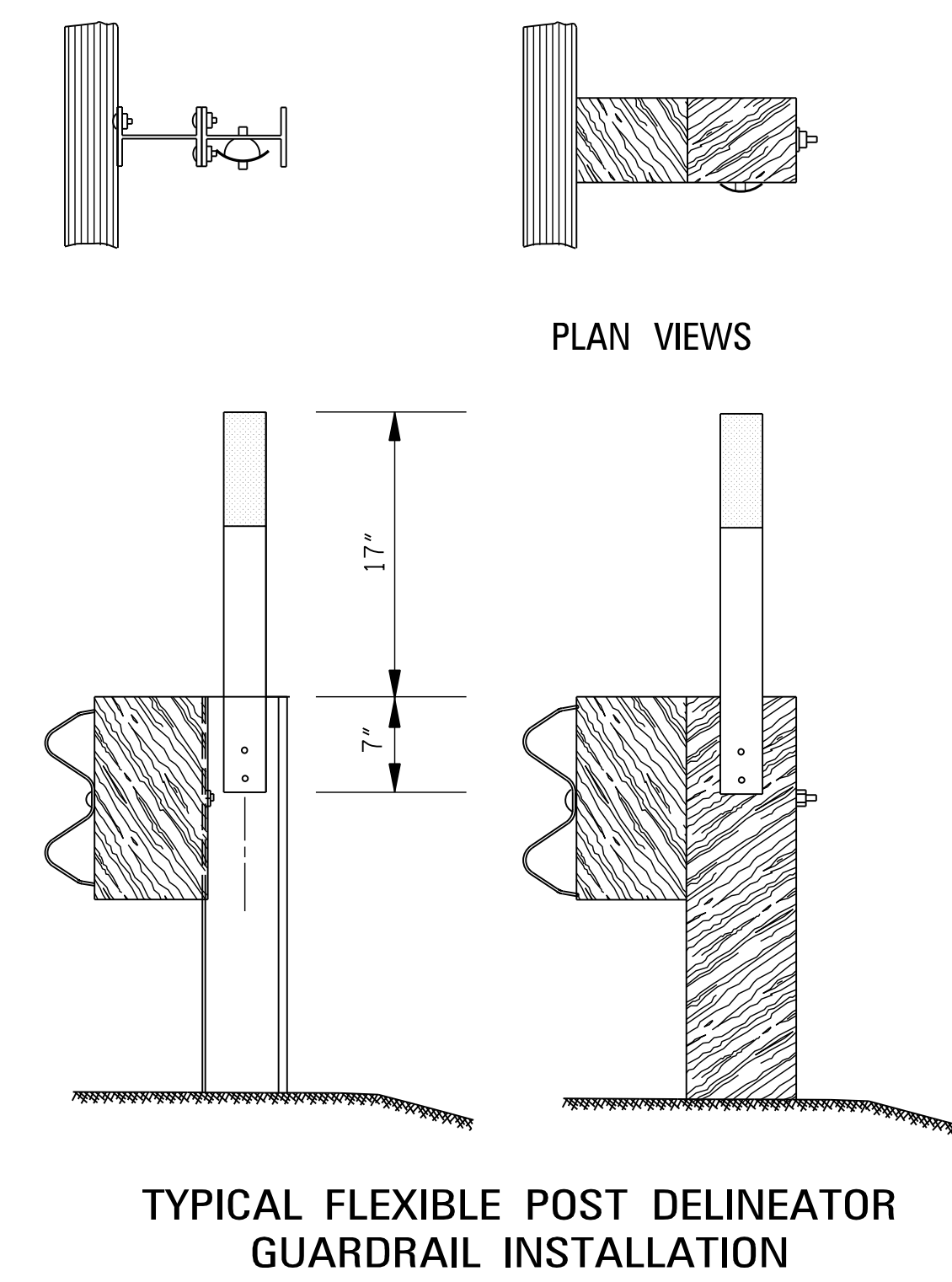
BY		MISSISSIPPI DEPARTMENT OF TRANSPORTATION ROADWAY DESIGN DIVISION STANDARD PLAN	
REVISION		TYPICAL INSTALLATION AND DETAILS OF DELINEATORS AND DISTANCE REFERENCE SIGNS	
DATE		ISSUE DATE: AUGUST 01, 2017	
		WORKING NUMBER SN-8 SHEET NUMBER 6314	



NOTE: ONE-WAY TRAFFIC SHOWN. DELINEATOR SPACING FOR TWO-WAY TRAFFIC SIMILAR. DELINEATOR COLOR WILL BE THE SAME AS THE ADJACENT PAVEMENT EDGE MARKING. THE FIRST THREE (3) MARKERS WILL FACE TRAFFIC IN OFF LANE FOR TWO-WAY TRAFFIC AS SHOWN IN DRAWING FOR OBSTACLE INSTALLATION FOR TWO-WAY TRAFFIC.

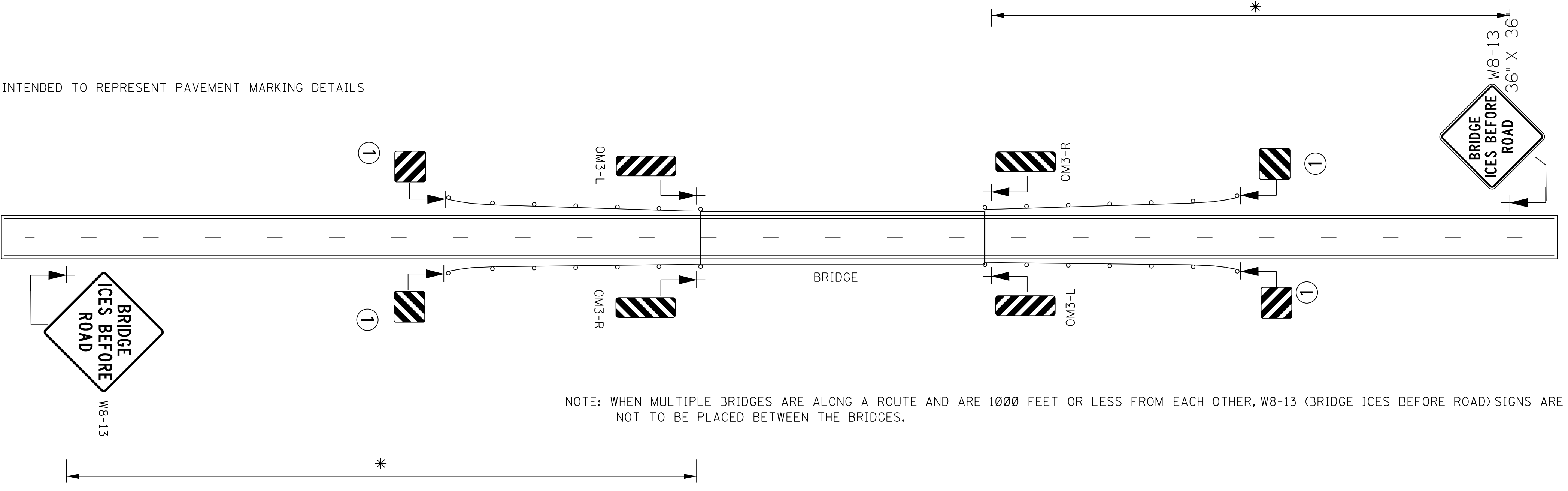
GENERAL NOTES:

1. THE UNIT PRICE OF DELINEATOR INCLUDES: COST(S) OF DELINEATOR FACE(S), POST, HARDWARE AND INSTALLATION.
2. DELINEATOR FACE WILL BE ENCAPSULATED LENS REFLECTIVE SHEETING.
3. DELINEATORS FOR GUARDRAIL SHALL BE MOUNTED ON FLEXIBLE POSTS AS FOLLOWS:
THE DELINEATOR POSTS WILL BE FROM THE DEPARTMENTS "APPROVED SOURCE OF MATERIALS" AND WILL BE FASTENED TO GUARDRAIL POST IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATION.



BY		MISSISSIPPI DEPARTMENT OF TRANSPORTATION ROADWAY DESIGN DIVISION STANDARD PLAN	
REVISION		TYPICAL GUARDRAIL DELINEATION	
DATE		ISSUE DATE: AUGUST 01, 2017	
		WORKING NUMBER SN-8C SHEET NUMBER 6317	

DRAWING NOT INTENDED TO REPRESENT PAVEMENT MARKING DETAILS



NOTE: WHEN MULTIPLE BRIDGES ARE ALONG A ROUTE AND ARE 1000 FEET OR LESS FROM EACH OTHER, W8-13 (BRIDGE ICES BEFORE ROAD) SIGNS ARE NOT TO BE PLACED BETWEEN THE BRIDGES.

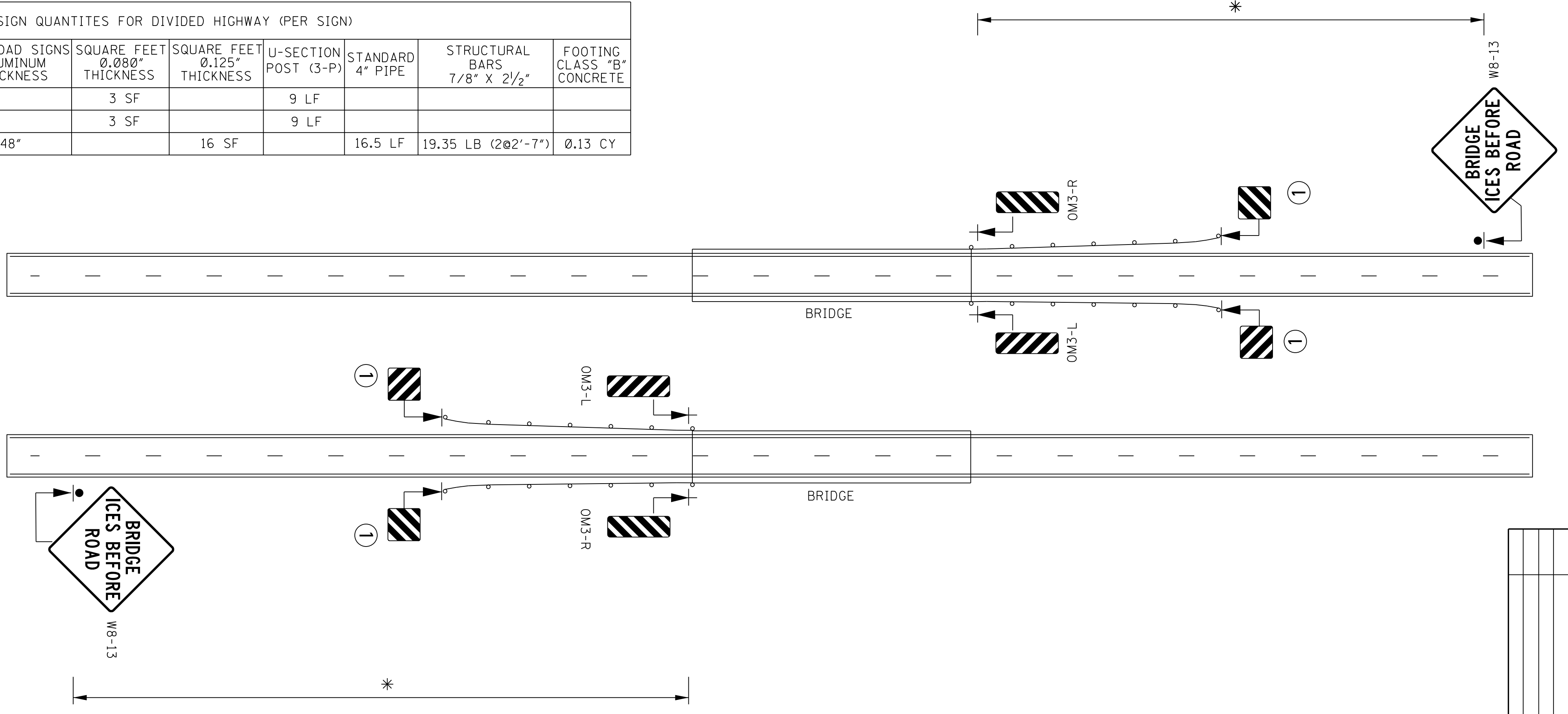
UNDIVIDED HIGHWAY DETAIL

SIGN QUANTITIES FOR UNDIVIDED HIGHWAY (PER SIGN)					
MUTCD NUMBER	STANDARD ROAD SIGNS SHEET ALUMINUM 0.080" THICKNESS	STANDARD ROAD SIGNS SHEET ALUMINUM 0.125" THICKNESS	SQUARE FEET 0.080" THICKNESS	SQUARE FEET 0.125" THICKNESS	U-SECTION POST (3-P)
OM3-L	12" X 36"		3 SF		9 LF
OM3-R	12" X 36"		3 SF		9 LF
W8-13		36" X 36"		9 SF	15 LF

① REFLECTIVE ADHESIVE SHEETING WITH ALTERNATING BLACK AND YELLOW STRIPES (SLOPING DOWNWARD) AT AN ANGLE OF 45 DEGREES IN THE DIRECTION TRAFFIC IS TO PASS) IS REQUIRED ON THE END OF THE TERMINAL END SECTION. NOT A SEPARATE PAY ITEM. COST TO BE ABSORBED IN GUARD RAIL.

SIGN QUANTITIES FOR DIVIDED HIGHWAY (PER SIGN)								
MUTCD NUMBER	STANDARD ROAD SIGNS SHEET ALUMINUM 0.080" THICKNESS	STANDARD ROAD SIGNS SHEET ALUMINUM 0.125" THICKNESS	SQUARE FEET 0.080" THICKNESS	SQUARE FEET 0.125" THICKNESS	U-SECTION POST (3-P)	STANDARD 4" PIPE	STRUCTURAL BARS 7/8" X 2 1/2"	FOOTING CLASS "B" CONCRETE
OM3-L	12" X 36"		3 SF		9 LF			
OM3-R	12" X 36"		3 SF		9 LF			
W8-13		48" X 48"		16 SF		16.5 LF	19.35 LB (2@2'-7")	0.13 CY

* TABLE 2C-4 MUTCD	
SPEED (MPH)	MINIMUM PLACEMENT (FEET)
35	100
40	125
45	175
50	250
55	325
60	400
65	475
70	550

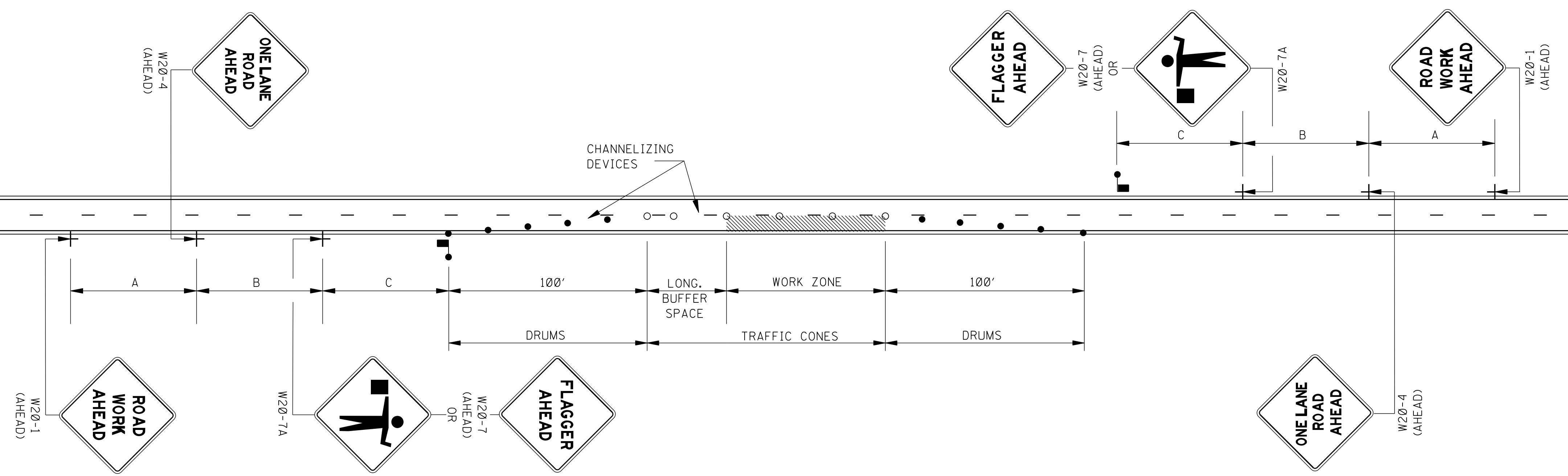


DIVIDED HIGHWAY DETAIL

BY	MISSISSIPPI DEPARTMENT OF TRANSPORTATION ROADWAY DESIGN DIVISION STANDARD PLAN
REVISION	
DATE	ISSUE DATE: AUGUST 01, 2017

**SIGNING DETAILS FOR
BRIDGE APPROACHES**


 WORKING NUMBER SN-9
 SHEET NUMBER 6318



GENERAL NOTES:

- THE LOCATION OF CHANNELIZING DEVICES AND THE WORK AREA LAYOUT SHALL BE BASED ON THE CRITERIA IN THE FOLLOWING TABLE. FLAGGER STATIONS SHALL BE LOCATED SUCH THAT APPROACHING VEHICLES WILL HAVE SUFFICIENT DISTANCE TO STOP. VALUES IN STOPPING SIGHT DISTANCE COLUMN MAY BE USED AS A MINIMUM FOR THIS DISTANCE.

POSTED SPEED AND/OR DESIGN SPEED	MAXIMUM CHANNELIZING DEVICE SPACING (ft)		LONGITUDINAL BUFFER SPACE (ft) †	STOPPING SIGHT DISTANCE
	TAPER	ALONG LANE LINE & WORK ZONE		
mph				
25	20	50	55	155
30	20	60	85	200
35	20	70	120	250
40	20	80	170	305
45	20	90	220	360
50	20	100	280	425
55	20	110	335	495
60	20	120	415	570
65	20	130	485	645

† NOTE: BUFFER SPACE MAY BE ADJUSTED AS NEEDED ACCORDING TO ROADWAY GEOMETRY TO MEET SIGHT DISTANCE REQUIREMENTS, AS DIRECTED BY THE ENGINEER.

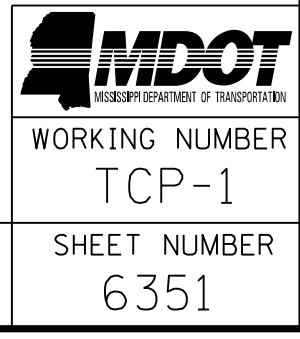
- ALL CHANNELIZING DEVICES SHALL BE A MINIMUM OF 28" IN HEIGHT.
- DIAMOND SHAPED TRAFFIC CONTROL SIGNS SHALL BE A MINIMUM OF 36" x 36" AND BLACK COPY ON FLUORESCENT ORANGE SHEETING.
- WHEN WORK ZONE IS NO LONGER NEEDED, ALL SIGNS SHALL BE COVERED OR REMOVED AND ALL CHANNELIZING DEVICES SHALL BE MOVED TO THE SHOULDER EDGE.
- ADDITIONAL FLAGGERS MAY BE NEEDED AS DIRECTED BY THE ENGINEER.
- WHEN WORK IS REQUIRED AT NIGHT, FLAGGER STATIONS SHALL BE ILLUMINATED.
- CHANNELIZING DEVICE TYPES FOR:
 - APPROACH AND EXIT TAPERS- RETROREFLECTIVE PLASTIC DRUMS
 - ALONG LANE LINE AND WORK ZONE- TRAFFIC CONES (28" HEIGHT)
- ALL TRAFFIC CONTROL ITEMS SHOWN ON THIS SHEET WILL NOT BE MEASURED FOR SEPARATE PAYMENT. THIS WORK SHALL BE INCLUDED IN THE PRICE BID FOR MAINTENANCE OF TRAFFIC.

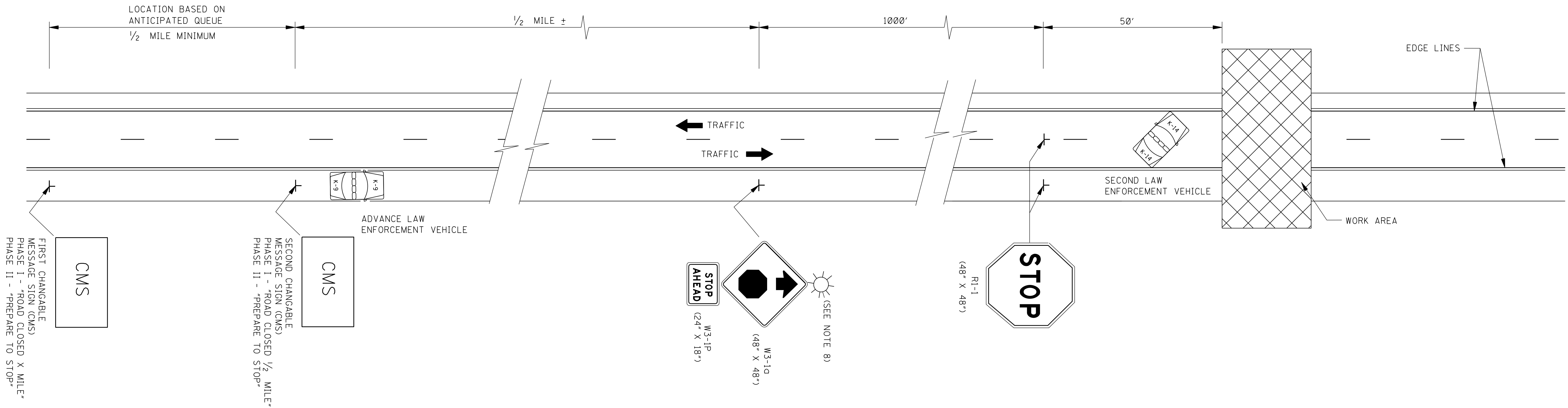
LEGEND

- FLAGGER
- RETROREFLECTIVE FREE-STANDING PLASTIC DRUMS
- TRAFFIC CONES (28" HEIGHT MINIMUM)

ROAD TYPE	A	B	C
URBAN (35 MPH OR LESS)	100 FT.	100 FT.	100 FT.
URBAN (40 - 70 MPH)	350 FT.	350 FT.	350 FT.
RURAL	500 FT.	500 FT.	500 FT.
EXPRESSWAY / FREEWAY	1000 FT.	1500 FT.	2640 FT.

MISSISSIPPI DEPARTMENT OF TRANSPORTATION ROADWAY DESIGN DIVISION STANDARD PLAN	
TRAFFIC CONTROL PLAN WITH FLAGGER (ONE-LANE CLOSURE OF TWO-WAY TRAFFIC)	
BY	
REVISION	
DATE	ISSUE DATE: AUGUST 01, 2017
WORKING NUMBER	TCP-1
SHEET NUMBER	6351

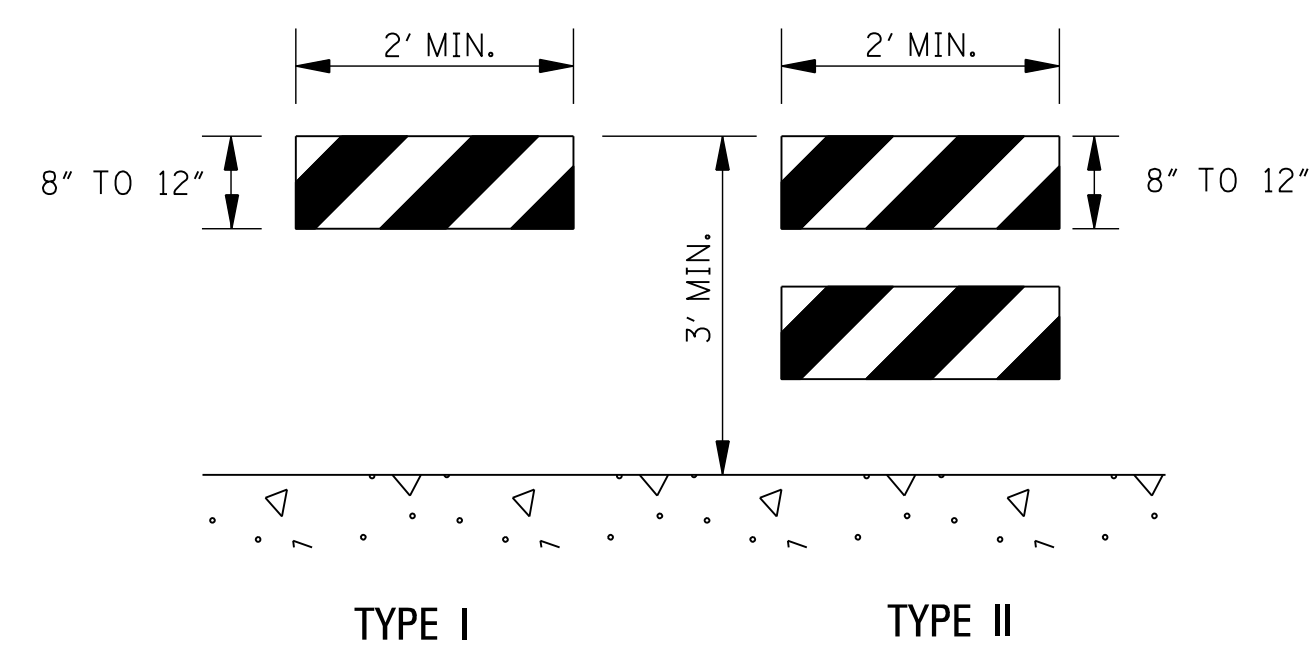




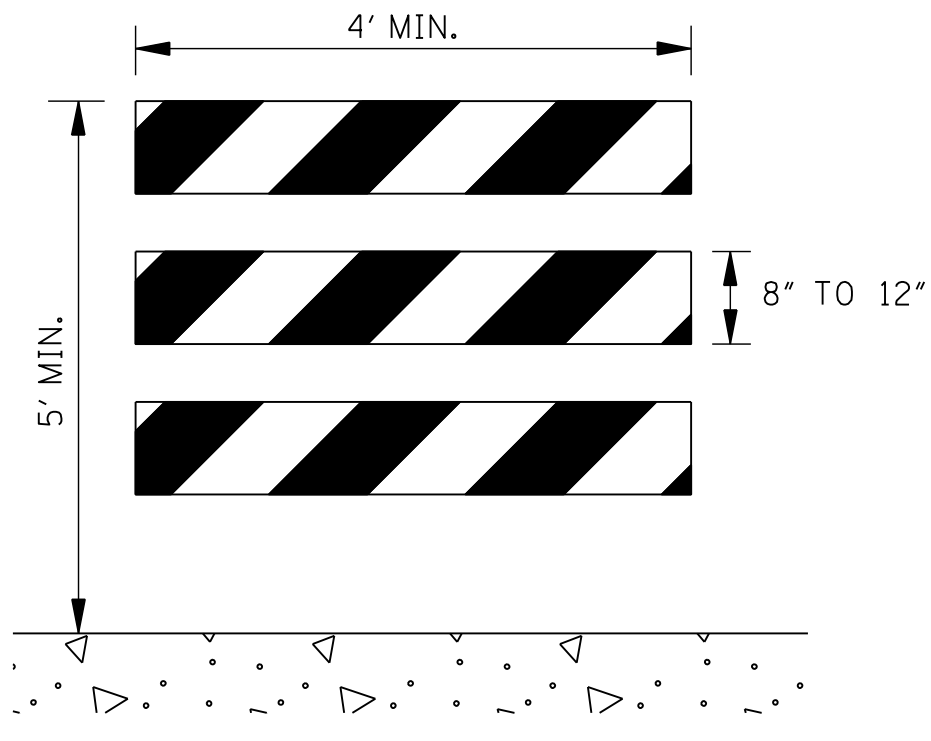
GENERAL NOTES:

1. THIS TYPE OF HIGHWAY CLOSURE SHOULD ONLY BE USED FOR CONSTRUCTION OPERATIONS WHEN THE DURATION OF CLOSURE WILL NOT EXCEED 30 MINUTES. AFTER THE HIGHWAY HAS BEEN CLOSED AND REOPENED VIA THIS PROCEDURE, A MINIMUM PERIOD OF 30 MINUTES SHOULD ELAPSE BEFORE ANOTHER SHORT DURATION CLOSURE, EXCEPT WITH THE APPROVAL OF THE ENGINEER.
2. AT LEAST TWO LAW ENFORCEMENT OFFICERS AND TWO LAW ENFORCEMENT VEHICLES SHOULD BE PROVIDED ON EACH APPROACH TO THE CLOSURE. EACH LAW ENFORCEMENT VEHICLE SHOULD HAVE A ROOF MOUNTED FLASHING BLUE LIGHT OR LIGHT BAR.
3. RESTRICTIONS ON ROAD CLOSURES ARE SPECIFIED IN THE CONTRACT DOCUMENT.
4. THE ADVANCE LAW ENFORCEMENT VEHICLE SHOULD BE MOVED BACK AS REQUIRED BY THE QUEUING OF STOPPED VEHICLES.
5. IF QUEUE EXCEEDS THE FIRST CHANGABLE MESSAGE SIGN (CMS) AT ANYTIME DURING A CLOSURE; THE TRAFFIC CONTROL PLAN SHOULD BE ADJUSTED AS NECESSARY, WITH APPROVAL OF THE ENGINEER.
6. TRAFFIC CONTROL FOR THE CLOSURE SHOULD BE ACCOMPLISHED IN THE FOLLOWING ORDER:
 - A. FIRST CHANGABLE MESSAGE SIGN (CMS)
 - B. SECOND CHANGEABLE MESSAGE SIGN (CMS)
 - C. ADVANCE LAW ENFORCEMENT VEHICLE, LIGHTS AND FLASHERS ON.
 - D. "W3-1a (48" X 48")" AND "W3-1P (24" X 18")" SIGNS ERECTED.
 - E. "R1-1 (48" X 48")" SIGNS ERECTED TO STOP TRAFFIC. THE ORDER OF ERECTION SHOULD BE IN THE FOLLOWING ORDER: RIGHT SHOULDER THEN CENTER.
 - F. SECOND LAW ENFORCEMENT VEHICLE, LIGHTS AND FLASHERS ON.
7. TRAFFIC CONTROL SHOULD BE REMOVED IN THE FOLLOWING ORDER:
 - A. WITH TRAFFIC STOPPED REMOVE THE "R1-1 (48" X 48")" SIGNS TOWARD THE RIGHT SHOULDER IN THE FOLLOWING ORDER: CENTER THEN SIGN ON THE RIGHT SHOULDER. SECOND LAW ENFORCEMENT VEHICLE LEADS TRAFFIC THROUGH WORK AREA.
 - B. AFTER ALL STOPPED VEHICLES HAVE STARTED MOVING, THE "W3-1a (48" X 48")" AND "W3-1P (24" X 18")" SIGNS SHOULD BE REMOVED. THESE SIGNS MAY BE COVERED IF RE-USE IS IMMINENT.
 - C. AFTER ALL VEHICLES HAVE RESUMED APPROXIMATELY NORMAL SPEED, THE CHANGABLE MESSAGE SIGNS TURNED OFF.
8. UNILLUMINATED SECTIONS OF HIGHWAYS SHOULD NOT BE CLOSED DURING HOURS OF DARKNESS EXCEPT FOR EMERGENCIES OR WITH THE APPROVAL OF THE ENGINEER. WHEN THE HIGHWAY MUST BE CLOSED DURING HOURS OF DARKNESS, A TYPE B HIGH INTENSITY FLASHING BARRICADE WARNING LIGHT SHALL BE USED ON EACH W3-1a SIGN.
9. IF AN ENTRANCE RAMP IS LOCATED BETWEEN THE SECOND CMS AND R1-1, THE CMS, "W3-1a (48" X 48")", AND "W3-1P (24" X 18")" SIGNS SHOULD ALSO BE ERECTED ON THE RAMP SHOULDER.
10. THE ABOVE DURATION WILL APPLY TO EACH APPROACH TO THE CLOSURE.
11. ALL TRAFFIC CONTROL ITEMS SHOWN ON THIS SHEET WILL NOT BE MEASURED FOR SEPARATE PAYMENT. THIS WORK SHALL BE INCLUDED IN THE PRICE BID FOR MAINTENANCE OF TRAFFIC, INCLUDING SECURING LAW ENFORCEMENT SERVICES.

MISSISSIPPI DEPARTMENT OF TRANSPORTATION ROADWAY DESIGN DIVISION STANDARD PLAN	
SHORT DURATION CLOSING OF TWO-LANE TWO-WAY HIGHWAYS	
WORKING NUMBER TCP-6	SHEET NUMBER 6356
DATE	ISSUE DATE: AUGUST 01, 2017



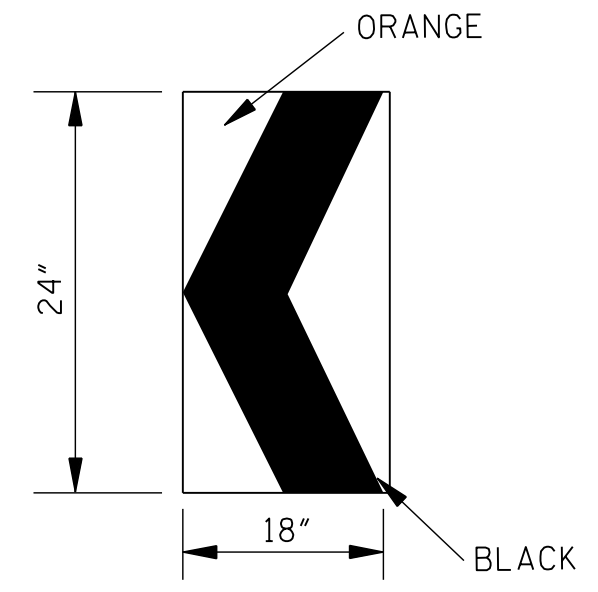
TYPE I TYPE II



TYPE III

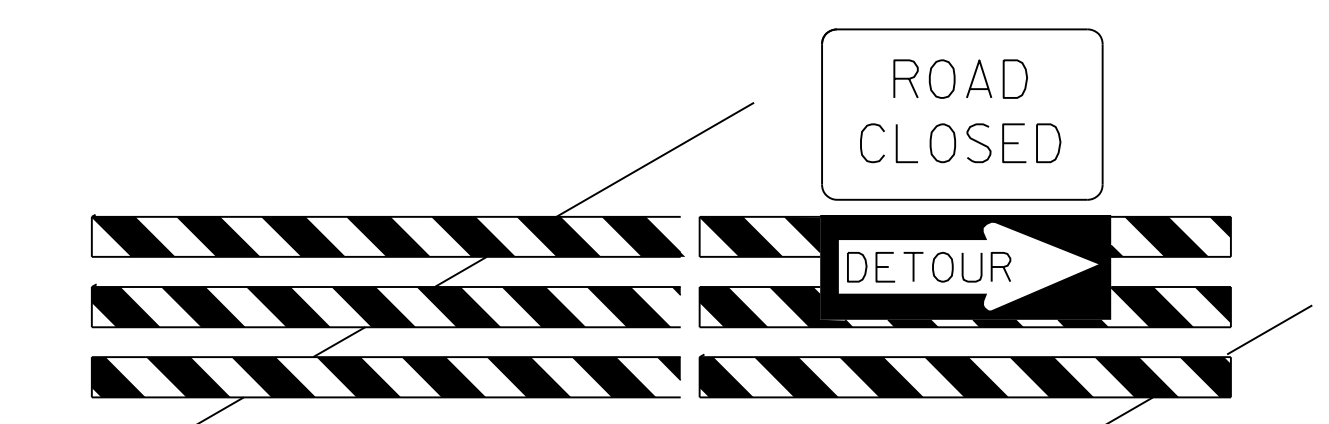
STANDARD BARRICADES

1. THE MARKING FOR BARRICADE RAILS SHALL BE ORANGE AND WHITE (SLOPING DOWNWARD AT AN ANGLE OF 45° IN THE DIRECTION TRAFFIC IS TO PASS).
2. RAIL STRIPE SHOULD BE 6 INCHES, EXCEPT THAT 4-INCH WIDE STRIPES MAY BE USED IF RAIL LENGTHS ARE LESS THAN 36 INCHES.
3. DO NOT PLACE SANDBAGS OR OTHER DEVICES TO PROVIDE MASS ON THE BOTTOM RAIL THAT WILL BLOCK VIEW OR RAIL FACE.
4. FOR ADDITIONAL INFORMATION OR DETAILS, SEE MUTCD, LATEST EDITION.
5. BARRICADES ARE CLASSIFIED BY FHWA AS CATEGORY II WORK ZONE DEVICES WHICH REQUIRE CRASHWORTHINESS ACCEPTANCE LETTERS. TO DATE, 2-IN. THICK TIMBER RAILS HAVE NOT BEEN SUCCESSFULLY CRASH TESTED. A LIST OF CRASHWORTHY BARRICADES AND OTHER CATEGORY II DEVICES CAN BE FOUND ON FHWA'S WEBSITE:
http://safety.fhwa.dot.gov/roadway_dept/policy_guide/road_hardware/cat2.cfm



**CHEVRON SIGN
DETAIL**

1. A CHEVRON SIGN CONSISTS OF A BLACK CHEVRON TYPE MARKING ON AN ORANGE BACKGROUND AND SHALL POINT IN THE DIRECTION OF TRAFFIC FLOW.
2. THE CHEVRON SIGN SHALL BE MOUNTED ON CRASHWORTHY SUPPORT.
3. CHEVRON SIGNS MAY BE USED TO SUPPLEMENT OTHER STANDARD DEVICES WHERE ONE OR MORE LANES ARE CLOSED FOR CONSTRUCTION OR MAINTENANCE. THEY SHOULD BE PLACED APPROXIMATELY 2'-0" BEHIND THE LANE TRANSITION STRIPE.

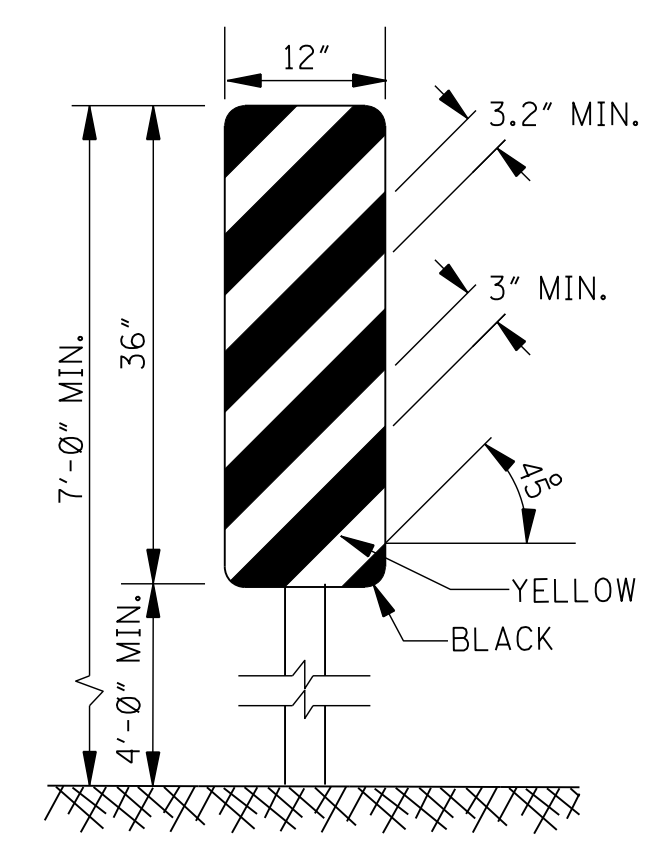


BARRICADE CLOSING A ROAD

BARRICADE CHARACTERISTICS

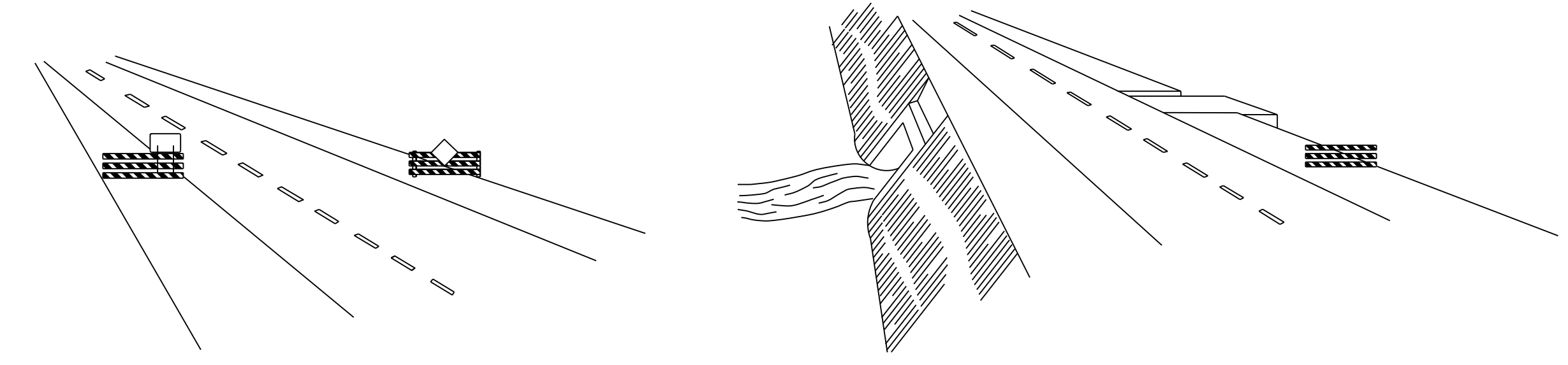
	I	II	III
WIDTH OF RAIL **	8" MIN. - 12" MAX.	8" MIN. - 12" MAX.	8" MIN. - 12" MAX.
LENGTH OF RAIL **	24" MIN.	24" MIN.	48" MIN.
WIDTH OF STRIPE *	6"	6"	6"
HEIGHT	36" MIN.	36" MIN.	60" MIN.
NUMBER OF RETROREFLECTORIZED RAIL FACES	2 (ONE EACH DIRECTION)	4 (TWO EACH DIRECTION)	3 IF FACING TRAFFIC IN ONE DIRECTION 6 IF FACING TRAFFIC IN TWO DIRECTIONS

- * 1. FOR RAILS LESS THAN 36" LONG, 4" WIDE STRIPES MAY BE USED.
- ** 2. BARRICADES INTENDED FOR USE ON EXPRESSWAYS, FREEWAYS AND OTHER HIGH SPEED ROADWAYS, SHALL HAVE A MINIMUM OF 270 in² OF REFLECTIVE AREA FACING TRAFFIC.



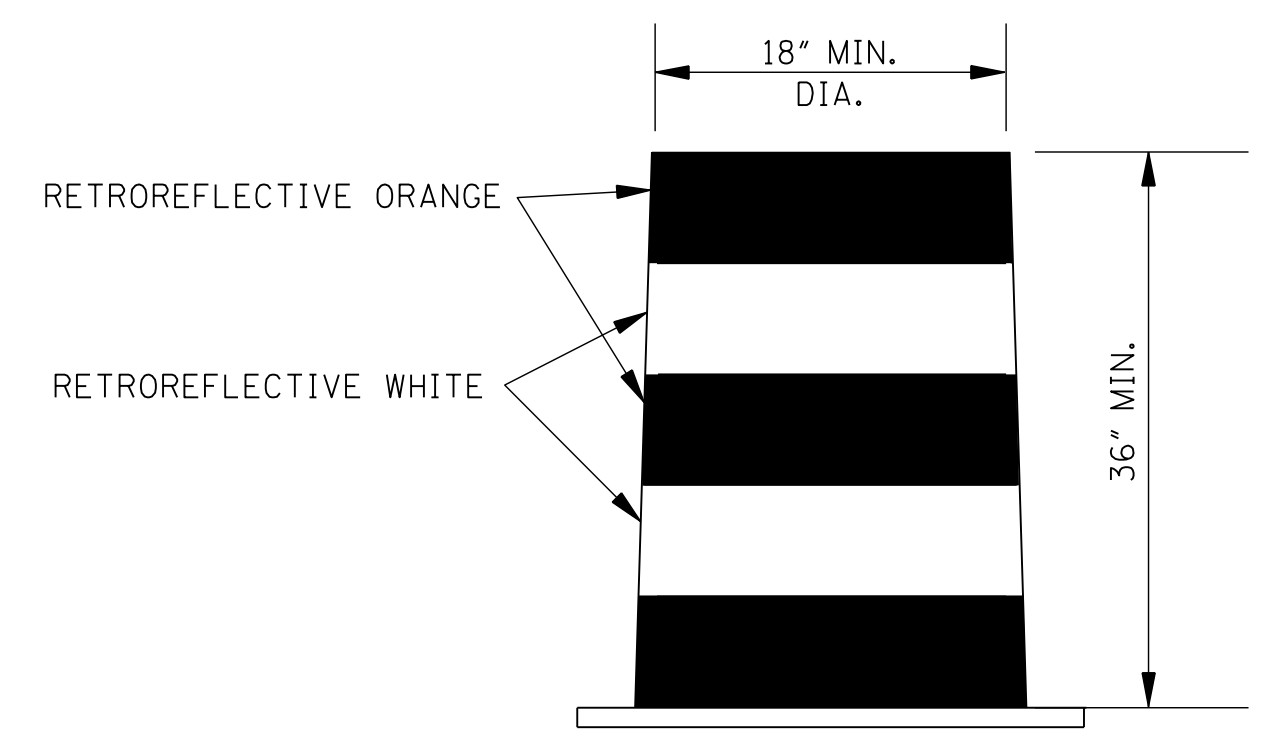
**TYPE 3 OBJECT MARKER
(OM-3R)**

1. TYPE 3 OBJECT MARKERS SHALL BE USED AT ALL EXPOSED BRIDGE ABUTMENTS AND AT OTHER LOCATIONS AS DEEMED NECESSARY BY THE ENGINEER.
2. THE OM-3R IS SHOWN. THE OM-3L IS SIMILAR EXCEPT THE STRIPES SLOPE DOWNWARD FROM THE UPPER LEFT SIDE TO THE LOWER RIGHT SIDE AND SHALL BE PLACED ON THE LEFT SIDE OF THE OBJECT.
3. THE INSIDE EDGE OF THE MARKER SHALL BE IN LINE WITH THE INNER EDGE OF THE OBSTRUCTION.



WING BARRICADES

1. WING BARRICADES ARE TYPE III BARRICADES ERECTED ON THE SHOULDER ON ONE OR BOTH SIDES OF THE PAVEMENT TO GIVE THE SENSATION OF A NARROWING OR RESTRICTED ROADWAY. WING BARRICADES MAY BE USED AS A MOUNTING FOR THE ADVANCE WARNING SIGNS OR FLASHERS.
2. WING BARRICADES SHOULD BE USED:
 - A. IN ADVANCE OF A CONSTRUCTION PROJECT EVEN WHEN NO PART OF THE ROADWAY IS ACTUALLY CLOSED.
 - B. IN ADVANCE OF ALL BRIDGE OR CULVERT WIDENING OPERATIONS.



PLASTIC DRUM STRIPING DETAIL

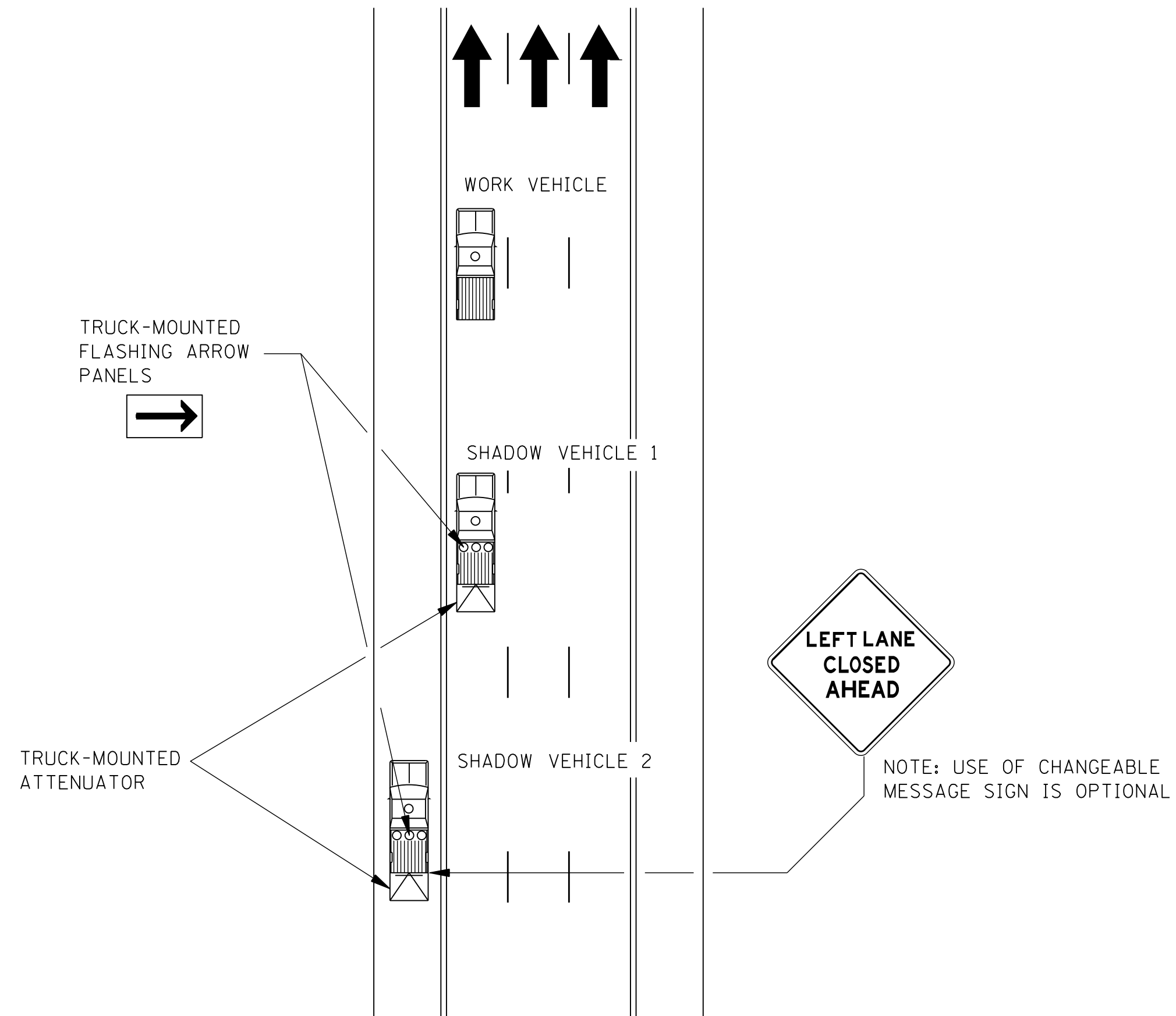
1. PLASTIC DRUMS SHALL BE ON END AND USED AS AN EXPEDIENT METHOD FOR TRAFFIC CHANNELIZATION. THE COLOR AND MARKING OF DRUMS SHALL BE CONSISTENT WITH MARKING STANDARDS FOR BARRICADE. THE PREDOMINANT COLOR ON DRUMS SHALL BE ORANGE WITH FOUR (4) RETROREFLECTIVE, HORIZONTAL, CIRCUMFERENTIAL STRIPES (2 ORANGE & 2 WHITE) 6" WIDE.
2. DRUMS SHOULD NEVER BE PLACED IN THE ROADWAY WITHOUT WARNING SIGNS.
3. WHERE PRACTICAL PLASTIC DRUMS SHOULD BE PLACED NO CLOSER THAN 3'-0" FROM THE EDGE OF TRAVELED LANE.

BY		MISSISSIPPI DEPARTMENT OF TRANSPORTATION ROADWAY DESIGN DIVISION STANDARD PLAN	
REVISION		<p>HIGHWAY SIGN AND BARRICADE DETAILS FOR CONSTRUCTION PROJECTS</p>	
DATE			
ISSUE DATE:		AUGUST 01, 2017	



WORKING NUMBER
TCP-8
SHEET NUMBER
6358

MOBILE OPERATIONS ON MULTILANE ROAD

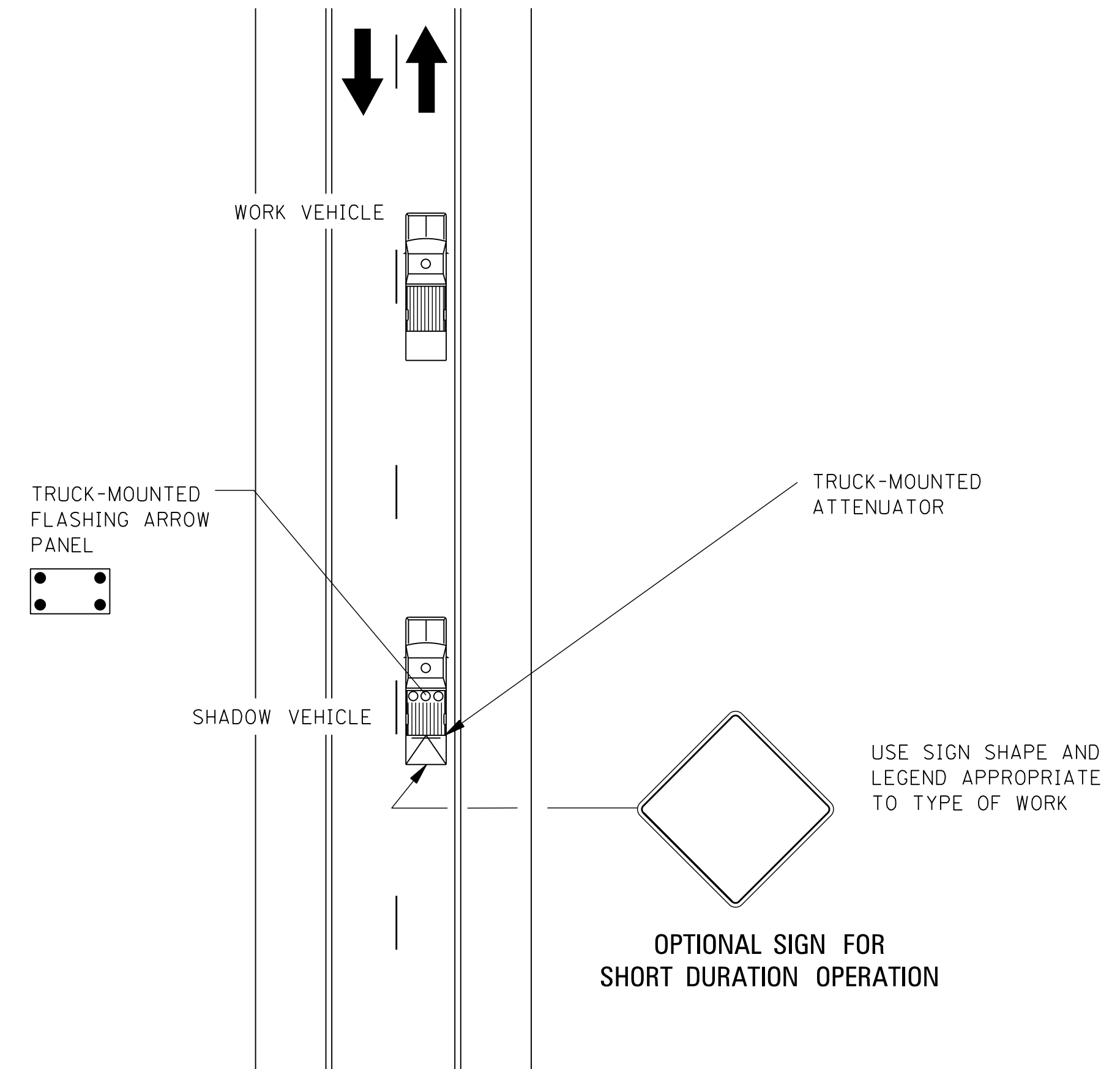


MOBILE OPERATIONS ON MULTILANE ROAD

NOTES FOR MULTILANE LANE OPERATION:

- VEHICLES USED FOR THESE OPERATIONS SHOULD BE MADE HIGHLY VISIBLE WITH APPROPRIATE EQUIPMENT, SUCH AS FLASHING LIGHTS, ROTATING BEACONS, FLAGS, SIGNS, OR ARROW PANELS.
- SHADOW VEHICLE 2 SHOULD BE EQUIPPED WITH AN ARROW PANEL AND TRUCK MOUNTED ATTENUATOR (TMA). AN APPROPRIATE LANE CLOSURE SIGN SHOULD BE PLACED ON SHADOW VEHICLE 2 SO AS NOT TO OBSCURE THE ARROW PANEL.
- SHADOW VEHICLE 1 SHOULD BE EQUIPPED WITH AN ARROW PANEL AND TRUCK-MOUNTED ATTENUATOR (TMA).
- SHADOW VEHICLE 2 SHOULD TRAVEL AT A VARYING DISTANCE FROM THE WORK OPERATION SO AS TO PROVIDE ADEQUATE SIGHT DISTANCE FOR TRAFFIC APPROACHING FROM THE REAR.
- WHEN ADEQUATE SHOULDER WIDTH IS NOT AVAILABLE, SHADOW VEHICLE 2 SHOULD BE ELIMINATED.
- ON HIGH-SPEED ROADWAYS, A THIRD SHADOW VEHICLE SHOULD BE USED (i.e., VEHICLE 3 ON THE SHOULDER (IF PRACTICAL), VEHICLE 2 IN THE CLOSED LANE, AND VEHICLE 1 IN THE CLOSED LANE).
- ARROW PANELS SHALL BE AS A MINIMUM TYPE B, 60" X 30" IN ACCORDANCE WITH THE CRITERIA PRESENTED IN THE MUTCD.
- WORK SHOULD NORMALLY BE DONE DURING OFF-PEAK HOURS.
- VEHICLE-MOUNTED SIGNS SHOULD BE MOUNTED WITH THE BOTTOM OF THE SIGN LOCATED AT A MINIMUM HEIGHT OF 48" ABOVE THE PAVEMENT AND SHALL NOT BE OBSCURED BY EQUIPMENT OR SUPPLIES. SIGN LEGENDS SHALL BE COVERED OR TURNED FROM VIEW WHEN WORK IS NOT IN PROGRESS.
- ALL TRAFFIC CONTROL ITEMS SHOWN ON THIS SHEET WILL NOT BE MEASURED FOR SEPARATE PAYMENT. THIS WORK SHALL BE INCLUDED IN THE PRICE BID FOR MAINTENANCE OF TRAFFIC.

MOBILE OPERATIONS ON TWO-LANE ROAD

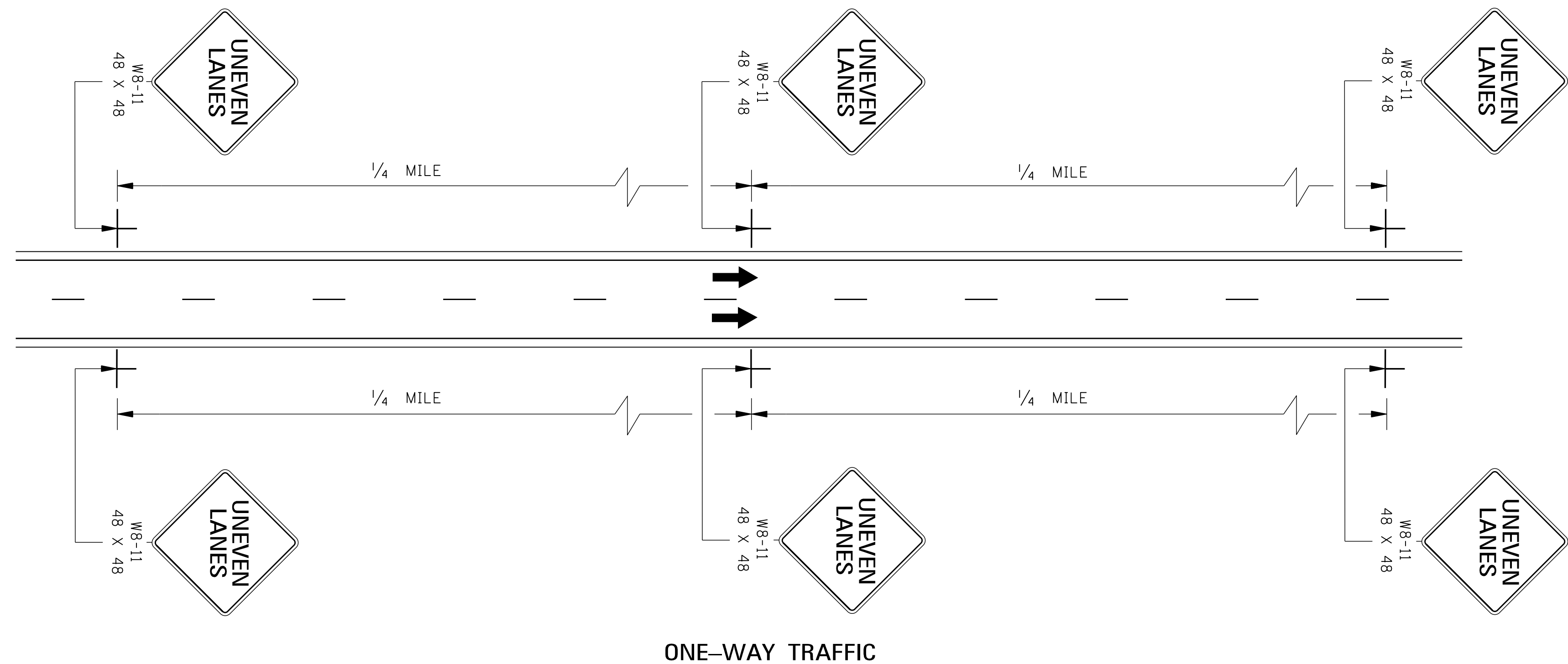
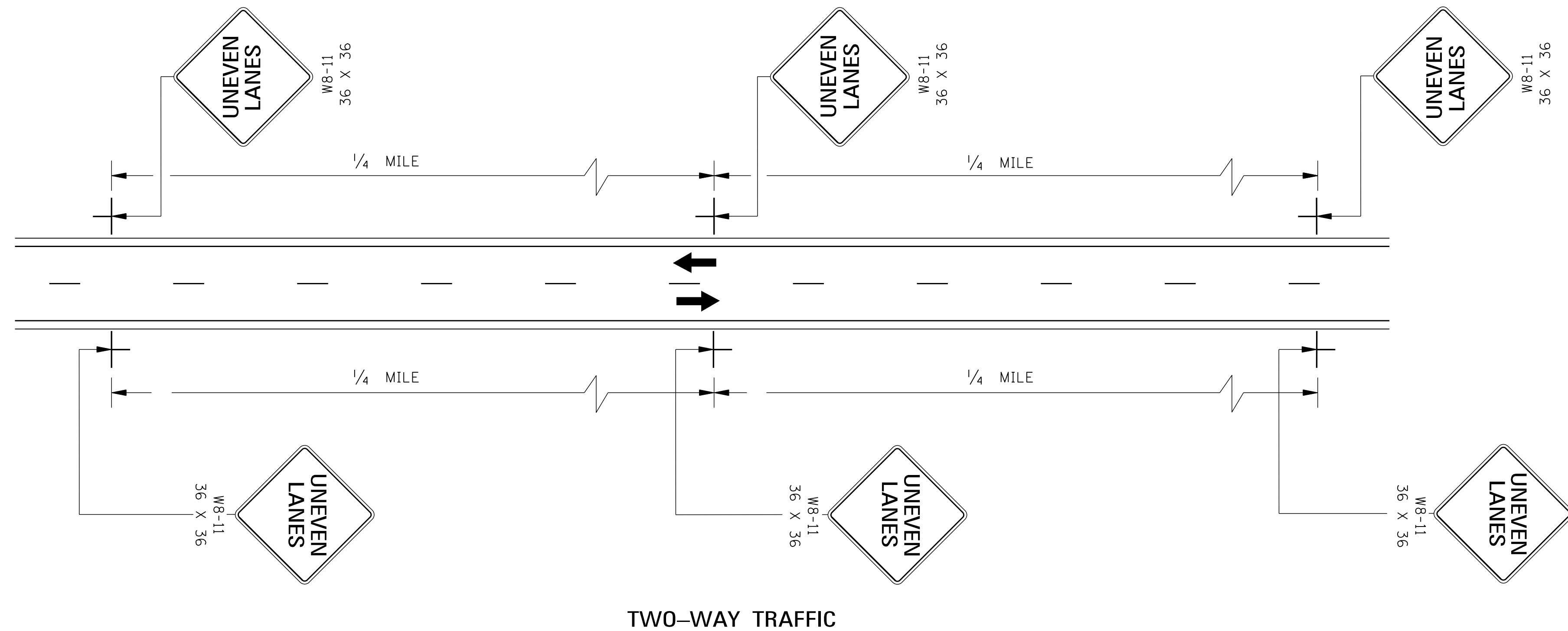


MOBILE OPERATIONS ON TWO-LANE ROAD

NOTES FOR TWO-LANE OPERATION:

- WHERE PRACTICAL AND WHEN NEEDED, THE WORK AND SHADOW VEHICLES SHOULD PULL OVER PERIODICALLY TO ALLOW TRAFFIC TO PASS. IF THIS CAN NOT BE DONE FREQUENTLY, AS AN ALTERNATIVE, A "DO NOT PASS" SIGN MAY BE PLACED ON THE REAR OF THE VEHICLE BLOCKING THE LANE.
- THE DISTANCE BETWEEN THE WORK AND SHADOW VEHICLES MAY VARY ACCORDING TO TERRAIN, PAINT DRYING TIME, AND OTHER FACTORS. SHADOW VEHICLES ARE USED TO WARN TRAFFIC OF THE OPERATION AHEAD. WHENEVER ADEQUATE STOPPING SIGHT DISTANCE EXISTS TO THE REAR, THE SHADOW VEHICLE SHOULD MAINTAIN THE MINIMUM DISTANCE AND PROCEED AT THE SAME SPEED AS THE WORK VEHICLE. THE SHADOW VEHICLE SHOULD SLOW DOWN IN ADVANCE OF VERTICAL OR HORIZONTAL CURVES THAT RESTRICT SIGHT DISTANCE.
- ADDITIONAL SHADOW VEHICLES TO WARN AND REDUCE THE SPEED OF ONCOMING OR OPPOSING TRAFFIC MAY BE USED. POLICE PATROL CARS MAY BE USED FOR THIS PURPOSE.
- A TRUCK-MOUNTED ATTENUATOR (TMA) SHOULD BE USED ON THE SHADOW VEHICLE AND MAY BE USED ON THE WORK VEHICLE.
- THE WORK VEHICLE SHALL BE EQUIPPED WITH BEACONS, AND THE SHADOW VEHICLES SHALL BE EQUIPPED WITH TWO HIGH-INTENSITY FLASHING LIGHTS MOUNTED ON THE REAR, ADJACENT TO THE SIGN. SHADOW AND WORK VEHICLES SHALL DISPLAY FLASHING OR ROTATING BEACONS BOTH FORWARD AND TO THE REAR.
- VEHICLE-MOUNTED SIGNS SHOULD BE MOUNTED WITH THE BOTTOM OF THE SIGN LOCATED AT A MINIMUM HEIGHT OF 48" ABOVE THE PAVEMENT AND SHALL NOT BE OBSCURED BY EQUIPMENT OR SUPPLIES. SIGN LEGENDS SHALL BE COVERED OR TURNED FROM VIEW WHEN WORK IS NOT IN PROGRESS.
- ARROW BOARD TO BE USED IN CAUTION MODE.
- ALL TRAFFIC CONTROL ITEMS SHOWN ON THIS SHEET WILL NOT BE MEASURED FOR SEPARATE PAYMENT. THIS WORK SHALL BE INCLUDED IN THE PRICE BID FOR MAINTENANCE OF TRAFFIC.

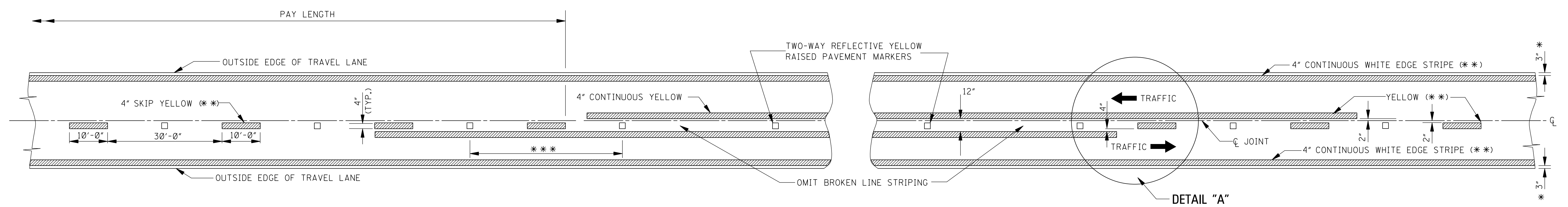
BY	MISSISSIPPI DEPARTMENT OF TRANSPORTATION ROADWAY DESIGN DIVISION STANDARD PLAN
REVISION	TRAFFIC CONTROL PLAN MOBILE OPERATIONS MULTILANE ROADS AND TWO-LANE ROADS
DATE	ISSUE DATE: AUGUST 01, 2017
	 WORKING NUMBER TCP-9 SHEET NUMBER 6359



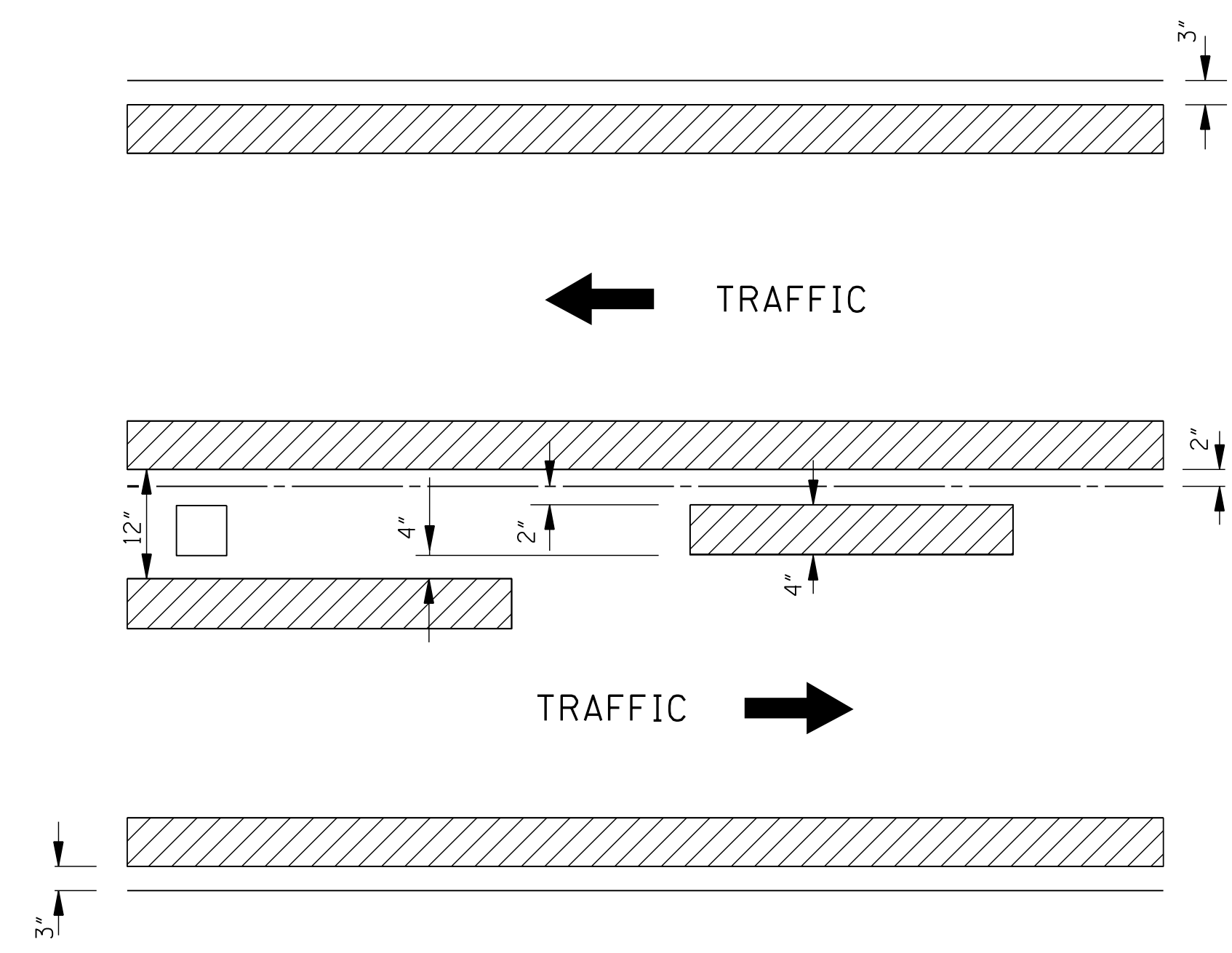
GENERAL NOTES:

1. UNEVEN LANE LINE:
 - A. IF LESS THAN OR EQUAL TO 1/2", NO SIGNS REQUIRED.
 - B. IF GREATER THAN 1/2" AND LESS THAN OR EQUAL TO 2/4", PLACE SIGNS AS SHOWN ON THIS SHEET.
 - C. IF GREATER THAN 2/4", TRAFFIC SHOULD NOT BE ALLOWED TO CROSS UNEVEN LANE LINE.
2. THE W8-11 SIGNS SHOULD BE SPACED AT 1/4-MILE INTERVALS THROUGHOUT UNEVEN LANE LINE LIMITS.
3. ALL TRAFFIC CONTROL ITEMS SHOWN ON THIS SHEET SHALL BE PAID FOR UNDER MAINTENANCE OF TRAFFIC.

		BY		MISSISSIPPI DEPARTMENT OF TRANSPORTATION ROADWAY DESIGN DIVISION STANDARD PLAN
		REVISION		
		DATE		<p style="text-align: center;">TRAFFIC CONTROL PLANS UNEVEN PAVEMENT DETAILS</p>  WORKING NUMBER TCP-12 SHEET NUMBER 6362
		ISSUE DATE: AUGUST 01, 2017		



TWO-WAY TRAFFIC
(ASPHALT OR CONCRETE PAVEMENT)



DETAIL "A"



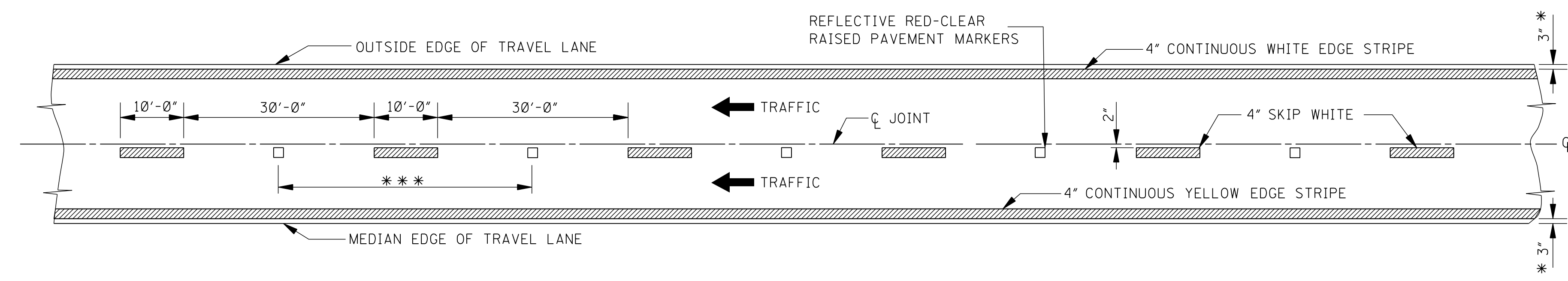
GENERAL NOTES:

- * 1. 3" UNLESS SHOWN ELSEWHERE ON THE PLANS.
- ** 2. EDGE STRIPE SHALL BE SAME MATERIAL AS LANE-LINE STRIPE (PAINT OR TAPE AS INDICATED IN PAY ITEMS).
- 3. REFLECTIVE RAISED PAVEMENT MARKERS TO BE USED IF TEMPORARY MARKINGS ARE TO REMAIN IN PLACE OVER 3 MONTHS
- *** 4. SPACING OF REFLECTIVE RAISED PAVEMENT MARKERS IS AS FOLLOWS:

	URBAN AREA (ft-in)	RURAL AREA (ft-in)
TANGENT SECTIONS	40'-0"	80'-0"
HORIZONTAL CURVES	40'-0"	40'-0"
INTERCHANGE LIMITS	40'-0"	+ 40'-0"

† NOTE: ON THE MAIN FACILITY, REFLECTIVE RED-CLEAR RAISED PAVEMENT MARKERS ON A 40'-0" SPACING WILL BE REQUIRED ON LANE-LINE(S) THROUGH ALL INTERCHANGE AREAS BEGINNING 1000' IN ADVANCE (IN DIRECTION OF TRAFFIC) OF THE EXIT RAMP TAPER AND CONTINUING THROUGH THE INTERCHANGE TO THE END OF THE ENTRANCE RAMP TAPER.

5. PAVEMENT MARKERS SHALL BE HIGH PERFORMANCE REFLECTIVE RAISED PAVEMENT MARKERS AS LISTED IN THE MDT "APPROVED SOURCES OF MATERIALS."

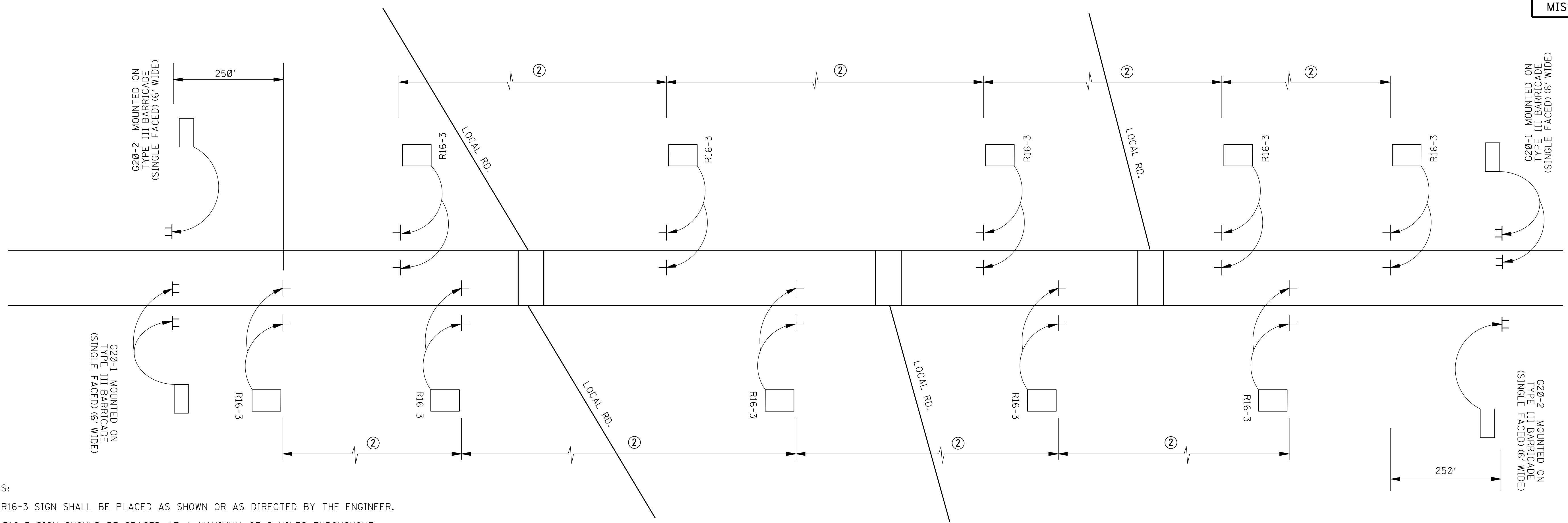


4-LANE WITH ONE-WAY TRAFFIC

BY	MISSISSIPPI DEPARTMENT OF TRANSPORTATION ROADWAY DESIGN DIVISION STANDARD PLAN
REVISION	TEMPORARY STRIPING FOR TRAFFIC CONTROL 2-LANE AND 4-LANE DIVIDED HIGHWAYS
DATE	ISSUE DATE: AUGUST 01, 2017



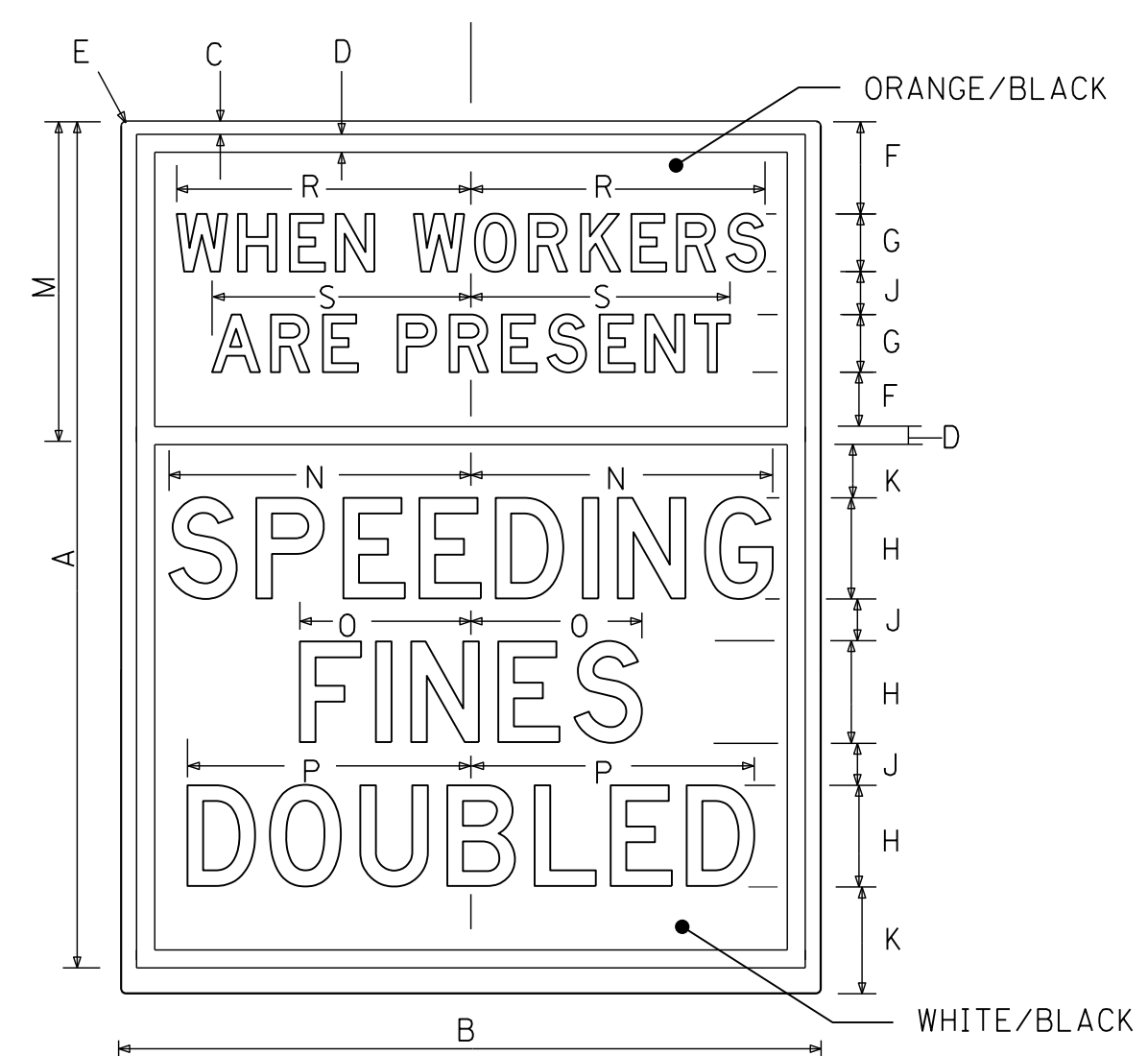
WORKING NUMBER
TCP-13
SHEET NUMBER
6363



NOTES:

1. R16-3 SIGN SHALL BE PLACED AS SHOWN OR AS DIRECTED BY THE ENGINEER.
2. R16-3 SIGN SHOULD BE SPACED AT A MAXIMUM OF 2 MILES THROUGHOUT LENGTH OF PROJECT.
3. THIS SHEET WILL ONLY APPLY TO SPEED REDUCTION SECTIONS.

DIVIDED HIGHWAY SHOWN
(2 LANE – 2 WAY ROADWAY SIMILAR)
(PROJECT MORE THAN 1 MILE LENGTH)



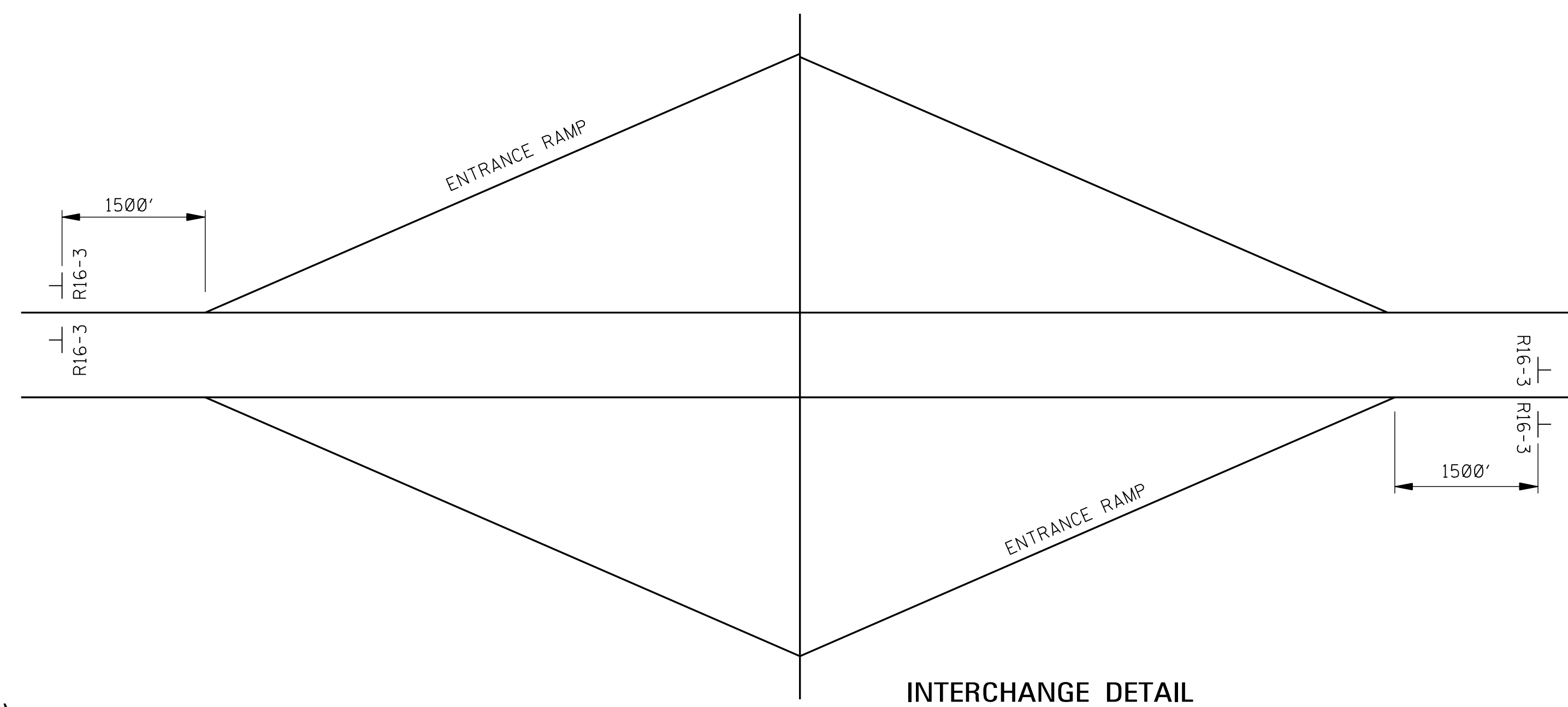
SIGN	DIMENSIONS (INCHES)							
	A	B	C	D	E	F	G	H
STD.	60	48	3/4	1 1/4	3	3 3/4	4 Dm	7 D
STD.	3	6 5/8	22 1/8	21	11 1/8	19 25/32	20 15/32	18

48" x 60"
(INTERSTATE USE)

SIGN	DIMENSIONS (INCHES)							
	A	B	C	D	E	F	G	H
STD.	48	36	3/4	1 1/4	3	2 3/4	3 Dm	6 D
STD.	3	4 1/8	14 3/4	14	7 1/8	13 1/8	13 5/8	12

36" x 48"
(ALL OTHER HIGHWAYS)

R16-3

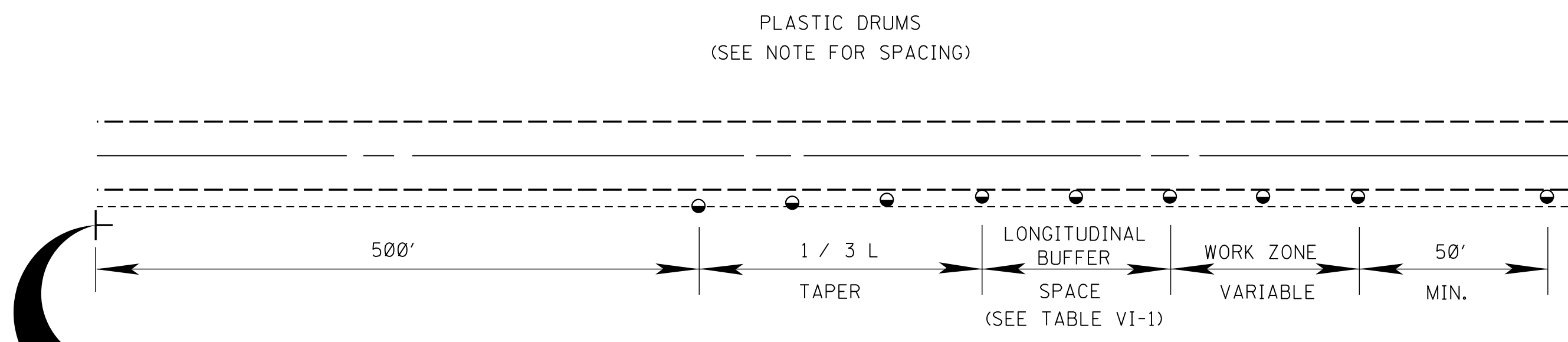


INTERCHANGE DETAIL

BY	MISSISSIPPI DEPARTMENT OF TRANSPORTATION ROADWAY DESIGN DIVISION STANDARD PLAN
REVISION	LOCATION OF R16-3 SIGNS (SPEEDING FINES DOUBLED)
DATE	ISSUE DATE: AUGUST 01, 2017

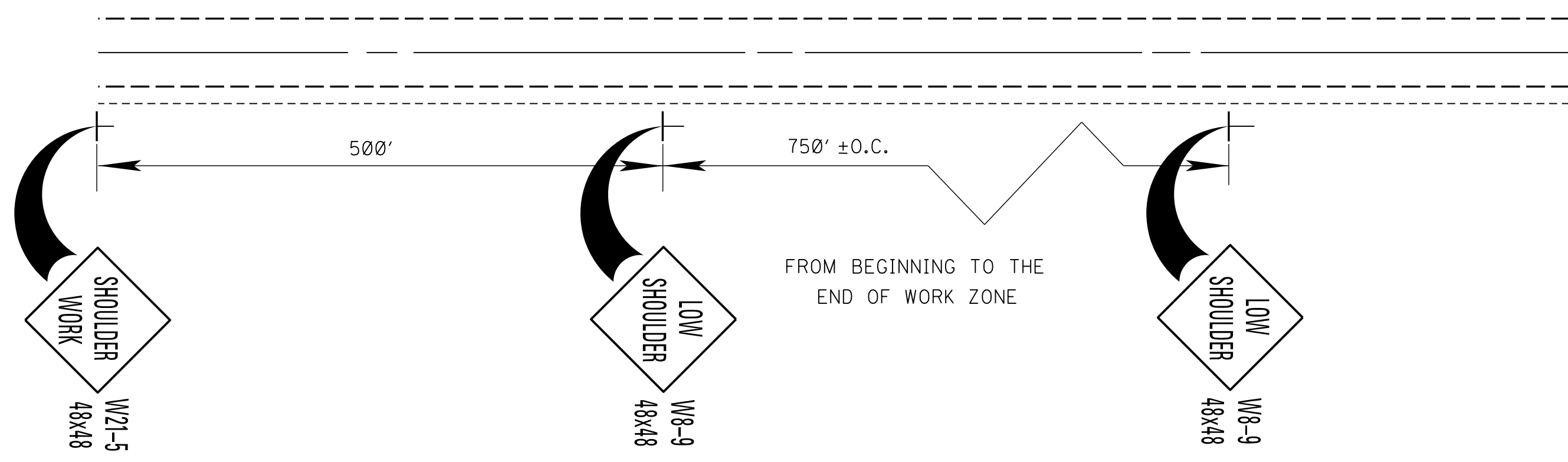
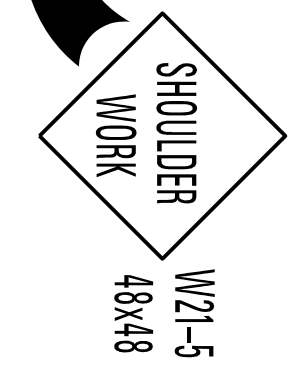


WORKING NUMBER
TCP-15
SHEET NUMBER
6365

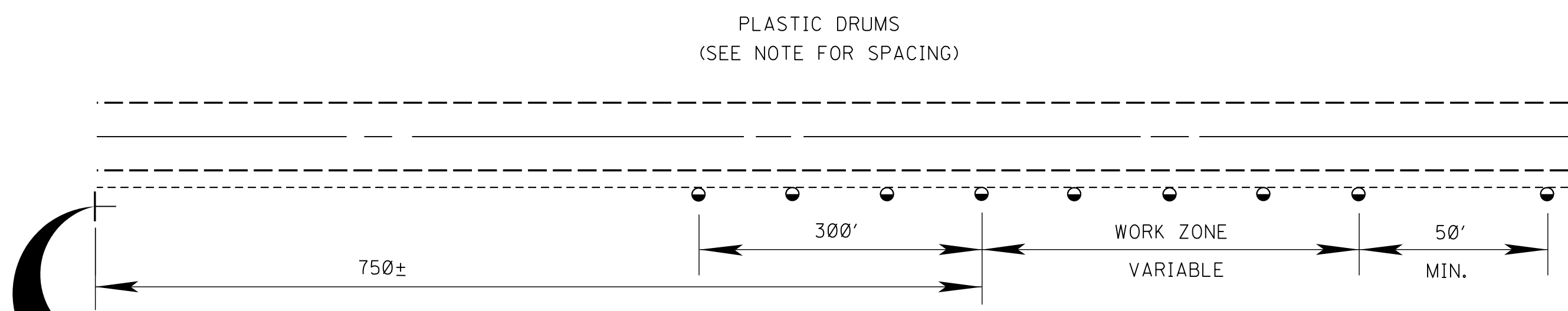
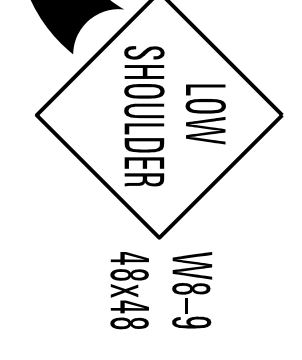
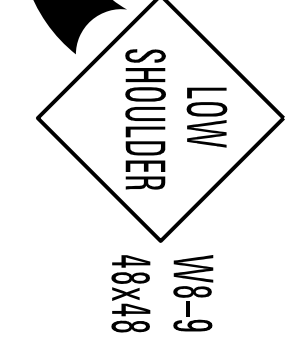


TYPICAL SHOULDER CLOSURE

- (1) TO BE USED WITH EIGHT (8) FOOT OR GREATER WIDTH IMPROVED SHOULDER.
- (2) TO BE USED WHEN CONSTRUCTION VEHICLES (EQUIPMENT) ENCROACHES ON OR WITHIN TWO (2) FEET OF THE SHOULDER BREAK.

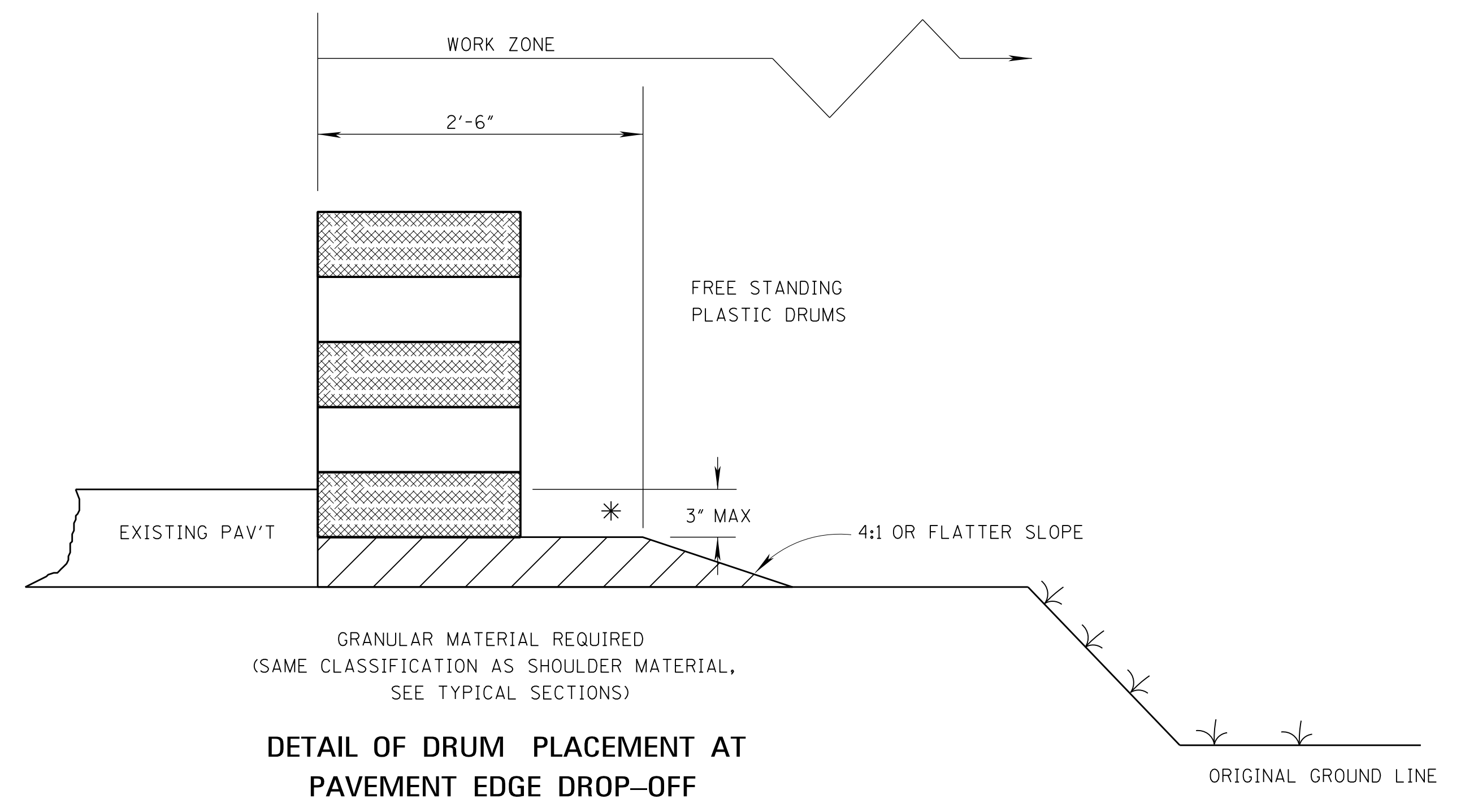
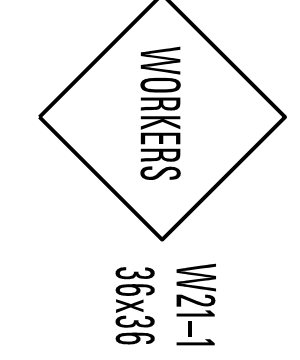
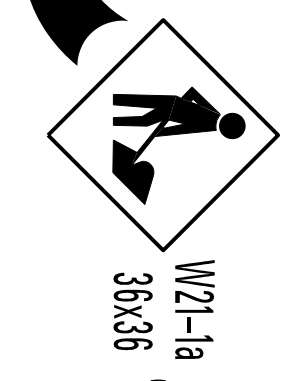


**TYPICAL SHOULDER WORK #1
(SEE NOTE A-1 THIS SHEET)**



TYPICAL SHOULDER WORK #2

NOTE:
WORK OUTSIDE TWO (2) FOOT AND WITHIN TEN (10) FEET OF THE SHOULDER BREAK MAY BE PROTECTED BY PLACING DRUMS ALONG THE SHOULDER EDGE, 300 FEET PRIOR TO AND 50 FEET BEYOND THE WORK AREA, OR SEE NOTE A-3 THIS SHEET.



DETAIL OF DRUM PLACEMENT AT PAVEMENT EDGE DROP-OFF

NOTES:

- * A. PAVEMENT EDGE DROP-OFF
 - IF LESS THAN TWO AND ONE QUARTER (2.25) INCHES-NO PROTECTION REQUIRED. PLACE A SHOULDER WORK SIGN (W21-5) 500 FEET IN ADVANCE OF WORK ZONE SHOULDER AND A LOW SHOULDER SIGN (W8-9) AT THE BEGINNING AND THROUGHOUT THE WORK ZONE @ (750'±0.c.).
 - TWO AND ONE QUARTER TO THREE INCHES-PLACE DRUMS, VERTICAL PANELS OR BARRICADES EVERY 100 FEET ON TANGENT SECTIONS FOR SPEEDS OF 50 MILES PER HOUR OR GREATER. CONES MAY BE USED IN PLACE OF DRUMS, PANELS, AND BARRICADES DURING DAYLIGHT HOURS. FOR TANGENT SECTIONS WITH SPEEDS LESS THAN 50 MILES PER HOUR AND FOR CURVES, DEVICES SHOULD BE PLACED EVERY 50 FEET. SPACING FOR TAPERS SHOULD BE IN ACCORDANCE WITH THE M.U.T.C.D. (1 / 3 L, WHERE L IS THE TAPER LENGTH IN FEET.)
 - GREATER THAN THREE (3) INCHES-POSITIVE SEPARATION OR WEDGE WITH 4:1 OR FLATTER SLOPE NEEDED. IF THERE IS EIGHT (8) FEET OR MORE DISTANCE BETWEEN THE EDGE OF TRAVEL LANE AND DROP-OFF, THEN DRUMS, PANELS OR BARRICADES MAY BE USED.
 - FOR TEMPORARY CONDITIONS, DROP-OFFS GREATER THAN THREE (3) INCHES MAY BE PROTECTED WITH DRUMS, VERTICAL PANELS OR BARRICADES FOR SHORT DISTANCES DURING DAYLIGHT HOURS WHILE WORK IS BEING DONE IN THE DROP-OFF AREA.
 - LESSER TREATMENTS THAN THOSE DESCRIBED ABOVE MAY BE CONSIDERED FOR LOW-VOLUME LOCAL STREETS.
- B. DRUM SPACING
 - TANGENTS = 2 X S
 - TAPERS = L / 3

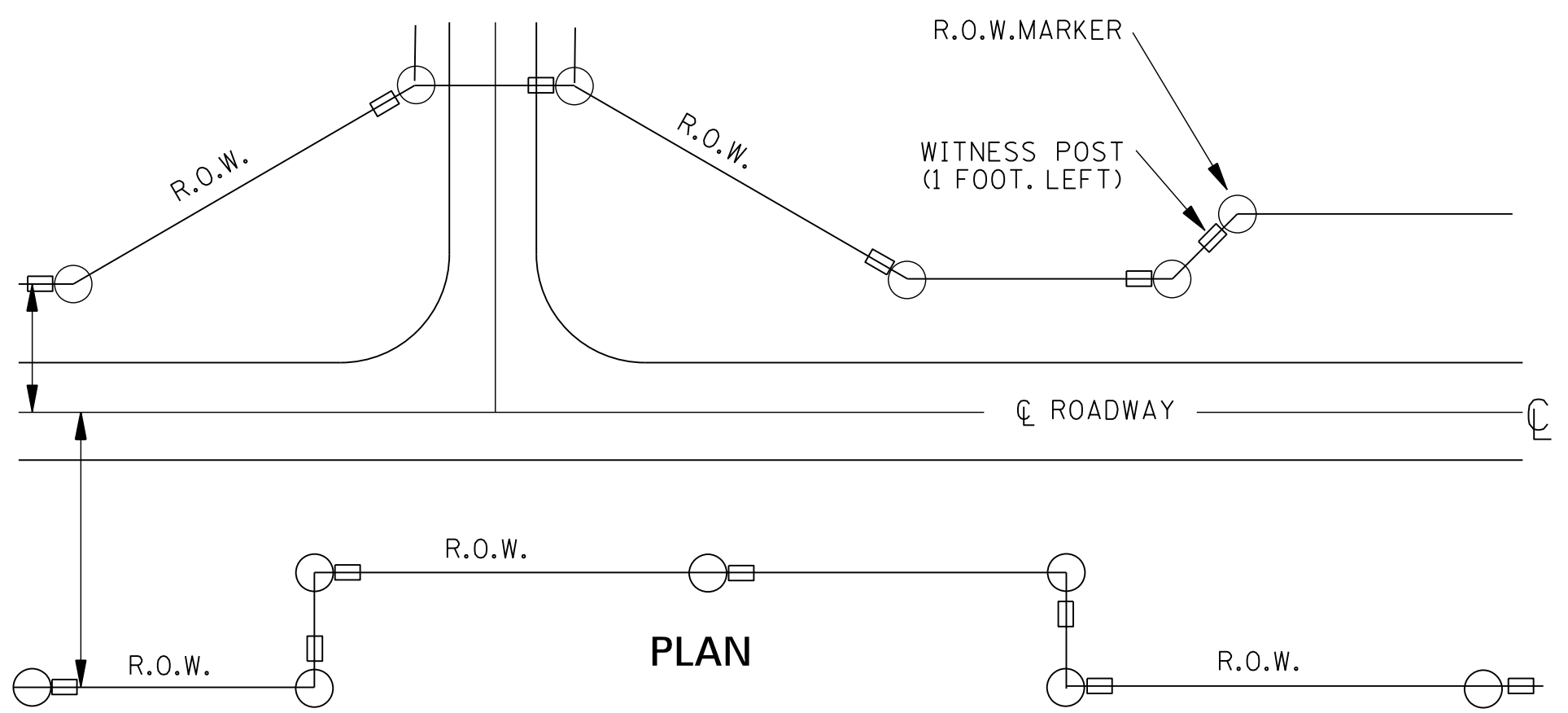
WHERE L = S X W
L = TAPER LENGTH IN FEET
S = SPEED IN MPH (POSTED OR 85 PERCENTILE)
W = WIDTH OF OFFSET IN FEET
- C. ALL TRAFFIC CONTROL ITEMS SHOWN ON THIS SHEET SHALL BE PAID FOR UNDER MAINTENANCE OF TRAFFIC.

TABLE VI-1. GUIDELINES FOR LENGTH OF LONGITUDINAL BUFFER SPACE

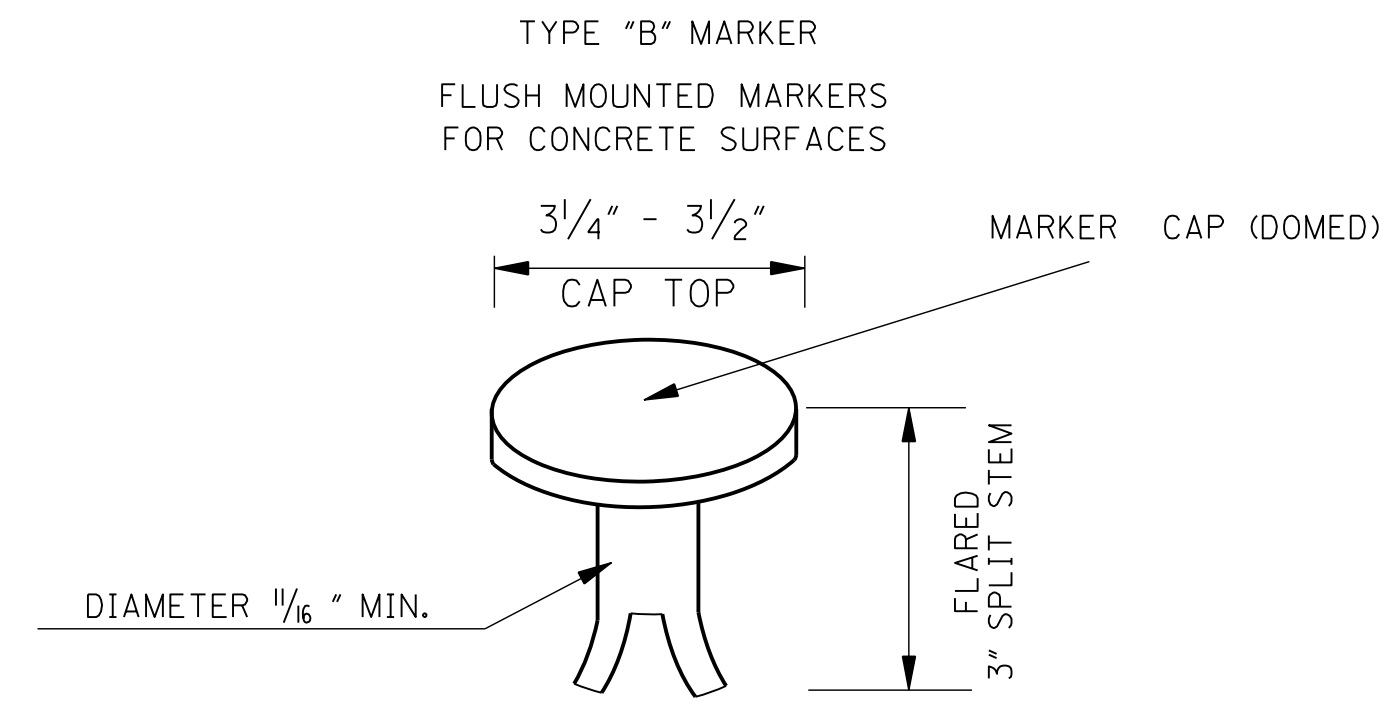
** SPEED (MPH)	LENGTH (FEET)
20	35
25	55
30	85
35	120
40	170
45	220
50	280
55	335
60	415
65	485

** POSTED SPEED, OFF-PEAK 85 PERCENTILE SPEED PRIOR TO WORK STARTING, OR THE ANTICIPATED OPERATING SPEED IN MPH.

MISSISSIPPI DEPARTMENT OF TRANSPORTATION ROADWAY DESIGN DIVISION STANDARD PLAN	
TRAFFIC CONTROL DETAILS DRUM PLACEMENT AND SHOULDER CLOSURE	
BY	
REVISION	
DATE	ISSUE DATE: AUGUST 01, 2017
WORKING NUMBER TCP-16 SHEET NUMBER 6366	

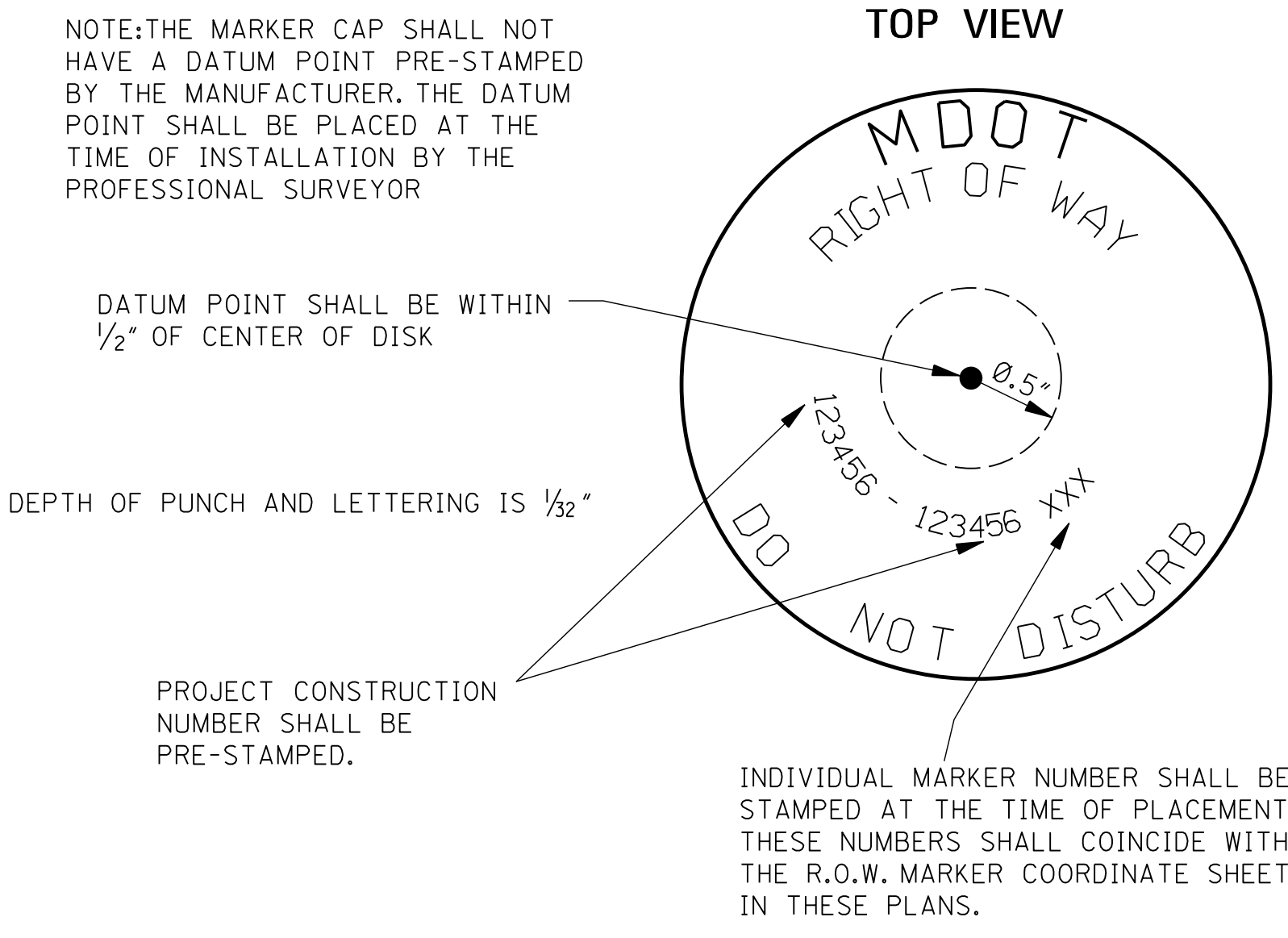


TYPICAL PLACEMENT OF R.O.W. MARKERS AND WITNESS POSTS

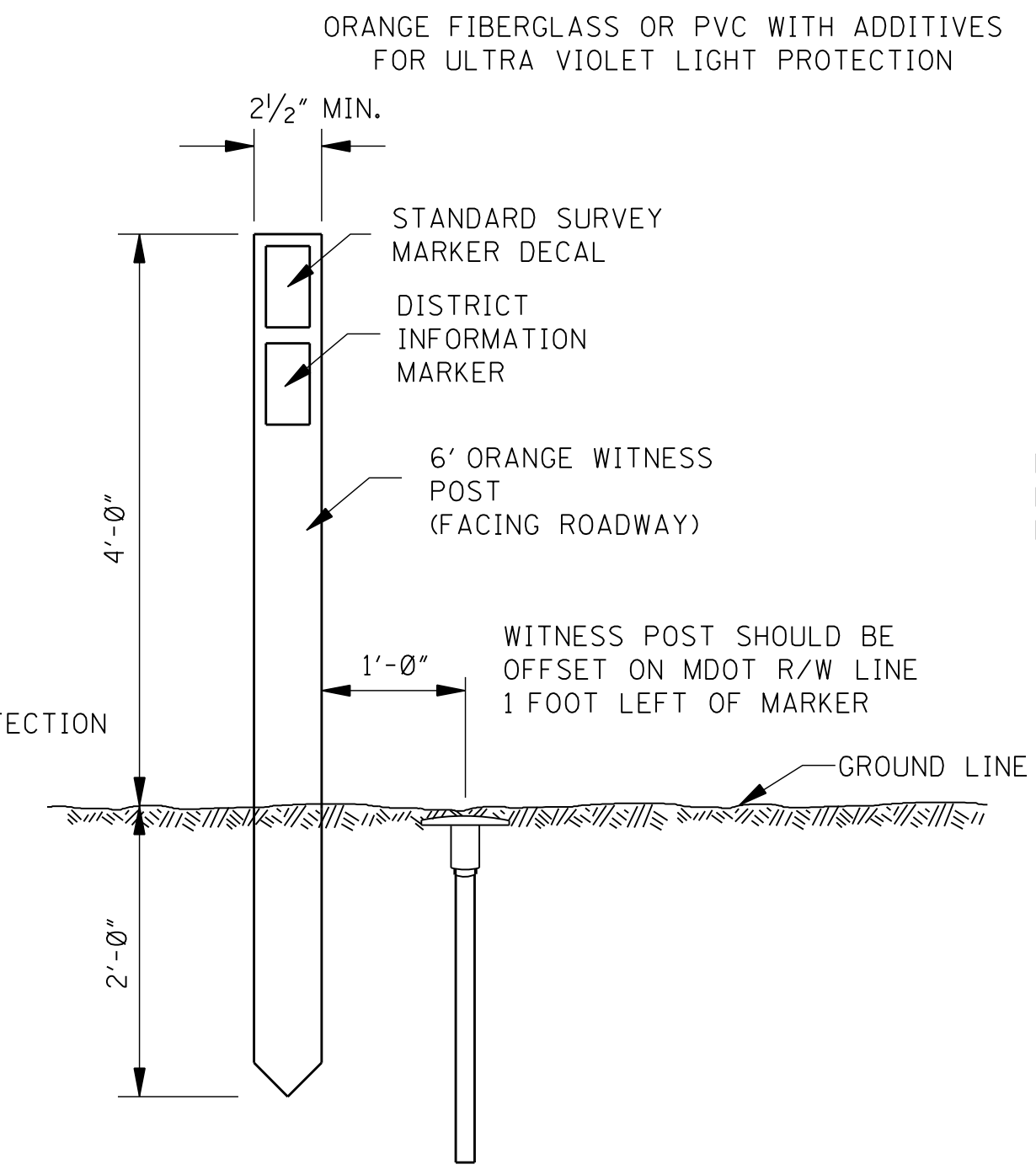
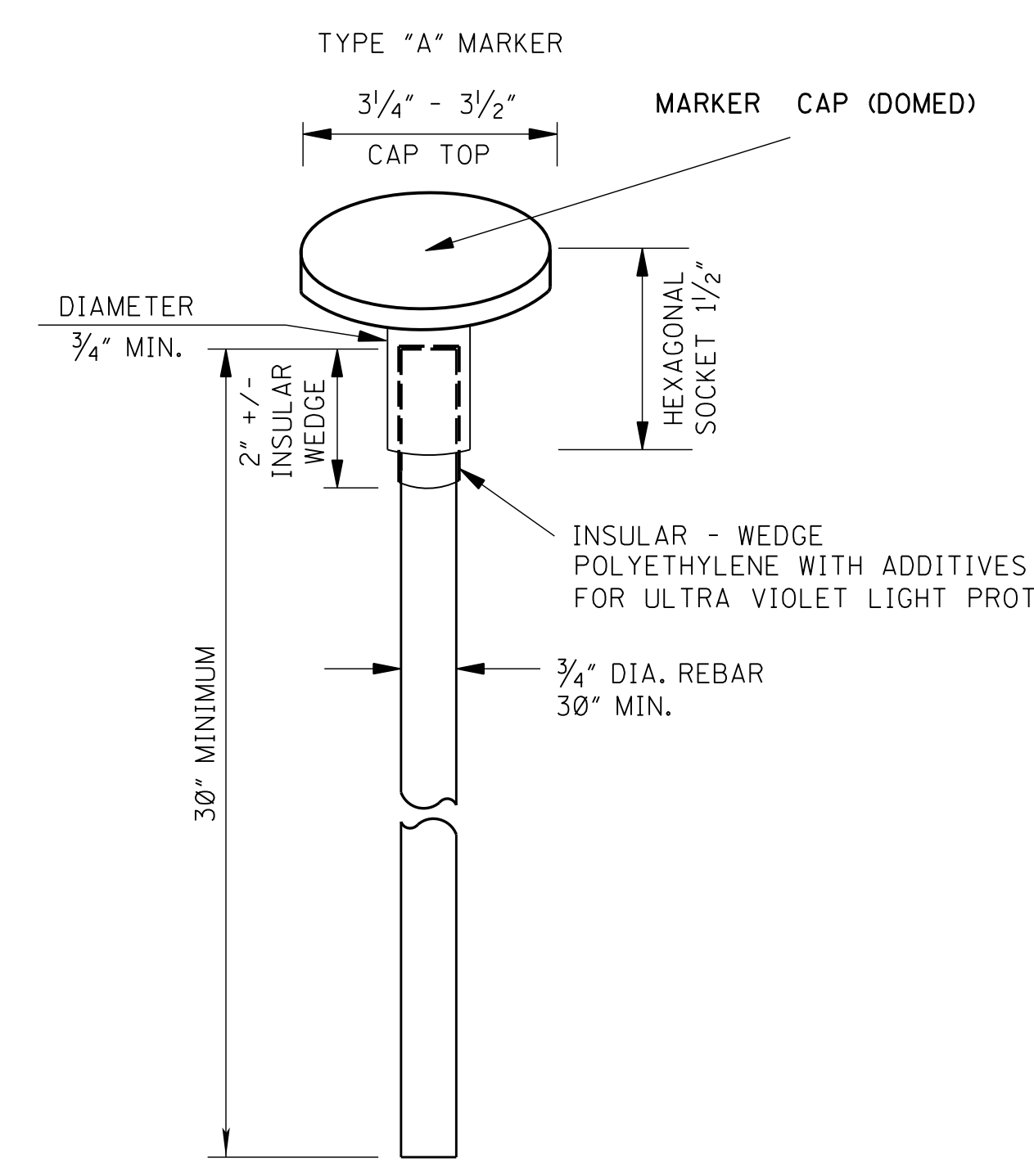


GENERAL NOTE:
1. THE MARKERS SHALL BE PLACED AS INDICATED ELSEWHERE ON PLANS
COST OF WITNESS POST AND DECALS SHALL BE INCLUDED IN THE COST OF MARKER

MARKER CAP DETAILS FOR RIGHT-OF-WAY

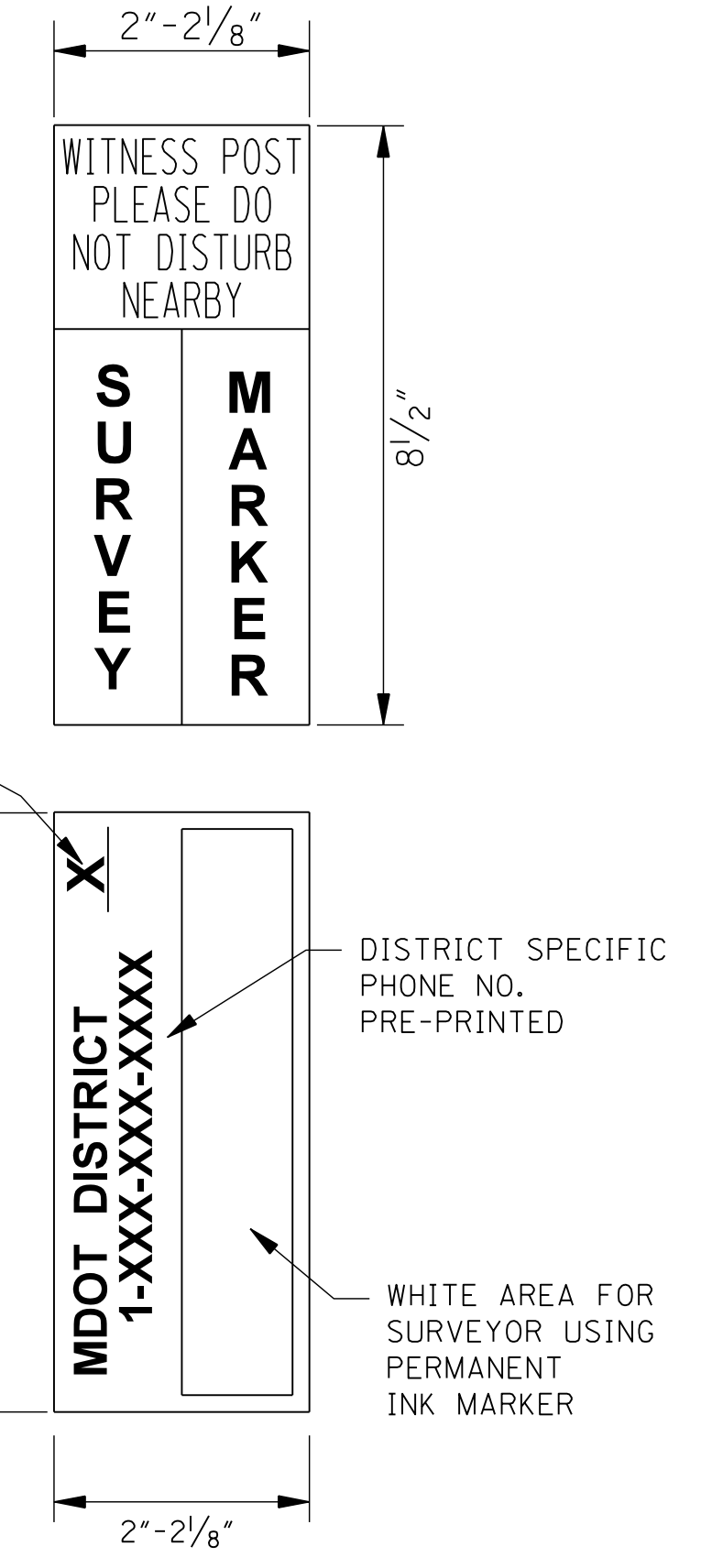


MARKER CAP SPECIFICATIONS (PRINT DATA WHERE SHOWN)	
3.25" - 3.50" DIAMETER DOMED TOP	
OUTSIDE ROW	46 SPACES 'MDOT - DO NOT DISTURB' 3/16" LETTERS
MIDDLE ROW	35 SPACES 'RIGHT OF WAY' 3/16" LETTERS
INSIDE ROW	35 SPACES 'PROJECT P.E. NO. AND INDIVIDUAL MARKER NO.' 1/8" LETTERS

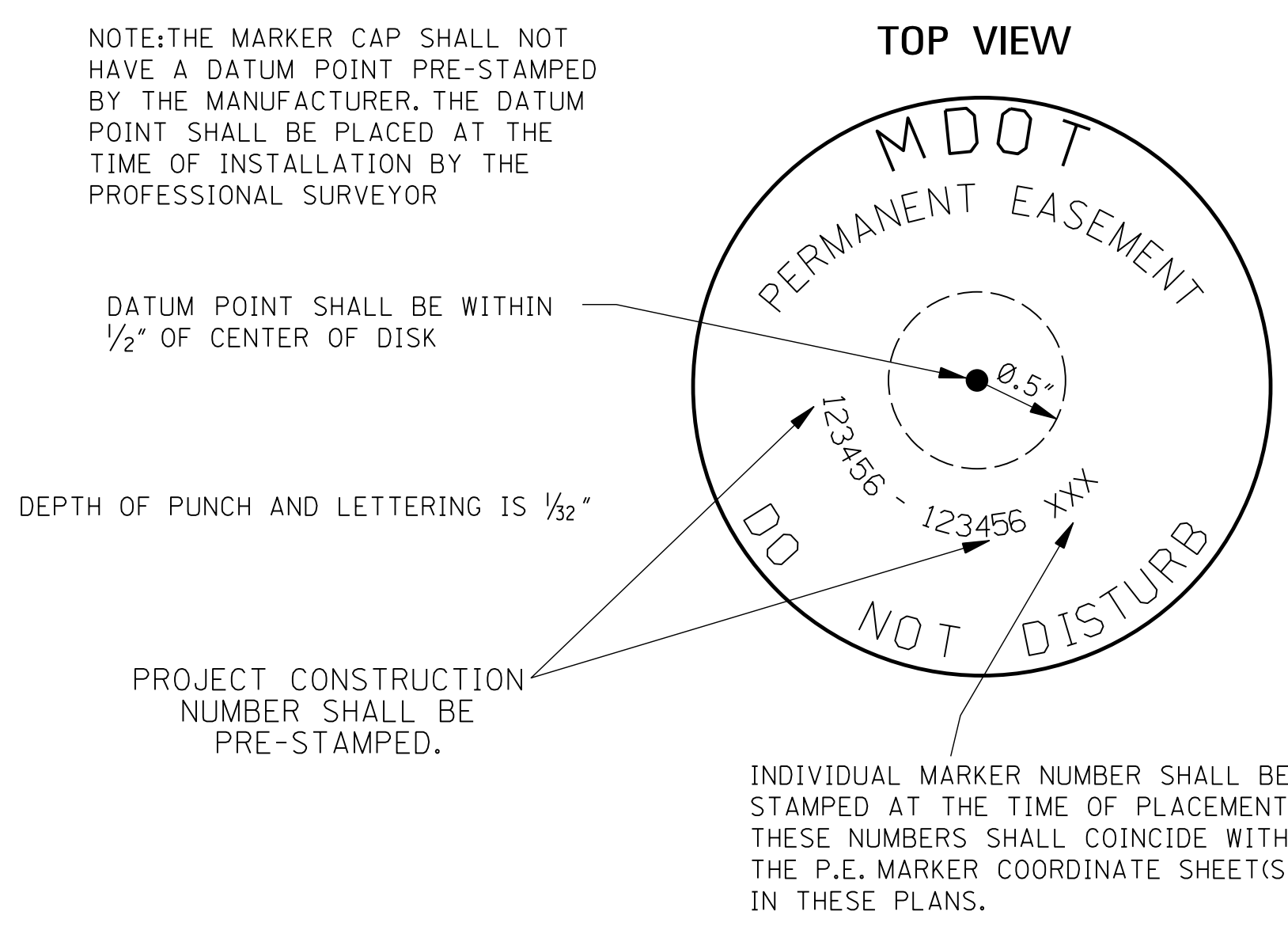


WITNESS POST & RIGHT-OF-WAY MARKER

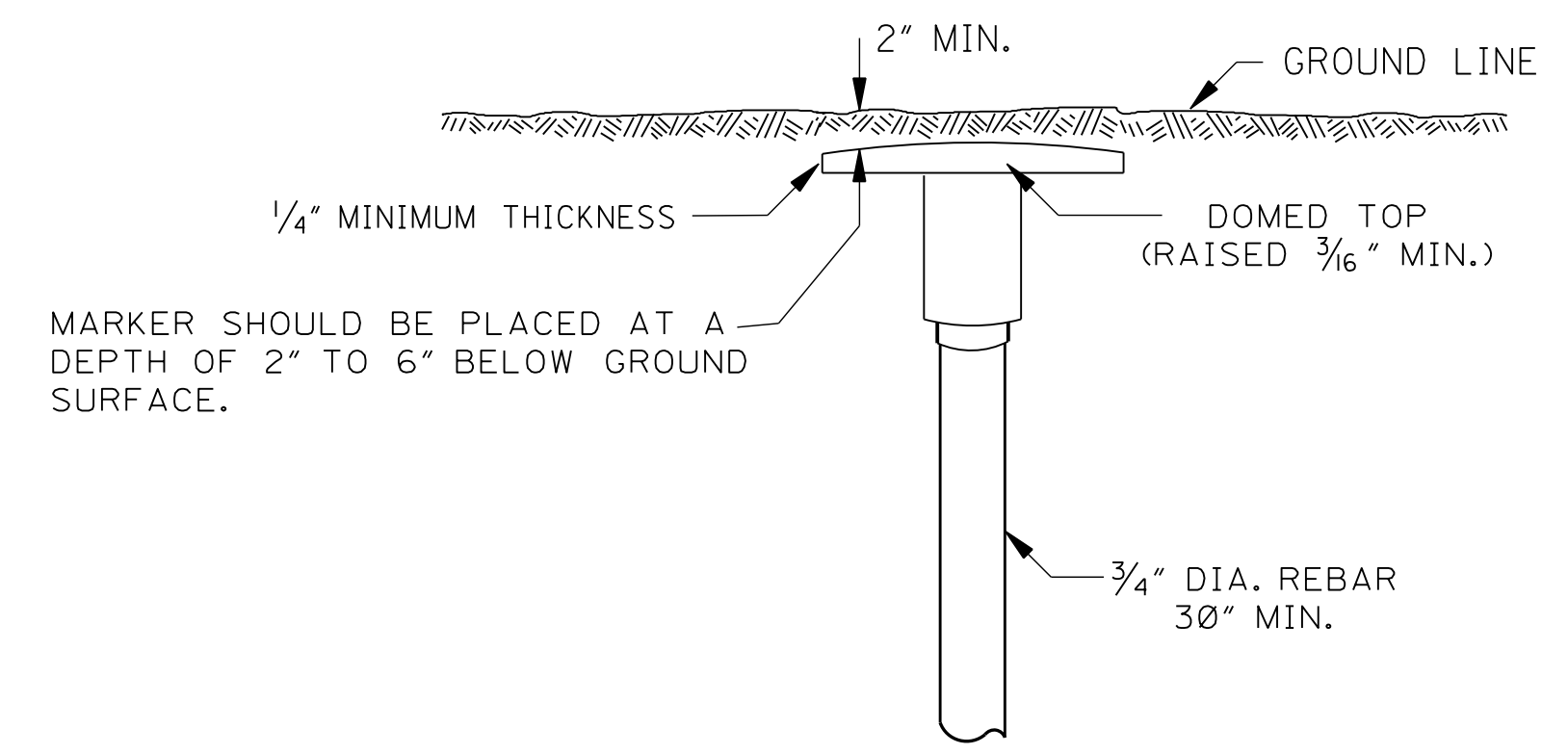
SURVEY MARKER WITNESS POST DECALS
WHITE BACKGROUND WITH BLACK PRINT, VINYL WITH ADHESIVE BACKING



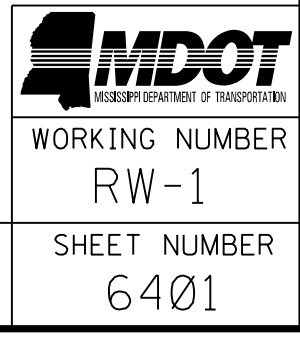
MARKER CAP DETAILS FOR PERMANENT EASEMENT

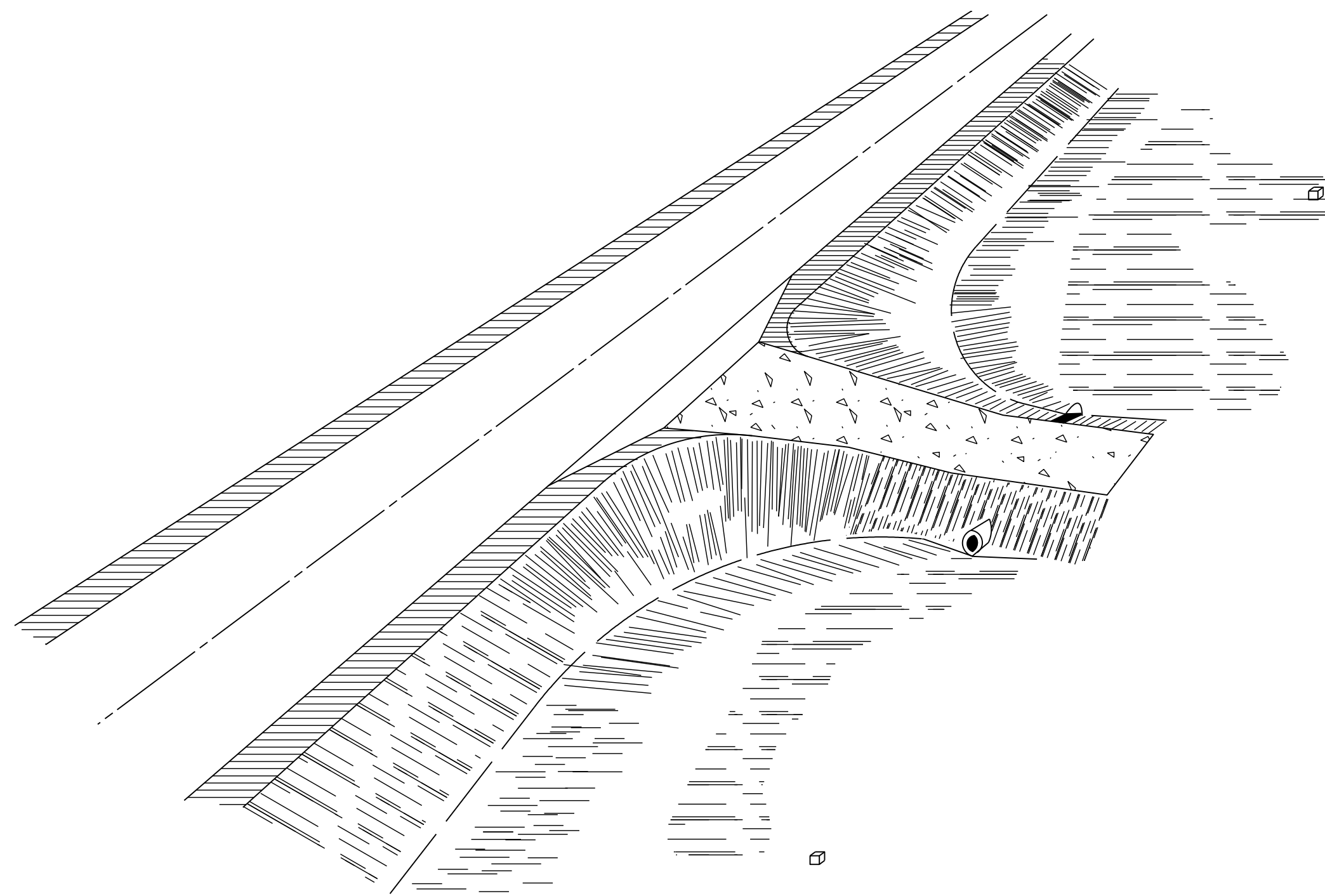


MARKER CAP SPECIFICATIONS (PRINT DATA WHERE SHOWN)	
3.25" - 3.50" DIAMETER DOMED TOP	
OUTSIDE ROW	46 SPACES 'MDOT - DO NOT DISTURB' 3/16" LETTERS
MIDDLE ROW	35 SPACES 'PERMANENT EASEMENT' 3/16" LETTERS
INSIDE ROW	35 SPACES 'PROJECT P.E. NO. AND INDIVIDUAL MARKER NO.' 1/8" LETTERS

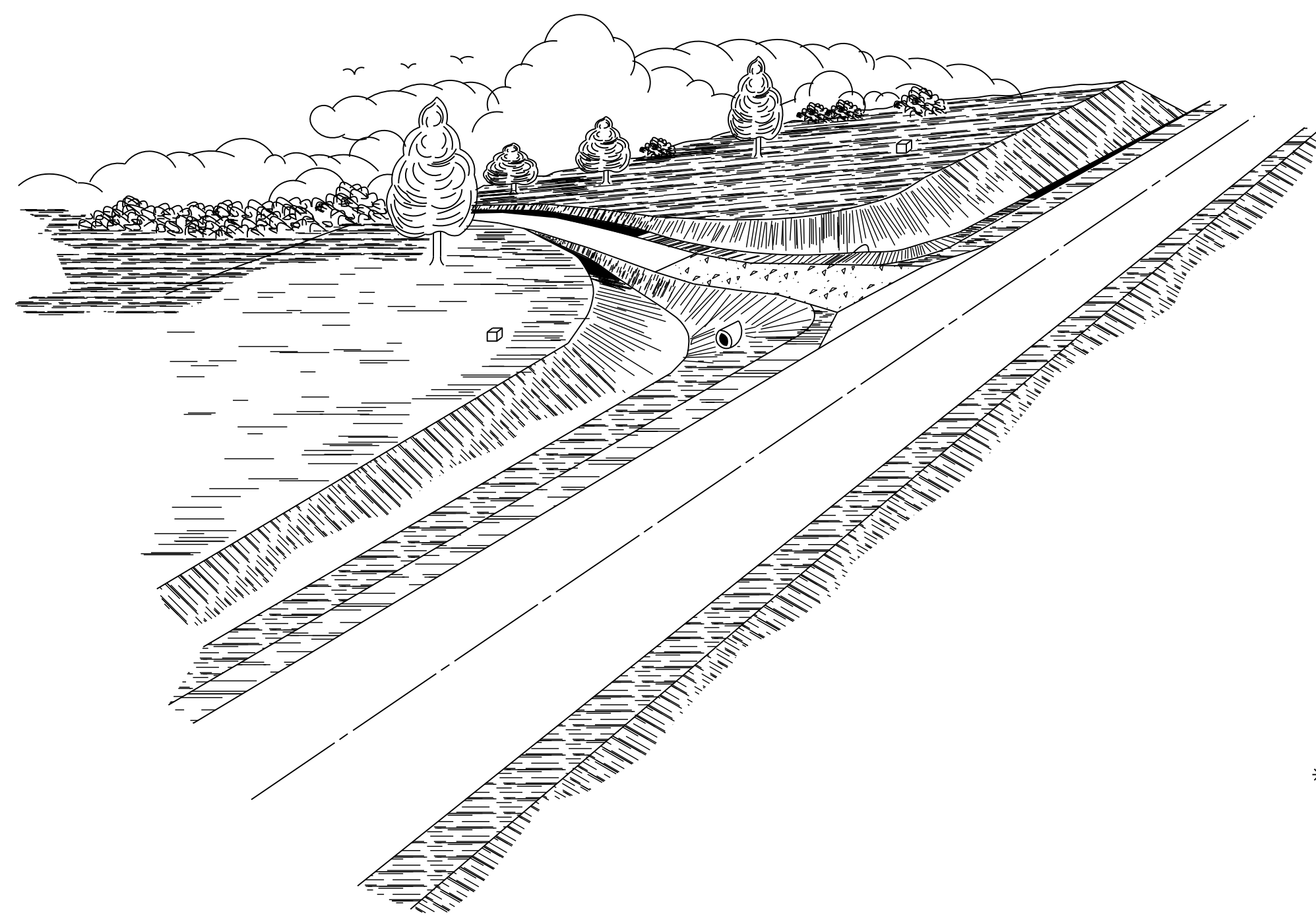
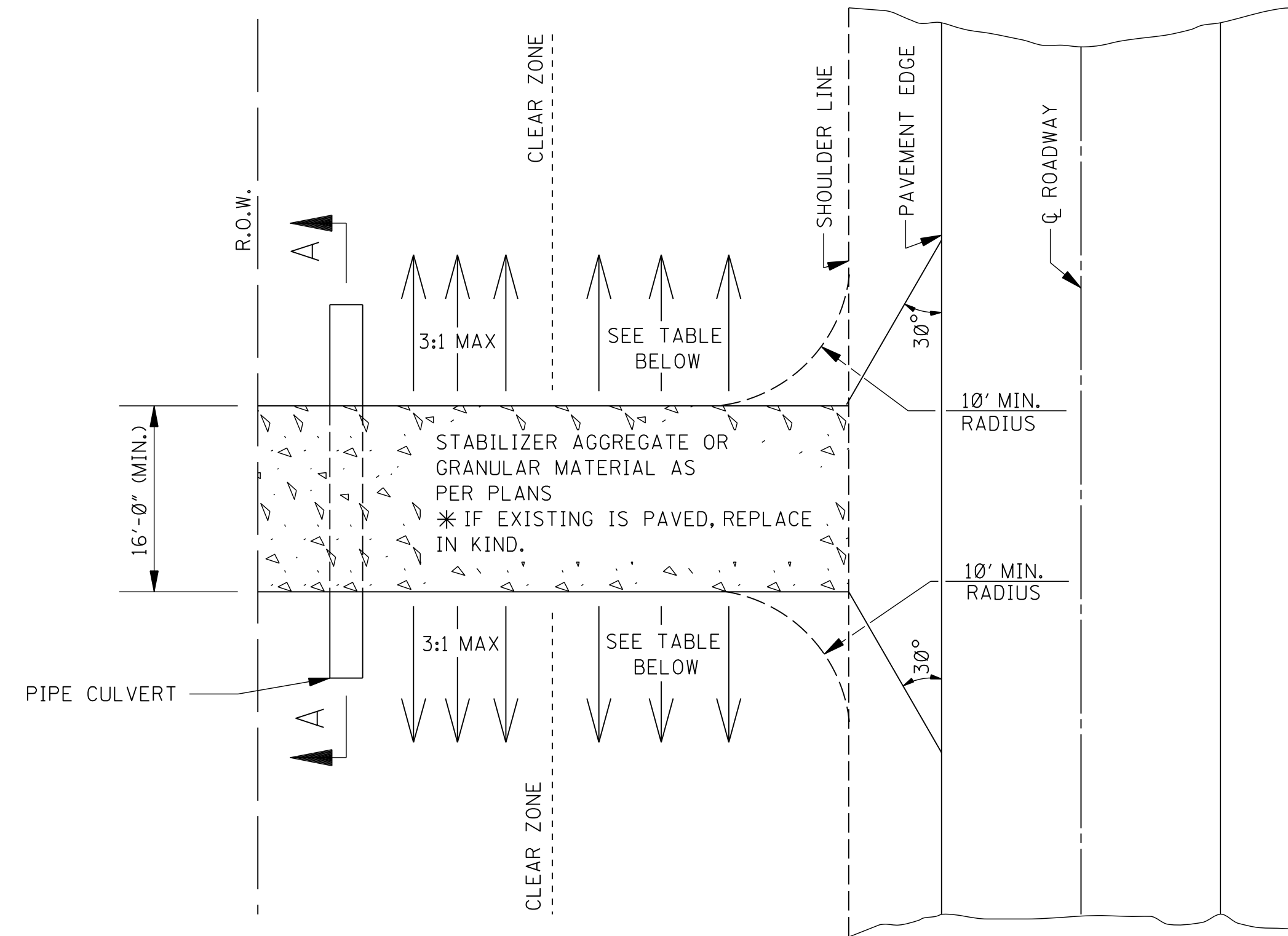


MISSISSIPPI DEPARTMENT OF TRANSPORTATION ROADWAY DESIGN DIVISION STANDARD PLAN	
RIGHT-OF-WAY MARKER	
BY	
REVISION	
DATE	ISSUE DATE: AUGUST 01, 2017
WORKING NUMBER	RW-1
SHEET NUMBER	6401

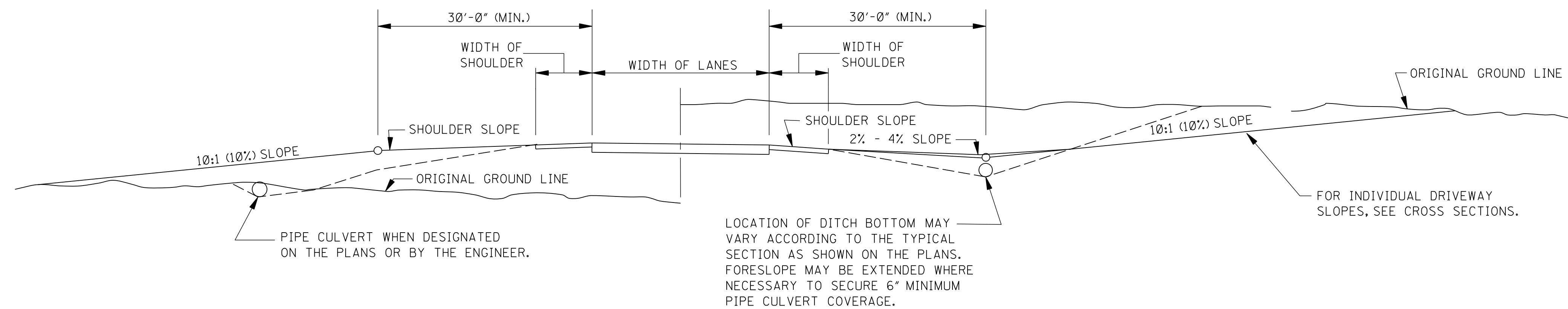




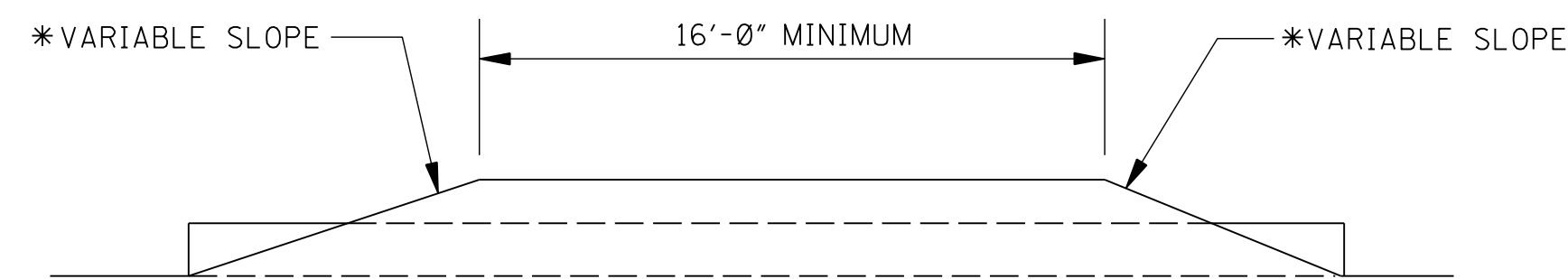
RAMP IN FILL SECTION



RAMP IN CUT SECTION



TYPICAL SECTION AT RAMP



SECTION A-A

* DRIVEWAY SIDE SLOPES

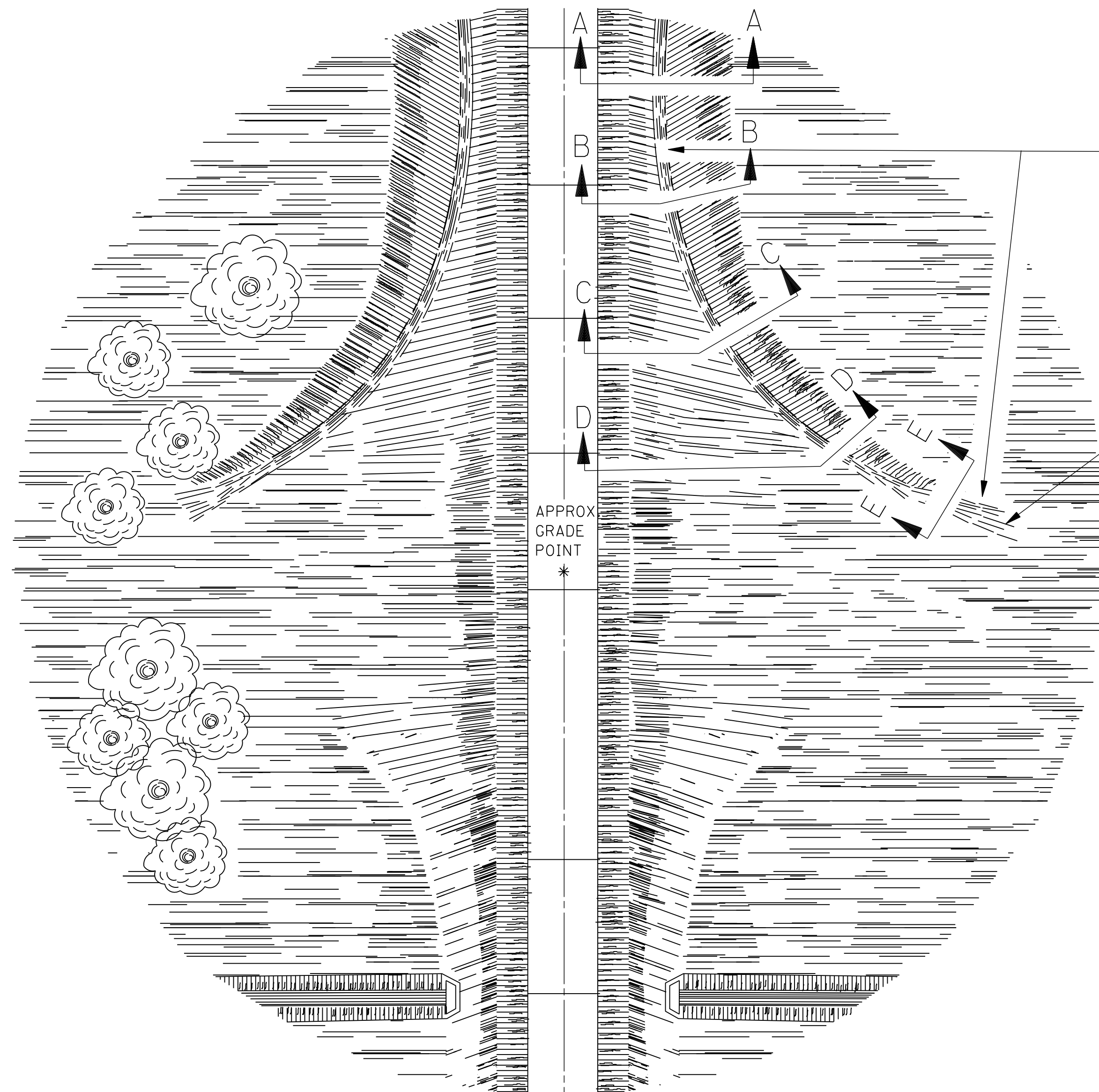
WITHIN CLEAR ZONE	V ≥ 50 mph - DES. 10:1 MAX 6:1
	V ≤ 45 mph - MAX. 3:1
OUTSIDE CLEAR ZONE	MAXIMUM - 3:1

MISSISSIPPI DEPARTMENT OF TRANSPORTATION ROADWAY DESIGN DIVISION STANDARD PLAN	
RURAL DRIVEWAYS	
BY	
REVISION	
DATE	ISSUE DATE: AUGUST 01, 2017

MDOT
MISSISSIPPI DEPARTMENT OF TRANSPORTATION

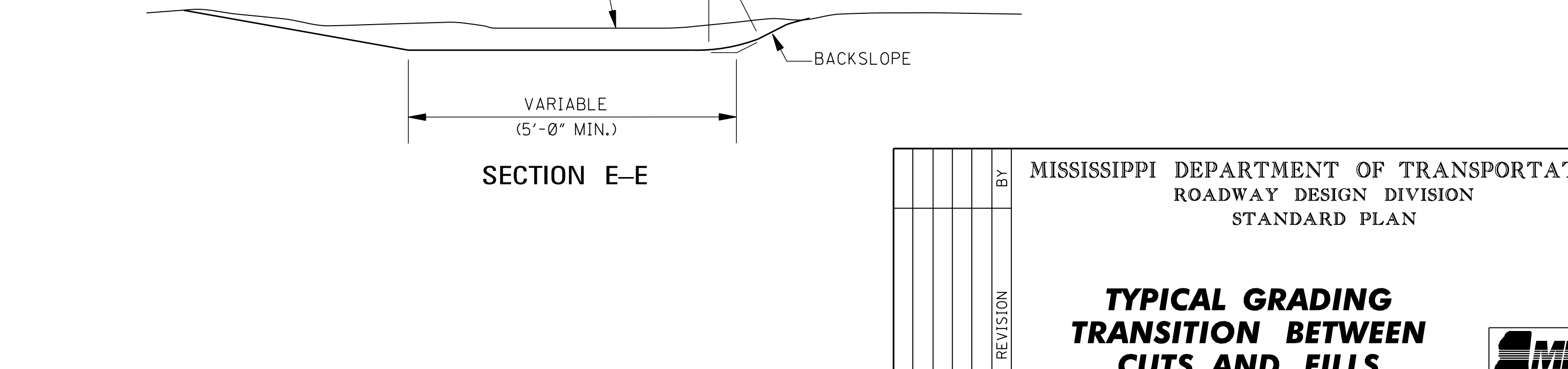
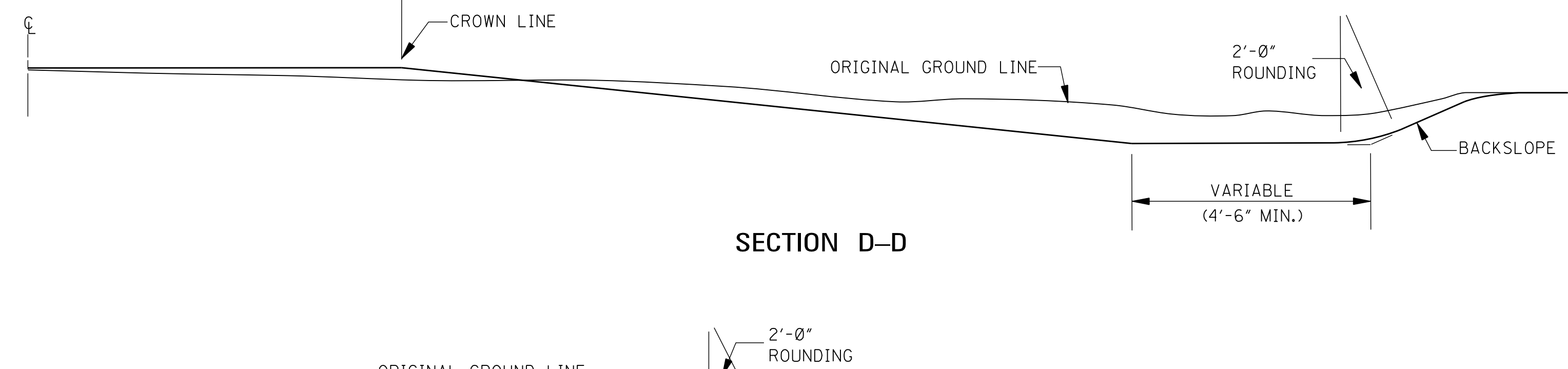
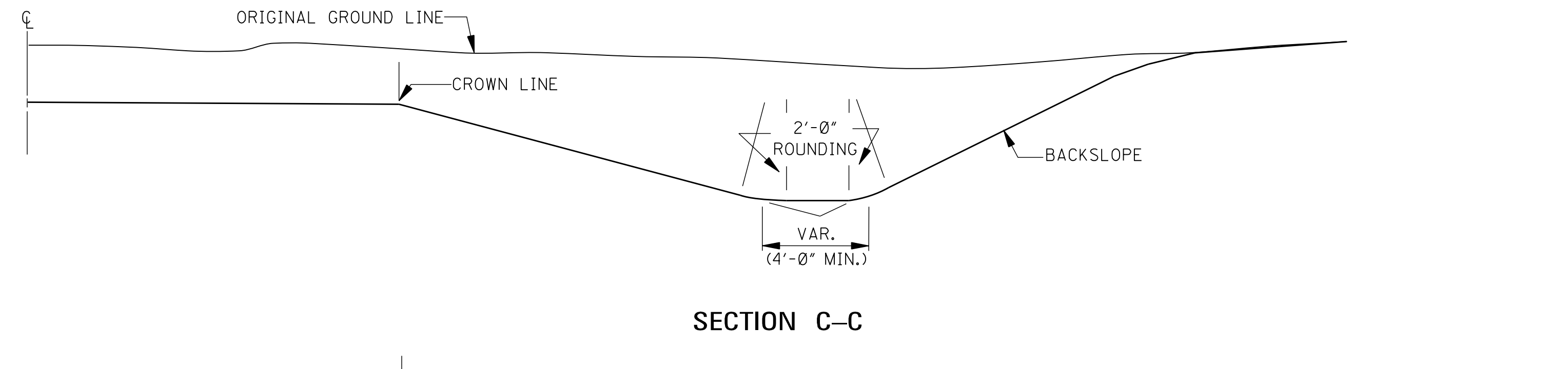
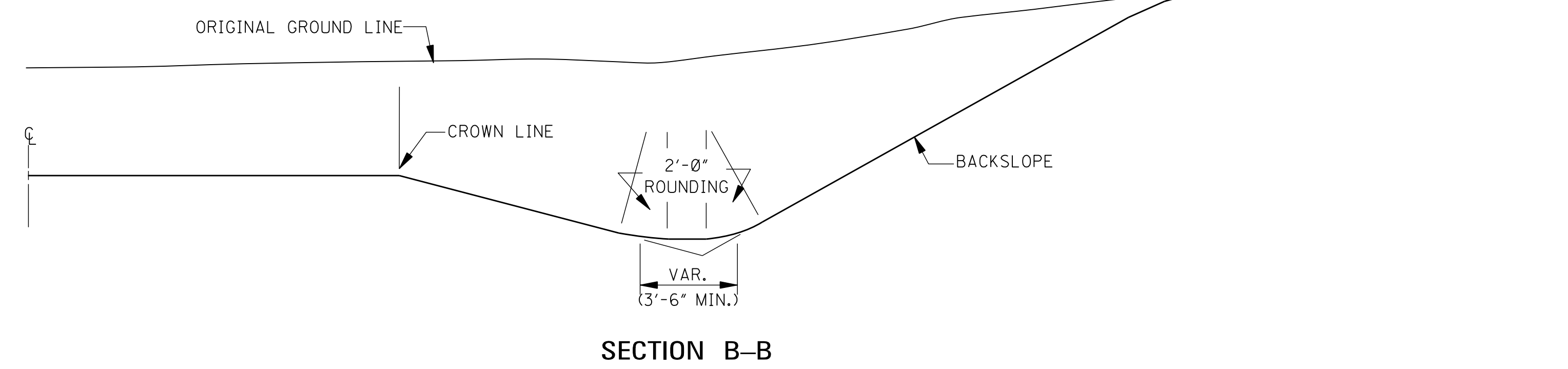
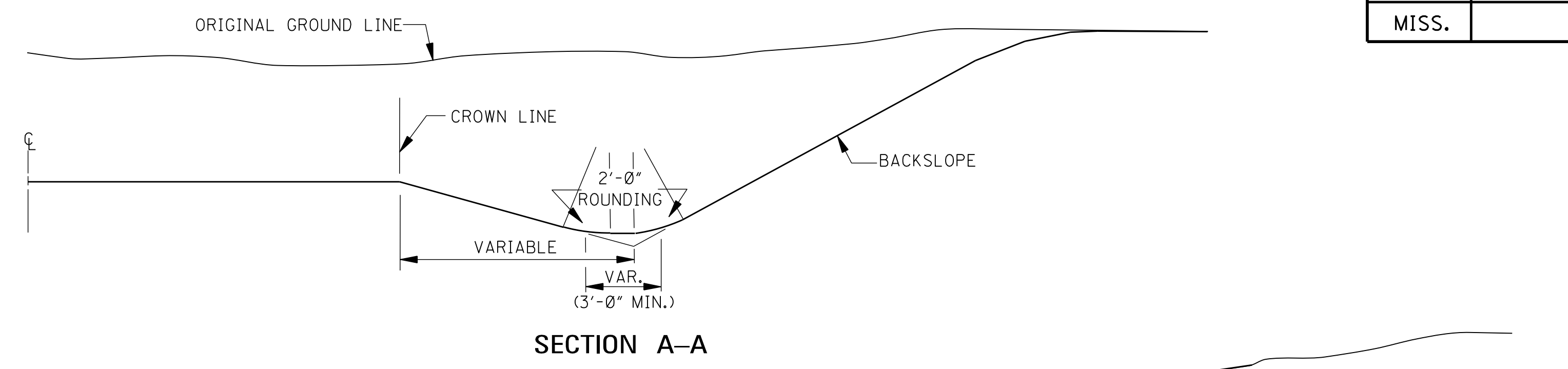
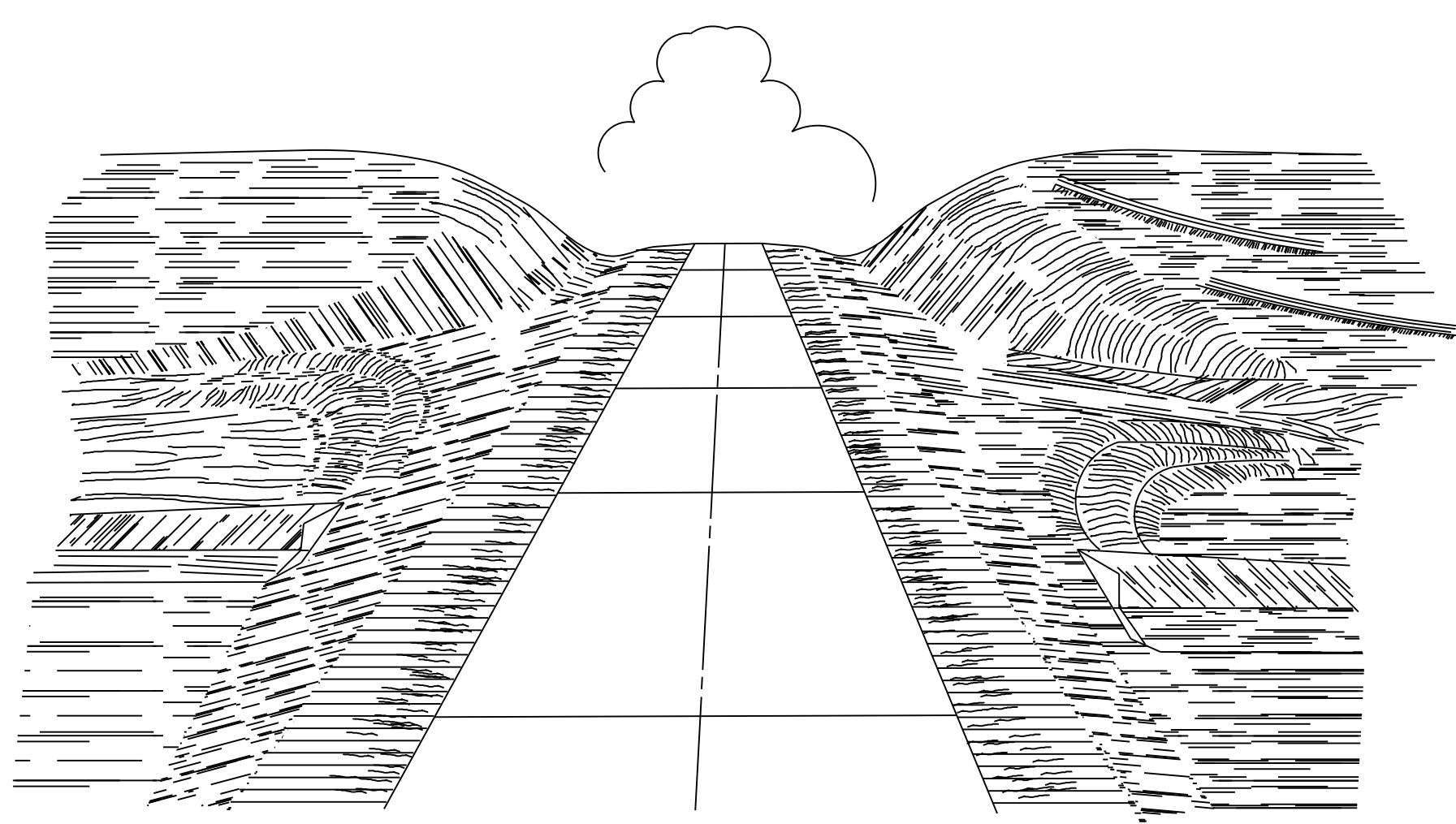
WORKING NUMBER
RD-1

SHEET NUMBER
6403

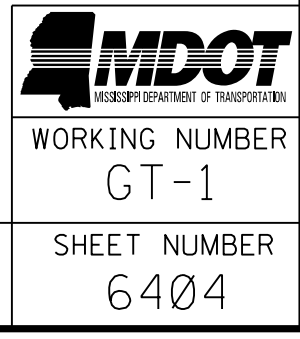


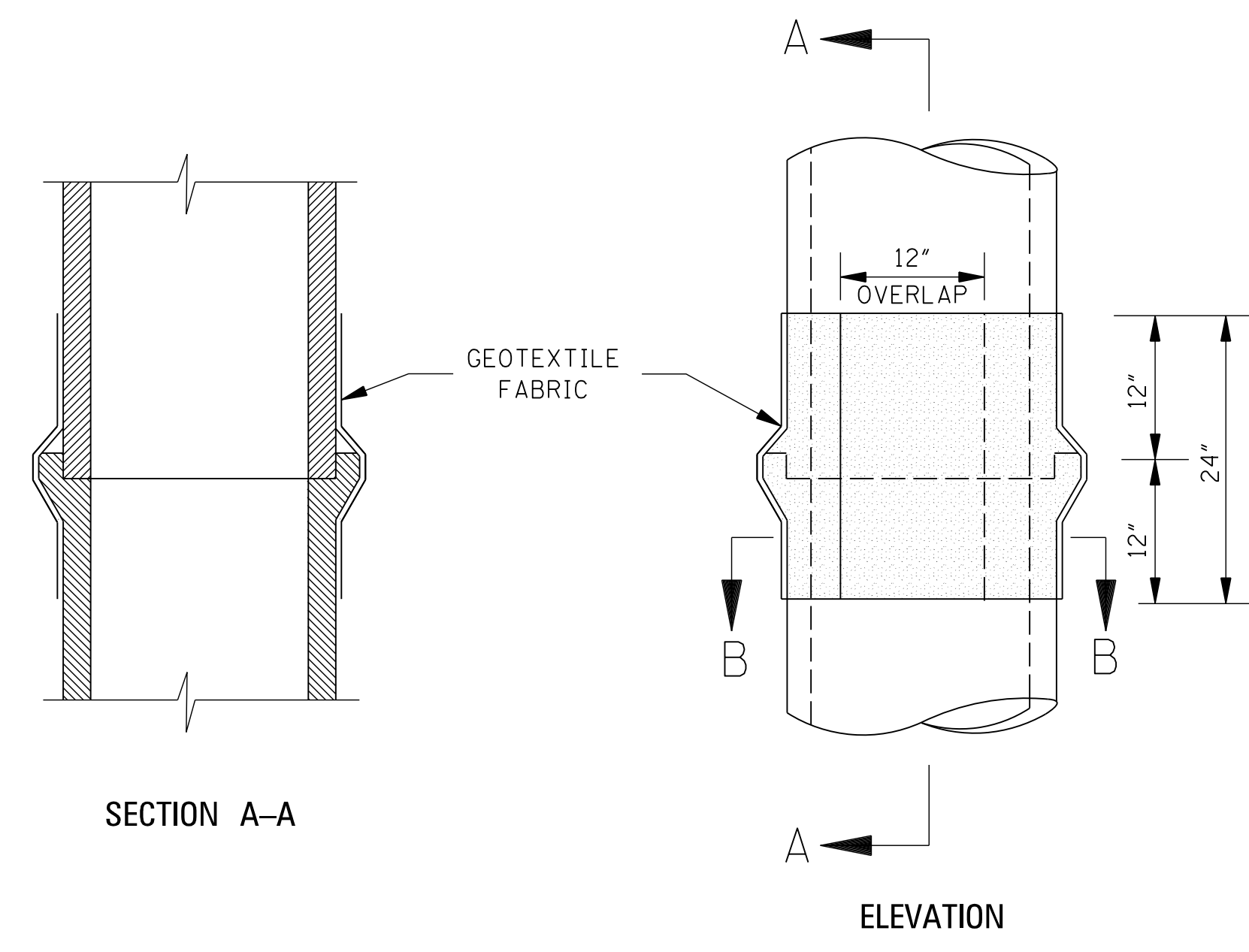
VARIABLE CURVATURE TO CONFORM TO AVAILABLE RIGHT-OF-WAY.

CONTOUR DIVERSION DITCH NOT TO EXCEED 1% GRADIENT. DITCH TO FLARE PROGRESSIVELY. EASEMENT SHOULD BE PROCURED WHERE NECESSARY FOR LOCATION OF CONTOUR DIVERSION DITCH.

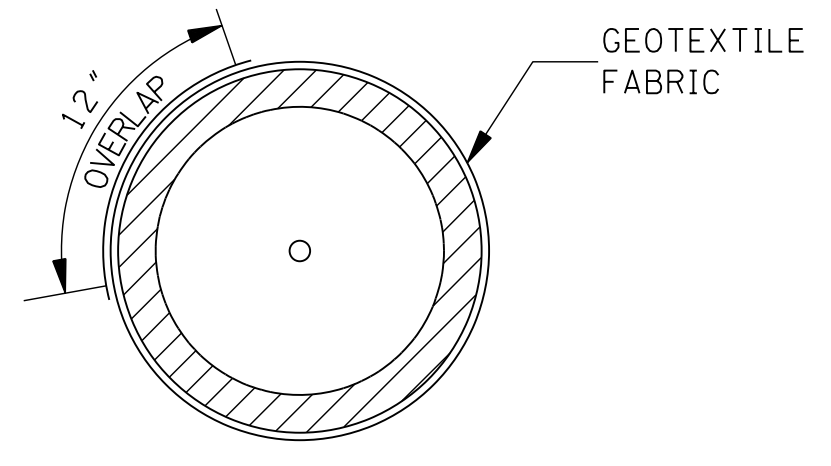


MISSISSIPPI DEPARTMENT OF TRANSPORTATION ROADWAY DESIGN DIVISION STANDARD PLAN	
TYPICAL GRADING TRANSITION BETWEEN CUTS AND FILLS	
BY	
REVISION	
DATE	ISSUE DATE: AUGUST 01, 2017
WORKING NUMBER	GT-1
SHEET NUMBER	6404





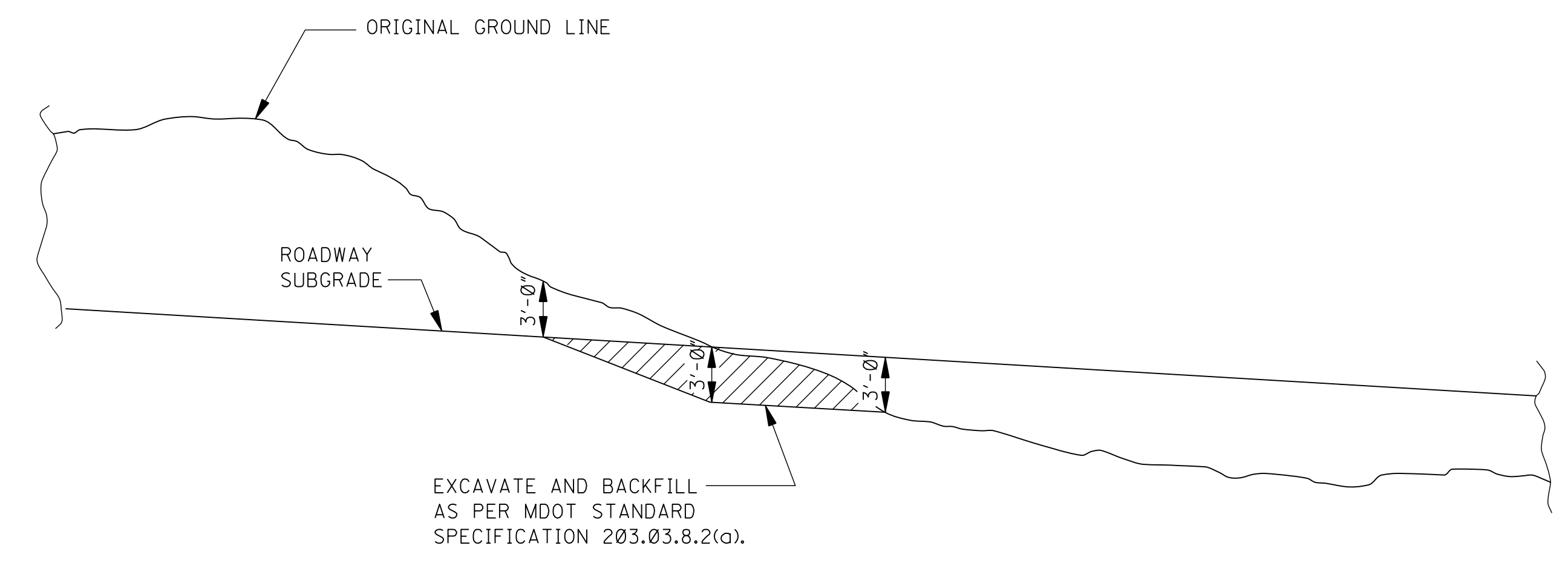
SECTION A-A



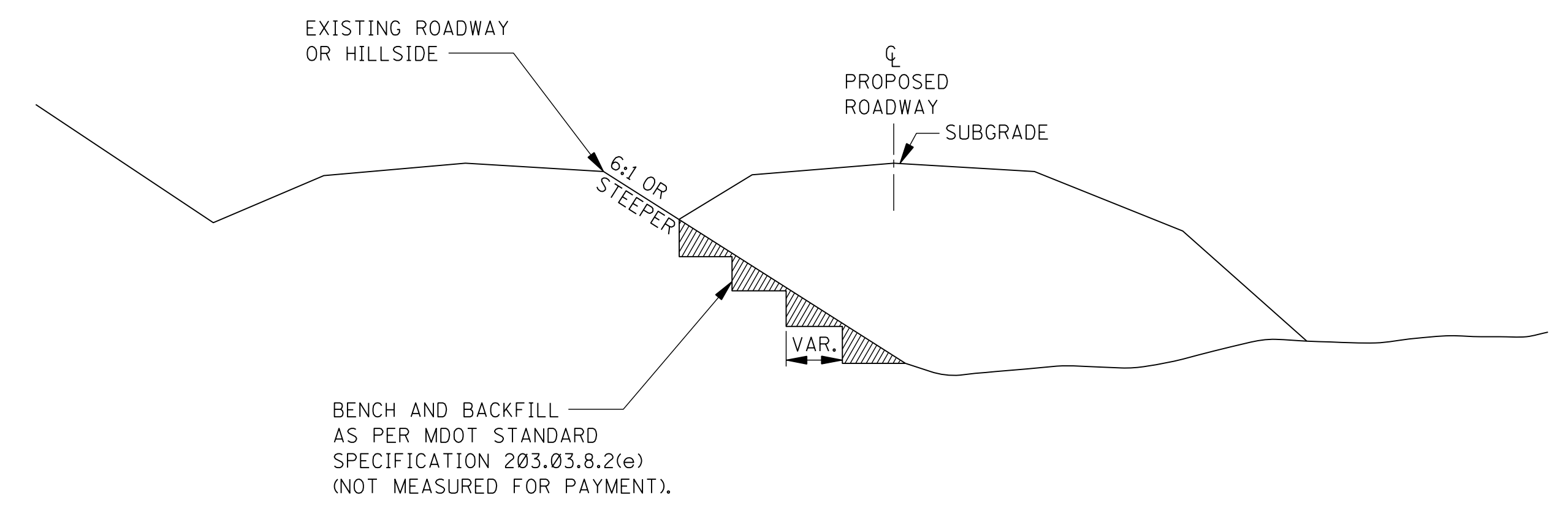
SECTION B-B

STACKED PIPE JOINTS

NOTE: EACH STACKED PIPE JOINT SHALL BE TREATED FIRST WITH A BITUMINOUS PLASTIC SEALER MATERIAL AND SECONDLY WRAPPED WITH 24" WIDE TYPE V GEOTEXTILE FABRIC (AASHTO M 288). THE FABRIC SHALL OVERLAP A MINIMUM OF 12" AT THE WRAP AND SHALL BE SECURED WITH STRING OR WIRE AS APPROVED BY THE ENGINEER PRIOR TO BACKFILLING. THE COST SHALL BE ABSORBED IN OTHER ITEMS BID.



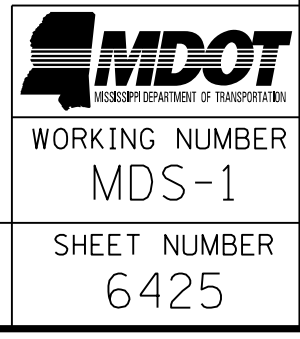
PROFILE SHOWING REQUIRED EXCAVATION AT GRADE POINTS



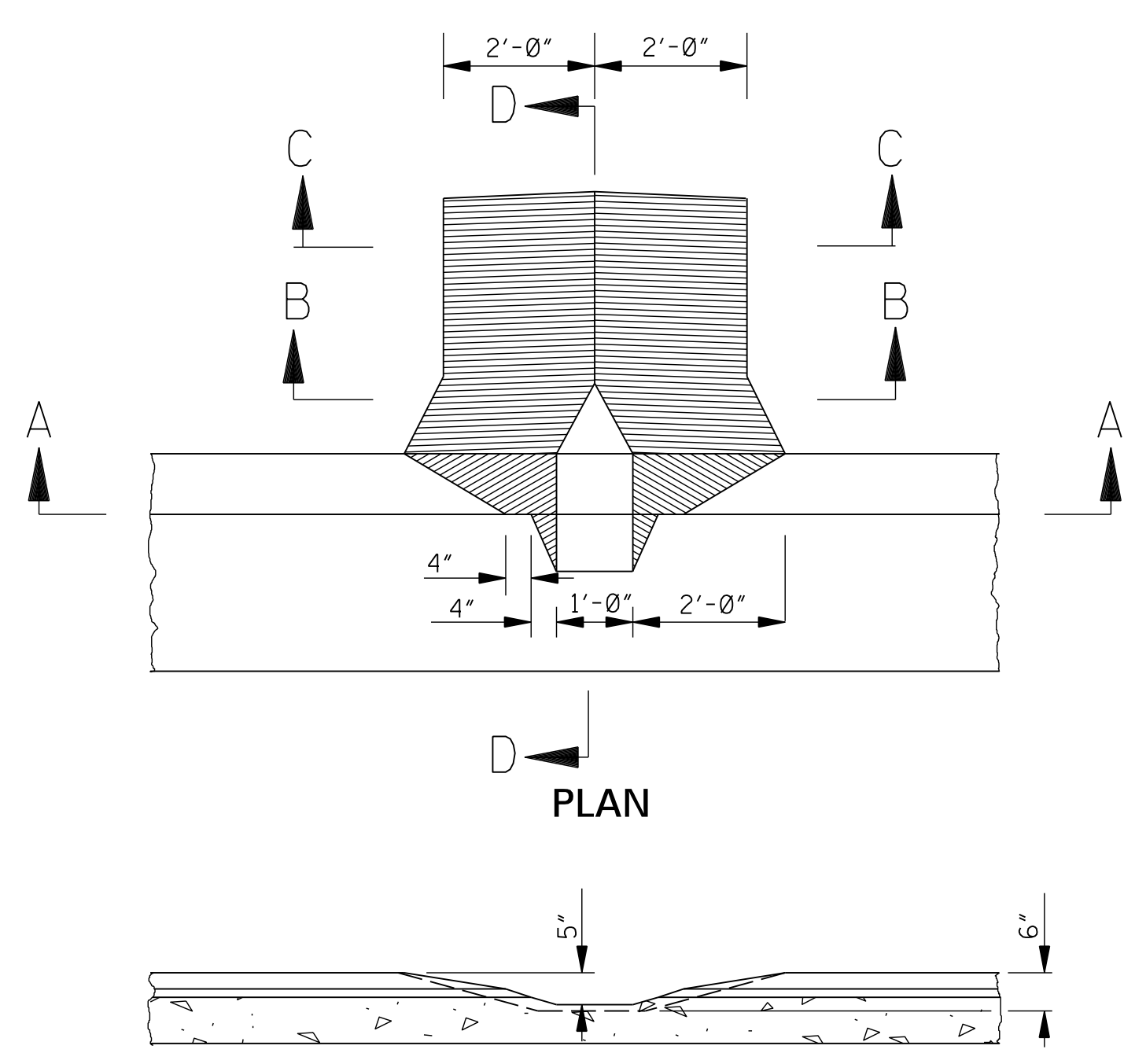
CROSS-SECTION SHOWING REQUIRED BENCHING UNDER EMBANKMENTS ON STEEP SLOPES

EXCAVATION AT GRADE POINTS

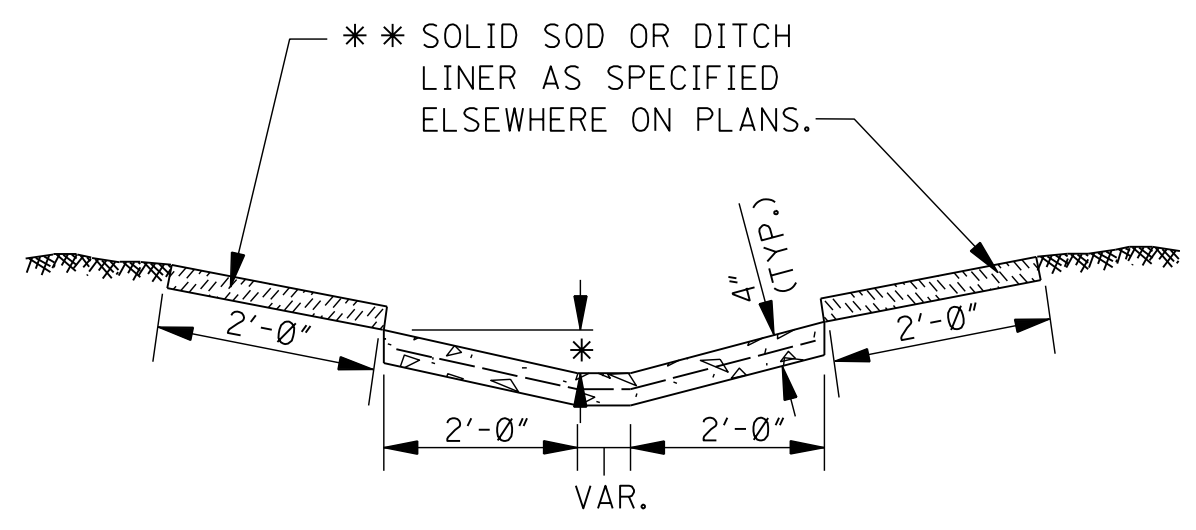
MISSISSIPPI DEPARTMENT OF TRANSPORTATION ROADWAY DESIGN DIVISION STANDARD PLAN	
MISCELLANEOUS DETAIL SHEET	
1. STACKED PIPE JOINTS 2. EXCAVATION AT GRADE POINTS	
DATE	ISSUE DATE: AUGUST 01, 2017
BY	
REVISION	
WORKING NUMBER	MDS-1
SHEET NUMBER	6425



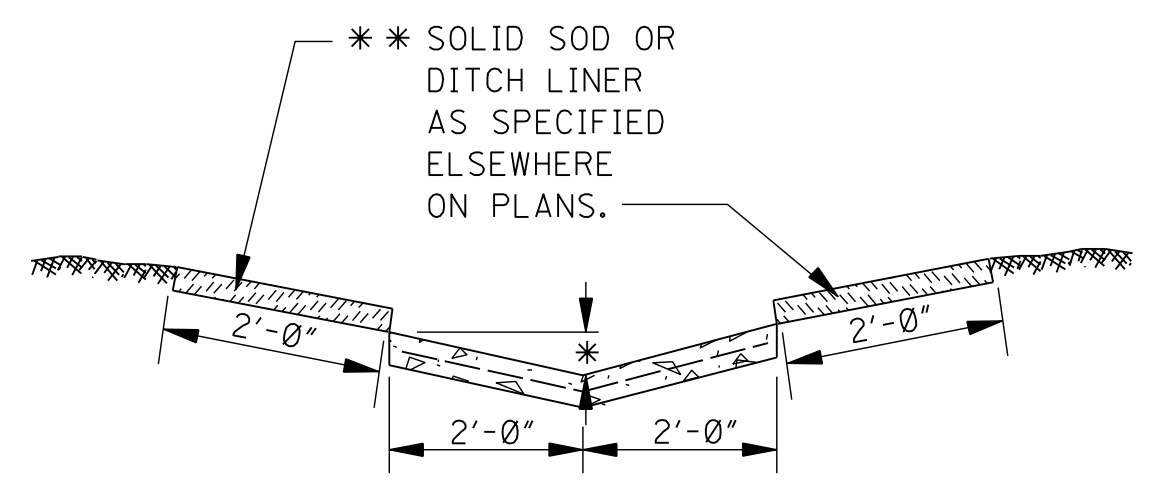
FLUME – TYPE "A" (INTERMEDIATE RUNOFF THROUGH CURB & GUTTER)



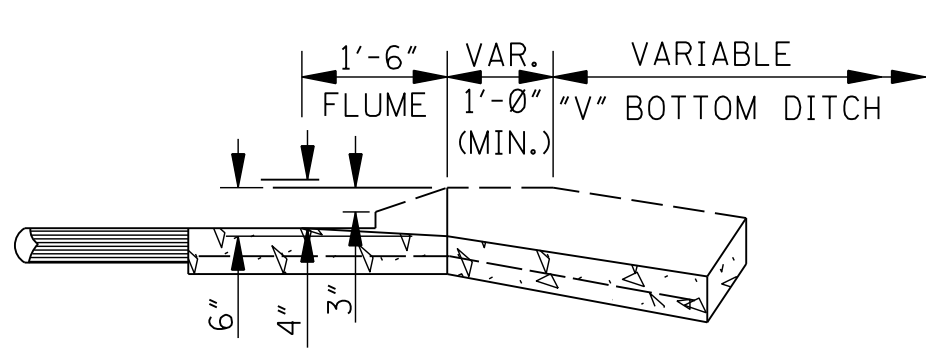
SECTION A-A



SECTION B-B
(TRANSITION SECTION)

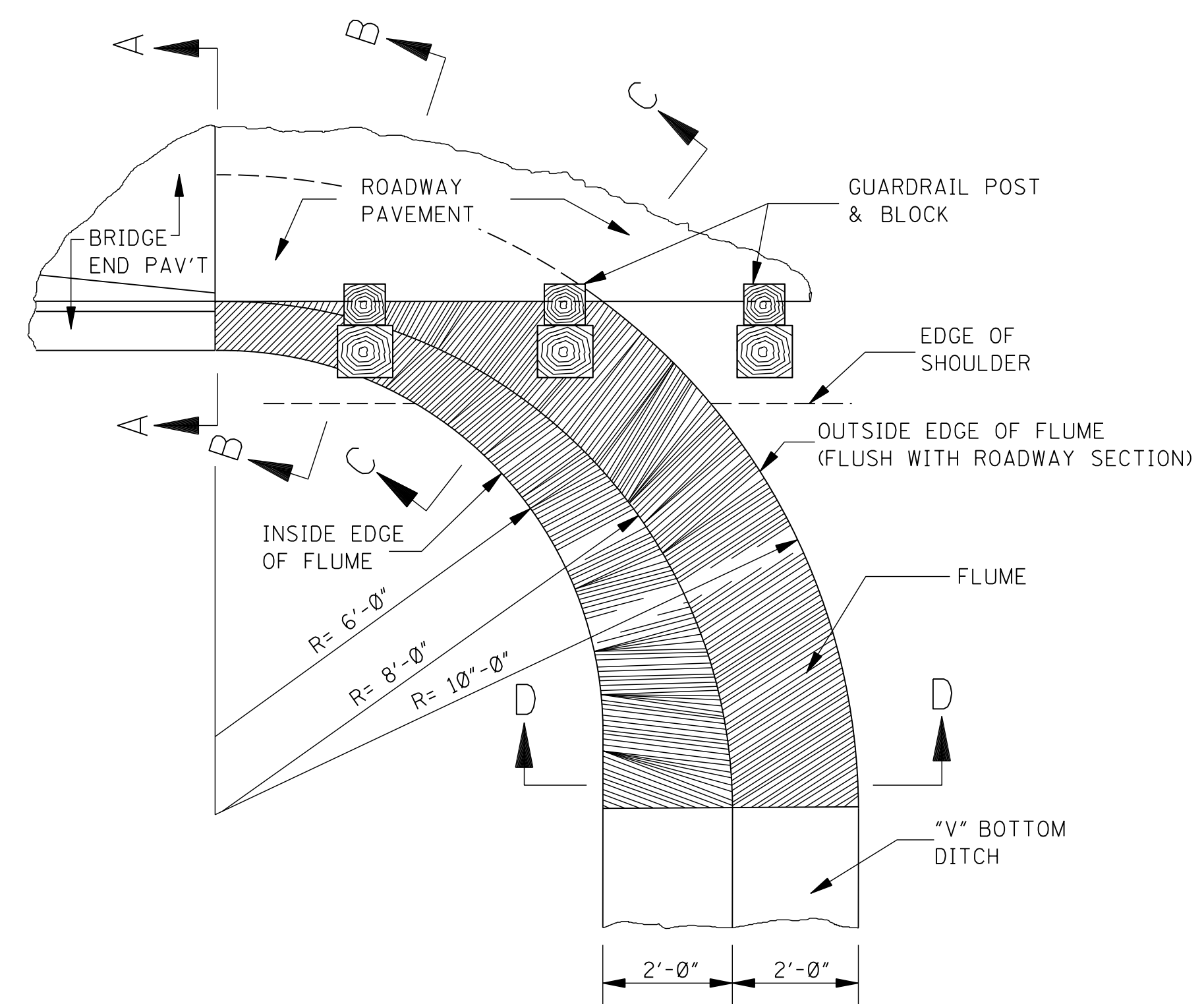


SECTION C-C
(DITCH SECTION)

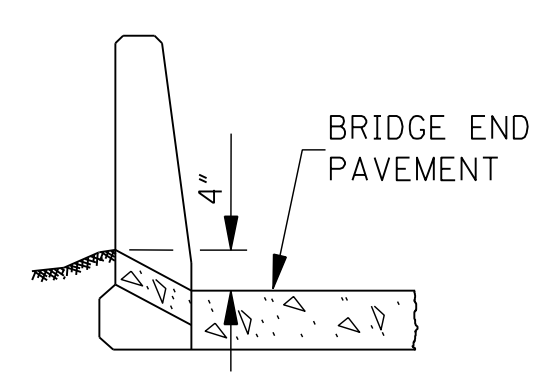


SECTION D-D

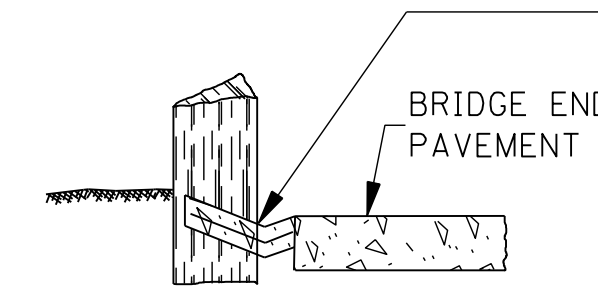
FLUME – TYPE "B" (AT END OF BRIDGE)



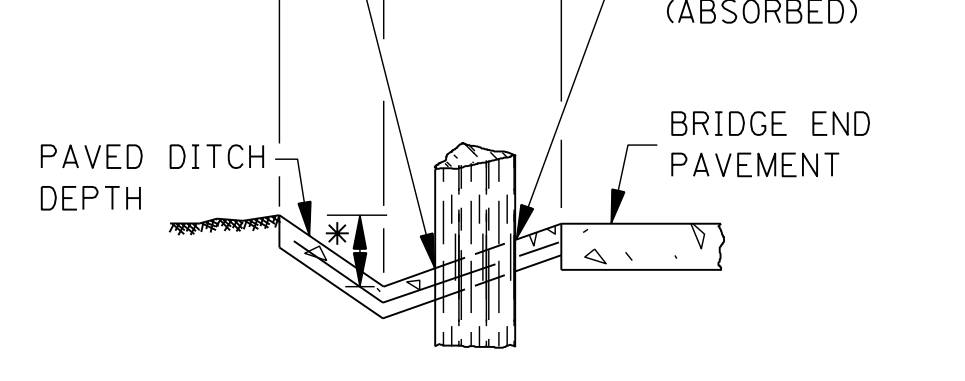
PLAN



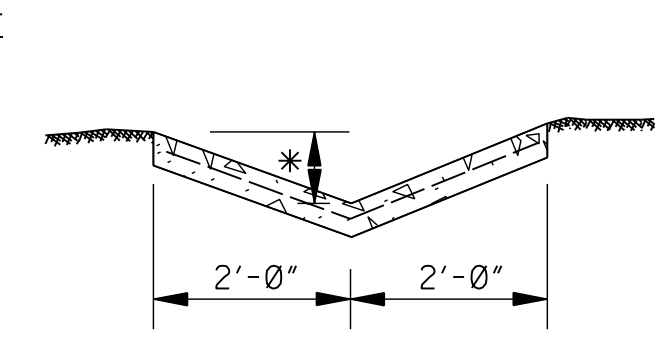
SECTION A-A
(AT BRIDGE END)



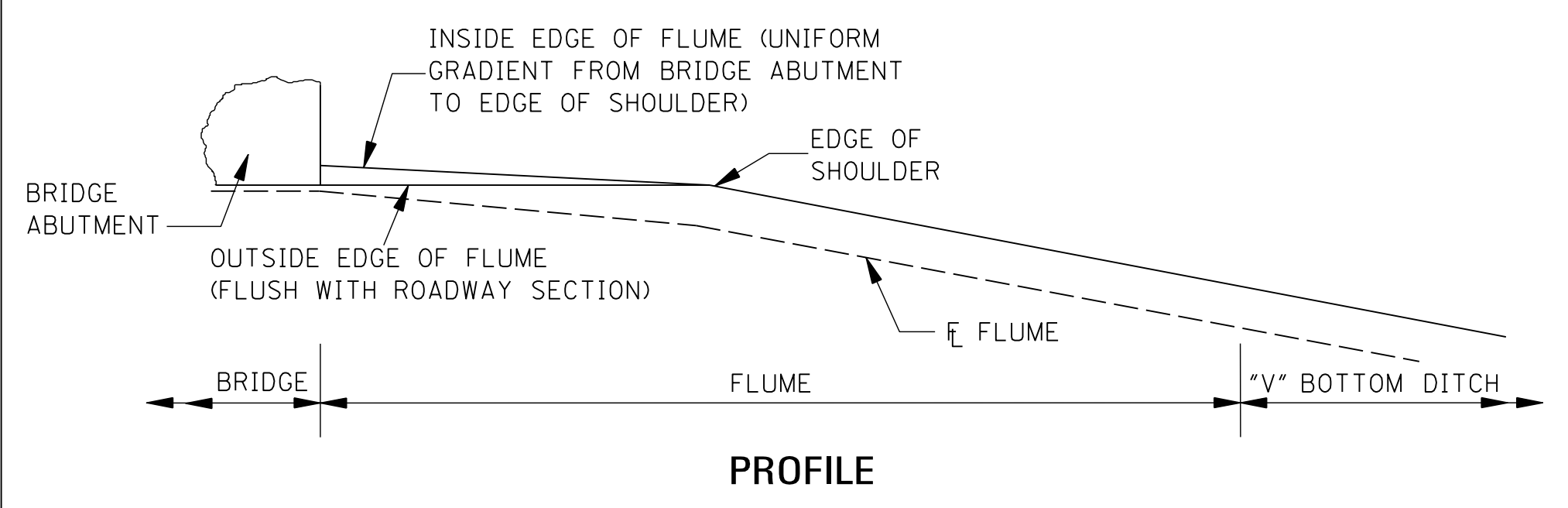
SECTION B-B



SECTION C-C
(AT EDGE OF SHOULDER)

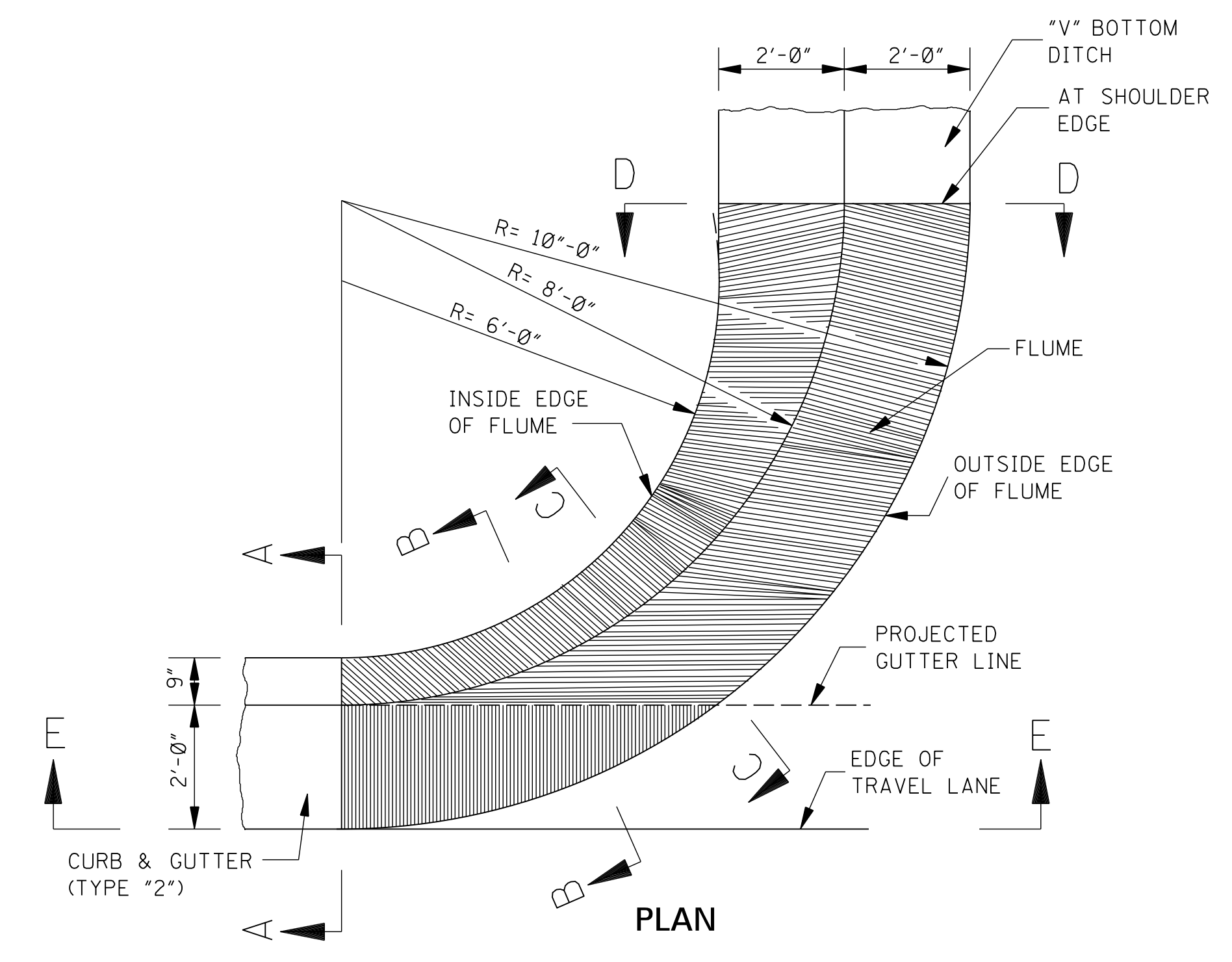


SECTION D-D
(AT "V" BOTTOM DITCH)

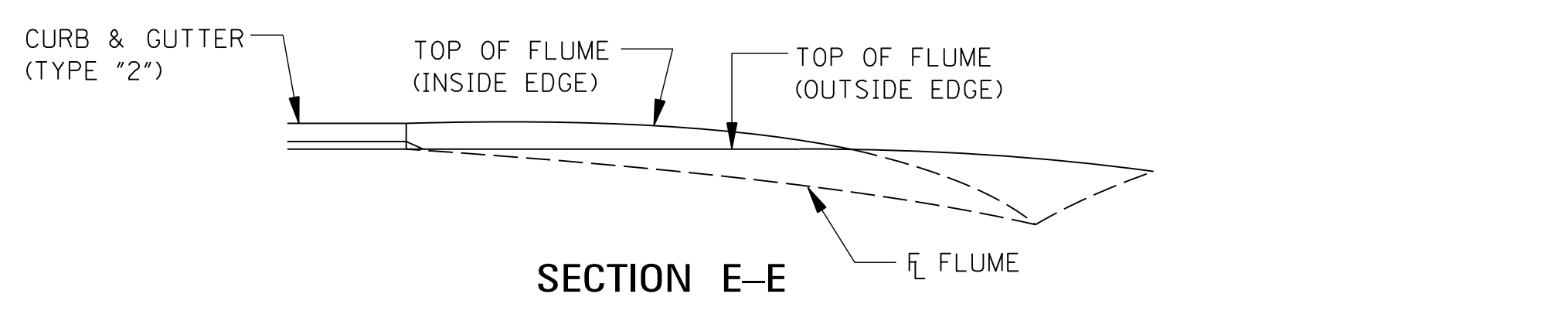


PROFILE

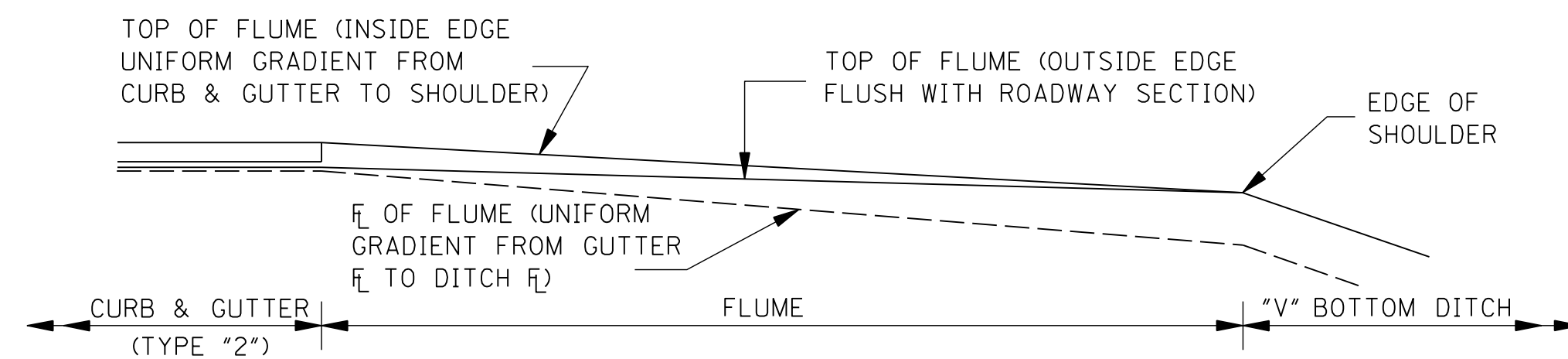
FLUME – TYPE "C" (AT END OF CURB & GUTTER)



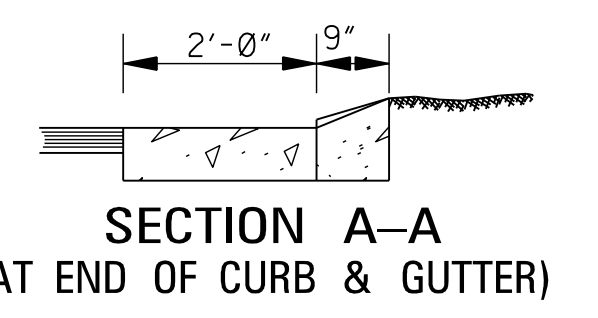
PLAN



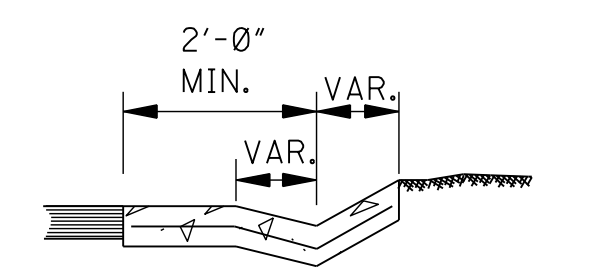
SECTION E-E



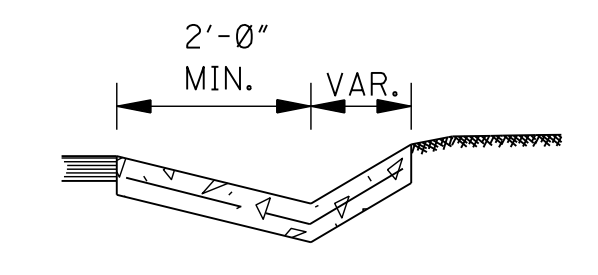
PROFILE



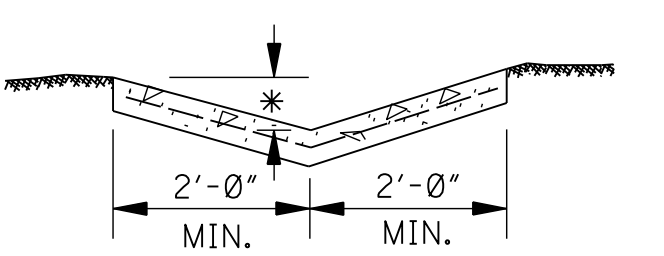
SECTION A-A
(AT END OF CURB & GUTTER)



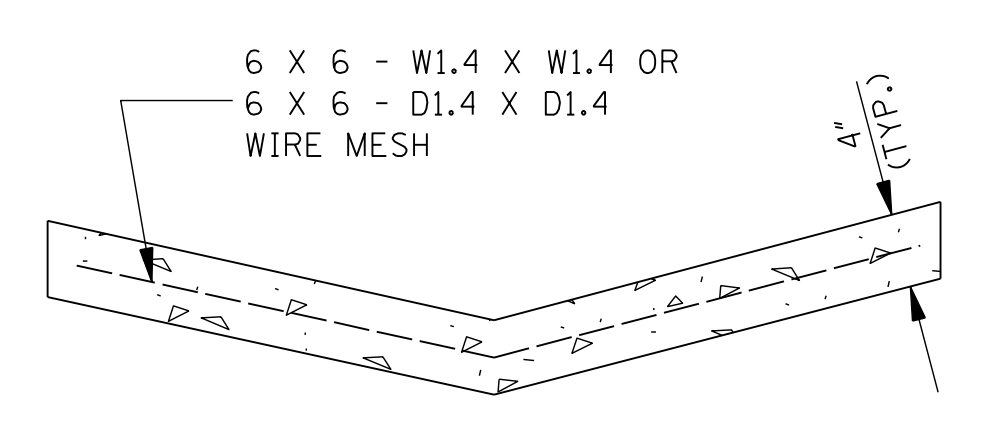
SECTION B-B



SECTION C-C
(AT EDGE OF PROJECTED GUTTER LINE)



SECTION D-D
(AT EDGE OF SHOULDER)



TYPICAL SECTION
(WIRE MESH REQUIREMENTS OF PAVED FLUME)

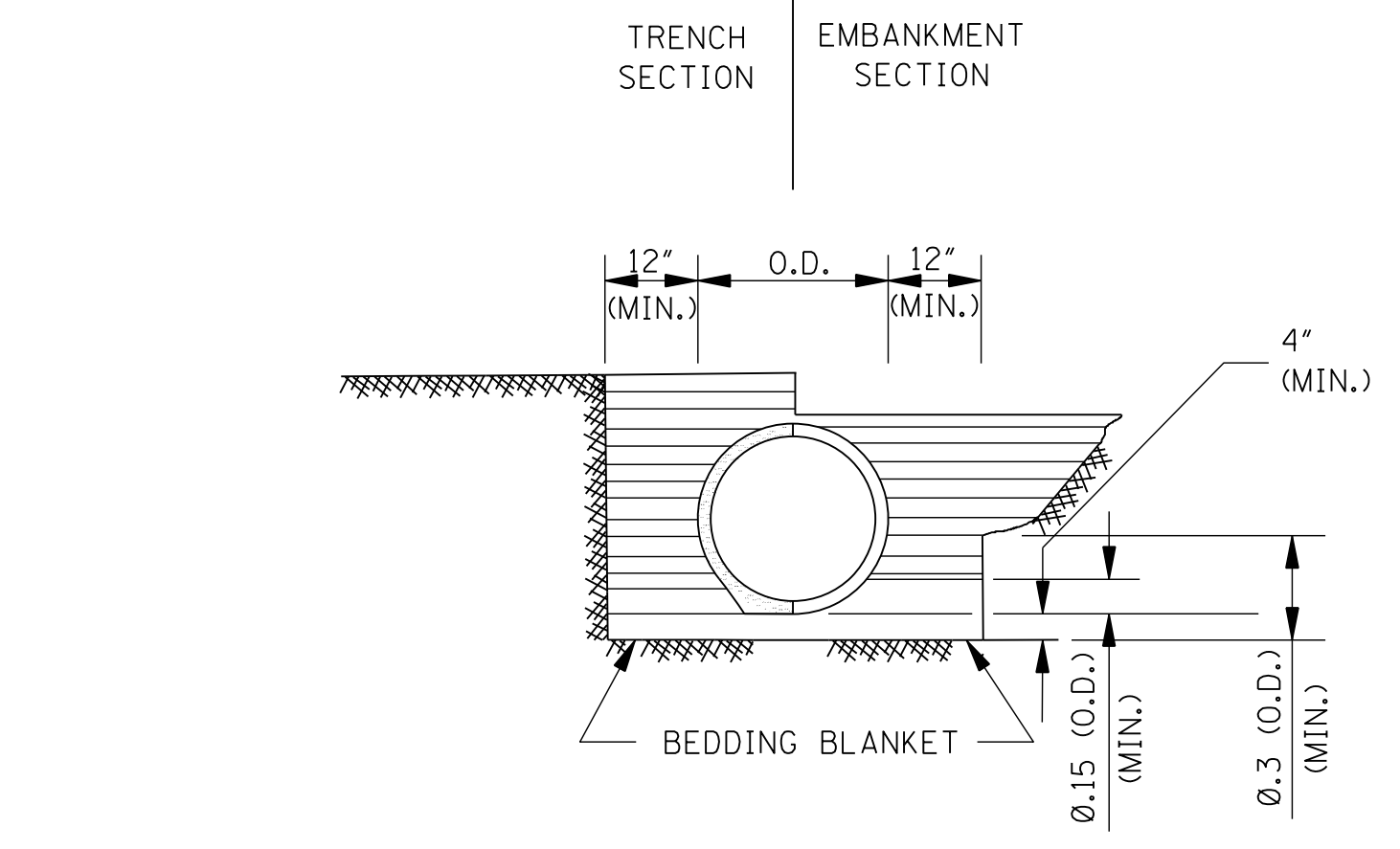
NOTES:

- * 1. THIS DIMENSION IS 6" FOR 4:1 SLOPES AND 8" FOR 3:1 SLOPES (VARIABLE).
- * * 2. CENTER ROW OF STAPLES MAY BE OMITTED ON DITCH LINER.

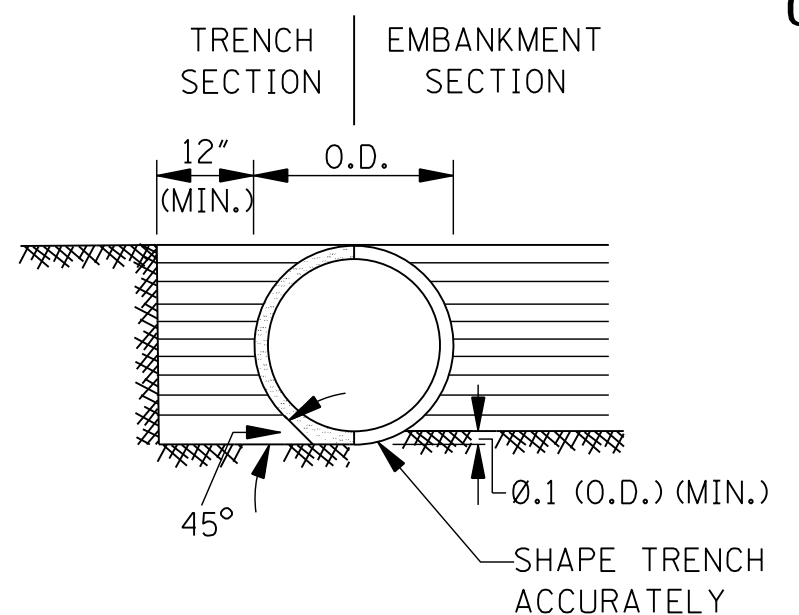
MISSISSIPPI DEPARTMENT OF TRANSPORTATION ROADWAY DESIGN DIVISION STANDARD PLAN	
DETAILS OF PAVED FLUMES	
DATE	ISSUE DATE: AUGUST 01, 2017
BY	
REVISION	
DATE	

CORRUGATED STEEL AND ALUMINUM PIPE (ROUND)						
PIPE DIAMETER (in)	MINIMUM COVER FROM TOP OF PIPE TO TOP OF SUBGRADE (in)	MAXIMUM FILL HEIGHT ABOVE TOP OF PIPE (ft)				
		SHEET THICKNESS (in)				
		0.064 STEEL 0.060 ALUM. 16 GAGE	0.079 STEEL 0.075 ALUM. 14 GAGE	0.109 STEEL 0.105 ALUM. 12 GAGE	0.138 STEEL 0.135 ALUM. 10 GAGE	0.168 STEEL 0.164 ALUM. 8 GAGE
		2 2/3" X 1/2" CORRUGATED STEEL HELICAL	3" X 1" OR 5" X 1" CORRUGATED STEEL HELICAL	2 2/3" X 1/2" CORRUGATED ALUMINUM HELICAL		
12"	12"	207' / - / 125'	259' / - / 157'	- / - / -	- / - / -	- / - / -
15"	12"	165' / - / 100'	207' / - / 125'	- / - / -	- / - / -	- / - / -
18"	12"	138' / - / 83'	172' / - / 104'	242' / - / -	- / - / -	- / - / -
24"	12"	103' / - / 62'	129' / - / 78'	181' / - / 109'	- / - / -	- / - / -
30"	12"	82' / - / -	103' / - / 69'	145' / - / 97'	- / - / -	- / - / -
36"	12"	68' / - / -	86' / - / 62'	120' / - / 87'	155' / - / 94'	- / - / -
42"	12"	58' / - / -	73' / - / 51'	103' / - / 73'	133' / - / 80'	163' / - / -
48"	12"	51' / - / -	64' / - / -	90' / - / 62'	116' / - / 70'	142' / - / 85'
54"	12"	- / 46' / -	57' / 58' / -	80' / 82' / 54'	103' / 106' / 62'	126' / 129' / 76'
60"	12"	- / 42' / -	- / 52' / -	72' / 74' / 48'	93' / 95' / 52'	114' / 116' / 64'
66"	12"	- / 38' / -	- / 47' / -	- / 66' / -	84' / 86' / -	103' / 106' / 52'
72"	12"	- / 35' / -	- / 43' / -	- / 61' / -	77' / 79' / -	94' / 97' / 43'
78"	12"	- / 32' / -	- / 40' / -	- / 56' / -	- / 73' / -	84' / 89' / -
84"	12"	- / 29' / -	- / 37' / -	- / 52' / -	- / 68' / -	72' / 83' / -
90"	12"	- / 27' / -	- / 34' / -	- / 49' / -	- / 63' / -	- / 77' / -
96"	12"	- / - / -	- / 32' / -	- / 46' / -	- / 59' / -	- / 72' / -
102"	24"	- / - / -	- / 30' / -	- / 43' / -	- / 55' / -	- / 68' / -
108"	24"	- / - / -	- / - / -	- / 40' / -	- / 52' / -	- / 64' / -
114"	24"	- / - / -	- / - / -	- / 38' / -	- / 50' / -	- / 61' / -
120"	24"	- / - / -	- / - / -	- / 36' / -	- / 47' / -	- / 58' / -

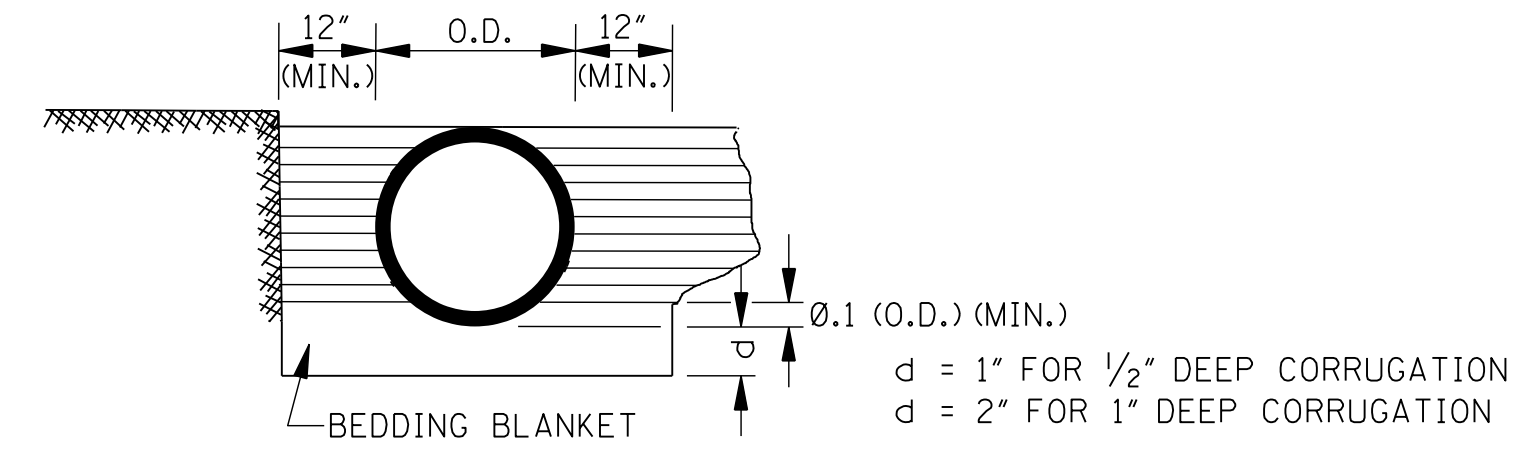
NOTE: THE AVERAGE INSIDE DIAMETER SHALL NOT VARY MORE THAN ONE (1) PERCENT OR 1/2", WHICHEVER IS GREATER, FROM THE NOMINAL DIAMETER WHEN MEASURED ON THE INSIDE CREST OF THE CORRUGATIONS (AASHTO M 36M/M 36 & AASHTO M 196M/M 196).



CLASS B



CLASS C



CLASS C MODIFIED

MAXIMUM HEIGHT OF FILL OVER REINFORCED CONCRETE PIPE		
CLASS OF PIPE	MAXIMUM COVER (ft)	
	CLASS "C" BEDDING	CLASS "B" BEDDING
III	12'	19'
IV	18'	30'
V	28'	48'
SPECIAL DESIGN	>28'	>48'

NOTE: CLASS OF PIPE AND BEDDING TO BE CONSISTENT THROUGHOUT THE PIPE LENGTH.

CORRUGATED METAL PIPE ARCHES						
EQUIV. DIAMETER (in)	PIPE DIMENSION (SPAN X RISE) (in)	MINIMUM COVER	STEEL		ALUMINUM	
			MINIMUM THICKNESS REQUIRED (in)	MAXIMUM FILL HEIGHT ABOVE TOP OF PIPE (ft) FOR THE FOLLOWING CORNER BEARING PRESSURE (tons/ft ²)	MINIMUM THICKNESS REQUIRED (in)	MAXIMUM FILL HEIGHT ABOVE TOP OF PIPE (ft) FOR THE FOLLOWING CORNER BEARING PRESSURE (tons/ft ²)
				+ 4 tons/ft ²		+ 4 tons/ft ²
			2 2/3" X 1/2" CORRUGATION HELICAL		2 2/3" X 1/2" CORRUGATION RIVETED OR HELICAL	
15"	17" X 13"	12"	0.064"	13'	0.060"	13'
18"	21" X 15"	12"	0.064"	12'	0.060"	12'
24"	28" X 20"	12"	0.064"	12'	0.075"	12'
30"	35" X 24"	12"	0.064"	12'	0.075"	12'
36"	42" X 29"	12"	0.064"	12'	0.105"	12'
42"	49" X 33"	12"	0.079"	12'	0.105"	12'
48"	57" X 38"	12"	0.109"	12'	0.135"	12'
54"	64" X 43"	12"	0.109"	12'	0.135"	12'
60"	71" X 47"	12"	0.138"	12'	0.164"	12'
66"	77" X 52"	12"	0.168"	12'		
72"	83" X 57"	12"	0.168"	12'		
			3" X 1" CORRUGATION HELICAL / 5" X 1" CORRUGATION HELICAL			
48"	53" X 41"	12" / -	0.079" / -	12' / -		
54"	60" X 46"	15" / -	0.079" / -	20' / -		
60"	66" X 51"	15" / -	0.079" / -	20' / -		
66"	73" X 55"	18" / -	0.079" / -	20' / -		
72"	81" X 59"	18" / 18"	0.079" / 0.109"	17' / 17'		
78"	87" X 63"	18" / 18"	0.079" / 0.109"	16' / 16'		
84"	95" X 67"	18" / 18"	0.079" / 0.109"	16' / 16'		
90"	103" X 71"	18" / 18"	0.109" / 0.109"	16' / 16'		
96"	112" X 75"	21" / 21"	0.109" / 0.109"	16' / 16'		
102"	117" X 79"	21" / 21"	0.109" / 0.109"	16' / 16'		
108"	128" X 83"	24" / 24"	0.138" / 0.138"	16' / 16'		
114"	137" X 87"	24" / 24"	0.138" / 0.138"	16' / 16'		
120"	142" X 91"	27" / 27"	0.168" / 0.168"	16' / 16'		

NOTES:
 1. THE AVERAGE INSIDE DIAMETER SHALL NOT VARY MORE THAN ONE (1) PERCENT OR 1/2", WHICHEVER IS GREATER, FROM THE NOMINAL DIAMETER WHEN MEASURED ON THE INSIDE CREST OF THE CORRUGATIONS. (AASHTO M 36M/M 36 & AASHTO M 196M/M 196).
 † 2. BEARING PRESSURES FOR GIVEN FILL HEIGHT SHALL HAVE FOUNDATION MATERIALS INVESTIGATED TO DETERMINE BEARING CAPACITY.

- GENERAL NOTES:
1. MINIMUM SPACING BETWEEN MULTIPLE LINES OF PARALLEL PIPE SHALL BE THE DISTANCE REQUIRED FOR INSTALLING THE ADJACENT FLARED END SECTIONS OR AS SHOWN ON THE HEADWALL DRAWINGS FOR CONDUITS REQUIRING HEADWALLS.
 2. UNLESS OTHERWISE INDICATED, THE TOP OF THE PIPE SHALL BE BELOW THE TOP OF THE SUBGRADE, AND A MINIMUM OF 12" OF COVER OVER THE TOP OF THE PIPE SHALL BE MAINTAINED BETWEEN THE SHOULDER LINES.
 3. WHERE PRE-BED PIPE IS INSTALLED, FLARED END SECTIONS FROM OTHER MANUFACTURERS MAY BE JOINED TO PRE-BED PIPE PROVIDED A CONCRETE COLLAR IS PLACED AT THE CONTRACTOR'S EXPENSE AND A DEFORMATION TO THE PIPE'S FLOWLINE IS NOT EVIDENT ON FINAL PLACEMENT.
 4. THE BACKFILL SHALL BE EITHER CLASS "B", CLASS "C", OR CLASS "C" MODIFIED. A MINIMUM COMPACTION LEVEL OF 95% STANDARD PROCTOR DENSITY PER AASHTO T99 SHALL BE ACHIEVED BY USE OF VIBRATORY PLATE. HYDROHAMMER TYPE COMPACTION SHALL NOT BE USED OVER THE PIPE. ALL COMPACTION EQUIPMENT USED SHALL BE APPROVED BY THE ENGINEER.

BY		MISSISSIPPI DEPARTMENT OF TRANSPORTATION ROADWAY DESIGN DIVISION STANDARD PLAN	
REVISION		<p style="text-align: center;">PIPE CULVERT INSTALLATION</p>	
DATE			
ISSUE DATE:		AUGUST 01, 2017	
WORKING NUMBER		PI-1	
SHEET NUMBER		6501	

STANDARD INSTALLATION DETAIL

TABLE 1: BEDDING AND BACKFILL REQUIREMENTS

BEDDING AND BACKFILL REQUIREMENTS FOR NON-RIGID PIPE IN CROSS DRAIN AND STORM DRAIN APPLICATIONS

A. BEDDING SHALL BE CLASS B IN ACCORDANCE WITH THE MISSISSIPPI STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, LATEST EDITION.

B. BACKFILL MATERIAL SHALL BE ONE OF THE FOLLOWING:

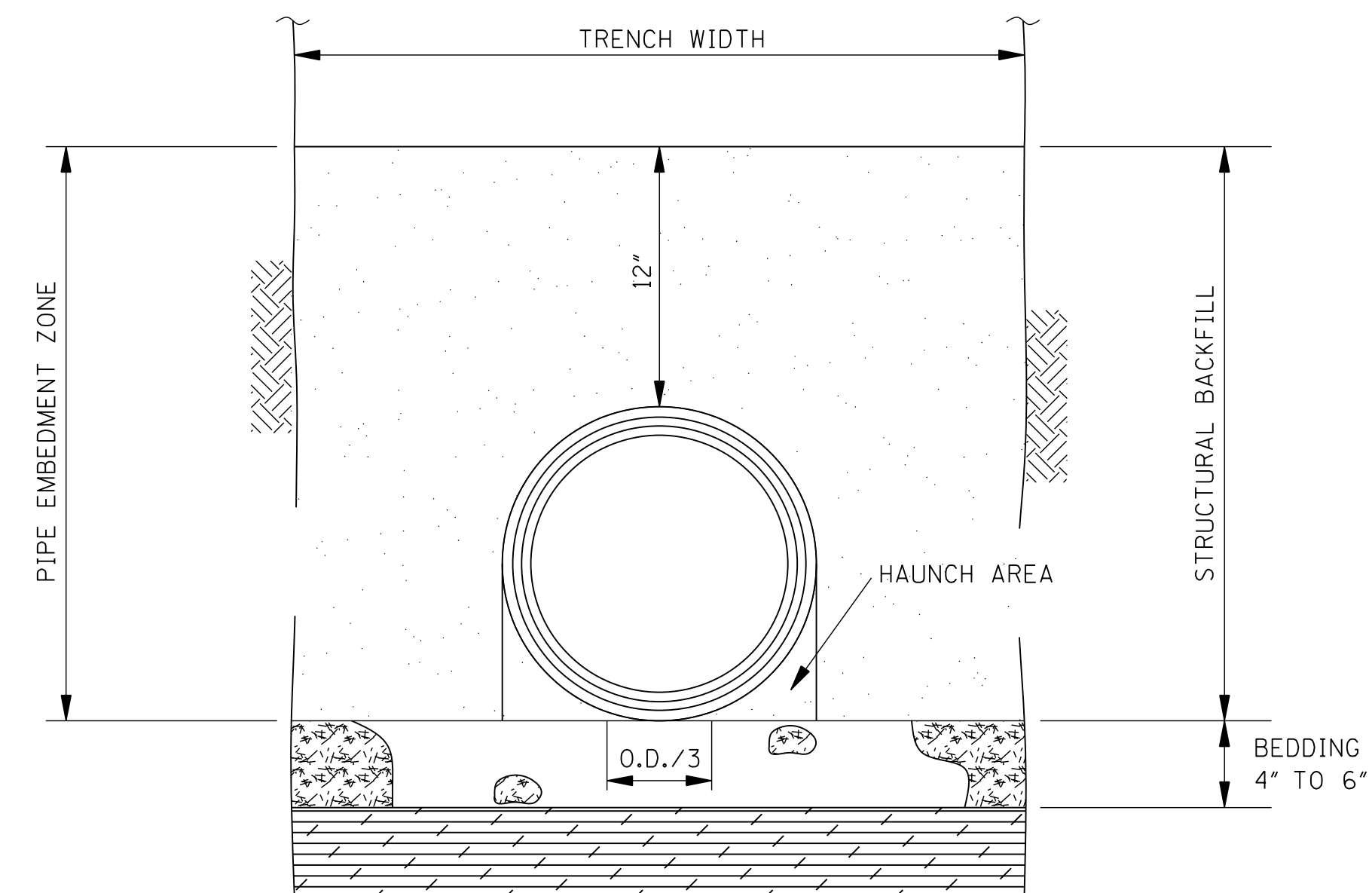
1. FLOWABLE FILL IN ACCORDANCE WITH THE MISSISSIPPI STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION LATEST EDITION.
2. CRUSHED STONE AGGREGATE BACKFILL IN ACCORDANCE WITH THE MISSISSIPPI STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, LATEST EDITION.

IF FLOWABLE FILL IS UTILIZED, CARE SHALL BE TAKEN TO PREVENT "FLOATING" OF THE PIPE. THE COST OF FURNISHING AND PLACING THE REQUIRED BEDDING AND BACKFILL MATERIAL INDICATED IN A AND B SHALL BE INCLUDED IN THE UNIT COST OF THE NON-RIGID PIPE ALTERNATE, I.E., THERE IS NO SEPARATE PAY ITEM FOR NON-RIGID PIPE BEDDING AND BACKFILL MATERIAL.

BEDDING AND BACKFILL REQUIREMENTS FOR NON-RIGID PIPE IN SIDE DRAIN APPLICATIONS

A. BEDDING SHALL BE CLASS C IN ACCORDANCE WITH THE MISSISSIPPI SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, LATEST EDITION.

B. BACKFILL MATERIAL SHALL BE IN ACCORDANCE WITH THE MISSISSIPPI SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, LATEST EDITION. PIPES THAT SERVE AS A SIDE DRAIN ON DEPARTMENT RIGHT OF WAY, BUT CARRY DRAINAGE UNDER A COUNTY OR LOCAL ROAD SHALL ADHERE TO THE BEDDING AND BACKFILL REQUIREMENTS FOR A CROSS DRAIN CONTAINED ABOVE. THE COST OF FURNISHING AND PLACING THE REQUIRED BEDDING AND BACKFILL MATERIAL INDICATED IN A AND B SHALL BE INCLUDED IN THE UNIT COST OF THE NON-RIGID ALTERNATE PIPE, I.E., THERE IS NO SEPARATE PAY ITEM FOR NON-RIGID BEDDING AND BACKFILL MATERIAL.



TRENCH CROSS SECTION SHOWING TERMINOLOGY

GENERAL NOTES:

1. MATERIALS
THERMOPLASTIC PIPE
 POLYETHYLENE PIPE SHALL CONFORM TO THE REQUIREMENTS OF AASHTO M 294, LATEST EDITION. DESIGNATION OF TYPE: TYPE S: THIS PIPE WILL HAVE A FULL CIRCULAR CROSS SECTION WITH AN OUTER CORRUGATED PIPE WALL AND A SMOOTH INNER LINER.
BEDDING MATERIAL AND STRUCTURAL BACKFILL
 BEDDING MATERIAL AND STRUCTURAL BACKFILL SHALL MEET THE REQUIREMENTS OF TABLE 1.
2. JOINTS
 JOINTS FOR THERMOPLASTIC PIPE SHALL MEET THE PERFORMANCE REQUIREMENTS OF SOILTIGHTNESS UNLESS WATERTIGHTNESS IS SPECIFIED. SUITABLE JOINTS CAN BE OBTAINED WITH THE FOLLOWING TYPES OF CONNECTIONS:
 A) CORRUGATED BANDS (WITH OR WITHOUT GASKETS)
 B) BELL AND SPIGOT PIPE ENDS (WITH OR WITHOUT GASKETS)
 C) DOUBLE BELL COUPLINGS (WITH OR WITHOUT GASKETS)
3. INSTALLATION
 MINIMUM TRENCH WIDTHS SHALL MEET THE REQUIREMENTS OF TABLE 3. THE MIDDLE THIRD OF THE BEDDING MATERIAL UNDER THE PIPE SHOULD BE LOOSELY PLACED, WHILE THE REMAINDER SHALL BE COMPACTED TO A MINIMUM 90% OF MAXIMUM DENSITY PER AASHTO T 99. A MINIMUM OF 4 INCHES OF BEDDING SHALL BE PROVIDED PRIOR TO PLACEMENT OF THE PIPE. STRUCTURAL BACKFILL SHALL BE PLACED AND COMPACTED IN LAYERS NOT EXCEEDING AN 8" LOOSE LIFT THICKNESS AND BROUGHT UP EVENLY ON BOTH SIDES OF THE PIPE WITH AN ELEVATION NOT LESS THAN 12 INCHES ABOVE THE TOP OF THE PIPE. A MINIMUM COMPACTION LEVEL OF 90% STANDARD DENSITY PER AASHTO T 99 SHALL BE ACHIEVED. MINIMUM COVER REQUIREMENTS SHALL MEET THE REQUIREMENTS OF TABLE 2. FOR MULTIPLE INSTALLATIONS OF POLYETHYLENE PIPES, A CLEAR DISTANCE BETWEEN THE PIPES SHALL MEET THE REQUIREMENTS OF TABLE 4.
4. CALCULATIONS FOR FILL DEPTHS ARE BASED ON PROPERTIES DEFINED IN AASHTO M294 AND CALCULATIONS IN AASHTO SEC. 19.

TABLE 2: HIGH DENSITY CORRUGATED POLYETHYLENE PIPE HEIGHT OF COVER

NOMINAL DIAMETER IN.	MINIMUM COVER IN.	MAXIMUM COVER - FT.	
		CROSS DRAIN	SIDE DRAIN
12	12	38	11
15	12	36	12
18	12	35	11
24	12	30	10
30	12	25	9
36	21	29	10
42	21	27	9
48	21	25	8

TABLE 3: RECOMMENDED TRENCH WIDTH


DIAMETER IN.	O.D. IN.	TRENCH WIDTH IN.
12	14.45	34
15	17.57	38
18	21.20	44
24	27.80	54
30	35.10	65
36	41.70	75
42	47.70	84
48	53.60	92

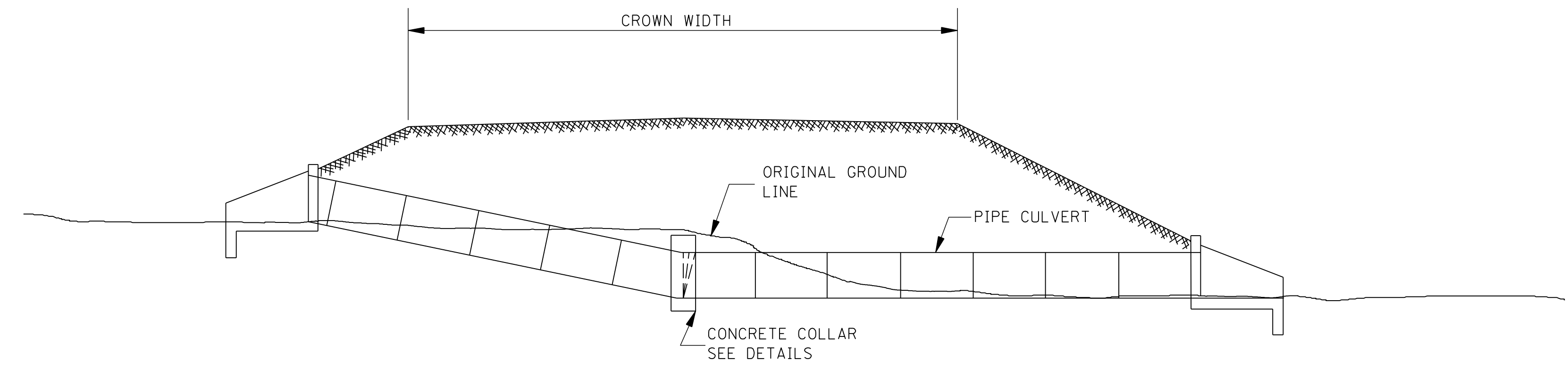
THE TRENCH WIDTH MUST BE WIDE ENOUGH TO ACCOMMODATE COMPATION EQUIPMENT

TABLE 4: MULTIPLE INSTALLATION OF POLYETHYLENE PIPES

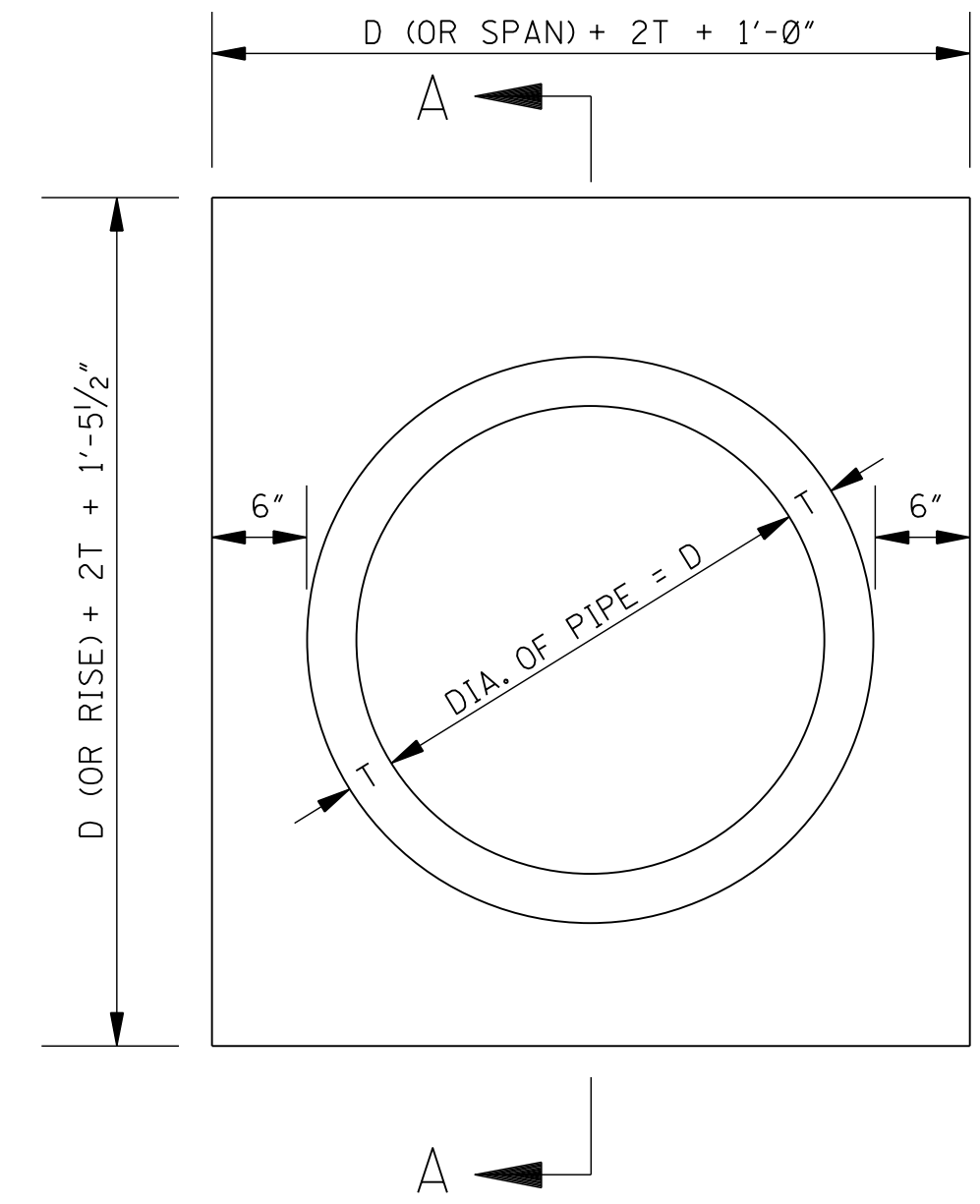
DIAMETER OF PIPE IN.	CLEAR DISTANCE BETWEEN PIPES FT.-IN.
18	1'-2"
24	1'-5"
30	1'-8"
36	1'-11"
42	2'-2"
48	2'-5"

BY	MISSISSIPPI DEPARTMENT OF TRANSPORTATION ROADWAY DESIGN DIVISION STANDARD PLAN
REVISION	FLEXIBLE PIPE CULVERT INSTALLATION
DATE	ISSUE DATE: AUGUST 01, 2017

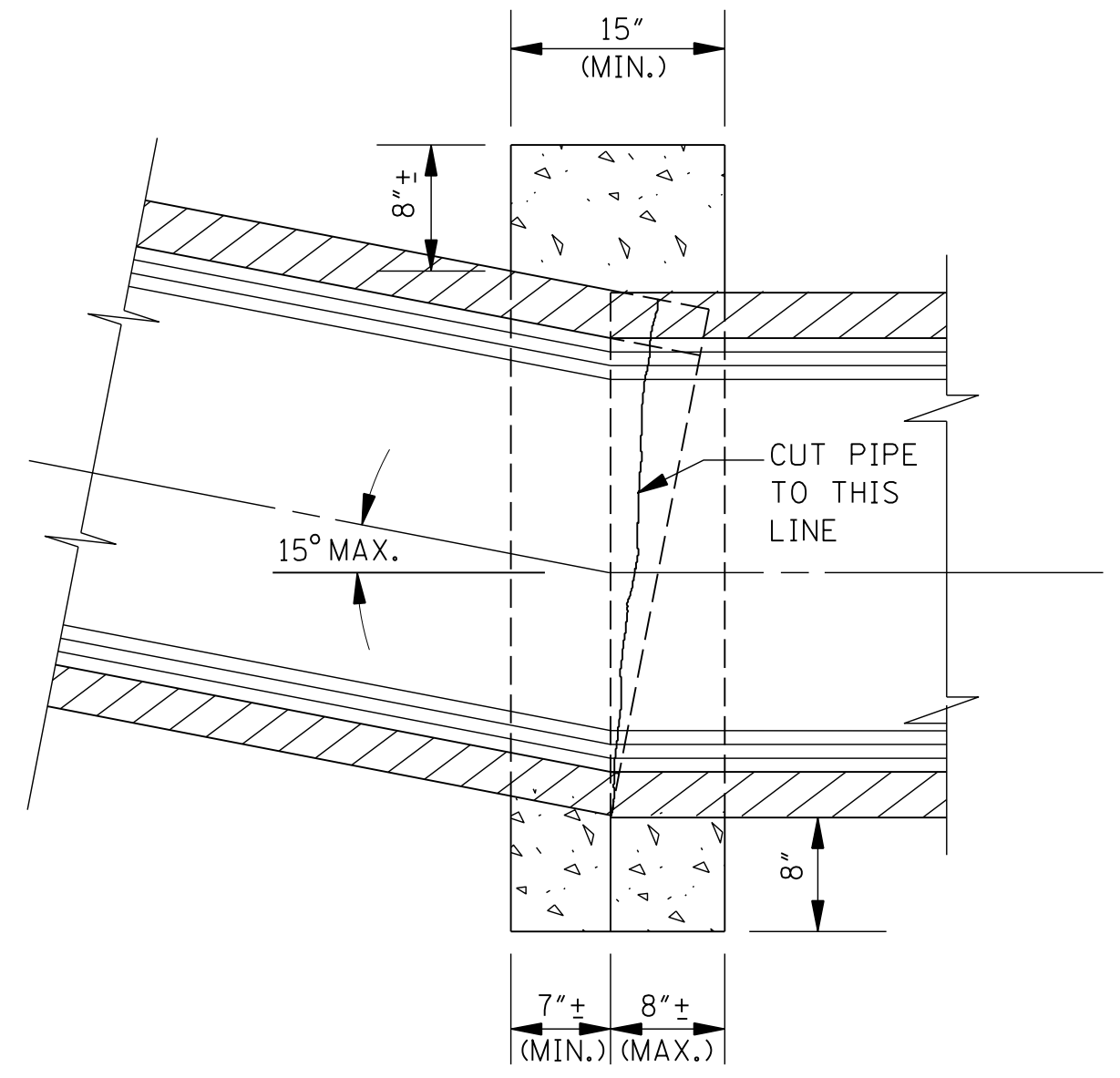

 WORKING NUMBER
 PI-2
 SHEET NUMBER
 6502



TYPICAL INSTALLATION FOR PIPE CULVERT WITH BROKEN FLOW LINE



ELEVATION OF CONCRETE COLLAR
NOTE: CIRCULAR PIPE IS SHOWN, ARCH PIPE IS SIMILAR.



SECTION A-A

GENERAL NOTES:

1. THE MAXIMUM BEND ANGLE IS 15 DEGREES.
2. THE FOLLOWING QUANTITIES SHALL BE THE BASIS FOR PAYMENT UNLESS AUTHORIZED MODIFICATIONS ARE MADE:

QUANTITIES FOR CONCRETE COLLAR FOR PIPE CULVERTS			
CIRCULAR PIPE		ARCH PIPE	
DIA. OF PIPE	CLASS "B" CONCRETE (yd ³)	SIZE OF PIPE	CLASS "B" CONCRETE (yd ³)
12"	0.240		
15"	0.260	18 x 11	0.280
18"	0.320	22 x 13	0.310
24"	0.410	29 x 18	0.410
30"	0.510	36 x 23	0.490
36"	0.620	44 x 27	0.600
42"	0.730	51 x 31	0.690
48"	0.850	58 x 36	0.820
54"	0.980	65 x 40	0.920
60"	1.110	73 x 45	1.070
66"	1.248	88 x 54	1.366
72"	1.393		

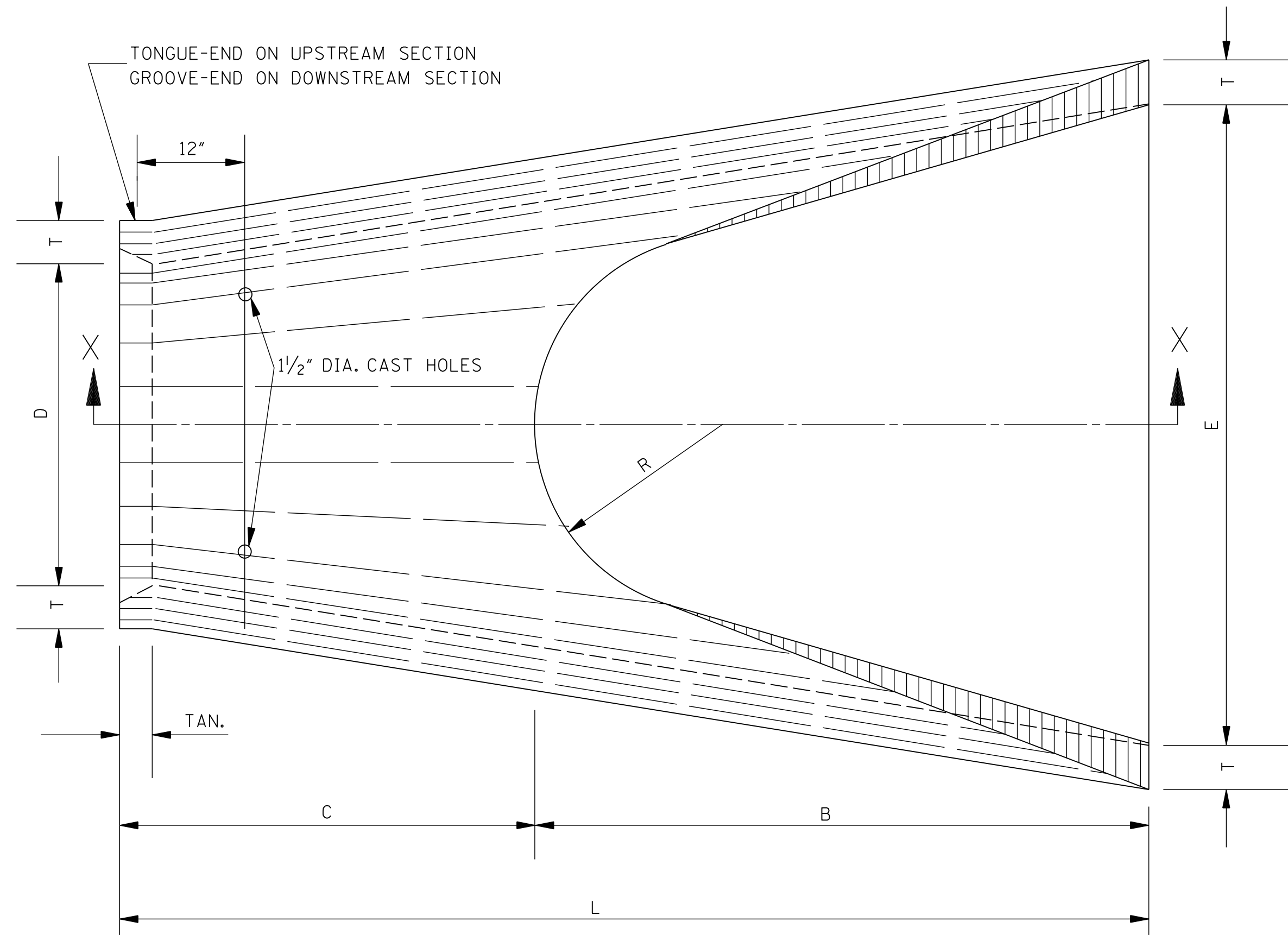
BY	MISSISSIPPI DEPARTMENT OF TRANSPORTATION ROADWAY DESIGN DIVISION STANDARD PLAN
REVISION	CONCRETE PIPE COLLAR
DATE	ISSUE DATE: AUGUST 01, 2017



WORKING NUMBER
PC-1
SHEET NUMBER
6503

BELL AND SPIGOT END OPTION

NOTE: BELL-END ON DOWNSTREAM SECTION
SPIGOT-END ON UPSTREAM SECTION.

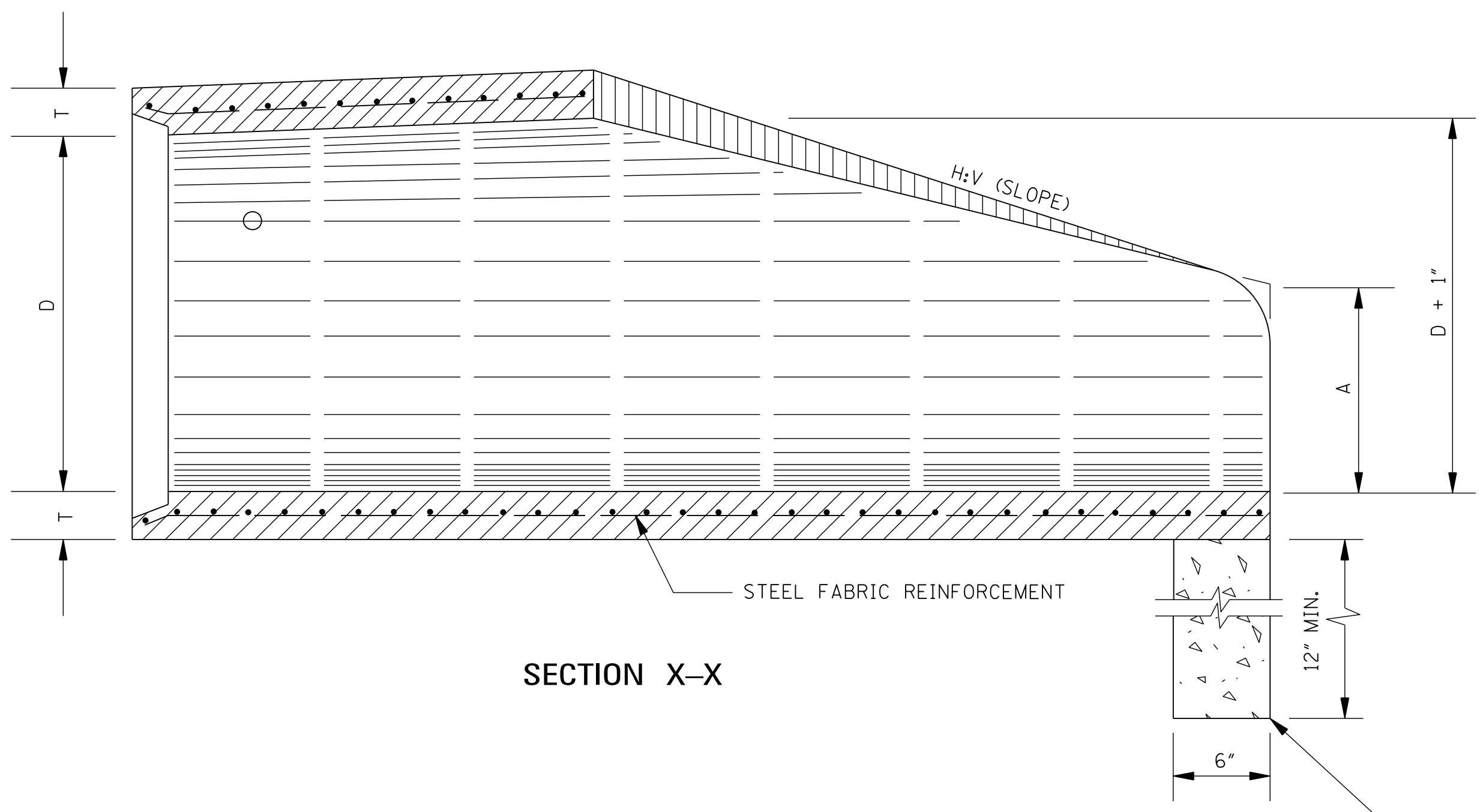


PLAN OF DOWNSTREAM END

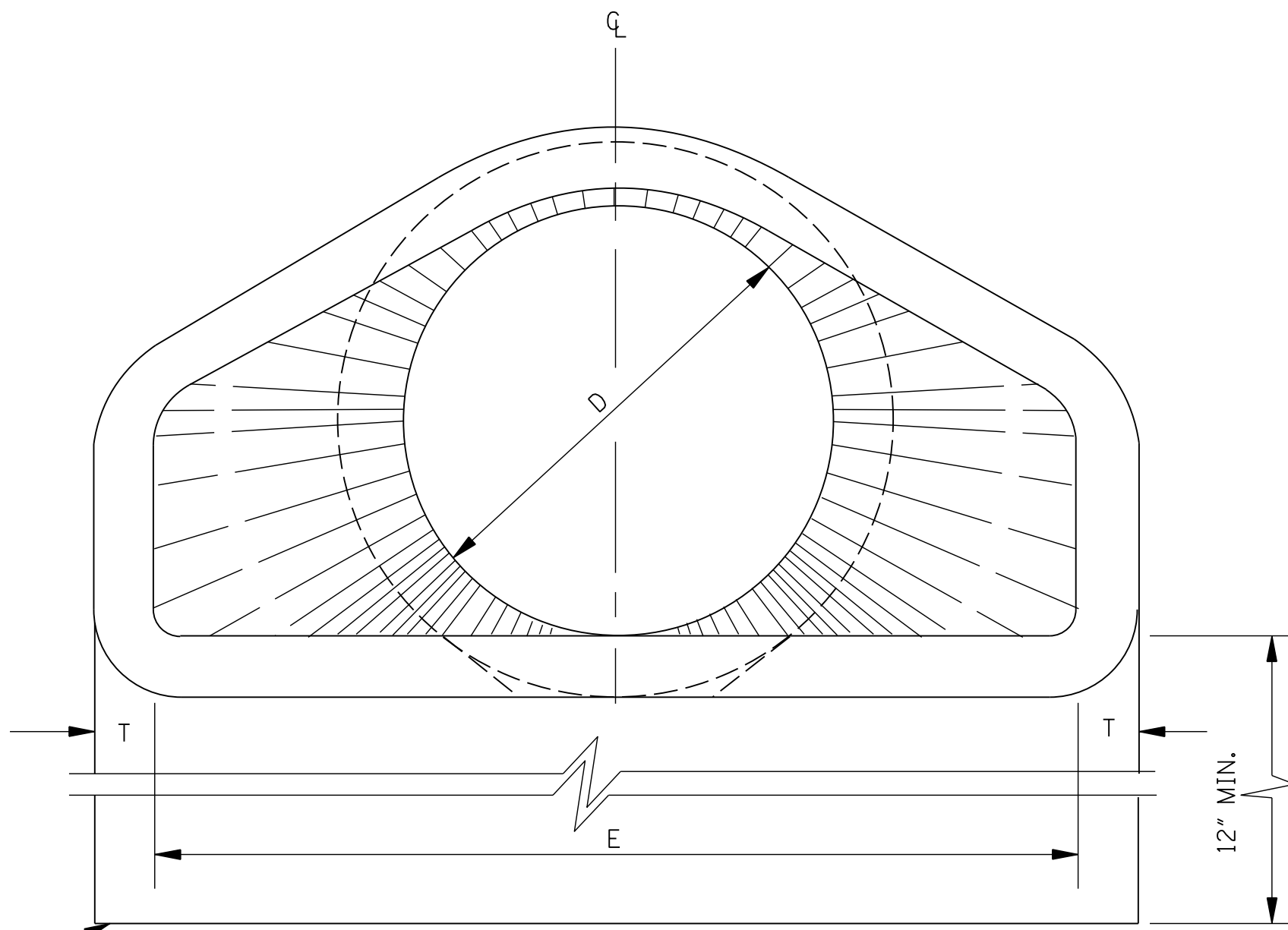
D	T	H:V	A	B	C	E	L
15"	2 1/4"	3:1	6"	2'-3"	4'-1"	2'-8"	6'-1"
18"	2 1/2"	3:1	9"	2'-3"	3'-10"	3'-0"	6'-1"
24"	3"	3:1	10"	3'-8"	2'-6"	4'-0"	6'-2"
30"	3 1/2"	3:1	1'-0"	4'-6"	1'-8"	5'-0"	6'-2"
36"	4"	3:1	1'-3"	5'-3"	2'-11"	6'-0"	8'-2"
42"	4 1/2"	3:1	1'-9"	5'-3"	2'-11"	6'-6"	8'-2"
48"	5"	3:1	2'-0"	6'-0"	2'-2"	7'-0"	8'-2"
54"	5 1/2"	3:1	2'-4"	6'-6"	1'-10"	7'-6"	8'-4"
* 60"	6"	3:1	2'-10"	6'-6"	1'-10"	8'-0"	8'-4"
* 66"	6 1/2"	3:1	3'-4"	6'-6"	1'-10"	8'-6"	8'-4"
* 72"	7"	3:1	3'-10"	6'-6"	1'-10"	9'-0"	8'-4"

0.056
0.063
0.083
0.102
0.123
0.134
0.145
0.156
0.167
0.177
0.188

* NOTE: SEE GENERAL NOTE 2.



SECTION X-X



END ELEVATION

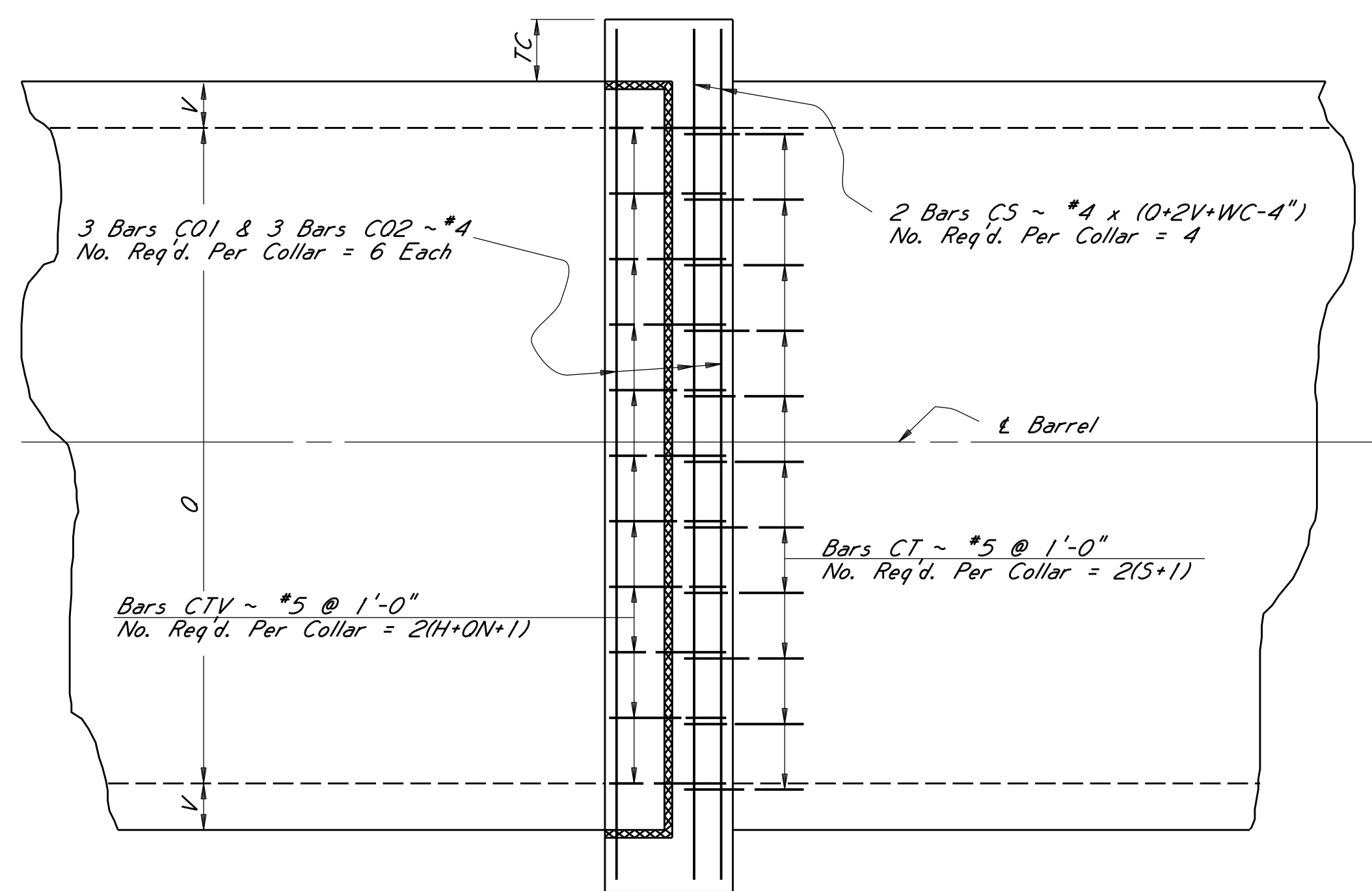
TOE WALL REQUIRED ON ALL FLARED END SECTIONS. TO BE PAID FOR AS CLASS "B" STRUCTURAL CONCRETE - MINOR STRUCTURES.

GENERAL NOTES:

- REINFORCEMENT SHALL CONFORM TO THE REQUIREMENTS OF REINFORCED CONCRETE PIPE OF LIKE DIAMETER PER AASHTO M 170, TABLE 2, WALL B.
- 2 - 1/2" DIA. CAST HOLES REQUIRED AS SHOWN TO ACCOMMODATE 2 - 1" DIA. TIE BOLTS, USED IN TIEING SECTION TO PIPE CULVERT.
- LENGTH (L) OF A BELL-END OPTION MAY VARY BY A NOMINAL EXTENSION ON THE BELL END.
- FLARED END SECTIONS SHOULD BE REGARDED AS OBSTACLES UNDER THE BELOW CONDITIONS AND AS SUCH SHOULD BE LOCATED OUTSIDE OF THE CLEAR ZONE:
 - CROSS DRAINS WITH SINGLE ROUND PIPES OF DIAMETER GREATER THAN 36" OR EQUIVALENT FOR ARCH PIPES.
 - CROSS DRAINS WITH MULTIPLE ROUND PIPES OF DIAMETER GREATER THAN 30" OR EQUIVALENT FOR ARCH PIPES.
 - PARALLEL SIDE DRAINS WITH SINGLE ROUND PIPES OF DIAMETER GREATER THAN 24" OR EQUIVALENT FOR ARCH PIPES.
- ALL SIZES OF FLARED END SECTIONS FOR CIRCULAR CONCRETE PIPE MAY BE FURNISHED WITH EITHER BELL AND SPIGOT OR TONGUE AND GROOVE ENDS.

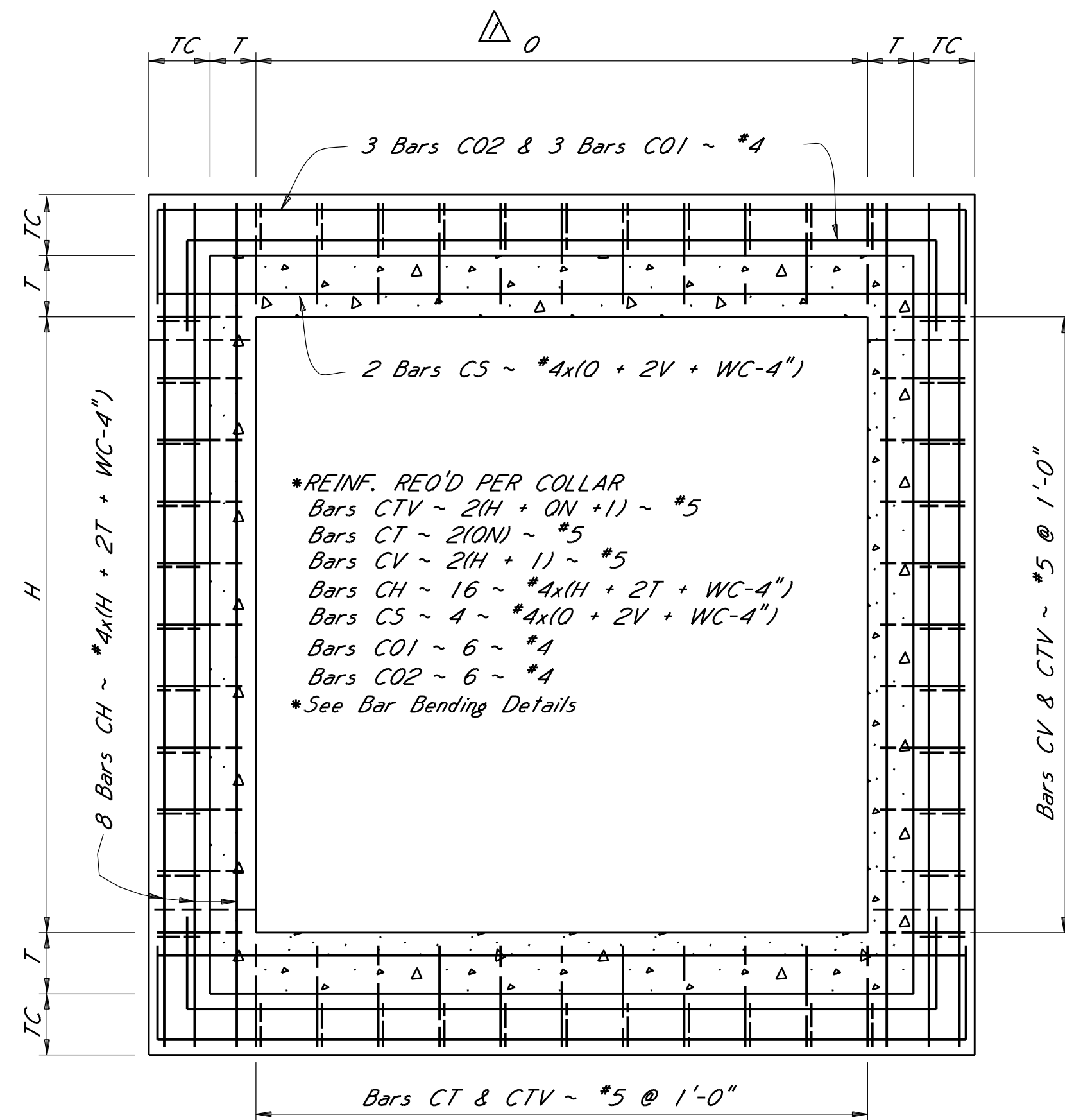
BY	MISSISSIPPI DEPARTMENT OF TRANSPORTATION ROADWAY DESIGN DIVISION STANDARD PLAN
REVISION	FLARED END SECTION FOR CONCRETE PIPE
DATE	ISSUE DATE: AUGUST 01, 2017

WORKING NUMBER
FE-1
SHEET NUMBER
6530

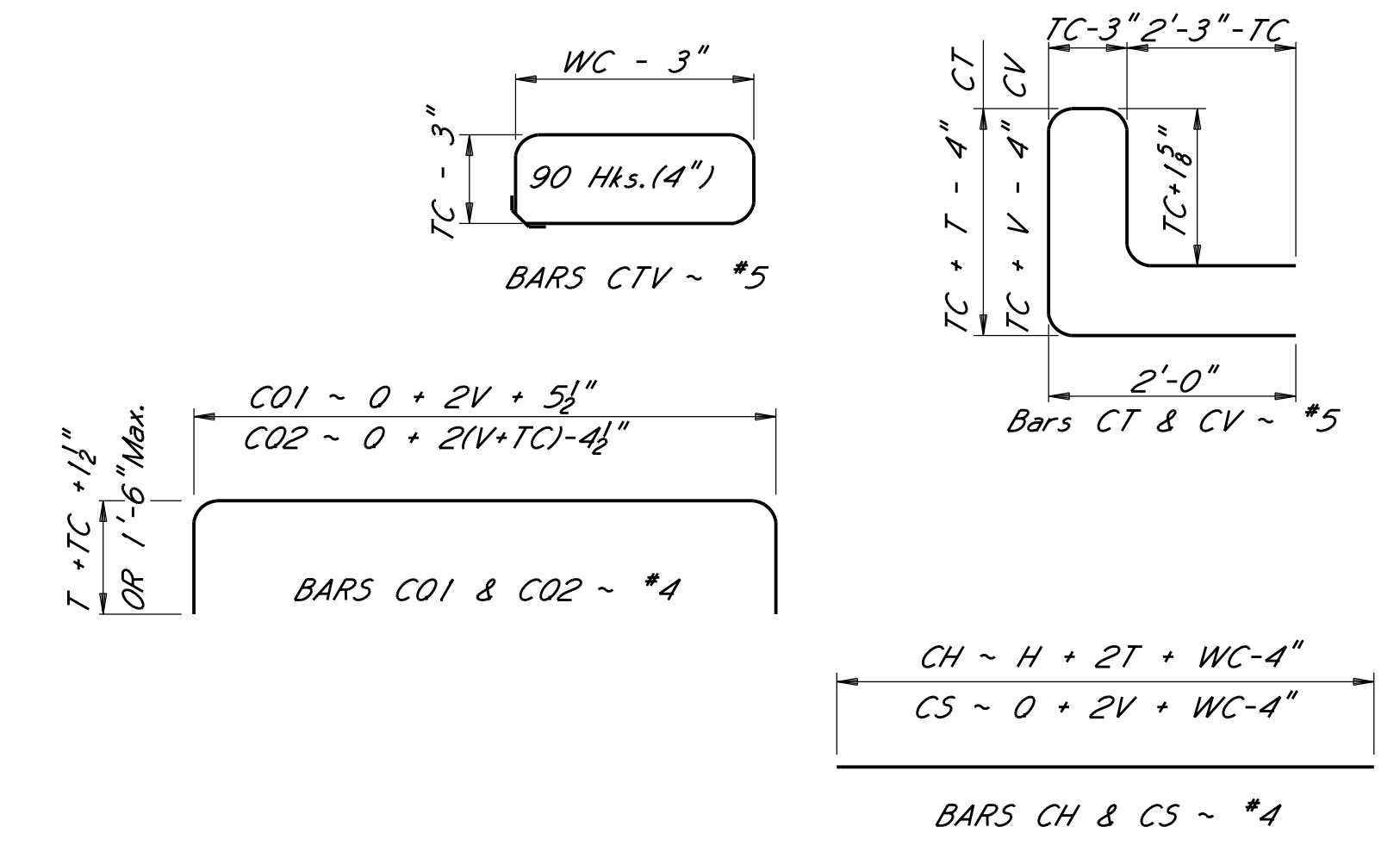


PLAN OF COLLAR

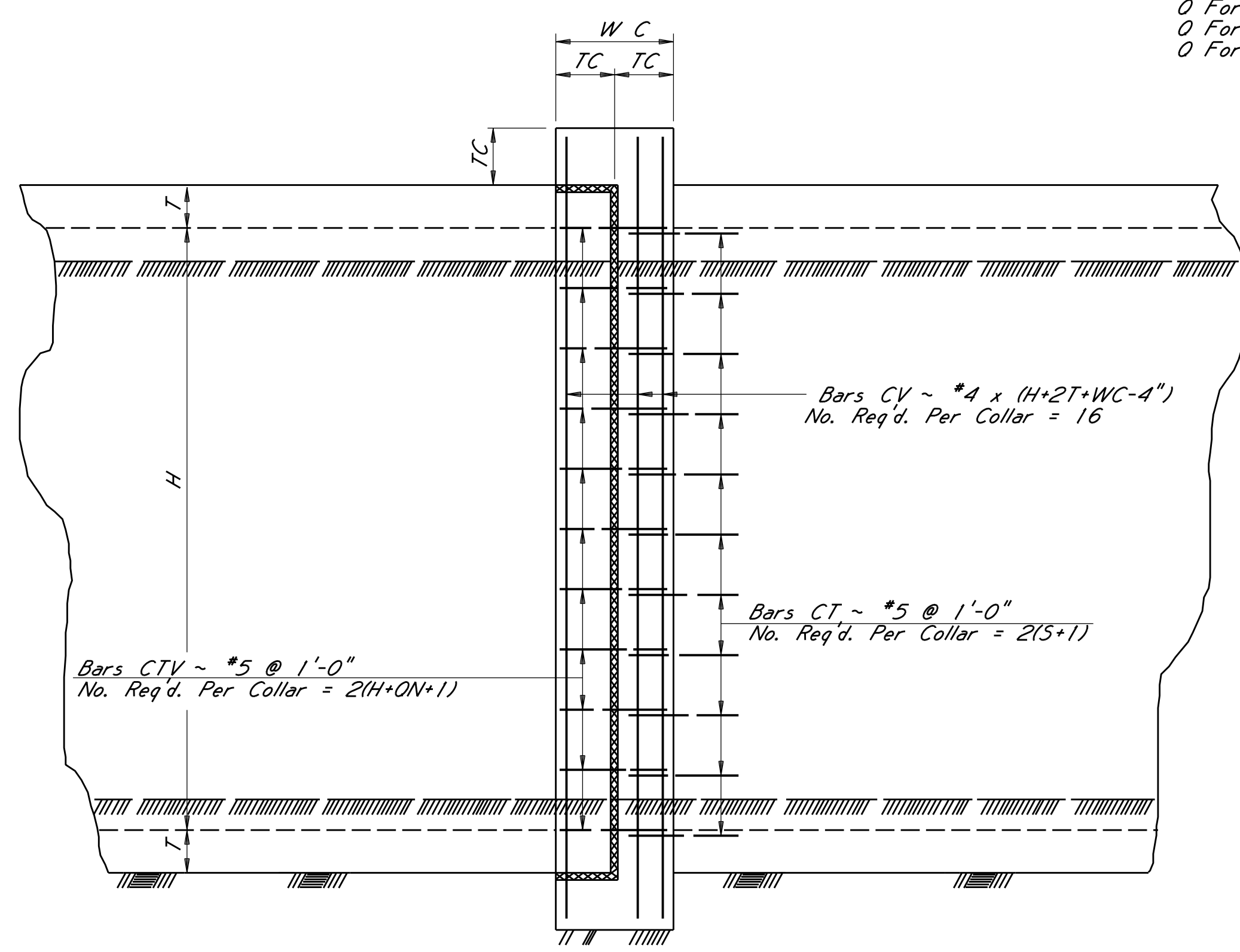
NOTE: For H = 6 Ft. TC = 9" WC = 1'-6"
 For H = 8 Ft. & Above TC = 1'-0" WC = 2'-0"



SECTION A-A

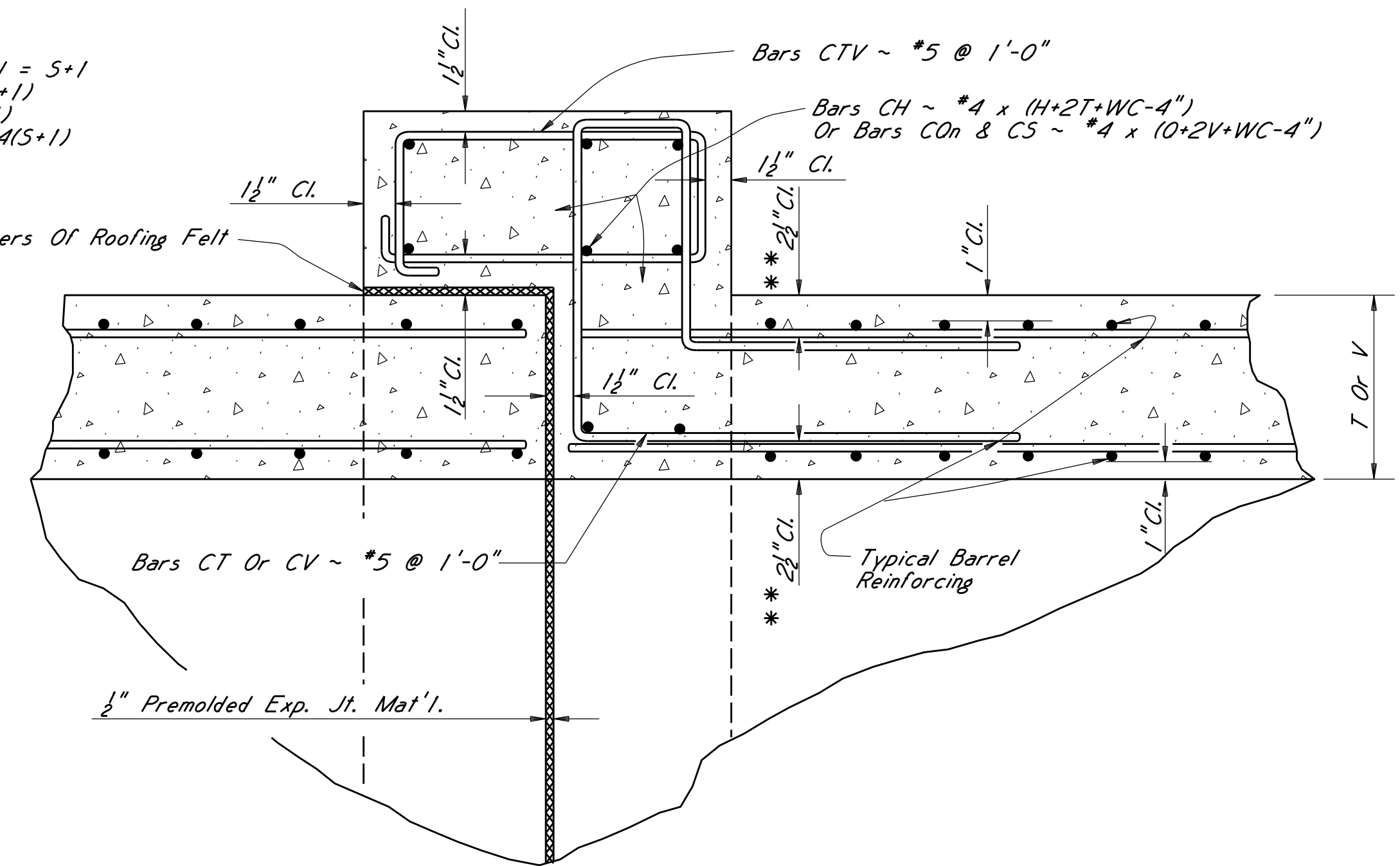


BAR BENDING DETAILS
 NOTE: See * Below



ELEVATION OF COLLAR

NOTE: 0 For Single Cell Box = 5 (Clear Span), ON = 5+1
 0 For Double Cell Box = 25 + V, ON = 2(S+1)
 0 For Triple Cell Box = 35 + 2V, ON = 3(S+1)
 0 For Quadruple Cell Box = 45 + 3V, ON = 4(S+1)



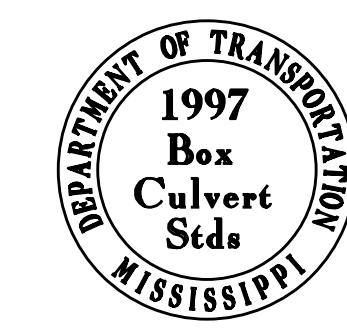
TYPICAL SECTION OF COLLAR

** NOTE: 2 1/2" Cl. Based On 1" Cl. For Typ. Barrel Reinf. This Cl. Shall Be Adjusted For Cl. Other Than 1".

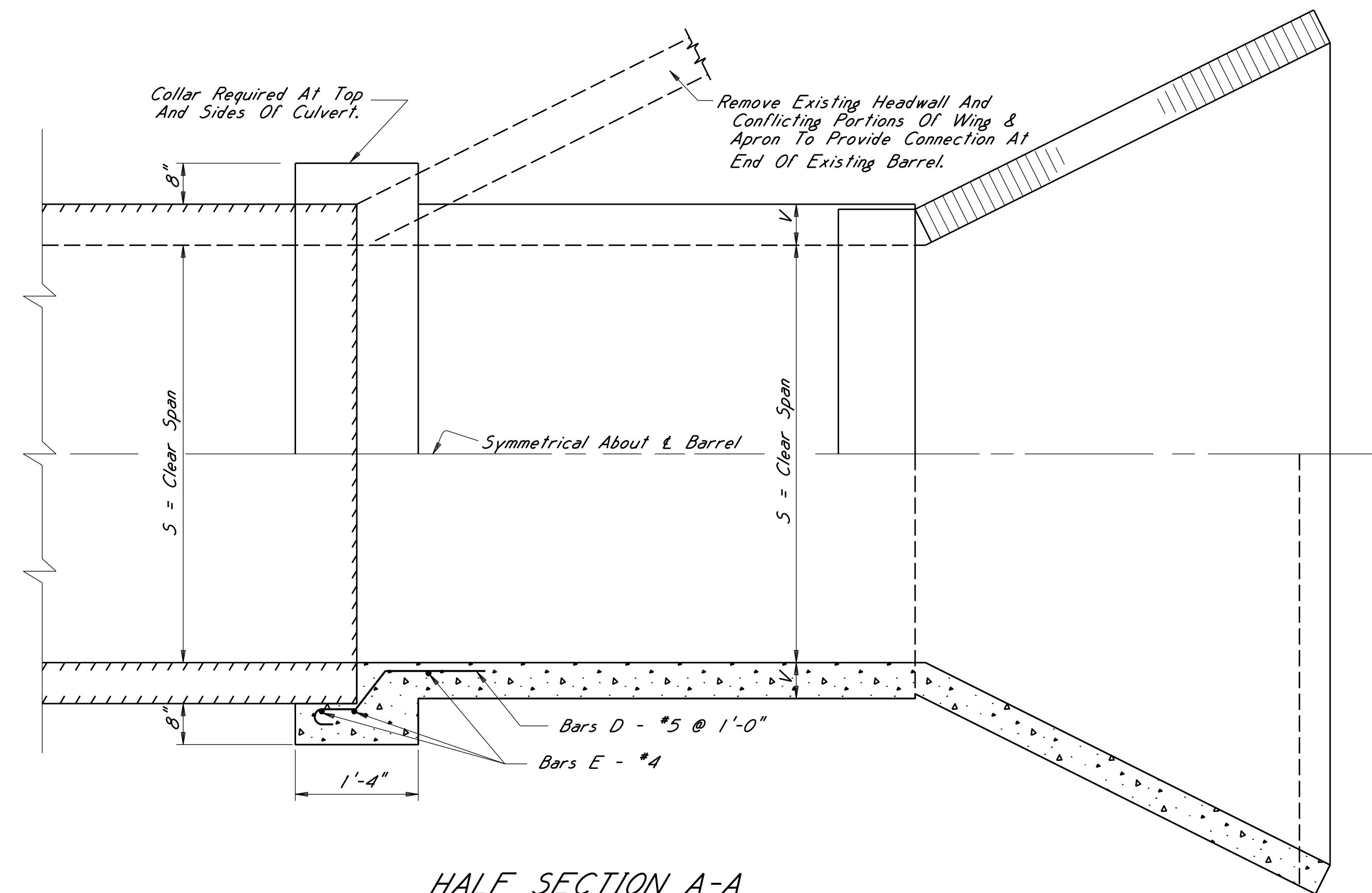
Note: All working numbers referenced on this sheet are referencing the Box Culvert Standards issued in 1997.

GENERAL NOTES:
 This Drawing Shows The Details Necessary To Construct A Complete Collar Around Barrel At Expansion Joints For Single, Double, Triple And Quadruple Cell Box Structures. All Details And Requirements Not Shown Hereon Shall Be As Per Specific Drawings Or Sheets As Listed In The Plan Assembly. This Drawing Is Detailed For A Single Cell Box Structure, And Multi-Cell Box Structures Shall Be Treated Similarly As Shown.

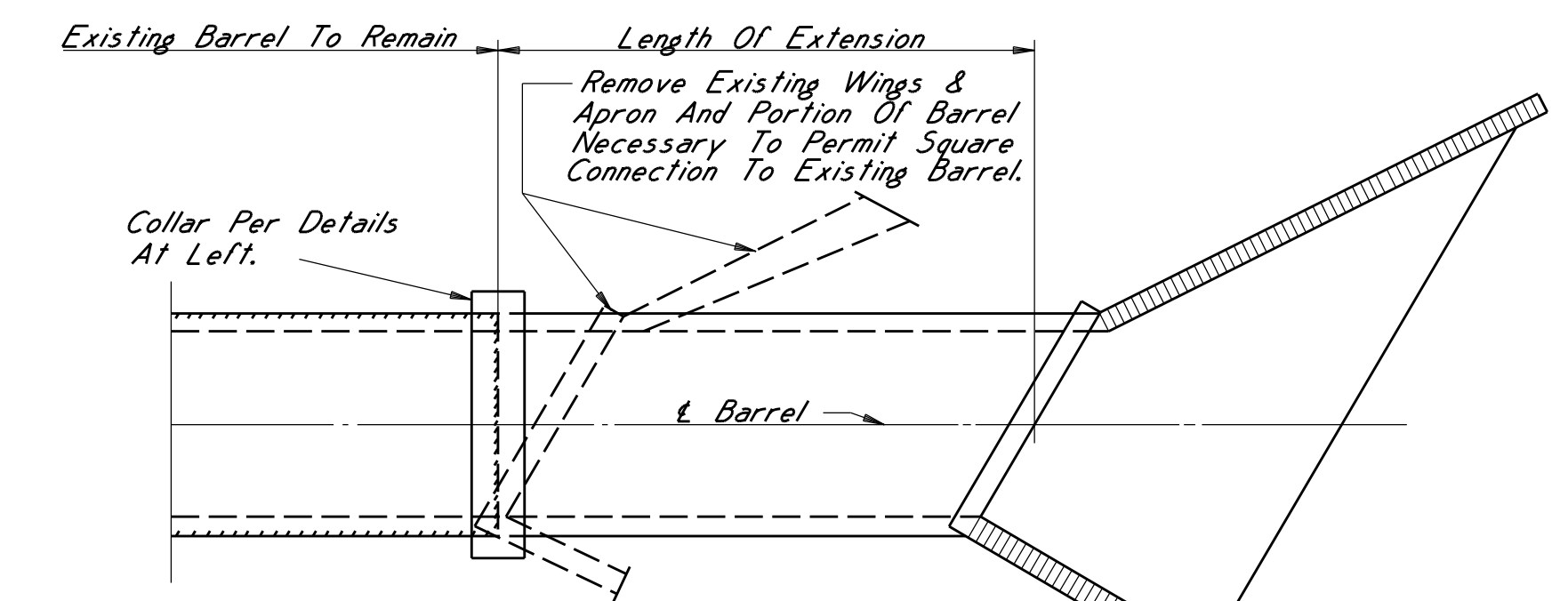
DESIGNED		CHECKED		ISSUED	
NA		BJJ		TMT	
DATE		DATE		DATE	
07/17/98		07-11-97		08-01-97	
MISSISSIPPI DEPARTMENT OF TRANSPORTATION COLLAR DETAILS FOR BOX STRUCTURES (SINGLE, DOUBLE, TRIPLE & QUADRUPLE)					
WORKING NUMBER ICJ-1-97				SHEET NUMBER 7504	



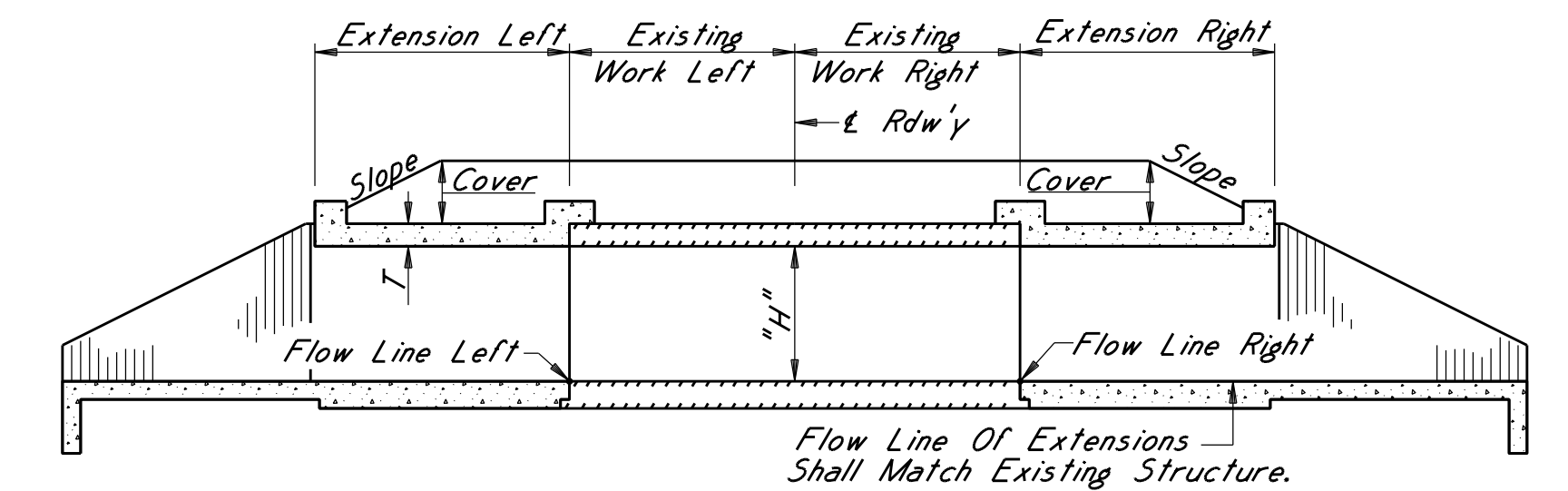
HALF TOP PLAN



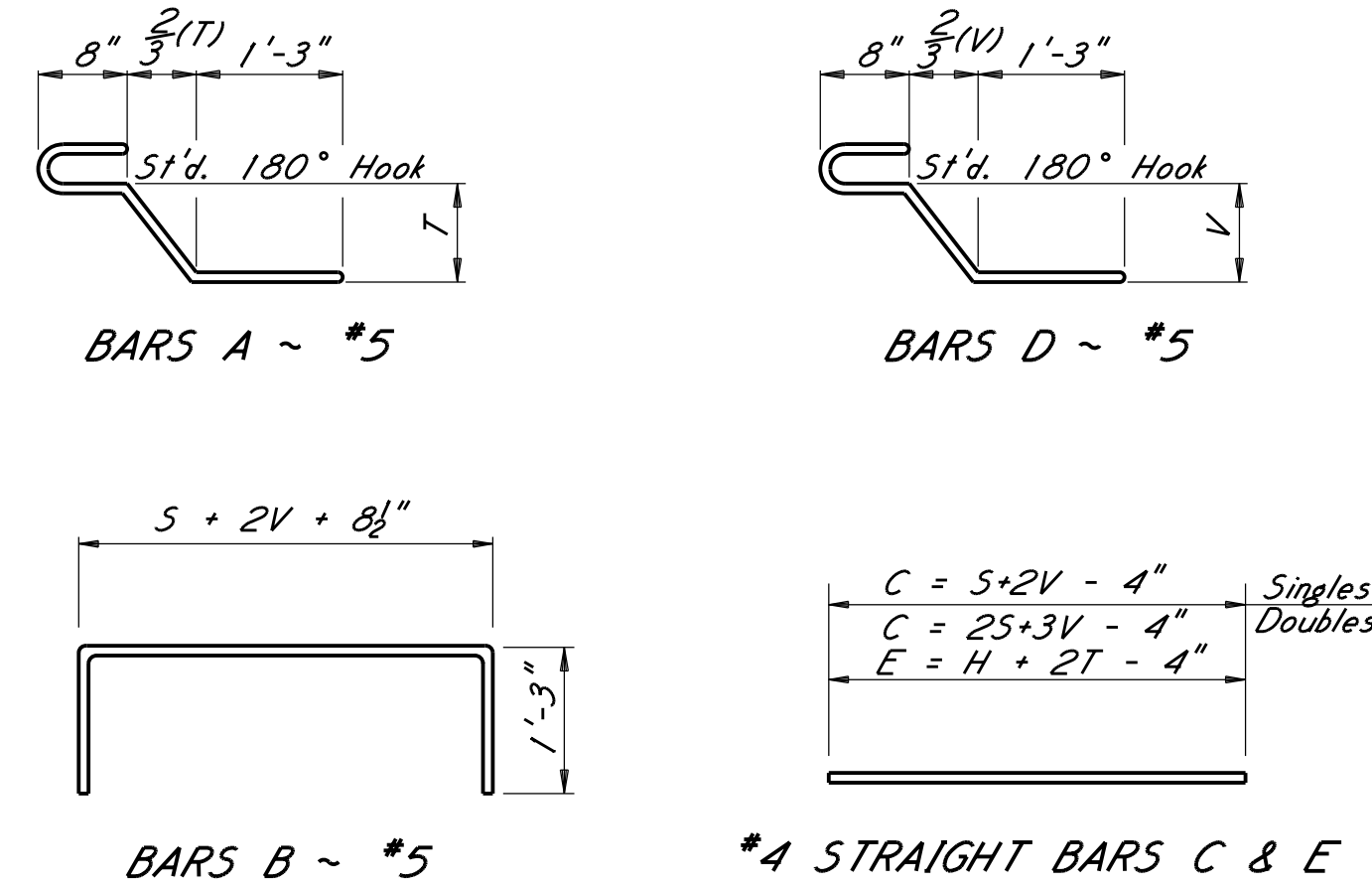
HALF SECTION A-A



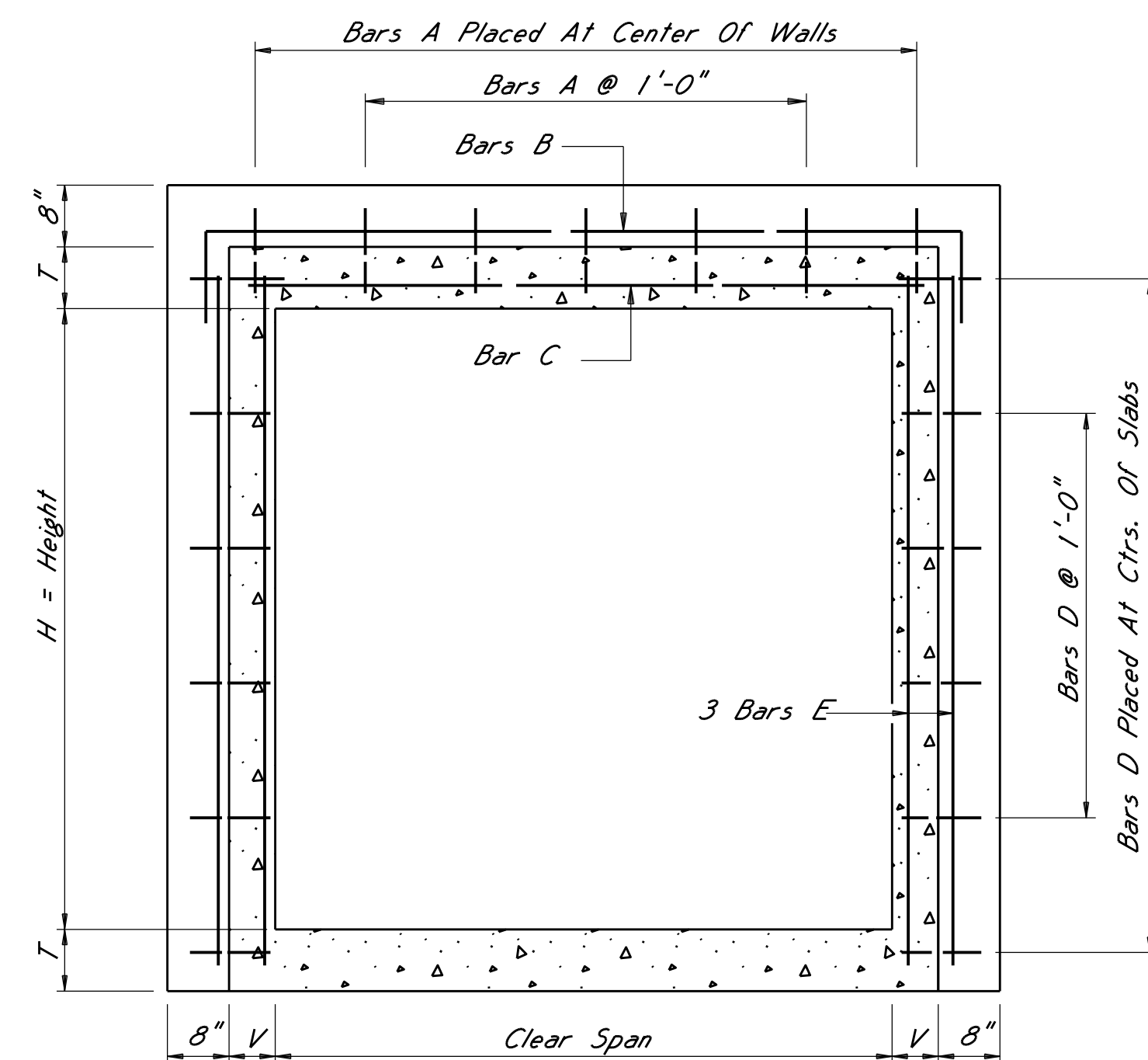
TYPICAL SKEW INSTALLATION



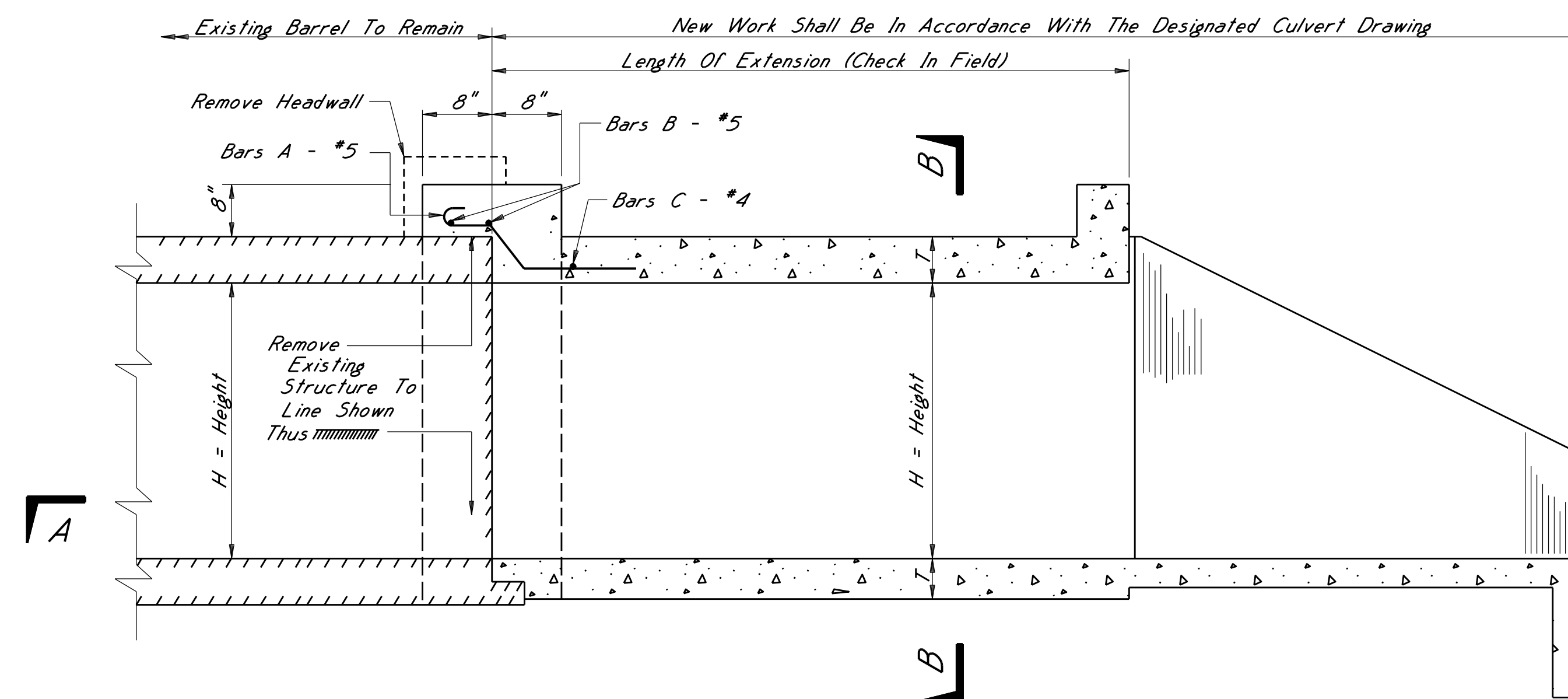
TYPICAL LONGITUDINAL SECTION



BAR BENDING DETAILS
Dimensions Are Out To Out.



SECTION B-B



LONGITUDINAL SECTION

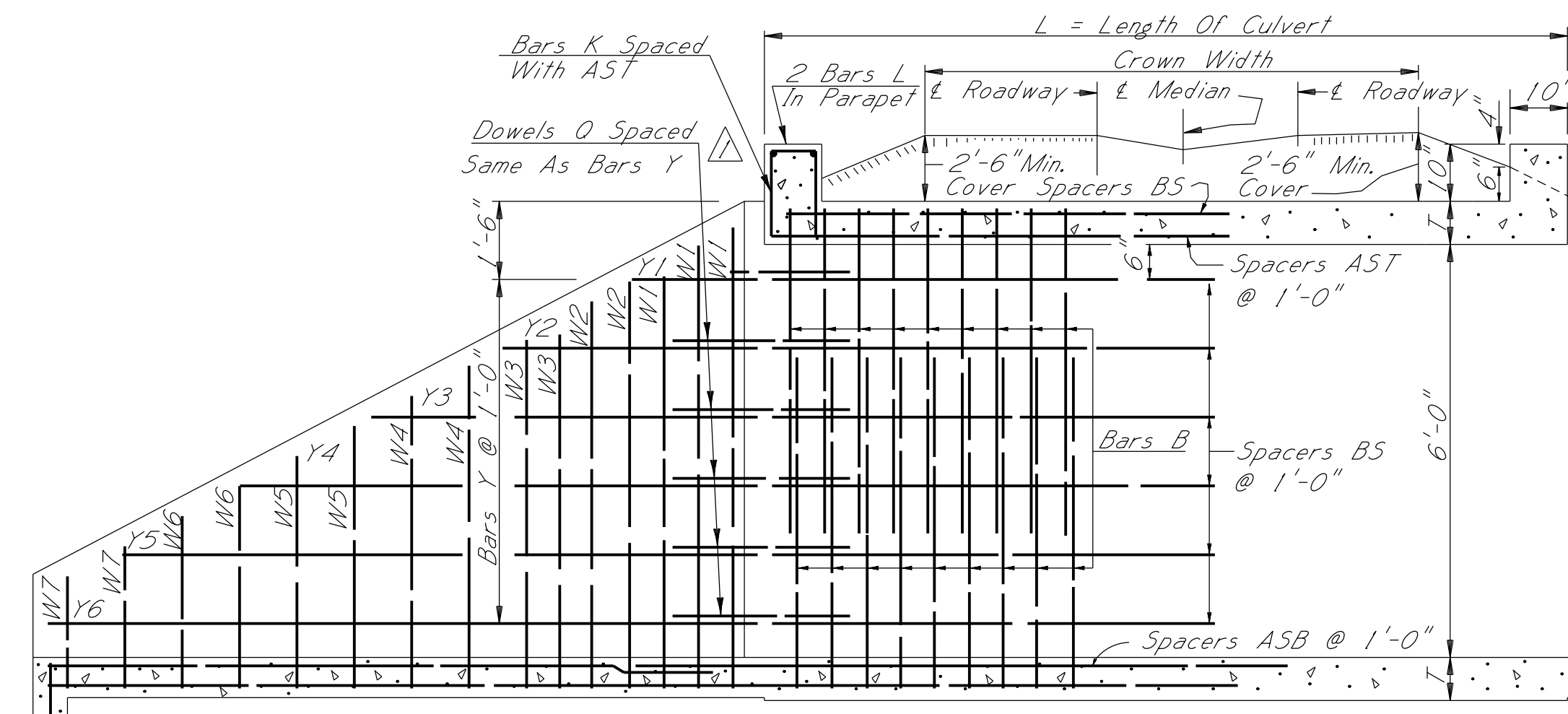
GENERAL NOTES:

This Drawing Is Supplementary To Basic Culvert Drawings Of The IBS And IBD Series And All Typical Details And General Notes Shown Thereon Shall Apply. The Length Of Extensions For Each End Of The Culvert Shall Be Checked In The Field By The Project Engineer Before The Reinforcing Steel Is Ordered. Bar List Of Reinforcing Steel Shall Be Submitted To The Project Engineer Prior To Fabrication. Placing Plan Shall Be Furnished When Extensions Are Skewed. When The Length Of The Extension Is Less Than 10 Ft, The Vertical Construction Joints At The Junction Of The Barrel And Wings Shown On The Basic Culvert Drawings For Culvert Heights Of 8 Ft And Greater Shall Be Omitted. This Drawing Is Detailed For A Single Cell Culvert And Double Cell Structure Shall Be Treated Similarly.

Note: All working numbers referenced on this sheet are referencing the Box Culvert Standards issued in 1997.

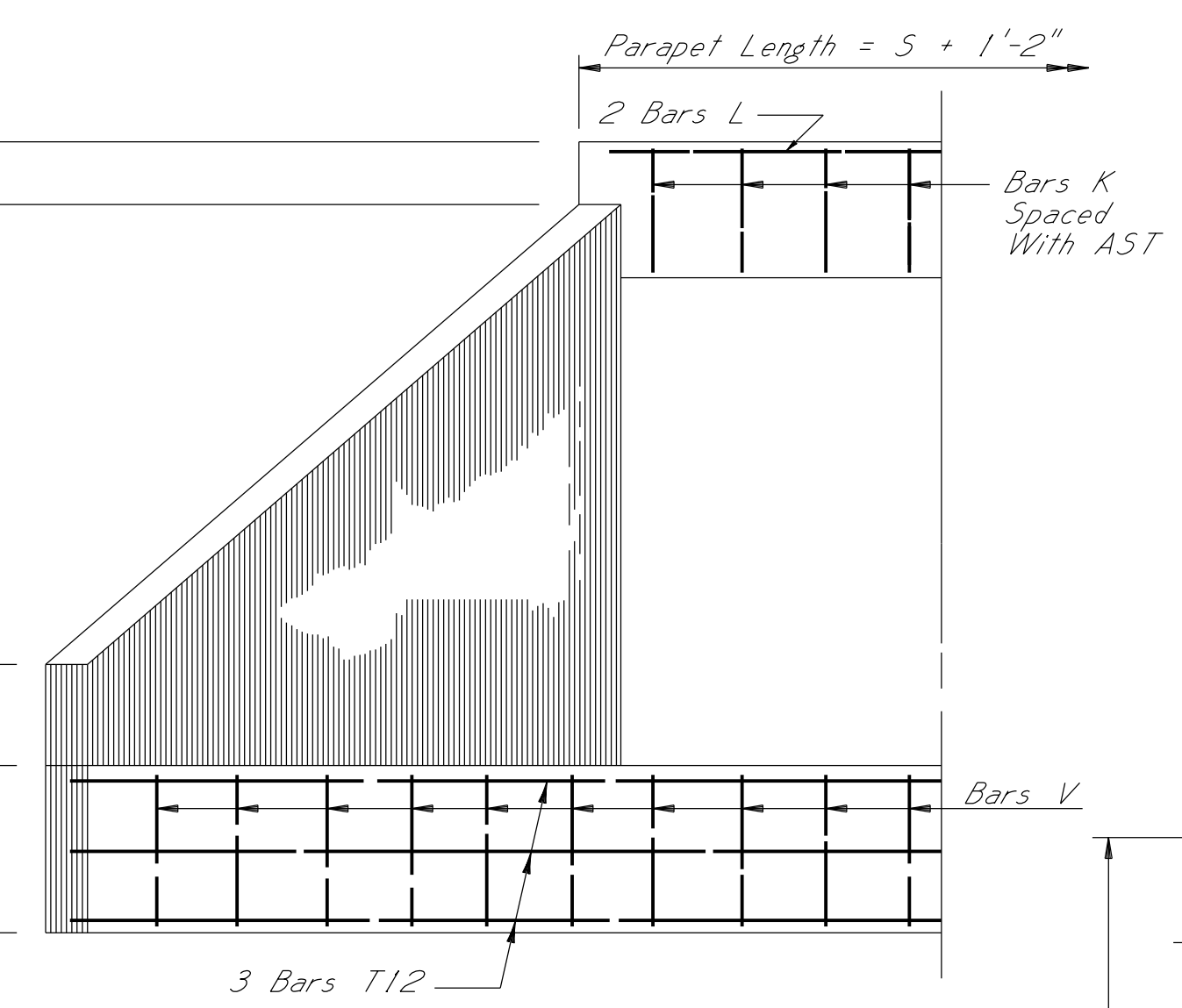


BY		MISSISSIPPI DEPARTMENT OF TRANSPORTATION	
REVISIONS		CULVERT DRAWING	
		EXTENSION DETAILS	
		FOR LENGTHENING	
		EXISTING BOX CULVERTS	
DATE	DESIGNED NA	CHECKED BJJ	ISSUED TMT
	DATE 07-11-97	DATE 08-01-97	
			WORKING NUMBER
			ICX-1-97
			SHEET NUMBER
			7506

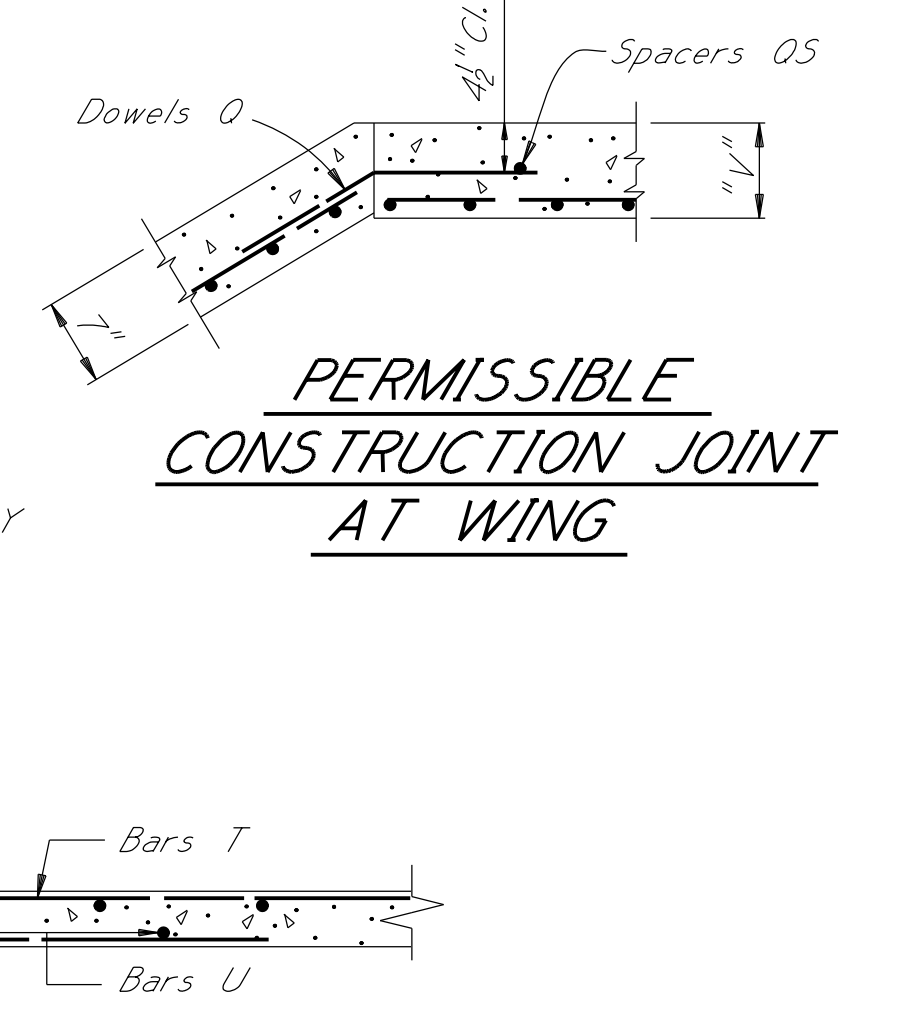


LONGITUDINAL SECTION
PLAN OF WING & PARAPET

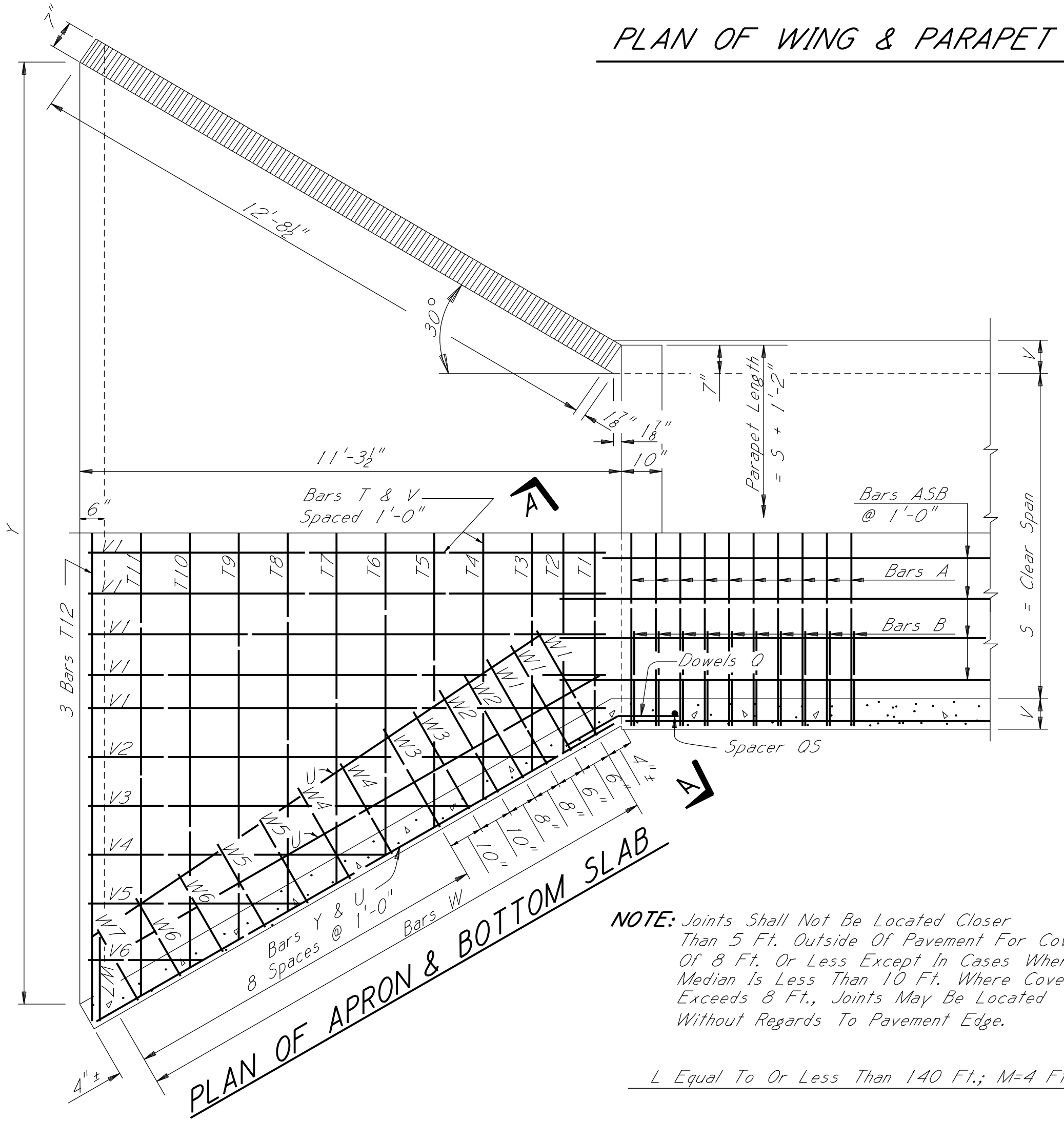
NOTE: Culvert Shall Be Sloped To Conform To Gradient Of Stream.



HALF END ELEVATION

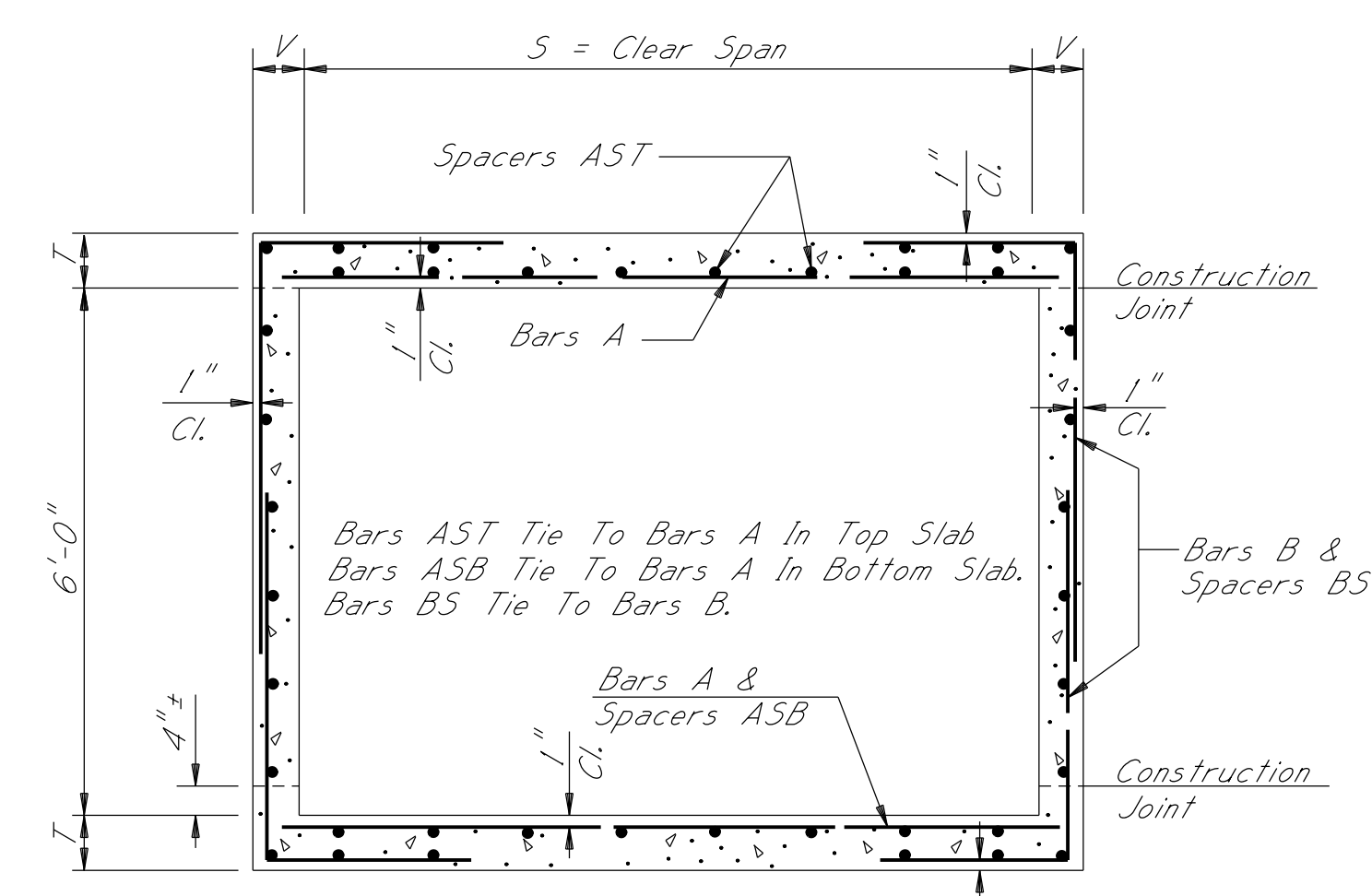


PERMISSIBLE CONSTRUCTION JOINT AT WING



PLAN OF APRON & BOTTOM SLAB

NOTE: Joints Shall Not Be Located Closer Than 5 Ft. Outside Of Pavement For Cover Of 8 Ft. Or Less Except In Cases Where Median Is Less Than 10 Ft. Where Cover Exceeds 8 Ft., Joints May Be Located Without Regards To Pavement Edge.

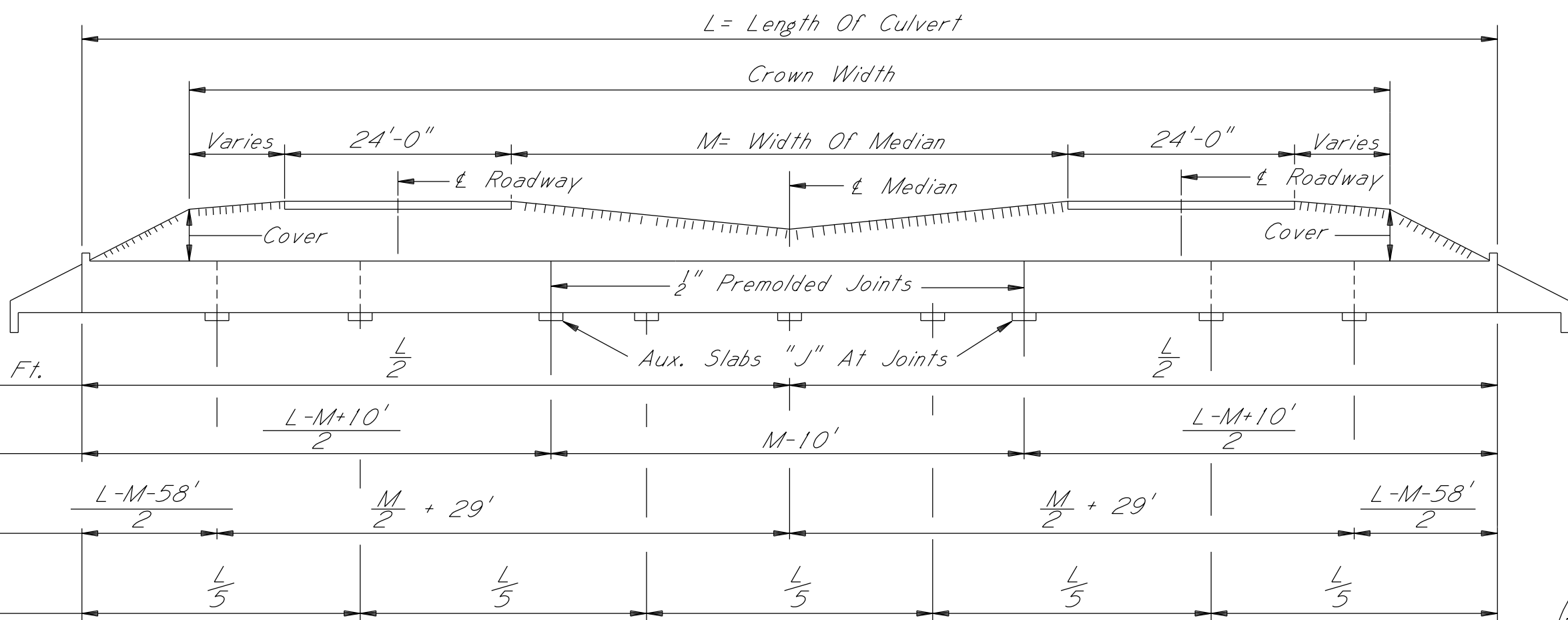


CROSS SECTION

CULVERT DIMENSIONS						ESTIMATED QUANTITIES					
CLEAR SPAN	MAX. COVER	T	V	W	Y	CULVERT (L=150 FT.)		PER LIN. FT. BARREL		1 AUX. SLAB "J"	
						CONC. cu. yd.	REINF. STEEL lb.	CONC. cu. yd.	REINF. STEEL lb.	CONC. cu. yd.	REINF. STEEL lb.
6'	14'	7 1/2"	7"	1'-2 1/2"	18'-10 1/4"	101.85	14,258	0.5910	86.8	0.35	21
8'	10'	8 1/2"	7 1/2"	1'-3 1/2"	20'-10 1/4"	129.16	18,948	0.7631	117.3	0.46	26
10'	8'	9 1/2"	8"	1'-4 1/2"	22'-10 1/4"	160.31	25,194	0.9609	158.1	0.56	32
12'	7'	10 1/2"	8 1/2"	1'-5 1/2"	24'-10 1/4"	195.30	31,113	1.1844	196.9	0.66	38
14'	7'	1'-0"	9 1/2"	1'-7"	26'-10 1/4"	245.12	39,315	1.5062	250.3	0.77	44
16'	6'	1'-1"	10"	1'-8"	28'-10 1/4"	288.88	45,780	1.7881	292.9	0.87	49
18'	6'	1'-2"	11 1/2"	1'-9"	30'-10 1/4"	344.23	57,285	2.1471	368.7	0.98	55
20'	6'	1'-3"	1'-1"	1'-10"	32'-10 1/4"	403.75	67,670	2.5339	436.2	1.09	61

DESIGN DATA:
Specifications . . . A.A.S.H.O. 1969
Live Load . . . HS 20-44 Mod. For 2-24,000 lbs Axles
Unit Stresses . . . fs=20,000 psi, fc=1,200 psi, n=10.

Note: All working numbers referenced on this sheet are referencing the Box Culvert Standards issued in 1997.



SIDE ELEVATION OF CULVERT

Showing 1/2" Joints And Auxiliary Slabs "J"
Drawn for L = 150 Ft. & M = 60 Ft.

L Equal To Or Less Than 140 Ft.; M=4 Ft. Thru 60 Ft.
L Greater Than 140 Ft. & Equal To Or Less Than 190 Ft.; M=40 Ft. Thru 60 Ft.
L Greater Than 140 Ft. & Equal To Or Less Than 190 Ft.; M=4 Ft. To 40 Ft.
L Greater Than 190 Ft.; M=4 Ft. Thru 60 Ft.

NOTE: See Drawing IBJL-1 For Additional Joint Locations.

NOTE: Where Cover Is 8 Ft. Or Less And A Joint Occurs Within The Limits Of 5 Ft. Beyond Each Edge Of Pavement, Use Complete Collar At Joints Per Drawing ICJ-1 Or ICJS-1.

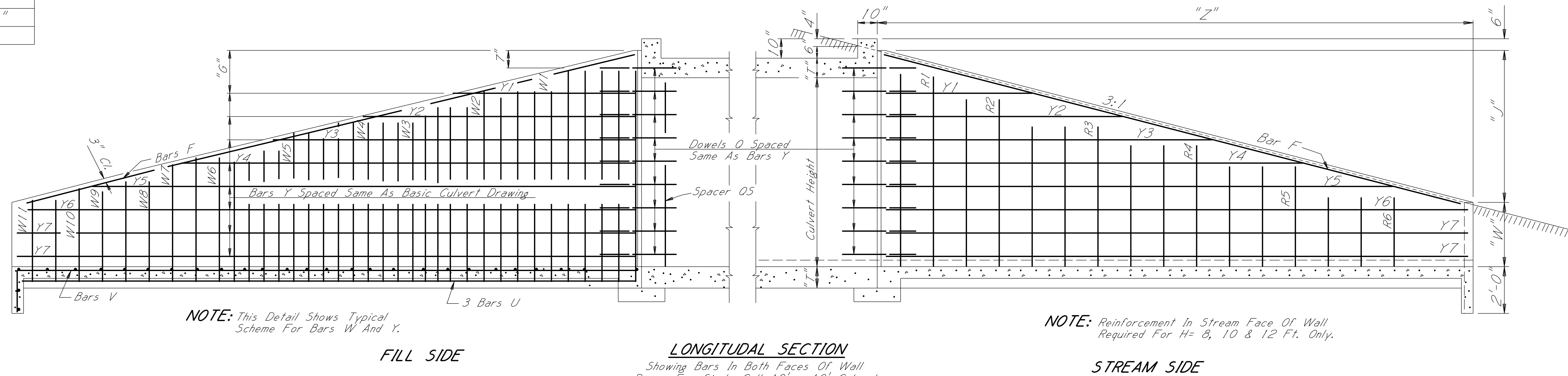


MISSISSIPPI DEPARTMENT OF TRANSPORTATION
BASIC CULVERT DRAWING
SINGLE CELL
HEIGHT 6 FT.
SPANS 6-20 FT.

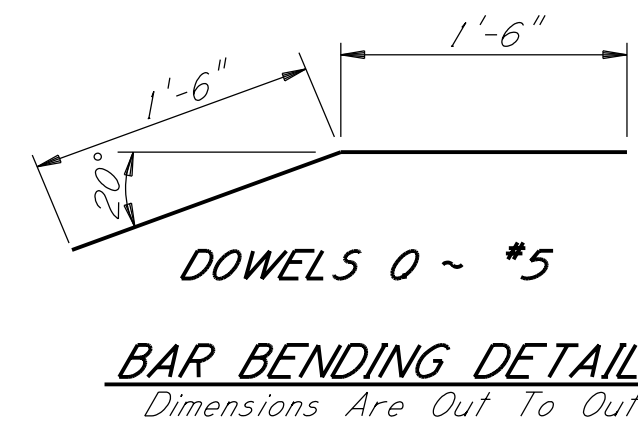
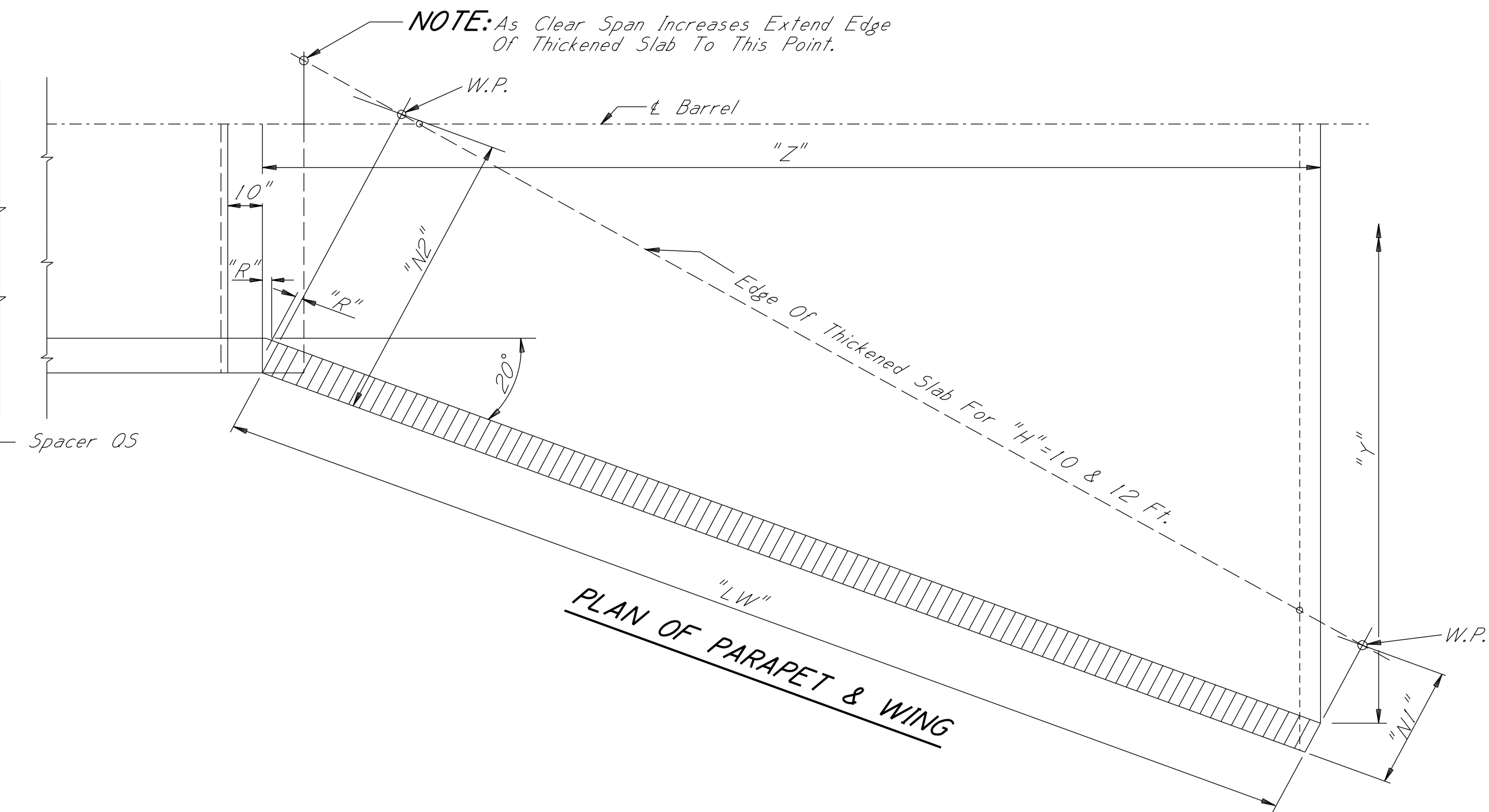
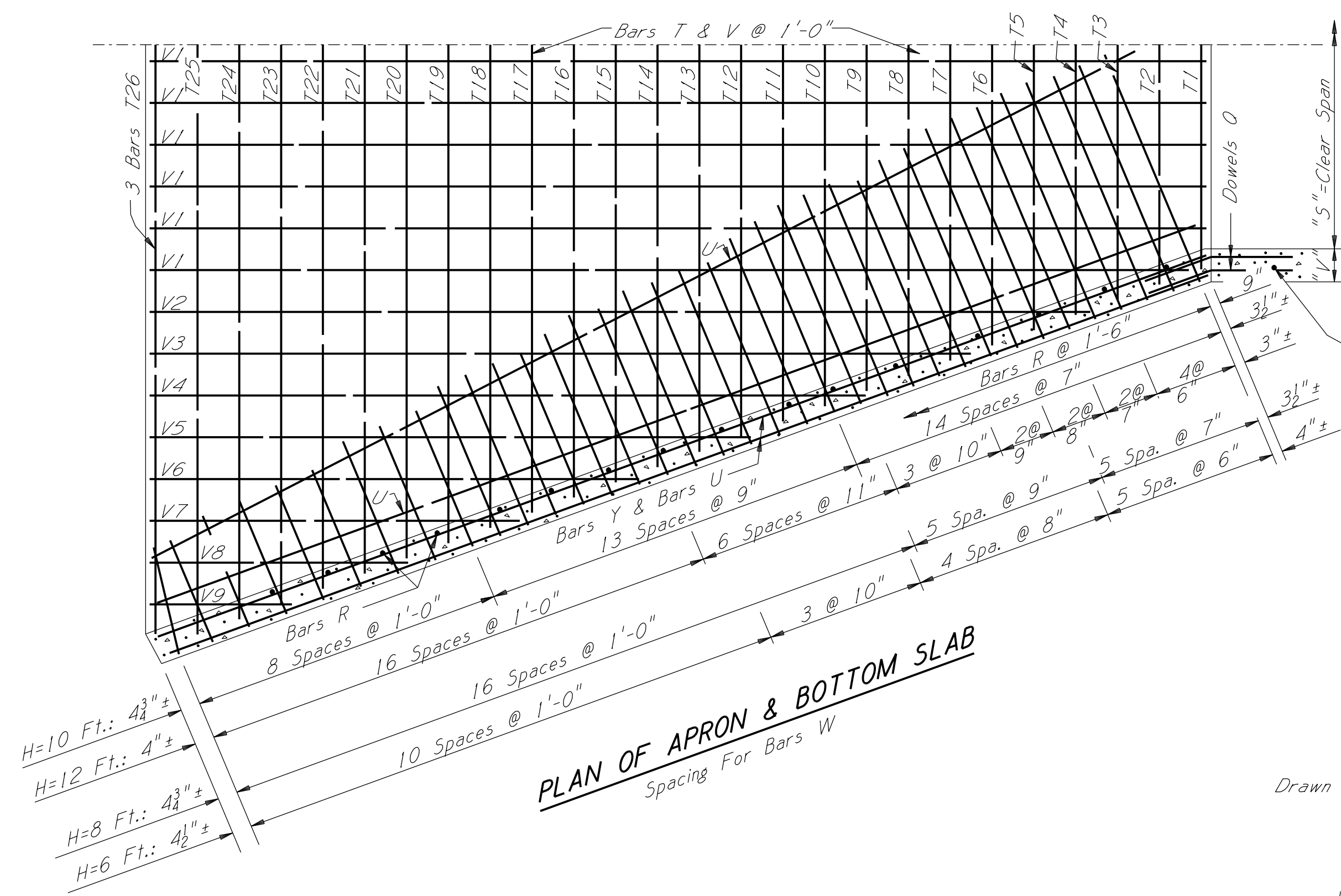
WORKING NUMBER IBS-6-2W-97
SHEET NUMBER 7507

DESIGNED NA CHECKED BJJ ISSUED TMT
DATE 07-11-97 DATE 08-01-97

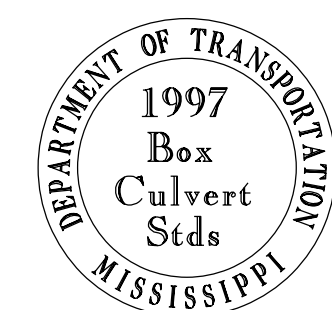
CULVERT HEIGHT "H"	"G"
6'	1'-9"
8'	1'-9"
10'	1'-11"
12'	2'-0"



NOTE: This Detail Shows Typical Scheme For Bars T And V.



Note: All working numbers referenced on this sheet are referencing the Box Culvert Standards issued in 1997.



REVISIONS		MISSISSIPPI DEPARTMENT OF TRANSPORTATION WINGS WITH 3:1 SLOPE FOR BASIC CULVERT DRAWING SINGLE CELL HEIGHTS 6-12 FT. SPANS 6-24 FT.			WORKING NUMBER IWS-3-97
DATE	DESIGNED	CHECKED	ISSUED	SHEET NUMBER	7515
	NA	BJJ	TMT		
	ALT	DATE 07-11-97	DATE 08-01-97		

DESCRIPTION OF SHEETS	WORKING NUMBER	SHEET NUMBER
DETAILED INDEX (BRIDGE)	DI-BR-1	8001
SUMMARY OF QUANTITIES (BRIDGE)	SO-BR-1	8002
BRIDGE "A" AT STA. 1506+58.88		
SR 35 OVER BOKSHENYA NOTES, QUANTITIES, LAYOUT	A1 OF A10	8003
SR 35 OVER BOKSHENYA FOUNDATION PLAN	A2 OF A10	8004
END BENTS NO. 1 & 4	A3 OF A10	8005
END BENT DETAILS	A4 OF A10	8006
INT. BENTS 2 & 3	A5 OF A10	8007
PLAN OF 100 FT SPANS	A6 OF A10	8008
100 FT SPAN DETAILS	A7 OF A10	8009
MISCELLANEOUS SPAN DETAILS	A8 OF A10	8010
100 FT. BEAM DETAILS BEAM NO. 100-1 (BT-54)	A9 OF A10	8011
100 FT. BEAM DETAILS BEAM NO. 100-2 (BT-54)	A10 OF A10	8012
BRIDGE "B" AT STA. 1583+71.88		
SR 35 OVER LITTLE CONEHOMA NOTES, QUANTITIES & LAYOUT	B1 OF B14	8013
SR 35 OVER LITTLE CONEHOMA FOUNDATION PLAN	B2 OF B14	8014
END BENT NO. 1	B3 OF B14	8015
END BENT NO. 4	B4 OF B14	8016
END BENT DETAILS	B5 OF B14	8017
INT. BENT NO. 2	B6 OF B14	8018
INT. BENT NO. 3	B7 OF B14	8019
PLAN OF 80 FT SPANS	B8 OF B14	8020
80 FT SPAN DETAILS	B9 OF B14	8021
PLAN OF 115 FT SPAN	B10 OF B14	8022
115 FT SPAN DETAILS	B11 OF B14	8023
MISCELLANEOUS SPAN DETAILS	B12 OF B14	8024
80 FT BEAM DETAILS BEAM NO. 80-1 (TYPE III)	B13 OF B14	8025
115 FT BEAM DETAILS BEAM NO. 115-1 (BT-54)	B14 OF B14	8026
GENERALIZED SOIL PROFILE BRIDGE NO. 150.5 OVER BOKSHENYA CREEK	GSP-A	8027
GENERALIZED SOIL PROFILE BRIDGE NO. 152.0 OVER LITTLE CONEHOMA CREEK	GSP-B	8028
DETOUR BRIDGE AT STA. 7+73 MS 35 ACROSS BOKSHENYA CREEK	DBA-1	8029
DETOUR BRIDGE AT STA. 8+05 MS 35 ACROSS LITTLE CONEHOMA CREEK	DBB-1	8030
2'-8" RAILING DETAILS	RD-32	8031
EROSION CONTROL PLANS - BRIDGE A - 150.5	ECBR-A1	8032
EROSION CONTROL PLANS - BRIDGE B - 152.0	ECBR-B1	8033

BRIDGE DIVISION		
REVISIONS		
DATE	SHEET NO.	BY



REVISION	DATE	BY	MISSISSIPPI DEPARTMENT OF TRANSPORTATION MS 35 BETWEEN KOSCIUSKO AND ATTALA COUNTY LINE DETAILED INDEX (BRIDGE) FMS: 103334 / 301000 COUNTY: ATTALA PROJECT NUMBER: BR-0023-02(058)
			WORKING NUMBER DI-BR-01 SHEET NUMBER 8001

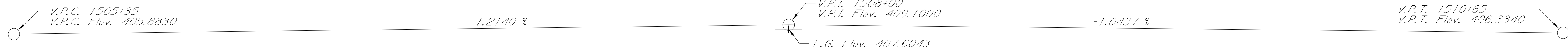
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SUMMARY OF QUANTITIES

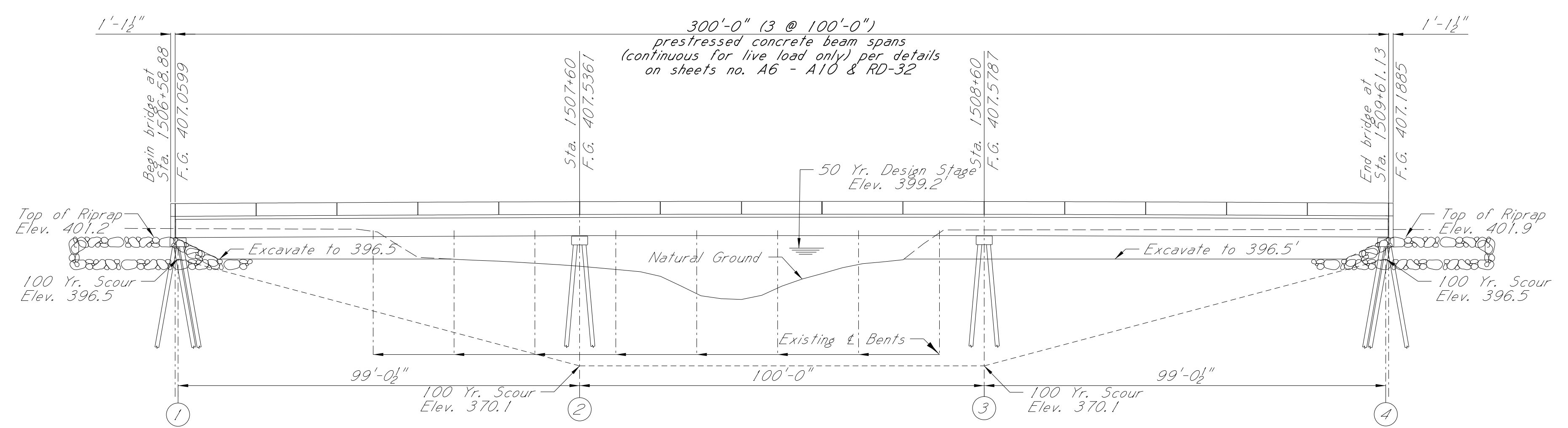
PAY ITEM NO.	PAY ITEM	UNIT	QUANTITIES	
			PRELIMINARY	FINAL
	Bridge Summary			
501-K001	Transverse Grooving	SY	2,555	
907-803-B001	Conventional Static Pile Load Test	EA	2	
803-D005	HP 14 x 117 Steel Piling	LF	7,335	
907-803-I003	PDA Test Pile, HP Steel Pile	EA	4	
907-803-J001	Pile Restrike	EA	4	
907-804-A002	Bridge Concrete, Class AA	CY	265	
907-804-A004	Bridge Concrete, Class BD	CY	769	
804-C032	115' Prestressed Concrete Beam, Type BT-63	LF	803	
804-C121	80' Prestressed Concrete Beam, Type III	LF	954	
804-C165	100' Prestressed Concrete Beam, Type BT-54	LF	1,789	
805-A001	Reinforcement	LBS	222,890	
813-A002	Concrete Railing, 32"	LF	1,158	
815-A007	Loose Riprap, Size 300	TON	3,328	
815-E001	Geotextile under Riprap	SY	2,474	



By	MISSISSIPPI DEPARTMENT OF TRANSPORTATION SUMMARY OF QUANTITIES (BRIDGE ITEMS)	
	PROJECT BR-0023-02(058) 103334-301000	
Revision	ATTALA COUNTIES	WORKING NUMBER SQ-BR-1
	DESIGNER <u>Barbara Jones, PE</u> CHECKER <u>Trent Wixon, PE</u> DETAILER <u>Barbara Jones, PE</u> ISSUE DATE <u>6-12-2019</u>	SHEET NUMBER 8002
Date	DIRECTOR OF STRUCTURES, STATE BRIDGE ENGINEER - JUSTIN WALKER, P.E. DEP. DIR OF STRUCTURES, ASST. STATE BRIDGE ENGINEER - SCOTT WESTERFIELD, P.E.	



530 FT. VERTICAL CURVE
Total length of bridge = 302'-3"



ELEVATION WITH PROFILE ALONG & APPROACH ROADWAY
Scale: 1" = 20'-0"

GENERAL NOTES:

Mississippi Standard Specifications for Road and Bridge Construction, 2017.
No change of plans will be permitted except by written approval of the Director of Structures, State Bridge Engineer.
Minor changes in detail of design or construction procedure may be authorized by the Director of Structures, State Bridge Engineer provided such changes will not be cause for contract price adjustment.
The final surface texture of the bridge deck shall be mechanically transverse grooved in accordance with Sections 501 and 804 of the specifications. See Misc. Span Details for limits of transverse grooving on bridge deck.
Bridge concrete shall be class "AA" or Class "BD" as indicated in plans.
Railing expansion joint material shall be bituminous fiber type unless otherwise noted.
No payment will be allowed for excavation incidental to the construction of end bents.
Bar bending details shall be in accordance with "Manual of Standard Practice for Detailing Reinforced Concrete Structures (ACI 315R-94).
Reinforcement order lists and required placing plans shall be furnished in accordance with Section 805 of the Mississippi Standard Specifications. Partial submittals are not acceptable.
Shop drawings of prestressed beams, including an erection plan, shall be submitted in duplicate to the Director of Structures, State Bridge Engineer for approval prior to the manufacture of beams.
The fabricator shall provide camber data at release and immediately prior to shipping.
The Contractor shall provide camber data after erection. The Contractor should be aware that the deflection diagram may be modified based on the provided camber data. Therefore, deck grades should be set only after notification from the Director of Structures, State Bridge Engineer.
Concrete surfaces shall receive a Class 2 rubbed or spray finish in accordance with the specifications.
Reinforcing steel shall be ASTM A615, Grade 60, unless otherwise noted.
Work for which no pay item is provided in the proposal will not be paid for directly and compensation therefor will be included in the prices and payments for bid items.

Steel Pile End Bents No. 1 & 4
Per Details on Sheets No. A3 & A4
16 - HP14x117 Piles Per Bent

Steel Pile Int. Bents No. 2 & 3
Per Details on Sheet No. A5
12 - HP14x117 Piles Per Bent

PILE NOTES:

Test piles shall be driven as permanent piles at the location shown in the PDA TEST PILE SCHEDULE and will be paid for as test piles only.
The Director of Structures, State Bridge Engineer may authorize test piles driven outside the structural limits.
Test piles shall be driven as a continuous operation, to the bearing capacity and the tip elevations shown in the PDA TEST PILE SCHEDULE, unless otherwise directed by the Director of Structures, State Bridge Engineer.
Permanent piles shall be driven to an elevation no higher than the elevation shown in the REQUIRED ULTIMATE PILE BEARING CAPACITY AND TIP ELEVATION SCHEDULE.
The tip elevation of piling, for hydraulic structures, may be determined by the scour line.
When feasible, bearing piles shall be driven full length and be spliced, only, as approved by the Director of Structures, State Bridge Engineer.
Welding shall be done by the ELECTRIC ARC process. Welders shall be certified and electrodes shall be approved.
When loading tests are required, the maximum test load shall be one and one half (1 1/2) times the minimum pile bearing capacity.
PDA test piles shall require a 1 day and 7 day restrike unless otherwise directed by the Engineer.
Pile lengths and driving criteria shall be provided based on the results of the PDA test piles.
The required ultimate pile bearing shown in the REQUIRED ULTIMATE PILE BEARING AND TIP ELEVATION SCHEDULE includes the LRFD resistance factor for PDA of 0.65.
Pile hammer leads used for all PDA test piles and PDA restrikes shall be large enough to provide a minimum of 3" of clearance on each side of the pile in order to properly place and protect PDA gages.
Steel HP piles shall be driven with a maximum rated energy no less than 58,000 ft-lbs, but no greater than 76,000 ft-lbs to the tip elevations specified unless the Contractor's drivability analysis utilizing the Contractor's selected alternative hammer is approved by the Director of Structures, State Bridge Engineer.

NOTE:

The girder deflection diagrams shown in these plans were prepared and intended for design and estimation purposes only. Actual bridge girder deflections may differ from the deflection diagrams shown in these plans.
It is the Contractor's responsibility to construct the bridge to meet the requirements of the plans and specifications including, but not limited to, the requirements for bridge deck smoothness.
Prior to formwork construction, the Contractor shall submit three (3) copies of a proposed BRIDGE SUPERSTRUCTURE CONSTRUCTION PLAN to the Director of Structures, State Bridge Engineer for review, through the Project Engineer. This submittal shall include all calculations, assumptions and parameters used by the Contractor to determine bridge girder deflections and form grade elevations. This submittal shall also include an erection and construction procedure that addresses the construction means and methodologies used by the Contractor and shall consider effects including, but not limited to, construction phasing, pouring schedules, applied permanent and construction loading, and shall include calculations and details of temporary girder bracing systems used to ensure girder stability and to counter the effects of girder tilt.
After girder erection and prior to deck construction, the Contractor shall submit deck thickness verification calculations for each girder. These calculations shall include a comparison of the erected girder top flange profiles versus the plan deck grade elevations over each girder plus the anticipated girder deflection due to applied permanent dead load and creep.
Three (3) copies of the deck thickness verification calculations and any proposed remediation measures to correct for thin deck areas shall be submitted to the Director of Structures, State Bridge Engineer for review, through the Project Engineer. The BRIDGE SUPERSTRUCTURE CONSTRUCTION PLAN and the deck thickness verification calculations shall be prepared and stamped by a Mississippi Registered Professional Engineer.

DRAINAGE DATA:

Drainage area 7.2 sq. mi.
Total 050 (U.S.G.S.) 3150 c.f.s.
Effective area 1200 sq. ft.

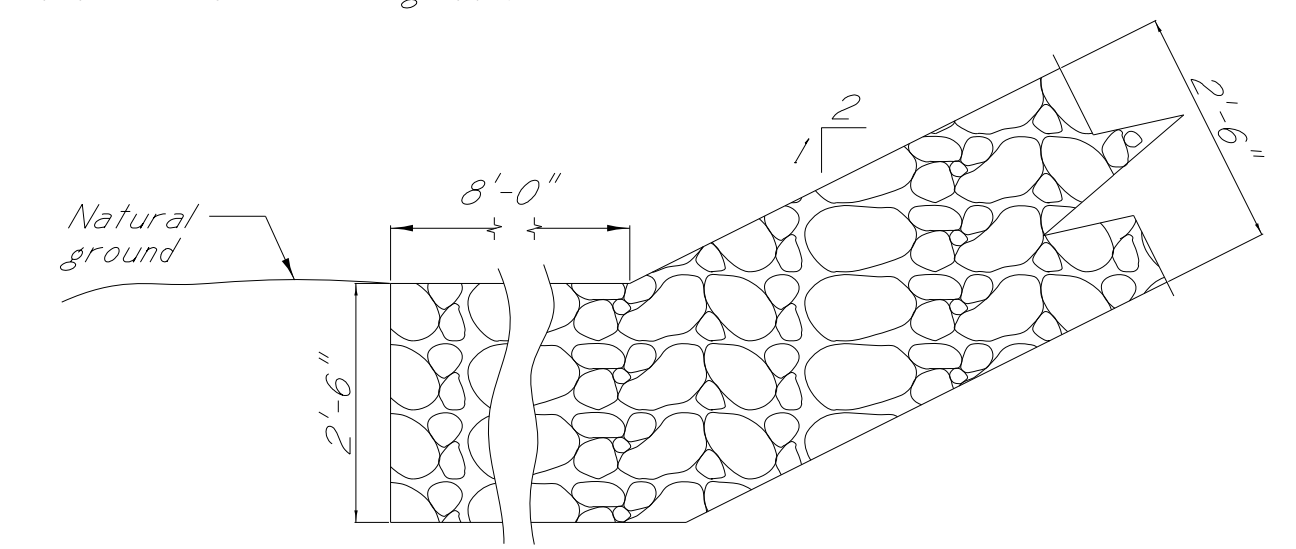
DESIGN DATA:

Specifications A.A.S.H.T.O., LRFD 2017
Loading HL-93
Roadway width 44'-0" Gutter to gutter
Concrete Class "AA" (4,000 p.s.i.)
Class "BD" (4,000 p.s.i.)
Stay-in-Place metal forms . . . 18lbs./ft (between flanges)
Seismic performance zone . . . 1
Seismic soil site class C
Seismic operational class . . . Other

Bent No.	Pile type	Req'd Bearing (Tons)	Pile Size	Estimated Length (ft.)	*Min Tip Elevation	Estimated Tip Elevation	Controlling Limit State
1	Steel	130	HP 14x117	55	375.2	347.2	STRENGTH I
2	Steel	206	HP 14x117	80	348.1	320.1	STRENGTH I
3	Steel	206	HP 14x117	80	348.1	320.1	STRENGTH I
4	Steel	130	HP 14x117	55	375.7	347.2	STRENGTH I

* NOTE:
Minimum tip elevation based on 500 year scour.

NOTE: Ultimate bearing capacities shown include the additional skin friction required to drive through the subsurface material above the 100 year scour.



RIPRAP LAYOUT DETAILS

NOTE: Geotextile fabric is required under all riprap

Item	Transverse Grooving	Conventional Static Loading Test	HP 14x117 Piling	PDA Test Pile	Pile Restrike	Class AA Bridge Concrete	Class BD Bridge Concrete	100 Ft. Prest. Conc. Beam BT-54	Reinforce-ment	Concrete Railing	Loose Riprap (300#)	Geotextile Under Riprap	Location		
													S.Y.	Each	L.F.
Spans	1333.33														
End Bents			1705.0	1	1	80.50	398.82	1788.50	101,454	600.00					
Int. Bents		1.0	1840.0	1	1	51.78			12,220	4.33	1704.0	1118.0			
Total	1333.33	1.0	3545.0	2	2	132.28	398.82	1788.50	118,202	604.33	1704.0	1118.0			

Bent no.	Elevation
1	395.2
2 & 3	368.1
4	395.7

Bent No.	Min. Lgth.-Ft.	Tip Elevation
1	65	335.0
2	90	310.6



MISSISSIPPI DEPARTMENT OF TRANSPORTATION
BRIDGE "A" AT STA. 1506+58.88
SR 35 OVER BOKSHENYA CREEK
GENERAL NOTES, QUANTITIES, & LAYOUT

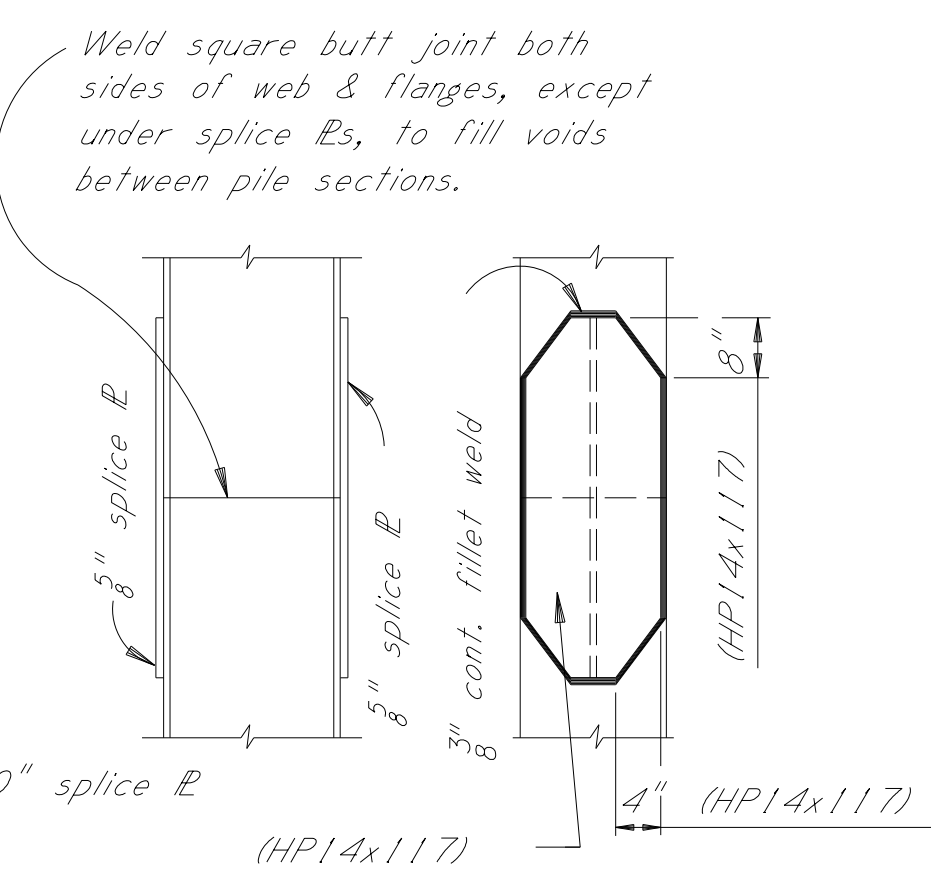
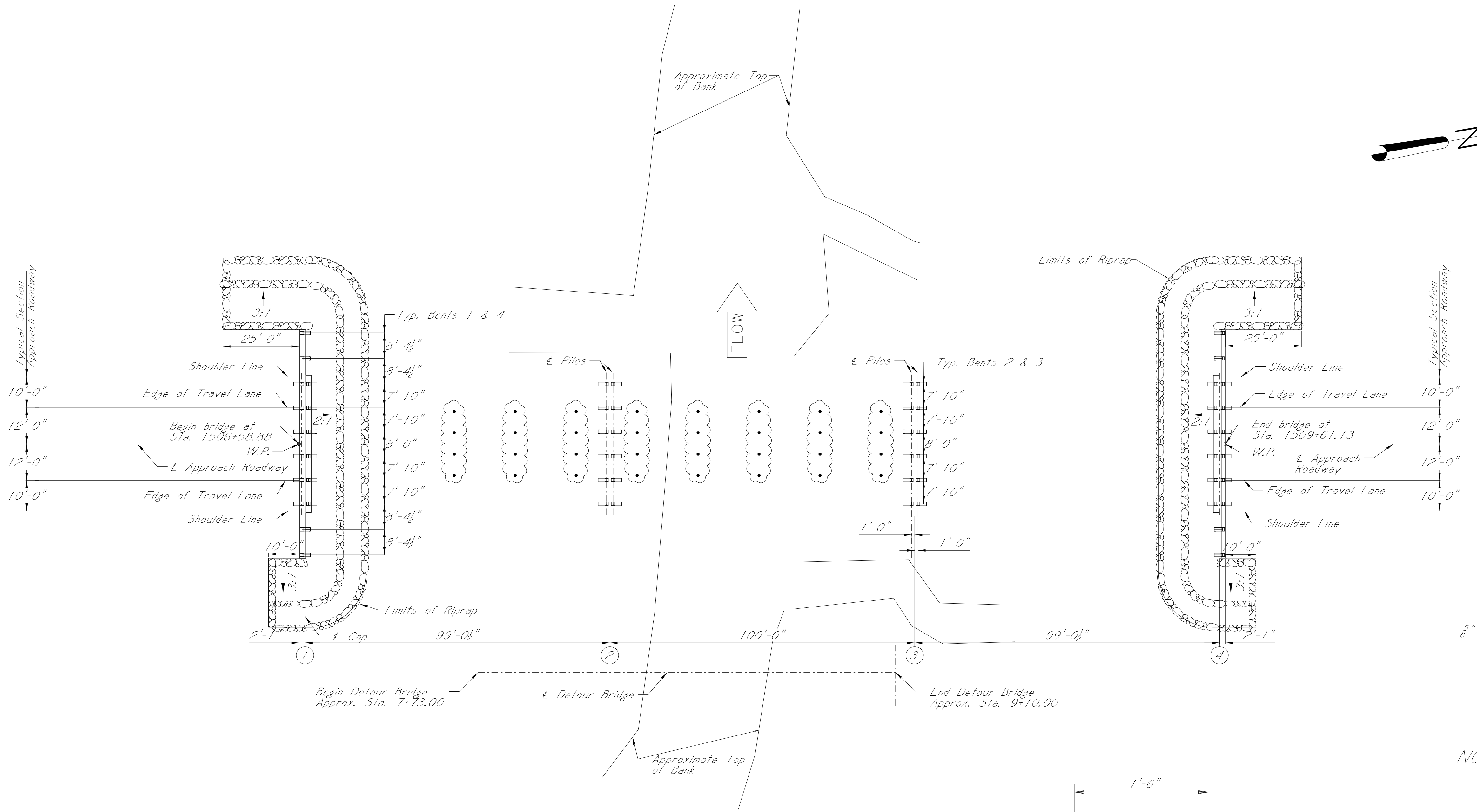
FMS: 103334 / 301000
COUNTY: ATTALA
PROJECT NUMBER: BR-0023-02(058)

DESIGNER: JONATHAN KING
CHECKER: SPENCER YATES
ISSUE DATE: 6/12/2019

DIRECTOR OF STRUCTURES, STATE BRIDGE ENGINEER - JUSTIN WALKER, P.E.
DEP. DIR. OF STRUCTURES, ASST. STATE BRIDGE ENGINEER - SCOTT WESTERFIELD, P.E.

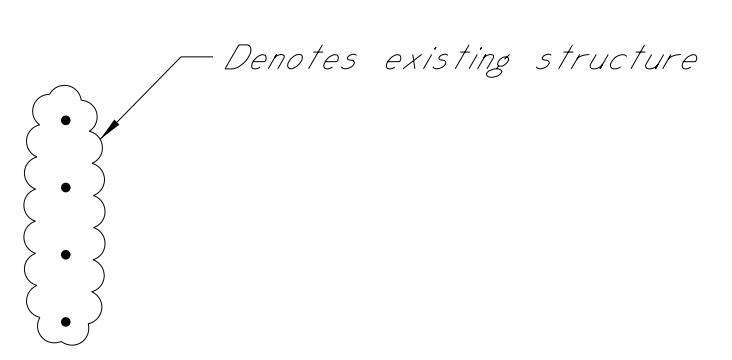
WORKING NUMBER
A1 OF A10
SHEET NUMBER
8003

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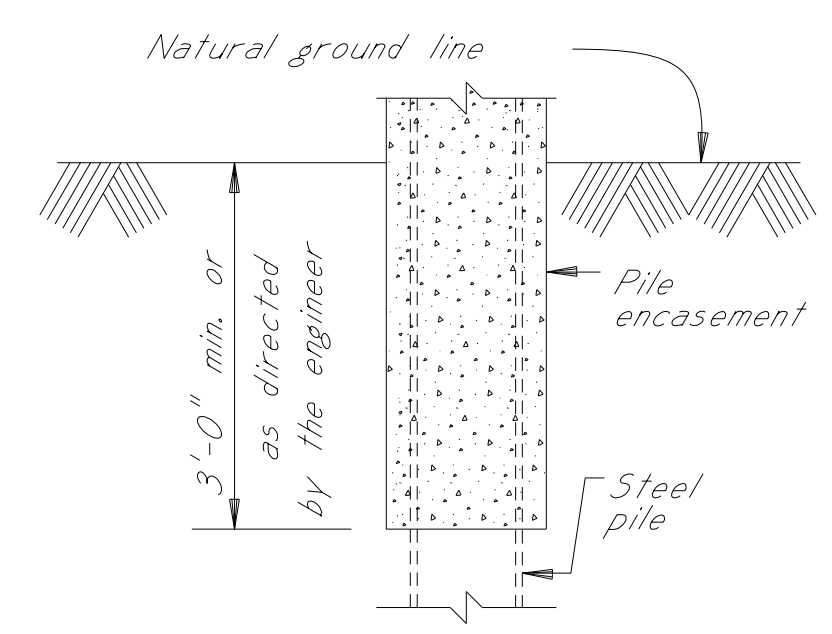
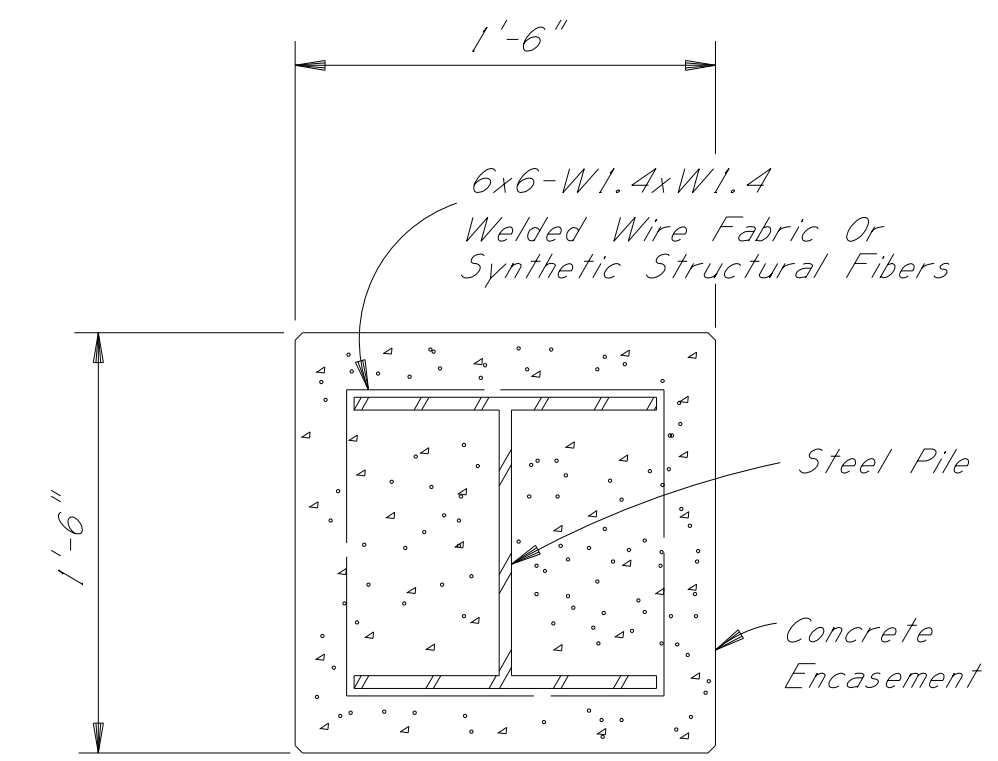


PILE SPLICE DETAIL
HP14x117 steel piles

NOTE: In lieu of splice plates, prefabricated splicers may be used. Prefabricated splicers shall be submitted for approval by the Director of Structures, State Bridge Engineer.



FOUNDATION PLAN
Scale: 1" = 20'-0"



Concrete For Pile Encasement Shall Be Class "AA" And Will Be Paid For As Bridge Concrete. Class "AA" Concrete With #67 Aggregate May Be Used For Pile Encasement.
Pile Encasement Shall Be Reinforced With 6x6-W1.4xW1.4 Welded Wire Fabric Weighing 0.21 Lbs. Per Sq. Ft. (Not A Separate Pay Item) Or Synthetic Structural Fiber Applied At A Dosage Rate Of 4 Lbs. Per Cubic Yd. Synthetic Structural Fiber Shall Meet Requirements Of Section 711 Of The Standard Specifications (Not A Separate Pay Item). Chamfer Corners Of Encasement $\frac{3}{4}$ ".

PILE ENCASEMENT DETAIL
HP14x117 Steel Piles

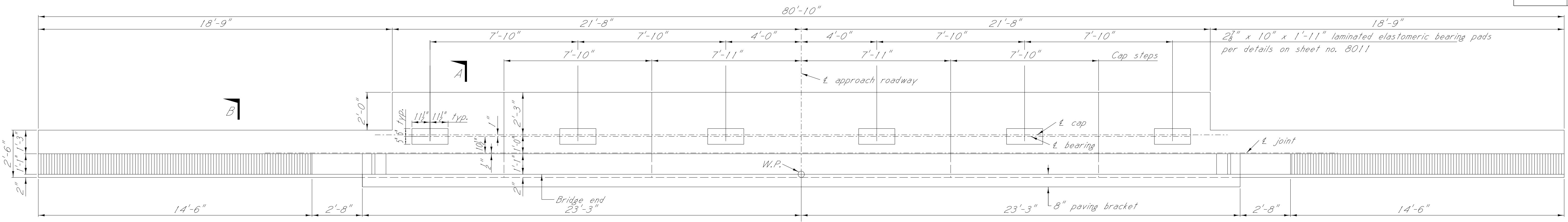
NOTE:
For general notes, quantities, and additional details, see Sheet No. 8003.

NOTE:
Geotextile fabric is required under all riprap. All riprap and geotextile fabric shown on the bridge plans are included in the bridge quantities.

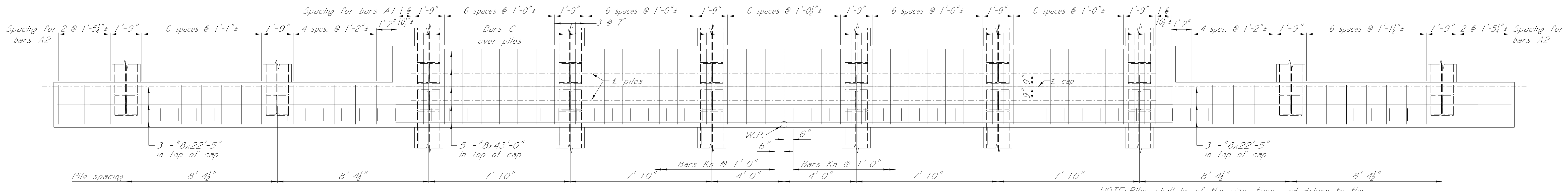


MISSISSIPPI DEPARTMENT OF TRANSPORTATION	
BRIDGE "A" AT STA. 1506+58.88	
SR 35 OVER BOKSHENYA CREEK	
FOUNDATION PLAN	
FMS: 103334 / 301000	WORKING NUMBER
COUNTY: ATTALA	A2 OF A10
PROJECT NUMBER: BR-0023-02(058)	SHEET NUMBER
DESIGNER: JONATHAN KING	8004
CHECKER: SPENCER YATES	
DATE: 6/12/2019	
DIRECTOR OF STRUCTURES, STATE BRIDGE ENGINEER - JUSTIN WALKER, P.E.	
DEP. DIR. OF STRUCTURES, ASST. STATE BRIDGE ENGINEER - SCOTT WESTERFIELD, P.E.	

001: 00 AHPM.DGN\FLENAME MISSISSIPPI DEPARTMENT OF TRANSPORTATION PROJECT PLAN SECTION

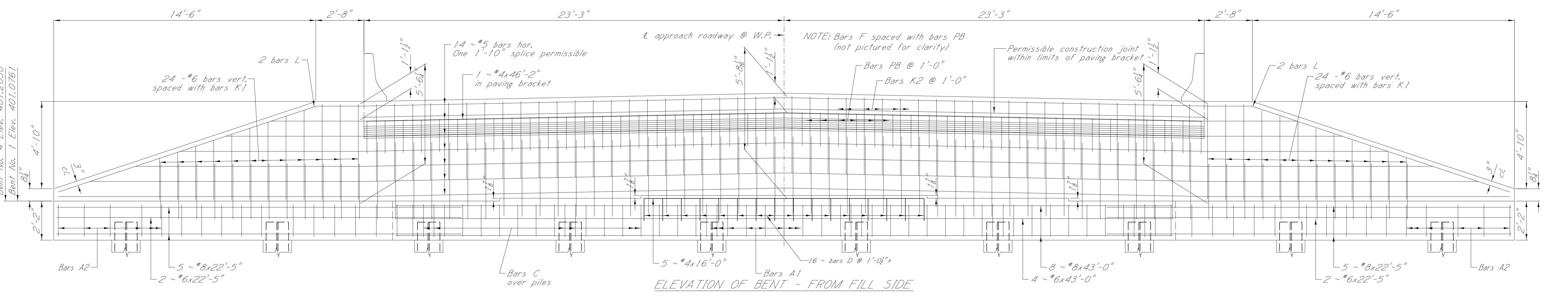


PLAN OF BENT
Showing concrete dimensions, cap steps, & lam. pad placement



PLAN OF CAP
Showing reinforcing steel in top of cap & pile spacing

NOTE: Piles shall be of the size, type, and driven to the minimum bearing capacity as shown on the layout sheet. Batter all piles 2" per foot as shown.

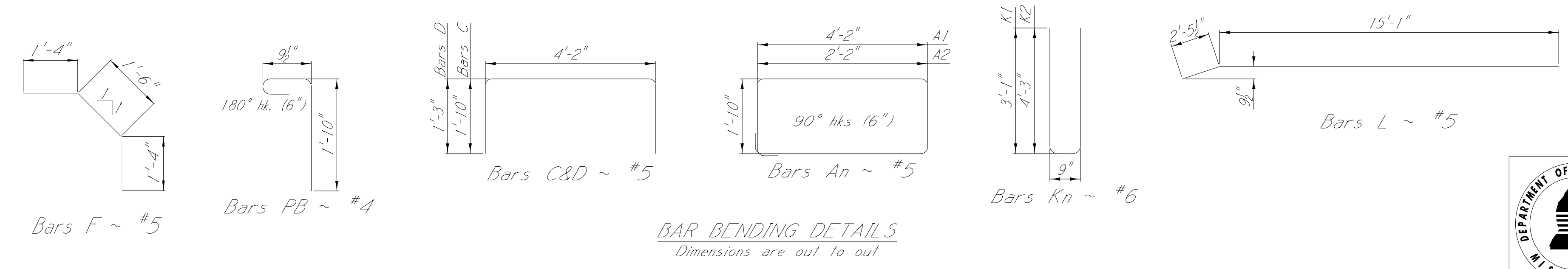


ELEVATION OF BENT - FROM FILL SIDE

NOTE:
Vertical dimensions shown are measured along fill face of end wall (bridge end).

For GENERAL NOTES and other details see sheet no. 8006

SPLICE NOTE:
Long bars may be spliced as follows:
#6: 2'-3"
#8: 3'-3"



BAR BENDING DETAILS
Dimensions are out to out



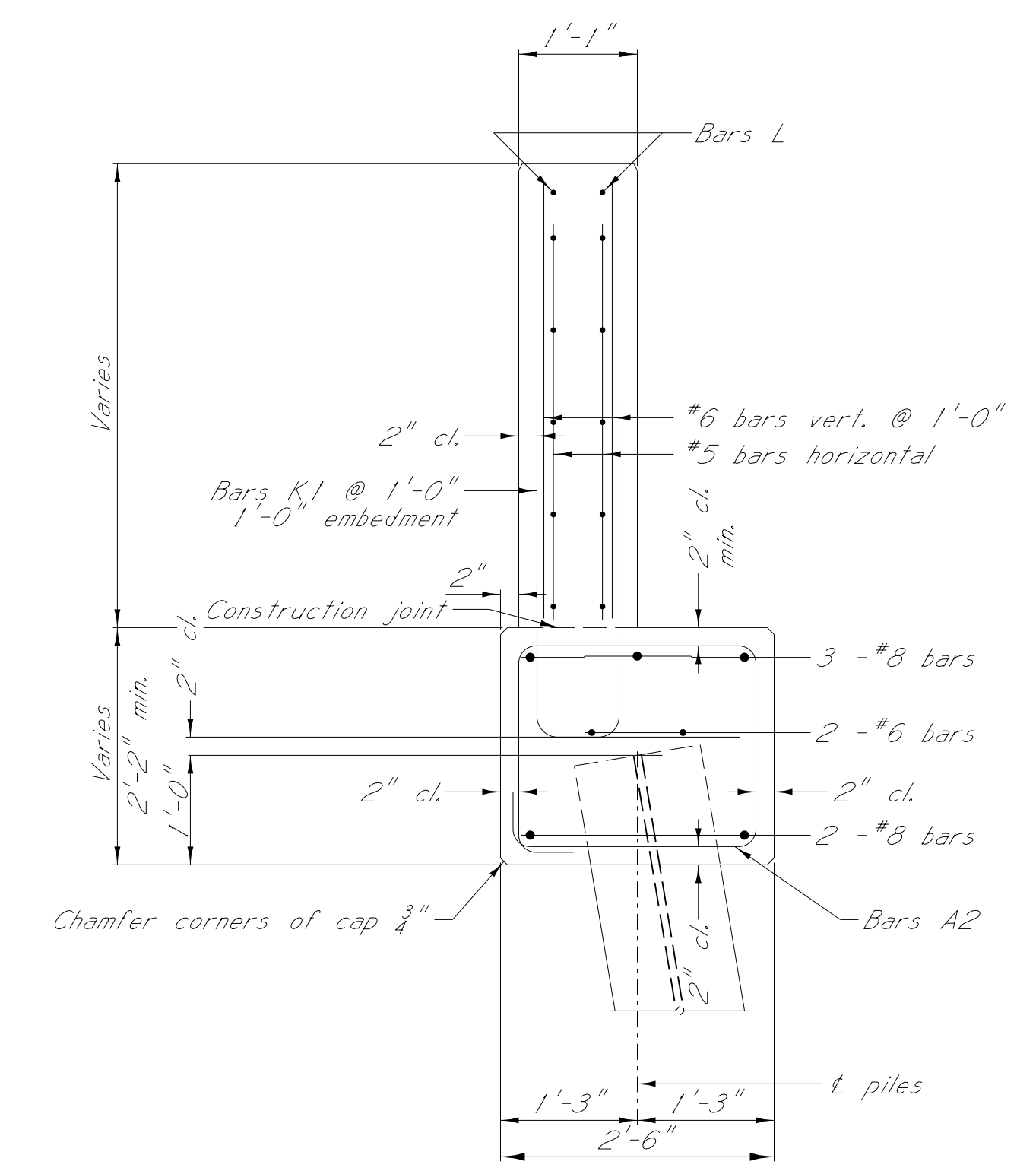
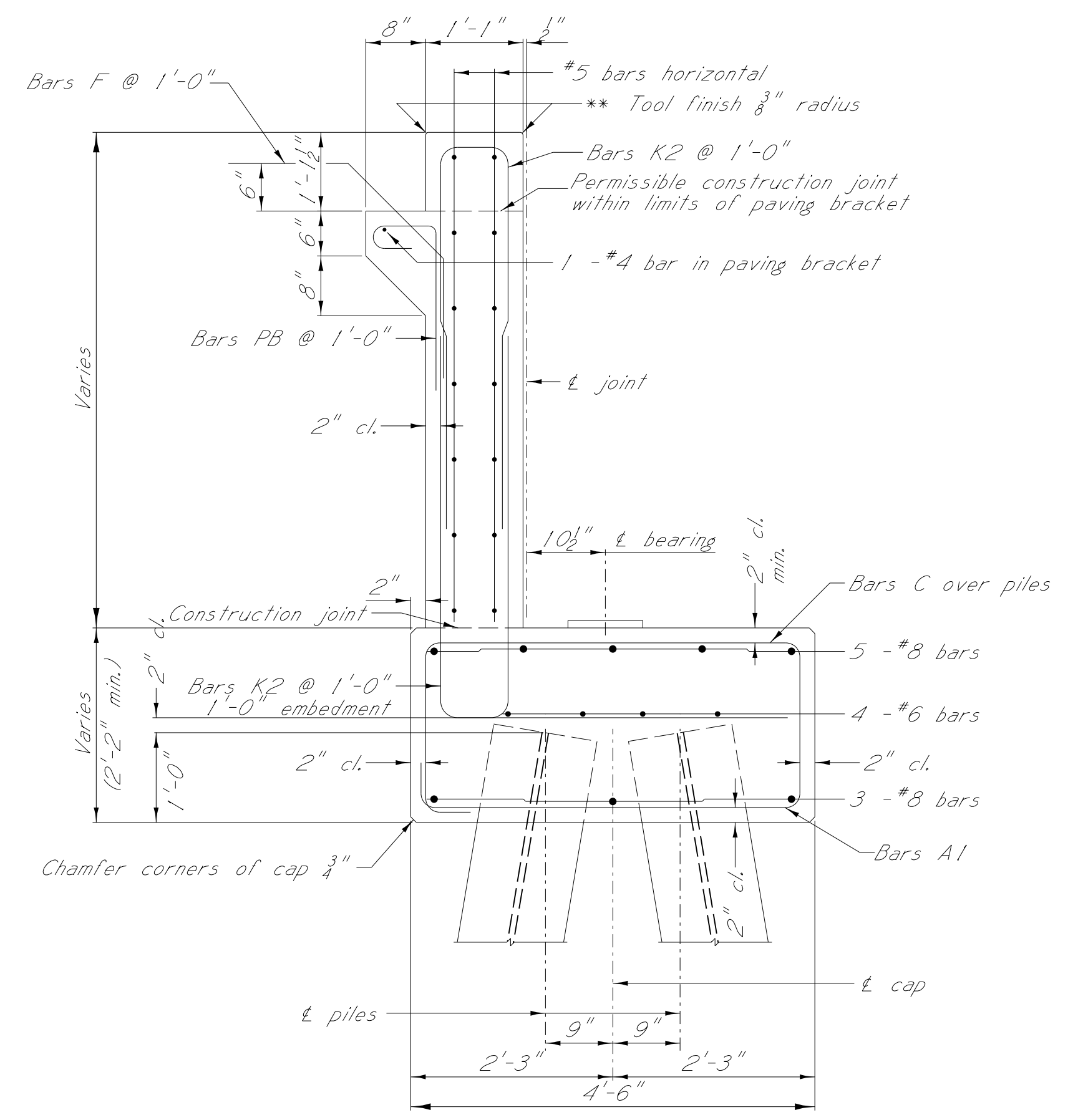
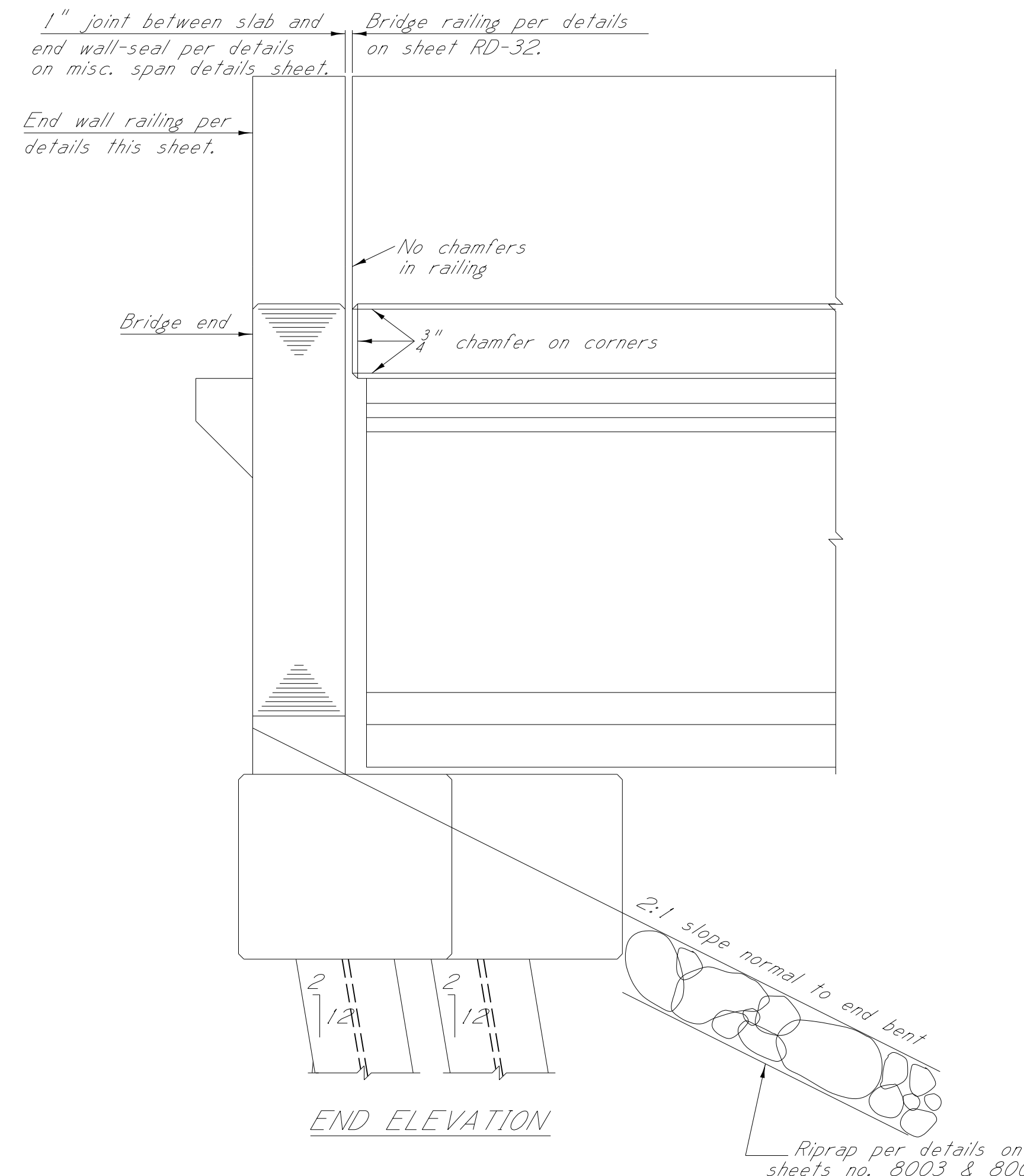
MISSISSIPPI DEPARTMENT OF TRANSPORTATION	
BRIDGE "A" AT STA. 1506+58.88	
END BENTS NO. 1 & 4 DETAILS	
DESIGNER JONATHAN KING	CHECKER SPENCER YATES
DATE 6/12/2019	ISSUE DATE 6/12/2019
DIRECTOR OF STRUCTURES, STATE BRIDGE ENGINEER - JUSTIN WALKER, P.E.	
DEP. DIR. OF STRUCTURES, ASST. STATE BRIDGE ENGINEER - SCOTT WESTERFIELD, P.E.	
FMS: 103334 / 301000	COUNTY: ATTALA
PROJECT NUMBER: BR-0023-02(058)	WORKING NUMBER
	A3 OF A10
	SHEET NUMBER
	8005

001: 00 ANPM DGN FILE NAME

PROJECT PLAN SECTION MISSISSIPPI DEPARTMENT OF TRANSPORTATION

Bent No. 4 Elev. 401.2030

Bent No. 1 Elev. 401.0761

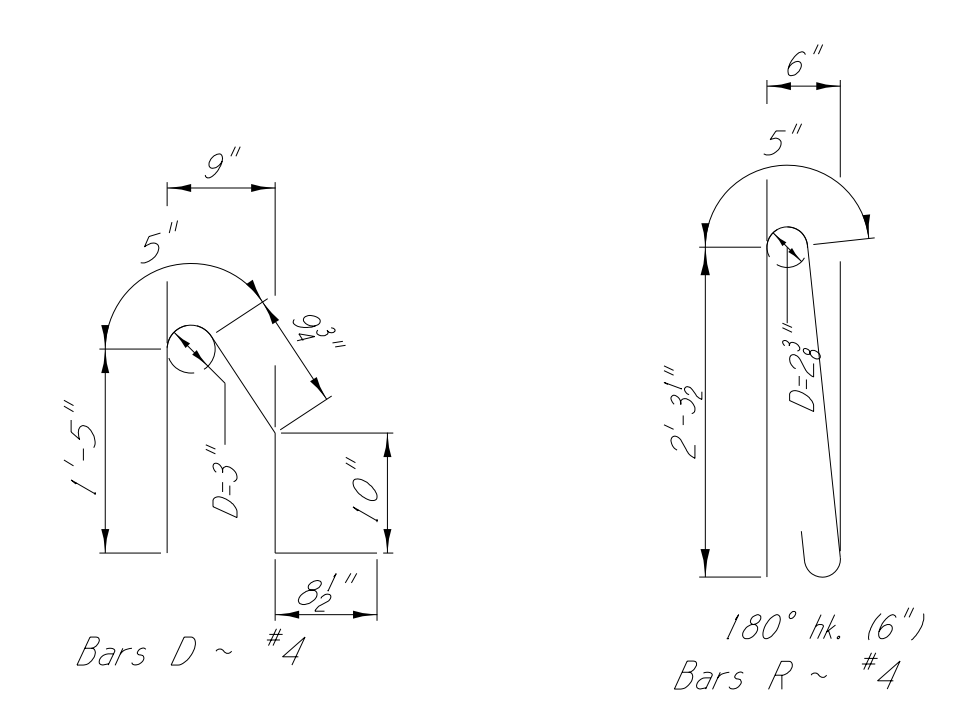


END ELEVATION

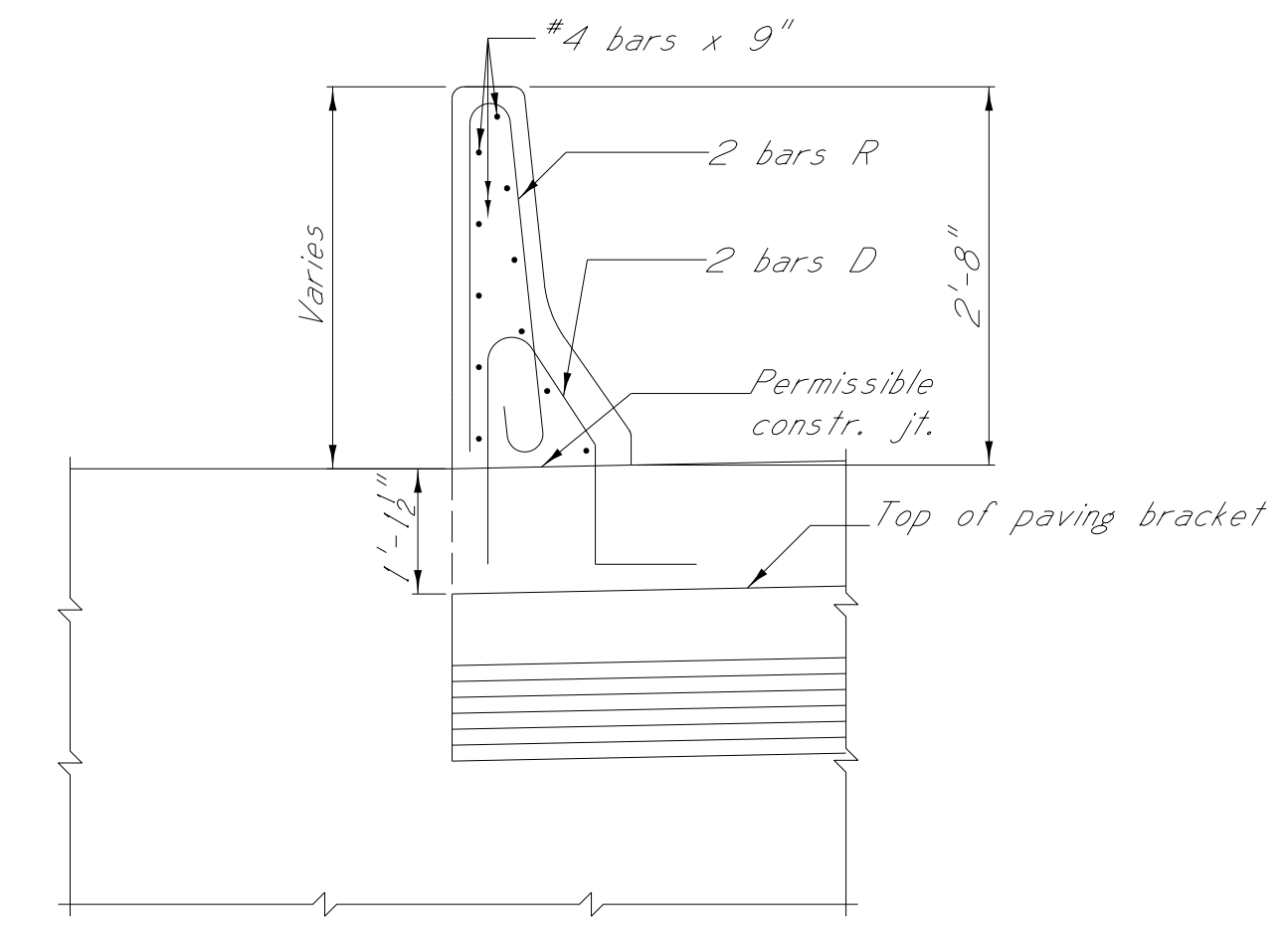
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SECTION B-B

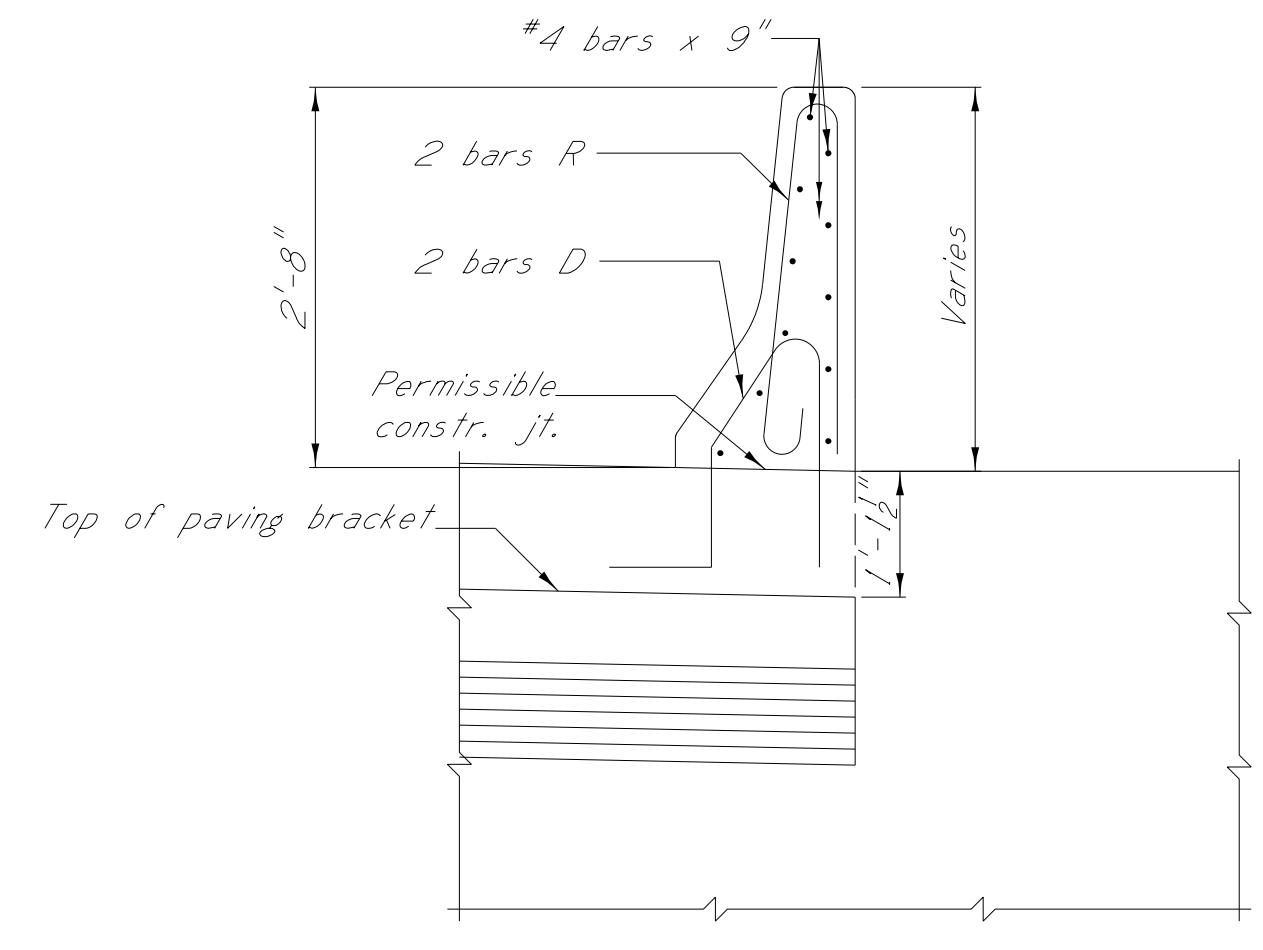
****NOTES:** 1/4" seat required. See sealing details on sheet no. 8010.



BAR BENDING DETAILS
All dimensions are out to out



LEFT END WALL RAILING
Viewed from fill face of end wall



RIGHT END WALL RAILING
Viewed from fill face of end wall

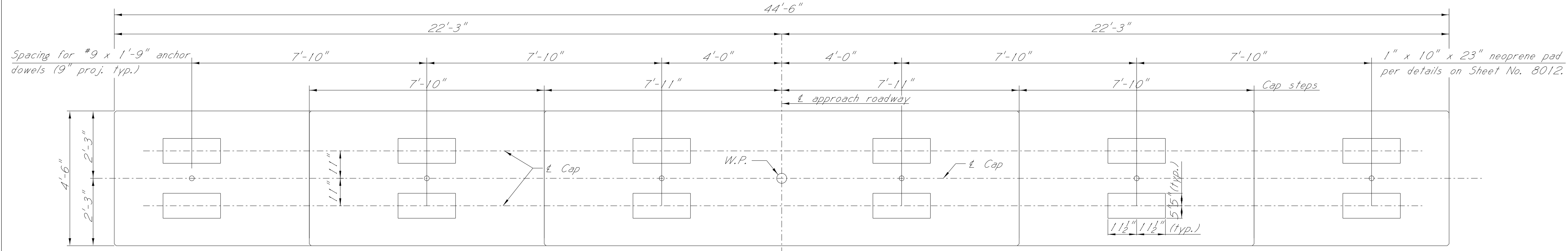
GENERAL NOTES:
All concrete in end bents shall be class "AA".
Chamfer all edges 3/4", unless otherwise noted.
Portion of end wall between top of cap and permissible construction joint shall be constructed after placement of prestressed concrete beams. Portion of end wall above permissible construction joint shall not be constructed until bridge deck is in place and forms removed.
Piles for end bents shall not be driven until bridge end fill has been constructed to grade.
Dimensions from reinforcing steel to concrete surfaces are clear distances.



MISSISSIPPI DEPARTMENT OF TRANSPORTATION BRIDGE "A" AT STA. 1506+58.88 END BENT DETAILS		
DATE	DESIGNER JONATHAN KING	CHECKER SPENCER YATES
DATE	DETAILER JONATHAN KING	ISSUE DATE 6/12/2019
	DIRECTOR OF STRUCTURES, STATE BRIDGE ENGINEER - JUSTIN WALKER, P.E. DEP. DIR. OF STRUCTURES, ASST. STATE BRIDGE ENGINEER - SCOTT WESTERFIELD, P.E.	

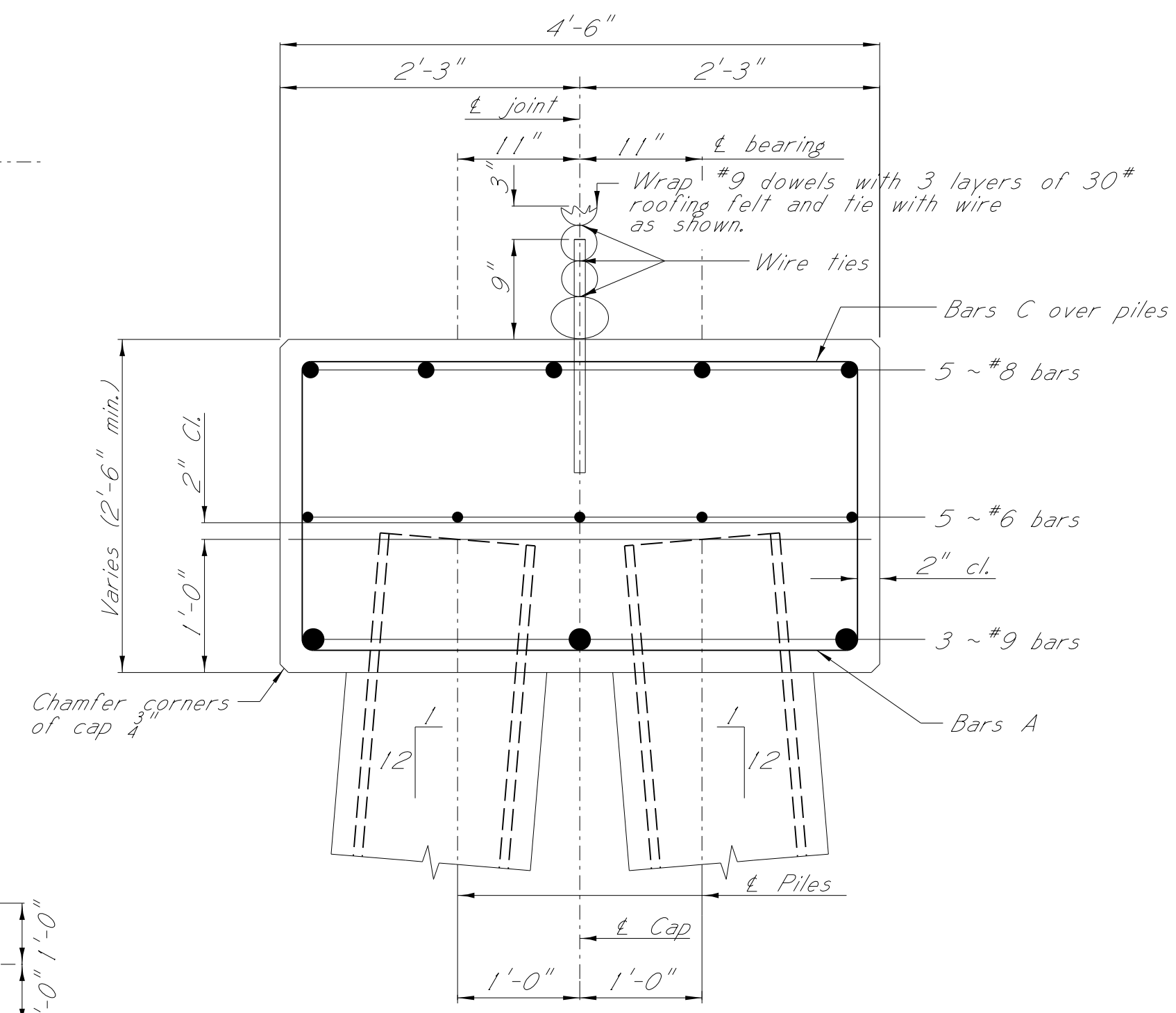
REVISION	BY	DATE
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FMS:	103334 / 301000
COUNTY:	ATTALA
PROJECT NUMBER:	BR-0023-02(058)
WORKING NUMBER	A4 OF A10
SHEET NUMBER	8006

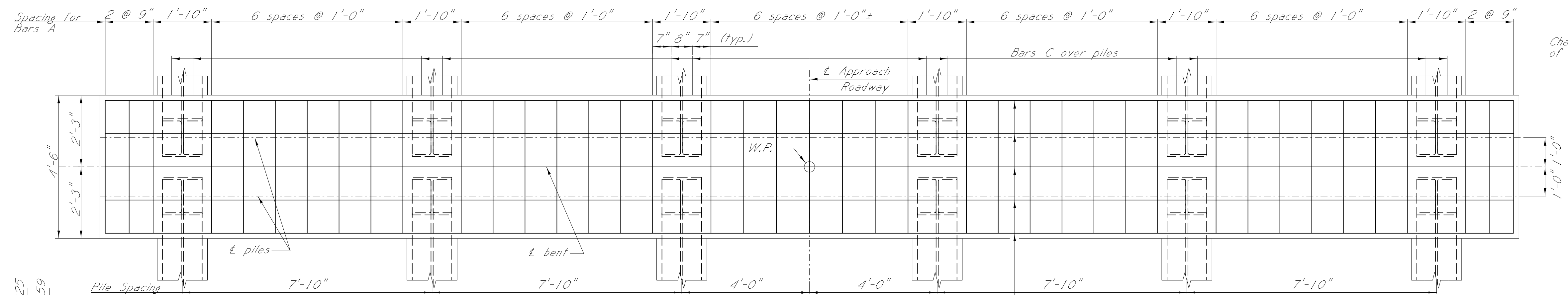


PLAN OF INTERMEDIATE BENT
Showing concrete dimensions, cap steps, anchor dowels, and neoprene pad placement

NOTE: That portion of top of cap directly beneath the diaphragm shall have a smooth trowelled finish.

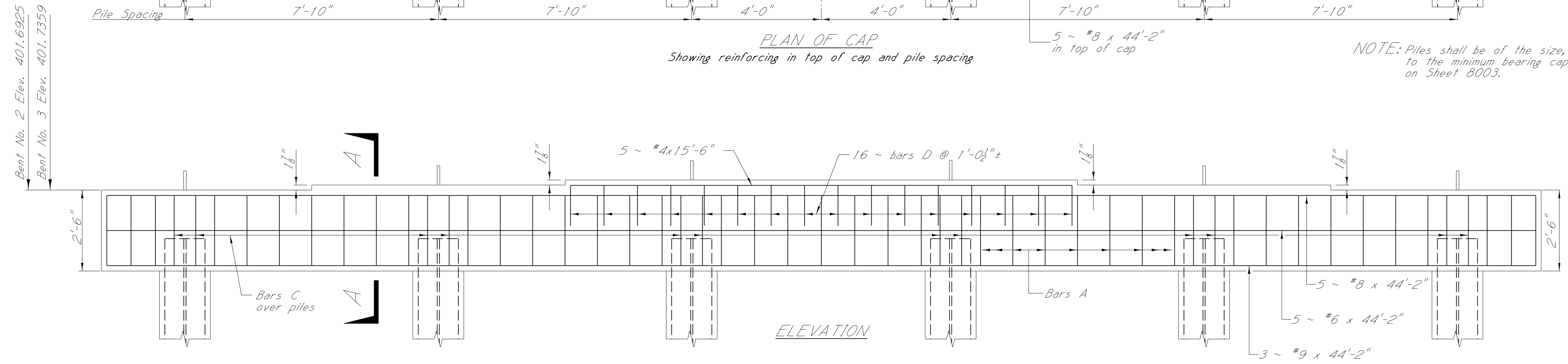


SECTION A-A



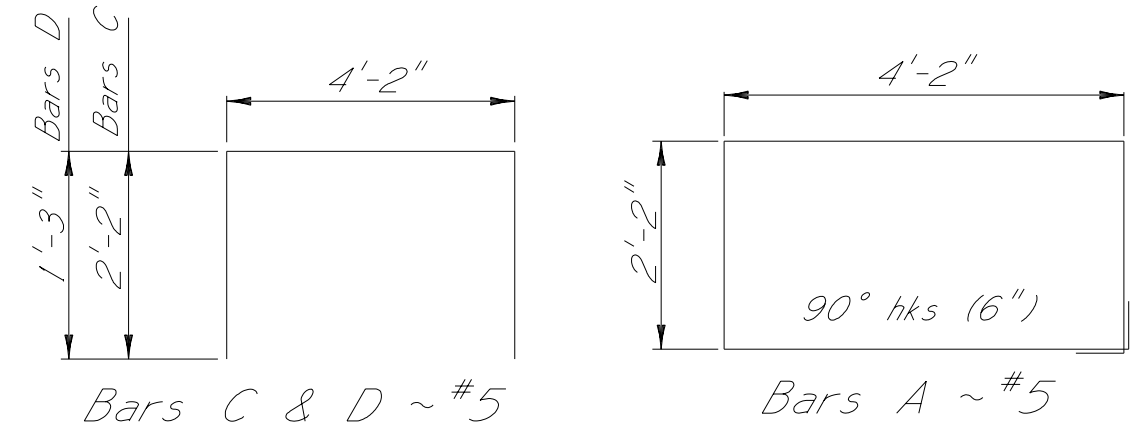
PLAN OF CAP
Showing reinforcing in top of cap and pile spacing

NOTE: Piles shall be of the size, type and driven to the minimum bearing capacity as shown on Sheet 8003.



ELEVATION

GENERAL NOTES:
All concrete in cap shall be class "AA".
Chamfer all edges 3/4" unless otherwise noted.
Placing dimensions from reinforcing steel to concrete surfaces are clear distances.



BAR BENDING DETAILS
Dimensions are out to out



BY MISSISSIPPI DEPARTMENT OF TRANSPORTATION	
BRIDGE "A" AT STA. 1506+58.88	
INT. BENTS NO. 2 & 3 DETAILS	
REVISION	FMS: 103334 / 301000
	COUNTY: ATTALA
	PROJECT NUMBER: BR-0023-02(058)
DATE	DESIGNER JONATHAN KING
	CHECKER SPENCER YATES
	ISSUE DATE 6/12/2019
	DIRECTOR OF STRUCTURES, STATE BRIDGE ENGINEER - JUSTIN WALKER, P.E.
	DEP. DIR. OF STRUCTURES, ASST. STATE BRIDGE ENGINEER - SCOTT WESTERFIELD, P.E.
	WORKING NUMBER
	A5 OF A10
	SHEET NUMBER
	8007

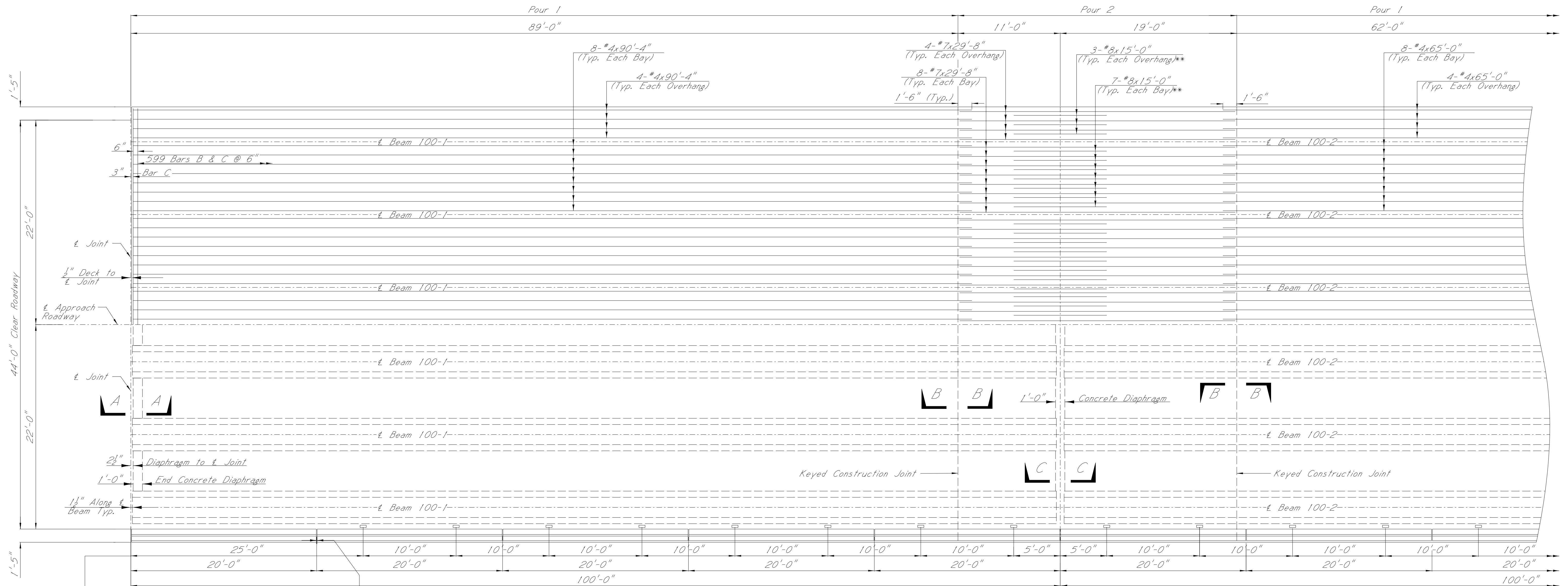
001: 00 ANPM DGN FILE NAME

PROCESSOR MISSISSIPPI DEPARTMENT OF TRANSPORTATION

NOTE:

The deck pouring schedule as shown on these plans is recommended and shall be used unless an alternative pouring sequence is submitted through the Project Engineer and approved by the Director of Structures, State Bridge Engineer.

****NOTE:** Symmetrical placed about \pm joint.



1" Open Joint In Railing - No Chamfers
Install 6'x1" Exp. Mat'l Per Detail on Sheet No. RD-32
(Typ. Each Side)

3" X 8" drain holes @10'-0" per details
on Sheet no. 8010 (Typ. Each Side)

PLAN OF 100 FT. SPAN NO. 1 & 3

Top half showing longitudinal reinforcing in top of slab.
Bottom half showing concrete dimensions.
Drawn for Span 1 and Span 3 similar by orientation.

PART PLAN OF 100 FT. SPAN NO. 2

Top half showing longitudinal reinforcing in top of slab.
Bottom half showing concrete dimensions.
Span is symmetrical.

TABLE OF RAILING BARS END SPANS NO. 1 & 3		TABLE OF RAILING BARS INT. SPAN NO. 2	
Mark	No.	Mark	No.
D	350	D	350
R	350	R	350

Note: Per Span

***SPlice NOTE:**
Longitudinal bars in deck may be lap spliced as follows:
#4 ~ 1'-6"
#5 ~ 1'-8"

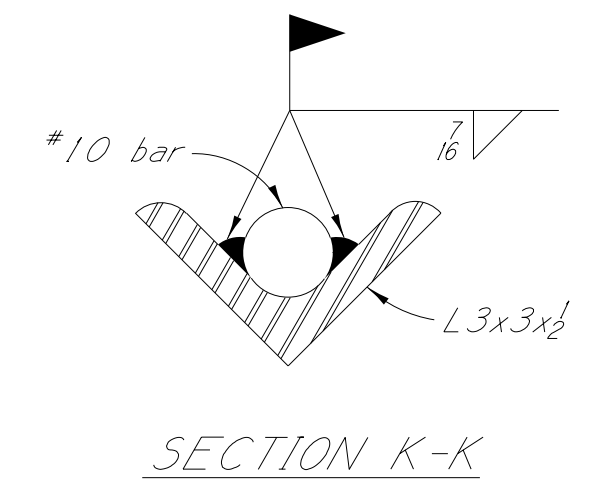
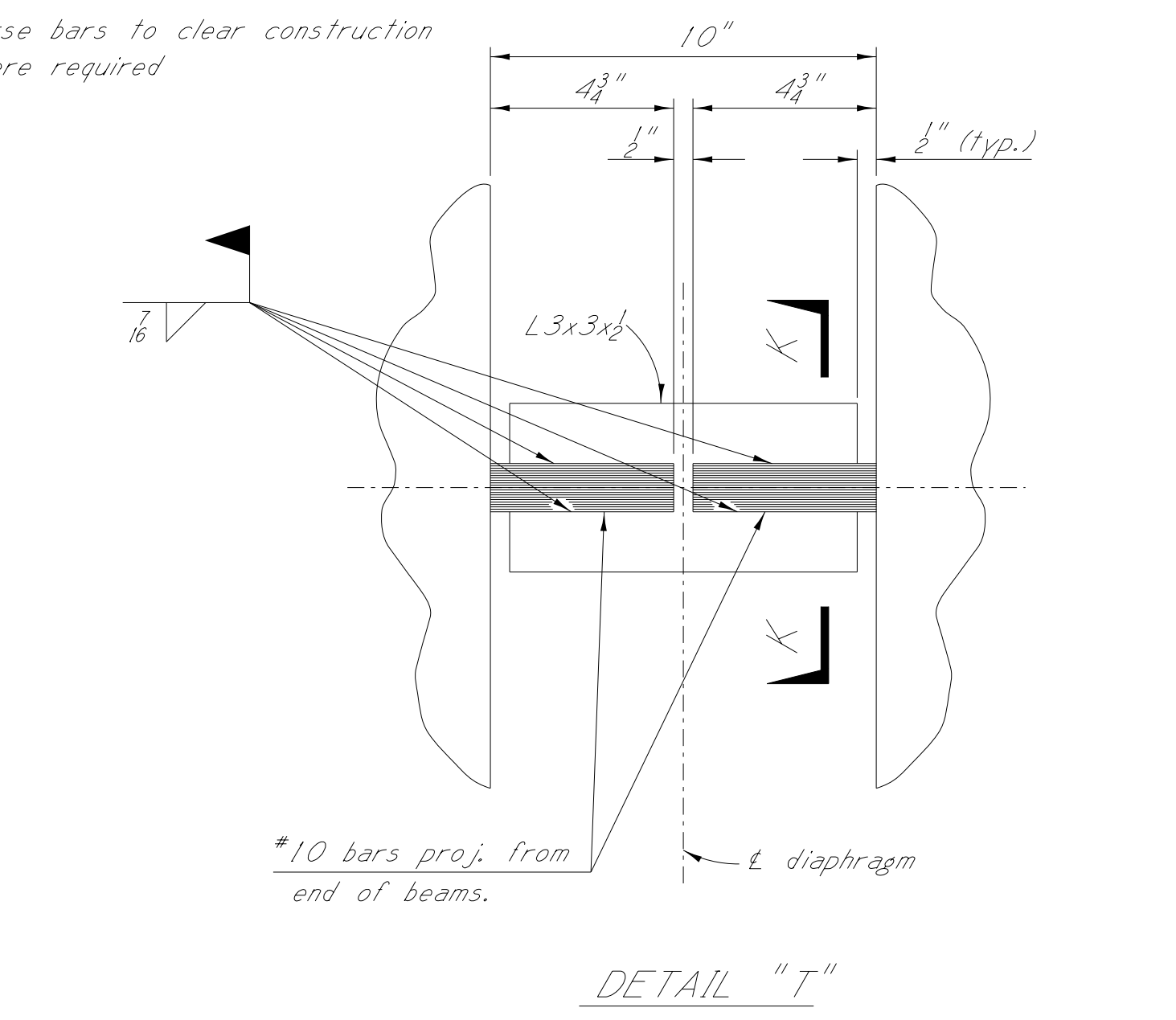
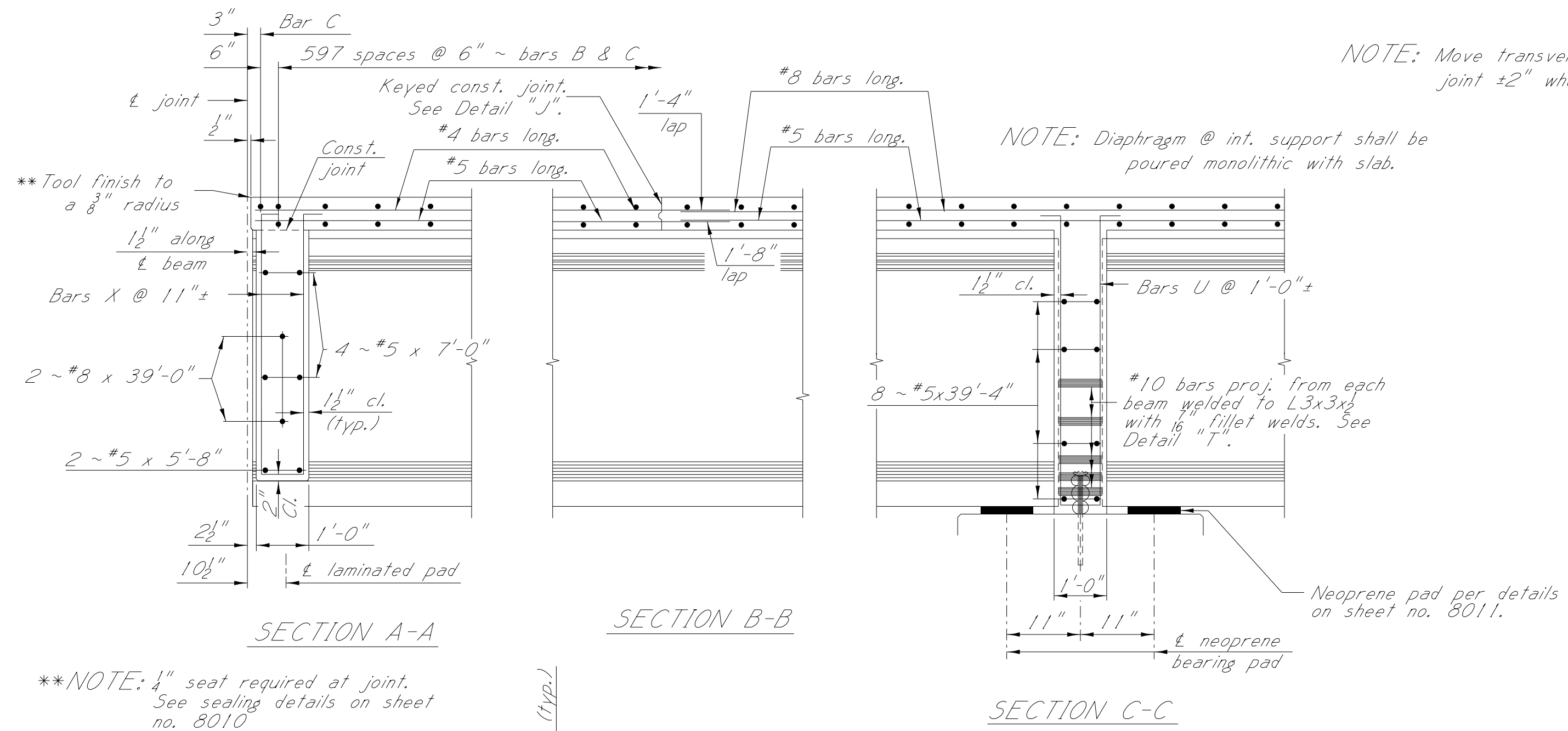
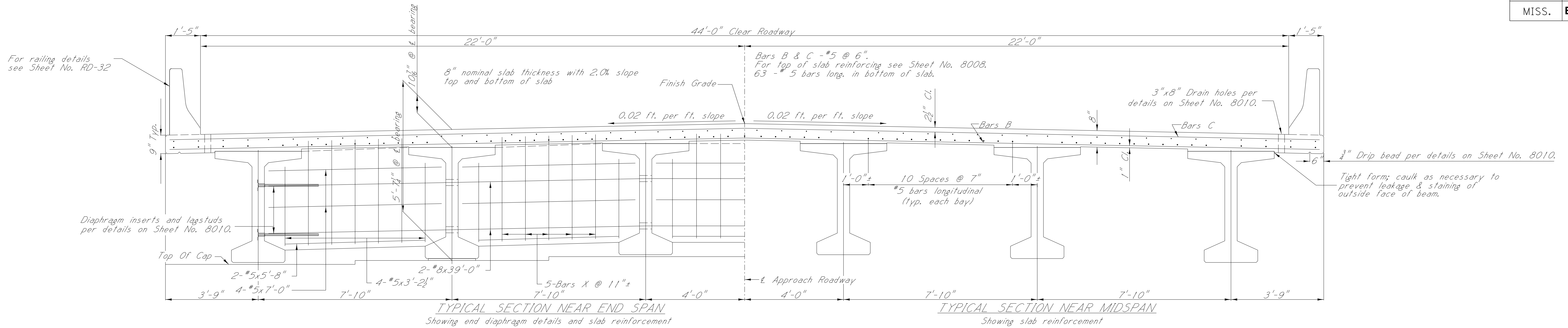
NOTE: For general notes and other span details
see Sheet no. 8010.



REVISION	BY	MISSISSIPPI DEPARTMENT OF TRANSPORTATION	
	DATE	BRIDGE "A" AT STA. 1506+58.88	
		PLAN OF 100 FT. SPANS NO. 1 THROUGH 3	
		WORKING NUMBER A6 OF A10	
		FMS: 103334 / 301000	SHEET NUMBER 8008
		COUNTY: ATTALA	
		PROJECT NUMBER: BR-0023-02(058)	
	DESIGNER JONATHAN KING	CHECKER SPENCER YATES	
	DETAILER JONATHAN KING	ISSUE DATE 6/12/2019	
	DIRECTOR OF STRUCTURES, STATE BRIDGE ENGINEER - JUSTIN WALKER, P.E.		
	DEP. DIR. OF STRUCTURES, ASST. STATE BRIDGE ENGINEER - SCOTT WESTERFIELD, P.E.		

001: 00 ANPM DGN FILE NAME

PROJECT MISSISSIPPI DEPARTMENT OF TRANSPORTATION

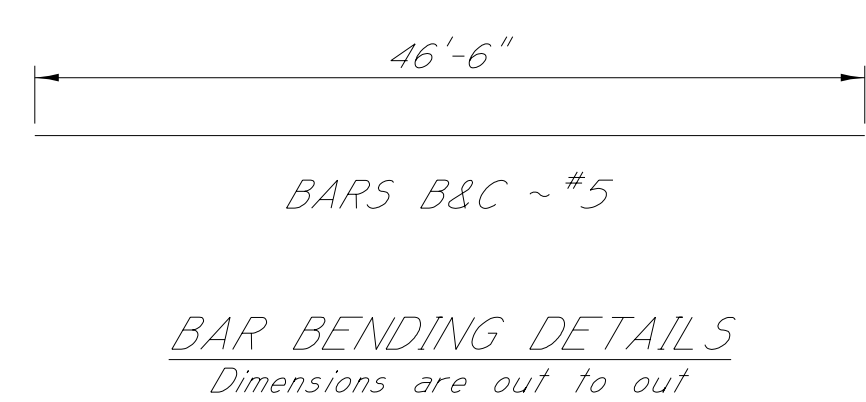
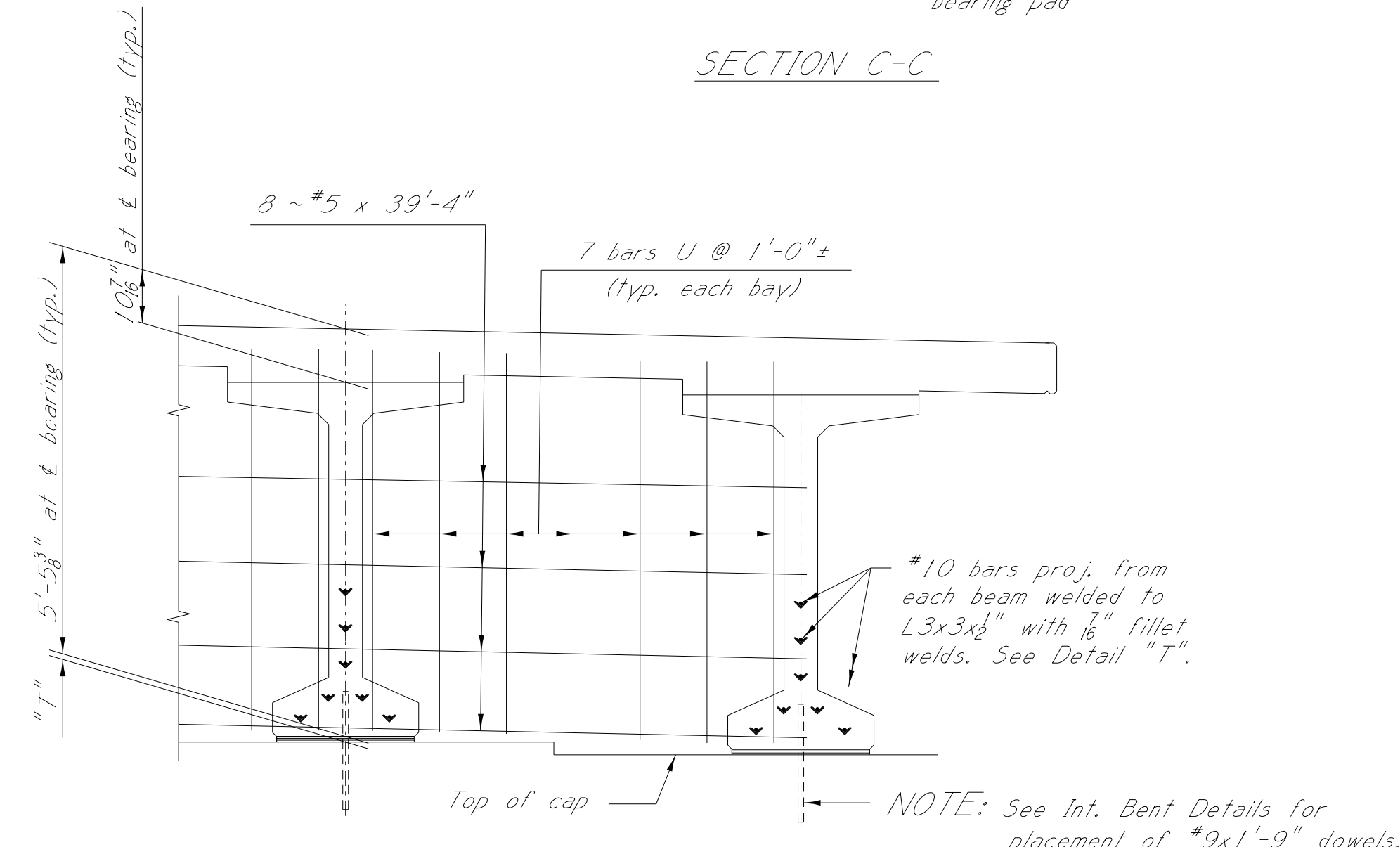
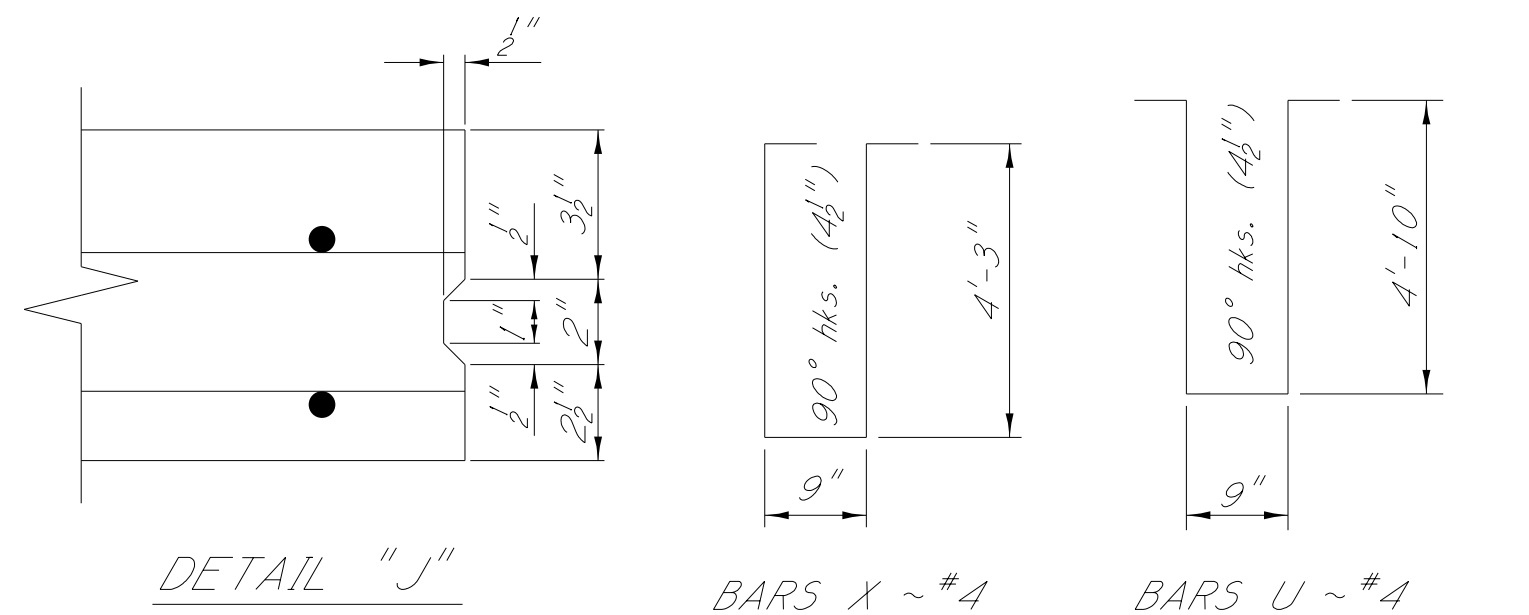


NOTE:
Contractor should be aware of possible tilting of exterior beams during construction of the superstructure and should take precautionary steps to prevent such tilting of beams.

NOTE:
Ensure that holes in beam webs are completely filled with diaphragm concrete.

NOTE:
The volume of concrete in the fillets between the bottom of the nominal slab and the top of the beams has been estimated by using 2/3 the fillet height, at the bearing, multiplied by the top flange width and the full length of the beam. This volume shall be used for final pay quantity. Any additional concrete required in the fillet resulting from an unexpected camber in the beam will not be directly paid for and shall be considered an absorbed item.

NOTE:
For GENERAL NOTES, Railing Details and other Typical Span Details see Sheets No. 8010 & RD-32.

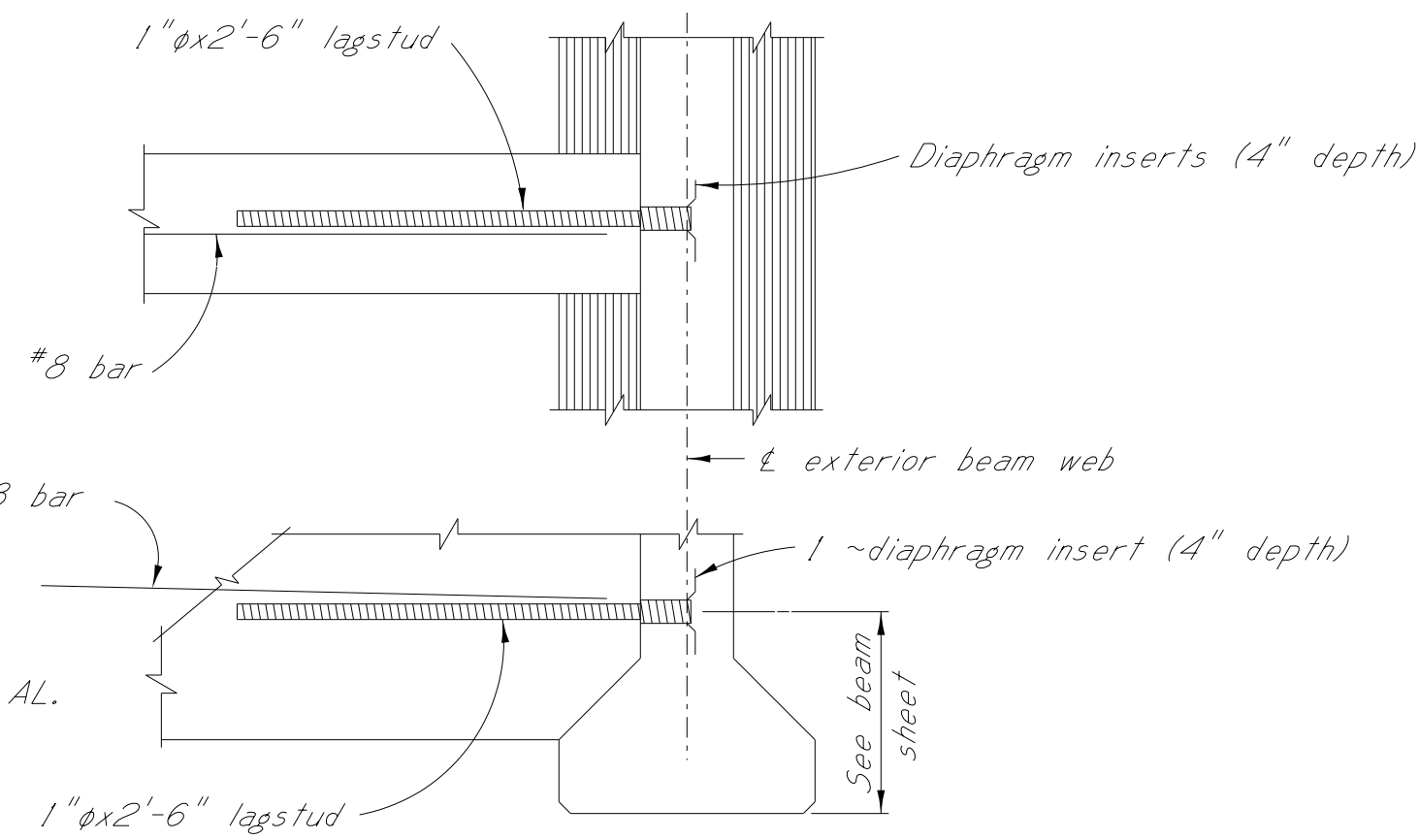


DESIGN DATA:
Specifications A.A.S.H.T.O. LRFD, 2017
Loading HL-93
Slab stresses f_s=24,000 p.s.i. ; f_c=1,600 p.s.i. ; n=8
Prestressed beam details . . . See sheets no. A9 & A10
Concrete Class "AA" (4,000 p.s.i.)
Class "BD" (4,000 p.s.i.)
NOTE: Class "BD" concrete shall be used in the spans & diaphragms.

BY MISSISSIPPI DEPARTMENT OF TRANSPORTATION	
BRIDGE "A" AT STA. 1506+58.88	
100 FT. SPAN DETAILS	
REVISION	FMS: 103334 / 301000
	COUNTY: ATTALA
	PROJECT NUMBER: BR-0023-02(058)
DATE	DESIGNER JONATHAN KING
	CHECKER SPENCER YATES
	DETAILER JONATHAN KING
	ISSUE DATE 6/12/2019
	DIRECTOR OF STRUCTURES, STATE BRIDGE ENGINEER - JUSTIN WALKER, P.E.
	DEP. DIR. OF STRUCTURES, ASST. STATE BRIDGE ENGINEER - SCOTT WESTERFIELD, P.E.
WORKING NUMBER	A7 OF A10
SHEET NUMBER	8009

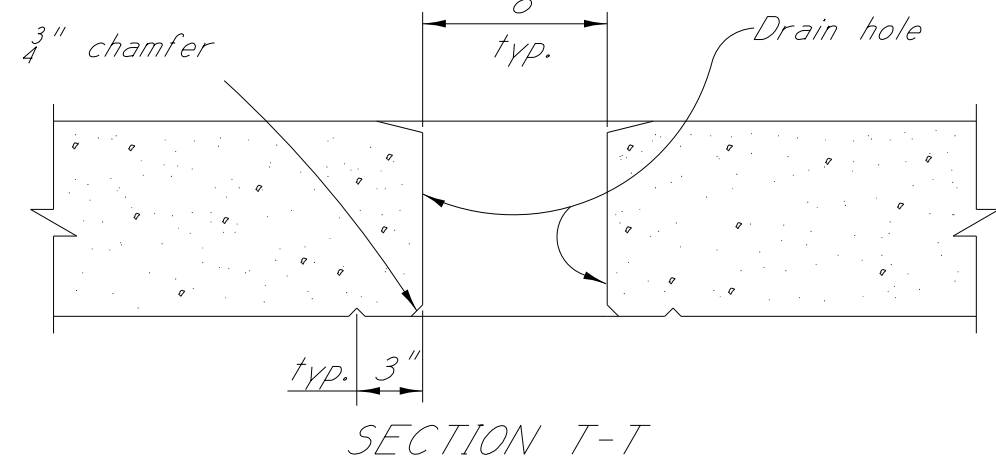
001: 00 ANPM DGN FILE NAME

PROJECT PLAN SECTION MISSISSIPPI DEPARTMENT OF TRANSPORTATION



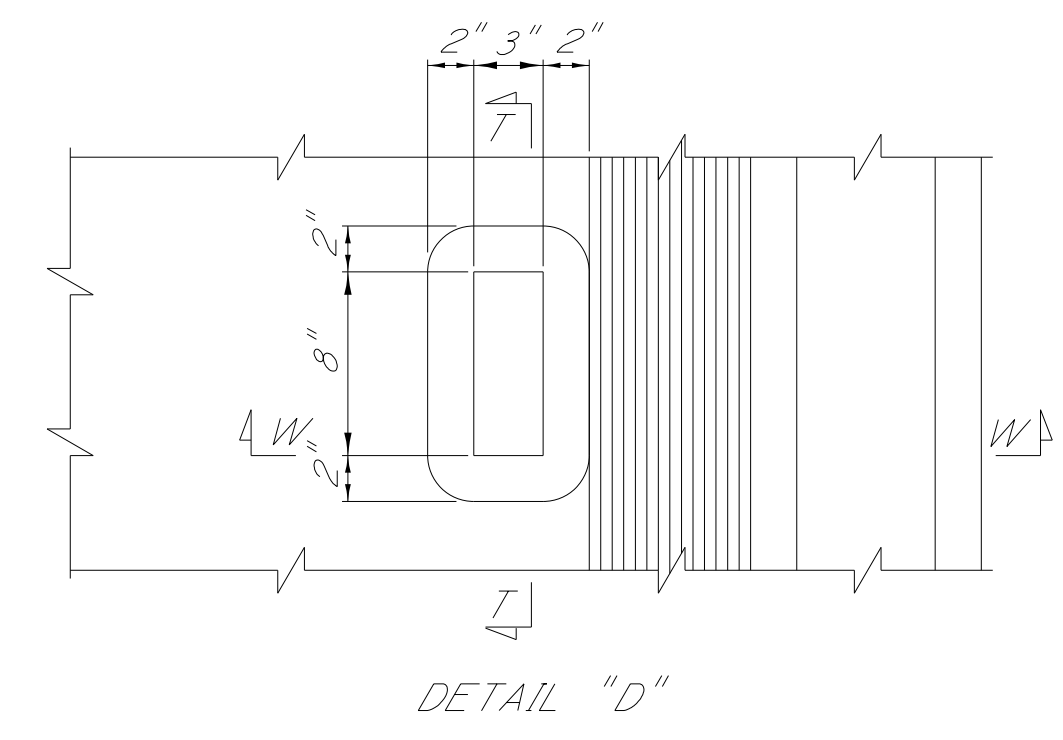
NOTE: Continuous threaded lagstuds and diaphragm inserts shall be as manufactured by the Richmond Screw Anchor Co., Inc., Atlanta, GA; By Meadow Steel Products Co., Inc., Birmingham, AL Or Dayton Superior Co., Inc., Birmingham, AL.

PART SECTION
DIAPHRAGM INSERT AND LAGSTUD DETAILS

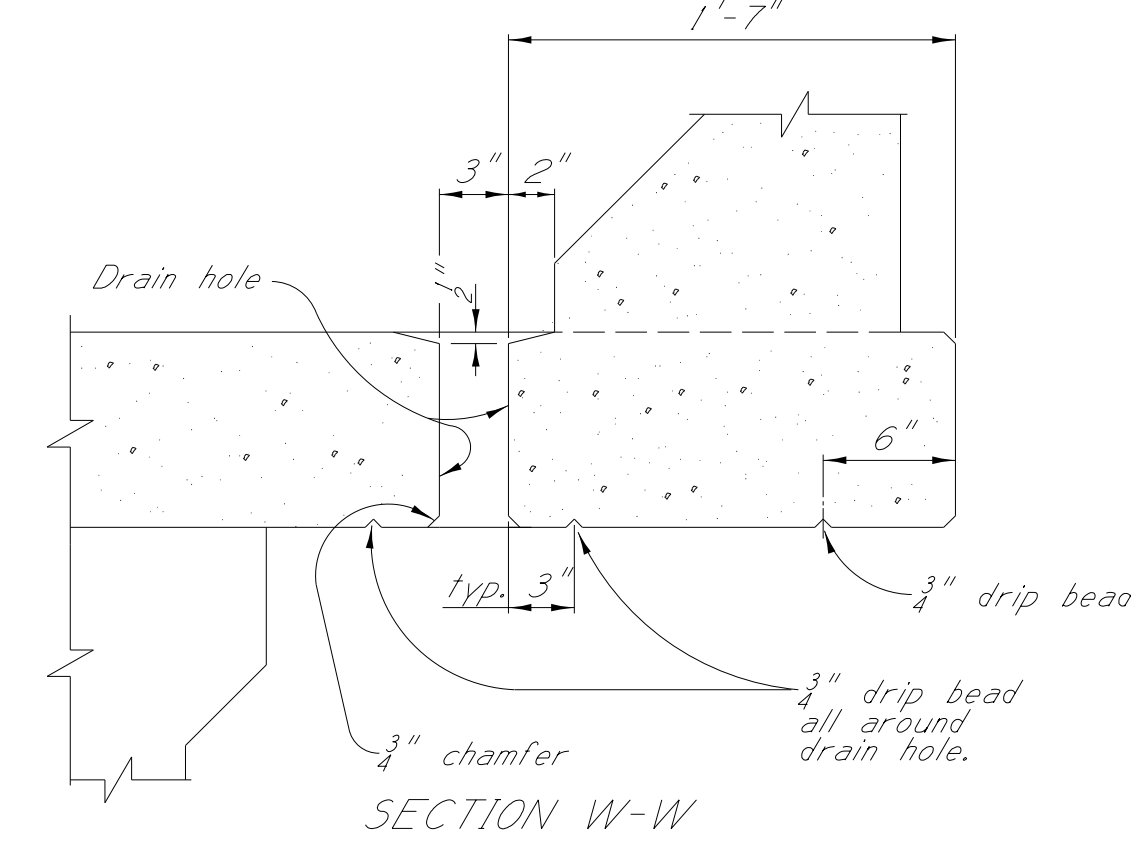


NOTE: Drain holes shall be located so that bars B & C will not be cut.

SECTION T-T

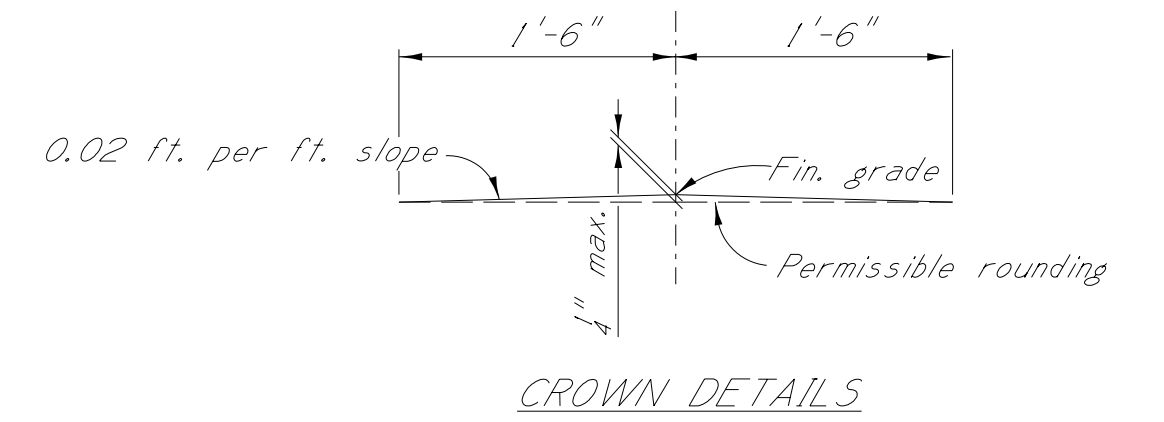


DETAIL "D"

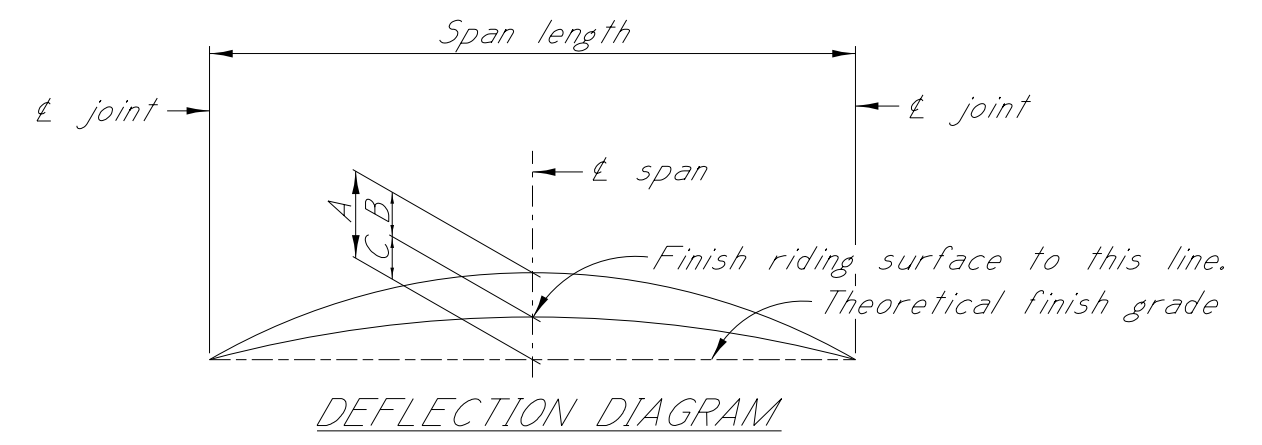


SECTION W-W

DRAIN HOLE DETAILS
Use where shown on the Span Detail sheet.



CROWN DETAILS



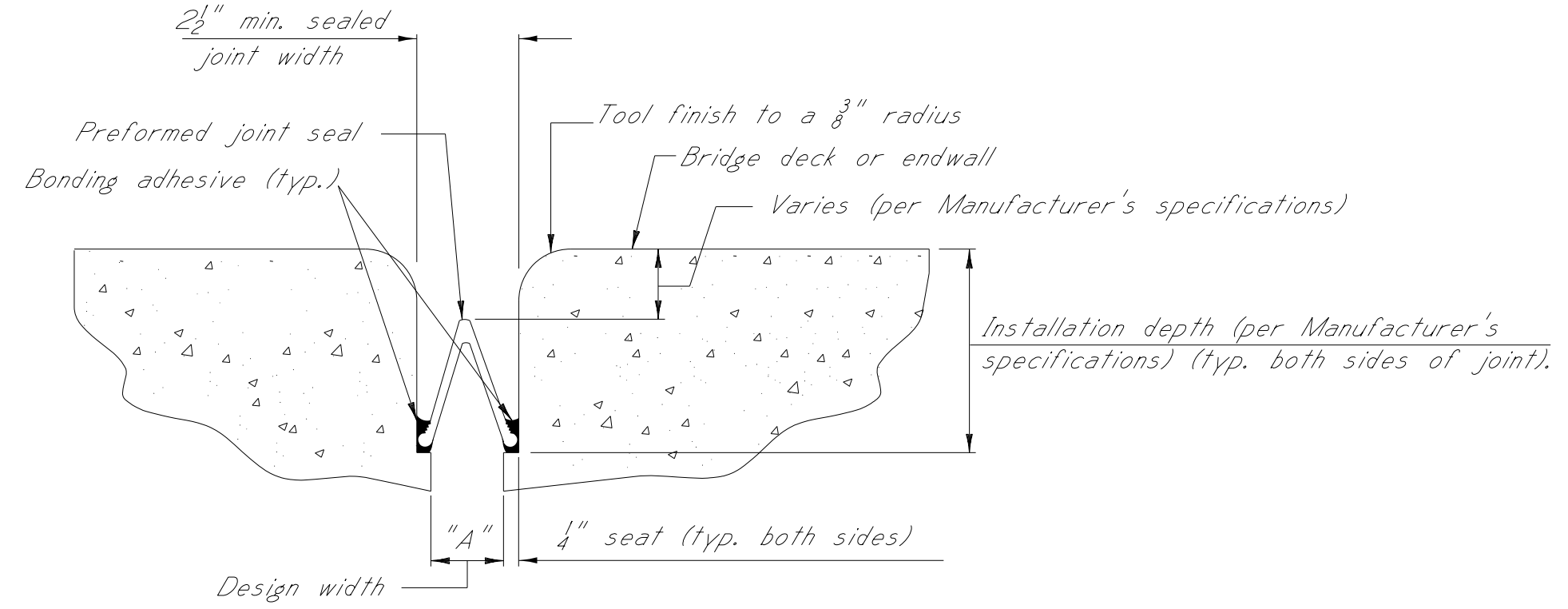
DEFLECTION DIAGRAM

A = total recommended allowance for deflection.
B = estimated deflection due to dead load of slab & rail.
C = A-B = net initial camber in riding surface, which includes an allowance or creep.

NOTE: For values of A, B & C, see Beam Detail sheets.

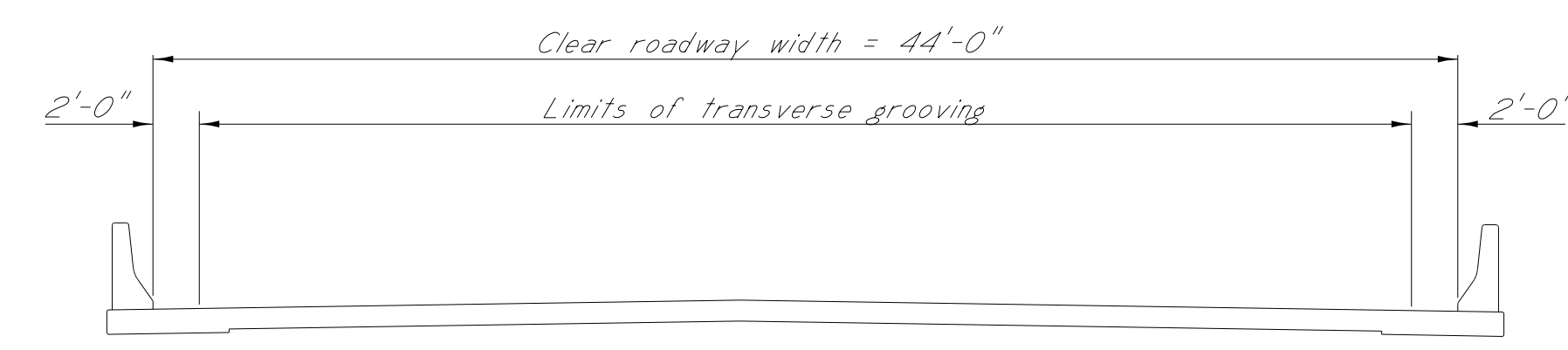
NOTE: The Girder Deflection Diagrams shown in these plans were prepared and intended for design and estimation purposes only. Actual bridge girder deflections may differ from the deflection diagrams shown in these plans. It is the Contractor's responsibility to construct the bridge to meet the requirements of the plans and specifications including, but not limited to, the requirements for bridge deck smoothness. Prior to formwork construction, the Contractor shall submit three (3) copies of a proposed BRIDGE SUPERSTRUCTURE CONSTRUCTION PLAN to the Director of Structures, State Bridge Engineer for review, through the Project Engineer. This submittal shall include all calculations, assumptions and parameters used by the Contractor to determine bridge girder deflections and form grade elevations. This submittal shall also include an erection and construction procedure that addresses the construction means and methodologies used by the Contractor and shall consider effects including, but not limited to, construction phasing, pouring schedules, applied permanent and construction loading, and shall include calculations and details of temporary girder bracing systems used to ensure girder stability and to counter the effects of girder tilt. After girder erection and prior to deck construction, the Contractor shall submit deck thickness verification calculations for each girder. These calculations shall include a comparison of the erected girder top flange profiles versus the plan deck grade elevations over each girder plus the anticipated girder deflection due to applied permanent dead load and creep. Three (3) copies of the deck thickness verification calculations and any proposed remediation measures to correct for thin deck areas shall be submitted to the Director of Structures, State Bridge Engineer for review, through the Project Engineer. The BRIDGE SUPERSTRUCTURE CONSTRUCTION PLAN and the deck thickness verification calculations shall be prepared and stamped by a Mississippi Registered Professional Engineer.

GENERAL NOTES:
All concrete in span shall be class "B0".
All concrete in railing shall be class "AA".
Chamfer all edges 4", unless otherwise noted.
See Layout sheet for finishing of concrete surfaces.
Placing dimensions for reinforcing steel to concrete surfaces are clear distances.
To determine the dimension from finish grade to cap, the assumption is made that the compressed thickness of the neoprene pad is as shown in table, and that the original camber of the beams will be within the limits shown on the Beam Detail sheets. The Director of Structures, State Bridge Engineer shall be notified if the cambers are not within these limits.



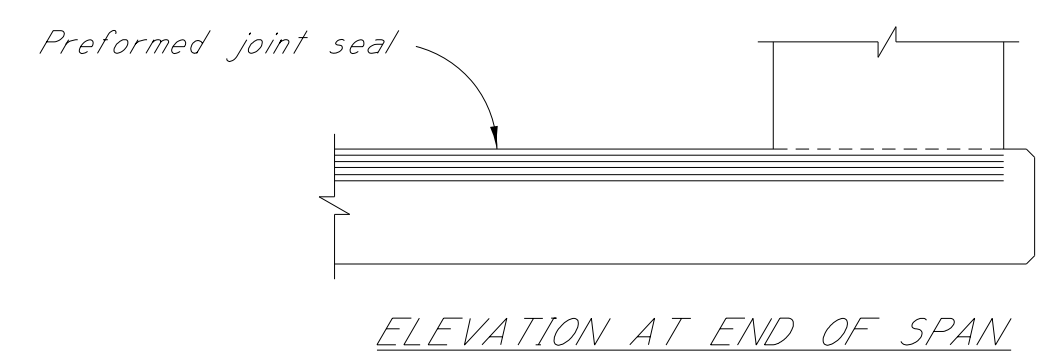
TYPICAL SECTION PREFORMED JOINT SEAL

- NOTES:
- Joint installation and sealing on newly constructed bridge decks shall not be paid for directly and shall be considered an absorbed item of work.
 - The preformed joint seal shall be one of the following, installed according to the Manufacturer's specifications:
 - Silicoflex Joint Sealing System, manufactured by R.J. Watson, Inc www.rjwatson.com
 - Wabo SPS Joint System manufactured by Watson Bowman Acme Corporation www.wbacorp.com
 - Silspec SSS Silicone Strip Seal manufactured by SSI Commercial & Highway Construction Materials www.ssicm.com
 - For estimating purposes, The RJ Watson Silicoflex Joint Sealing System was selected. However, should another supplier be chosen, it is the Contractor's responsibility to ensure that the Manufacturer's recommendations are followed for joint preparation, installation depths and widths, adhesive setting times, and any other variances between the specifications provided by the Manufacturers. A Manufacturer representative shall be present at the time joint sealing begins to ensure that the Contractor is properly schooled in installation of the joint material. All open joints shall be sealed at their design widths, dimension "A", as indicated on the end bent and span details.
 - Dimension "A" is defined as the design width of the joint opening, which does not account for the 1/4" seat required on both sides of the joint. Preformed Joint Seal, Type I, shall be used for design widths less than 2". Preformed Joint Seal, Type II, shall be used for design widths greater than or equal to 2", with the maximum design width being 2 1/2". In cases where design widths are greater than 2 1/2", another type of expansion material shall be required as directed by the Director of Structures, State Bridge Engineer.
 - Joints in newly constructed bridge decks shall be protected from damage until accepted for maintenance by the State. Damaged joints shall be repaired at no additional cost to the State.



LIMITS OF TRANSVERSE GROOVING

PAD THICKNESS TABLE	
PAD THICKNESS	COMPRESSED PAD THICKNESS
1"	15/16"
1 1/8"	1 1/16"
2 7/8"	2 3/16"

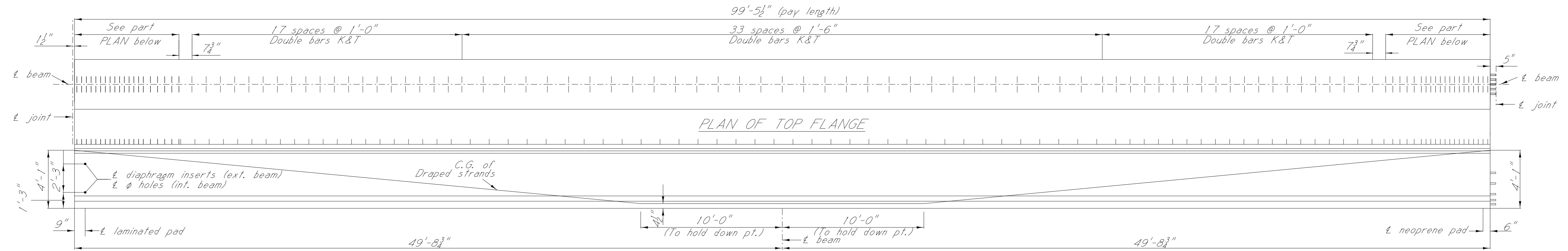


ELEVATION AT END OF SPAN



BY		MISSISSIPPI DEPARTMENT OF TRANSPORTATION	
REVISION		BRIDGE AT STA. 1506+58.83	
DATE		MISCELLANEOUS SPAN DETAILS	
DESIGNER		FMS: 103334 / 301000	
DETAILER		COUNTY: ATTALA	
CHECKER		PROJECT NUMBER: BR-0023-02(058)	
ISSUE DATE		WORKING NUMBER	
DIRECTOR OF STRUCTURES, STATE BRIDGE ENGINEER - JUSTIN WALKER, P.E.		A8 OF A10	
DIR. OF STRUCTURES, ASST. STATE BRIDGE ENGINEER - SCOTT WESTERFIELD, P.E.		SHEET NUMBER	
		8010	

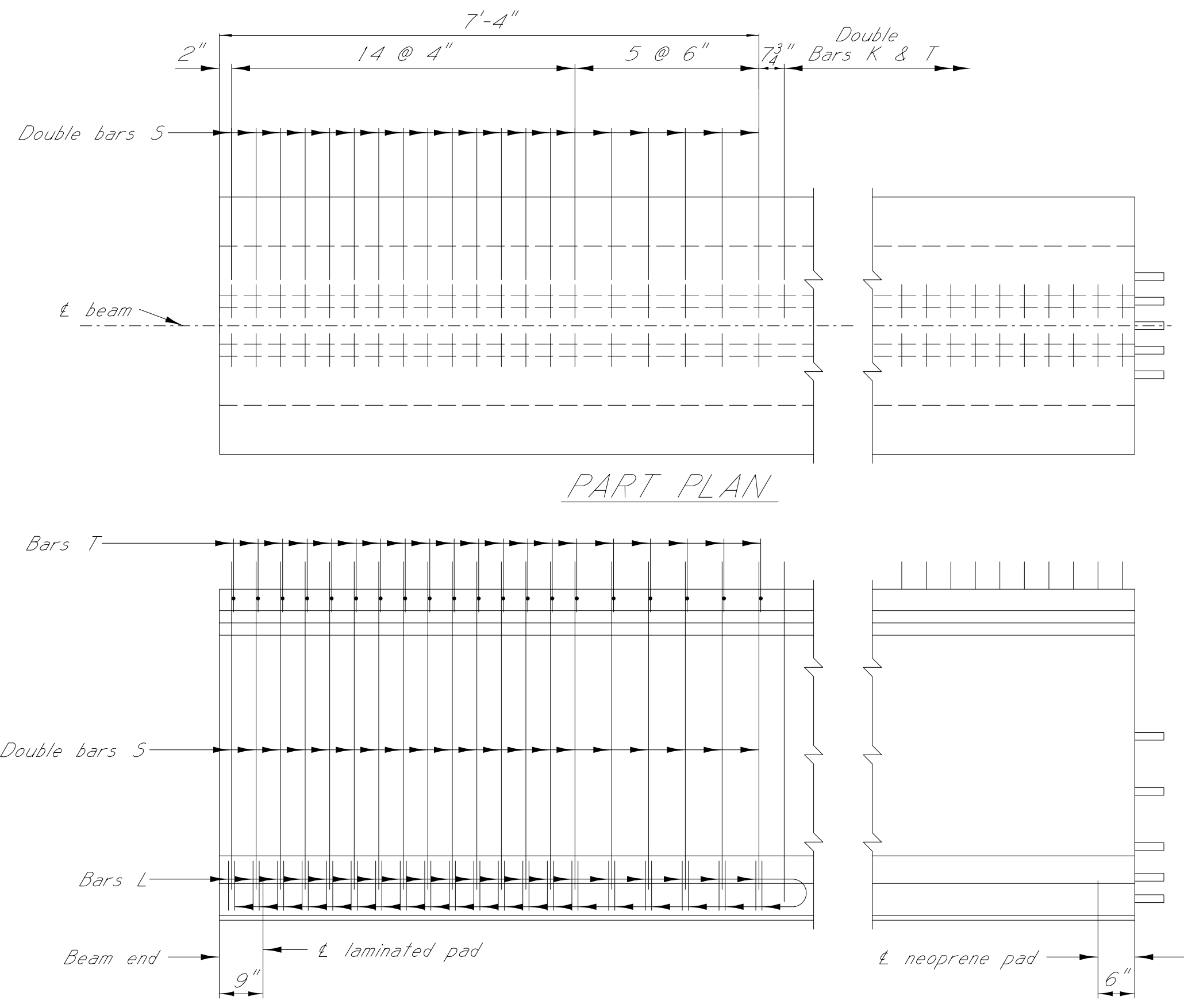
001: 00 AHPM.DGN.FILE.NAME MISSISSIPPI DEPARTMENT OF TRANSPORTATION



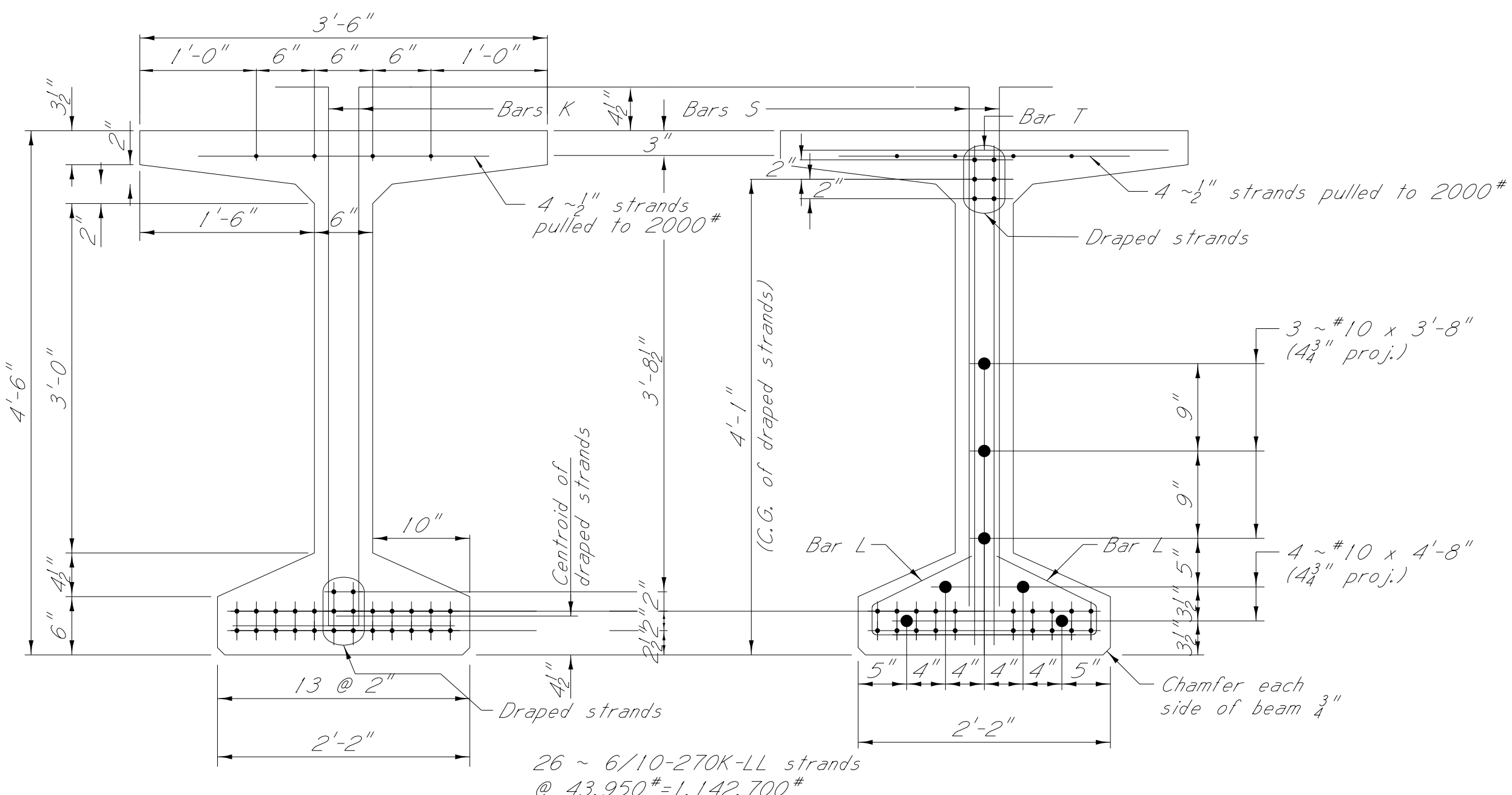
ELEVATION NOTE: For beam end with #10 bars projecting (Rt. End), cut strands flush-no coating required. For other beam end(Lt. End), cut strands flush and weatherproof with limestone colored "Sonolastic" (Sonneborn Building Products), "GC-9 Synthacalk" (Pecora Corp.), or approved equal, meeting the requirements of Federal Specification No. TT-5-00227E or TT-5-00230G, applied according to Manufacturer's directions.

GENERAL NOTES:
 Beams shall be manufactured in accordance with Mississippi Standard Specifications for Road & Bridge Construction, 2017.
 The tops of beams shall be rough floated. At approximately the time of initial set the entire tops of beams shall be scrubbed transversely with a coarse wire brush to remove all laitance and produce a roughened surface for bonding slab. Other surfaces shall be finished per specifications.
 Strand pattern detailed is for 6/10-270K-LL strands. Shop drawings of prestressed beams shall include the type and location of all strands.
 The Director of Structures, State Bridge Engineer shall be notified if the camber of the beam is not within the limits shown in table.
 The Fabricator shall provide camber data at release and immediately prior to shipping. Concrete shall be class "FX" and:
 (a) shall have a 28-day cylinder strength of 6800 p.s.i.
 (b) at transfer of the tensioning load, the cylinder strength of the concrete shall be as shown in table.
 At the Contractor's request a suggested concrete design mix will be furnished with the understanding that it is the Contractor's responsibility to maintain 6800 p.s.i. concrete.
 If any cylinder tests below 6800 p.s.i., the beam represented will be held on the yard until the 28-day strength is determined and acceptance or rejection has been established.

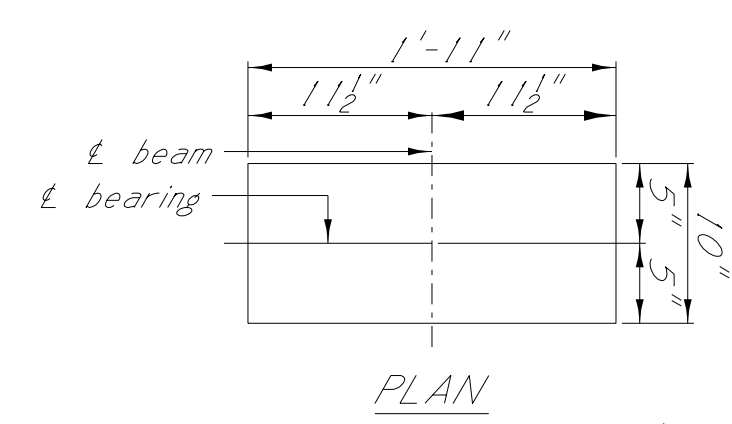
DESIGN DATA
 Unit stresses are in accordance with A.A.S.H.T.O., 2017.
 Stay-in-place metal deck forms....18 lbs/ft² (between flanges)



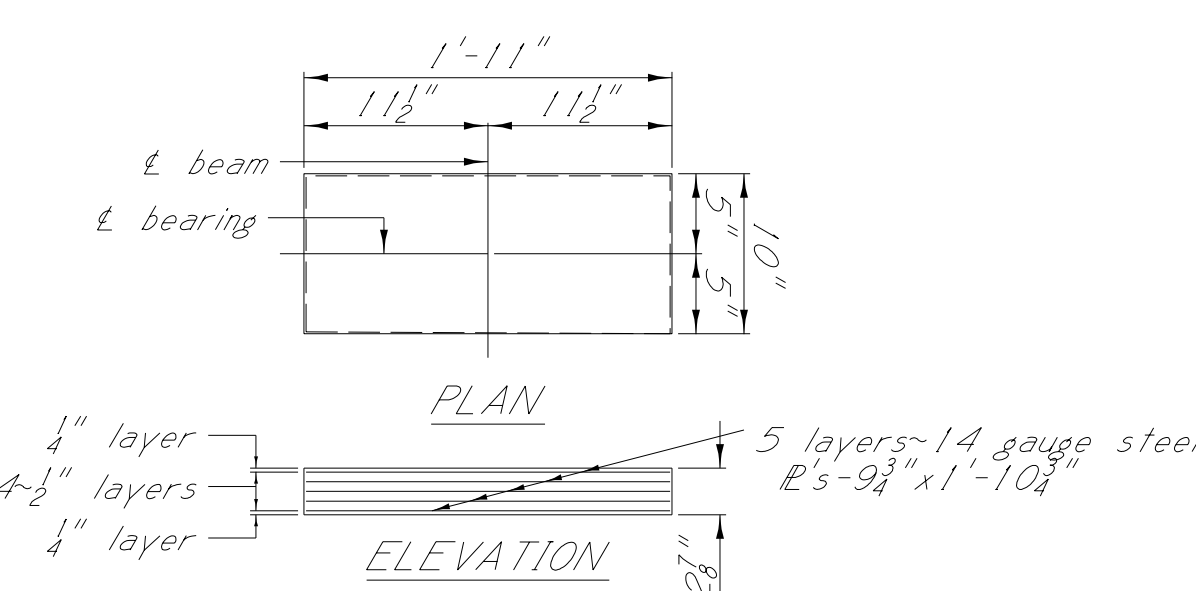
PART ELEVATION
 Strands not shown for clarity



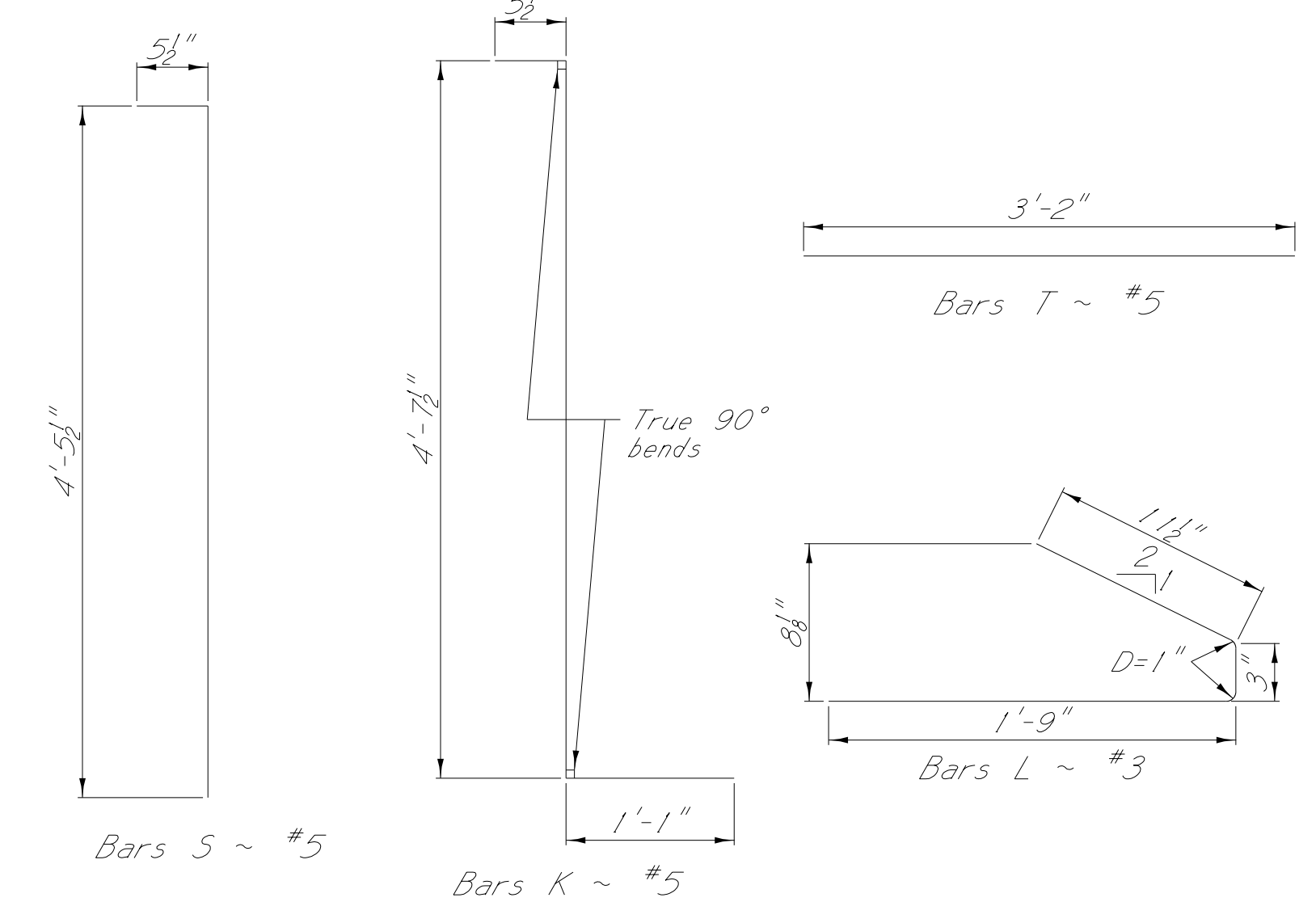
SECTION NEAR & SPAN and **END ELEVATION**



NEOPRENE PAD DETAILS
 In no case shall neoprene pads be field cut. Bearing area on top of cap shall be cast smooth and true to grade.



LAMINATED PAD DETAILS
 Testing acceptance procedure shall be in accordance with section 714.10.6 of the Specifications. Elastomer shall have a hardness of 50 durometer with a minimum shear modulus at 73°F of 0.095 k.s.i. And A maximum shear modulus at 73°F of 0.130 k.s.i. Bearing area on top of cap shall be cast smooth and true to grade.



BAR BENDING DETAILS
 Dimensions are out to out

LR indicates low-relaxation strands

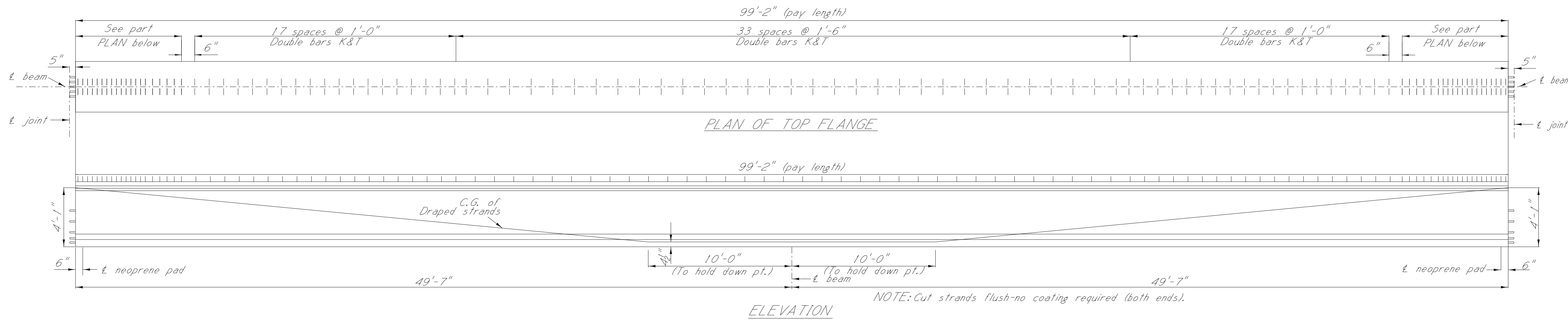
Strand Type	Minimum breaking lbs./strand	Initial tension lbs./strand	Required number and location of strands						Centroid for total number of strands (in.)		Distance from & span to hold-down point	Camber limits	Deflection diagram			Minimum concrete strength at time of release (psi)
			Total Number strands	Straight strands		Draped strands		At & span	At beam end	A			B	C		
				Number strands	Centroid (in.)	Number strands	Centroid (in.)									
6/10-270K-LL	58,600	43,950	26	20	3.50	6	4.50	49.00	3.73	14.00	10'-0"	4 7/16"	2"	1 1/2"	1 1/2"	5500

For deflection diagram, see Misc. Span Details per sheet no. A8



MISSISSIPPI DEPARTMENT OF TRANSPORTATION	
BRIDGE "A" AT STA. 1506+58.88	
100 FT BEAM DETAILS	
END SPANS BEAM NO. 100-1	
(BT-54)	
DESIGNER: JONATHAN KING	CHECKER: SPENCER YATES
DATE: 6/12/2019	ISSUE DATE: 6/12/2019
FMS: 103334 / 301000	
COUNTY: ATTALA	
PROJECT NUMBER: BR-0023-02(058)	
WORKING NUMBER	8011
SHEET NUMBER	9 OF 10

001: 00 ANPM DGN FILE NAME



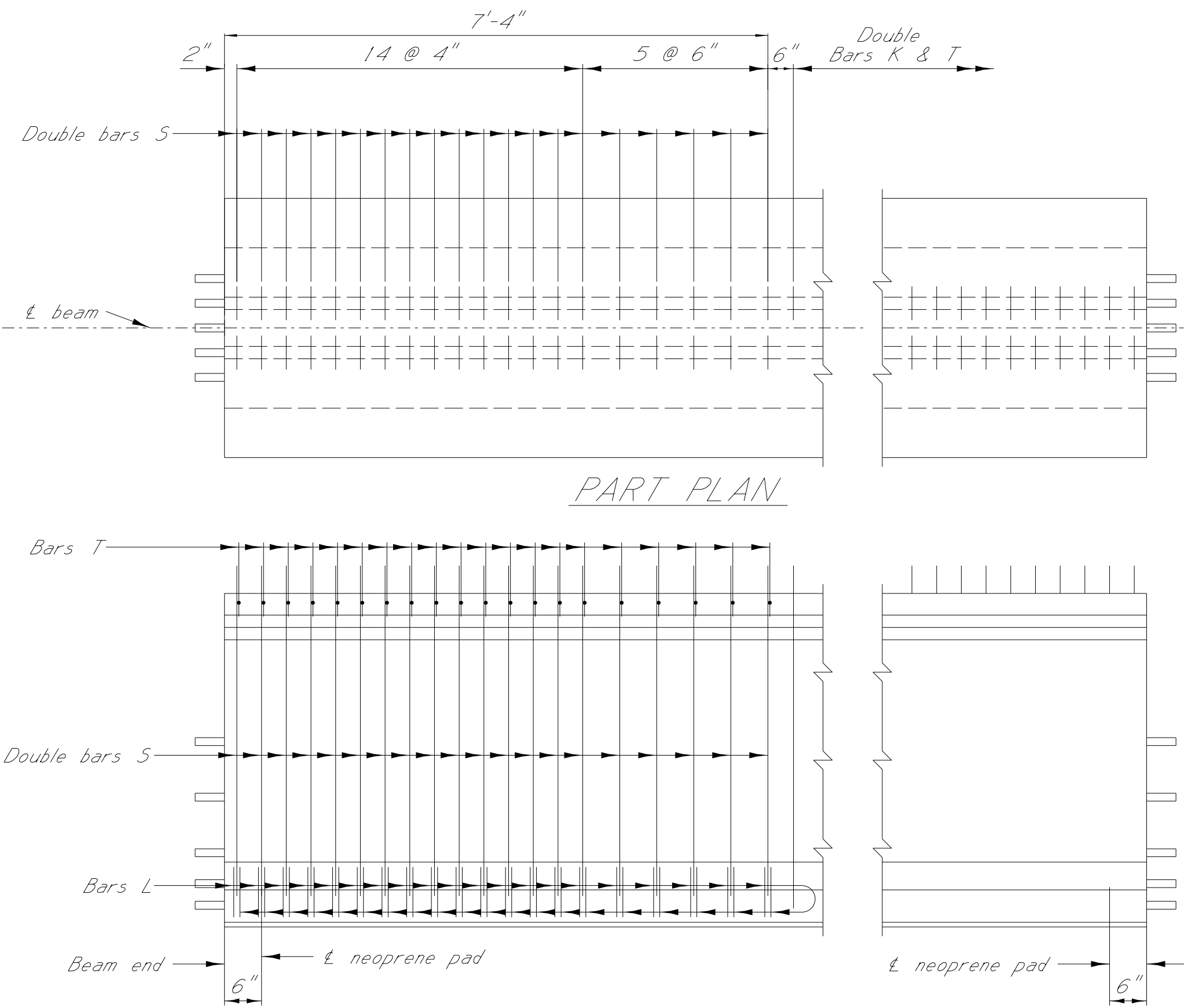
NOTE: Cut strands flush-no coating required (both ends).

GENERAL NOTES:

Beams shall be manufactured in accordance with Mississippi Standard Specifications for Road & Bridge Construction, 2017. The tops of beams shall be rough floated. At approximately the time of initial set the entire tops of beams shall be scrubbed transversely with a coarse wire brush to remove all laitance and produce a roughened surface for bonding slab. Other surfaces shall be finished per specifications. Strand pattern detailed is for 6/10-270K-LL strands. Shop drawings of prestressed beams shall include the type and location of all strands. The Director of Structures, State Bridge Engineer shall be notified if the camber of the beam is not within the limits shown in table. The Fabricator shall provide camber data at release and immediately prior to shipping. Concrete shall be class "FX" and:
 (a) shall have a 28-day cylinder strength of 6800 p.s.i.
 (b) at transfer of the tensioning load, the cylinder strength of the concrete shall be as shown in table.
 At the Contractor's request a suggested concrete design mix will be furnished with the understanding that it is the Contractor's responsibility to maintain 6800 p.s.i. concrete. If any cylinder tests below 6800 p.s.i., the beam represented will be held on the yard until the 28-day strength is determined and acceptance or rejection has been established.

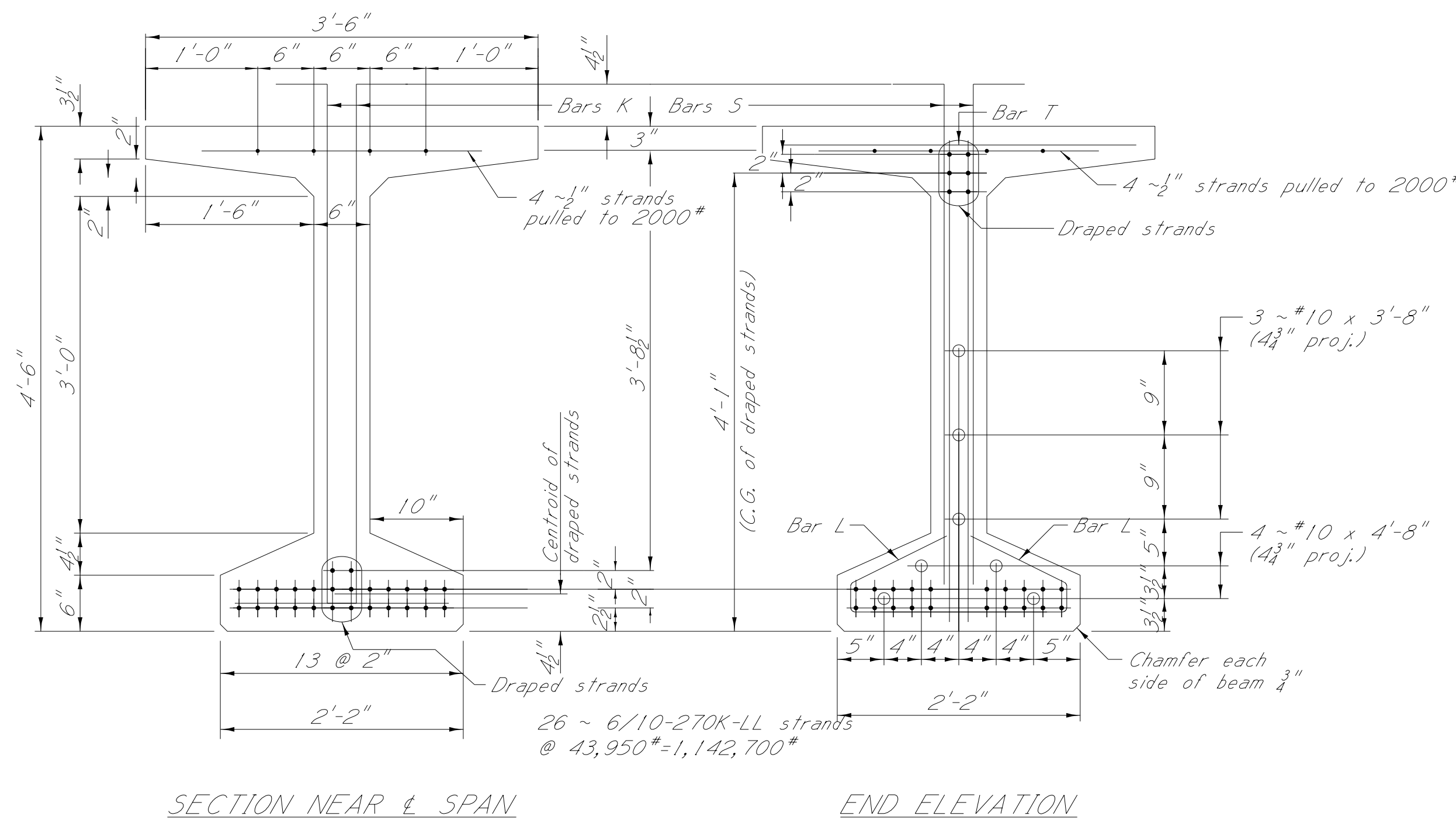
DESIGN DATA

Unit stresses are in accordance with A.A.S.H.T.O., 2017. Stay-in-place metal deck forms.....18 lbs/11" (between flanges)



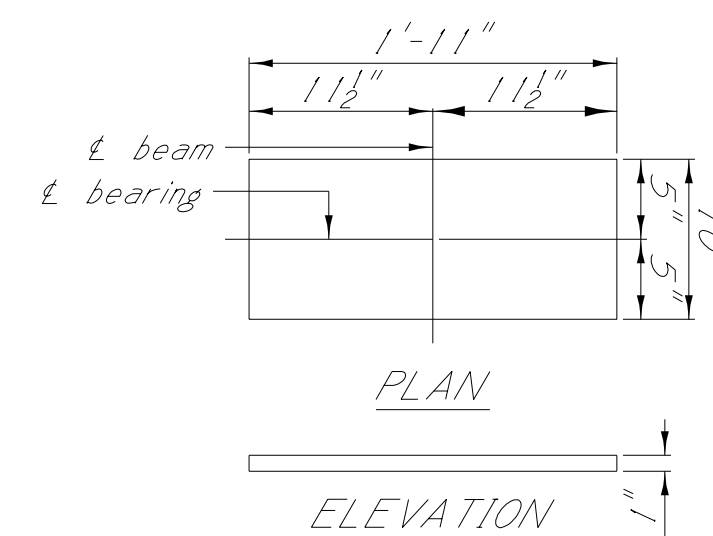
PART ELEVATION

Strands not shown for clarity

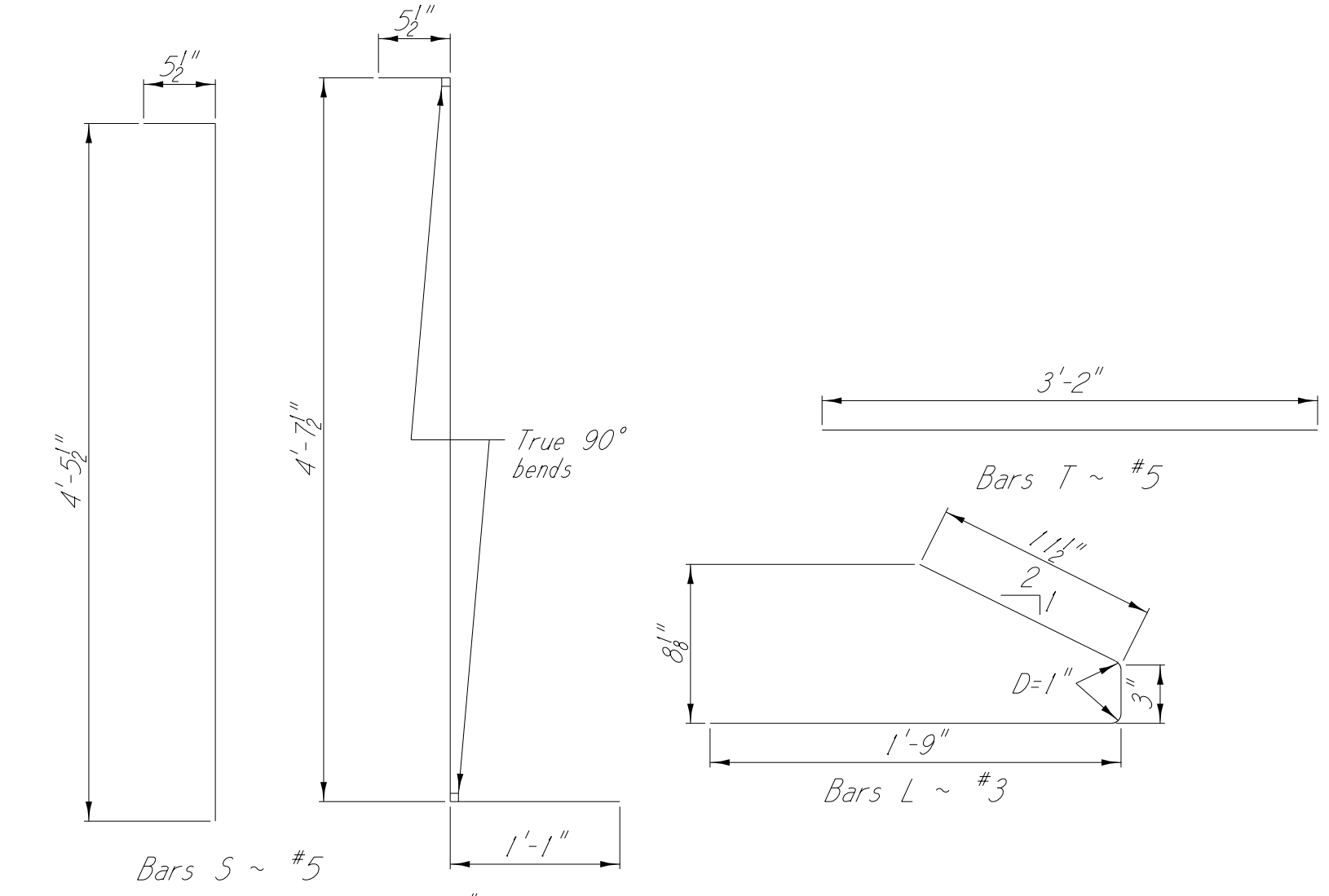


SECTION NEAR & SPAN

END ELEVATION



NEOPRENE PAD DETAILS
 In no case shall neoprene pads be field cut. Bearing area on top of cap shall be cast smooth and true to grade.



BAR BENDING DETAILS

Dimensions are out to out

LR indicates low-relaxation strands

PRESTRESS REQUIREMENTS

For deflection diagram, see Misc. Span Details per sheet no. A8

Strand type	Minimum breaking strength lbs./strand	Initial tension lbs./strand	Required number and location of strands				Centroid for total number of strands (in.)		Distance from & span to hold-down point	Camber limits	Deflection diagram			Minimum concrete strength at time of release (psi)		
			Total number strands	Straight strands		Draped strands		At & span			At beam end	A	B		C	
6/10-270K-LL	58,600	43,950	26	20	3.50	6	4.50	49.00	3.73	14.00	10'-0"	4 7/16"	2"	1 1/2"	1 1/2"	5500



BY MISSISSIPPI DEPARTMENT OF TRANSPORTATION	
BRIDGE "A" AT STA. 1506+58.88	
100 FT BEAM DETAILS	
INT. SPAN BEAM NO. 100-2	
(BT-54)	
REVISION	FMS: 103334 / 301000
DATE	COUNTY: ATTALA
DESIGNER JONATHAN KING	CHECKER SPENCER YATES
DETAILER JONATHAN KING	ISSUE DATE 6/12/2019
PROJECT NUMBER: BR-0023-02(058)	
WORKING NUMBER	
A10 OF A10	
SHEET NUMBER	
8012	

PROJECT PLAN SECTION MISSISSIPPI DEPARTMENT OF TRANSPORTATION

001: 02 ANPM DGN\FLENA\NAME

V.P.I. Sta. 1580+75
V.P.I. Elev. 415.2900

V.P.T. Sta. 1582+75
V.P.T. Elev. 413.8960

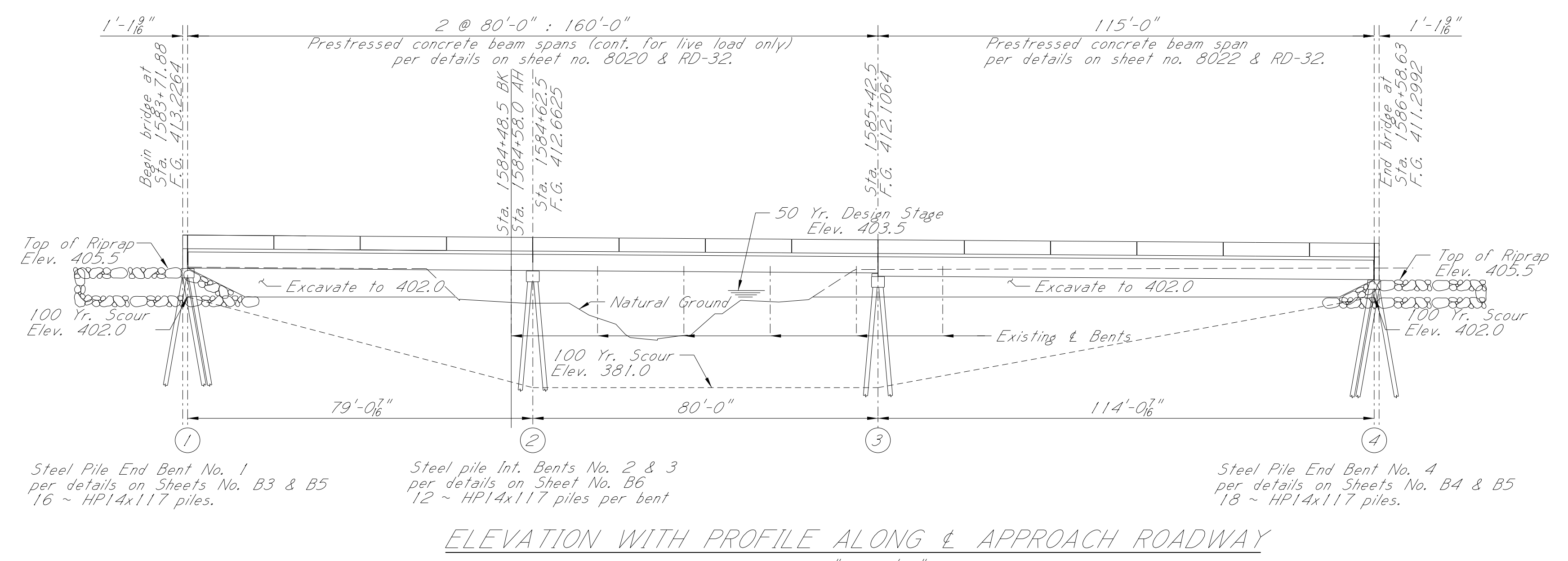
V.P.C. Sta. 1588+80
V.P.C. Elev. 409.7570

V.P.I. Sta. 1589+90
V.P.I. Elev. 408.9900

-0.6951 %

Total length of bridge = 277'-3 1/8"

-0.6951 %



GENERAL NOTES:

Mississippi Standard Specifications for Road and Bridge Construction, 2017.
No change of plans will be permitted except by written approval of the Director of Structures, State Bridge Engineer. Minor changes in detail of design or construction procedure may be authorized by the Director of Structures, State Bridge Engineer provided such changes will not cause for contract price adjustment.
The final surface texture of the bridge deck shall be mechanically transverse grooved in accordance with Sections 501 and 804 of the specifications. See Misc. Span Details for limits of transverse grooving on bridge deck. Bridge concrete shall be class "AA" or Class "BD" as indicated in plans. Railing expansion joint material shall be bituminous fiber type unless otherwise noted.
No payment will be allowed for excavation incidental to the construction of end bents.
Bar bending details shall be in accordance with "Manual of Standard Practice for Detailing Reinforced Concrete Structures" (ACI 315R-94).
Reinforcement order lists and required placing plans shall be furnished in accordance with Section 805 of the Mississippi Standard Specifications. Partial submittals are not acceptable.
Shop drawings of prestressed beams, including an erection plan, shall be submitted in duplicate to the Director of Structures, State Bridge Engineer for approval prior to the manufacture of beams. The fabricator shall provide camber data at release and immediately prior to shipping.
The Contractor shall provide camber data after erection. The Contractor should be aware that the deflection diagram may be modified based on the provided camber data. Therefore, deck grades should be set only after notification from the Director of Structures, State Bridge Engineer.
Concrete surfaces shall receive a Class 2 rubbed or spray finish in accordance with the specifications.
Reinforcing steel shall be ASTM A615, Grade 60, unless otherwise noted.
Work for which no pay item is provided in the proposal will not be paid for directly and compensation therefore will be included in the prices and payments for bid items.

PILE NOTES:

Test piles shall be driven as permanent piles at the location shown in the PDA TEST PILE SCHEDULE and will be paid for as test piles only.
The Director of Structures, State Bridge Engineer may authorize test piles driven outside the structural limits.
Test piles shall be driven as a continuous operation, to the bearing capacity and the tip elevations shown in the PDA TEST PILE SCHEDULE, unless otherwise directed by the Director of Structures, State Bridge Engineer.
Permanent piles shall be driven to an elevation no higher than the elevation shown in the REQUIRED ULTIMATE PILE BEARING CAPACITY AND TIP ELEVATION SCHEDULE.
The tip elevation of piling, for hydraulic structures, may be determined by the scour line.
When feasible, bearing piles shall be driven full length and be spliced, only, as approved by the Director of Structures, State Bridge Engineer.
Welding shall be done by the ELECTRIC ARC process. Welders shall be certified and electrodes shall be approved.
When loading tests are required, the maximum test load shall be one and one half (1 1/2) times the minimum pile bearing capacity.
PDA test piles shall require a 1 day and 7 day restrike unless otherwise directed by the Engineer.
Pile lengths and driving criteria shall be provided based on the results of the PDA test piles.
The required ultimate pile bearing shown in the REQUIRED ULTIMATE PILE BEARING AND TIP ELEVATION SCHEDULE includes the LRFD resistance factor for PDA of 0.65.
Pile hammer leads used for all PDA test piles and PDA restrikes shall be large enough to provide a minimum of 3" of clearance on each side of the pile in order to properly place and protect PDA gages.
Steel HP piles shall be driven with a maximum rated energy no less than 58,000 ft-lbs, but no greater than 76,000 ft-lbs to the tip elevations specified unless the Contractor's drivability analysis utilizing the Contractor's selected alternative hammer is approved by the Director of Structures, State Bridge Engineer.

NOTE:

The girder deflection diagrams shown in these plans were prepared and intended for design and estimation purposes only. Actual bridge girder deflections may differ from the deflection diagrams shown in these plans.
It is the Contractor's responsibility to construct the bridge to meet the requirements of the plans and specifications including, but not limited to, the requirements for bridge deck smoothness.
Prior to formwork construction, the Contractor shall submit three (3) copies of a proposed BRIDGE SUPERSTRUCTURE CONSTRUCTION PLAN to the Director of Structures, State Bridge Engineer for review, through the Project Engineer. This submittal shall include all calculations, assumptions and parameters used by the Contractor to determine bridge girder deflections and form grade elevations. This submittal shall also include an erection and construction procedure that addresses the construction means and methodologies used by the Contractor and shall consider effects including, but not limited to, construction phasing, pouring schedules, applied permanent and construction loading, and shall include calculations and details of temporary girder bracing systems used to ensure girder stability and to counter the effects of girder tilt.
After girder erection and prior to deck construction, the Contractor shall submit deck thickness verification calculations for each girder. These calculations shall include a comparison of the erected girder top flange profiles versus the plan deck grade elevations over each girder plus the anticipated girder deflection due to applied permanent dead load and creep.
Three (3) copies of the deck thickness verification calculations and any proposed remediation measures to correct for thin deck areas shall be submitted to the Director of Structures, State Bridge Engineer for review, through the Project Engineer. The BRIDGE SUPERSTRUCTURE CONSTRUCTION PLAN and the deck thickness verification calculations shall be prepared and stamped by a Mississippi Registered Professional Engineer.

NOTE:

Prior to construction, the contractor is to contact Mr. James Mooney of Texas Eastern at 662-289-2991 or 601-594-9264 about construction guidelines near their gas pipeline.

DRAINAGE DATA:

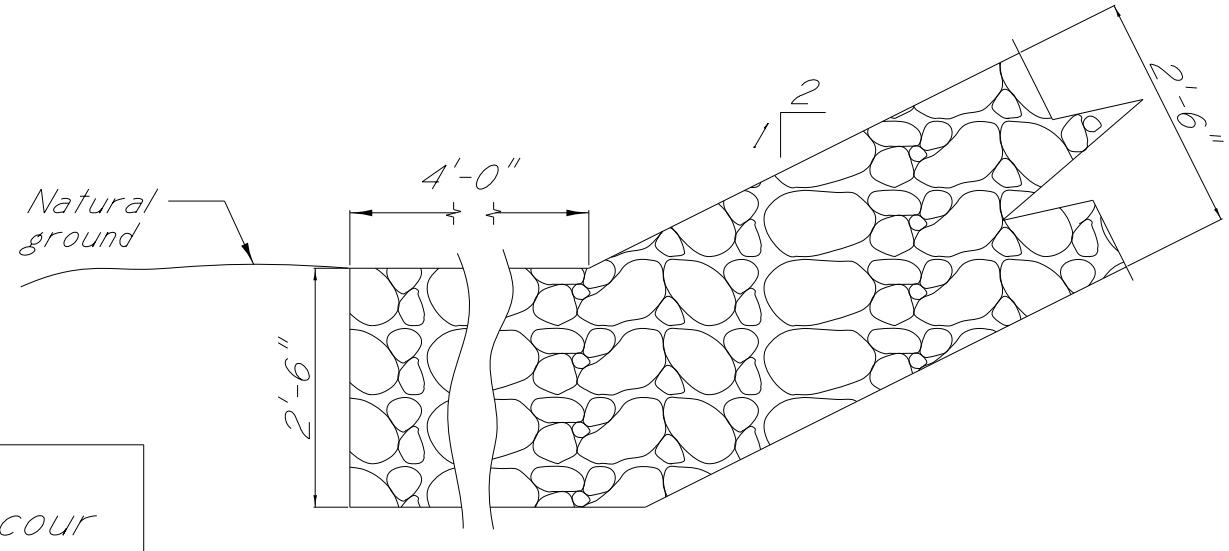
Drainage area 5.02 sq. mi.
Total Q50 (U.S.G.S.) 2320 c.f.s. (2120 c.f.s. thru bridge)
Effective area 443 sq. ft.

DESIGN DATA:

Specifications A.A.S.H.T.O., LRFD 2017
Loading HL-93
Roadway width 44' 0" Gutter to gutter
Concrete Class "AA" (4,000 p.s.i.)
 Class "BD" (4,000 p.s.i.)
Stay-in-Place metal forms . . . 18lbs./ft (between flanges)
Seismic performance zone . . . 1
Seismic soil site class C
Seismic operational class . . . Other

NOTE: Ultimate bearing capacities shown include the additional skin friction required to drive through the subsurface material above the 100 year scour.

*** NOTE:**
Minimum tip elevation based on 500 year scour.



RIPRAP LAYOUT DETAILS

NOTE:
Geotextile fabric is required under all riprap

Item	Transverse Grooving	Conventional Static Loading Test	HP14x117 Steel Piling	PDA Test Pile	Pile Restrike	Class Concrete		Reinforcement		Concrete Railing	Loose Riprap (300*)	Geotextile Under Riprap	
						Class AA Bridge	Class BD Bridge	L.F.	L.F.				LBS.
Spans	1222.22	Each	L.F.	Each	Each	C.Y.	C.Y.						
End Bents			2065.0	1	1	77.62				11,958	4.35	1624.0	1356.0
Int. Bents		1	1725.0	1	1	55.25				5,260			
Total	1222.22	1	3790.0	2	2	132.88	369.97	803.25	953.50	104,688	554.35	1624.0	1356.0

Bent No.	Pile type	Req'd Bearing (Tons)	Pile Size	Estimated Length (ft.)	*Min Tip Elevation	Estimated Tip Elevation	Controlling Limit State
1	Steel	115	HP 14x117	60	382.0	347.1	STRENGTH I
2	Steel	172	HP 14x117	75	360.0	331.5	STRENGTH I
3	Steel	178	HP 14x117	75	360.0	330.1	STRENGTH I
4	Steel	137	HP 14x117	65	382.0	339.2	STRENGTH I

Bent No.	Min. Length-Ft.	Tip Elevation
3	85	320.0
4	75	329.2

Bent no.	Elevation
1	402.0
2 & 3	380.0
4	402.0

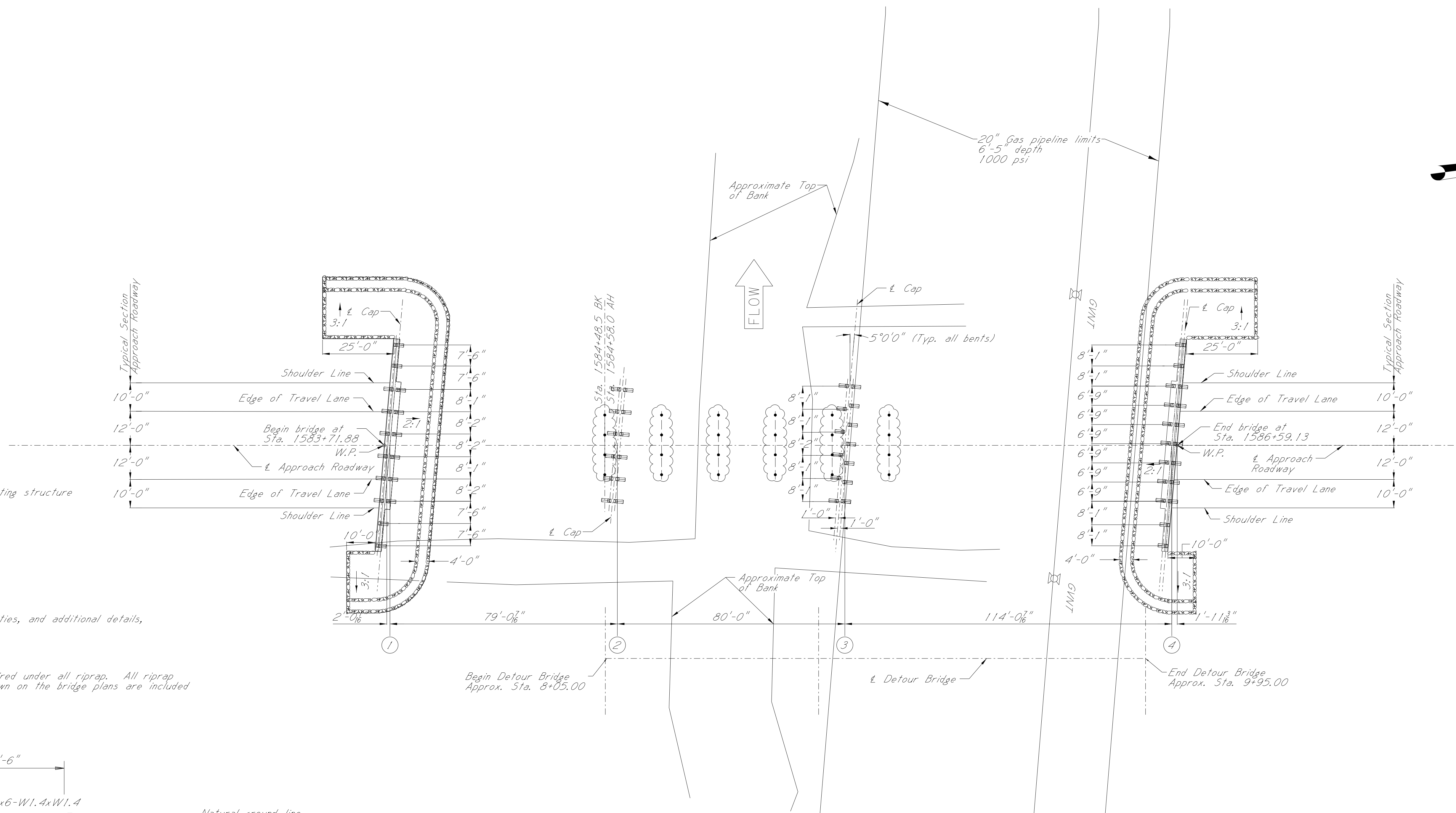
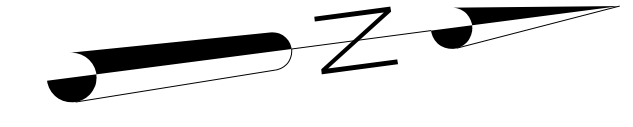
MISSISSIPPI DEPARTMENT OF TRANSPORTATION
BRIDGE "B" AT STA. 1583+71.88
SR 35 OVER LITTLE CONEHOME CREEK GENERAL NOTES, ESTIMATED QUANTITIES & LAYOUT
FMS: 103334 / 301000
COUNTY: ATTALA
PROJECT NUMBER: BR-0023-02(058)
WORKING NUMBER B1 OF B14

DESIGNER	JONATHAN KING	CHECKER	SPENCER YATES
DETAILER	JONATHAN KING	ISSUE DATE	6/12/2019
DIRECTOR OF STRUCTURES, STATE BRIDGE ENGINEER - JUSTIN WALKER, P.E.		DEP. DIR. OF STRUCTURES, ASST. STATE BRIDGE ENGINEER - SCOTT WESTERFIELD, P.E.	

8013

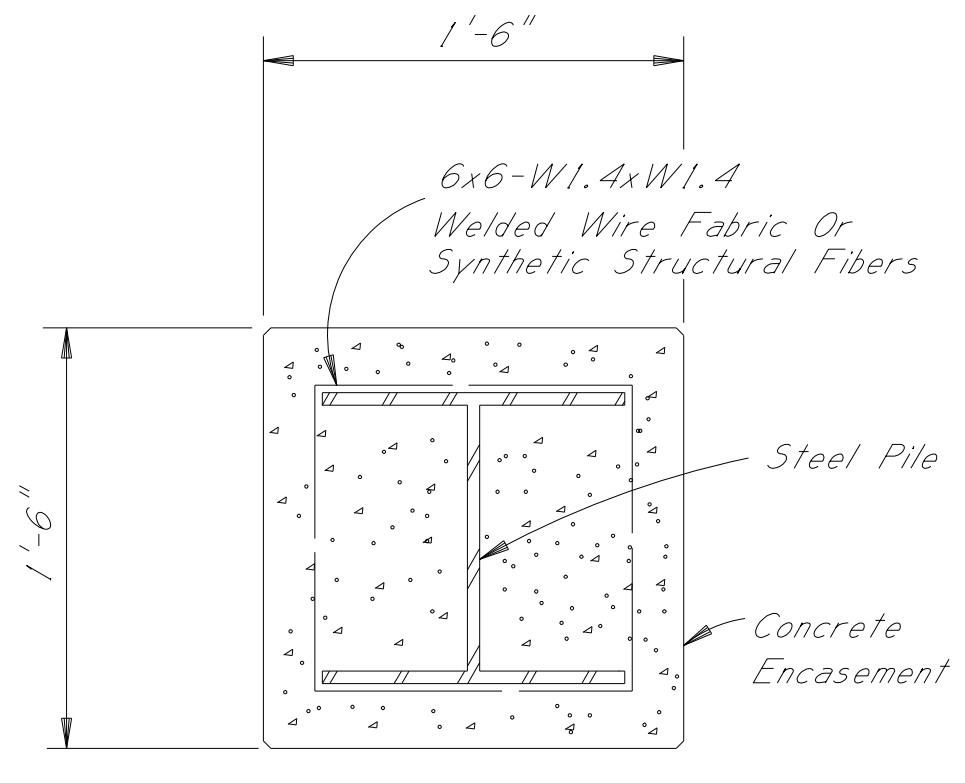


PROJECT PLAN
MISSISSIPPI DEPARTMENT OF TRANSPORTATION



NOTE:
For general notes, quantities, and additional details, see Sheet No. 8013.

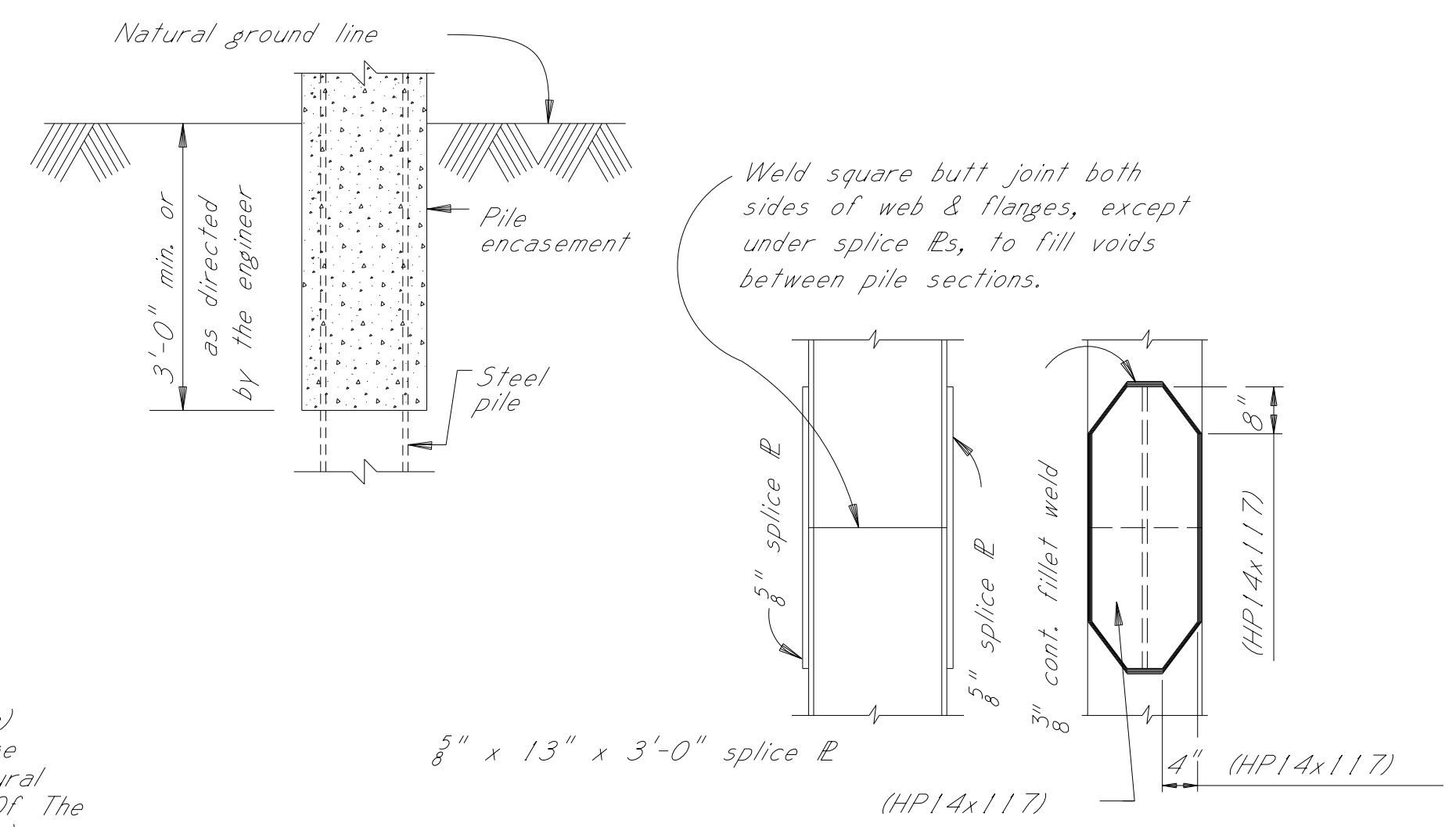
NOTE:
Geotextile fabric is required under all riprap. All riprap and geotextile fabric shown on the bridge plans are included in the bridge quantities.



Concrete For Pile Encasement Shall Be Class "AA" And Will Be Paid For As Bridge Concrete. Class "AA" Concrete With #67 Aggregate May Be Used For Pile Encasement.

Pile Encasement Shall Be Reinforced With 6x6-W1.4xW1.4 Welded Wire Fabric Weighing 0.21 Lbs. Per Sq. Ft. (Not A Separate Pay Item) Or Synthetic Structural Fiber Applied At A Dosage Rate Of 4 Lbs. Per Cubic Yd. Synthetic Structural Fiber Shall Meet Requirements Of Section 711 Of The Standard Specifications (Not A Separate Pay Item). Chamfer Corners Of Encasement $\frac{1}{4}$ ".

PILE ENCASUREMENT DETAIL
HP14x117 Steel Piles



PILE SPLICE DETAIL
HP14x117 steel piles

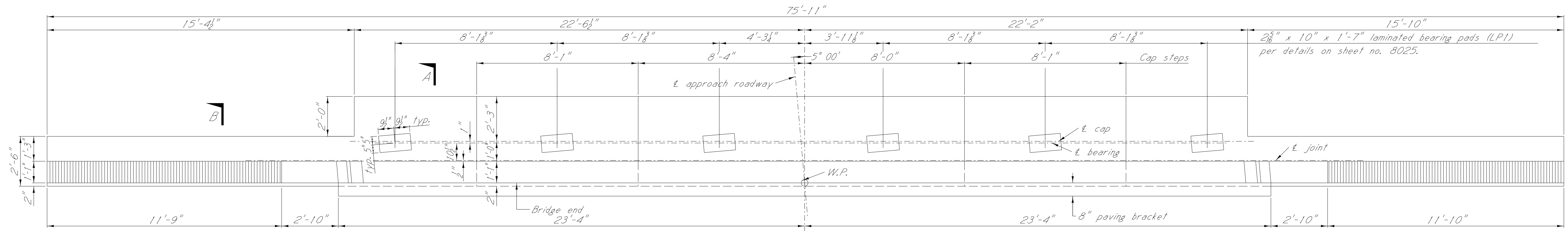
FOUNDATION PLAN
Scale: 1" = 20'-0"

NOTE: Prior to construction, the contractor is to contact Mr. James Mooney of Texas Eastern at 662-289-2991 or 601-594-9264 about construction guidelines near their gas pipeline.

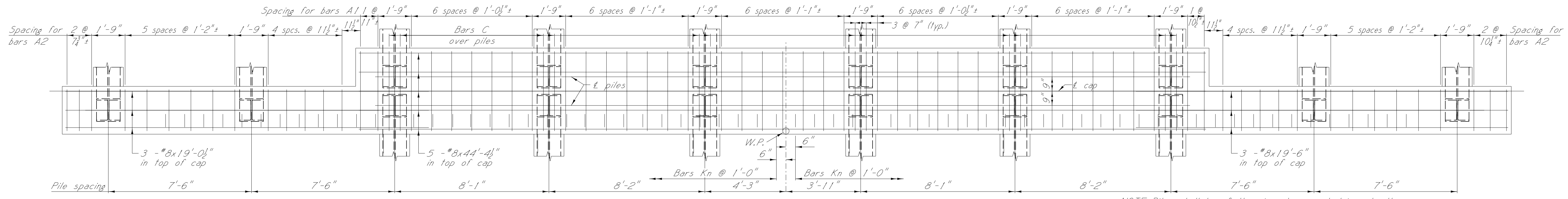
NOTE: In lieu of splice plates, prefabricated splicers may be used. Prefabricated splicers shall be submitted for approval by the Director of Structures, State Bridge Engineer.

BY		MISSISSIPPI DEPARTMENT OF TRANSPORTATION	
BRIDGE "B" AT STA. 1583+71.88		SR 35 OVER LITTLE CONEHOMA CREEK FOUNDATION PLAN	
FMS: 103334 / 301000		COUNTY: ATTALA	
PROJECT NUMBER: BR-0023-02(058)		WORKING NUMBER	
		B2 OF B14	
DESIGNER	JONATHAN KING	CHECKER	SPENCER YATES
DATE	6/12/2019	ISSUE DATE	6/12/2019
DIRECTOR OF STRUCTURES, STATE BRIDGE ENGINEER - JUSTIN WALKER, P.E.		DEP. DIR. OF STRUCTURES, ASST. STATE BRIDGE ENGINEER - SCOTT WESTERFIELD, P.E.	
		SHEET NUMBER	
		8014	



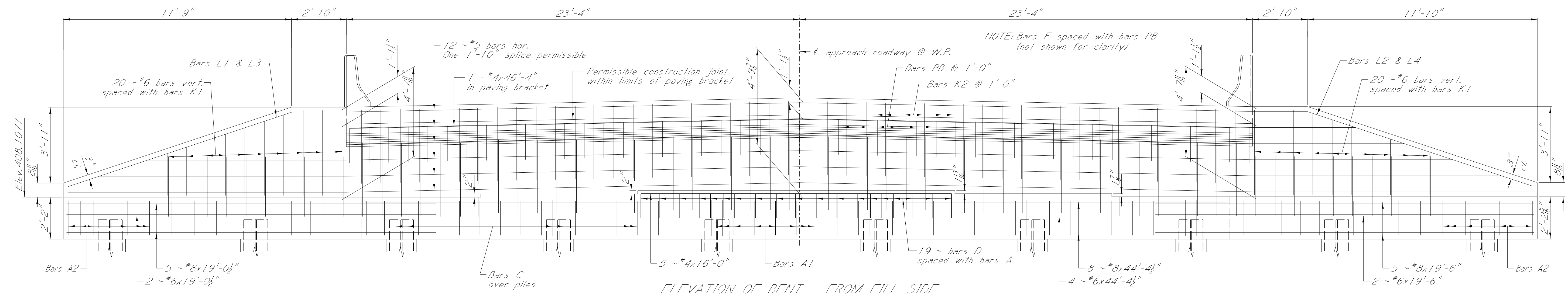


PLAN OF BENT
Showing concrete dimensions, cap steps, & lam. pad placement



PLAN OF CAP
Showing reinforcing steel in top of cap & pile spacing

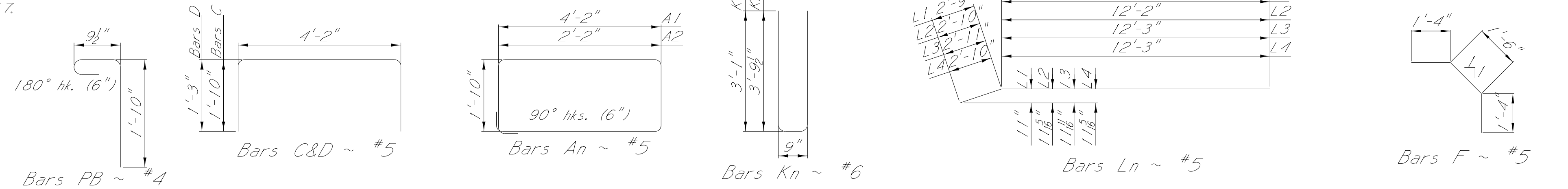
NOTE: Piles shall be of the size, type, and driven to the minimum bearing capacity as shown on the layout sheet. Batter all piles 2" per foot as shown.



ELEVATION OF BENT - FROM FILL SIDE

NOTE: Vertical dimensions shown are measured along fill face of end wall (bridge end).
*Splice Note: Long. bars in cap may be lap spliced as follows:
#6 Bars ~ 2'-3", #8 Bars ~ 3'-3"

For GENERAL NOTES and other details see sheet no. 8017.



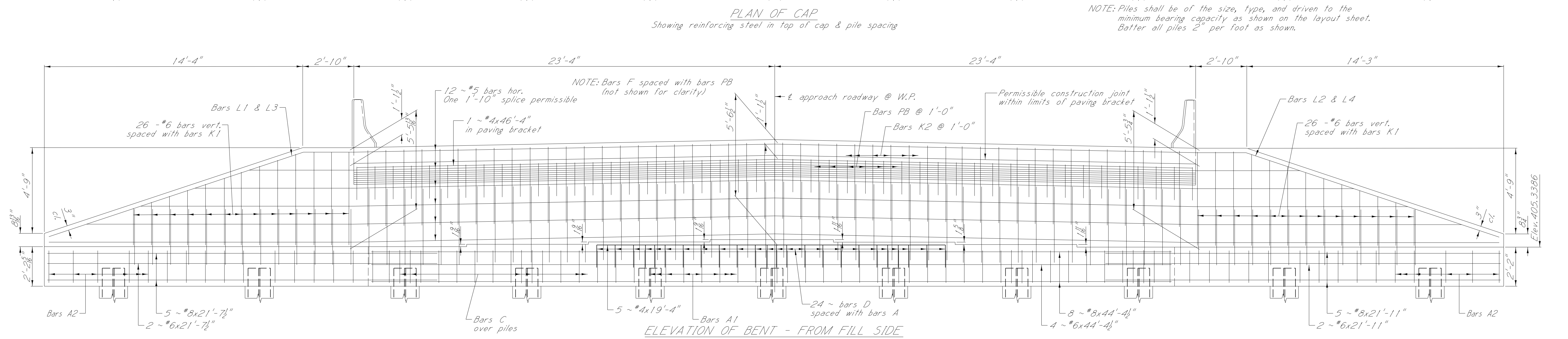
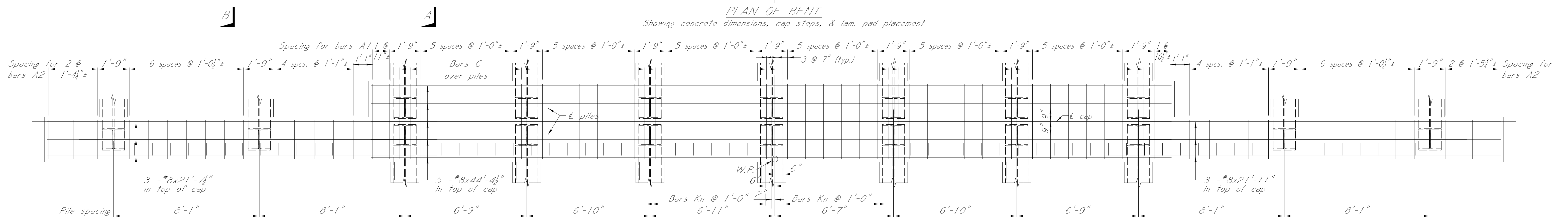
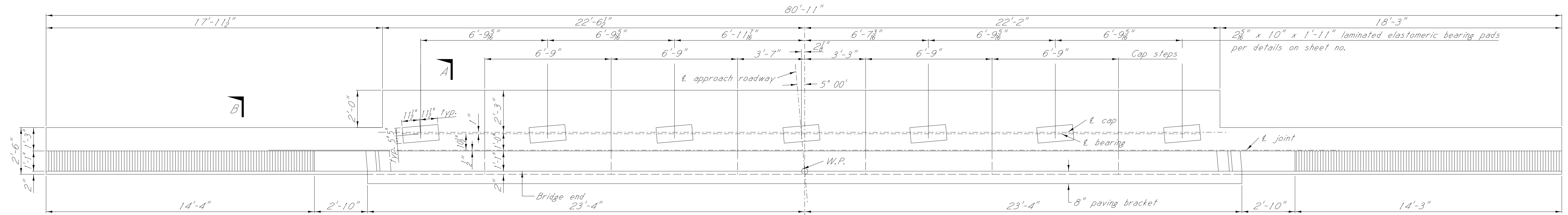
BAR BENDING DETAILS
Dimensions are out to out



BY		MISSISSIPPI DEPARTMENT OF TRANSPORTATION	
DATE		BRIDGE "B" AT STA. 1583+71.88	
REVISION		END BENT NO. 1 DETAILS	
FMS: 103334 / 301000		WORKING NUMBER	
COUNTY: ATTALA		B3 OF B14	
PROJECT NUMBER: BR-0023-02(058)		SHEET NUMBER	
DESIGNER JONATHAN KING		8015	
DETAILER JONATHAN KING		ISSUE DATE 6/12/2019	
DIRECTOR OF STRUCTURES, STATE BRIDGE ENGINEER - JUSTIN WALKER, P.E.		CHECKER SPENCER YATES	
DEP. DIR. OF STRUCTURES, ASST. STATE BRIDGE ENGINEER - SCOTT WESTERFIELD, P.E.			

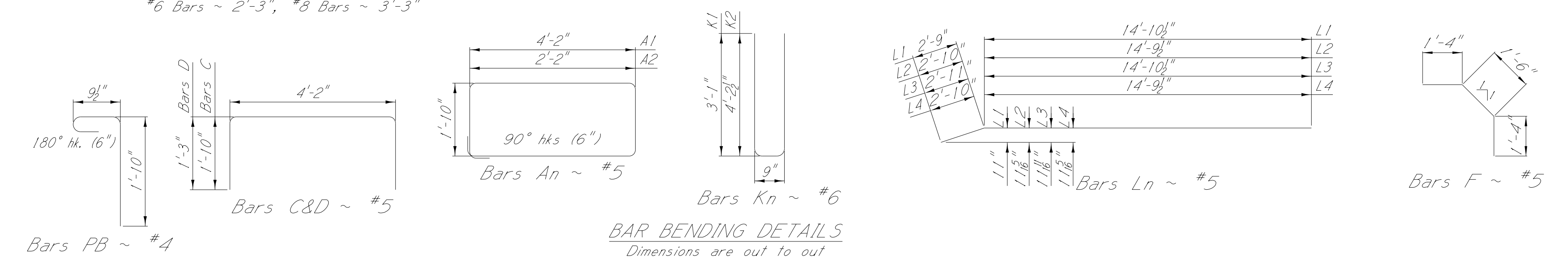
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PROJECT PLAN SECTION MISSISSIPPI DEPARTMENT OF TRANSPORTATION



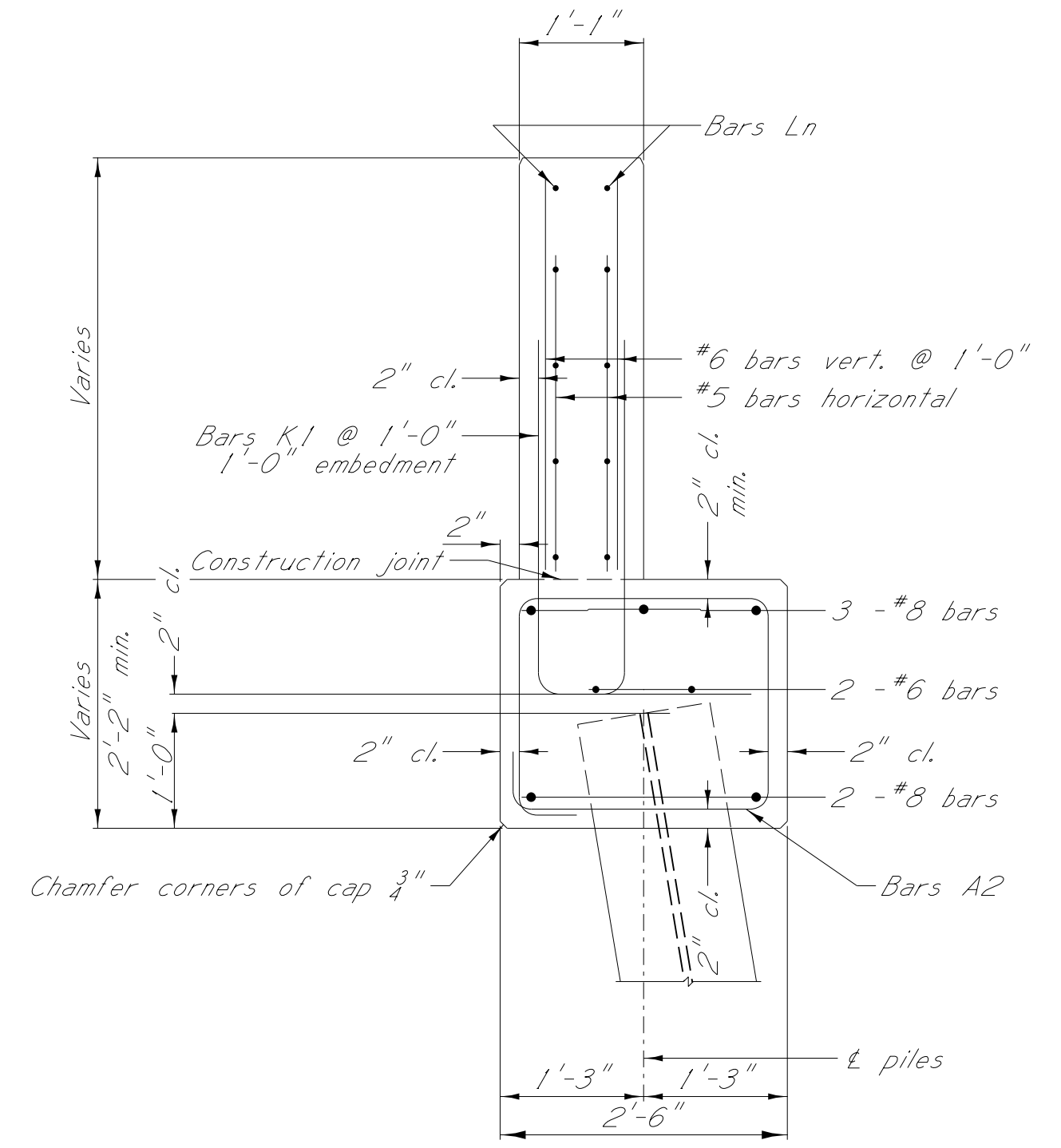
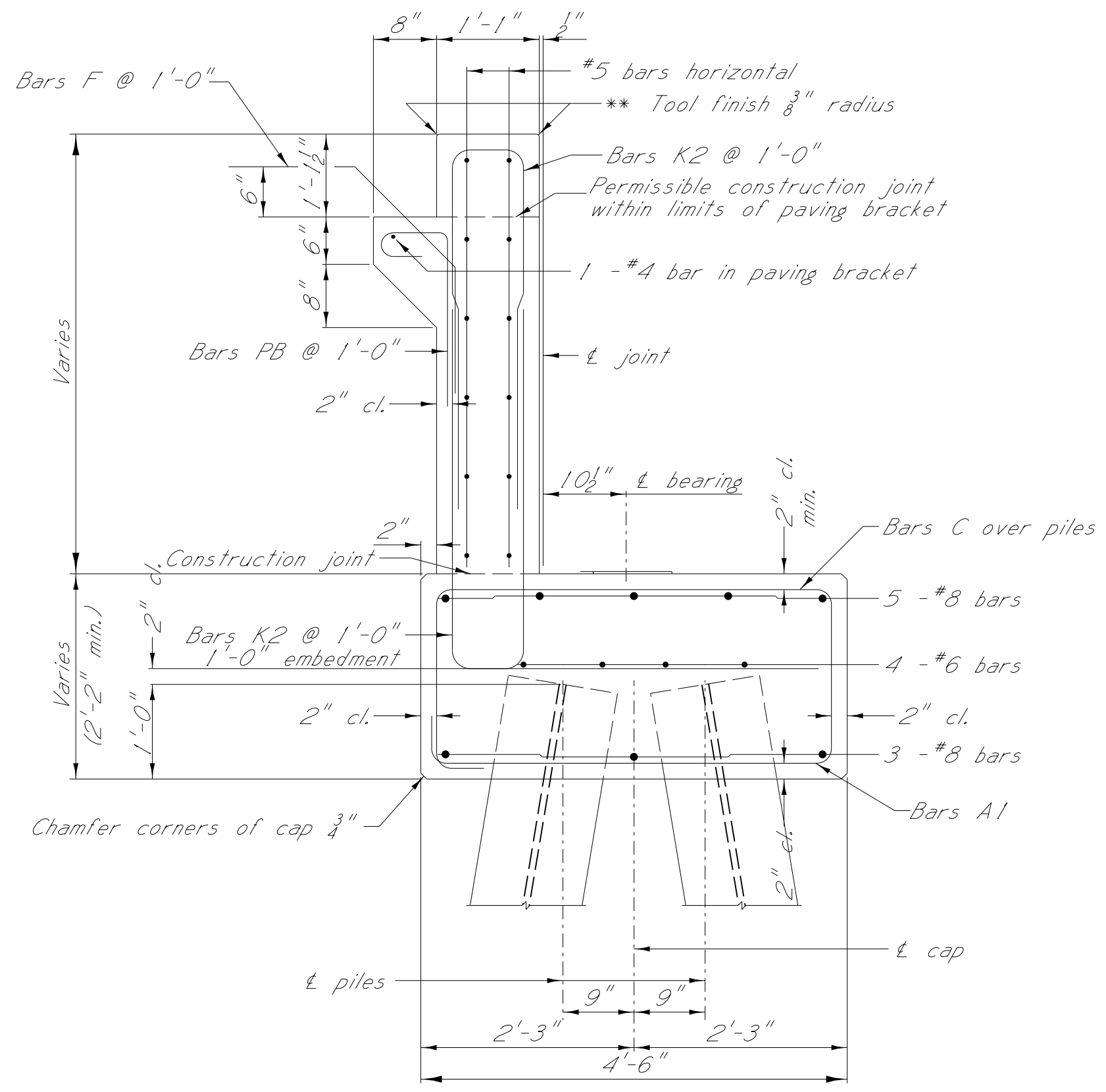
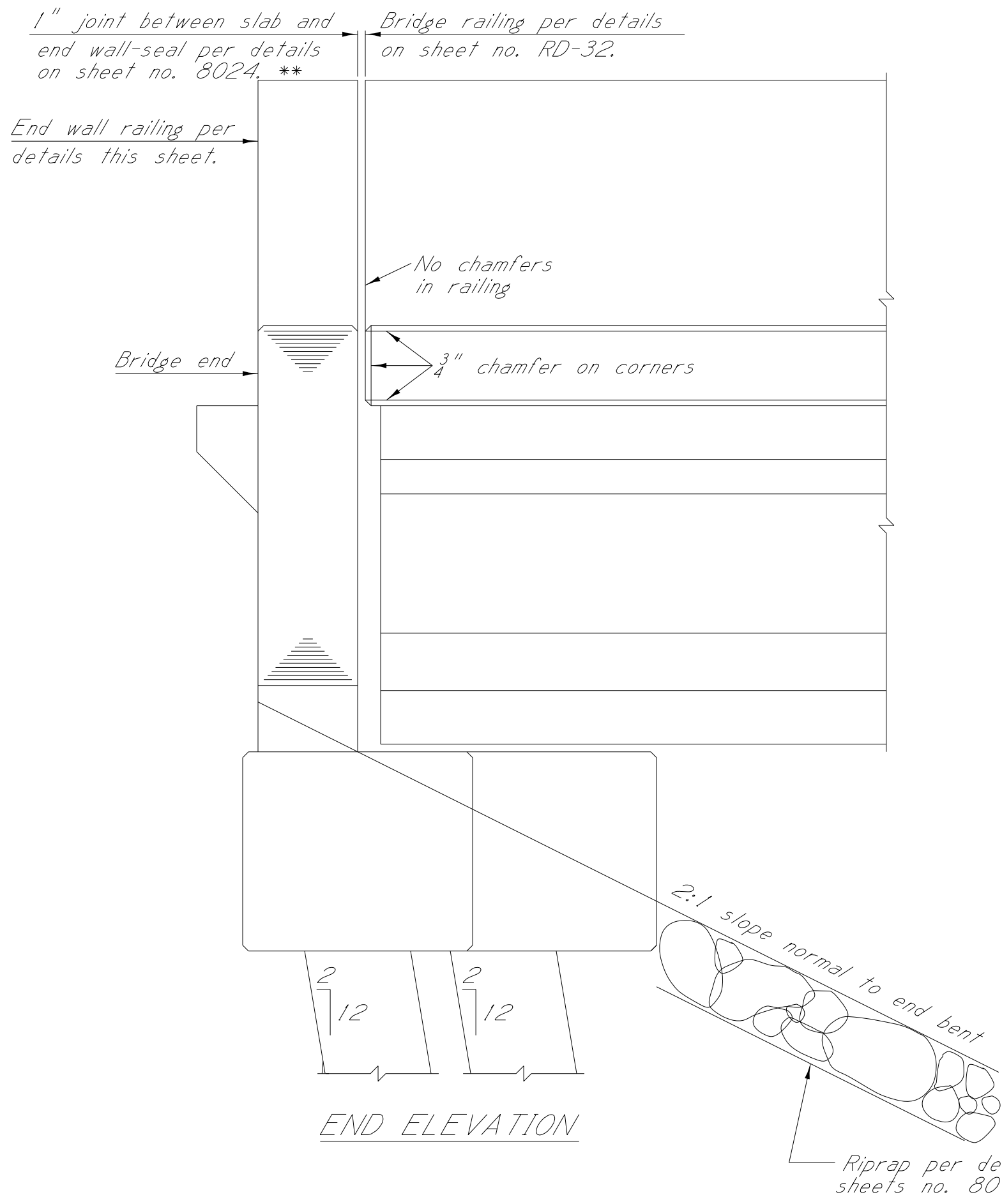
NOTE:
Vertical dimensions shown are measured along fill face of end wall (bridge end).
For GENERAL NOTES and other details see sheet no. 8017.

*Splice Note: Long bars in cap may be lap spliced as follows:
#6 Bars ~ 2'-3", #8 Bars ~ 3'-3"



BY MISSISSIPPI DEPARTMENT OF TRANSPORTATION	
BRIDGE "B" AT STA. 1583+71.88	
END BENT NO. 4 DETAILS	
REVISION	FMS: 103334 / 301000
DATE	COUNTY: ATTALA
	PROJECT NUMBER: BR-0023-02(058)
DESIGNER JONATHAN KING	CHECKER SPENCER YATES
DETAILER JONATHAN KING	ISSUE DATE 6/12/2019
DIRECTOR OF STRUCTURES, STATE BRIDGE ENGINEER - JUSTIN WALKER, P.E.	
DEP. DIR. OF STRUCTURES, ASST. STATE BRIDGE ENGINEER - SCOTT WESTERFIELD, P.E.	
WORKING NUMBER	B4 OF B14
SHEET NUMBER	8016

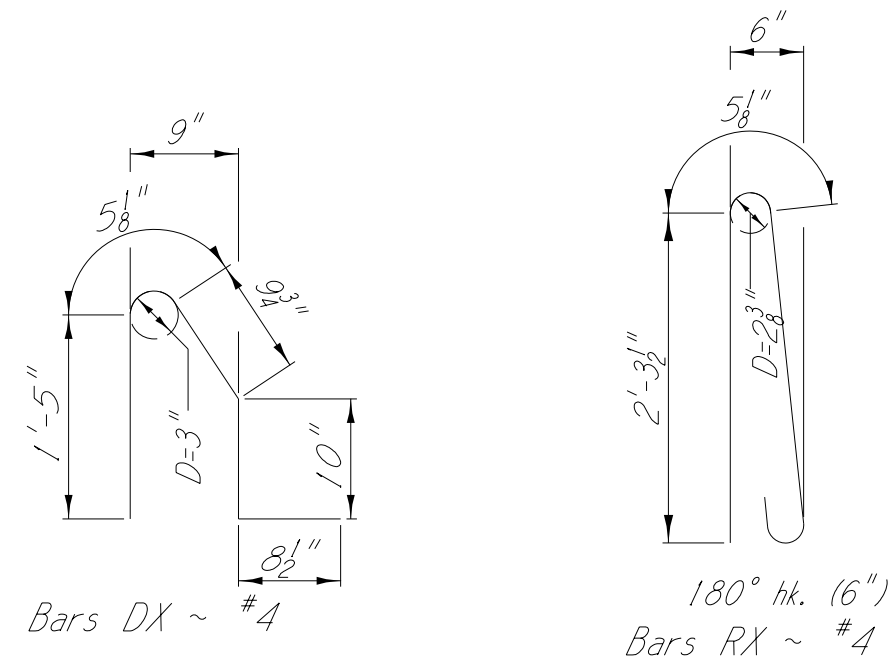
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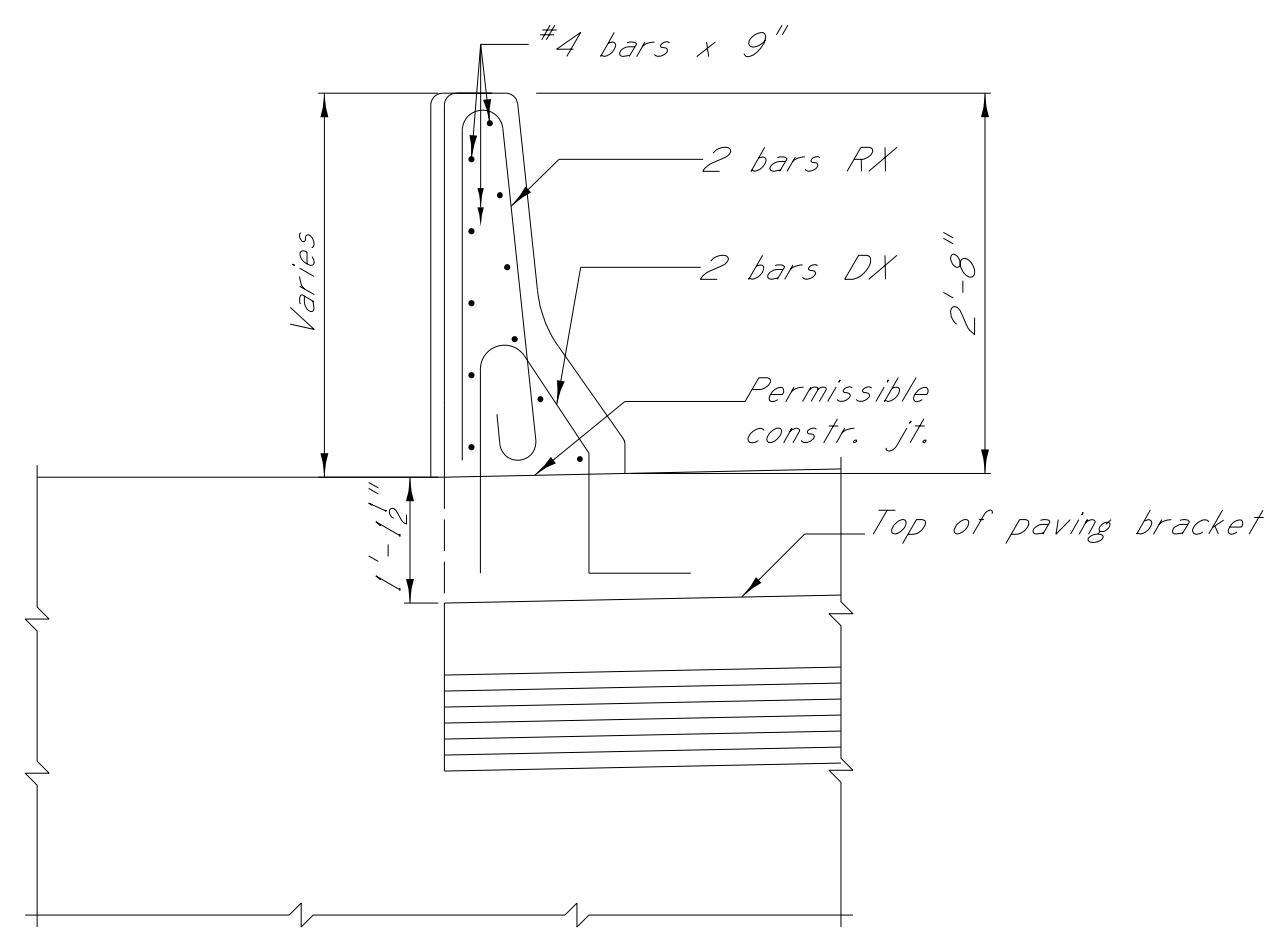
SECTION A-A

SECTION B-B

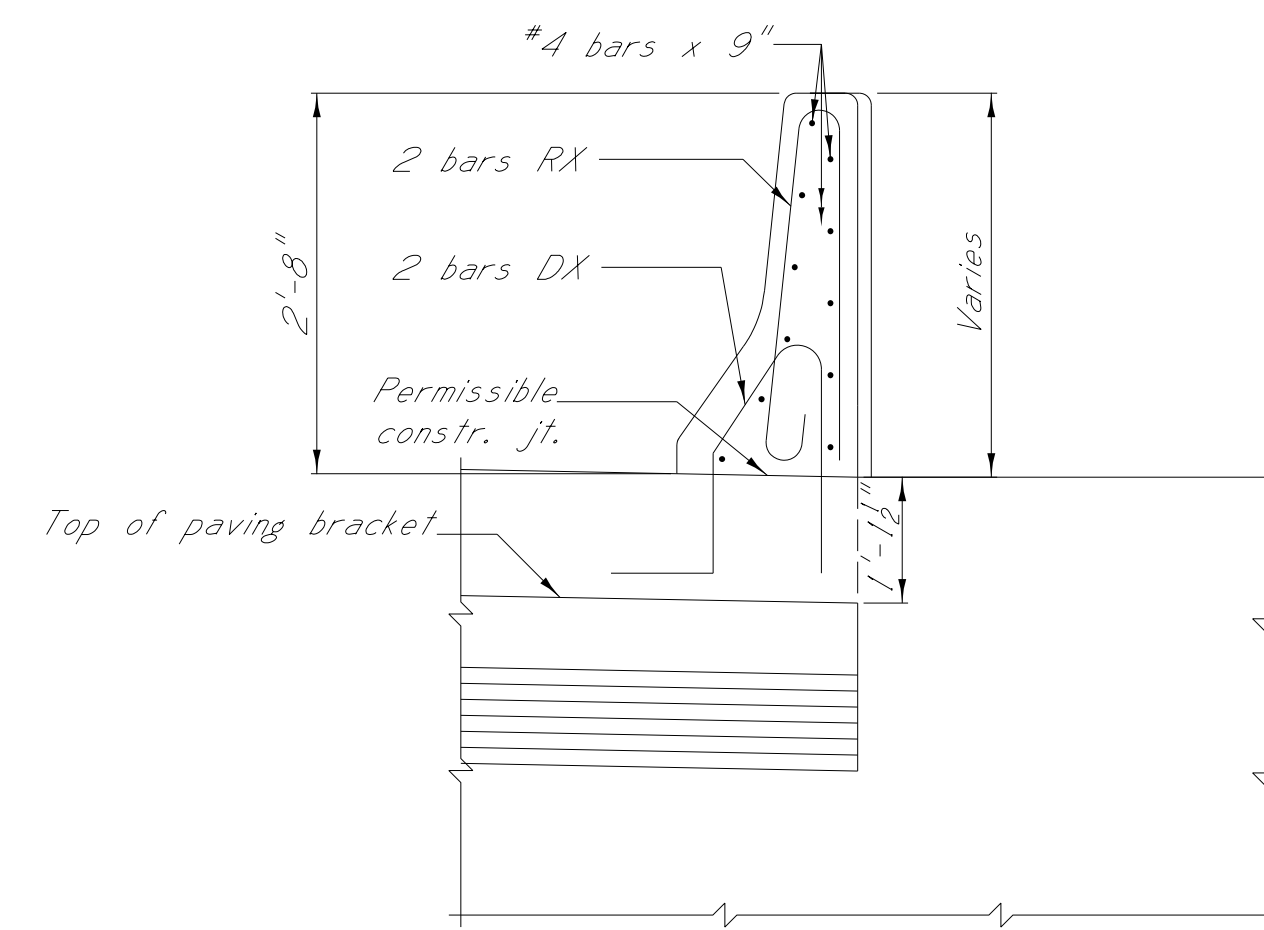
**NOTES: 1/4" seat required. See sealing details on sheet no. 8024.



BAR BENDING DETAILS
All dimensions are out to out



LEFT END WALL RAILING
Viewed from fill face of end wall



RIGHT END WALL RAILING
Viewed from fill face of end wall

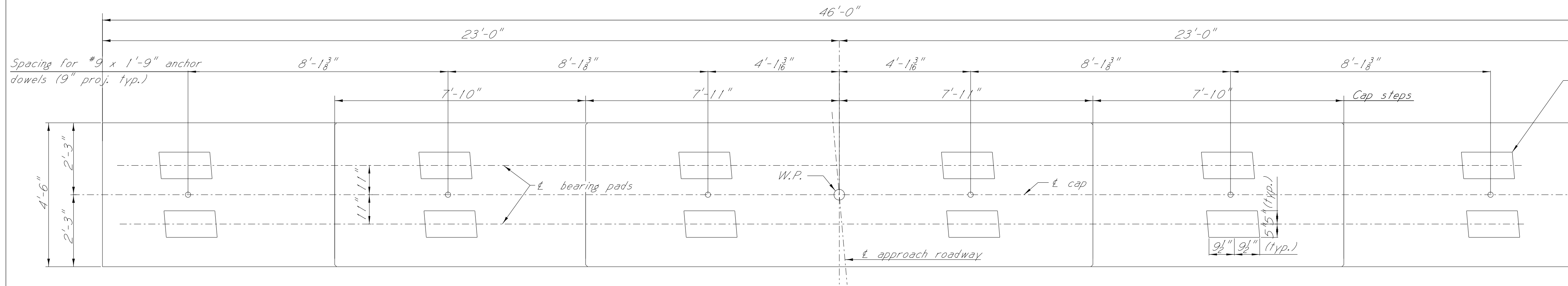
GENERAL NOTES:
All concrete in end bents shall be class "AA".
Chamfer all edges 3/4", unless otherwise noted.
Portion of end wall between top of cap and permissible construction joint shall be constructed after placement of prestressed concrete beams. Portion of end wall above permissible construction joint shall not be constructed until bridge deck is in place and forms removed.
Piles for end bents shall not be driven until bridge end fill has been constructed to grade.
Dimensions from reinforcing steel to concrete surfaces are clear distances.



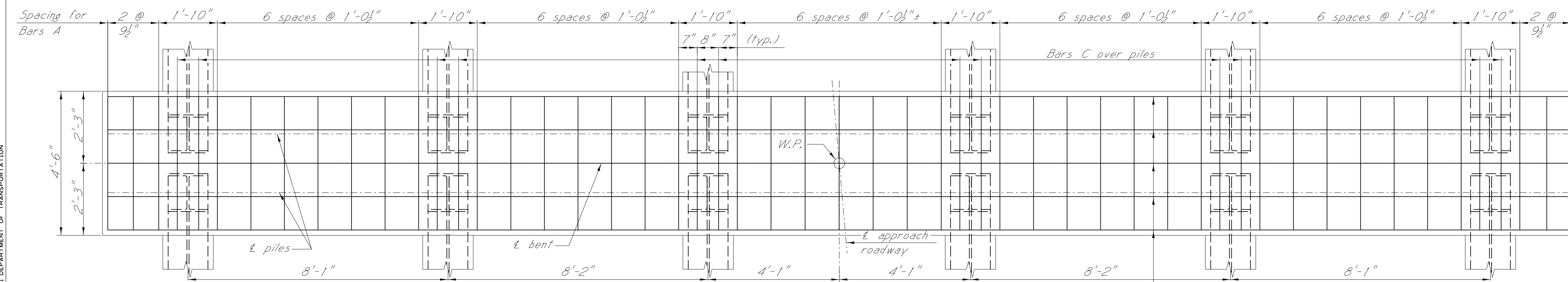
BY MISSISSIPPI DEPARTMENT OF TRANSPORTATION	
BRIDGE "B" AT STA. 1583+71.88	
END BENT DETAILS	
REVISION	FMS: 103334 / 301000
DATE	COUNTY: ATTALA
DESIGNER JONATHAN KING	CHECKER SPENCER YATES
DETAILER JONATHAN KING	ISSUE DATE 6/12/2019
PROJECT NUMBER: BR-0023-02(058)	
WORKING NUMBER	
B5 OF B14	
SHEET NUMBER	
8017	

PLAN SECTION PROJECT MISSISSIPPI DEPARTMENT OF TRANSPORTATION

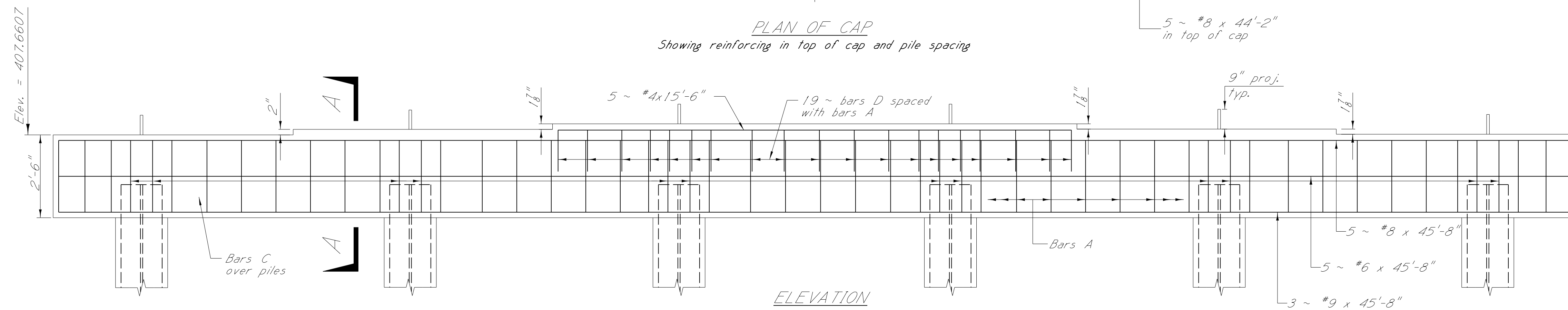
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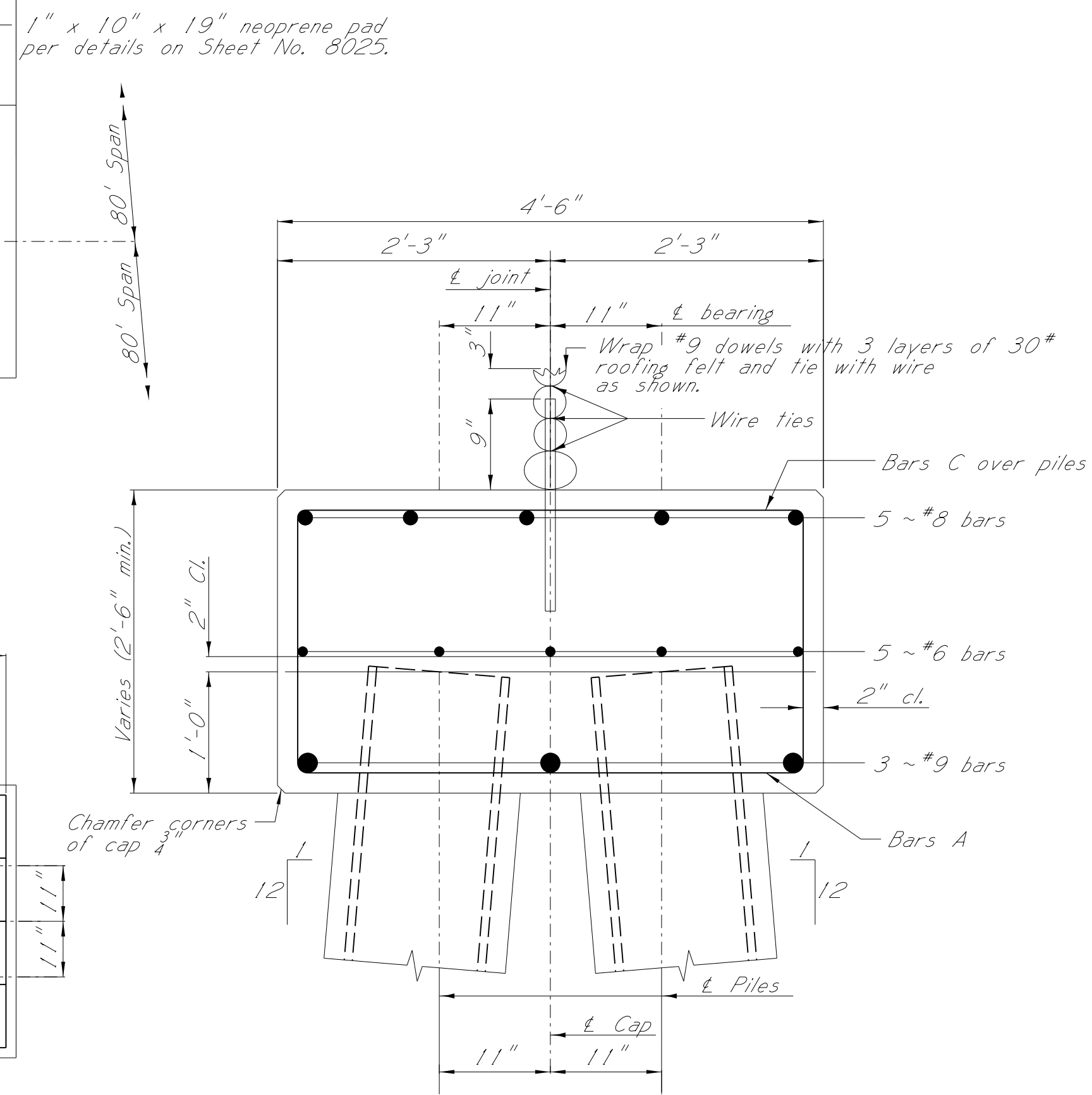
PLAN OF INTERMEDIATE BENT
Showing concrete dimensions, cap steps, anchor dowels, and neoprene pad placement



PLAN OF CAP
Showing reinforcing in top of cap and pile spacing



ELEVATION

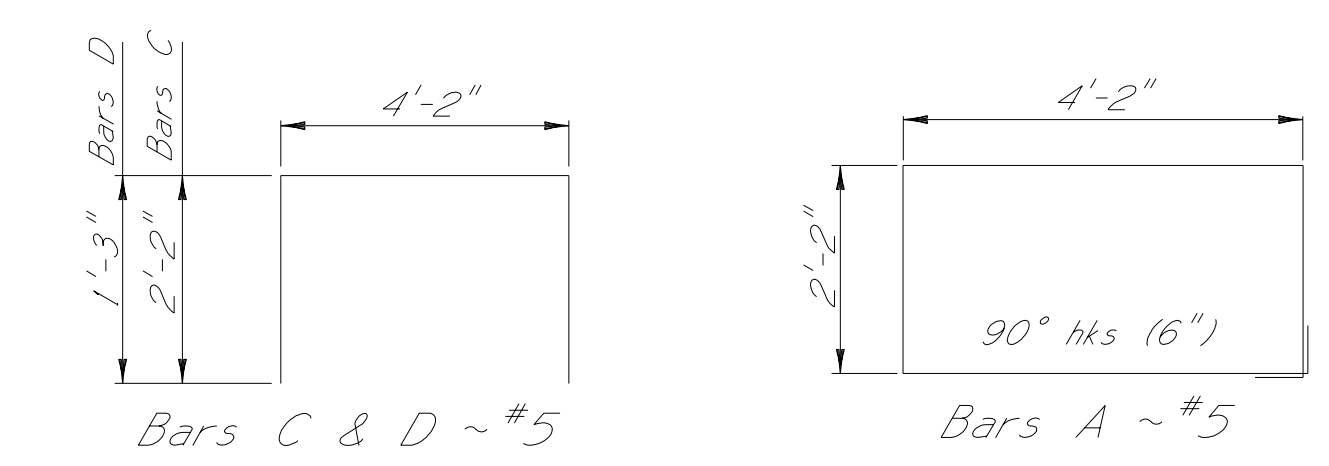


SECTION A-A

NOTE: Portion of top of cap directly beneath the diaphragm shall have a smooth trowelled finish.

NOTE: Piles shall be of the size, type and driven to the minimum bearing capacity as shown on Sheet No. 8013.

GENERAL NOTES:
All concrete in cap shall be class "AA".
Chamfer all edges 3/4" unless otherwise noted.
Placing dimensions from reinforcing steel to concrete surfaces are clear distances.



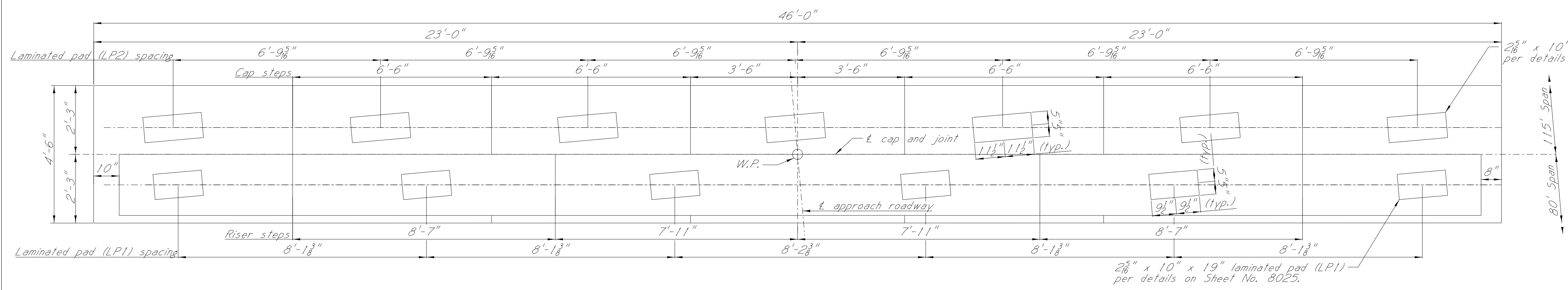
BAR BENDING DETAILS
Dimensions are out to out



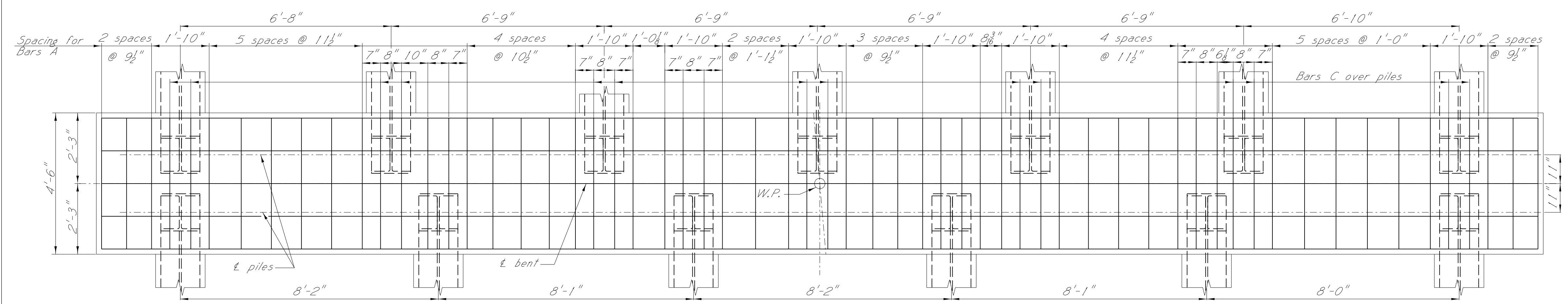
MISSISSIPPI DEPARTMENT OF TRANSPORTATION	
BRIDGE "B" AT STA. 1583+71.88	
INT. BENT NO. 2 DETAILS	
DATE	BY
REVISION	BY
FMS: 103334 / 301000	
COUNTY: ATTALA	
PROJECT NUMBER: BR-0023-02(058)	
DESIGNER JONATHAN KING	CHECKER SPENCER YATES
DETAILER JONATHAN KING	ISSUE DATE 6/12/2019
DIRECTOR OF STRUCTURES, STATE BRIDGE ENGINEER - JUSTIN WALKER, P.E.	
DIR. OF STRUCTURES, ASST. STATE BRIDGE ENGINEER - SCOTT WESTERFIELD, P.E.	
WORKING NUMBER	B6 OF B14
SHEET NUMBER	
8018	

001: 00 ANPM DGN FILE NAME

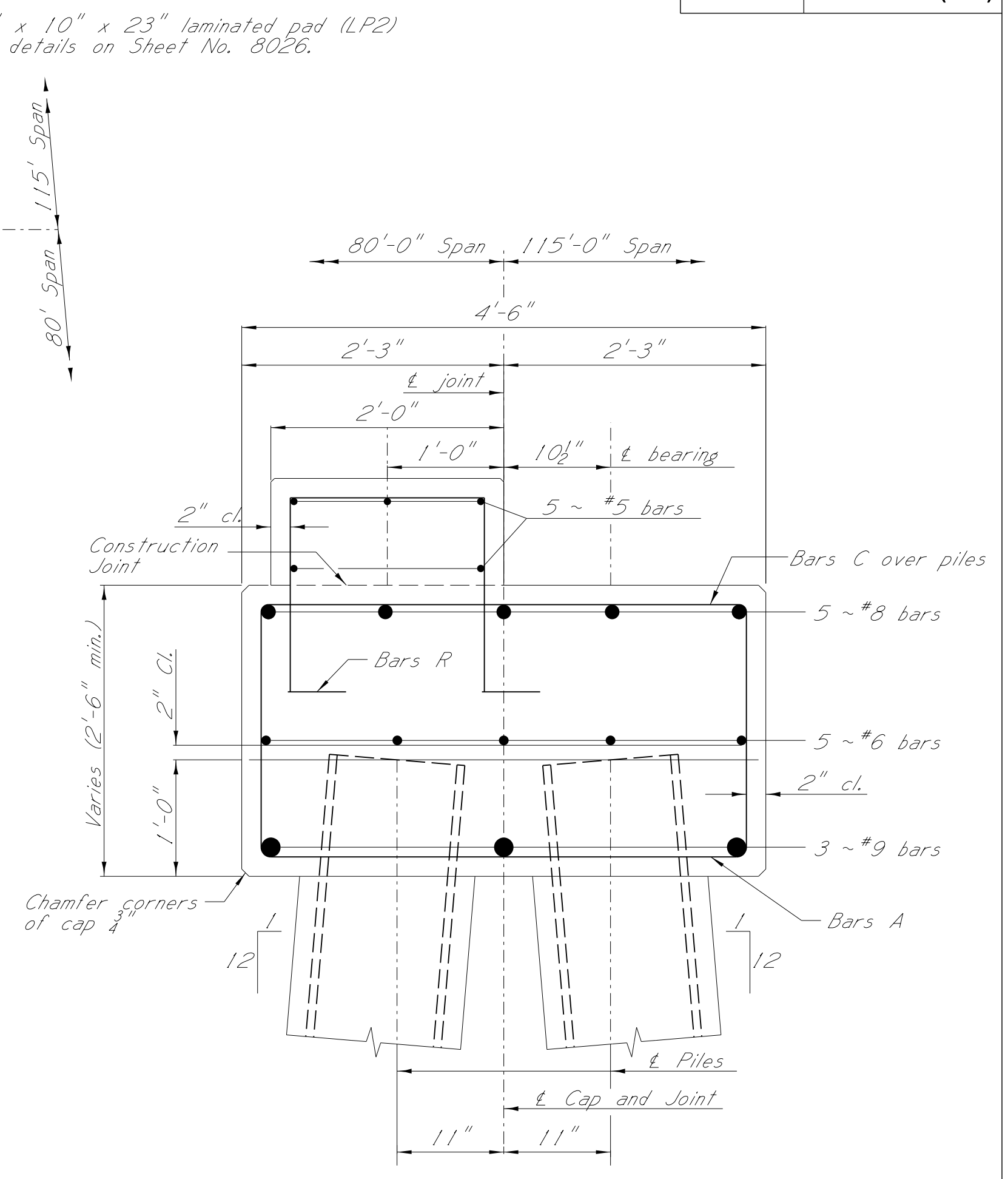
PLAN SECTION MISSISSIPPI DEPARTMENT OF TRANSPORTATION



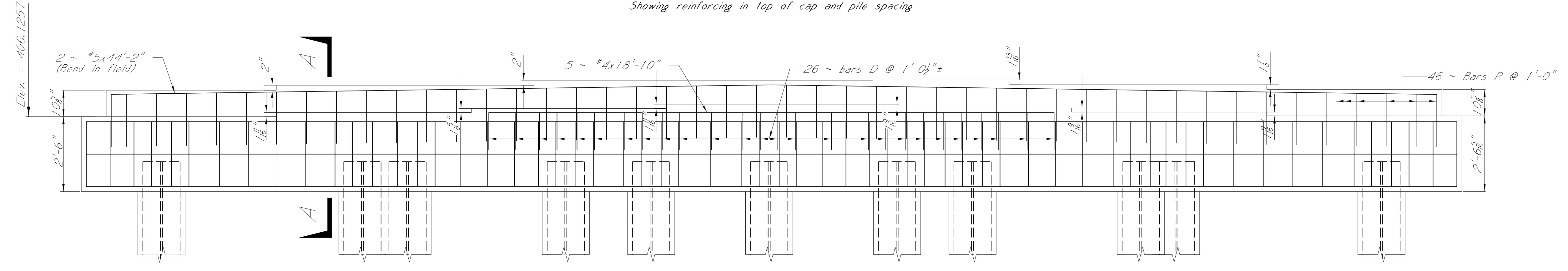
PLAN OF INTERMEDIATE BENT
Showing concrete dimensions, cap steps, anchor dowels, and neoprene pad placement



PLAN OF CAP
Showing reinforcing in top of cap and pile spacing



SECTION A-A

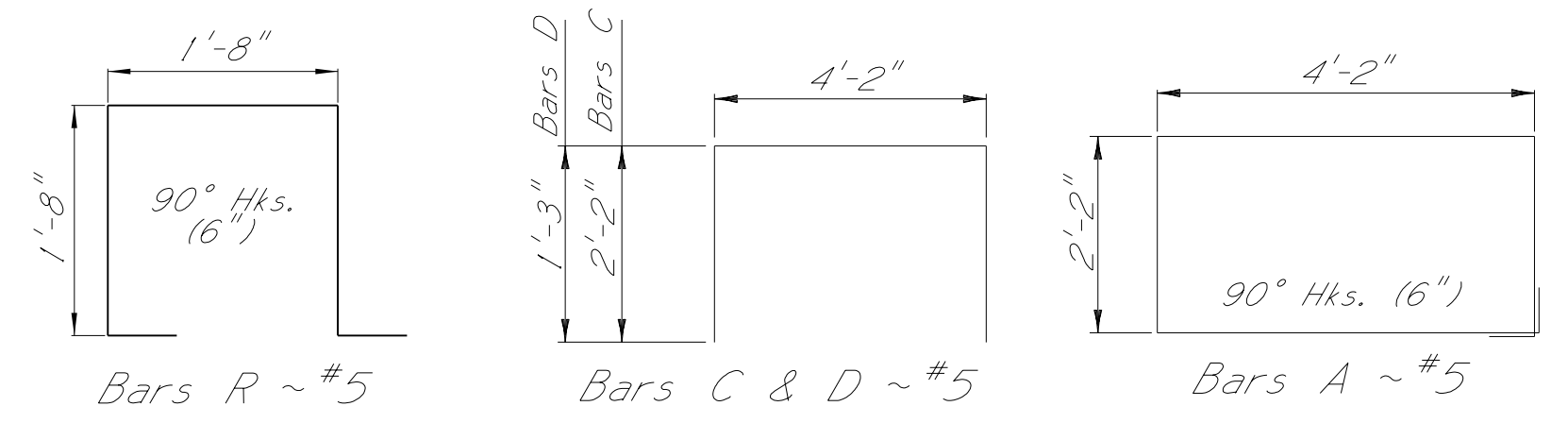


ELEVATION

NOTE: Portion of top of cap directly beneath the diaphragm shall have a smooth trowelled finish.

NOTE: Piles shall be of the size, type and driven to the minimum bearing capacity as shown on Sheet No. 8013.

GENERAL NOTES:
All concrete in cap shall be class "AA".
Chamfer all edges 3/4" unless otherwise noted.
Placing dimensions from reinforcing steel to concrete surfaces are clear distances.



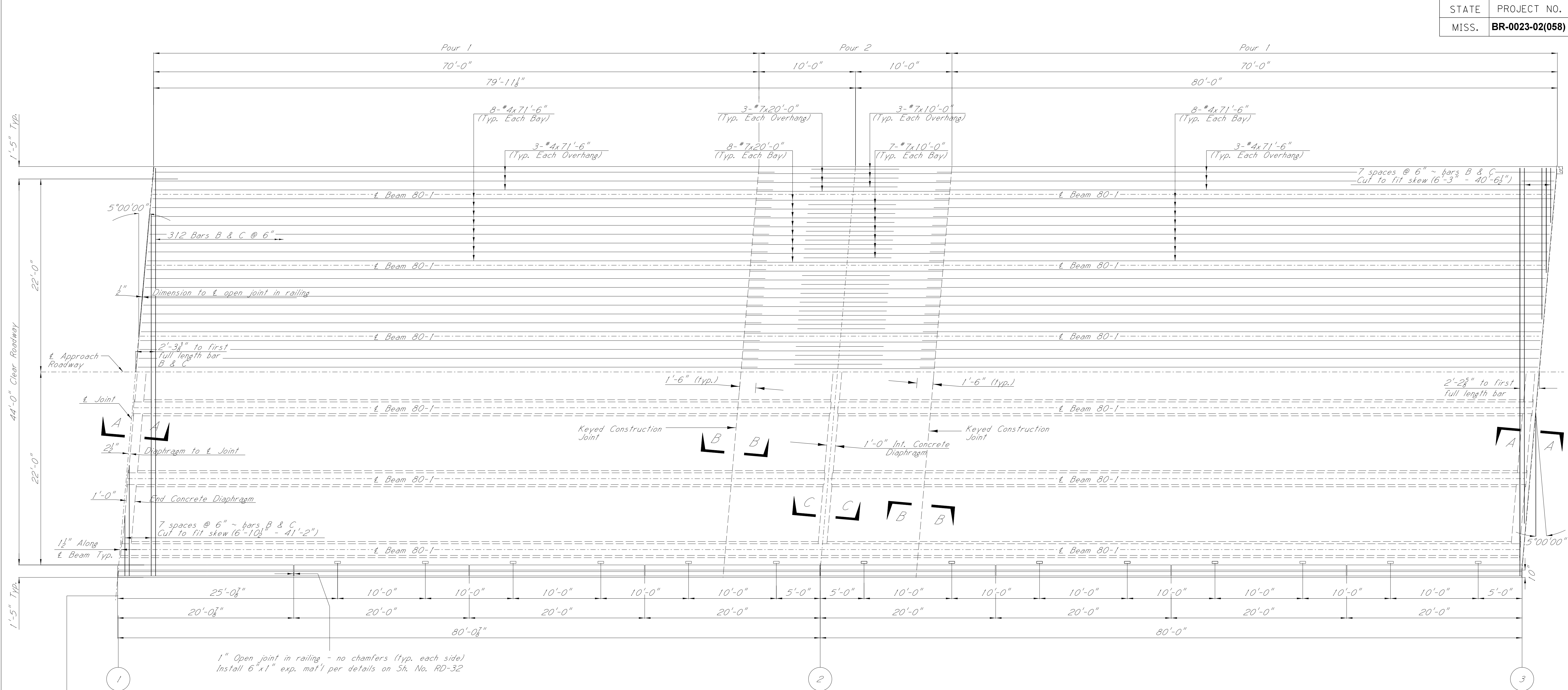
BAR BENDING DETAILS
Dimensions are out to out



BY		MISSISSIPPI DEPARTMENT OF TRANSPORTATION	
DATE		BRIDGE "B" AT STA. 1583+71.88	
REVISION		INT. BENT NO. 3 DETAILS	
FMS: 103334 / 301000		WORKING NUMBER	
COUNTY: ATTALA		B7 OF B14	
PROJECT NUMBER: BR-0023-02(058)		SHEET NUMBER	
DESIGNER JONATHAN KING		8019	
DETAILER JONATHAN KING		CHECKER SPENCER YATES	
DIRECTOR OF STRUCTURES, STATE BRIDGE ENGINEER - JUSTIN WALKER, P.E.		ISSUE DATE 6/12/2019	
DEP. DIR. OF STRUCTURES, ASST. STATE BRIDGE ENGINEER - SCOTT WESTERFIELD, P.E.			

001: 00 ANPM DGN FILE NAME

PROJECT PLAN SECTION MISSISSIPPI DEPARTMENT OF TRANSPORTATION



PLAN OF 80 FT. CONTINUOUS SPANS

Top half showing reinforcing in top of slab.
Bottom half showing concrete dimensions.

NOTE:
The deck pouring schedule as shown on these plans is recommended and shall be used unless an alternative pouring sequence is submitted through the Project Engineer and approved by the Director of Structures, State Bridge Engineer.

NOTE:
For sections, general notes, and other details: see sheets no. 8021 & 8024.

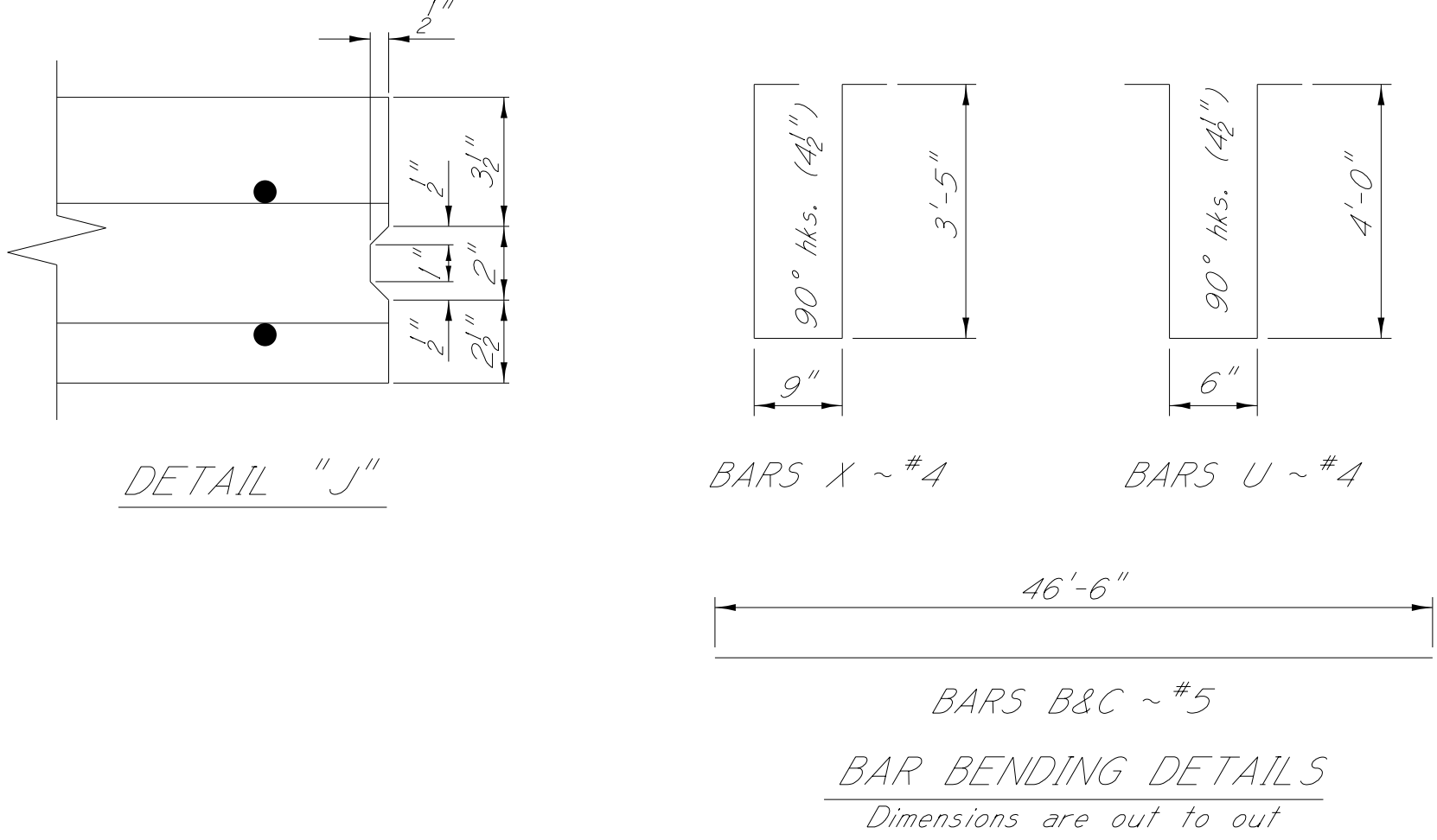
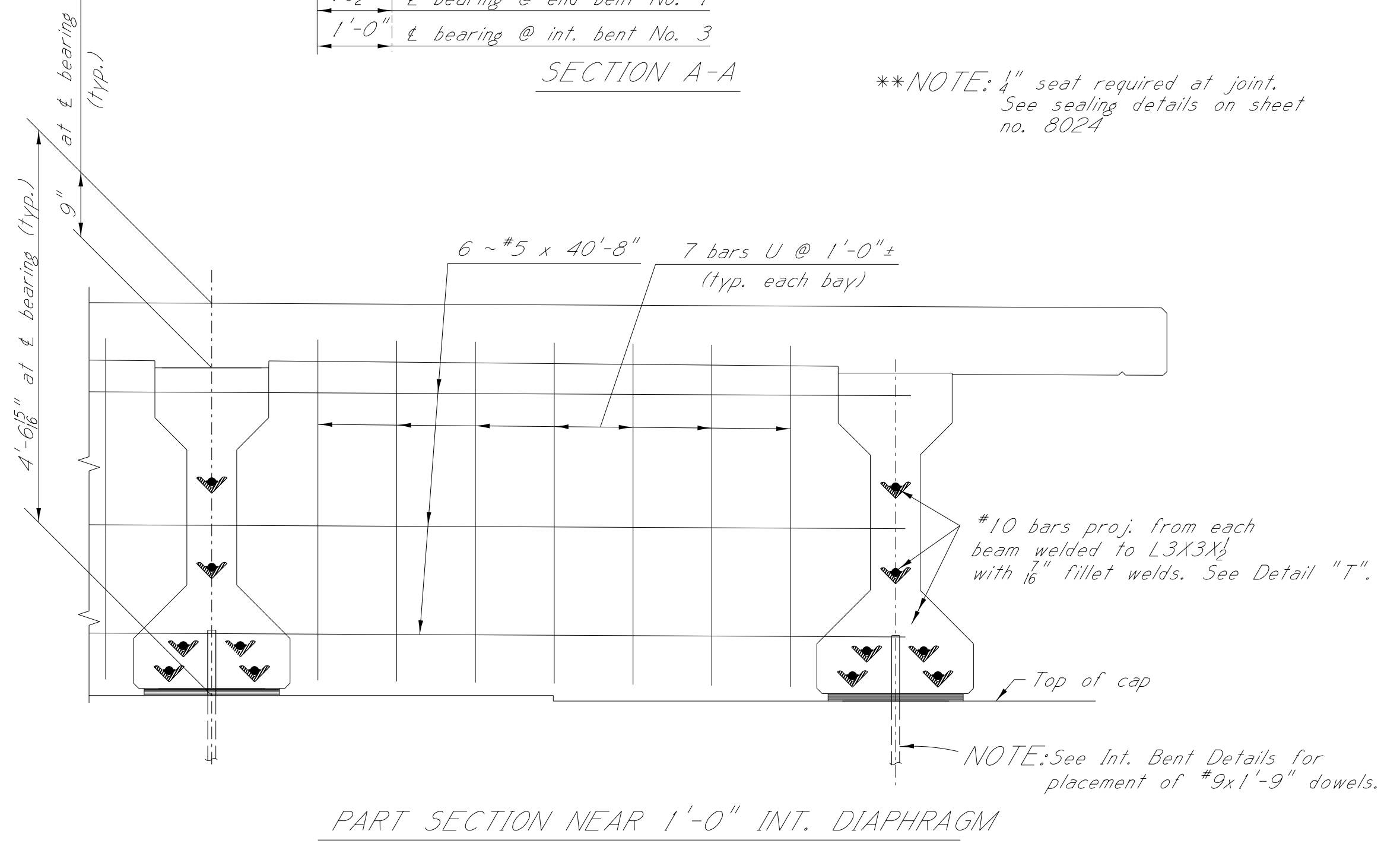
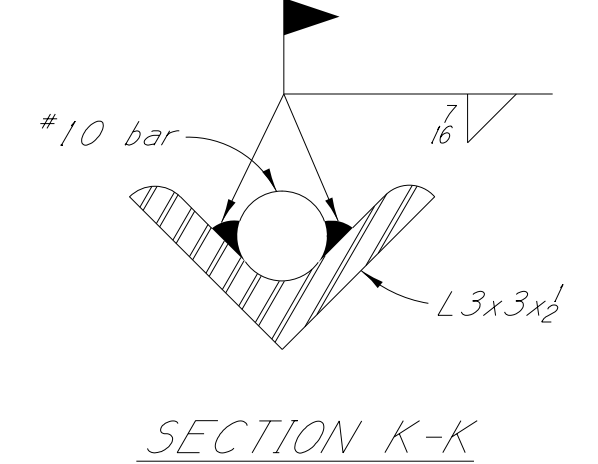
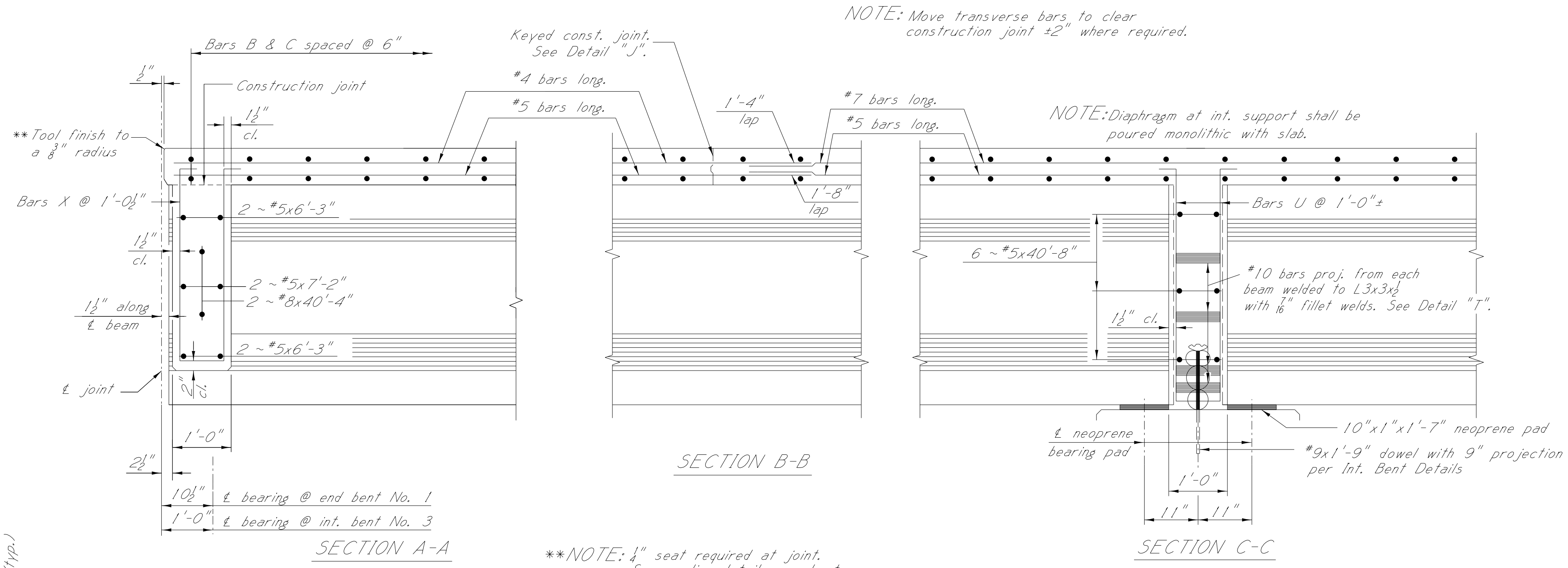
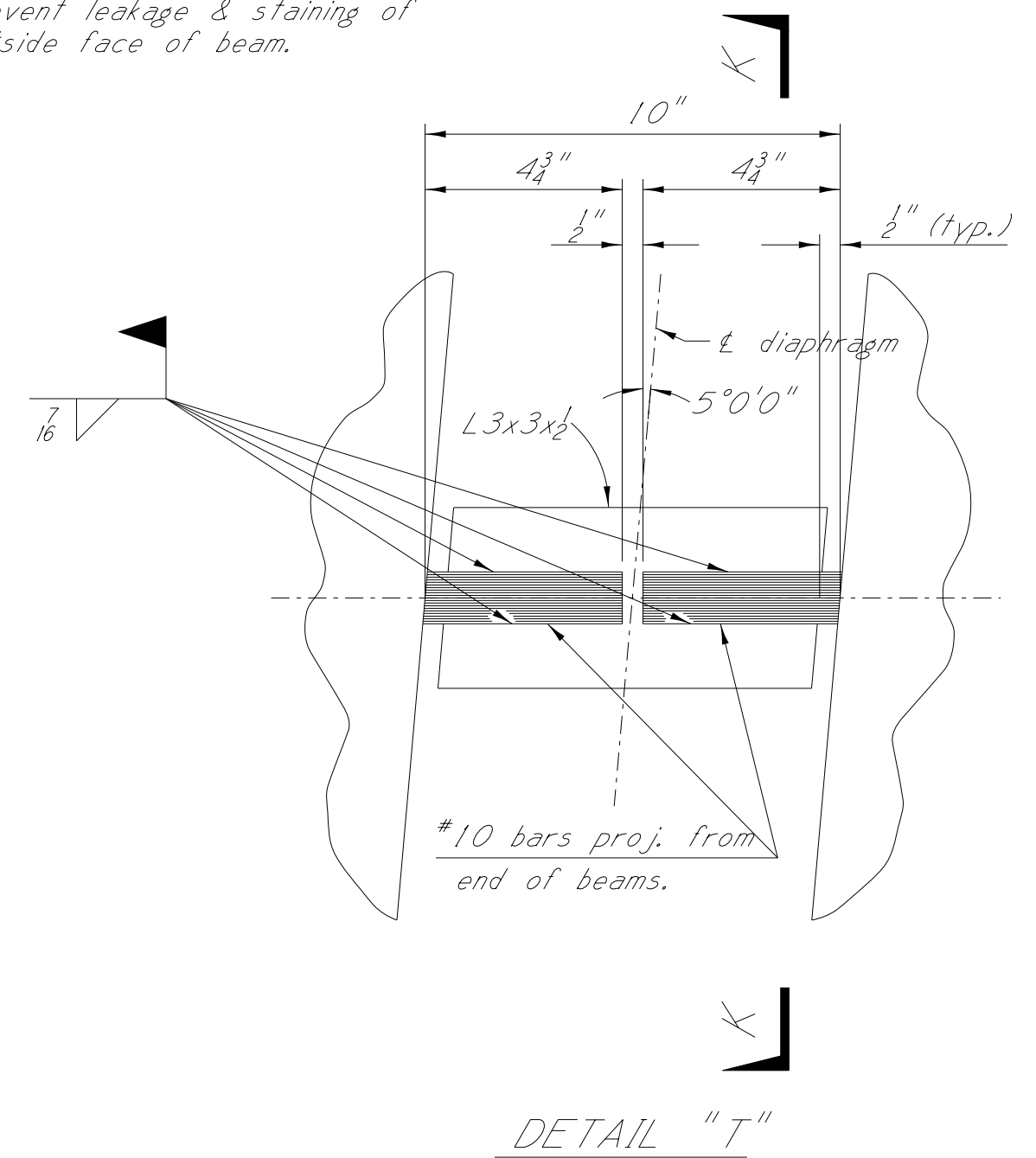
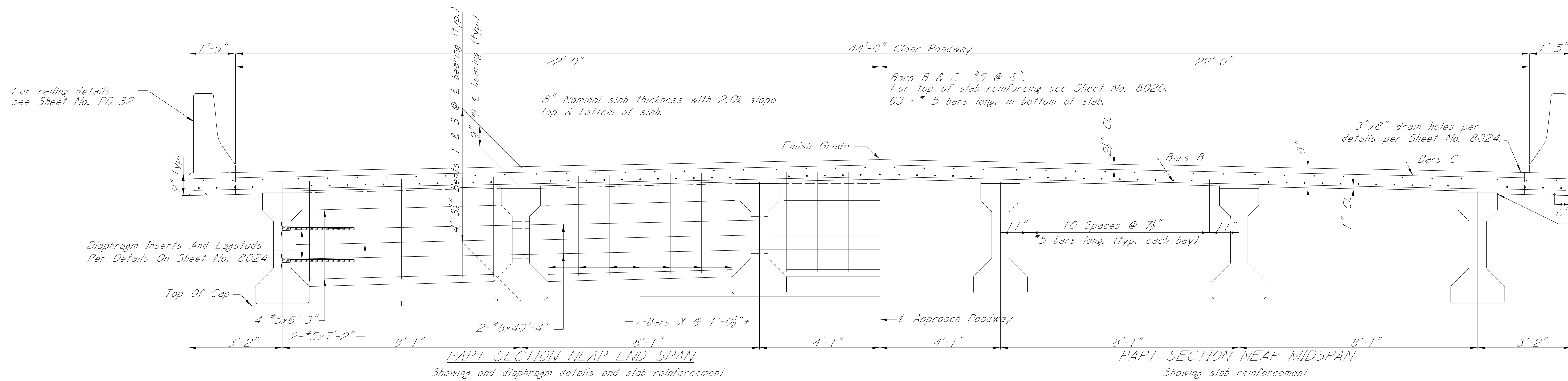
*** SPLICE NOTE:**
Long. Bars in Deck May Be Lap Spliced As Follows
#5 ~ 1'-8"

Mark	No.
D	280
R	280
Dx	4
Rx	4



MISSISSIPPI DEPARTMENT OF TRANSPORTATION	
BRIDGE "B" AT STA. 1583+71.88	
PLAN OF 80 FT SPANS NO. 1 AND 2	
FMS: 103334 / 301000	
COUNTY: ATTALA	
PROJECT NUMBER: BR-0023-02(058)	
DATE	DESIGNER JONATHAN KING DETAILER JONATHAN KING
DATE	CHECKER SPENCER YATES ISSUE DATE 6/12/2019
DIRECTOR OF STRUCTURES, STATE BRIDGE ENGINEER - JUSTIN WALKER, P.E. DEP. DIR. OF STRUCTURES, ASST. STATE BRIDGE ENGINEER - SCOTT WESTERFIELD, P.E.	
WORKING NUMBER	B8 OF B14
SHEET NUMBER	8020

001: 00 ANPM DGN FILE NAME



NOTE:
Contractor should be aware of possible tilting of exterior beams during construction of the superstructure and should take precautionary steps to prevent such tilting of beams.

NOTE:
Ensure that holes in beam webs are completely filled with diaphragm concrete.

NOTE:
The volume of concrete in the fillets between the bottom of the nominal slab and the top of the beams has been estimated by using 3/4 the fillet height, at the bearing, multiplied by the top flange width and the full length of the beam. This volume shall be used for final pay quantity. Any additional concrete required in the fillet resulting from an unexpected camber in the beam will not be directly paid for and shall be considered an absorbed item.

NOTE:
For general notes, railing details and other typical span details see Sheets No. B12 & RD-32.

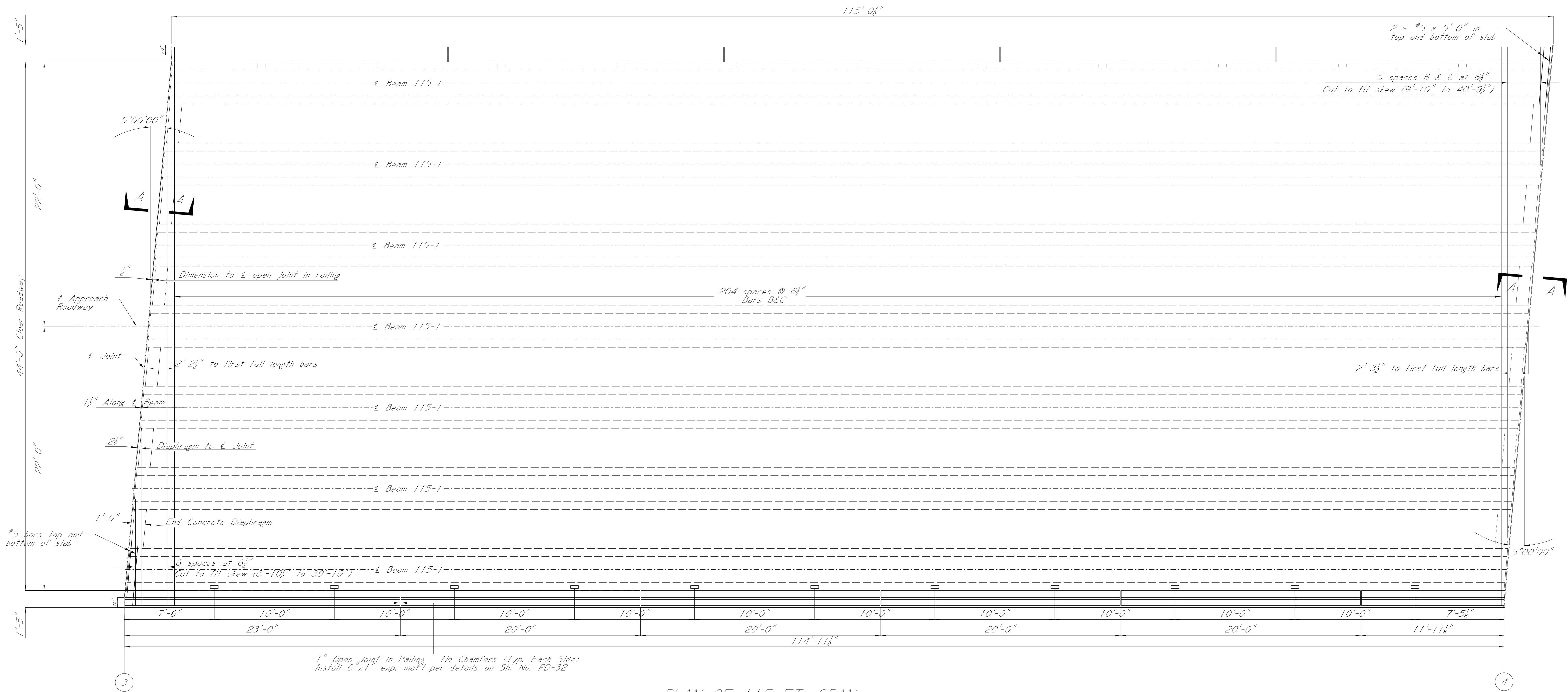
DESIGN DATA:
Specifications A.A.S.H.T.O. LRFD, 2017 Interims
Loading HL-93
Slab stresses f_t=24,000 p.s.i. ; f_c=1,600 p.s.i. ; n=8
Prestressed beam details . . . See sheet no. B12
Concrete Class "AA" (4,000 p.s.i.)
Class "BD" (4,000 p.s.i.)

NOTE: Class "BD" concrete shall be used in the spans & diaphragms.

BY MISSISSIPPI DEPARTMENT OF TRANSPORTATION	
BRIDGE "B" AT STA. 1583+71.88	
80 FT SPAN DETAILS	
REVISION	FMS: 103334 / 301000
	COUNTY: ATTALA
	PROJECT NUMBER: BR-0023-02(058)
DATE	DESIGNER JONATHAN KING
	CHECKER SPENCER YATES
	ISSUE DATE 6/12/2019
	DIRECTOR OF STRUCTURES, STATE BRIDGE ENGINEER - JUSTIN WALKER, P.E.
	DEP. DIR. OF STRUCTURES, ASST. STATE BRIDGE ENGINEER - SCOTT WESTERFIELD, P.E.
WORKING NUMBER	B9 OF B14
SHEET NUMBER	8021



001: 00 AMPM DGN FILE NAME



PLAN OF 115 FT. SPAN
Showing concrete dimensions and transverse reinforcement

TABLE OF RAILING BARS	
Mark	No.
D	390
R	390
Dx	4
Rx	4

NOTE:
For general notes, sections, and other details:
see sheets no. 8023 and 8024.

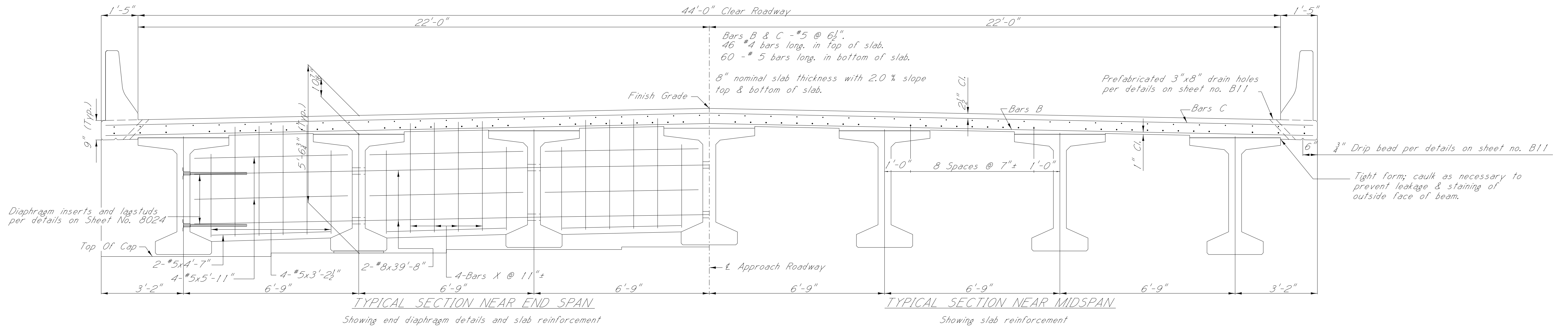
***SPLICE NOTE:**
Long. bars in deck may be lap spliced as follows
#5 ~ 1'-8"



MISSISSIPPI DEPARTMENT OF TRANSPORTATION BRIDGE "B" AT STA. 1583+71.88	
PLAN OF 115 FT SPAN NO. 3	
FMS: 103334 / 301000 COUNTY: ATTALA PROJECT NUMBER: BR-0023-02(058)	
DATE	DESIGNER JONATHAN KING DETAILER JONATHAN KING
REVISION	CHECKER SPENCER YATES ISSUE DATE 6/12/2019
BY	DIRECTOR OF STRUCTURES, STATE BRIDGE ENGINEER - JUSTIN WALKER, P.E. DEP. DIR. OF STRUCTURES, ASST. STATE BRIDGE ENGINEER - SCOTT WESTERFIELD, P.E.
WORKING NUMBER	B10 OF B14
SHEET NUMBER	8022

001: 00 AHPM DGNFILENAME

PLAN SECTION
PROPOSED
MISSISSIPPI DEPARTMENT OF TRANSPORTATION



NOTE:
Contractor should be aware of possible tilting of exterior beams during construction of the superstructure and should take precautionary steps to prevent such tilting of beams.

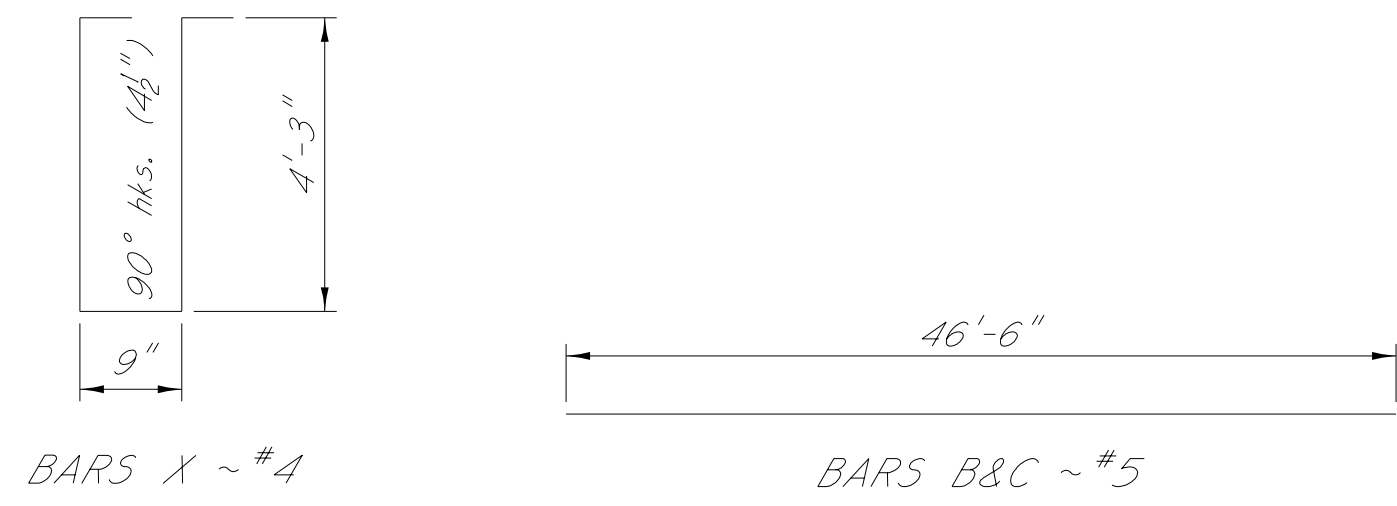
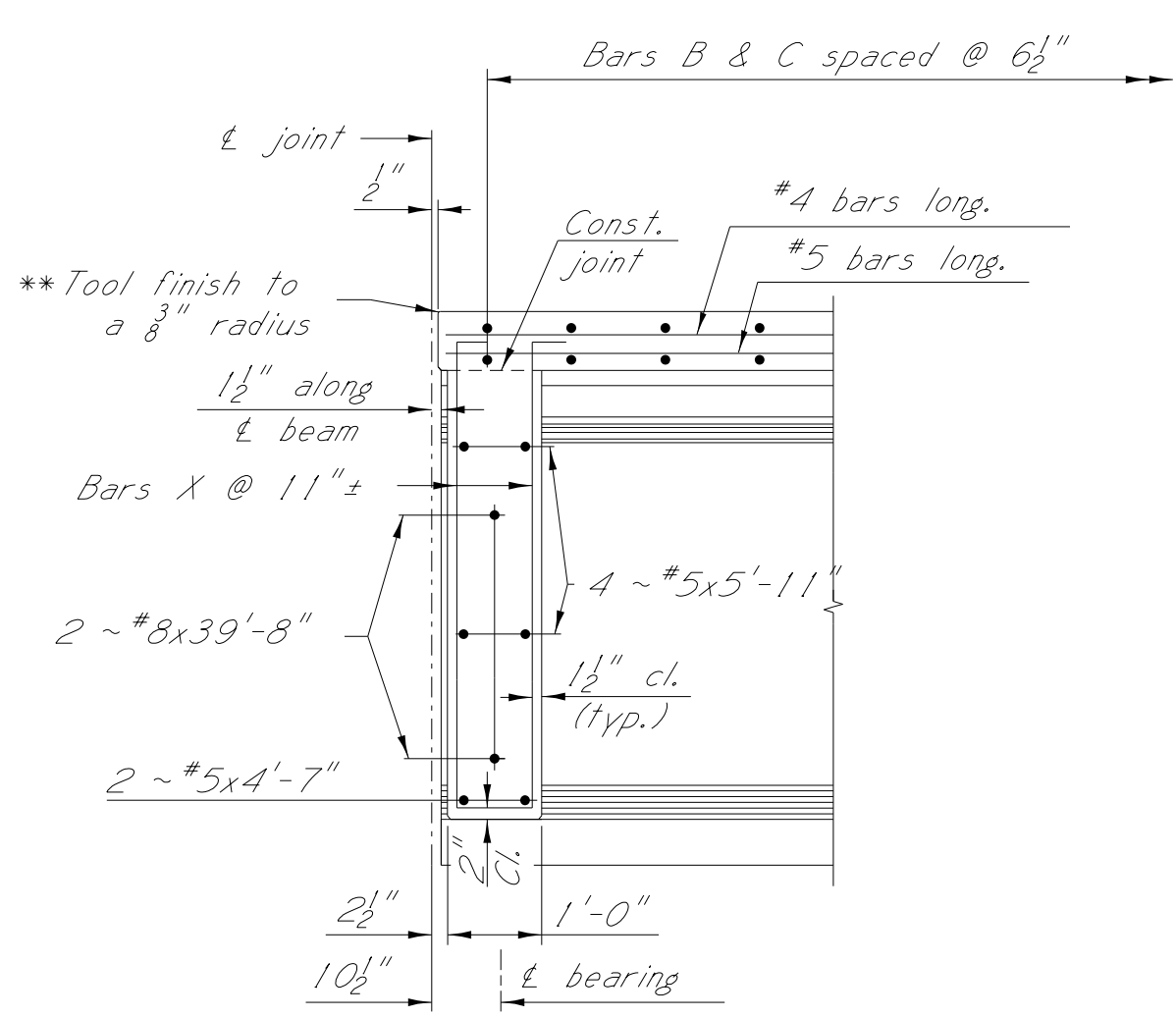
NOTE:
Ensure that holes in beam webs are completely filled with diaphragm concrete.

NOTE:
The volume of concrete in the fillets between the bottom of the nominal slab and the top of the beams has been estimated by using 1/2 the fillet height, at the bearing, multiplied by the top flange width and the full length of the beam. This volume shall be used for final pay quantity. Any additional concrete required in the fillet resulting from an unexpected camber in the beam will not be directly paid for and shall be considered an absorbed item.

NOTE:
For general notes, railing details and other typical span details see Sheets No. 8024 & RD-32.

DESIGN DATA:
 Specifications A.A.S.H.T.O. LRFD, 2017 Interims
 Loading HL-93
 Slab stresses f_t=24,000 p.s.i. ; f_c=1,600 p.s.i. ; n=8
 Prestressed beam details . . . See sheets, no. B13
 Concrete Class "AA" (4,000 p.s.i.)
 Class "BD" (4,000 p.s.i.)

NOTE: Class "BD" concrete shall be used in the spans & diaphragms.



****NOTE:** 1/4" seat required at joint.
See sealing details on sheet no. 8024

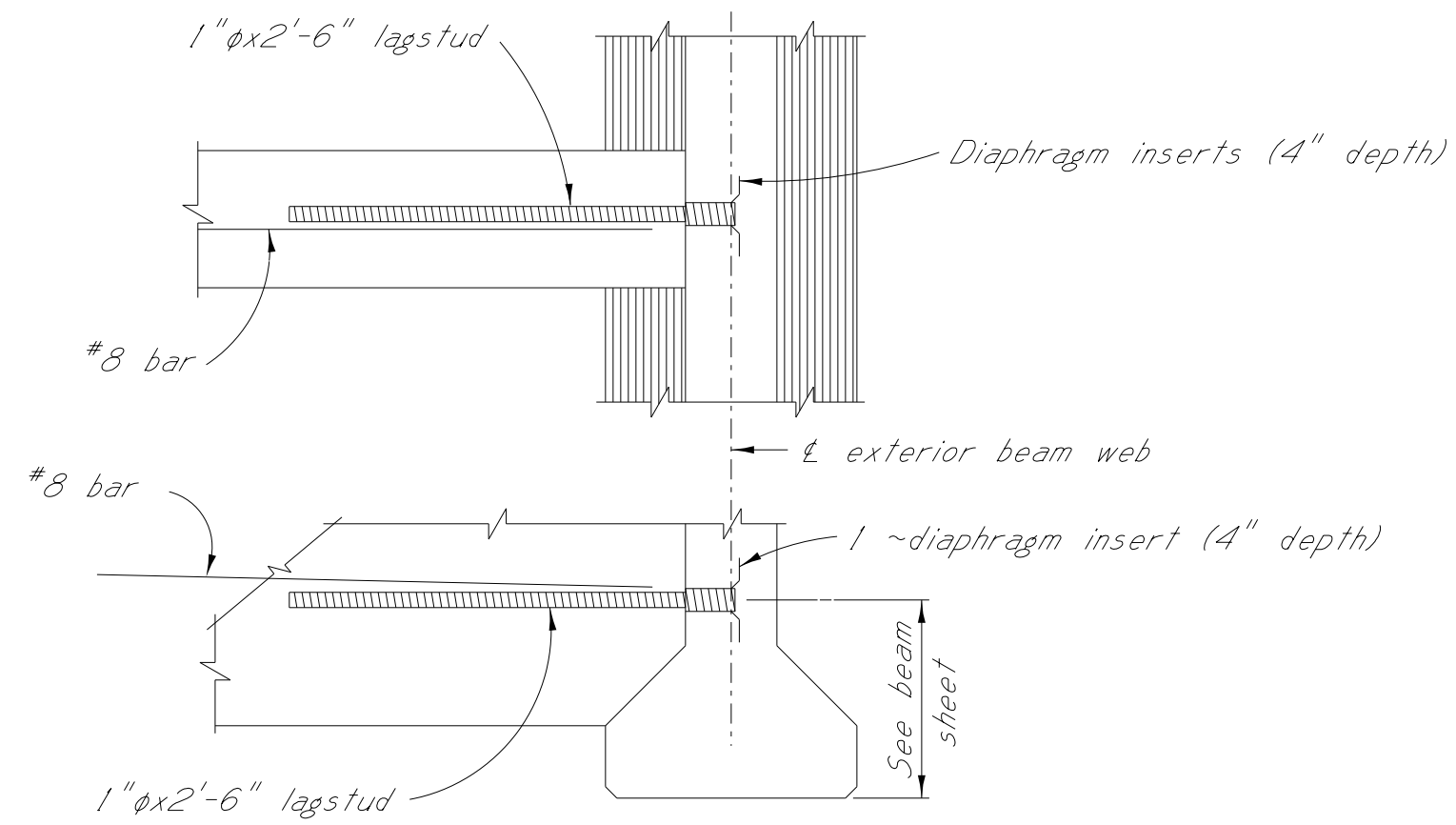
BAR BENDING DETAILS
Dimensions are out to out



BY	MISSISSIPPI DEPARTMENT OF TRANSPORTATION BRIDGE "B" AT STA. 1583+71.88	
	115 FT SPAN DETAILS	
	FMS: 103334 / 301000 COUNTY: ATTALA PROJECT NUMBER: BR-0023-02(058)	
DATE	DESIGNER JONATHAN KING	CHECKER SPENCER YATES
	DETAILER JONATHAN KING	ISSUE DATE 6/12/2019
	DIRECTOR OF STRUCTURES, STATE BRIDGE ENGINEER - JUSTIN WALKER, P.E. DEP. DIR. OF STRUCTURES, ASST. STATE BRIDGE ENGINEER - SCOTT WESTERFIELD, P.E.	
WORKING NUMBER	B11 OF B14	
SHEET NUMBER	8023	

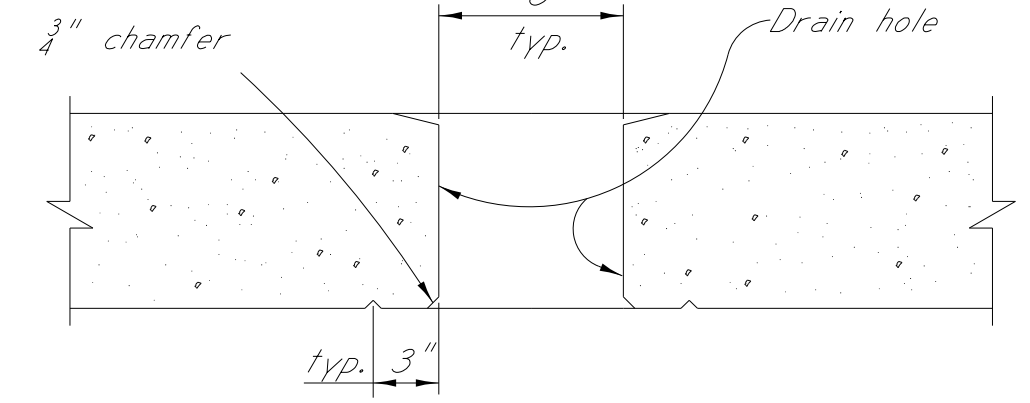
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PROJECT PLAN SECTION MISSISSIPPI DEPARTMENT OF TRANSPORTATION

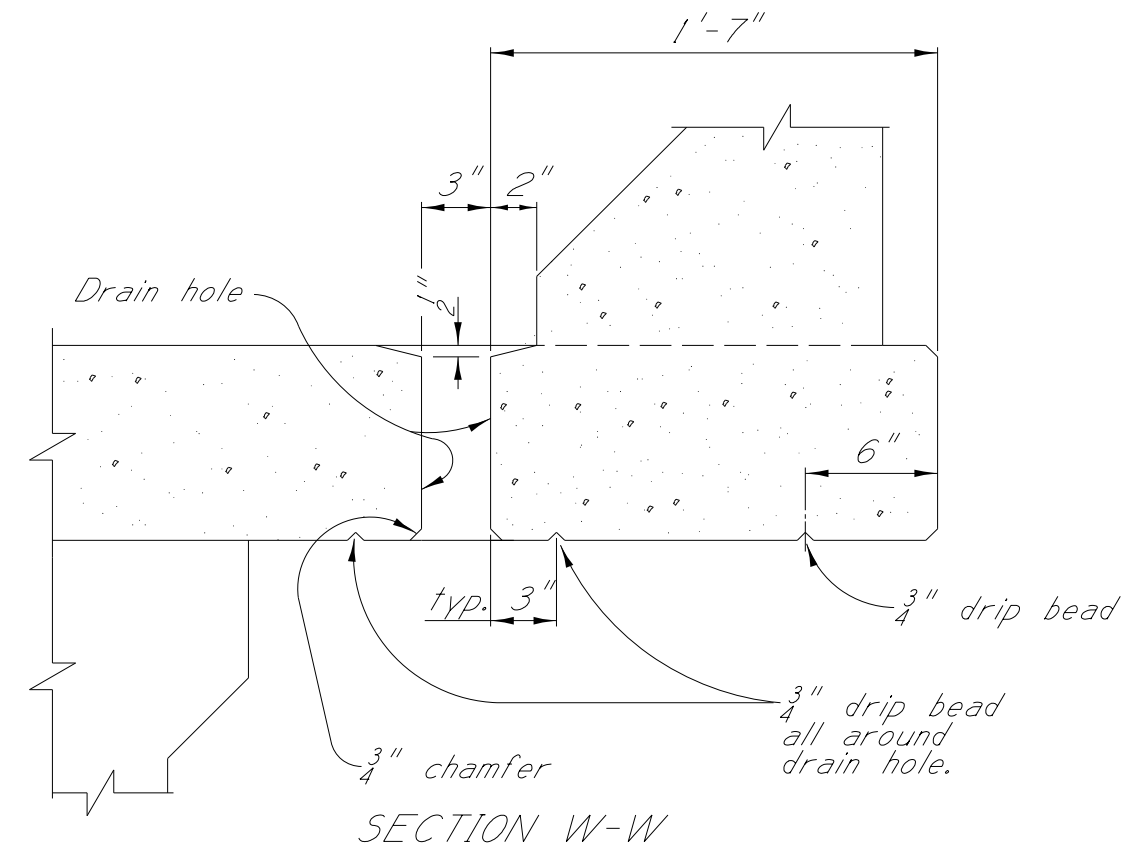


PART SECTION
DIAPHRAGM INSERT AND LAGSTUD DETAILS

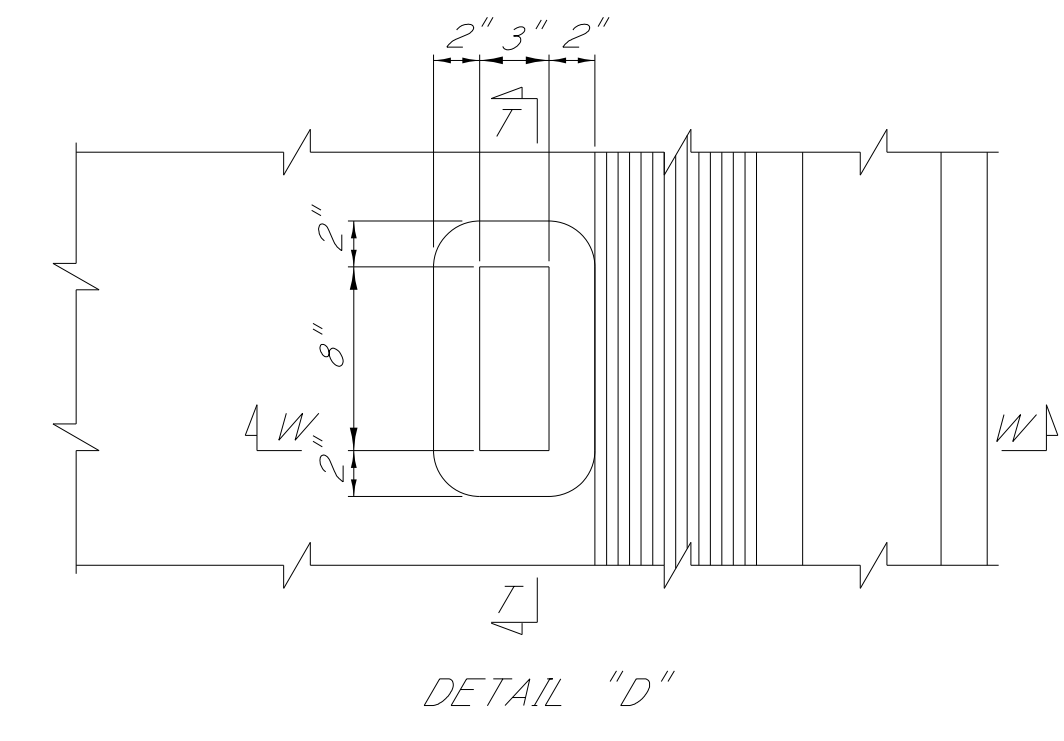
NOTE: Continuous threaded lagstuds and diaphragm inserts shall be as manufactured by the Richmond Screw Anchor Co., Inc., Atlanta, GA; By Meadow Steel Products Co., Inc., Birmingham, AL Or Dayton Superior Co., Inc., Birmingham, AL.



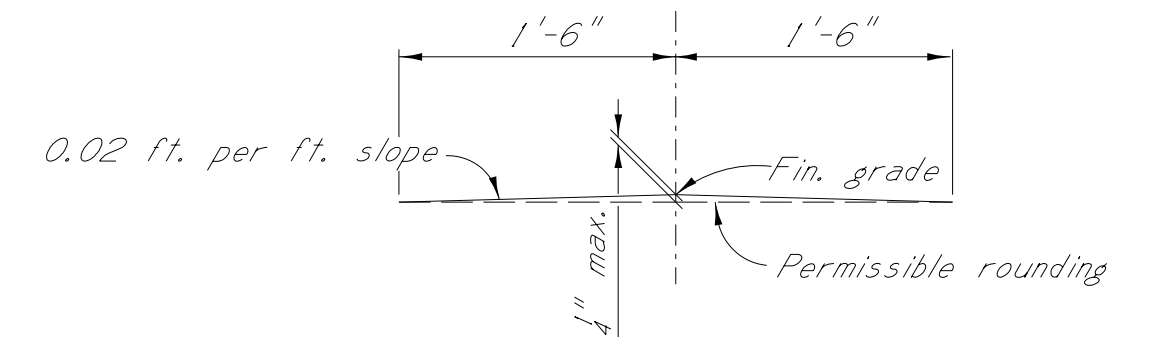
SECTION T-T
DRAIN HOLE DETAILS
Use where shown on the Span Detail sheet B8.



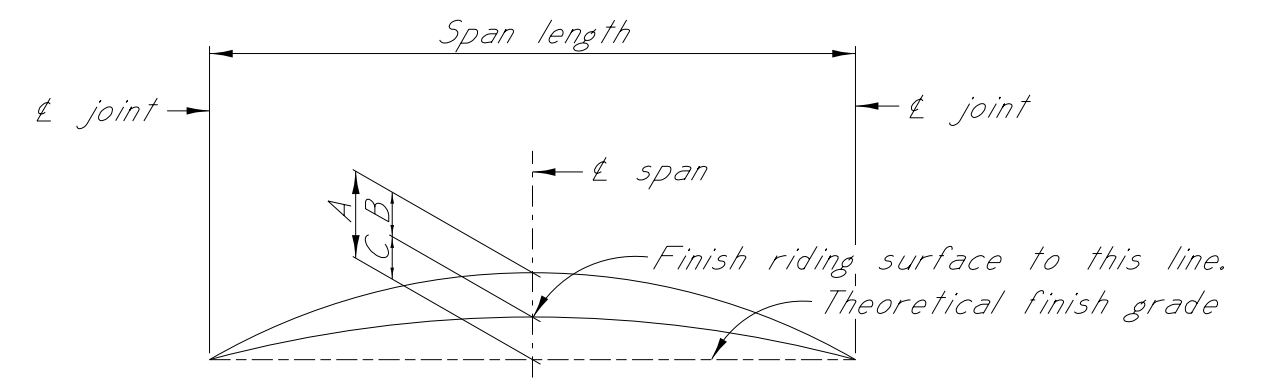
SECTION W-W
DRAIN HOLE DETAILS
NOTE: 3 inch x 8 inch x 3/16 inch HSS drains shall be in accordance with ASTM A53 and shall be hot dipped galvanized in accordance with ASTM A153



DETAIL "D"



CROWN DETAILS



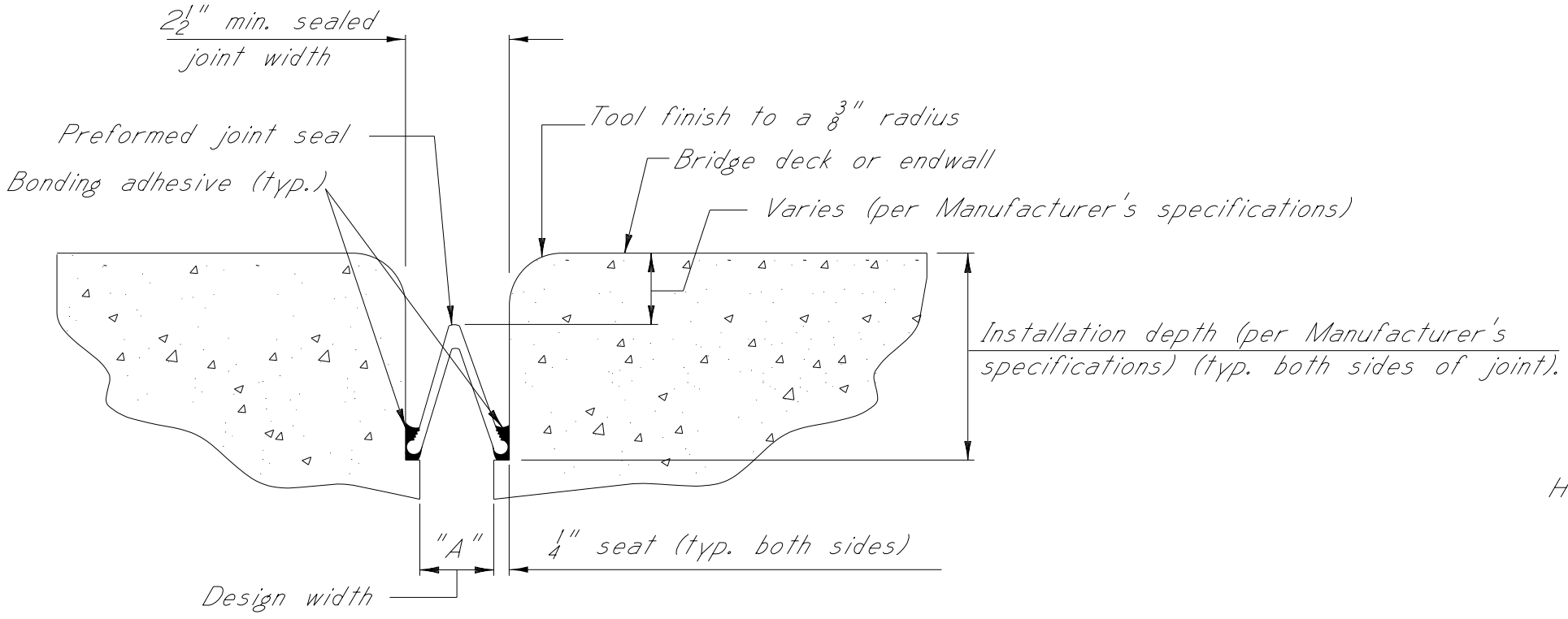
DEFLECTION DIAGRAM

A = total recommended allowance for deflection.
B = estimated deflection due to dead load of slab & rail.
C = A-B = net initial camber in riding surface, which includes an allowance or creep.

NOTE: For values of A, B & C, see Beam Detail sheets.

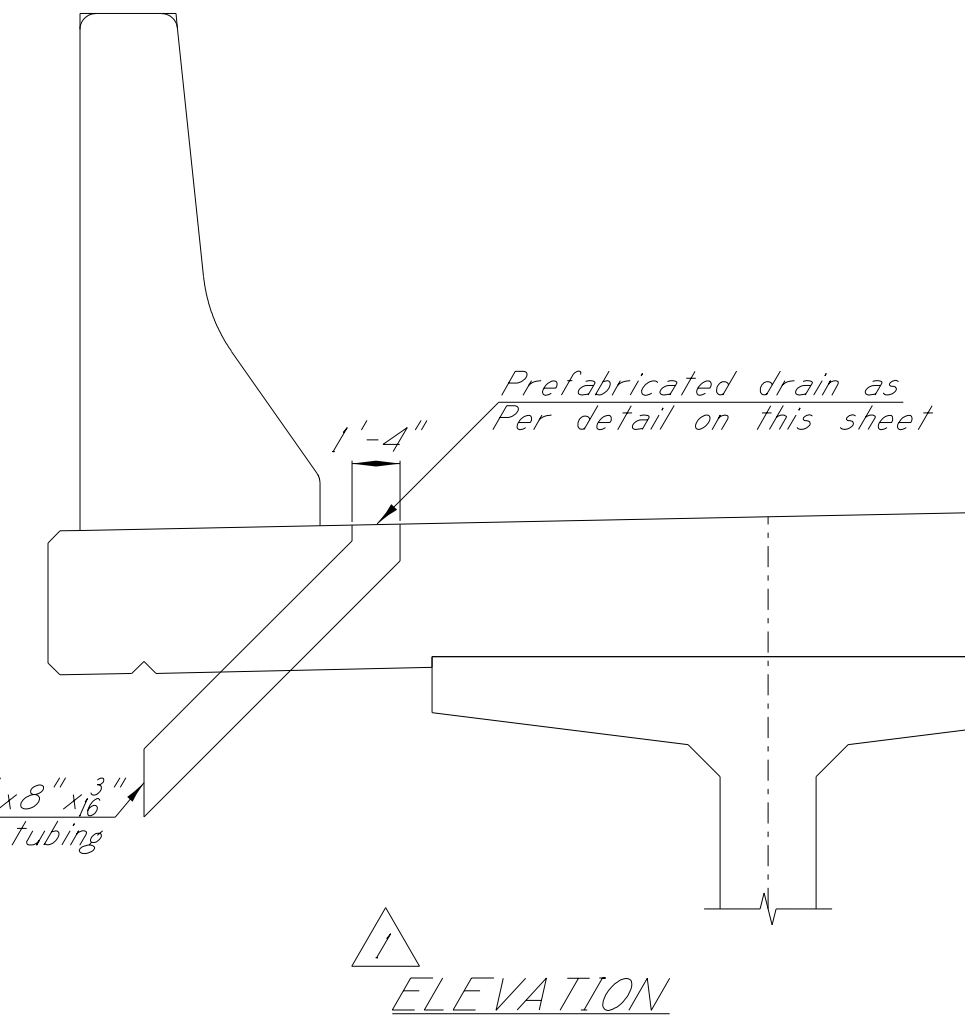
NOTE: The Girder Deflection Diagrams shown in these plans were prepared and intended for design and estimation purposes only. Actual bridge girder deflections may differ from the deflection diagrams shown in these plans. It is the Contractor's responsibility to construct the bridge to meet the requirements of the plans and specifications including, but not limited to, the requirements for bridge deck smoothness. Prior to formwork construction, the Contractor shall submit three (3) copies of a proposed BRIDGE SUPERSTRUCTURE CONSTRUCTION PLAN to the Director of Structures, State Bridge Engineer for review, through The Project Engineer. This submittal shall include all calculations, assumptions and parameters used by the Contractor to determine bridge girder deflections and form grade elevations. This submittal shall also include an erection and construction procedure that addresses the construction means and methodologies used by the Contractor and shall consider effects including, but not limited to, construction phasing, pouring schedules, applied permanent and construction loading, and shall include calculations and details of temporary girder bracing systems used to ensure girder stability and to counter the effects of girder tilt. After girder erection and prior to deck construction, the Contractor shall submit deck thickness verification calculations for each girder. These calculations shall include a comparison of the erected girder top flange profiles versus the plan deck grade elevations over each girder plus the anticipated girder deflection due to applied permanent dead load and creep. Three (3) copies of the deck thickness verification calculations and any proposed remediation measures to correct for thin deck areas shall be submitted to the Director of Structures, State Bridge Engineer for review, through the Project Engineer. The BRIDGE SUPERSTRUCTURE CONSTRUCTION PLAN and the deck thickness verification calculations shall be prepared and stamped by a Mississippi Registered Professional Engineer.

GENERAL NOTES:
All concrete in span shall be class "BD".
All concrete in railing shall be class "AA".
Chamfer all edges 1/4 inch, unless otherwise noted.
See Layout sheet for finishing of concrete surfaces.
Placing dimensions for reinforcing steel to concrete surfaces are clear distances.
To determine the dimension from finish grade to cap, the assumption is made that the compressed thickness of the concrete pad is as shown in table, and that the original camber of the beams will be within the limits shown on the Beam Detail sheets. The Director of Structures, State Bridge Engineer shall be notified if the cambers are not within these limits.

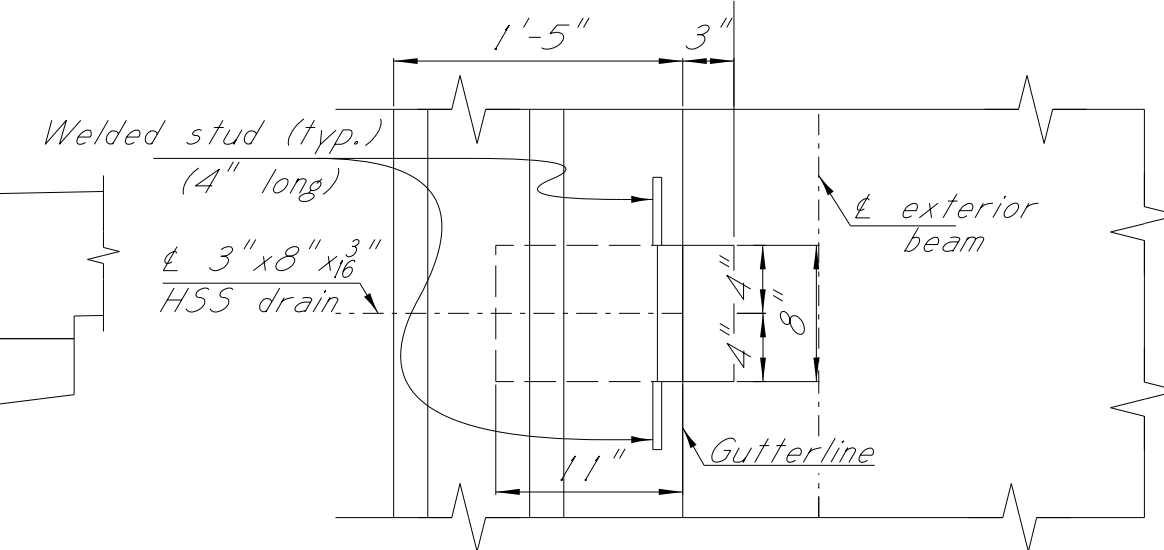


TYPICAL SECTION PREFORMED JOINT SEAL

- NOTES:**
- Joint installation and sealing on newly constructed bridge decks shall not be paid for directly and shall be considered an absorbed item of work.
 - The preformed joint seal shall be one of the following, installed according to the Manufacturer's specifications:
 - Silcoflex Joint Sealing System, manufactured by R.J. Watson, Inc. www.rjwatson.com
 - Wabo SPS Joint System, manufactured by Watson Bowman Acme Corporation www.wbacorp.com
 - Silspec 555 Silicone Strip Seal, manufactured by SSI Commercial & Highway Construction Materials www.ssicm.com
 - For estimating purposes, The RJ Watson Silcoflex Joint Sealing System was selected. However, should another supplier be chosen, it is the Contractor's responsibility to ensure that the Manufacturer's recommendations are followed for joint preparation, installation depths and widths, adhesive setting times, and any other variances between the specifications provided by the Manufacturers. A Manufacturer representative shall be present at the time joint sealing begins to ensure that the Contractor is properly schooled in installation of the joint material. All open joints shall be sealed at their design widths, dimension "A", as indicated on the end bent and span details.
 - Dimension "A" is defined as the design width of the joint opening, which does not account for the 1/4 inch seat required on both sides of the joint. Preformed Joint Seal, Type I, shall be used for design widths less than 2 inches. Preformed Joint Seal, Type II, shall be used for design widths greater than or equal to 2 inches, with the maximum design width being 2 1/2 inches. In cases where design widths are greater than 2 1/2 inches, another type of expansion material shall be required as directed by the Director of Structures, State Bridge Engineer.
 - Joints in newly constructed bridge decks shall be protected from damage until accepted for maintenance by the State. Damaged joints shall be repaired at no additional cost to the State.

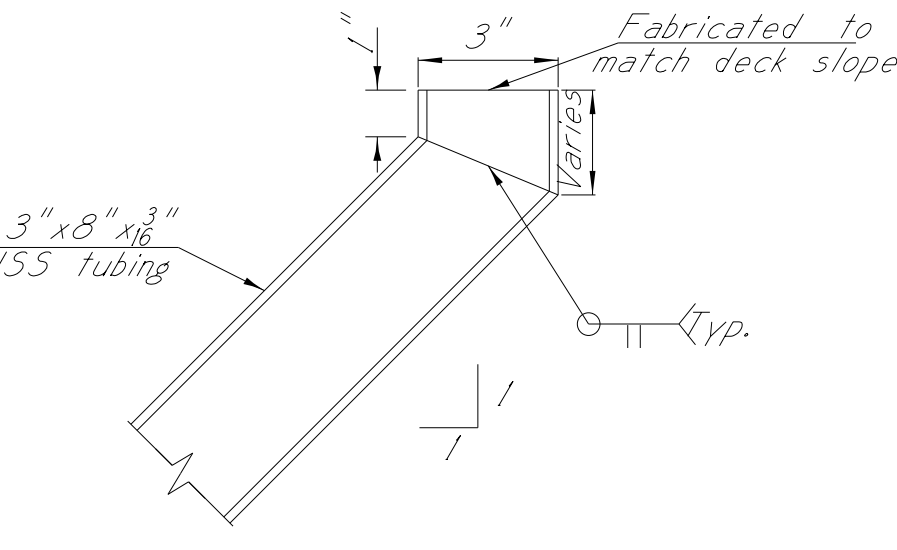


ELEVATION

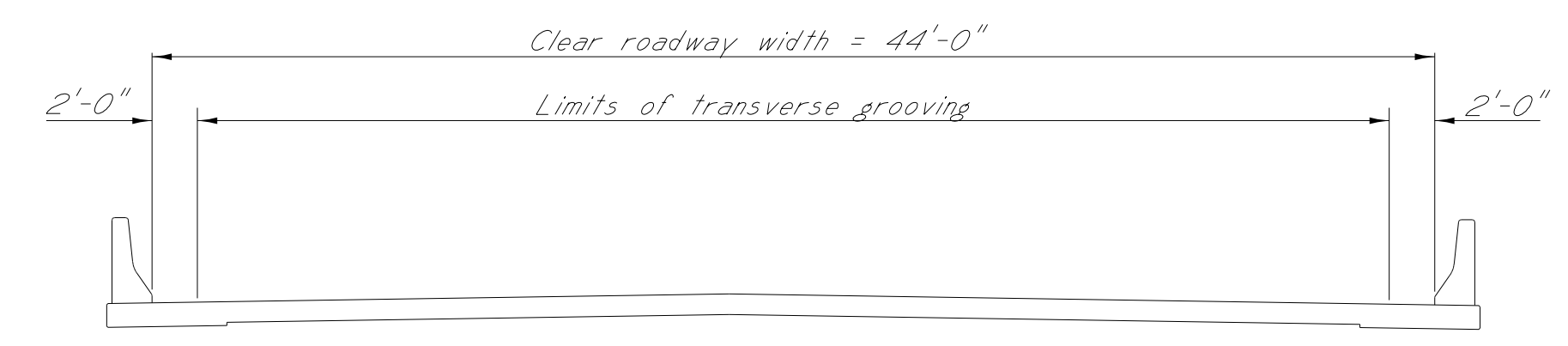


PLAN
PREFABRICATED DRAIN HOLE DETAILS

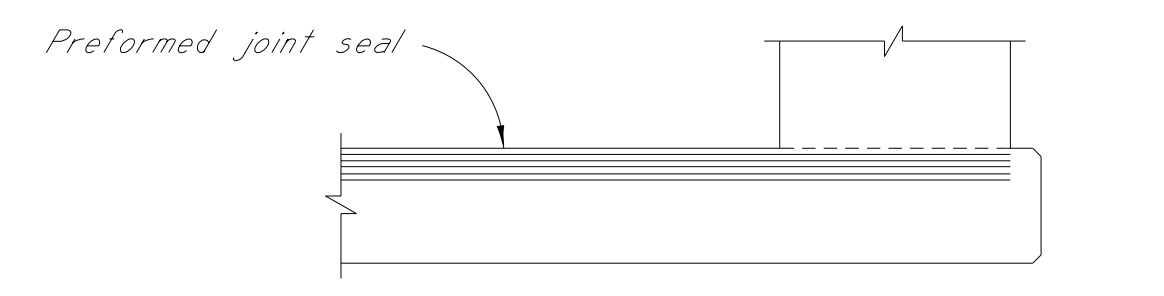
Use where shown on the Span Detail sheet B10.



PRE-FABRICATED DRAIN DETAILS



LIMITS OF TRANSVERSE GROOVING



ELEVATION AT END OF SPAN

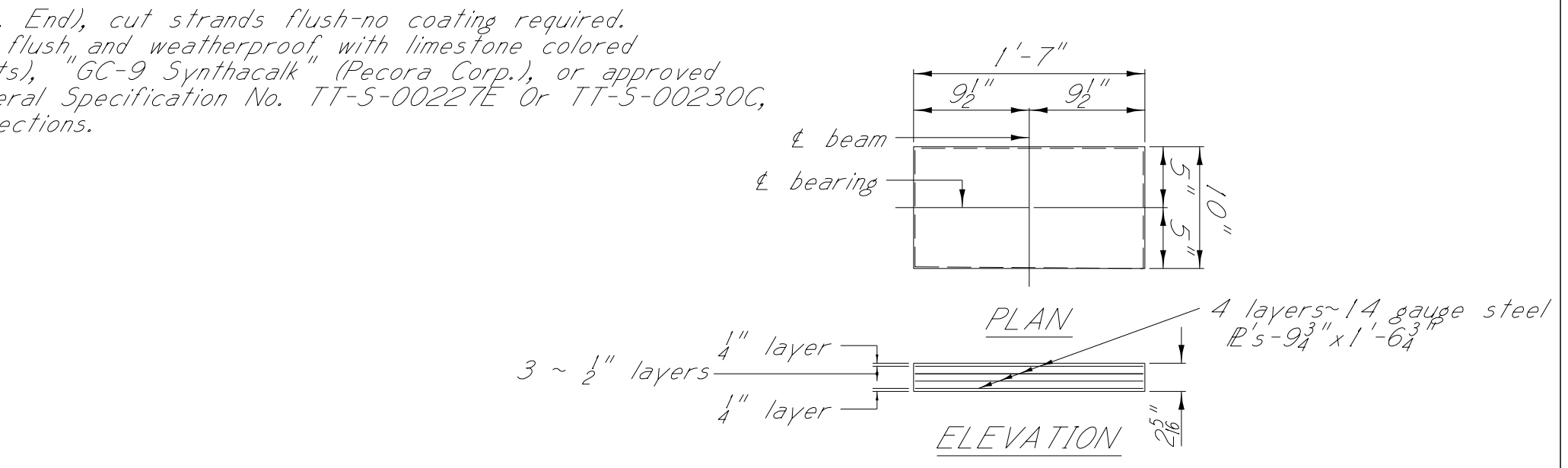
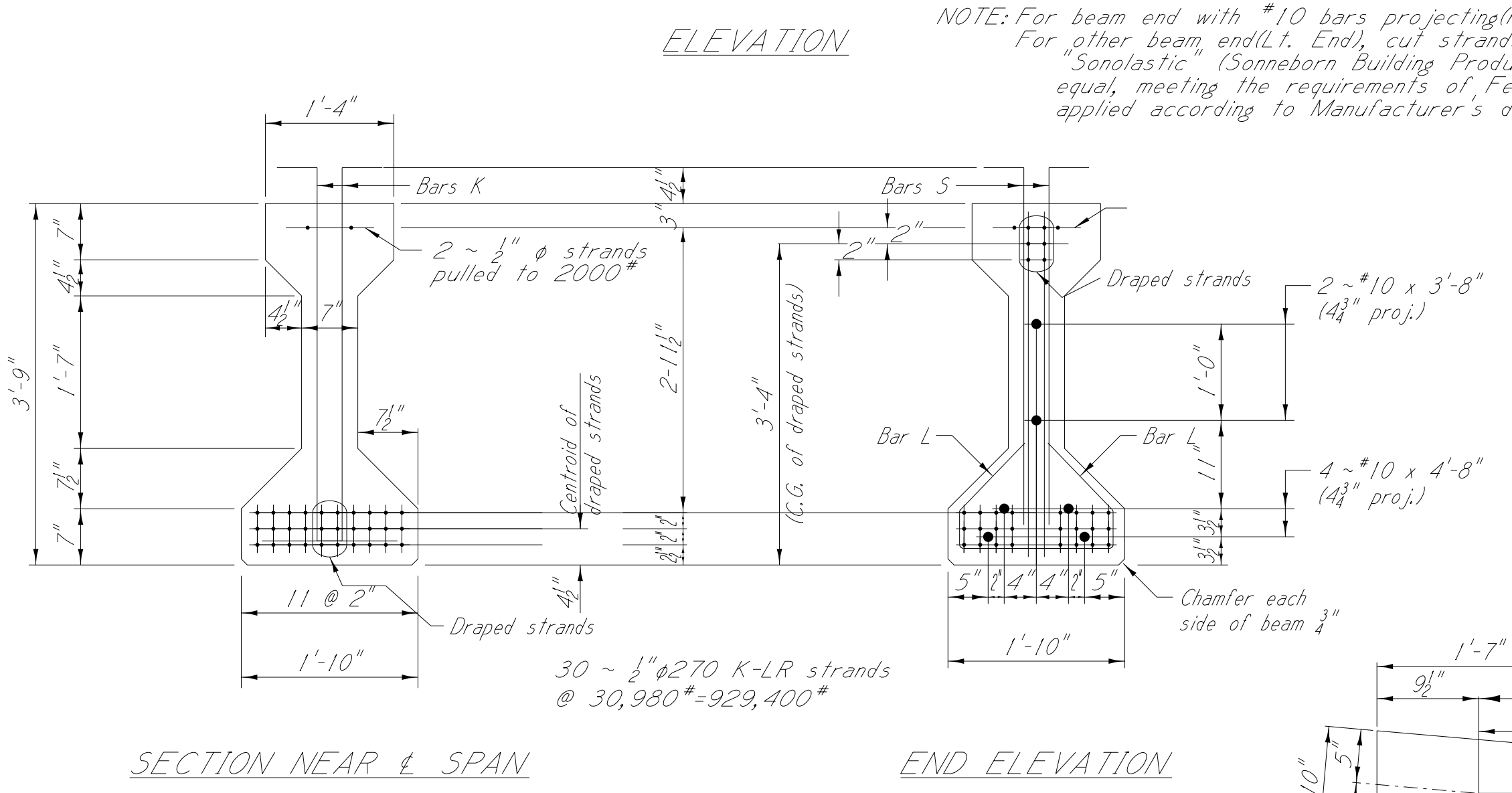
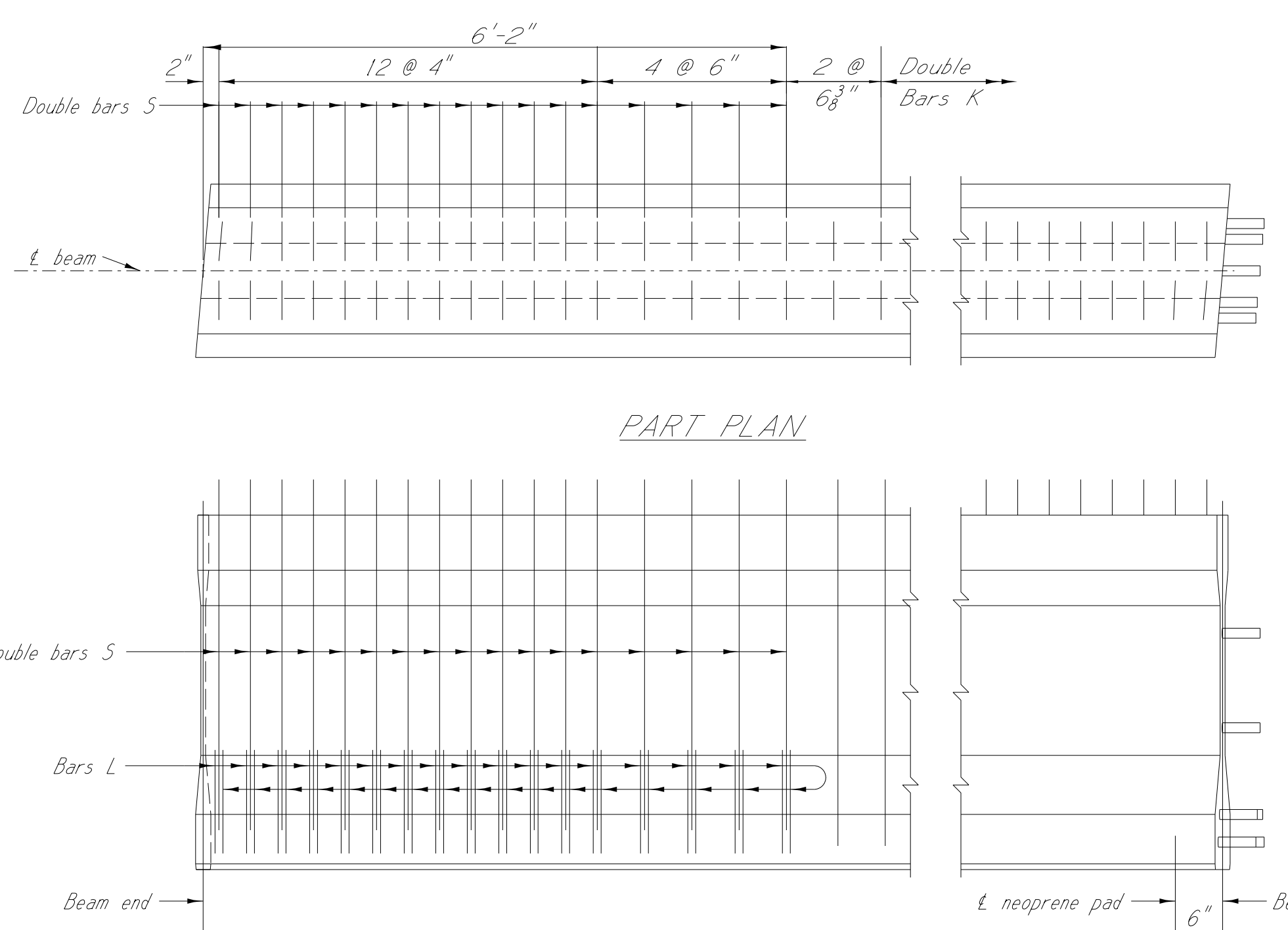
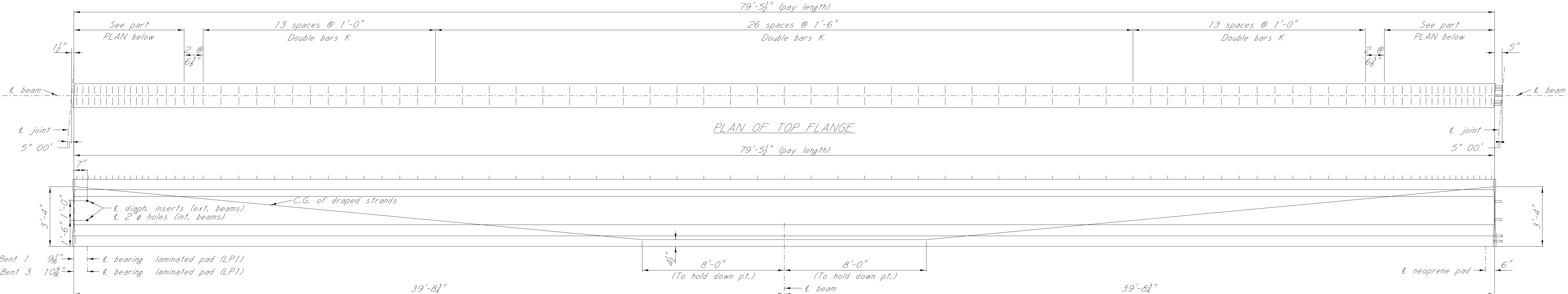
PAD THICKNESS TABLE		
	PAD THICKNESS	COMPRESSED PAD THICKNESS
	1 inch	1 5/16 inch
LP1	2 5/16 inch	2 1/4 inch
LP2	2 5/16 inch	2 1/4 inch



BY	MISSISSIPPI DEPARTMENT OF TRANSPORTATION
DATE	BRIDGE "B" AT STA. 1583+71.88
REVISION	MISCELLANEOUS SPAN DETAILS
DATE	FMS: 103334 / 301000
DATE	COUNTY: ATTALA
DATE	PROJECT NUMBER: BR-0023-02(058)
DATE	DESIGNER JONATHAN KING
DATE	CHECKER SPENCER YATES
DATE	DETAILER JONATHAN KING
DATE	ISSUE DATE 6/12/2019
DATE	DIRECTOR OF STRUCTURES, STATE BRIDGE ENGINEER - JUSTIN WALKER, P.E.
DATE	DIR. OF STRUCTURES, ASST. STATE BRIDGE ENGINEER - SCOTT WESTERFIELD, P.E.

WORKING NUMBER	B12 OF B14
SHEET NUMBER	8024

001: 00 AHPM DGNFILE NAME: PROJECT PLAN SECTION MISSISSIPPI DEPARTMENT OF TRANSPORTATION

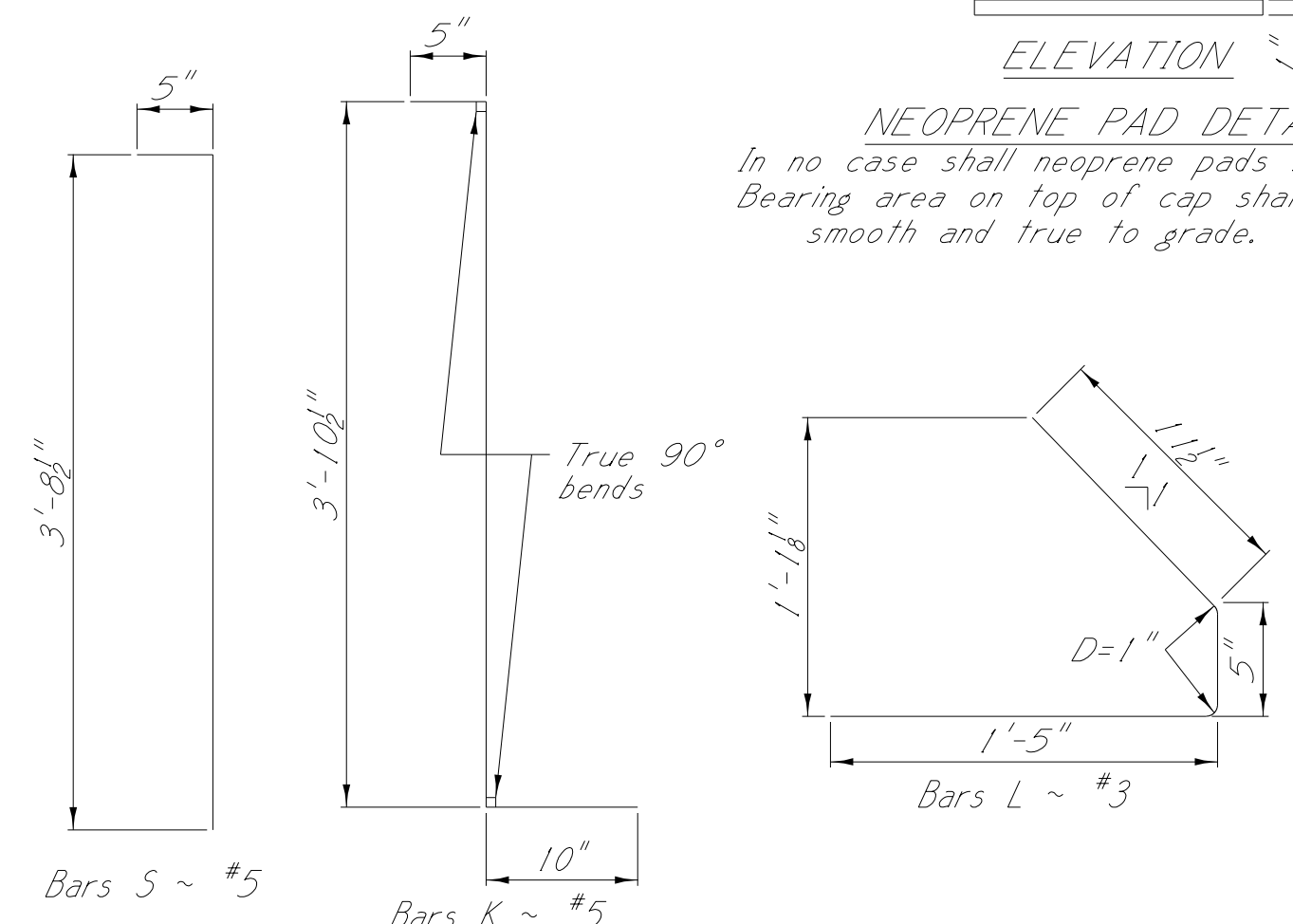


GENERAL NOTES:
Beams shall be manufactured in accordance with Mississippi Standard Specifications for Road & Bridge Construction, 2017.
The tops of beams shall be rough floated. At approximately the time of initial set the entire tops of beams shall be scrubbed transversely with a coarse wire brush to remove all laitance and produce a roughened surface for bonding slab.
Other surfaces shall be finished per specifications.
Strand pattern detailed is for 3/8" dia 270 K-LR strands. Shop drawings of prestressed beams shall include the type and location of all strands.
The Director of Structures, State Bridge Engineer shall be notified if the camber of the beam is not within the limits shown in table.
Concrete shall be class "FX" and:
(a) shall have a 28-day cylinder strength of 6800 p.s.i.
(b) at transfer of the tensioning load, the cylinder strength of the concrete shall be as shown in table.
At the Contractor's request a suggested concrete design mix will be furnished with the understanding that it is the Contractor's responsibility to maintain 6800 p.s.i. concrete.
If any cylinder tests below 6800 p.s.i., the beam represented will be held on the yard until the 28-day strength is determined and acceptance or rejection has been established.

DESIGN DATA
Unit stresses are in accordance with A.A.S.H.T.O., 2017.
Stay-in-place metal deck forms.....18 lbs/ft² (between flanges)

LR indicates low-relaxation strands

Strand type	Minimum breaking strength lbs/strand	Initial tension lbs/strand	PRESTRESS REQUIREMENTS						Distance from & span to hold-down point	Camber limits	Deflection diagram			Minimum concrete strength at time of release (psi)		
			Required number and location of strands								Centroid for total number of strands (in.)		A		B	C
			Total number strands	Straight strands	Draped strands		Centroid (in.)				At & span	At beam end				
3/8" dia 270 K-LR	41,300	30,980	30	24	4.50	6	4.50	40.00	4.50	11.60	8'-0"	0 to 3"	2 1/8"	1 1/4"	7/8"	5500



MISSISSIPPI DEPARTMENT OF TRANSPORTATION
BRIDGE "B" AT STA. 1583+71.88

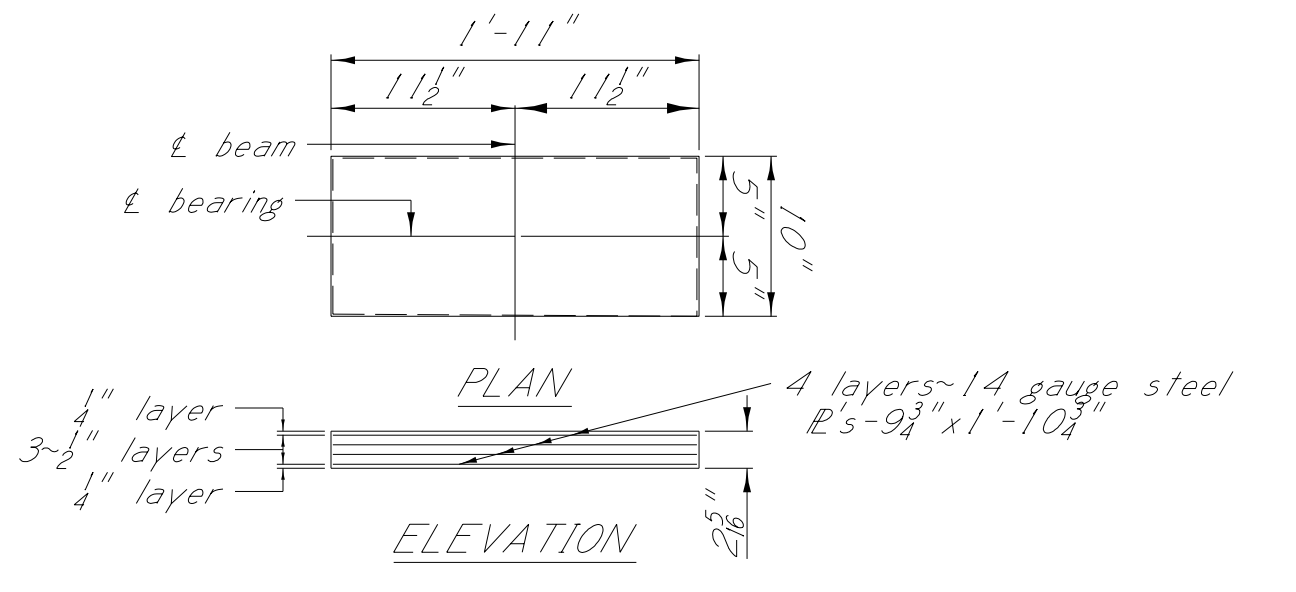
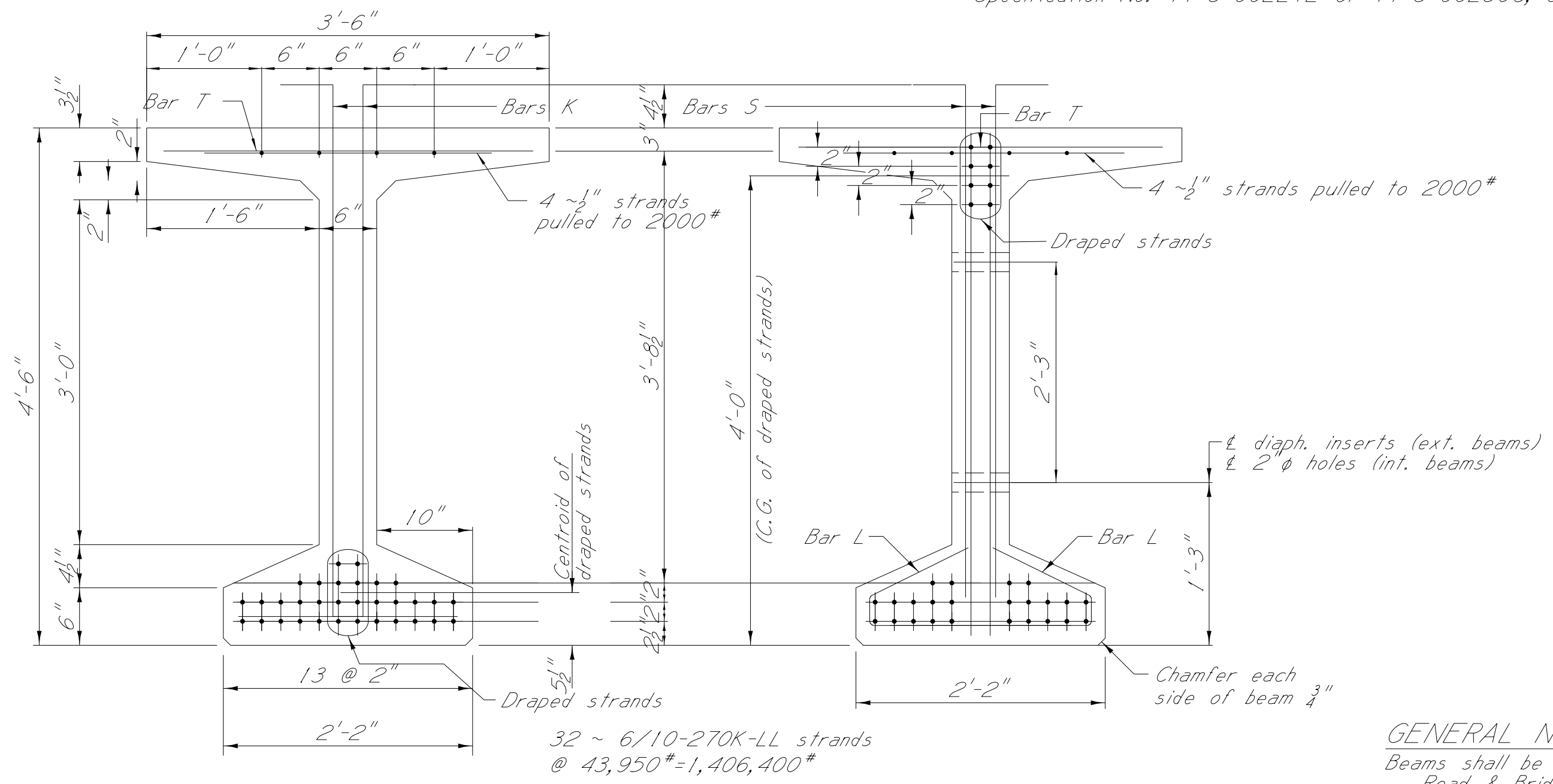
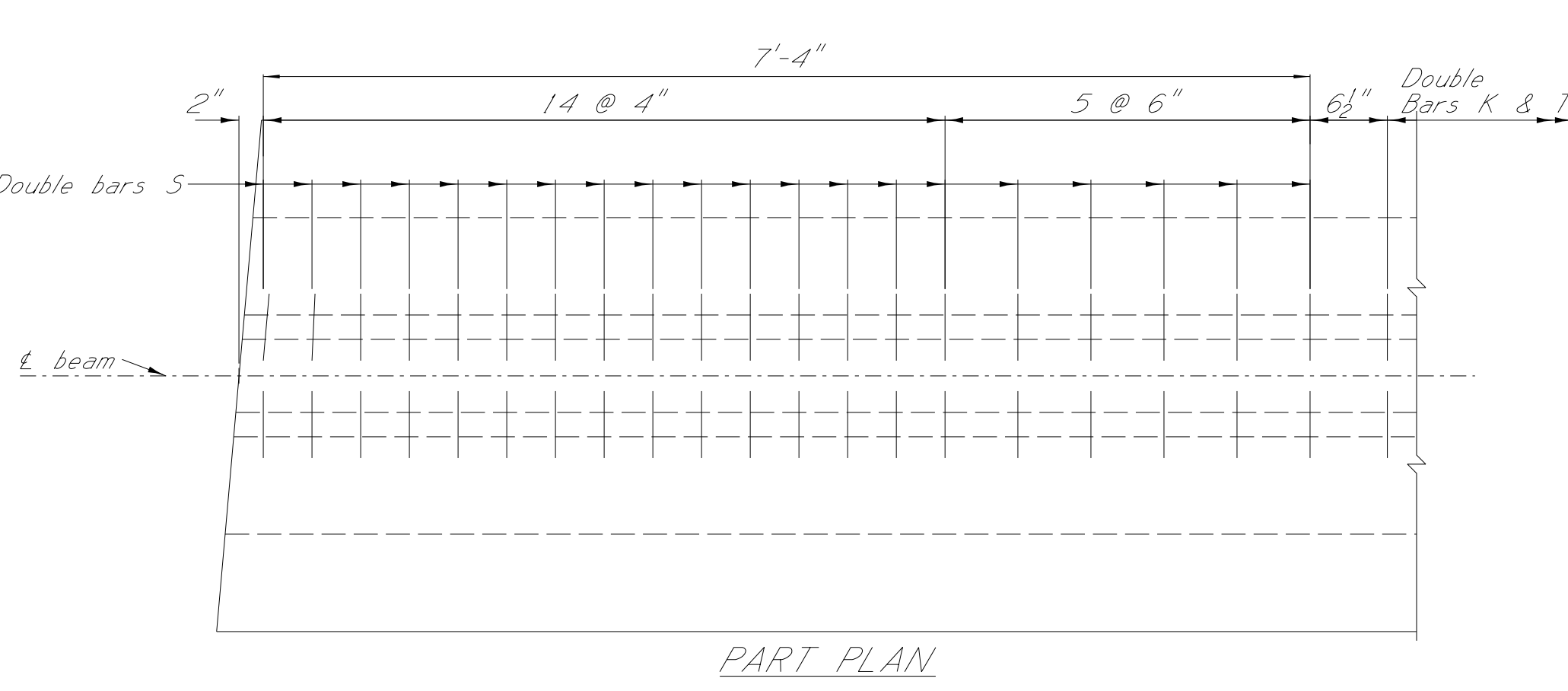
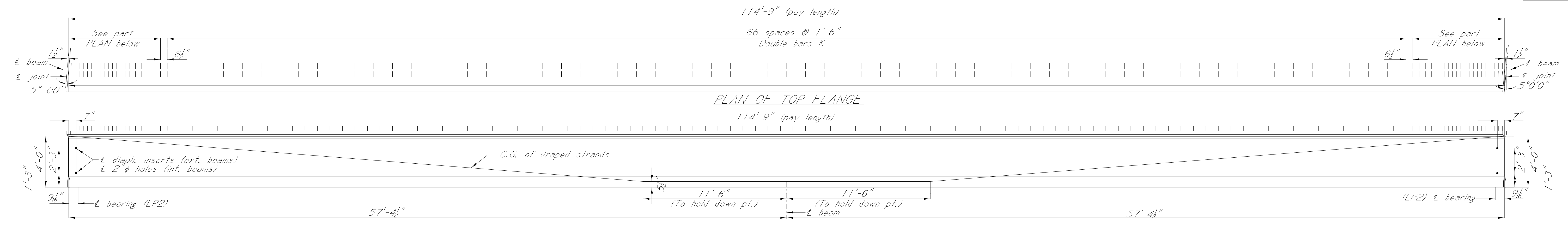
80 FT BEAM DETAILS
BEAM NO. 80-1 (TYPE III)

FMS: 103334 / 301000
COUNTY: ATTALA
PROJECT NUMBER: BR-0023-02(058)

WORKING NUMBER
B13 OF B14
SHEET NUMBER
8025

DESIGNER: JONATHAN KING
CHECKER: SPENCER YATES
DETAILER: JONATHAN KING
ISSUE DATE: 6/12/2019
DIRECTOR OF STRUCTURES, STATE BRIDGE ENGINEER - JUSTIN WALKER, P.E.
DEP. DIR. OF STRUCTURES, ASST. STATE BRIDGE ENGINEER - SCOTT WESTERFIELD, P.E.

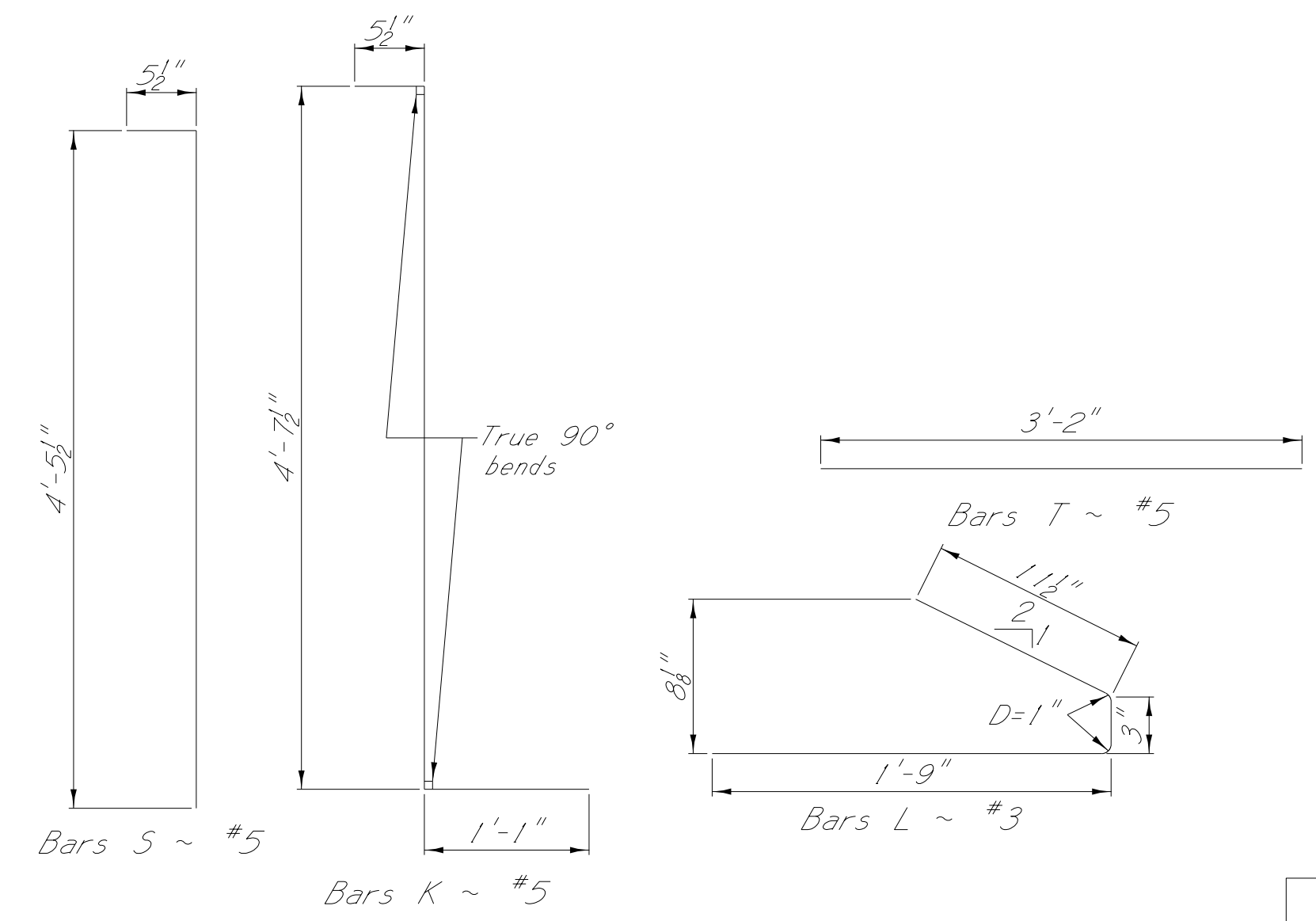
001: 00 ANPM DGN FILE NAME MISSISSIPPI DEPARTMENT OF TRANSPORTATION PROJECT PLAN



LAMINATED NEOPRENE PAD DETAILS (LP2)
 Testing acceptance procedure shall be in accordance with section 714.10.6 of the Specifications. Elastomer shall have a hardness of D50 durometer with a minimum shear modulus at 73°F of 0.095 k.s.i. and a maximum shear modulus at 73°F of 0.130 k.s.i. Bearing area on top of cap shall be cast smooth and true to grade.

GENERAL NOTES:
 Beams shall be manufactured in accordance with Mississippi Standard Specifications for Road & Bridge Construction, 2017.
 The tops of beams shall be rough floated. At approximately the time of initial set the entire tops of beams shall be scrubbed transversely with a coarse wire brush to remove all laitance and produce a roughened surface for bonding slab. Other surfaces shall be finished per specifications.
 Strand pattern detailed is for 6/10-270K-LL strands. Shop drawings of prestressed beams shall include the type and location of all strands.
 The Director of Structures, State Bridge Engineer shall be notified if the camber of the beam is not within the limits shown in table.
 The Fabricator shall provide camber data at release and immediately prior to shipping. Concrete shall be class "K" and:
 (a) shall have a 28-day cylinder strength of 7000 p.s.i.
 (b) at transfer of the tensioning load, the cylinder strength of the concrete shall be as shown in table.
 At the Contractor's request a suggested concrete design mix will be furnished with the understanding that it is the Contractor's responsibility to maintain 7000 p.s.i. concrete.
 If any cylinder tests below 7000 p.s.i., the beam represented will be held on the yard until the 28-day strength is determined and acceptance or rejection has been established.

DESIGN DATA
 Unit stresses are in accordance with A.A.S.H.T.O., 2017.
 Stay-in-place metal deck forms.....18 lbs/ft² (between flanges)



PRESTRESS REQUIREMENTS

LR indicates low-relaxation strands

Strand Type	Minimum breaking strength lbs/strand	Initial tension lbs/strand	Required number and location of strands				Centroid for total number of strands (in.)		Distance from & span to hold-down point	Camber limits	Deflection diagram			Minimum concrete strength at time of release (psi)		
			Total number strands	Straight strands Number	Draped strands Number	Centroid (in.)	At & span	At beam end			A	B	C			
6/10-270K-LL	58,600	43,950	32	24	4.00	8	5.50	48.00	4.37	15.00	11'-6"	0 to 4 3/4"	2 5/8"	2 1/8"	3"	6000

For deflection diagram, see Misc. Span Details per sheet no. B11

002:00 ANPM DGN FILE NAME PROJECT PLAN SECTION MISSISSIPPI DEPARTMENT OF TRANSPORTATION



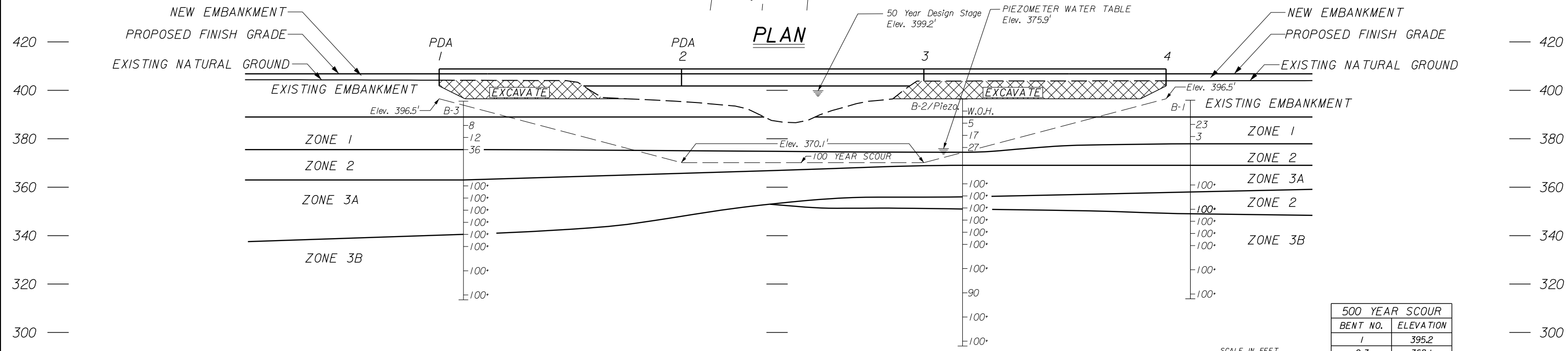
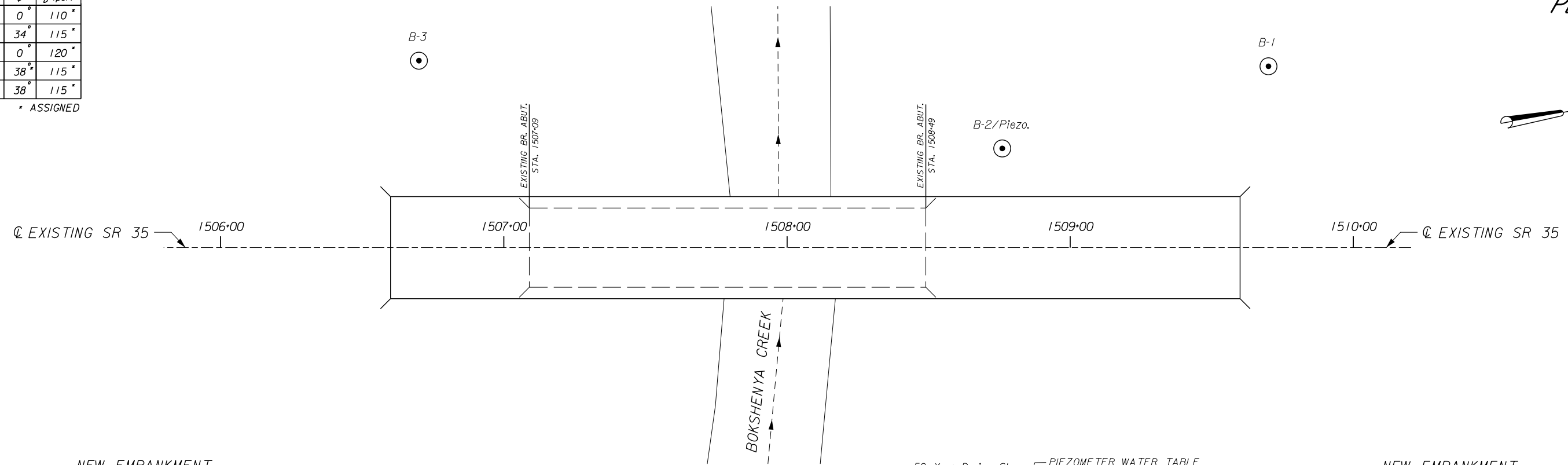
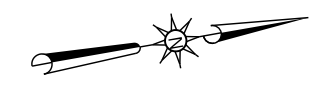
BY MISSISSIPPI DEPARTMENT OF TRANSPORTATION	
BRIDGE "B" AT STA. 1583+71.88	
115 FT BEAM DETAILS	
BT-54	
REVISION	FMS: 103334 / 301000
DATE	COUNTY: ATTALA
DESIGNER JONATHAN KING	CHECKER SPENCER YATES
DETAILER JONATHAN KING	ISSUE DATE 6/12/2019
DIRECTOR OF STRUCTURES, STATE BRIDGE ENGINEER - JUSTIN WALKER, P.E.	DEP. DIR. OF STRUCTURES, ASST. STATE BRIDGE ENGINEER - SCOTT WESTERFIELD, P.E.

PROJECT NUMBER: BR-0023-02(058)

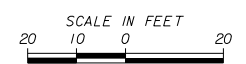
WORKING NUMBER
B14 OF B14
8026

SOIL STRENGTHS			
ZONE	C (ksf)	ϕ	γ (pcf)
EMB	0.75*	0°	110*
1	0.0	34°	115*
2	4.0	0°	120*
3A	0.0	38°	115*
3B	0.0	38°	115*

* ASSIGNED



500 YEAR SCOUR	
BENT NO.	ELEVATION
1	395.2
2-3	368.1
4	395.7



EMBANKMENT

- EMB - FIRM, LIGHT BROWN TO BROWN, SILT WITH SOME ORGANICS (ML)
- ZONE 1 - ALLUVIUM FORMATION**
 - 1 - MEDIUM DENSE, DARK GRAY, FINE TO MEDIUM SILTY SAND WITH TRACES OF ORGANICS (SM)
- ZONE 2 - ZILPHA FORMATION**
 - 2 - STIFF TO HARD, DARK GRAY, BROWN, GREEN, SANDY SILT WITH MICACEOUS, SAND LAMINA (ML)
- ZONE 3 - WINONA FORMATION**
 - 3A - VERY DENSE, BROWN, TAN, GREEN, GLAUCONITIC, CALCAREOUS, CLAYEY SAND WITH INTERMITTENT SANDSTONE LAYERS (SM)
 - 3B - VERY DENSE, GRAY TO DARK GRAY, GLAUCONITIC, CALCAREOUS, FOSSILIFEROUS, FINE TO COARSE SILTY SAND WITH OCCASIONAL SANDSTONE LAYERS (SM)

PROFILE

NOTICE TO CONTRACTOR:

1. THE GENERALIZED SOIL PROFILE SHOWN WITH ITS VARIOUS SOIL ZONE DESCRIPTIONS AND INDICATED BOUNDARIES IS BASED UPON AN ENGINEERING AND GEOLOGICAL INTERPRETATION OF ALL AVAILABLE GEOTECHNICAL INFORMATION BY THE GEOTECHNICAL BRANCH, MDT AND MAY NOT NECESSARILY REFLECT THE ACTUAL VARIATION IN SUBSURFACE CONDITIONS BETWEEN BORINGS AND SAMPLES. DETAILED DATA AND FIELD INTERPRETATION OF CONDITIONS ENCOUNTERED IN INDIVIDUAL BORINGS ARE SHOWN ON THE BORING LOGS. THE GEOTECHNICAL REPORT IS AVAILABLE FOR INSPECTION THROUGH THE GEOTECHNICAL BRANCH.
2. SOUND ENGINEERING JUDGEMENT WAS EXERCISED IN PREPARING THE SUBSURFACE INFORMATION PRESENTED ON THIS SHEET. THIS INFORMATION WAS PREPARED AND IS INTENDED FOR MDT DESIGN AND ESTIMATE PURPOSES. ITS PRESENTATION ON THE PLANS OR ELSEWHERE IS FOR THE PURPOSE OF PROVIDING INTENDED USERS WITH ACCESS TO THE SAME INFORMATION AVAILABLE TO THE MDT. THIS SUBSURFACE INFORMATION INTERPRETATION IS PRESENTED IN GOOD FAITH AND IS NOT INTENDED AS A SUBSTITUTE FOR PERSONAL INVESTIGATION, INDEPENDENT INTERPRETATIONS OR JUDGEMENT BY OTHERS.
3. ALL STRUCTURAL DETAILS SHOWN ON THIS SHEET ARE FOR ILLUSTRATIVE PURPOSES ONLY AND MAY NOT BE INDICATIVE OF THE FINAL DESIGN CONDITIONS SHOWN ELSEWHERE IN THE CONTRACT PLANS.
4. BRIDGE PLAN PROFILE STATIONING MAY NOT BE THE FINAL DESIGN (SEE NOTICE TO CONTRACTOR NOTE 3)

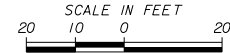
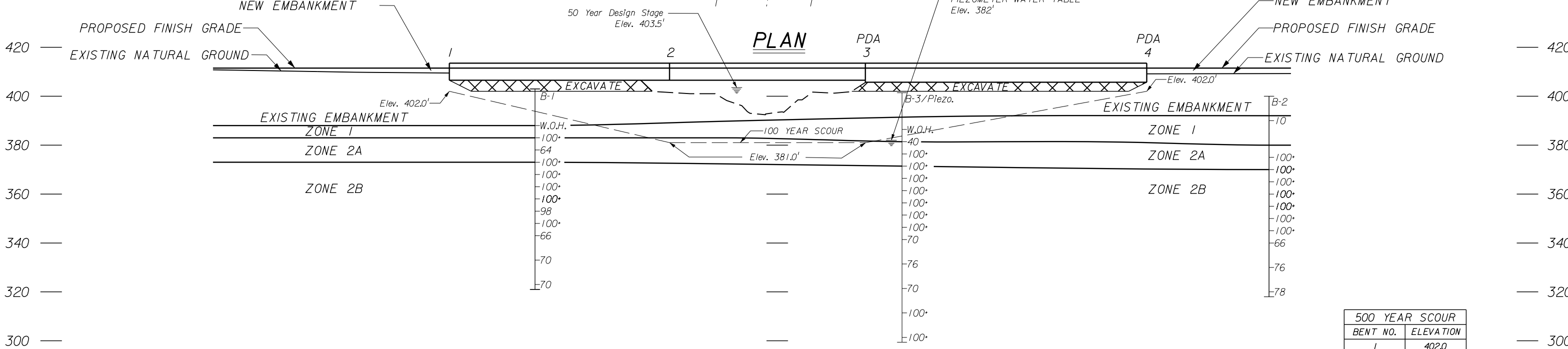
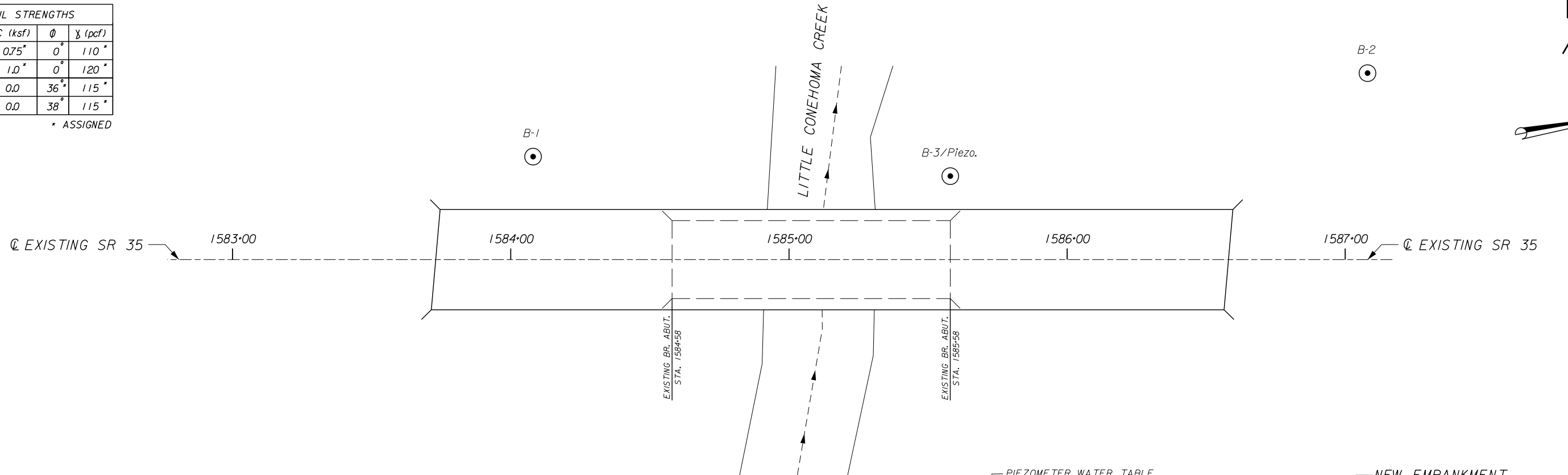
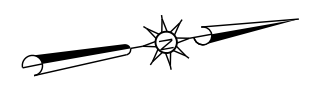
NOTE:

A HYDRAULIC AUTOMATIC TRIP HAMMER WAS USED TO DETERMINE SPT N-VALUES. THE SPT N-VALUES SHOWN REPRESENT N_{60} VALUES

DRAWING FILE: 15-04-17.DGN		REPORT NO: 15-04-17	
MISSISSIPPI DEPARTMENT OF TRANSPORTATION			
GENERALIZED SOIL PROFILE			
SR 35 OVER BOKSHENYA CREEK			
STATION NO.: 1506+58.88, BRG No. 150.5			
SITE NO: 16-04-2184			
103334/301000			
PROJECT NO: BR-0023-02(058)			
COUNTY: ATTALA			
DESIGNED: W.F.W.		DETAILED: W.F.W.	
DRAWN: CADD		DATE: 10-29-18	
CHECKED: M.L.S.		ISSUED: R.S.F.	
DATE: 10-29-18		DATE: 10-29-18	
WORKING NUMBER			SHEET NUMBER
GSP-A			8027

SOIL STRENGTHS			
ZONE	C (ksf)	φ	γ (pcf)
EMB	0.75*	0°	110*
1	1.0*	0°	120*
2A	0.0	36*	115*
2B	0.0	38°	115*

* ASSIGNED



PROFILE

NOTE:
A HYDRAULIC AUTOMATIC TRIP HAMMER WAS USED TO DETERMINE SPT N-VALUES. THE SPT N-VALUES SHOWN REPRESENT N₆₀ VALUES

NOTICE TO CONTRACTOR:

- THE GENERALIZED SOIL PROFILE SHOWN WITH ITS VARIOUS SOIL ZONE DESCRIPTIONS AND INDICATED BOUNDARIES IS BASED UPON AN ENGINEERING AND GEOLOGICAL INTERPRETATION OF ALL AVAILABLE GEOTECHNICAL INFORMATION BY THE GEOTECHNICAL BRANCH, MDT AND MAY NOT NECESSARILY REFLECT THE ACTUAL VARIATION IN SUBSURFACE CONDITIONS BETWEEN BORINGS AND SAMPLES. DETAILED DATA AND FIELD INTERPRETATION OF CONDITIONS ENCOUNTERED IN INDIVIDUAL BORINGS ARE SHOWN ON THE BORING LOGS. THE GEOTECHNICAL REPORT IS AVAILABLE FOR INSPECTION THROUGH THE GEOTECHNICAL BRANCH.
- SOUND ENGINEERING JUDGEMENT WAS EXERCISED IN PREPARING THE SUBSURFACE INFORMATION PRESENTED ON THIS SHEET. THIS INFORMATION WAS PREPARED AND IS INTENDED FOR MDT DESIGN AND ESTIMATE PURPOSES. ITS PRESENTATION ON THE PLANS OR ELSEWHERE IS FOR THE PURPOSE OF PROVIDING INTENDED USERS WITH ACCESS TO THE SAME INFORMATION AVAILABLE TO THE MDT. THIS SUBSURFACE INFORMATION INTERPRETATION IS PRESENTED IN GOOD FAITH AND IS NOT INTENDED AS A SUBSTITUTE FOR PERSONAL INVESTIGATION, INDEPENDENT INTERPRETATIONS OR JUDGEMENT BY OTHERS.
- ALL STRUCTURAL DETAILS SHOWN ON THIS SHEET ARE FOR ILLUSTRATIVE PURPOSES ONLY AND MAY NOT BE INDICATIVE OF THE FINAL DESIGN CONDITIONS SHOWN ELSEWHERE IN THE CONTRACT PLANS.
- BRIDGE PLAN PROFILE STATIONING MAY NOT BE THE FINAL DESIGN (SEE NOTICE TO CONTRACTOR NOTE 3)

EMBANKMENT

EMB - FIRM, BROWN, TAN, CLAYEY SILT WITH TRACES OF ORGANICS (CL)

ZONE 1 - ALLUVIUM FORMATION

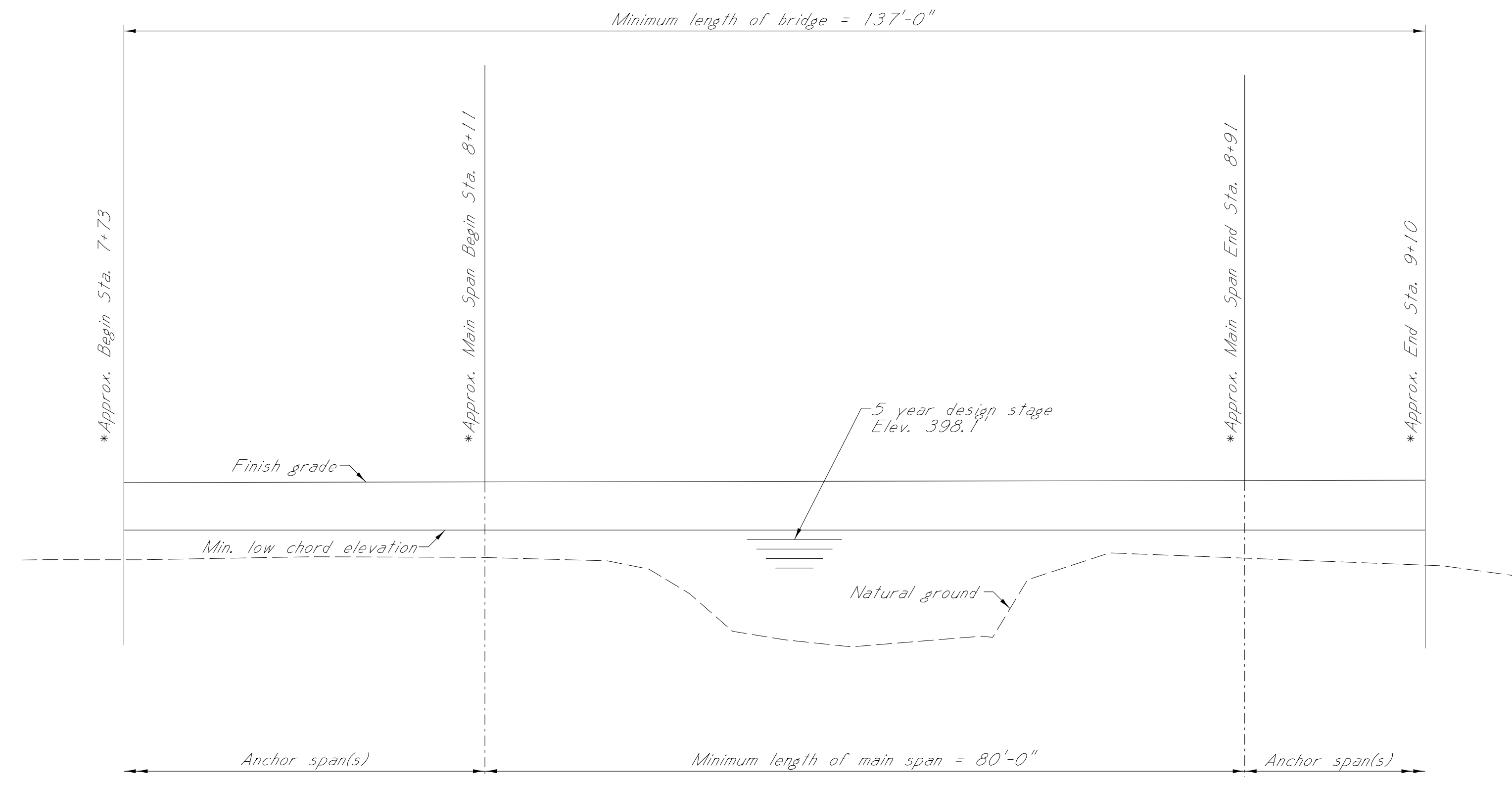
1 - SOFT TO FIRM, BROWNISH GRAY AND GRAY, CLAYEY SILT (CL)

ZONE 2 - KOSCIUSKO FORMATION

2A - VERY DENSE, TAN TO GRAY, CLAYEY, GLAUCONITIC, CALCAREOUS FINE TO MEDIUM SILTY SAND WITH TRACES OF FOSSILS (SM)

2B - VERY DENSE, GRAY TO DARK GRAY, CLAYEY, FINE TO MEDIUM SILTY SAND (SM)

DRAWING FILE: 15-04-17.DGN		REPORT NO: 15-04-17	
MISSISSIPPI DEPARTMENT OF TRANSPORTATION			
GENERALIZED SOIL PROFILE			
SR 35 OVER LITTLE CONEHOMA CREEK			
STATION NO.: 1583+71.88, BRG No. 152.0			
SITE NO: 16-04-2183			
103334/301000			
PROJECT NO: BR-0023-02(058)			
COUNTY: ATTALA			
DESIGNED: W.F.W.		DETAILED: W.F.W.	
DRAWN: CADD		DATE: 10-29-18	
CHECKED: M.L.S.		ISSUED: R.S.F.	
DATE: 10-29-18		DATE: 10-29-18	
WORKING NUMBER			SHEET NUMBER
GSP-B			8028



NOTE TO CONTRACTOR:

The Contractor shall employ the service of a registered Professional Engineer who is knowledgeable and proficient in the field of bridge design.

The Contractor's Design Engineer shall determine the required ultimate pile bearing capacities based on the use of Pile Dynamic Analysis (PDA) for the condition/bearing resistance determination method per the AASHTO LRFD Bridge Design Specifications.

The Contractor's Design Engineer will be responsible for providing the Pile Dynamic Analysis (PDA) and for establishing the production pile driving criteria.

The Contractor's Design Engineer shall determine the lengths of all test piles and production piles.

The following exceptions to the AASHTO LRFD Bridge Design Specifications will be allowed for the design of Detour Bridges:

- The design of the substructure of the Detour Bridge shall be made to satisfy the requirements of the following Limit States: Strength I, Strength III, Strength V, and Service I.
- With PDA pile tests for the Detour Bridge piling being performed and analyzed by the Contractor's Design Engineer, a value of 0.85 for the condition/resistance Factor for Driven Piles may be used to set final Detour Bridge pile lengths.
- The Design Vehicular Loading (Truck + Lane) used may be 75% of the HL-93 Live Loading.

A complete set of bridge detail drawings, bearing the official seal of the Contractor's Design Engineer, along with design calculations, shall be submitted to the Project Engineer and the Director of Structures, State Bridge Engineer for review. The submittal shall specify the bridge span arrangement, configuration, location, minimum geometric and loading requirements, verification of ground line elevations and effective area of opening. The submittal shall also specify the LRFD factored pile loading (Strength I), the required ultimate pile bearing capacities based on the condition/resistance determination method used, type and estimated length of test and production piling, the stationing and finish grade at each bent and total length of the detour bridge.

The Contractor's erosion control plan shall address the construction, maintenance, and removal of the detour bridge. The detour bridge shall be long enough such that spill-through slopes of abutments do not spill over into the channel.

Prior to opening the detour bridge to traffic, the Contractor shall submit test pile data and pile records to the Engineer for review and shall provide MDOT written certification from the Contractor's Design Engineer that construction of the bridge was in full accordance with the design plans.

Any deviations in construction of the detour bridge from the detour bridge design plans shall require the Contractor's Design Engineer to provide corrected calculations and corresponding revisions made to the detour bridge plans which shall be stamped by the Contractor's Design Engineer.

DETOUR BRIDGE OVER BOKSHENYA CREEK
Scale: 1"=10'

*NOTE: For minimum finished grades see Roadway Plan Sheets.

GENERAL NOTES:

Specifications: MISSISSIPPI Standard Specifications for Road and Bridge Construction, 2017.

The detour bridge shall be designed and furnished by the Contractor (see NOTE TO CONTRACTOR).

The detour bridge deck surface shall be of concrete, asphalt, or other skid resistant material subject to approval by MDOT.

The detour bridge superstructure shall be constructed of new or used precast concrete units, steel beams, steel framing or prestressed concrete units. Used units or components shall be in good, sound condition having no visible defects. All elements shall be compatible. Use of open-grid bridge decking will not be permitted.

The bridge railing shall have a minimum LRFD rating of test level two (TL-2).

Rough, untreated hardwood timber may be used for the construction of bulkheads or bent caps.

Used timber shall be in good, sound condition.

Untreated timber piles may be used.

Piling size shall be as designated in Section 719 of the Specifications.

Piling shall be driven to bearing sufficient to meet pile bearing requirements and ensure stability of the substructure.

Piles in bulkhead shall be an absorbed item.

During the time the detour bridge is in place, the waterway shall be kept free of all obstructions to the free flow of water.

After the permanent structure has been opened to traffic, the detour bridge shall be removed by the Contractor.

All material furnished by the Contractor and used in construction with the detour bridge shall remain the property of the Contractor and shall be removed from the site.

Test piles shall be driven out of position and shall be removed to a minimum of one foot (1.00) below the ground line upon acceptance by the Project Engineer.

GENERAL NOTES (continued):

Minimum requirements for location and number of test piles are as follows:

- The number of intermediate bent test piles shall be calculated by dividing the total detour bridge length by 120 ft, rounded to the nearest whole number and shall be a minimum of one test pile.
- One abutment test pile is required for bridge lengths less than 400 ft.
- One abutment test pile at each abutment is required for bridge lengths greater than or equal to 400 ft.

Detour bridge piles shall be pulled or cut off a minimum of one foot (1.00) below the ground line.

The Contractor's detour bridge submittal shall include a plan to address potential scour and drift effects by utilizing methodologies such as substructure bracing/strengthening, rip rap protection, brush deflectors, deeper pile penetration, stronger/more durable pile types and bridge inspection with drift removal during storm events.

The detour bridge length shown hereon utilizes a bulkhead abutment configuration to meet the minimum effective opening requirements. Use of bridge configurations that incorporate spill-through slopes may require additional bridge length to meet the minimum effective opening requirements. Additional bridge length, span length and/or other bridge adjustments required to address minimum effective opening requirements, site conditions and/or erosion control requirements will not be cause for additional compensation.

Payment for the detour bridge will be made under the pay items in Special Provision 907-618.

Work for which no pay item is provided in the proposal will not be paid for directly and compensation therefor will be included in the prices and payments for bid items.

NOTE: Detour roadway embankment shall be removed to natural ground elevation ±396.5 from station 6+25 to station 11+15 once the detour road is no longer serving traffic, and shall be shown accordingly on all plans.

DRAINAGE DATA:

Drainage area 7.2 sq. mi.
05 (U.S.G.S.). 990 c.f.s.
Min. low chord elevation. 399.1 ft.
Anchor span minimum length. 19'-0"
Main span minimum length. 80'-0"

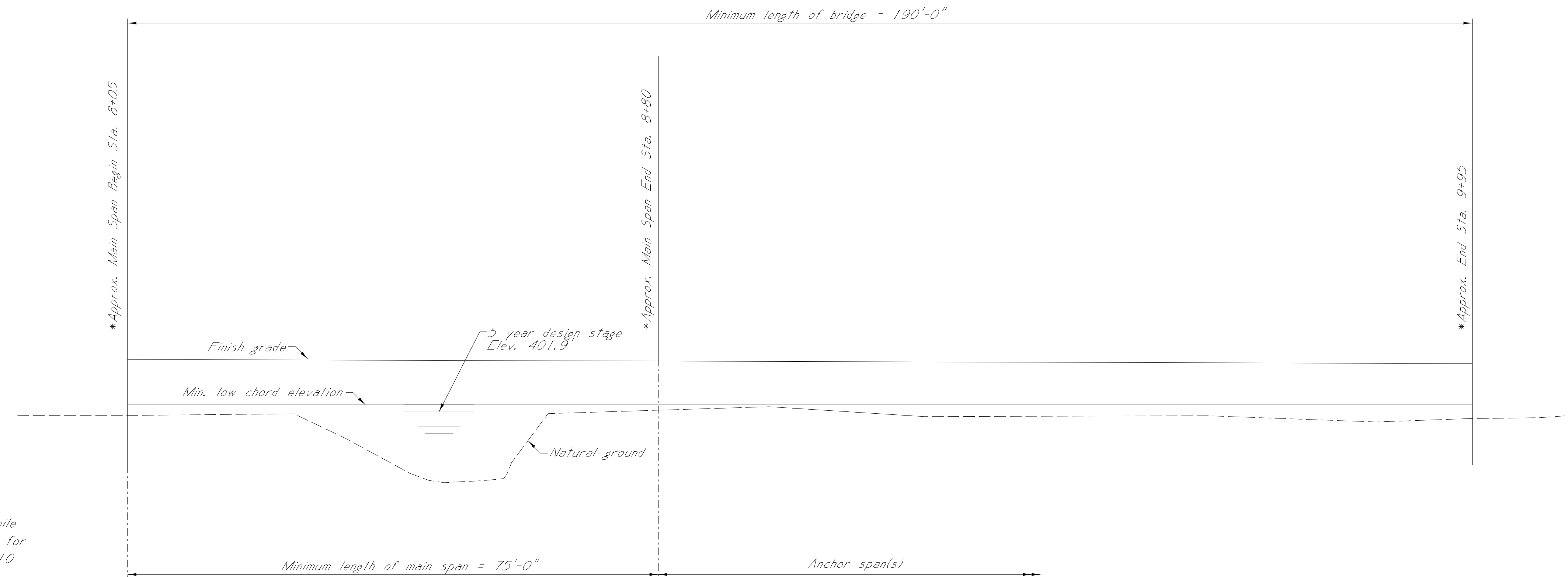
DESIGN DATA:

Specifications. A.A.S.H.T.O., LRFD 2017
Loading. 75% of HL-93
Minimum roadway width. 24'-0" gutter to gutter



MISSISSIPPI DEPARTMENT OF TRANSPORTATION	
DETOUR BRIDGE AT STA. 7+73.00	
MS 35 OVER BOKSHENYA CREEK	
FMS: 103334 / 301000	
COUNTY: ATTALA	
PROJECT NUMBER: BR-0023-02(058)	
WORKING NUMBER	DBA-1
SHEET NUMBER	8029
DATE	DESIGNER JONATHAN KING DETAILER JONATHAN KING
REVISION	CHECKER SPENCER YATES ISSUE DATE 6/12/2019
BY	DIRECTOR OF STRUCTURES, STATE BRIDGE ENGINEER - JUSTIN WALKER, P.E. DEP. DIR. OF STRUCTURES, ASST. STATE BRIDGE ENGINEER - SCOTT WESTERFIELD, P.E.

001: 00 AHPM DGN FILE NAME: PROJECT PLAN SECTION MISSISSIPPI DEPARTMENT OF TRANSPORTATION



NOTE TO CONTRACTOR:

The Contractor shall employ the service of a registered Professional Engineer who is knowledgeable and proficient in the field of bridge design.

The Contractor's Design Engineer shall determine the required ultimate pile bearing capacities based on the use of Pile Dynamic Analysis (PDA) for the condition/bearing resistance determination method per the AASHTO LRFD Bridge Design Specifications.

The Contractor's Design Engineer will be responsible for providing the Pile Dynamic Analysis (PDA) and for establishing the production pile driving criteria.

The Contractor's Design Engineer shall determine the lengths of all test piles and production piles.

The following exceptions to the AASHTO LRFD Bridge Design Specifications will be allowed for the design of Detour Bridges:

- (1) The design of the substructure of the Detour Bridge shall be made to satisfy the requirements of the following Limit States: Strength I, Strength III, Strength V, and Service I.
- (2) With PDA pile tests for the Detour Bridge piling being performed and analyzed by the Contractor's Design Engineer, a value of 0.85 for the condition/resistance Factor for Driven Piles may be used to set final Detour Bridge pile lengths.
- (3) The Design Vehicular Loading (Truck + Lane) used may be 75% of the HL-93 Live Loading.

A complete set of bridge detail drawings, bearing the official seal of the Contractor's Design Engineer, along with design calculations, shall be submitted to the Project Engineer and the Director of Structures, State Bridge Engineer for review. The submittal shall specify the bridge span arrangement, configuration, location, minimum geometric and loading requirements, verification of ground line elevations and effective area of opening. The submittal shall also specify the LRFD factored pile loading (Strength I), the required ultimate pile bearing capacities based on the condition/resistance determination method used, type and estimated length of test and production piling, the stationing and finish grade at each bent and total length of the detour bridge.

The Contractor's erosion control plan shall address the construction, maintenance, and removal of the detour bridge. The detour bridge shall be long enough such that spill-through slopes of abutments do not spill over into the channel.

Prior to opening the detour bridge to traffic, the Contractor shall submit test pile data and pile records to the Engineer for review and shall provide MDOT written certification from the Contractor's Design Engineer that construction of the bridge was in full accordance with the design plans.

Any deviations in construction of the detour bridge from the detour bridge design plans shall require the Contractor's Design Engineer to provide corrected calculations and corresponding revisions made to the detour bridge plans which shall be stamped by the Contractor's Design Engineer.

DETOUR BRIDGE OVER BOKSHENYA CREEK
Scale: 1"=10'

*NOTE: For minimum finished grades see Roadway Plan Sheets.

NOTE: Prior to construction, the contractor is to contact Mr. James Mooney of Texas Eastern at 662-289-2991 or 601-594-9264 about construction guidelines near their gas pipeline.

NOTE: The proposed detour span arrangement is 75'-115'. The 115' span traverses a gas utility easement, and therefore, cannot be substituted with a series of smaller spans.

NOTE: The culvert located along the existing alignment at STA 1590+45 should be extended across the proposed detour alignment at STA ~13+94.

NOTE: Detour roadway embankment shall be removed to natural ground elevation ±402 from station 6+00 to station 11+00 once the detour road is no longer serving traffic, and shall be shown accordingly on all plans.

GENERAL NOTES:

Specifications: MISSISSIPPI Standard Specifications for Road and Bridge Construction, 2017.

The detour bridge shall be designed and furnished by the Contractor (see NOTE TO CONTRACTOR).

The detour bridge deck surface shall be of concrete, asphalt, or other skid resistant material subject to approval by MDOT.

The detour bridge superstructure shall be constructed of new or used precast concrete units, steel beams, steel framing or prestressed concrete units. Used units or components shall be in good, sound condition having no visible defects. All elements shall be compatible.

Use of open-grid bridge decking will not be permitted.

The bridge railing shall have a minimum LRFD rating of test level two (TL-2).

Rough, untreated hardwood timber may be used for the construction of bulkheads or bent caps.

Used timber shall be in good, sound condition.

Untreated timber piles may be used.

Piling size shall be as designated in Section 719 of the Specifications. Piling shall be driven to bearing sufficient to meet pile bearing requirements and ensure stability of the substructure.

Piles in bulkhead shall be an absorbed item.

During the time the detour bridge is in place, the waterway shall be kept free of all obstructions to the free flow of water.

After the permanent structure has been opened to traffic, the detour bridge shall be removed by the Contractor.

All material furnished by the Contractor and used in construction with the detour bridge shall remain the property of the Contractor and shall be removed from the site.

Test piles shall be driven out of position and shall be removed to a minimum of one foot (1.00) below the ground line upon acceptance by the Project Engineer.

GENERAL NOTES (continued):

Minimum requirements for location and number of test piles are as follows:

- (1) The number of intermediate bent test piles shall be calculated by dividing the total detour bridge length by 120 ft, rounded to the nearest whole number and shall be a minimum of one test pile.
- (2) One abutment test pile is required for bridge lengths less than 400 ft.
- (3) One abutment test pile at each abutment is required for bridge lengths greater than or equal to 400 ft.

Detour bridge piles shall be pulled or cut off a minimum of one foot (1.00) below the ground line.

The Contractor's detour bridge submittal shall include a plan to address potential scour and drift effects by utilizing methodologies such as substructure bracing/strengthening, rip rap protection, brush deflectors, deeper pile penetration, stronger/more durable pile types and bridge inspection with drift removal during storm events.

The detour bridge length shown hereon utilizes a bulkhead abutment configuration to meet the minimum effective opening requirements. Use of bridge configurations that incorporate spill-through slopes may require additional bridge length to meet the minimum effective opening requirements. Additional bridge length, span length and/or other bridge adjustments required to address minimum effective opening requirements, site conditions and/or erosion control requirements will not be cause for additional compensation.

Payment for the detour bridge will be made under the pay items in Special Provision 907-618.

Work for which no pay item is provided in the proposal will not be paid for directly and compensation therefor will be included in the prices and payments for bid items.

DRAINAGE DATA:

Drainage area. 5.02 sq. mi.
05 (U.S.G.S.). 1,235 c.f.s. (bridge), 1,300 c.f.s. (floodplain)
Min. low chord elevation. 402.9 ft.
Anchor span minimum length. 115'-0"
Main span minimum length. 75'-0"

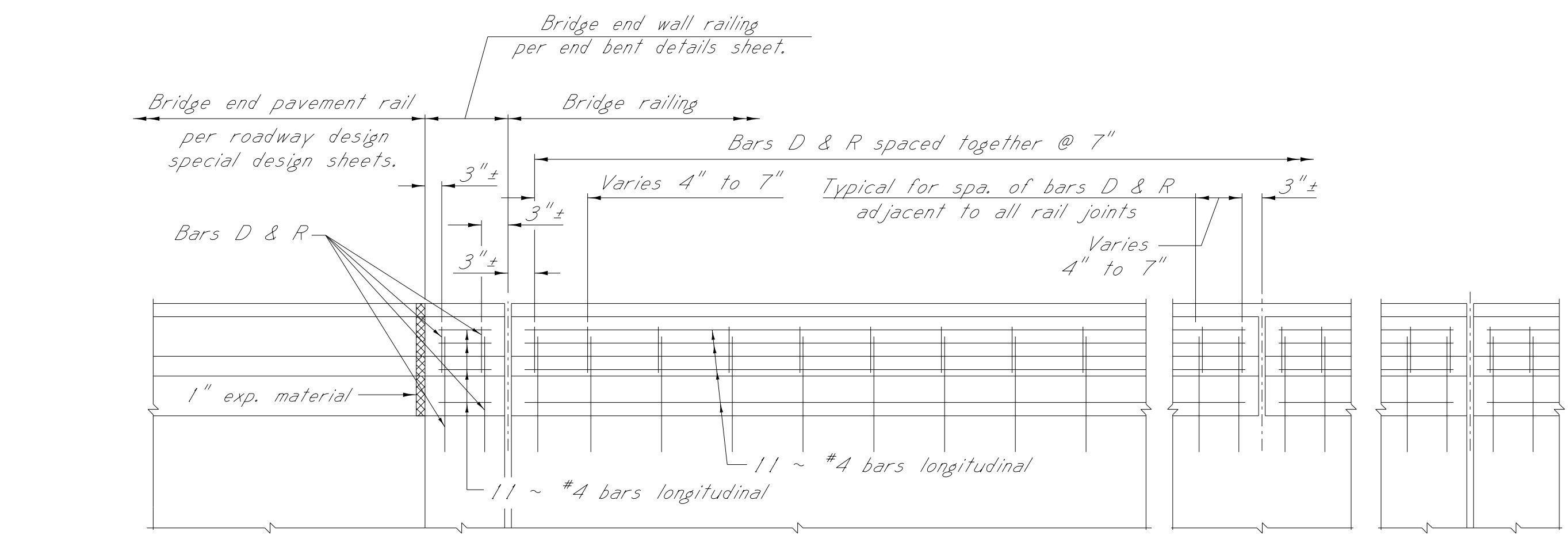
DESIGN DATA:

Specifications. A.A.S.H.T.O., LRFD 2017
Loading. 75% of HL-93
Minimum roadway width. 24'-0" gutter to gutter

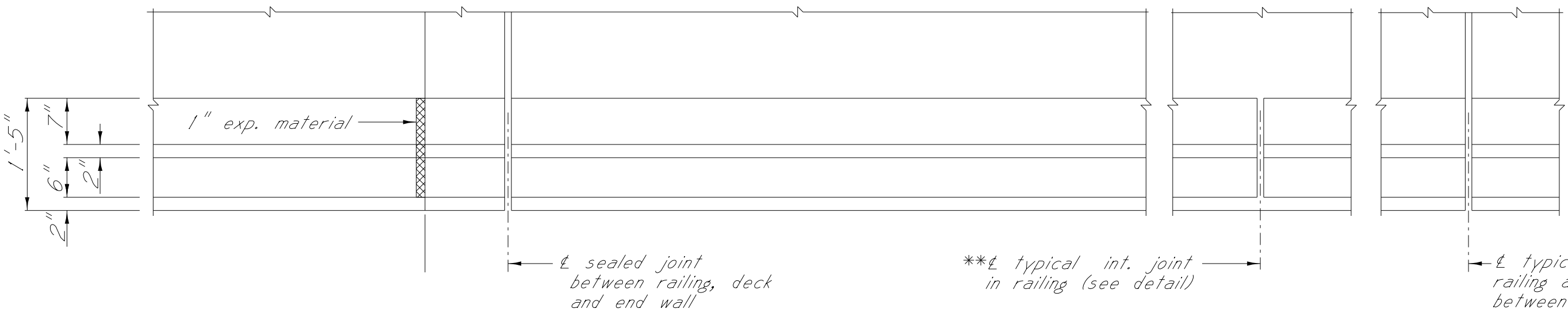


MISSISSIPPI DEPARTMENT OF TRANSPORTATION	
DETOUR BRIDGE AT STA. 8+05.00	
MS 35 OVER LITTLE CONEHOMA CREEK	
FMS: 103334 / 301000	
COUNTY: ATTALA	
PROJECT NUMBER: BR-0023-02(058)	
WORKING NUMBER	DBB-1
SHEET NUMBER	8030
DATE	DESIGNER JONATHAN KING DETAILER JONATHAN KING
REVISION	CHECKER SPENCER YATES ISSUE DATE 6/12/2019
BY	DIRECTOR OF STRUCTURES, STATE BRIDGE ENGINEER - JUSTIN WALKER, P.E. DEP. DIR. OF STRUCTURES, ASST. STATE BRIDGE ENGINEER - SCOTT WESTERFIELD, P.E.

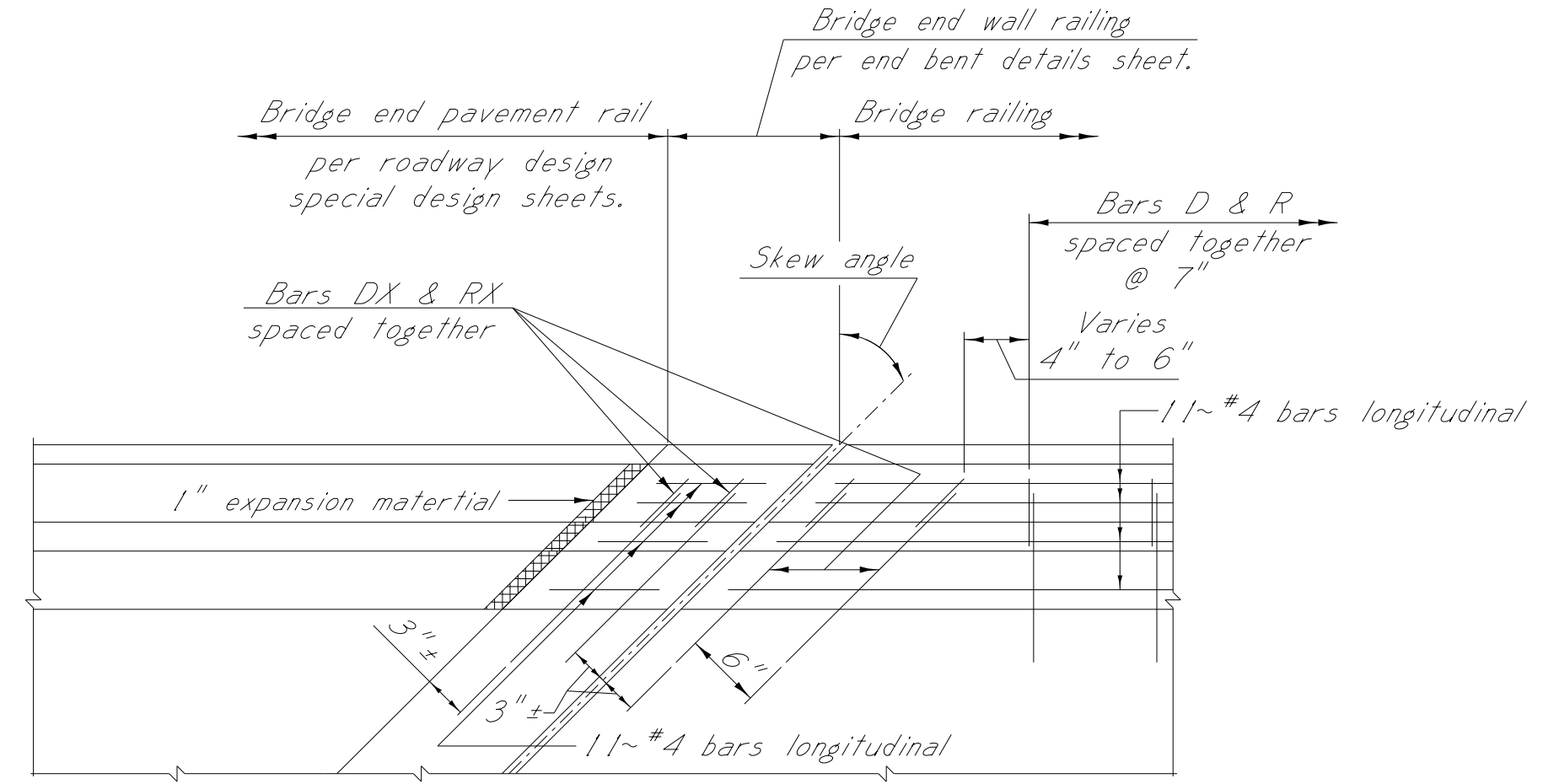
001:00 AHPM.DGN\FLEENAKE MISSISSIPPI DEPARTMENT OF TRANSPORTATION PROJECT PLAN SECTION



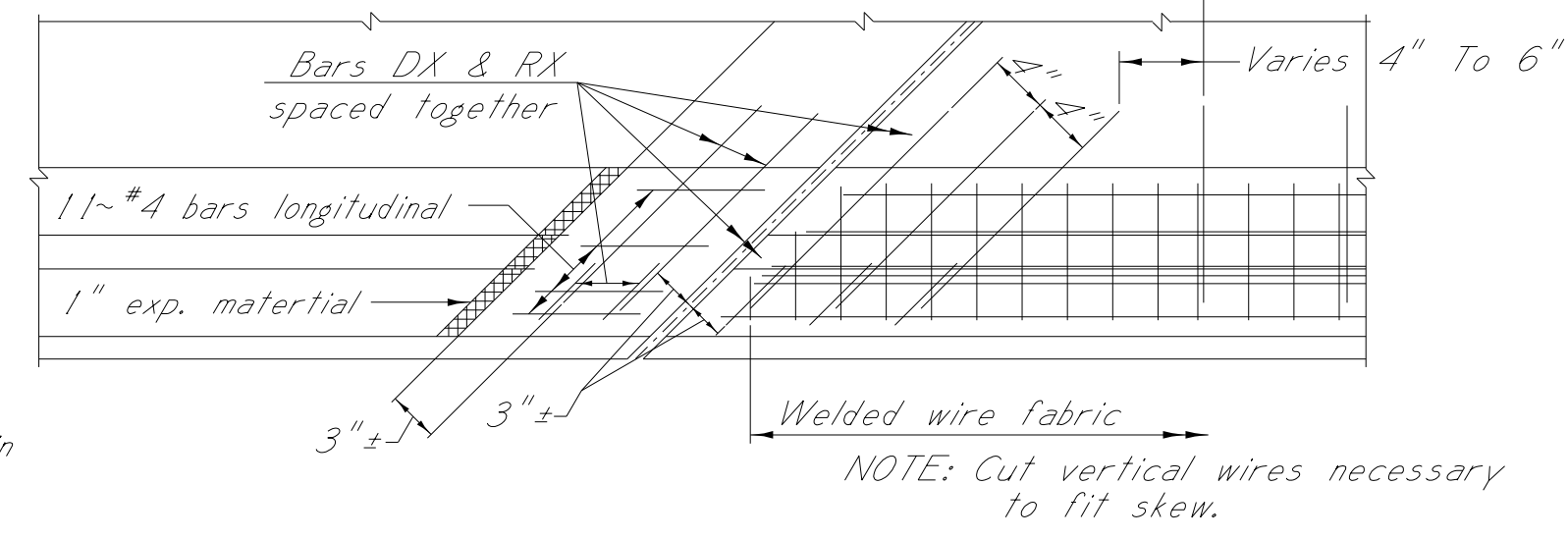
PART PLAN OF LEFT RAILING
Showing conventional reinforcing. See CONSTRUCTION NOTES for details of optional welded wire fabric.



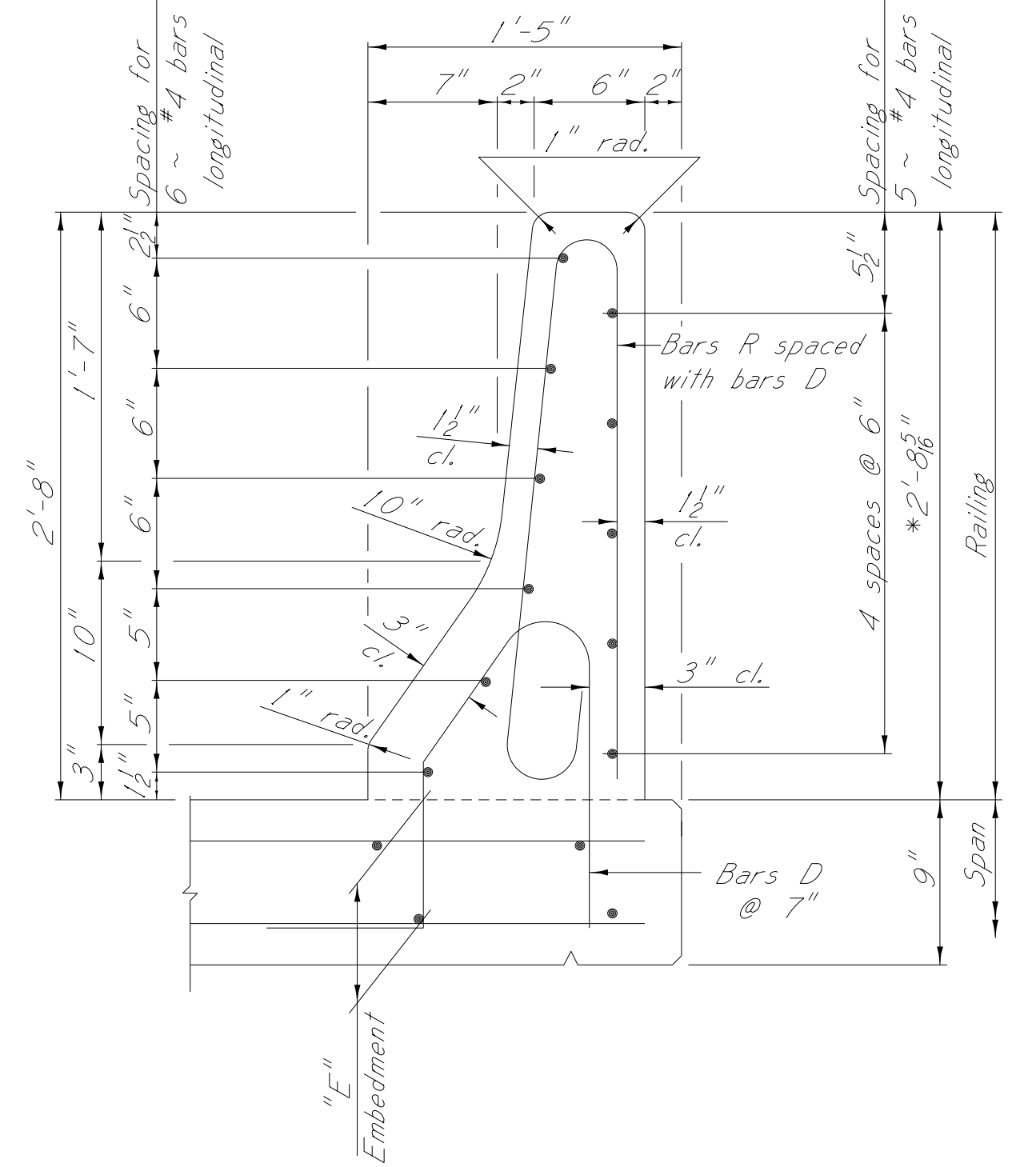
PART PLAN OF RIGHT RAILING
Showing concrete dimensions



SKEWED PART PLAN OF LEFT RAILING
Showing conventional reinforcing. NOTE: For details of bars DX & RX, see end bent details sheet.



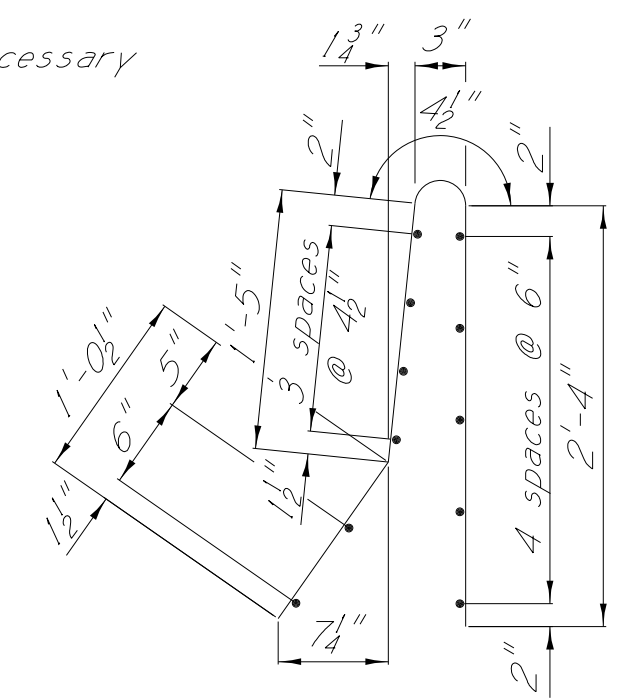
SKEWED PART PLAN OF RIGHT RAILING
Showing optional welded wire fabric. (See CONSTRUCTION NOTES.)



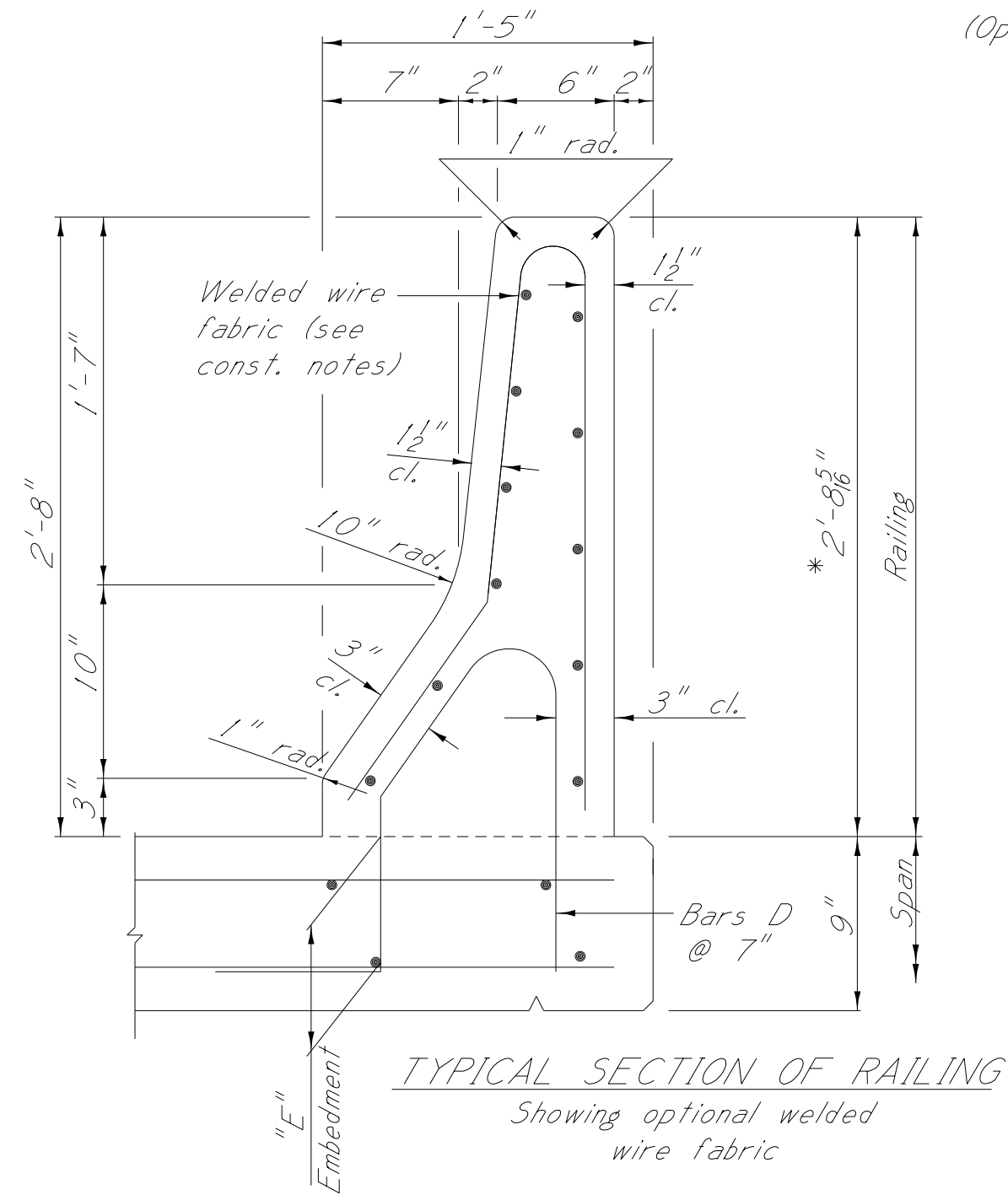
TYPICAL SECTION OF RAILING

NOTE:
"E" = slab thickness (in.) - 1 inch.

*NOTE:
This dimension shown is for 0.02 ft/ft slope. It will vary in superelevated sections.



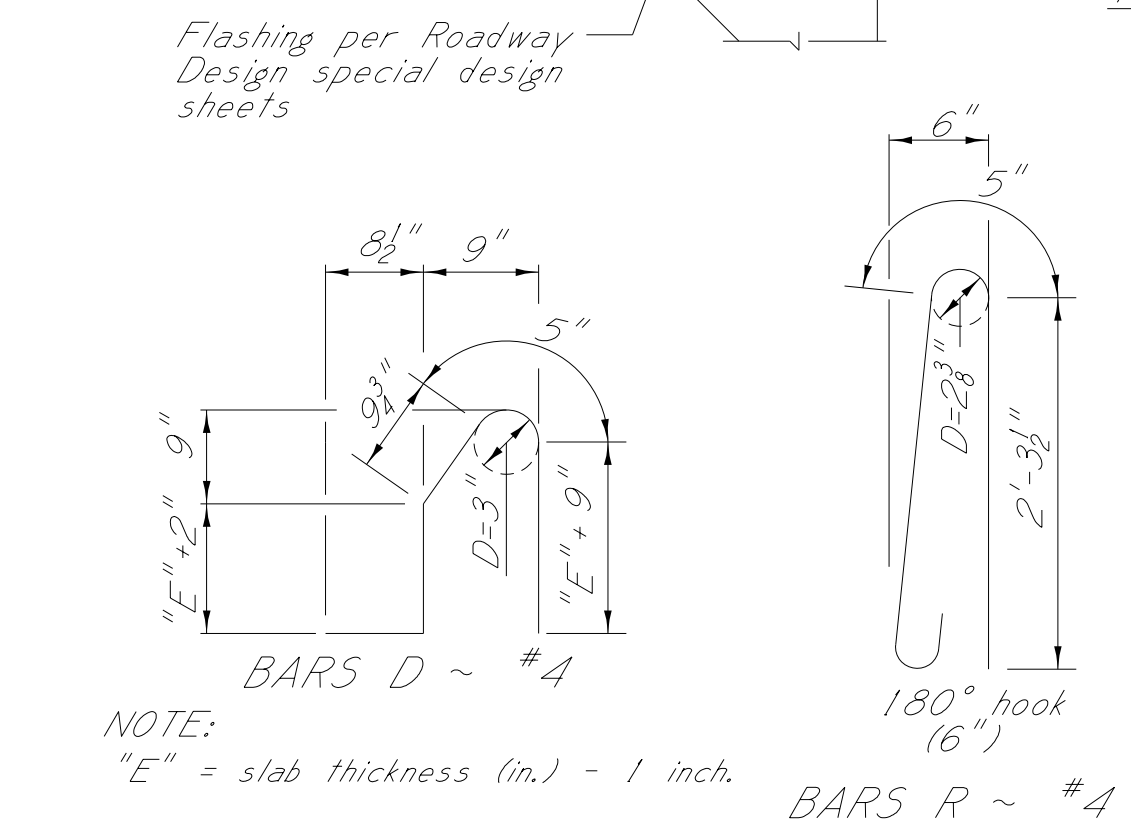
WELDED WIRE FABRIC
(Optional - see CONSTRUCTION NOTES)



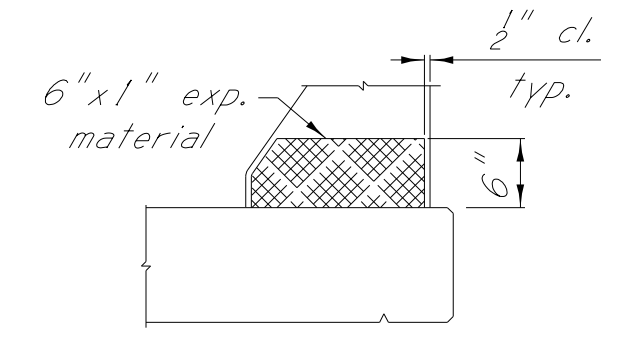
TYPICAL SECTION OF RAILING
Showing optional welded wire fabric

CONSTRUCTION NOTES:
Welded wire fabric meeting the requirements of ASTM A 497 and details shown on this sheet may be used as an option to conventional railing reinforcing. Longitudinal wires shall be D20 spaced as shown in the WELDED WIRE FABRIC detail and vertical wires shall be D20 spaced at 7".

DESIGN DATA:
Specifications.....A.A.S.H.T.O. LRFD 2007, with 2009 interims.
Concrete.....Class "AA" (4,000 psi)
Reinforcing.....ASTM A 615 Grade 60 (F_y = 60 ksi)



BAR BENDING DETAILS
Dimensions are out to out



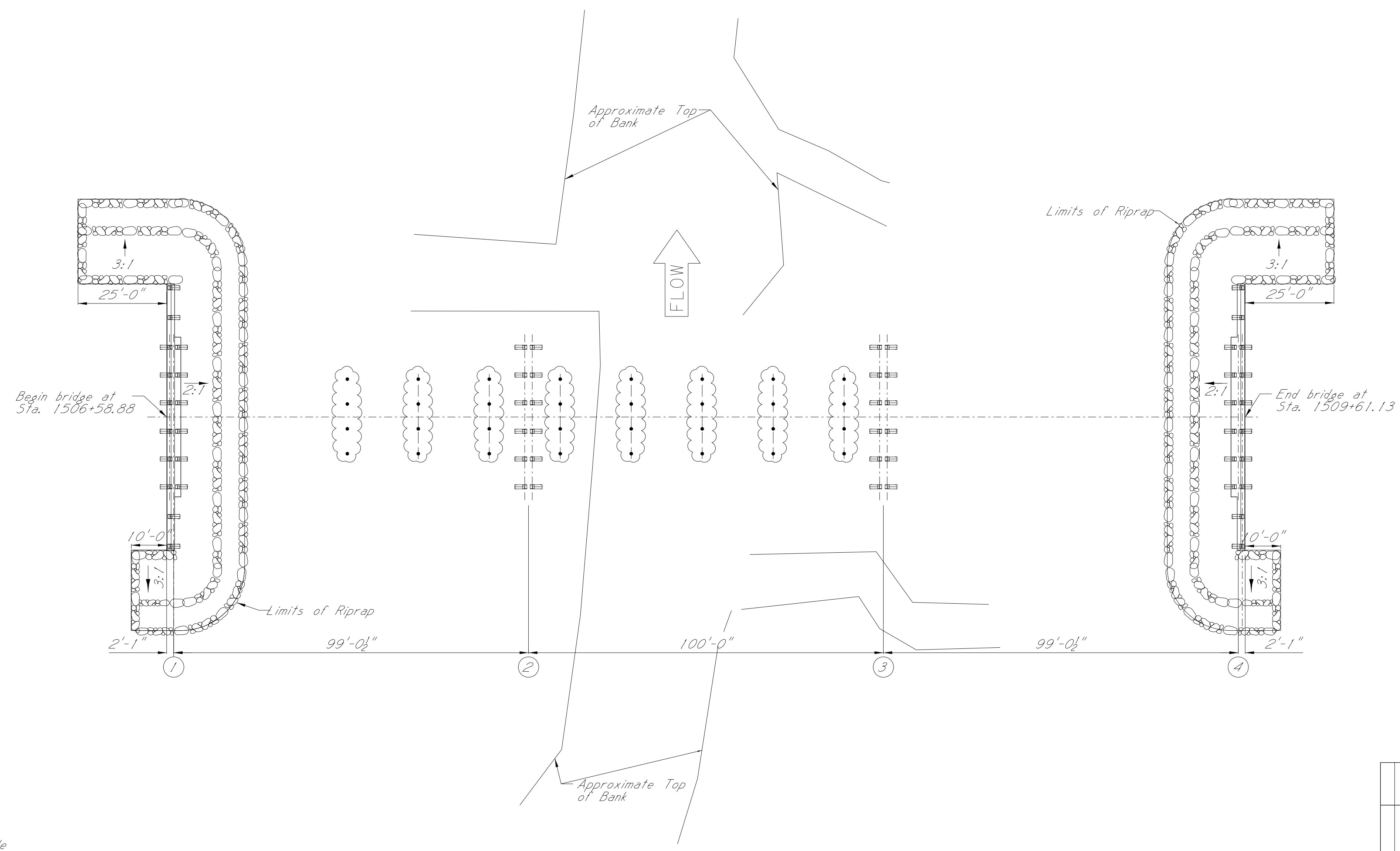
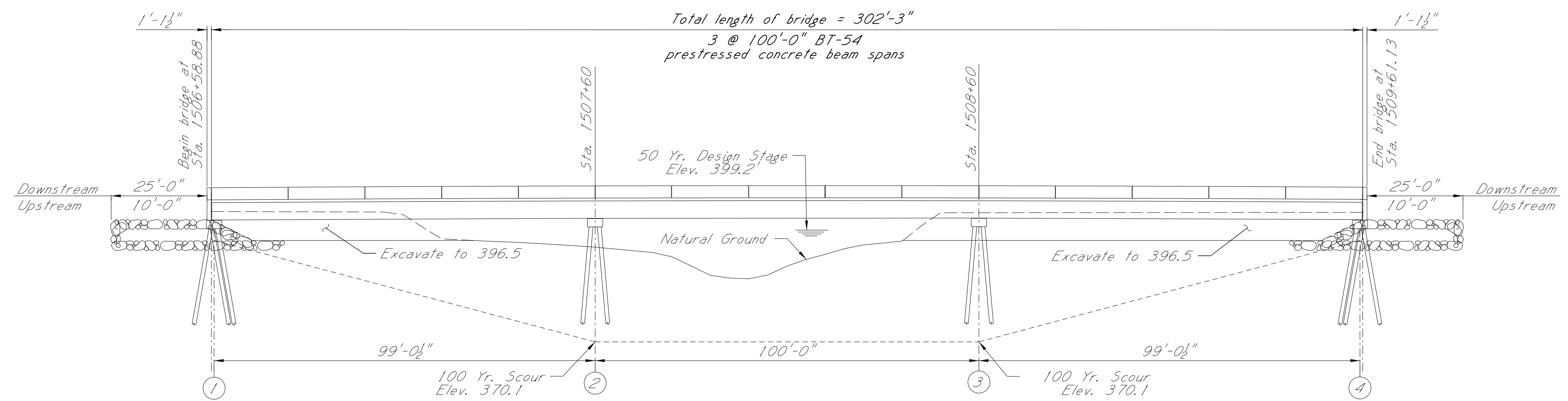
**** TYPICAL INT. JOINT**
(For railing joints located between span supports and intermediate supports of continuous spans)

****NOTE:** In lieu of the above, a 3/8 inch wide saw cut joint is permitted when railing is constructed using slipforming. Joint shall be saw cut to within six (6) inches of the bridge deck; 6"x1" expansion material shall be omitted when the joint is saw cut. Railing joints located at bridge deck joints shall be formed, not saw cut. Railing constructed by the slipform method shall be in accordance with section 615.03.2 of the Mississippi Standard Specifications.

001: 00 ANPM DGN FILE NAME MISSISSIPPI DEPARTMENT OF TRANSPORTATION PROJECT DESIGNATION



MISSISSIPPI DEPARTMENT OF TRANSPORTATION	
MS 35 BETWEEN KOSCIUSKO AND ATTALA COUNTY LINE	
2'-8" RAILING DETAILS	
DATE	DESIGNER JONATHAN KING
REVISION	CHECKER SPENCER YATES
BY	ISSUE DATE 6/12/2019
FMS: 103334 / 301000	
COUNTY: ATTALA	
PROJECT NUMBER: BR-0023-02(058)	
WORKING NUMBER	RD-32
SHEET NUMBER	8031



EROSION CONTROL NOTES:

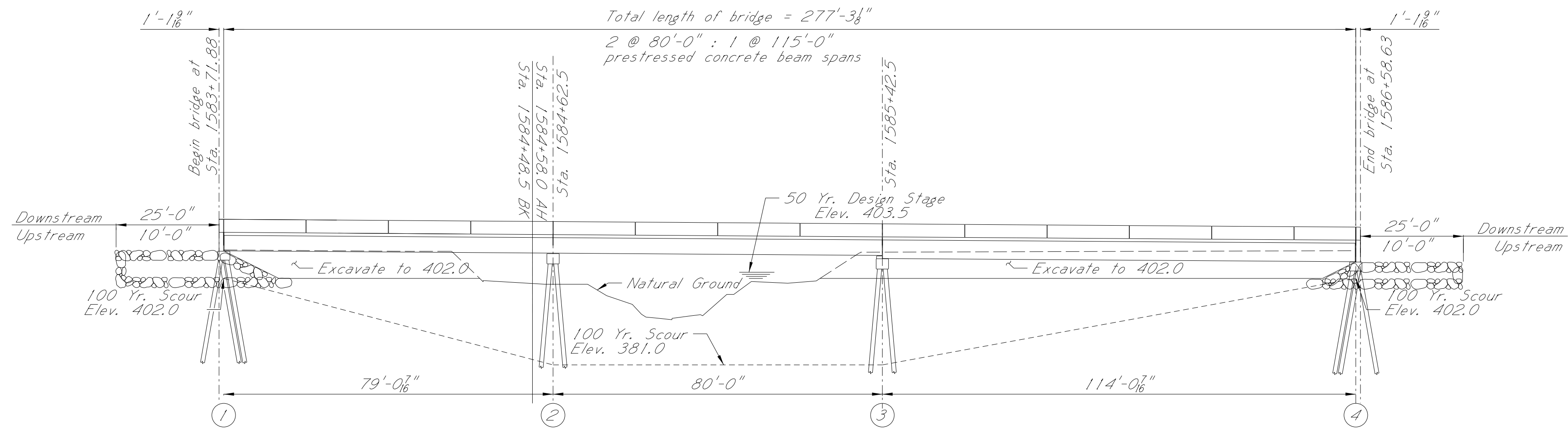
1. No dirt can be pushed into the creek.
2. If a platform for working is needed, then riprap may be used.
3. Minimize disturbance to existing banks.
4. If the bent is in close proximity to the banks, then riprap shall be placed prior to the banks.
5. Riprap shall be placed on slopes immediately after pile driving.
6. Clearing should be kept to a minimum and grubbing only where required.
7. Turbidity curtain may be required.

EROSION CONTROL PLAN



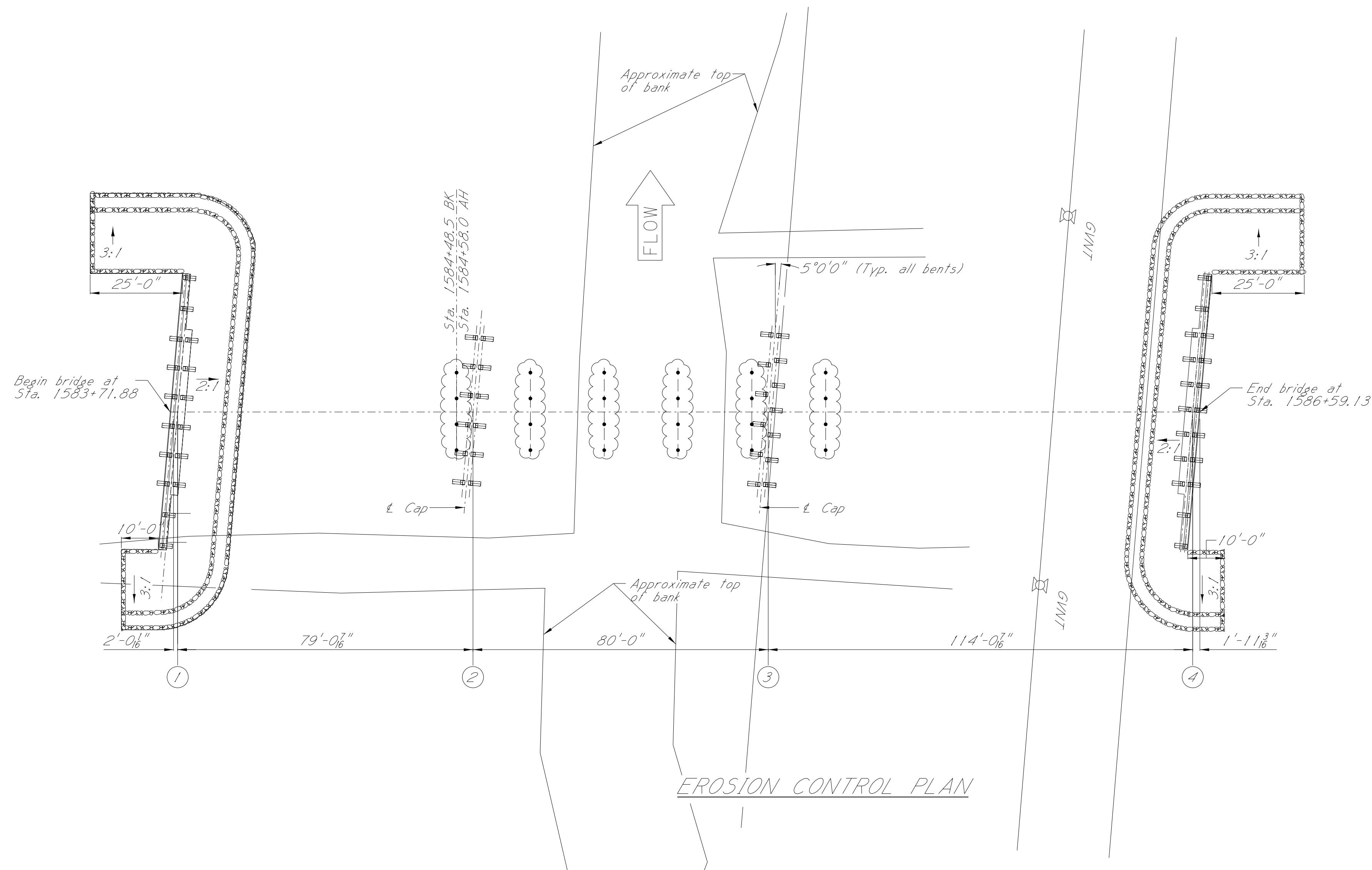
MISSISSIPPI DEPARTMENT OF TRANSPORTATION	
BRIDGE "A" AT STA. 1506+58.88	
BRIDGE EROSION CONTROL	
DESIGNER: JONATHAN KING	CHECKER: SPENCER YATES
DATE: 6/12/2019	ISSUE DATE: 6/12/2019
DIRECTOR OF STRUCTURES, STATE BRIDGE ENGINEER - JUSTIN WALKER, P.E.	
DEP. DIR. OF STRUCTURES, ASST. STATE BRIDGE ENGINEER - SCOTT WESTERFIELD, P.E.	
FMS: 103334 / 301000	WORKING NUMBER: ECBR-A1
COUNTY: ATTALA	SHEET NUMBER: 8032
PROJECT NUMBER: BR-0023-02(058)	

001: 00 AHPM.DGN\FLENAME MISSISSIPPI DEPARTMENT OF TRANSPORTATION



EROSION CONTROL NOTES:

1. No dirt can be pushed into the creek.
2. If a platform for working is needed, then riprap may be used.
3. Minimize disturbance to existing banks.
4. If the bent is in close proximity to the banks, then riprap shall be placed prior to the banks.
5. Riprap shall be placed on slopes immediately after pile driving.
6. Clearing should be kept to a minimum and grubbing only where required.
7. Turbidity curtain may be required.

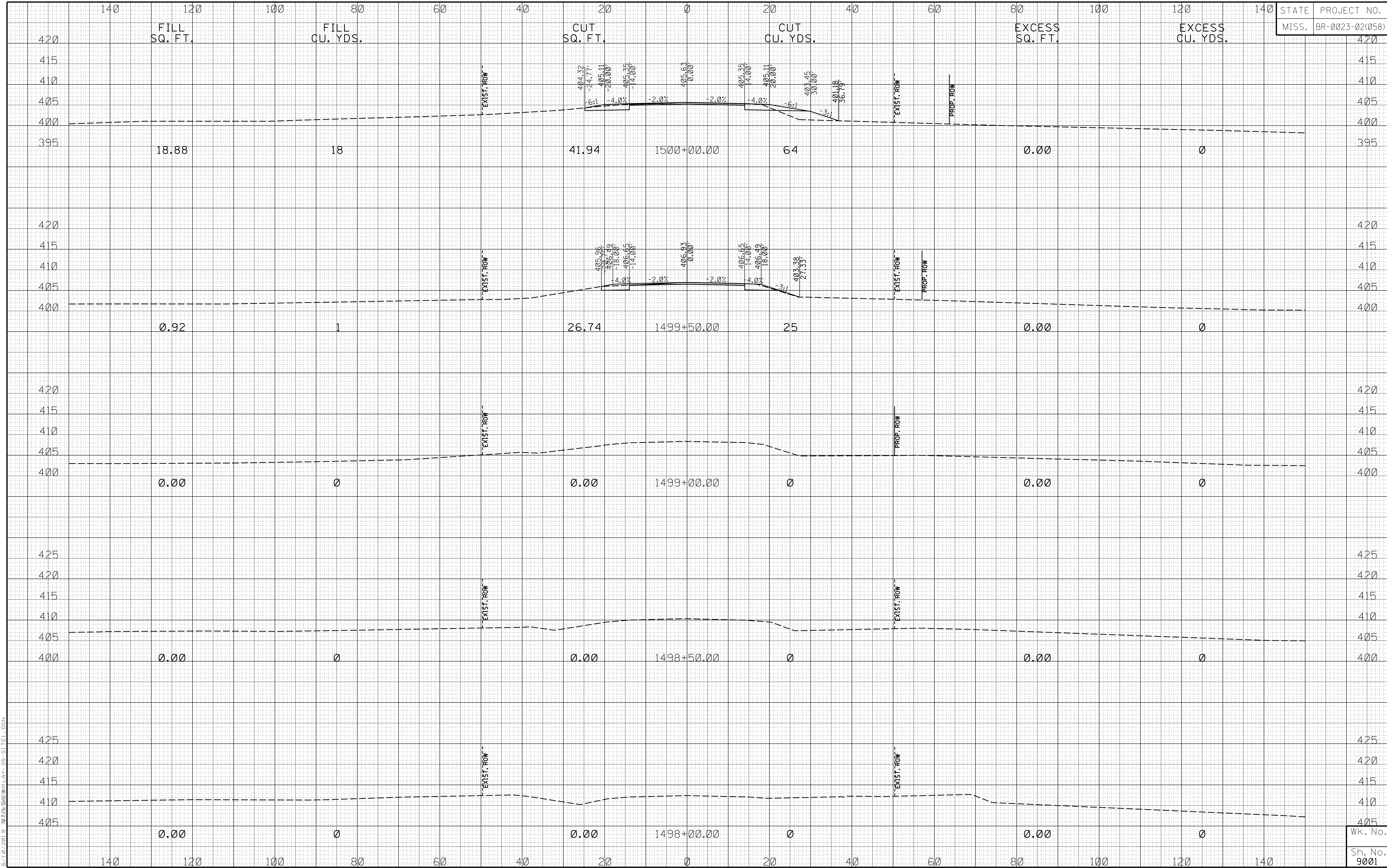


MISSISSIPPI DEPARTMENT OF TRANSPORTATION	
BRIDGE "B" AT STA. 1583+71.88	
BRIDGE EROSION CONTROL	
REVISION	FMS: 103334 / 301000
DATE	COUNTY: ATTALA
BY	PROJECT NUMBER: BR-0023-02(058)
DESIGNER: JONATHAN KING	CHECKER: SPENCER YATES
DATE: 6/12/2019	ISSUE DATE: 6/12/2019
DIRECTOR OF STRUCTURES, STATE BRIDGE ENGINEER - JUSTIN WALKER, P.E.	
DEP. DIR. OF STRUCTURES, ASST. STATE BRIDGE ENGINEER - SCOTT WESTERFIELD, P.E.	
WORKING NUMBER	ECBR-B1
SHEET NUMBER	8033

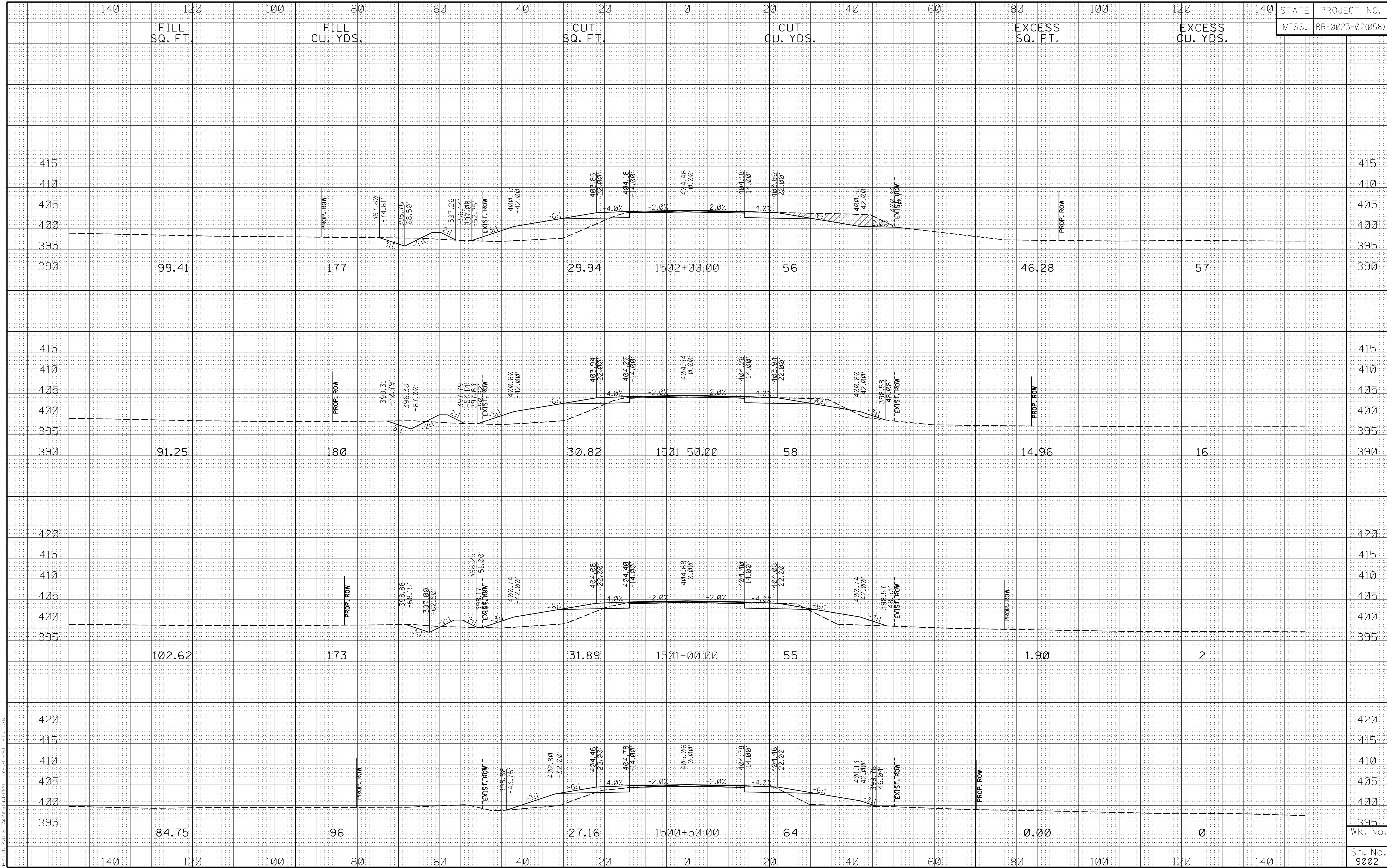
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PROJECT: MISSISSIPPI DEPARTMENT OF TRANSPORTATION

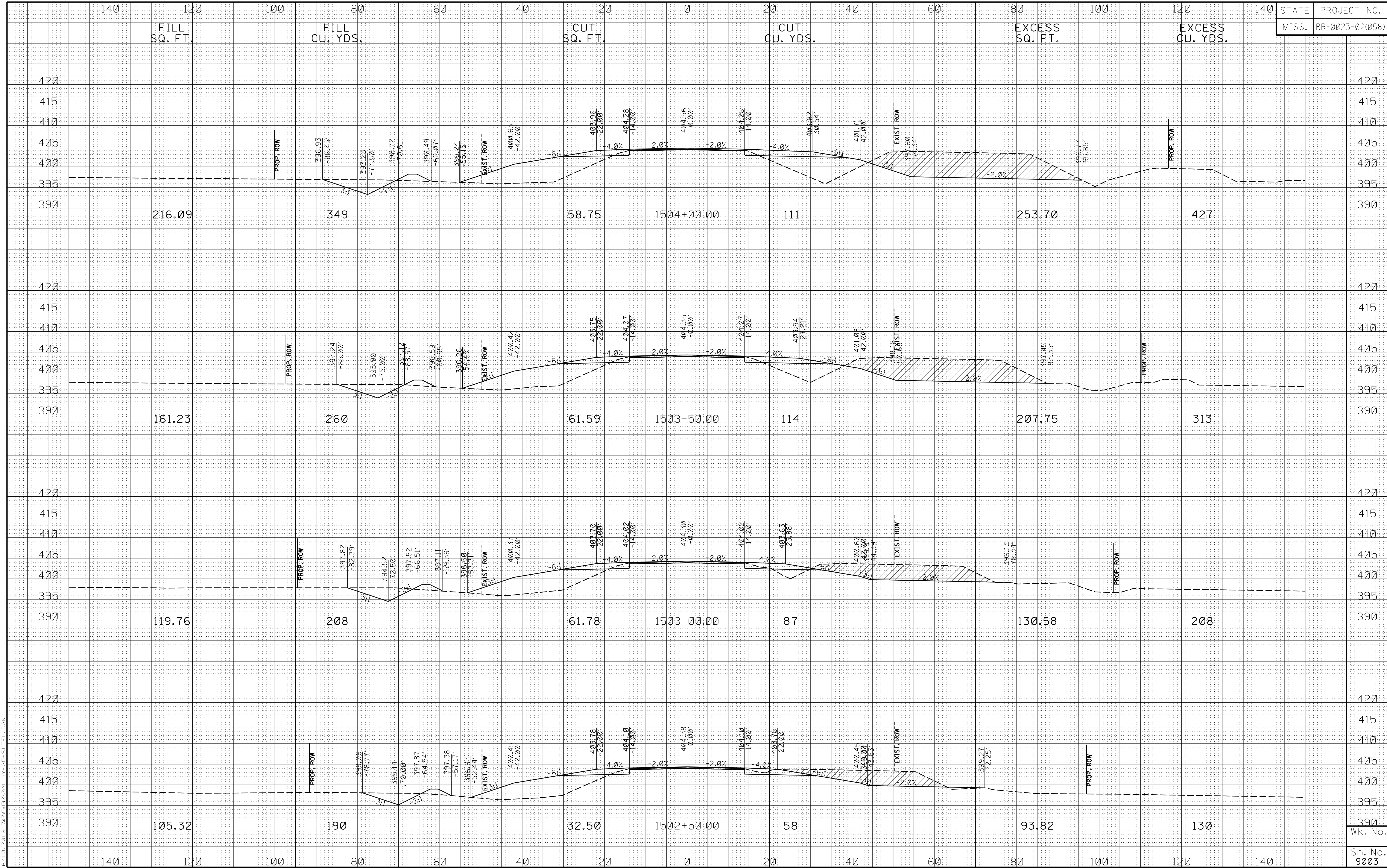
DESIGNER: JONATHAN KING



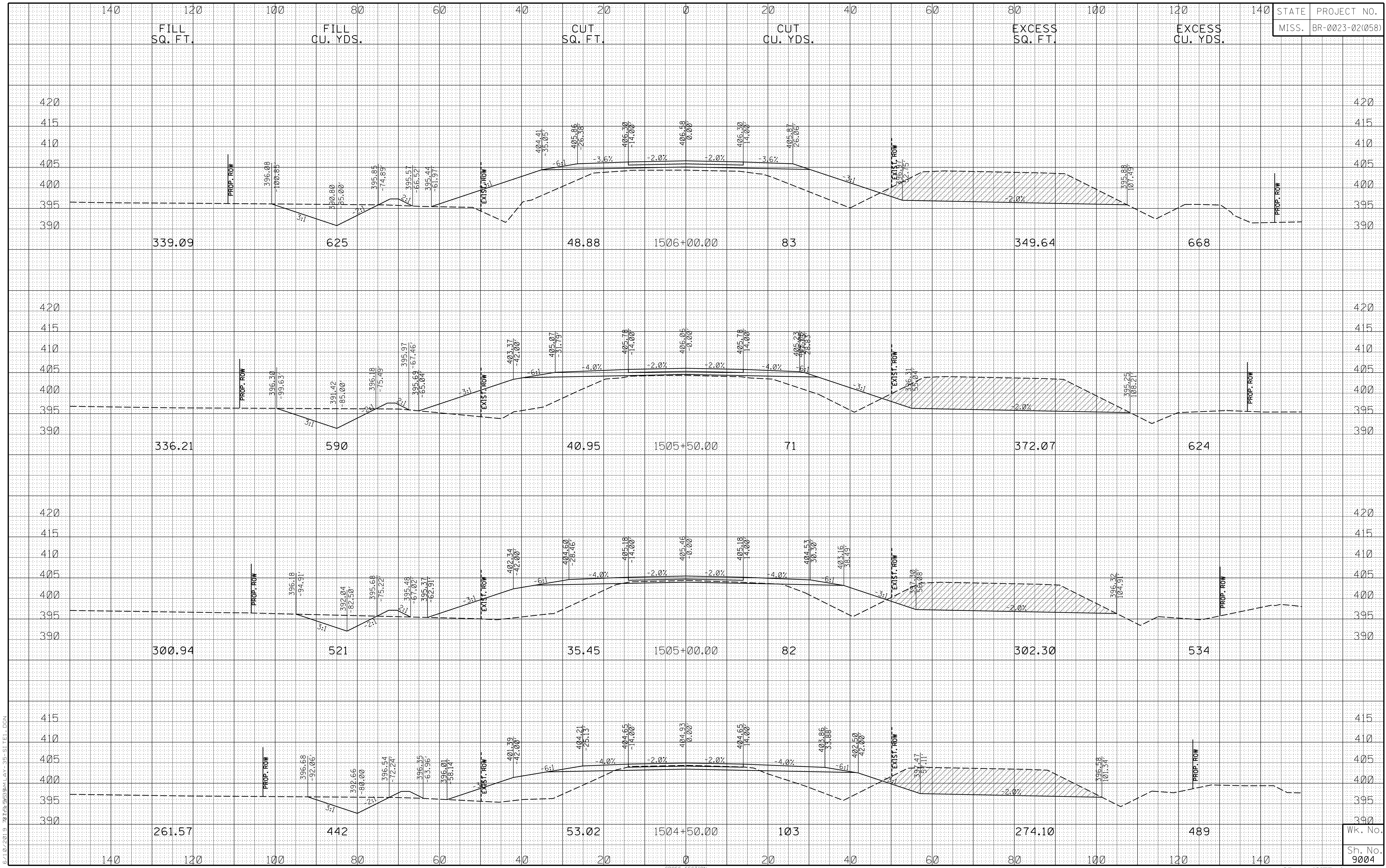
6.1 0/2019 78 125 282 284 LAY-35-SITE1.DGN



6.10.2019 7:25:00AM LAY-35-SITE1.DGN



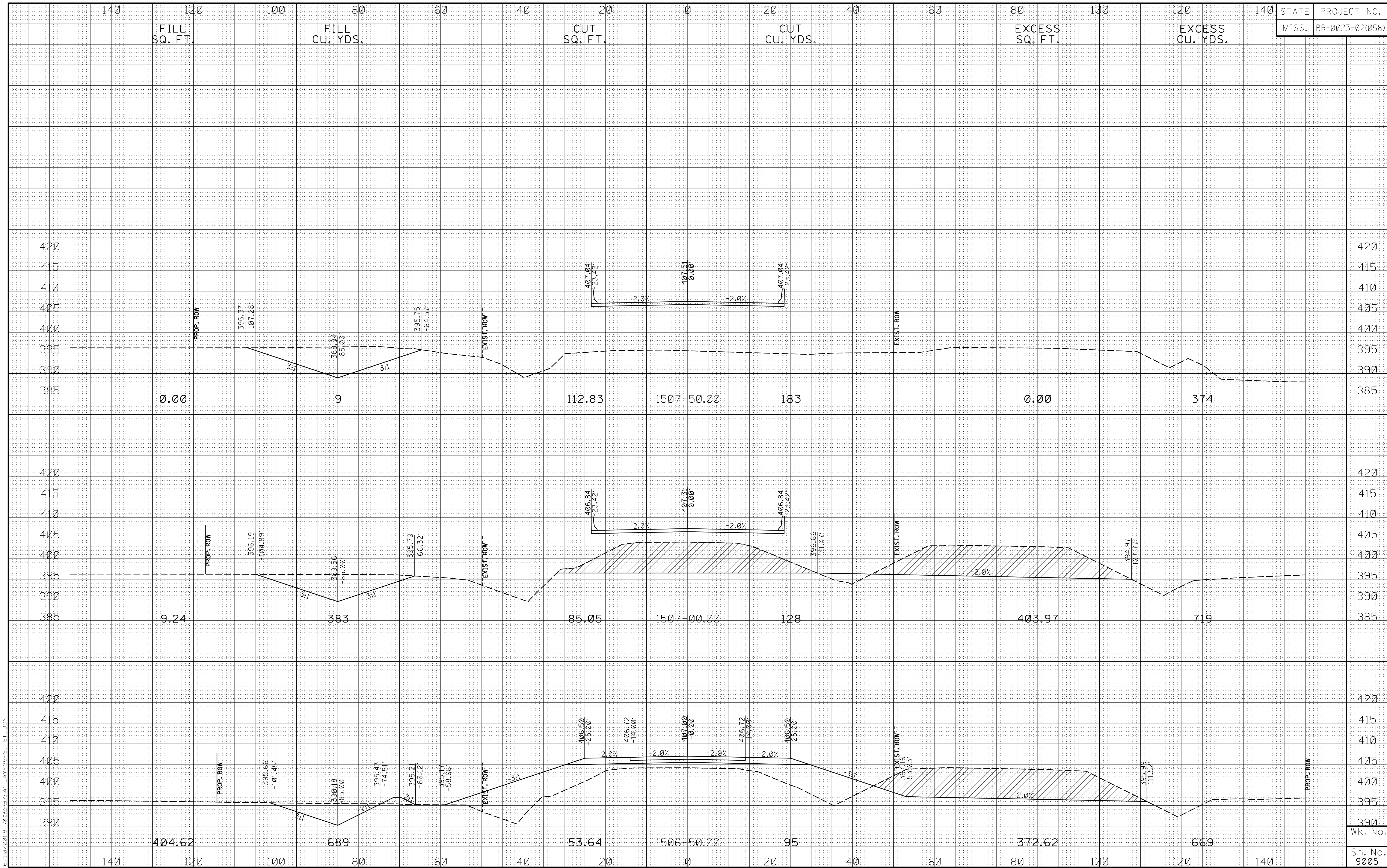
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STATE	PROJECT NO.
MISS.	BR-0023-02(058)

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Wk. No.
Sh. No.
9004



6.10/2019 78 10/23/2019 10:45:35 AM LAY-35-SITE1.DGN

FILL
SQ. FT.

FILL
CU. YDS.

CUT
SQ. FT.

CUT
CU. YDS.

EXCESS
SQ. FT.

EXCESS
CU. YDS.

STATE	PROJECT NO.
MISS.	BR-0023-02(058)

420
415
410
405
400
395
390
385

18.80

38

18.71

1509+00.00

17

382.15

550

420
415
410
405
400
395
390
385

21.70

20

0.00

1508+50.00

0

211.45

196

420
415
410
405
400
395
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385

0.00

0

0.00

1508+00.00

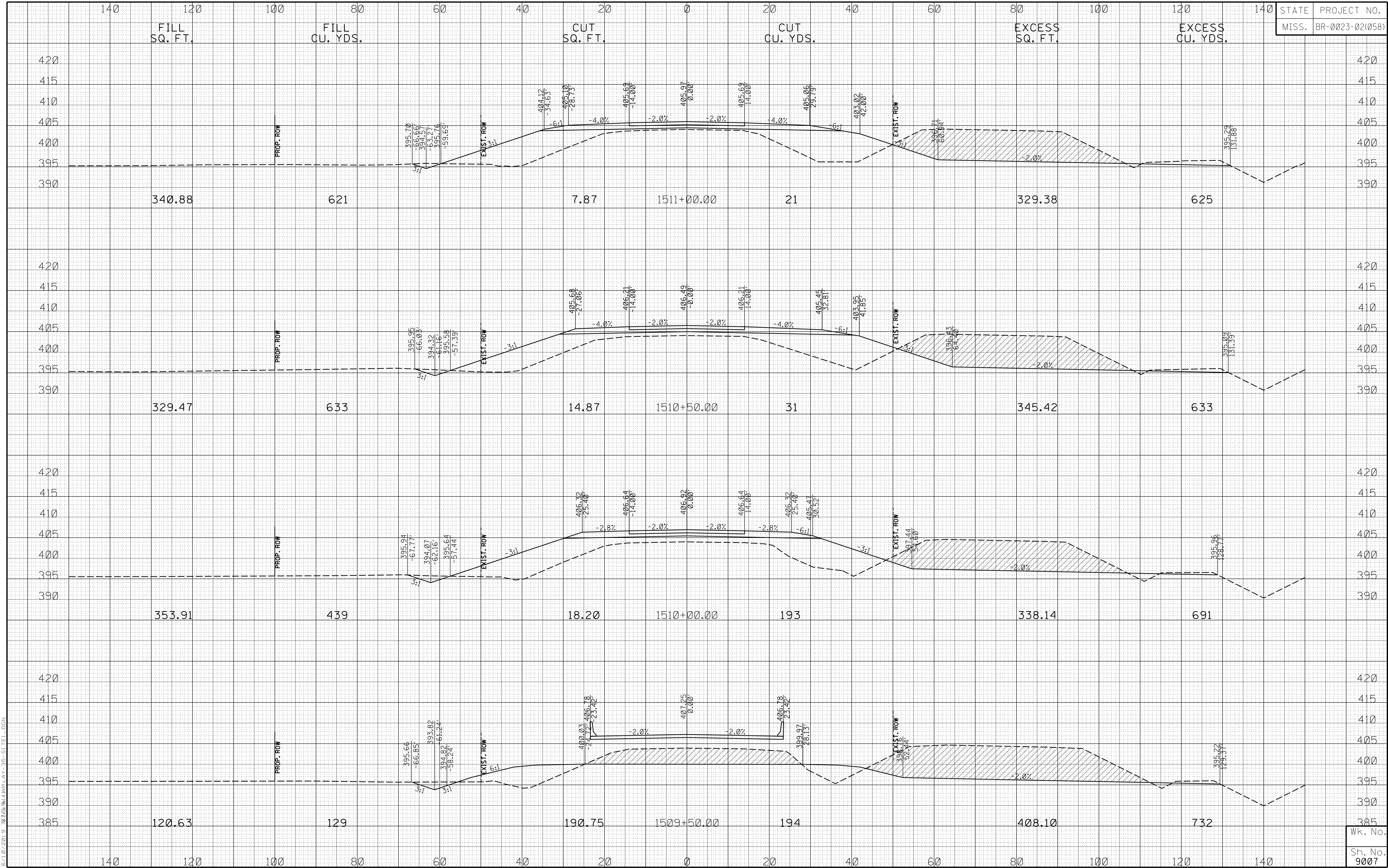
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0.00

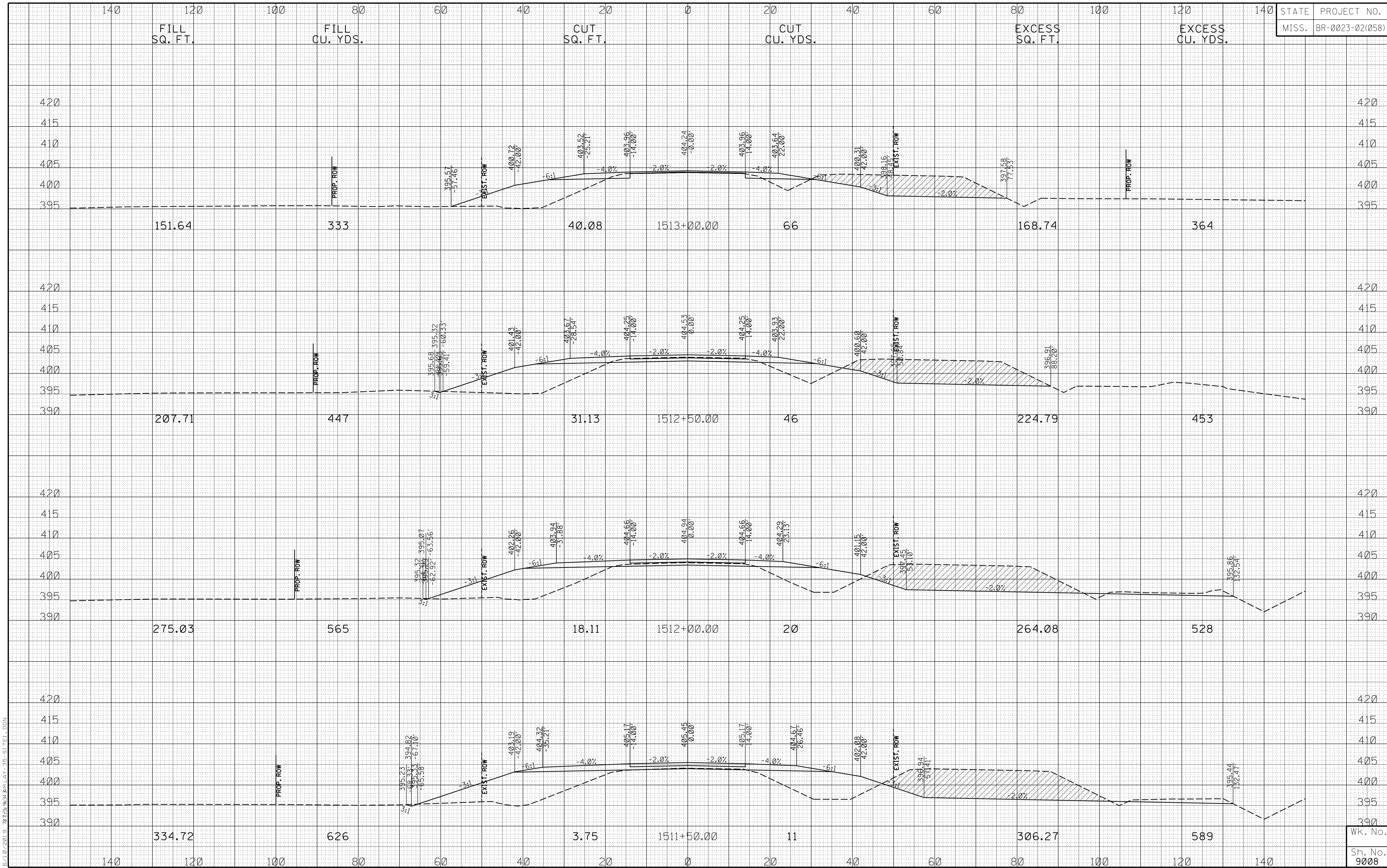
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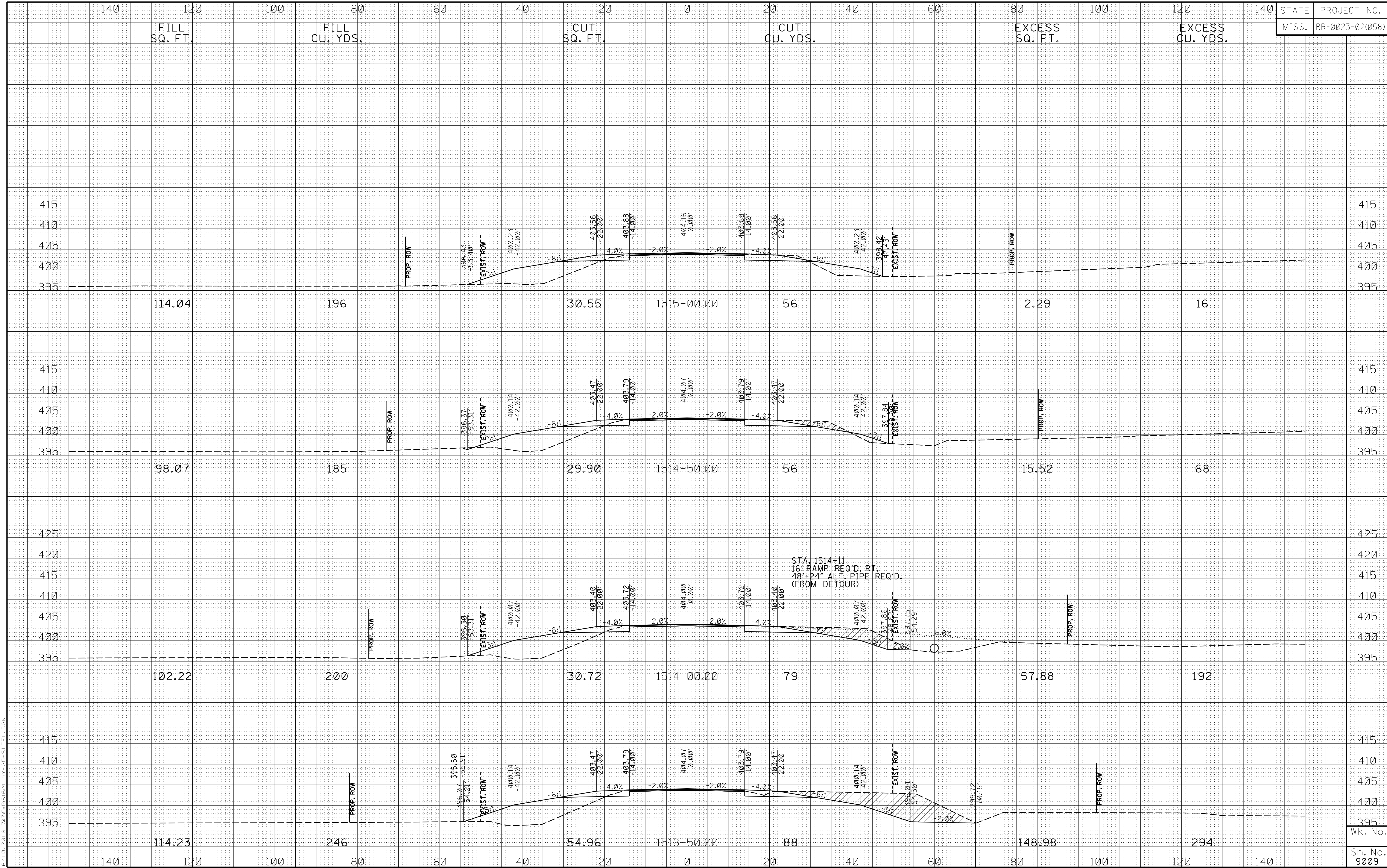
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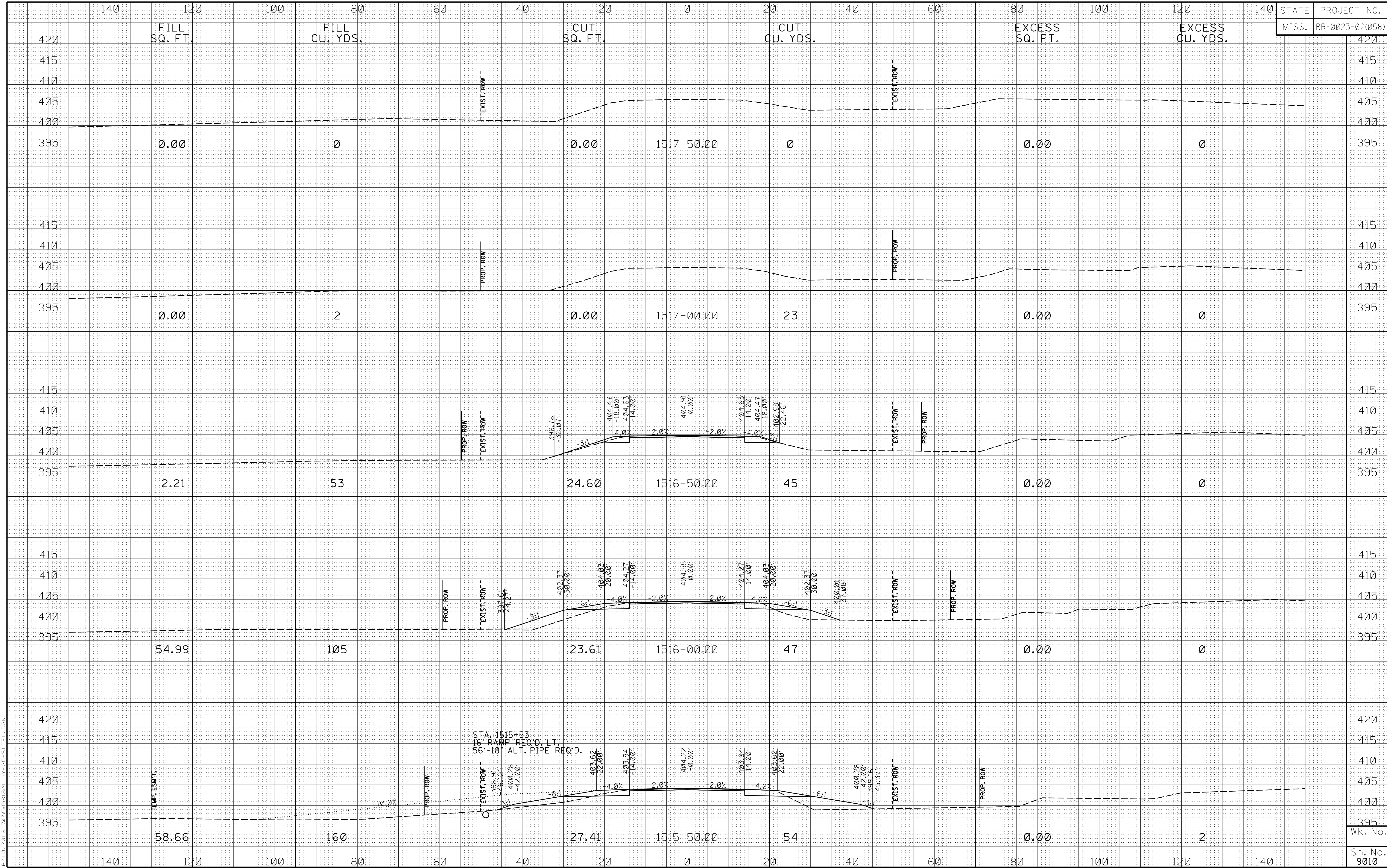
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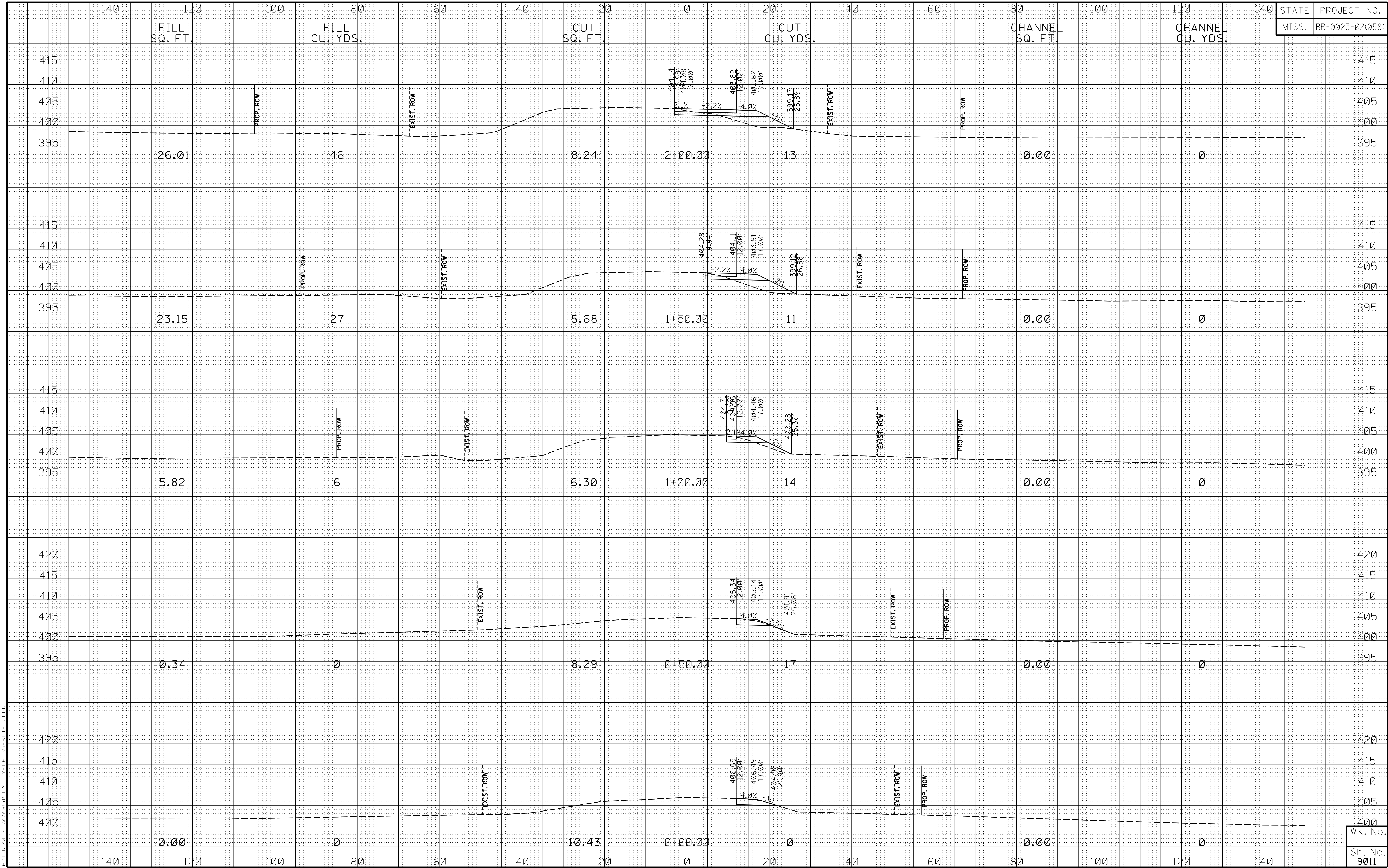
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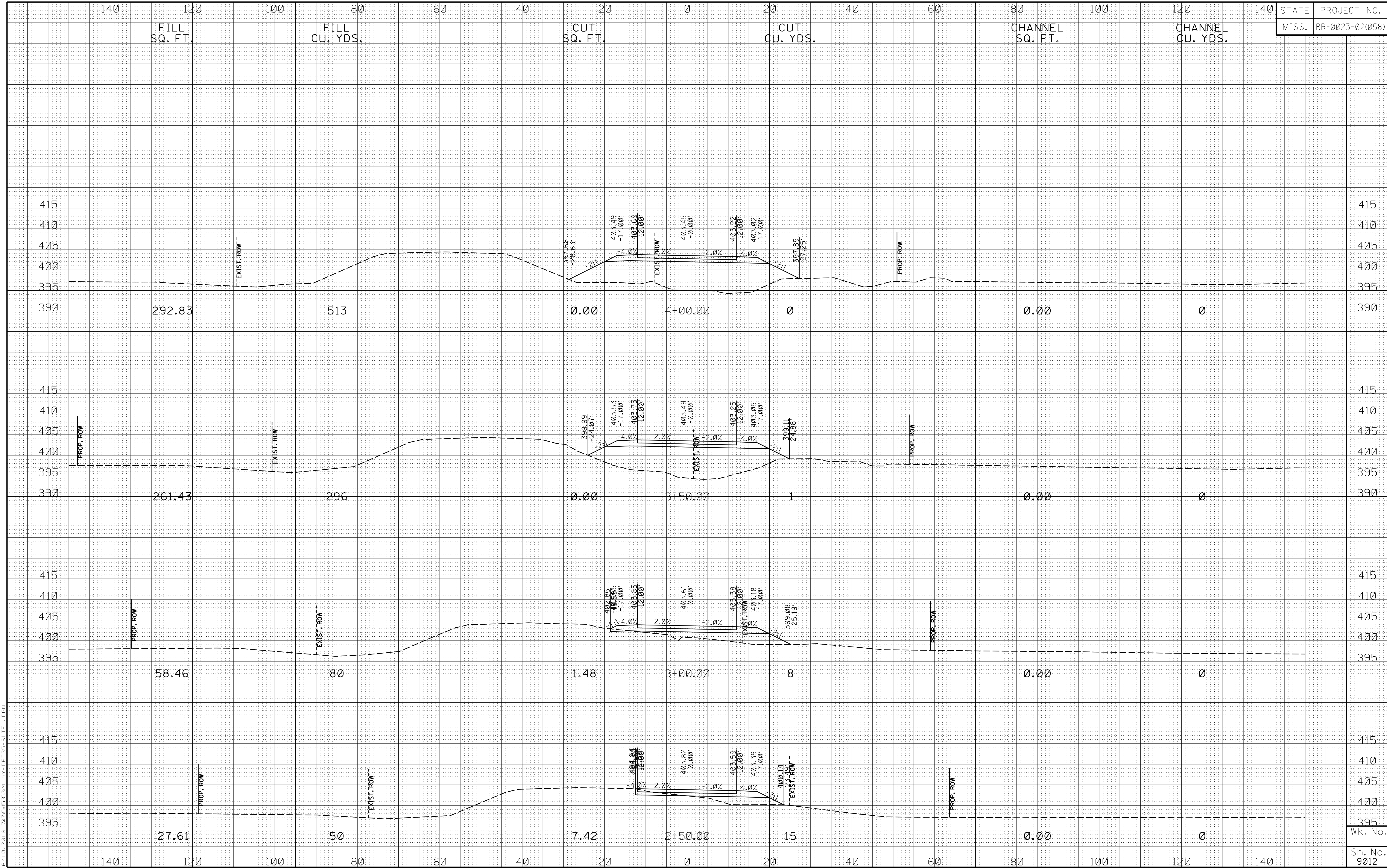
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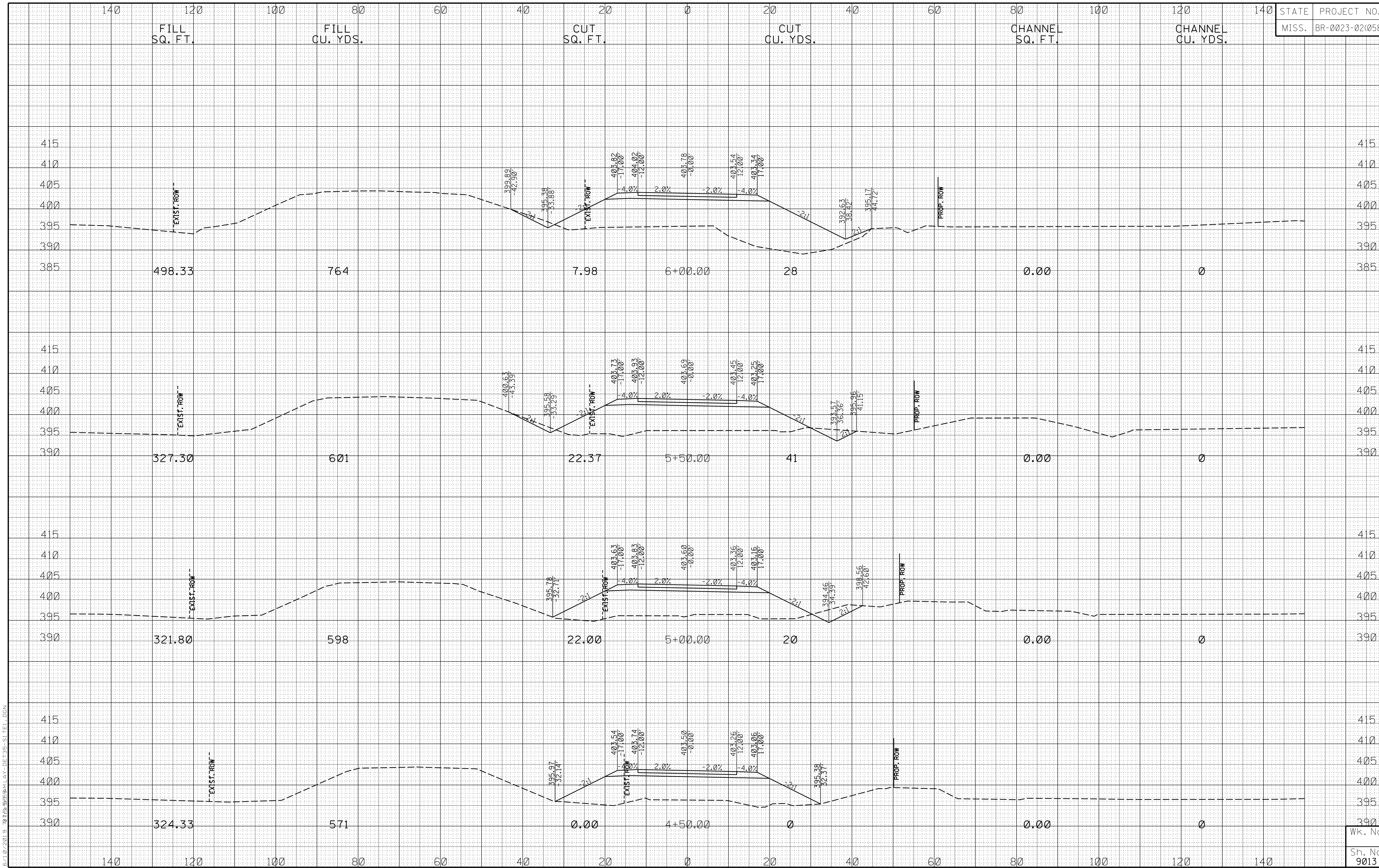
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6.10.2019 7:28:55AM LAY-DET35-SITE1.DGN

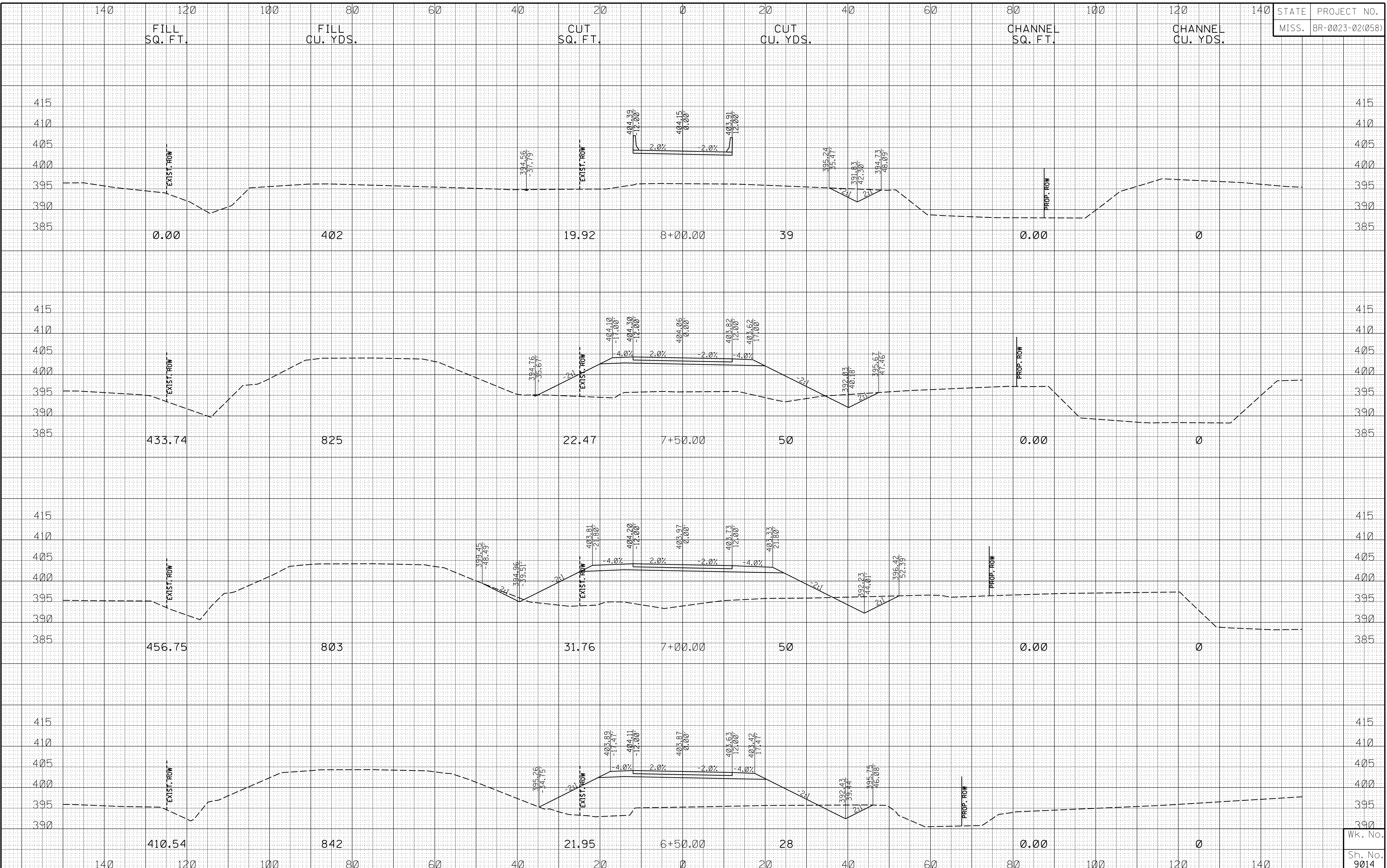


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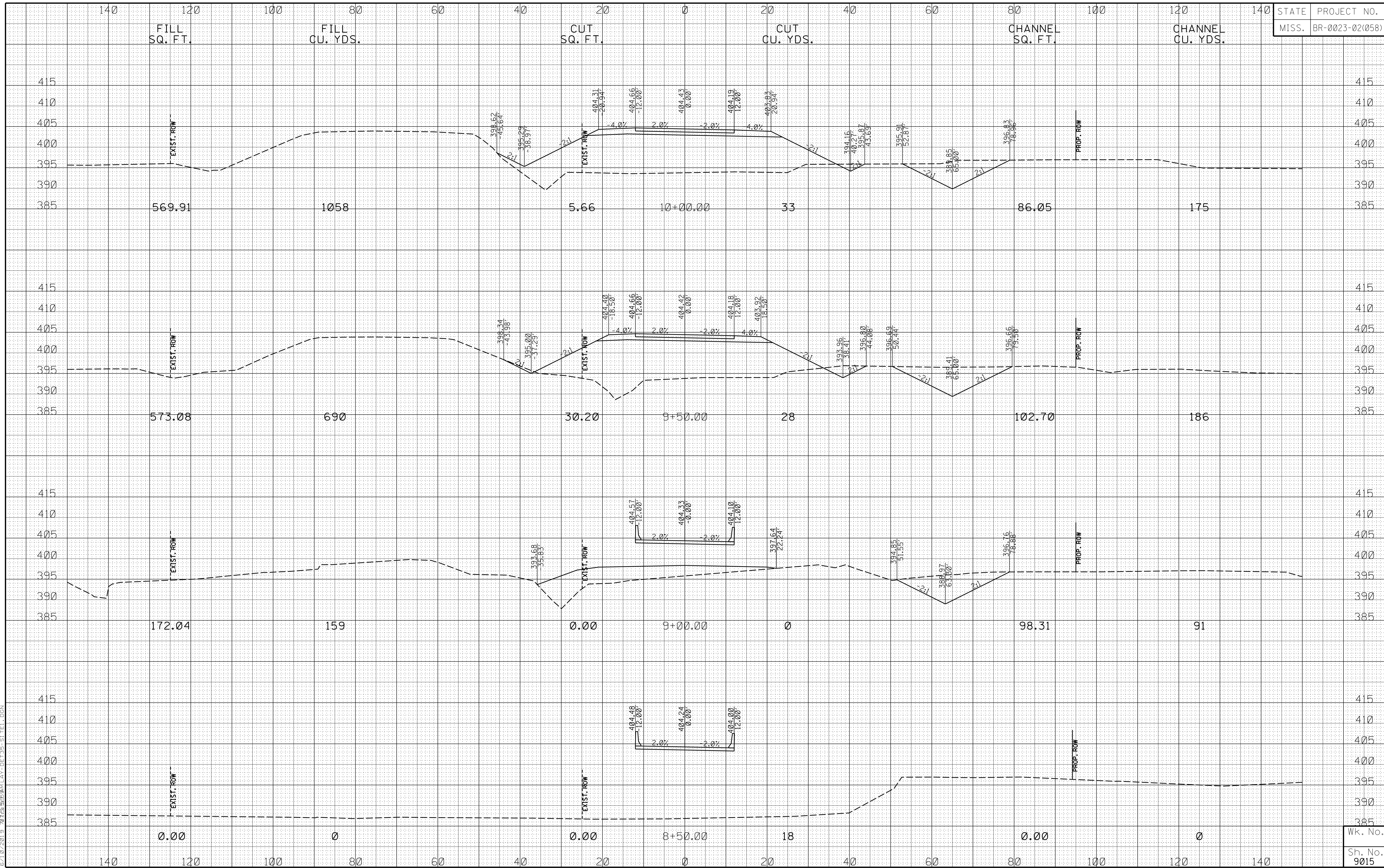


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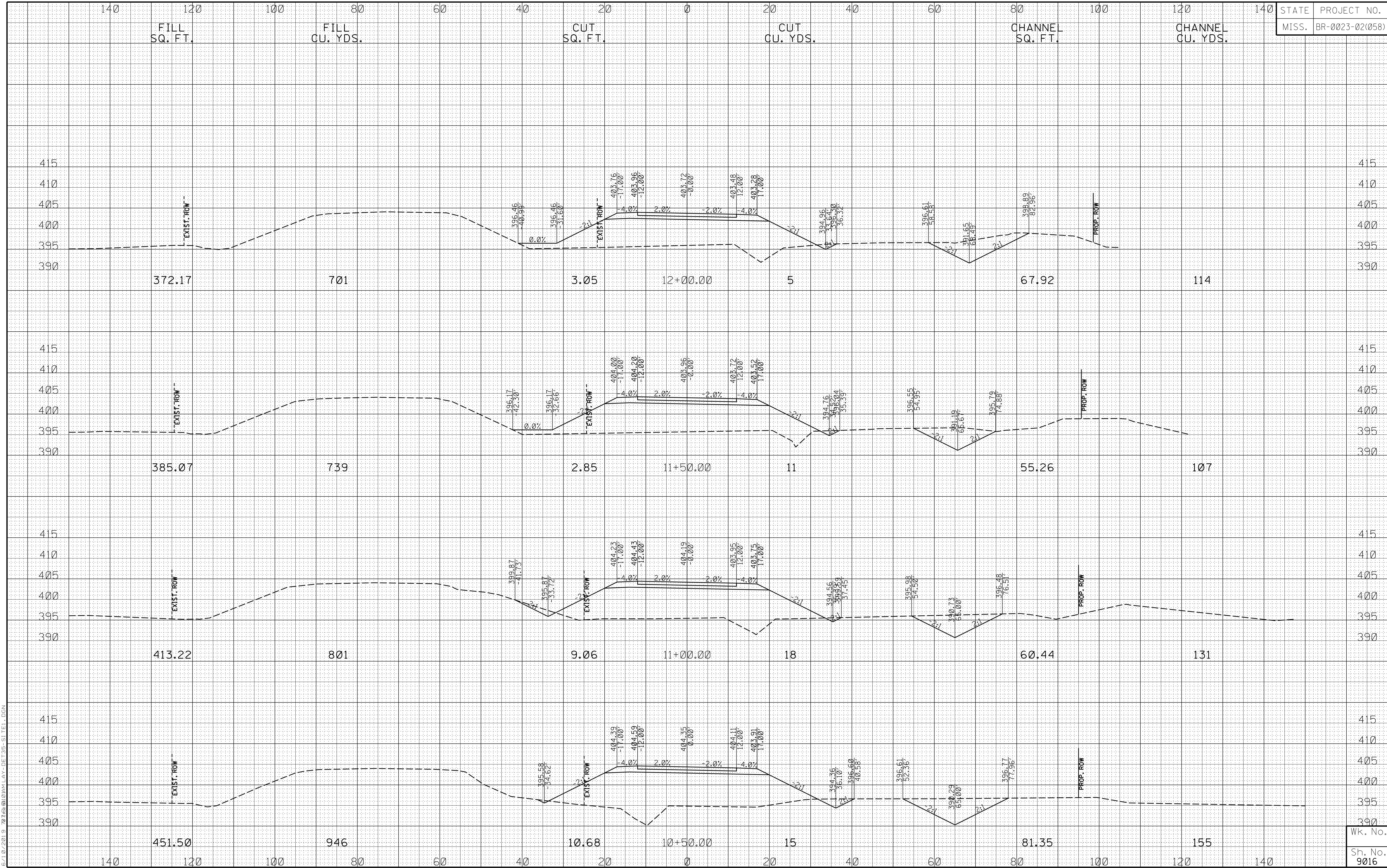
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Sh. No.
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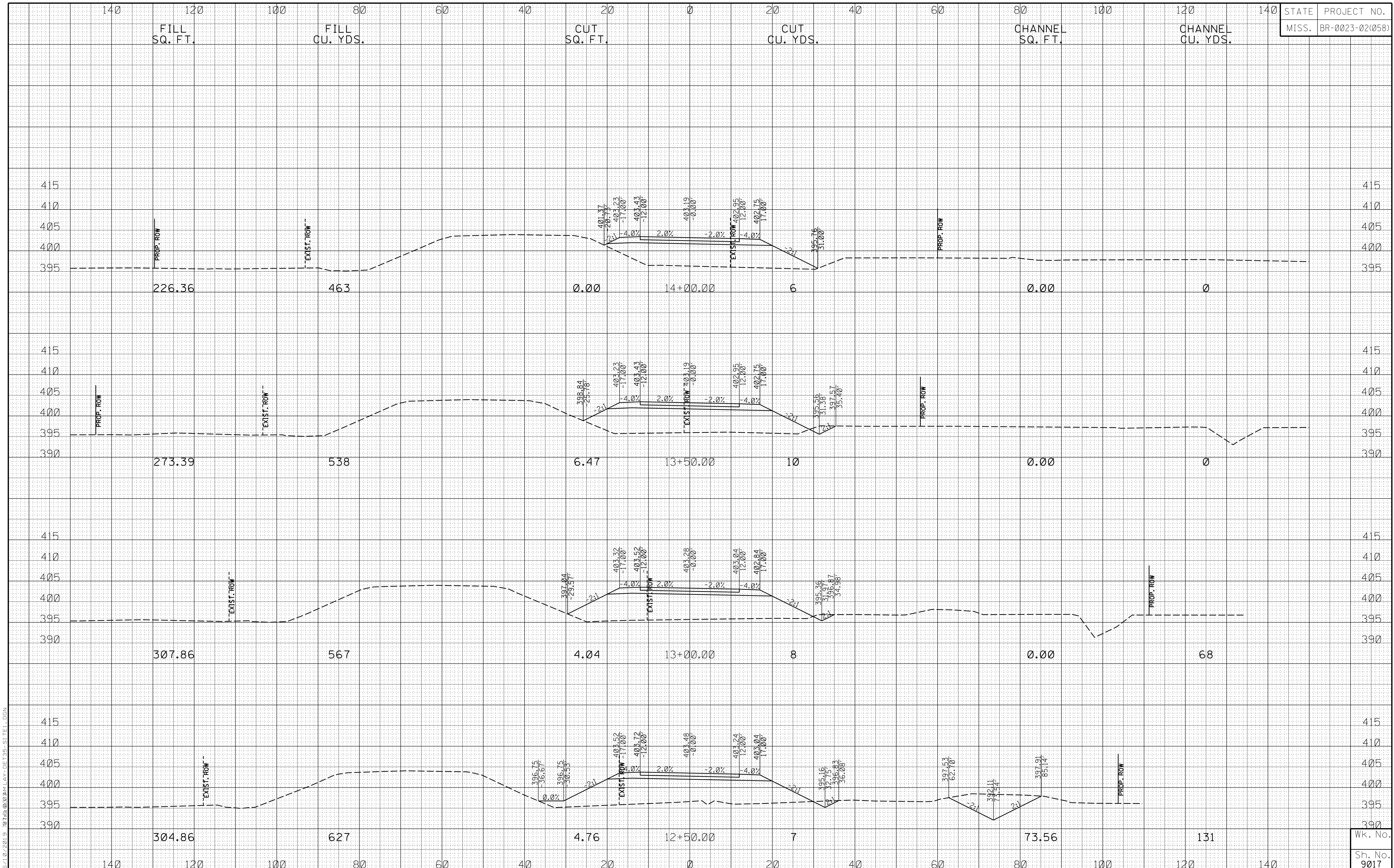
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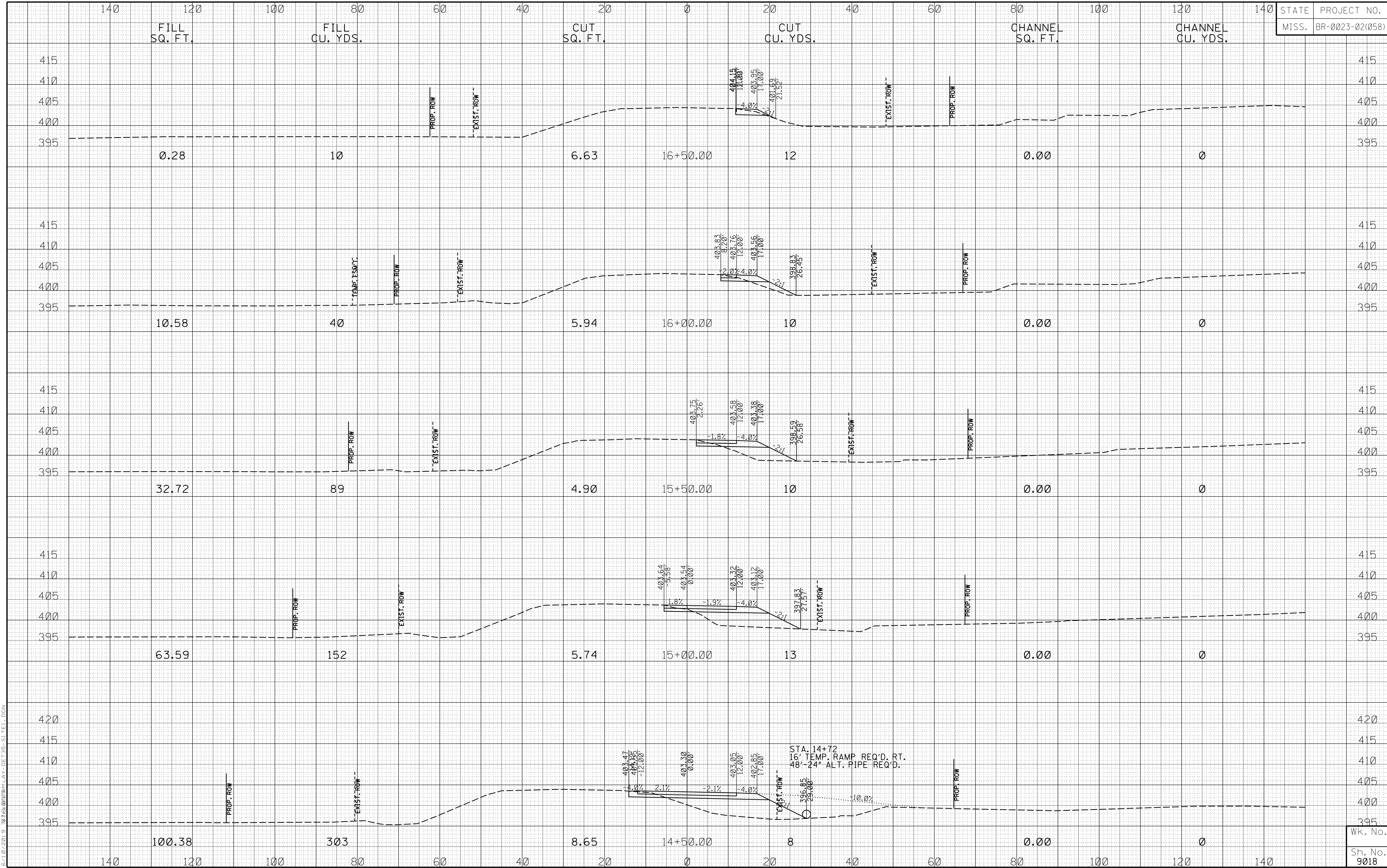
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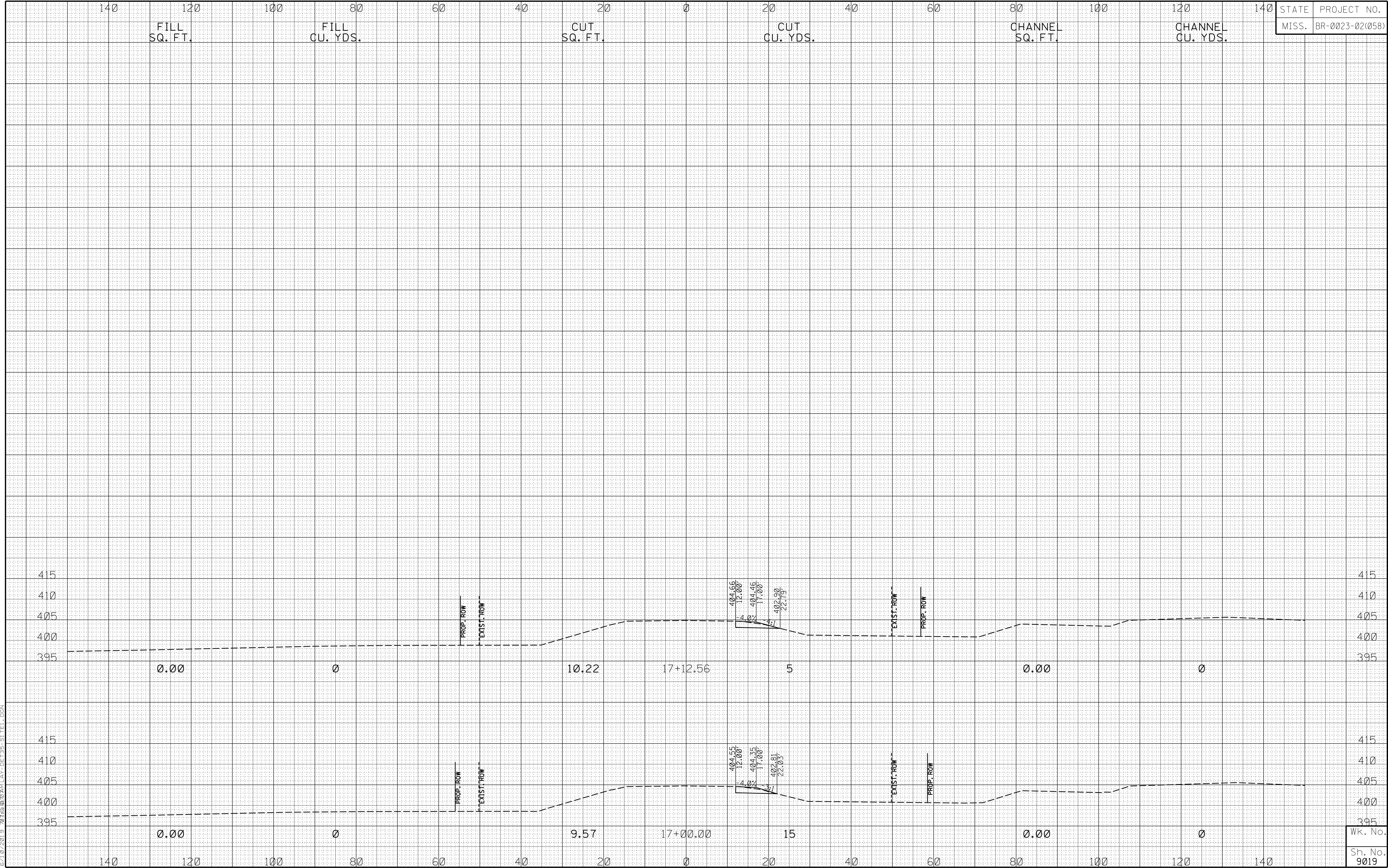
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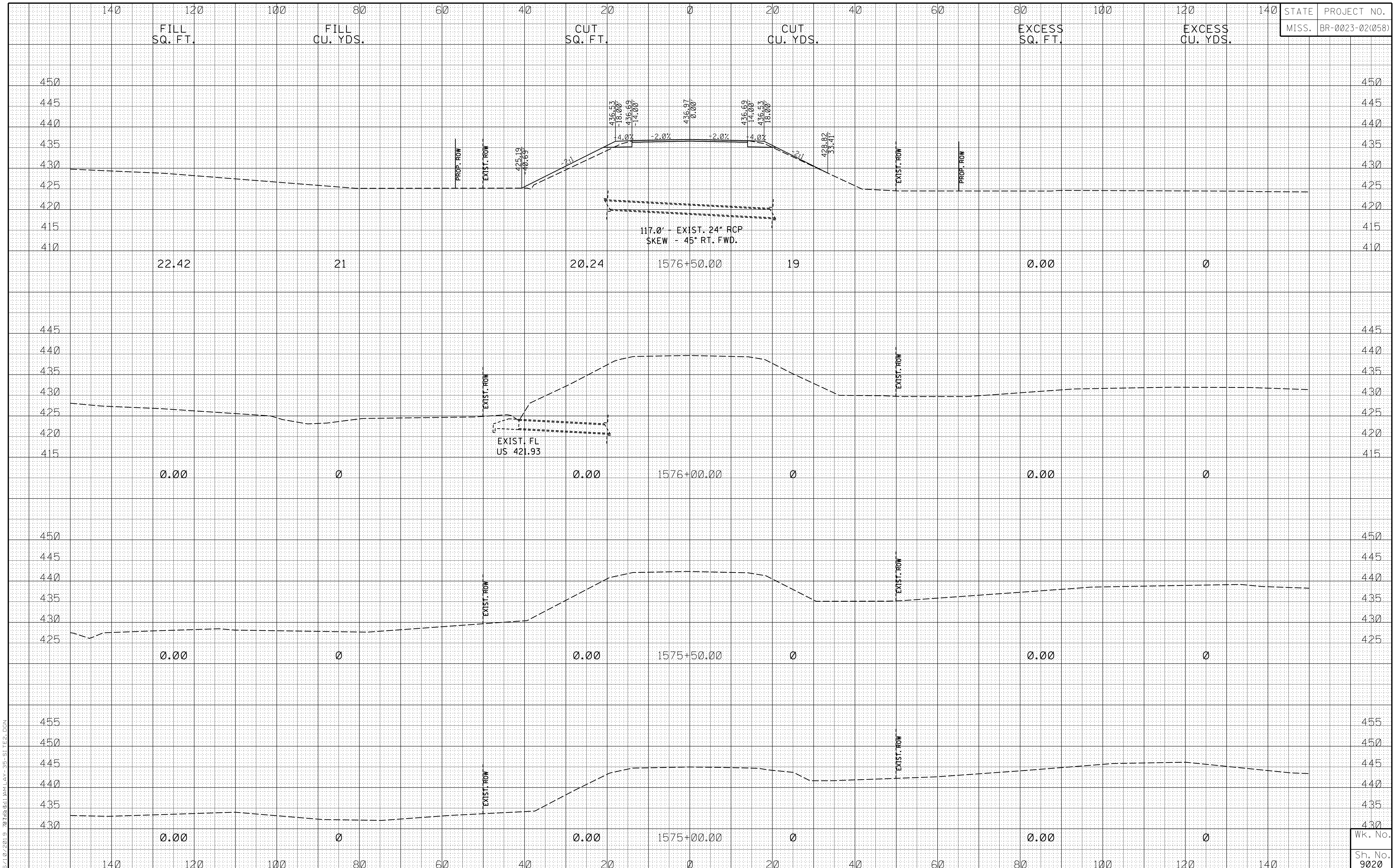
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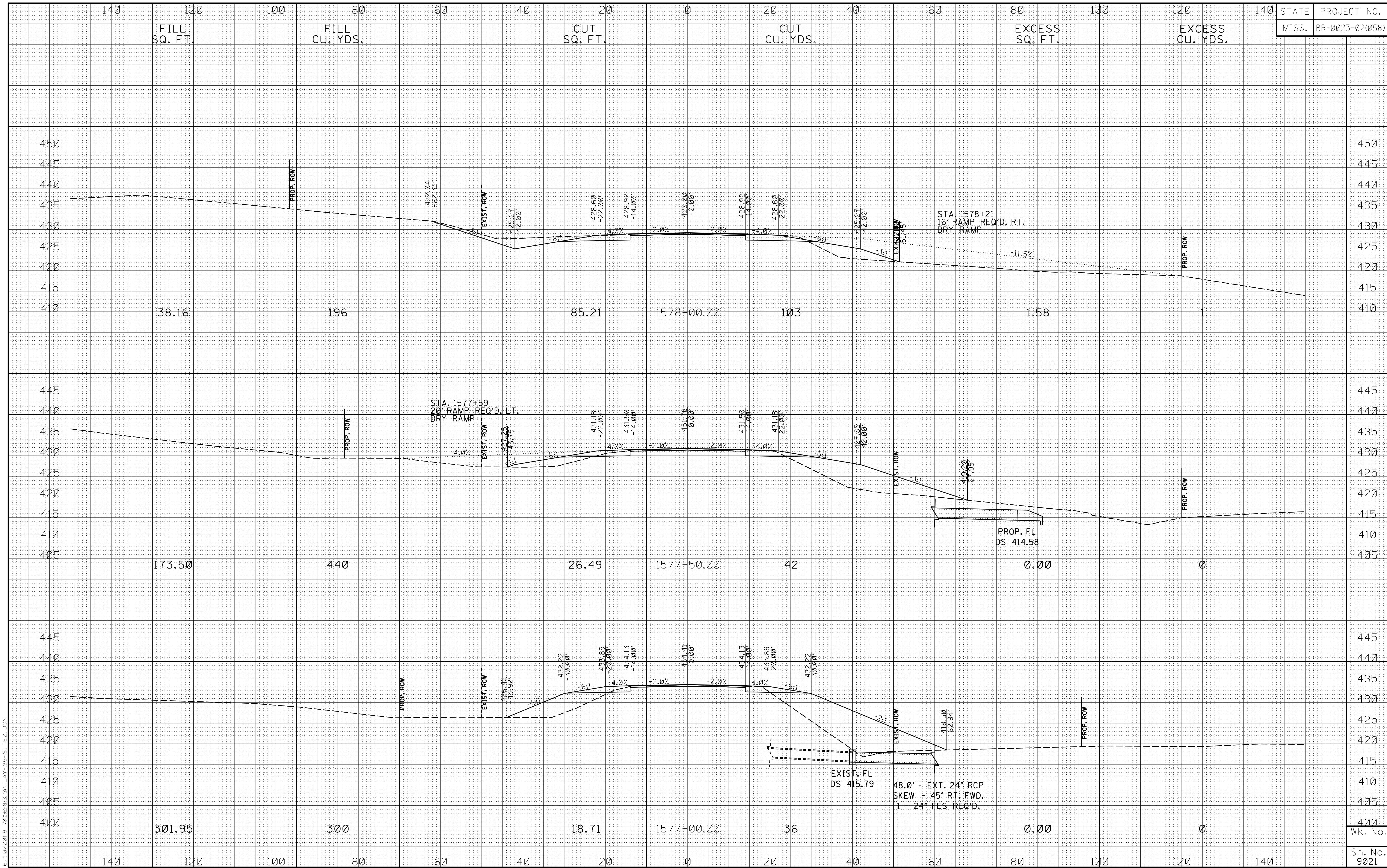
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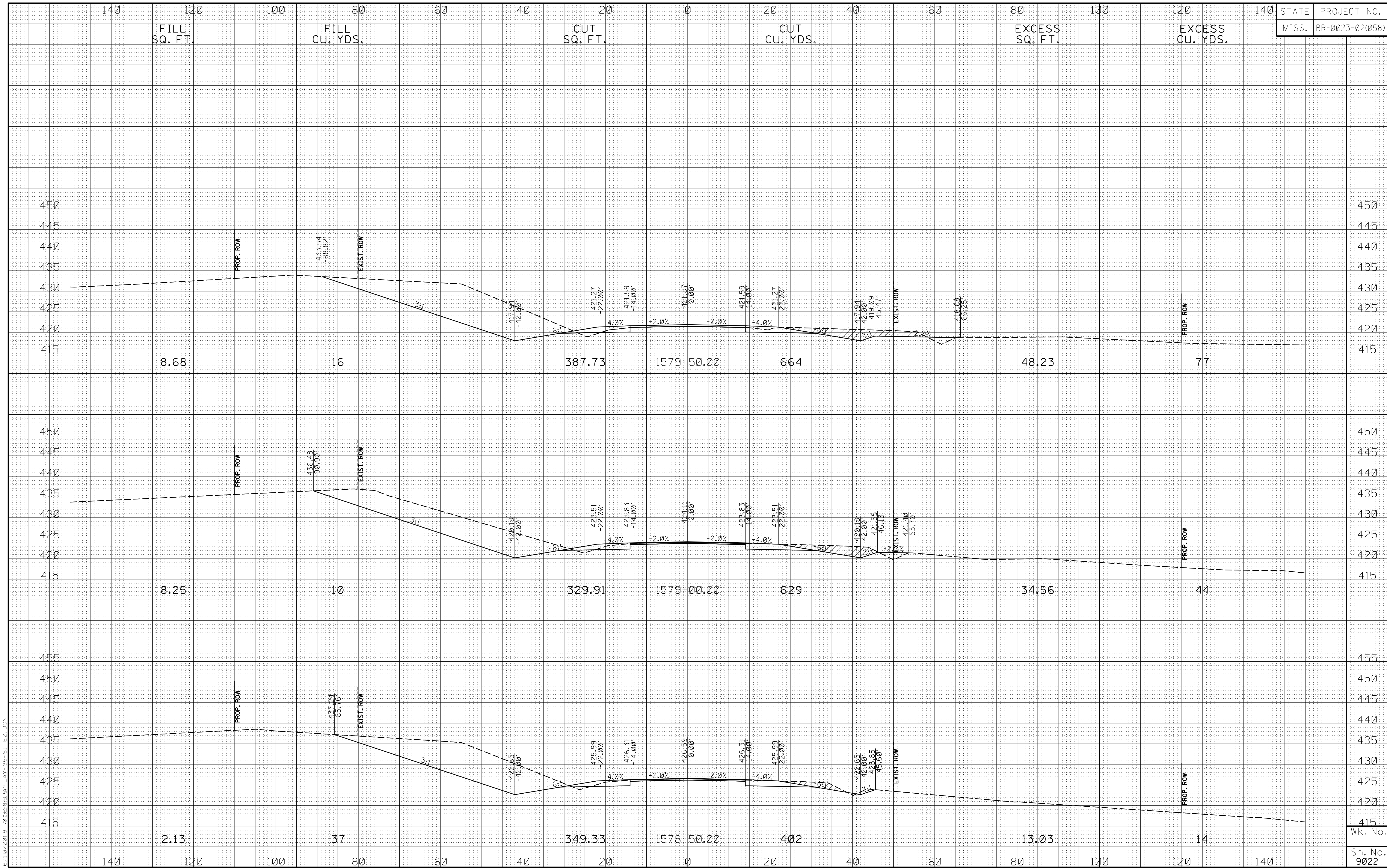
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6.10/2019 78158-811 AM LAY-35-SITE2.DGN

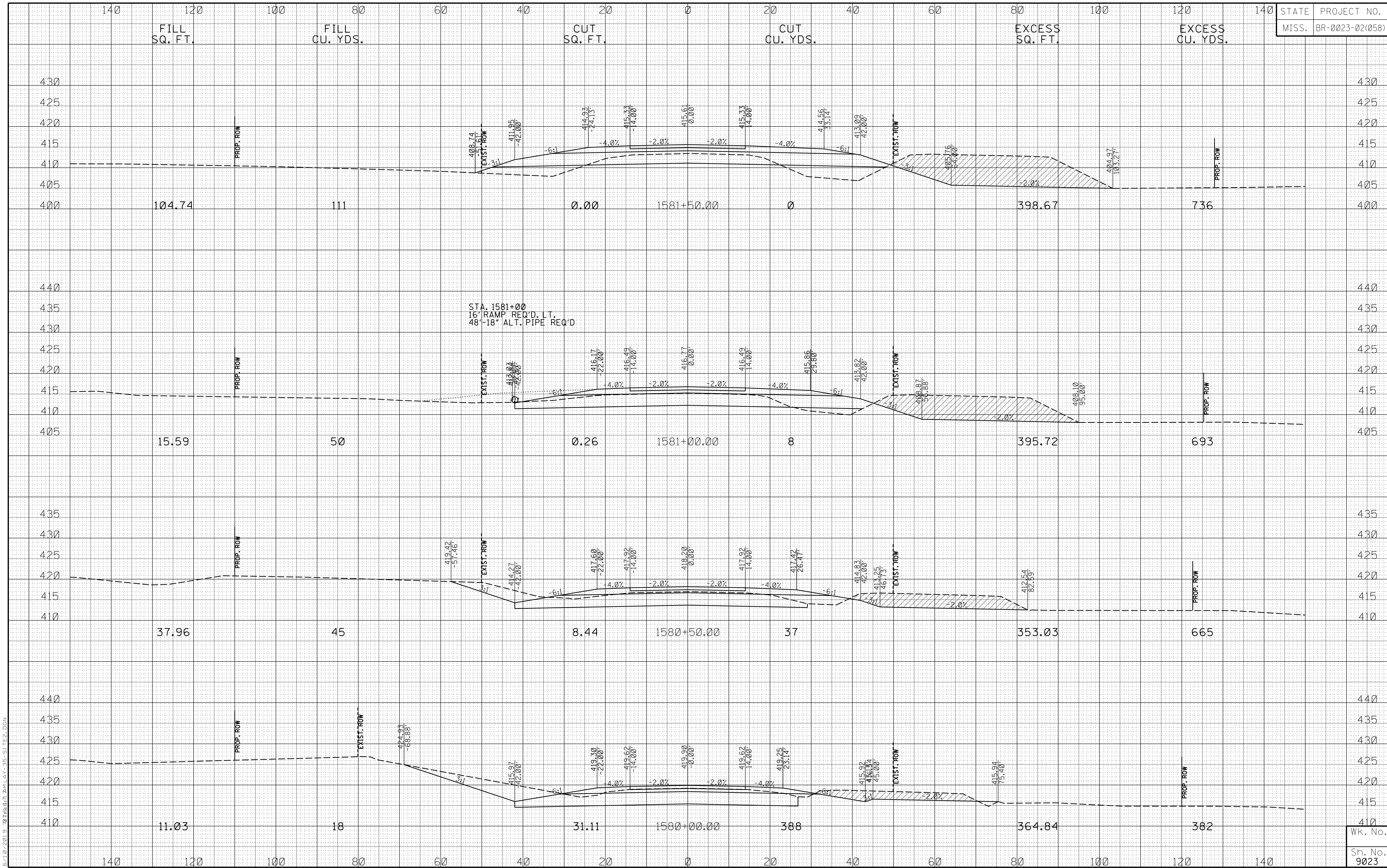


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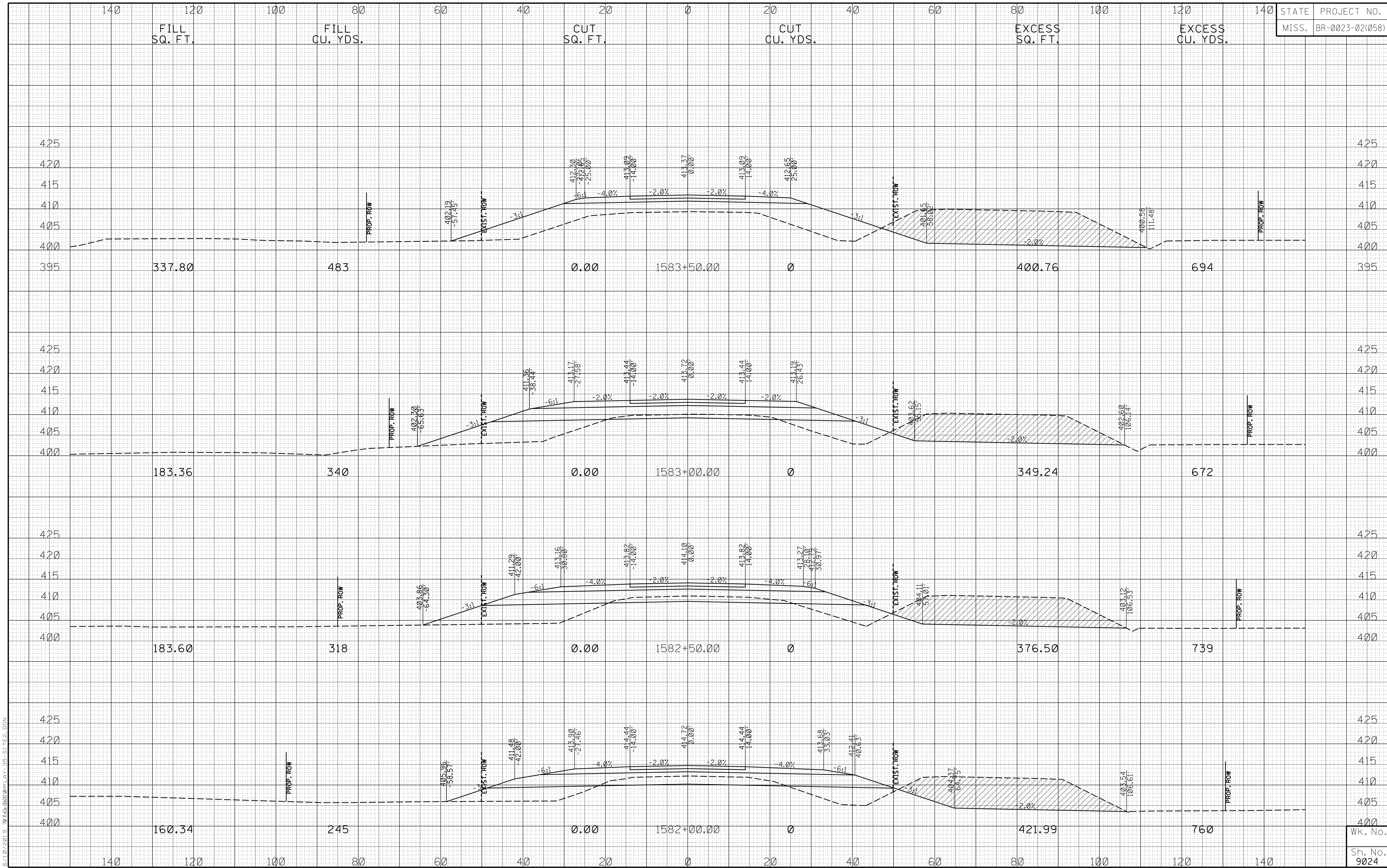


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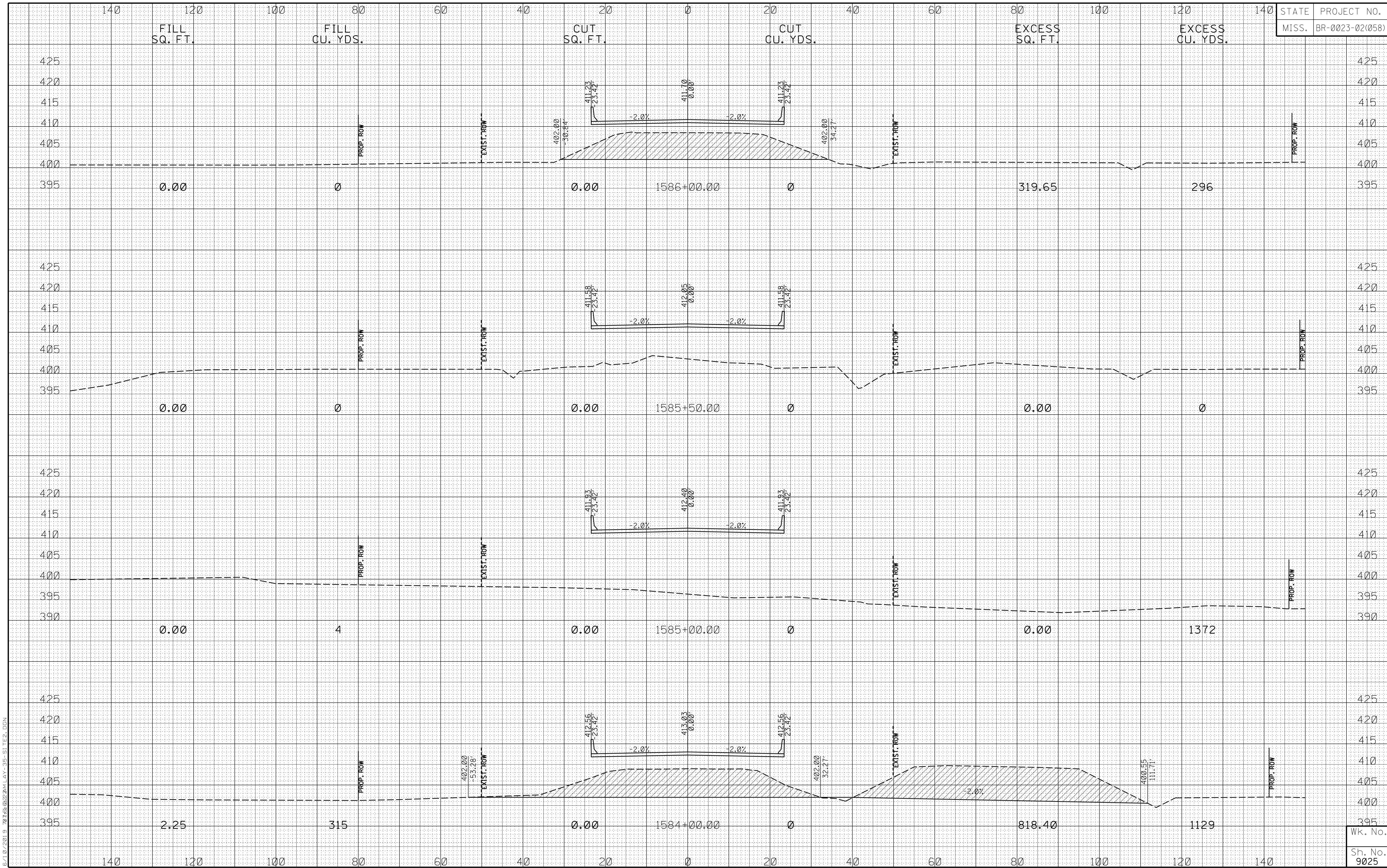
Wk. No.
Sh. No.
9022



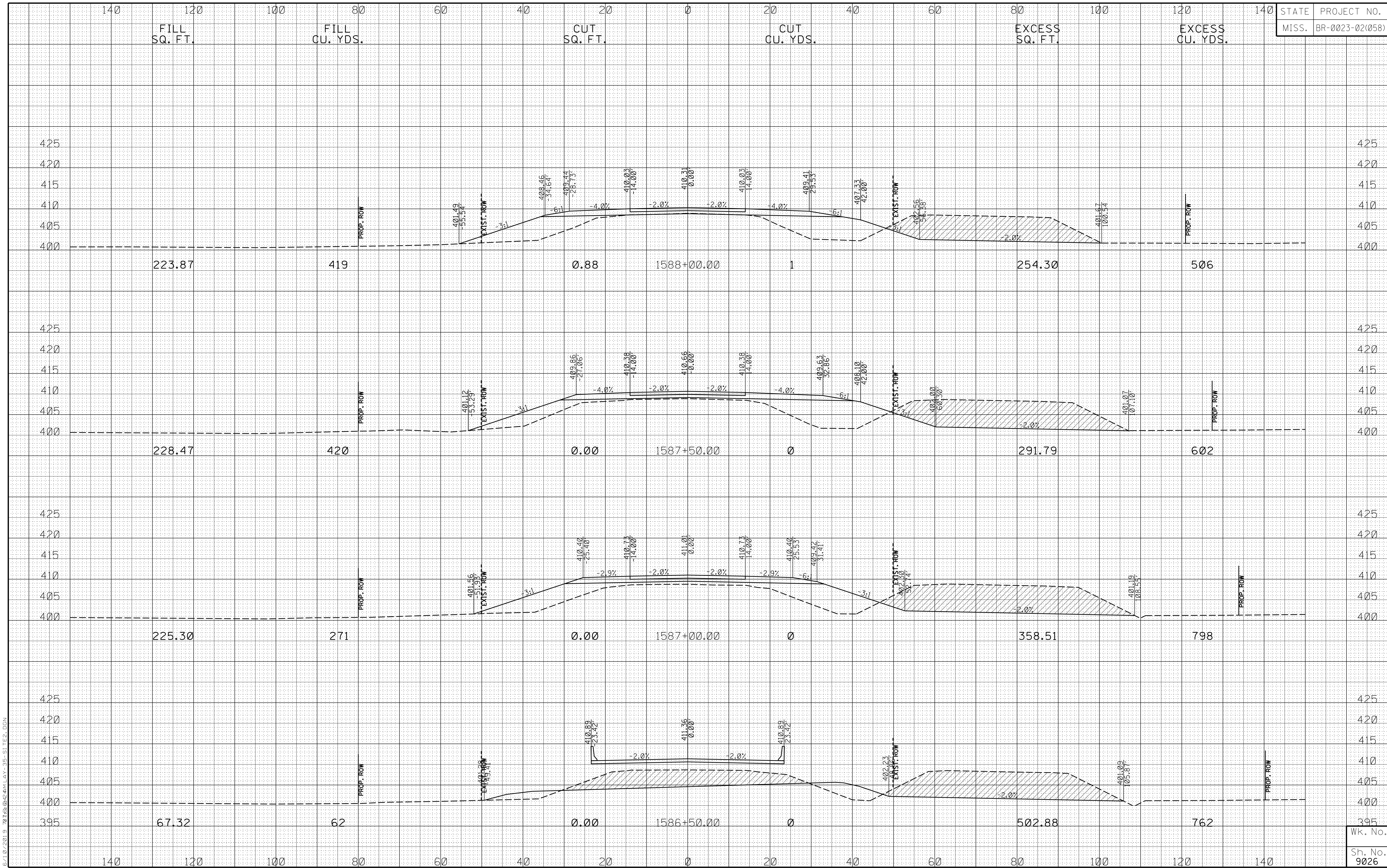
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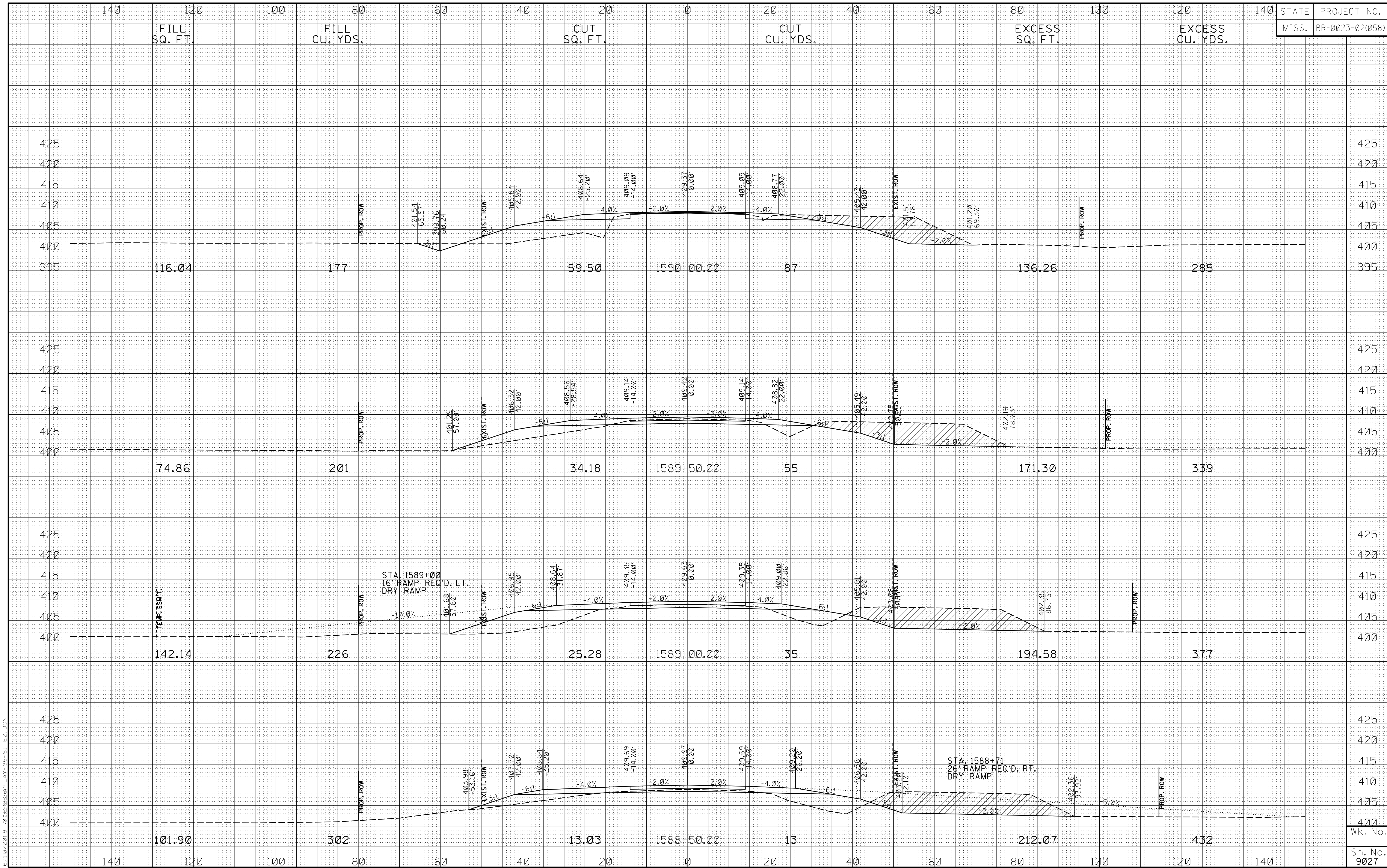


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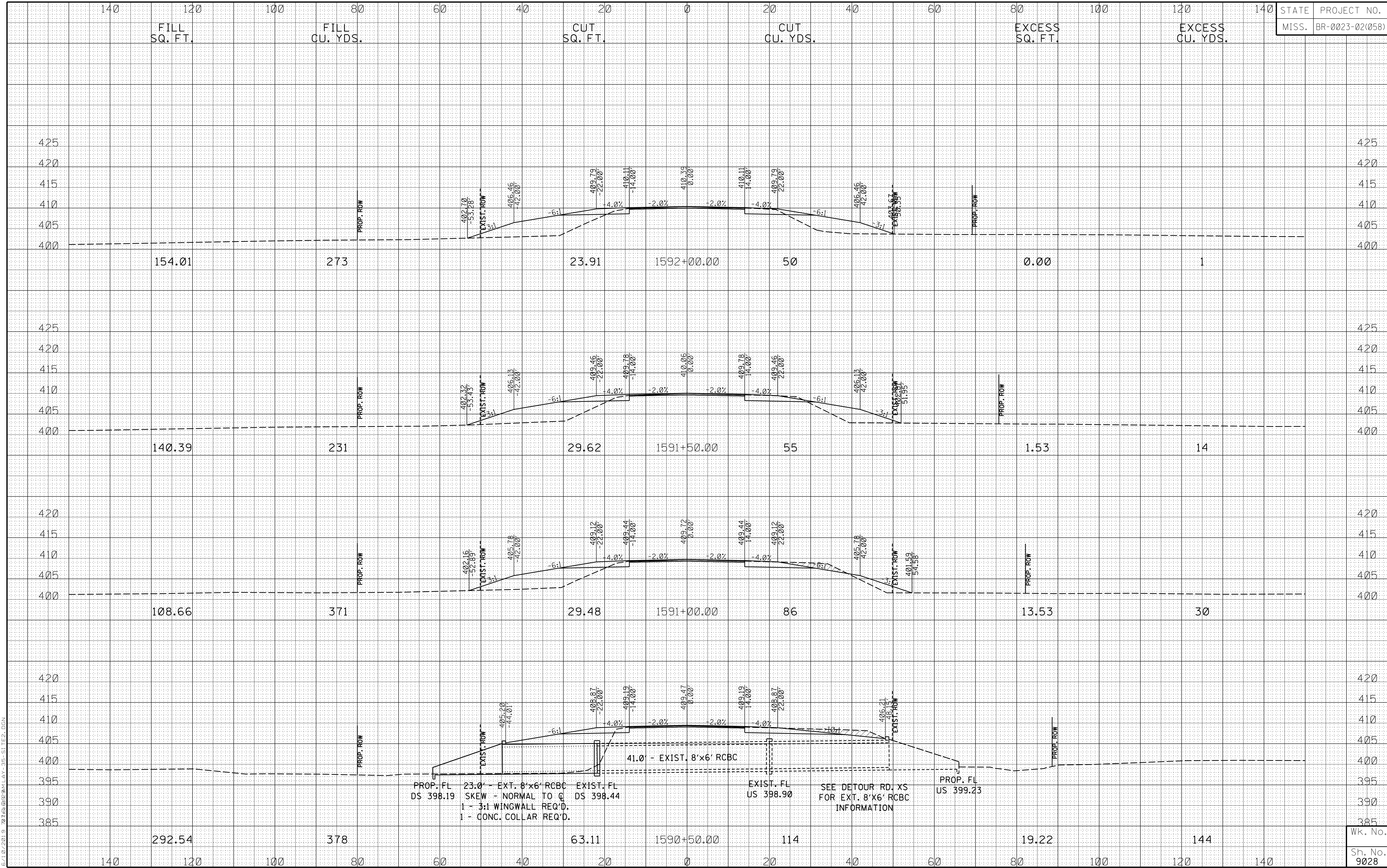


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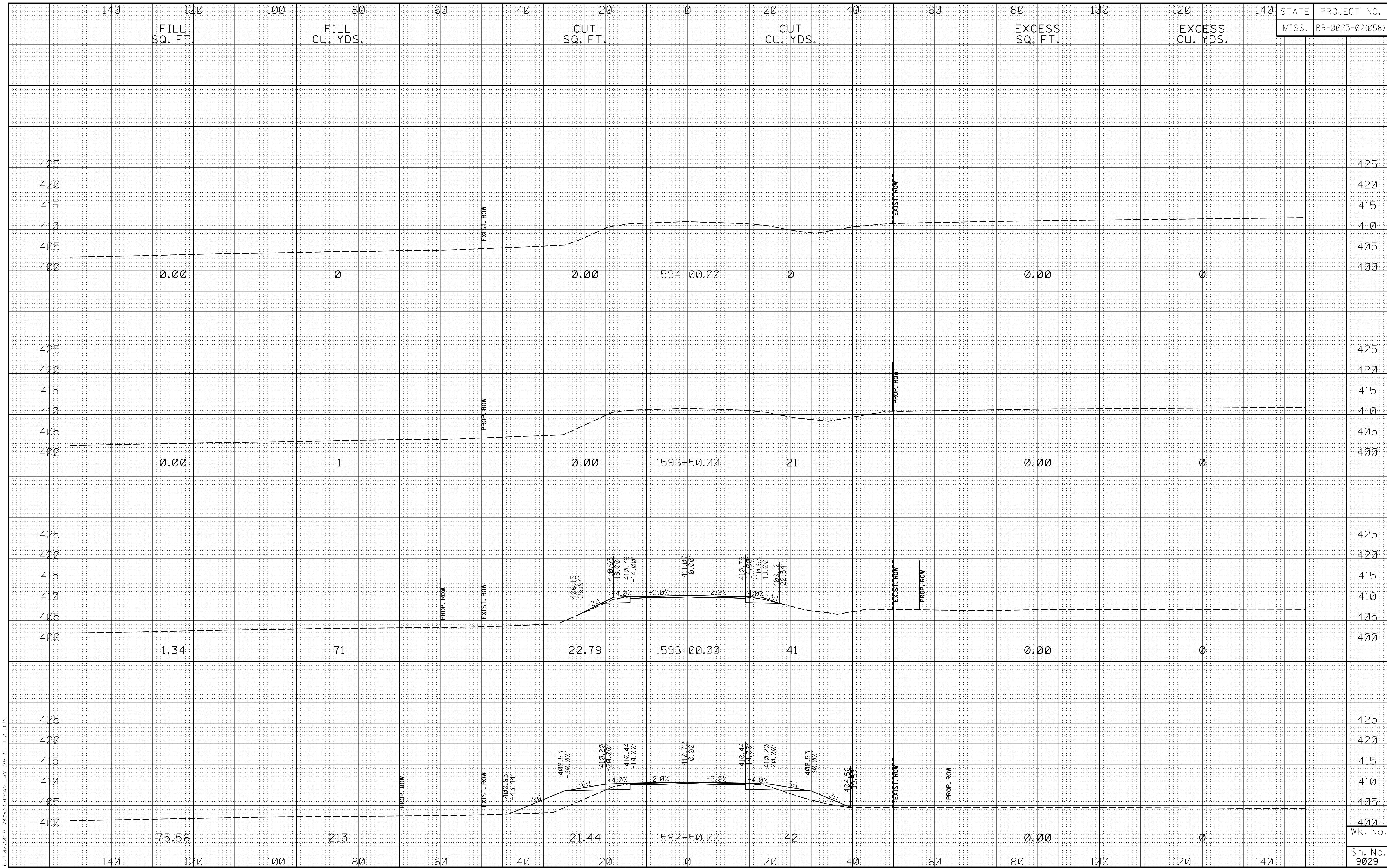




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6/10/2019 7:25:22 AM LAY-35-SITE2.DGN



6/10/2019 7:05:03AM LAY-35-SITE2.DGN

140

120

100

80

60

40

20

0

20

40

60

80

100

120

140

STATE

PROJECT NO.

FILL
SQ. FT.

FILL
CU. YDS.

CUT
SQ. FT.

CUT
CU. YDS.

EXCESS
SQ. FT.

EXCESS
CU. YDS.

MISS.

BR-0023-02(058)

425

420

415

410

405

400

0.00

0

0.00

1595+00.00

0

0.00

0

425

420

415

410

405

400

425

420

415

410

405

400

0.00

0

0.00

1594+50.00

0

0.00

0

425

420

415

410

405

400

Wk. No.

Sh. No.

9030

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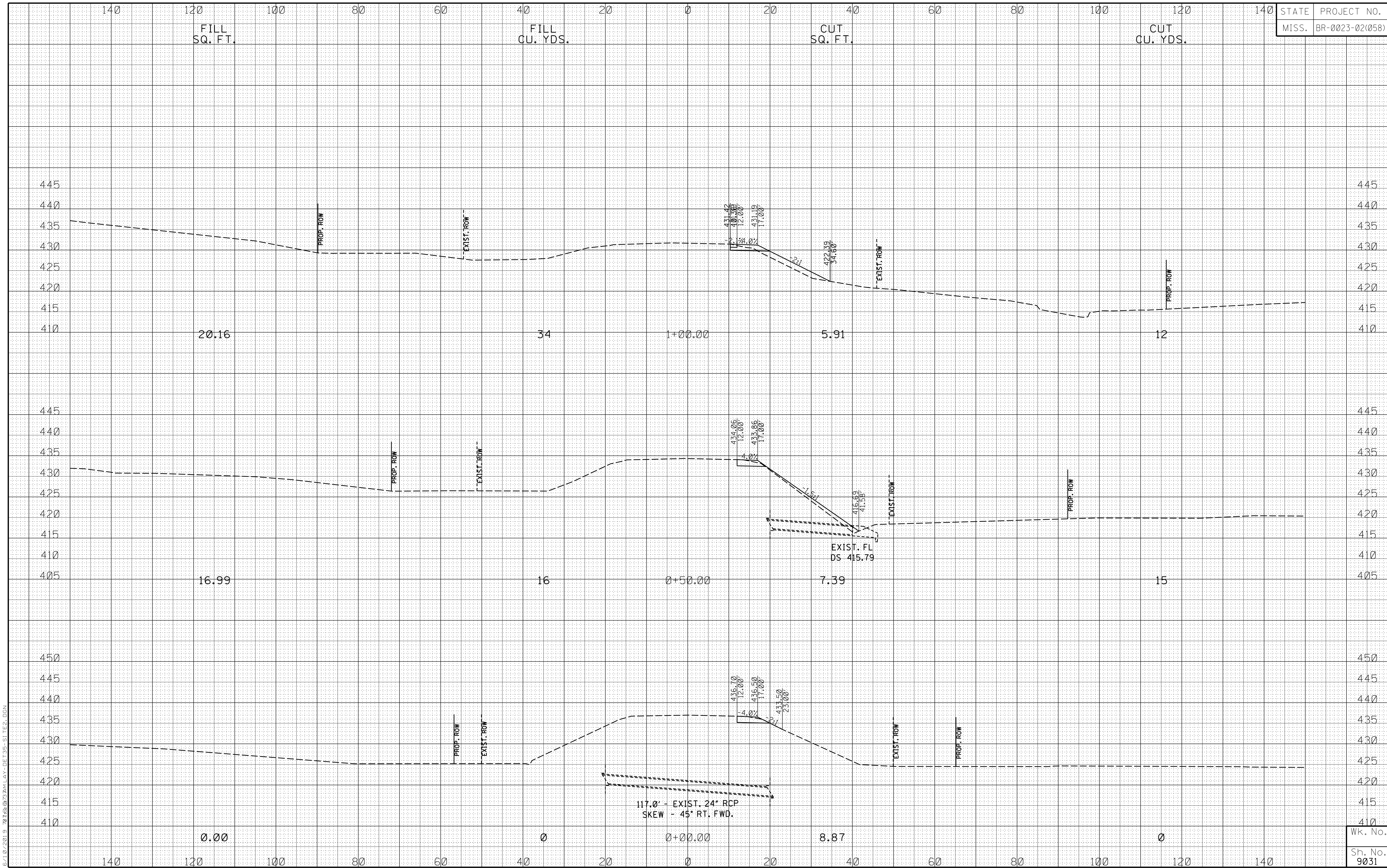
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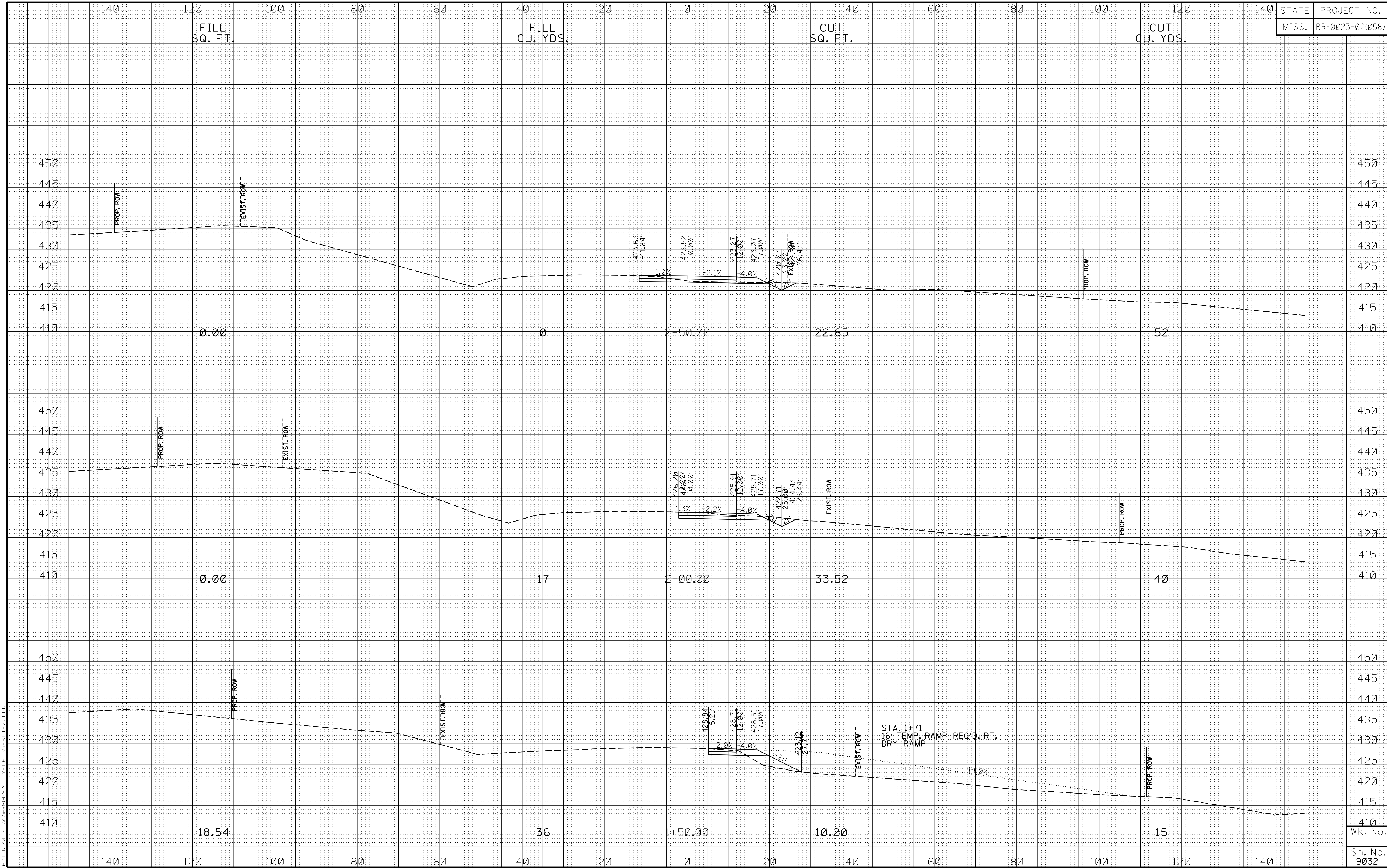
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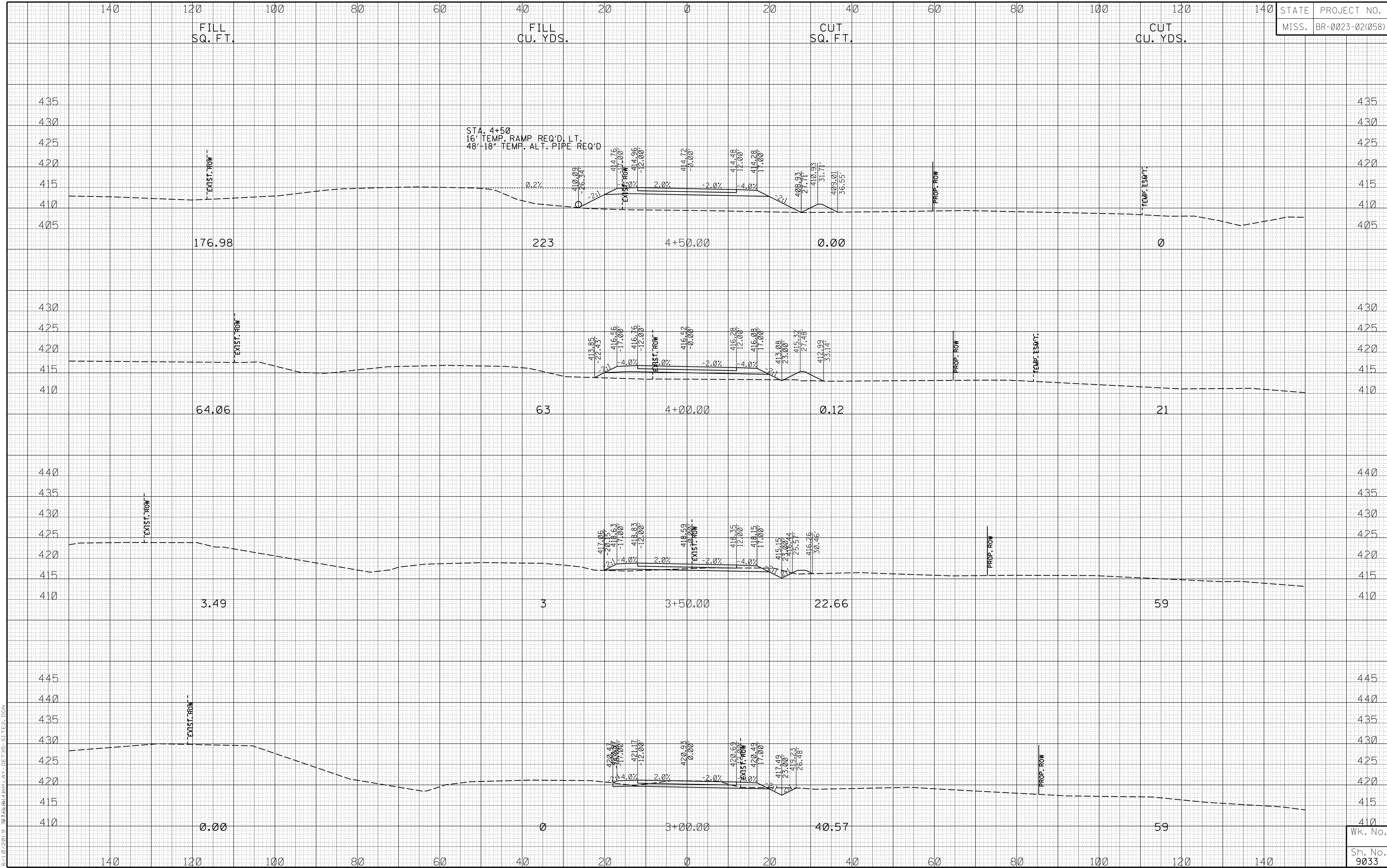
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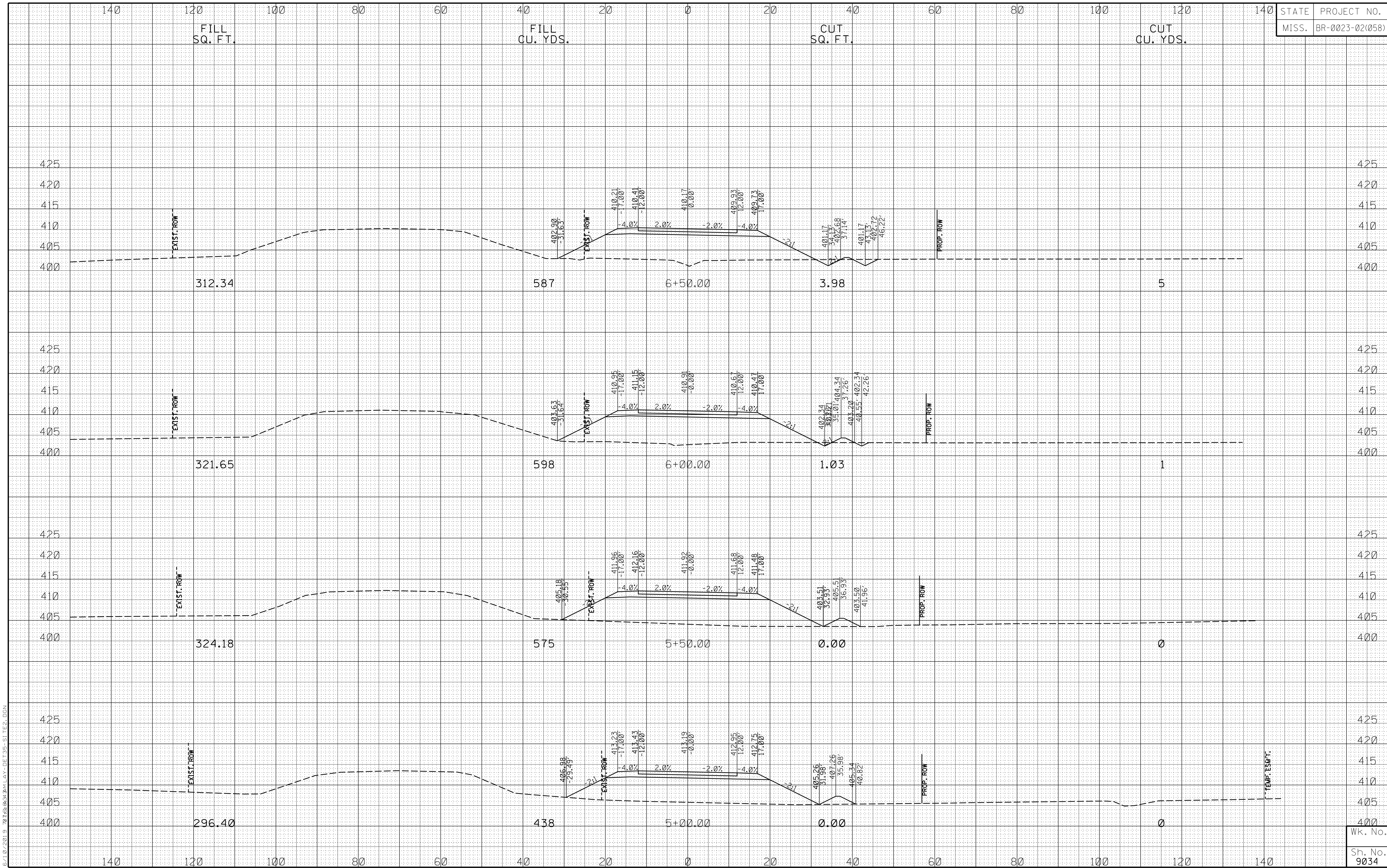
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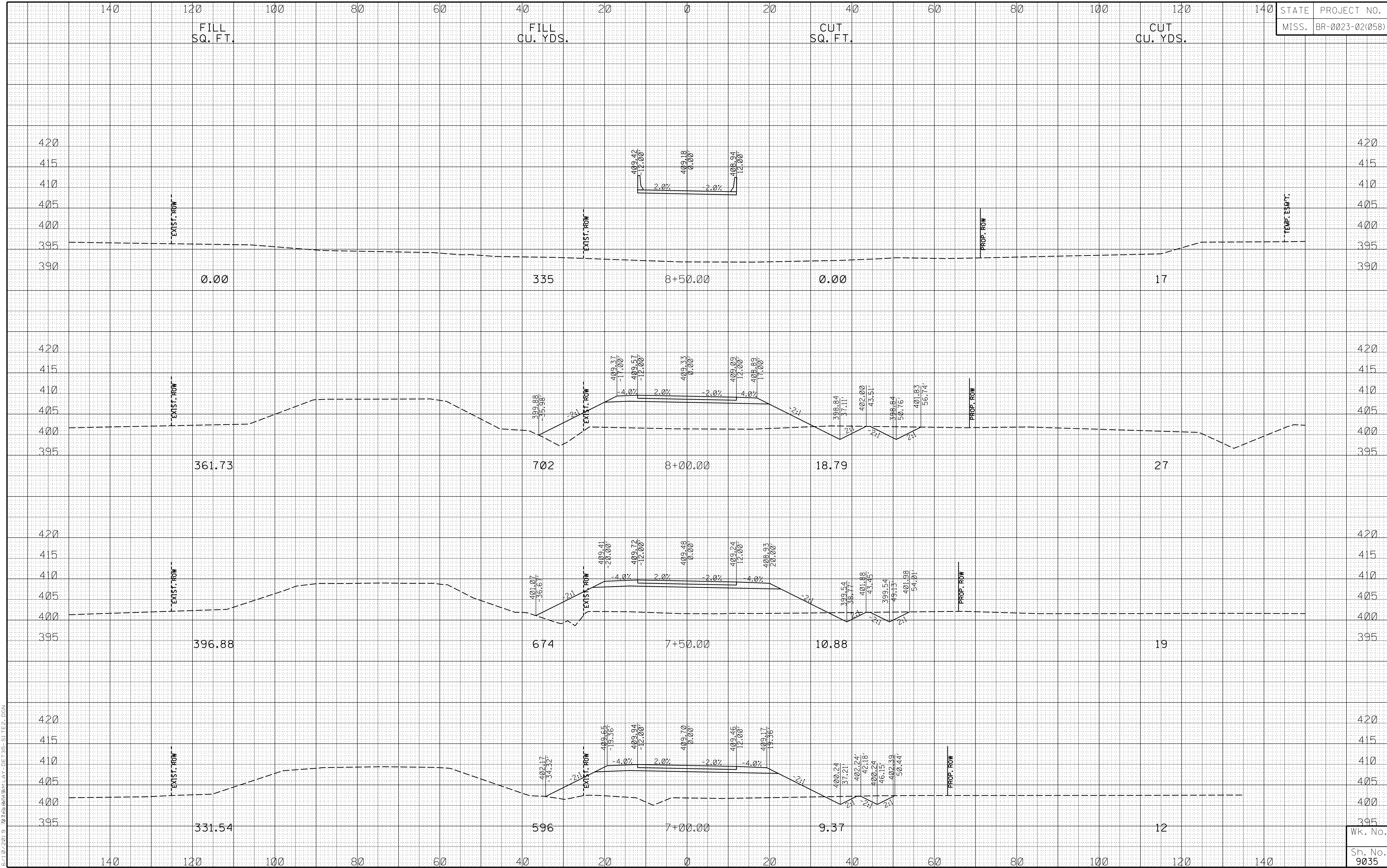
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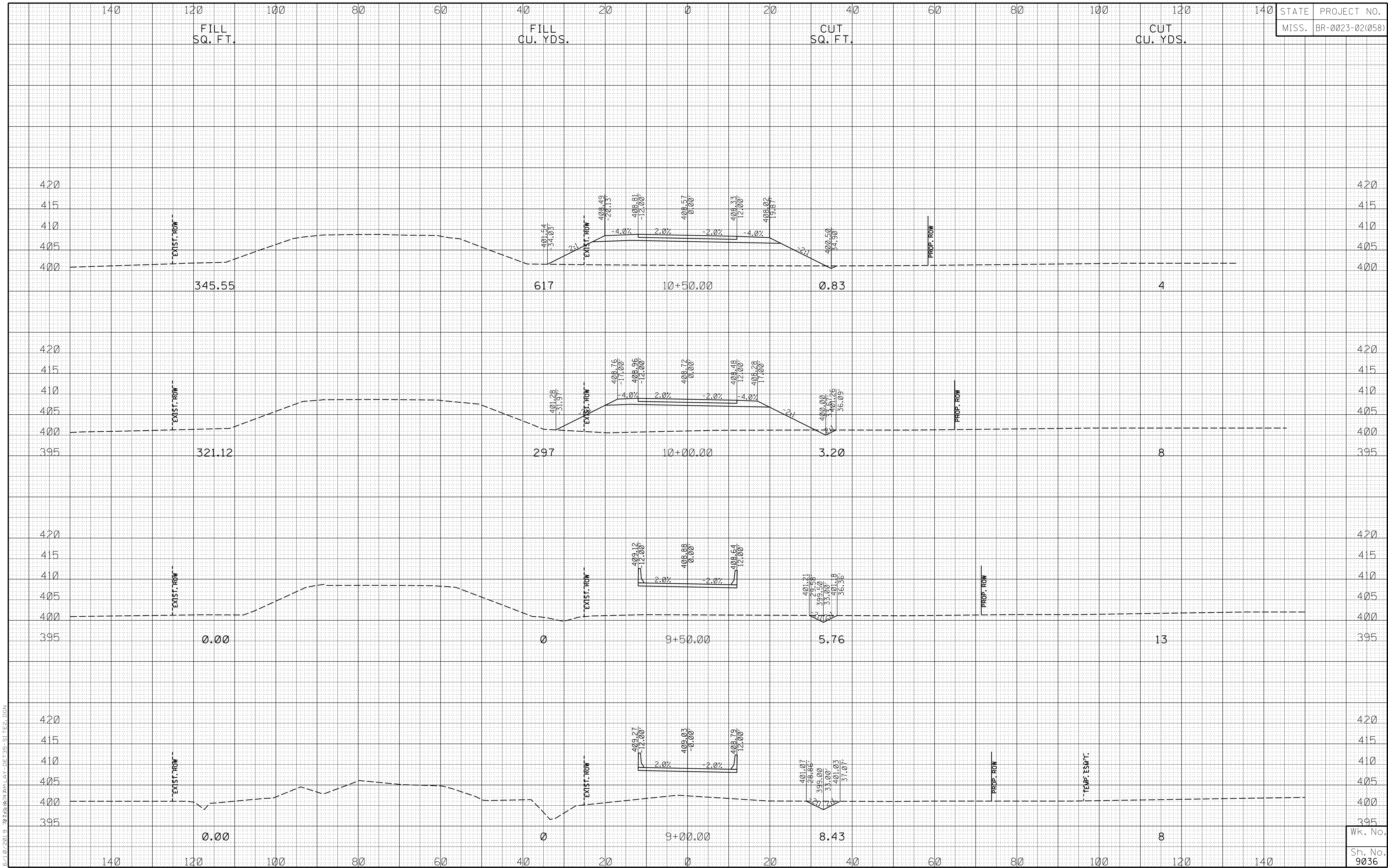
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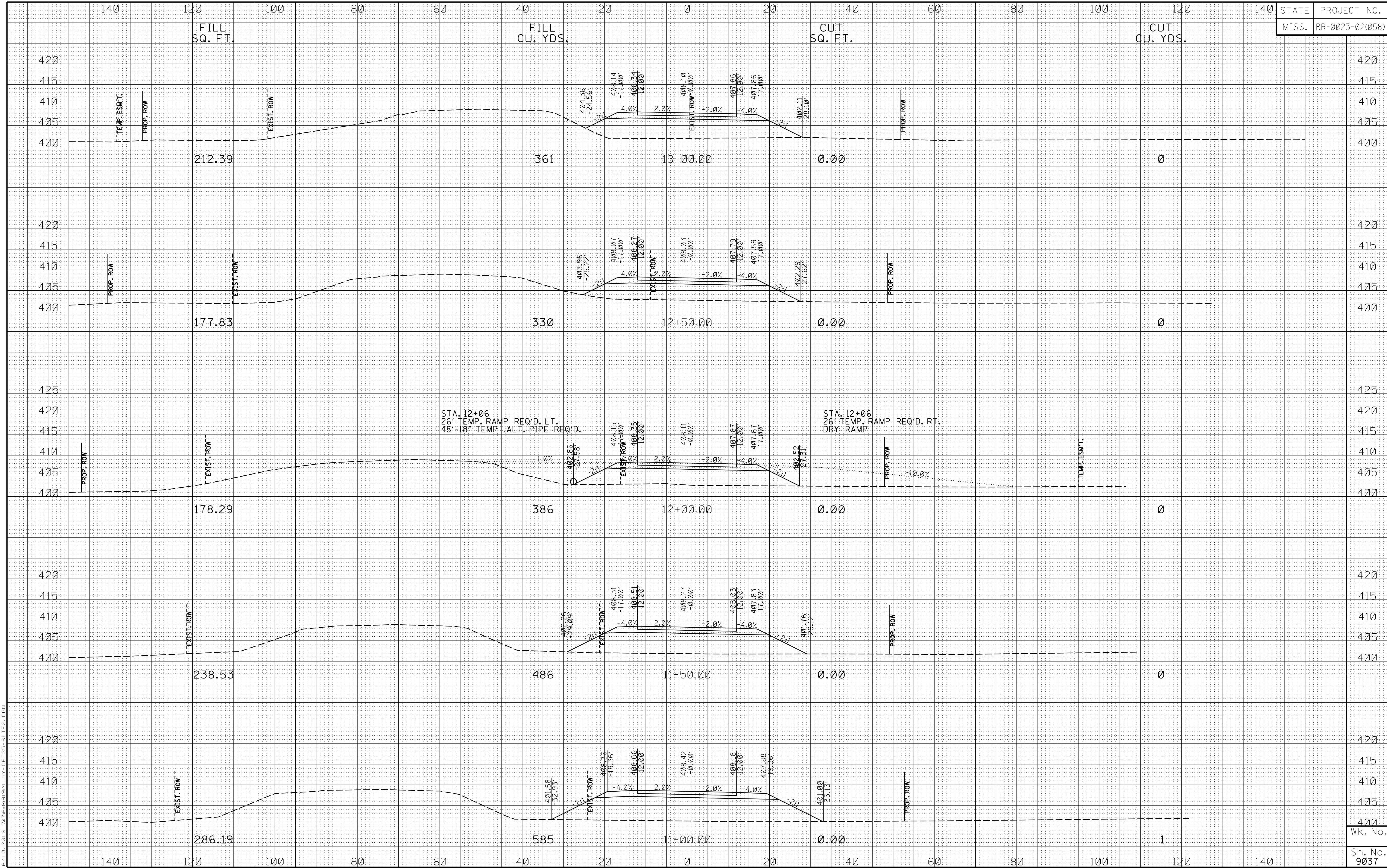
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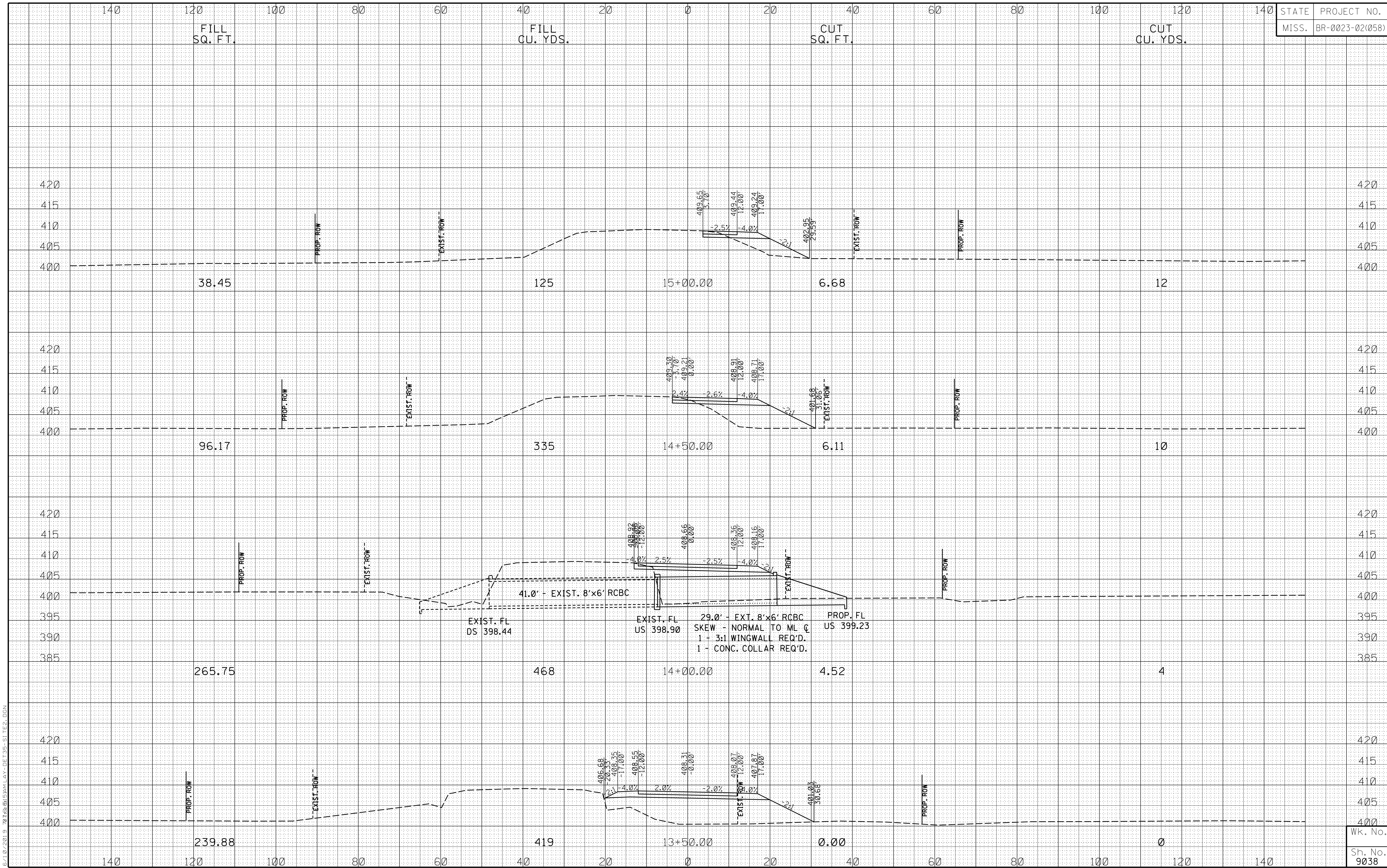
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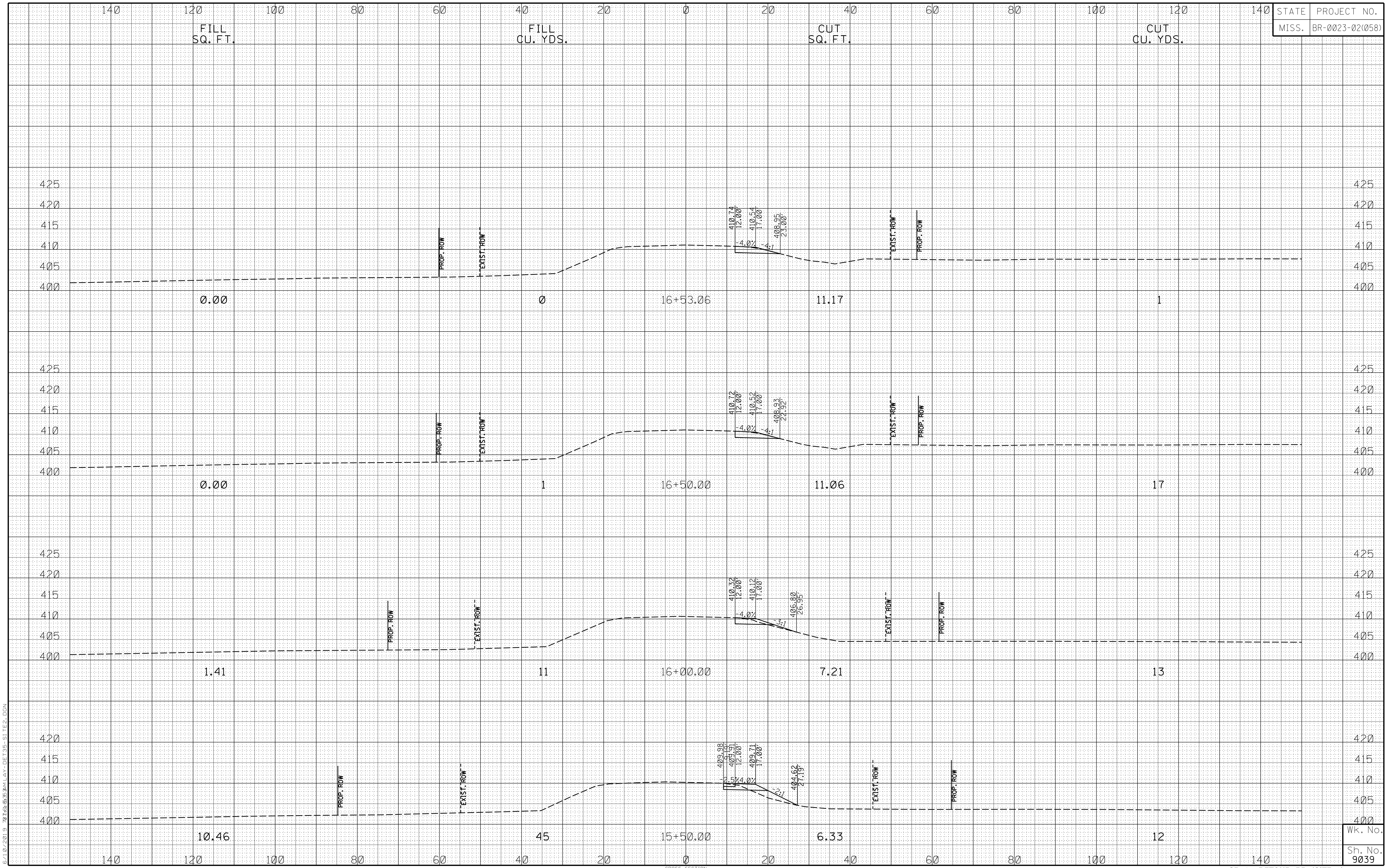


6.1.0/2019 78 155 89 91 141-DET35-SITE2.DGN



6/10/2019 7:25:55AM LAY-DET135-SITE2.DGN

STATE	PROJECT NO.
MISS.	BR-0023-02(058)



6/10/2019 7:56:53AM LAY-DET35-SITE2.DGN

Wk. No.
Sh. No.
9039

STATE	PROJECT NUMBER	SHEET NO.
MISSISSIPPI	BR-0008-05(038)	1

GENERAL INDEX

INCLUDED THIS PROJECT	BEGIN WITH SHEET
<input checked="" type="checkbox"/> ROADWAY	1
<input checked="" type="checkbox"/> PERMANENT SIGNS	1001
<input type="checkbox"/> TRAFFIC SIGNALS	2001
<input type="checkbox"/> ITS COMPONENTS	3001
<input type="checkbox"/> LIGHTING	4001
<input type="checkbox"/> (RESERVED)	5001
<input checked="" type="checkbox"/> ROADWAY STANDARD DWGS	6001
<input type="checkbox"/> BOX CULVERT STD. DRAWINGS (LRFD)	7001
<input type="checkbox"/> BOX CULVERT STD. DRAWINGS (STD. SPEC.)	7501
<input checked="" type="checkbox"/> BRIDGE	8001
<input checked="" type="checkbox"/> CROSS SECTIONS	9001

STATE OF MISSISSIPPI

MISSISSIPPI DEPARTMENT OF TRANSPORTATION

PLAN AND PROFILE OF PROPOSED STATE HIGHWAY FEDERAL AID PROJECT NO. BR-0008-05(038)

BRIDGE REPLACEMENT
U.S. HWY. 49 ACROSS HOPSON BAYOU (BRIDGE NO. 295.3)
TALLAHATCHIE COUNTY

FMS CON. #: 105343/301000

SCALES

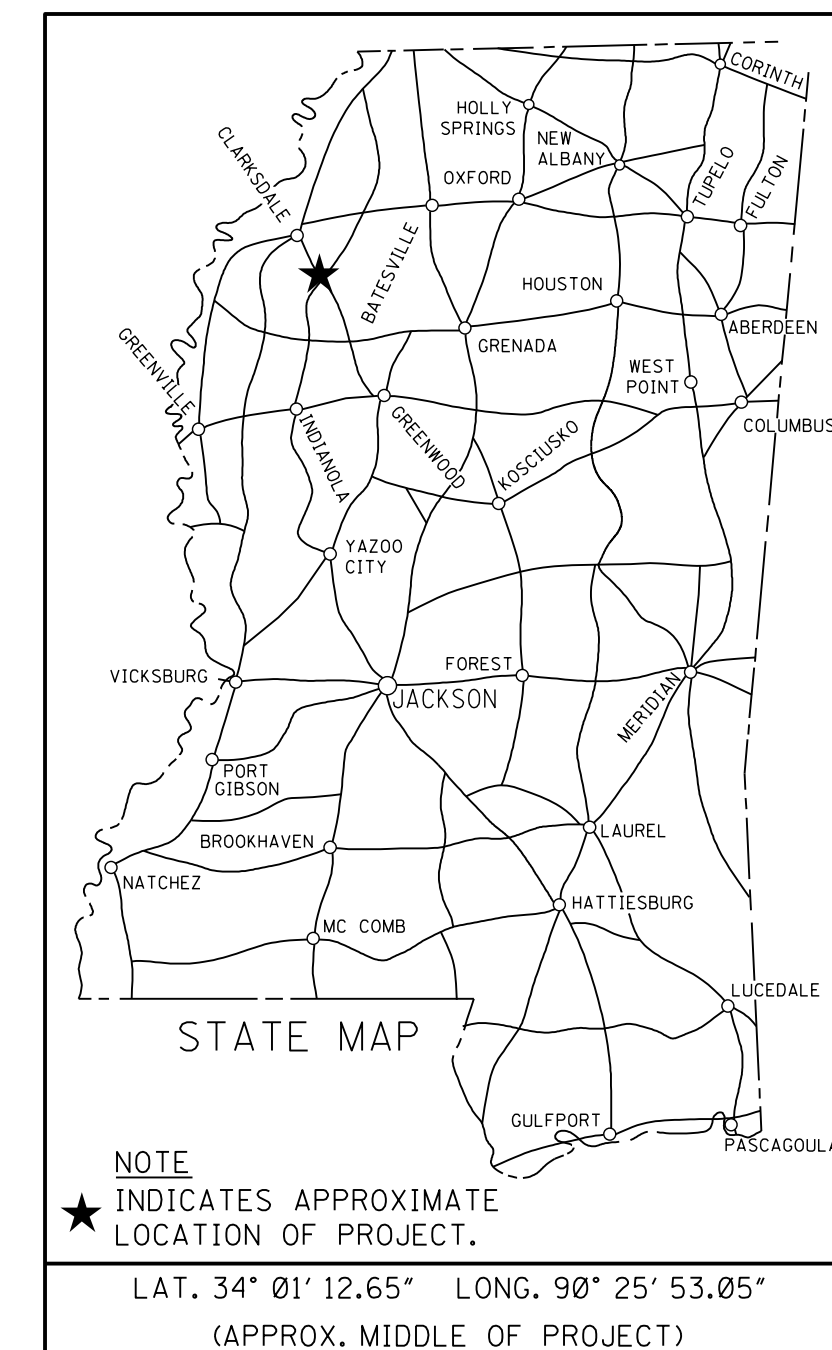
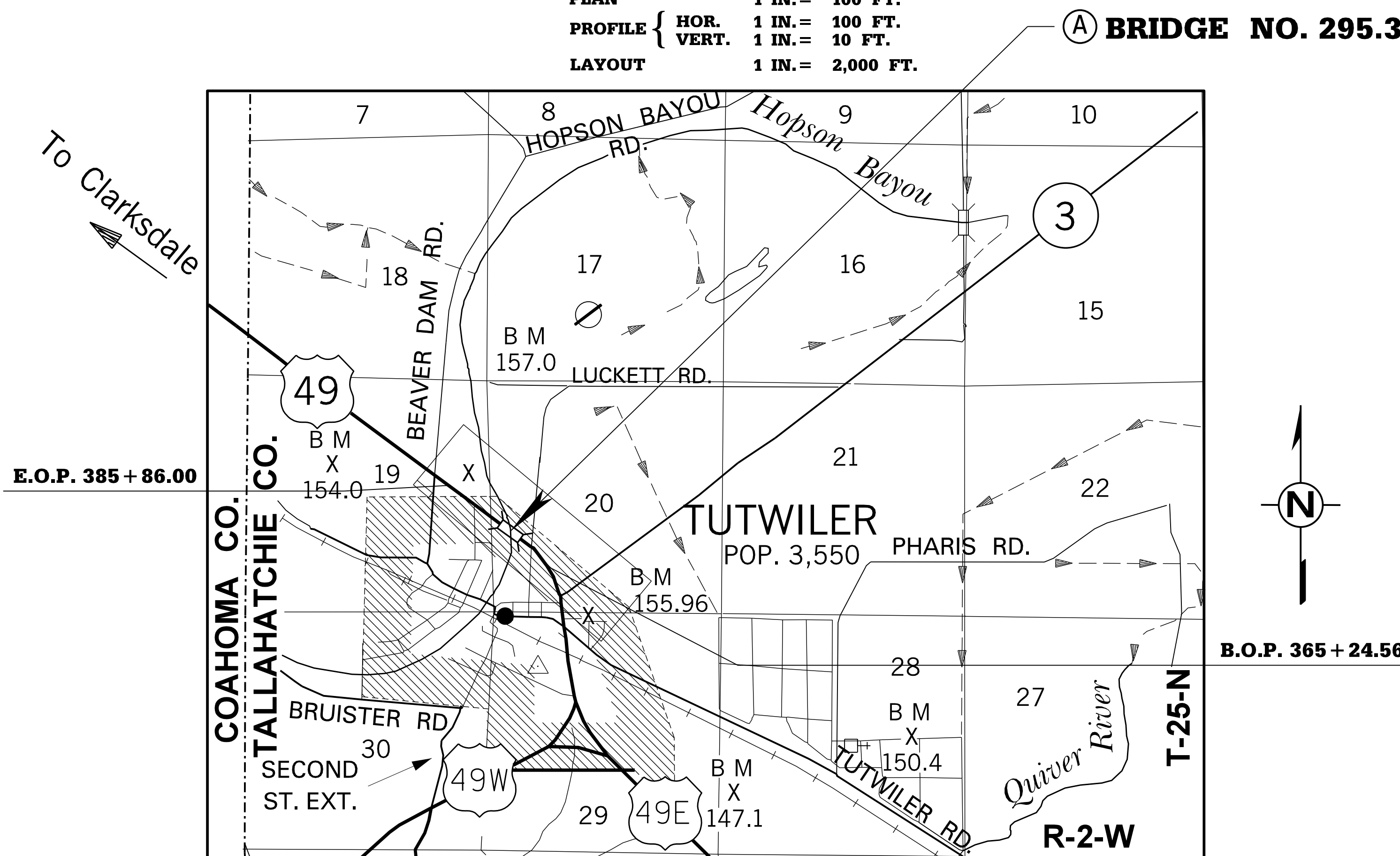
PLAN	1 IN. = 100 FT.
PROFILE	HOR. 1 IN. = 100 FT.
	VERT. 1 IN. = 10 FT.
LAYOUT	1 IN. = 2,000 FT.

BRIDGE STRUCTURES REQ'D.

- (A) BRIDGE NO. 295.3
 US 49 ACROSS HOPSON BAYOU
 STA. 374+88.65 TO STA. 378+21.35
 SPANS: 3 @ 110' - 0"
 SKEW: 30° RT. FWD.
 TOTAL LENGTH: 330' - 0"

BOX BRIDGES REQ'D.

NONE



DESIGN CONTROL

65 MPH = V (SPEED DESIGN)

ADT (2020) = 4,600 ; ADT (2040) = 6,900

DHV = 760 ; D = 60 % T = 13 %

PERMITS ACQUIRED BY MDOT

WETLANDS AND WATERS PERMITS (NECESSARY FOR ULTIMATE IMPROVEMENTS ONLY):

	WATERS	WETLANDS
NATIONWIDE #14	<input type="checkbox"/>	<input type="checkbox"/>
NATIONWIDE (OTHER)*	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
GENERAL*	<input type="checkbox"/>	<input type="checkbox"/>
INDIVIDUAL (404)*	<input type="checkbox"/>	<input type="checkbox"/>

* ACQUISITION OF PERMITS FOR TEMPORARY IMPACTS DURING CONSTRUCTION ARE THE RESPONSIBILITY OF THE CONTRACTOR

STORMWATER PERMIT

Y REQUIRED, CNOI SUBMITTED BY MDOT (DISTURBED AREA = 5 ACRES +)

S REQUIRED, SCNOI TO BE SUBMITTED BY CONTRACTOR (1 TO 4.99 ACRES)

N NO STORMWATER PERMIT REQUIRED (<1 ACRE)

APPROVED BY: _____ DATE: _____

CONVENTIONAL SYMBOLS

COUNTY LINE	-----
TOWN CORPORATION LINE	-----
SECTION LINE	-----
EXISTING ROAD OR TRAVELED WAY	-----
PROPOSED ROAD OR TRAVELED WAY	-----
RAILROAD	-----
SURVEY LINE	-----
BRIDGES	-----

EQUATIONS

NONE

EXCEPTIONS

NONE

LENGTH DATA

LENGTH OF ROADWAY	1,731.44 FT.	0.328 MI.
LENGTH OF BRIDGES	330.00 FT.	0.063 MI.
LENGTH OF PROJECT (NET)	2061.44 FT.	0.391 MI.
LENGTH OF EXCEPTIONS	0.00 FT.	0.000 MI.
LENGTH OF PROJECT (GROSS)	2061.44 FT.	0.391 MI.

3/12/2019 1:02:21 PM TLE-49.DGN



P S & E DATE: 03/12/2019

APPROVED: _____
 DEPUTY EXECUTIVE DIRECTOR / CHIEF ENGINEER
 EXECUTIVE DIRECTOR _____

1st O.REV.

STATE	PROJECT NO.
MISS.	BR-0008-05(038)

DESCRIPTION OF SHEET	WKG. NO.	SH. NO.	DESCRIPTION OF SHEET	WKG. NO.	SH. NO.
TITLE SHEET (1)		1	PERMANENT SIGNING SHEETS (1)		
DETAILED INDEX & GENERAL NOTES (4)			PERMAMENT SIGNING PLAN	PS-1	1001
DETAILED INDEX	DI-1	2			
DETAILED INDEX	DI-2	3			
GENERAL NOTES	GN-1	4	STANDARD DRAWINGS - ROADWAY SHEETS (56)		
GENERAL NOTES	GN-2	5	BRIDGE END PAVEMENT WITH RAIL, OVERLAY, AND SLEEPER SLAB (NEW CONSTRUCTION)	BE-1	6007
			BRIDGE END PAVEMENT RAIL (33.5" RAIL HEIGHT)	BER-1	6009
			PAVEMENT MARKING DETAILS FOR 2-LANE & 4-LANE DIVIDED ROADWAYS	PM-1	6051
TYPICAL SECTION SHEETS (3)					
TYPICAL SECTION - US 49 - WIDENING AND OVERLAY	TS-1	6			
TYPICAL SECTION - US 49 - NEW CONSTRUCTION	TS-2	7	TYPICAL TEMPORARY EROSION CONTROL/SEDIMENT CONTROL APPLICATIONS	ECD-1	6101
TYPICAL SECTION - DETOUR ROAD	TS-3	8	DETAILS OF SEDIMENT BARRIER APPLICATIONS	ECD-2	6102
			DETAILS OF SILT FENCE INSTILLATION	ECD-3	6103
			DITCH CHECK STRUCTURES, TYPICAL APPLICATIONS AND DETAILS	ECD-4	6104
			TEMPORARY EROSION, SEDIMENT, & WATER POLLUTION CONTROL MEASURES (SILT FENCE & HAY BALE DITCH CHECKS)	ECD-5	6105
SUMMARY OF QUANTITY SHEETS (3)					
SUMMARY OF QUANTITIES	SQ-1	9	DETAILS OF EROSION CONTROL WATTLE DITCH CHECK	ECD-6	6106
SUMMARY OF QUANTITIES	SQ-2	10	DETAILS OF EROSION CONTROL SILT DIKE DITCH CHECK	ECD-7	6107
SUMMARY OF QUANTITIES	SQ-3	11	ROCK DITCH CHECK	ECD-8	6108
			ROCK FILTER DAM	ECD-9	6109
			ROCK DITCH CHECK WITH SUMP EXCAVATION AND ROCK FILTER DAM	ECD-10	6110
ESTIMATED QUANTITY SHEETS (8)					
ESTIMATED QUANTITIES - EARTHWORK AND EROSION CONTROL ITEMS	EQ-1	12	TYPICAL APPLICATIONS & DETAILS FOR INLET CONSTRUCTION	ECD-11	6111
ESTIMATED QUANTITIES - SIDE DRAINS & DRIVEWAYS REQ'D., TEMP. GUARDRAIL REQ'D.	EQ-2	13	INLET PROTECTION DETAILS FOR SEDIMENT CONTROL STONE ON GRADES AND SAGS	ECD-12	6112
ESTIMATED QUANTITIES - BRIDGE END PAVEMENT, GUARD RAIL REQ'D. AND CURB & GUTTER & ISLANDS	EQ-3	14	INLET PROTECTION DETAILS OF WATTLES	ECD-13	6113
ESTIMATED QUANTITIES - REMOVAL ITEMS	EQ-4	15	INLET PROTECTION DETAILS OF MANUFACTURED INLET PROTECTION DEVICE	ECD-14	6114
ESTIMATED QUANTITIES - TRAFFIC CONTROL ITEMS AND PERMANENT PAVEMENT MARKINGS	EQ-5	16	INLET PROTECTION DETAILS OF SANDBAGS	ECD-15	6115
ESTIMATED QUANTITIES - TRAFFIC CONTROL SIGNS	EQ-6	17			
ESTIMATED QUANTITIES - STANDARD ROADSIDE SIGN (POST) QUANTITIES	SRS-1	18	STABILIZED CONSTRUCTION ENTRANCE	ECD-16	6116
ESTIMATED QUANTITIES - STANDARD ROADSIDE SIGN QUANTITIES	SRS-2	19	TEMPORARY CULVERT STREAM CROSSING	ECD-17	6117
			TEMPORARY STREAM DIVERSION	ECD-18	6118
			TEMPORARY STREAM DIVERSION (BOX EXTENSION)	ECD-19	6119
			FLOATING TURBIDITY CURTAIN	ECD-20	6120
			DETAILS OF EROSION CONTROL SANDBAG DITCH CHECK	ECD-21	6121
			SEDIMENT RETENTION BARRIER	ECD-22	6122
PLAN & PROFILE SHEETS (2)					
US 49 - BR. NO. 295.3 - B.O.P. 365+24.56 TO E.O.P. 385+75.00	3	20	DETAILS OF TYPICAL DITCH TREATMENTS	DT-1	6123
US 49 - DETOUR BR. NO. 1 - STA. 0+00 TO STA. 20+13.478	3A	21			
SPECIAL DESIGN SHEETS - ROADWAY SHEETS (19)					
INTERSECTION DETAIL - HWY. 49 AND ALMA / MABRY ROADS	ID-1	22	GUARDRAIL: "W" BEAM (WOOD POSTS)	GR-1	6201
INTERSECTION DETAIL - ISLAND DIMENSIONS	ID-2	23	GUARDRAIL: THRIE BEAM (WOOD POSTS)	GR-1A	6202
			GUARDRAIL: "W" BEAM (STEEL POSTS)	GR-1B	6203
			GUARDRAIL: BRIDGE END SECTION-TYPE I (WOOD POSTS) (NEW CONSTRUCTION)	GR-2F	6210
			GUARDRAIL: BRIDGE END SECTION-TYPE I (STEEL POSTS) (NEW CONSTRUCTION)	GR-2G	6211
R.O.W. COORDINATE SHEET	RCS-1	24	GUARDRAIL: RUB RAIL HARDWARE	GR-RR	6218
PERMANENT PAVEMENT MARKING - HWY. 49	PMD-1	25			
DETAILS OF CONSTRUCTION SIGNING - HWY. 49 @ B.O.P.	DCS-1	26	GUARDRAIL: MISCELLANEOUS HARDWARE	GR-HW	6221
DETAILS OF CONSTRUCTION SIGNING - HWY. 49 @ E.O.P.	DCS-2	27			
TRAFFIC CONTROL PLAN - PHASE 1 & 3 - DRUM & SIGN PLACEMENT	TC-1	28	STANDARD ROADSIDE SIGNS	SN-3A	6304
TRAFFIC CONTROL PLAN - PHASE 2 - DRUM & SIGN PLACEMENT	TC-2	29	STANDARD ROADSIDE SIGNS	SN-3B	6305
TRAFFIC CONTROL PLAN - PHASE 2 - TEMP. PAVEMENT MARKING PLACEMENT	TC-3	30			
MISCELLANEOUS TYPICAL SECTION DETAILS	MTSD	31			
GUARDRAIL (TEMPORARY): TYPICAL INSTALLATION AT DETOUR BRIDGE ENDS	SDTGR-1	32			
PIPE CULVERT INSTALLATION	SDPI-1	33			
SUPERELEVATION CASE 1 ROTATION ABOUT CENTERLINE (2% NORMAL UPGRADE)	SDSE-2A	34			
SUPERELEVATION RUNOFF CASE 1 ROTATION ABOUT CENTERLINE	SDSE-3A	35			
GUARD RAIL: TYPICAL INSTALLATION AT BRIDGE APPROACHES FOR 2-LANE, 2-WAY HIGHWAY	SDGR-4A	36			
PRELIMINARY EROSION CONTROL PLANS - US 49 - BR. NO. 295.3 - B.O.P. 365+24.56 TO E.O.P. 385+75.00	ECP-3	37			
PRELIMINARY EROSION CONTROL PLANS - US 49 - RIPARIAN BUFFER	ECP-RB-3	38			
PRELIMINARY EROSION CONTROL PLANS - US 49 - DETOUR BR. NO. 1 - STA. 0+00 TO STA. 20+13.478	ECP-3A	39			
VEGETATION SCHEDULE	VS-1	40			

BRELAND

PS & E PLANS-DATE 03/12/2019		
FMS CON. # 105343/301000		
REVISIONS		
DATE	SHEET NO.	BY
6/19/19	5	CLB
7/15/19	2, 7, 9-11, 13, 18, 21, 1001	CLB
10/07/19	9	SR

MISSISSIPPI DEPARTMENT OF TRANSPORTATION	
DETAILED INDEX	
U.S. HWY. 49	
PROJ. NO.: BR-0008-05(038)	
COUNTY: TALLAHATCHIE	
WORKING NUMBER	DI-1
SHEET NUMBER	2
DATE	FILENAME: <u>RWD-DI</u>
DESIGN TEAM	<u>BRELAND</u> CHECKED _____ DATE _____

10/9/2019 8:30 AM RWD-DI MISSISSIPPI DEPARTMENT OF TRANSPORTATION

STATE	PROJECT NO.
MISS.	BR-0008-05(038)

DESCRIPTION OF SHEET

WKG. NO. SH. NO.

STANDARD DRAWINGS - ROADWAY SHEETS (CON'T)

STANDARD ROADSIDE SIGN ASSEMBLY AND INSTALLATION	SN-4	6306
STANDARD ROADSIDE SIGN ASSEMBLY AND INSTALLATION	SN-4A	6307
STANDARD ROADSIDE SIGN ASSEMBLY AND INSTALLATION	SN-4B	6308
BREAKAWAY SIGN SUPPORTS	SN-6A	6311
BREAKAWAY SIGN SUPPORTS	SN-6B	6312
TYPICAL INSTALLATION AND DETAILS OF DELINEATORS AND DISTANCE REFERENCE SIGNS	SN-8	6314
TYPICAL GUARDRAIL DELINEATION	SN-8C	6317
SIGNING DETAILS FOR BRIDGE APPROACHES	SN-9	6318
TRAFFIC CONTROL PLAN WITH FLAGGER (ONE-LANE CLOSURE OF TWO-WAY TRAFFIC)	TCP-1	6351
SHORT DURATION CLOSING OF TWO-LANE TWO-WAY HIGHWAYS	TCP-6	6356
HIGHWAY SIGN AND BARRICADE DETAILS FOR CONSTRUCTION PROJECTS	TCP-8	6358
TEMPORARY STRIPING FOR TRAFFIC CONTROL 2-LANE AND 4-LANE DIVIDED HIGHWAYS	TCP-13	6363
LOCATION OF R16-3 SIGNS (SPEEDING FINES DOUBLED)	TCP-15	6365
TRAFFIC CONTROL DETAILS DRUM PLACEMENT AND SHOULDER CLOSURE	TCP-16	6366
RIGHT-OF-WAY MARKER	RW-1	6401
RURAL DRIVEWAYS	RD-1	6403
TYPICAL GRADING TRANSITION BETWEEN CUTS & FILLS	GT-1	6404
SIGHT FLARE	SF-1	6405
DRIVEWAYS, CURB & GUTTER, & SIDEWALK	SD-1	6419
MISCELLANEOUS DETAIL SHEET 1. STACKED PIPE JOINTS 2. EXCAVATION AT GRADE POINTS	MDS-1	6425
DETAILS OF PAVED FLUMES	PF-1	6426

CROSS SECTIONS (21)

MAIN FACILITY - B.O.P. 365+24.56 TO E.O.P. 385+75.00	9001-9011
DETOUR ROAD - US 49 - STA. 0+00 TO STA. 20+13.478	9012-9021

TOTAL SHEETS (118) (NOT INCLUDING BRIDGE SHEETS)

3/11/2019 11:51 AM RWD-DI

MISSISSIPPI DEPARTMENT OF TRANSPORTATION	
DETAILED INDEX	
U.S. HWY. 49	
PROJ. NO.: BR-0008-05(038)	
COUNTY: TALLAHATCHIE	
FILENAME: <u>RWD-DI</u>	WORKING NUMBER
DESIGN TEAM <u>BRELAND</u> CHECKED _____ DATE _____	DI-2
	SHEET NUMBER
	3



STATE	PROJECT NO.
MISS.	BR-0008-05(038)

GENERAL NOTES

- (1) THE LOCATION AND SPACING OF SIGNS, SHOWN ON THE TRAFFIC CONTROL PLANS, ARE APPROXIMATE AND MAY BE ADJUSTED AS NECESSARY TO FIT FIELD CONDITIONS.
- (2) ALL TRAFFIC CONTROL DEVICES ON THIS PROJECT SHALL COMPLY WITH PART VI OF THE **MUTCD** (LATEST EDITION).
- (3) ALL PLASTIC DRUMS SHALL HAVE A BALLASTING COLLAR MADE FROM RECYCLED TRUCK TIRES OR OTHER SUITABLE MATERIAL.
- (4) 25% SHRINKAGE FACTOR USED IN THE EARTHWORK CALCULATIONS IS FOR DESIGN ESTIMATING PURPOSES ONLY.
- (5) THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTING EXISTING STRUCTURES SUCH AS, BUT NOT LIMITED TO, PIPES, INLETS, APRONS, AND BRIDGES FROM DAMAGE WHICH MIGHT OCCUR DURING CONSTRUCTION. THE CONTRACTOR SHALL REPLACE OR REPAIR, AS DIRECTED BY THE ENGINEER, ANY STRUCTURES DAMAGED DURING THE LIFE OF THE CONTRACT. NO PAYMENT WILL BE MADE FOR REPLACEMENT OR REPAIR OF DAMAGED ITEMS.
- (6) ALL PIPE JOINTS ARE TO BE WRAPPED IN 24-INCH WIDE TYPE V GEOTEXTILE FABRIC. ALL PICKUP HOLES SHALL BE PLUGGED WITH PLASTIC INSERTS AND BITUMINOUS SEALER TO THE SATISFACTION OF THE ENGINEER (NOT A SEPARATE PAY ITEM).
- (7) VOIDS CREATED BY THE REMOVAL OF, BUT NOT LIMITED TO, POSTS, CONCRETE ANCHORS, AND FOOTINGS SHALL BE BACKFILLED AND TAMPED IN ACCORDANCE WITH SECTION 203 OF **THE MISSISSIPPI STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION**, THE COST OF WHICH WILL BE ABSORBED IN OTHER ITEMS BID.
- (8) UTILITIES ON THE DRAWINGS ARE SHOWN IN THEIR ORIGINAL LOCATION BASED UPON THE BEST INFORMATION AVAILABLE TO THE ENGINEER. UTILITIES THAT WERE FOUND TO BE IN CONFLICT WITH CONSTRUCTION HAVE BEEN RELOCATED. PERMITS ARE ON FILE WITH THE DEPARTMENT SHOWING THE APPROXIMATE LOCATION OF UTILITIES RELOCATED WITHIN THE RIGHT-OF-WAY. THE ENGINEER CAN NOT AND DOES NOT WARRANT THAT THIS INFORMATION IS COMPLETE OR ACCURATE. THE CONTRACTOR MUST COORDINATE DIRECTLY WITH THE INVOLVED UTILITY OWNERS TO HAVE UNDERGROUND UTILITY LINES FIELD LOCATED IN ADVANCE OF CONSTRUCTION.
- (9) WORK ON STRUCTURES FOR THIS PROJECT REQUIRES EXCAVATION IN THE IMMEDIATE VICINITY OF TRAFFIC AND ADJACENT PROPERTIES. THEREFORE, THE RISK OF A FAILURE OCCURRING DURING EXCAVATION REQUIRES THAT EXTREME CAUTION BE EXERCISED. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PLACING WHAT BRACING, SHORING, OR GROUND SUPPORT SYSTEM THAT IS DEEMED NECESSARY TO PREVENT A FAILURE AND PROTECT THE PERSONS WORKING NEAR THE EXCAVATION, THE PUBLIC THAT MAY BE ABOVE THE EXCAVATION, OR ANY STRUCTURES ADJACENT TO THE EXCAVATION. ALL COSTS FOR DESIGNING, DRAWING, AND CONSTRUCTING THE FACILITY SHALL BE INCLUDED IN THE PRICE BID FOR CONTRACT ITEMS.
- (10) SOME WORK IS REQUIRED OUTSIDE THE PROJECT LIMITS. NO ADDITIONAL COMPENSATION WILL BE MADE FOR SUCH WORK EXCEPT AS PROVIDED BY SPECIFIC PAY ITEMS INCLUDED IN THE PLANS.
- (11) WIRE FENCE BACKING WILL BE REQUIRED FOR ALL SILT FENCE. (SEE WK. NO. ECD-3)
- (12) FOR LIST OF PUBLIC UTILITIES, SEE WORKING NO. 3.
- (13) FLUORESCENT ORANGE SHEETING SHALL BE USED ON ALL CONSTRUCTION AND TRAFFIC CONTROL SIGNS EXCEPT FOR THOSE DESIGNATED ON THE PLANS TO BE BLACK LEGEND AND BORDER ON WHITE BACKGROUND.
- (14) THE COST OF ANY COLLARS REQUIRED TO CONNECT CONCRETE FLARED END SECTIONS TO NON-CONCRETE PIPE SECTIONS SHALL BE ABSORBED IN THE COST FOR NON-CONCRETE PIPE.
- (15) ALL DIMENSIONS AND SPACINGS FOR BRIDGE RAIL CONNECTORS SHALL BE VERIFIED IN THE FIELD BY THE CONTRACTOR PRIOR TO FABRICATION.

GENERAL NOTES (CONT.)

- (16) REMOVAL OF OBJECT MARKERS IS NOT CONSIDERED A SEPARATE PAY ITEM, AND SHALL BE ABSORBED IN OTHER ITEMS BID.
- (17) WHERE MILLING IS REQUIRED, THE CONTRACTOR SHALL PROVIDE OUTLETS IN THE EXISTING SHOULDERS AT SUFFICIENT INTERVALS TO PREVENT POOLING OR STANDING WATER ON THE MILLED SURFACE, THE COST OF WHICH SHALL BE ABSORBED IN OTHER ITEMS BID.
- (18) THE EROSION CONTROL DEVICES REFERENCED IN THESE PLANS ARE A MINIMUM REQUIREMENT. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO ENSURE THAT SILT DOES NOT LEAVE THE RIGHT OF WAY OR CONTAMINATE WATERS OF THE U. S. DURING CONSTRUCTION. THE CONTRACTOR SHALL SUBMIT AN EROSION CONTROL PLAN PRIOR TO COMMENCEMENT OF WORK AND MAINTAIN THE PLAN DURING CONSTRUCTION. ANY ADDITIONAL SILT BASINS NOT SHOWN IN THE PLANS SHALL BE INCLUDED IN THE CONTRACTOR'S EROSION CONTROL PLAN PRIOR TO SUBMITTING FOR APPROVAL.
- (19) PRIOR TO EARTHWORK OPERATIONS, THE EXISTING TOP 6" TOPSOIL IS TO BE STRIPPED AND STOCKPILED. AFTER THE GRADING OPERATIONS ARE COMPLETED, SAID TOPSOIL SHALL BE PLACED ON ALL AREAS THAT ARE NOT TO BE PAVED OR OTHERWISE PROTECTED, IN ACCORDANCE WITH SECTION 211 OF THE SPECIFICATIONS, OR THE VEGETATION SCHEDULE (SEE WK. SH. VS-1). EXISTING TOPSOIL AND ALL COSTS ASSOCIATED WITH STRIPPING, HAULING, STOCKPILING, AND PLACEMENT OF THE EXISTING TOPSOIL IS TO BE ABSORBED IN OTHER EARTHWORK ITEMS.
- (20) THE CONTRACTOR IS RESPONSIBLE FOR FIELD-VERIFICATION OF EXISTING GRADES AND MAKING ADJUSTMENTS AS NECESSARY WITH THE APPROVAL OF THE PROJECT ENGINEER.
- (21) TEMPORARY STRIPING SHALL CONFORM TO FINISHED STRIPE SPECIFICATIONS FOR ALIGNMENT, NEATNESS, AND STRAIGHTNESS.
- (22) ALL ITEMS OF WORK ASSOCIATED WITH THE INSTALLATION OF A CONSTRUCTION ENTRANCE SHALL BE ABSORBED IN OTHER ITEMS OF WORK.
- (23) IF COLORS ARE USED ON PLAN/PROFILE SHEETS, THEY ARE INTENDED TO VISUALLY EASE THE LOCATION OF ELEMENTS FOR USERS OF THESE DRAWINGS. ALTHOUGH THE INTENT IS TO CATEGORIZE EVERYTHING AS EITHER EXISTING OR PROPOSED, IT IS THE END USER'S RESPONSIBILITY TO ENSURE ALL ELEMENTS ARE INTERPRETED CORRECTLY, REGARDLESS OF COLOR.
- (24) SEE BRIDGE PLANS FOR DETAILED INDEX SHEET(S), ESTIMATED AND SUMMARY OF QUANTITY SHEETS, AND EROSION CONTROL SHEETS.
- (25) ALL ADDENDA TO THESE PLANS WILL BE POSTED TO WWW.MDOT.MS.GOV UNDER THE PROPOSAL ADDENDA COLUMN. BIDDERS ARE ADVISED THAT HARD COPIES OF ANY ADDENDA FOR THIS PROJECT WILL NOT BE MAILED. IT IS THE BIDDER'S RESPONSIBILITY TO CHECK AND SEE IF ANY ADDENDA HAVE BEEN POSTED FOR THIS PROJECT.

2/13/2019 3:26 PM RWD-GN MISSISSIPPI DEPARTMENT OF TRANSPORTATION

		MISSISSIPPI DEPARTMENT OF TRANSPORTATION	
		GENERAL NOTES	
		U.S. HWY. 49	
		PROJ. NO.: BR-0008-05(038)	
		COUNTY: TALLAHATCHIE	
		WORKING NUMBER	
		GN-1	
		SHEET NUMBER	
		4	
DATE	DESIGN TEAM	CHECKED	DATE
	BRELAND		



1st O.REV.

STATE	PROJECT NO.
MISS.	BR-0008-05(038)

GENERAL NOTES (CONT.)

- (26) CURB AND GUTTER VERTICAL DIMENSIONS SHOWN IN THE DETAIL DRAWINGS ARE FOR A CURB IN THE "CATCH" CONFIGURATION AND SHALL BE CONSIDERED TO BE MINIMUM DIMENSIONS. THE DIMENSIONS MAY BE MODIFIED AS NECESSARY FOR "SPILL" CURB AND GUTTER, BUT SHALL NOT BE LESS THAN THE MINIMUM SHOWN.
- (27) THE COST FOR REMOVAL OF ALL HEADWALLS AND WINGWALLS (PIPES, BOX CULVERTS, BOX BRIDGES) SHALL BE ABSORBED IN OTHER ITEMS BID.
- (28) THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING AND RELOCATING MAIL BOXES AS NECESSARY TO MAINTAIN CONTINUOUS MAIL SERVICE THROUGHOUT THE LIFE OF THE PROJECT, THE COST OF WHICH SHALL BE ABSORBED IN OTHER ITEMS BID.
- (29) THE BRIDGE DECK SHALL BE GROOVED AND ALL BRIDGE JOINTS SHALL BE SEALED PRIOR TO OPENING THE BRIDGE TO TRAFFIC.
- (30) STORAGE OF FLAMMABLE MATERIALS WILL NOT BE ALLOWED UNDER ANY BRIDGE STRUCTURES.
- (31) INSTALLATION DATES SHALL BE CLEARLY WRITTEN IN BOLD BLACK MARKINGS ON THE BACK BOTTOM HALF OF ALL SIGNS WITH A PERMANENT MARKING STICK THAT IS WATERPROOF, FADE RESISTANT AND MARKS ON WET OR DRY SURFACES.
- (32) ALL POST, PIPE, AND I-BEAM LENGTHS IN THESE PLANS ARE ESTIMATES. POST LENGTHS FOR ALL SIGNS SHALL BE VERIFIED IN THE FIELD BY THE CONTRACTOR PRIOR TO FABRICATION.
- (33) ALL EXISTING SIGNS WHICH ARE TO BE REMOVED AS A PART OF THIS PROJECT THAT ARE NOT IN CONFLICT WITH CONSTRUCTION SHALL REMAIN IN PLACE UNTIL NEW SIGNS ARE INSTALLED UNLESS NOTED OR DIRECTED OTHERWISE BY THE PROJECT ENGINEER. ROADWAY SIGNS THAT ARE IN CONFLICT WITH CONSTRUCTION SHALL BE REMOVED AND RELOCATED BY THE CONTRACTOR AS DIRECTED BY THE ENGINEER, THE COST OF WHICH SHALL BE ABSORBED IN OTHER ITEMS BID.
- (34) ALL EXISTING SIGNS AND SUPPORTS REMOVED UNDER THIS PROJECT SHALL BECOME THE PROPERTY OF THE CONTRACTOR AND ARE NOT A SEPARATE PAY ITEM.
- (35) DIRECT-APPLIED LEGEND, BORDER, AND/OR SHIELDS ARE TO BE USED ON ALL GUIDE SIGNS. DIGITALLY PRODUCED SIGN COPY, SHIELDS, LEGEND, SYMBOLS, OR IMAGES WILL NOT BE ALLOWED WITHOUT WRITTEN APPROVAL FROM MDOT'S PROJECT ENGINEER.
- ⚠ (36) FOR CLEARING LIMITS ADJACENT TO THE STREAM AT STATION 376+55, SEE WORKING SHEET NUMBERS RB-3. THE CLEARING LIMITS SHOWN ON THESE SHEETS ARE ONLY FOR THE RIPARIAN BUFFER. CLEARING LIMITS AT OTHER LOCATIONS SHOULD APPLY.

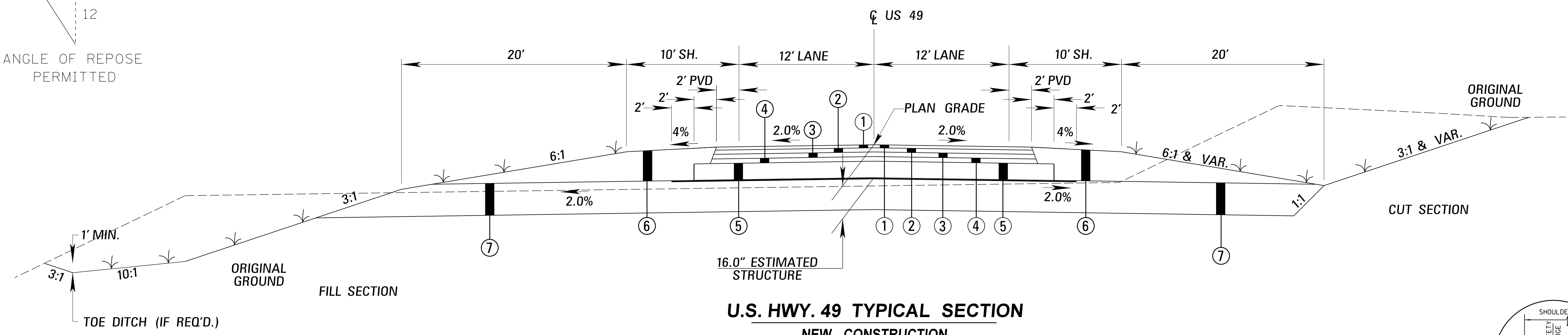
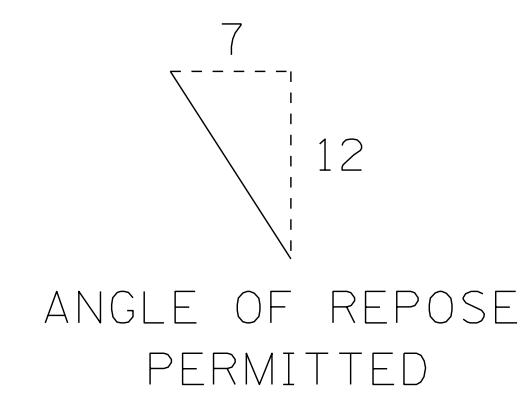
GENERAL NOTES (CONT.)

6/19/2019 3:12 PM RWD-GN-DGN MISSISSIPPI DEPARTMENT OF TRANSPORTATION

								MISSISSIPPI DEPARTMENT OF TRANSPORTATION GENERAL NOTES
								U.S. HWY. 49
								PROJ. NO.: BR-0008-05(038) COUNTY: TALLAHATCHIE
								WORKING NUMBER GN-2
								SHEET NUMBER 5
								FILENAME: <u>RWD-GN</u> DESIGN TEAM: <u>BRELAND</u> CHECKED: _____ DATE: _____



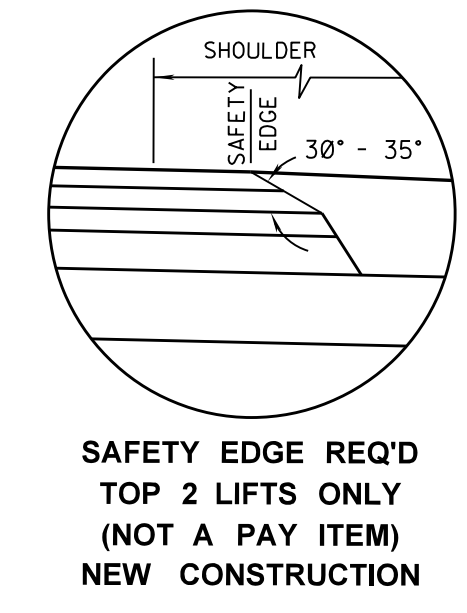
DATA FOR PAVEMENT DETERMINATION		
2020 ADT	=	4,600 Current
2030 ADT	=	5,600
2040 ADT	=	6,900 Design
DHV	=	760
D	=	60 % of DHV
T	=	13 % of ADT
T (Total)	=	13 % of ADT
18K (Rigid)	=	1,445 / 1000
18K (Flex)	=	935 / 1000
Design CBR	=	



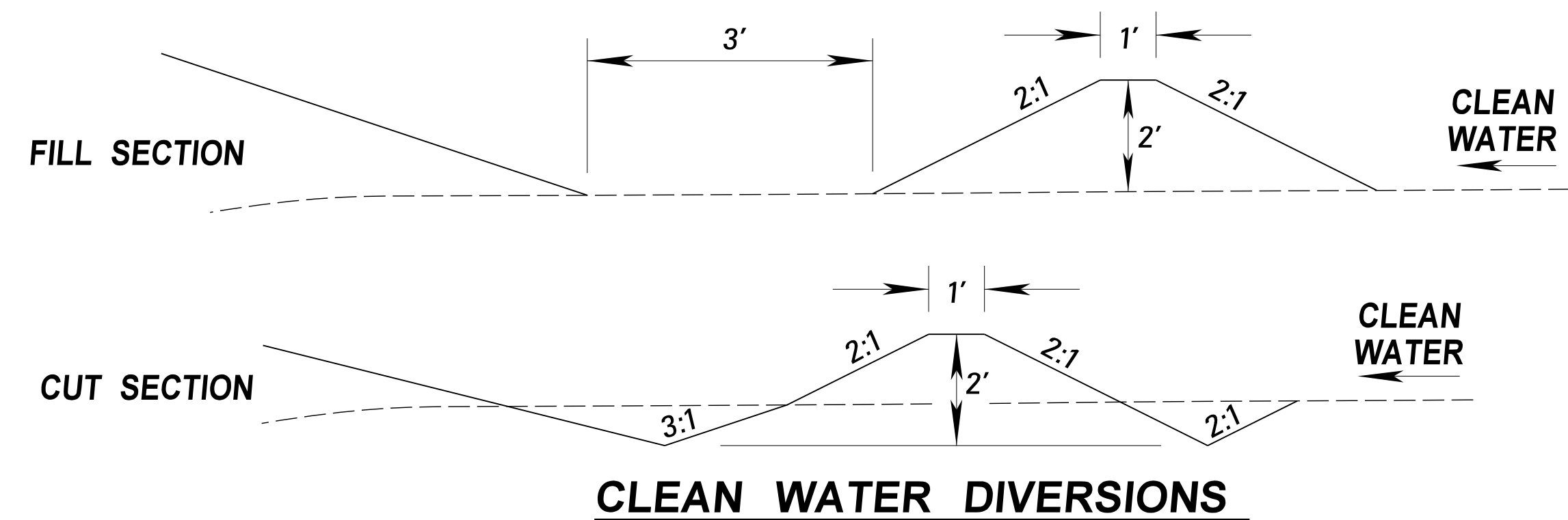
U.S. HWY. 49 TYPICAL SECTION
NEW CONSTRUCTION

STA. 372+00.00 TO STA. 374+88.65
STA. 378+21.35 TO STA. 381+50.00

BRIDGE
STA. 374+88.65 TO STA. 378+21.35



- ① 1.50" ASPH PAVE, MT (9.5 mm Mixture)(1 at 1.5)
- ② 2.00" ASPH PAVE, MT (12.5 mm Mixture)(1 at 2)
- ③ 2.25" ASPH PAVE, MT (19 mm Mixture)(1 at 2.25)
- ④ 2.25" ASPH PAVE, ST (19 mm Mixture)(1 at 2.25)
- ⑤ 8.00" CRUSHED STONE W/GEOTEXTILE TYPE V (NON-WOVEN)
EXTEND FABRIC 2' BEYOND CRUSHED STONE
- ⑥ 16.00" & VAR. GRANULAR SHOULDER MATERIAL (3/D)
- ⑦ 3' UNDERCUT TO BE REPLACED WITH BORROW B9-6



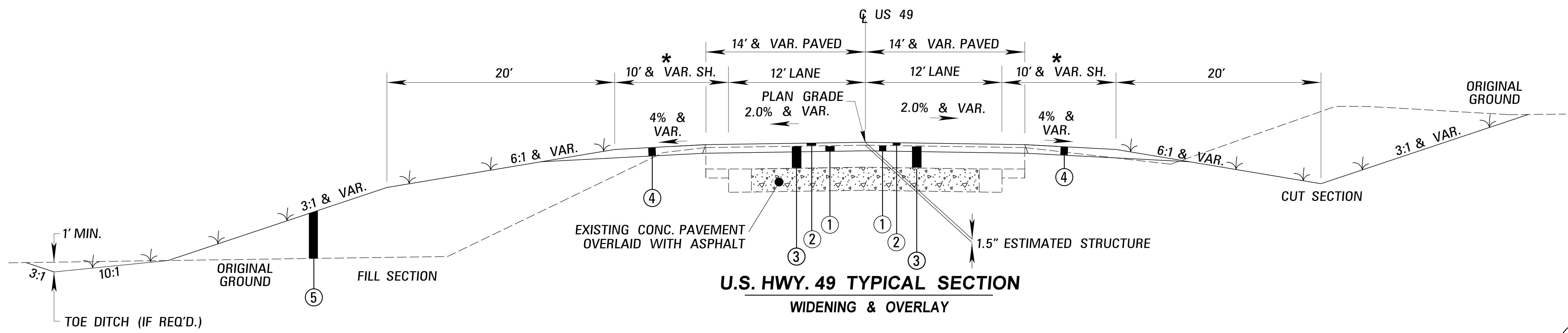
NOT TO SCALE

INDICATES AREA TO BE TREATED IN ACCORDANCE WITH THE VEGETATION SCHEDULE. SEE WK. SH. NO. VS-1.

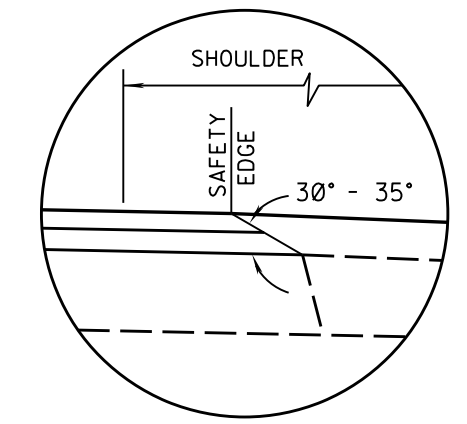
MISSISSIPPI DEPARTMENT OF TRANSPORTATION	
TYPICAL SECTIONS	
U.S. HWY. 49 NEW CONSTRUCTION	
PROJ. NO.: BR-0008-05(038)	
COUNTY: TALLAHATCHIE	
DATE	REVISION
DESIGN TEAM: BRELAND	CHECKED: DATE
WORKING NUMBER TS-1	
SHEET NUMBER 6	

2/13/2019 3:26 PM TS-49.DGN MISSISSIPPI DEPARTMENT OF TRANSPORTATION

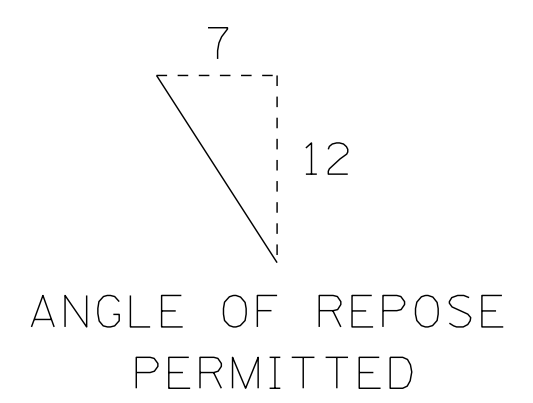
STATE	PROJECT NO.
MISS.	BR-0008-05(038)



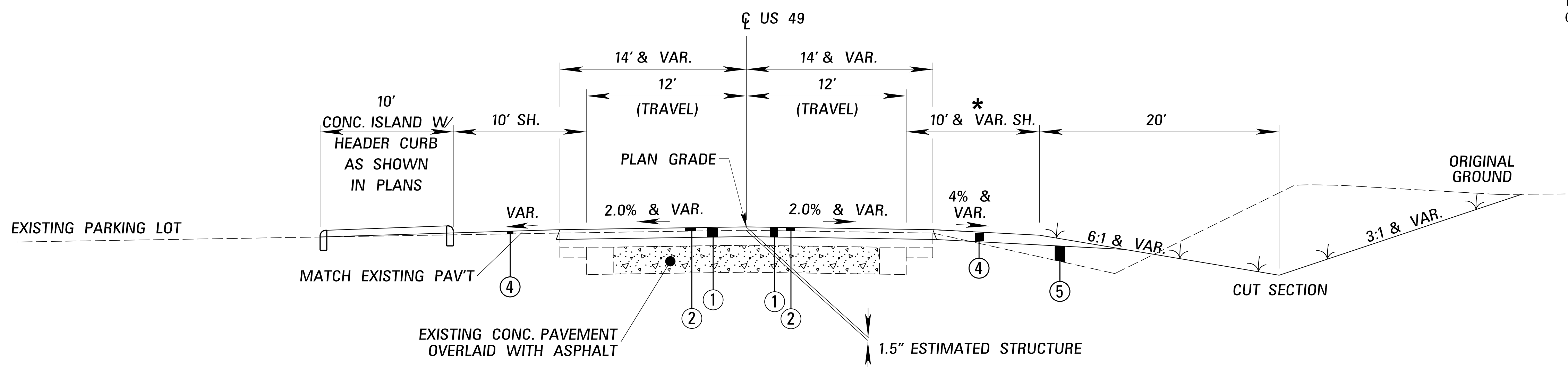
U.S. HWY. 49 TYPICAL SECTION
WIDENING & OVERLAY
 (B.O.P.) STA. 365+24.56 TO STA. 372+00.00
 STA. 381+50.00 TO STA. 383+85.00



SAFETY EDGE REQ'D
 TOP 2 LIFTS ONLY
 (NOT A PAY ITEM)
 OVERLAY



ANGLE OF REPOSE
 PERMITTED



U.S. HWY. 49 TYPICAL SECTION
WIDENING & OVERLAY
 STA. 383+85.00 TO STA. 385+75.00 (E.O.P.)

* TRANSITION SHOULDER TO EXISTING WIDTH IN LAST 100'.

- ① 1.50" Cold Milling
- ② 1.50" ASPH PAVE, MT (9.5 mm Mixture)(1 at 1.5)
- ③ 6.00" & VAR. ASPH PAVE, MT (12.5 mm Mixture) LEVELING △
- ④ 1.50" GRANULAR SHOULDER MATERIAL (3D)
- ⑤ BORROW B9-6

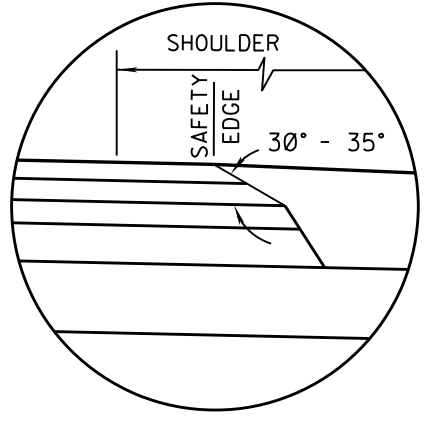
NOT TO SCALE

INDICATES AREA TO BE TREATED IN ACCORDANCE WITH
 THE VEGETATION SCHEDULE. SEE WK. SH. NO. VS-1.

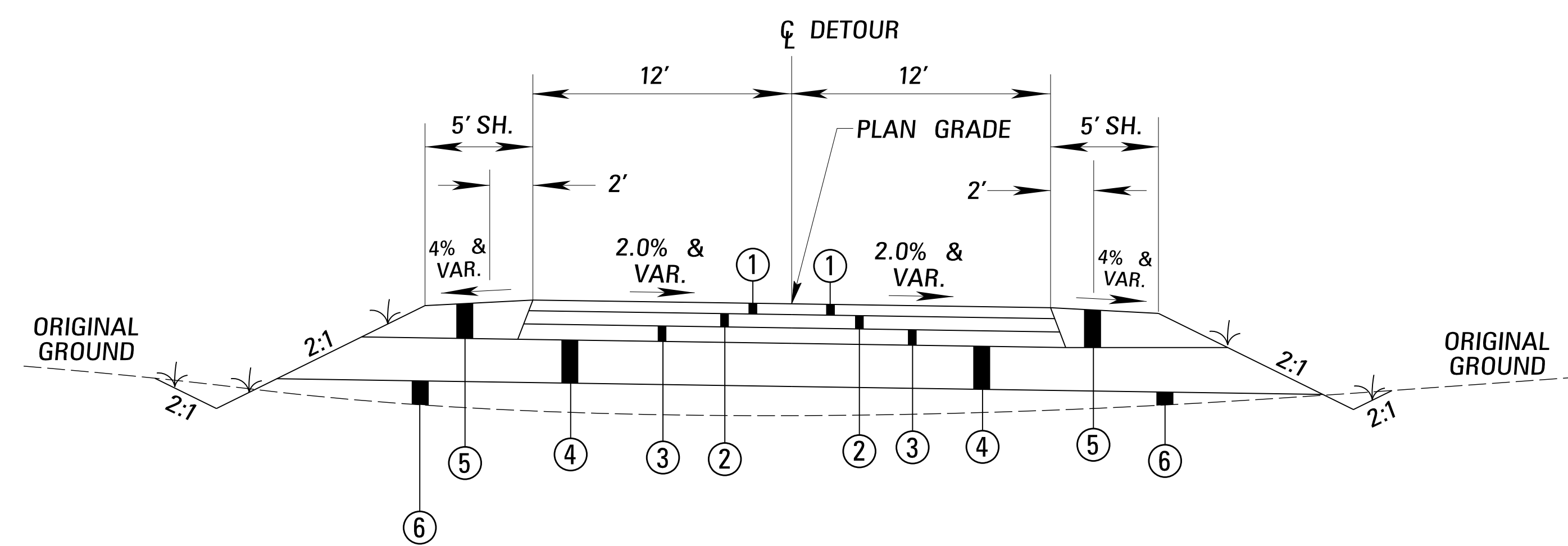
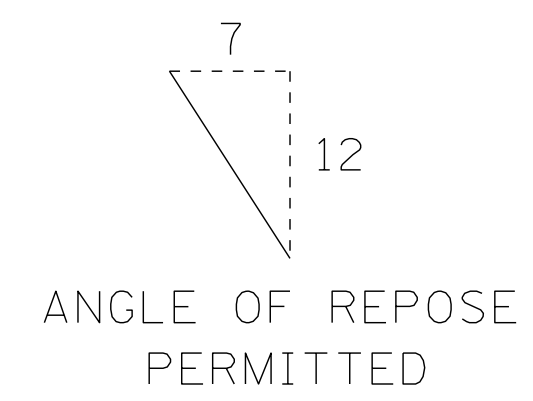
MISSISSIPPI DEPARTMENT OF TRANSPORTATION	
TYPICAL SECTIONS	
U.S. HWY. 49	
WIDENING & OVERLAY	
PROJ. NO.: BR-0008-05(038)	
COUNTY: TALLAHATCHIE	
FILENAME: TS-49.dgn	WORKING NUMBER
DESIGN TEAM: BRELAND	TS-2
CHECKED: _____	SHEET NUMBER
DATE: _____	7

7/15/2019 3:47 PM TS-49.dgn

STATE	PROJECT NO.
MISS.	BR-0008-05(038)



SAFETY EDGE REQ'D
TOP 2 LIFTS ONLY
(NOT A PAY ITEM)
NEW CONSTRUCTION



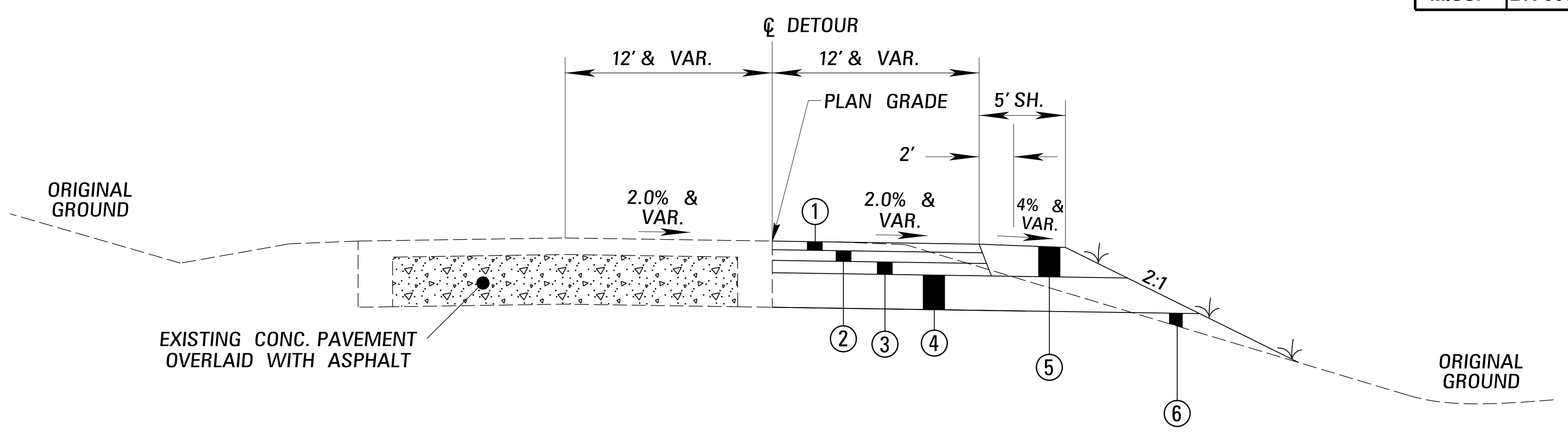
U.S. HWY. 49 DETOUR TYPICAL SECTION
DETOUR ROAD

STA. 3+33.81 TO STA. 10+55.00
STA. 13+80.00 TO STA. 17+67.68
DETOUR BRIDGE
STA. 10+55.00 TO STA. 13+80.00

NOTES:

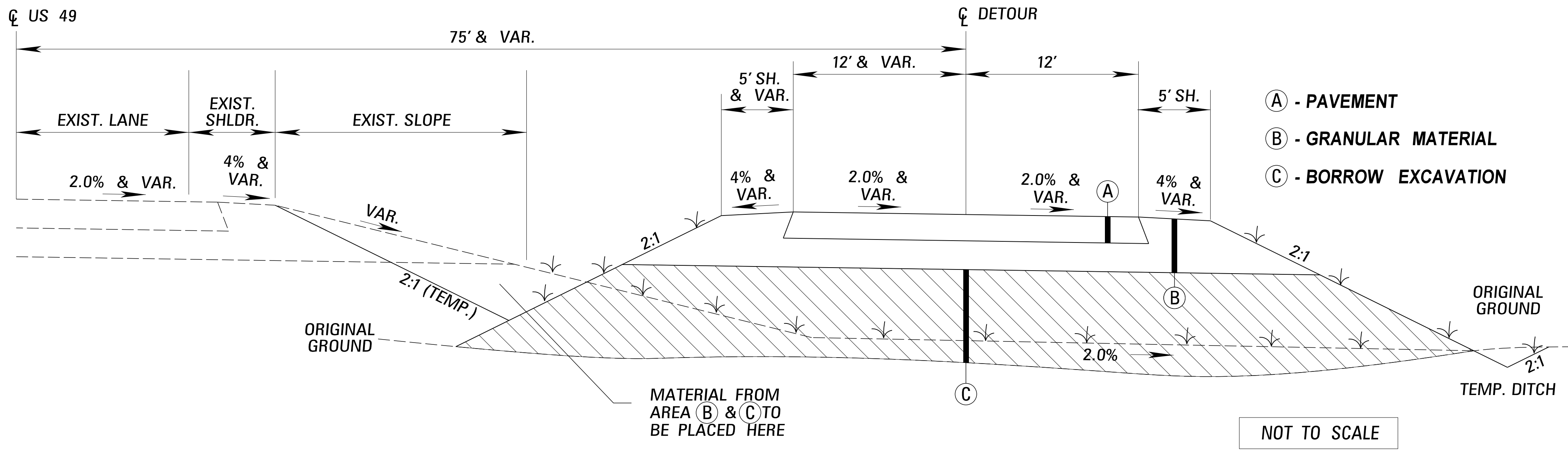
1. WHEN NO LONGER NEEDED, THE DETOUR SHALL BE REMOVED TO NATURAL GROUND.
2. AREA (A) WILL BE REMOVED AND PAID FOR UNDER APPROPRIATE PAY ITEMS.
3. AREA (B) & (C) WILL BE INCLUDED IN THE REMOVAL OF THE DETOUR ROAD AND MAY BE REMOVED AND PAID FOR AS EXCESS EXCAVATION AS DIRECTED BY THE ENGINEER.

- ① 1.50" ASPH PAVE, ST (9.5 mm Mixture)(1 at 1.5)
- ② 2.00" ASPH PAVE, ST (12.5 mm Mixture)(1 at 2)
- ③ 2.25" ASPH PAVE, ST (19 mm Mixture)(1 at 2.25)
- ④ 6.00" GRANULAR MATERIAL (3/D)
- ⑤ 5.75" GRANULAR SHOULDER MATERIAL (3/D)
- ⑥ BORROW B9-6



U.S. HWY. 49 DETOUR TYPICAL SECTION
DETOUR ROAD

STA. 0+00.00 TO STA. 3+33.81
STA. 17+67.68 TO STA. 20+13.48



U.S. HWY. 49 DETOUR TYPICAL SECTION
DETOUR ROAD CONSTRUCTION
& REMOVAL

INDICATES AREA TO BE TREATED IN ACCORDANCE WITH THE VEGETATION SCHEDULE. SEE WK. SH. NO. VS-1.

NOT TO SCALE

MISSISSIPPI DEPARTMENT OF TRANSPORTATION	
TYPICAL SECTIONS	
U.S. HWY. 49 DETOUR ROAD	
PROJ. NO.: BR-0008-05(038)	
COUNTY: TALLAHATCHIE	
FILENAME: TS-49.dgn	WORKING NUMBER TS-3
DESIGN TEAM: BRELAND	CHECKED: DATE
DATE	SHEET NUMBER 8

2/13/2019 3:26 PM TS-49.DGN


1st O.REV.

STATE	PROJECT NO.
MISS	BR-0008-05(038)

SUMMARY OF QUANTITIES (SHEET 1)

PAY ITEM NO.	PAY ITEM	UNIT	TALLAHATCHIE : 105343-301000		
			Prelim	Final	
201-B001	Clearing and Grubbing	ACRE	2		⚠
202-A001	Removal of Obstructions	LS	1		①
202-B007	Removal of Asphalt Pavement, All Depths	SY	3,394		⑥
202-B062	Removal of Concrete Overlaid w/ Asphalt Pavement, All Depths	SY	2,181		
202-B088	Removal of Curb & Gutter, All Types	LF	115		
202-B150	Removal of Guard Rail Including Post, Blockouts & Hardware	LF	608		②
202-B191	Removal of Pipe, 8" And Above	LF	32		
202-B240	Removal of Traffic Stripe	LF	1,441		
203-A001	Unclassified Excavation, FM, AH	CY	1,963		
203-EX021	Borrow Excavation, AH, FME, Class B9-6	CY	14,582		
203-G001	Excess Excavation, FM, AH	CY	13,600		③
209-A005	Geotextile Stabilization, Type V, Non-Woven	SY	2,472		
213-C001	Superphosphate	TON	3		
216-A001	Solid Sodding	SY	43		
217-A001	Ditch Liner	SY	445		
219-A001	Watering	KGAL	1		
220-A001	Insect Pest Control	ACRE	3		
221-A001	Concrete Paved Ditch	CY	7		④
223-A001	Mowing	ACRE	12		
225-A001	Grassing	ACRE	9		
225-B001	Agricultural Limestone	TON	3		
225-C001	Mulch, Vegetative Mulch	TON	17		
226-A001	Temporary Grassing	ACRE	9		
234-A001	Temporary Silt Fence	LF	2,500		
237-A002	Wattles, 20"	LF	300		
249-A001	Riprap for Erosion Control	TON	200		
304-B002	Granular Material, Class 3, Group D	TON	3,282		⑤
304-F001	3/4" and Down Crushed Stone Base	TON	1,050		⑤
	OR				
304-F002	Size 610 Crushed Stone Base	TON	1,050		⑤
	OR				
304-F003	Size 825B Crushed Stone Base	TON	1,050		⑤
403-A002	12.5-mm, MT, Asphalt Pavement	TON	317		
403-A003	12.5-mm, ST, Asphalt Pavement	TON	376		
403-A005	19-mm, MT, Asphalt Pavement	TON	238		
403-A006	19-mm, ST, Asphalt Pavement	TON	662		
403-A014	9.5-mm, MT, Asphalt Pavement	TON	610		
403-A015	9.5-mm, ST, Asphalt Pavement	TON	372		
403-B002	12.5-mm, MT, Asphalt Pavement, Leveling	TON	317		
406-A002	Cold Milling of Bituminous Pavement, All Depths	SY	4,458		
407-A001	Asphalt for Tack Coat	GAL	867		
413-E001	Sawing and Sealing Transverse Joints in Asphalt Pavement	LF	109		
502-A001	Reinforced Cement Concrete Bridge End Pavement	SY	237		
503-C010	Saw Cut, Full Depth	LF	100		⚠

- ① BRIDGE NO. 295.3 @ STA. 375+49.70. 6 SPANS @ 33' - 4", FOR A TOTAL OF 200'.
- ② INCLUDES TERMINAL SECTIONS, BRIDGE END SECTIONS, AND OTHER APPURTENANCES.
- ③ INCLUDES REMOVAL OF DETOUR ROAD.
- ④ INCLUDES 5 CY FOR PAVED FLUMES.
- ⑤ QUANTITY INCLUDES 20% INCREASE FOR ROAD AND MAINTANANCE OF TRAFFIC .
- ⑥ INCLUDES DETOUR ROAD.

⚠ REVISED QUANTITY, ADDED OR DELETED PAY ITEMS CONVERTED CLEARING AND GRUBBING QUANTITY FROM LS TO ACRE	CB	SAR	By	MISSISSIPPI DEPARTMENT OF TRANSPORTATION SUMMARY OF QUANTITIES	
	Date	Revision			
07/15/2019	10/07/2019			PROJ NO: BR-0008-05(038) COUNTY: TALLAHATCHIE	SQ-1
				FILENAME: SQS_105343_2019-10-07 Design Team BRELAND Checked Date 10-07-201	Sheet Number 9


1st O.REV.

STATE	PROJECT NO.
MISS	BR-0008-05(038)

SUMMARY OF QUANTITIES (SHEET 2)

PAY ITEM NO.	PAY ITEM	UNIT	TALLAHATCHIE : 105343-301000	
			Prelim	Final
603-ALT003	18" Type A Alternate Pipe	LF	64	
605-AA001	Geotextile for Subsurface Drainage, Type III	SY	60	
605-O002	4" Perforated Sewer Pipe for Underdrains, SDR 23.5	LF	108	
605-P002	4" Non-perforated Sewer Pipe for Underdrains, SDR 23.5	LF	10	
605-W001	Filter Material for Combination Storm Drain and/or Underdrains, Type A, FM	CY	4	
605-W002	Filter Material for Combination Storm Drain and/or Underdrains, Type B, FM	CY	72	
	OR			
605-W003	Filter Material for Combination Storm Drain and/or Underdrains, Type C, FM	CY	72	
606-B001	Guard Rail, Class A, Type 1	LF	275	
606-D022	Guard Rail, Bridge End Section, Type I	EA	4	
606-E005	Guard Rail, Terminal End Section, Flared	EA	4	
609-B002	Concrete Curb, Header	LF	339	
609-D004	Combination Concrete Curb and Gutter Type 2 Modified	LF	255	
615-A002	Concrete Bridge End Barrier, 33.5"	LF	40	
616-A001	Concrete Median and/or Island Pavement, 10-inch	SY	148	
617-A001	Right-of-Way Marker	EA	11	
618-A001	Maintenance of Traffic	LS	1	
618-C001	Construction and Removal of Detour Bridge	LS	1	①
618-E001	Detour Bridge Piling	LF	1,585	⚠
618-F001	Detour Bridge PDA Test Pile	LS	1	
619-A1005	Temporary Traffic Stripe, Continuous White, Type 1 Tape	LF	10,458	
619-A2006	Temporary Traffic Stripe, Continuous Yellow, Type 1 Tape	LF	11,404	
619-A2008	Temporary Traffic Stripe, Continuous Yellow, Type 1 or 2 Tape	LF	1,950	
619-A5001	Temporary Traffic Stripe, Detail	LF	5,298	
619-A6004	Temporary Traffic Stripe, Legend, Paint	LF	486	
619-C7001	Two-Way Yellow Reflective High Performance Raised Marker	EA	52	
619-D1001	Standard Roadside Construction Signs, Less than 10 Square Feet	SF	97	
619-D2001	Standard Roadside Construction Signs, 10 Square Feet or More	SF	374	
619-G4001	Barricades, Type III, Double Faced	LF	24	
619-G4005	Barricades, Type III, Single Faced	LF	72	
619-G5001	Free Standing Plastic Drums	EA	60	
619-G7001	Warning Lights, Type "B"	EA	5	
619-K1001	Installation and Removal of Guard Rail, Type I, Class A	LF	100	⚠
619-K2001	Installation and Removal of Guard Rail, Bridge End Section	EA	4	
619-K4001	Installation and Removal of Guardrail, Terminal End Section	EA	4	
620-A001	Mobilization	LS	1	
626-C002	6" Thermoplastic Double Drop Edge Stripe, Continuous White	MI	1	② ③
626-E001	6" Thermoplastic Double Drop Traffic Stripe, Continuous Yellow	MI	1	② ③
626-G004	Thermoplastic Double Drop Detail Stripe, White	LF	437	
626-G005	Thermoplastic Double Drop Detail Stripe, Yellow	LF	210	
626-H002	Thermoplastic Double Drop Legend, White	LF	292	
627-L001	Two-Way Yellow Reflective High Performance Raised Markers	EA	47	
630-A003	Standard Roadside Signs, Sheet Aluminum, 0.125" Thickness	SF	18	
630-A005	Standard Roadside Signs, Sheet Aluminum, 0.1" Thickness	SF	27	

- ① INCLUDES PILING FOR BULKHEADS.
- ② INCLUDES 660' TO BE USED ON BRIDGE.
- ③ IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO PROTECT THE PREFORMED JOINT MATERIAL. ANY DAMAGE CAUSED BY THE THERMOPLASTIC WILL BE REPAIRED AT NO COST TO THE STATE.


REVISED QUANTITY, ADDED OR DELETED PAY ITEMS	By	 <p>MISSISSIPPI DEPARTMENT OF TRANSPORTATION SUMMARY OF QUANTITIES</p>
	Revision	
Date	PROJ NO: BR-0008-05(038) COUNTY: TALLAHATCHIE FILENAME: SQS_105343_2019-10-07 Design Team BRELAND Checked Date 10-07-201	Working Number SQ-2 Sheet Number 10

1st O.REV.

STATE	PROJECT NO.
MISS	BR-0008-05(038)

SUMMARY OF QUANTITIES (SHEET 3)

PAY ITEM NO.	PAY ITEM	UNIT	TALLAHATCHIE : 105343-301000	
			Prelim	Final
630-C003	Steel U-Section Posts, 3.0 lb/ft	LF	60	
630-F006	Delineators, Guard Rail, White	EA	16	
630-G005	Type 3 Object Markers, OM-3R or OM-3L, Post Mounted	EA	4	
630-K002	Welded & Seamless Steel Pipe Posts, 3"	LF	15	
699-A001	Roadway Construction Stakes	LS	1	

REVISIONS REVISED QUANTITY, ADDED OR DELETED PAY ITEMS Date 07/15/2019	By	MISSISSIPPI DEPARTMENT OF TRANSPORTATION SUMMARY OF QUANTITIES	
	Revision		
		FILENAME: SQS_105343_2019-10-07 Design Team BRELAND Checked Date 10-07-201	Working Number SQ-3 Sheet Number 11

STATE	PROJECT NO.
MISS.	BR-0008-05(038)

ESTIMATED EARTHWORK QUANTITIES								
WK. SH. NUMBER	CUT	FILL	BORROW (B9-6)	BORROW ()	UNCLASSIFIED EXCAVATION	EXCAVATION		REMARKS
						EXCESS	SURPLUS	
3A	213	7732	7466		213			PHASE 1-DETOUR RD.
3			4872			4872		UNDERCUT SECTION
3	319	2642	2244		319			PHASE 2 - NEW CONSTRUCTION OF HWY. 49
3	1573	906			1133	440		PHASE 3A - WIDENING & OVERLAY
3	8586	238			298	8288		PHASE 3B - REMOVAL OF DETOUR RD. & GRADING OF SHOULDERS
			CU.YDS.		CU.YDS.	CU.YDS.		TOTAL FOR PROJECT
			14,582		1963	13,600		

S.F. = 25%

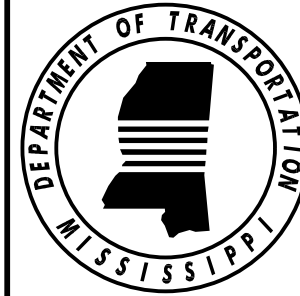
IF CUT < FILL:
UNCL = CUT
BORROW = FILL - CUT(1+S.F.)

IF CUT > FILL:
UNCL = FILL(1+S.F.)
EXCESS = CUT - FILL(1+S.F.)

ESTIMATED EROSION CONTROL ITEMS

WK. SH. NO.	DITCH LINER	CONCRETE PAVED DITCH	SOLID SOD	SEDIMENT CONTROL STONE	300* RIP RAP	GEOTEXTILE	REMARKS
3	115						STA. 371+00 TO STA. 373+50 LEFT
3	160						STA. 371+50 TO STA. 375+00 RIGHT
3	170						STA. 379+00 TO STA. 385+75 RIGHT
3		0.96	8.64				STA. 375+03(+/-) BRIDGE PAVED FLUME RT.
3		1.55	13.99				STA. 374+77(+/-) BRIDGE PAVED FLUME LT.
3		0.57	5.12				STA. 378+32(+/-) BRIDGE PAVED FLUME RT.
3		1.62	14.59				STA. 378+07(+/-) BRIDGE PAVED FLUME LT.
	SQ. YDS.	CU.YDS.	SQ. YDS.				
	445	4.70	42.34				

2/13/2019 3:26 PM RWD-EQ

MISSISSIPPI DEPARTMENT OF TRANSPORTATION		
ESTIMATED QUANTITIES		
EARTHWORK, AND EROSION CONTROL ITEMS		
U.S. HWY. 49		
PROJ. NO.: BR-0008-05(038)		
COUNTY: TALLAHATCHIE		
WORKING NUMBER	EQ-1	
SHEET NUMBER	12	
DATE	FILENAME: RWD-EQ	
DESIGN TEAM	BRELAND	CHECKED _____ DATE _____

STATE	PROJECT NO.
MISS.	BR-0008-05(038)

SIDE DRAINS										
WK. SH. NO.	STATION	LESS THAN 4% <input checked="" type="checkbox"/>				4% OR MORE <input type="checkbox"/>				REMARKS
		18"	24"	30"	36"	18"	24"	30"	36"	
3	382+90(+/-)	64								ALTERNATE PIPE
TOTALS		LIN. FT.	LIN. FT.	LIN. FT.	LIN. FT.	LIN. FT.	LIN. FT.	LIN. FT.	LIN. FT.	
		64	0	0	0	0	0	0	0	

ZINC COATED CORRUGATED METAL PIPE, 12 GAUGE (2 2/3" x 1/2") OR BITUMINOUS COATED CORRUGATED METAL PIPE, 14 GAUGE (2 2/3" x 1/2") OR ALUMINUM COATED CORRUGATED METAL PIPE, 16 GAUGE (2 2/3" x 1/2") OR REINFORCED CONCRETE PIPE, CLASS "III" OR CORRUGATED POLYETHYLENE PIPE OR POLY VINYL CHLORIDE (PVC) PIPE.

DRIVEWAYS REQUIRED									
WK. NO.	STATION	WIDTH	PAVED AREA (SQ. YDS.)	EXTRA AREA (SQ. YDS.)	ASPHALT 1.5",9.5mm MT	ASPHALT 1.5",12.5m m ST	CONCRETE (SQ. YDS.)	GRAN. MAT. CL. 3 , GRP D CU.YDS.	REMARKS
3	382+90 (+/-)	20	30.09	88.89	2.48	2.48		14.81	Left
3	384+50 (+/-)	50	111.27	0.0	9.18	9.18		0.0	Left
3	385+50(+/-)	50	111.27	0.0	9.18	9.18		0.0	Left
UNITS			SQ. YDS.	SQ. YDS.	TONS	TONS	SQ. YDS.	TONS	
TOTALS			252.63	88.89	20.84	20.84	0.0	14.81	

TEMPORARY GUARDRAIL REQUIRED							
WORK NO.	DETOUR BRIDGE STATION	SPECIAL DESIGN SHEET	GUARD RAIL	TERMINAL SECTION	BR. END SECTION TYPE "H"	WHITE DELIN.	REMARKS
3A	10+55	SDTGR-1	50	2	2	8	4 DELIN. LT, 4 DELIN. RT, 25' GUARDRAIL LT, 25' GUARDRAIL RT
3A	13+80	SDTGR-1	50	2	2	8	4 DELIN. LT, 4 DELIN. RT, 25' GUARDRAIL LT, 25' GUARDRAIL RT
UNITS			FEET	EACH	EACH	EACH	
TOTALS			100	4	4	16	

7-15-19	DATE	FILENAME: RWD-EQ	DESIGN TEAM BRELAND	CHECKED	DATE
7-15-19	DATE	ADDED TEMP. GUARDRAIL BLOCK			
	DATE	REVISED TITLE BLOCK			
	DATE	REVISION			
	DATE	CLB			
	DATE	BY			

MISSISSIPPI DEPARTMENT OF TRANSPORTATION
ESTIMATED QUANTITIES
 SIDE DRAINS & DRIVEWAYS REQ'D
 TEMP. GUARDRAIL REQ'D.
 U.S. HWY. 49
 PROJ. NO.: BR-0008-05(038)
 COUNTY: TALLAHATCHIE

WORKING NUMBER
EQ-2
 SHEET NUMBER
13

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STATE	PROJECT NO.
MISS.	BR-0008-05(038)

BRIDGE END PAVEMENT REQUIRED

WORK NO.	BRIDGE ABUT. STATION	W ₁	W ₂	W _B	W	A	B	ANGLE "Z"	PAV'MT.	TRANVERSE JOINT	33.5" RAIL	43.5" RAIL	TYPE "A" FILTER MATERIAL	TYPE "B" OR "C" FILTER MATERIAL	4" PERFORATED DRAIN PIPE	4" NON-PERFORATED DRAIN PIPE	GEOTEXTILE TYPE III FABRIC	EDGE DRAIN OUTLET	REMARKS
3	374+88.65	22.00	22.00	44.00	46.83	10.00	37.04	30	118.13	54.08	20		2.0	35.59	54	5	30	0.726	2 OUTLETS
3	378+21.35	22.00	22.00	44.00	46.83	10.00	37.04	30	118.13	54.08	20		2.0	35.59	54	5	30	0.726	2 OUTLETS
UNIT TOTAL									SQ. YD.	FEET	FEET		CU. YD.	CU. YD.	FEET	FEET	SQ. YD.	CU. YD.	
									236.26	108.16	40		4.0	71.18	108	10	60	1.452	


GUARD RAIL REQUIRED

WK. NO.	STATION	STATE STD. (INSTALL)	GUARD RAIL LENGTHS				CABLE ANCHOR TYPE "1"	TERMINAL SECTION	BRIDGE END SECTION	SINGLE DELINEATORS		REMARKS
			DIST. A	DIST. B	DIST. C	DIST. D				WHITE	YELLOW	
3	374+88.65		155.6458	112.5	68.1458	25.0		2	2	8		
3	378+21.35		155.6458	112.5	68.1458	25.0		2	2	8		
UNITS TOTALS				L. F. 225		L. F. 50	EACH 0	EACH 4	EACH 4	EACH 16	EACH 0	

COMBINATION CONCRETE CURB AND GUTTER REQUIRED

WK. NO.	STATION TO STATION		TYPE "2" MOD.	TYPE "3"	HEADER CURB	CONC. MEDIAN AND ISLAND PAV'T. (10" THICK.)	CONC. MEDIAN AND ISLAND PAV'T (4" THICK.)	REMARKS
ID-1	369+74.46	369+79.44	31.30					SOUTHEAST CORNER
ID-1	370+07.66	371+10.76	114.73					SOUTHWEST CORNER
ID-1	370+18.02	370+76.09	71.04					NORTHEAST CORNER
ID-1	371+06.36	371+16.43	37.47					NORTHWEST CORNER
ID-2	383+85.50	384+25			90.86	37.93		ISLAND A
ID-2	384+75	385+25			108.28	47.07		ISLAND B
ID-2	385+75	386+23			139.49	62.35		ISLAND C
UNITS TOTALS			L. F. 254.54	L. F. 0	L. F. 338.63	SQ. YDS. 147.35	SQ. YDS. 0.00	

REVISION	BY	MISSISSIPPI DEPARTMENT OF TRANSPORTATION
ESTIMATED QUANTITIES		
BRIDGE END PAVEMENT & GUARD RAIL REQ'D & CURB & GUTTER & ISLANDS U.S. HWY. 49		
PROJ. NO.: BR-0008-05(038)		
COUNTY: TALLAHATCHIE		
DATE	DESIGN TEAM	BRELAND
FILENAME:	RWD-EQ	
CHECKED	DATE	



WORKING NUMBER
EQ-3
SHEET NUMBER
14

STATE	PROJECT NO.
MISS.	BR-0008-05(038)

REMOVAL ITEMS

WK. SH. NO.	STATION TO STATION		CONCRETE ITEMS					MILLING	ASPHALT	ASPHALT OVER CONCRETE	TRAFFIC STRIPE	CURBS	GUARD RAIL	PIPES (ALL TYPES)	REMARKS
			PAVEMENT	DRIVEWAYS	PAVED DITCH	MEDIAN & ISLAND	SLOPE PAVING								
3	382+90												32	SIDE DRAIN UNDER RAMP	
3	373+48	375+50										202		EX. GUARDRAIL RIGHT	
3	374+48	375+50										102		EX. GUARDRAIL LEFT	
3	377+49	378+51										102		EX. GUARDRAIL RIGHT	
3	377+49	379+51										202		EX. GUARDRAIL LEFT	
3	372+00	375+50							1089					28' WIDE ASPHALT OVER CONCRETE BEFORE EX. BRIDGE	
3	377+49	381+00							1092					28' WIDE ASPHALT OVER CONCRETE AFTER EX. BRIDGE	
3	365+25	372+00					2100							BEGINNING OF PROJECT	
3	381+00	385+75					1478							END OF PROJECT	
3							880							ALMA ST. & MABRY RD.	
3	372+00	EX. BRIDGE													
3	EX. BRIDGE	381+00													
3	365+25	367+70								245					
3	365+25	370+00								475					
3	STOP BAR									36				ALMA ST.	
3	STOP BAR									40				MABRY RD.	
3	382+50	385+40								290					
3	381+85	385+40								355					
3											51			EAST SIDE OF ALMA ST.	
3											64			WEST SIDE OF ALMA ST.	
3A	0+94 (+/-)	5+78 (+/-)						892						DETOUR RD. BEFORE LOCAL ROAD	
3A	6+17 (+/-)	DETOUR BR.						1261						DETOUR RD. AFTER LOCAL ROAD TO BRIDGE	
3A	DETOUR BR.	19+44 (+/-)						1241						DETOUR RD. AFTER BRIDGE	
UNITS								SQ.YDS.	SQ.YDS.	SQ. YDS.	SQ. YDS.	LIN. FT.	LIN. FT.	LIN. FT.	
TOTALS								4458	3394	2181	1441	115	608	32	

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MISSISSIPPI DEPARTMENT OF TRANSPORTATION	
ESTIMATED QUANTITIES	
REMOVAL ITEMS	
U.S. HWY. 49	
PROJ. NO.: BR-0008-05(038)	
COUNTY: TALLAHATCHIE	
FILENAME: RWD-EQ	WORKING NUMBER
DESIGN TEAM BRELAND	EQ-4
CHECKED	SHEET NUMBER
DATE	15



1st O.REV.

STATE	PROJECT NO.
MISS.	BR-0008-05(038)

SHEET NO.	LETTERING CODE	STANDARD ROADSIDE SIGNS TO BE MOUNTED	STANDARD PIPE MOUNTING POST				U-SECTION MOUNTING POST		STRUCTURAL STEEL BARS	FOOTING CLASS "B" CONCRETE	REMARKS
			3"	3 1/2"	4"	5"	2-LBS/FT.	3-LBS/FT.			
PS-1	(A)	W8-13						2@15.00			
PS-1	(B)	R1-1	1@15.00					2@2'-6"	0.12	SIGN IN ISLAND	
PS-1	(C)	R1-1						2@15.00			
UNITS			LIN. FT.	LIN. FT.	LIN. FT.	LIN. FT.	LIN. FT.	LIN. FT.	POUNDS	CU. YDS.	
SHEET TOTALS			15					60	10	0.12	

- ① 3" POST WITH BREAK AWAY MOUNT IS REQUIRED FOR MOUNTING STOP SIGN POST INTO CONCRETE ISLAND. SEE STANDARD SN-4.A.
- ② STEEL BARS ARE TO BE WELDED FOR MOUNTING SIGN TO POST.

MISSISSIPPI DEPARTMENT OF TRANSPORTATION STANDARD ROADSIDE SIGN (POST) QUANTITIES U.S. HWY. 49 PROJ. NO.: BR-0008-05(038) COUNTY: TALLAHATCHIE	 MISSISSIPPI	WORKING NUMBER SRS-1 SHEET NUMBER 18
FILENAME: <u>RWD-EQ</u> DESIGN TEAM: <u>BRELAND</u> CHECKED: _____ DATE: _____		

PLAN DIVISION MISSISSIPPI DEPARTMENT OF TRANSPORTATION

7/17/2019 9:50 AM RWD-EQ

STATE	PROJECT NO.
MISS.	BR-0008-05(038)


STANDARD ROADSIDE SIGNS SHEET ALUMINUM 0.100" THICKNESS					
SIGN NO.	SIZE	UNIT AREA SQ. FT.	QUAN. REQ'D.	TOTAL SIGN AREA SQ. FT.	REMARKS
D10-3	12" X 48"	4.00			
D10-3A	12" X 60"	5.00			
D10-4	18" X 54"	6.75			
D10-5	18" X 60"	7.50			
M1-1	36" X 36"	9.00			
M1-1	45" X 36"	11.25			
R1-1	36" OCTAGON	9.00	3	27.00	
R1-2	48"X48"X48"	6.93			
R2-1	36" X 48"	12.00			
R3-1	36" X 36"	9.00			
R3-2	36" X 36"	9.00			
R3-4	36" X 36"	9.00			
R4-3	36" X 48"	12.00			
R5-1	36" X 36"	9.00			
R5-1A	42" X 30"	8.75			
R8-4	48" X 36"	12.00			
W1-6L	48" X 24"	8.00			
W1-6R	48" X 24"	8.00			
W1-7	48" X 24"	8.00			
W10-1	36" DIAMETER	9.00			
TOTAL (0.100" THICKNESS)				27.00	

STANDARD ROADSIDE SIGNS SHEET ALUMINUM 0.125" THICKNESS					
SIGN NO.	SIZE	UNIT AREA SQ. FT.	QUAN. REQ'D.	TOTAL SIGN AREA SQ. FT.	REMARKS
R1-1	48" OCTAGON	16.00			
R1-2	60"X60"X60"	10.83			
R2-1	48" X 60"	20.00			
R2-4A	48" X 96"	32.00			
R4-3	48" X 60"	20.00			
R4-7	36" X 48"	12.00			
R4-7	48" X 60"	20.00			
R5-1	48" X 48"	16.00			
R11-1	36" X 48"	12.00			
R11-1	48" X 60"	20.00			
W1-1L	36" X 36"	9.00			
W1-1R	36" X 36"	9.00			
W1-1L	48" X 48"	16.00			
W1-1R	48" X 48"	16.00			
W1-2L	36" X 36"	9.00			
W1-2R	36" X 36"	9.00			
W1-2L	48" X 48"	16.00			
W1-2R	48" X 48"	16.00			
W1-3L	36" X 36"	9.00			
W1-3R	36" X 36"	9.00			
W1-3L	48" X 48"	16.00			
W1-3R	48" X 48"	16.00			
W1-4L	36" X 36"	9.00			
W1-4R	36" X 36"	9.00			
W1-4L	48" X 48"	16.00			
W1-4R	48" X 48"	16.00			
W3-1A	36" X 36"	9.00			
W3-1A	48" X 48"	16.00			
W3-2A	36" X 36"	9.00			
W3-2A	48" X 48"	16.00			
W3-3	36" X 36"	9.00			
W3-3	48" X 48"	16.00			
W4-1L	36" X 36"	9.00			
W4-1R	36" X 36"	9.00			
W4-101L	48" X 48"	16.00			
W4-101R	48" X 48"	16.00			
W4-2L	36" X 36"	9.00			
W4-2R	36" X 36"	9.00			
W4-2L	48" X 48"	16.00			
W4-2R	48" X 48"	16.00			
TOTAL (0.125" THICKNESS)				18.00	

STANDARD ROADSIDE SIGNS SHEET ALUMINUM 0.125" THICKNESS					
SIGN NO.	SIZE	UNIT AREA SQ. FT.	QUAN. REQ'D.	TOTAL SIGN AREA SQ. FT.	REMARKS
W6-1	36" X 36"	9.00			
W6-1	48" X 48"	16.00			
W6-2	36" X 36"	9.00			
W6-2	48" X 48"	16.00			
W6-3	36" X 36"	9.00			
W6-3	48" X 48"	16.00			
W13-2	48" X 60"	20.00			
W13-3	48" X 60"	20.00			
W8-13	36" X 36"	9.00	2	18.00	
TOTAL (0.125" THICKNESS)				18.00	

2/13/2019 3:27 PM RWD-EQ

REVISION	BY	MISSISSIPPI DEPARTMENT OF TRANSPORTATION
DATE	DESIGN TEAM	STANDARD ROADSIDE SIGN QUANTITIES
	CHECKED	U.S. HWY. 49
	DATE	PROJ. NO.: BR-0008-05(038)
		COUNTY: TALLAHATCHIE
		WORKING NUMBER
		SRS-2
		SHEET NUMBER
		19



IMPAIRED WATER BODY
 HOPSON BAYOU IS IMPAIRED DUE TO D.D.T., ORGANIC ENRICHMENT/LOW D.O., SEDIMENT, TOTAL N & P, AND TOXAPHENE.

WETLAND SITE

TEMPORARILY FILLED	0.74	AC.
PERMANENTLY FILLED	0.00	AC.
BRIDGED		AC.

PERMANENT EROSION CONTROL ITEMS

UNITS	SYMBOL	TOTALS
S.Y.	[Symbol]	
S.Y.	[Symbol]	
C.Y.	[Symbol]	
TON	[Symbol]	
S.Y.	[Symbol]	
S.Y.	[Symbol]	
EACH	[Symbol]	

EARTHWORK TOTAL THIS SHEET

Cut	2155	Cu.Yds
Fill	3834	Cu.Yds
Excess		Cu.Yds
Surplus		Cu.Yds
Borrow		Cu.Yds

TYLER AND LAQUISHA TERRANCE
 D.B. 2014 PG. 534
 TAX PARCEL 03001
 B.M. ELEV. 156.25
 DESC. PCM 21.3' LT.
 STA. 379+65

P.C.M. ELEV. 156.250
 PT NAME: 04968052
 N. 1644488.839
 E. 2266598.249
 DESC. 1 1/2" STAMPED ALUMINUM DISK SET ON TOP 5/8"x4' REBAR

FREDNA V. PEARSON
 D.B. 2014 PG. 964
 TAX PARCEL 03004

FREDNA V. PEARSON
 D.B. 313 PG. 500
 TAX PARCEL 7.02

DIANE D. PIMPTON
 D.B. 362 PG. 172
 TAX PARCEL 03002

ALA REAL ESTATE LP
 D.B. 310 PG. 303
 D.B. 112 PG. 590
 TAX PARCEL 2.00

Curve US49_1
 $\Delta = 43^\circ 52' 33.372''$ (LT)
 $D = 2^\circ 36' 15.673''$
 $L = 1,684.715'$
 $T = 886.088'$
 $R = 2,200.000'$
 $BK N 10^\circ 05' 36.890'' W$
 $AH N 53^\circ 58' 10.262'' W$
 $PC 356+51.996$
 $PT 373+36.711$

PHASE 2 -- NEW CONSTRUCTION - HWY. 49
 PHASE 3A -- WIDENING & OVERLAY
 PHASE 3B -- REMOVAL OF DETOUR RD. & GRADING OF SHOULDERS

EARTHWORK TOTAL THIS SHEET

	PHASE 2	PHASE 3A	PHASE 3B	UNDERCUT	
Cut	319	1573	8586	4872	Cu.Yds
Fill	2642	906	238	4872	Cu.Yds
Excess					Cu.Yds
Surplus					Cu.Yds
Borrow					Cu.Yds

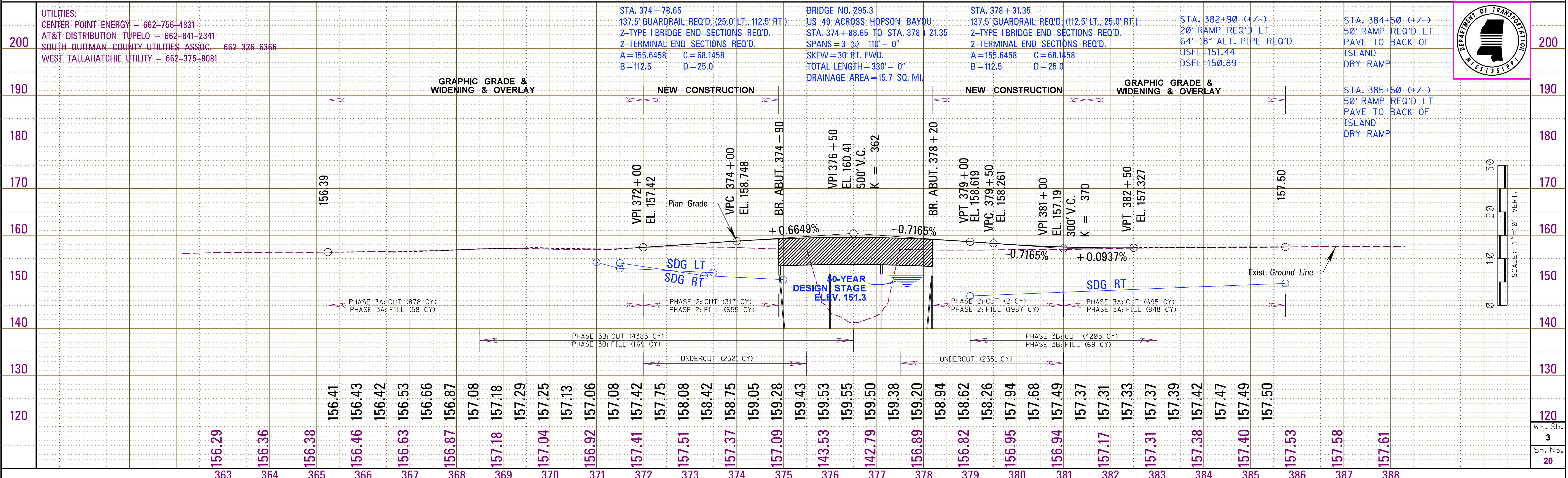
SUPER EL. 0.040 FT/FT WIDTH
 EXTRA WIDTH ON INSIDE 0 FT
 SEE XS FOR DETAILS.

P.C.M. ELEV. 156.590
 PT NAME: 04968051
 N. 1644090.316
 E. 2267216.597
 DESC. 1 1/2" STAMPED ALUMINUM DISK SET ON TOP 5/8"x4' REBAR

[Hatched Box Symbol] INDICATES REMOVAL OF PAVEMENT.

E.O.P. 385 + 75.00

U.S. HWY. 49
 DESIGN SPEED = 65
 SCALE: 1"=100' HOR.



MISSISSIPPI DEPARTMENT OF TRANSPORTATION
 ROADWAY DESIGN DIVISION
 2/13/2019 3:27:12 PM WK3.DGN

UTILITIES:
 CENTER POINT ENERGY - 662-756-4831
 AT&T DISTRIBUTION TUPELO - 662-841-2341
 SOUTH QUITMAN COUNTY UTILITIES ASSOC. - 662-326-6366
 WEST TALLAHATCHIE UTILITY - 662-375-8081

STA. 374 + 78.65
 137.5' GUARDRAIL REQ'D. (25.0' LT., 112.5' RT.)
 2-TYPE I BRIDGE END SECTIONS REQ'D.
 2-TERMINAL END SECTIONS REQ'D.
 A = 155.6458 C = 68.1458
 B = 112.5 D = 25.0

BRIDGE NO. 295.3
 US 49 ACROSS HOPSON BAYOU
 STA. 374 + 88.65 TO STA. 378 + 21.35
 SPANS = 3 @ 110' - 0"
 SKEW = 30° RT. FWD.
 TOTAL LENGTH = 380' - 0"
 DRAINAGE AREA = 15.7 SQ. MI.

STA. 378 + 31.35
 137.5' GUARDRAIL REQ'D. (112.5' LT., 25.0' RT.)
 2-TYPE I BRIDGE END SECTIONS REQ'D.
 2-TERMINAL END SECTIONS REQ'D.
 A = 155.6458 C = 68.1458
 B = 112.5 D = 25.0

STA. 382+90 (+/-)
 20' RAMP REQ'D LT
 64"-18" ALT. PIPE REQ'D
 USFL=151.44
 DSFL=150.89

STA. 384+50 (+/-)
 50' RAMP REQ'D LT
 PAVE TO BACK OF ISLAND
 DRY RAMP



WETLAND SITE		
TEMPORARILY FILLED	0.74	AC.
PERMANENTLY FILLED	0.00	AC.
BRIDGED		AC.

STATE	PROJECT NO.
MISS.	BR-0008-05(038)

REVISONS	
DATE	BY
7-15-19	CLB

IMPAIRED WATER BODY
 HOPSON BAYOU IS IMPAIRED DUE TO D.D.T., ORGANIC ENRICHMENT/LOW D.O., SEDIMENT, TOTAL N & P, AND TOXAPHENE.

PHASE I - DETOUR RD.

EARTHWORK TOTAL THIS SHEET		
Cut	213	CuYds
Fill	7732	CuYds
Excess		CuYds
Surplus		CuYds
Borrow()		CuYds

PERMANENT EROSION CONTROL ITEMS	UNITS	SYMBOL	TOTALS
DITCH LINER	S.Y.		
SOIL REINF. MATERIAL	S.Y.		
PAVED DITCH	C.Y.		
RIP RAP	TON		
GEOTEXTILE	S.Y.		
SOLID SOD	S.Y.		
TYPE "D" SILT BASIN	EACH		

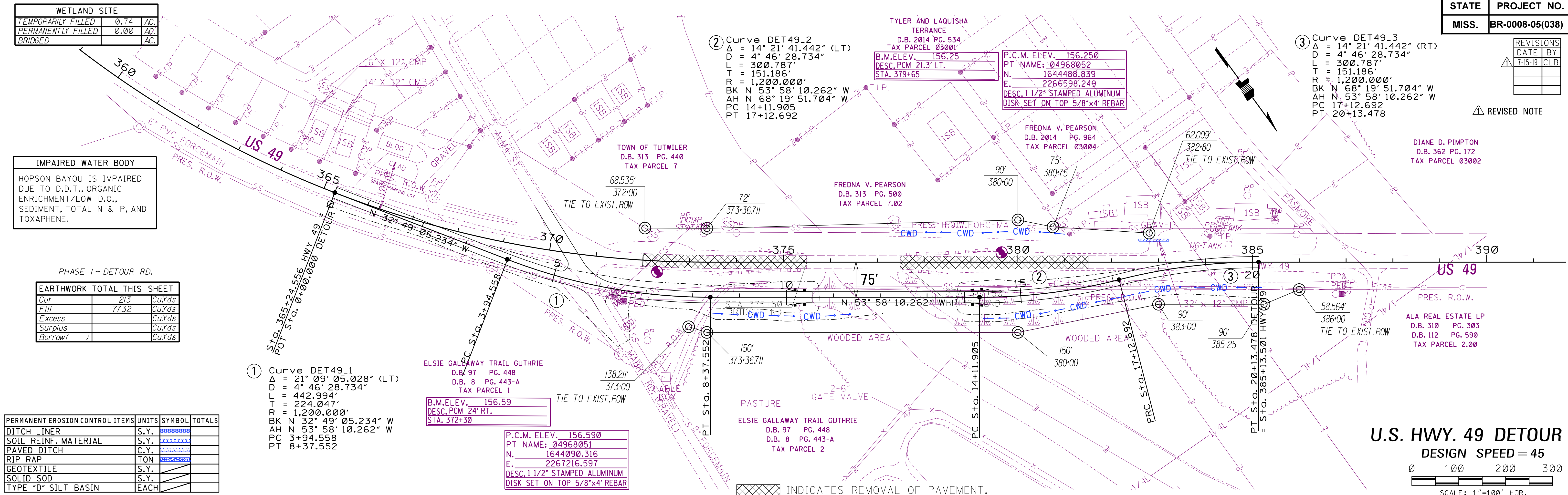
① Curve DET49.1
 $\Delta = 21^{\circ} 09' 05.028''$ (LT)
 $D = 4^{\circ} 46' 28.734''$
 $L = 442.994'$
 $T = 224.047'$
 $R = 1,200.000'$
 BK N $32^{\circ} 49' 05.234''$ W
 AH N $53^{\circ} 58' 10.262''$ W
 PC $3+94.558$
 PT $8+37.552$

② Curve DET49.2
 $\Delta = 14^{\circ} 21' 41.442''$ (LT)
 $D = 4^{\circ} 46' 28.734''$
 $L = 300.787'$
 $T = 151.186'$
 $R = 1,200.000'$
 BK N $53^{\circ} 58' 10.262''$ W
 AH N $68^{\circ} 19' 51.704''$ W
 PC $14+11.905$
 PT $17+12.692$

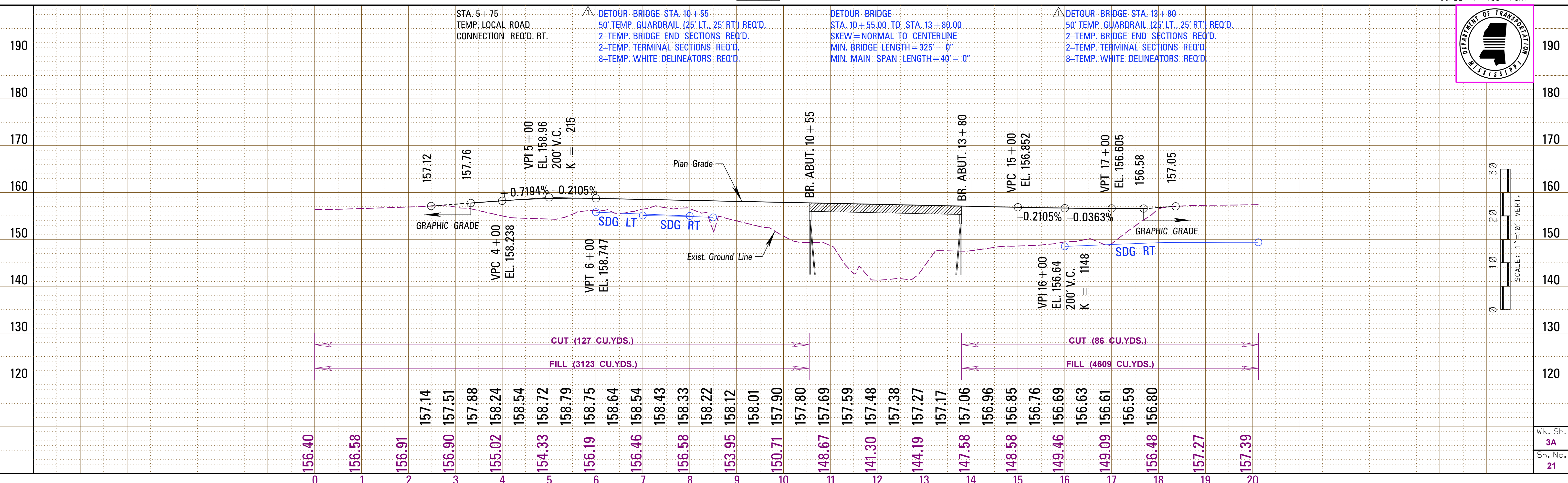
③ Curve DET49.3
 $\Delta = 14^{\circ} 21' 41.442''$ (RT)
 $D = 4^{\circ} 46' 28.734''$
 $L = 300.787'$
 $T = 151.186'$
 $R = 1,200.000'$
 BK N $68^{\circ} 19' 51.704''$ W
 AH N $53^{\circ} 58' 10.262''$ W
 PC $17+12.692$
 PT $20+13.478$

▲ REVISED NOTE

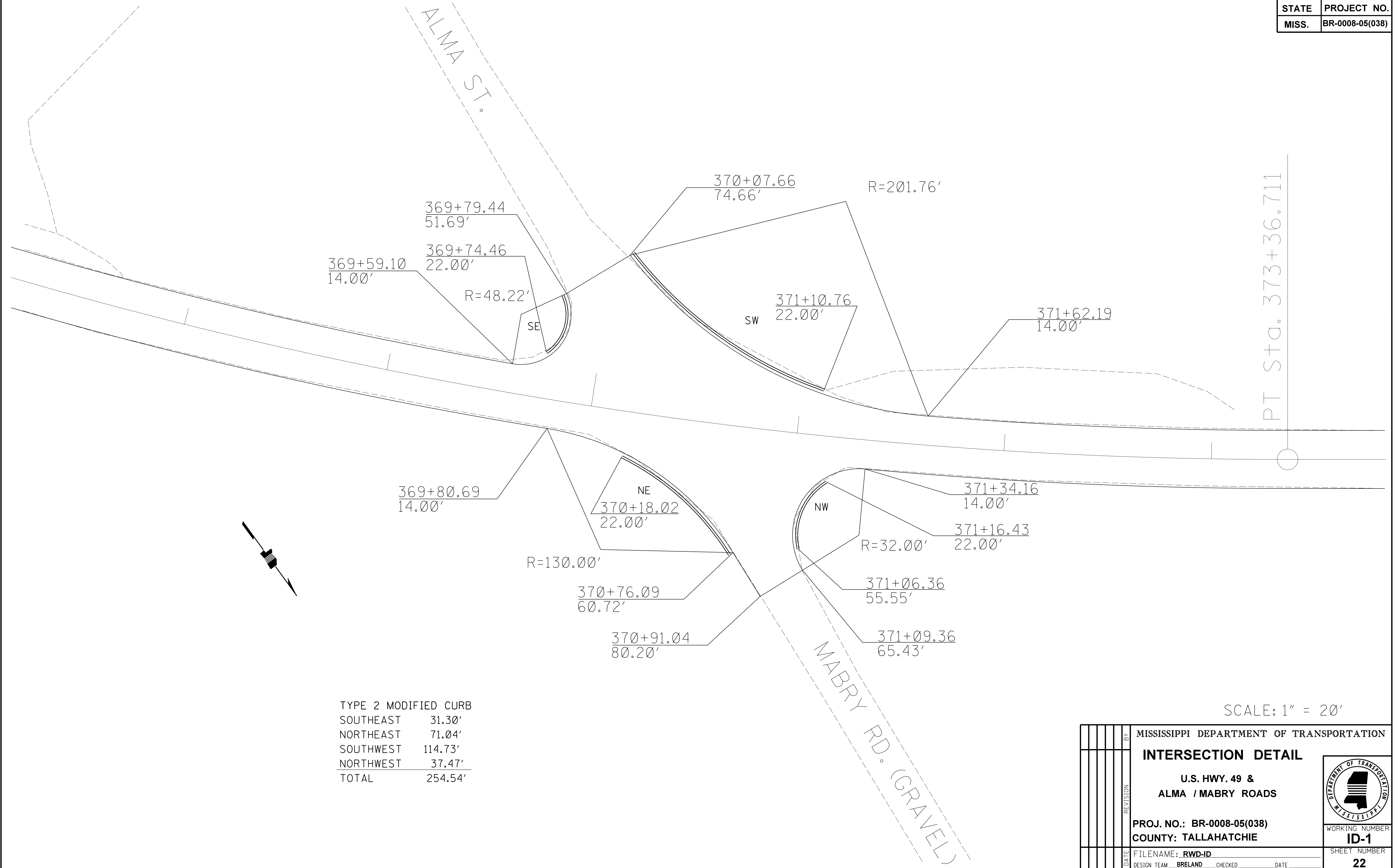
7/15/2019 7:21:27 AMWK3A.DGN



U.S. HWY. 49 DETOUR
 DESIGN SPEED = 45
 SCALE: 1"=100' HOR.



STATE	PROJECT NO.
MISS.	BR-0008-05(038)



TYPE 2 MODIFIED CURB

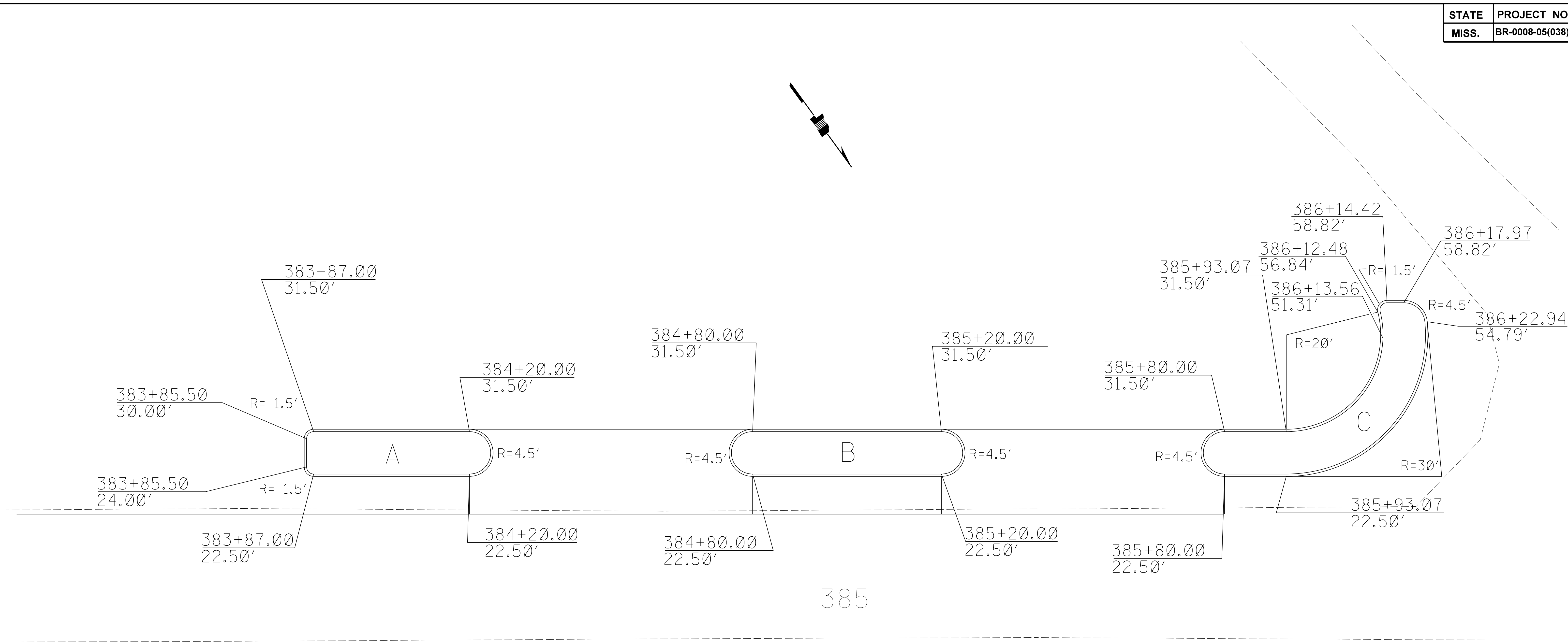
SOUTHEAST	31.30'
NORTHEAST	71.04'
SOUTHWEST	114.73'
NORTHWEST	37.47'
TOTAL	254.54'

SCALE: 1" = 20'

MISSISSIPPI DEPARTMENT OF TRANSPORTATION	
INTERSECTION DETAIL	
U.S. HWY. 49 & ALMA / MABRY ROADS	
PROJ. NO.: BR-0008-05(038)	
COUNTY: TALLAHATCHIE	
DATE	FILENAME: <u>RWD-ID</u>
DESIGN TEAM	BRELAND
CHECKED	DATE
WORKING NUMBER	ID-1
SHEET NUMBER	22

2/13/2019 3:27 PM RWD-ID MISSISSIPPI DEPARTMENT OF TRANSPORTATION PLAN DIVISION

2/13/2019 3:27 PM RWD-ID



CONCRETE
10" THICKNESS
A. 341.35 SF
B. 423.61 SF
C. 561.15 SF
1326.11 SF =
147.35 SY

HEADER CURB AROUND ISLAND
A. 90.86'
B. 108.28'
C. 139.49'
338.63'

SCALE: 1" = 10'

MISSISSIPPI DEPARTMENT OF TRANSPORTATION	
INTERSECTION DETAIL	
U.S. HWY. 49 ISLAND DIMENSIONS	
PROJ. NO.: BR-0008-05(038)	
COUNTY: TALLAHATCHIE	
DATE	FILENAME: RWD-ID
DESIGN TEAM	BRELAND
CHECKED	DATE
REVISION	BY
WORKING NUMBER	ID-2
SHEET NUMBER	23



STATE	PROJECT NO.
MISS.	BR-0008-05(038)

RIGHT OF WAY MARKERS

ROW	MARKER NAME / STAMP MARKER AS:	ALIGNMENT	STATION	OFFSET	NORTHING	EASTING
105343-301000-100		US49	372+00.000	-68.535	1643999.384	2267183.027
105343-301000-101		US49	373+00.000	138.211	1644224.556	2267231.374
105343-301000-102		US49	373+36.711	-72.000	1644077.770	2267076.364
105343-301000-103		US49	373+36.711	150.000	1644257.302	2267206.948
105343-301000-104		US49	380+00.000	-90.000	1644453.370	2266529.371
105343-301000-105		US49	380+00.000	150.000	1644647.459	2266670.543
105343-301000-106		US49	380+75.000	-75.000	1644509.617	2266477.542
105343-301000-107		US49	382+80.000	-62.009	1644640.707	2266319.399
105343-301000-108		US49	383+00.000	90.000	1644775.402	2266392.639
105343-301000-109		US49	385+25.000	90.000	1644907.750	2266210.680
105343-301000-110		US49	386+00.000	58.564	1644926.444	2266131.536

IF MARKERS FIELD LOCATION IS DIFFERENT THAN SHOWN IN THIS TABLE , ENTER THE CORRECT VALUES IN THE LINE BELOW THE MARKER AND THEN PLACE A LINE THROUGH INCORRECT VALUES.

GPS CONTROL NOTES

HORIZONTAL DATUM: NAD 83 MS WEST ZONE (2301) US SURVEY FEET

HORIZONTAL MONUMENT	NORTH	EAST
49GPS	1639878.80	2268596.49
DUBAZ	1663032.43	2251904.93
TUTRM1	1641434.19	2268156.70
P5	1680517.12	2239211.87


VERTICAL DATUM: NAVD 88 (US SURVEY FEET)

VERTICAL MONUMENT	ELEVATION
49GPS	148.90
0161	155.94

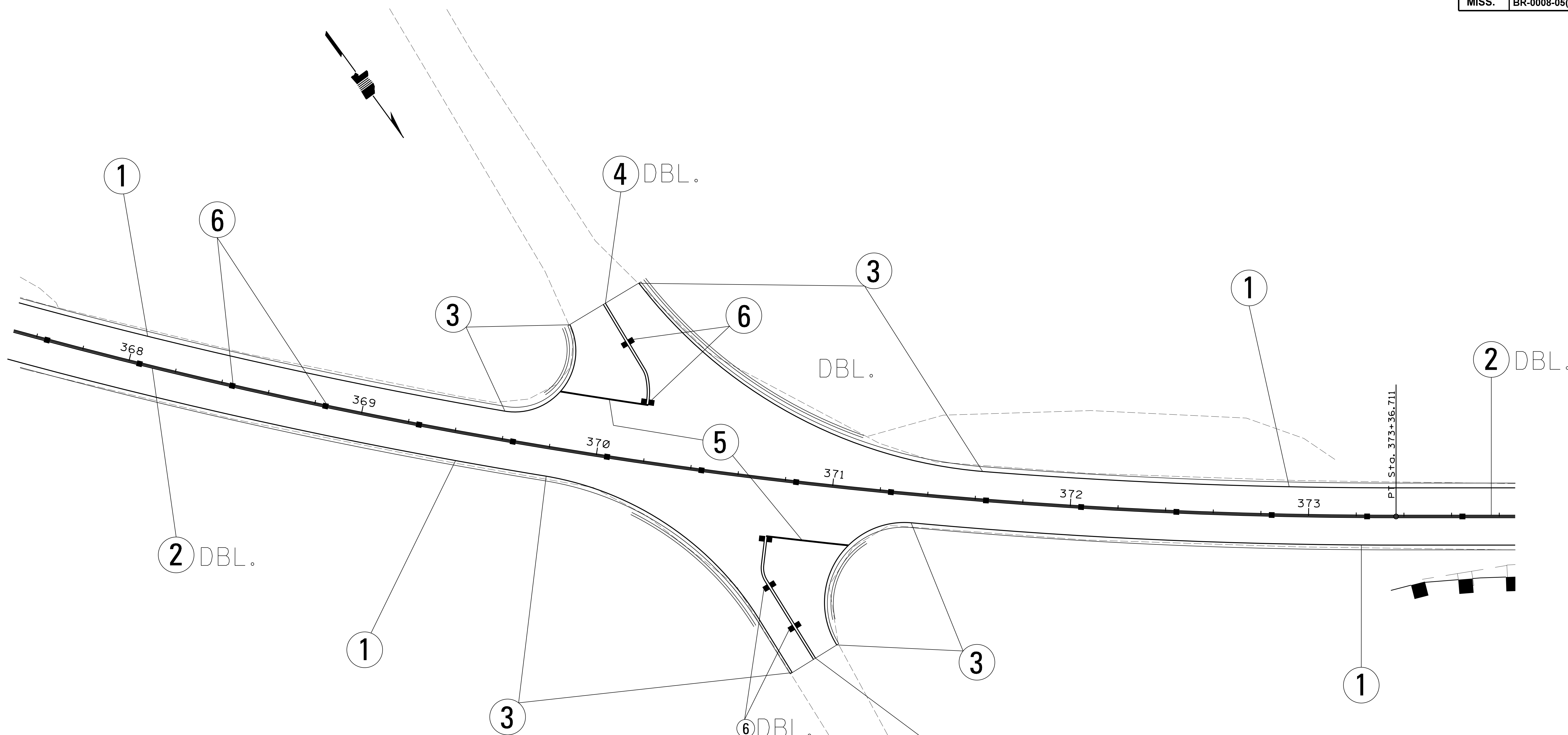
ALL AZIMUTHS AND DISTANCES ARE GRID VALUES, US SURVEY FEET THE FOLLOWING VALUES WERE CALCULATED AT A FOUND 1" PIPE, LOCATED AT THE SOUTHWEST CORNER OF THE NORHTWEST QUARTER OF SECTION 29, TOWNSHIP 25 NORTH, RANGE 2 WEST

CONVERSION VALUES	PROJECT AVERAGE
GROUND TO GRID (COMBINED) FACTOR	0.999947665
GRID TO GEODETIC AZIMUTH	(-)00°03'21.60108"

2/13/2019 3:27 PM RCS-49.DGN PLAN DIVISION MISSISSIPPI DEPARTMENT OF TRANSPORTATION

REVISION	BY	MISSISSIPPI DEPARTMENT OF TRANSPORTATION	
		<h2 style="text-align: center;">RIGHT-OF-WAY MARKERS</h2> <h3 style="text-align: center;">COORDINATE SHEET</h3> <p style="text-align: center;">U.S. HWY. 49</p> <p>PROJ. NO.: BR-0008-05(038)</p> <p>COUNTY: TALLAHATCHIE</p>	
DATE		FILENAME: RCS-49.dgn	
DESIGN TEAM	BRELAND	CHECKED	
			WORKING NUMBER
			RCS-1
			SHEET NUMBER
			24

2/13/2019 3:27 PM RWD-PMD




INCLUDES STA. 365+25 TO STA. 385+86

PAVEMENT MARKING

SYMBOL	DESCRIPTION	TYPE	QUANTITY
①	EDGE STRIPE (CONT. WHITE)	PLASTIC	3796'
②	TRAFFIC STRIPE (CONT. YELLOW)	PLASTIC	4152'
③	DETAIL STRIPE (WHITE)	PLASTIC	437'
④	DETAIL STRIPE (YELLOW)	PLASTIC	210'
⑤	LEGEND (WHITE) 24" STOP BAR	PLASTIC	292'
⑥	TWO-WAY RAISED YELLOW MARKERS*	EACH	47

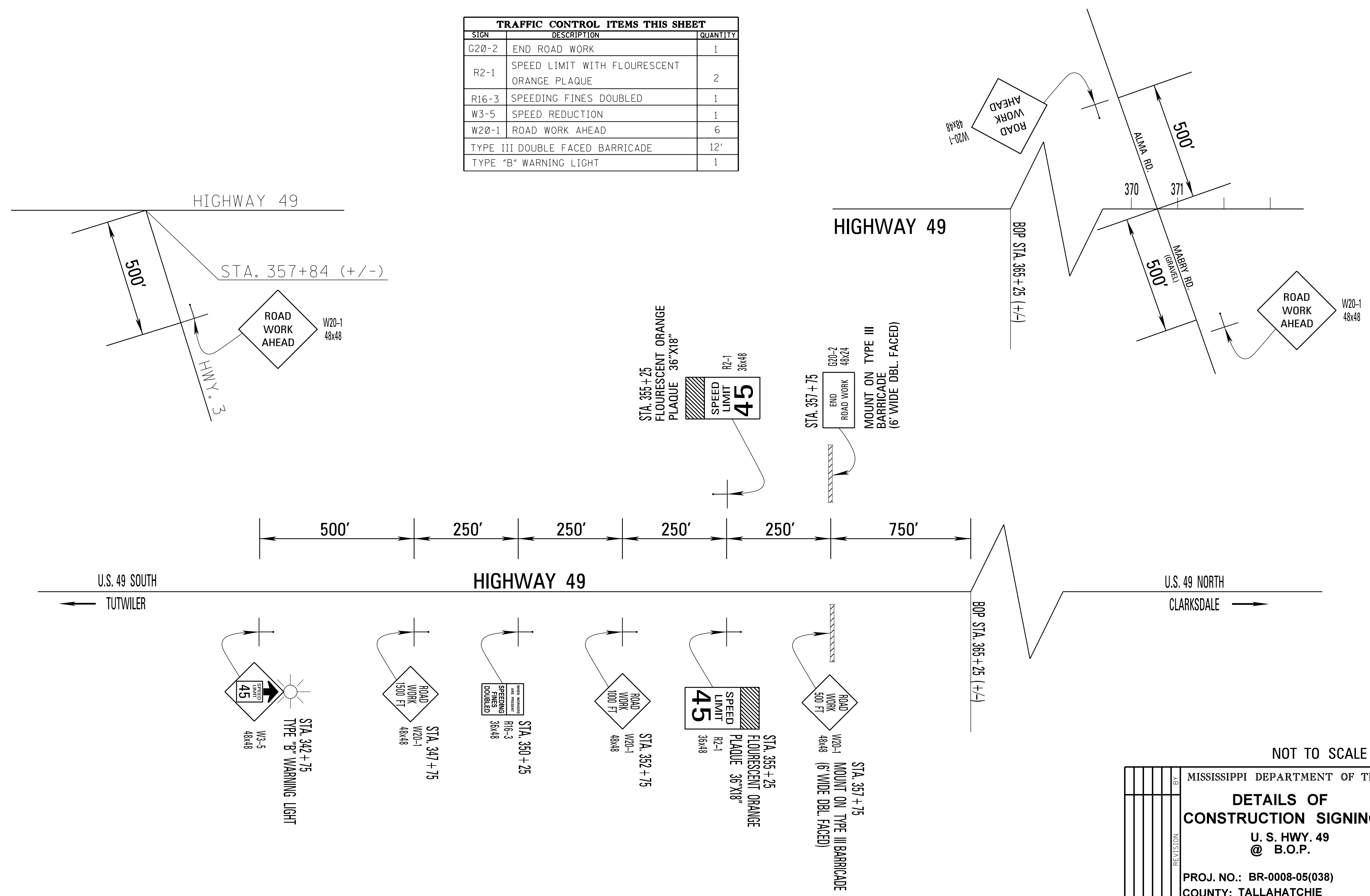
* NOTE: 40' CENTER TO CENTER IN CURVES
80' CENTER TO CENTER IN TANGENTS

SCALE: 1" = 20'

REVISION	BY	MISSISSIPPI DEPARTMENT OF TRANSPORTATION PERMANENT PAVEMENT MARKING U.S. HWY. 49 PROJ. NO.: BR-0008-05(038) COUNTY: TALLAHATCHIE FILENAME: RWD-PMD DESIGN TEAM BRELAND CHECKED DATE	 WORKING NUMBER PMD-1 SHEET NUMBER 25
DATE			

STATE	PROJECT NO.
MISS.	

TRAFFIC CONTROL ITEMS THIS SHEET		
SIGN	DESCRIPTION	QUANTITY
G20-2	END ROAD WORK	1
R2-1	SPEED LIMIT WITH FLOURESCENT ORANGE PLAQUE	2
R16-3	SPEEDING FINES DOUBLED	1
W3-5	SPEED REDUCTION	1
W20-1	ROAD WORK AHEAD	6
	TYPE III DOUBLE FACED BARRICADE	12'
	TYPE "B" WARNING LIGHT	1

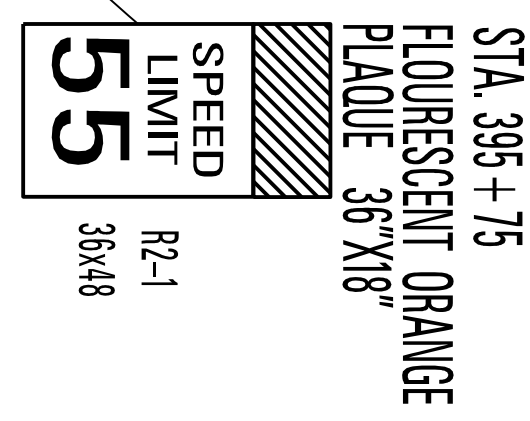
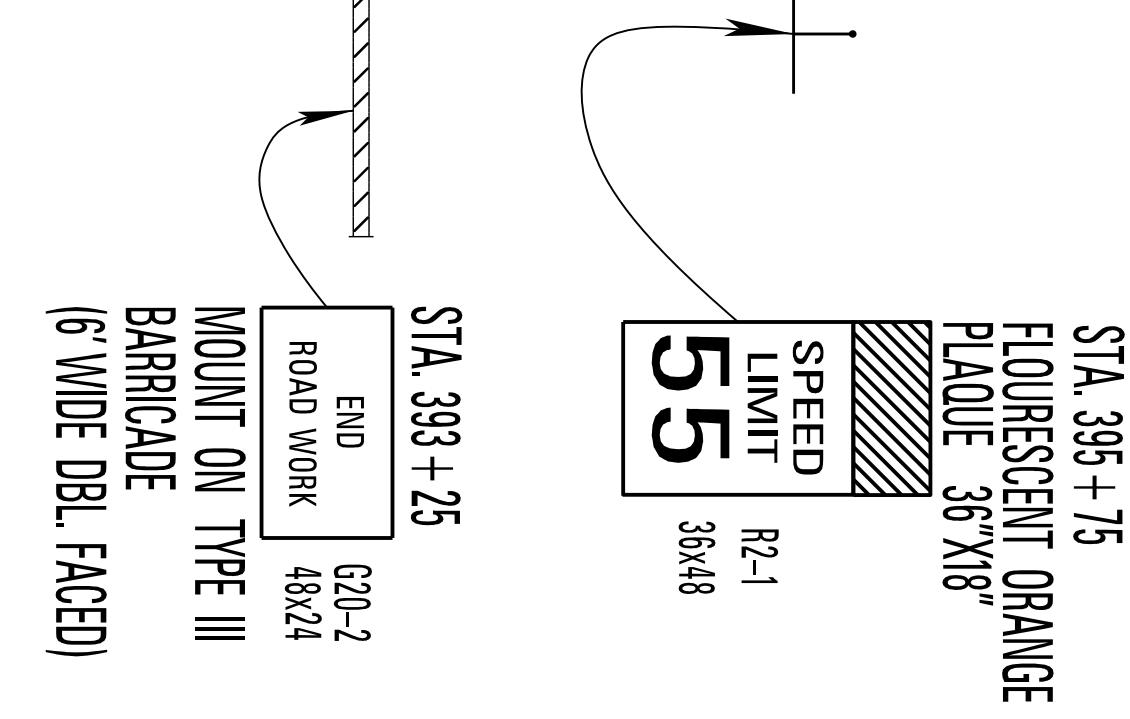
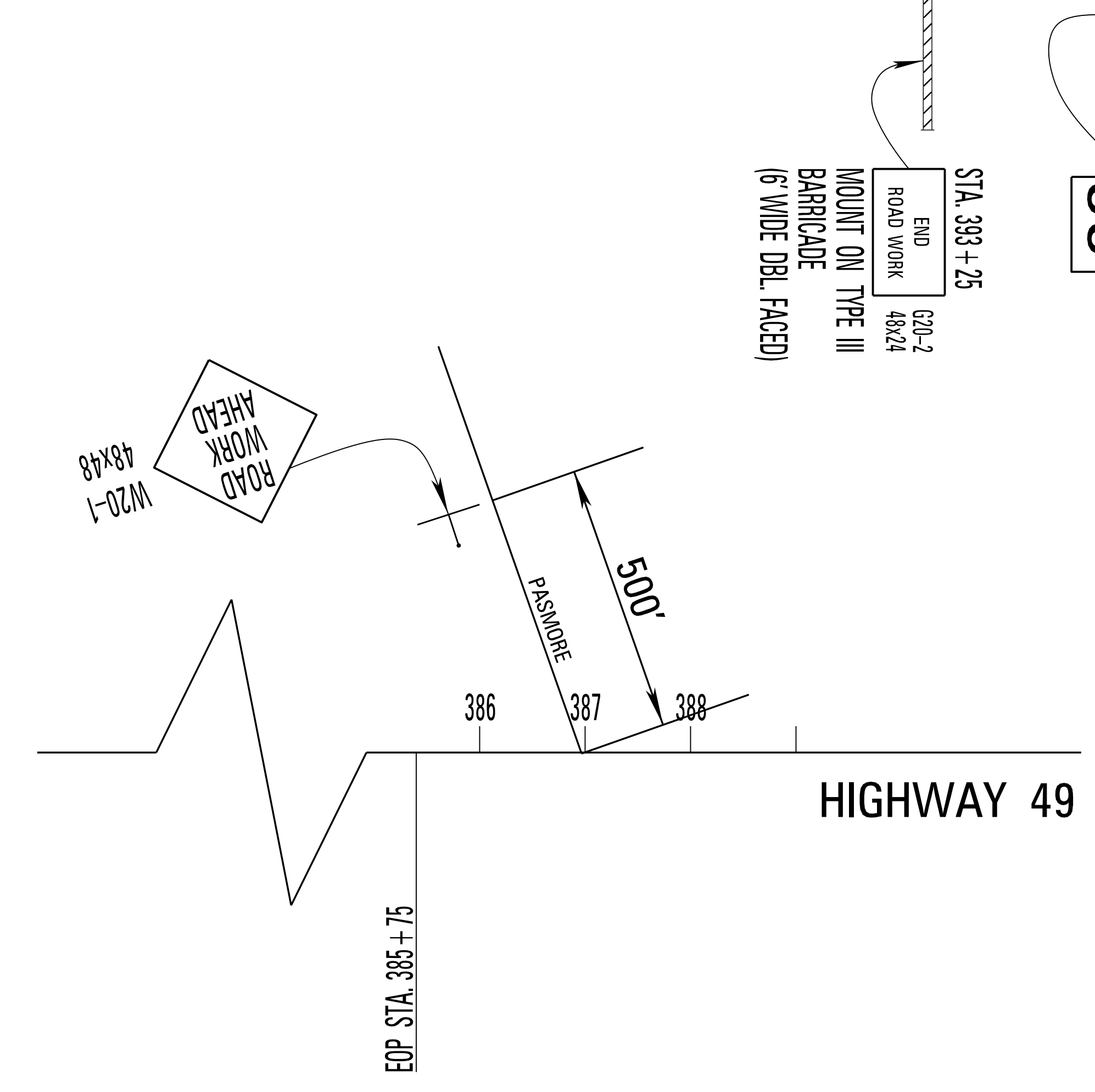
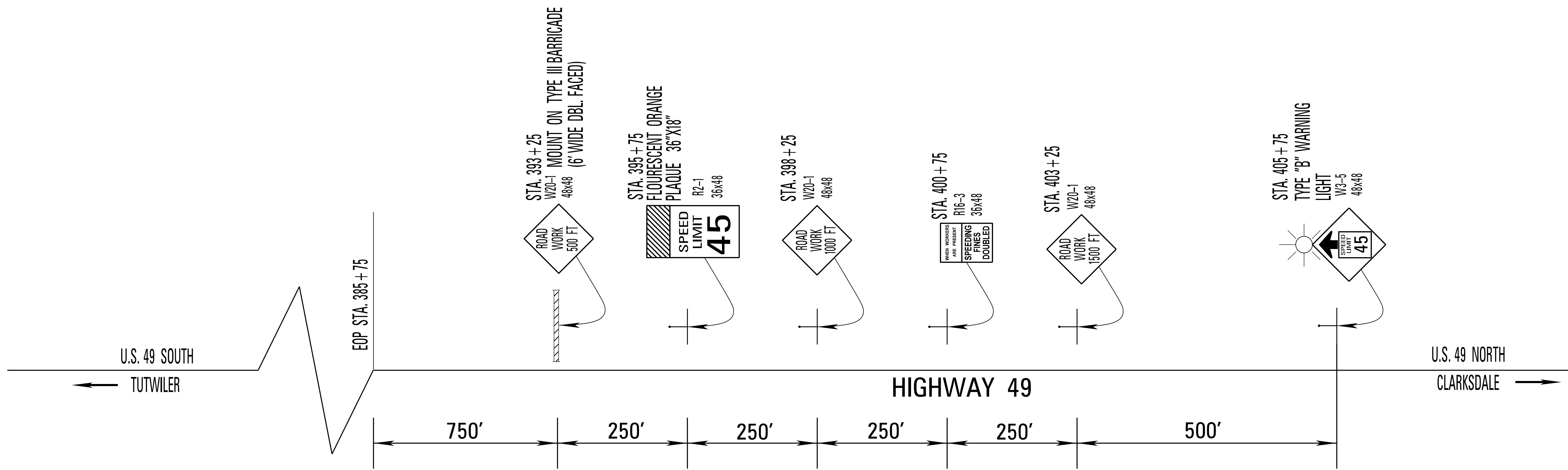


2/13/2019 3:27 PM RMD-DCS

NOT TO SCALE

MISSISSIPPI DEPARTMENT OF TRANSPORTATION	
DETAILS OF CONSTRUCTION SIGNING	
U. S. HWY. 49 @ B.O.P.	
PROJ. NO.: BR-0008-05(038)	
COUNTY: TALLAHATCHIE	
FILENAME: RWD-DCS	WORKING NUMBER DCS-1
DESIGN TEAM: BRELAND	CHECKED: WALDON DATE: 11-7-2018
DATE	SHEET NUMBER 26





TRAFFIC CONTROL ITEMS THIS SHEET		
SIGN	DESCRIPTION	QUANTITY
G20-2	END ROAD WORK	1
R2-1	SPEED LIMIT WITH FLOURESCENT ORANGE PLAQUE	2
R16-3	SPEEDING FINES DOUBLED	1
W3-5	SPEED REDUCTION	1
W20-1	ROAD WORK AHEAD	4
	TYPE III DOUBLE FACED BARRICADE	12'
	TYPE "B" WARNING LIGHT	1

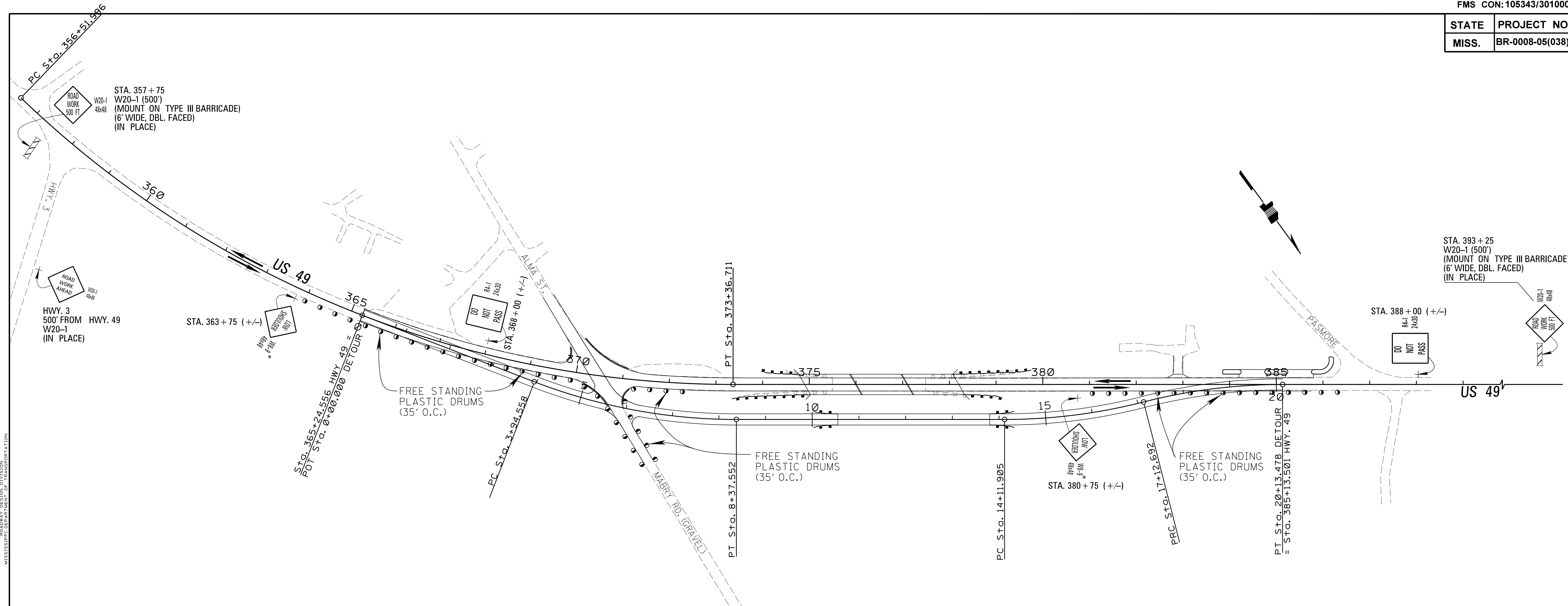
NOT TO SCALE

MISSISSIPPI DEPARTMENT OF TRANSPORTATION	
DETAILS OF CONSTRUCTION SIGNING	
U. S. HWY. 49 @ E.O.P.	
PROJ. NO.: BR-0008-05(038)	
COUNTY: TALLAHATCHIE	
DATE	FILENAME: RWD-DCS
DESIGN TEAM	BRELAND
CHECKED	WALDON
DATE	11-7-2018

WORKING NUMBER
DCS-2

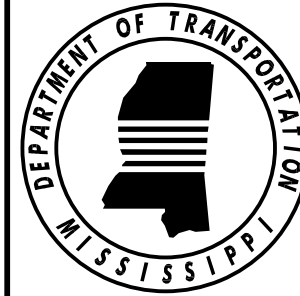
SHEET NUMBER
27

STATE	PROJECT NO.
MISS.	BR-0008-05(038)



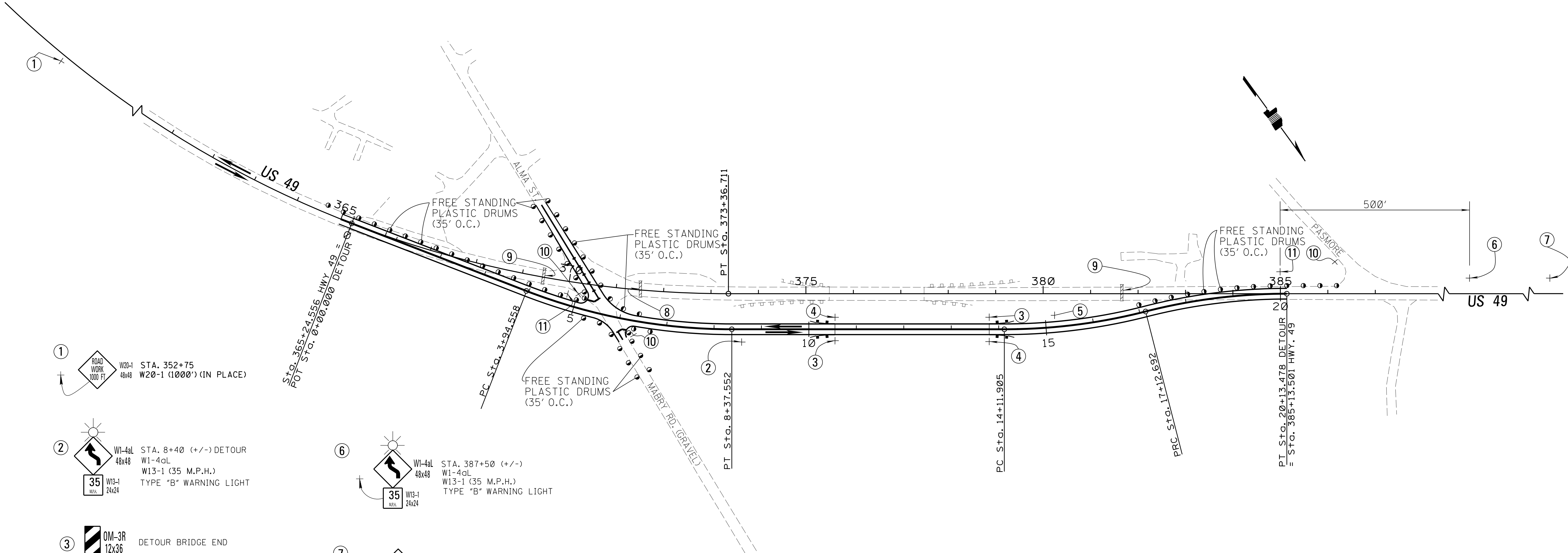
2 --- R4-1
 2 --- W8-9*
 3 --- W20-1 (IN PLACE)
 50 - DRUMS PLACED AT 35' O.C.
 DIRECTION OF TRAFFIC →
 * REQUIRED WHEN PAVEMENT EDGE DROP-OFF EXCEEDS 1/2". SHALL BE COVERED OR REMOVED WHEN NOT IN USE.

SCALE: 1" = 100'

MISSISSIPPI DEPARTMENT OF TRANSPORTATION TRAFFIC CONTROL PLAN PHASE 1 & 3 DRUM & SIGN PLACEMENT U.S. HWY. 49 PROJ. NO.: BR-0008-05(038) COUNTY: TALLAHATCHIE		 WORKING NUMBER TC-1 SHEET NUMBER 28
FILENAME: RWD-TCPph1&3.dgn DESIGN TEAM: BRELAND CHECKED: WALDON DATE: 11-7-2018	DATE: _____ REVISION: _____ BY: _____	

2/13/2019 3:27 PM RWD-TCPPH1&3.DGN
 PLAN DIVISION
 MISSISSIPPI DEPARTMENT OF TRANSPORTATION

ROADWAY PLAN DIVISION MISSISSIPPI DEPARTMENT OF TRANSPORTATION
2/13/2019 3:27 PM RWD-TCPPH2.dgn



① ROAD WORK 1000 FT W20-1 (1000') (IN PLACE)
W20-1 48x48
STA. 352+75

② W1-4aL STA. 8+40 (+/-) DETOUR
W1-4aL 48x48
W13-1 (35 M.P.H.)
TYPE "B" WARNING LIGHT
W13-1 24x24
35

③ OM-3R DETOUR BRIDGE END
12x36

④ OM-3L DETOUR BRIDGE END
12x36

⑤ W1-2R STA. 15+20 (+/-) DETOUR
W1-2R 48x48
W13-1 (35 M.P.H.)
TYPE "B" WARNING LIGHT
W13-1 24x24
35

⑥ W1-4aL STA. 387+50 (+/-)
W1-4aL 48x48
W13-1 (35 M.P.H.)
TYPE "B" WARNING LIGHT
W13-1 24x24
35

⑦ ROAD WORK 1000 FT W20-1 (1000') (IN PLACE)
W20-1 48x48
STA. 398+25
ADD:
TYPE "B" WARNING LIGHT

⑧ ROAD CLOSED R11-2
R11-2 48x30
W1-6R 48x24
STA. 373+00 (+/-)
R11-2
W1-6L
MOUNT ON 24' BARRICADE
TYPE III (S.F.)

⑨ ROAD CLOSED R11-2
R11-2 48x30
W1-6L 48x24
STA. 381+65 (+/-)
R11-2
W1-6L
MOUNT ON 24' BARRICADE
TYPE III (S.F.)

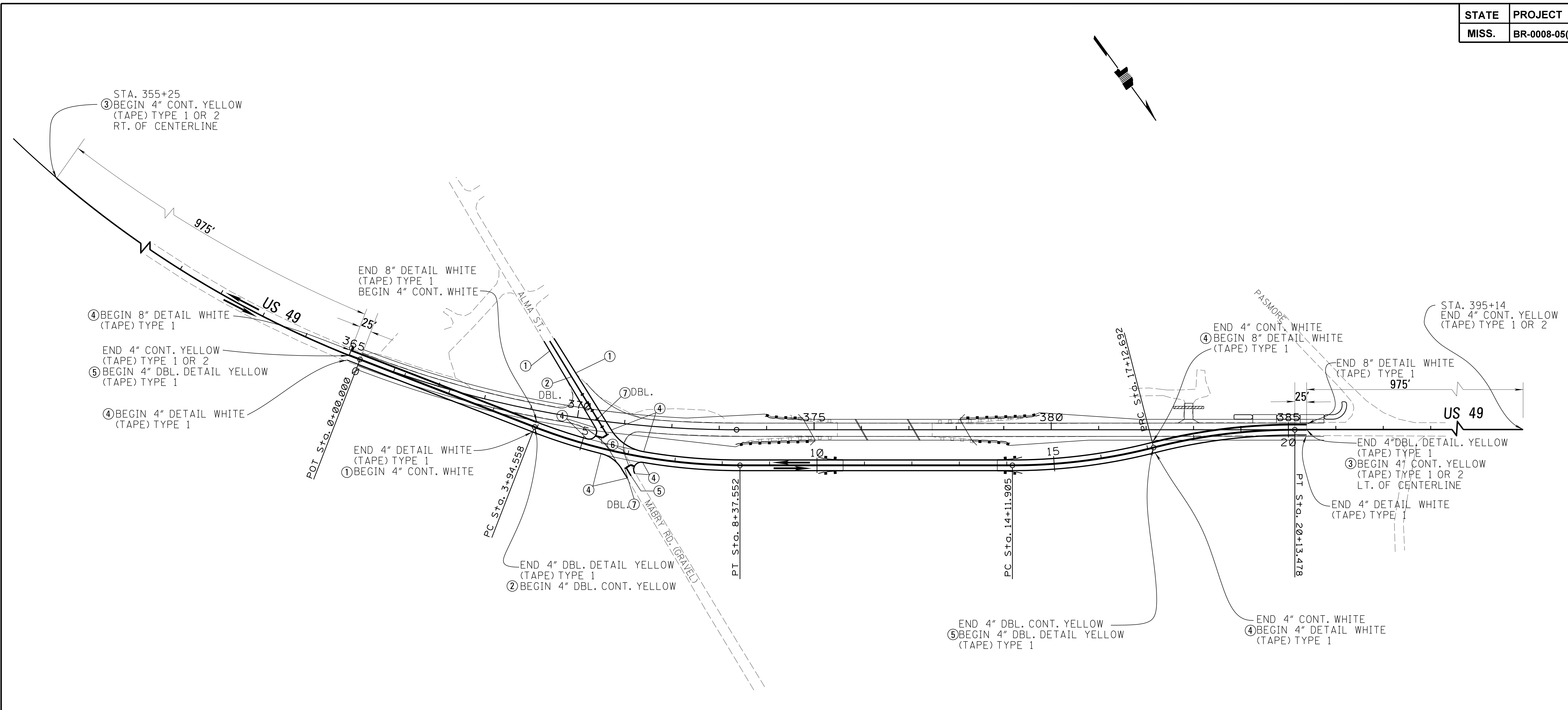
⑩ STOP R1-1
R1-1 36" OCTAGON
PLACE AT CORNERS OF
ALMA ST.
MABRY RD.
PASMORE

⑪ LOW SHOULDER W8-9
W8-9 48x48
W8-9
STA. 4+75 (DETOUR)
STA. 20+00 (DETOUR)

- 2 --- OM-3L
 - 2 --- OM-3R
 - 3 --- R1-1
 - 3 --- R11-2
 - 1 --- W1-2R
 - 2 --- W1-4aL
 - 2 --- W1-6L
 - 1 --- W1-6R
 - 2 --- W8-9
 - 3 --- W13-1
 - 2 --- W20-1 (IN PLACE)
 - 3 --- TYPE "B" WARNING LIGHTS
 - 72 --- TYPE III BARRICADE (S.F.)
 - 60 - DRUMS PLACED AT 35' O.C.
- DIRECTION OF TRAFFIC →
- * REQUIRED WHEN PAVEMENT EDGE DROP-OFF EXCEEDS 112". SHALL BE COVERED OR REMOVED WHEN NOT IN USE.

SCALE: 1" = 100'

MISSISSIPPI DEPARTMENT OF TRANSPORTATION	
TRAFFIC CONTROL PLAN	
PHASE 2	
TRAFFIC CONTROL SIGNS & DRUM PLACEMENT	
U.S. HWY. 49	
PROJ. NO.: BR-0008-05(038)	
COUNTY: TALLAHATCHIE	
FILENAME: RWD-TCPh2.dgn	WORKING NUMBER TC-2
DESIGN TEAM: BRELAND	CHECKED: WALDON
DATE: 11-7-2018	DATE: 11-7-2018
SHEET NUMBER 29	



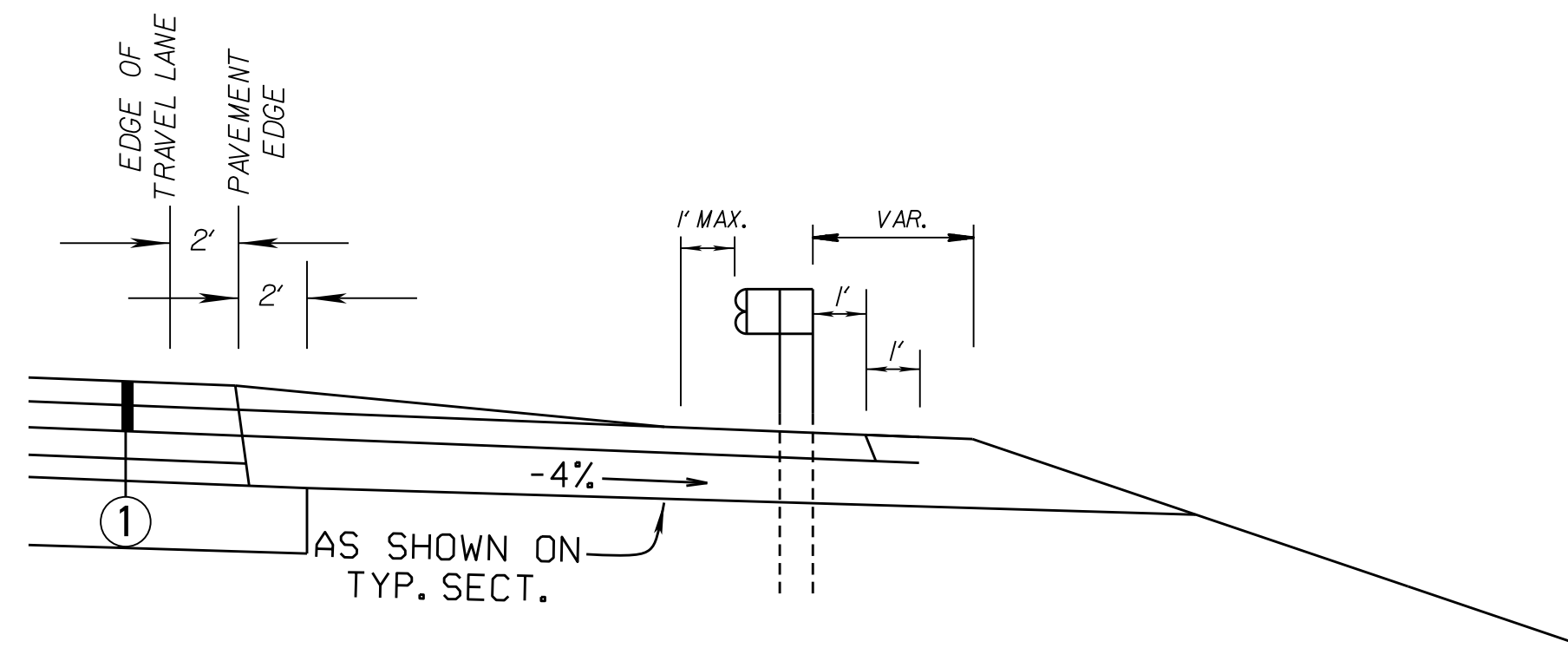
DIRECTION OF TRAFFIC →

TEMP. PAVEMENT MARKING			
	DESCRIPTION	TYPE	QUANTITY
①	TEMP. TRAFFIC STRIPE (CONT. WHITE)	TAPE	2866'
②	TEMP. TRAFFIC STRIPE (CONT. YELLOW)	TAPE	3100'
③	TEMP. TRAFFIC STRIPE (CONT. YELLOW)	TAPE, TYPE 1 OR 2	1950'
④	TEMP. TRAFFIC STRIPE (DETAIL)(WHITE)	TAPE, TYPE I	2474'
⑤	TEMP. TRAFFIC STRIPE (DETAIL)(YELLOW)	TAPE, TYPE I	1530'
⑥	TEMP. TRAFFIC STRIPE (LEGEND) (16")	TAPE	196'
⑦	2-WAY RAISED YELLOW MARKERS	EACH	52

SCALE: 1" = 100'

MISSISSIPPI DEPARTMENT OF TRANSPORTATION	
TRAFFIC CONTROL PLAN	
PHASE 2	
TEMP. PAVEMENT MARKING PLACEMENT	
U.S. HWY. 49	
PROJ. NO.: BR-0008-05(038)	
COUNTY: TALLAHATCHIE	
DATE	FILENAME: RWD-TCPph2.dgn
DESIGN TEAM	BRELAND
CHECKED	WALDON
DATE	11-7-2018
WORKING NUMBER	
TC-3	
SHEET NUMBER	
30	

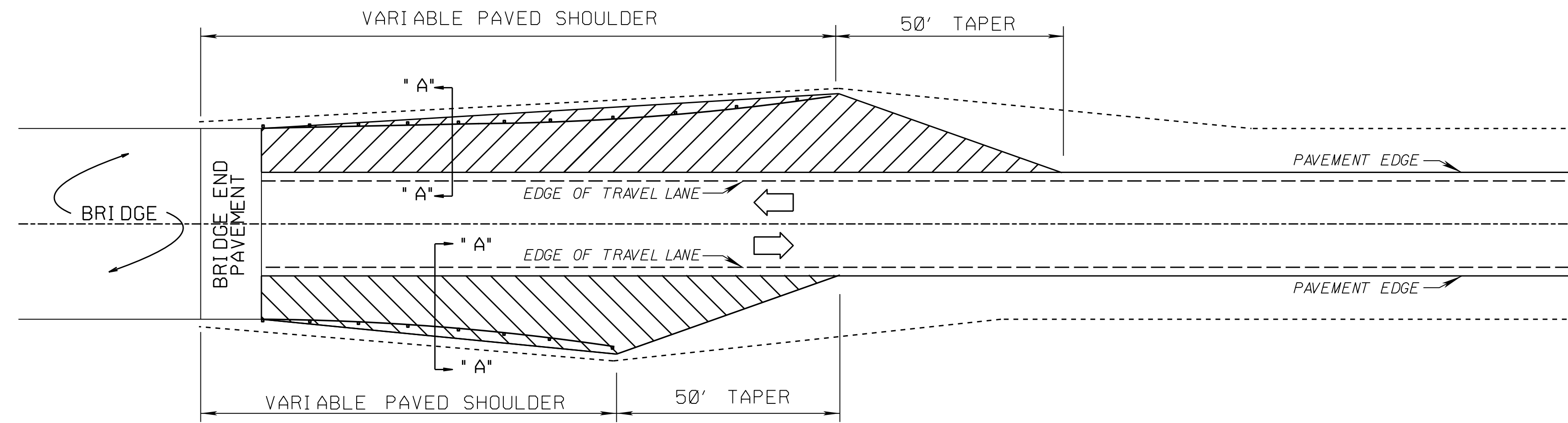
2/13/2019 3:27 PM RWD-TCPph2.dgn



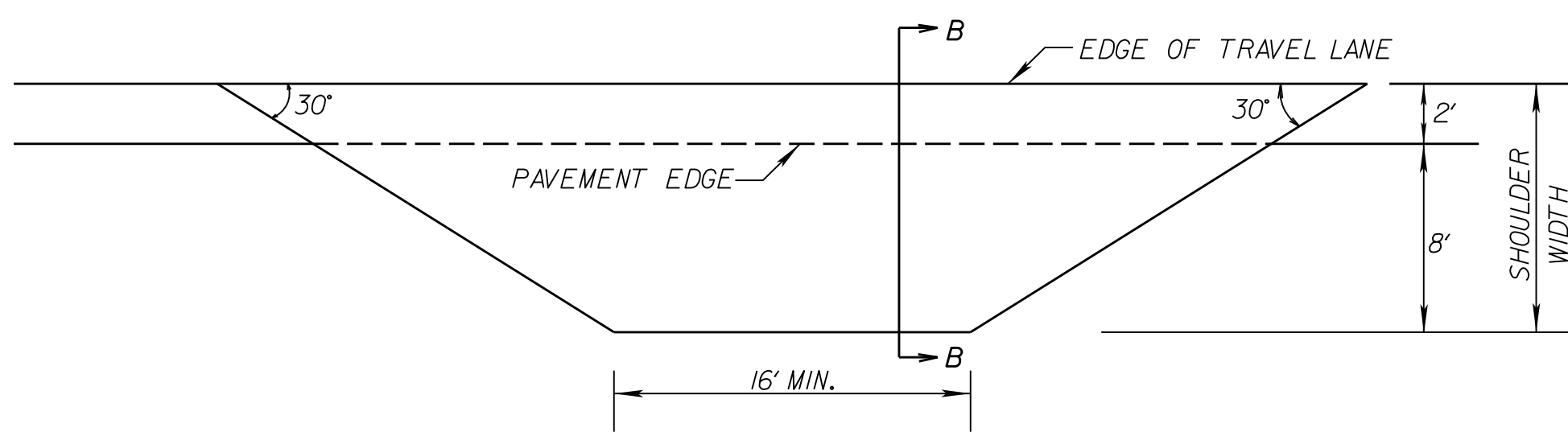
SECTION A-A

① TOP 2 LIFTS OF ASPHALT AS SHOWN ON TYPICAL SECTION.

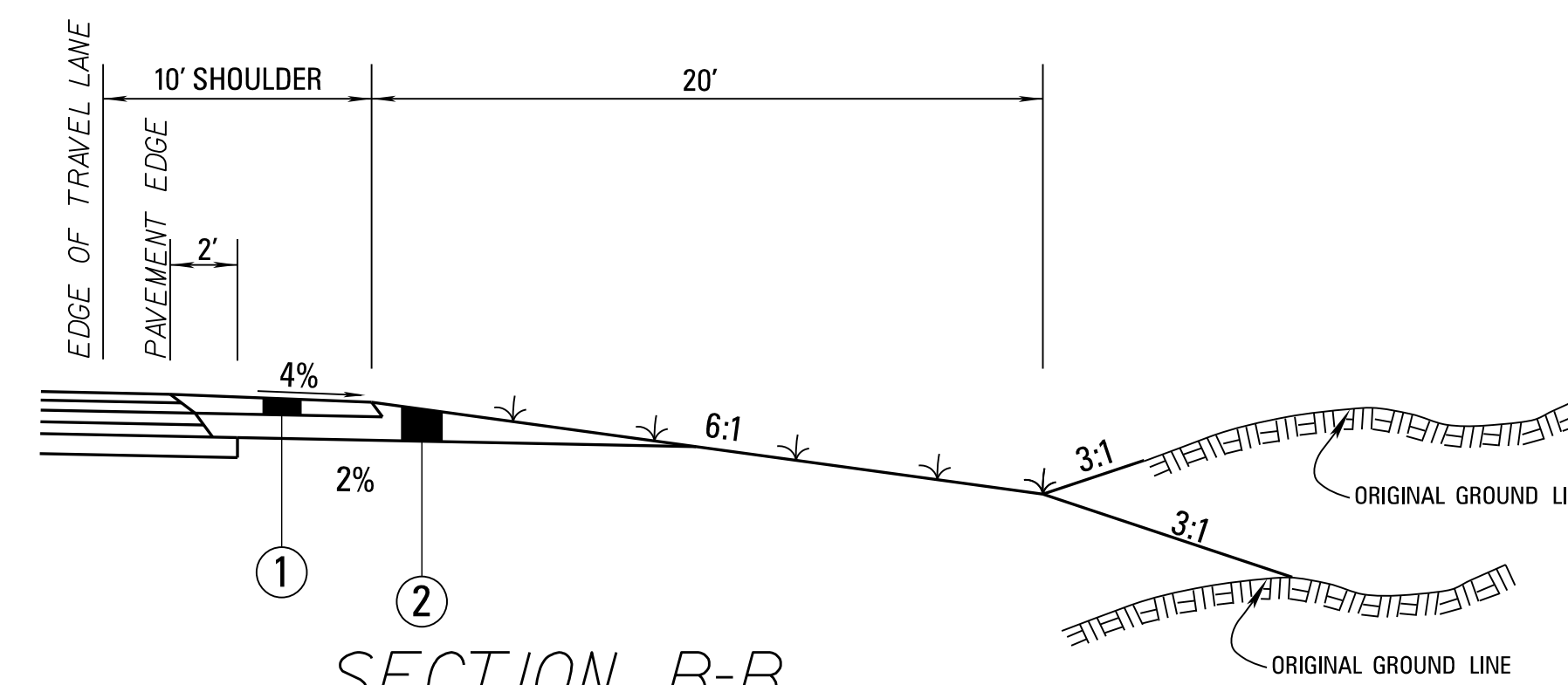
- NOTE
- DOES NOT APPLY TO OGFC.
 - MAY BE MODIFIED AS DIRECTED BY THE ENGINEER.



DETAIL OF PAVED SHOULDERS AT BRIDGE ENDS
 SEE SECTION "A" - "A"



DETAIL OF PAVED APRON
 SEE SECTION B-B



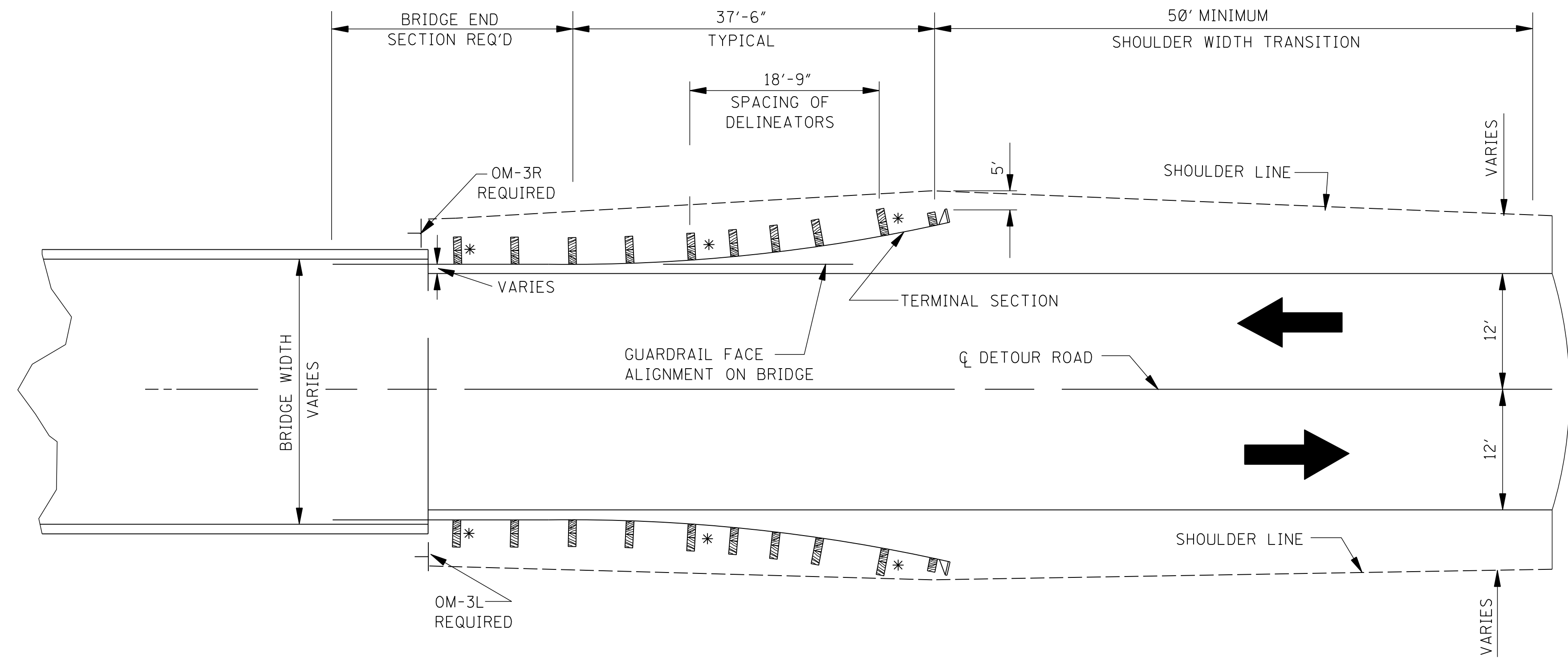
- ① TOP 2 LIFTS OF ASPHALT AS SHOWN ON TYPICAL SECTION.
 ② VARIABLE DEPTH GRANULAR MATERIAL AS SHOWN ON TYPICAL SECTION.

2/13/2019 3:27 PM MTSD.DGN

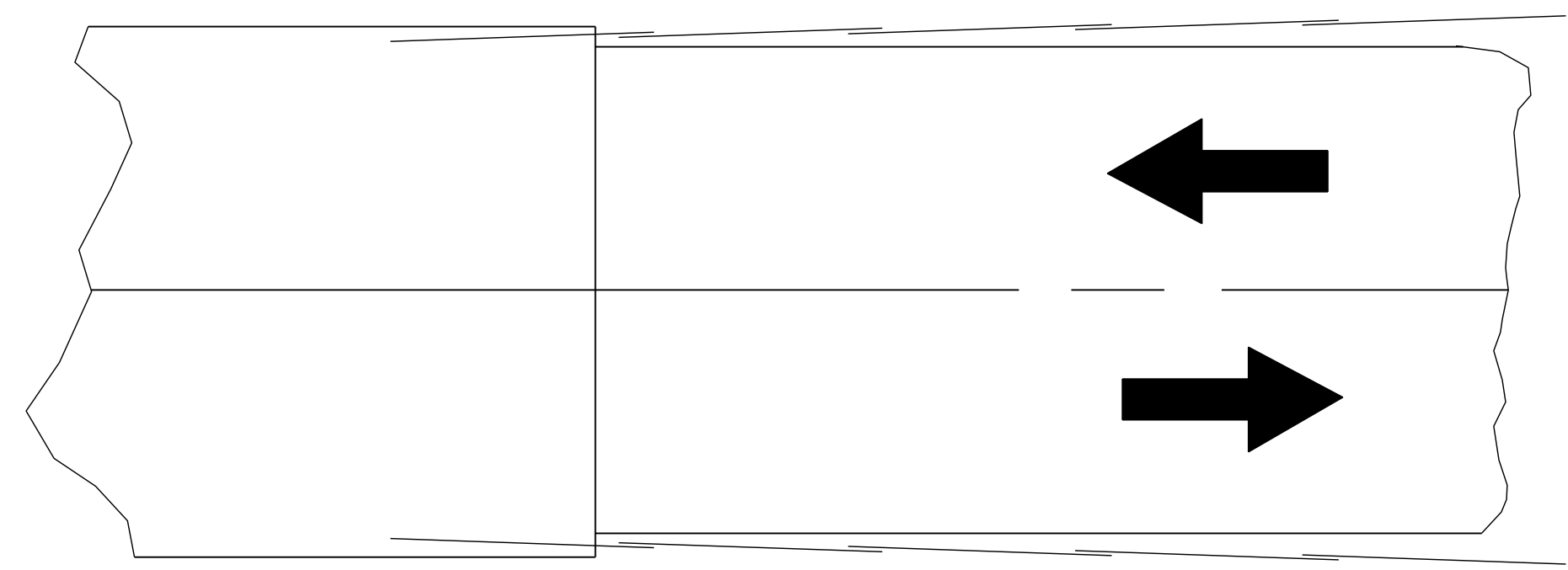
MISSISSIPPI DEPARTMENT OF TRANSPORTATION	
MISCELLANEOUS TYPICAL SECTION DETAILS	
U.S. HWY. 49	
PROJ. NO.: BR-0008-05(038)	
COUNTY: TALLAHATCHIE	
DATE	FILENAME: <u>MTSD.dgn</u>
DESIGN TEAM	MDOT
CHECKED	DATE 05/01/15
REVISION	BY
WORKING NUMBER	MTSD
SHEET NUMBER	31



STATE	PROJECT NO.
MISS.	BR-0008-05(038)



PLAN
(TEMPORARY GUARDRAIL)
 NOTE: TYPICAL FOR EACH END OF BRIDGE.



DETAIL SHOWING GUARDRAIL SECTION LAPS AND OVERLAPS

LEGEND

* SINGLE WHITE DELINEATOR REQUIRED (3 REQUIRED PER INSTALLATION)

← INDICATES DIRECTION OF TRAFFIC

GENERAL NOTES:

1. GUARDRAIL TO BE INSTALLED PRIOR TO PLACEMENT OF TRAFFIC ON DETOUR ROAD.
2. FOR OTHER DETAILS OF GUARDRAIL INSTALLATION, SEE THE APPROPRIATE STANDARD DRAWINGS.
3. BOLT BRIDGE END SECTION TO BRIDGE RAIL AS PER STANDARD PLAN (TO BE PAID FOR UNDER PAY ITEM 619-K2001).
4. POST SPACING TO BE 6'-3" UNLESS OTHERWISE NOTED OR AS DIRECTED BY THE ENGINEER.
5. FOR DETAILS PERTINENT TO INSTALLATION OF THE TERMINAL SECTION, SEE MANUFACTURER'S SPECIFICATIONS AND DRAWINGS OR ELSEWHERE ON PLANS

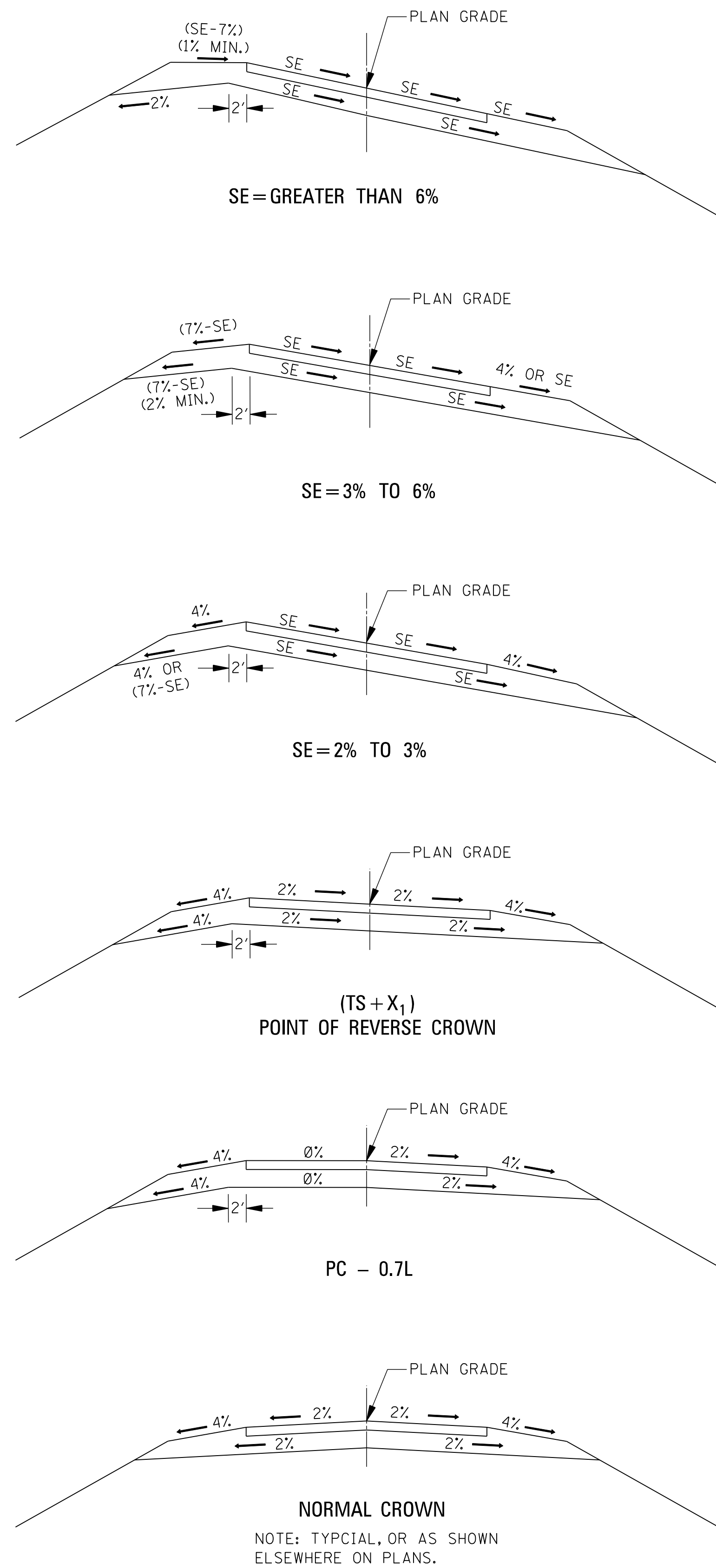
2/13/2019 3:27 PM SDTGR-1.dgn

MISSISSIPPI DEPARTMENT OF TRANSPORTATION	
GUARDRAIL (TEMPORARY):TYPICAL INSTALLATION AT DETOUR BRIDGE ENDS (DISTRICT 2) U.S. HWY. 49	
PROJ. NO.: BR-0008-05(038) COUNTY: TALLAHATCHIE	
FILENAME: SDTGR-1.dgn DESIGN TEAM BRELAND CHECKED DATE	WORKING NUMBER SDTGR-1 SHEET NUMBER 32

MINIMUM RADII FOR DESIGN SUPERELEVATION RATES, DESIGN SPEEDS, AND $e_{max} = 0.100$

e	V = 30 mph	V = 35 mph	V = 40 mph	V = 45 mph	V = 50 mph	V = 55 mph	V = 60 mph	V = 65 mph	V = 70 mph
	R (ft)	R (ft)	R (ft)	R (ft)	R (ft)	R (ft)	R (ft)	R (ft)	R (ft)
NC	3320	4350	5520	6830	8280	9890	11700	13100	14700
0.020	2440	3210	4080	5050	6130	7330	8630	9720	10900
0.022	2200	2900	3680	4570	5540	6630	7810	8800	9860
0.024	2000	2640	3350	4160	5050	6050	7130	8040	9010
0.026	1840	2420	3080	3820	4640	5550	6550	7390	8290
0.028	1690	2230	2840	3520	4280	5130	6050	6840	7680
0.030	1570	2060	2630	3270	3970	4760	5620	6360	7140
0.032	1450	1920	2450	3040	3700	4440	5250	5930	6680
0.034	1360	1790	2290	2850	3470	4160	4910	5560	6260
0.036	1270	1680	2150	2670	3250	3900	4620	5230	5900
0.038	1190	1580	2020	2510	3060	3680	4350	4940	5570
0.040	1120	1490	1900	2370	2890	3470	4110	4670	5270
0.042	1060	1400	1800	2240	2740	3290	3900	4430	5010
0.044	994	1330	1700	2120	2590	3120	3700	4210	4760
0.046	940	1260	1610	2020	2460	2970	3520	4010	4540
0.048	890	1190	1530	1920	2340	2830	3360	3830	4340
0.050	844	1130	1460	1830	2240	2700	3200	3660	4150
0.052	802	1080	1390	1740	2130	2580	3060	3500	3980
0.054	762	1030	1330	1660	2040	2460	2930	3360	3820
0.056	724	974	1270	1590	1950	2360	2810	3220	3670
0.058	689	929	1210	1520	1870	2260	2700	3090	3530
0.060	656	886	1160	1460	1790	2170	2590	2980	3400
0.062	624	846	1110	1400	1720	2090	2490	2870	3280
0.064	594	808	1060	1340	1650	2010	2400	2760	3160
0.066	564	772	1020	1290	1590	1930	2310	2670	3060
0.068	536	737	971	1230	1530	1860	2230	2570	2960
0.070	509	704	931	1190	1470	1790	2150	2490	2860
0.072	483	671	892	1140	1410	1730	2070	2410	2770
0.074	460	641	855	1100	1360	1670	2000	2330	2680
0.076	437	612	820	1050	1310	1610	1940	2250	2600
0.078	416	585	786	1010	1260	1550	1870	2180	2530
0.080	396	558	754	968	1220	1500	1810	2120	2450
0.082	377	533	722	930	1170	1440	1750	2050	2380
0.084	359	509	692	893	1130	1390	1690	1990	2320
0.086	341	486	662	856	1080	1340	1630	1930	2250
0.088	324	463	633	820	1040	1290	1570	1870	2190
0.090	307	440	604	784	992	1240	1520	1810	2130
0.092	291	418	574	748	948	1190	1460	1740	2060
0.094	274	395	545	710	903	1130	1390	1670	1990
0.096	256	370	513	671	854	1080	1320	1600	1910
0.098	236	343	477	625	798	1010	1250	1510	1820
$e_{max} = 0.100$	$R_{min} = 200$	$R_{min} = 292$	$R_{min} = 410$	$R_{min} = 540$	$R_{min} = 694$	$R_{min} = 877$	$R_{min} = 1090$	$R_{min} = 1340$	$R_{min} = 1630$

KEY:
V = DESIGN SPEED (mph)
R = RADIUS (ft)
e = FULL SUPERELEVATION RATE (ft/ft)
NC = NORMAL CROWN




DETAILS OF SHOULDER & SUBGRADE TREATMENT

GENERAL NOTES:

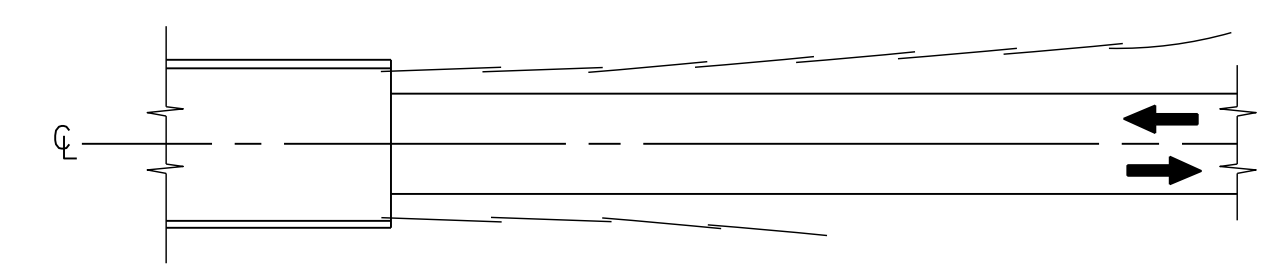
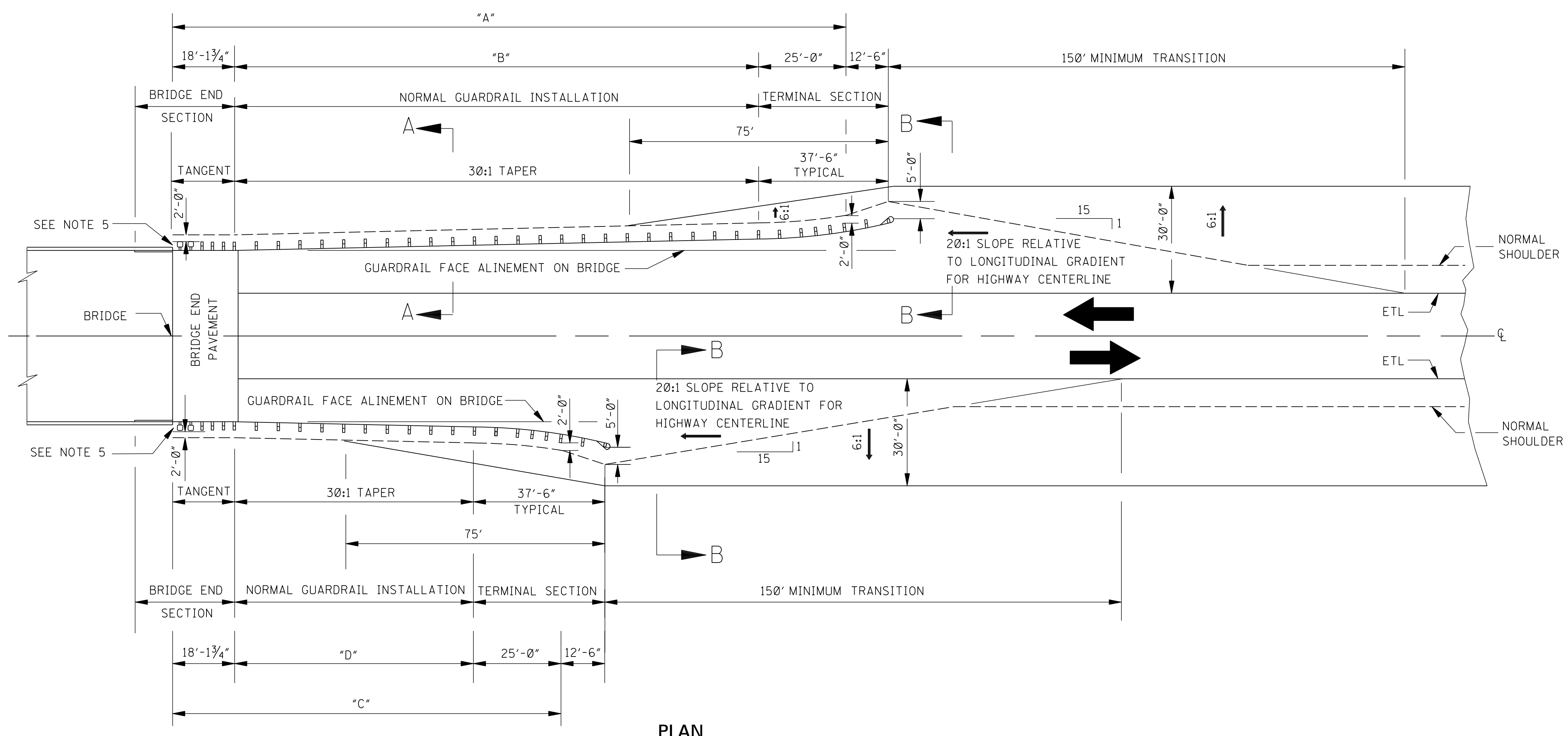
- SE RATE IS DETERMINED FROM A RADIUS EQUAL TO, OR SLIGHTLY SMALLER THAN, THE RADIUS OF THE CURVE.
- SEE SHEET SDSE-3A FOR SE RUNOFF VALUES.
- STATE AID DIVISION: USE STANDARD SA-SE-1.

MISSISSIPPI DEPARTMENT OF TRANSPORTATION	
SUPERELEVATION CASE I ROTATION ABOUT CENTERLINE (2% NORMAL SUBGRADE)	
U.S. HWY. 49	
PROJ. NO.: BR-0008-05(038)	
COUNTY: TALLAHATCHIE	
DATE	FILENAME: SDSE-2A.dgn
DESIGN TEAM	MDOT
CHECKED	DATE 2018-05-31



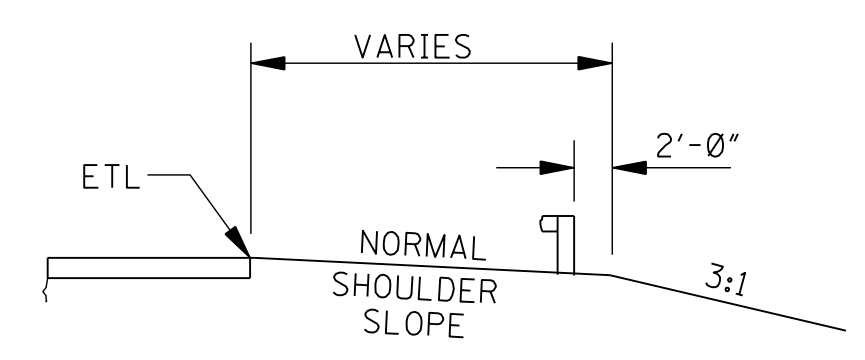
WORKING NUMBER
SDSE-2A
SHEET NUMBER
34

STATE	PROJECT NO.
MISS.	BR-0008-05(038)

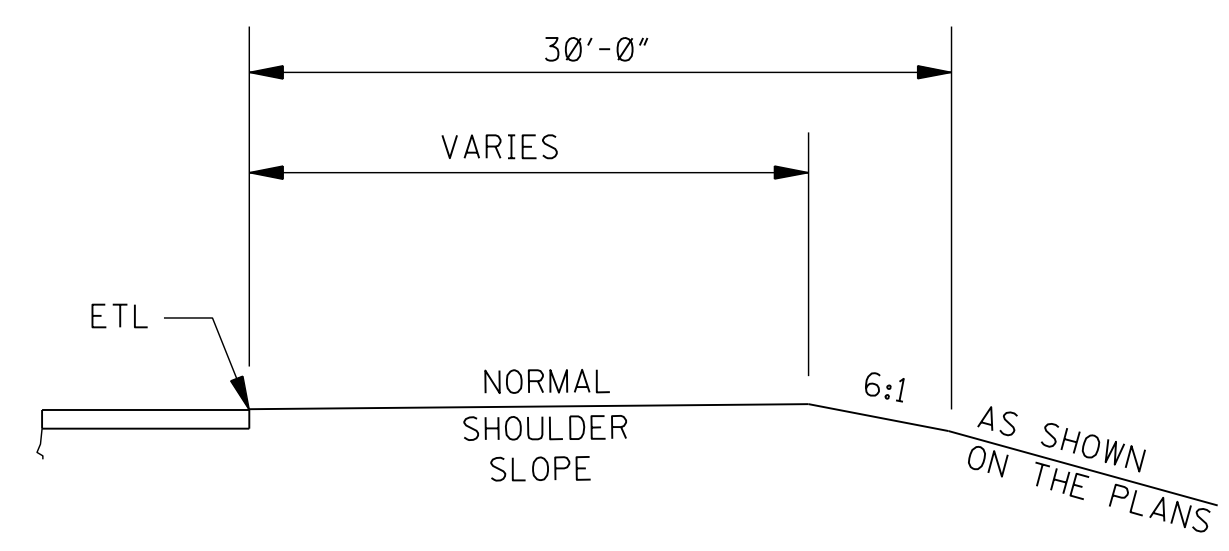


DETAIL OF GUARDRAIL SECTION LAPS

- GENERAL NOTES:
- VALUES FOR "A", "B", "C" AND "D" WILL BE SHOWN ELSEWHERE ON THE PLANS.
 - FOR DETAILS PERTINENT TO INSTALLATION OF THE TERMINAL SECTION, SEE MANUFACTURER'S SPECIFICATIONS AND DRAWINGS OR ELSEWHERE ON PLANS
 - GUARDRAIL SECTIONS ARE TO BE LAPPED IN THE DIRECTION OF TRAFFIC APPROACHING THE BRIDGE.
 - THE OVERALL LENGTH OF GUARDRAIL IS MEASURED FROM THE CONNECTING END ON THE BRIDGE.
 - THE SHOULDER WIDTH AT THE BRIDGE END SHALL BE SUFFICIENTLY WIDE TO PROVIDE A MINIMUM OF 2'-0" BEHIND THE BACK OF POST BEFORE THE SLOPE BREAK (HINGEPOINT).
 - TYPE, DETAILS AND LIMITS OF GUARDRAIL BRIDGE END SECTION WILL BE SHOWN ELSEWHERE ON THE PLANS.



SECTION A-A



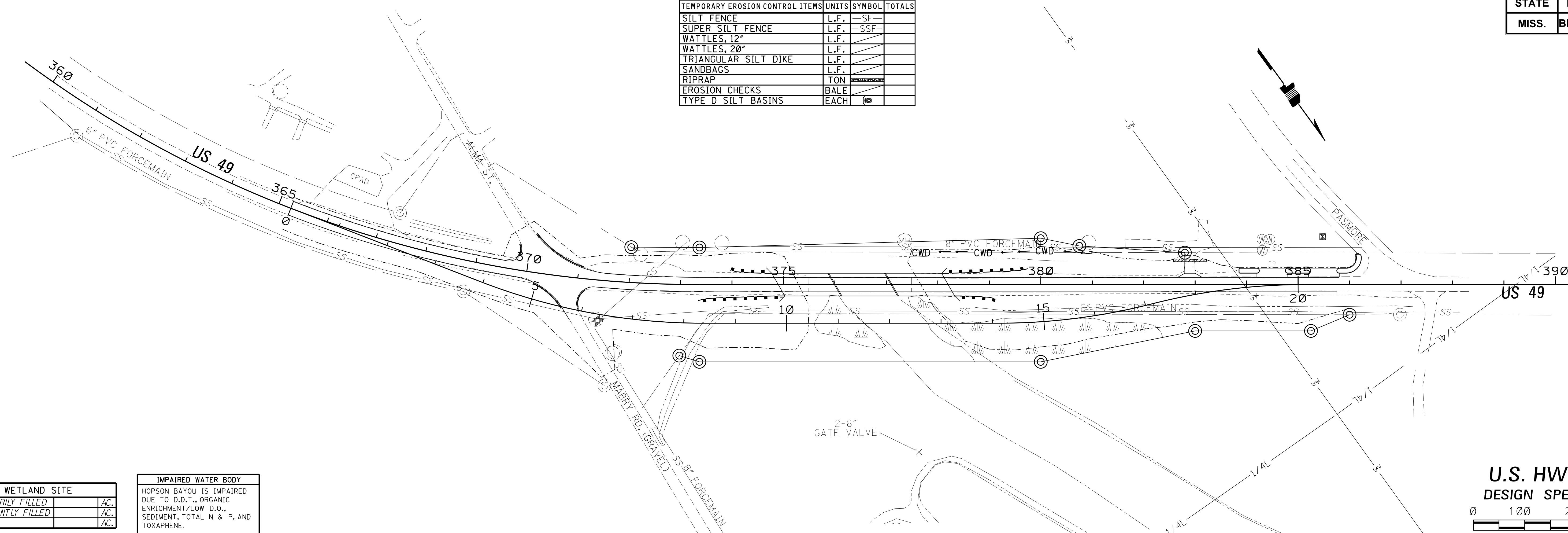
SECTION B-B

2/13/2019 3:27 PM SDGR-4A.DGN

MISSISSIPPI DEPARTMENT OF TRANSPORTATION	
GUARDRAIL: TYPICAL INSTALLATION AT BRIDGE APPROACHES FOR 2-LANE, 2-WAY HIGHWAY	
U.S. HWY. 49	
PROJ. NO.: BR-0008-05(038)	
COUNTY: TALLAHATCHIE	
DATE	FILENAME: SDGR-4A.DGN
DESIGN TEAM	MDOT
CHECKED	DATE 1998 VER.
BY	REVISION
WORKING NUMBER SDGR-4A SHEET NUMBER 36	

STATE	PROJECT NO.
MISS.	BR-0008-05(038)

TEMPORARY EROSION CONTROL ITEMS	UNITS	SYMBOL	TOTALS
SILT FENCE	L.F.	-SF-	
SUPER SILT FENCE	L.F.	-SSF-	
WATTLES, 12"	L.F.		
WATTLES, 20"	L.F.		
TRIANGULAR SILT DIKE	L.F.		
SANDBAGS	L.F.		
RIPRAP	TON		
EROSION CHECKS	BALE		
TYPE D SILT BASINS	EACH		



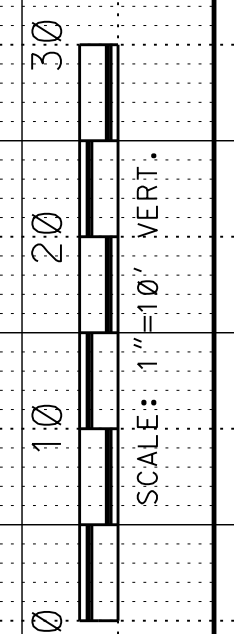
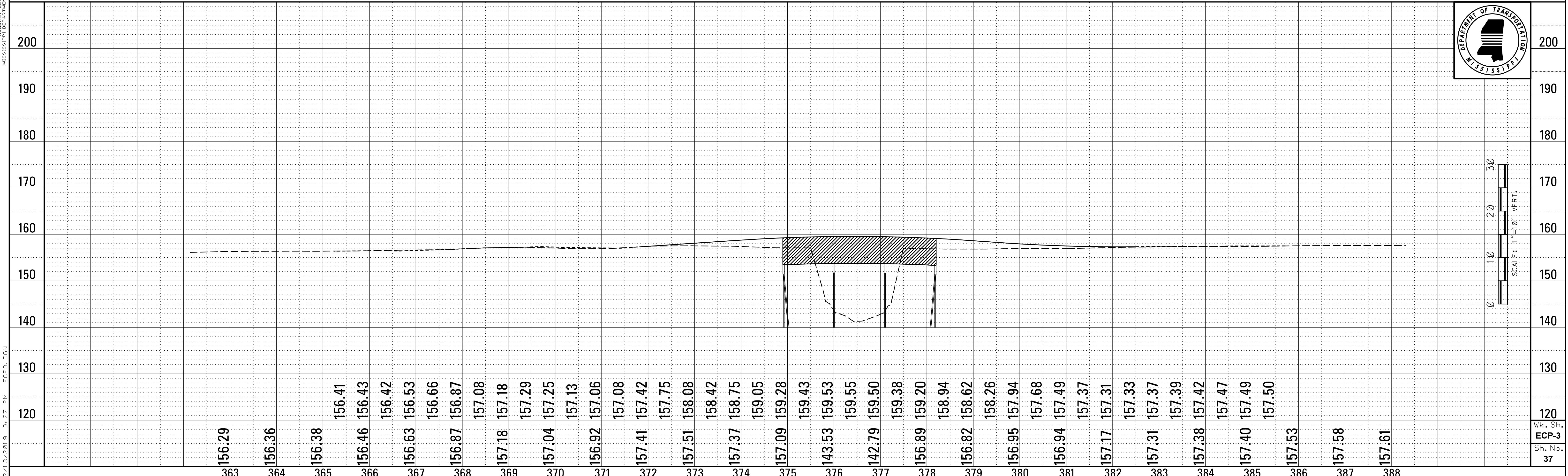
WETLAND SITE	
TEMPORARILY FILLED	AC.
PERMANENTLY FILLED	AC.
BRIDGED	AC.

IMPAIRED WATER BODY
 HOPSON BAYOU IS IMPAIRED DUE TO D.D.T., ORGANIC ENRICHMENT/LOW D.O., SEDIMENT, TOTAL N & P, AND TOXAPHENE.

U.S. HWY. 49
 DESIGN SPEED = 65

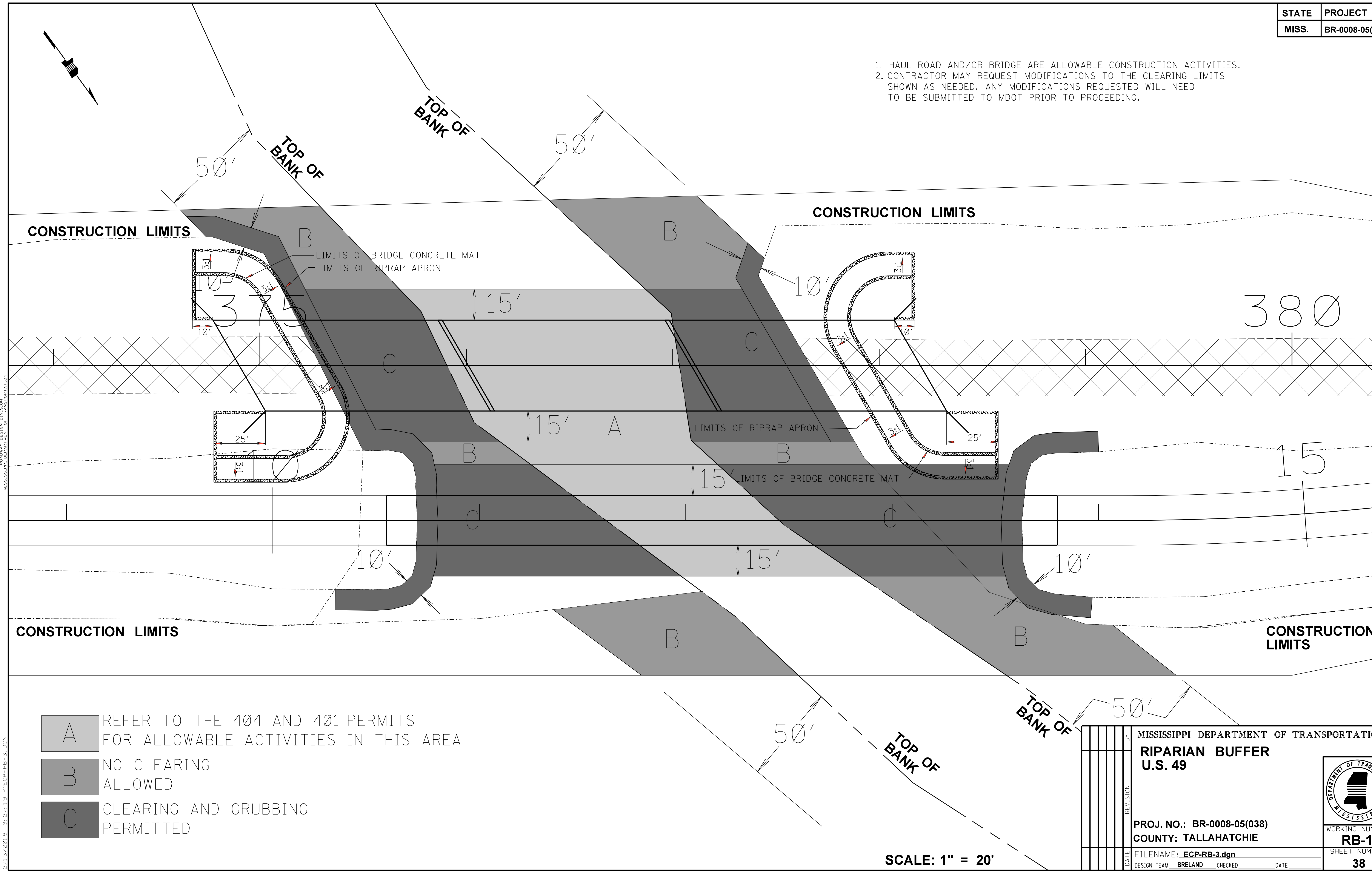
SCALE: 1"=100' HOR.

2/13/2019 3:27 PM ECP3.DGN MISSISSIPPI DEPARTMENT OF TRANSPORTATION



120
 wk. Sh.
 ECP-3
 Sh. No.
 37

1. HAUL ROAD AND/OR BRIDGE ARE ALLOWABLE CONSTRUCTION ACTIVITIES.
2. CONTRACTOR MAY REQUEST MODIFICATIONS TO THE CLEARING LIMITS SHOWN AS NEEDED. ANY MODIFICATIONS REQUESTED WILL NEED TO BE SUBMITTED TO MDOT PRIOR TO PROCEEDING.



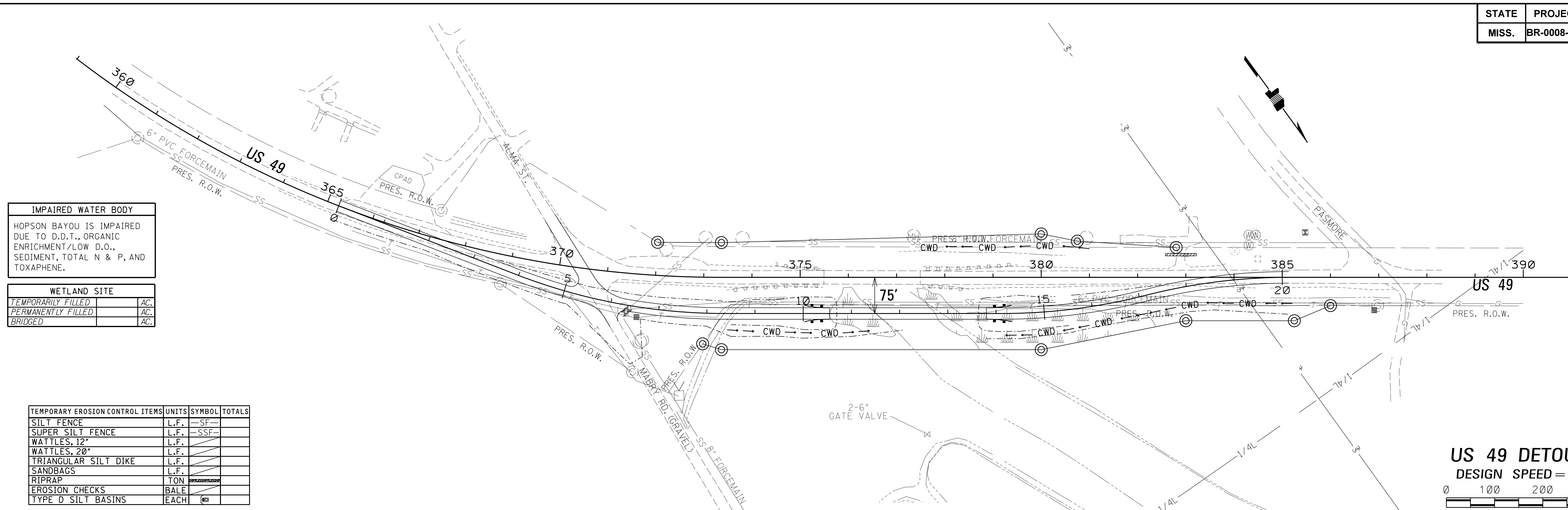
2/13/2019 3:27:19 PM ECP-RB-3.DGN

- A REFER TO THE 404 AND 401 PERMITS FOR ALLOWABLE ACTIVITIES IN THIS AREA
- B NO CLEARING ALLOWED
- C CLEARING AND GRUBBING PERMITTED

SCALE: 1" = 20'

MISSISSIPPI DEPARTMENT OF TRANSPORTATION	
RIPARIAN BUFFER	
U.S. 49	
PROJ. NO.: BR-0008-05(038)	
COUNTY: TALLAHATCHIE	
DATE	FILENAME: ECP-RB-3.dgn
DESIGN TEAM	BRELAND
CHECKED	DATE
WORKING NUMBER	RB-1
SHEET NUMBER	38





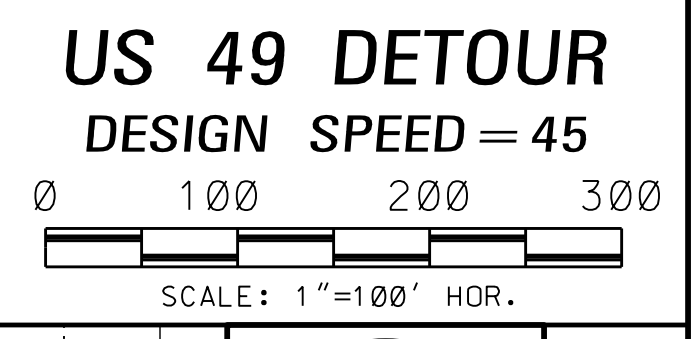
IMPAIRED WATER BODY
 HOPSON BAYOU IS IMPAIRED DUE TO D.D.T., ORGANIC ENRICHMENT/LOW D.O., SEDIMENT, TOTAL N & P, AND TOXAPHENE.

WETLAND SITE

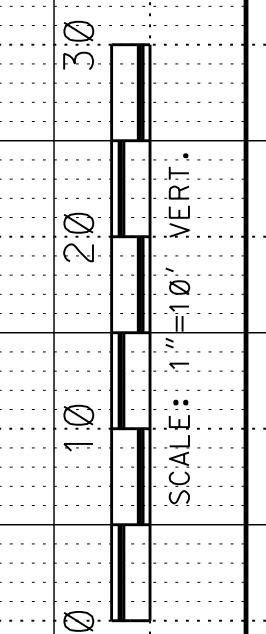
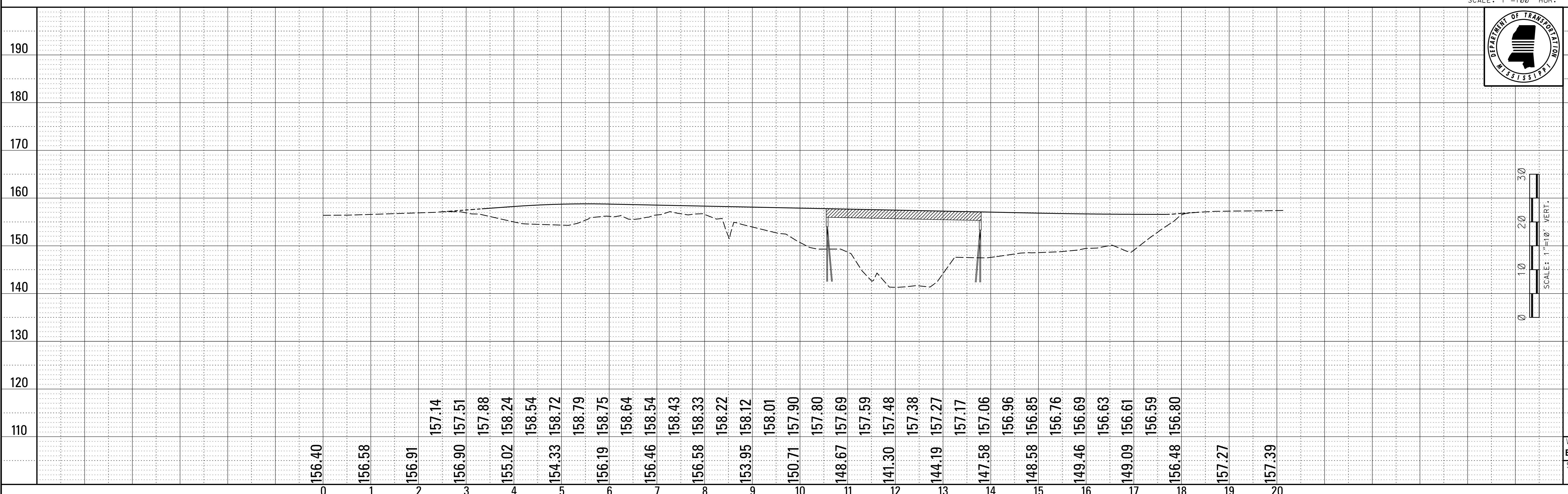
TEMPORARILY FILLED	AC.
PERMANENTLY FILLED	AC.
BRIDGED	AC.

TEMPORARY EROSION CONTROL ITEMS

ITEMS	UNITS	SYMBOL	TOTALS
SILT FENCE	L.F.	-SF-	
SUPER SILT FENCE	L.F.	-SSF-	
WATTLES, 12"	L.F.		
WATTLES, 20"	L.F.		
TRIANGULAR SILT DIKE	L.F.		
SANDBAGS	L.F.		
RIPRAP	TON		
EROSION CHECKS	BALE		
TYPE D SILT BASINS	EACH		



2/13/2019 3:27 PM ECP3A.DGN
 MISSISSIPPI DEPARTMENT OF TRANSPORTATION
 ROADWAY DESIGN DIVISION




STATE	PROJECT NO.
MISS.	BR-0008-05(038)

VEGETATION SCHEDULE

EROSION CONTROL ITEMS		SEASONAL APPLICATIONS-DATES & RATES				REQUIREMENTS
		SPRING & SUMMER		FALL & WINTER		
PAY ITEM NO.	ITEMS	RATES	DATES	RATES	DATES	
	212-B001 STANDARD GROUND PREPARATION	PER SQ.YD.	MARCH 1 TO SEPTEMBER 1	PER SQ.YD.	SEPTEMBER 1 TO MARCH 1	GROUND PREPARATION REQUIRED ON AREAS TO RECEIVE SOLID SODDING OR SEEDING, AS APPLICABLE.
	225-B001 AGRICULTURAL LIMESTONE	1000 LBS./ACRE	MARCH 1 TO SEPTEMBER 1		SEPTEMBER 1 TO MARCH 1	LIMESTONE SHALL BE MECHANICALLY SPREAD UNIFORMLY AND INCORPORATED INTO THE SOIL PRIOR TO PLANTING.
	225-A001 COMBINATION FERTILIZER (13-13-13)	250 LBS./ACRE	MARCH 1 TO SEPTEMBER 1		SEPTEMBER 1 TO MARCH 1	FERTILIZER SHALL BE MECHANICALLY SPREAD UNIFORMLY AND INCORPORATED INTO THE SOIL PRIOR TO PLANTING.
①	213-C001 SUPERPHOSPHATE	0.5 TONS/ACRE (EST.)	MARCH 1 TO DECEMBER 1			SUPERPHOSPHATE (FOR BID ITEM PURPOSES).
②	225-A001 SEEDING (BERMUDAGRASS)	80 LBS./ACRE	MARCH 1 TO SEPTEMBER 1		SEPTEMBER 1 TO MARCH 1	SEED REQUIRED ON DISTURBED AREAS. UNHULLED SEED MAY BE REQUIRED DURING THE DORMANT SEASON AS DIRECTED.
②	225-A001 SEEDING (TALL FESCUE)		MARCH 1 TO SEPTEMBER 1	100 LBS./ACRE	OCTOBER 1 TO MARCH 1	SEED REQUIRED ON DISTURBED AREAS.
	225-C001 MULCH - VEGETATIVE MULCH	2 TONS ACRE (EST.)	MARCH 1 TO SEPTEMBER 1	2 TONS/ACRE (EST.)	SEPTEMBER 1 TO MARCH 1	THE ENGINEER WILL DESIGNATE THE RATES OF APPLICATION (SEE SUBSECTION 215.03.3).
	216-A001 SOLID SODDING	PER SQ.YD.	MARCH 1 TO SEPTEMBER 1	PER SQ. YD.	SEPTEMBER 1 TO MARCH 1	SOLID SOD REQUIRED ON AREAS SPECIFIED IN THE CONTRACT OR BY THE ENGINEER.
	219-A001 WATERING	20 GALS./S.Y. (EST.)	MARCH 1 TO SEPTEMBER 1	20 GALS. S.Y. (EST.)	SEPTEMBER 1 TO MARCH 1	TO BE USED AS DIRECTED ON THE PLANTING AND ESTABLISHING SOLID SOD.
④	220-A001 INSECT PEST CONTROL	PER ACRE		PER ACRE		SEE SECTION 220.
	TEMPORARY EROSION CONTROL ITEMS					
	226-A001 LIGHT GROUND PREPARATION	PER SQ.YD.		PER SQ.YD.		APPROXIMATELY HALF SQ. YD. STANDARD GROUND PREPARATION
	226-A001 COMBINATION FERTILIZER (13-13-13)	250 LBS./ACRE				QUANTITY BASED ON LIGHT GROUND PREPARATION
	226-A001 SEEDING (BROWN TOP MILLET)	20 LBS./ACRE	APRIL 1 TO AUGUST 31	_____	_____	QUANTITY BASED ON LIGHT GROUND PREPARATION
	226-A001 SEEDING (RYE GRASS)	_____	_____	25 LBS./ACRE	SEPTEMBER 1 TO MARCH 31	QUANTITY BASED ON LIGHT GROUND PREPARATION
	226-A001 SEEDING (OATS)	_____	_____	90 LBS./ACRE	SEPTEMBER 1 TO DECEMBER 15	QUANTITY BASED ON LIGHT GROUND PREPARATION
	226-A001 VEGETATIVE MATERIAL FOR MULCH	2 TON /ACRE (EST.)		2 TON /ACRE (EST.)		QUANTITY BASED ON LIGHT GROUND PREPARATION

- ① ALL AREAS THAT HAVE BEEN VEGETATED, UNDER THIS CONTRACT FOR AT LEAST (60) SIXTY DAYS, SHALL RECEIVE ADDITIONAL APPLICATION(S) OF FERTILIZER(S) OF THE TYPE(S) AND RATE(S) OF APPLICATIONS AS DETERMINED BY SOIL TESTS OR AS DIRECTED DURING THE GROWING SEASONS THE CONTRACT IS IN FORCE. GROUND PREPARATION WILL NOT BE REQUIRED FOR THE ADDITIONAL APPLICATIONS. PAYMENT FOR ALL FERTILIZERS ACCEPTABLY APPLIED AS AN ADDITIONAL APPLICATION(S) WILL BE MADE IN ACCORDANCE WITH SUPERPHOSPHATE BID ITEM 213-C001.
- ② PROPOSAL QUANTITIES ESTIMATED ON THE BASIS THAT 100% OF THE ACREAGE WILL BE SEEDED.
- ③ PROPOSAL QUANTITIES ESTIMATED ON THE BASIS THAT 50% OF THE ACREAGE WILL BE SEEDED.
- ④ QUANTITY ESTIMATED ON THE BASIS 50% OF THE ACREAGE VEGETATED MAY REQUIRE TREATMENT.

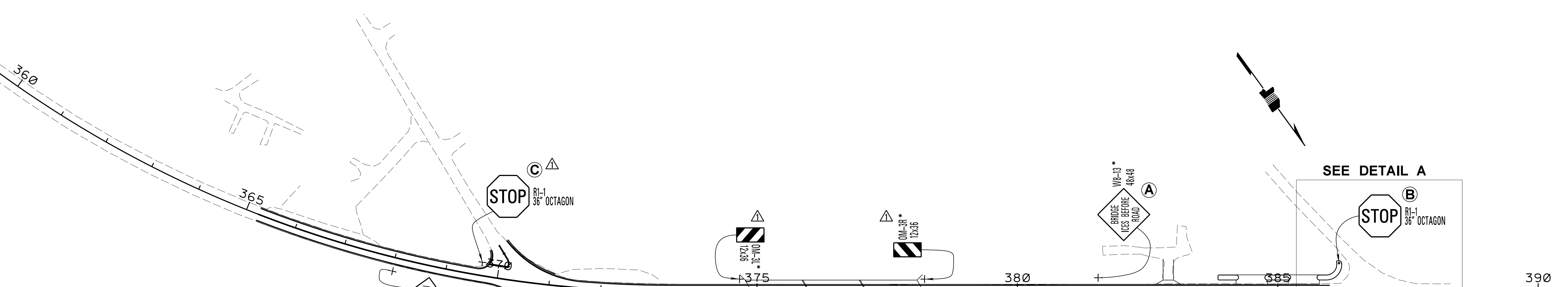
2/13/2019 3:27 PM VS-1.DGN

MISSISSIPPI DEPARTMENT OF TRANSPORTATION	
DISTRICT 2 VEGETATION SCHEDULE ALL TYPE PROJECTS - MS DELTA U.S. HWY. 49	
PROJ. NO.: BR-0008-05(038) COUNTY: TALLAHATCHIE	
FILENAME: VS-1.dgn DESIGN TEAM BRELAND CHECKED _____ DATE _____	 WORKING NUMBER VS-1 SHEET NUMBER 40

1st O.REV.

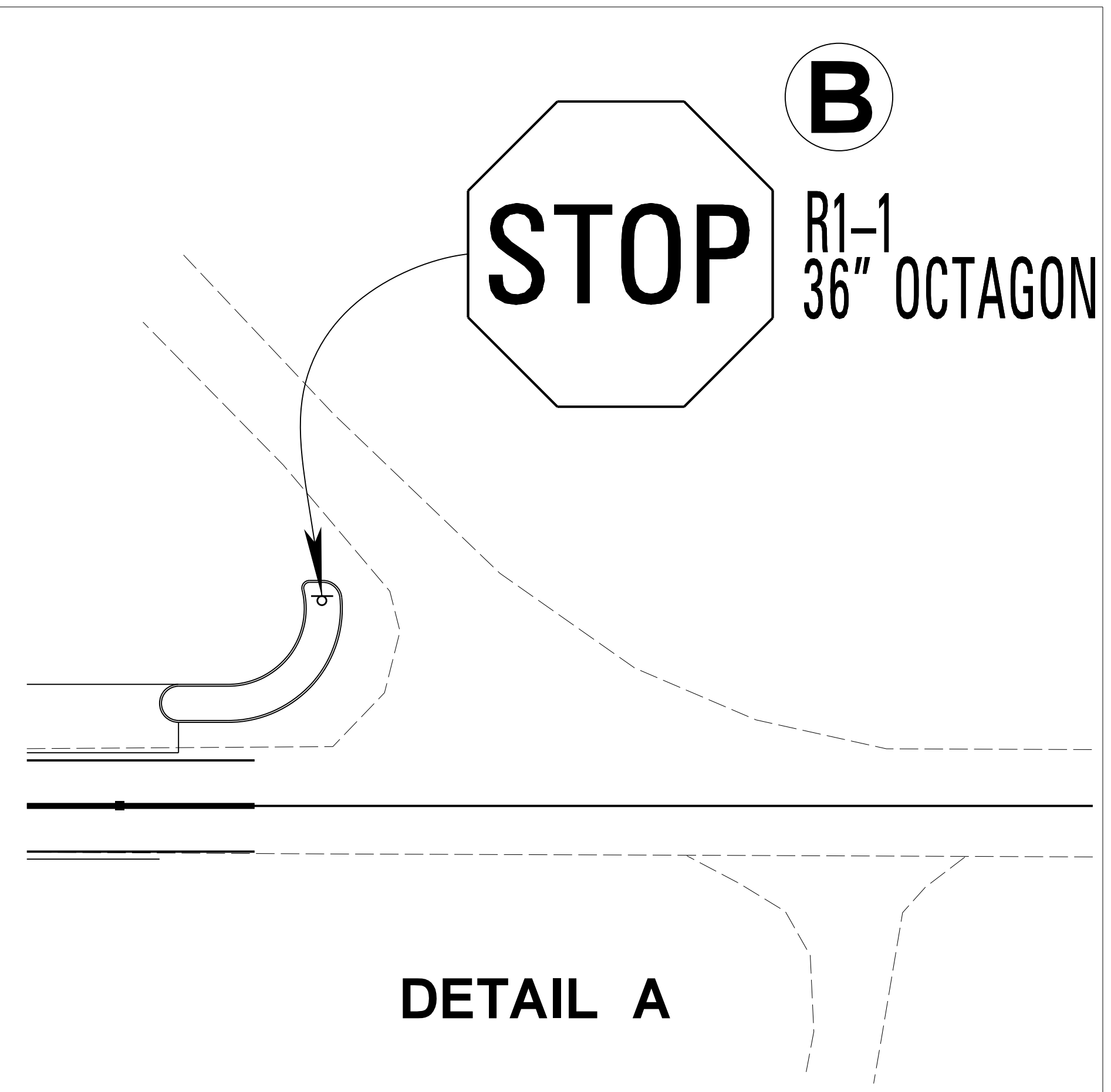
STATE	PROJECT NO.
MISS.	BR-0008-05(038)

7/17/2019 8:41 AM PERMSI GN49.dgn PLAN DIVISION MISSISSIPPI DEPARTMENT OF TRANSPORTATION



* SEE STANDARD SN-9 FOR PLACEMENT OF BRIDGE APPROACH SIGNS OM-3R, OM-3L AND W8-13.

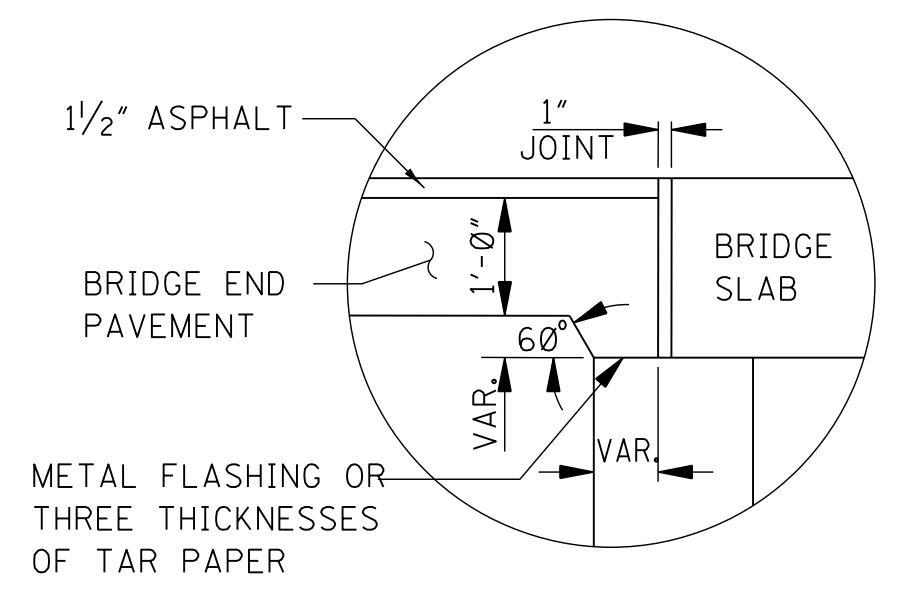
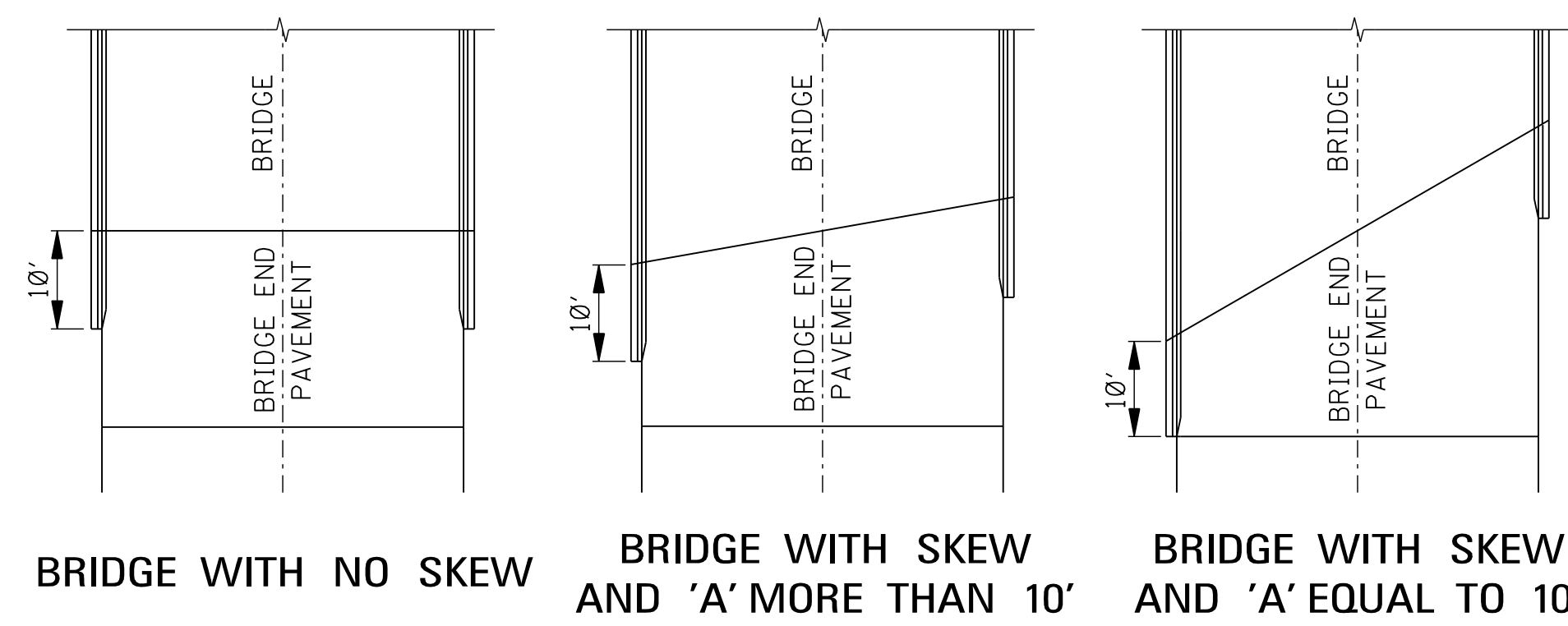
- PERMANENT SIGNS
- 2 -- OM-3L
 - 2 -- OM-3R
 - 3 -- R1-1 (1 IN 10" ISLAND)
 - 2 -- W8-13



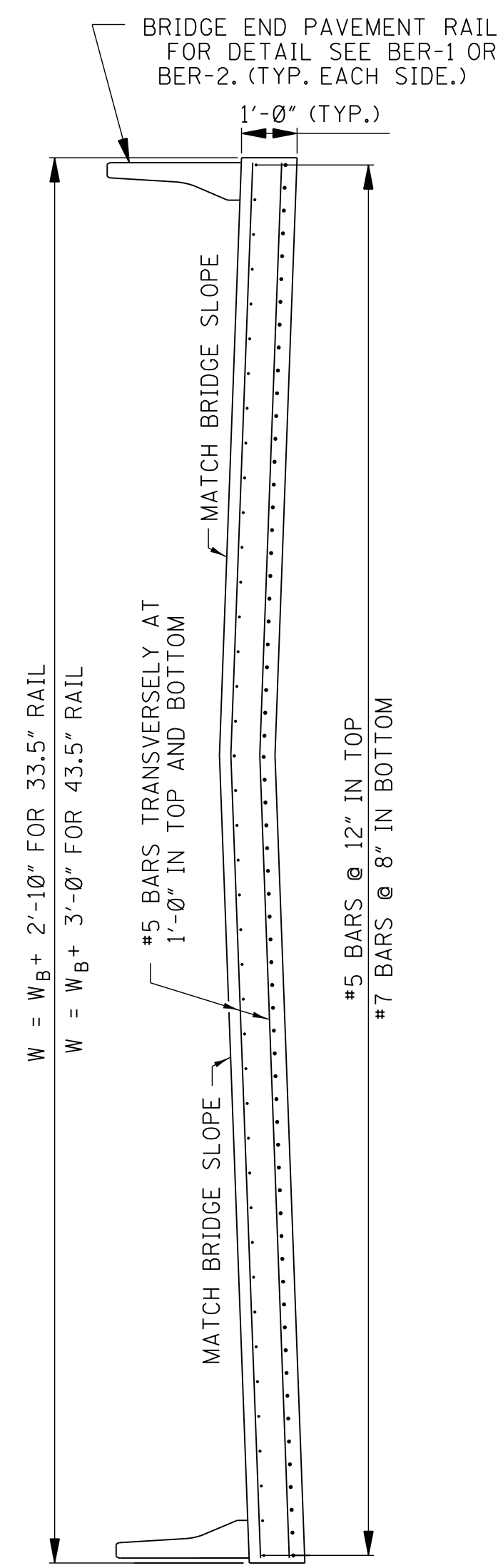
DETAIL A

SCALE: 1" = 100'

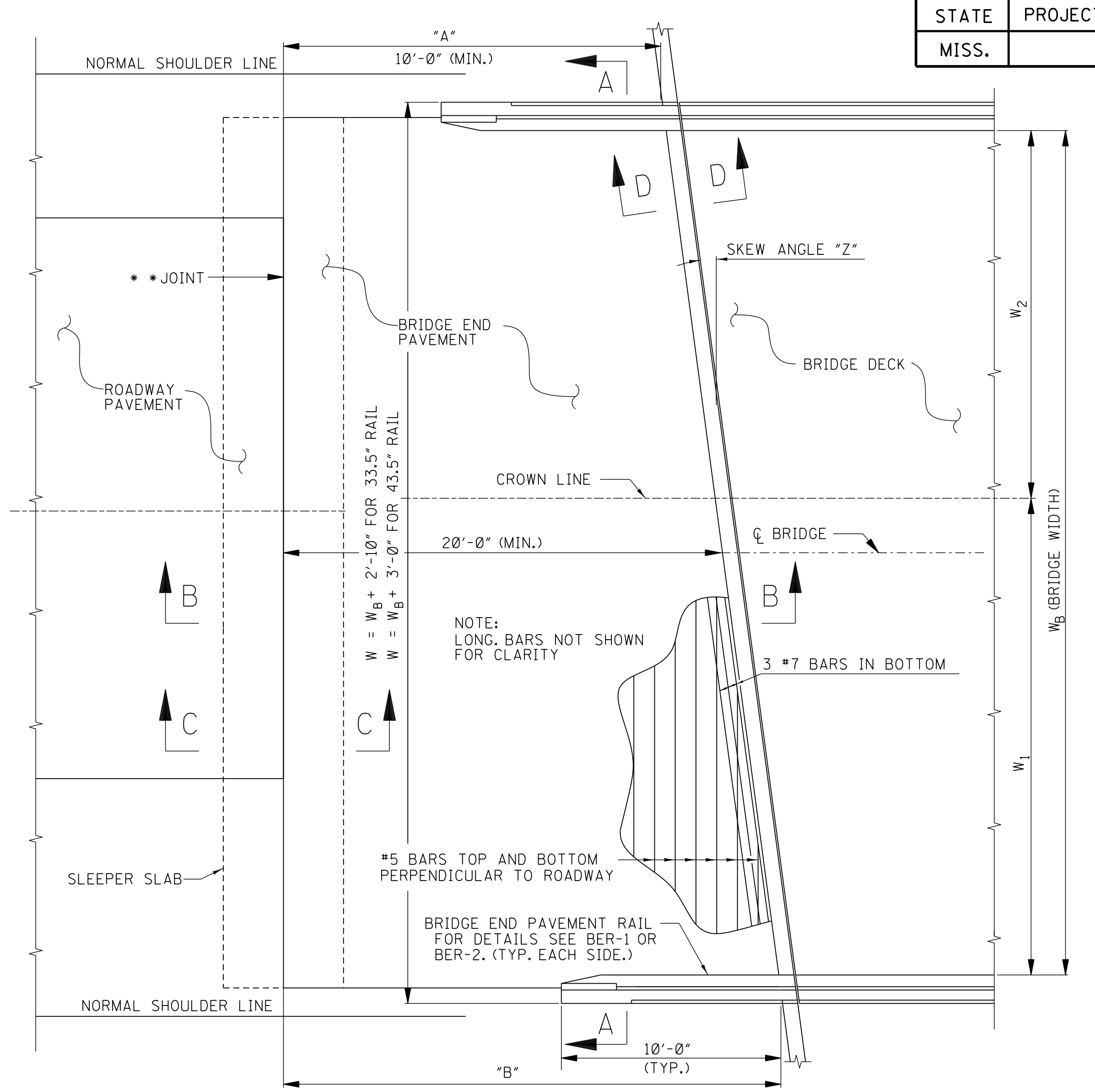
		MISSISSIPPI DEPARTMENT OF TRANSPORTATION	
		PERMANENT SIGNING DETAIL	
		U.S. HWY. 49	
		PROJ. NO.: BR-0008-05(038) COUNTY: TALLAHATCHIE	
		FILENAME: <u>PermSign49.dgn</u>	
07-15-19 DATE	BRELAND DESIGN TEAM	_____ CHECKED	_____ DATE
		WORKING NUMBER PS-1	
		SHEET NUMBER 1001	



DETAIL SHOWING METHOD OF SEATING BRIDGE END PAVEMENT ON BRIDGES WITH NO PAVING BRACKET

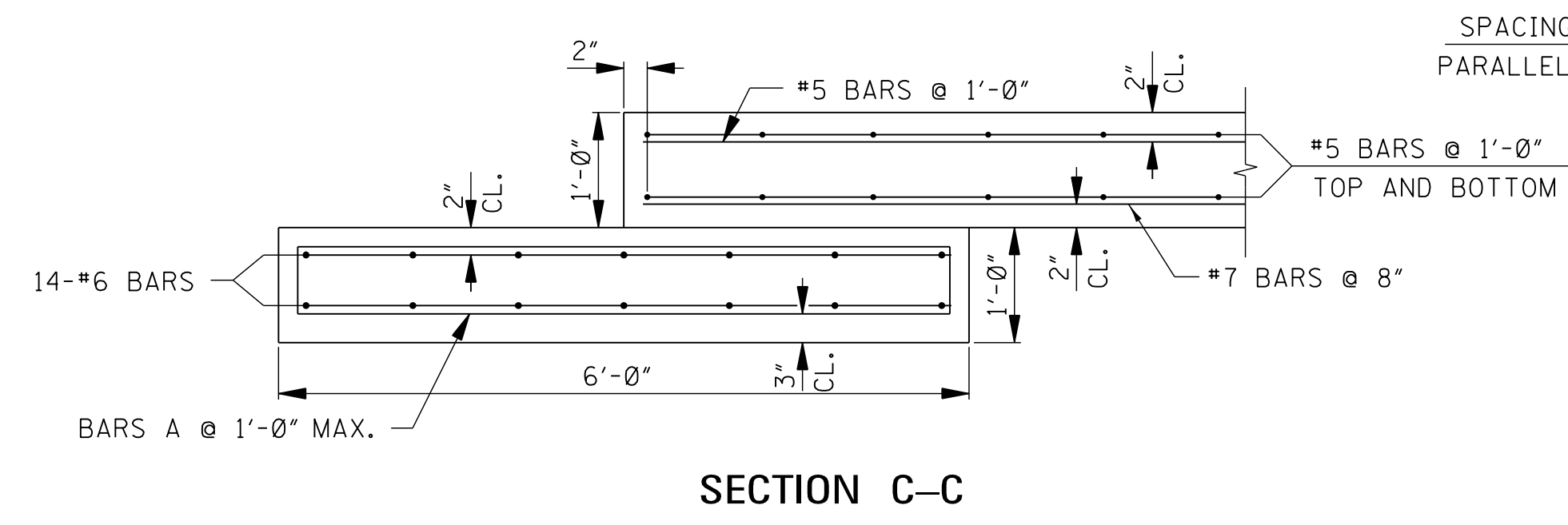


SECTION A-A



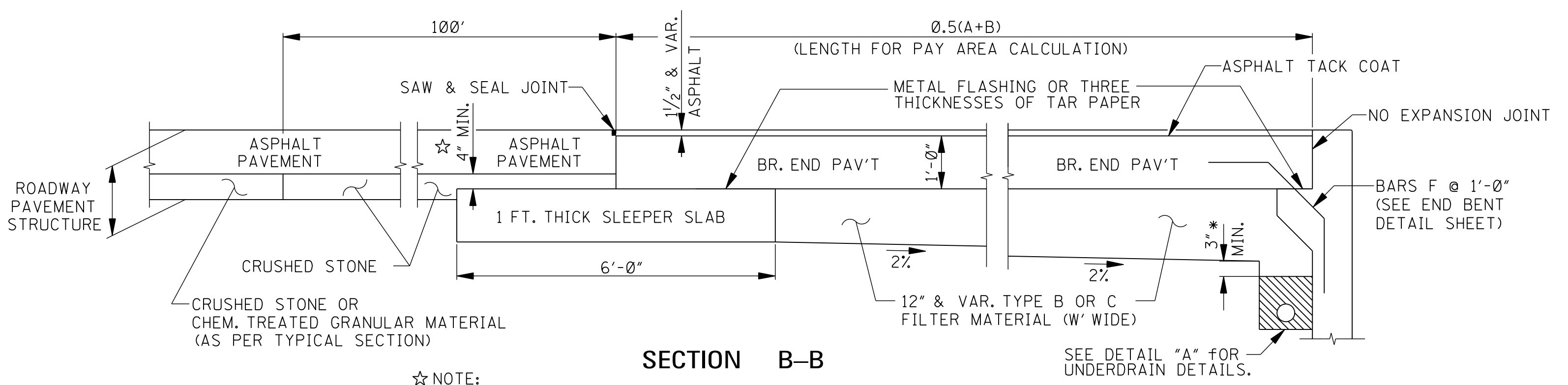
PLAN AT BRIDGE END

****NOTE:**
1" PREMOLDED EXPANSION JOINT SEALED WITH POURED JOINT FILLER (DOWELED). THIS JOINT REQUIRED ONLY IF ROADWAY PAVEMENT IS CONCRETE.



SECTION C-C

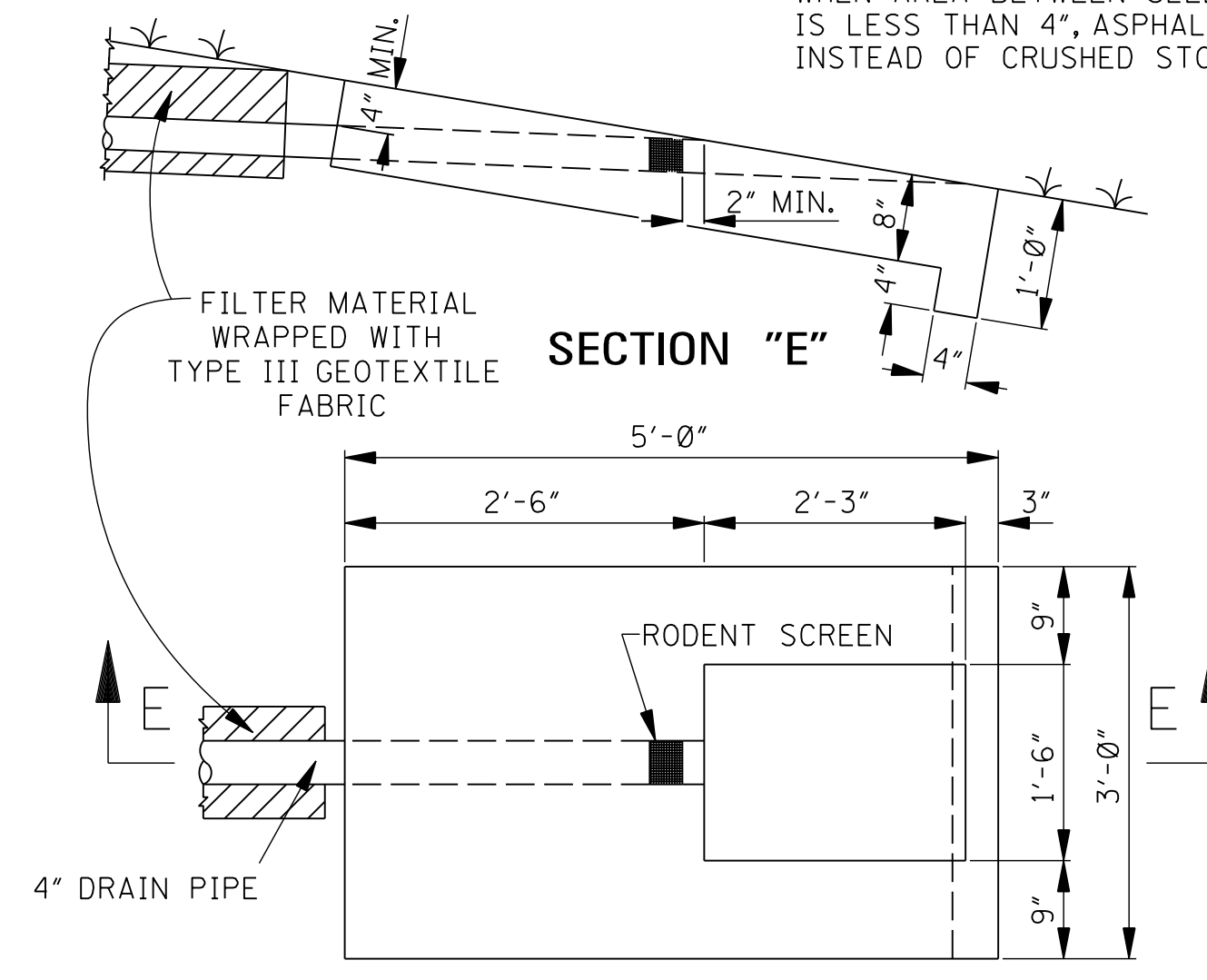
SECTION D-D



SECTION B-B

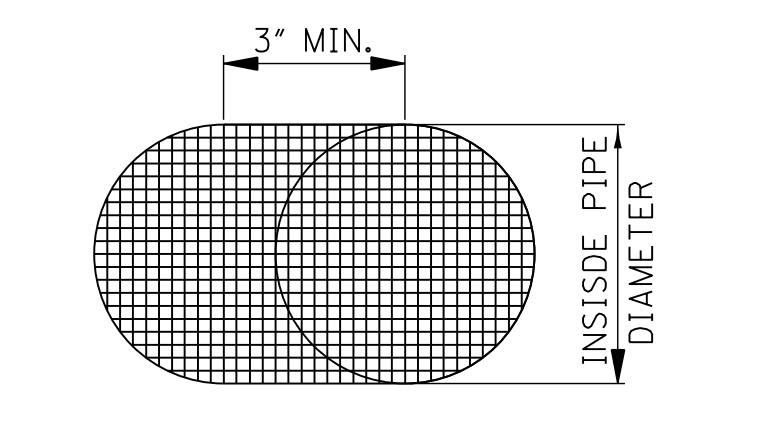
☆NOTE:
WHEN AREA BETWEEN SLEEPER SLAB AND ASPHALT IS LESS THAN 4", ASPHALT SHOULD BE USED INSTEAD OF CRUSHED STONE.

*** NOTE:**
ADJUST AS NECESSARY TO ENSURE PROPER DRAINAGE.



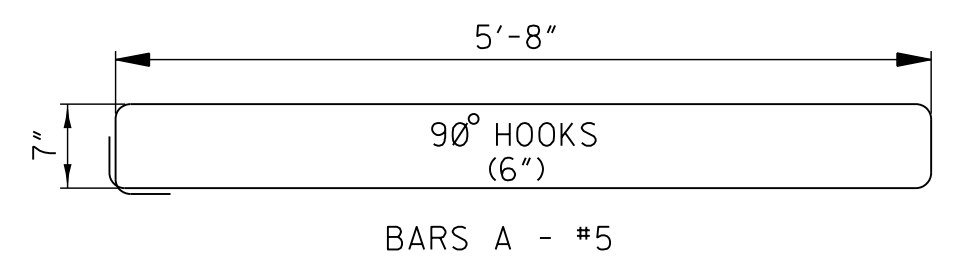
SECTION "E"

OUTLET APRON DETAIL

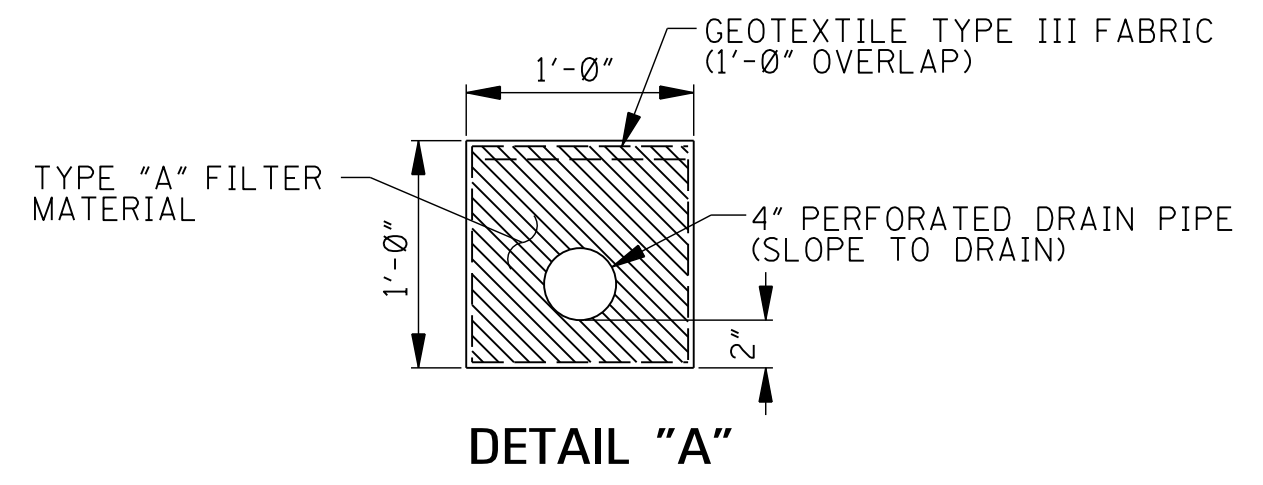


DETAIL OF RODENT SCREEN

3x3 GALVANIZED HARDWARE CLOTH 0.063 WIRE OR EQUAL FORMED TO FIT SNUG TO INSIDE OF PIPE. (COST ABSORBED)



BAR BENDING DETAILS
DIMENSIONS ARE OUT TO OUT



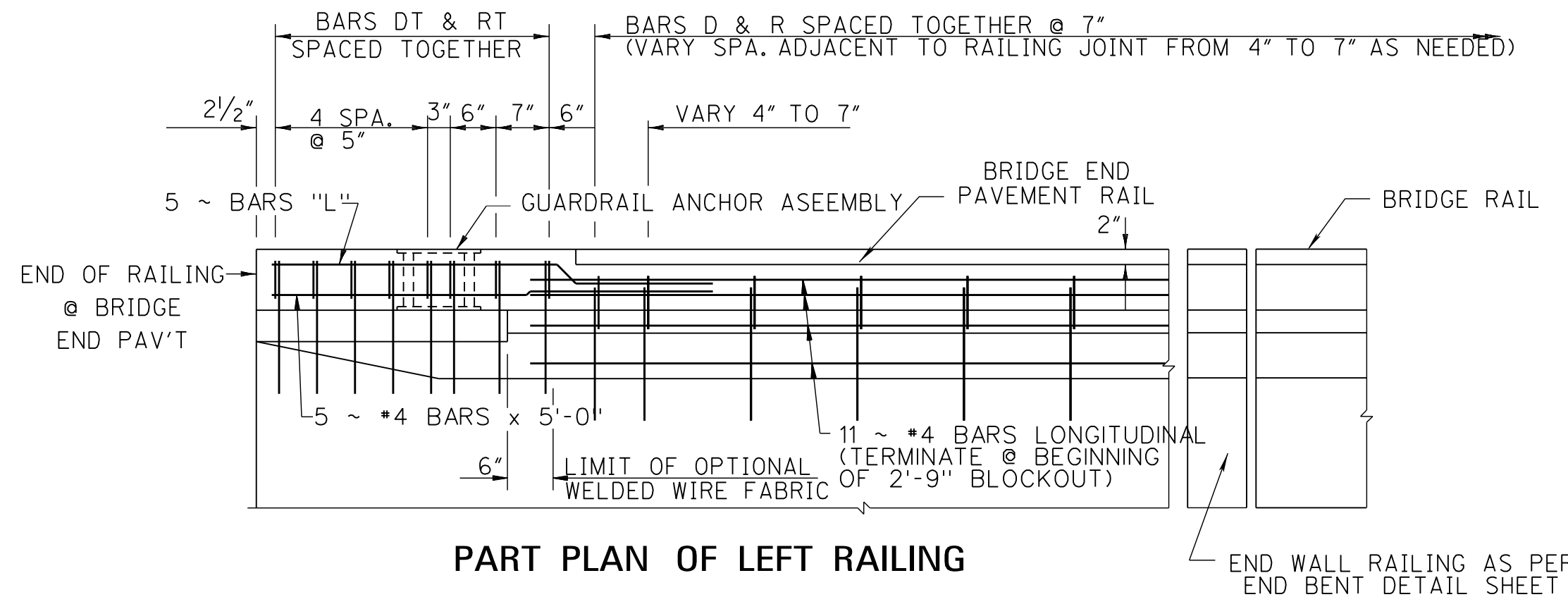
DETAIL "A"

- NOTES:**
- 0.363 C.Y. CLASS "C" CONCRETE REQUIRED FOR APRON.
 - SMALL ANIMAL GUARDS SHALL BE REQUIRED ON ALL EXPOSED PIPE OPENINGS BY THE END OF THE WORK DAY INSTALLED.
 - 4" PERFORATED DRAIN PIPE TO BE INSTALLED UNDER THE ROADWAY AND 2' OUTSIDE OF THE SHOULDER. 4" NON-PERFORATED DRAIN PIPE TO BE INSTALLED FOR THE REMAINDER OF THE OUTLET APRON.
 - UNDERDRAIN OUTLETS SHALL BE REQUIRED ON BOTH SIDES OF THE ROADWAY IN NORMAL CROWN SECTIONS AND ONLY ON THE LOW SIDE OF SUPERELEVATED SECTIONS.

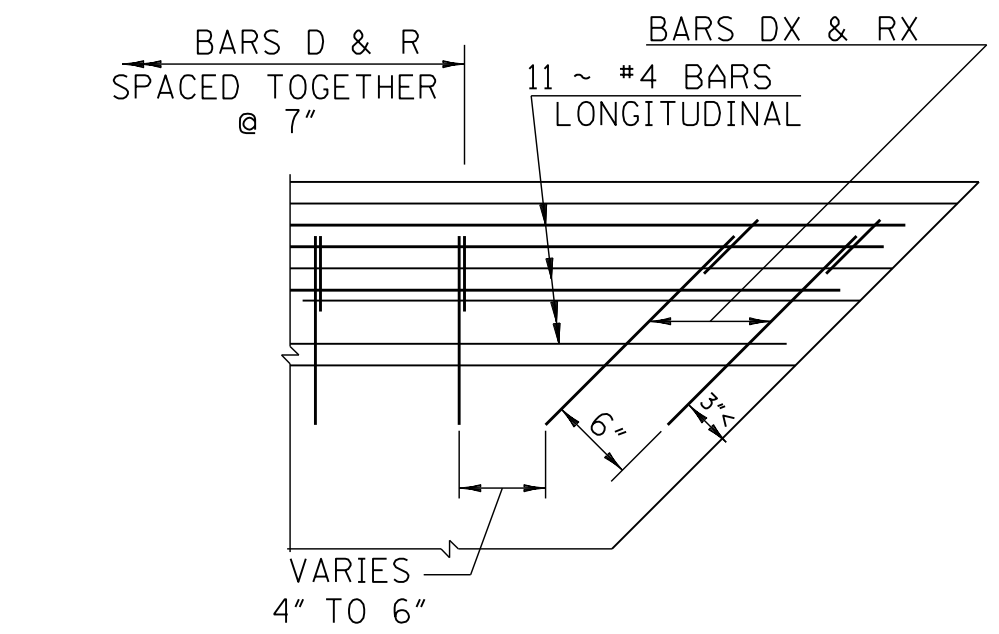
- GENERAL NOTES:**
- IF BRIDGE END PAVEMENT IS CONSTRUCTED IN MORE THAN ONE SECTION, LONGITUDINAL CONSTRUCTION JOINTS WITH TIE BARS SHALL BE USED. TIE BARS SHALL BE #5 BARS, 2'-6" LONG AND SPACED 2'-6" O.C.. SUCH CONSTRUCTION SHALL BE USED WHERE INDICATED ON PLANS.
 - DIMENSIONS "A" AND "B" ARE BASED ON A MID-LENGTH OF 20'-0", EXCEPT IN NO CASE SHALL "A" BE LESS THAN 10'-0".
 - SEE QUANTITY SECTION OF PLANS FOR DIMENSIONS "W", "W1", "W2", "A", "B", SKEW ANGLE "Z", AND QUANTITIES.
 - REINFORCEMENT (DEFORMED) MAY BE FURNISHED FULL LENGTH OR MAY BE SPLICED. IF BARS ARE SPLICED, THEY SHALL BE SPLICED NOT LESS THAN 30 DIAMETERS.
 - IF TOP LIFT OF ASPHALT IS GREATER THAN 1.5", THE LIFT SHALL BE TRANSITIONED TO 1.5" ACROSS THE LENGTH OF THE BRIDGE END PAVEMENT.
 - THE BRIDGE END PAVEMENT PAY ITEM INCLUDES BRIDGE END PAVEMENT, SLEEPER SLAB, AND METAL FLASHING. ALL OTHER ITEMS SHOWN ON THIS SHEET WILL BE PAID AS INDICATED ELSEWHERE IN THE PLANS.
 - CLASS "B" CONCRETE REQUIRED FOR SLEEPER SLAB AND BRIDGE END PAVEMENT. CLASS "AA" CONCRETE MAY BE USED WITH APPROVAL OF THE ENGINEER (NO COST ADJUSTMENT WILL BE MADE).

BY		MISSISSIPPI DEPARTMENT OF TRANSPORTATION ROADWAY DESIGN DIVISION STANDARD PLAN	
REVISION		BRIDGE END PAVEMENT WITH RAIL, OVERLAY, AND SLEEPER SLAB (NEW CONSTRUCTION)	
DATE		ISSUE DATE: AUGUST 01, 2017	

WORKING NUMBER
BE-1
SHEET NUMBER
6007

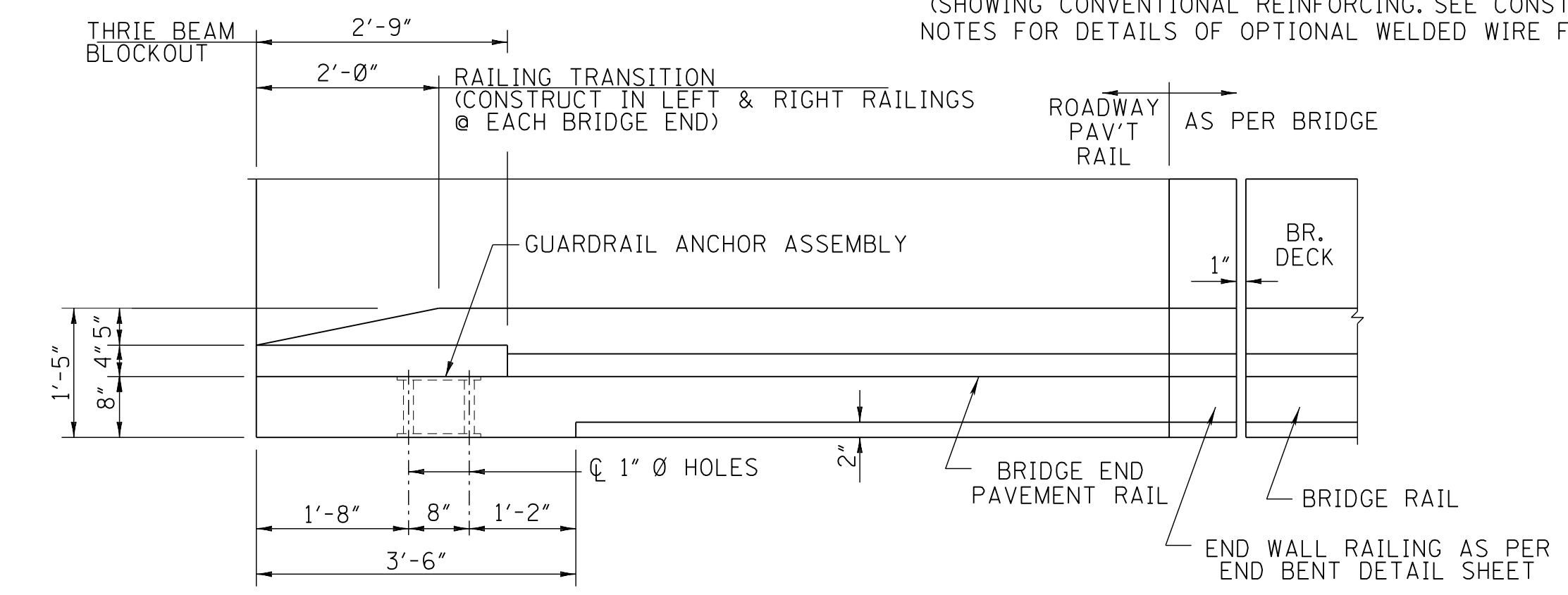


PART PLAN OF LEFT RAILING



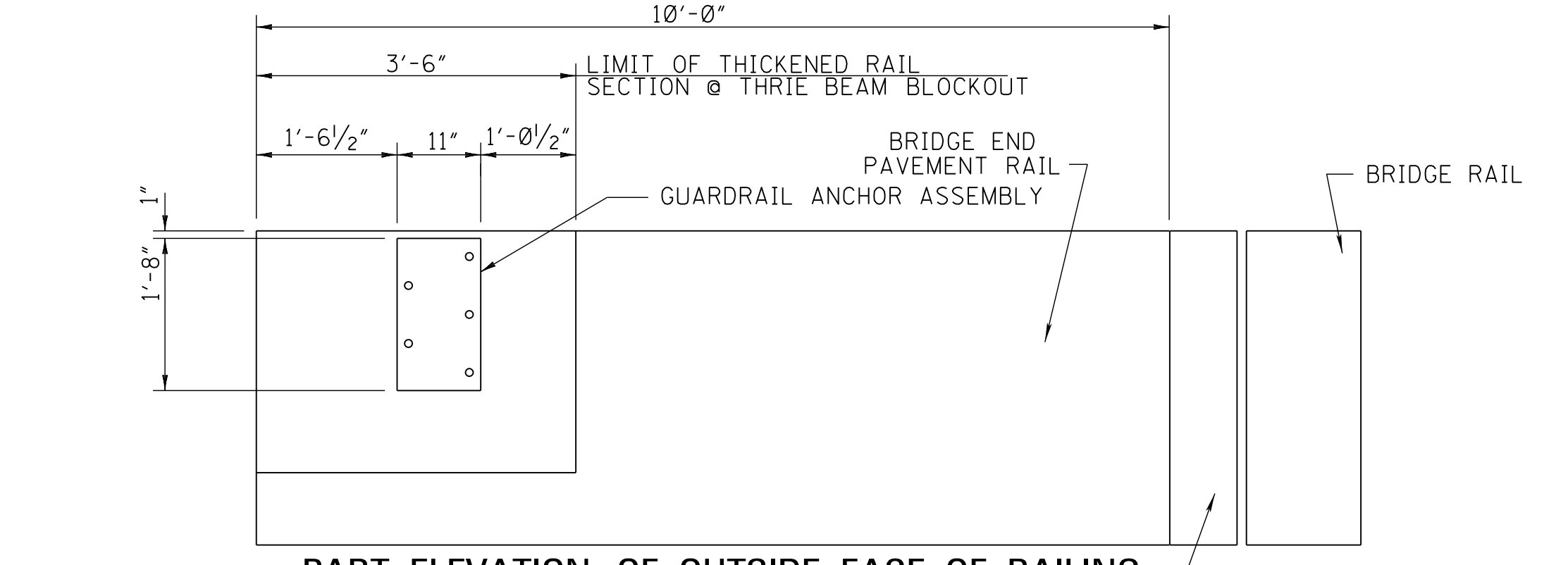
SKEWED PART PLAN OF LEFT RAILING AT BRIDGE END WALL

(SHOWING CONVENTIONAL REINFORCING. SEE CONSTRUCTION NOTES FOR DETAILS OF OPTIONAL WELDED WIRE FABRIC.)

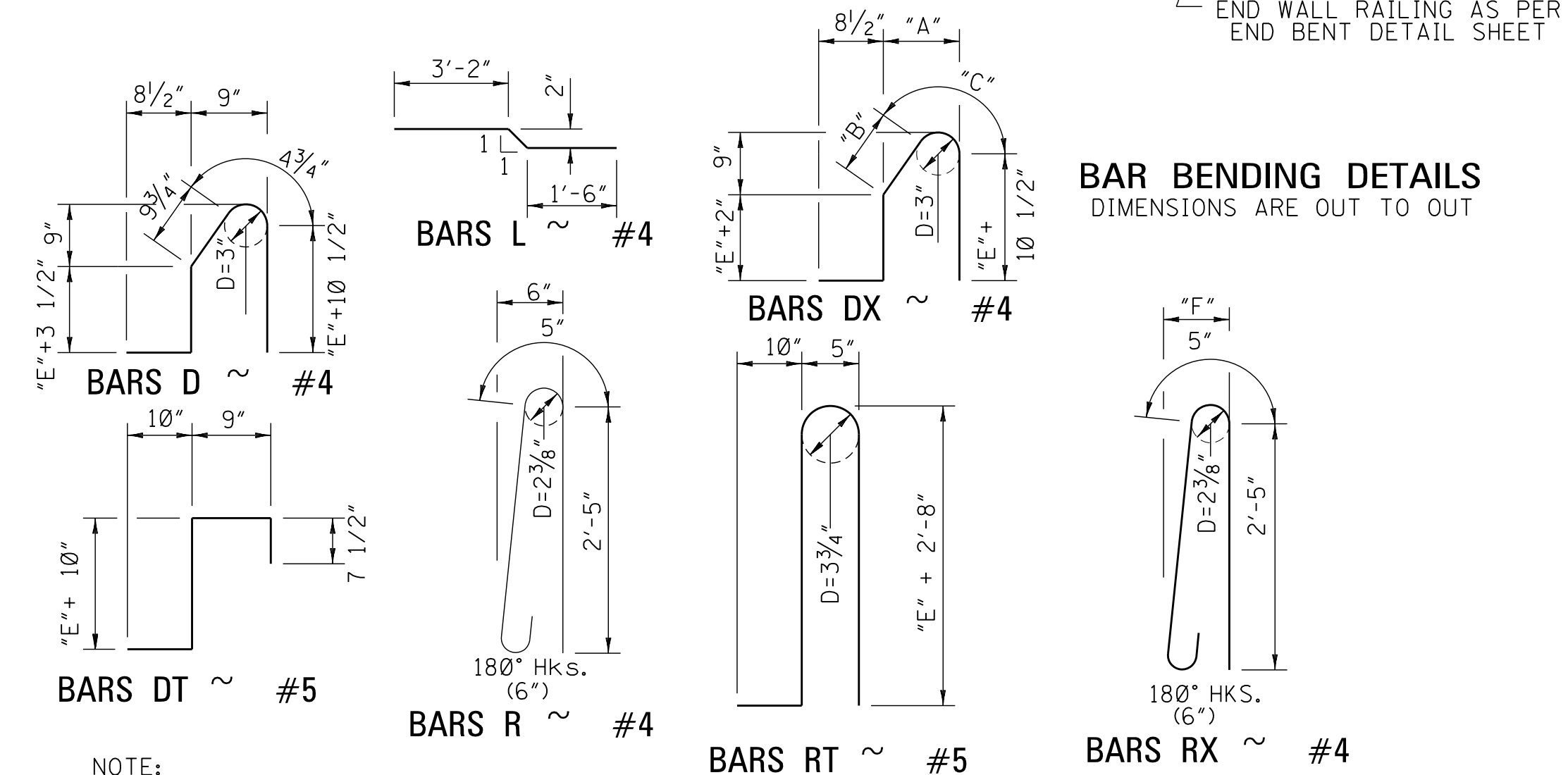


PART PLAN OF RIGHT RAILING

(SHOWING CONCRETE DIMENSIONS)

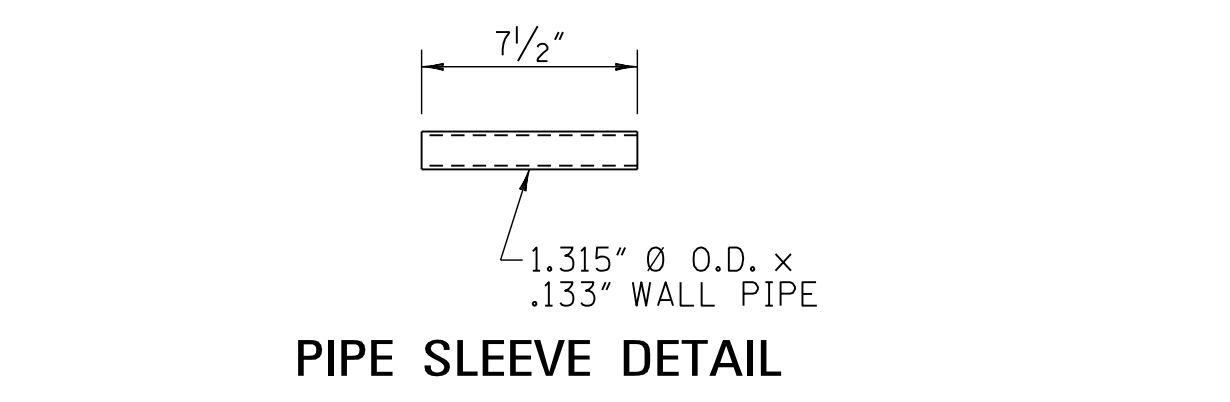


PART ELEVATION OF OUTSIDE FACE OF RAILING



BAR BENDING DETAILS

DIMENSIONS ARE OUT TO OUT



PIPE SLEEVE DETAIL

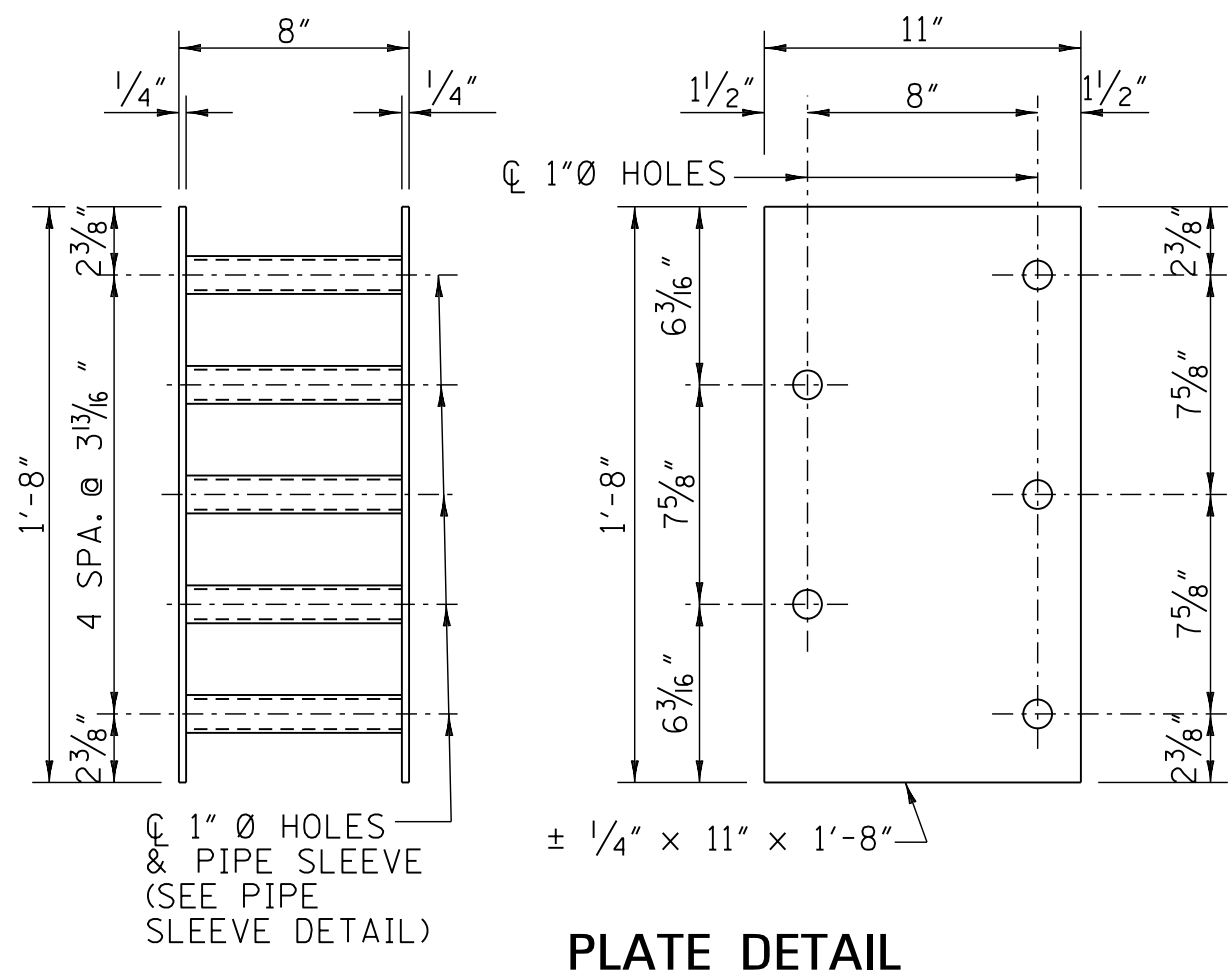
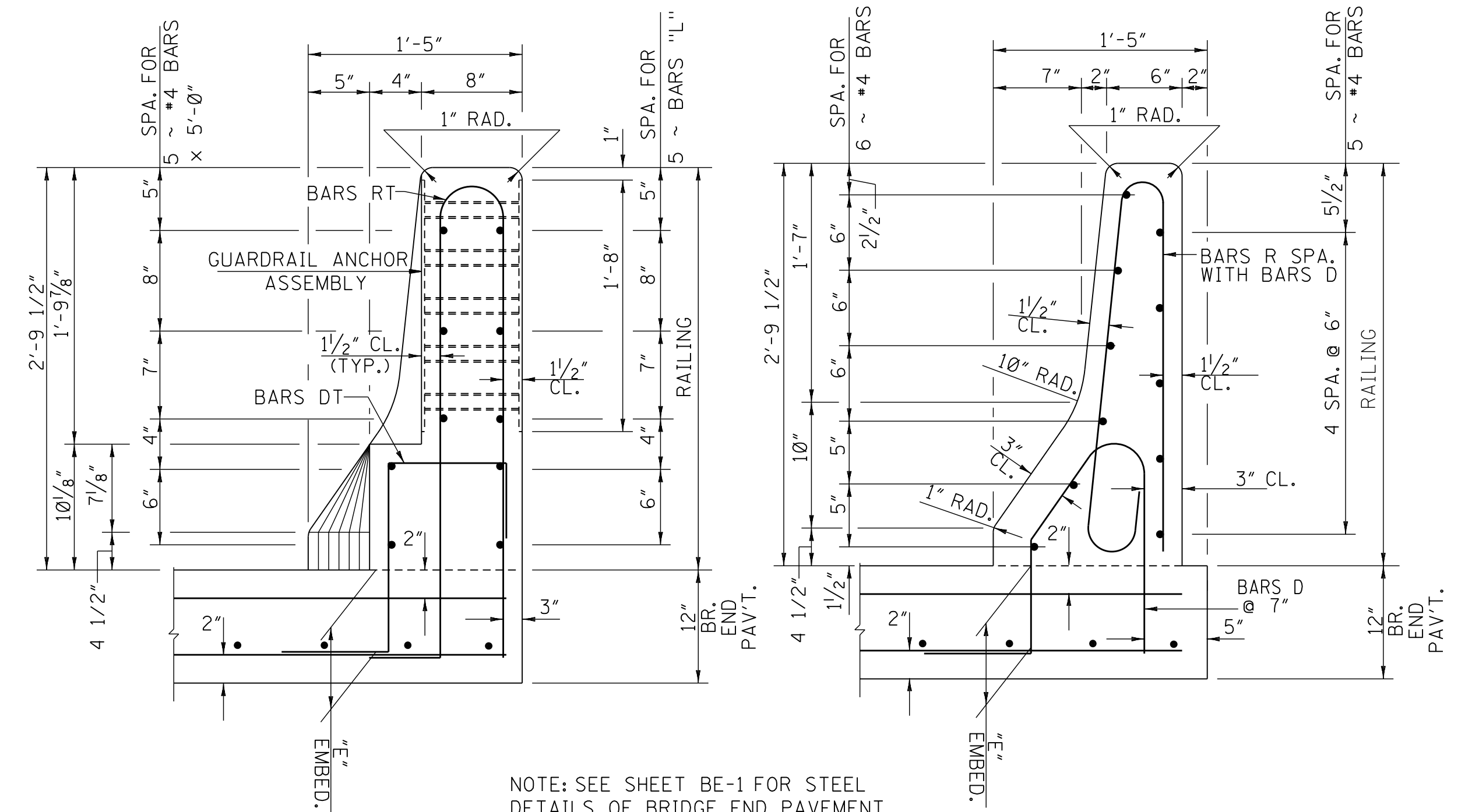


PLATE DETAIL
GUARDRAIL ANCHOR ASSEMBLY

SKEW (DEG)	BARS DX ~ #4			BARS RX ~ #4
	"A"	"B"	"C"	"F"
0	9"	9 3/4"	5"	6"
5	9"	9 3/4"	5"	6"
10	9"	9 3/4"	5"	6"
15	9 1/4"	10"	5"	6 1/4"
20	9 1/2"	10"	5"	6 1/4"
25	10"	10 1/2"	5"	6 1/2"
30	10 1/4"	10 1/2"	5"	7"
35	11"	11 1/4"	4 3/4"	7 1/4"
40	11 3/4"	11 3/4"	4 3/4"	7 3/4"
45	1' - 0 1/4"	1' - 0 3/4"	4 1/2"	8 1/2"
50	1' - 2"	1' - 1 3/4"	4 1/2"	9 1/4"
55	1' - 3 3/4"	1' - 2 1/2"	4 1/2"	10 1/2"



END ELEVATION OF RAILING

TYPICAL SECTION OF RAILING

NOTE: SEE SHEET BE-1 FOR STEEL DETAILS OF BRIDGE END PAVEMENT

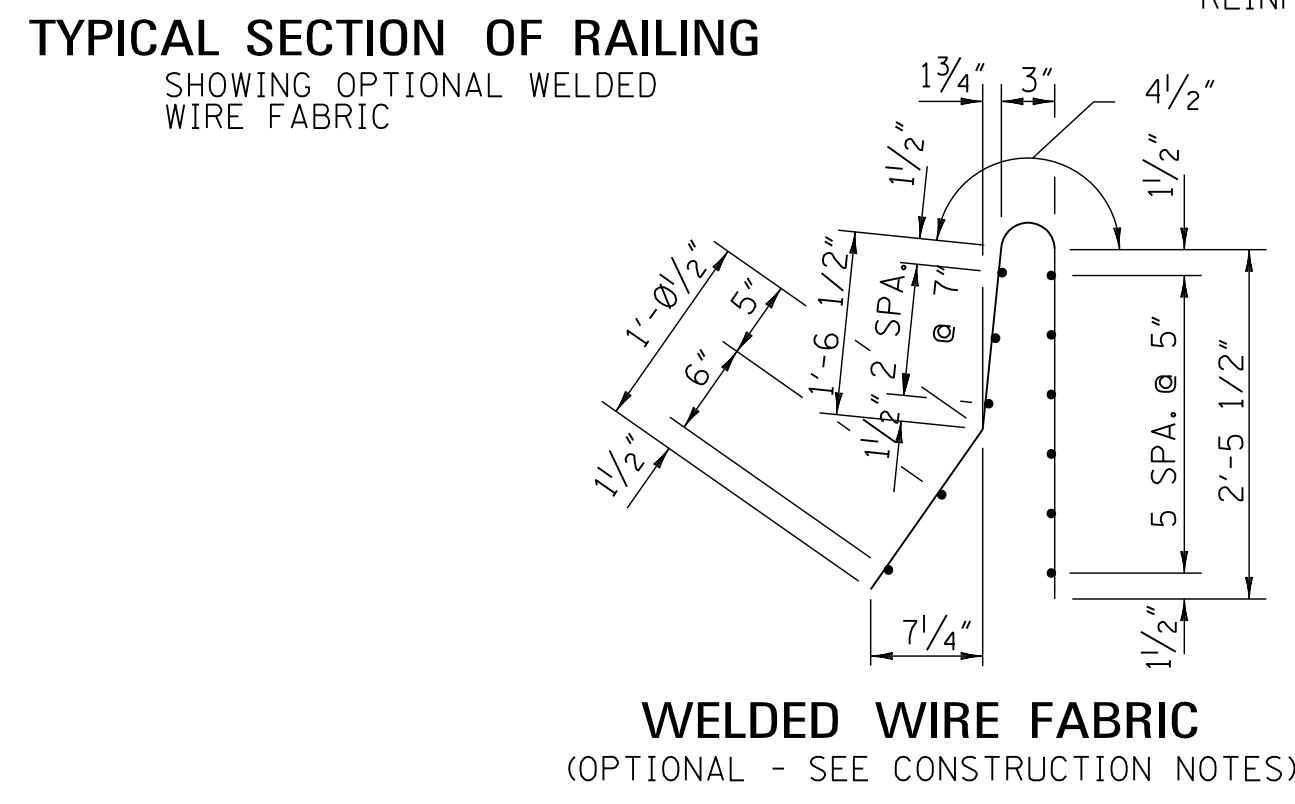
NOTE: "E" = SLAB THICKNESS (IN.) - 2 INCH.

CONSTRUCTION NOTES:

- FABRICATE GUARDRAIL ANCHOR ASSEMBLY BY TACK WELDING EACH END OF PIPE SLEEVES TO PLATES. PLATES SHALL BE ASTM A 36 STEEL. PIPES SHALL BE ASTM 120. GALVANIZE COMPLETE ASSEMBLIES AFTER FABRICATION PER ASTM A 153.
- ATTACH ASSEMBLIES SECURELY TO THE FORMS PRIOR TO POURING RAILING CONCRETE TO ASSURE THAT EXPOSED SURFACES OF THE ASSEMBLIES WILL BE FLUSH WITH THE CONCRETE SURFACES.
- GUARDRAIL ANCHOR ASSEMBLIES SHALL BE INSTALLED IN BOTH LEFT AND RIGHT RAILINGS AT EACH END OF ALL BRIDGES.
- WELDED WIRE FABRIC MEETING THE REQUIREMENTS OF ASTM A 497 AND DETAILS SHOWN ON THIS SHEET MAY BE USED AS AN OPTION TO CONVENTIONAL RAILING REINFORCING. LONGITUDINAL WIRES SHALL BE SPACED AS SHOWN IN THE BAR BENDING DETAILS AND VERTICAL WIRES SHALL BE D8 SPACED AT 4".
- WELDED WIRE FABRIC SHALL NOT BE USED IN THE 2'-9" THRIE BEAM BLOCKOUT. REINFORCEMENT FOR THE 2'-9" THRIE BEAM BLOCKOUT SHALL CONSIST OF CONVENTIONAL REINFORCING AS SHOWN IN DETAILS ON THIS SHEET. THE LONGITUDINAL BARS OF THE CONVENTIONAL REINFORCING SHALL EXTEND BEYOND THE 2'-9" THRIE BEAM BLOCKOUT INTO THE WELDED WIRE FABRIC A MINIMUM DISTANCE OF 1'-6".
- BRIDGE END PAVEMENT RAIL SHALL BE CONSTRUCTED AND PAID FOR IN ACCORDANCE WITH SECTION 813 OF THE STANDARD SPECIFICATIONS.
- 4" DIAMETER WEEP HOLES TO BE PLACED IN THE BRIDGE END PAVEMENT RAIL WHERE REQUIRED TO REDUCE PONDING.
- IF TOP LIFT OF ASPHALT IS ANYTHING OTHER THAN 1.5", THE LIFT SHALL BE TRANSITIONED TO 1.5" ACROSS THE LENGTH OF THE BRIDGE END PAVEMENT.

DESIGN DATA

SPECIFICATIONS.....A.A.S.H.T.O. LRFD 2007 WITH 2009 INTERIMS.
CONCRETE.....CLASS "AA"(4,000 PSI)
REINFORCING.....ASTM A 615 GRADE 60 (Fy = 60 KSI)



TYPICAL SECTION OF RAILING
SHOWING OPTIONAL WELDED WIRE FABRIC

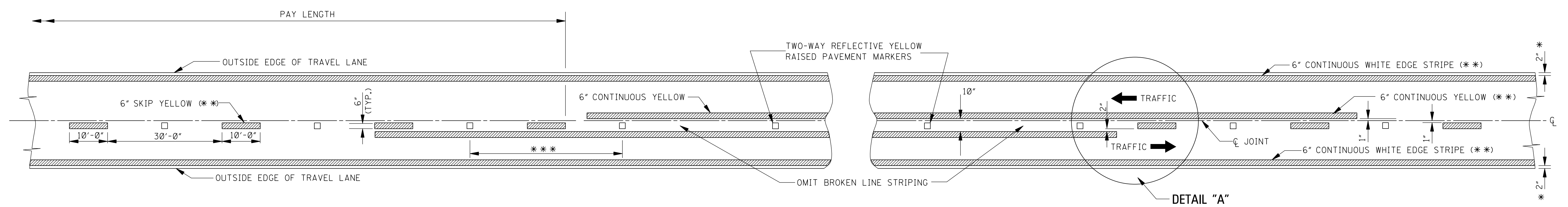
WELDED WIRE FABRIC
(OPTIONAL - SEE CONSTRUCTION NOTES)

BY		MISSISSIPPI DEPARTMENT OF TRANSPORTATION ROADWAY DESIGN DIVISION STANDARD PLAN	
REVISION		<p>33.5" BRIDGE END PAVEMENT RAIL</p>	
DATE			
ISSUE DATE:		AUGUST 01, 2017	

MDOT
MISSISSIPPI DEPARTMENT OF TRANSPORTATION

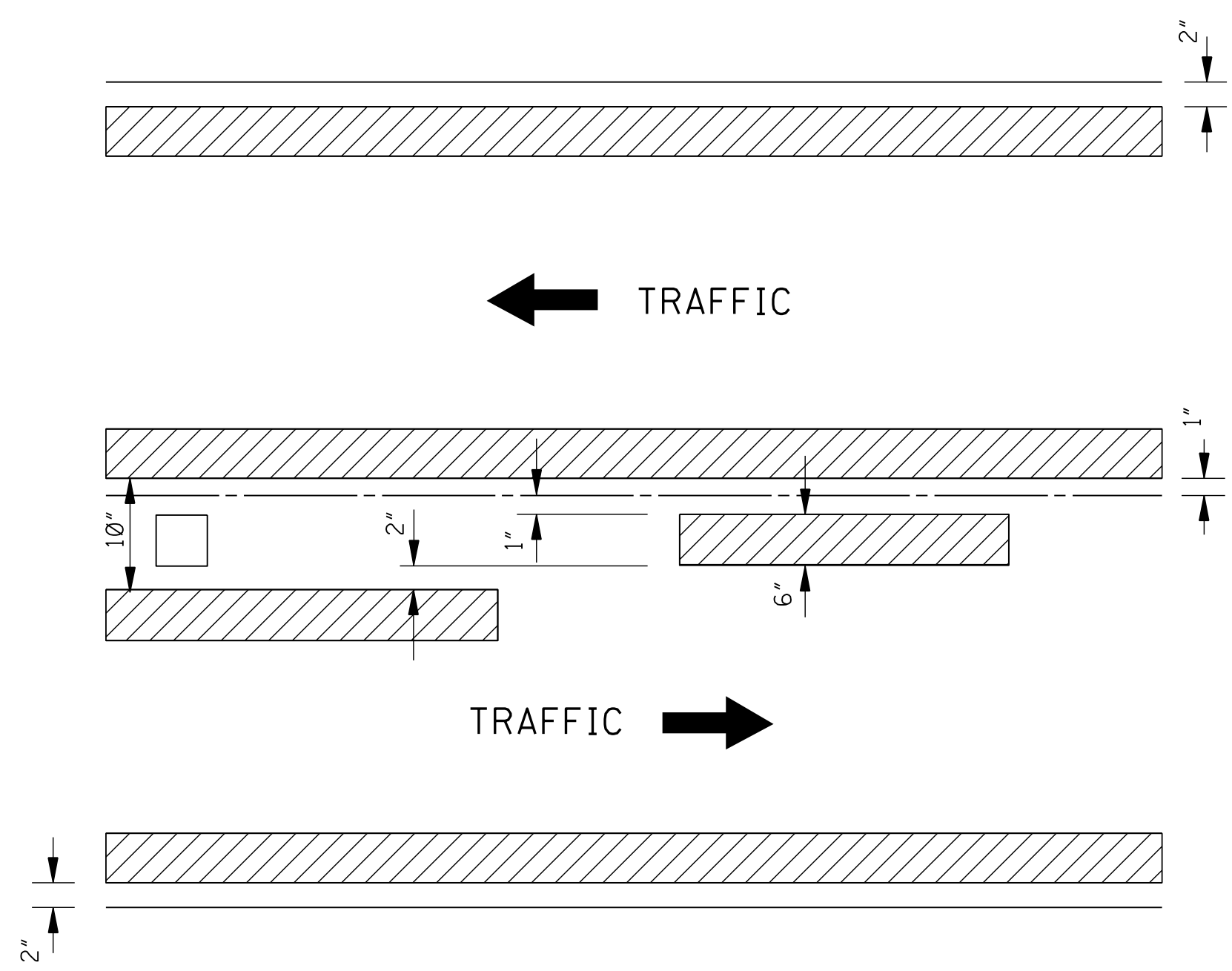
WORKING NUMBER
BER-1

SHEET NUMBER
6009



TWO-WAY TRAFFIC
(ASPHALT OR CONCRETE PAVEMENT)

NOTE: THE CRITERIA FOR NO-PASSING ZONES CAN BE FOUND IN THE MDT ROADWAY DESIGN MANUAL, SECTION 11-1.01.



DETAIL "A"

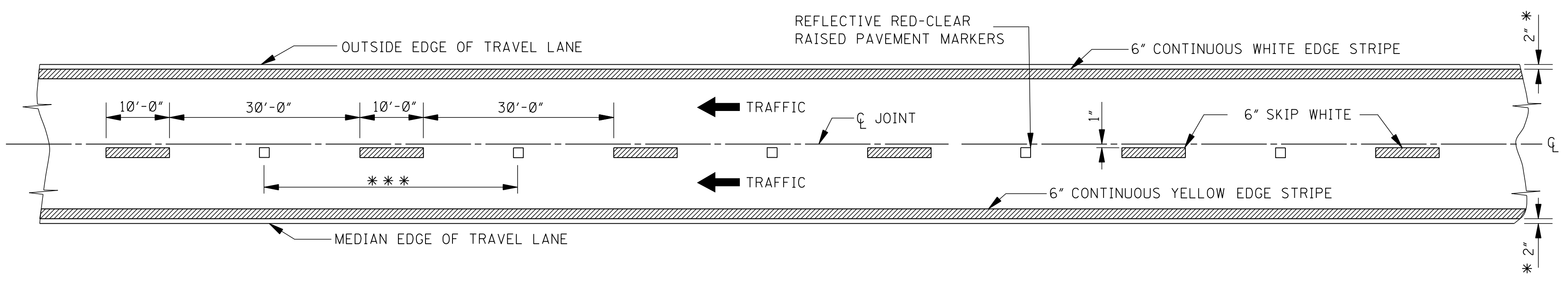
GENERAL NOTES:

- * 1. 2" UNLESS SHOWN ELSEWHERE ON THE PLANS. FOR STRIPING ON RUMBLE STRIP SECTIONS REFER TO WK. SHEETS RS-1, RS-2, AND RS-3.
- ** 2. EDGE STRIPE SHALL BE SAME MATERIAL AS LANE-LINE STRIPE (PAINT OR PLASTIC AS INDICATED IN PAY ITEMS).
- *** 3. SPACING OF REFLECTIVE RAISED PAVEMENT MARKERS IS AS FOLLOWS:

	URBAN AREA (ft-in)	RURAL AREA (ft-in)
TANGENT SECTIONS	40'-0"	80'-0"
HORIZONTAL CURVES	40'-0"	40'-0"
INTERCHANGE LIMITS	40'-0"	+ 40'-0"

† NOTE: ON THE MAIN FACILITY, REFLECTIVE RED-CLEAR RAISED PAVEMENT MARKERS ON A 40'-0" SPACING WILL BE REQUIRED ON LANE-LINE(S) THROUGH ALL INTERCHANGE AREAS BEGINNING 1000' IN ADVANCE (IN DIRECTION OF TRAFFIC) OF THE EXIT RAMP TAPER AND CONTINUING THROUGH THE INTERCHANGE TO THE END OF THE ENTRANCE RAMP TAPER.

4. PAVEMENT MARKERS SHALL BE HIGH PERFORMANCE REFLECTIVE RAISED PAVEMENT MARKERS AS LISTED IN THE MDT "APPROVED SOURCES OF MATERIALS."



4-LANE WITH ONE-WAY TRAFFIC

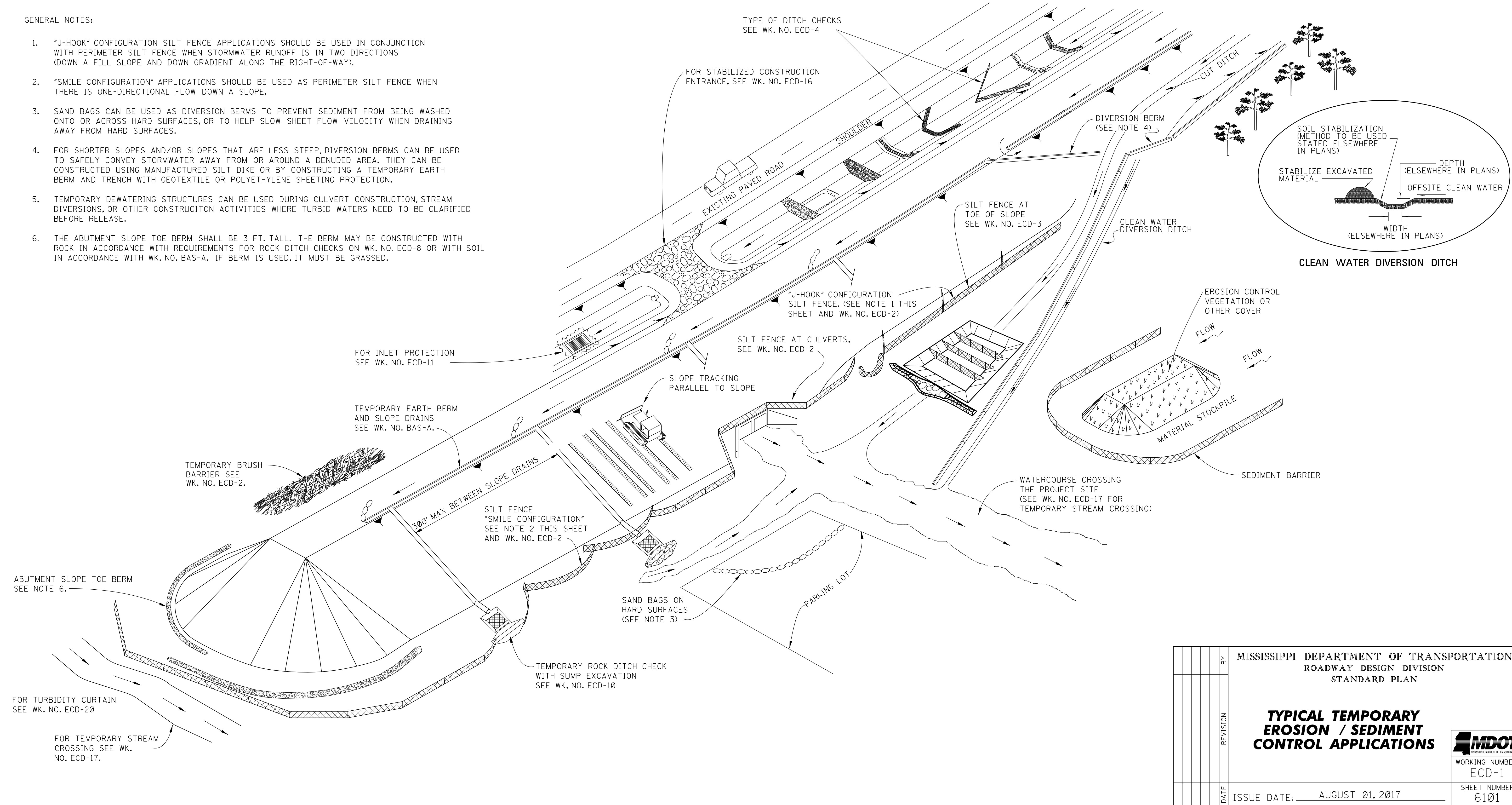
BY	MISSISSIPPI DEPARTMENT OF TRANSPORTATION ROADWAY DESIGN DIVISION STANDARD PLAN
REVISION	PAVEMENT MARKING DETAILS FOR 2-LANE AND 4-LANE DIVIDED ROADWAYS
DATE	ISSUE DATE: AUGUST 01, 2017



WORKING NUMBER
PM-1
SHEET NUMBER
6051

GENERAL NOTES:

1. "J-HOOK" CONFIGURATION SILT FENCE APPLICATIONS SHOULD BE USED IN CONJUNCTION WITH PERIMETER SILT FENCE WHEN STORMWATER RUNOFF IS IN TWO DIRECTIONS (DOWN A FILL SLOPE AND DOWN GRADIENT ALONG THE RIGHT-OF-WAY).
2. "SMILE CONFIGURATION" APPLICATIONS SHOULD BE USED AS PERIMETER SILT FENCE WHEN THERE IS ONE-DIRECTIONAL FLOW DOWN A SLOPE.
3. SAND BAGS CAN BE USED AS DIVERSION BERMS TO PREVENT SEDIMENT FROM BEING WASHED ONTO OR ACROSS HARD SURFACES, OR TO HELP SLOW SHEET FLOW VELOCITY WHEN DRAINING AWAY FROM HARD SURFACES.
4. FOR SHORTER SLOPES AND/OR SLOPES THAT ARE LESS STEEP, DIVERSION BERMS CAN BE USED TO SAFELY CONVEY STORMWATER AWAY FROM OR AROUND A DENUDEED AREA. THEY CAN BE CONSTRUCTED USING MANUFACTURED SILT DIKE OR BY CONSTRUCTING A TEMPORARY EARTH BERM AND TRENCH WITH GEOTEXTILE OR POLYETHYLENE SHEETING PROTECTION.
5. TEMPORARY DEWATERING STRUCTURES CAN BE USED DURING CULVERT CONSTRUCTION, STREAM DIVERSIONS, OR OTHER CONSTRUCTION ACTIVITIES WHERE TURBID WATERS NEED TO BE CLARIFIED BEFORE RELEASE.
6. THE ABUTMENT SLOPE TOE BERM SHALL BE 3 FT. TALL. THE BERM MAY BE CONSTRUCTED WITH ROCK IN ACCORDANCE WITH REQUIREMENTS FOR ROCK DITCH CHECKS ON WK. NO. ECD-8 OR WITH SOIL IN ACCORDANCE WITH WK. NO. BAS-A. IF BERM IS USED, IT MUST BE GRASSED.

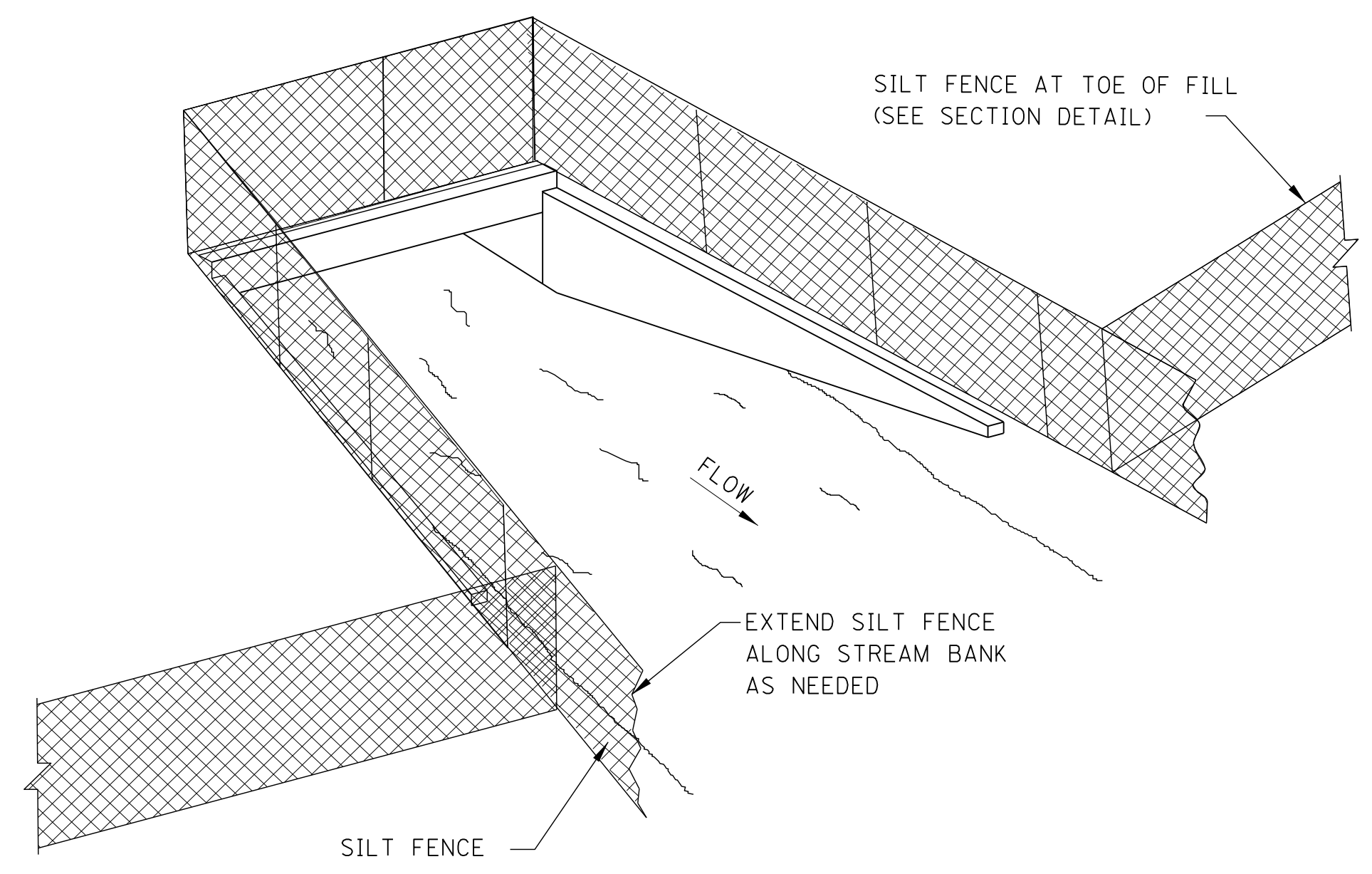


BY	MISSISSIPPI DEPARTMENT OF TRANSPORTATION
REVISION	ROADWAY DESIGN DIVISION
DATE	STANDARD PLAN

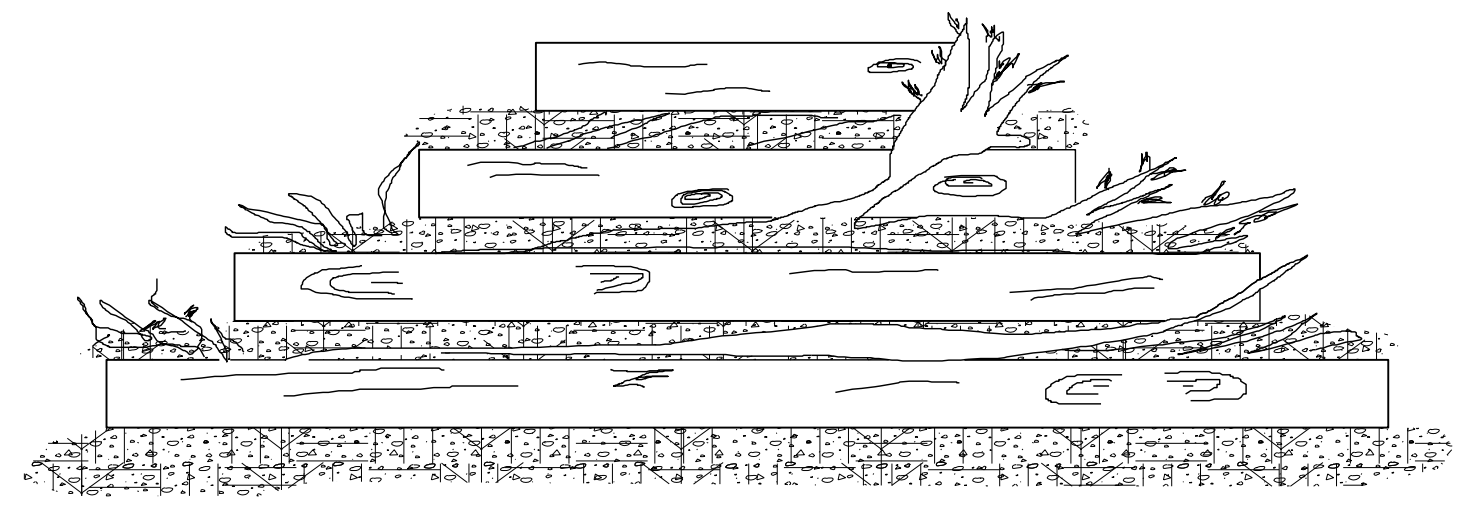
TYPICAL TEMPORARY EROSION / SEDIMENT CONTROL APPLICATIONS

ISSUE DATE: AUGUST 01, 2017

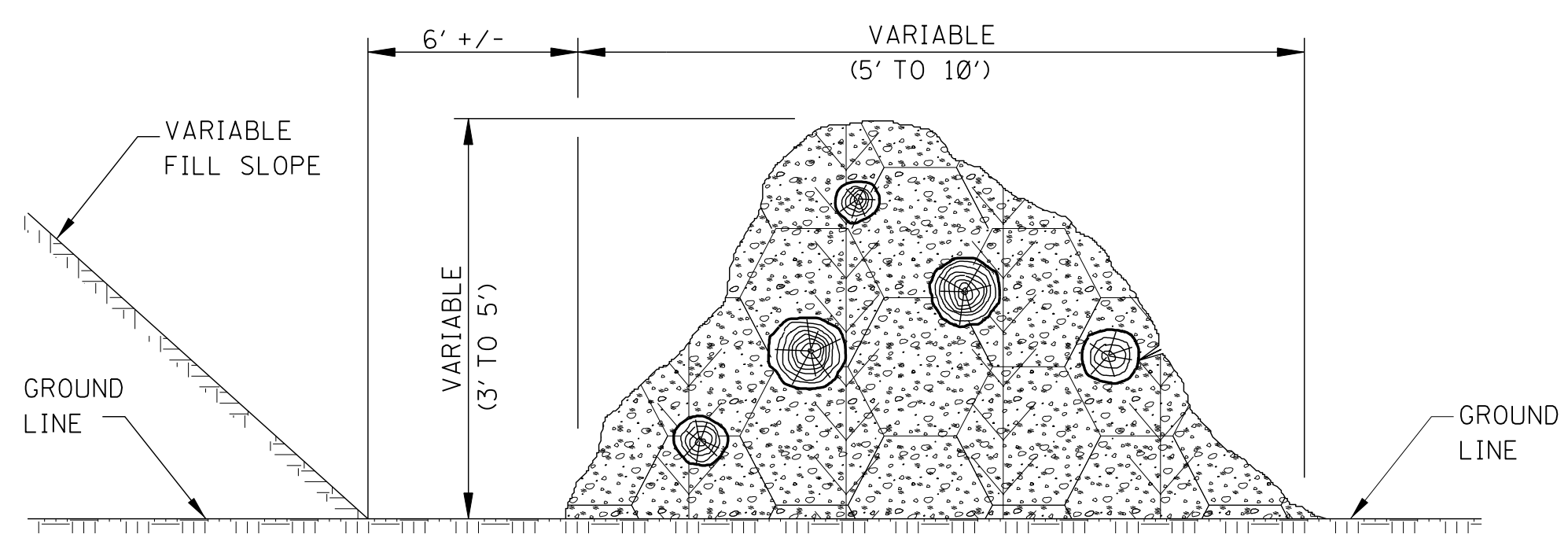
WORKING NUMBER	ECD-1
SHEET NUMBER	6101



SEDIMENT BARRIER AT CROSS DRAIN



FRONT ELEVATION



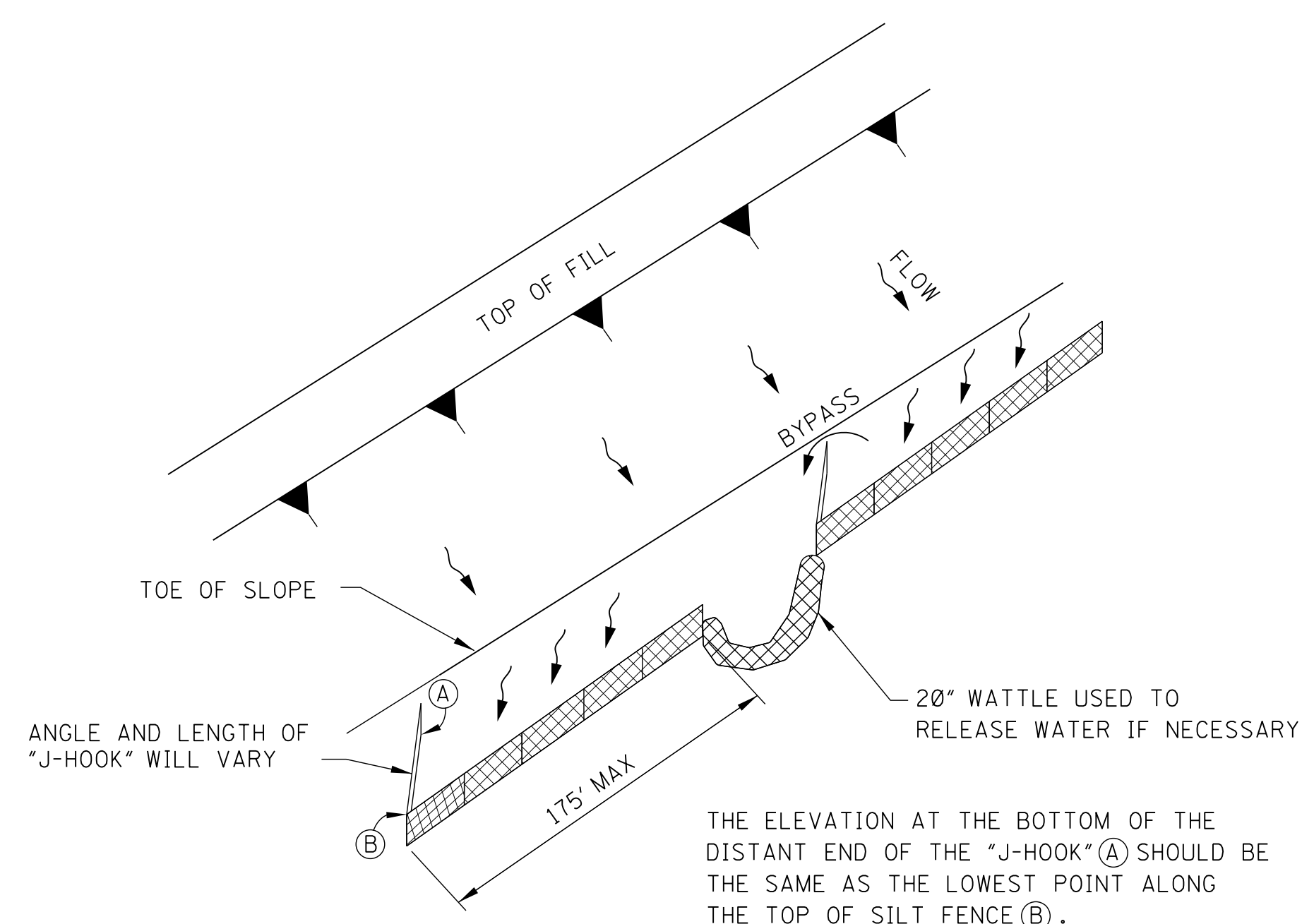
SIDE ELEVATION

TEMPORARY BRUSH BARRIER

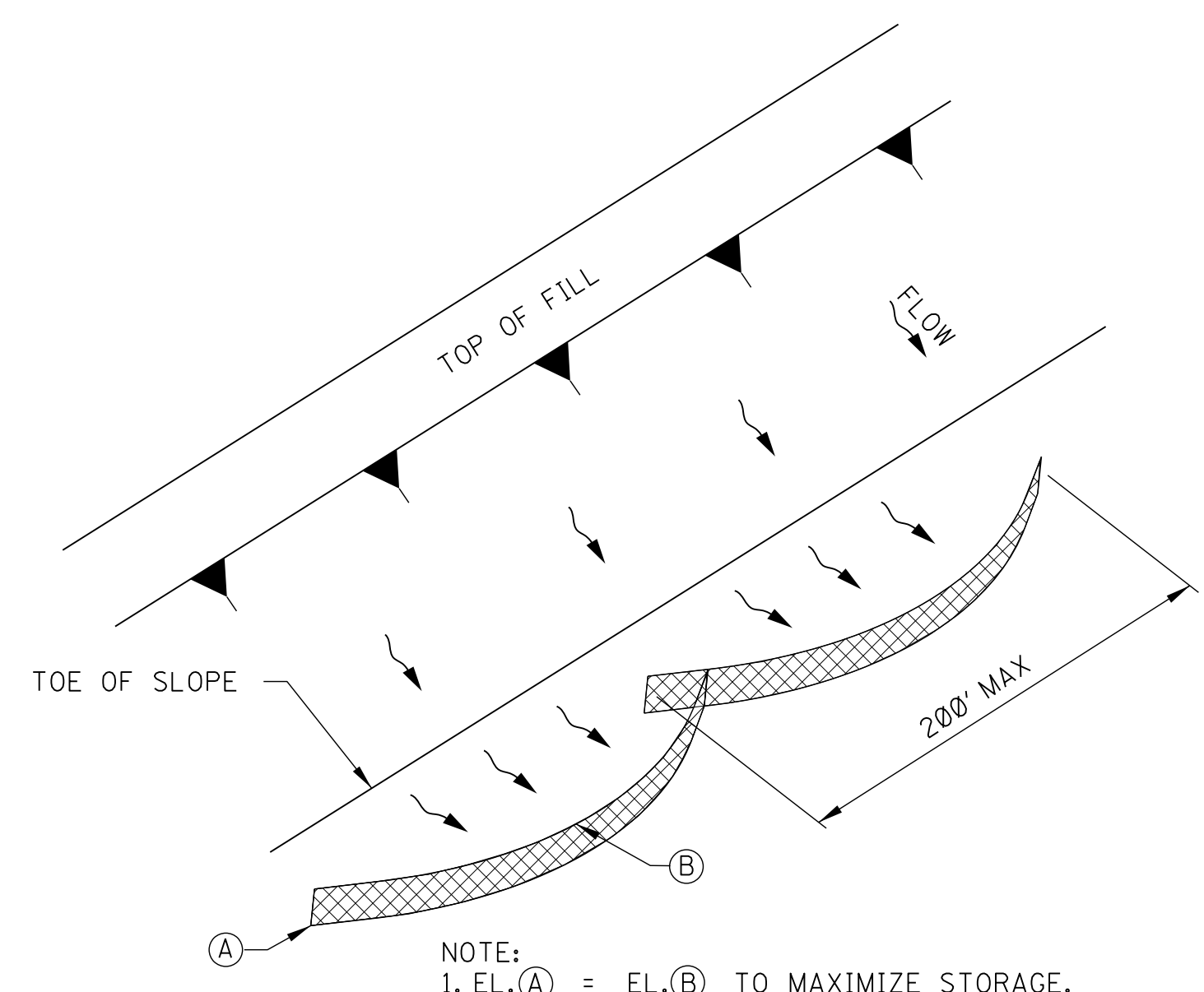
NOTES:

- BRUSH BARRIER MAY BE USED WHERE NATURAL GROUND IS LEVEL OR SLOPING AWAY FROM PROJECT.
- PLACE BRUSH, LOG AND TREE LAPS APPROXIMATELY PARALLEL TO TOE OF FILL SLOPE WITH SOME OF THE HEAVIER MATERIALS BEING PLACED ON TO TO PROPERLY SECURE THE BARRIER AS DETAILED AT LOCATIONS SHOWN ON PLANS OR AS DIRECTED OR PERMITTED BY THE ENGINEER.
- TO ALLOW WATER TO SEEP THROUGH BRUSH BARRIER, INTERMINGLE THE BRUSH, LOG AND TREE LAPS SO AS NOT TO FORM A SOLID DAM.
- THE BRUSH BARRIER MAY BE CHOKED WITH FILTER FABRIC. THE COST OF FABRIC TO BE INCLUDED IN OTHER ITEMS BID.
- TEMPORARY BRUSH BARRIER WILL NOT BE MEASURED FOR SEPARATE PAYMENT.

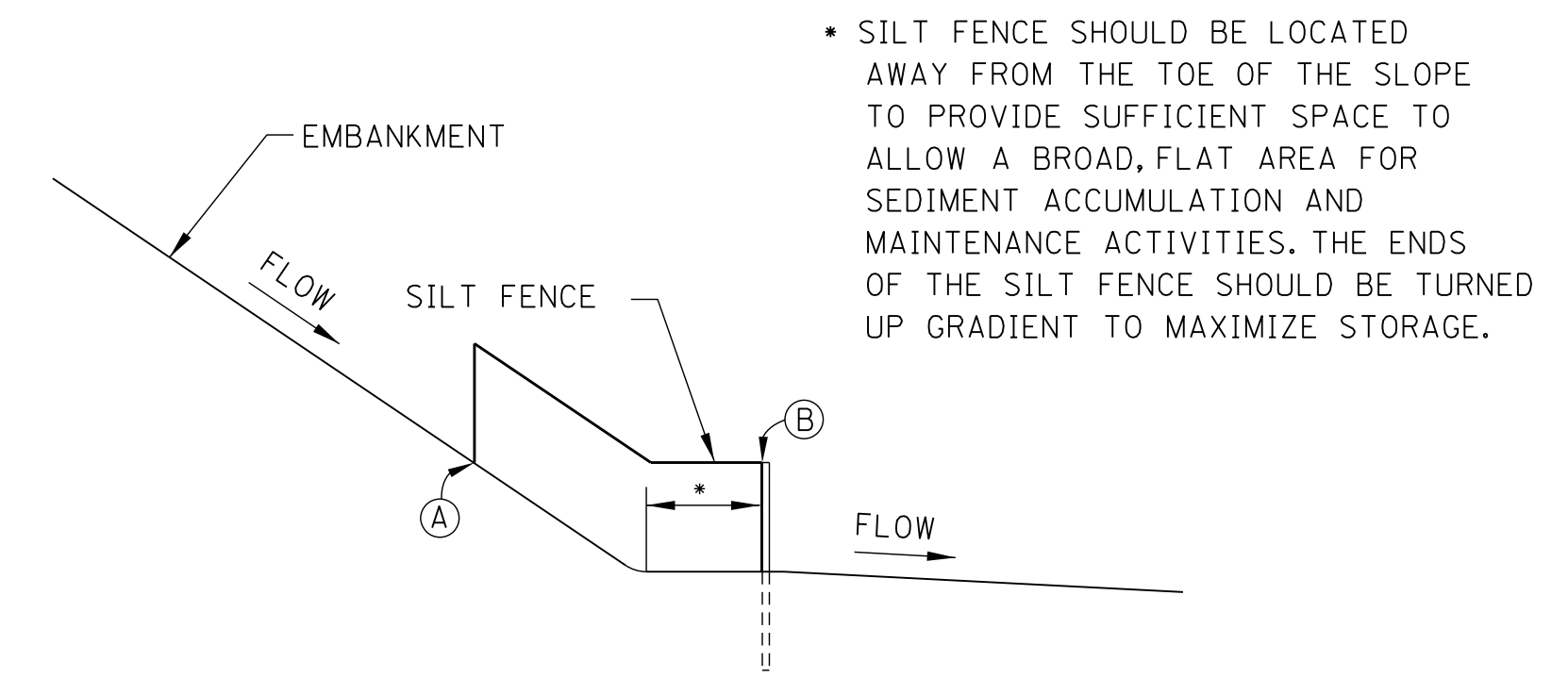
NOTE: ANCHOR AND INSTALL SILT FENCE PER DETAILS SHOWN ON WK. NO. ECD-3



"J-HOOK" SILT FENCE APPLICATION




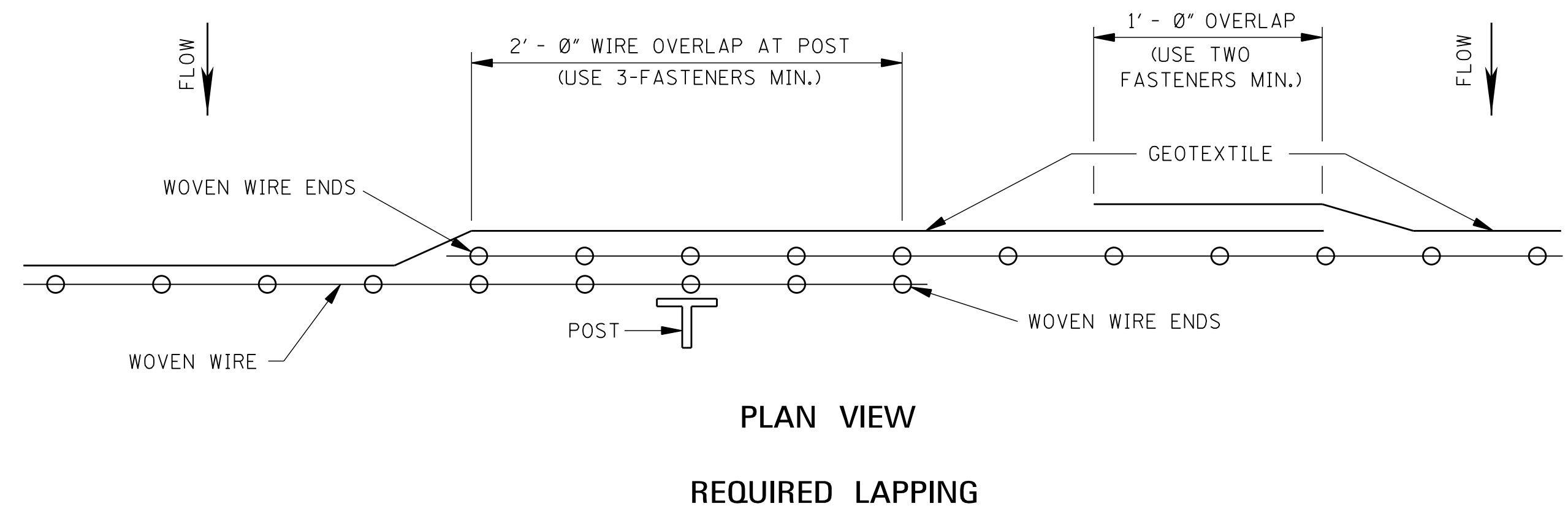
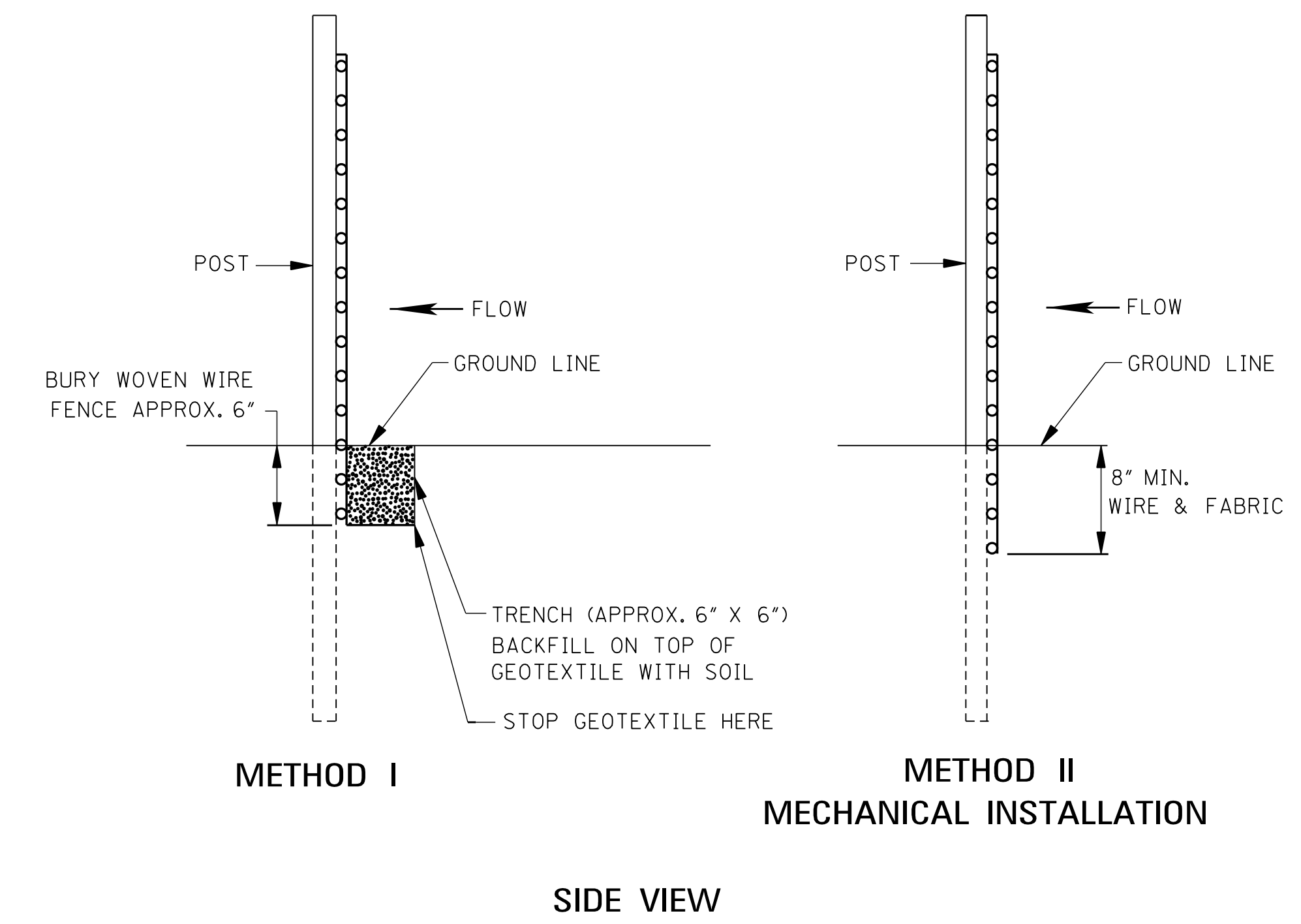
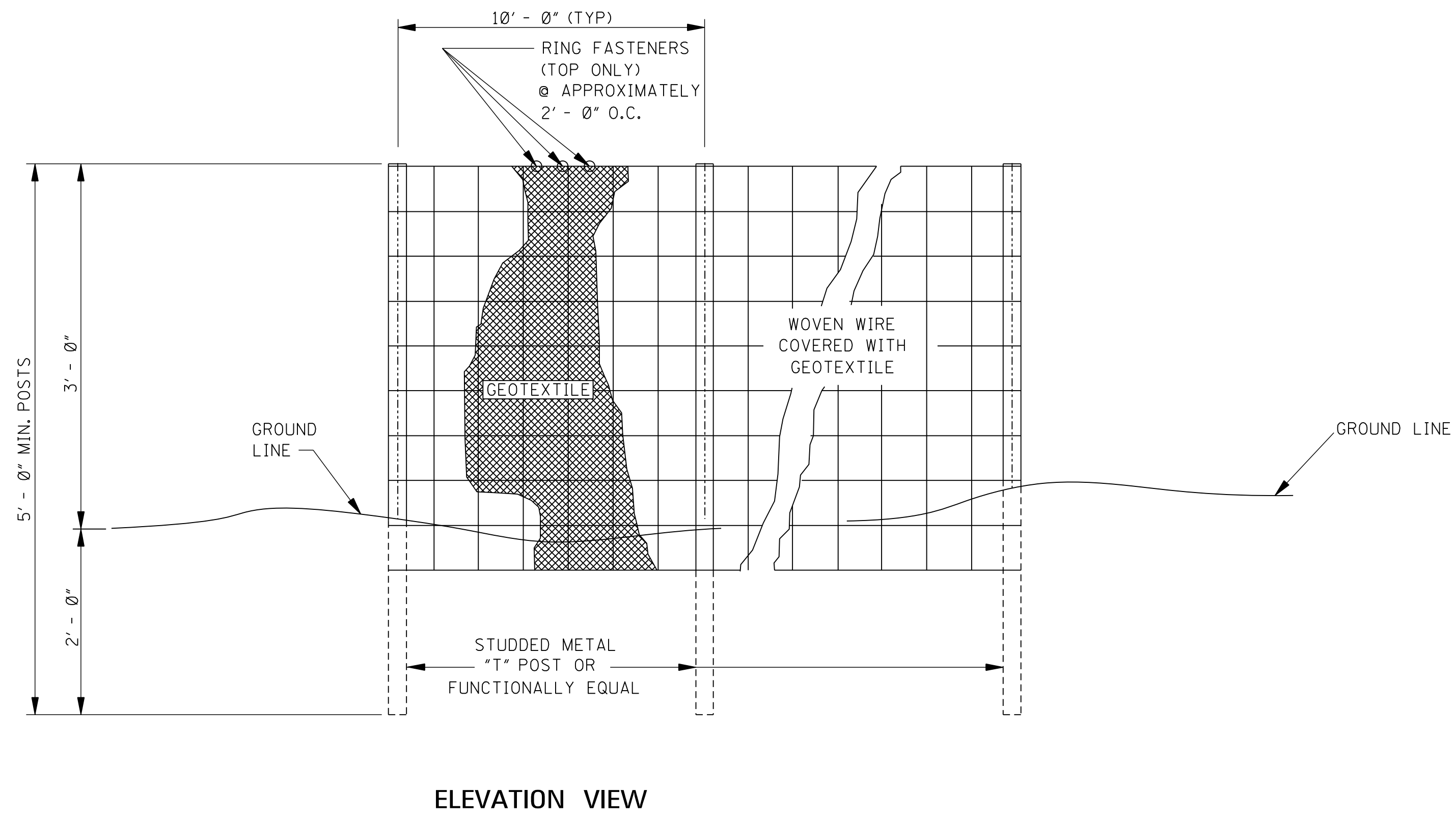
"SMILE-CONFIGURATION" SILT FENCE APPLICATION



SILT FENCE SECTION AT TOE OF FILL

- SILT FENCE SHOULD BE LOCATED AWAY FROM THE TOE OF THE SLOPE TO PROVIDE SUFFICIENT SPACE TO ALLOW A BROAD, FLAT AREA FOR SEDIMENT ACCUMULATION AND MAINTENANCE ACTIVITIES. THE ENDS OF THE SILT FENCE SHOULD BE TURNED UP GRADIENT TO MAXIMIZE STORAGE.

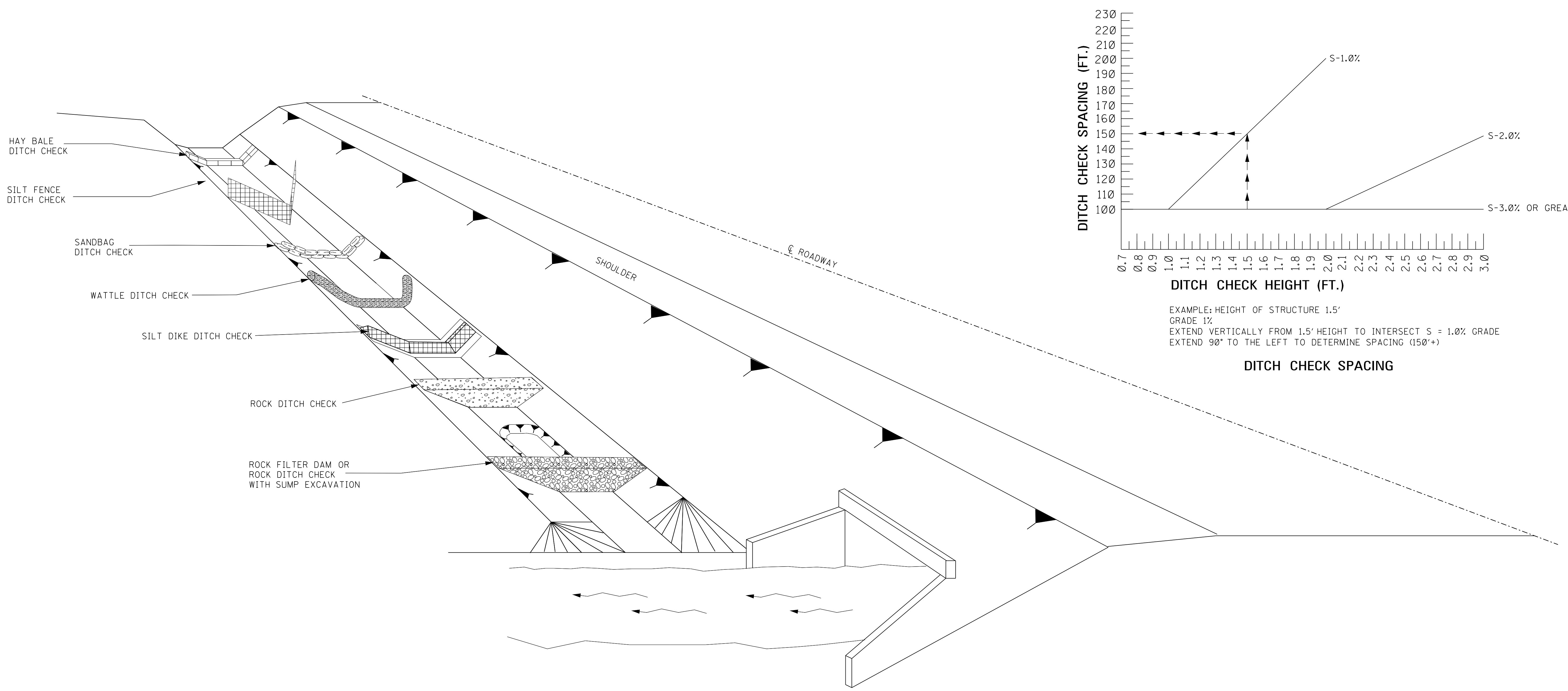
BY		MISSISSIPPI DEPARTMENT OF TRANSPORTATION ROADWAY DESIGN DIVISION STANDARD PLAN	
REVISION		<p>DETAILS OF SEDIMENT BARRIER APPLICATIONS</p> 	
DATE			
ISSUE DATE: AUGUST 01, 2017		WORKING NUMBER ECD-2	SHEET NUMBER 6102



GENERAL NOTES:

- SILT FENCES SHOULD BE USED IN AREAS WHERE FLOW IS NOT SEVERE.
- SILT FENCES ARE TEMPORARY SEDIMENT CONTROL ITEMS THAT SHOULD BE ERECTED OPPOSITE ERODIBLE AREAS SUCH AS NEWLY GRADED FILL SLOPES AND ADJACENT TO STEAMS AND CHANNELS.
- SILT FENCE SHOULD BE PLACED WELL INSIDE RIGHT-OF-WAY AND ALONG EDGE OF CLEARING LIMITS. THIS WILL ALLOW ROOM FOR BACK-UP FENCE IF FIRST FENCE BECOMES FULL.
- WHENEVER POSSIBLE SILT FENCE SHOULD BE CONSTRUCTED ACROSS A LEVEL AREA IN THE SHAPE OF A SMILE. THIS AIDS IN PONDING OF RUNOFF AN FACILITATES SEDIMENTATION.
- THE CONTRACTOR MAY ELECT TO USE EITHER METHOD I OR METHOD II. COST TO BE LINEAR FEET OF SILT FENCE.
- METHOD II INSTALLATION SHALL BE ACCOMPLISHED USING AN IMPLEMENT THAT IS MANUFACTURED FOR THE APPLICATION AND PROVIDES A CONFIGURATION MEETING THE REQUIREMENTS OF DETAIL.
- WIRE SHALL BE A MINIMUM OF 32" IN WIDTH AND SHALL HAVE A MINIMUM OF 6 LINE WIRES WITH 12" STAY SPACING.
- GEOTEXTILE FABRIC MEETING THE TYPE II MATERIAL REQUIREMENTS AND INSTALLED ACCORDING TO SPECIFICATION MAY BE USED WITHOUT WIRE FENCE.

BY		MISSISSIPPI DEPARTMENT OF TRANSPORTATION ROADWAY DESIGN DIVISION STANDARD PLAN	
REVISION		<p>DETAILS OF SILT FENCE INSTALLATION</p> 	
DATE			
ISSUE DATE:		AUGUST 01, 2017	
WORKING NUMBER		ECD-3	
SHEET NUMBER		6103	




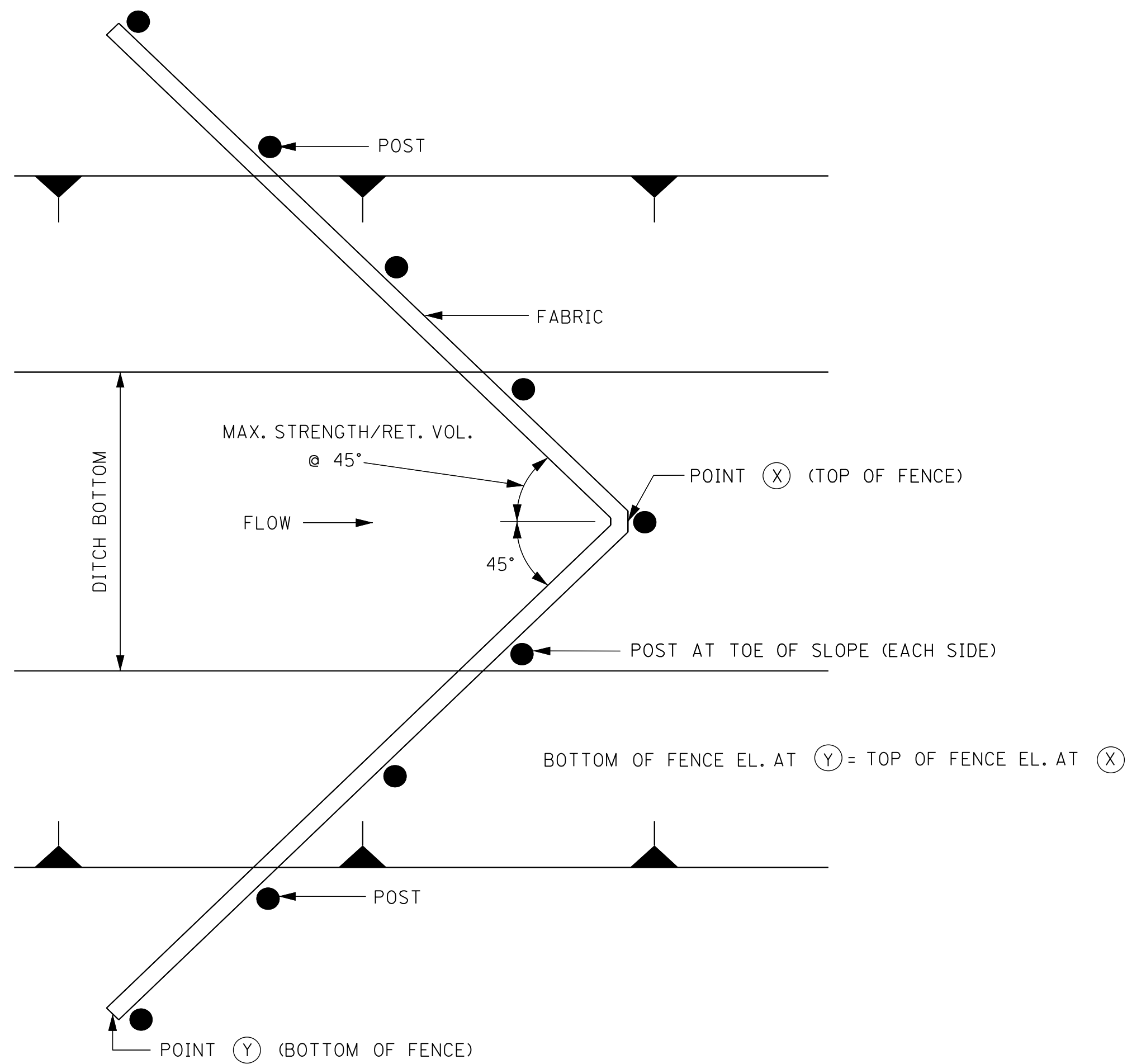
EXAMPLE: HEIGHT OF STRUCTURE 1.5'
 GRADE 1%
 EXTEND VERTICALLY FROM 1.5' HEIGHT TO INTERSECT S = 1.0% GRADE
 EXTEND 90° TO THE LEFT TO DETERMINE SPACING (150'+)

GENERAL NOTES:

1. THE DITCH CHECK PERSPECTIVE ILLUSTRATES A TOOL BOX OF TEMPORARY PRACTICES THAT MAY BE USED. DITCH CHECKS ARE INSTALLED TO CONTROL RUNOFF VELOCITY AND THUS REDUCE EROSION AND PROVIDE FOR TRAPPING OF SEDIMENTS.
2. SELECTION OF THE APPROPRIATE DITCH CHECK SHOULD BE A FUNCTION OF CONSTRUCTION PHASE, DRAINAGE AREA, DITCH GRADIENT, SOIL TYPE, ECONOMY AND SAFETY.
3. DITCH CHECKS CAN BE REMOVED FOR MAINTENANCE AND/OR REPLACEMENT BUT MUST REMAIN IN PLACE UNTIL UPSLOPE AREAS HAVE BEEN PERMANENTLY STABILIZED. MAINTENANCE INCLUDES REMOVAL OF SEDIMENT BEGINNING WHEN SEDIMENT ACCUMULATION REACHES 1/3 THE CAPACITY OR HEIGHT OF THE STRUCTURE AND NEVER ALLOWING FOR SEDIMENT TO ACCUMULATE MORE THAN 1/2 THE VOLUME OR HEIGHT OF THE DITCH CHECK STRUCTURE.
4. HAY BALES SHOULD BE USED TO INTERCEPT LOW VOLUME FLOWS IN LOW TO MODERATE GRADIENT DITCHES.
5. SILT FENCE DITCH CHECKS SHOULD BE USED WHERE IT HAS BEEN DETERMINED THAT HAY BALE CHECKS ARE INADEQUATE. SILT FENCE DITCH CHECKS SHOULD BE USED TO INTERCEPT LOW VOLUME FLOWS IN LOW TO MODERATE GRADIENT DITCHES.
6. SANDBAG DITCH CHECKS SHOULD BE USED FOR VELOCITY REDUCTION AND MINIMAL SEDIMENT TRAPPING IN CONCRETE PAVED DITCHES OR IN DITCHES THAT HAVE ROCK BOTTOMS.
7. WATTLE DITCH CHECKS CAN BE USED FOR VELOCITY REDUCTION AND CONTROL OF SEDIMENT TRANSPORT UNDER LOW TO MEDIUM FLOW CONDITIONS.
8. SILT DIKES CAN BE USED IN DITCHES WITH CONCENTRATED FLOWS WITHIN THE CLEAR ZONE WHERE RIPRAP CAN NOT BE USED, AS CONSTRUCTION PROGRESSES.
9. ROCK DITCH CHECKS WITH SUMP EXCAVATION CAN BE PLACED IN DITCHES TO ASSURE ON-SITE SEDIMENT TRAPPING REQUIREMENTS ARE MET. DITCH CHECK WITH SUMP EXCAVATION IS USED WHEN DITCHES RECEIVE DRAINAGE FROM CUT OR FILL SLOPES OR OTHER CRITICAL AREAS WHERE SOIL EROSION IS EXPECTED. DRAINAGE AREA FOR A TEMPORARY SEDIMENT TRAP SHOULD BE LIMITED TO 3 ACRES. THEY CAN BE USED IN SERIES TO INCREASE ON-SITE SEDIMENT TRAPPING EFFICIENCY.
10. DITCH CHECKS, IN NO CASE, SHALL BE PLACED IN LIVE STREAMS.
11. CONFIGURATION AND SPACING MAY BE ADJUSTED IF APPROVED BY THE ENGINEER TO ACCOMMODATE TRAVELWAY SAFETY, WATER FLOW, OR SOIL AND INSTALLATION CHALLENGES.

MISSISSIPPI DEPARTMENT OF TRANSPORTATION ROADWAY DESIGN DIVISION STANDARD PLAN	
DITCH CHECK STRUCTURES, TYPICAL APPLICATIONS AND DETAILS	
DATE	ISSUE DATE: AUGUST 01, 2017
REVISION	
BY	

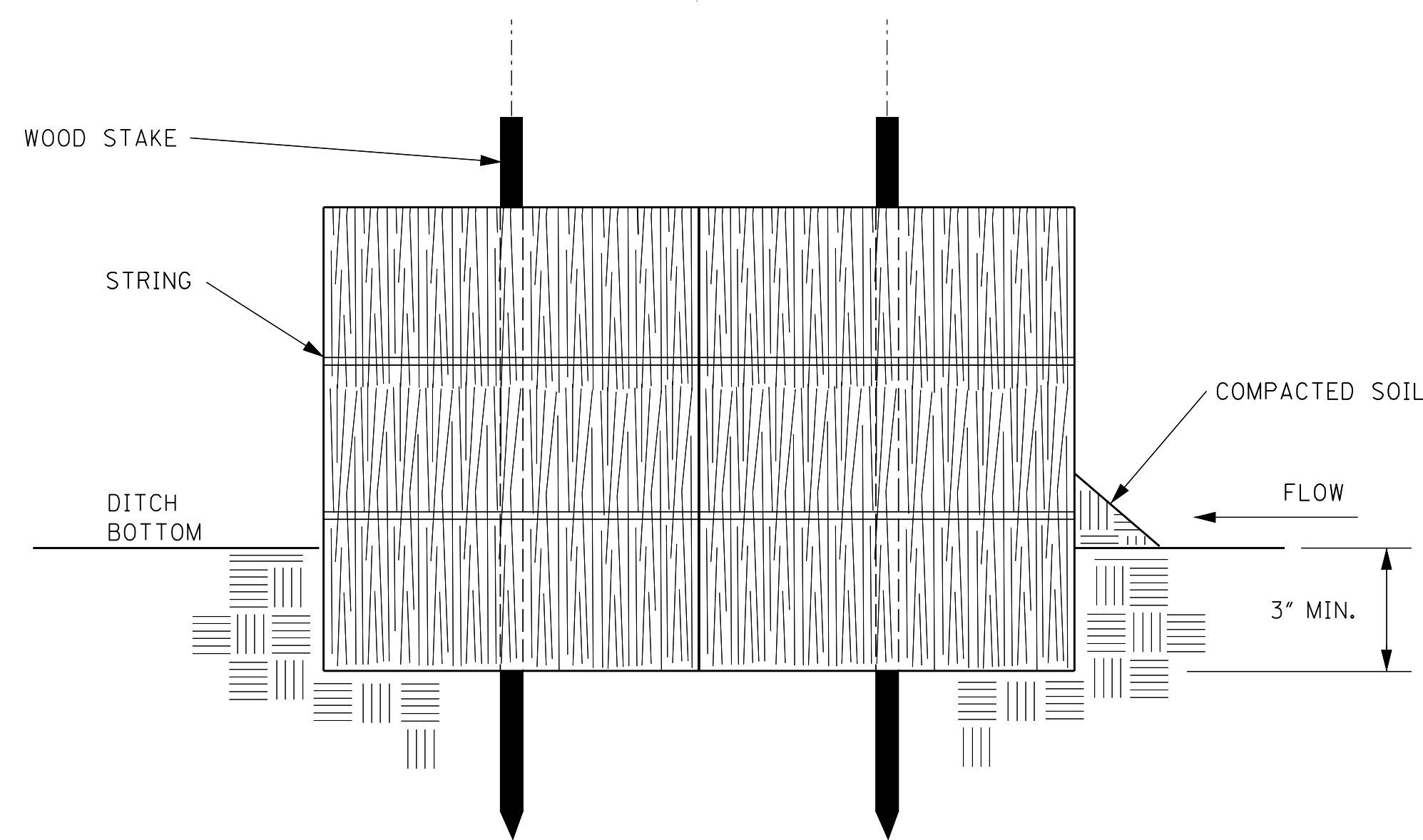

 WORKING NUMBER
 ECD-4
 SHEET NUMBER
 6104



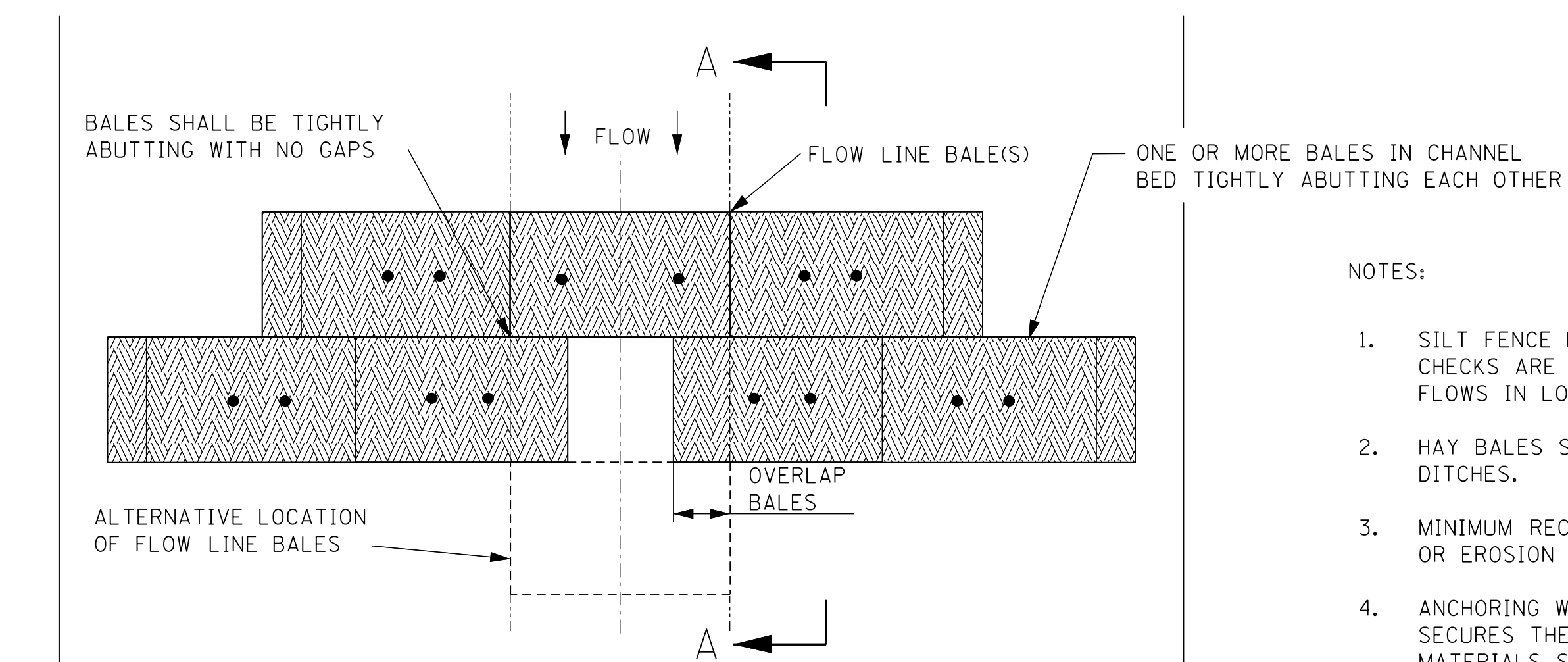
PLAN VIEW

NOTES:

1. ANCHOR AND INSTALL PER DETAILS FOR SILT FENCE SPACING GUIDELINES ON WK. NO. ECD-4.
2. A "W" SHAPE MAY BE USED FOR WIDER DITCHES.



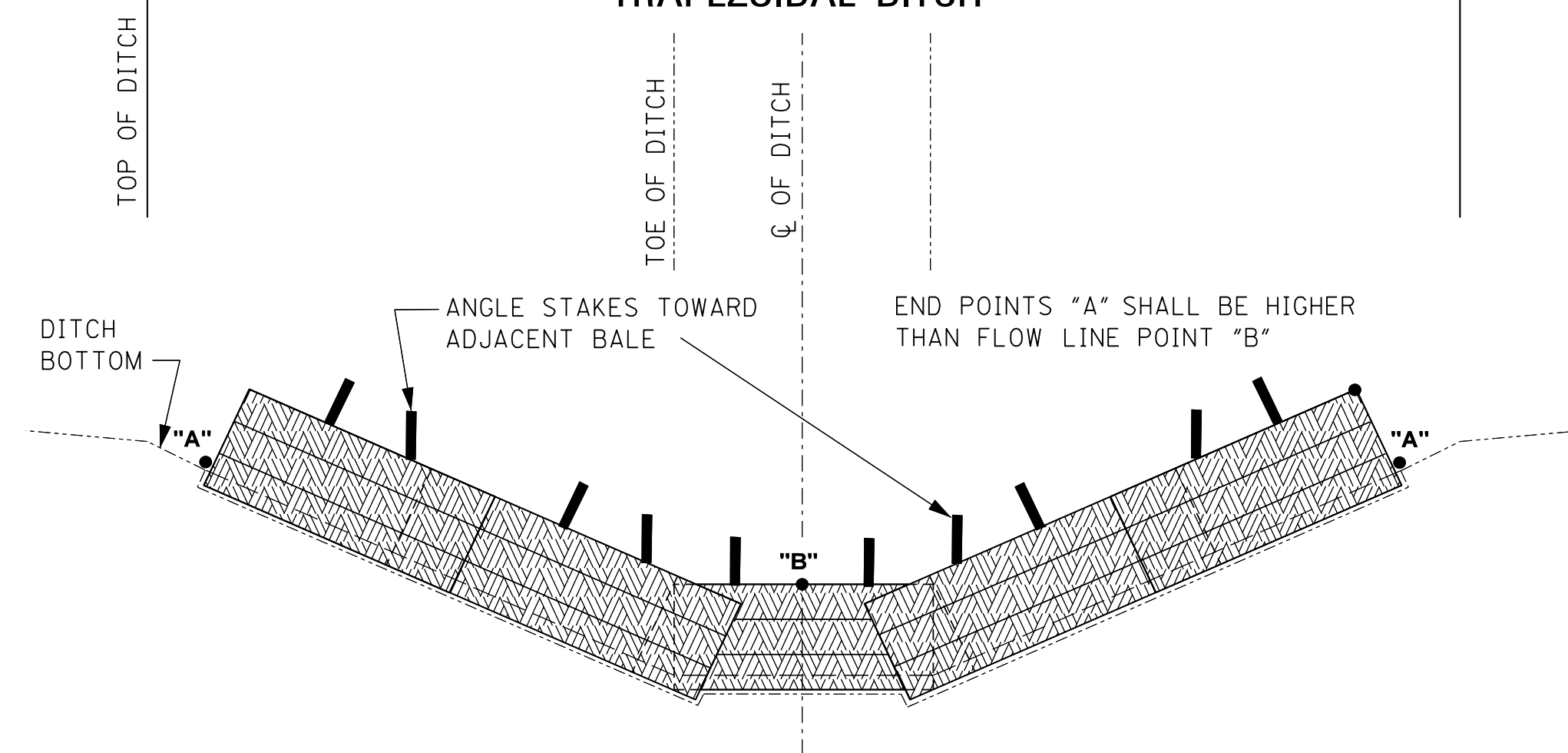
SECTION A-A




PLAN VIEW
TRAPEZOIDAL DITCH

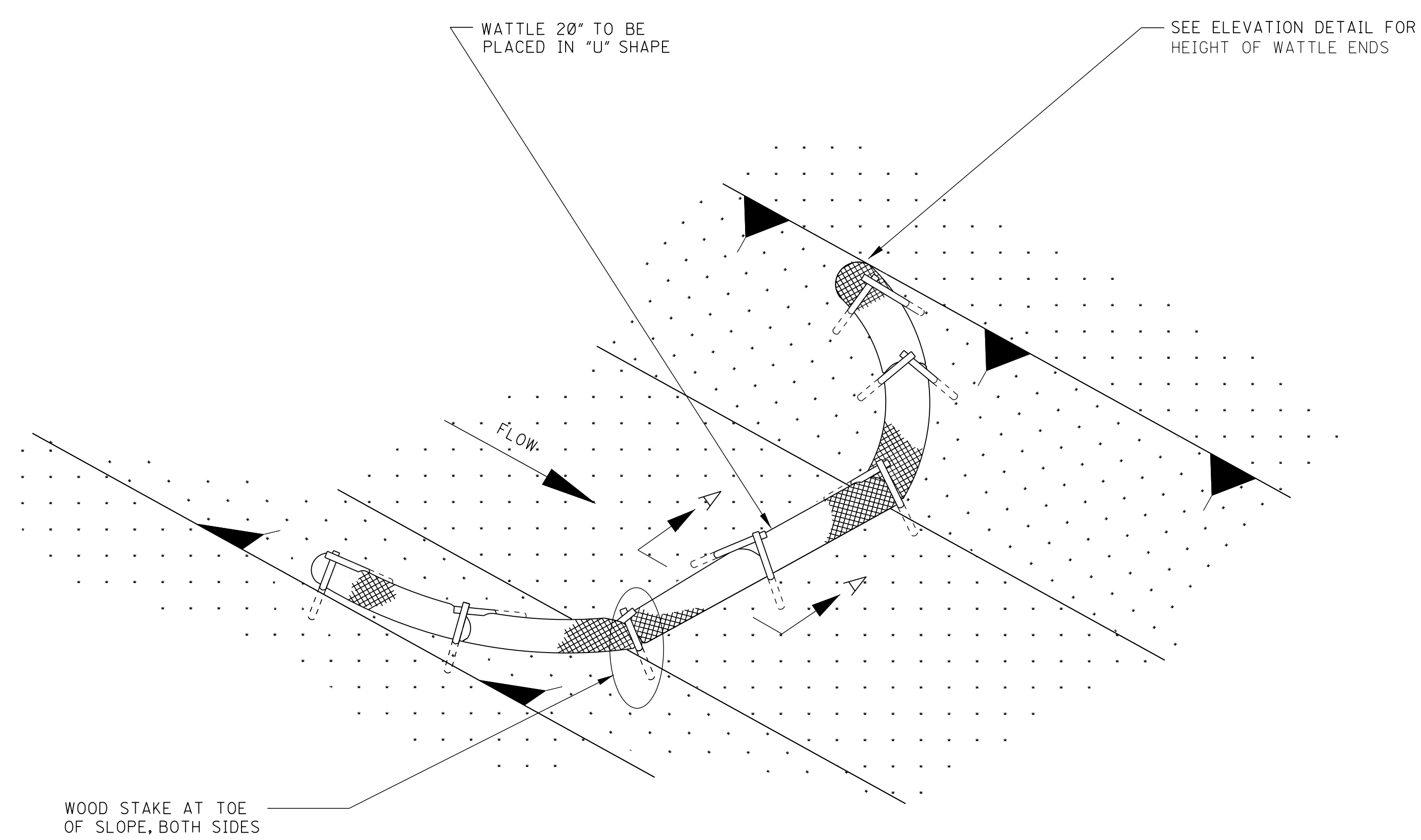
NOTES:

1. SILT FENCE DITCH CHECKS SHOULD BE USED WHERE IT HAS BEEN DETERMINED THAT HAY BALE CHECKS ARE INADEQUATE. SILT FENCE DITCH CHECKS SHOULD BE USED TO INTERCEPT LOW VOLUME FLOWS IN LOW TO MODERATE GRADIENT DITCHES.
2. HAY BALES SHOULD BE USED TO INTERCEPT LOW VOLUME FLOWS IN LOW TO MODERATE GRADIENT DITCHES.
3. MINIMUM RECOMMENDED CHECK SPACING IS 100 FEET UNLESS SHOWN OTHERWISE ON THE PLANS OR EROSION CONTROL PLAN APPROVED BY THE ENGINEER. SEE SPACING GUIDANCE ON WK. NO. ECD-4.
4. ANCHORING WOOD STAKES SHALL BE SIZED, SPACED, AND BE OF A MATERIAL THAT EFFECTIVELY SECURES THE CHECK. A MINIMUM OF TWO STAKES PER BALE IS REQUIRED. ALL NON-DEGRADABLE MATERIALS SHALL BE REMOVED WHEN NO LONGER NEEDED.
5. BALES SHALL BE EMBEDDED IN THE SOIL A MINIMUM OF 3 INCHES.
6. BALES SHALL BE PLACED IN A ROW WITH ENDS TIGHTLY ABUTTING THE ADJACENT BALES. THE BALES SHALL BE PLACED WITH BINDINGS PARALLEL TO THE GROUND.
7. SOIL IS COMPACTED ALONG THE BASE OF THE UPSTREAM FACE TO PREVENT PIPING.
8. MULTIPLE ADJACENT ROWS OF BALES ARE REQUIRED AS SHOWN.



PROFILE VIEW
TRAPEZOIDAL DITCH

BY		MISSISSIPPI DEPARTMENT OF TRANSPORTATION ROADWAY DESIGN DIVISION STANDARD PLAN	
REVISION		TEMPORARY EROSION, SEDIMENT, AND WATER POLLUTION CONTROL MEASURES (SILT FENCE AND HAY BALE DITCH CHECKS)	
DATE		ISSUE DATE: AUGUST 01, 2017	
		 WORKING NUMBER ECD-5 SHEET NUMBER 6105	



DETAIL (DITCH CHECK)

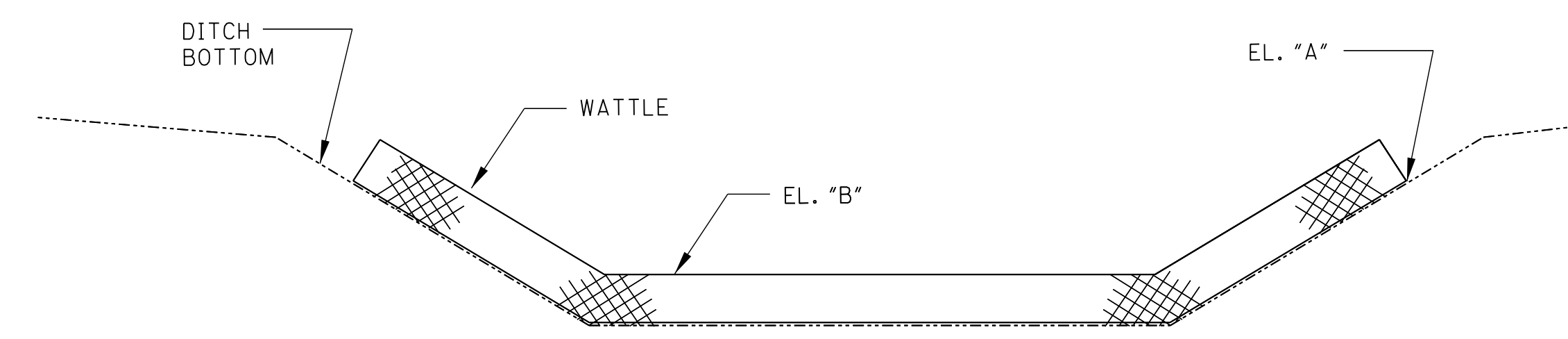
WOOD STAKE AT TOE OF SLOPE, BOTH SIDES

WATTLE 20" TO BE PLACED IN "U" SHAPE

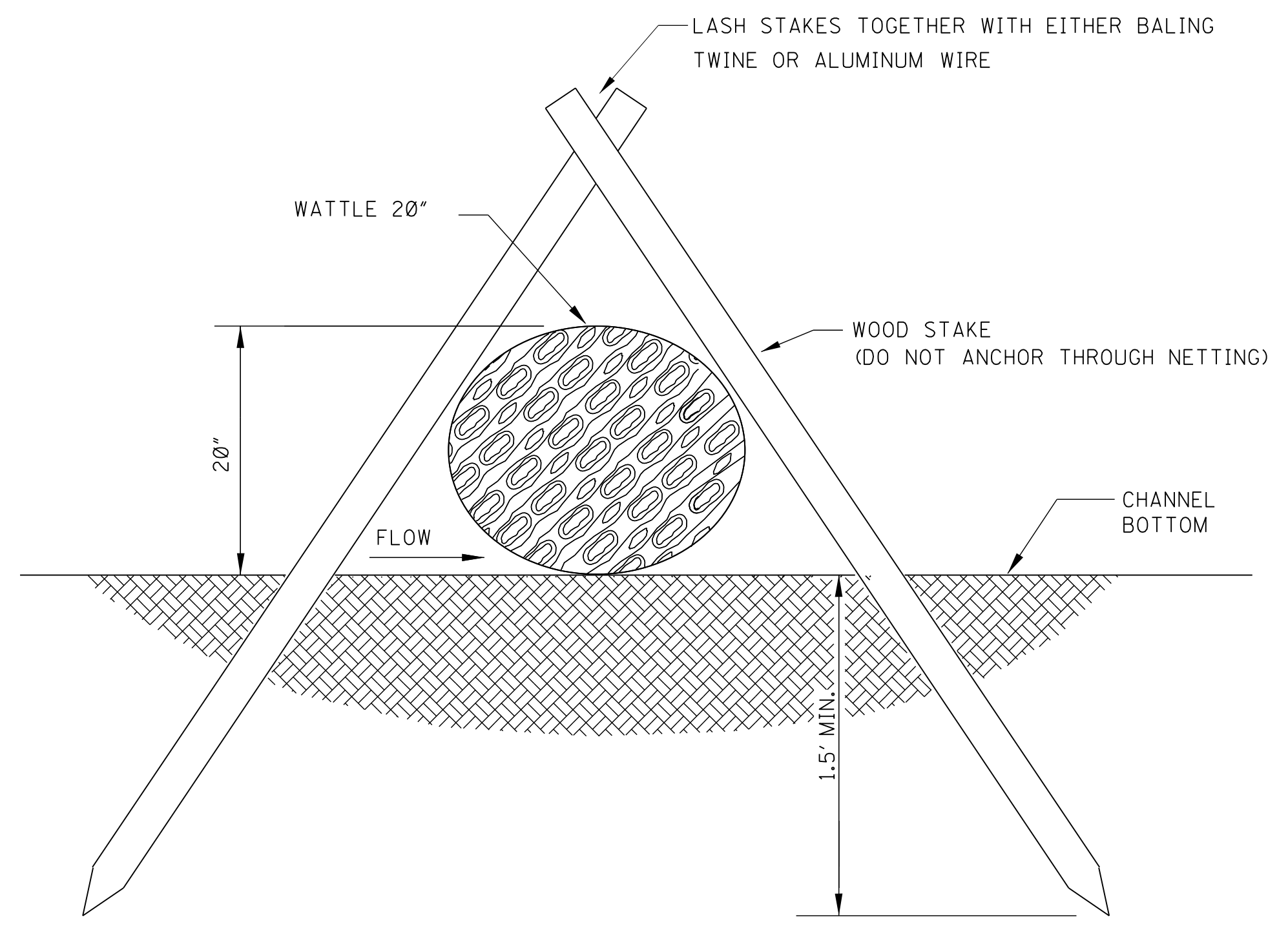
SEE ELEVATION DETAIL FOR HEIGHT OF WATTLE ENDS

FLOW

NOTE: END POINTS "A" SHALL BE HIGHER THAN FLOWLINE POINT "B".



ELEVATION DETAIL

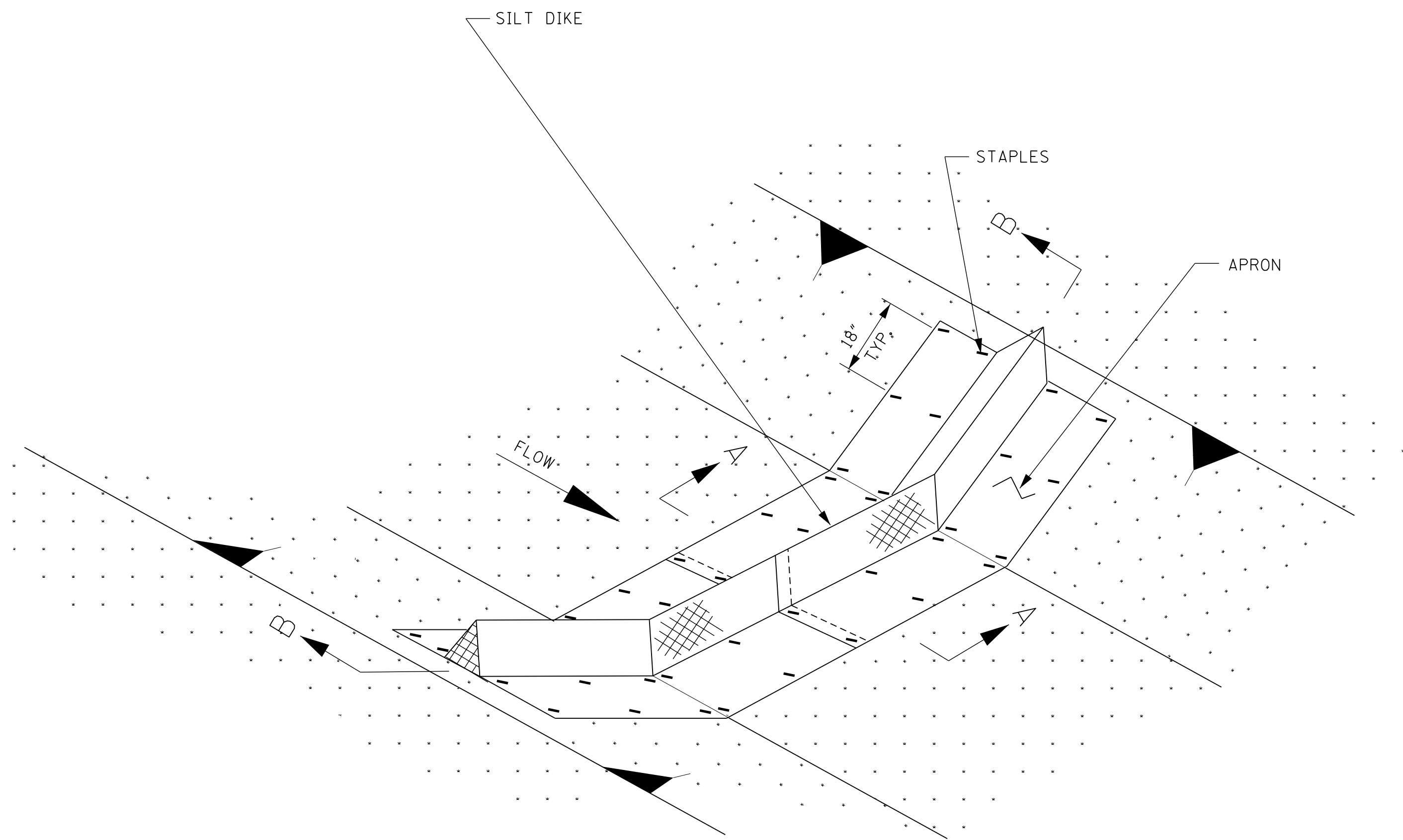


SECTION A-A

NOTES:

1. WATTLE DITCH CHECKS CAN BE USED FOR VELOCITY REDUCTION AND CONTROL OF SEDIMENT TRANSPORT UNDER LOW TO MEDIUM FLOW CONDITIONS.
2. THE PLACEMENT INTERVAL BETWEEN WATTLE DITCH CHECK SHALL BE 100' UNLESS SHOWN OTHERWISE ON THE PLANS OR EROSION CONTROL PLAN APPROVED BY THE ENGINEER. SEE SPACING GUIDANCE ON WK. NO. ECD-4.
3. ANCHORING WOOD STAKES SHALL BE SIZED, SPACED, DRIVEN, AND BE OF A MATERIAL THAT EFFECTIVELY SECURES THE CHECK. STAKE SPACING SHALL BE A MAXIMUM OF THREE FEET. ALL NON-DEGRADABLE MATERIALS SHALL BE REMOVED WHEN NO LONGER NEEDED.
4. TRENCHING OF WATTLES MAY BE NECESSARY IF PIPING BECOMES EVIDENT.
5. WATTLES SHOULD NOT BE USED IN HARD BOTTOM CHANNELS.
6. IN THE EVENT WATTLES CANNOT BE SECURED IN PLACE USING WOOD STAKES, SAND BAGS MAY BE USED IN LIEU OF WOOD STAKES IN ORDER TO SECURE THE WATTLES IN PLACE. IF SANDS BAGS ARE USED IN THIS APPLICATION THEY WILL NOT BE A SEPARATE PAY ITEM.

BY		MISSISSIPPI DEPARTMENT OF TRANSPORTATION ROADWAY DESIGN DIVISION STANDARD PLAN	
REVISION		<p align="center">DETAILS OF EROSION CONTROL WATTLE DITCH CHECK</p> 	
DATE			
ISSUE DATE: AUGUST 01, 2017		WORKING NUMBER ECD-6	SHEET NUMBER 6106

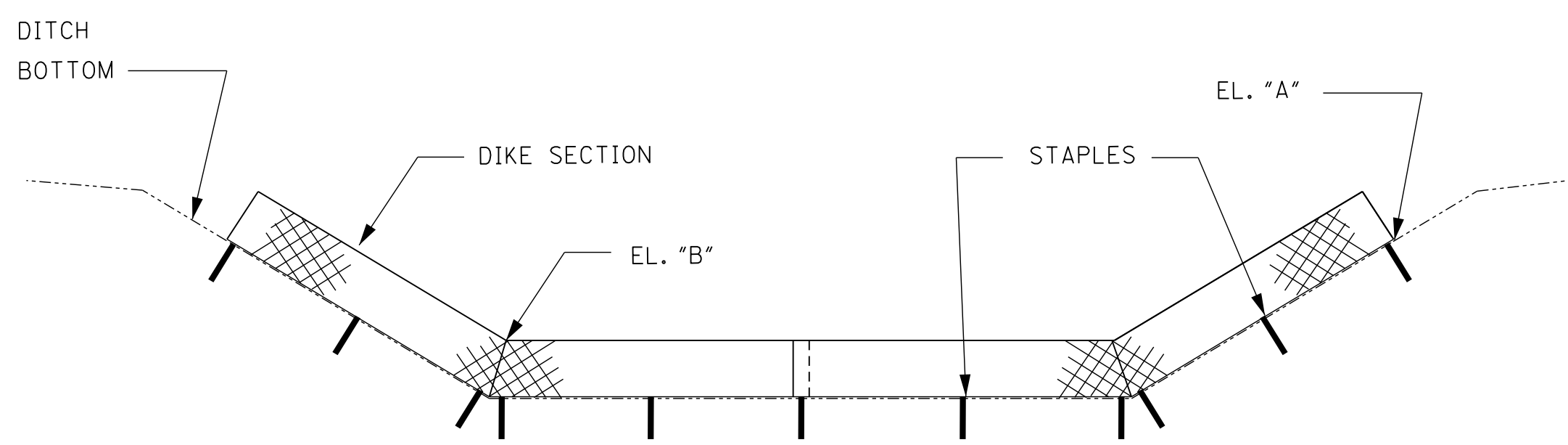


NOTES:

NOTES:

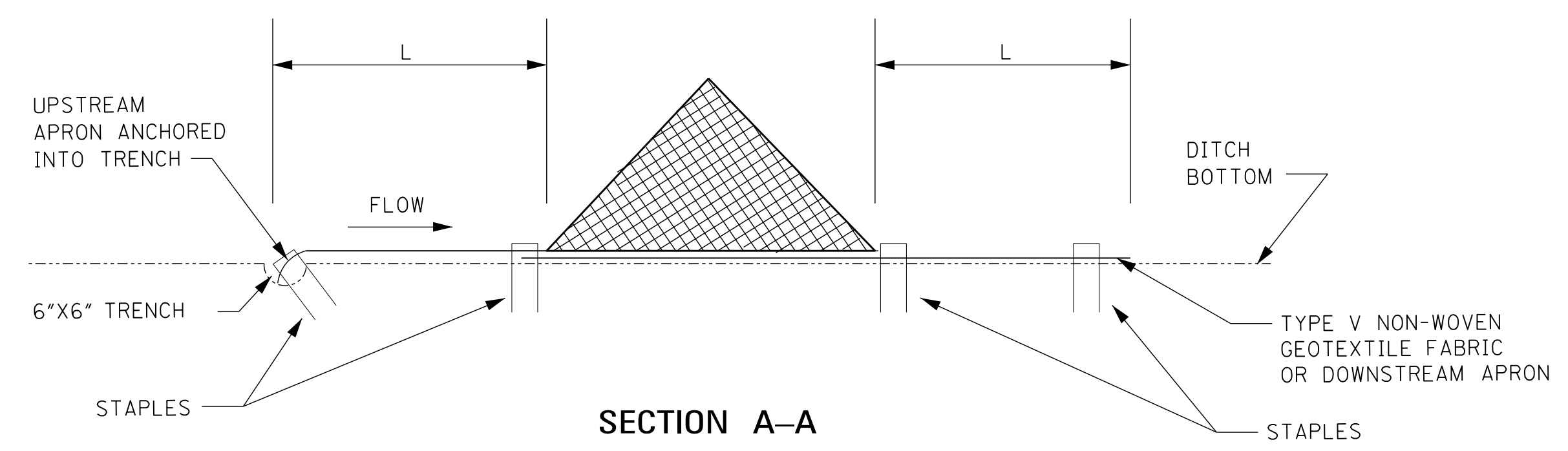
- SILT DIKES CAN BE USED IN DITCHES WITH CONCENTRATED FLOWS WITHIN THE CLEAR ZONE WHERE RIPRAP CANNOT BE USED.
- SILT DIKES MAY ALSO BE USED:
 - IN AREAS WHERE CONSTRUCTION TRAFFIC TRAVELS (AS SHOWN ON WK. NO. ECD-16), PROVIDED THE SILT DIKE REBOUNDS TO ITS ORIGINAL SHAPE. SILT DIKES WHICH DO NOT REBOUND TO THEIR ORIGINAL SHAPE SHALL BE REPLACED BY THE CONTRACTOR AT NO ADDITIONAL EXPENSE TO THE DEPARTMENT.
 - AT THE ENDS OF AND ALONG THE EDGES OF CONSTRUCTION ROADS THAT CROSS THE WATERS OF THE U.S. (AS SHOWN ON WK. NO. ECD-17).
- THE PLACEMENT INTERVAL BETWEEN SILT DIKE DITCH CHECK SHALL BE 100' UNLESS SHOWN OTHERWISE ON THE PLANS OR EROSION CONTROL PLAN APPROVED BY THE ENGINEER. SEE SPACING GUIDANCE ON WK. NO. ECD-4.
- INSTALLATION SHALL BE IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.
- THE TRIANGULAR SILT DIKE SHAPE IS ONLY SHOWN FOR DEPICTION PURPOSES. OTHER SHAPED SILT DIKES MAY BE USED.
- WHEN THE SILT DIKE, USED AS A DITCH CHECK, IS MANUFACTURED WITH AN APRON ON ONE SIDE ONLY, THE SILT DIKE SHALL BE INSTALLED AS SHOWN IN SECTION A-A. THE APRON SHALL BE INSTALLED ON THE UPSTREAM SIDE AND TYPE V NON-WOVEN GEOTEXTILE FABRIC INSTALLED ON THE DOWNSTREAM SIDE.
- THE COST OF THE FABRIC SHALL BE INCLUDED IN OTHER ITEMS BID.

PLAN VIEW



POINT "A" SHALL BE HIGHER THAN POINT "B" TO ENSURE THAT WATER FLOWS OVER THE DIKE AND NOT AROUND THE ENDS

SECTION B-B

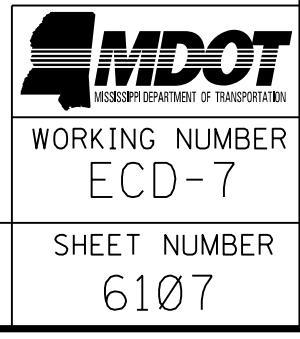


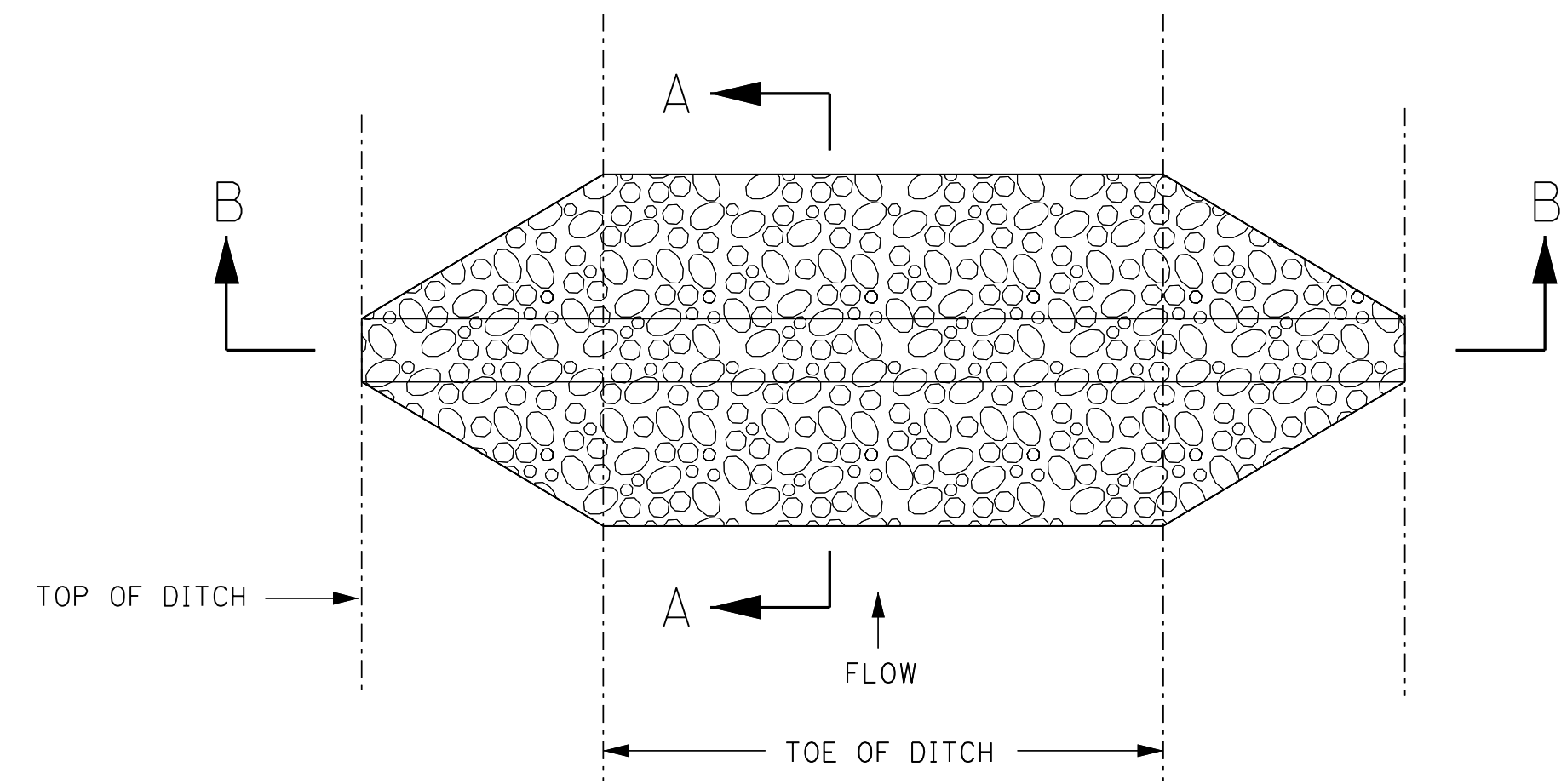
NOTE: STAPLES SHALL BE PLACED WHERE THE UNITS OVERLAP AND IN THE CENTER OF THE UNIT

SECTION A-A

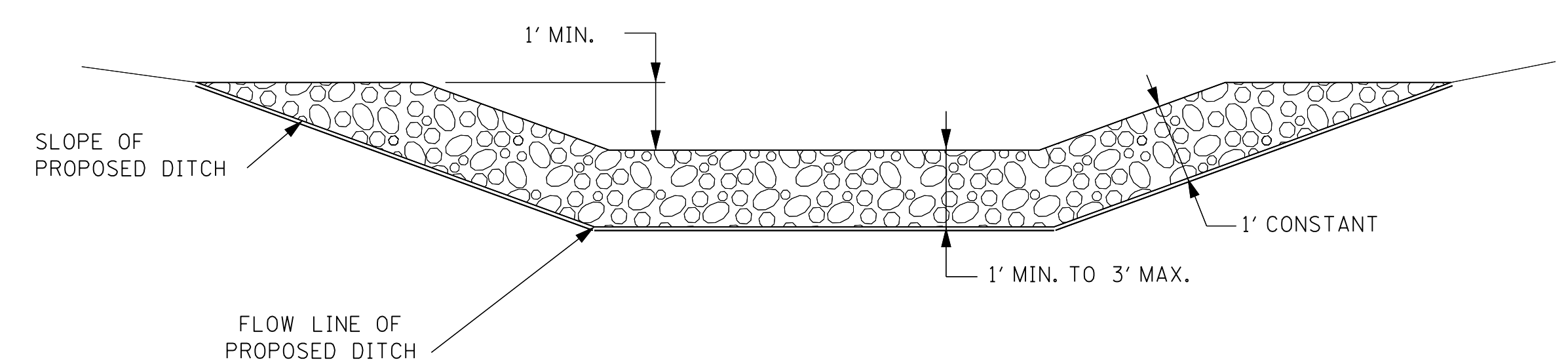
SILT DIKE INSTALLATION FOR ROADWAY DITCHES

BY		MISSISSIPPI DEPARTMENT OF TRANSPORTATION ROADWAY DESIGN DIVISION STANDARD PLAN	
REVISION		DETAILS OF EROSION CONTROL SILT DIKE DITCH CHECK	
DATE			
ISSUE DATE:		AUGUST 01, 2017	
WORKING NUMBER		ECD-7	
SHEET NUMBER		6107	

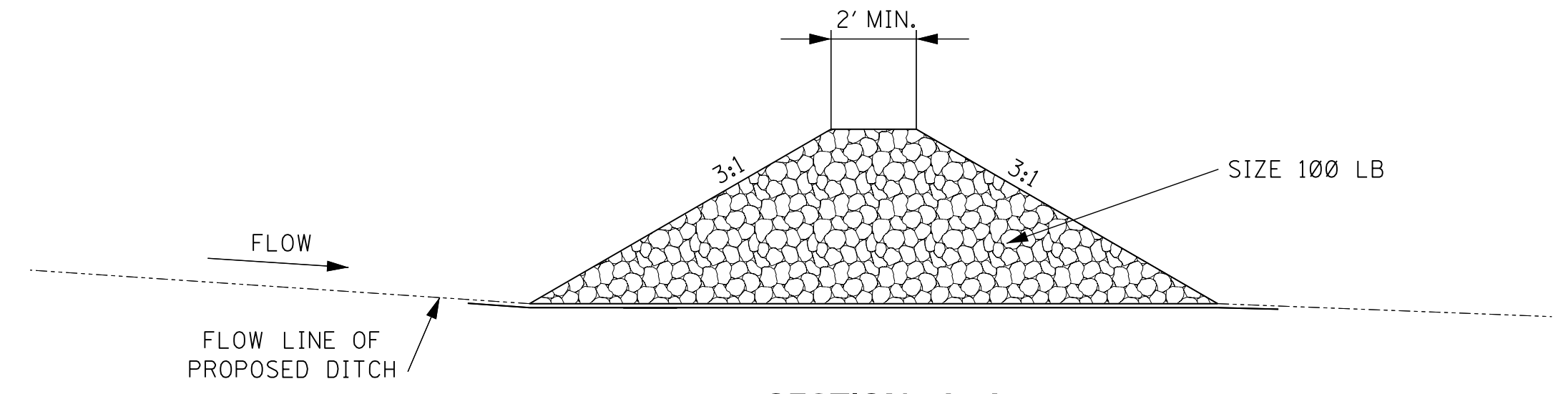




PLAN VIEW
DETAIL FOR TRAPEZOIDAL DITCH

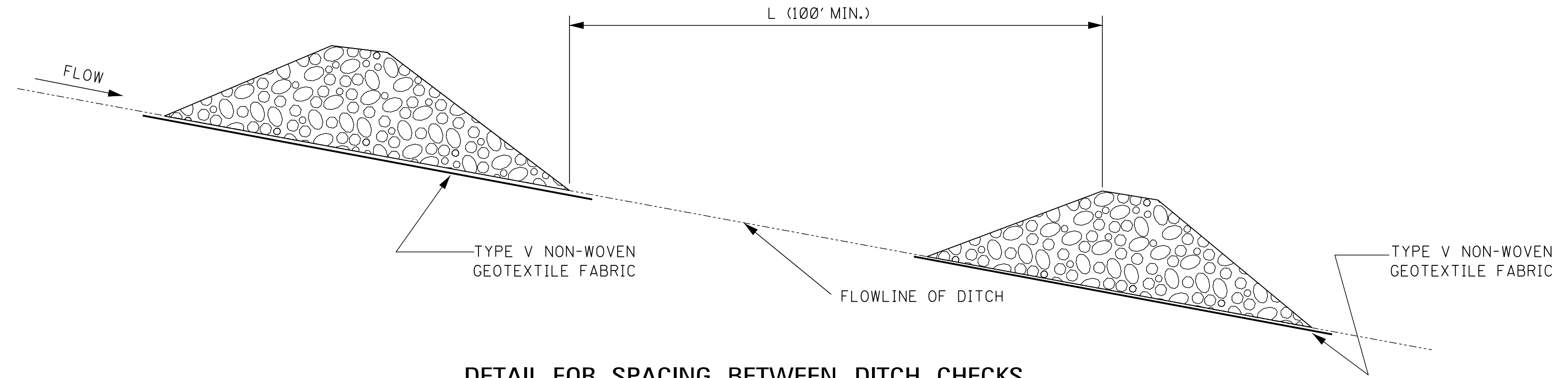


SECTION B-B



SECTION A-A

TEMPORARY ROCK DITCH CHECKS IN ROADSIDE DITCHES

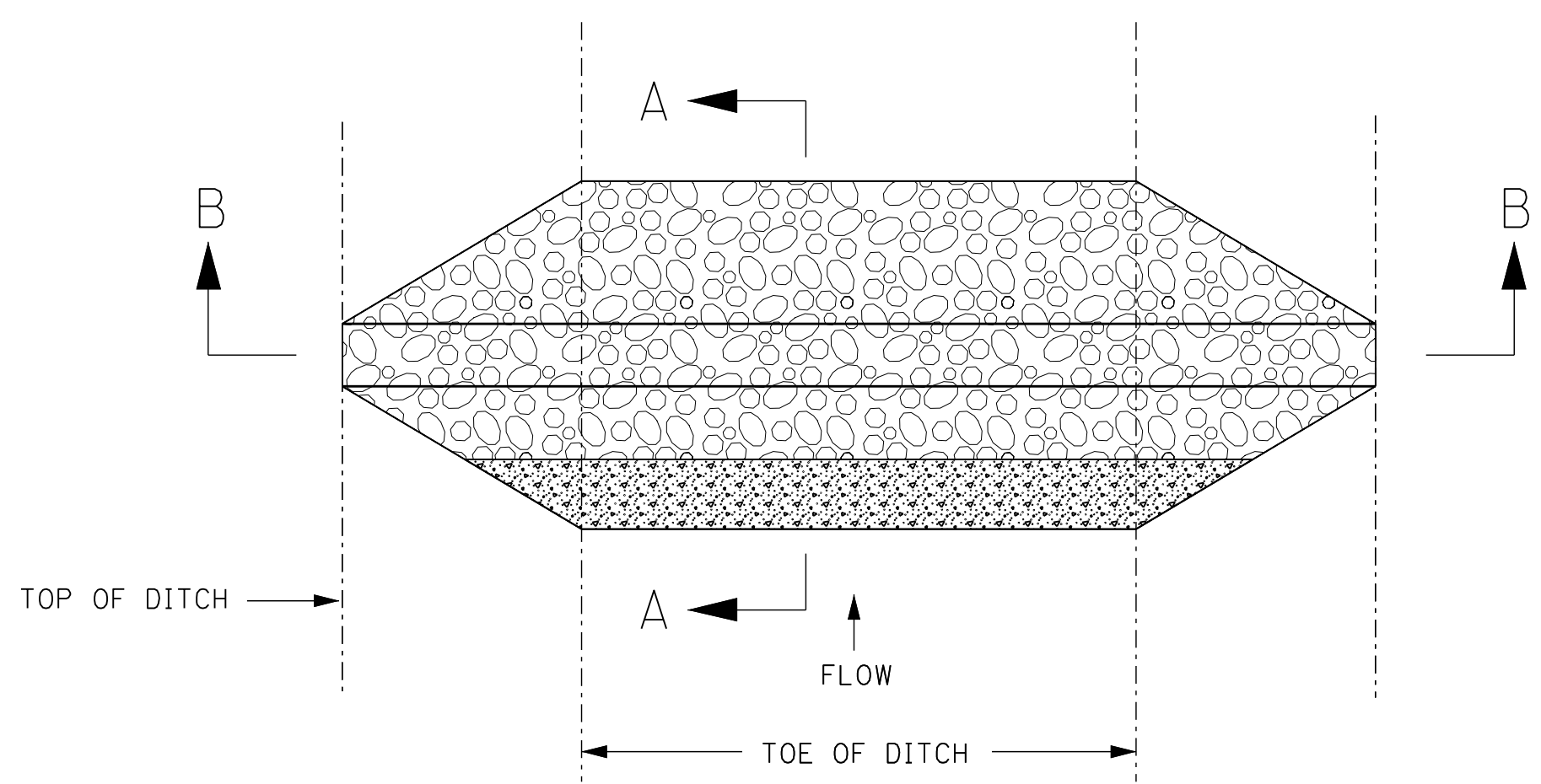


DETAIL FOR SPACING BETWEEN DITCH CHECKS

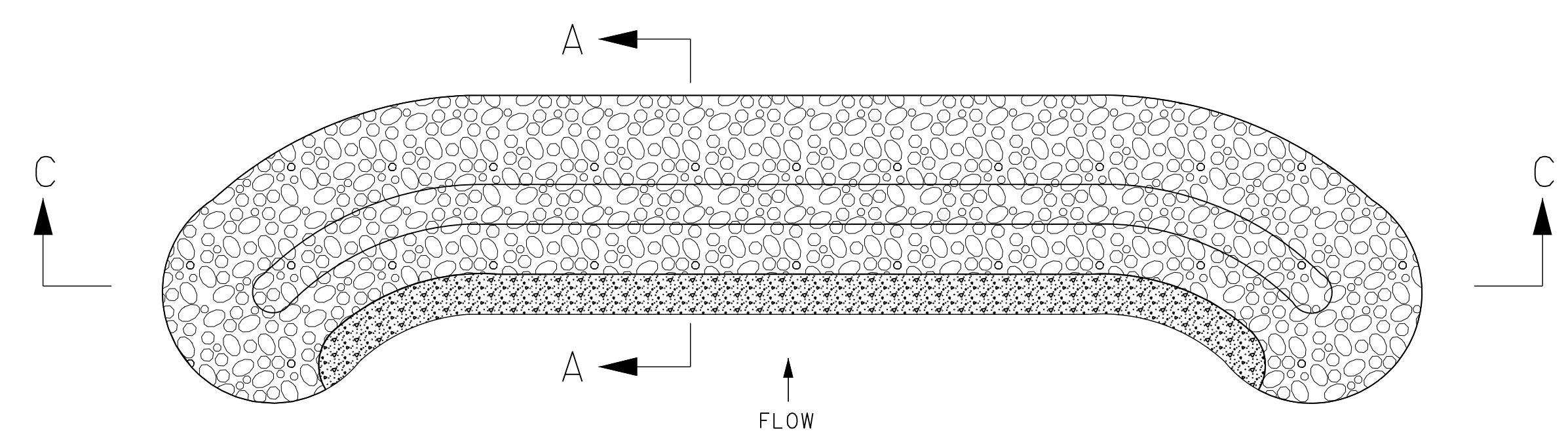
NOTES:

1. ROCK DITCH CHECKS SHOULD ONLY BE USED FOR REDUCING THE VELOCITY OF FLOWING WATER.
2. MINIMUM SPACING FOR ROCK DITCH CHECKS IS 100 FEET UNLESS OTHERWISE SHOWN ON THE PLANS OR EROSION CONTROL PLAN APPROVED BY THE ENGINEER. SEE SPACING GUIDANCE ON WK. NO. ECD-4.
3. ROCK DITCH CHECKS SHOULD ONLY BE USED UP-GRADIENT OF AND ALONG WITH ADDITIONAL DOWN-GRADIENT SEDIMENT CONTROL BEST MANAGEMENT PRACTICES (BMP'S).
4. THE COST OF FABRIC SHALL BE INCLUDED IN OTHER ITEMS BID.

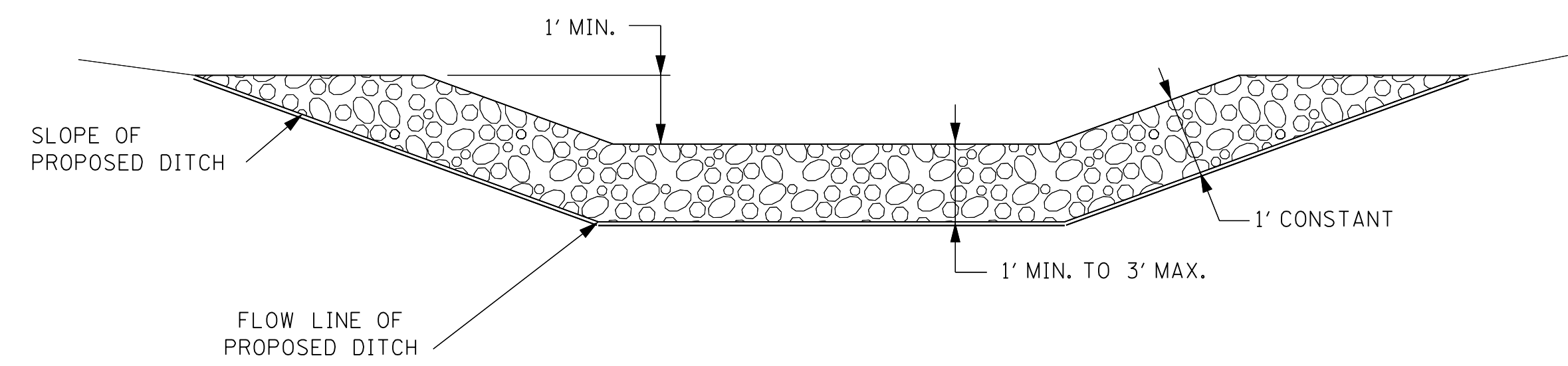
BY		MISSISSIPPI DEPARTMENT OF TRANSPORTATION ROADWAY DESIGN DIVISION STANDARD PLAN	
REVISION		ROCK DITCH CHECK	
DATE		ISSUE DATE: AUGUST 01, 2017	
		 WORKING NUMBER ECD-8 SHEET NUMBER 6108	



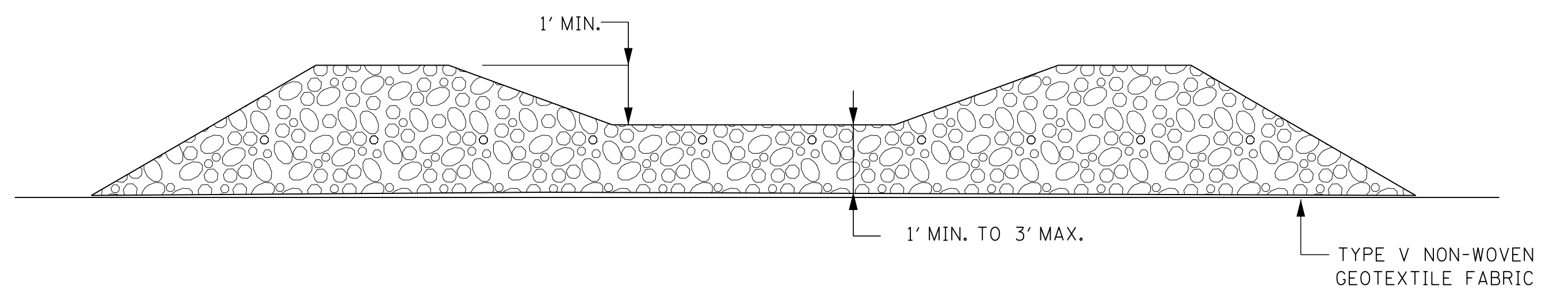
PLAN VIEW
DETAIL FOR TRAPEZOIDAL DITCH



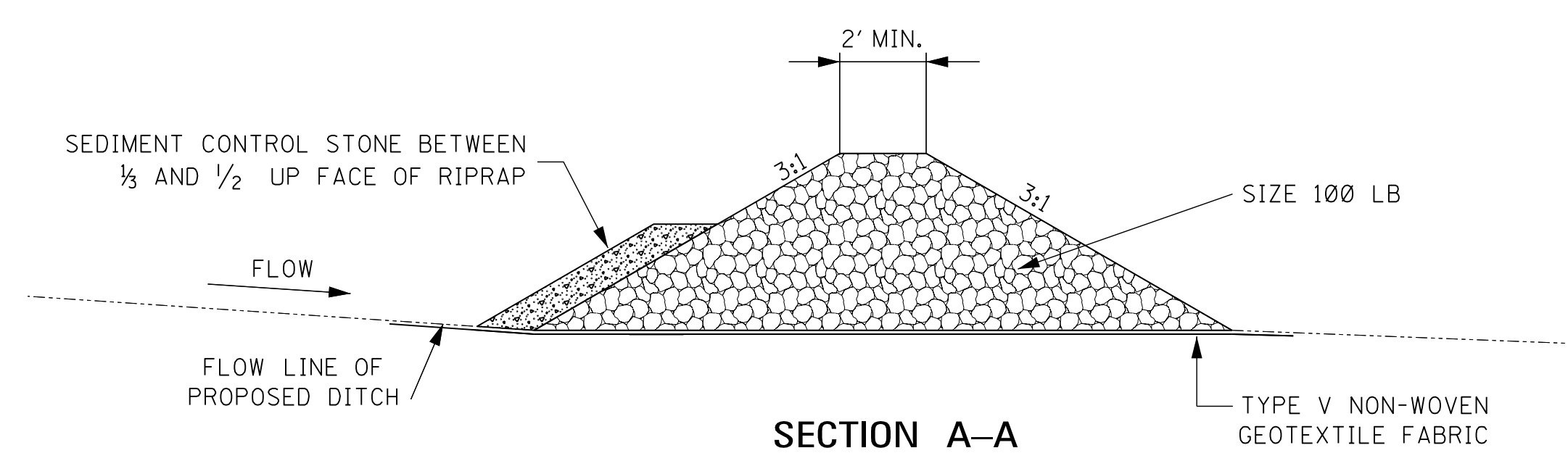
PLAN VIEW
DETAIL FOR USE OTHER THAN DITCH



SECTION B-B



SECTION C-C



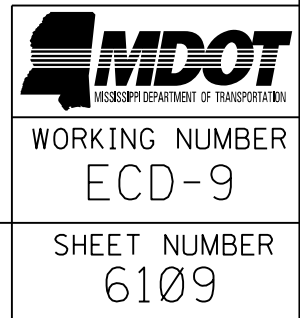
SECTION A-A

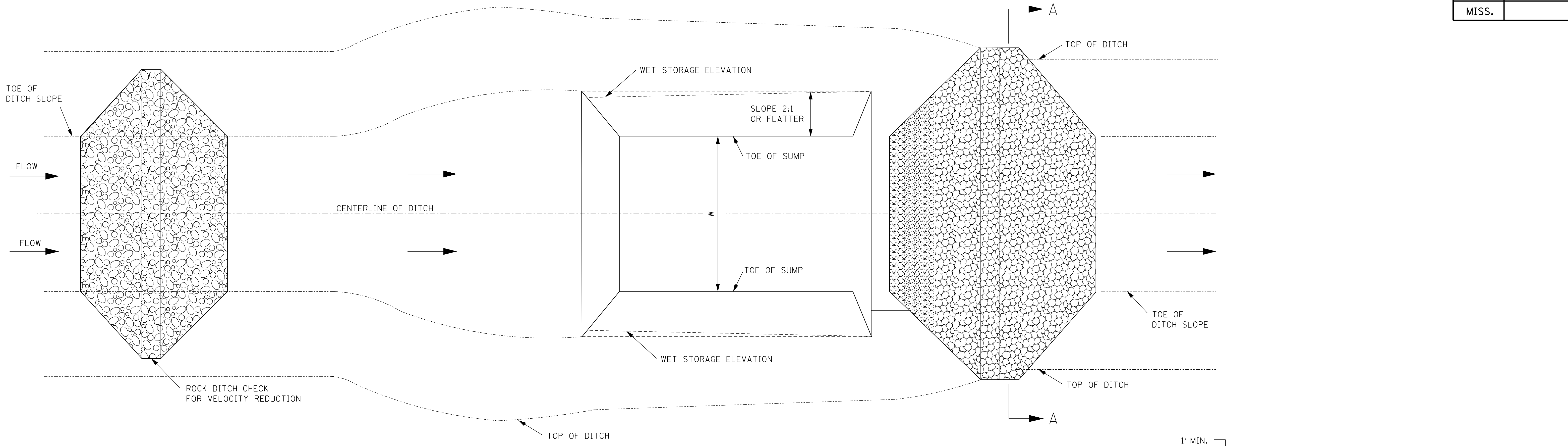
TEMPORARY ROCK DITCH CHECKS IN ROADSIDE DITCHES

GENERAL NOTES:

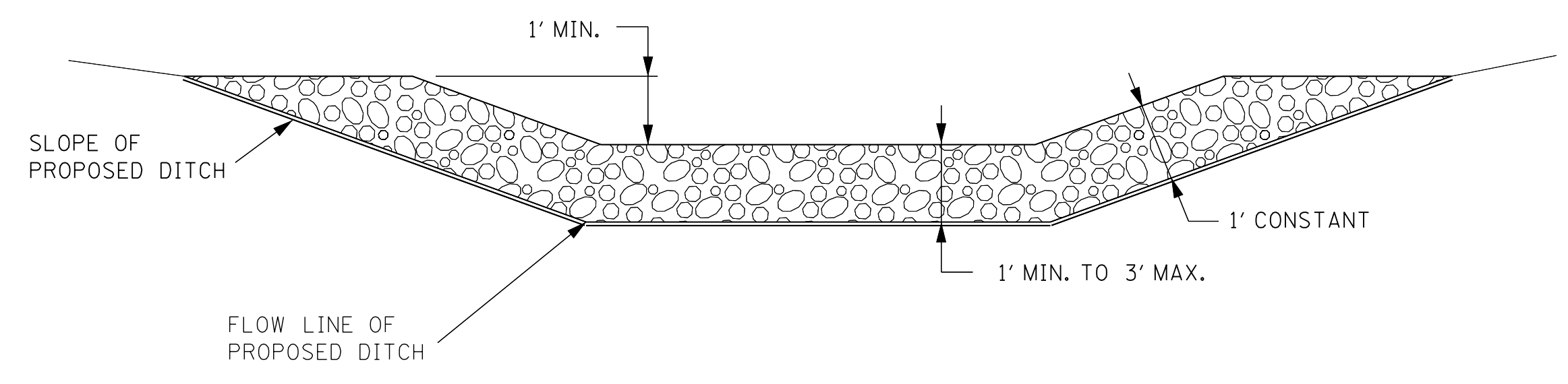
1. ROCK FILTER DAMS (RFD) MAY BE USED AS A DISCHARGE STRUCTURE WHILE WORKING WITH HIGHLY EROSIIVE SOIL. RFD'S MAY BE USED AS PART OF A "BMP TRAIN" AND MAY BE USED IN SUCCESSION AT A MINIMUM SPACING OF 100 FT. OR PER THE EROSION CONTROL PLAN APPROVED BY THE ENGINEER.
2. THE COST OF THE FABRIC SHALL BE INCLUDED IN OTHER ITEMS BID.

BY		MISSISSIPPI DEPARTMENT OF TRANSPORTATION ROADWAY DESIGN DIVISION STANDARD PLAN	
REVISION		ROCK FILTER DAM	
DATE			
ISSUE DATE:		AUGUST 01, 2017	
WORKING NUMBER		ECD-9	
SHEET NUMBER		6109	

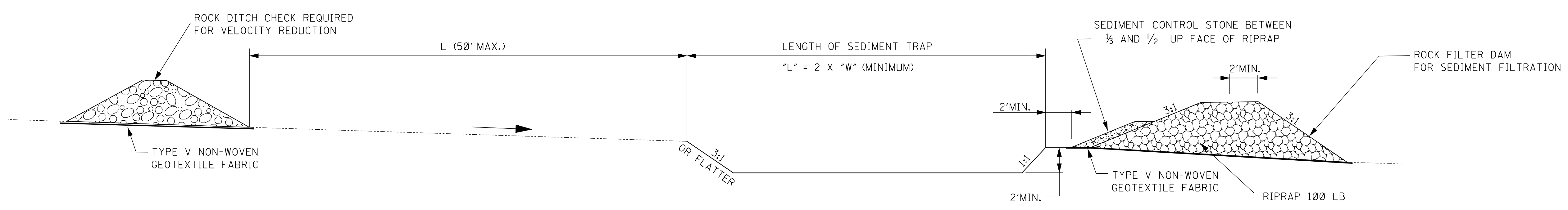




PLAN VIEW



SECTION A-A

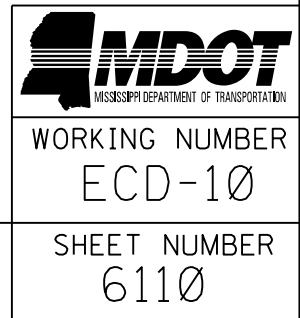


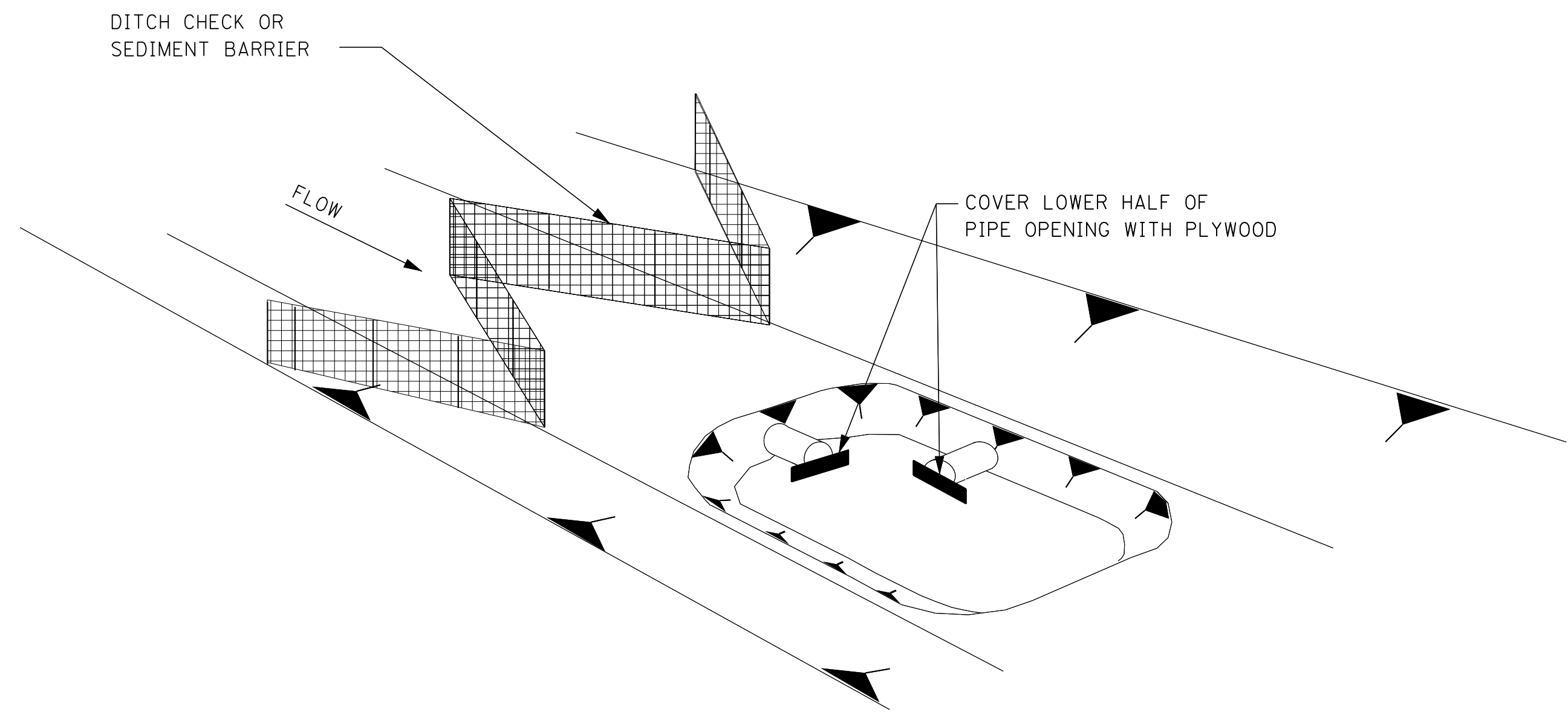
PROFILE VIEW

NOTES:

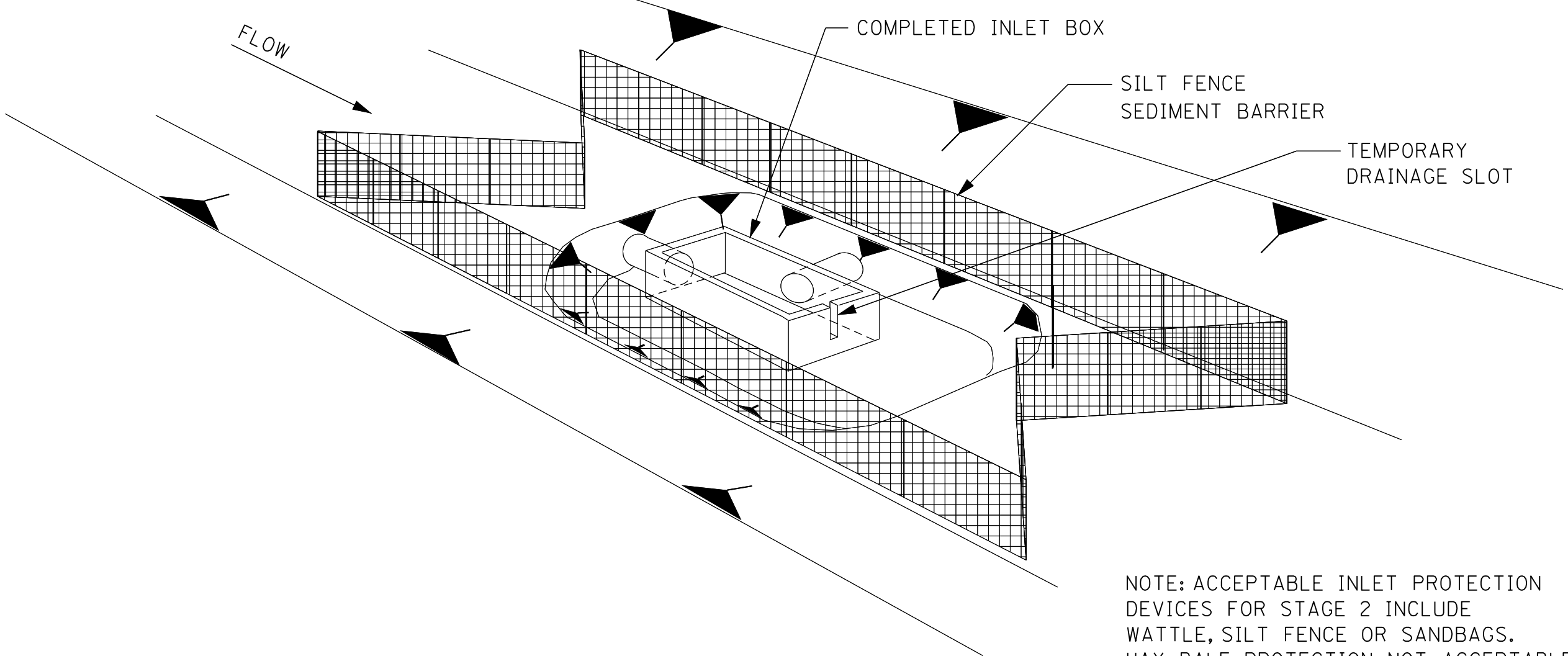
- ROCK DITCH CHECKS WITH SUMP EXCAVATION CAN BE PLACED IN DITCHES TO ASSURE ON-SITE SEDIMENT TRAPPING REQUIREMENTS ARE MET. DITCH CHECK WITH SUMP EXCAVATION IS USED WHEN DITCHES RECEIVE DRAINAGE FROM CUT OR FILL SLOPES OR OTHER CRITICAL AREAS WHERE SOIL EROSION IS EXPECTED. DRAINAGE AREA FOR A TEMPORARY SEDIMENT TRAP SHOULD BE LIMITED TO 3 ACRES. THEY CAN BE USED IN SERIES TO INCREASE ON-SITE SEDIMENT TRAPPING EFFICIENCY.
- THE COST OF THE FABRIC SHALL BE INCLUDED IN OTHER ITEMS BID.

MISSISSIPPI DEPARTMENT OF TRANSPORTATION ROADWAY DESIGN DIVISION STANDARD PLAN	
ROCK DITCH CHECK WITH SUMP EXCAVATION AND ROCK FILTER DAM	
BY	
REVISION	
DATE	ISSUE DATE: AUGUST 01, 2017
WORKING NUMBER	ECD-10
SHEET NUMBER	6110



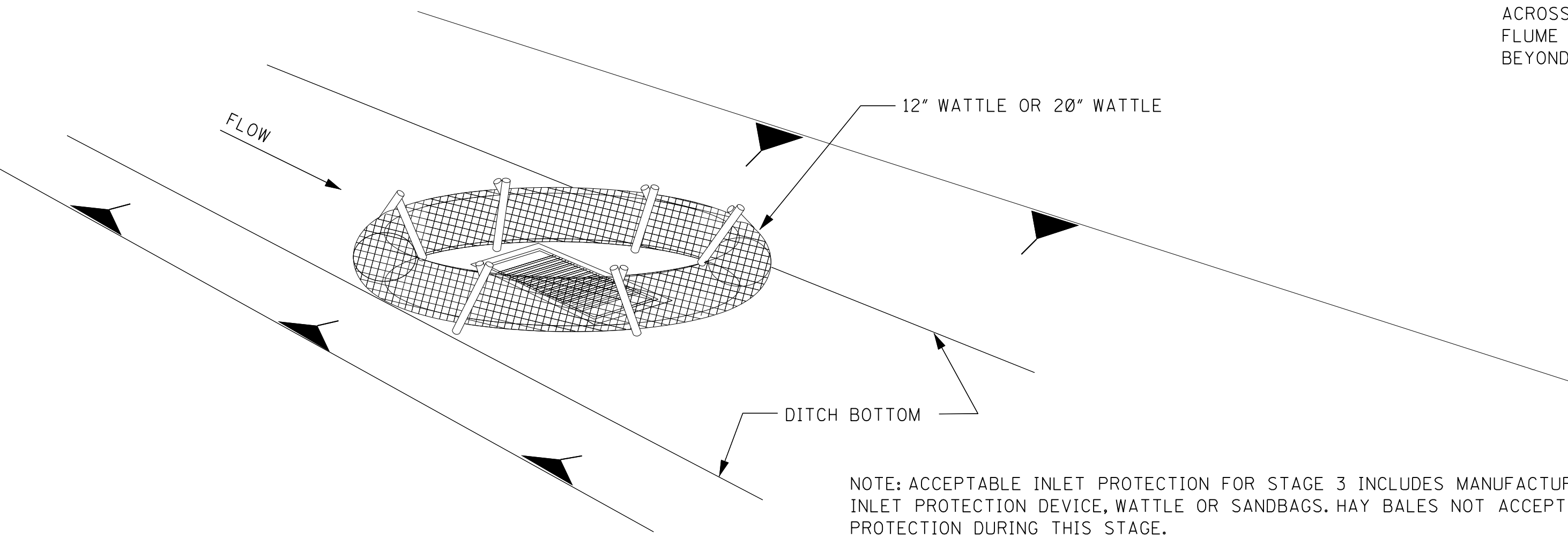


STAGE 1
INLET/JUNCTION BOX LOCATION EXCAVATED



STAGE 2
INLET/JUNCTION BOX
CONSTRUCTED BUT NOT BACKFILLED

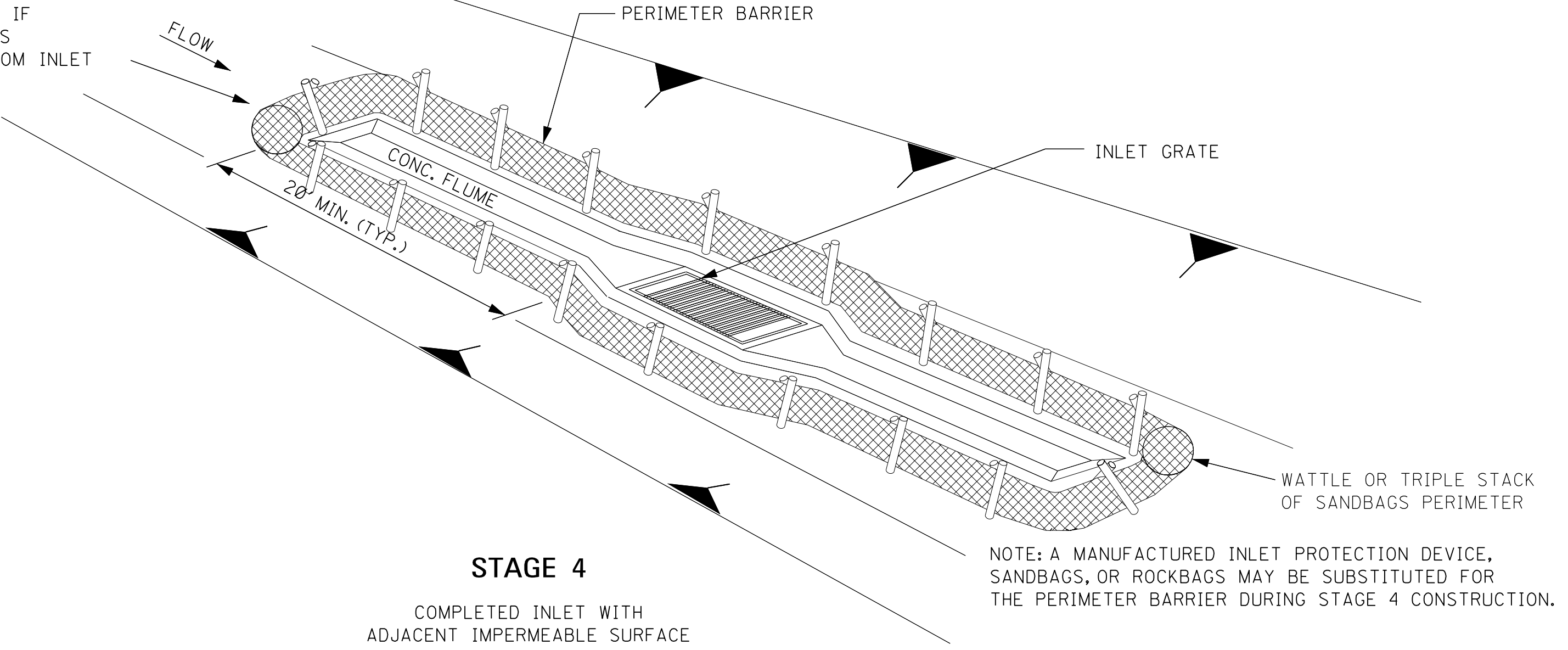
NOTE: ACCEPTABLE INLET PROTECTION DEVICES FOR STAGE 2 INCLUDE WATTLE, SILT FENCE OR SANDBAGS. HAY BALE PROTECTION NOT ACCEPTABLE DURING THIS PHASE.



STAGE 3
INLET CONSTRUCTED AND BACKFILLED

NOTE: ACCEPTABLE INLET PROTECTION FOR STAGE 3 INCLUDES MANUFACTURED INLET PROTECTION DEVICE, WATTLE OR SANDBAGS. HAY BALES NOT ACCEPTABLE PROTECTION DURING THIS STAGE.

PLACE SANDBAGS ACROSS FLUME IF FLUME EXTENDS BEYOND 20' FROM INLET



STAGE 4
COMPLETED INLET WITH
ADJACENT IMPERMEABLE SURFACE

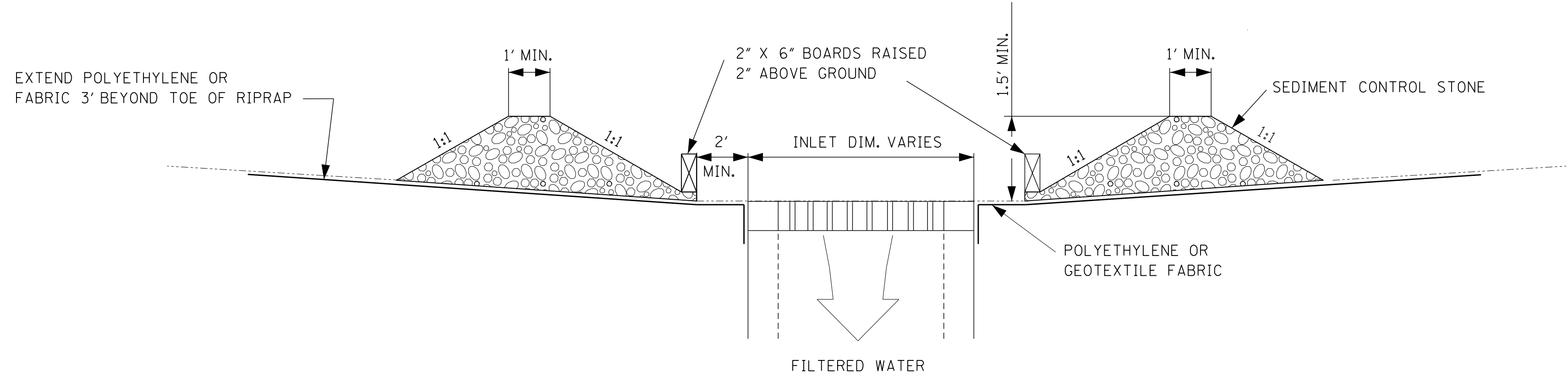
NOTE: A MANUFACTURED INLET PROTECTION DEVICE, SANDBAGS, OR ROCKBAGS MAY BE SUBSTITUTED FOR THE PERIMETER BARRIER DURING STAGE 4 CONSTRUCTION.

DITCH INLET CONSTRUCTION STAGES

NOTES:

1. DRAINAGE STRUCTURE BACKFILL SHOULD BE PLACED IN STAGE 1 IMMEDIATELY AFTER PIPE INSTALLATION. INLET CONSTRUCTION SHOULD COMMENCE AS SOON AS POSSIBLE AND BE CONTINUOUS THROUGH COMPLETION.
2. CONFIGURATIONS MAY BE ADJUSTED WITH APPROVAL OF THE ENGINEER FOR TRAVELWAY SAFETY, WATER FLOW, OR SOIL AND INSTALLATION CHALLENGES.
3. DURING STAGE 1 AND STAGE 2, SILT FENCE MAY BE REQUIRED UPSLOPE OF THE INLET EXCAVATION AS DIRECTED BY THE ENGINEER.
4. IF SILT FENCE IS INSTALLED AROUND THE INLET INSTALLATION IT SHOULD BE IN A CONFIGURATION THAT WILL ALLOW INLET CONSTRUCTION.
5. FOR INLET PROTECTION TO BE USED IN STAGES 1 AND 2 OF CONSTRUCTION, SEE WK. NO. ECD-12.

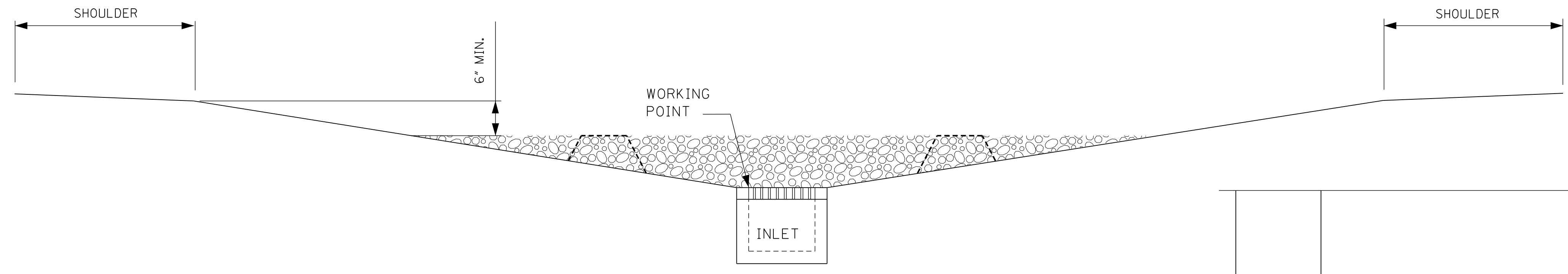
BY		MISSISSIPPI DEPARTMENT OF TRANSPORTATION ROADWAY DESIGN DIVISION STANDARD PLAN	
REVISION		<p>TYPICAL APPLICATIONS AND DETAILS FOR INLET CONSTRUCTION</p> 	
DATE			
ISSUE DATE:		AUGUST 01, 2017	
WORKING NUMBER		ECD-11	
SHEET NUMBER		6111	



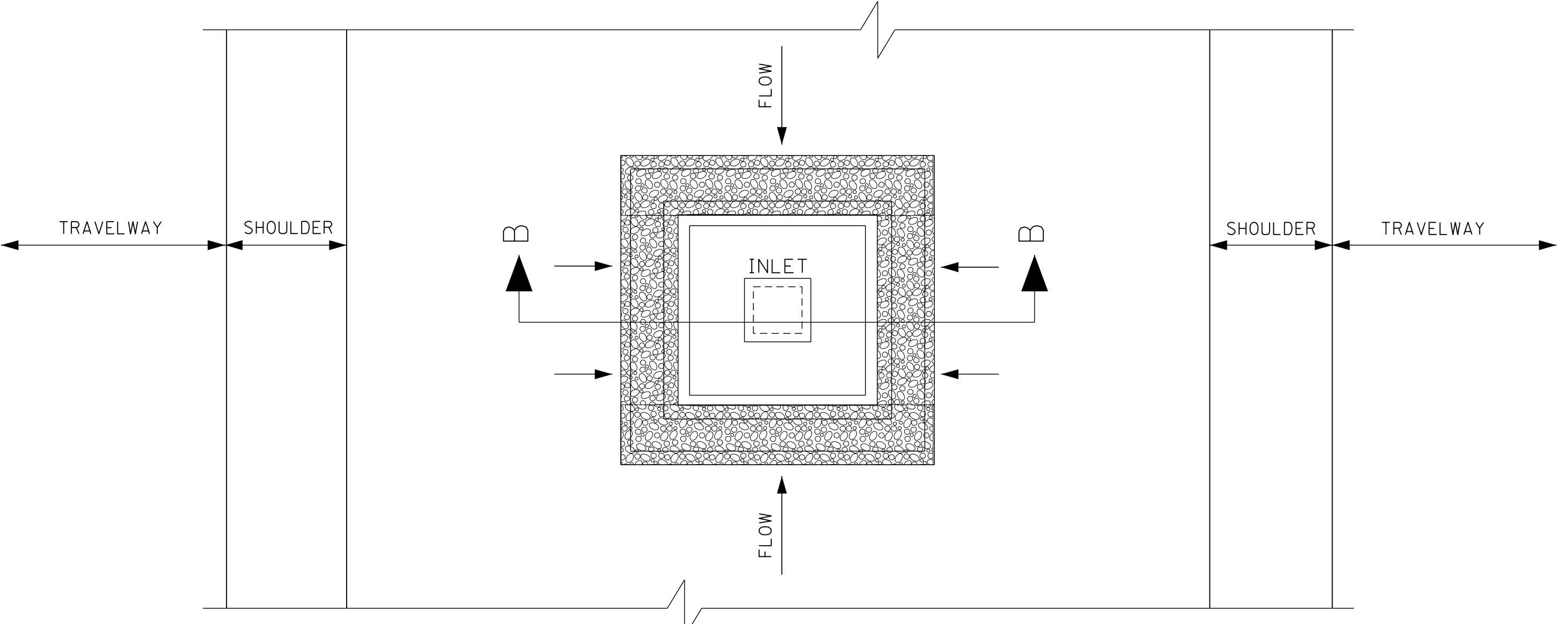
SECTION B-B

NOTES:

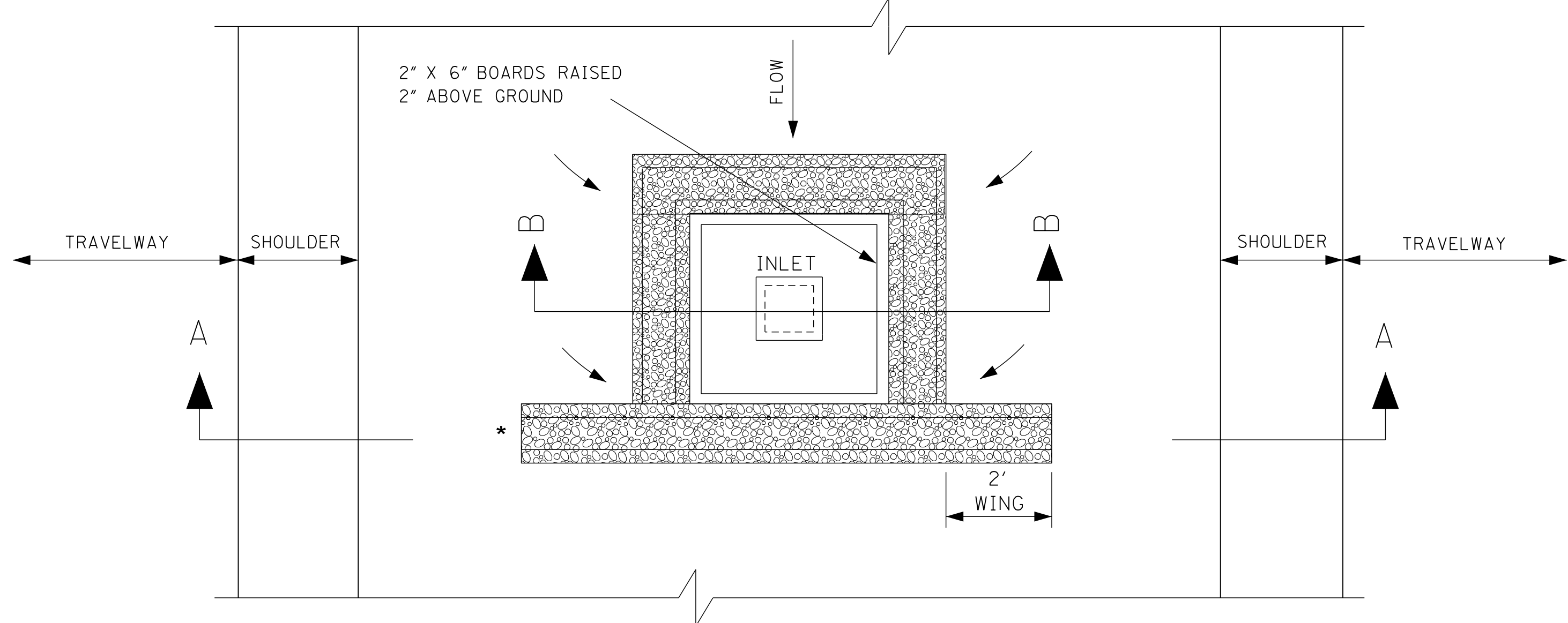
1. THE ELEVATION OF THE TOP OF THE REQUIRED SEDIMENT CONTROL STONE BERM SHOULD BE 1.5' ABOVE THE ELEVATION OF THE INLET WORKING POINT AND SHALL BE A MINIMUM OF 6" BELOW THE ELEVATION OF THE OUTSIDE EDGE OF THE INSIDE SHOULDER.
2. THIS SEDIMENT CONTROL STONE INLET PROTECTION SHALL BE UTILIZED DURING STAGE 1 AND STAGE 2 INLET CONSTRUCTION. SEE WK. NO. ECD-11.
3. 2" X 6" BOARDS MAY BE REPLACED WITH WIRE MESH WITH OPENINGS LESS THAN 1" X 1". COST OF WHICH SHALL BE INCLUDED IN OTHER ITEMS BID.
4. THE COST OF POLYETHYLENE AND/OR FABRIC SHALL BE INCLUDED IN OTHER ITEMS BID.



SECTION A-A




PLAN - IN SAG



PLAN - ON GRADE

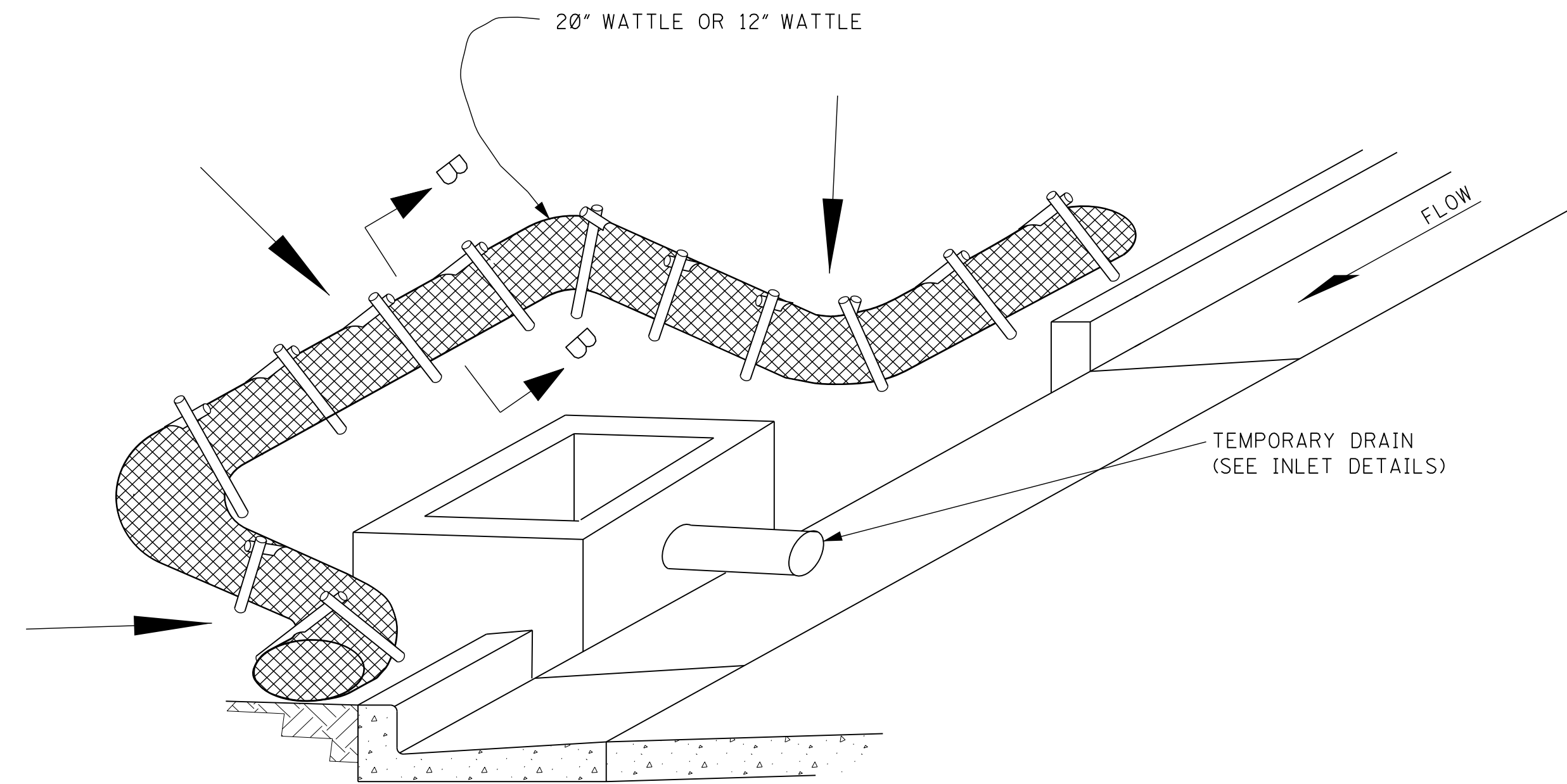
* CONSTRUCT WINGS TO PREVENT BYPASS

MISSISSIPPI DEPARTMENT OF TRANSPORTATION ROADWAY DESIGN DIVISION STANDARD PLAN	
INLET PROTECTION DETAILS FOR SEDIMENT CONTROL STONE ON GRADES AND SAGS	
BY	
REVISION	
DATE	ISSUE DATE: AUGUST 01, 2017

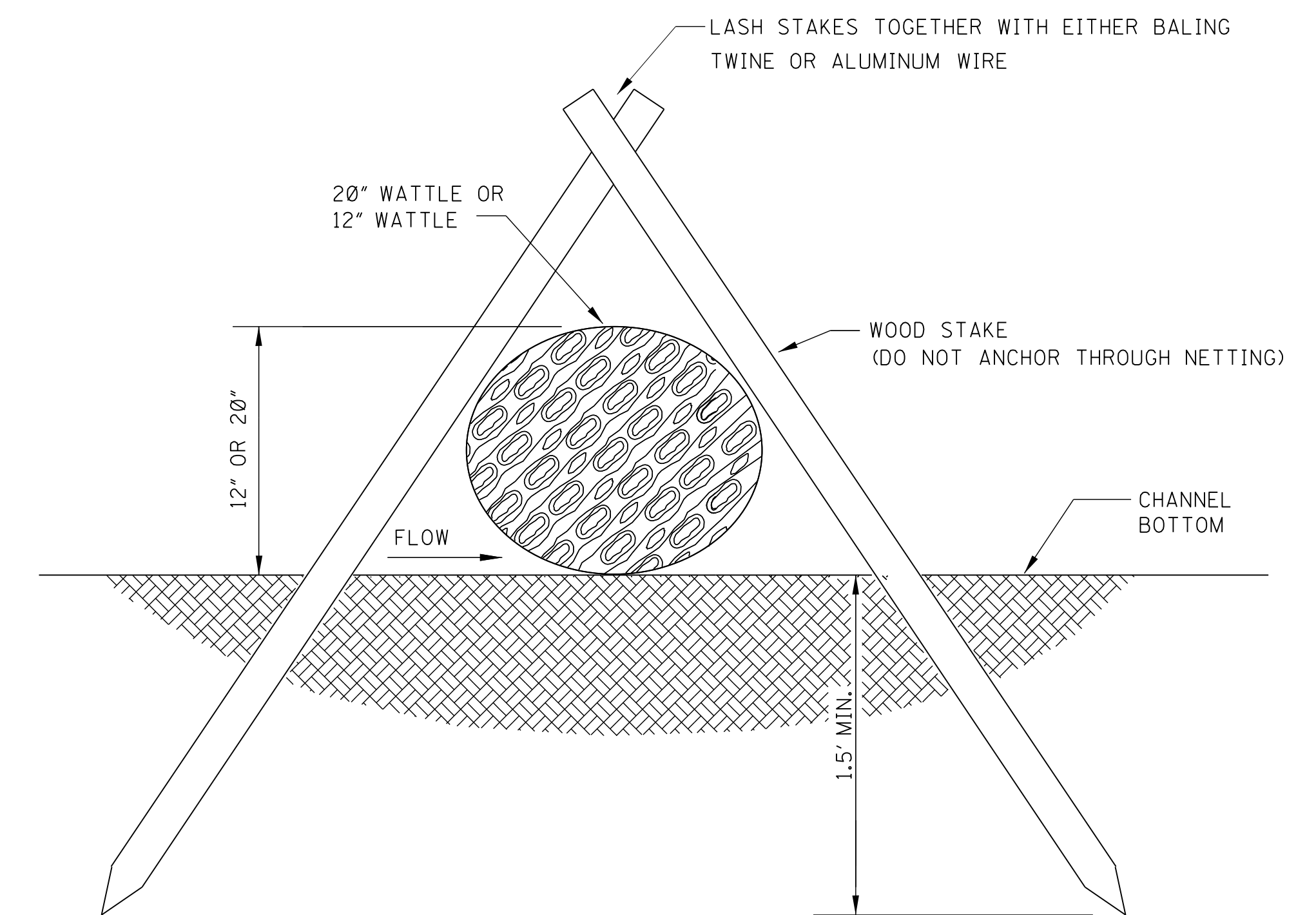


WORKING NUMBER
ECD-12
SHEET NUMBER
6112

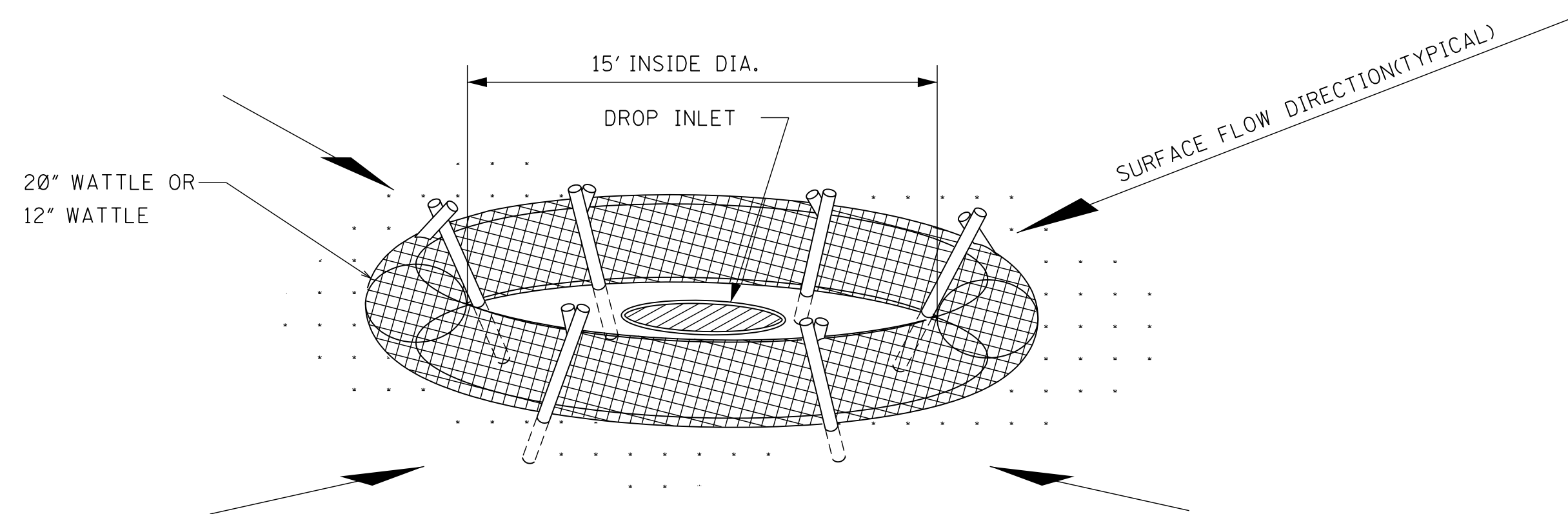
NOTE: SILT FENCE OR SANDBAGS MAY ALSO BE USED FOR THIS APPLICATION.
HAY BALES NOT ACCEPTABLE DURING THIS STAGE.



CURB INLET PROTECTION (STAGE 2)
SINGLE OR DOUBLE WING INLET



SECTION B-B

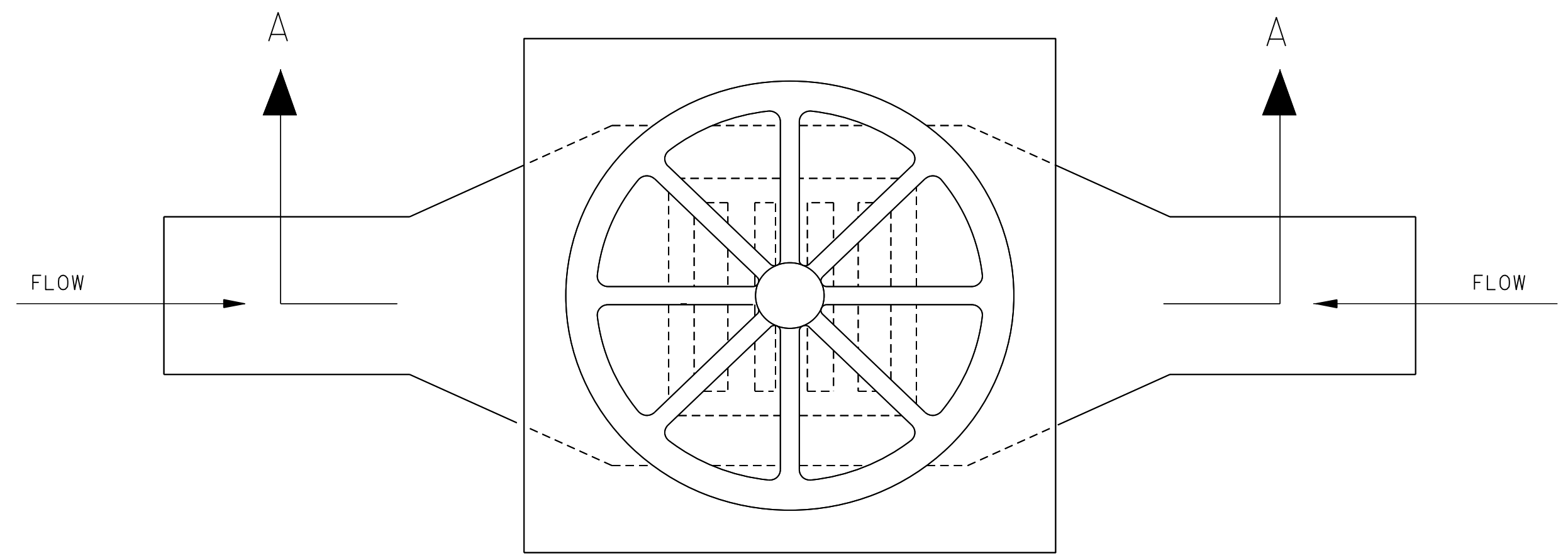


DROP INLET PROTECTION

NOTES:

1. ANCHORING STAKES SHALL BE SIZED, SPACED, AND BE OF A MATERIAL THAT EFFECTIVELY SECURES THE WATTLE. STAKE SPACING SHALL BE A MAXIMUM OF THREE FEET.
2. OVERLAP ENDS OF WATTLES PER MANUFACTURER'S RECOMMENDATIONS (1' MIN., 3' MAX.)
3. TRENCHING OF WATTLES MAY BE NECESSARY IF PIPING BECOMES EVIDENT.
4. IN THE EVENT WATTLES CANNOT BE SECURED IN PLACE USING WOOD STAKES, SANDBAGS MAY BE USED IN LIEU OF WOOD STAKES IN ORDER TO SECURE WATTLES IN PLACE. COST OF SANDBAGS USED IN THIS APPLICATION SHALL BE INCLUDED IN OTHER ITEMS BID.

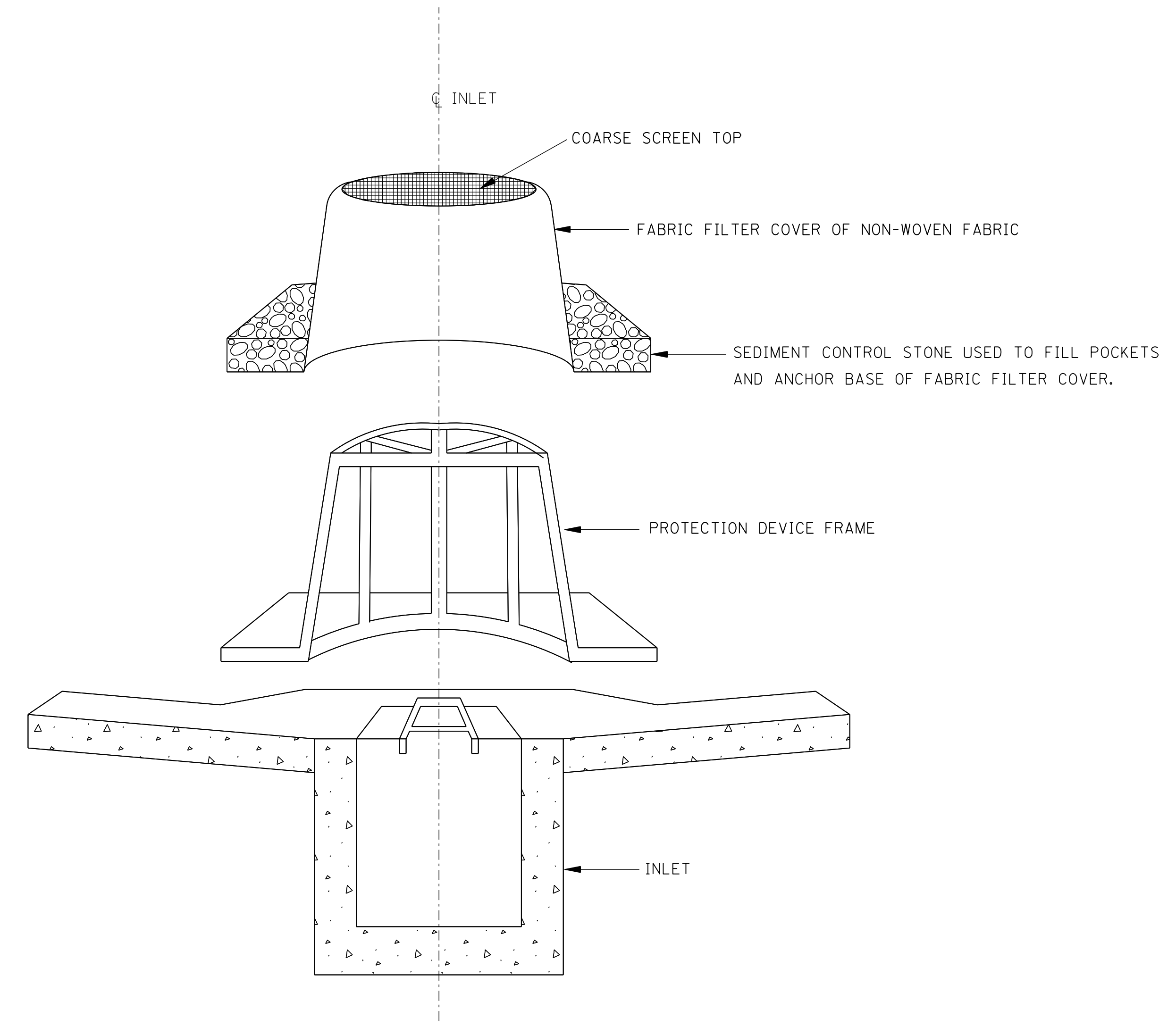
		MISSISSIPPI DEPARTMENT OF TRANSPORTATION ROADWAY DESIGN DIVISION STANDARD PLAN	
		INLET PROTECTION DETAILS OF WATTLES	
BY			
REVISION			
DATE		ISSUE DATE: AUGUST 01, 2017	
		 WORKING NUMBER ECD-13 SHEET NUMBER 6113	



PLAN

NOTES:

1. FRAMES WITH EITHER SQUARE OR CIRCULAR BASES MAY BE USED. SELECTED FRAME BASE SHOULD PROVIDE BEST SEAL AROUND THE INLET AS DIRECTED BY THE ENGINEER.
2. FILL POCKETS AROUND BASE OF FILTER COVER WITH SEDIMENT CONTROL STONE. THE COST OF SEDIMENT CONTROL STONE USED IN THIS APPLICATION SHALL BE INCLUDED IN OTHER ITEMS BID.
3. USE ONLY DURING STAGE 3 OR STAGE 4 INLET CONSTRUCTION. SEE WK. NO. ECD-11.
4. FOR MEDIAN INLET PROTECTION, THE ELEVATION OF THE COARSE SCREEN TOP SHALL BE A MINIMUM OF 6" BELOW THE ELEVATION OF THE OUTSIDE EDGE OF THE INSIDE SHOULDER.

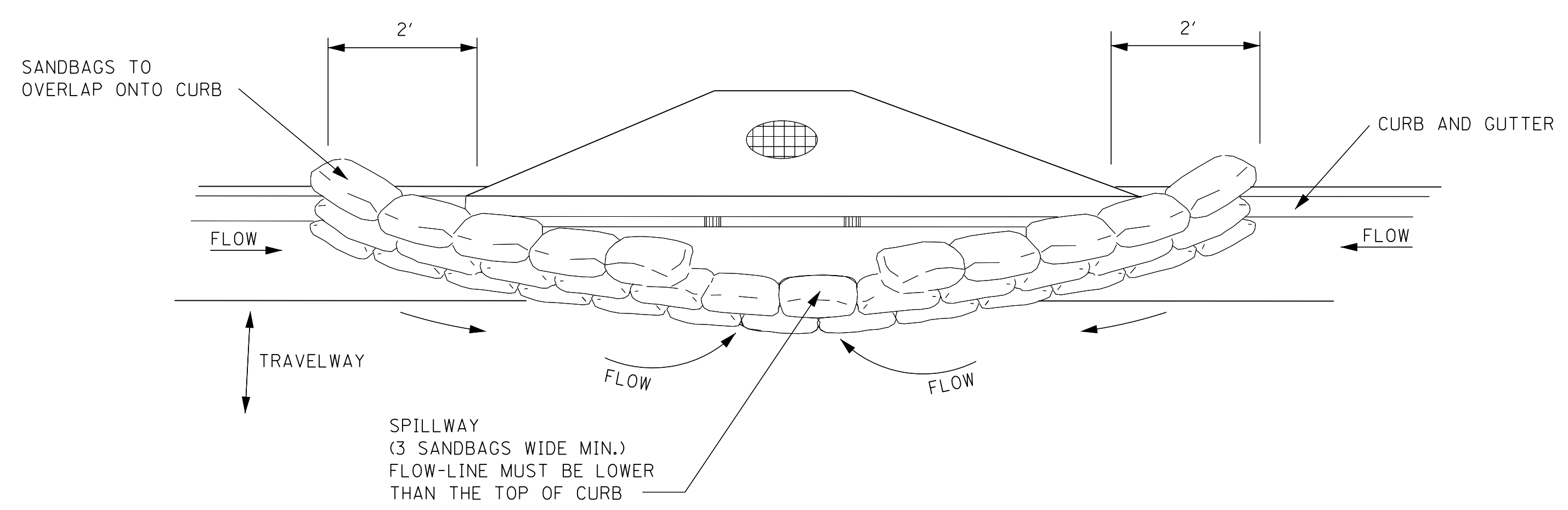


SECTION "A-A"

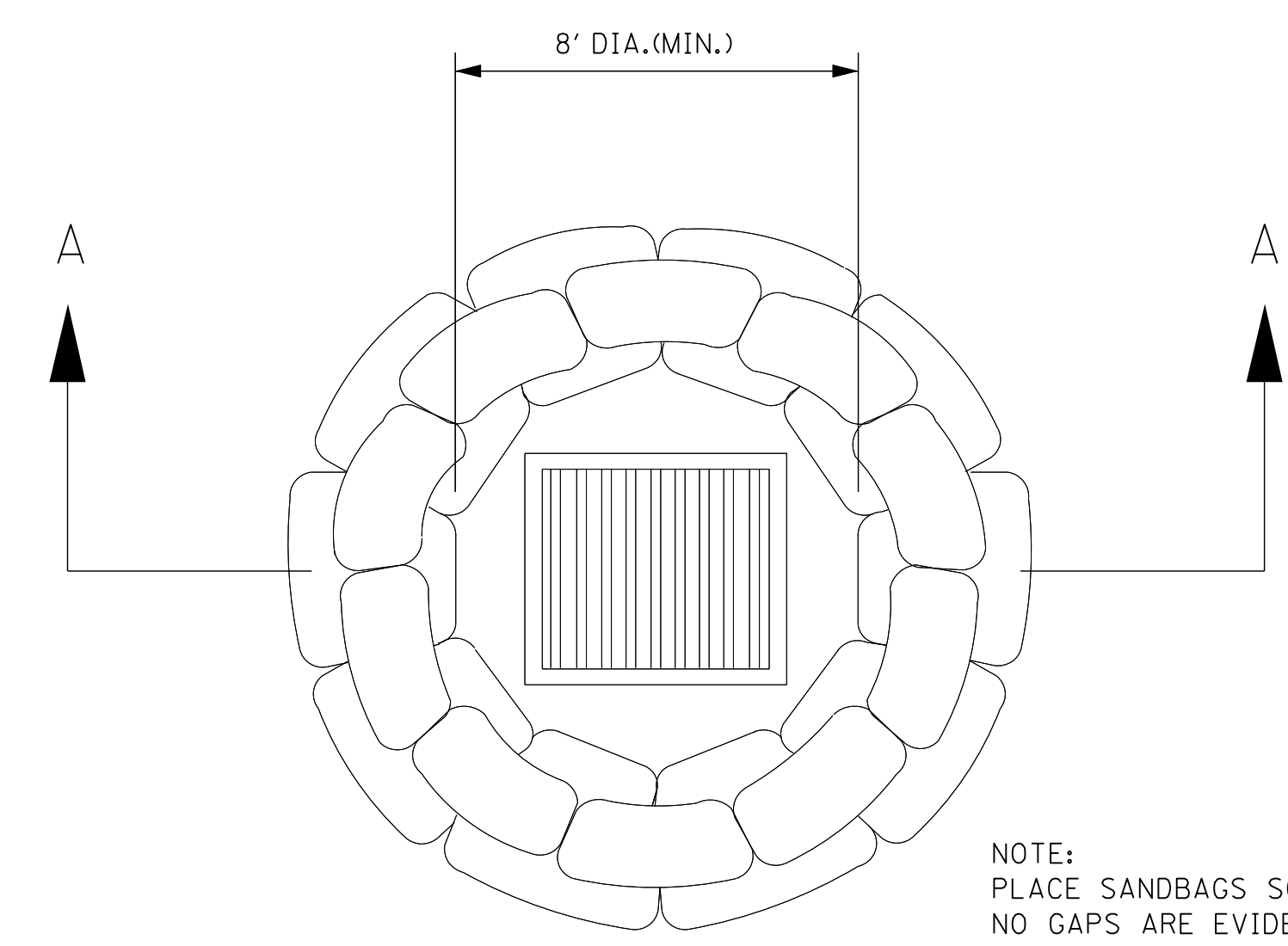
				BY	MISSISSIPPI DEPARTMENT OF TRANSPORTATION ROADWAY DESIGN DIVISION STANDARD PLAN
				REVISION	INLET PROTECTION DETAILS OF MANUFACTURED INLET PROTECTION DEVICE
				DATE	
					ISSUE DATE: AUGUST 01, 2017



WORKING NUMBER
ECD-14
SHEET NUMBER
6114

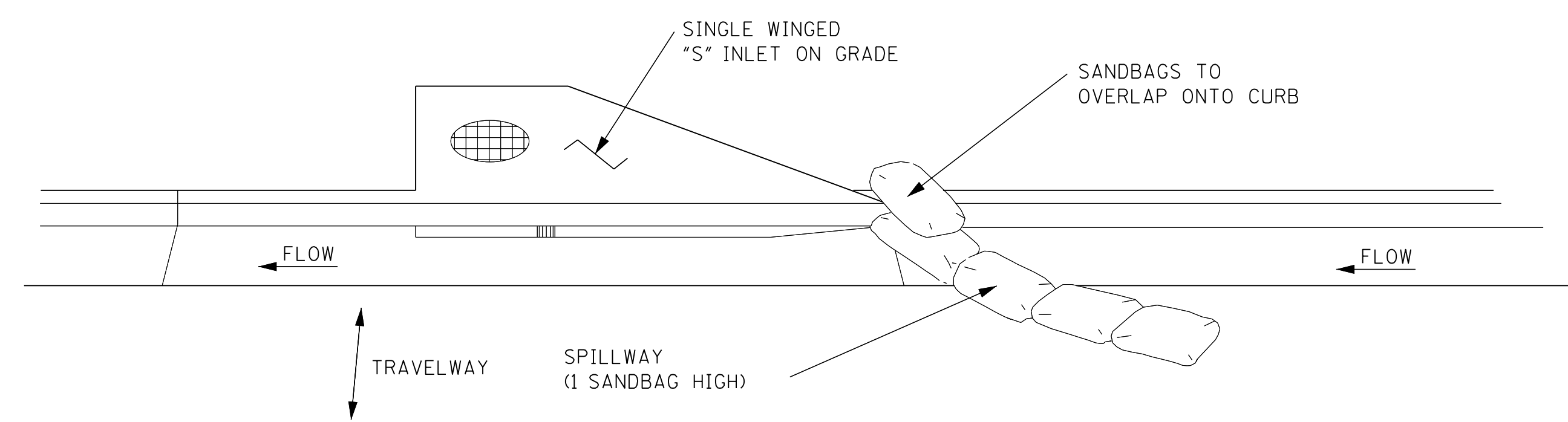


TYPICAL (SANDBAG) PROTECTION FOR INLET IN SAG

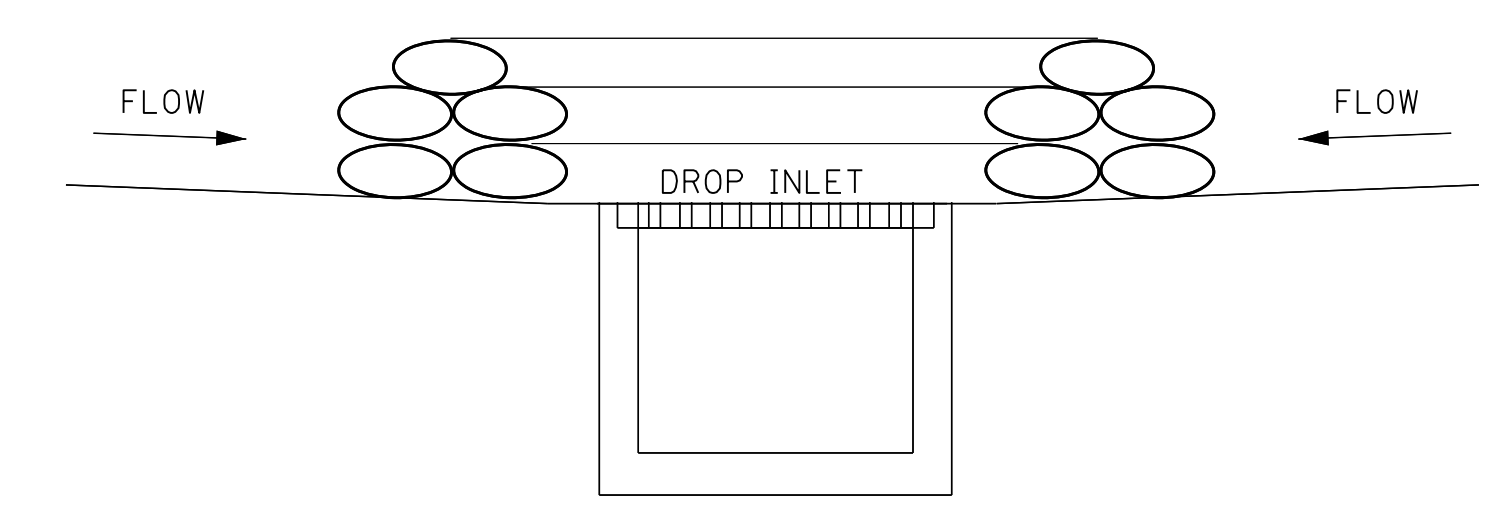


NOTE:
PLACE SANDBAGS SO THAT
NO GAPS ARE EVIDENT.
3 BAGS HIGH AND STAGGERED.
(80 BAGS MIN.)

DROP INLET
PLAN VIEW



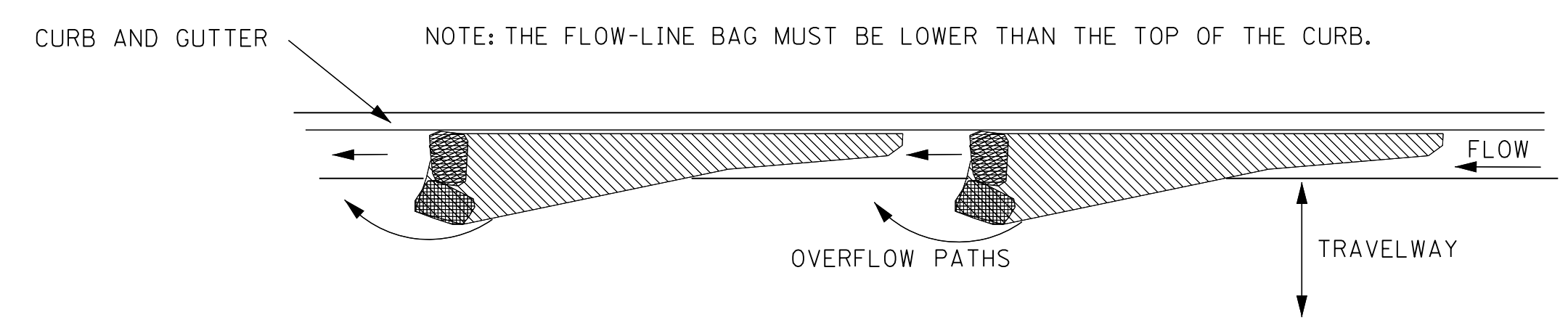
TYPICAL (SANDBAG) PROTECTION FOR INLET ON GRADE




SECTION A-A
SANDBAG BARRIER

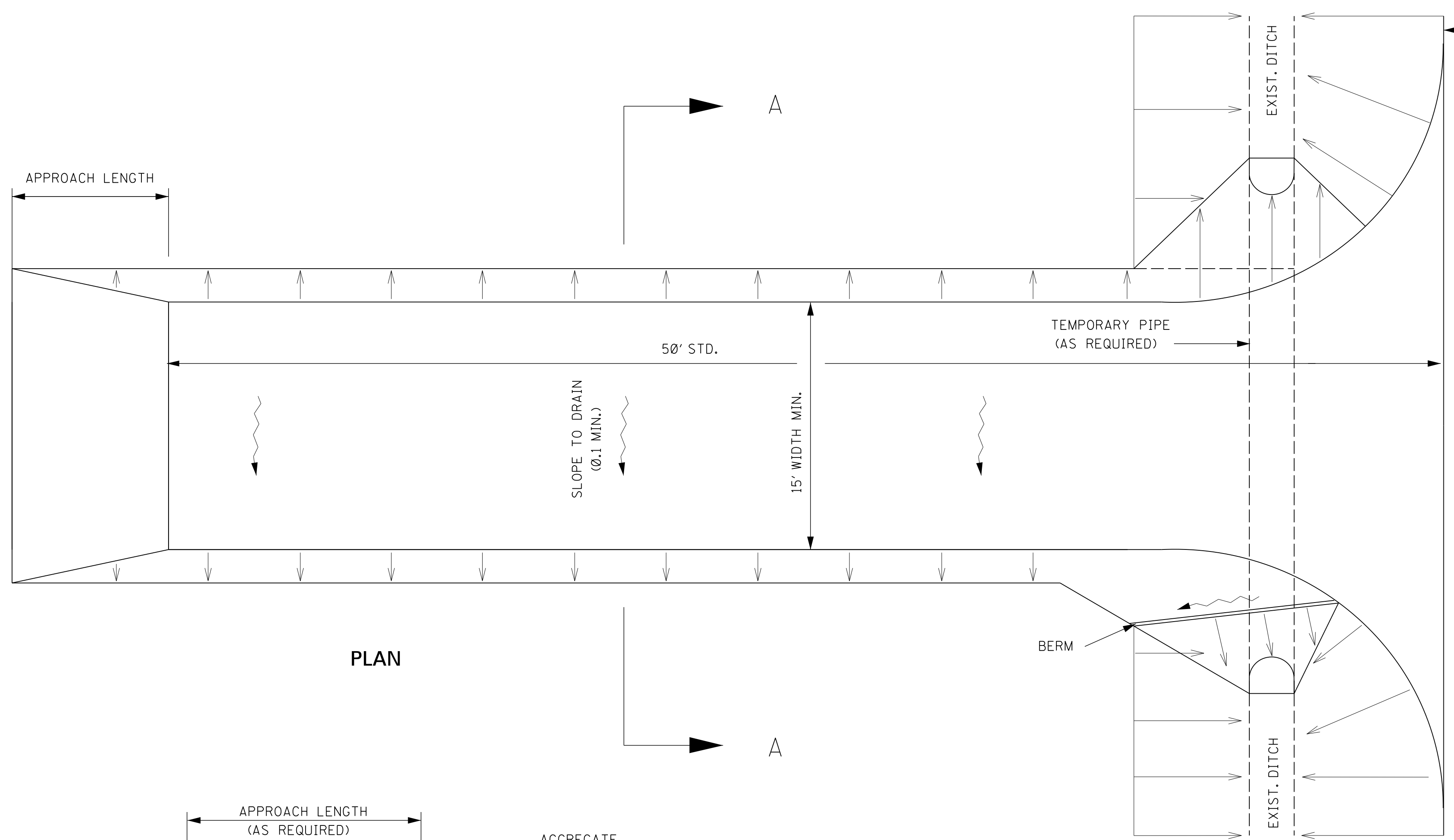
CURB INLET PROTECTION NOTES:

1. THIS CURB INLET PROTECTION METHOD CAN BE USED DURING ANY STAGE OF BASE AND PAVEMENT CONSTRUCTION.
2. BAG HEIGHT AND NUMBER OF BAGS SHOULD BE BASED ON CURB HEIGHT AND USE OF TRAVELWAY.
3. SEDIMENT SHOULD BE CONTROLLED PRIOR TO ENTERING GUTTER. GUTTER CHECKS AND INLET PROTECTION ARE FOR SECONDARY CONTROL.
4. REMOVE ACCUMULATED SEDIMENT AFTER EVERY RAINFALL. SWEEP SEDIMENT FROM HARD SURFACES AND DISPOSE OF APPROPRIATELY AWAY FROM INLETS AND/OR WATER BODIES.
5. IF DENUDED AREAS EXIST BEHIND THE INLET, A SEDIMENT BARRIER SHOULD BE INSTALLED AROUND ITS PERIMETER TO CONTROL SEDIMENT.



CURB AND GUTTER SEDIMENT
CONTAINMENT SYSTEM

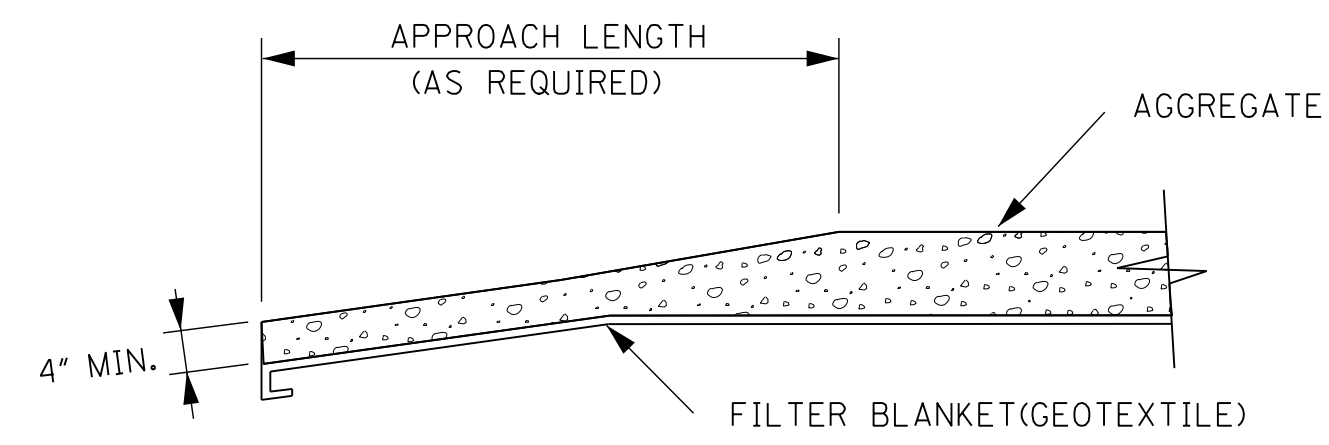
BY		MISSISSIPPI DEPARTMENT OF TRANSPORTATION ROADWAY DESIGN DIVISION STANDARD PLAN	
REVISION		<p>INLET PROTECTION DETAILS OF SANDBAGS</p> 	
DATE			
ISSUE DATE:		AUGUST 01, 2017	
WORKING NUMBER		ECD-15	
SHEET NUMBER		6115	



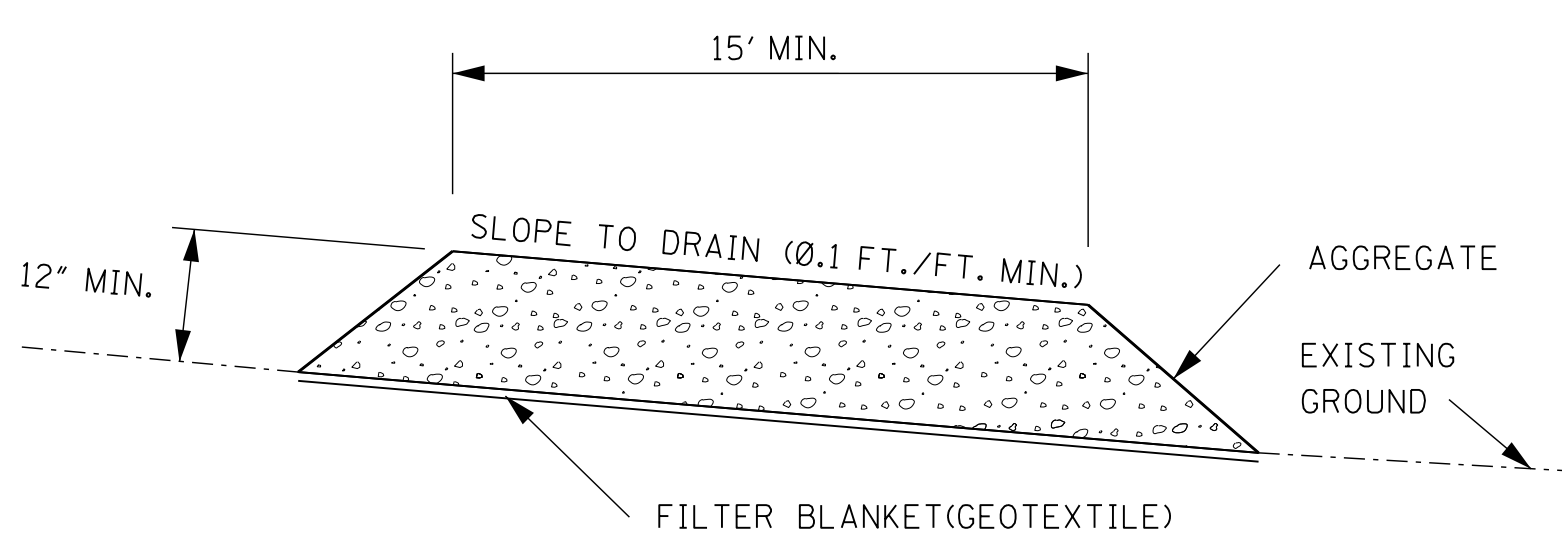
GENERAL NOTES:

1. A STABILIZED CONSTRUCTION ENTRANCE SHALL BE CONSTRUCTED AT POINTS OF EGRESS FROM UNSTABILIZED AREAS OF THE PROJECT TO PUBLIC ROADS WHERE OFFSITE TRACKING OF MUD COULD OCCUR. TRAFFIC FROM UNSTABILIZED AREAS OF THE PROJECT SHALL BE DIRECTED THRU THE STABILIZED ENTRANCE. BARRIERS, FLAGGING, OR OTHER POSITIVE MEANS SHALL BE USED AS REQUIRED TO LIMIT AND DIRECT VEHICULAR EGRESS ACROSS THE STABILIZED ENTRANCE.
2. THE CONTRACTOR MAY PROPOSE AN ALTERNATIVE TECHNIQUE TO MINIMIZE OFFSITE TRACKING OF SEDIMENT. THE ALTERNATIVE MUST BE REVIEWED AND APPROVED BY THE ENGINEER PRIOR TO ITS USE.
3. ALL MATERIALS SPILLED, DROPPED, OR TRACKED ONTO PUBLIC ROADS (INCLUDING THE STABILIZED CONSTRUCTION ENTRANCE AGGREGATE AND CONSTRUCTION MUD) SHOULD BE REMOVED DAILY, OR MORE FREQUENTLY IF SO DIRECTED BY THE ENGINEER.
4. SIZE III STABILIZER AGGREGATE OR LARGER SHALL BE USED.
5. THE STABILIZED CONSTRUCTION ENTRANCE SHALL BE MAINTAINED IN A CONDITION THAT WILL ALLOW IT TO PERFORM ITS FUNCTION TO PREVENT OFFSITE TRACKING. THE STABILIZED CONSTRUCTION ENTRANCE SHOULD BE RINSED WHEN NECESSARY TO MOVE ACCUMULATED MUD DOWNWARD THRU THE STONE. ADDITIONAL STABILIZATION OF THE VEHICULAR ROUTE LEADING TO THE STABILIZED ENTRANCE MAY BE REQUIRED TO LIMIT THE MUD TRACKED.
6. THE NOMINAL SIZE OF A STANDARD STABILIZED CONSTRUCTION ENTRANCE IS 15' X 50' UNLESS OTHERWISE SHOWN IN THE EROSION CONTROL PLAN.
7. COSTS OF ALL ITEMS ON THIS SHEET SHALL BE INCLUDED IN OTHER ITEMS BID.

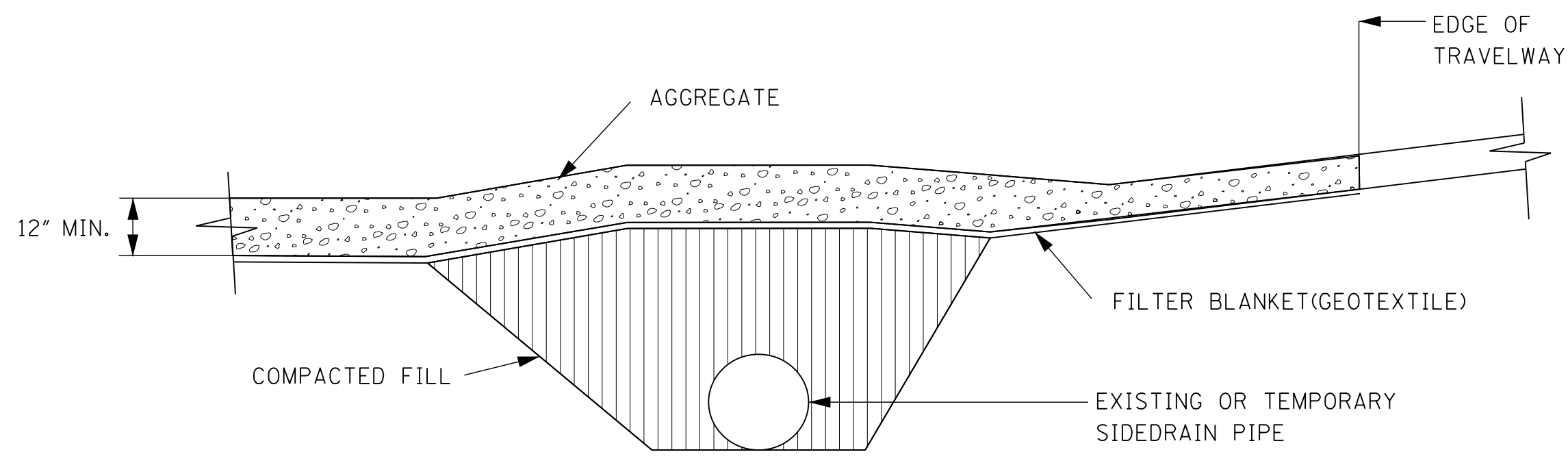
PLAN



TRANSITION DETAIL



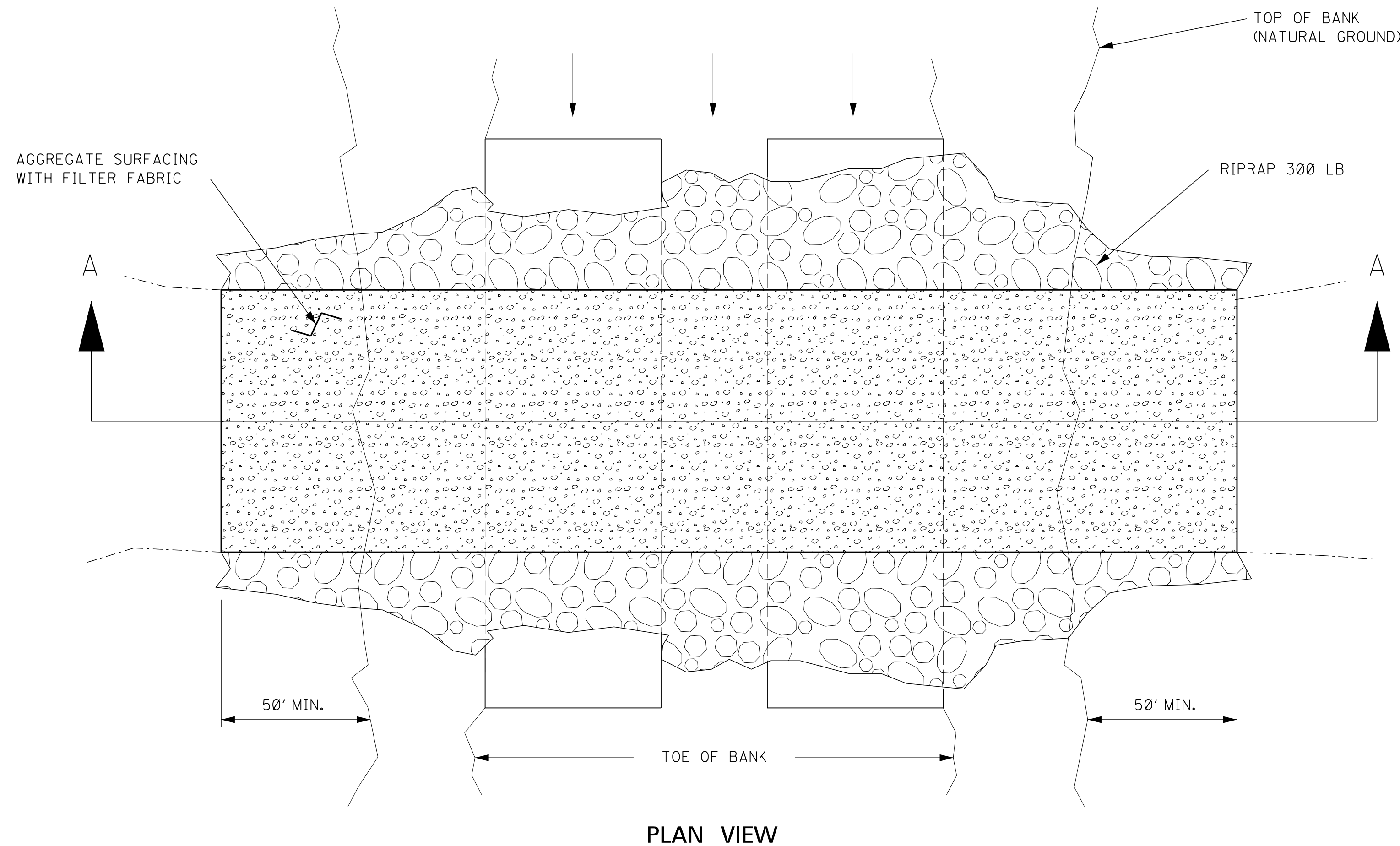
SECTION A-A



RURAL CONNECTION DETAIL

MISSISSIPPI DEPARTMENT OF TRANSPORTATION ROADWAY DESIGN DIVISION STANDARD PLAN	
STABILIZED CONSTRUCTION ENTRANCE	
WORKING NUMBER ECD-16	SHEET NUMBER 6116
ISSUE DATE: AUGUST 01, 2017	

TEMPORARY CULVERT STREAM CROSSING

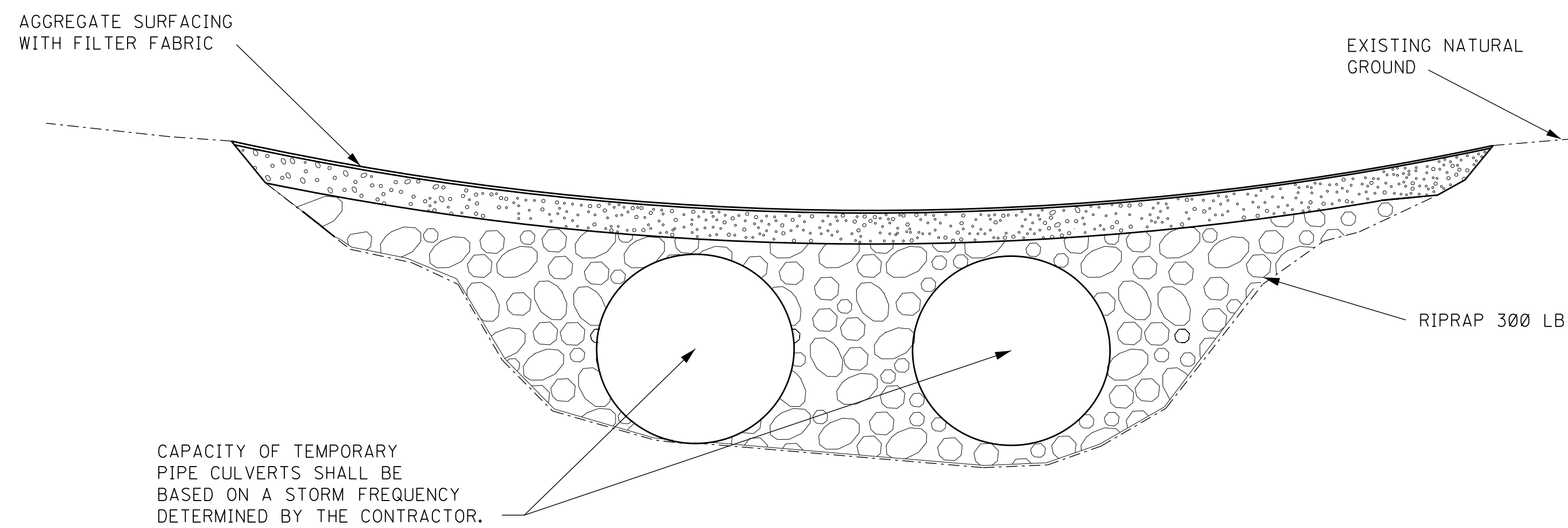


PLAN VIEW

GENERAL NOTES:


1. TEMPORARY CULVERT STREAM CROSSINGS PROVIDE A MEANS FOR VEHICLES AND EQUIPMENT TO SAFELY CROSS A WATERCOURSE WHILE MINIMIZING DAMAGE TO THE CHANNEL AND/OR BANKS.
2. TEMPORARY CULVERT STREAM CROSSINGS, WHEN PERMITTED BY THE ENGINEER, SHALL BE CONSTRUCTED TO SAFELY PASS EXPECTED MEAN WATER FLOW OF THE STREAM FOR THE TIME OF YEAR AND LENGTH OF TIME THAT THEY ARE INSTALLED.
3. TEMPORARY STREAM CROSSINGS SHALL BE DESIGNED TO ENSURE STRUCTURAL INTEGRITY AND STABILITY, AND MAINTAIN NORMAL DOWNSTREAM FLOWS. THE USE OF INSTREAM CROSSINGS AND INSTREAM AGGREGATE FILL SHOULD BE MINIMIZED TO THE EXTENT PRACTICABLE.
4. A CONTINUOUS PROGRAM OF EFFECTIVE EROSION AND SEDIMENT CONTROL MEASURES SHOULD BE IMPLEMENTED PRIOR TO AND CONCURRENT WITH ANY TYPE OF CONSTRUCTION ACTIVITY WITHIN THE BANKS OF A STREAM. WHEN A CROSSING IS NO LONGER NEEDED, THE STREAMBED AND STREAM BANKS SHALL BE RESTORED TO PRE-DISTURBANCE CONDITIONS, OR SUCH A CONDITION THAT PROVIDES SUBSTANTIALLY EQUIVALENT PROTECTION OF WATER QUALITY.
5. LOCATIONS OR TYPES OF TEMPORARY CULVERT STREAM CROSSINGS WILL NOT BE SHOWN ON THE PLANS AS REQUIRED ITEMS.
6. THE CONTRACTOR MAY PROPOSE OTHER OPTIONS FOR TEMPORARY CROSSINGS SUCH AS STEEL/TIMBER BRIDGE OR MATS.
7. THE DETAILS PROVIDED DEPICT A TYPICAL TEMPORARY CULVERT STREAM CROSSING.
8. ALL COSTS FOR MATERIALS, LABOR, EQUIPEMENT, CONSTRUCTION, REMOVAL, AND MAINTENANCE SHALL BE INCLUDED IN OTHER ITEMS BID.

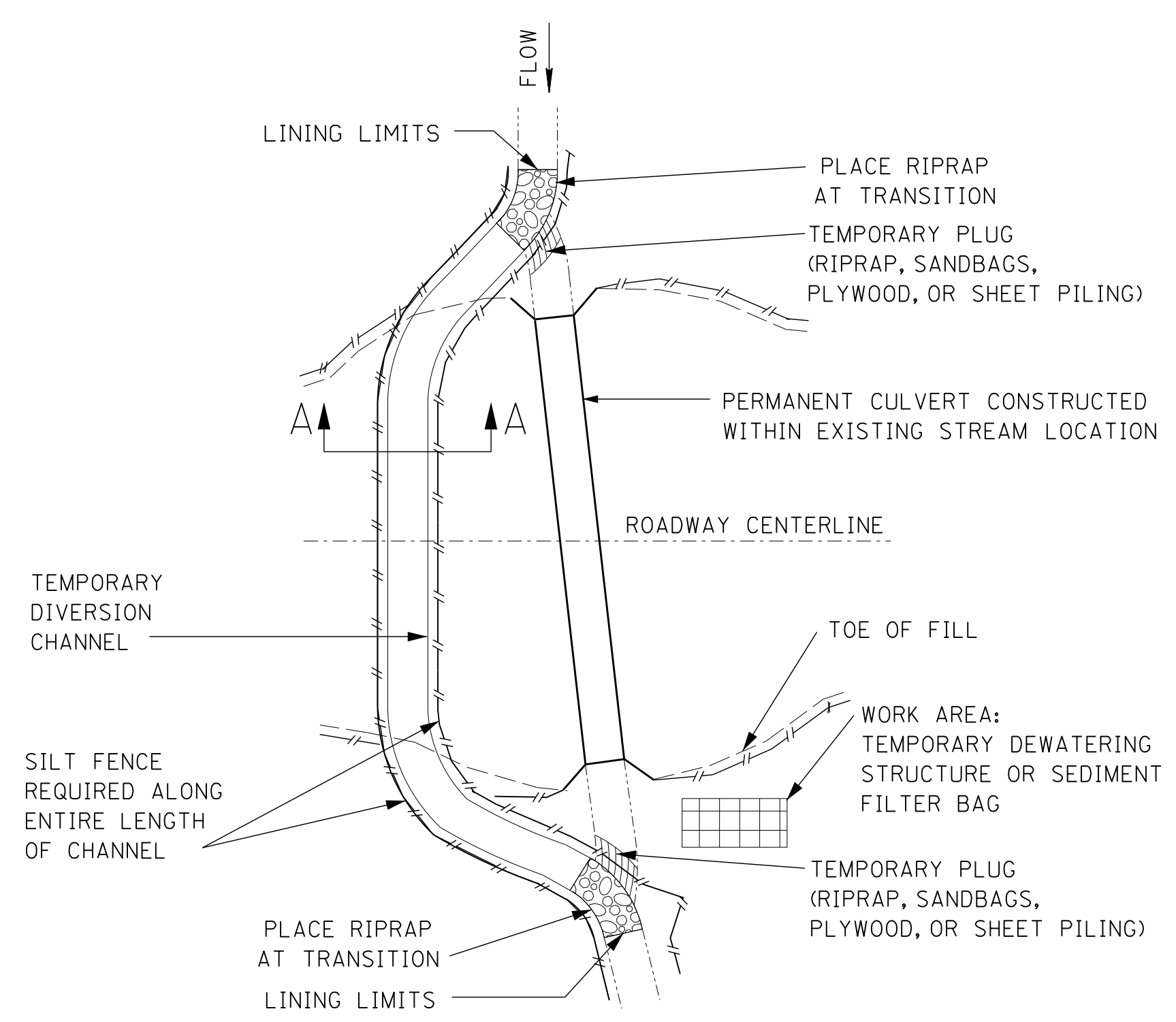
TEMPORARY CULVERT STREAM CROSSING



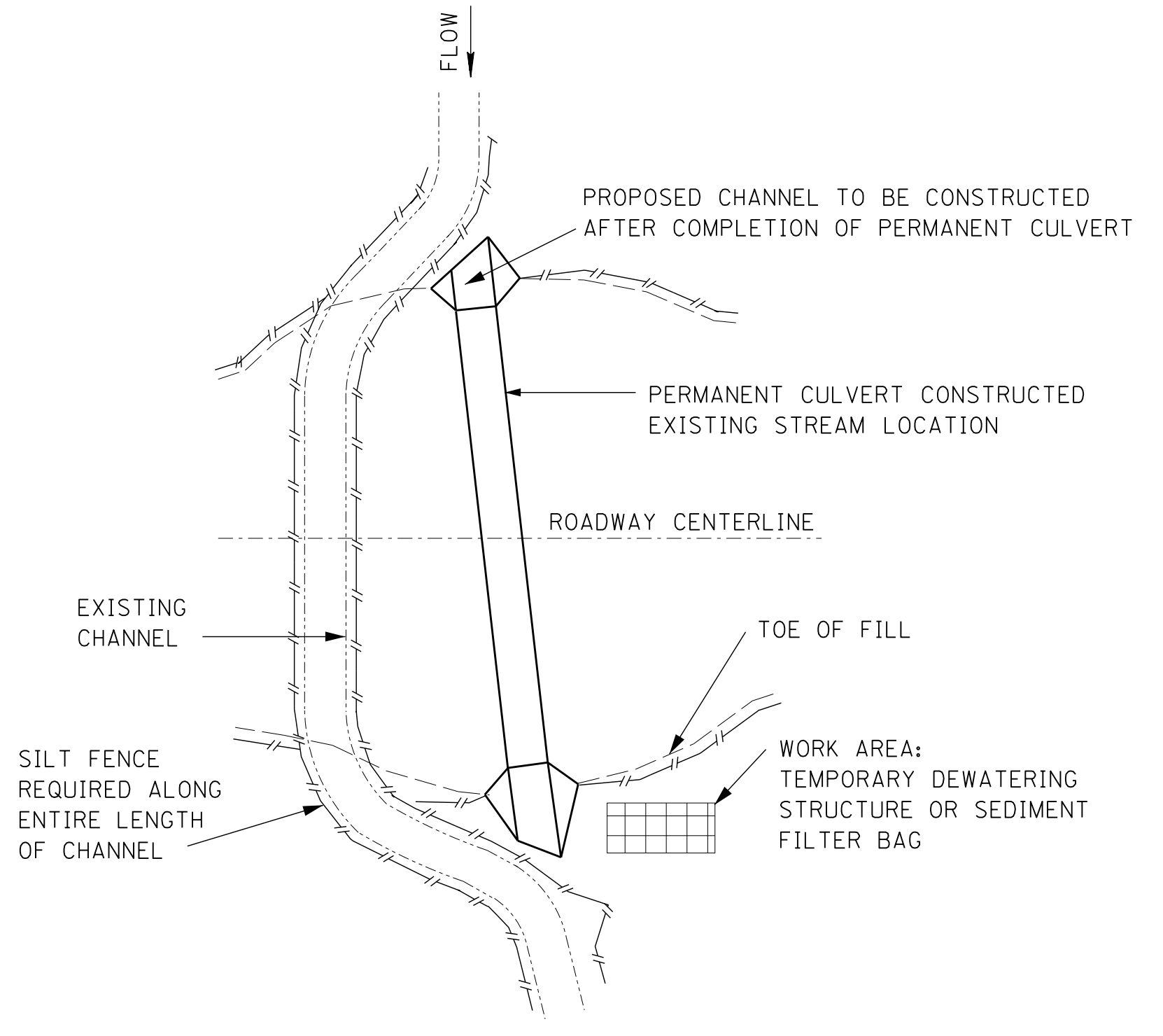
CAPACITY OF TEMPORARY PIPE CULVERTS SHALL BE BASED ON A STORM FREQUENCY DETERMINED BY THE CONTRACTOR.

SECTION A-A

		MISSISSIPPI DEPARTMENT OF TRANSPORTATION ROADWAY DESIGN DIVISION STANDARD PLAN	
		TEMPORARY CULVERT STREAM CROSSING	
			
		WORKING NUMBER ECD-17	
		SHEET NUMBER 6117	
BY		ISSUE DATE: AUGUST 01, 2017	
REVISION			
DATE			



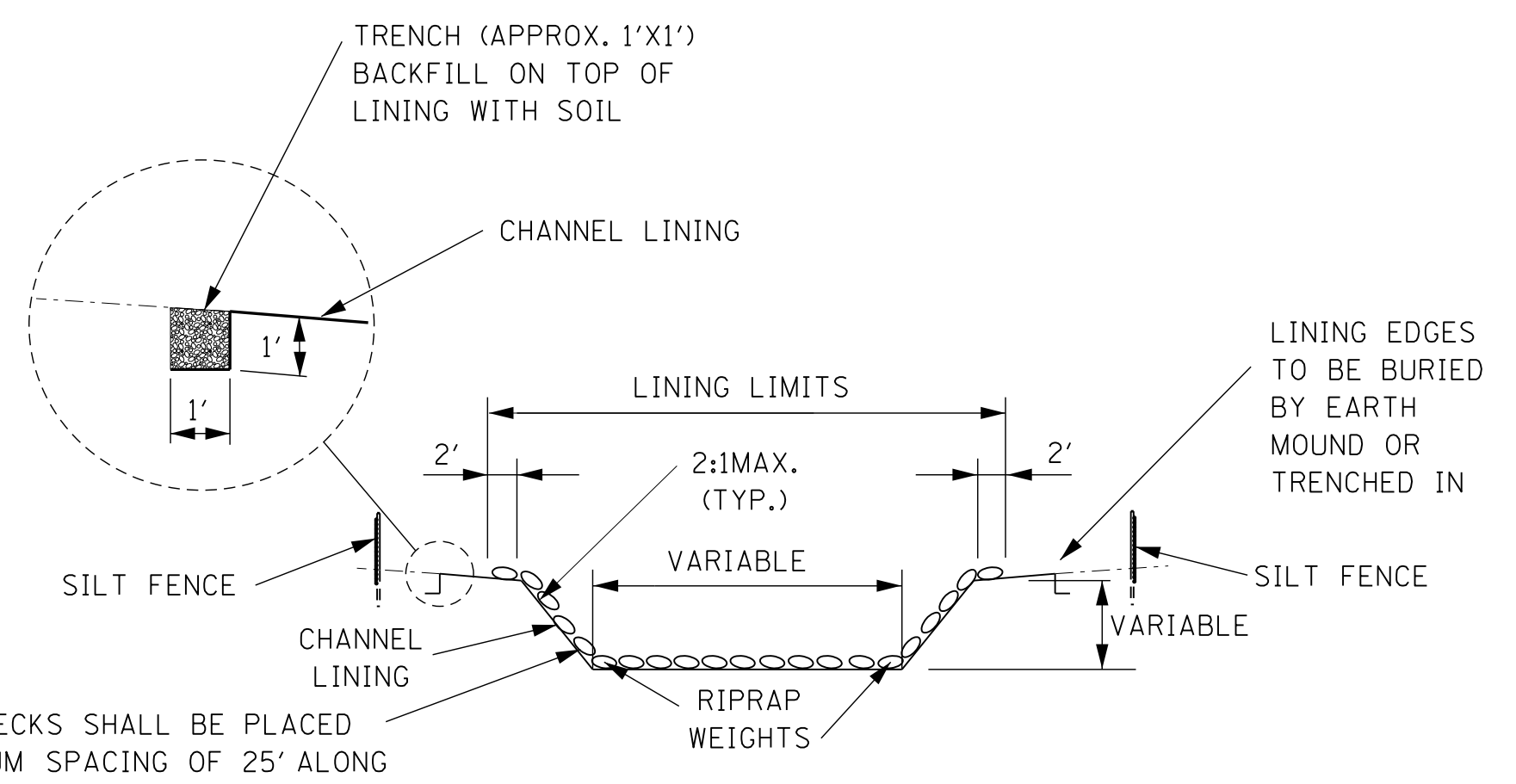
CULVERT CONSTRUCTED WITHIN EXISTING STREAM



CULVERT CONSTRUCTED OUTSIDE EXISTING STREAM

GENERAL NOTES:

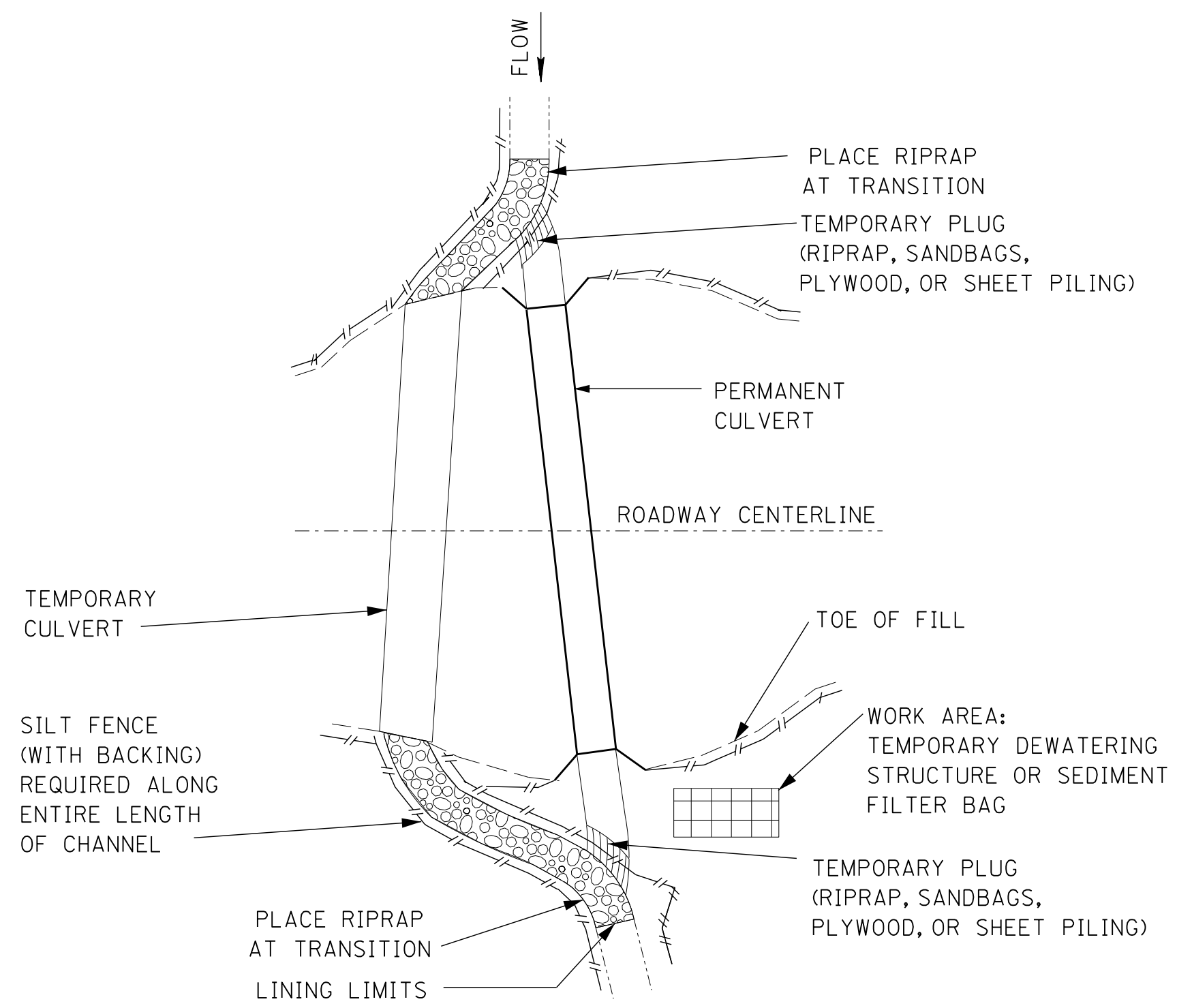
- TEMPORARY DIVERSION CHANNELS MAY BE USED TO DIVERT NORMAL STREAM PATH FLOW FROM AN ERODIBLE AREA UNTIL SUCH AREAS CAN BE STABILIZED.
- TYPE III FILTER FABRIC OR PRE-FAB DITCH LINER MAY BE USED FOR CHANNEL LINING.
- RIPRAP WITH FILTER FABRIC MAY BE USED FOR CHANNEL FLOW VELOCITIES OF 3 FPS TO 9 FPS. THE RIPRAP SHALL BE SIZE 300 LB.
- LOCATIONS OR TYPES OF TEMPORARY DIVERSIONS WILL NOT BE SHOWN ON THE PLANS.
- DIVERSION CHANNEL SHALL BE STABILIZED AND INSPECTED BY THE ENGINEER BEFORE FLOW IS DIVERTED.
- DURING CONSTRUCTION OF DIVERSION CHANNEL, DAMAGE TO THE EXISTING STREAM, CANOPY REMOVAL, AND DEPTH OF THE CHANNEL CONSTRUCTION SHOULD BE MINIMIZED.
- CONSTRUCTION OF THE CHANNEL RELOCATIONS AND CULVERTS SHALL PROCEED AS FOLLOWS:
 - CONSTRUCT A MEANDERING TEMPORARY CHANNEL CHANGE ADJACENT TO THE PROPOSED CULVERT TO DIVERT WATER TEMPORARILY DURING THE CULVERT CONSTRUCTION. TEMPORARY EROSION CONTROL MEASURES SHALL BE INSTALLED IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS.
 - RELOCATE CHANNEL AND CONSTRUCT CULVERT SIMULTANEOUSLY.
 - SOD AND/OR RIPRAP RECONSTRUCTED BANKS AT TRANSITIONS. THE UPPER CHANNEL PLUG IS TO REMAIN IN PLACE UNTIL SUBNOTE 7.1 THROUGH 7.4 UNDER THIS HEADING ARE COMPLETED TO INSURE THAT ALL CONSTRUCTION IS IN THE DRY.
 - IF AN EARTH PLUG IS NECESSARY AT THE DOWNSTREAM END OF THE CHANNEL IT SHOULD BE REMOVED FIRST, THEN REMOVE THE UPPER PLUG TO RELEASE WATER INTO THE RECONSTRUCTED CHANNEL.
 - PLUGS SHOULD REMAIN IN PLACE UNTIL PERMANENT STABILIZATION OF THE NEW WATER COURSE IS COMPLETED. REMOVAL OF PLUGS SHOULD ONLY BE PERFORMED FOLLOWING ACCEPTANCE OF ALL STABILIZATION WORK BY THE ENGINEER.
- THE DETAILS PROVIDED DEPICT TYPICAL TEMPORARY DIVERSION CHANNELS.
- THE CONTRACTOR MAY PROPOSE THE USE OF OTHER DIVERSION OPTIONS SUCH AS PIPING, PUMPING OR STAGED CONSTRUCTION.
- THE EFFECTIVE AREA OF FLOW IN THE TEMPORARY CHANNEL OR CULVERT SHALL BE A MINIMUM OF ONE-HALF THAT OF THE EXISTING STRUCTURE.
- INSTALLATION OF FILTER FABRIC SHALL BEGIN AT THE DOWNSTREAM END AND PROGRESS UPSTREAM. EDGES OF ADJACENT FILTER FABRIC SHALL OVERLAP AT LEAST 1 FOOT. THE ENDS OF THE FILTER FABRIC SHALL BE SECURELY HELD IN PLACE WITH RIPRAP.
- THE COST OF THE TEMPORARY DEWATERING STRUCTURE OR SEDIMENT FILTER BAG SHALL BE INCLUDED IN OTHER ITEMS BID.



SECTION A-A

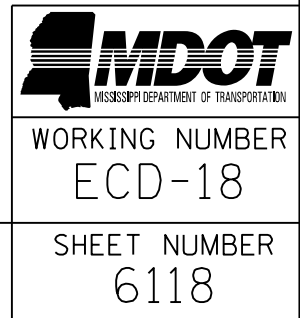
RIPRAP CHECKS SHALL BE PLACED AT A MAXIMUM SPACING OF 25' ALONG THE SIDES AND BOTTOM OF THE CHANNEL IN ORDER TO PROPERLY SECURE THE FABRIC. RIPRAP SHOULD BE PLACED AT LEAST 2 FEET WIDE AND 1 FOOT HIGH.

TEMPORARY DIVERSION CHANNEL WITH GEOTEXTILE FABRIC



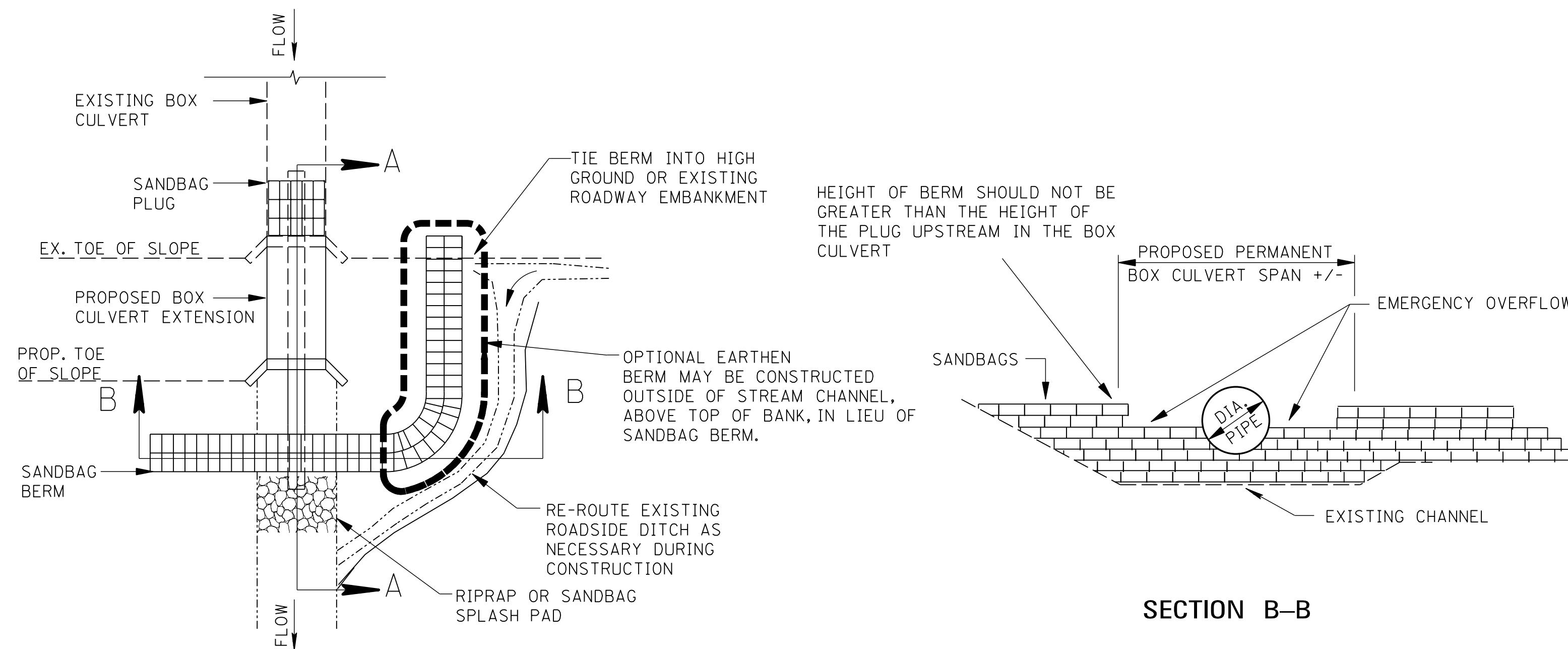
TEMPORARY CULVERT USED DURING CONSTRUCTION

MISSISSIPPI DEPARTMENT OF TRANSPORTATION ROADWAY DESIGN DIVISION STANDARD PLAN	
TEMPORARY STREAM DIVERSION	
BY	
REVISION	
DATE	ISSUE DATE: AUGUST 01, 2017
WORKING NUMBER	ECD-18
SHEET NUMBER	6118

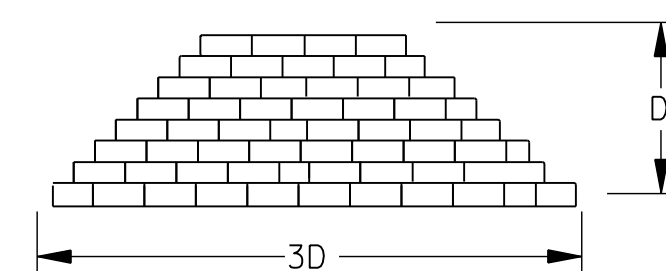


MAXIMUM SPAN FOR PIPE SUPPORTS, FEET					
DIAMETER OF PIPE (IN.)	STEEL THICKNESS (IN.)				
	0.064	0.079	0.109	0.138	0.168
2" x 1/2" CORRUGATION					
24	13	15	20		
36	12	15	20	25	
48	11	14	19	25	30
60		14	19	24	29
72			18	24	29
5" X 1" OR 3" X 1" CORRUGATION					
36	9	11			
48	9	11	15		
60	8	10	14	18	
72	8	10	14	18	22

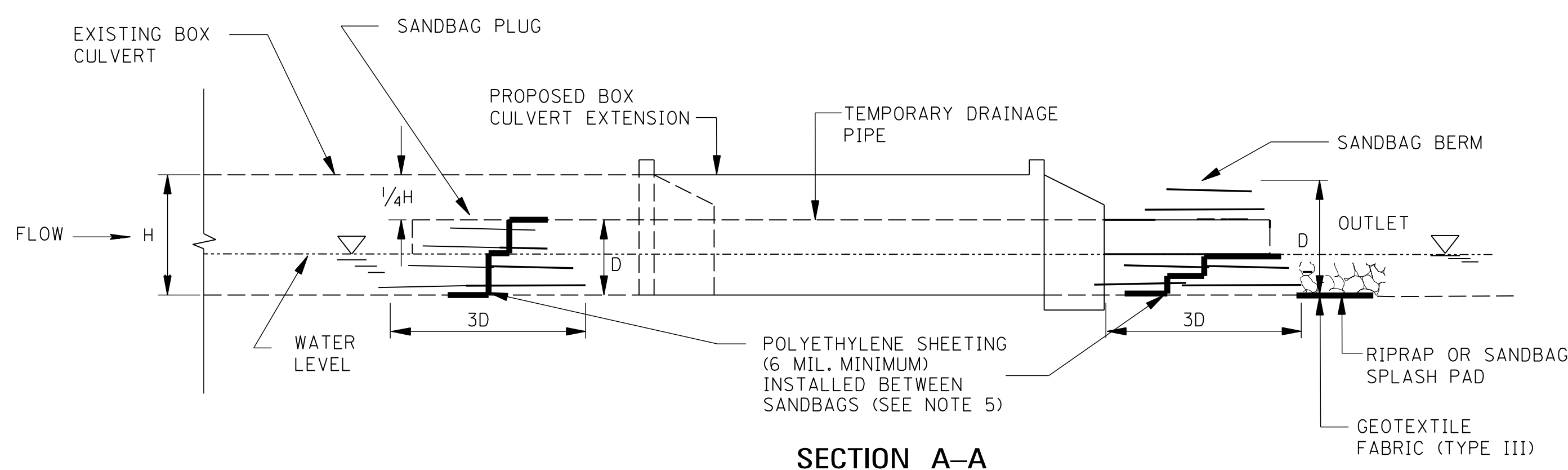
FOR PIPE SIZES NOT SHOWN REFER TO NEXT LARGER SIZE



PLAN VIEW



SANDBAG PLUG & BERM CROSS SECTION
(SEE NOTE 4)



SECTION A-A

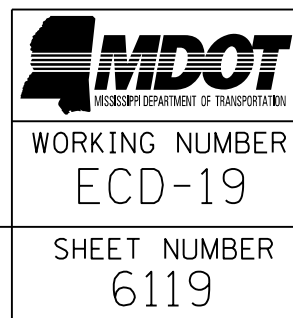
GENERAL NOTES:

- SUSPENDED PIPE DIVERSIONS MAY BE USED TO ALLOW BOX CULVERT EXTENSIONS TO BE CONSTRUCTED, WHILE SEPARATED FROM FLOWING WATER, THUS REDUCING SEDIMENTATION. OPTIONAL FLEXIBLE PIPE DIVERSION MAY BE UTILIZED ON STREAMS WITH INTERMITTENT FLOW WHERE THE DURATION OF CONSTRUCTION IS EXPECTED TO BE BRIEF.
- EXCAVATION SLOPES FOR BOX CULVERT EXTENSIONS SHALL BE PROTECTED WITH TYPE III FILTER FABRIC PRIOR TO CONSTRUCTION OF THE BOX.
- SUSPENDED PIPE DIVERSIONS MAY BE USED WHERE ADVERSE IMPACTS WILL NOT BE CAUSED BY WATER PONDED UPSTREAM OF THE PIPE.
- THE SANDBAG PLUG AT THE UPSTREAM END OF THE SUSPENDED PIPE DIVERSION SHOULD BE CONSTRUCTED TO A HEIGHT EQUAL TO THREE QUARTERS OF THE RISE OF THE BOX CULVERT.
- POLYETHYLENE SHEETING (6 MIL. MINIMUM) SHALL BE PLACED INSIDE THE SANDBAG PLUG IN THE BOX CULVERT AND IN THE SANDBAG BERM WITHIN THE CHANNEL IN ORDER TO PROVIDE THE BEST POSSIBLE SEAL. SANDBAGS ON THE DOWNSTREAM SIDE OF THE SHEETING SHOULD BE PLACED FIRST, AND THEN SHEETING PLACED ON THESE BAGS. AS MUCH AS POSSIBLE, THE SHEETING SHOULD BE FITTED AROUND THE PIPE. SANDBAGS SHOULD THEN BE PLACED ON THE SHEETING. WHERE MULTIPLE SHEETS ARE USED, THEY SHOULD OVERLAP A MINIMUM OF 18 INCHES.
- THE PROPOSED CULVERT CONSTRUCTION SHALL BE SEALED FROM THE EXISTING STREAM BY MEANS OF A SANDBAG BERM WHICH SHOULD BE AT THE SAME HEIGHT AS THE PLUG INSIDE THE BOX CULVERT. THIS BERM SHOULD BE TIED INTO EITHER HIGH GROUND ADJACENT TO THE CHANNEL OR THE EXISTING ROADWAY EMBANKMENT. IT SHALL BE PROVIDED WITH A SPILLWAY EQUAL IN WIDTH TO THE BOX CULVERT AND AT A HEIGHT LOWER THAN THE REST OF THE BERM.
- THE TEMPORARY DRAINAGE PIPE SHALL BE SUPPORTED AT ALL JOINTS AND AT INTERVALS NOT TO EXCEED MAXIMUM VALUES SPECIFIED IN THE TABLE "MAXIMUM SPAN FOR PIPE SUPPORTS". SUPPORTS MAY CONSIST OF SANDBAGS, CONCRETE BLOCKS, WOODEN FRAMES, OR ANY OTHER MATERIAL SUFFICIENT TO SUPPORT THE WEIGHT OF THE PIPE WHEN IT IS FLOWING FULL. SUPPORTS AT JOINTS SHALL BE A MINIMUM OF 18 INCHES IN LENGTH, ALONG THE TEMPORARY DRAINAGE PIPE AND CENTERED ON THE JOINT. SUPPORTS SHOULD "CRADLE" THE TEMPORARY DRAINAGE PIPE TO ENSURE THAT IT WILL NOT ROLL DURING CONSTRUCTION OF THE BOX CULVERT.
- ALL PIPE JOINTS SHALL BE PROPERLY BANDED OR OTHERWISE PROVIDED WITH A REASONABLE SEAL AGAINST LEAKAGE.
- THE OPTIONAL FLEXIBLE PIPE DIVERSION USING PUMPS MAY BE USED AS AN ALTERNATE FOR SUSPENDED PIPE DIVERSIONS (UPSTREAM AND DOWNSTREAM).
- CONSTRUCTION SHALL PROCEED AS FOLLOWS:
 - INSTALL TEMPORARY DRAINAGE PIPE ON ITS SUPPORTS INSIDE THE CULVERT TO BE EXTENDED.
 - CONSTRUCT THE SANDBAG PLUG AT THE UPSTREAM END OF THE SUSPENDED PIPE DIVERSION.
 - CONSTRUCT THE SANDBAG BERM AT THE DOWNSTREAM END OF THE SUSPENDED PIPE DIVERSION.
 - ONCE THE BOX CULVERT EXTENSION HAS BEEN COMPLETED, REMOVE THE DOWNSTREAM SANDBAG STRUCTURE, EXCEPT FOR THOSE BAGS NEEDED TO SUPPORT THE END OF THE PIPE. THE UPSTREAM SANDBAG STRUCTURE SHOULD THEN BE REMOVED GRADUALLY, IN ORDER TO ALLOW THE UPSTREAM WATER LEVEL TO DRAW DOWN AT A SAFE RATE.
 - REMOVE THE TEMPORARY DRAINAGE PIPE, SUPPORTS AND ANY REMAINING SANDBAGS.
- TEMPORARY DRAINAGE PIPE, SANDBAG PLUGS, BERMS, AND SUPPORTS SHOULD BE INSPECTED WEEKLY OR AFTER EVERY RAIN EVENT. ANY NEEDED REPAIRS SHALL BE DONE IMMEDIATELY. ANY DEBRIS WHICH HAS ACCUMULATED AT THE INLET OF THE SUSPENDED PIPE DIVERSION SHALL BE IMMEDIATELY REMOVED.
- RIPRAP MAY BE SUBSTITUTED FOR SANDBAGS.

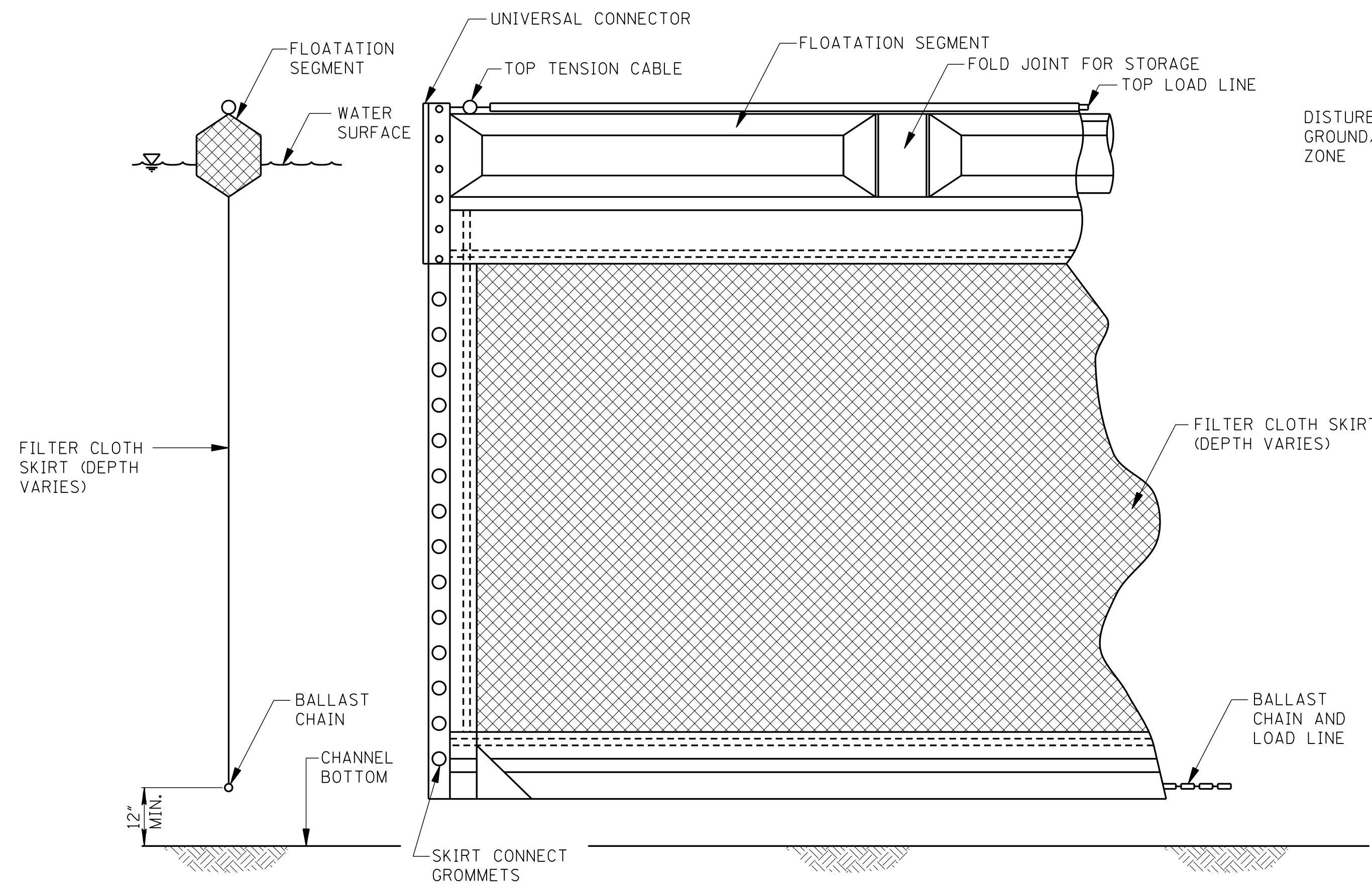
BY	MISSISSIPPI DEPARTMENT OF TRANSPORTATION ROADWAY DESIGN DIVISION STANDARD PLAN
REVISION	
DATE	ISSUE DATE: AUGUST 01, 2017

TEMPORARY STREAM DIVERSION (BOX EXTENSIONS)

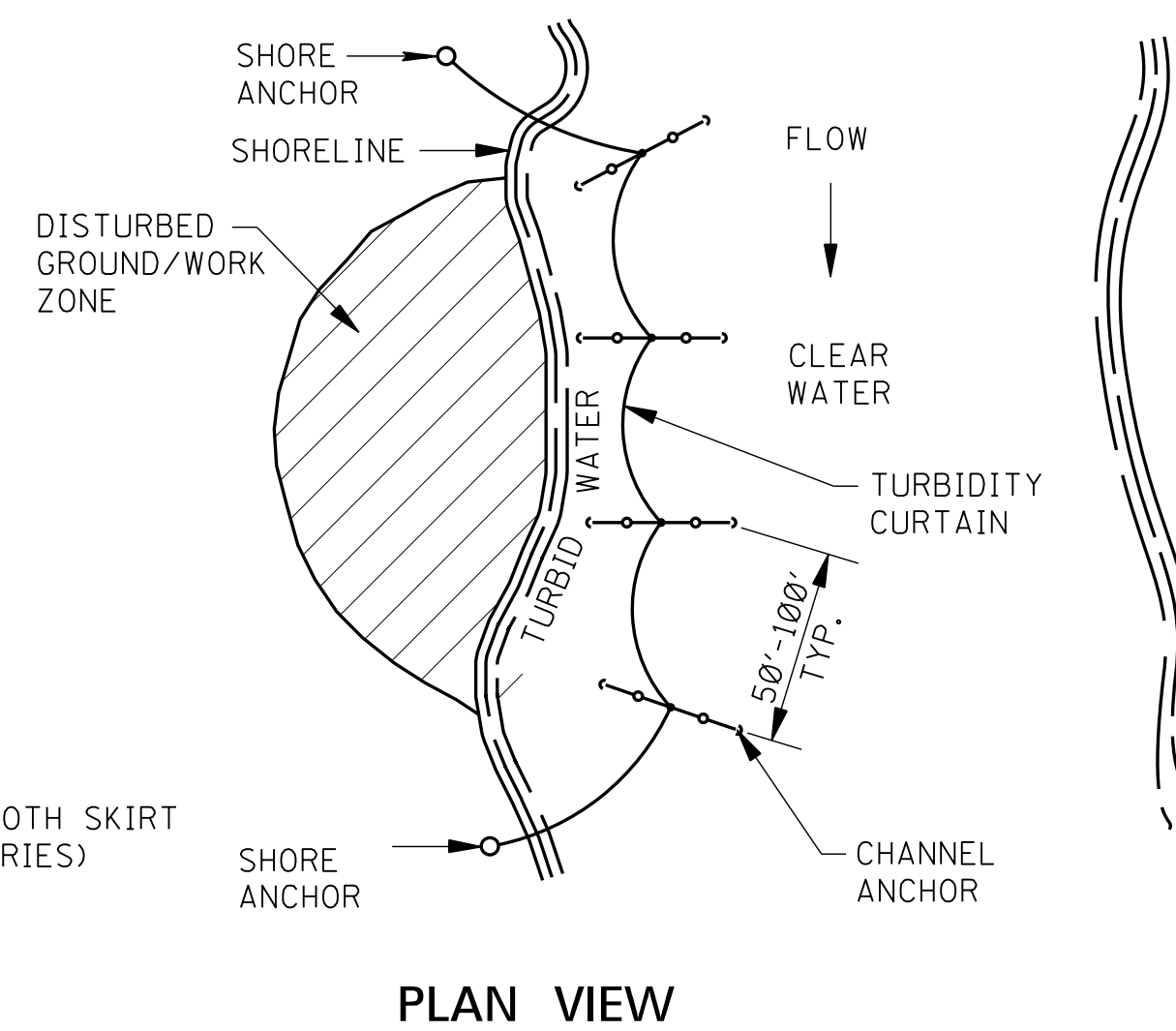
WORKING NUMBER	ECD-19
SHEET NUMBER	6119



FLOATING TURBIDITY CURTAIN

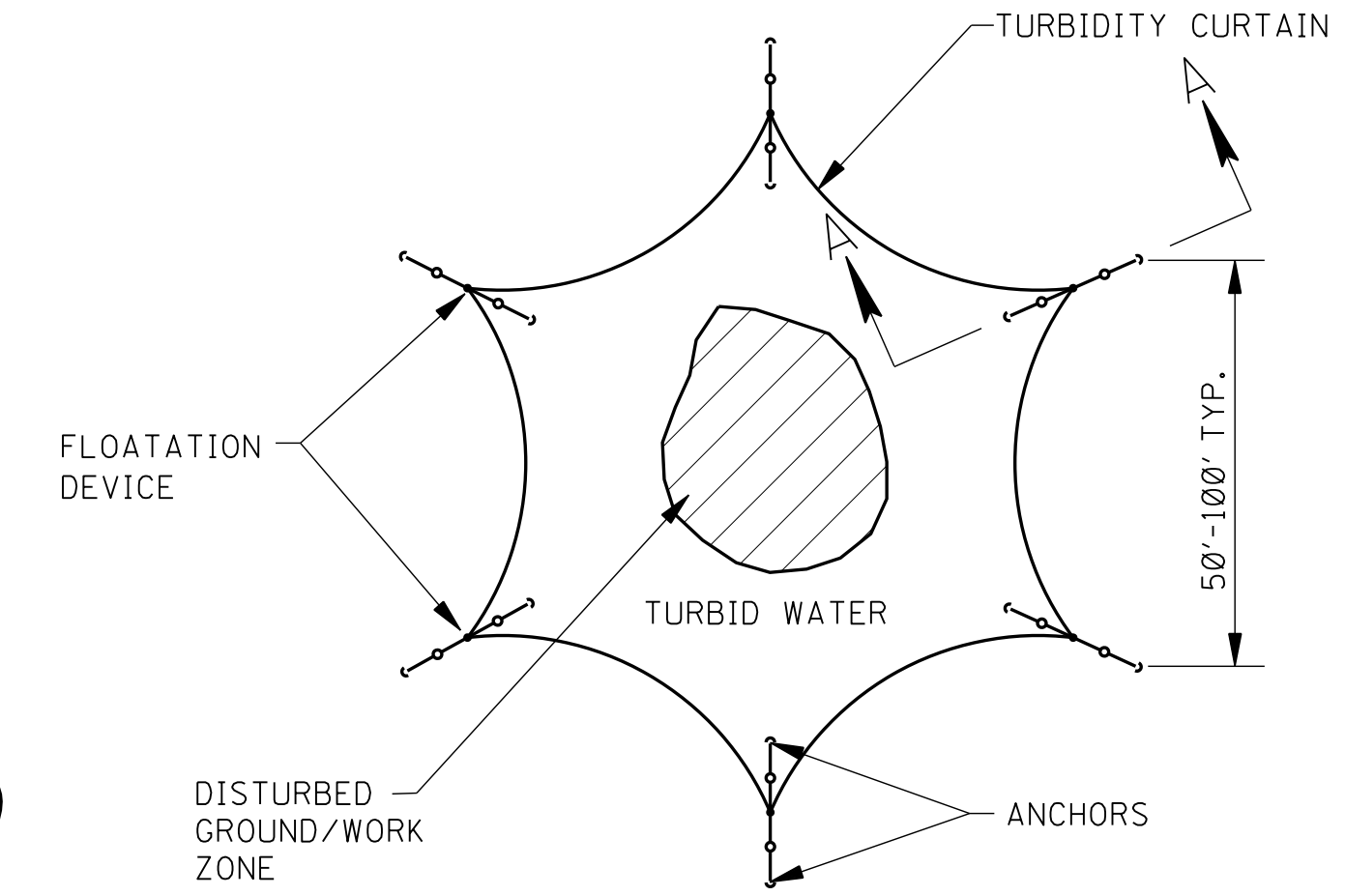


TYPICAL ANCHORING PLAN FOR SHORELINE/RIVER EDGE WORK



PLAN VIEW

TYPICAL ANCHORING PLAN FOR MID CHANNEL WORK (BRIDGE PIER, CAISSON, ETC.)

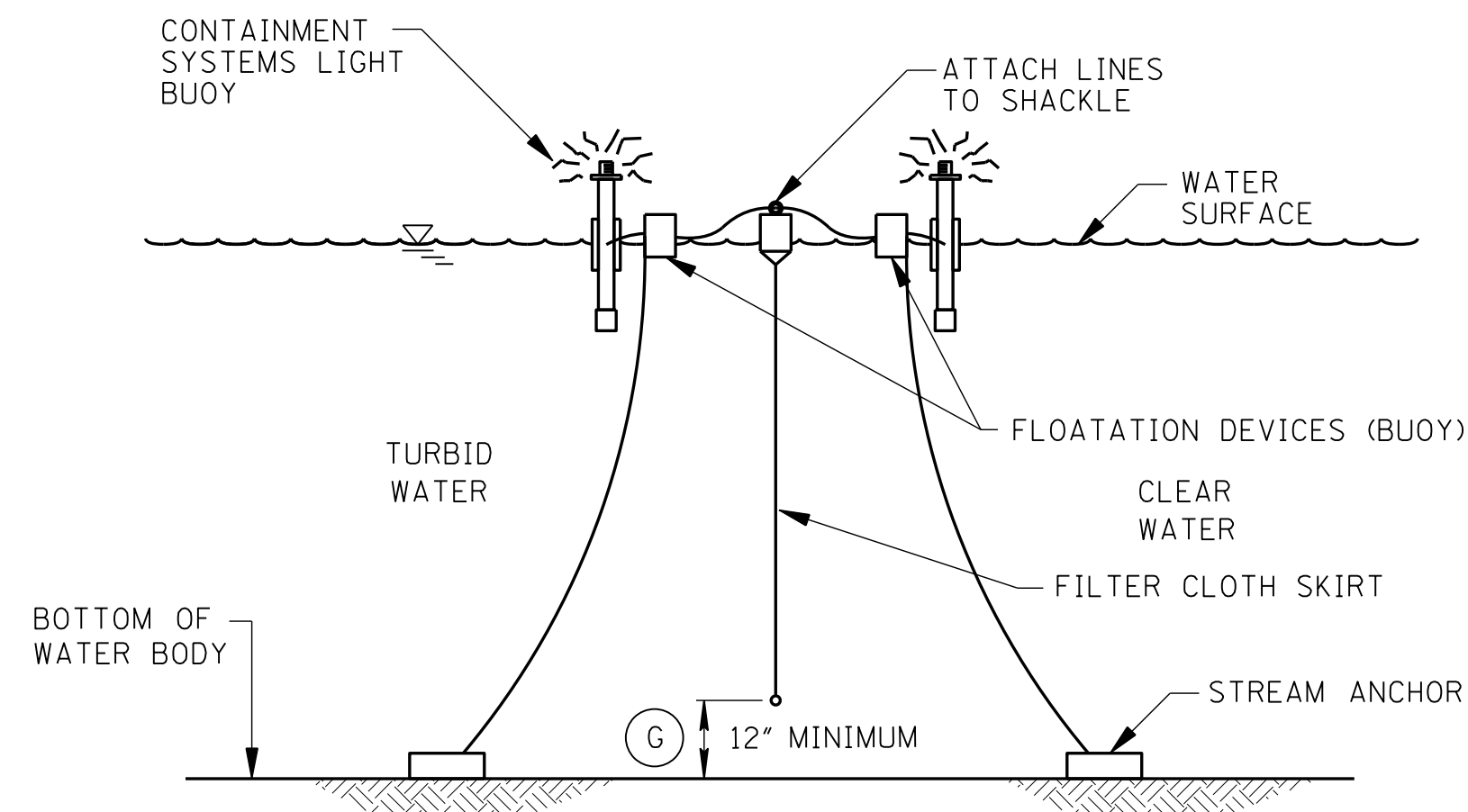


PLAN VIEW

GENERAL NOTES:

- FLOATING TURBIDITY CURTAINS (ALSO KNOWN AS TURBIDITY BARRIERS OR SILT CURTAINS) CREATE A BARRIER TO PREVENT TURBID WATER FROM ENTERING CLEAR WATER. FLOATING TURBIDITY CURTAINS SHOULD BE USED TO ISOLATE ACTIVE CONSTRUCTION AREAS WITHIN OR ADJACENT TO A BODY OF WATER TO MINIMIZE THE MIGRATION OF SILT LADEN WATER OUT OF THE CONSTRUCTION ZONE.
- TURBIDITY CURTAINS SHALL NOT BE INSTALLED PERPENDICULAR ACROSS THE MAIN FLOW OF A SIGNIFICANT BODY OF MOVING WATER.
- FLOATING TURBIDITY CURTAINS SHOULD NOT BE USED WHERE THE ANTICIPATED FLOW VELOCITIES WILL EXCEED 5 FT/SEC.
- TURBIDITY CURTAINS SHALL BE ANCHORED TO PREVENT DRIFT SHOREWARD OR DOWNSTREAM. ANCHORAGE SHALL BE INSTALLED ON BOTH SHORE AND STREAM SIDE. CURTAINS SHOULD BE INSTALLED AS CLOSE TO PROJECT SITE AS POSSIBLE. BARRIERS SHOULD BE A BRIGHT COLOR (YELLOW OR "INTERNATIONAL" ORANGE ARE RECOMMENDED) THAT WILL ATTRACT THE ATTENTION OF NEARBY BOATERS.
- SHORE ANCHORS SHALL CONSIST OF A POST WITH DEADMAN OR APPROVED EQUAL. STREAM ANCHORS SHALL BE OF SUFFICIENT SIZE TO STABILIZE THE BARRIER WITH NUMBER AND SPACING DEPENDENT ON WATERWAY VELOCITIES AND MANUFACTURER'S RECOMMENDATIONS.
- IN SHALLOW WATER (2 FEET OF DEPTH OR LESS) A TURBIDITY CURTAIN MAY BE INSTALLED ON STAKES DRIVEN INTO THE BED OF THE WATER BODY.
- FABRIC SECTIONS SHALL BE CONNECTED END TO END WITH MINIMUM 5/8" DIAMETER POLYPROPYLENE ROPE. FABRIC SHALL BE SEAMED TOGETHER IN A MANNER THAT RETAINS THE OVERALL TENSILE STRENGTH.
- DESIGN OF CURTAIN AND ANCHORAGE SHALL BE IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS. FILTER CLOTH SKIRT SHOULD BE ABLE TO WITHSTAND THE FORCES IMPARTED ON IT DUE TO THE EXPECTED WIND VELOCITY OR STREAM VELOCITY. FABRIC SHALL BE MADE OF A NON-DETERIORATING MATERIAL, SUCH AS PLASTIC OR NYLON, WHICH WILL ALLOW WATER TO PASS THROUGH WHILE STILL RETAINING SEDIMENT.
- THE TURBIDITY CURTAIN AND ADJACENT WORK AREAS SHALL NOT BE DISTURBED 12 HOURS PRIOR TO REMOVAL FROM THE WATER BODY. MAINTENANCE SHALL BE PERFORMED AS NEEDED. CONTRACTOR SHALL REMOVE THE CURTAIN AT COMPLETION OF WORK IN A MANNER THAT WILL PREVENT SILTATION OF THE WATERWAY. DURING REMOVAL, EXTREME CARE SHOULD BE TAKEN NOT TO DISTURB ANY SEDIMENT DEPOSITS.
- MAINTAIN 12" MINIMUM GAP BETWEEN SKIRT BOTTOM AND CHANNEL BOTTOM TO PREVENT ACCUMULATED SEDIMENT FROM PULLING TOP OF CURTAIN BELOW WATER SURFACE.
- IN WIND OR WAVE ACTION SITUATIONS, THE MAXIMUM DEPTH OF THE CURTAIN SHALL BE 12 FEET.
- CONCENTRATED FLOWS SHALL NOT DISCHARGE BEYOND FLOATING TURBIDITY CURTAIN. CURTAINS ARE NOT TO BE INSTALLED ACROSS FLOWING BODY OF WATER.
- WHEN INSTALLED IN A NAVIGABLE WATERWAY, BUOYS SHOULD BE LIT ACCORDING TO REGULATORY AGENCY STANDARDS.
- WHEN ESTIMATING THE LENGTH OF THE TURBIDITY CURTAIN, ALLOW 10 TO 20 PERCENT VARIANCE IN STRAIGHT LINE MEASUREMENT.
- PAYMENT FOR FLOATING TURBIDITY CURTAIN SHALL INCLUDE ALL MATERIAL AND ALL LABOR NECESSARY FOR CONSTRUCTION, MAINTENANCE, AND REMOVAL OF TURBIDITY CURTAIN.
- ONLY FLOATING TURBIDITY CURTAINS LISTED ON THE APPROVED PRODUCTS LIST MAY BE USED.

TYPICAL ANCHORING SECTION

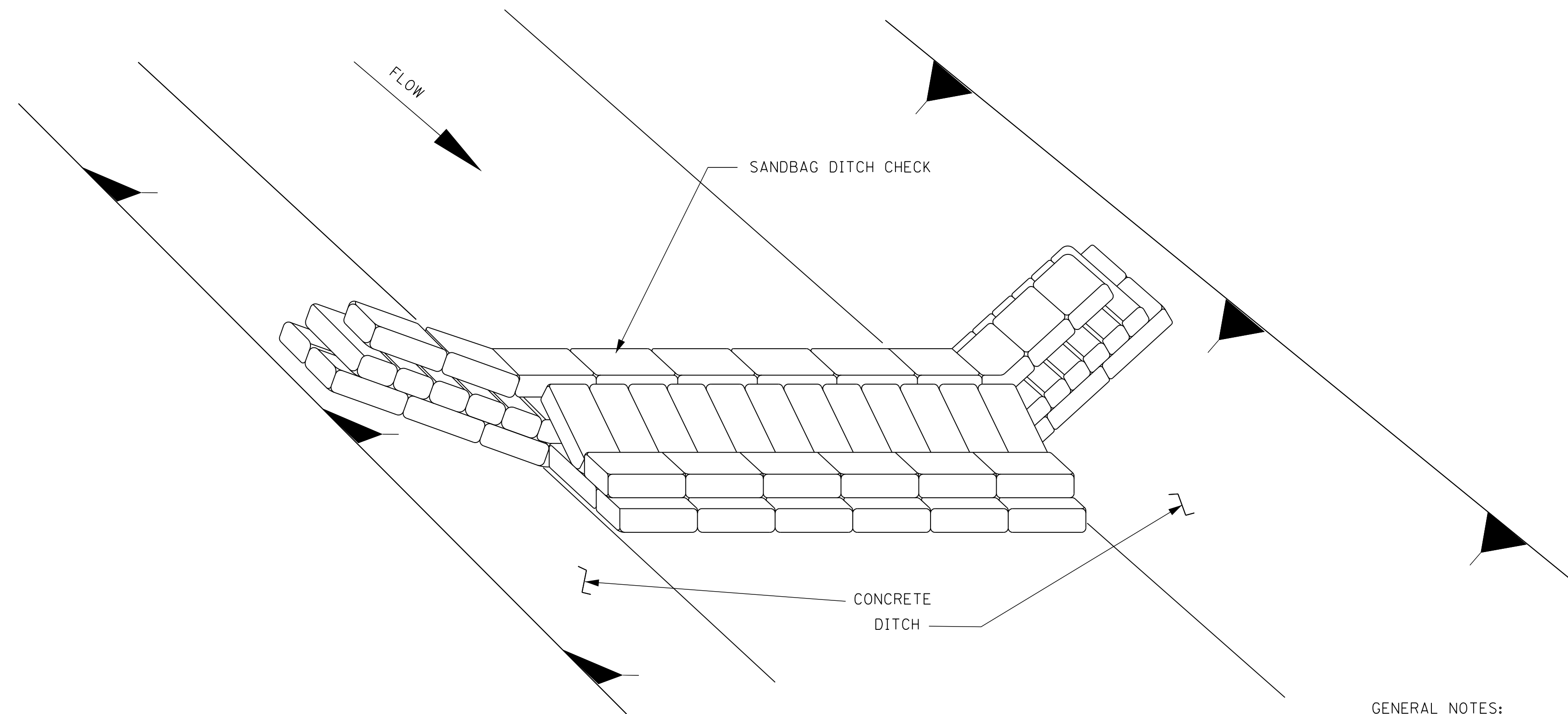


SECTION A-A

AUTOMATIC FLASHING LIGHT BUOY (ON AT DUSK-OFF AT DAWN) 100' ON CENTER SHALL BE USED IN NAVIGABLE CHANNELS ONLY

EROSION CONTROL PLAN LEGEND: FLOATING TURBIDITY CURTAIN

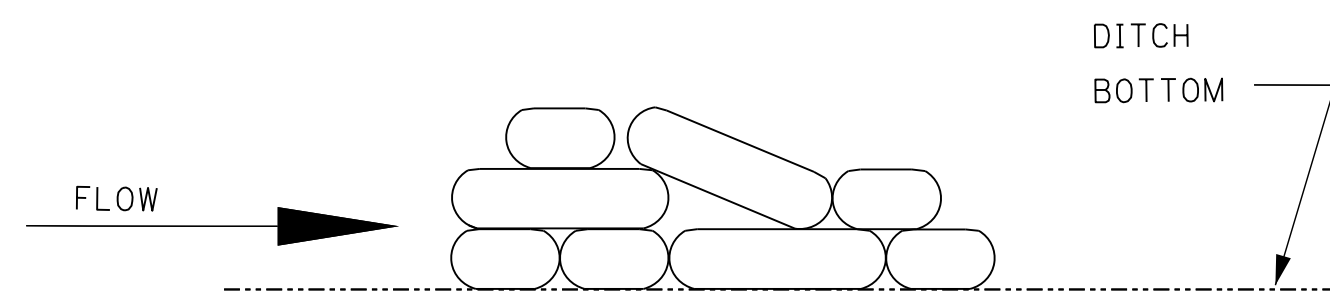
BY		MISSISSIPPI DEPARTMENT OF TRANSPORTATION ROADWAY DESIGN DIVISION STANDARD PLAN	
REVISION		<p align="center">FLOATING TURBIDITY CURTAIN</p>	
DATE			
ISSUE DATE:		AUGUST 01, 2017	
WORKING NUMBER		ECD-20	
SHEET NUMBER		6120	



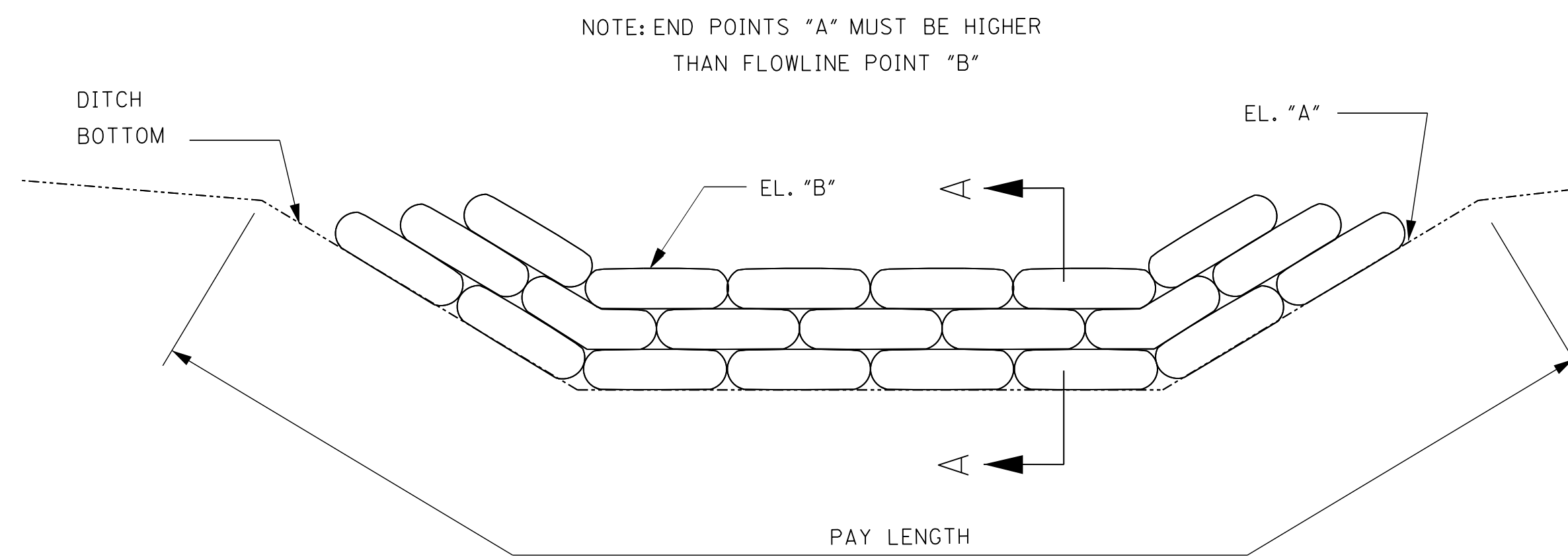
DETAIL (DITCH CHECK)

GENERAL NOTES:

1. SANDBAG DITCH CHECKS ARE USED FOR VELOCITY REDUCTION AND MINIMAL SEDIMENT TRAPPING IN CONCRETE PAVED DITCHES OR IN DITCHES WITH ROCKY BOTTOMS.
2. MINIMUM RECOMMENDED PLACEMENT INTERVAL BETWEEN SANDBAG DITCH CHECK IS 100' UNLESS SHOWN OTHERWISE ON THE PLANS OR APPROVED BY THE ENGINEER. SEE SPACING GUIDANCE ON WK. NO. ECD-4.
3. PREVENTING SEDIMENT FROM ENTERING A PAVED DITCH IS PREFERABLE TO CAPTURING SEDIMENT WITHIN PAVED DITCH.
4. ROCKBAGS MAY BE USED IN LIEU OF SANDBAGS, ONLY WHEN PAY ITEM FOR ROCKBAGS IS INCLUDED IN THE CONTRACT.

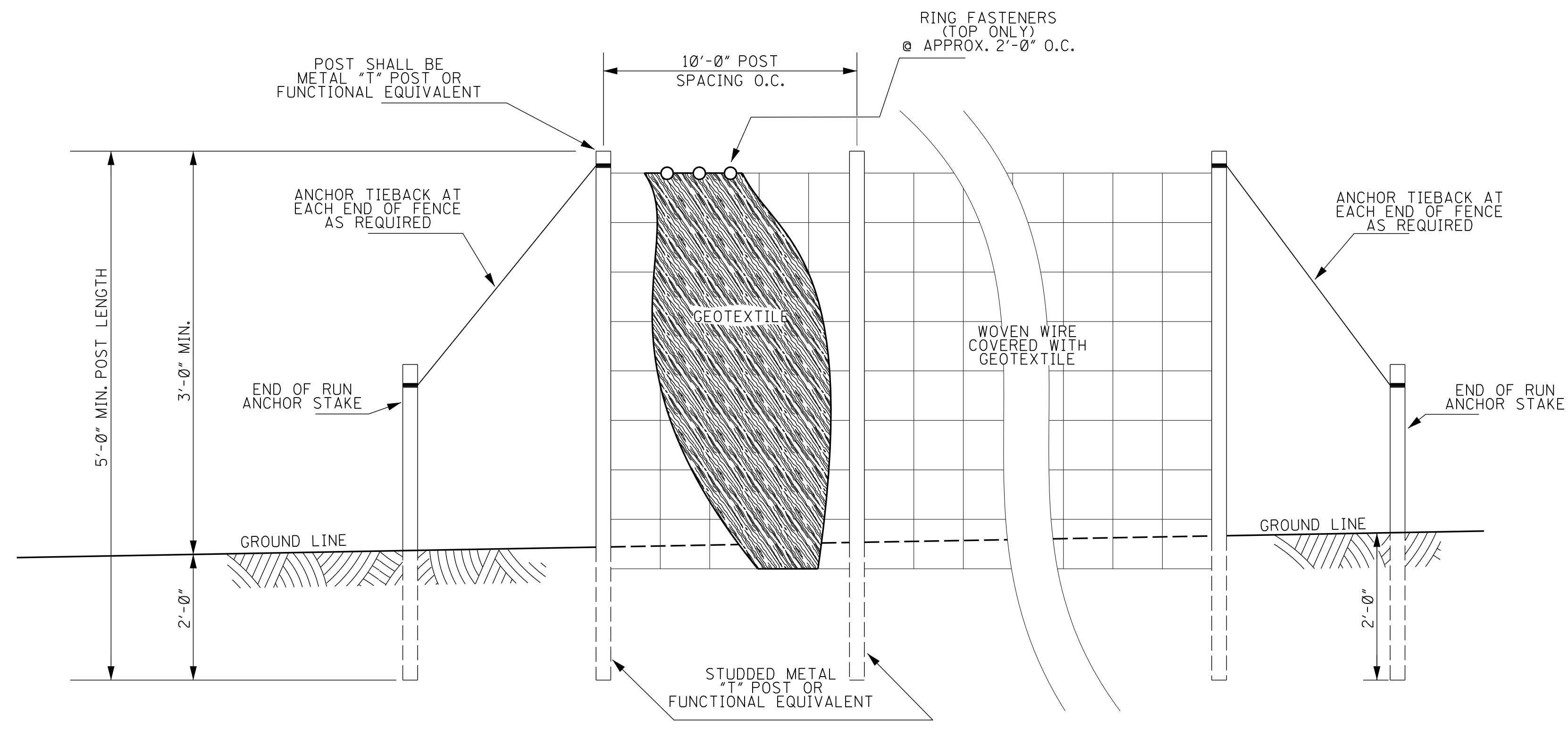


**SECTION A-A
(IN DITCH BOTTOM)**

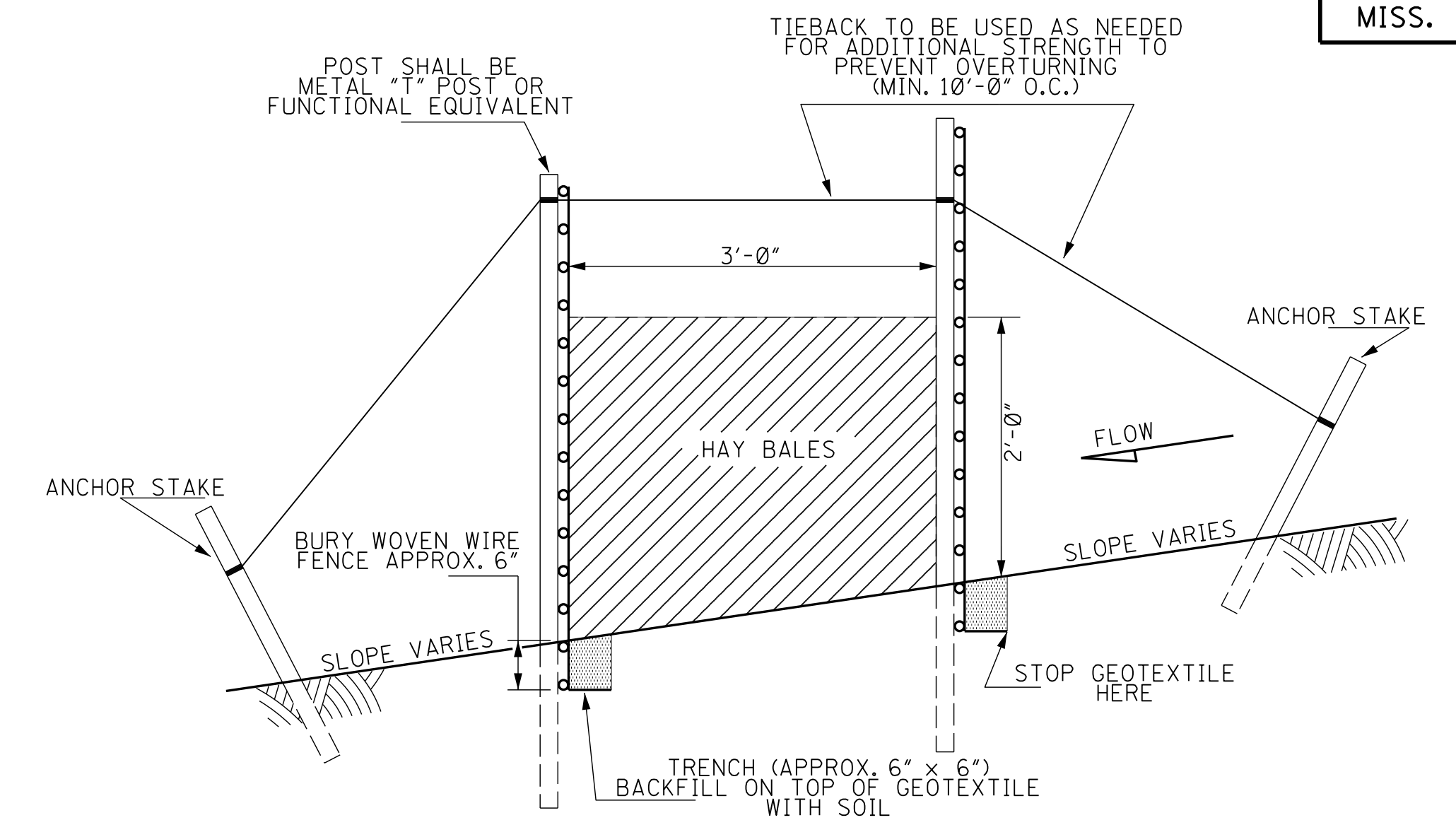


ELEVATION DETAIL

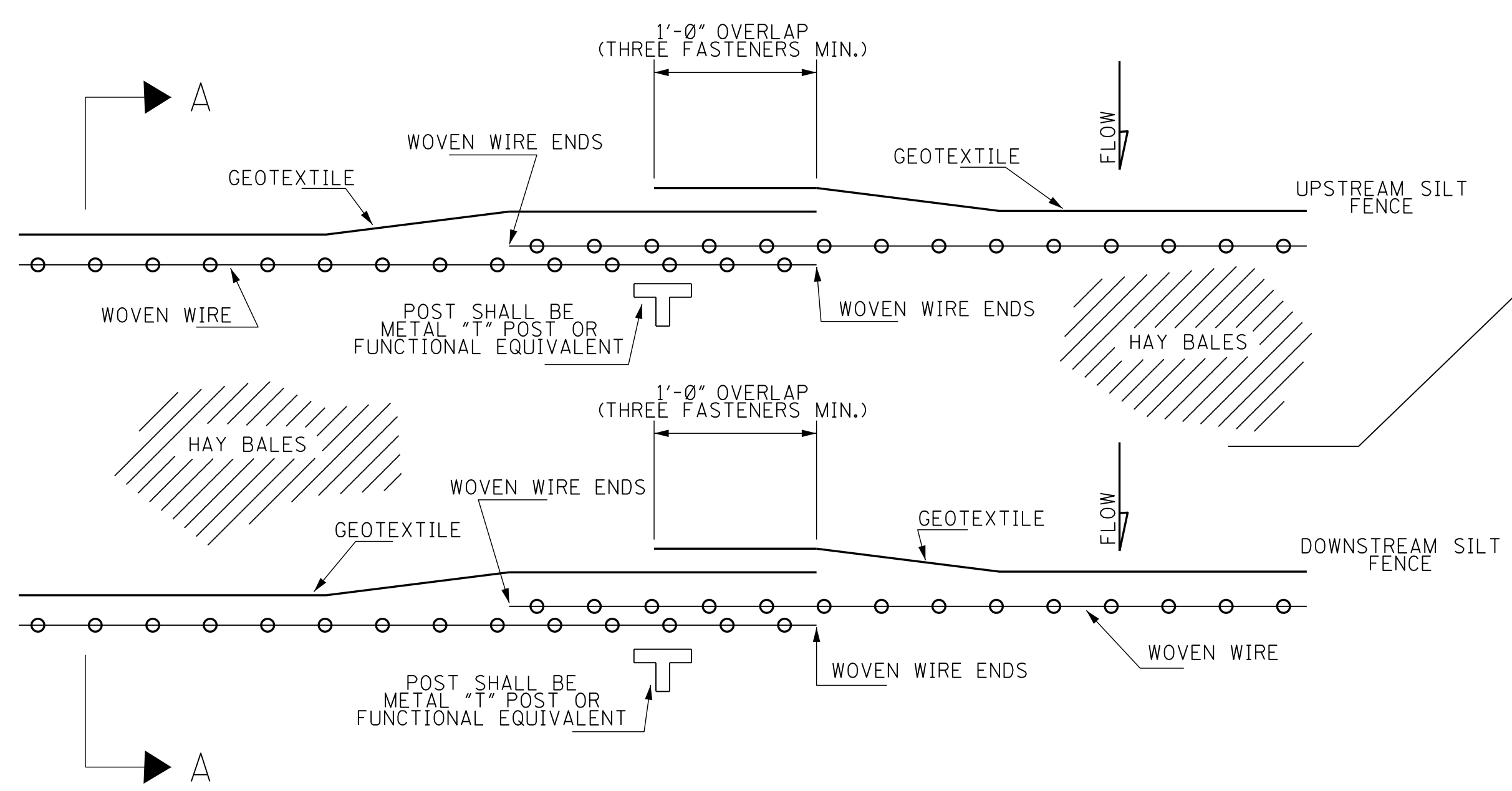
		MISSISSIPPI DEPARTMENT OF TRANSPORTATION ROADWAY DESIGN DIVISION STANDARD PLAN	
		DETAILS OF EROSION CONTROL SANDBAG DITCH CHECK	
BY			
REVISION			
DATE		ISSUE DATE: AUGUST 01, 2017	
		 WORKING NUMBER ECD-21 SHEET NUMBER 6121	



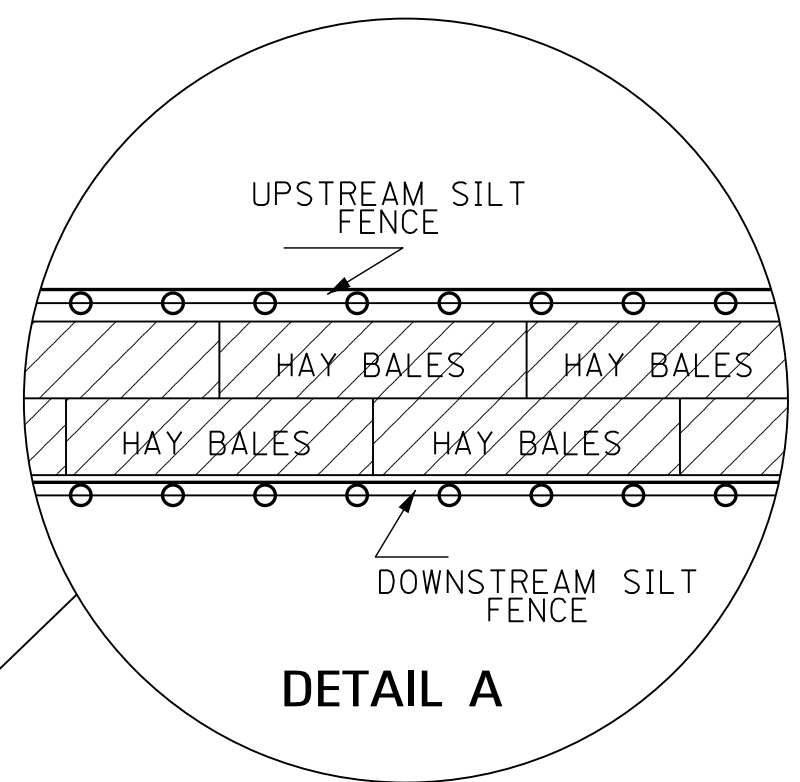
ELEVATION VIEW



SIDE VIEW SECTION A-A METHOD I

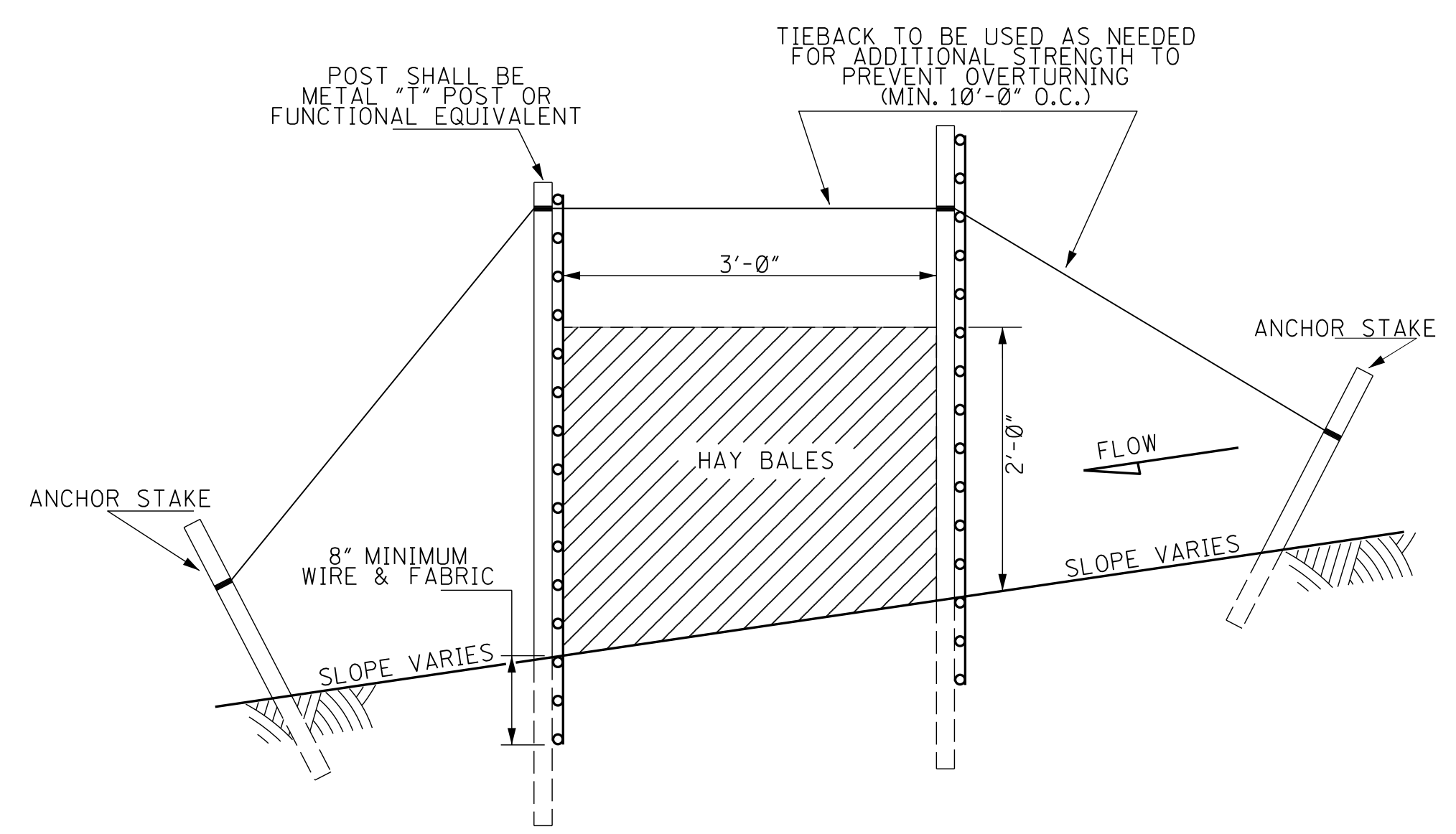


PLAN VIEW REQUIRED LAPPING




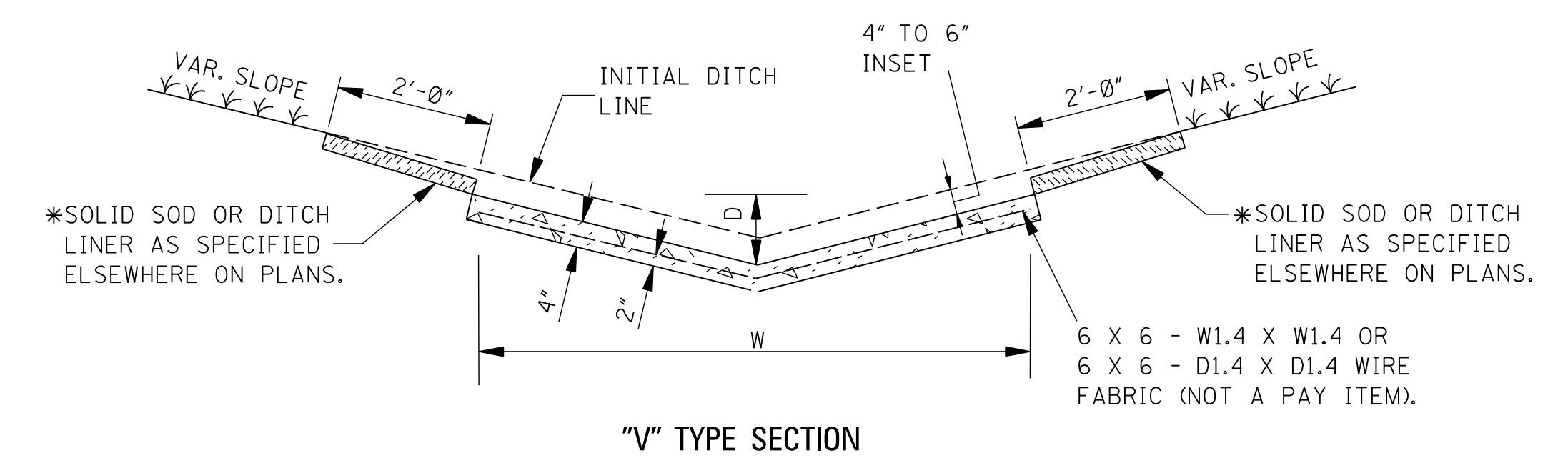
GENERAL NOTES:

- RETENTION BARRIERS SHOULD BE USED IN AREAS WHERE FLOW IS NOT SEVERE.
- RETENTION BARRIERS ARE TEMPORARY SEDIMENT CONTROL ITEMS THAT SHOULD BE ERECTED OPPOSITE ERODIBLE AREAS SUCH AS NEWLY GRADED FILL SLOPES AND ADJACENT TO STREAMS AND CHANNELS.
- RETENTION BARRIERS SHOULD BE PLACED WELL INSIDE RIGHT-OF-WAY AND ALONG EDGE OF CLEARING LIMITS. THIS WILL ALLOW ROOM FOR A BACK-UP FENCE IF FIRST FENCE BECOMES FULL.
- THE CONTRACTOR MAY ELECT TO USE EITHER METHOD I OR METHOD II. COST TO BE LINEAR FEET OF SEDIMENT RETENTION BARRIER.
- METHOD II INSTALLATION SHALL BE ACCOMPLISHED USING AN IMPLEMENT THAT IS MANUFACTURED FOR THE APPLICATION AND PROVIDES CONFIGURATION MEETING THE REQUIREMENTS OF THE DETAIL.
- WIRE SHALL BE MINIMUM OF 32" IN WIDTH AND SHALL HAVE A MINIMUM OF 6 LINE WIRES WITH 12" STAY SPACING.
- GEOTEXTILE FABRIC MEETING THE TYPE II MATERIAL REQUIREMENTS AND INSTALLED ACCORDING TO SPECIFICATION MAY BE USED WITHOUT WIRE FENCE.

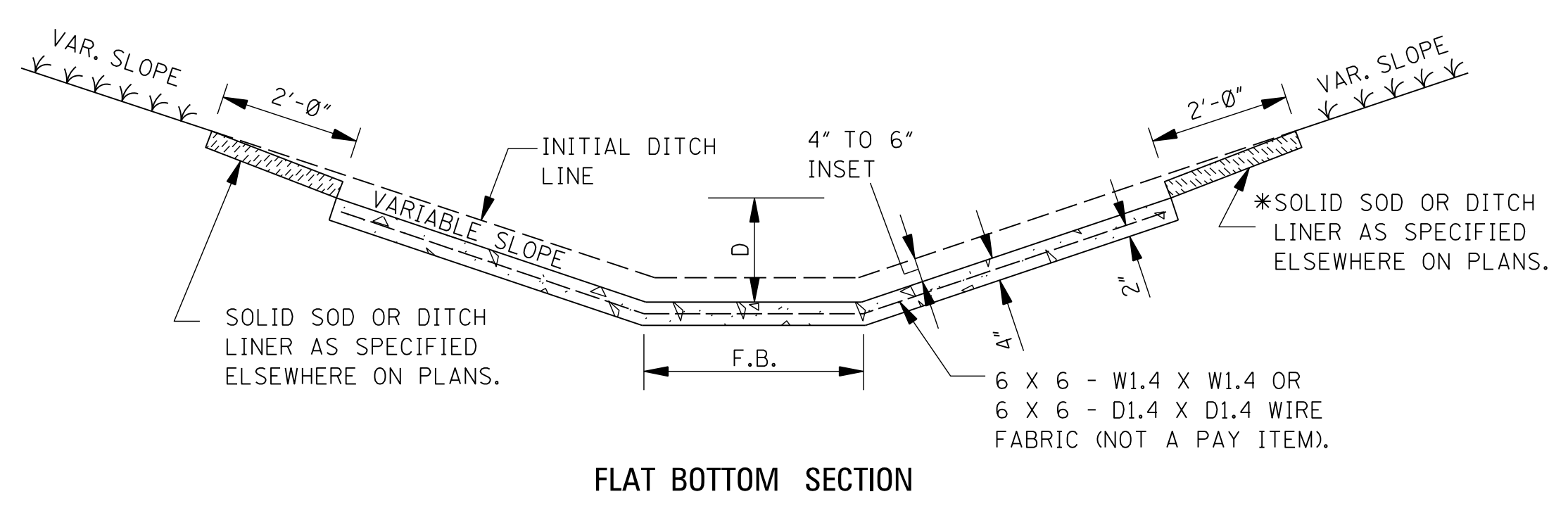


SIDE VIEW SECTION A-A METHOD II MECHANICAL INSTALLATION

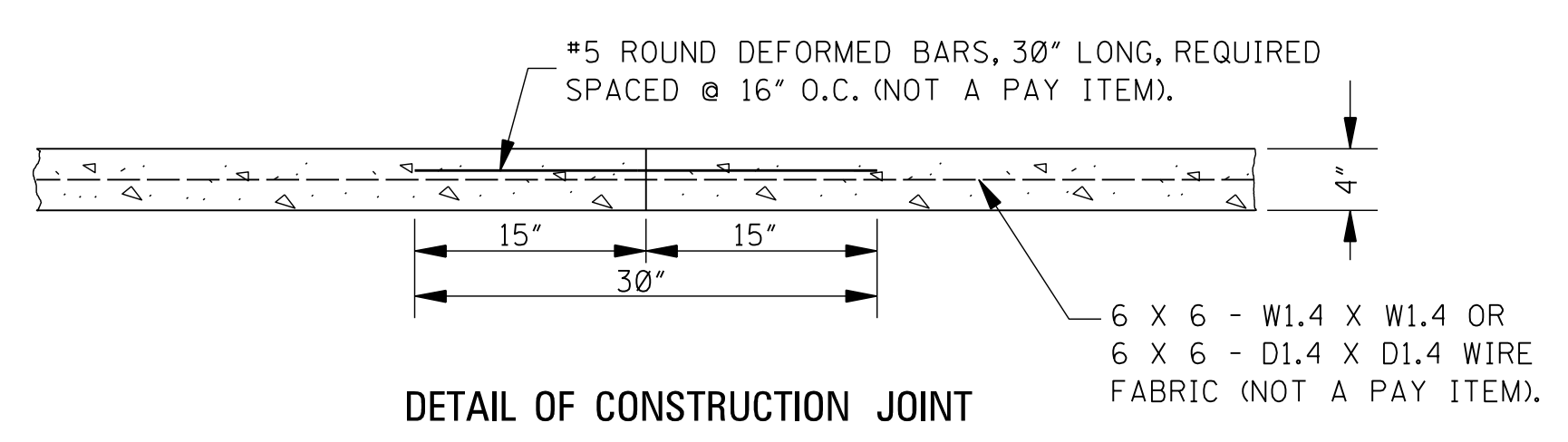
BY		MISSISSIPPI DEPARTMENT OF TRANSPORTATION ROADWAY DESIGN DIVISION STANDARD PLAN
REVISION		SEDIMENT RETENTION BARRIER
DATE		ISSUE DATE: AUGUST 01, 2017
		 WORKING NUMBER ECD-22 SHEET NUMBER 6122



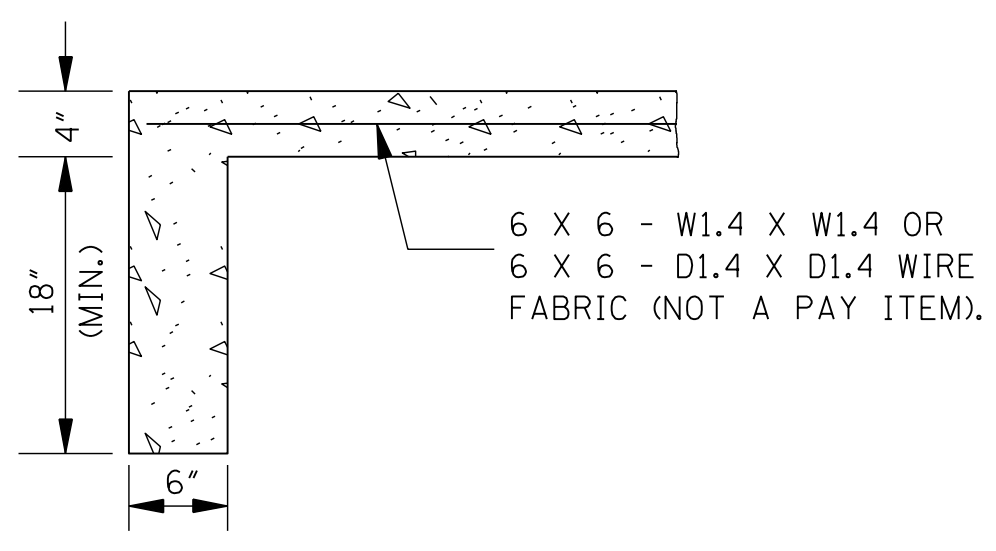
"V" TYPE SECTION



FLAT BOTTOM SECTION



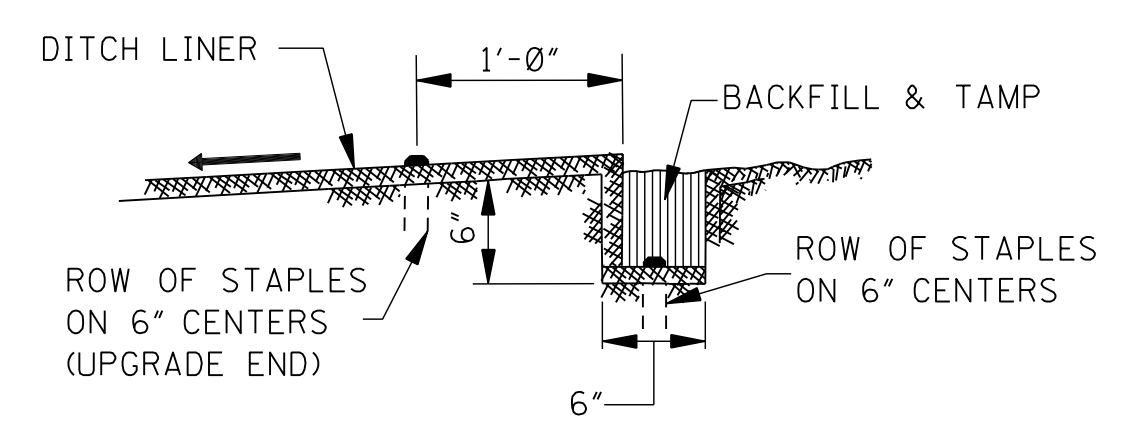
DETAIL OF CONSTRUCTION JOINT



DETAIL OF TOE WALL
NOTE: TOE WALL REQUIRED UPSTREAM AND DOWNSTREAM.

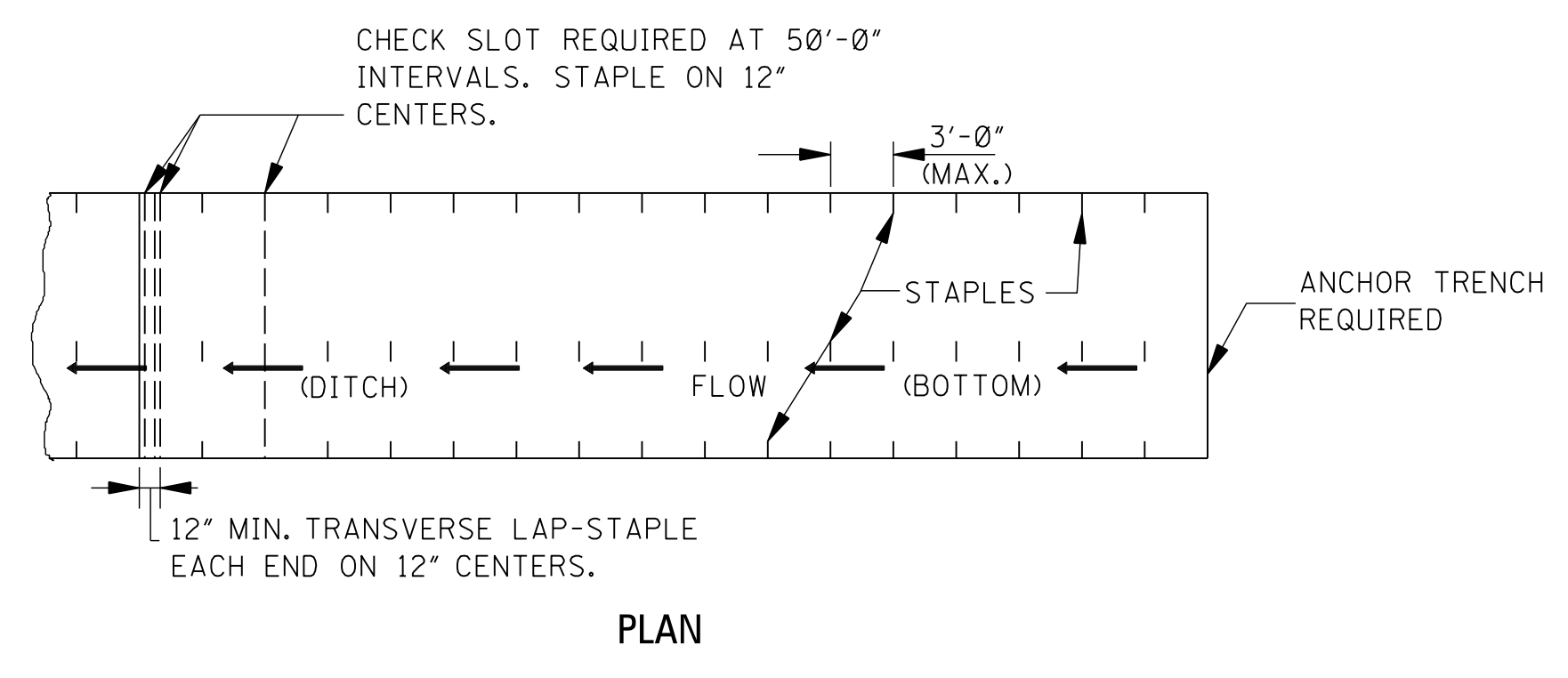
CONCRETE PAVED DITCH

- NOTES:
- CONCRETE PAVED DITCHES SHALL BE GROOVED AT 20'-0" INTERVALS. THE GROOVES SHALL BE CUT TO A DEPTH OF NOT LESS THAN 1".
 - DIMENSIONS D & W ARE AS FOLLOWS:
D(MINIMUM) = 6"
D(NOMINAL) = 9"
W(MINIMUM) = 24"
 - CHAIR SUPPORTS FOR THE WIRE MESH WILL NOT BE REQUIRED. HOWEVER, THE CONTRACTOR SHALL PLACE THE WIRE MESH IN A SATISFACTORY AND WORKMANLIKE MANNER TO ENSURE THAT THE FINAL POSITION IS REASONABLY NEAR THE POSITION INDICATED.
 - * CENTER ROW OF STAPLES MAY BE OMITTED ON DITCH LINER.

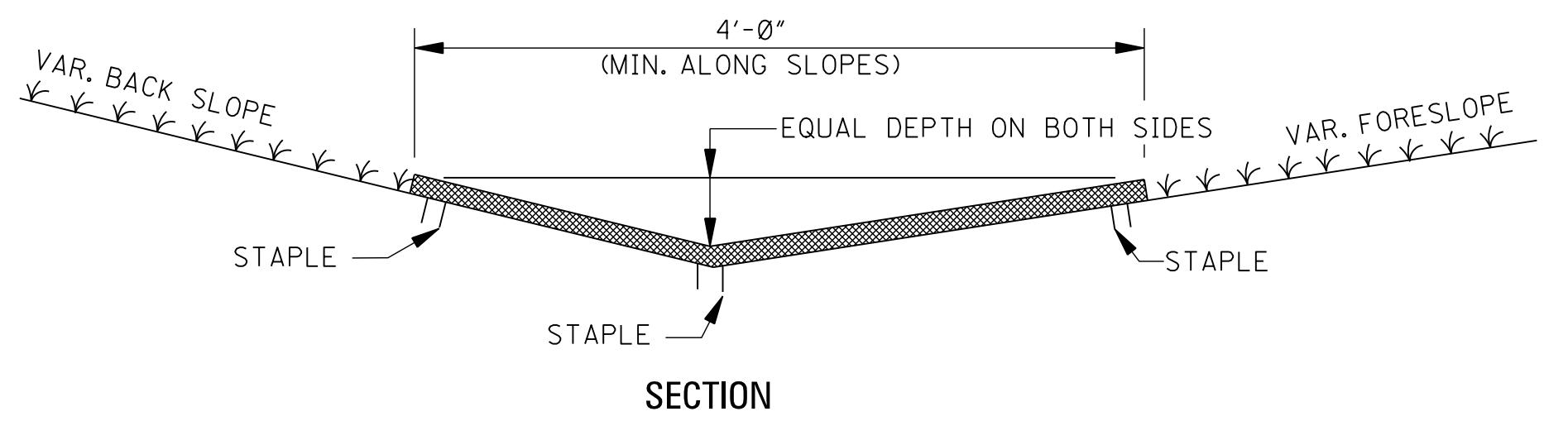


ANCHOR TRENCH DETAIL

NOTE: ANCHOR TRENCH REQUIRED AT THE BEGINNING AND ENDING OF EACH AREA TO BE COVERED, EXCEPT DOWNSTREAM END ADJOINING A STRUCTURE.



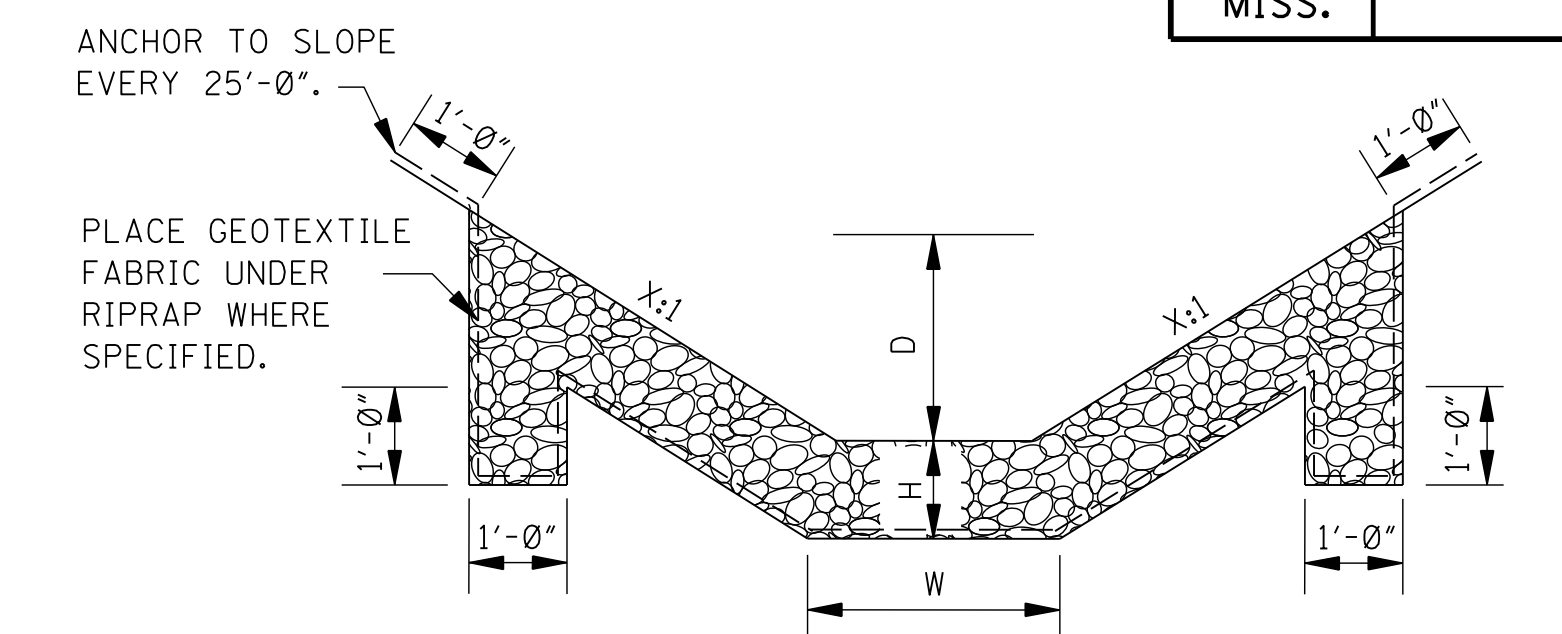
PLAN



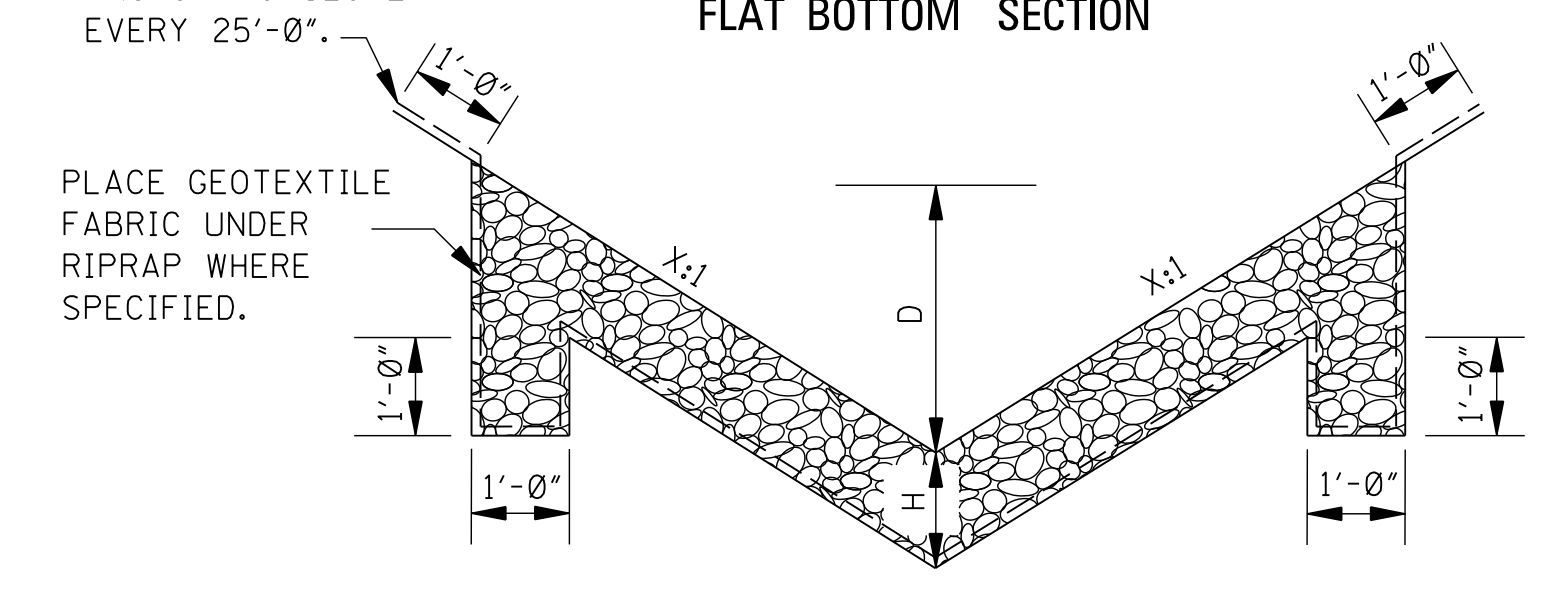
SECTION

DITCH LINER TREATMENT
(EXCELSIOR BLANKET, JUTE MESH OR EROSION CONTROL FABRIC)

NOTE: DITCHES TREATED WITH DITCH LINER WILL BE VEGETATED PRIOR TO TREATMENT, UNLESS OTHERWISE INDICATED.



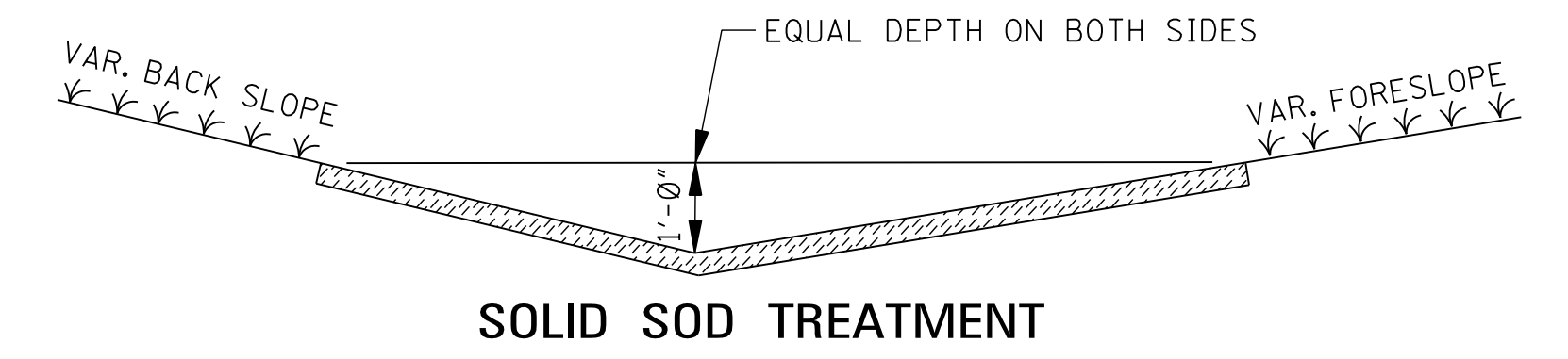
FLAT BOTTOM SECTION



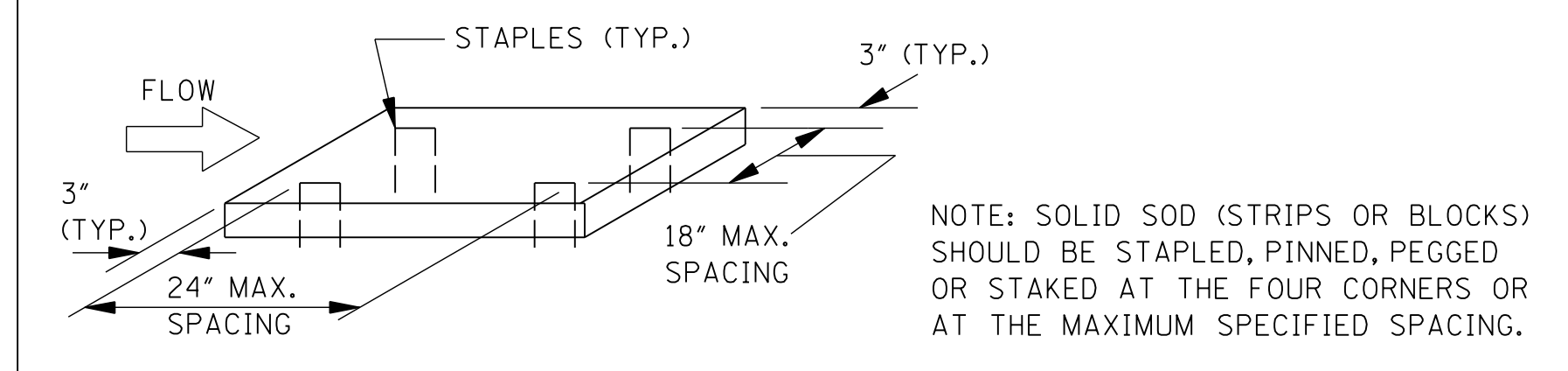
"V" TYPE SECTION
RIPRAP TREATMENT

- NOTES:
- DIMENSIONS D, W AND X ARE VARIABLE AND ARE SHOWN ELSEWHERE ON THE PLANS.
 - THE RIPRAP SIZE AND MINIMUM DEPTH "H" FOR RIPRAP TREATMENT ARE AS FOLLOWS.

RIPRAP SIZE & MINIMUM DEPTH "H"	
H (in)	RIPRAP SIZE (lbs)
12"	100
18"	300



SOLID SOD TREATMENT



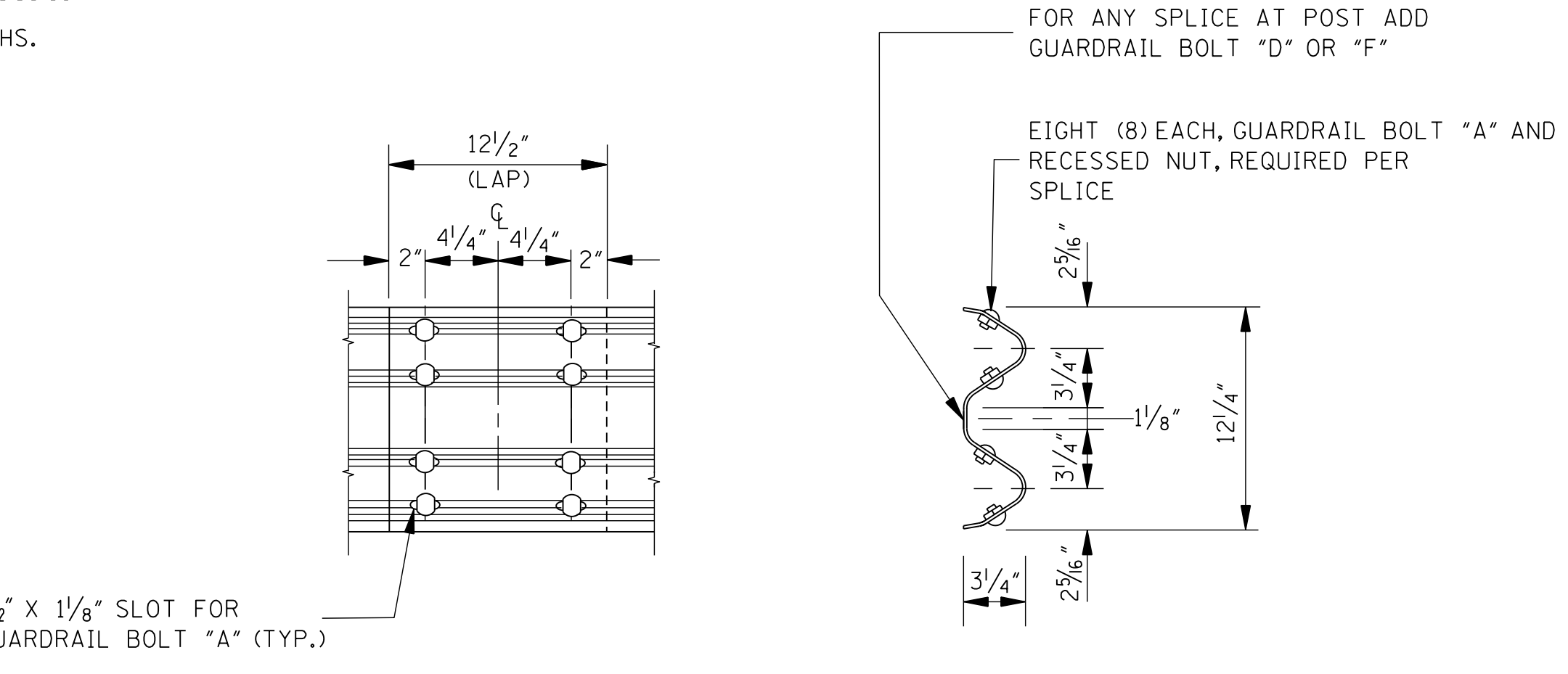
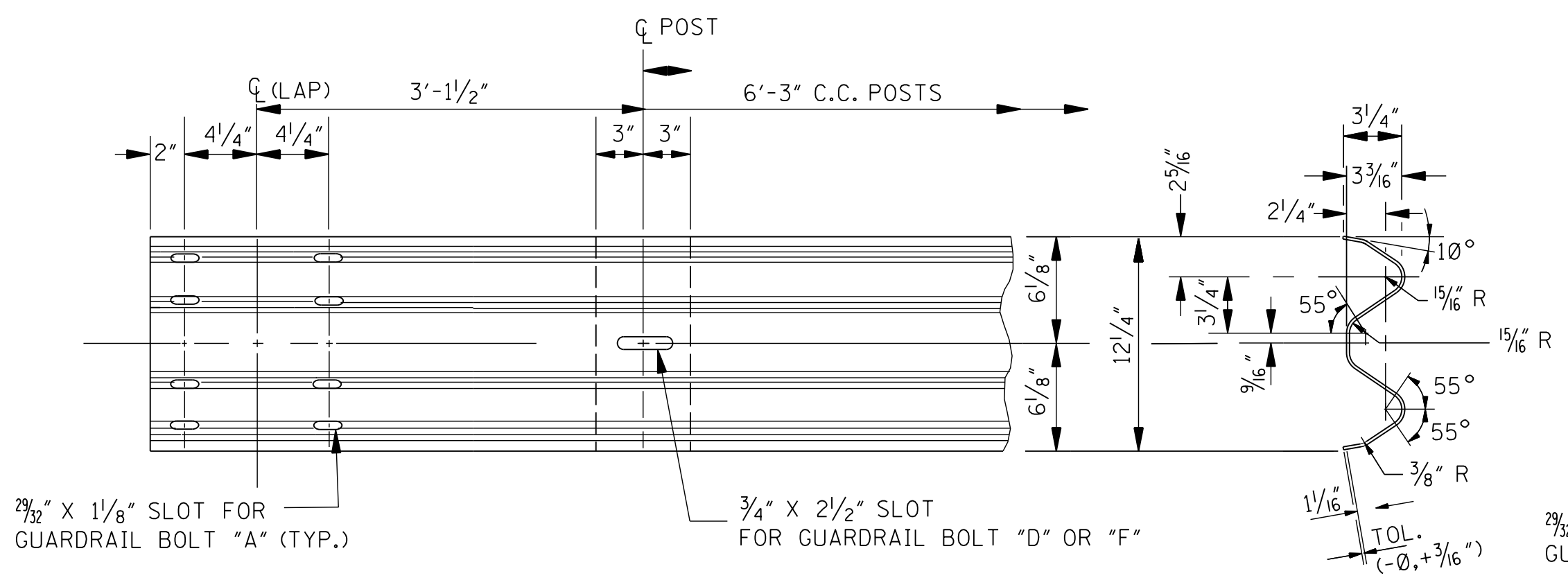
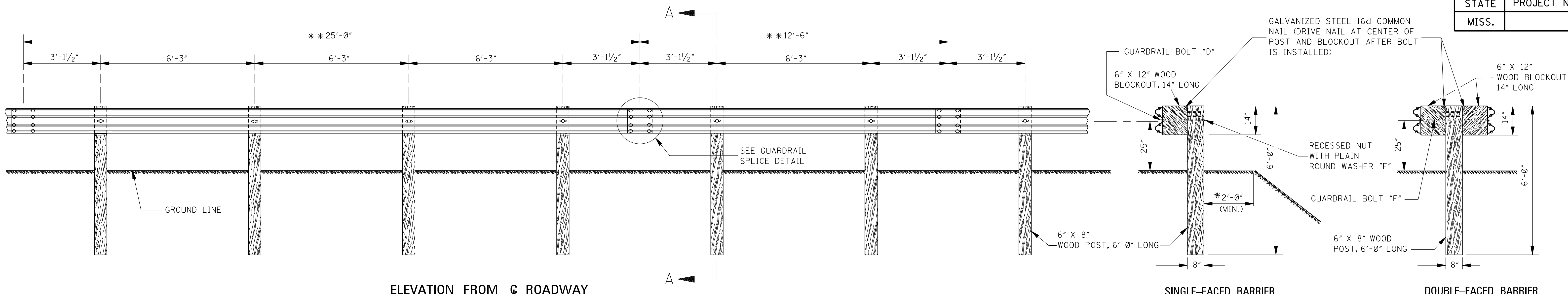
- GENERAL NOTE:
- FOR LOCATION OF APPROPRIATE DITCH TREATMENTS, SEE PLAN SHEETS AS DENOTED BY THE FOLLOWING LEGEND OR AS DIRECTED BY THE ENGINEER:

- DITCH LINER
- SOLID SOD
- CONCRETE PAVED DITCH
- RIPRAP

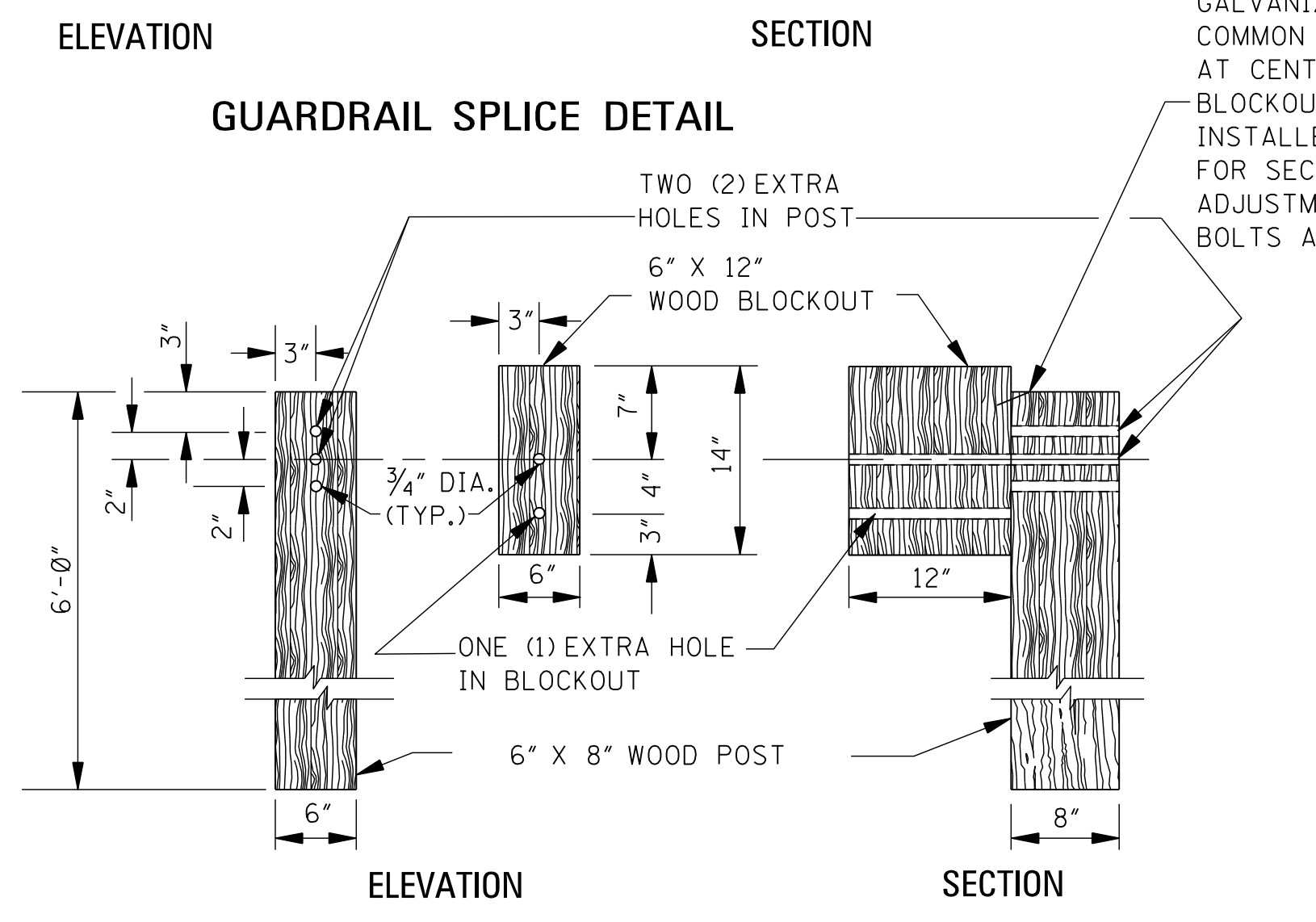
BY	MISSISSIPPI DEPARTMENT OF TRANSPORTATION ROADWAY DESIGN DIVISION STANDARD PLAN
REVISION	
DATE	ISSUE DATE: AUGUST 01, 2017

**DETAILS OF TYPICAL
DITCH TREATMENTS**

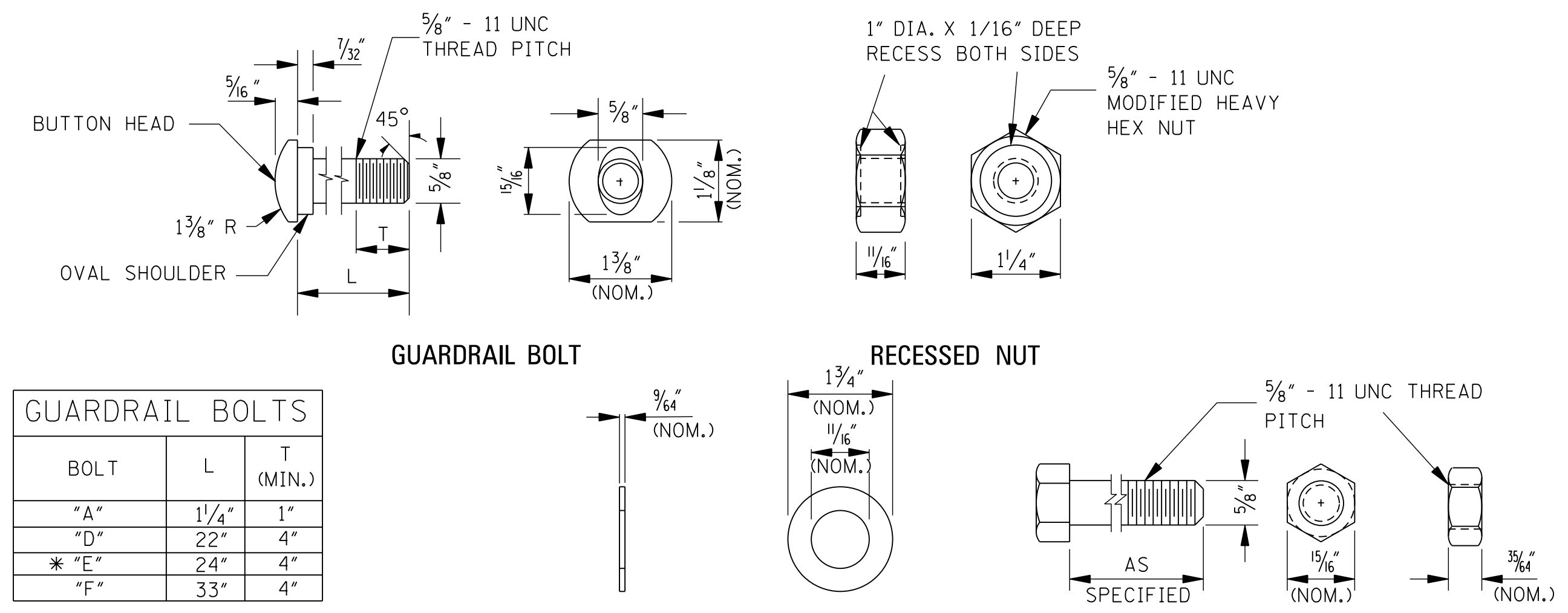
MDOT
MISSISSIPPI DEPARTMENT OF TRANSPORTATION
WORKING NUMBER DT-1
SHEET NUMBER 6123



- GENERAL NOTES:
- GUARDRAIL SHALL MEET THE REQUIREMENTS OF AASHTO M 180, CLASS A, TYPE 1 UNLESS OTHERWISE DESIGNATED.
 - GUARDRAIL SHALL BE SINGLE FACED UNLESS OTHERWISE DESIGNATED.
 - GUARDRAIL SECTIONS SHALL BE LAPPED IN THE DIRECTION OF TRAFFIC FLOW FOR THE LANE NEAREST THE GUARDRAIL. THE ONLY EXCEPTION NOTED IS THAT GUARDRAIL SHALL BE LAPPED FOR APPROACHING TRAFFIC ON A BRIDGE WITH 2-WAY TRAFFIC.
 - ALL WOOD POSTS AND BLOCKOUTS SHALL BE TREATED TIMBER IN ACCORDANCE WITH MISSISSIPPI DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS.
 - FOR OTHER DETAILS OF POSTS, POST ACCESSORIES, FASTENERS & RAIL ELEMENTS, SEE AASHTO-AGC-ARTBA JOINT TASK FORCE NO. 13, TITLED "A GUIDE TO STANDARDIZED HIGHWAY BARRIER HARDWARE," LATEST EDITION.



- NOTES:
- ON INITIAL INSTALLATION, THE BLOCKOUT SHALL BE ATTACHED TO THE BOTTOM HOLE IN THE POST, OTHER HOLES IN THE POST AND BLOCKOUT ARE FOR FUTURE 2" HEIGHT ADJUSTMENT WHEN THE ROADWAY IS RESURFACED.
 - FOR THE SECOND HEIGHT ADJUSTMENT, ONE (1) HEX NUT AND BOLT "D", 22" LONG FOR SINGLE-FACED BARRIER OR BOLT "F", 33" LONG FOR DOUBLE-FACED BARRIER, WITH TWO (2) PLAIN ROUND WASHERS "F", ONE (1) UNDER HEAD AND ONE (1) UNDER NUT, ARE REQUIRED PER POST IN ADDITION TO THE STANDARD GUARDRAIL BOLT AND RECESSED NUT.
 - HOLE DETAILS ARE REQUIRED ON ALL WOOD POSTS AND BLOCKOUTS.
 - WOOD POSTS ARE FABRICATED FROM 6" X 8" TREATED TIMBER AND BLOCKOUTS ARE FABRICATED FROM 6" X 12" TREATED TIMBER UNLESS SPECIFIED OTHERWISE ON THE PLANS.
 - ALL HOLES IN BOTH POSTS AND BLOCKOUTS ARE 3/4" IN DIAMETER.



GUARDRAIL BOLTS		
BOLT	L	T (MIN.)
"A"	1 1/4"	1"
"D"	22"	4"
*"E"	24"	4"
"F"	33"	4"

- NOTES:
- ALL GUARDRAIL BOLTS ARE 5/8" - 11 UNC THREAD PITCH.
 - IF ANY BOLT EXTENDS MORE THAN 1/4" FROM THE NUT, THE BOLT SHOULD BE TRIMMED BACK.
 - * GUARDRAIL BOLT "E" IS USED FOR SINGLE-FACED BARRIER WITH 10" X 10" WOOD POST AND 6" X 12" WOOD BLOCKOUT.

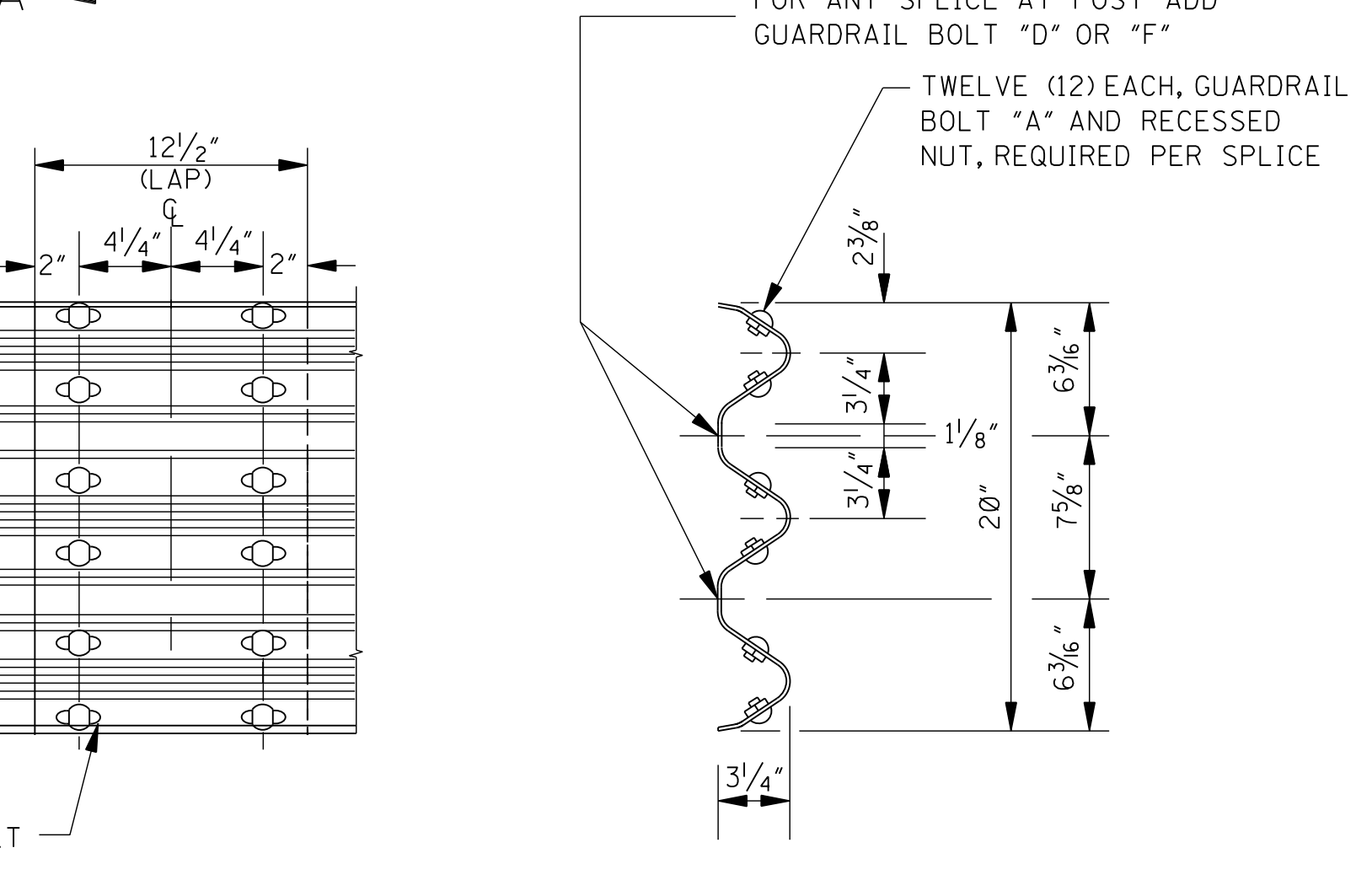
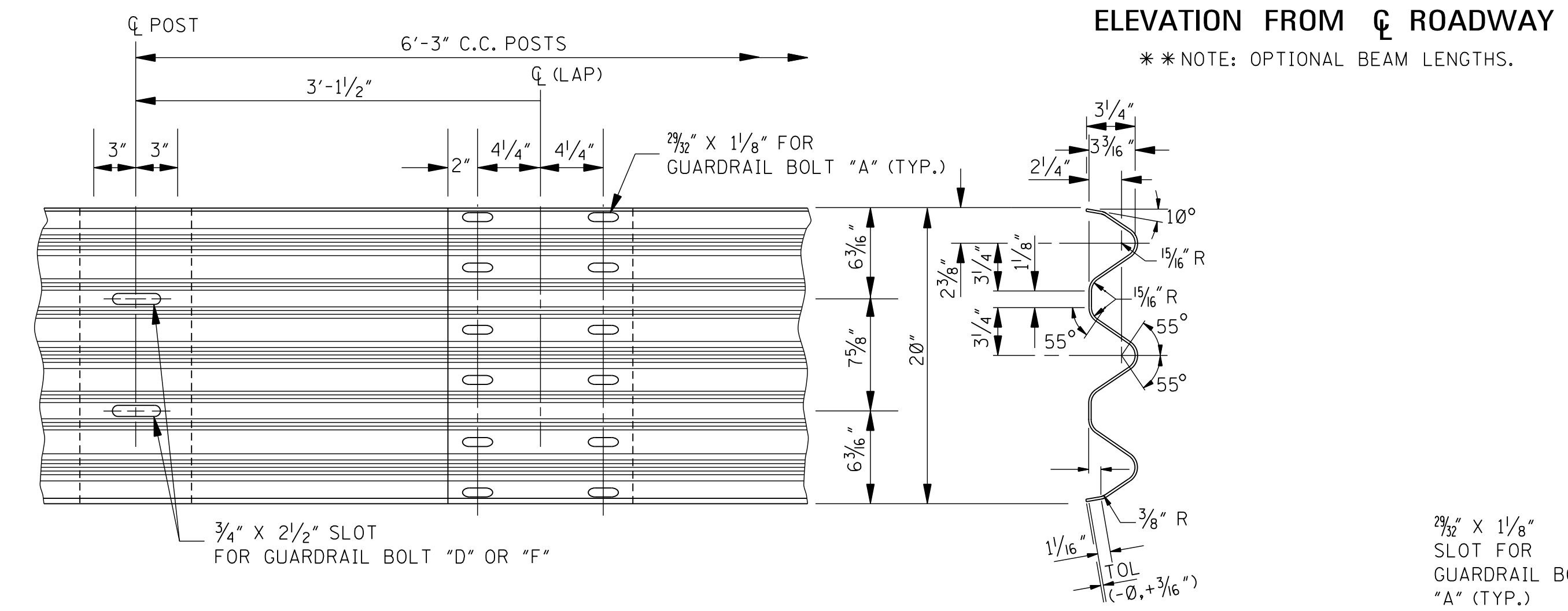
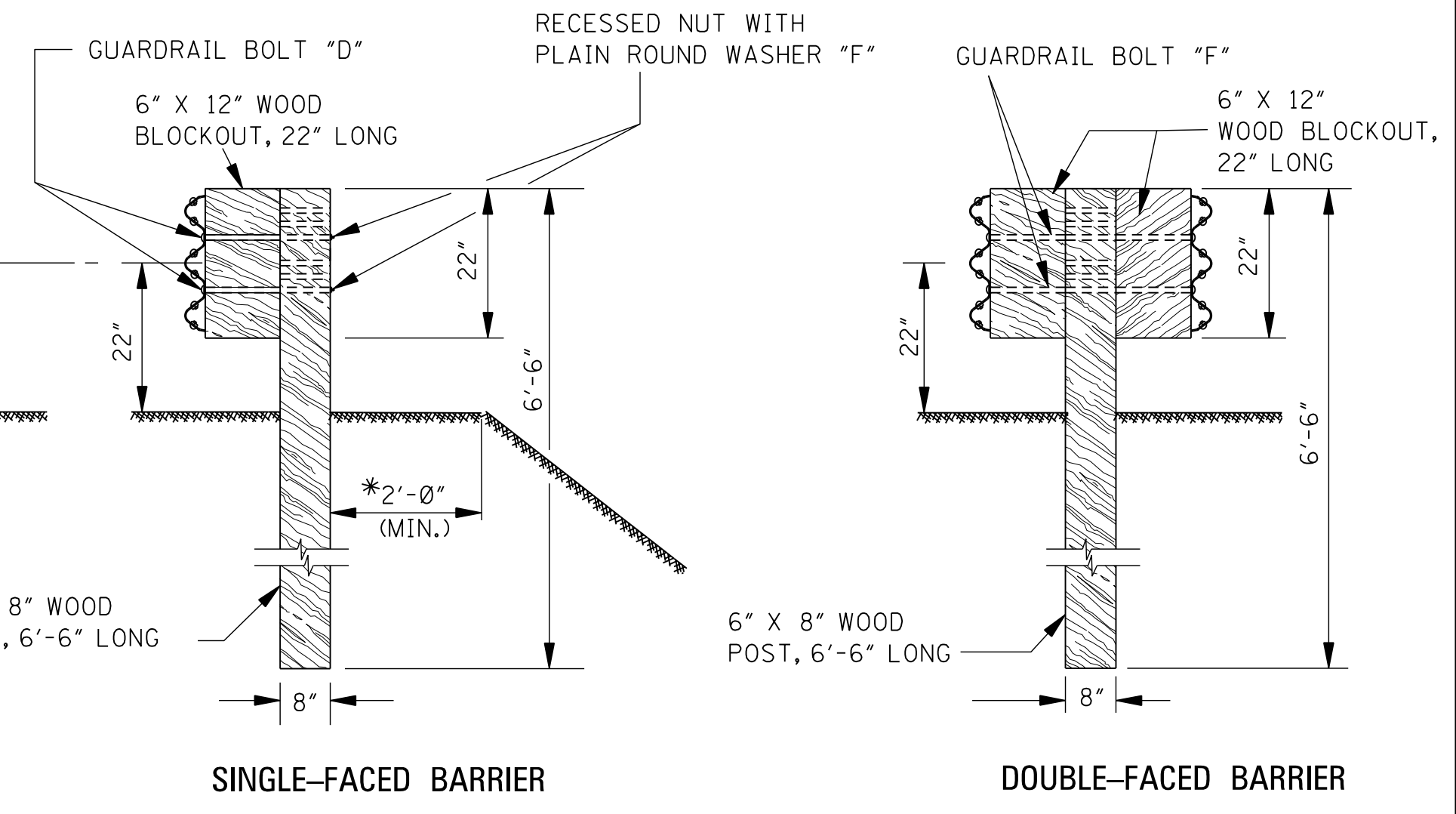
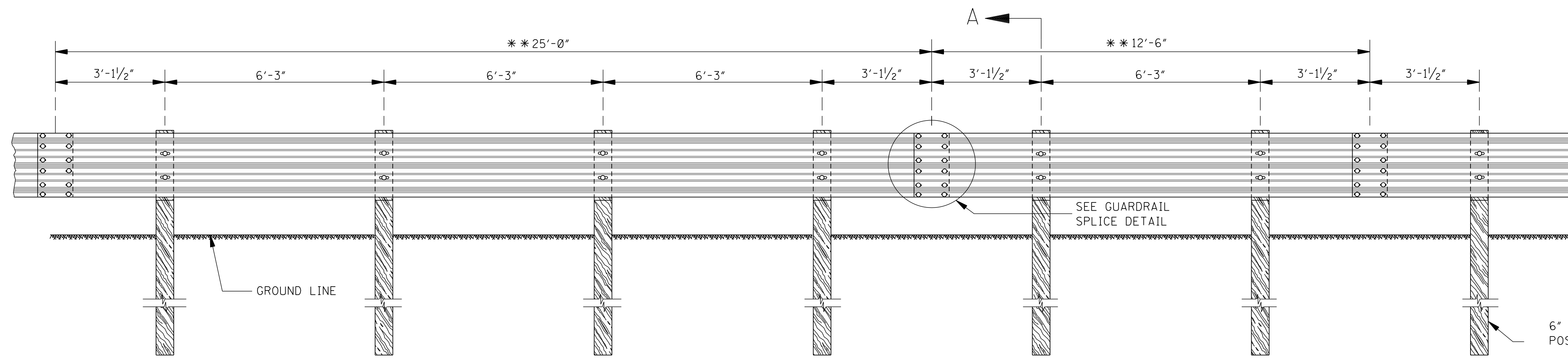
BY	MISSISSIPPI DEPARTMENT OF TRANSPORTATION ROADWAY DESIGN DIVISION STANDARD PLAN
REVISION	
DATE	ISSUE DATE: AUGUST 01, 2017

**GUARDRAIL:
"W" BEAM
(WOOD POSTS)**

MDOT
MISSISSIPPI DEPARTMENT OF TRANSPORTATION

WORKING NUMBER
GR-1

SHEET NUMBER
6201

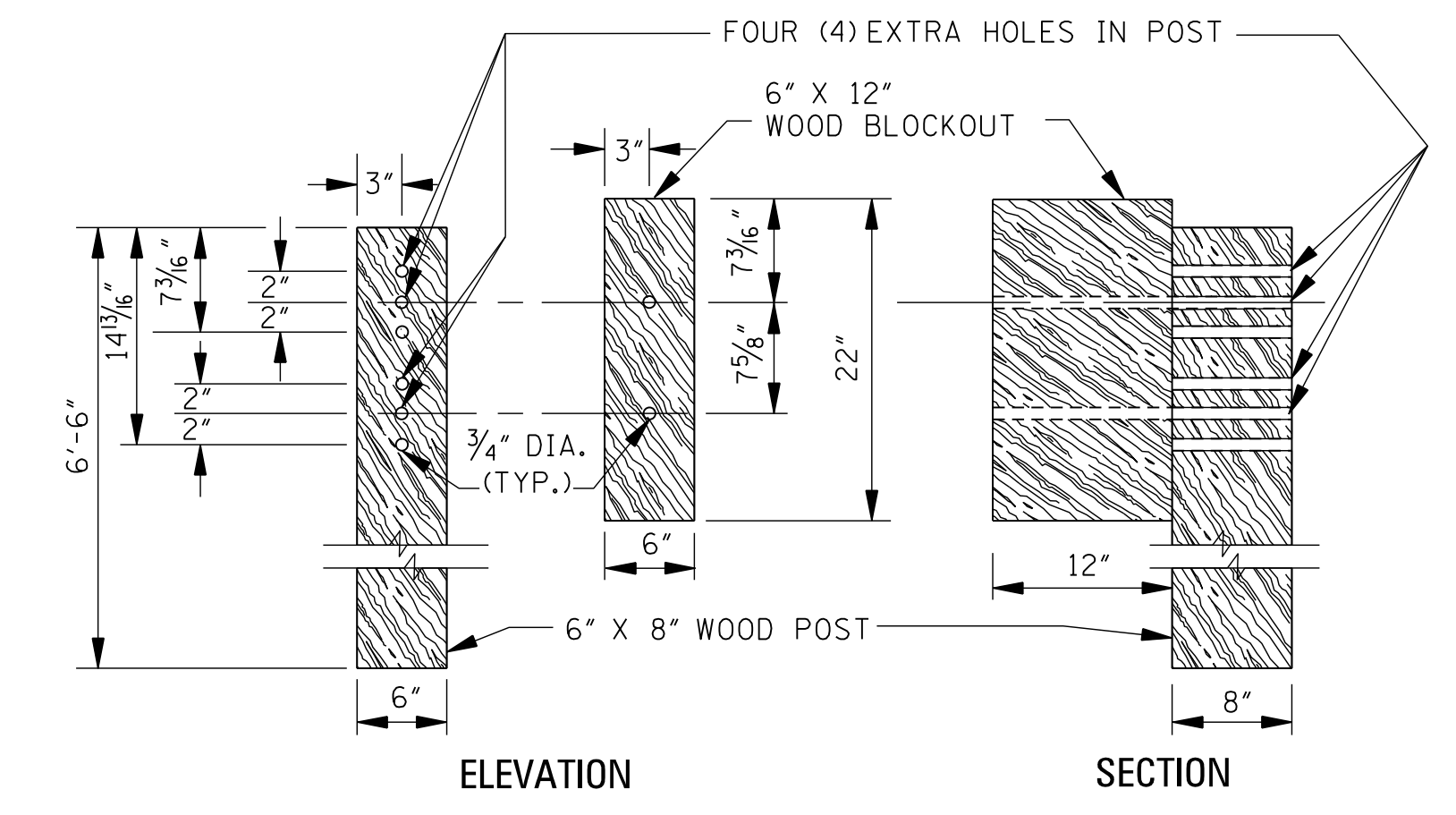
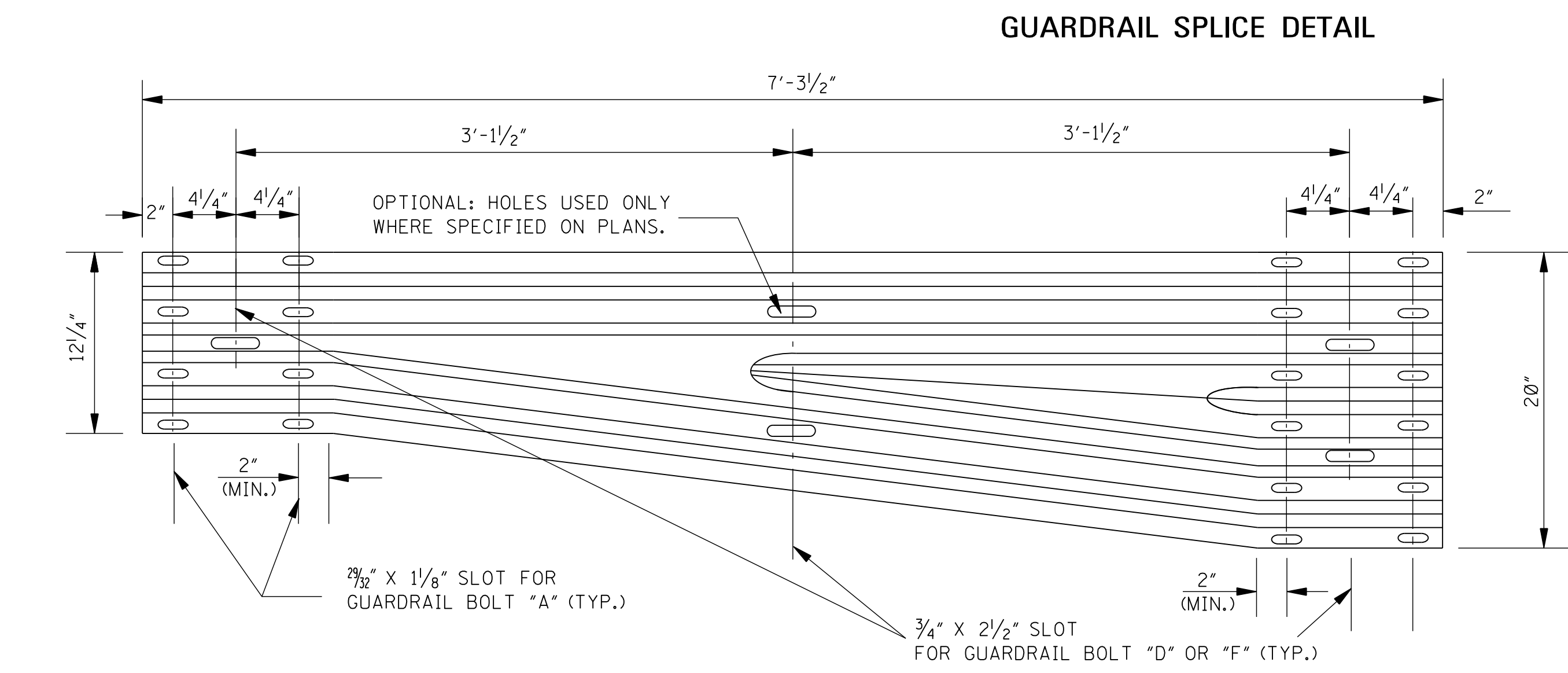


SECTION A-A
 ** NOTE: UNLESS SPECIFIED OTHERWISE ON THE PLANS.

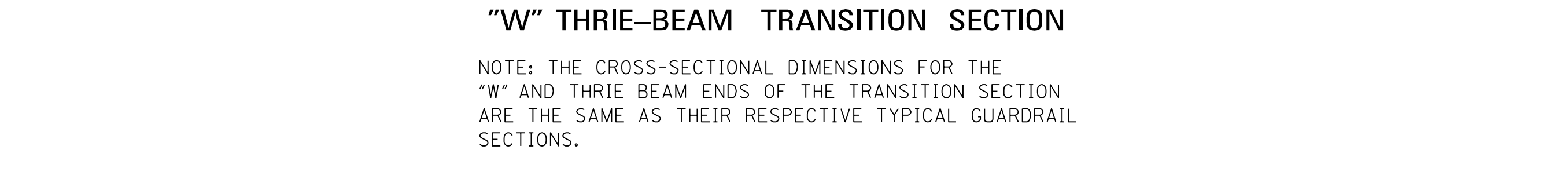
TYPICAL GUARDRAIL SECTION

ELEVATION SECTION


- GENERAL NOTES:
1. GUARDRAIL SHALL MEET THE REQUIREMENTS OF AASHTO M 180, CLASS A, TYPE 1 UNLESS OTHERWISE DESIGNATED.
 2. GUARDRAIL SHALL BE SINGLE FACED UNLESS OTHERWISE DESIGNATED.
 3. GUARDRAIL SECTIONS SHALL BE LAPPED IN THE DIRECTION OF TRAFFIC FLOW FOR THE LANE NEAREST THE GUARDRAIL. THE ONLY EXCEPTION NOTED IS THAT GUARDRAIL SHALL BE LAPPED FOR APPROACHING TRAFFIC ON A BRIDGE WITH 2-WAY TRAFFIC.
 4. ALL WOOD POSTS AND BLOCKOUTS SHALL BE TREATED TIMBER IN ACCORDANCE WITH MISSISSIPPI DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS.
 5. FOR FASTENER DETAILS NOT FOUND ON THIS SHEET, SEE SHEET GR-1.
 6. FOR OTHER DETAILS OF POSTS, POST ACCESSORIES, FASTENERS & RAIL ELEMENTS, SEE AASHTO-AGC-ARTBA JOINT TASK FORCE NO. 13, TITLED "A GUIDE TO STANDARDIZED HIGHWAY BARRIER HARDWARE," LATEST EDITION.

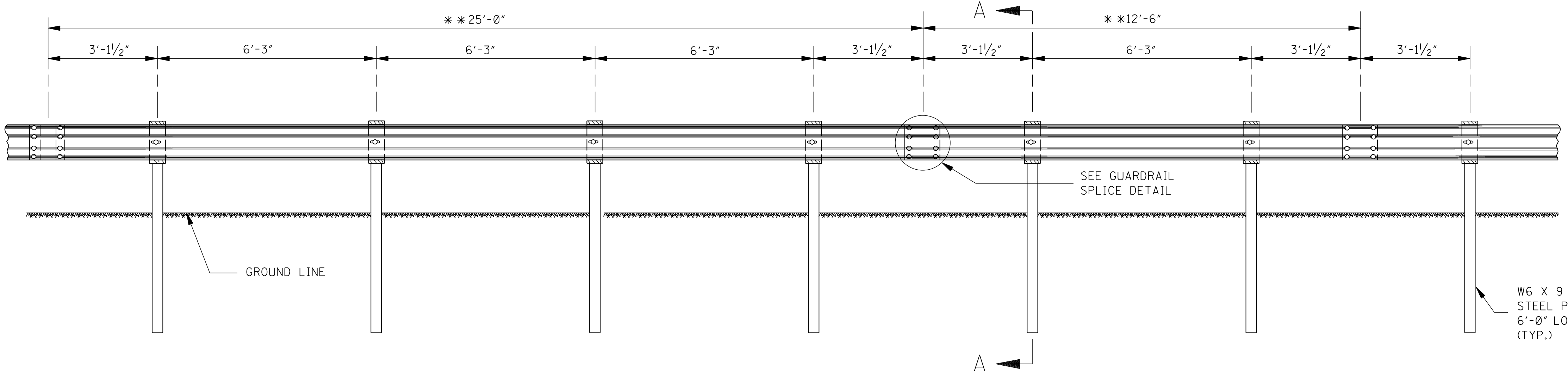


DETAILS OF ADJUSTABLE HEIGHT BLOCKOUT ASSEMBLY

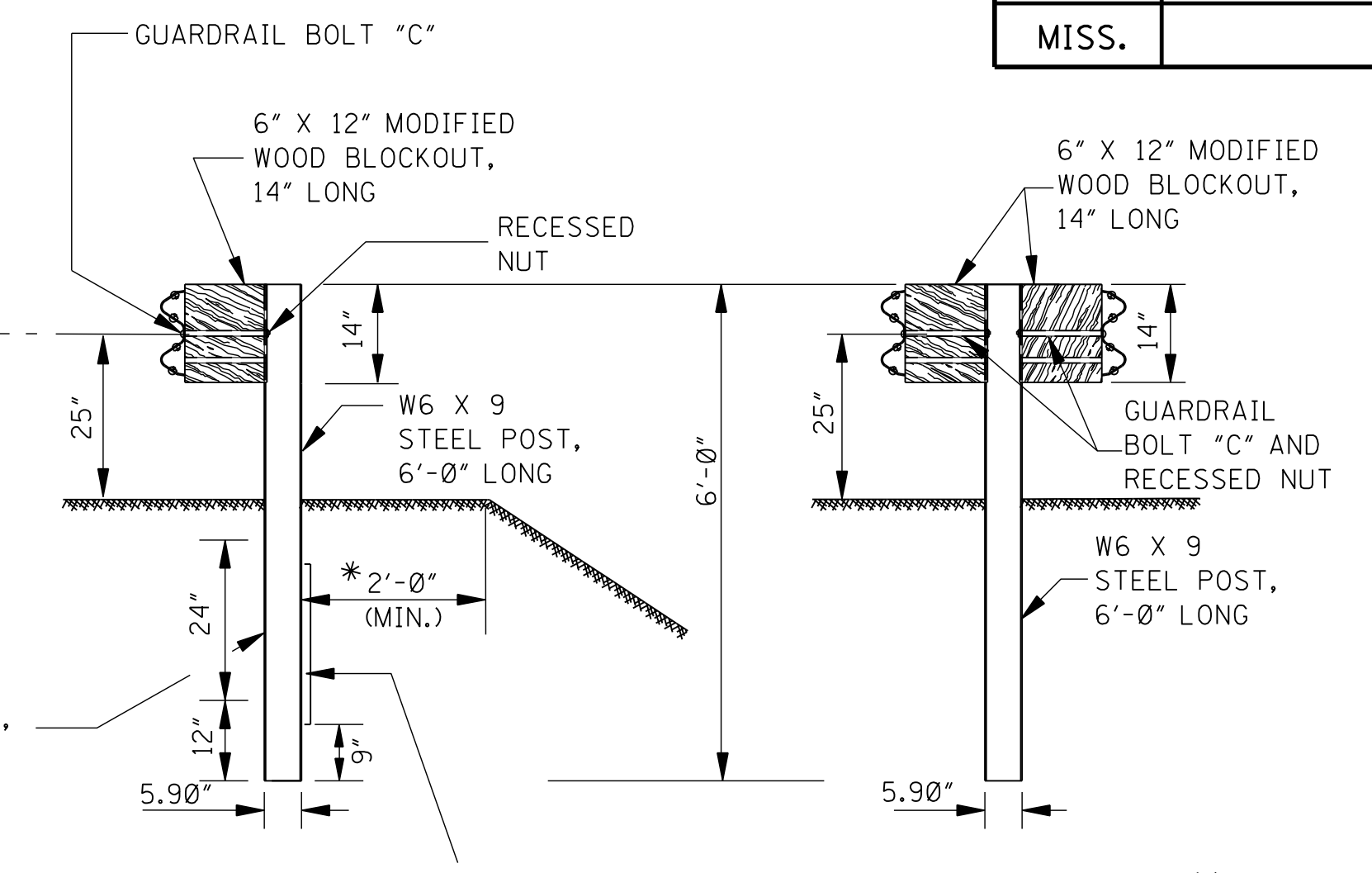


- NOTES:
1. ON INITIAL INSTALLATION, THE TOP OF THE BLOCKOUT SHALL BE FLUSH WITH THE TOP OF THE POST. THE ADDITIONAL HOLES IN THE POST AND BLOCKOUT ARE FOR FUTURE 2" HEIGHT ADJUSTMENTS WHEN THE ROADWAY IS RESURFACED.
 2. HOLE DETAILS ARE REQUIRED ON ALL WOOD POSTS AND BLOCKOUTS.
 3. WOOD POSTS ARE FABRICATED FROM 6" X 8" TREATED TIMBER AND BLOCKOUTS ARE FABRICATED FROM 6" X 12" TREATED TIMBER UNLESS SPECIFIED OTHERWISE ON THE PLANS.
 4. ALL HOLES IN BOTH POSTS AND BLOCKOUTS ARE 3/4" IN DIAMETER.

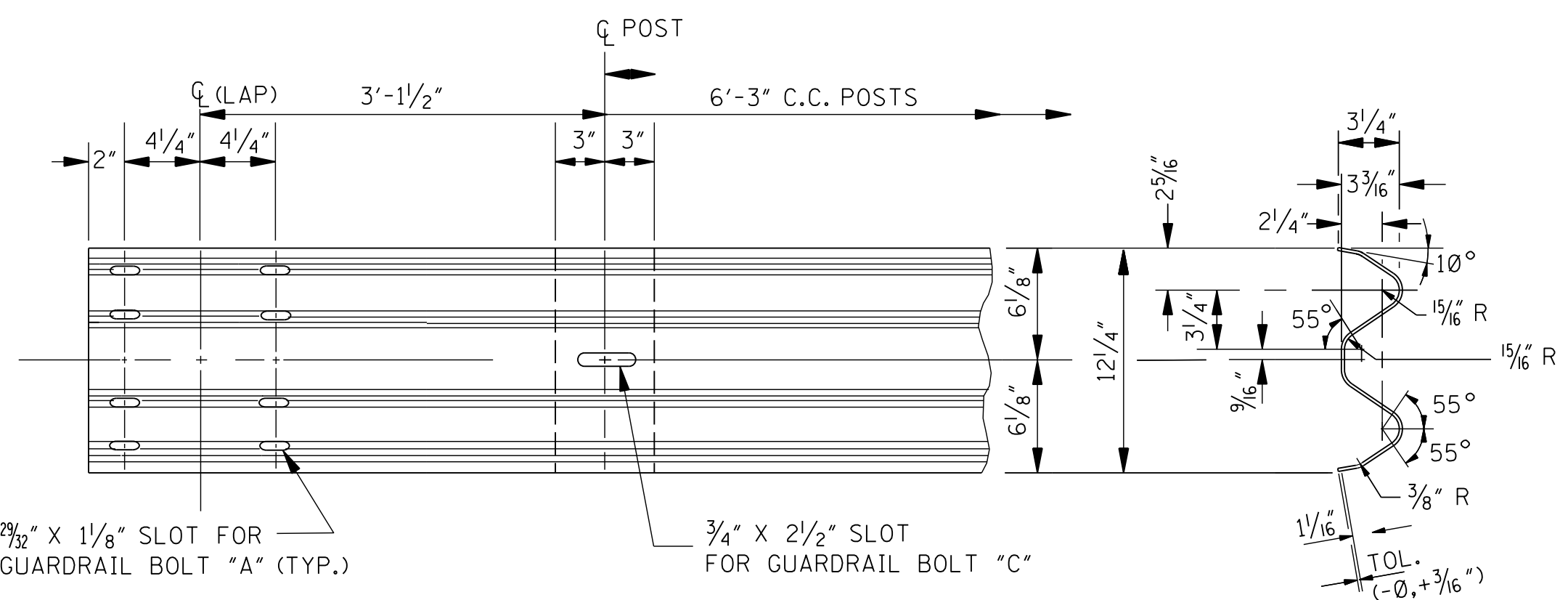
BY		MISSISSIPPI DEPARTMENT OF TRANSPORTATION ROADWAY DESIGN DIVISION STANDARD PLAN	
REVISION		<p>GUARDRAIL: THRIE BEAM (WOOD POSTS)</p> 	
DATE	ISSUE DATE: AUGUST 01, 2017		
		WORKING NUMBER GR-1A	SHEET NUMBER 6202



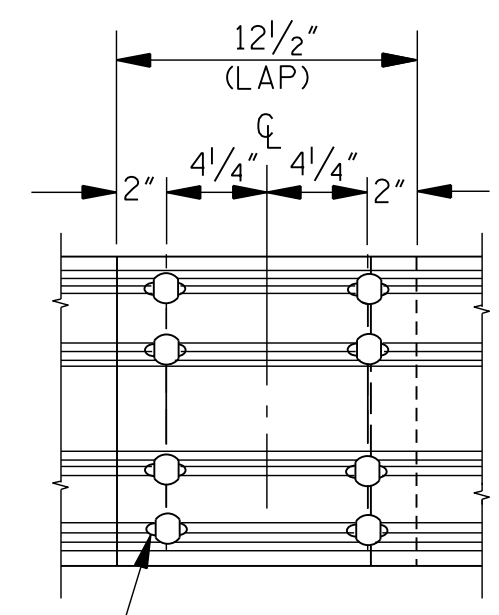
ELEVATION FROM ϕ ROADWAY
 ** NOTE: OPTIONAL BEAM LENGTHS.



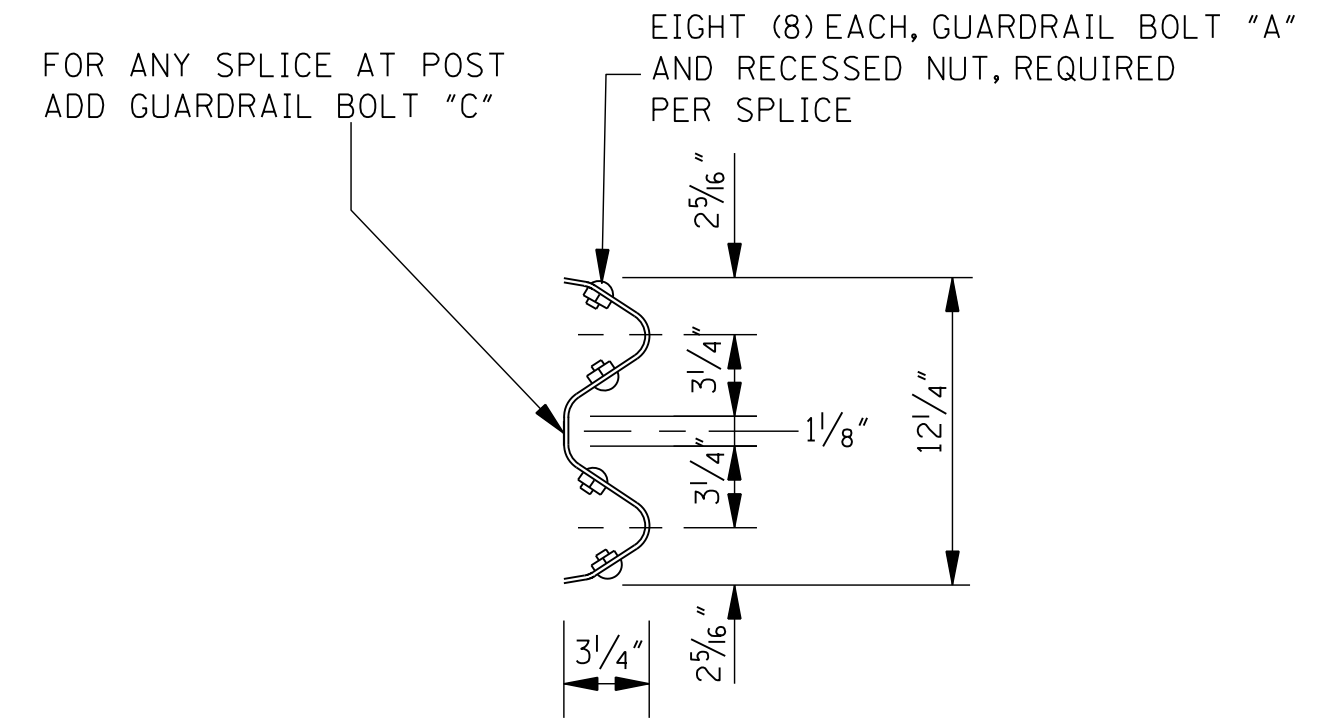
SINGLE-FACED BARRIER DOUBLE-FACED BARRIER
 SECTION A-A
 * NOTE: UNLESS SPECIFIED OTHERWISE ON THE PLANS.



TYPICAL GUARDRAIL SECTION

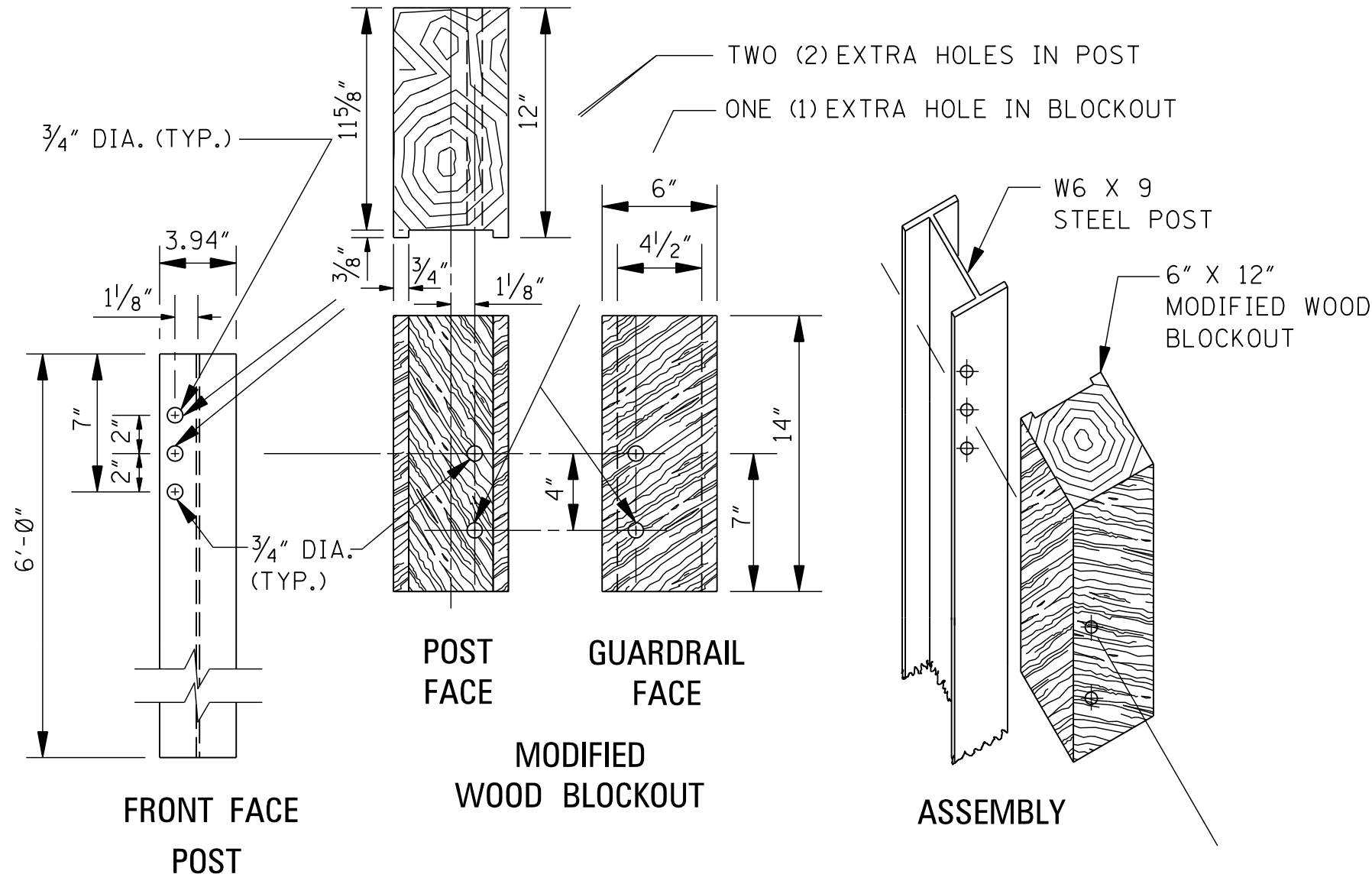


ELEVATION

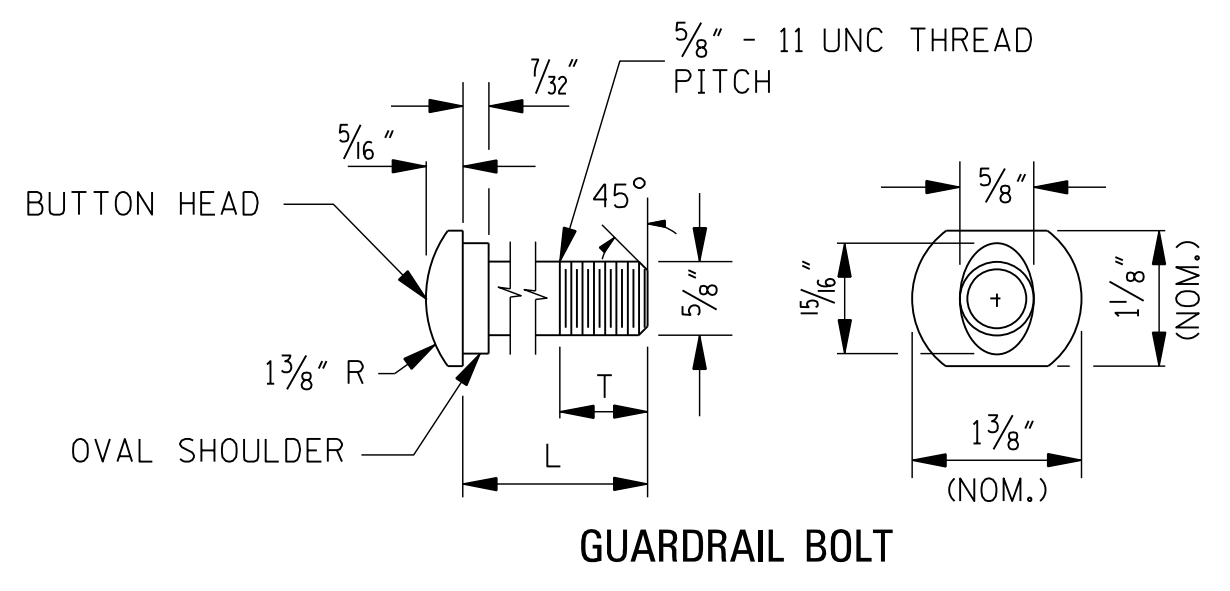


SECTION

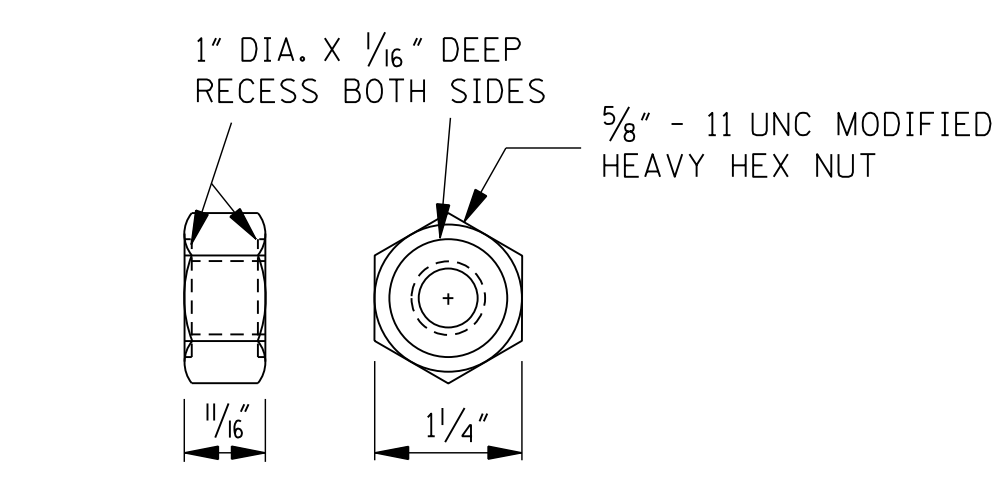
GUARDRAIL SPLICE DETAIL



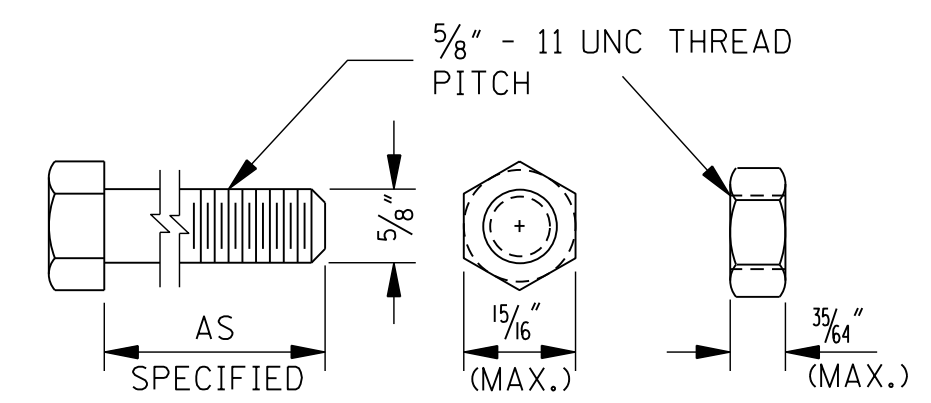
DETAILS OF ADJUSTABLE HEIGHT BLOCKOUT ASSEMBLY



GUARDRAIL BOLT



RECESSED NUT



HEX NUT AND BOLT "F"

GUARDRAIL BOLTS		
BOLT	L	T (MIN.)
"A"	1 1/4"	1"
"B"	12"	4"
"C"	14"	4"

- NOTES:
- ALL GUARDRAIL BOLTS ARE 5/8" - 11 UNC THREAD PITCH.
 - IF ANY BOLT EXTENDS MORE THAN 1/4" FROM THE NUT, THE BOLT SHOULD BE TRIMMED BACK.

FASTENER DETAILS

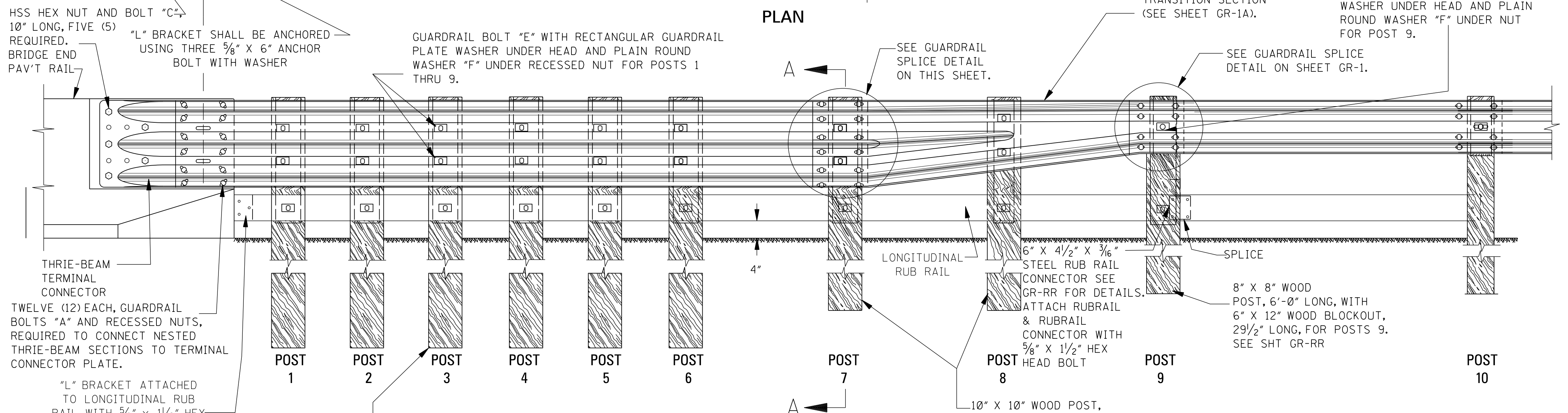
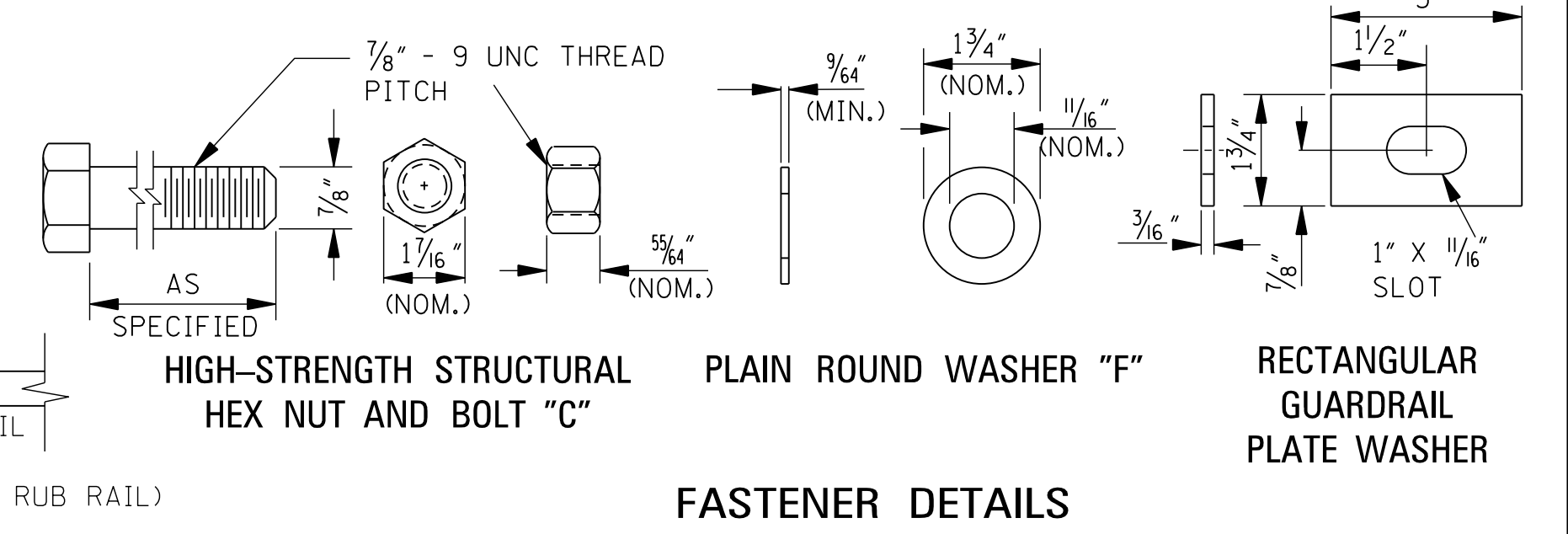
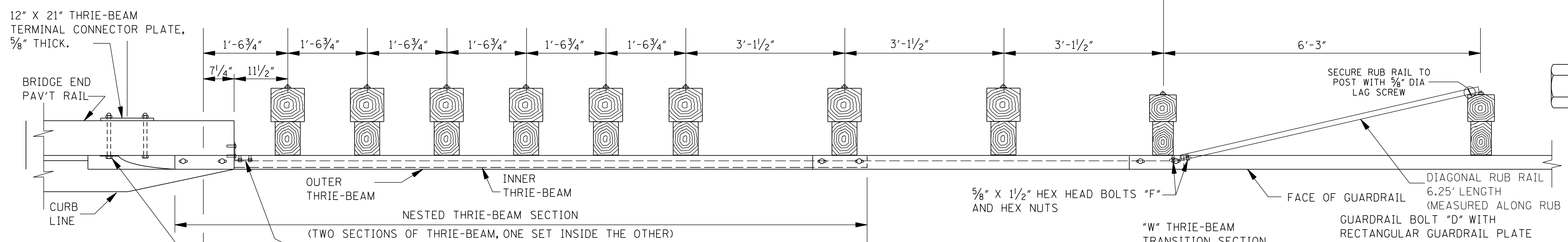
- NOTES:
- ON INITIAL INSTALLATION, THE MODIFIED WOOD BLOCKOUT SHALL BE FASTENED TO THE BOTTOM HOLE IN THE STEEL POST. OTHER HOLES IN THE STEEL POST AND THE MODIFIED WOOD BLOCKOUT ARE FOR FUTURE 2" HEIGHT ADJUSTMENTS WHEN THE ROADWAY IS RESURFACED.
 - AN ADDITIONAL GUARDRAIL BOLT "C" AND RECESSED NUT IS REQUIRED FOR THE SECOND HEIGHT ADJUSTMENT.
 - HOLE DETAILS ARE REQUIRED ON ALL STEEL POSTS AND MODIFIED WOOD BLOCKOUTS.
 - STEEL POSTS ARE FABRICATED FROM W6 X 9 STRUCTURAL STEEL SHAPES.
 - MODIFIED WOOD BLOCKOUTS ARE FABRICATED FROM 6" X 12" TREATED TIMBER UNLESS SPECIFIED OTHERWISE ON THE PLANS.
 - ALL HOLES IN BOTH STEEL POSTS AND MODIFIED WOOD BLOCKOUTS ARE 3/4" IN DIAMETER.

- GENERAL NOTES:
- GUARDRAIL SHALL MEET THE REQUIREMENTS OF AASHTO M 180, CLASS A, TYPE 1 UNLESS OTHERWISE DESIGNATED.
 - GUARDRAIL SHALL BE SINGLE FACED UNLESS OTHERWISE DESIGNATED.
 - GUARDRAIL SECTIONS SHALL BE LAPPED IN THE DIRECTION OF TRAFFIC FLOW FOR THE LANE NEAREST THE GUARDRAIL. THE ONLY EXCEPTION NOTED IS THAT GUARDRAIL SHALL BE LAPPED FOR APPROACHING TRAFFIC ON A BRIDGE WITH 2-WAY TRAFFIC.
 - STEEL POSTS SHALL CONFORM TO ASTM A36 (EXCEPT ULTRASONIC TESTING). THEY SHALL BE GALVANIZED IN ACCORDANCE WITH AASHTO M 111 EXCEPT WHEN CORROSION RESISTANT STEEL IS REQUIRED IN WHICH CASE POSTS SHALL CONFORM TO AASHTO SPECIFICATIONS FOR CORROSION RESISTANCE AND SHALL NOT BE PAINTED OR GALVANIZED. NO PUNCHING, DRILLING OR CUTTING WILL BE PERMITTED AFTER GALVANIZING EXCEPT FOR HOLES TO MOUNT GUARDRAIL DELINEATORS.
 - ALL MODIFIED WOOD BLOCKOUTS SHALL BE TREATED TIMBER IN ACCORDANCE WITH MISSISSIPPI DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS.
 - FOR OTHER DETAILS OF POSTS, POST ACCESSORIES, FASTENERS & RAIL ELEMENTS, SEE AASHTO-AGC-ARTBA JOINT TASK FORCE NO. 13, TITLED "A GUIDE TO STANDARDIZED HIGHWAY BARRIER HARDWARE," LATEST EDITION.

BY		MISSISSIPPI DEPARTMENT OF TRANSPORTATION ROADWAY DESIGN DIVISION STANDARD PLAN	
REVISION		<p>GUARDRAIL: "W" BEAM (STEEL POSTS)</p>	
DATE			
ISSUE DATE: AUGUST 01, 2017		WORKING NUMBER GR-1B	SHEET NUMBER 6203

PAY LIMITS FOR TYPE "I" BRIDGE END SECTION

STANDARD "W" BEAM GUARDRAIL INSTALLATION
(SEE SHEET GR-1)



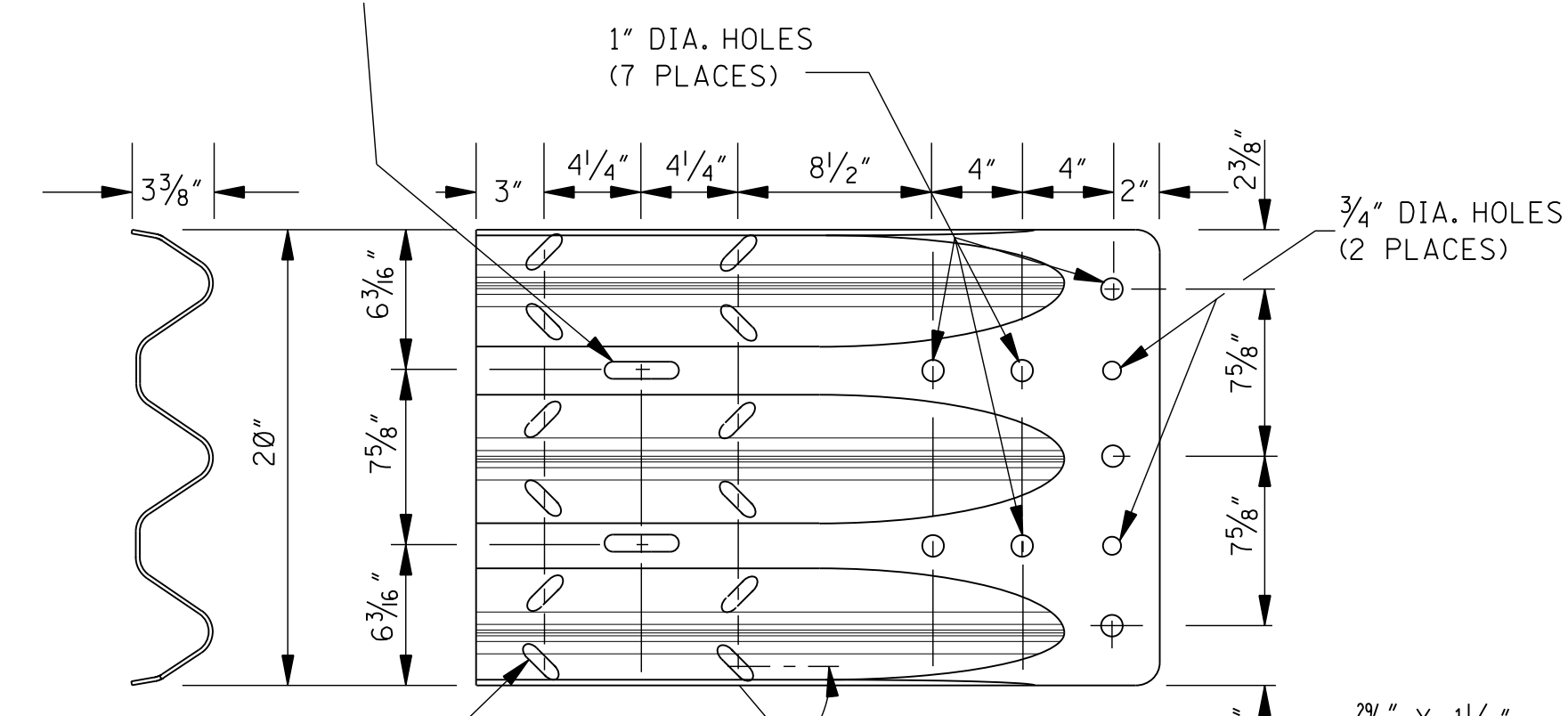
GENERAL NOTES:

- THIS GUARDRAIL TRANSITION IS APPROPRIATE FOR CONNECTION TO A GUARDRAIL ANCHOR ASSEMBLY CAST INTO A VERTICAL CONCRETE SHAPE, AS SHOWN ON SHEETS BER-1 & BER-2. THIS GUARDRAIL TRANSITION SHALL NOT BE MOUNTED DIRECTLY TO A CONCRETE SAFETY SHAPE.
- SEE RAILING DETAILS IN BRIDGE DRAWINGS FOR OTHER DETAILS.

GENERAL NOTES (CONTINUED):

- GUARDRAIL SHALL MEET THE REQUIREMENTS OF AASHTO M 180, CLASS A, TYPE 1 UNLESS OTHERWISE DESIGNATED.
- THE TYPE "I" TRANSITION IS USED ON BOTH LEFT AND RIGHT SIDES OF EACH BRIDGE APPROACH WITH 2-WAY TRAFFIC AND THE GUARDRAIL SECTIONS SHALL BE LAPPED IN THE DIRECTION OF THE APPROACHING TRAFFIC.
- ALL WOOD POSTS AND BLOCKOUTS SHALL BE TREATED TIMBER IN ACCORDANCE WITH MISSISSIPPI DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS.
- FOR FASTENER DETAILS NOT FOUND ON THIS SHEET, SEE SHEET GR-1.
- DETAILS PERTINENT TO THE STANDARD INSTALLATION OF "W" AND THRIE-BEAM SECTIONS NOT SPECIFICALLY MODIFIED ON THIS SHEET WILL BE FOUND ON SHEETS GR-1 AND GR-1A, RESPECTIVELY.
- FOR OTHER DETAILS OF POSTS, POST ACCESSORIES, FASTENERS & RAIL ELEMENTS, SEE AASHTO-AGC-ARTBA JOINT TASK FORCE NO. 13, TITLED "A GUIDE TO STANDARDIZED HIGHWAY BARRIER HARDWARE," LATEST EDITION.
- THE TOP OF THE RAIL AT POST 7 IS AT 32" AND WILL BE TRANSITIONED TO THE NORMAL W-BEAM TOP OF RAIL HEIGHT OF 31.125" AT POST 10.

OPTIONAL: 3/4" X 2 1/2" GUARDRAIL BOLT SLOT (TYP.). HOLES USED ONLY WHERE SPECIFIED ON PLANS.



THRIE-BEAM TERMINAL CONNECTOR

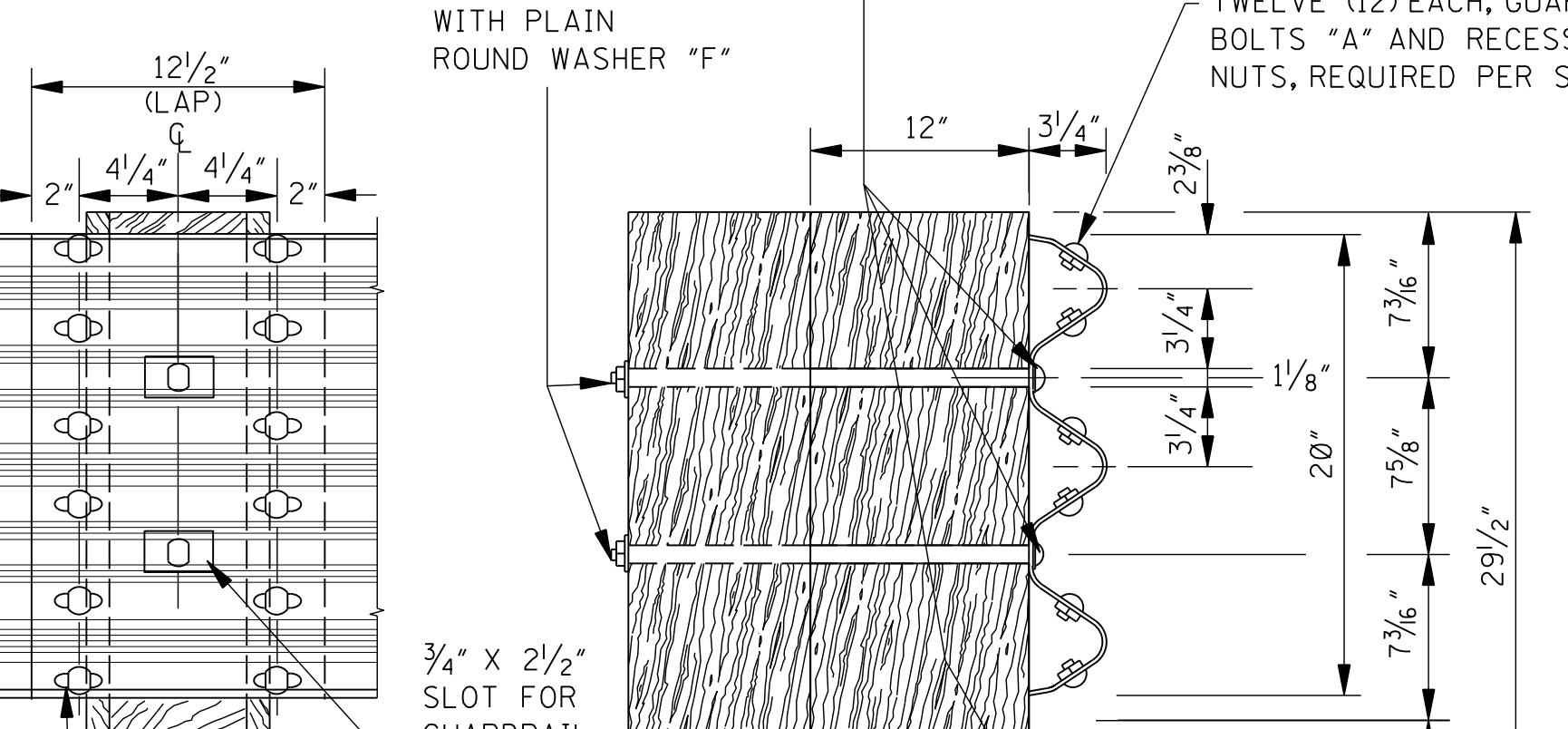
NOTES:

- THE THRIE-BEAM TERMINAL CONNECTOR SHALL BE AASHTO M 180 CORRUGATED SHEET STEEL, CLASS B, TYPE 1.
- ALTERNATIVELY, THE SPLICE SLOTS CAN BE ORIENTED PARALLEL TO THE LONGITUDINAL AXIS OF THE TERMINAL CONNECTOR. HOWEVER, THE 50° SLOT VERSION IS EASIER TO INSTALL WHERE SEVERAL GUARDRAIL SECTIONS ARE NESTED TOGETHER.

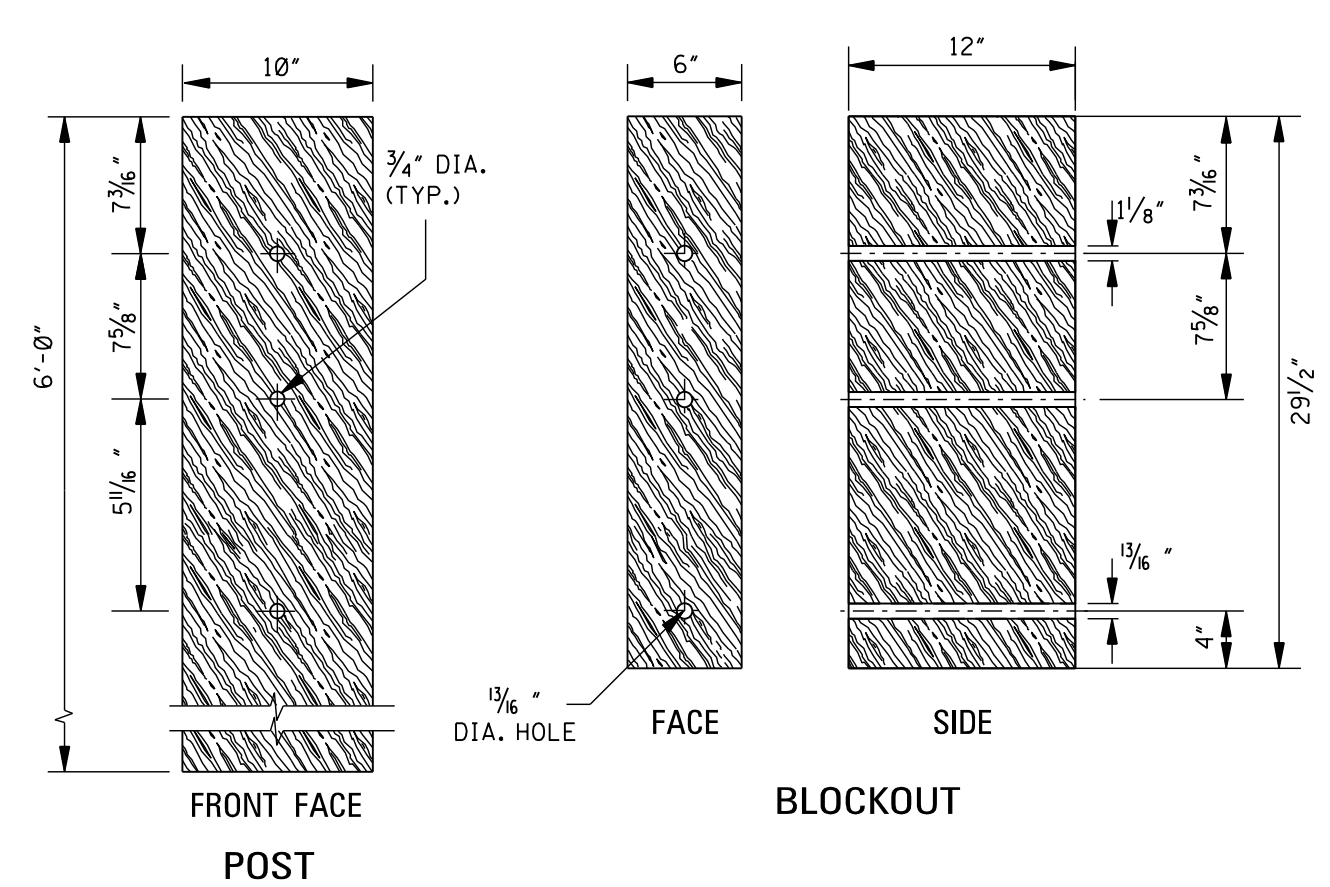
GUARDRAIL BOLT "E" WITH RECTANGULAR PLATE WASHER UNDER HEAD.

RECESSED NUT WITH PLAIN ROUND WASHER "F"

TWELVE (12) EACH, GUARDRAIL BOLTS "A" AND RECESSED NUTS, REQUIRED PER SPLICE.



GUARDRAIL SPLICE DETAIL (POST 7)

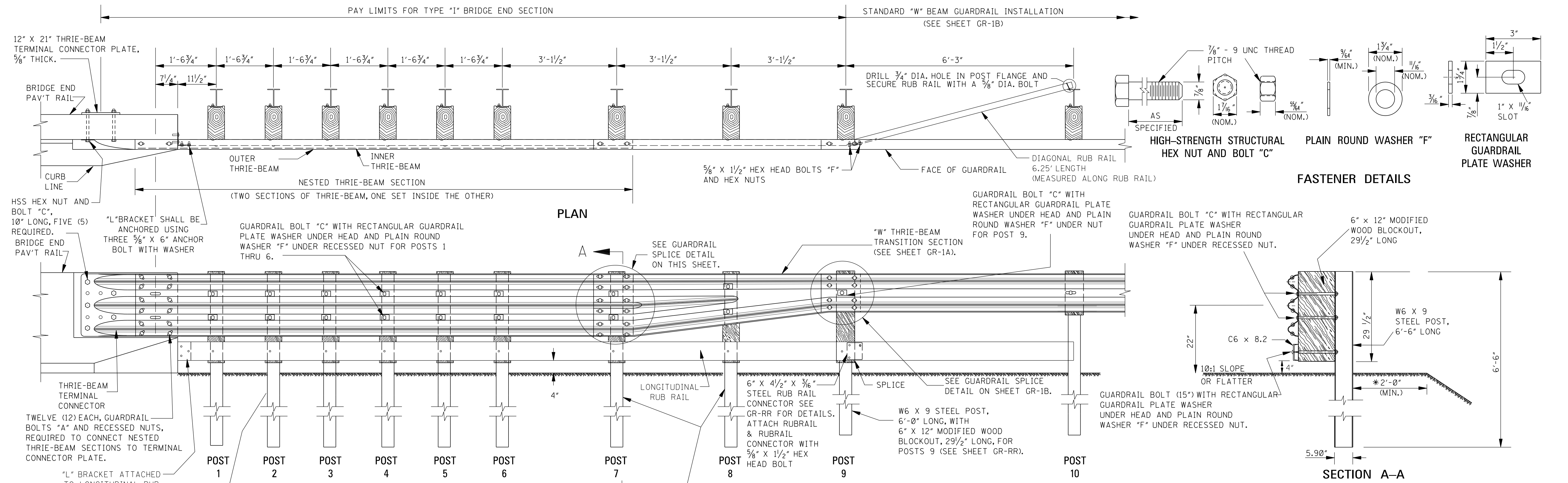


DETAILS OF THRIE-BEAM POST AND BLOCKOUT (POST 1 THRU POST 8)

NOTES:

- HOLE DETAILS ARE REQUIRED ON ALL WOOD POSTS AND BLOCKOUTS.
- WOOD POSTS AND BLOCKOUTS ARE FABRICATED FROM TREATED TIMBER UNLESS SPECIFIED OTHERWISE ON THE PLANS.
- ALL HOLES IN BOTH POSTS AND BLOCKOUTS ARE 3/4" IN DIAMETER.

BY		MISSISSIPPI DEPARTMENT OF TRANSPORTATION ROADWAY DESIGN DIVISION STANDARD PLAN	
REVISION		<p align="center">GUARDRAIL: BRIDGE END SECTION TYPE "I" (WOOD POSTS) (NEW CONSTRUCTION)</p>	
DATE			
ISSUE DATE:		AUGUST 01, 2017	



12" X 21" THRIE-BEAM TERMINAL CONNECTOR PLATE, 5/8" THICK.

BRIDGE END PAV'T RAIL

CURB LINE

HSS HEX NUT AND BOLT "C", 10" LONG, FIVE (5) REQUIRED.

"L" BRACKET SHALL BE ANCHORED USING THREE 5/8" X 6" ANCHOR BOLT WITH WASHER

THRIE-BEAM TERMINAL CONNECTOR

TWELVE (12) EACH, GUARDRAIL BOLTS "A" AND RECESSED NUTS, REQUIRED TO CONNECT NESTED THRIE-BEAM SECTIONS TO TERMINAL CONNECTOR PLATE.

"L" BRACKET ATTACHED TO LONGITUDINAL RUB RAIL WITH 5/8" X 1/2" HEX HEAD BOLT WITH WASHER ON BACK SIDE.

GUARDRAIL BOLT "C" WITH RECTANGULAR GUARDRAIL PLATE WASHER UNDER HEAD AND PLAIN ROUND WASHER "F" UNDER RECESSED NUT FOR POSTS 1 THRU 6.

W6 X 9 STEEL POST, 6'-6" LONG, WITH 6" X 12" MODIFIED WOOD BLOCKOUT, 29 1/2" LONG, FOR POSTS 1 THRU 6.

W6 X 9 STEEL POST, 6'-6" LONG, WITH 6" X 12" MODIFIED WOOD BLOCKOUT, 29 1/2" LONG, FOR POSTS 7 & 8.

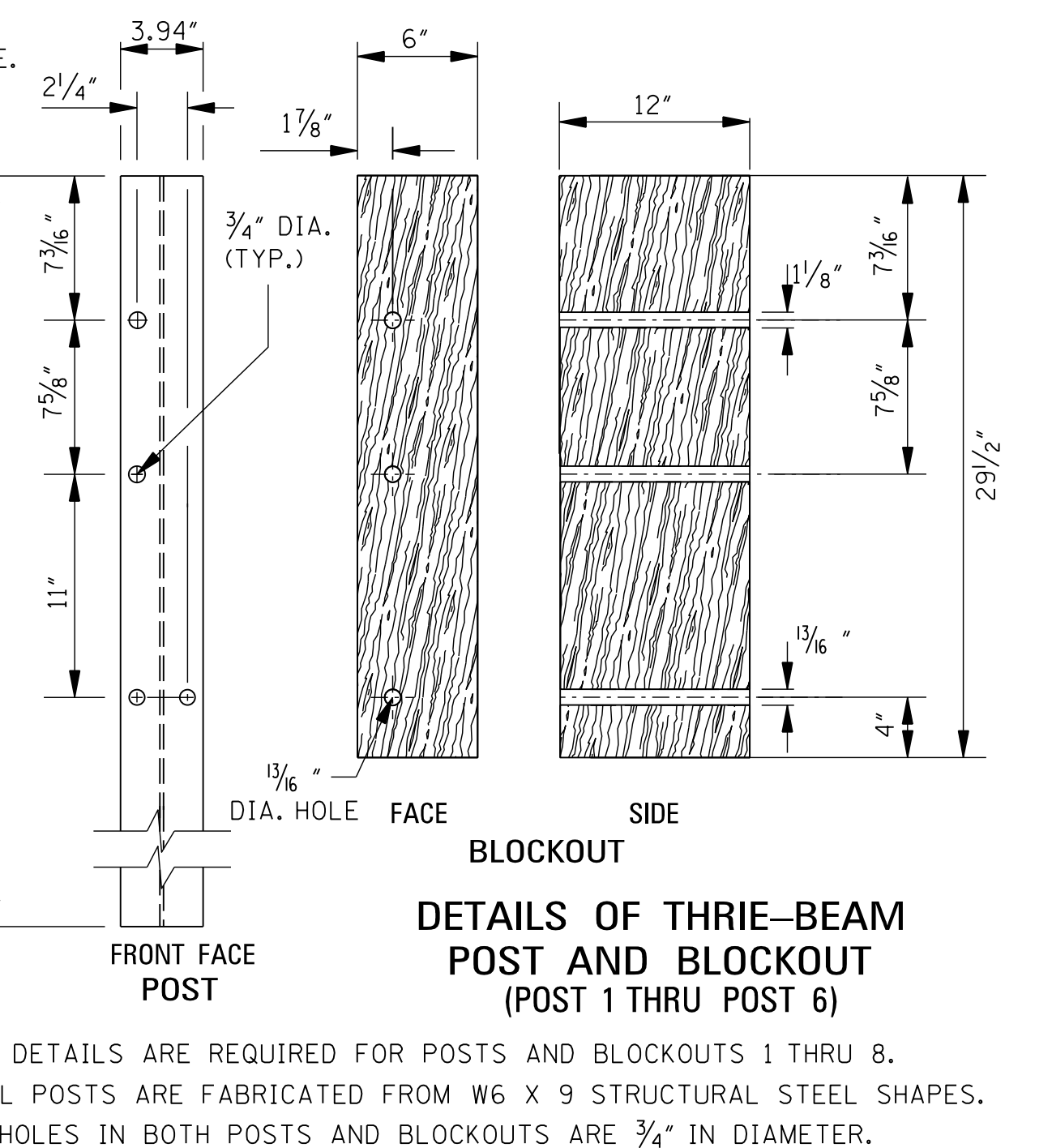
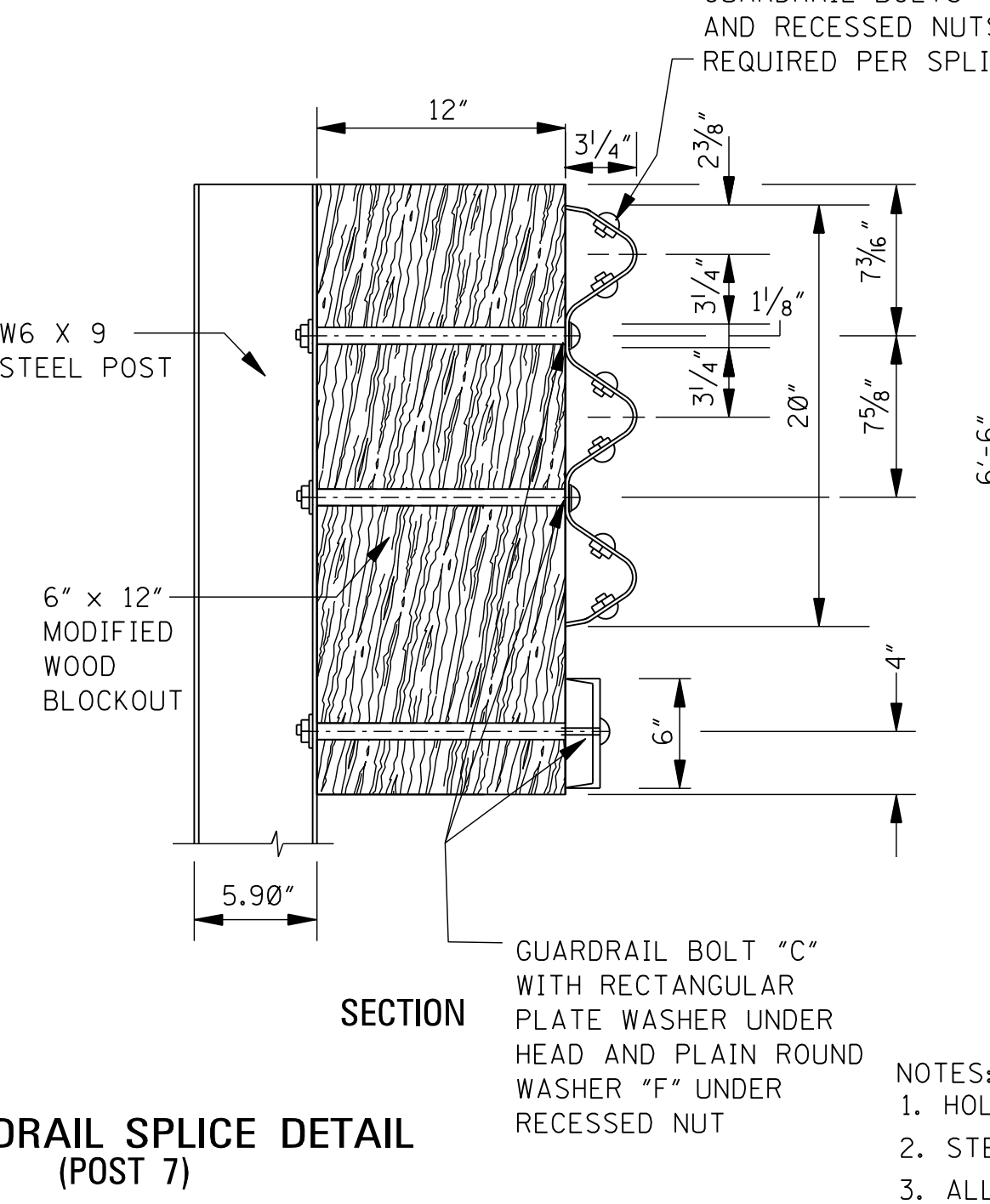
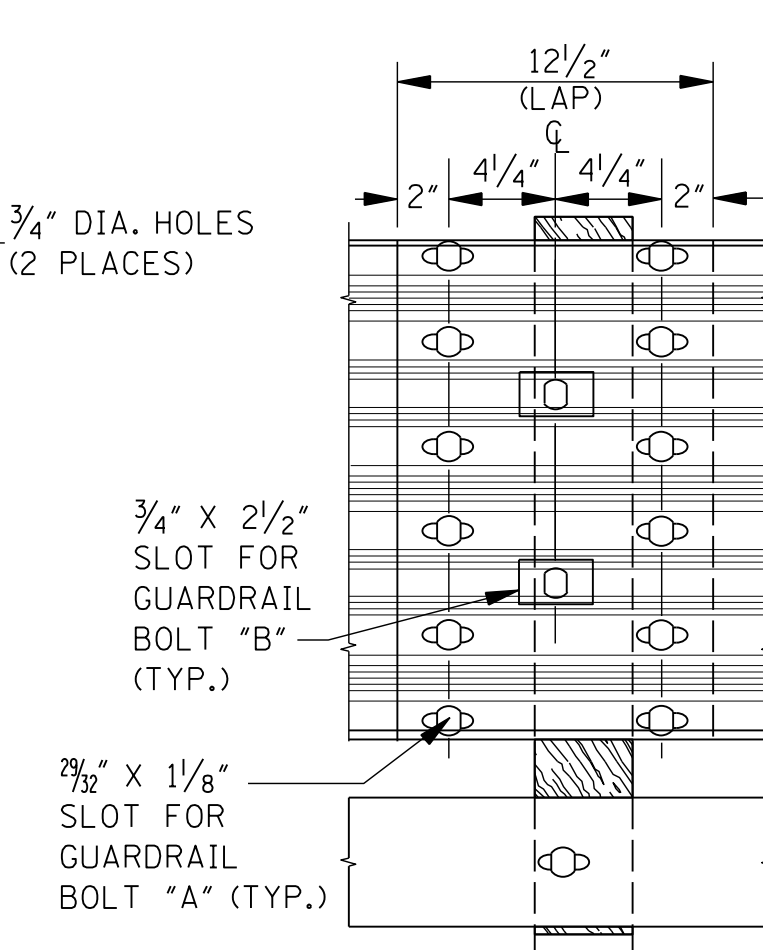
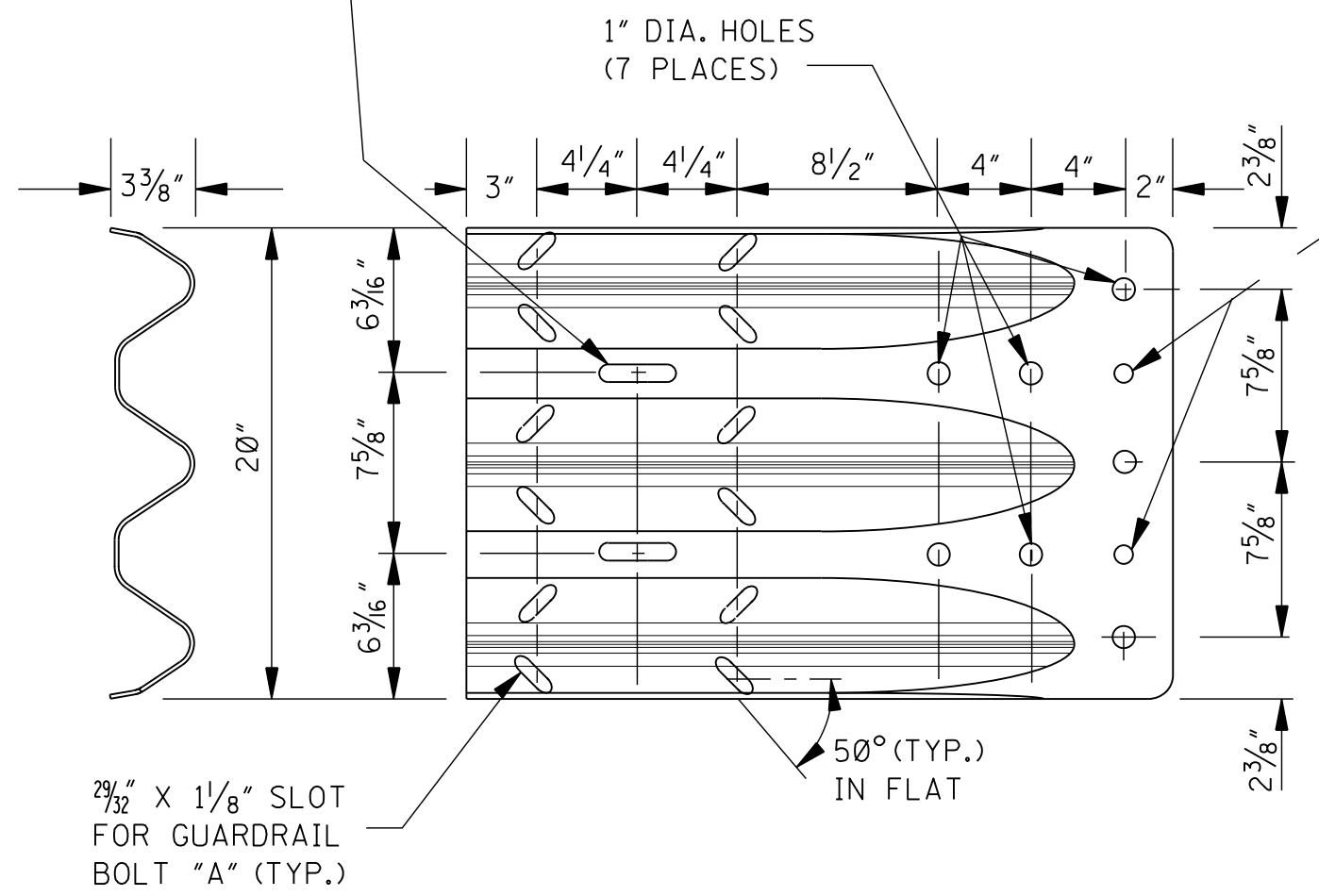
W6 X 9 STEEL POST, 6'-6" LONG, WITH 6" X 12" MODIFIED WOOD BLOCKOUT, 29 1/2" LONG, FOR POSTS 9 & 10.

GENERAL NOTES:

- THIS GUARDRAIL TRANSITION IS APPROPRIATE FOR CONNECTION TO A GUARDRAIL ANCHOR ASSEMBLY CAST INTO A VERTICAL CONCRETE SHAPE, AS SHOWN ON SHEETS BER-1 & BER-2. THIS GUARDRAIL TRANSITION SHALL NOT BE MOUNTED DIRECTLY TO A CONCRETE SAFETY SHAPE.
- SEE RAILING DETAILS IN BRIDGE DRAWINGS FOR OTHER DETAILS.

GENERAL NOTES (CONTINUED):

- GUARDRAIL SHALL MEET THE REQUIREMENTS OF AASHTO M 180, CLASS A, TYPE 1 UNLESS OTHERWISE DESIGNATED.
- THE TYPE "I" TRANSITION IS USED ON BOTH LEFT AND RIGHT SIDES OF EACH BRIDGE APPROACH WITH 2-WAY TRAFFIC AND THE GUARDRAIL SECTIONS SHALL BE LAPPED IN THE DIRECTION OF APPROACHING TRAFFIC.
- POSTS SHALL CONFORM TO AASHTO M 270/M 270 (ASTM A 709/A 709M) GRADE 250 STEEL UNLESS CORROSION RESISTANT STEEL IS REQUIRED IN WHICH CASE GRADE 50W STEEL SHALL BE USED. THE STRUCTURAL W6 X 9 DIMENSIONS ARE DEFINED IN AASHTO M 160M (ASTM A 6M). THE SECTION SHOULD BE ZINC-COATED PER AASHTO M 111 (ASTM A 123) AFTER CUTTING, DRILLING OR PUNCHING. CORROSION RESISTANT STEEL SHOULD NOT BE ZINC COATED, PAINTED OR OTHERWISE TREATED. GUARDRAIL IS EXEMPT FROM THE FRACTURE-CRITICAL TOUGHNESS IN AASHTO M 270/A 270 M.
- FOR FASTENER DETAILS NOT FOUND ON THIS SHEET, SEE SHEET GR-1B.
- DETAILS PERTINENT TO THE STANDARD INSTALLATION OF "W" AND THRIE-BEAM SECTIONS NOT SPECIFICALLY MODIFIED ON THIS SHEET WILL BE FOUND ON SHEETS GR-1B AND GR-1C, RESPECTIVELY.
- FOR OTHER DETAILS OF POSTS, POST ACCESSORIES, FASTENERS & RAIL ELEMENTS, SEE AASHTO-AGC-ARTBA JOINT TASK FORCE NO. 13 GUIDE TITLED "A GUIDE TO STANDARDIZED HIGHWAY BARRIER HARDWARE", LATEST EDITION.
- ALL WOOD BLOCKOUTS SHALL BE TREATED TIMBER IN ACCORDANCE WITH MISSISSIPPI DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS..
- FOR DETAIL OF NOTCH IN MODIFIED WOOD BLOCKOUTS, SEE SHEET GR-1B.



THRIE-BEAM TERMINAL CONNECTOR

NOTES:

- THE THRIE-BEAM TERMINAL CONNECTOR SHALL BE AASHTO M 180 CORRUGATED SHEET STEEL, CLASS B, TYPE 1.
- ALTERNATIVELY, THE SPLICE SLOTS CAN BE ORIENTED PARALLEL TO THE LONGITUDINAL AXIS OF THE TERMINAL CONNECTOR. HOWEVER, THE 50° SLOT VERSION IS EASIER TO INSTALL WHERE SEVERAL GUARDRAIL SECTIONS ARE NESTED TOGETHER.

GUARDRAIL SPLICE DETAIL (POST 7)

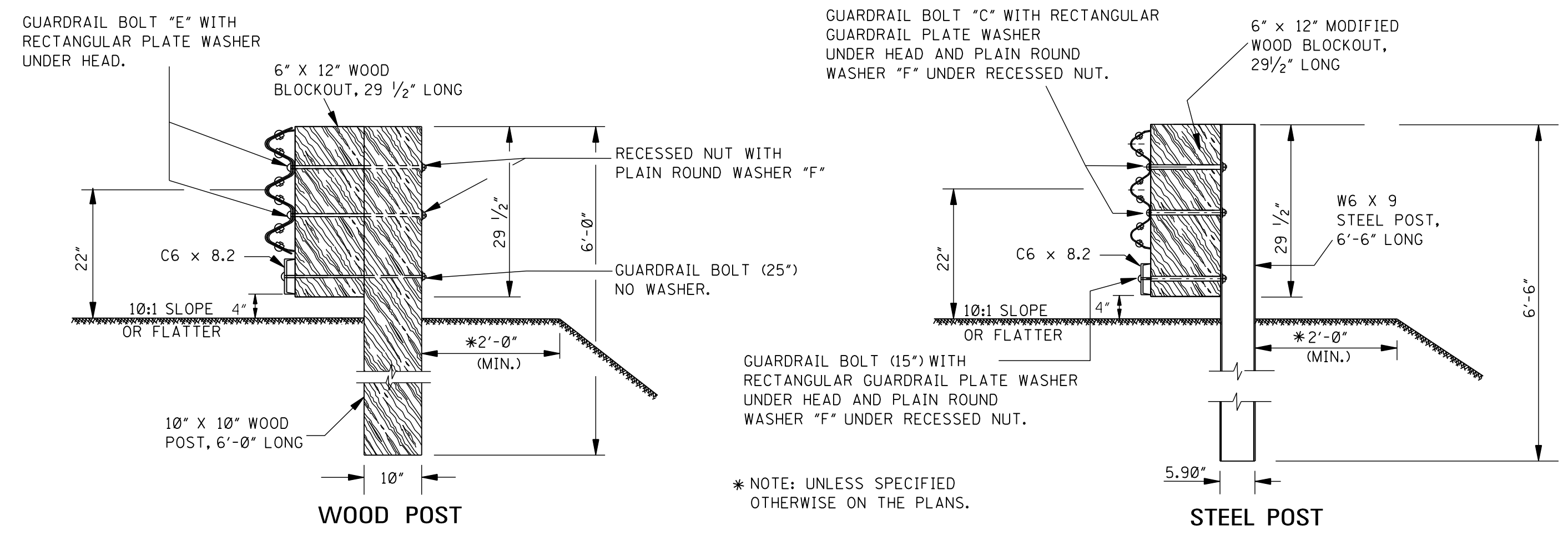
GUARDRAIL BOLT "C" WITH RECTANGULAR PLATE WASHER UNDER HEAD AND PLAIN ROUND WASHER "F" UNDER RECESSED NUT

DETAILS OF THRIE-BEAM POST AND BLOCKOUT (POST 1 THRU POST 6)

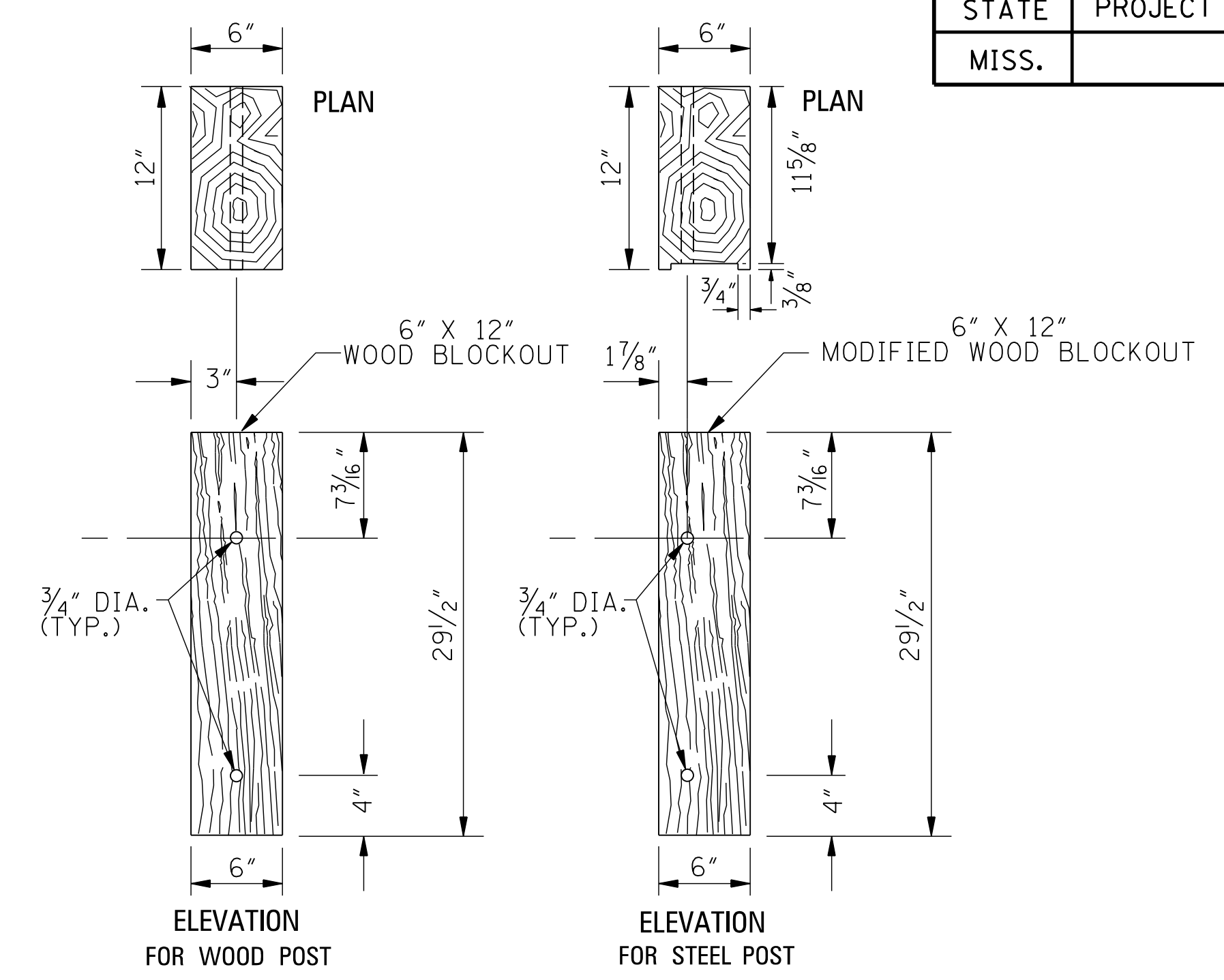
NOTES:

- HOLE DETAILS ARE REQUIRED FOR POSTS AND BLOCKOUTS 1 THRU 8.
- STEEL POSTS ARE FABRICATED FROM W6 X 9 STRUCTURAL STEEL SHAPES.
- ALL HOLES IN BOTH POSTS AND BLOCKOUTS ARE 3/4" IN DIAMETER.

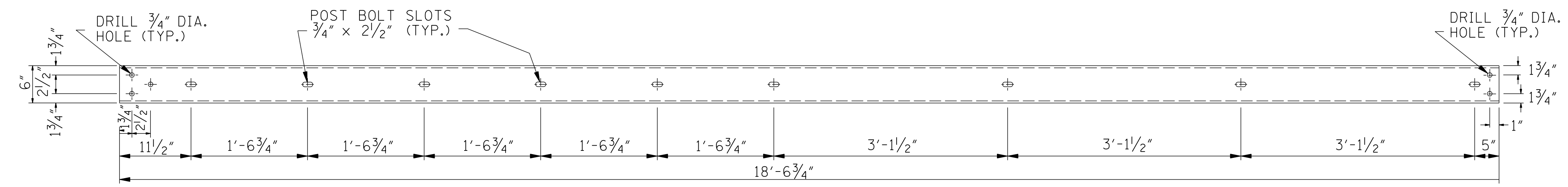
MISSISSIPPI DEPARTMENT OF TRANSPORTATION ROADWAY DESIGN DIVISION STANDARD PLAN	
GUARDRAIL: BRIDGE END SECTION TYPE "I" (STEEL POSTS) (NEW CONSTRUCTION)	
BY	
REVISION	
DATE	ISSUE DATE: AUGUST 01, 2017
WORKING NUMBER	GR-2G
SHEET NUMBER	6211



PROFILE VIEW OF POSTS

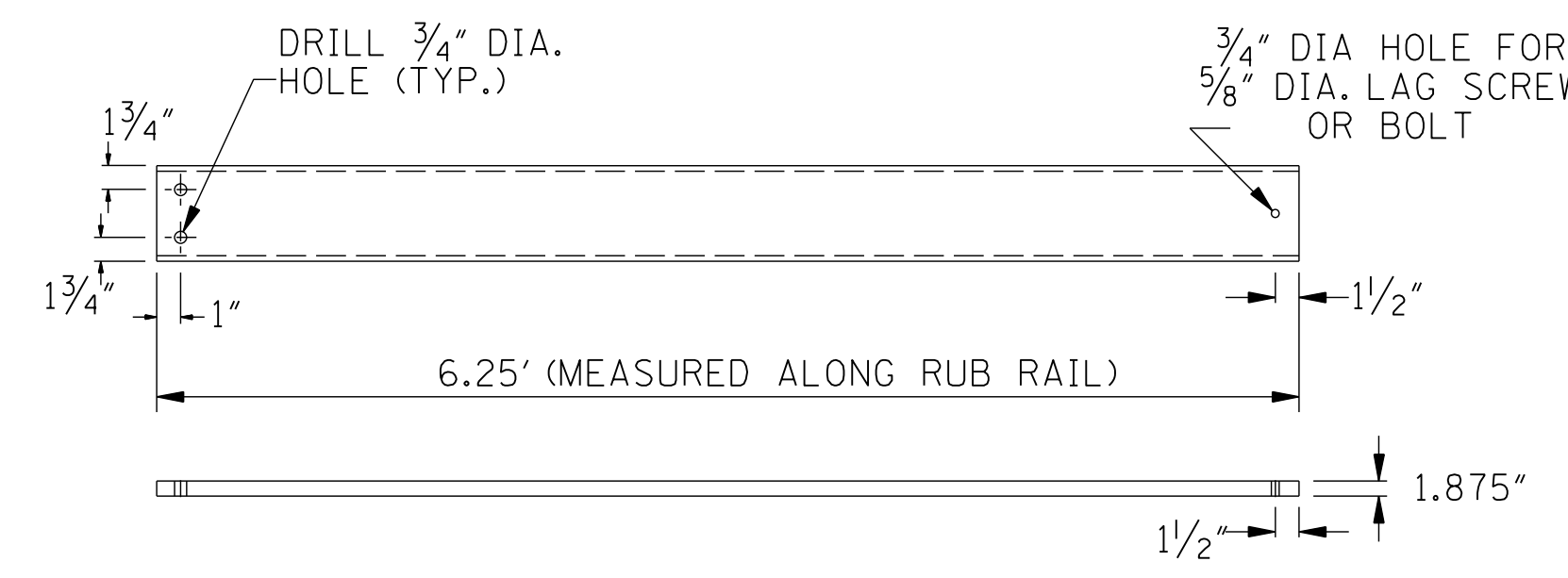
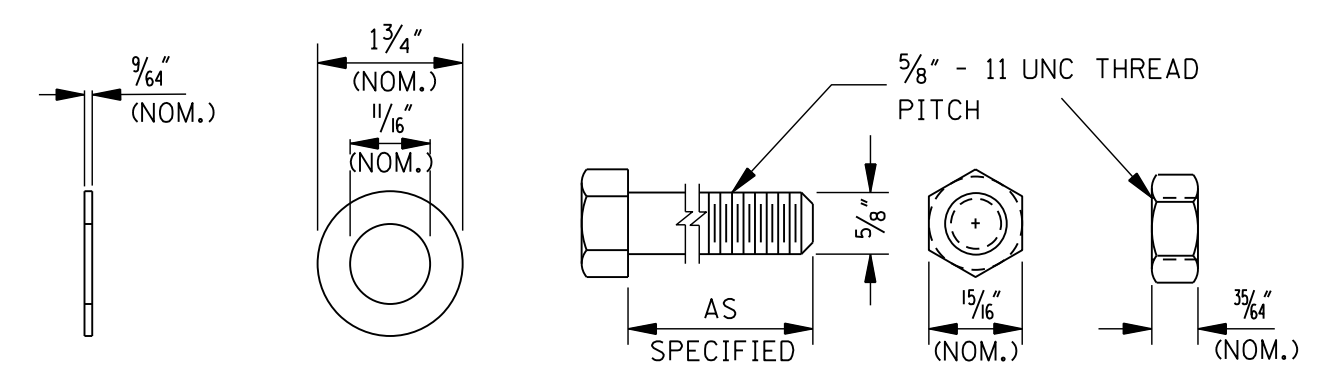


BLOCKOUT FOR POST 9 OF TYPE "I" BRIDGE END SECTION



C6 x 8.2 LONGITUDINAL RUB RAIL

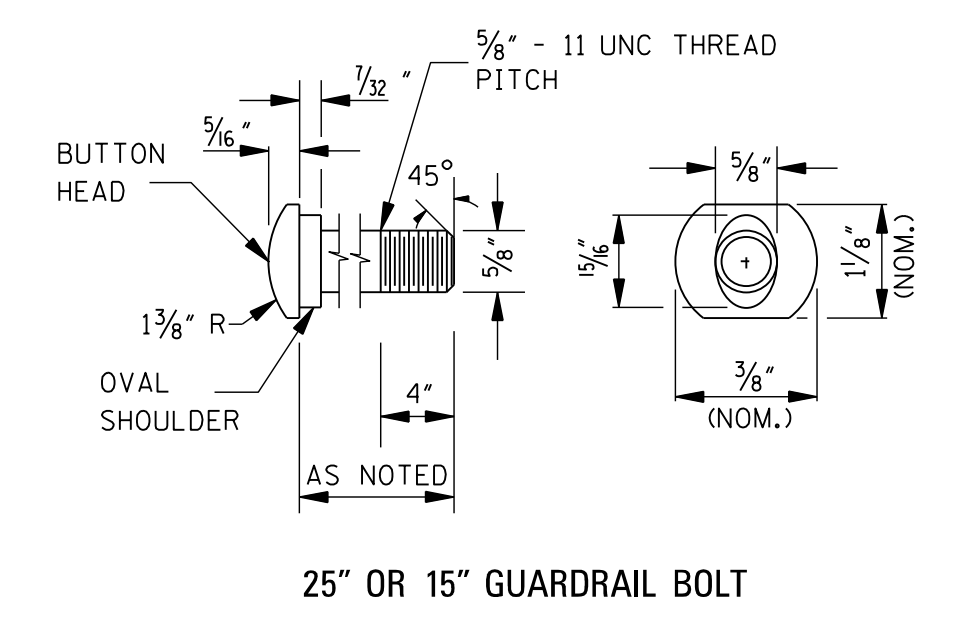
CROSS-SECTION VIEW OF C6 x 8.2



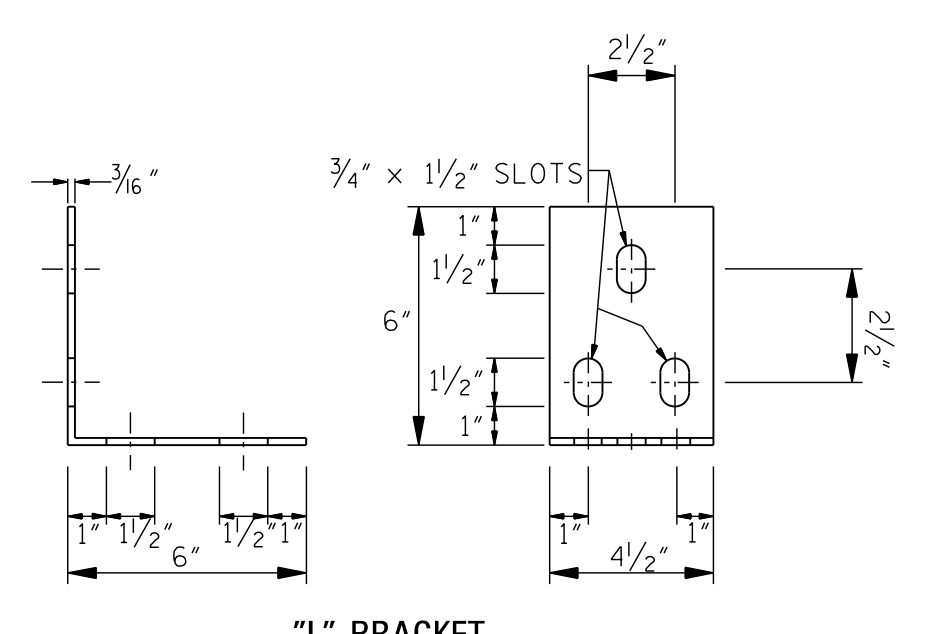
DIAGONAL RUB RAIL

GENERAL NOTES:

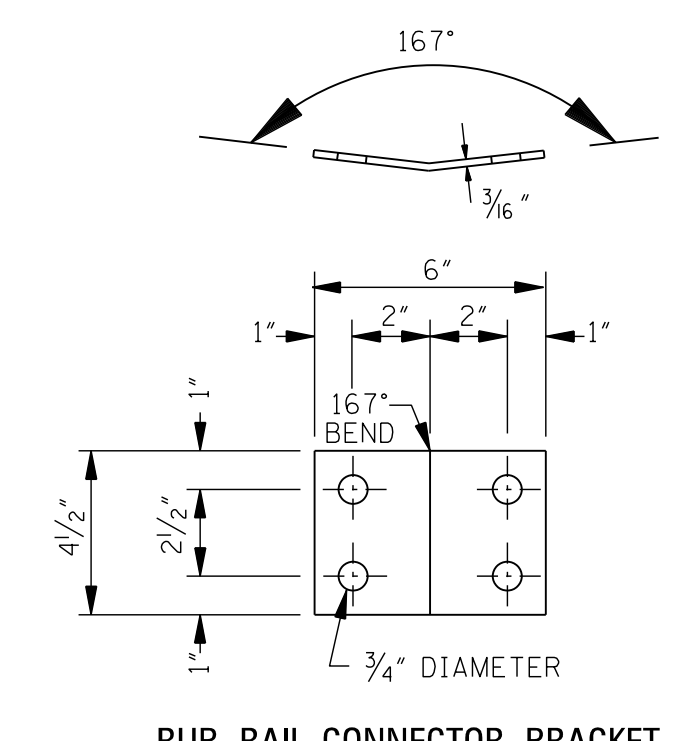
1. POSTS 1 THROUGH 9 REQUIRE AN ADDITIONAL HOLE TO ATTACH LOWER BLOCKOUTS. STEEL POST REQUIRE 2 HOLES ON EITHER SIDE OF THE POST.
2. RUBRAIL BLOCKOUTS SHALL BE SECURED WITH 5/8\"/>



25" OR 15" GUARDRAIL BOLT

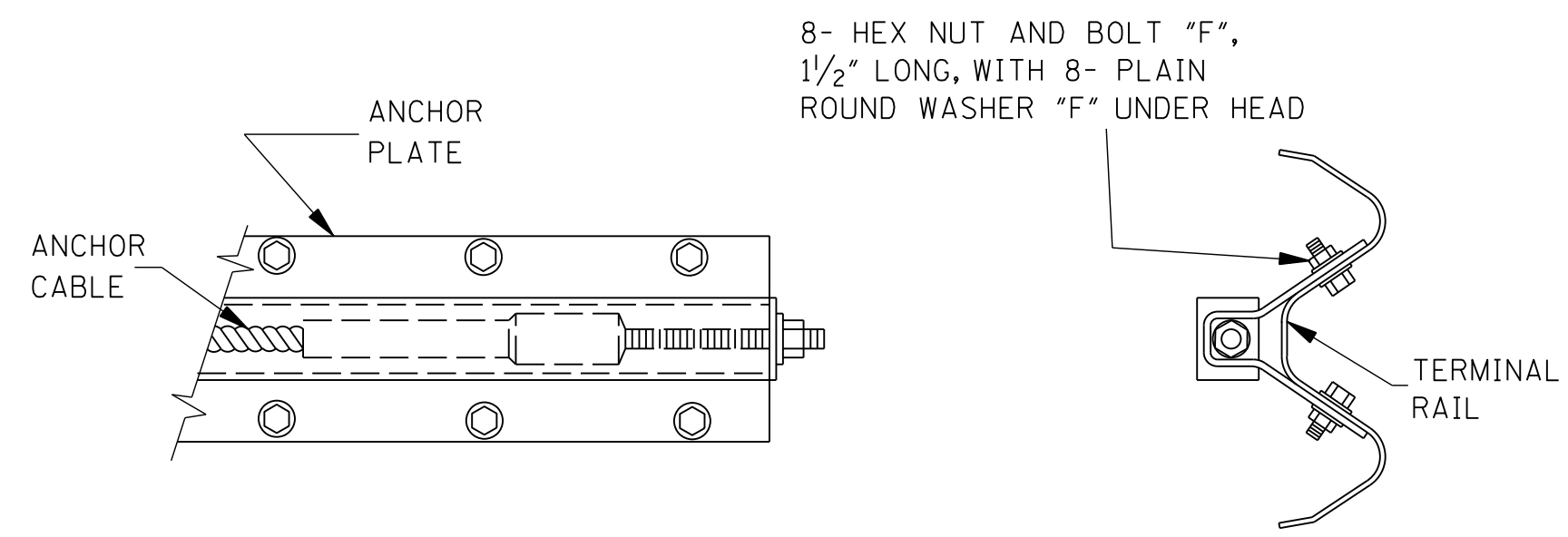


"L" BRACKET

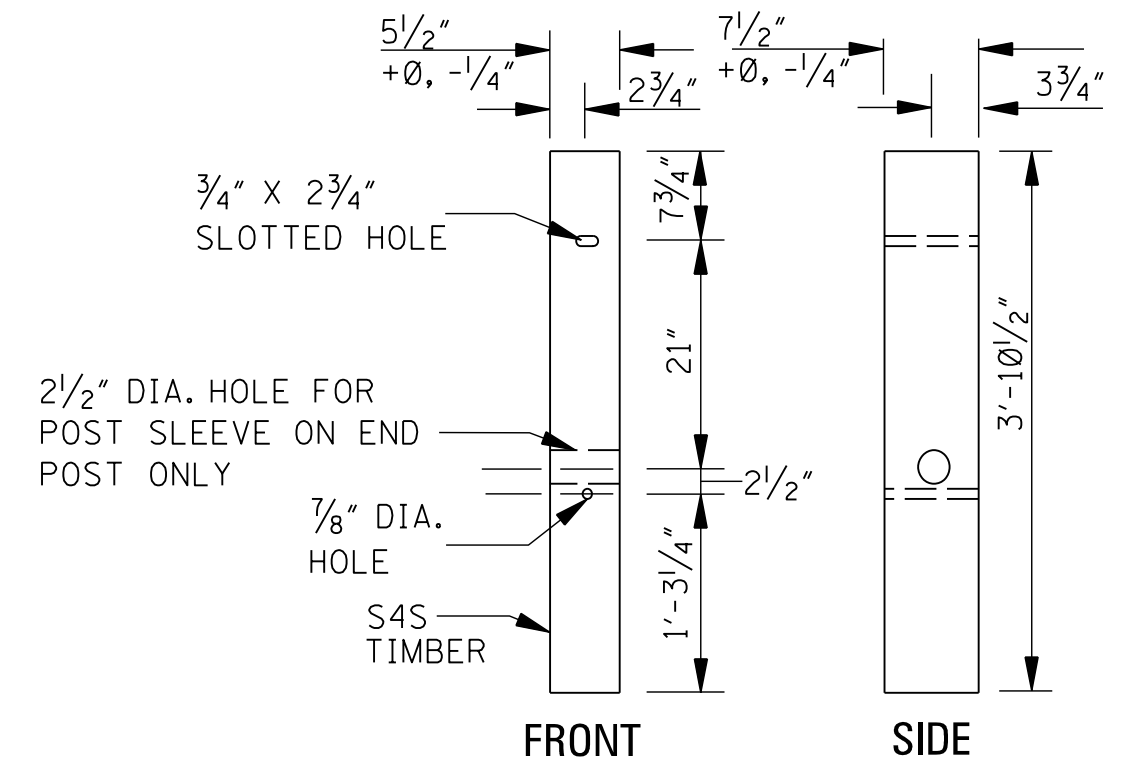


RUB RAIL CONNECTOR BRACKET

BY		MISSISSIPPI DEPARTMENT OF TRANSPORTATION ROADWAY DESIGN DIVISION STANDARD PLAN	
REVISION		<p align="center">GUARDRAIL: RUB RAIL HARDWARE</p> 	
DATE			
ISSUE DATE:		AUGUST 01, 2017	
WORKING NUMBER		GR-RR	
SHEET NUMBER		6218	

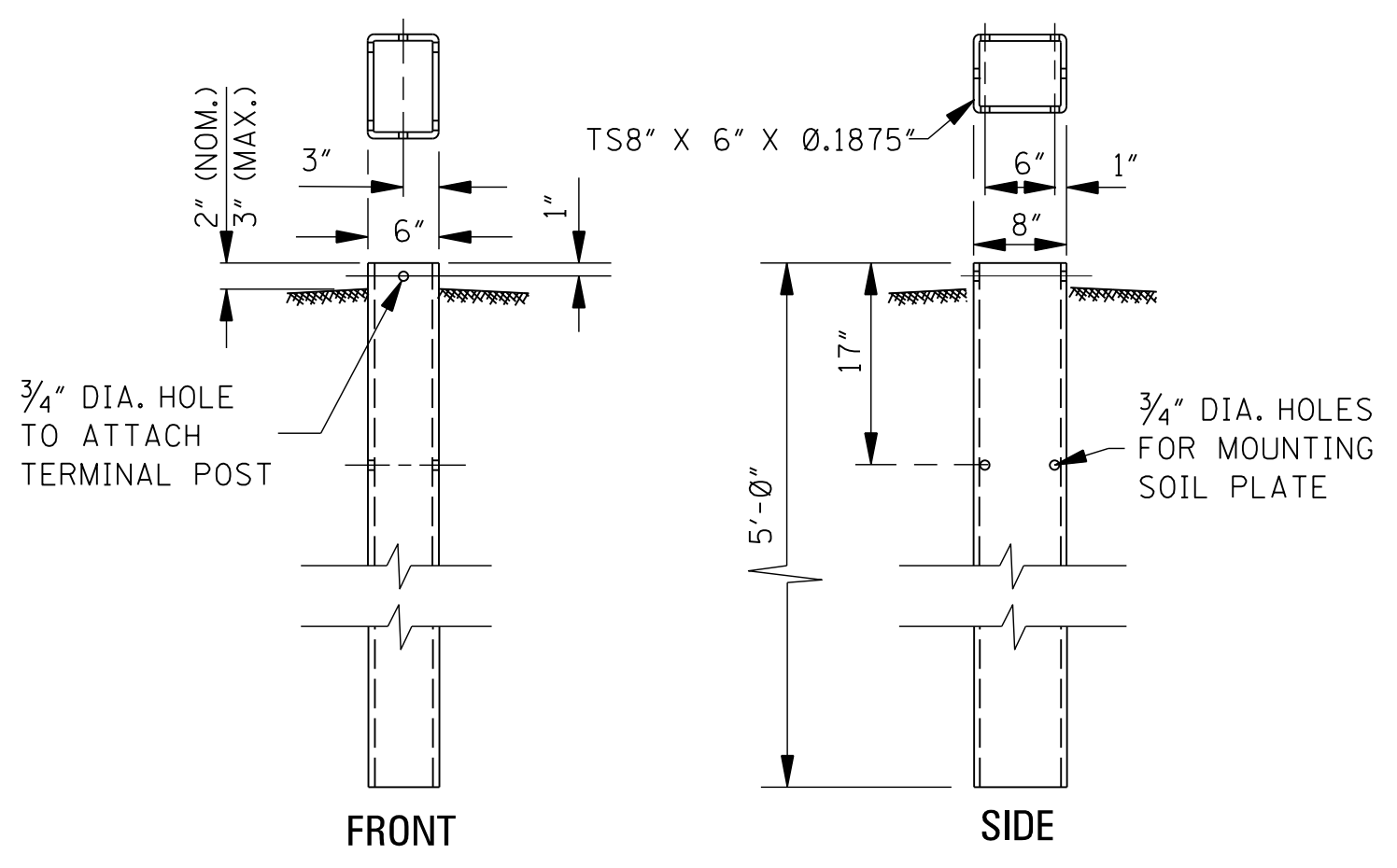


ANCHOR PLATE ASSEMBLY DETAILS



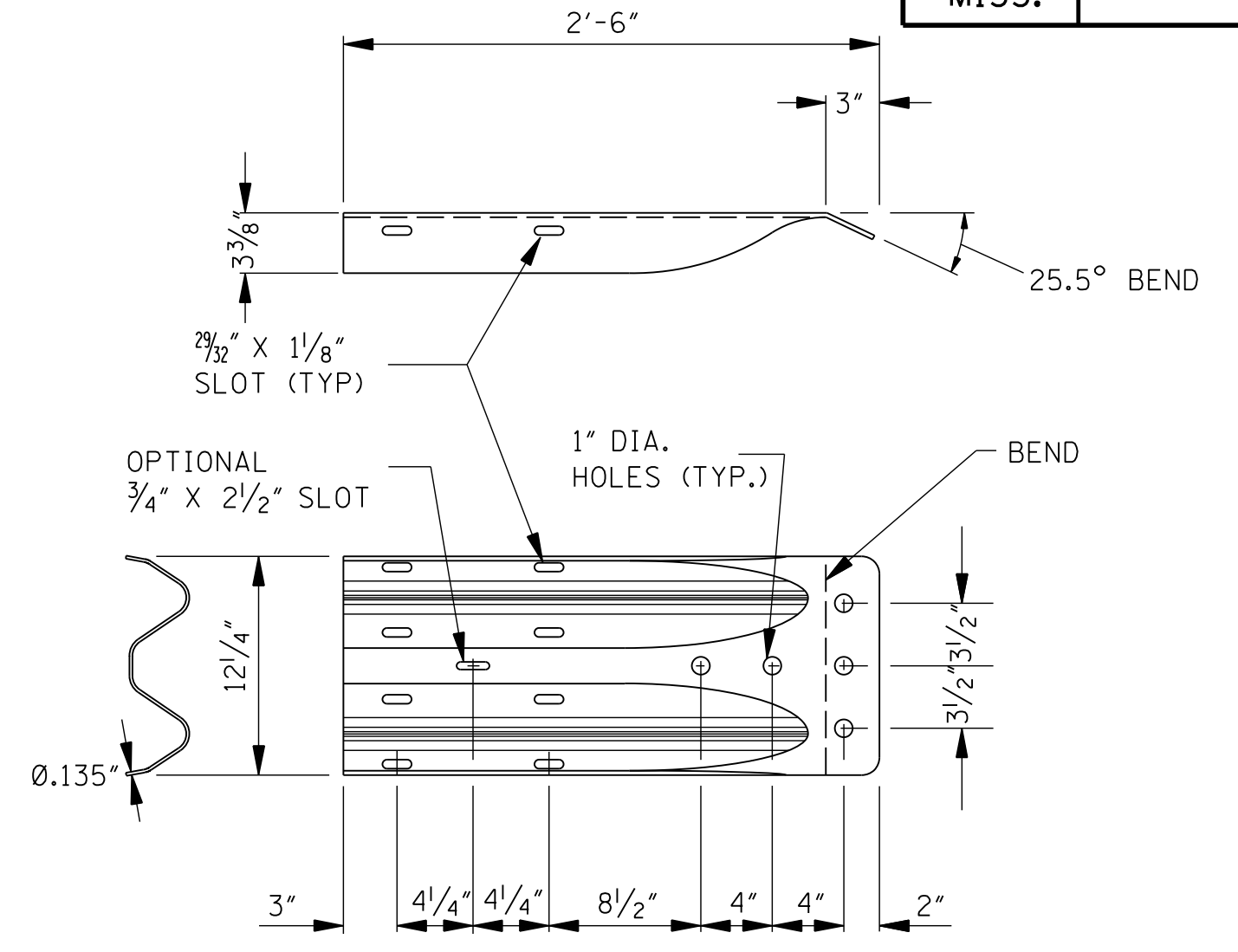
TERMINAL POST FOR FOUNDATION TUBE INSTALLATION

NOTE: TERMINAL POST SHALL BE MADE OF S4S TIMBER WITH 2 STRESS GRADE OF 1200 lbs/in.



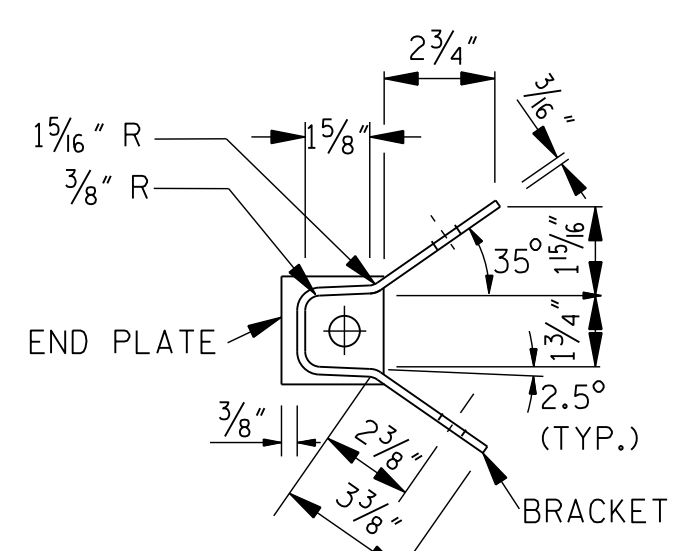
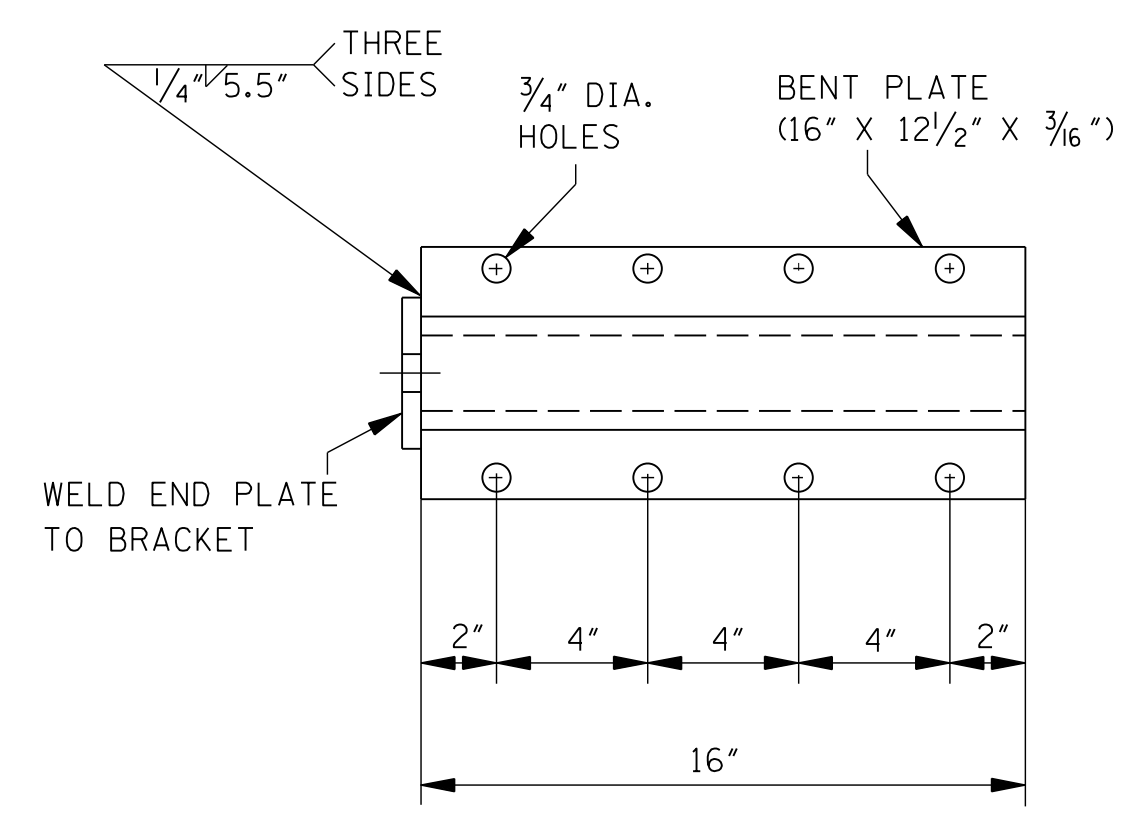
STEEL TUBE ANCHOR

NOTE: TERMINAL POST SHALL BE ABLE TO SLIDE INTO THE TOP OF THIS SECTION SO THE ACTUAL INSIDE DIMENSIONS OF THIS GALVANIZED TUBE CANNOT BE LESS THAN 7 1/2" X 5 1/2".

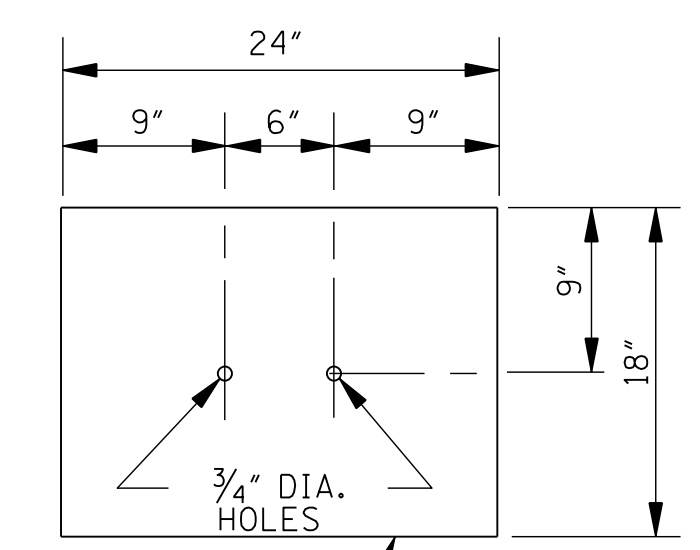


"W" BEAM TERMINAL CONNECTOR PLATE

- NOTES:
1. THE "W" BEAM TERMINAL CONNECTOR SHALL BE AASHTO M 180 CORRUGATED SHEET STEEL, CLASS B, TYPE 1.
 2. SPLICE-BOLT SLOTS MAY ALSO BE ORIENTED AT 50° (ON THE FLAT) INSTEAD OF 0° AS SHOWN.

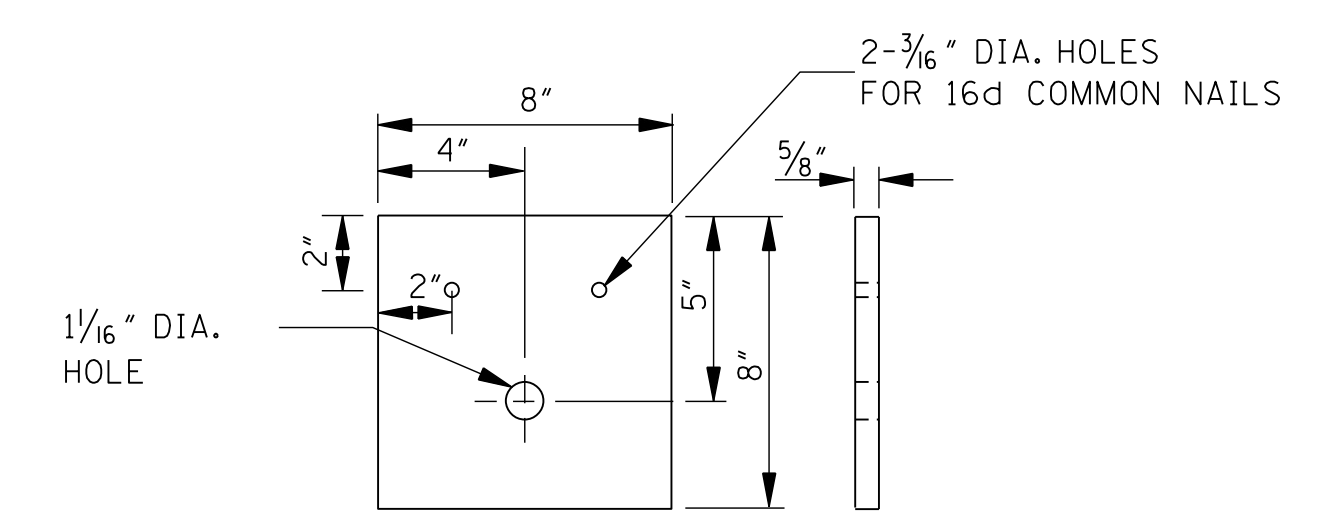


BRACKET

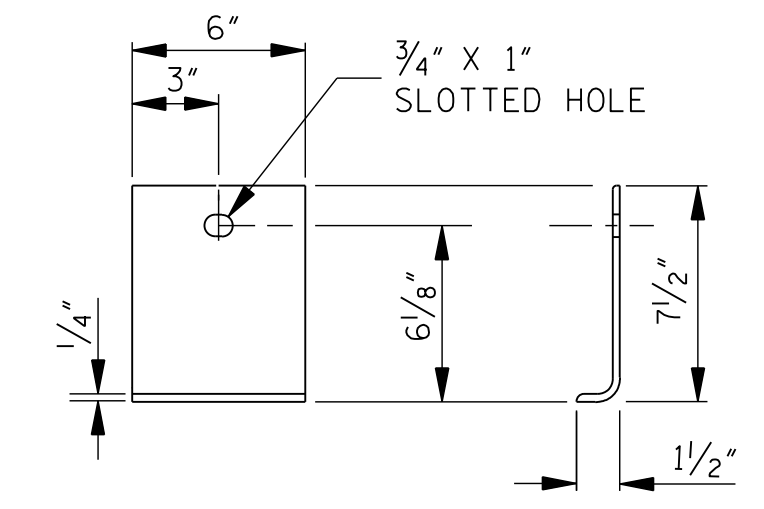


SOIL PLATE

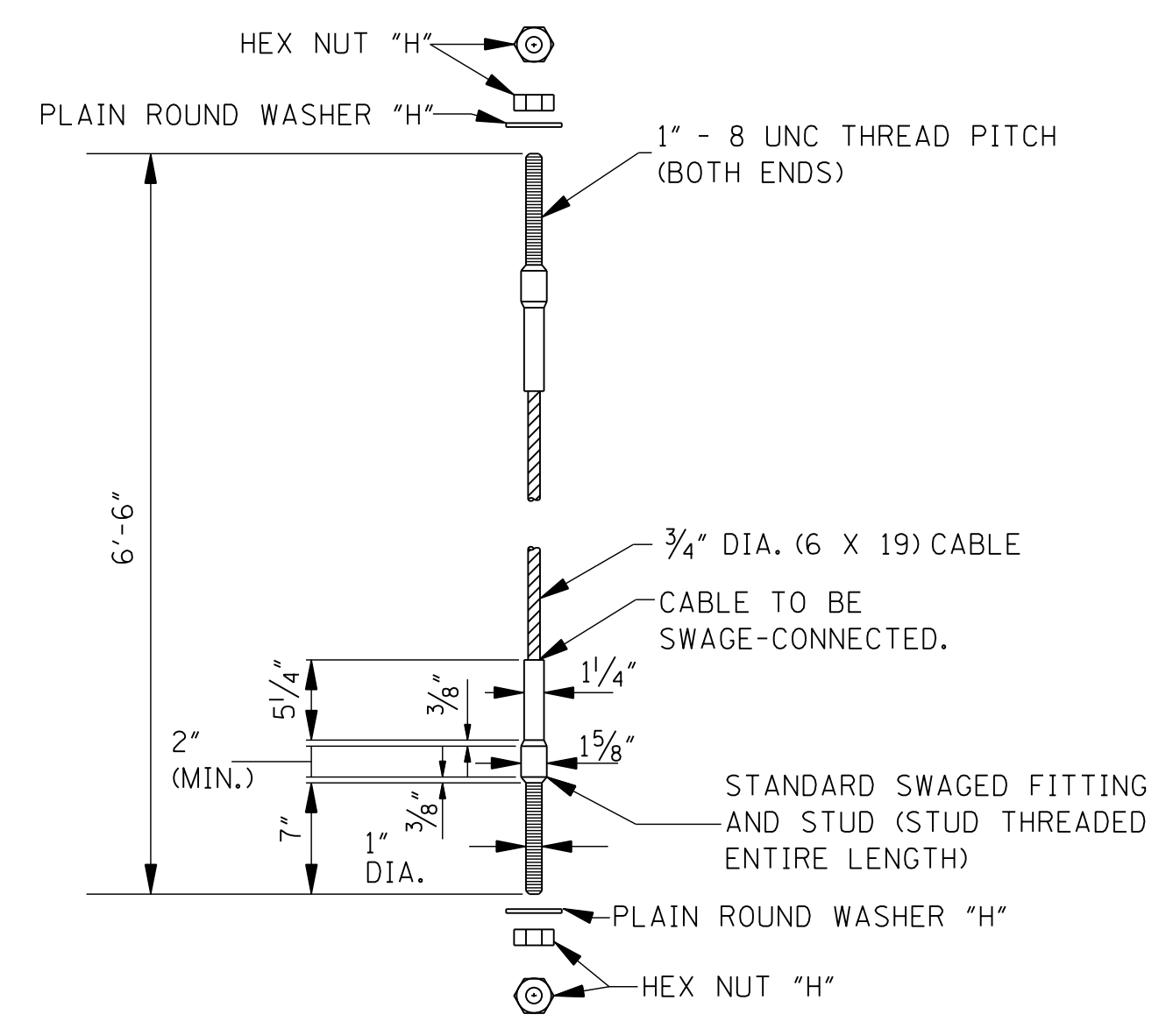
NOTE: 2 REQUIRED



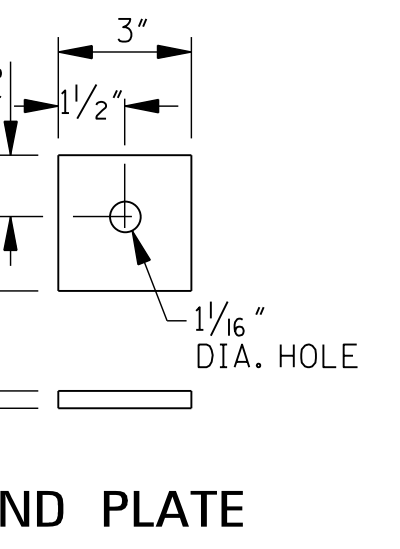
BEARING PLATE



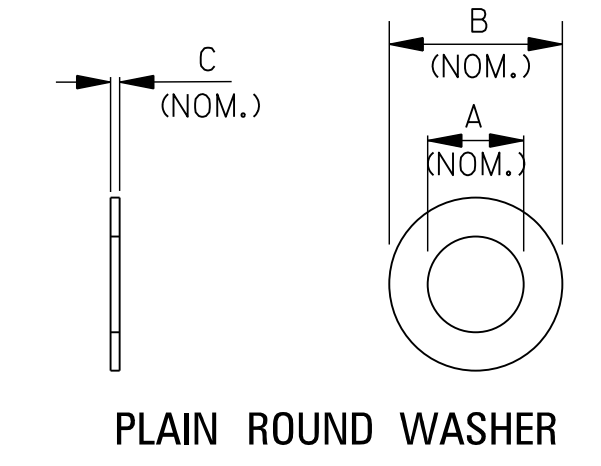
SHELF ANGLE BRACKET



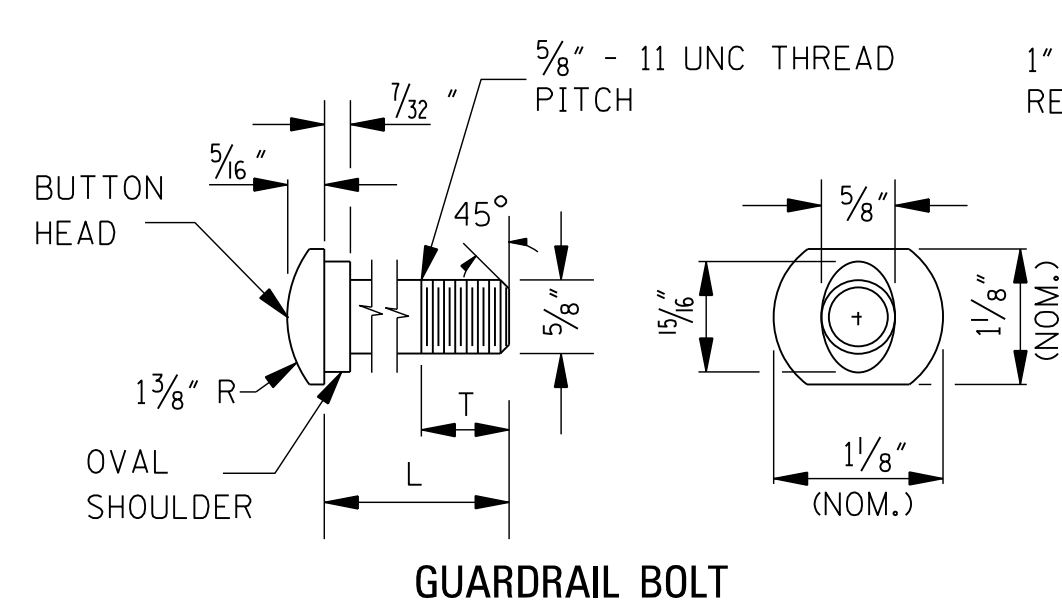
CABLE ANCHOR ASSEMBLY



END PLATE



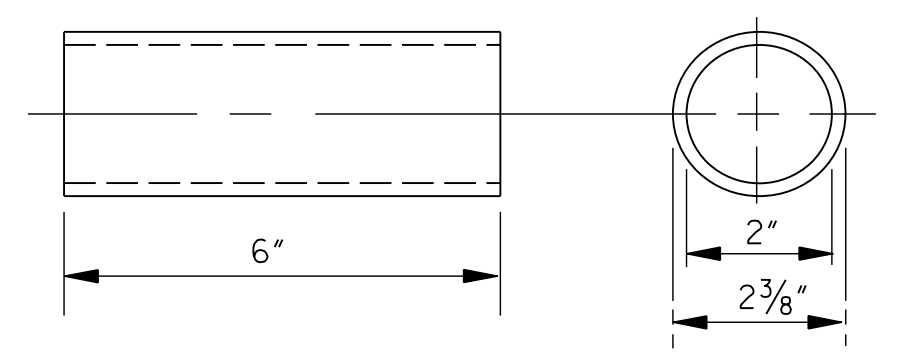
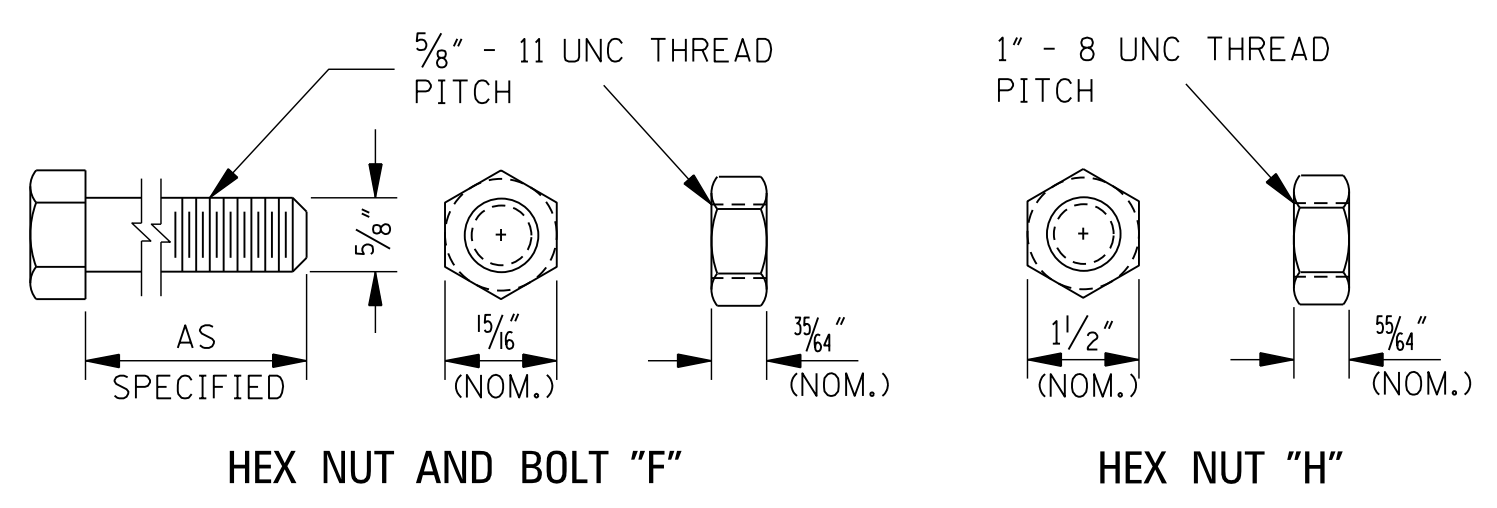
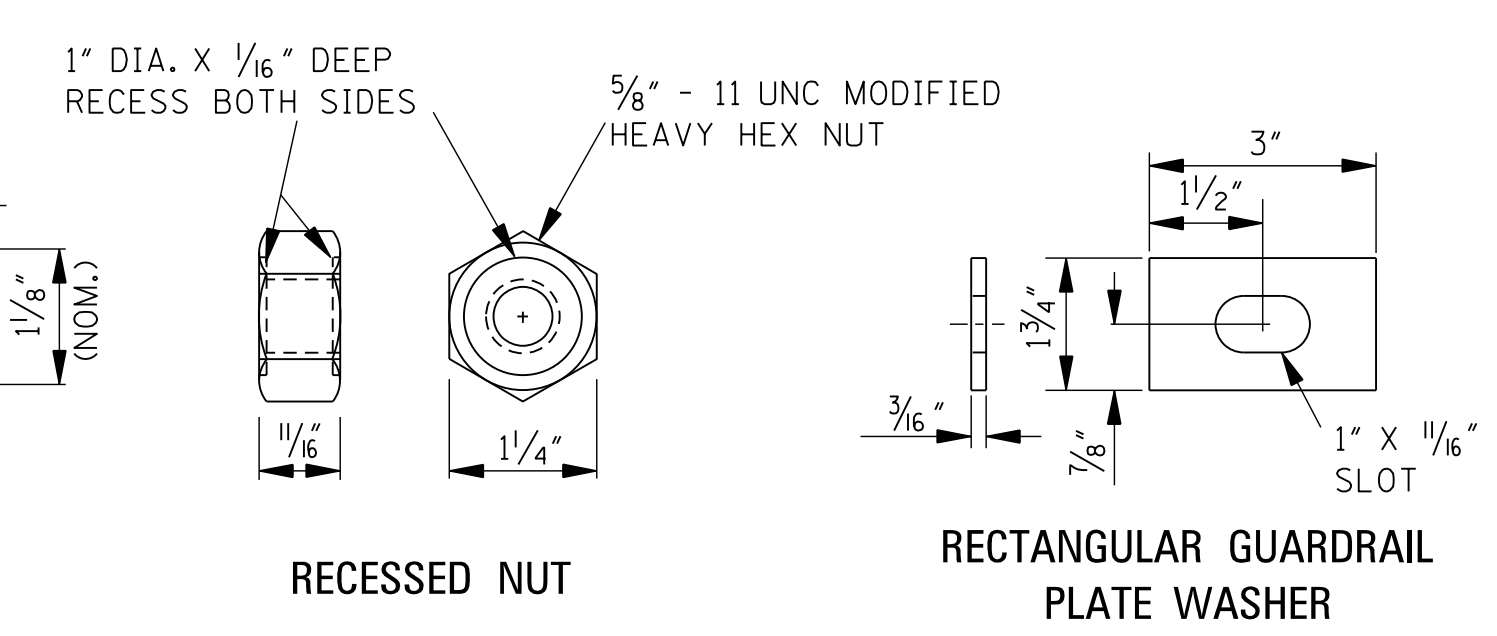
WASHER	A (NOM.)	B (NOM.)	C (NOM.)
"F"	1 1/16"	1 3/4"	9/64"
"H"	1 1/16"	2"	3/64"



BOLT	L	T (MIN.)
"A"	1 1/4"	1"
"B"	12"	4"
"C"	14"	4"
"D"	22"	4"
"E"	24"	4"
"F"	33"	4"
	2"	1 3/4"
	10"	4"
	25"	4"

- NOTES:
1. ALL GUARDRAIL BOLTS ARE 5/8" - 11 UNC THREAD PITCH.
 2. IF ANY BOLT EXTENDS MORE THAN 1/4" FROM THE NUT, THE BOLT SHOULD BE TRIMMED BACK.

FASTENER DETAILS



BREAKAWAY TERMINAL POST SLEEVE

BY	MISSISSIPPI DEPARTMENT OF TRANSPORTATION ROADWAY DESIGN DIVISION STANDARD PLAN
REVISION	GUARDRAIL: MISCELLANEOUS HARDWARE
DATE	ISSUE DATE: AUGUST 01, 2017

WORKING NUMBER GR-HW
 SHEET NUMBER 6221

SIGN NUMBER	R1-1		R1-2			R2-1			R2-4a	R3-1		R3-2		R3-4		R3-5	R4-3	
ALUMINUM (6061-T6) SIGN BLANK THICKNESS	0.100"	0.125"	0.080"	0.100"	0.125"	0.080"	0.100"	0.125"	0.125"	0.080"	0.100"	0.080"	0.100"	0.080"	0.100"	0.080"	0.100"	0.125"
LEGEND																		
LETTER & NUMERAL SERIES	12" SERIES "C"	16" SERIES "C"	3" SERIES "C"			4" SERIES "E"			8" SERIES "E"	8" SERIES "E"		8" SERIES "E"		8" SERIES "E"		6" SERIES "D"	8" SERIES "D"	
WIDTH OF BORDER INSIDE	7/8" WHITE	1/4" WHITE	5" RED			6" RED			7/8" BLACK	5/8" BLACK		5/8" BLACK		5/8" BLACK		3/4" BLACK	7/8" BLACK	
WIDTH OF BORDER OUTSIDE	3/8" WHITE	1/4" WHITE	3/4" WHITE			1" WHITE			3/8" WHITE	3/8" WHITE		3/8" WHITE		3/8" WHITE		1/2" WHITE	1/4" BLACK	
SIZE (WIDTH X HEIGHT)	36" OCTAGON	48" OCTAGON	36" EQUIL. TRIANGLE			48" EQUIL. TRIANGLE			24" X 30"	24" X 24"		24" X 24"		24" X 24"		30" X 36"	36" X 48"	
COLORS COPY BACKGROUND	WHITE RED	WHITE RED	RED WHITE			RED WHITE			BLACK WHITE	BLACK & RED WHITE		BLACK & RED WHITE		BLACK & RED WHITE		BLACK WHITE	BLACK WHITE	
REFLECTORIZATION	ALL	ALL	ALL			ALL			B'GROUND	BACKGROUND, CIRCLE, & DIAG.		BACKGROUND, CIRCLE, & DIAG.		BACKGROUND, CIRCLE, & DIAG.		BACKGROUND	BACKGROUND	
NUMBER OF POSTS FOR MOUNTING	1	1	1			1			1	1		1		1		1	1	
NUMBER OF HOLES TO BE PUNCHED (3/8" DIA.)	2	4	2			4			10	2		2		2		2	6	
PUNCHING DISTANCE FROM EACH VERTICAL EDGE	18" (VERT. CENTER)	9"	18" (VERT. CENTER)			12" (FROM CENTER)			9"	12" (VERT. CENTER)		18" (VERT. CENTER)		12" (VERT. CENTER)		15" (VERT. CENTER)	9"	
PUNCHING DISTANCE FROM TOP EDGE	3"; 33"	9"; 39"	3"; 27"			3"; 15"			4"; 28"; 52"; 60"; 92"	3"; 21"		6"; 30"		3"; 21"		6"; 30"	9"; 39"	

SIGN NUMBER	R4-7			R6-3	R5-1		R5-1a	R6-1L, R6-1R		R6-2L, R6-2R		R8-4		R11-1		
ALUMINUM (6061-T6) SIGN BLANK THICKNESS	0.080"			0.125"	0.080"	0.100"	0.125"	0.100"	0.080"		0.080"		0.080"	0.100"	0.125"	0.125"
LEGEND																
LETTER & NUMERAL SERIES	R=1/2"			R=2/4"	R=3"	R=1/8"		R=3"	R=1/2"		R=1/2"		R=2/4"		R=3"	
WIDTH OF BORDER INSIDE	5/8" BLACK			7/8" BLACK	1/4" BLACK		5/8" BLACK	1" WHITE		5/8" BLACK		5/8" BLACK		7/8" BLACK		
WIDTH OF BORDER OUTSIDE	3/8" WHITE			5/8" WHITE	3/4" WHITE		3/8" WHITE	1/2" WHITE		3/8" WHITE		3/8" WHITE		5/8" WHITE		
SIZE (WIDTH X HEIGHT)	24" X 30"			36" X 48"	48" X 60"		30" X 24"	36" X 36"		48" X 48"		42" X 30"		36" X 12"		
COLORS COPY BACKGROUND	BLACK WHITE			BLACK WHITE	BLACK WHITE		BLACK WHITE	WHITE RED		WHITE RED		BLACK (WHITE ARROW) BLACK		BLACK WHITE		
REFLECTORIZATION	BACKGROUND			BACKGROUND	BACKGROUND		BACKGROUND	ARROW & BORDER		BACKGROUND		BACKGROUND		BACKGROUND		
NUMBER OF POSTS FOR MOUNTING	1			1	1		1	1		1		1		1		
NUMBER OF HOLES TO BE PUNCHED (3/8" DIA.)	2			4	6		2	2		4		2		4		
PUNCHING DISTANCE FROM EACH VERTICAL EDGE	12" (VERT. CENTER)			3"	9"		15" (VERT. CENTER)	18" (VERT. CENTER)		9"		18" (VERT. CENTER)		12" (VERT. CENTER)		
PUNCHING DISTANCE FROM TOP EDGE	3"; 27"			9"; 39"	4"; 30"; 56"		3"; 21"	6"; 30"		4"; 44"		3"; 27"		1/2"; 10/2"		

GENERAL NOTES:

- THE QUANTITIES LISTED ON THE SUMMARY OF QUANTITIES SHEET FOR THE SIGNS SHOWN ON THIS SHEET WILL BE USED AS THE BASIS FOR FINAL PAYMENT, EXCEPT WHERE SIGNS ARE MODIFIED FROM THAT SHOWN.
- THE SPEED LIMITS REQUIRED ON SIGNS R2-1 AND R2-4a WILL BE SHOWN ON INDIVIDUAL PLAN SHEETS.

BY	MISSISSIPPI DEPARTMENT OF TRANSPORTATION ROADWAY DESIGN DIVISION STANDARD PLAN
REVISION	STANDARD ROADSIDE SIGNS
DATE	ISSUE DATE: AUGUST 01, 2017

WORKING NUMBER SN-3A
 SHEET NUMBER 6304

SIGN NUMBER	W1-1L W1-1R	W1-2L W1-2R	W1-3L W1-3R	W1-4L W1-4R	W1-6L W1-6R	W1-7	W3-1a	W3-2a	W3-3	W4-1L W4-1R	W4-101L W4-101R	
ALUMINUM (6061-T6) SIGN BLANK THICKNESS	0.125"	0.125"	0.125"	0.125"	0.100"	0.100"	0.125"	0.125"	0.125"	0.125"	0.125"	
LEGEND												
LETTER & NUMERAL SERIES	R=2 1/4" R=3"	R=2 1/4" R=3"	R=2 1/4" R=3"	R=2 1/4" R=3"	R=1 7/8"	R=1 7/8"	R=2 1/4" R=3"	R=2 1/4" R=3"	R=2 1/4" R=3"	R=2 1/4" R=3"	R=2 1/4" R=3"	
WIDTH OF BORDER INSIDE	1/8" BLACK	1/4" BLACK	1/8" BLACK	1/4" BLACK	1/8" BLACK	1/4" BLACK	3/4" BLACK	3/4" BLACK	1/8" BLACK	1/4" BLACK	1/8" BLACK	1/4" BLACK
WIDTH OF BORDER OUTSIDE	5/8" YELLOW	3/4" YELLOW	5/8" YELLOW	3/4" YELLOW	5/8" YELLOW	3/4" YELLOW	1/2" YELLOW	1/2" YELLOW	5/8" YELLOW	3/4" YELLOW	5/8" YELLOW	3/4" YELLOW
SIZE (WIDTH X HEIGHT)	36" X 36"	48" X 48"	36" X 36"	48" X 48"	36" X 36"	48" X 48"	48" X 24"	48" X 24"	36" X 36"	48" X 48"	36" X 36"	48" X 48"
COLORS COPY BACKGROUND	BLACK YELLOW	BLACK YELLOW	BLACK YELLOW	BLACK YELLOW	BLACK YELLOW	BLACK YELLOW	BLACK YELLOW	BLACK YELLOW	BLACK YELLOW	BLACK YELLOW	BLACK YELLOW	BLACK YELLOW
REFLECTORIZATION	BACKGROUND	BACKGROUND	BACKGROUND	BACKGROUND	BACKGROUND	BACKGROUND	BACKGROUND	BACKGROUND	BACKGROUND & SYMBOL	BACKGROUND & SYMBOL	BACKGROUND & SYMBOL	BACKGROUND & SYMBOL
NUMBER OF POSTS FOR MOUNTING	1	1	1	1	1	1	2	2	1	1	1	1
NUMBER OF HOLES TO BE PUNCHED (3/8" DIA.)	2	4	2	4	2	4	4	4	2	4	2	4
PUNCHING DISTANCE FROM EACH VERT. EDGE	VERT. CENTER	15" FROM VERT. CENTER	VERT. CENTER	15" FROM VERT. CENTER	VERT. CENTER	15" FROM VERT. CENTER	9"	9"	VERT. CENTER	15" FROM VERT. CENTER	VERT. CENTER	15" FROM VERT. CENTER
PUNCHING DISTANCE FROM TOP EDGE	18" FROM HORIZ. CENTER	15" FROM HORIZ. CENTER	18" FROM HORIZ. CENTER	15" FROM HORIZ. CENTER	18" FROM HORIZ. CENTER	15" FROM HORIZ. CENTER	3"; 21"	3"; 21"	18" FROM HORIZ. CENTER	15" FROM HORIZ. CENTER	18" FROM HORIZ. CENTER	15" FROM HORIZ. CENTER

SIGN NUMBER	W4-2	W6-1	W6-2	W6-3	W13-1	W13-2	W13-3	W10-1
ALUMINUM (6061-T6) SIGN BLANK THICKNESS	0.125"	0.125"	0.125"	0.125"	0.080"	0.125"	0.125"	0.100"
LEGEND								
LETTER & NUMERAL SERIES	R=2 1/4" R=3"	R=2 1/4" R=3"	R=2 1/4" R=3"	R=2 1/4" R=3"	R=1 1/2"	R=3"	R=3"	R=3"
WIDTH OF BORDER INSIDE	1/8" BLACK	1/4" BLACK	1/8" BLACK	1/4" BLACK	3/8" BLACK	1/4" BLACK	1/4" BLACK	3/4" BLACK
WIDTH OF BORDER OUTSIDE	5/8" YELLOW	3/4" YELLOW	5/8" YELLOW	3/4" YELLOW	3/8" YELLOW	3/4" YELLOW	3/4" YELLOW	1/2" YELLOW
SIZE (WIDTH X HEIGHT)	36" X 36"	48" X 48"	36" X 36"	48" X 48"	24" X 24"	48" X 60"	48" X 60"	36" DIAMETER
COLORS COPY BACKGROUND	BLACK YELLOW	BLACK YELLOW	BLACK YELLOW	BLACK YELLOW	BLACK YELLOW	BLACK YELLOW	BLACK YELLOW	BLACK YELLOW
REFLECTORIZATION	BACKGROUND	BACKGROUND	BACKGROUND	BACKGROUND	BACKGROUND	BACKGROUND	BACKGROUND	BACKGROUND
NUMBER OF POSTS FOR MOUNTING	1	1	1	1	1	1	1	1
NUMBER OF HOLES TO BE PUNCHED (3/8" DIA.)	2	4	2	4	2	6	6	2
PUNCHING DISTANCE FROM EACH VERT. EDGE	VERT. CENTER	15" FROM VERT. CENTER	VERT. CENTER	15" FROM VERT. CENTER	VERT. CENTER	15" FROM VERT. CENTER	9"	15"
PUNCHING DISTANCE FROM TOP EDGE	18" FROM HORIZ. CENTER	15" FROM HORIZ. CENTER	18" FROM HORIZ. CENTER	15" FROM HORIZ. CENTER	18" FROM HORIZ. CENTER	15" FROM HORIZ. CENTER	3"; 21"	15" FROM HORIZ. CENTER

GENERAL NOTES:

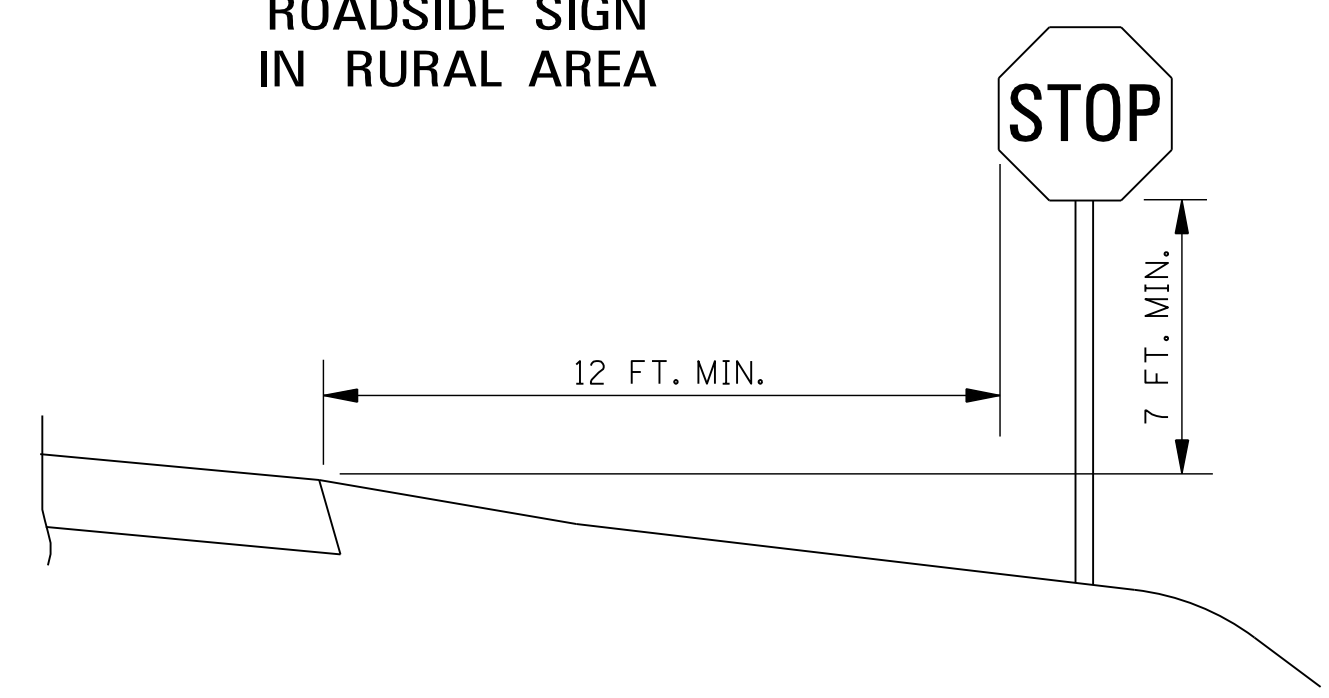
1. THE QUANTITIES LISTED ON THE SUMMARY OF QUANTITIES SHEET FOR THE SIGNS SHOWN ON THIS SHEET WILL BE USED AS THE BASIS FOR FINAL PAYMENT, EXCEPT WHERE SIGNS ARE MODIFIED FROM THAT SHOWN.
2. SIGNS W13-2 AND W13-3- THE STROKE WIDTH OF THE LETTER AND NUMERALS SHALL BE WIDENED TO 20% OF THE LETTER OR NUMERAL HEIGHT.
3. THE SPEEDS REQUIRED ON SIGNS W13-1, W13-2 AND W13-3 WILL BE SHOWN ON INDIVIDUAL PLAN SHEETS.

BY	MISSISSIPPI DEPARTMENT OF TRANSPORTATION ROADWAY DESIGN DIVISION STANDARD PLAN
REVISION	
DATE	ISSUE DATE: AUGUST 01, 2017

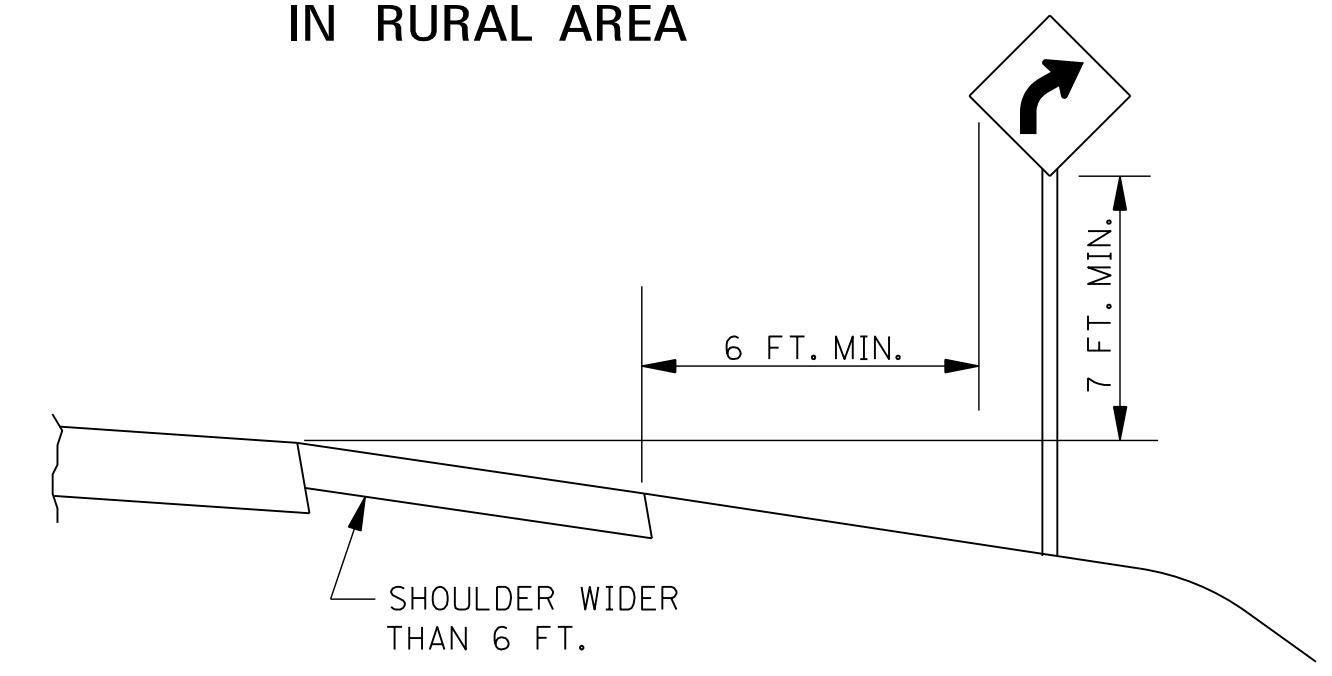
**STANDARD
ROADSIDE SIGNS**

WORKING NUMBER
 SN-3B
 SHEET NUMBER
 6305

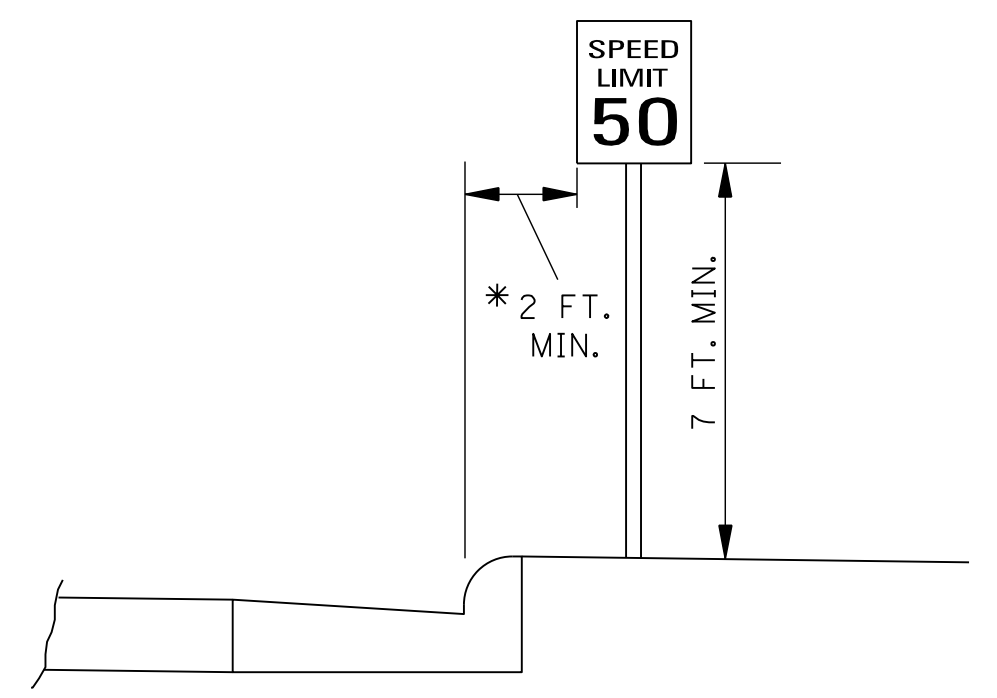
ROADSIDE SIGN IN RURAL AREA



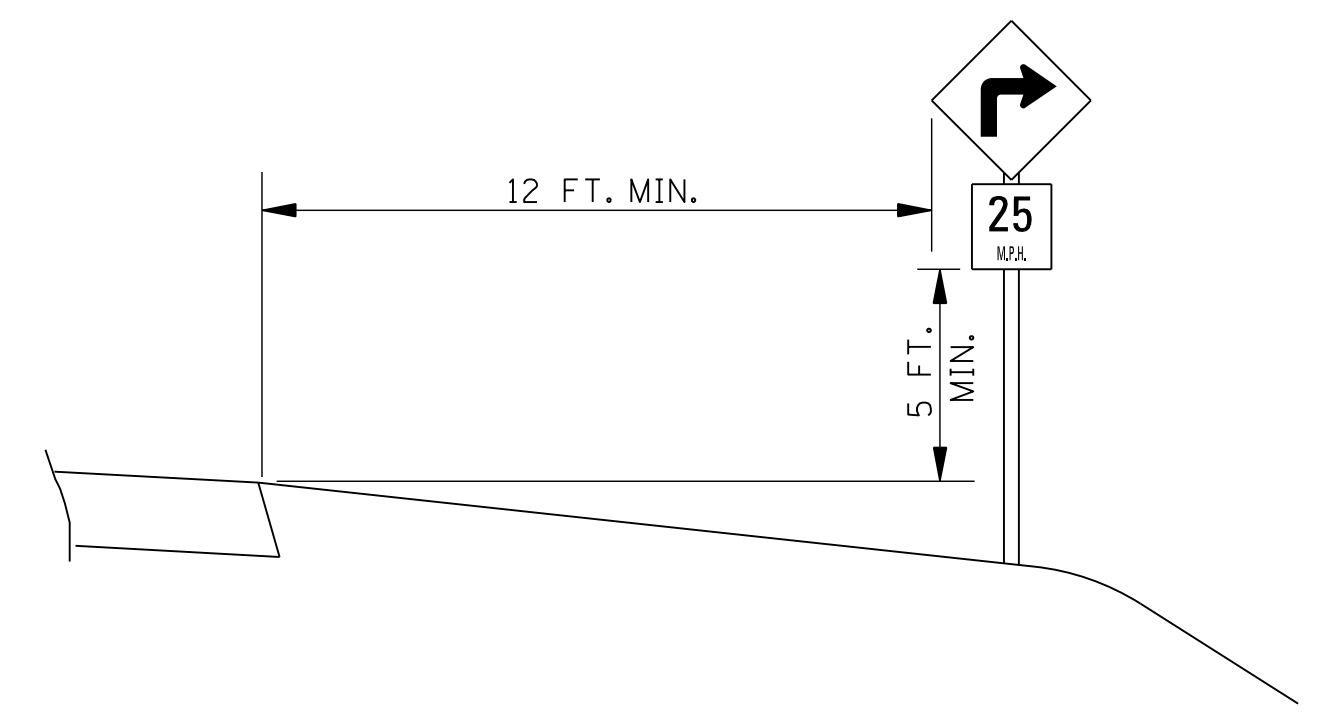
ROADSIDE SIGN IN RURAL AREA



ROADSIDE SIGN IN BUSINESS, COMMERCIAL, OR RESIDENTIAL AREA

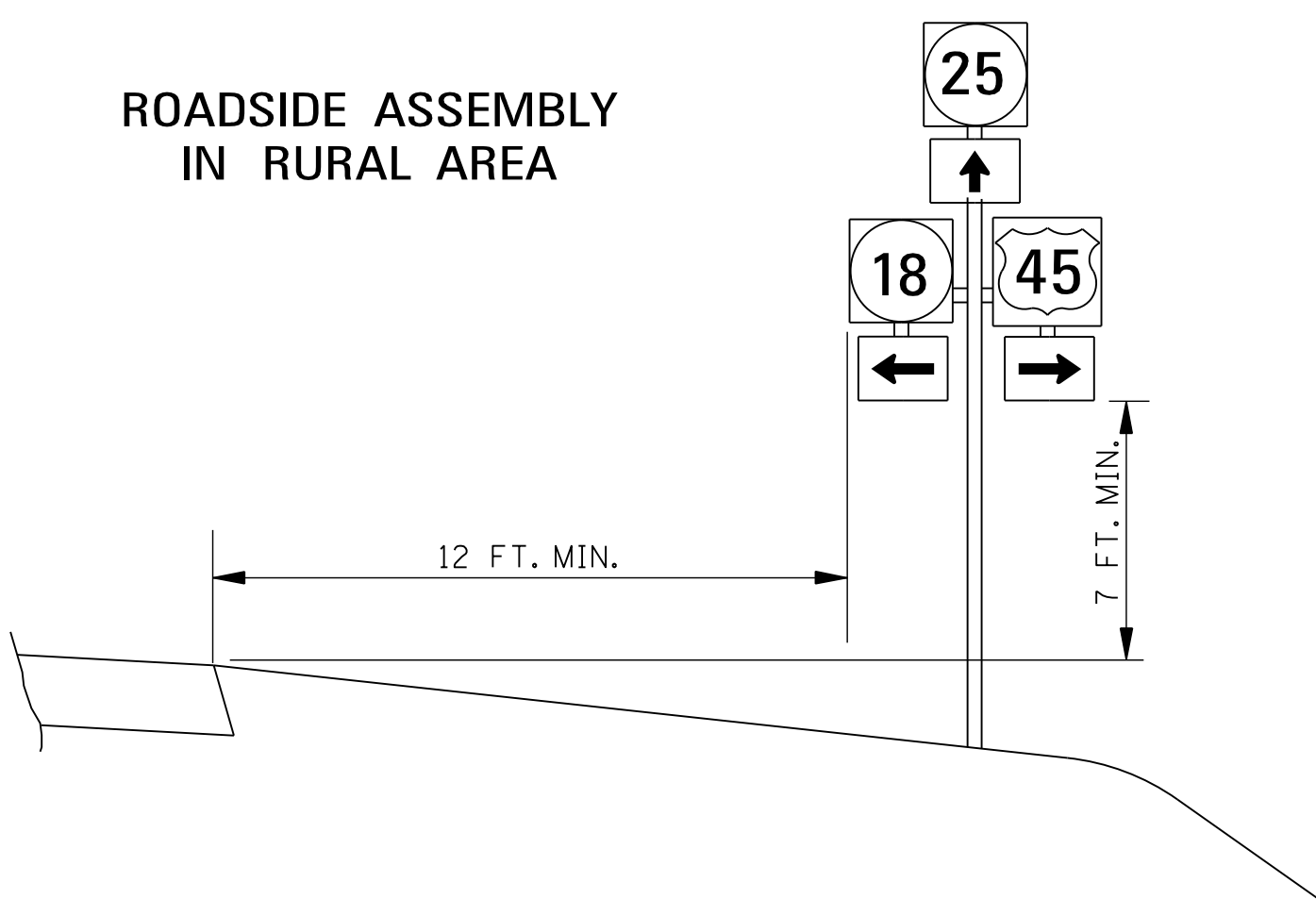


WARNING SIGN WITH ADVISORY SPEED PLAQUE IN RURAL AREA

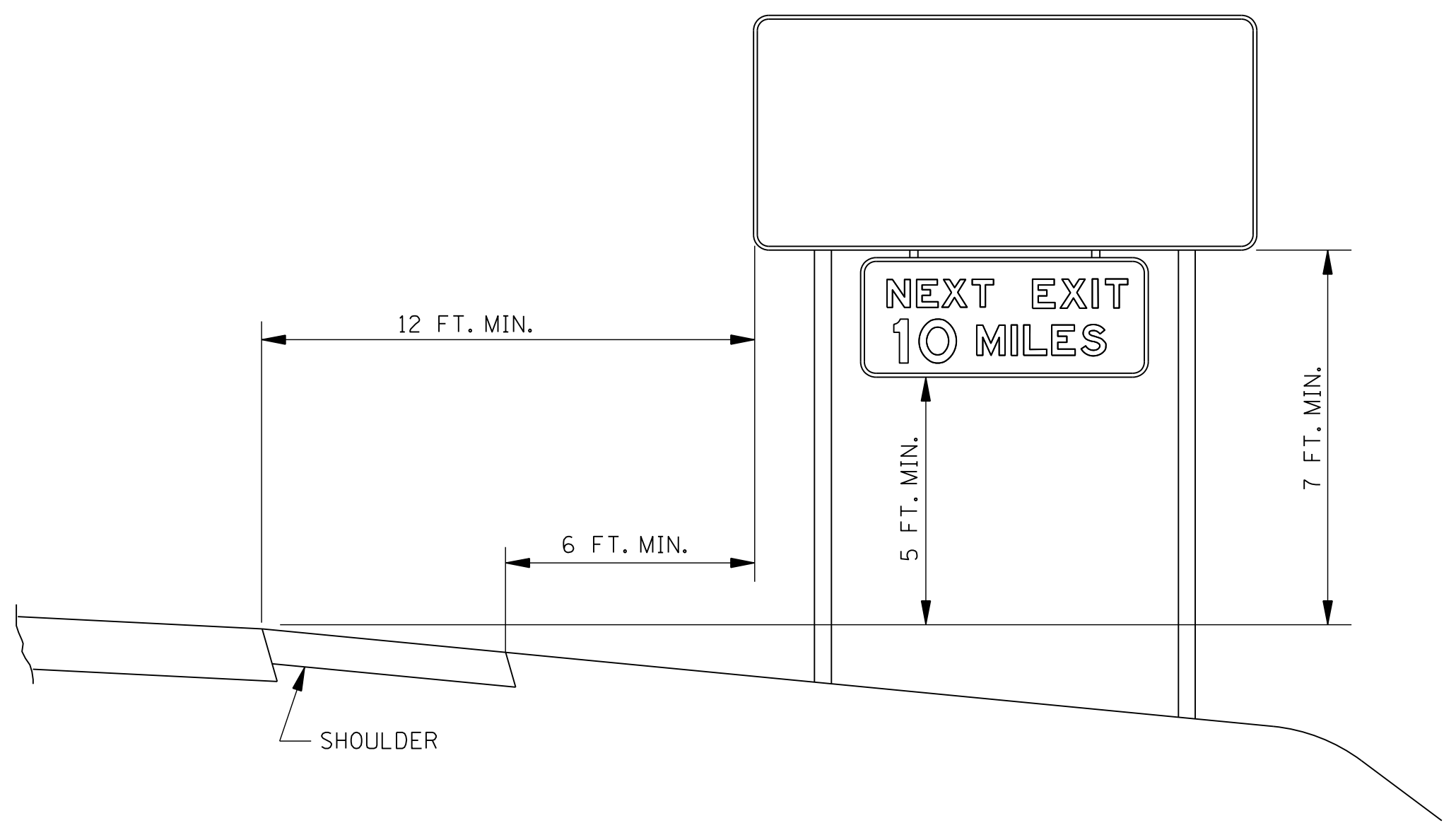


* THE 2 FT. MINIMUM OFFSET APPLIES ONLY TO STANDARD SIGNS MOUNTED ON U-POSTS. ALL STANDARD SIGNS MOUNTED ON PIPE WILL BE OFFSET A MINIMUM OF 4 FT.. RAMP DESTINATION SIGNS WILL BE OFFSET 4 FT. FROM THE SHOULDERS.

ROADSIDE ASSEMBLY IN RURAL AREA



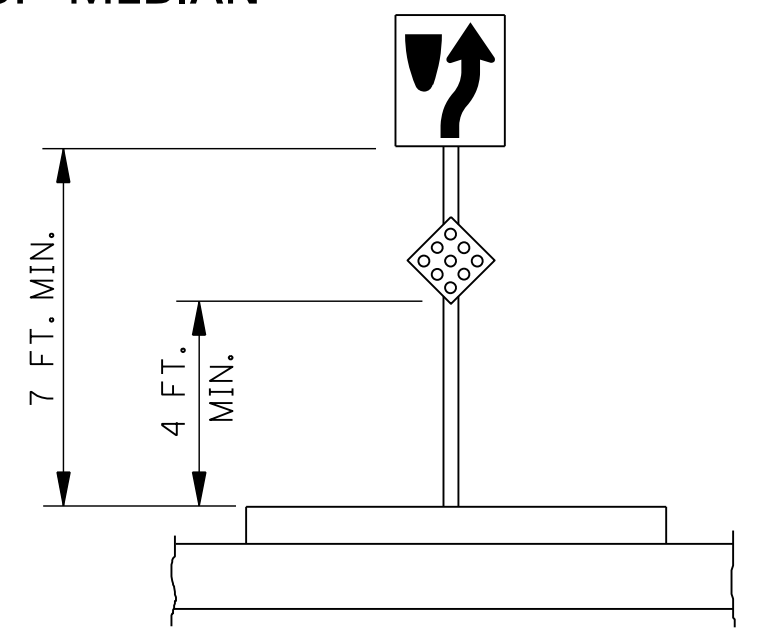
INTERSTATE OR FREEWAY SIGN WITH SECONDARY SIGN



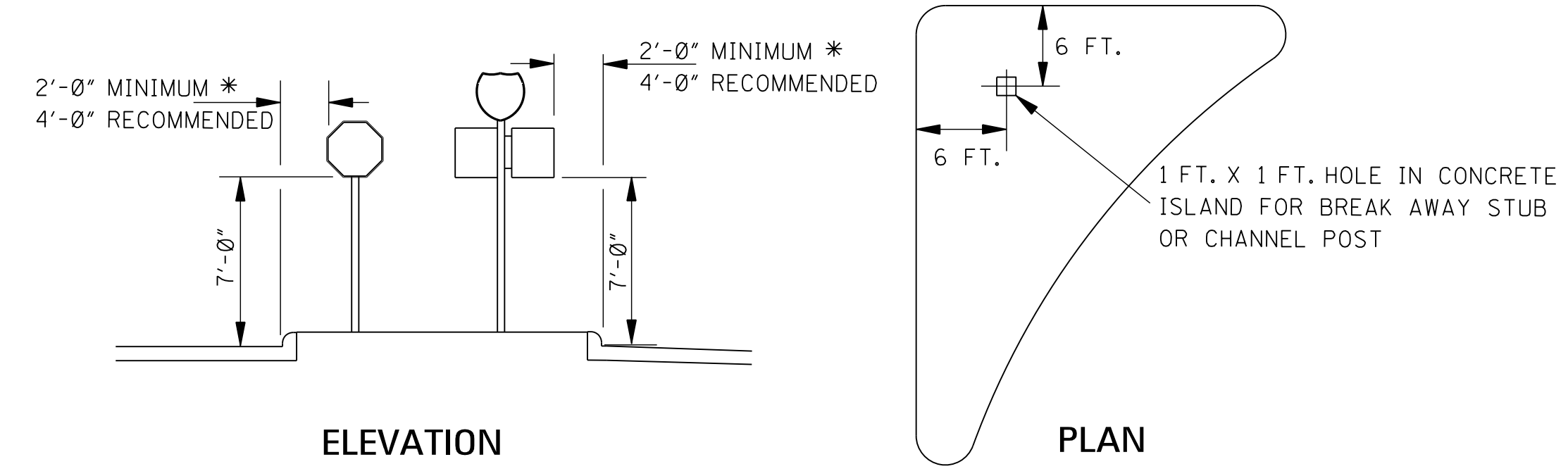
OVERHEAD SIGN



SIGN ON NOSE OF MEDIAN



SIGNS IN ISLANDS OR BEHIND CURB USING U-POSTS OR PIPE POSTS

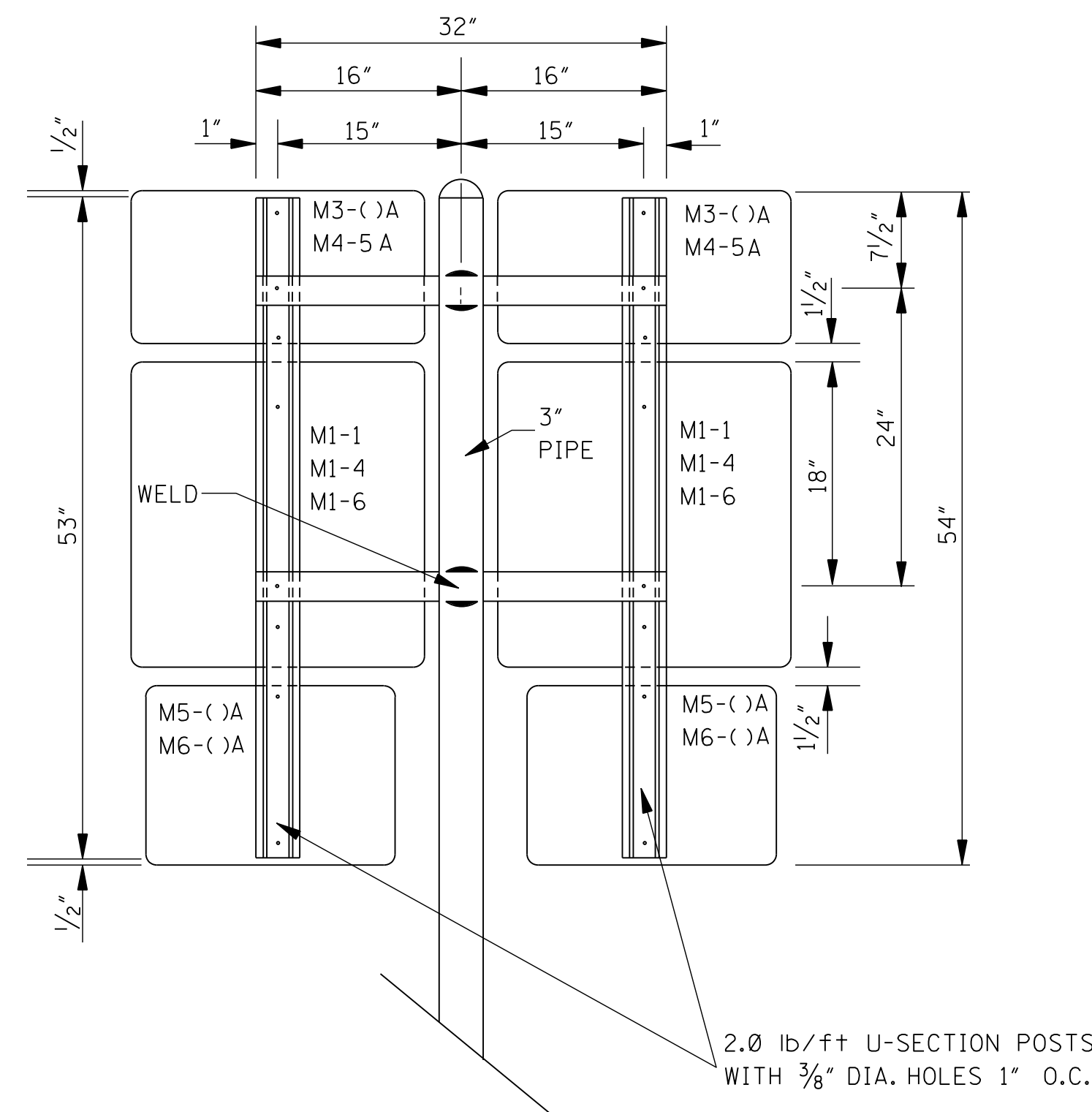
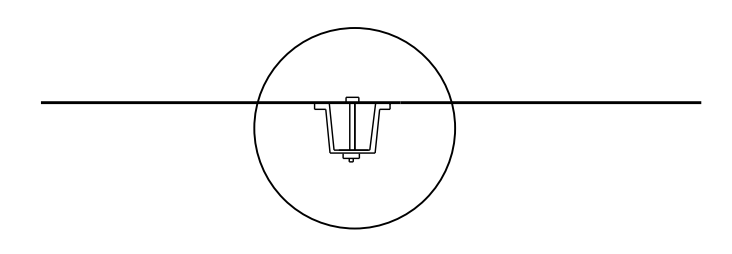
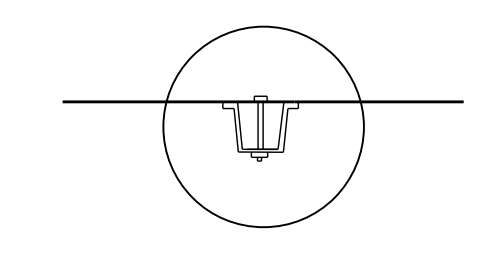
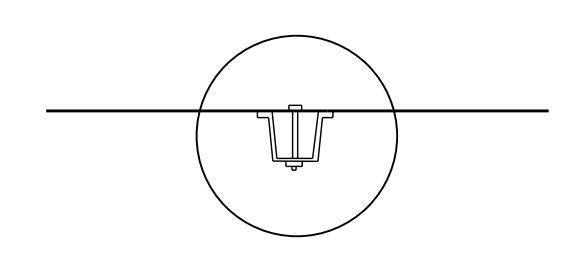
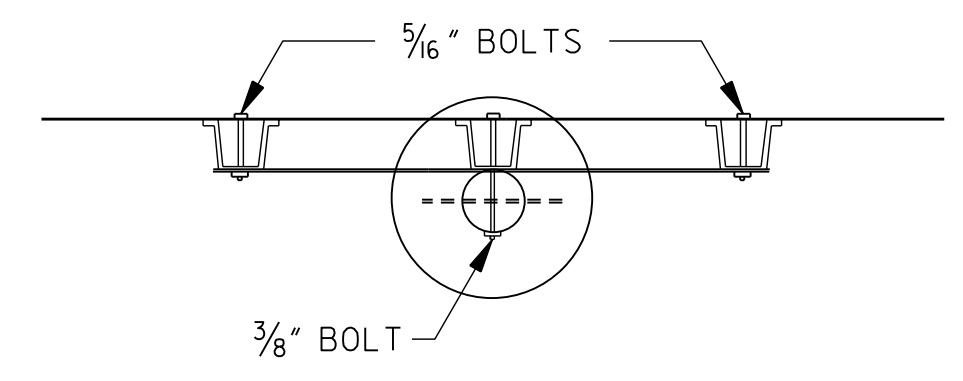
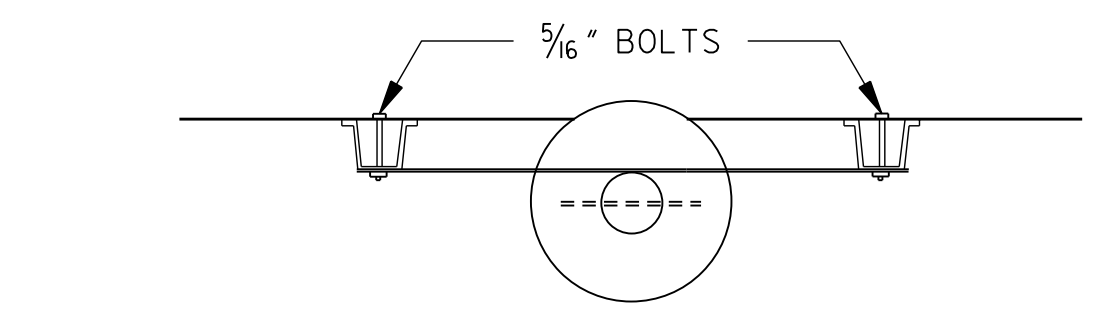


GENERAL NOTES:

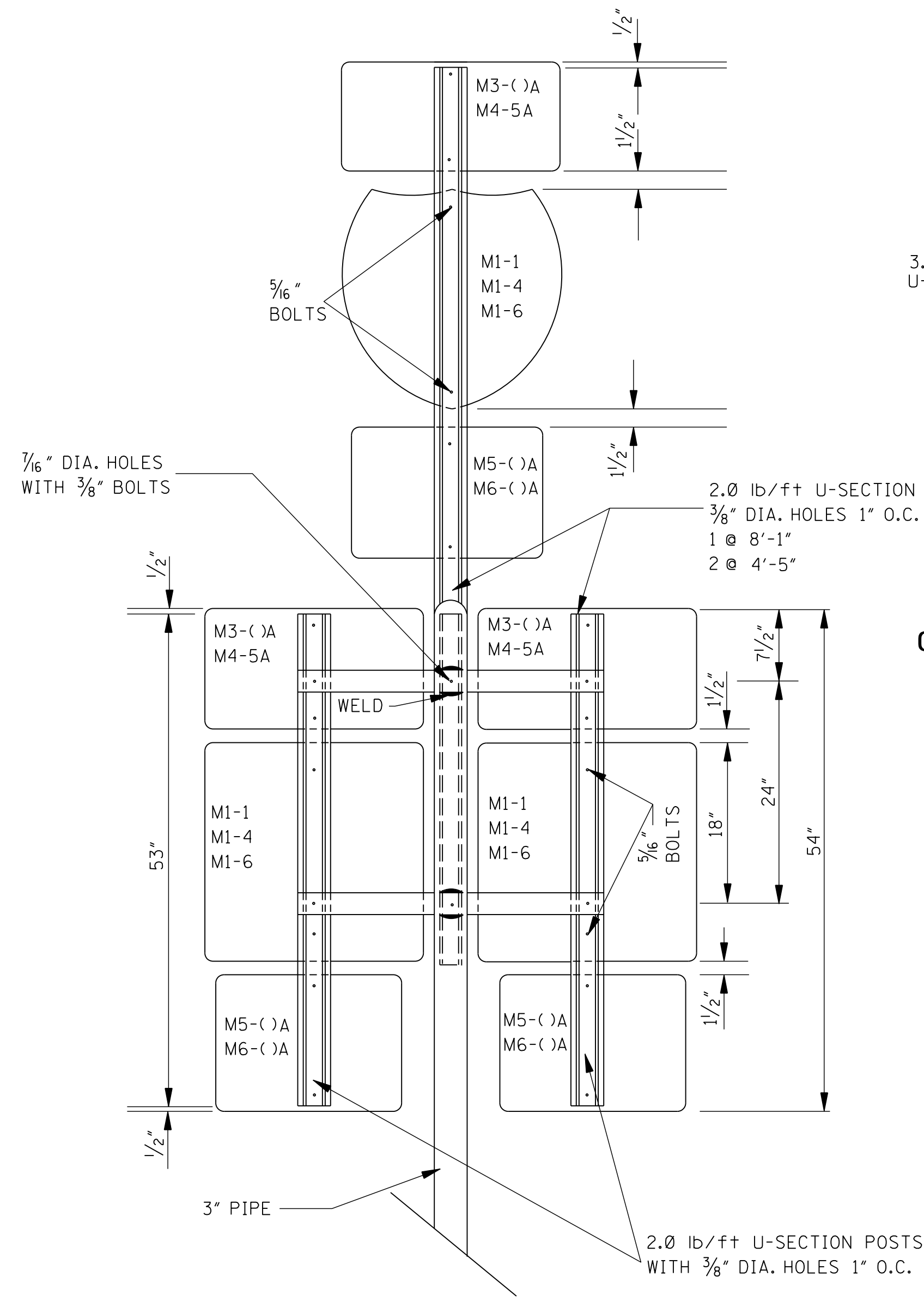
- SEE SECTION 2A-19 OF THE MUTCD FOR REDUCED LATERAL OFFSET DISTANCES THAT MAY BE USED IN AREAS WHERE LATERAL OFFSETS ARE LIMITED, AND IN BUSINESS, COMMERCIAL, OR RESIDENTIAL AREAS WHERE SIDEWALK WIDTH IS LIMITED OR WHERE EXISTING POLES ARE CLOSE TO THE CURB.
- SIGNS SHALL BE LOCATED OUTSIDE THE CLEAR ZONE UNLESS PLACED ON A BREAKAWAY OR YIELDING SUPPORT.

* THE 2 FT. MINIMUM OFFSET APPLIES ONLY TO STANDARD SIGNS MOUNTED ON U-POSTS. ALL STANDARD SIGNS MOUNTED ON PIPE WILL BE OFFSET A MINIMUM OF 4 FT.. RAMP DESTINATION SIGNS WILL BE OFFSET 4 FT. FROM THE SHOULDERS.

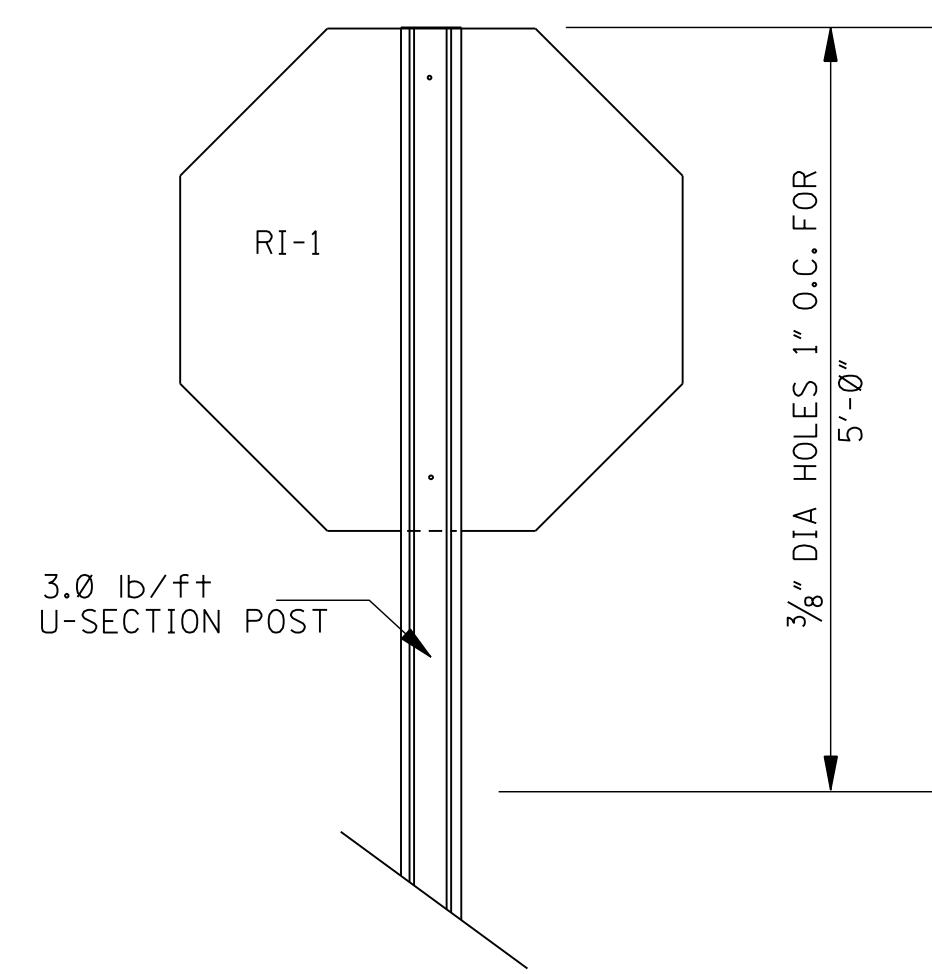
MISSISSIPPI DEPARTMENT OF TRANSPORTATION ROADWAY DESIGN DIVISION STANDARD PLAN	
STANDARD ROADSIDE SIGN ASSEMBLY AND INSTALLATION	
BY	
REVISION	
DATE	ISSUE DATE: AUGUST 01, 2017
WORKING NUMBER	SN-4
SHEET NUMBER	6306



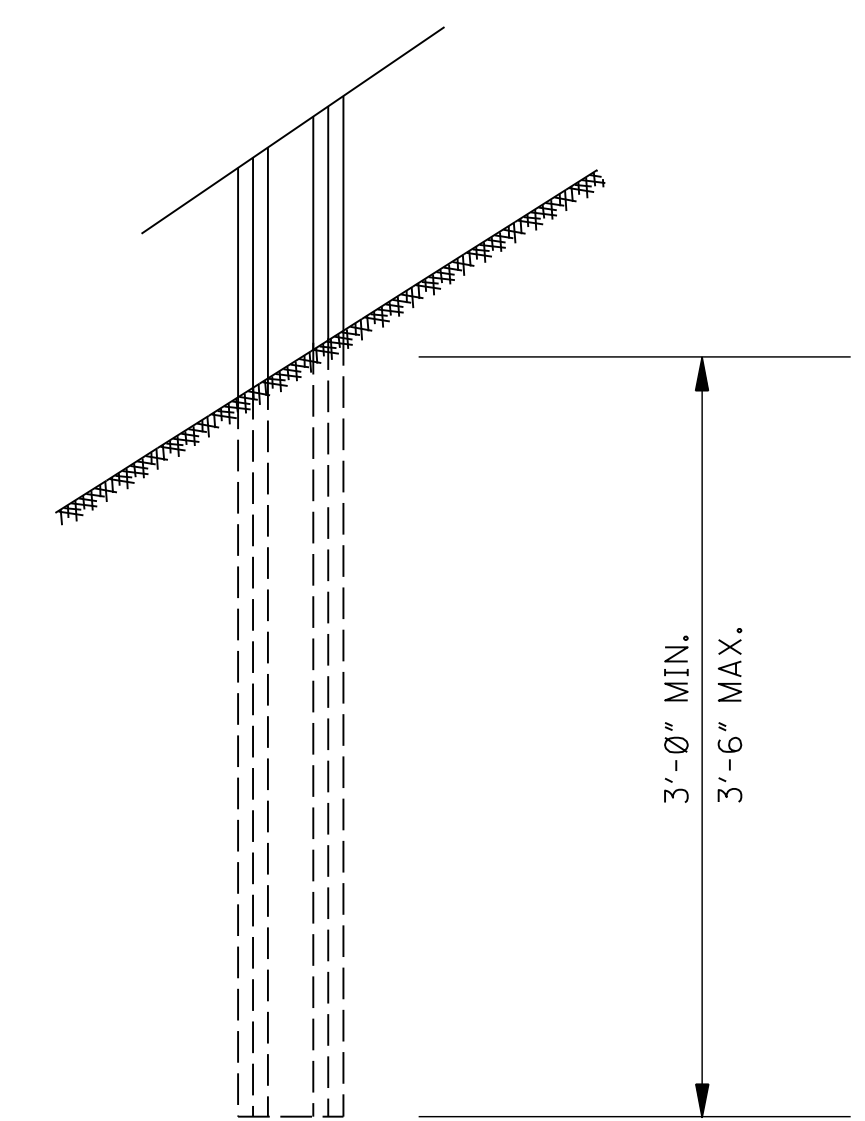
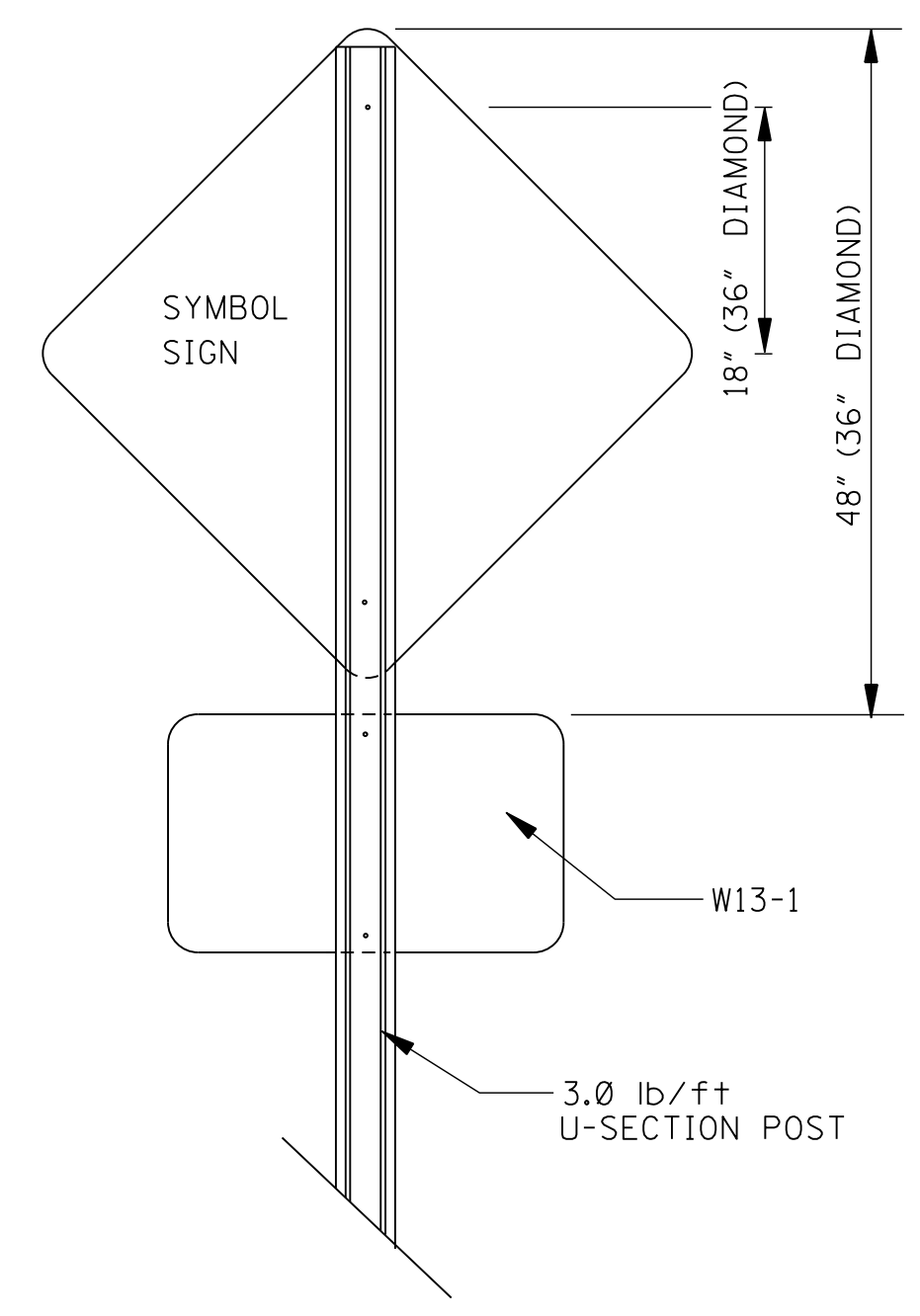
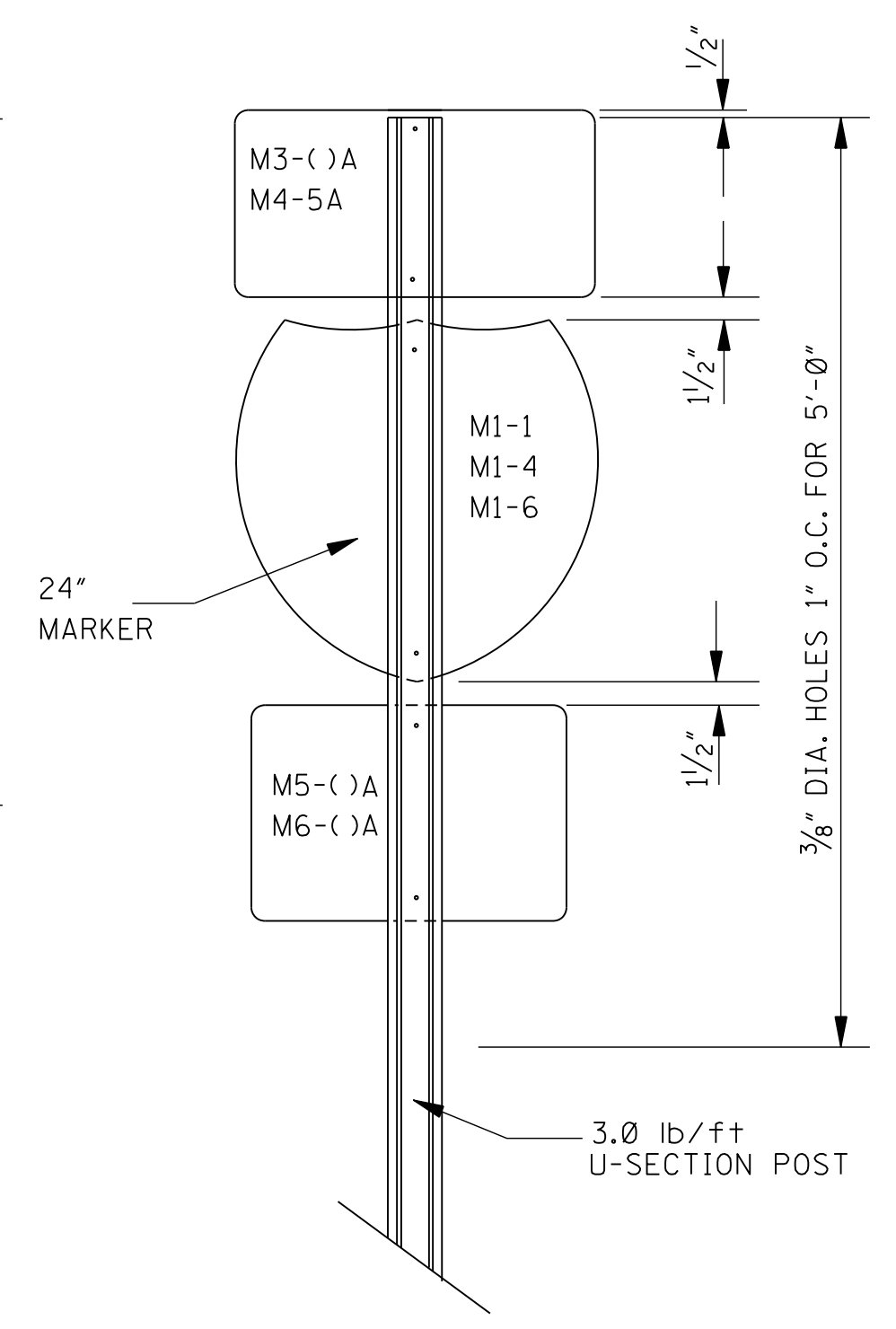
TYPICAL ROUTE ASSEMBLY



TYPICAL STACKED ROUTE ASSEMBLY



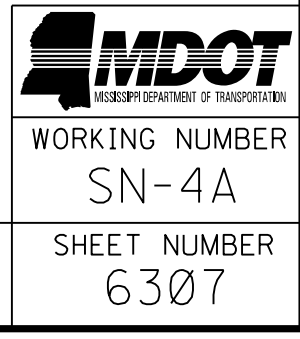
TYPICAL ASSEMBLY OF "FLAT TOPPED" REGULATORY OR WARNING SIGN MOUNTED ON A SINGLE U-SECTION POST

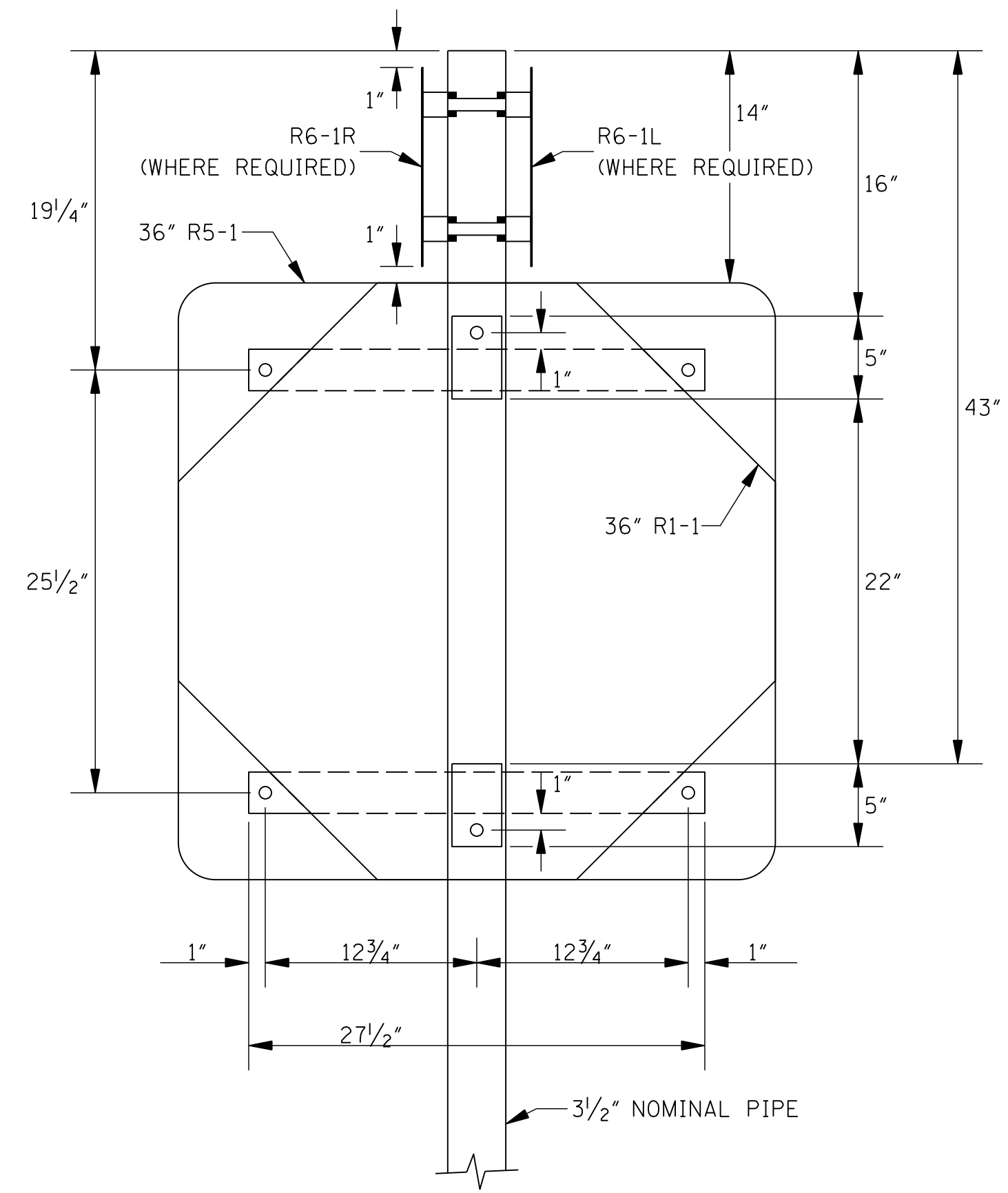


FOOTING DETAIL FOR U-SECTION POSTS

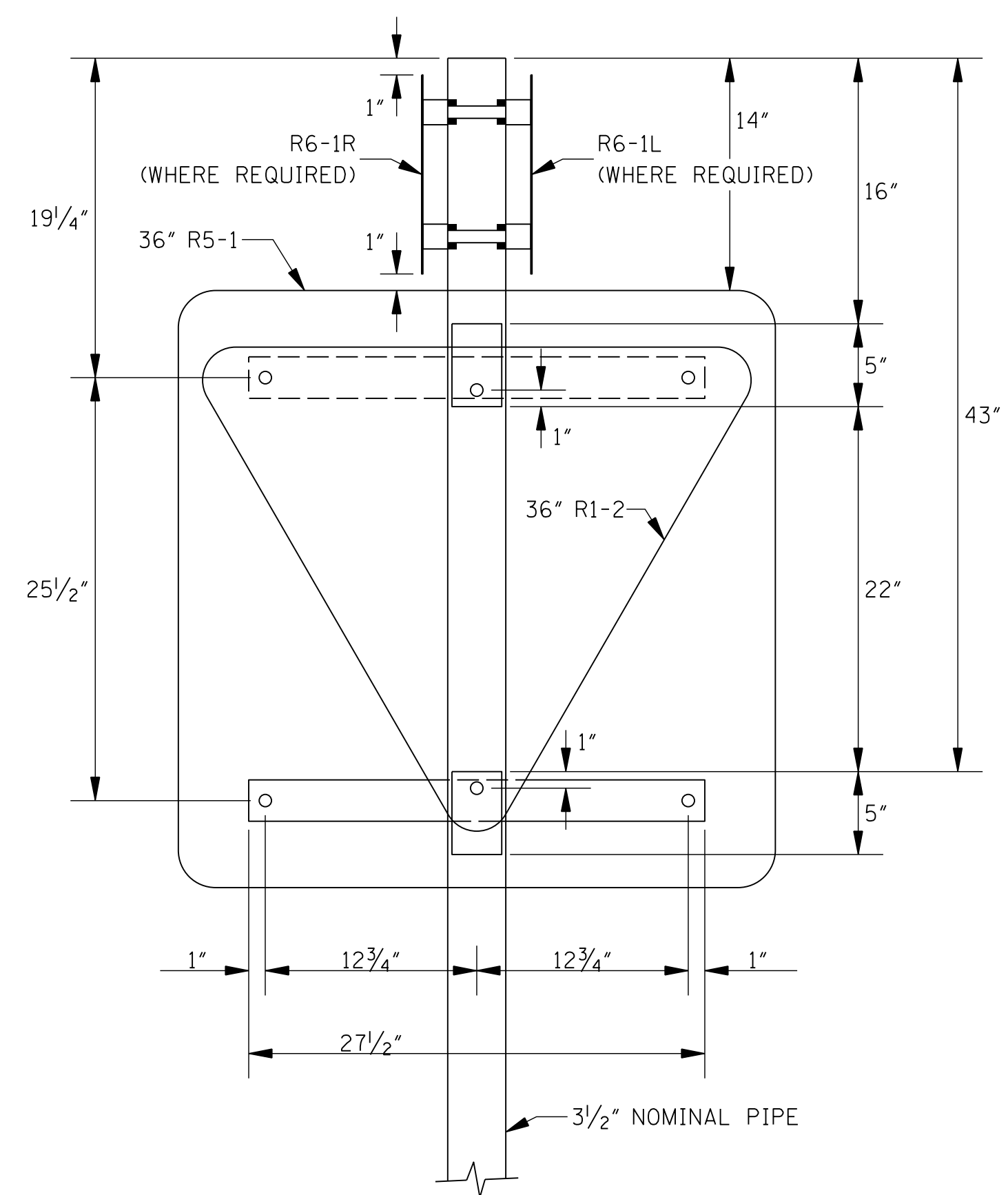
- GENERAL NOTES:
- UNLESS OTHERWISE SPECIFIED, HORIZONTAL BRACES ARE 7/16" X 2 1/2" X VARIABLE LENGTH FLAT STEEL BARS. BARS ARE WELDED TO PIPE AS SHOWN. WHEN FABRICATION IS COMPLETE, POST SHALL BE GALVANIZED AS PER SECTION 630 OF THE STANDARD SPECIFICATION.
 - HOLES IN FLAT BARS ARE 3/8" DIAMETER.
 - SIGNS ARE FASTENED TO FLAT BARS AND U-SECTION POST WITH 5/16" BOLTS, WITH FLAT WASHER AND LOCK-NUTS.
 - GROUND PLATE NOT REQUIRED ON U-SECTION POST.
 - SEE WK. NO. SN-4B FOR DETAIL OF 3" PIPE FOOTING DETAIL.

BY	MISSISSIPPI DEPARTMENT OF TRANSPORTATION ROADWAY DESIGN DIVISION STANDARD PLAN
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	WORKING NUMBER SN-4A
	SHEET NUMBER 6307

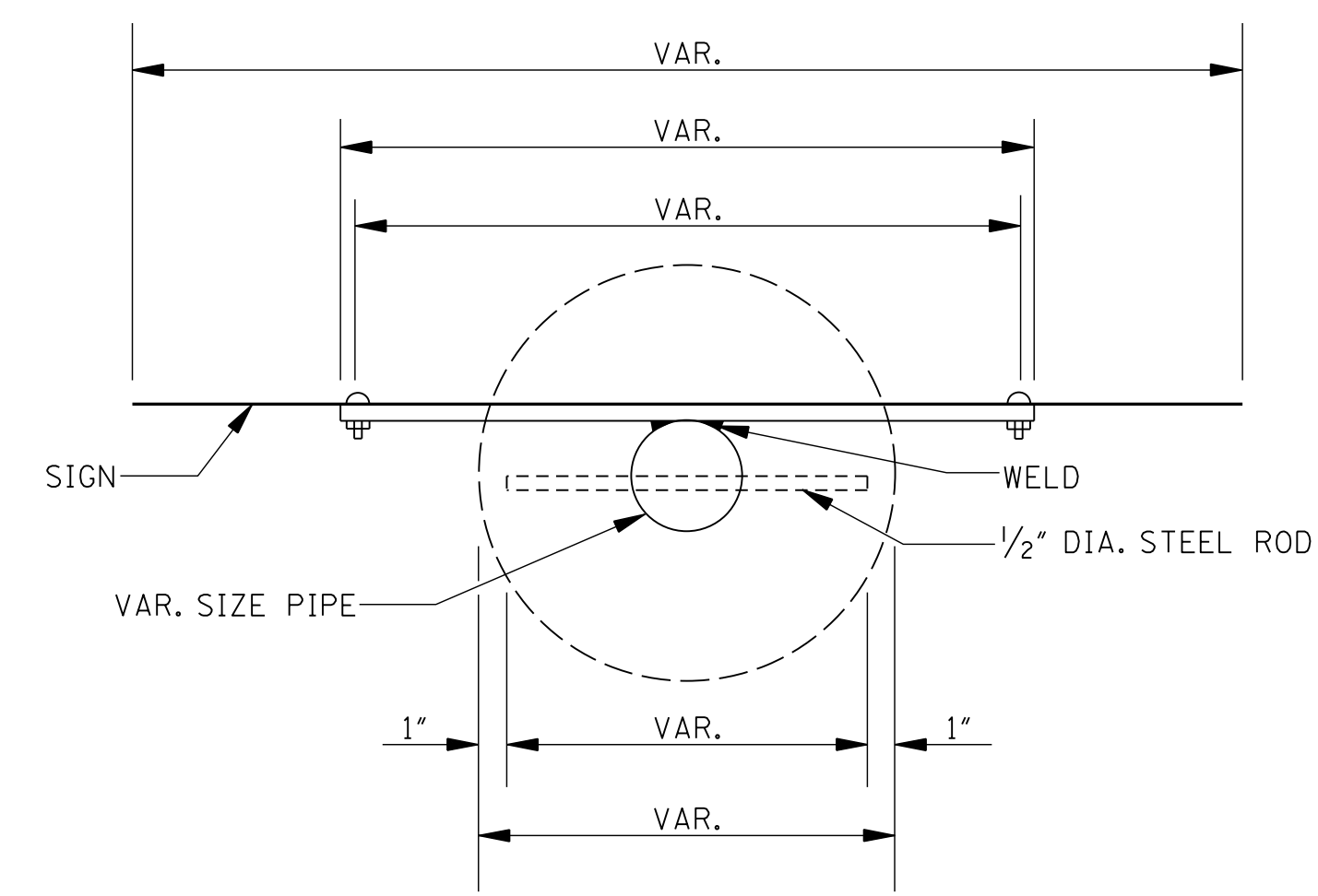




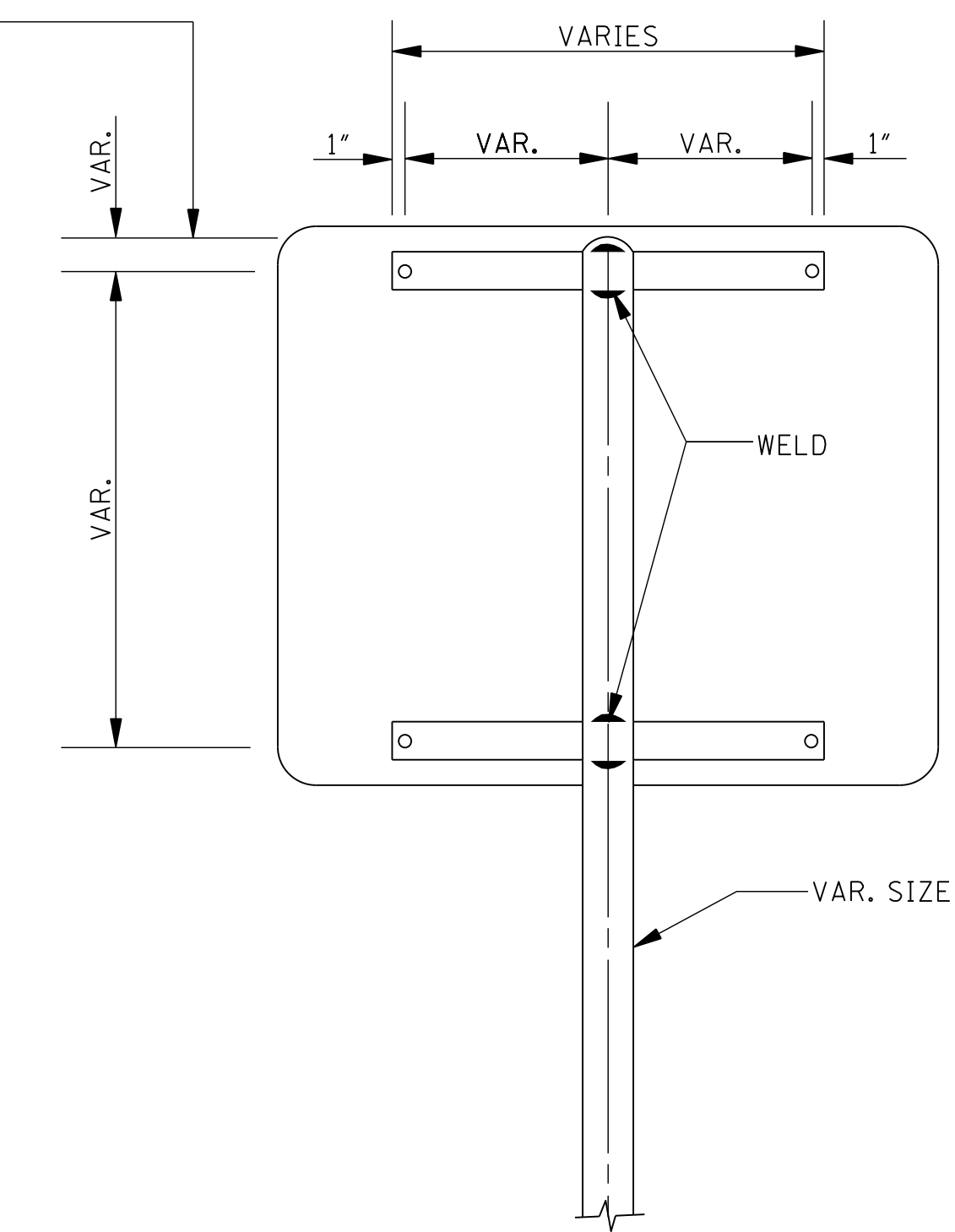
TYPICAL BACK-TO-BACK SIGN MOUNT
SHOWING R5-1 WITH R1-1



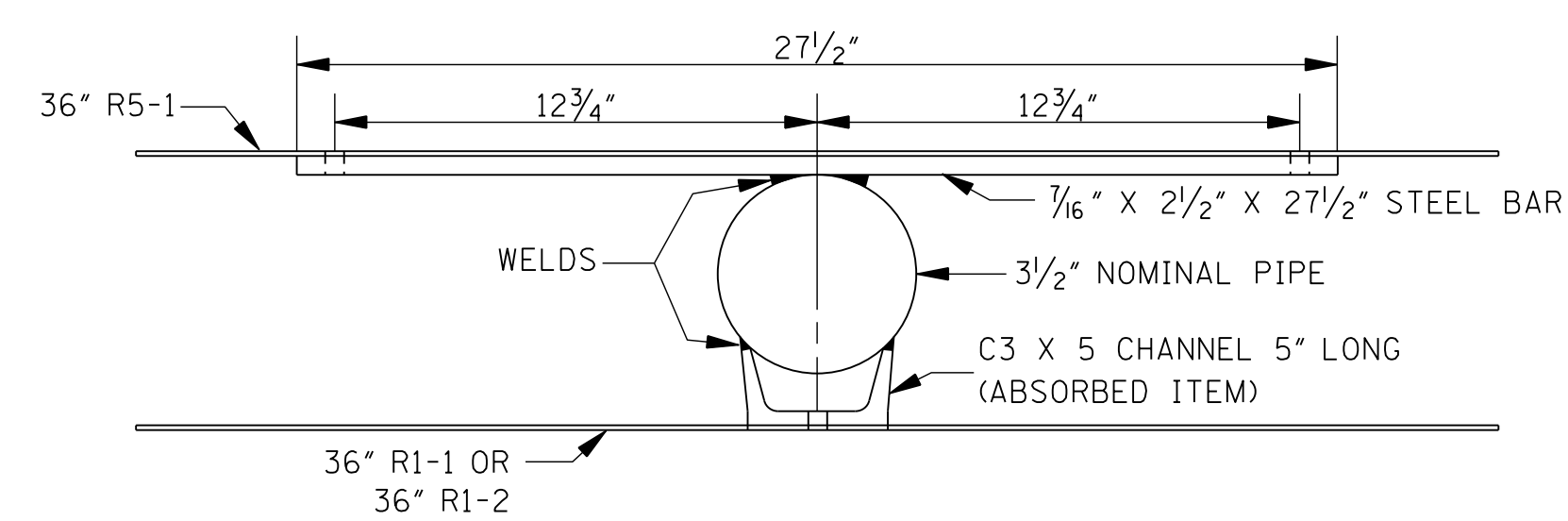
TYPICAL BACK-TO-BACK SIGN MOUNT
SHOWING R5-1 WITH R1-2



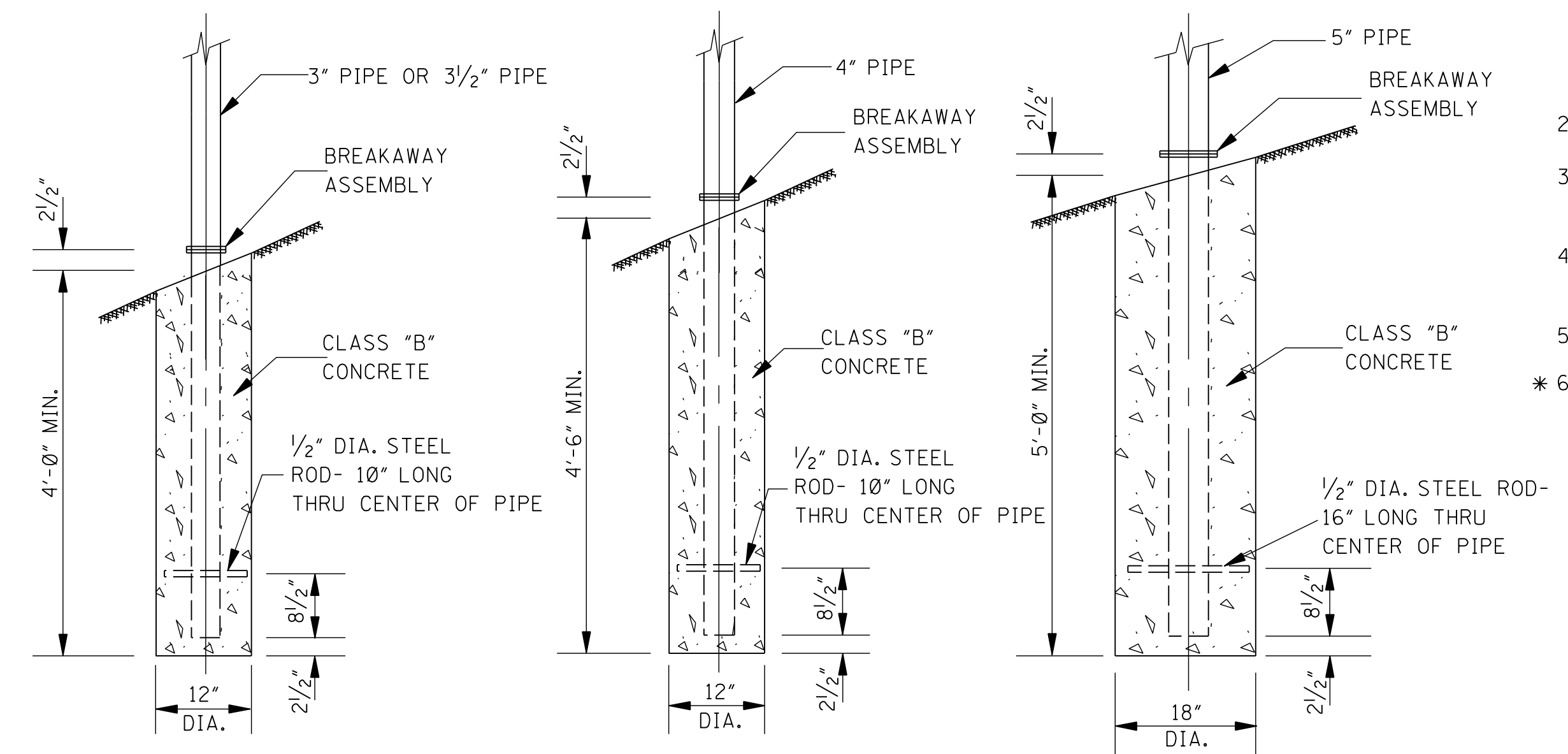
TYPICAL PLAN VIEW



TYPICAL ASSEMBLY ON PIPE



PLAN VIEW OF DOUBLE MOUNTING OF SIGNS

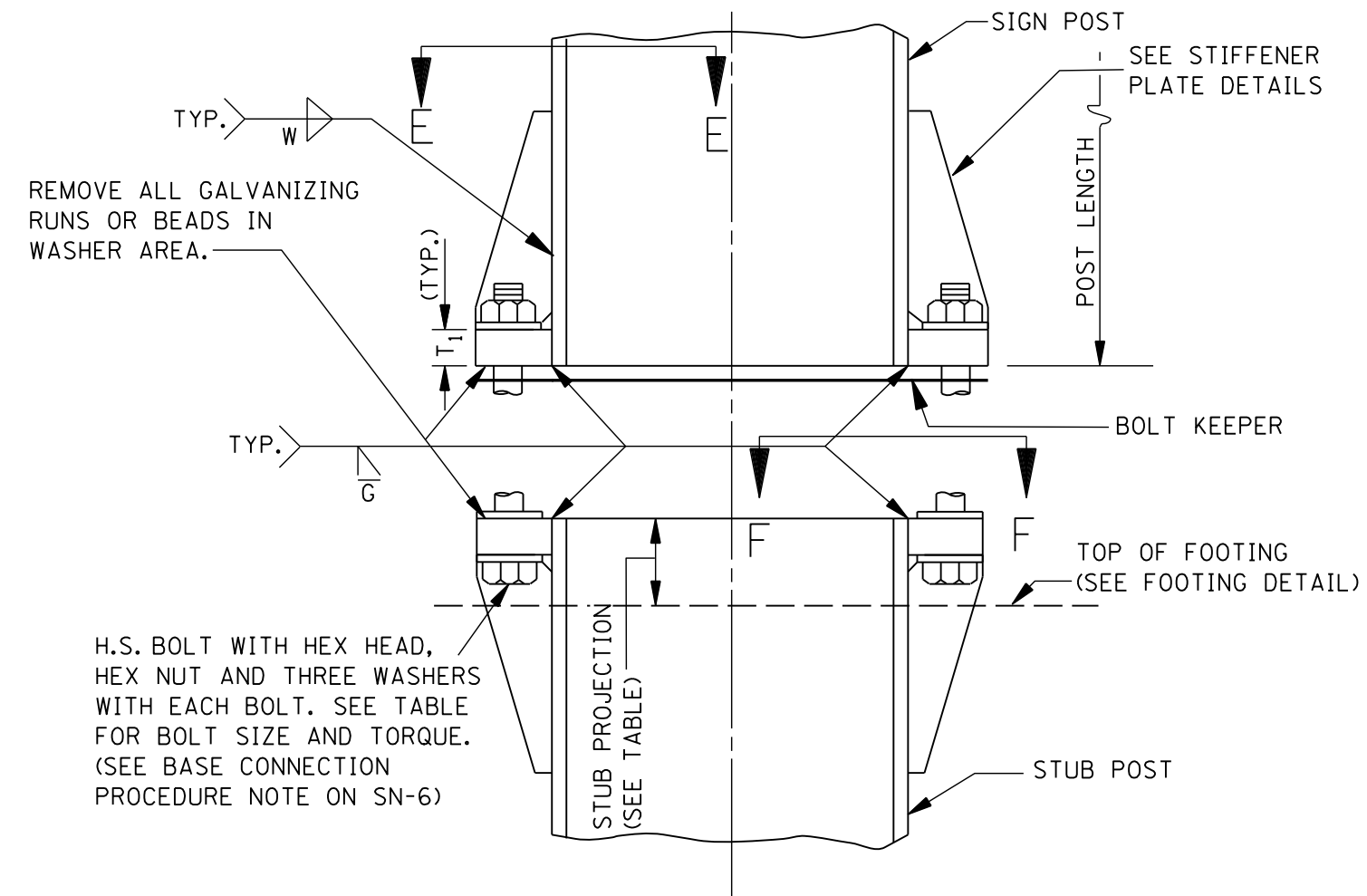


FOOTING DETAILS

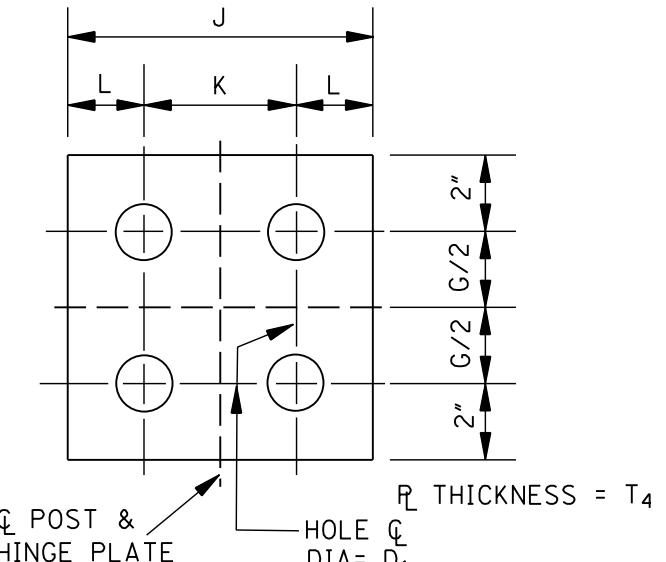
GENERAL NOTES:

- UNLESS OTHERWISE SPECIFIED, HORIZONTAL BRACES ARE 3/16" X 2 1/2" X VARIABLE LENGTH FLAT STEEL BARS. BARS ARE WELDED TO PIPE AS SHOWN. WHEN FABRICATION IS COMPLETE, POSTS SHALL BE GALVANIZED AS PER SECTION 630 OF THE STANDARD SPECIFICATION.
- HOLES IN FLAT BARS ARE 3/8" DIAMETER.
- SIGNS ARE FASTENED TO THE FLAT BARS AND U-SECTION POSTS WITH M8 BOLTS WITH FLAT WASHERS AND LOCK NUTS.
- WHERE REQUIRED, SIGNS R6-1L AND R6-1R SHALL BE MOUNTED ON PIPES WITH CLAMPS OR BUCKLE BRACKETS (NOT A PAY ITEM).
- ALL WELDS SHALL BE 3/16" FILLET.
- * TOP OF POST

BY		MISSISSIPPI DEPARTMENT OF TRANSPORTATION ROADWAY DESIGN DIVISION STANDARD PLAN	
REVISION		<p align="center">STANDARD ROADSIDE SIGN ASSEMBLY AND INSTALLATION</p>	
DATE			
ISSUE DATE:		AUGUST 01, 2017	

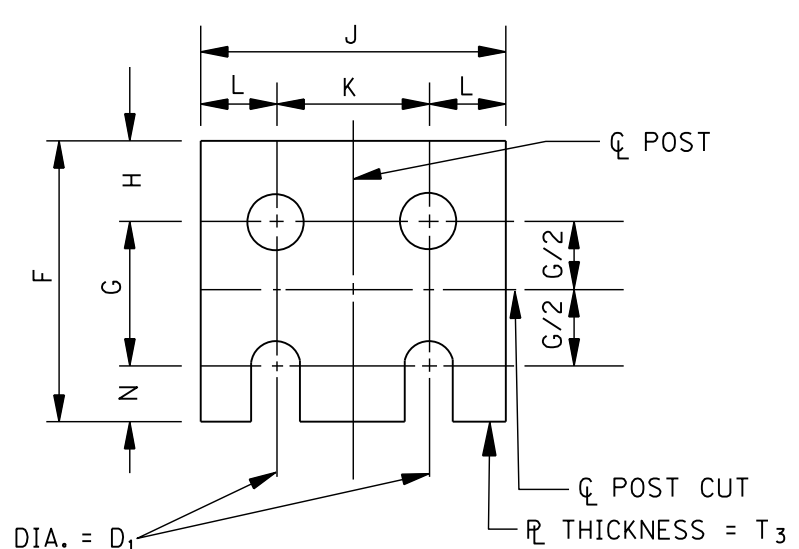


BASE CONNECTION DETAILS FOR W SHAPED POSTS



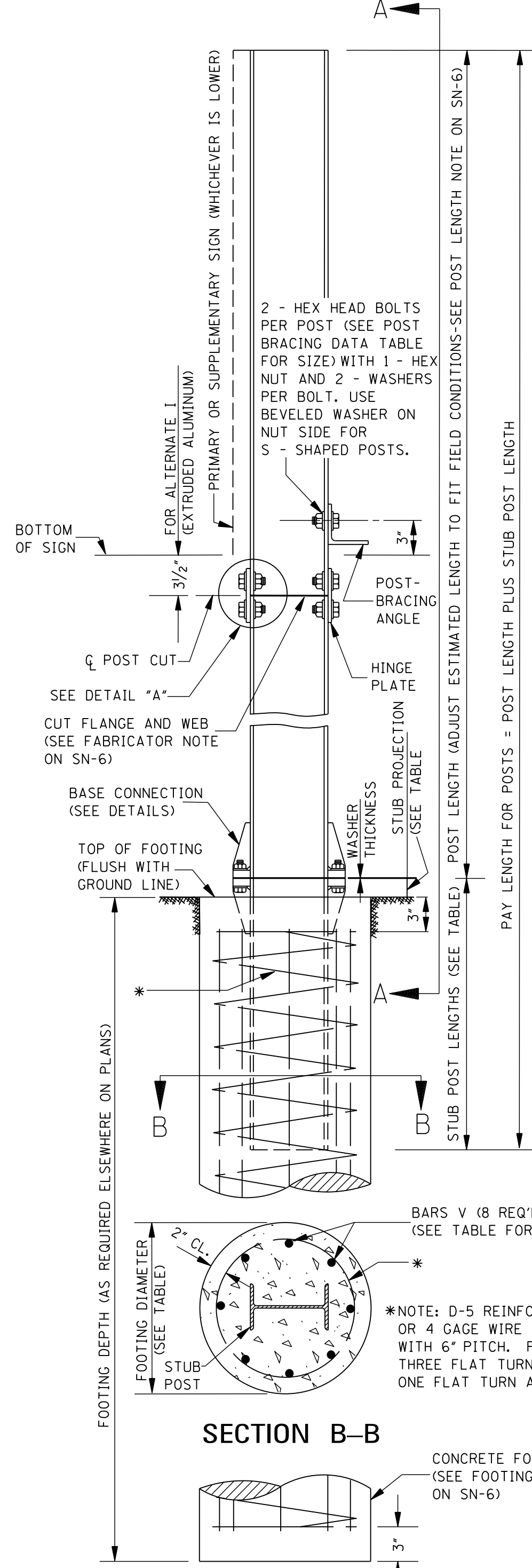
HINGE PLATE

NOTE: INSTALLATION SIMILAR TO DETAIL "A", FUSE PLATE.

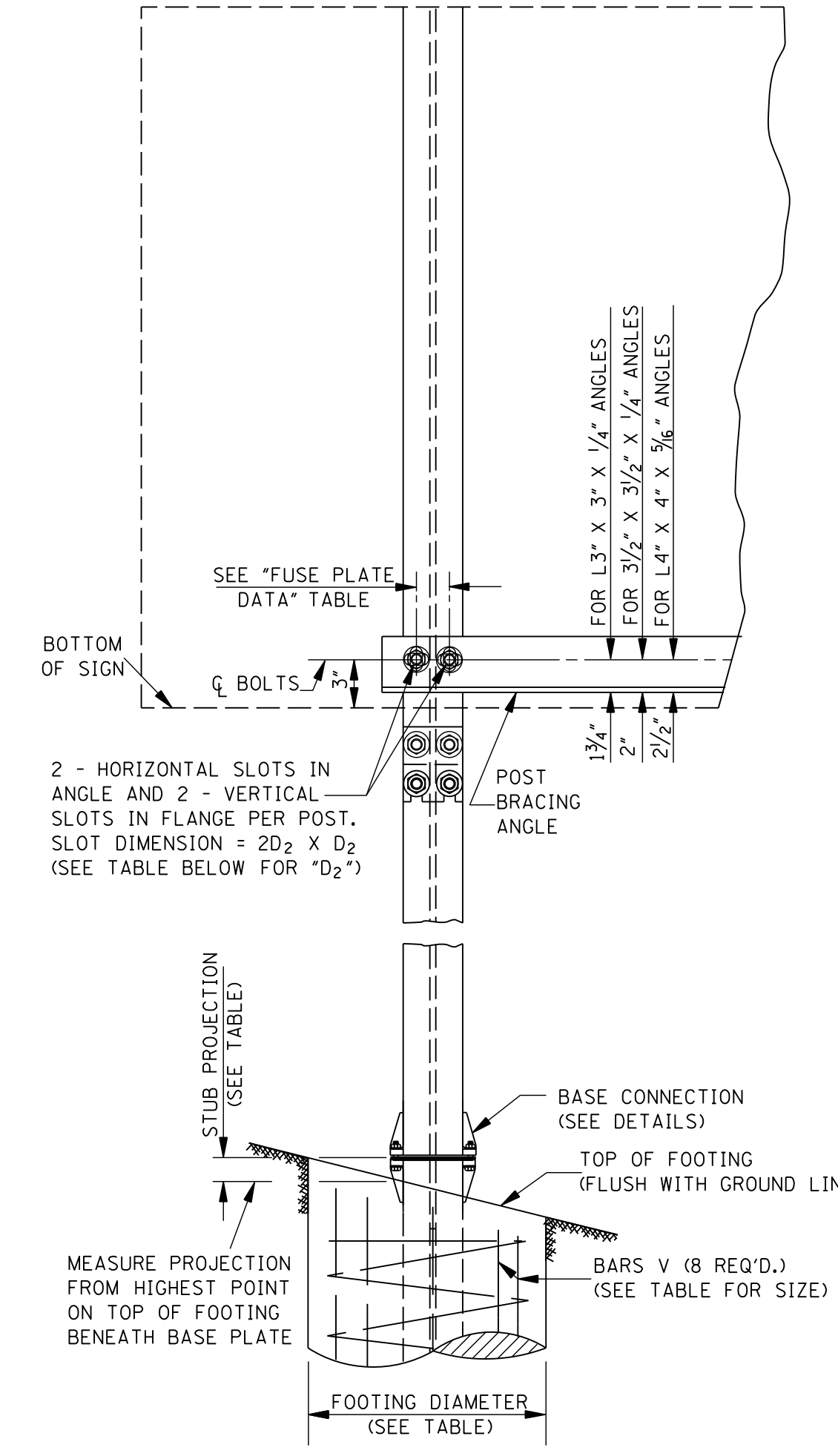


FUSE PLATE DETAIL

NOTE: SEE TABLE FOR DIMENSIONS. USE H.S. BOLTS WITH HEX HEAD, HEX NUTS, ONE FLAT WASHER UNDER EACH BOLT HEAD AND BEVEL OR FLAT WASHERS (WHERE REQUIRED) UNDER NUTS.



END ELEVATION OF POST AND FOOTING

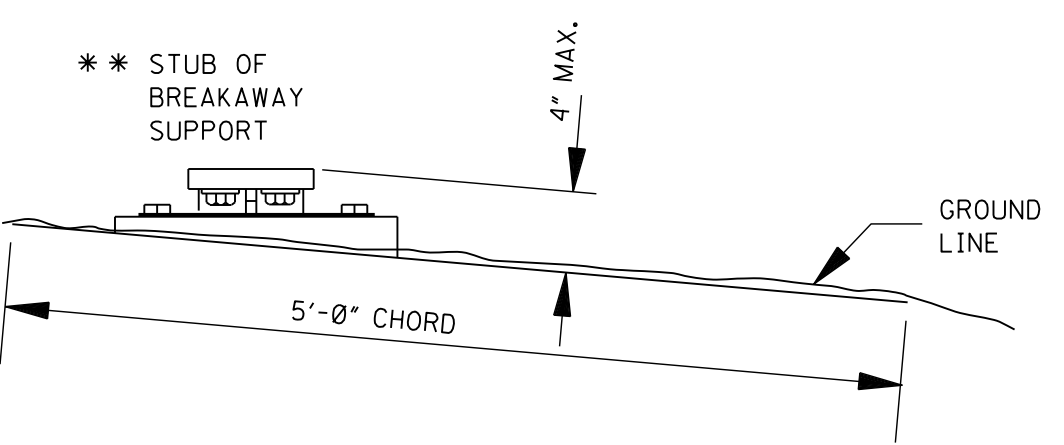


SECTION A-A

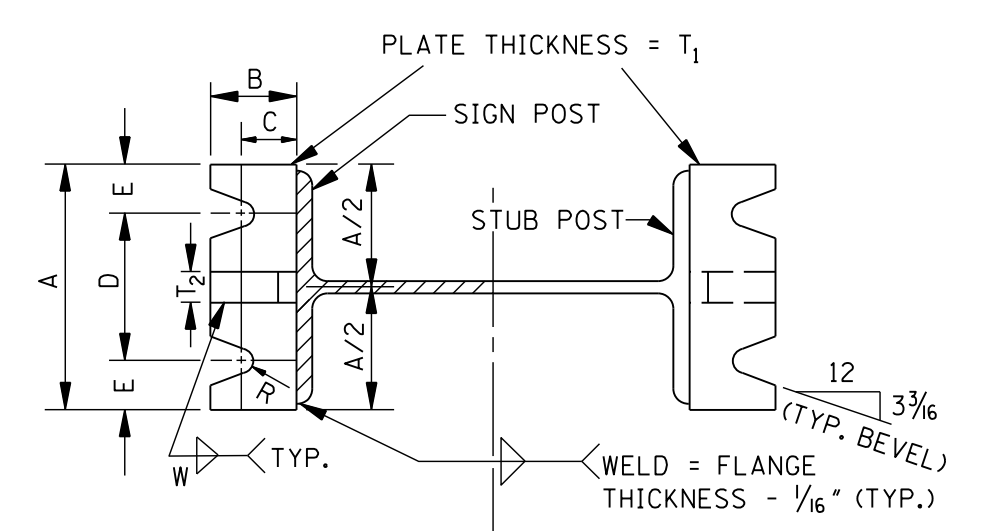
GENERAL NOTE:
1. SEE SN-6 FOR GENERAL NOTES.

POST SIZE	W12 X 26	W8 X 21	W6 X 9
DESCRIPTION	W10 X 26 W10 X 22	W8 X 18 W6 X 15	W6 X 12
BOLT SIZE	$7/8 \times 2 1/4$ "	$3/4 \times 2$ "	$1/2 \times 1 3/4$ "
D ₂	$15/16$ "	$13/16$ "	$7/16$ "
ANGLE LENGTH	Z + 9"	Z + 8"	Z + 6"
ANGLE SIZE FOR POST SPACING OF	0'-9'	L4" X 4" X 5/16"	L3 1/2" X 3 1/2" X 1/4"
	9'-11'	L4" X 4" X 5/16"	L3 1/2" X 3 1/2" X 1/4"
	11'-18'	L4" X 4" X 5/16"	L4" X 4" X 5/16"

NOTE: Z = DISTANCE BETWEEN C'S OF EXTERIOR POSTS.

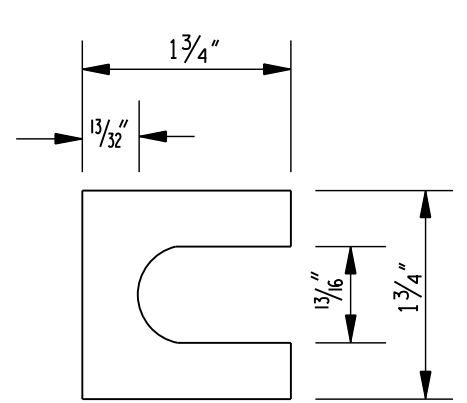


BREAKAWAY SUPPORT STUD CLEARANCE DIAGRAM



SECTION E-E SECTION F-F

NOTE: SEE TABLE FOR DIMENSIONS



SHIM DETAIL

NOTE: FURNISH 2-0.012" ± THICK AND 2-0.032" ± THICK SHIMS PER POST. SHIMS SHALL BE FABRICATED FROM BRASS SHIM STOCK OR STRIP CONFORMING TO ASTM B 36.

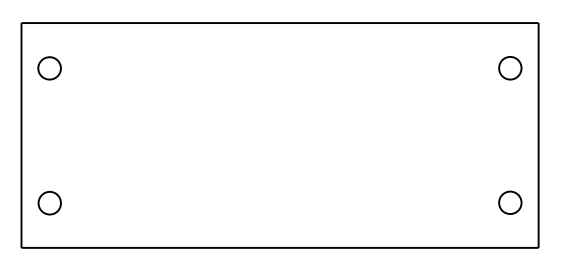
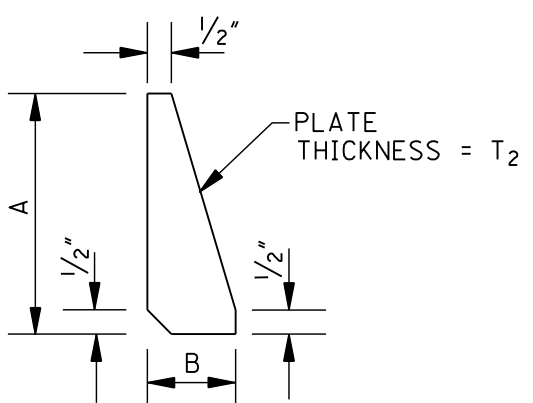


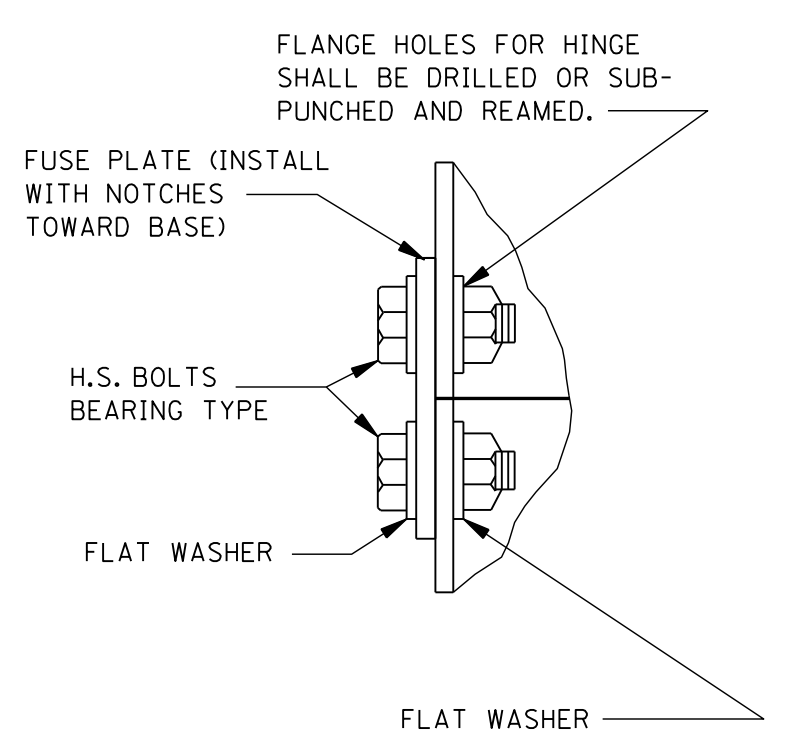
DIAGRAM OF "BOLT KEEPER"

NOTE: FABRICATED FROM 28 GAGE GALVANIZED STEEL. REQUIRED BETWEEN BASE P AND STUB POST R. DIMENSIONED AS REQUIRED FOR EACH INSTALLATION.



STIFFENER PLATE DETAIL

NOTE: SEE TABLE FOR DIMENSIONS



DETAIL "A", FUSE PLATE

NOTE: SEE FABRICATOR NOTE ON SN-6.

DIMENSION	BASE CONNECTION DATA										FUSE PLATE DATA								FOOTING DATA								
	BOLT SIZE & TORQUE	A	B	C	D	E	T ₁	T ₂	W	R	F	G	H	J	K	L	N	D ₁	T ₃	BOLT SIZE (DIA. X LENGTH)	MIN. BOLT TENSION (lbs)	T ₄	STUB LENGTH	STUB ** PROJECTION	FOOTING DIAMETER	BARS V SIZE	FOOTING *** DEPTH
W6 X 9	5/8" X 2 3/4" LONG TORQUE 300 in·lbs	5"	2"	1 1/4"	2 3/4"	1 1/8"	3/4"	1/2"	1/4"	11/32"	3 5/8"	2"	1 1/8"	4"	2 1/4"	7/8"	1/2"	9/16"	1/4"	1/2" X 1 1/2"	12,050	1/4"	2'-0"	3"	2'-0"	#4	SEE NOTE BELOW
W6 X 12											3 3/4"	2"	1 1/8"	4"	2 1/4"	7/8"	5/8"	3/8"	5/8" X 2"	19,200	3/8"	2'-0"	3"	2'-0"	#5	SEE NOTE BELOW	
W6 X 15											4 1/2"	2 1/2"	1 1/4"	6"	3 1/2"	1 1/4"	3/4"	19/16"	1/2"	3/4" X 2 1/4"	28,400	3/8"	2'-6"	3"	2'-0"	#6	SEE NOTE BELOW
W8 X 18	3/4" X 3 1/2" LONG TORQUE 500 in·lbs	6"	2 1/4"	1 3/8"	3 1/2"	1 1/4"	1"	3/4"	5/16"	15/32"	4 1/2"	2 1/2"	1 1/4"	5 1/4"	2 3/4"	1 1/4"	7/8"	19/16"	1/2"	3/4" X 2 1/4"	28,400	3/8"	2'-6"	3"	2'-0"	#7	SEE NOTE BELOW
W8 X 21											4 7/8"	2 1/2"	1 1/2"	5 1/4"	2 3/4"	1 1/4"	7/8"	19/16"	9/16"	7/8" X 2 1/2"	39,250	3/8"	3'-0"	2 1/2"	2'-0"	#8	SEE NOTE BELOW
W10 X 22											5 3/8"	3"	1 1/2"	5 3/4"	2 3/4"	1 1/2"	7/8"	19/16"	9/16"	7/8" X 2 1/2"	39,250	3/8"	3'-0"	2 1/2"	2'-0"	#9	SEE NOTE BELOW
W10 X 26											5 3/8"	3"	1 1/2"	5 3/4"	2 3/4"	1 1/2"	7/8"	19/16"	9/16"	7/8" X 2 1/2"	39,250	7/16"	3'-0"	2 1/2"	2'-0"	#10	SEE NOTE BELOW
W12 X 26											5 3/8"	3"	1 1/2"	6 1/2"	3 1/2"	1 1/2"	7/8"	19/16"	9/16"	7/8" X 2 1/2"	39,250	3/8"	3'-0"	2 1/2"	2'-0"	#11	SEE NOTE BELOW

** NOTE: STUB PROJECTION SHOULD BE MEASURED OVER A 5'-0" CHORD AS PER AASHTO LRFD SPECIFICATIONS FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINAIRES AND TRAFFIC SIGNALS, LATEST EDITION.

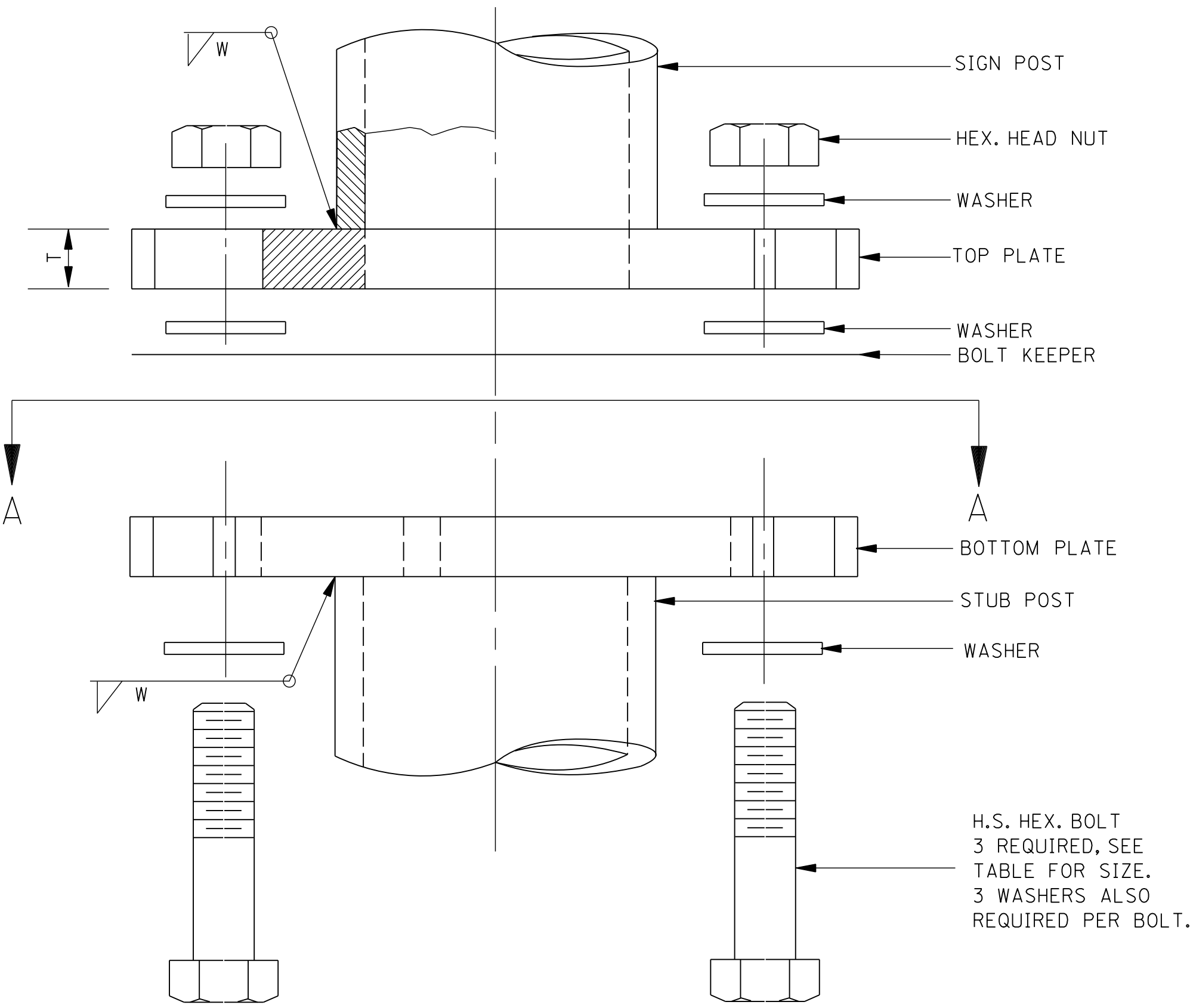
*** NOTE: FOOTING DEPTH TO BE SHOWN ELSEWHERE IN THE PLANS.

MISSISSIPPI DEPARTMENT OF TRANSPORTATION
ROADWAY DESIGN DIVISION
STANDARD PLAN

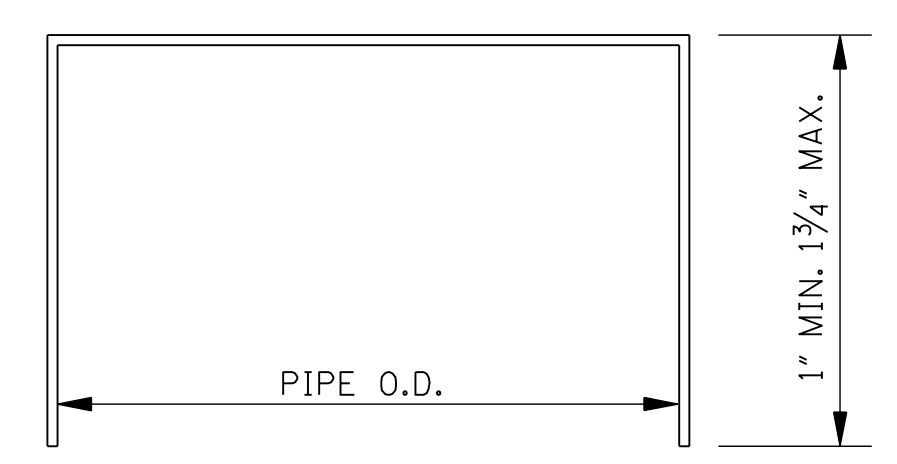
BREAKAWAY SIGN SUPPORTS

WORKING NUMBER SN-6A
SHEET NUMBER 6311

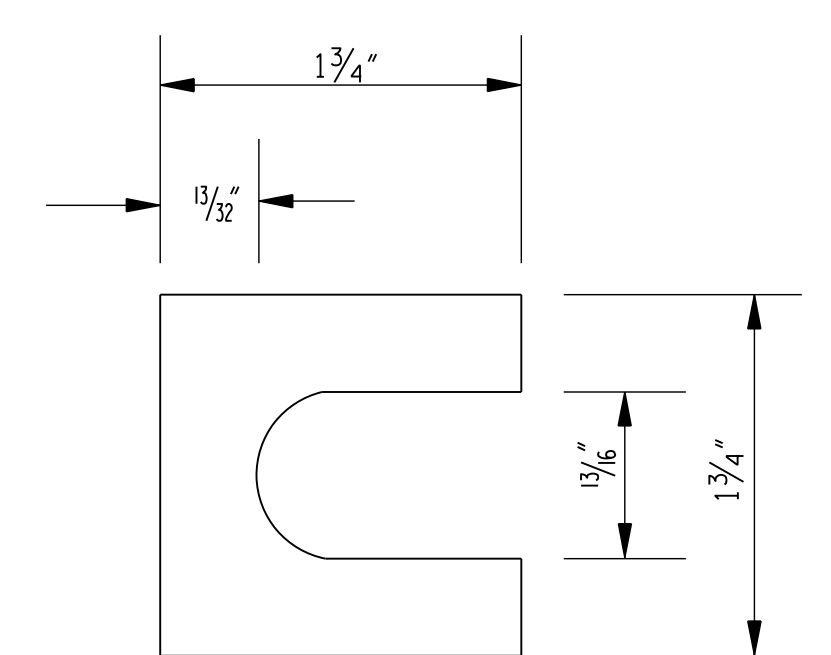
ISSUE DATE: AUGUST 01, 2017



MULTI-DIRECTIONAL SIGN POST & STUB POST

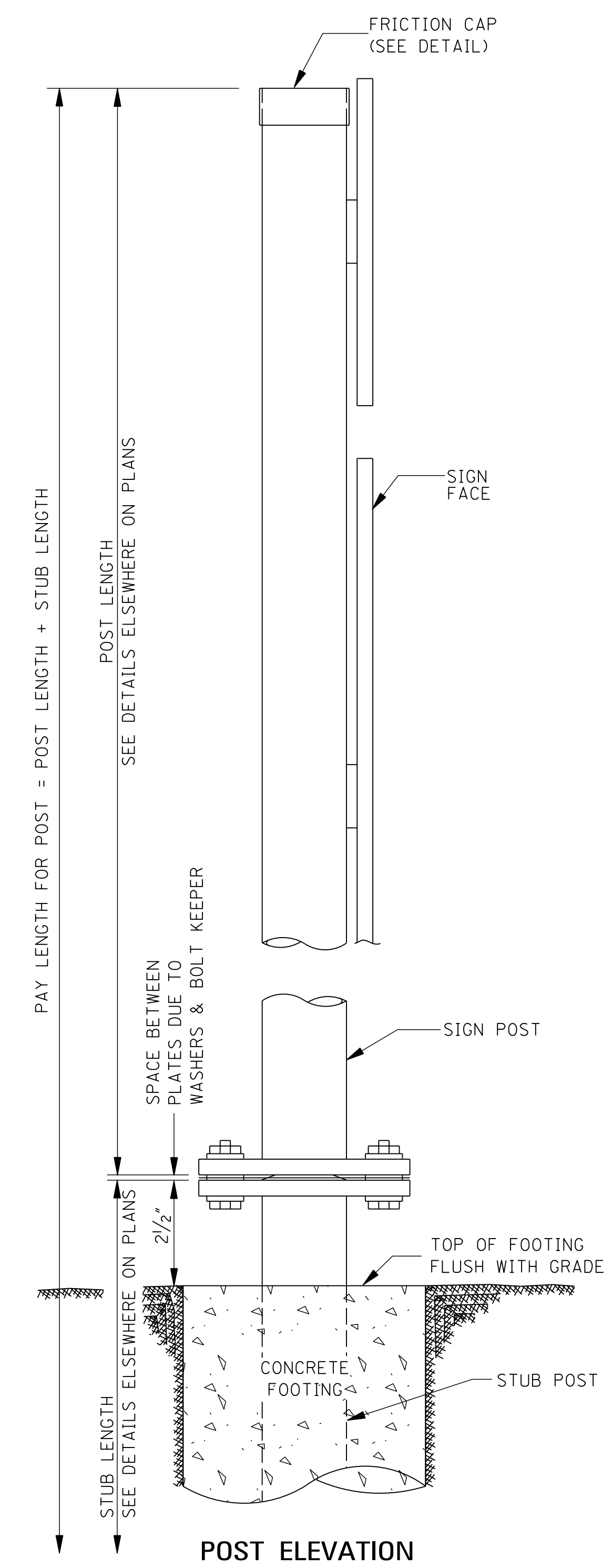


FRICTION CAP DETAIL
NOTE: SEE NOTE 3



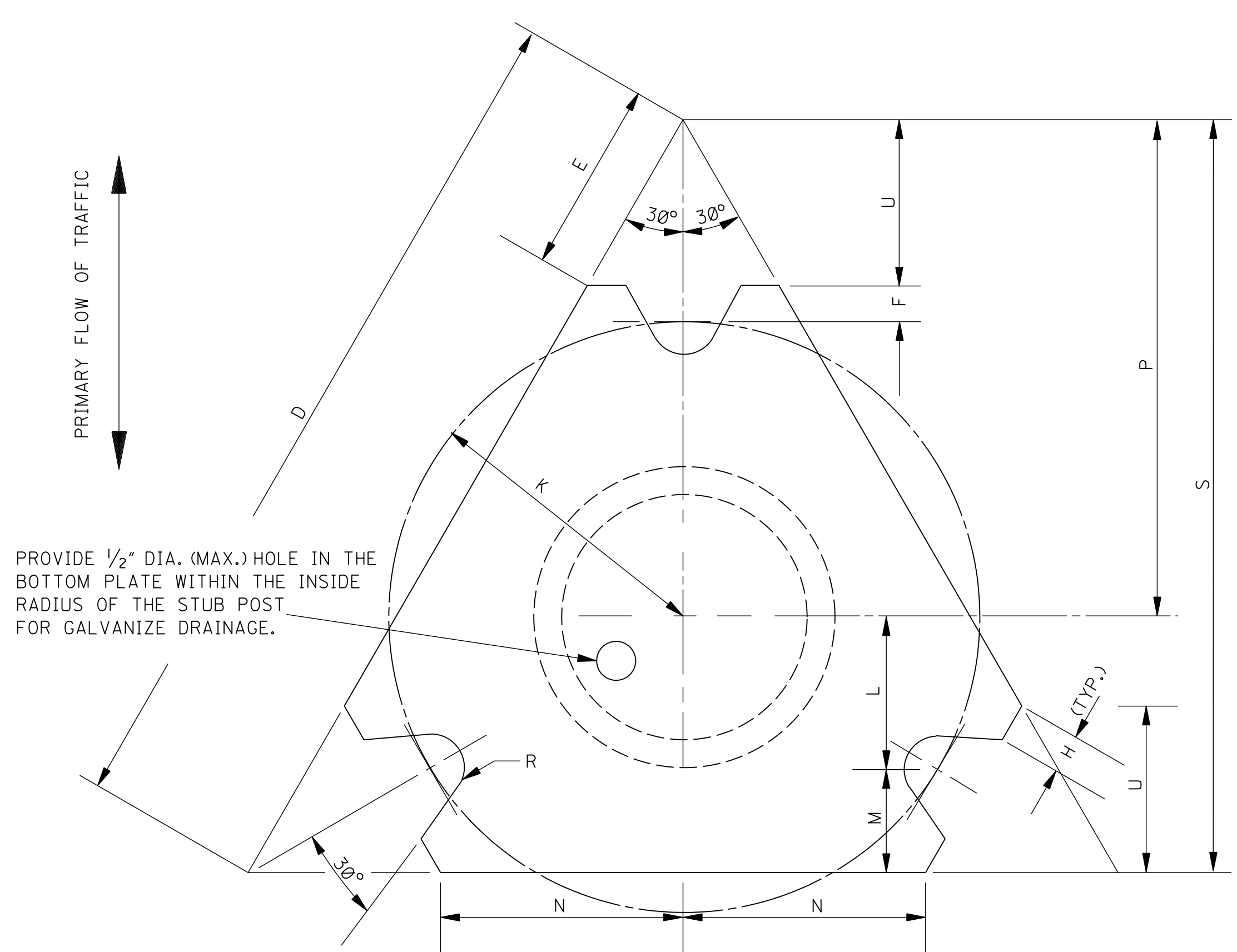
SHIM DETAIL

NOTE: FURNISH 2-0.012" ± THICK AND 2-0.032" ± THICK SHIMS PER POST. SHIMS SHALL BE FABRICATED FROM BRASS SHIM STOCK OR STRIP CONFORMING TO ASTM B 36.

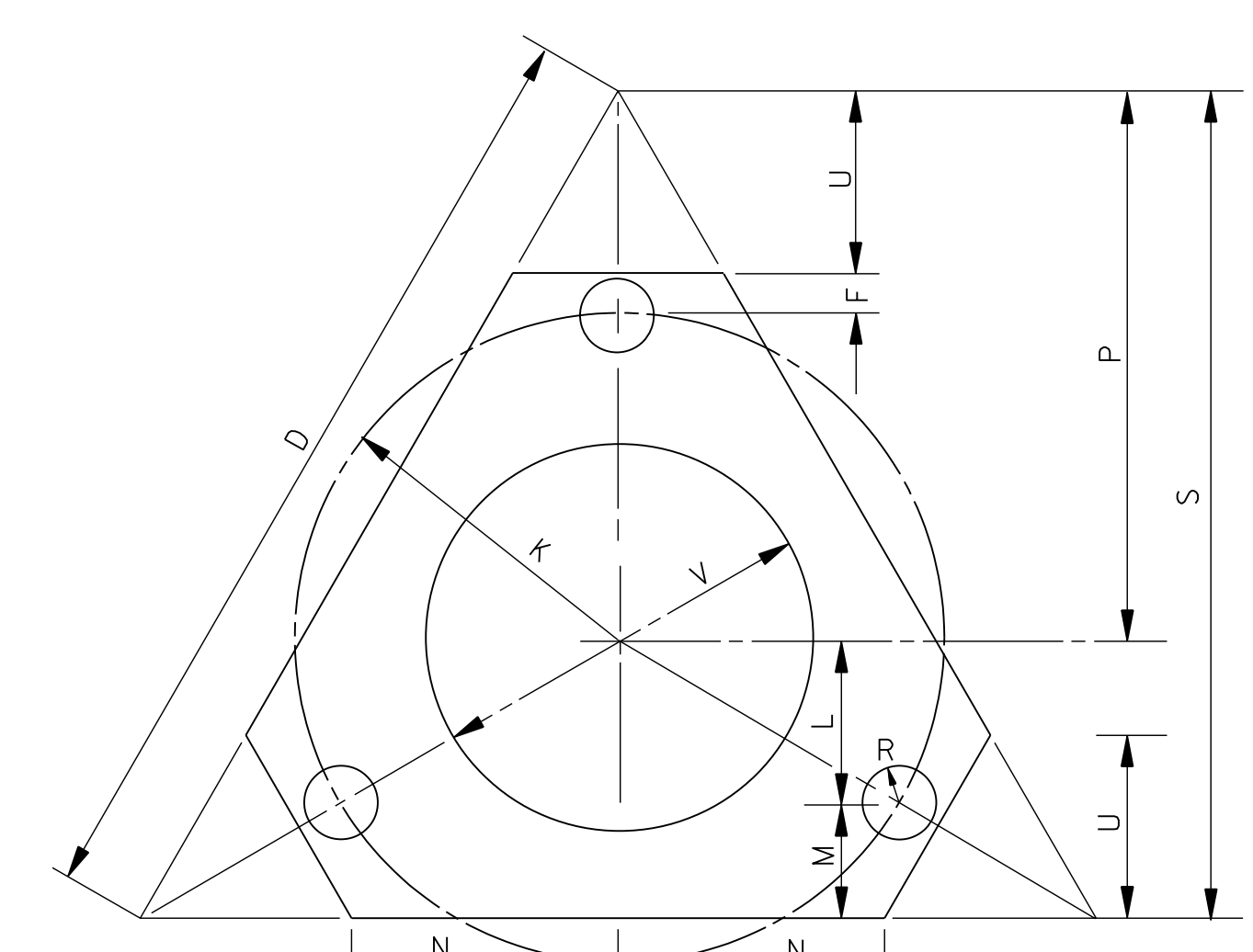


POST ELEVATION

- GENERAL NOTES: (SEE WK. NO. SN-6 FOR ADDITIONAL GENERAL NOTES)
- THE TOP PLATE OF THE TRIANGULAR SLIP BASE SHALL HAVE THE SAME EXTERIOR DIMENSIONS AS THE BOTTOM PLATE. THE LIFTING CONE SHALL BE WELDED TO THE BOTTOM PLATE ONLY. A HOLE EQUAL TO THE INSIDE DIAMETER OF THE SIGN POST SHALL BE CUT THROUGH THE CENTER OF THE TOP PLATE WITH THE HOLE EDGE BEVELED AS DETAILED. TOP & BOTTOM PLATES SHALL BE SYMMETRICAL FOR THE PURPOSE OF ASSEMBLY IN ANY POSITION.
 - BASE CONNECTION ASSEMBLY AS FOLLOWS:
 - ASSEMBLE POST TO STUB WITH 3 BOLTS AND WITH 3 FLAT WASHERS PER BOLT.
 - SHIM AS REQUIRED TO PLUMB POST.
 - TIGHTEN ALL BOLTS THE MAXIMUM POSSIBLE WITH A 12" TO 15" WRENCH TO BED WASHERS, KEEPER PLATE, SHIMS AND TO CLEAN THREADS.
 - LOOSEN EACH BOLT IN TURN & RETIGHTEN IN A SYSTEMATIC ORDER TO PRESCRIBED TORQUE. (SEE BASE CONNECTION DATA TABLE).
 - LOOSEN EACH BOLT IN TURN & RETIGHTEN IN A SYSTEMATIC ORDER TO PRESCRIBED TORQUE. (SEE BASE CONNECTION DATA TABLE).
 - LOOSEN EACH BOLT IN TURN & RETIGHTEN IN A SYSTEMATIC ORDER TO PRESCRIBED TORQUE. (SEE BASE CONNECTION DATA TABLE).
 - LOOSEN EACH BOLT IN TURN & RETIGHTEN IN A SYSTEMATIC ORDER TO PRESCRIBED TORQUE. (SEE BASE CONNECTION DATA TABLE).
 - FRICTION CAPS TO BE MANUFACTURED FROM HOT ROLLED OR COLD ROLLED STEEL SHEETS. FOR ALL PIPE SIZES, MINIMUM THICKNESS SHALL BE 20 GAGE SHEET METAL. RIM EDGES SHOULD BE REASONABLY STRAIGHT AND SMOOTH. CAPS SHALL BE SIZED AND FORMED IN SUCH A MANNER AS TO PROVIDE A DRIVE-ON FRICTION FIT AND HAVE NO TENDENCY TO ROCK WHEN SEATED ON PIPE. THE DEPTH SHALL BE SUFFICIENT TO GIVE POSITIVE PROTECTION AGAINST ENTRANCE OF RAINWATER. THEY SHALL BE FREE OF SHARP CREASES OR INDENTATIONS AND SHOW NO SIGNS OF METAL FRACTURE. ALL CAPS SHALL BE SAME IN SHAPE AND GENERAL APPEARANCE AS APPROVED BY THE ENGINEER.
 - STUB PROJECTION SHOULD BE MEASURED OVER A 5'-0" CHORD AS PER AASHTO LRFD SPECIFICATIONS FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINAIRES AND TRAFFIC SIGNALS, LATEST EDITION. SEE WK. NO. SN-6A FOR DIAGRAM.
 - AS AN ALTERNATIVE THE POST LENGTH OF THE SIGN POST CAN BE MADE-UP USING A NOMINAL LENGTH OF GALVANIZED PIPE, A GALVANIZED SLIP BASE CASTING, GALVANIZED FLAT PLATES OR APPROVED EQUAL WITH ALL NECESSARY HARDWARE REQUIRED TO SECURE THEM TO THE SIGN POST, A GALVANIZED KEEPER PLATE AND A GALVANIZED FRICTION CAP. THE SLIP BASE CASTING SHALL HAVE 3-SCREWS TO SECURE THE POST TO THE CASTING AND ONE SET SCREW TO PREVENT ROTATION. THE MANUFACTURER SHALL PROVIDE SHOP DRAWINGS OF THE COMPLETE ASSEMBLY FOR MDOT APPROVAL.



SECTION A-A
NOTE: SEE DATA TABLE FOR DIMENSIONS



BOLT KEEPER PLATE DETAIL

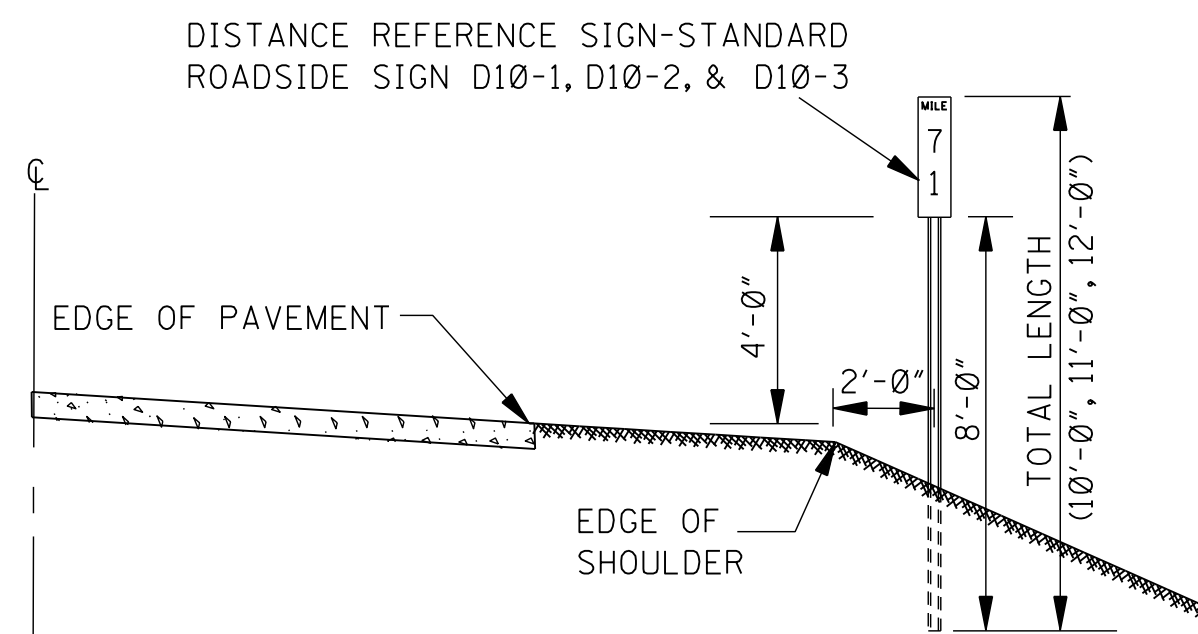
NOTE: TO BE FABRICATED FROM 28 GAGE THICK GALVANIZED STEEL. TO BE INSTALLED AS SHOWN IN DETAIL AT UPPER LEFT.

DIMENSIONS NOMINAL PIPE SIZES	BOLT SIZE & TORQUE	T	W	C	*D	*E	F	G	*H	J	K	L	M	*N	P	S	U	V	R
3"	5/8" X 2 1/2"	5/8"	3/8"	1"	10 3/8"	2 5/8"	1/2"	3/8"	1/2"	1 3/4"	3 1/2"	1 3/4"	1 1/4"	2 7/8"	6"	9"	2"	4 1/4"	1 1/2"
3 1/2"	300 in · lbs																		
4"	3/4" X 3"	7/8"	7/16"	1 1/16"	13"	2 7/8"	1/2"	3/8"	5/8"	2 1/2"	4 1/2"	2 1/4"	1 1/2"	3 5/8"	7 1/2"	11 1/4"	2 1/2"	5 3/4"	1 3/2"
5"	500 in · lbs																		

*NOTE: APPROXIMATE DIMENSIONS

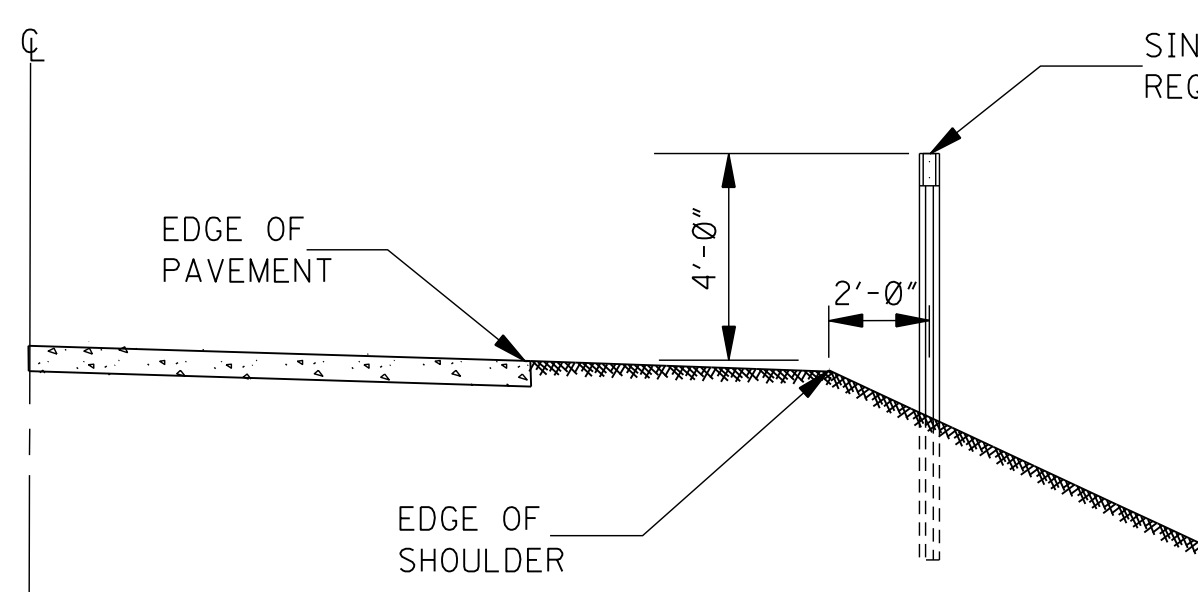
BY	MISSISSIPPI DEPARTMENT OF TRANSPORTATION ROADWAY DESIGN DIVISION STANDARD PLAN
REVISION	BREAKAWAY SIGN SUPPORTS
DATE	ISSUE DATE: AUGUST 01, 2017

MDOT
WORKING NUMBER SN-6B
SHEET NUMBER 6312

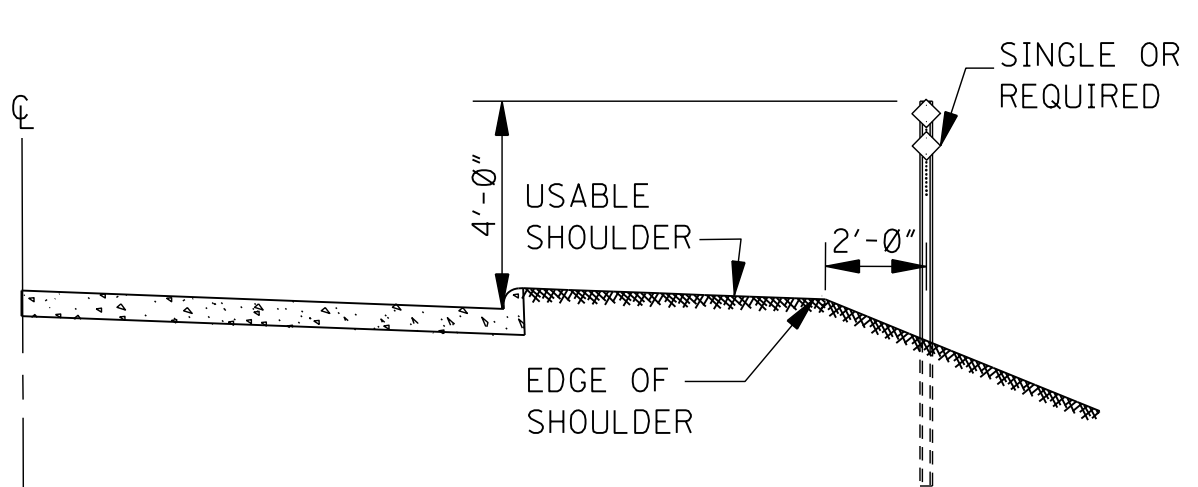


DISTANCE REFERENCE SIGN MOUNTING ON OUTSIDE SHOULDER ALONG MAIN FACILITY

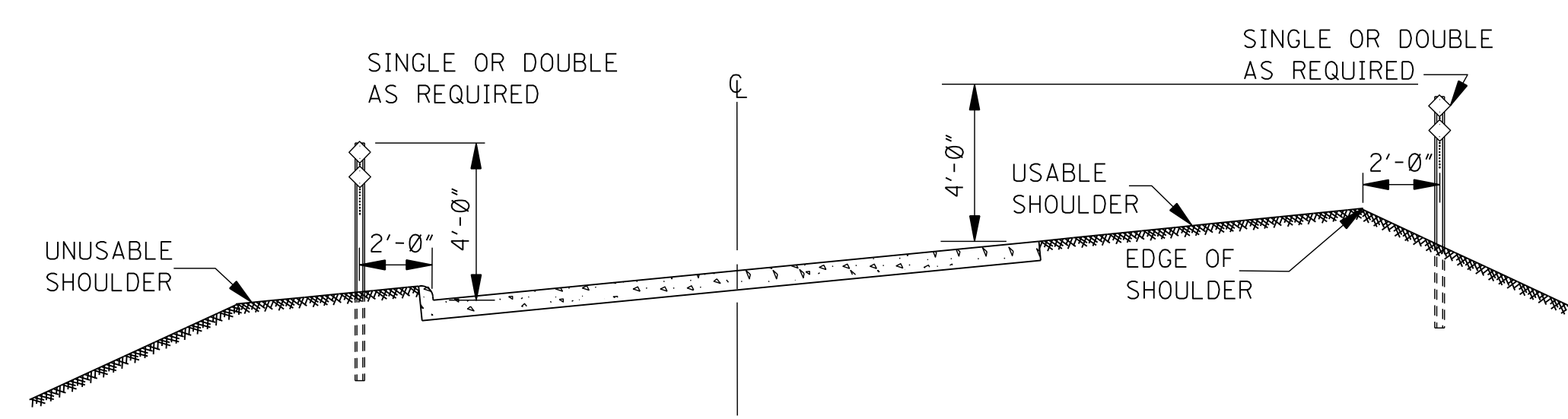
NOTE: SIGN MOUNTING ON LEFT LANE SHOULDER SHALL BE 90° OPPOSITE THE RIGHT LANE STATION. IF CONDITIONS ARE SUCH THAT MILE SIGN CANNOT BE LOCATED WITHIN 50 FEET OF ITS TRUE LOCATION, IT SHALL BE OMITTED ENTIRELY.



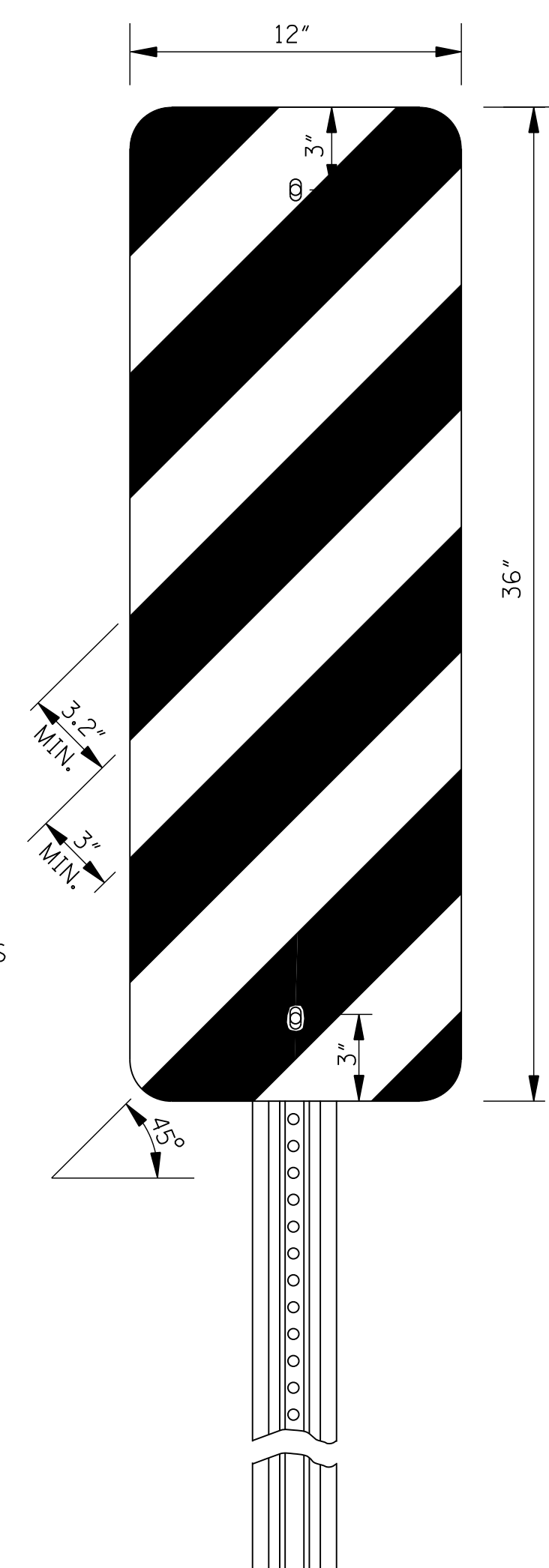
DELINEATOR MOUNTING ON OUTSIDE SHOULDER ALONG MAIN FACILITY OR RAMP



DELINEATOR MOUNTING ON OUTSIDE SHOULDER WITH MOUNTABLE CURB ALONG MAIN FACILITY OR RAMP

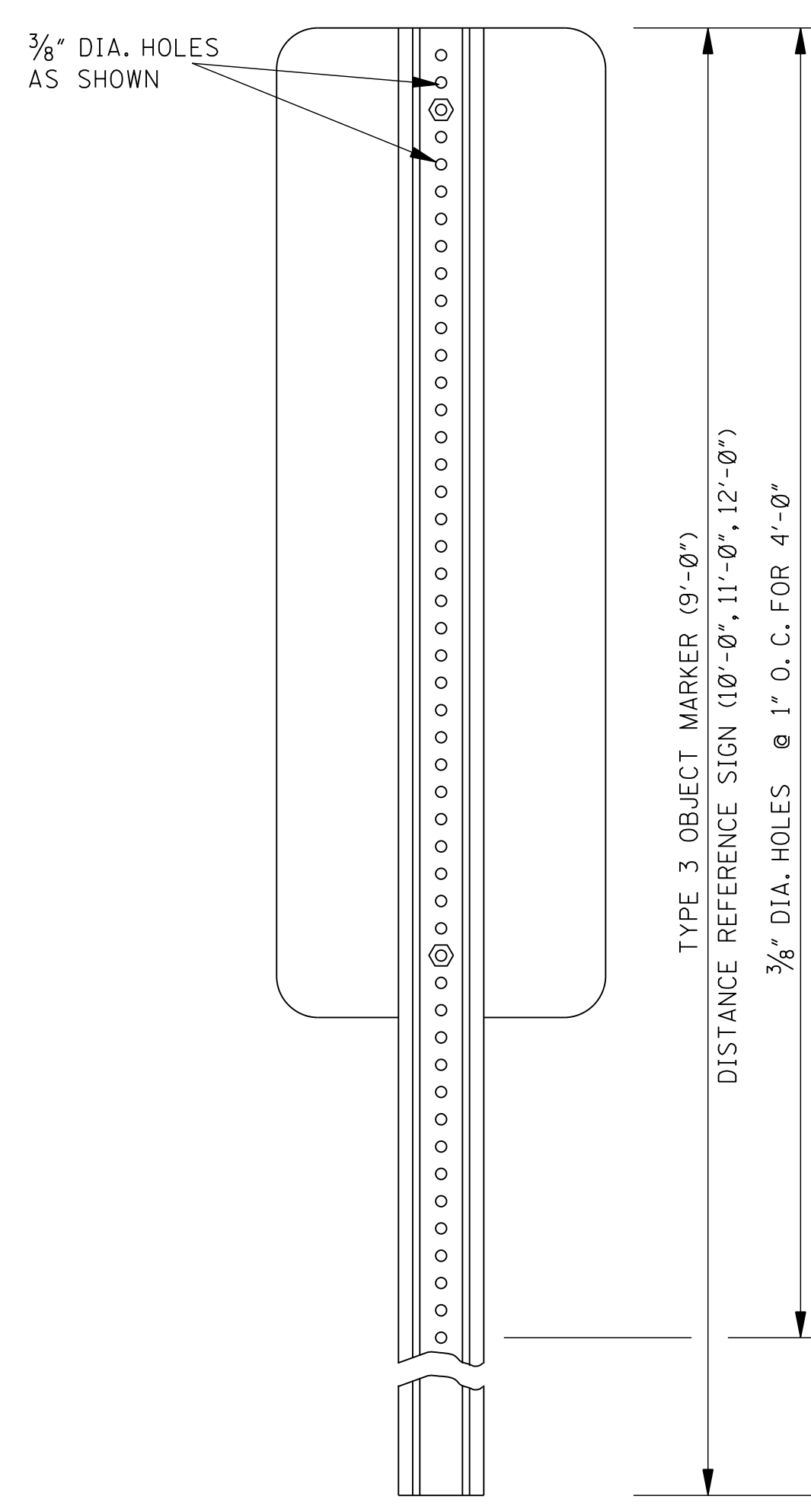


DELINEATOR MOUNTING ON INTERCHANGE LOOPS WITH UNMOUNTABLE CURB ON INSIDE



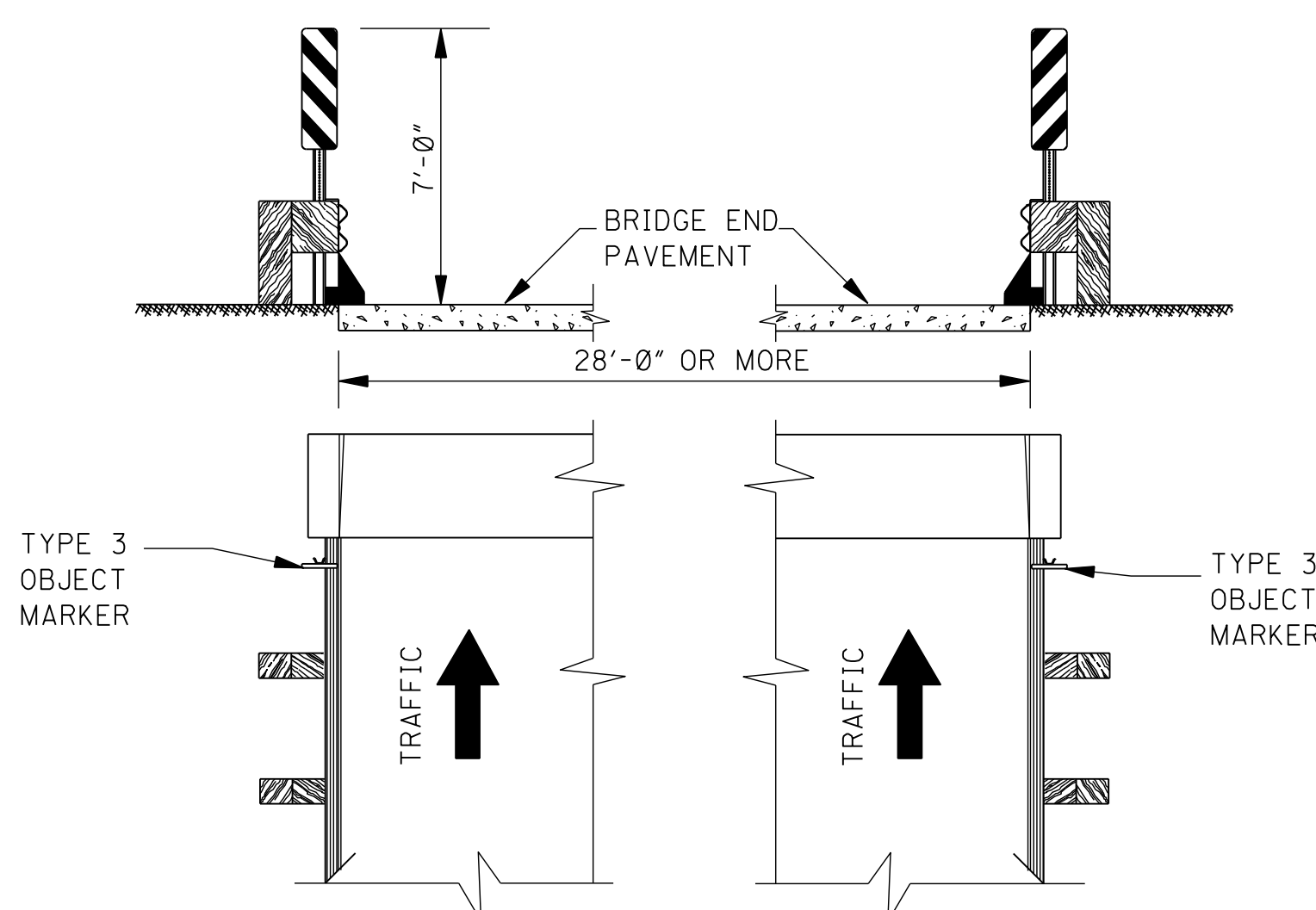
DETAIL OF TYPE 3 OBJECT MARKER

NOTE: COLORS- BLACK AND YELLOW. STRIPING SHOWN ABOVE FOR RIGHT SIDE ONLY. STRIPES SLANT DOWNWARD TO THE RIGHT FOR LEFT SIDE OF BRIDGE END. SEE DETAIL BELOW.

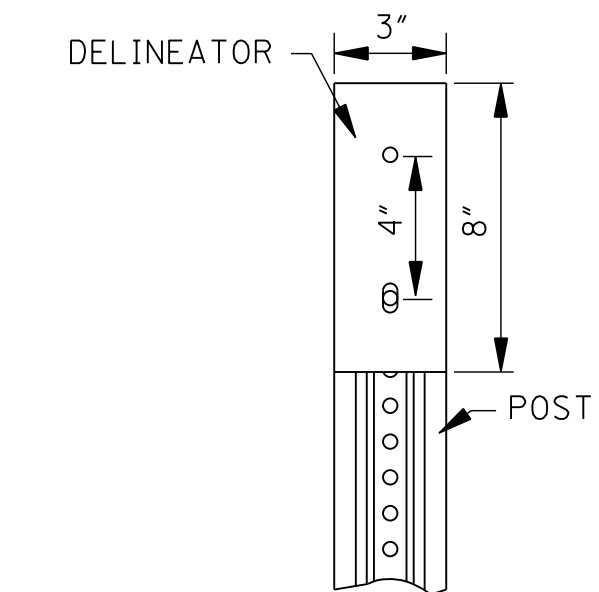


REAR VIEW OF TYPE 3 OBJECT MARKER OR DISTANCE REFERENCE SIGN ASSEMBLY

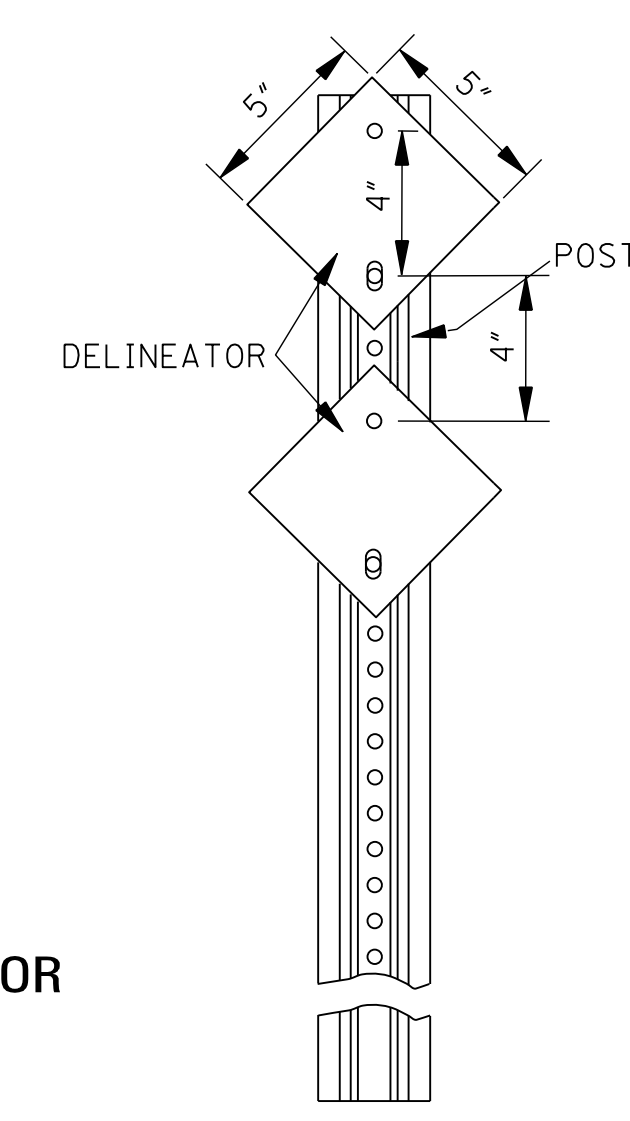
NOTE: TYPE 3 OBJECT MARKER AND DISTANCE REFERENCE SIGNS SHALL BE FASTENED TO U-SECTION POSTS WITH 3/8" DIA. BLIND FASTENERS OF THE COLLAR TYPE.



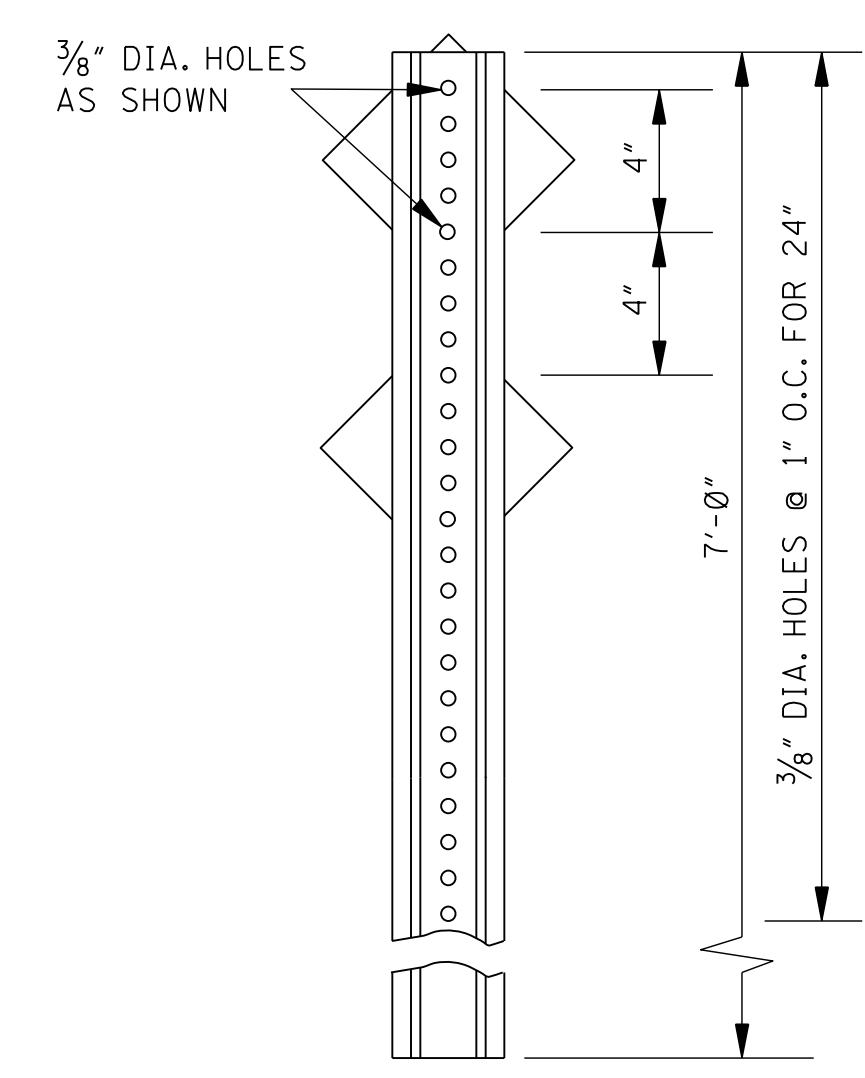
DETAIL OF TYPE 3 OBJECT MARKER INSTALLATION



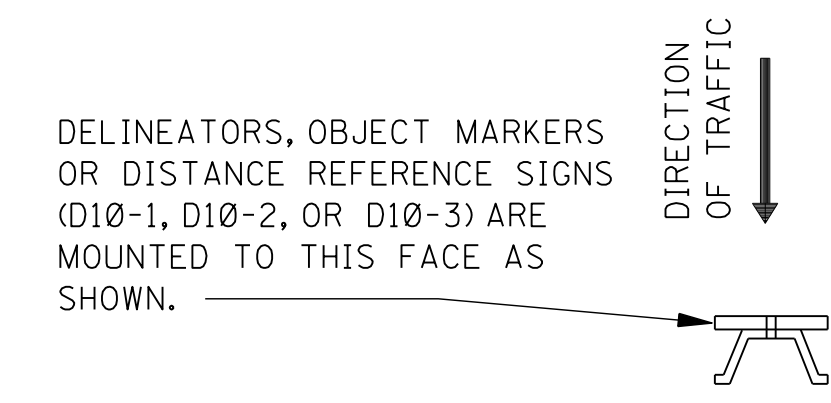
DETAIL OF SINGLE WHITE OR SINGLE YELLOW DELINEATOR



DETAIL OF DOUBLE WHITE OR DOUBLE YELLOW DELINEATOR



REAR VIEW OF DELINEATOR ASSEMBLY




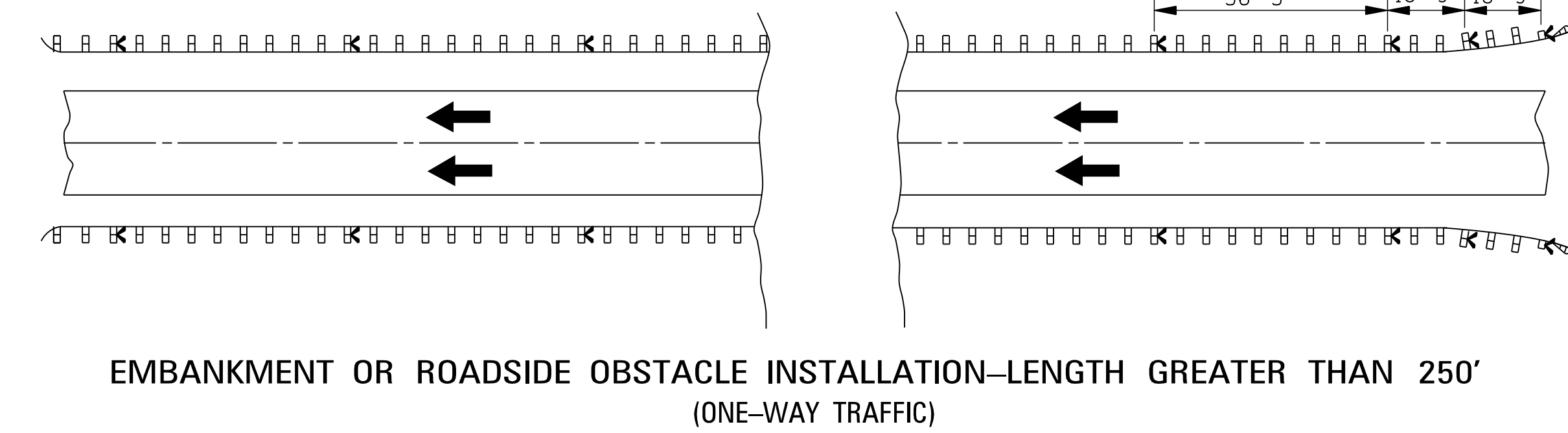
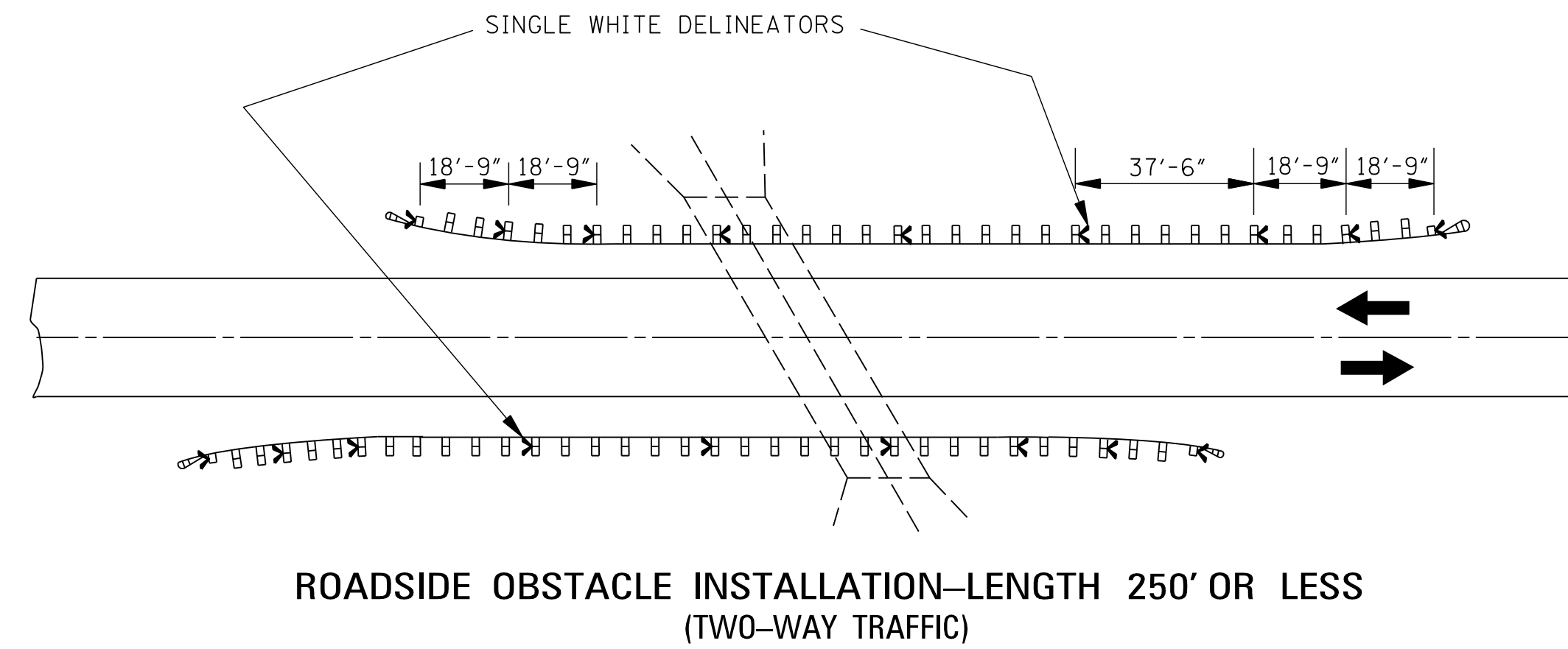
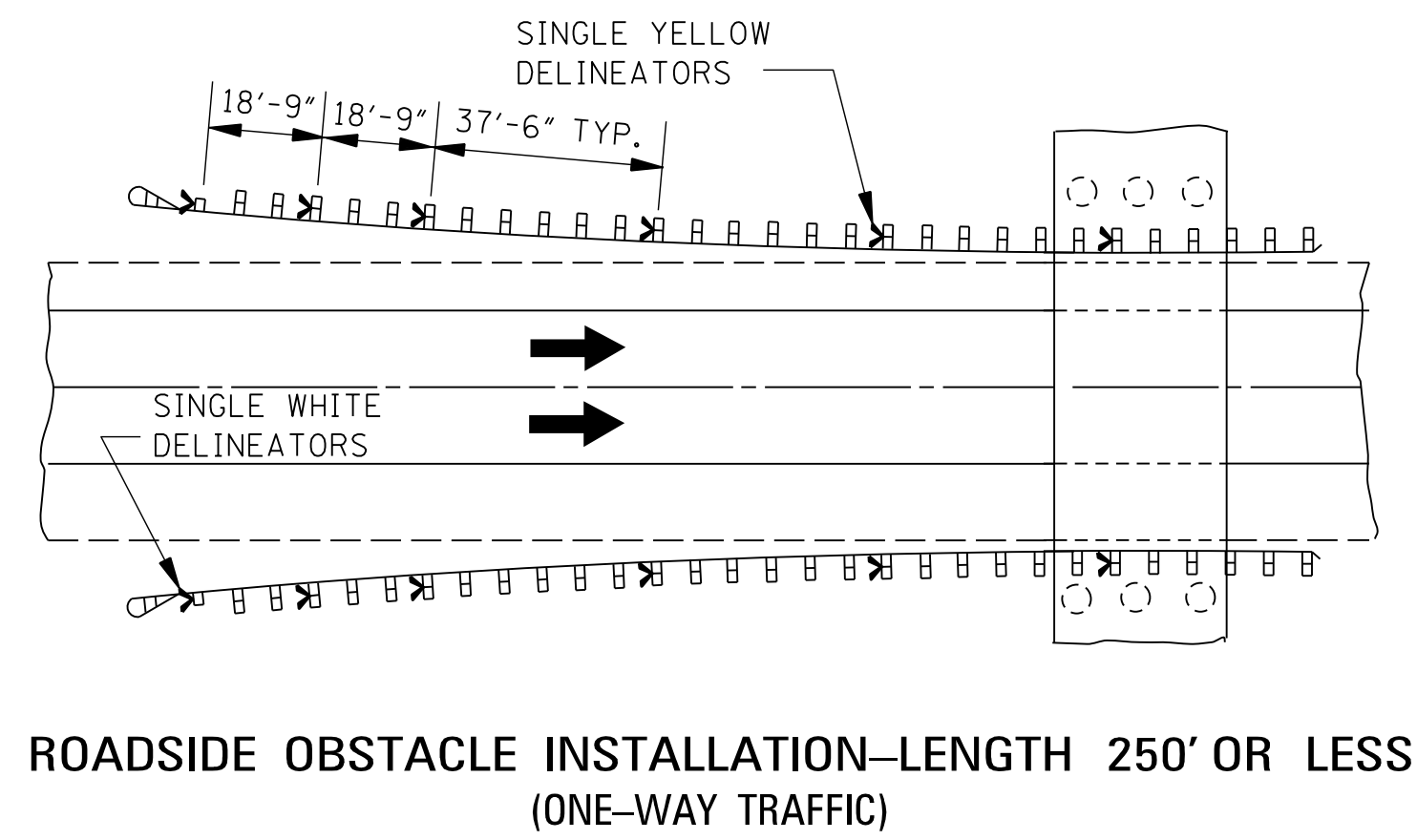
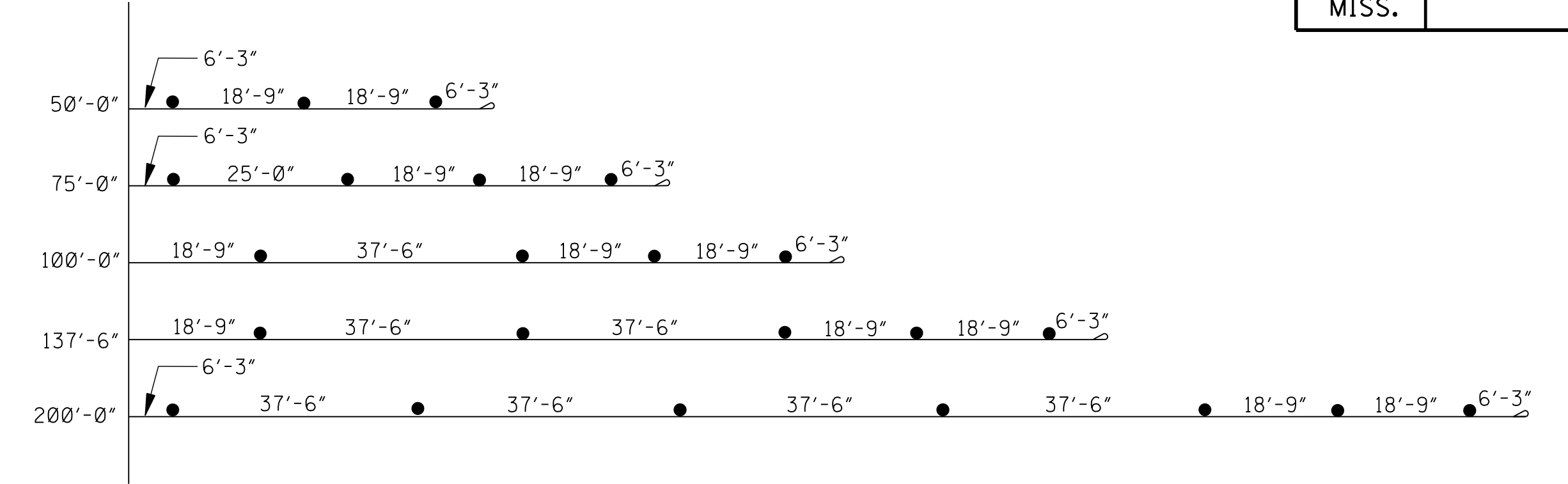
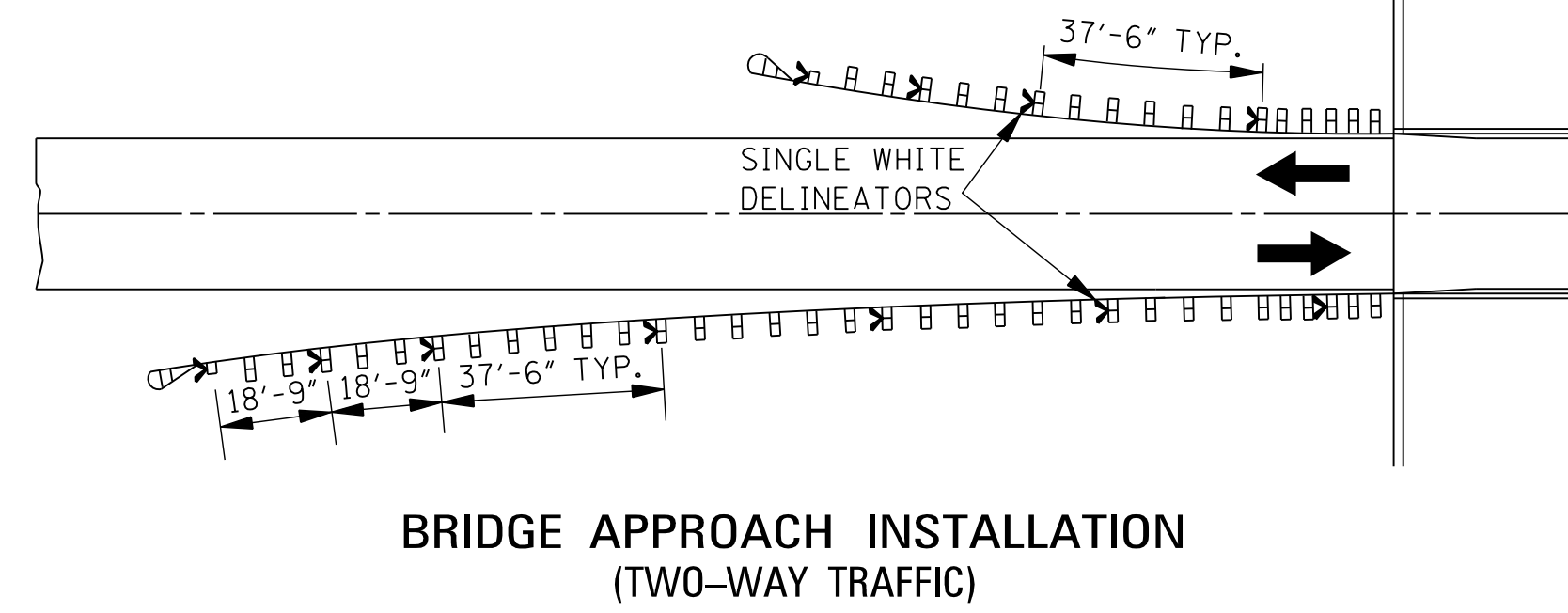
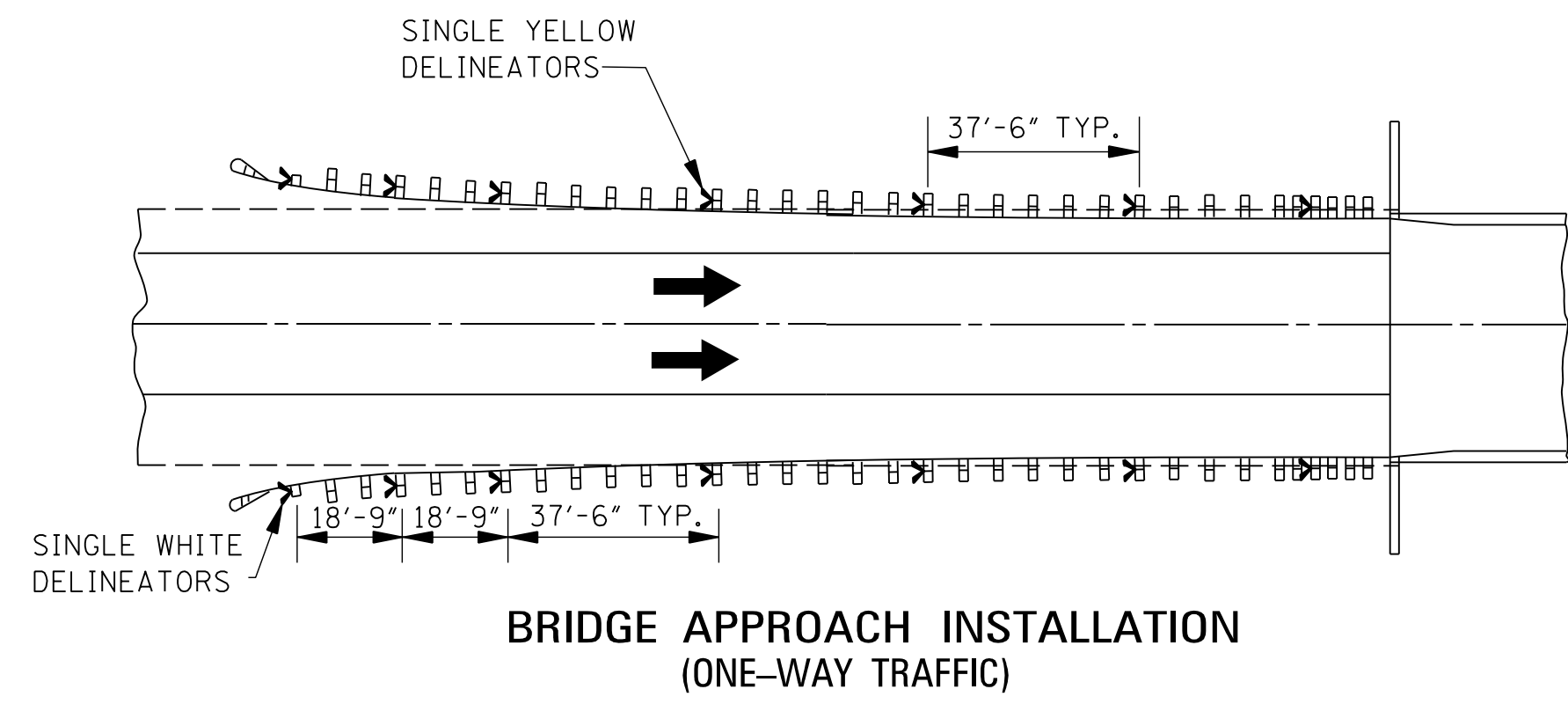
MOUNTING DETAIL

NOTE: DELINEATORS SHALL BE FASTENED TO U-SECTION POSTS WITH 1/4" DIA. BLIND FASTENERS OF THE COLLAR TYPE.

GENERAL NOTES:

1. DELINEATORS AND TYPE 3 OBJECT MARKER SHALL BE REFLECTIVE SHEETING ON 0.080" THICK ALUMINUM SHEET OR 14 GAGE GALVANIZED SHEET STEEL.
2. DELINEATOR, TYPE 3 OBJECT MARKER AND DISTANCE REFERENCE SIGN POSTS SHALL BE GALVANIZED STEEL. THE POSTS SHALL BE FABRICATED BEFORE THE METAL IS GALVANIZED.
3. WEIGHT WITHOUT GROUND PLATES:
 A. DELINEATOR POST 7'-0" - 2.0 lb/ft TO 2.5 lb/ft
 B. TYPE 3 OBJECT MARKER POST 9'-0" - 2.5 lb/ft TO 3.0 lb/ft
 C. DISTANCE REFERENCE SIGN POST 10'-0", 11'-0", & 12'-0" - 3.0 lb/ft TO 3.5 lb/ft
4. UNIT PRICE OF DELINEATORS AND TYPE 3 OBJECT MARKERS SHALL INCLUDE COST OF POST. DISTANCE REFERENCE SIGN POST WILL BE PAID FOR PER FOOT.
5. RADIUS IN BENDS OF POST CROSS SECTION NOT TO EXCEED 3/8" FOR HOT ROLLED SECTION.
6. GROUND PLATE NOT REQUIRED ON U-SECTION POST.

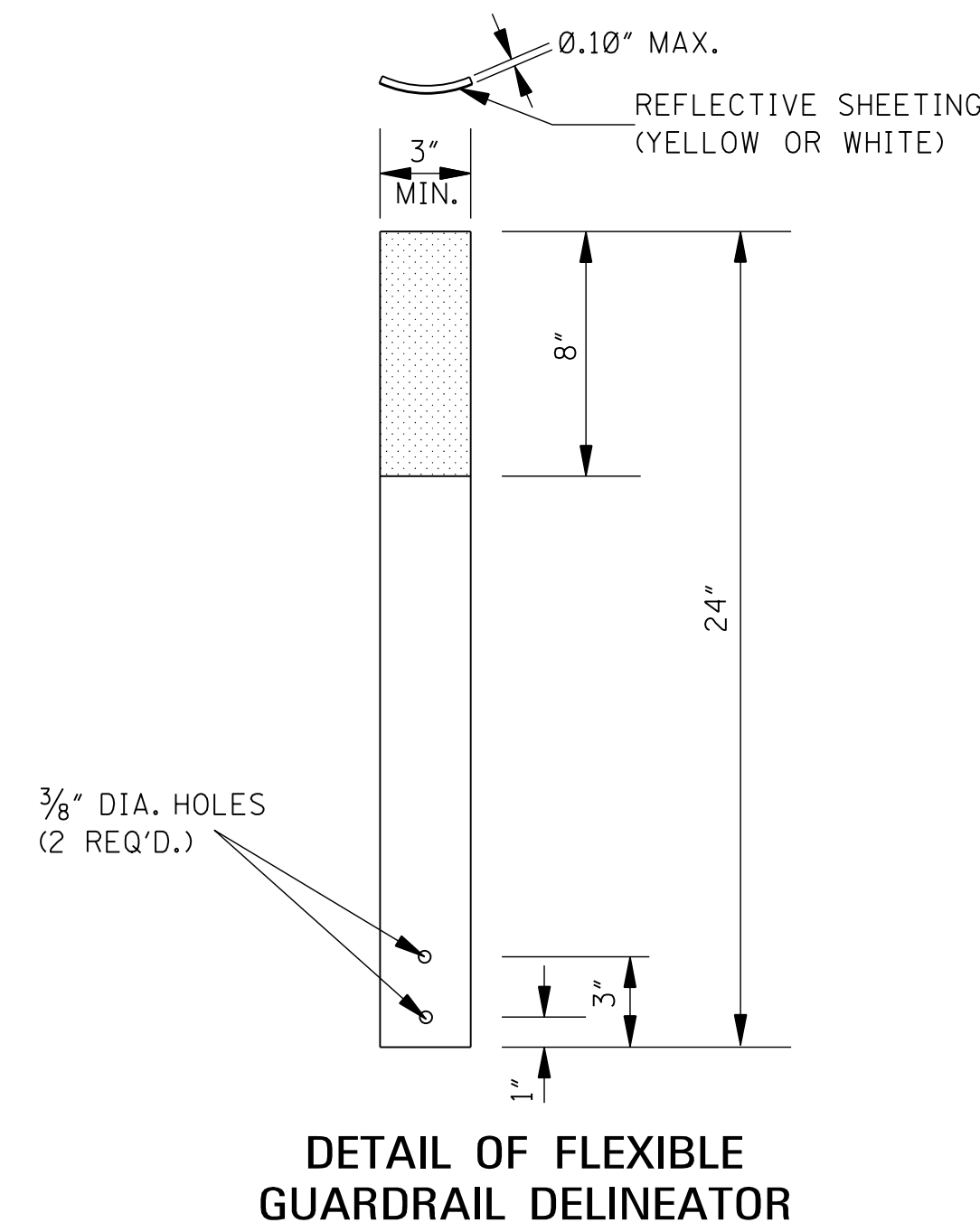
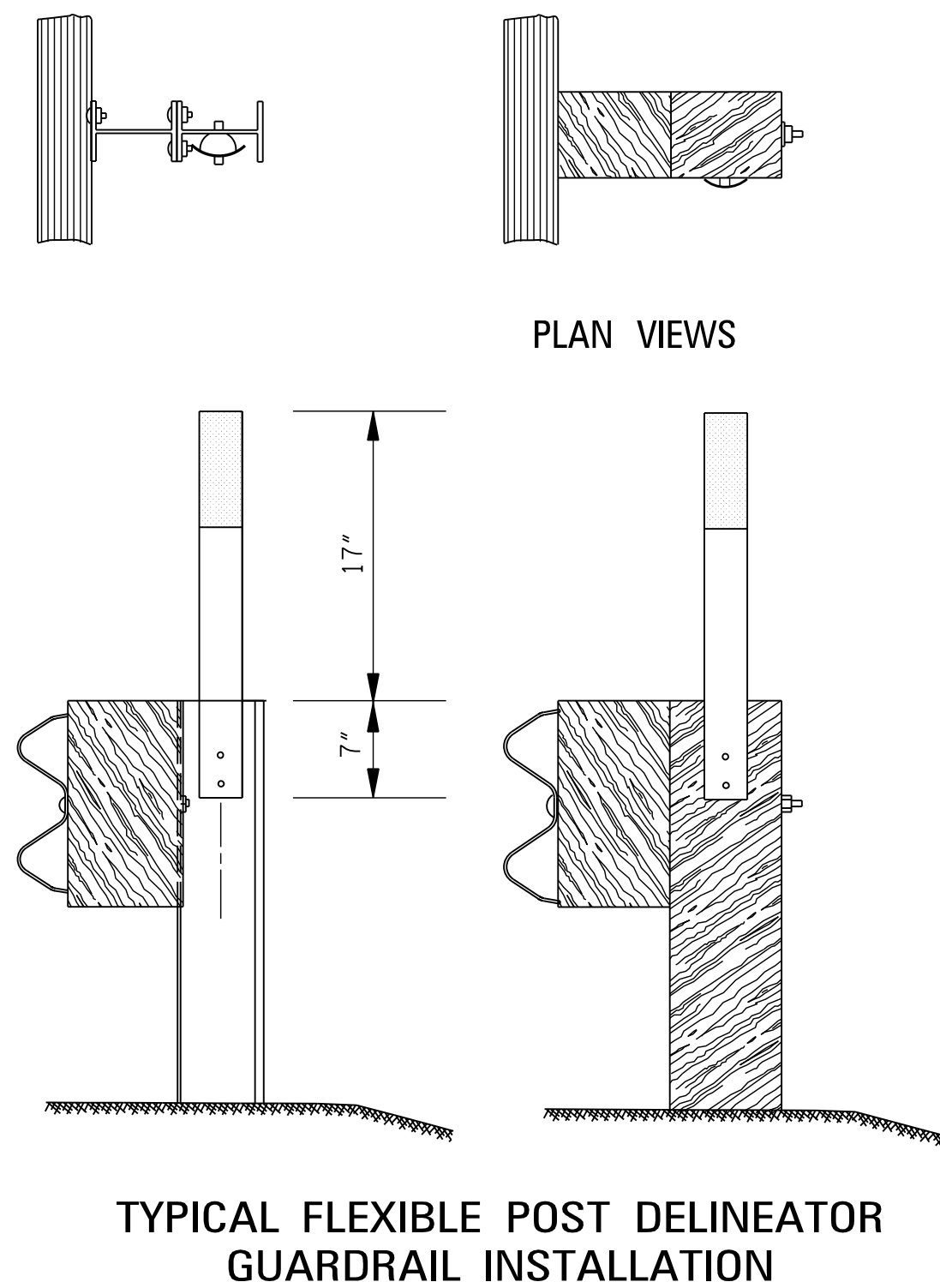
BY		MISSISSIPPI DEPARTMENT OF TRANSPORTATION ROADWAY DESIGN DIVISION STANDARD PLAN	
REVISION		<p>TYPICAL INSTALLATION AND DETAILS OF DELINEATORS AND DISTANCE REFERENCE SIGNS</p> 	
DATE			
ISSUE DATE: AUGUST 01, 2017		WORKING NUMBER SN-8	SHEET NUMBER 6314



NOTE: ONE-WAY TRAFFIC SHOWN. DELINEATOR SPACING FOR TWO-WAY TRAFFIC SIMILAR. DELINEATOR COLOR WILL BE THE SAME AS THE ADJACENT PAVEMENT EDGE MARKING. THE FIRST THREE (3) MARKERS WILL FACE TRAFFIC IN OFF LANE FOR TWO-WAY TRAFFIC AS SHOWN IN DRAWING FOR OBSTACLE INSTALLATION FOR TWO-WAY TRAFFIC.

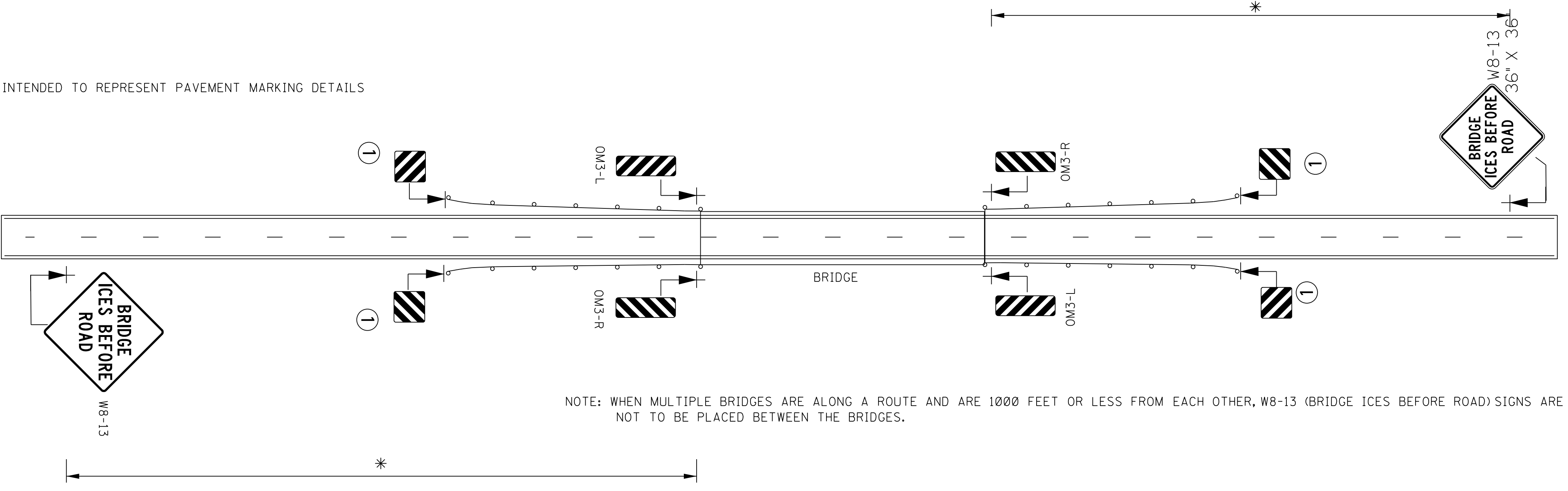
GENERAL NOTES:

1. THE UNIT PRICE OF DELINEATOR INCLUDES: COST(S) OF DELINEATOR FACE(S), POST, HARDWARE AND INSTALLATION.
2. DELINEATOR FACE WILL BE ENCAPSULATED LENS REFLECTIVE SHEETING.
3. DELINEATORS FOR GUARDRAIL SHALL BE MOUNTED ON FLEXIBLE POSTS AS FOLLOWS:
THE DELINEATOR POSTS WILL BE FROM THE DEPARTMENTS "APPROVED SOURCE OF MATERIALS" AND WILL BE FASTENED TO GUARDRAIL POST IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATION.



BY		MISSISSIPPI DEPARTMENT OF TRANSPORTATION ROADWAY DESIGN DIVISION STANDARD PLAN	
REVISION		TYPICAL GUARDRAIL DELINEATION	
DATE		ISSUE DATE: AUGUST 01, 2017	
		 WORKING NUMBER SN-8C SHEET NUMBER 6317	

DRAWING NOT INTENDED TO REPRESENT PAVEMENT MARKING DETAILS



NOTE: WHEN MULTIPLE BRIDGES ARE ALONG A ROUTE AND ARE 1000 FEET OR LESS FROM EACH OTHER, W8-13 (BRIDGE ICES BEFORE ROAD) SIGNS ARE NOT TO BE PLACED BETWEEN THE BRIDGES.

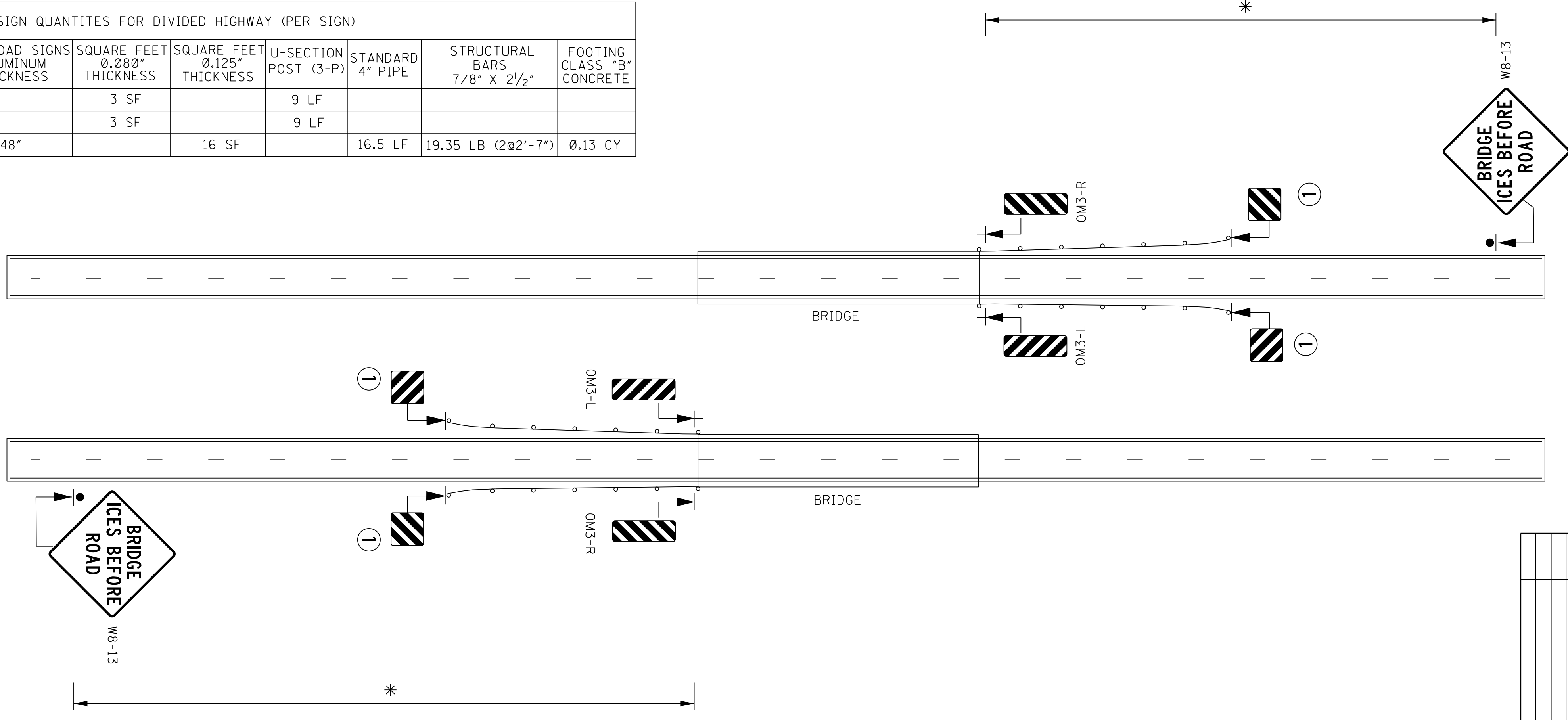
UNDIVIDED HIGHWAY DETAIL

SIGN QUANTITIES FOR UNDIVIDED HIGHWAY (PER SIGN)					
MUTCD NUMBER	STANDARD ROAD SIGNS SHEET ALUMINUM 0.080" THICKNESS	STANDARD ROAD SIGNS SHEET ALUMINUM 0.125" THICKNESS	SQUARE FEET 0.080" THICKNESS	SQUARE FEET 0.125" THICKNESS	U-SECTION POST (3-P)
OM3-L	12" X 36"		3 SF		9 LF
OM3-R	12" X 36"		3 SF		9 LF
W8-13		36" X 36"		9 SF	15 LF

① REFLECTIVE ADHESIVE SHEETING WITH ALTERNATING BLACK AND YELLOW STRIPES (SLOPING DOWNWARD) AT AN ANGLE OF 45 DEGREES IN THE DIRECTION TRAFFIC IS TO PASS) IS REQUIRED ON THE END OF THE TERMINAL END SECTION. NOT A SEPARATE PAY ITEM. COST TO BE ABSORBED IN GUARD RAIL.

SIGN QUANTITIES FOR DIVIDED HIGHWAY (PER SIGN)								
MUTCD NUMBER	STANDARD ROAD SIGNS SHEET ALUMINUM 0.080" THICKNESS	STANDARD ROAD SIGNS SHEET ALUMINUM 0.125" THICKNESS	SQUARE FEET 0.080" THICKNESS	SQUARE FEET 0.125" THICKNESS	U-SECTION POST (3-P)	STANDARD 4" PIPE	STRUCTURAL BARS 7/8" X 2 1/2"	FOOTING CLASS "B" CONCRETE
OM3-L	12" X 36"		3 SF		9 LF			
OM3-R	12" X 36"		3 SF		9 LF			
W8-13		48" X 48"		16 SF		16.5 LF	19.35 LB (2@2'-7")	0.13 CY

* TABLE 2C-4 MUTCD	
SPEED (MPH)	MINIMUM PLACEMENT (FEET)
35	100
40	125
45	175
50	250
55	325
60	400
65	475
70	550

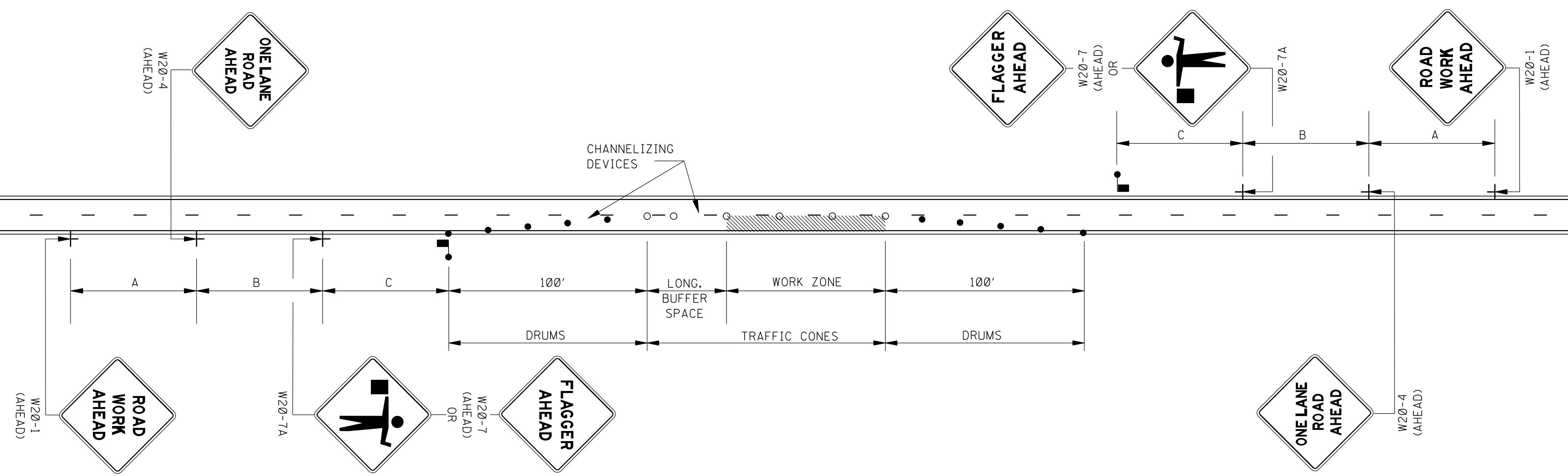


DIVIDED HIGHWAY DETAIL

BY	MISSISSIPPI DEPARTMENT OF TRANSPORTATION ROADWAY DESIGN DIVISION STANDARD PLAN
REVISION	
DATE	ISSUE DATE: AUGUST 01, 2017

**SIGNING DETAILS FOR
BRIDGE APPROACHES**


 WORKING NUMBER SN-9
 SHEET NUMBER 6318



GENERAL NOTES:

1. THE LOCATION OF CHANNELIZING DEVICES AND THE WORK AREA LAYOUT SHALL BE BASED ON THE CRITERIA IN THE FOLLOWING TABLE. FLAGGER STATIONS SHALL BE LOCATED SUCH THAT APPROACHING VEHICLES WILL HAVE SUFFICIENT DISTANCE TO STOP. VALUES IN STOPPING SIGHT DISTANCE COLUMN MAY BE USED AS A MINIMUM FOR THIS DISTANCE.

POSTED SPEED AND/OR DESIGN SPEED mph	MAXIMUM CHANNELIZING DEVICE SPACING (ft)		LONGITUDINAL BUFFER SPACE (ft)†	STOPPING SIGHT DISTANCE
	TAPER	ALONG LANE LINE & WORK ZONE		
25	20	50	55	155
30	20	60	85	200
35	20	70	120	250
40	20	80	170	305
45	20	90	220	360
50	20	100	280	425
55	20	110	335	495
60	20	120	415	570
65	20	130	485	645


† NOTE: BUFFER SPACE MAY BE ADJUSTED AS NEEDED ACCORDING TO ROADWAY GEOMETRY TO MEET SIGHT DISTANCE REQUIREMENTS, AS DIRECTED BY THE ENGINEER.

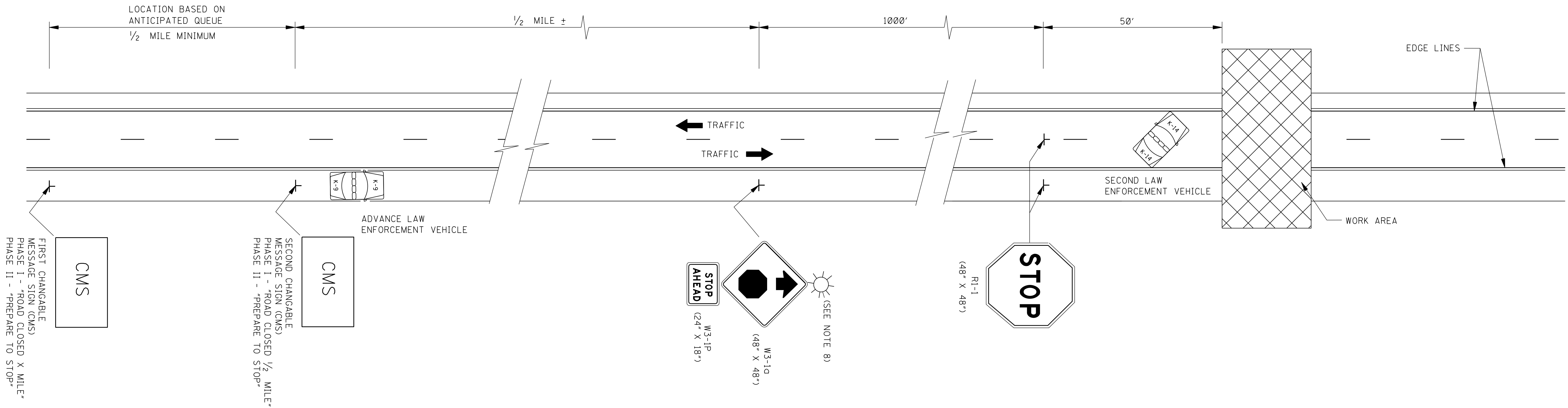
- ALL CHANNELIZING DEVICES SHALL BE A MINIMUM OF 28" IN HEIGHT.
- DIAMOND SHAPED TRAFFIC CONTROL SIGNS SHALL BE A MINIMUM OF 36" x 36" AND BLACK COPY ON FLUORESCENT ORANGE SHEETING.
- WHEN WORK ZONE IS NO LONGER NEEDED, ALL SIGNS SHALL BE COVERED OR REMOVED AND ALL CHANNELIZING DEVICES SHALL BE MOVED TO THE SHOULDER EDGE.
- ADDITIONAL FLAGGERS MAY BE NEEDED AS DIRECTED BY THE ENGINEER.
- WHEN WORK IS REQUIRED AT NIGHT, FLAGGER STATIONS SHALL BE ILLUMINATED.
- CHANNELIZING DEVICE TYPES FOR:
A. APPROACH AND EXIT TAPERS- RETROREFLECTIVE PLASTIC DRUMS
B. ALONG LANE LINE AND WORK ZONE- TRAFFIC CONES (28" HEIGHT)
- ALL TRAFFIC CONTROL ITEMS SHOWN ON THIS SHEET WILL NOT BE MEASURED FOR SEPARATE PAYMENT. THIS WORK SHALL BE INCLUDED IN THE PRICE BID FOR MAINTENANCE OF TRAFFIC.

LEGEND

- FLAGGER
- RETROREFLECTIVE FREE-STANDING PLASTIC DRUMS
- TRAFFIC CONES (28" HEIGHT MINIMUM)

ROAD TYPE	A	B	C
URBAN (35 MPH OR LESS)	100 FT.	100 FT.	100 FT.
URBAN (40 - 70 MPH)	350 FT.	350 FT.	350 FT.
RURAL	500 FT.	500 FT.	500 FT.
EXPRESSWAY / FREEWAY	1000 FT.	1500 FT.	2640 FT.

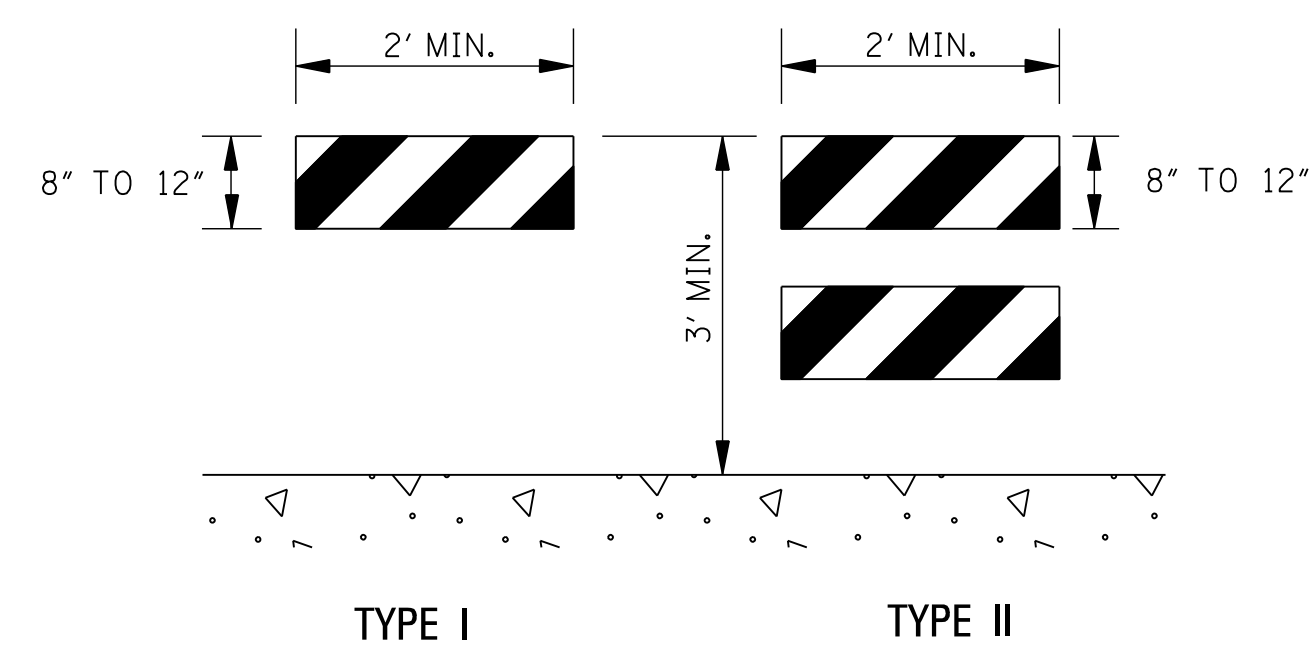
BY		MISSISSIPPI DEPARTMENT OF TRANSPORTATION ROADWAY DESIGN DIVISION STANDARD PLAN	
REVISION		<p align="center">TRAFFIC CONTROL PLAN WITH FLAGGER (ONE-LANE CLOSURE OF TWO-WAY TRAFFIC)</p> 	
DATE			
ISSUE DATE:		AUGUST 01, 2017	
WORKING NUMBER		TCP-1	
SHEET NUMBER		6351	



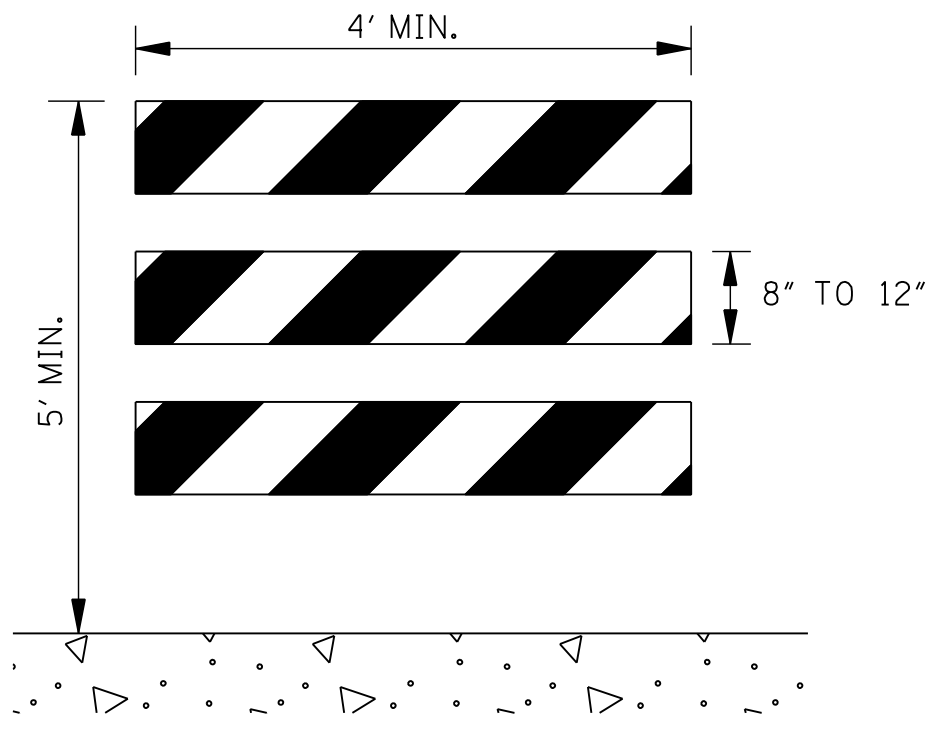
GENERAL NOTES:

- THIS TYPE OF HIGHWAY CLOSURE SHOULD ONLY BE USED FOR CONSTRUCTION OPERATIONS WHEN THE DURATION OF CLOSURE WILL NOT EXCEED 30 MINUTES. AFTER THE HIGHWAY HAS BEEN CLOSED AND REOPENED VIA THIS PROCEDURE, A MINIMUM PERIOD OF 30 MINUTES SHOULD ELAPSE BEFORE ANOTHER SHORT DURATION CLOSURE, EXCEPT WITH THE APPROVAL OF THE ENGINEER.
- AT LEAST TWO LAW ENFORCEMENT OFFICERS AND TWO LAW ENFORCEMENT VEHICLES SHOULD BE PROVIDED ON EACH APPROACH TO THE CLOSURE. EACH LAW ENFORCEMENT VEHICLE SHOULD HAVE A ROOF MOUNTED FLASHING BLUE LIGHT OR LIGHT BAR.
- RESTRICTIONS ON ROAD CLOSURES ARE SPECIFIED IN THE CONTRACT DOCUMENT.
- THE ADVANCE LAW ENFORCEMENT VEHICLE SHOULD BE MOVED BACK AS REQUIRED BY THE QUEUING OF STOPPED VEHICLES.
- IF QUEUE EXCEEDS THE FIRST CHANGABLE MESSAGE SIGN (CMS) AT ANYTIME DURING A CLOSURE; THE TRAFFIC CONTROL PLAN SHOULD BE ADJUSTED AS NECESSARY, WITH APPROVAL OF THE ENGINEER.
- TRAFFIC CONTROL FOR THE CLOSURE SHOULD BE ACCOMPLISHED IN THE FOLLOWING ORDER:
 - FIRST CHANGABLE MESSAGE SIGN (CMS)
 - SECOND CHANGEABLE MESSAGE SIGN (CMS)
 - ADVANCE LAW ENFORCEMENT VEHICLE, LIGHTS AND FLASHERS ON.
 - "W3-1a (48" X 48")" AND "W3-1P (24" X 18")" SIGNS ERECTED.
 - "R1-1 (48" X 48")" SIGNS ERECTED TO STOP TRAFFIC. THE ORDER OF ERECTION SHOULD BE IN THE FOLLOWING ORDER: RIGHT SHOULDER THEN CENTER.
 - SECOND LAW ENFORCEMENT VEHICLE, LIGHTS AND FLASHERS ON.
- TRAFFIC CONTROL SHOULD BE REMOVED IN THE FOLLOWING ORDER:
 - WITH TRAFFIC STOPPED REMOVE THE "R1-1 (48" X 48")" SIGNS TOWARD THE RIGHT SHOULDER IN THE FOLLOWING ORDER: CENTER THEN SIGN ON THE RIGHT SHOULDER. SECOND LAW ENFORCEMENT VEHICLE LEADS TRAFFIC THROUGH WORK AREA.
 - AFTER ALL STOPPED VEHICLES HAVE STARTED MOVING, THE "W3-1a (48" X 48")" AND "W3-1P (24" X 18")" SIGNS SHOULD BE REMOVED. THESE SIGNS MAY BE COVERED IF RE-USE IS IMMINENT.
 - AFTER ALL VEHICLES HAVE RESUMED APPROXIMATELY NORMAL SPEED, THE CHANGABLE MESSAGE SIGNS TURNED OFF.
- UNILLUMINATED SECTIONS OF HIGHWAYS SHOULD NOT BE CLOSED DURING HOURS OF DARKNESS EXCEPT FOR EMERGENCIES OR WITH THE APPROVAL OF THE ENGINEER. WHEN THE HIGHWAY MUST BE CLOSED DURING HOURS OF DARKNESS, A TYPE B HIGH INTENSITY FLASHING BARRICADE WARNING LIGHT SHALL BE USED ON EACH W3-1a SIGN.
- IF AN ENTRANCE RAMP IS LOCATED BETWEEN THE SECOND CMS AND R1-1, THE CMS, "W3-1a (48" X 48")", AND "W3-1P (24" X 18")" SIGNS SHOULD ALSO BE ERECTED ON THE RAMP SHOULDER.
- THE ABOVE DURATION WILL APPLY TO EACH APPROACH TO THE CLOSURE.
- ALL TRAFFIC CONTROL ITEMS SHOWN ON THIS SHEET WILL NOT BE MEASURED FOR SEPARATE PAYMENT. THIS WORK SHALL BE INCLUDED IN THE PRICE BID FOR MAINTENANCE OF TRAFFIC, INCLUDING SECURING LAW ENFORCEMENT SERVICES.

MISSISSIPPI DEPARTMENT OF TRANSPORTATION ROADWAY DESIGN DIVISION STANDARD PLAN	
SHORT DURATION CLOSING OF TWO-LANE TWO-WAY HIGHWAYS	
WORKING NUMBER TCP-6	SHEET NUMBER 6356
ISSUE DATE: AUGUST 01, 2017	



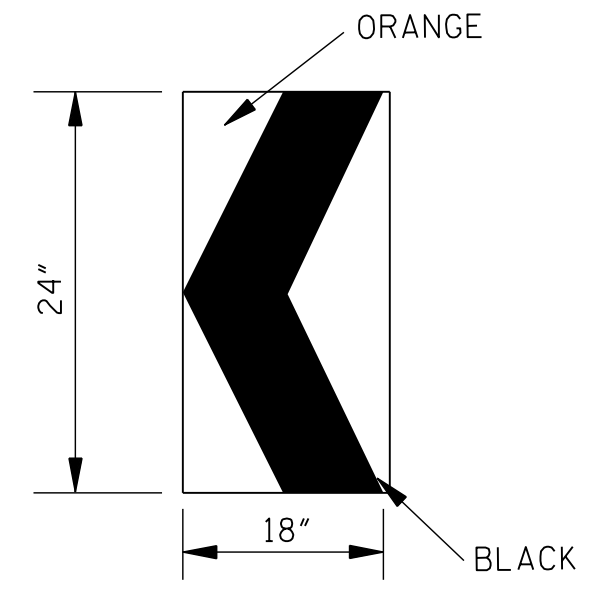
TYPE I TYPE II



TYPE III

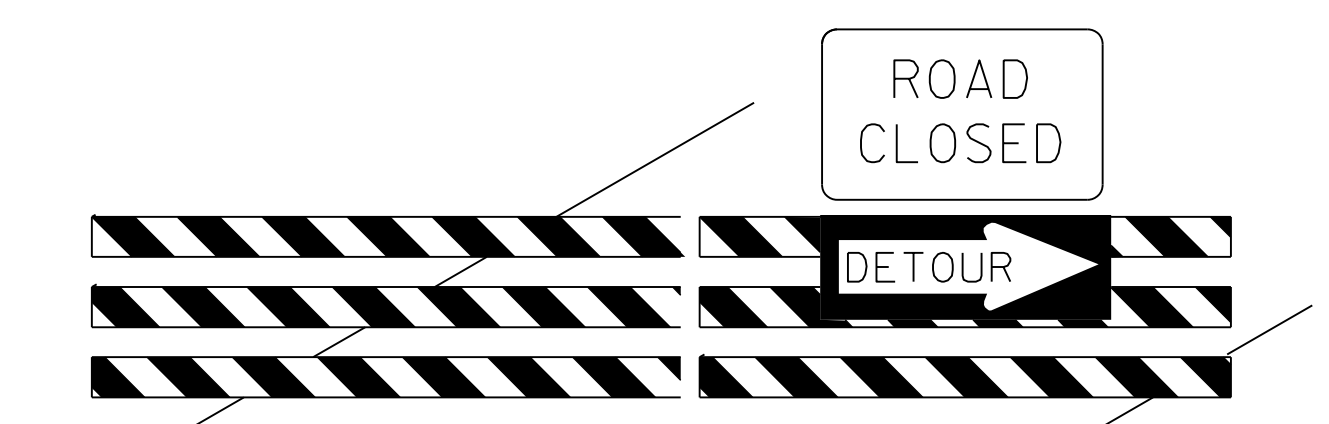
STANDARD BARRICADES

1. THE MARKING FOR BARRICADE RAILS SHALL BE ORANGE AND WHITE (SLOPING DOWNWARD AT AN ANGLE OF 45° IN THE DIRECTION TRAFFIC IS TO PASS).
2. RAIL STRIPE SHOULD BE 6 INCHES, EXCEPT THAT 4-INCH WIDE STRIPES MAY BE USED IF RAIL LENGTHS ARE LESS THAN 36 INCHES.
3. DO NOT PLACE SANDBAGS OR OTHER DEVICES TO PROVIDE MASS ON THE BOTTOM RAIL THAT WILL BLOCK VIEW OR RAIL FACE.
4. FOR ADDITIONAL INFORMATION OR DETAILS, SEE MUTCD, LATEST EDITION.
5. BARRICADES ARE CLASSIFIED BY FHWA AS CATEGORY II WORK ZONE DEVICES WHICH REQUIRE CRASHWORTHINESS ACCEPTANCE LETTERS. TO DATE, 2-IN. THICK TIMBER RAILS HAVE NOT BEEN SUCCESSFULLY CRASH TESTED. A LIST OF CRASHWORTHY BARRICADES AND OTHER CATEGORY II DEVICES CAN BE FOUND ON FHWA'S WEBSITE:
http://safety.fhwa.dot.gov/roadway_dept/policy_guide/road_hardware/cat2.cfm



**CHEVRON SIGN
DETAIL**

1. A CHEVRON SIGN CONSISTS OF A BLACK CHEVRON TYPE MARKING ON AN ORANGE BACKGROUND AND SHALL POINT IN THE DIRECTION OF TRAFFIC FLOW.
2. THE CHEVRON SIGN SHALL BE MOUNTED ON CRASHWORTHY SUPPORT.
3. CHEVRON SIGNS MAY BE USED TO SUPPLEMENT OTHER STANDARD DEVICES WHERE ONE OR MORE LANES ARE CLOSED FOR CONSTRUCTION OR MAINTENANCE. THEY SHOULD BE PLACED APPROXIMATELY 2'-0" BEHIND THE LANE TRANSITION STRIPE.

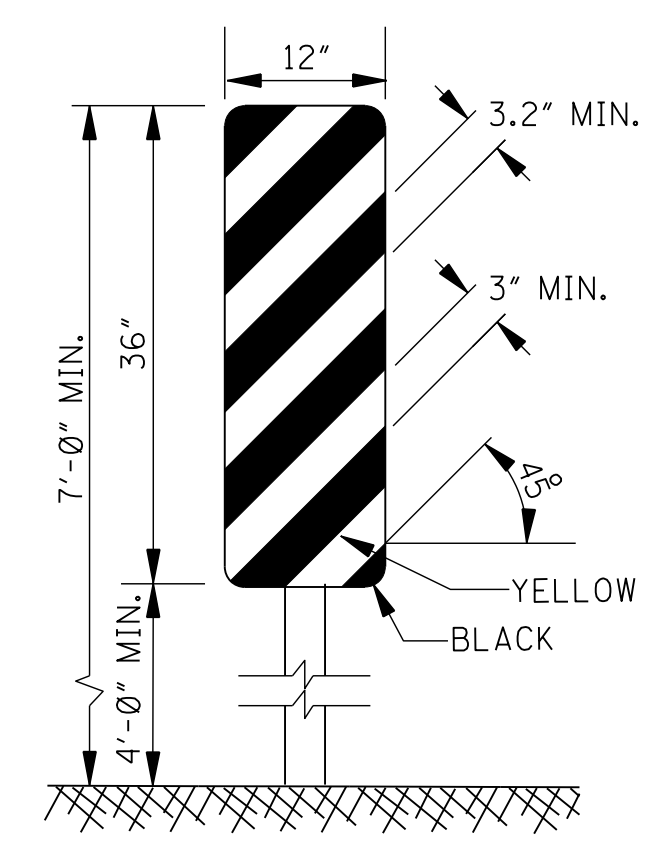


BARRICADE CLOSING A ROAD

BARRICADE CHARACTERISTICS

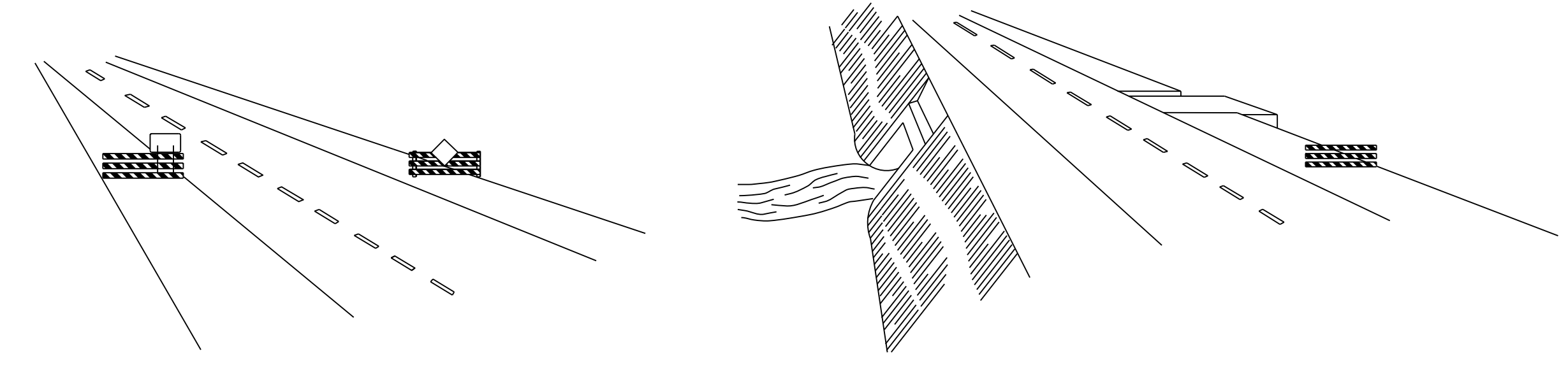
	I	II	III
WIDTH OF RAIL **	8" MIN. - 12" MAX.	8" MIN. - 12" MAX.	8" MIN. - 12" MAX.
LENGTH OF RAIL **	24" MIN.	24" MIN.	48" MIN.
WIDTH OF STRIPE *	6"	6"	6"
HEIGHT	36" MIN.	36" MIN.	60" MIN.
NUMBER OF RETROREFLECTORIZED RAIL FACES	2 (ONE EACH DIRECTION)	4 (TWO EACH DIRECTION)	3 IF FACING TRAFFIC IN ONE DIRECTION 6 IF FACING TRAFFIC IN TWO DIRECTIONS

- * 1. FOR RAILS LESS THAN 36" LONG, 4" WIDE STRIPES MAY BE USED.
- ** 2. BARRICADES INTENDED FOR USE ON EXPRESSWAYS, FREEWAYS AND OTHER HIGH SPEED ROADWAYS, SHALL HAVE A MINIMUM OF 270 in² OF REFLECTIVE AREA FACING TRAFFIC.



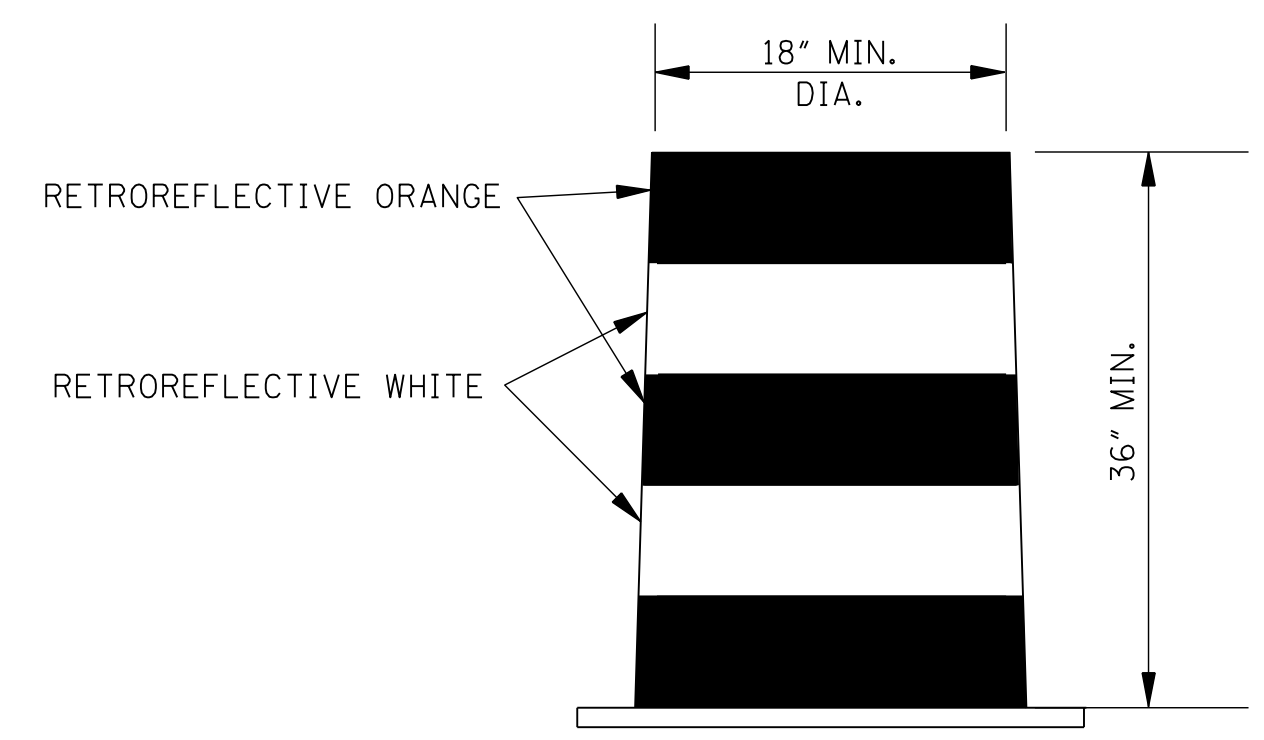
**TYPE 3 OBJECT MARKER
(OM-3R)**

1. TYPE 3 OBJECT MARKERS SHALL BE USED AT ALL EXPOSED BRIDGE ABUTMENTS AND AT OTHER LOCATIONS AS DEEMED NECESSARY BY THE ENGINEER.
2. THE OM-3R IS SHOWN. THE OM-3L IS SIMILAR EXCEPT THE STRIPES SLOPE DOWNWARD FROM THE UPPER LEFT SIDE TO THE LOWER RIGHT SIDE AND SHALL BE PLACED ON THE LEFT SIDE OF THE OBJECT.
3. THE INSIDE EDGE OF THE MARKER SHALL BE IN LINE WITH THE INNER EDGE OF THE OBSTRUCTION.



WING BARRICADES

1. WING BARRICADES ARE TYPE III BARRICADES ERECTED ON THE SHOULDER ON ONE OR BOTH SIDES OF THE PAVEMENT TO GIVE THE SENSATION OF A NARROWING OR RESTRICTED ROADWAY. WING BARRICADES MAY BE USED AS A MOUNTING FOR THE ADVANCE WARNING SIGNS OR FLASHERS.
2. WING BARRICADES SHOULD BE USED:
 - A. IN ADVANCE OF A CONSTRUCTION PROJECT EVEN WHEN NO PART OF THE ROADWAY IS ACTUALLY CLOSED.
 - B. IN ADVANCE OF ALL BRIDGE OR CULVERT WIDENING OPERATIONS.



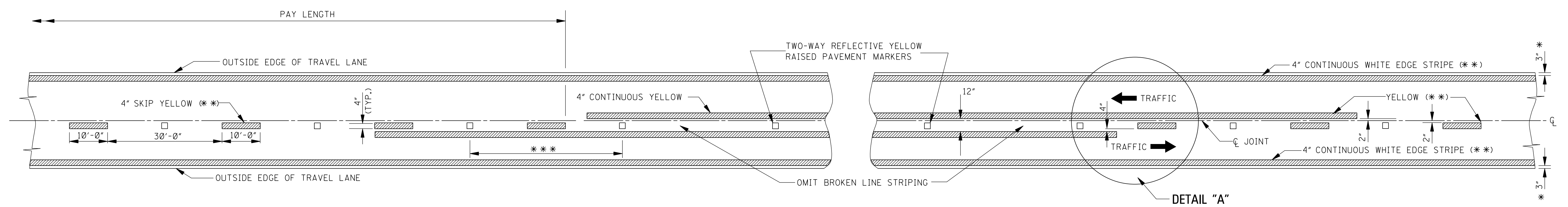
PLASTIC DRUM STRIPING DETAIL

1. PLASTIC DRUMS SHALL BE ON END AND USED AS AN EXPEDIENT METHOD FOR TRAFFIC CHANNELIZATION. THE COLOR AND MARKING OF DRUMS SHALL BE CONSISTENT WITH MARKING STANDARDS FOR BARRICADE. THE PREDOMINANT COLOR ON DRUMS SHALL BE ORANGE WITH FOUR (4) RETROREFLECTIVE, HORIZONTAL, CIRCUMFERENTIAL STRIPES (2 ORANGE & 2 WHITE) 6" WIDE.
2. DRUMS SHOULD NEVER BE PLACED IN THE ROADWAY WITHOUT WARNING SIGNS.
3. WHERE PRACTICAL PLASTIC DRUMS SHOULD BE PLACED NO CLOSER THAN 3'-0" FROM THE EDGE OF TRAVELED LANE.

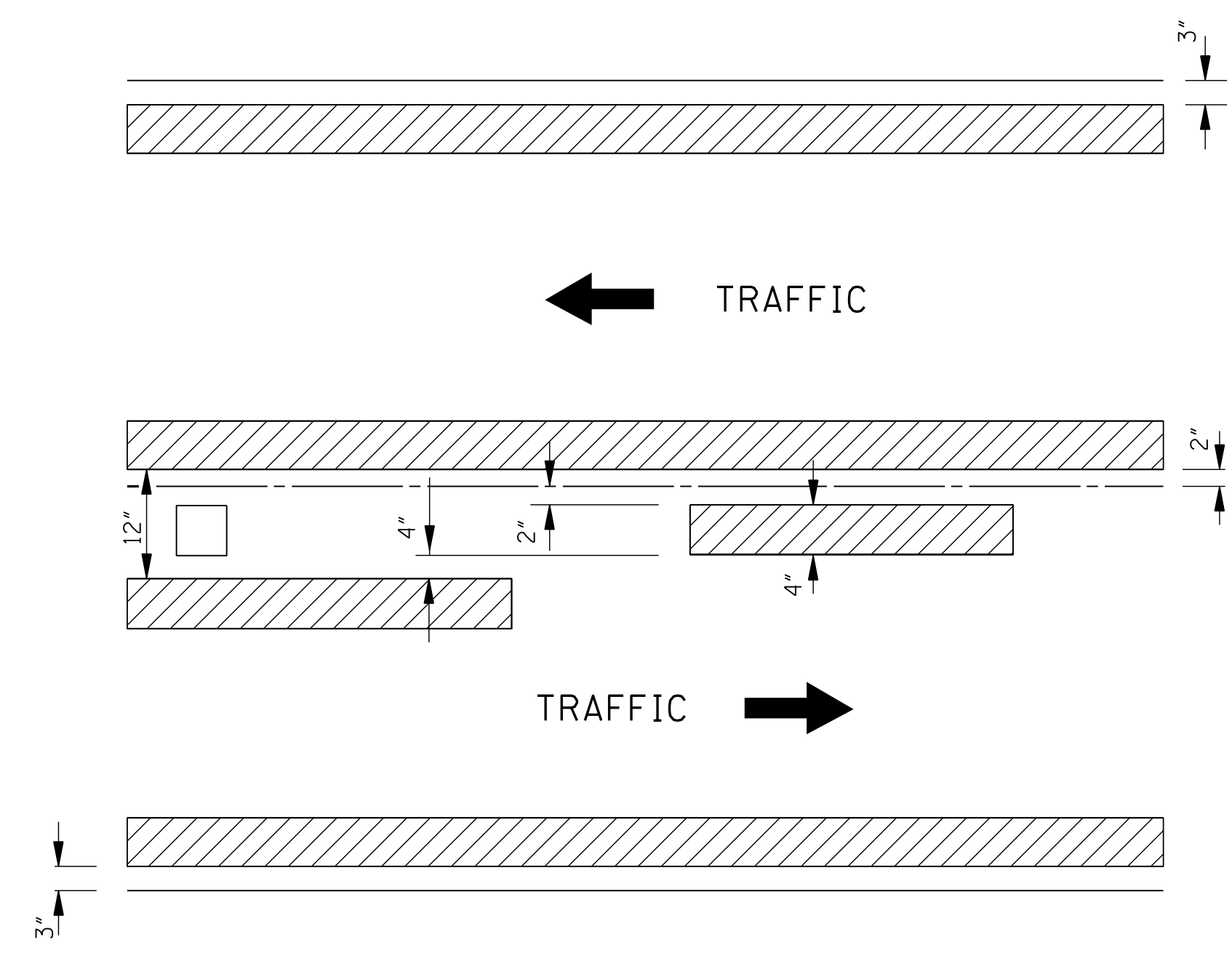
BY		MISSISSIPPI DEPARTMENT OF TRANSPORTATION ROADWAY DESIGN DIVISION STANDARD PLAN	
REVISION		<p>HIGHWAY SIGN AND BARRICADE DETAILS FOR CONSTRUCTION PROJECTS</p>	
DATE			
ISSUE DATE:		AUGUST 01, 2017	



WORKING NUMBER
TCP-8
SHEET NUMBER
6358



TWO-WAY TRAFFIC
(ASPHALT OR CONCRETE PAVEMENT)



DETAIL "A"



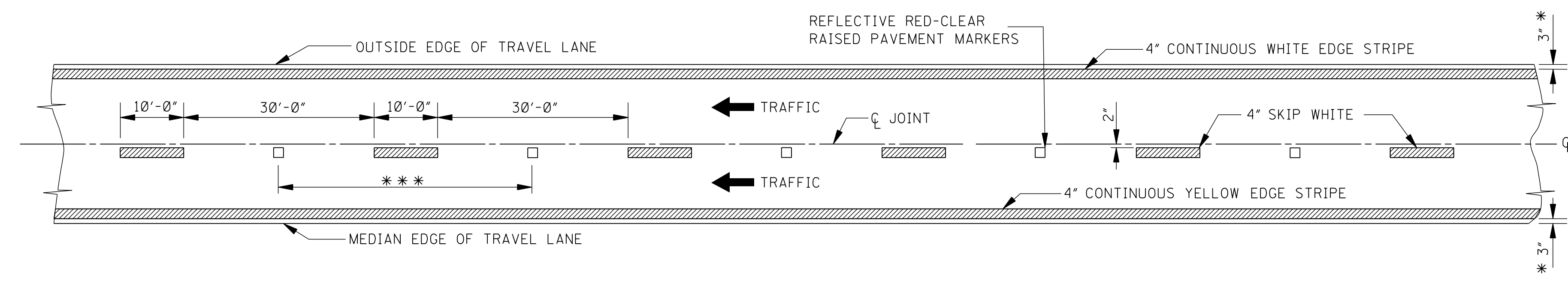
GENERAL NOTES:

- * 1. 3" UNLESS SHOWN ELSEWHERE ON THE PLANS.
- ** 2. EDGE STRIPE SHALL BE SAME MATERIAL AS LANE-LINE STRIPE (PAINT OR TAPE AS INDICATED IN PAY ITEMS).
- 3. REFLECTIVE RAISED PAVEMENT MARKERS TO BE USED IF TEMPORARY MARKINGS ARE TO REMAIN IN PLACE OVER 3 MONTHS
- *** 4. SPACING OF REFLECTIVE RAISED PAVEMENT MARKERS IS AS FOLLOWS:

	URBAN AREA (ft-in)	RURAL AREA (ft-in)
TANGENT SECTIONS	40'-0"	80'-0"
HORIZONTAL CURVES	40'-0"	40'-0"
INTERCHANGE LIMITS	40'-0"	+ 40'-0"

† NOTE: ON THE MAIN FACILITY, REFLECTIVE RED-CLEAR RAISED PAVEMENT MARKERS ON A 40'-0" SPACING WILL BE REQUIRED ON LANE-LINE(S) THROUGH ALL INTERCHANGE AREAS BEGINNING 1000' IN ADVANCE (IN DIRECTION OF TRAFFIC) OF THE EXIT RAMP TAPER AND CONTINUING THROUGH THE INTERCHANGE TO THE END OF THE ENTRANCE RAMP TAPER.

5. PAVEMENT MARKERS SHALL BE HIGH PERFORMANCE REFLECTIVE RAISED PAVEMENT MARKERS AS LISTED IN THE MDT "APPROVED SOURCES OF MATERIALS."

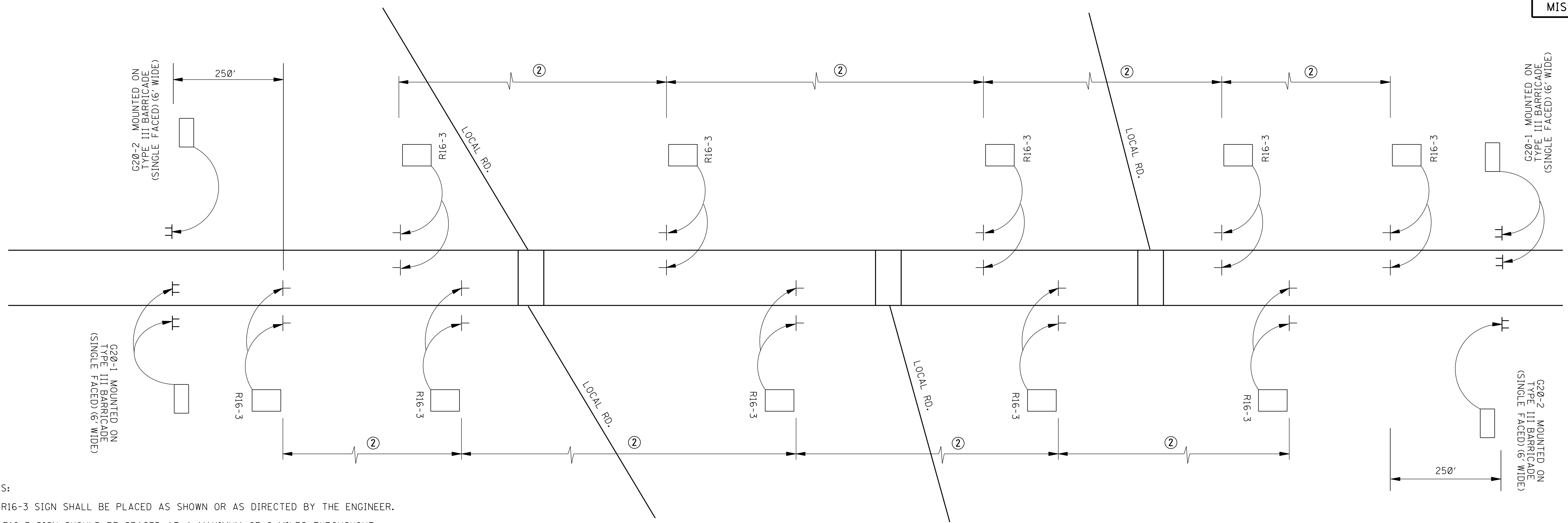


4-LANE WITH ONE-WAY TRAFFIC

BY	MISSISSIPPI DEPARTMENT OF TRANSPORTATION ROADWAY DESIGN DIVISION STANDARD PLAN
REVISION	TEMPORARY STRIPING FOR TRAFFIC CONTROL 2-LANE AND 4-LANE DIVIDED HIGHWAYS
DATE	ISSUE DATE: AUGUST 01, 2017



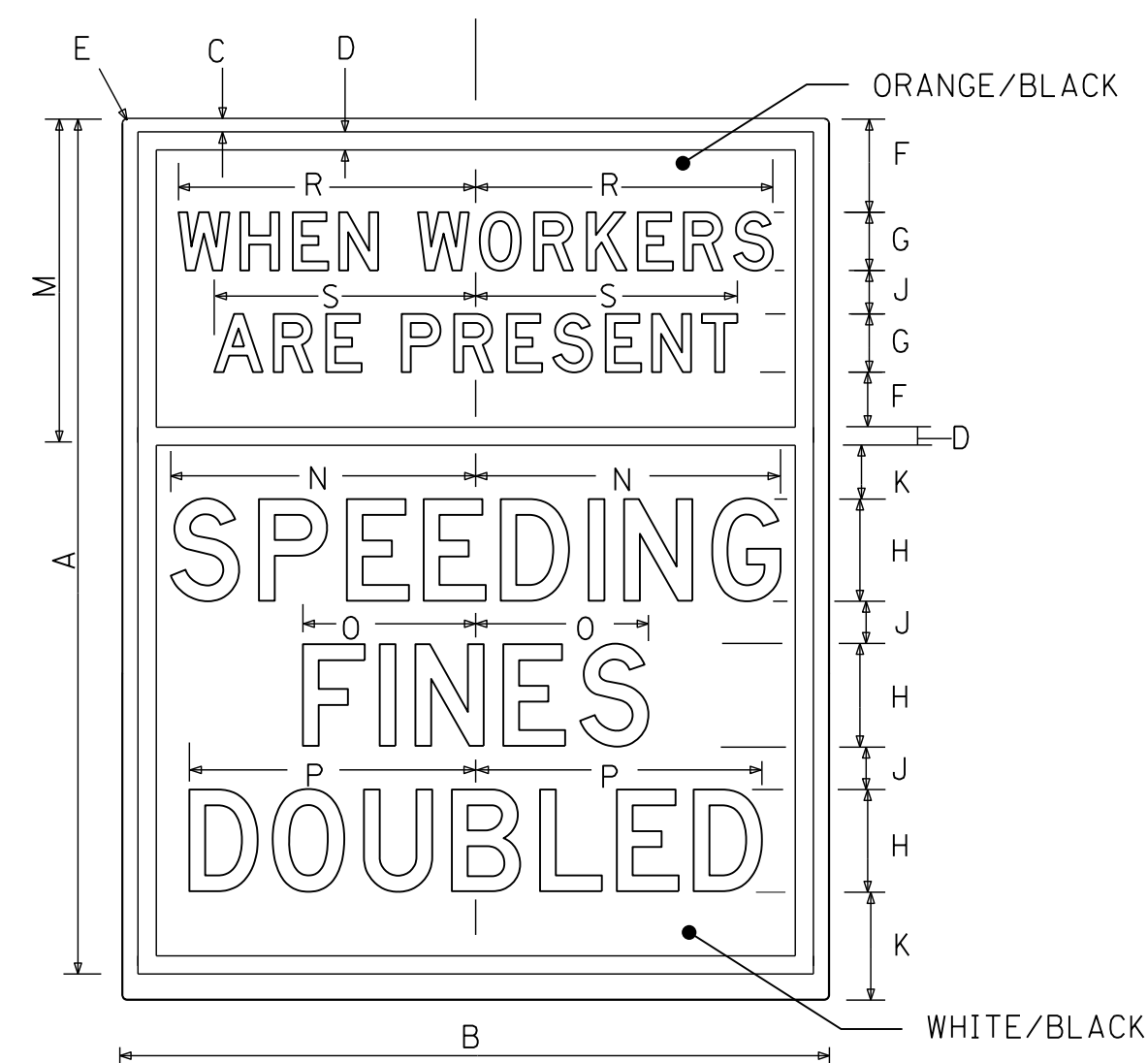
WORKING NUMBER
TCP-13
SHEET NUMBER
6363



NOTES:

1. R16-3 SIGN SHALL BE PLACED AS SHOWN OR AS DIRECTED BY THE ENGINEER.
2. R16-3 SIGN SHOULD BE SPACED AT A MAXIMUM OF 2 MILES THROUGHOUT LENGTH OF PROJECT.
3. THIS SHEET WILL ONLY APPLY TO SPEED REDUCTION SECTIONS.

DIVIDED HIGHWAY SHOWN
(2 LANE – 2 WAY ROADWAY SIMILAR)
(PROJECT MORE THAN 1 MILE LENGTH)



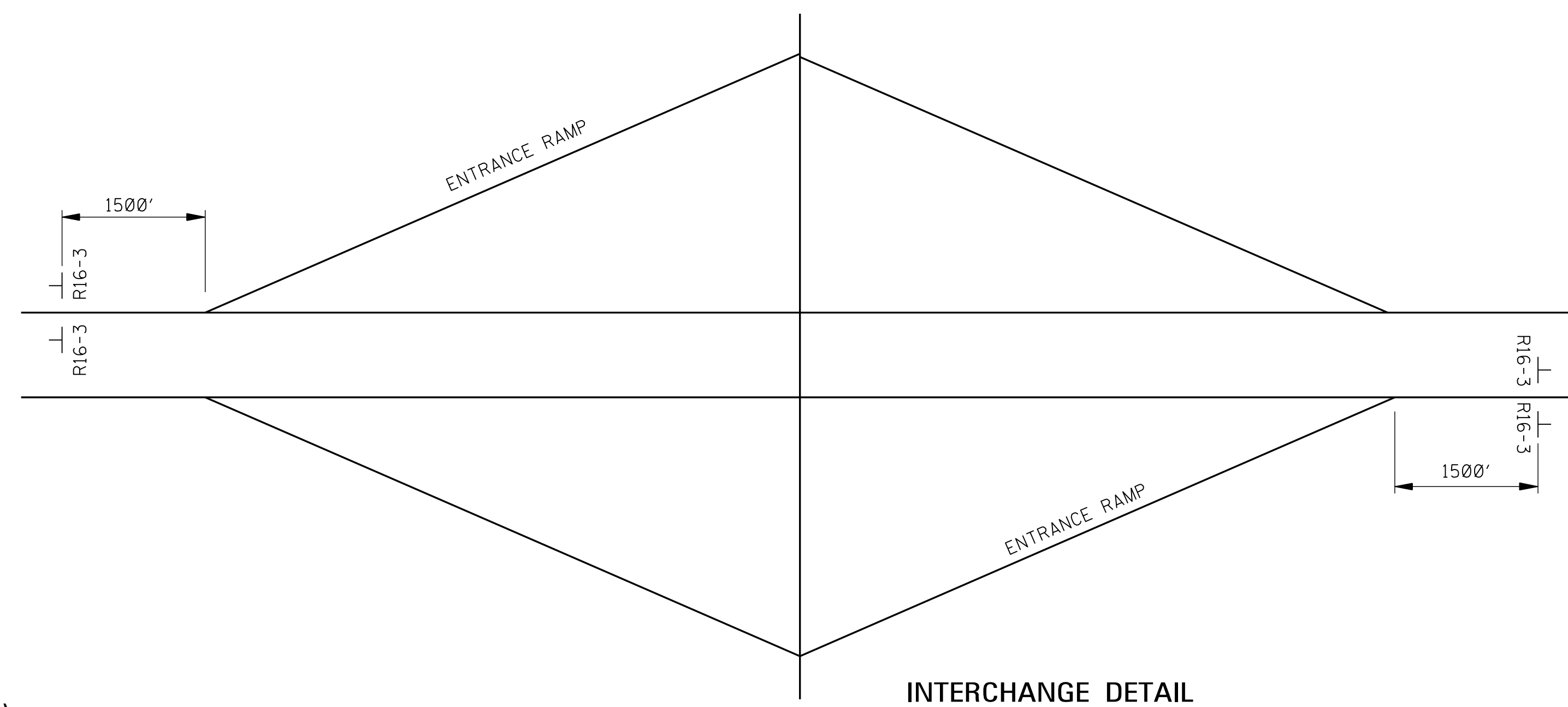
SIGN	DIMENSIONS (INCHES)							
	A	B	C	D	E	F	G	H
STD.	60	48	3/4	1 1/4	3	3 3/4	4 Dm	7 D
STD.	3	6 5/8	22 1/8	21	11 1/8	19 2 1/2	20 5/32	18

48" x 60"
(INTERSTATE USE)

SIGN	DIMENSIONS (INCHES)							
	A	B	C	D	E	F	G	H
STD.	48	36	3/4	1 1/4	3	2 3/4	3 Dm	6 D
STD.	3	4 1/8	14 3/4	14	7 1/8	13 1/8	13 5/8	12

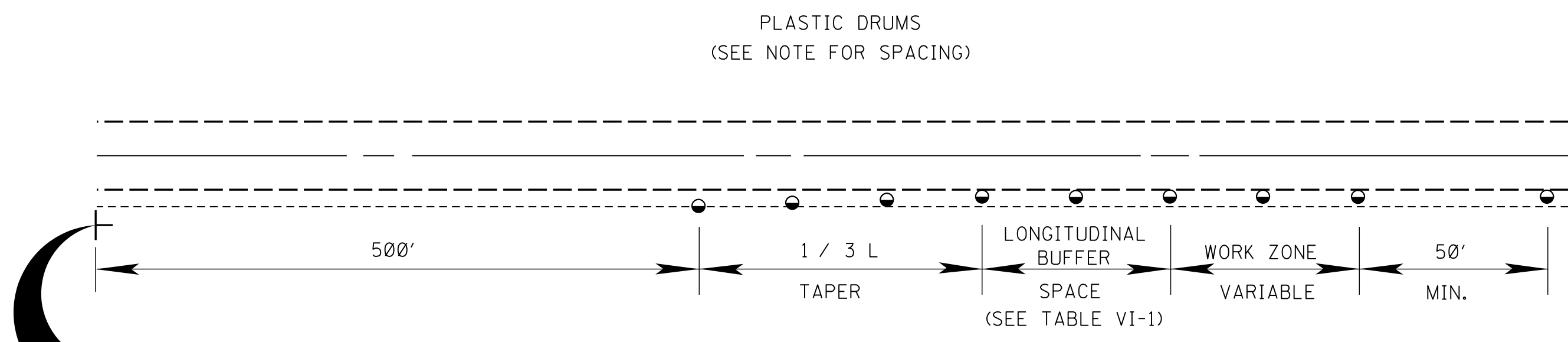
36" x 48"
(ALL OTHER HIGHWAYS)

R16-3



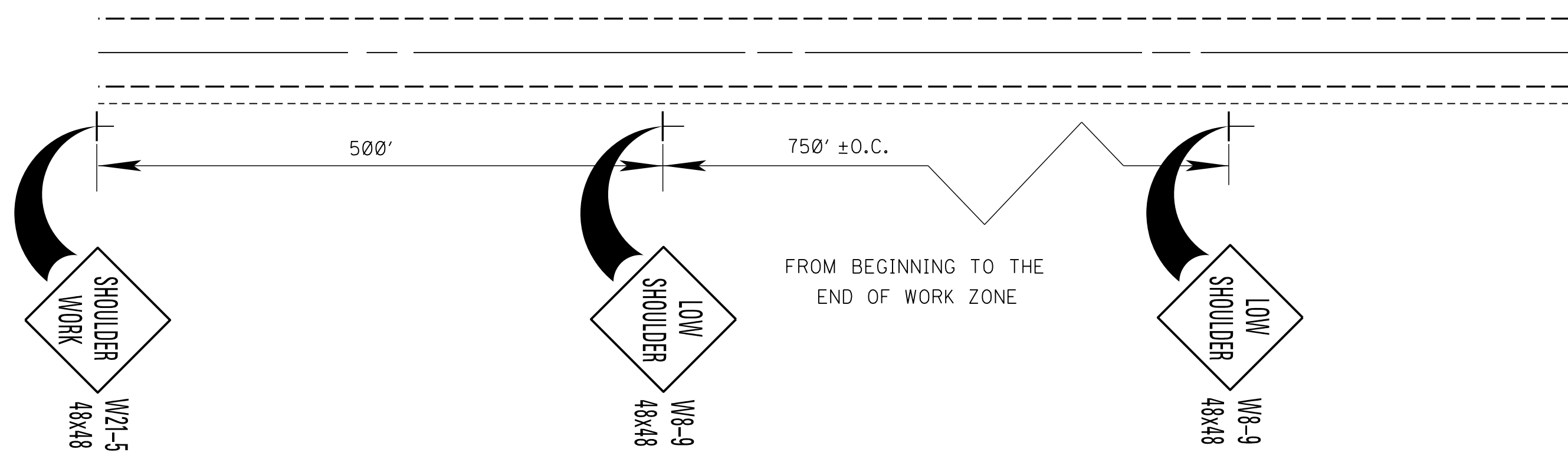
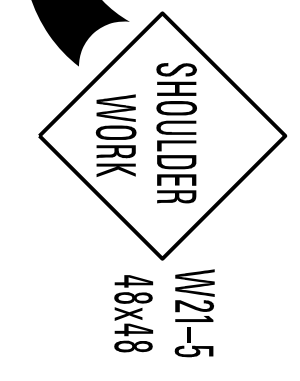
INTERCHANGE DETAIL

BY	MISSISSIPPI DEPARTMENT OF TRANSPORTATION ROADWAY DESIGN DIVISION STANDARD PLAN		
REVISION	<p>LOCATION OF R16-3 SIGNS (SPEEDING FINES DOUBLED)</p>		
DATE			
ISSUE DATE:	AUGUST 01, 2017		
WORKING NUMBER	TCP-15		
SHEET NUMBER	6365		

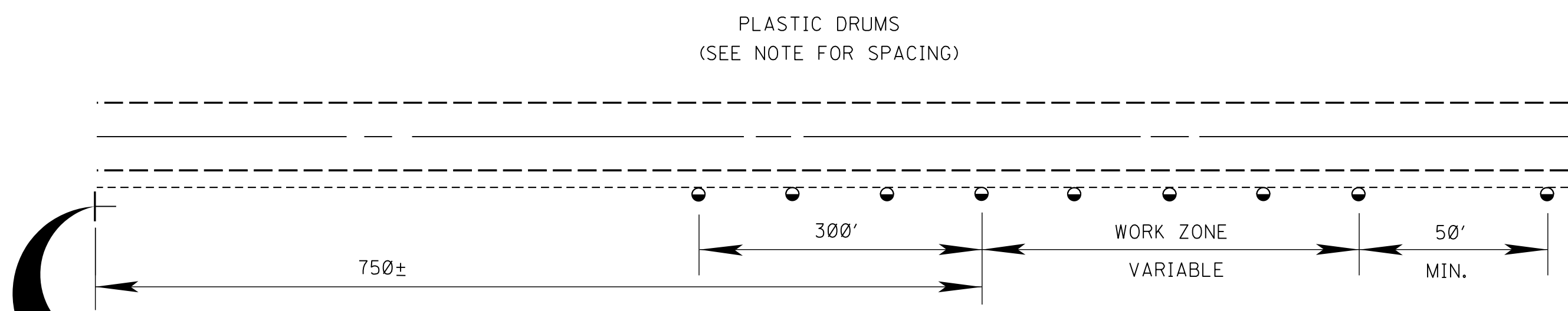
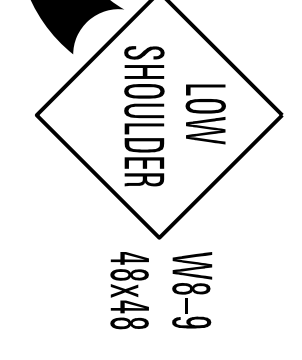
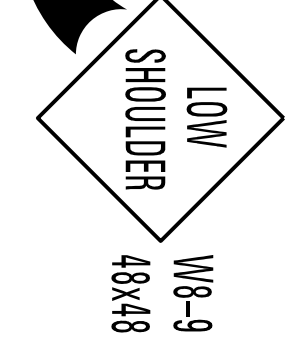
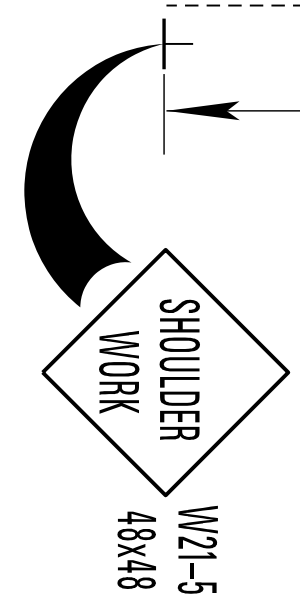


TYPICAL SHOULDER CLOSURE

- (1) TO BE USED WITH EIGHT (8) FOOT OR GREATER WIDTH IMPROVED SHOULDER.
- (2) TO BE USED WHEN CONSTRUCTION VEHICLES (EQUIPMENT) ENCROACHES ON OR WITHIN TWO (2) FEET OF THE SHOULDER BREAK.

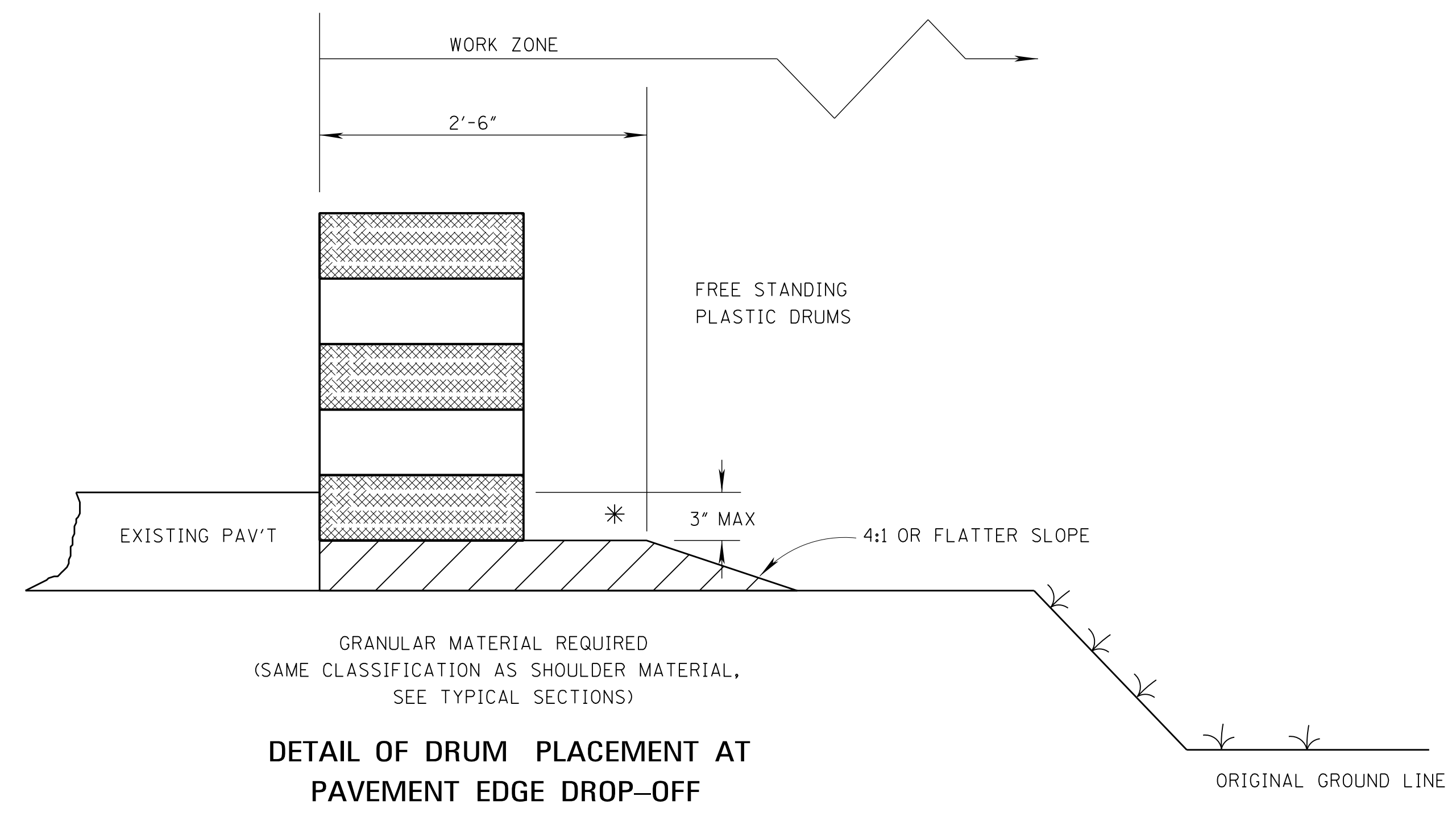
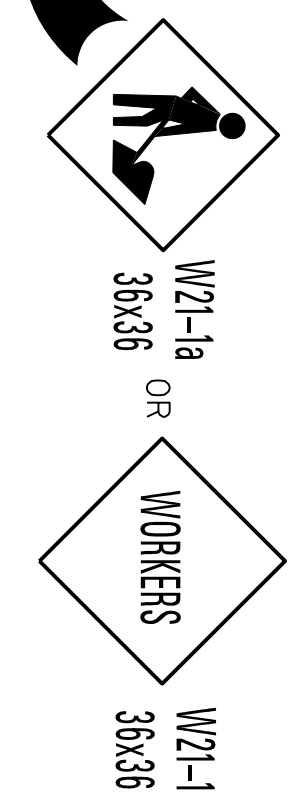


**TYPICAL SHOULDER WORK #1
(SEE NOTE A-1 THIS SHEET)**



TYPICAL SHOULDER WORK #2

NOTE:
WORK OUTSIDE TWO (2) FOOT AND WITHIN TEN (10) FEET OF THE SHOULDER BREAK MAY BE PROTECTED BY PLACING DRUMS ALONG THE SHOULDER EDGE, 300 FEET PRIOR TO AND 50 FEET BEYOND THE WORK AREA, OR SEE NOTE A-3 THIS SHEET.



DETAIL OF DRUM PLACEMENT AT PAVEMENT EDGE DROP-OFF

NOTES:

- * A. PAVEMENT EDGE DROP-OFF
 1. IF LESS THAN TWO AND ONE QUARTER (2.25) INCHES-NO PROTECTION REQUIRED. PLACE A SHOULDER WORK SIGN (W21-5) 500 FEET IN ADVANCE OF WORK ZONE SHOULDER AND A LOW SHOULDER SIGN (W8-9) AT THE BEGINNING AND THROUGHOUT THE WORK ZONE @ (750'±O.C.).
 2. TWO AND ONE QUARTER TO THREE INCHES-PLACE DRUMS, VERTICAL PANELS OR BARRICADES EVERY 100 FEET ON TANGENT SECTIONS FOR SPEEDS OF 50 MILES PER HOUR OR GREATER. CONES MAY BE USED IN PLACE OF DRUMS, PANELS, AND BARRICADES DURING DAYLIGHT HOURS. FOR TANGENT SECTIONS WITH SPEEDS LESS THAN 50 MILES PER HOUR AND FOR CURVES, DEVICES SHOULD BE PLACED EVERY 50 FEET. SPACING FOR TAPERS SHOULD BE IN ACCORDANCE WITH THE M.U.T.C.D. (1 / 3 L, WHERE L IS THE TAPER LENGTH IN FEET.)
 3. GREATER THAN THREE (3) INCHES-POSITIVE SEPARATION OR WEDGE WITH 4:1 OR FLATTER SLOPE NEEDED. IF THERE IS EIGHT (8) FEET OR MORE DISTANCE BETWEEN THE EDGE OF TRAVEL LANE AND DROP-OFF, THEN DRUMS, PANELS OR BARRICADES MAY BE USED.
 4. FOR TEMPORARY CONDITIONS, DROP-OFFS GREATER THAN THREE (3) INCHES MAY BE PROTECTED WITH DRUMS, VERTICAL PANELS OR BARRICADES FOR SHORT DISTANCES DURING DAYLIGHT HOURS WHILE WORK IS BEING DONE IN THE DROP-OFF AREA.
 5. LESSER TREATMENTS THAN THOSE DESCRIBED ABOVE MAY BE CONSIDERED FOR LOW-VOLUME LOCAL STREETS.
- B. DRUM SPACING
 1. TANGENTS = 2 X S
 2. TAPERS = L / 3

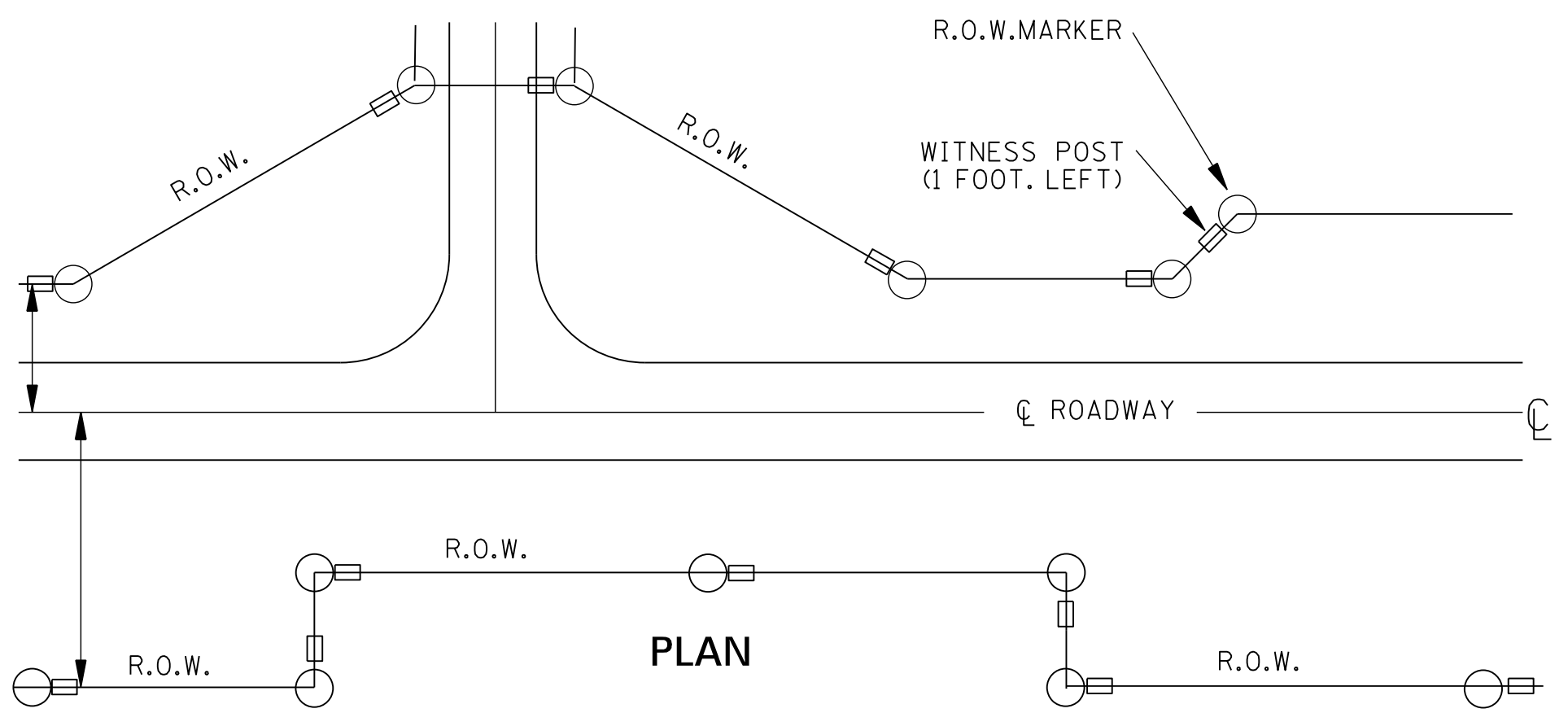
WHERE L = S X W
L = TAPER LENGTH IN FEET
S = SPEED IN MPH (POSTED OR 85 PERCENTILE)
W = WIDTH OF OFFSET IN FEET
- C. ALL TRAFFIC CONTROL ITEMS SHOWN ON THIS SHEET SHALL BE PAID FOR UNDER MAINTENANCE OF TRAFFIC.

TABLE VI-1. GUIDELINES FOR LENGTH OF LONGITUDINAL BUFFER SPACE

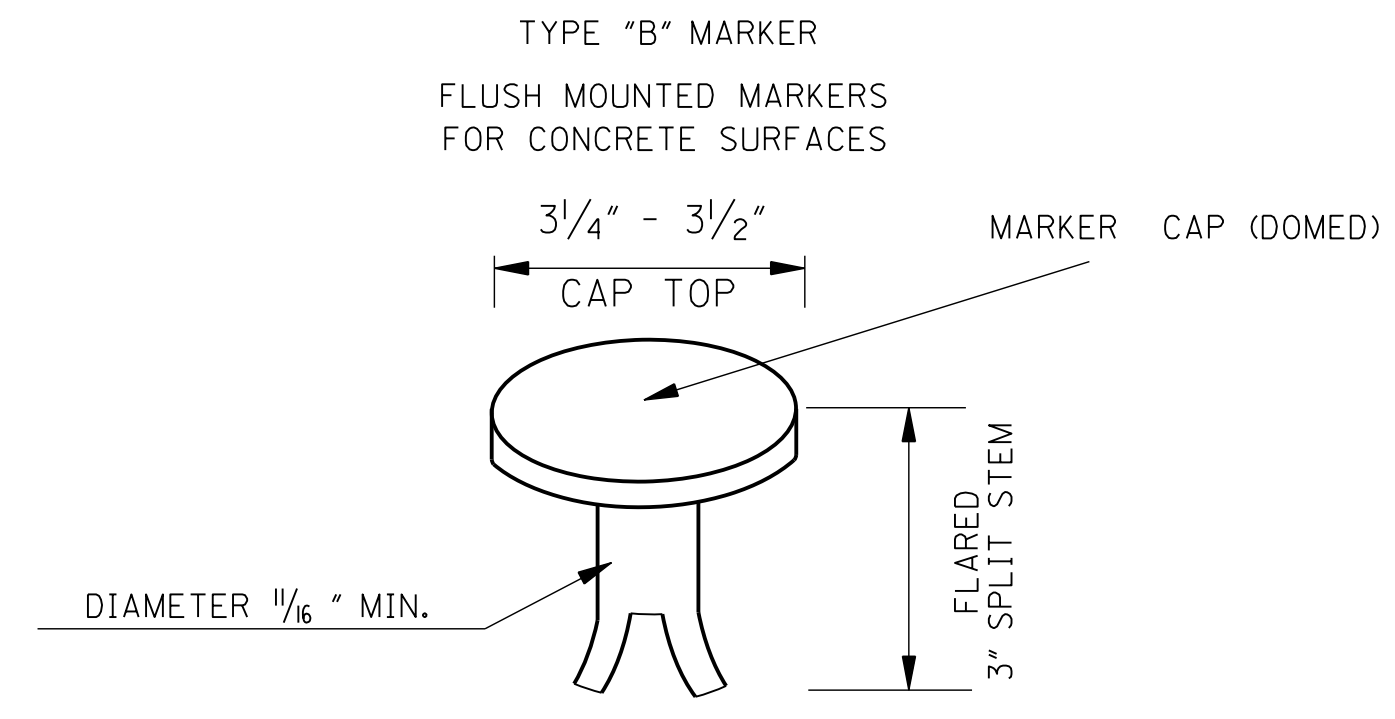
* * SPEED (MPH)	LENGTH (FEET)
20	35
25	55
30	85
35	120
40	170
45	220
50	280
55	335
60	415
65	485

* * POSTED SPEED, OFF-PEAK 85 PERCENTILE SPEED PRIOR TO WORK STARTING, OR THE ANTICIPATED OPERATING SPEED IN MPH.

MISSISSIPPI DEPARTMENT OF TRANSPORTATION ROADWAY DESIGN DIVISION STANDARD PLAN	
TRAFFIC CONTROL DETAILS DRUM PLACEMENT AND SHOULDER CLOSURE	
BY	
REVISION	
DATE	ISSUE DATE: AUGUST 01, 2017
WORKING NUMBER TCP-16 SHEET NUMBER 6366	



TYPICAL PLACEMENT OF R.O.W. MARKERS AND WITNESS POSTS

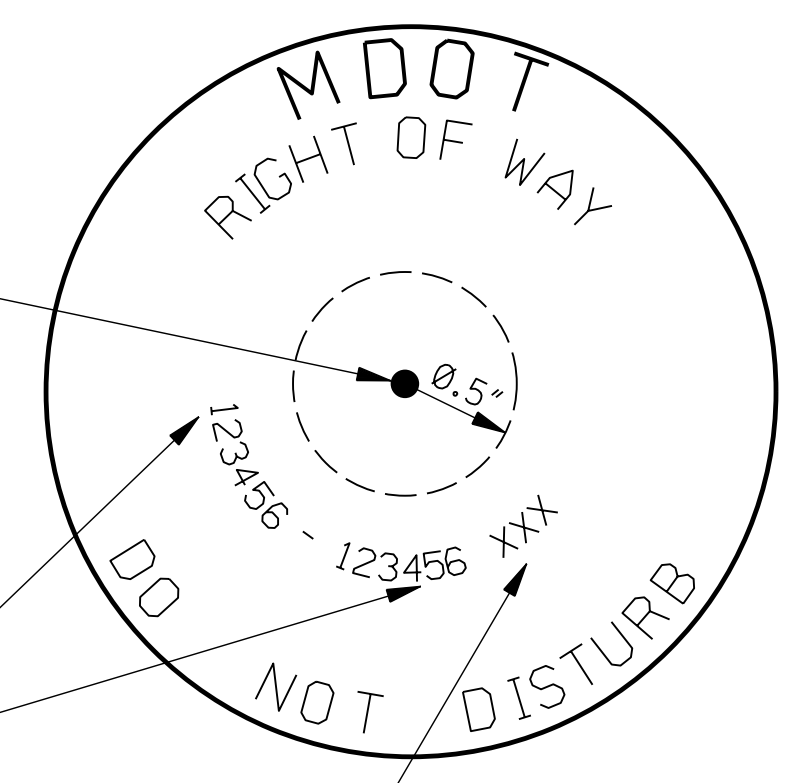


GENERAL NOTE:
1. THE MARKERS SHALL BE PLACED AS INDICATED ELSEWHERE ON PLANS
COST OF WITNESS POST AND DECALS SHALL BE INCLUDED IN THE COST OF MARKER

MARKER CAP DETAILS FOR RIGHT-OF-WAY

NOTE: THE MARKER CAP SHALL NOT HAVE A DATUM POINT PRE-STAMPED BY THE MANUFACTURER. THE DATUM POINT SHALL BE PLACED AT THE TIME OF INSTALLATION BY THE PROFESSIONAL SURVEYOR

TOP VIEW



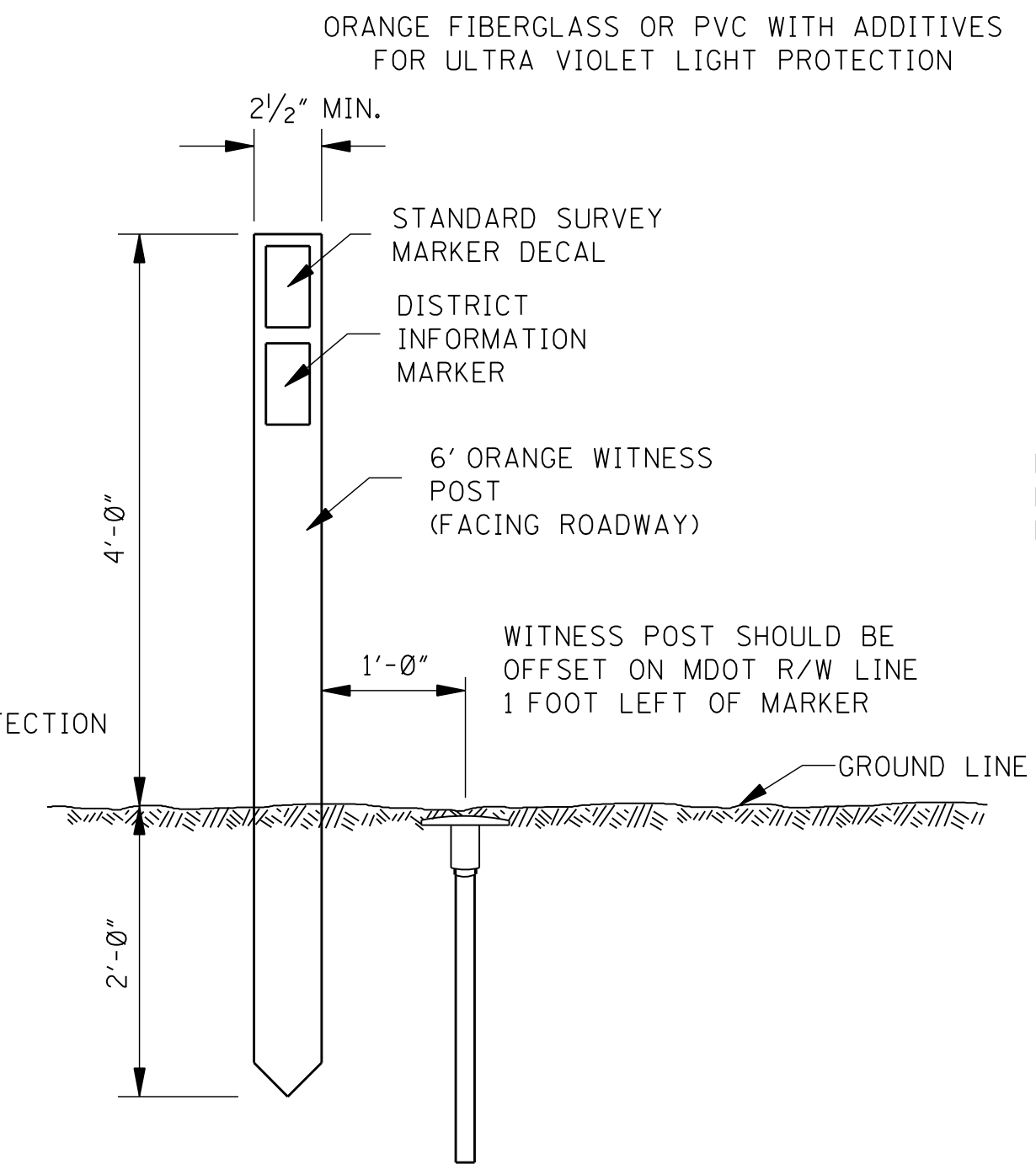
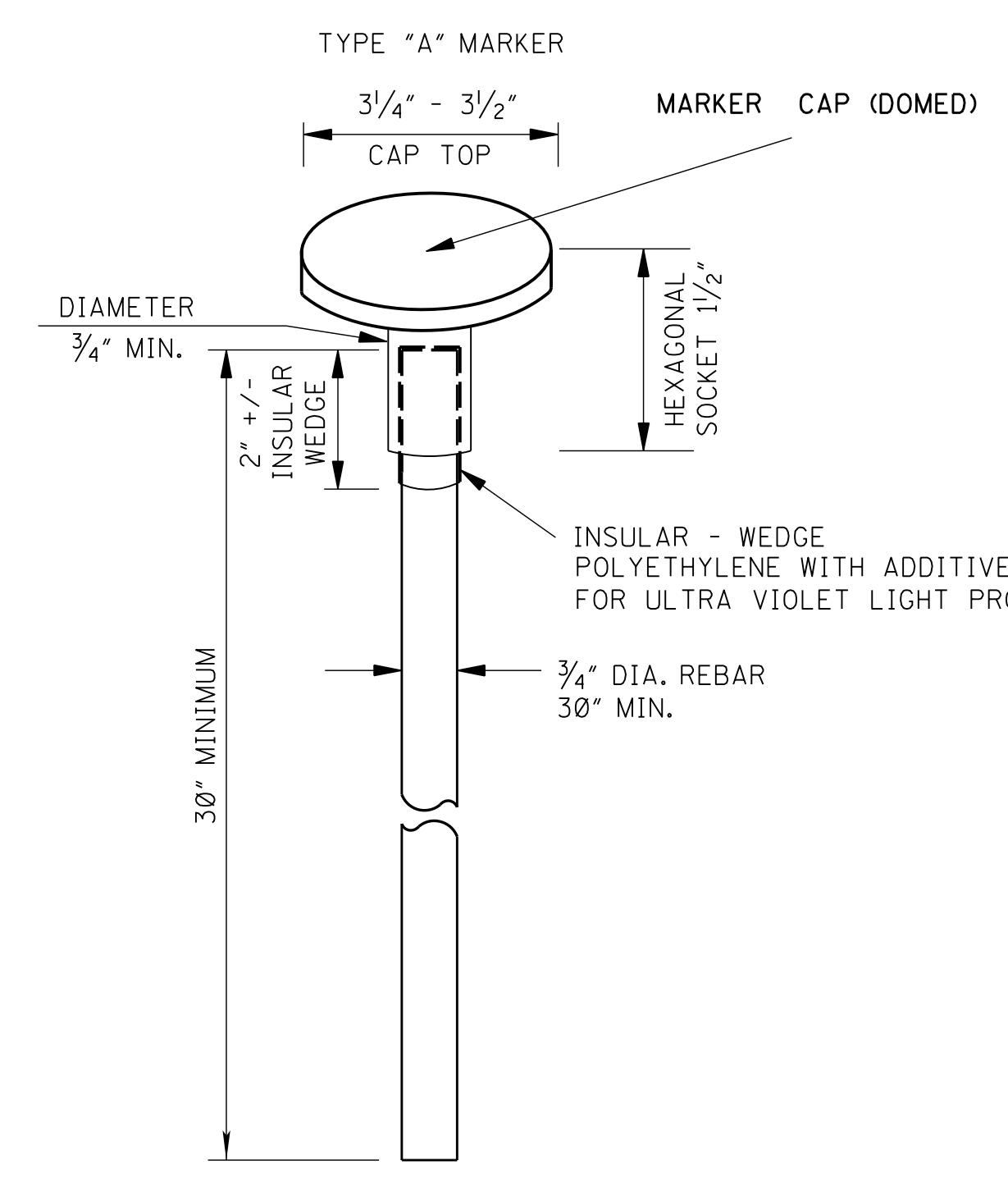
DATUM POINT SHALL BE WITHIN 1/2" OF CENTER OF DISK

DEPTH OF PUNCH AND LETTERING IS 1/32"

PROJECT CONSTRUCTION NUMBER SHALL BE PRE-STAMPED.

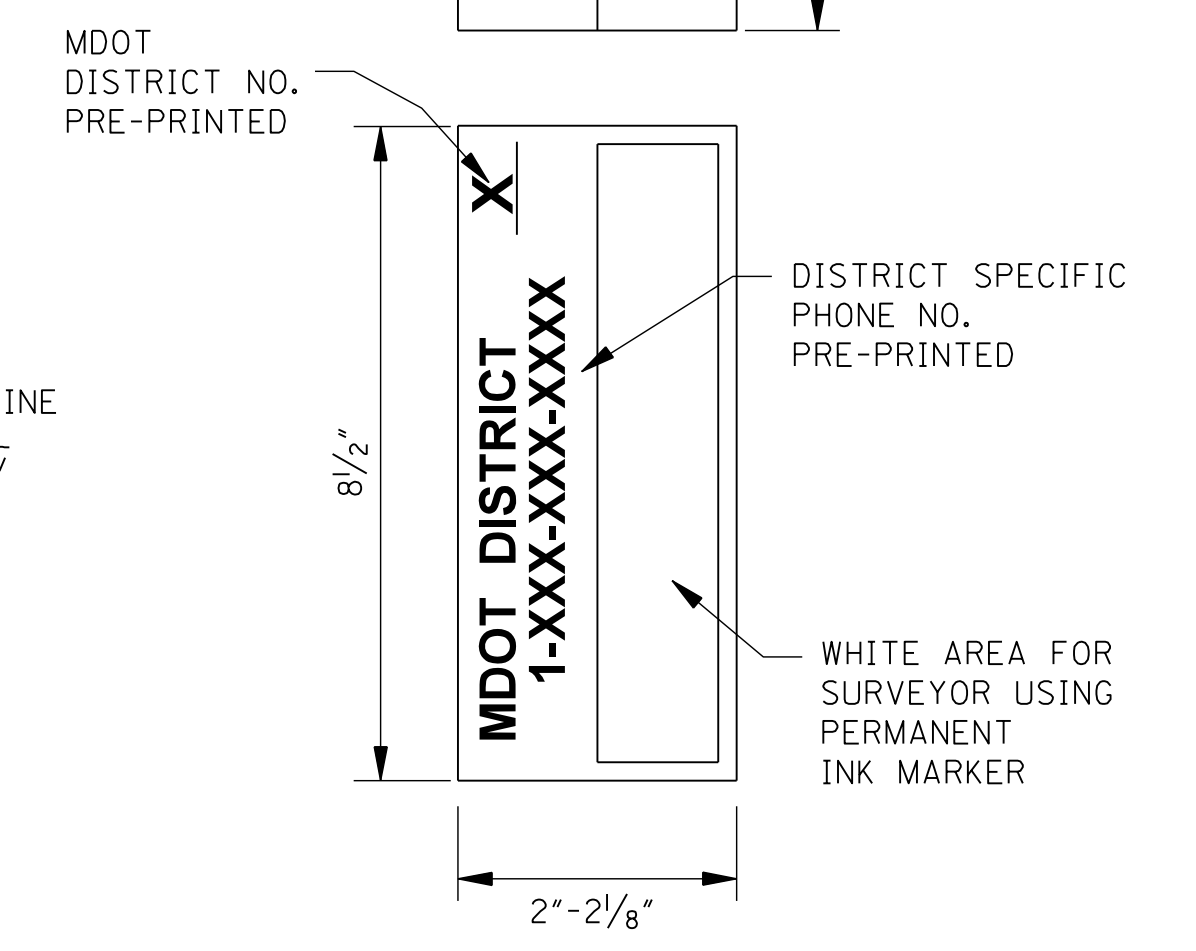
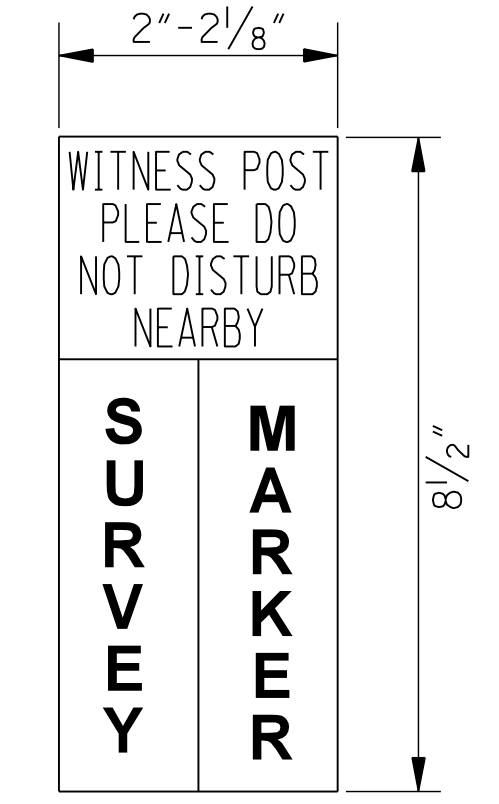
INDIVIDUAL MARKER NUMBER SHALL BE STAMPED AT THE TIME OF PLACEMENT. THESE NUMBERS SHALL COINCIDE WITH THE R.O.W. MARKER COORDINATE SHEET(S) IN THESE PLANS.

MARKER CAP SPECIFICATIONS (PRINT DATA WHERE SHOWN)	
3.25" - 3.50" DIAMETER DOMED TOP	
OUTSIDE ROW	46 SPACES 'MDOT - DO NOT DISTURB' 3/16" LETTERS
MIDDLE ROW	35 SPACES 'RIGHT OF WAY' 3/16" LETTERS
INSIDE ROW	35 SPACES 'PROJECT P.E. NO. AND INDIVIDUAL MARKER NO.' 1/8" LETTERS



WITNESS POST & RIGHT-OF-WAY MARKER

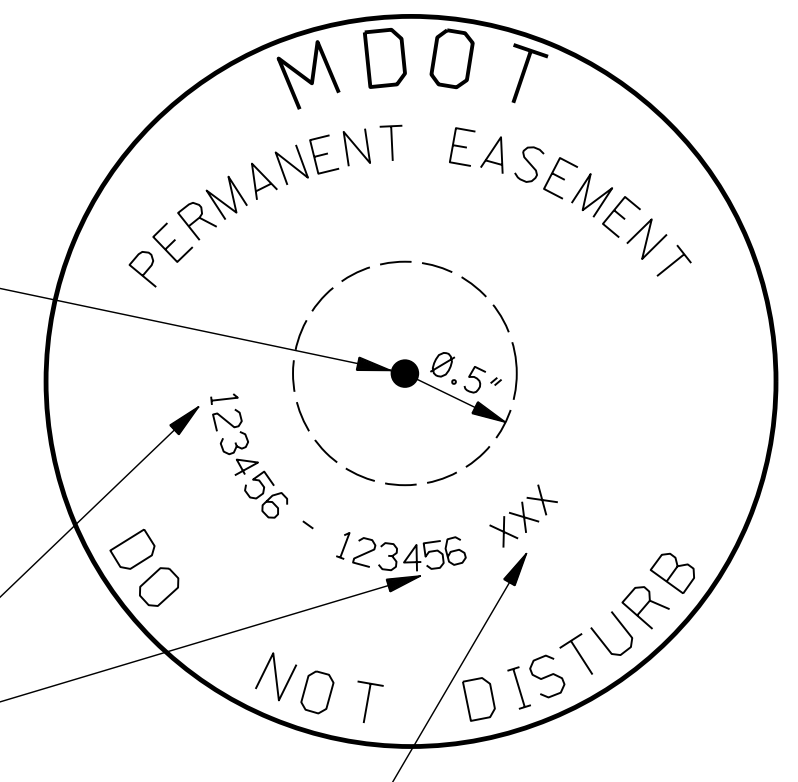
SURVEY MARKER WITNESS POST DECALS
WHITE BACKGROUND WITH BLACK PRINT, VINYL WITH ADHESIVE BACKING



MARKER CAP DETAILS FOR PERMANENT EASEMENT

NOTE: THE MARKER CAP SHALL NOT HAVE A DATUM POINT PRE-STAMPED BY THE MANUFACTURER. THE DATUM POINT SHALL BE PLACED AT THE TIME OF INSTALLATION BY THE PROFESSIONAL SURVEYOR

TOP VIEW



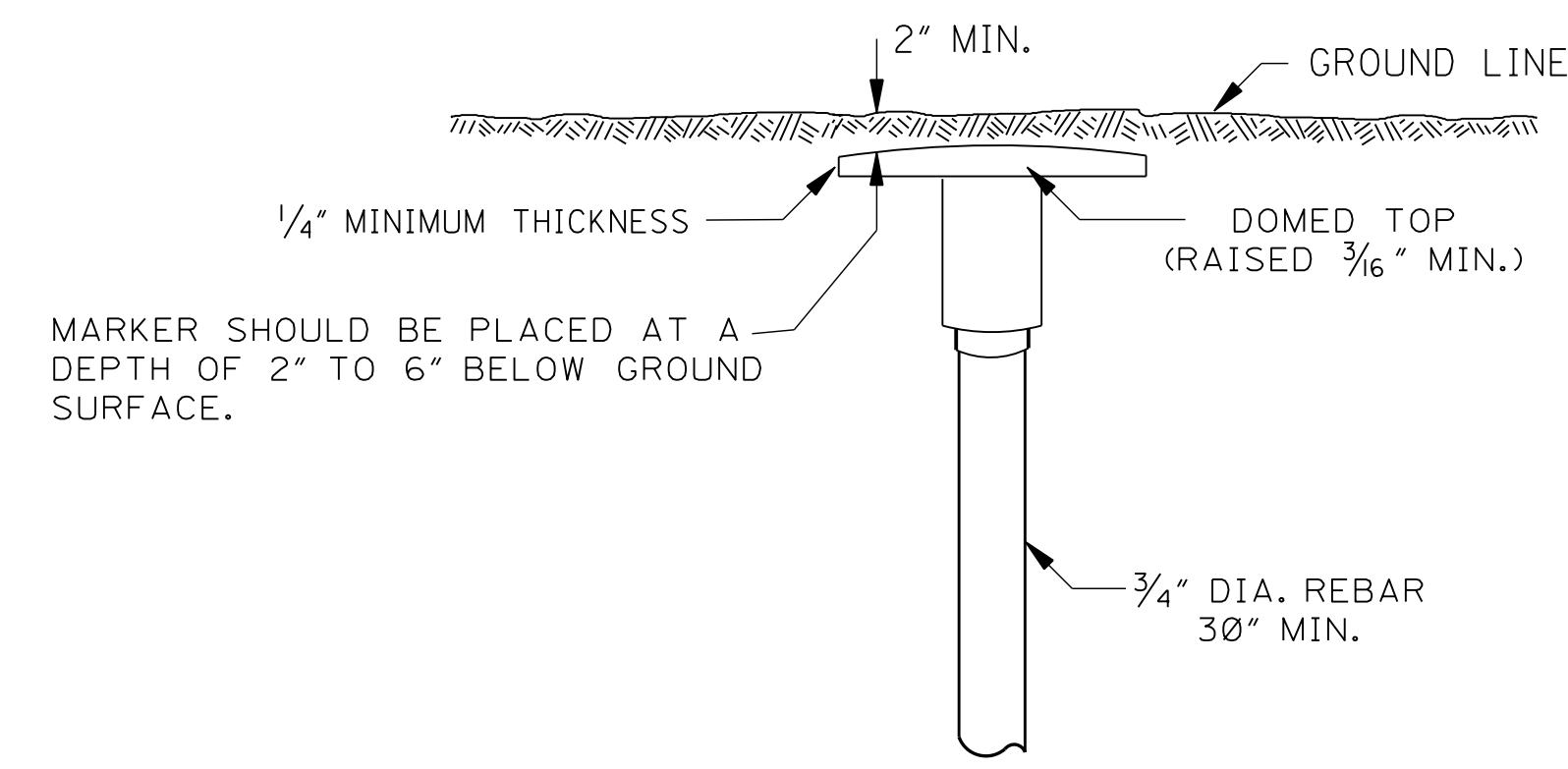
DATUM POINT SHALL BE WITHIN 1/2" OF CENTER OF DISK

DEPTH OF PUNCH AND LETTERING IS 1/32"

PROJECT CONSTRUCTION NUMBER SHALL BE PRE-STAMPED.

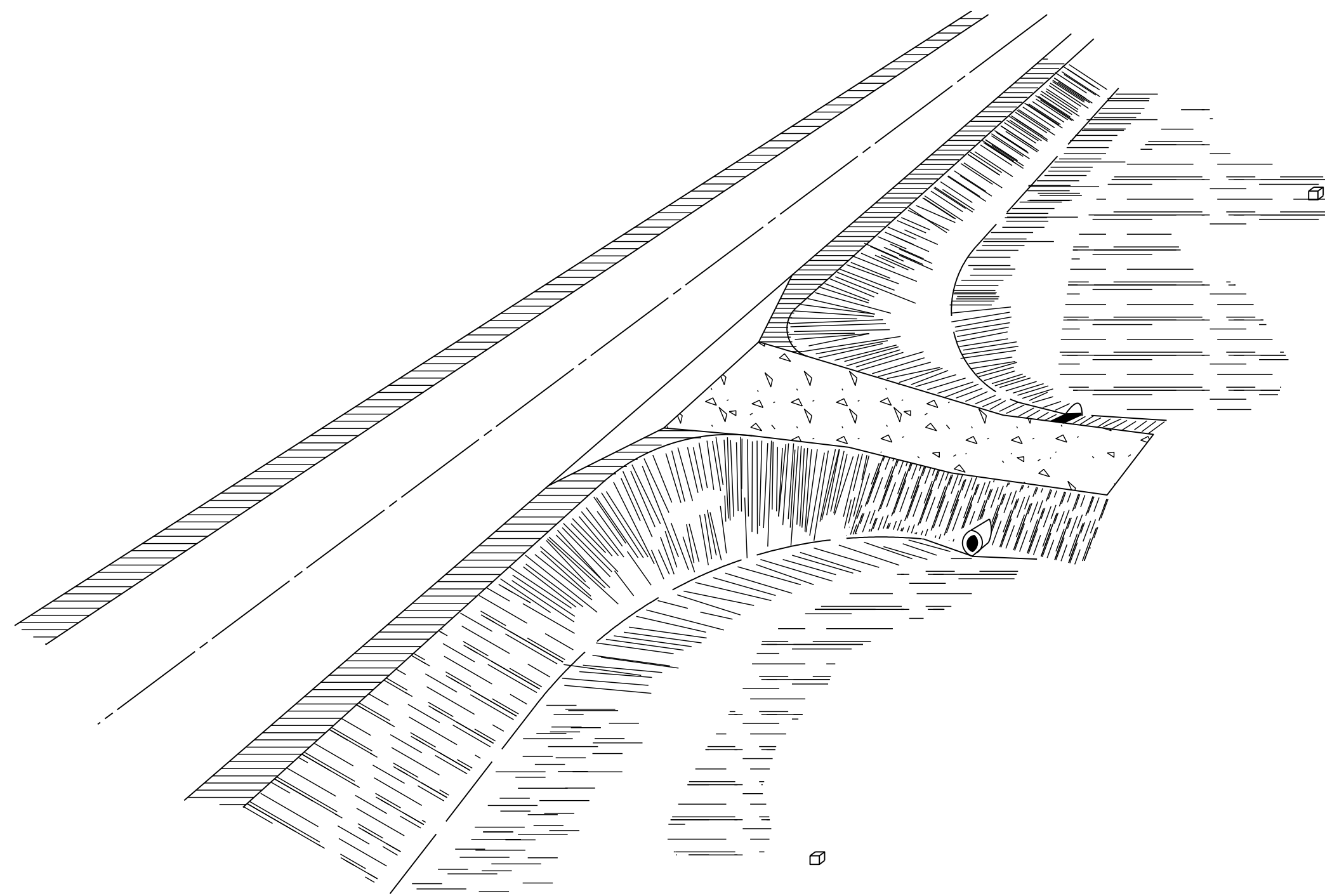
INDIVIDUAL MARKER NUMBER SHALL BE STAMPED AT THE TIME OF PLACEMENT. THESE NUMBERS SHALL COINCIDE WITH THE P.E. MARKER COORDINATE SHEET(S) IN THESE PLANS.

MARKER CAP SPECIFICATIONS (PRINT DATA WHERE SHOWN)	
3.25" - 3.50" DIAMETER DOMED TOP	
OUTSIDE ROW	46 SPACES 'MDOT - DO NOT DISTURB' 3/16" LETTERS
MIDDLE ROW	35 SPACES 'PERMANENT EASEMENT' 3/16" LETTERS
INSIDE ROW	35 SPACES 'PROJECT P.E. NO. AND INDIVIDUAL MARKER NO.' 1/8" LETTERS

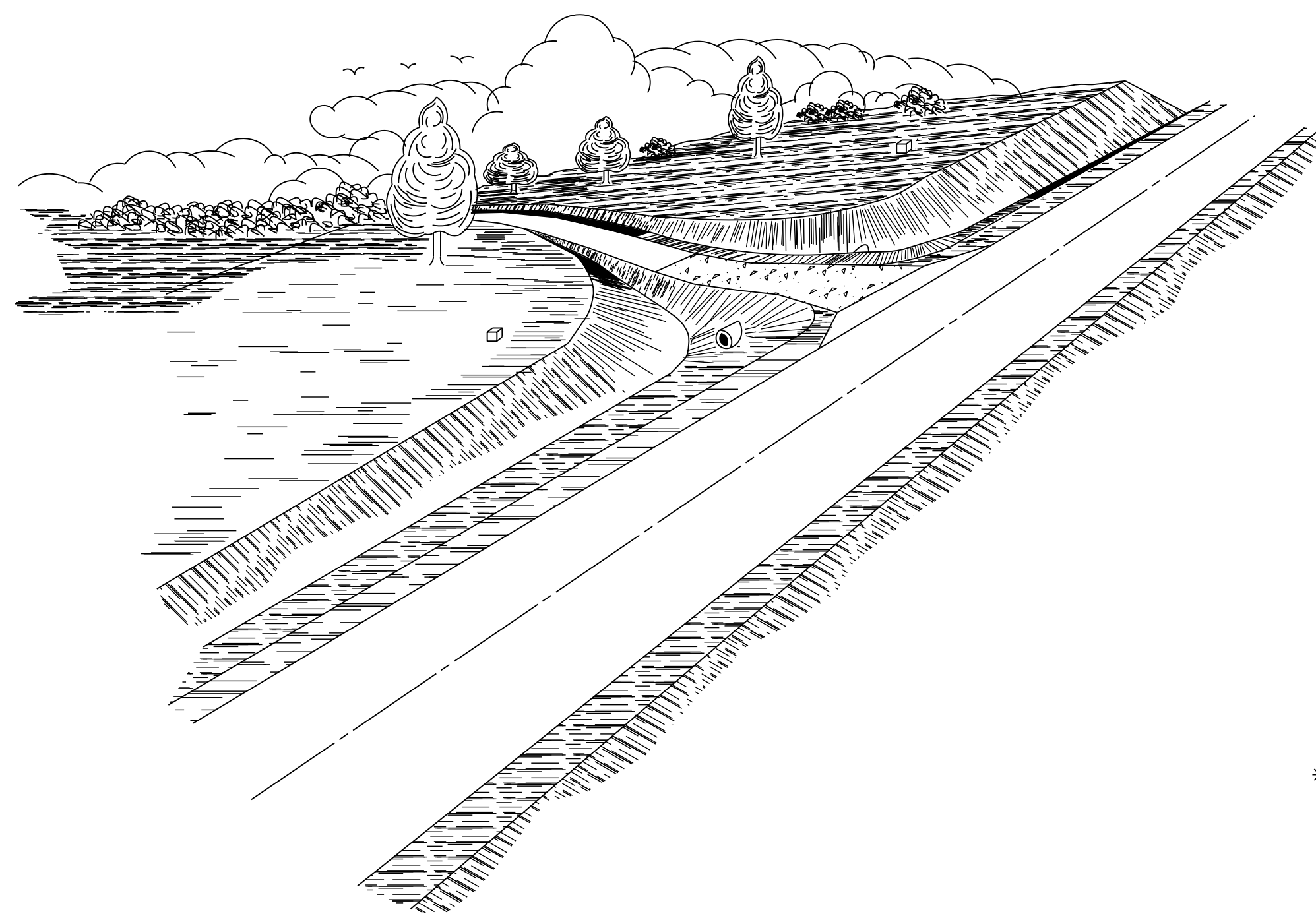
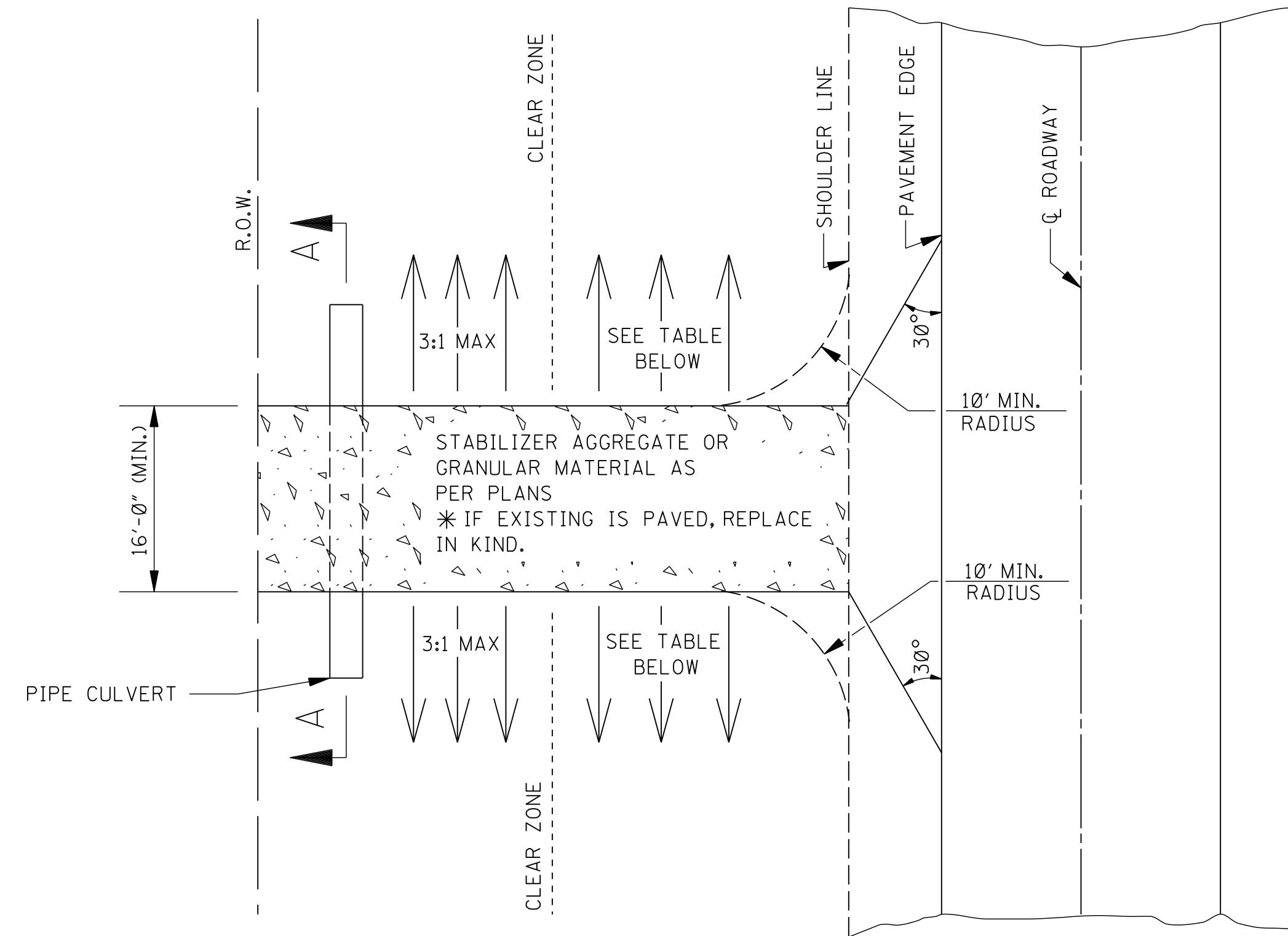


MARKER SHOULD BE PLACED AT A DEPTH OF 2" TO 6" BELOW GROUND SURFACE.

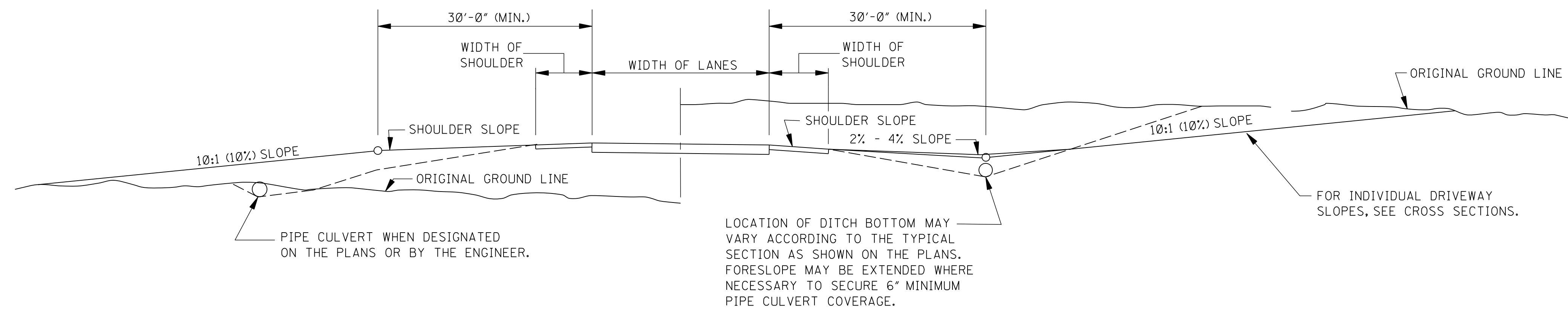
MISSISSIPPI DEPARTMENT OF TRANSPORTATION ROADWAY DESIGN DIVISION STANDARD PLAN	
RIGHT-OF-WAY MARKER	
BY	
REVISION	
DATE	ISSUE DATE: AUGUST 01, 2017
WORKING NUMBER RW-1 SHEET NUMBER 6401	



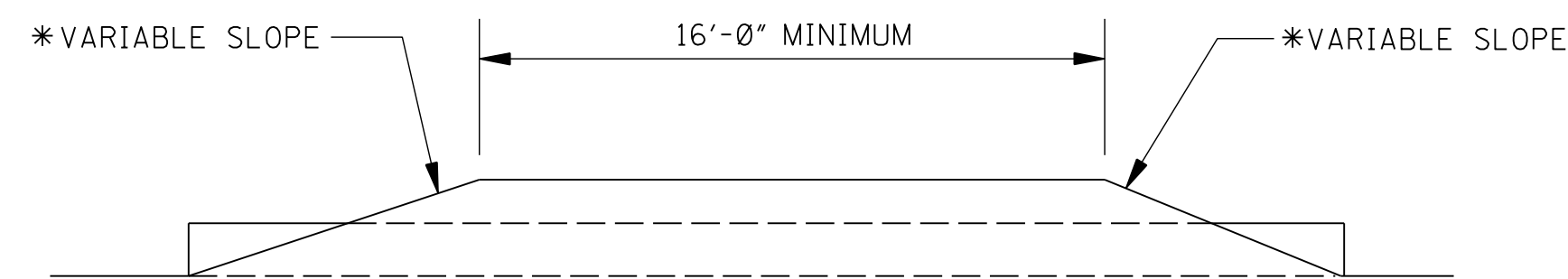
RAMP IN FILL SECTION



RAMP IN CUT SECTION



TYPICAL SECTION AT RAMP



SECTION A-A

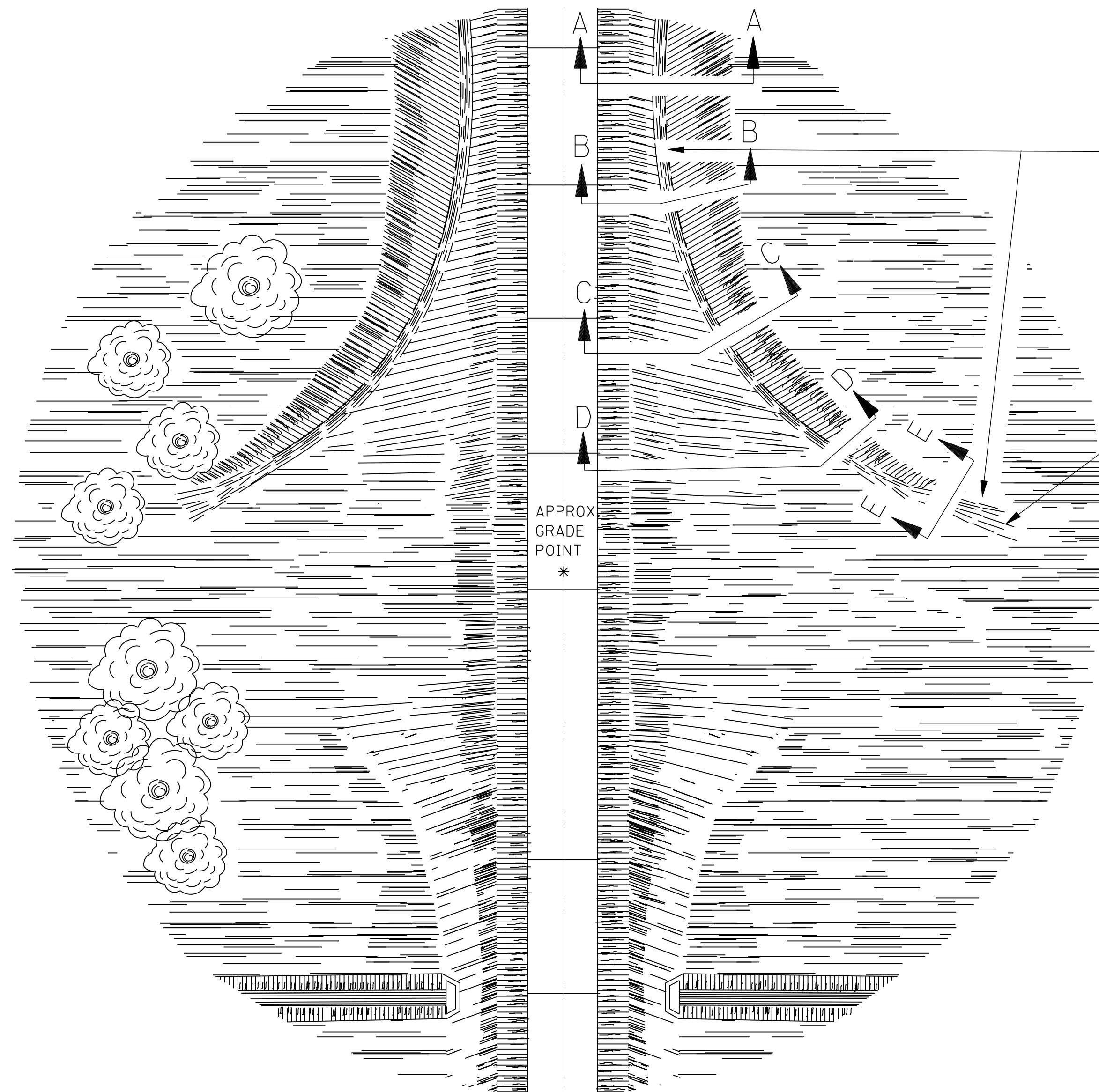
* DRIVEWAY SIDE SLOPES

WITHIN CLEAR ZONE	V ≥ 50 mph - DES. 10:1 MAX 6:1
	V ≤ 45 mph - MAX. 3:1
OUTSIDE CLEAR ZONE	MAXIMUM - 3:1

MISSISSIPPI DEPARTMENT OF TRANSPORTATION ROADWAY DESIGN DIVISION STANDARD PLAN	
RURAL DRIVEWAYS	
BY	
REVISION	
DATE	ISSUE DATE: AUGUST 01, 2017

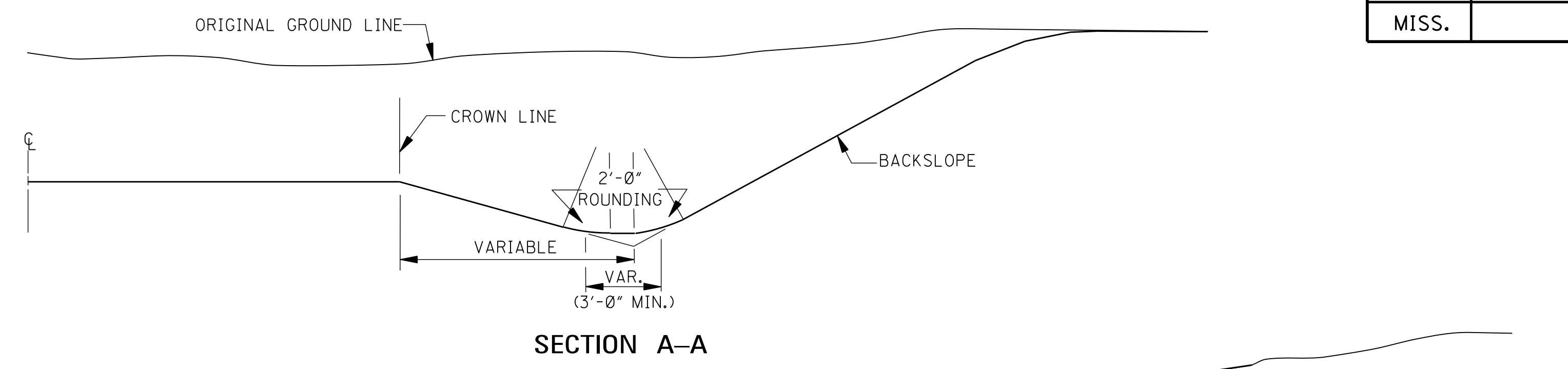
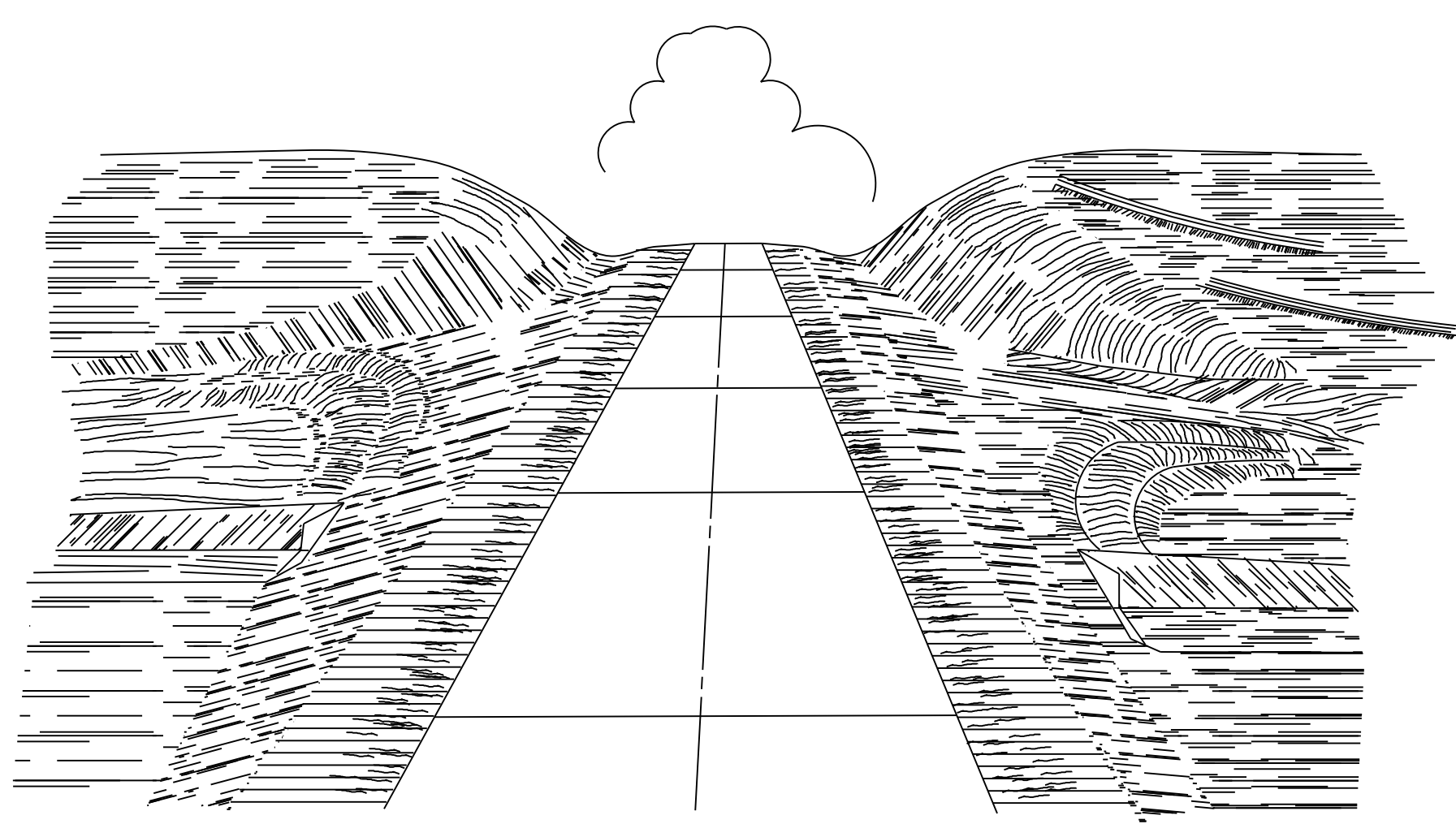


WORKING NUMBER
RD-1
SHEET NUMBER
6403

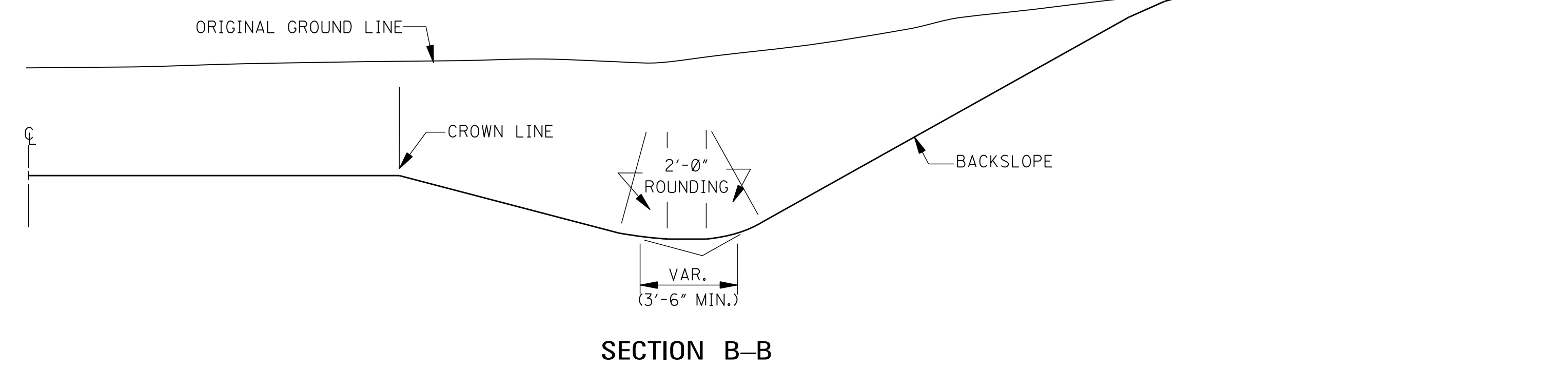


VARIABLE CURVATURE TO CONFORM TO AVAILABLE RIGHT-OF-WAY.

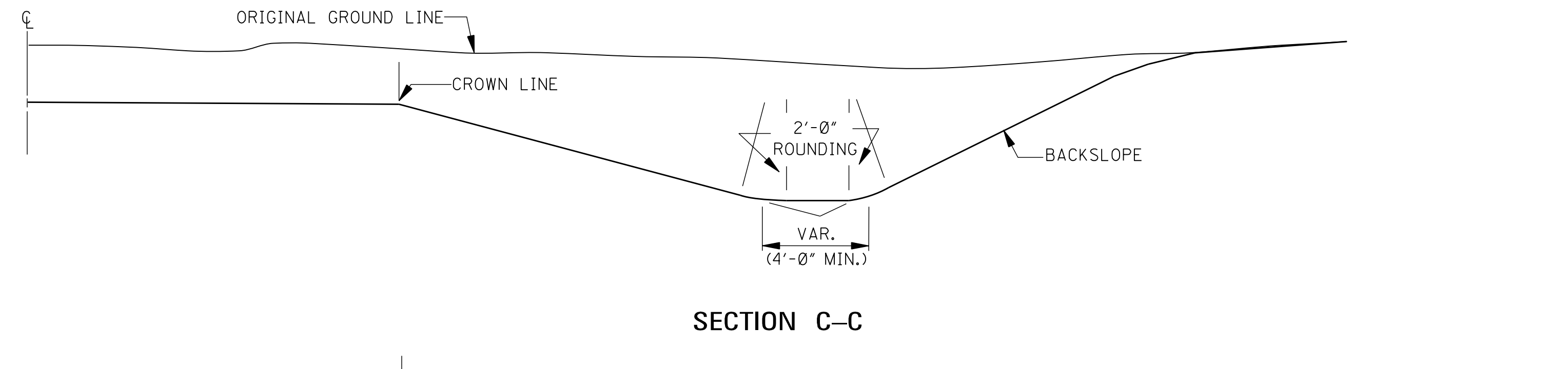
CONTOUR DIVERSION DITCH NOT TO EXCEED 1% GRADIENT. DITCH TO FLARE PROGRESSIVELY. EASEMENT SHOULD BE PROCURED WHERE NECESSARY FOR LOCATION OF CONTOUR DIVERSION DITCH.



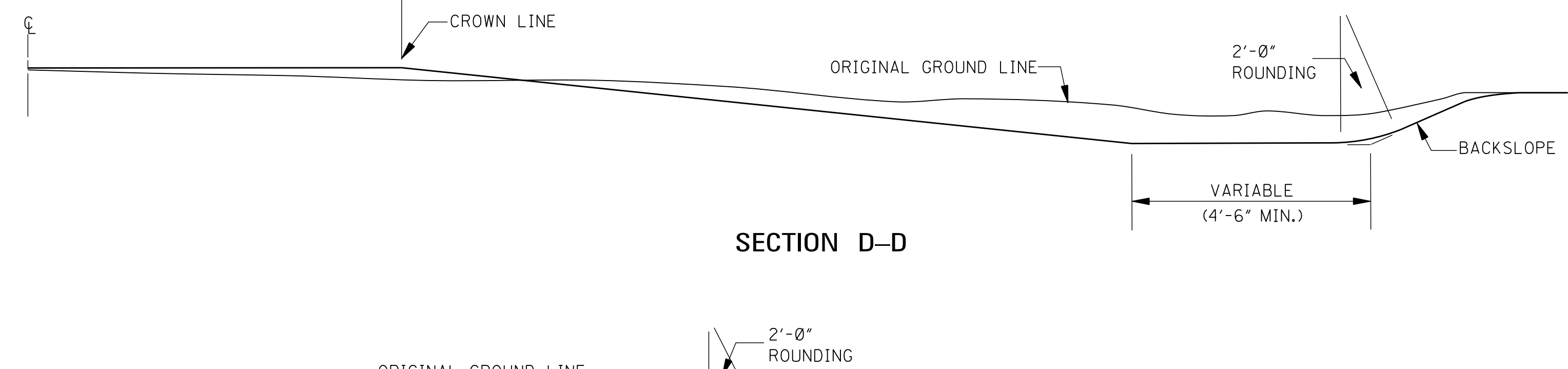
SECTION A-A



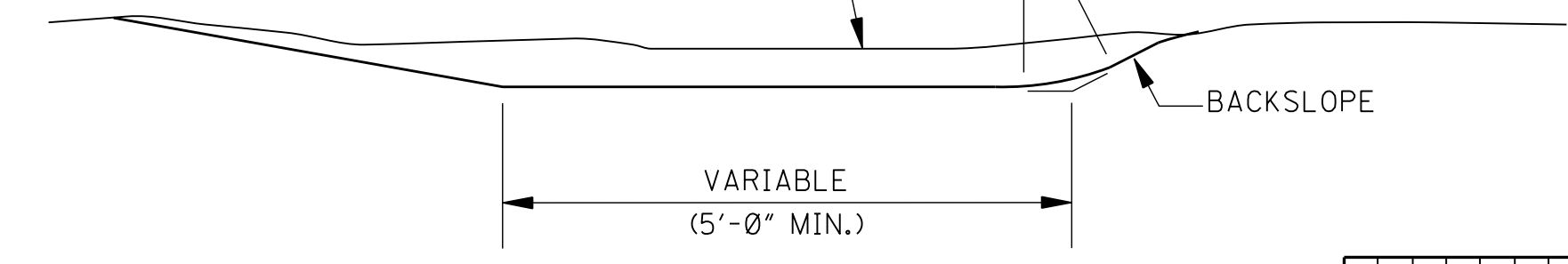
SECTION B-B



SECTION C-C

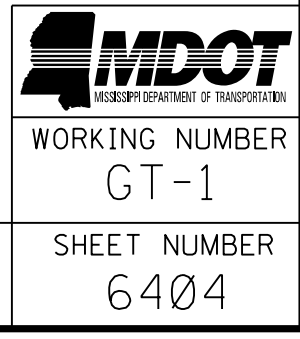


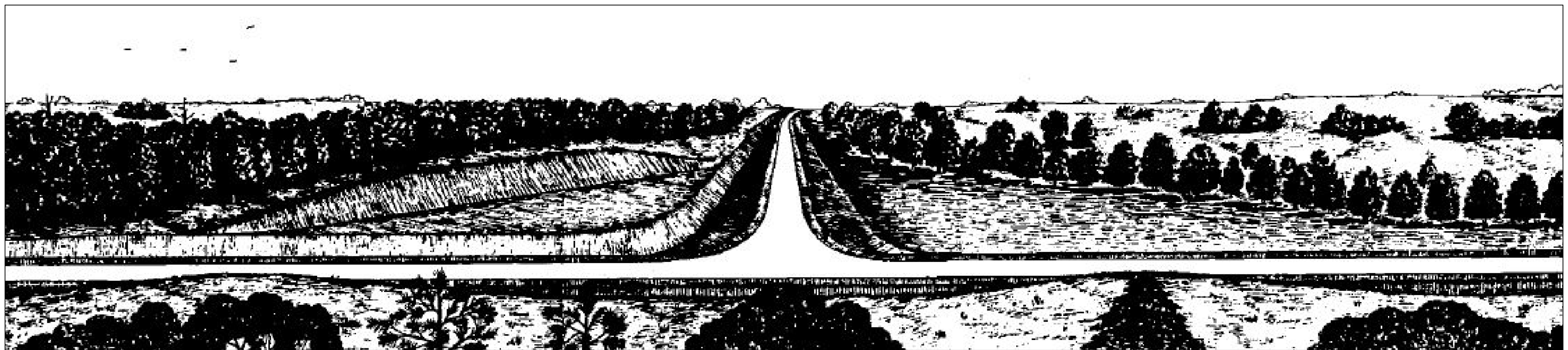
SECTION D-D



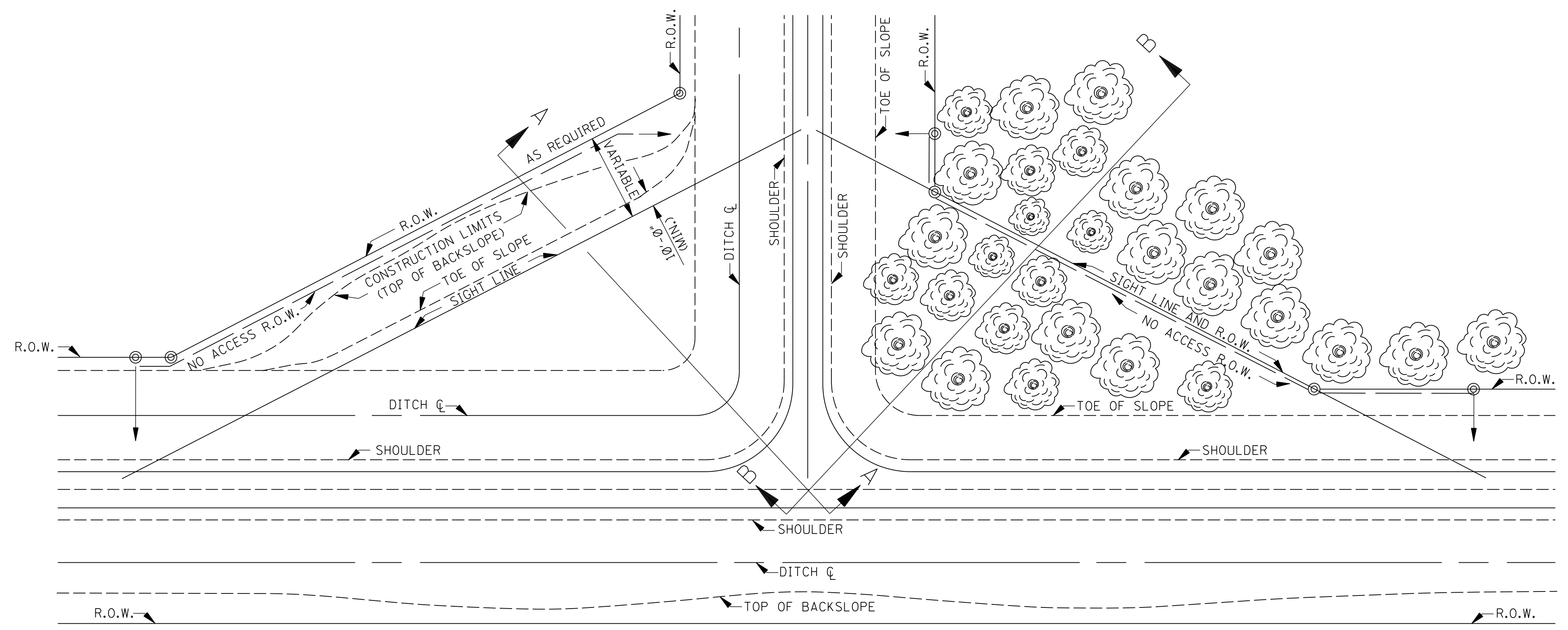
SECTION E-E

MISSISSIPPI DEPARTMENT OF TRANSPORTATION ROADWAY DESIGN DIVISION STANDARD PLAN	
TYPICAL GRADING TRANSITION BETWEEN CUTS AND FILLS	
BY	
REVISION	
DATE	ISSUE DATE: AUGUST 01, 2017
WORKING NUMBER	GT-1
SHEET NUMBER	6404

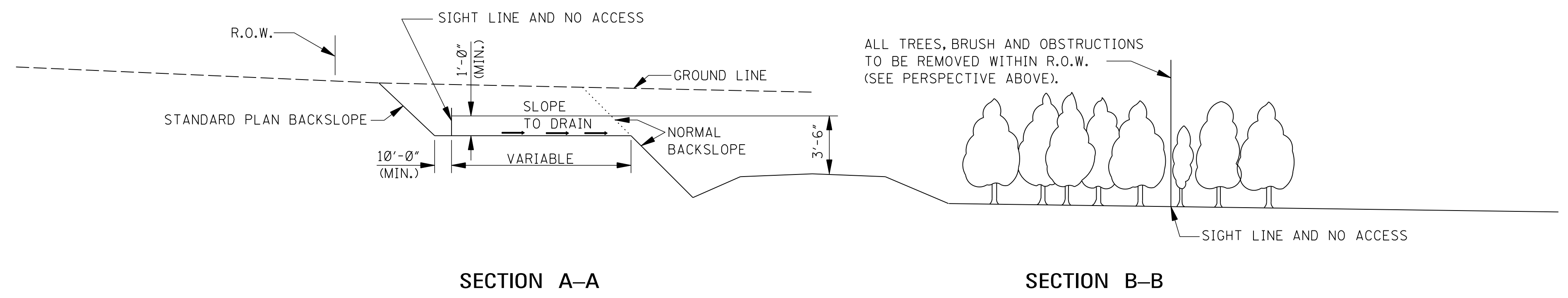




PERSPECTIVE OF TYPICAL DAYLIGHTING AT INTERSECTION IN CUT AND FILL

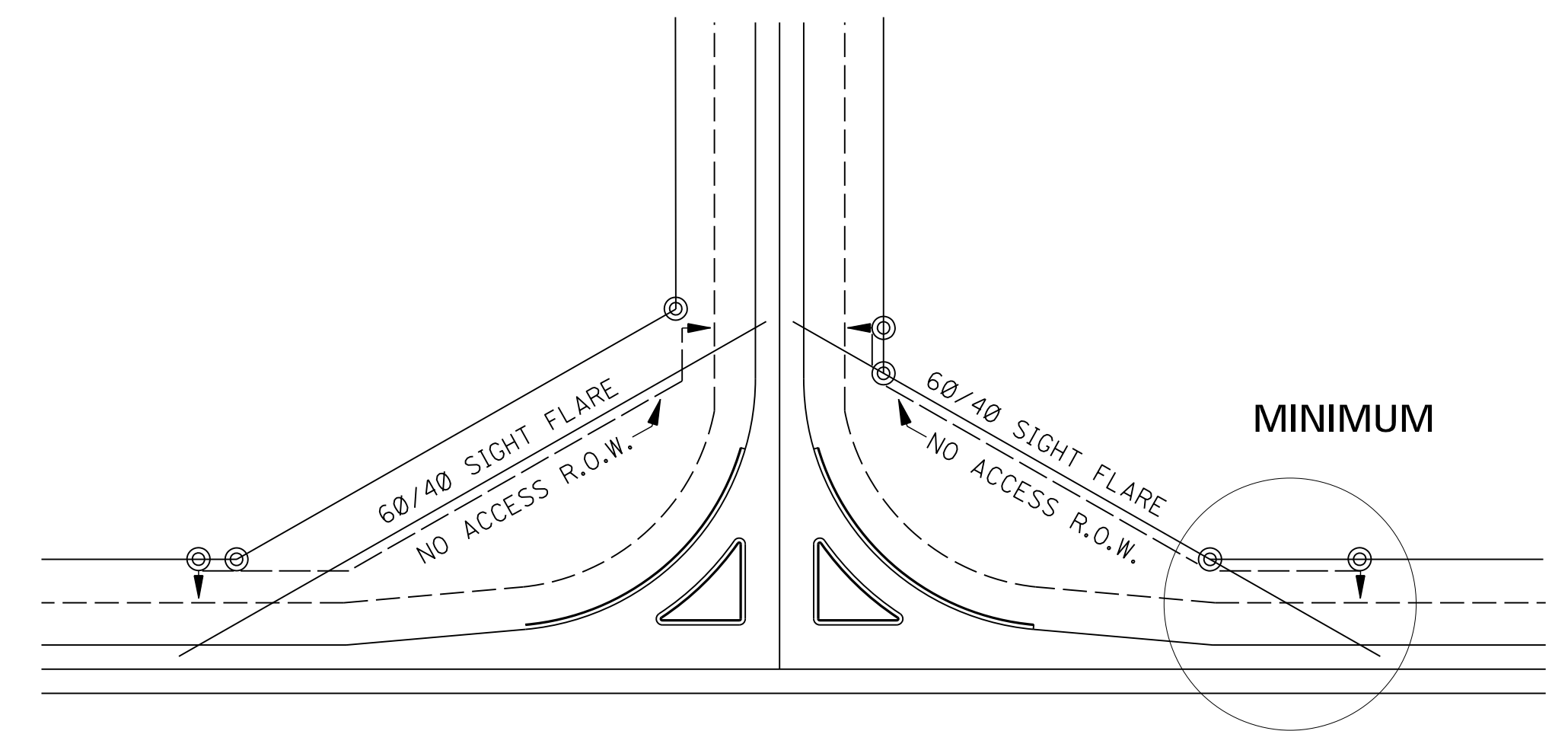


PLAN



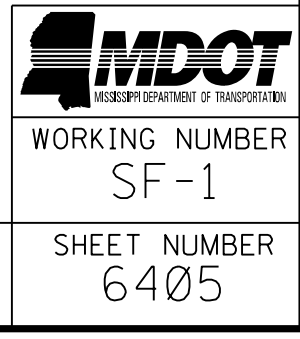
SECTION A-A

SECTION B-B



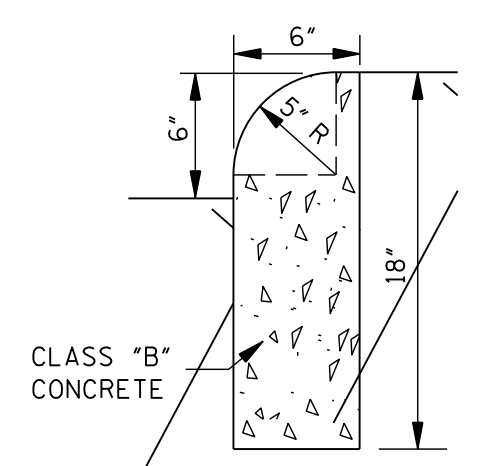
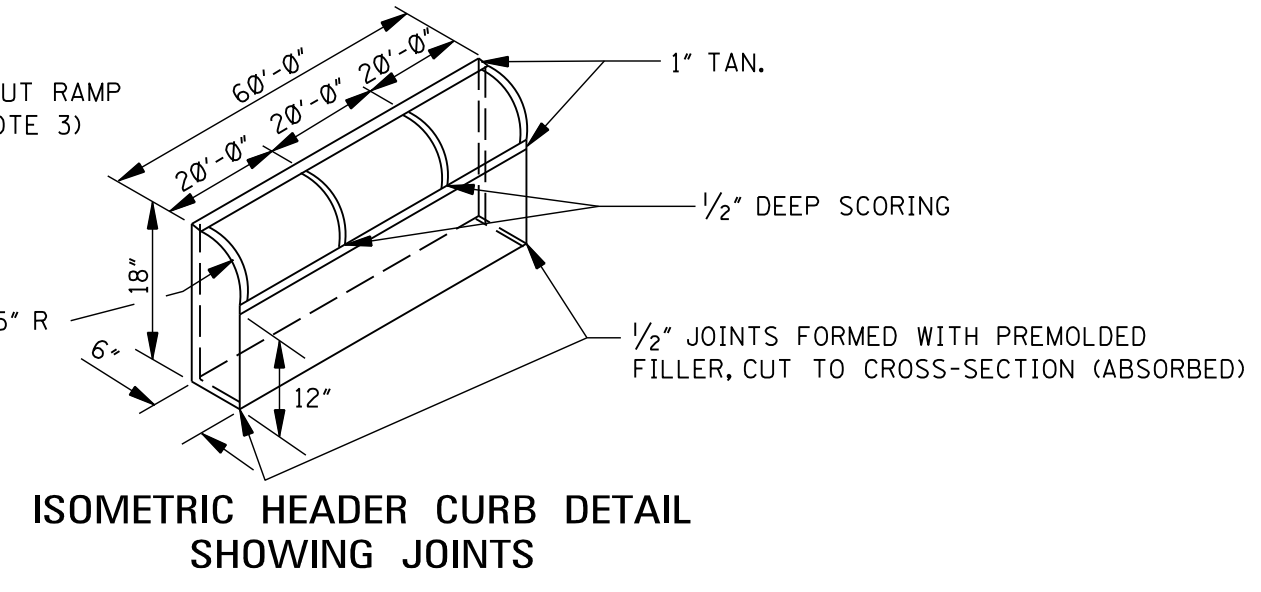
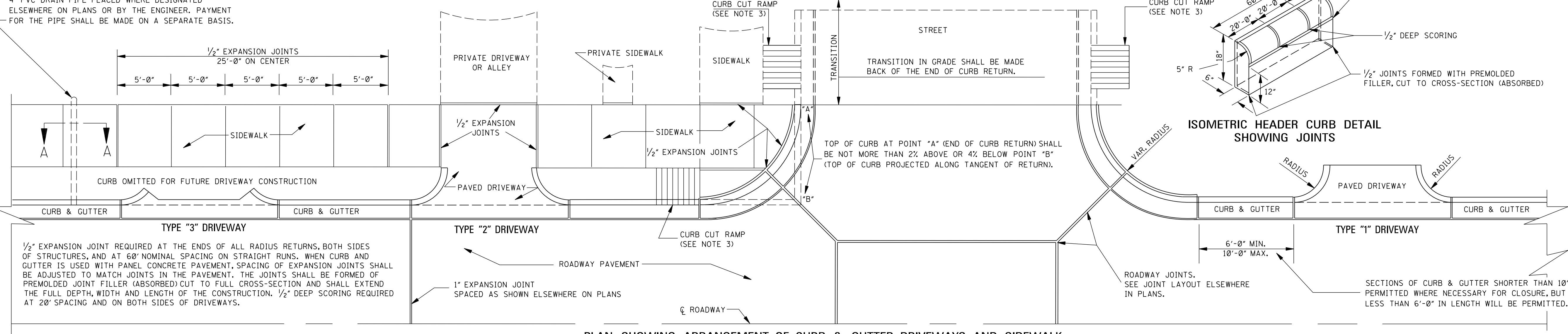
NO-ACCESS LIMITS AT SIGHT FLARES

MISSISSIPPI DEPARTMENT OF TRANSPORTATION ROADWAY DESIGN DIVISION STANDARD PLAN	
SIGHT FLARE	
BY	
REVISION	
DATE	ISSUE DATE: AUGUST 01, 2017
WORKING NUMBER	SF-1
SHEET NUMBER	6405



4" PVC DRAIN PIPE PLACED WHERE DESIGNATED ELSEWHERE ON PLANS OR BY THE ENGINEER. PAYMENT FOR THE PIPE SHALL BE MADE ON A SEPARATE BASIS.

NOTE: DRIVEWAY REINFORCEMENT SHALL BE 6 X 6 - W1.4 X W1.4 OR 6 X 6 - D1.4 X D1.4 WIRE MESH WHERE REQUIRED.



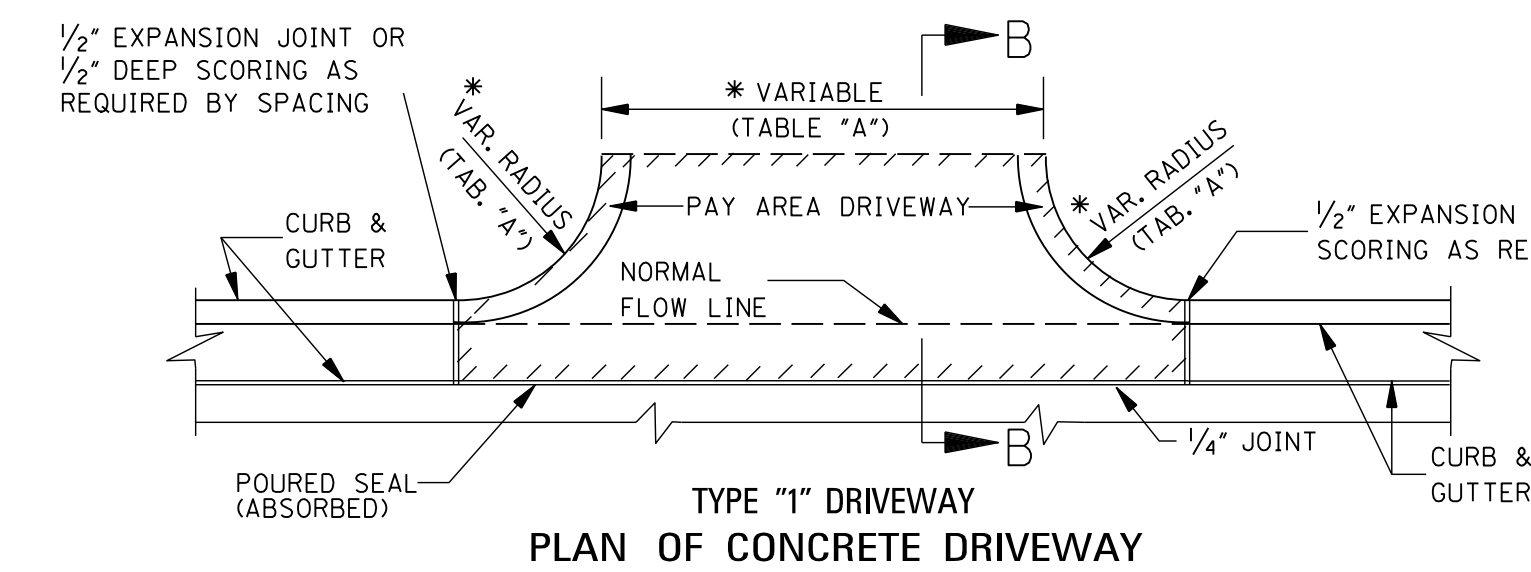
DETAIL OF HEADER CURB
 1/2" CONTRACTION JOINTS REQUIRED AT 20' O.C.
 EXPANSION JOINTS REQUIRED AT 60' O.C.
 UNLESS OTHERWISE DIRECTED BY ENGINEER.

1/2" EXPANSION JOINT REQUIRED AT THE ENDS OF ALL RADIUS RETURNS, BOTH SIDES OF STRUCTURES, AND AT 60' NOMINAL SPACING ON STRAIGHT RUNS. WHEN CURB AND GUTTER IS USED WITH PANEL CONCRETE PAVEMENT, SPACING OF EXPANSION JOINTS SHALL BE ADJUSTED TO MATCH JOINTS IN THE PAVEMENT. THE JOINTS SHALL BE FORMED OF PREMOLDED JOINT FILLER (ABSORBED) CUT TO FULL CROSS-SECTION AND SHALL EXTEND THE FULL DEPTH, WIDTH AND LENGTH OF THE CONSTRUCTION. 1/2" DEEP SCORING REQUIRED AT 20' SPACING AND ON BOTH SIDES OF DRIVEWAYS.

TOP OF CURB AT POINT "A" (END OF CURB RETURN) SHALL BE NOT MORE THAN 2% ABOVE OR 4% BELOW POINT "B" (TOP OF CURB PROJECTED ALONG TANGENT OF RETURN).

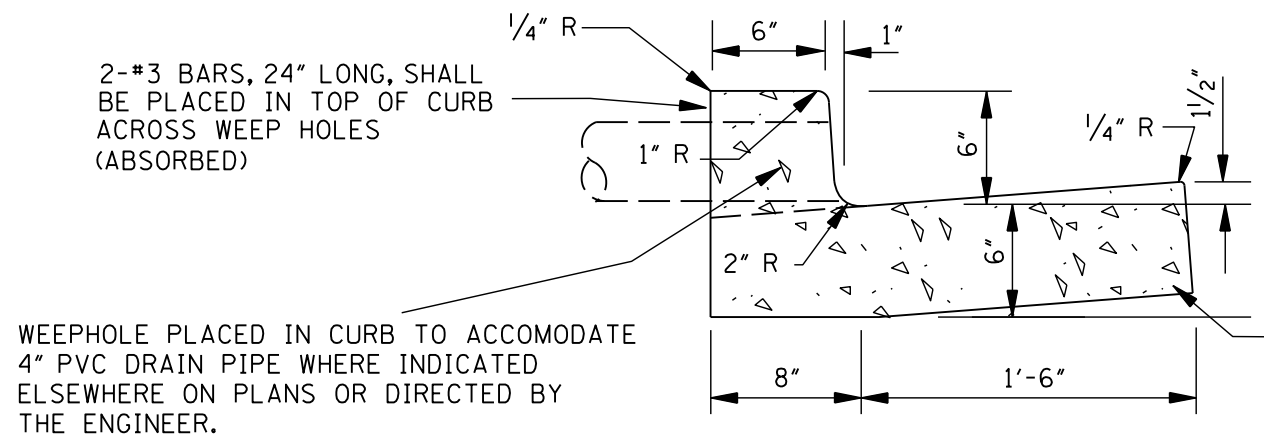
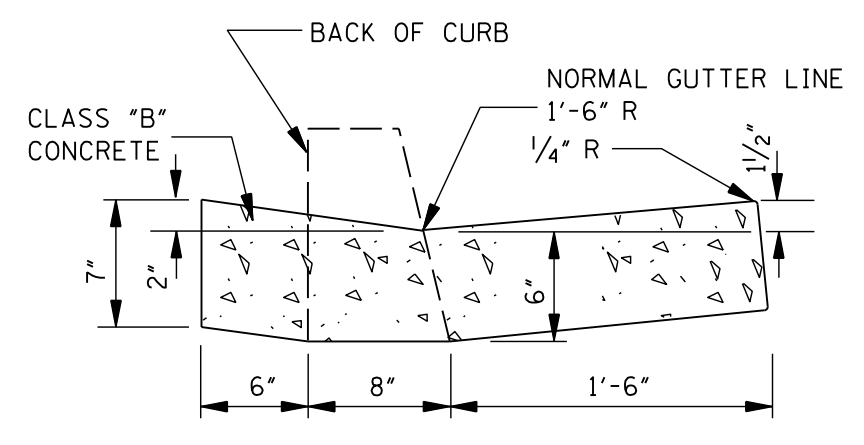
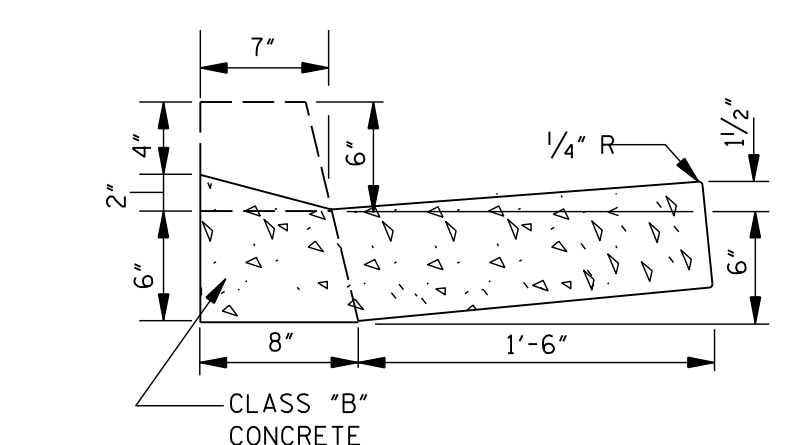
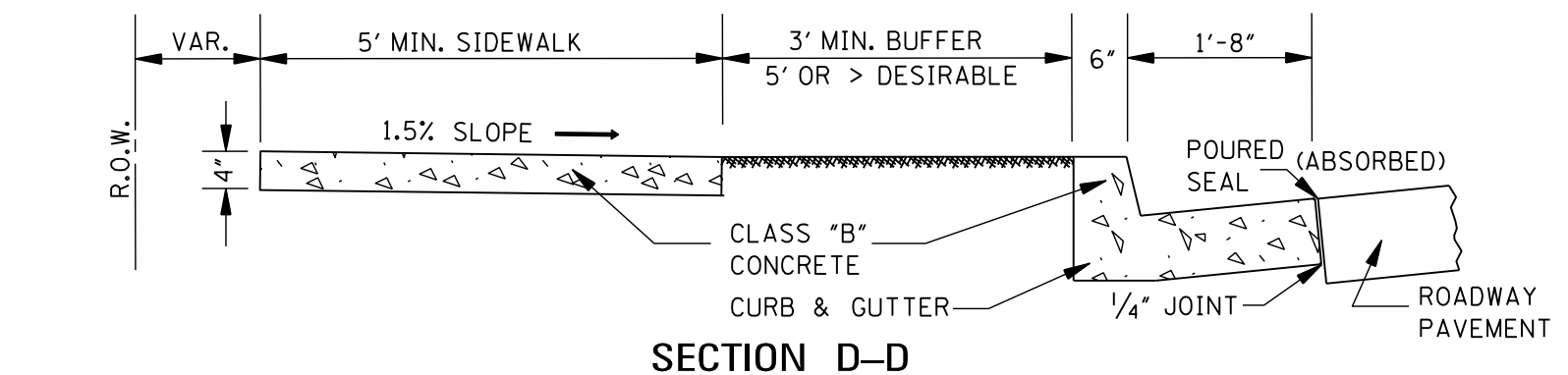
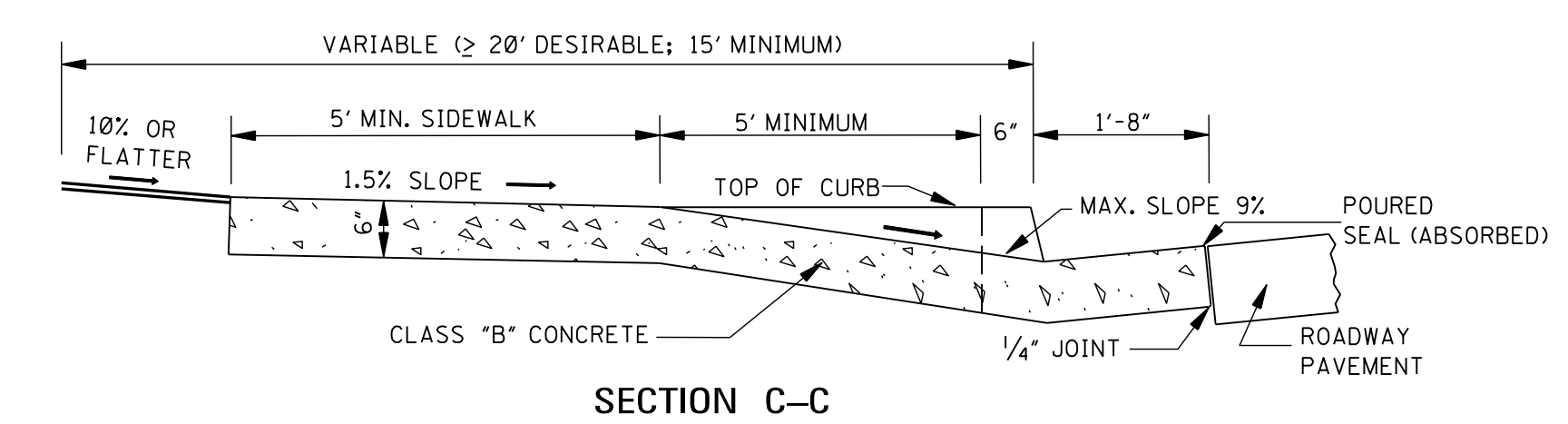
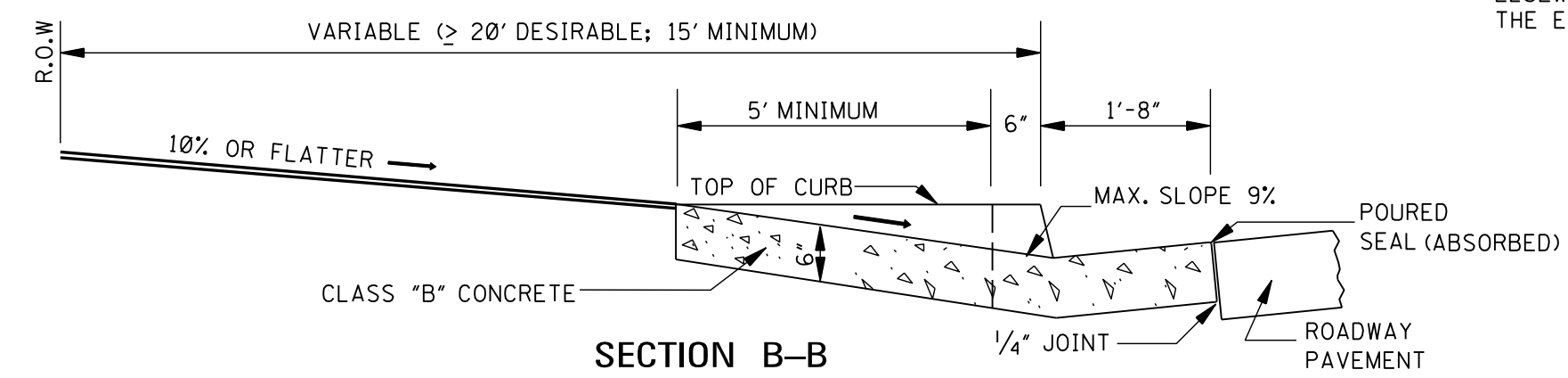
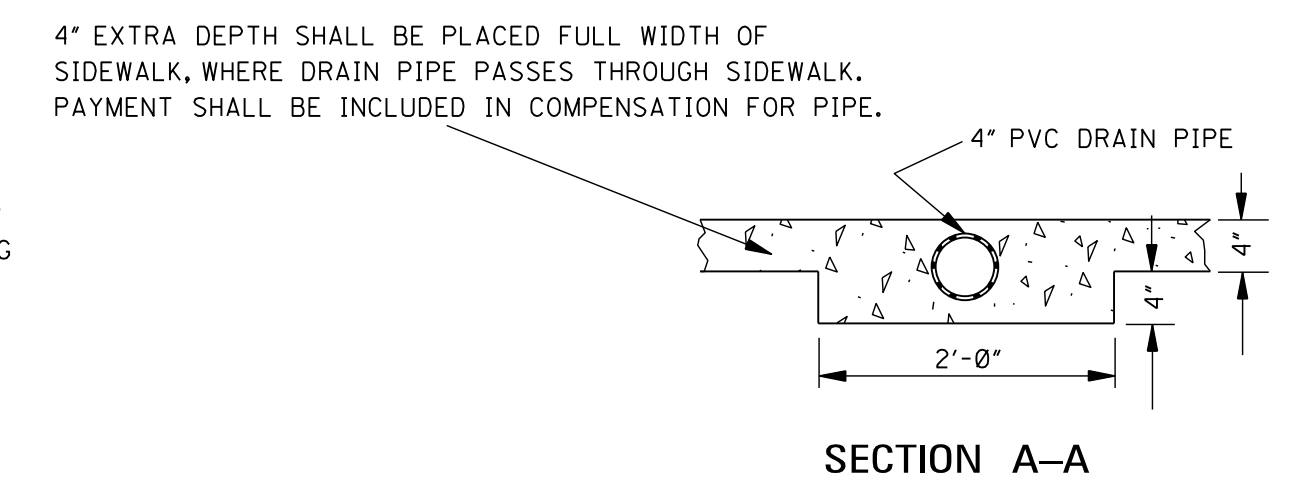
SECTIONS OF CURB & GUTTER SHORTER THAN 10'-0" WILL BE PERMITTED WHERE NECESSARY FOR CLOSURE, BUT NO SECTION LESS THAN 6'-0" IN LENGTH WILL BE PERMITTED.

PLAN SHOWING ARRANGEMENT OF CURB & GUTTER, DRIVEWAYS AND SIDEWALK

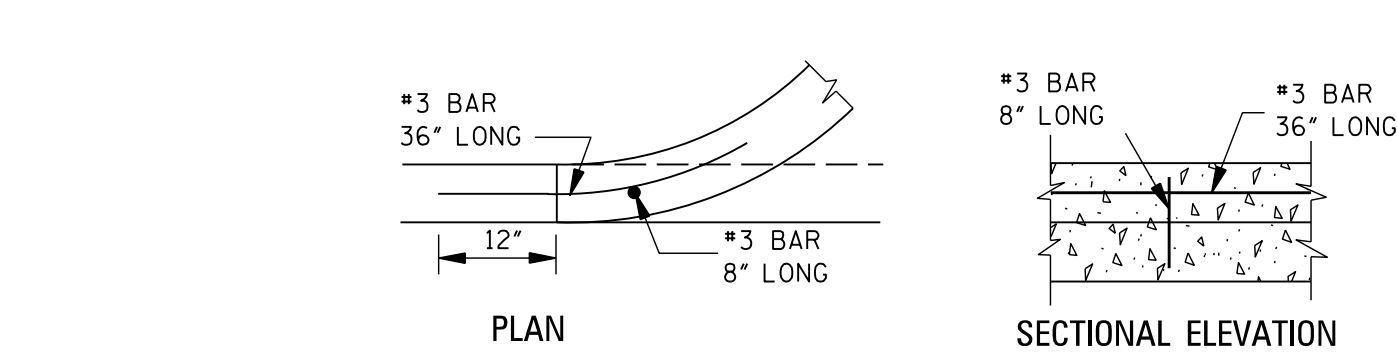
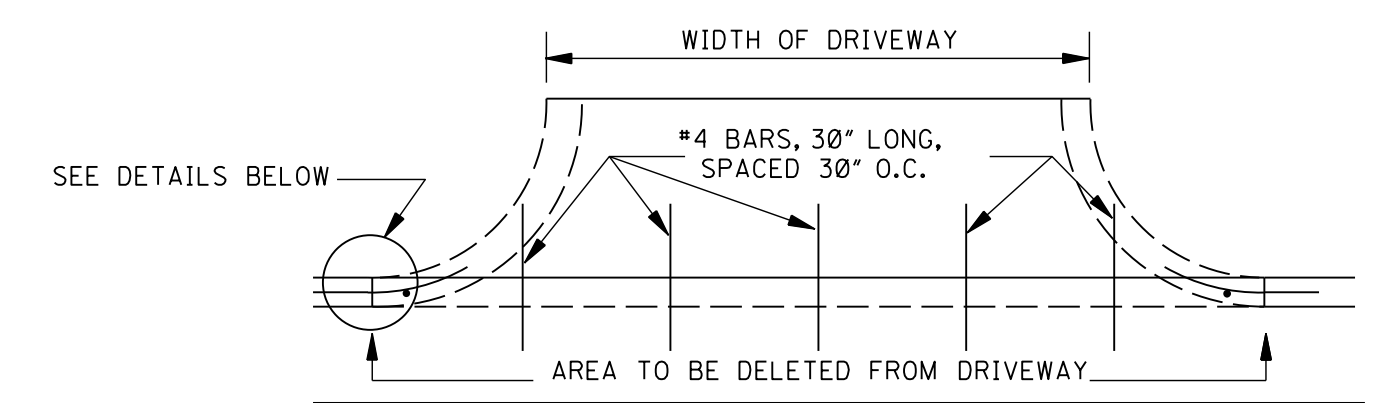
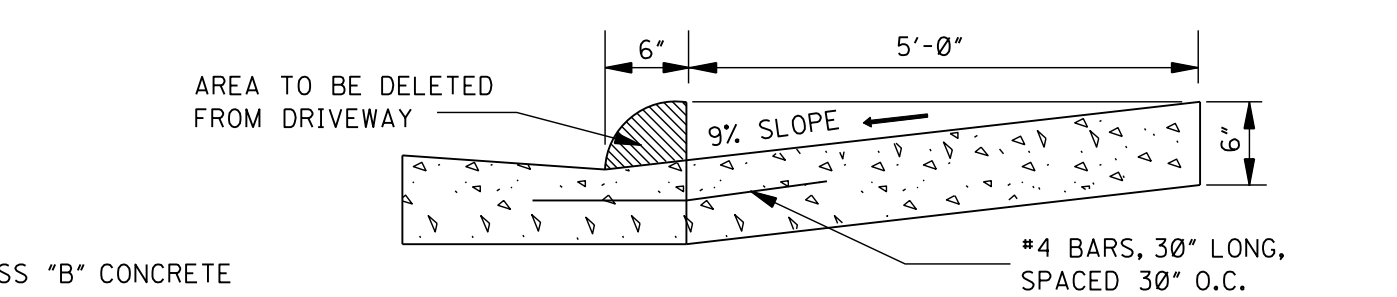
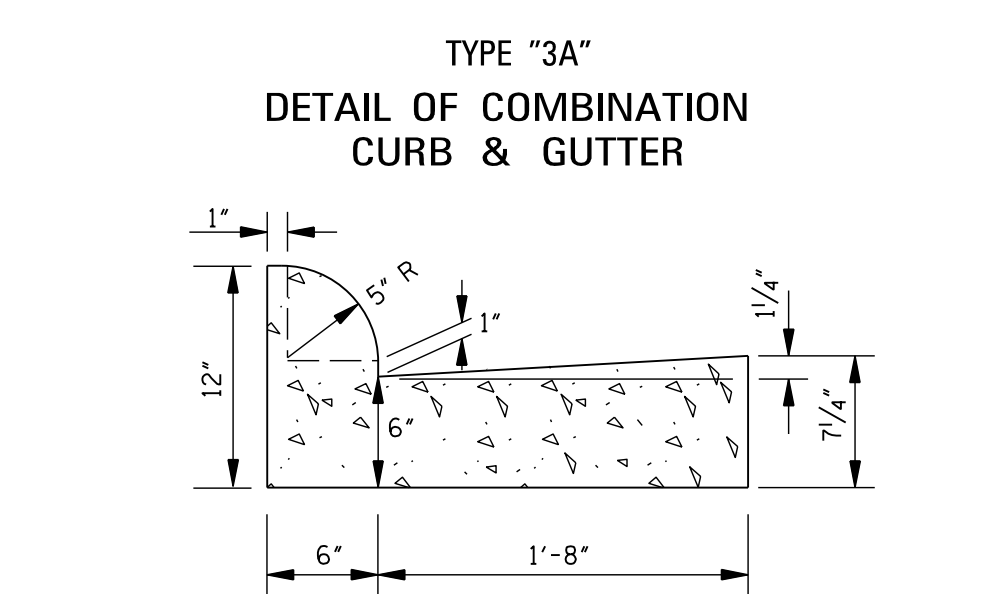
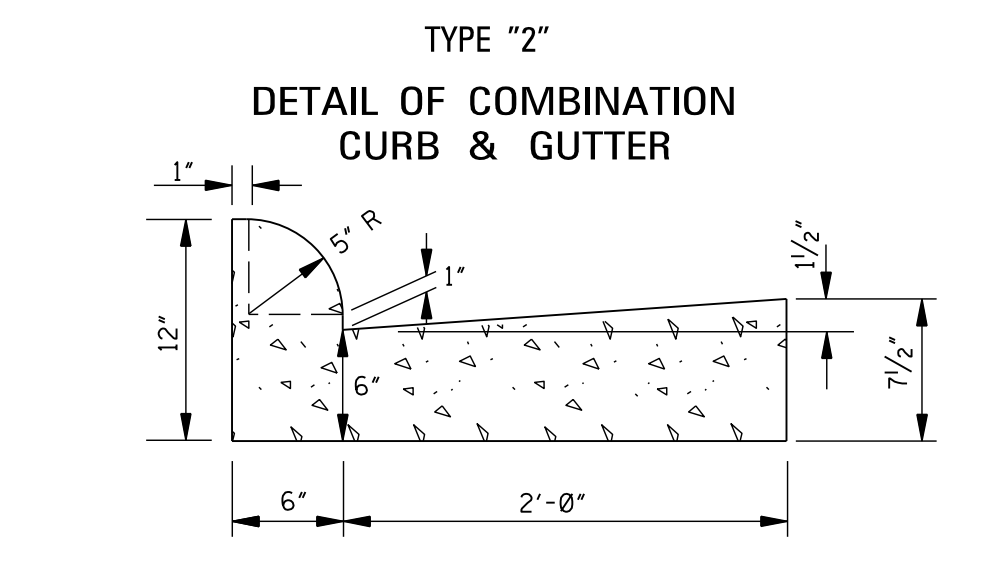
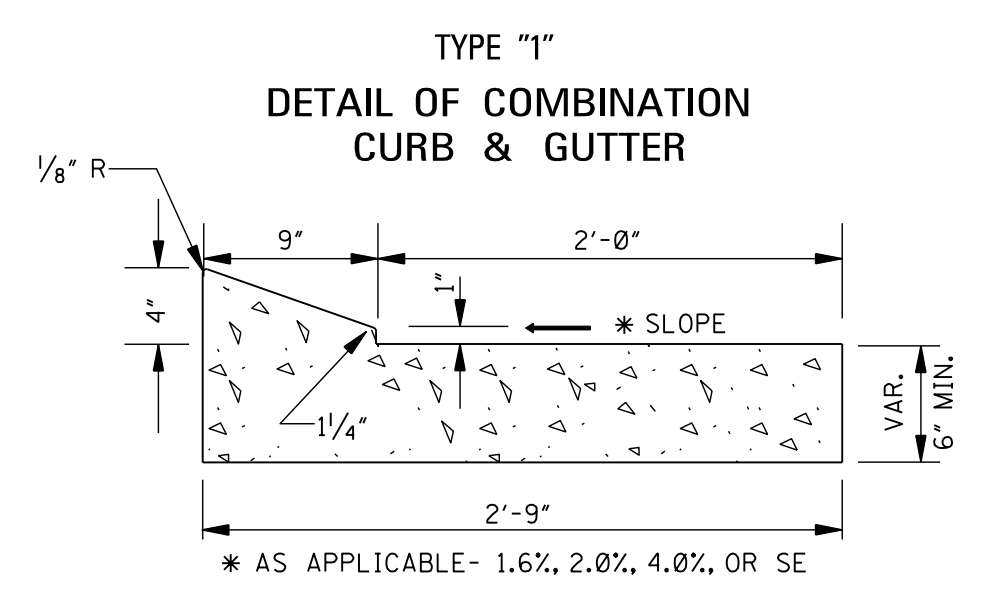


11.058 yd² FOR DRIVEWAY 16'-0" IN WIDTH.
 0.574 yd² FOR EACH ADDED OR SUBTRACTED FOOT OF WIDTH.
 NOTE: THIS DRIVEWAY AREA EXAMPLE IS COMPUTED ON THE BASIS OF 3'-0" RADIUS. PAYMENT FOR CURB RADIUS SHALL BE INCLUDED IN COMPENSATION FOR DRIVEWAY.

* TABLE "A"		
DRIVEWAY TYPE	DRIVEWAY WIDTH	CURB RETURN RADIUS
RESIDENTIAL	16'	5' - 10'
COMMERCIAL/ INDUSTRIAL	30' - 50'	10' - 30'

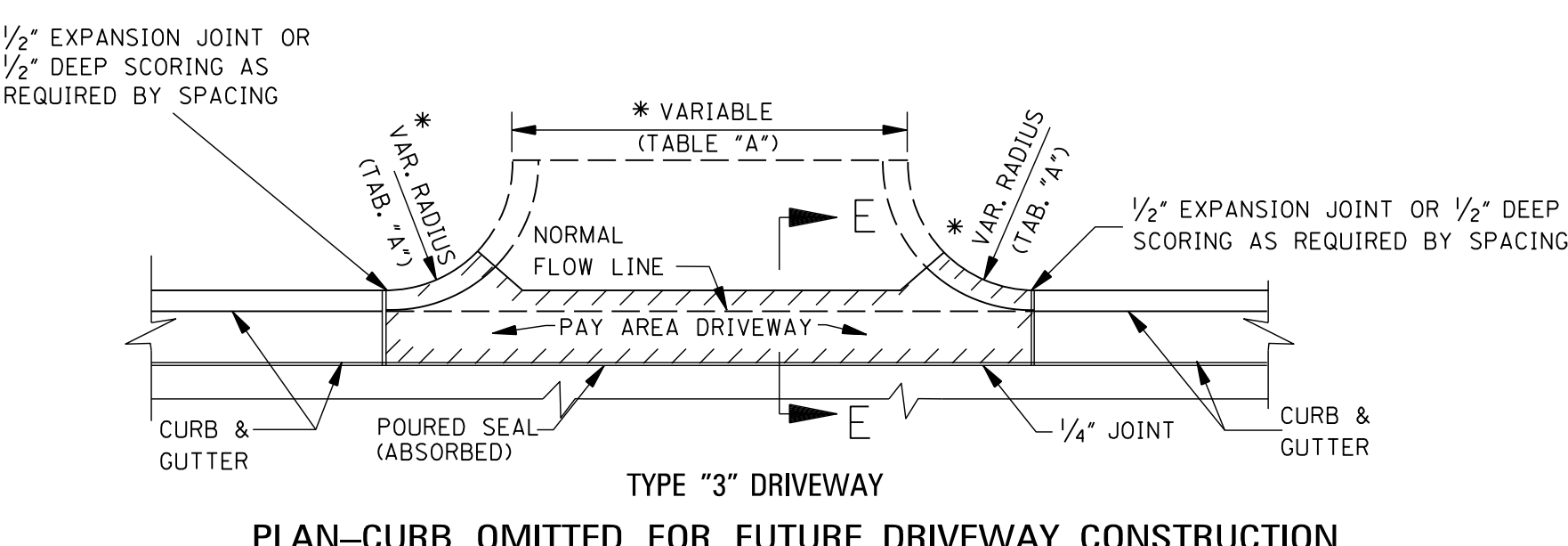


WEEPHOLE PLACED IN CURB TO ACCOMMODATE 4" PVC DRAIN PIPE WHERE INDICATED ELSEWHERE ON PLANS OR DIRECTED BY THE ENGINEER.



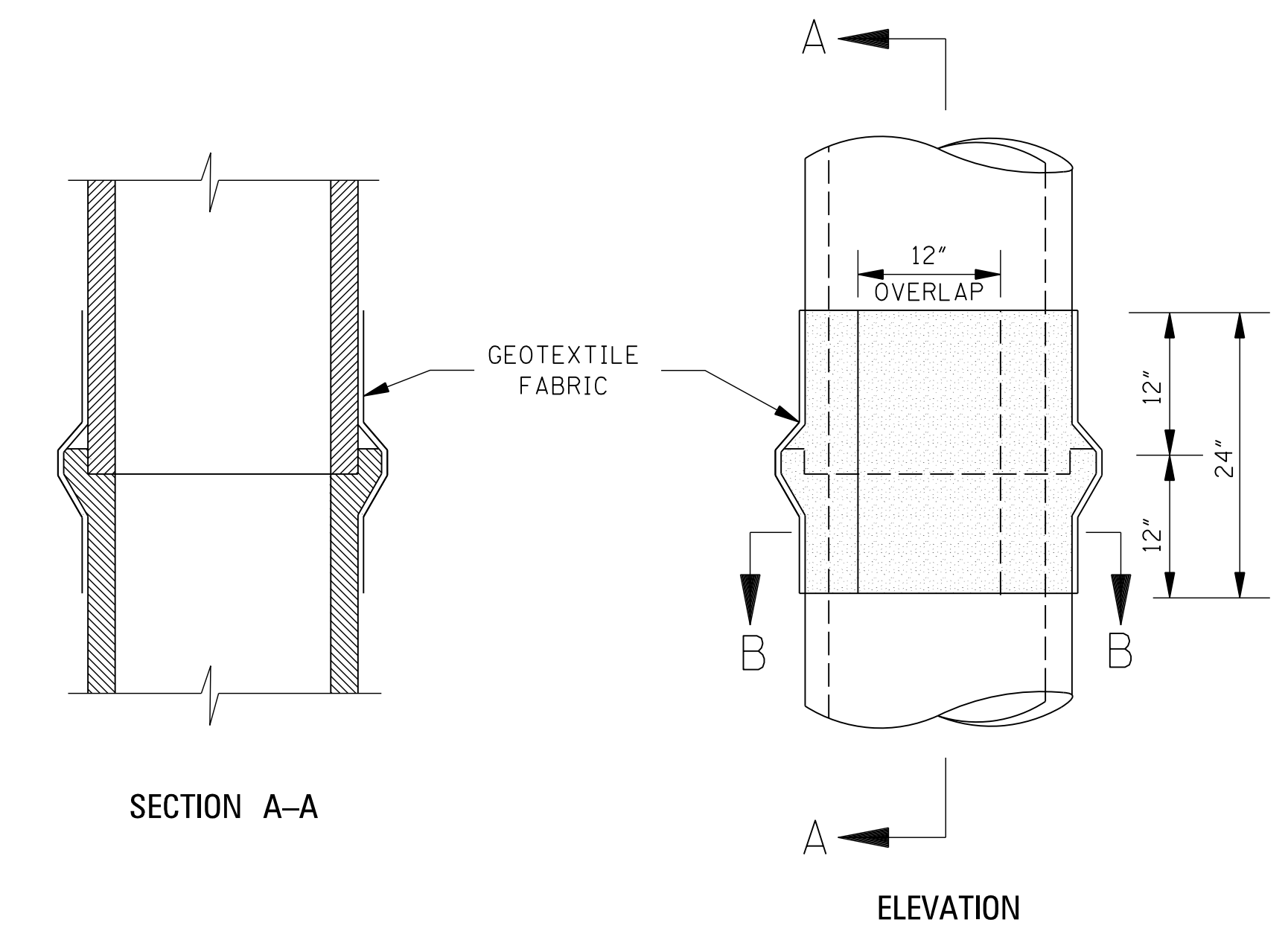
PERMISSIBLE DRIVEWAY CONSTRUCTION METHOD FOR SLIP-FORM PLACEMENT OF CURB & GUTTER

- GENERAL NOTES:
1. TRAVERSE CONTRACTION JOINTS ARE REQUIRED AT 20' ON CENTER FOR ALL CONCRETE DRIVEWAYS THAT EXTEND PAST THE END OF THE CURB RETURN. A 1/2" WIDE EXPANSION JOINT IS REQUIRED AT THE END OF THE CURB RETURN AND AT 60' ON CENTER THROUGHOUT THE LENGTH OF THE DRIVEWAY. A LONGITUDINAL CONTRACTION JOINT IS REQUIRED FOR ALL DRIVEWAYS EXCEEDING 20' IN WIDTH.
 2. SEE WK. NOS. CR-1, CR-2, CR-3 & CR-4 FOR DETAILS OF CURB-CUT RAMPS.
 3. MAXIMUM 2% CROSS-SLOPE ON SIDEWALKS.



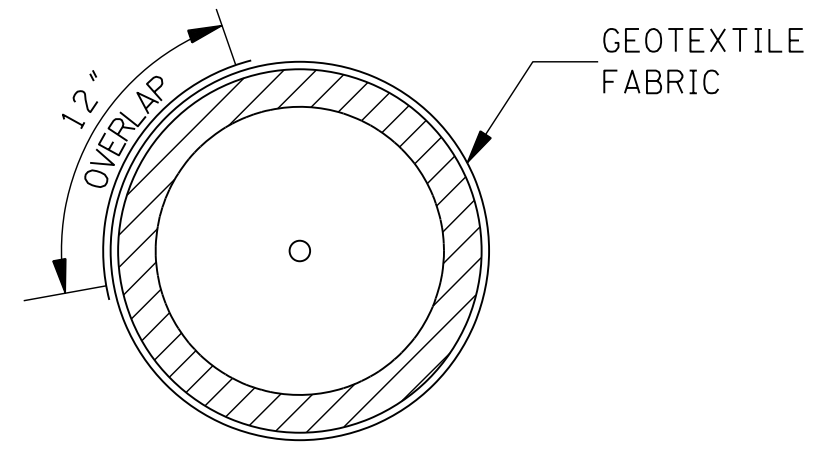
NOTE: THIS TYPE CONSTRUCTION SHALL BE USED WHERE DESIGNATED ELSEWHERE ON PLANS OR BY THE ENGINEER.

BY		MISSISSIPPI DEPARTMENT OF TRANSPORTATION ROADWAY DESIGN DIVISION STANDARD PLAN	
REVISION		<p>DRIVEWAYS, CURB & GUTTER, & SIDEWALK</p> 	
DATE			
ISSUE DATE: AUGUST 01, 2017		WORKING NUMBER SD-1	SHEET NUMBER 6419



SECTION A-A

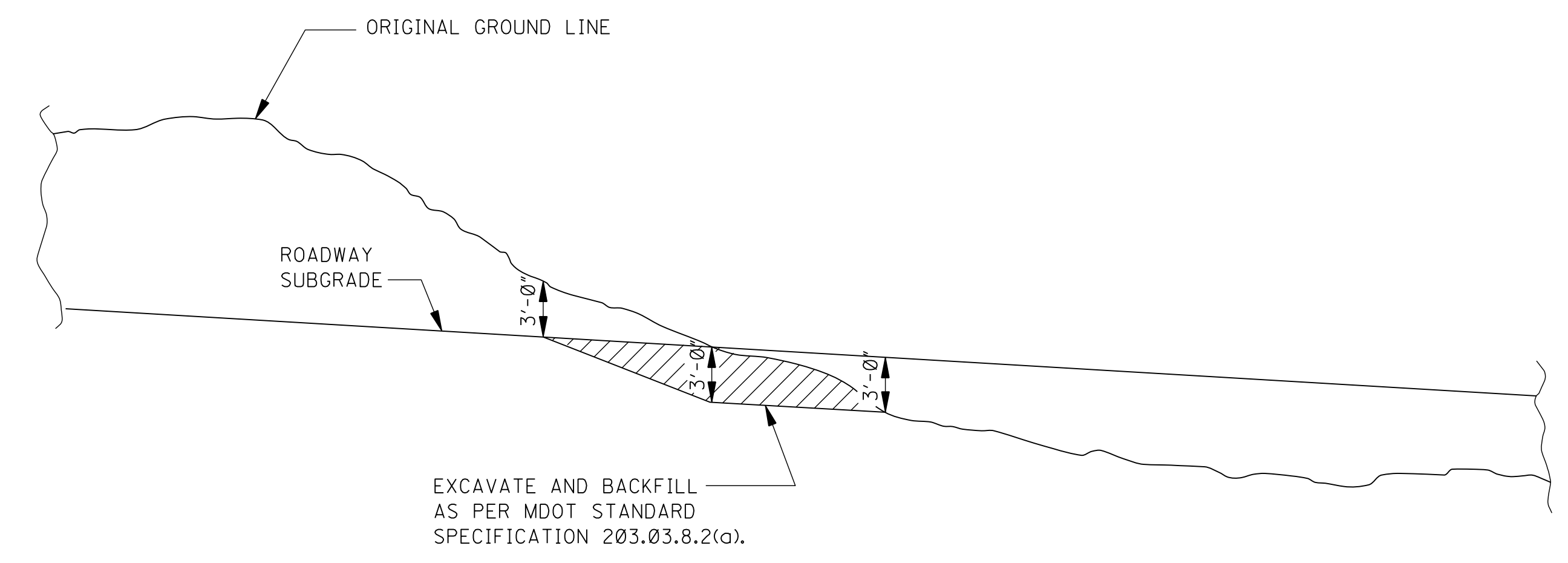
ELEVATION



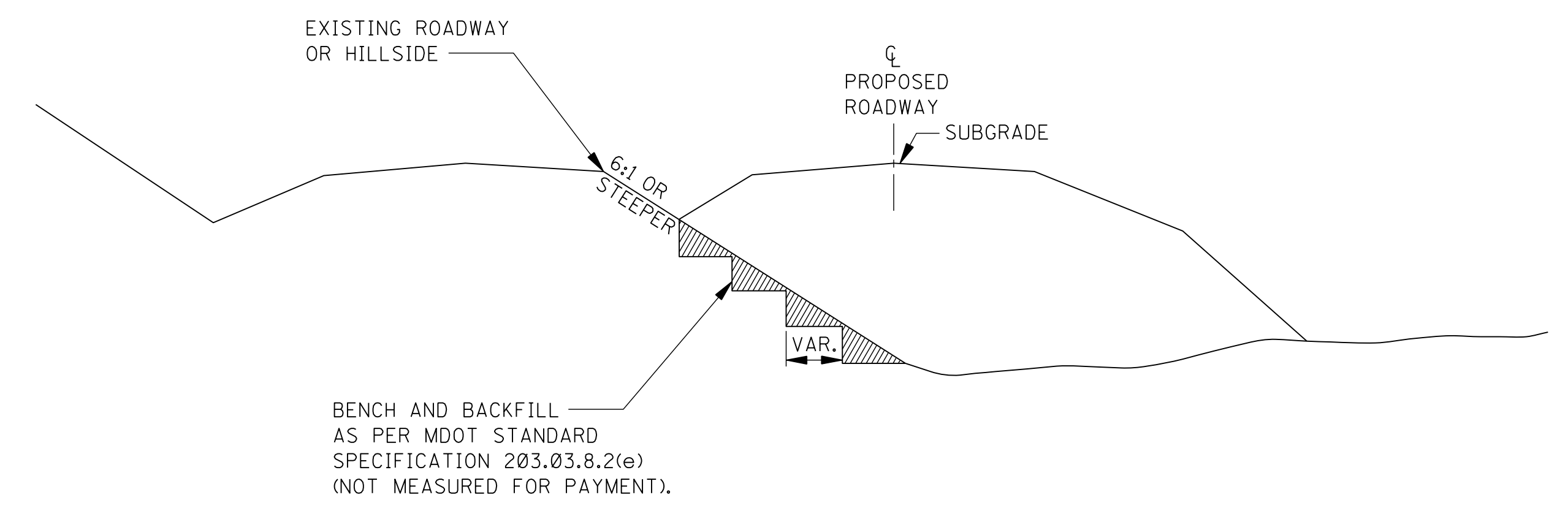
SECTION B-B

STACKED PIPE JOINTS

NOTE: EACH STACKED PIPE JOINT SHALL BE TREATED FIRST WITH A BITUMINOUS PLASTIC SEALER MATERIAL AND SECONDLY WRAPPED WITH 24" WIDE TYPE V GEOTEXTILE FABRIC (AASHTO M 288). THE FABRIC SHALL OVERLAP A MINIMUM OF 12" AT THE WRAP AND SHALL BE SECURED WITH STRING OR WIRE AS APPROVED BY THE ENGINEER PRIOR TO BACKFILLING. THE COST SHALL BE ABSORBED IN OTHER ITEMS BID.



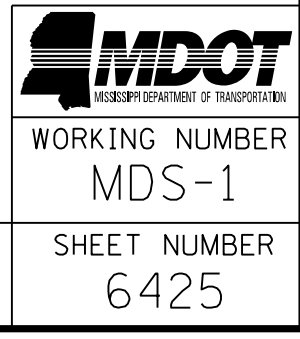
PROFILE SHOWING REQUIRED EXCAVATION AT GRADE POINTS



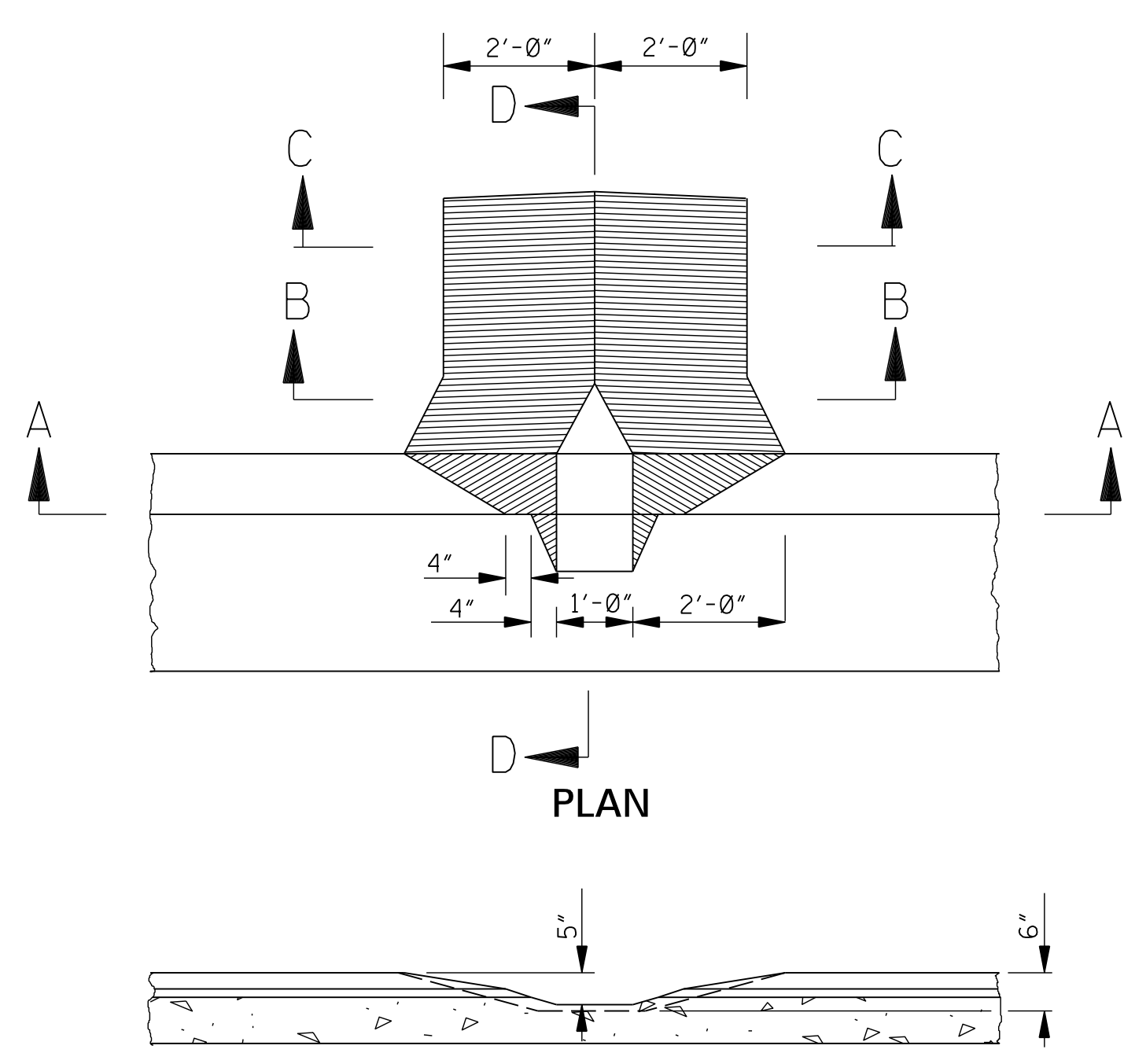
CROSS-SECTION SHOWING REQUIRED BENCHING UNDER EMBANKMENTS ON STEEP SLOPES

EXCAVATION AT GRADE POINTS

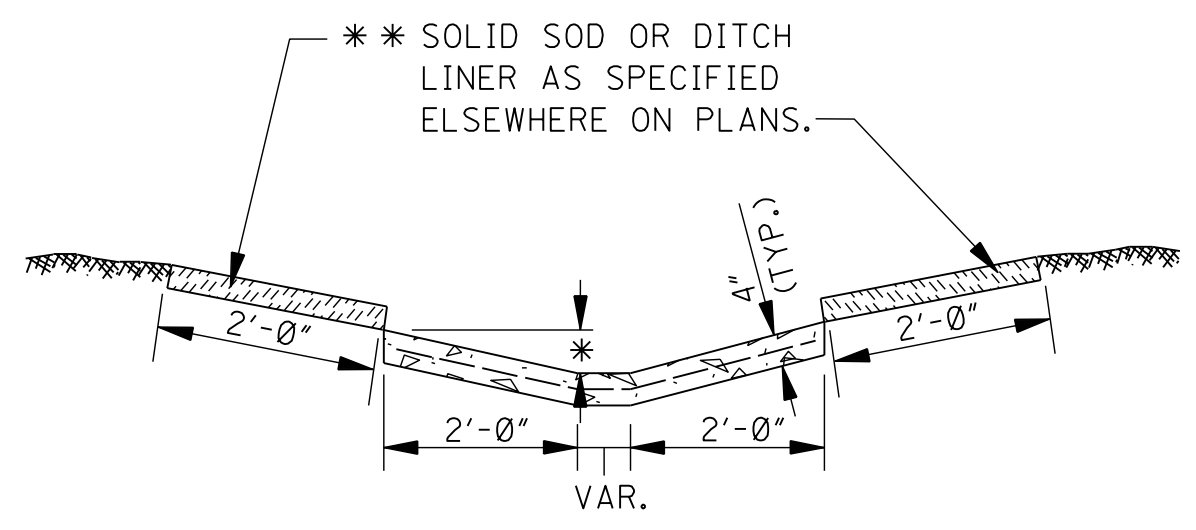
MISSISSIPPI DEPARTMENT OF TRANSPORTATION ROADWAY DESIGN DIVISION STANDARD PLAN	
MISCELLANEOUS DETAIL SHEET	
<ol style="list-style-type: none"> 1. STACKED PIPE JOINTS 2. EXCAVATION AT GRADE POINTS 	
DATE	ISSUE DATE: AUGUST 01, 2017
BY	
REVISION	
WORKING NUMBER	MDS-1
SHEET NUMBER	6425



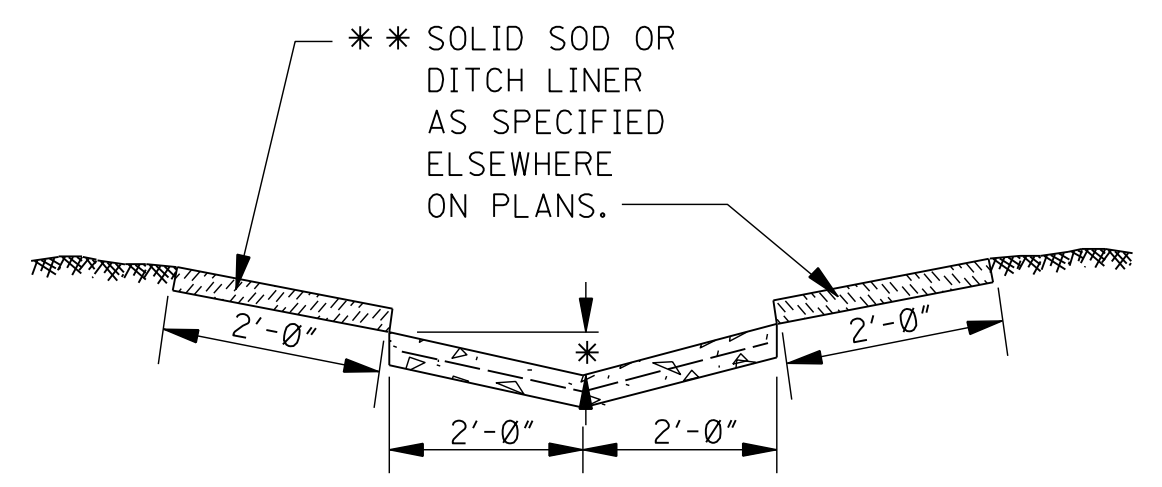
FLUME – TYPE "A" (INTERMEDIATE RUNOFF THROUGH CURB & GUTTER)



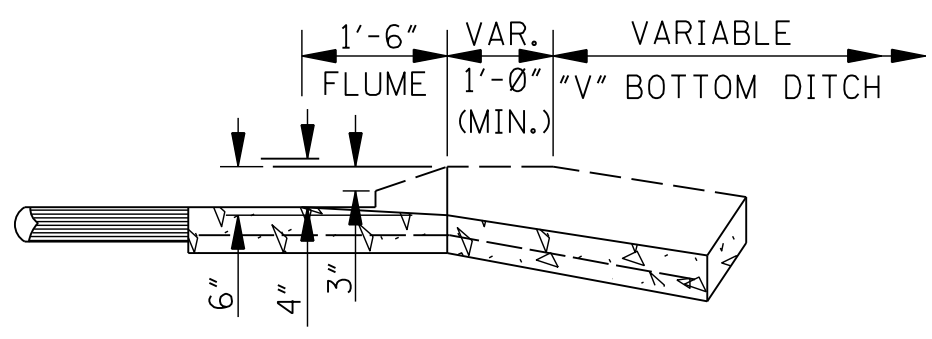
SECTION A-A



SECTION B-B
(TRANSITION SECTION)

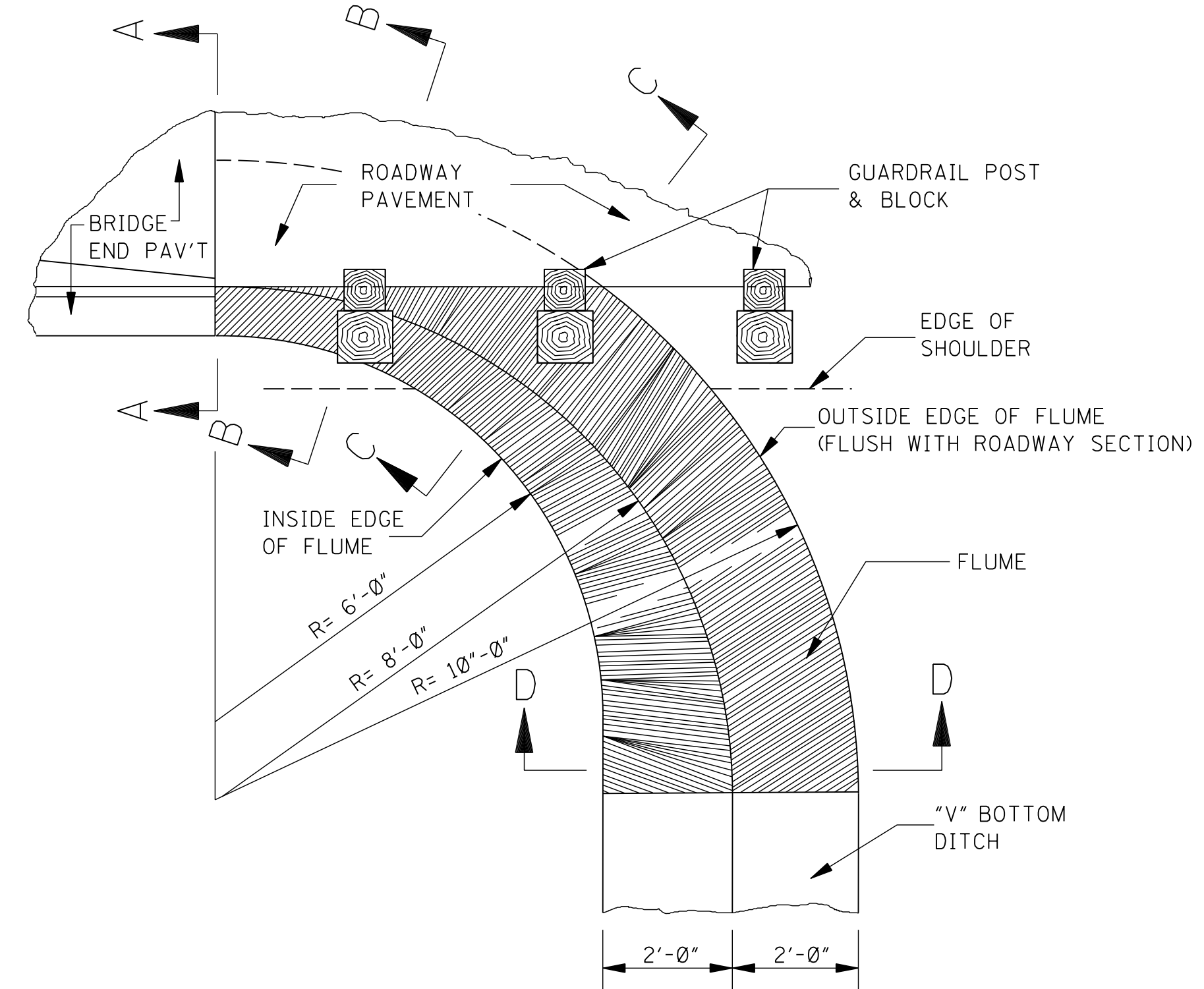


SECTION C-C
(DITCH SECTION)

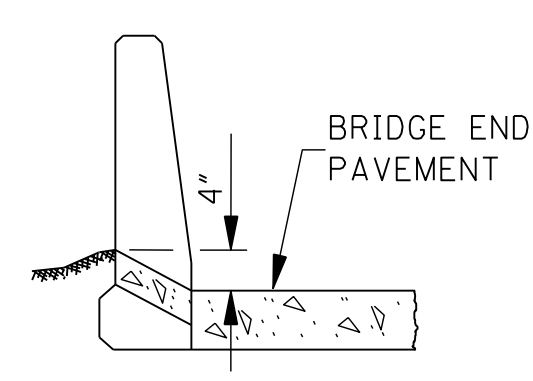


SECTION D-D

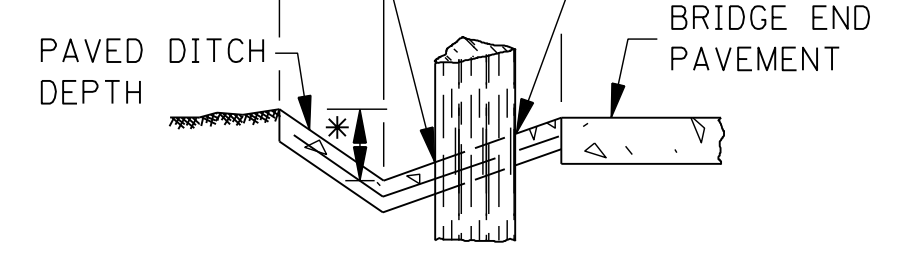
FLUME – TYPE "B" (AT END OF BRIDGE)



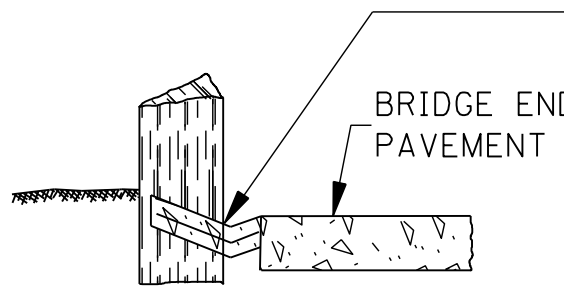
PLAN



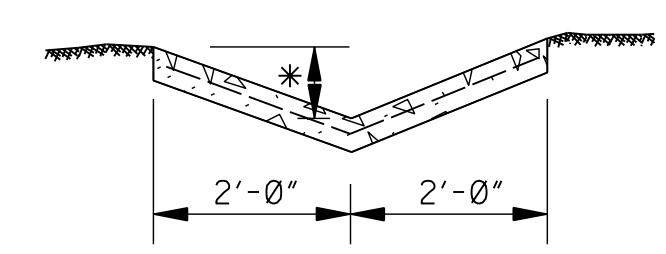
SECTION A-A
(AT BRIDGE END)



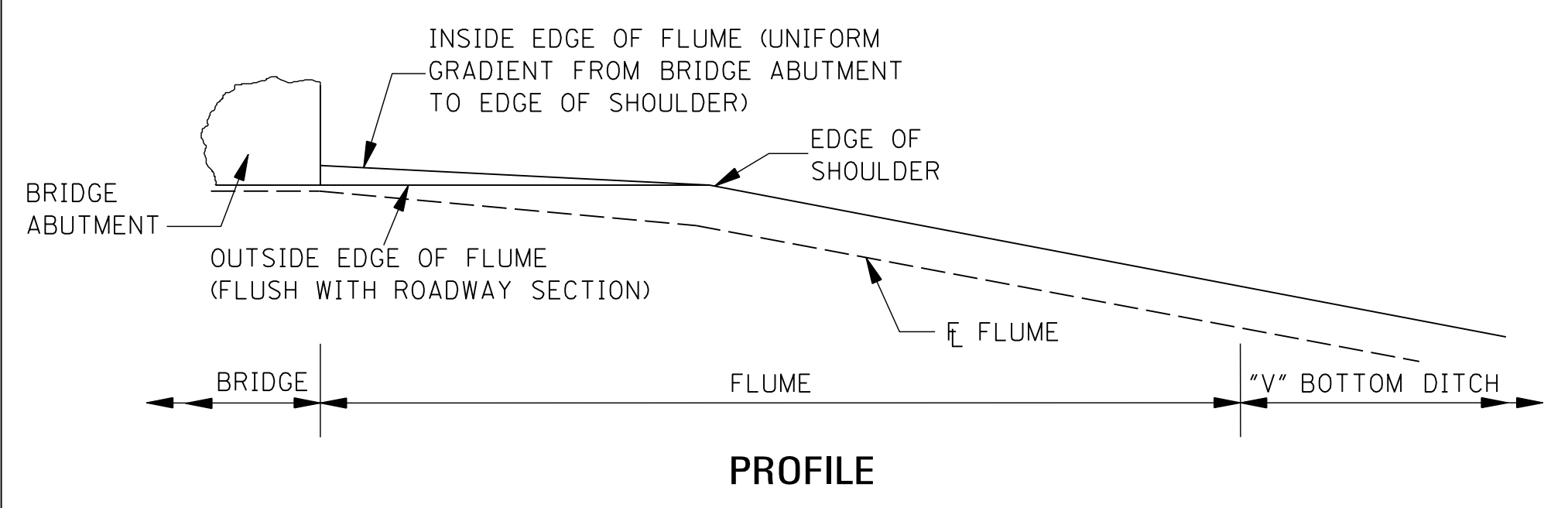
SECTION C-C
(AT EDGE OF SHOULDER)



SECTION B-B

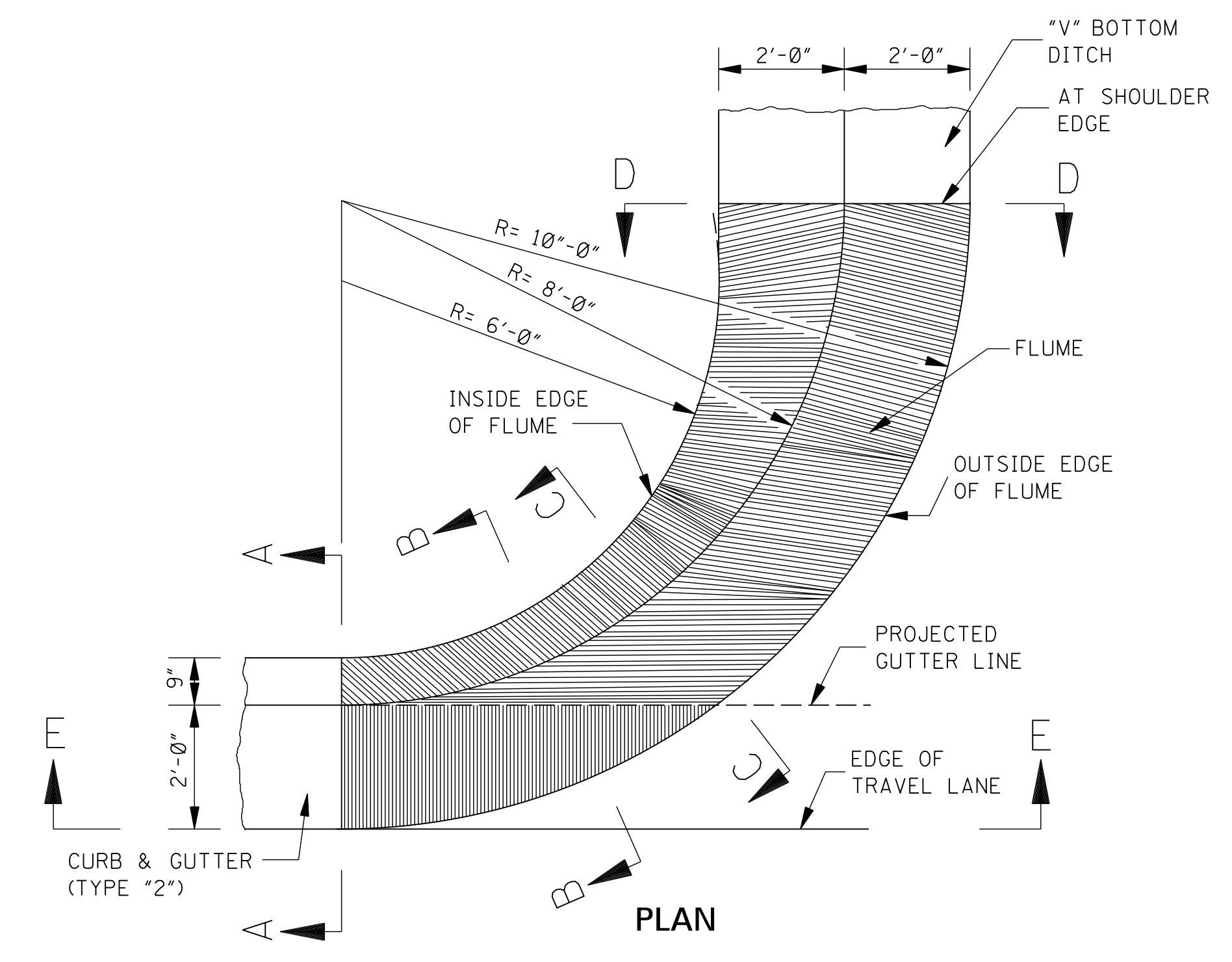


SECTION D-D
(AT "V" BOTTOM DITCH)

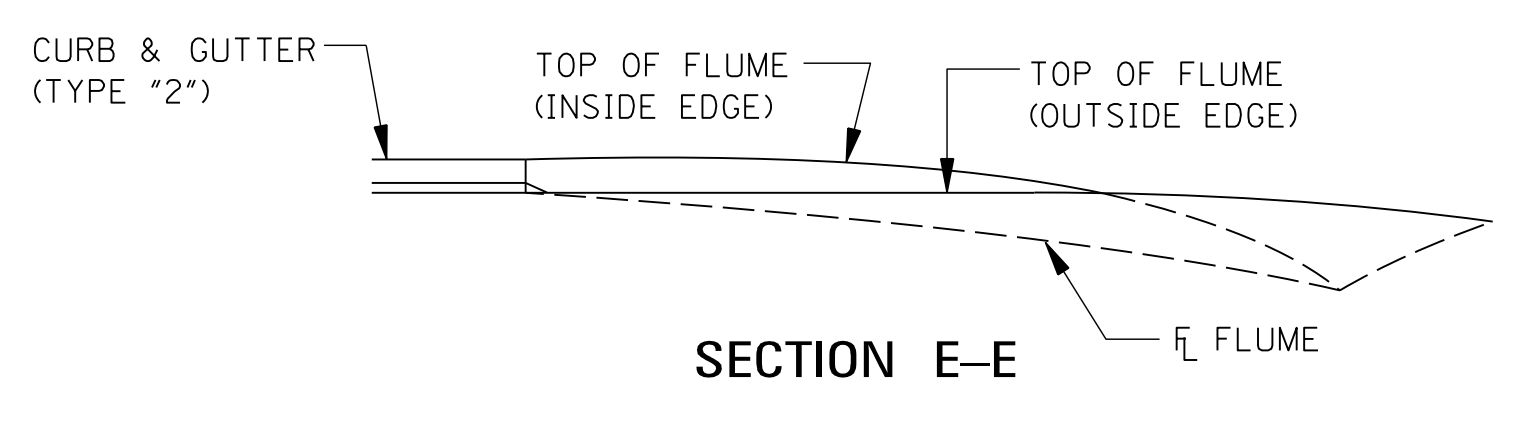


PROFILE

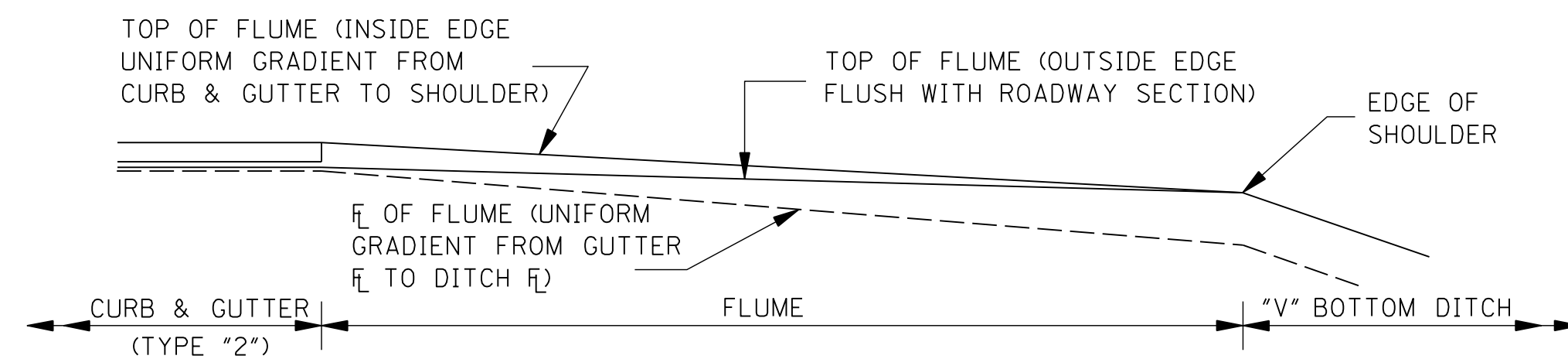
FLUME – TYPE "C" (AT END OF CURB & GUTTER)



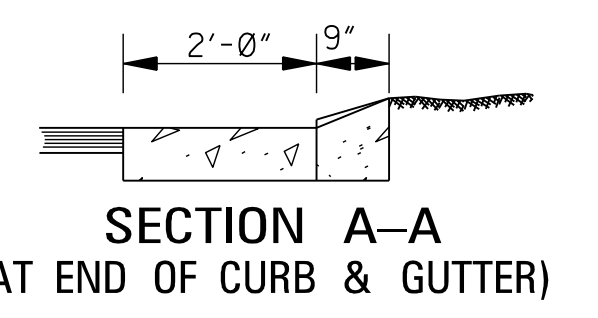
PLAN



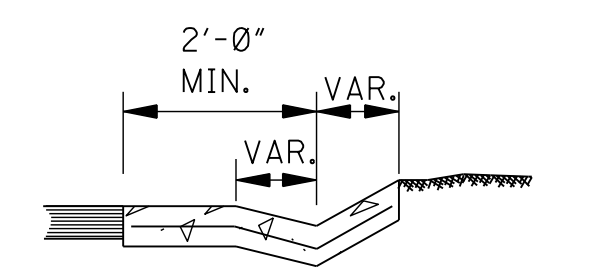
SECTION E-E



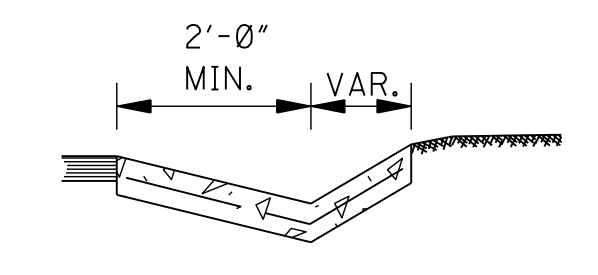
PROFILE



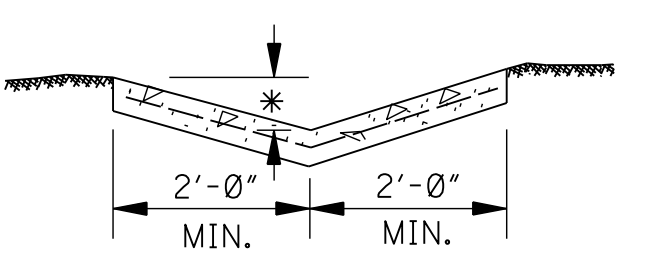
SECTION A-A
(AT END OF CURB & GUTTER)



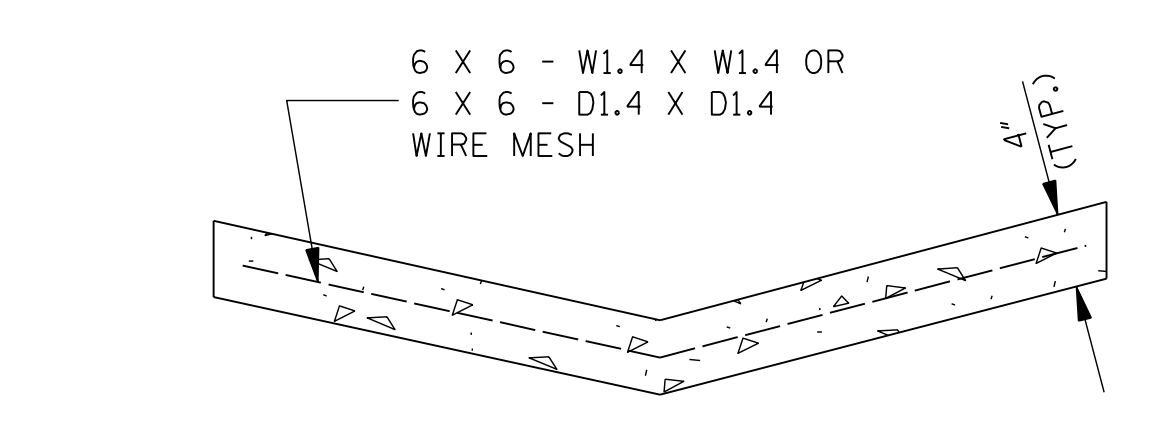
SECTION B-B



SECTION C-C
(AT EDGE OF PROJECTED GUTTER LINE)



SECTION D-D
(AT EDGE OF SHOULDER)



TYPICAL SECTION
(WIRE MESH REQUIREMENTS OF PAVED FLUME)

NOTES:

- * 1. THIS DIMENSION IS 6" FOR 4:1 SLOPES AND 8" FOR 3:1 SLOPES (VARIABLE).
- * * 2. CENTER ROW OF STAPLES MAY BE OMITTED ON DITCH LINER.

MISSISSIPPI DEPARTMENT OF TRANSPORTATION ROADWAY DESIGN DIVISION STANDARD PLAN	
DETAILS OF PAVED FLUMES	
BY	
REVISION	
DATE	ISSUE DATE: AUGUST 01, 2017
WORKING NUMBER	PF-1
SHEET NUMBER	6426

DESCRIPTION OF SHEETS

<i>DESCRIPTION OF SHEETS</i>	<i>WORKING NUMBER</i>	<i>SHEET NUMBER</i>
<i>DETAILED INDEX (BRIDGE)</i>	<i>DI-BR-1</i>	<i>8001</i>
<i>SUMMARY OF QUANTITIES (BRIDGE)</i>	<i>SO-BR-1</i>	<i>8002</i>
 <i>US 49 ACROSS HOPSON BAYOU BRIDGE AT STA. 374+88.65</i>		
<i>US 49 ACROSS HOPSON BAYOU LAYOUT</i>	<i>1 OF 13</i>	<i>8003</i>
<i>US 49 ACROSS HOPSON BAYOU FOUNDATION PLAN</i>	<i>2 OF 13</i>	<i>8004</i>
<i>END BENT NO. 1 DETAILS</i>	<i>3 OF 13</i>	<i>8005</i>
<i>END BENT NO. 4 DETAILS</i>	<i>4 OF 13</i>	<i>8006</i>
<i>END BENT DETAILS</i>	<i>5 OF 13</i>	<i>8007</i>
<i>INTERMEDIATE BENT NO. 2</i>	<i>6 OF 13</i>	<i>8008</i>
<i>INTERMEDIATE BENT NO. 3</i>	<i>7 OF 13</i>	<i>8009</i>
<i>INTERMEDIATE BENT DETAILS</i>	<i>8 OF 13</i>	<i>8010</i>
<i>110 FT. SPANS NO. 1 - 3 DETAILS</i>	<i>9 OF 13</i>	<i>8011</i>
<i>110 FT. SPAN DETAILS</i>	<i>10 OF 13</i>	<i>8012</i>
<i>MISCELLANEOUS SPAN DETAILS</i>	<i>11 OF 13</i>	<i>8013</i>
<i>110 FT. END BEAM DETAILS, BEAM NO. 110-1 (TYPE BT-5A)</i>	<i>12 OF 13</i>	<i>8014</i>
<i>110 FT. INT. BEAM DETAILS, BEAM NO. 110-2 (TYPE BT-5A)</i>	<i>13 OF 13</i>	<i>8015</i>
<i>GENERALIZED SOIL PROFILE (PLATE 1)</i>	<i>GSP-1A</i>	<i>8016</i>
<i>US 49 DETOUR BRIDGE AT STA. 10+55.00</i>	<i>DBA-1</i>	<i>8017</i>
<i>INFORMATION PLANS</i>		<i>8018</i>
<i>EROSION CONTROL PLAN</i>	<i>EC-BR-1</i>	<i>8019</i>
<i>2'-8" RAILING DETAILS</i>	<i>RD-32</i>	<i>8020</i>

BRIDGE DIVISION		
REVISIONS		
DATE	SHEET NO.	BY

001: 00 ANPM DGNFILENAME MISSISSIPPI DEPARTMENT OF TRANSPORTATION PROJECT HOPSON BAYOU BRIDGE PLAN



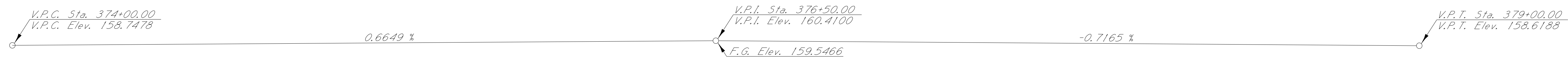
REVISION	MISSISSIPPI DEPARTMENT OF TRANSPORTATION	
	BRIDGE AT STA. 374+88.65	
	DETAILED INDEX (BRIDGE)	
	FMS: 105343 / 301000	
COUNTY: TALLAHATCHIE		
PROJECT NUMBER: BR-0008-05(038)		
DATE	DESIGNER <u>Lon Burt</u>	CHECKER <u>Spencer Yates</u>
	DETAILER <u>Lon Burt</u>	ISSUE DATE <u>03-13-2019</u>
DIRECTOR OF STRUCTURES, STATE BRIDGE ENGINEER - JUSTIN WALKER, P.E.		WORKING NUMBER
DEP. DIR. OF STRUCTURES, ASST. STATE BRIDGE ENGINEER - SCOTT WESTERFIELD, P.E.		DI-BR-1
		SHEET NUMBER
		8001

SUMMARY OF QUANTITIES

PAY ITEM NO.	PAY ITEM	UNIT	QUANTITIES	
			PRELIMINARY	FINAL
	Bridge Summary			
501-K001	Transverse Grooving	SY	1,467	
803-I004	PDA Test Pile, Steel Pipe Pile	EA	3	
803-J001	Pile Restrike	EA	2	
803-P001	24" Steel Pipe Piling, Wall Thickness 0.500"	LF	1,440	
803-P003	30" Steel Pipe Piling, Wall Thickness 0.500"	LF	825	
907-804-A002	Bridge Concrete, Class AA	CY	163	
907-804-A004	Bridge Concrete, Class BD	CY	444	
804-C024	110' Prestressed Concrete Beam, Type BT-54	LF	1,968	
805-A001	Reinforcement	LBS	142,830	
813-A002	Concrete Railing, 32"	LF	665	
815-A007	Loose Riprap, Size 300	TON	766	
815-E001	Geotextile under Riprap	SY	454	
907-832-PP003	Concrete Mat	SY	672	



By	MISSISSIPPI DEPARTMENT OF TRANSPORTATION SUMMARY OF QUANTITIES (BRIDGE ITEMS)	
	PROJECT BR-0008-05(038) 105343-301000	
Revision	TALLAHATCHIE COUNTIES	WORKING NUMBER SQ-BR-1
	DESIGNER <u>Barbara Jones, PE</u> CHECKER <u>Trent Wixon, PE</u> DETAILER <u>Barbara Jones, PE</u> ISSUE DATE <u>03/13/2019</u>	SHEET NUMBER 8002
Date	DIRECTOR OF STRUCTURES, STATE BRIDGE ENGINEER - JUSTIN WALKER, P.E. DEP. DIR OF STRUCTURES, ASST. STATE BRIDGE ENGINEER - SCOTT WESTERFIELD, P.E.	

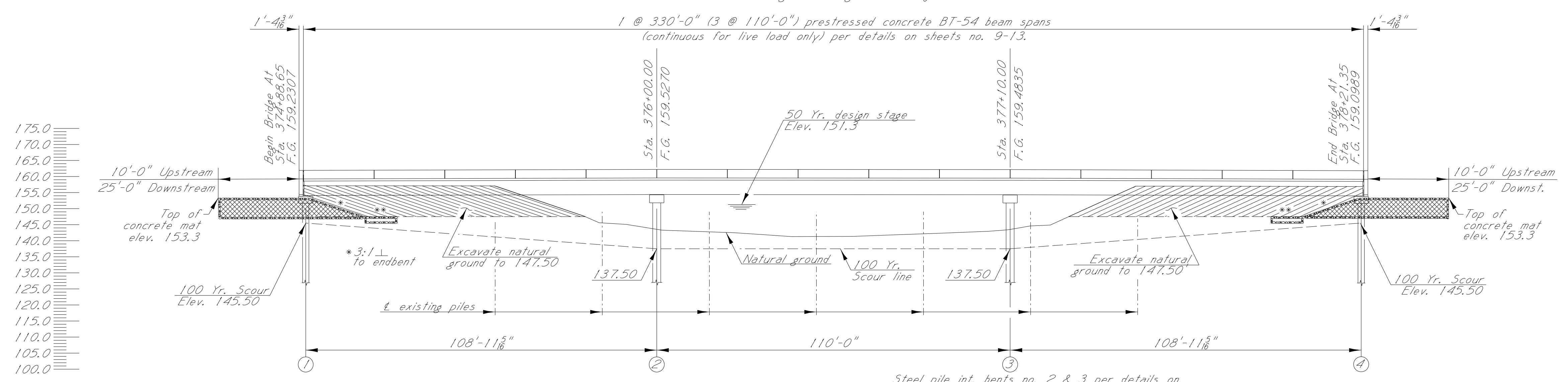


STEEL PIPE PILE NOTES:

PDA test piles shall be driven with an approved impact hammer as an indicator test pile or production pile at the location shown in the PDA TEST PILE SCHEDULE and will be paid for as test piles only. The first PDA test pile driven shall be an indicator PDA test pile as shown on the Foundation Plan. The indicator PDA test pile shall be driven continuously using an approved impact hammer. The full length of the indicator PDA test pile shall be monitored using PDA. The PDA monitored Indicator Test Piles will be out-of-position piles driven with mandatory restrikes and PDA results analyzed prior to driving any PDA Test Piles. Based on the results of the PDA Indicator Test Piles, the plan lengths of the PDA Test Piles may change. Therefore, recommend ordering PDA Test Piles after analysis of the PDA Indicator Test Pile is complete. Remaining test piles all be driven as a continuous operation, to the tip elevation shown in the PDA TEST PILE SCHEDULE, unless otherwise directed by the Director of Structures, State Bridge Engineer. Permanent piles shall be driven to an elevation no higher than the elevation shown in the REQUIRED ULTIMATE PILE BEARING CAPACITY AND TIP ELEVATION SCHEDULE. The Director of Structures, State Bridge Engineer may authorize test piles driven outside the structural limits. When feasible, bearing piles shall be driven full length and be spliced, only, as approved by the Director of Structures, State Bridge Engineer. Welding shall be done by the ELECTRIC ARC process. Welders shall be certified and electrodes shall be approved. When loading tests are required, the maximum test load shall be one and one half (1 1/2) times the minimum pile bearing capacity. PDA test piles shall require a 1 day and 7 day restrike unless otherwise directed by the Engineer. Pile lengths and driving criteria shall be provided based on the results of the PDA test piles. The required ultimate pile bearing shown in the REQUIRED ULTIMATE PILE BEARING CAPACITY AND TIP ELEVATION SCHEDULE includes the LRFD resistance factor for PDA of 0.65. Pile hammer leads used for all PDA test piles and PDA restrikes shall be large enough to provide a minimum of 3" clearance on each side of the pile in order to properly place and protect PDA gages. Steel pipe piles shall be driven with a maximum rated energy no less than 76,000 ft-lbs to the tip elevations specified unless the Contractor's drivability analysis utilizing the Contractor's selected alternative hammer is approved by the Director of Structures, State Bridge Engineer. All Steel Pipe Piles shall be ASTM A252, Grade 3 (F_y = 45,000 psi.). Steel Pipe Piles are intended to be open ended. Welding shall comply with ANSI/AWS D1.5 Bridge Welding Code and be performed by a certified welder. The tip elevation of piling, for hydraulic structures, may be determined by scour line but under no circumstances shall be greater than the minimum tip elevation shown in the REQUIRED ULTIMATE PILE BEARING CAPACITY. Pipe piles shall receive a protective coating beginning at the bottom of the cap and extending to the 100 yr. scour elevation as shown on the Layout Sheet. The coating shall be one of the following, applied according to the manufacturer's specifications in two coats of 16mil minimum dry film thickness:

- Bitumastic 300-M Coal Tar Epoxy manufactured by Carboline Company in St. Louis, MO www.carboline.com
- Corotech Coal Tar Epoxy manufactured by INSL-X Company in Montvale, NJ www.corotechcoatings.com
- Series 46-143 TNEMEC-Tar manufactured by TNEMEC Co Inc in Kansas City, MO www.tnemec.com

Any areas of coating above the ground line that become damaged during shipping or driving shall be repaired per the manufacturer's specifications. Any areas of coating affected by pipe pile splicing shall be repaired per the manufacturer's specification. Protective coating, including surface preparation and application, will be paid for as Steel Pipe Piling, (not a separate pay item).



****NOTE:** Bridge concrete mat shall have a 10'-0" apron extending from the toe of the 3:1 slope

Steel pile end bents no. 1 & 4 per details on sheets no. 3-5. 12 ~ 24" ϕ , 2" wall thickness steel pipe piles for each end bent.

NOTE:

The girder deflection diagrams shown in these plans were prepared and intended for design and estimation purposes only. Actual bridge girder deflections may differ from the deflection diagrams shown in these plans. It is the Contractor's responsibility to construct the bridge to meet the requirements of the plans and specifications including, but not limited to, the requirements for bridge deck smoothness. Prior to formwork construction, the Contractor shall submit three (3) copies of a proposed BRIDGE SUPERSTRUCTURE CONSTRUCTION PLAN to the Director of Structures, State Bridge Engineer for review, through the Project Engineer. This submittal shall include all calculations, assumptions and parameters used by the Contractor to determine bridge girder deflections and form grade elevations. This submittal shall also include an erection and construction procedure that addresses the construction means and methodologies used by the Contractor and shall consider effects including, but not limited to, construction phasing, pouring schedules, applied permanent and construction loading, and shall include calculations and details of temporary girder bracing systems used to ensure girder stability and to counter the effects of girder tilt. After girder erection and prior to deck construction, the Contractor shall submit deck thickness verification calculations for each girder. These calculations shall include a comparison of the erected girder top flange profiles versus the plan deck grade elevations over each girder plus the anticipated girder deflection due to applied permanent dead load and creep. Three (3) copies of the deck thickness verification calculations and any proposed remediation measures to correct for thin deck areas shall be submitted to the Director of Structures, State Bridge Engineer for review, through the Project Engineer. The BRIDGE SUPERSTRUCTURE CONSTRUCTION PLAN and the deck thickness verification calculations shall be prepared and stamped by a Mississippi Registered Professional Engineer.

ELEVATION WITH PROFILE ALONG APPROACH ROADWAY
Scale: 1" = 20'-0"

GENERAL NOTES:

Mississippi Standard Specifications for Road and Bridge Construction, 2017. No change of plans will be permitted except by written approval of the Director of Structures, State Bridge Engineer. Minor changes in detail of design or construction procedure may be authorized by the Director of Structures, State Bridge Engineer provided such changes will not be cause for contract price adjustment. The final surface texture of the bridge deck shall be mechanically transverse grooved in accordance with Sections 501 and 804 of the specifications. See Misc. Span Details for limits of transverse grooving on bridge deck. Bridge concrete shall be class AA or Class BD as indicated in plans. Railing expansion joint material shall be bituminous fiber type unless otherwise noted. No payment will be allowed for excavation incidental to the construction of end bents. Bar bending details shall be in accordance with "Manual of Standard Practice for Detailing Reinforced Concrete Structures" (ACI 315R-94). Reinforcement order lists and required placing plans shall be furnished in accordance with Section 805 of the Mississippi Standard Specifications. Partial submittals are not acceptable. Shop drawings of prestressed beams, including an erection plan, shall be submitted in duplicate to the Director of Structures, State Bridge Engineer for approval prior to the manufacture of beams. The Fabricator shall provide camber data at release and immediately prior to shipping. The Contractor shall provide camber data after erection. The Contractor should be aware that the deflection diagram may be modified based on the provided camber data. Therefore, deck grades should be set only after notification from the Director of Structures, State Bridge Engineer. Concrete surfaces shall receive a Class 2 rubbed or spray finish in accordance with the specifications. Reinforcing steel shall be ASTM A615, Grade 60, unless otherwise noted. Work for which no pay item is provided in the proposal will not be paid for directly and compensation therefor will be included in the prices and payments for bid items.

BRIDGE CONCRETE MAT NOTES:

- Bridge concrete mat shall be used for erosion and scour prevention for the slopes and locations shown in the plans. Bridge concrete mats shall one be of the following:
 - ARMORFLEX**
Contech Engineering Solutions
9025 Centre Pointe Drive
West Chester, OH 45069
Phone: 513-645-7000
www.conteches.com/products/erosion-control/hard-armour/armorflex
 - SHOREBLOCK BD**
Shoretac, LLC
5102 Galveston Road
Houston, TX 77017
Phone: 713-641-2727
www.shoretac.com/shoreblock-bd.php
 - CABLE CONCRETE**
International Erosion Control System, Inc.
222295 Hoskins Line
Rodney, Ontario
Canada, N0L 2C0
Phone: 800-821-7462
www.iecs.com/cable-concrete/
- The mat shall be visually inspected and approved by the Project Engineer prior to use. Once approved by the Engineer, the mat may be incorporated into the work.
- Bridge concrete mats shall be installed in accordance with the plans and manufacturer's guidelines including any underlayment. The anchor system shall be sufficient to anchor the mat to the ground surface. The installation area shall be graded to a level, smooth surface to avoid water concentration and to create an appropriate base for the concrete mat. Seed and fertilizer shall be placed on the prepared surface prior to the installation of the Bridge concrete mat.
- Bridge concrete mat installed directly under the bridge deck shall be open cell filled with crushed limestone for ease during future bridge inspection.
- A representative from the Bridge concrete mat manufacturer shall be present for sufficient time to assure the Contractor is properly schooled in the installation.
- Bridge concrete mat will be paid for at the contract unit price per square yard, which price shall be full compensation for all labor, materials, tools, equipment, underlayment, anchor system, concrete and all incidentals necessary to complete the work.

SPECIAL PROVISIONS:

Concrete Bridges and Structures. . . . 907-804

***** NOTE:** 1/2" wall thickness

Bent No.	Pile type	Pile Size	Required Ultimate Bearing (Tons)	Estimated Length	Tip Elevation	Cont. Limit State	LRFD Resist. Factor
1	Steel	24" ϕ ***	266	65	125.5	STR. 1	0.65
2	Steel	30" ϕ ***	410	75	117.0	STR. 1	0.65
3	Steel	30" ϕ ***	410	75	117.0	STR. 1	0.65
4	Steel	24" ϕ ***	266	60	125.5	STR. 1	0.65

Bent no.	Elevation
1	145.5
2 - 3	137.0
4	145.5

ⓈNOTE: Indicator pile 3-5 pile diameters from int. bent no. 2 (pile shall not be coated).

Bent No.	Min. Lgth.-Ft.	Tip Elevation
2	85	67.3
4	70	82.0
Ⓢ	95	57.3

Item	Transverse Grooving	24" ϕ Steel Pile Piling, 1/2" Wall Thickness	30" ϕ Steel Pile Piling, 1/2" Wall Thickness	PDA Test Piles	Pile Restrike	Class AA Bridge Concrete	Class BD Bridge Concrete	110 Ft. Prest. Conc. Beam BT-54	Reinforcement	Concrete Railing 32"	Loose Riprap (300*)	Bridge Concrete Mat	Geotextile Under Riprap
Location	S.Y.	L.F.	L.F.	Each	Each	C.Y.	C.Y.	L.F.	Lb.	L.F.	Ton	S.Y.	S.Y.
Spans	1,467						444.26	1,968.00	118,146	660.0		672	454
End Bents		1,440		1	1	113.16			17,960	5.0	766	672	454
Int. Bents			825	2	1	50.15			6,724				
Total	1,467	1,440	825	3	2	163.30	444.26	1,968.00	142,830	665.00	766	672	454

DRAINAGE DATA:

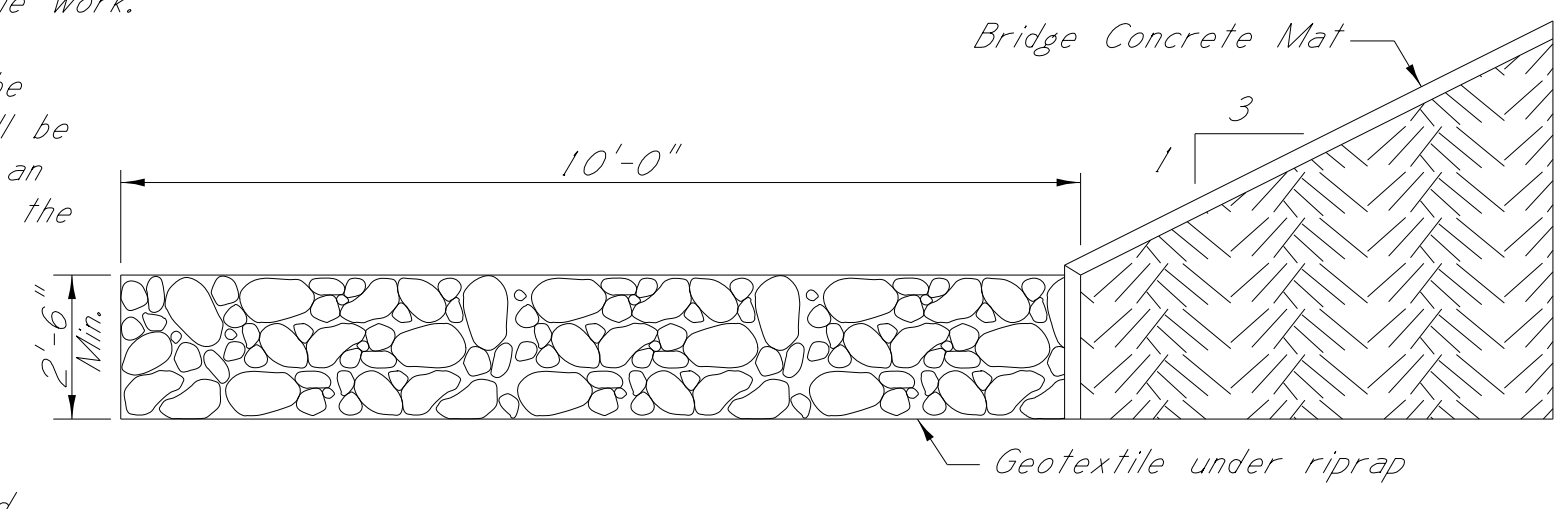
Drainage Area 15.7 Sq. Mi.
050 (U.S.G.S.) 1,260 cfs
Effective Area 1,480 Sq. Ft.
0100 (U.S.G.S.) 1,390 cfs

DESIGN DATA:

Specifications A.A.S.H.T.O., LRFD 2014 with 2016 interims
Loading H₁₋₉₃
Roadway width 44'-0" Gutter to gutter
Concrete Class "AA" (4,000 p.s.i.)
Class "BD" (4,000 p.s.i.)
Stay-in-Place metal forms. . . 18 lbs./ft.²

SEISMIC DATA:

Seismic performance zone. . . . 2
Seismic soil site class. D
Seismic operational class. . . . Other



MISSISSIPPI DEPARTMENT OF TRANSPORTATION
BRIDGE AT STA. 374+88.65
US 49 ACROSS HOPSON BAYOU
LAYOUT

WORKING NUMBER
1 OF 13

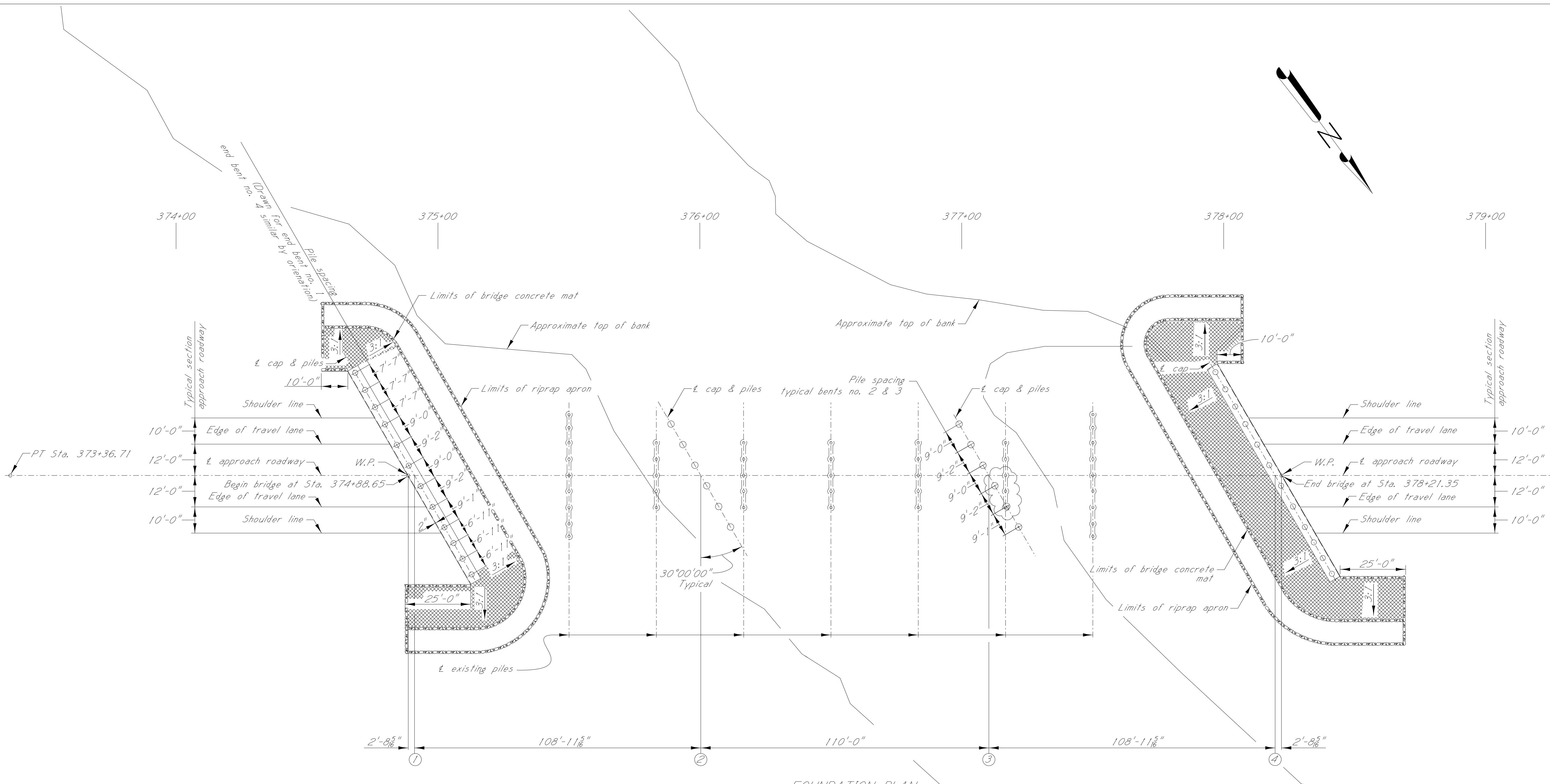
SHEET NUMBER
8003

DESIGNER: Lon Burt
CHECKER: Spencer Yates
DETAILER: Lon Burt
ISSUE DATE: 03-13-2019

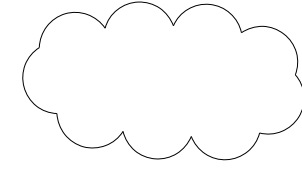
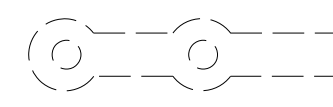
PROJECT NUMBER: **BR-0008-05(038)**

DIRECTOR OF STRUCTURES, STATE BRIDGE ENGINEER - JUSTIN WALKER, P.E.
DEP. DIR. OF STRUCTURES, ASST. STATE BRIDGE ENGINEER - SCOTT WESTERFIELD, P.E.

001: 02 ANPM DGN FILE NAME



FOUNDATION PLAN
Scale: 1" = 20'-0"

-  — Denotes possible conflicting pile locations
-  — Denotes existing structure

NOTE:
Timber piles in conflict with steel piles shall be removed.
Payment therefor will be made under Pay Item No. 202-B190
Removal of Timber Piling. (See roadway summary quantities)

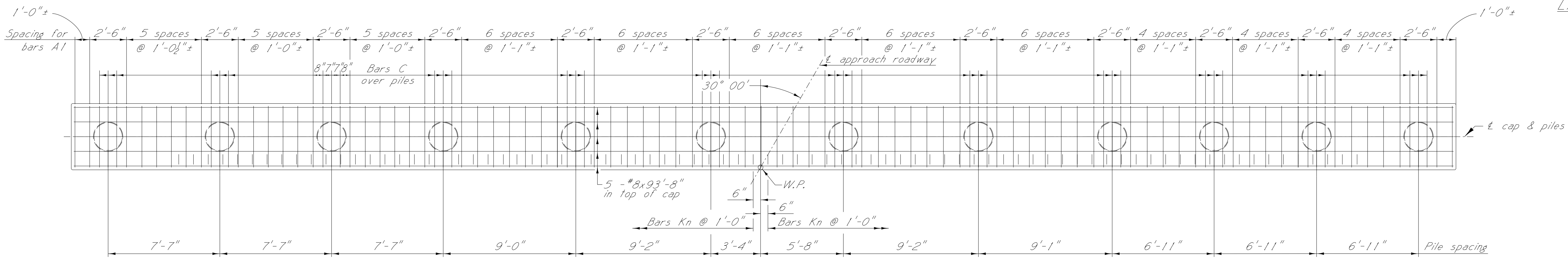
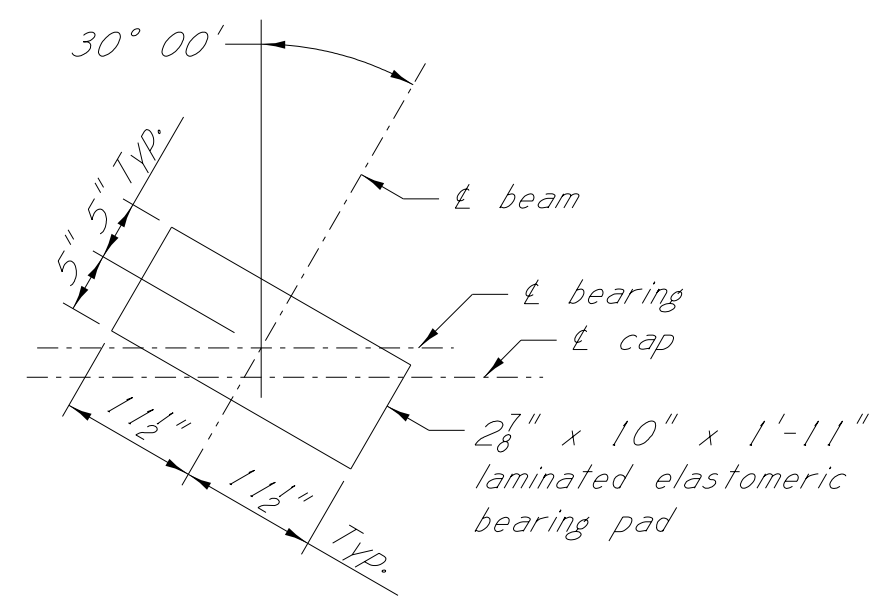
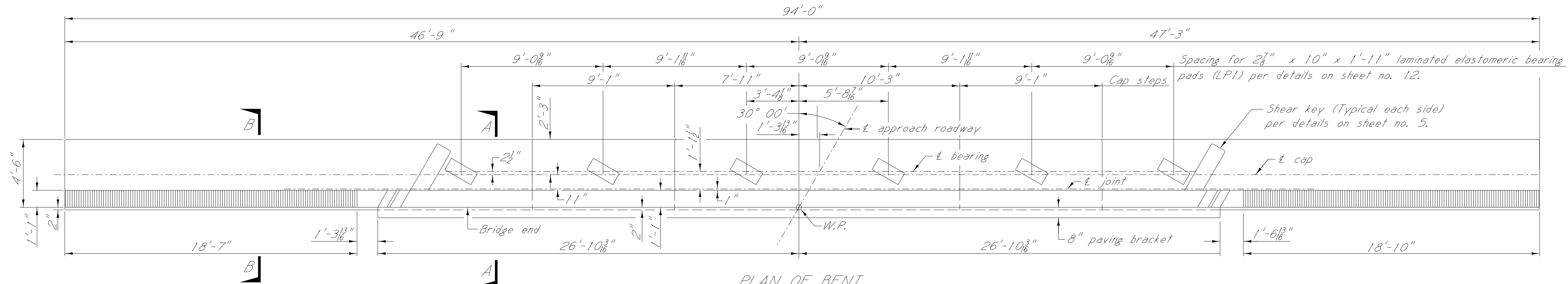
NOTE:
Geotextile fabric is required under all riprap.
All riprap and geotextile fabric pertaining to
the bridge shall be shown in the bridge
quantities.

NOTE:
For general notes, quantities and additional details,
see sheet no. 1.

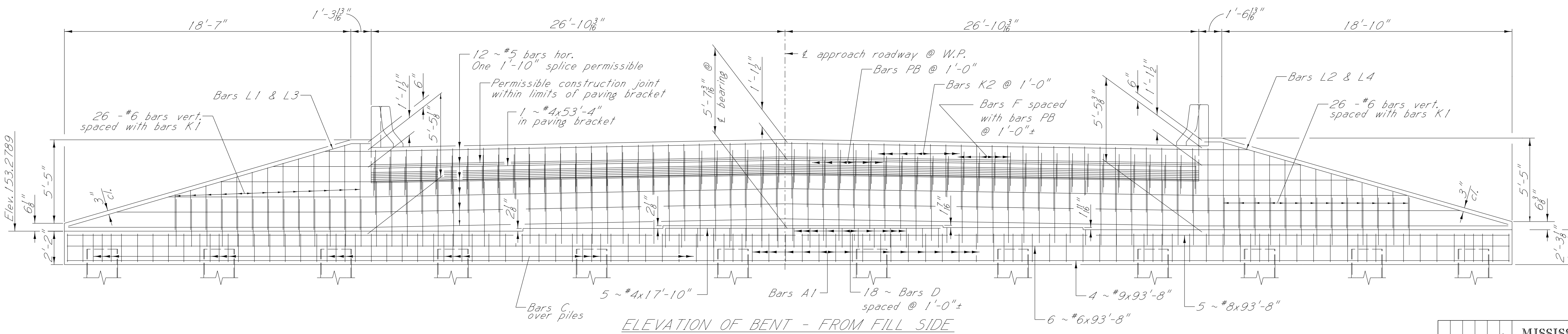


MISSISSIPPI DEPARTMENT OF TRANSPORTATION	
BRIDGE AT STA. 374+88.65	
US 49 ACROSS HOPSON BAYOU	
FOUNDATION PLAN	
FMS: 105343 / 301000	
COUNTY: Tallahatchie	
PROJECT NUMBER: BR-0008-05(038)	
DATE	DESIGNER: Lon Burt
REVISION	CHECKER: Spencer Yates
BY	ISSUE DATE: 03-13-2019
DETAILER: Lon Burt	DIRECTOR OF STRUCTURES, STATE BRIDGE ENGINEER - JUSTIN WALKER, P.E.
DEP. DIR. OF STRUCTURES, ASST. STATE BRIDGE ENGINEER - SCOTT WESTERFIELD, P.E.	WORKING NUMBER
	2 OF 13
	SHEET NUMBER
	8004

001: 00 AHPM DGNFILENAME

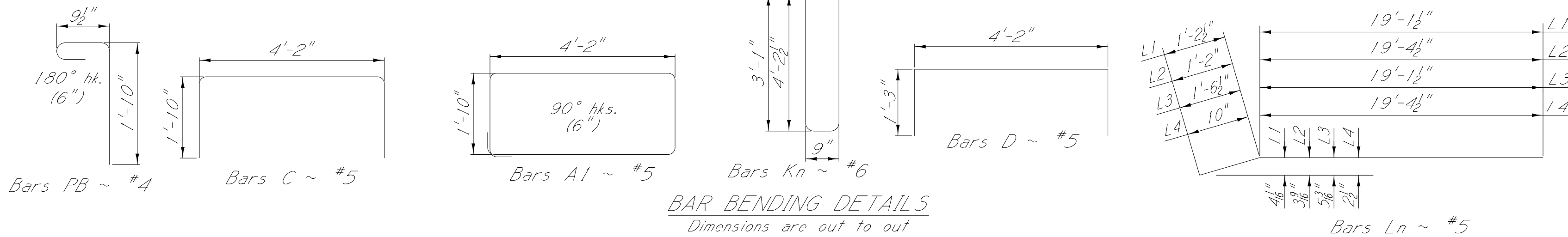


NOTE: Piles shall be of the size, type, and driven to the required ultimate bearing capacity as shown on the layout sheet.



NOTE:
Vertical dimensions shown are measured along fill face of end wall (bridge end).
for GENERAL NOTES and other details see sheet no. 5.

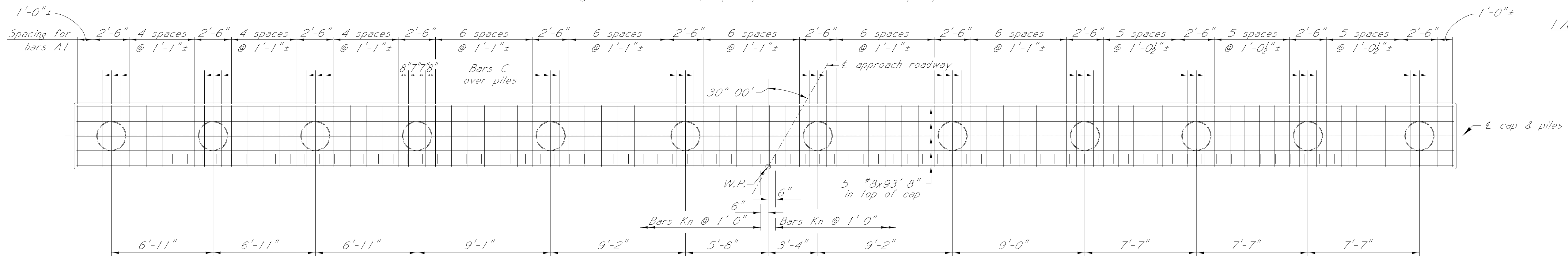
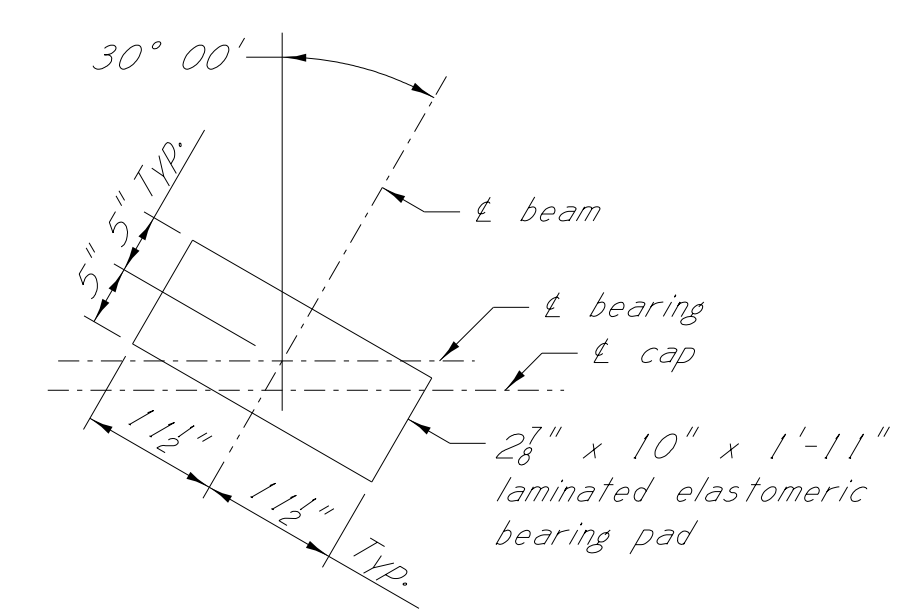
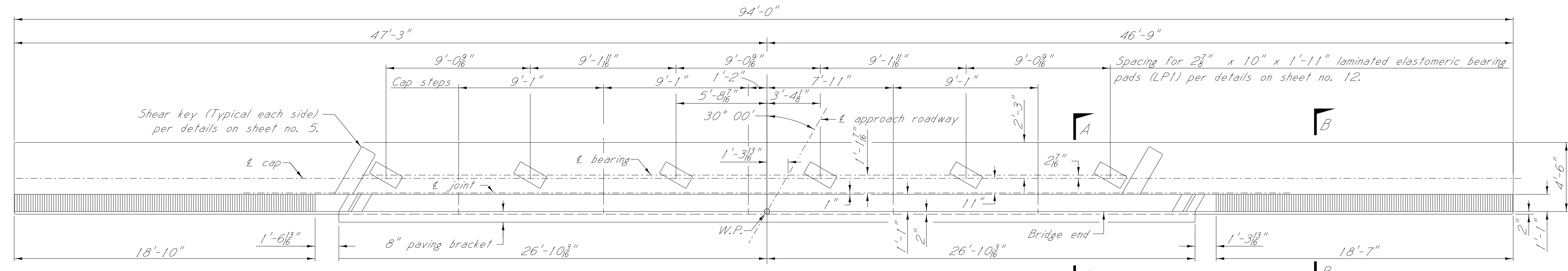
SPLICE NOTE:
Long. bars in cap may be lap spliced as follows:
#5 ~ 1'-10"
#6 ~ 2'-3"
#8 ~ 3'-8"
#9 ~ 4'-8"



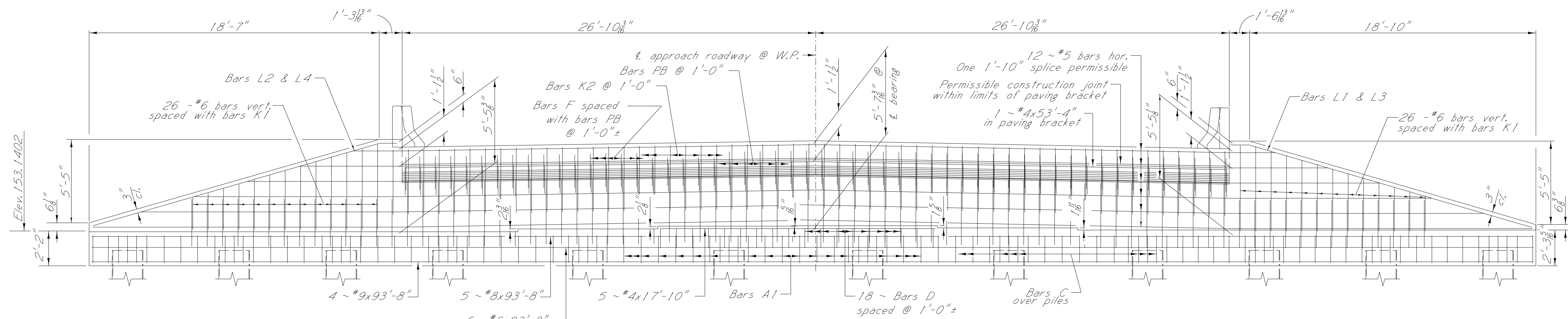
BY MISSISSIPPI DEPARTMENT OF TRANSPORTATION	
BRIDGE AT STA. 374+88.65	
END BENT NO. 1 DETAILS	
DATE	REVISION
DESIGNER Lon Burt	CHECKER Neal Terry
DETAILER Lon Burt	ISSUE DATE 03-13-2019
FMS: 105343 / 301000	
COUNTY: TALLAHATCHIE	
PROJECT NUMBER: BR-0008-05(038)	
WORKING NUMBER	SHEET NUMBER
3 OF 13	8005

PROJECT PLAN SECTION MISSISSIPPI DEPARTMENT OF TRANSPORTATION

001: 00 ANPM DGN FILE NAME

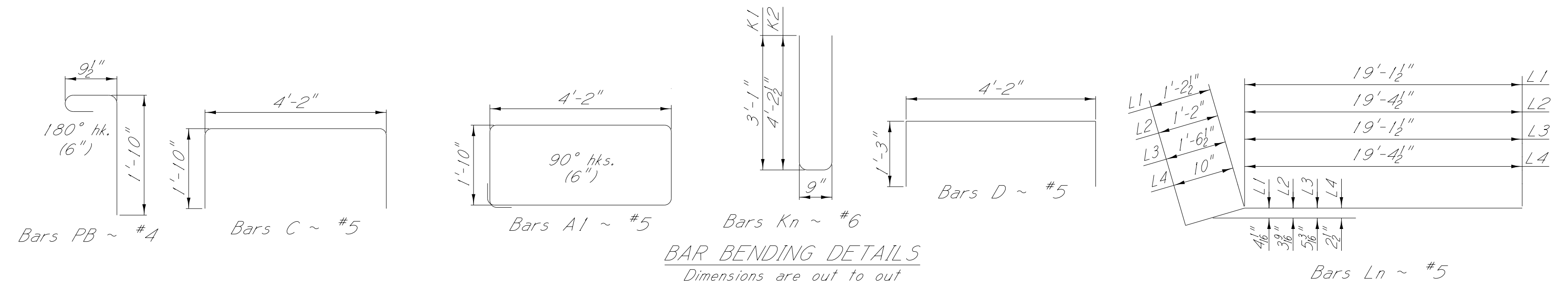


NOTE: Piles shall be of the size, type, and driven to the required ultimate bearing capacity as shown on the layout sheet.



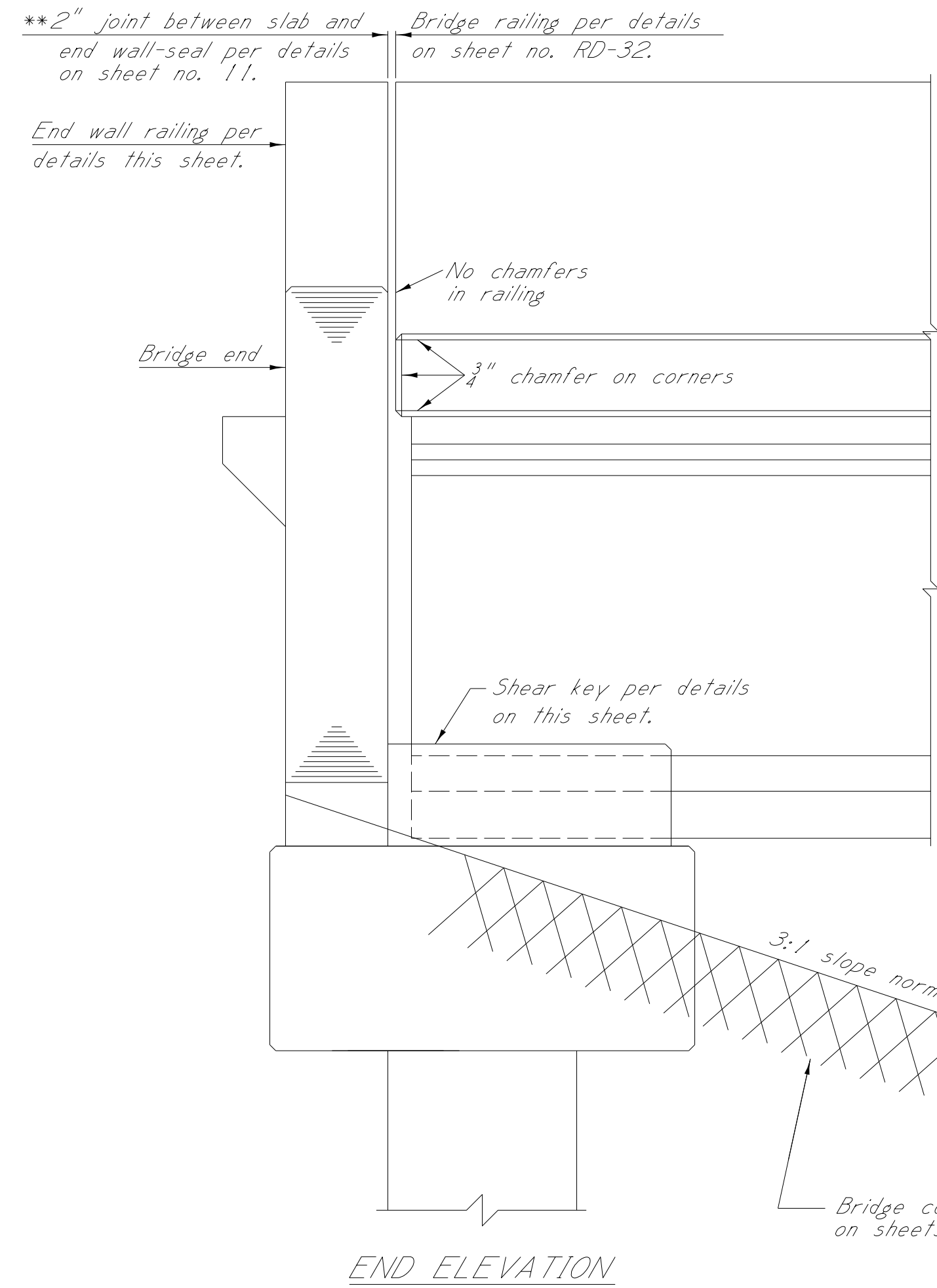
NOTE:
Vertical dimensions shown are measured along fill face of end wall (bridge end).
for GENERAL NOTES and other details see sheet no. 5.

SPLICE NOTE:
Long bars in cap may be lap spliced as follows:
#5 ~ 1'-10"
#6 ~ 2'-3"
#8 ~ 3'-8"
#9 ~ 4'-8"



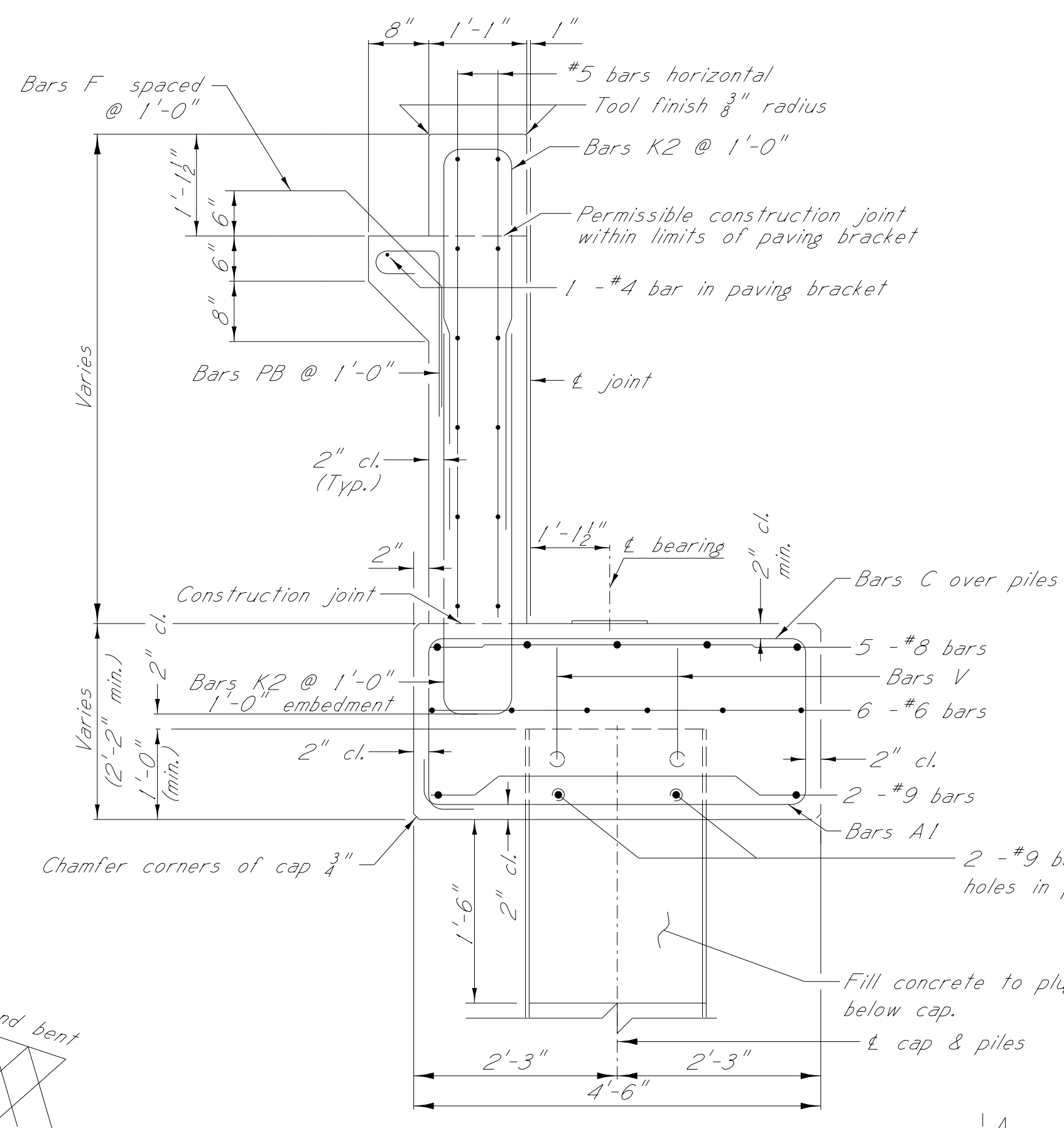
BY		MISSISSIPPI DEPARTMENT OF TRANSPORTATION	
REVISION		BRIDGE AT STA. 374+88.65	
		END BENT NO. 4 DETAILS	
FMS: 105343 / 301000		WORKING NUMBER	
COUNTY: TALLAHATCHIE		4 OF 13	
PROJECT NUMBER: BR-0008-05(038)		SHEET NUMBER	
		8006	
DESIGNER	Lon Burt	CHECKER	Neal Terry
DATE		ISSUE DATE	03-13-2019
DIRECTOR OF STRUCTURES, STATE BRIDGE ENGINEER - JUSTIN WALKER, P.E.			
DEP. DIR. OF STRUCTURES, ASST. STATE BRIDGE ENGINEER - SCOTT WESTERFIELD, P.E.			

001: 00 ANPM DGN FILE NAME PROJECT PLAN SECTION MISSISSIPPI DEPARTMENT OF TRANSPORTATION

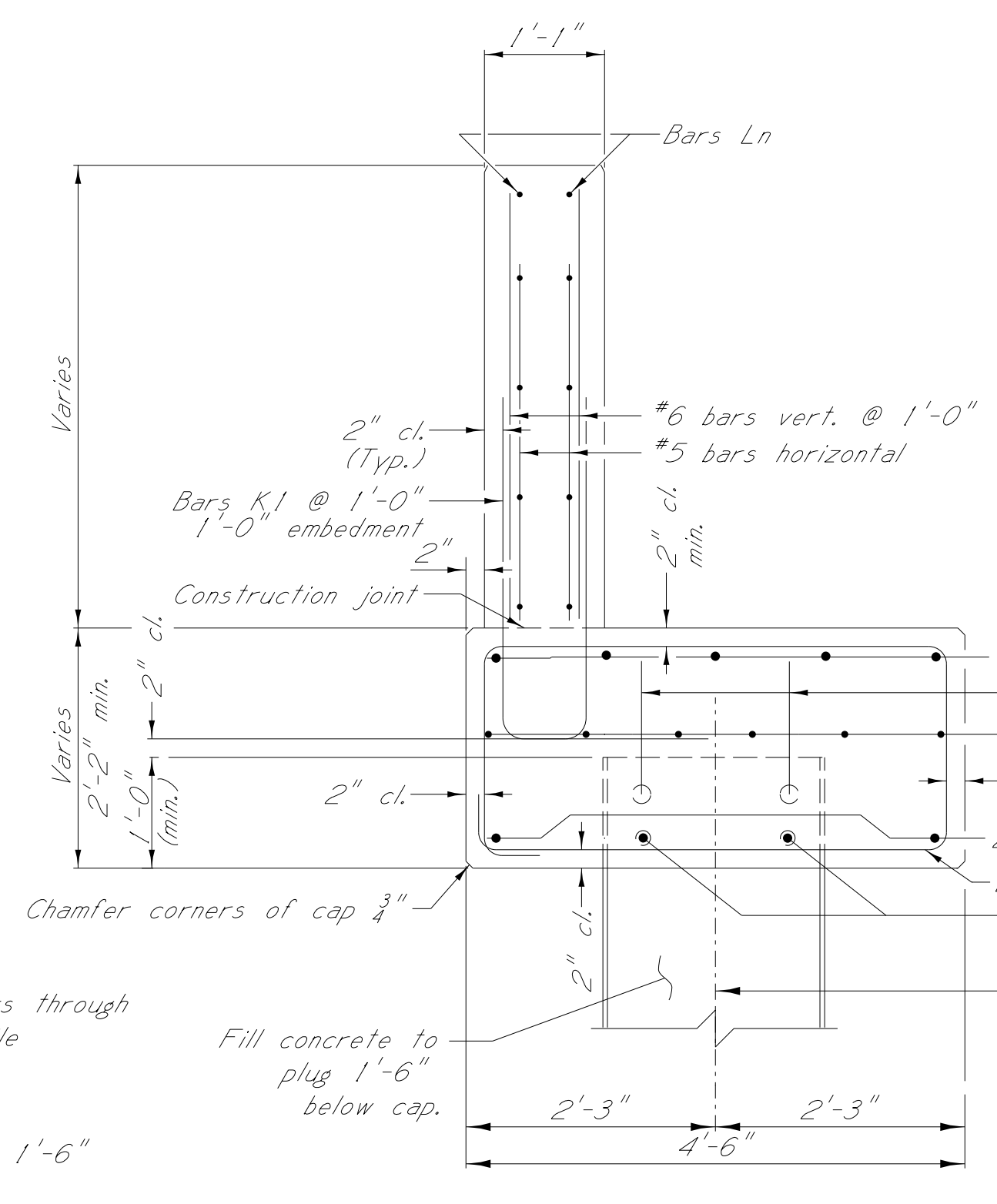


END ELEVATION

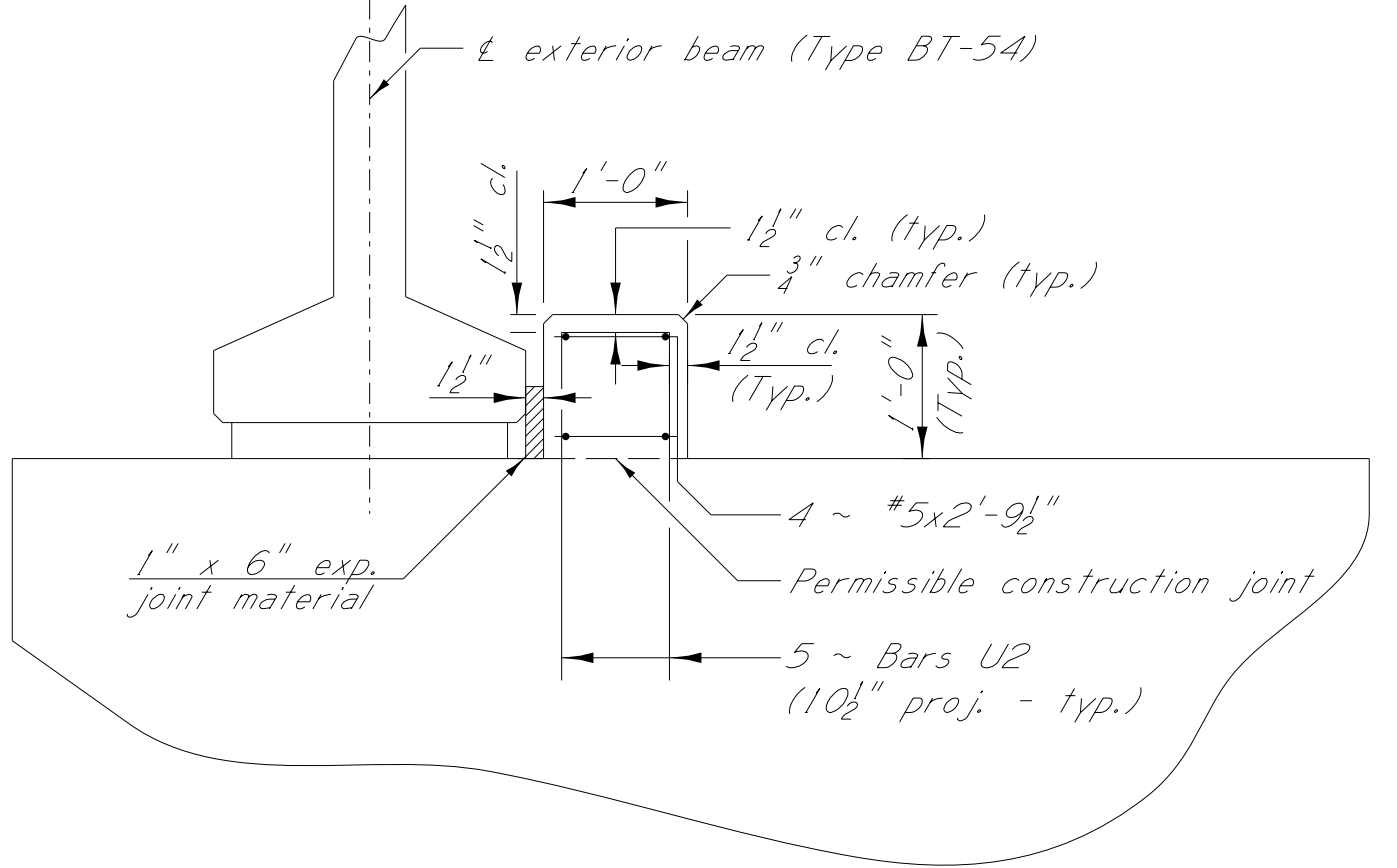
**NOTES: 1/4 inch seat required. See sealing details on sheet no. 11.



SECTION A-A



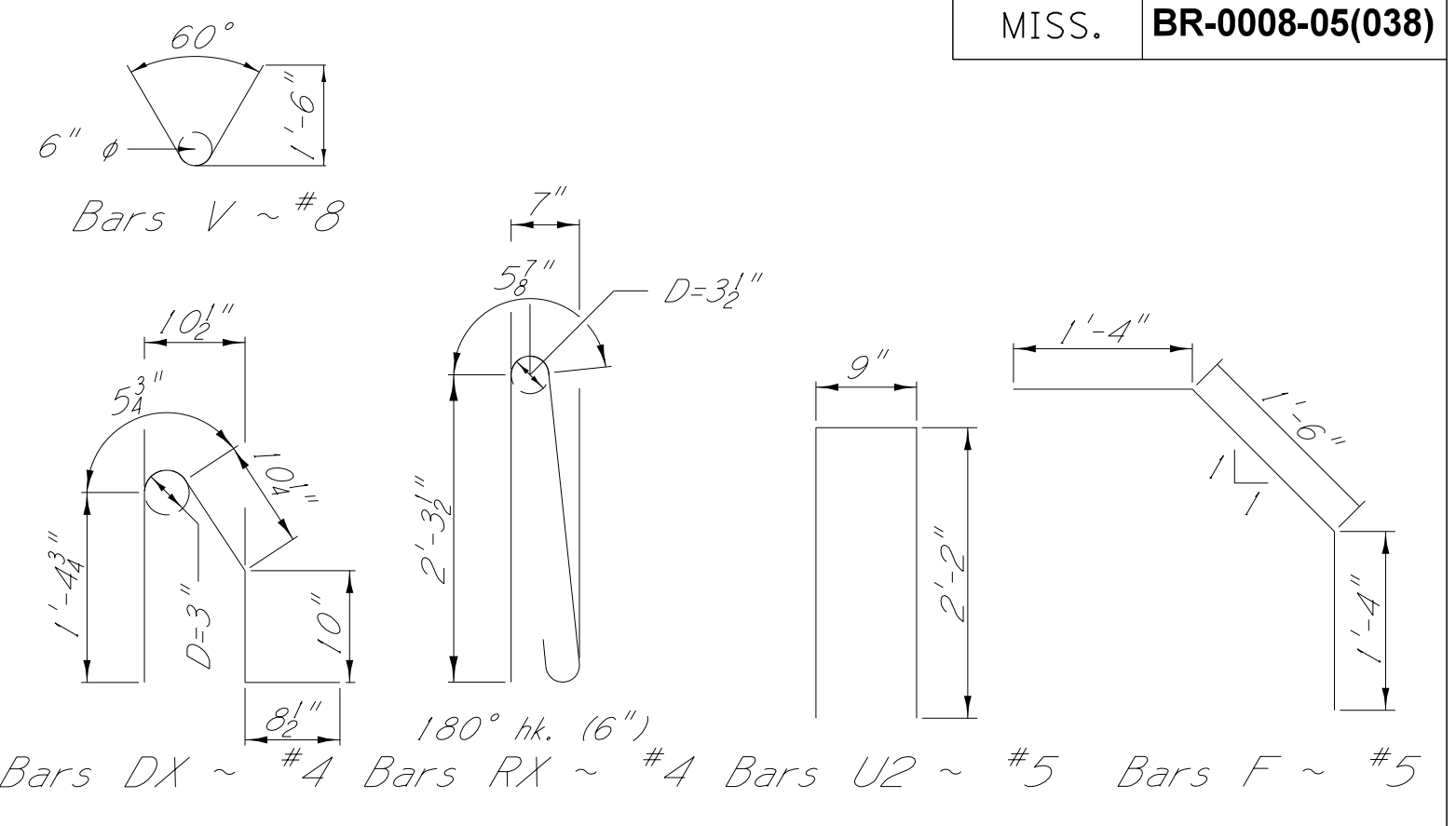
SECTION B-B



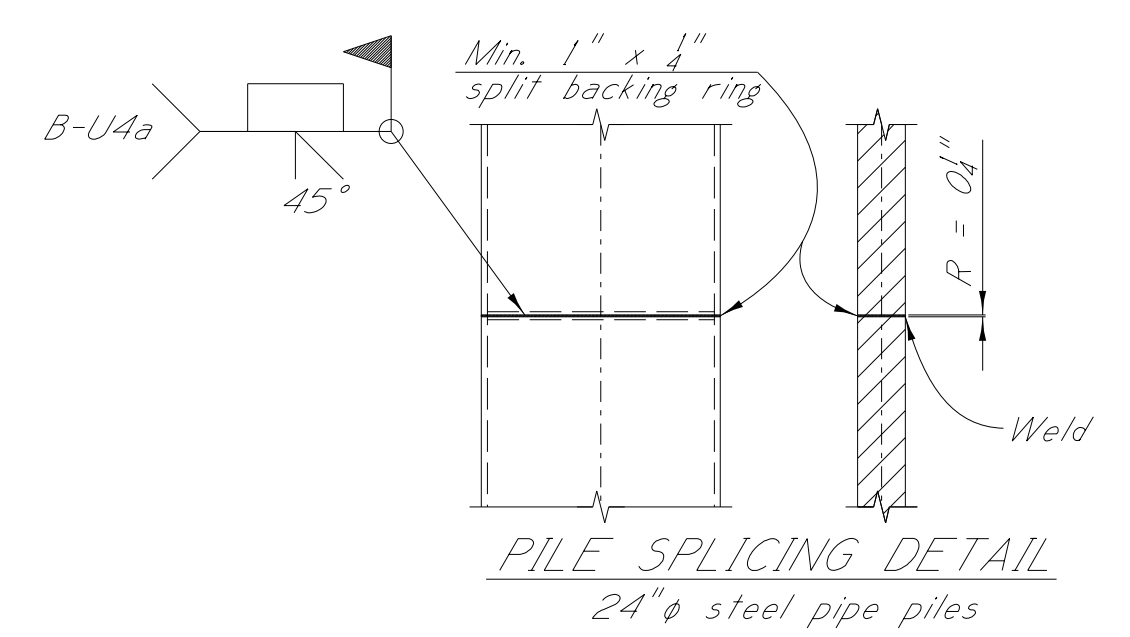
SECTION D-D

NOTE:
Any work and materials associated with the installation of the pipe pile plugs will not be paid for separately but will be considered subsidiary to the item Class "AA" Concrete.

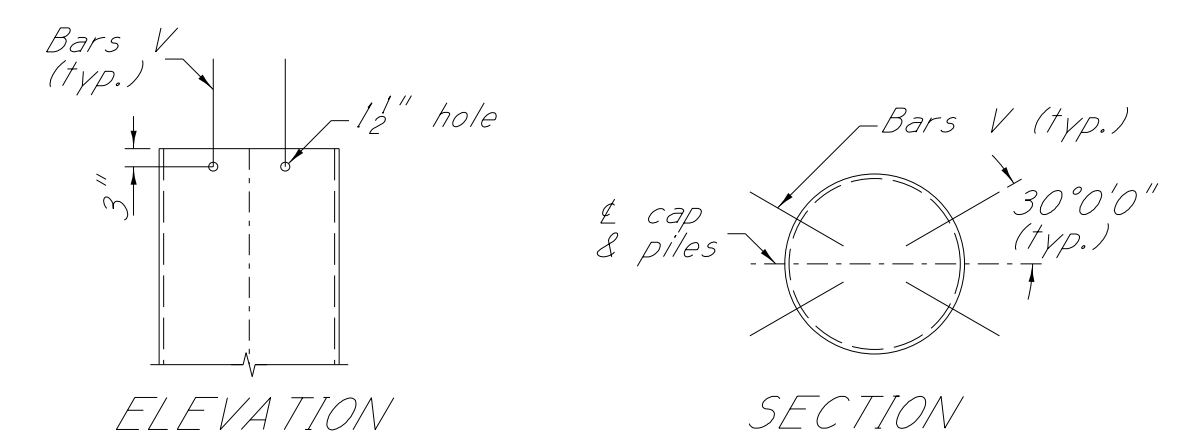
NOTE:
Concrete in pipe pile to be poured monolithic with bent cap concrete.



BAR BENDING DETAILS
All dimensions are out to out

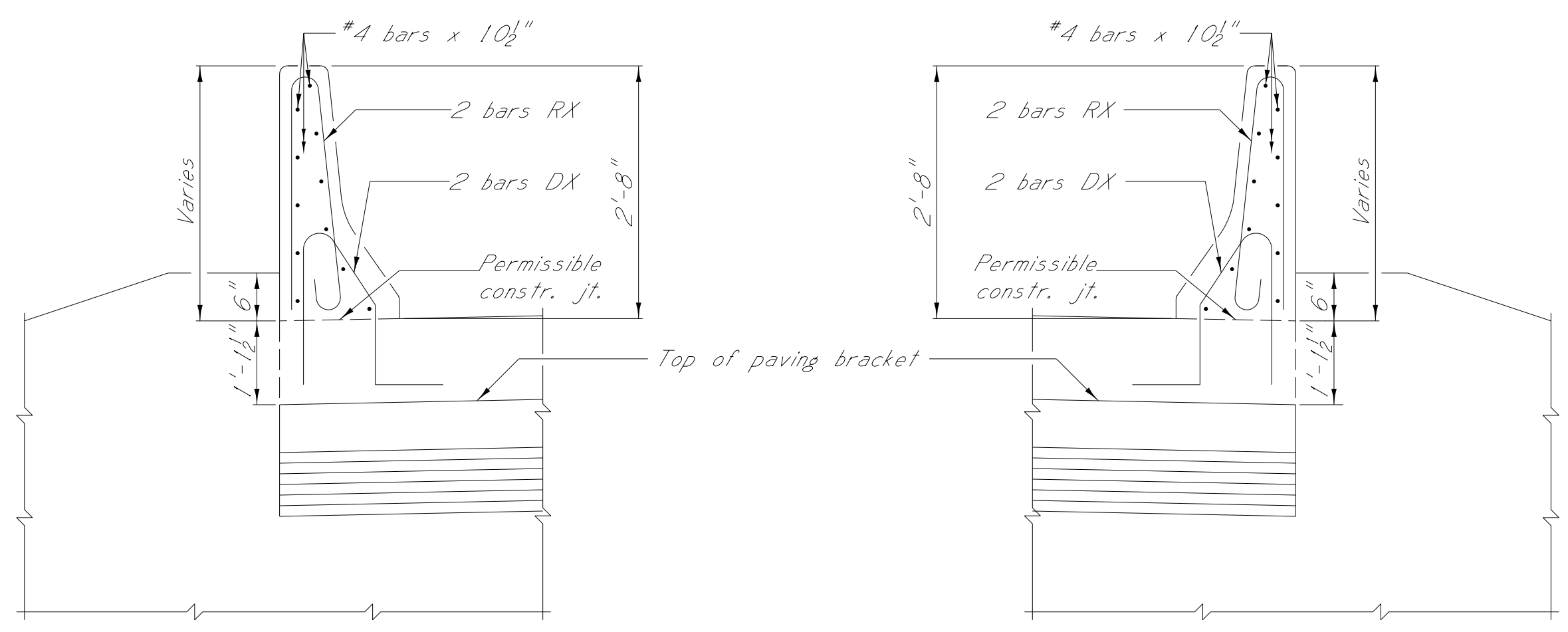


PILE SPlicing DETAIL
24 inch steel pipe piles



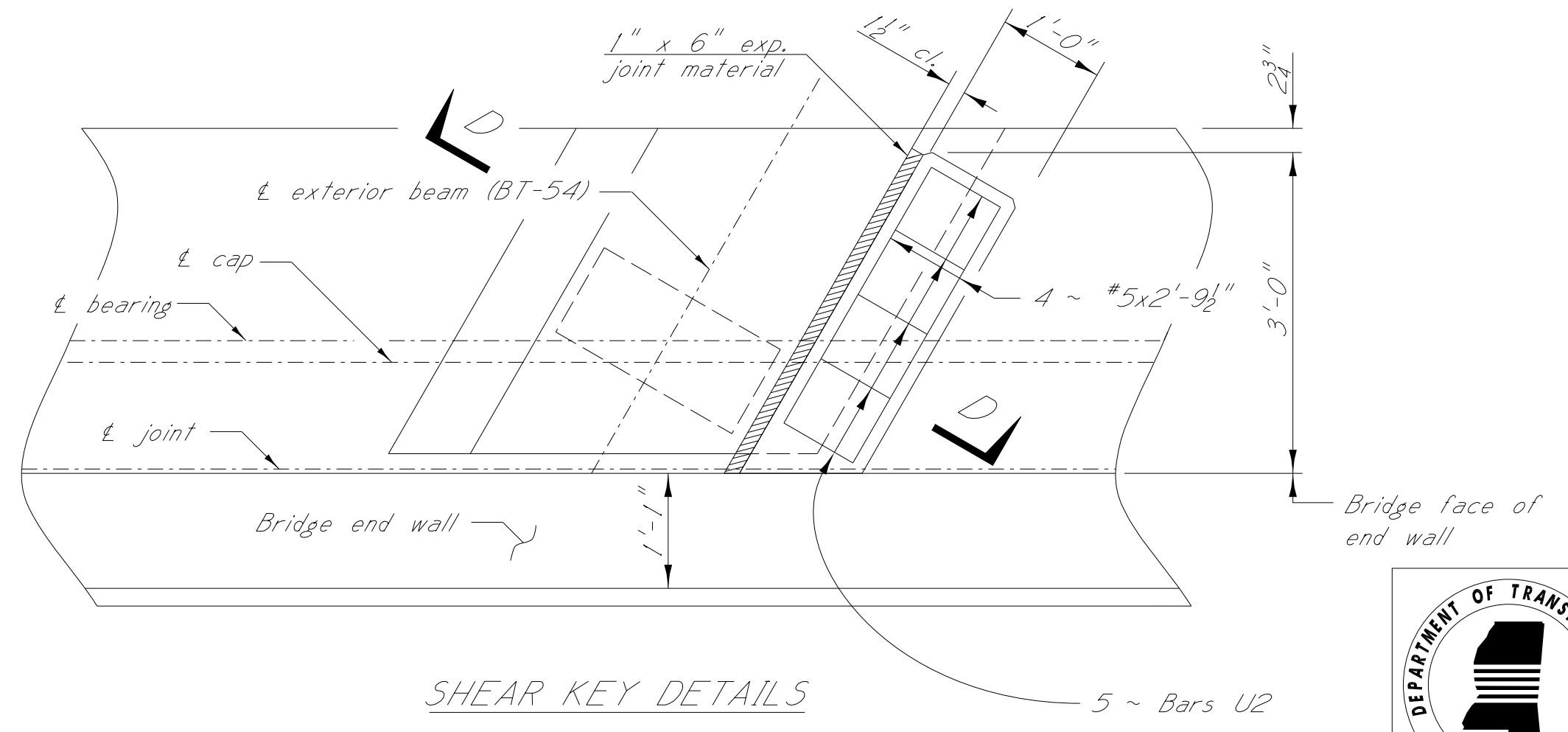
PILE ANCHORAGE DETAIL

GENERAL NOTES:
All concrete in end bents shall be class "AA".
Chamfer all edges 3/4 inch, unless otherwise noted.
Portion of end wall between top of cap and permissible construction joint shall be constructed after placement of prestressed concrete beams. Portion of end wall above permissible construction joint shall not be constructed until bridge deck is in place and forms removed.
Piles for end bents shall not be driven until bridge end fill has been constructed to grade.
Dimensions from reinforcing steel to concrete surfaces are clear distances.



LEFT END WALL RAILING
Viewed from fill face of end wall

RIGHT END WALL RAILING
Viewed from fill face of end wall



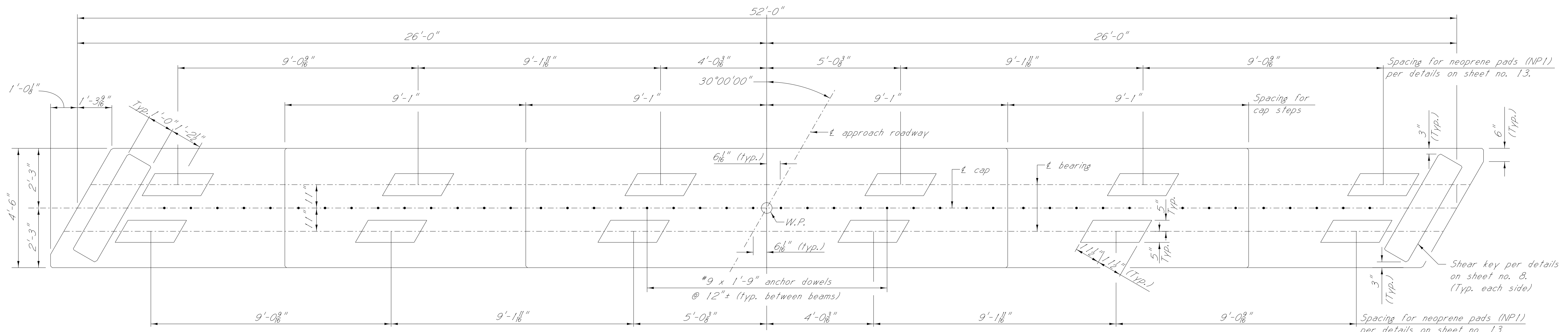
SHEAR KEY DETAILS



MISSISSIPPI DEPARTMENT OF TRANSPORTATION	
BRIDGE AT STA. 374+88.65	
END BENT DETAILS	
BY	MISSISSIPPI DEPARTMENT OF TRANSPORTATION
REVISION	FMS: 105343 / 301000
	COUNTY: TALLAHATCHIE
	PROJECT NUMBER: BR-0008-05(038)
DATE	DESIGNER: Lon Burt
	DETAILER: Lon Burt
	CHECKER: Neal Terry
	ISSUE DATE: 03-13-2019
	DIRECTOR OF STRUCTURES, STATE BRIDGE ENGINEER - JUSTIN WALKER, P.E.
	DIR. OF STRUCTURES, ASST. STATE BRIDGE ENGINEER - SCOTT WESTERFIELD, P.E.
WORKING NUMBER	5 OF 13
SHEET NUMBER	8007

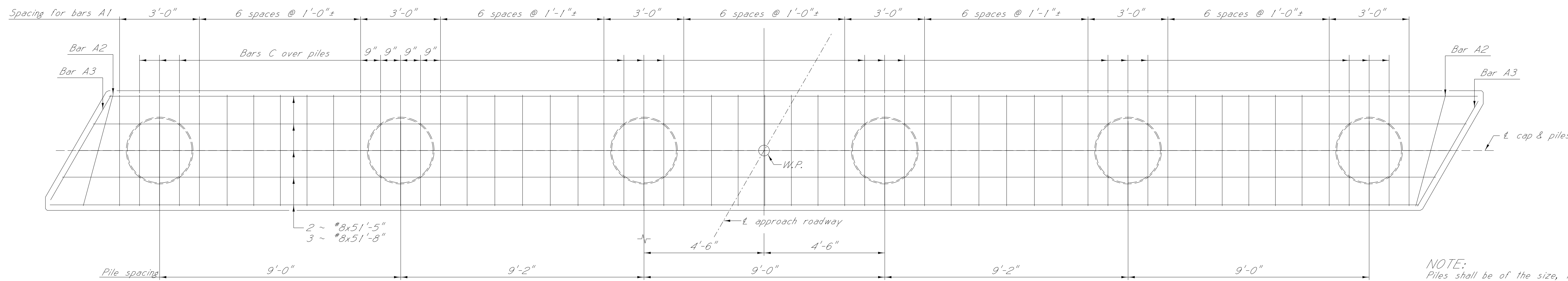
PROJECT PLAN
MISSISSIPPI DEPARTMENT OF TRANSPORTATION

001: 00 ANPM DGN FILE NAME



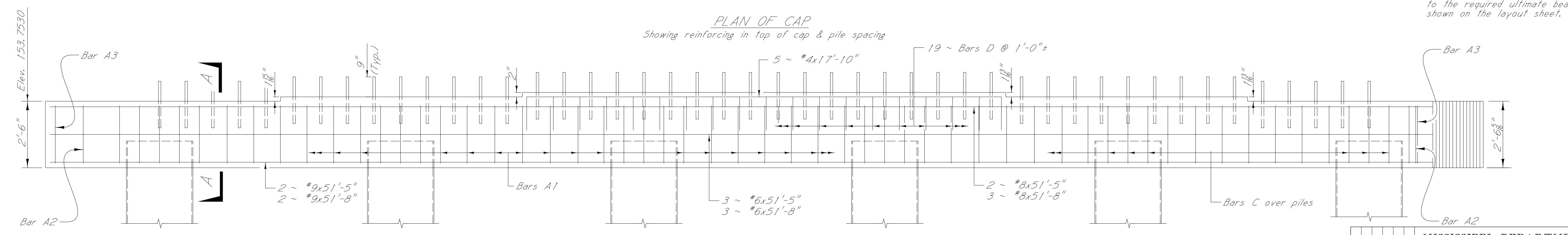
PLAN OF BENT

Showing concrete dimensions, cap steps, dowel spacing, & neoprene pad placement



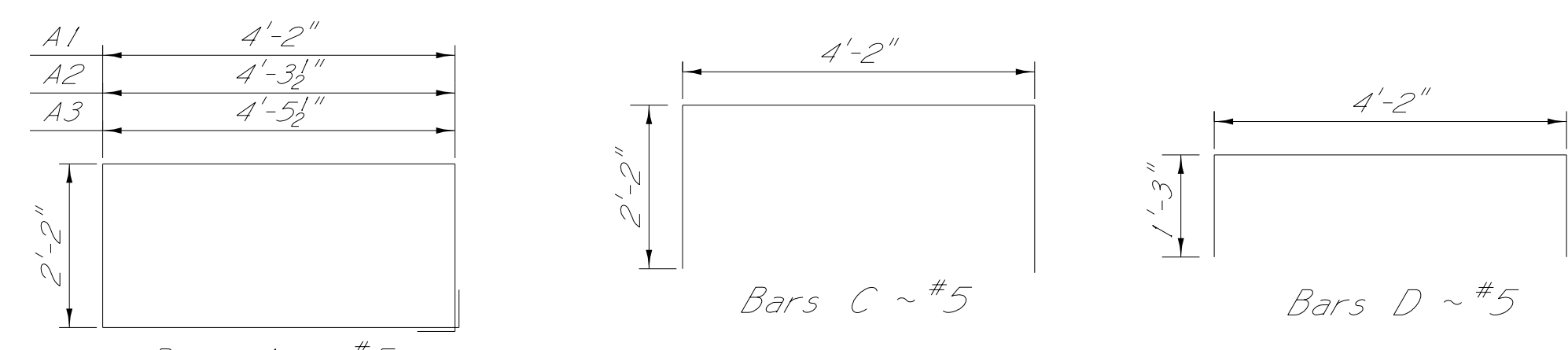
PLAN OF CAP

Showing reinforcing in top of cap & pile spacing



ELEVATION OF CAP

Showing reinforcing, elevations & cap steps



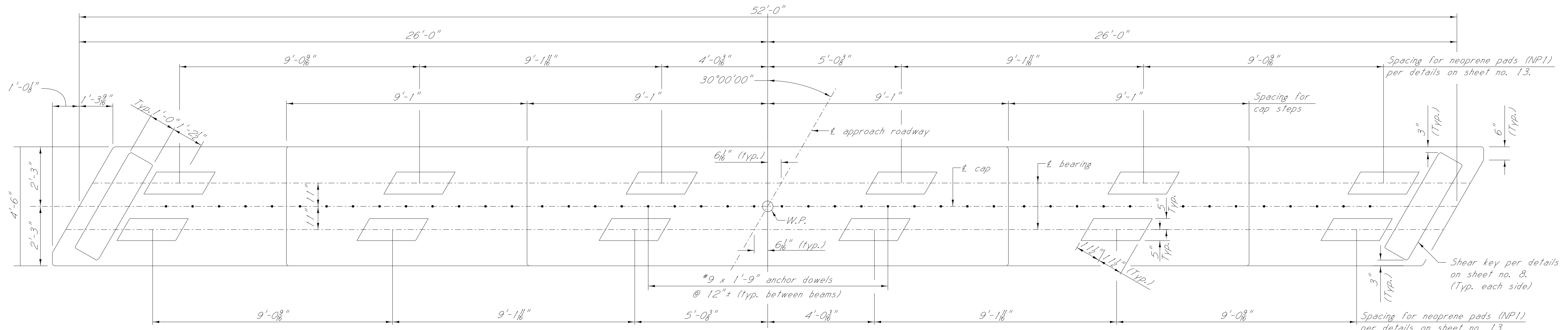
BAR BENDING DETAILS
Dimensions Are Out To Out



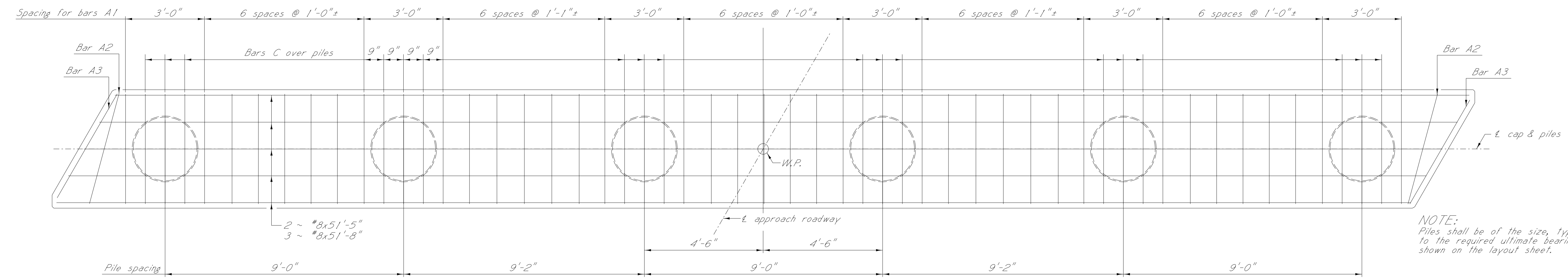
MISSISSIPPI DEPARTMENT OF TRANSPORTATION	
BRIDGE AT STA. 374+88.65	
INTERMEDIATE BENT NO. 2	
DESIGNER: Lon Burt	CHECKER: Neal Terry
DATE: 03-13-2019	ISSUE DATE: 03-13-2019
FMS: 105343 / 301000	
COUNTY: TALLAHATCHIE	
PROJECT NUMBER: BR-0008-05(038)	
WORKING NUMBER	6 OF 13
SHEET NUMBER	8008

PROJECT PLAN SECTION MISSISSIPPI DEPARTMENT OF TRANSPORTATION

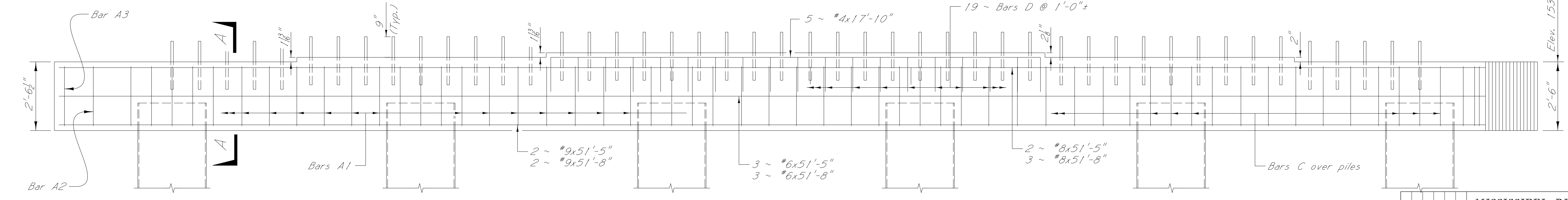
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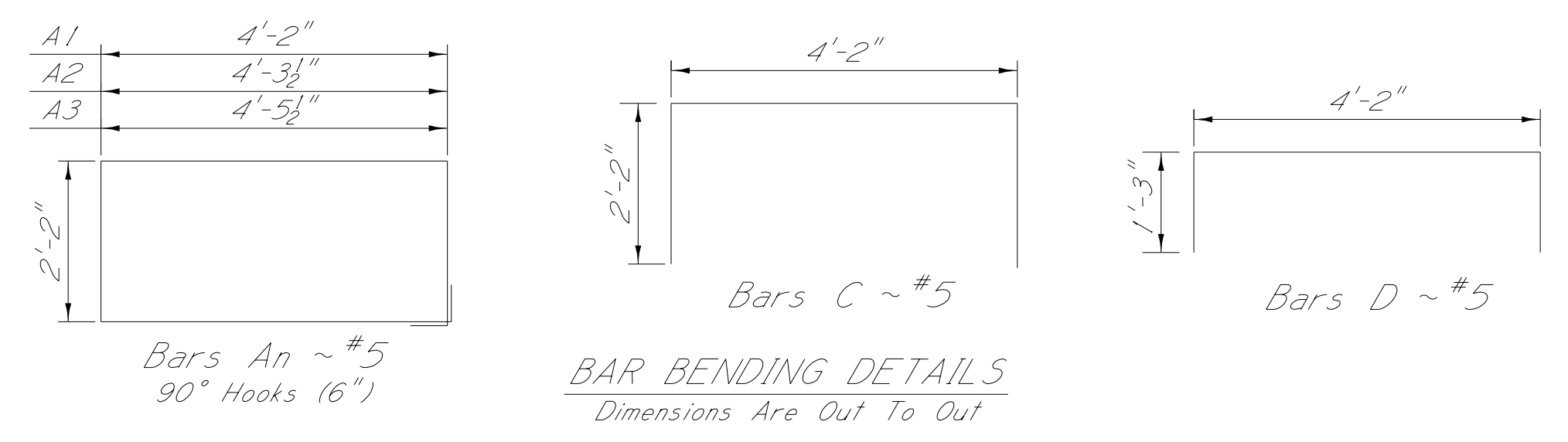
PLAN OF BENT
Showing concrete dimensions, cap steps, dowel spacing, & neoprene pad placement



PLAN OF CAP
Showing reinforcing in top of cap & pile spacing



ELEVATION OF CAP
Showing reinforcing, elevations & cap steps



BAR BENDING DETAILS
Dimensions are out to out

MISSISSIPPI DEPARTMENT OF TRANSPORTATION
BRIDGE AT STA. 374+88.65
INTERMEDIATE BENT NO. 3

FMS: 105343 / 301000
COUNTY: TALLAHATCHIE
PROJECT NUMBER: BR-0008-05(038)

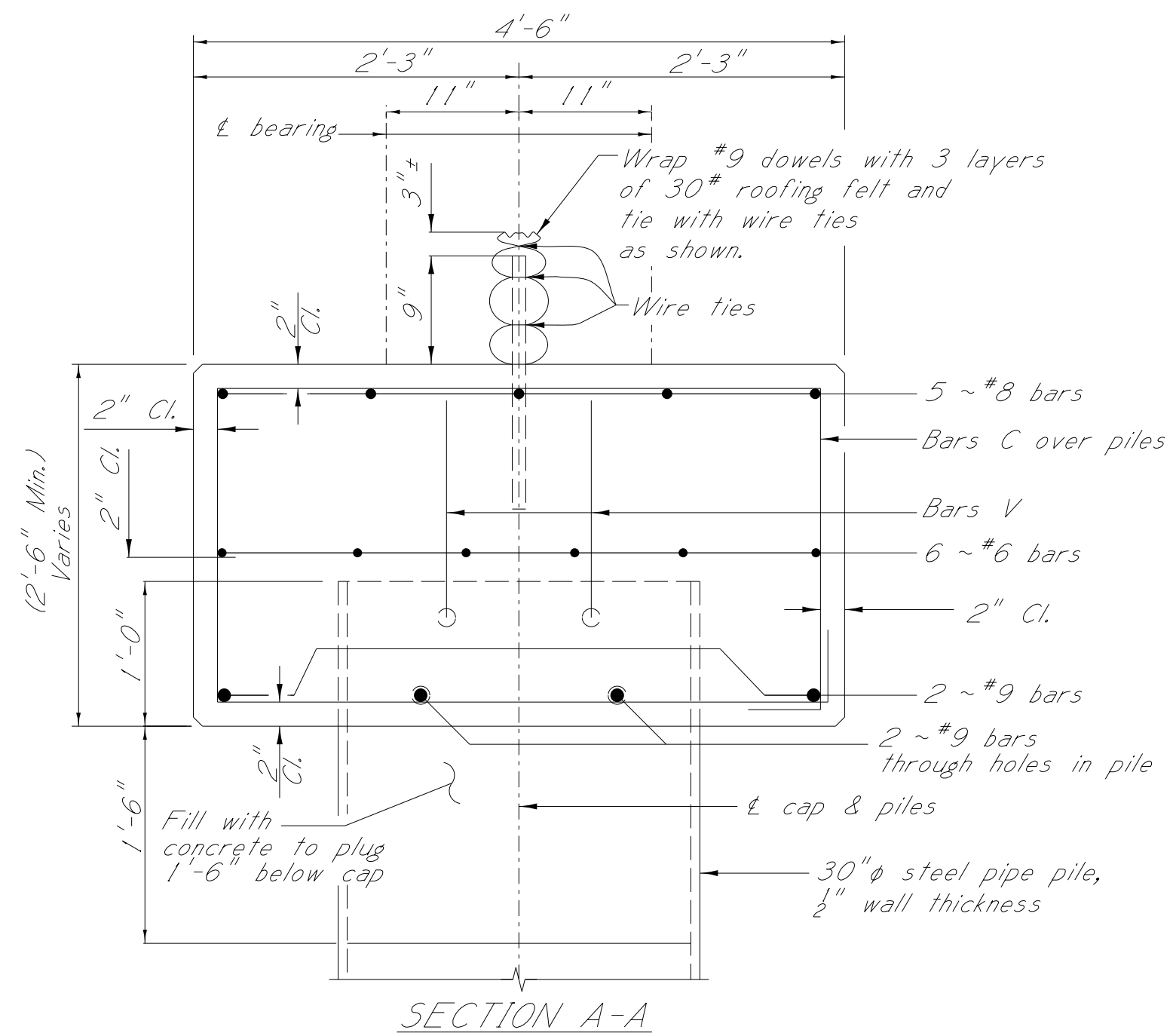


DESIGNER: Lon Burt
CHECKER: Neal Terry
DATE: 03-13-2019
ISSUE DATE: 03-13-2019
DIRECTOR OF STRUCTURES, STATE BRIDGE ENGINEER - JUSTIN WALKER, P.E.
DEP. DIR. OF STRUCTURES, ASST. STATE BRIDGE ENGINEER - SCOTT WESTERFIELD, P.E.

WORKING NUMBER
7 OF 13
SHEET NUMBER
8009

PROJECT PLAN SECTION MISSISSIPPI DEPARTMENT OF TRANSPORTATION

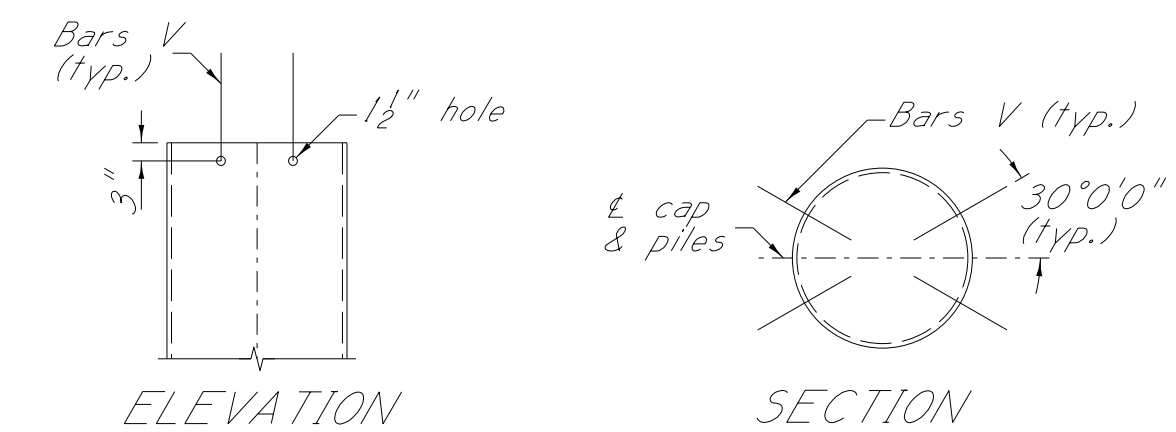
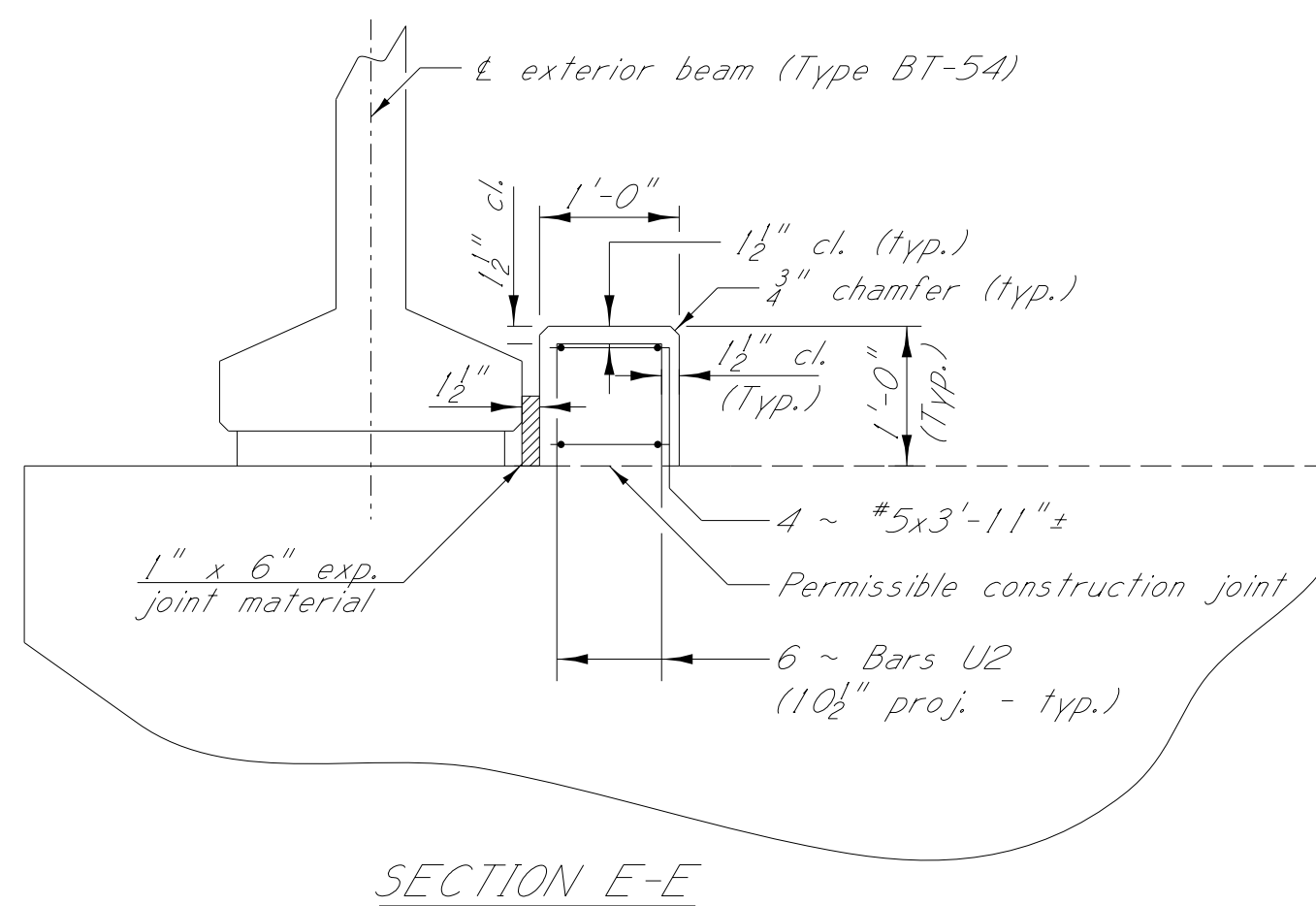
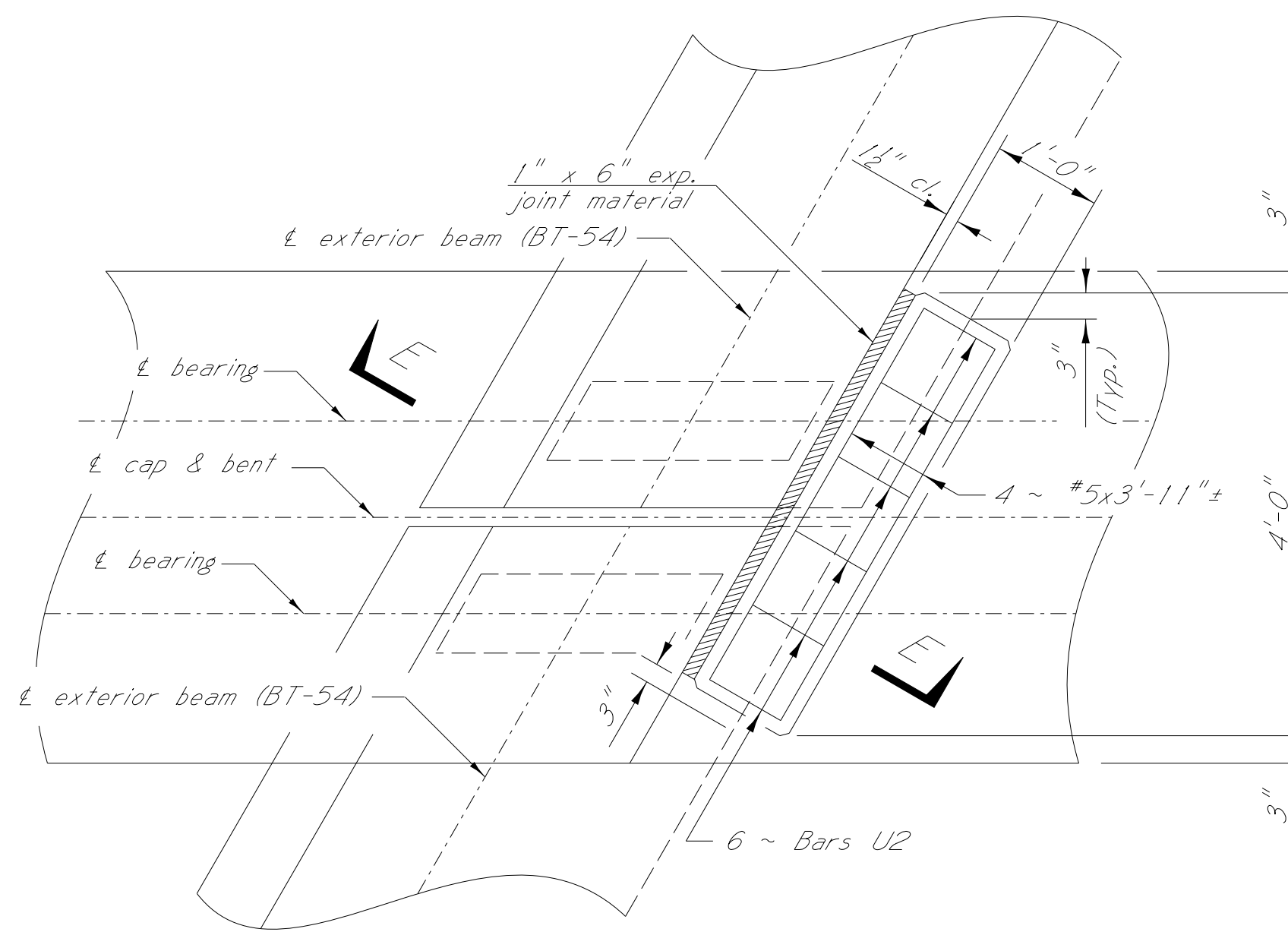
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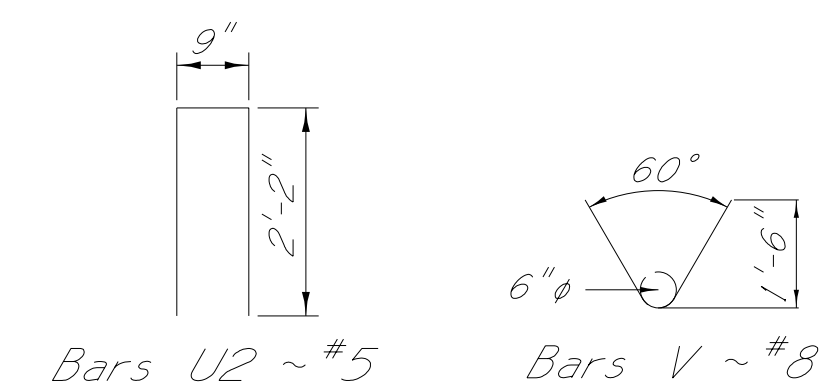
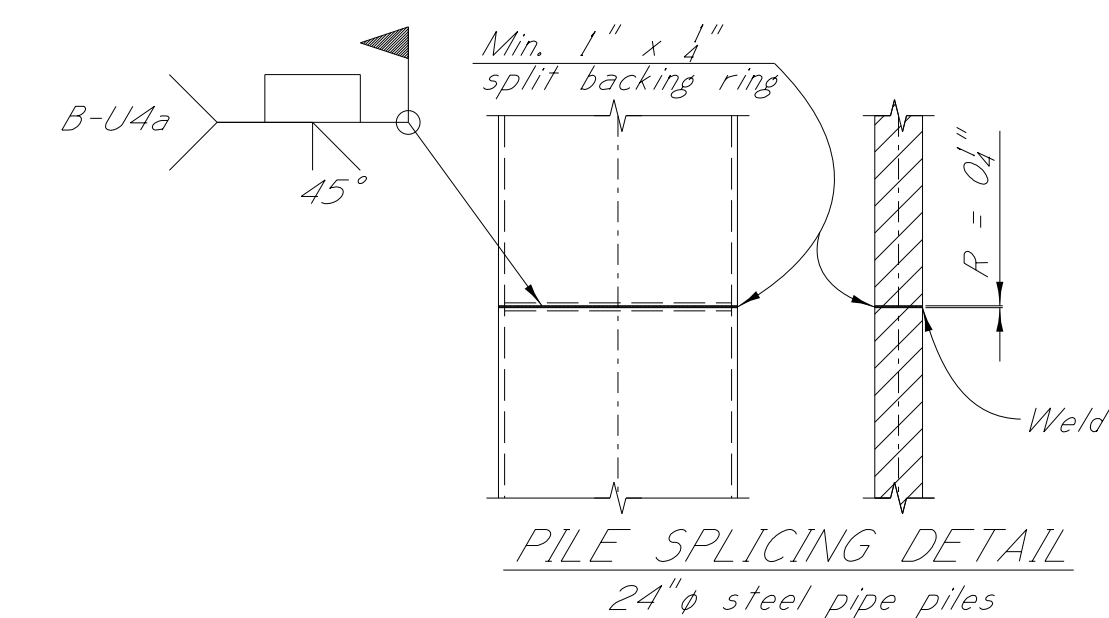
NOTE:
That portion of top of cap directly beneath the diaphragm shall have a smooth trowelled finish.

NOTE:
Any work and materials associated with the installation of the pipe pile plugs will not be paid for separately but will be considered subsidiary to the item Class "AA" Concrete.

NOTE:
Concrete in pipe pile to be poured monolithic with bent cap concrete.



PILE ANCHORAGE DETAIL



BAR BENDING DETAILS
All dimensions are out to out

GENERAL NOTES:
All concrete in cap shall be Class "AA".
Chamfer all edges $\frac{1}{4}$ " unless otherwise noted.
Placing dimensions from reinforcing steel to concrete surfaces are clear distances.

PLAN SECTION
PROJECT NO. BR-0008-05(038)
MISSISSIPPI DEPARTMENT OF TRANSPORTATION

001: 00 ANPM DGN FILE NAME



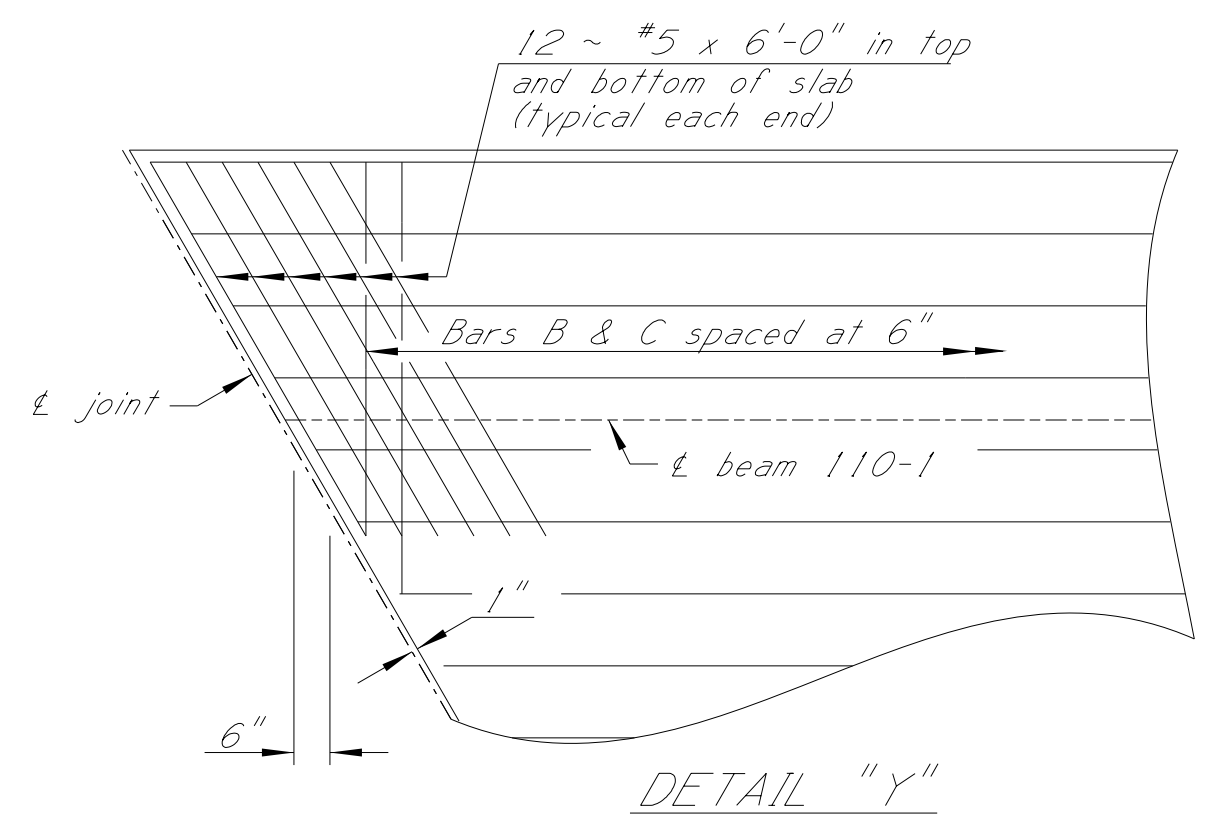
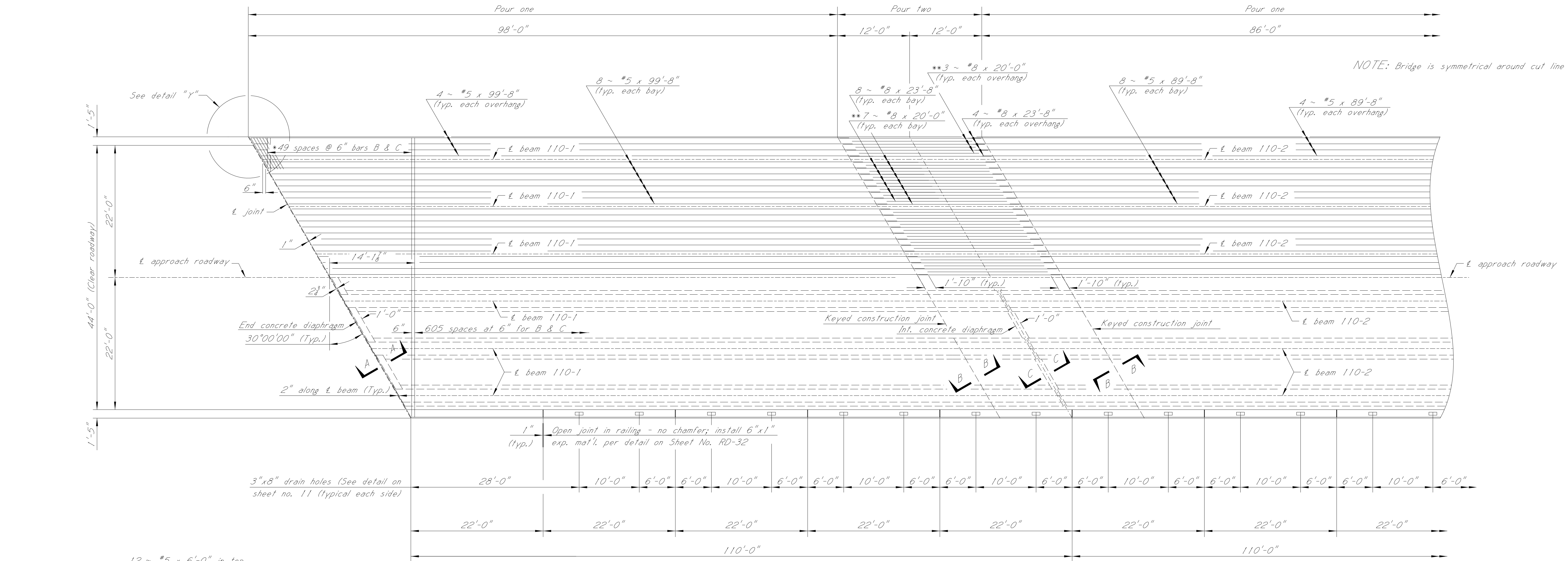
MISSISSIPPI DEPARTMENT OF TRANSPORTATION	
BRIDGE AT STA. 374+88.65	
INTERMEDIATE BENT DETAILS	
DESIGNER: Lon Burt	CHECKER: Neal Terry
DATE: 03-13-2019	ISSUE DATE: 03-13-2019
FMS: 105343 / 301000	
COUNTY: TALLAHATCHIE	
PROJECT NUMBER: BR-0008-05(038)	
WORKING NUMBER	8 OF 13
SHEET NUMBER	8010

NOTE: The deck pouring schedule as shown on these plans is recommended and shall be used unless an alternative pouring schedule is submitted and approved by the Director of Structures, State Bridge Engineer.

*NOTE: Cut bars to fit to skew; (4'-10" to 46'-4 1/2")

**NOTE: Symmetrical placed about \perp joint.

NOTE: Bridge is symmetrical around cut line



PLAN OF 110 FT. SPANS NO. 1 & 3
Top half showing longitudinal reinforcing in top of slab.
Bottom half showing concrete dimensions.
Drawn for Span 1 and Span 3 similar by orientation.

PLAN OF 110 FT. SPAN 2
Top half showing longitudinal reinforcing in top of slab.
Bottom half showing concrete dimensions.

PERMISSIBLE SPLICE LENGTHS:
#5 ~ 1'-10"

END SPAN NO. 1		END SPAN NO. 3		INT. SPAN NO. 2	
Mark	No.	Mark	No.	Mark	No.
D	378	D	378	D	378
R	378	R	378	R	378
DX	8	DX	8		
RX	8	RX	8		



MISSISSIPPI DEPARTMENT OF TRANSPORTATION
BRIDGE AT STA. 374+88.65

110 FT. SPANS NO. 1-3
DETAILS

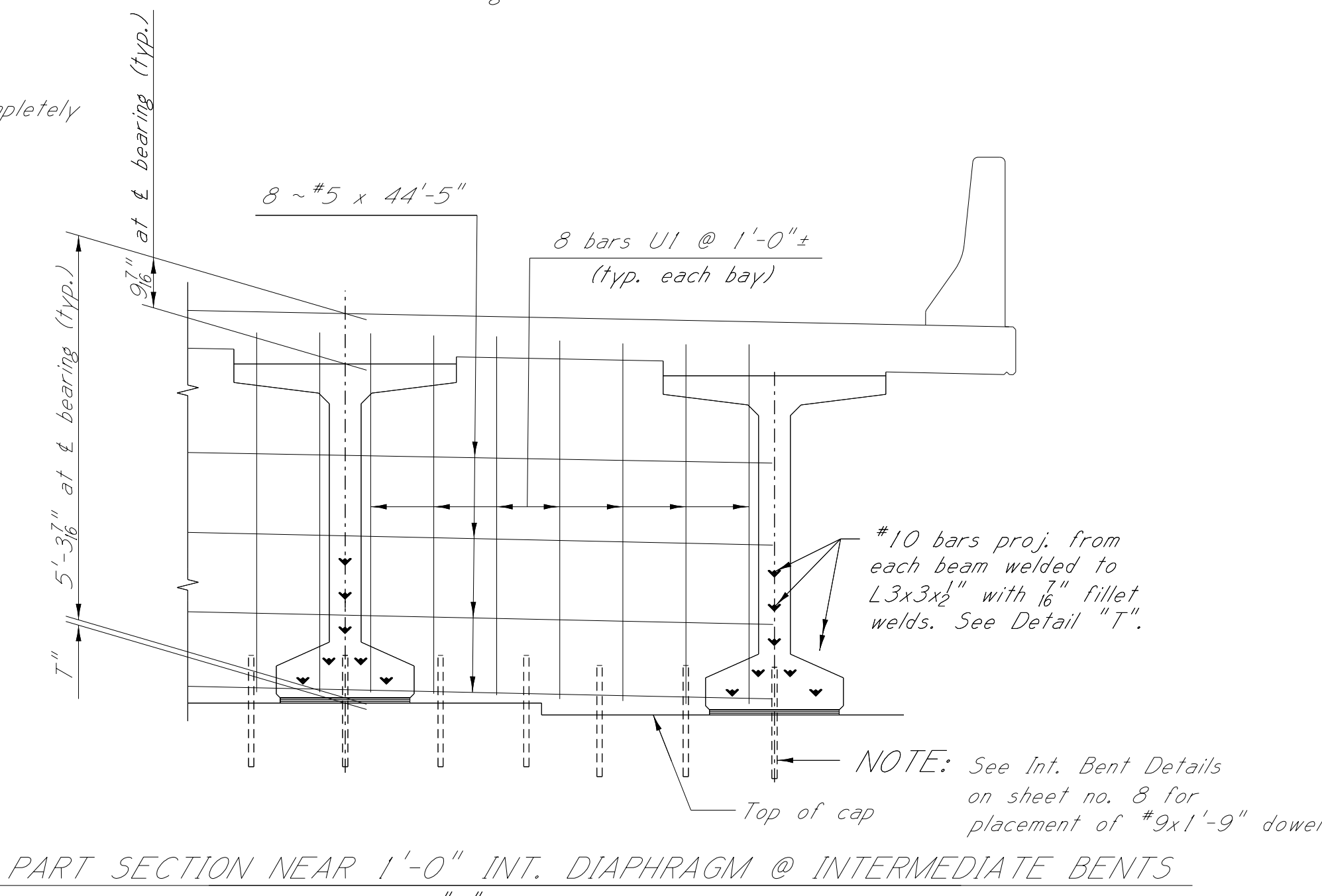
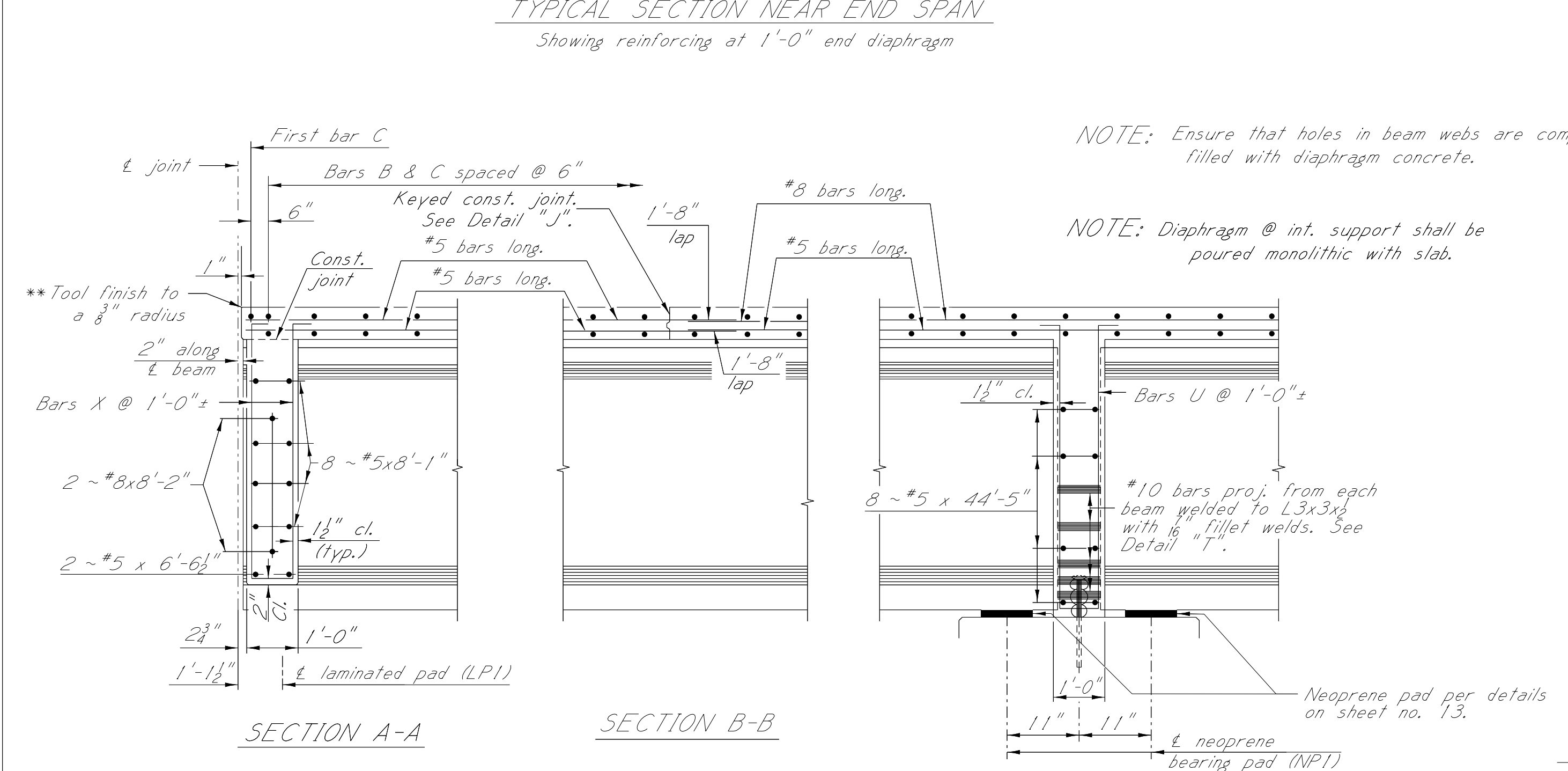
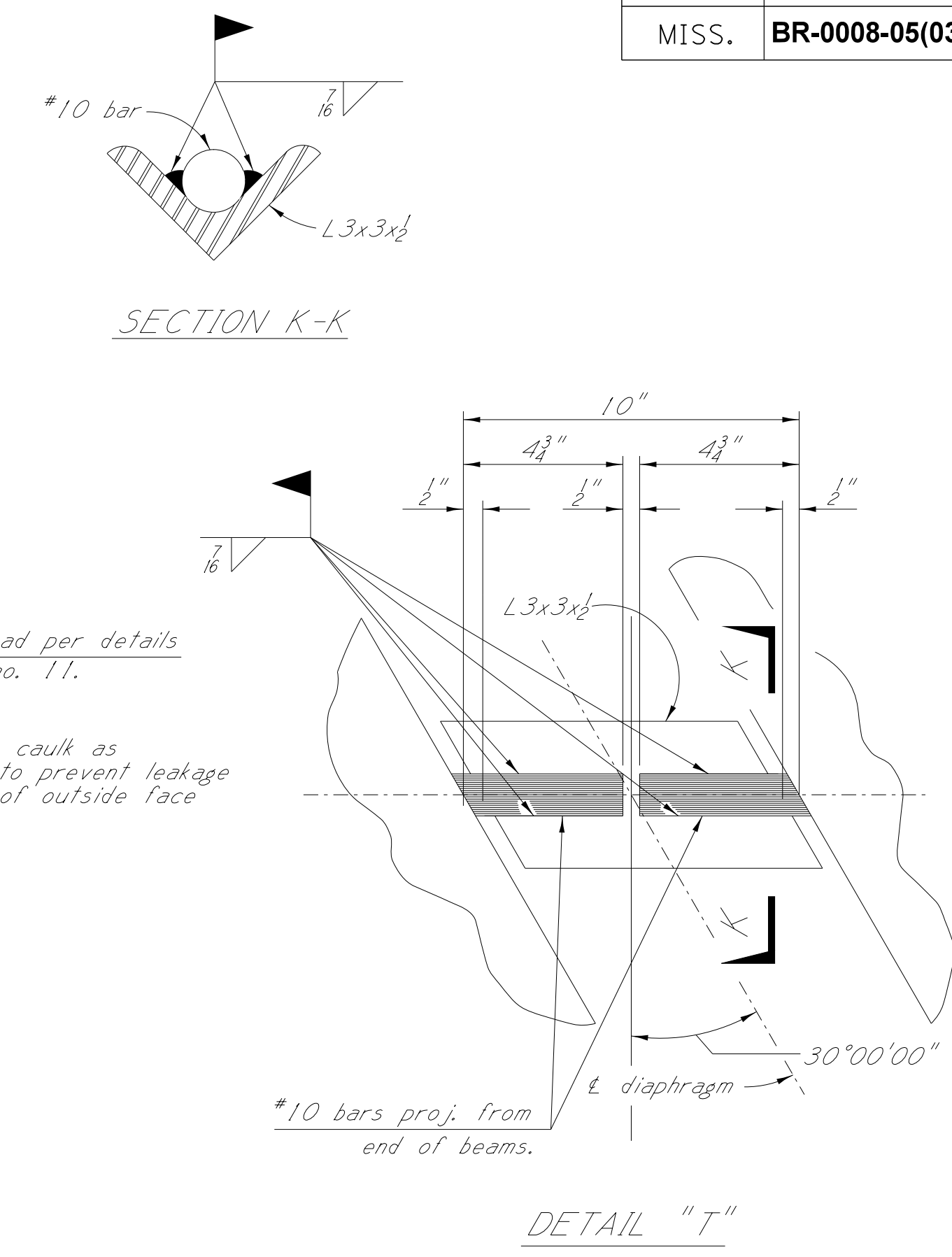
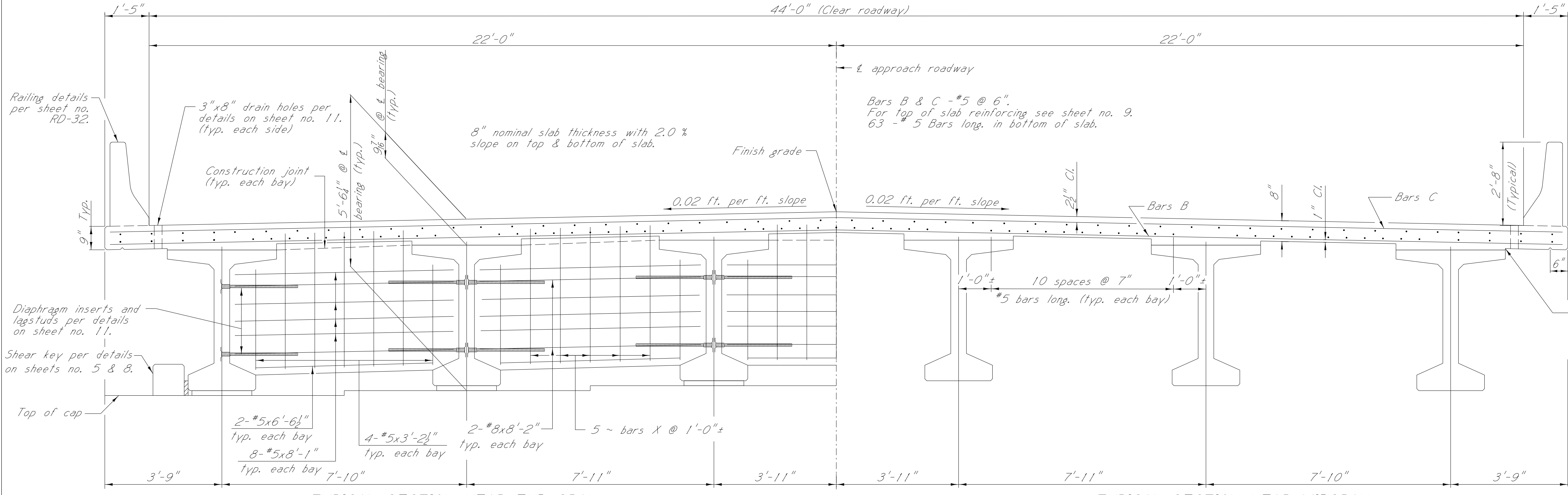
FMS: 105343 / 301000
COUNTY: Tallahatchie
PROJECT NUMBER: BR-0008-05(038)

DESIGNER	Lon Burt	CHECKER	Spencer Yates
DATE		ISSUE DATE	03-13-2019
DIRECTOR OF STRUCTURES, STATE BRIDGE ENGINEER - JUSTIN WALKER, P.E.		DEP. DIR. OF STRUCTURES, ASST. STATE BRIDGE ENGINEER - SCOTT WESTERFIELD, P.E.	

WORKING NUMBER
9 OF 13
SHEET NUMBER
8011

NOTES: For General Notes, railing details and other typical span details see sheets no. 10, 11 & RD-32.

001: 00 ANPM DGN FILE NAME

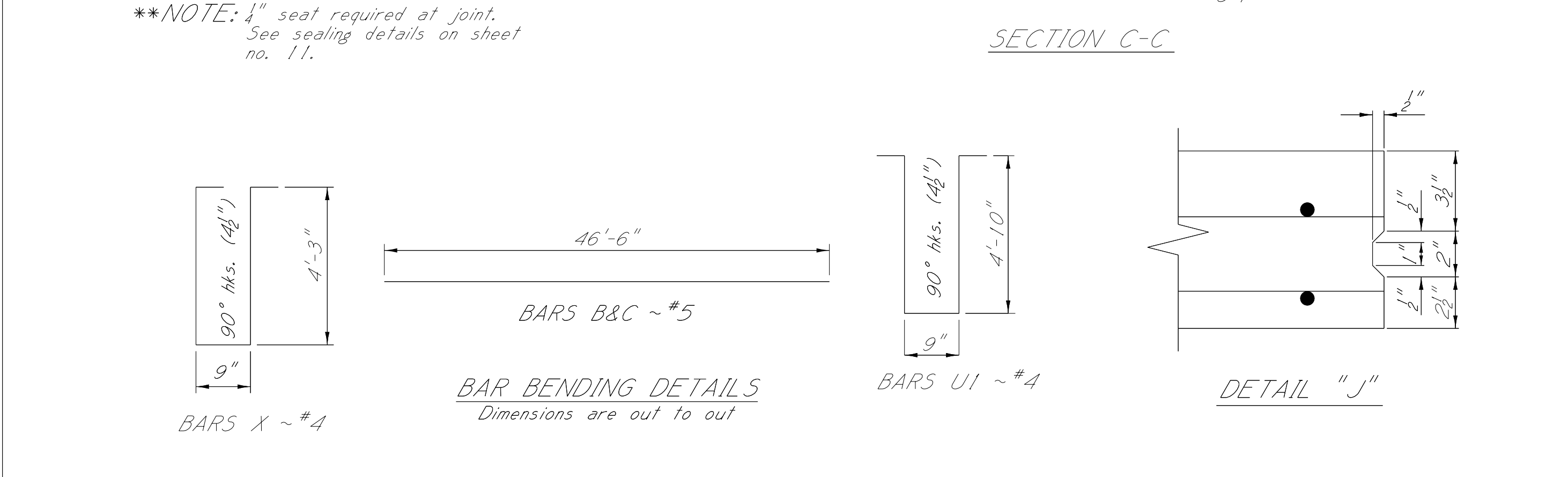


NOTE: Contractor should be aware of possible tilting of exterior beams during construction of the superstructure and should take precautionary steps to prevent such tilting of beams.

NOTE: The volume of concrete in the fillets between the bottom of the nominal slab and the top of the beams has been estimated by using 1/2 the fillet height, at the bearing, multiplied by the top flange width and the full length of the beam. This volume shall be used for final pay quantity. Any additional concrete required in the fillet resulting from an unexpected camber in the beam will not be directly paid for and shall be considered an absorbed item.

NOTE: For GENERAL NOTES, Railing Details and other Typical Span Details see Sheets No. 9, 11 & RD-32

DESIGN DATA:
 Specifications A.A.S.H.T.O. LRFD, 2014 with 2016 Interims Loading. HL-93
 Slab stresses. f = 24,000 p.s.i. ; f = 1,600 p.s.i. ; n=8
 Prestressed beam details. See sheets no. 12 & 13.
 Concrete. Class "AA" (4,000 p.s.i.)
 Class "BD" (4,000 p.s.i.)
 NOTE: Class "BD" concrete shall be used in the spans & diaphragms.



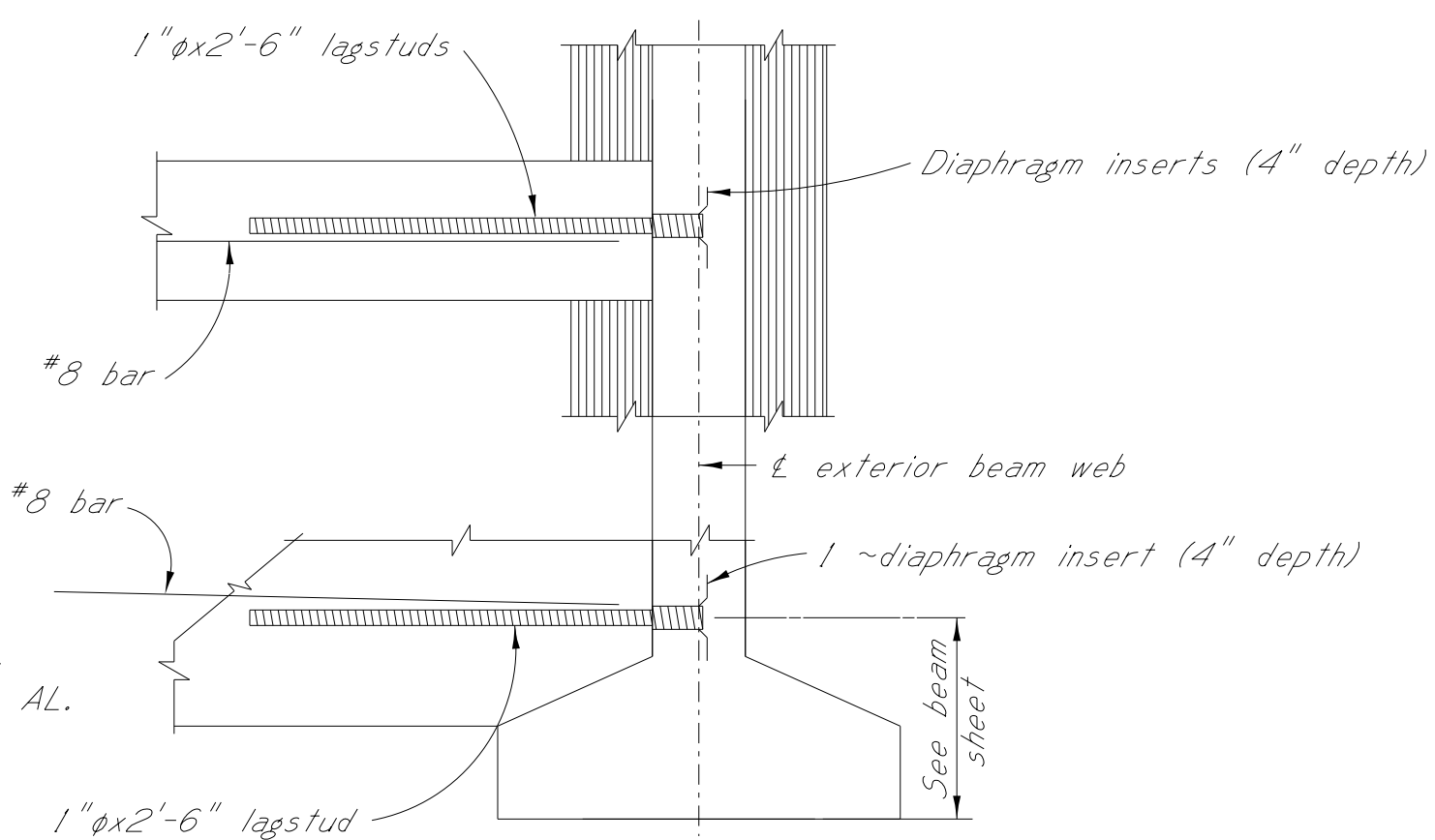
PERMISSIBLE SPLICE LENGTHS:
#5 ~ 1'-10"



MISSISSIPPI DEPARTMENT OF TRANSPORTATION	
BRIDGE AT STA. 374+88.65	
110 FT. SPAN DETAILS	
DESIGNER	105343 / 301000
DRAWN	COUNTY: TALLAHATCHIE
CHECKER	PROJECT NUMBER: BR-0008-05(038)
ISSUE DATE	WORKING NUMBER
03-13-2019	10 OF 13
DIRECTOR OF STRUCTURES, STATE BRIDGE ENGINEER - JUSTIN WALKER, P.E.	SHEET NUMBER
DIR. OF STRUCTURES, ASST. STATE BRIDGE ENGINEER - SCOTT WESTERFIELD, P.E.	8012

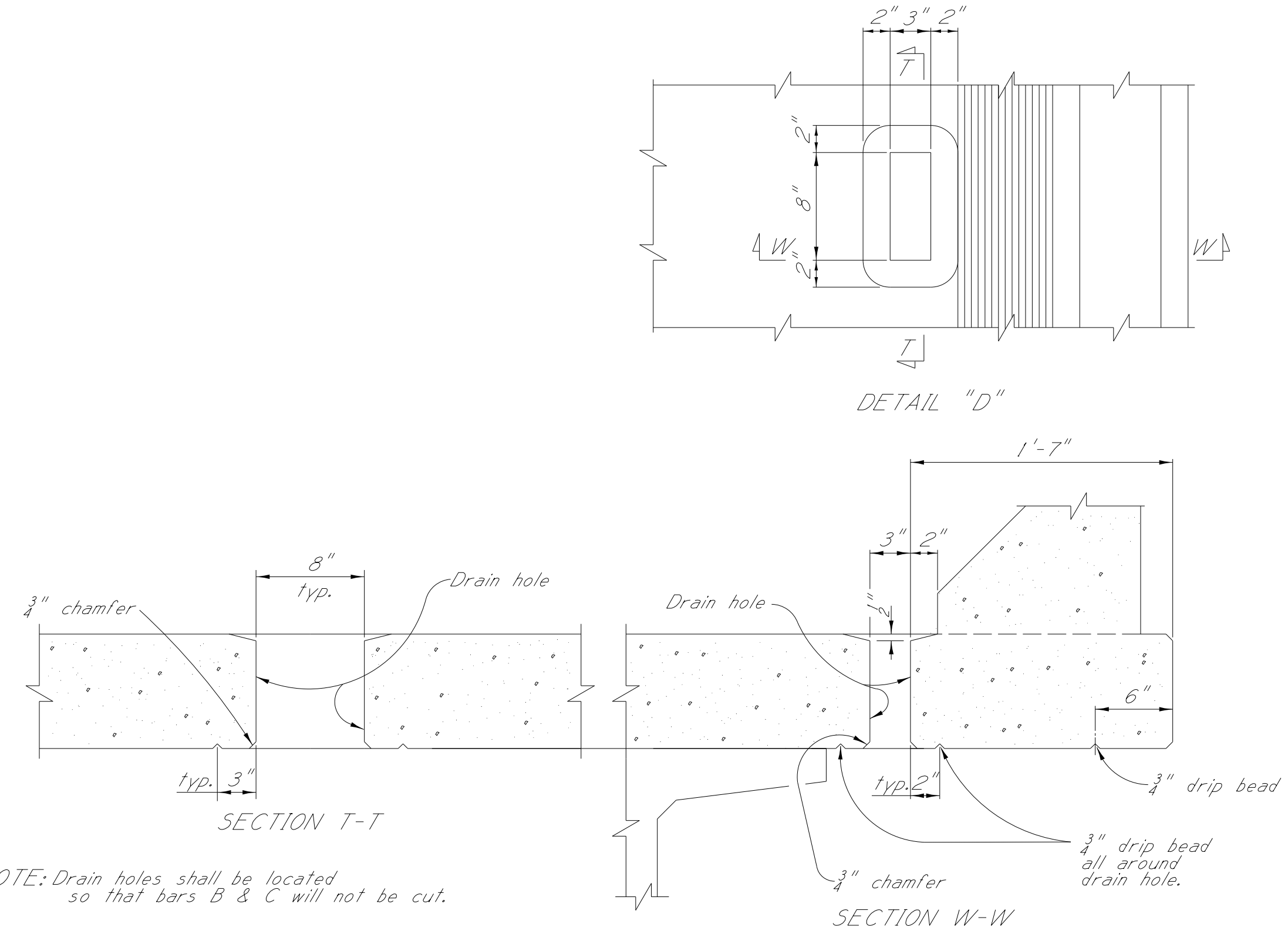
PROJECT PLAN SECTION MISSISSIPPI DEPARTMENT OF TRANSPORTATION

001: 00 ANPM DGN FILE NAME



NOTE: Continuous threaded lagstuds and diaphragm inserts shall be as manufactured by the Richmond Screw Anchor Co., Inc., Atlanta, GA; by Meadow Steel Products Co., Inc., Birmingham, AL or Dayton Superior Co., Inc., Birmingham, AL.

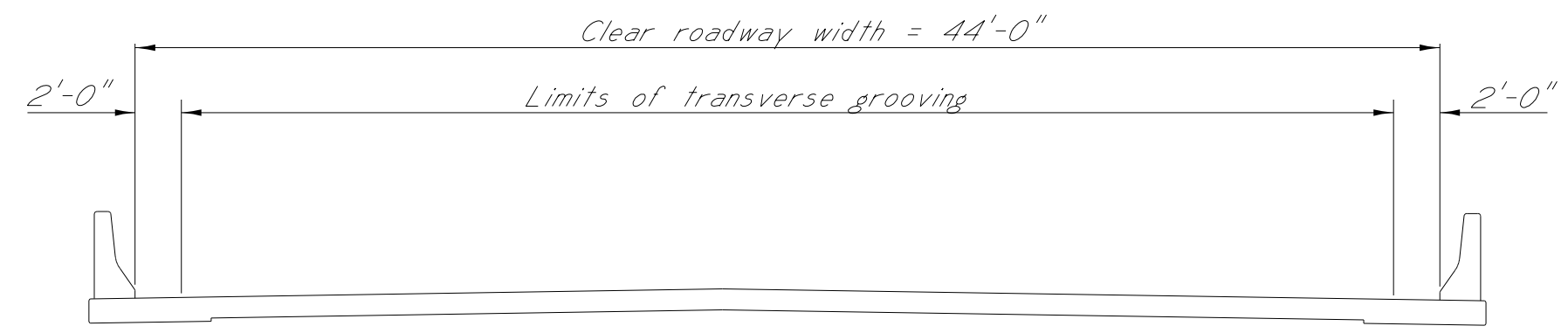
PART SECTION
DIAPHRAGM INSERT AND LAGSTUD DETAILS



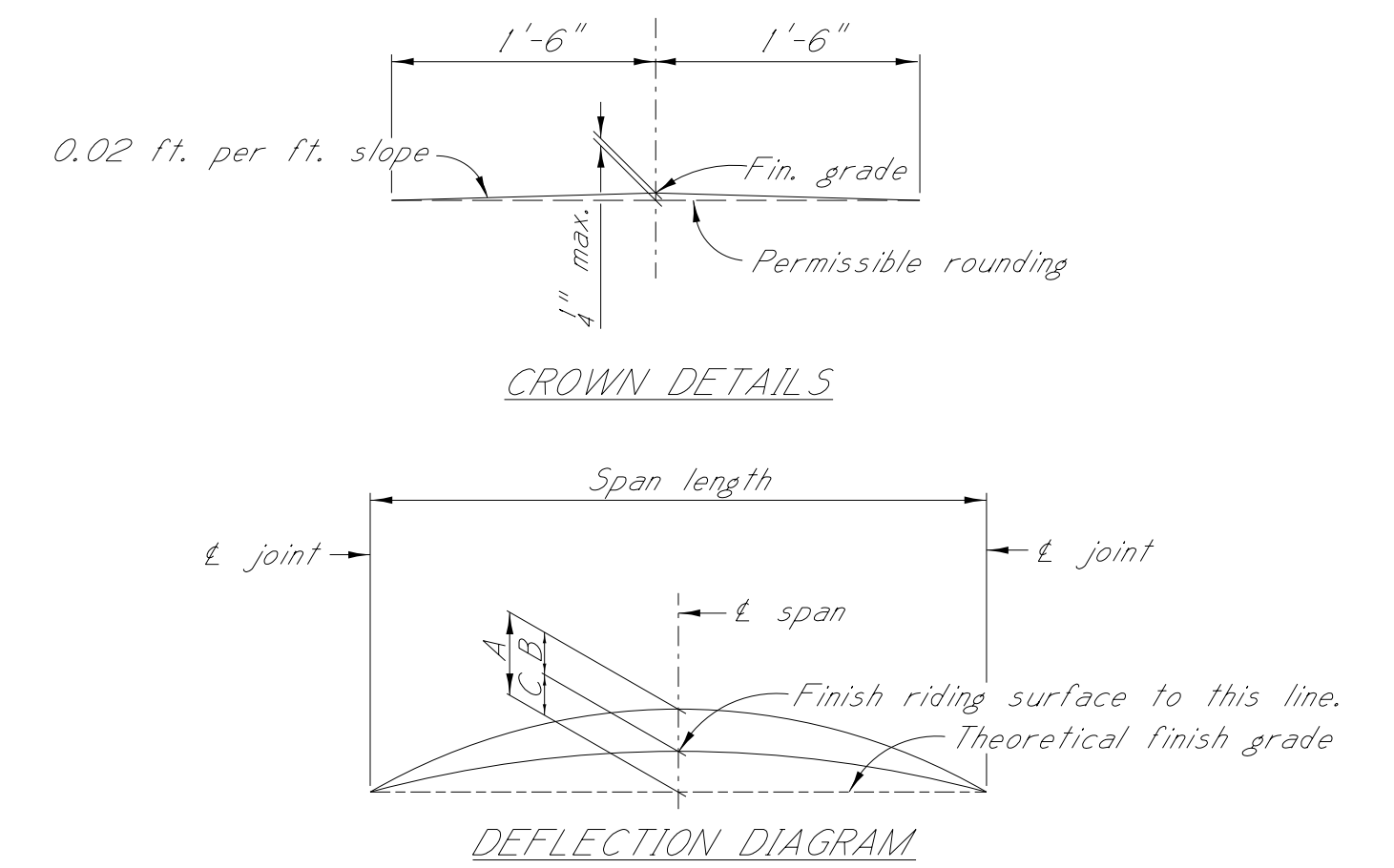
NOTE: Drain holes shall be located so that bars B & C will not be cut.

DRAIN HOLE DETAILS

Use where shown on the Span Detail sheet.



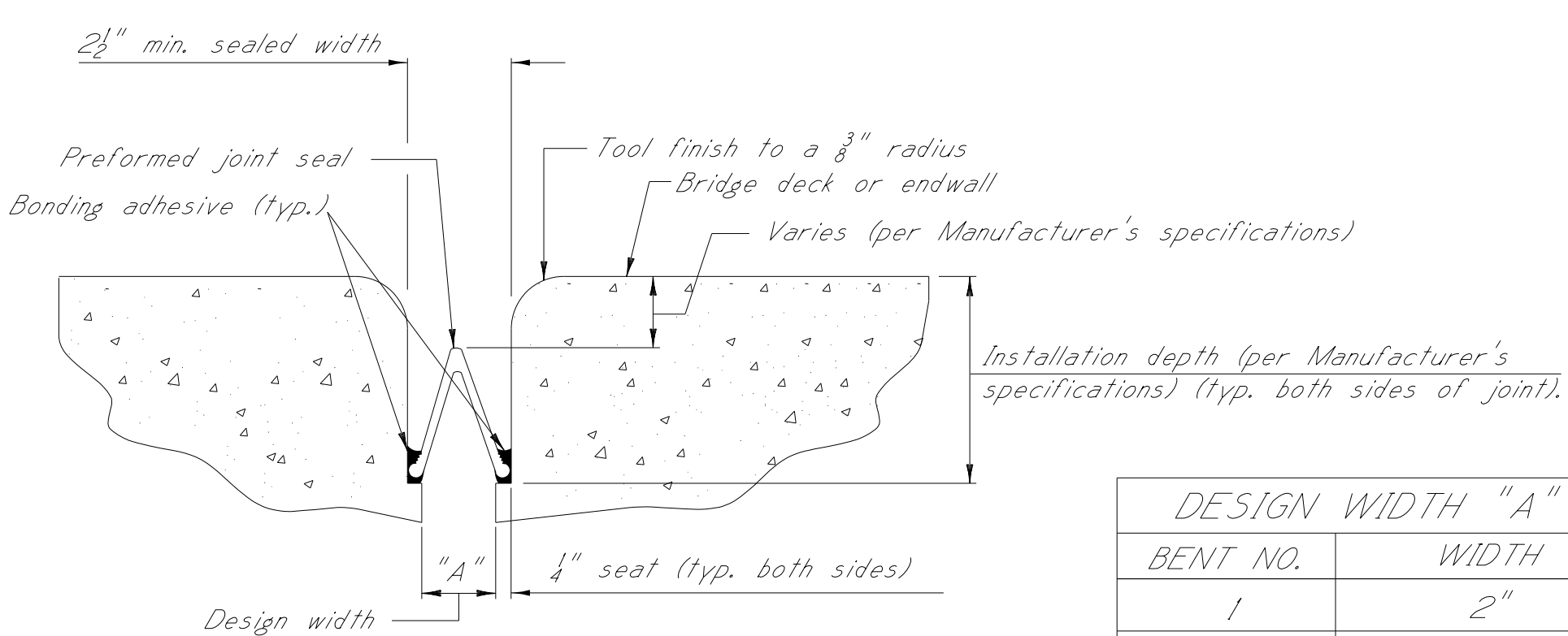
LIMITS OF TRANSVERSE GROOVING



A = total recommended allowance for deflection.
B = estimated deflection due to dead load of slab & rail.
C = A-B = net initial camber in riding surface, which includes an allowance or creep.

NOTE: For values of A, B & C, see Beam Detail sheets.

NOTE: The Girder Deflection Diagrams shown in these plans were prepared and intended for design and estimation purposes only. Actual bridge girder deflections may differ from the deflection diagrams shown in these plans. It is the Contractor's responsibility to construct the bridge to meet the requirements of the plans and specifications including, but not limited to, the requirements for bridge deck smoothness. Prior to formwork construction, the Contractor shall submit three (3) copies of a proposed BRIDGE SUPERSTRUCTURE CONSTRUCTION PLAN to the Director of Structures, State Bridge Engineer for review, through The Project Engineer. This submittal shall include all calculations, assumptions and parameters used by the Contractor to determine bridge girder deflections and form grade elevations. This submittal shall also include an erection and construction procedure that addresses the construction means and methodologies used by the Contractor and shall consider effects including, but not limited to, construction phasing, pouring schedules, applied permanent and construction loading, and shall include calculations and details of temporary girder bracing systems used to ensure girder stability and to counter the effects of girder tilt. After girder erection and prior to deck construction, the Contractor shall submit deck thickness verification calculations for each girder. These calculations shall include a comparison of the erected girder top flange profiles versus the plan deck grade elevations over each girder plus the anticipated girder deflection due to applied permanent dead load and creep. Three (3) copies of the deck thickness verification calculations and any proposed remediation measures to correct for thin deck areas shall be submitted to the Director of Structures, State Bridge Engineer for review, through the Project Engineer. The BRIDGE SUPERSTRUCTURE CONSTRUCTION PLAN and the deck thickness verification calculations shall be prepared and stamped by a Mississippi Registered Professional Engineer.



TYPICAL SECTION PREFORMED JOINT SEAL

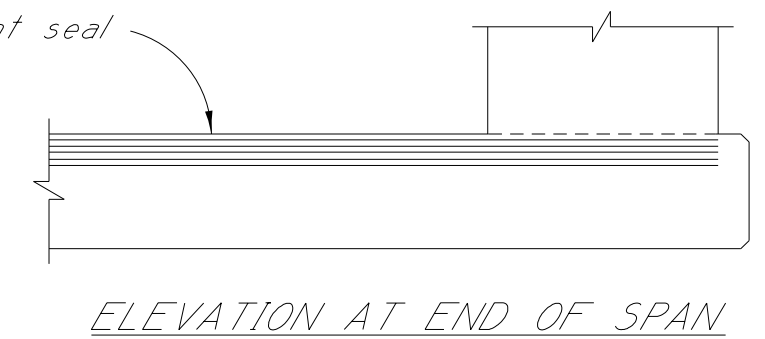
DESIGN WIDTH "A"	
BENT NO.	WIDTH
1	2"
4	2"

NOTES:

- Joint installation and sealing on newly constructed bridge decks shall not be paid for directly and shall be considered an absorbed item of work.
- The preformed joint seal shall be one of the following, installed according to the Manufacturer's specifications:
 - Silcoflex Joint Sealing System, manufactured by R.J. Watson, Inc. www.rjwatson.com
 - Wabo SPS Joint System manufactured by Watson Bowman Acme Corporation www.wbacorp.com
 - Silspec SSS Silicone Strip Seal manufactured by SSI Commercial & Highway Construction Materials www.ssicm.com
- For estimating purposes, The R.J. Watson Silcoflex Joint Sealing System was selected. However, should another supplier be chosen, it is the Contractor's responsibility to ensure that the Manufacturer's recommendations are followed for joint preparation, installation depths and widths, adhesive setting times, and any other variances between the specifications provided by the Manufacturers. A Manufacturer representative shall be present at the time joint sealing begins to ensure that the Contractor is properly schooled in installation of the joint material. All open joints shall be sealed at their design widths, dimension "A", as indicated on the end bent and span details.
- Dimension "A" is defined as the design width of the joint opening, which does not account for the 1/4" seat required on both sides of the joint. Preformed Joint Seal, Type I, shall be used for design widths less than 2". Preformed Joint Seal, Type II, shall be used for design widths greater than or equal to 2", with the maximum design width being 2 1/2". In cases where design widths are greater than 2 1/2", another type of expansion material shall be required as directed by the Director of Structures, State Bridge Engineer.
- Joints in newly constructed bridge decks shall be protected from damage until accepted for maintenance by the State. Damaged joints shall be repaired at no additional cost to the State.

NEOPRENE PAD THICKNESS TABLE		
PAD NO.	PAD THICKNESS	COMPRESSED PAD THICKNESS
NPI	1"	15/16"
LPI	2 7/8"	2 3/8"

GENERAL NOTES:
All concrete in span shall be class "BD".
All concrete in railing shall be Class "AA".
Chamfer all edges 1/4", unless otherwise noted.
See Layout sheet for finishing of concrete surfaces.
Placing dimensions for reinforcing steel to concrete surfaces are clear distances.
To determine the dimension from finish grade to cap, the assumption is made that the compressed thickness of the neoprene pad is as shown in table, and that the original camber of the beams will be within the limits shown on the Beam Detail sheets. The Director of Structures, State Bridge Engineer shall be notified if the cambers are not within these limits.

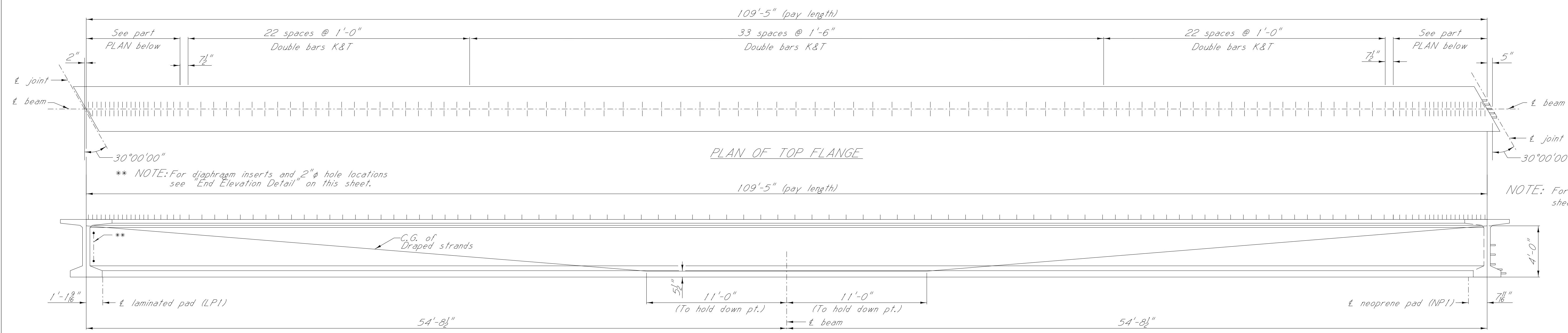


ELEVATION AT END OF SPAN



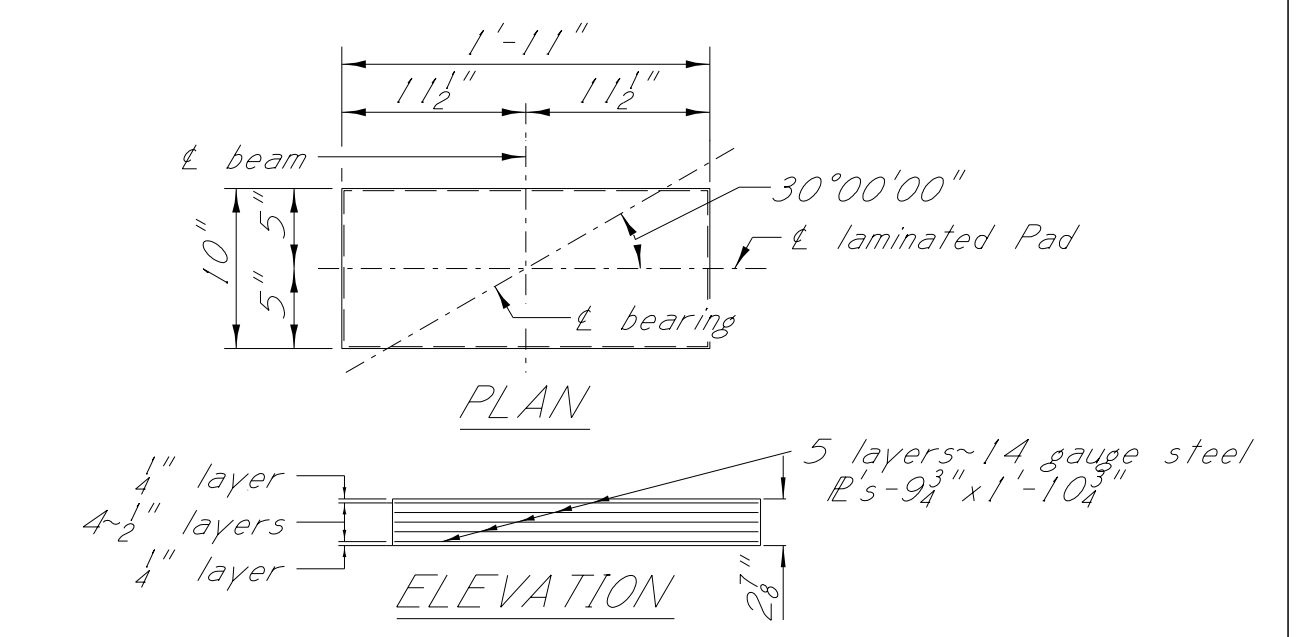
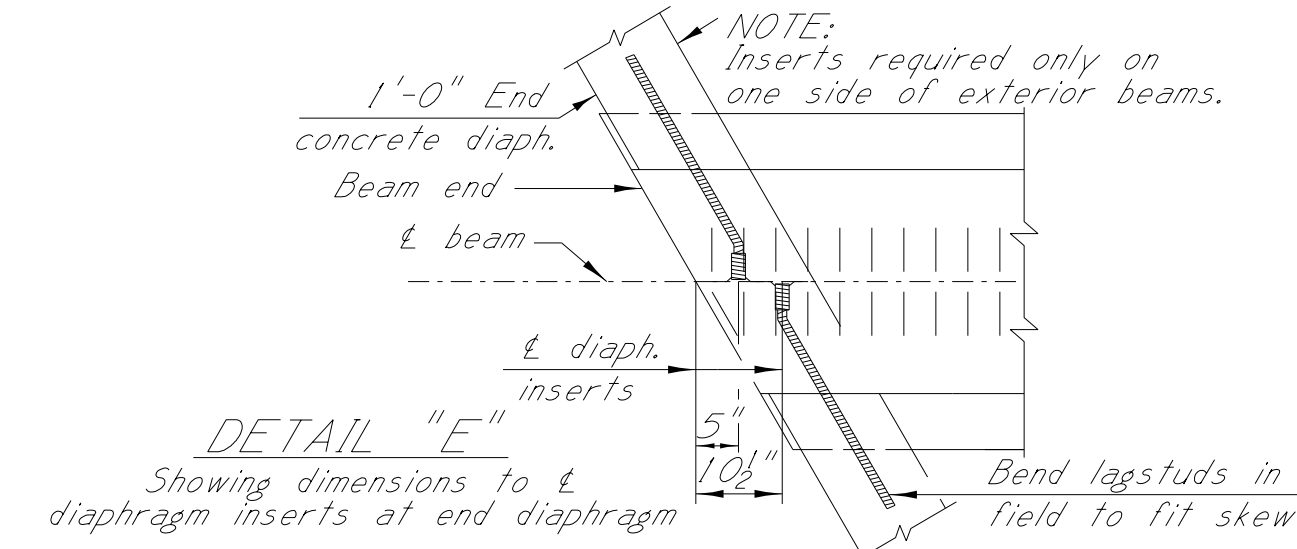
BY		MISSISSIPPI DEPARTMENT OF TRANSPORTATION	
REVISION		BRIDGE AT STA. 374+88.65	
		MISCELLANEOUS SPAN DETAILS	
		FMS: 105343 / 301000	
		COUNTY: TALLAHATCHIE	
		PROJECT NUMBER: BR-0008-05(038)	
		WORKING NUMBER	
		11 OF 13	
DATE		DESIGNER: Lon Burt	CHECKER: Spencer Yates
		DETAILER: Lon Burt	ISSUE DATE: 03-13-2019
		DIRECTOR OF STRUCTURES, STATE BRIDGE ENGINEER - JUSTIN WALKER, P.E.	
		DIR. OF STRUCTURES, ASST. STATE BRIDGE ENGINEER - SCOTT WESTERFIELD, P.E.	
		SHEET NUMBER	
		8013	

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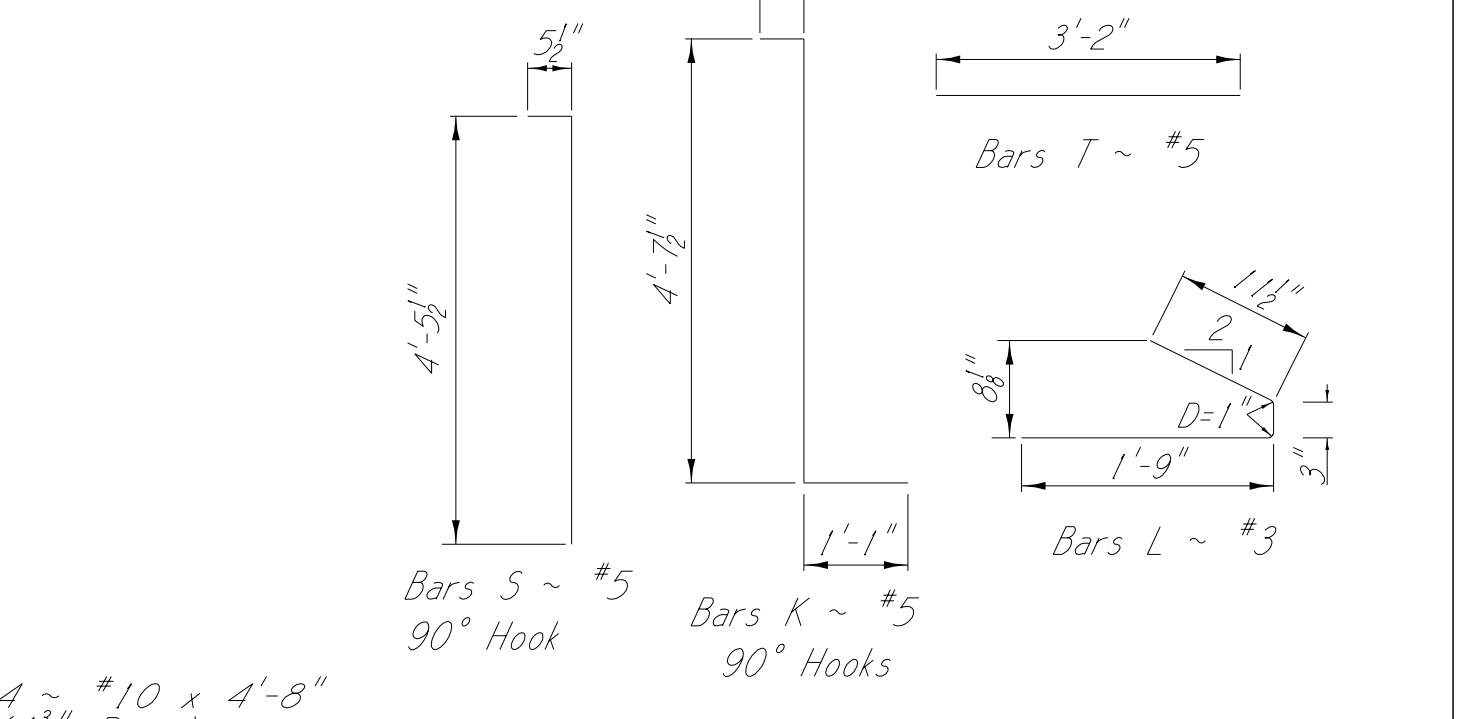
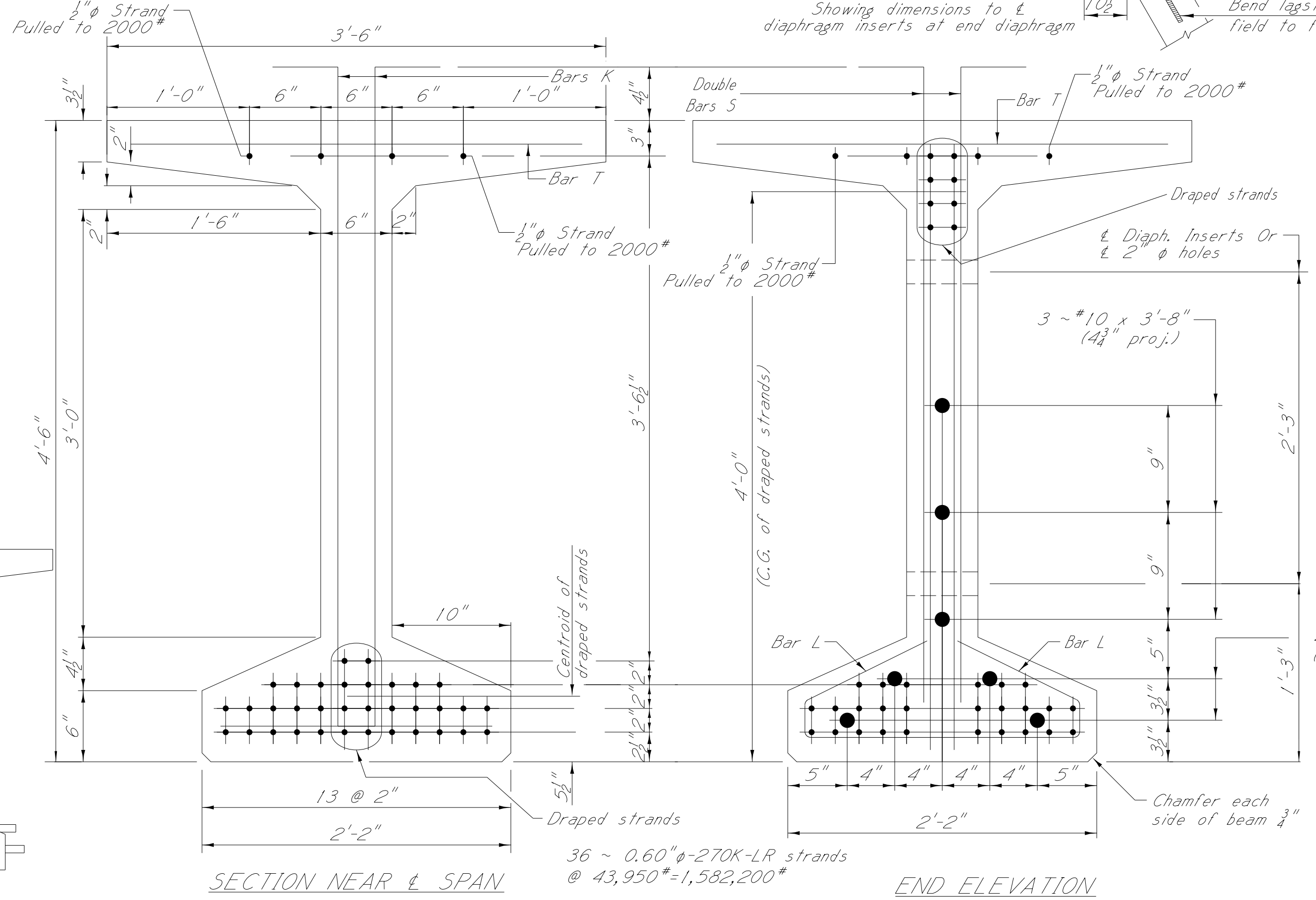
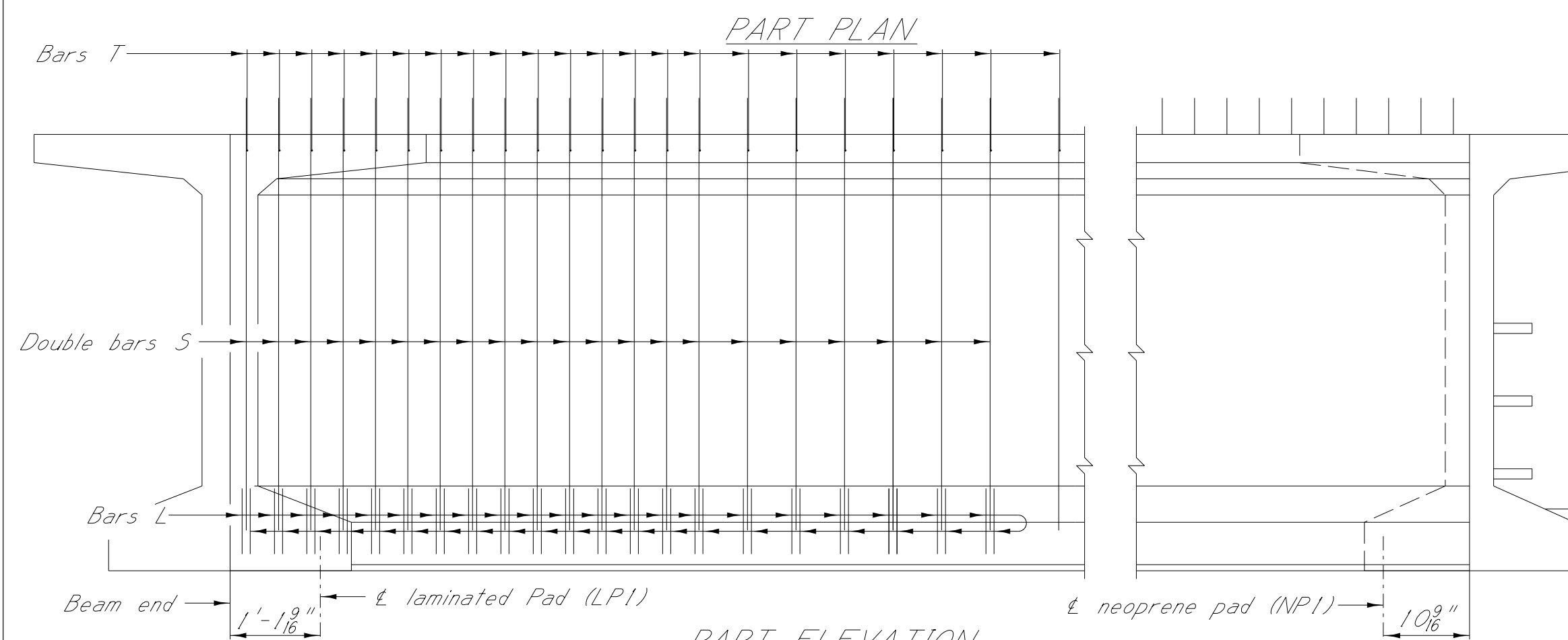
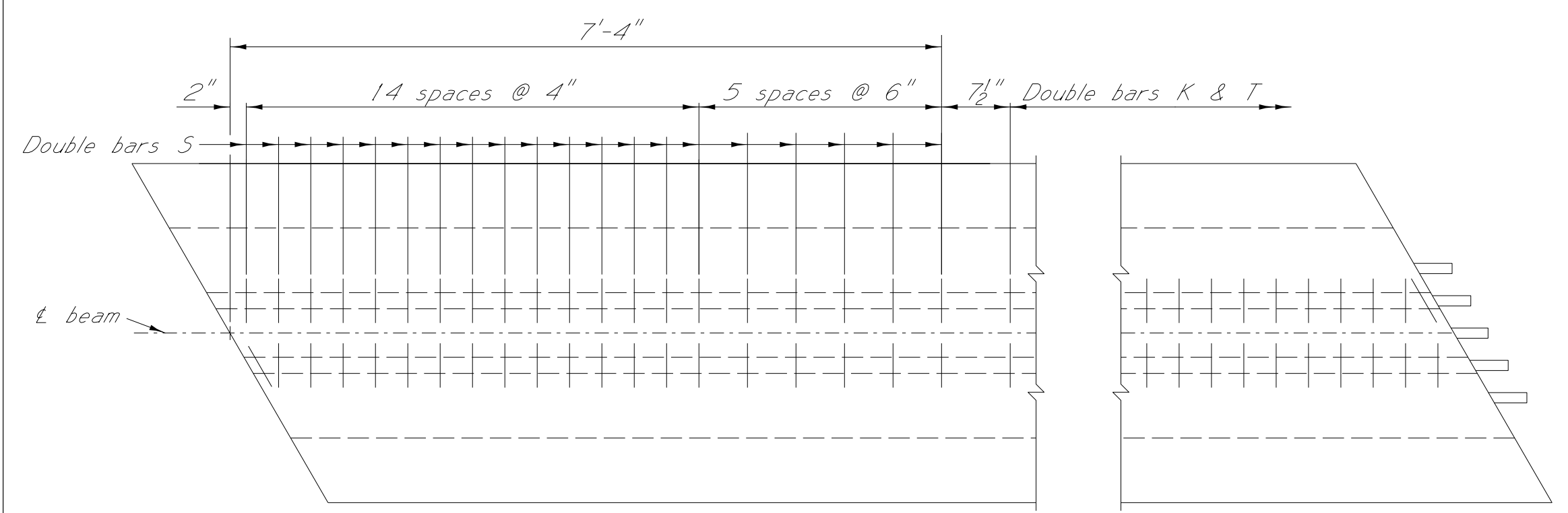


GENERAL NOTES:
 Beams shall be manufactured in accordance with Mississippi Standard Specifications for Road & Bridge Construction, 2017.
 The tops of beams shall be rough floated. At approximately the time of initial set the entire tops of beams shall be scrubbed transversely with a coarse wire brush to remove all laitance and produce a roughened surface for bonding slab. Other surfaces shall be finished per specifications.
 Strand pattern detailed is for 0.60 ϕ -270K-LR strands. Shop drawings of prestressed beams shall include the type and location of all strands.
 The Director of Structures, State Bridge Engineer shall be notified if the camber of the beam is not within the limits shown in table.
 The Fabricator shall provide camber data at release and immediately prior to shipping.

GENERAL NOTES CONT.:
 Concrete shall be class "FX" and:
 (a) shall have a 28-day cylinder strength of 7,500 p.s.i.
 (b) at transfer of the tensioning load, the cylinder strength of the concrete shall be as shown in table.
 At the Contractor's request a suggested concrete design mix will be furnished with the understanding that it is the Contractor's responsibility to maintain 7,500 p.s.i. concrete.
 If any cylinder tests below 7,500 p.s.i., the beam represented will be held on the yard until the 28-day strength is determined and acceptance or rejection has been established.



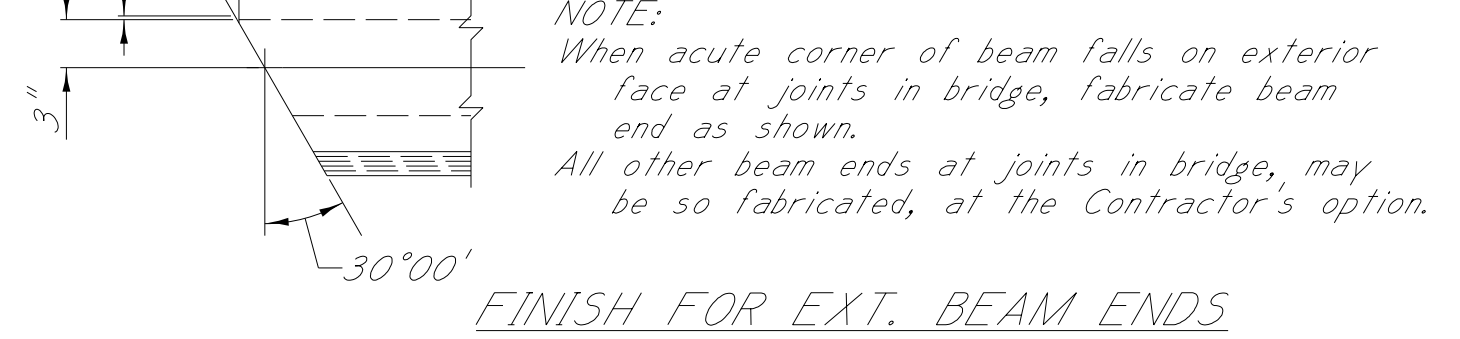
LAMINATED PAD DETAILS (LPI)
 Testing acceptance procedure shall be in accordance with section 714.10.6 of the Specifications.
 Elastomer shall have a hardness of 50 durometer with a minimum shear modulus at 73°F of 0.095 k.s.i. And A maximum shear modulus at 73°F of 0.130 k.s.i.
 Bearing area on top of cap shall be cast smooth and true to grade.



DESIGN DATA
 Unit stresses are in accordance with A.A.S.H.T.O., 2014 with 2016 interims.
 Stay in place metal forms . . . 18 lbs/sq. ft.

LR indicates low-relaxation strands

Strand type	Minimum breaking strength lbs/strand	Initial tension lbs/strand	Required number and location of strands				Centroid for total number of strands (in.)		Distance from ϵ span to hold-down point	Camber limits	Deflection diagram			Minimum concrete strength at time of release (psi)		
			Total number strands	Straight strands (in.)	Centroid (in.)	Draped strands (in.)	At ϵ span	At beam end			A	B	C			
0.60 ϕ 270K-LR	58,600	43,950	36	28	7.54	8	5.50	48.00	7.08	16.53	11'-0"	0 to 4 3/8"	2 1/8"	1 1/8"	1"	6,500



FINISH FOR EXT. BEAM ENDS



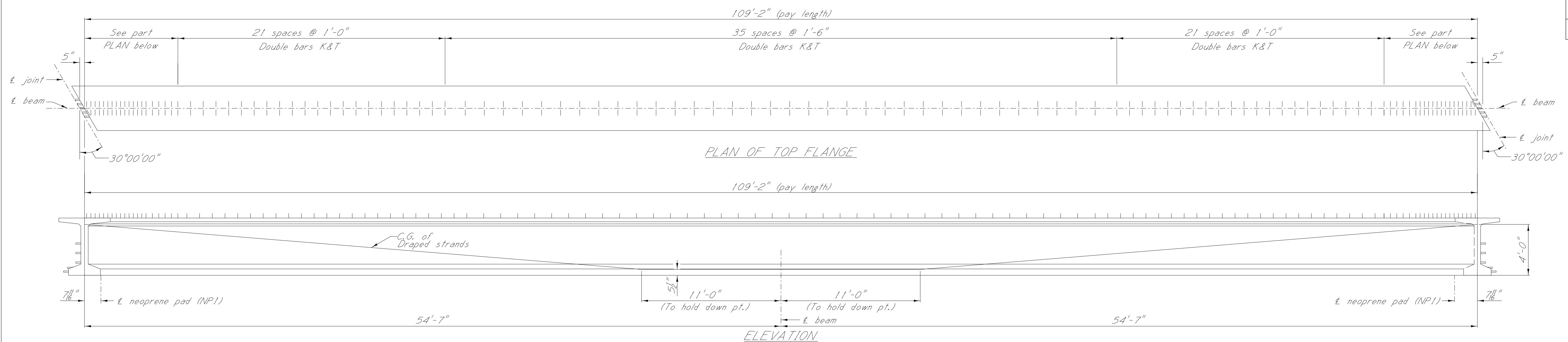
MISSISSIPPI DEPARTMENT OF TRANSPORTATION
 BRIDGE AT STA. 374+88.65
 110 FT. END BEAM DETAILS
 BEAM NO. 110-1 (TYPE BT-54)

FMS: 105343 / 301000
 COUNTY: TALLAHATCHIE
 PROJECT NUMBER: BR-0008-05(038)

WORKING NUMBER
 12 OF 13
 SHEET NUMBER
 8014

DESIGNER: Lon Burt
 DETAILER: Spencer Yates
 CHECKER: Justin Walker, P.E.
 ISSUE DATE: 03-13-2019
 DIRECTOR OF STRUCTURES, STATE BRIDGE ENGINEER - JUSTIN WALKER, P.E.
 DEP. DIR. OF STRUCTURES, ASST. STATE BRIDGE ENGINEER - SCOTT WESTERFIELD, P.E.

001: 00 ANPM DGN FILE NAME PROJECT PLAN SECTION MISSISSIPPI DEPARTMENT OF TRANSPORTATION

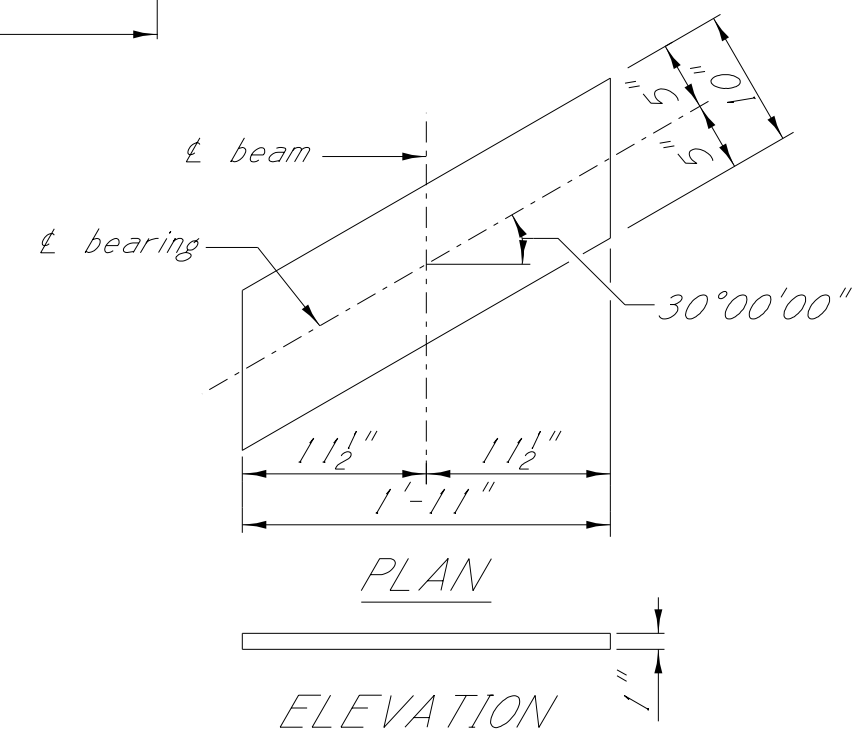


GENERAL NOTES:

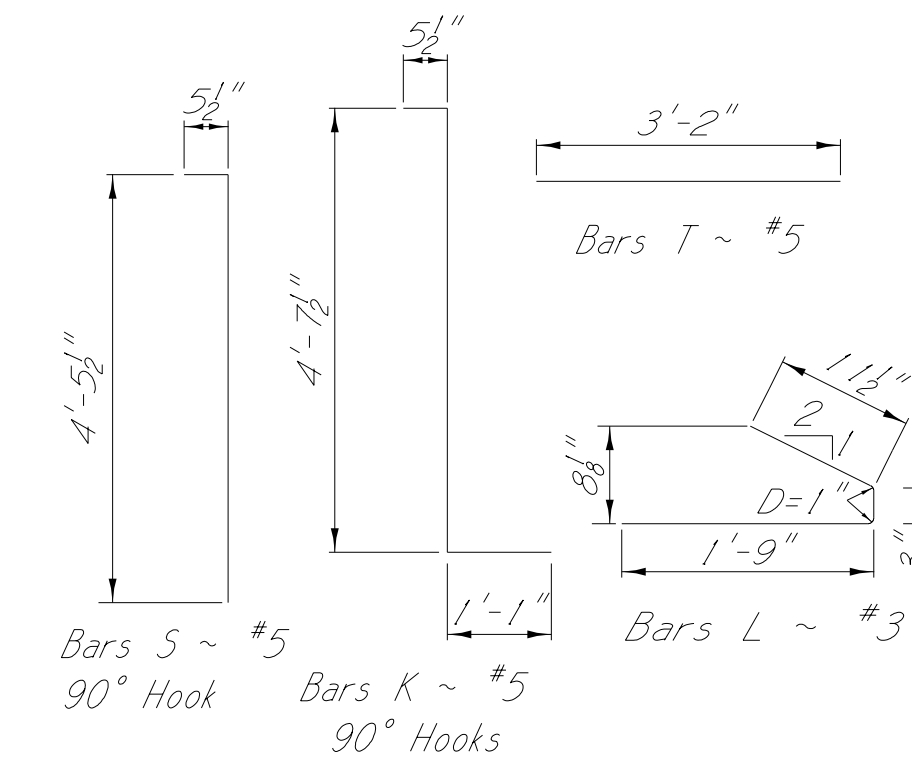
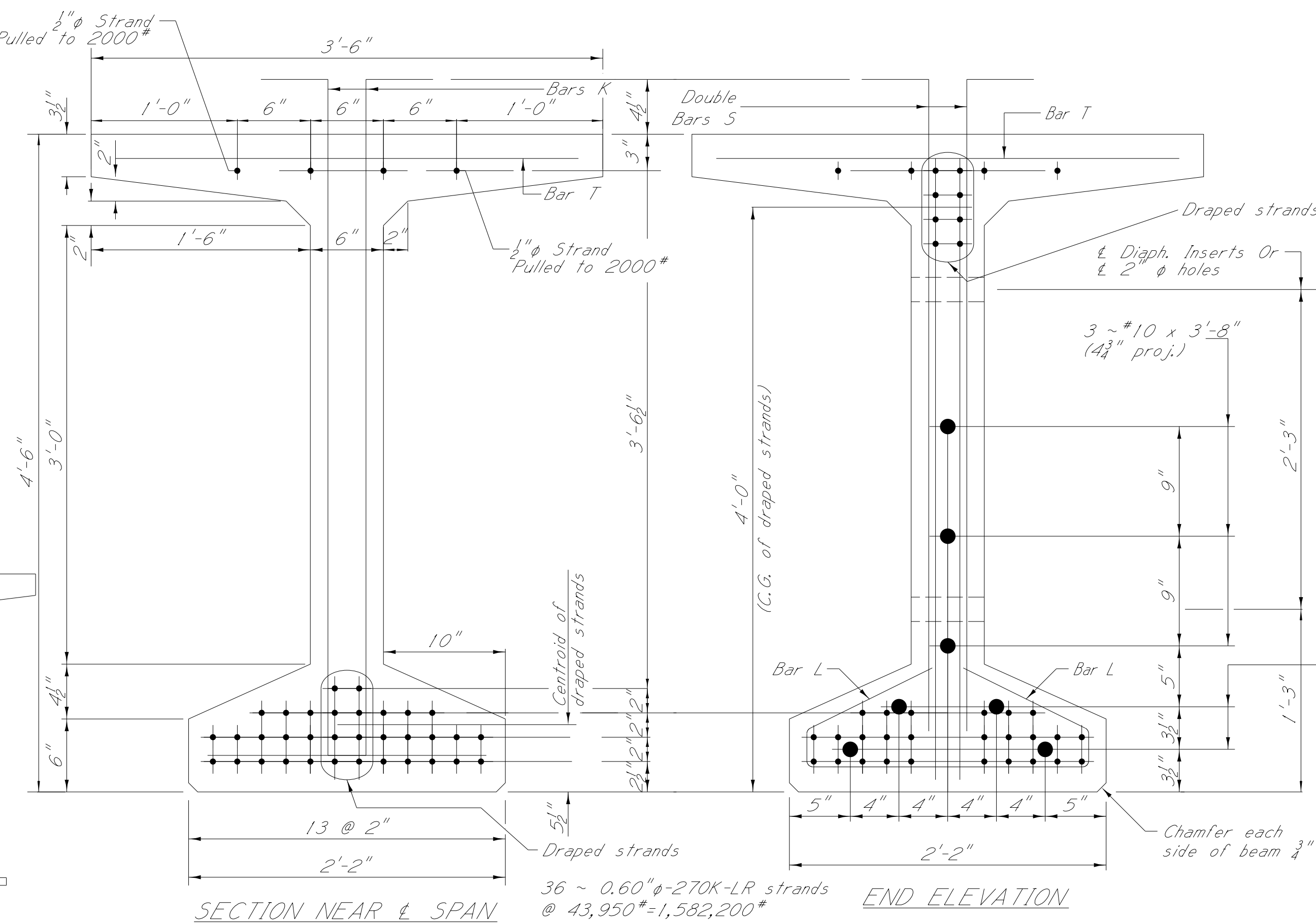
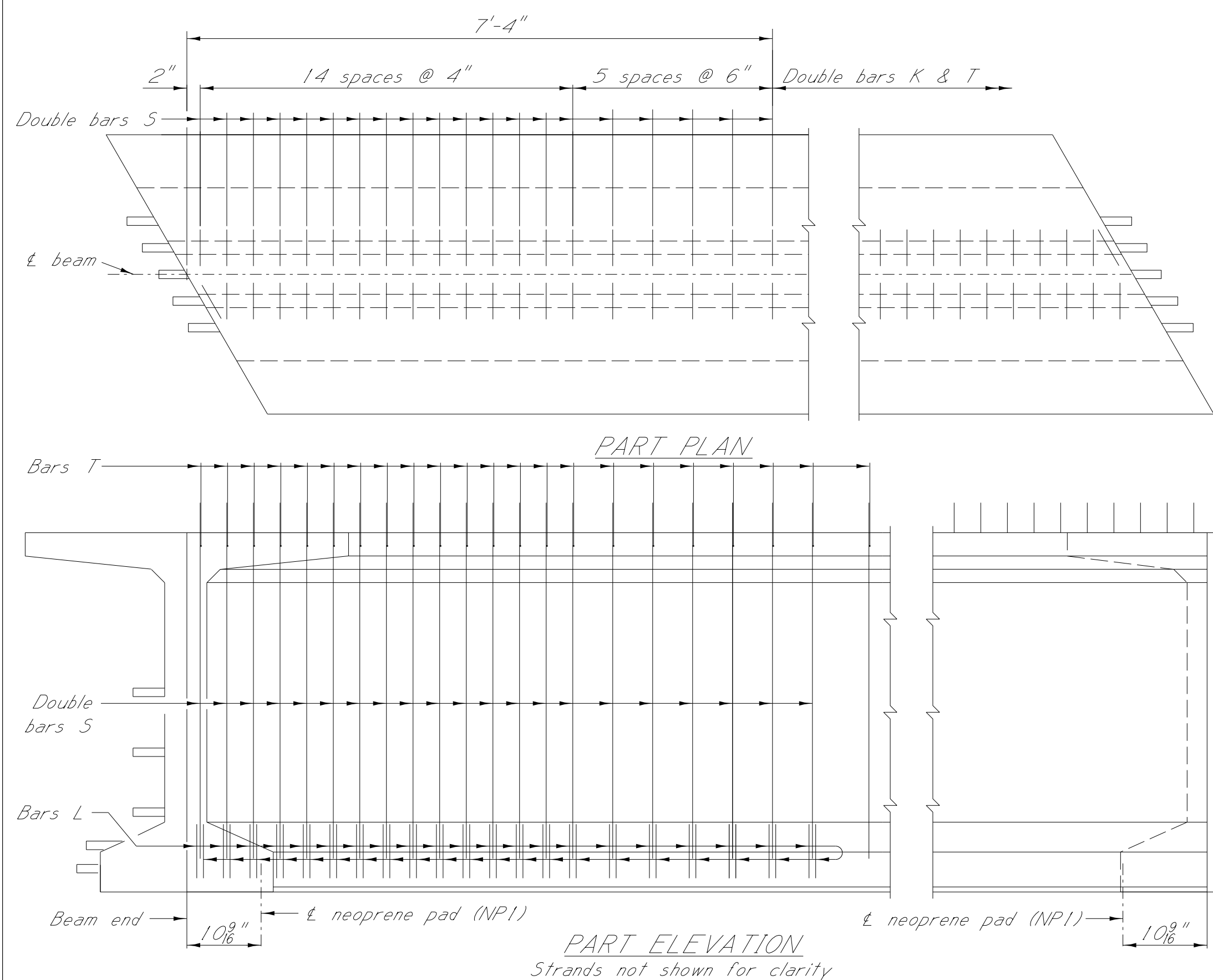
Beams shall be manufactured in accordance with Mississippi Standard Specifications for Road & Bridge Construction, 2017.
 The tops of beams shall be rough floated. At approximately the time of initial set the entire tops of beams shall be scrubbed transversely with a coarse wire brush to remove all laitance and produce a roughened surface for bonding slab.
 Other surfaces shall be finished per specifications.
 Strand pattern detailed is for 0.60 ϕ -270K-LR strands. Shop drawings of prestressed beams shall include the type and location of all strands.
 The Director of Structures, State Bridge Engineer shall be notified if the camber of the beam is not within the limits shown in table.
 The Fabricator shall provide camber data at release and immediately prior to shipping.

GENERAL NOTES CONT.:

Concrete shall be class "FX" and:
 (a) shall have a 28-day cylinder strength of 7,500 p.s.i.
 (b) at transfer of the tensioning load, the cylinder strength of the concrete shall be as shown in table.
 At the Contractor's request a suggested concrete design mix will be furnished with the understanding that it is the Contractor's responsibility to maintain 7,500 p.s.i. concrete.
 If any cylinder tests below 7,500 p.s.i., the beam represented will be held on the yard until the 28-day strength is determined and acceptance or rejection has been established.



NEOPRENE PAD DETAILS (NP1)
 In no case shall neoprene pads be field cut. Bearing area on top of cap shall be cast smooth and true to grade.

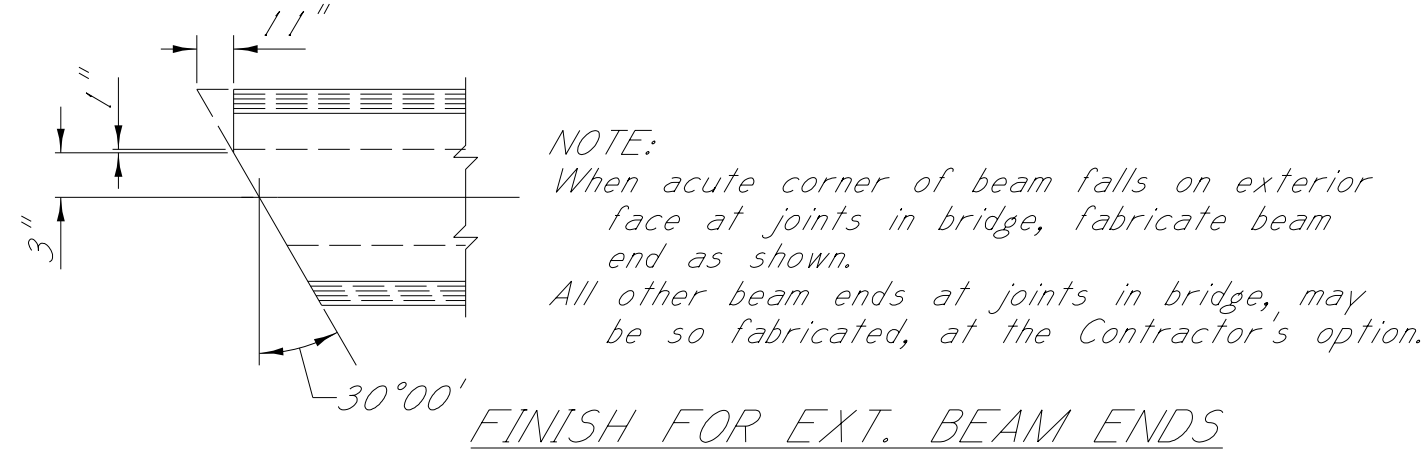


BAR BENDING DETAILS
 Dimensions are out to out

DESIGN DATA
 Unit stresses are in accordance with A.A.S.H.T.O., 2014 with 2016 interims. Stay in place metal forms . . . 18 lbs/sq. ft.

LR indicates low-relaxation strands

Strand type	Minimum breaking strength lbs/strand	Initial tension lbs/strand	Required number and location of strands						Centroid for total number of strands (in.)		Distance from \perp span to hold-down point	Camber limits	Deflection diagram			Minimum concrete strength at time of release (psi)
			Total number strands	Straight strands		Draped strands		At \perp span	At beam end	A			B	C		
				Number strands	Centroid (in.)	Number strands	Centroid (in.)									
0.60 ϕ 270K-LR	58,600	43,950	36	28	7.54	8	5.50	48.00	7.08	16.53	11'-0"	0 to 4 1/4"	2 13/16"	1 15/16"	7/8"	6,500



MISSISSIPPI DEPARTMENT OF TRANSPORTATION
 BRIDGE AT STA. 374+88.65
 110 FT. INT. BEAM DETAILS
 BEAM NO. 110-2 (TYPE BT-54)

FMS: 105343 / 301000
 COUNTY: TALLAHATCHIE
 PROJECT NUMBER: BR-0008-05(038)

WORKING NUMBER
 13 OF 13
 SHEET NUMBER
 8015

DESIGNER: Lon Burt
 DETAILER: Lon Burt
 CHECKER: Spencer Yates
 ISSUE DATE: 03-13-2019
 DIRECTOR OF STRUCTURES, STATE BRIDGE ENGINEER - JUSTIN WALKER, P.E.
 DEP. DIR. OF STRUCTURES, ASST. STATE BRIDGE ENGINEER - SCOTT WESTERFIELD, P.E.

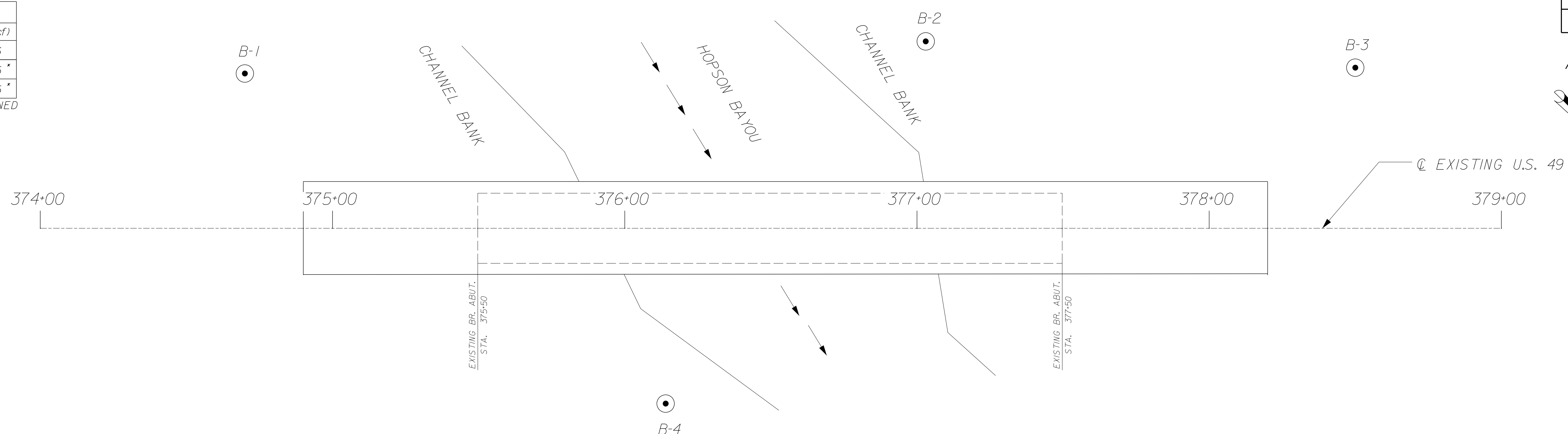
001: 00 ANPM DGN FILE NAME
 PROJECT PLAN SECTION
 MISSISSIPPI DEPARTMENT OF TRANSPORTATION

SOIL STRENGTHS			
ZONE	C (ksf)	ϕ	γ (pcf)
1A	1.00	0°	116
1B	0.00	34°	115 *
2	0.00	38°	115 *

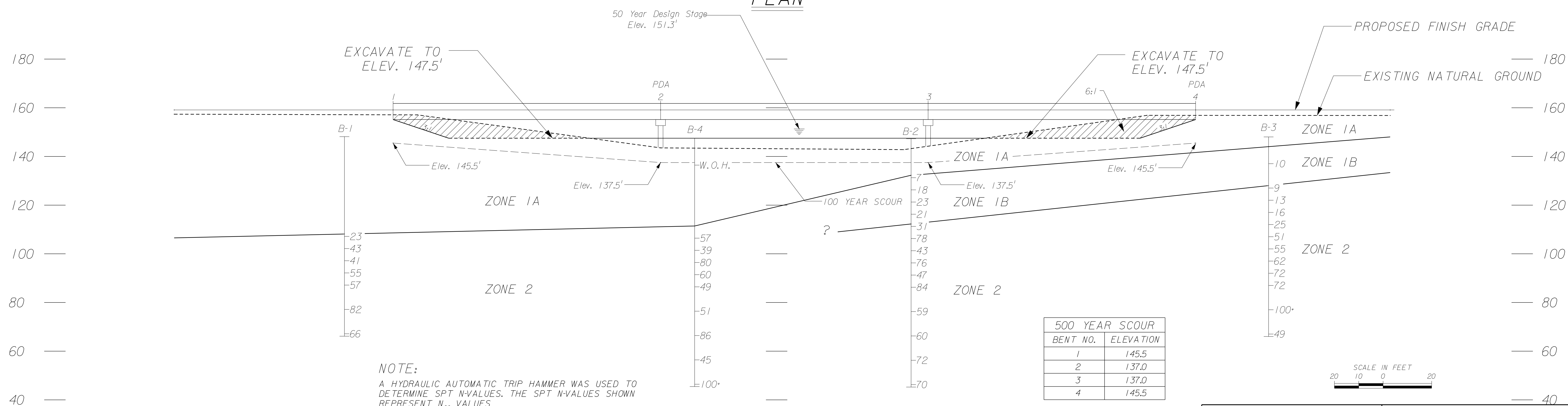
* ASSIGNED

STATE	PROJECT NO.
MISS.	BR-0008-05(038)

PLATE 1



PLAN



500 YEAR SCOUR	
BENT NO.	ELEVATION
1	145.5
2	137.0
3	137.0
4	145.5

NOTE:
A HYDRAULIC AUTOMATIC TRIP HAMMER WAS USED TO DETERMINE SPT N-VALUES. THE SPT N-VALUES SHOWN REPRESENT N_{60} VALUES

ZONE 1 - ALLUVIUM

1A - FIRM TO STIFF, LIGHT BROWN, BROWN, AND GRAY, SILTY, FAT CLAY (CH) WITH SILTY, LEAN CLAY (CL)
1B - MEDIUM DENSE, LIGHT BROWN AND DARK GRAY, SILTY SAND (SM) AND SILT WITH SAND (ML)

ZONE 2 - ALLUVIUM

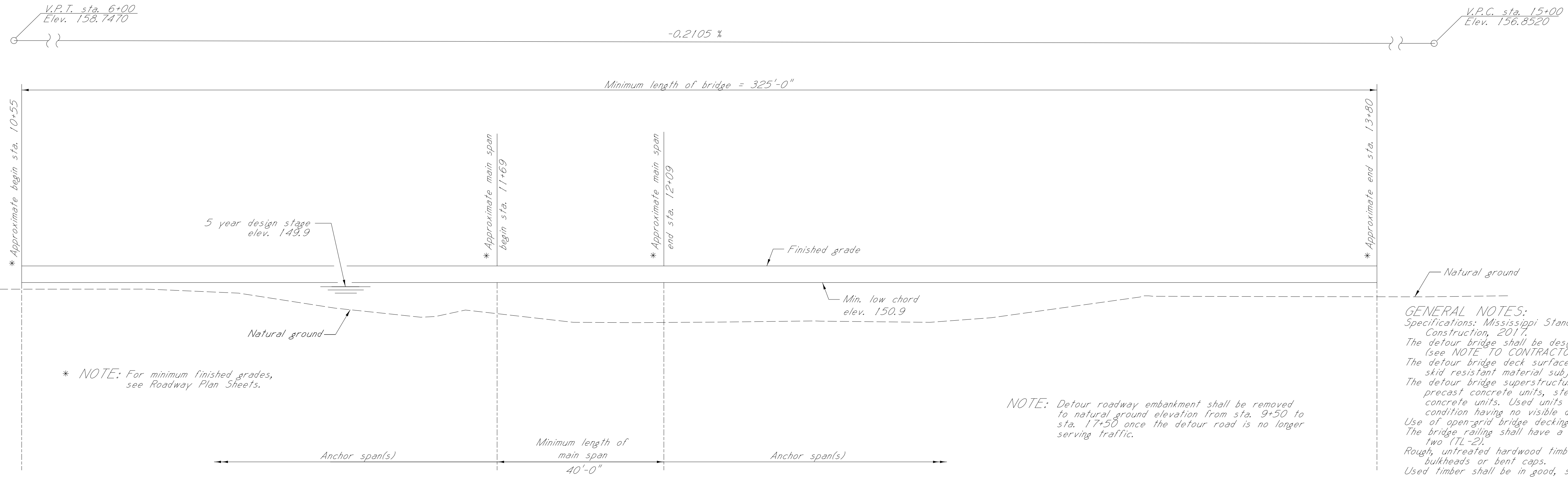
DENSE, BROWNISH GRAY AND GRAY, FINE TO MEDIUM SAND WITH SILT (SP-SM) AND WITH FINE TO COARSE GRAVEL

PROFILE

NOTICE TO CONTRACTOR:

1. THE GENERALIZED SOIL PROFILE SHOWN WITH ITS VARIOUS SOIL ZONE DESCRIPTIONS AND INDICATED BOUNDARIES IS BASED UPON AN ENGINEERING AND GEOLOGICAL INTERPRETATION OF ALL AVAILABLE GEOTECHNICAL INFORMATION BY THE GEOTECHNICAL BRANCH, MDT AND MAY NOT NECESSARILY REFLECT THE ACTUAL VARIATION IN SUBSURFACE CONDITIONS BETWEEN BORINGS AND SAMPLES. DETAILED DATA AND FIELD INTERPRETATION OF CONDITIONS ENCOUNTERED IN INDIVIDUAL BORINGS ARE SHOWN ON THE BORING LOGS. THE GEOTECHNICAL REPORT IS AVAILABLE FOR INSPECTION THROUGH THE GEOTECHNICAL BRANCH.
2. SOUND ENGINEERING JUDGEMENT WAS EXERCISED IN PREPARING THE SUBSURFACE INFORMATION PRESENTED ON THIS SHEET. THIS INFORMATION WAS PREPARED AND IS INTENDED FOR MDT DESIGN AND ESTIMATE PURPOSES. ITS PRESENTATION ON THE PLANS OR ELSEWHERE IS FOR THE PURPOSE OF PROVIDING INTENDED USERS WITH ACCESS TO THE SAME INFORMATION AVAILABLE TO THE MDT. THIS SUBSURFACE INFORMATION INTERPRETATION IS PRESENTED IN GOOD FAITH AND IS NOT INTENDED AS A SUBSTITUTE FOR PERSONAL INVESTIGATION, INDEPENDENT INTERPRETATIONS OR JUDGEMENT BY OTHERS.
3. ALL STRUCTURAL DETAILS SHOWN ON THIS SHEET ARE FOR ILLUSTRATIVE PURPOSES ONLY AND MAY NOT BE INDICATIVE OF THE FINAL DESIGN CONDITIONS SHOWN ELSEWHERE IN THE CONTRACT PLANS.
4. BRIDGE PLAN PROFILE STATIONING MAY NOT BE THE FINAL DESIGN (SEE NOTICE TO CONTRACTOR NOTE 3)

DRAWING FILE: 166810.DGN		REPORT NO.: 16-68-10	
MISSISSIPPI DEPARTMENT OF TRANSPORTATION			
GENERALIZED SOIL PROFILE			
U.S. 49 OVER HOPSON BAYOU			
STATION NO.: 374+90		SITE NO: 16-68-2187	
105343/301000			
PROJECT NO: BR-0008-05(038)		WORKING NUMBER	
COUNTY: TALLAHATCHIE		GSP-1A	
DESIGNED: K.E.L.	DATE	DETAILED: K.E.L.	SHEET NUMBER
CHECKED: M.L.S.	DATE	ISSUED: R.S.F.	8016
		DRAWN: CADD	
		DATE: 12-05-16	



GENERAL NOTES:
 Specifications: Mississippi Standard Specifications for Road and Bridge Construction, 2017.
 The detour bridge shall be designed and furnished by the Contractor (see NOTE TO CONTRACTOR).
 The detour bridge deck surface shall be of concrete, asphalt, or other skid resistant material subject to approval by MDOT.
 The detour bridge superstructure shall be constructed of new or used precast concrete units, steel beams, steel framing or prestressed concrete units. Used units or components shall be in good, sound condition having no visible defects. All elements shall be compatible. Use of open-grid bridge decking will not be permitted.
 The bridge railing shall have a minimum LRFD rating of test level two (TL-2).
 Rough, untreated hardwood timber may be used for the construction of bulkheads or bent caps.
 Untreated timber piles may be used.
 Piling size shall be as designated in Section 719 of the Specifications. Piling shall be driven to bearing sufficient to meet pile bearing requirements and ensure stability of the substructure.
 Piles in bulkhead shall be an absorbed item.
 During the time the detour bridge is in place, the waterway shall be kept free of all obstructions to the free flow of water.
 After the permanent structure has been opened to traffic, the detour bridge shall be removed by the Contractor.
 All material furnished by the Contractor and used in construction with the detour bridge shall remain the property of the Contractor and shall be removed from the site.
 Test piles shall be driven out of position and shall be removed to a minimum of one foot (1.00) below the ground line upon acceptance by the Project Engineer.
 Minimum requirements for location and number of test piles are as follows:
 (1) The number of intermediate bent test piles shall be calculated by dividing the total detour bridge length by 120 ft, rounded to the nearest whole number and shall be a minimum of one test pile.
 (2) One abutment test pile is required for bridge lengths less than 400 ft.
 (3) One abutment test pile at each abutment is required for bridge lengths greater than or equal to 400 ft.
 Detour bridge piles shall be pulled or cut off a minimum of one foot (1.00) below the ground line.
 The Contractor's detour bridge submittal shall include a plan to address potential scour and drift effects by utilizing methodologies such as substructure bracing/strengthening, rip rap protection, brush deflectors, deeper pile penetration, stronger/more durable pile types and bridge inspection with drift removal during storm events.
 The detour bridge length shown hereon utilizes a bulkhead abutment configuration to meet the minimum effective opening requirements. Use of bridge configurations that incorporate spill-through slopes may require additional bridge length to meet the minimum effective opening requirements. Additional bridge length, span length and/or other bridge adjustments required to address minimum effective opening requirements, site conditions and/or erosion control requirements will not be cause for additional compensation.
 Payment for the detour bridge will be made under the pay items in Section 618 of the Standard Specifications.
 Work for which no pay item is provided in the proposal will not be paid for directly and compensation therefor will be included in the prices and payments for bid items.

NOTE: Detour roadway embankment shall be removed to natural ground elevation from sta. 9+50 to sta. 17+50 once the detour road is no longer serving traffic.

US 49 DETOUR BRIDGE ACROSS HOPSON BAYOU
 Scale 1" = 10'-0"

NOTE TO CONTRACTOR:
 The Contractor shall employ the service of a registered Professional Engineer who is knowledgeable and proficient in the field of bridge design.
 The Contractor's Design Engineer shall determine the required ultimate pile bearing capacities based on the use of Pile Dynamic Analysis (PDA) for the condition/bearing resistance determination method per the AASHTO LRFD Bridge Design Specifications.
 The Contractor's Design Engineer will be responsible for providing the Pile Dynamic Analysis (PDA) and for establishing the production pile driving criteria.
 The Contractor's Design Engineer shall determine the lengths of all test piles and production piles.
 The following exceptions to the AASHTO LRFD Bridge Design Specifications will be allowed for the design of Detour Bridges:
 (1) The design of the substructure of the Detour Bridge shall be made to satisfy the requirements of the following Limit States: Strength I, Strength III, Strength V, and Service I.
 (2) With PDA pile tests for the Detour Bridge Piling being performed and analyzed by the Contractor's Design Engineer, a value of 0.85 for the condition/resistance Factor for Driven Piles may be used to set final Detour Bridge pile lengths.
 (3) The Design Vehicular Loading (Truck + Lane) used may be 75% of the HL-93 Live Loading.
 A complete set of bridge detail drawings, bearing the official seal of the Contractor's Design Engineer, along with design calculations, shall be submitted to the Project Engineer and the Director of Structures, State Bridge Engineer for review. The submittal shall specify the bridge span arrangement, configuration, location, minimum geometric and loading requirements, verification of ground line elevations and effective area of opening. The submittal shall also specify the LRFD factored pile loading (Strength II), the required ultimate pile bearing capacities based on the condition/resistance determination method used, type and estimated length of test and production piling, the stationing and finish grade at each bent and total length of the detour bridge.
 The Contractor's erosion control plan shall address the construction, maintenance, and removal of the detour bridge. The detour bridge shall be long enough such that spill-through slopes of abutments do not spill over into the channel.
 Prior to opening the detour bridge to traffic, the Contractor shall submit test pile data and pile records to the Engineer for review and shall provide MDOT written certification from the Contractor's Design Engineer that construction of the bridge was in full accordance with the design plans.
 Any deviations in construction of the detour bridge from the detour bridge design plans shall require the Contractor's Design Engineer to provide corrected calculations and corresponding revisions made to the detour bridge plans which shall be stamped by the Contractor's Design Engineer.

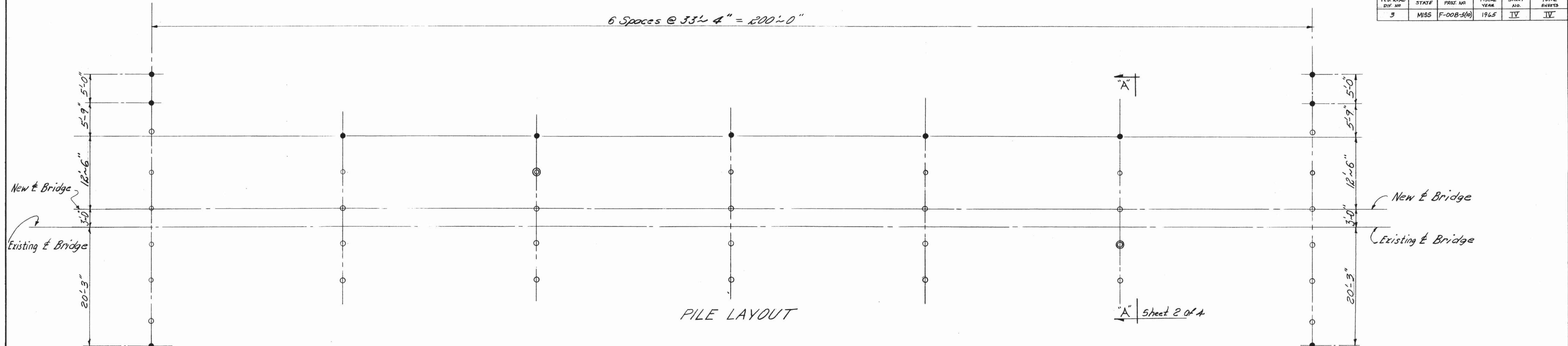
DESIGN DATA:
 Specifications A.A.S.H.T.O., LRFD 2014 with 2016 Interims
 Loading 75% of HL-93
 Minimum roadway width 24'-0" gutter to gutter
 Minimum anchor span length 19'-0"
 Seismic soil performance zone 2
 Seismic soil site class D
 Seismic operational class other

DRAINAGE DATA:
 Drainage area 15.7 sq. mi.
 0.05 (U.S.G.S.) 822 c.f.s.
 Min. low chord elevation 150.9 ft.

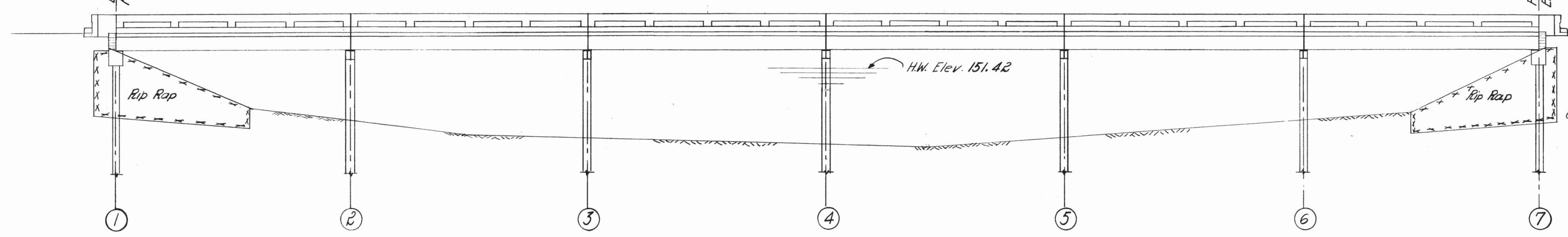


BY		MISSISSIPPI DEPARTMENT OF TRANSPORTATION	
REVISION		DETOUR BRIDGE AT STA. 10+55	
		US 49 DETOUR BRIDGE ACROSS HOPSON BAYOU	
		FMS: 105343 / 301000	
		COUNTY: TALLAHATCHIE	
		PROJECT NUMBER: BR-0008-05(038)	
DATE	DESIGNER	CHECKER	WORKING NUMBER
	Lon Burt	Spencer Yates	DBA-1
	DETAILER	ISSUE DATE	SHEET NUMBER
	Lon Burt	03-13-2019	8017
DIRECTOR OF STRUCTURES, STATE BRIDGE ENGINEER - JUSTIN WALKER, P.E. DEP. DIR. OF STRUCTURES, ASST. STATE BRIDGE ENGINEER - SCOTT WESTERFIELD, P.E.			

001: 00 ANPM DGNFILE NAME MISSISSIPPI DEPARTMENT OF TRANSPORTATION PROJECT PLAN SECTION



6 Spans @ 33'-4" = 200'-0" Length Of Bridge
 Existing Per Std. M-825
 Renovate And Widen Per Sheets Nos. 2, 3, & 4.



PILE LEGEND

- ~ Existing Treated Timber Piles
- ⊙ ~ Existing Piles To Be Cut & Extended
- ~ New Treated Timber Piles

20 Ton Minimum Bearing Required.
 Recommended Pile Lengths
 One Required Each Int. Bent & Three Each End Bent.

Bent No.	Length
1	45'
2	50'
3	50'
4	50'
5	50'
6	50'
7	45'

DESIGN DATA
 Specifications: A.A.S.H.O. 1961
 Loading: H5-20-44
 Roadway Width: 28'-0"
 Curb Width: 1'-6"

GENERAL NOTES: Same As Listed For BRIDGE 'C', Sheet 1 Of 4.

ESTIMATED QUANTITIES

Item Location	Treated Timber Piles Lin. Ft.	Treated Timber Pile Extensions Units	Treated Timber M.B.M.	Rip Rap - Conc. In Bags Cu. Yds.	Class "B" Bridge Deck Cu. Yds.	Reinforcing Steel Lbs.	New Structural Steel Lbs.	Structural Steel Reconst. & Reset Lbs.	Concrete Bridge Railings Lin. Ft.
Spans					141.42	34,482		83,790	400
Int. Bents	250	2	0.165				12,400		
End Bents	270			75	21.70	2,480			
Totals	520	2	0.165	75	163.12	36,962	12,400	83,790	400

Drawings Required: - RF-1(4-13-59)

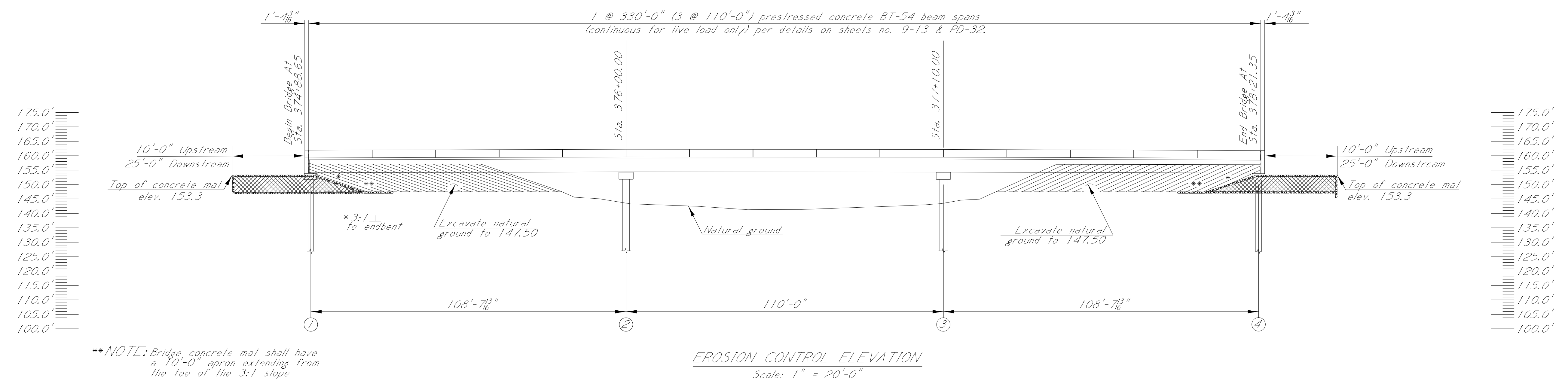
DATE	REVISION	BY

MISSISSIPPI STATE HIGHWAY DEPARTMENT
RENOVATION AND WIDENING OF BRIDGE
ACROSS HOPSON BAYOU
BRIDGE 'J' AT STA. 375+49.7

PROJECT F-008-5(10)
TALLAHATCHIE COUNTY

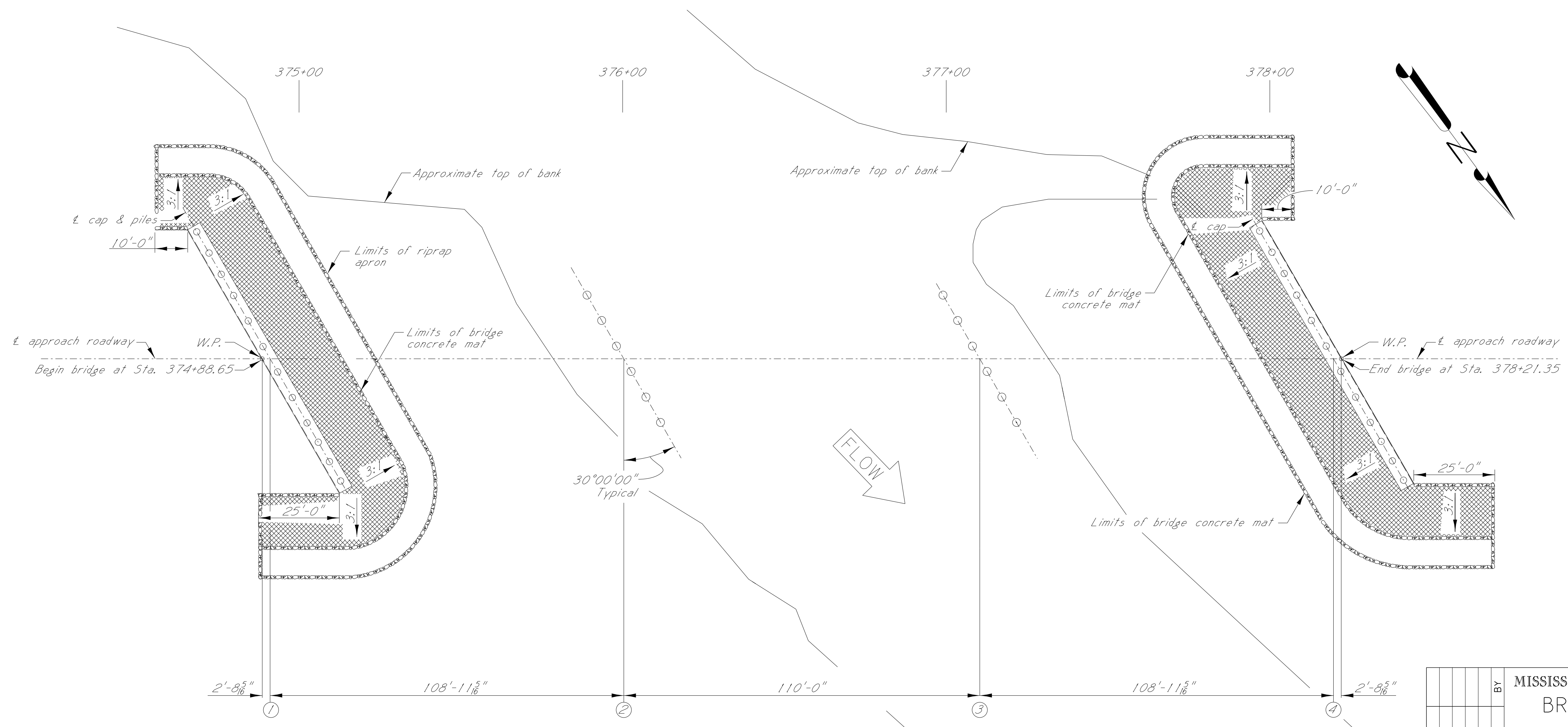
SUBMITTED BY _____ BRIDGE ENGINEER

DATE	CHECKED	ISSUED	SHEET NUMBER
DATE 3-19-65	DATE 4-14-65	DATE 4-14-65	4 OF 4



**NOTE: Bridge concrete mat shall have a 10'-0" apron extending from the toe of the 3:1 slope

EROSION CONTROL ELEVATION
Scale: 1" = 20'-0"



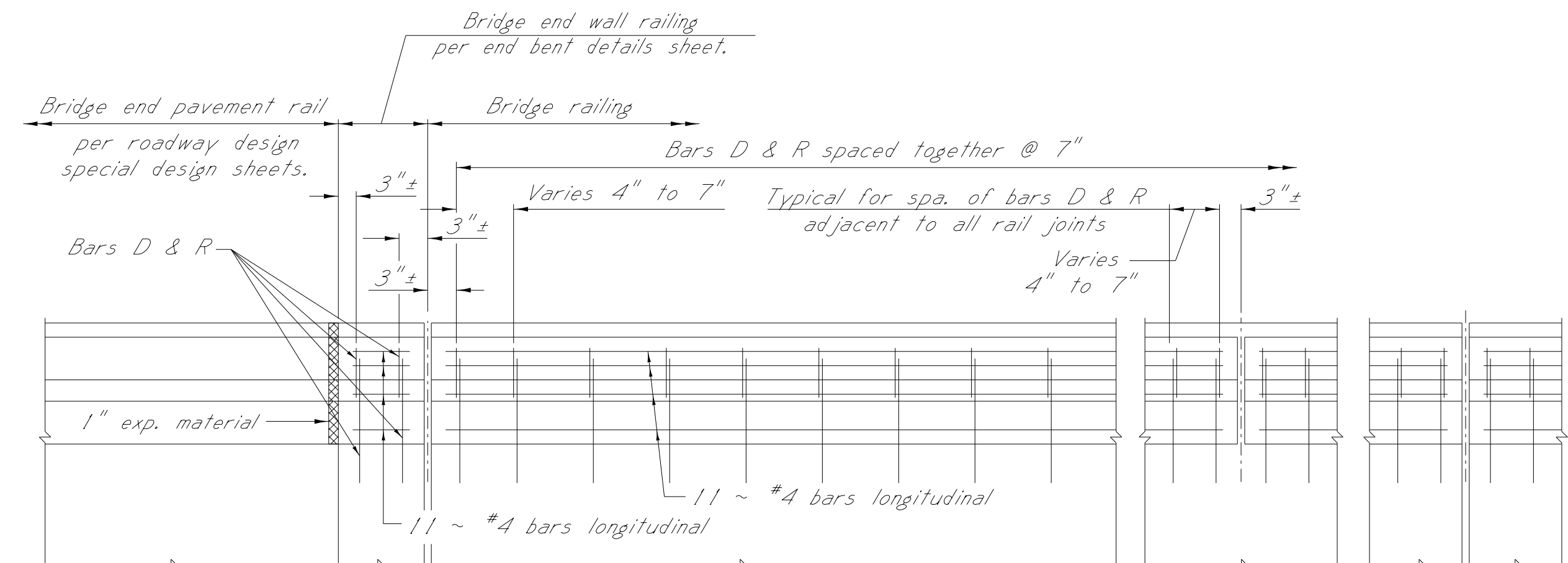
EROSION CONTROL PLAN
Scale: 1" = 20'-0"

- NOTES:
1. No dirt can be pushed into the creek.
 2. If a platform for working is needed, then riprap shall be used.
 3. Minimize disturbance to existing banks.
 4. If the bent is in close proximity to the banks, then riprap shall be placed prior to pile drivings.
 5. Riprap shall be placed on slopes immediately after pile driving.
 6. Clearing should be kept to a minimum and grubbing only where required.
 7. Turbidity curtain may be required.

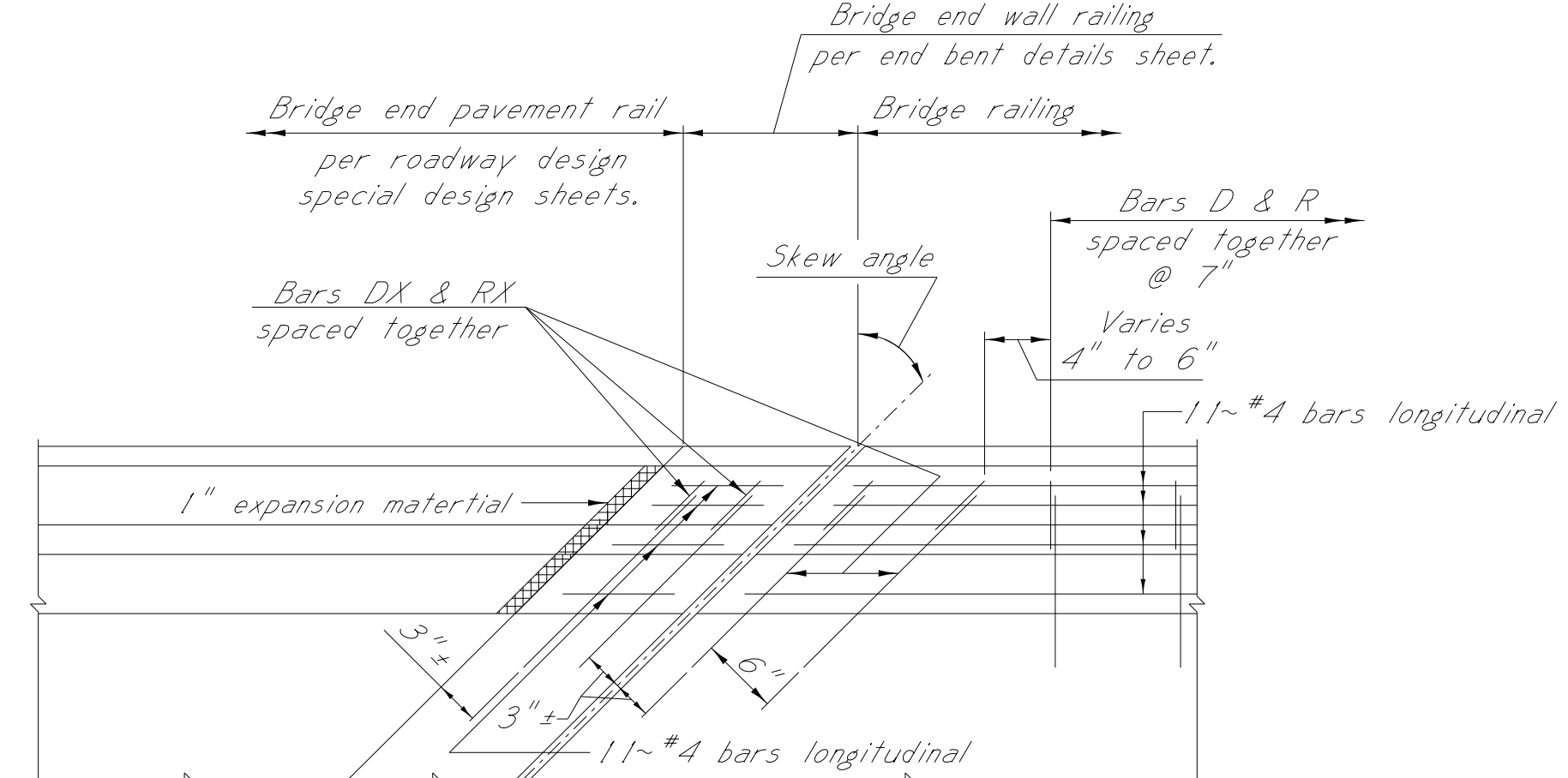


MISSISSIPPI DEPARTMENT OF TRANSPORTATION	
BRIDGE AT STA. 374+88.65	
EROSION CONTROL PLAN	
FMS: 105343 / 301000	
COUNTY: Tallahatchie	
PROJECT NUMBER: BR-0008-05(038)	
DATE	REVISION
DESIGNER: Lon Burt	CHECKER: Spencer Yates
DETAILER: Lon Burt	ISSUE DATE: 03-13-2019
DIRECTOR OF STRUCTURES, STATE BRIDGE ENGINEER - JUSTIN WALKER, P.E.	
DEP. DIR. OF STRUCTURES, ASST. STATE BRIDGE ENGINEER - SCOTT WESTERFIELD, P.E.	
WORKING NUMBER	SHEET NUMBER
EC-BR-1	8019

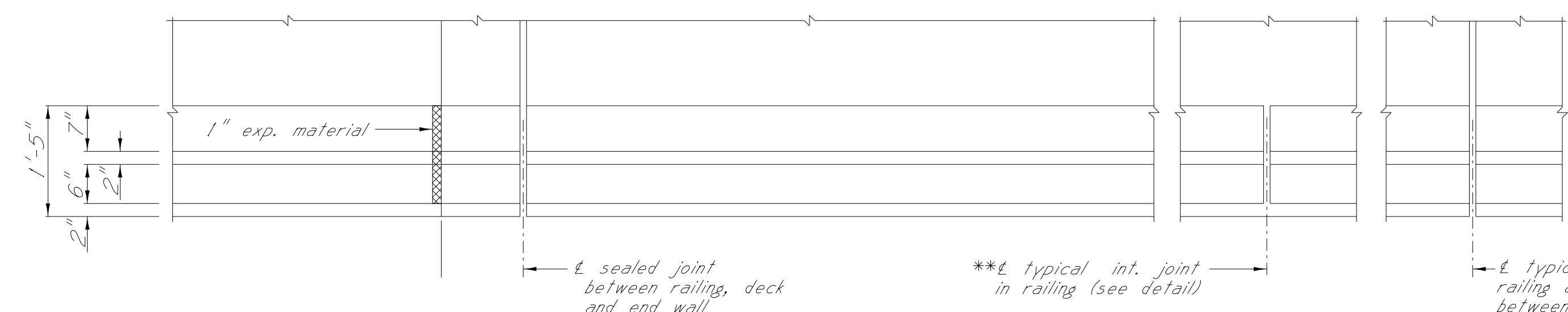
001: 00 AHPM.DGN\FLENAME PROJECT: MISSISSIPPI DEPARTMENT OF TRANSPORTATION



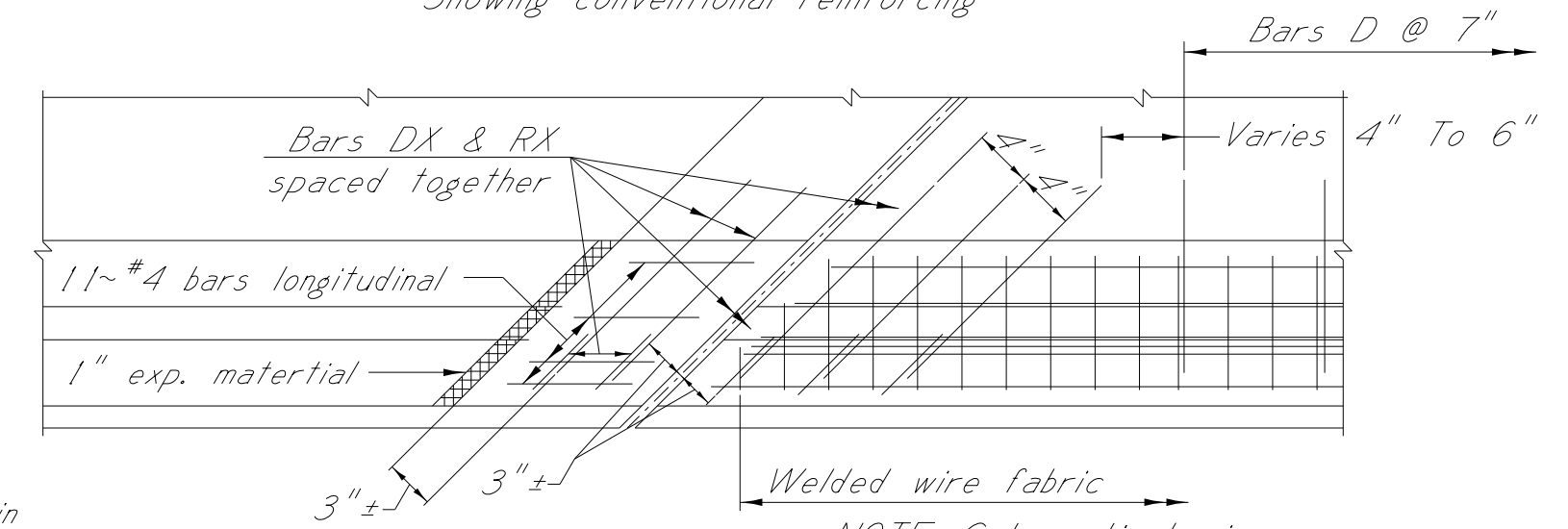
PART PLAN OF LEFT RAILING
Showing conventional reinforcing. See CONSTRUCTION NOTES for details of optional welded wire fabric.



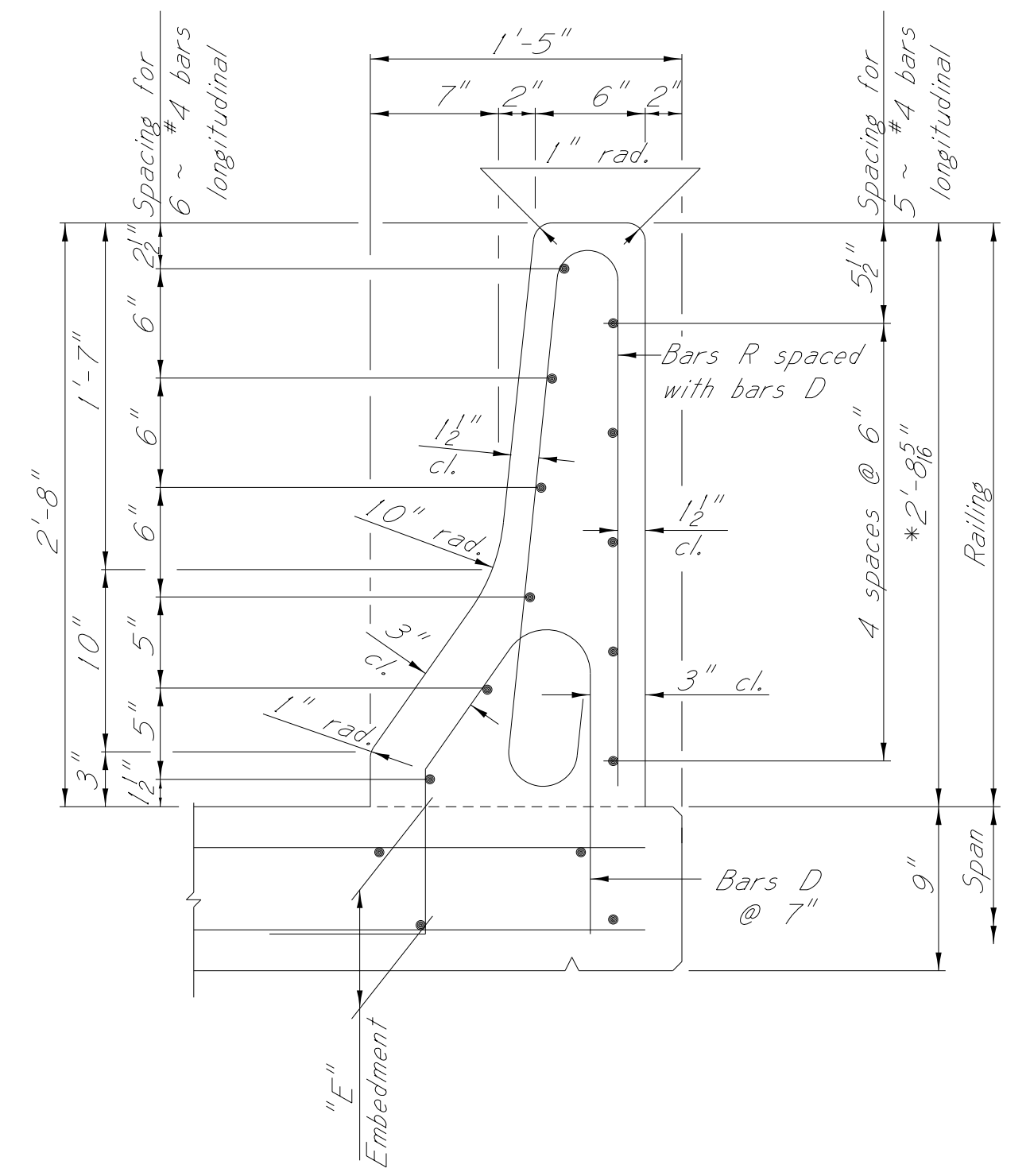
SKEWED PART PLAN OF LEFT RAILING
Showing conventional reinforcing. NOTE: For details of bars DX & RX, see end bent details sheet.



PART PLAN OF RIGHT RAILING
Showing concrete dimensions



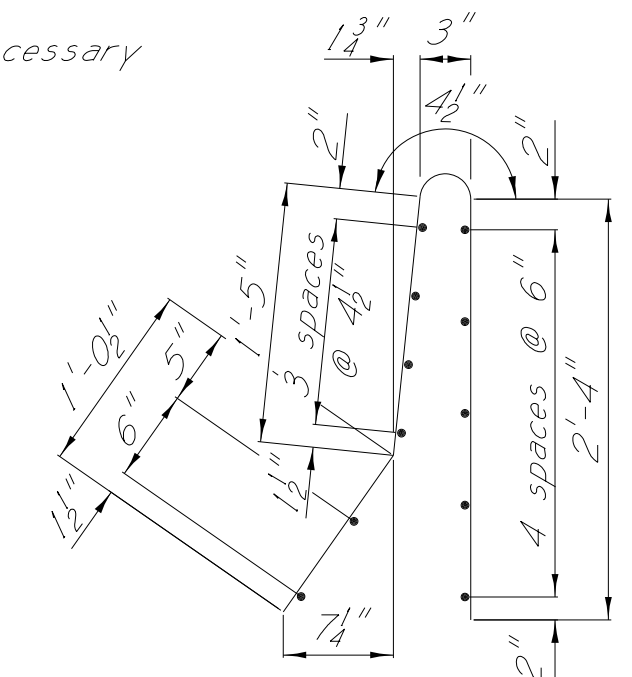
SKEWED PART PLAN OF RIGHT RAILING
Showing optional welded wire fabric. (See CONSTRUCTION NOTES.)



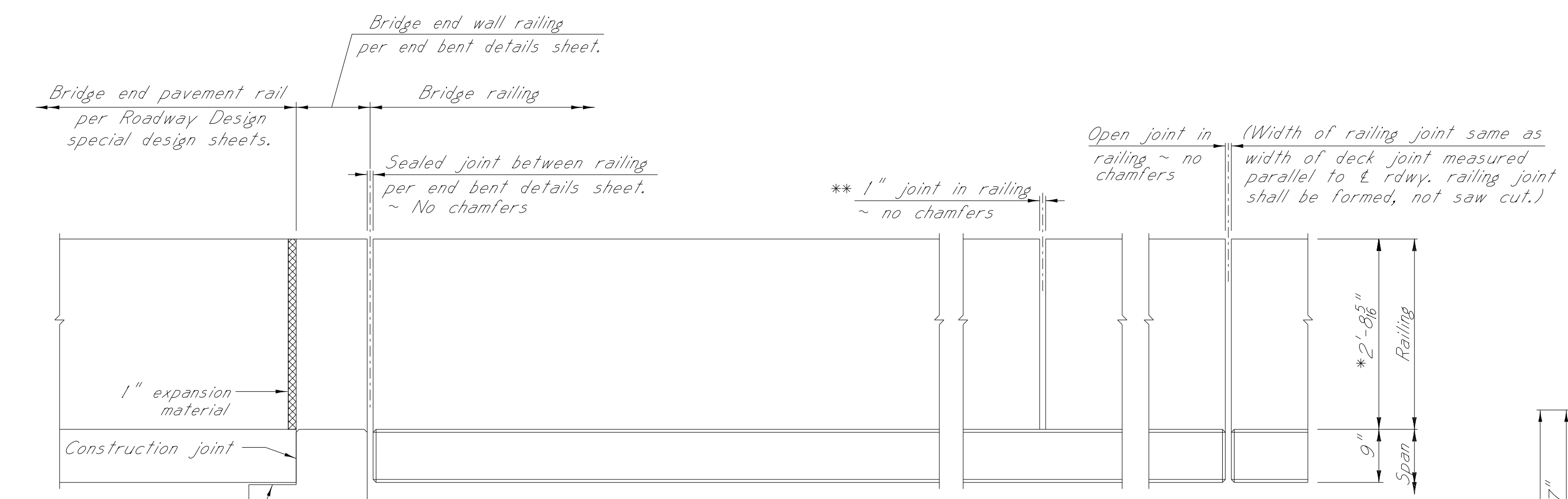
TYPICAL SECTION OF RAILING

NOTE: "E" = slab thickness (in.) - 1 inch.

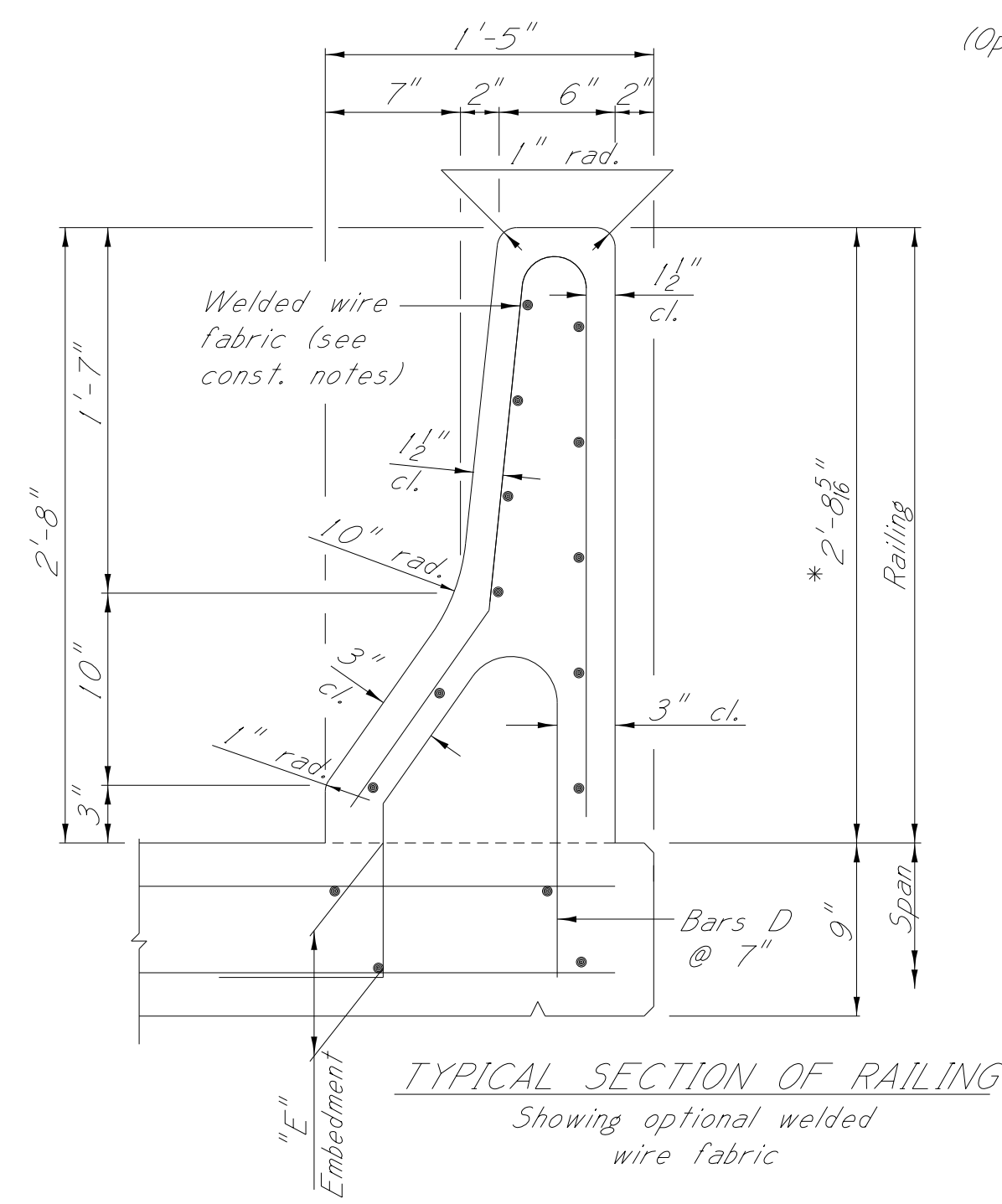
*NOTE: This dimension shown is for 0.02 ft/ft slope. It will vary in superelevated sections.



WELDED WIRE FABRIC
(Optional - see CONSTRUCTION NOTES)



PART ELEVATION OF OUTSIDE FACE OF RAILING



TYPICAL SECTION OF RAILING
Showing optional welded wire fabric

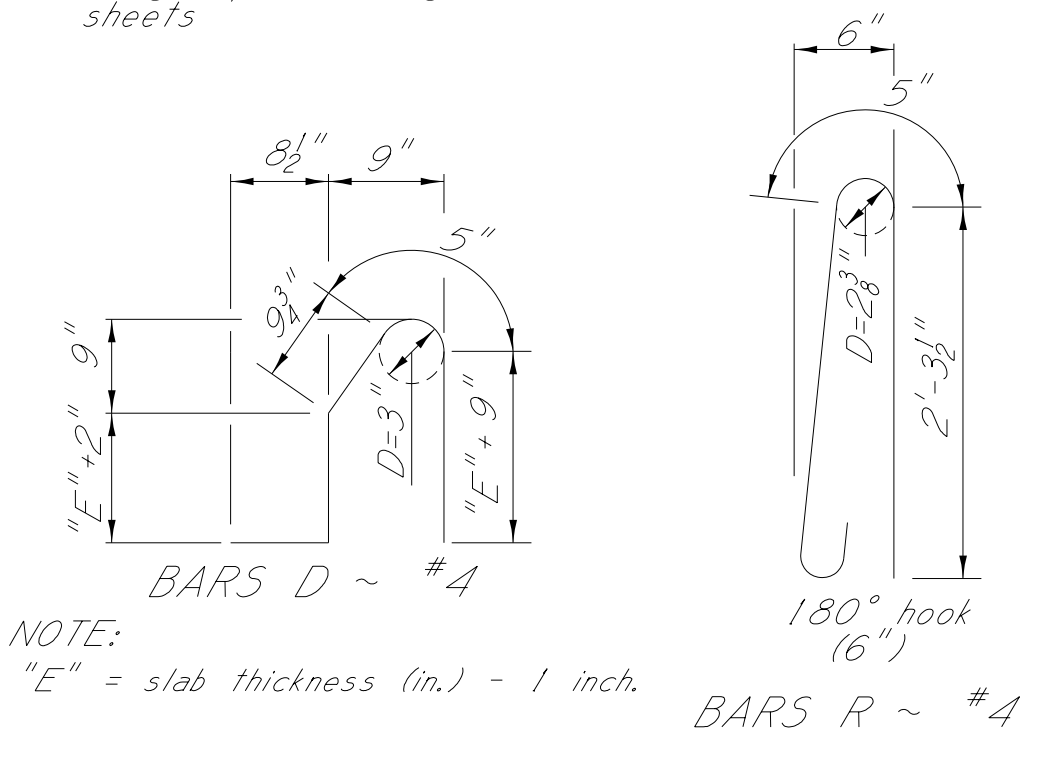
CONSTRUCTION NOTES:

Welded wire fabric meeting the requirements of ASTM A 497 and details shown on this sheet may be used as an option to conventional railing reinforcing. Longitudinal wires shall be D20 spaced as shown in the WELDED WIRE FABRIC detail and vertical wires shall be D20 spaced at 7".

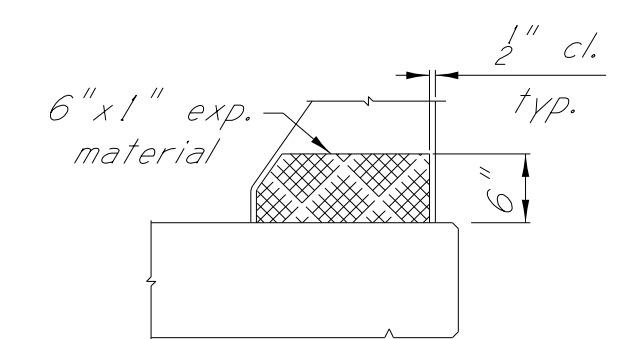
DESIGN DATA:

Specifications.....A.A.S.H.T.O. LRFD 2007, with 2009 interims.
Concrete.....Class "AA"(4,000 psi)
Reinforcing.....ASTM A 615 Grade 60 (Fy = 60 ksi)

Flashing per Roadway Design special design sheets



BAR BENDING DETAILS
Dimensions are out to out



**** TYPICAL INT. JOINT**
(For railing joints located between span supports and intermediate supports of continuous spans)

**NOTE: In lieu of the above, a 3/8 inch wide saw cut joint is permitted when railing is constructed using slipforming. Joint shall be saw cut to within six (6) inches of the bridge deck; 6 x 1" expansion material shall be omitted when the joint is saw cut. Railing joints located at bridge deck joints shall be formed, not saw cut. Railing constructed by the slipform method shall be in accordance with section 615.03.2 of the Mississippi Standard Specifications.

001: 00 ANPM DGN FILE NAME
ISSUE DATE: 2-29-96 (RAIL32.DGN)
DESIGNER: LON BURT
CHECKER: SPENCER YATES
DATE: 03-13-2019



MISSISSIPPI DEPARTMENT OF TRANSPORTATION	
2'-8" RAILING DETAILS	
REVISION	BY
FMS: 105343 / 301000	
COUNTY: TALLAHATCHIE	
PROJECT NUMBER: BR-0008-05(038)	
DESIGNER: Lon Burt	CHECKER: Spencer Yates
DATE: 03-13-2019	ISSUE DATE: 03-13-2019
DIRECTOR OF STRUCTURES, STATE BRIDGE ENGINEER - JUSTIN WALKER, P.E.	
DIR. OF STRUCTURES, ASST. STATE BRIDGE ENGINEER - SCOTT WESTERFIELD, P.E.	
WORKING NUMBER	RD-32
SHEET NUMBER	8020

140

120

100

80

60

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0

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140

STATE PROJECT NO.

MISS. BR-0008-05(038)

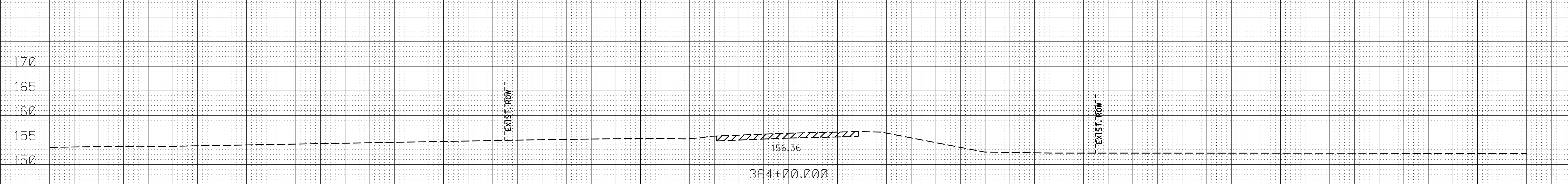
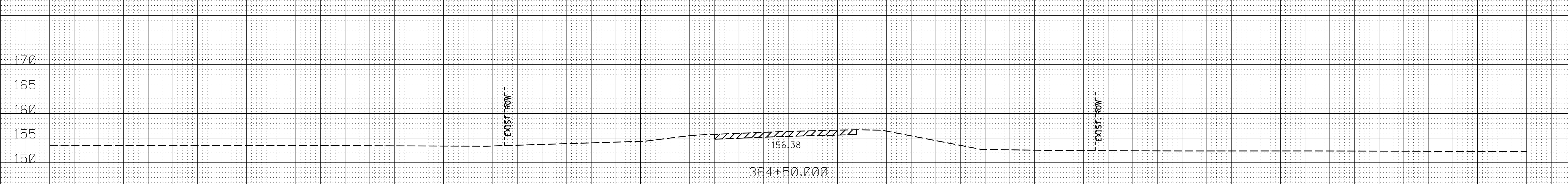
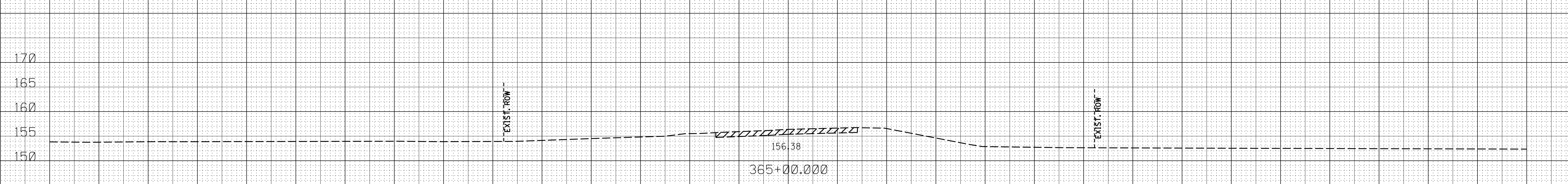
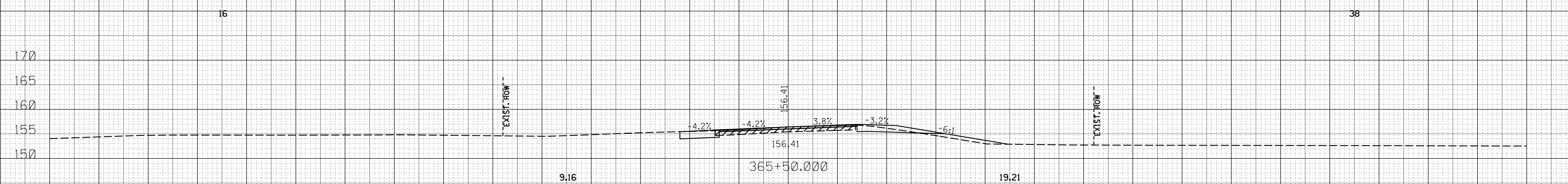
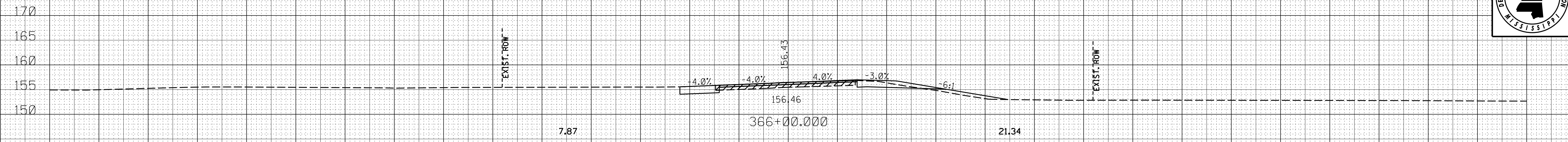


FILL VOLUME (CU.YDS.) PHASE 2 & 3
14

FILL END AREA (SQ.FT.) PHASE 2 & 3
40

CUT END AREA (SQ.FT.) PHASE 2 & 3 EXCESS
40

CUT VOLUME (CU.YDS.) PHASE 2 & 3 EXCESS
43



3/11/2019 10:39 AM LAT-49.DGN

140

120

100

80

60

40

20

0

20

40

60

80

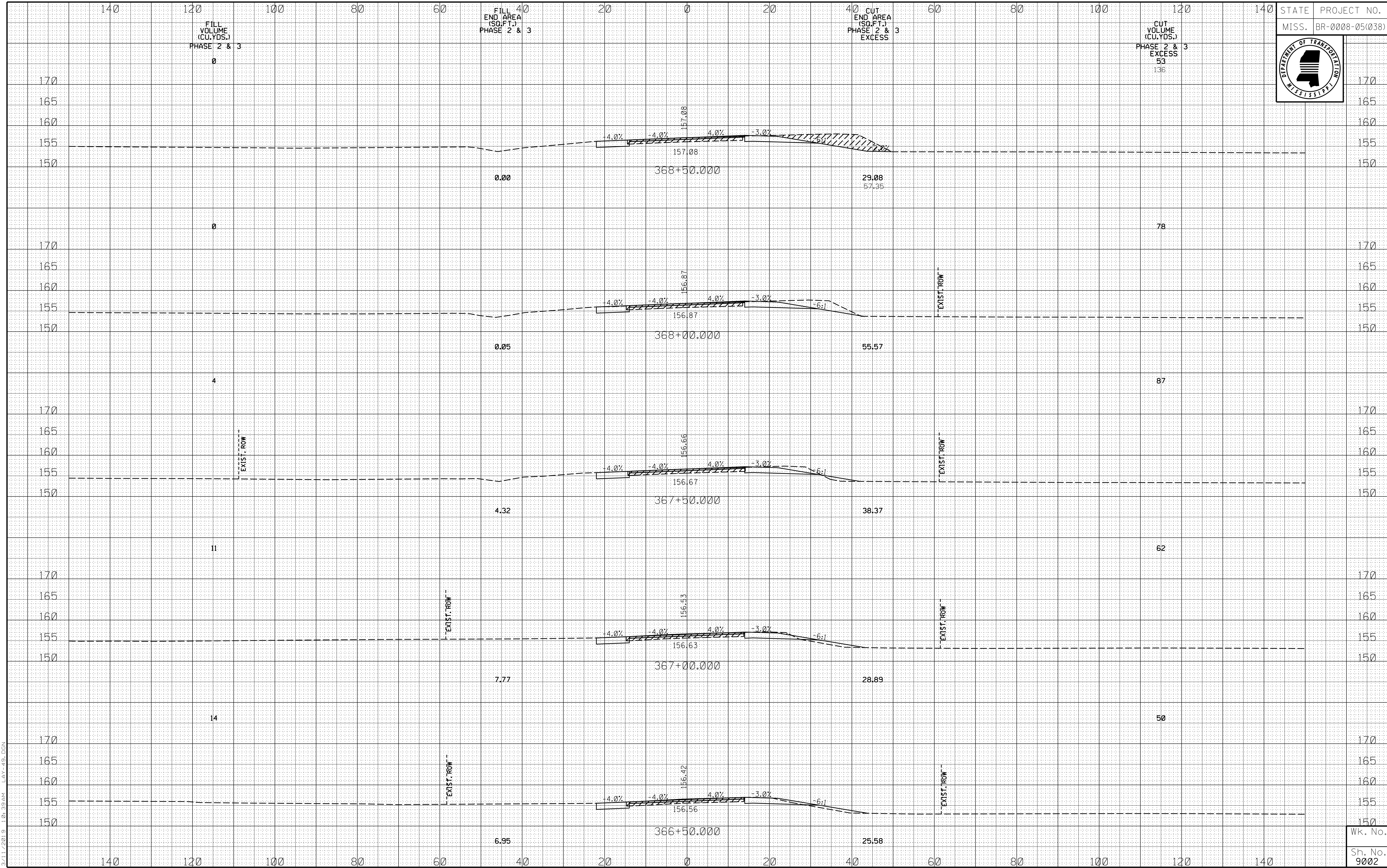
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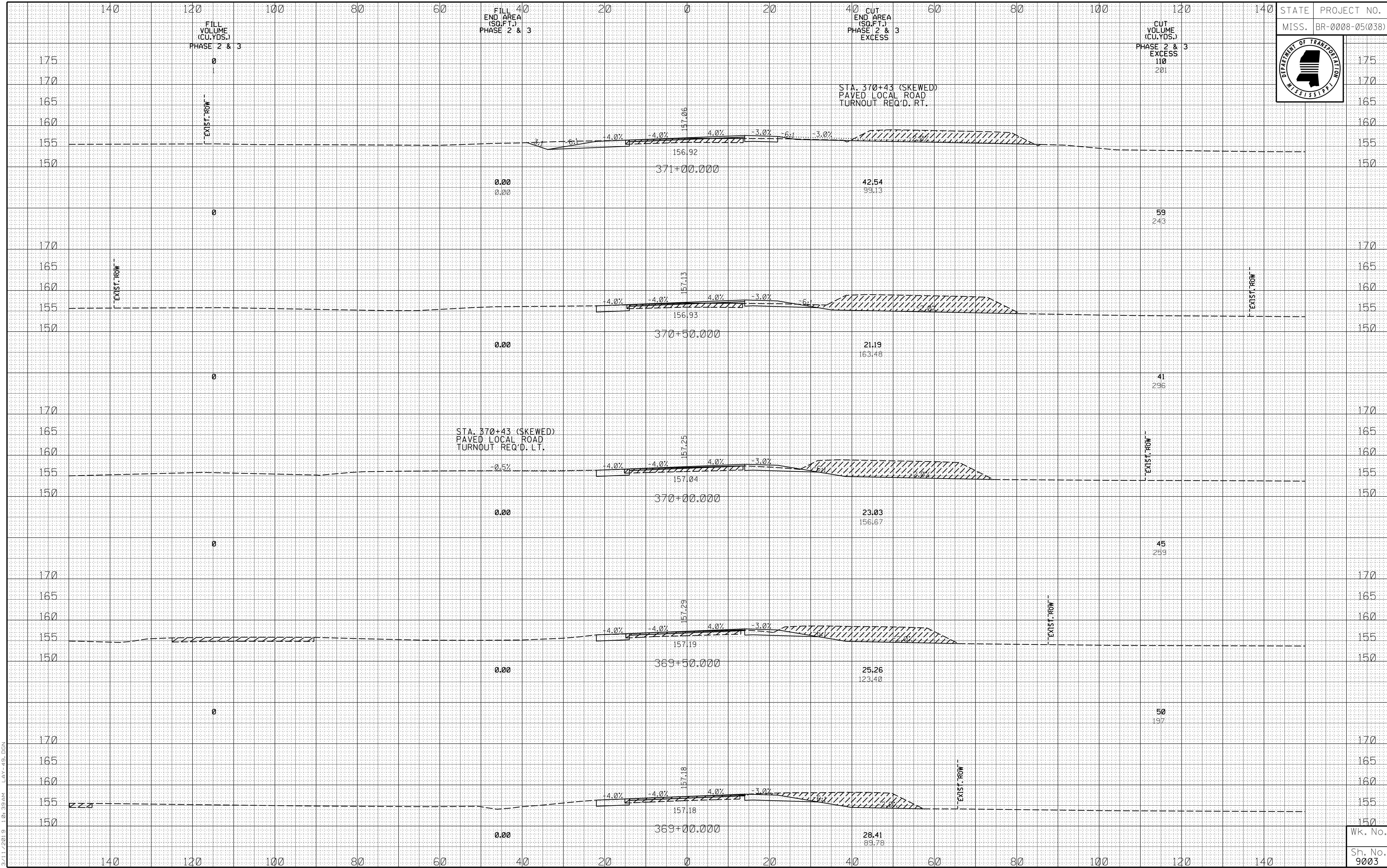
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Wk. No.

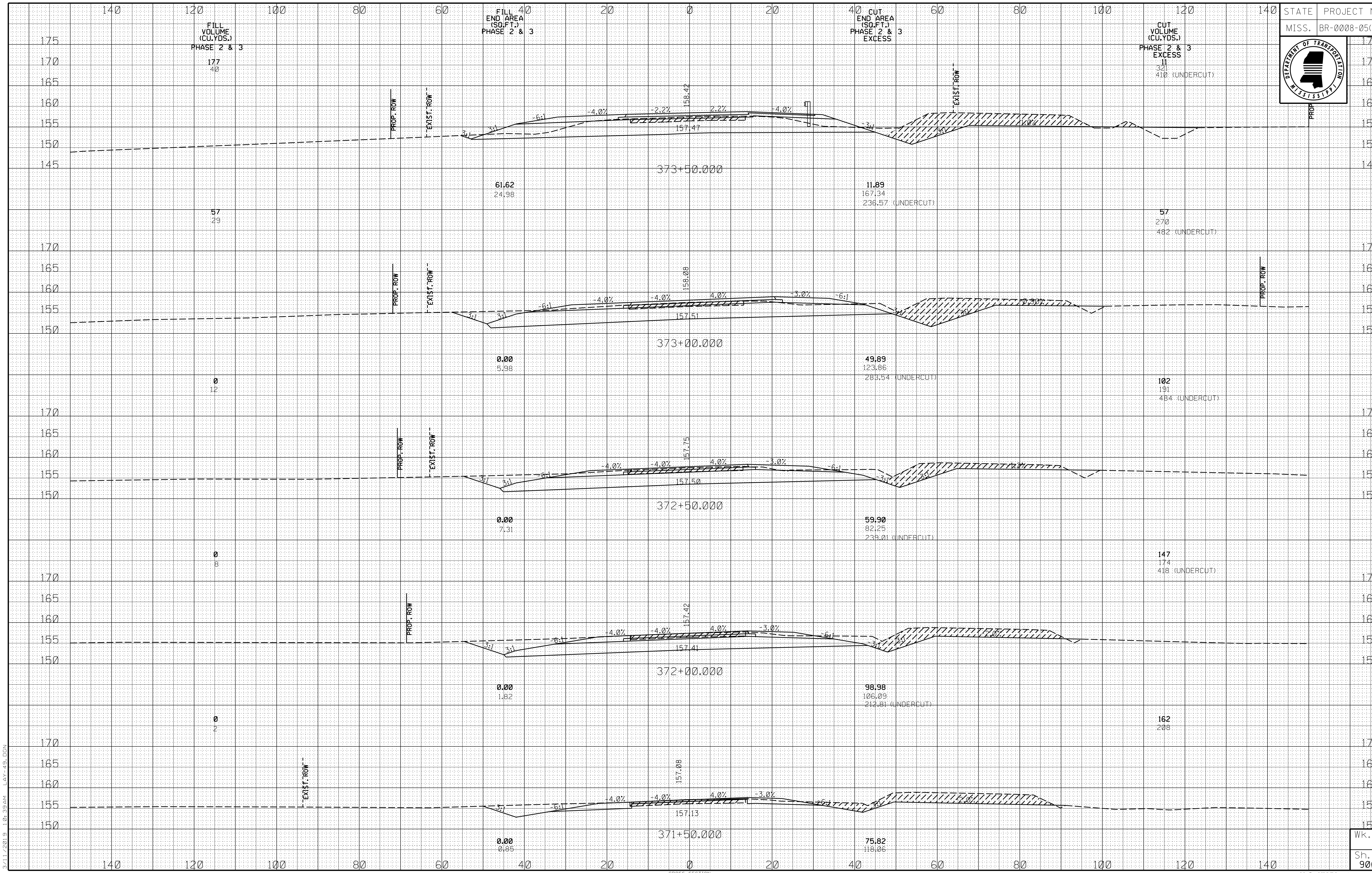
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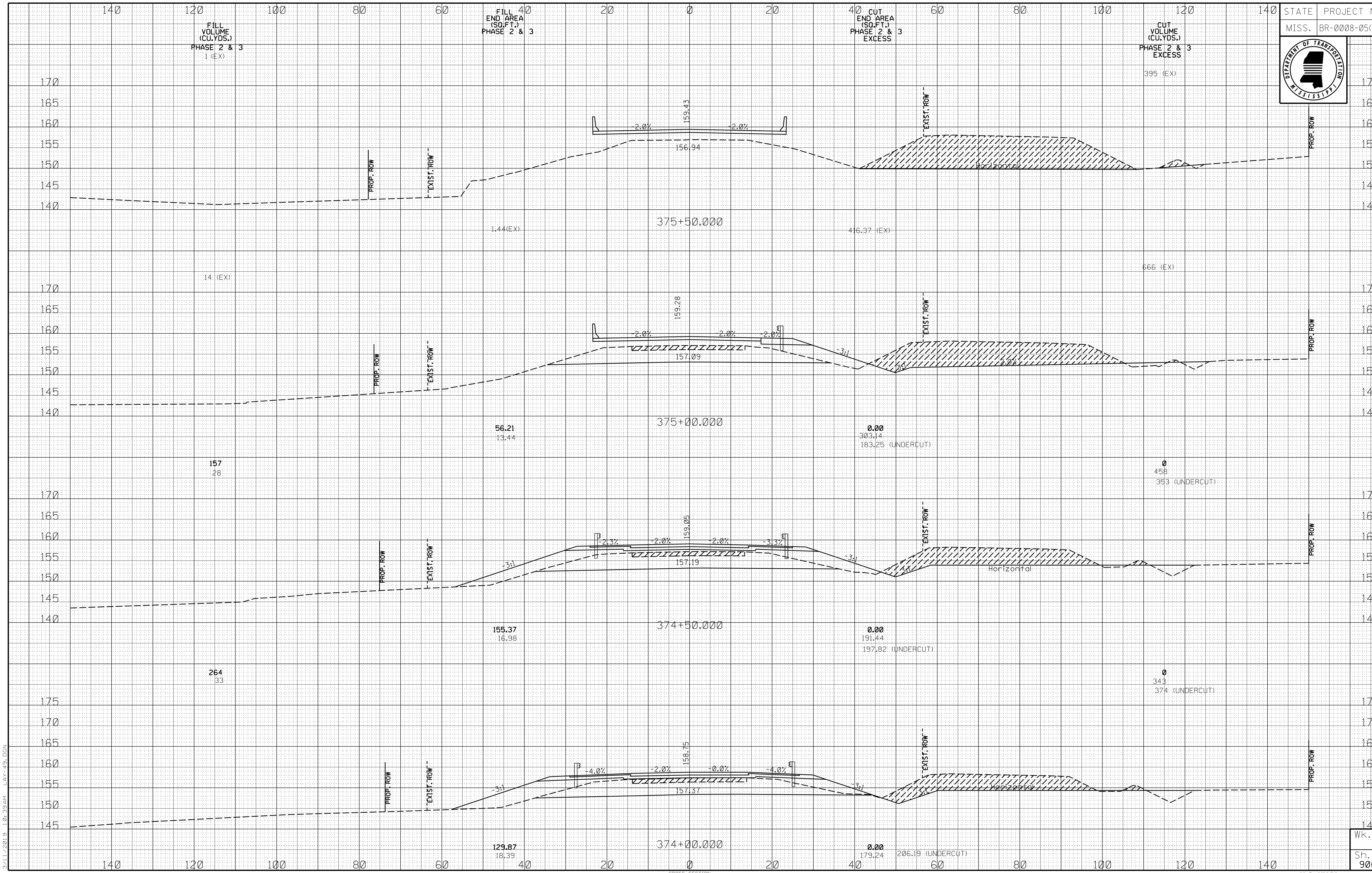
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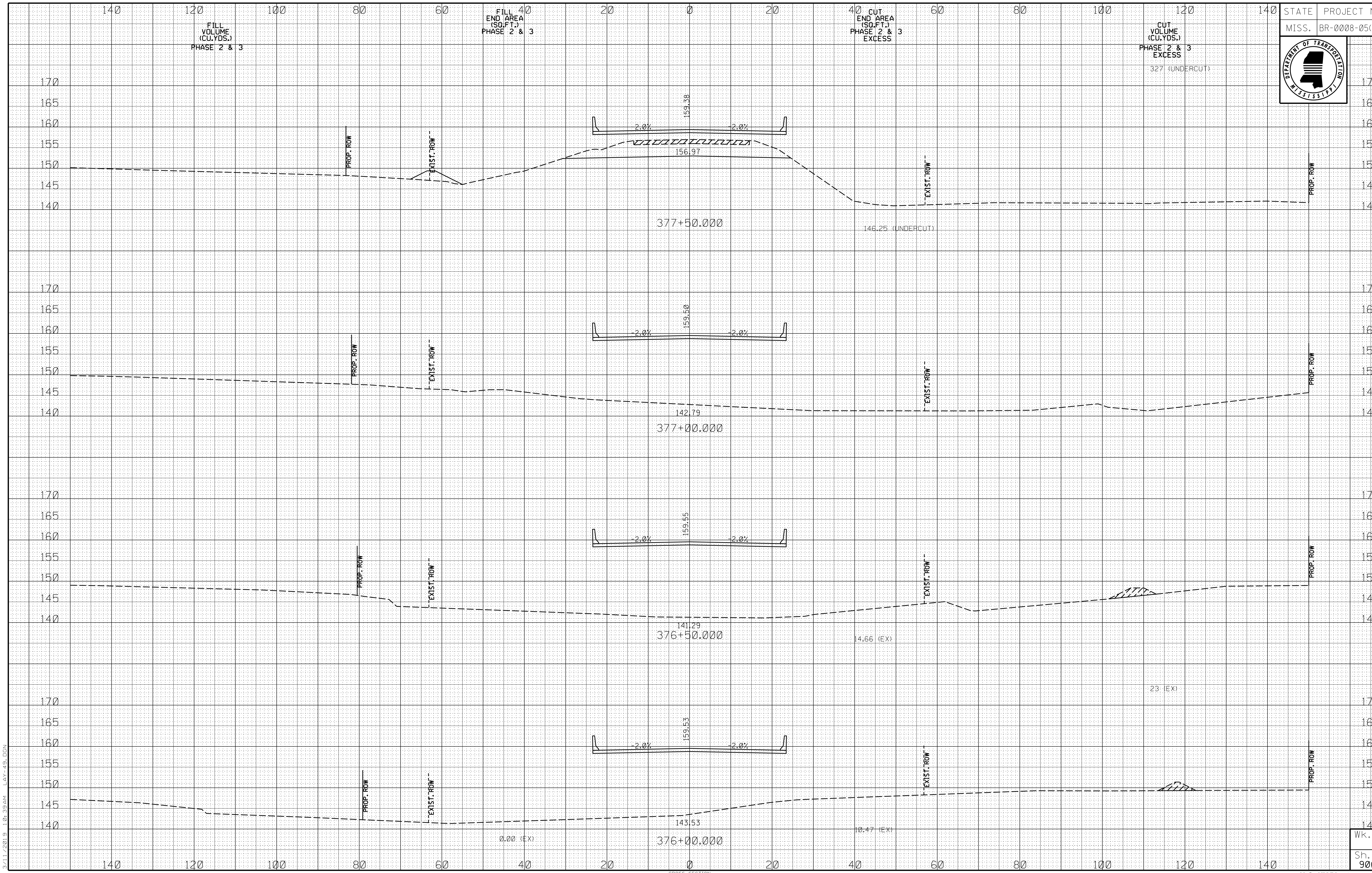
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FILL VOLUME (CU.YDS.)
PHASE 2 & 3

FILL END AREA (SQ.FT.)
PHASE 2 & 3

CUT END AREA (SQ.FT.)
PHASE 2 & 3
EXCESS

CUT VOLUME (CU.YDS.)
PHASE 2 & 3
EXCESS
327 (UNDERCUT)



3/11/2019 10:39 AM LAY-49.DGN

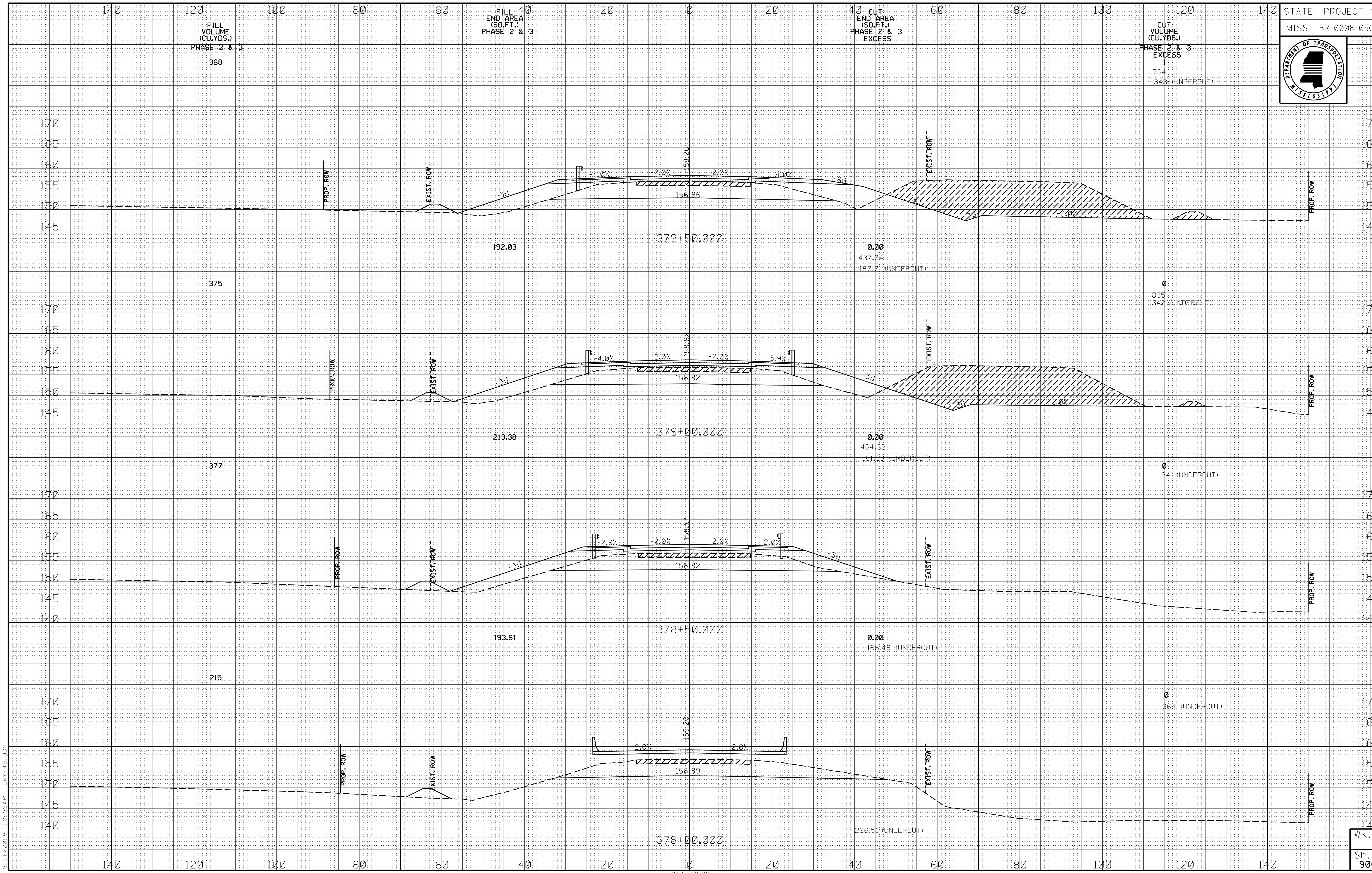
Wk. No.
Sh. No.
9006

FILL
END AREA
(SQ.FT.)
PHASE 2 & 3
368

FILL
END AREA
(SQ.FT.)
PHASE 2 & 3
40

CUT
END AREA
(SQ.FT.)
PHASE 2 & 3
EXCESS
40

CUT
VOLUME
(CU.YDS.)
PHASE 2 & 3
EXCESS
1
764
343 (UNDERCUT)



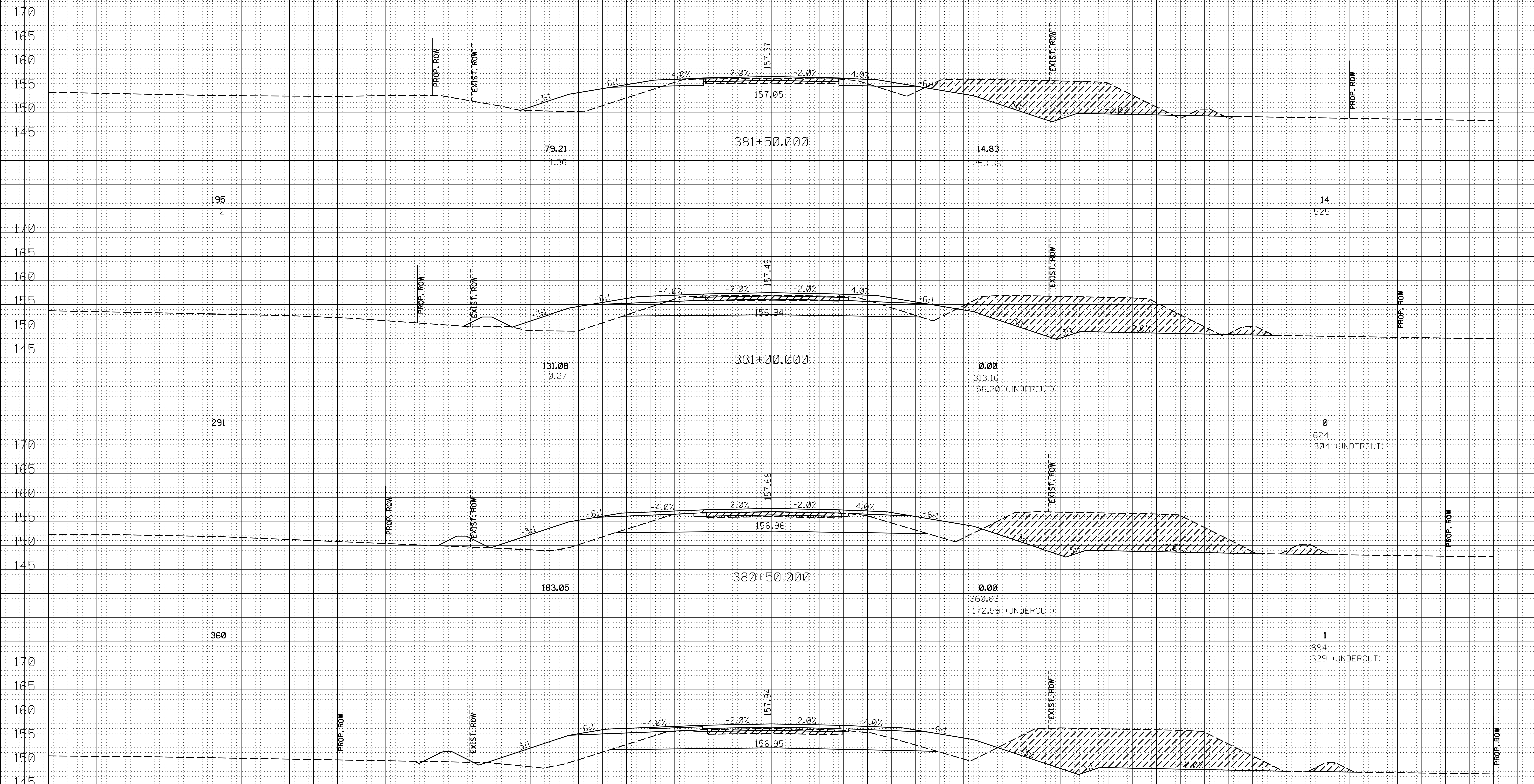
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FILL VOLUME (CU.YDS.)
PHASE 2 & 3
118
6

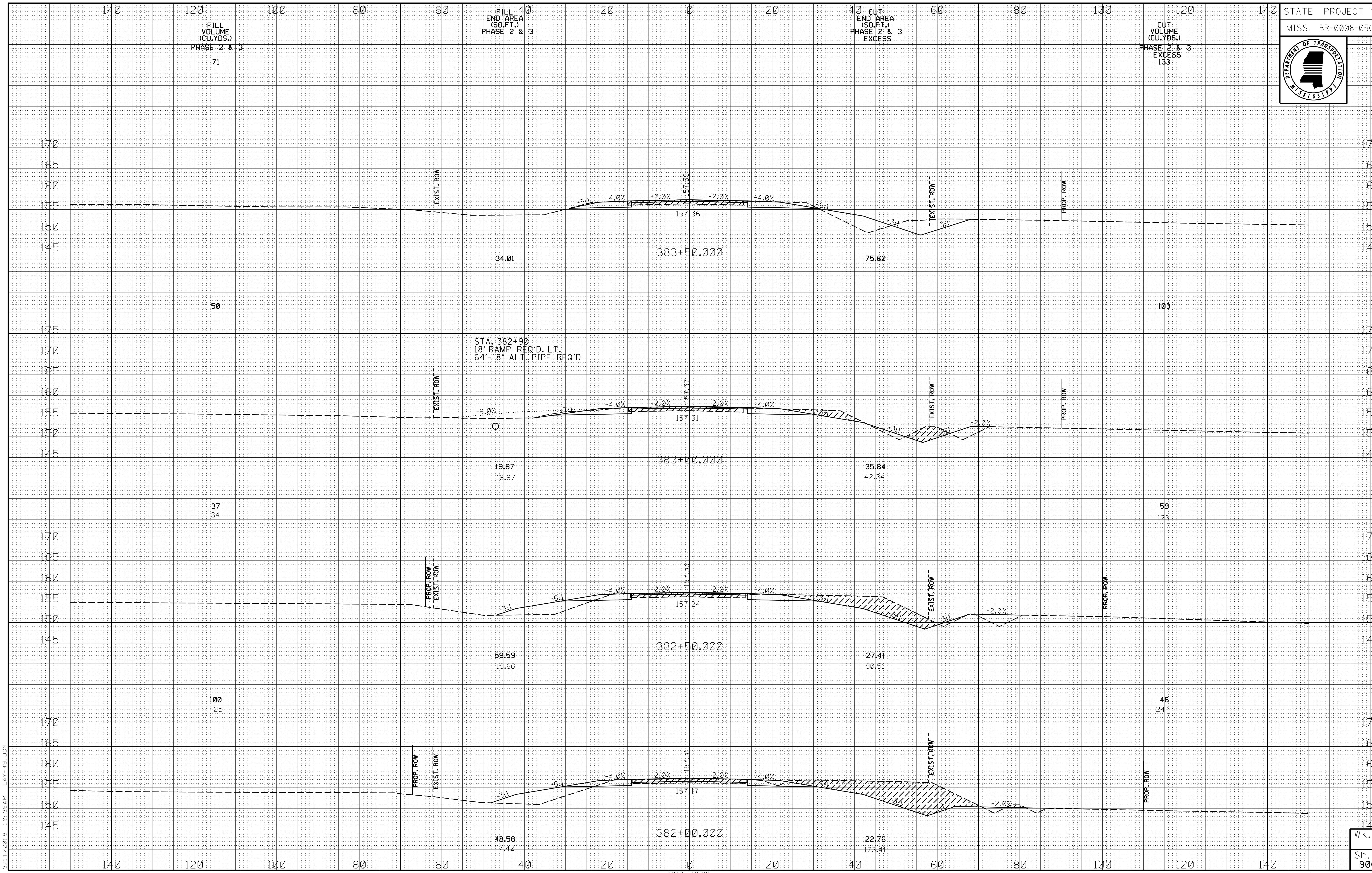
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PHASE 2 & 3
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CUT END AREA (SQ.FT.)
PHASE 2 & 3
EXCESS
40

CUT VOLUME (CU.YDS.)
PHASE 2 & 3
EXCESS
36
395

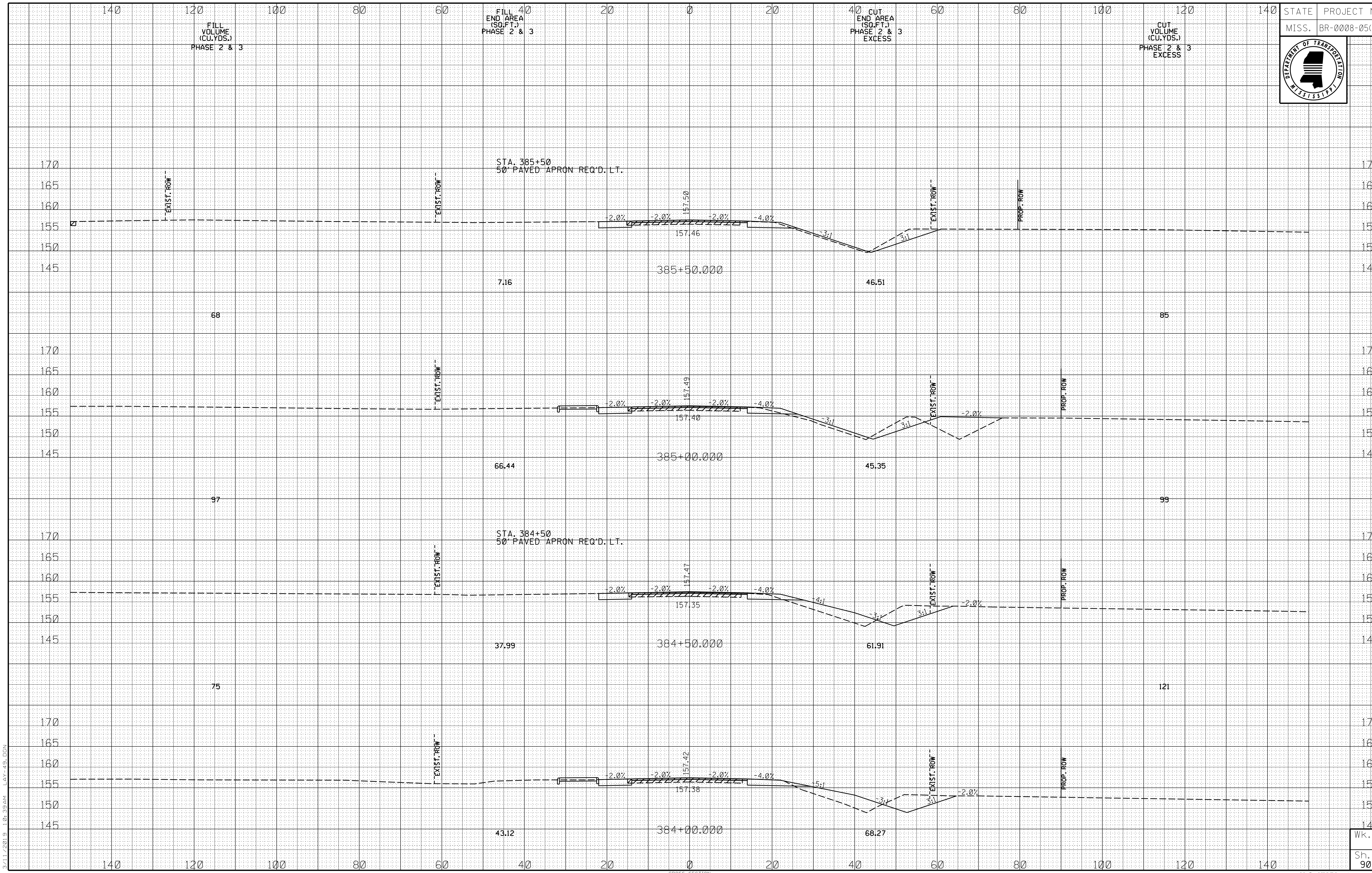


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STA. 382+90
18" RAMP REQ'D, LT.
64"-18" ALT. PIPE REQ'D

3/11/2019 10:39 AM LAT-49.DGN



3/11/2019 10:39 AM LAT-49.DGN

140

120

100

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40

60

80

100

120

140

FILL VOLUME (CU.YDS.) PHASE 2 & 3

FILL END AREA (SQ.FT.) PHASE 2 & 3

CUT END AREA (SQ.FT.) PHASE 2 & 3 EXCESS

CUT VOLUME (CU.YDS.) PHASE 2 & 3 EXCESS

STATE MISS. PROJECT NO. BR-0008-05(038)



170
165
160
155
150
145

170
165
160
155
150
145

EXIST. ROW

EXIST. ROW

157.58

387+00.000

170
165
160
155
150
145

170
165
160
155
150
145

EXIST. ROW

EXIST. ROW

EXIST. ROW

157.56

386+50.000

170
165
160
155
150
145

170
165
160
155
150
145

EXIST. ROW

EXIST. ROW

EXIST. ROW

PROP. ROW

157.53

386+00.000

140

120

100

80

60

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20

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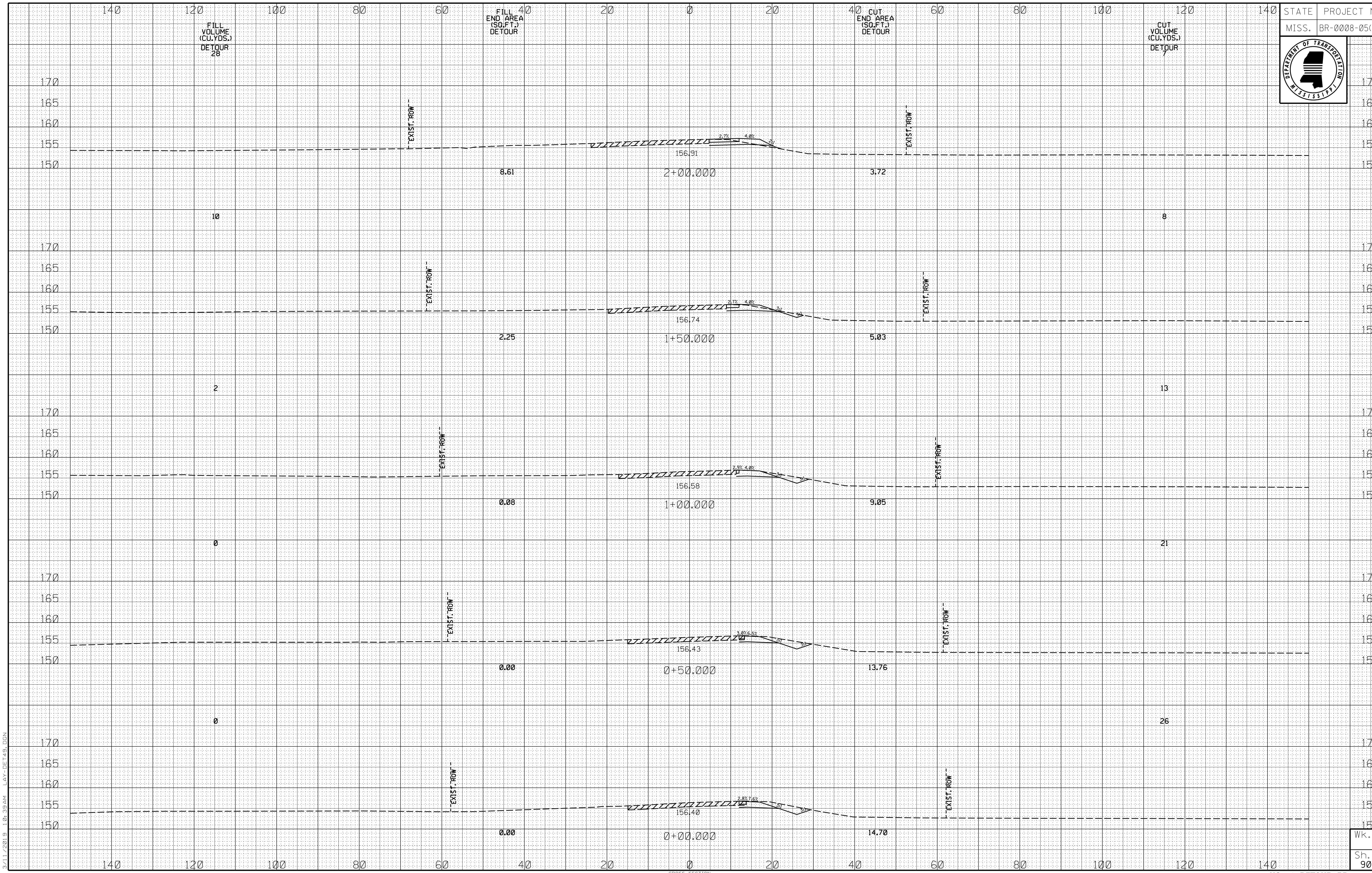
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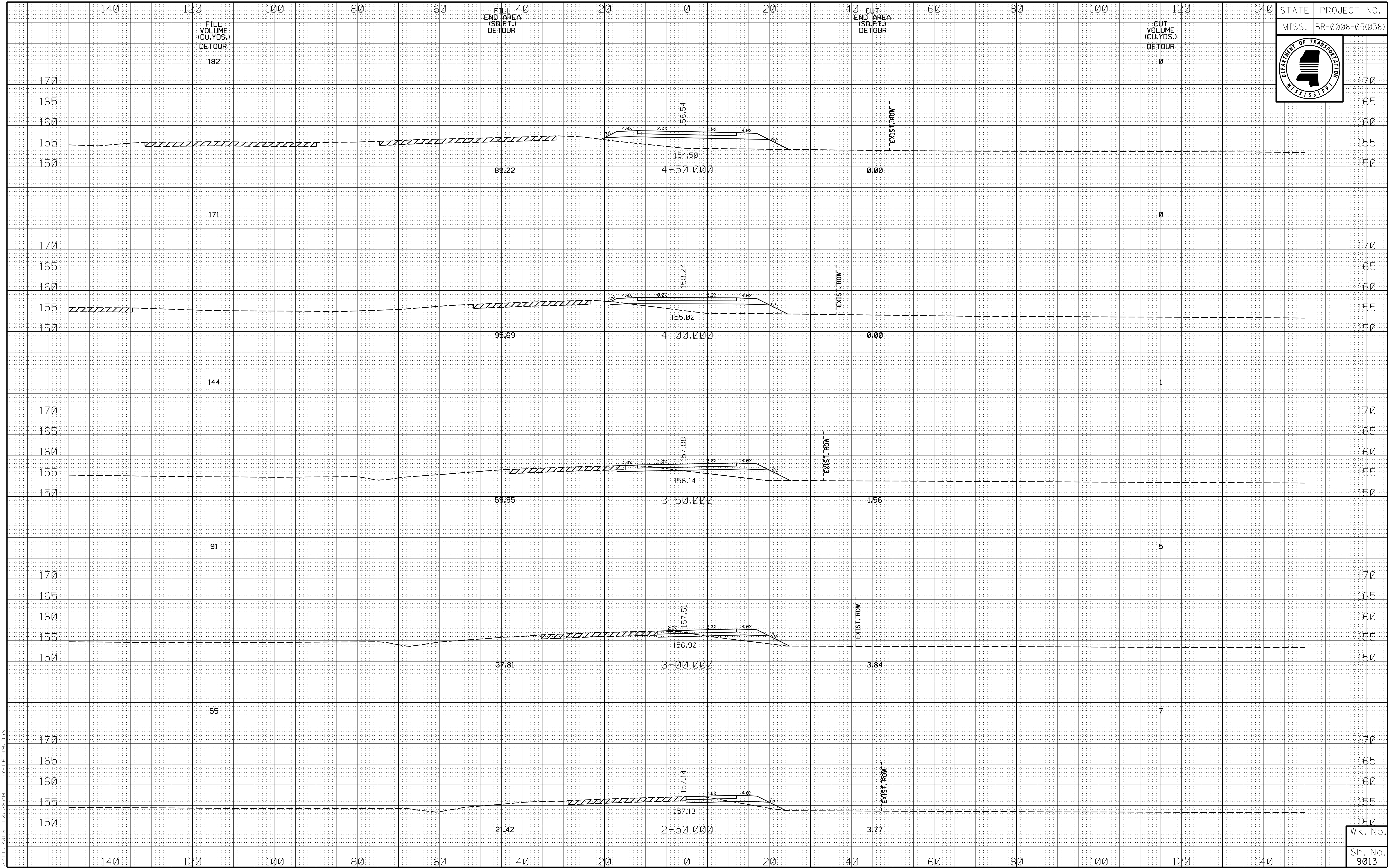
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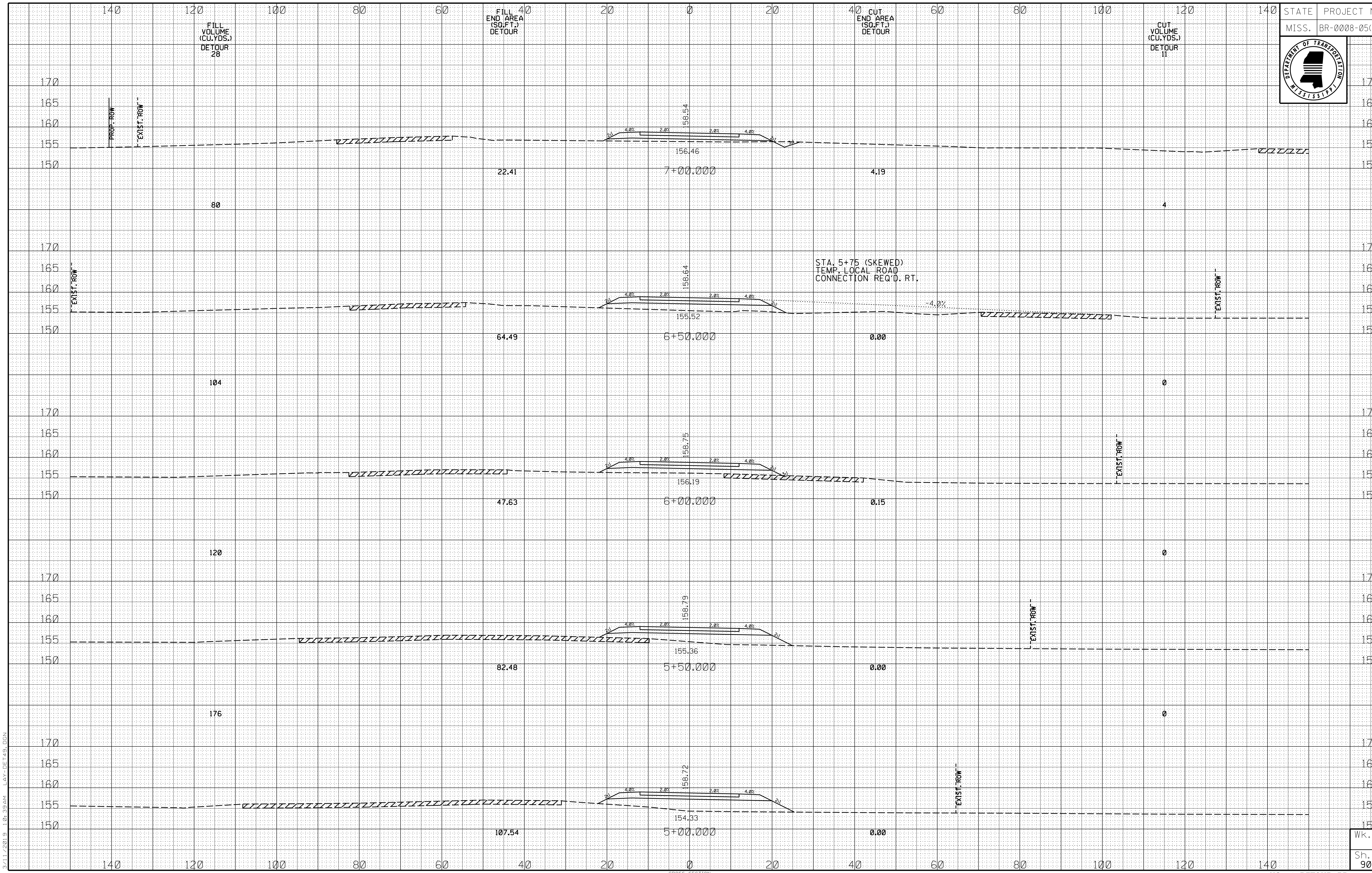
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3/11/2019 10:39AM LAT-DET49.DGN

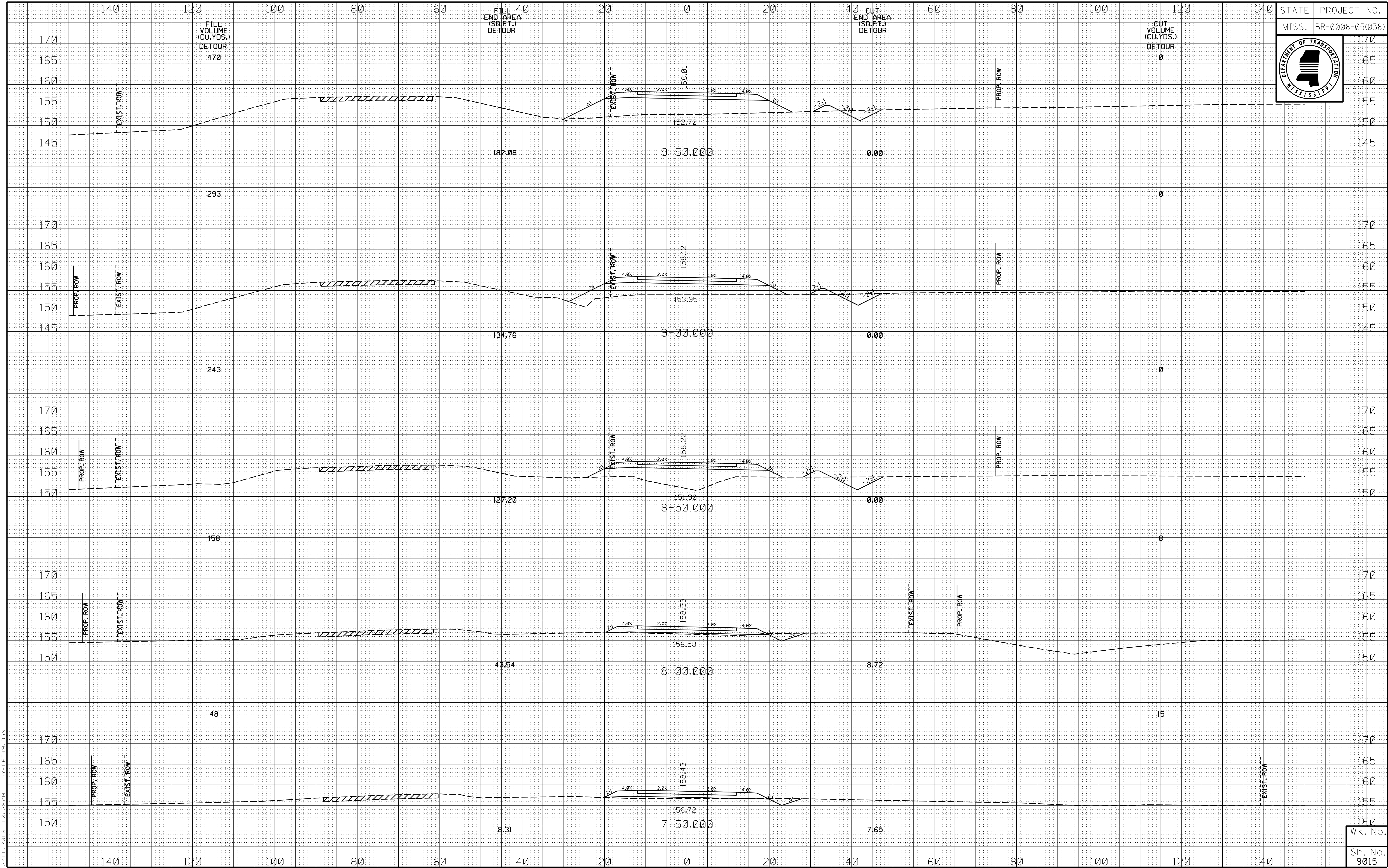


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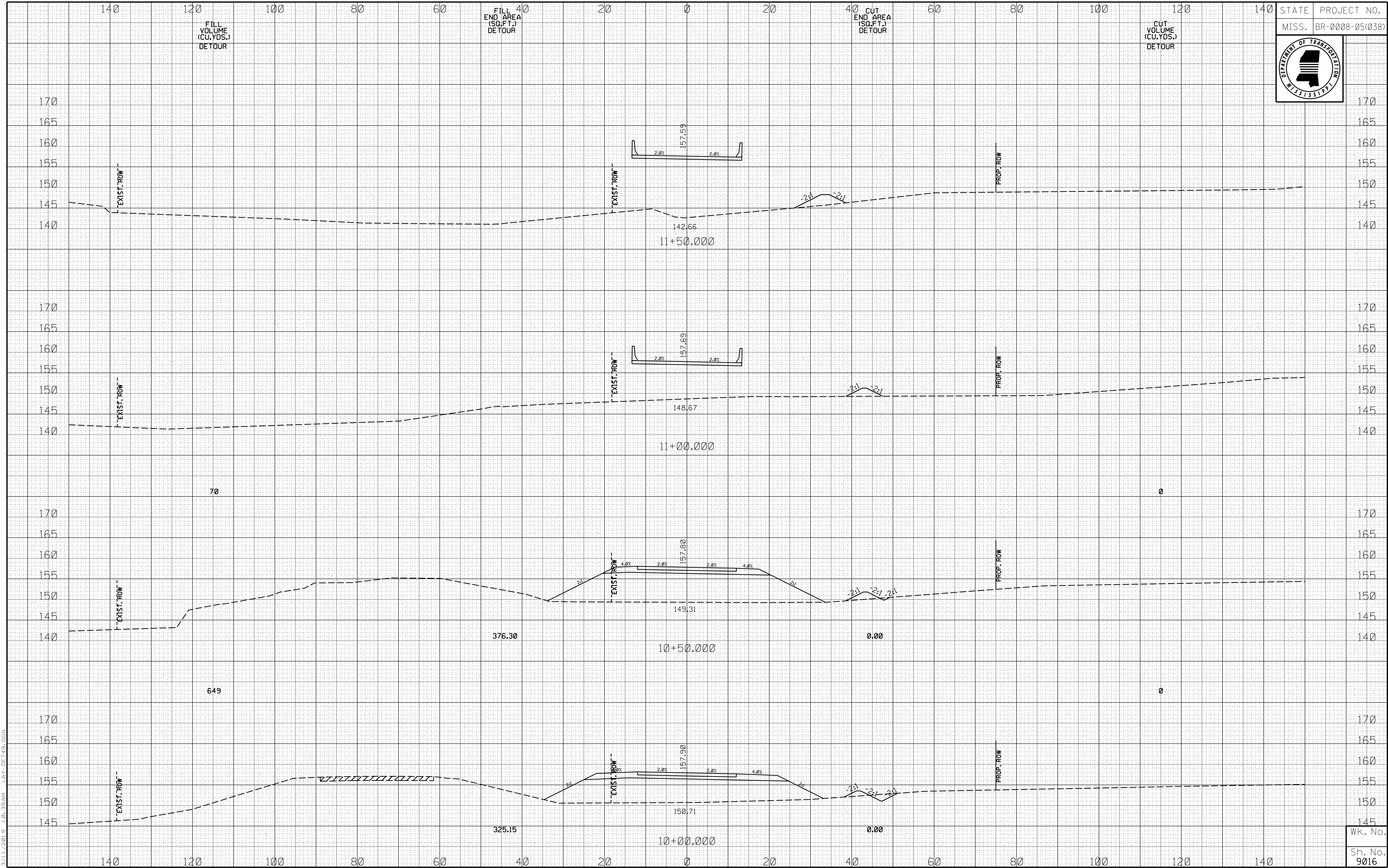


STA. 5+75 (SKEWED)
TEMP. LOCAL ROAD
CONNECTION REQ'D. RT.

3/11/2019 10:39 AM LAT-DET49.DGN



3/11/2019 10:39AM LAT-DET49.DGN



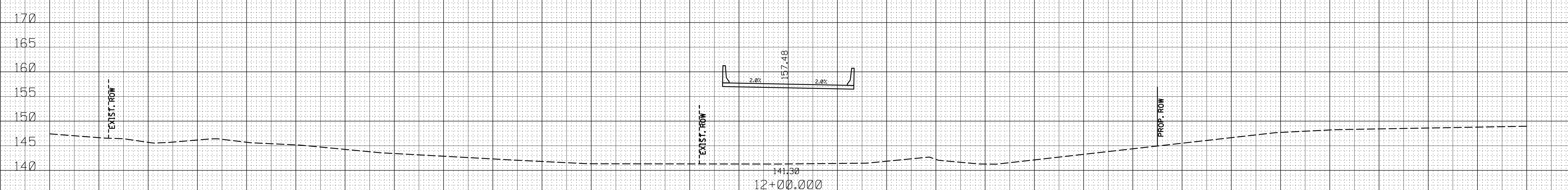
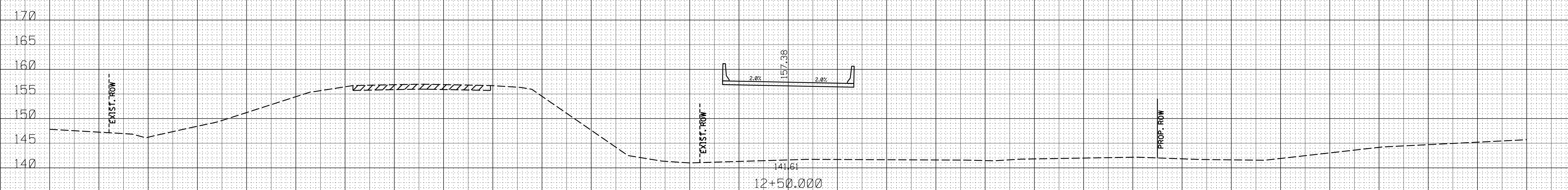
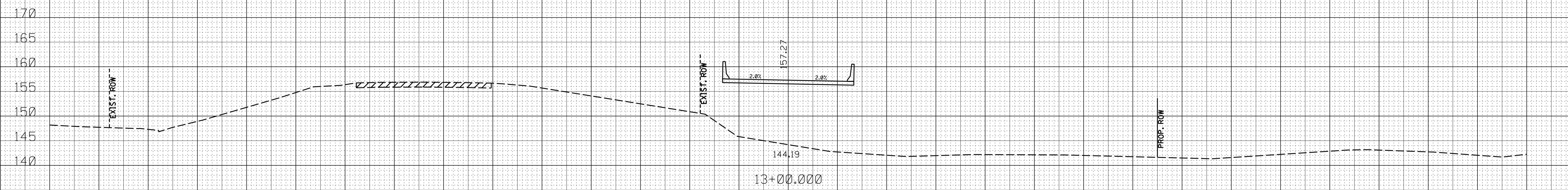
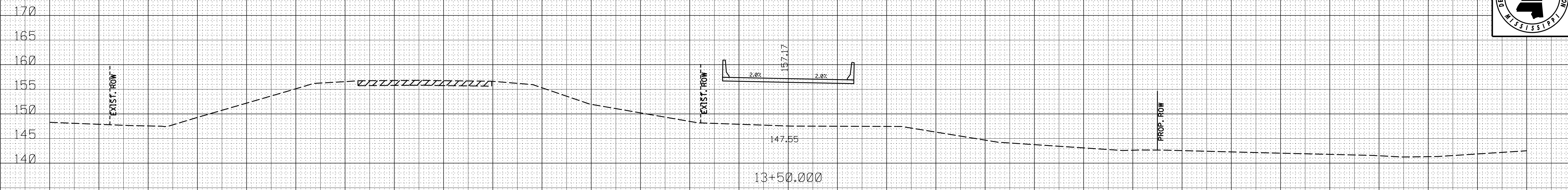
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FILL VOLUME (CU.YDS.)
DETOUR
331

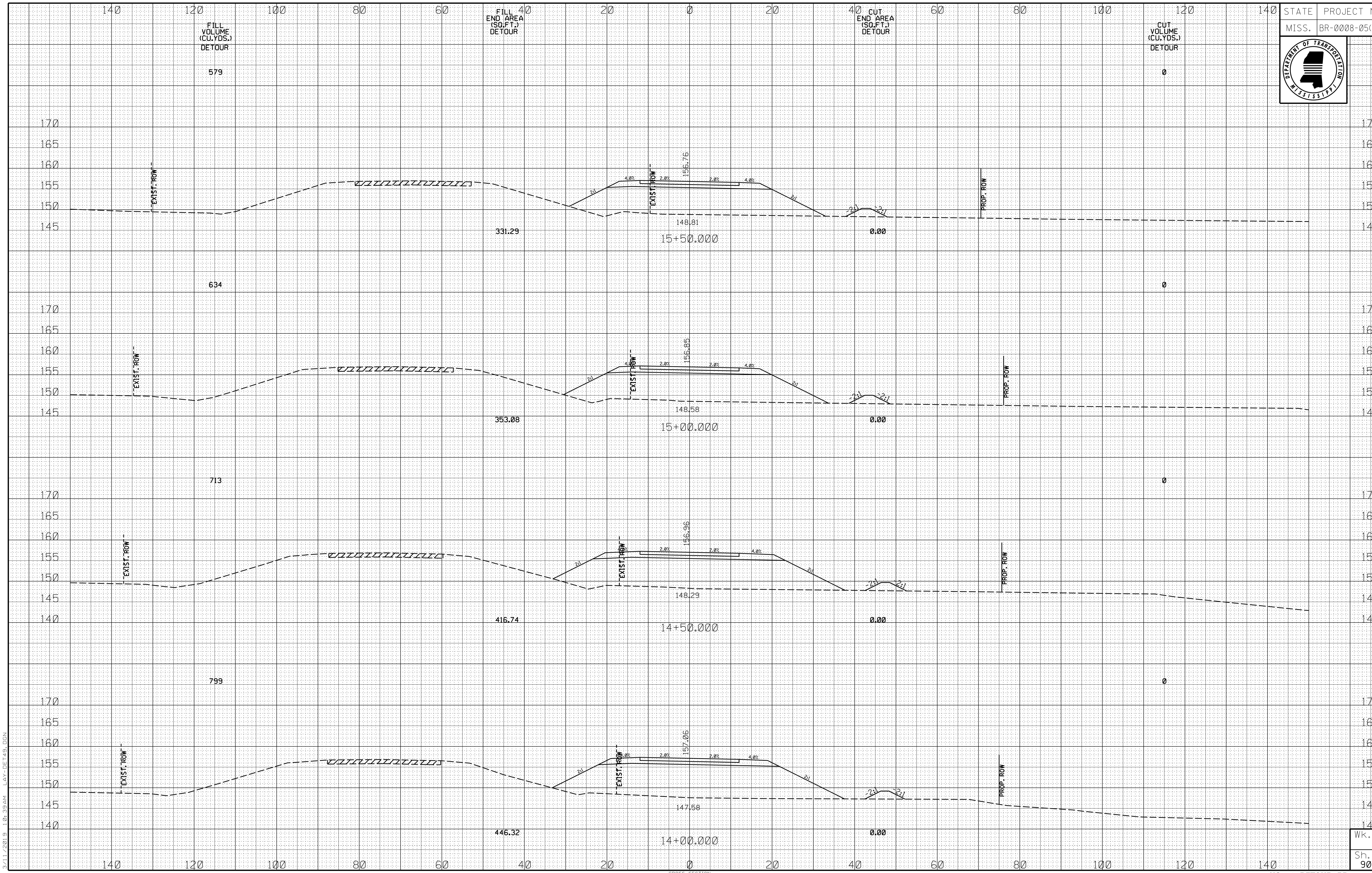
FILL END AREA (SQ.FT.)
DETOUR

CUT END AREA (SQ.FT.)
DETOUR

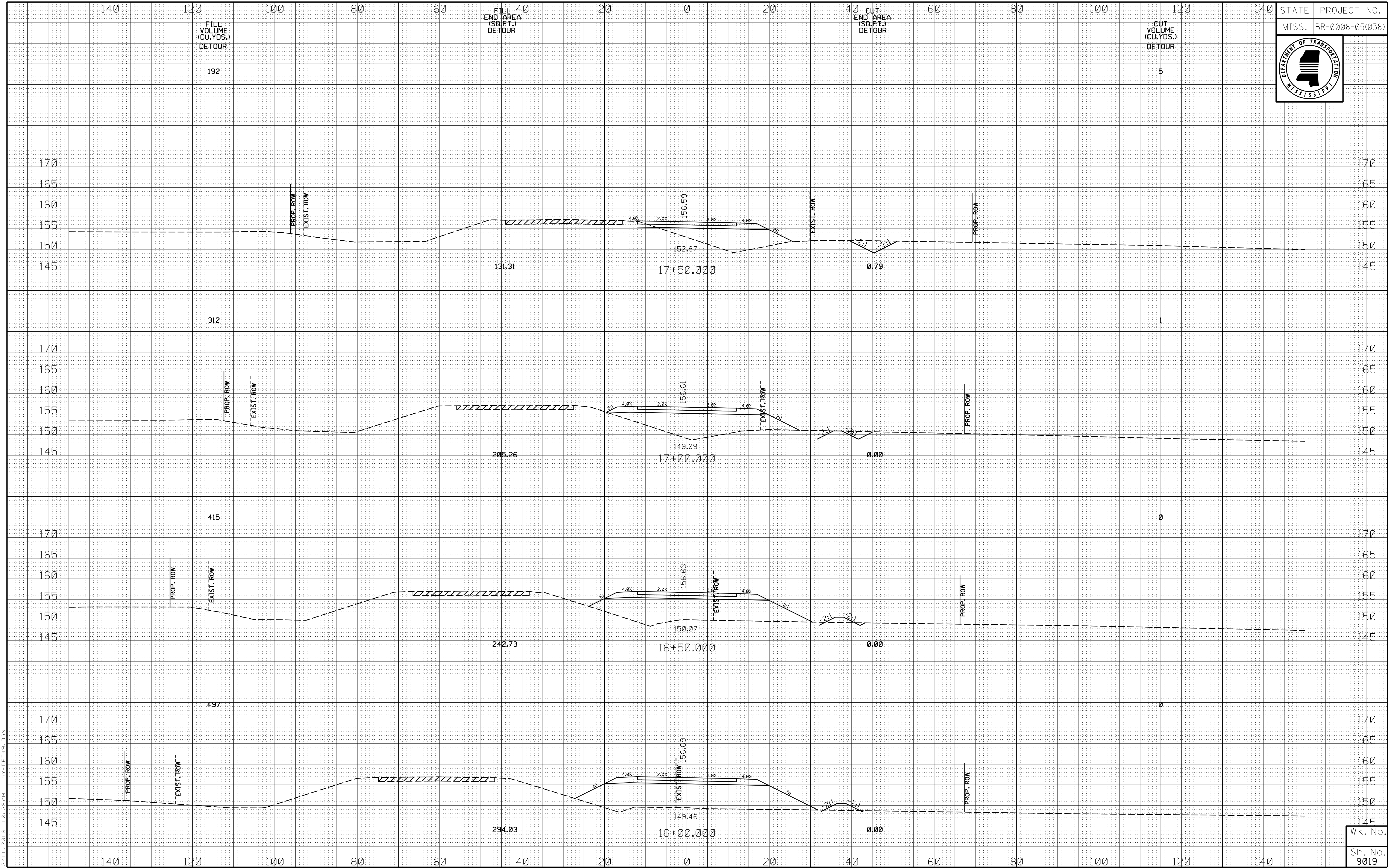
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DETOUR
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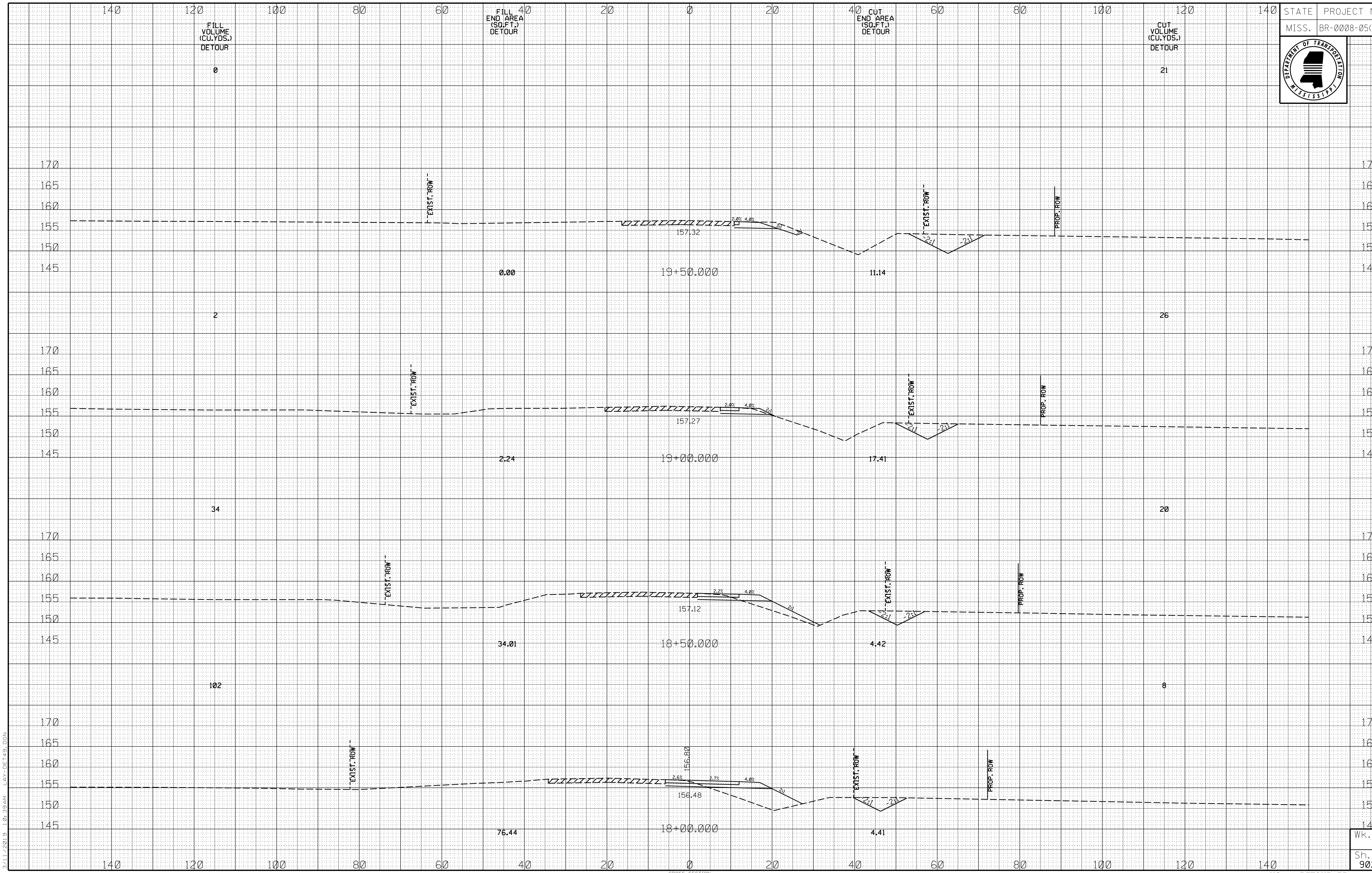
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3/11/2019 10:39 AM LAY-DET149.DGN



3/11/2019 10:39 AM LAT-DET49.DGN



3/11/2019 10:39 AM LAT-DET49.DGN

140

120

100

80

60

40

20

0

20

40

60

80

100

120

140

FILL
VOLUME
(CU.YDS.)
DETOUR

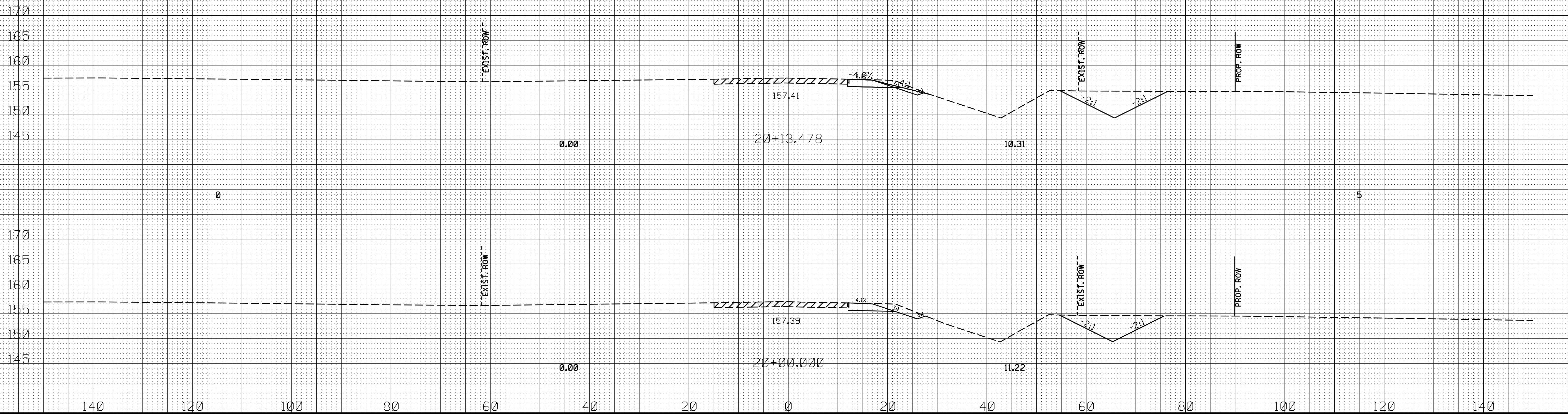
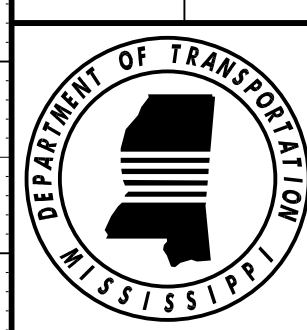
FILL
END AREA
(SQ.FT.)
DETOUR

CUT
END AREA
(SQ.FT.)
DETOUR

CUT
VOLUME
(CU.YDS.)
DETOUR

STATE
MISS.

PROJECT NO.
BR-0008-05(038)



3/11/2019 10:39 AM LAT-DET49.DGN

Wk. No.
Sh. No.
9021