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

GENERAL INDEX

INCLUDED THIS PROJECT		BEGIN WITH SHEET
☒	ROADWAY	1
☒	PERMANENT SIGNS	1001
☐	TRAFFIC SIGNALS	2001
☐	ITS COMPONENTS	3001
☐	LIGHTING	4001
☐	(RESERVED)	5001
☒	ROADWAY STANDARD DWGS	6001
☐	BOX CULVERT STD. DRAWINGS (LRFD)	7001
☒	BOX CULVERT STD. DRAWINGS (STD. SPEC.)	7501
☒	BRIDGE	8001
☒	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.

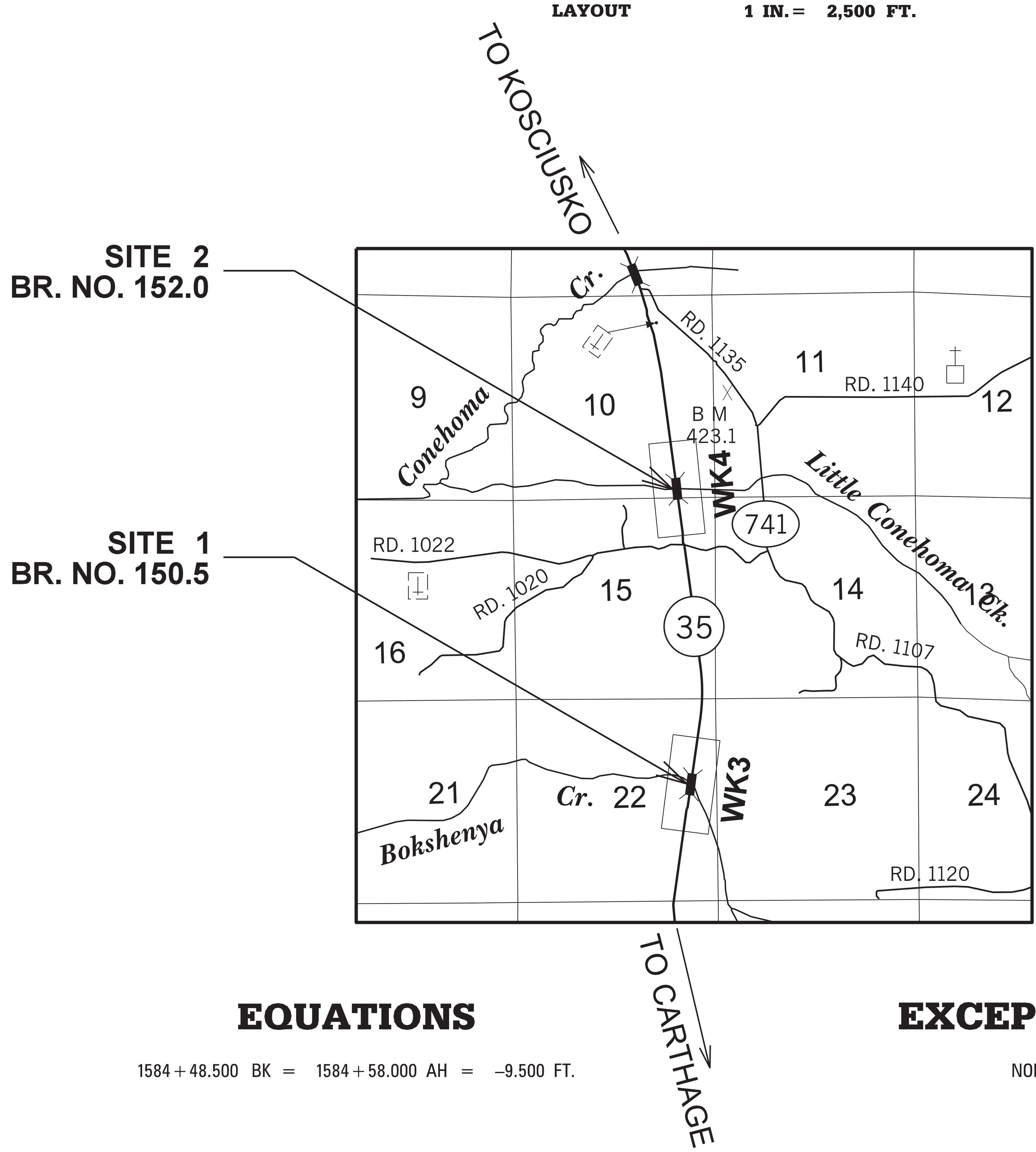
BRIDGE STRUCTURES REQ'D.

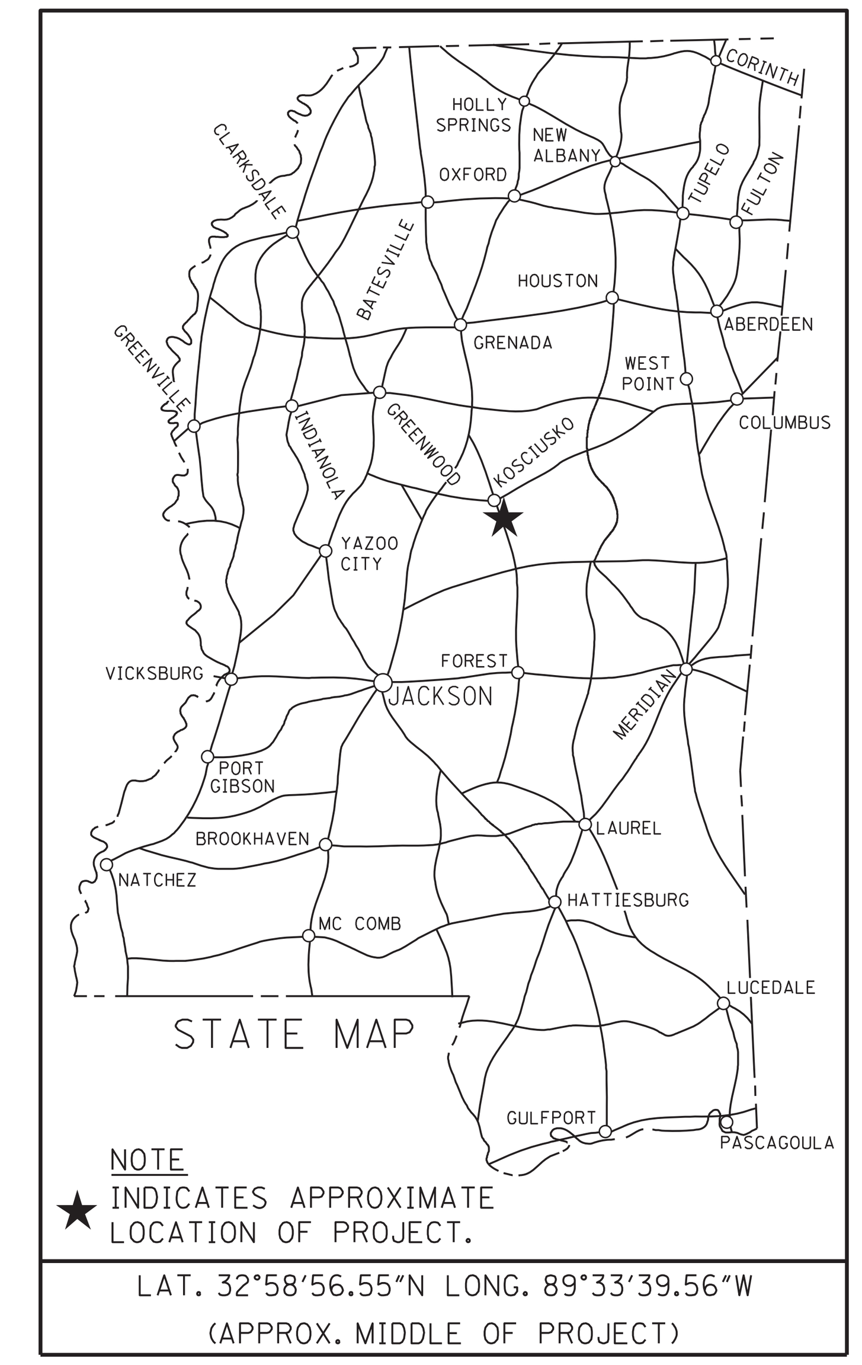
BRIDGE NO. 150.5
SR 35 @ BOKSHENYA CREEK
STA. 1506 + 58.88 TO STA. 1509 + 61.13
SPANS: 3 @ 100'
SKEW: NORMAL TO CENTERLINE
TOTAL LENGTH: 302' – 3"

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





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	N	N
NATIONWIDE (OTHER)*	Y	Y
GENERAL*	N	N
INDIVIDUAL (404)*	N	N

* ACQUISITION OF PERMITS FOR TEMPORARY IMPACTS DURING CONSTRUCTION ARE THE RESPONSIBILITY OF THE CONTRACTOR

STORMWATER PERMIT: Y

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: ________

EQUATIONS

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

EXCEPTIONS

NONE

ROADWAY
DESIGN &
SIGNING

P S & E DATE: 06/10/2019

APPROVED:

DEPUTY EXECUTIVE DIRECTOR / CHIEF ENGINEER

EXECUTIVE DIRECTOR

REVISIONS | BY | DATE

MISSISSIPPI DEPARTMENT OF TRANSPORTATION

FMS CON: 103334/301000

1st O.REV.

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

DESCRIPTION OF SHEET	WKG. NO.	SH. NO.
TITLE SHEET, DETAILED INDEX, AND GENERAL NOTES - (5)		
TITLE SHEET	-	1
DETAILED INDEX	DI-1	2
DETAILED INDEX	DI-2	3
GENERAL NOTES	GN-1	4
GENERAL NOTES	GN-2	5
TYPICAL SECTIONS - (5)		
TYPICAL SECTIONS - SR 35 NEW CONSTRUCTION	TS-1	6
TYPICAL SECTIONS - SR 35 WIDENING & OVERLAY	TS-2	7
TYPICAL SECTIONS - SR 35 DETOUR	TS-3	8
TYPICAL SECTIONS - BRIDGE END SHOULDER DETAIL	TS-4	9
TYPICAL SECTIONS - BRIDGE END PAVEMENT DETAIL & PAVED APRON	TS-5	10
QUANTITY SHEETS - (11)		
SUMMARY OF QUANTITIES	SQ-1	11
SUMMARY OF QUANTITIES	SQ-2	12
SUMMARY OF QUANTITIES	SQ-3	13
ESTIMATED QUANTITIES - REMOVAL ITEMS	EQ-1	14
ESTIMATED QUANTITIES - EARTHWORK AND GUARDRAIL	EQ-2	15
ESTIMATED QUANTITIES - PAVEMENT MARKINGS AND BRIDGE END PAVEMENT	EQ-3	16
ESTIMATED QUANTITIES - BOX CULVERTS, PIPES, & EROSION CONTROL	EQ-4	17
ESTIMATED QUANTITIES - DRIVEWAYS, SIDE DRAINS, AND PAVED FLUMES	EQ-5	18
ESTIMATED QUANTITIES - STANDARD ROADSIDE SIGNS	EQ-6	19
ESTIMATED QUANTITIES - TRAFFIC CONTROL ITEMS	EQ-7	20
ESTIMATED QUANTITIES - TRAFFIC CONTROL SIGNS	EQ-8	21
RIGHT-OF-WAY AND EASEMENT COORDINATE SHEETS (1)		
RIGHT-OF-WAY AND EASEMENT COORDINATES	RCS-1	22
PLAN & PROFILE SHEETS - (4)		
STA. 1499+50.00 TO STA. 1516+50.00 - SITE 1	3	23
STA. 0+00.00 TO STA. 17+12.56 - SITE 1 DETOUR	3A	24
STA. 1576+50.00 TO STA. 1593+00.00 - SITE 2	4	25
STA. 0+00.00 TO STA. 16+53.06 - SITE 2 DETOUR	4A	26
SPECIAL DESIGN SHEETS - (17)		
CONSTRUCTION SIGNING	CS-1	27
TRAFFIC CONTROL PLAN - PHASE 1 (SITE 1)	TC-1	28
TRAFFIC CONTROL PLAN - PHASE 2 (SITE 1)	TC-2	29
TRAFFIC CONTROL PLAN - PHASE 3 (SITE 1)	TC-3	30
TRAFFIC CONTROL PLAN - PHASE 1 (SITE 2)	TC-4	31
TRAFFIC CONTROL PLAN - PHASE 2 (SITE 2)	TC-5	32
TRAFFIC CONTROL PLAN - PHASE 3 (SITE 2)	TC-6	33
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
PERMANENT SIGNING PLANS - (2)		
PERMANENT SIGNING PLAN - SITE 1	PSP-1	1001
PERMANENT SIGNING PLAN - SITE 2	PSP-2	1002

DESCRIPTION OF SHEET	WKG. NO.	SH. NO.
STANDARD DRAWINGS - ROADWAY DESIGN SHEETS (2017) - (60)		
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
RUMBLE STRIPES 2-LANE HIGHWAYS (ASPHALT LANES, 2-FT ASPHALT SHOULDERS)	RS-1	6064
TYPICAL TEMPORARY EROSION CONTROL / SEDIMENT CONTROL APPLICATIONS	ECD-1	6101
DETAILS OF SEDIMENT BARRIER APPLICATIONS	ECD-2	6102
DETAILS OF SILT FENCE INSTALLATION	ECD-3	6103
DITCH CHECK STRUCTURES, TYPICAL APPLICATIONS AND DETAILS	ECD-4	6104
TEMPORARY EROSION , SEDIMENT, AND WATER POLLUTION CONTROL MEASURES (SILT FENCE AND HAY BALE DITCH CHECKS)	ECD-5	6105
DETAILS OF EROSION CONTROL WATTLE DITCH CHECK	ECD-6	6106
DETAILS OF EROSION CONTROL SILT DIKE DITCH CHECK	ECD-7	6107
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
TYPICAL APPLICATIONS AND DETAILS FOR INLET CONSTRUCTION	ECD-11	6111
INLET PROTECTION DETAILS FOR SEDIMENT CONTROL STONE ON GRADES AND SAGS	ECD-12	6112
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
STABILIZED CONSTRUCTION ENTRANCE	ECD-16	6116
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
DETAILS OF TYPICAL DITCH TREATMENTS	DT-1	6123
DITCH TREATMENT INSTALLATION DETAIL FOR SOIL REINFORCING MAT	DT-1A	6124
TYPICAL TEMPORARY EROSION CONTROL MEASURES (SLOPE DRAIN AND TYPE A SILT BASIN)	BAS-A	6125
EROSION CONTROL BLANKET	ECB-1	6131
GUARDRAIL: "W" BEAM (WOOD POSTS)	GR-1	6201
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
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
STANDARD ROADSIDE SIGN ASSEMBLY AND INSTALLATION	SN-4	6306
STANDARD ROADSIDE SIGN ASSEMBLY AND INSTALLATION	SN-4A	6307
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

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

MISSISSIPPI DEPARTMENT OF TRANSPORTATION

DETAILED INDEX

JOHN M. RESSEL, LICENSED PROFESSIONAL ENGINEER, 7-15-19, 12253, STATE OF MISSISSIPPI

PROJ. NO.: BR-0023-02(058)

COUNTY: ATTALA

WORKING NUMBER: **DI-1**

SHEET NUMBER: **2**

FILENAME: DI.DGN

DESIGN TEAM FA CHECKED DATE

BY / REVISION / DATE

PLAN
ROADWAY DESIGN DIVISION
MISSISSIPPI DEPARTMENT OF TRANSPORTATION

7/15/2019 09:32:16 DI.DGN

FMS CON: 103334/301000

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	TCP-9	6359
TRAFFIC CONTROL PLAN: UNEVEN PAVEMENT DETAILS	TCP-12	6362
TEMPORARY STRIPING FOR TRAFFIC CONTROL 2-LANE AND 4-LANE DIVIDED HIGHWAYS	TCP-13	6363
LOCATION OF R16-3 SIGNS (SPEEDING FINES DOUBLE)	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 AND FILLS	GT-1	6404
MISCELLANEOUS DETAIL SHEET, 1. STACKED PIPE JOINTS, 2. EXCAVATION AT GRADE POINTS	MDS-1	6425
DETAILS OF PAVED FLUMES	PF-1	6426
PIPE CULVERT INSTALLATION	PI-1	6501
FLEXIBLE PIPE CULVERT INSTALLATION	PI-2	6502
CONCRETE PIPE COLLAR	PC-1	6503
FLARED END SECTION FOR CONCRETE PIPE	FE-1	6530
BRIDGE (BOX CULVERT) STANDARD DRAWINGS - 1997 (7)		
COLLAR DETAILS FOR BOX STRUCTURES	ICJ-1-97	7504
EXTENSION DETAILS FOR LENGTHENING EXISTING BOX CULVERTS	ICX-1-97	7506
BASIC CULVERT DWG - SINGLE CELL - HEIGHT 6 FT. - SPANS 6-20 FT.	IBS-6-2W-97	7507
BASIC CULVERT DWG - SINGLE CELL - HEIGHT 6 FT. - SPANS 6-20 FT.	IBS-6-2W-97	7508
WINGS W/ 3:1 SLOPES - SINGLE CELL - HEIGHT 6-12 FT. - SPANS 6-24 FT.	IWS-3-97	7515
WINGS W/ 3:1 SLOPES - SINGLE CELL - HEIGHT 6-12 FT. - SPANS 6-24 FT.	IWS-3-97	7516
WINGS W/ 3:1 SLOPES - SINGLE CELL - HEIGHT 6-12 FT. - SPANS 6-24 FT.	IWS-3-97	7517
CROSS SECTIONS - (39)		
MAINLINE (SR 35) - SITE 1 - STA. 1498+00.00 TO STA. 1517+50.00		9001-9010
DETOUR (SR 35) - SITE 1 - STA. 0+00.00 TO STA. 17+12.56		9011-9019
MAINLINE (SR 35) - SITE 2 - STA. 1575+00.00 TO STA. 1595+00.00		9020-9030
DETOUR (SR 35) - SITE 2 - STA. 0+00.00 TO STA. 16+53.06		9031-9039

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

PLAN
ROADWAY DESIGN DIVISION
MISSISSIPPI DEPARTMENT OF TRANSPORTATION

7/10/2019 15:00:42 DI.DGN

REVISION	BY	DATE

MISSISSIPPI DEPARTMENT OF TRANSPORTATION

DETAILED INDEX

JOHN M. REESE
REGISTERED PROFESSIONAL
Engineer
7-8-19
12253
STATE OF MISSISSIPPI

PROJ. NO.: BR-0023-02(058)
COUNTY: ATTALA

WORKING NUMBER
DI-2

FILENAME: **DI.DGN**
DESIGN TEAM **FA** CHECKED _____ DATE _____

SHEET NUMBER
3

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 THEY 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 ENIGINEER (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.

BY / REVISION / DATE

MISSISSIPPI DEPARTMENT OF TRANSPORTATION

GENERAL NOTES

JOHN M. REGER — REGISTERED PROFESSIONAL ENGINEER — 12253 — STATE OF MISSISSIPPI

PROJ. NO.: BR-0023-02(058)

COUNTY: ATTALA

WORKING NUMBER: GN-1

FILENAME: GN.DGN

DESIGN TEAM FA CHECKED DATE

SHEET NUMBER: 4

FMS CON: 103334/301000

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

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.

PLAN
ROADWAY DESIGN DIVISION
MISSISSIPPI DEPARTMENT OF TRANSPORTATION

6/10/2019 12:25:03 PM GN.DGN

REVISION | BY | DATE

MISSISSIPPI DEPARTMENT OF TRANSPORTATION

GENERAL NOTES

JOHN M. REESE
REGISTERED PROFESSIONAL ENGINEER
5-10-19
12253
STATE OF MISSISSIPPI

PROJ. NO.: BR-0023-02(058)
COUNTY: ATTALA

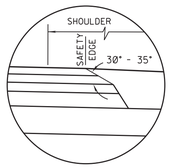
WORKING NUMBER
GN-2

FILENAME: GN.DGN
DESIGN TEAM FA CHECKED DATE

SHEET NUMBER
5

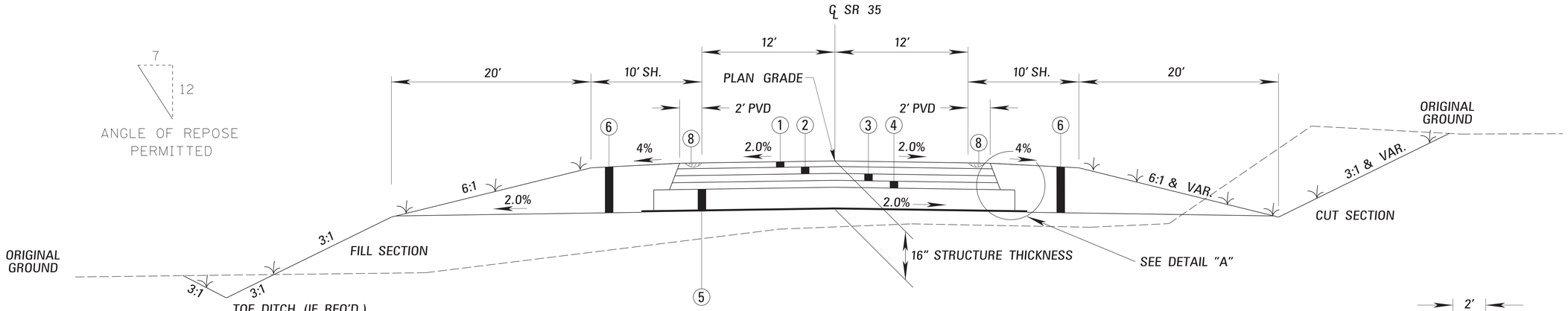
FMS CON: 103334/301000

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



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

ANGLE OF REPOSE
PERMITTED



SR 35 TYPICAL SECTION

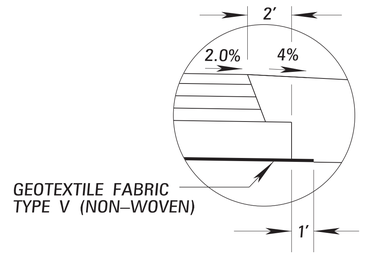
NEW CONSTRUCTION

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

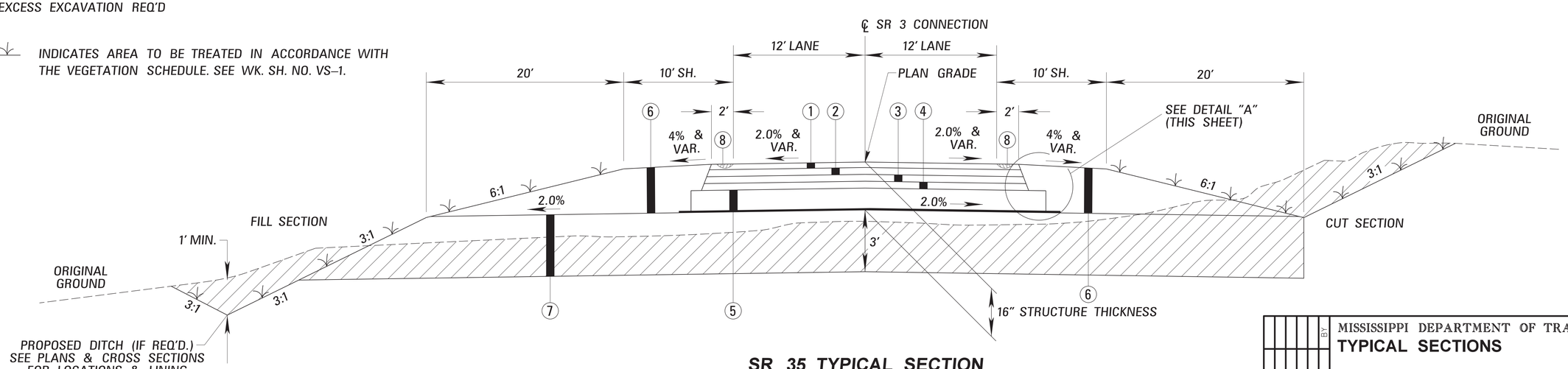
BRIDGE SITE 2
STA. 1583+71.88 TO STA. 1586+58.63



DETAIL "A"

(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

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

MISSISSIPPI DEPARTMENT OF TRANSPORTATION
TYPICAL SECTIONS
SR 35
NEW CONSTRUCTION

PROJ. NO.: BR-0023-02(058)
COUNTY: ATTALA

JOHN D. RESEIGH
REGISTERED PROFESSIONAL ENGINEER
12253
STATE OF MISSISSIPPI

WORKING NUMBER
TS-1
SHEET NUMBER
6

REVISION | BY | DATE
FILENAME: TS.DGN
DESIGN TEAM FA CHECKED DATE

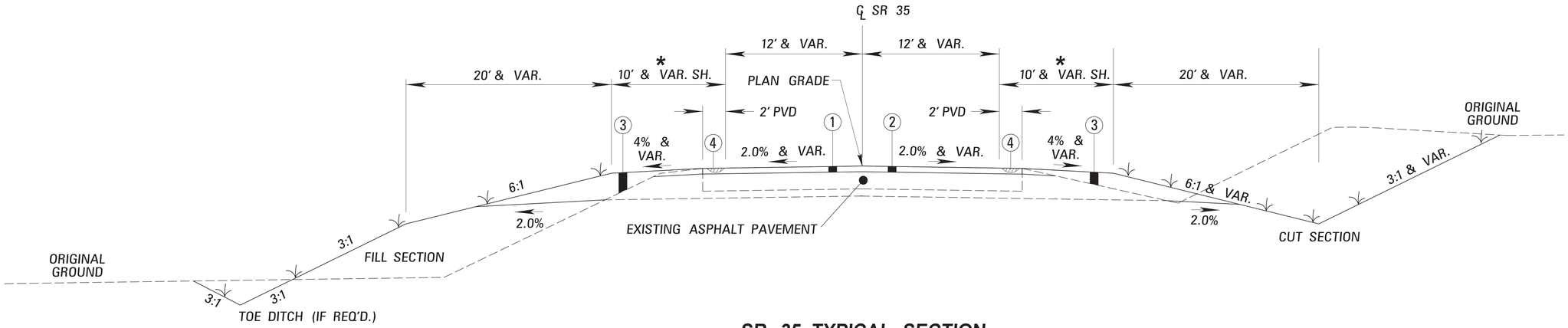
PLAN
ROADWAY DESIGN DIVISION
MISSISSIPPI DEPARTMENT OF TRANSPORTATION

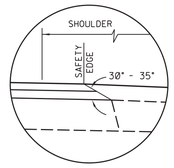
6/10/2019 12:25:04 PM TS.DGN

FMS CON: 103334/301000

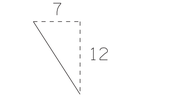
STATE	PROJECT NO.
MISS.	BR-0023-02(058)

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.

PLAN
ROADWAY DESIGN DIVISION
MISSISSIPPI DEPARTMENT OF TRANSPORTATION

6/10/2019 9:25:39 AM TS.DGN

MISSISSIPPI DEPARTMENT OF TRANSPORTATION
TYPICAL SECTIONS
SR 35
WIDENING & OVERLAY

JOHN M. REESE
REGISTERED PROFESSIONAL ENGINEER
12253
STATE OF MISSISSIPPI

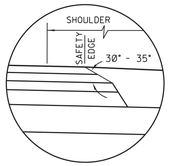
PROJ. NO.: BR-0023-02(058)
COUNTY: ATTALA

WORKING NUMBER **TS-2**
SHEET NUMBER **7**

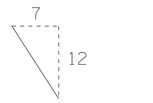
REVISION | BY | DATE
FILENAME: TS.DGN
DESIGN TEAM FA CHECKED DATE

FMS CON: 103334/301000

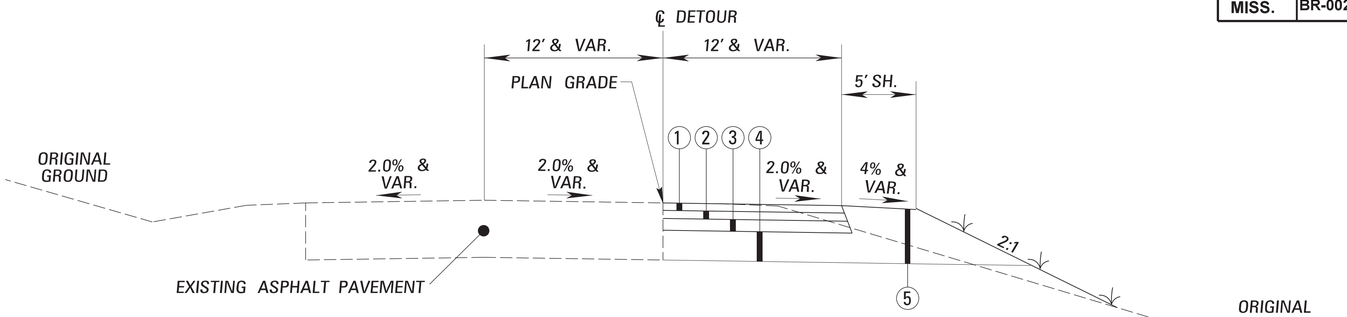
STATE	PROJECT NO.
MISS.	BR-0023-02(058)



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



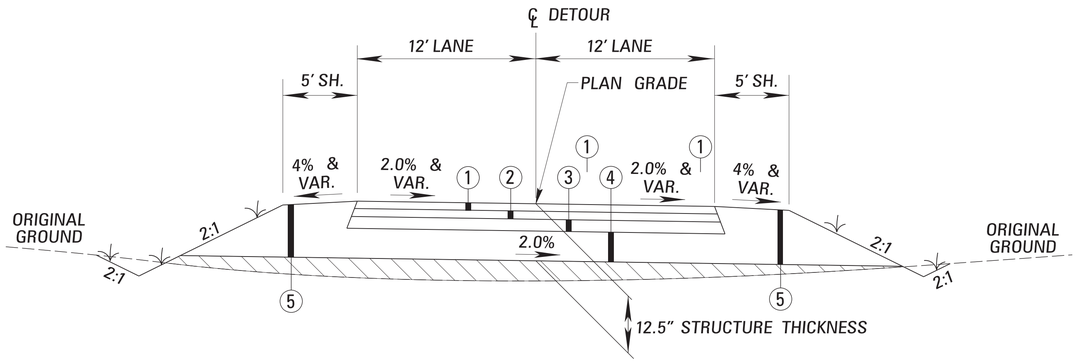
ANGLE OF REPOSE
PERMITTED



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



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

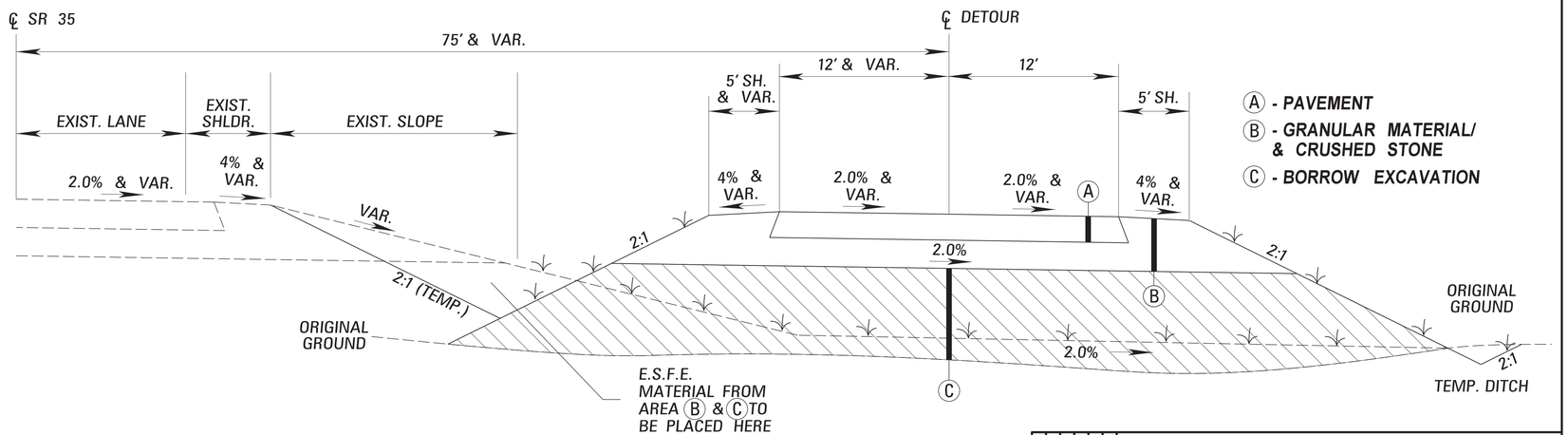
DETOUR ROAD 2
STA. 2+51.64 TO STA. 14+06.15

DETOUR BRIDGE 2
STA. 8+05.00 TO STA. 9+95.00

(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

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.



(A) - PAVEMENT
(B) - GRANULAR MATERIAL/ & CRUSHED STONE
(C) - BORROW EXCAVATION

SR 35 TYPICAL SECTION

DETOUR ROAD CONSTRUCTION & REMOVAL

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

JOHN M. RESH — REGISTERED PROFESSIONAL ENGINEER — 12253 — STATE OF MISSISSIPPI

WORKING NUMBER TS-3
SHEET NUMBER 8

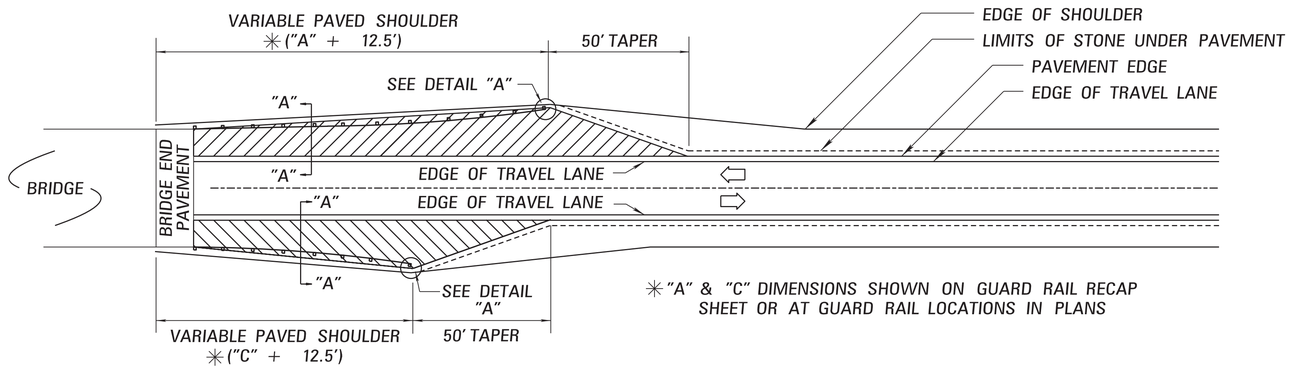
REVISION | BY | DATE
FILENAME: TS.DGN
DESIGN TEAM FA CHECKED DATE

PLAN
ROADWAY DESIGN DIVISION
MISSISSIPPI DEPARTMENT OF TRANSPORTATION

6/10/2019 12:25:59 PM TS.DGN

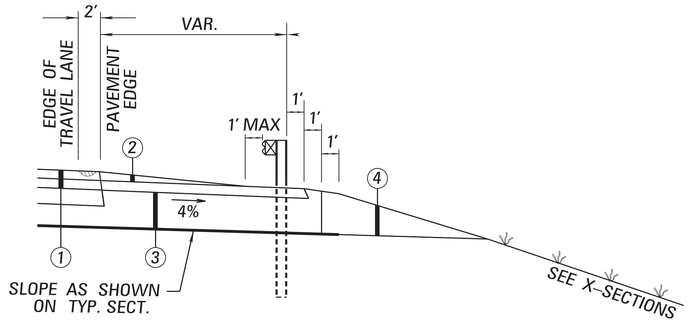
FMS CON: 103334/301000

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



DETAIL OF PAVED SHOULDERS AT BRIDGE ENDS

(SEE SECTION "A"–"A")



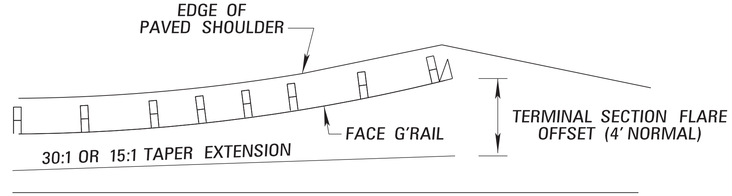
SECTION A-A

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

JOHN M. REESE — REGISTERED PROFESSIONAL ENGINEER — 12253 — STATE OF MISSISSIPPI

WORKING NUMBER **TS-4**

SHEET NUMBER **9**

FILENAME: TS.DGN

DESIGN TEAM FA CHECKED DATE

REVISION BY DATE

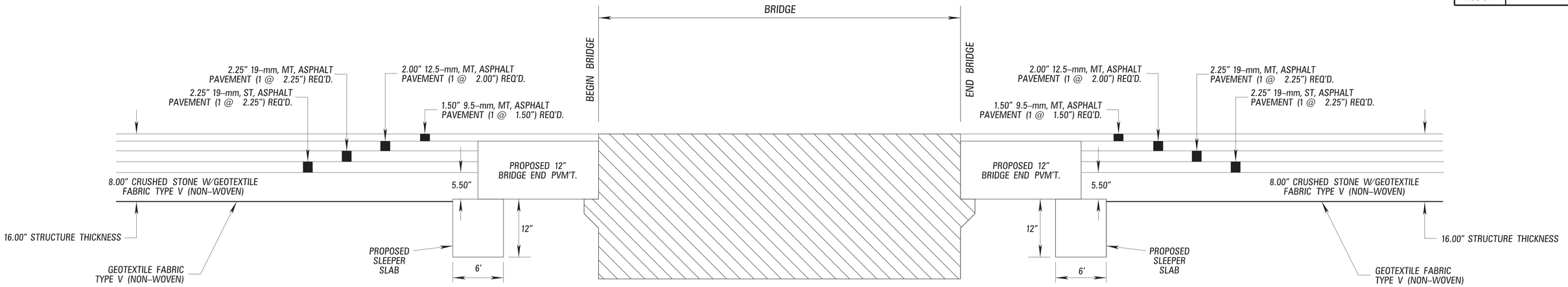
PLAN
ROADWAY DESIGN DIVISION
MISSISSIPPI DEPARTMENT OF TRANSPORTATION

6/10/2019 12:25:08 PM TS.DGN

FMS CON: 103334/301000

1st O.REV.

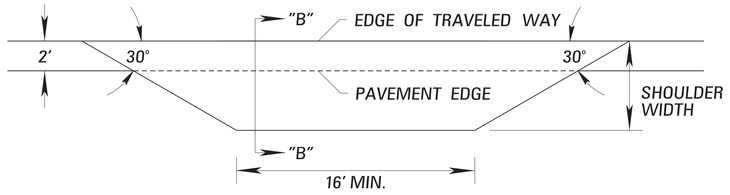
STATE	PROJECT NO.
MISS.	BR-0023-02(058)



SR 35 TYPICAL SECTION

BRIDGE END PAVEMENT

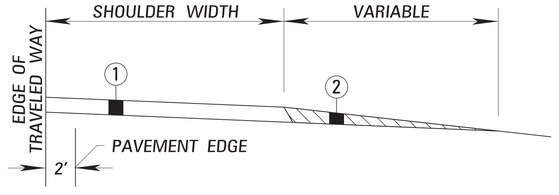
⚠1 NOTE:
SEE SHEET BE–1 FOR ADDITIONAL BRIDGE END PAVEMENT DETAILS.



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

TYPICAL SECTION

PAVED APRON



SECTION "B"–"B"

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

NOT TO SCALE

BY	REVISION	DATE
JMR	REVISED NOTE	7/15/19

MISSISSIPPI DEPARTMENT OF TRANSPORTATION
TYPICAL SECTIONS
SR 35
BRIDGE END PAVEMENT
DETAIL & PAVED APRON
PROJ. NO.: BR-0023-02(058)
COUNTY: ATTALA

JOHN M. REESE REGISTERED PROFESSIONAL ENGINEER 7-15-19 12253 STATE OF MISSISSIPPI

WORKING NUMBER TS-5

FILENAME: TS.DGN
DESIGN TEAM FA CHECKED DATE

SHEET NUMBER 10

PLAN
ROADWAY DESIGN DIVISION
MISSISSIPPI DEPARTMENT OF TRANSPORTATION

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

FMS: 103334-301000

1st O.REV.

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-A001	Clearing and Grubbing	LS	1		(1)
201-B001	Clearing and Grubbing	ACRE	1		(1) (2)
202-A001	Removal of Obstructions	LS	1		(3)
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		(4)
202-B191	Removal of Pipe, 8" And Above	LF	48		(5)
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		(11)
203-G001	Excess Excavation, FM, AH	CY	23,725		
206-A001	Structure Excavation	CY	65		(13)
206-B001	Select Material for Undercuts, Contractor Furnished, FM	CY	24		(8)
209-A005	Geotextile Stabilization, Type V, Non-Woven	SY	6,245		
213-C001	Superphosphate	TON	6		
216-A001	Solid Sodding	SY	197		(6)
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		(9)
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		(10)
249-A001	Riprap for Erosion Control	TON	122		
304-B002	Granular Material, Class 3, Group D	TON	10,350		(7) (12)
304-F001	3/4" and Down Crushed Stone Base	TON	2,900		(7)
	OR				
304-F002	Size 610 Crushed Stone Base	TON	2,900		(7)
	OR				
304-F003	Size 825B Crushed Stone Base	TON	2,900		(7)
403-A002	12.5-mm, MT, Asphalt Pavement	TON	1,583		(1)
403-A005	19-mm, MT, Asphalt Pavement	TON	448		

(1) Includes, but not limited to, aprons, parapets, fence, footings, and/or other underground obstructions.

(2) 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.

△1

Revised Quantity	Revision	By	Date
		JMR	07/15/2019

MISSISSIPPI DEPARTMENT OF TRANSPORTATION
SUMMARY OF QUANTITIES

JOHN M. RESSEL
LICENSED PROFESSIONAL ENGINEER
7-15-19
12253
STATE OF MISSISSIPPI

PROJ NO: BR-0023-02(058)
COUNTY: ATTALA

Working Number: SQ-1

FILENAME: SQ SHEETS

Design Team FA Checked Date

Sheet Number: 11

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-A006	19-mm, ST, Asphalt Pavement	TON	1,475		
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	CY	136		
	OR				
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		

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

MISSISSIPPI DEPARTMENT OF TRANSPORTATION
SUMMARY OF QUANTITIES

By
Revision
Date

JOHN M. RESSEL
REGISTERED PROFESSIONAL ENGINEER
12253
STATE OF MISSISSIPPI
12-5-10-1

PROJ NO: BR-0023-02(058)
COUNTY: ATTALA

Working Number
SQ-2

FILENAME: SQ SHEETS
Design Team FA Checked Date

Sheet Number
12

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-G5001	Free Standing Plastic Drums	EA	81	
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	
626-D002	6" Thermoplastic Double Drop Traffic Stripe, Skip Yellow	LF	3,340	
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.

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

JOHN M. REESE
REGISTERED PROFESSIONAL ENGINEER
12253
STATE OF MISSISSIPPI
5-10-21

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			

PLAN
ROADWAY DESIGN DIVISION
MISSISSIPPI DEPARTMENT OF TRANSPORTATION

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MISSISSIPPI DEPARTMENT OF TRANSPORTATION

ESTIMATED QUANTITIES

SR 35

REMOVAL ITEMS

JOHN M. REESE
REGISTERED PROFESSIONAL ENGINEER
6-10-19
12253
STATE OF MISSISSIPPI

PROJ. NO.: BR-0023-02(058)

COUNTY: ATTALA

WORKING NUMBER
EQ-1

FILENAME: EQ.DGN
DESIGN TEAM FA CHECKED DATE

SHEET NUMBER
14

FMS CON: 103334/301000

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	

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ROADWAY DESIGN DIVISION
MISSISSIPPI DEPARTMENT OF TRANSPORTATION

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MISSISSIPPI DEPARTMENT OF TRANSPORTATION

ESTIMATED QUANTITIES

SR 35

EARTHWORK & GUARDRAIL

PROJ. NO.: BR-0023-02(058)

COUNTY: ATTALA

JOHN M. REESE REGISTERED PROFESSIONAL ENGINEER 10-1 12253 STATE OF MISSISSIPPI

WORKING NUMBER **EQ-2**

SHEET NUMBER **15**

FILENAME: EQ.DGN

DESIGN TEAM FA CHECKED DATE

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	YELLOW	WHITE	WHITE	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								350			3.400					1,700								22			
PMD–2	1576 + 50 TO 1593 + 00								450			3,280					1,640								21			
	UNITS								LF			LF					LF								EACH			
	TOTAL								800			*6,680					**3,340								43			

* 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)

PLAN
ROADWAY DESIGN DIVISION
MISSISSIPPI DEPARTMENT OF TRANSPORTATION

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MISSISSIPPI DEPARTMENT OF TRANSPORTATION
ESTIMATED QUANTITIES

SR 35

PAVEMENT MARKINGS AND BRIDGE END PAVEMENT

PROJ. NO.: BR-0023-02(058)

COUNTY: ATTALA

JOHN M. RESH — REGISTERED PROFESSIONAL ENGINEER — 12253 — STATE OF MISSISSIPPI

WORKING NUMBER **EQ-3**

SHEET NUMBER **16**

BY | REVISION | DATE

FILENAME: EQ.DGN

DESIGN TEAM FA CHECKED DATE

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. EST. DEPTH	STRUC. EXCAV. CUBIC YARDS	SELECT MAT'L	MAX. COVER	COVER	REMARKS
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 24"					END SECTIONS 24"					STANDARD	CLASS "B" CONC. (MINOR)	STRUC. EXCAV. EST. DEPTH	STRUC. EXCAV. CU. YDS.	COVER	REMARKS
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	

PLAN
ROADWAY DESIGN DIVISION
MISSISSIPPI DEPARTMENT OF TRANSPORTATION

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MISSISSIPPI DEPARTMENT OF TRANSPORTATION

ESTIMATED QUANTITIES

SR 35

BOX CULVERTS, PIPES, & EROSION CONTROL

PROJ. NO.: BR-0023-02(058)

COUNTY: ATTALA

JOHN M. REESE — REGISTERED PROFESSIONAL ENGINEER — 12253 — STATE OF MISSISSIPPI — 6-10-19

WORKING NUMBER **EQ-4**

SHEET NUMBER **17**

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

DRIVEWAYS 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
3	1514+11	RT.	16	60	26.54	2.19	2.92		37.15	PIPE FROM DETOUR TO REMAIN
3	1515+53	LT.	16	85	26.54	2.19	2.92		52.63	
3A	14+72	RT.	16	40					24.77	
4	1577+59	LT.	20	50	30.09	2.48	3.31		38.70	DRY
4	1578+21	RT.	16	100	26.54	2.19	2.92		61.92	DRY
4	1581+00	LT.	16	45	26.54	2.19	2.92		27.86	
4	1588+71	RT.	26	125	35.43	2.92	3.90		125.78	DRY
4	1589+00	LT.	16	85	26.54	2.19	2.92		52.63	DRY
4A	1+71	RT.	16	95					58.82	DRY
4A	4+50	LT.	16	35					21.67	TEMPORARY PIPE
4A	12+06	LT.	26	35					35.22	TEMPORARY PIPE
4A	12+06	RT.	26	65					65.40	DRY
					UNITS	TON	TON		TON	
					TOTALS	16.35	21.80		602.56	

SIDE DRAINS REQUIRED

LT. OR RT.	STATION	WK. SH. NO.	LESS THAN 4% * TYPE A ALT. PIPE 18"	24"	30"	36"	48"	R.C.P. CL. III 18"	24"	48"
RT.	1514+11	3								
LT.	1515+53	3	56							
RT.	14+72	3A		48						
LT.	1577+59	4								
RT.	1578+21	4								
LT.	1581+00	4	48							
RT.	1588+71	4								
LT.	1589+00	4								
RT.	1+71	4A								
LT.	4+50	4A	48							
LT.	12+06	4A	48							
RT.	12+06	4A								
UNITS			LF	LF						
TOTALS			200	48						

*TYPE A ALT. PIPE:
ZINC COATED CORRUGATED METAL PIPE, 12 GAUGE (2.67"×0.50" CORRUGATION) OR
ALUMINUM COATED CORRUGATE METAL PIPE, 14 GAUGE (2.67"×0.05" CORRUGATION) OR
POLYMERIC COATED CORRUGATED METAL PIPE, 16 GAUGE (2.67"×0.50" 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
ROADWAY DESIGN DIVISION
MISSISSIPPI DEPARTMENT OF TRANSPORTATION

6/10/2019 7:25:31 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

JOHN H. REESE, JR. REGISTERED PROFESSIONAL ENGINEER 12253 STATE OF MISSISSIPPI

WORKING NUMBER **EQ-5**

SHEET NUMBER **18**

REVISION | BY | DATE

FILENAME: EQ.DGN

DESIGN TEAM FA CHECKED DATE

FMS CON: 103334/301000

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

STANDARD ROADSIDE SIGNS — SHEET ALUMINUM 0.080" THICKNESS

SIGN NO.	SIZE	UNIT AREA SQ.FT.	QUAN. REQ'D.	TOTAL SIGN AREA SQ.FT.	REMARKS
I - 2	24" X 18"	3.00			
M1 - 1	24" X 24"	4.00			
M1 - 1	30" X 24"	5.00			
M1 - 4	24" X 24"	4.00			
M1 - 4	30" X 24"	5.00			
M1 - 5	24" X 24"	4.00			
M1 - 5	30" X 24"	5.00			
M2 - 1	21" X 15"	2.19			
M3 - 1	24" X 12"	2.00			
M3 - 1	30" X 15"	3.13			
M3 - 2	24" X 12"	2.00			
M3 - 2	30" X 15"	3.13			
M3 - 3	24" X 12"	2.00			
M3 - 3	30" X 15"	3.13			
M3 - 4	24" X 12"	2.00			
M3 - 4	30" X 15"	3.13			
M4 - 5	24" X 12"	2.00			
M5 - 1L	21" X 15"	2.19			
M5 - 1R	21" X 15"	2.19			
M5 - 2L	21" X 15"	2.19			
M5 - 2R	21" X 15"	2.19			
M6 - 1L	21" X 15"	2.19			
M6 - 1R	21" X 15"	2.19			
M6 - 2L	21" X 15"	2.19			
M6 - 2R	21" X 15"	2.19			
M6 - 3	21" X 15"	2.19			
R1 - 1	36" OCTAGON	7.46			
R1 - 1	48" OCTAGON	13.25			
R1 - 2	48" X 48" X 48"	6.93			
R1 - 2	60" X 60" X 60"	10.83			

STANDARD ROADSIDE SIGNS — SHEET ALUMINUM 0.080" THICKNESS

SIGN NO.	SIZE	UNIT AREA SQ.FT.	QUAN. REQ'D.	TOTAL SIGN AREA SQ.FT.	REMARKS
R1 - 3	18" X 9"	1.13			
R1 - 3	24" X 12"	2.00			
R2 - 1	24" X 30"	5.00			
R2 - 1	36" X 48"	12.00			
R2 - 1	48" X 60"	20.00			
R3 - 1	36" X 36"	9.00			
R3 - 1	48" X 48"	16.00			
R3 - 2	36" X 36"	9.00			
R3 - 2	48" X 48"	16.00			
R3 - 4	36" X 36"	9.00			
R3 - 4	48" X 48"	16.00			
R3 - 5L	30" X 36"	7.50			
R3 - 5R	30" X 36"	7.50			
R3 - 6L	30" X 36"	7.50			
R3 - 6R	30" X 36"	7.50			
R3 - 7L	36" X 36"	9.00			
R3 - 7R	36" X 36"	9.00			
R3 - 9B	24" X 36"	6.00			
R4 - 1	24" X 30"	5.00			
	48" X 60"	20.00			
R4 - 2	24" X 30"	5.00			
	48" X 60"	20.00			
R4 - 7	48" X 60"	20.00			
R4 - 8	48" X 60"	20.00			
R5 - 1	48" X 48"	16.00			
R5 - 1a	42" X 30"	8.75			
R6 - 1L	36" X 12"	3.00			
R6 - 1R	36" X 12"	3.00			
R6 - 2L	24" X 30"	5.00			
R6 - 2R	24" X 30"	5.00			
R12 - 1	24" X 30"	5.00			
S1 - 1	36" X 36"	9.00			
S4 - 3P	24" X 8"	1.33			
S4 - 4P	24" X 10"	1.67			
S5 - 2	24" X 30"	5.00			
TOTAL (Ø.080" THICKNESS)					

STANDARD ROADSIDE SIGNS — SHEET ALUMINUM 0.125" THICKNESS

SIGN NO.	SIZE	UNIT AREA SQ.FT.	QUAN. REQ'D.	TOTAL SIGN AREA SQ.FT.	REMARKS
D1-2	30" X 24"	5.00			
R1 - 2	36"X36"X36"	3.90			
R2 - 1	30" X 36"	7.50			
R5 - 1	36" X 36"	9.00			
R15 - 1	48" X 9"	5.44			
W1 - 2L	36" X 36"	9.00			
W1 - 2R	36" X 36"	9.00			
W1 - 4aL	36" X 36"	9.00			
W1 - 4aR	36" X 36"	9.00			
W1 - 7	48" x 24"	8.00			
W2 - 1	30" X 30"	6.25	1	7	⊕
W2 - 2	30" X 30"	6.25			
W2 - 7R	30" X 30"	6.25			
W3 - 1a	36" X 36"	9.00			
W3 - 3	48" X 48"	16.00			
W3 - 5	48" X 48"	16.00			
W4 - 1L	48" X 48"	16.00			
W4 - 1R	48" X 48"	16.00			
W4 - 2L	36" X 36"	9.00			
W4 - 2R	36" X 36"	9.00			
W5 - 1a	48" X 48"	16.00			
W6 - 1	48" X 48"	16.00			
W6 - 2	48" X 48"	16.00			
W6 - 3	36" X 36"	9.00			
W8 - 1	48" X 48"	16.00			
W8 - 4	48" X 48"	16.00			
W8 - 6	48" X 48"	16.00			
W8 - 7	48" X 48"	16.00			
W8 - 9	48" X 48"	16.00			
W8 - 11	36" X 36"	9.00			
W8 - 13	36" X 36"	9.00	4	36	BRIDGE ICES BEFORE ROAD
W10 - 1	36" DIA.	7.07			
W10 - 1	48" DIA.	12.56			
W13 - 1	24" X 24"	4.00			
W14 - 3	36"X48"X48"	5.56			
	48"X64"X64"	9.89			
W19 - 2	48" X 48"	16.00			
W20 - 1	48" X 48"	16.00			
W20 - 1	36" X 36"	9.00			
W20 - 2	48" X 48"	16.00			
W20 - 3	48" X 48"	16.00			
W20 - 4	48" X 48"	16.00			
W20 - 4B	48" X 48"	16.00			

STANDARD ROADSIDE SIGNS — SHEET ALUMINUM 0.125" THICKNESS

SIGN NO.	SIZE	UNIT AREA SQ.FT.	QUAN. REQ'D.	TOTAL SIGN AREA SQ.FT.	REMARKS
W21 - 2	36" X 36"	9.00			
W21 - 3	48" X 48"	16.00			
W21 - 5	48" X 48"	16.00			
W21 - 6	36" X 36"	9.00			
VP - 1L	12" X 36"	3.00			
VP - 1R	12" X 36"	3.00			
OM - 3L	12" X 36"	3.00			
OM - 3R	12" X 36"	3.00			
TOTAL (Ø.125" THICKNESS)				43	

NOTE:
IF ALTERNITE I (ALUMINIUM) IS SELECTED FOR STANDARD ROADSIDE SIGNS, SHEET ALUMINUM OF THE THICKNESSES SHOWN IN THESE TABLES SHALL BE USED. IF ALTERNATE II (STEEL) IS SELECTED, ALL STANDARD ROADSIDE SIGNS SHALL BE FABRICATED ON 14 GAGE SHEET STEEL.

PLAN
ROADWAY DESIGN DIVISION
MISSISSIPPI DEPARTMENT OF TRANSPORTATION

6/10/2019 @ 2:52:31 PM EQ.DGN

MISSISSIPPI DEPARTMENT OF TRANSPORTATION

ESTIMATED QUANTITIES

SR 35

STANDARD ROADSIDE SIGNS

JOHN M. REESER — REGISTERED PROFESSIONAL ENGINEER — 12253 — STATE OF MISSISSIPPI — 6-10-19

PROJ. NO.: BR-0023-02(058)

COUNTY: ATTALA

REVISION | BY | DATE

WORKING NUMBER **EQ-6**

SHEET NUMBER **19**

FILENAME: EQ.DGN

DESIGN TEAM FA CHECKED _____ DATE _____

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

SUMMARY OF TRAFFIC CONTROL ITEMS REQUIRED

WORKING NUMBER	PHASE OF CONST.	TEMPORARY TRAFFIC STRIPE: PAINT OR TAPE: CONTINUOUS WHITE	CONTINUOUS YELLOW	SKIP WHITE	SKIP YELLOW	DETAIL	LEGEND	TAPE: CONT. YELLOW (TYPE I OR II)	TAPE (TYPE 1): CONTINUOUS WHITE	CONTINUOUS YELLOW	SKIP WHITE	SKIP YELLOW	DETAIL	LEGEND	RAISED MARKERS: RED CLEAR	2–WAY YELLOW	BARRICADES TYPE III: SINGLE FACE	DOUBLE FACE	WARNING LIGHTS: TYPE A	TYPE B	TYPE C	FREE STANDING PLASTIC DRUMS	TRAFFIC CONTROL SIGNS: G20–1	G20–2	R1–1	R2–1	R4–1	R11–2	R16–3	W1–2R	W1–2L		W1–6R	W1–6L	W3–5	W8–9	W13–1	W20–1 (48x48)	W24–1R	W24–1L	OM–3R	OM–3L	REMARKS
CONSTRUCTION SIGNING																																													
CS–1																		24		2			2	2		4			2						2			12					
UNITS		LIN. FT.	LIN. FT.	LIN. FT.	LIN. FT.	LIN. FT.	LIN. FT.	LIN. FT.	LIN. FT.	LIN. FT.	LIN. FT.	LIN. FT.	LIN. FT.	LIN. FT.	EACH	EACH	LIN. FT.	LIN. FT.	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	
SUBTOTAL																		24		2			2	2		4			2						2			12					
SITE ONE																																												
TC–1	1																42			2		26			3		2	3								2							
TC–2	2	2426	2426					1950					2500			43	48			2		36			2			2					1	1			2		1	1	2	2	
TC–3	3	3400	350		1700												48					27			2			2							2								
UNITS		LIN. FT.	LIN. FT.	LIN. FT.	LIN. FT.	LIN. FT.	LIN. FT.	LIN. FT.	LIN. FT.	LIN. FT.	LIN. FT.	LIN. FT.	LIN. FT.	LIN. FT.	EACH	EACH	LIN. FT.	LIN. FT.	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	
SUBTOTAL		5826	2776		1700			1950					2500			43	48			2		36			3		2	3					1	1		2	2		1	1	2	2	
SITE TWO																																												
TC–4	1																96					45			4		2	4								2							
TC–5	2	2306	2306					1950					2500			42	48			2		36			2			2					1	1			2		1	1	2	2	
TC–6	3	3280	450		1640												48					27			2			2							2								
UNITS		LIN. FT.	LIN. FT.	LIN. FT.	LIN. FT.	LIN. FT.	LIN. FT.	LIN. FT.	LIN. FT.	LIN. FT.	LIN. FT.	LIN. FT.	LIN. FT.	LIN. FT.	EACH	EACH	LIN. FT.	LIN. FT.	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	
SUBTOTAL		5586	2756		1700			1950					2500			42	96			2		45			4		2	4					1	1		2	2		1	1	2	2	
TOTALS																																												
CON. SIGN.																		24		2			2	2		4			2						2			12					
SITE 1		5826	2776		1700			1950					2500			43	48			2		36			3		2	3					1	1		2	2		1	1	2	2	
SITE 2		5586	2756		1700			1950					2500			42	96			2		45			4		2	4					1	1		2	2		1	1	2	2	
UNITS		LIN. FT.	LIN. FT.	LIN. FT.	LIN. FT.	LIN. FT.	LIN. FT.	LIN. FT.	LIN. FT.	LIN. FT.	LIN. FT.	LIN. FT.	LIN. FT.	LIN. FT.	EACH	EACH	LIN. FT.	LIN. FT.	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	
TOTAL		11412	5532		3400			3900					5000			85	144	24		6		81	2	2	7	4	4	7	2				2	2	2	4	4	12	2	2	4	4	
UNITS		MILE	MILE		MILE																																							
TOTAL		2.16	1.05		0.32																																							

REVISION	BY	DATE

MISSISSIPPI DEPARTMENT OF TRANSPORTATION

ESTIMATED QUANTITIES

SR 35

TRAFFIC CONTROL ITEMS

PROJ. NO.: BR-0023-02(058)

COUNTY: ATTALA

JOHN M. REESE — LICENSED PROFESSIONAL ENGINEER — 12253 — STATE OF MISSISSIPPI

WORKING NUMBER **EQ-7**

SHEET NUMBER **20**

FILENAME: EQ.DGN

DESIGN TEAM FA CHECKED _____ DATE _____

FMS CON: 103334/301000

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

SIGNS REQUIRED

	SIGN NO.	SIZE	UNIT AREA SQ.FT.	QUAN. REQ'D.	TOTAL SIGN AREA SQ.FT.	REMARKS
	G20 - 1	60" X 24"	10.00 ♦	2	20	ROAD WORK NEXT X X MILES
	G20 - 2	48" X 24"	8.00	2	16	END ROAD WORK
	G20 - 4	36" X 18"	4.50			PILOT CAR FOLLOW ME
1	M1 - 1	24" X 24"	4.00			1 OR 2 DIGIT
1	M1 - 1	30" X 24"	5.00			3 DIGIT
2	M1 - 4	24" X 24"	4.00			1 OR 2 DIGIT
2	M1 - 4	30" X 24"	5.00			3 DIGIT
3	M1 - 5	24" X 24"	4.00			1 OR 2 DIGIT
3	M1 - 5	30" X 24"	5.00			3 DIGIT
4	M3 - 1	24" X 12"	2.00			NORTH- 1 OR 2 DIGIT RTE. MARKER
4	M3 - 1	30" X 15"	3.13			NORTH- 3 DIGIT RTE. MARKER
4	M3 - 2	24" X 12"	2.00			EAST- 1 OR 2 DIGIT RTE. MARKER
4	M3 - 2	30" X 15"	3.13			EAST- 3 DIGIT RTE. MARKER
4	M3 - 3	24" X 12"	2.00			SOUTH- 1 OR 2 DIGIT RTE. MARKER
4	M3 - 3	30" X 15"	3.13			SOUTH- 3 DIGIT RTE. MARKER
4	M3 - 4	24" X 12"	2.00			WEST- 1 OR 2 DIGIT RTE. MARKER
4	M3 - 4	30" X 15"	3.13			WEST- 3 DIGIT RTE. MARKER
	M4 - 8	24" X 12"	2.00			DETOUR- 1 OR 2 DIGIT RTE. MARKER
	M4 - 8	30" X 15"	3.13			DETOUR- 3 DIGIT RTE. MARKER
	M4 - 9	48" X 36"	12.00 ♦			DETOUR ↑
	M4 - 9L	48" X 36"	12.00 ♦			DETOUR ←
	M4 - 9BL	48" X 36"	12.00 ♦			DETOUR ↰
	M4 - 9SL	48" X 36"	12.00 ♦			DETOUR ↖
	M4 - 9BSL	48" X 36"	12.00 ♦			DETOUR ↰
	M4 - 9R	48" X 36"	12.00 ♦			DETOUR →
	M4 - 9BR	48" X 36"	12.00 ♦			DETOUR ↱
	M4 - 9SR	48" X 36"	12.00 ♦			DETOUR ↗
	M4 - 9BSR	48" X 36"	12.00 ♦			DETOUR ↱
	M4 - 10L	48" X 18"	6.00			DETOUR ←
	M4 - 10R	48" X 18"	6.00			DETOUR →
4	M4 - 5	24" X 12"	2.00			TO
4	M5 - 1L	21" X 15"	2.19			↰
4	M5 - 1R	21" X 15"	2.19			↱
4	M5 - 2L	21" X 15"	2.19			↰
4	M5 - 2R	21" X 15"	2.19			↱
4	M6 - 1L	21" X 15"	2.19			←
4	M6 - 1R	21" X 15"	2.19			→
4	M6 - 2L	21" X 15"	2.19			↖
4	M6 - 2R	21" X 15"	2.19			↗
4	M6 - 3	21" X 15"	2.19			↑
	R1 - 1	36" OCTAGON	7.46			STOP (1)
	R1 - 1	48" OCTAGON	13.25 ♦	7	93	STOP (2)
	R1 - 2	48" X 48" X 48"	6.93			YIELD (1)
	R1 - 2	60" X 60" X 60"	10.83 ♦			YIELD (2)

SIGNS REQUIRED (CONT'D)

	SIGN NO.	SIZE	UNIT AREA SQ.FT.	QUAN. REQ'D.	TOTAL SIGN AREA SQ.FT.	REMARKS
	R1 - 3	18" X 9"	1.13			3-WAY, 4 WAY ETC. (1)
	R1 - 3	24" X 12"	2.00			3-WAY, 4 WAY ETC. (2)
	R2 - 1	24" X 30"	5.00	4	20	SPEED LIMIT (1)
	R2 - 1	36" X 48"	12.00 ♦			SPEED LIMIT (2)
6	R2 - 1	48" X 60"	20.00 ♦			SPEED LIMIT
	R3 - 1	36" X 36"	9.00			(1)
	R3 - 1	48" X 48"	16.00 ♦			(2)
	R3 - 2	36" X 36"	9.00			(1)
	R3 - 2	48" X 48"	16.00 ♦			(2)
	R3 - 4	36" X 36"	9.00			(1)
	R3 - 4	48" X 48"	16.00 ♦			(2)
	R3 - 5L	30" X 36"	7.50			ONLY
	R3 - 5R	30" X 36"	7.50			ONLY
	R3 - 6L	30" X 36"	7.50			
	R3 - 6R	30" X 36"	7.50			
	R3 - 7L	30" X 30"	6.25			LEFT LANE MUST TURN LEFT
	R3 - 7R	30" X 30"	6.25			RIGHT LANE MUST TURN RIGHT
	R4 - 1	24" X 30"	5.00	4	20	DO NOT PASS (1)
		48" X 60"	20.00 ♦			DO NOT PASS (2)
	R4 - 2	24" X 30"	5.00			PASS WITH CARE (1)
		48" X 60"	20.00 ♦			PASS WITH CARE (2)
	R4 - 7	48" X 60"	20.00 ♦			
	R4 - 8	48" X 60"	20.00 ♦			
	R5 - 1	48" X 48"	16.00 ♦			DO NOT ENTER
	R5 - 1a	42" X 30"	8.75			WRONG WAY
	R6 - 1L	36" X 12"	3.00			ONE WAY
	R6 - 1R	36" X 12"	3.00			ONE WAY
	R6 - 2L	24" X 30"	5.00			ONE WAY ←
	R6 - 2R	24" X 30"	5.00			ONE WAY →
	R11 - 2	48" X 30"	10.00 ♦	7	70	ROAD CLOSED
	R11 - 3a	60" X 30"	12.50 ♦			ROAD CLOSED XX MILES AHEAD
	R11 - 3b	60" X 30"	12.50 ♦			BRIDGE OUT XX MILES AHEAD
	R11 - 4	60" X 30"	12.50 ♦			ROAD CLOSED TO THRU TRAFFIC
	R12 - 1	36" X 48"	12.00 ♦			WEIGHT LIMIT XX TONS
7	R16- 3	36" X 48"	12.00 ♦	2	24	WHEN WORKERS ARE PRESENT SPEEDING FINES DOUBLED
6 7		48" X 60"	20.00 ♦			
	W1 - 1L	48" X 48"	16.00 ♦			↰
	W1 - 1R	48" X 48"	16.00 ♦			↱
	W1 - 2L	48" X 48"	16.00 ♦			↰
	W1 - 2R	48" X 48"	16.00 ♦			↱
	W1 - 3L	48" X 48"	16.00 ♦			↰
	W1 - 3R	48" X 48"	16.00 ♦			↱
	W1 - 4aL	48" X 48"	16.00 ♦			↰
	W1 - 4aR	48" X 48"	16.00 ♦			↱
	W1 - 5L	48" X 48"	16.00 ♦			↰
	W1 - 5R	48" X 48"	16.00 ♦			↱
	W1 - 6L	48" X 24"	8.00	2	16	← (1)
	W1 - 6L	60" X 30"	12.50 ♦			← (2)
	W1 - 6R	48" X 24"	8.00	2	16	→ (1)
	W1 - 6R	60" X 30"	12.50 ♦			→ (2)
	W1 - 7	48" X 24"	8.00			↔ (1)

SIGNS REQUIRED (CONT'D)

SIGN NO.	SIZE	UNIT AREA SQ.FT.	QUAN. REQ'D.	TOTAL SIGN AREA SQ.FT.	REMARKS
W1 - 7	60" X 30"	12.50 ♦			↔ (2)
W1 - 8L	18" X 24"	3.00			← (1)
W1 - 8L	36" X 48"	12.00 ♦			← (2)
W1 - 8R	18" X 24"	3.00			→ (1)
W1 - 8R	36" X 48"	12.00 ♦			→ (2)
W1 - 9L	48" X 48"	16.00 ♦			
W1 - 9R	48" X 48"	16.00 ♦			
W3 - 1a	48" X 48"	16.00 ♦			
W3 - 2a	48" X 48"	16.00 ♦			
W3 - 3	48" X 48"	16.00 ♦			
W3 - 5	48" X 48"	16.00 ♦	2	32	SPEED REDUCTION
W4 - 1L	48" X 48"	16.00 ♦			
W4 - 1R	48" X 48"	16.00 ♦			
W4 - 2L	48" X 48"	16.00 ♦			
W4 - 2R	48" X 48"	16.00 ♦			
W5 - 1a	48" X 48"	16.00 ♦			PAVEMENT NARROWS
W6 - 1	48" X 48"	16.00 ♦			
W6 - 2	48" X 48"	16.00 ♦			
W6 - 3	48" X 48"	16.00 ♦			
W8 - 1	48" X 48"	16.00 ♦			BUMP
W8 - 4	48" X 48"	16.00 ♦			SOFT SHOULDER
W8 - 6	48" X 48"	16.00 ♦			TRUCK CROSSING
W8 - 7	48" X 48"	16.00 ♦			LOOSE GRAVEL
W8 - 9	48" X 48"	16.00 ♦	4	64	LOW SHOULDER
W8 - 11	36" X 36"	9.00			UNEVEN LANES
W8 - 12	48" X 48"	16.00 ♦			NO CENTER STRIPE
W10 - 1	36" DIA.	7.07			R R (1)
W10 - 1	48" DIA.	12.56 ♦			R R (2)
W13 - 1	24" X 24"	4.00	4	16	XX MPH
W14 - 3	36"X48"X48"	5.56			NO PASSING ZONE (1)
	48"X64"X64"	9.89			NO PASSING ZONE (2)
W16-2	24" X 18"	3.00			XXX FEET
W19 - 2	48" X 48"	16.00 ♦			BRIDGE MAY ICE IN COLD WEATHER
W20 - 1	48" X 48"	16.00 ♦	12	192	ADVANCE ROAD WORK (1)
W20 - 1	36" X 36"	9.00			ADVANCE ROAD WORK (2)
W20 - 2	48" X 48"	16.00 ♦			ADVANCE DETOUR
W20 - 3	48" X 48"	16.00 ♦			ADVANCE ROAD CLOSED
W20 - 4	48" X 48"	16.00 ♦			ADVANCE ONE-LN. RD.
W20 - 4B	48" X 48"	16.00 ♦			ADVANCE ONE-LN. BR.
W20 - 5L	48" X 48"	16.00 ♦			ADVANCE LT. LN. CLOSED
W20 - 5R	48" X 48"	16.00 ♦			ADVANCE RT. LN. CLOSED
W20 - 7a	48" X 48"	16.00 ♦			
W21 - 1	36" X 36"	9.00			WORKERS
W21 - 1a	36" X 36"	9.00			

SIGNS REQUIRED (CONT'D)

SIGN NO.	SIZE	UNIT AREA SQ.FT.	QUAN. REQ'D.	TOTAL SIGN AREA SQ.FT.	REMARKS
W21 - 2	36" X 36"	9.00			FRESH OIL (TAR)
W21 - 3	48" X 48"	16.00 ♦			ADVANCE ROAD MACHINERY
W21 - 5	48" X 48"	16.00 ♦			SHOULDER WORK
W21 - 6	36" X 36"	9.00			SURVEY CREW
W24-1L	48" X 48"	16.00 ♦	2	32	DOUBLE REVERSE CURVE
W24-1R	48" X 48"	16.00 ♦	2	32	
VP - 1L	12" X 36"	3.00			
VP - 1R	12" X 36"	3.00			
5 OM - 3L	12" X 36"	3.00	4	12	
5 OM - 3R	12" X 36"	3.00	4	12	
TOTAL SIGN AREA			LESS THAN 10 SQ. FT.		128 SQ. FT.
TOTAL SIGN AREA			10 SQ. FT. OR MORE ♦		559 SQ. FT.

(1) STANDARD
(2) SPECIAL (USE WHERE WARRANTED)

NOTES

1. INTERSTATE ROUTE MARKER
2. UNITED STATES ROUTE MARKER
3. STATE ROUTE MARKER
4. COLORS OF CARDINAL DIRECTION MARKERS AND DIRECTIONAL ARROWS SHALL BE APPROPRIATE TO MATCH ACCOMPANYING ROUTE MARKERS.
5. BLACK STRIPES ON YELLOW BACKGROUND
6. INTERSTATE USE ONLY
7. TOP OF SIGN - BLACK LETTERING ON ORANGE BACKGROUND, BOTTOM OF SIGN - BLACK LETTERING ON WHITE BACKGROUND

THE BACKGROUND OF ALL WARNING SIGNS ("W" SERIES) EXCEPT W10-1 SHALL BE ORANGE. THE W10-1 BACKGROUND SHALL BE YELLOW IN ALL CASES.

MISSISSIPPI DEPARTMENT OF TRANSPORTATION
ESTIMATED QUANTITIES

SR 35

TRAFFIC CONTROL SIGNS

PROJ. NO.: BR-0023-02(058)
COUNTY: ATTALA

JOHN M. REESE — REGISTERED PROFESSIONAL ENGINEER — 12253 — STATE OF MISSISSIPPI

WORKING NUMBER **EQ-8**
SHEET NUMBER **21**

REVISION | BY | DATE

FILENAME: EQ.DGN
DESIGN TEAM FA CHECKED DATE

PLAN
ROADWAY DESIGN DIVISION
MISSISSIPPI DEPARTMENT OF TRANSPORTATION

6/10/2019 12:25:18 PM EQ.DGN

FMS CON: 103334/301000

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

PLAN
ROADWAY DESIGN DIVISION
MISSISSIPPI DEPARTMENT OF TRANSPORTATION

6/10/2019 7:25:34 AM RCS.DGN

DATE	REVISION	BY

MISSISSIPPI DEPARTMENT OF TRANSPORTATION

RIGHT-OF-WAY AND EASEMENT COORDINATES

JOHN M. RESER, REGISTERED PROFESSIONAL ENGINEER, 12253, STATE OF MISSISSIPPI, 5-10-19

PROJ. NO.: BR-0023-02(058)

COUNTY: ATTALA

WORKING NUMBER: RCS-1

FILENAME: RCS.DGN

DESIGN TEAM FA CHECKED DATE

SHEET NUMBER: 22

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

1st O.REV.

REVISIONS	
DATE	BY
△1 07/08/19	JMR

△1 ADDED WETLANDS INFO

EARTHWORK TOTAL THIS SHEET		
Cut	2,587	Cu.Yds
Fill	9,909	Cu.Yds
Excess	11,163	Cu.Yds
Surplus		Cu.Yds
Borrow (B-9)	7,839	Cu.Yds

▨ INDICATES REMOVAL OF EMBANKMENT.

▨ INDICATES REMOVAL OF PAVEMENT.

PERMANENT EROSION CONTROL ITEMS	UNITS	SYMBOL	TOTALS
DITCH LINER	S.Y.	▨	89
SOIL REINF. MATERIAL	S.Y.	▨	401
PAVED DITCH	C.Y.	▨	
RIPRAP	TON	▨	2640
GEOTEXTILE	S.Y.	⁄	3253
SOLID SOD	S.Y.	⁄	

△1

WETLAND SITE		
TEMPORARILY FILLED	0.00	AC.
PERMANENTLY FILLED	0.00	AC.
BRIDGED		AC.

SR 35

DESIGN SPEED = 65

0 100 200 300

SCALE: 1"=100' HOR.

Utility Owners:
Conehoma Water Association, Inc. - (662) 289-6554
Atmos - (800) 863-7449
AT&T - (800) 227-6477
Central EPA - (601) 267-5671
Texas Eastern Transmission Corp. - (601) 946-1001

Note:
811 stated Conehoma Water Association, Atmos, and AT&T have lines inside the area of this project, however these companies failed to locate thier lines.

R.O.W. taken from old plans; FAP-37A(2) constructed in 1940.

STA. 1506 + 58.88
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. 150.5
SR 35 AT BOKSHENYA CREEK
STA. 1506 + 58.88 TO STA. 1509 + 61.13
SPANS = 3 @ 100' – 0"
SKEW = NORMAL AT CENTERLINE
TOTAL LENGTH = 300' – 0"
DRAINAGE AREA = 7.2 SQ. MI.

STA. 1509 + 61.13
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. 1514 + 11
16' RAMP REQ'D. RT.
48'–24" ALT. PIPE REQ'D.
(FROM DETOUR)

STA. 1515 + 53
16' RAMP REQ'D. LT.
56'–18" ALT. PIPE REQ'D.

JOHN M. REESE
LICENSED PROFESSIONAL ENGINEER
12253
STATE OF MISSISSIPPI
7-8-19

Wk. Sh.
3
Sh. No.
23

PLAN-PROFILE
ROADWAY DESIGN DIVISION
MISSISSIPPI DEPARTMENT OF TRANSPORTATION

7/8/2019 09:10:00 WK3.DGN

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

1st O.REV.

⚠ ADDED WETLANDS INFO

REVISIONS	
DATE	BY
⚠ 07/08/19	JMR


300# RIPRAP
VAR. DEPTH
2:1
PROPOSED CHANNEL CHANGE
SR 35 STA. 1508+00 TO STA. 1512+50 RT.
(SEE DETOUR XS FOR ADDITIONAL DETAILS)
WILLIAM M. MYERS DDS D.B. 739 PG. 203 D.B. 273 PG. 113 D.B. 263 PG. 424 D.B. 257 PG. 692 TAX PARCEL 6.00
STEVEN HOLLAND MYERS D.B. 415 PG. 387 TAX PARCEL 6.01
STEVEN HOLLAND MYERS ETUX D.B. 487 PG. 359 TAX PARCEL 6.02
19' - 15" CMP US FL 399.51 DS FL 399.40 (TO REMAIN)
22' - 24" RCP US FL 402.70 DS FL 400.85 (TO REMAIN)
CATTLE GAP
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 24° 20' 50.388" E AH N 9° 59' 08.946" E PC 3+00.787 PT 6+01.574
P.C.M. ELEV. 402.70 PT NAME: 3504010 N. 1262942.382 E. 761099.9715 DESC. 1½"Stamp Alum.Disc on Rebar Sta.1510+65 19' LT
25' - 24" RCP US FL 396.26 DS FL 395.89 (TO REMOVE)
23' - 18" CMP US FL 396.86 DS FL 396.64 (TO REMOVE)
EXIST. BRIDGE NO. 150.5 (BOKSHENYA CREEK) 7 @ 20' WF BEAM SPANS (TO REMOVE)
CENTRAL ELECTRIC POWER ASSOCIATION TRANSMISSION LINE EASEMENT D.B. 261 PG. 879
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 4° 22' 32.495" W AH N 9° 59' 08.946" E PC 14+11.772 PT 17+12.559
MICHAEL CRAWLEY STEELE D.B. 799 PG. 701 D.B. 677 PG. 35 D.B. 691 PG. 499 D.B. 679 PG. 586 D.B. 675 PG. 111 D.B. 675 PG. 114 TAX PARCEL 4.00
To Carthage
To Site 2
N 9° 59' 08.946" E
25' - 18" CMP US FL 408.32 DS FL 407.63 (TO REMAIN)
RAY SCOTT COCKROFT ETUX D.B. 591 PG. 125 TAX PARCEL 3.00
TIE TO EXIST.ROW
BEGIN SPECIAL DITCHES
END SPECIAL DITCHES
SPECIAL DITCHES
PROP. CHANNEL CHANGE
BOKSHENYA CREEK
PC Sta. 0+00.000
PRC Sta. 3+00.787
PT Sta. 6+01.574
PC Sta. 11+10.985
PRC Sta. 14+11.772
PT Sta. 17+12.559
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 9° 59' 08.946" E AH N 24° 20' 50.388" E PC 0+00.000 PT 3+00.787
Curve DET35_5 Δ = 14° 21' 41.442" (LT) D = 4° 46' 28.734" L = 300.787' T = 151.186' R = 1,200.000' BK N 9° 59' 08.946" E AH N 4° 22' 32.495" W PC 11+10.985 PT 14+11.772
RAY SCOTT COCKROFT ETUX D.B. 591 PG. 125 TAX PARCEL 3.01
MICHAEL CRAWLEY STEELE D.B. 799 PG. 701 D.B. 769 PG. 677 D.B. 769 PG. 301 TAX PARCEL 2.00
MICHAEL CRAWLEY STEELE D.B. 799 PG. 701 D.B. 677 PG. 35 D.B. 691 PG. 499 D.B. 679 PG. 586 D.B. 675 PG. 111 D.B. 675 PG. 114 TAX PARCEL 1.00
INDICATES REMOVAL OF EMBANKMENT.
INDICATES REMOVAL OF PAVEMENT.
DETOUR BRIDGE NO. 1 50' TEMP. GUARDRAIL (25' LT, 25' RT) REQ'D. 2-TEMP. BRIDGE END SECTIONS REQ'D. 2-TEMP. TERMINAL SECTIONS REQ'D. 8-TEMP. WHITE DELINEATORS REQ'D.
DETOUR BRIDGE NO. 1 STA. 7+73.00 TO STA. 9+10.00 SKEW=NORMAL TO CENTERLINE MIN. BRIDGE LENGTH=137' - 0" MIN. MAIN SPAN LENGTH=80' - 0"
STA. 14+72 16' TEMP. RAMP REQ'D. RT. 48'-24" ALT. PIPE REQ'D.
VPC 2+50 EL. 403.824
VPI 3+50 EL. 403.32 200' V.C. K = 290
VPT 4+50 EL. 403.504
BR. ABUT. 7+73
BR. ABUT. 9+10
VPC 9+25 EL. 404.381
VPI 10+25 EL. 404.57 200' V.C. K = 299
VPT 11+25 EL. 404.081
VPC 12+50 EL. 403.476
VPI 13+50 EL. 402.99 200' V.C. K = 253
VPT 14+50 EL. 403.299
Plan Grade
-0.5046% +0.1846% +0.1846% -0.4839% +0.3061%
GRAPHIC GRADE
Exist. Ground Line
5-YEAR DESIGN STAGE ELEV. 398.1
SDG LT -0.41% SDG RT -0.40% -1.83% SDG LT 0.58% SDG RT 0.36% 0.90%
PROP. CHANNEL CHANGE RT
406.92 395.78 395.38 392.63 394.56 391.83 388.61 395.00 393.96 397.04 392.47 404.83
79 CUT 6,424 FILL 273 CUT 1,158 CHANNEL 214 CUT 7,883 FILL
406.92 405.57 404.92 404.38 404.07 403.82 403.61 403.49 403.45 403.50 403.60 403.69 403.78 403.87 403.97 404.06 404.15 404.24 404.33 404.42 404.43 404.35 404.19 403.96 403.72 403.48 403.28 403.19 403.19 403.30 403.54 403.79 403.99 404.35 404.71
406.92 405.57 404.92 404.38 403.55 402.32 400.79 394.47 395.06 396.33 396.66 395.79 395.77 395.24 393.96 395.83 396.26 386.84 395.79 393.78 393.77 394.83 395.43 395.69 395.93 396.59 395.69 395.95 396.31 400.15 402.62 403.79 403.99 404.35 404.71
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17
440 430 420 410 400 390 380 370 360
SCALE: 1"=10' VERT.
JOHN M. REESE LICENSED PROFESSIONAL ENGINEER 12253 STATE OF MISSISSIPPI 7-8-19

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

⚠

WETLAND SITE		
TEMPORARILY FILLED	0.00	AC.
PERMANENTLY FILLED	0.00	AC.
BRIDGED		AC.

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

SR 35 DETOUR 1

DESIGN SPEED = 45

SCALE: 1"=100' HOR.

Wk. Sh. 3A

Sh. No. 24

PLAN-PROFILE ROADWAY DESIGN DIVISION MISSISSIPPI DEPARTMENT OF TRANSPORTATION

7/8/2019 10:39:21 WK3A.DGN

FMS CON: 103334/301000

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

1st O.REV.

REVISIONS	
DATE	BY
⚠1 07/08/19	JMR

⚠1 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. 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

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+10.59 20' LT

⚠1

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

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.	◺	

▨ INDICATES REMOVAL OF EMBANKMENT.
▧ INDICATES REMOVAL OF PAVEMENT.

SR 35

DESIGN SPEED = 65

0 100 200 300
SCALE: 1"=100' HOR.

STA. 1577 + 00
48'–24" RCP EXT. REQ'D. RT.
SKEW–45° RT. FWD.
1–24" FES REQ'D.
1–24" PC–1 REQ'D.

STA. 1577 + 59
20' RAMP REQ'D. LT.
DRY RAMP

STA. 1578 + 21
16' RAMP REQ'D. RT.
DRY RAMP

STA. 1583 + 71.88
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

STA. 1581 + 00
16' RAMP REQ'D. LT.
48'–18" ALT. PIPE REQ'D

BRIDGE NO. 152.0
SR 35 AT LITTLE CONEHOMA CREEK
STA. 1583 + 71.88 TO STA. 1586 + 58.63
SPANS = 2 @ 80', 1 @ 115'
SKEW = 5° LT. FWD.
TOTAL LENGTH = 275' – 0"
DRAINAGE AREA = 5.0 SQ. MI.

STA. 1586 + 58.63
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. 1588 + 71
26' RAMP REQ'D. RT.
DRY RAMP

STA. 1589 + 00
16' RAMP REQ'D. LT.
DRY RAMP

STA. 1590 + 45
23'–8'X6' RCBC EXT. REQ'D. LT
29'–8'X6' RCBC EXT. REQ'D. RT.
SKEW–NORMAL TO CENTERLINE
2–3:1 WINGWALLS REQ'D.
2–CONC. COLLARS REQ'D.

STA. 1576+60
EXIST. 24" RCP
45° RT. FWD. SKEW
US FL 421.93
DS FL 415.79
(IN PLACE)

24" RCP EXT. REQ'D. RT.
US FL 415.79
DS FL 414.58

STA. 1590+45
EXIST. 8'X6' RCBC
US FL 398.90
DS FL 398.44
(IN PLACE)

STA. 1590 + 45
8'X6' RCBC EXT. REQ'D.
US FL 399.23
DS FL 398.19

Station		
1575		444.97
		442.32
1576		439.65
	436.97	436.97
1577	434.41	434.34
	431.78	431.72
1578	429.20	429.11
	426.59	426.49
1579	424.11	423.96
	421.87	421.44
1580	419.90	419.20
	418.20	416.96
1581	416.77	415.20
	415.61	413.44
1582	414.72	412.18
	414.10	410.91
1583	413.72	410.10
	413.37	409.30
1584	413.03	408.94
1585	412.40	396.38
	412.05	403.52
1586	411.70	408.50
	411.36	408.66
1587	411.01	408.76
	410.66	408.87
1588	410.31	408.90
	409.97	408.94
1589	409.63	408.98
	409.42	409.01
1590	409.37	409.17
	409.47	409.35
1591	409.72	409.67
	410.06	410.01
1592	410.39	410.33
	410.72	410.65
1593	411.07	411.07
		411.50
1594		411.88
		412.26
1595		412.61
		412.96

JOHN M. REESE
7-8-19
12253

Wk. Sh. 4

Sh. No. 25

MISSISSIPPI DEPARTMENT OF TRANSPORTATION
ROADWAY DESIGN DIVISION
PLAN-PROFILE

7/8/2019 09:10:03 WK4.DGN

DESIGN TEAM: FISHER ARNOLD
FILENAME: WK4.DGN
COUNTY: ATTALA
PROJECT NO.: BR-0023-02(058)
SHEET ID: SR 35 - BR. NO. 152.0

FMS CON: 103334/301000

1st O.REV.

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

REVISIONS		
	DATE	BY
1	07/08/19	JMR

1 REVISED WETLANDS INFO

EARTHWORK TOTAL THIS SHEET		
Cut	457	CuYds
Fill	9,363	CuYds
Excess		CuYds
Surplus		CuYds
Borrow (B-9)	8,997	CuYds

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

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

(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

EXIST. BRIDGE NO. 152.0
(LITTLE CONEHOMA CREEK)
5 @ 20' WF BEAM SPANS
(TO REMOVE

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

20" GAS PIPELINE
6'-5" DEPTH
1000 PSI

(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

41'- 8'X6' RCBC
US FL 398.90
DS FL 398.44
(TO REMAIN)

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+10.59 20' LT

To Site 1

To Kosciusko

POND

50.081' 1576+25 TIE TO EXIST.ROW

50.92' 1593+50 TIE TO EXIST.ROW

49.808' 1593+50 TIE TO EXIST.ROW

49.919' 1576+25 TIE TO EXIST.ROW

117' - 24" RCP
US FL 421.93
DS FL 415.79
(TO REMAIN)

PC Sta. 0+00.000

PRC Sta. 3+00.787

PT Sta. 6+01.574

PC Sta. 10+51.485

PRC Sta. 13+52.272

PT Sta. 16+53.059

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

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

21'- 30" STEEL PIPE
US FL 412.86
DS FL 412.63
(TO REMAIN)

21'- 24" PLASTIC PIPE
US FL 410.42
DS FL 410.02
(TO REMAIN)

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

INDICATES REMOVAL OF EMBANKMENT.
INDICATES REMOVAL OF PAVEMENT.

LITTLE CONEHOMA CREEK

END SPECIAL DITCH

BEGIN SPECIAL DITCH

Curve DET35_5
Δ = 14° 21' 41.442" (LT)
D = 4° 46' 28.734"
L = 300.787'
T = 151.186'
R = 1,200.000'
BK N 7° 13' 41.542" W
AH N 21° 35' 22.984" W
PC 10+51.485
PT 13+52.272

20" GAS PIPELINE
6'-5" DEPTH
1000 PSI

TEXAS EASTERN TRANSMISSION
D.B. 481 PG. 350
TAX PARCEL 12.00

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

0 100 200 300

SCALE: 1"=100' HOR.

STA. 1+71
16' TEMP. RAMP REQ'D. RT.
DRY RAMP

STA. 4+50
16' TEMP. RAMP REQ'D. LT.
48"–18" TEMP. ALT. PIPE REQ'D.

DETOUR BRIDGE NO. 2
50' TEMP. GUARDRAIL (25' LT, 25' RT) REQ'D.
2–TEMP. BRIDGE END SECTIONS REQ'D.
2–TEMP. TERMINAL SECTIONS REQ'D.
8–TEMP. WHITE DELINEATORS REQ'D.

DETOUR BRIDGE NO. 2
STA. 8+05.00 TO STA. 9+95.00
SKEW = NORMAL TO CENTERLINE
MIN. BRIDGE LENGTH = 190'– 0"
MIN. MAIN SPAN LENGTH = 75'– 0"
SPANS = 1 @ 75', 1 @ 115'

DETOUR BRIDGE NO. 2
50' TEMP. GUARDRAIL (25' LT, 25' RT) REQ'D.
2–TEMP. BRIDGE END SECTIONS REQ'D.
2–TEMP. TERMINAL SECTIONS REQ'D.
8–TEMP. WHITE DELINEATORS REQ'D.

STA. 12+06
26' TEMP. RAMP REQ'D. LT.
48"–18" TEMP. ALT. PIPE REQ'D.

STA. 12+06
26' TEMP. RAMP REQ'D. RT.
DRY RAMP

NOTE:
SEE WK. SH. 4 FOR RCBC EXT. INFO.

436.97
VPC 2+65 EL. 422.720
GRAPHIC GRADE
-5.3082%
VPI 5+00 EL. 410.25 470' V.C. K = 94
Plan Grade
-0.3045%
Exist. Ground Line
2.34% SDG RT
1.86% SDG RT
1.40%
VPT 7+35 EL. 409.530
BR. ABUT 8+05.00
5-YEAR DESIGN STAGE ELEV. 401.9
BR. ABUT 9+95.00
1.00% SDG RT
VPC 12+00 EL. 408.114
VPI 13+00 EL. 407.81 200' V.C. K = 173
VPT 14+00 EL. 408.660
-0.3045% +0.8506%
GRAPHIC GRADE
411.07

403.51 401.17 400.24 398.84 399.00 401.00

SCALE: 1"=10' VERT.

273 CUT
103 FILL
115 CUT
4,794 FILL
69 CUT
4,466 FILL

436.97 434.33 431.64 428.93 426.17 423.52 420.93 418.59 416.52 414.72 413.19 411.92 410.91 410.17 409.70 409.48 409.33 409.18 409.03 408.88 408.72 408.57 408.42 408.27 408.11 408.03 408.10 408.31 408.66 409.21 409.74 410.20 410.60 411.04

436.97 434.33 431.64 428.93 426.12 422.34 420.97 417.45 413.46 409.44 405.78 404.06 402.68 401.23 401.81 401.56 401.39 391.93 402.35 401.34 401.03 401.26 401.23 401.83 402.78 402.65 401.92 400.45 399.14 408.65 409.74 410.20 410.60 411.04

0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16

JOHN M. REESE
LICENSED PROFESSIONAL ENGINEER
7-8-19
12253
STATE OF MISSISSIPPI

Wk. Sh. 4A
Sh. No. 26

PLAN-PROFILE
ROADWAY DESIGN DIVISION
MISSISSIPPI DEPARTMENT OF TRANSPORTATION

7/8/2019 10:39:58 WK4A.DGN

DESIGN TEAM: FISHER ARNOLD | FILENAME: WK4A.DGN | COUNTY: ATTALA | PROJECT NO.: BR-0023-02(058) | SHEET ID: SR 35 - DETOUR BR. NO. 2

FMS CON: 103334/301000

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

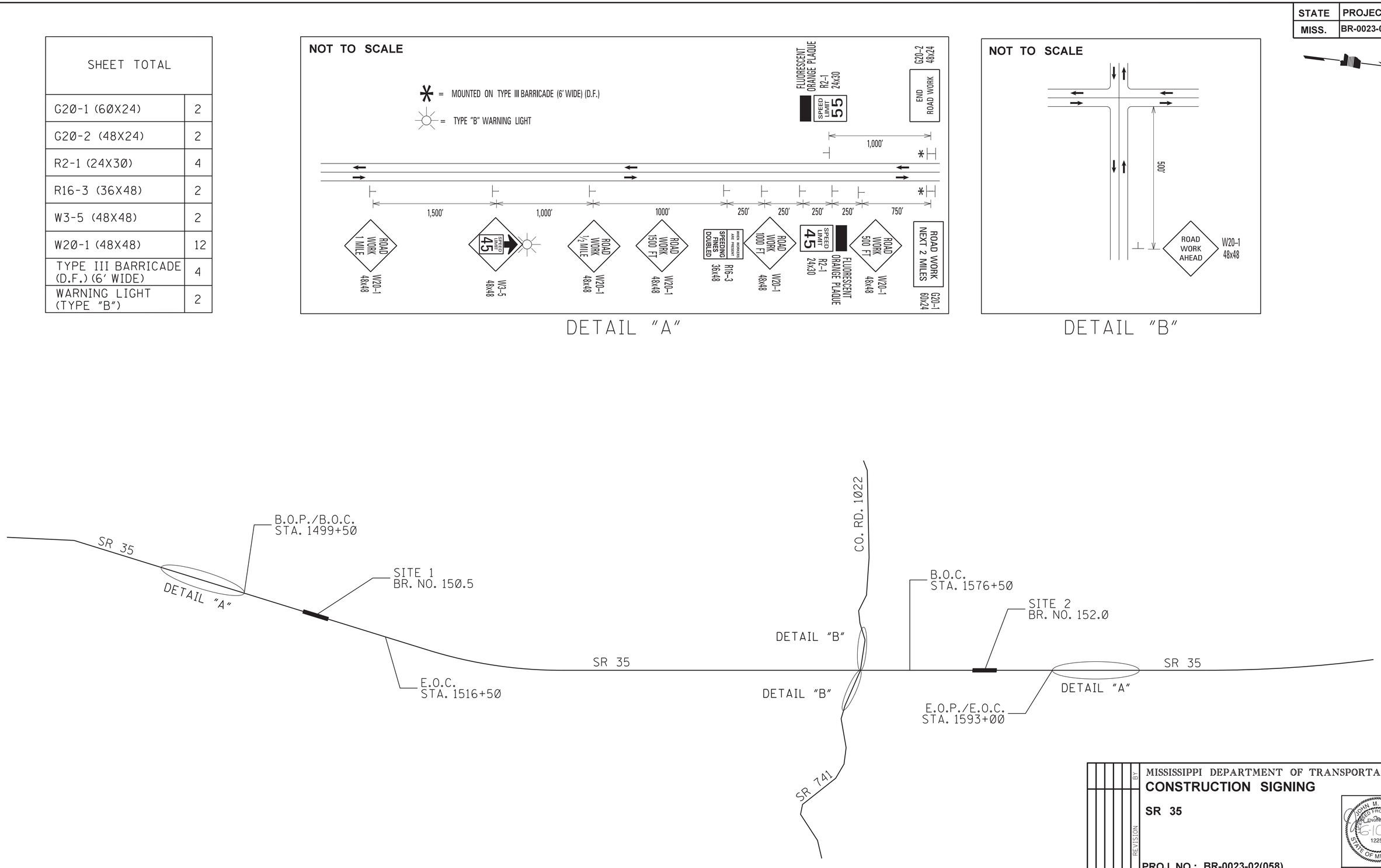
SHEET TOTAL	
G20-1 (60X24)	2
G20-2 (48X24)	2
R2-1 (24X30)	4
R16-3 (36X48)	2
W3-5 (48X48)	2
W20-1 (48X48)	12
TYPE III BARRICADE (D.F.) (6' WIDE)	4
WARNING LIGHT (TYPE "B")	2

NOT TO SCALE

DETAIL "A"

NOT TO SCALE

DETAIL "B"



PLAN
ROADWAY DESIGN DIVISION
MISSISSIPPI DEPARTMENT OF TRANSPORTATION

6/10/2019 7:26 AM CS-1.DGN

MISSISSIPPI DEPARTMENT OF TRANSPORTATION

CONSTRUCTION SIGNING

SR 35

JOHN M. BESSER, JR. REGISTERED PROFESSIONAL ENGINEER 12253 STATE OF MISSISSIPPI

PROJ. NO.: BR-0023-02(058)

COUNTY: ATTALA

WORKING NUMBER **CS-1**

SHEET NUMBER **27**

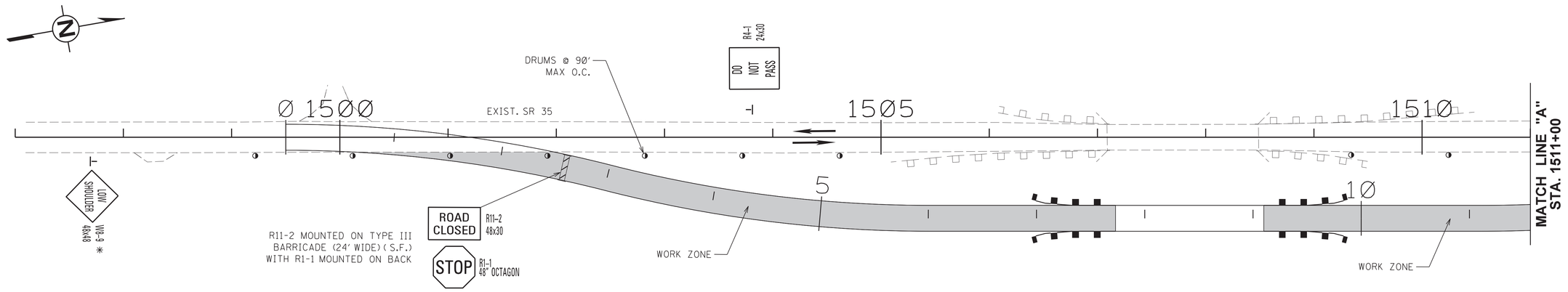
REVISION | BY | DATE

FILENAME: **CS-1.DGN**

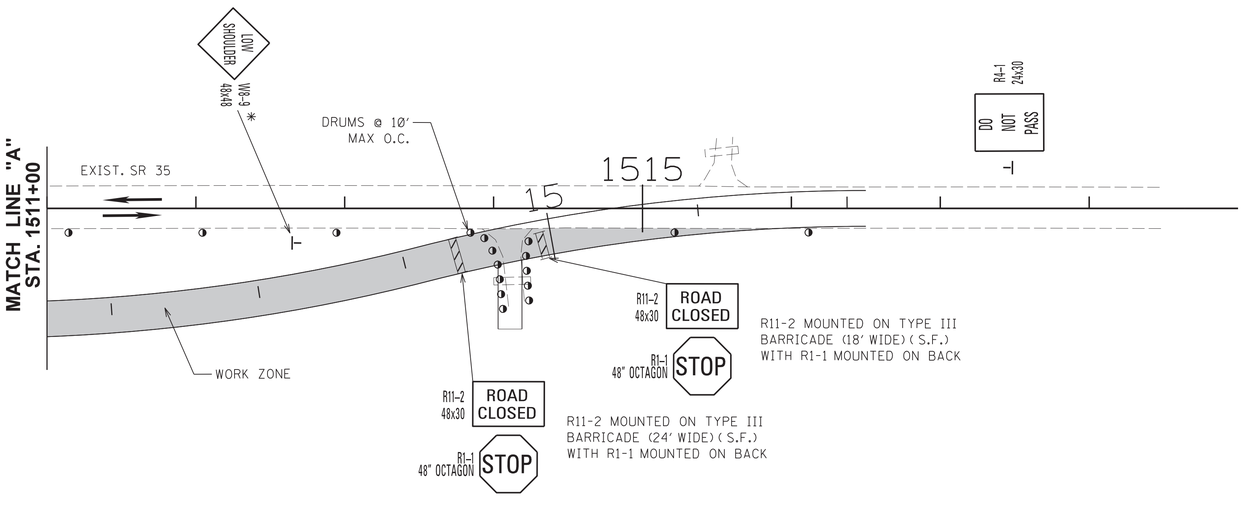
DESIGN TEAM **FA** CHECKED _____ DATE 10/24/18

FMS CON: 103334/301000

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



* REQUIRED WHEN PAVEMENT EDGE DROP-OFF EXCEEDS 1½".
SIGN SHALL BE COVERED OR REMOVED WHEN NOT IN USE.



MISSISSIPPI DEPARTMENT OF TRANSPORTATION
TRAFFIC CONTROL PLAN

PHASE 1

SR 35 (SITE 1)

PROJ. NO.: BR-0023-02(058)
COUNTY: ATTALA

JOHN M. REESE, JR. REGISTERED PROFESSIONAL ENGINEER 12253 STATE OF MISSISSIPPI

WORKING NUMBER **TC-1**

SHEET NUMBER **28**

BY | REVISION | DATE

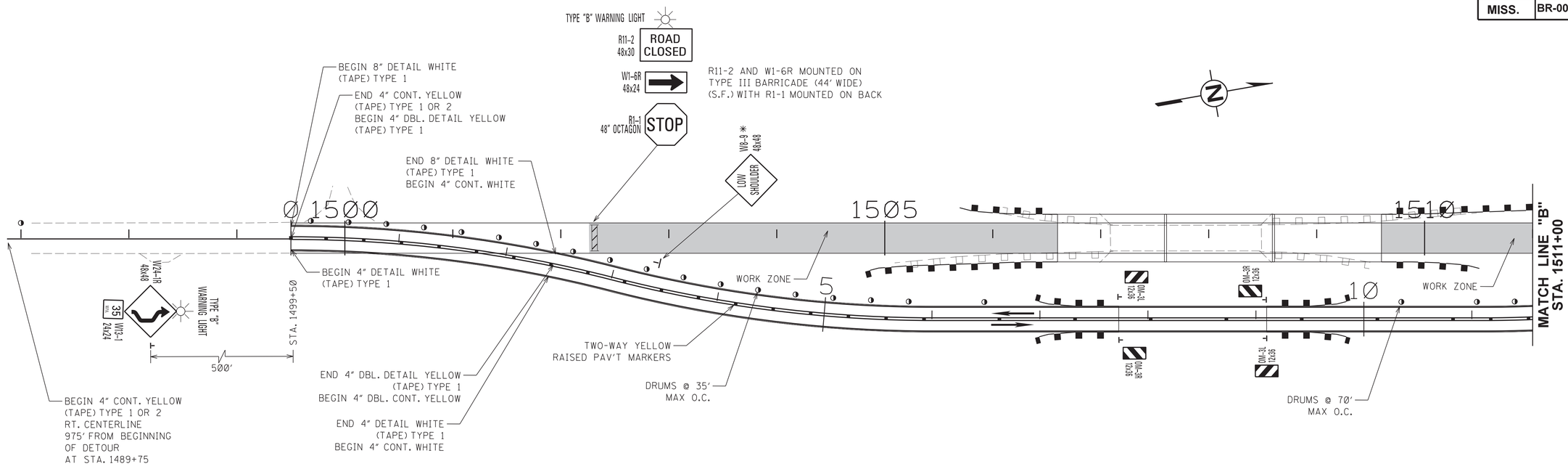
FILENAME: TC-1-SITE1.DGN
DESIGN TEAM FA CHECKED DATE 10/24/18

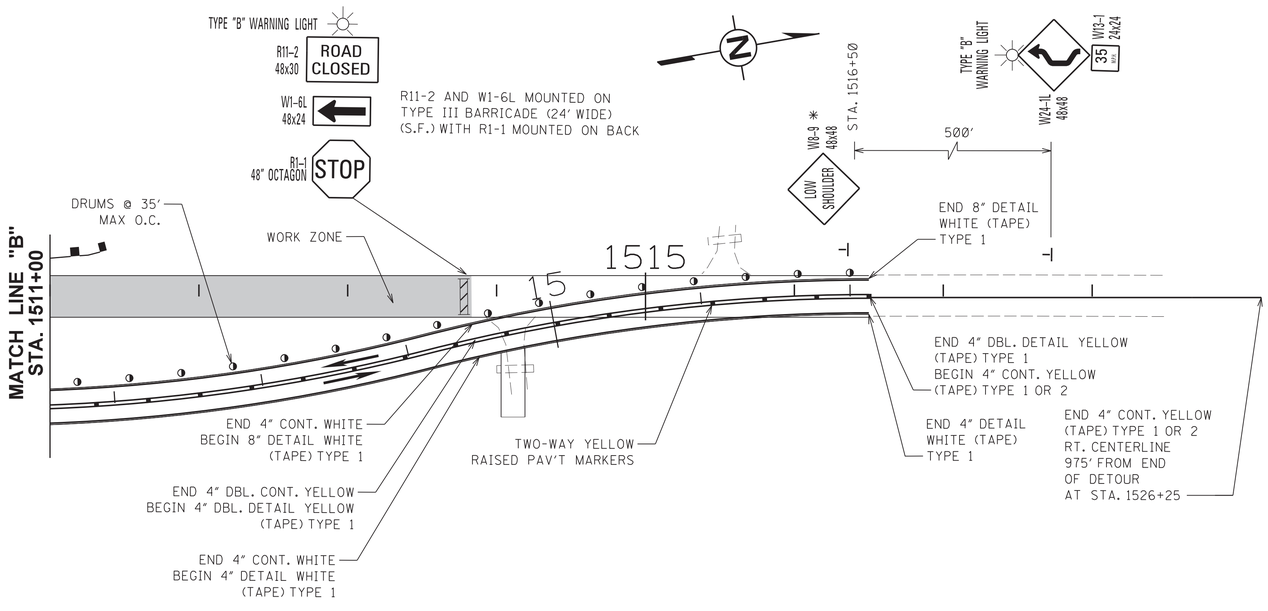
PLAN
ROADWAY DESIGN DIVISION
MISSISSIPPI DEPARTMENT OF TRANSPORTATION

6/10/2019 7:25:25 AM TC-1-SITE1.DGN

FMS CON: 103334/301000

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





* REQUIRED WHEN PAVEMENT EDGE DROP-OFF EXCEEDS 1½". SIGN SHALL BE COVERED OR REMOVED WHEN NOT IN USE.

PLAN
ROADWAY DESIGN DIVISION
MISSISSIPPI DEPARTMENT OF TRANSPORTATION

6/10/2019 9:25:25 AM TC-2-SITE1.DGN

MISSISSIPPI DEPARTMENT OF TRANSPORTATION

TRAFFIC CONTROL PLAN

PHASE 2

SR 35 (SITE 1)

PROJ. NO.: BR-0023-02(058)

COUNTY: ATTALA

JOHN M. REESE JR. LICENSED PROFESSIONAL ENGINEER 12253 STATE OF MISSISSIPPI

WORKING NUMBER: TC-2

SHEET NUMBER: 29

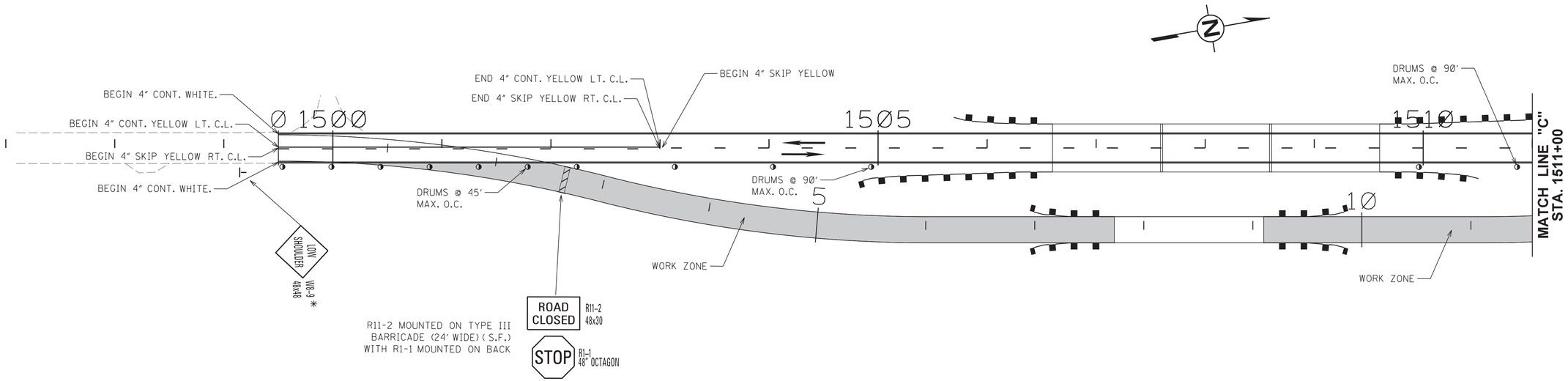
REVISION | BY | DATE

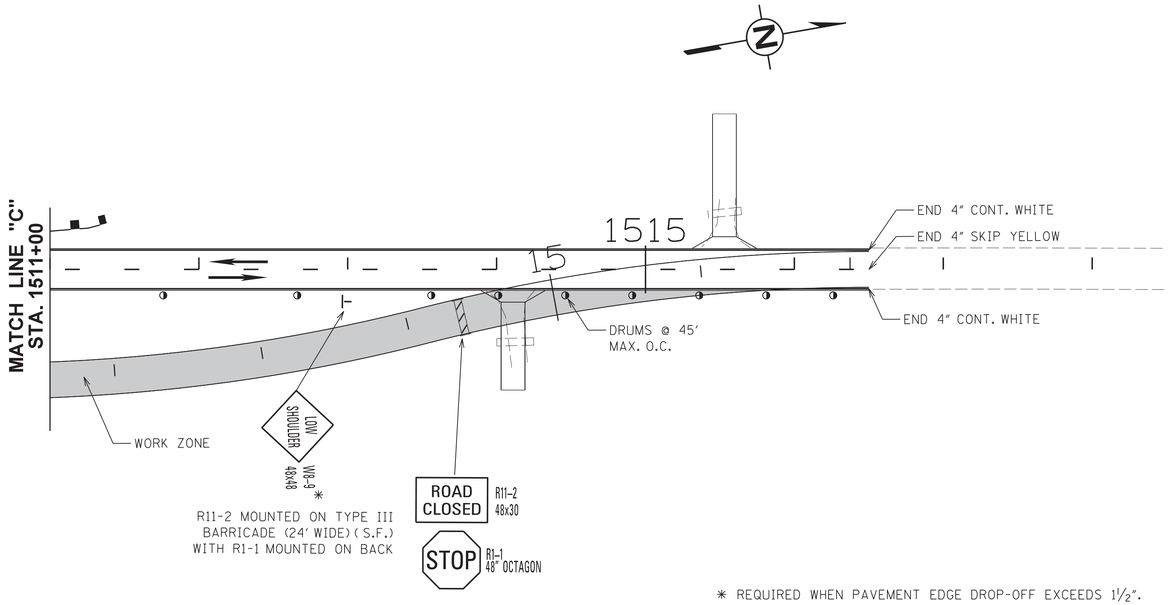
FILENAME: TC-2-SITE1.DGN

DESIGN TEAM FA CHECKED DATE 10/24/18

FMS CON: 103334/301000

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





* REQUIRED WHEN PAVEMENT EDGE DROP-OFF EXCEEDS 1½". SIGN SHALL BE COVERED OR REMOVED WHEN NOT IN USE.

PLAN
ROADWAY DESIGN DIVISION
MISSISSIPPI DEPARTMENT OF TRANSPORTATION

6/10/2019 8:25:25 AM TC-3-SITE1.DGN

BY | REVISION | DATE

MISSISSIPPI DEPARTMENT OF TRANSPORTATION

TRAFFIC CONTROL PLAN

PHASE 3

SR 35 (SITE 1)

JOHN H. REESE III, P.E. LICENSED PROFESSIONAL ENGINEER 12253 STATE OF MISSISSIPPI

PROJ. NO.: BR-0023-02(058)

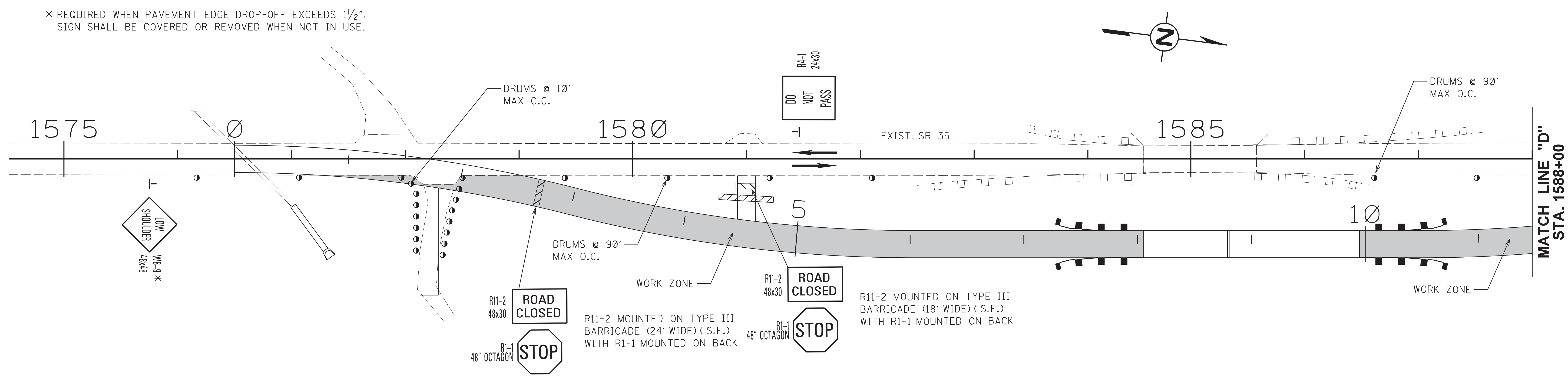
COUNTY: ATTALA

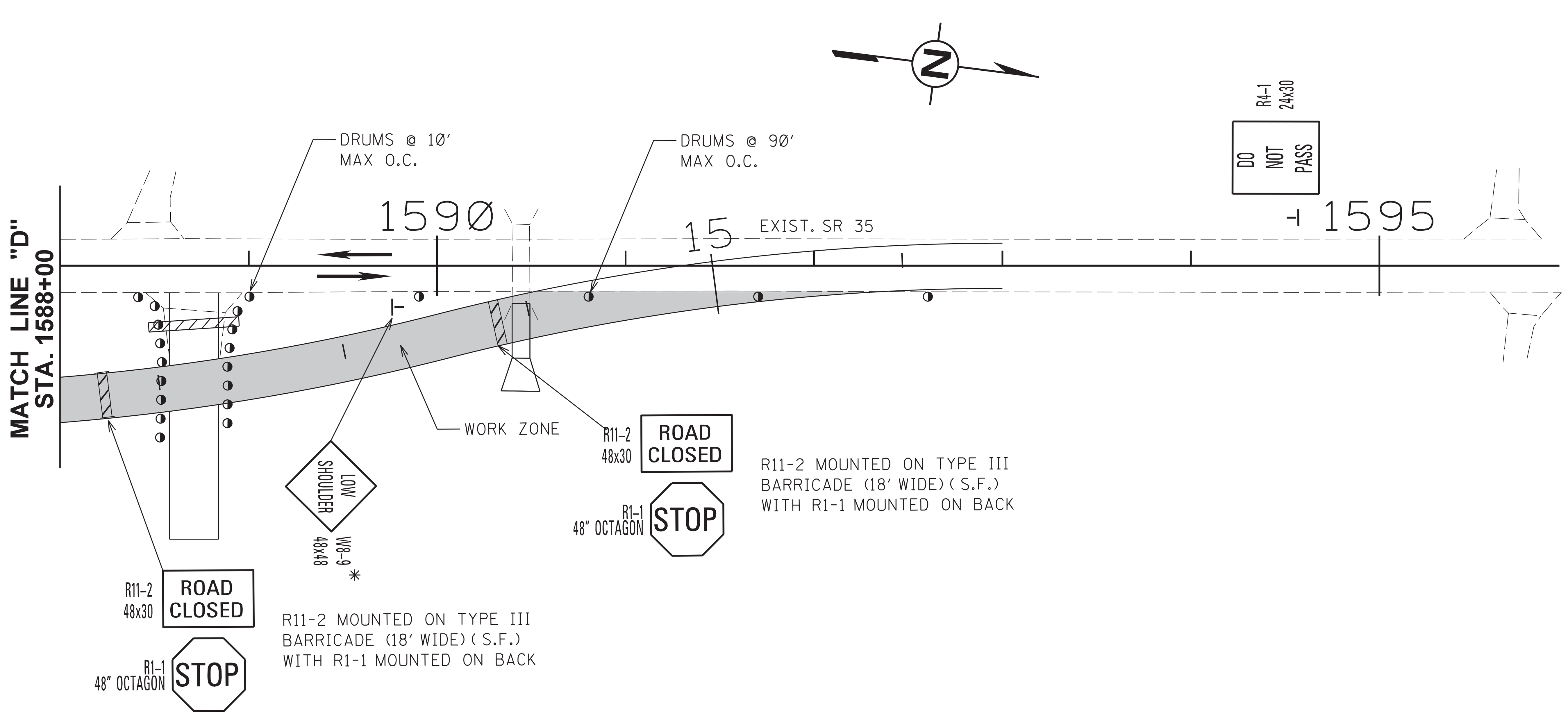
WORKING NUMBER: TC-3

SHEET NUMBER: 30

FILENAME: TC-3-SITE1.DGN

DESIGN TEAM FA CHECKED DATE 10/24/18





MISSISSIPPI DEPARTMENT OF TRANSPORTATION

TRAFFIC CONTROL PLAN

PHASE 1

SR 35 (SITE 2)

PROJ. NO.: BR-0023-02(058)

COUNTY: ATTALA

FILENAME: TC-4-SITE2.DGN

DESIGN TEAM FA CHECKED ____ DATE 10/24/18

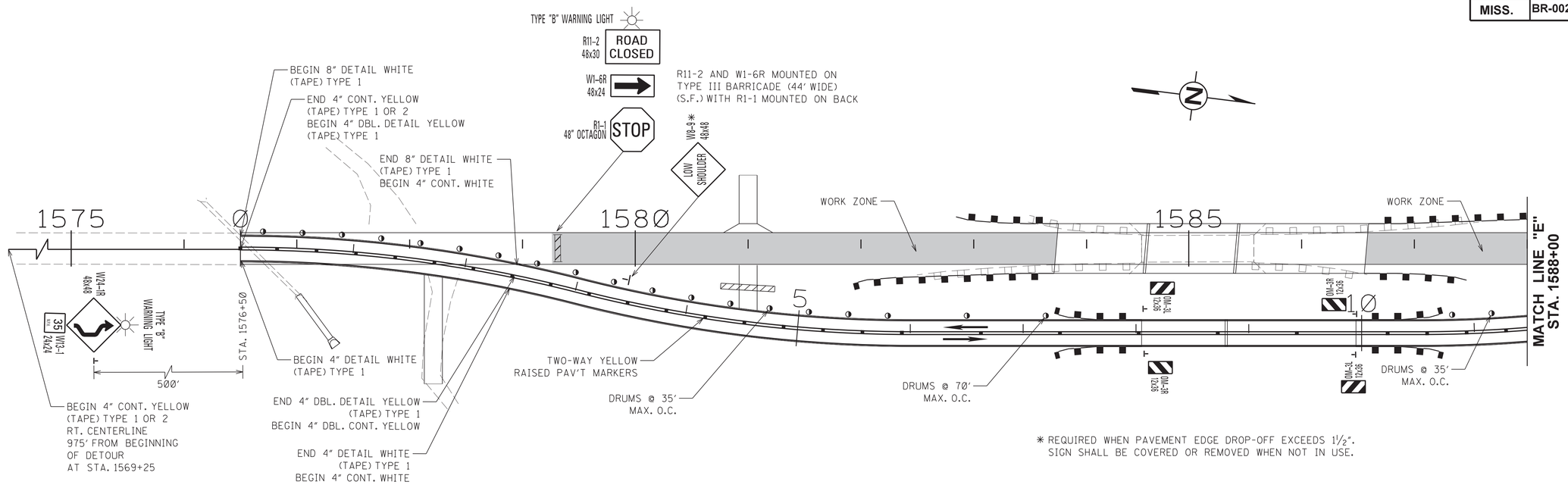
JOHN M. REESE, LICENSED PROFESSIONAL ENGINEER, 12253, STATE OF MISSISSIPPI, 6-10-19

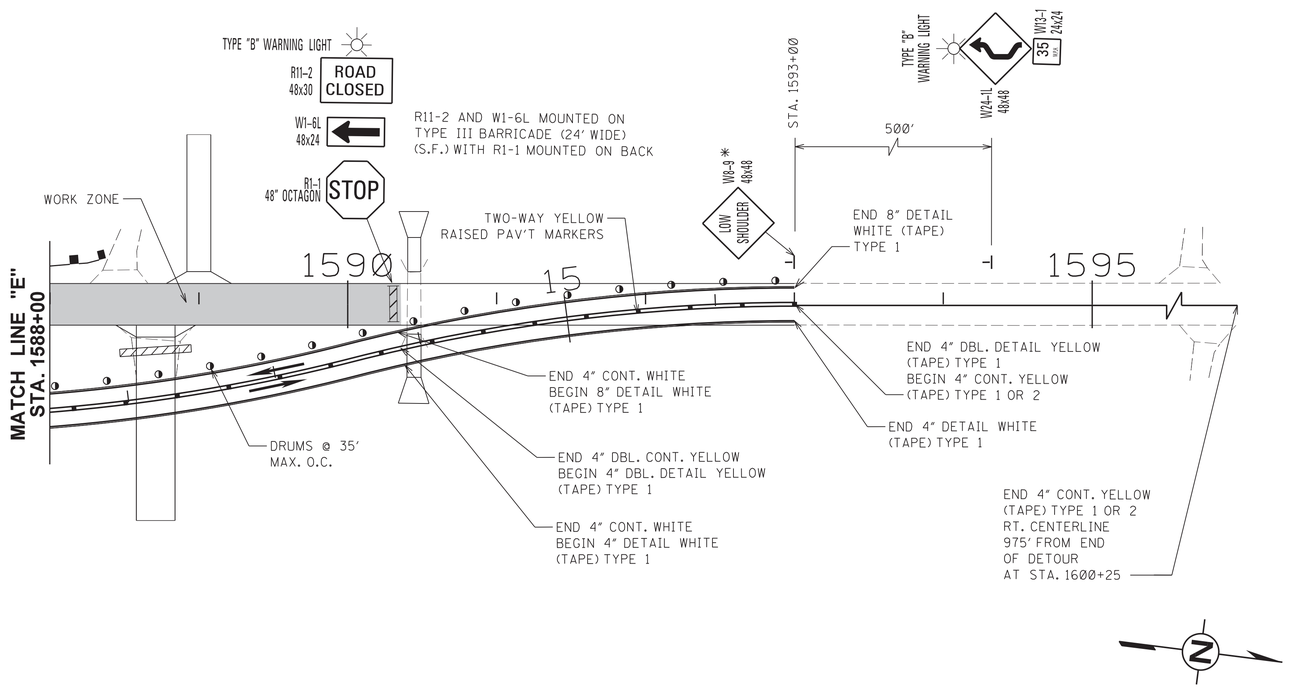
REVISION | BY | DATE

WORKING NUMBER **TC-4**

FMS CON: 103334/301000

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





BY	REVISION	DATE

MISSISSIPPI DEPARTMENT OF TRANSPORTATION

TRAFFIC CONTROL PLAN

PHASE 2

SR 35 (SITE 2)

JOHN M. REESE III REGISTERED PROFESSIONAL ENGINEER 12253 STATE OF MISSISSIPPI 5-10-19

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**

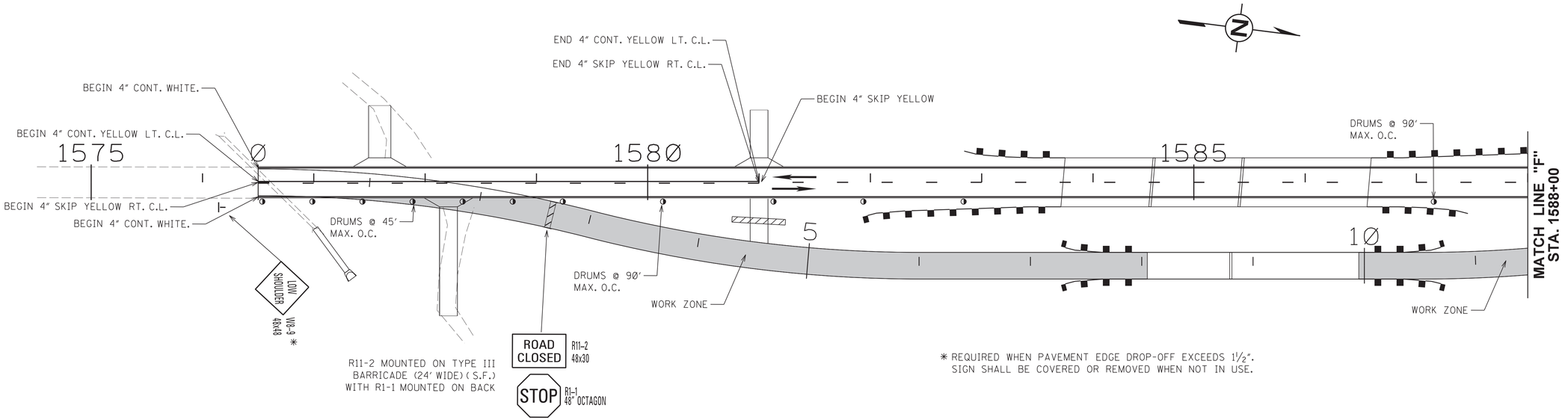
SHEET NUMBER **32**

PLAN
ROADWAY DESIGN DIVISION
MISSISSIPPI DEPARTMENT OF TRANSPORTATION

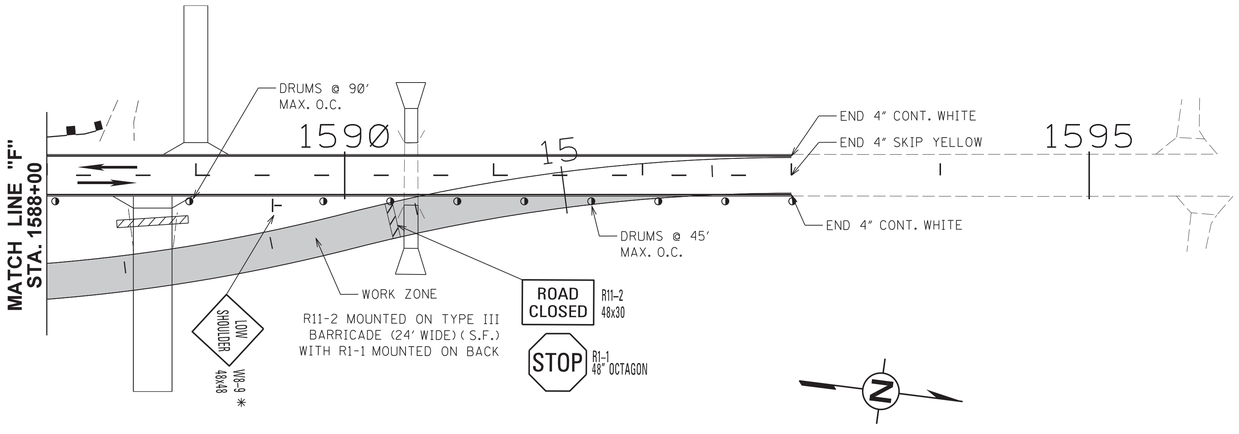
6/10/2019 7:25:32 AM TC-5-SITE2.DGN

FMS CON: 103334/301000

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



* REQUIRED WHEN PAVEMENT EDGE DROP-OFF EXCEEDS 1½".
SIGN SHALL BE COVERED OR REMOVED WHEN NOT IN USE.



MISSISSIPPI DEPARTMENT OF TRANSPORTATION

TRAFFIC CONTROL PLAN

PHASE 3

SR 35 (SITE 2)

PROJ. NO.: BR-0023-02(058)

COUNTY: ATTALA

JOHN M. REESE
REGISTERED PROFESSIONAL ENGINEER
12253
STATE OF MISSISSIPPI

WORKING NUMBER
TC-6

SHEET NUMBER
33

DATE | REVISION | BY

FILENAME: TC-6-SITE2.DGN

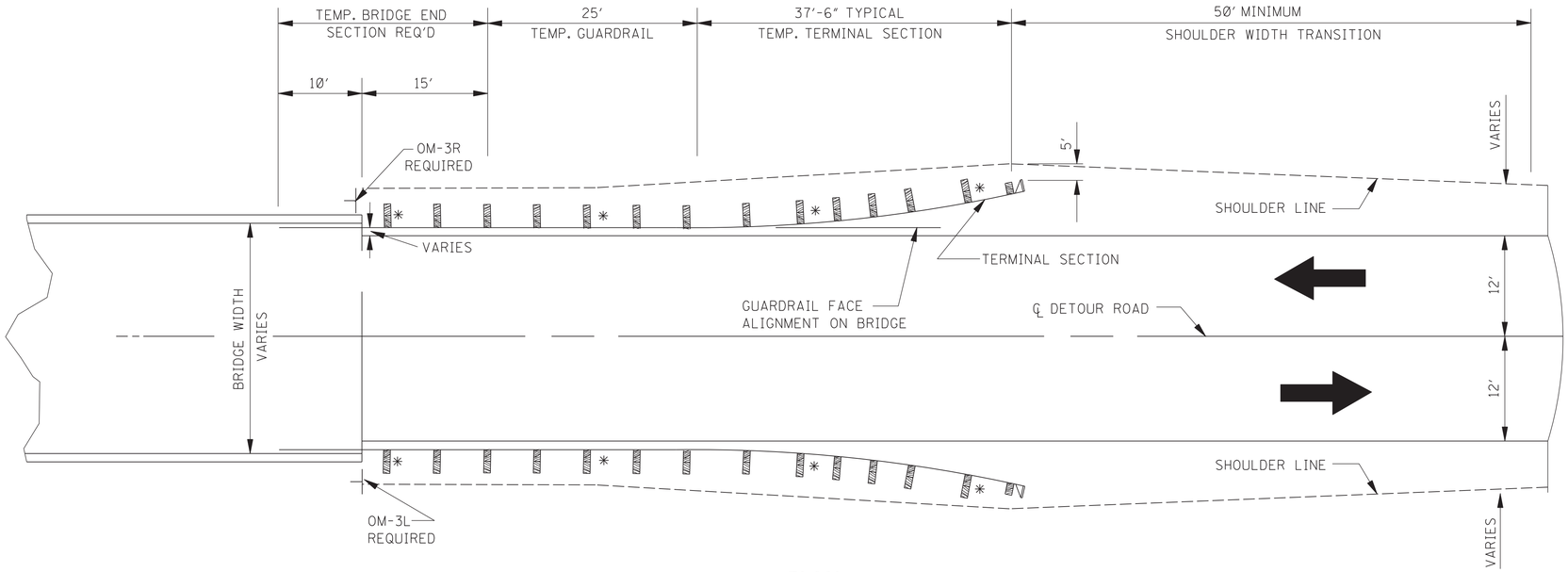
DESIGN TEAM FA CHECKED DATE 10/24/18

PLAN
ROADWAY DESIGN DIVISION
MISSISSIPPI DEPARTMENT OF TRANSPORTATION

6/10/2019 TC-6-SITE2.DGN

FMS CON: 103334/301000

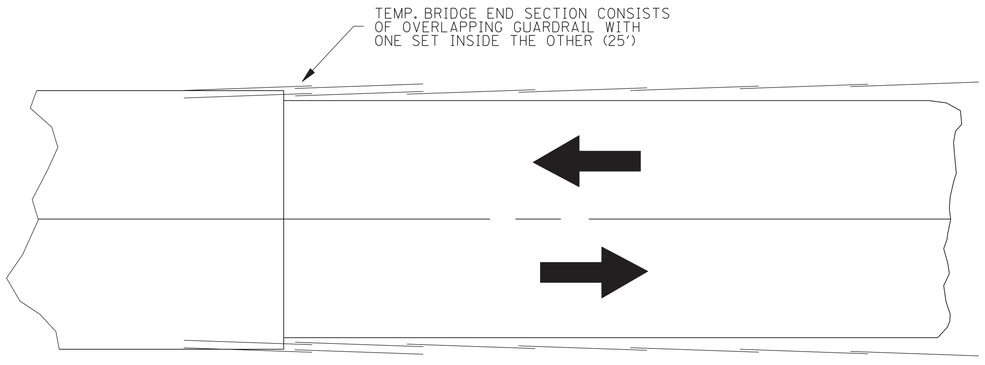
STATE	PROJECT NO.
MISS.	BR-0023-02(058)



PLAN

(TEMPORARY GUARDRAIL)

NOTE: TYPICAL FOR EACH END OF BRIDGE.



DETAIL SHOWING GUARDRAIL SECTION LAPS AND OVERLAPS

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.

PLAN
ROADWAY DESIGN DIVISION
MISSISSIPPI DEPARTMENT OF TRANSPORTATION

6/10/2019 7:26 AM SD-TGR-1.DGN

REVISION | BY | DATE

MISSISSIPPI DEPARTMENT OF TRANSPORTATION

GUARDRAIL (TEMPORARY): TYPICAL INSTALLATION AT DETOUR BRIDGE ENDS (DISTRICT 2)

JOHN M. REESE III — REGISTERED PROFESSIONAL ENGINEER — 12253 — STATE OF MISSISSIPPI

PROJ. NO.: BR-0023-02(058)

COUNTY: ATTALA

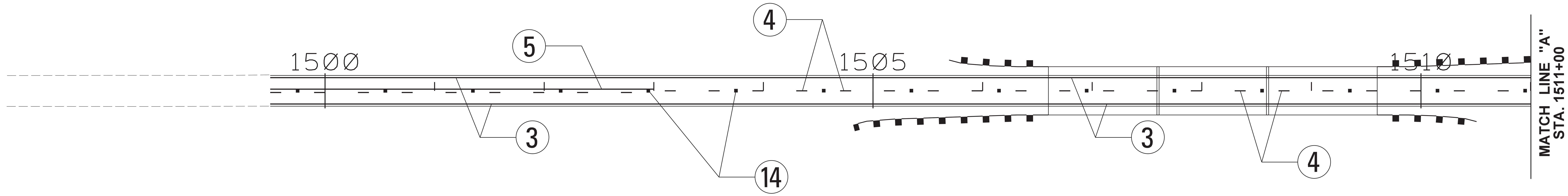
WORKING NUMBER: **SD-TGR-1**

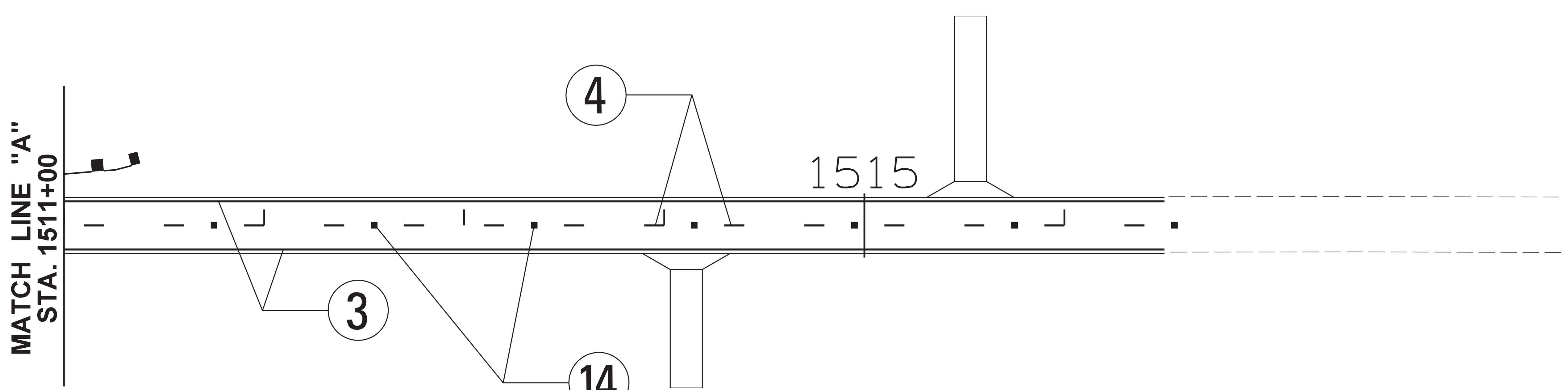
FILENAME: **SD-TGR-1.DGN**

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)	THERMO-PLASTIC	
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)		
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

FILENAME: PM-1-SITE1.DGN

DESIGN TEAM FA CHECKED DATE

JOHN M. REESE LICENSED PROFESSIONAL ENGINEER 12253 STATE OF MISSISSIPPI 6-10-19

WORKING NUMBER PM-1

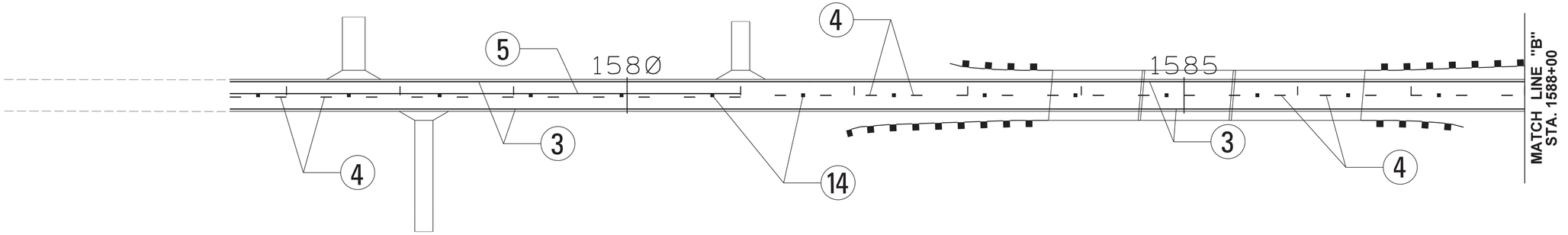
SHEET NUMBER 35

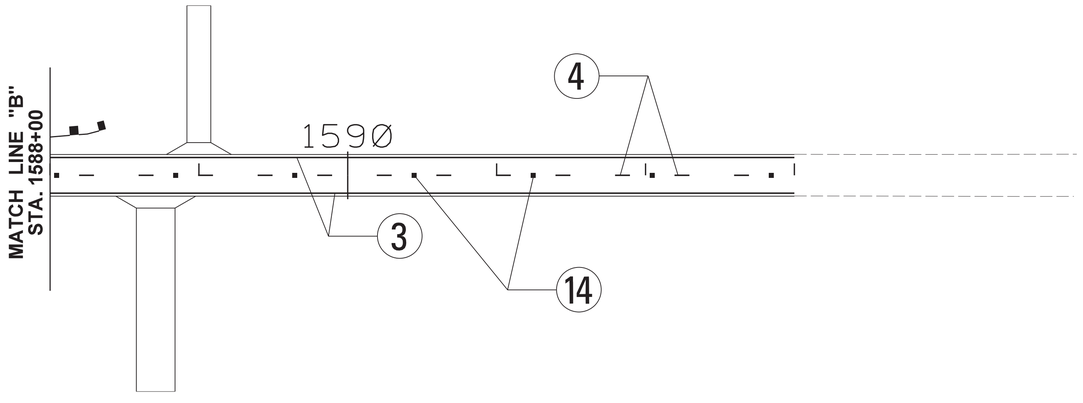
PLAN
ROADWAY DESIGN DIVISION
MISSISSIPPI DEPARTMENT OF TRANSPORTATION

6/10/2019 PM-1-SITE1.DGN

FMS CON: 103334/301000

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





PAVEMENT MARKING

SYMBOL	DESCRIPTION	TYPE	QUANTITY	
(1)	TRAFFIC STRIPE (SKIP WHITE)	THERMO-PLASTIC		
(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)			
(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)

JOHN W. REESE JR. REGISTERED PROFESSIONAL ENGINEER 12253 STATE OF MISSISSIPPI
6-10-19

PROJ. NO.: BR-0023-02(058)
COUNTY: ATTALA

WORKING NUMBER **PM-2**

SHEET NUMBER **36**

BY | REVISION | DATE

FILENAME: PM-2-SITE2.DGN
DESIGN TEAM FA CHECKED DATE

PLAN
ROADWAY DESIGN DIVISION
MISSISSIPPI DEPARTMENT OF TRANSPORTATION

6/10/2019 8:25:13 AM PM-2-SITE2.DGN

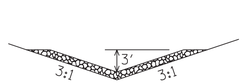
FMS CON: 103334/301000

1st O.REV.

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

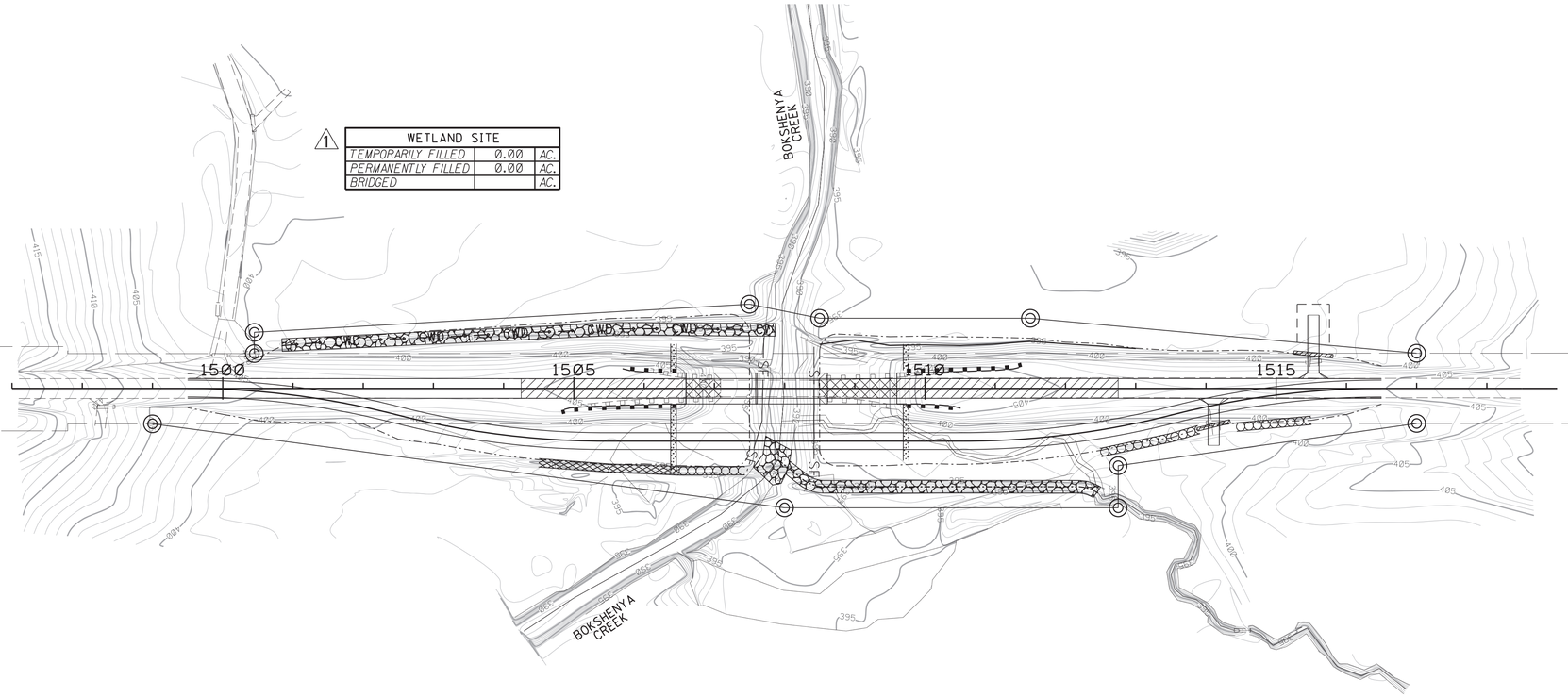
REVISIONS	
DATE	BY
1 07/08/19	JMR

1 ADDED WETLANDS INFO



RIPRAP DITCH LT.

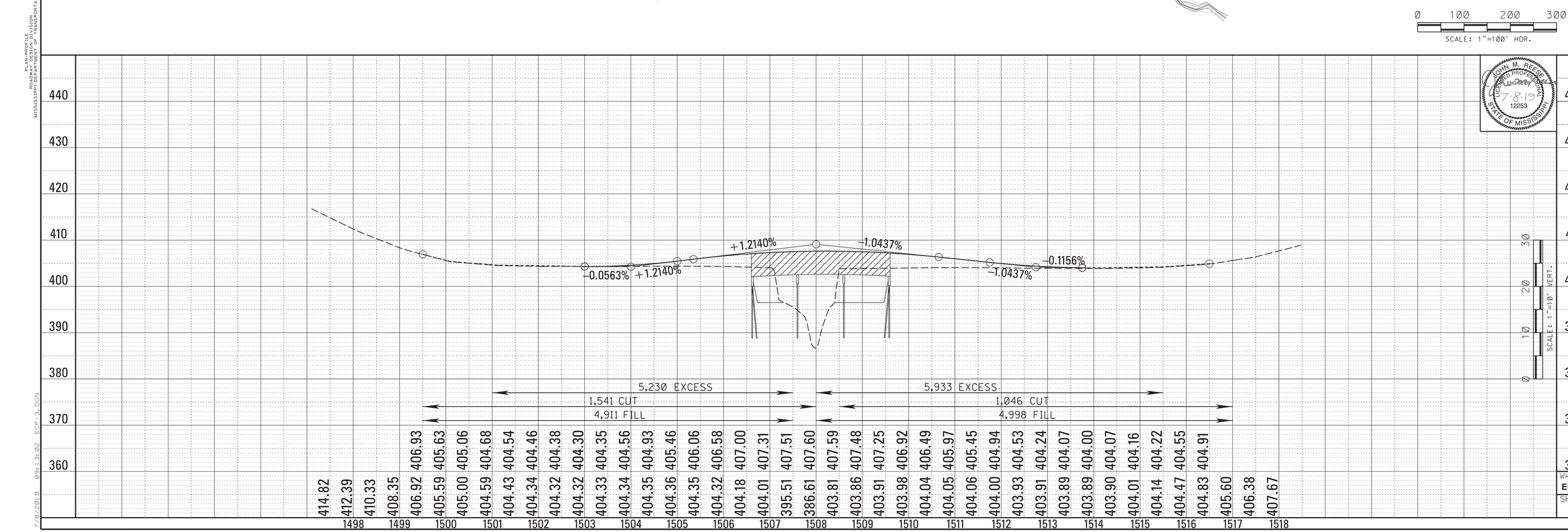
1 WETLAND SITE		
TEMPORARILY FILLED	0.00	AC.
PERMANENTLY FILLED	0.00	AC.
BRIDGED		AC.



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		

0 100 200 300

SCALE: 1"=100' HOR.



JOHN M. REESE
LICENSED PROFESSIONAL ENGINEER
7-8-19
12253
STATE OF MISSISSIPPI

Wk. Sh. ECP-3
Sh. No. 37

PLAN-PROFILE
ROADWAY DESIGN DIVISION
MISSISSIPPI DEPARTMENT OF TRANSPORTATION

7/8/2019 08:13:02 ECP-3.DGN

DESIGN TEAM: FISHER ARNOLD | FILENAME: ECP-3.DGN | COUNTY: ATTALA | PROJECT NO.: BR-0023-02(058) | SHEET ID: SR 35 - BR. NO. 150.5

FMS CON: 103334/301000

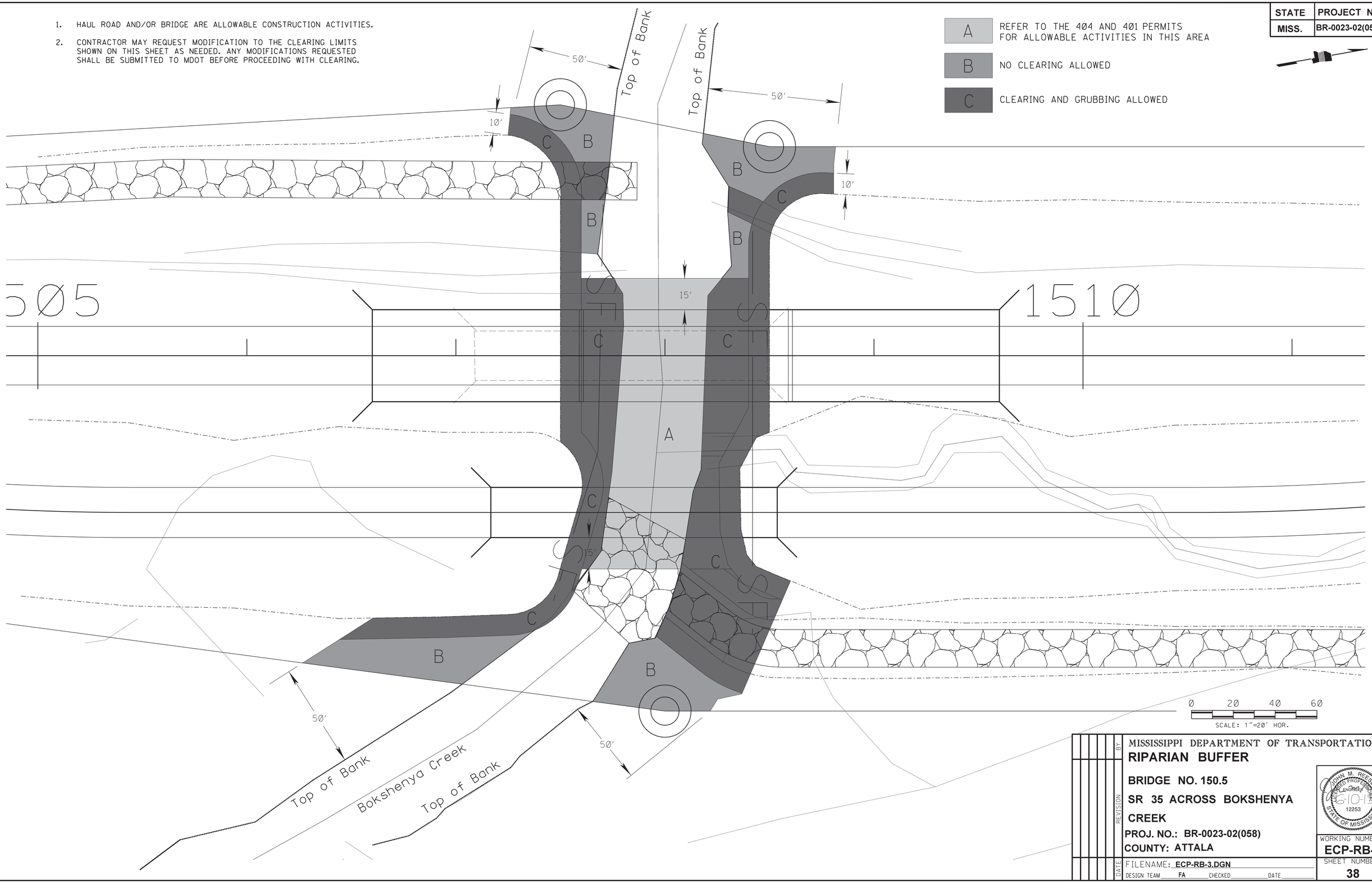
STATE	PROJECT NO.
MISS.	BR-0023-02(058)

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



MISSISSIPPI DEPARTMENT OF TRANSPORTATION

RIPARIAN BUFFER

BRIDGE NO. 150.5

SR 35 ACROSS BOKSHENYA CREEK

PROJ. NO.: BR-0023-02(058)

COUNTY: ATTALA

JOHN M. FREESE — REGISTERED PROFESSIONAL ENGINEER — 12253 — STATE OF MISSISSIPPI

WORKING NUMBER: **ECP-RB-3**

SHEET NUMBER: **38**

REVISION | BY | DATE

FILENAME: **ECP-RB-3.DGN**

DESIGN TEAM **FA** CHECKED _____ DATE _____

PLAN
ROADWAY DESIGN DIVISION
MISSISSIPPI DEPARTMENT OF TRANSPORTATION

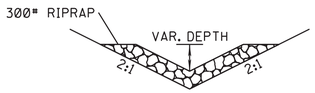
6/10/2019 7:29:23 AM ECP-RB-3.DGN

FMS CON: 103334/301000

1st O.REV.

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

300# RIPRAP

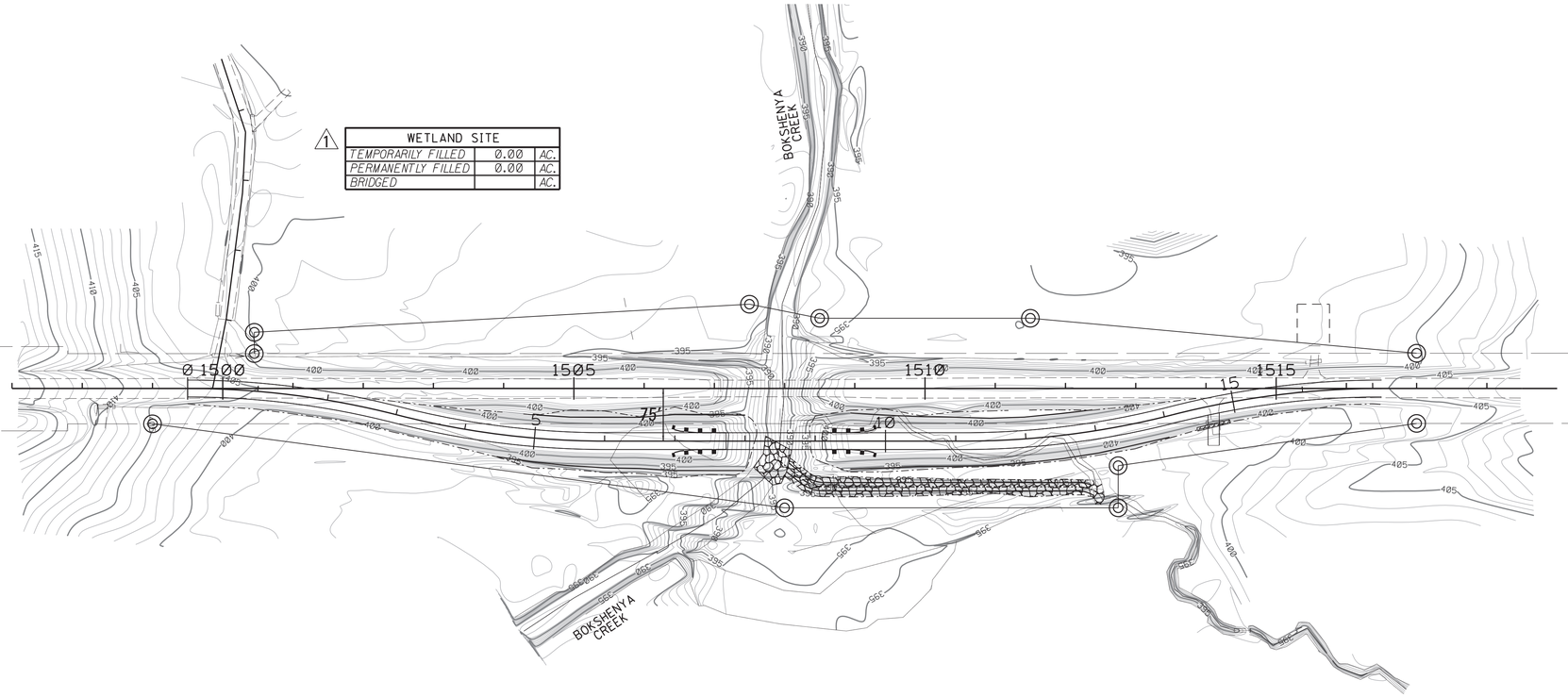


PROPOSED CHANNEL CHANGE
SR 35 STA. 1508+00 TO STA. 1512+50 RT.
(SEE DETOUR XS FOR ADDITIONAL DETAILS)

WETLAND SITE		
TEMPORARILY FILLED	0.00	AC.
PERMANENTLY FILLED	0.00	AC.
BRIDGED		AC.

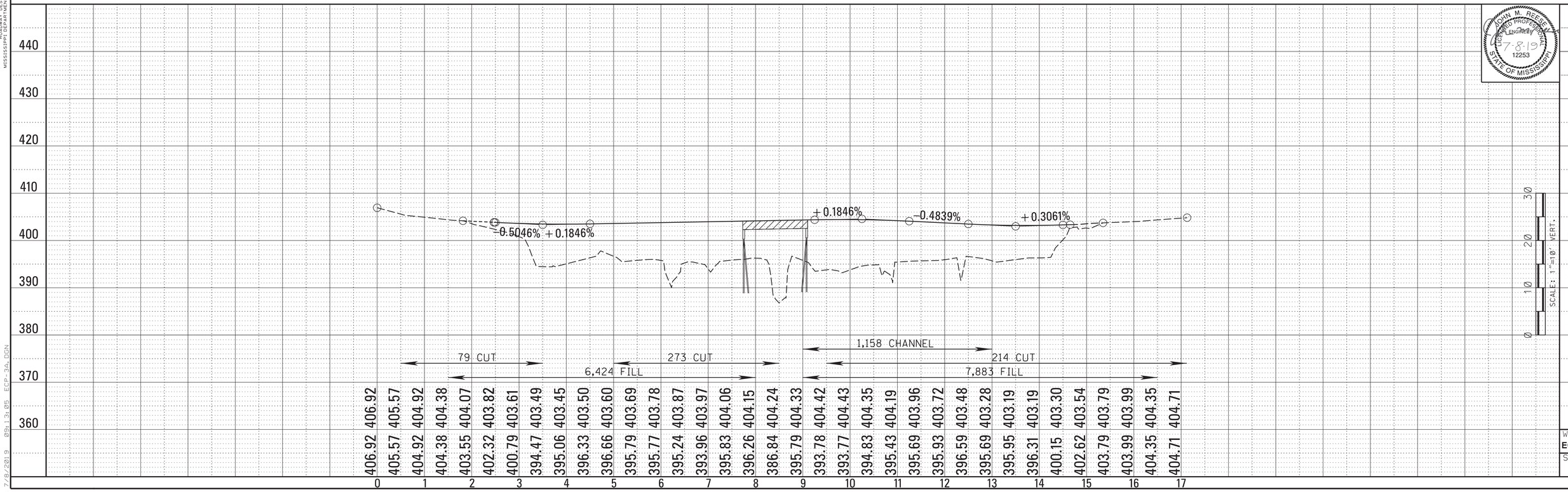
1 ADDED WETLANDS INFO

REVISIONS	
DATE	BY
1 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		

0 100 200 300
SCALE: 1"=100' HOR.



Wk. Sh.	
ECP-3A	
Sh. No.	
39	

PLAN-PROFILE
MISSISSIPPI DEPARTMENT OF TRANSPORTATION
ROADWAY DESIGN DIVISION

7/8/2019 08:13:05 ECP-3A.DGN

DESIGN TEAM: FISHER ARNOLD | FILENAME: ECP-3A.DGN | COUNTY: ATTALA | PROJECT NO.: BR-0023-02(058) | SHEET ID: SR 35 - DETOUR BR. NO. 1

FMS CON: 103334/301000

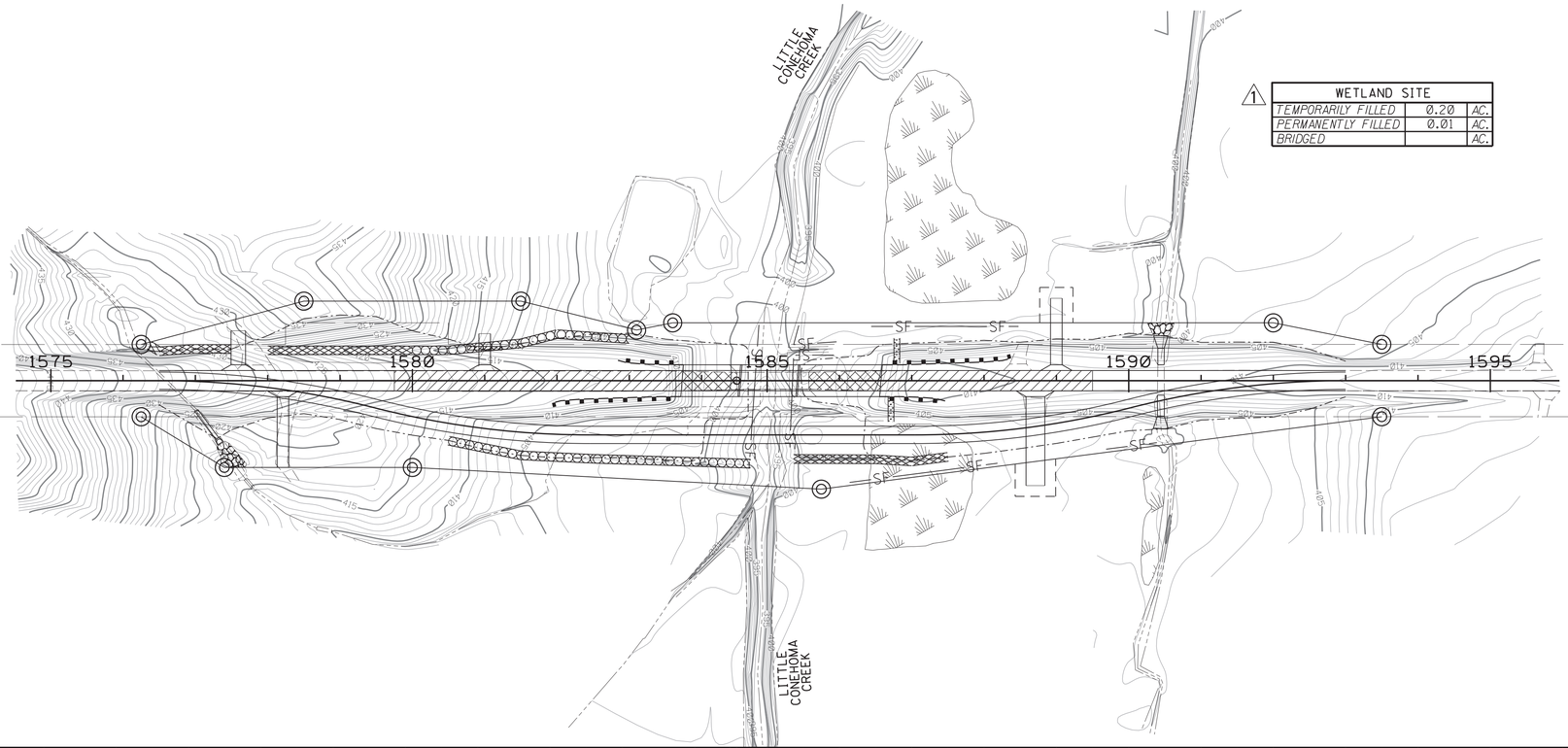
1st O.REV.

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

REVISIONS	
DATE	BY
1 07/08/19	JMR

1 REVISED WETLANDS INFO

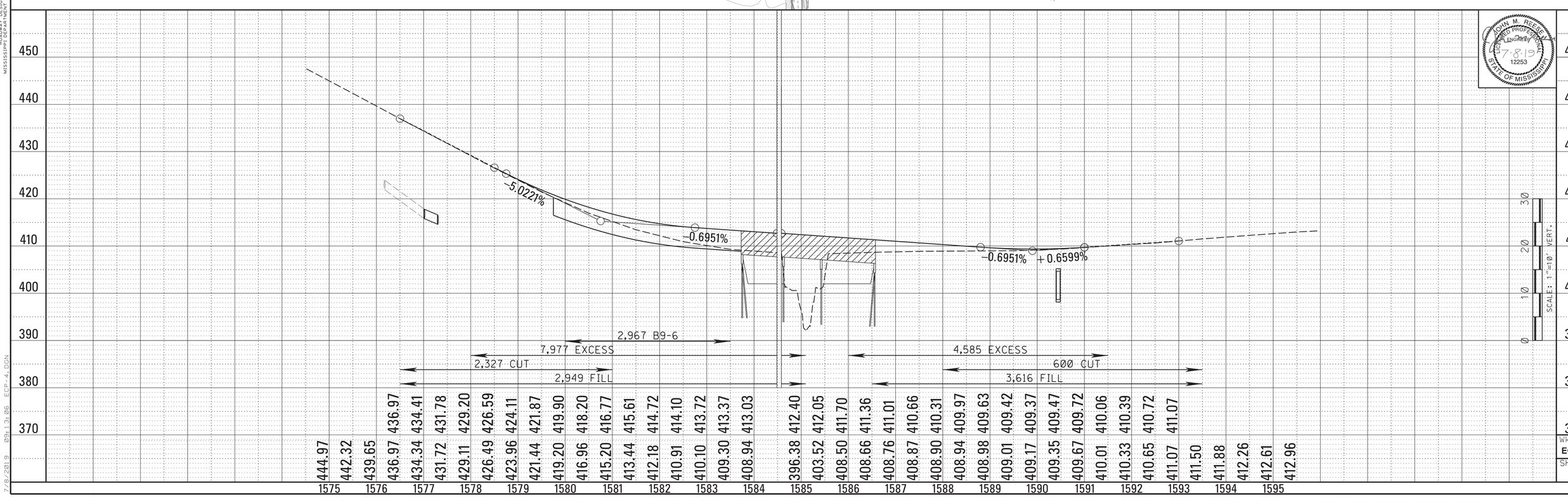
1 WETLAND SITE		
TEMPORARILY FILLED	0.20	AC.
PERMANENTLY FILLED	0.01	AC.
BRIDGED		AC.



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		

0 100 200 300

SCALE: 1"=100' HOR.



JOHN M. REESE LICENSED PROFESSIONAL ENGINEER 7-8-19 12253 STATE OF MISSISSIPPI

Wk. Sh. ECP-4

Sh. No. 40

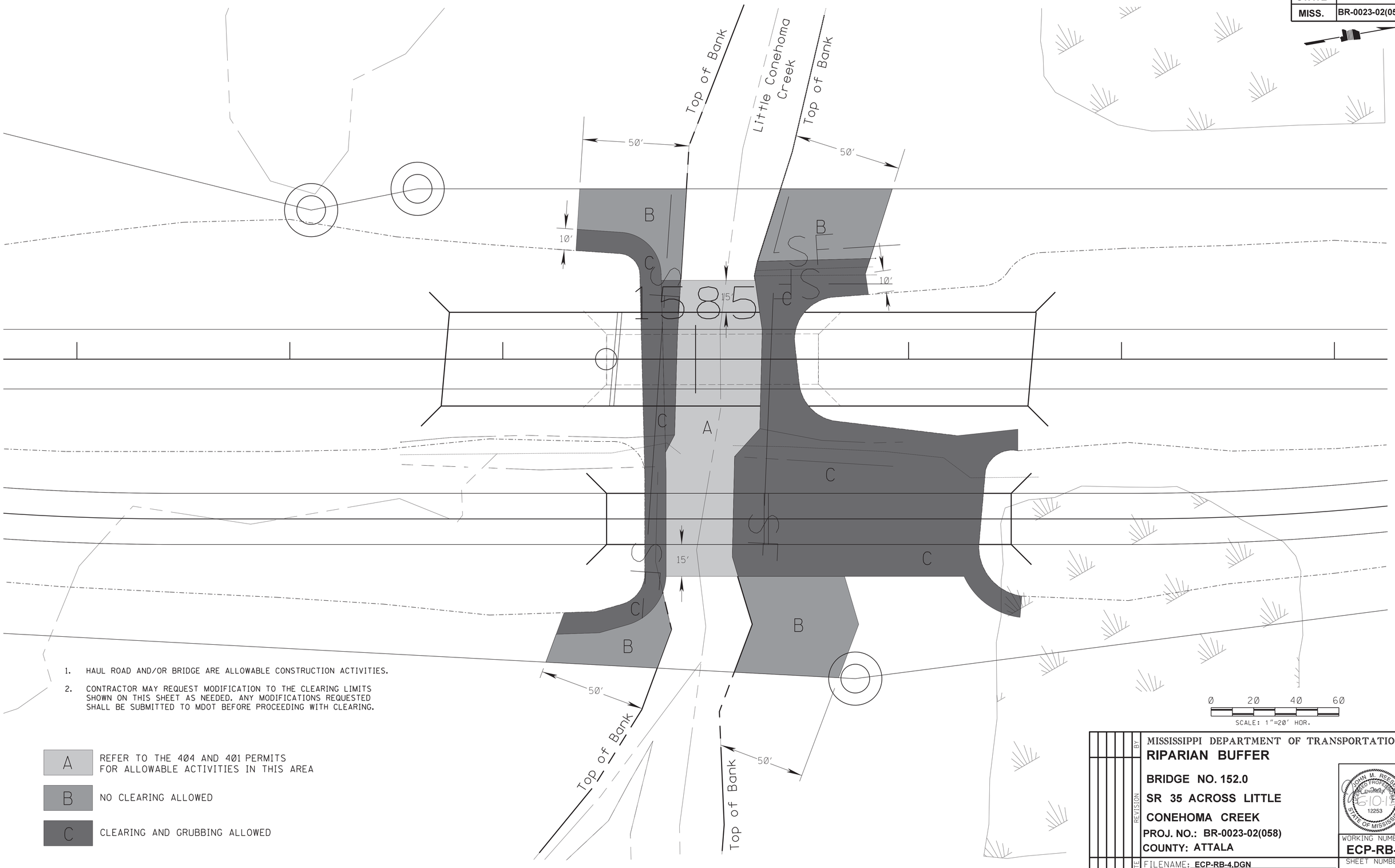
PLAN-PROFILE
ROADWAY DESIGN DIVISION
MISSISSIPPI DEPARTMENT OF TRANSPORTATION

7/8/2019 08:13:06 ECP-4.DGN

DESIGN TEAM: FISHER ARNOLD | FILENAME: ECP-4.DGN | COUNTY: ATTALA | PROJECT NO.: BR-0023-02(058) | SHEET ID: SR 35 - BR. NO. 152.0

FMS CON: 103334/301000

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



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

FILE:
ROADWAY DESIGN DIVISION
MISSISSIPPI DEPARTMENT OF TRANSPORTATION

6/10/2019 7:52:28 AM ECP-RB-4.DGN

MISSISSIPPI DEPARTMENT OF TRANSPORTATION

RIPARIAN BUFFER

BRIDGE NO. 152.0

SR 35 ACROSS LITTLE CONEHOMA CREEK

PROJ. NO.: BR-0023-02(058)

COUNTY: ATTALA

JOHN M. RESSEL — LICENSED PROFESSIONAL ENGINEER — 12253 — STATE OF MISSISSIPPI — 5-10-19

WORKING NUMBER **ECP-RB-4**

SHEET NUMBER **41**

REVISION | BY | DATE

FILENAME: ECP-RB-4.DGN

DESIGN TEAM FA CHECKED DATE

FMS CON: 103334/301000

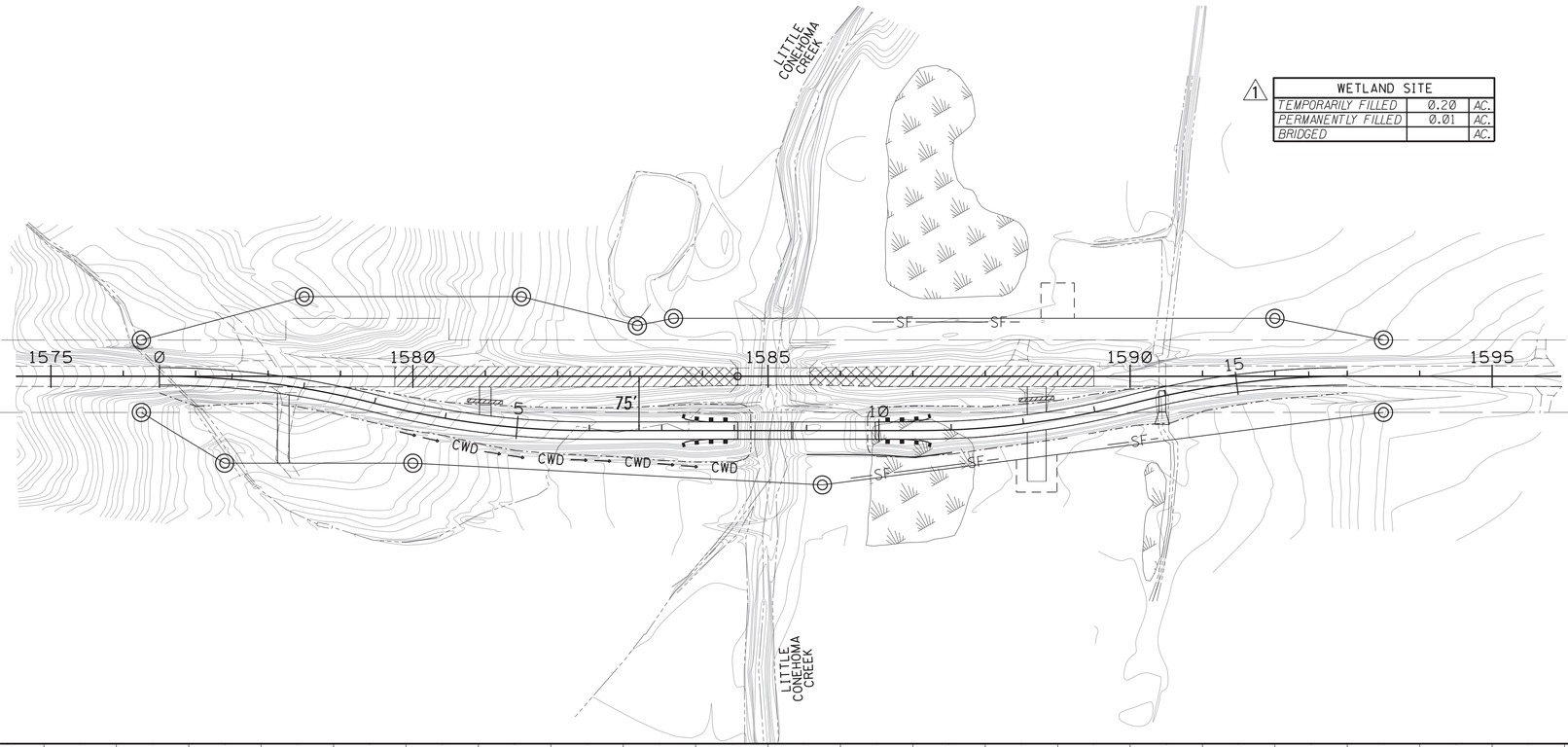
1st O.REV.

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

REVISIONS		
	DATE	BY
1	07/08/19	JMR

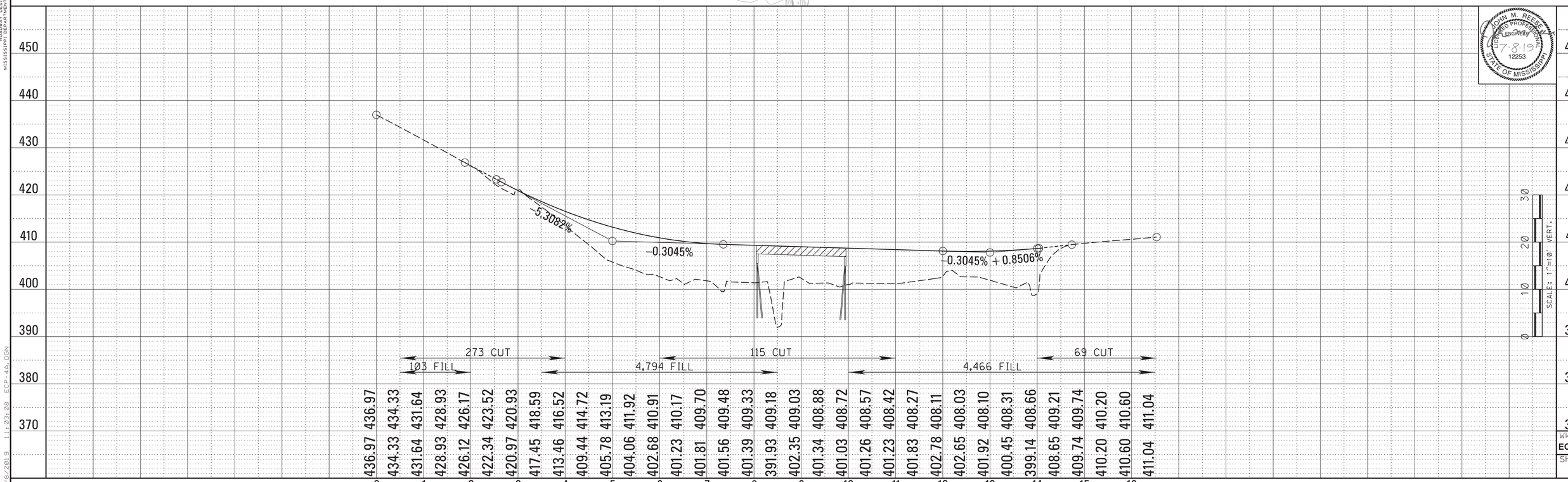
1 REVISED WETLANDS INFO

1 WETLAND SITE		
TEMPORARILY FILLED	0.20	AC.
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		

0 100 200 300
SCALE: 1"=100' HOR.



JOHN M. REESE
LICENSED PROFESSIONAL ENGINEER
7-8-19
12253
STATE OF MISSISSIPPI

Wk. Sh. ECP-4A
Sh. No. 42

PLAN-PROFILE
ROADWAY DESIGN DIVISION
MISSISSIPPI DEPARTMENT OF TRANSPORTATION

7/8/2019 11:03:08 ECP-4A.DGN

DESIGN TEAM: FISHER ARNOLD | FILENAME: ECP-4A.DGN | COUNTY: ATTALA | PROJECT NO.: BR-0023-02(058) | SHEET ID: SR 35 - DETOUR BR. NO. 2

FMS CON: 103334/301000

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

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

PLAN
ROADWAY DESIGN DIVISION
MISSISSIPPI DEPARTMENT OF TRANSPORTATION

6/10/2019 7:25:26 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

JOHN M. REESE — REGISTERED PROFESSIONAL ENGINEER — 12253 — STATE OF MISSISSIPPI

WORKING NUMBER **VS-1**

SHEET NUMBER **43**

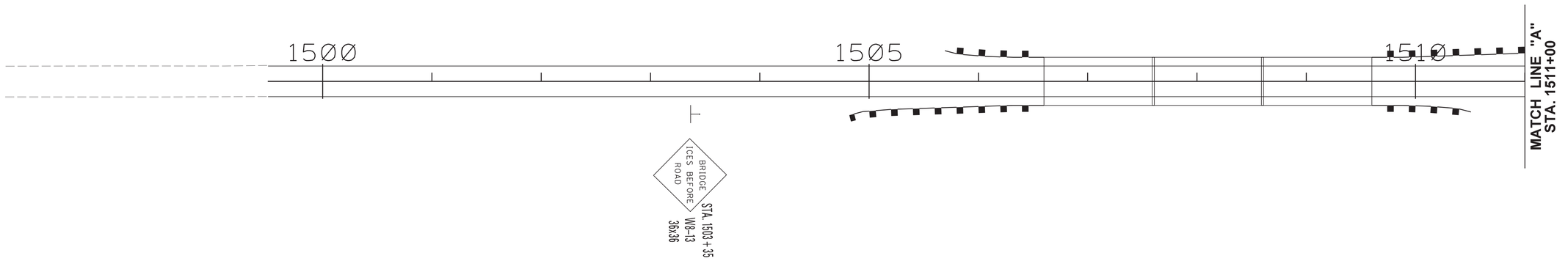
FILENAME: VS-1.DGN

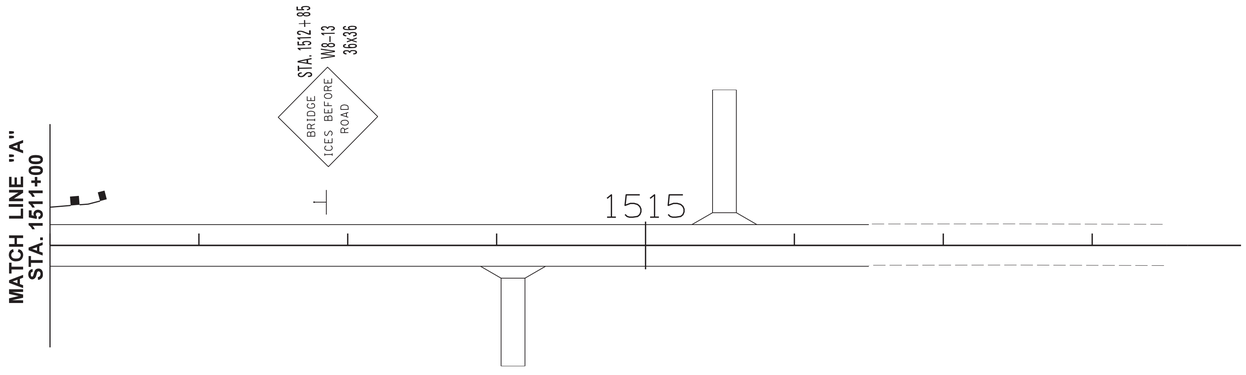
DESIGN TEAM FA CHECKED ____ DATE ____

FMS CON: 103334/301000

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

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





MISSISSIPPI DEPARTMENT OF TRANSPORTATION
PERMANENT SIGNING

SR 35 (SITE 1)

PROJ. NO.: BR-0023-02(058)
COUNTY: ATTALA

JOHN M. REESE
LICENSED PROFESSIONAL ENGINEER
12253
STATE OF MISSISSIPPI

WORKING NUMBER
PSP-1

SHEET NUMBER
1001

FILENAME: **PSP-1-SITE1.DGN**
DESIGN TEAM **FA** CHECKED _____ DATE _____

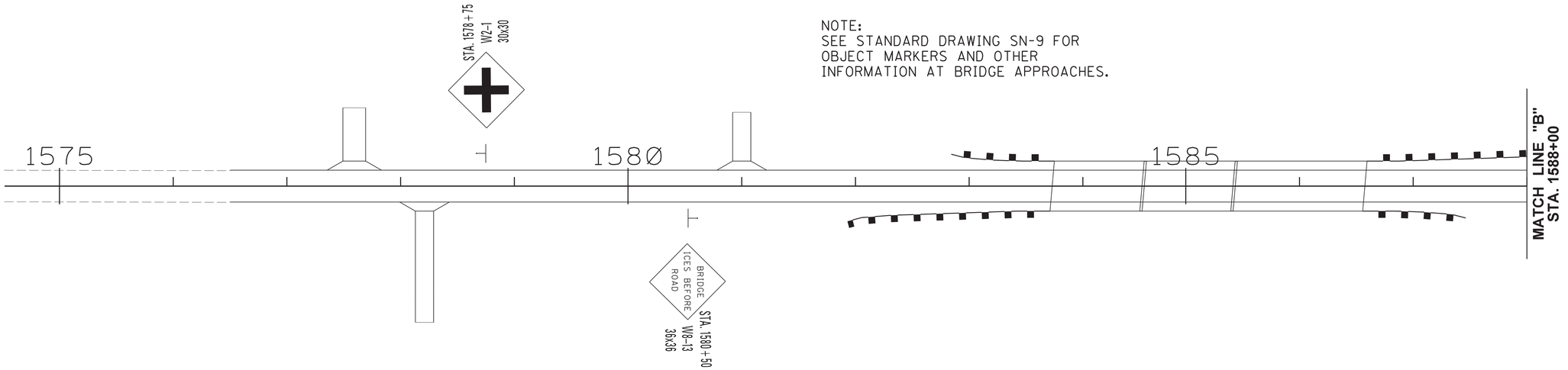
REVISION | BY | DATE

PLAN
ROADWAY DESIGN DIVISION
MISSISSIPPI DEPARTMENT OF TRANSPORTATION

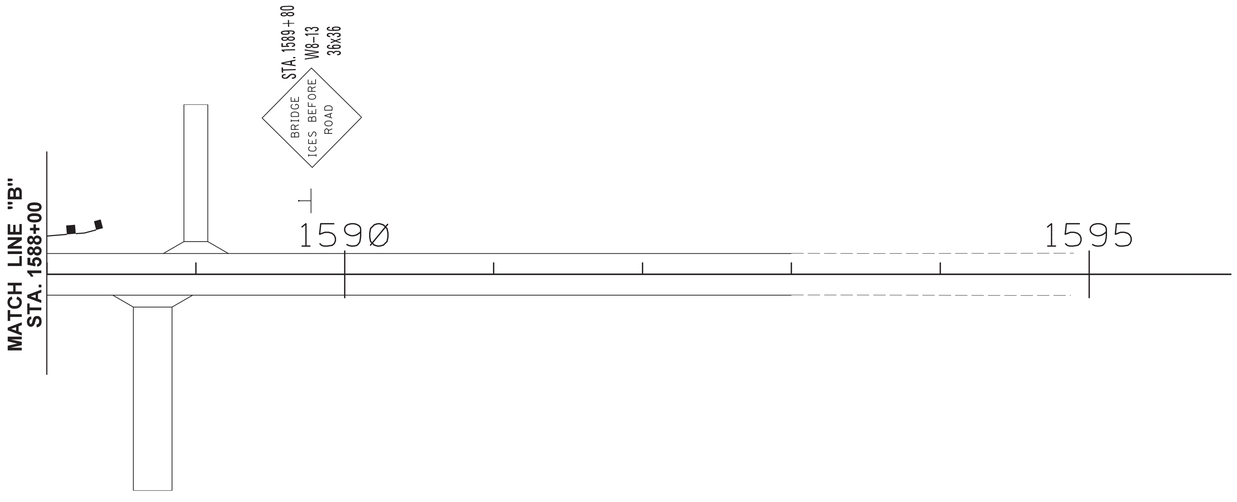
6/10/2019 9:25:44 AM PSP-1-SITE1.DGN

FMS CON: 103334/301000

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



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



MISSISSIPPI DEPARTMENT OF TRANSPORTATION
PERMANENT SIGNING

SR 35 (SITE 2)

PROJ. NO.: BR-0023-02(058)
COUNTY: ATTALA

JOHN M. REESE
REGISTERED PROFESSIONAL ENGINEER
12253
STATE OF MISSISSIPPI

WORKING NUMBER
PSP-2

SHEET NUMBER
1002

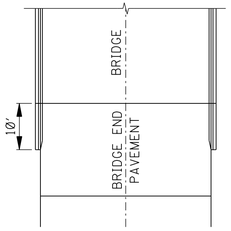
FILENAME: **PSP-2-SITE2.DGN**
DESIGN TEAM **FA** CHECKED _____ DATE _____

REVISION | BY | DATE

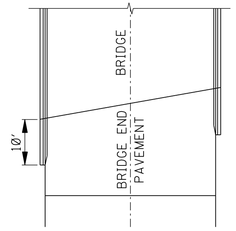
PLAN
ROADWAY DESIGN DIVISION
MISSISSIPPI DEPARTMENT OF TRANSPORTATION

6/10/2019 8:25:44 AM PSP-2-SITE2.DGN

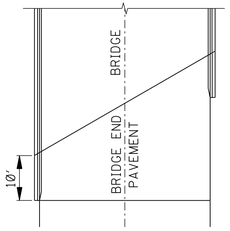
STATE	PROJECT NO.
MISS.	



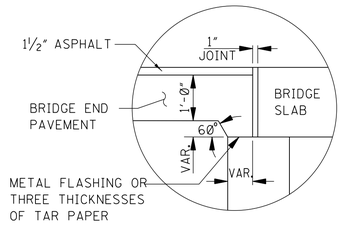
BRIDGE WITH NO SKEW



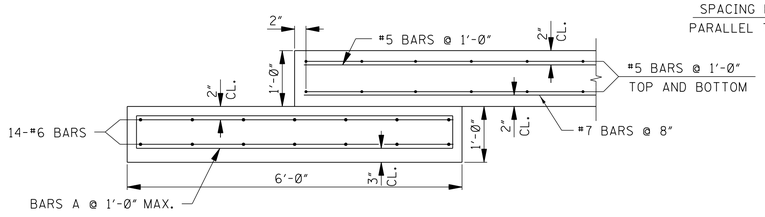
BRIDGE WITH SKEW AND 'A' MORE THAN 10'



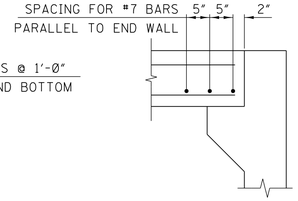
BRIDGE WITH SKEW AND 'A' EQUAL TO 10'



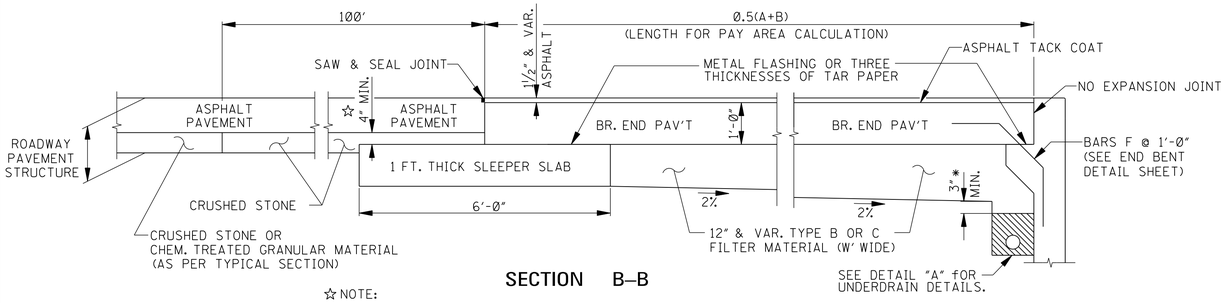
DETAIL SHOWING METHOD OF SEATING BRIDGE END PAVEMENT ON BRIDGES WITH NO PAVING BRACKET



SECTION C–C



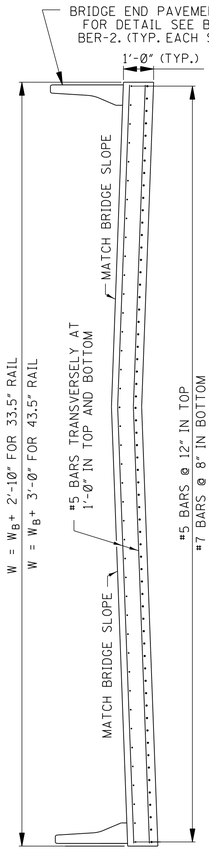
SECTION D–D



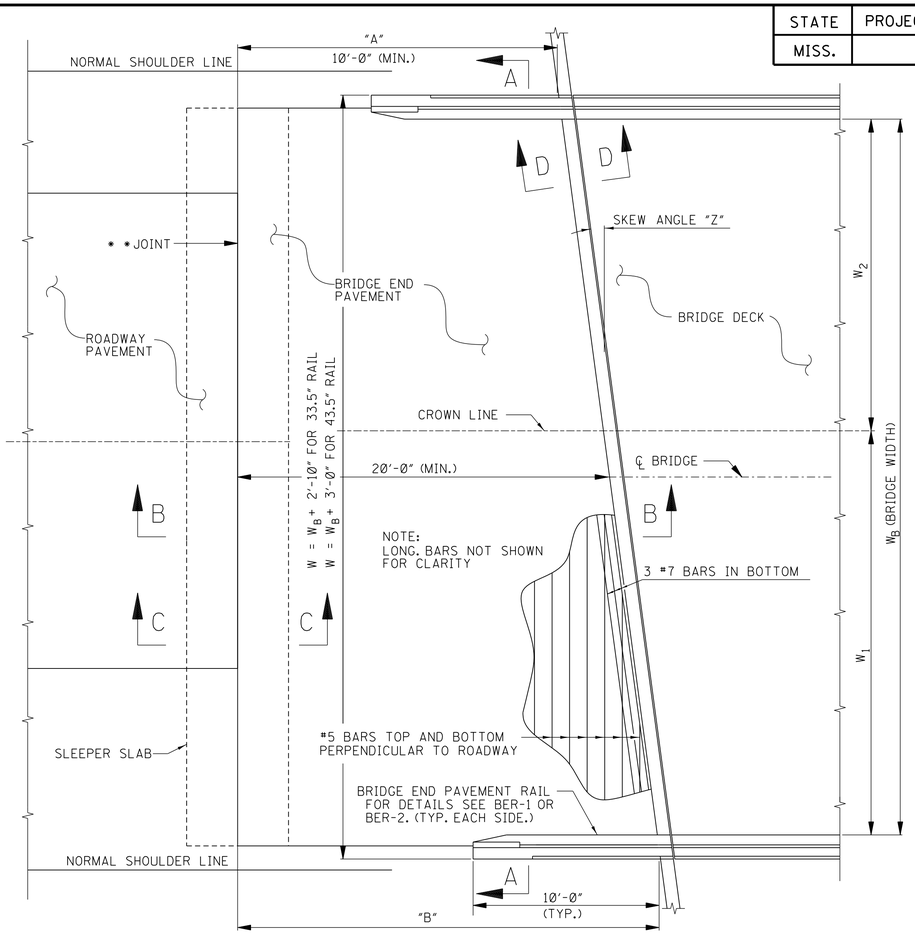
SECTION B–B

☆ 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 A–A

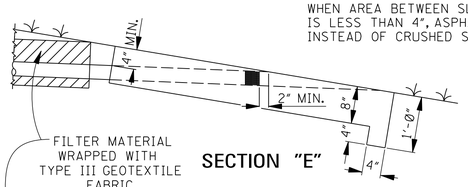


PLAN AT BRIDGE END

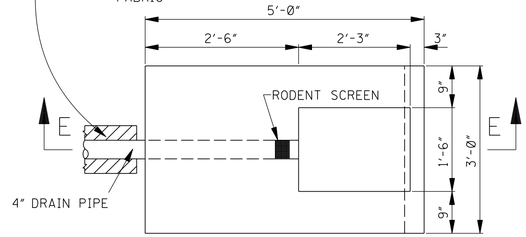
* *NOTE:
1" PREMOLDED EXPANSION JOINT SEALED WITH POURED JOINT FILLER (DOWELED). THIS JOINT REQUIRED ONLY IF ROADWAY PAVEMENT IS CONCRETE.

GENERAL NOTES:

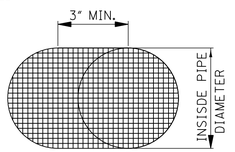
1. IF BRIDGE END PAVEMENT IS CONSTRUCTED IN MORE THAN ONE SECTION, LONGITUDINAL CONSTRUCTION JOINTS WITH TIE BARS SHALL BE USED. TIE BARS SHALL BE #5 BARS, 2'-6" LONG AND SPACED 2'-6" O.C.. SUCH CONSTRUCTION SHALL BE USED WHERE INDICATED ON PLANS.
2. DIMENSIONS "A" AND "B" ARE BASED ON A MID-LENGTH OF 20'-0", EXCEPT IN NO CASE SHALL "A" BE LESS THAN 10'-0".
3. SEE QUANTITY SECTION OF PLANS FOR DIMENSIONS "W", "W¹", W², "A", "B", SKEW ANGLE "Z", AND QUANTITIES.
4. REINFORCEMENT (DEFORMED) MAY BE FURNISHED FULL LENGTH OR MAY BE SPLICED. IF BARS ARE SPLICED, THEY SHALL BE SPLICED NOT LESS THAN 30 DIAMETERS.
5. 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.
6. 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.
7. 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).



SECTION "E"

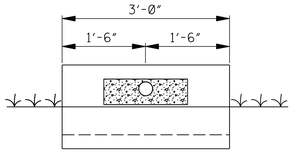


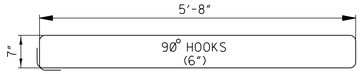
OUTLET APRON DETAIL



DETAIL OF RODENT SCREEN

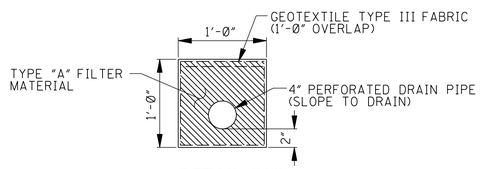
3x3 GALVANIZED HARDWARE CLOTH 0.063 WIRE OR EQUAL FORMED TO FIT SNUG TO INSIDE OF PIPE. (COST ABSORBED)





BARS A - #5

BAR BENDING DETAILS
DIMENSIONS ARE OUT TO OUT



DETAIL "A"

NOTES:

1. 0.363 C.Y. CLASS "C" CONCRETE REQUIRED FOR APRON.
2. SMALL ANIMAL GUARDS SHALL BE REQUIRED ON ALL EXPOSED PIPE OPENINGS BY THE END OF THE WORK DAY INSTALLED.
3. 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 TO THE OUTLET APRON.
4. UNDERDRAIN OUTLETS SHALL BE REQUIRED ON BOTH SIDES OF THE ROADWAY IN NORMAL CROWN SECTIONS AND ONLY ON THE LOW SIDE OF SUPERELEVATED SECTIONS.

DATE	REVISION	BY

MISSISSIPPI DEPARTMENT OF TRANSPORTATION
ROADWAY DESIGN DIVISION
STANDARD PLAN

BRIDGE END PAVEMENT WITH RAIL, OVERLAY, AND SLEEPER SLAB (NEW CONSTRUCTION)

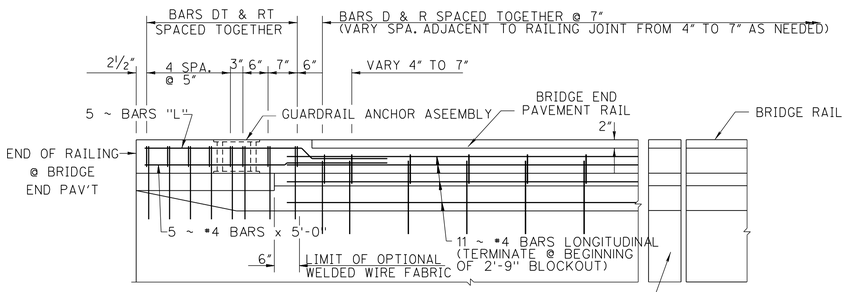
MDOT

WORKING NUMBER
BE-1

SHEET NUMBER
6007

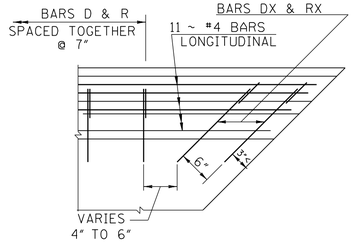
ISSUE DATE: AUGUST 01, 2017

STATE	PROJECT NO.
MISS.	



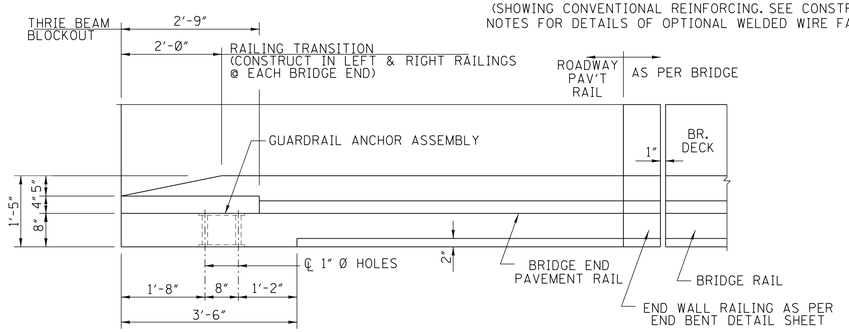
PART PLAN OF LEFT RAILING

(SHOWING CONVENTIONAL REINFORCING. SEE CONSTRUCTION NOTES FOR DETAILS OF OPTIONAL WELDED WIRE FABRIC.)



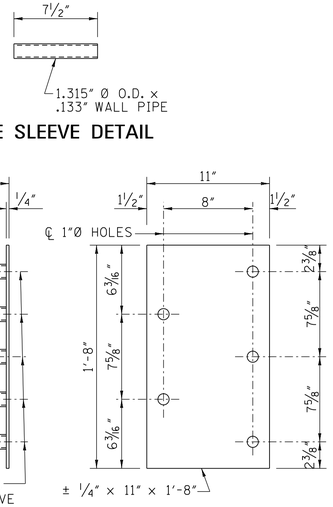
SKEWED PART PLAN OF LEFT RAILING AT BRIDGE END WALL

(SHOWING CONVENTIONAL REINFORCING. SEE CONSTRUCTION NOTES FOR DETAILS OF OPTIONAL WELDED WIRE FABRIC.)



PART PLAN OF RIGHT RAILING

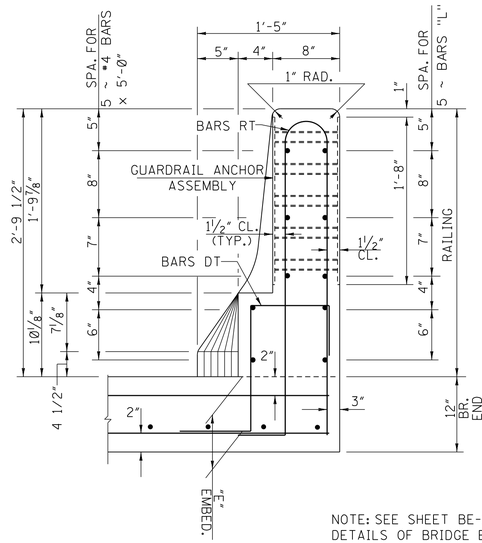
(SHOWING CONCRETE DIMENSIONS)



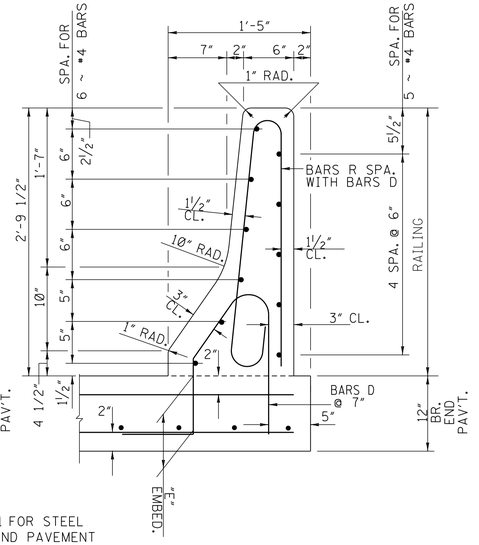
PIPE SLEEVE DETAIL

PLATE DETAIL

GUARDRAIL ANCHOR ASSEMBLY



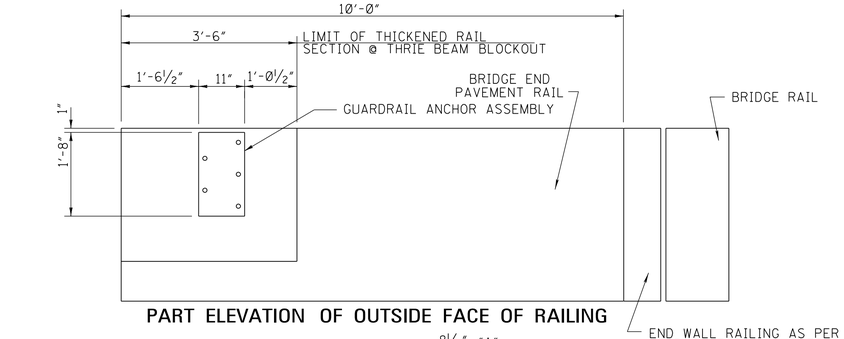
END ELEVATION OF RAILING



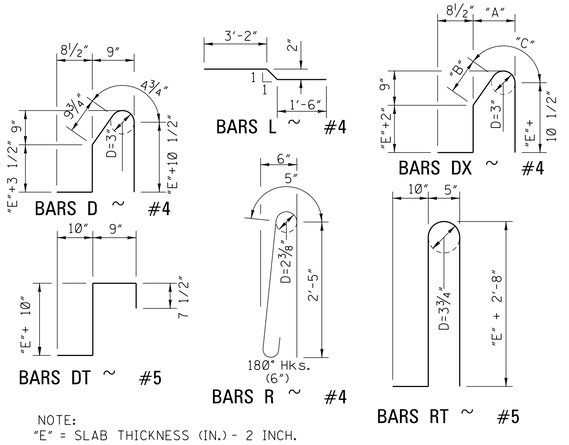
TYPICAL SECTION OF RAILING

NOTE: "E" = SLAB THICKNESS (IN.) - 2 INCH.

NOTE: SEE SHEET BE-1 FOR STEEL DETAILS OF BRIDGE END PAVEMENT



PART ELEVATION OF OUTSIDE FACE OF RAILING

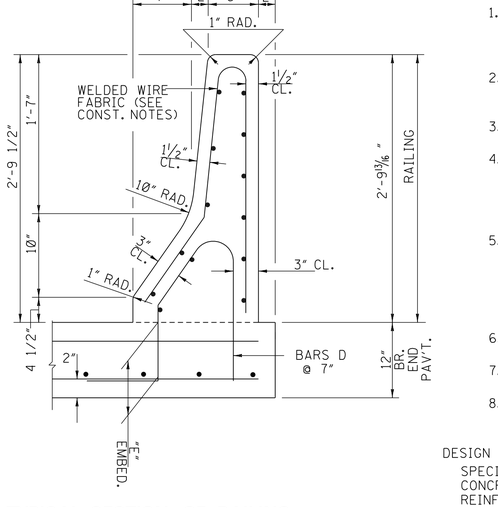


NOTE:
"E" = SLAB THICKNESS (IN.) - 2 INCH.

BAR BENDING DETAILS

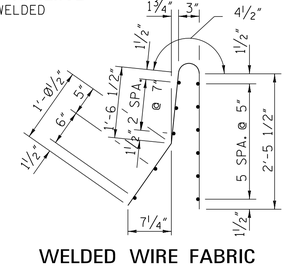
DIMENSIONS ARE OUT TO OUT

SKEW (DEG)	BARS DX ~ #4			BARS RX ~ #4
	"A"	"B"	"C"	"F"
0	9"	9¾"	5"	6"
5	9"	9¾"	5"	6"
10	9"	9¾"	5"	6"
15	9¼"	10"	5"	6¼"
20	9½"	10"	5"	6¼"
25	10"	10½"	5"	6½"
30	10¼"	10½"	5"	7"
35	11"	11¼"	4¾"	7¼"
40	11¾"	11¾"	4¾"	7¾"
45	1'-0¼"	1'-0¾"	4½"	8½"
50	1'-2"	1'-1¾"	4½"	9¼"
55	1'-3¾"	1'-2½"	4½"	10½"



TYPICAL SECTION OF RAILING

SHOWING OPTIONAL WELDED WIRE FABRIC



WELDED WIRE FABRIC

(OPTIONAL - SEE CONSTRUCTION NOTES)

CONSTRUCTION NOTES:

1. 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.
2. 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.
3. GUARDRAIL ANCHOR ASSEMBLIES SHALL BE INSTALLED IN BOTH LEFT AND RIGHT RAILINGS AT EACH END OF ALL BRIDGES.
4. 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".
5. 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".
6. BRIDGE END PAVEMENT RAIL SHALL BE CONSTRUCTED AND PAID FOR IN ACCORDANCE WITH SECTION 813 OF THE STANDARD SPECIFICATIONS.
7. 4" DIAMETER WEEP HOLES TO BE PLACED IN THE BRIDGE END PAVEMENT RAIL WHERE REQUIRED TO REDUCE PONDING.
8. IF TOP LIFT OF ASPHALT IS ANYTHING OTHER THAN 1.5", THE LIFT SHALL BE TRANSITIONED TO 1.5" ACROSS THE LENGHTH 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)

BY	REVISION	DATE

MISSISSIPPI DEPARTMENT OF TRANSPORTATION
ROADWAY DESIGN DIVISION
STANDARD PLAN

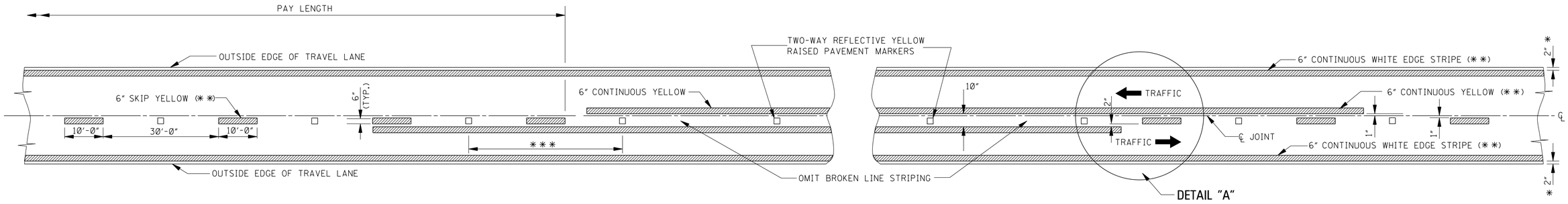
33.5" BRIDGE END PAVEMENT RAIL

MDOT
WORKING NUMBER
BER-1

ISSUE DATE: AUGUST 01, 2017

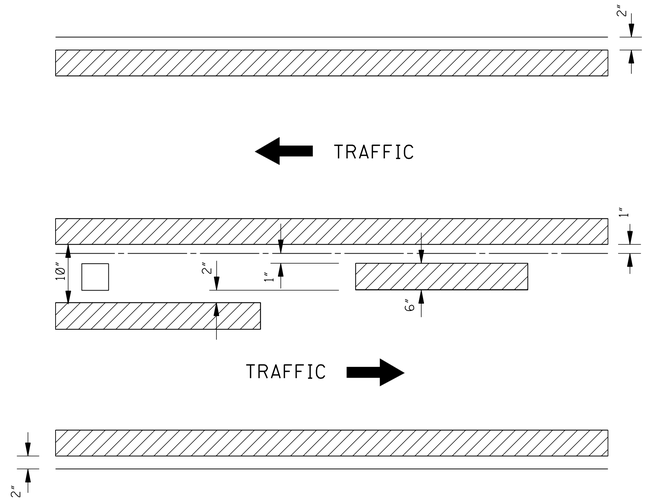
SHEET NUMBER
6009

STATE	PROJECT NO.
MISS.	



TWO–WAY TRAFFIC
(ASPHALT OR CONCRETE PAVEMENT)

NOTE: THE CRITERIA FOR NO-PASSING ZONES CAN BE FOUND IN THE MDOT 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.

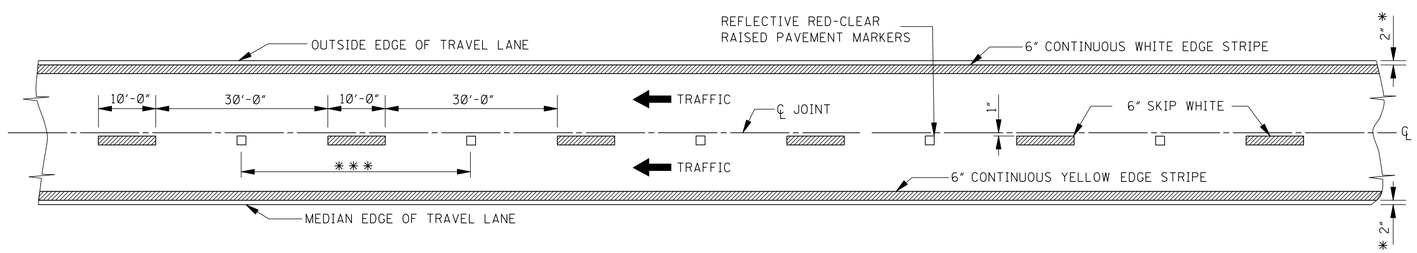
* * 2. EDGE STRIPE SHALL BE SAME MATERIAL AS LANE-LINE STRIPE (PAINT OR PLASTIC AS INDICATED IN PAY ITEMS).

* * * 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 MDOT "APPROVED SOURCES OF MATERIALS."



4–LANE WITH ONE–WAY TRAFFIC

BY	REVISION	DATE

MISSISSIPPI DEPARTMENT OF TRANSPORTATION
ROADWAY DESIGN DIVISION
STANDARD PLAN

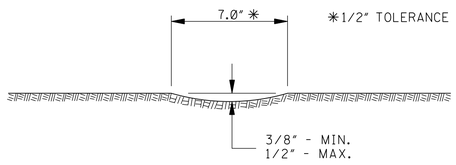
PAVEMENT MARKING DETAILS FOR 2–LANE AND 4–LANE DIVIDED ROADWAYS

ISSUE DATE: AUGUST 01, 2017

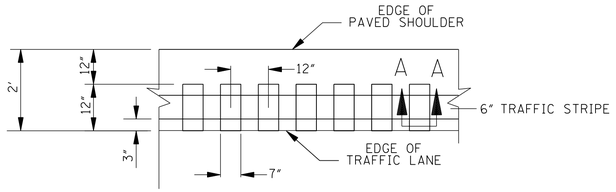
WORKING NUMBER
PM-1

SHEET NUMBER
6051

STATE	PROJECT NO.
MISS.	



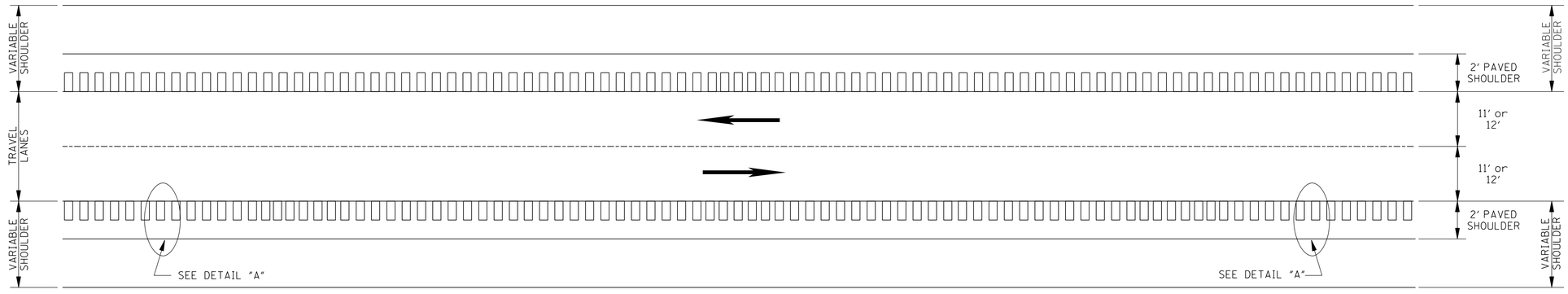
SECTION "A–A"



DETAIL "A"

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	REVISION	DATE

MISSISSIPPI DEPARTMENT OF TRANSPORTATION
ROADWAY DESIGN DIVISION
STANDARD PLAN

RUMBLE STRIPES 2–LANE HIGHWAYS (ASPHALT LANES, 2–FT ASPHALT SHOULDERS)

MDOT MISSISSIPPI DEPARTMENT OF TRANSPORTATION

WORKING NUMBER RS-1

ISSUE DATE: AUGUST 01, 2017

SHEET NUMBER 6064

STATE	PROJECT NO.
MISS.	

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 CONSTRUCITON 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 | REVISION | DATE

MISSISSIPPI DEPARTMENT OF TRANSPORTATION
ROADWAY DESIGN DIVISION
STANDARD PLAN

TYPICAL TEMPORARY EROSION / SEDIMENT CONTROL APPLICATIONS

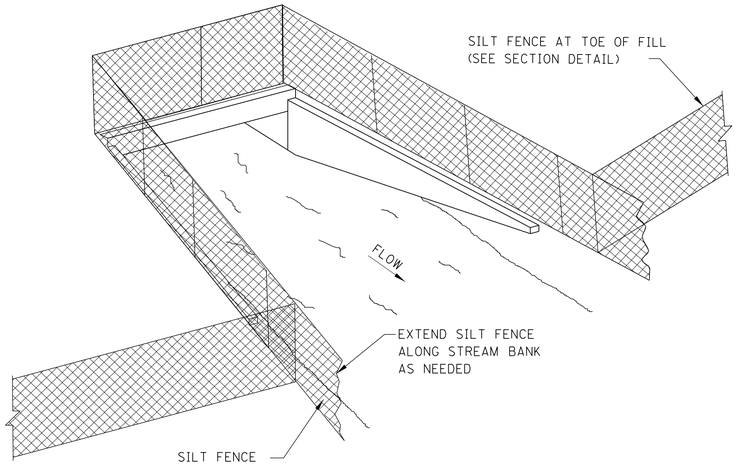
MDOT

WORKING NUMBER ECD-1

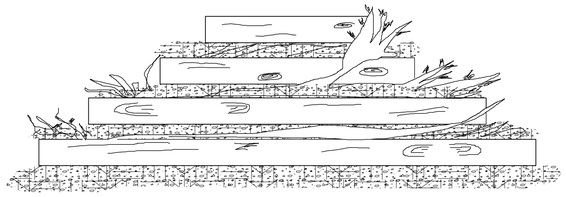
ISSUE DATE: AUGUST 01, 2017

SHEET NUMBER 6101

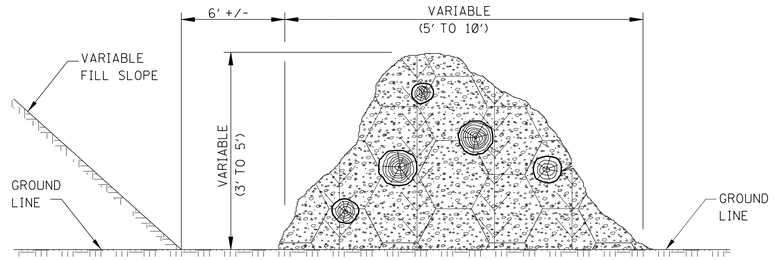
STATE	PROJECT NO.
MISS.	



SEDIMENT BARRIER AT CROSS DRAIN



FRONT ELEVATION



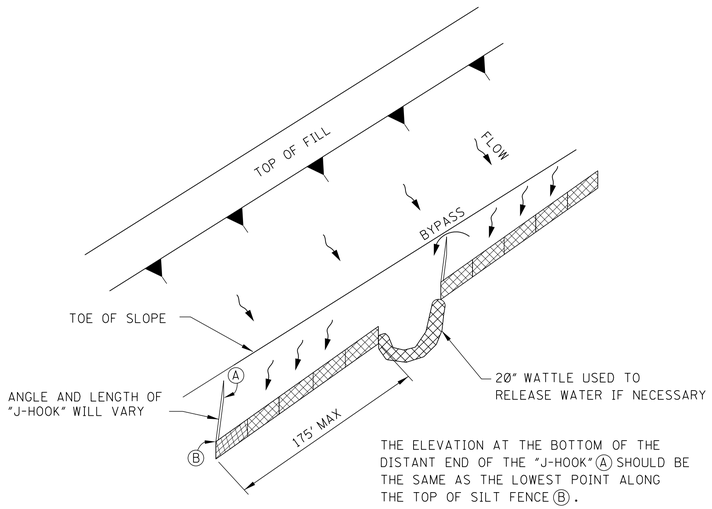
SIDE ELEVATION

TEMPORARY BRUSH BARRIER

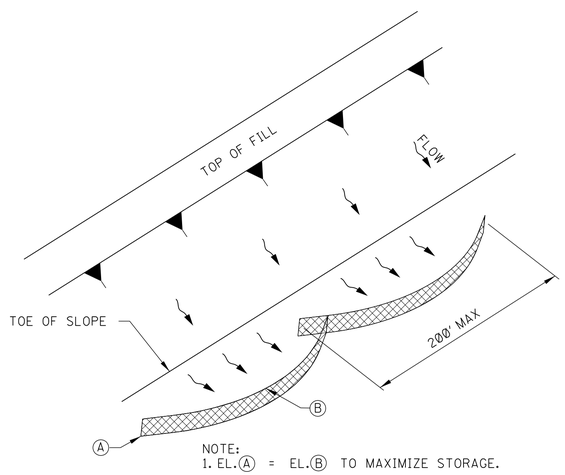
NOTES:

1. BRUSH BARRIER MAY BE USED WHERE NATURAL GROUND IS LEVEL OR SLOPING AWAY FROM PROJECT.
2. 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.
3. TO ALLOW WATER TO SEEP THROUGH BRUSH BARRIER, INTERMINGLE THE BRUSH, LOG AND TREE LAPS SO AS NOT TO FORM A SOLID DAM.
4. THE BRUSH BARRIER MAY BE CHOKED WITH FILTER FABRIC. THE COST OF FABRIC TO BE INCLUDED IN OTHER ITEMS BID.
5. TEMPORARY BRUSH BARRIER WILL NOT BE MEASURED FOR SEPARATE PAYMENT.

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

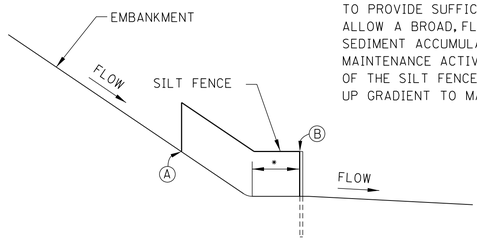


"J–HOOK" SILT FENCE
APPLICATION



NOTE:
1. EL.(A) = EL.(B) TO MAXIMIZE STORAGE.

"SMILE–CONFIGURATION" SILT FENCE
APPLICATION

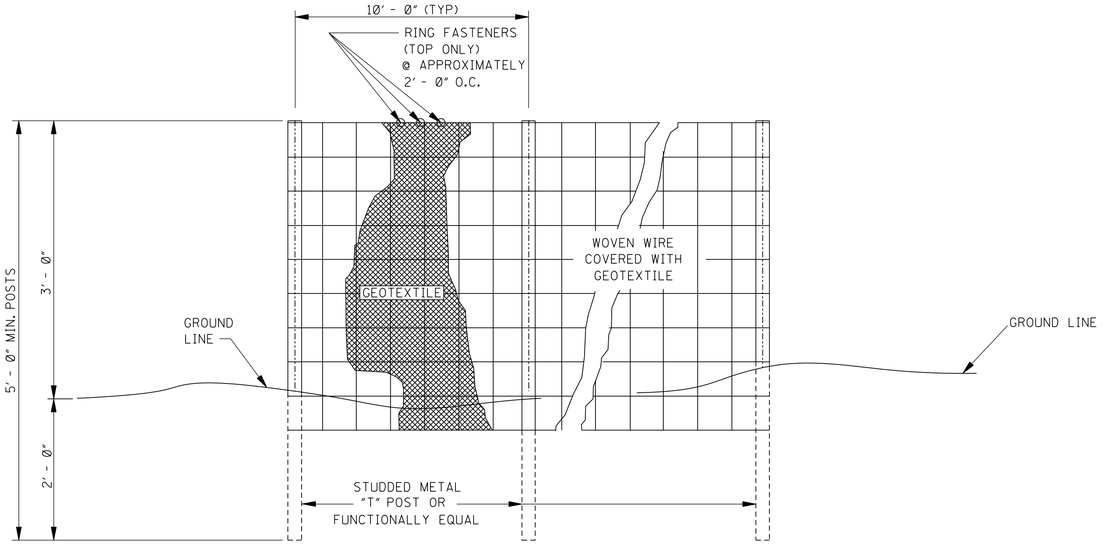


- SILT FENCE SHOULD BE LOCATED AWAY FROM THE TOE OF THE SLOPE TO PROVIDE SUFFICIENT SPACE TO ALLOW A BROAD, FLAT AREA FOR SEDIMENT ACCUMULATION AND MAINTENANCE ACTIVITIES. THE ENDS OF THE SILT FENCE SHOULD BE TURNED UP GRADIENT TO MAXIMIZE STORAGE.

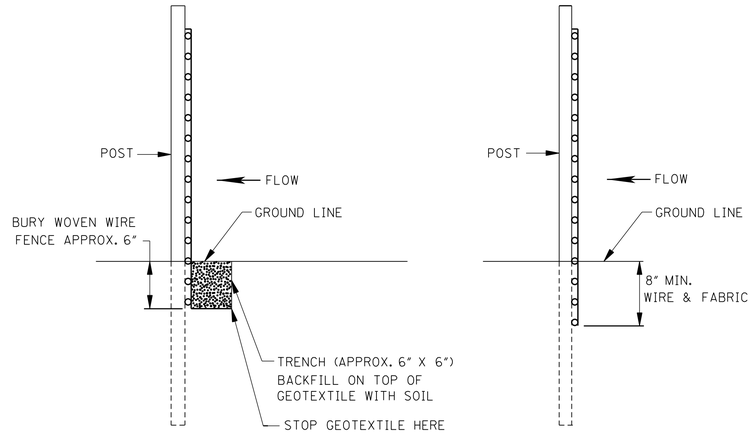
SILT FENCE SECTION AT
TOE OF FILL

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

STATE	PROJECT NO.
MISS.	



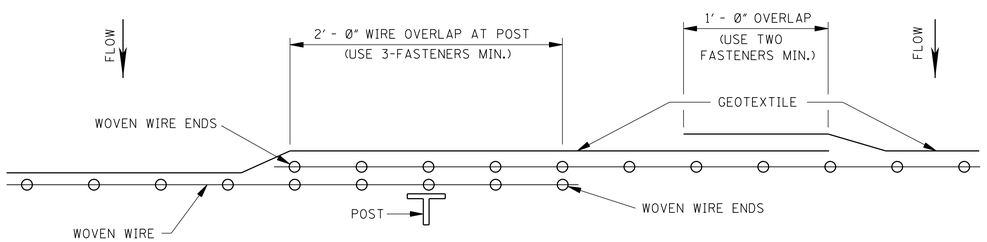
ELEVATION VIEW



METHOD I

METHOD II
MECHANICAL INSTALLATION

SIDE VIEW



PLAN VIEW

REQUIRED LAPPING

GENERAL NOTES:

1. SILT FENCES SHOULD BE USED IN AREAS WHERE FLOW IS NOT SEVERE.
2. 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.
3. 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.
4. 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.
5. THE CONTRACTOR MAY ELECT TO USE EITHER METHOD I OR METHOD II. COST TO BE LINEAR FEET OF SILT FENCE.
6. METHOD II INSTALLATION SHALL BE ACCOMPLISHED USING AN IMPLEMENT THAT IS MANUFACTURED FOR THE APPLICATION AND PROVIDES A CONFIGURATION MEETING THE REQUIREMENTS OF DETAIL.
7. WIRE SHALL BE A MINIMUM OF 32" IN WIDTH AND SHALL HAVE A MINIMUM OF 6 LINE WIRES WITH 12" STAY SPACING.
8. GEOTEXTILE FABRIC MEETING THE TYPE II MATERIAL REQUIREMENTS AND INSTALLED ACCORDING TO SPECIFICATION MAY BE USED WITHOUT WIRE FENCE.

BY	REVISION	DATE

MISSISSIPPI DEPARTMENT OF TRANSPORTATION
ROADWAY DESIGN DIVISION
STANDARD PLAN

DETAILS OF SILT FENCE INSTALLATION

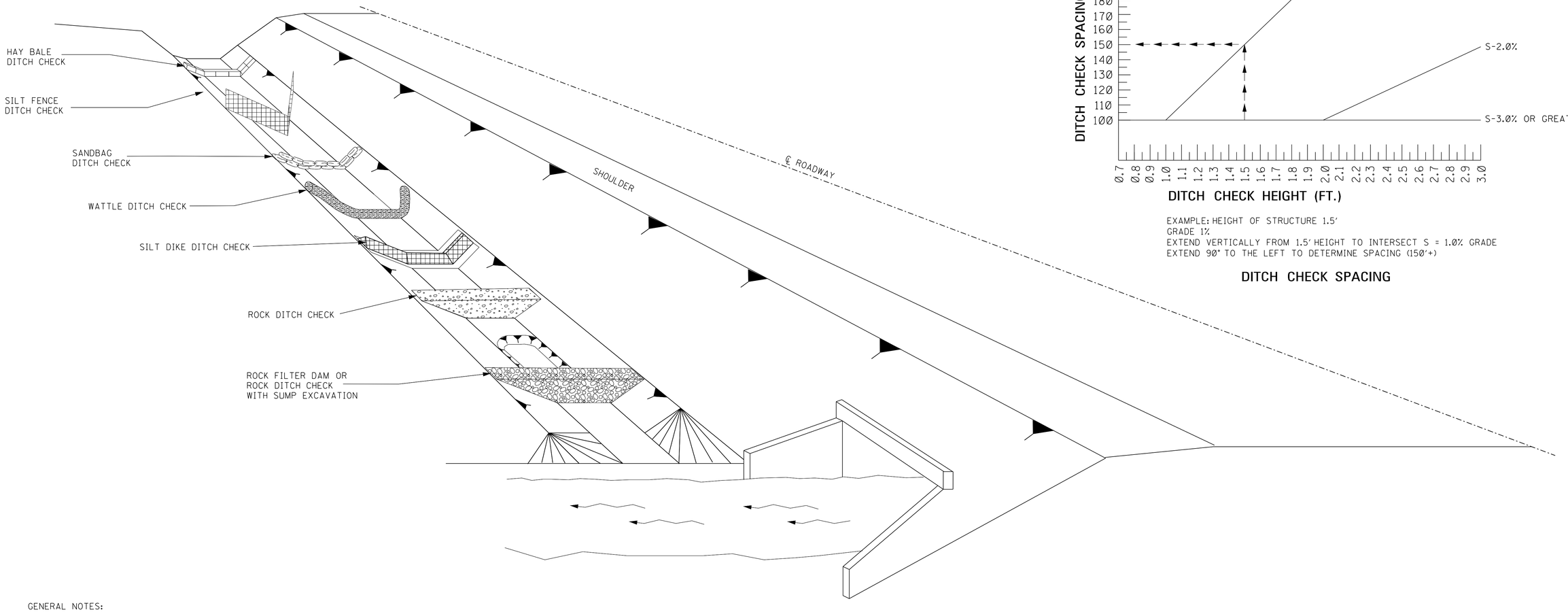
MDOT

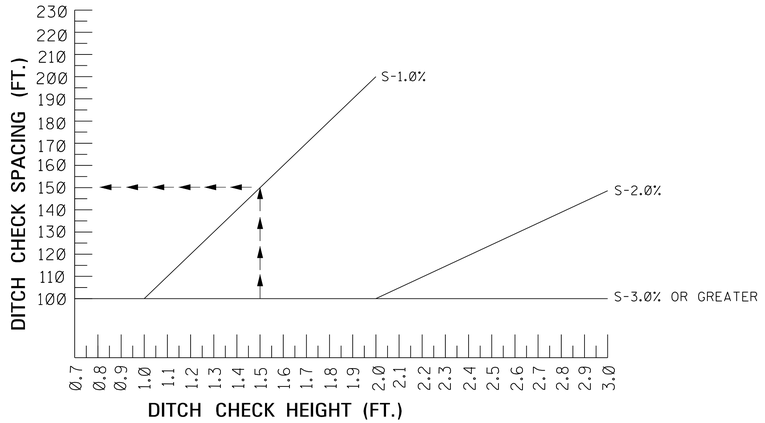
WORKING NUMBER
ECD-3

ISSUE DATE: AUGUST 01, 2017

SHEET NUMBER
6103

STATE	PROJECT NO.
MISS.	





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′+)

DITCH CHECK SPACING

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 ⅓ THE CAPACITY OR HEIGHT OF THE STRUCTURE AND NEVER ALLOWING FOR SEDIMENT TO ACCUMULATE MORE THAN ½ 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.

DATE	REVISION	BY

MISSISSIPPI DEPARTMENT OF TRANSPORTATION
ROADWAY DESIGN DIVISION
STANDARD PLAN

DITCH CHECK STRUCTURES, TYPICAL APPLICATIONS AND DETAILS

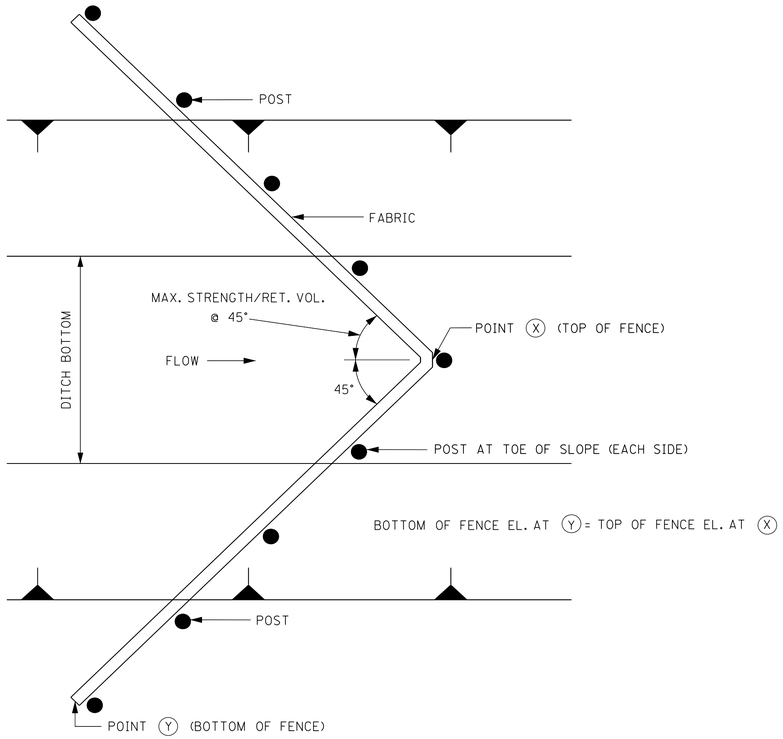
MDOT

WORKING NUMBER
ECD-4

ISSUE DATE: AUGUST 01, 2017

SHEET NUMBER
6104

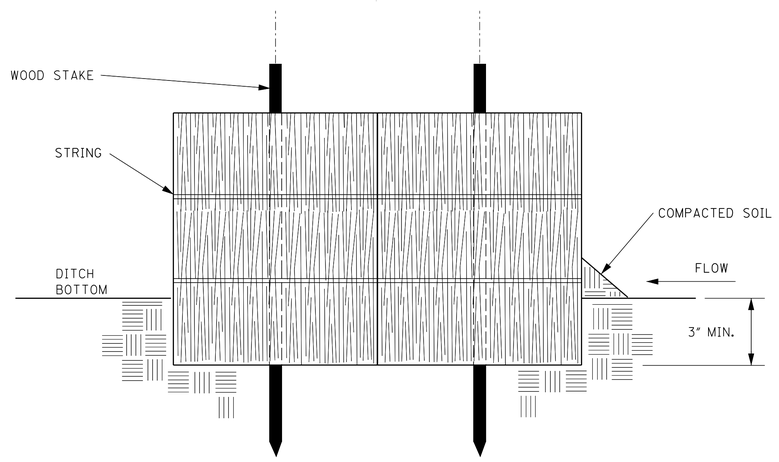
STATE	PROJECT NO.
MISS.	



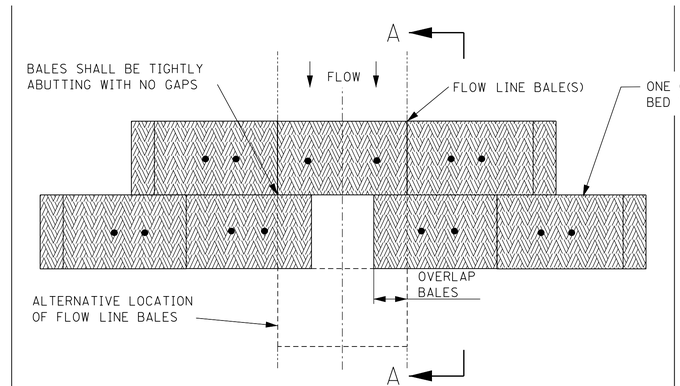
PLAN VIEW

NOTES:

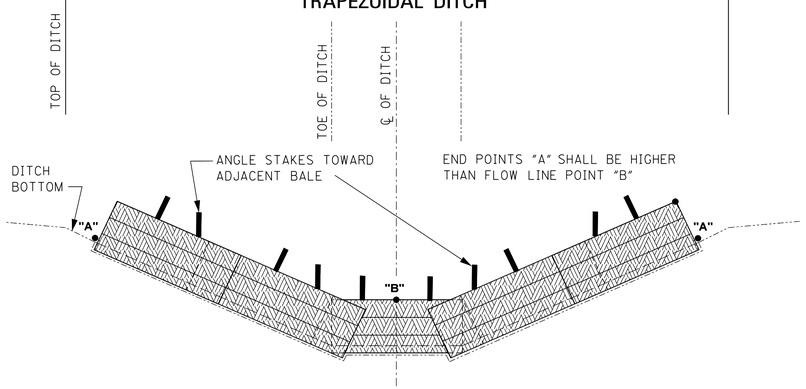
1. ANCHOR AND INSTALL PER DETAILS FOR SILT FENCE SPACING GUIDELINES ON WK. NO. ECD-4.
2. A "W" SHAPE MAY BE USED FOR WIDER DITCHES.



SECTION A–A



PLAN VIEW
TRAPEZOIDAL DITCH



PROFILE 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.

DATE	REVISION	BY

MISSISSIPPI DEPARTMENT OF TRANSPORTATION
ROADWAY DESIGN DIVISION
STANDARD PLAN

TEMPORARY EROSION, SEDIMENT, AND WATER POLLUTION CONTROL MEASURES

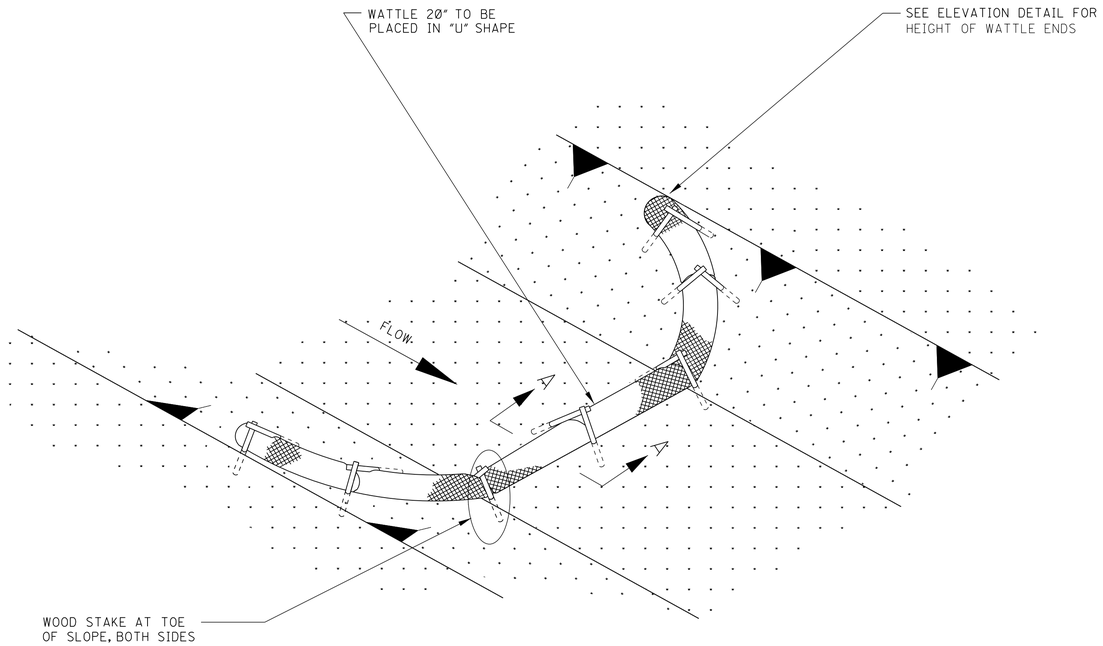
(SILT FENCE AND HAY BALE DITCH CHECKS)

WORKING NUMBER ECD-5

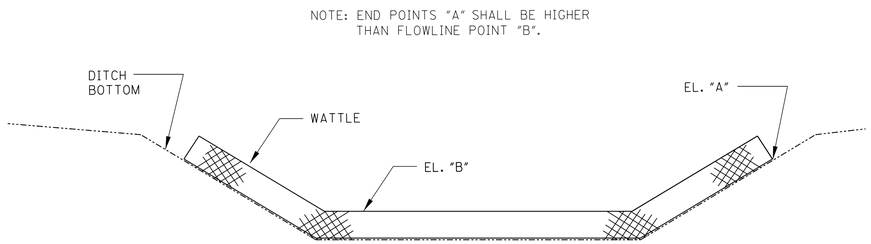
ISSUE DATE: AUGUST 01, 2017

SHEET NUMBER 6105

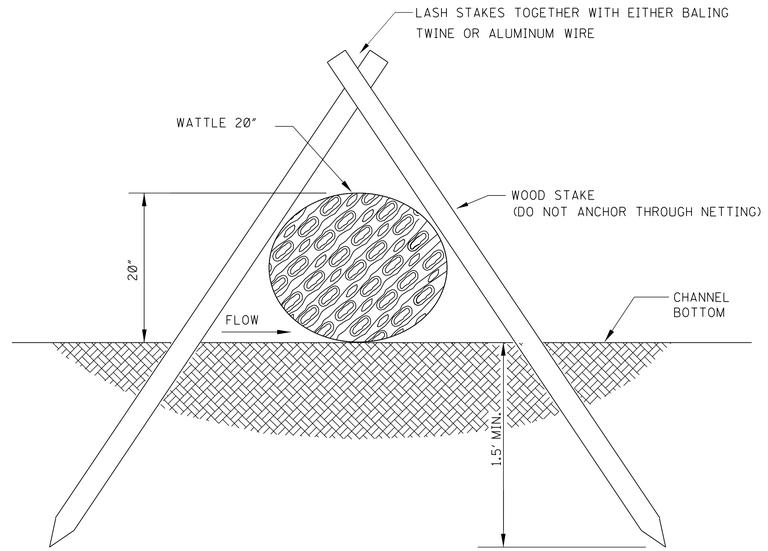
STATE	PROJECT NO.
MISS.	



DETAIL (DITCH CHECK)



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	REVISION	DATE

MISSISSIPPI DEPARTMENT OF TRANSPORTATION
ROADWAY DESIGN DIVISION
STANDARD PLAN

DETAILS OF EROSION CONTROL WATTLE DITCH CHECK

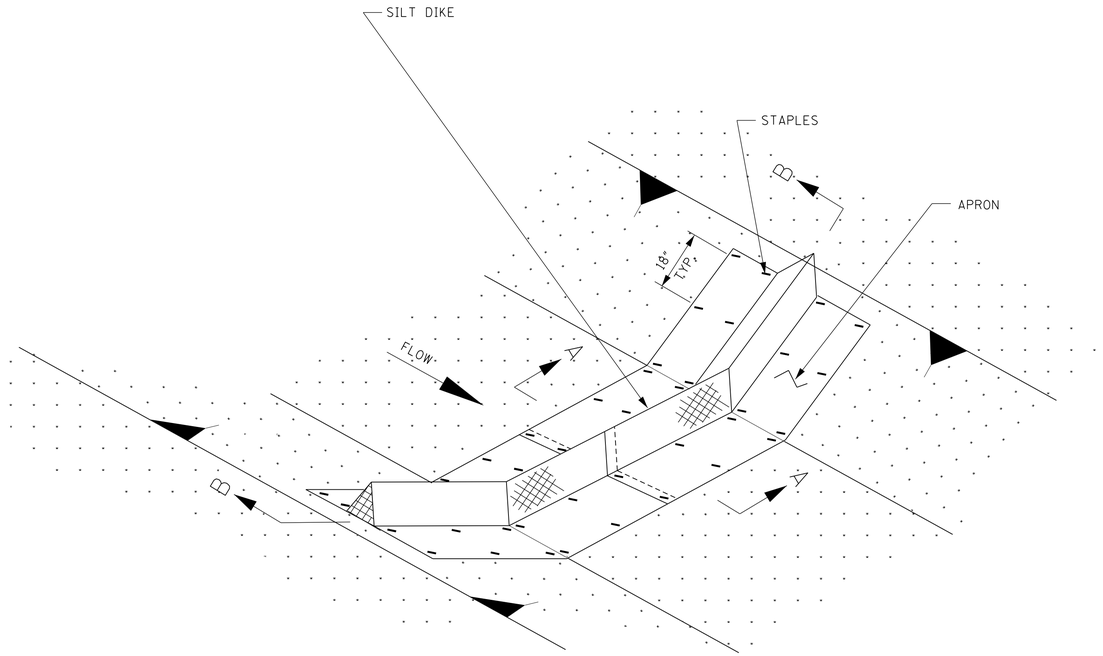
MDOT

WORKING NUMBER
ECD-6

ISSUE DATE: AUGUST 01, 2017

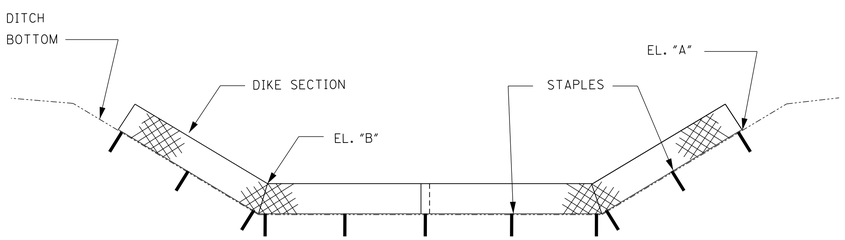
SHEET NUMBER
6106

STATE	PROJECT NO.
MISS.	



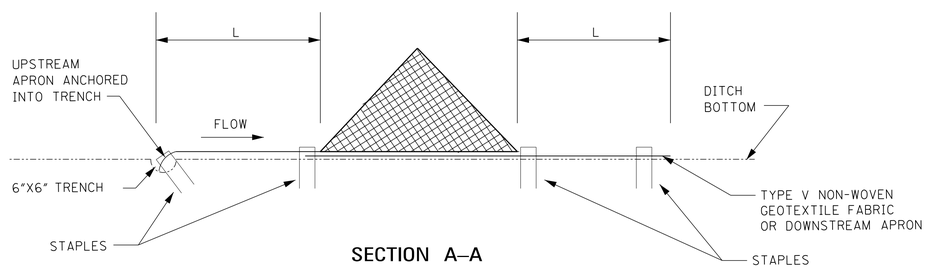
NOTES:

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



SECTION A–A

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

SILT DIKE INSTALLATION FOR ROADWAY DITCHES

NOTES:

1. SILT DIKES CAN BE USED IN DITCHES WITH CONCENTRATED FLOWS WITHIN THE CLEAR ZONE WHERE RIPRAP CANNOT BE USED.

2. SILT DIKES MAY ALSO BE USED:

   A. 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.

   B. 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).

3. 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.

4. INSTALLATION SHALL BE IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.

5. THE TRIANGULAR SILT DIKE SHAPE IS ONLY SHOWN FOR DEPICTION PURPOSES. OTHER SHAPED SILT DIKES MAY BE USED.

6. 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.

7. THE COST OF THE FABRIC SHALL BE INCLUDED IN OTHER ITEMS BID.

REVISION	BY	DATE

MISSISSIPPI DEPARTMENT OF TRANSPORTATION
ROADWAY DESIGN DIVISION
STANDARD PLAN

DETAILS OF EROSION CONTROL SILT DIKE DITCH CHECK

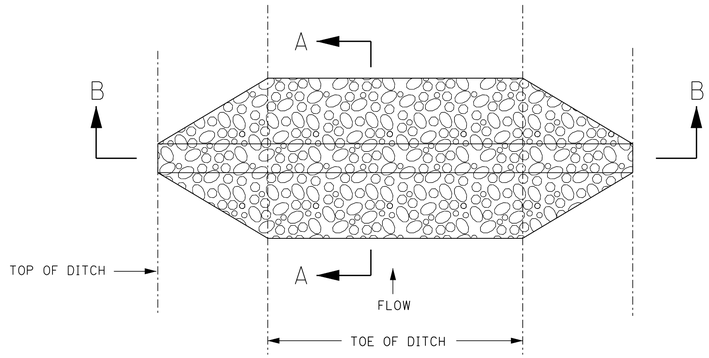
MDOT

WORKING NUMBER
ECD-7

ISSUE DATE: AUGUST 01, 2017

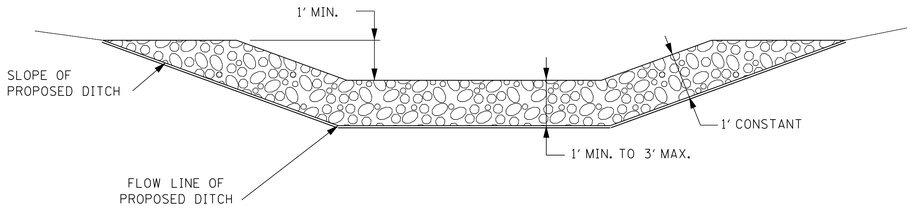
SHEET NUMBER
6107

STATE	PROJECT NO.
MISS.	

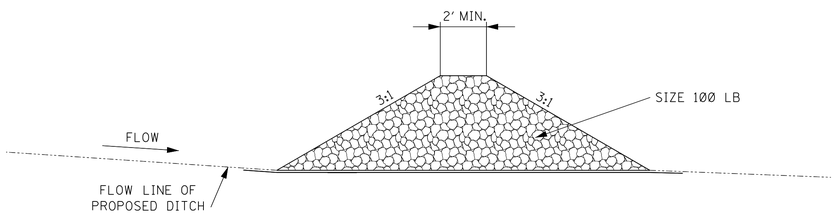


PLAN VIEW

DETAIL FOR TRAPEZOIDAL DITCH

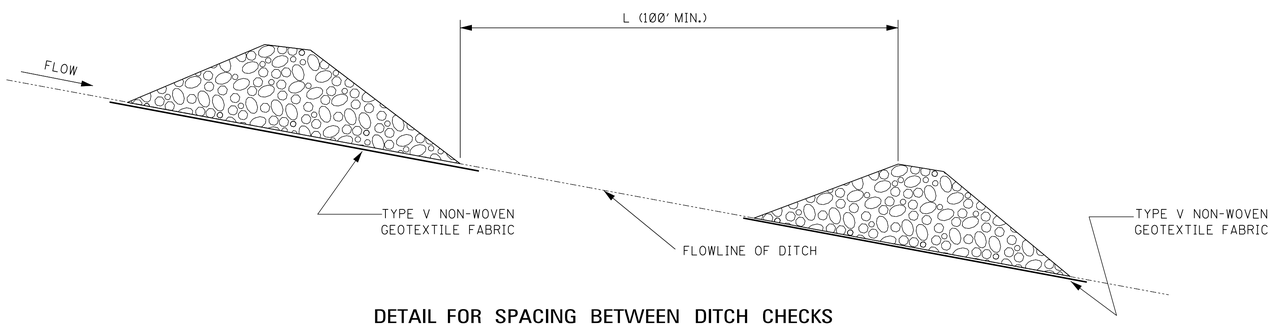


SECTION B–B



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	REVISION	DATE

MISSISSIPPI DEPARTMENT OF TRANSPORTATION
ROADWAY DESIGN DIVISION
STANDARD PLAN

ROCK DITCH CHECK

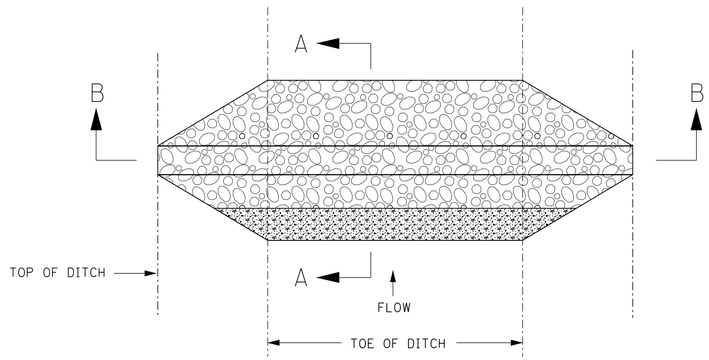
MDOT
MISSISSIPPI DEPARTMENT OF TRANSPORTATION

WORKING NUMBER
ECD-8

ISSUE DATE: AUGUST 01, 2017

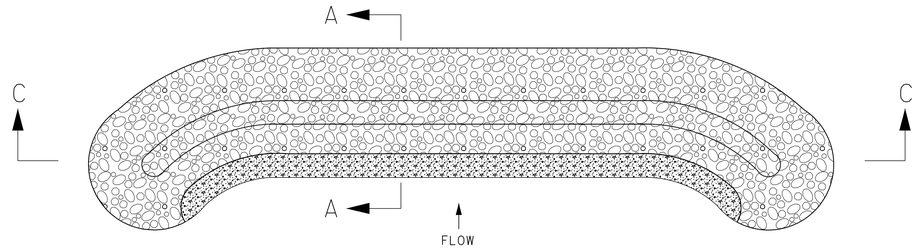
SHEET NUMBER
6108

STATE	PROJECT NO.
MISS.	



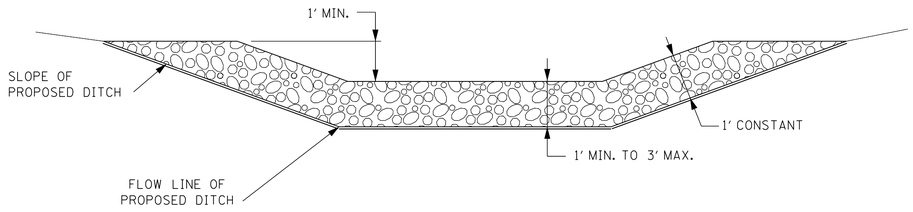
PLAN VIEW

DETAIL FOR TRAPEZOIDAL DITCH

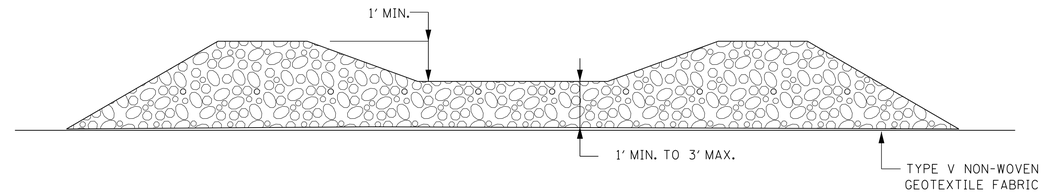


PLAN VIEW

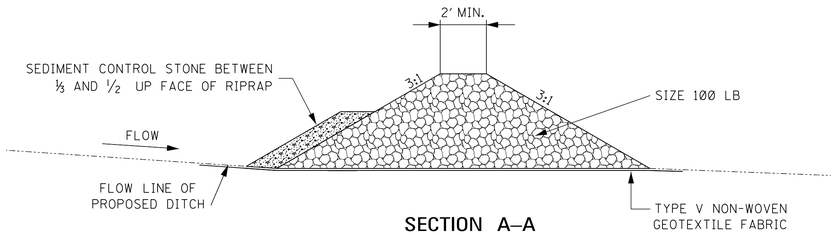
DETAIL FOR USE OTHER THAN DITCH



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 EROSIVE 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	REVISION	DATE

MISSISSIPPI DEPARTMENT OF TRANSPORTATION
ROADWAY DESIGN DIVISION
STANDARD PLAN

ROCK FILTER DAM

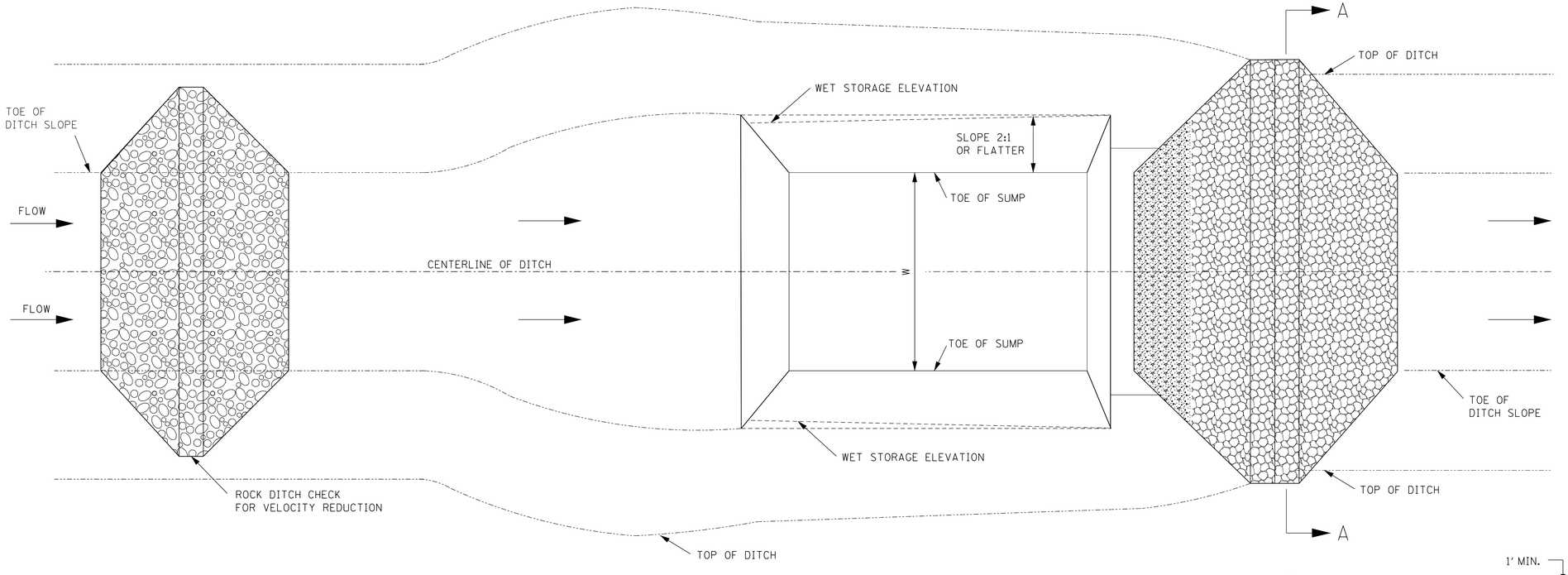
MDOT MISSISSIPPI DEPARTMENT OF TRANSPORTATION

WORKING NUMBER
ECD-9

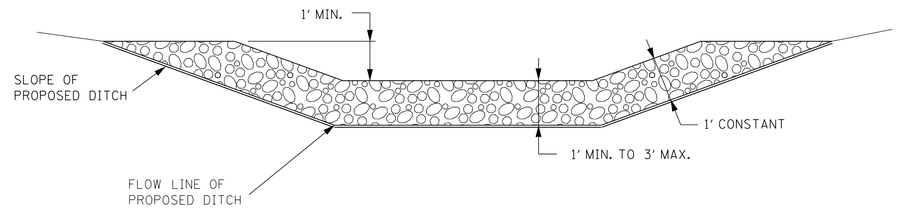
ISSUE DATE: AUGUST 01, 2017

SHEET NUMBER
6109

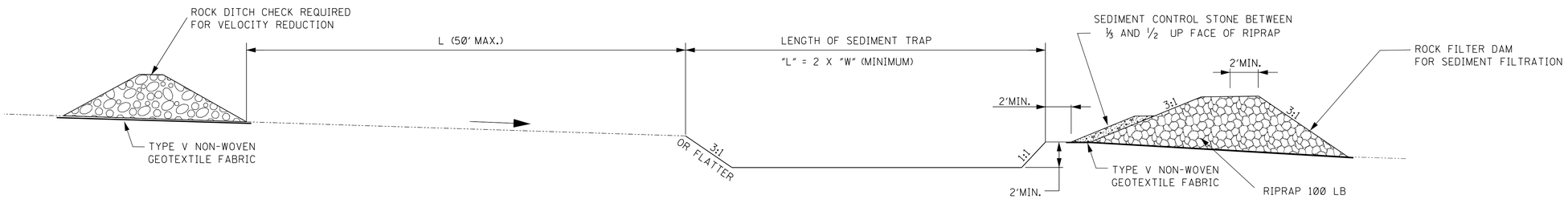
STATE	PROJECT NO.
MISS.	



PLAN VIEW



SECTION A–A



PROFILE VIEW

NOTES:

1. 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.

2. THE COST OF THE FABRIC SHALL BE INCLUDED IN OTHER ITEMS BID.

BY	REVISION	DATE

MISSISSIPPI DEPARTMENT OF TRANSPORTATION
ROADWAY DESIGN DIVISION
STANDARD PLAN

ROCK DITCH CHECK WITH SUMP EXCAVATION AND ROCK FILTER DAM

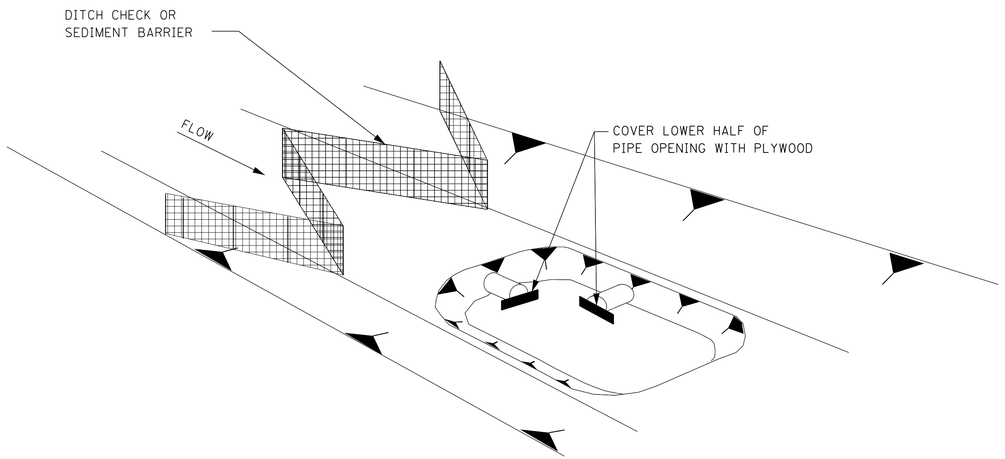
MDOT MISSISSIPPI DEPARTMENT OF TRANSPORTATION

WORKING NUMBER
ECD-10

ISSUE DATE: AUGUST 01, 2017

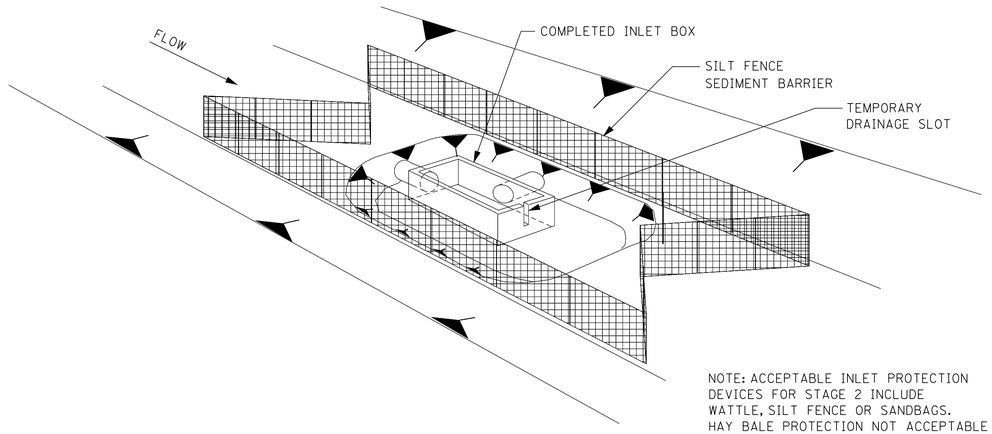
SHEET NUMBER
6110

STATE	PROJECT NO.
MISS.	



STAGE 1

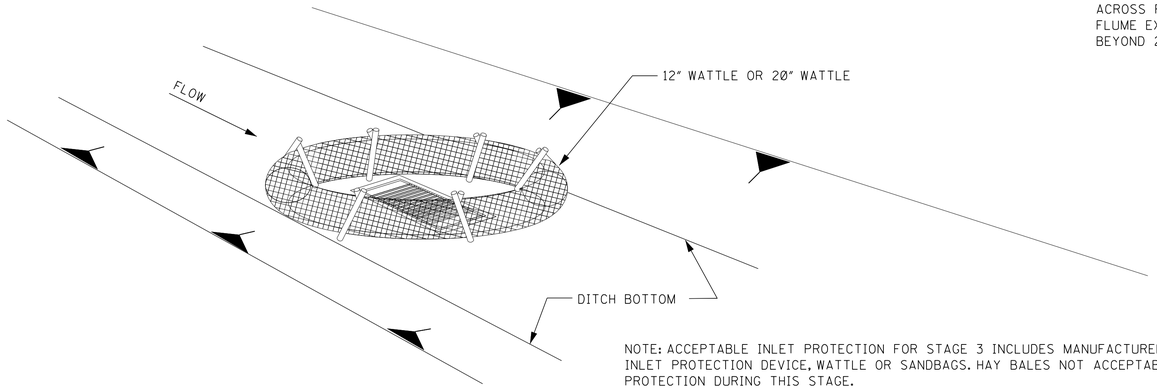
INLET/JUNCTION BOX LOCATION EXCAVATED



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

STAGE 2

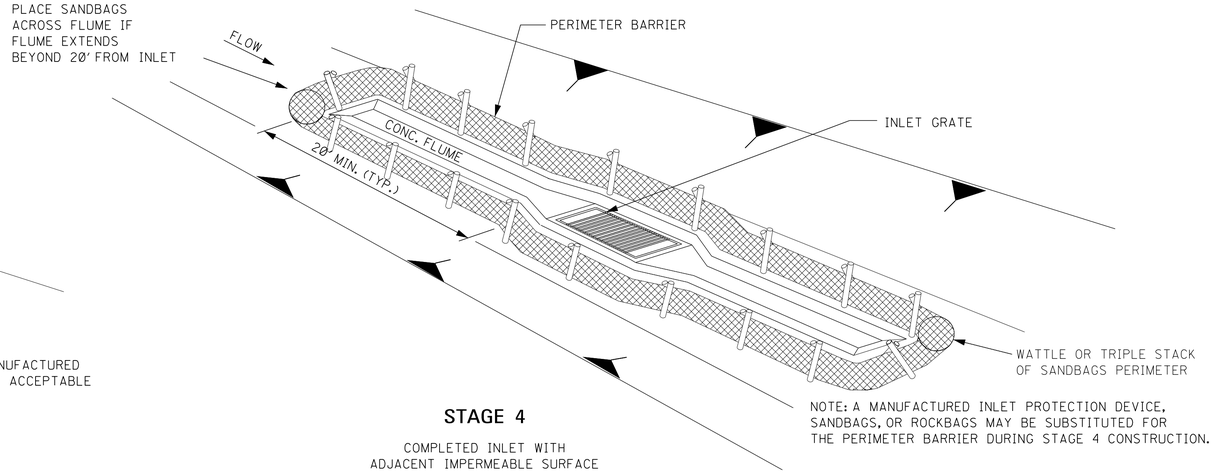
INLET/JUNCTION BOX
CONSTRUCTED BUT NOT BACKFILLED



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

STAGE 3

INLET CONSTRUCTED AND BACKFILLED



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

STAGE 4

COMPLETED INLET WITH
ADJACENT IMPERMEABLE SURFACE

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.

REVISION	BY	DATE

MISSISSIPPI DEPARTMENT OF TRANSPORTATION
ROADWAY DESIGN DIVISION
STANDARD PLAN

TYPICAL APPLICATIONS AND DETAILS FOR INLET CONSTRUCTION

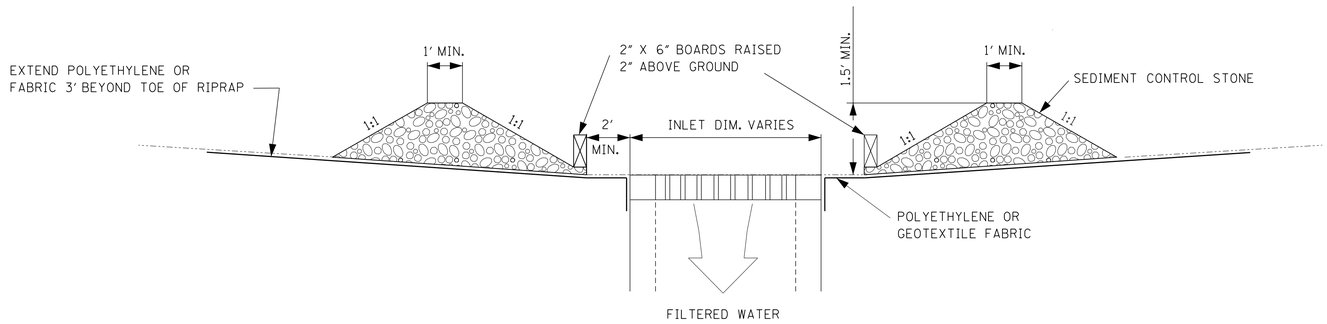
MDOT

WORKING NUMBER
ECD-11

ISSUE DATE: AUGUST 01, 2017

SHEET NUMBER
6111

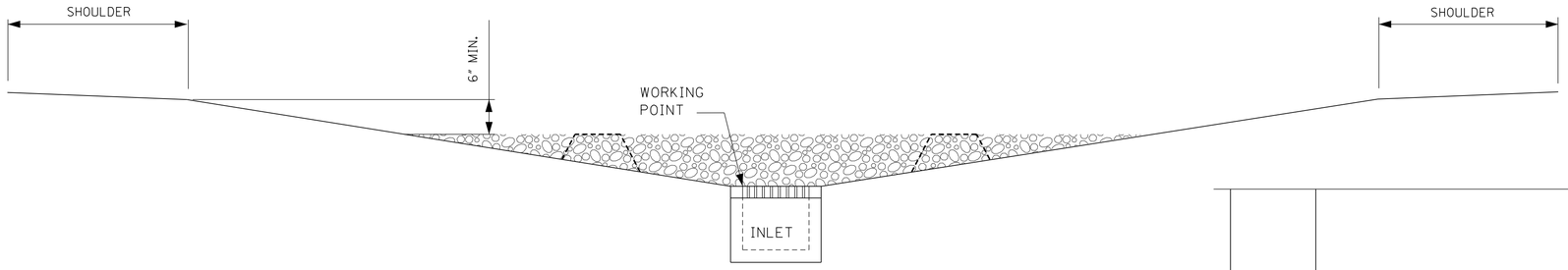
STATE	PROJECT NO.
MISS.	



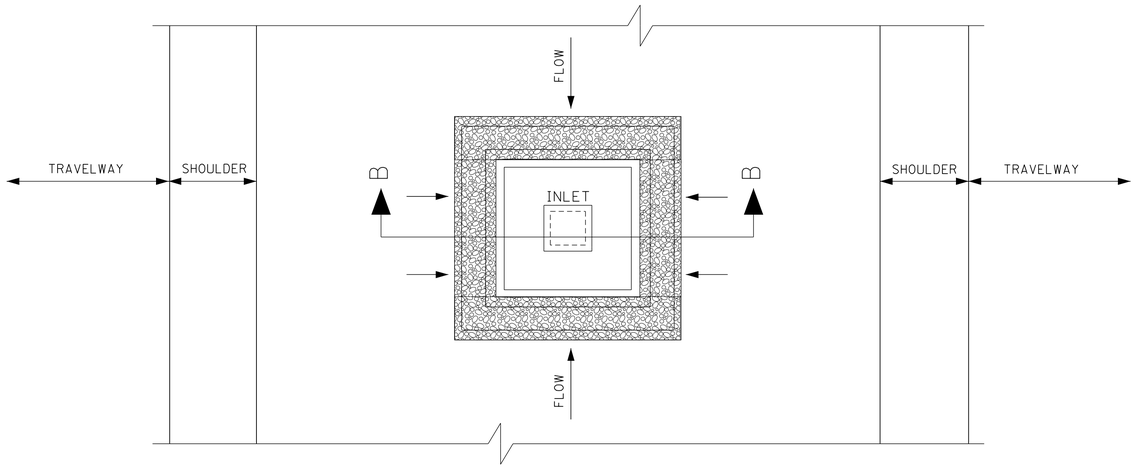
SECTION B–B

NOTES:

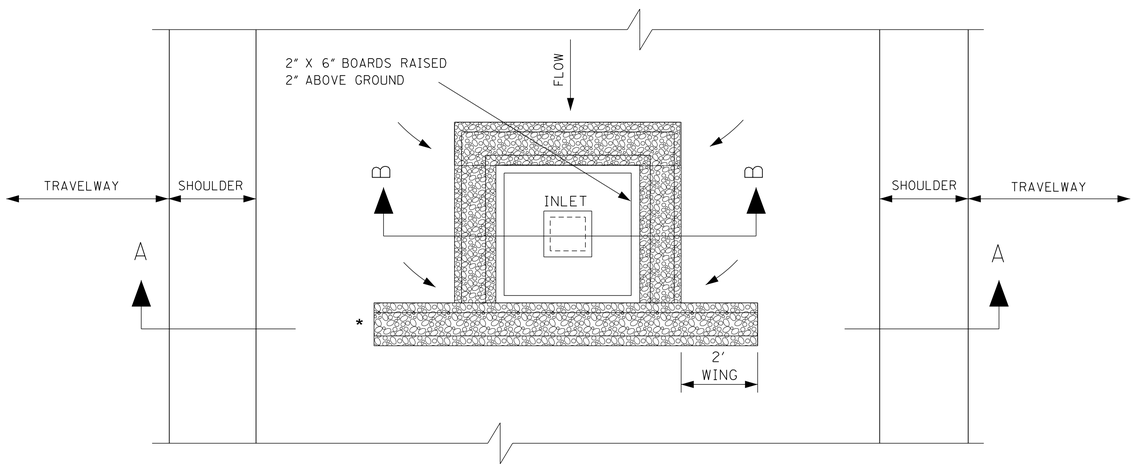
1. THE ELEVATION OF THE TOP OF THE REQUIRED SEDIMENT CONTROL STONE BERM SHOULD BE 1.5' ABOVE THE ELEVATION OF THE INLET WORKING POINT AND SHALL BE A MINIMUM OF 6" BELOW THE ELEVATION OF THE OUTSIDE EDGE OF THE INSIDE SHOULDER.
2. THIS SEDIMENT CONTROL STONE INLET PROTECTION SHALL BE UTILIZED DURING STAGE 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

REVISION	BY	DATE

MISSISSIPPI DEPARTMENT OF TRANSPORTATION
ROADWAY DESIGN DIVISION
STANDARD PLAN

INLET PROTECTION DETAILS FOR SEDIMENT CONTROL STONE ON GRADES AND SAGS

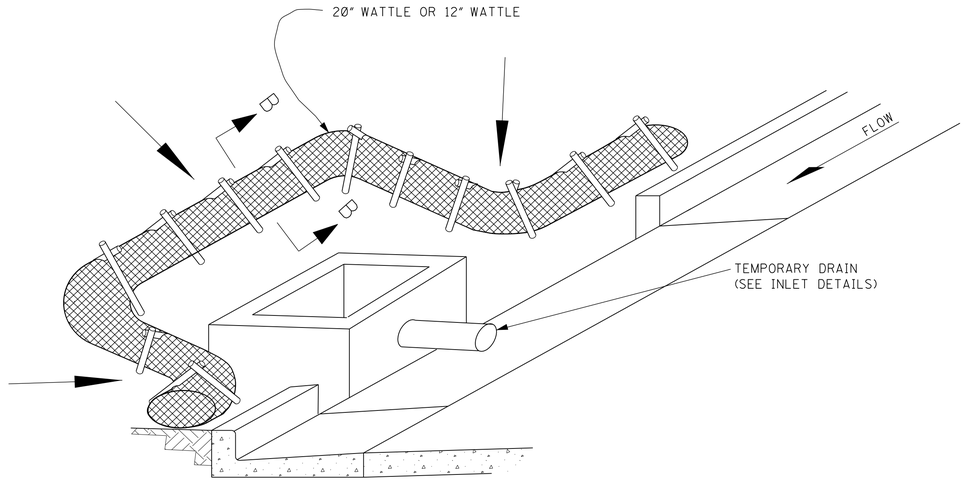
WORKING NUMBER
ECD-12

ISSUE DATE: AUGUST 01, 2017

SHEET NUMBER
6112

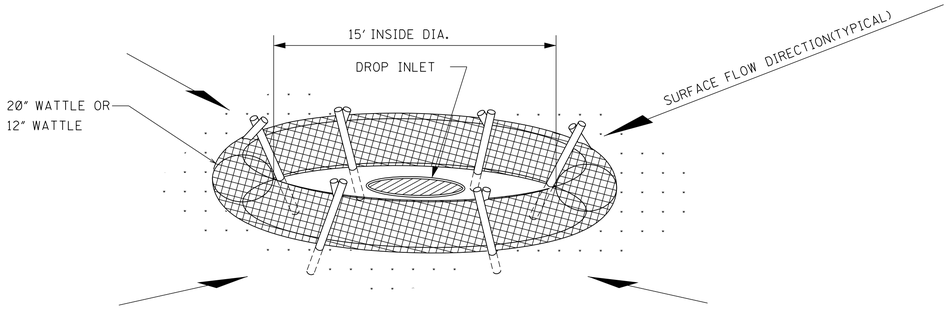
STATE	PROJECT NO.
MISS.	

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



CURB INLET PROTECTION (STAGE 2)

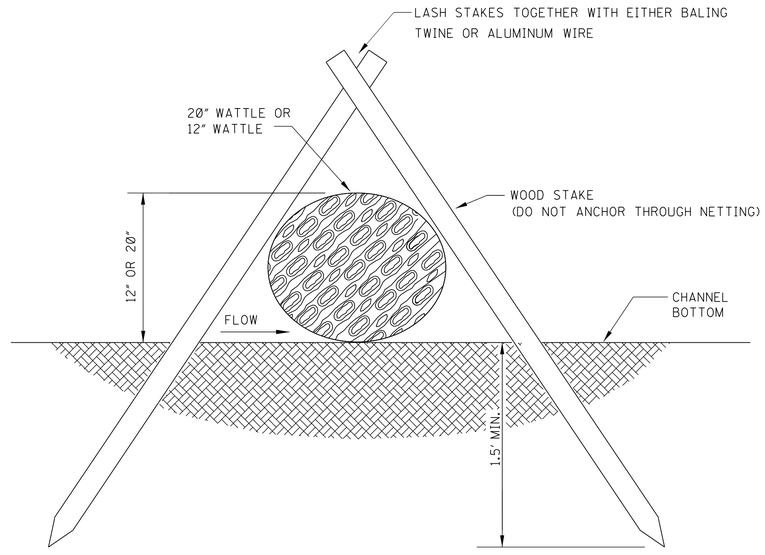
SINGLE OR DOUBLE WING INLET



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.



SECTION B–B

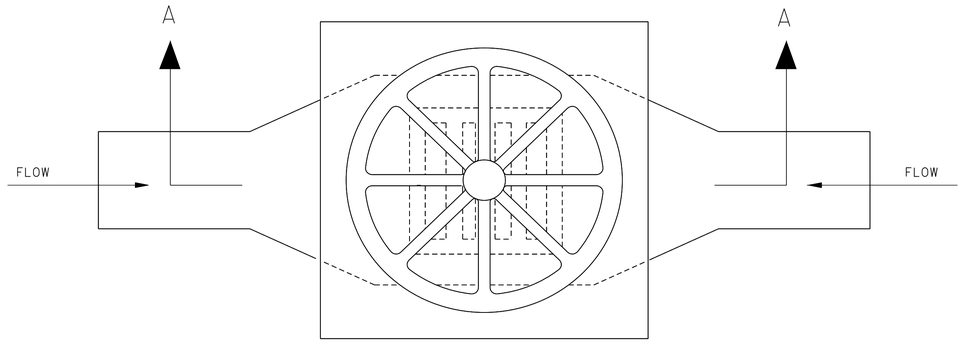
		BY	MISSISSIPPI DEPARTMENT OF TRANSPORTATION ROADWAY DESIGN DIVISION STANDARD PLAN
		REVISION	***INLET PROTECTION DETAILS OF WATTLES***
		DATE	ISSUE DATE: AUGUST 01, 2017

MDOT MISSISSIPPI DEPARTMENT OF TRANSPORTATION

WORKING NUMBER
ECD-13

SHEET NUMBER
6113

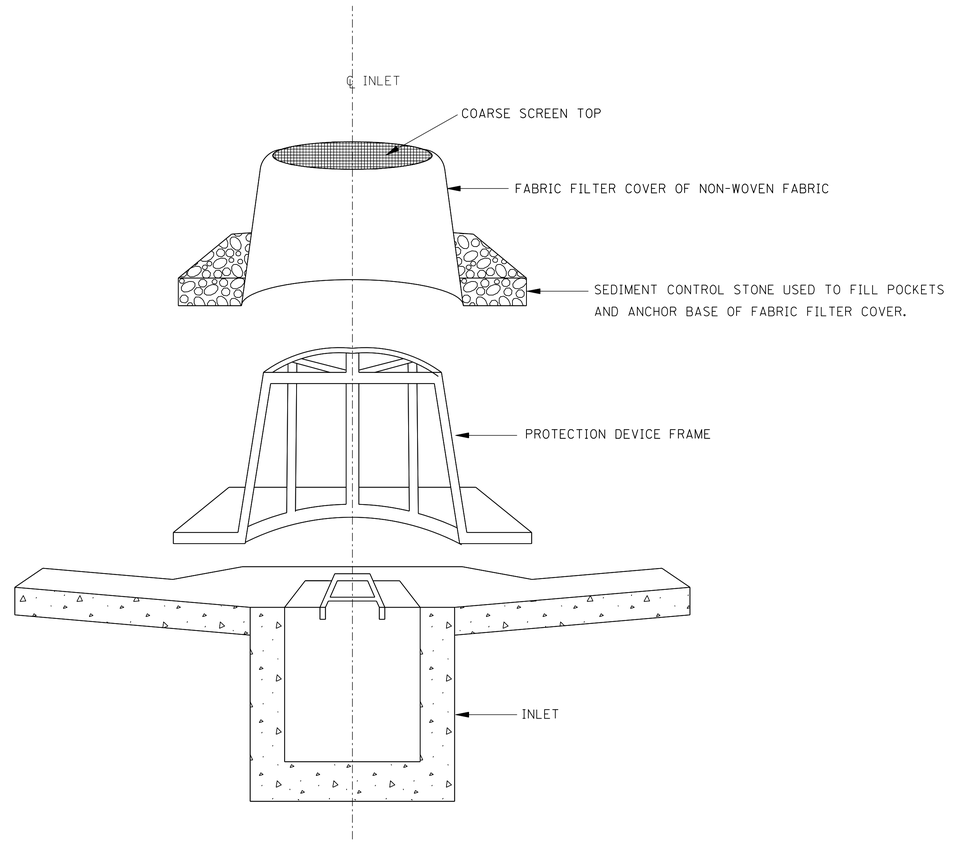
STATE	PROJECT NO.
MISS.	



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"

MISSISSIPPI DEPARTMENT OF TRANSPORTATION
ROADWAY DESIGN DIVISION
STANDARD PLAN

INLET PROTECTION DETAILS OF MANUFACTURED INLET PROTECTION DEVICE

BY | REVISION | DATE

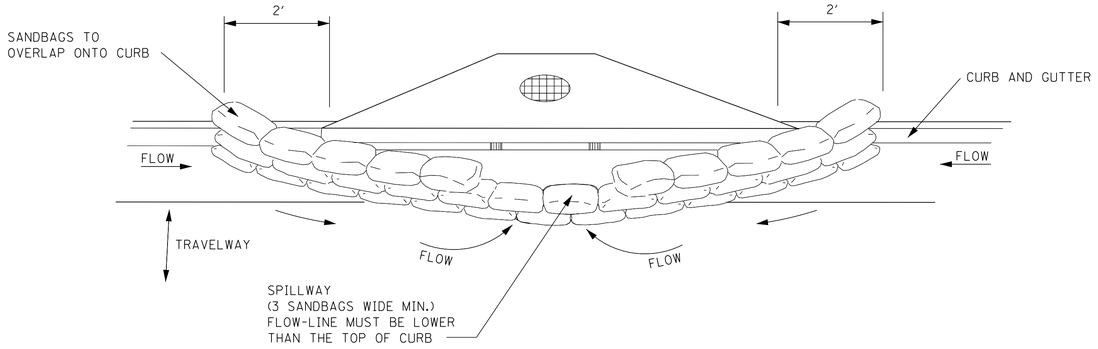
ISSUE DATE: AUGUST 01, 2017

MDOT

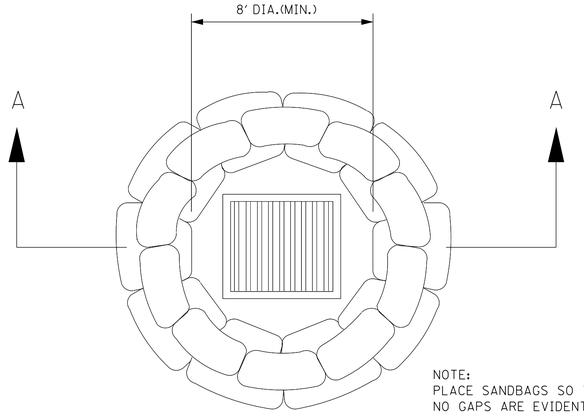
WORKING NUMBER
ECD-14

SHEET NUMBER
6114

STATE	PROJECT NO.
MISS.	

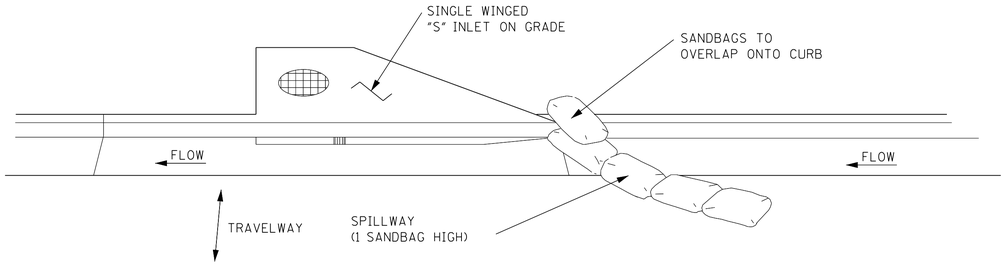


TYPICAL (SANDBAG) PROTECTION FOR INLET IN SAG

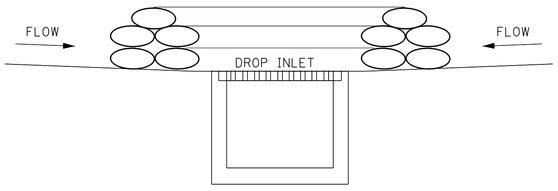


DROP INLET

PLAN VIEW

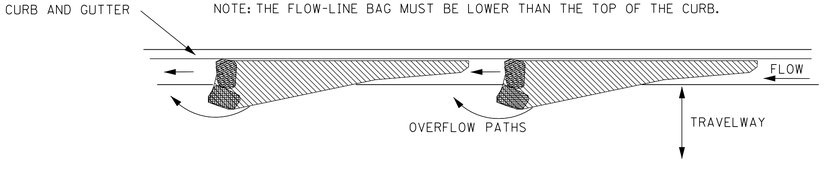


TYPICAL (SANDBAG) PROTECTION FOR INLET ON GRADE



SECTION A–A

SANDBAG BARRIER



CURB AND GUTTER SEDIMENT
CONTAINMENT SYSTEM

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 CONTOL SEDIMENT.

BY	REVISION	DATE

MISSISSIPPI DEPARTMENT OF TRANSPORTATION
ROADWAY DESIGN DIVISION
STANDARD PLAN

INLET PROTECTION DETAILS OF SANDBAGS

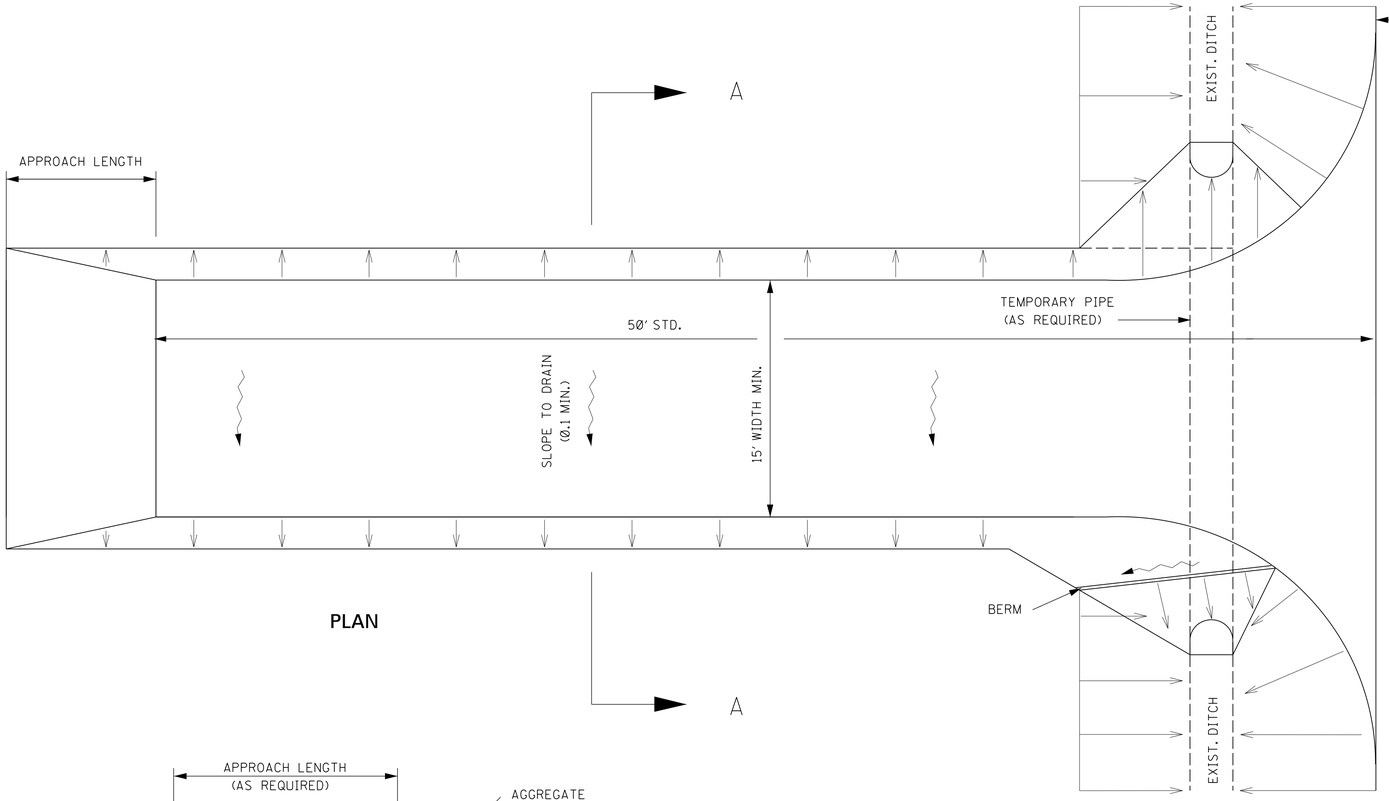
MDOT

WORKING NUMBER
ECD-15

ISSUE DATE: AUGUST 01, 2017

SHEET NUMBER
6115

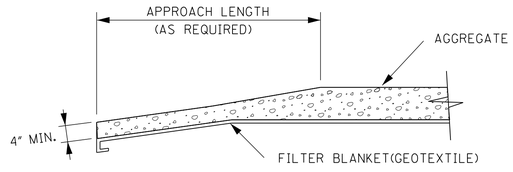
STATE	PROJECT NO.
MISS.	



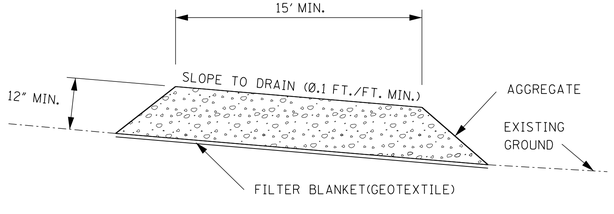
PLAN

GENERAL NOTES:

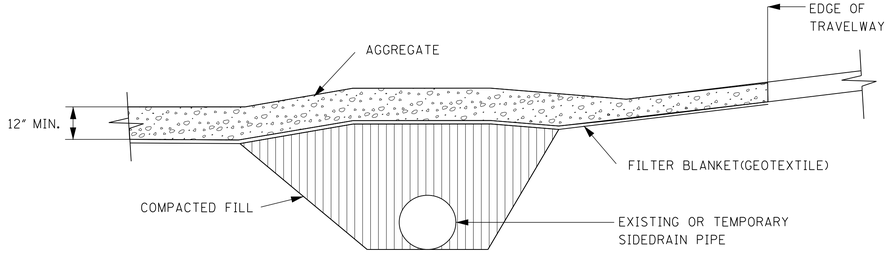
1. A STABILIZED CONSTRUCTION ENTRANCE SHALL BE CONSTRUCTED AT POINTS OF EGRESS FROM UNSTABILIZED AREAS OF THE PROJECT TO PUBLIC ROADS WHERE OFFSITE TRACKING OF MUD COULD OCCUR. TRAFFIC FROM UNSTABILIZED AREAS OF THE PROJECT SHALL BE DIRECTED THRU THE STABILIZED ENTRANCE. BARRIERS, FLAGGING, OR OTHER 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 CONSTUCTION 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.



TRANSITION DETAIL



SECTION A–A



RURAL CONNECTION DETAIL

BY	REVISION	DATE

MISSISSIPPI DEPARTMENT OF TRANSPORTATION
ROADWAY DESIGN DIVISION
STANDARD PLAN

STABILIZED CONSTRUCTION ENTRANCE

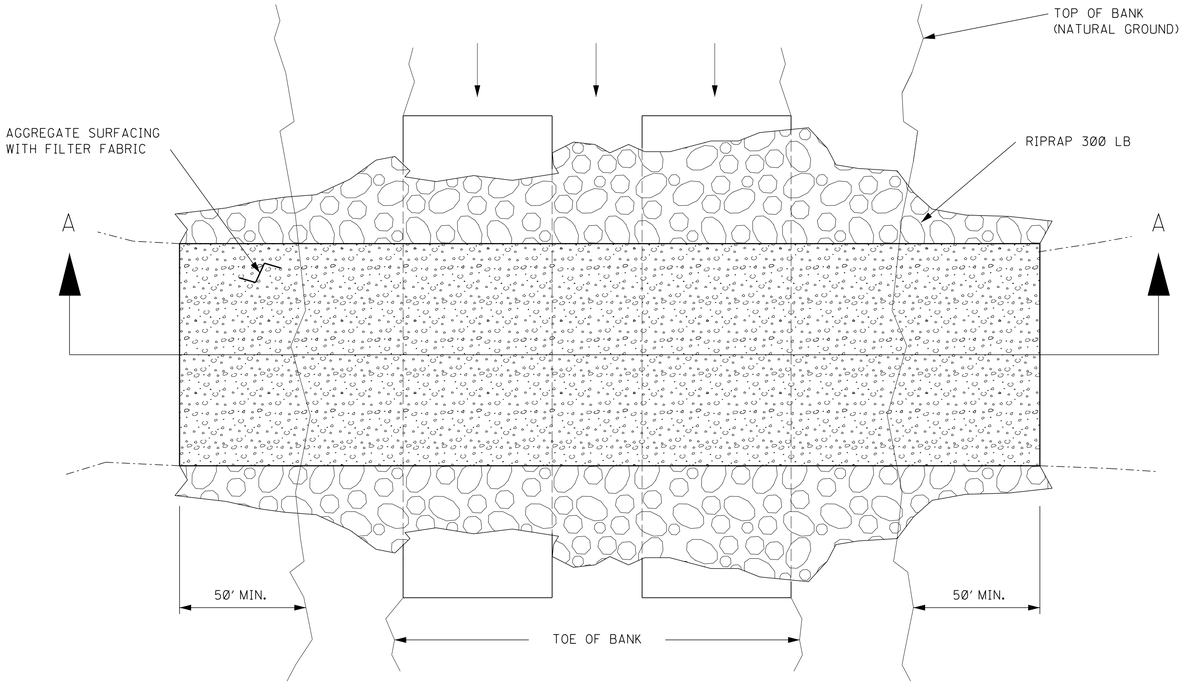
WORKING NUMBER
ECD-16

ISSUE DATE: AUGUST 01, 2017

SHEET NUMBER
6116

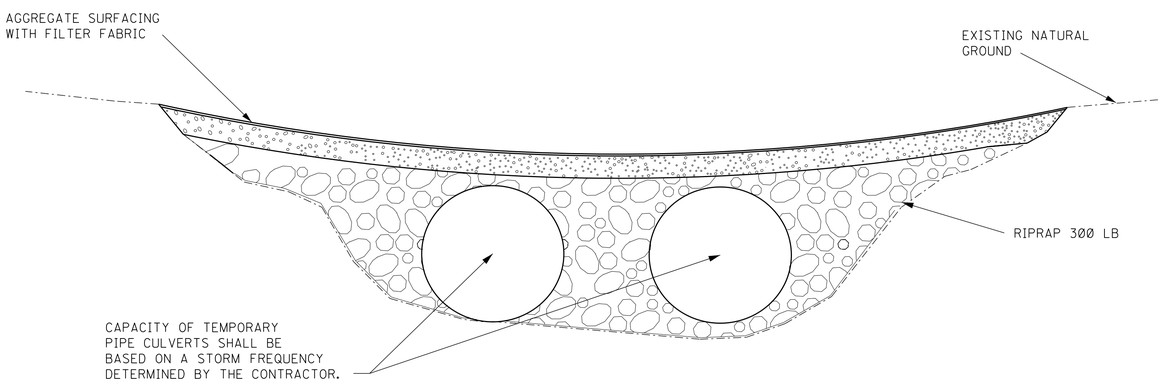
STATE	PROJECT NO.
MISS.	

TEMPORARY CULVERT STREAM CROSSING



PLAN VIEW

TEMPORARY CULVERT STREAM CROSSING



SECTION A–A

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.

DATE	REVISION	BY

MISSISSIPPI DEPARTMENT OF TRANSPORTATION
ROADWAY DESIGN DIVISION
STANDARD PLAN

TEMPORARY CULVERT STREAM CROSSING

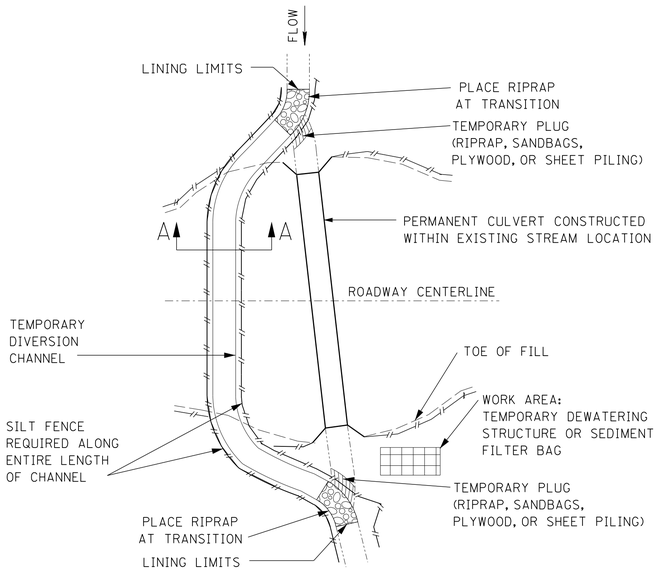
MDOT

WORKING NUMBER
ECD-17

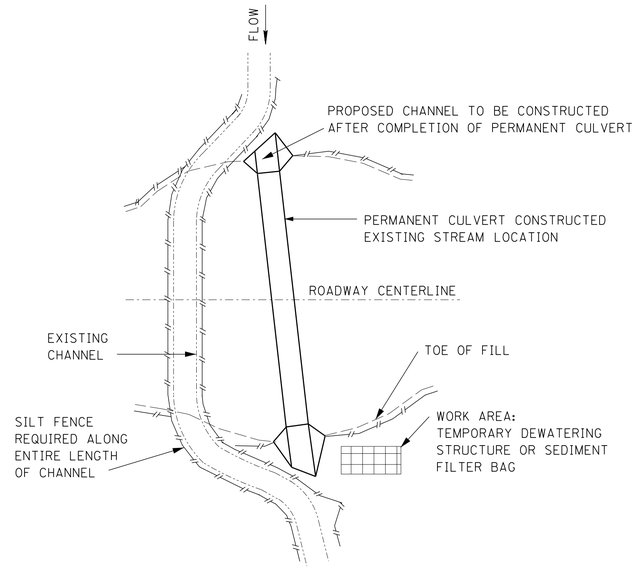
ISSUE DATE: AUGUST 01, 2017

SHEET NUMBER
6117

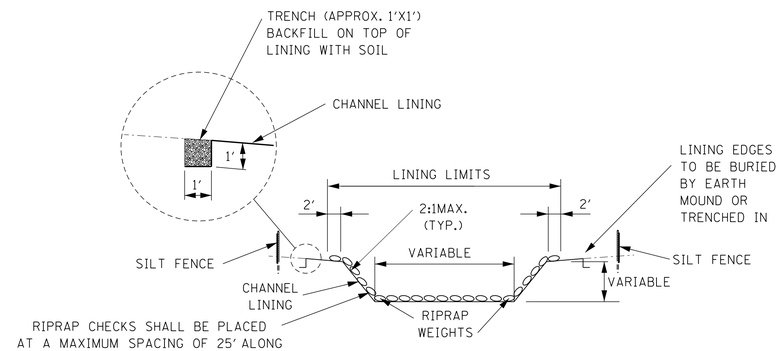
STATE	PROJECT NO.
MISS.	



CULVERT CONSTRUCTED
WITHIN EXISTING STREAM

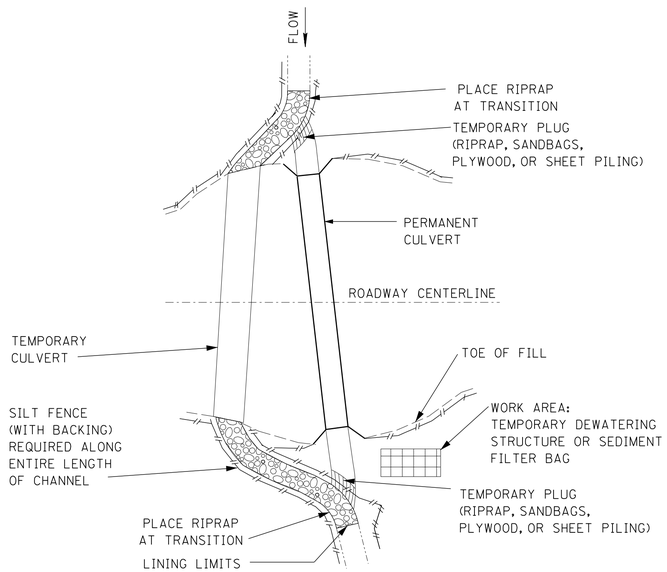


CULVERT CONSTRUCTED
OUTSIDE EXISTING STREAM



SECTION A–A

TEMPORARY DIVERSION CHANNEL
WITH GEOTEXTILE FABRIC



TEMPORARY CULVERT
USED DURING CONSTRUCTION

GENERAL NOTES:

1. TEMPORARY DIVERSION CHANNELS MAY BE USED TO DIVERT NORMAL STREAM PATH FLOW FROM AN ERODIBLE AREA UNTIL SUCH AREAS CAN BE STABILIZED.
2. TYPE III FILTER FABRIC OR PRE-FAB DITCH LINER MAY BE USED FOR CHANNEL LINING.
3. RIPRAP WITH FILTER FABRIC MAY BE USED FOR CHANNEL FLOW VELOCITIES OF 3 FPS TO 9 FPS. THE RIPRAP SHALL BE SIZE 300 LB.
4. LOCATIONS OR TYPES OF TEMPORARY DIVERSIONS WILL NOT BE SHOWN ON THE PLANS.
5. DIVERSION CHANNEL SHALL BE STABILIZED AND INSPECTED BY THE ENGINEER BEFORE FLOW IS DIVERTED.
6. DURING CONSTRUCTION OF DIVERSION CHANNEL, DAMAGE TO THE EXISTING STREAM, CANOPY REMOVAL, AND DEPTH OF THE CHANNEL CONSTRUCTION SHOULD BE MINIMIZED.
7. CONSTRUCTION OF THE CHANNEL RELOCATIONS AND CULVERTS SHALL PROCEED AS FOLLOWS:
   - 7.1 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.
   - 7.2 RELOCATE CHANNEL AND CONSTRUCT CULVERT SIMULTANEOUSLY.
   - 7.3 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.
   - 7.4 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.
   - 7.5 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.
8. THE DETAILS PROVIDED DEPICT TYPICAL TEMPORARY DIVERSION CHANNELS.
9. THE CONTRACTOR MAY PROPOSE THE USE OF OTHER DIVERSION OPTIONS SUCH AS PIPING, PUMPING OR STAGED CONSTRUCTION.
10. THE EFFECTIVE AREA OF FLOW IN THE TEMPORARY CHANNEL OR CULVERT SHALL BE A MINIMUM OF ONE-HALF THAT OF THE EXISTING STRUCTURE.
11. 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.
12. THE COST OF THE TEMPORARY DEWATERING STRUCTURE OR SEDIMENT FILTER BAG SHALL BE INCLUDED IN OTHER ITEMS BID.

BY	REVISION	DATE

MISSISSIPPI DEPARTMENT OF TRANSPORTATION
ROADWAY DESIGN DIVISION
STANDARD PLAN

TEMPORARY STREAM DIVERSION

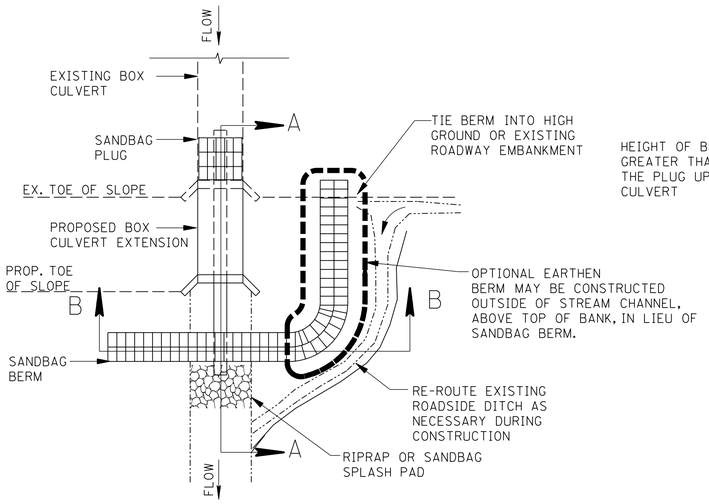
MDOT

WORKING NUMBER
ECD-18

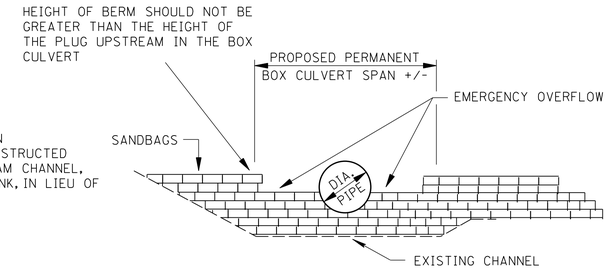
ISSUE DATE: AUGUST 01, 2017

SHEET NUMBER
6118

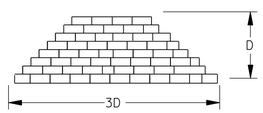
STATE	PROJECT NO.
MISS.	



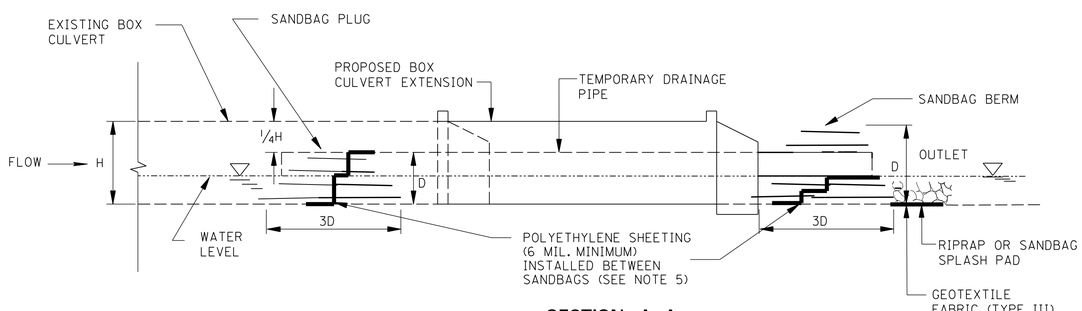
PLAN VIEW



SECTION B–B



SANDBAG PLUG & BERM CROSS SECTION
(SEE NOTE 4)



SECTION A–A

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

GENERAL NOTES:

1. 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.
2. EXCAVATION SLOPES FOR BOX CULVERT EXTENSIONS SHALL BE PROTECTED WITH TYPE III FILTER FABRIC PRIOR TO CONSTRUCTION OF THE BOX.
3. SUSPENDED PIPE DIVERSIONS MAY BE USED WHERE ADVERSE IMPACTS WILL NOT BE CAUSED BY WATER PONDED UPSTREAM OF THE PIPE.
4. 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.
5. 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.
6. 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.
7. 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.
8. ALL PIPE JOINTS SHALL BE PROPERLY BANDED OR OTHERWISE PROVIDED WITH A REASONABLE SEAL AGAINST LEAKAGE.
9. THE OPTIONAL FLEXIBLE PIPE DIVERSION USING PUMPS MAY BE USED AS AN ALTERNATE FOR SUSPENDED PIPE DIVERSIONS (UPSTREAM AND DOWNSTREAM).
10. CONSTRUCTION SHALL PROCEED AS FOLLOWS:

    10A. INSTALL TEMPORARY DRAINAGE PIPE ON ITS SUPPORTS INSIDE THE CULVERT TO BE EXTENDED.

    10B. CONSTRUCT THE SANDBAG PLUG AT THE UPSTREAM END OF THE SUSPENDED PIPE DIVERSION.

    10C. CONSTRUCT THE SANDBAG BERM AT THE DOWNSTREAM END OF THE SUSPENDED PIPE DIVERSION.

    10D. 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.

    10E. REMOVE THE TEMPORARY DRAINAGE PIPE, SUPPORTS AND ANY REMAINING SANDBAGS.

11. 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.
12. RIPRAP MAY BE SUBSTITUTED FOR SANDBAGS.

REVISION	BY	DATE

MISSISSIPPI DEPARTMENT OF TRANSPORTATION
ROADWAY DESIGN DIVISION
STANDARD PLAN

TEMPORARY STREAM DIVERSION (BOX EXTENSIONS)

MDOT

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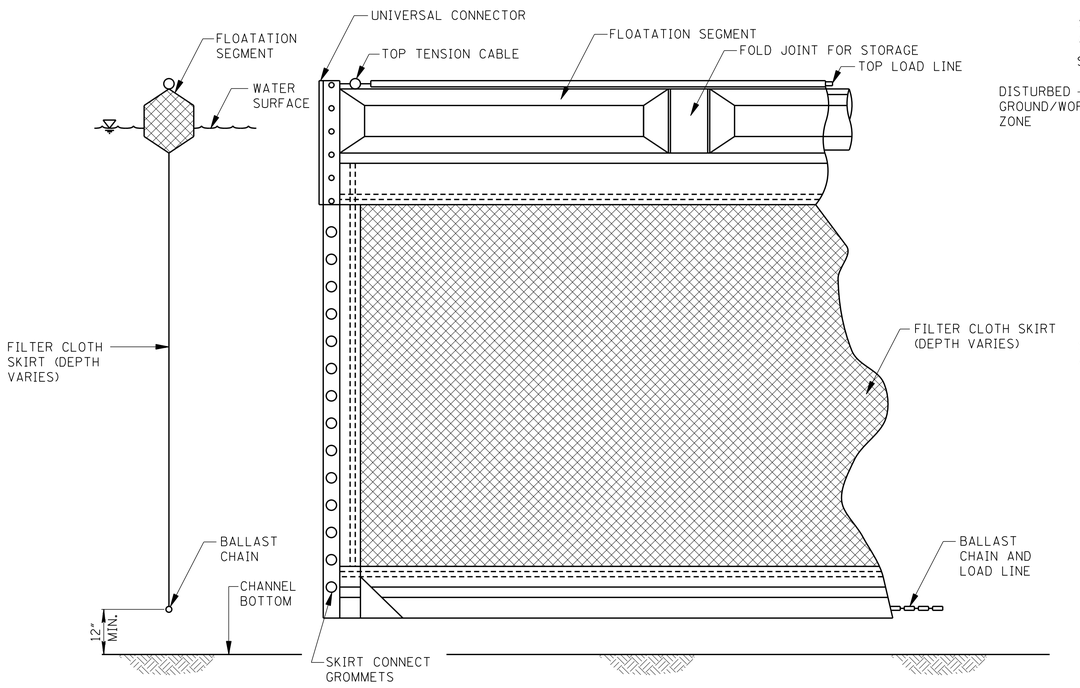
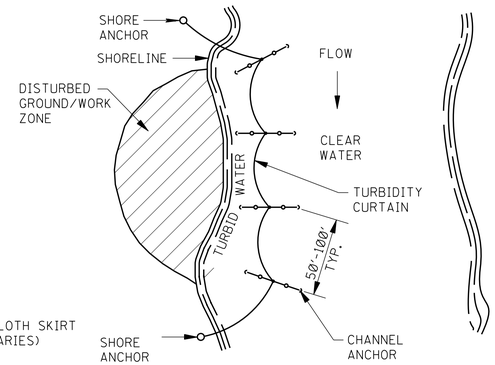
6119

STATE	PROJECT NO.
MISS.	

FLOATING TURBIDITY CURTAIN

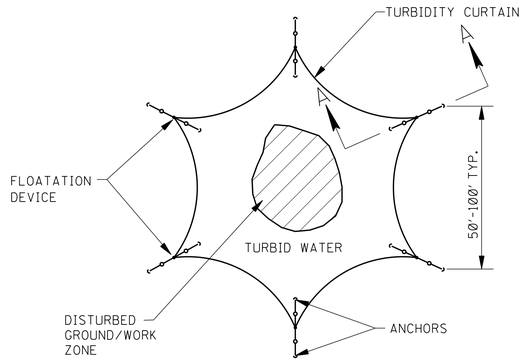


TYPICAL ANCHORING PLAN FOR SHORELINE/RIVER EDGE WORK



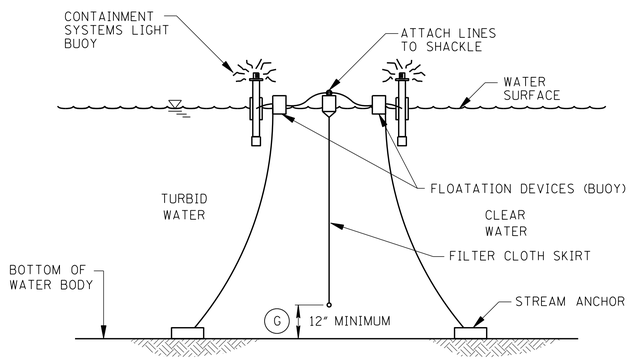
PLAN VIEW

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



PLAN VIEW

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:

1. 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.
2. TURBIDITY CURTAINS SHALL NOT BE INSTALLED PERPENDICULAR ACROSS THE MAIN FLOW OF A SIGNIFICANT BODY OF MOVING WATER.
3. FLOATING TURBIDITY CURTAINS SHOULD NOT BE USED WHERE THE ANTICIPATED FLOW VELOCITIES WILL EXCEED 5 FT/SEC.
4. 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.
5. 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.
6. 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.
7. 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.
8. 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.
9. THE TURBIDITY CURTAIN AND ADJACENT WORK AREAS SHALL NOT BE DISTURBED 12 HOURS PRIOR TO REMOVAL FROM THE WATER BODY. MAINTENANCE SHALL BE PERFORMIED 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.
10. MAINTAIN 12" MINIMUM GAP BETWEEN SKIRT BOTTOM AND CHANNEL BOTTOM TO PREVENT ACCUMULATED SEDIMENT FROM PULLING TOP OF CURTAIN BELOW WATER SURFACE.
11. IN WIND OR WAVE ACTION SITUATIONS, THE MAXIMUM DEPTH OF THE CURTAIN SHALL BE 12 FEET.
12. CONCENTRATED FLOWS SHALL NOT DISCHARGE BEYOND FLOATING TURBIDITY CURTAIN. CURTAINS ARE NOT TO BE INSTALLED ACROSS FLOWING BODY OF WATER.
13. WHEN INSTALLED IN A NAVIGABLE WATERWAY, BUOYS SHOULD BE LIT ACCORDING TO REGULATORY AGENCY STANDARDS.
14. WHEN ESTIMATING THE LENGTH OF THE TURBIDITY CURTAIN, ALLOW 10 TO 20 PERCENT VARIANCE IN STRAIGHT LINE MEASUREMENT.
15. PAYMENT FOR FLOATING TURBIDITY CURTAIN SHALL INCLUDE ALL MATERIAL AND ALL LABOR NECESSARY FOR CONSTRUCTION, MAINTENANCE, AND REMOVAL OF TURBIDITY CURTAIN.
16. ONLY FLOATING TURBIDITY CURTAINS LISTED ON THE APPROVED PRODUCTS LIST MAY BE USED.

BY	REVISION	DATE

MISSISSIPPI DEPARTMENT OF TRANSPORTATION
ROADWAY DESIGN DIVISION
STANDARD PLAN

FLOATING TURBIDITY CURTAIN

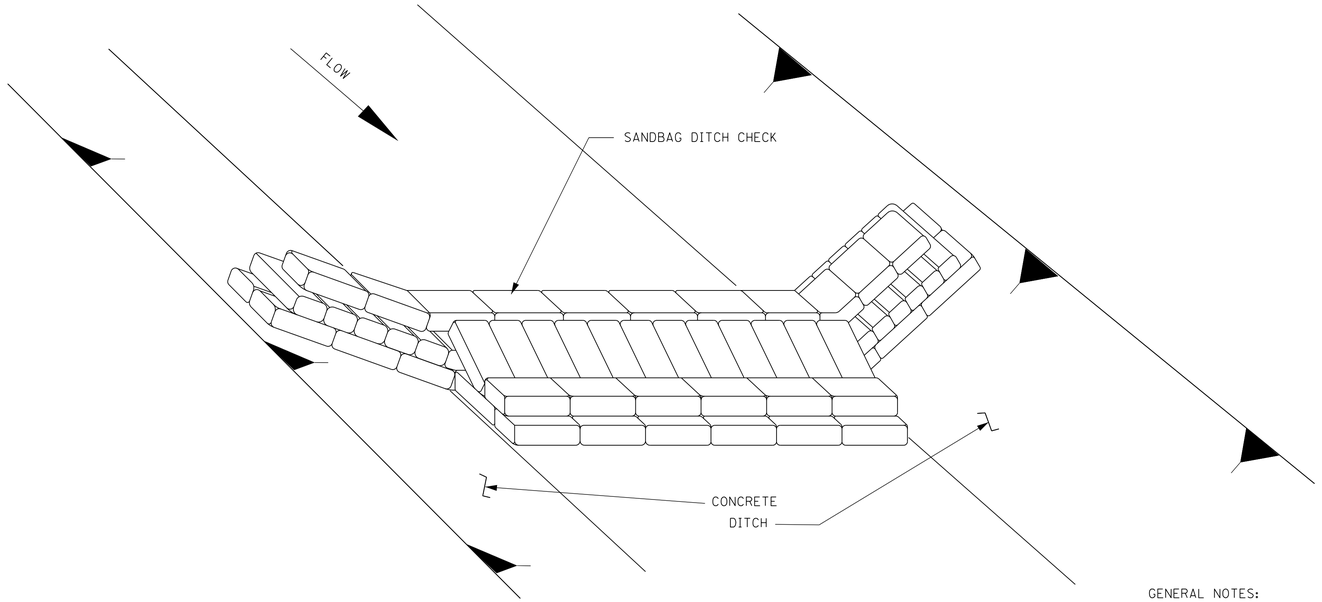
MDOT MISSISSIPPI DEPARTMENT OF TRANSPORTATION

WORKING NUMBER ECD-20

ISSUE DATE: AUGUST 01, 2017

SHEET NUMBER 6120

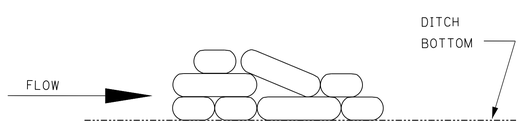
STATE	PROJECT NO.
MISS.	



DETAIL (DITCH CHECK)

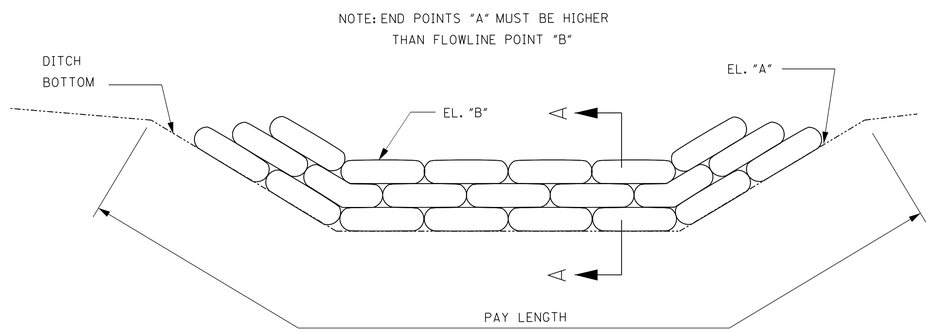
GENERAL NOTES:

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

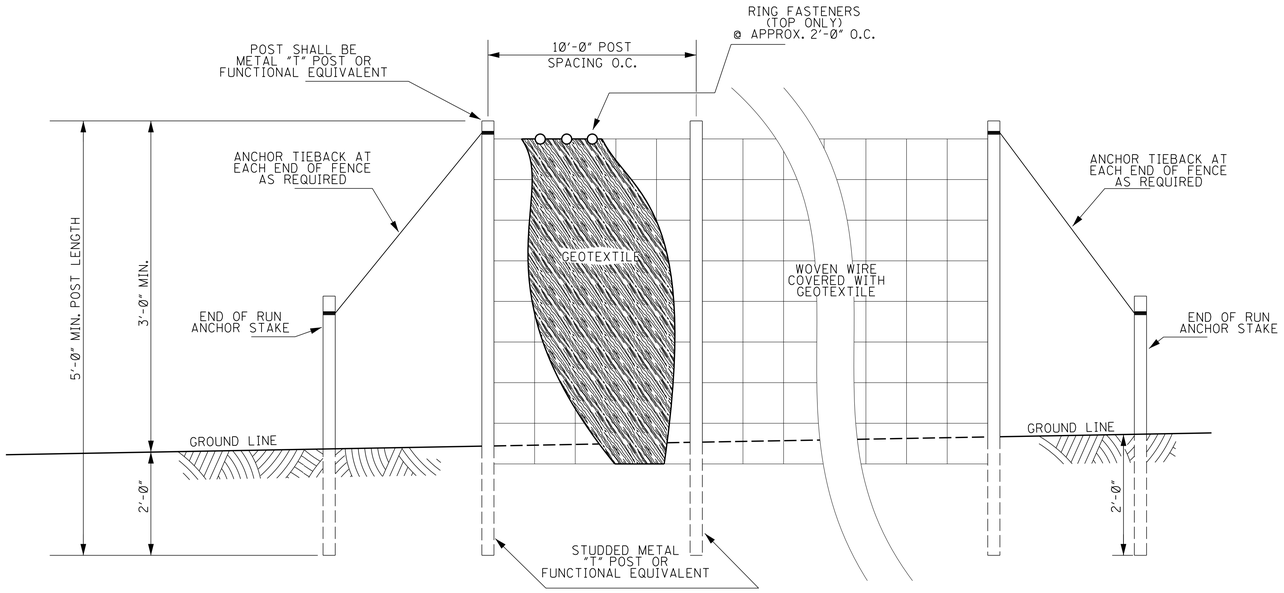
		BY	MISSISSIPPI DEPARTMENT OF TRANSPORTATION ROADWAY DESIGN DIVISION STANDARD PLAN
		REVISION	**DETAILS OF EROSION CONTROL SANDBAG DITCH CHECK**
		DATE	ISSUE DATE: AUGUST 01, 2017

MDOT

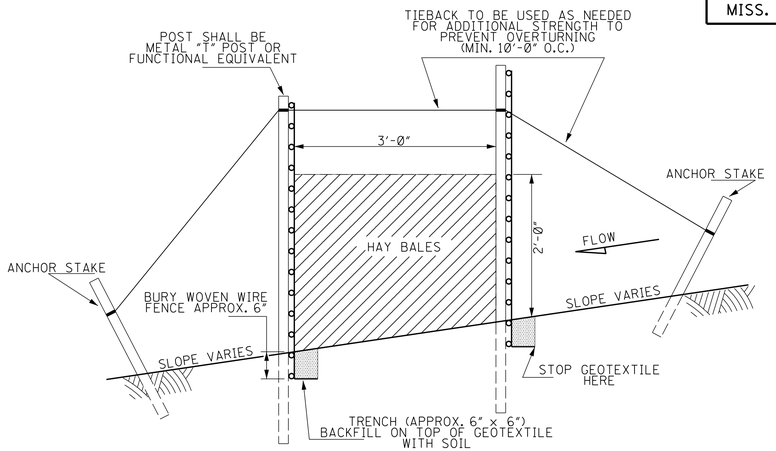
WORKING NUMBER
ECD-21

SHEET NUMBER
6121

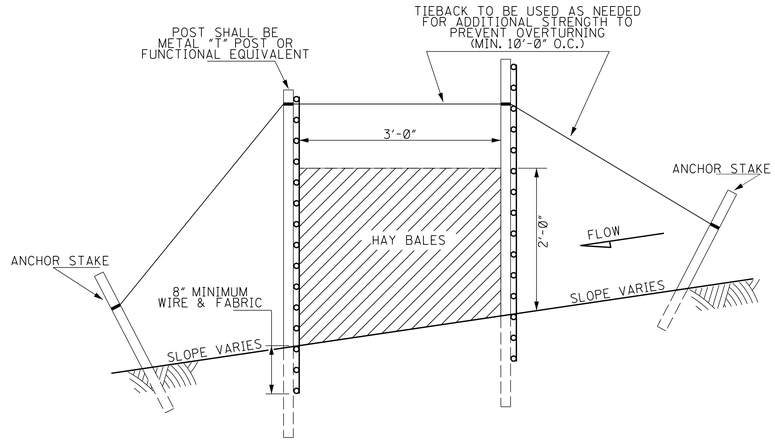
STATE	PROJECT NO.
MISS.	



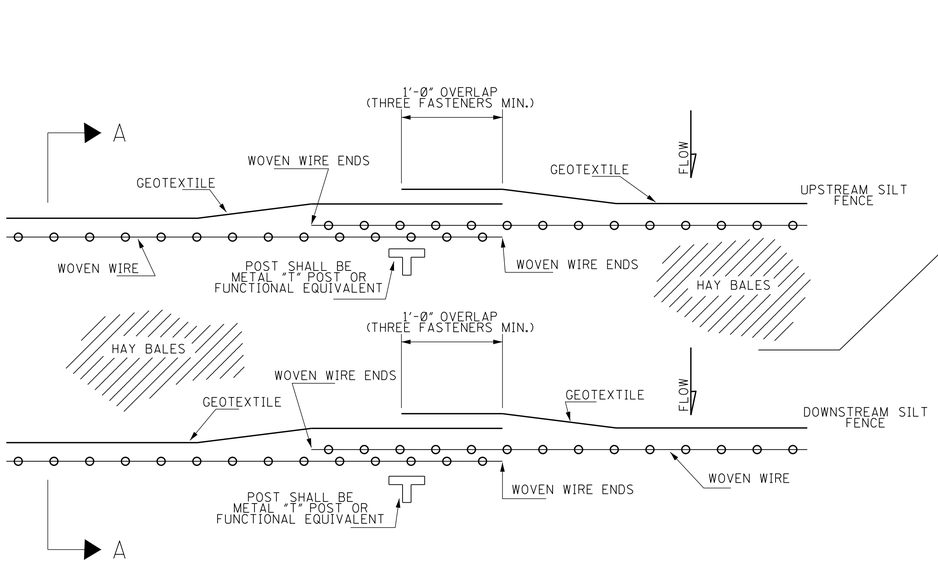
ELEVATION VIEW



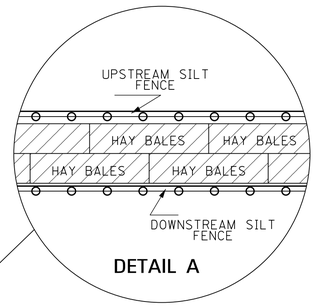
SIDE VIEW
SECTION A–A
METHOD I



SIDE VIEW
SECTION A–A
METHOD II
MECHANICAL INSTALLATION



PLAN VIEW
REQUIRED LAPPING



DETAIL A

GENERAL NOTES:

1. RETENTION BARRIERS SHOULD BE USED IN AREAS WHERE FLOW IS NOT SEVERE.
2. 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.
3. 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.
4. THE CONTRACTOR MAY ELECT TO USE EITHER METHOD I OR METHOD II. COST TO BE LINEAR FEET OF SEDIMENT RETENTION BARRIER.
5. METHOD II INSTALLATION SHALL BE ACCOMPLISHED USING AN IMPLEMENT THAT IS MANUFACTURED FOR THE APPLICATION AND PROVIDES CONFIGURATION MEETING THE REQUIREMENTS OF THE DETAIL.
6. WIRE SHALL BE MINIMUM OF 32" IN WIDTH AND SHALL HAVE A MINIMUM OF 6 LINE WIRES WITH 12" STAY SPACING.
7. GEOTEXTILE FABRIC MEETING THE TYPE II MATERIAL REQUIREMENTS AND INSTALLED ACCORDING TO SPECIFICATION MAY BE USED WITHOUT WIRE FENCE.

BY	REVISION	DATE

MISSISSIPPI DEPARTMENT OF TRANSPORTATION
ROADWAY DESIGN DIVISION
STANDARD PLAN

SEDIMENT RETENTION BARRIER

MDOT

WORKING NUMBER
ECD-22

ISSUE DATE: AUGUST 01, 2017

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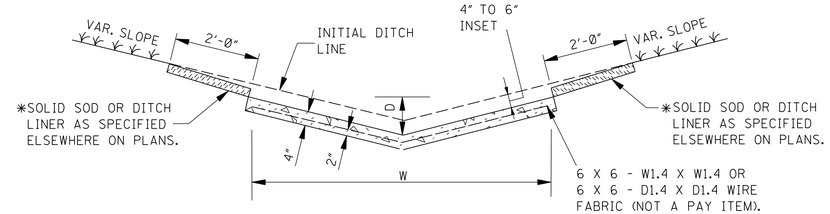
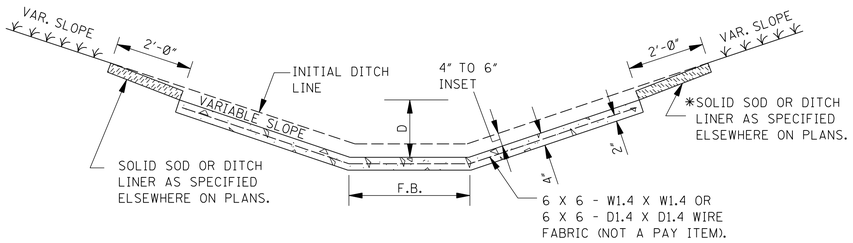
6122

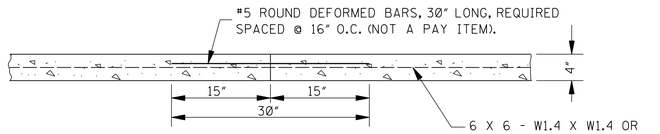
STATE	PROJECT NO.
MISS.	



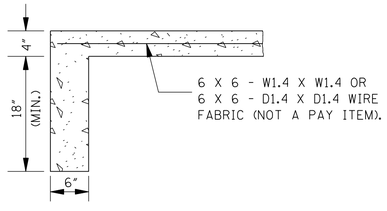
"V" TYPE SECTION



FLAT BOTTOM SECTION



DETAIL OF CONSTRUCTION JOINT



DETAIL OF TOE WALL

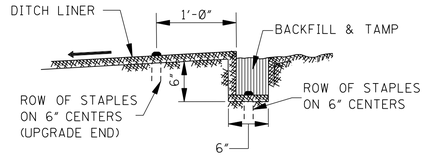
NOTE: TOE WALL REQUIRED UPSTREAM AND DOWNSTREAM.

CONCRETE PAVED DITCH

NOTES:

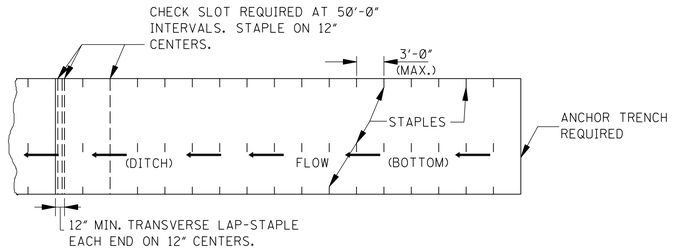
1. CONCRETE PAVED DITCHES SHALL BE GROOVED AT 20'-0" INTERVALS. THE GROOVES SHALL BE CUT TO A DEPTH OF NOT LESS THAN 1".
2. DIMENSIONS D & W ARE AS FOLLOWS:
   D(MINIMUM) = 6"
   D(NOMINAL) = 9"
   W(MINIMUM) = 24"
3. CHAIR SUPPORTS FOR THE WIRE MESH WILL NOT BE REQUIRED. HOWEVER, THE CONTRACTOR SHALL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

*4. CENTER ROW OF STAPLES MAY BE OMITTED ON DITCH LINER.

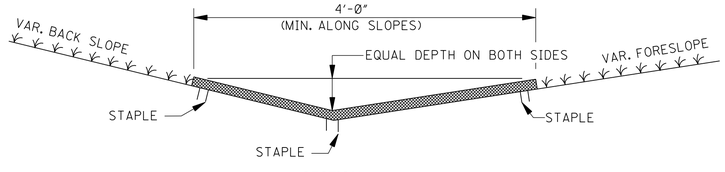


ANCHOR TRENCH DETAIL

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



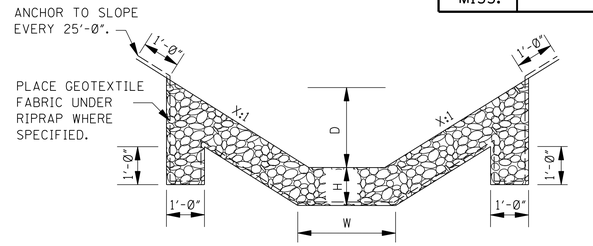
PLAN



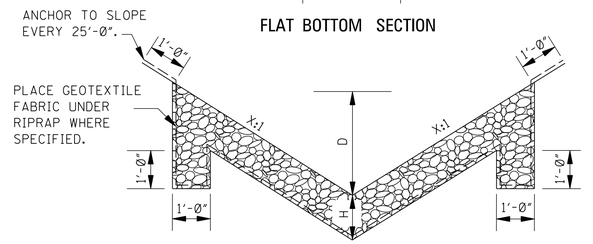
SECTION

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



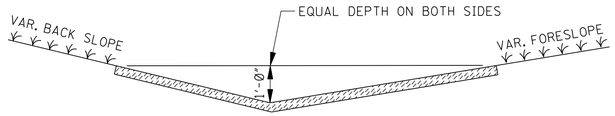
"V" TYPE SECTION

RIPRAP TREATMENT

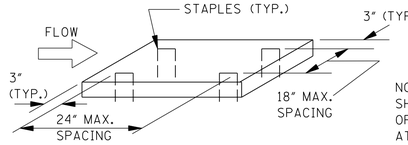
NOTES:

1. DIMENSIONS D, W AND X ARE VARIABLE AND ARE SHOWN ELSEWHERE ON THE PLANS.
2. 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



NOTE: SOLID SOD (STRIPS OR BLOCKS) SHOULD BE STAPLED, PINNED, PEGGED OR STAKED AT THE FOUR CORNERS OR AT THE MAXIMUM SPECIFIED SPACING.

GENERAL NOTE:

1. 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	REVISION	DATE

MISSISSIPPI DEPARTMENT OF TRANSPORTATION
ROADWAY DESIGN DIVISION
STANDARD PLAN

DETAILS OF TYPICAL DITCH TREATMENTS

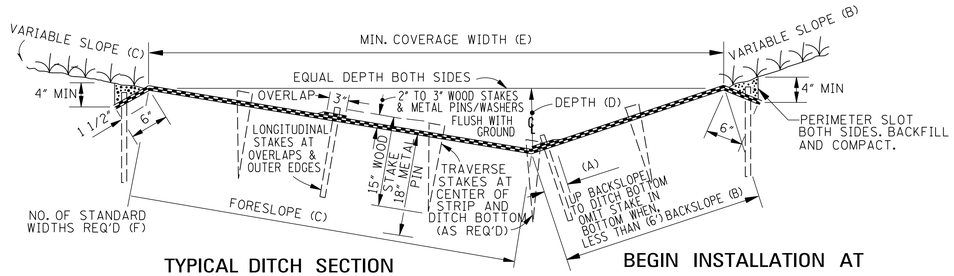
MDOT MISSISSIPPI DEPARTMENT OF TRANSPORTATION

WORKING NUMBER DT-1

ISSUE DATE: AUGUST 01, 2017

SHEET NUMBER 6123

STATE	PROJECT NO.
MISS.	



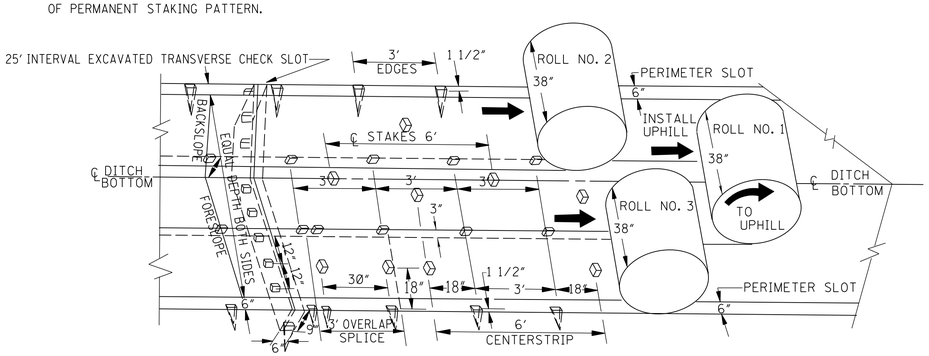
TYPICAL DITCH SECTION

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

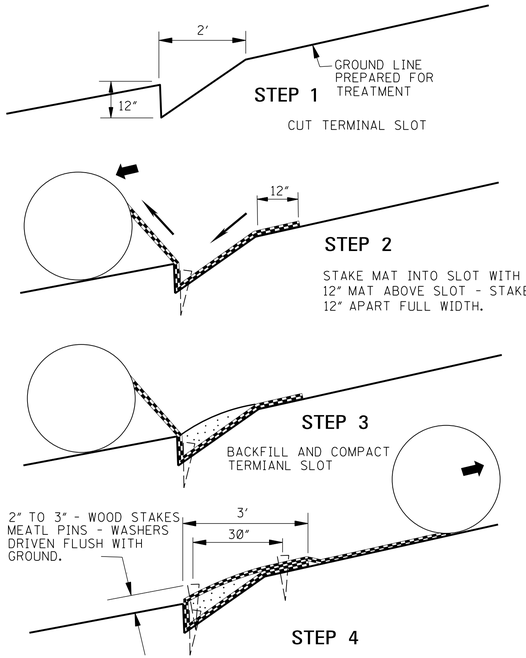
GENERAL INSTRUCTIONS:

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 ALIGHMENT.
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 ACROSS 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.



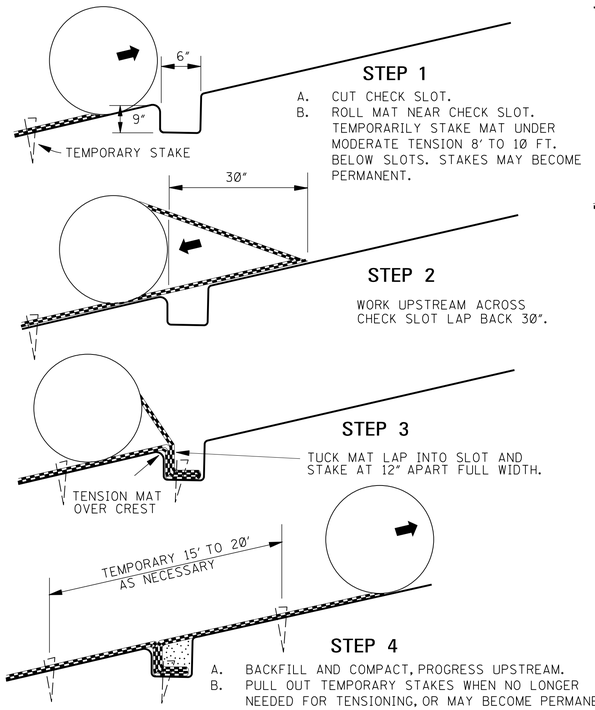
SEQUENTIAL ROLL RUN OUT
IN DITCH WITH STAKING DETAIL

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*)



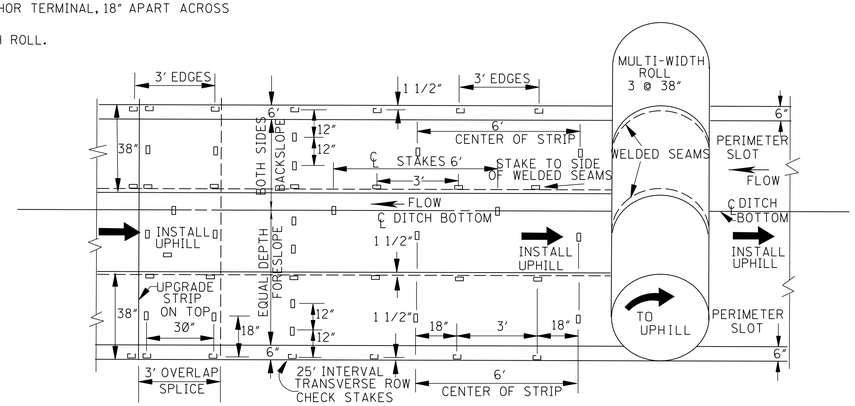
A. CUT CHECK SLOT.
B. ROLL MAT NEAR CHECK SLOT. TEMPORARILY STAKE MAT UNDER MODERATE TENSION 8' TO 10 FT. BELOW SLOTS. STAKES MAY BECOME PERMANENT.

STEP 2
WORK UPSTREAM ACROSS CHECK SLOT LAP BACK 30".

STEP 3
TUCK MAT LAP INTO SLOT AND STAKE AT 12" APART FULL WIDTH.

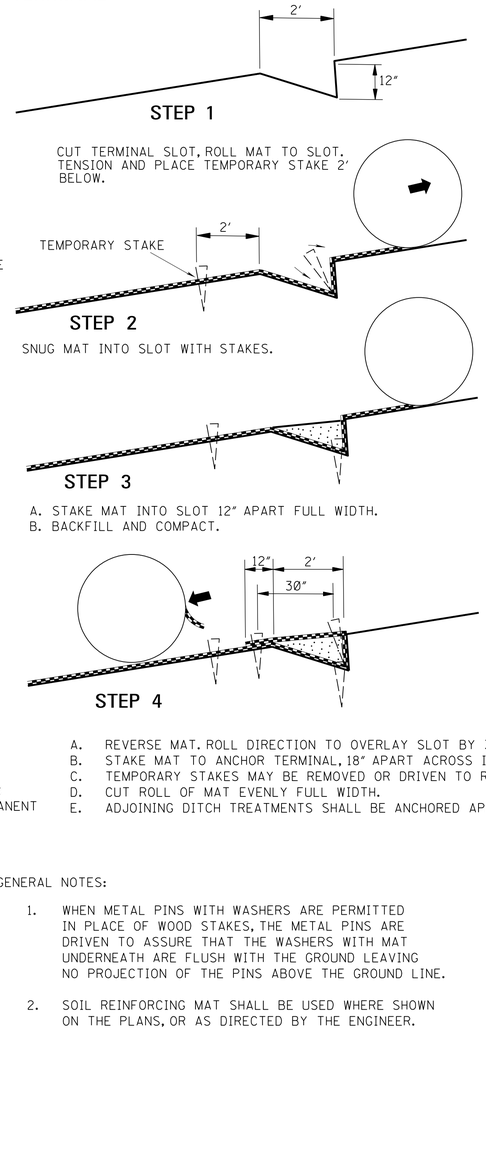
STEP 4
A. BACKFILL AND COMPACT, PROGRESS UPSTREAM.
B. PULL OUT TEMPORARY STAKES WHEN NO LONGER NEEDED FOR TENSIONING, OR MAY BECOME PERMANENT STAKING PATTERN.

* 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.



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

END INSTALLATION AT UPSTREAM TERMINAL



A. STAKE MAT INTO SLOT 12" APART FULL WIDTH.
B. BACKFILL AND COMPACT.

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 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.

BY	REVISION	DATE

MISSISSIPPI DEPARTMENT OF TRANSPORTATION
ROADWAY DESIGN DIVISION
STANDARD PLAN

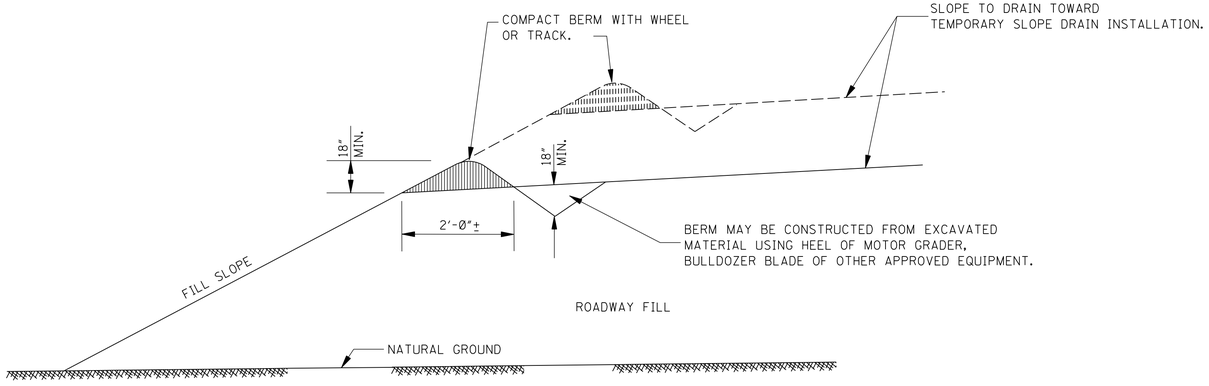
DITCH TREATMENT INSTALLATION DETAIL FOR SOIL REINFORCING MAT

MDOT
WORKING NUMBER
DT-1A

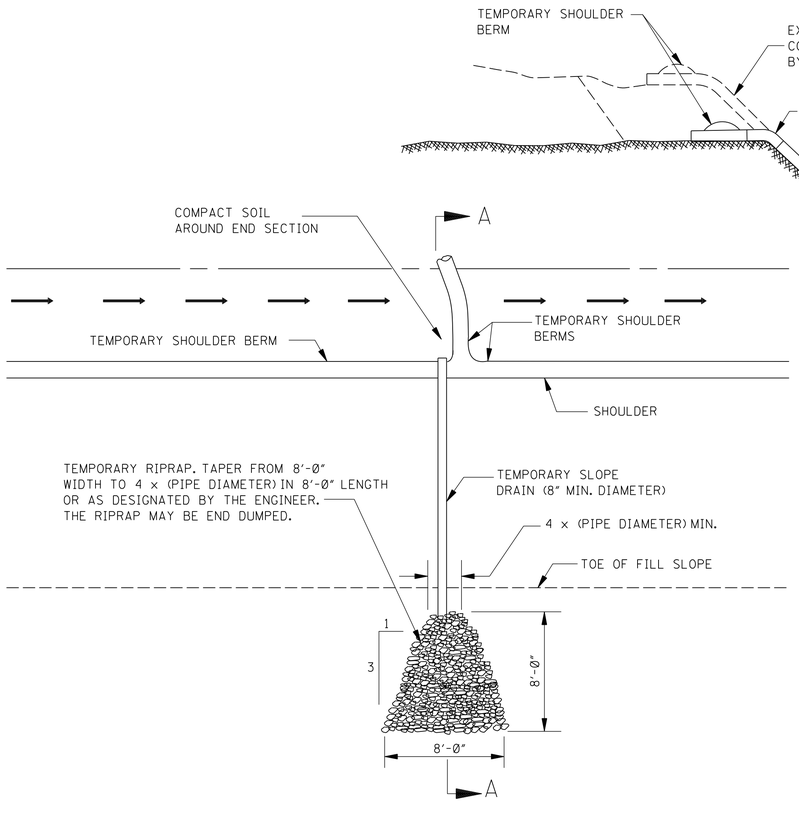
ISSUE DATE: AUGUST 01, 2017

SHEET NUMBER
6124

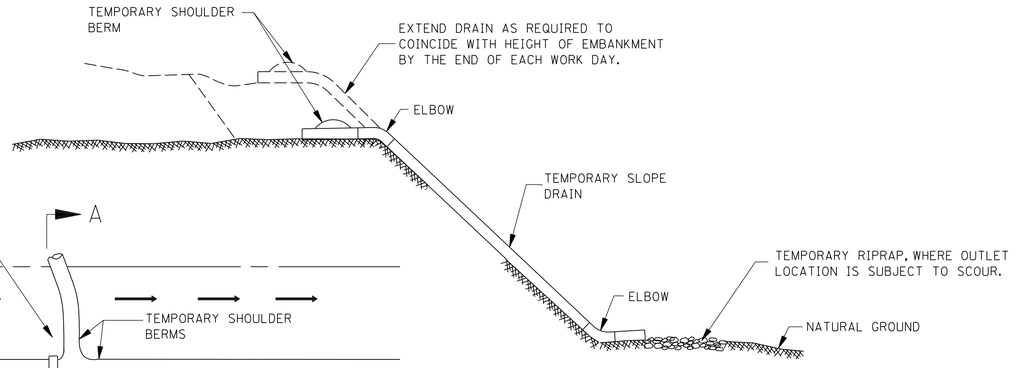
STATE	PROJECT NO.
MISS.	



TEMPORARY SHOULDER BERM



PLAN

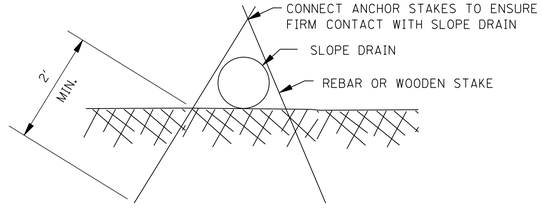


SECTION A–A

TEMPORARY SLOPE DRAIN

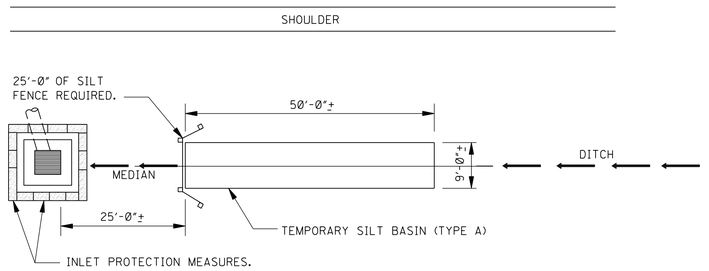
NOTE: TEMPORARY SLOPE DRAINS TO BE PLACED AT LOW POINT OF ALL SAG VERTICAL CURVES. INTERMEDIATE LOCATIONS TO BE PLACED AS DESIGNATED OR DEEMED APPROPRIATE BY THE CONTRACTOR AND APPROVED BY THE ENGINEER.

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

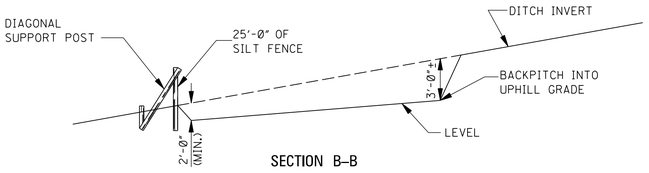


RECOMMENDED ANCHOR DETAIL

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



TEMPORARY MEDIAN SILT BASIN (TYPE A)



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 PRECEEDING 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.

BY	REVISION	DATE

MISSISSIPPI DEPARTMENT OF TRANSPORTATION
ROADWAY DESIGN DIVISION
STANDARD PLAN

TYPICAL TEMPORARY EROSION CONTROL MEASURES

(SLOPE DRAIN AND TYPE A SILT BASIN)

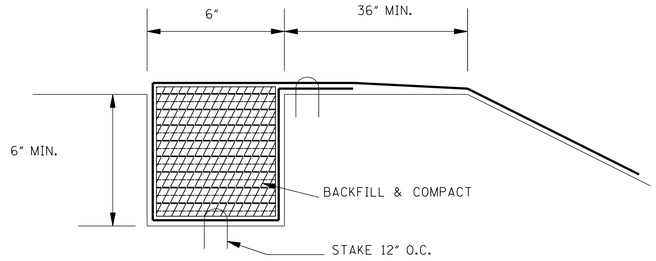
MDOT MISSISSIPPI DEPARTMENT OF TRANSPORTATION

WORKING NUMBER: BAS-A

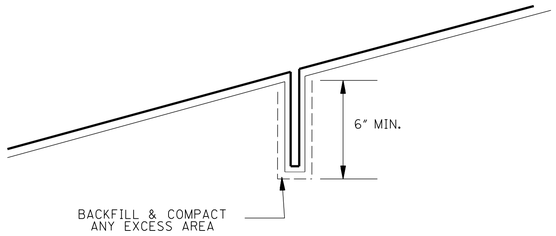
ISSUE DATE: AUGUST 01, 2017

SHEET NUMBER: 6125

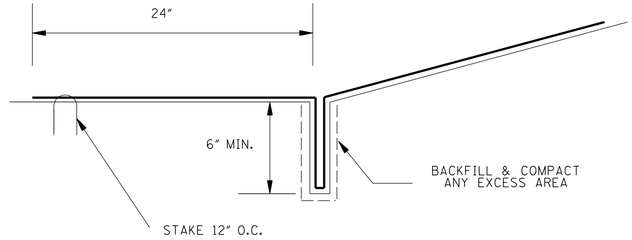
STATE	PROJECT NO.
MISS.	



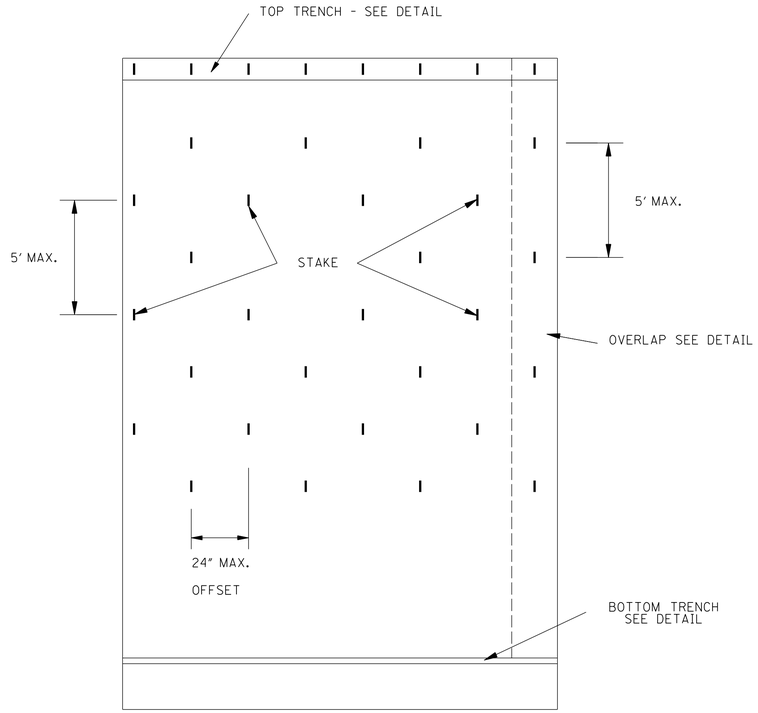
DETAIL OF TOP TRENCH



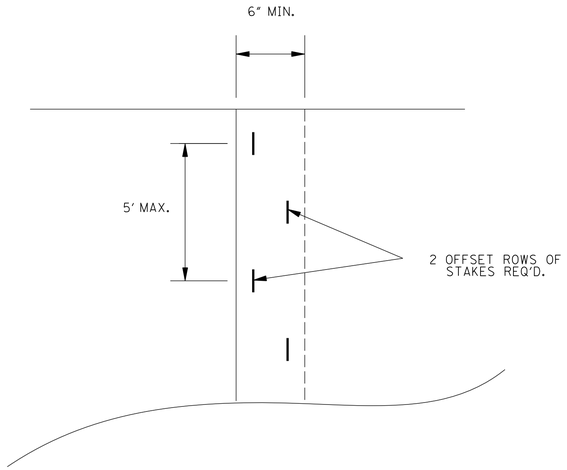
DETAIL OF INTERMEDIATE TRENCH



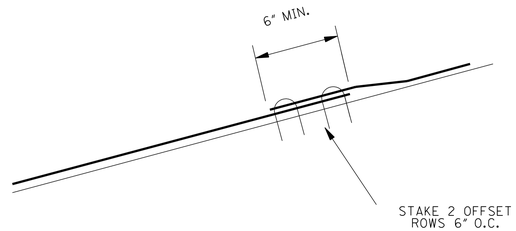
DETAIL OF BOTTOM TRENCH



DETAIL OF EROSION CONTROL BLANKET



DETAIL OF LONGITUDINAL OVERLAP



DETAIL OF TRANSVERSE OVERLAP

BY	REVISION	DATE

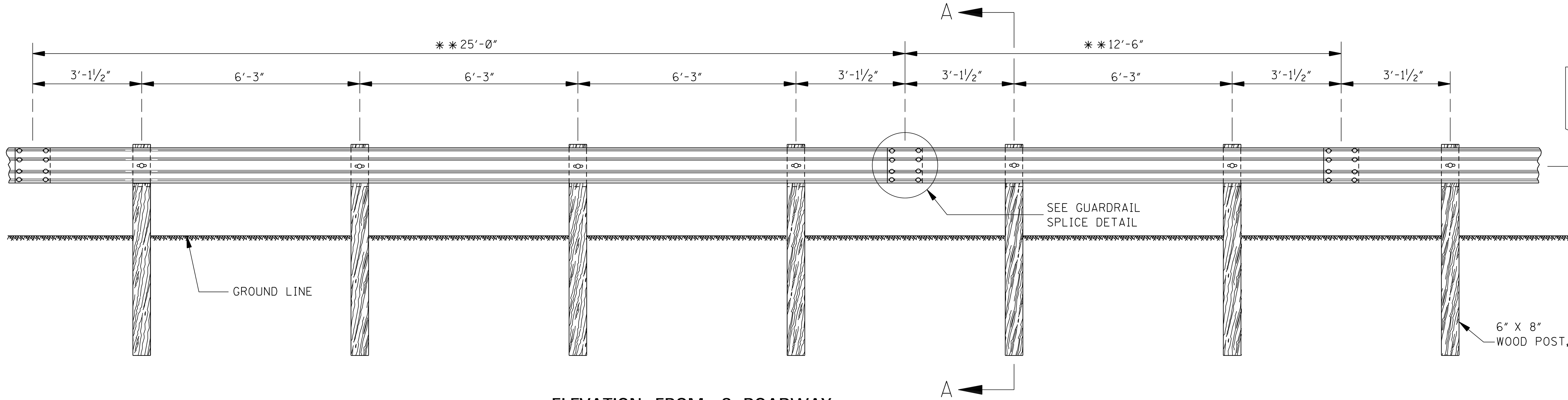
MISSISSIPPI DEPARTMENT OF TRANSPORTATION
ROADWAY DESIGN DIVISION
STANDARD PLAN

EROSION CONTROL BLANKET

WORKING NUMBER
ECB-1

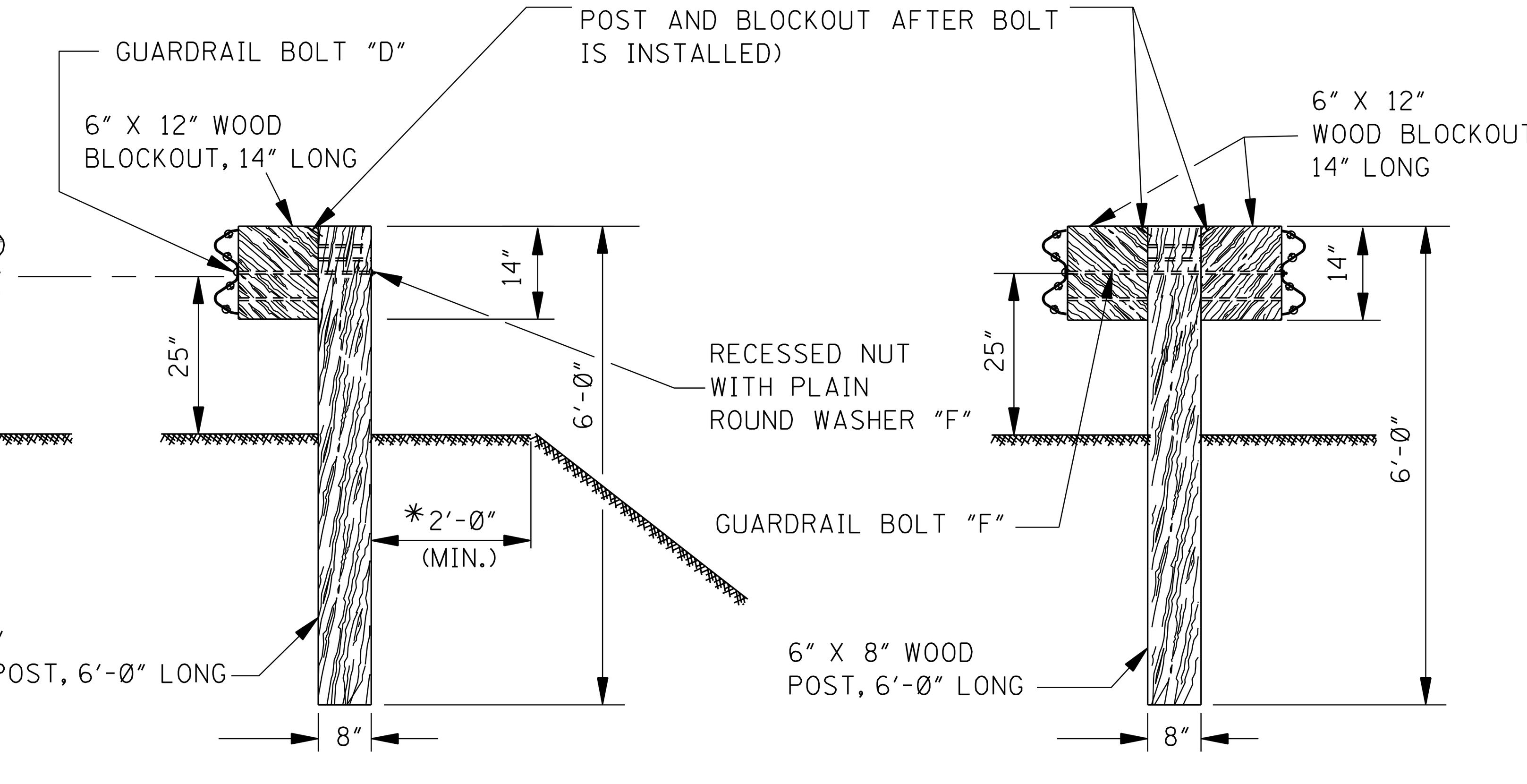
ISSUE DATE: AUGUST 01, 2017

SHEET NUMBER
6131



ELEVATION FROM ℄ ROADWAY

* * NOTE: OPTIONAL BEAM LENGTHS.

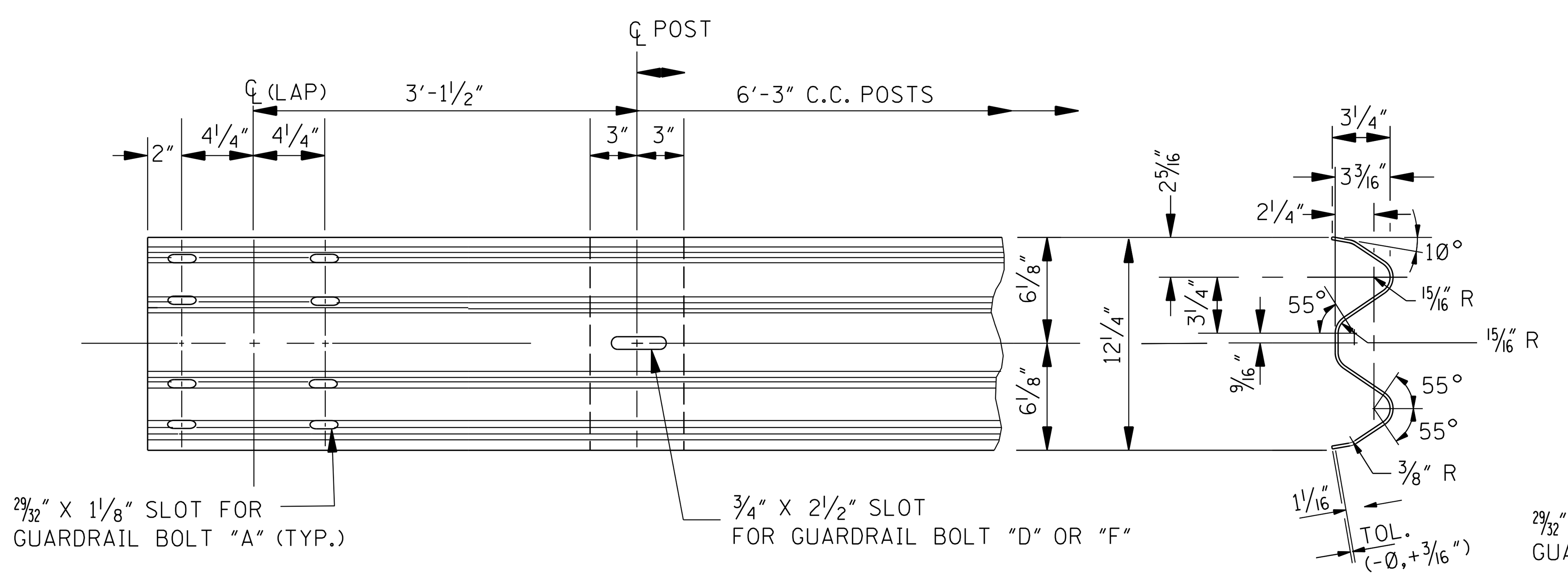


SINGLE-FACED BARRIER

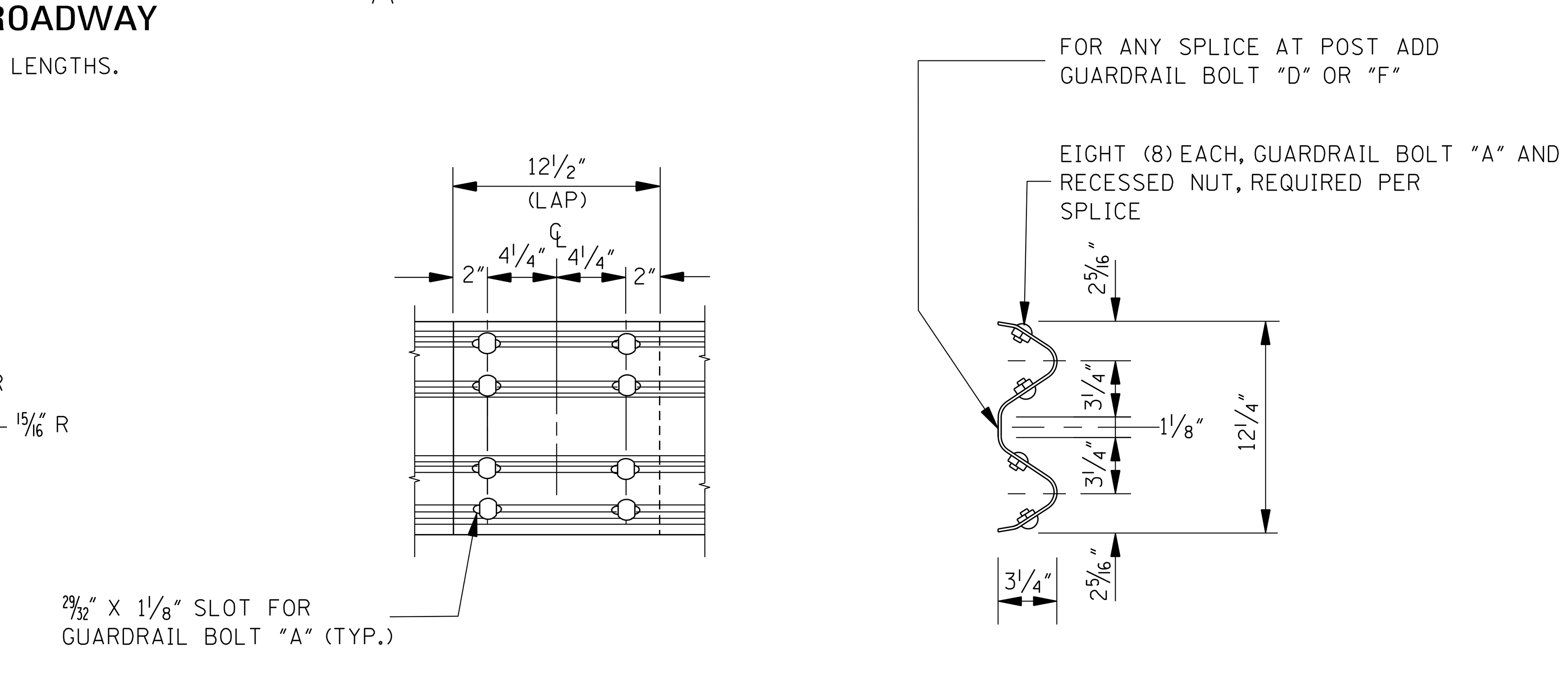
DOUBLE-FACED BARRIER

SECTION A–A

*NOTE: UNLESS SPECIFIED OTHERWISE ON THE PLANS.



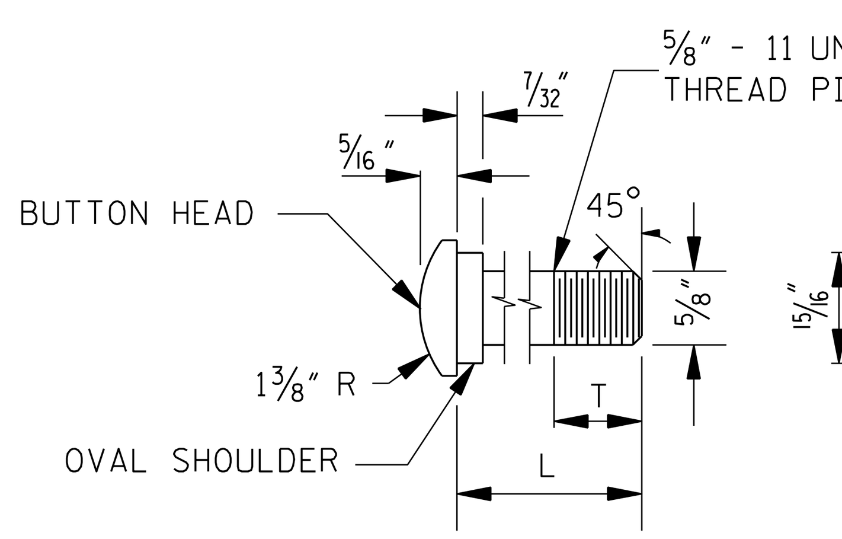
TYPICAL GUARDRAIL SECTION



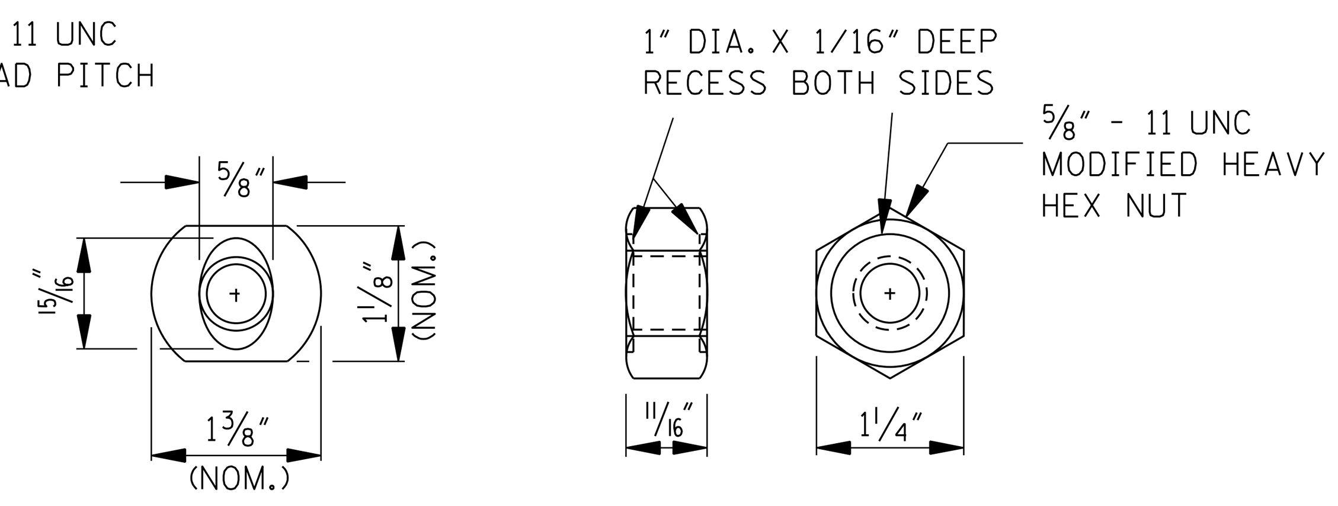
ELEVATION

SECTION

GUARDRAIL SPLICE DETAIL



GUARDRAIL BOLT



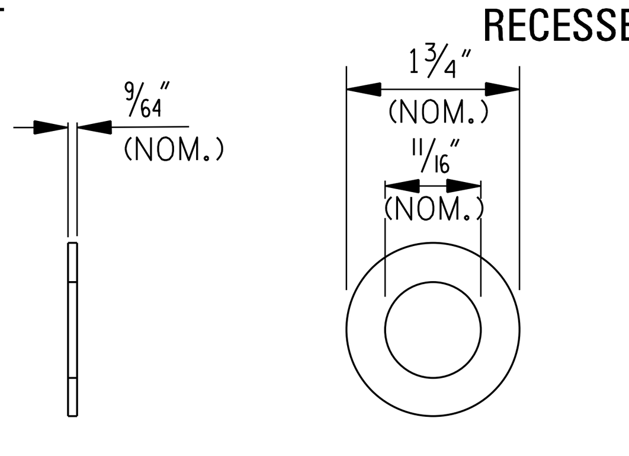
RECESSED NUT

GUARDRAIL BOLTS		
BOLT	L	T (MIN.)
"A"	1 1/4"	1"
"D"	22"	4"
* "E"	24"	4"
"F"	33"	4"

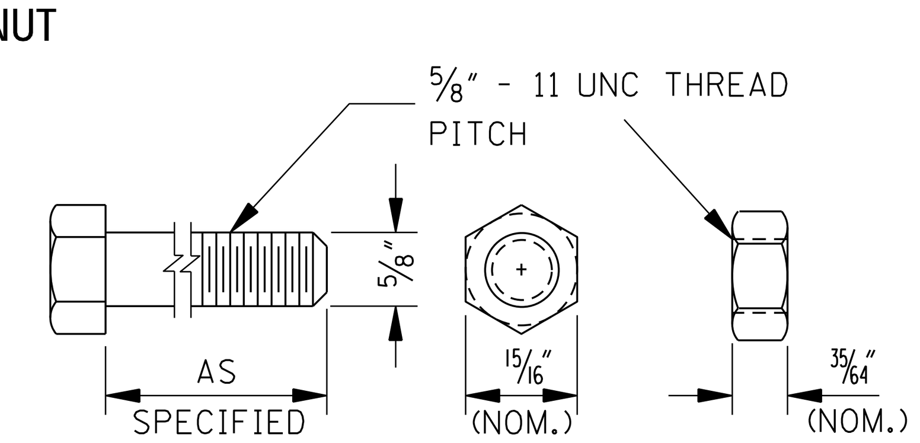
NOTES:

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.

*3. GUARDRAIL BOLT "E" IS USED FOR SINGLE-FACED BARRIER WITH 10" X 10" WOOD POST AND 6" X 12" WOOD BLOCKOUT.

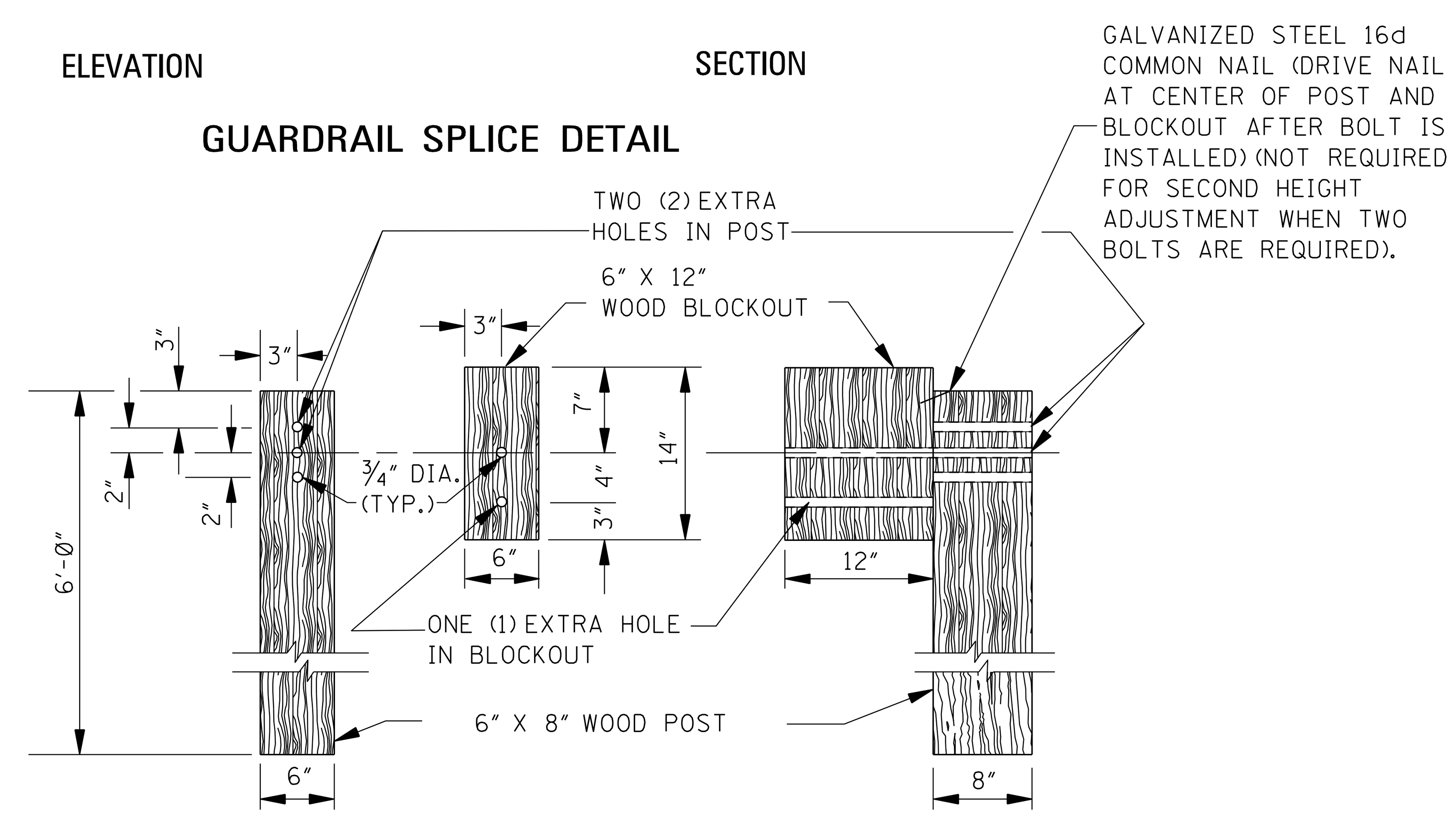


PLAIN ROUND WASHER "F"



HEX NUT AND BOLT "F"

FASTENER DETAILS



ELEVATION

SECTION

DETAILS OF ADJUSTABLE HEIGHT BLOCKOUT ASSEMBLY

NOTES:

1. 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.
2. 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.
3. HOLE DETAILS ARE REQUIRED ON ALL WOOD POSTS AND BLOCKOUTS.
4. 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.
5. ALL HOLES IN BOTH POSTS AND BLOCKOUTS ARE 3/4" IN DIAMETER.

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 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.

STATE	PROJECT NO.
MISS.	

MISSISSIPPI DEPARTMENT OF TRANSPORTATION
ROADWAY DESIGN DIVISION
STANDARD PLAN

GUARDRAIL: "W" BEAM (WOOD POSTS)

REVISION | BY | DATE

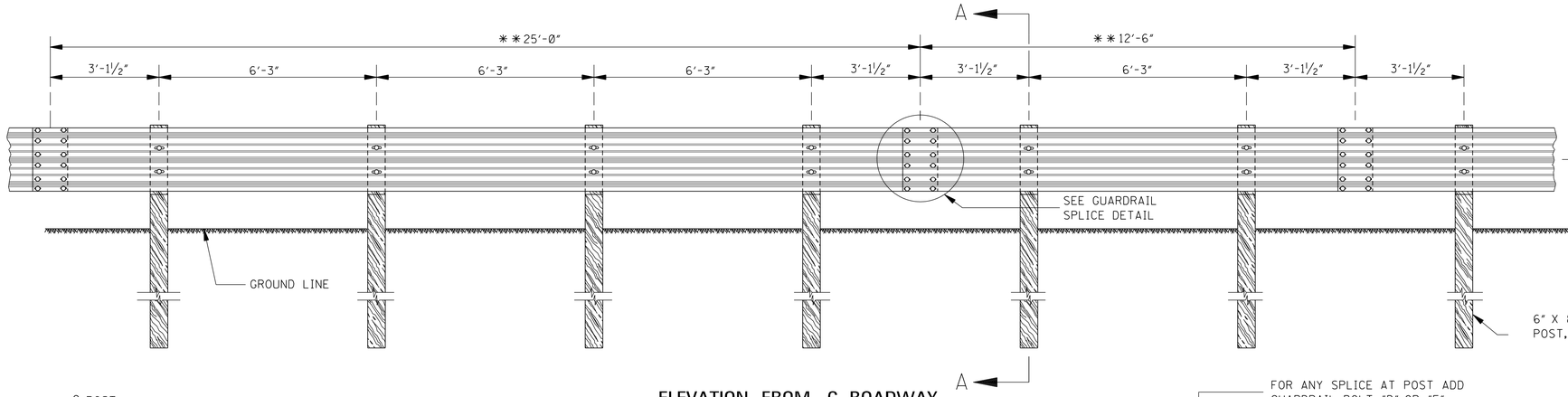
ISSUE DATE: AUGUST 01, 2017

MDOT

WORKING NUMBER GR-1

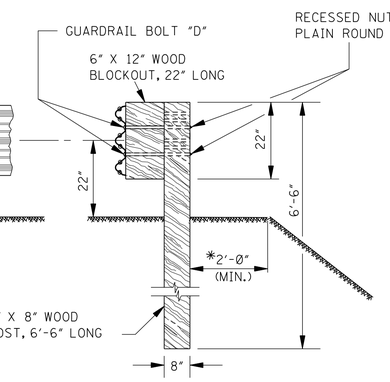
SHEET NUMBER 6201

STATE	PROJECT NO.
MISS.	

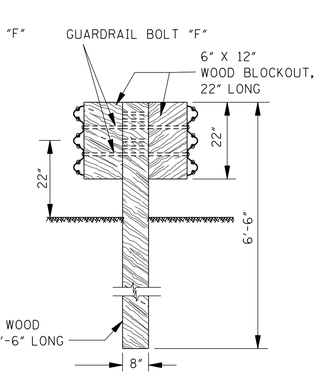


ELEVATION FROM ℄ ROADWAY

** NOTE: OPTIONAL BEAM LENGTHS.



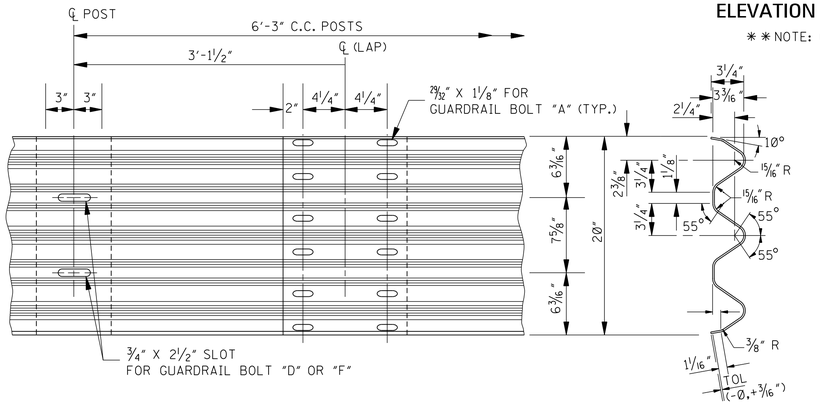
SINGLE–FACED BARRIER



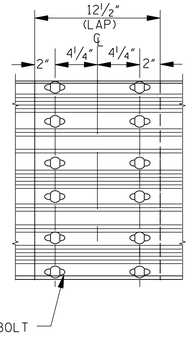
DOUBLE–FACED BARRIER

SECTION A–A

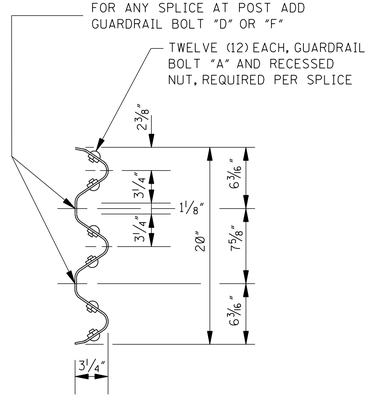
* NOTE: UNLESS SPECIFIED OTHERWISE ON THE PLANS.



TYPICAL GUARDRAIL SECTION



ELEVATION

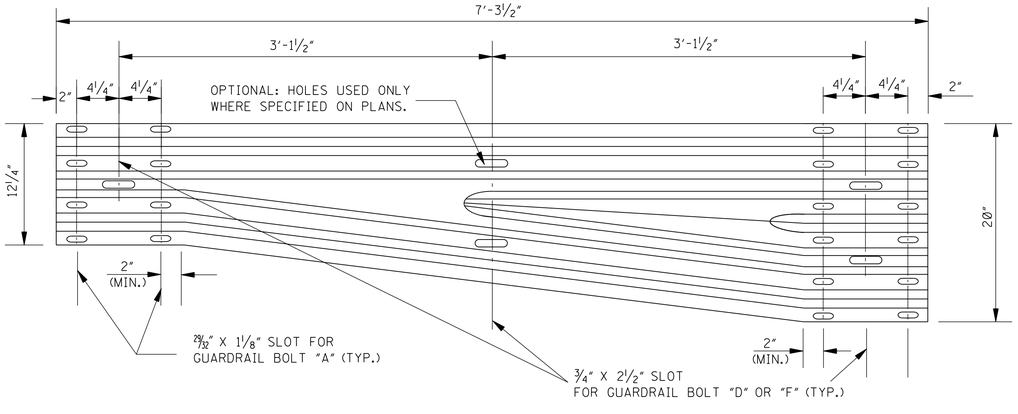


SECTION

GENERAL NOTES:

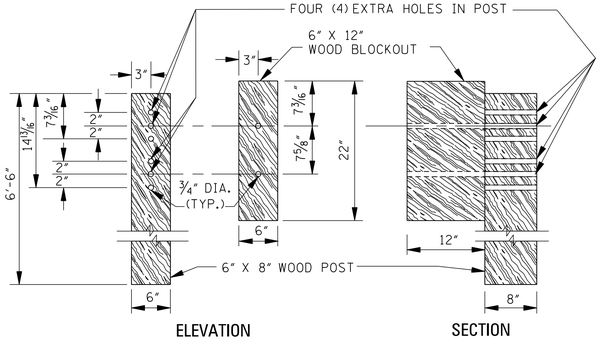
1. GUARDRAIL SHALL MEET THE REQUIREMENTS OF AASHTO M 180, CLASS A, TYPE 1 UNLESS OTHERWISE DESIGNATED.
2. GUARDRAIL SHALL BE SINGLE FACED UNLESS OTHERWISE DESIGNATED.
3. GUARDRAIL SECTIONS SHALL BE LAPPED IN THE DIRECTION OF TRAFFIC FLOW FOR THE LANE NEAREST THE GUARDRAIL. THE ONLY EXCEPTION NOTED IS 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.

GUARDRAIL SPLICE DETAIL



"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.



ELEVATION SECTION

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 ¾" IN DIAMETER.

DATE	REVISION	BY

MISSISSIPPI DEPARTMENT OF TRANSPORTATION
ROADWAY DESIGN DIVISION
STANDARD PLAN

GUARDRAIL: THRIE BEAM (WOOD POSTS)

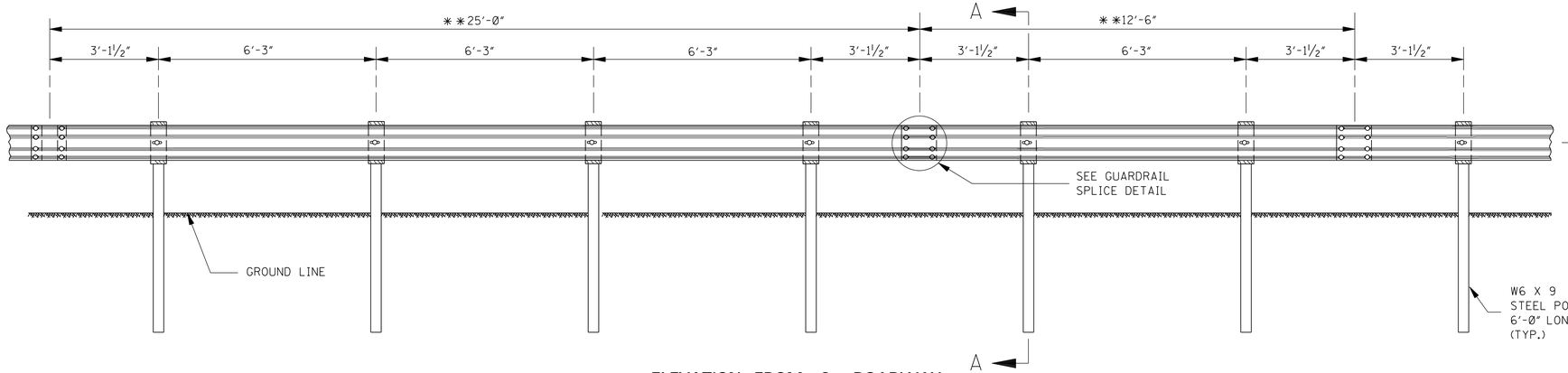
MDOT

WORKING NUMBER GR-1A

ISSUE DATE: AUGUST 01, 2017

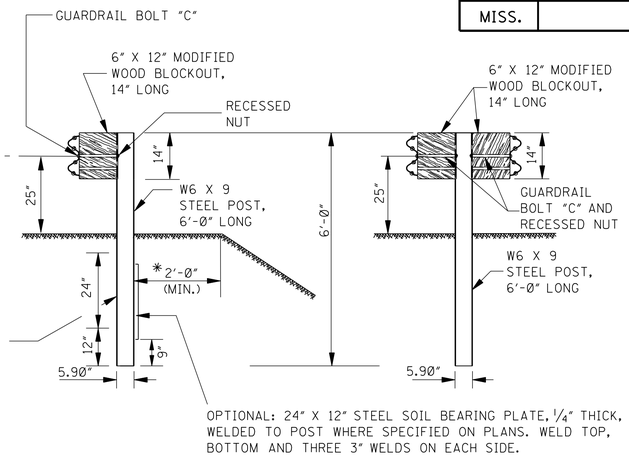
SHEET NUMBER 6202

STATE	PROJECT NO.
MISS.	



ELEVATION FROM ℄ ROADWAY

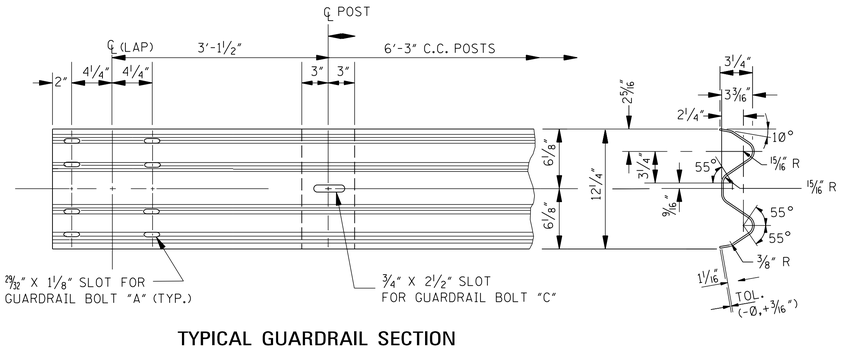
✱✱ NOTE: OPTIONAL BEAM LENGTHS.



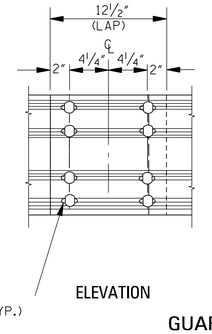
SINGLE–FACED BARRIER DOUBLE–FACED BARRIER

SECTION A–A

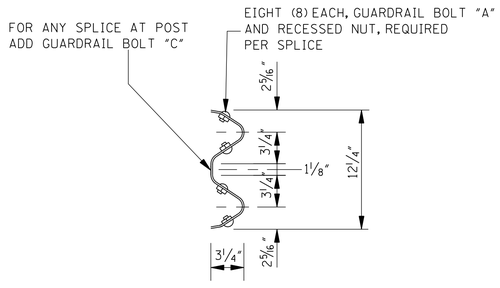
✱ NOTE: UNLESS SPECIFIED OTHERWISE ON THE PLANS.



TYPICAL GUARDRAIL SECTION



ELEVATION

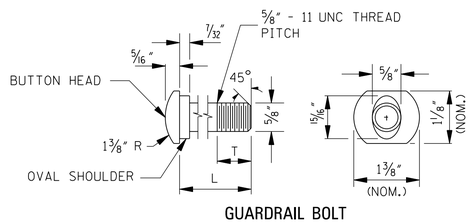


SECTION

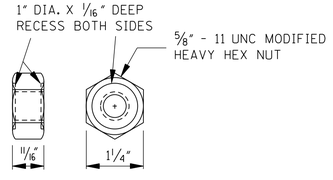
GUARDRAIL SPLICE DETAIL

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. 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.
5. ALL MODIFIED WOOD BLOCKOUTS SHALL BE TREATED TIMBER IN ACCORDANCE WITH MISSISSIPPI DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS.
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.

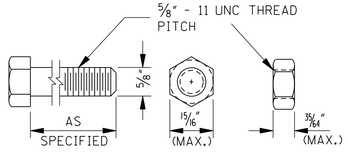


GUARDRAIL BOLT



RECESSED NUT

GUARDRAIL BOLTS		
BOLT	L	T (MIN.)
"A"	1¼"	1"
"B"	12"	4"
"C"	14"	4"

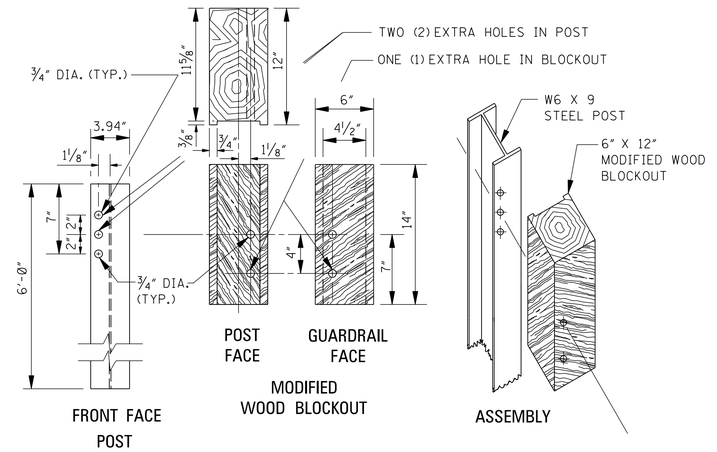


HEX NUT AND BOLT "F"

NOTES:

1. ALL GUARDRAIL BOLTS ARE ⅝" - 11 UNC THREAD PITCH.
2. IF ANY BOLT EXTENDS MORE THAN ¼" FROM THE NUT, THE BOLT SHOULD BE TRIMMED BACK.

FASTENER DETAILS



DETAILS OF ADJUSTABLE HEIGHT BLOCKOUT ASSEMBLY

NOTES:

1. 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.
2. AN ADDITIONAL GUARDRAIL BOLT "C" AND RECESSED NUT IS REQUIRED FOR THE SECOND HEIGHT ADJUSTMENT.
3. HOLE DETAILS ARE REQUIRED ON ALL STEEL POSTS AND MODIFIED WOOD BLOCKOUTS.
4. STEEL POSTS ARE FABRICATED FROM W6 X 9 STRUCTURAL STEEL SHAPES.
5. MODIFIED WOOD BLOCKOUTS ARE FABRICATED FROM 6" X 12" TREATED TIMBER UNLESS SPECIFIED OTHERWISE ON THE PLANS.
6. ALL HOLES IN BOTH STEEL POSTS AND MODIFIED WOOD BLOCKOUTS ARE ¾" IN DIAMETER.

DATE	REVISION	BY

MISSISSIPPI DEPARTMENT OF TRANSPORTATION
ROADWAY DESIGN DIVISION
STANDARD PLAN

GUARDRAIL: "W" BEAM (STEEL POSTS)

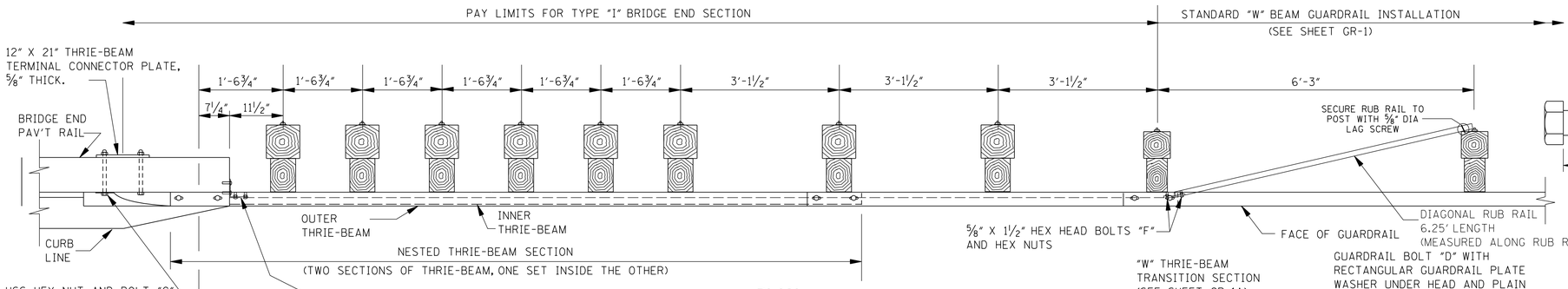
MDOT MISSISSIPPI DEPARTMENT OF TRANSPORTING

WORKING NUMBER GR-1B

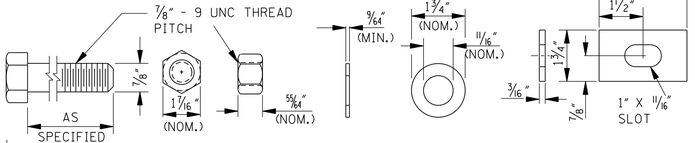
ISSUE DATE: AUGUST 01, 2017

SHEET NUMBER 6203

STATE	PROJECT NO.
MISS.	



PLAN

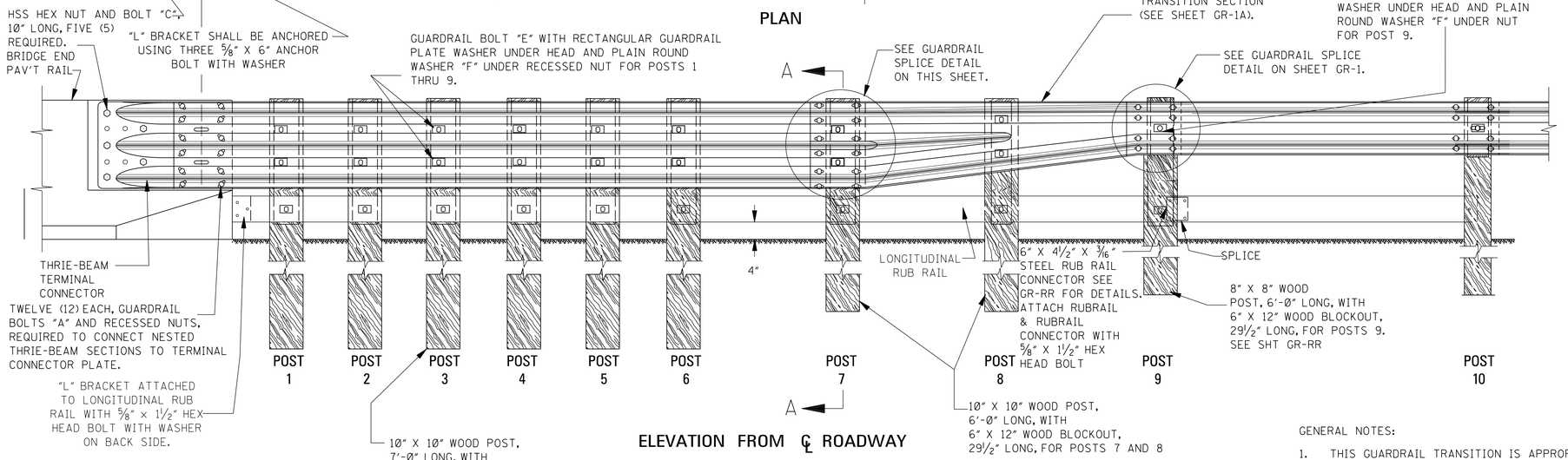


HIGH–STRENGTH STRUCTURAL HEX NUT AND BOLT "C"

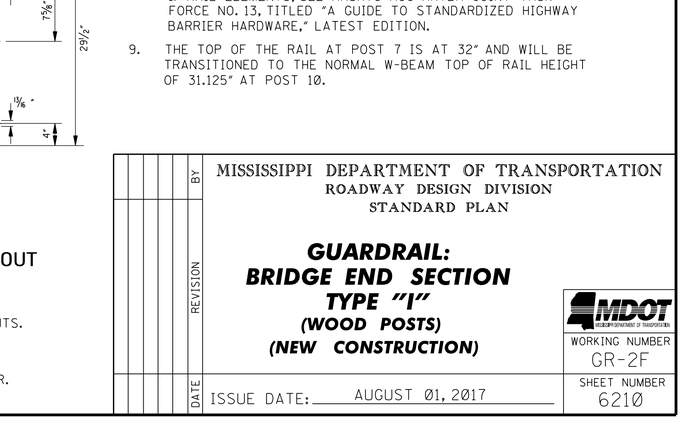
PLAIN ROUND WASHER "F"

RECTANGULAR GUARDRAIL PLATE WASHER

FASTENER DETAILS



ELEVATION FROM ℄ ROADWAY



SECTION A–A

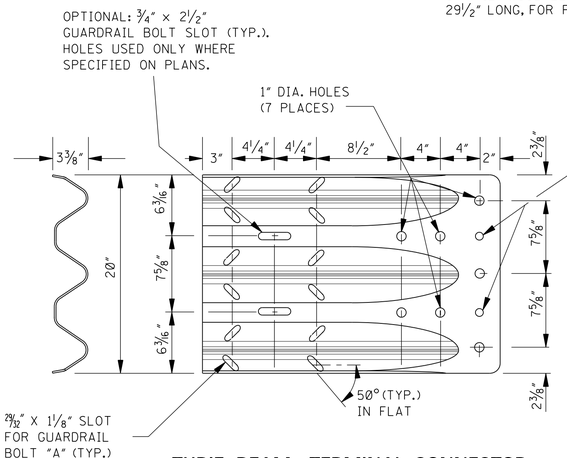
*NOTE: UNLESS SPECIFIED OTHERWISE ON THE PLANS.

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):

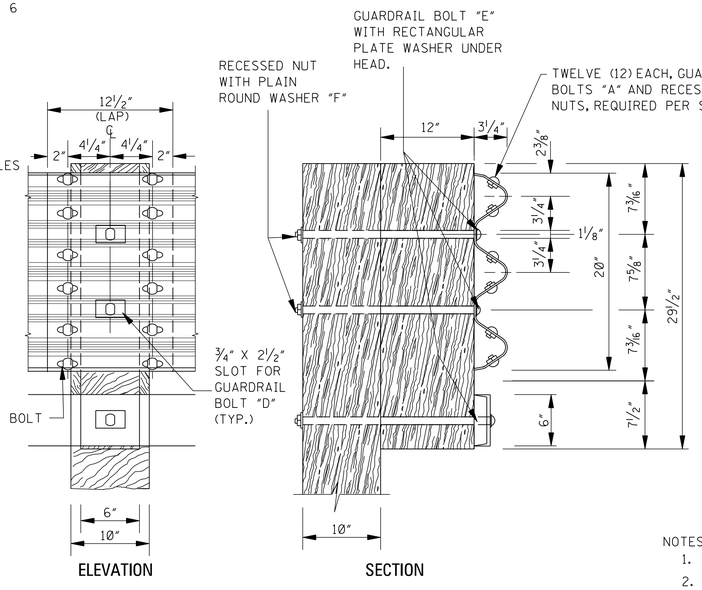
3. GUARDRAIL SHALL MEET THE REQUIREMENTS OF AASHTO M 180, CLASS A, TYPE 1 UNLESS OTHERWISE DESIGNATED.
4. THE TYPE "I" TRANSITION IS USED ON BOTH LEFT AND RIGHT SIDES OF EACH BRIDGE APPROACH WITH 2-WAY TRAFFIC AND THE GUARDRAIL SECTIONS SHALL BE LAPPED IN THE DIRECTION OF THE APPROACHING TRAFFIC.
5. 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.



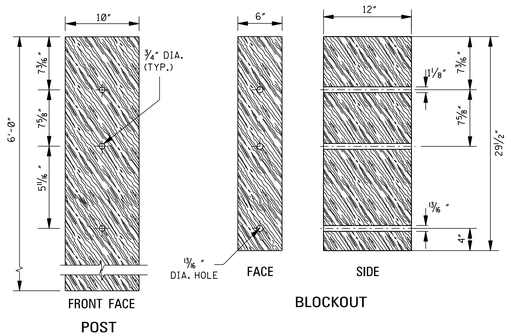
THRIE–BEAM TERMINAL CONNECTOR

NOTES:

1. THE THRIE-BEAM TERMINAL CONNECTOR SHALL BE AASHTO M 180 CORRUGATED SHEET STEEL, CLASS B, TYPE I.
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.

DATE	REVISION	BY

MISSISSIPPI DEPARTMENT OF TRANSPORTATION
ROADWAY DESIGN DIVISION
STANDARD PLAN

GUARDRAIL: BRIDGE END SECTION TYPE "I"
(WOOD POSTS)
(NEW CONSTRUCTION)

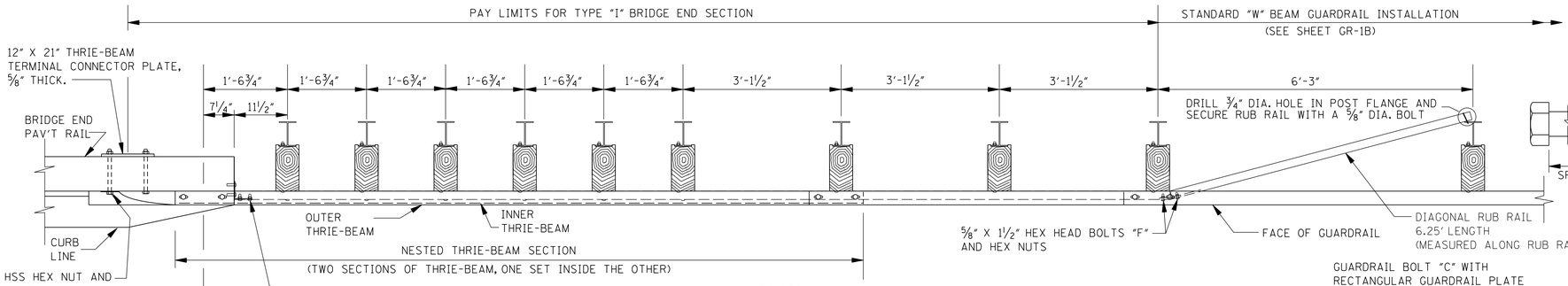
MDOT

WORKING NUMBER GR-2F

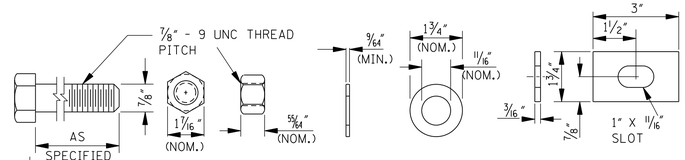
ISSUE DATE: AUGUST 01, 2017

SHEET NUMBER 6210

STATE	PROJECT NO.
MISS.	



PLAN

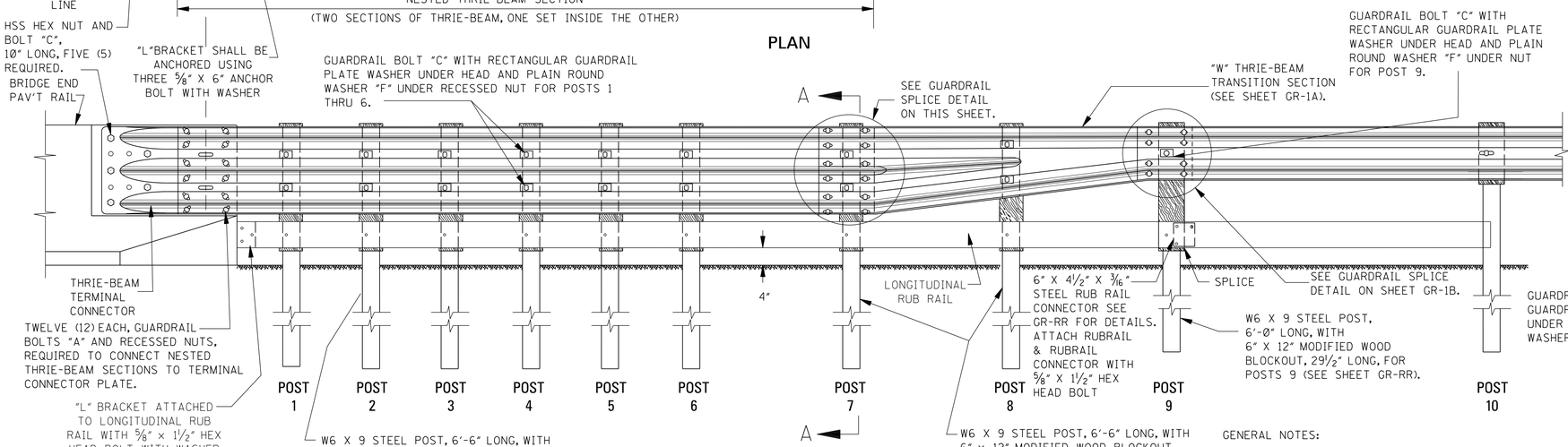


HIGH-STRENGTH STRUCTURAL HEX NUT AND BOLT "C"

PLAIN ROUND WASHER "F"

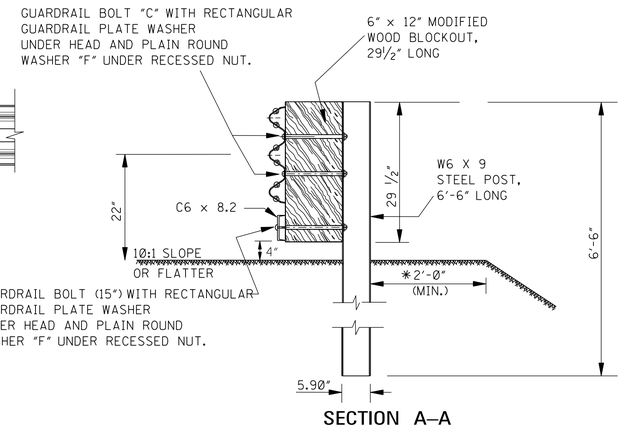
RECTANGULAR GUARDRAIL PLATE WASHER

FASTENER DETAILS



ELEVATION FROM ℄ ROADWAY

NOTE: BACKUP PLATES ARE NOT USED IN THIS TRANSITION.



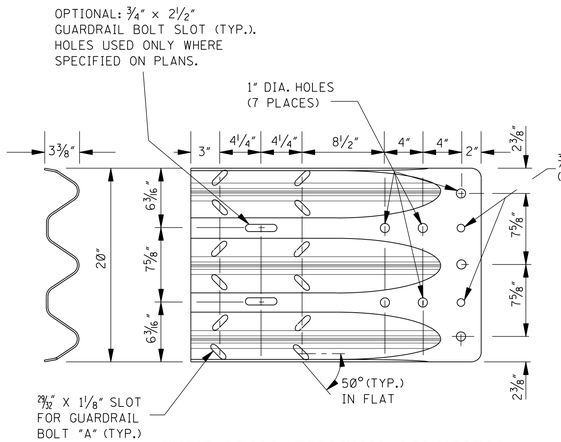
SECTION A–A

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):

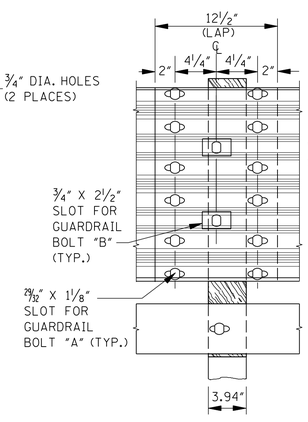
3. GUARDRAIL SHALL MEET THE REQUIREMENTS OF AASHTO M 180, CLASS A, TYPE 1 UNLESS OTHERWISE DESIGNATED.
4. THE TYPE "I" TRANSITION IS USED ON BOTH LEFT AND RIGHT SIDES OF EACH BRIDGE APPROACH WITH 2-WAY TRAFFIC AND THE GUARDRAIL SECTIONS SHALL BE LAPPED IN THE DIRECTION OF APPROACHING TRAFFIC.
5. POSTS 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.



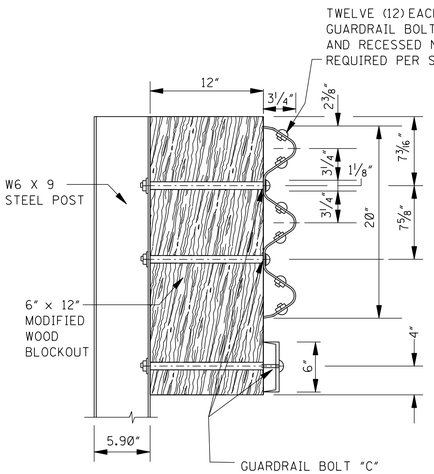
THRIE–BEAM TERMINAL CONNECTOR

NOTES:

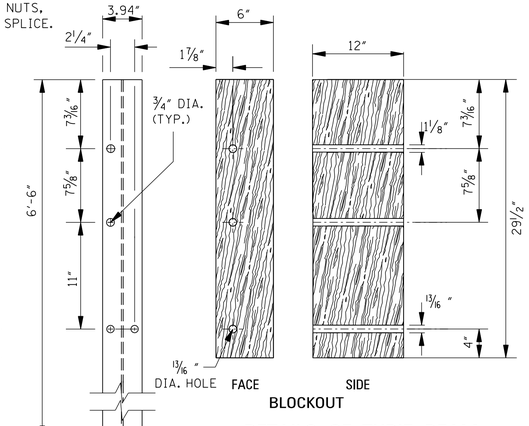
1. THE THRIE-BEAM TERMINAL CONNECTOR SHALL BE AASHTO M 180 CORRUGATED SHEET STEEL, CLASS B, TYPE I.
2. ALTERNATIVELY, THE SPLICE SLOTS CAN BE ORIENTED PARALLEL TO THE LONGITUDINAL AXIS OF THE TERMINAL CONNECTOR. HOWEVER, THE 50° SLOT VERSION IS EASIER TO INSTALL WHERE SEVERAL GUARDRAIL SECTIONS ARE NESTED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



ELEVATION



SECTION



FRONT FACE POST

BLOCKOUT

DETAILS OF THRIE–BEAM POST AND BLOCKOUT (POST 1 THRU POST 6)

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" IN DIAMETER.

GUARDRAIL SPLICE DETAIL (POST 7)

DATE	REVISION	BY

MISSISSIPPI DEPARTMENT OF TRANSPORTATION
ROADWAY DESIGN DIVISION
STANDARD PLAN

GUARDRAIL: BRIDGE END SECTION TYPE "I"

(STEEL POSTS)

(NEW CONSTRUCTION)

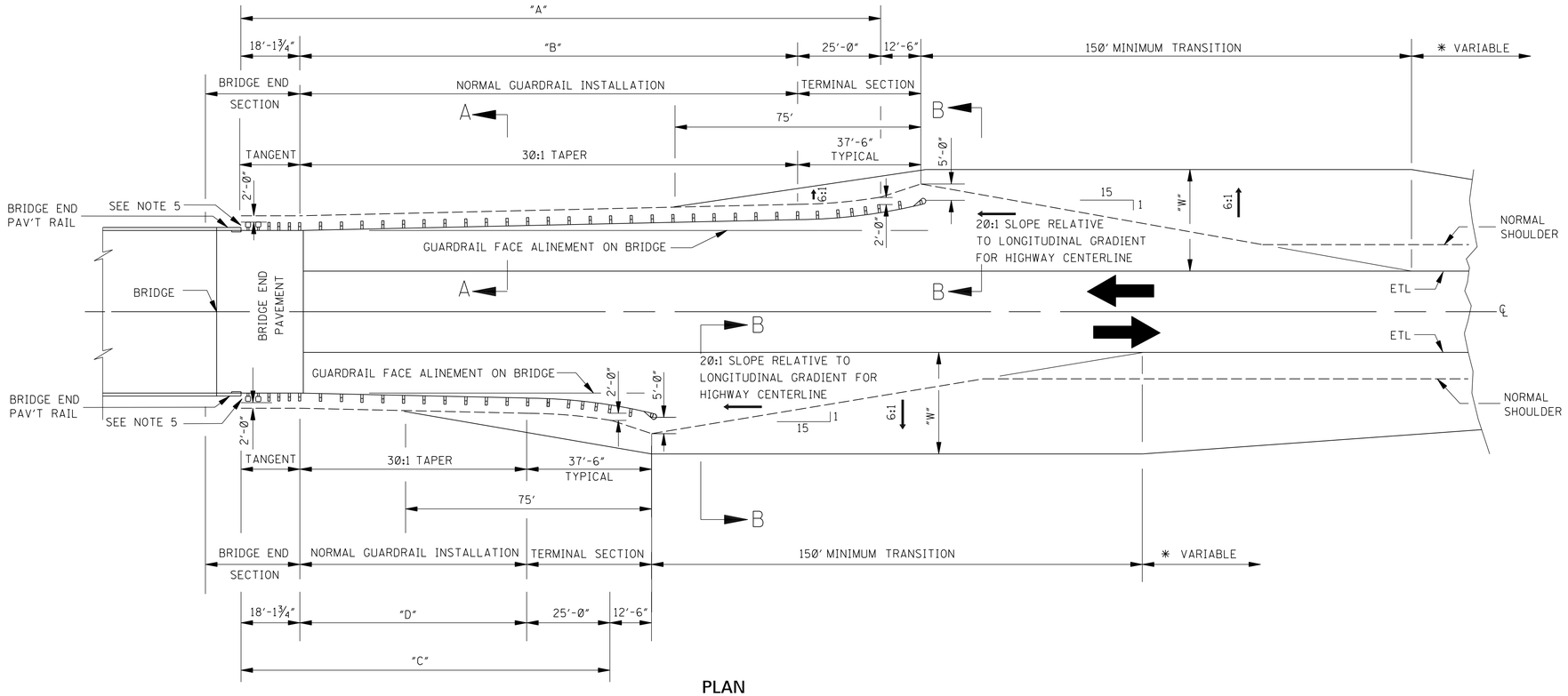
MDOT MISSISSIPPI DEPARTMENT OF TRANSPORTATION

WORKING NUMBER GR-2G

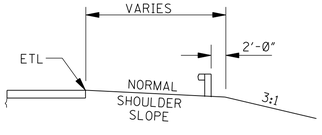
ISSUE DATE: AUGUST 01, 2017

SHEET NUMBER 6211

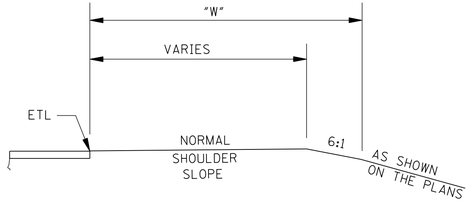
STATE	PROJECT NO.
MISS.	



PLAN

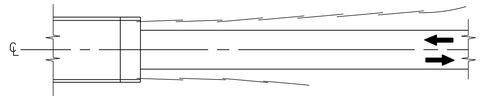


SECTION A–A



SECTION B–B

* 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:

1. VALUES FOR "A", "B", "C" AND "D" WILL BE SHOWN ELSEWHERE ON THE PLANS.
2. FOR DETAILS PERTINENT TO INSTALLATION OF THE TERMINAL SECTION, SEE MANUFACTURER'S SPECIFICATIONS AND DRAWINGS OR ELSEWHERE ON PLANS
3. GUARDRAIL SECTIONS SHALL BE LAPPED IN THE DIRECTION OF TRAFFIC APPROACHING THE BRIDGE.
4. THE OVERALL LENGTH OF GUARDRAIL IS MEASURED FROM THE CONNECTING END ON THE BRIDGE.
5. 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-2G). 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).
6. TYPE, DETAILS AND LIMITS OF GUARDRAIL BRIDGE END SECTION WILL BE SHOWN ELSEWHERE ON THE PLANS.
7. W = SHOULDER WIDTH + FORESLOPE WIDTH. DIMENSIONS FOUND ELSEWHERE ON THE PLANS.

DATE	REVISION	BY

MISSISSIPPI DEPARTMENT OF TRANSPORTATION
ROADWAY DESIGN DIVISION
STANDARD PLAN

GUARDRAIL: TYPICAL INSTALLATION AT BRIDGE APPROACHES FOR 2–LANE, 2–WAY HIGHWAY

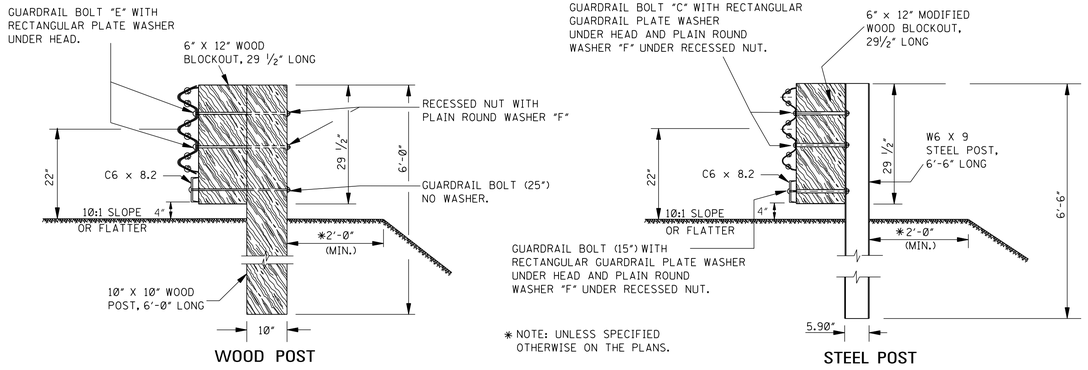
MDOT MISSISSIPPI DEPARTMENT OF TRANSPORTATION

WORKING NUMBER GR-4A

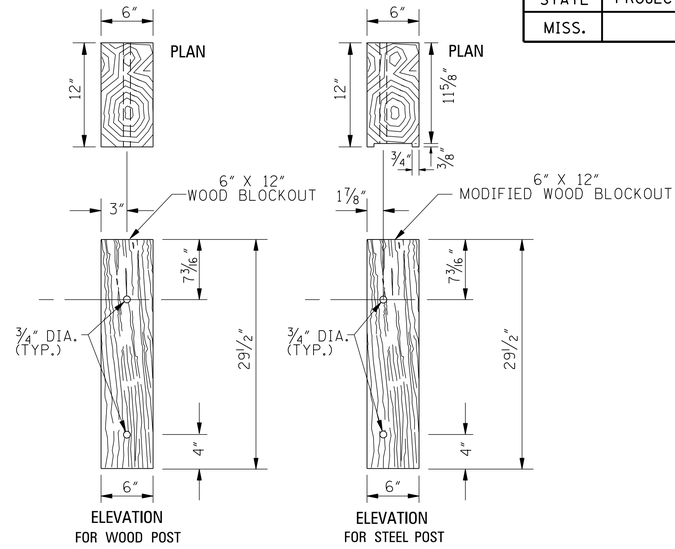
ISSUE DATE: AUGUST 01, 2017

SHEET NUMBER 6215

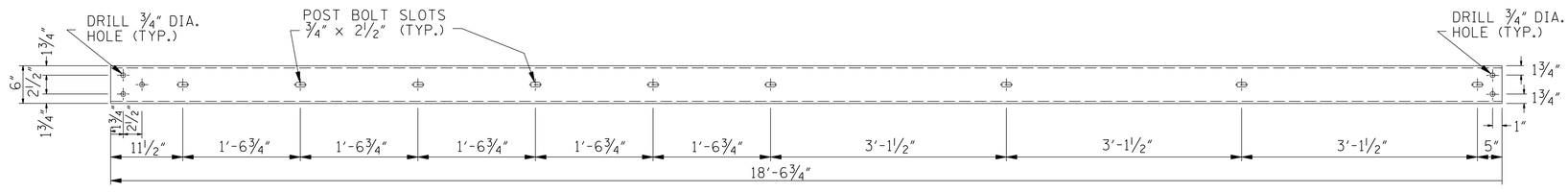
STATE	PROJECT NO.
MISS.	



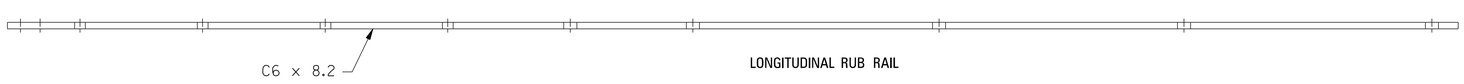
PROFILE VIEW OF POSTS



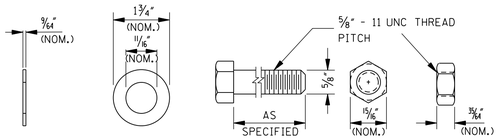
BLOCKOUT FOR POST 9 OF TYPE "I" BRIDGE END SECTION



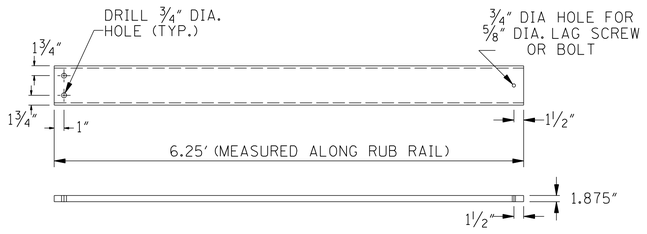
CROSS–SECTION VIEW OF C6 x 8.2



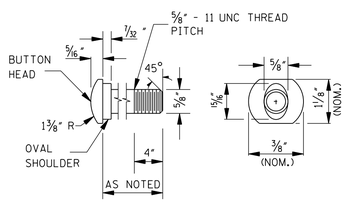
LONGITUDINAL RUB RAIL



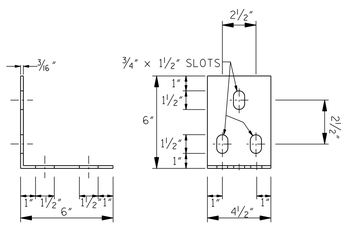
PLAIN ROUND WASHER "F" HEX NUT AND BOLT "F"



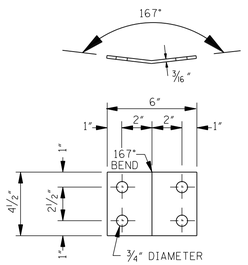
DIAGONAL RUB RAIL



25" OR 15" GUARDRAIL BOLT



"L" BRACKET



RUB RAIL CONNECTOR BRACKET

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" BUTTONHEAD BOLT FOR STEEL POST AND 20" BOLT FOR WOOD POST. (SEE PROFILE VIEW FOR LENGTHS)
3. RUBRAIL & LONG BLOCKOUT (POST 9) ARE NOT REQUIRED IN CURB & GUTTER SECTIONS OF ROADWAY.
4. ATTACH RUBRAIL CONNECTOR PLATE AND RUBRAIL WITH 5/8" X 1½" HEX HEAD BOLTS "F"

BY	REVISION	DATE

MISSISSIPPI DEPARTMENT OF TRANSPORTATION
ROADWAY DESIGN DIVISION
STANDARD PLAN

GUARDRAIL: RUB RAIL HARDWARE

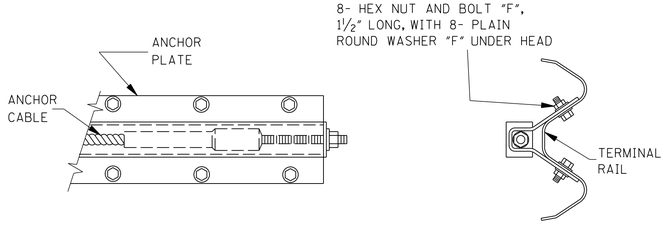
MDOT

WORKING NUMBER
GR-RR

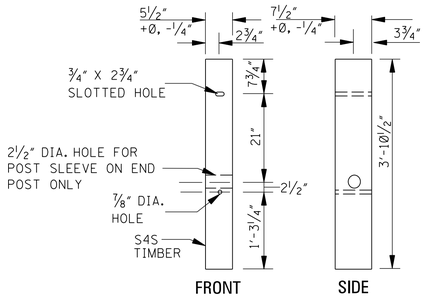
ISSUE DATE: AUGUST 01, 2017

SHEET NUMBER
6218

STATE	PROJECT NO.
MISS.	

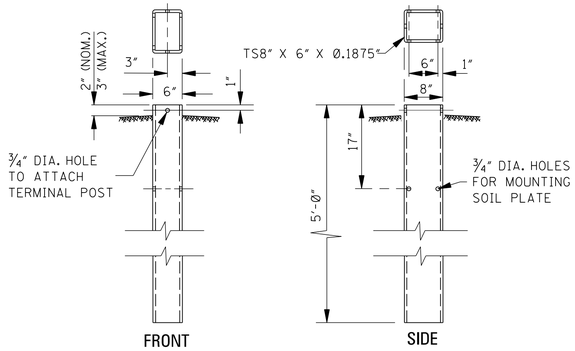


ANCHOR PLATE ASSEMBLY DETAILS



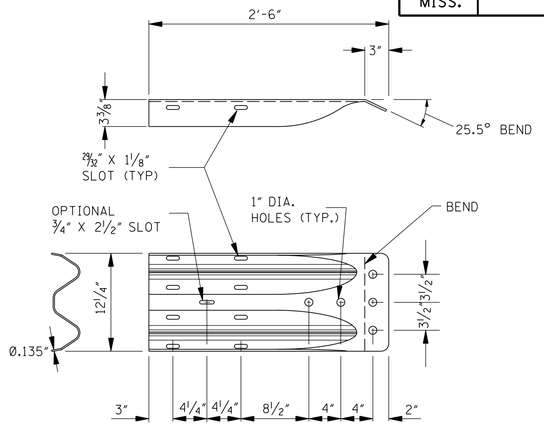
TERMINAL POST FOR FOUNDATION TUBE INSTALLATION

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



STEEL TUBE ANCHOR

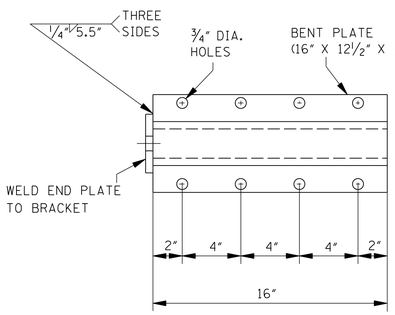
NOTE: TERMINAL POST SHALL BE ABLE TO SLIDE INTO THE TOP OF THIS SECTION SO THE ACTUAL INSIDE DIMENSIONS OF THIS GALVANIZED TUBE CANNOT BE LESS THAN 7½" X 5½".



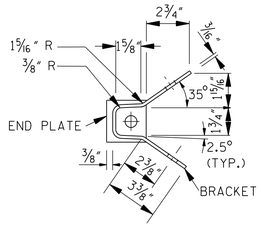
"W" BEAM TERMINAL CONNECTOR PLATE

NOTES:

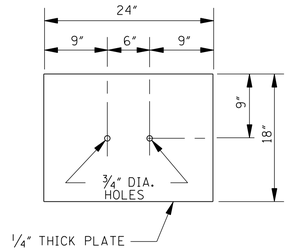
1. THE "W" BEAM TERMINAL CONNECTOR SHALL BE AASHTO M 180 CORRUGATED SHEET STEEL, CLASS B, TYPE 1.
2. SPLICE-BOLT SLOTS MAY ALSO BE ORIENTED AT 50° (ON THE FLAT) INSTEAD OF Ø° AS SHOWN.



ANCHOR PLATE

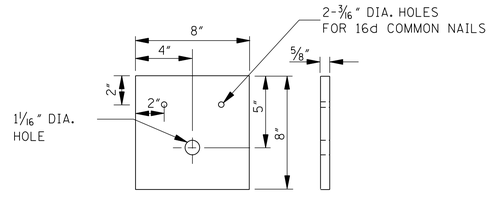


BRACKET

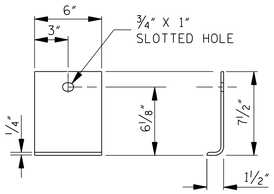


SOIL PLATE

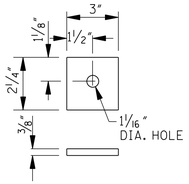
NOTE: 2 REQUIRED



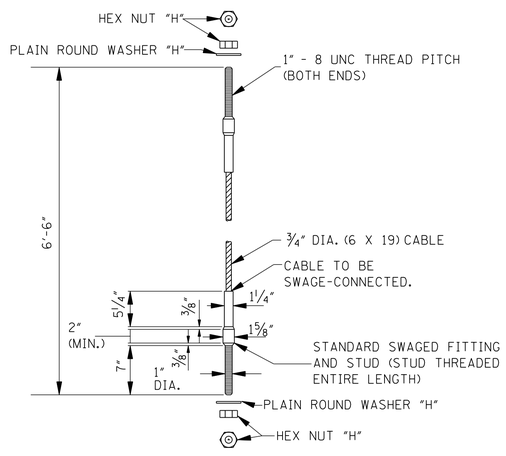
BEARING PLATE



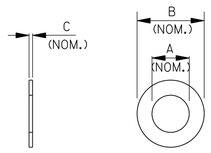
SHELF ANGLE BRACKET



END PLATE

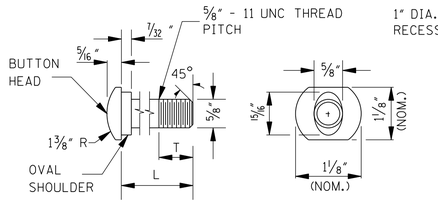


CABLE ANCHOR ASSEMBLY

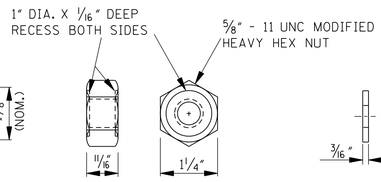


PLAIN ROUND WASHER

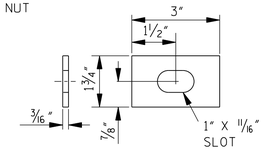
PLAIN ROUND WASHERS			
WASHER	A (NOM.)	B (NOM.)	C (NOM.)
"F"	11/16"	1¾"	9/64"
"H"	1 1/16"	2"	9/64"



GUARDRAIL BOLT



RECESSED NUT

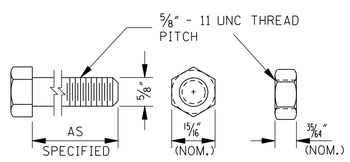


RECTANGULAR GUARDRAIL PLATE WASHER

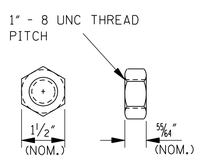
GUARDRAIL BOLTS		
BOLT	L	T (MIN.)
"A"	1¼"	1"
"B"	12"	4"
"C"	14"	4"
"D"	22"	4"
"E"	24"	4"
"F"	33"	4"
	2"	1¾"
	10"	4"
	25"	4"

NOTES:

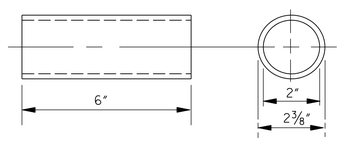
1. ALL GUARDRAIL BOLTS ARE ⅝" - 11 UNC THREAD PITCH.
2. IF ANY BOLT EXTENDS MORE THAN ¼" FROM THE NUT, THE BOLT SHOULD BE TRIMMED BACK.



HEX NUT AND BOLT "F"



HEX NUT "H"



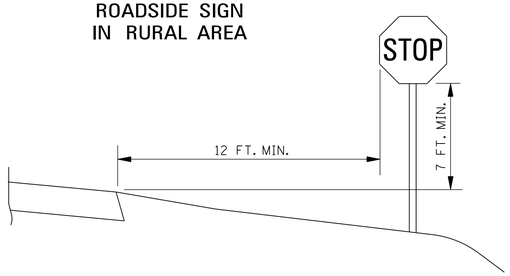
BREAKAWAY TERMINAL POST SLEEVE

FASTENER DETAILS

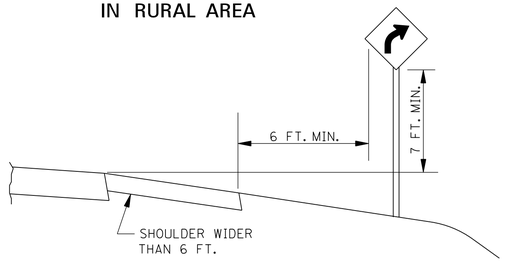
DATE	REVISION	BY	MISSISSIPPI DEPARTMENT OF TRANSPORTATION ROADWAY DESIGN DIVISION STANDARD PLAN	
			GUARDRAIL: MISCELLANEOUS HARDWARE	
ISSUE DATE: AUGUST Ø1, 2017				WORKING NUMBER GR-HW SHEET NUMBER 6221

STATE	PROJECT NO.
MISS.	

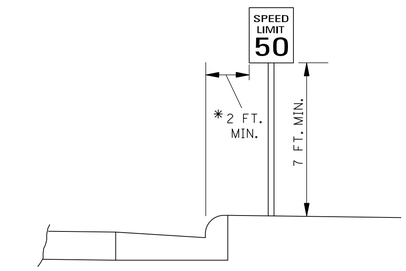
ROADSIDE SIGN IN RURAL AREA



ROADSIDE SIGN IN RURAL AREA

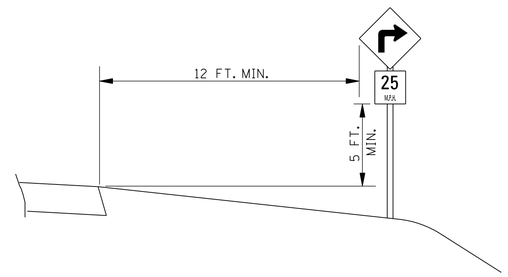


ROADSIDE SIGN IN BUSINESS, COMMERCIAL, OR RESIDENTIAL AREA

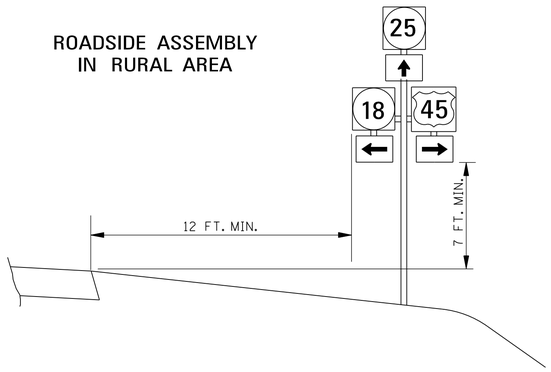


* THE 2 FT. MINIMUM OFFSET APPLIES ONLY TO STANDARD SIGNS MOUNTED ON U-POSTS. ALL STANDARD SIGNS MOUNTED ON PIPE WILL BE OFFSET A MINIMUM OF 4 FT.. RAMP DESTINATION SIGNS WILL BE OFFSET 4 FT. FROM THE SHOULDERS.

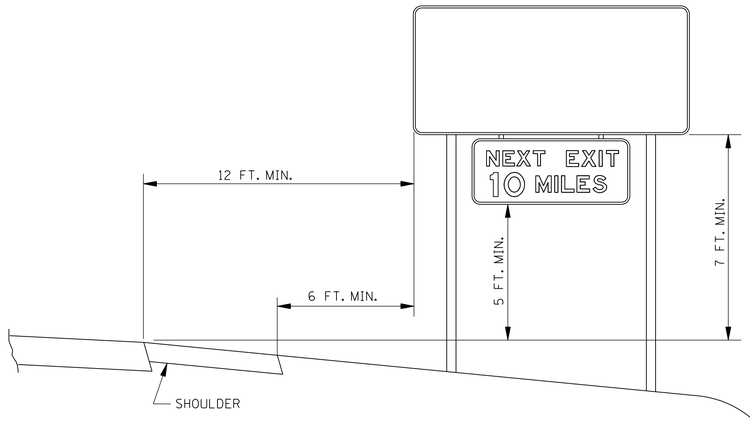
WARNING SIGN WITH ADVISORY SPEED PLAQUE IN RURAL AREA



ROADSIDE ASSEMBLY IN RURAL AREA

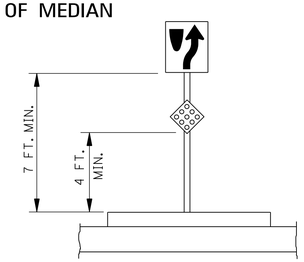


INTERSTATE OR FREEWAY SIGN WITH SECONDARY SIGN

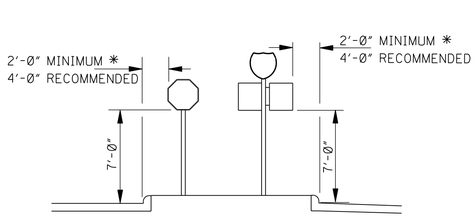


OVERHEAD SIGN

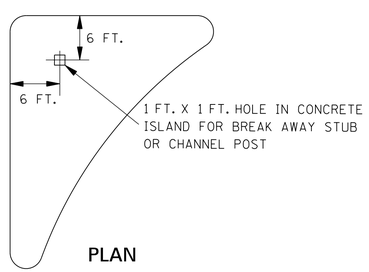
SIGN ON NOSE OF MEDIAN



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



ELEVATION



PLAN

* 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.

GENERAL NOTES:

1. 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.
2. SIGNS SHALL BE LOCATED OUTSIDE THE CLEAR ZONE UNLESS PLACED ON A BREAKAWAY OR YIELDING SUPPORT.

REVISION	BY	DATE

MISSISSIPPI DEPARTMENT OF TRANSPORTATION
ROADWAY DESIGN DIVISION
STANDARD PLAN

STANDARD ROADSIDE SIGN ASSEMBLY AND INSTALLATION

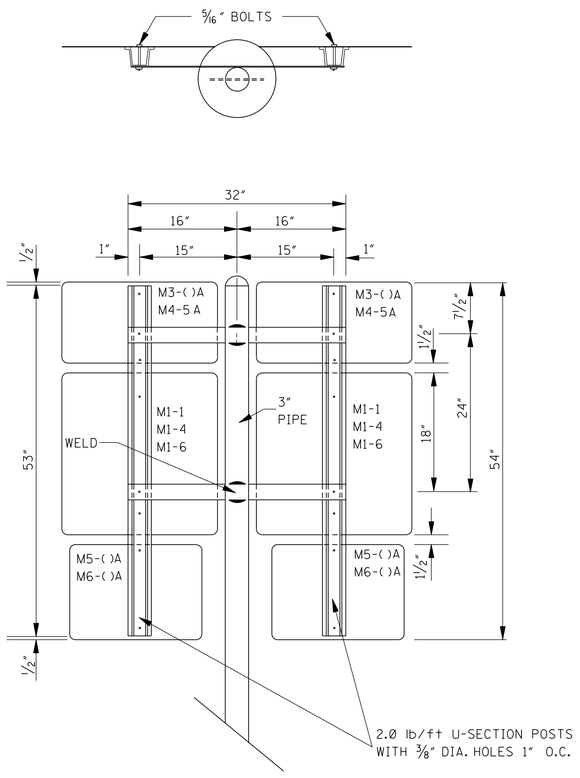
MDOT MISSISSIPPI DEPARTMENT OF TRANSPORTATION

WORKING NUMBER SN-4

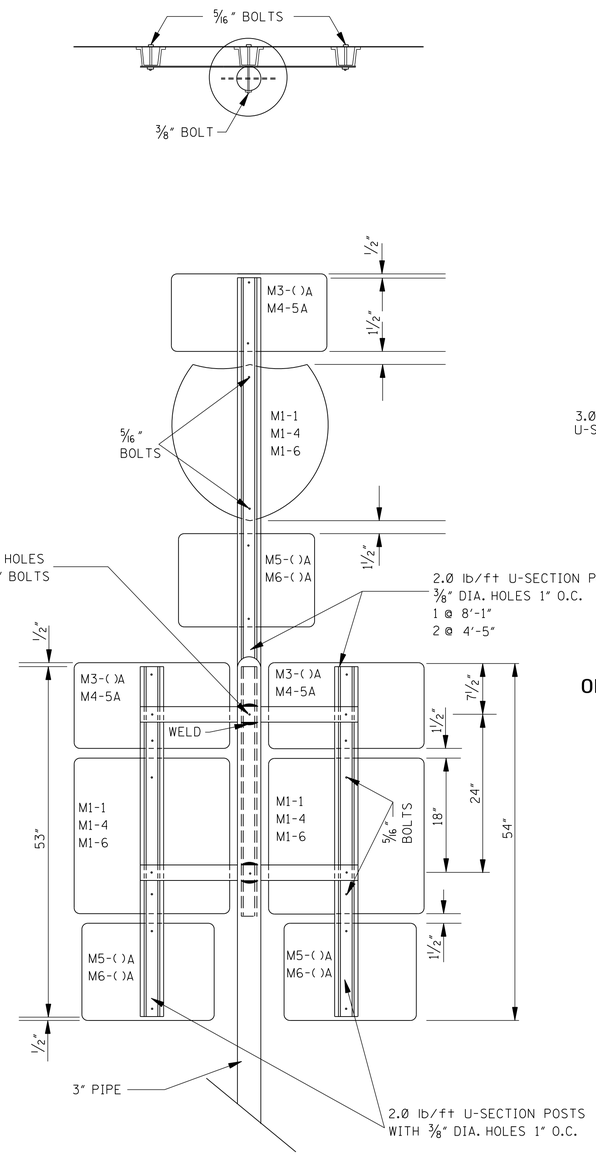
ISSUE DATE: AUGUST 01, 2017

SHEET NUMBER 6306

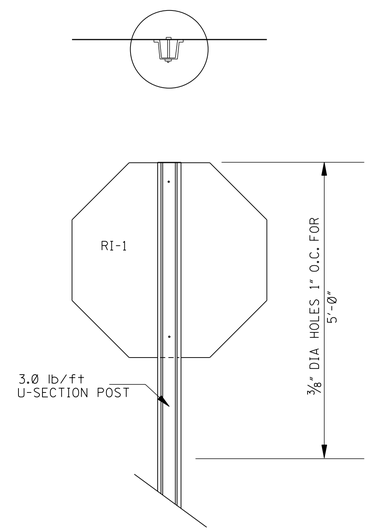
STATE	PROJECT NO.
MISS.	

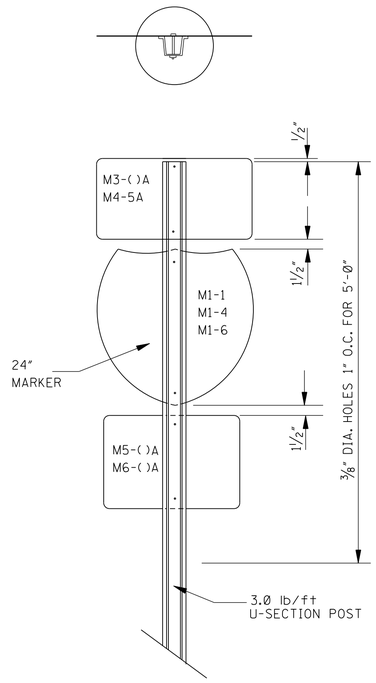


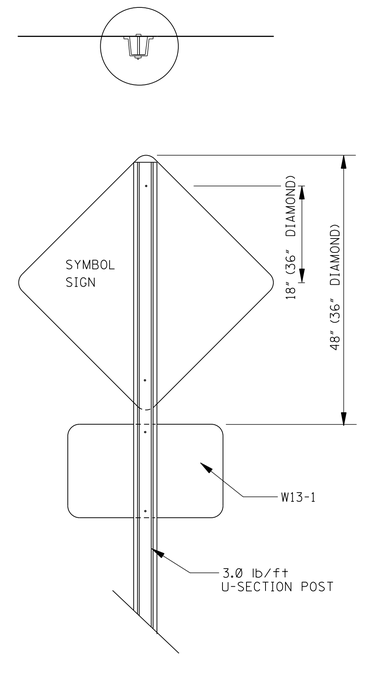
TYPICAL ROUTE ASSEMBLY

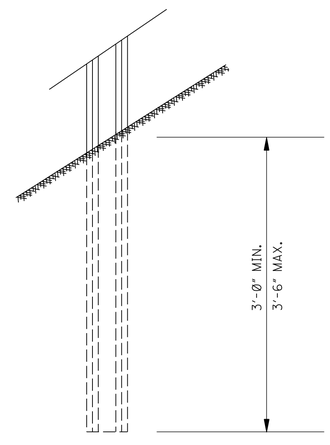


TYPICAL STACKED ROUTE ASSEMBLY









FOOTING DETAIL FOR
U–SECTION POSTS

GENERAL NOTES:

1. 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.
2. HOLES IN FLAT BARS ARE 3/8" DIAMETER.
3. SIGNS ARE FASTENED TO FLAT BARS AND U-SECTION POST WITH 5/16" BOLTS, WITH FLAT WASHER AND LOCK-NUTS.
4. GROUND PLATE NOT REQUIRED ON U-SECTION POST.
5. SEE WK. NO. SN-4B FOR DETAIL OF 3" PIPE FOOTING DETAIL.

BY	REVISION	DATE

MISSISSIPPI DEPARTMENT OF TRANSPORTATION
ROADWAY DESIGN DIVISION
STANDARD PLAN

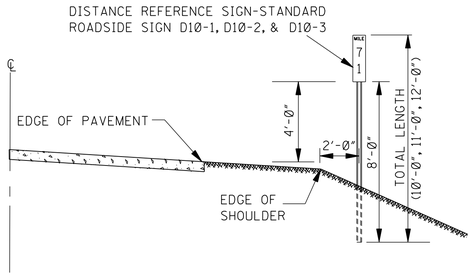
STANDARD ROADSIDE SIGN ASSEMBLY AND INSTALLATION

ISSUE DATE: AUGUST 01, 2017

WORKING NUMBER
SN-4A

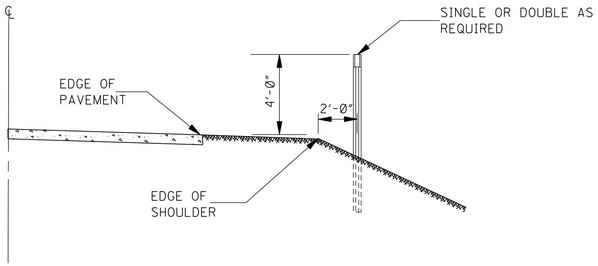
SHEET NUMBER
6307

STATE	PROJECT NO.
MISS.	

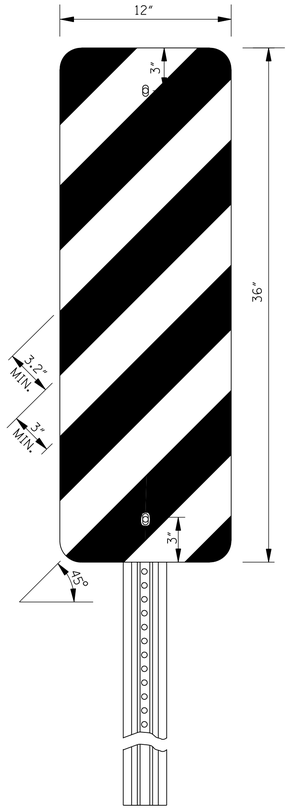


DISTANCE REFERENCE SIGN MOUNTING ON OUTSIDE SHOULDER ALONG MAIN FACILITY

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.

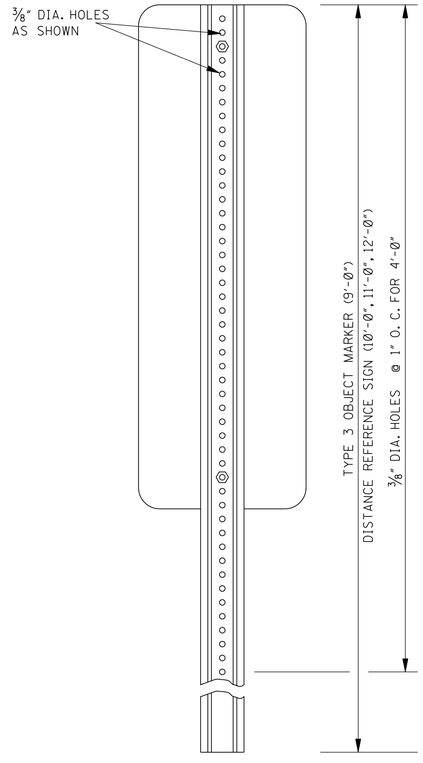


DELINEATOR MOUNTING ON OUTSIDE SHOULDER ALONG MAIN FACILITY OR RAMP



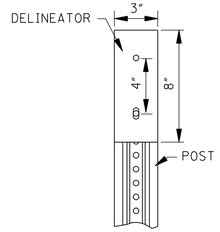
DETAIL OF TYPE 3 OBJECT MARKER

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.

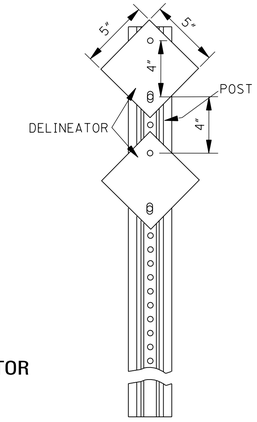


REAR VIEW OF TYPE 3 OBJECT MARKER OR DISTANCE REFERENCE SIGN ASSEMBLY

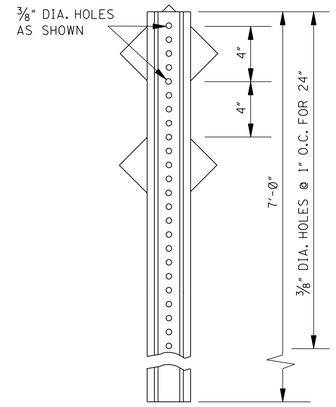
NOTE: TYPE 3 OBJECT MARKER AND DISTANCE REFERENCE SIGNS SHALL BE FASTENED TO U-SECTION POSTS WITH 5/16" DIA. BLIND FASTENERS OF THE COLLAR TYPE.



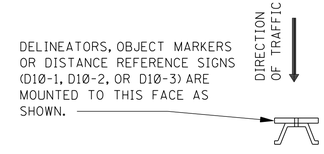
DETAIL OF SINGLE WHITE OR SINGLE YELLOW DELINEATOR



DETAIL OF DOUBLE WHITE OR DOUBLE YELLOW DELINEATOR

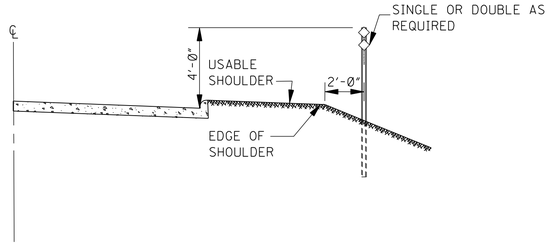


REAR VIEW OF DELINEATOR ASSEMBLY

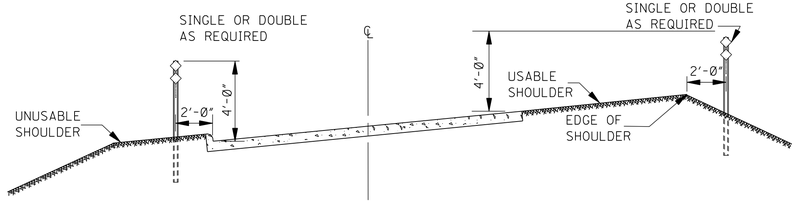


MOUNTING DETAIL

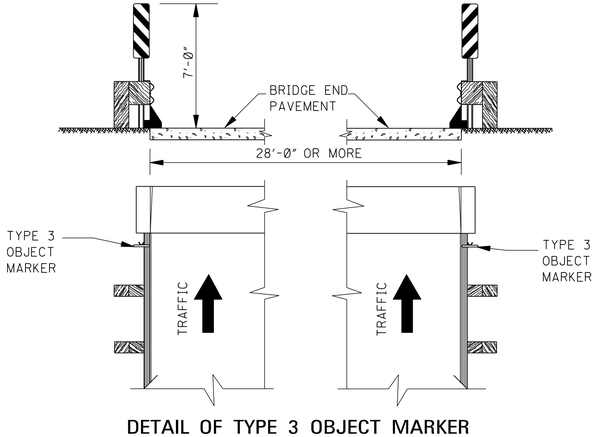
NOTE: DELINEATORS SHALL BE FASTENED TO U-SECTION POSTS WITH 1/4" DIA. BLIND FASTENERS OF THE COLLAR TYPE.



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 INSTALLATION

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 13/16 FOR HOT ROLLED SECTION.
6. GROUND PLATE NOT REQUIRED ON U-SECTION POST.

BY	REVISION	DATE

MISSISSIPPI DEPARTMENT OF TRANSPORTATION
ROADWAY DESIGN DIVISION
STANDARD PLAN

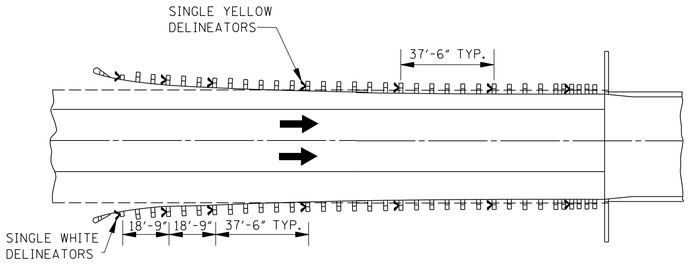
TYPICAL INSTALLATION AND DETAILS OF DELINEATORS AND DISTANCE REFERENCE SIGNS

ISSUE DATE: AUGUST 01, 2017

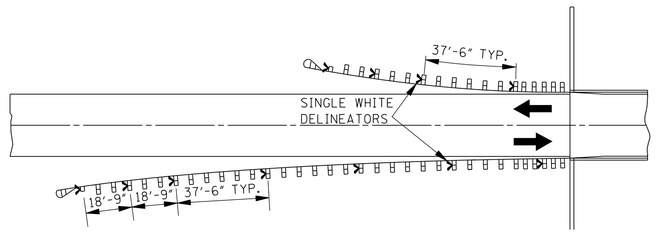
WORKING NUMBER
SN-8

SHEET NUMBER
6314

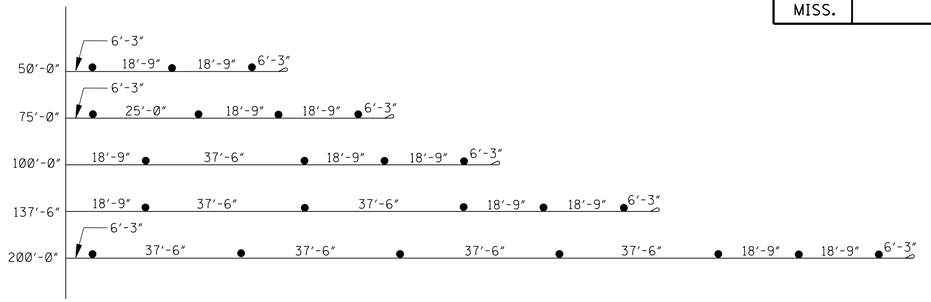
STATE	PROJECT NO.
MISS.	



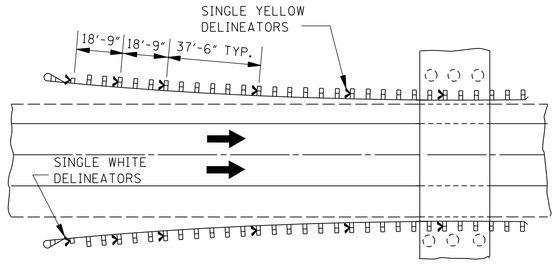
BRIDGE APPROACH INSTALLATION
(ONE–WAY TRAFFIC)



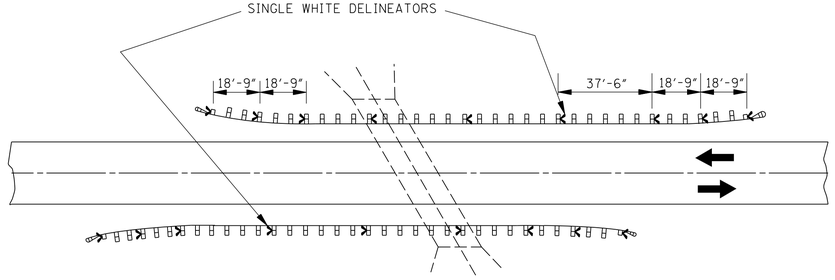
BRIDGE APPROACH INSTALLATION
(TWO–WAY TRAFFIC)



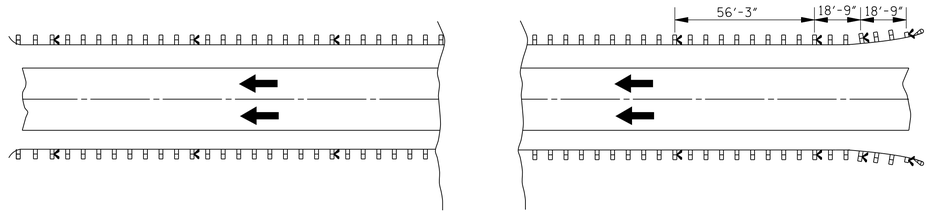
GRAPHIC SHOWING SPACINGS OF GUARDRAIL DELINEATORS
AT SOME COMMONLY USED BRIDGE APPROACHES



ROADSIDE OBSTACLE INSTALLATION–LENGTH 250' OR LESS
(ONE–WAY TRAFFIC)

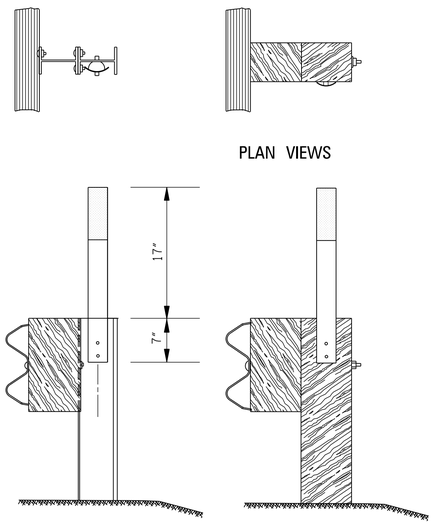


ROADSIDE OBSTACLE INSTALLATION–LENGTH 250' OR LESS
(TWO–WAY TRAFFIC)



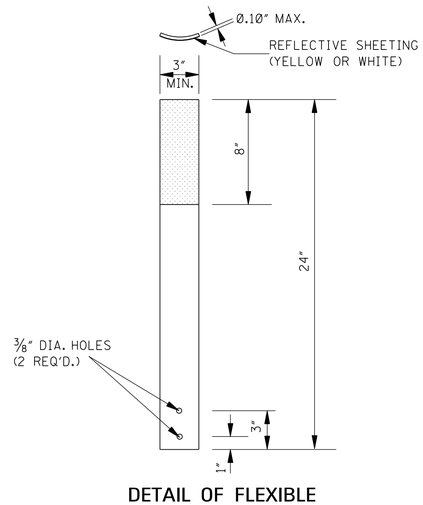
EMBANKMENT OR ROADSIDE OBSTACLE INSTALLATION–LENGTH GREATER THAN 250'
(ONE–WAY TRAFFIC)

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.



PLAN VIEWS

TYPICAL FLEXIBLE POST DELINEATOR
GUARDRAIL INSTALLATION



DETAIL OF FLEXIBLE
GUARDRAIL DELINEATOR

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	REVISION	DATE

MISSISSIPPI DEPARTMENT OF TRANSPORTATION
ROADWAY DESIGN DIVISION
STANDARD PLAN

TYPICAL GUARDRAIL DELINEATION

MDOT

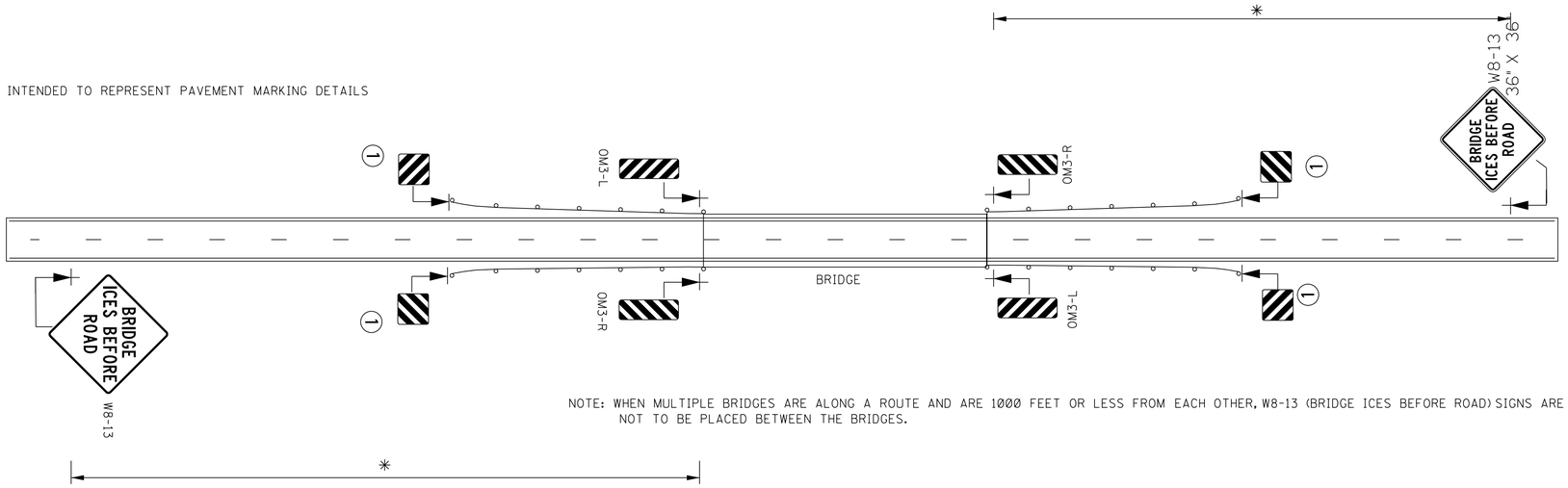
WORKING NUMBER
SN-8C

SHEET NUMBER
6317

ISSUE DATE: AUGUST 01, 2017

STATE	PROJECT NO.
MISS.	

DRAWING NOT INTENDED TO REPRESENT PAVEMENT MARKING DETAILS

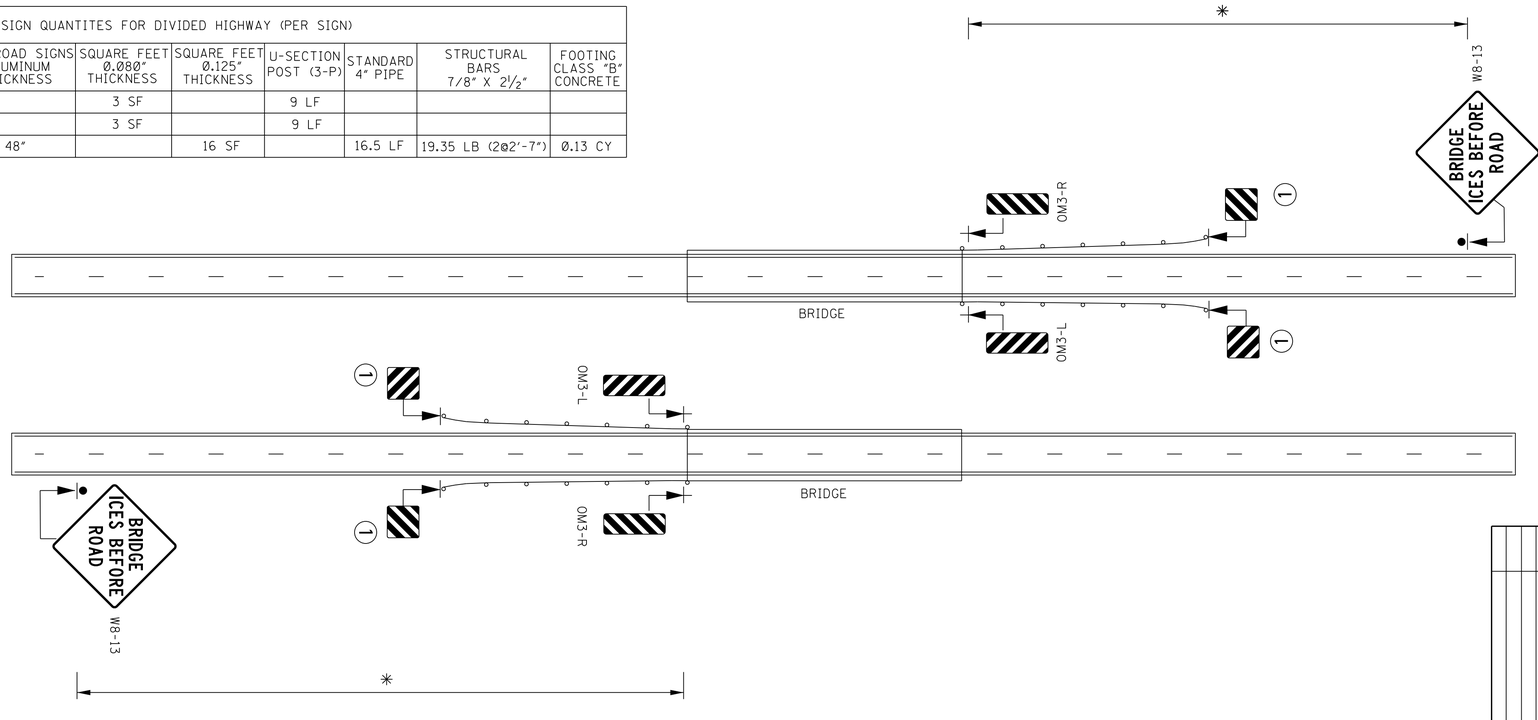


NOTE: WHEN MULTIPLE BRIDGES ARE ALONG A ROUTE AND ARE 1000 FEET OR LESS FROM EACH OTHER, W8-13 (BRIDGE ICES BEFORE ROAD) SIGNS ARE NOT TO BE PLACED BETWEEN THE BRIDGES.

UNDIVIDED HIGHWAY DETAIL

SIGN QUANTITES 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

SIGN QUANTITES 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 2½"	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



DIVIDED HIGHWAY DETAIL

(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.

* 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

BY	REVISION	DATE

MISSISSIPPI DEPARTMENT OF TRANSPORTATION
ROADWAY DESIGN DIVISION
STANDARD PLAN

SIGNING DETAILS FOR BRIDGE APPROACHES

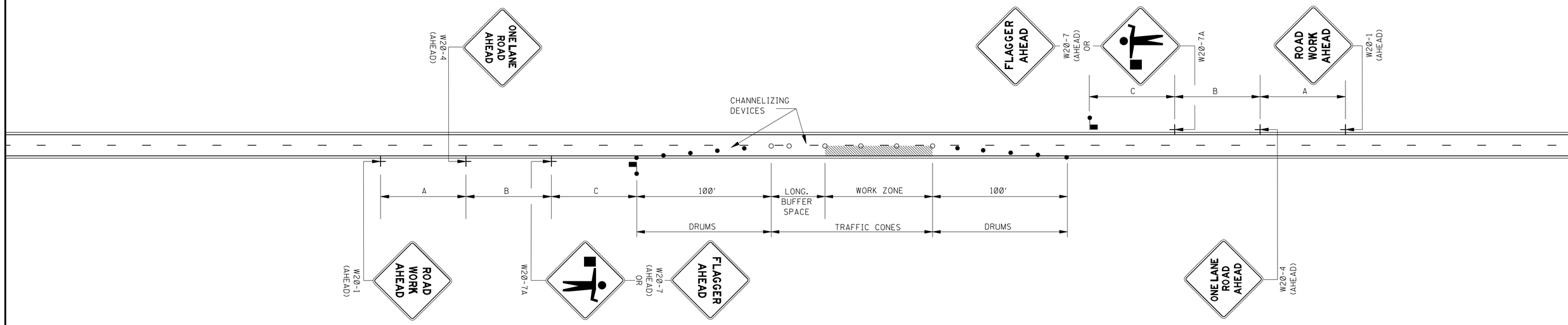
MDOT MISSISSIPPI DEPARTMENT OF TRANSPORTATION

WORKING NUMBER SN-9

ISSUE DATE: AUGUST 01, 2017

SHEET NUMBER 6318

STATE	PROJECT NO.
MISS.	



LEGEND

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

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	MAXIMUM CHANNELIZING DEVICE SPACING (ft)		† LONGITUDINAL BUFFER SPACE (ft)	STOPPING SIGHT DISTANCE
mph	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.

2. ALL CHANNELIZING DEVICES SHALL BE A MINIMUM OF 28" IN HEIGHT.
3. DIAMOND SHAPED TRAFFIC CONTROL SIGNS SHALL BE A MINIMUM OF 36" x 36" AND BLACK COPY ON FLUORESCENT ORANGE SHEETING.
4. 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.
5. ADDITIONAL FLAGGERS MAY BE NEEDED AS DIRECTED BY THE ENGINEER.
6. WHEN WORK IS REQUIRED AT NIGHT, FLAGGER STATIONS SHALL BE ILLUMINATED.
7. CHANNELIZING DEVICE TYPES FOR:
   A. APPROACH AND EXIT TAPERS- RETROREFLECTIVE PLASTIC DRUMS
   B. ALONG LANE LINE AND WORK ZONE- TRAFFIC CONES (28" HEIGHT)
8. 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.

DISTANCE BETWEEN SIGNS			
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	REVISION	DATE

MISSISSIPPI DEPARTMENT OF TRANSPORTATION
ROADWAY DESIGN DIVISION
STANDARD PLAN

TRAFFIC CONTROL PLAN WITH FLAGGER
(ONE-LANE CLOSURE OF TWO-WAY TRAFFIC)

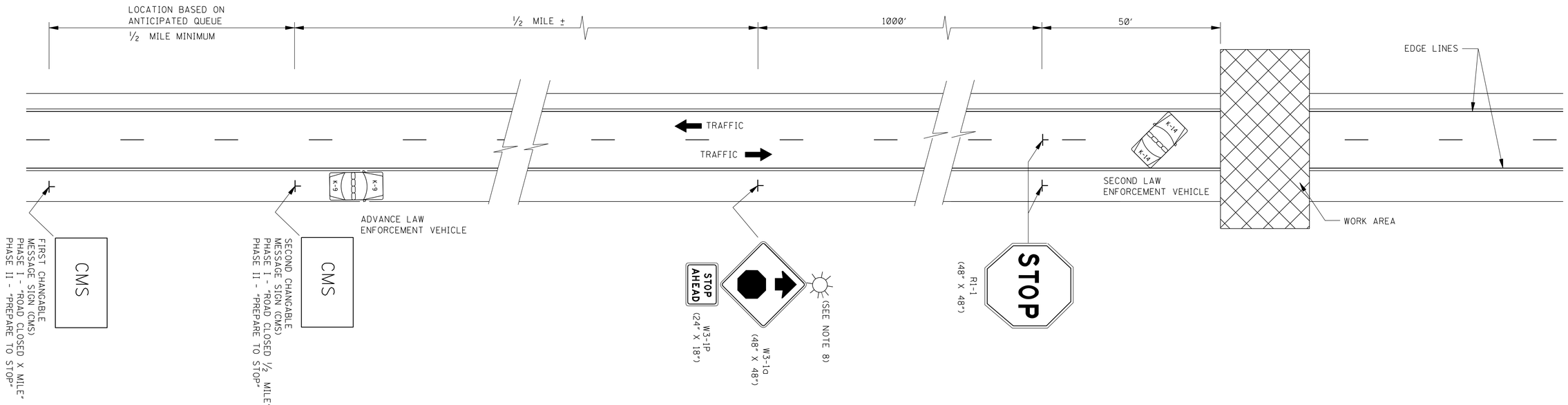
MDOT MISSISSIPPI DEPARTMENT OF TRANSPORTATION

WORKING NUMBER TCP-1

SHEET NUMBER 6351

ISSUE DATE: AUGUST 01, 2017

STATE	PROJECT NO.
MISS.	



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 IMMENENT.
   - 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.

DATE	REVISION	BY

MISSISSIPPI DEPARTMENT OF TRANSPORTATION
ROADWAY DESIGN DIVISION
STANDARD PLAN

SHORT DURATION CLOSING OF TWO-LANE TWO-WAY HIGHWAYS

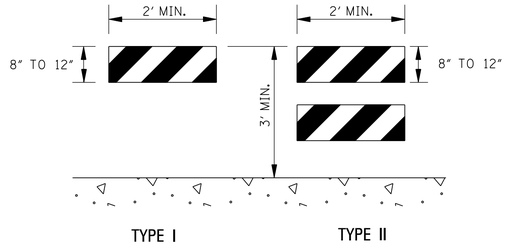
MDOT MISSISSIPPI DEPARTMENT OF TRANSPORTATION

WORKING NUMBER
TCP-6

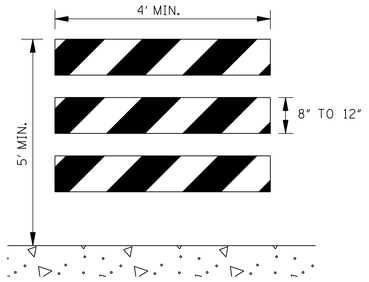
ISSUE DATE: AUGUST 01, 2017

SHEET NUMBER
6356

STATE	PROJECT NO.
MISS.	



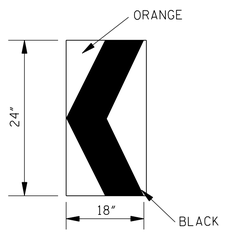
TYPE I TYPE II



TYPE III

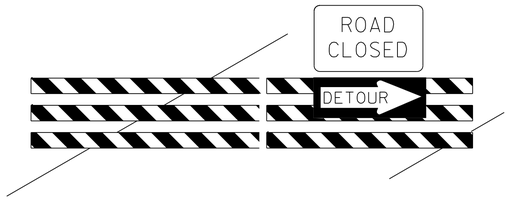
STANDARD BARRICADES

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 CATAGORY 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.



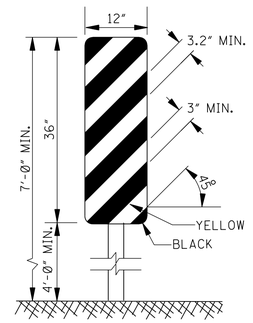
BARRICADE CLOSING A ROAD

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

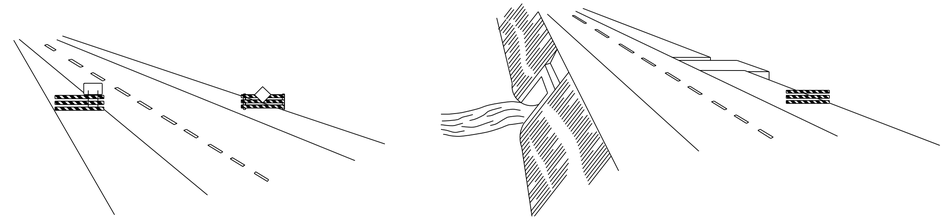
* 1. FOR RAILS LESS THAN 36" LONG, 4" WIDE STRIPES MAY BE USED.

** 2. BARRICADES INTENDED FOR USE ON EXPRESSWAYS, FREEWAYS AND OTHER HIGH SPEED ROADWAYS, SHALL HAVE A MINIMUM OF 270 in^2 OF REFLECTIVE AREA FACING TRAFFIC.



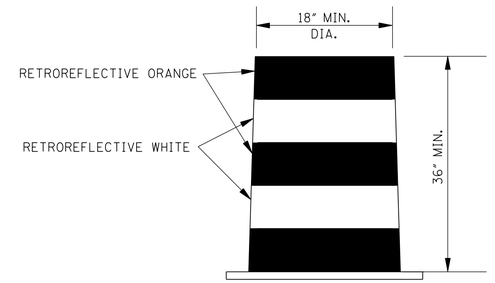
TYPE 3 OBJECT MARKER (OM-3R)

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	REVISION	DATE

MISSISSIPPI DEPARTMENT OF TRANSPORTATION
ROADWAY DESIGN DIVISION
STANDARD PLAN

HIGHWAY SIGN AND BARRICADE DETAILS FOR CONSTRUCTION PROJECTS

ISSUE DATE: AUGUST 01, 2017

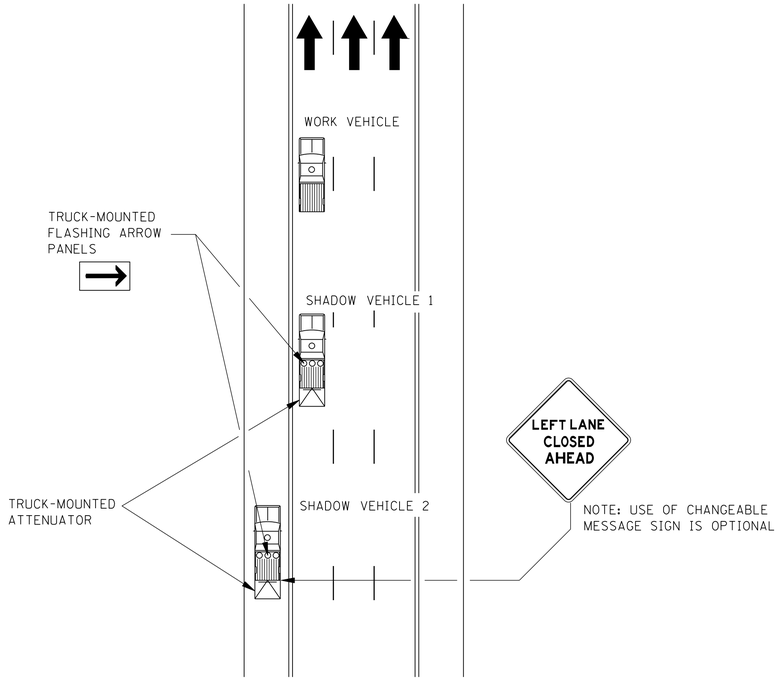
MDOT

WORKING NUMBER
TCP-8

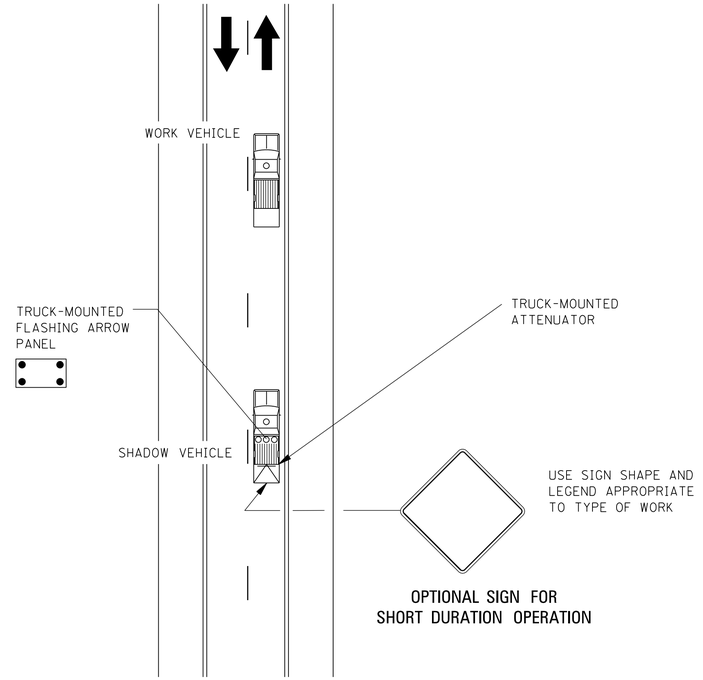
SHEET NUMBER
6358

STATE	PROJECT NO.
MISS.	

MOBILE OPERATIONS ON MULTILANE ROAD



MOBILE OPERATIONS ON TWO–LANE ROAD



MOBILE OPERATIONS ON MULTILANE ROAD

NOTES FOR MULTILANE LANE OPERATION:

1. VEHICLES USED FOR THESE OPERATIONS SHOULD BE MADE HIGHLY VISIBLE WITH APPROPRIATE EQUIPMENT, SUCH AS FLASHING LIGHTS, ROTATING BEACONS, FLAGS, SIGNS, OR ARROW PANELS.
2. 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.
3. SHADOW VEHICLE 1 SHOULD BE EQUIPPED WITH AN ARROW PANEL AND TRUCK-MOUNTED ATTENUATOR (TMA).
4. 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.
5. WHEN ADEQUATE SHOULDER WIDTH IS NOT AVAILABLE, SHADOW VEHICLE 2 SHOULD BE ELIMINATED.
6. 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).
7. ARROW PANELS SHALL BE AS A MINIMUM TYPE B, 60" X 30" IN ACCORDANCE WITH THE CRITERIA PRESENTED IN THE MUTCD.
8. WORK SHOULD NORMALLY BE DONE DURING OFF-PEAK HOURS.
9. 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.
10. 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

NOTES FOR TWO-LANE OPERATION:

1. 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.
2. 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.
3. 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.
4. A TRUCK-MOUNTED ATTENUATOR (TMA) SHOULD BE USED ON THE SHADOW VEHICLE AND MAY BE USED ON THE WORK VEHICLE.
5. 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.
6. 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.
7. ARROW BOARD TO BE USED IN CAUTION MODE.
8. 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.

DATE	REVISION	BY

MISSISSIPPI DEPARTMENT OF TRANSPORTATION
ROADWAY DESIGN DIVISION
STANDARD PLAN

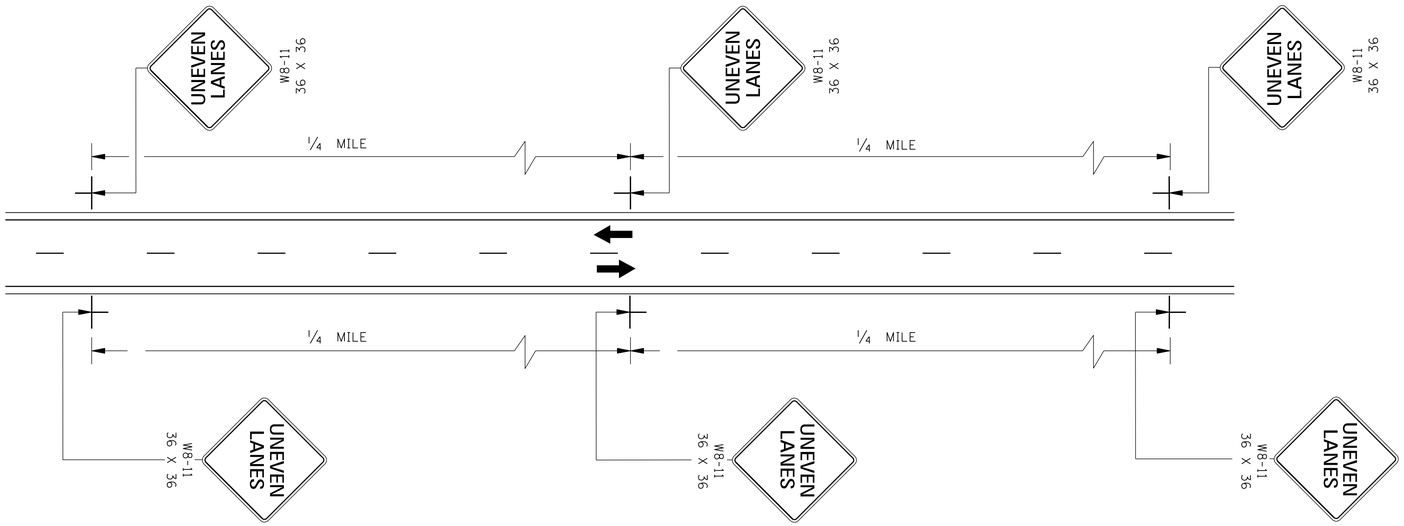
TRAFFIC CONTROL PLAN MOBILE OPERATIONS MULTILANE ROADS AND TWO–LANE ROADS

ISSUE DATE: AUGUST 01, 2017

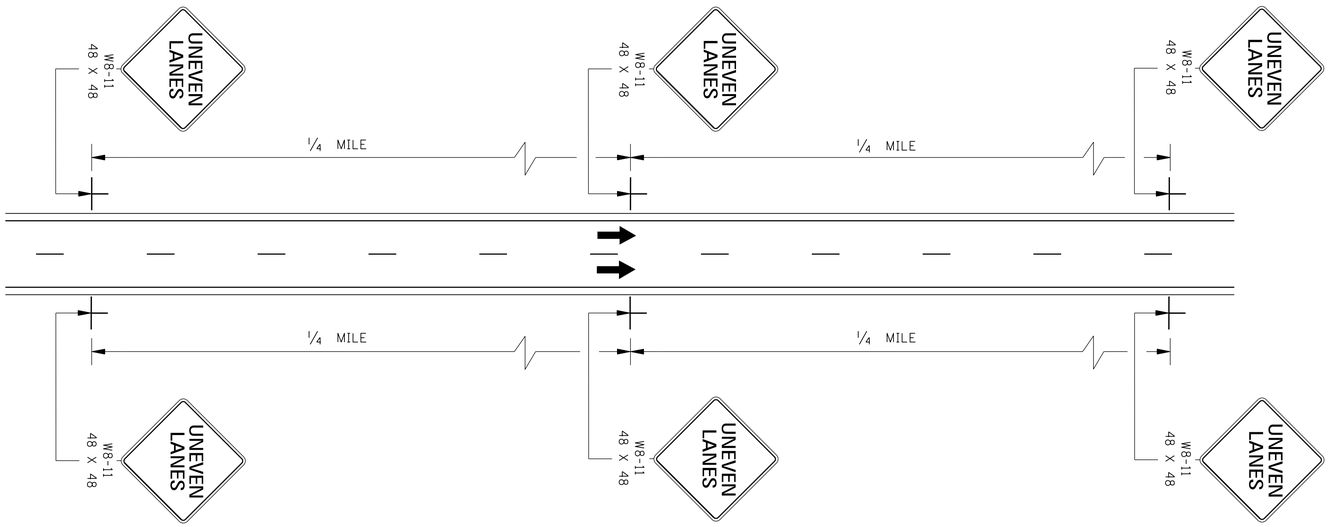
WORKING NUMBER
TCP-9

SHEET NUMBER
6359

STATE	PROJECT NO.
MISS.	



TWO–WAY TRAFFIC



ONE–WAY TRAFFIC

GENERAL NOTES:

1. UNEVEN LANE LINE:
   A. IF LESS THAN OR EQUAL TO 1½", NO SIGNS REQUIRED.
   B. IF GREATER THAN 1½" AND LESS THAN OR EQUAL TO 2¼", PLACE SIGNS AS SHOWN ON THIS SHEET.
   C. IF GREATER THAN 2¼", TRAFFIC SHOULD NOT BE ALLOWED TO CROSS UNEVEN LANE LINE.
2. THE W8-11 SIGNS SHOULD BE SPACED AT ¼-MILE INTERVALS THROUGHOUT UNEVEN LANE LINE LIMITS.
3. ALL TRAFFIC CONTROL ITEMS SHOWN ON THIS SHEET SHALL BE PAID FOR UNDER MAINTENANCE OF TRAFFIC.

DATE	REVISION	BY

MISSISSIPPI DEPARTMENT OF TRANSPORTATION
ROADWAY DESIGN DIVISION
STANDARD PLAN

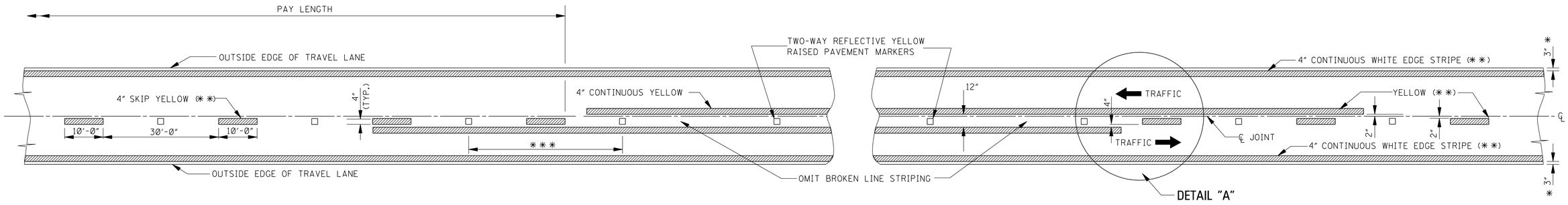
TRAFFIC CONTROL PLANS
UNEVEN PAVEMENT DETAILS

ISSUE DATE: AUGUST 01, 2017

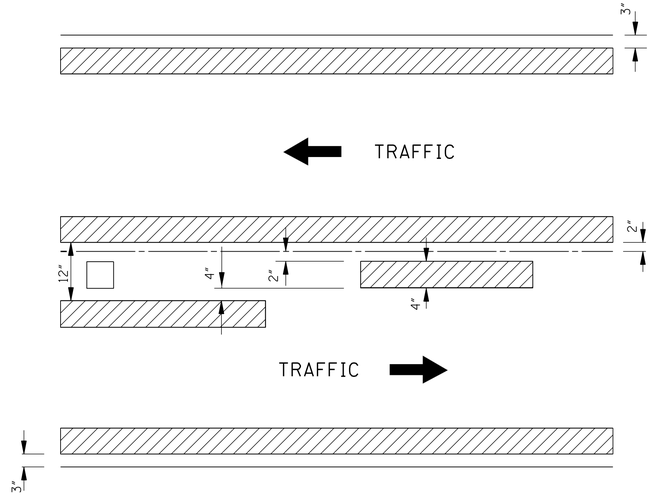
WORKING NUMBER
TCP-12

SHEET NUMBER
6362

STATE	PROJECT NO.
MISS.	



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).

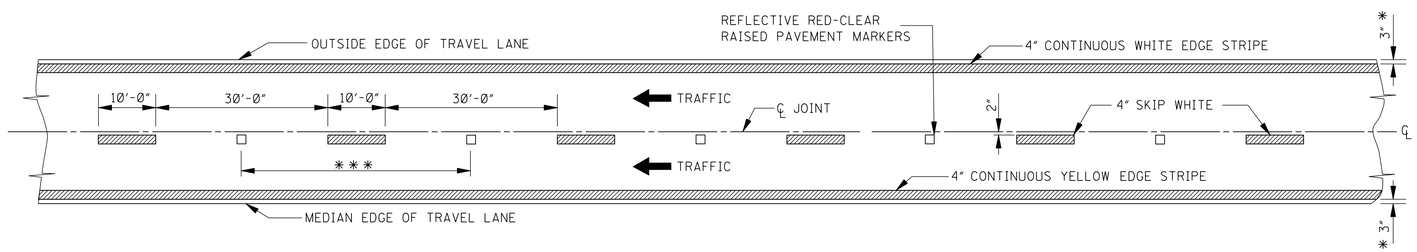
3. REFLECTIVE RAISED PAVEMENT MARKERS TO BE USED IF TEMPORARY MARKINGS ARE TO REMAIN IN PLACE OVER 3 MONTHS

*** 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 MDOT "APPROVED SOURCES OF MATERIALS."



4–LANE WITH ONE–WAY TRAFFIC

BY	REVISION	DATE

MISSISSIPPI DEPARTMENT OF TRANSPORTATION
ROADWAY DESIGN DIVISION
STANDARD PLAN

TEMPORARY STRIPING FOR TRAFFIC CONTROL 2–LANE AND 4–LANE DIVIDED HIGHWAYS

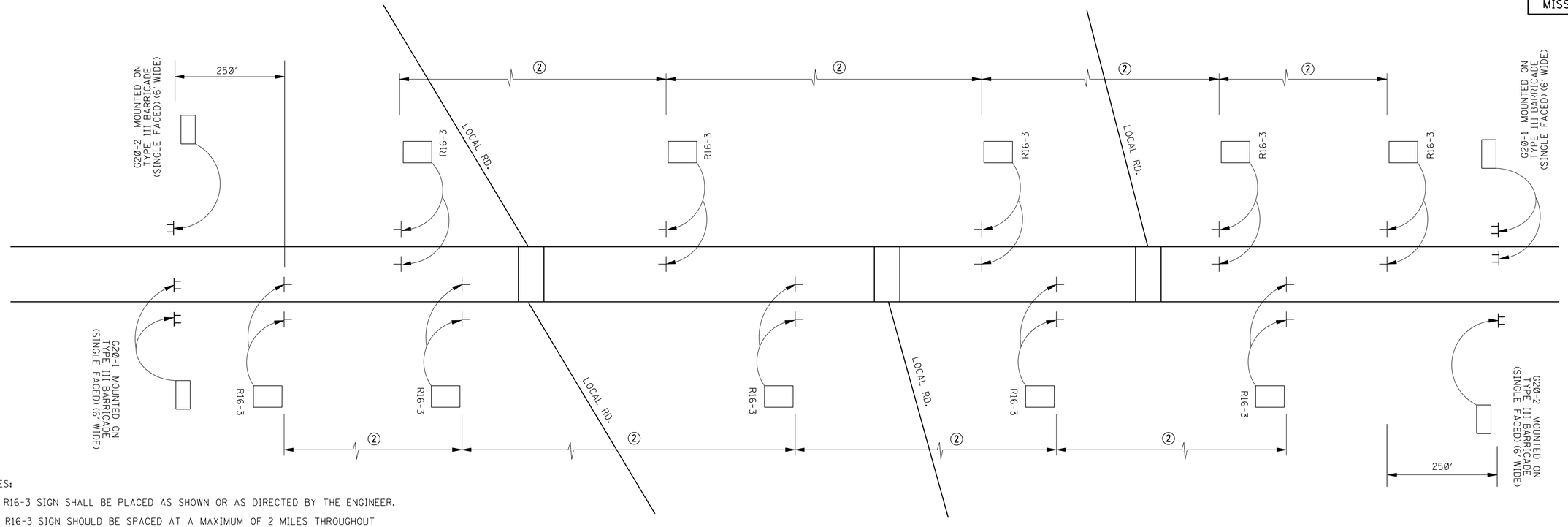
MDOT MISSISSIPPI DEPARTMENT OF TRANSPORTATION

WORKING NUMBER TCP-13

ISSUE DATE: AUGUST 01, 2017

SHEET NUMBER 6363

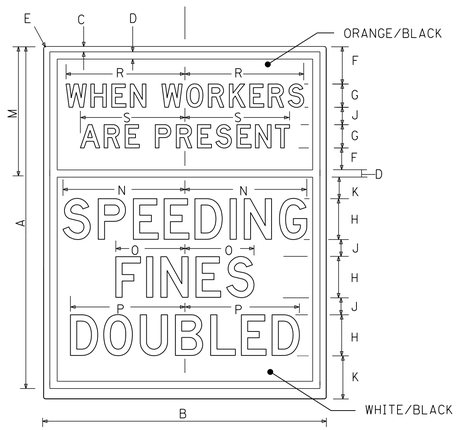
STATE	PROJECT NO.
MISS.	



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)



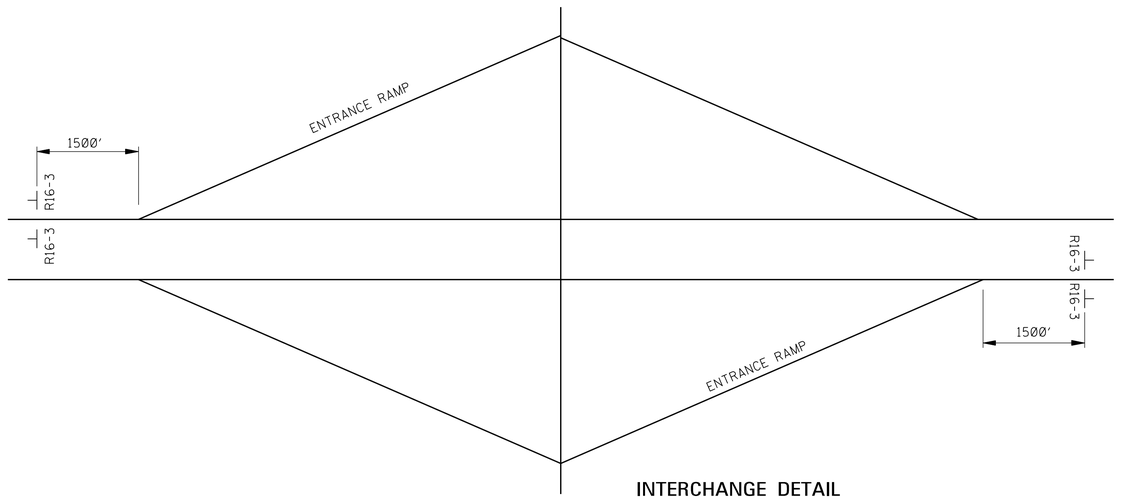
SIGN	DIMENSIONS (INCHES)							
	A	B	C	D	E	F	G	H
STD.	60	48	3/4	1 1/4	3	3 3/4	4 Dm	7 D
	J	K	M	N	O	P	R	S
STD.	3	6 5/8	22 1/8	21	11 7/8	19 23/32	20 5/32	18

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
	J	K	M	N	O	P	R	S
STD.	3	4 1/8	14 3/4	14	7 7/8	13 1/8	13 5/8	12

36" x 48"
(ALL OTHER HIGHWAYS)

R16–3



INTERCHANGE DETAIL

BY	REVISION	DATE

MISSISSIPPI DEPARTMENT OF TRANSPORTATION
ROADWAY DESIGN DIVISION
STANDARD PLAN

LOCATION OF R16–3 SIGNS (SPEEDING FINES DOUBLED)

MDOT

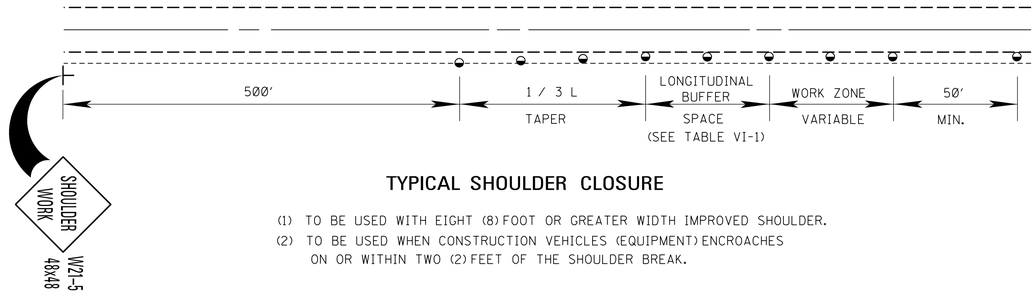
WORKING NUMBER
TCP-15

ISSUE DATE: AUGUST 01, 2017

SHEET NUMBER
6365

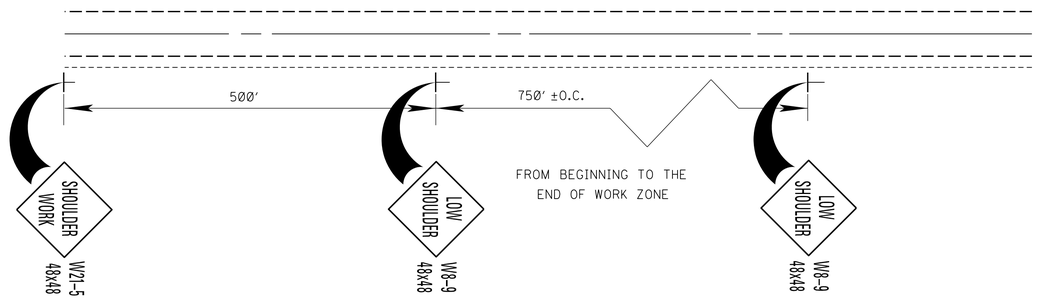
STATE	PROJECT NO.
MISS.	

PLASTIC DRUMS
(SEE NOTE FOR SPACING)



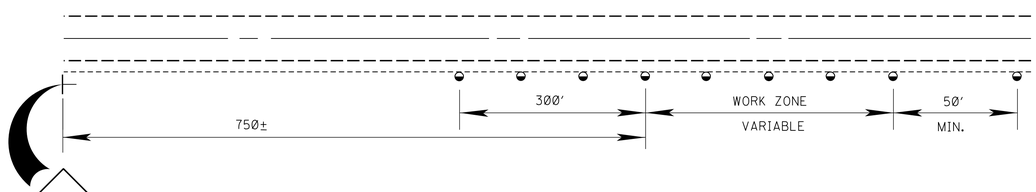
TYPICAL SHOULDER CLOSURE

(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.



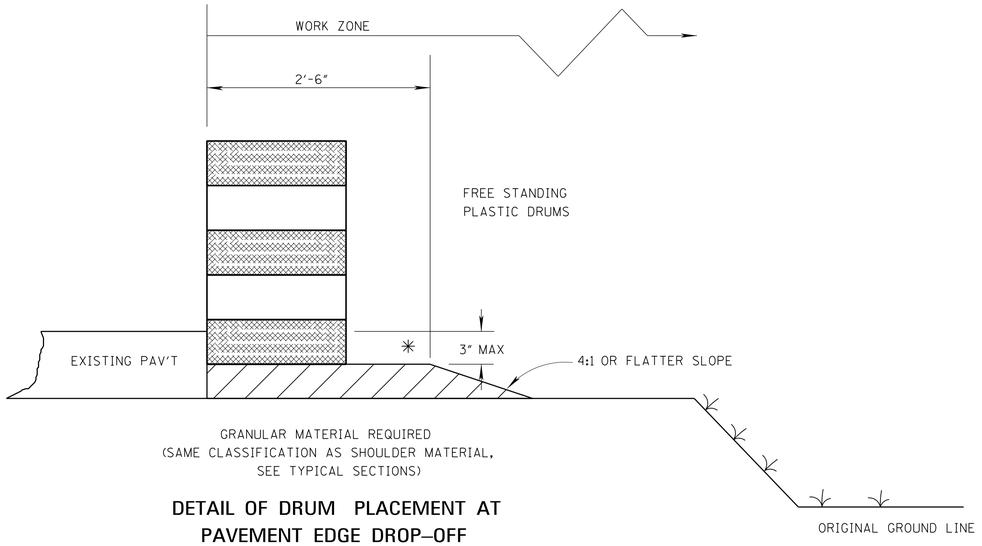
TYPICAL SHOULDER WORK #1
(SEE NOTE A–1 THIS SHEET)

PLASTIC DRUMS
(SEE NOTE FOR SPACING)



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.

BY | REVISION | DATE

MISSISSIPPI DEPARTMENT OF TRANSPORTATION
ROADWAY DESIGN DIVISION
STANDARD PLAN

TRAFFIC CONTROL DETAILS DRUM PLACEMENT AND SHOULDER CLOSURE

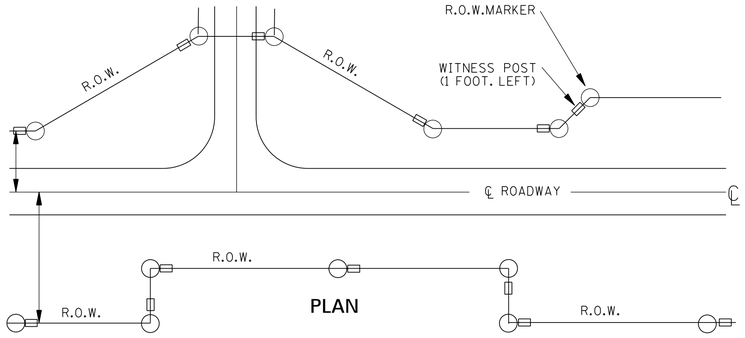
MDOT MISSISSIPPI DEPARTMENT OF TRANSPORTATION

WORKING NUMBER
TCP-16

ISSUE DATE: AUGUST 01, 2017

SHEET NUMBER
6366

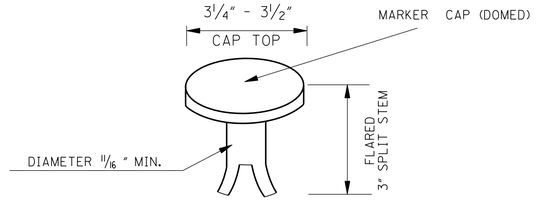
STATE	PROJECT NO.
MISS.	



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

TYPE "B" MARKER

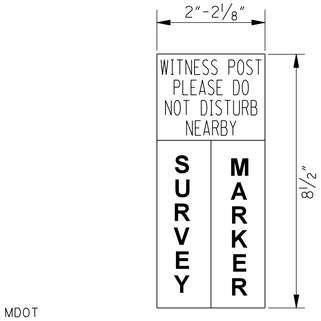
FLUSH MOUNTED MARKERS FOR CONCRETE SURFACES



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

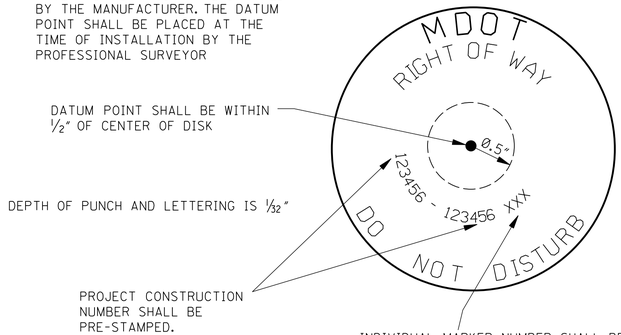
SURVEY MARKER WITNESS POST DECALS
WHITE BACKGROUND WITH BLACK PRINT, VINYL WITH ADHESIVE BACKING



MARKER CAP DETAILS FOR RIGHT–OF–WAY

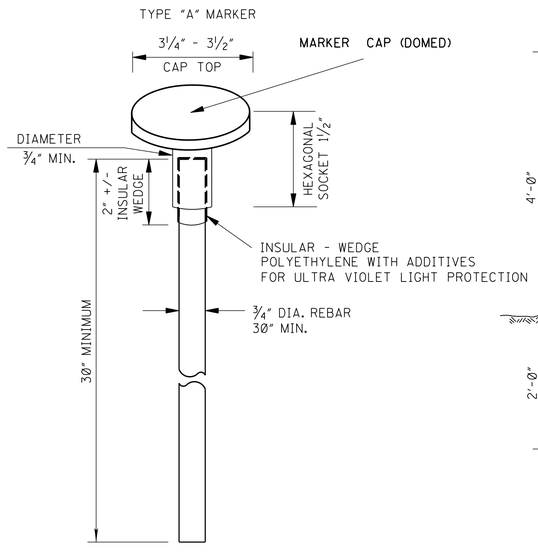
TOP VIEW

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

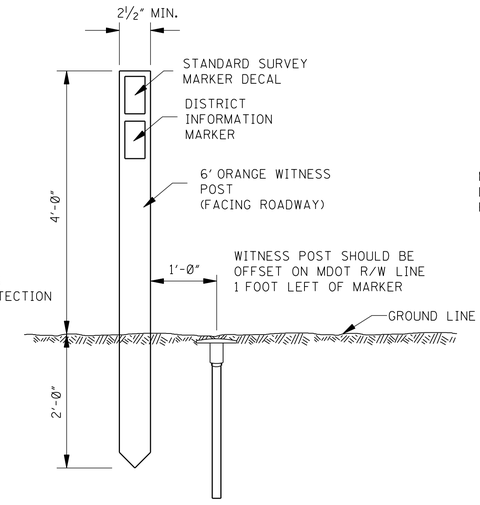


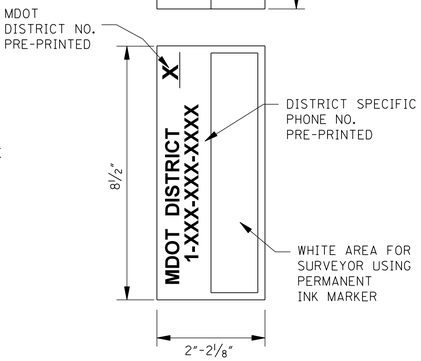
MARKER CAP SPECIFICATIONS (PRINT DATA WHERE SHOWN)
3.25" - 3.50" DIAMETER DOMED TOP
OUTSIDE ROW 46 SPACES "MDOT - DO NOT DISTURB" 3/16" LETTERS
MIDDLE ROW 35 SPACES "RIGHT OF WAY" 3/16" LETTERS
INSIDE ROW 35 SPACES "PROJECT P.E. NO. AND INDIVIDUAL MARKER NO." 1/8" LETTERS

TYPE "A" MARKER



ORANGE FIBERGLASS OR PVC WITH ADDITIVES FOR ULTRA VIOLET LIGHT PROTECTION



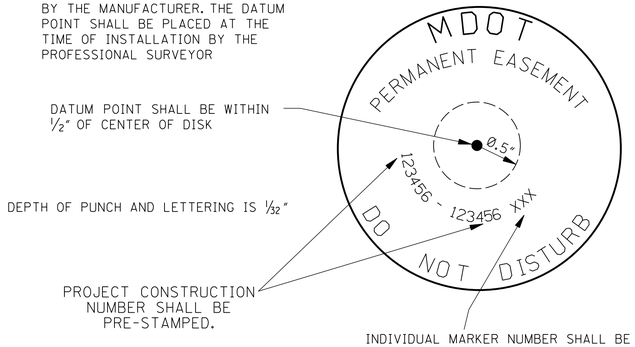


WITNESS POST & RIGHT–OF–WAY MARKER

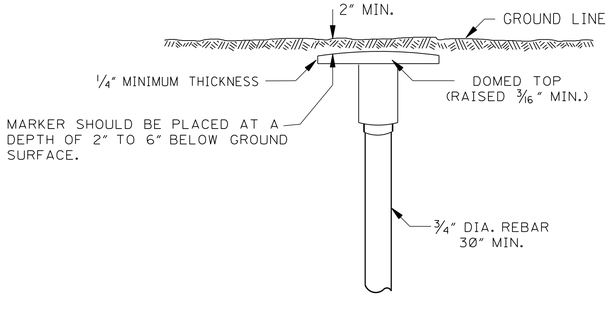
MARKER CAP DETAILS FOR PERMANENT EASEMENT

TOP VIEW

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



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



BY	REVISION	DATE

MISSISSIPPI DEPARTMENT OF TRANSPORTATION
ROADWAY DESIGN DIVISION
STANDARD PLAN

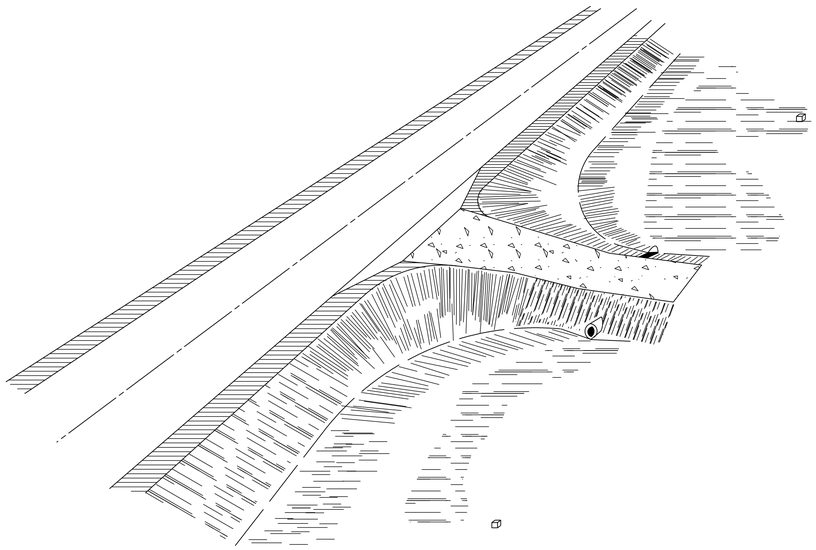
RIGHT–OF–WAY MARKER

WORKING NUMBER RW-1

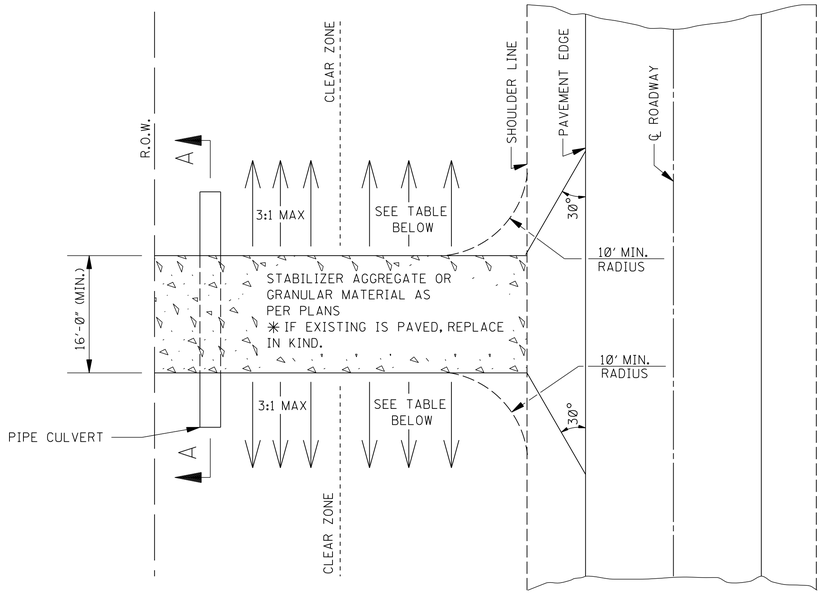
ISSUE DATE: AUGUST 01, 2017

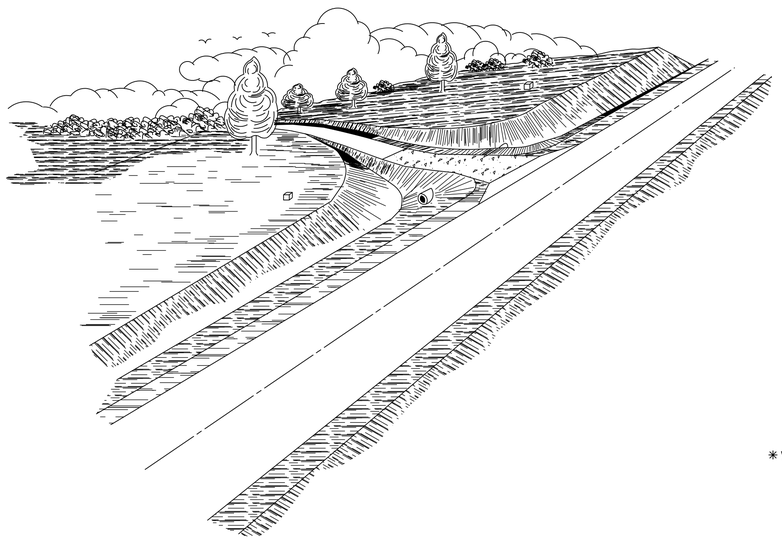
SHEET NUMBER 6401

STATE	PROJECT NO.
MISS.	

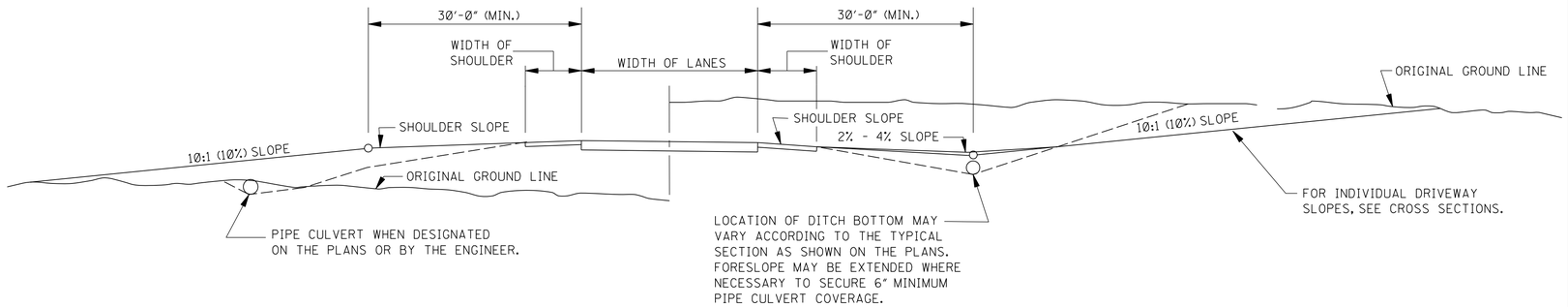


RAMP IN FILL SECTION

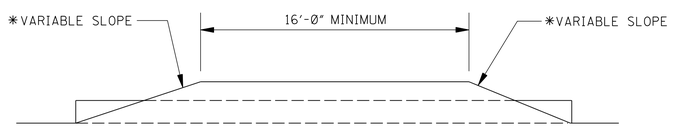




RAMP IN CUT SECTION



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

REVISION	BY	DATE

MISSISSIPPI DEPARTMENT OF TRANSPORTATION
ROADWAY DESIGN DIVISION
STANDARD PLAN

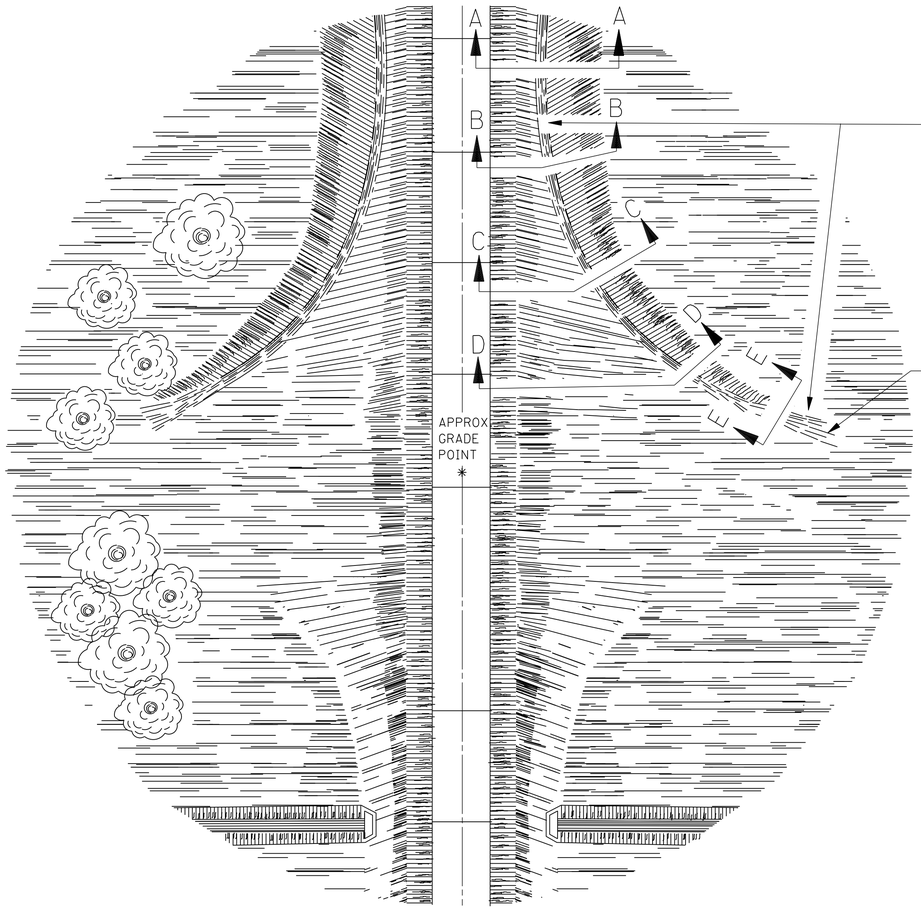
RURAL DRIVEWAYS

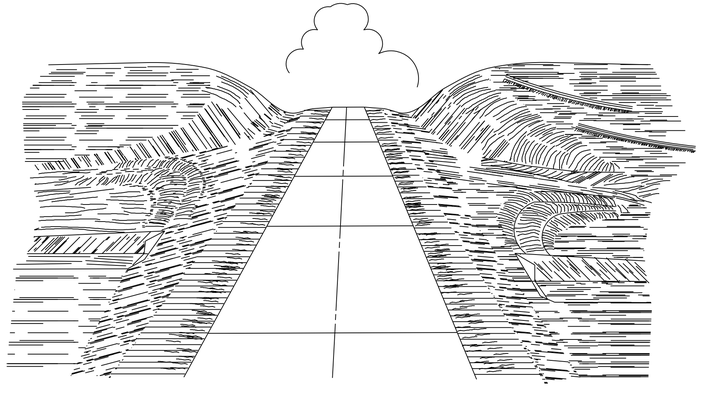
WORKING NUMBER
RD-1

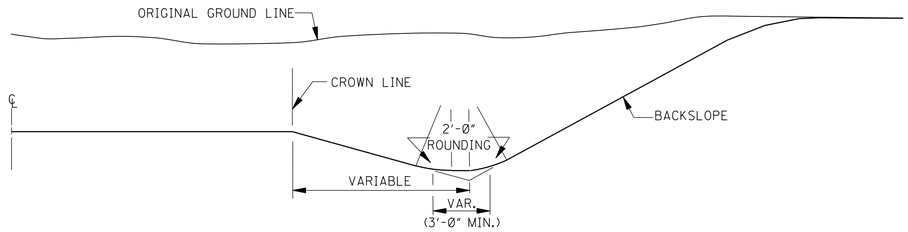
ISSUE DATE: AUGUST 01, 2017

SHEET NUMBER
6403

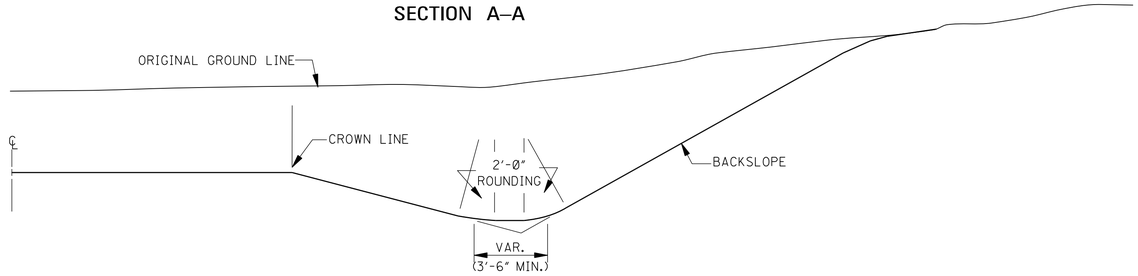
STATE	PROJECT NO.
MISS.	



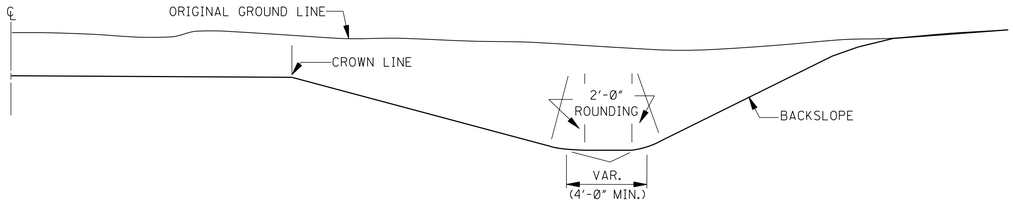




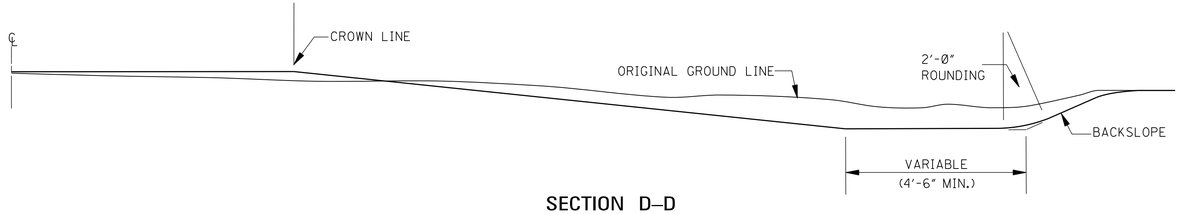
SECTION A–A



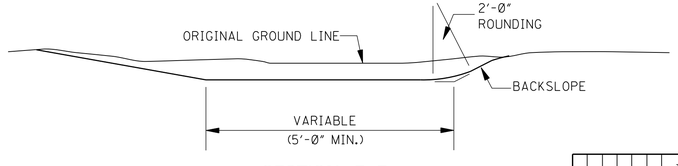
SECTION B–B



SECTION C–C



SECTION D–D



SECTION E–E

BY | REVISION | DATE

MISSISSIPPI DEPARTMENT OF TRANSPORTATION
ROADWAY DESIGN DIVISION
STANDARD PLAN

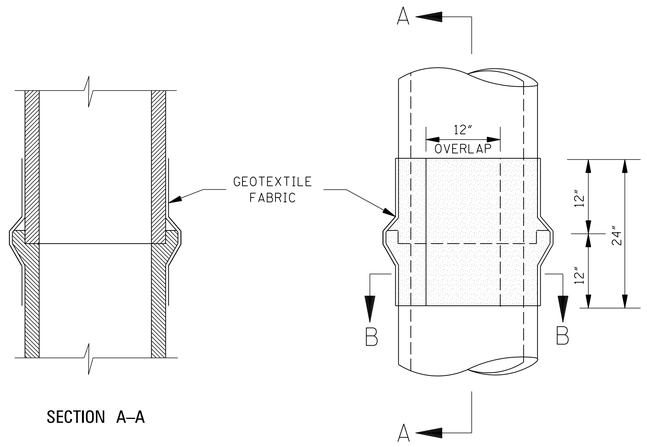
TYPICAL GRADING TRANSITION BETWEEN CUTS AND FILLS

WORKING NUMBER
GT-1

ISSUE DATE: AUGUST 01, 2017

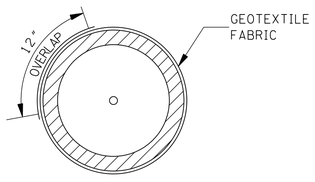
SHEET NUMBER
6404

STATE	PROJECT NO.
MISS.	



SECTION A–A

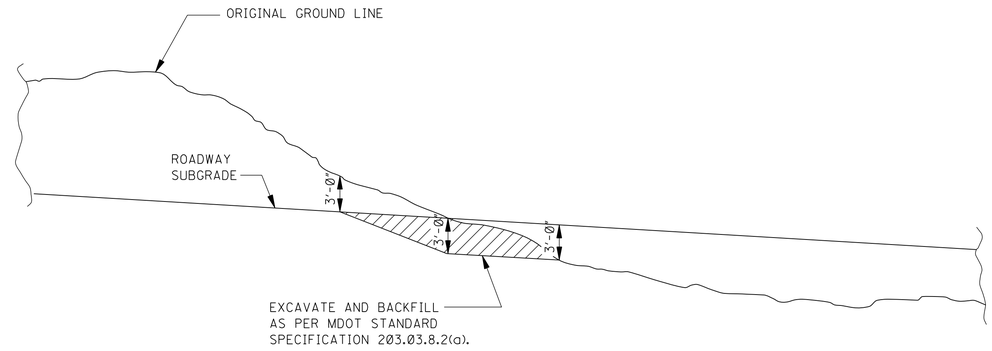
ELEVATION



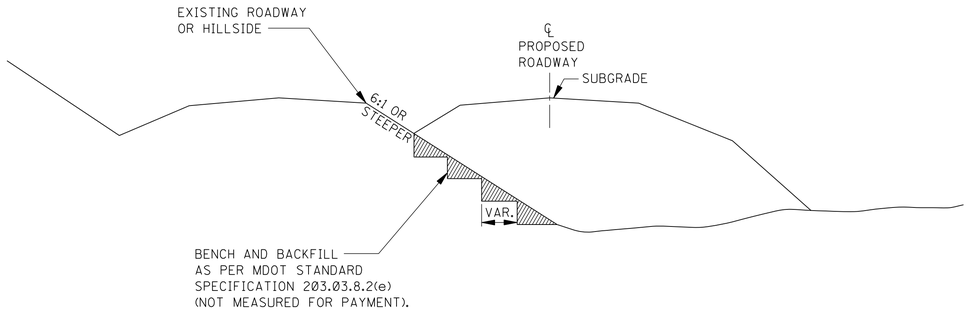
SECTION B–B

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

BY	REVISION	DATE

MISSISSIPPI DEPARTMENT OF TRANSPORTATION
ROADWAY DESIGN DIVISION
STANDARD PLAN

MISCELLANEOUS DETAIL SHEET

1. STACKED PIPE JOINTS
2. EXCAVATION AT GRADE POINTS

MDOT MISSISSIPPI DEPARTMENT OF TRANSPORTATION

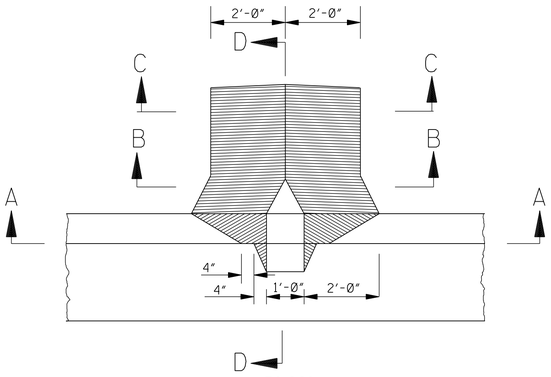
WORKING NUMBER
MDS-1

ISSUE DATE: AUGUST 01, 2017

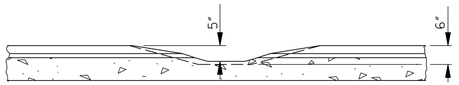
SHEET NUMBER
6425

STATE	PROJECT NO.
MISS.	

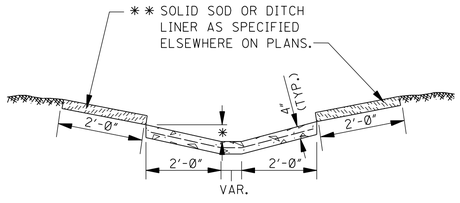
FLUME – TYPE "A"
(INTERMEDIATE RUNOFF THROUGH CURB & GUTTER)



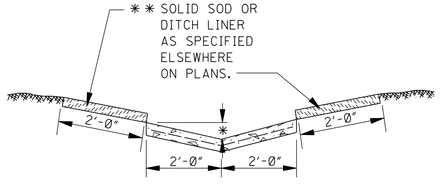
PLAN



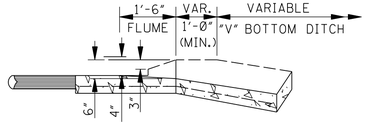
SECTION A–A



SECTION B–B
(TRANSITION SECTION)

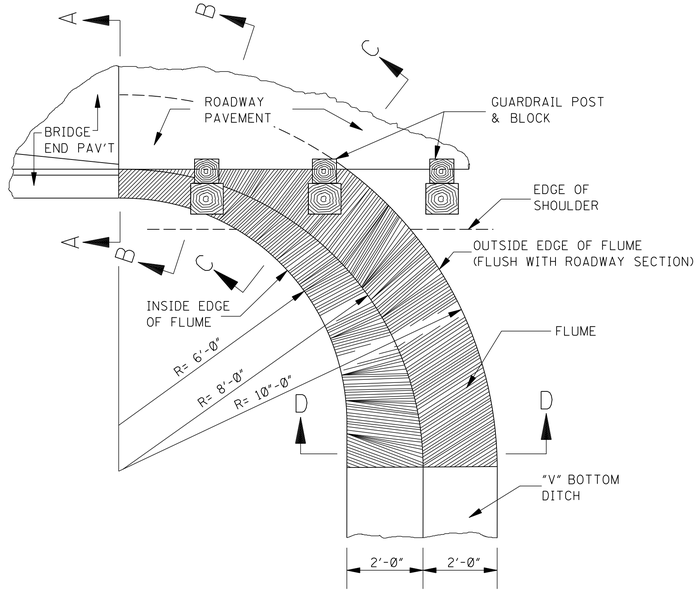


SECTION C–C
(DITCH SECTION)

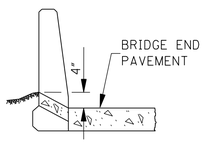


SECTION D–D

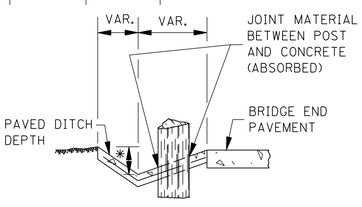
FLUME – TYPE "B"
(AT END OF BRIDGE)



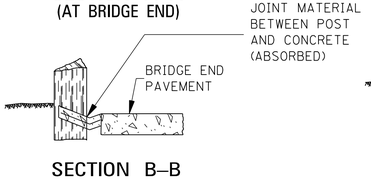
PLAN



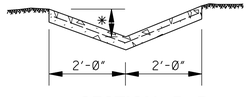
SECTION A–A
(AT BRIDGE END)



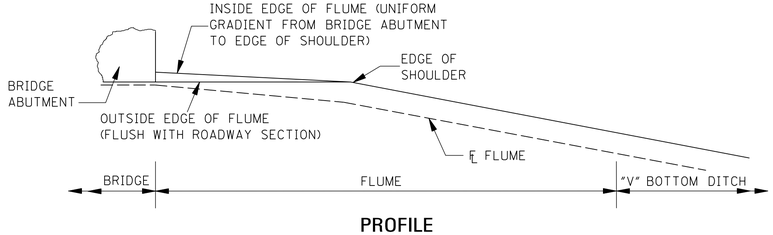
SECTION C–C
(AT EDGE OF SHOULDER)



SECTION B–B

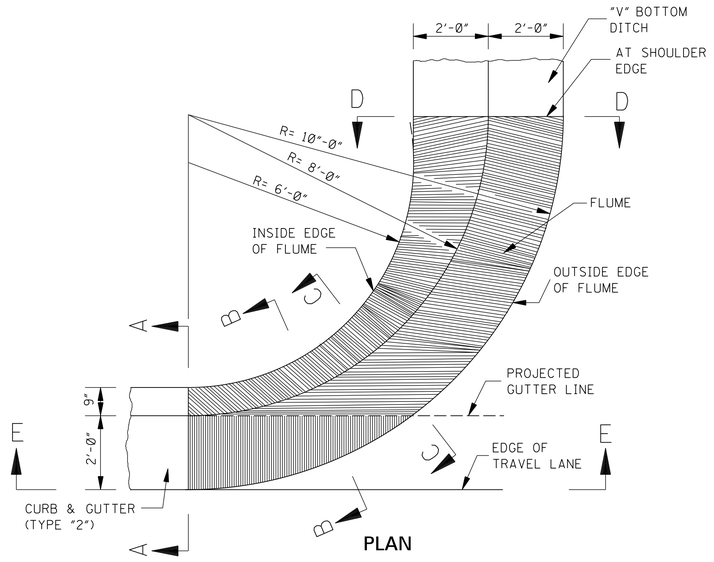


SECTION D–D
(AT "V" BOTTOM DITCH)

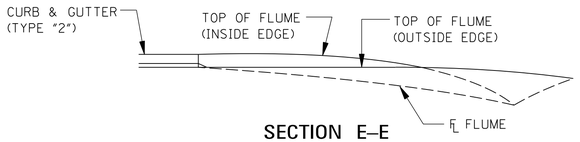


PROFILE

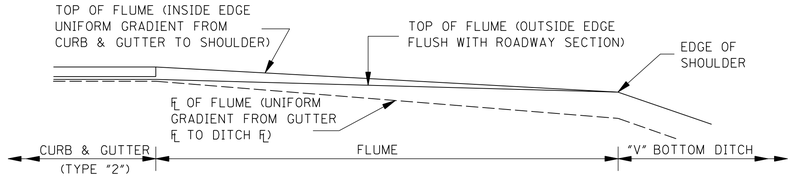
FLUME – TYPE "C"
(AT END OF CURB & GUTTER)



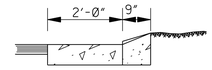
PLAN



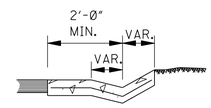
SECTION E–E



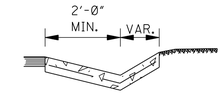
PROFILE



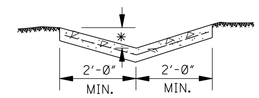
SECTION A–A
(AT END OF CURB & GUTTER)



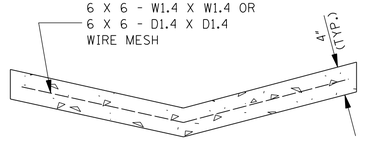
SECTION B–B



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.

BY	REVISION	DATE

MISSISSIPPI DEPARTMENT OF TRANSPORTATION
ROADWAY DESIGN DIVISION
STANDARD PLAN

DETAILS OF PAVED FLUMES

MDOT
MISSISSIPPI DEPARTMENT OF TRANSPORTATION

WORKING NUMBER
PF-1

ISSUE DATE: AUGUST 01, 2017

SHEET NUMBER
6426

STATE	PROJECT NO.
MISS.	

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
		2⅔″ X ½″ CORRUGATED STEEL HELICAL	/ 3″ X 1″ OR 5″ X 1″ CORRUGATED STEEL HELICAL /		2⅔″ X ½″ 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′/ -

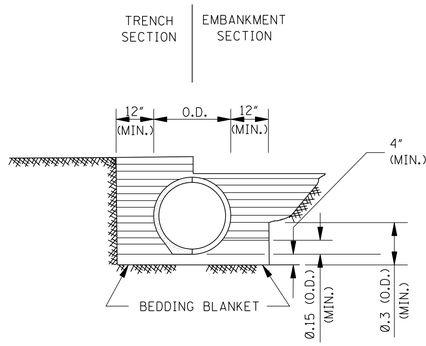
NOTE: THE AVERAGE INSIDE DIAMETER SHALL NOT VARY MORE THAN ONE (1) PERCENT OR ½″, WHICHEVER IS GREATER, FROM THE NOMINAL DIAMETER WHEN MEASURED ON THE INSIDE CREST OF THE CORRUGATIONS (AASHTO M 36M/M 36 & AASHTO M 196M/M 196).

CORRUGATED METAL PIPE ARCHES

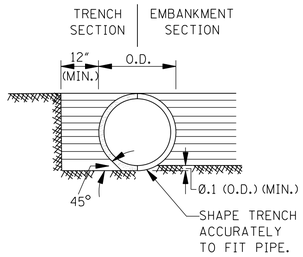
EQUIV. DIAMETER (in)	PIPE DIMENSION (SPAN X RISE) (in)	MINIMUM COVER	STEEL		ALUMINUM	
			MINIMUM THICKNESS REQUIRED (in)	MAXIMUM FILL HEIGHT ABOVE TOP OF PIPE (ft) FOR THE FOLLOWING CORNER BEARING PRESSURE (tons/ft²) † 4 tons/ft²	MINIMUM THICKNESS REQUIRED (in)	MAXIMUM FILL HEIGHT ABOVE TOP OF PIPE (ft) FOR THE FOLLOWING CORNER BEARING PRESSURE (tons/ft²) † 4 tons/ft²
			2⅔″ X ½″ CORRUGATION HELICAL		2⅔″ X ½″ 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 ½″, 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).

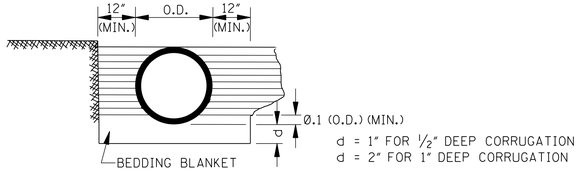
† 2. BEARING PRESSURES FOR GIVEN FILL HEIGHT SHALL HAVE FOUNDATION MATERIALS INVESTIGATED TO DETERMINE BEARING CAPACITY.



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.

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 COMPACTORS SHALL NOT BE USED OVER THE PIPE. ALL COMPACTION EQUIPMENT USED SHALL BE APPROVED BY THE ENGINEER.

DATE	REVISION	BY

MISSISSIPPI DEPARTMENT OF TRANSPORTATION
ROADWAY DESIGN DIVISION
STANDARD PLAN

PIPE CULVERT INSTALLATION

MDOT MISSISSIPPI DEPARTMENT OF TRANSPORTATION

WORKING NUMBER PI-1

ISSUE DATE: AUGUST 01, 2017

SHEET NUMBER 6501

STATE	PROJECT NO.
MISS.	

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.

TABLE 2:
HIGH DENSITY CORRIGATED 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

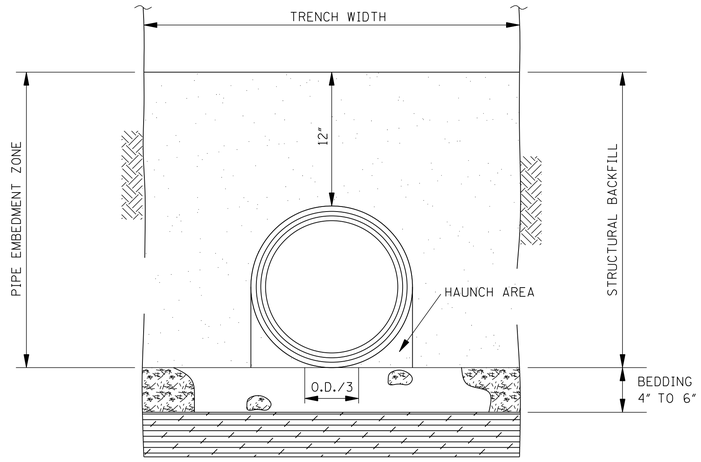
TABLE 3: RECOMMENDED TRENCH WIDTH

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 ACCOMODATE 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"



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 OF 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.

BY	REVISION	DATE

MISSISSIPPI DEPARTMENT OF TRANSPORTATION
ROADWAY DESIGN DIVISION
STANDARD PLAN

FLEXIBLE PIPE CULVERT INSTALLATION

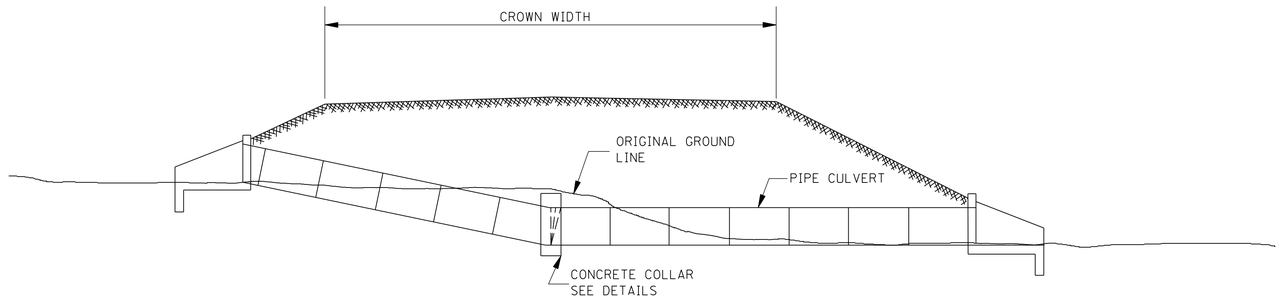
MDOT MISSISSIPPI DEPARTMENT OF TRANSPORTATION

WORKING NUMBER
PI-2

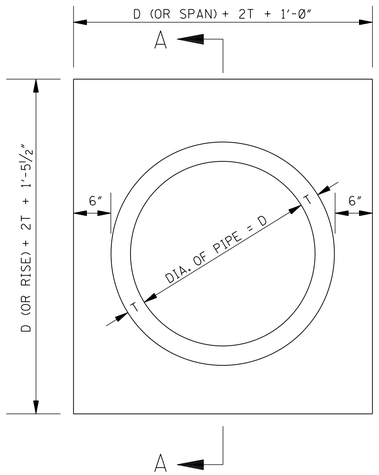
ISSUE DATE: AUGUST 01, 2017

SHEET NUMBER
6502

STATE	PROJECT NO.
MISS.	

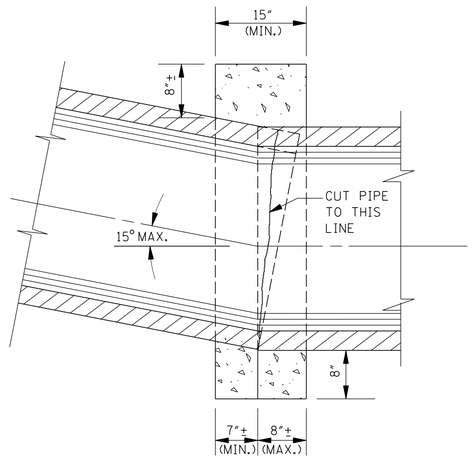


TYPICAL INSTALLATION FOR PIPE CULVERT WITH BROKEN FLOW LINE



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		

DATE	REVISION	BY

MISSISSIPPI DEPARTMENT OF TRANSPORTATION
ROADWAY DESIGN DIVISION
STANDARD PLAN

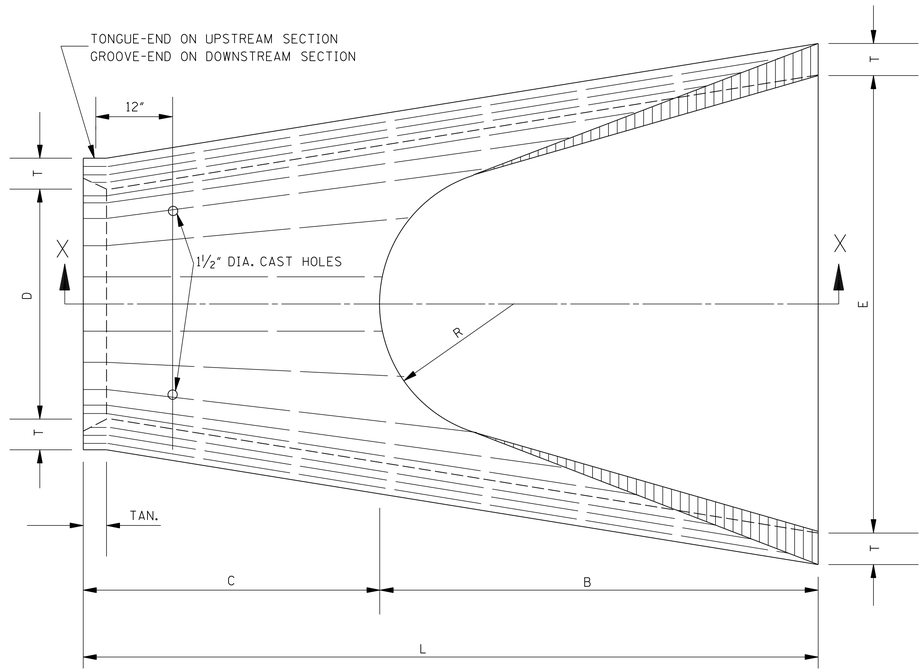
CONCRETE PIPE COLLAR

WORKING NUMBER
PC-1

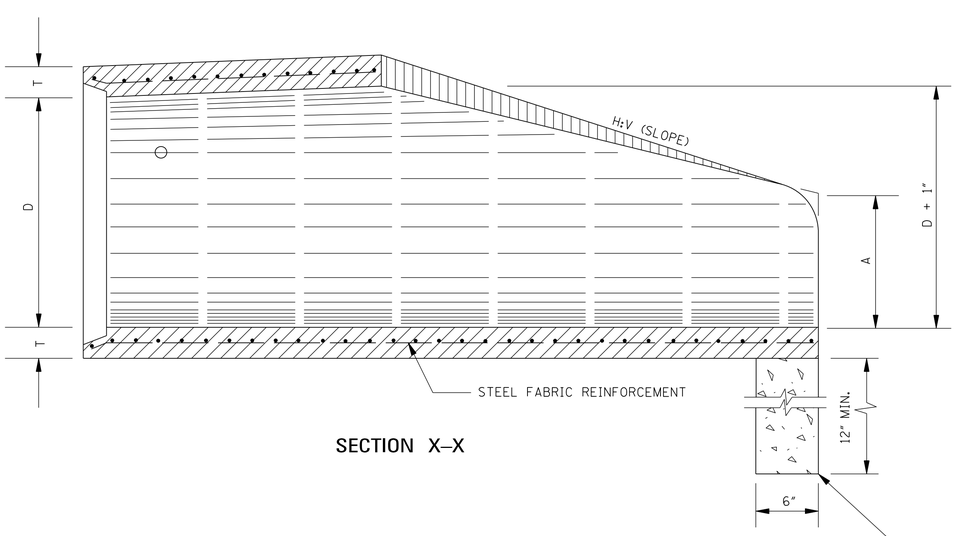
ISSUE DATE: AUGUST 01, 2017

SHEET NUMBER
6503

STATE	PROJECT NO.
MISS.	



PLAN OF DOWNSTREAM END



SECTION X–X

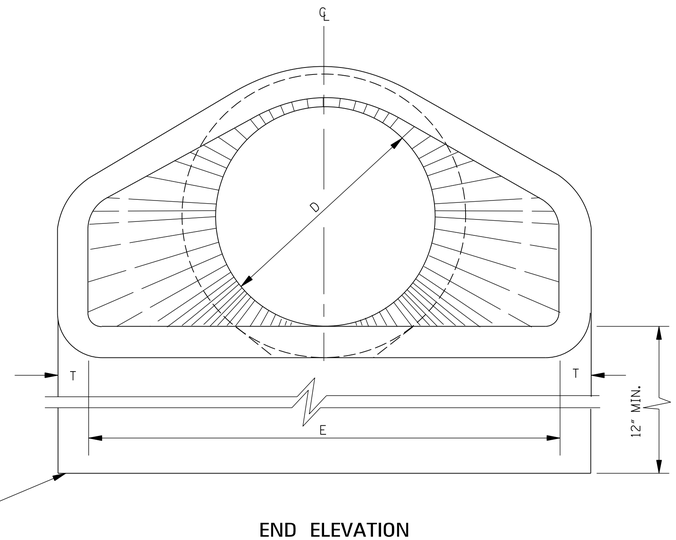
BELL AND SPIGOT END OPTION

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

TABLE OF DIMENSIONS							
D	T	H:V	A	B	C	E	L
15"	2¼"	3:1	6"	2'-3"	4'-1"	2'-8"	6'-1"
18"	2½"	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"	3½"	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"	4½"	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"	5½"	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"	6½"	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"

* NOTE: SEE GENERAL NOTE 2.

TOE WALL CONC. QUANTITY (yd^3)
0.056
0.063
0.083
0.102
0.123
0.134
0.145
0.156
0.167
0.177
0.188



END ELEVATION

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

GENERAL NOTES:

1. REINFORCEMENT SHALL CONFORM TO THE REQUIREMENTS OF REINFORCED CONCRETE PIPE OF LIKE DIAMETER PER AASHTO M 170, TABLE 2, WALL B.

2. 2 - 1½" DIA. CAST HOLES REQUIRED AS SHOWN TO ACCOMMODATE 2 - 1" DIA. TIE BOLTS, USED IN TIEING SECTION TO PIPE CULVERT.

3. LENGTH (L) OF A BELL-END OPTION MAY VARY BY A NOMINAL EXTENSION ON THE BELL END.

4. FLARED END SECTIONS SHOULD BE REGARDED AS OBSTACLES UNDER THE BELOW CONDITIONS AND AS SUCH SHOULD BE LOCATED OUTSIDE OF THE CLEAR ZONE:
   A. CROSS DRAINS WITH SINGLE ROUND PIPES OF DIAMETER GREATER THAN 36" OR EQUIVALENT FOR ARCH PIPES.
   B. CROSS DRAINS WITH MULTIPLE ROUND PIPES OF DIAMETER GREATER THAN 30" OR EQUIVALENT FOR ARCH PIPES.
   C. PARALLEL SIDE DRAINS WITH SINGLE ROUND PIPES OF DIAMETER GREATER THAN 24" OR EQUIVALENT FOR ARCH PIPES.

5. ALL SIZES OF FLARED END SECTIONS FOR CIRCULAR CONCRETE PIPE MAY BE FURNISHED WITH EITHER BELL AND SPIGOT OR TONGUE AND GROOVE ENDS.

BY | REVISION | DATE

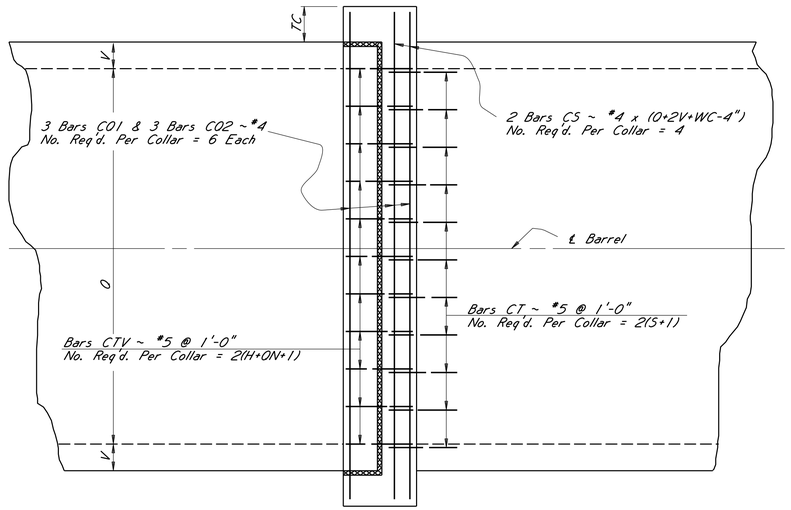
MISSISSIPPI DEPARTMENT OF TRANSPORTATION
ROADWAY DESIGN DIVISION
STANDARD PLAN

FLARED END SECTION FOR CONCRETE PIPE

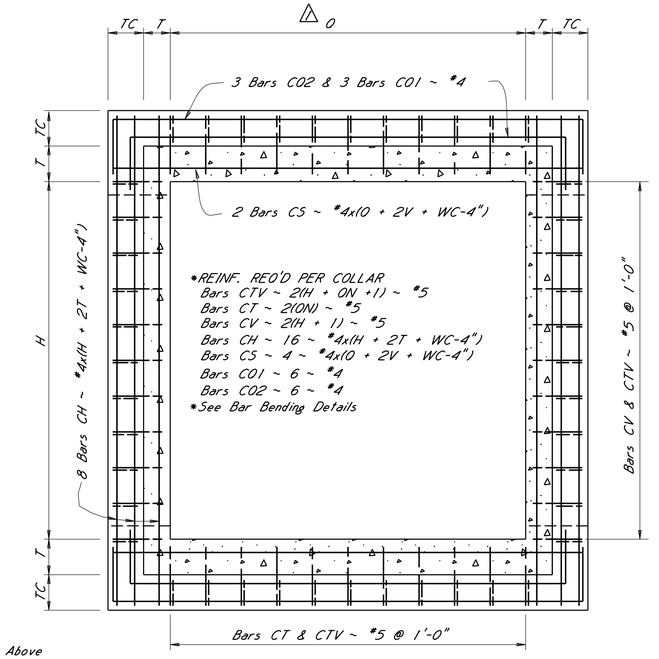
WORKING NUMBER
FE-1

ISSUE DATE: AUGUST 01, 2017

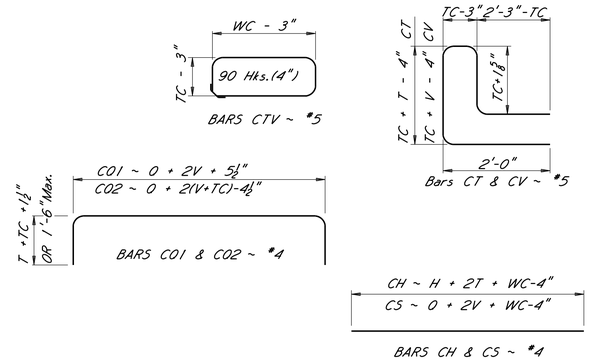
SHEET NUMBER
6530



PLAN OF COLLAR



SECTION A-A

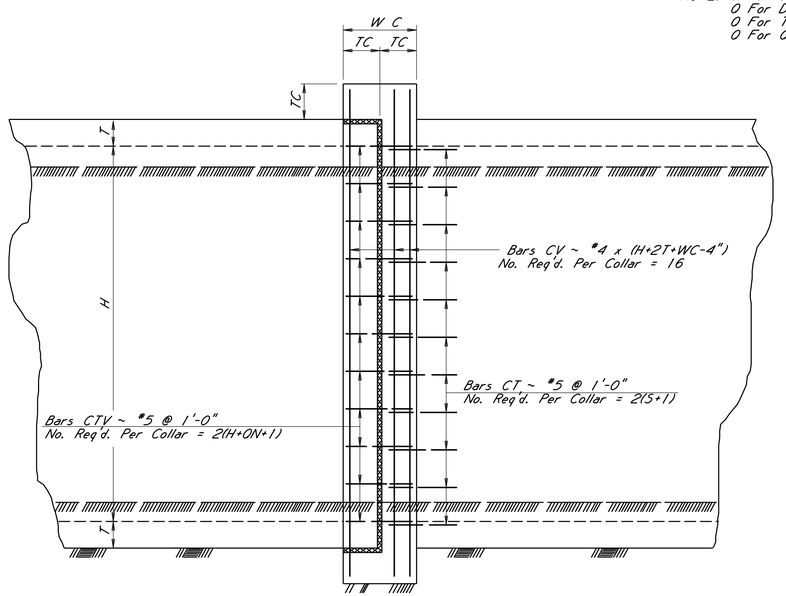


BAR BENDING DETAILS

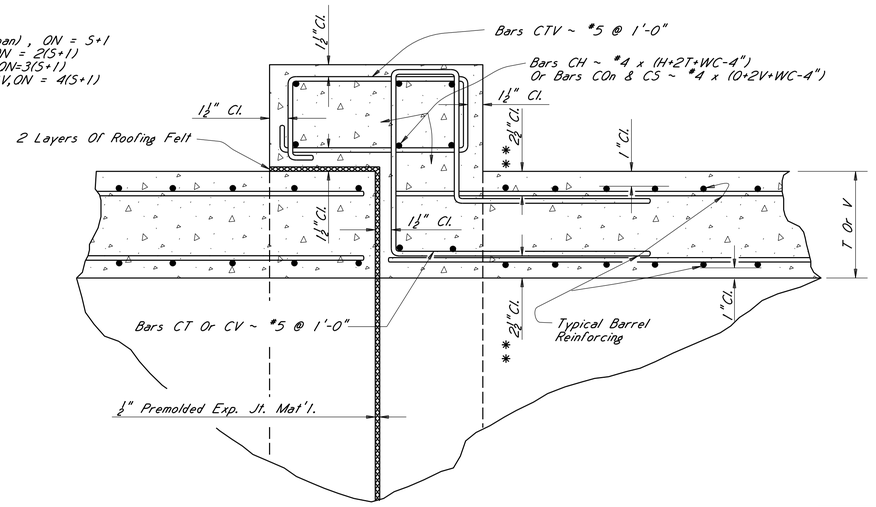
NOTE: See * Below

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

NOTE: O For Single Cell Box = S (Clear Span) , ON = S+1
O For Double Cell Box = 2S + V, ON = 2(S+1)
O For Triple Cell Box = 3S + 2V, ON=3(S+1)
O For Quadruple Cell Box = 4S + 3V, ON = 4(S+1)



ELEVATION OF COLLAR



** NOTE: 2½" Cl. Based On 1" Cl. For Typ. Barrel Reinf. This Cl. Shall Be Adjusted For Cl. Other Than 1".

TYPICAL SECTION OF COLLAR

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.

DEPARTMENT OF TRANSPORTATION 1997 Box Culvert Stds MISSISSIPPI

BY	REVISIONS	DATE
BJJ	Changed H To O	07/17/98

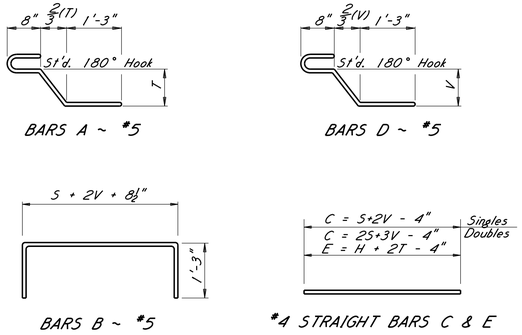
MISSISSIPPI DEPARTMENT OF TRANSPORTATION

COLLAR DETAILS FOR BOX STRUCTURES (SINGLE,DOUBLE,TRIPLE & QUADRUPLE)

WORKING NUMBER ICJ-1-97

SHEET NUMBER 7504

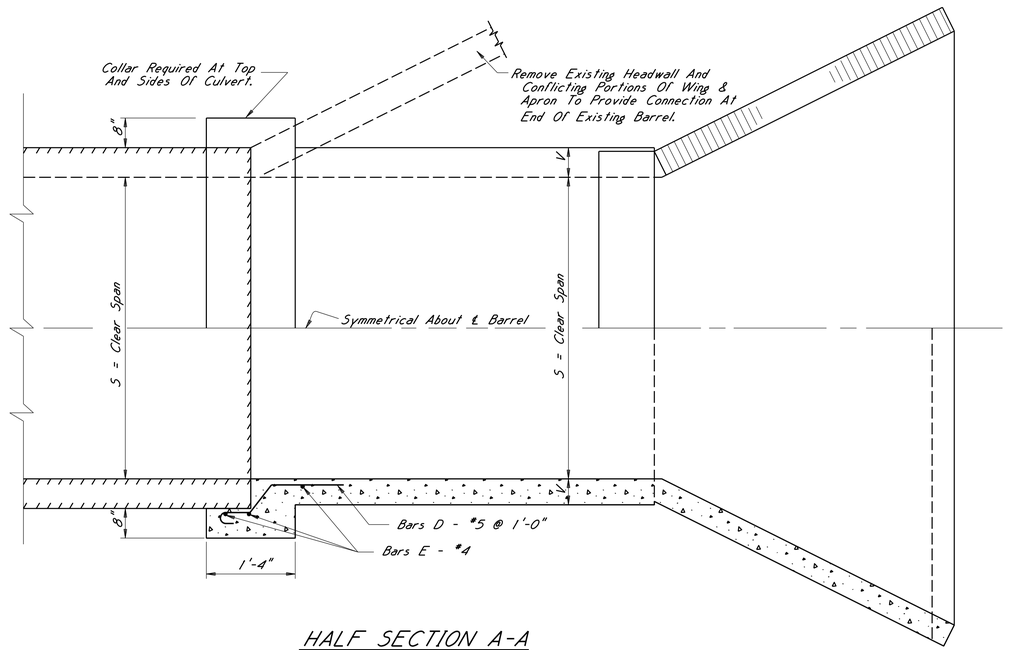
DESIGNED	CHECKED	ISSUED
NA	BJJ	TMT
DETAILED	DATE	DATE
ALT	07-11-97	08-01-97



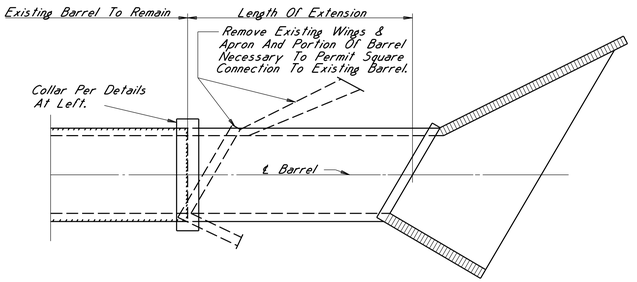
BAR BENDING DETAILS

Dimensions Are Out To Out.

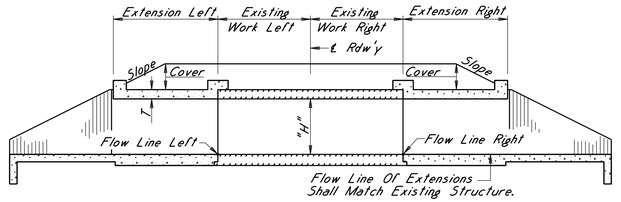
HALF TOP PLAN



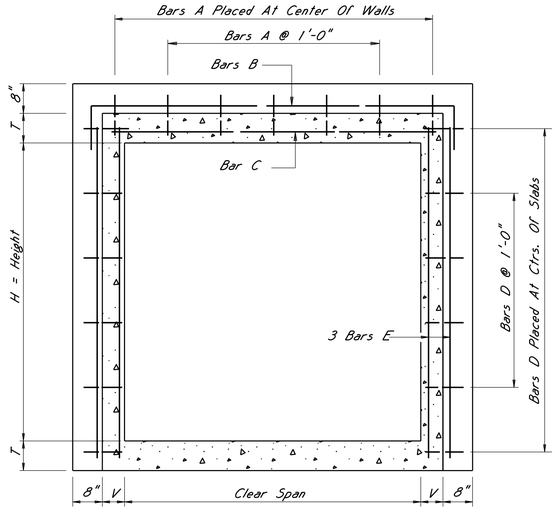
HALF SECTION A-A



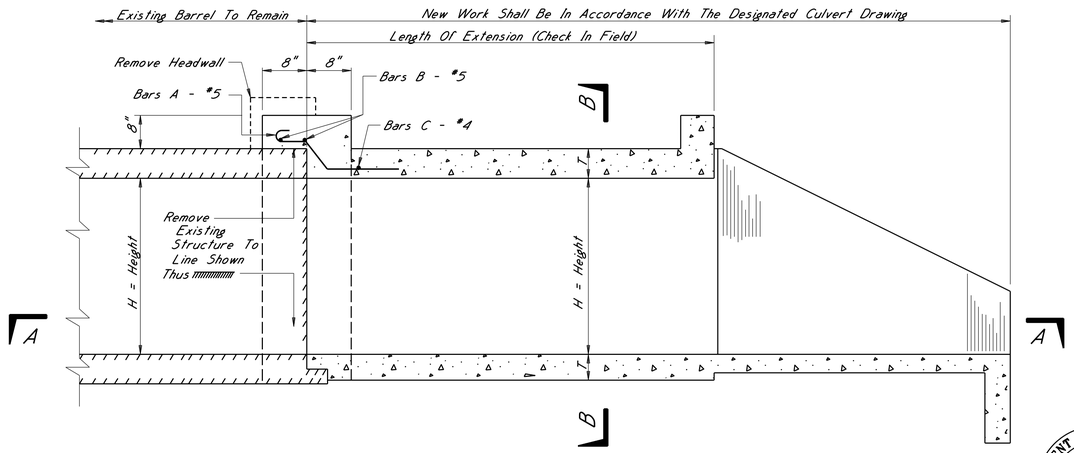
TYPICAL SKEW INSTALLATION



TYPICAL LONGITUDINAL SECTION



SECTION B-B



LONGITUDINAL SECTION

GENERAL NOTES:

This Drawing Is Supplementary To Basic Culvert Drawings Of The 185 And 180 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.

DEPARTMENT OF TRANSPORTATION MISSISSIPPI 1997 Box Culvert Stds

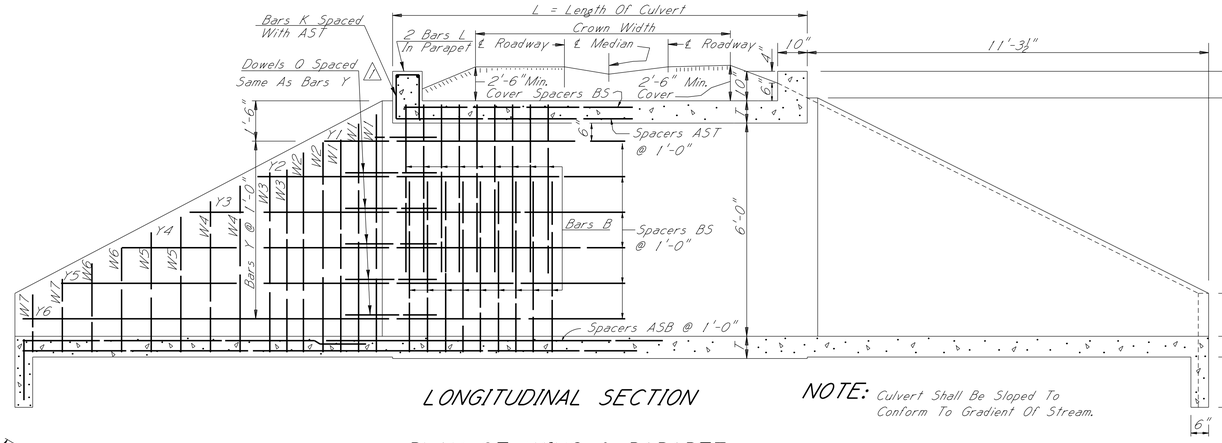
REVISIONS BY

MISSISSIPPI DEPARTMENT OF TRANSPORTATION
CULVERT DRAWING
EXTENSION DETAILS
FOR LENGTHENING
EXISTING BOX CULVERTS

WORKING NUMBER ICX-1-97

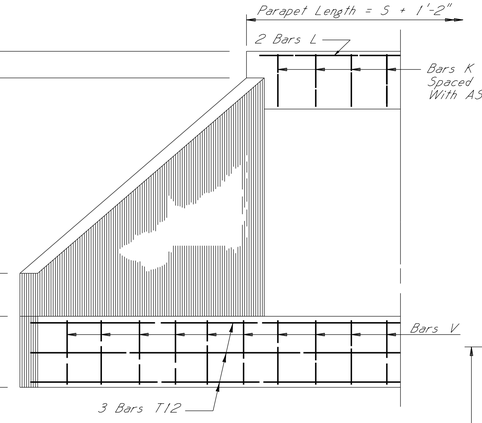
DATE
DESIGNED NA
DETAILED ALT
CHECKED BJJ
DATE 07-11-97
ISSUED TMT
DATE 08-01-97

SHEET NUMBER 7506

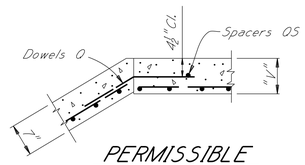


LONGITUDINAL SECTION

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

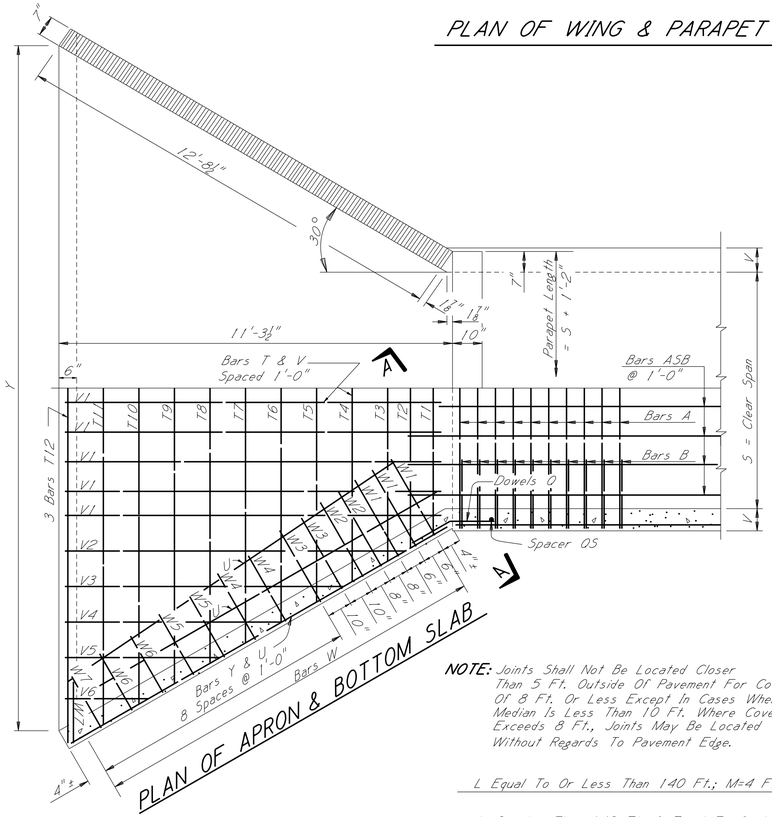


HALF END ELEVATION

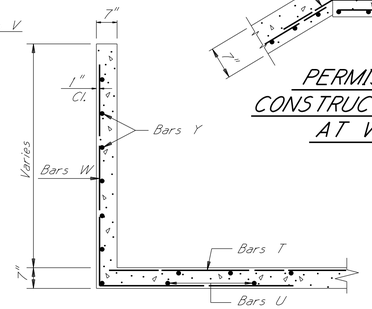


PERMISSIBLE CONSTRUCTION JOINT AT WING

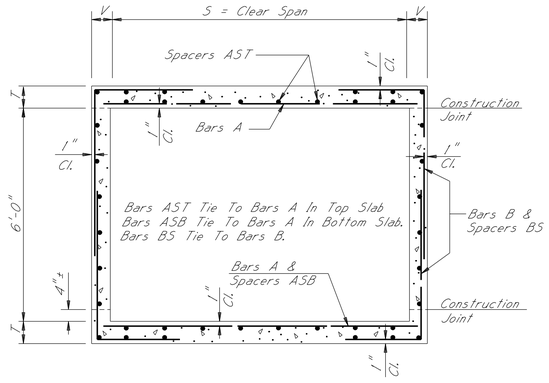
PLAN OF WING & PARAPET



PLAN OF APRON & BOTTOM SLAB

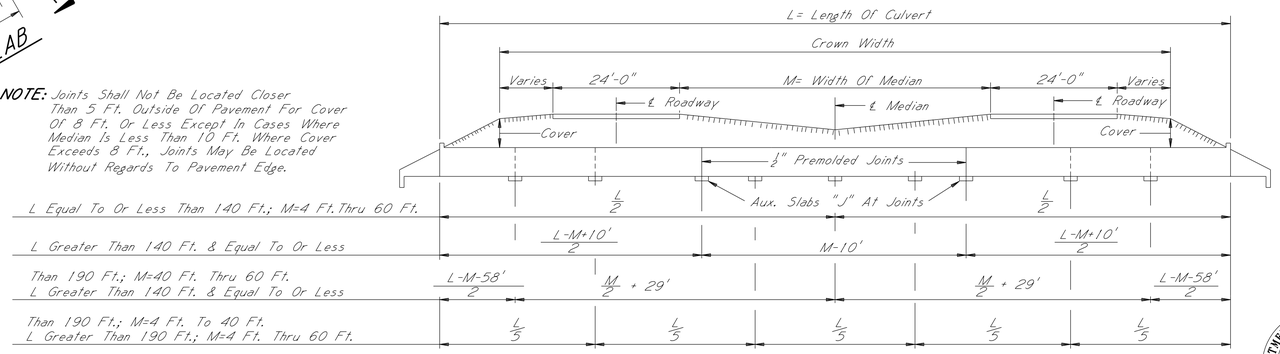


SECTION A-A



CROSS SECTION

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.



SIDE ELEVATION OF CULVERT

Showing ½" Joints And Auxiliary Slabs "J" Drawn for L = 150 Ft. & M = 60 Ft.

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.

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

CULVERT DIMENSIONS						ESTIMATED QUANTITIES					
						CULVERT (L= 150 FT.)		PER LIN. FT. BARREL		1 AUX. SLAB "J"	
CLEAR SPAN	MAX. COVER	T	V	W	Y	CONC. cu. yd.	REINF. STEEL lb.	CONC. cu. yd.	REINF. STEEL lb.	CONC. cu. yd.	REINF. STEEL lb.
6'	14'	7½"	7"	1'-2½"	18'-10¼"	101.85	14,258	0.5910	86.8	0.35	21
8'	10'	8½"	7½"	1'-3½"	20'-10¼"	129.16	18,948	0.7631	117.3	0.46	26
10'	8'	9½"	8"	1'-4½"	22'-10¼"	160.31	25,194	0.9609	158.1	0.56	32
12'	7'	10½"	8½"	1'-5½"	24'-10¼"	195.30	31,113	1.1844	196.9	0.66	38
14'	7'	1'-0"	9½"	1'-7"	26'-10¼"	245.12	39,315	1.5062	250.3	0.77	44
16'	6'	1'-1"	10"	1'-8"	28'-10¼"	288.88	45,780	1.7881	292.9	0.87	49
18'	6'	1'-2"	11½"	1'-9"	30'-10¼"	344.23	57,285	2.1471	368.7	0.98	55
20'	6'	1'-3"	1'-1"	1'-10"	32'-10¼"	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.

DEPARTMENT OF TRANSPORTATION 1997 Box Culvert Stds MISSISSIPPI

△ 07/17/98 Added Bar L — REVISIONS — BJJ BY

MISSISSIPPI DEPARTMENT OF TRANSPORTATION

BASIC CULVERT DRAWING

SINGLE CELL

HEIGHT 6 FT.
SPANS 6-20 FT.

WORKING NUMBER IBS-6-2W-97

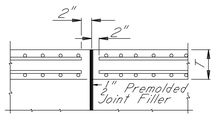
DESIGNED NA | CHECKED BJJ | ISSUED TMT
DETAILED ALT | DATE 07-11-97 | DATE 08-01-97

SHEET NUMBER 7507

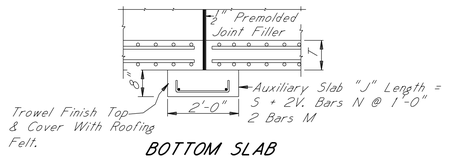
BAR LIST FOR BARREL (L= 150 FT.) PARAPETS & 2 AUXILIARY SLABS "J"

CLEAR SPAN	BARS "A"				BARS "B"				DOWELS "O" ~ #4		SPACERS "OS" ~ #4		SETS OF BARS #4 "AST"		SETS OF BARS #4 "ASB"		SETS OF BARS #4 "BS"		BARS "K" #4		BARS "L" #4		BARS "M" #4		BARS "N" #4	
	NO.	SIZE	SPAC.	LGTH.	NO.	SIZE	SPAC.	LGTH.	NO.	LGTH.	NO.	LGTH.	NO.	LGTH.	NO.	LGTH.	NO.	LGTH.	NO.	LGTH.	NO.	LGTH.	NO.	LGTH.	NO.	LGTH.
6'	600	#5	6"	6'-11"	1200	#4	6"	6'-4"	24	2'-6"	4	5'-7"	6	152'-9"	6	155'-7"	24	152'-9"	12	4'-1"	4	6'-10"	4	6'-10"	16	2'-2"
8'	480	#6	7½"	9'-0"	960	#5	7½"	7'-1"	24	2'-6"	4	5'-7"	8	152'-9"	8	155'-7"	24	152'-9"	16	4'-3"	4	8'-10"	4	8'-11"	20	2'-2"
10'	576	#6	6¼"	11'-1"	1152	#5	6¼"	7'-9"	24	2'-6"	4	5'-7"	10	152'-9"	10	155'-7"	28	152'-9"	20	4'-5"	4	10'-10"	4	11'-0"	24	2'-2"
12'	654	#6	5½"	13'-2"	1308	#5	5½"	8'-4"	24	2'-6"	4	5'-7"	12	152'-9"	12	155'-7"	28	152'-9"	24	4'-7"	4	12'-10"	4	13'-1"	28	2'-2"
14'	534	#7	6¾"	15'-4"	1068	#6	6¾"	9'-3"	24	2'-6"	4	5'-7"	14	152'-9"	14	155'-7"	32	152'-9"	28	4'-10"	4	14'-10"	4	15'-3"	32	2'-2"
16'	576	#7	6¼"	17'-5"	1152	#6	6¼"	9'-10"	24	2'-6"	4	5'-7"	16	152'-9"	16	155'-7"	32	152'-9"	32	5'-0"	4	16'-10"	4	17'-4"	36	2'-2"
18'	480	#8	7½"	19'-8"	1440	#6	5"	10'-7"	24	2'-6"	4	5'-7"	18	152'-9"	18	155'-7"	36	152'-9"	36	5'-2"	4	18'-10"	4	19'-7"	40	2'-2"
20'	402	#9	9"	21'-11"	1200	#7	6"	11'-5"	24	2'-6"	4	5'-7"	20	152'-9"	20	155'-7"	36	152'-9"	40	5'-4"	4	20'-10"	4	21'-10"	44	2'-2"

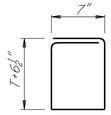
@ NOTE: The Number And Length Of Bars Are Listed For Sets Of Bars Composed Of Sections As Shown In Bar Bending Details See Elevation Of Culvert For Number Of Sections.



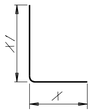
TOP SLAB
SIDE WALLS SIMILAR



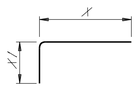
BOTTOM SLAB
DETAILS OF BARREL JOINT
& AUXILIARY SLAB "J"



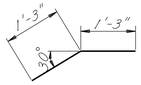
BARS K - #4



BARS W - #4

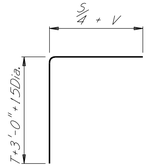


BARS V - #4



DOWELS O ~ #4

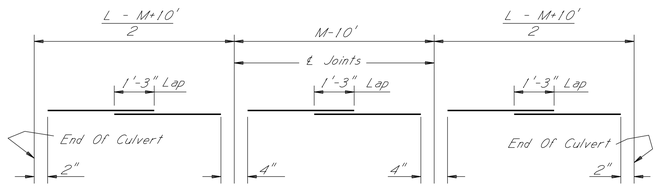
BARS N - #4



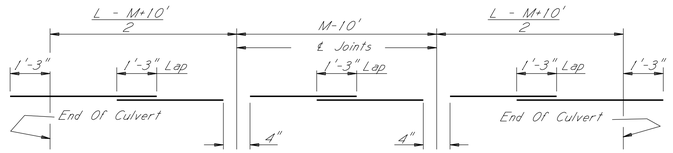
BARS B

BAR LISTS FOR WINGS & APRONS

BAR	SIZE	NO. REQUIRED SPAN 6'	8'	10'	12'	14'	16'	18'	20'	DIM. X	DIM. X1	LENGTH
T1	#4	2	2	2	2	2	2	2	2			S+1'-0"
T2	#4	2	2	2	2	2	2	2	2			S+1'-7"
T3	#4	2	2	2	2	2	2	2	2			S+2'-9"
T4	#4	2	2	2	2	2	2	2	2			S+3'-11"
T5	#4	2	2	2	2	2	2	2	2			S+5'-1"
T6	#4	2	2	2	2	2	2	2	2			S+6'-3"
T7	#4	2	2	2	2	2	2	2	2			S+7'-5"
T8	#4	2	2	2	2	2	2	2	2			S+8'-7"
T9	#4	2	2	2	2	2	2	2	2			S+9'-9"
T10	#4	2	2	2	2	2	2	2	2			S+10'-11"
T11	#4	2	2	2	2	2	2	2	2			S+12'-1"
T12	#4	6	6	6	6	6	6	6	6			S+13'-3"
U	#4	12	12	12	12	12	12	12	12			12'-5"
V1	#4	16	20	24	28	32	36	40	44	11'-0"	1'-8"	12'-8"
V2	#4	4	4	4	4	4	4	4	4	9'-1"	1'-8"	10'-9"
V3	#4	4	4	4	4	4	4	4	4	7'-4"	1'-8"	9'-0"
V4	#4	4	4	4	4	4	4	4	4	5'-7"	1'-8"	7'-3"
V5	#4	4	4	4	4	4	4	4	4	3'-10"	1'-8"	5'-6"
V6	#4	4	4	4	4	4	4	4	4	2'-1"	1'-8"	3'-9"
W1	#4	12	12	12	12	12	12	12	12	4'-0"	W+5'-2"	W+9'-2"
W2	#4	8	8	8	8	8	8	8	8	3'-8"	W+4'-7"	W+8'-3"
W3	#4	8	8	8	8	8	8	8	8	3'-4"	W+3'-11"	W+7'-3"
W4	#4	8	8	8	8	8	8	8	8	3'-0"	W+3'-0"	W+6'-0"
W5	#4	8	8	8	8	8	8	8	8	2'-8"	W+2'-2"	W+4'-10"
W6	#4	8	8	8	8	8	8	8	8	2'-4"	W+1'-4"	W+3'-8"
W7	#4	8	8	8	8	8	8	8	8	2'-0"	W+6"	W+2'-6"
Y1	#4	4	4	4	4	4	4	4	4			2'-11"
Y2	#4	4	4	4	4	4	4	4	4			5'-3"
Y3	#4	4	4	4	4	4	4	4	4			7'-7"
Y4	#4	4	4	4	4	4	4	4	4			9'-10"
Y5	#4	4	4	4	4	4	4	4	4			12'-2"
Y6	#4	4	4	4	4	4	4	4	4			12'-5"



ONE SET OF BARS AST & BS ~ #4



ONE SET OF BARS ASB ~ #4

GENERAL NOTES:

Specifications: Mississippi Standard Specifications For Road And Bridge Construction, 1990.
All Concrete Shall Be Class "B".
Concrete Surfaces Shall Be Finished In Accordance With Sub-Section 804.03.19.
Expansion Joint Material Shall Be Bituminous Fiber Type Unless Otherwise Noted.
All Exposed Corners Shall Be Chamfered ¾".
Reinforcing Steel Shall Be Placed 1" Clear Minimum From The Surface Of The Concrete And Shall Be Adequately Supported From The Forms.
All Bars Shall Be Accurately Spaced And Securely Wired At Each Intersection Before Placing Concrete.
Horizontal Construction Joints Shall Be Placed Only At The Locations Shown, And The Concrete Shall Be Allowed To Set A Minimum Period Of Two Hours Before Continuing The Pour.
The Quantities Shown Will Be Used As A Basis For Final Payment Unless This Drawing Is Modified.

NOTE: The Diagrams For Bars ASB, AST And BS Are For A Culvert Length Greater Than 140 Ft. And Equal To Or Less Than 190 Ft. With A Median Of 40 Ft. Thru 60 Ft. For Conditions Other Than These, Use Sections As Shown On Elevation Of Culvert.

BAR BENDING DETAILS

Dimensions Are Out To Out.

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

DEPARTMENT OF TRANSPORTATION 1997 Box Culvert Stds MISSISSIPPI

REVISIONS BY DATE

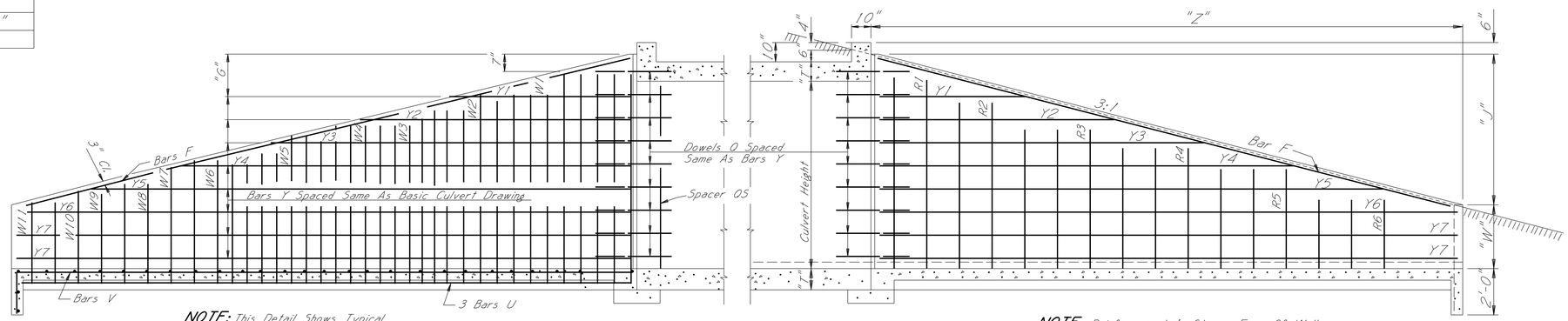
MISSISSIPPI DEPARTMENT OF TRANSPORTATION
BASIC CULVERT DRAWING
SINGLE CELL
HEIGHT 6 FT.
SPANS 6-20 FT.

WORKING NUMBER IBS-6-2W-97

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

SHEET NUMBER 7508

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



NOTE: This Detail Shows Typical Scheme For Bars W And Y.

NOTE: Reinforcement In Stream Face Of Wall Required For H= 8, 10 & 12 Ft. Only.

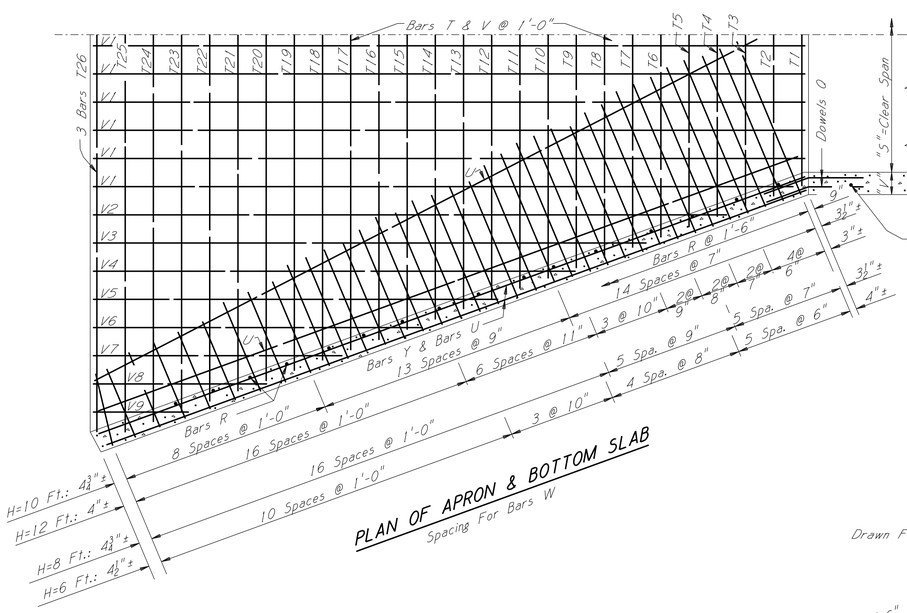
FILL SIDE

LONGITUDAL SECTION

Showing Bars In Both Faces Of Wall
Drawn For Single Cell 10' x 10' Culvert

STREAM SIDE

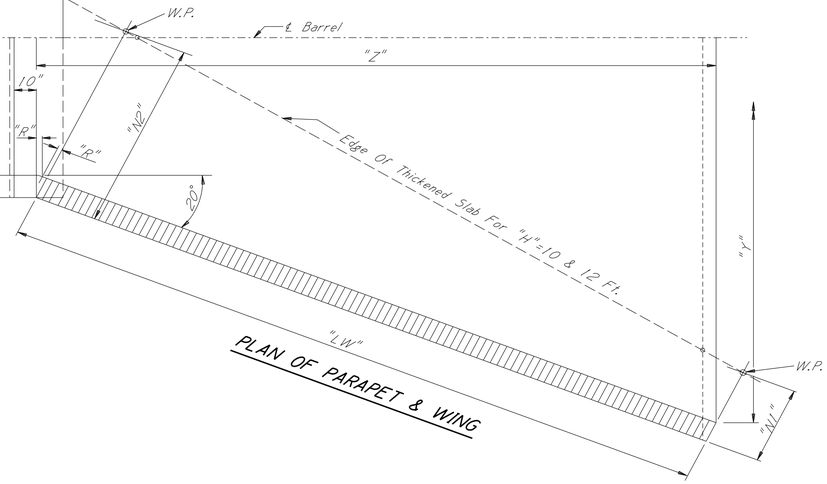
NOTE: This Detail Shows Typical Scheme For Bars T And V.



PLAN OF APRON & BOTTOM SLAB

Spacing For Bars W

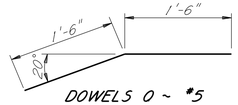
NOTE: As Clear Span Increases Extend Edge Of Thickened Slab To This Point.



PLAN OF PARAPET & WING

GENERAL PLAN

Drawn For Single Cell 10' x 10' Culvert



DOWELS O ~ #5

BAR BENDING DETAILS

Dimensions Are Out To Out

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

DEPARTMENT OF TRANSPORTATION 1997 Box Culvert Stds MISSISSIPPI

REVISIONS BY

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

SHEET NUMBER 7515

CULVERT DIMENSIONS

CULVERT HEIGHT "H"	"J"	"LW"	"N1"	"N2"	"R"	"Z"	"Y" CLEAR SPAN 6'	7'	8'	9'	10'	12'	14'	16'	18'	20'	22'	24'
10'	8'-4"	26'-7 1/4"	2'-11"	6'-6"	1 3/8"	25'-3 7/16"					28'-3 8/16"	30'-3 8/16"	32'-3 8/16"	34'-3 8/16"	36'-3 8/16"	38'-3 8/16"	40'-3 8/16"	
12'	9'-7"	30'-7 1/8"	3'-3"	7'-0"	1 5/16"	29'-0 3/4"						33'-0 7/16"	35'-0 7/16"	37'-0 7/16"	39'-0 7/16"	41'-0 7/16"	43'-0 7/16"	45'-0 7/16"

ESTIMATED QUANTITIES~CULVERT (L=150 FT.)

CULVERT HEIGHT "H"	CLEAR SPAN 6' CONC. cu. yd.	6' REINF. STEEL lb.	7' CONC. cu. yd.	7' REINF. STEEL lb.	8' CONC. cu. yd.	8' REINF. STEEL lb.	9' CONC. cu. yd.	9' REINF. STEEL lb.	10' CONC. cu. yd.	10' REINF. STEEL lb.	12' CONC. cu. yd.	12' REINF. STEEL lb.	14' CONC. cu. yd.	14' REINF. STEEL lb.	16' CONC. cu. yd.	16' REINF. STEEL lb.	18' CONC. cu. yd.	18' REINF. STEEL lb.	20' CONC. cu. yd.	20' REINF. STEEL lb.	22' CONC. cu. yd.	22' REINF. STEEL lb.	24' CONC. cu. yd.	24' REINF. STEEL lb.
10'									254.22	33,861	288.33	38,823	326.12	47,936	378.95	58,275	435.83	69,729	502.54	82,504	573.13	97,852		
12'											346.82	47,412	378.50	55,883	420.53	61,540	479.61	72,629	542.69	82,907	621.36	97,045	706.08	110,084

HEIGHT = 12 FT.

BAR LISTS FOR WINGS & APRONS

BAR	SIZE	NO. REQUIRED SPAN 12'	14'	16'	18'	20'	22'	24'	DIM. X	DIM. X1	LENGTH
T1	#4	2	2	2	2	2	2	2			S+1'-6"
T2	#4	2	2	2	2	2	2	2			S+2'-3"
T3	#4	2	2	2	2	2	2	2			S+3'-0"
T4	#4	2	2	2	2	2	2	2			S+3'-9"
T5	#4	2	2	2	2	2	2	2			S+4'-6"
T6	#4	2	2	2	2	2	2	2			S+5'-3"
T7	#4	2	2	2	2	2	2	2			S+6'-0"
T8	#4	2	2	2	2	2	2	2			S+6'-9"
T9	#4	2	2	2	2	2	2	2			S+7'-6"
T10	#4	2	2	2	2	2	2	2			S+8'-3"
T11	#4	2	2	2	2	2	2	2			S+9'-0"
T12	#4	2	2	2	2	2	2	2			S+9'-9"
T13	#4	2	2	2	2	2	2	2			S+10'-6"
T14	#4	2	2	2	2	2	2	2			S+11'-3"
T15	#4	2	2	2	2	2	2	2			S+12'-0"
T16	#4	2	2	2	2	2	2	2			S+12'-9"
T17	#4	2	2	2	2	2	2	2			S+13'-6"
T18	#4	2	2	2	2	2	2	2			S+14'-3"
T19	#4	2	2	2	2	2	2	2			S+15'-0"
T20	#4	2	2	2	2	2	2	2			S+15'-9"
T21	#4	2	2	2	2	2	2	2			S+16'-6"
T22	#4	2	2	2	2	2	2	2			S+17'-2"
T23	#4	2	2	2	2	2	2	2			S+17'-11"
T24	#4	2	2	2	2	2	2	2			S+18'-8"
T25	#4	2	2	2	2	2	2	2			S+19'-5"
T26	#4	2	2	2	2	2	2	2			S+20'-2"
T27	#4	2	2	2	2	2	2	2			S+20'-11"
T28	#4	2	2	2	2	2	2	2			S+21'-8"
T29	#4	6	6	6	6	6	6	6			S+21'-8"
U	#4	12	12	12	12	12	12	12			30'-3"
V1	#4	28	32	36	40	44	48	52	28'-8"	1'-8"	30'-4"
V2	#4	4	4	4	4	4	4	4	26'-7"	1'-8"	28'-3"
V3	#4	4	4	4	4	4	4	4	23'-10"	1'-8"	25'-6"
V4	#4	4	4	4	4	4	4	4	21'-1"	1'-8"	22'-9"
V5	#4	4	4	4	4	4	4	4	18'-4"	1'-8"	20'-0"
V6	#4	4	4	4	4	4	4	4	15'-7"	1'-8"	17'-3"
V7	#4	4	4	4	4	4	4	4	12'-10"	1'-8"	14'-6"
V8	#4	4	4	4	4	4	4	4	10'-1"	1'-8"	11'-9"
V9	#4	4	4	4	4	4	4	4	7'-4"	1'-8"	9'-0"
V10	#4	4	4	4	4	4	4	4	4'-7"	1'-8"	6'-3"
W1	#7	20	20	20	20	20	20	20	6'-5"	W+9'-6"	W+15'-11"
W2	#7	20	20	20	20	20	20	20	6'-0"	W+8'-6"	W+14'-6"
W3	#7	12	12	12	12	12	12	12	5'-8"	W+7'-8"	W+13'-4"
W4	#7	12	12	12	12	12	12	12	5'-4"	W+6'-10"	W+12'-2"
W5	#6	12	12	12	12	12	12	12	5'-0"	W+6'-0"	W+11'-0"
W6	#6	12	12	12	12	12	12	12	4'-8"	W+5'-2"	W+9'-10"
W7	#5	12	12	12	12	12	12	12	4'-3"	W+4'-2"	W+8'-5"
W8	#5	12	12	12	12	12	12	12	3'-11"	W+3'-3"	W+7'-2"
W9	#4	12	12	12	12	12	12	12	3'-7"	W+2'-3"	W+5'-10"
W10	#4	8	8	8	8	8	8	8	3'-4"	W+1'-7"	W+4'-11"
W11	#4	8	8	8	8	8	8	8	3'-1"	W+1'-0"	W+4'-1"
W12	#4	4	4	4	4	4	4	4	3'-0"	W+8"	W+3'-8"
Y1	#4	8	8	8	8	8	8	8			5'-8"
Y2	#4	8	8	8	8	8	8	8			9'-8"
Y3	#4	8	8	8	8	8	8	8			13'-8"
Y4	#4	8	8	8	8	8	8	8			17'-8"
Y5	#4	8	8	8	8	8	8	8			21'-8"
Y6	#4	8	8	8	8	8	8	8			25'-8"
Y7	#4	8	8	8	8	8	8	8			29'-8"
Y8	#4	24	24	24	24	24	24	24			30'-3"

HEIGHT = 10 FT.

BAR LISTS FOR WINGS & APRONS

BAR	SIZE	NO. REQUIRED SPAN 10'	12'	14'	16'	18'	20'	22'	DIM. X	DIM. X1	LENGTH
T1	#4	2	2	2	2	2	2	2			S+1'-2"
T2	#4	2	2	2	2	2	2	2			S+1'-8"
T3	#4	2	2	2	2	2	2	2			S+2'-5"
T4	#4	2	2	2	2	2	2	2			S+3'-2"
T5	#4	2	2	2	2	2	2	2			S+3'-11"
T6	#4	2	2	2	2	2	2	2			S+4'-8"
T7	#4	2	2	2	2	2	2	2			S+5'-5"
T8	#4	2	2	2	2	2	2	2			S+6'-2"
T9	#4	2	2	2	2	2	2	2			S+6'-11"
T10	#4	2	2	2	2	2	2	2			S+7'-8"
T11	#4	2	2	2	2	2	2	2			S+8'-5"
T12	#4	2	2	2	2	2	2	2			S+9'-2"
T13	#4	2	2	2	2	2	2	2			S+9'-9"
T14	#4	2	2	2	2	2	2	2			S+10'-6"
T15	#4	2	2	2	2	2	2	2			S+11'-3"
T16	#4	2	2	2	2	2	2	2			S+12'-0"
T17	#4	2	2	2	2	2	2	2			S+12'-9"
T18	#4	2	2	2	2	2	2	2			S+13'-6"
T19	#4	2	2	2	2	2	2	2			S+14'-3"
T20	#4	2	2	2	2	2	2	2			S+15'-0"
T21	#4	2	2	2	2	2	2	2			S+15'-9"
T22	#4	2	2	2	2	2	2	2			S+16'-6"
T23	#4	2	2	2	2	2	2	2			S+17'-3"
T24	#4	2	2	2	2	2	2	2			S+17'-11"
T25	#4	2	2	2	2	2	2	2			S+18'-7"
T26	#4	2	2	2	2	2	2	2			S+18'-10"
U	#4	12	12	12	12	12	12	12			26'-3"
V1	#4	24	28	32	36	40	44	48	24'-11"	1'-8"	26'-7"
V2	#4	4	4	4	4	4	4	4	22'-7"	1'-8"	24'-3"
V3	#4	4	4	4	4	4	4	4	19'-10"	1'-8"	21'-6"
V4	#4	4	4	4	4	4	4	4	17'-1"	1'-8"	18'-9"
V5	#4	4	4	4	4	4	4	4	14'-4"	1'-8"	16'-0"
V6	#4	4	4	4	4	4	4	4	11'-7"	1'-8"	13'-3"
V7	#4	4	4	4	4	4	4	4	8'-10"	1'-8"	10'-6"
V8	#4	4	4	4	4	4	4	4	6'-1"	1'-8"	7'-9"
V9	#4	4	4	4	4	4	4	4	3'-4"	1'-8"	5'-0"
W1	#6	20	20	20	20	20	20	20	5'-10"	W+8'-1"	W+13'-11"
W2	#6	20	20	20	20	20	20	20	5'-5"	W+7'-2"	W+12'-7"
W3	#5	20	20	20	20	20	20	20	5'-0"	W+6'-3"	W+11'-3"
W4	#5	12	12	12	12	12	12	12	4'-8"	W+5'-7"	W+10'-3"
W5	#5	12	12	12	12	12	12	12	4'-5"	W+4'-11"	W+9'-4"
W6	#4	12	12	12	12	12	12	12	4'-2"	W+4'-1"	W+8'-3"
W7	#4	12	12	12	12	12	12	12	3'-10"	W+3'-5"	W+7'-3"
W8	#4	12	12	12	12	12	12	12	3'-5"	W+2'-7"	W+6'-0"
W9	#4	12	12	12	12	12	12	12	3'-2"	W+2'-0"	W+5'-2"
W10	#4	8	8	8	8	8	8	8	2'-11"	W+1'-4"	W+4'-3"
W11	#4	8	8	8	8	8	8	8	2'-8"	W+8"	W+3'-4"
Y1	#4	8	8	8	8	8	8	8			5'-4"
Y2	#4	8	8	8	8	8	8	8			9'-4"
Y3	#4	8	8	8	8	8	8	8			13'-4"
Y4	#4	8	8	8	8	8	8	8			17'-4"
Y5	#4	8	8	8	8	8	8	8			21'-4"
Y6	#4	8	8	8	8	8	8	8			25'-4"
Y7	#4	16	16	16	16	16	16	16			26'-3"

ADDITIONAL BAR LIST FOR WINGS & APRONS

BAR	SIZE	H = 10 FT. NO.	H = 10 FT. LENGTH	H = 12 FT. NO.	H = 12 FT. LENGTH
F	#4	8	27'-6"	8	31'-8"
O	#5	72	3'-0"	88	3'-0"
OS	#4	4	9'-7"	4	11'-7"
R1	#4	8	W+7'-1"	8	W+8'-4"
R2	#4	8	W+6'-2"	8	W+7'-5"
R3	#4	12	W+4'-9"	12	W+6'-0"
R4	#4	12	W+3'-4"	12	W+4'-7"
R5	#4	12	W+1'-11"	12	W+3'-2"
R6	#4	12	W+6"	12	W+1'-9"
R7	#4			12	W+4"

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

DEPARTMENT OF TRANSPORTATION 1997 Box Culvert Stds MISSISSIPPI

REVISIONS BY DATE

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

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

SHEET NUMBER 7516

ESTIMATED QUANTITIES~CULVERT (L=150 FT.)

CLEAR SPAN

CULVERT HEIGHT "H"	6'		7'		8'		9'		10'		12'		14'		16'		18'		20'		22'		24'	
	CONC. cu. yd.	REINF. STEEL lb.	CONC. cu. yd.	REINF. STEEL lb.	CONC. cu. yd.	REINF. STEEL lb.	CONC. cu. yd.	REINF. STEEL lb.	CONC. cu. yd.	REINF. STEEL lb.	CONC. cu. yd.	REINF. STEEL lb.	CONC. cu. yd.	REINF. STEEL lb.	CONC. cu. yd.	REINF. STEEL lb.	CONC. cu. yd.	REINF. STEEL lb.	CONC. cu. yd.	REINF. STEEL lb.	CONC. cu. yd.	REINF. STEEL lb.	CONC. cu. yd.	REINF. STEEL lb.
6'	107.46	14,893			135.35	19,617			167.07	25,896	202.64	31,851	253.05	40,088	297.38	46,586	353.30	58,125	413.39	68,544				
8'					174.41	26,894			203.83	30,286	241.63	35,276	295.28	42,787	346.61	52,747	401.98	62,531	461.34	73,117				

CULVERT DIMENSIONS

CULVERT HEIGHT "H"	"J"	"LW"	"N1"	"N2"	"R"	"Z"	"Y" CLEAR SPAN 6'	7'	8'	9'	10'	12'	14'	16'	18'	20'	22'	24'
6'	5'-9"	18'-4 5/16"			1 1/4"	17'-5 3/8"	18'-7 1/2"		20'-7 1/2"		22'-7 1/2"	24'-7 1/2"	26'-7 1/2"	28'-7 1/2"	30'-7 1/2"	32'-7 1/2"		
8'	7'-4"	23'-4 15/16"			1 1/2"	22'-2 15/16"			24'-1 13/16"		26'-1 13/16"	28'-1 13/16"	30'-1 13/16"	32'-1 13/16"	34'-1 13/16"	36'-1 13/16"		

⚠ HEIGHT = 8 FT.

BAR LISTS FOR WINGS & APRONS

BAR	SIZE	NO. REQUIRED SPAN 8'	10'	12'	14'	16'	18'	20'	DIM. X	DIM. X1	LENGTH
T1	#4	2	2	2	2	2	2	2			S+10"
T2	#4	2	2	2	2	2	2	2			S+1'-5"
T3	#4	2	2	2	2	2	2	2			S+2'-2"
T4	#4	2	2	2	2	2	2	2			S+2'-11"
T5	#4	2	2	2	2	2	2	2			S+3'-8"
T6	#4	2	2	2	2	2	2	2			S+4'-5"
T7	#4	2	2	2	2	2	2	2			S+5'-2"
T8	#4	2	2	2	2	2	2	2			S+5'-11"
T9	#4	2	2	2	2	2	2	2			S+6'-7"
T10	#4	2	2	2	2	2	2	2			S+7'-4"
T11	#4	2	2	2	2	2	2	2			S+8'-1"
T12	#4	2	2	2	2	2	2	2			S+8'-10"
T13	#4	2	2	2	2	2	2	2			S+9'-7"
T14	#4	2	2	2	2	2	2	2			S+10'-4"
T15	#4	2	2	2	2	2	2	2			S+11'-1"
T16	#4	2	2	2	2	2	2	2			S+11'-10"
T17	#4	2	2	2	2	2	2	2			S+12'-7"
T18	#4	2	2	2	2	2	2	2			S+13'-4"
T19	#4	2	2	2	2	2	2	2			S+14'-1"
T20	#4	2	2	2	2	2	2	2			S+14'-10"
T21	#4	2	2	2	2	2	2	2			S+15'-7"
T22	#4	2	2	2	2	2	2	2			S+16'-3"
T23	#4	6	6	6	6	6	6	6			S+16'-6"
U	#4	12	12	12	12	12	12	12			23'-0"
V1	#4	20	24	28	32	36	40	44	21'-11"	1'-8"	23'-7"
V2	#4	4	4	4	4	4	4	4	19'-2"	1'-8"	20'-10"
V3	#4	4	4	4	4	4	4	4	16'-5"	1'-8"	18'-1"
V4	#4	4	4	4	4	4	4	4	13'-8"	1'-8"	15'-4"
V5	#4	4	4	4	4	4	4	4	10'-11"	1'-8"	12'-7"
V6	#4	4	4	4	4	4	4	4	8'-2"	1'-8"	9'-10"
V7	#4	4	4	4	4	4	4	4	5'-5"	1'-8"	7'-1"
W1	#5	24	24	24	24	24	24	24	4'-6"	W+6'-9"	W+11'-3"
W2	#5	20	20	20	20	20	20	20	4'-1"	W+5'-7"	W+9'-8"
W3	#5	12	12	12	12	12	12	12	3'-7"	W+4'-7"	W+8'-2"
W4	#4	12	12	12	12	12	12	12	3'-3"	W+3'-7"	W+6'-10"
W5	#4	12	12	12	12	12	12	12	2'-11"	W+2'-7"	W+5'-6"
W6	#4	12	12	12	12	12	12	12	2'-7"	W+1'-7"	W+4'-2"
W7	#4	8	8	8	8	8	8	8	2'-3"	W+1'-0"	W+3'-3"
W8	#4	8	8	8	8	8	8	8	2'-0"	W+5"	W+2'-5"
Y1	#4	8	8	8	8	8	8	8			4'-10"
Y2	#4	8	8	8	8	8	8	8			8'-0"
Y3	#4	8	8	8	8	8	8	8			11'-2"
Y4	#4	8	8	8	8	8	8	8			14'-4"
Y5	#4	8	8	8	8	8	8	8			17'-6"
Y6	#4	8	8	8	8	8	8	8			20'-8"
Y7	#4	16	16	16	16	16	16	16			23'-0"

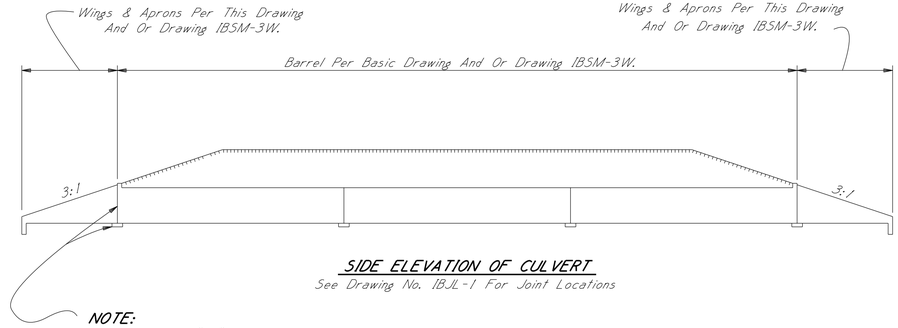
⚠ HEIGHT = 6 FT.

BAR LISTS FOR WINGS & APRONS

BAR	SIZE	NO. REQUIRED SPAN 6'	8'	10'	12'	14'	16'	18'	20'	DIM. X	DIM. X1	LENGTH
T1	#4	2	2	2	2	2	2	2	2			S+8"
T2	#4	2	2	2	2	2	2	2	2			S+1'-5"
T3	#4	2	2	2	2	2	2	2	2			S+2'-2"
T4	#4	2	2	2	2	2	2	2	2			S+2'-11"
T5	#4	2	2	2	2	2	2	2	2			S+3'-8"
T6	#4	2	2	2	2	2	2	2	2			S+4'-5"
T7	#4	2	2	2	2	2	2	2	2			S+5'-2"
T8	#4	2	2	2	2	2	2	2	2			S+5'-11"
T9	#4	2	2	2	2	2	2	2	2			S+6'-8"
T10	#4	2	2	2	2	2	2	2	2			S+7'-5"
T11	#4	2	2	2	2	2	2	2	2			S+8'-2"
T12	#4	2	2	2	2	2	2	2	2			S+8'-11"
T13	#4	2	2	2	2	2	2	2	2			S+9'-7"
T14	#4	2	2	2	2	2	2	2	2			S+10'-4"
T15	#4	2	2	2	2	2	2	2	2			S+11'-1"
T16	#4	2	2	2	2	2	2	2	2			S+11'-10"
T17	#4	2	2	2	2	2	2	2	2			S+12'-7"
T18	#4	6	6	6	6	6	6	6	6			S+13'-0"
U	#4	12	12	12	12	12	12	12	12			18'-0"
V1	#4	16	20	24	28	32	36	40	44	17'-1"	1'-8"	18'-9"
V2	#4	4	4	4	4	4	4	4	4	14'-1"	1'-8"	15'-9"
V3	#4	4	4	4	4	4	4	4	4	11'-4"	1'-8"	13'-0"
V4	#4	4	4	4	4	4	4	4	4	8'-7"	1'-8"	10'-3"
V5	#4	4	4	4	4	4	4	4	4	5'-10"	1'-8"	7'-6"
V6	#4	4	4	4	4	4	4	4	4	3'-1"	1'-8"	4'-9"
W1	#4	20	20	20	20	20	20	20	20	4'-0"	W+5'-4"	W+9'-4"
W2	#4	12	12	12	12	12	12	12	12	3'-8"	W+4'-9"	W+8'-5"
W3	#4	12	12	12	12	12	12	12	12	3'-5"	W+4'-0"	W+7'-5"
W4	#4	12	12	12	12	12	12	12	12	3'-0"	W+3'-2"	W+6'-2"
W5	#4	12	12	12	12	12	12	12	12	2'-8"	W+2'-3"	W+4'-11"
W6	#4	12	12	12	12	12	12	12	12	2'-4"	W+1'-4"	W+3'-8"
W7	#4	12	12	12	12	12	12	12	12	2'-0"	W+5"	W+2'-5"
Y1	#4	4	4	4	4	4	4	4	4			4'-10"
Y2	#4	4	4	4	4	4	4	4	4			8'-1"
Y3	#4	4	4	4	4	4	4	4	4			11'-3"
Y4	#4	4	4	4	4	4	4	4	4			14'-5"
Y5	#4	4	4	4	4	4	4	4	4			17'-7"
Y6	#4	4	4	4	4	4	4	4	4			18'-0"

ADDITIONAL BAR LIST FOR WINGS & APRONS

BAR	SIZE	H = 6 FT. NO.	LENGTH	H = 8 FT. NO.	LENGTH
F	#4	8	18'-10"	8	24'-2"
O	#5	28	3'-0"	72	3'-0"
OS	#4	4	5'-7"	4	7'-7"
R1	#4			8	W+6'-1"
R2	#4			12	W+4'-8"
R3	#4			12	W+3'-3"
R4	#4			12	W+1'-10"
R5	#4			12	W+5"



SIDE ELEVATION OF CULVERT

See Drawing No. IBJL-1 For Joint Locations

NOTE:

Auxiliary Slabs "W" And Vertical Construction Joints At The Wings Are Required Only Where Called For By The Basic Drawing And Auxiliary Slabs "W" Are Not To Be Used For Culvert Heights Of Less Than 8 Feet.

GENERAL NOTES:

This Drawing Shows The General Details Necessary To Modify A Single Cell Culvert For Wings With 3:1 Slope.

All Governing Dimensions, Reinforcing Details And General Requirements Of Basic Culvert Drawing Shall Apply Except As Specifically Modified By This Drawing And Or Drawing IBSM-3W.

Barrel Details On Basic Culvert Drawing Shall Be Used With Cover From 2'-6" To The Maximum Shown On Basic Culvert Drawing. With Cover Less Than 2'-6" And More Than Maximum Shown On Basic Culvert Drawing, Use Drawing IBSM-3W For Barrel Details.

Quantities Shown On This Sheet Are For Culverts With Basic Culvert Barrels And Wings With 3:1 Slope Per This Drawing. Quantities Shown On Drawing IBSM-3W Are For Culverts With Barrels Per Drawing IBSM-3W And Wings With 3:1 Slope Per This Drawing And Drawing IBSM-3W. Quantities Not Shown On This Sheet And Or Drawing IBSM-3W Are Same As Shown On Basic Culvert Drawing.

Quantities Shown On This Sheet Are For Complete Culvert Of The Length Noted And Include Barrel, Parapets, Wings, Aprons, Cut-Off Walls, Auxiliary Slabs "W" Where Required And Two Auxiliary Slabs "J".

Quantities Shown On This Sheet Will Be Used As A Basis For Final Payment For Culverts Constructed In Accordance With This Drawing And Basic Culvert Drawing.

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

DEPARTMENT OF TRANSPORTATION 1997 Box Culvert Stds MISSISSIPPI

BJJ BY

2-17-99 DATE Revised HEIGHT Dimensions. 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

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

SHEET NUMBER 7517

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

DESCRIPTION OF SHEETS	WORKING NUMBER	SHEET NUMBER
DETAILED INDEX (BRIDGE)	DI-BR-1	8001
SUMMARY OF QUANTITIES (BRIDGE)	SQ-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

PLAN
BRIDGE DIVISION
MISSISSIPPI DEPARTMENT OF TRANSPORTATION

Ø0: 00AMPM DGNFILENAME

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

DATE | REVISION | BY

DESIGNER JONATHAN KING CHECKER SPENCER YATES
DETAILER JONATHAN KING ISSUE DATE 8/12/2019
DIRECTOR OF STRUCTURES, STATE BRIDGE ENGINEER - JUSTIN WALKER, P.E.
DEP. DIR. OF STRUCTURES, ASST. STATE BRIDGE ENGINEER - SCOTT WESTERFIELD, P.E.

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

SUMMARY OF QUANTITIES

PAY ITEM NO.	PAY ITEM	UNIT	QUANTITIES	
	Bridge Summary		PRELIMINARY	FINAL
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	

6-12-2019

By	Revision	Date

MISSISSIPPI DEPARTMENT OF TRANSPORTATION
SUMMARY OF QUANTITIES
(BRIDGE ITEMS)

PROJECT BR-0023-02(058)
103334-301000

ATTALA COUNTIES

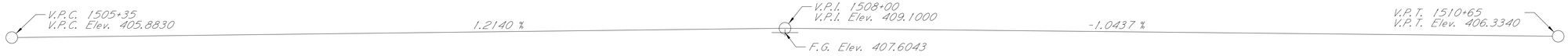
WORKING NUMBER
SQ-BR-1

DESIGNER Barbara Jones, PE CHECKER Trent Wixon, PE
DETAILER Barbara Jones, PE ISSUE DATE 6-12-2019

SHEET NUMBER
8002

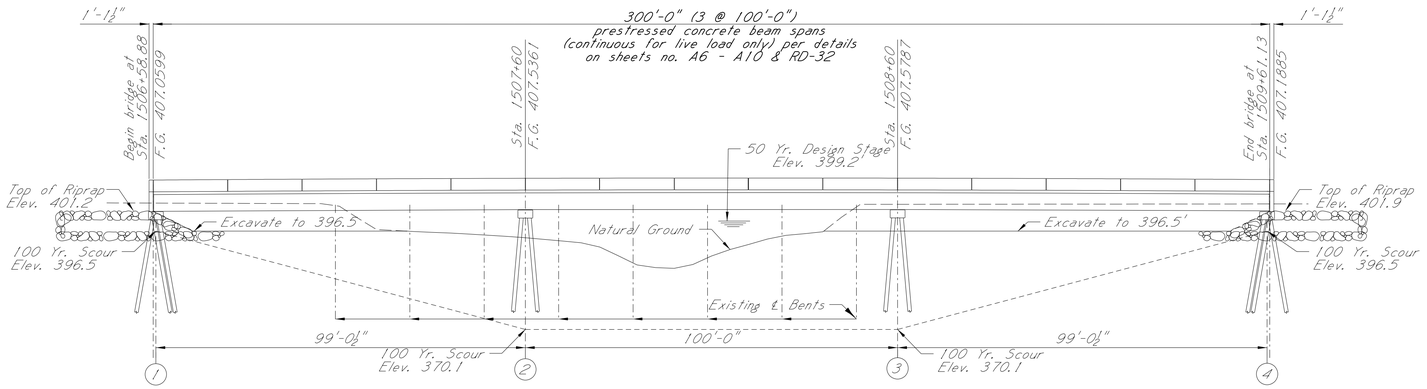
DIRECTOR OF STRUCTURES, STATE BRIDGE ENGINEER - JUSTIN WALKER. P.E.
DEP. DIR OF STRUCTURES, ASST. STATE BRIDGE ENGINEER - SCOTT WESTERFIELD, P.E.

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



530 FT. VERTICAL CURVE

Total length of bridge = 302'-3"



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

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.

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

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

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 Q50 (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

REQUIRED ULTIMATE PILE BEARING CAPACITY AND TIP ELEVATION SCHEDULE

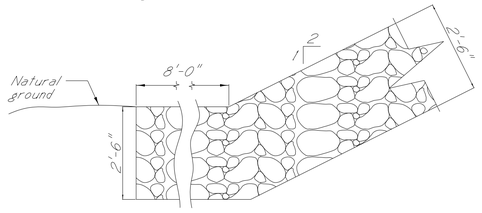
Bent No.	Pile type	Req'd Bearing (Tons)	Pile Size	Estimated Length (ft.)	*Min Tip Elevation	Estimated Tip Elevation	Controlling Limit State
1	Steel	130	HP 14x117	55	375.2	347.2	STRENGTH 1
2	Steel	206	HP 14x117	80	348.1	320.1	STRENGTH 1
3	Steel	206	HP 14x117	80	348.1	320.2	STRENGTH 1
4	Steel	130	HP 14x117	55	375.7	347.2	STRENGTH 1

ESTIMATED QUANTITIES

Item / Location	Transverse Grooving S.Y.	Conventional Static Loading Test Each	HP 14x117 Piling L.F.	PDA Test Pile Each	Pile Restrike Each	Class AA Bridge Concrete C.Y.	Class BD Bridge Concrete C.Y.	100 Ft. Prest. Conc. Beam BT-54 L.F.	Reinforcement LBS.	Concrete Railing L.F.	Loose Riprap (300#) Ton	Geotextile Under Riprap S.Y.
Spans	1333.33						398.82	1788.50	101,454	600.00		
End Bents			1705.0	1	1	80.50			12,220	4.33	1704.0	1118.0
Int. Bents		1.0	1840.0	1	1	51.78			4,528			
Total	1333.33	1.0	3545.0	2	2	132.28	398.82	1788.50	118,202	604.33	1704.0	1118.0

500 Year Scour ELEVATION

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



RIPRAP LAYOUT DETAILS

NOTE:
Geotextile fabric is required under all riprap

TEST PILE SCHEDULE

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

REVISION	BY

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)**

WORKING NUMBER A1 OF A10

SHEET NUMBER 8003

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.

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BRIDGE DIVISION
MISSISSIPPI DEPARTMENT OF TRANSPORTATION

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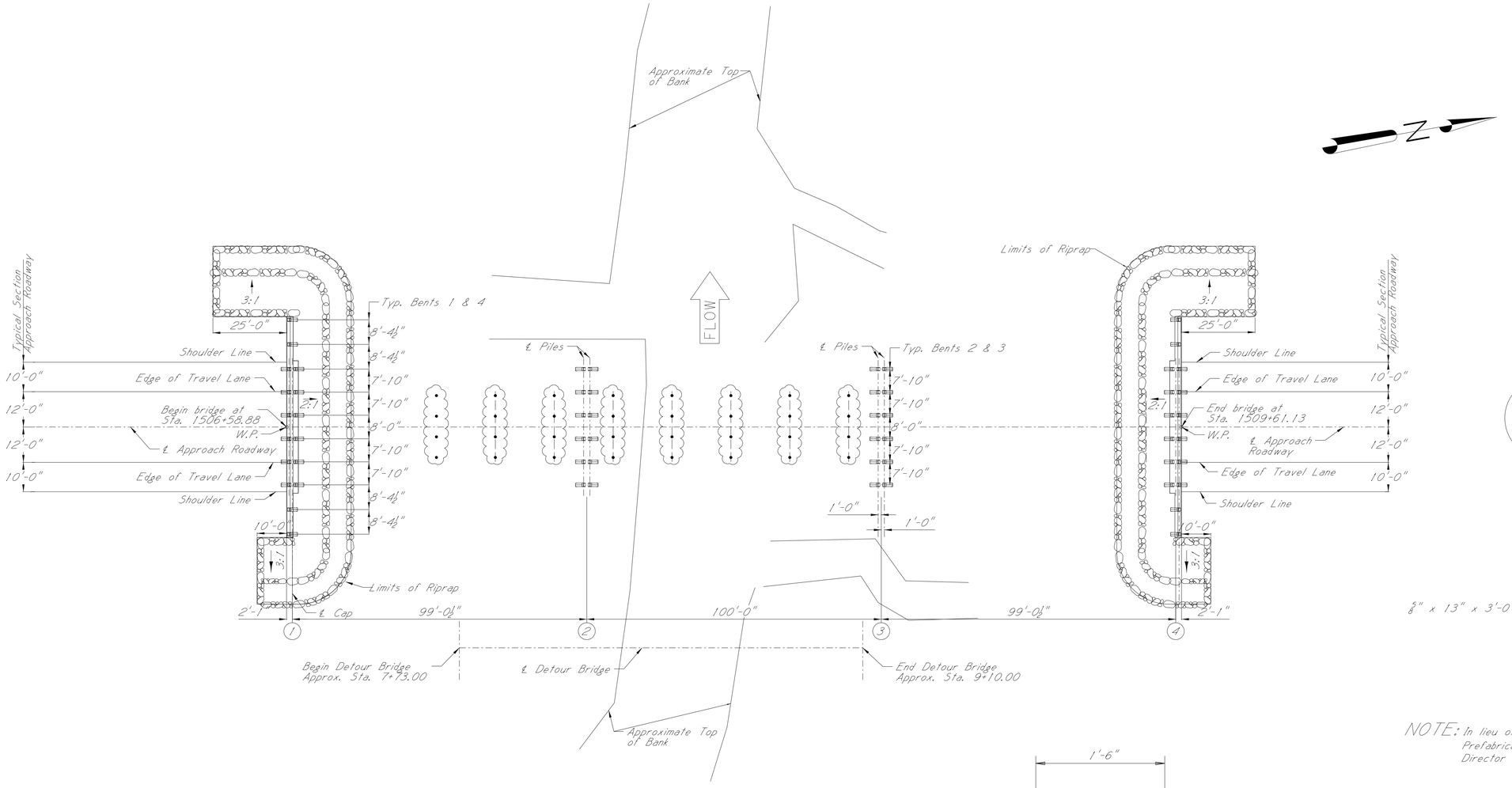
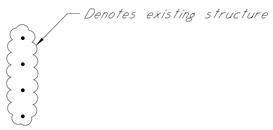
STATE	PROJECT NO.
MISS.	**BR-0023-02(058)**



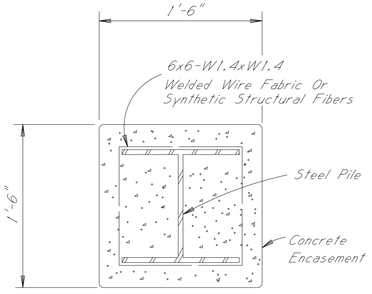
FOUNDATION PLAN

Scale: 1" = 20'-0"



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

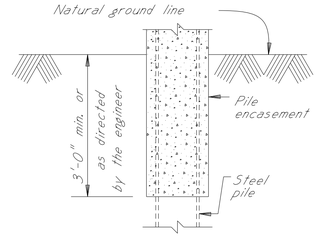
NOTE:
Geotextile fabric is required under all riprap. All riprap and geotextile fabric shown on the bridge plans are included in the bridge quantities.

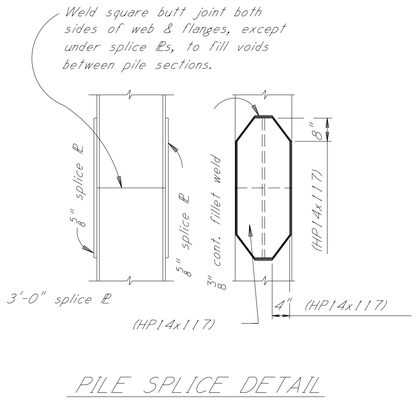


Concrete For Pile Encasement Shall Be Class "AA" And Will Be Paid For As Bridge Concrete.
Class "AA" Concrete With #67 Aggregate May Be Used For Pile Encasement.
Pile Encasement Shall Be Reinforced With 6x6-W1.4xW1.4 Welded Wire Fabric Weighing 0.21 Lbs. Per Sq. Ft. (Not A Separate Pay Item) Or Synthetic 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 ¾".

PILE ENCASEMENT DETAIL

HP14x117 Steel Piles





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.

MISSISSIPPI DEPARTMENT OF TRANSPORTATION
BRIDGE "A" AT STA. 1506+58.88
SR 35 OVER BOKSHENYA CREEK
FOUNDATION PLAN

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

WORKING NUMBER A2 OF A10
SHEET NUMBER 8004

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.

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PLAN
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MISSISSIPPI DEPARTMENT OF TRANSPORTATION

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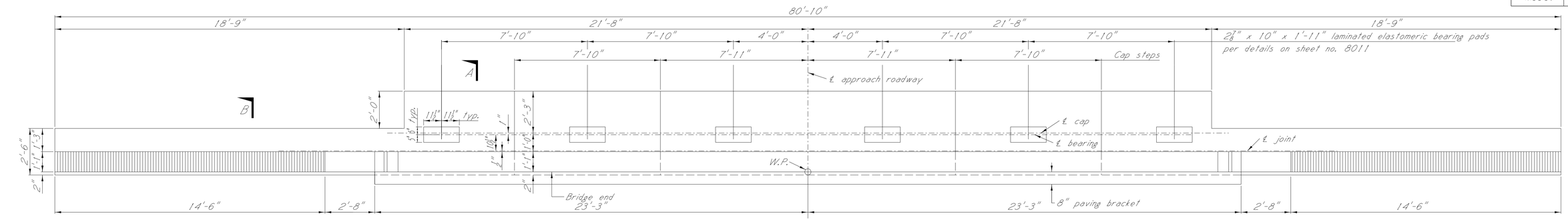
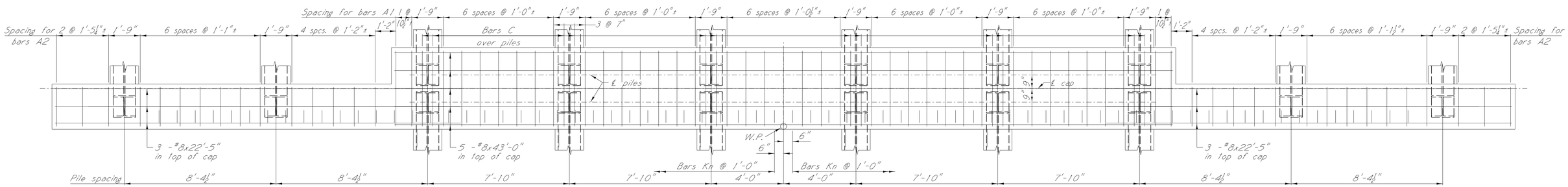
STATE	PROJECT NO.
MISS.	BR-0023-02(058)



PLAN OF BENT

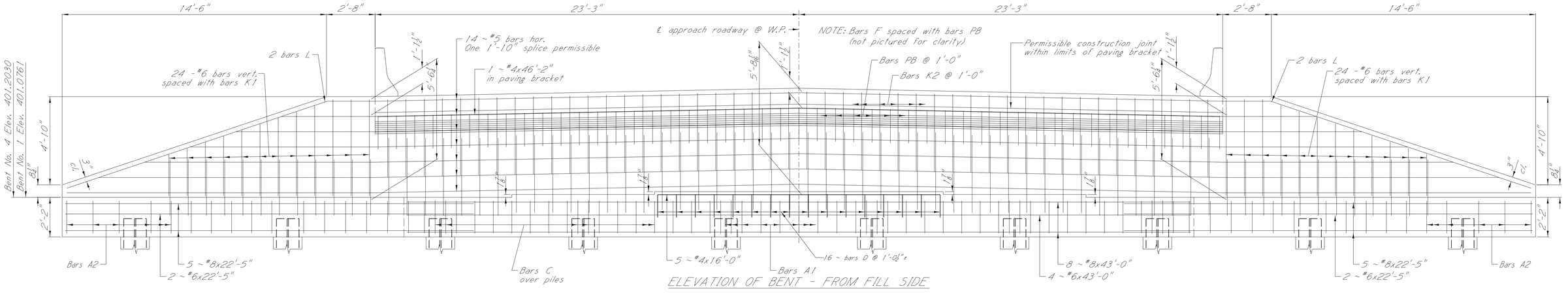
Showing concrete dimensions, cap steps, & lam. pad placement



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.

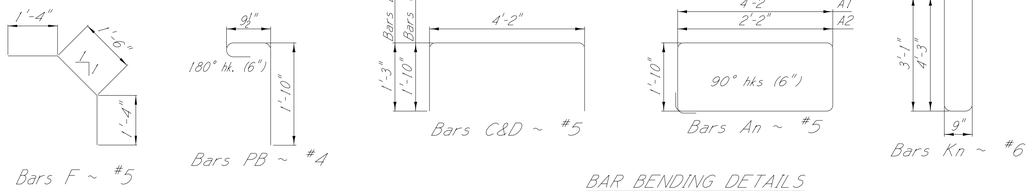


ELEVATION OF BENT - FROM FILL SIDE

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

FMS: 103334 / 301000

COUNTY: ATTALA

PROJECT NUMBER: BR-0023-02(058)

WORKING NUMBER	SHEET NUMBER
A3 OF A10	8005

DESIGNER JONATHAN KING CHECKER SPENCER YATES

DETAILER JONATHAN KING ISSUE DATE 8/12/2019

DIRECTOR OF STRUCTURES, STATE BRIDGE ENGINEER - JUSTIN WALKER, P.E.

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

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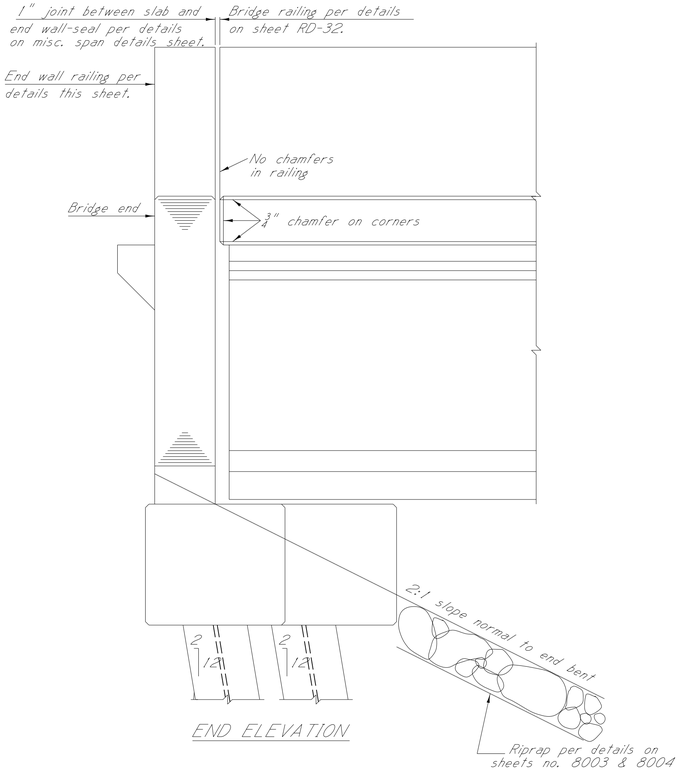
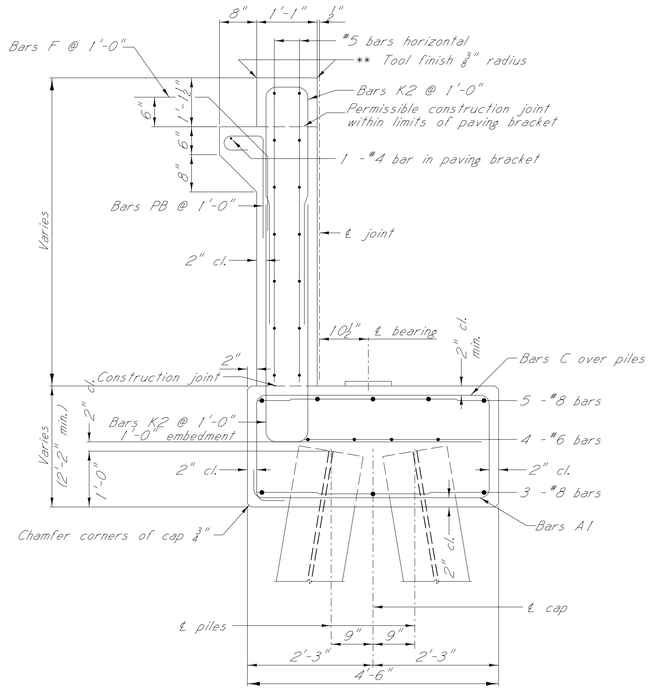
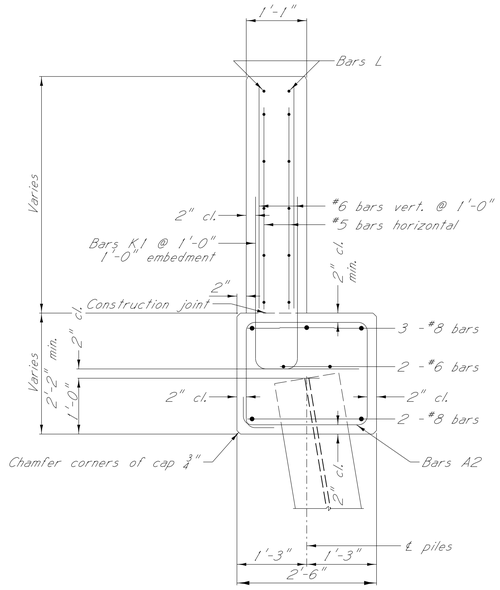
STATE	PROJECT NO.
MISS.	BR-0023-02(058)



END ELEVATION

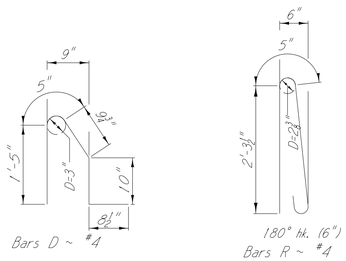


SECTION A-A

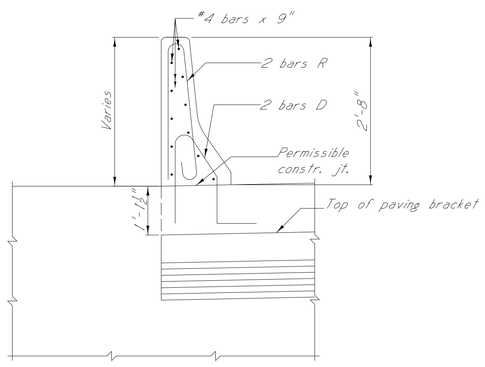


SECTION B-B

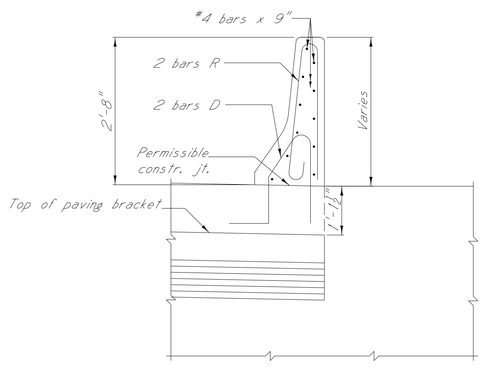
**NOTES:1/4" seat required. See sealing details on sheet no. 8010.



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

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

DATE	REVISION	BY

DESIGNER JONATHAN KING
DETAILER 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 A4 OF A10
SHEET NUMBER 8006

PLAN
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MISSISSIPPI DEPARTMENT OF TRANSPORTATION

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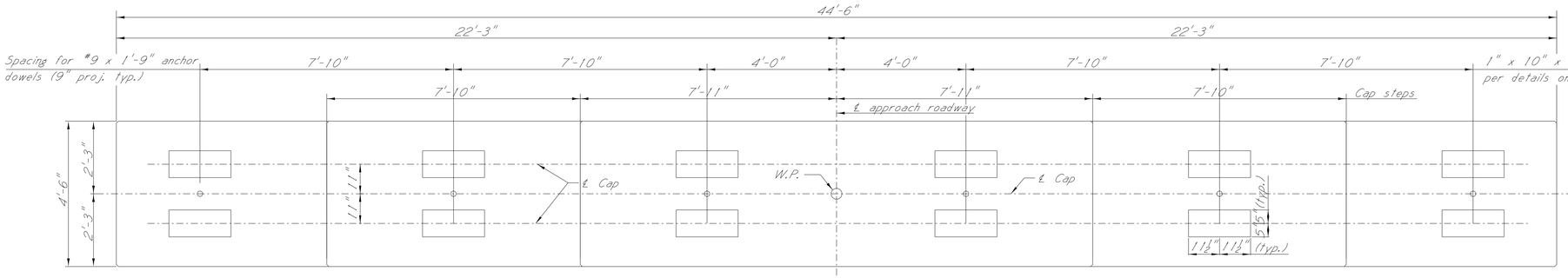
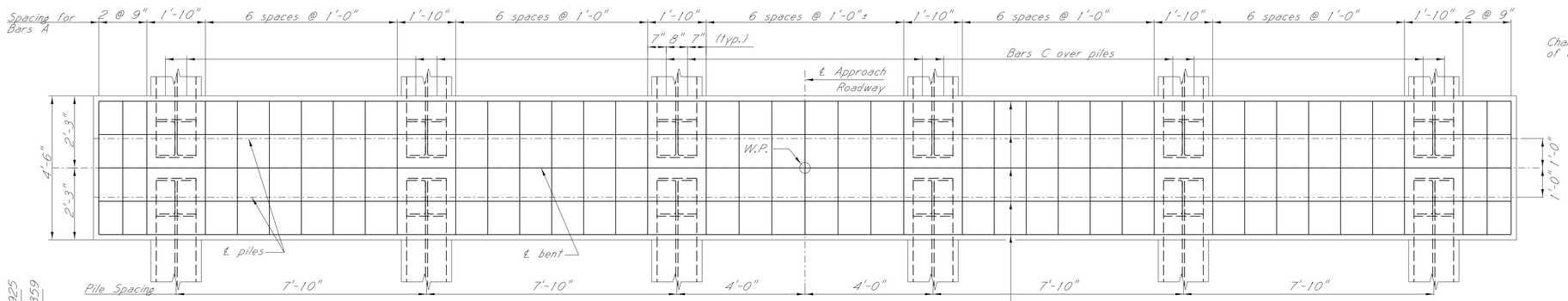
STATE	PROJECT NO.
MISS.	BR-0023-02(058)



PLAN OF INTERMEDIATE BENT

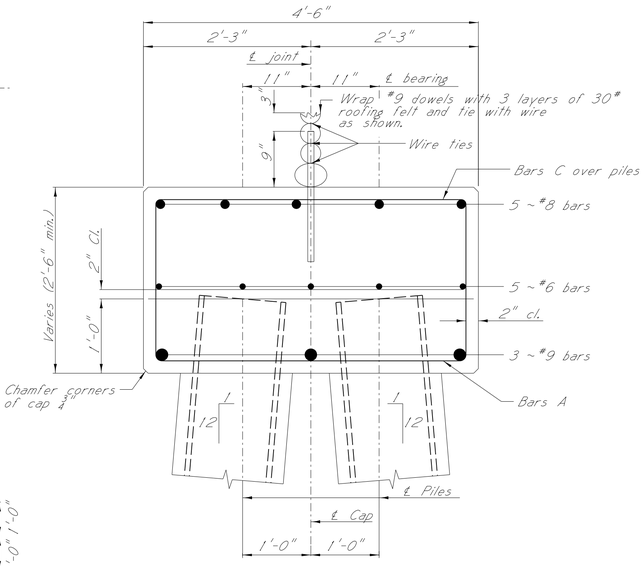
Showing concrete dimensions, cap steps, anchor dowels, and neoprene pad placement



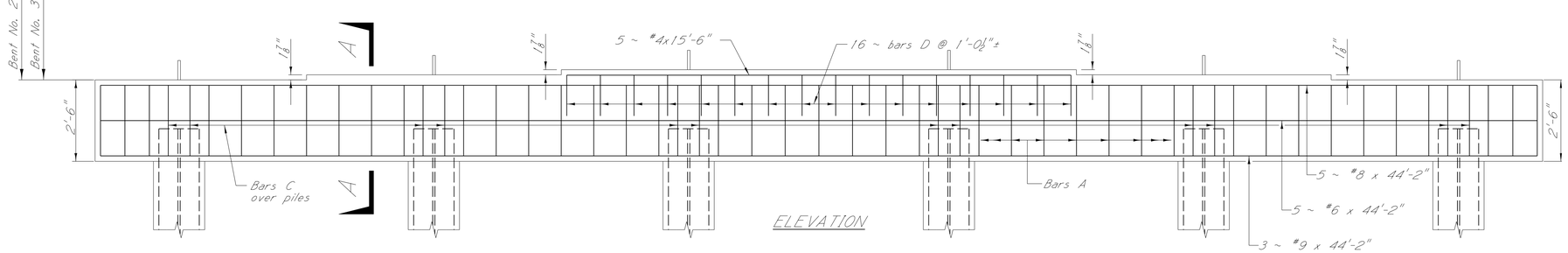
PLAN OF CAP

Showing reinforcing in top of cap and pile spacing

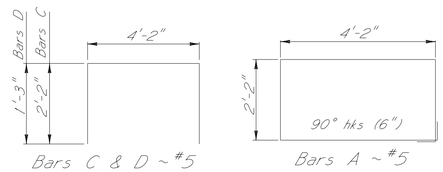
NOTE: Piles shall be of the size, type and driven to the minimum bearing capacity as shown on Sheet 8003.



SECTION A-A



ELEVATION



BAR BENDING DETAILS

Dimensions are out to out

GENERAL NOTES:

All concrete in cap shall be class "AA".
Chamfer all edges ¾" unless otherwise noted.
Placing dimensions from reinforcing steel to concrete surfaces are clear distances.

MISSISSIPPI DEPARTMENT OF TRANSPORTATION

BRIDGE "A" AT STA. 1506+58.88

INT. BENTS NO. 2 & 3 DETAILS

FMS: 103334 / 301000

COUNTY: ATTALA

PROJECT NUMBER: BR-0023-02(058)

WORKING NUMBER A5 OF A10

SHEET NUMBER 8007

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.

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PLAN
BRIDGE DIVISION
MISSISSIPPI DEPARTMENT OF TRANSPORTATION

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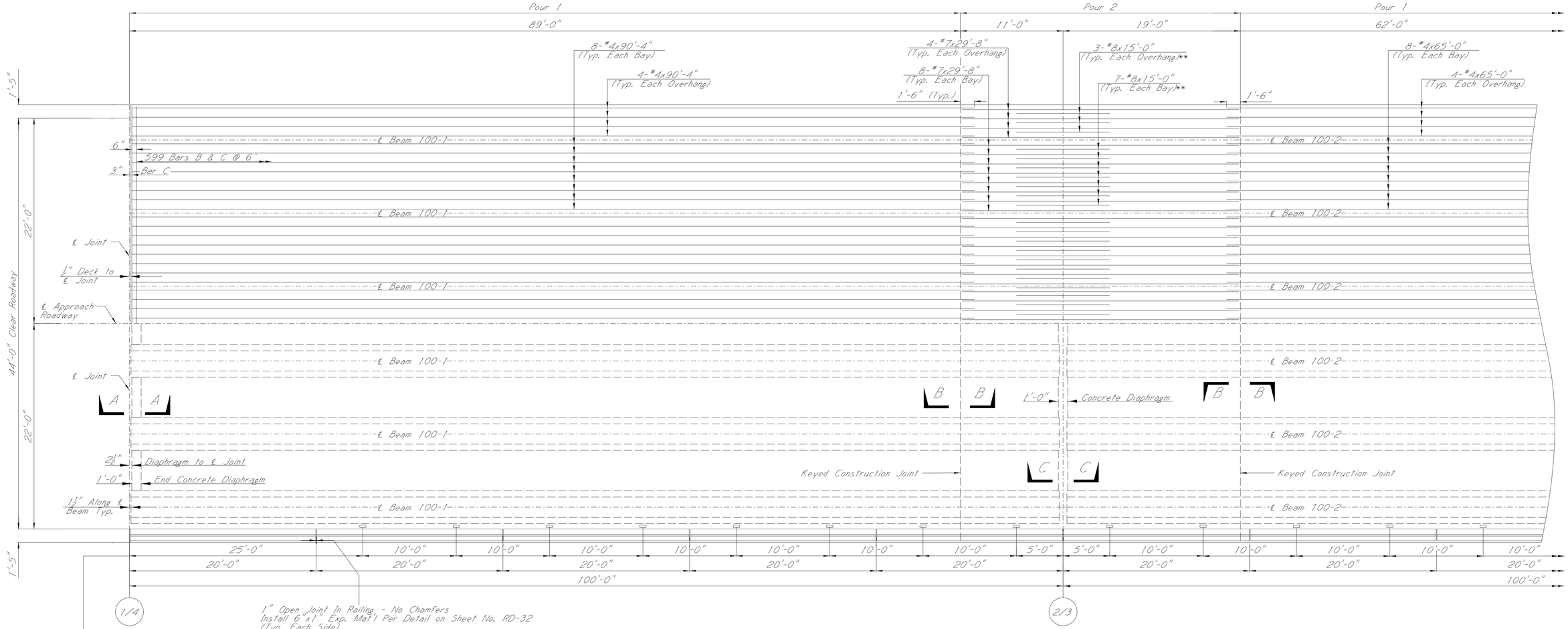
STATE	PROJECT NO.
MISS.	BR-0023-02(058)

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 ℄ joint.



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	
Mark	No.
D	350
R	350

TABLE OF RAILING BARS INT. SPAN NO. 2	
Mark	No.
D	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.

MISSISSIPPI DEPARTMENT OF TRANSPORTATION
BRIDGE "A" AT STA. 1506+58.88
PLAN OF 100 FT. SPANS NO. 1 THROUGH 3

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

WORKING NUMBER A6 OF A10
SHEET NUMBER 8008

REVISION | BY | 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.

PLAN
BRIDGE DIVISION
MISSISSIPPI DEPARTMENT OF TRANSPORTATION

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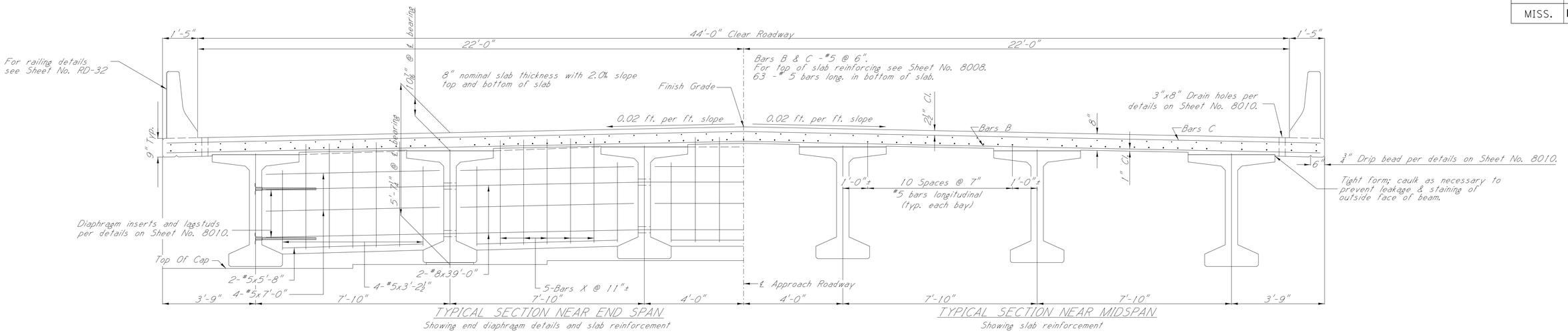
STATE	PROJECT NO.
MISS.	BR-0023-02(058)

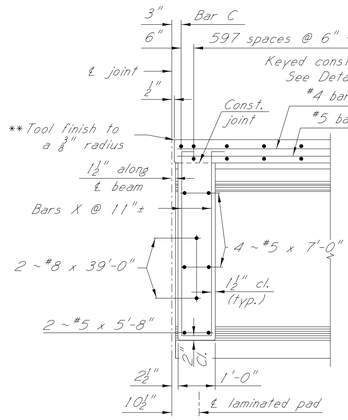


TYPICAL SECTION NEAR END SPAN

Showing end diaphragm details and slab reinforcement

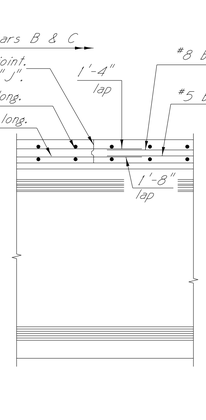
TYPICAL SECTION NEAR MIDSPAN

Showing slab reinforcement



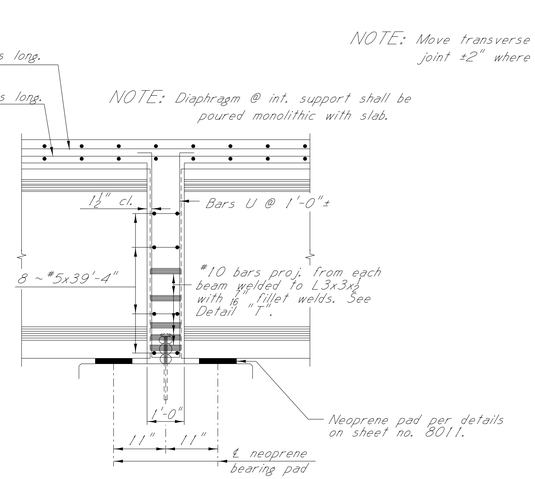
SECTION A-A

**NOTE: ½" seat required at joint. See sealing details on sheet no. 8010



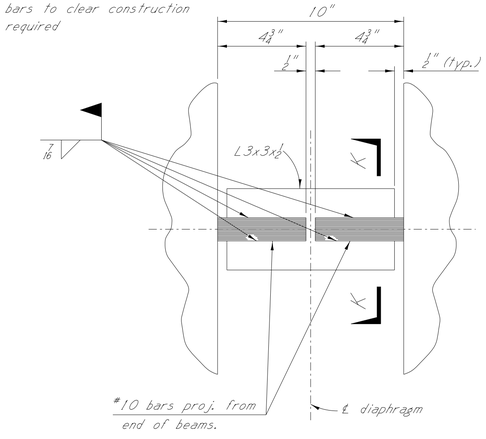
SECTION B-B

NOTE: Diaphragm @ int. support shall be poured monolithic with slab.

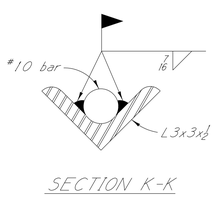


SECTION C-C

NOTE: Move transverse bars to clear construction joint ±2" where required



DETAIL "T"



SECTION K-K

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.

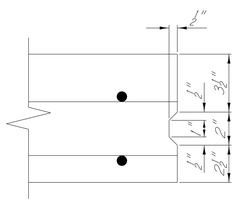
NOTE:
The volume of concrete in the fillets between the bottom of the nominal slab and the top of the beams has been estimated by using ½ the fillet height, at the bearing, multiplied by the top flange width and the full length of the beam. This volume shall be used for final pay quantity. Any additional 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.

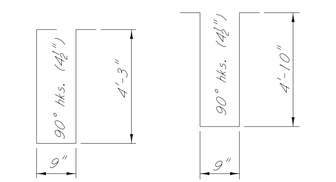
DESIGN DATA:

Specifications. . . . . A.A.S.H.T.O. LRFD, 2017
Loading. HL-93
Slab stresses. . . . . f'c=24,000 p.s.i. ; fy=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.)

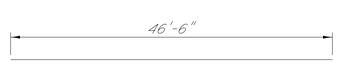
NOTE: Class "BD" concrete shall be used in the spans & diaphragms.



DETAIL "J"



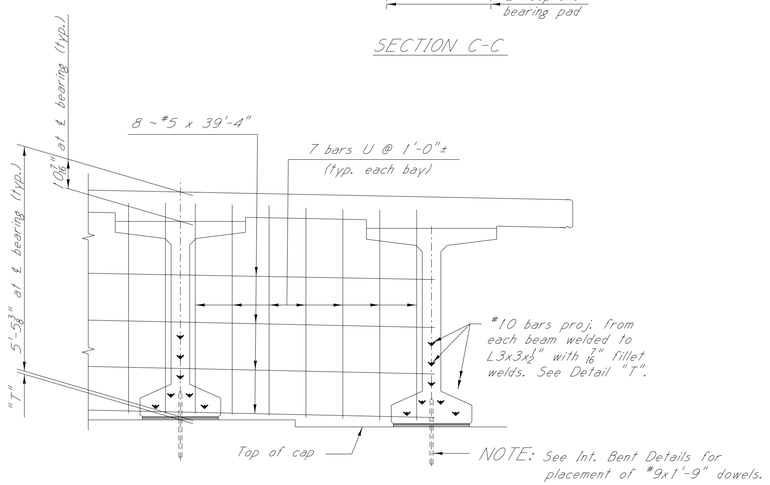
BARS X ~ #4 BARS U ~ #4



BARS B&C ~ #5

BAR BENDING DETAILS

Dimensions are out to out



PART SECTION NEAR 1'-0" INT. DIAPHRAGM

Dimension "T" = compressed pad thickness
For compressed pad thickness see sheet no. 8010.

MISSISSIPPI DEPARTMENT OF TRANSPORTATION

BRIDGE "A" AT STA. 1506+58.88

100 FT. SPAN DETAILS

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

WORKING NUMBER A7 OF A10

SHEET NUMBER 8009

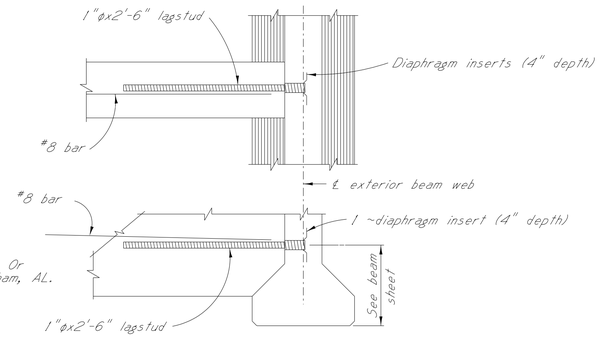
DESIGNER JONATHAN KING CHECKER SPENCER YATES
DETAILER JONATHAN KING ISSUE DATE 6/12/2019
DIRECTOR OF STRUCTURES, STATE BRIDGE ENGINEER - JUSTIN WALKER, P.E.
DEP. DIR. OF STRUCTURES, ASST. STATE BRIDGE ENGINEER - SCOTT WESTERFIELD, P.E.

DATE | REVISION | BY

PLAN
BRIDGE DIVISION
MISSISSIPPI DEPARTMENT OF TRANSPORTATION

08: 00AMPM DGNFILENAME

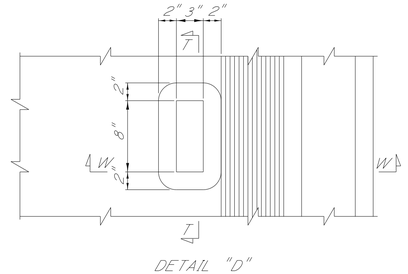
STATE	PROJECT NO.
MISS.	BR-0023-02(058)



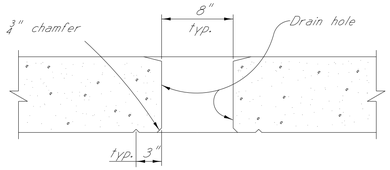
NOTE: Continuous threaded lagstuds and diaphragm inserts shall be as manufactured by the Richmond Screw Anchor Co., Inc., Atlanta, GA; By Meadow Steel Products Co., Inc., Birmingham, AL Or Dayton Superior Co., Inc., Birmingham, AL.

PART SECTION

DIAPHRAGM INSERT AND LAGSTUD DETAILS

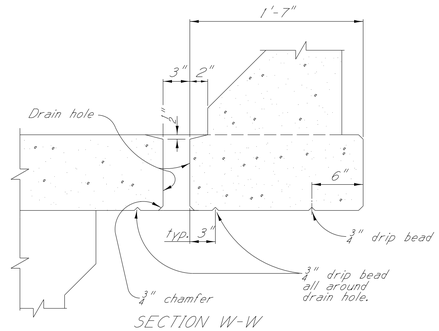


DETAIL "D"



SECTION T-T

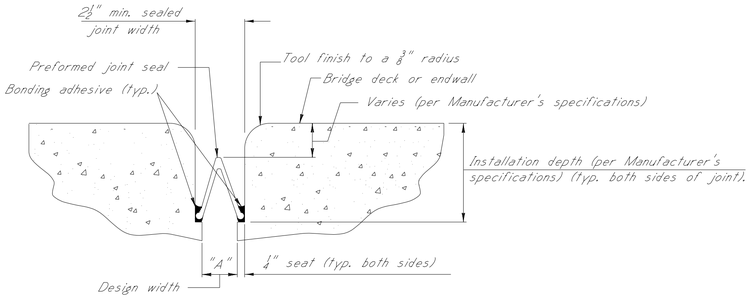
NOTE: Drain holes shall be located so that bars B & C will not be cut.



SECTION W-W

DRAIN HOLE DETAILS

Use where shown on the Span Detail sheet.



TYPICAL SECTION PREFORMED JOINT SEAL

NOTES:

1. Joint installation and sealing on newly constructed bridge decks shall not be paid for directly and shall be considered an absorbed item of work.

2. The preformed joint seal shall be one of the following, installed according to the Manufacturer's specifications:

   A. Silicoflex Joint Sealing System, manufactured by R.J. Watson, Inc www.rjwatson.com

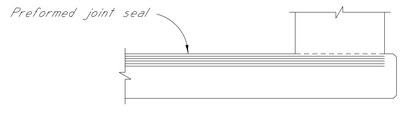
   B. Wabo SPS Joint System manufactured by Watson Bowman Acme Corporation www.wabocorp.com

   C. Silspec SSS Silicone Strip Seal manufactured by SSI Commercial & Highway Construction Materials www.ssicm.com

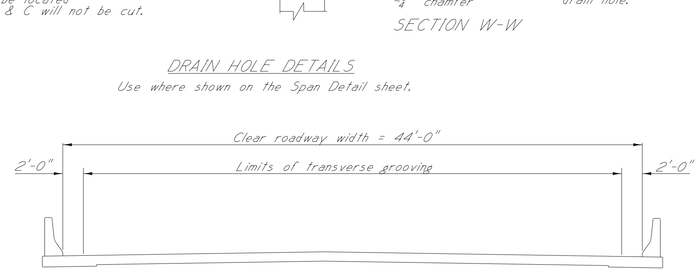
3. For estimating purposes, The RJ Watson Silicoflex Joint Sealing System was selected. However, should another supplier be chosen, it is the Contractor's responsibility to ensure that the Manufacturer's recommendations are followed for joint preparation, installation depths and widths, adhesive setting 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.

4. Dimension "A" is defined as the design width of the joint opening, which does not account for the ¼" 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 2½". In cases where design widths are greater than 2½", another type of expansion material shall be required as directed by the Director of Structures, State Bridge Engineer.

5. 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.

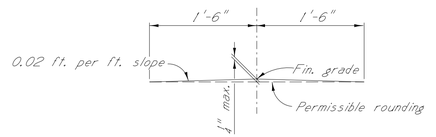


ELEVATION AT END OF SPAN

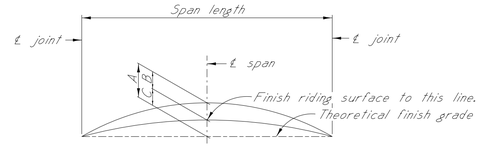


LIMITS OF TRANSVERSE GROOVING

PAD THICKNESS TABLE	
PAD THICKNESS	COMPRESSED PAD THICKNESS
1"	15/16"
1"	15/16"
2⅞"	2 13/16"



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 ¾", 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.

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MISSISSIPPI DEPARTMENT OF TRANSPORTATION

BRIDGE AT STA. 1506+58.83

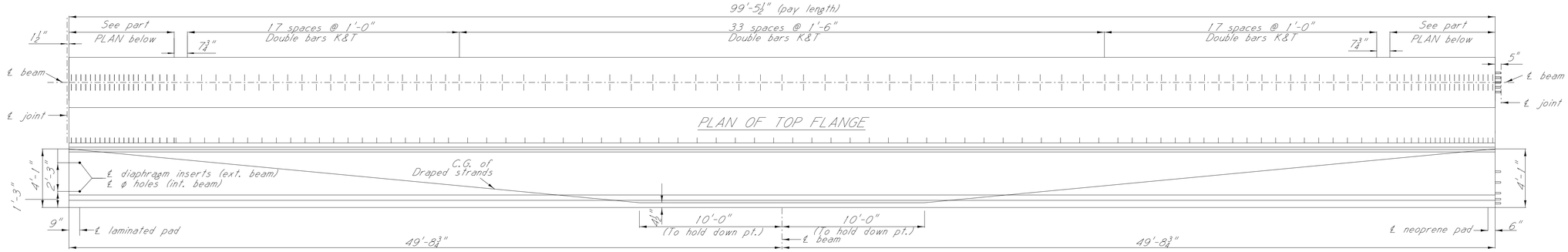
MISCELLANEOUS SPAN DETAILS

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

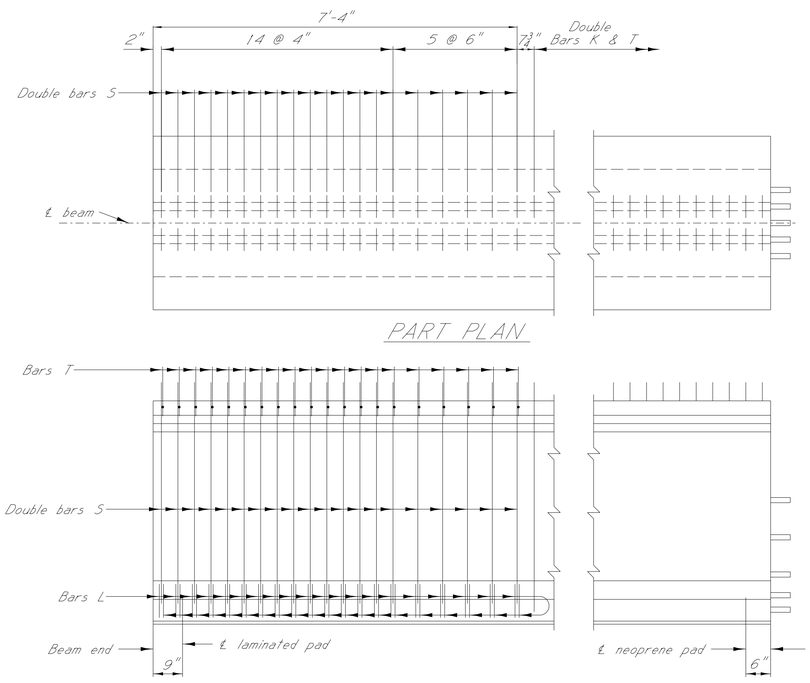
WORKING NUMBER A8 OF A10
SHEET NUMBER 8010

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



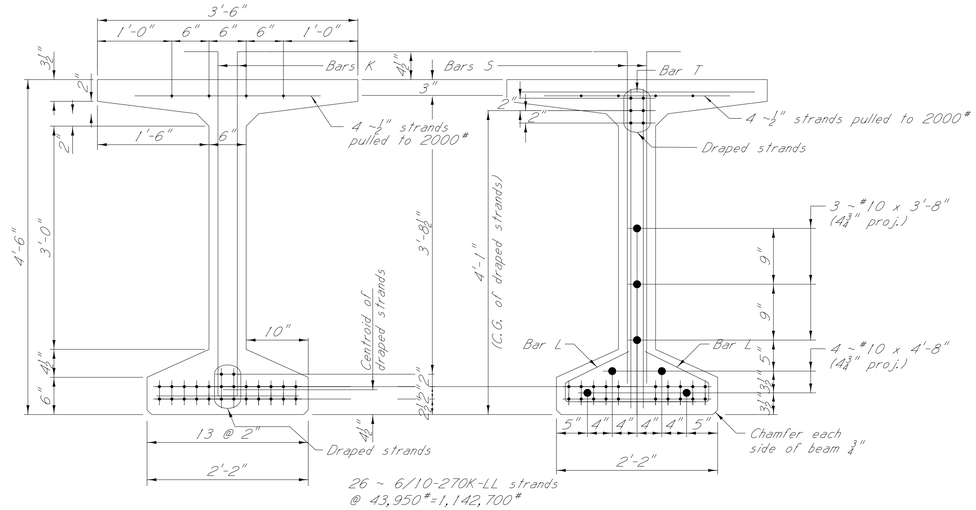
ELEVATION

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-S-00227E Or TT-S-00230C, applied according to Manufacturer's directions.



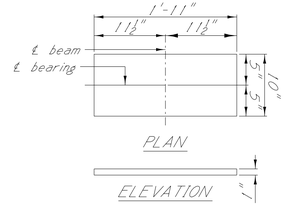
PART ELEVATION

Strands not shown for clarity



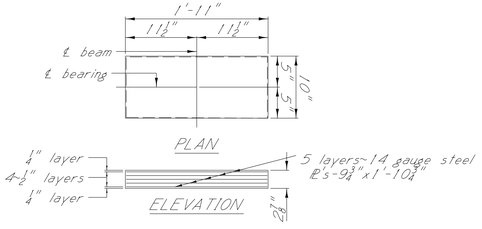
SECTION NEAR ℄ SPAN

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.



LAMINATED PAD DETAILS

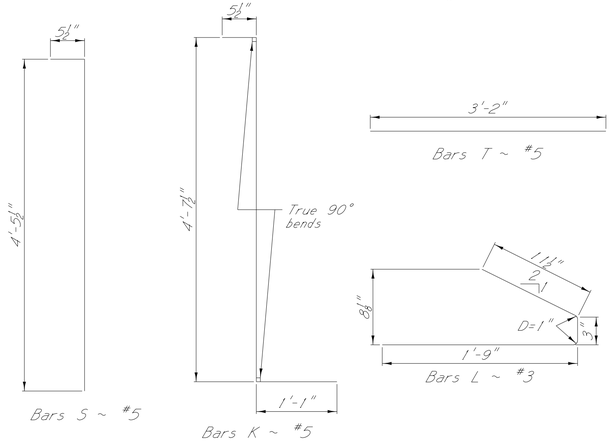
Testing acceptance procedure shall be in accordance with section 714.10.6 of the Specifications. Elastomer shall have a hardness of 50 durometer with a minimum shear modulus at 73°F of 0.095 k.s.i. And A maximum shear modulus at 73°F of 0.130 k.s.i. Bearing area on top of cap shall be cast smooth and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

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)



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 lbs/strand	Initial tension lbs/strand	Required number and location of strands: Total number strands	Straight strands: Number strands	Straight strands: Centroid (in.)	Draped strands: Number strands	Draped strands: Centroid (in.) ℄ span	Draped strands: Centroid (in.) Beam end	Centroid for total number of strands (in.): At ℄ span	At beam end	Distance from ℄ span to hold-down point	Camber limits	Deflection diagram: A	B	C	Minimum concrete strength at time of release (psi)
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"	1½"	½"	5500

MISSISSIPPI DEPARTMENT OF TRANSPORTATION
BRIDGE "A" AT STA. 1506+58.88
100 FT BEAM DETAILS
END SPANS BEAM NO. 100-1
(BT-54)
FMS: 103334 / 301000
COUNTY: ATTALA
PROJECT NUMBER: BR-0023-02(058)
WORKING NUMBER A9 OF A10
SHEET NUMBER 8011
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.
DATE REVISION BY

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BRIDGE DIVISION
MISSISSIPPI DEPARTMENT OF TRANSPORTATION

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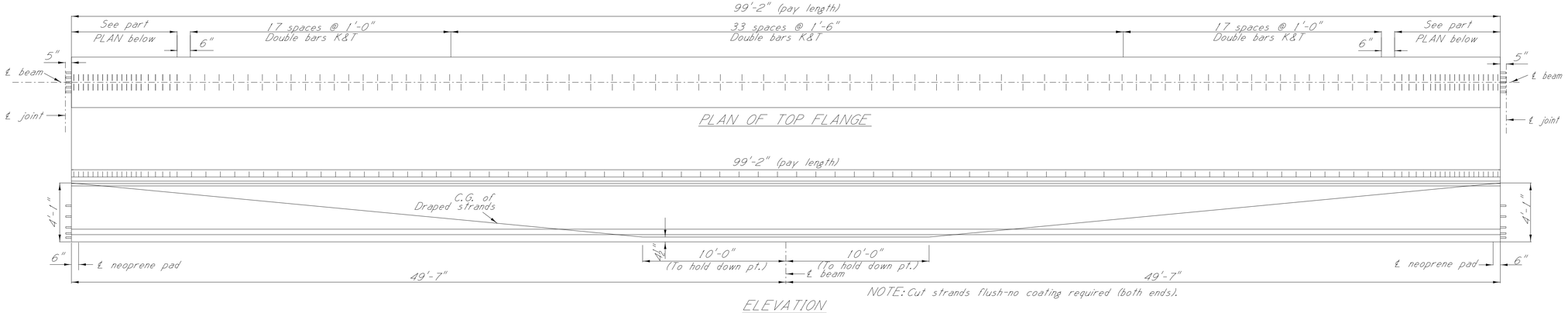
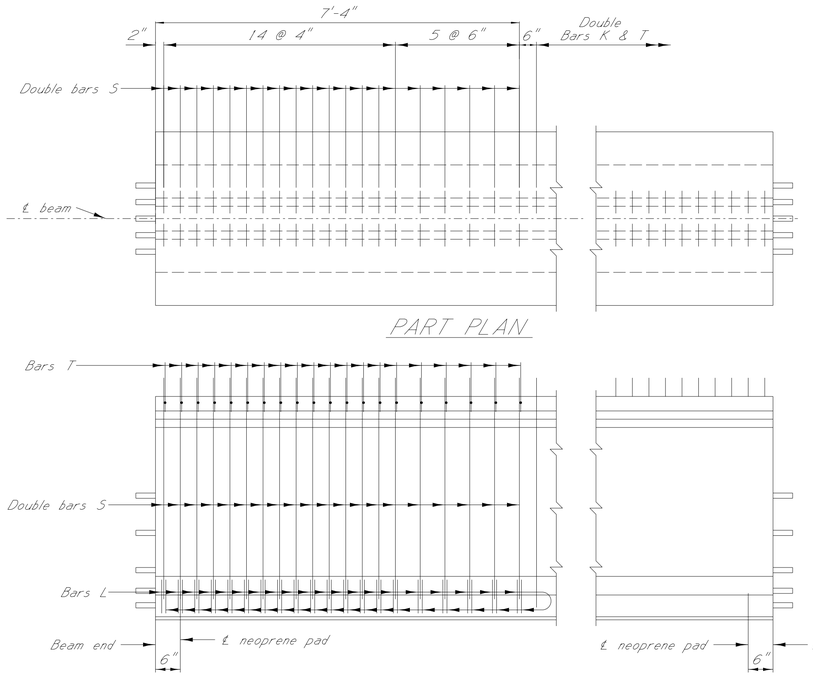
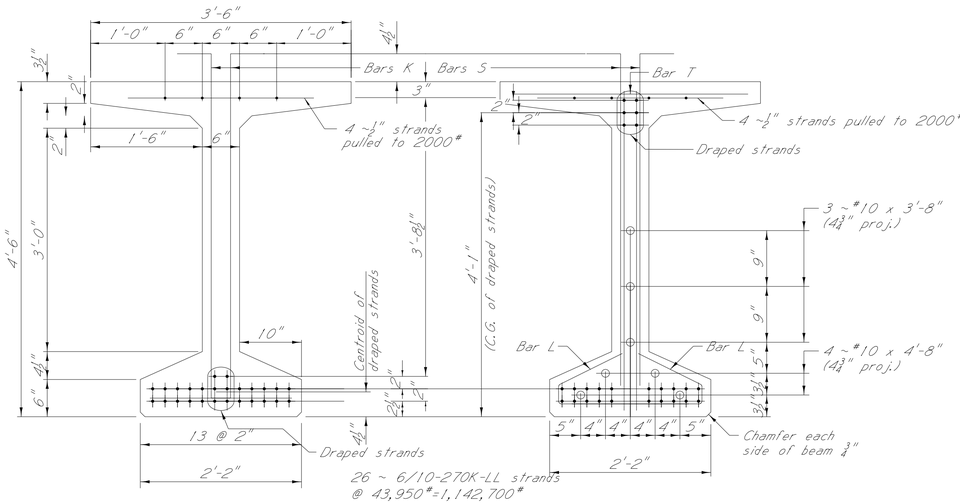
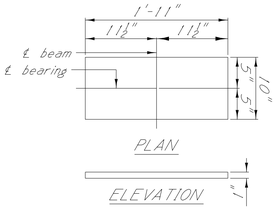
STATE	PROJECT NO.
MISS.	BR-0023-02(058)









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.

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.

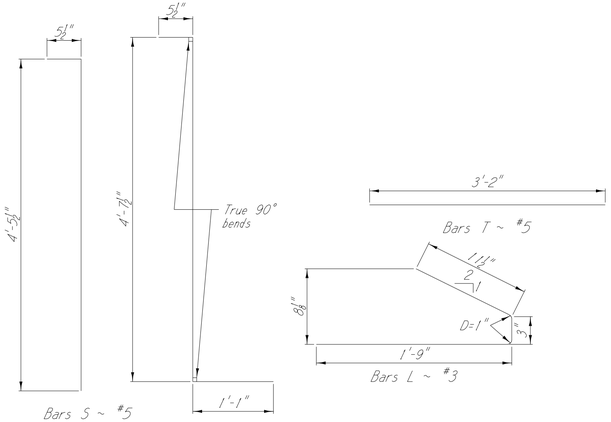
Concrete shall be class "FX" and:
(a) shall have a 28-day cylinder strength of 6800 p.s.i.
(b) at transfer of the tensioning load, the cylinder strength of the concrete shall be as shown in table.

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)



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: Total number strands	Straight strands: Number strands	Straight strands: Centroid (in.)	Draped strands: Number strands	Draped strands: Centroid (in.) ℄ span	Draped strands: Centroid (in.) Beam end	Centroid for total number of strands (in.): At ℄ span	At beam end	Distance from ℄ span to hold-down point	Camber limits	Deflection diagram: A	B	C	Minimum concrete strength at time of release (psi)
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"	1½"	½"	5500

MISSISSIPPI DEPARTMENT OF TRANSPORTATION

BRIDGE "A" AT STA. 1506+58.88

100 FT BEAM DETAILS
INT. SPAN BEAM NO. 100-2
(BT-54)

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

WORKING NUMBER A10 OF A10
SHEET NUMBER 8012

REVISION | BY | DATE

DESIGNER JONATHAN KING
DETAILER 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.

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MISSISSIPPI DEPARTMENT OF TRANSPORTATION

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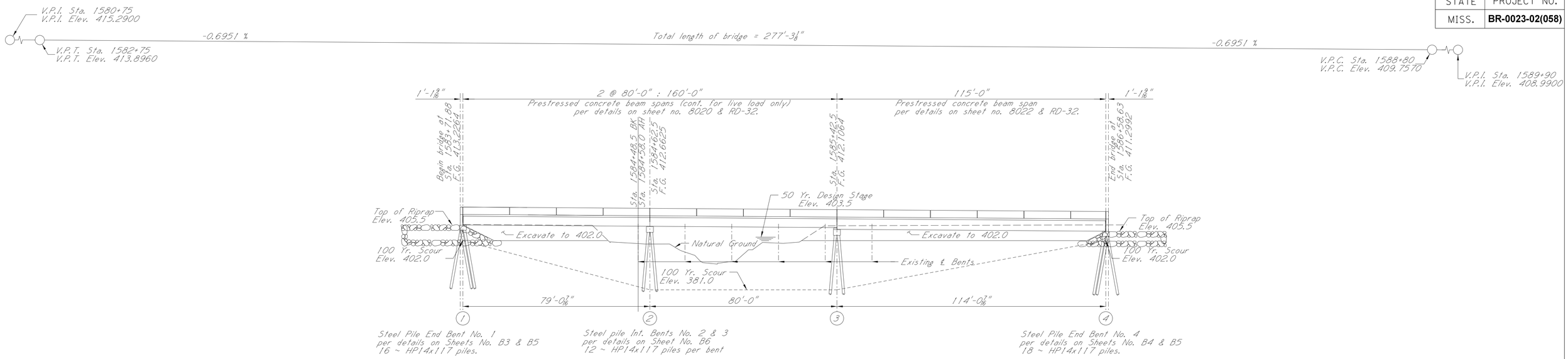
STATE	PROJECT NO.
MISS.	BR-0023-02(058)



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 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 (1½) 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's 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:

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

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.

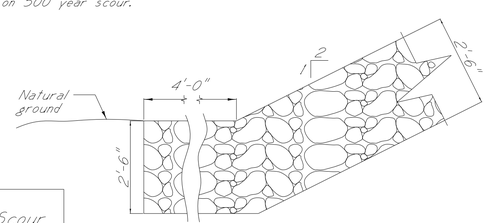
DRAINAGE DATA:

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:
Minimum tip elevation based on 500 year scour.



RIPRAP LAYOUT DETAILS

NOTE:
Geotextile fabric is required under all riprap

ESTIMATED QUANTITIES

Item / Location	Transverse Grooving S.Y.	Conventional Static Loading Test Each	HP14X117 Steel Piling L.F.	PDA Test Pile Each	Pile Restrike Each	Class AA Bridge Concrete C.Y.	Class BD Bridge Concrete C.Y.	115 Ft. Prest. Conc. Beam BT-54 L.F.	80 Ft. Prest. Conc. Beam Type III L.F.	Reinforcement LBS.	Concrete Railing L.F.	Loose Riprap (300#) Ton	Geotextile Under Riprap S.Y.
Spans	1222.22						369.97	803.25	953.50	87,470	550.00		
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

REQUIRED ULTIMATE PILE BEARING CAPACITY AND TIP ELEVATION SCHEDULE

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 1
2	Steel	172	HP 14x117	75	360.0	331.5	STRENGTH 1
3	Steel	178	HP 14x117	75	360.0	330.1	STRENGTH 1
4	Steel	137	HP 14x117	65	382.0	339.2	STRENGTH 1

TEST PILE SCHEDULE

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

500 Year Scour ELEVATION

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

MISSISSIPPI DEPARTMENT OF TRANSPORTATION
BRIDGE DIVISION
PLAN

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BY | REVISION | DATE

MISSISSIPPI DEPARTMENT OF TRANSPORTATION

BRIDGE "B" AT STA. 1583+71.88

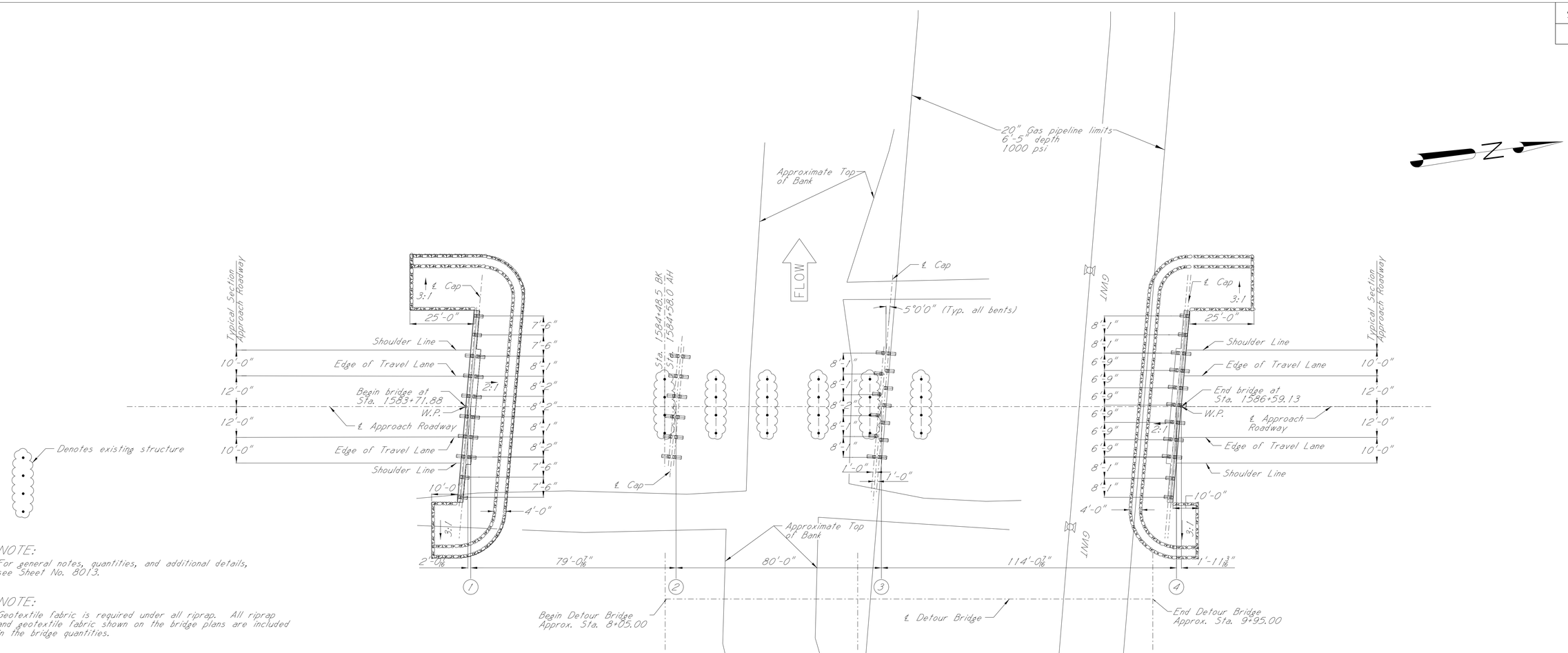
SR 35 OVER LITTLE CONEHOMA CREEK GENERAL NOTES, ESTIMATED QUANTITES & LAYOUT

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

WORKING NUMBER B1 OF B14
SHEET NUMBER 8013

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.

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

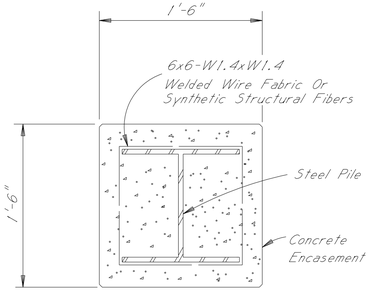


FOUNDATION PLAN

Scale: 1" = 20'-0"

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

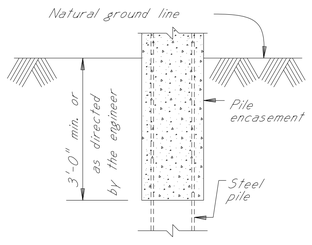
NOTE:
Geotextile fabric is required under all riprap. All riprap and geotextile fabric shown on the bridge plans are included in the bridge quantities.

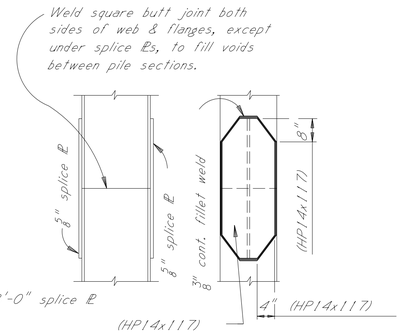


Concrete For Pile Encasement Shall Be Class "AA" And Will Be Paid For As Bridge Concrete. Class "AA" Concrete With #67 Aggregate May Be Used For Pile Encasement.
Pile Encasement Shall Be Reinforced With 6x6-W1.4xW1.4 Welded Wire Fabric Weighing 0.21 Lbs. Per Sq. Ft. (Not A Separate Pay Item) Or Synthetic 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 ¾".

PILE ENCASEMENT DETAIL

HP14x117 Steel Piles





PILE SPLICE DETAIL

HP14x117 steel piles

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.

PLAN
BRIDGE DIVISION
MISSISSIPPI DEPARTMENT OF TRANSPORTATION

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BRIDGE "B" AT STA. 1583+71.88

SR 35 OVER LITTLE CONEHOMA CREEK
FOUNDATION PLAN

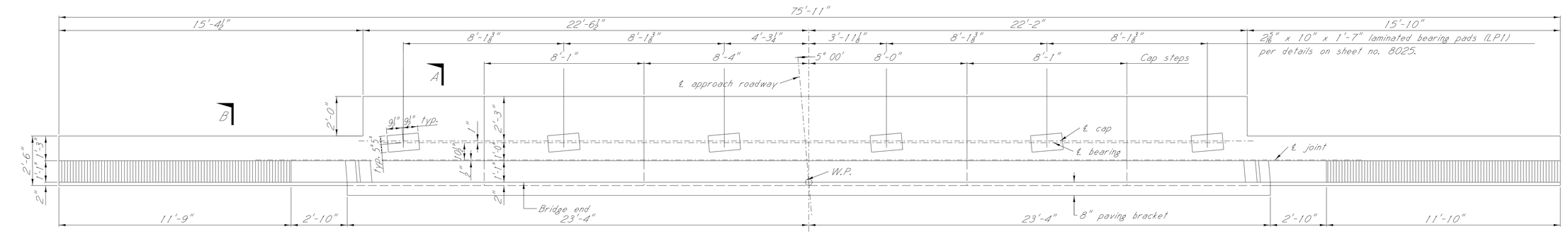
FMS: **103334 / 301000**
COUNTY: **ATTALA**
PROJECT NUMBER: **BR-0023-02(058)**

WORKING NUMBER B2 OF B14
SHEET NUMBER 8014

BY	REVISION	DATE

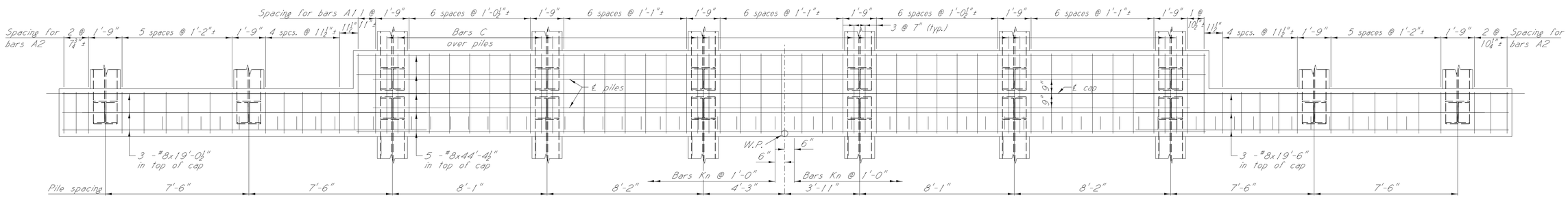
DESIGNER JONATHAN KING CHECKER SPENCER YATES
DETAILER JONATHAN KING ISSUE DATE 6/12/2019
DIRECTOR OF STRUCTURES, STATE BRIDGE ENGINEER - JUSTIN WALKER, P.E.
DEP. DIR. OF STRUCTURES, ASST. STATE BRIDGE ENGINEER - SCOTT WESTERFIELD, P.E.

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



PLAN OF BENT

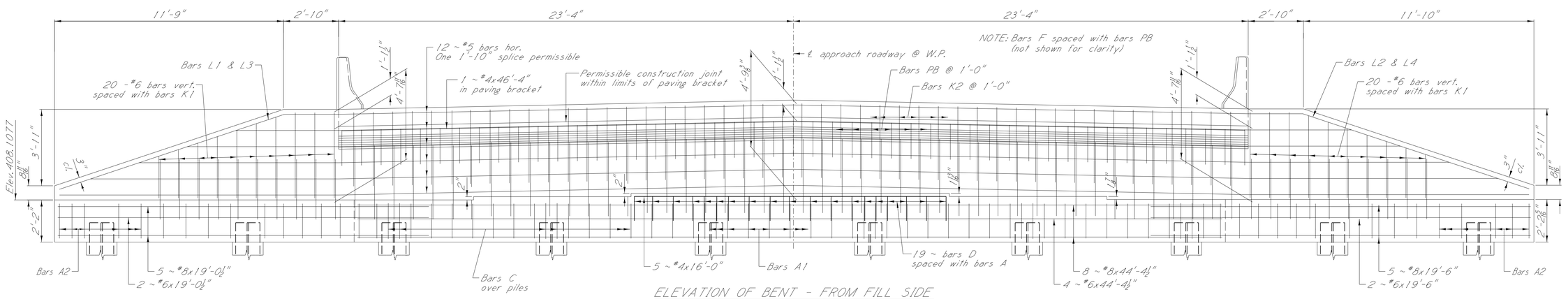
Showing concrete dimensions, cap steps, & lam. pad placement



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.

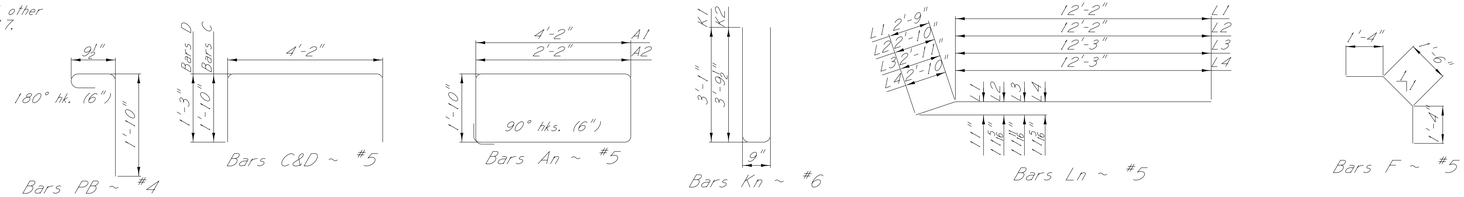


ELEVATION OF BENT - FROM FILL SIDE

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

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

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



BAR BENDING DETAILS

Dimensions are out to out

PLAN
BRIDGE DIVISION
DEPARTMENT OF TRANSPORTATION
MISSISSIPPI DEPARTMENT

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MISSISSIPPI DEPARTMENT OF TRANSPORTATION

BRIDGE "B" AT STA. 1583+71.88

END BENT NO. 1 DETAILS

REVISION	BY	DATE

FMS: 103334 / 301000

COUNTY: ATTALA

PROJECT NUMBER: BR-0023-02(058)

DESIGNER JONATHAN KING CHECKER SPENCER YATES

DETAILER JONATHAN KING ISSUE DATE 8/12/2019

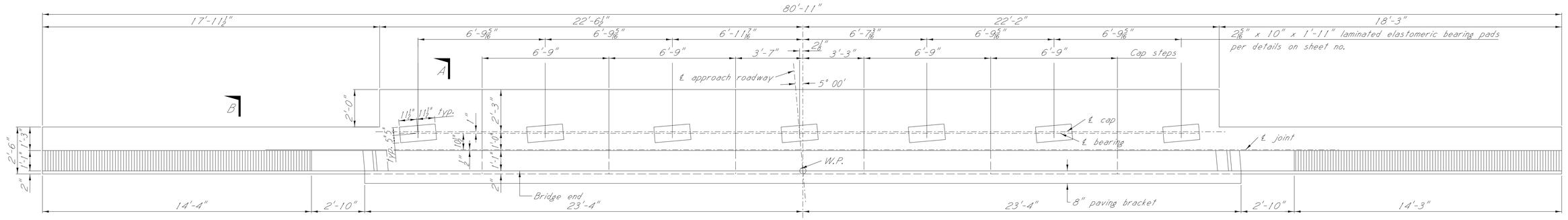
DIRECTOR OF STRUCTURES, STATE BRIDGE ENGINEER - JUSTIN WALKER, P.E.

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

WORKING NUMBER B3 OF B14

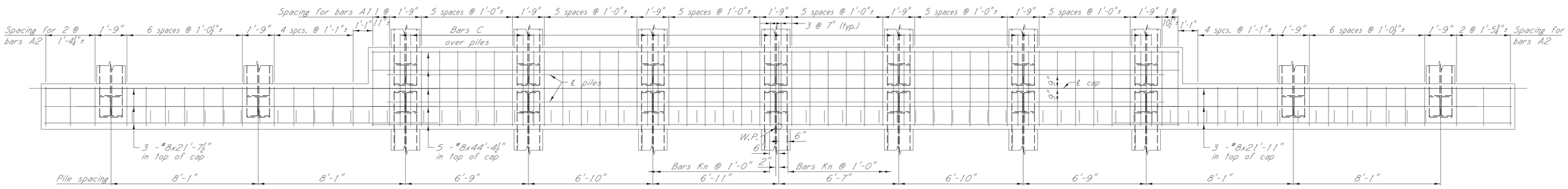
SHEET NUMBER 8015

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



PLAN OF BENT

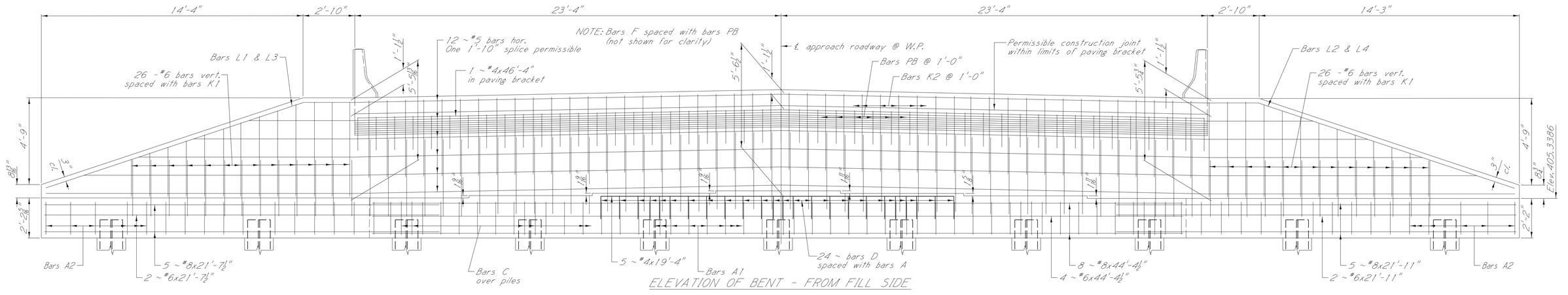
Showing concrete dimensions, cap steps, & lam. pad placement



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.

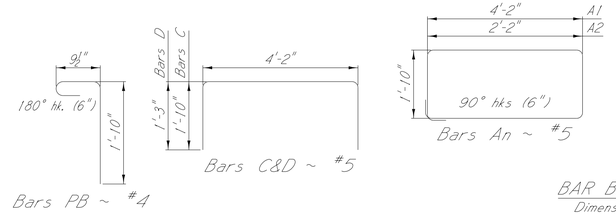


ELEVATION OF BENT - FROM FILL SIDE

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

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

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



BAR BENDING DETAILS

Dimensions are out to out

REVISION	BY

MISSISSIPPI DEPARTMENT OF TRANSPORTATION

BRIDGE "B" AT STA. 1583+71.88

END BENT NO. 4 DETAILS

FMS: 103334 / 301000

COUNTY: ATTALA

PROJECT NUMBER: BR-0023-02(058)

WORKING NUMBER: B4 OF B14

SHEET NUMBER: 8016

DATE

DESIGNER JONATHAN KING CHECKER SPENCER YATES

DETAILER JONATHAN KING ISSUE DATE 8/12/2019

DIRECTOR OF STRUCTURES, STATE BRIDGE ENGINEER - JUSTIN WALKER, P.E.

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

PLAN
BRIDGE DIVISION
MISSISSIPPI DEPARTMENT OF TRANSPORTATION

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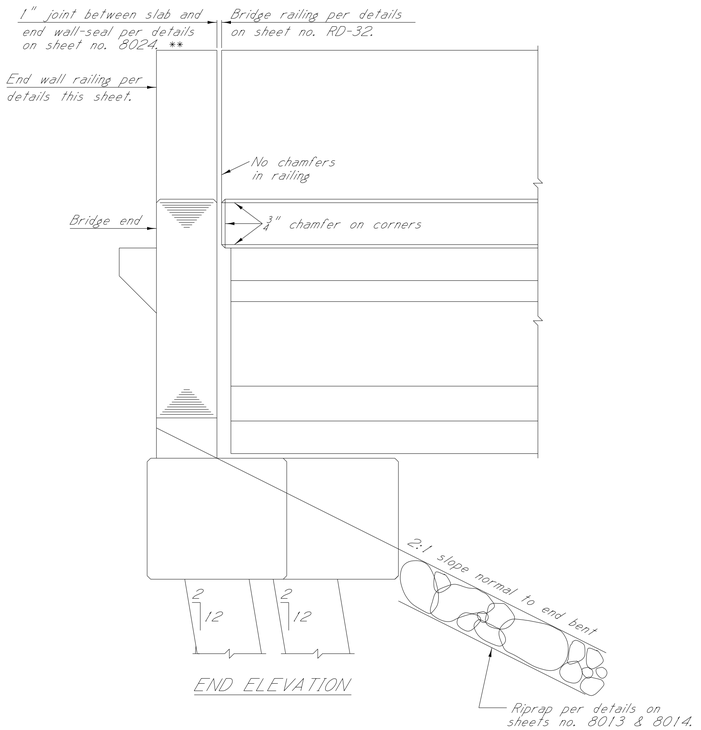
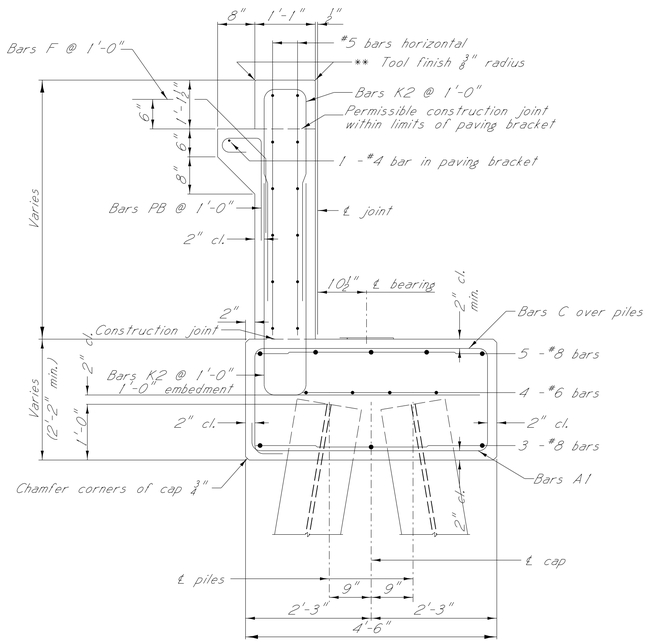
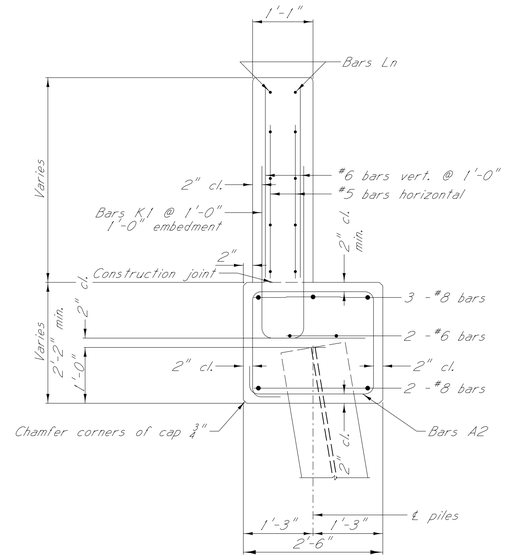
STATE	PROJECT NO.
MISS.	BR-0023-02(058)



END ELEVATION

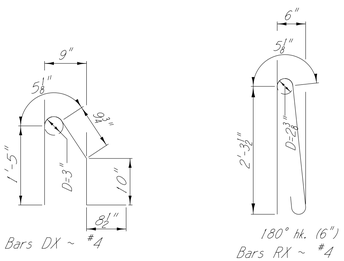


SECTION A-A

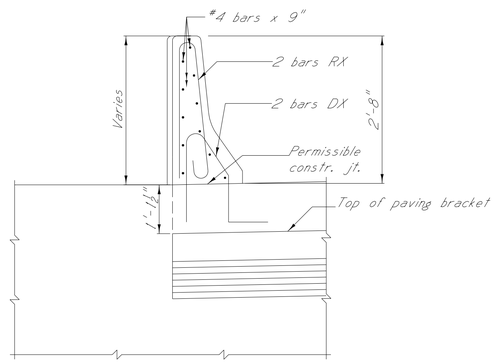


SECTION B-B

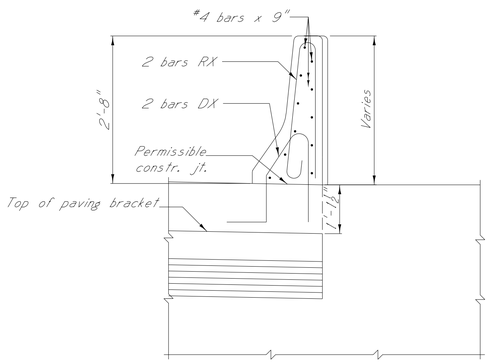
**NOTES: 1/4" seat required. See sealing details on sheet no. 8024.



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 ¾", 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 "B" AT STA. 1583+71.88
END BENT DETAILS

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

WORKING NUMBER B5 OF B14
SHEET NUMBER 8017

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.

REVISION BY DATE

PLAN
BRIDGE DIVISION
MISSISSIPPI DEPARTMENT OF TRANSPORTATION

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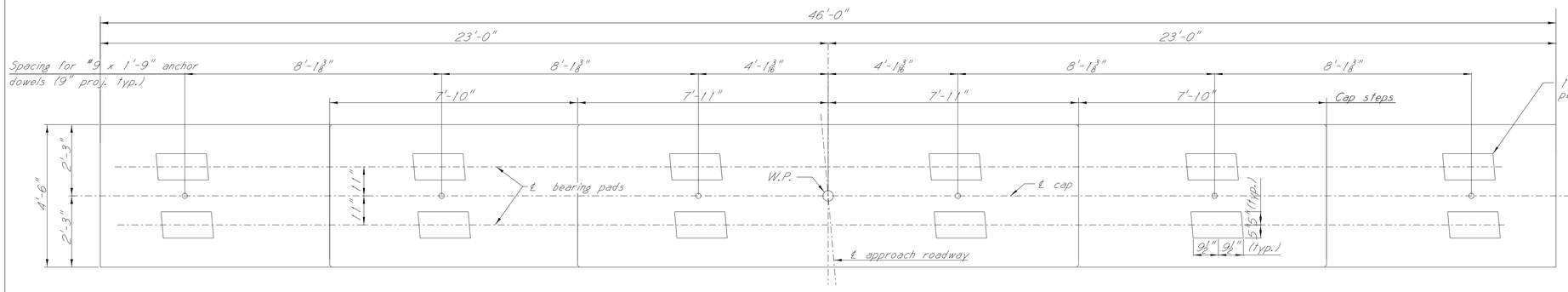
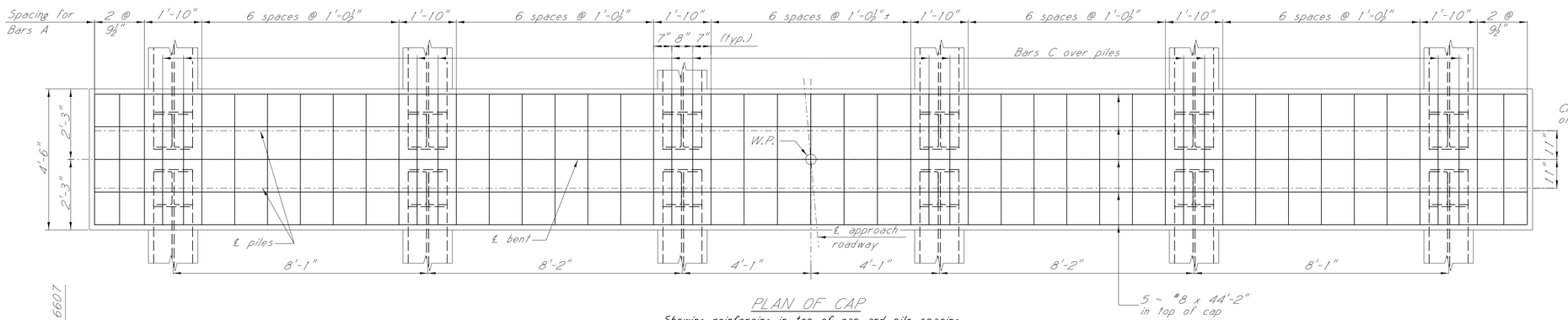
STATE	PROJECT NO.
MISS.	BR-0023-02(058)



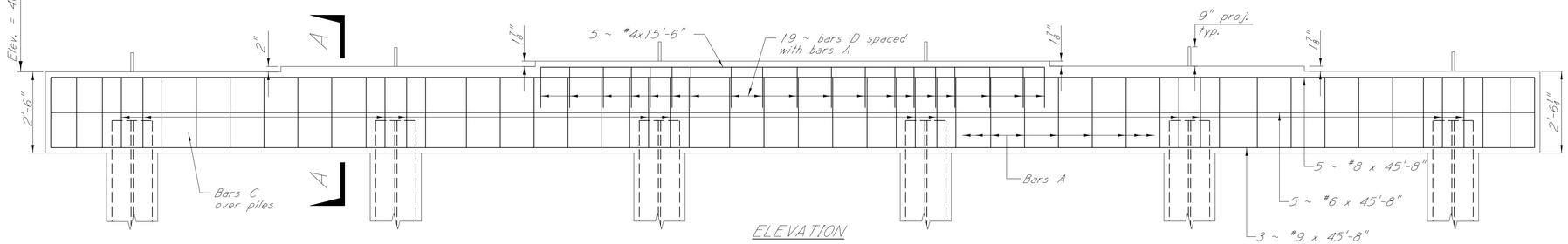
PLAN OF INTERMEDIATE BENT

Showing concrete dimensions, cap steps, anchor dowels, and neoprene pad placement

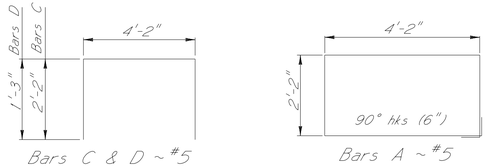


PLAN OF CAP

Showing reinforcing in top of cap and pile spacing

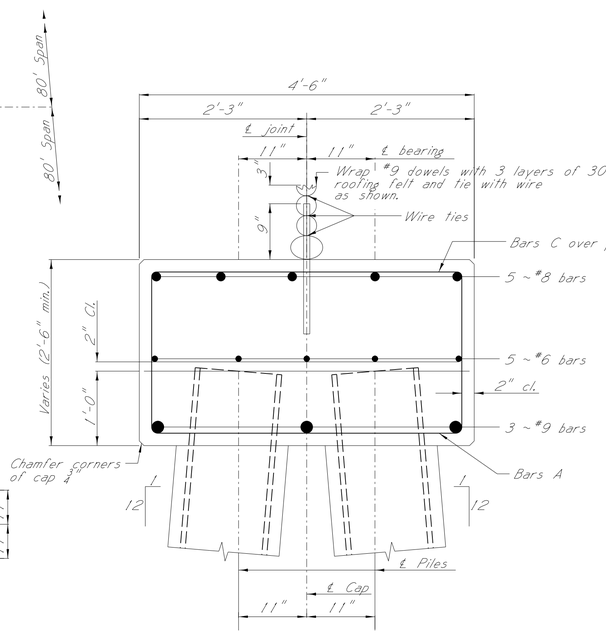


ELEVATION



BAR BENDING DETAILS

Dimensions are out to out



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 ¾" unless otherwise noted.
Placing dimensions from reinforcing steel to concrete surfaces are clear distances.

PLAN
BRIDGE DIVISION
MISSISSIPPI DEPARTMENT OF TRANSPORTATION

Ø0: Ø0AMPM DGNFILENAME

MISSISSIPPI DEPARTMENT OF TRANSPORTATION

BRIDGE "B" AT STA. 1583+71.88

INT. BENT NO. 2 DETAILS

FMS: 103334 / 301000

COUNTY: ATTALA

PROJECT NUMBER: BR-0023-02(058)

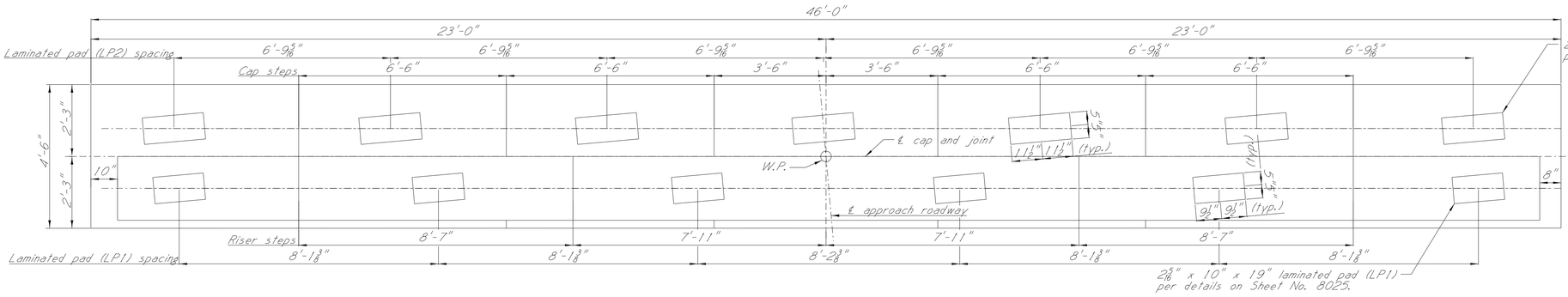
WORKING NUMBER	SHEET NUMBER
B6 OF B14	8018

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.

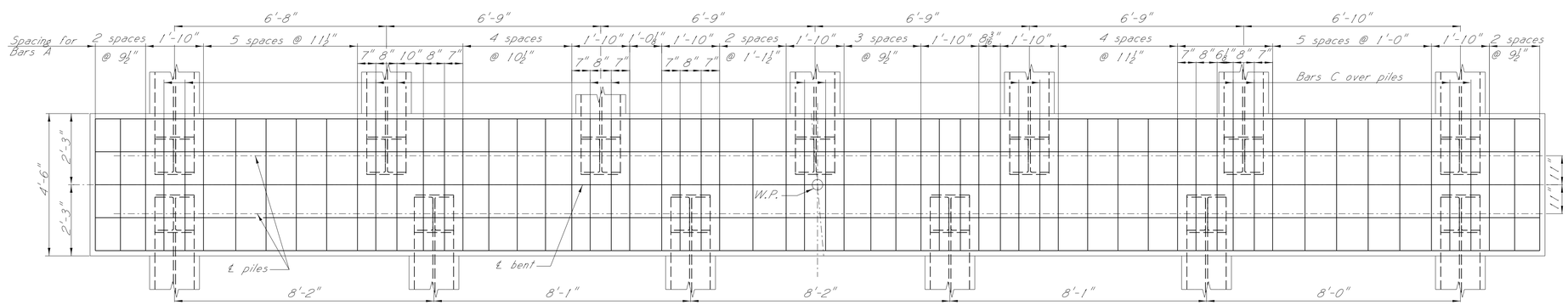
DATE | REVISION | BY

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



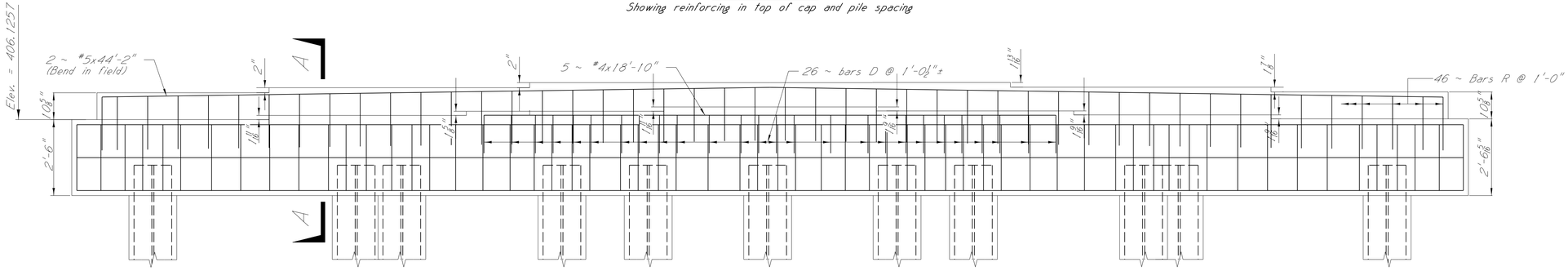
PLAN OF INTERMEDIATE BENT

Showing concrete dimensions, cap steps, anchor dowels, and neoprene pad placement

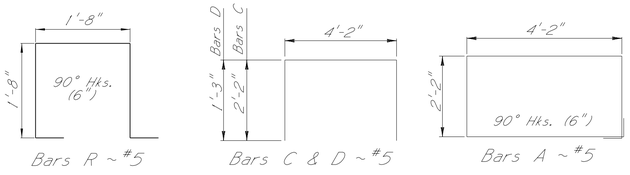


PLAN OF CAP

Showing reinforcing in top of cap and pile spacing

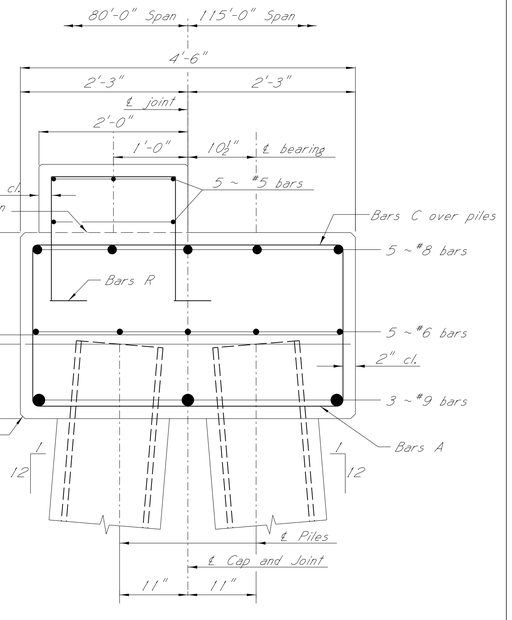


ELEVATION



BAR BENDING DETAILS

Dimensions are out to out



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 ¾" unless otherwise noted.
Placing dimensions from reinforcing steel to concrete surfaces are clear distances.

PLAN
BRIDGE DIVISION
MISSISSIPPI DEPARTMENT OF TRANSPORTATION

001.00AMPM DGNFILENAME

DEPARTMENT OF TRANSPORTATION
MISSISSIPPI

DATE	REVISION	BY

MISSISSIPPI DEPARTMENT OF TRANSPORTATION

BRIDGE "B" AT STA. 1583+71.88

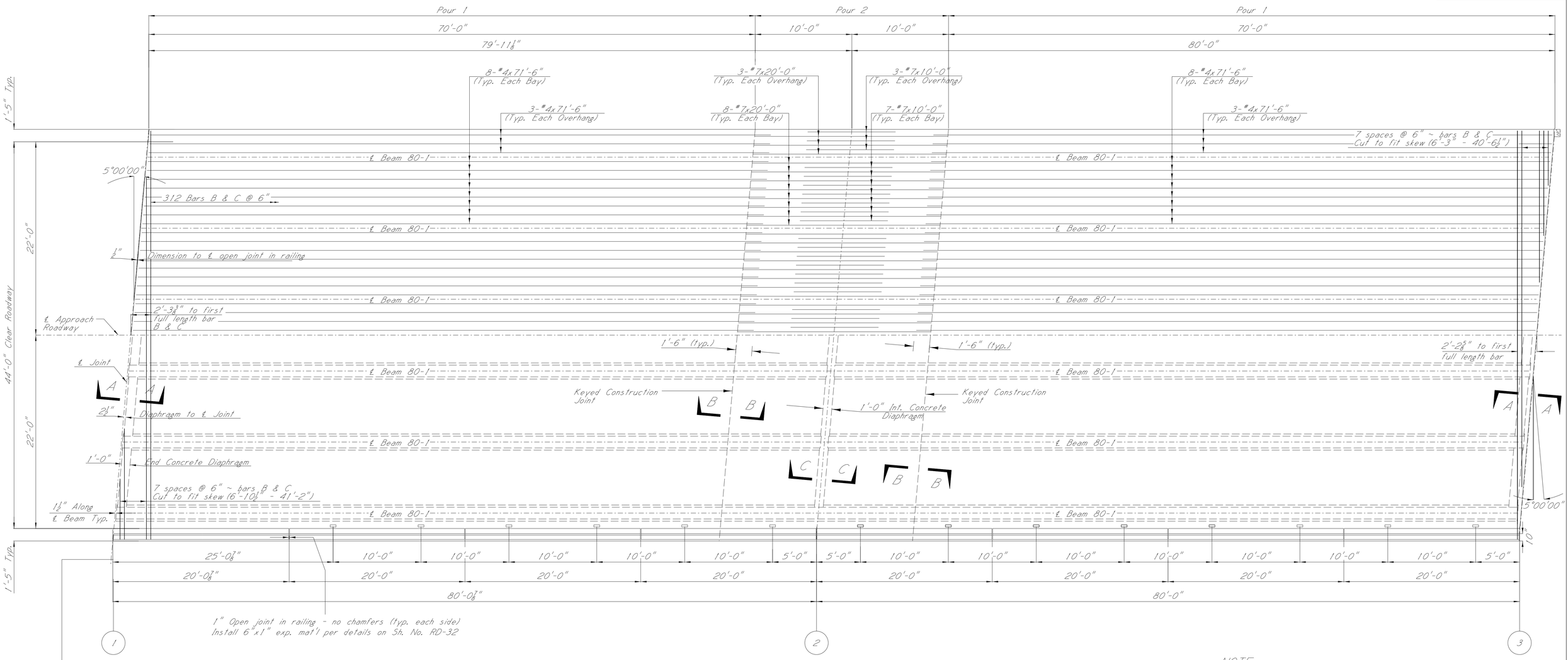
INT. BENT NO. 3 DETAILS

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

DESIGNER JONATHAN KING
DETAILER 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
B7 OF B14
SHEET NUMBER
8019

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



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.

TABLE OF RAILING BARS PER SPAN	
Mark	No.
D	280
R	280
Dx	4
Rx	4

*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 80 FT SPANS
NO. 1 AND 2

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

WORKING NUMBER B8 OF B14
SHEET NUMBER 8020

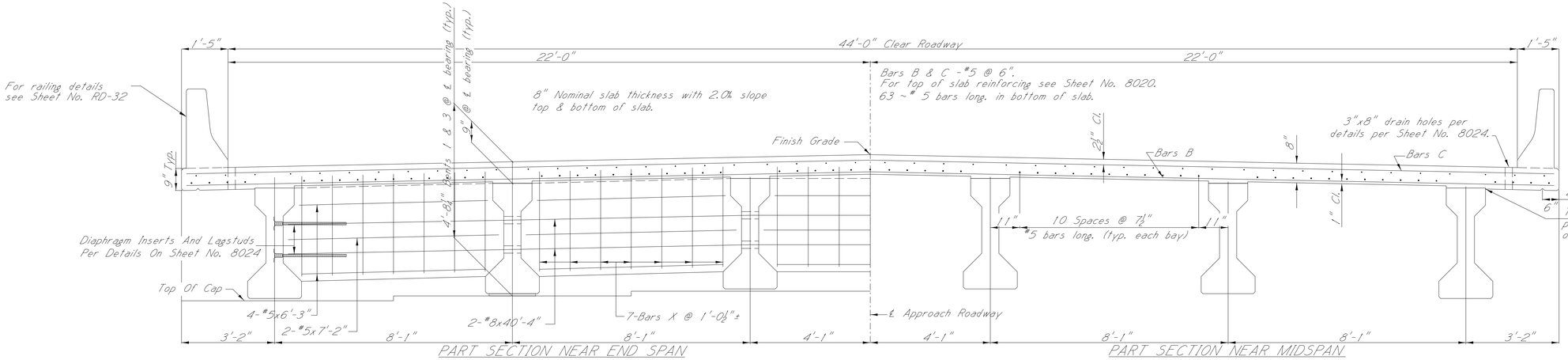
DESIGNER JONATHAN KING CHECKER SPENCER YATES
DETAILER JONATHAN KING ISSUE DATE 6/12/2019
DIRECTOR OF STRUCTURES, STATE BRIDGE ENGINEER - JUSTIN WALKER, P.E.
DEP. DIR. OF STRUCTURES, ASST. STATE BRIDGE ENGINEER - SCOTT WESTERFIELD, P.E.

DATE | REVISION | BY

PLAN
BRIDGE DIVISION
MISSISSIPPI DEPARTMENT OF TRANSPORTATION

Ø01: Ø0 AMPM DGNFILENAME

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



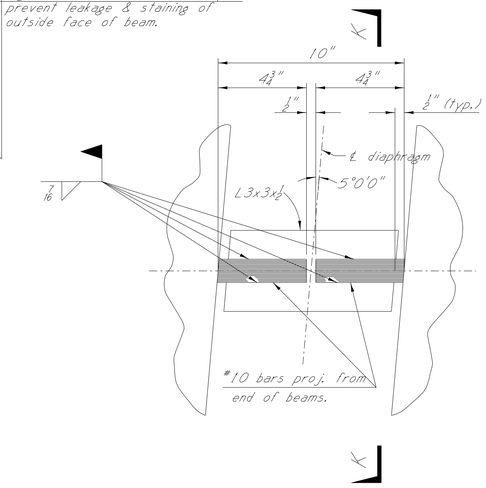
PART SECTION NEAR END SPAN

Showing end diaphragm details and slab reinforcement

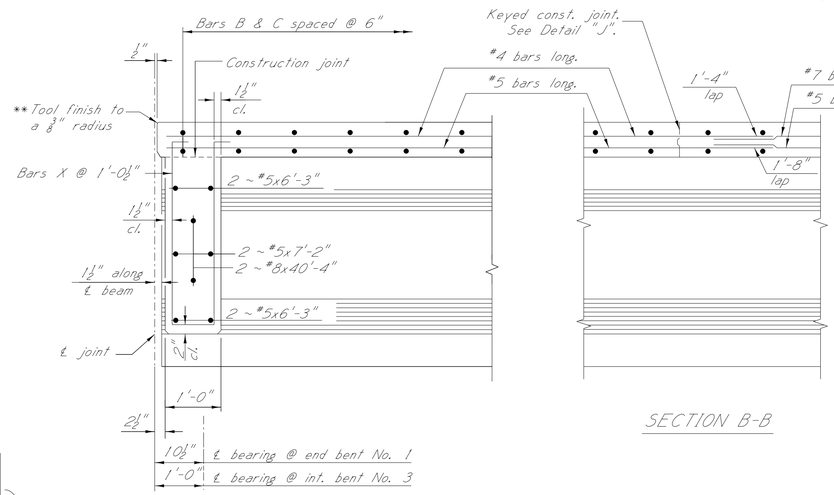
PART SECTION NEAR MIDSPAN

Showing slab reinforcement

NOTE: Move transverse bars to clear construction joint ±2" where required.

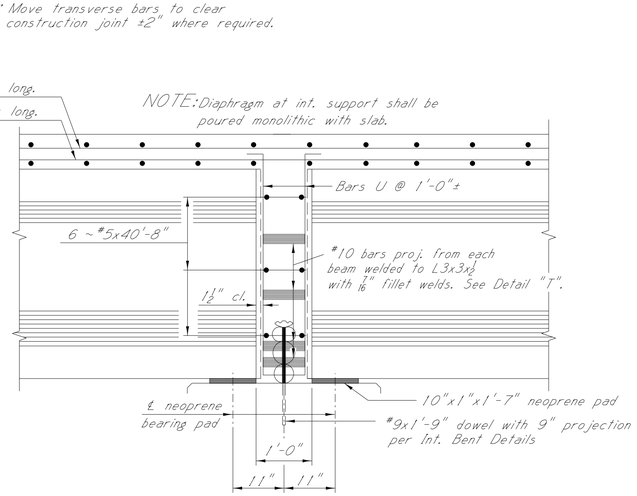


DETAIL "T"



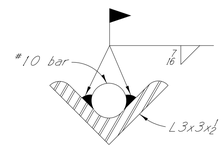
SECTION A-A

SECTION B-B



SECTION C-C

**NOTE: ½" seat required at joint. See sealing details on sheet no. 8024



SECTION K-K

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.

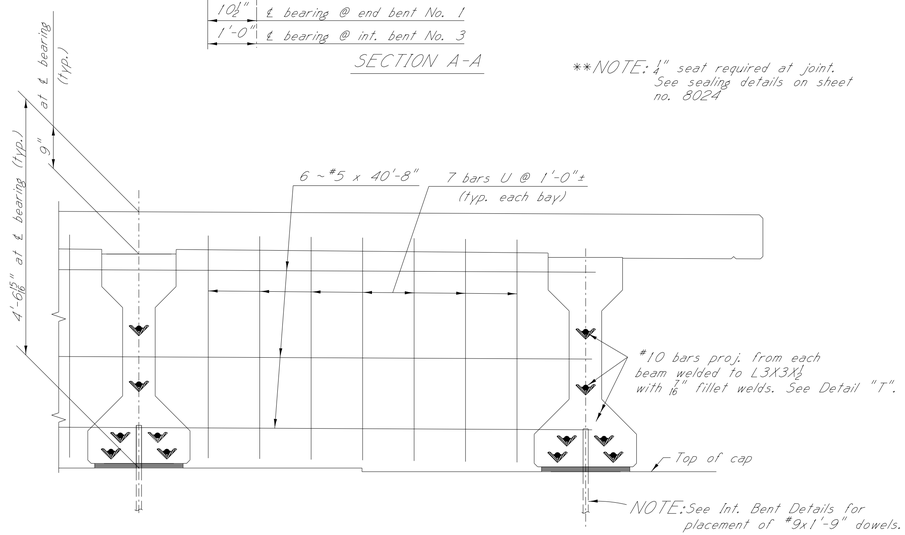
NOTE:
The volume of concrete in the fillets between the bottom of the nominal slab and the top of the beams has been estimated by using ½ the fillet height, at the bearing, multiplied by the top flange width and the full length of the beam. This volume shall be used for final pay quantity. Any additional 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.

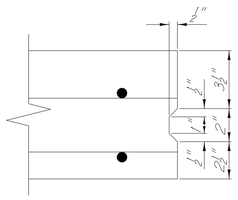
DESIGN DATA:

Specifications. . . . . A.A.S.H.T.O. LRFD, 2017 Interims
Loading. HL-93
Slab stresses. . . . . f'c=24,000 p.s.i. ; fs=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.)

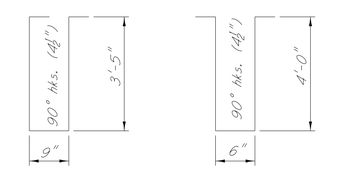
NOTE: Class "BD" concrete shall be used in the spans & diaphragms.



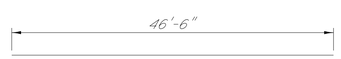
PART SECTION NEAR 1'-0" INT. DIAPHRAGM



DETAIL "J"



BARS X ~ #4 BARS U ~ #4



BARS B&C ~ #5

BAR BENDING DETAILS

Dimensions are out to out

MISSISSIPPI DEPARTMENT OF TRANSPORTATION

BRIDGE "B" AT STA. 1583+71.88

80 FT SPAN DETAILS

FMS: 103334 / 301000

COUNTY: ATTALA

PROJECT NUMBER: BR-0023-02(058)

WORKING NUMBER B9 OF B14

SHEET NUMBER 8021

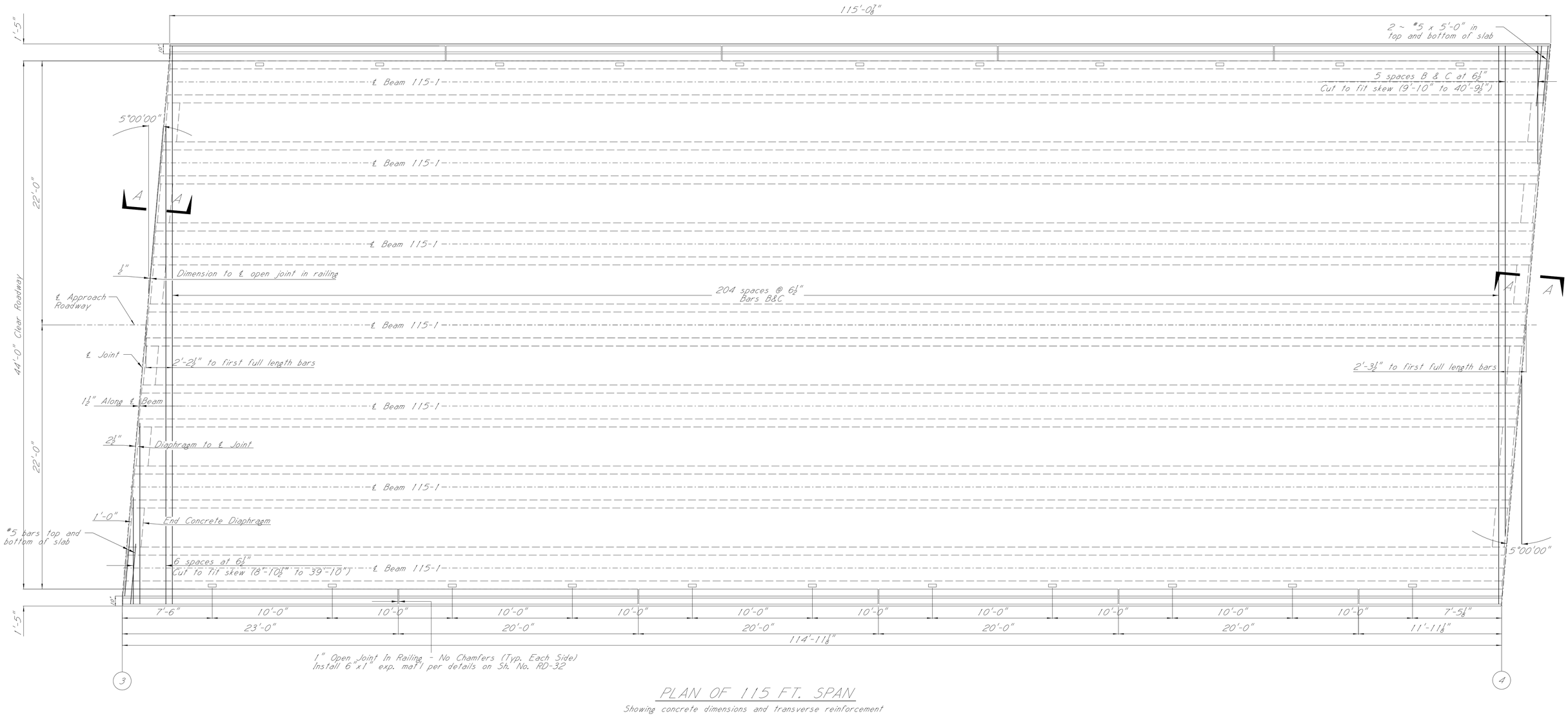
REVISION | BY | DATE

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.

PLAN
BRIDGE DIVISION
MISSISSIPPI DEPARTMENT OF TRANSPORTATION

001.00AMPM DGNFILENAME

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



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"

PLAN
BRIDGE DIVISION
MISSISSIPPI DEPARTMENT OF TRANSPORTATION

001.00.AMPM.DGNFILENAME

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

PLAN OF 115 FT SPAN
NO. 3

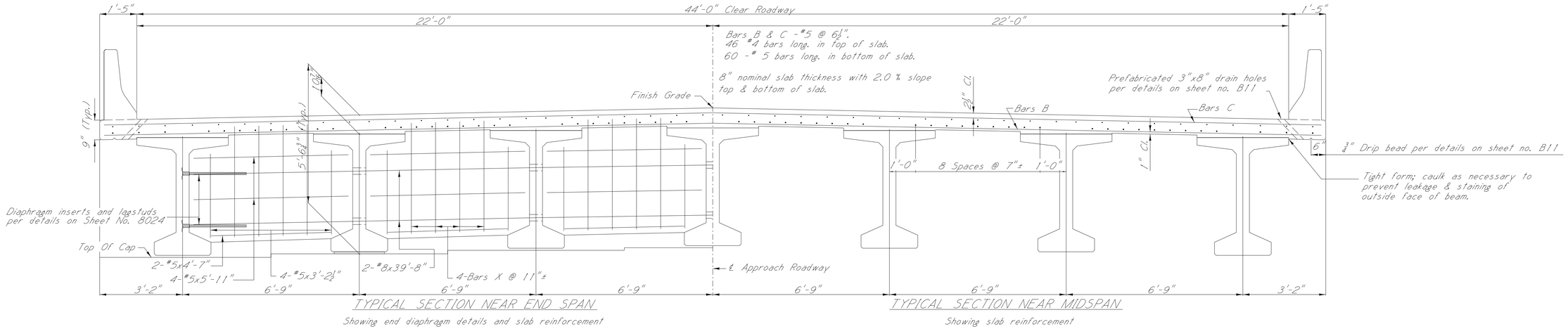
FMS: 103334 / 301000
COUNTY: ATTALA
PROJECT NUMBER: BR-0023-02(058)

WORKING NUMBER
B10 OF B14
SHEET NUMBER
8022

REVISION | BY | 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.

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

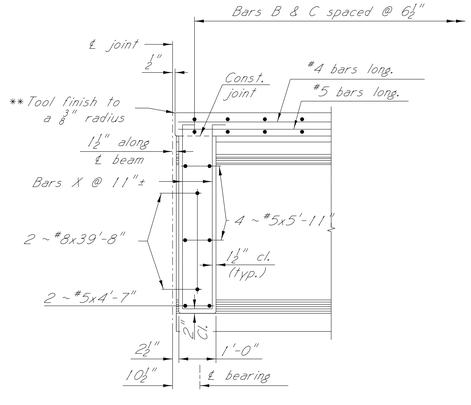


TYPICAL SECTION NEAR END SPAN

Showing end diaphragm details and slab reinforcement

TYPICAL SECTION NEAR MIDSPAN

Showing slab reinforcement



SECTION A-A

**NOTE: ¼" seat required at joint. See sealing details on sheet no. 8024

BAR BENDING DETAILS

Dimensions are out to out

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 ½ 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'c=4,000 p.s.i. ; fy=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.

PLAN
BRIDGE DIVISION
MISSISSIPPI DEPARTMENT OF TRANSPORTATION

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REVISION | BY

MISSISSIPPI DEPARTMENT OF TRANSPORTATION

BRIDGE "B" AT STA. 1583+71.88

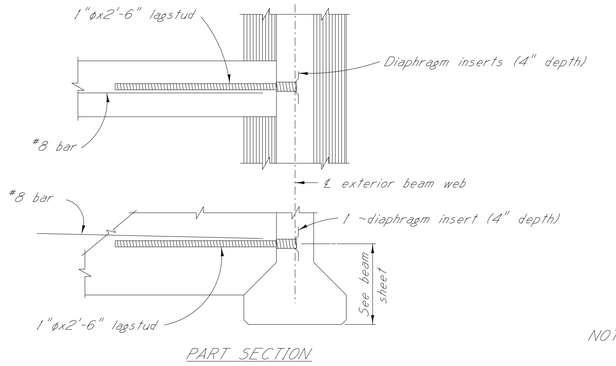
115 FT SPAN DETAILS

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

WORKING NUMBER B11 OF B14
SHEET NUMBER 8023

DATE
DESIGNER JONATHAN KING CHECKER SPENCER YATES
DETAILER JONATHAN KING ISSUE DATE 8/12/2019
DIRECTOR OF STRUCTURES, STATE BRIDGE ENGINEER - JUSTIN WALKER, P.E.
DEP. DIR. OF STRUCTURES, ASST. STATE BRIDGE ENGINEER - SCOTT WESTERFIELD, P.E.

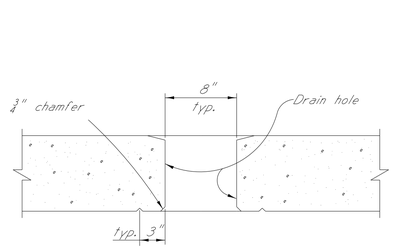
STATE	PROJECT NO.
MISS.	BR-0023-02(058)



PART SECTION

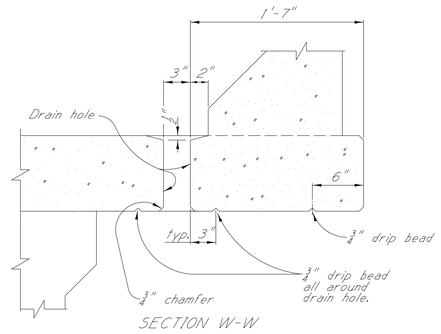
DIAPHRAGM INSERT AND LAGSTUD DETAILS

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

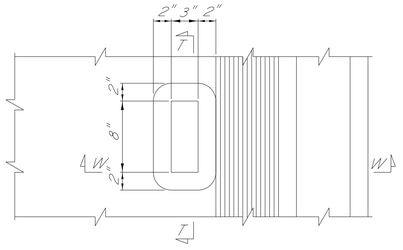
NOTE: Drain holes shall be located so that bars B & C will not be cut.



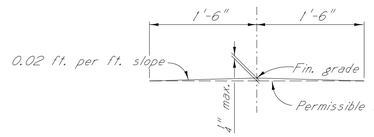
SECTION W-W

DRAIN HOLE DETAILS

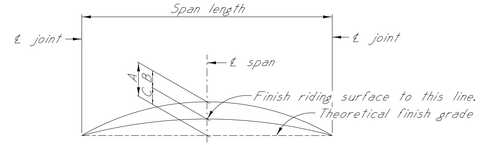
Use where shown on the Span Detail sheet B8.



DETAIL "D"



CROWN DETAILS

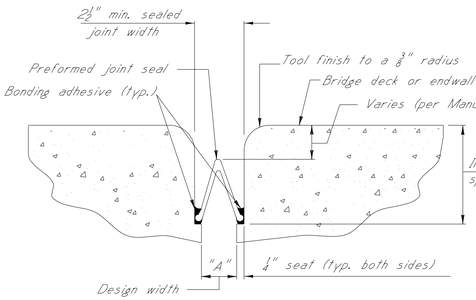


DEFLECTION DIAGRAM

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.

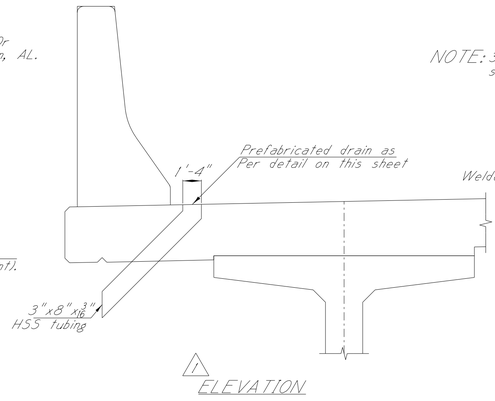


TYPICAL SECTION PREFORMED JOINT SEAL

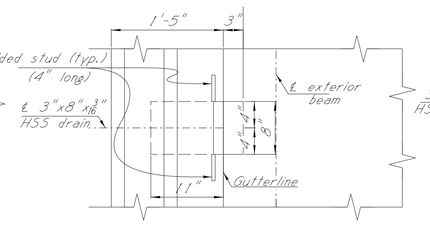
NOTES:

1. Joint installation and sealing on newly constructed bridge decks shall not be paid for directly and shall be considered an absorbed item of work.
2. The preformed joint seal shall be one of the following, installed according to the Manufacturer's specifications:
   A. Silicoflex Joint Sealing System, manufactured by R.J. Watson, Inc www.rjwatson.com
   B. Wabo SPS Joint System manufactured by Watson Bowman Acme Corporation www.wbacorp.com
   C. Silspec SSS Silicone Strip Seal manufactured by SSI Commercial & Highway Construction Materials www.ssicm.com
3. 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.
4. Dimension "A" is defined as the design width of the joint opening, which does not account for the ¼" 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 2½". In cases where design widths are greater than 2½", another type of expansion material shall be required as directed by the Director of Structures, State Bridge Engineer.
5. 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.

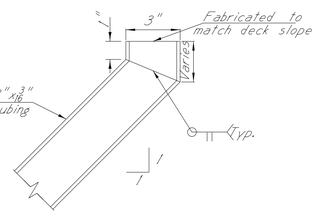
NOTE: 3"x8"x$\frac{3}{16}$" HSS drains shall be in accordance with ASTM A53 and shall be hot dipped galvanized in accordance with ASTM A153



ELEVATION



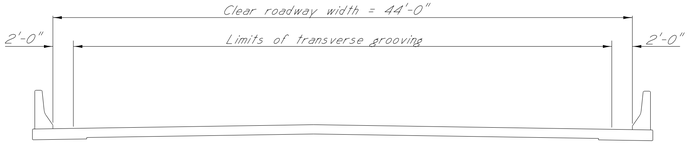
PLAN



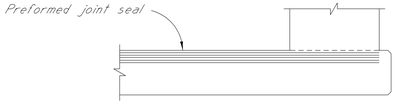
PRE-FABRICATED DRAIN DETAILS

PRE FABRICATED DRAIN HOLE DETAILS

Use where shown on the Span Detail sheet B10.



LIMITS OF TRANSVERSE GROOVING



ELEVATION AT END OF SPAN

PAD THICKNESS TABLE		
	PAD THICKNESS	COMPRESSED PAD THICKNESS
	1"	15/16"
LP1	2 5/16"	2¼"
LP2	2 5/16"	2¼"

GENERAL NOTES:

All concrete in span shall be class "BD".
All concrete in railing shall be class "AA".
Chamfer all edges ¾", 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.

PLAN
BRIDGE DIVISION
MISSISSIPPI DEPARTMENT OF TRANSPORTATION

001:00AMPM DGNFILENAME

MISSISSIPPI DEPARTMENT OF TRANSPORTATION

BRIDGE "B" AT STA. 1583+71.88

MISCELLANEOUS SPAN DETAILS

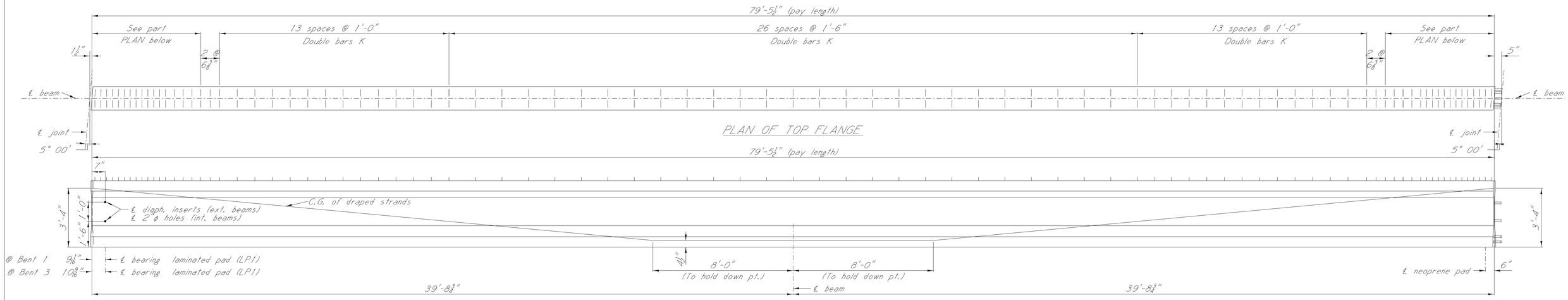
FMS: 103334 / 301000
COUNTY: ATTALA
PROJECT NUMBER: BR-0023-02(058)

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

DATE | REVISION | BY

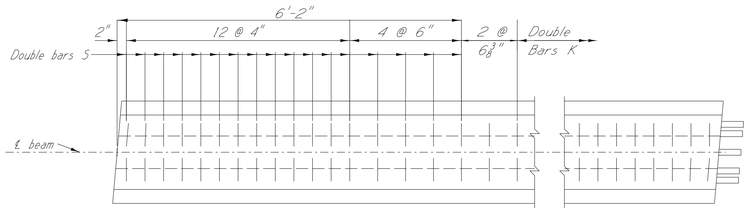
WORKING NUMBER B12 OF B14
SHEET NUMBER 8024

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

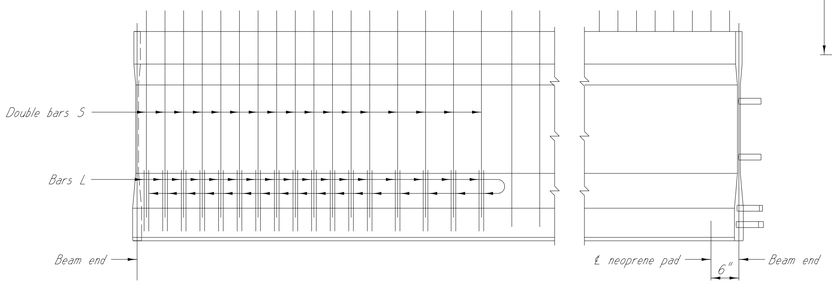


ELEVATION

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-S-00227E Or TT-S-00230C, applied according to Manufacturer's directions.

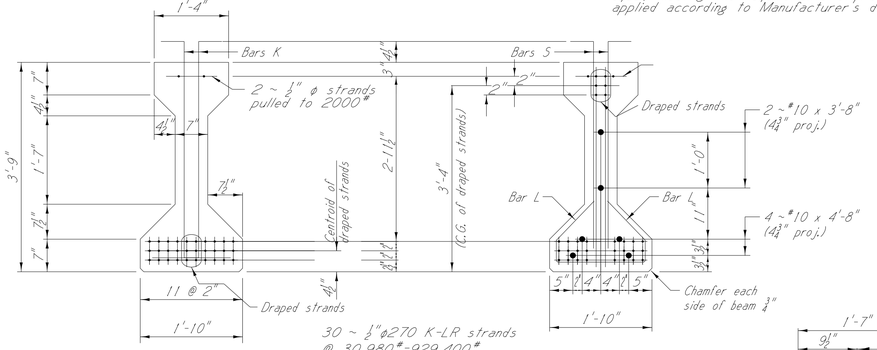


PART PLAN



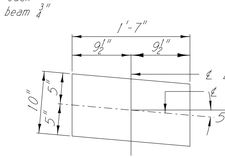
PART ELEVATION

Strands not shown for clarity



SECTION NEAR ℄ SPAN

30 ~ ½" ø270 K-LR strands @ 30,980#=929,400#

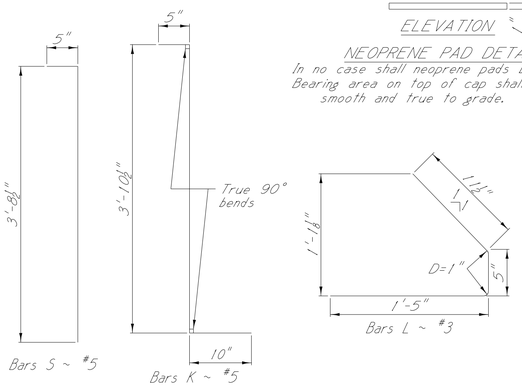


PLAN

ELEVATION

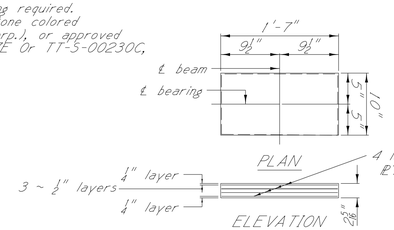
NEOPRENE PAD DETAILS

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



PLAN

ELEVATION

LAMINATED PAD DETAILS (LP1)

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.

PRESTRESS REQUIREMENTS

LR indicates low-relaxation strands

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

Strand type	Minimum breaking strength lbs/strand	Initial tension lbs/strand	Required number and location of strands: Total number strands	Straight strands: Number strands	Straight strands: Centroid (in.)	Draped strands: Number strands	Draped strands: Centroid (in.) ℄ span	Draped strands: Centroid (in.) Beam end	Centroid for total number of strands (in.): At ℄ span	Centroid for total number of strands (in.): At beam end	Distance from ℄ span to hold-down point	Camber limits	Deflection diagram: A	Deflection diagram: B	Deflection diagram: C	Minimum concrete strength at time of release (psi)
½"ø270 K-LR	41,300	30,980	30	24	4.50	6	4.50	40.00	4.50	11.60	8'-0"	0 to 3"	2⅛"	1¼"	⅞"	5500

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 ½ ø270 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)

PLAN
BRIDGE DIVISION
MISSISSIPPI DEPARTMENT OF TRANSPORTATION

001.00.AMPM DONFILENAME

MISSISSIPPI DEPARTMENT OF TRANSPORTATION

BRIDGE "B" AT STA. 1583+71.88

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

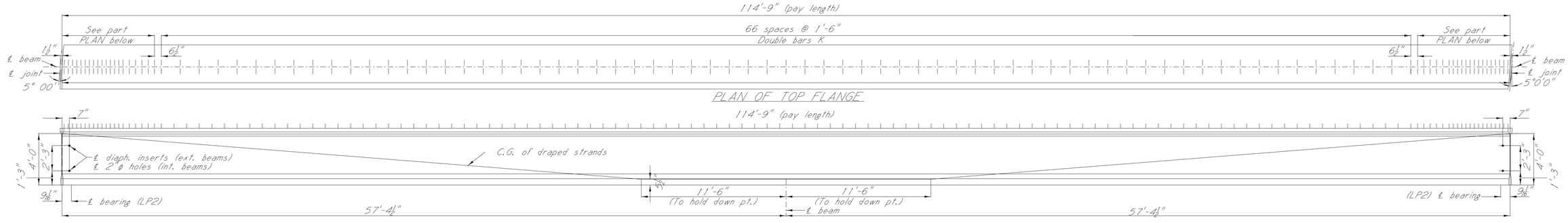
FMS: 103334 / 301000
COUNTY: ATTALA
PROJECT NUMBER: BR-0023-02(058)

WORKING NUMBER B13 OF B14
SHEET NUMBER 8025

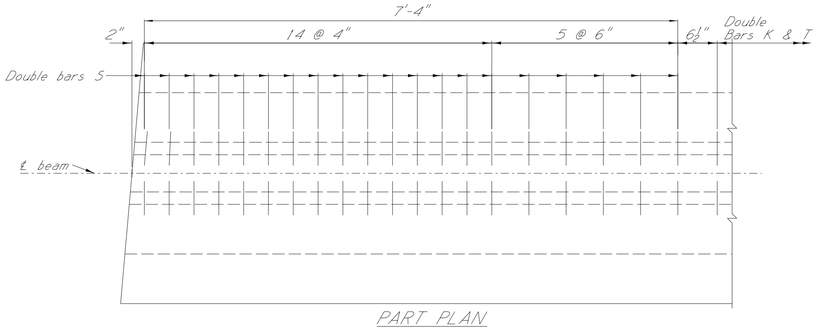
REVISION | BY | DATE

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.

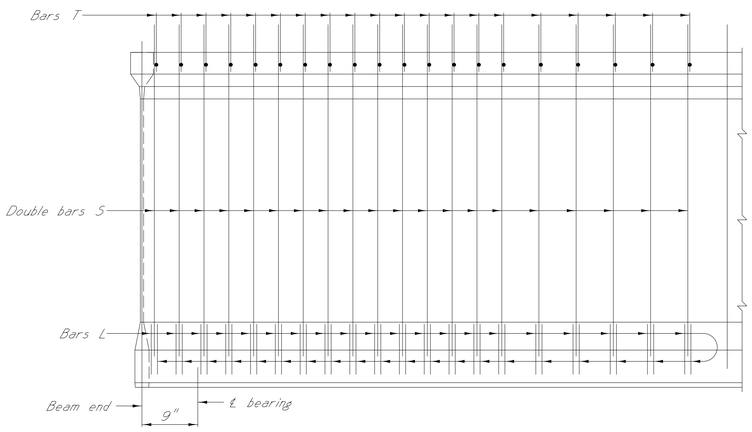
STATE	PROJECT NO.
MISS.	BR-0023-02(058)



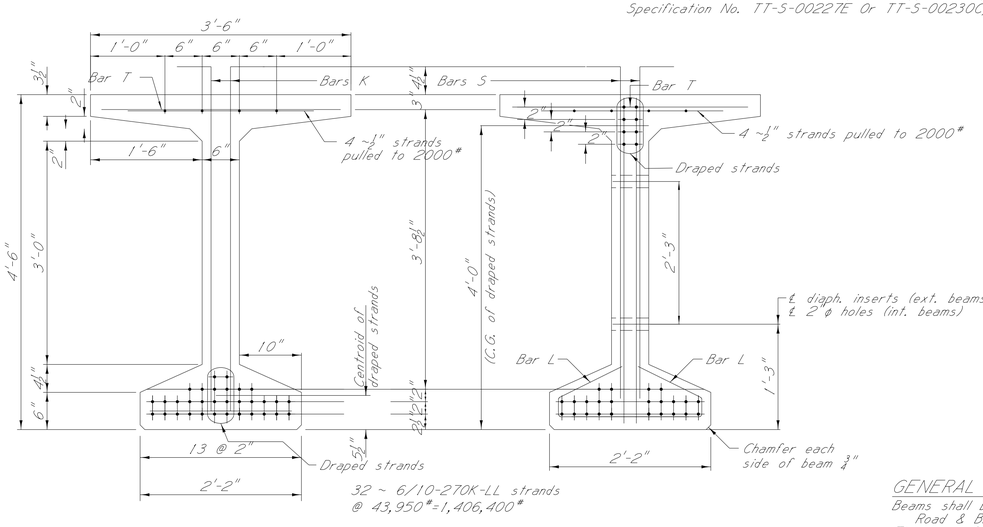
NOTE: Cut strands flush and weatherproof with limestone colored "Sonolastic" (Sonneborn Building Products), "GC-9 Synthacalk" (Pecora Corp.), or approved equal, meeting the requirements of Federal Specification No. TT-S-00227E Or TT-S-00230C, applied according to Manufacturer's directions.



PART PLAN

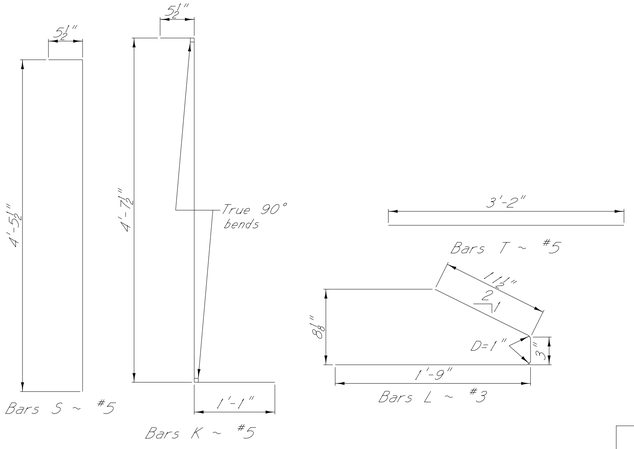


PART ELEVATION
Strands not shown for clarity

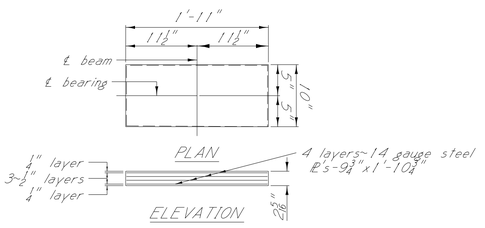


SECTION NEAR ℄ SPAN

END ELEVATION



BAR BENDING DETAILS
Dimensions are out to out



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 "FX" 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)

LR indicates low-relaxation strands

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

PRESTRESS REQUIREMENTS

Strand type	Minimum breaking strength	Initial tension	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.) ℄ span	Centroid (in.) Beam end								
	lbs/strand	lbs/strand														
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 4¾"	2 5/16"	2 1/16"	¾"	6000

PLAN
BRIDGE DIVISION
MISSISSIPPI DEPARTMENT OF TRANSPORTATION

001.00AMM DGNFILENAME

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

115 FT BEAM DETAILS
BT-54

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

WORKING NUMBER B14 OF B14
SHEET NUMBER 8026

REVISION | BY | DATE

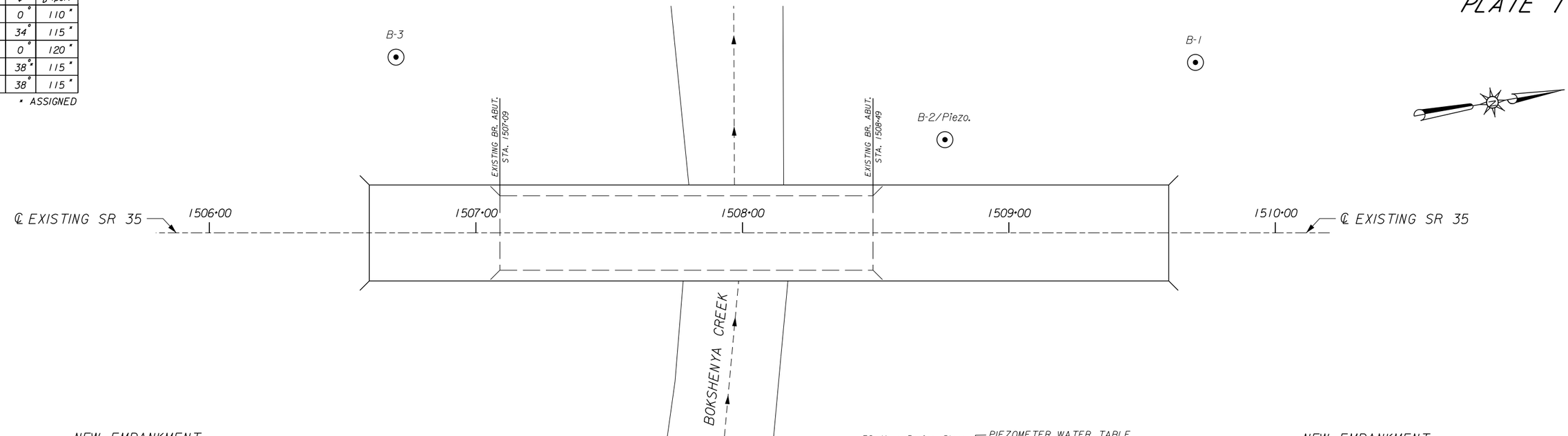
DESIGNER JONATHAN KING CHECKER SPENCER YATES
DETAILER JONATHAN KING ISSUE DATE 6/12/2019
DIRECTOR OF STRUCTURES, STATE BRIDGE ENGINEER - JUSTIN WALKER, P.E.
DEP. DIR. OF STRUCTURES, ASST. STATE BRIDGE ENGINEER - SCOTT WESTERFIELD, P.E.

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

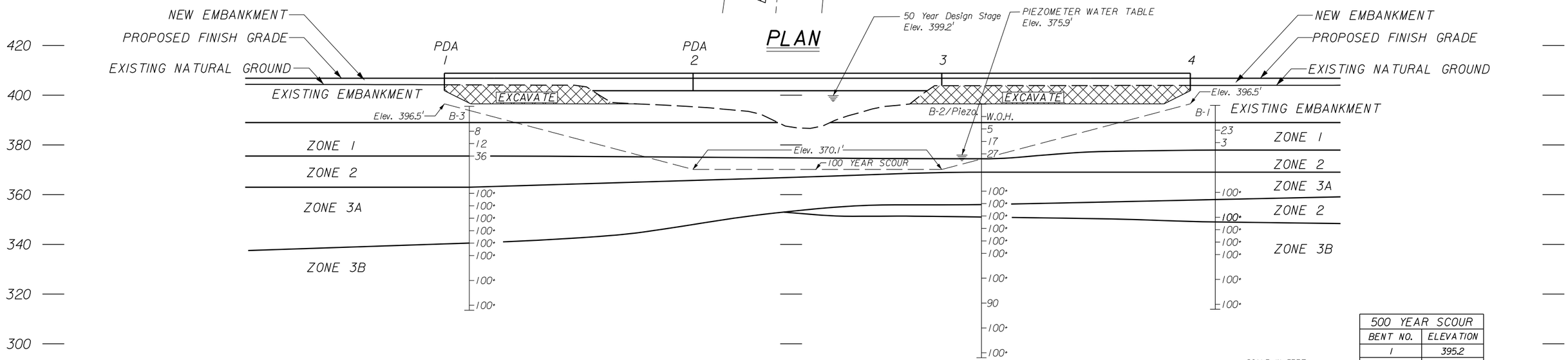
PLATE 1

SOIL STRENGTHS			
ZONE	C (ksf)	ϕ	ɣ (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



PLAN



SCALE IN FEET
20 10 0 20

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

PROFILE

NOTE:

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

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)

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, MDOT 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 MDOT 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 MDOT. THIS SUBSURFACE INFORMATION INTERPRETATION IS PRESENTED IS 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: 15-04-17.DGN | REPORT NO: 15-04-17

REVISIONS | BY | DATE

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

WORKING NUMBER GSP-A

DESIGNED: W.F.W. DETAILED: W.F.W. DRAWN: CADD
CHECKED: M.L.S. ISSUED: R.S.F. DATE: 10-29-18

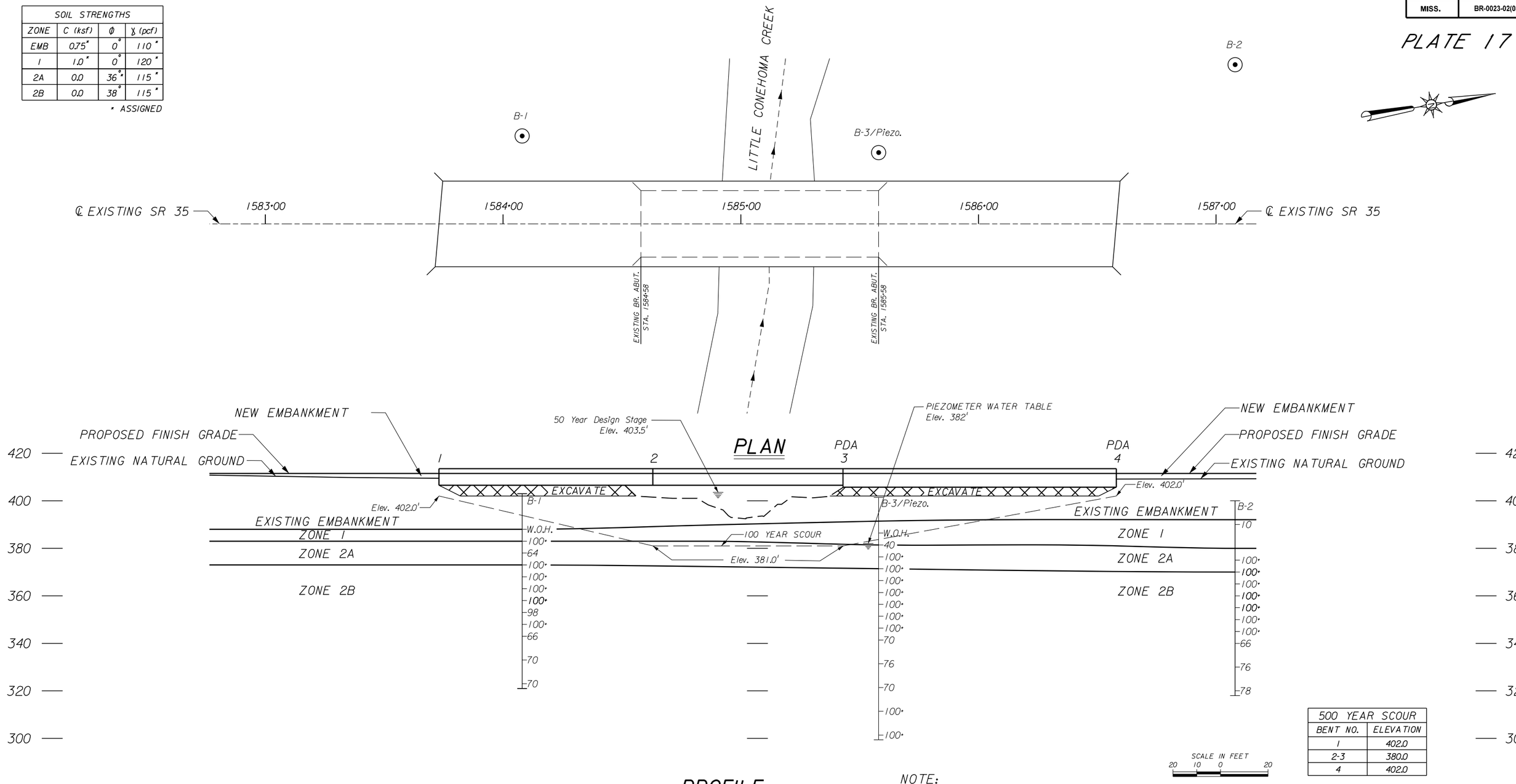
SHEET NUMBER 8027

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

PLATE 17

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

* ASSIGNED



500 YEAR SCOUR	
BENT NO.	ELEVATION
1	402.0
2-3	380.0
4	402.0

SCALE IN FEET
20 10 0 20

PROFILE

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

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, MDOT 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 MDOT 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 MDOT. THIS SUBSURFACE INFORMATION INTERPRETATION IS PRESENTED IS 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)

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

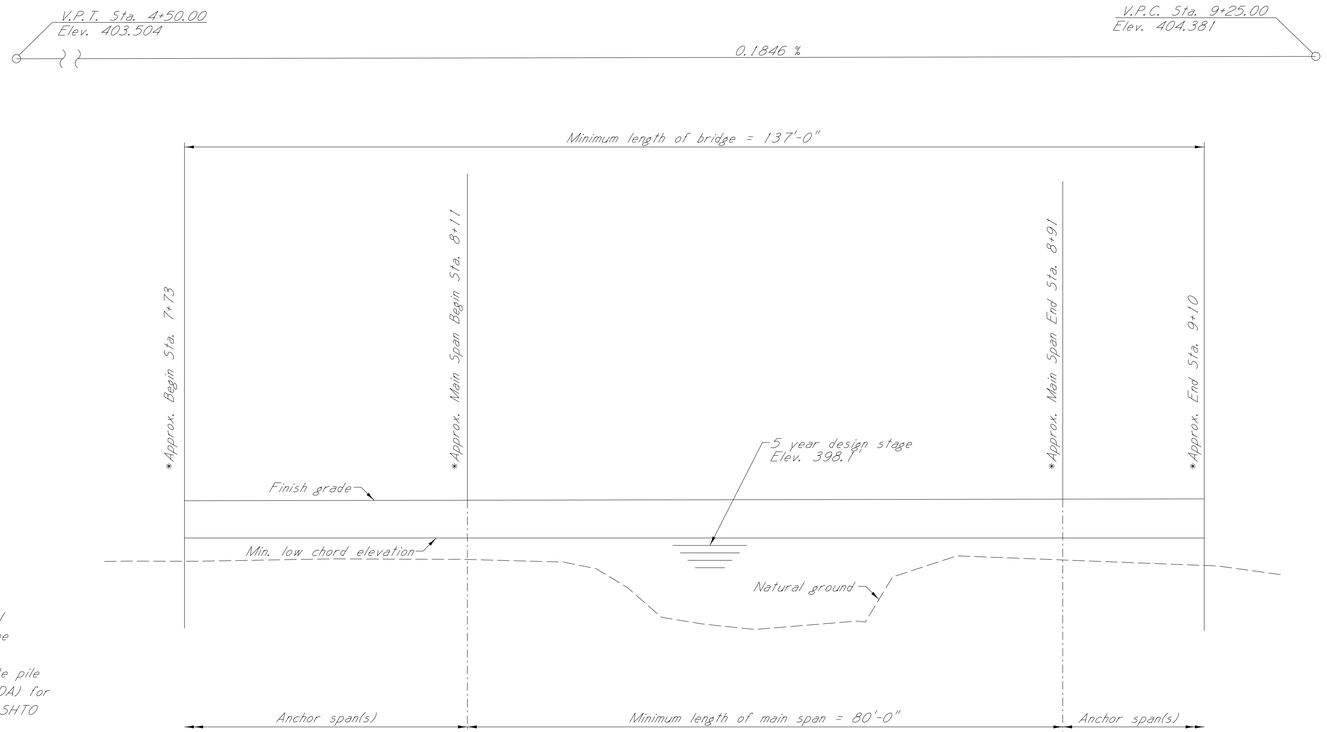
MISSISSIPPI DEPARTMENT OF TRANSPORTATION
GENERALIZED SOIL PROFILE
SR 35 OVER LITTLE CONEHOMA CREEK
STATION NO.: 1583+71.88, BRG No. 152.0
SITE NO: 16-04-2183
103334/301000
PROJECT NO: BR-0023-02(058)
COUNTY: ATTALA

REVISIONS | BY | DATE

WORKING NUMBER: GSP-B
SHEET NUMBER: 8028

DESIGNED: W.F.W. DETAILED: W.F.W. DRAWN: CADD
CHECKED: M.L.S. ISSUED: R.S.F. DATE: 10-29-18

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



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

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

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.

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.

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 minimun 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
PLAN
BRIDGE DIVISION

001.00 AMPM DGN FILENAME

DATE	REVISION	BY

MISSISSIPPI DEPARTMENT OF TRANSPORTATION

DETOUR BRIDGE AT STA. 7+73.00

MS 35 OVER BOKSHENYA CREEK

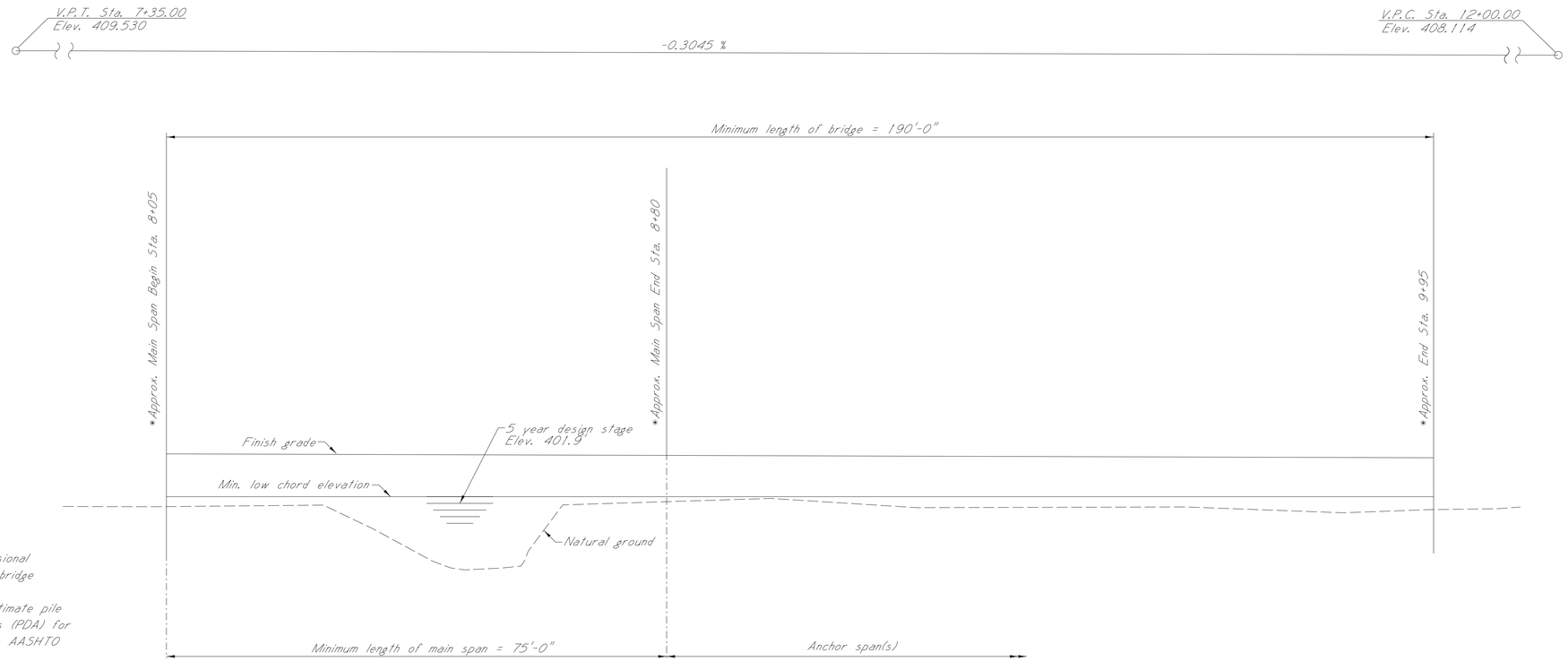
FMS: 103334 / 301000
COUNTY: ATTALA
PROJECT NUMBER: BR-0023-02(058)

DESIGNER JONATHAN KING CHECKER SPENCER YATES
DETAILER JONATHAN KING ISSUE DATE 8/12/2019
DIRECTOR OF STRUCTURES, STATE BRIDGE ENGINEER - JUSTIN WALKER, P.E.
DEP. DIR. OF STRUCTURES, ASST. STATE BRIDGE ENGINEER - SCOTT WESTERFIELD, P.E.

WORKING NUMBER
DBA-1

SHEET NUMBER
8029

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



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.

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.

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 minimun 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

PLAN
BRIDGE DIVISION
MISSISSIPPI DEPARTMENT OF TRANSPORTATION

Ø0: Ø0 AMPM DGNFILENAME

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)

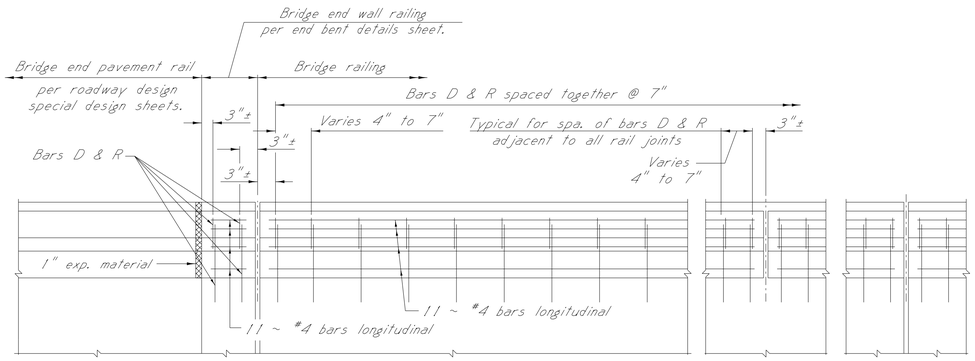
WORKING NUMBER DBB-1

REVISION | BY | DATE

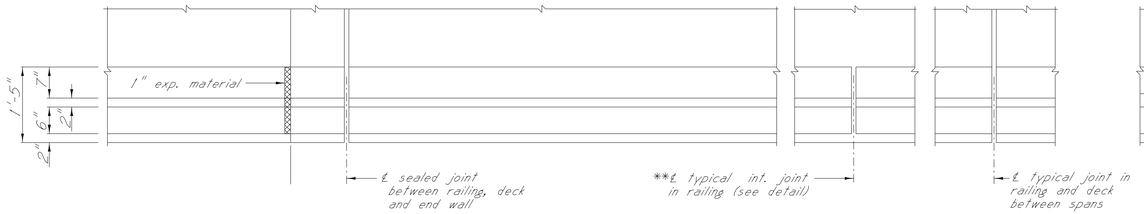
DESIGNER JONATHAN KING CHECKER SPENCER YATES
DETAILER JONATHAN KING ISSUE DATE 8/12/2019
DIRECTOR OF STRUCTURES, STATE BRIDGE ENGINEER - JUSTIN WALKER, P.E.
DEP. DIR. OF STRUCTURES, ASST. STATE BRIDGE ENGINEER - SCOTT WESTERFIELD, P.E.

SHEET NUMBER 8Ø3Ø

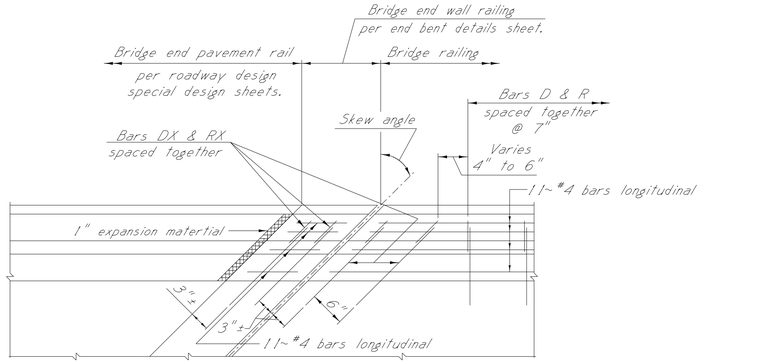
STATE	PROJECT NO.
MISS.	BR-0023-02(058)



PART PLAN OF LEFT RAILING
Showing conventional reinforcing. See CONSTRUCTION NOTES for details of optional welded wire fabric.

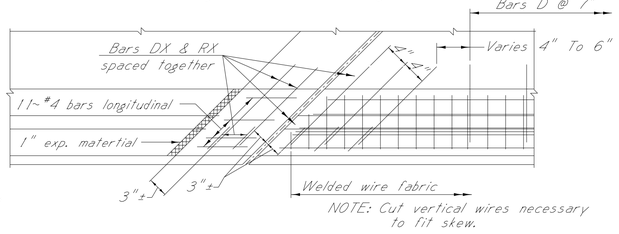


PART PLAN OF RIGHT RAILING
Showing concrete dimensions



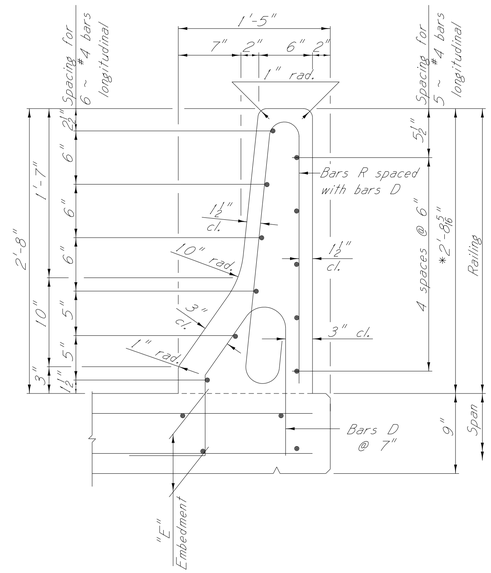
SKEWED PART PLAN OF LEFT RAILING
Showing conventional reinforcing

NOTE: For details of bars DX & RX, see end bent details sheet.



NOTE: Cut vertical wires necessary to fit skew.

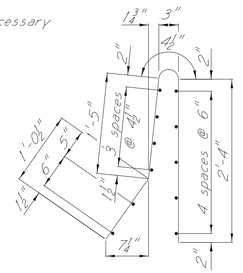
SKEWED PART PLAN OF RIGHT RAILING
Showing optional welded wire fabric.
(See CONSTRUCTION NOTES.)



TYPICAL SECTION OF RAILING

NOTE:
"E" = slab thickness (in.) - 1 inch.

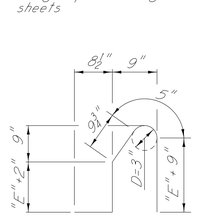
*NOTE:
This dimension shown is for 0.02 ft/ft slope.
It will vary in superelevated sections.



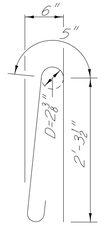
WELDED WIRE FABRIC
(Optional - see CONSTRUCTION NOTES)

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)



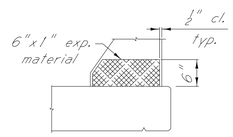
BARS D ~ #4



BARS R ~ #4

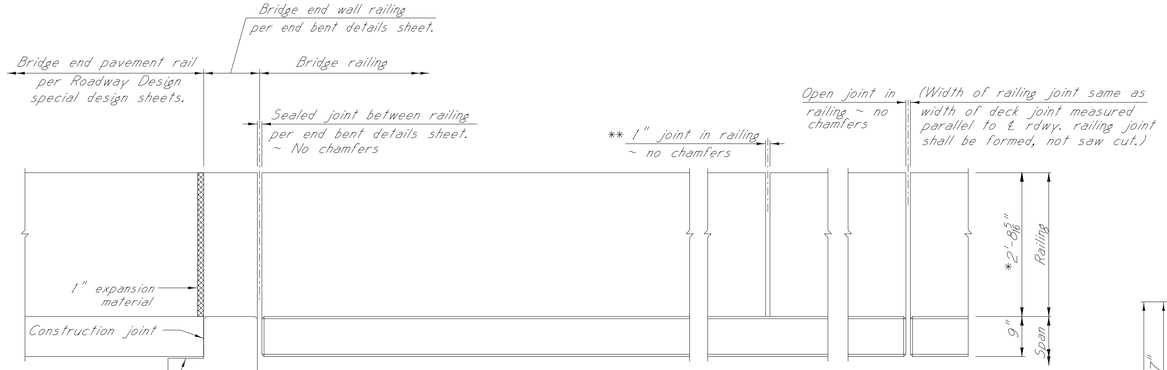
NOTE:
"E" = slab thickness (in.) - 1 inch.

BAR BENDING DETAILS
Dimensions are out to out

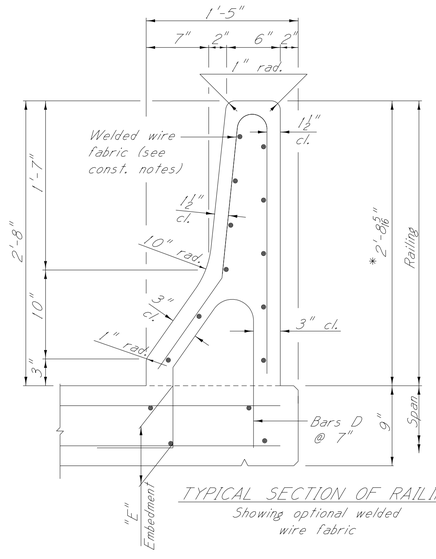


** TYPICAL INT. JOINT
(For railing joints located between span supports and intermediate supports of continuous spans)

**NOTE: In lieu of the above, a ⅜ 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.



PART ELEVATION OF OUTSIDE FACE OF RAILING



TYPICAL SECTION OF RAILING
Showing optional welded wire fabric

MISSISSIPPI DEPARTMENT OF TRANSPORTATION
BRIDGE DIVISION
P.O. BOX 1850
JACKSON, MS 39215-1850

BY	REVISION	DATE

MISSISSIPPI DEPARTMENT OF TRANSPORTATION

MS 35 BETWEEN KOSCIUSKO AND ATTALA COUNTY LINE

2'-8" RAILING DETAILS

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

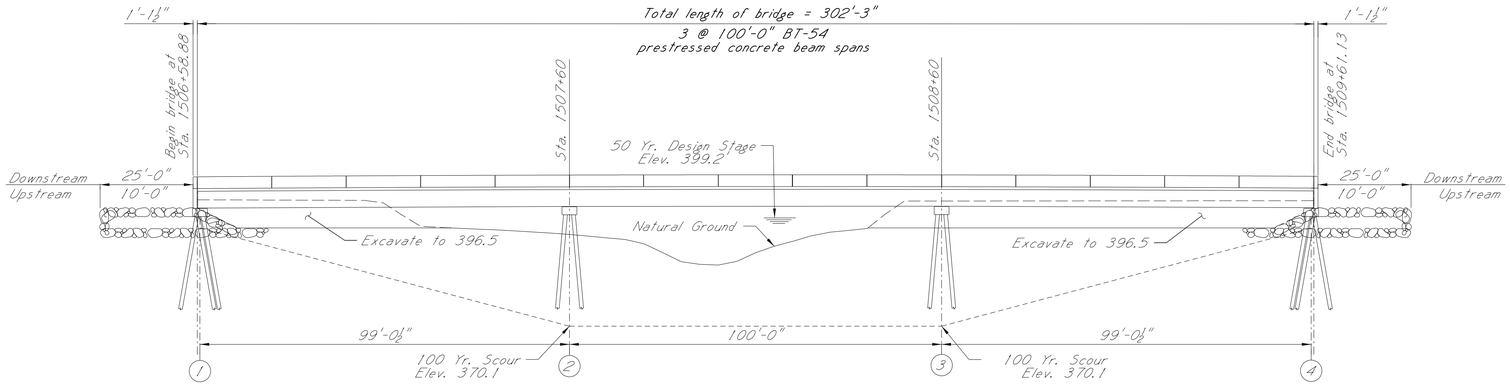
WORKING NUMBER RD-32

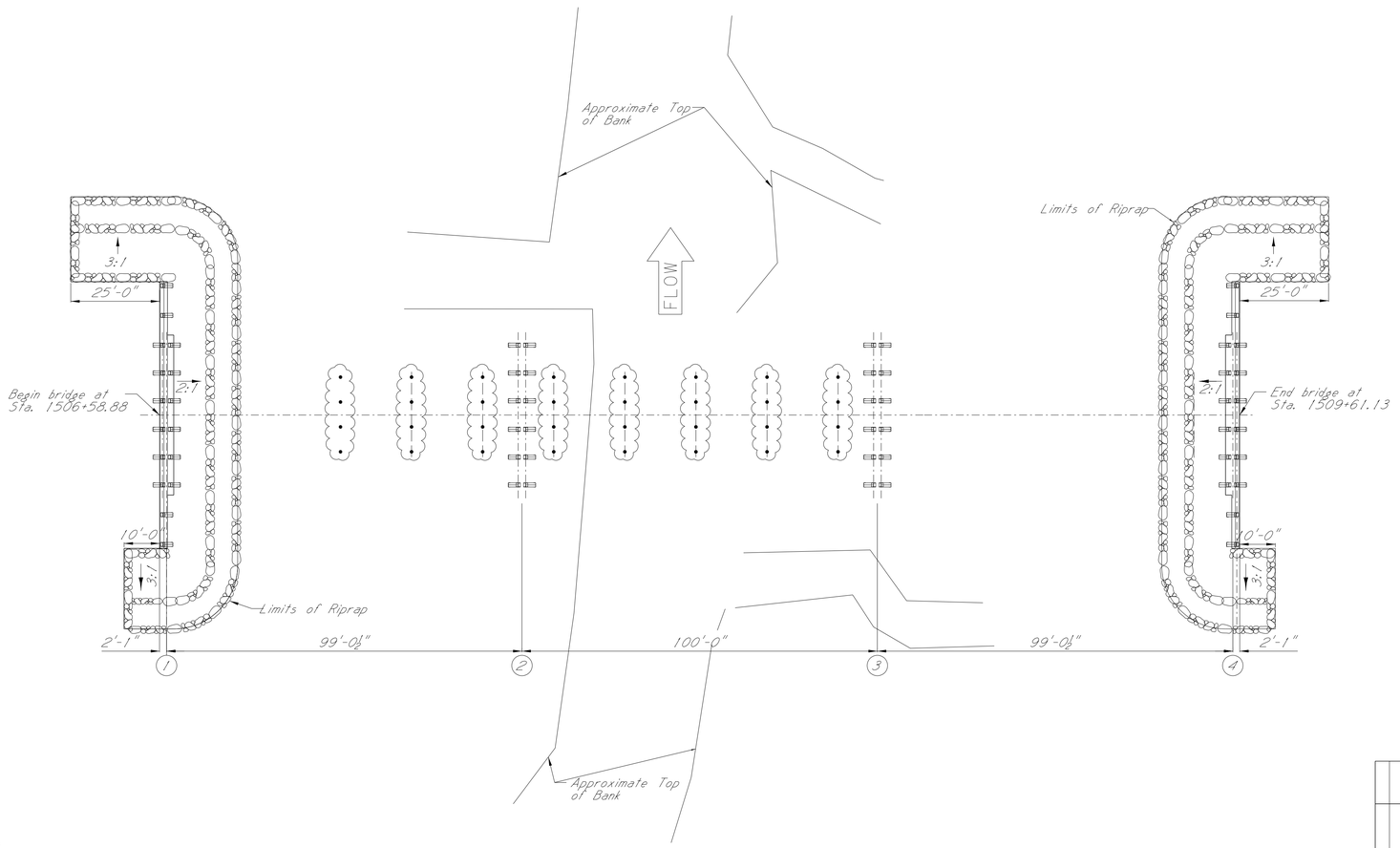
DESIGNER JONATHAN KING
DETAILER JONATHAN KING
CHECKER SPENCER YATES
ISSUE DATE 6/12/2019

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

SHEET NUMBER 8031

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





EROSION CONTROL PLAN

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.

PLAN
BRIDGE DIVISION
MISSISSIPPI DEPARTMENT OF TRANSPORTATION

00: 00AMPM DGNFILENAME

BY | REVISION | DATE

MISSISSIPPI DEPARTMENT OF TRANSPORTATION

BRIDGE "A" AT STA. 1506+58.88

BRIDGE EROSION CONTROL

FMS: **103334** / **301000**

COUNTY: **ATTALA**

PROJECT NUMBER: **BR-0023-02(058)**

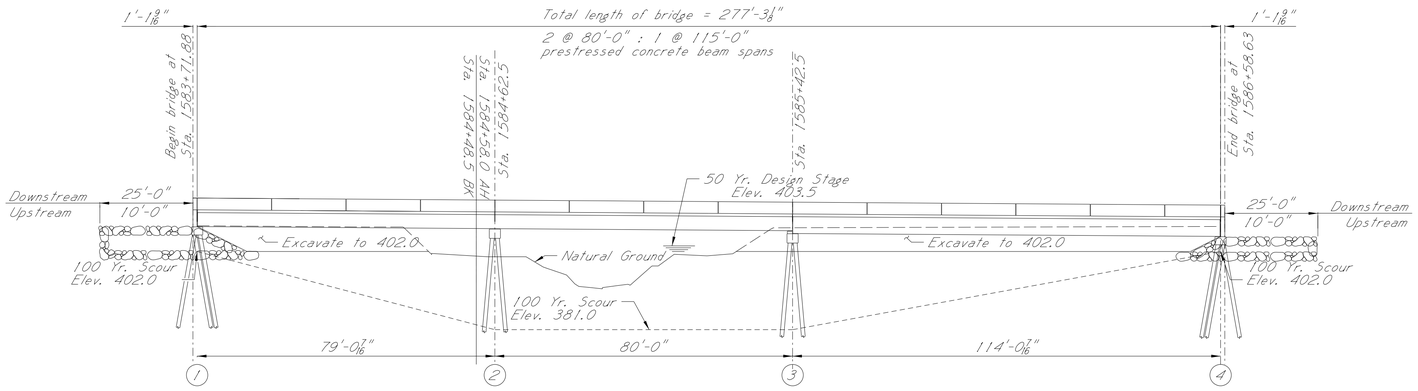
WORKING NUMBER
ECBR-A1

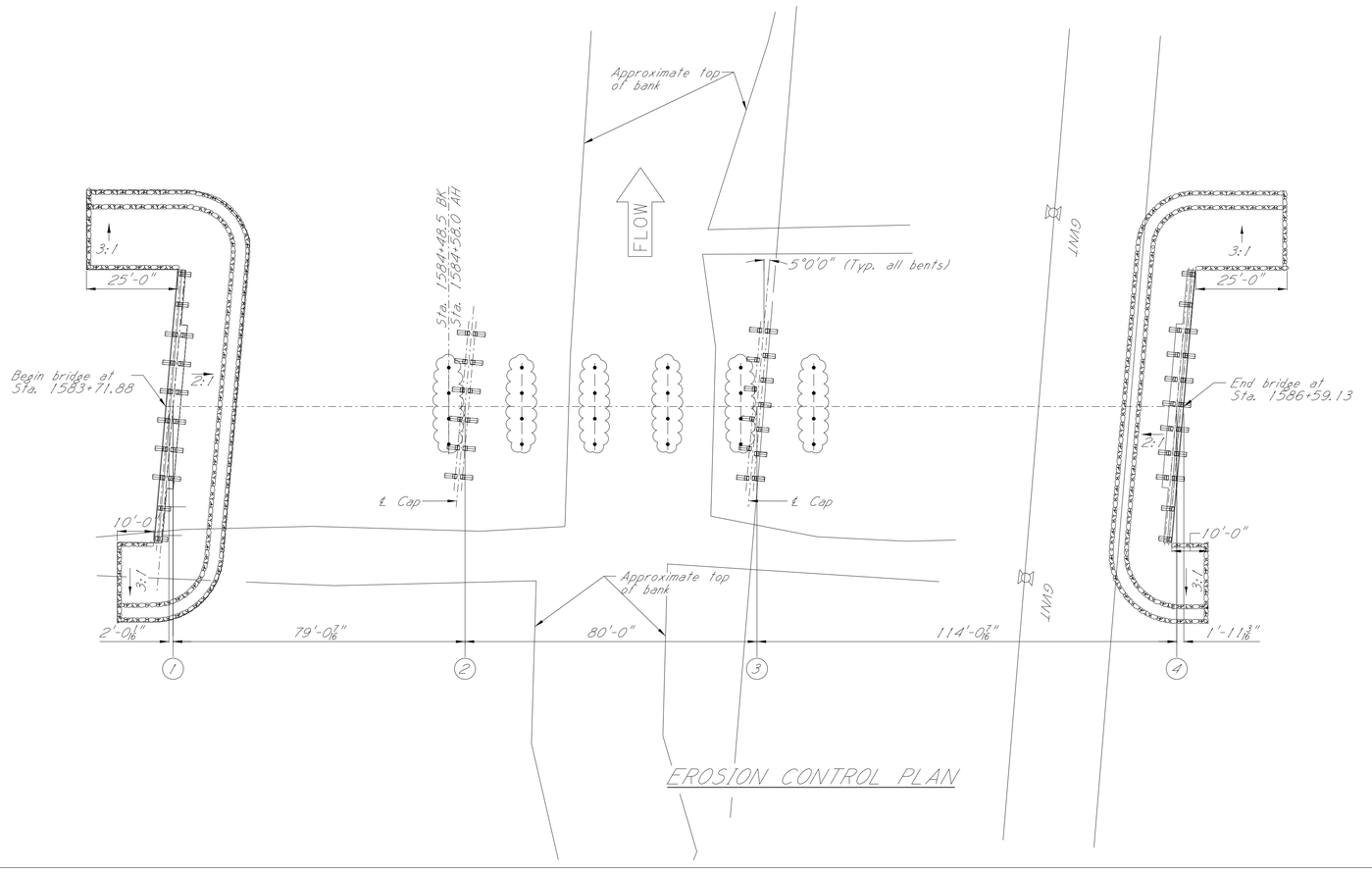
DESIGNER **JONATHAN KING** CHECKER **SPENCER YATES**
DETAILER **JONATHAN KING** ISSUE DATE **6/12/2019**

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

SHEET NUMBER
8032

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





EROSION CONTROL PLAN

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.

PLAN
BRIDGE DIVISION
MISSISSIPPI DEPARTMENT OF TRANSPORTATION

00:00AMPM DGNFILENAME

DEPARTMENT OF TRANSPORTATION MISSISSIPPI

REVISION | BY | DATE

MISSISSIPPI DEPARTMENT OF TRANSPORTATION

BRIDGE "B" AT STA. 1583+71.88

BRIDGE EROSION CONTROL

FMS: **103334 / 301000**

COUNTY: **ATTALA**

PROJECT NUMBER: **BR-0023-02(058)**

WORKING NUMBER: ECBR-B1

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.

SHEET NUMBER: 8033

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

Wk. No.

Sh. No.
9001

SR 35 (SITE 1)

CROSS SECTION
ROADWAY DESIGN DIVISION C.A.D.D. SECTION
MISSISSIPPI DEPARTMENT OF TRANSPORTATION

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

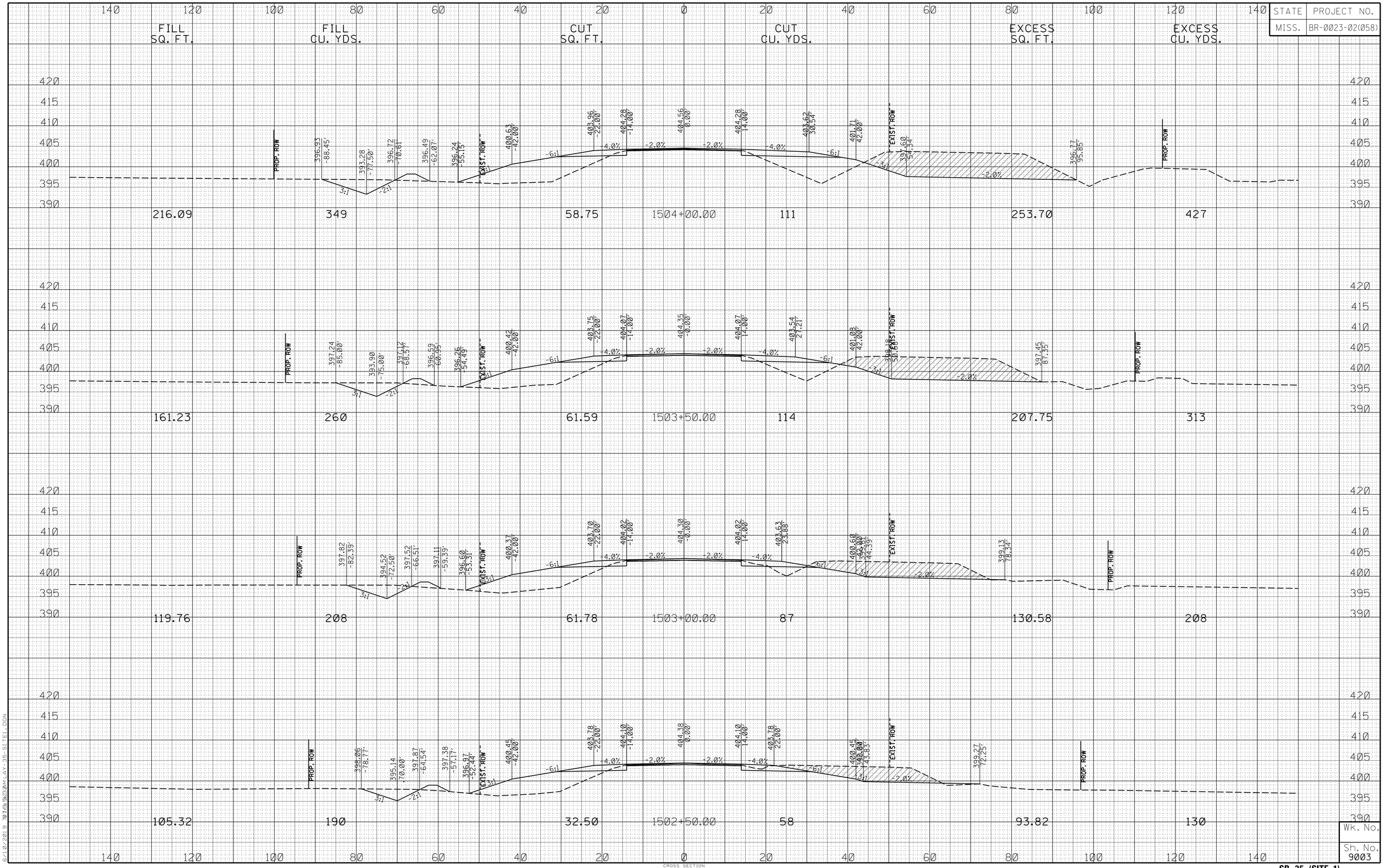
FILL SQ. FT.	FILL CU. YDS.	CUT SQ. FT.	STATION	CUT CU. YDS.	EXCESS SQ. FT.	EXCESS CU. YDS.
99.41	177	29.94	1502+00.00	56	46.28	57
91.25	180	30.82	1501+50.00	58	14.96	16
102.62	173	31.89	1501+00.00	55	1.90	2
84.75	96	27.16	1500+50.00	64	0.00	0

Wk. No.

Sh. No. 9002

SR 35 (SITE 1)

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



CROSS SECTION
ROADWAY DESIGN DIVISION C.A.D.D. SECTION
MISSISSIPPI DEPARTMENT OF TRANSPORTATION

WK. No.
Sh. No. 9003

SR 35 (SITE 1)

6/10/2019 7:48:33 AM LAY 35-SITE1.DGN

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

Station	Fill Sq. Ft.	Fill Cu. Yds.	Cut Sq. Ft.	Cut Cu. Yds.	Excess Sq. Ft.	Excess Cu. Yds.
1506+00.00	339.09	625	48.88	83	349.64	668
1505+50.00	336.21	590	40.95	71	372.07	624
1505+00.00	300.94	521	35.45	82	302.30	534
1504+50.00	261.57	442	53.02	103	274.10	489

Wk. No.

Sh. No. 9004

SR 35 (SITE 1)

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

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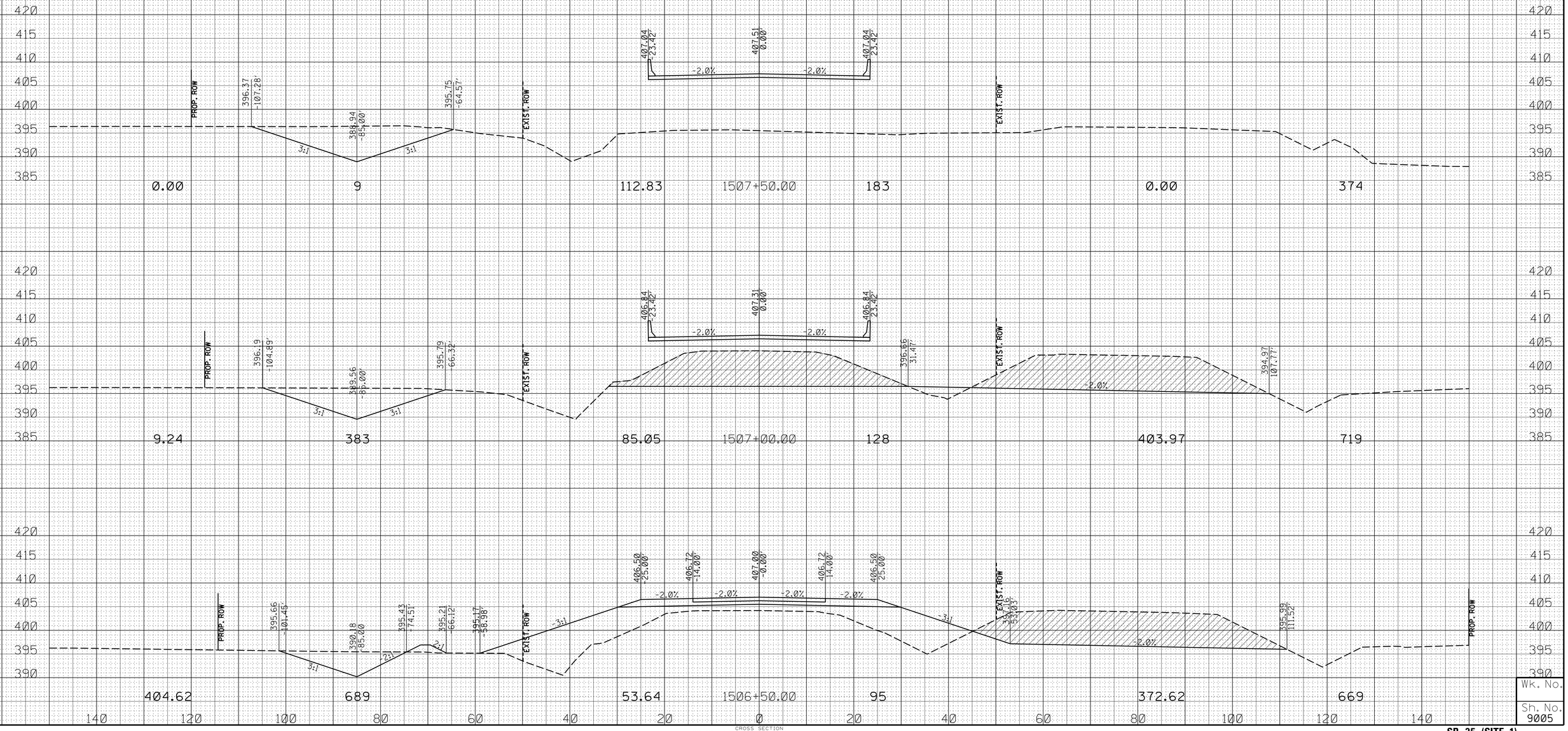

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Sh. No. 9005

6/10/2019 7:45:37 AM LAY 35-SITE1.DGN

CROSS SECTION
ROADWAY DESIGN DIVISION C.A.D.D. SECTION
MISSISSIPPI DEPARTMENT OF TRANSPORTATION

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

140	120	100	80	60	40	20	0	20	40	60	80	100	120	140
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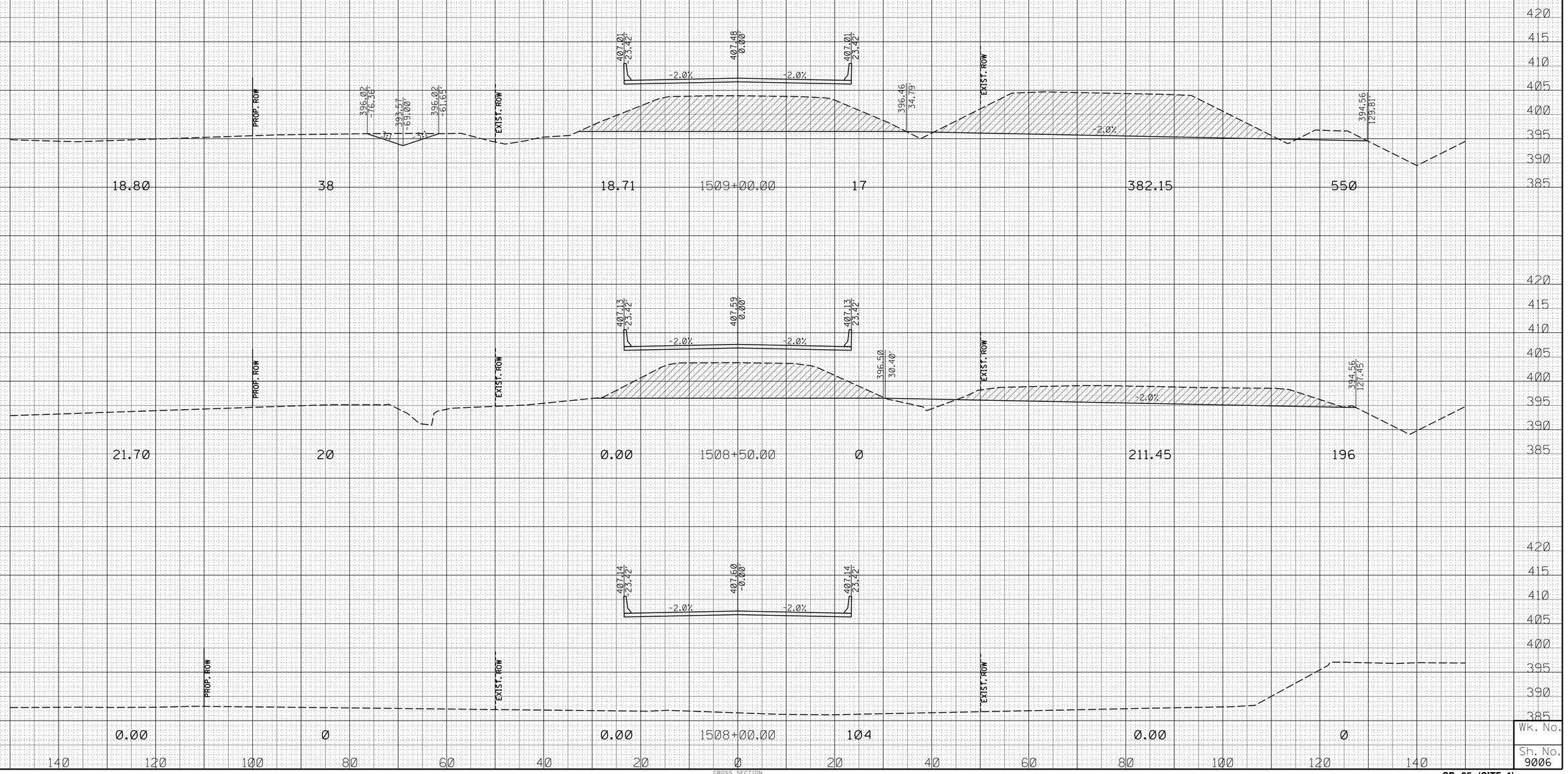


Wk. No.
Sh. No. 9006

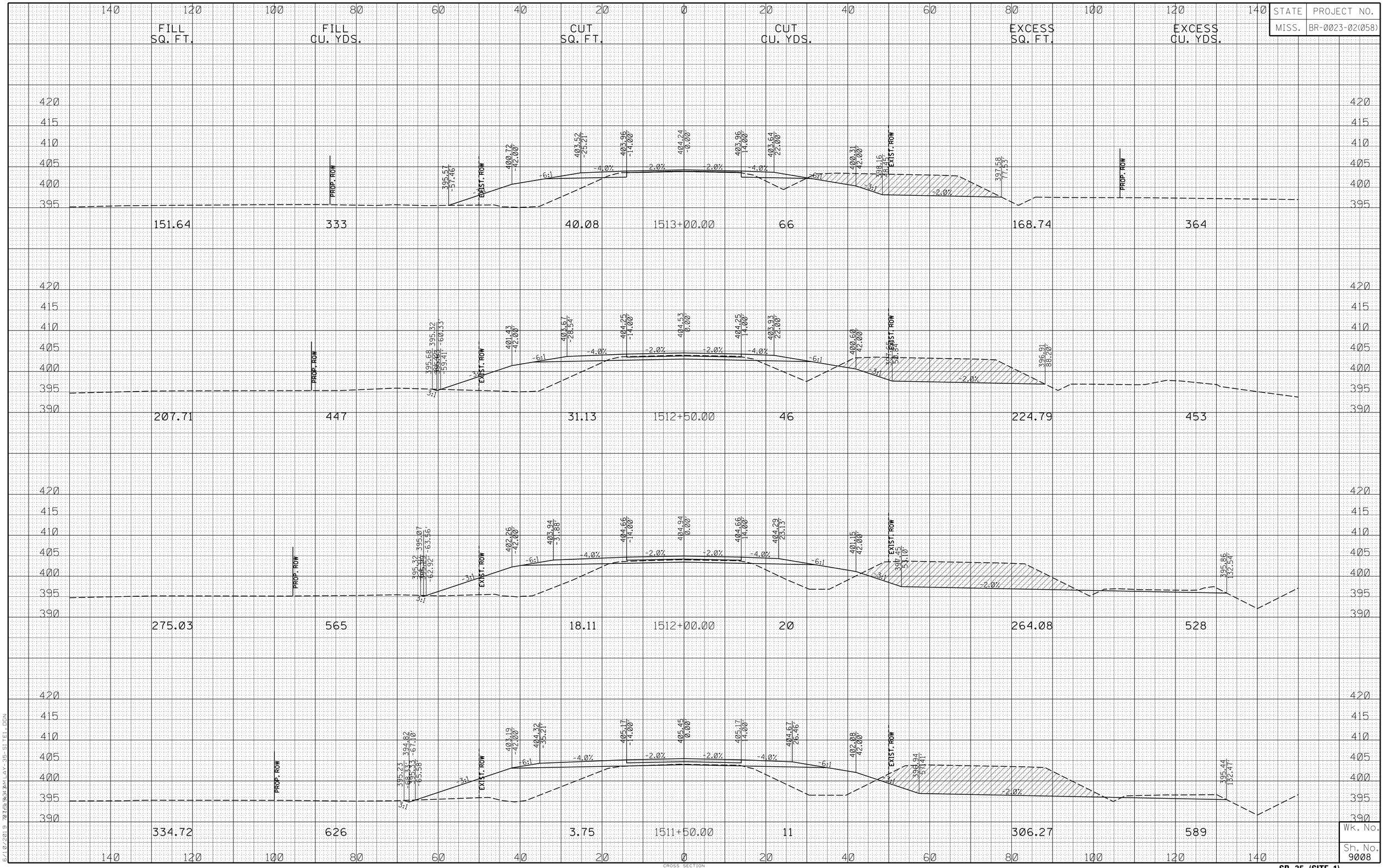
6/10/2019 7:45:33 AM LAY 35-SITE1.DGN

CROSS SECTION
ROADWAY DESIGN DIVISION C.A.D.D. SECTION
MISSISSIPPI DEPARTMENT OF TRANSPORTATION

SR 35 (SITE 1)


STATE | PROJECT NO.
MISS. | BR-0023-02(058)
FILL SQ. FT.
FILL CU. YDS.
CUT SQ. FT.
CUT CU. YDS.
EXCESS SQ. FT.
EXCESS CU. YDS.
PROP. ROW
EXIST. ROW
340.88
621
7.87
1511+00.00
21
329.38
625
329.47
633
14.87
1510+50.00
31
345.42
633
353.91
439
18.20
1510+00.00
193
338.14
691
120.63
129
190.75
1509+50.00
194
408.10
732
Wk. No.
Sh. No.
9007

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



WK. No.
Sh. No. 9008

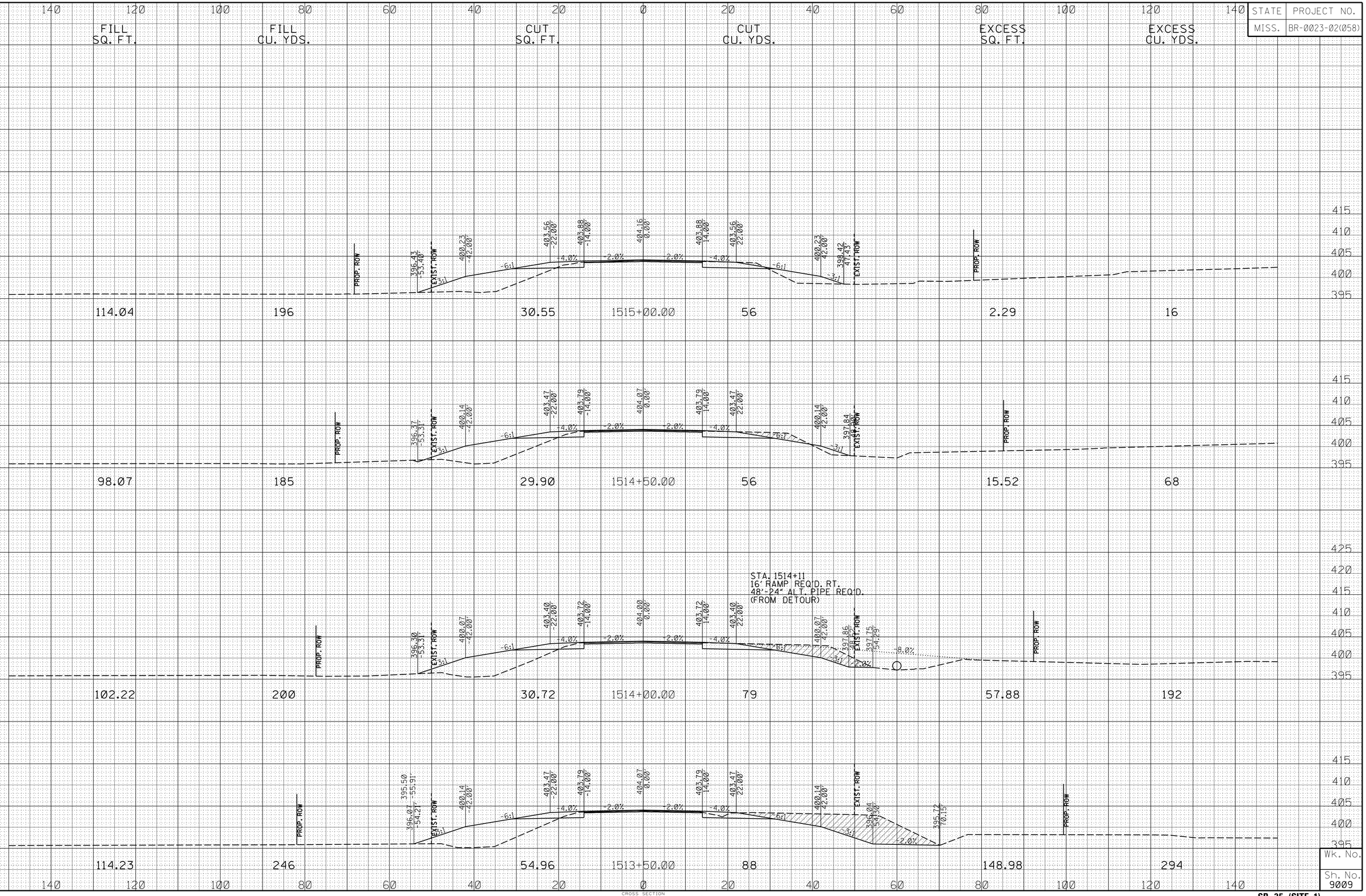
CROSS SECTION
ROADWAY DESIGN DIVISION C.A.D.D. SECTION
MISSISSIPPI DEPARTMENT OF TRANSPORTATION

SR 35 (SITE 1)

6/10/2019 7:45:34 AM LAY 35-SITEL.DGN

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

FILL SQ. FT.	FILL CU. YDS.	CUT SQ. FT.	CUT CU. YDS.	EXCESS SQ. FT.	EXCESS CU. YDS.
114.04	196	30.55	1515+00.00	56	2.29	16
98.07	185	29.90	1514+50.00	56	15.52	68
102.22	200	30.72	1514+00.00	79	57.88	192
114.23	246	54.96	1513+50.00	88	148.98	294



CROSS SECTION
ROADWAY DESIGN DIVISION C.A.D.D. SECTION
MISSISSIPPI DEPARTMENT OF TRANSPORTATION

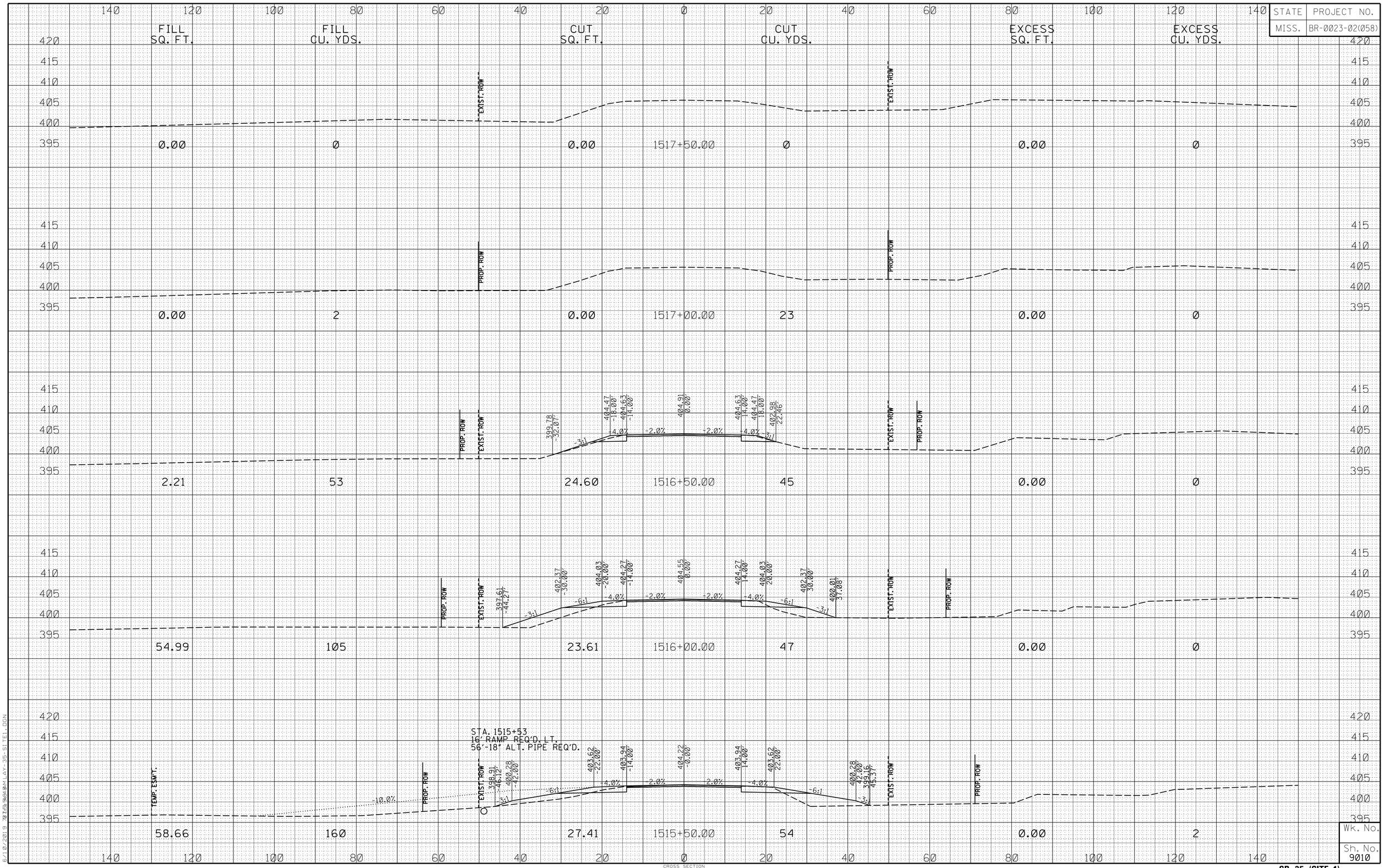
Wk. No.
Sh. No. 9009

SR 35 (SITE 1)

6/10/2019 7:15:36 AM LAY-35 SITE1.DGN

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

FILL SQ. FT.	FILL CU. YDS.	CUT SQ. FT.	CUT CU. YDS.	EXCESS SQ. FT.	EXCESS CU. YDS.
0.00	0	0.00	1517+50.00	0.00	0
0.00	2	0.00	1517+00.00	0.00	0
2.21	53	24.60	1516+50.00	0.00	0
54.99	105	23.61	1516+00.00	0.00	0
58.66	160	27.41	1515+50.00	0.00	2



CROSS SECTION
ROADWAY DESIGN DIVISION CADD SECTION
MISSISSIPPI DEPARTMENT OF TRANSPORTATION

6/10/2019 7:21:36 AM JAY-35 SITE1.DGN

Wk. No.
Sh. No. 9010

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

Station	FILL SQ. FT.	FILL CU. YDS.	CUT SQ. FT.	CUT CU. YDS.	CHANNEL SQ. FT.	CHANNEL CU. YDS.
2+00.00	26.01	46	8.24	13	0.00	0
1+50.00	23.15	27	5.68	11	0.00	0
1+00.00	5.82	6	6.30	14	0.00	0
0+50.00	0.34	0	8.29	17	0.00	0
0+00.00	0.00	0	10.43	0	0.00	0

CROSS SECTION
ROADWAY DESIGN DIVISION C.A.D.D. SECTION
MISSISSIPPI DEPARTMENT OF TRANSPORTATION

Wk. No.

Sh. No. 9011

SR 35 DETOUR RD. (SITE 1)

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

Station	FILL SQ. FT.	FILL CU. YDS.	CUT SQ. FT.	CUT CU. YDS.	CHANNEL SQ. FT.	CHANNEL CU. YDS.
4+00.00	292.83	513	0.00	0	0.00	0
3+50.00	261.43	296	0.00	1	0.00	0
3+00.00	58.46	80	1.48	8	0.00	0
2+50.00	27.61	50	7.42	15	0.00	0

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

Wk. No.

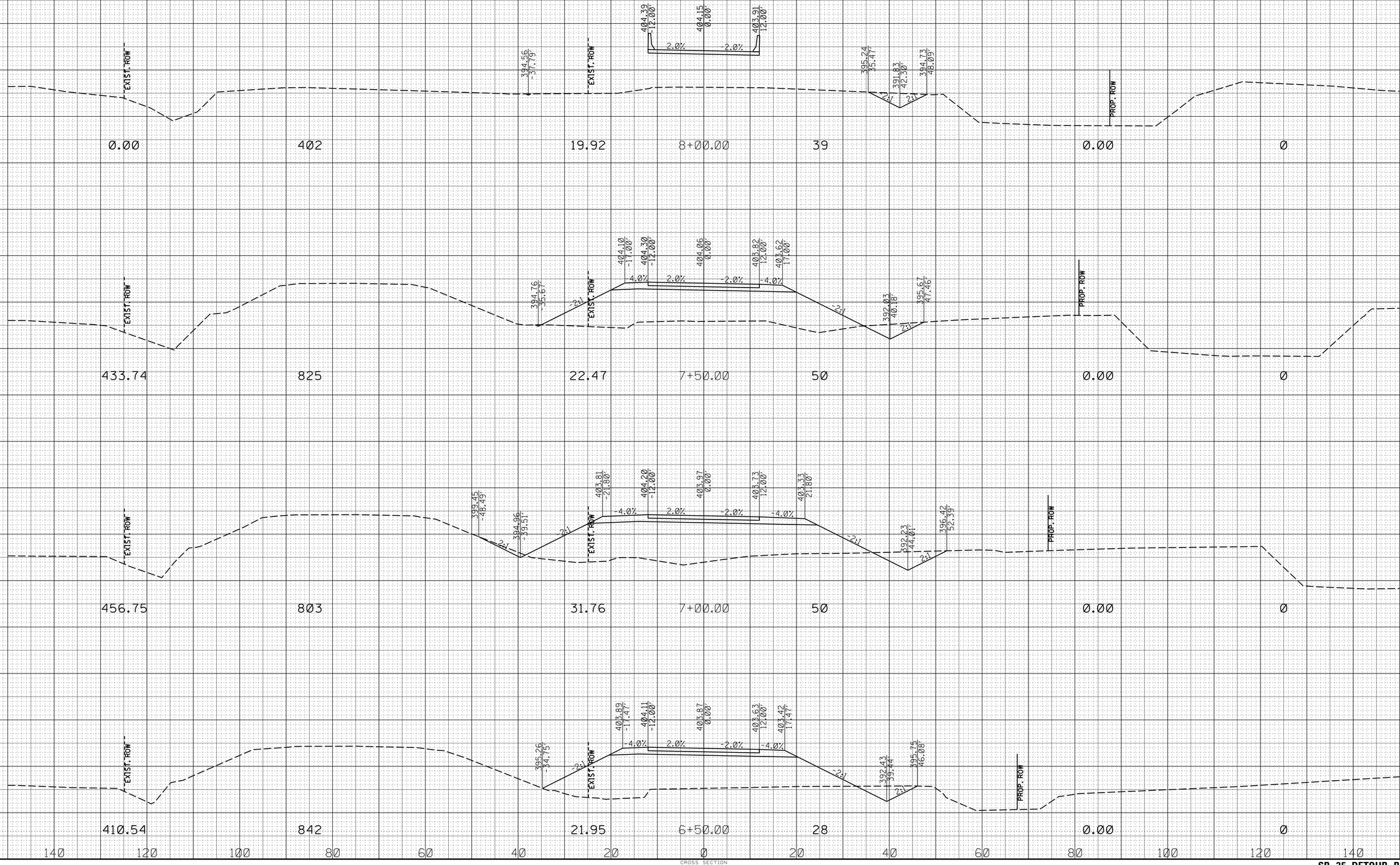
Sh. No. 9013

SR 35 DETOUR RD. (SITE 1)

CROSS SECTION
ROADWAY DESIGN DIVISION C.A.D.D. SECTION
MISSISSIPPI DEPARTMENT OF TRANSPORTATION

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

140	120	100	80	60	40	20	0	20	40	60	80	100	120	140
FILL SQ. FT.	FILL CU. YDS.	CUT SQ. FT.	CUT CU. YDS.	CHANNEL SQ. FT.	CHANNEL CU. YDS.
0.00	402	19.92	8+00.00	39	0.00	0
433.74	825	22.47	7+50.00	50	0.00	0
456.75	803	31.76	7+00.00	50	0.00	0
410.54	842	21.95	6+50.00	28	0.00	0



WK. No.
Sh. No. 9014

CROSS SECTION
ROADWAY DESIGN DIVISION C.A.D.D. SECTION
MISSISSIPPI DEPARTMENT OF TRANSPORTATION

SR 35 DETOUR RD. (SITE 1)

6/10/2019 7:45:55 AM LAY_DET-35_SITE1.DGN

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

Wk. No.

Sh. No. 9015

SR 35 DETOUR RD. (SITE 1)

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

FILL SQ. FT.	FILL CU. YDS.	CUT SQ. FT.	CUT CU. YDS.	CHANNEL SQ. FT.	CHANNEL CU. YDS.
372.17	701	3.05	12+00.00	67.92	114
385.07	739	2.85	11+50.00	55.26	107
413.22	801	9.06	11+00.00	60.44	131
451.50	946	10.68	10+50.00	81.35	155

Wk. No.
Sh. No. 9016

CROSS SECTION
ROADWAY DESIGN DIVISION C.A.D.D. SECTION
MISSISSIPPI DEPARTMENT OF TRANSPORTATION

SR 35 DETOUR RD. (SITE 1)

6/10/2019 9:16:50 AM LAY_DE135_SITE1.DGN

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

Station	FILL SQ. FT.	FILL CU. YDS.	CUT SQ. FT.	CUT CU. YDS.	CHANNEL SQ. FT.	CHANNEL CU. YDS.
14+00.00	226.36	463	0.00	6	0.00	0
13+50.00	273.39	538	6.47	10	0.00	0
13+00.00	307.86	567	4.04	8	0.00	68
12+50.00	304.86	627	4.76	7	73.56	131

Wk. No.

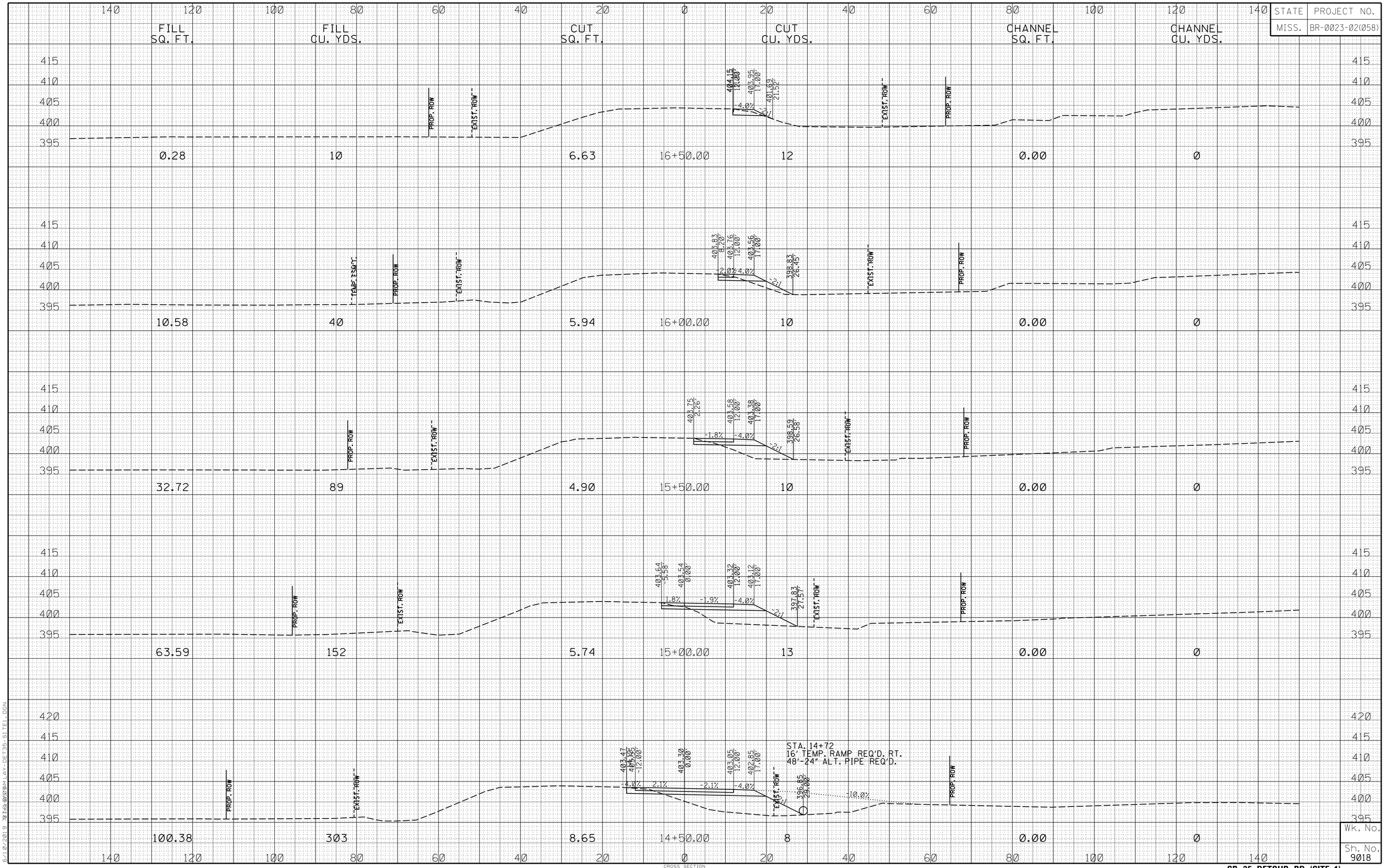
Sh. No. 9017

CROSS SECTION
ROADWAY DESIGN DIVISION C.A.D.D. SECTION
MISSISSIPPI DEPARTMENT OF TRANSPORTATION

SR 35 DETOUR RD. (SITE 1)

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

FILL SQ. FT.	FILL CU. YDS.	CUT SQ. FT.	STATION	CUT CU. YDS.	CHANNEL SQ. FT.	CHANNEL CU. YDS.
0.28	10	6.63	16+50.00	12	0.00	0
10.58	40	5.94	16+00.00	10	0.00	0
32.72	89	4.90	15+50.00	10	0.00	0
63.59	152	5.74	15+00.00	13	0.00	0
100.38	303	8.65	14+50.00	8	0.00	0



CROSS SECTION
ROADWAY DESIGN DIVISION C.A.D.D. SECTION
MISSISSIPPI DEPARTMENT OF TRANSPORTATION

Wk. No.	
Sh. No.	9018

SR 35 DETOUR RD. (SITE 1)

6/10/2019 7:16:39 AM LAY-DET35_SITE1.DGN

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

FILL SQ. FT.	FILL CU. YDS.	CUT SQ. FT.	STATION	CUT CU. YDS.	CHANNEL SQ. FT.	CHANNEL CU. YDS.
0.00	0	10.22	17+12.56	5	0.00	0
0.00	0	9.57	17+00.00	15	0.00	0

140 120 100 80 60 40 20 0 20 40 60 80 100 120 140

Wk. No.

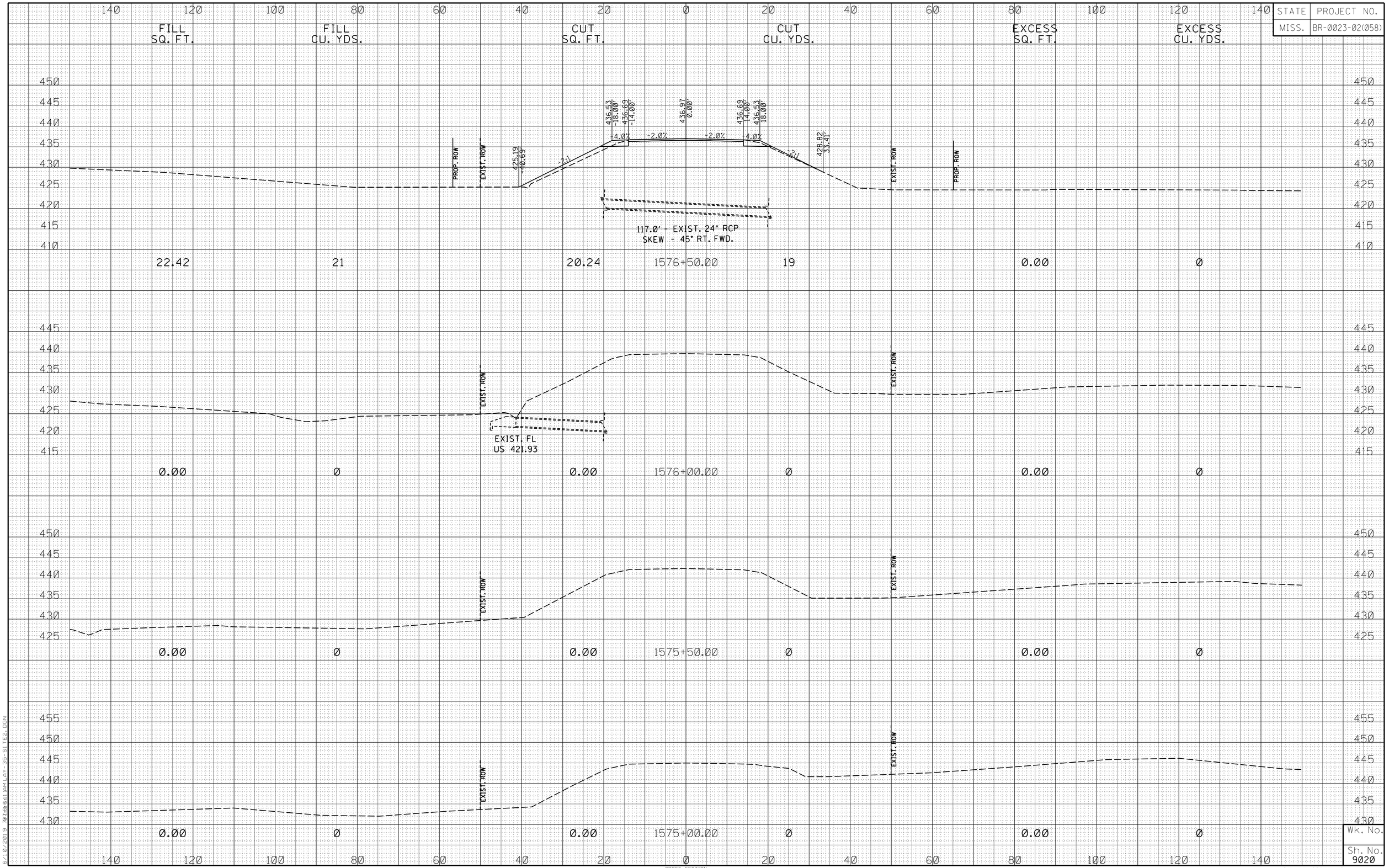
Sh. No. 9019

CROSS SECTION
ROADWAY DESIGN DIVISION C.A.D.D. SECTION
MISSISSIPPI DEPARTMENT OF TRANSPORTATION

SR 35 DETOUR RD. (SITE 1)

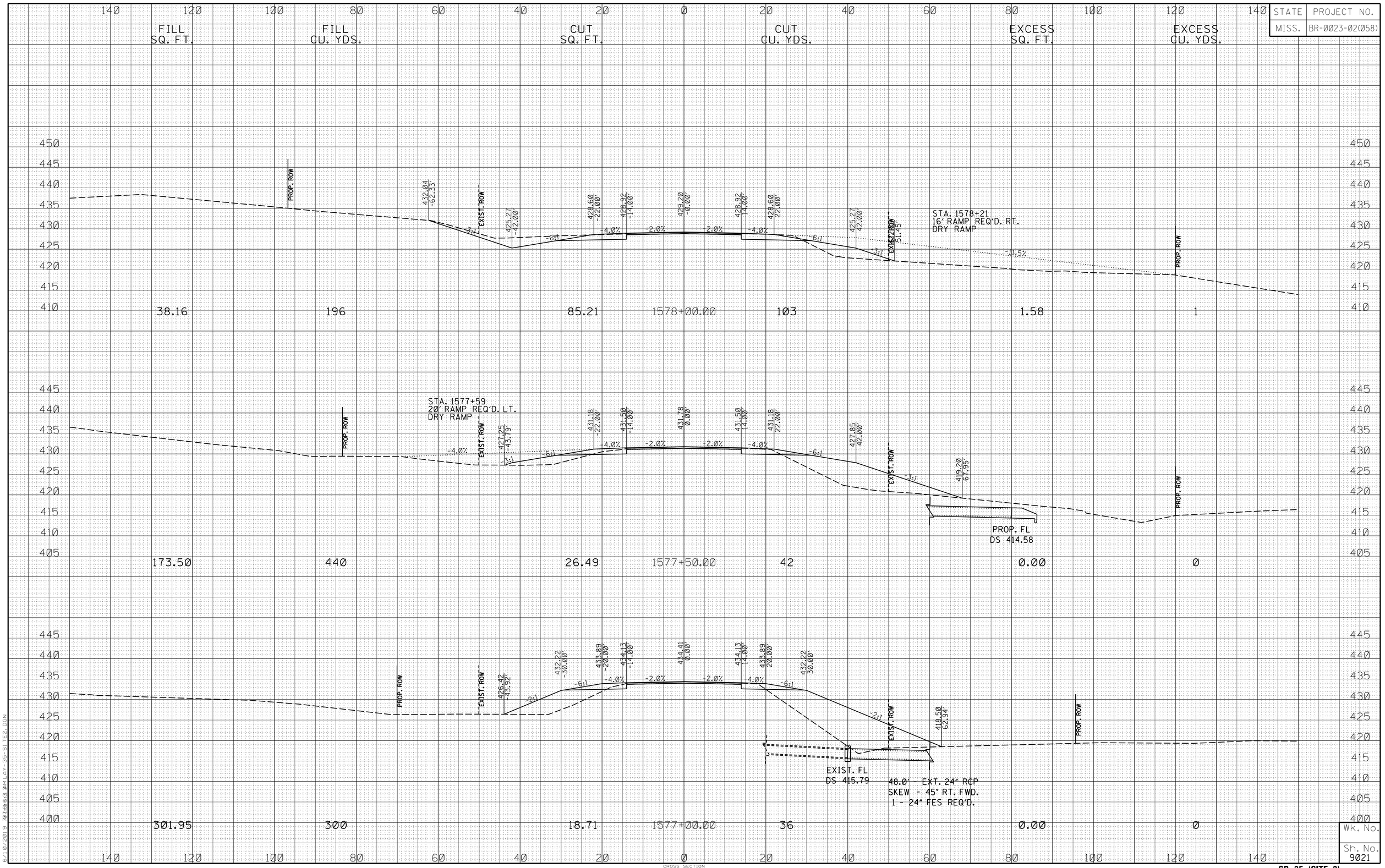
STATE	PROJECT NO.
MISS.	BR-0023-02(058)

FILL SQ. FT.	FILL CU. YDS.	CUT SQ. FT.	CUT CU. YDS.	EXCESS SQ. FT.	EXCESS CU. YDS.
22.42	21	20.24	1576+50.00	19	0.00	0
0.00	0	0.00	1576+00.00	0	0.00	0
0.00	0	0.00	1575+50.00	0	0.00	0
0.00	0	0.00	1575+00.00	0	0.00	0



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

FILL SQ. FT.	FILL CU. YDS.	CUT SQ. FT.	CUT CU. YDS.	EXCESS SQ. FT.	EXCESS CU. YDS.
38.16	196	85.21	103	1.58	1
173.50	440	26.49	42	0.00	0
301.95	300	18.71	36	0.00	0



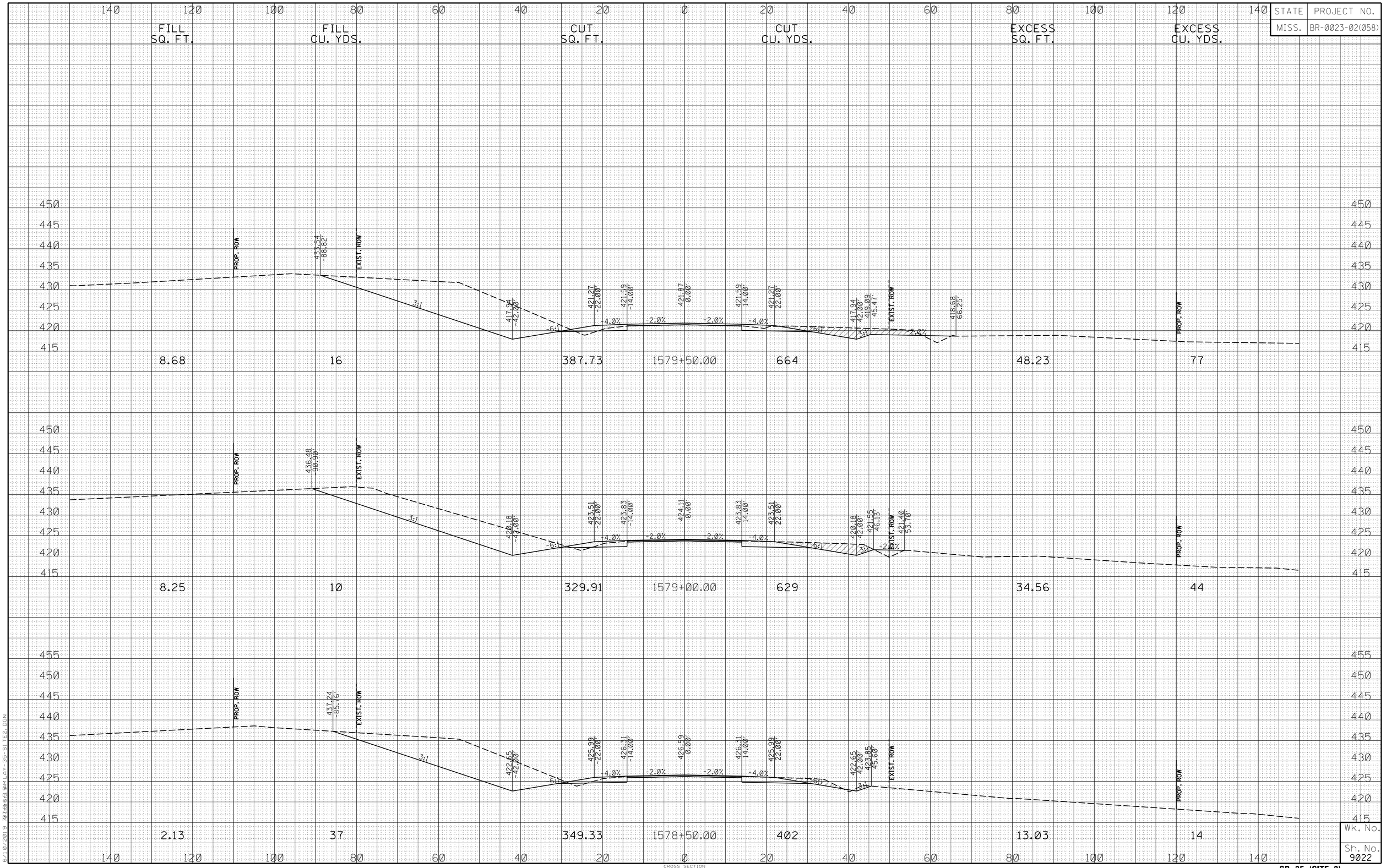
Wk. No.	
Sh. No.	9021

6/10/2019 7:56:32 AM LAY-35 SITE2.DGN

CROSS SECTION
ROADWAY DESIGN DIVISION C.A.D.D. SECTION
MISSISSIPPI DEPARTMENT OF TRANSPORTATION

SR 35 (SITE 2)

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



Wk. No.
Sh. No. 9022

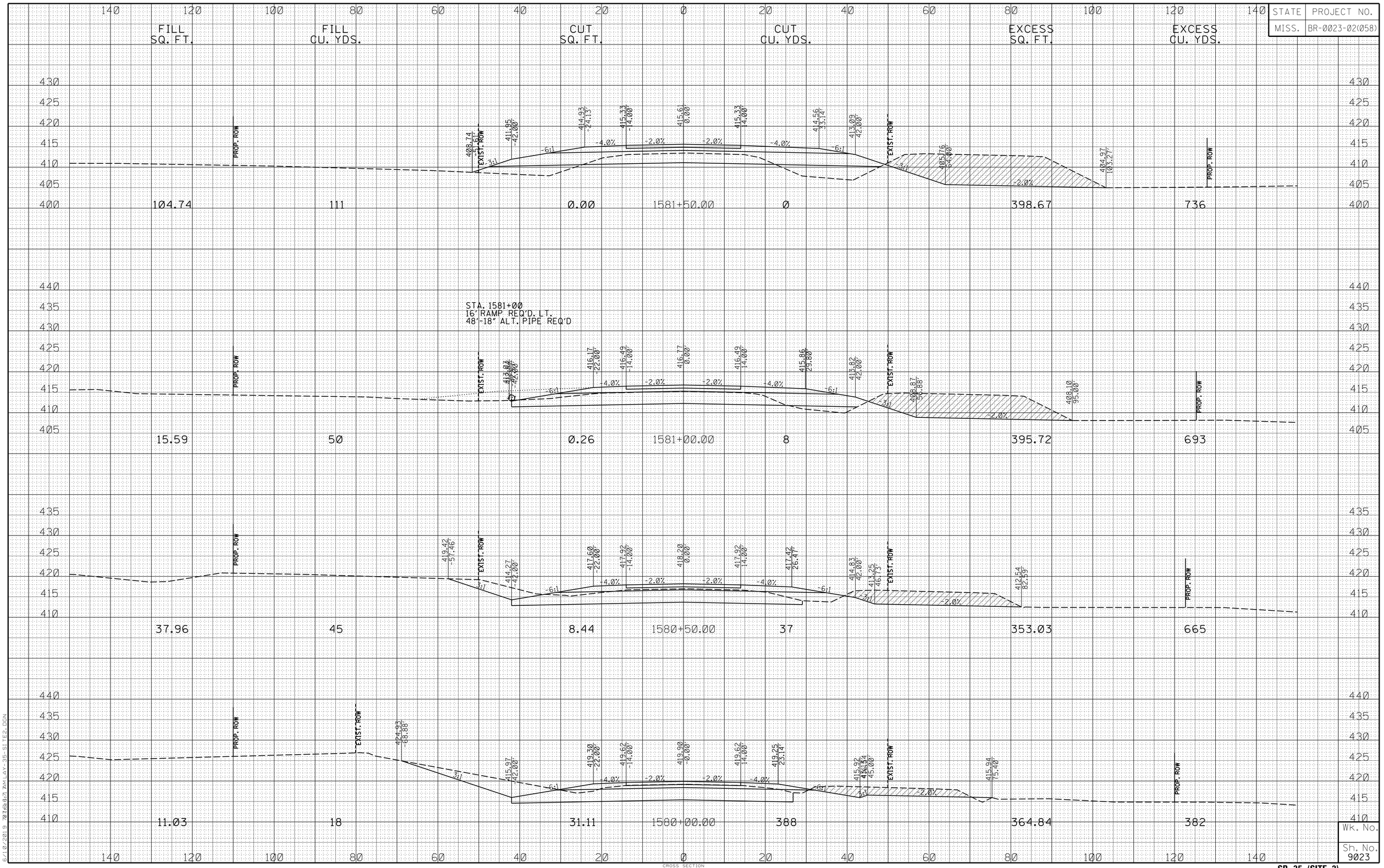
6/10/2019 7:45:53 AM LAY 35-SITE2.DGN

CROSS SECTION
ROADWAY DESIGN DIVISION C.A.D.D. SECTION
MISSISSIPPI DEPARTMENT OF TRANSPORTATION

SR 35 (SITE 2)

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

	FILL SQ. FT.	FILL CU. YDS.	CUT SQ. FT.	CUT CU. YDS.	EXCESS SQ. FT.	EXCESS CU. YDS.
1581+50.00	104.74	111	0.00	0	398.67	736
1581+00.00	15.59	50	0.26	8	395.72	693
1580+50.00	37.96	45	8.44	37	353.03	665
1580+00.00	11.03	18	31.11	388	364.84	382



CROSS SECTION
ROADWAY DESIGN DIVISION C.A.D.D. SECTION
MISSISSIPPI DEPARTMENT OF TRANSPORTATION

Wk. No.	
Sh. No.	9023

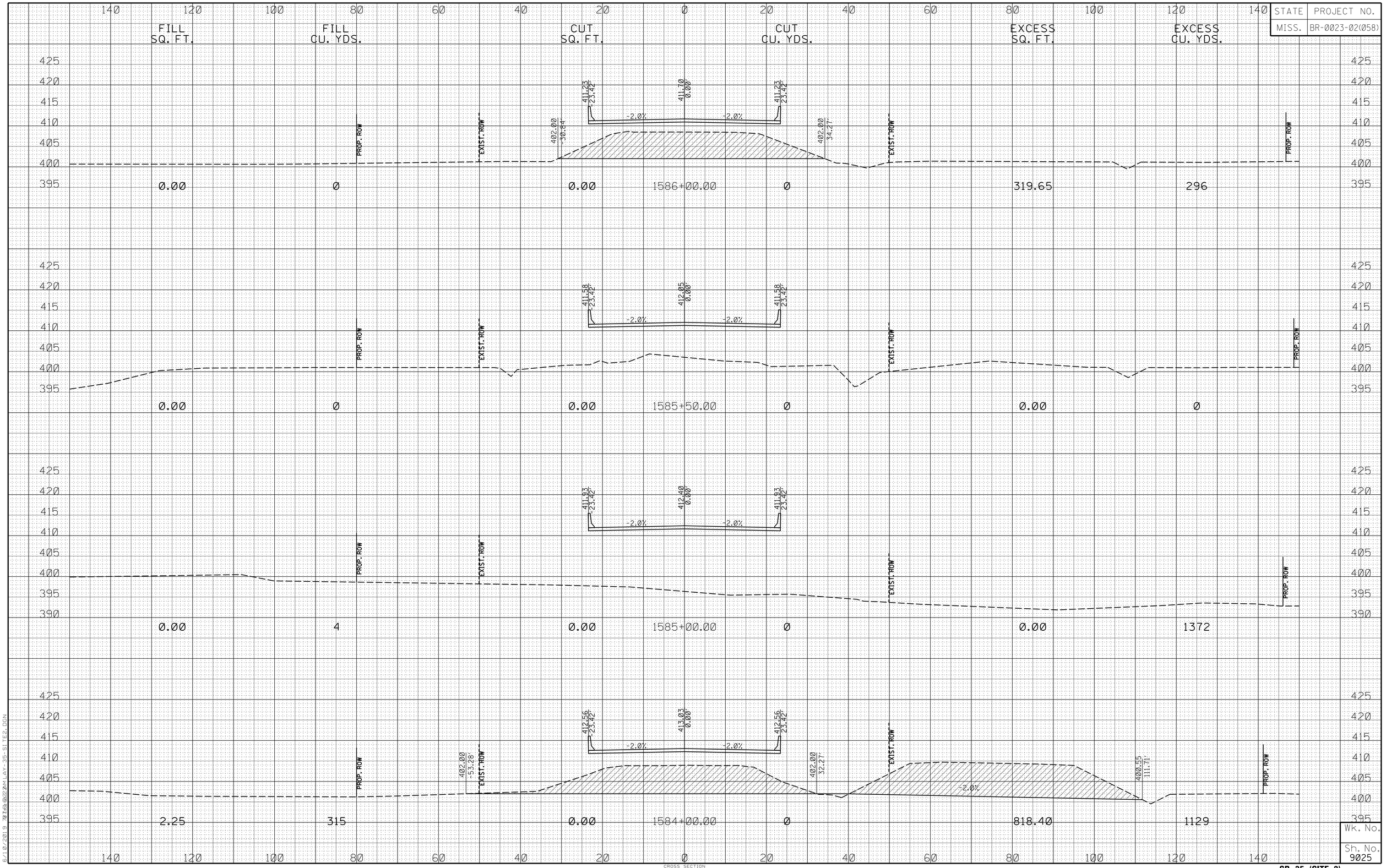
SR 35 (SITE 2)

6/10/2019 7:45:37 AM LAY 35-SITE2.DGN

CROSS SECTION
ROADWAY DESIGN DIVISION C.A.D.D. SECTION
MISSISSIPPI DEPARTMENT OF TRANSPORTATION

SR 35 (SITE 2)

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



WK. No.
Sh. No. 9025

6/10/2019 7:56:22 AM LAY 35-SITE2.DGN

CROSS SECTION
ROADWAY DESIGN DIVISION C.A.D.D. SECTION
MISSISSIPPI DEPARTMENT OF TRANSPORTATION

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

Station	FILL SQ. FT.	FILL CU. YDS.	CUT SQ. FT.	CUT CU. YDS.	EXCESS SQ. FT.	EXCESS CU. YDS.
1588+00.00	223.87	419	0.88	1	254.30	506
1587+50.00	228.47	420	0.00	0	291.79	602
1587+00.00	225.30	271	0.00	0	358.51	798
1586+50.00	67.32	62	0.00	0	502.88	762

Wk. No.

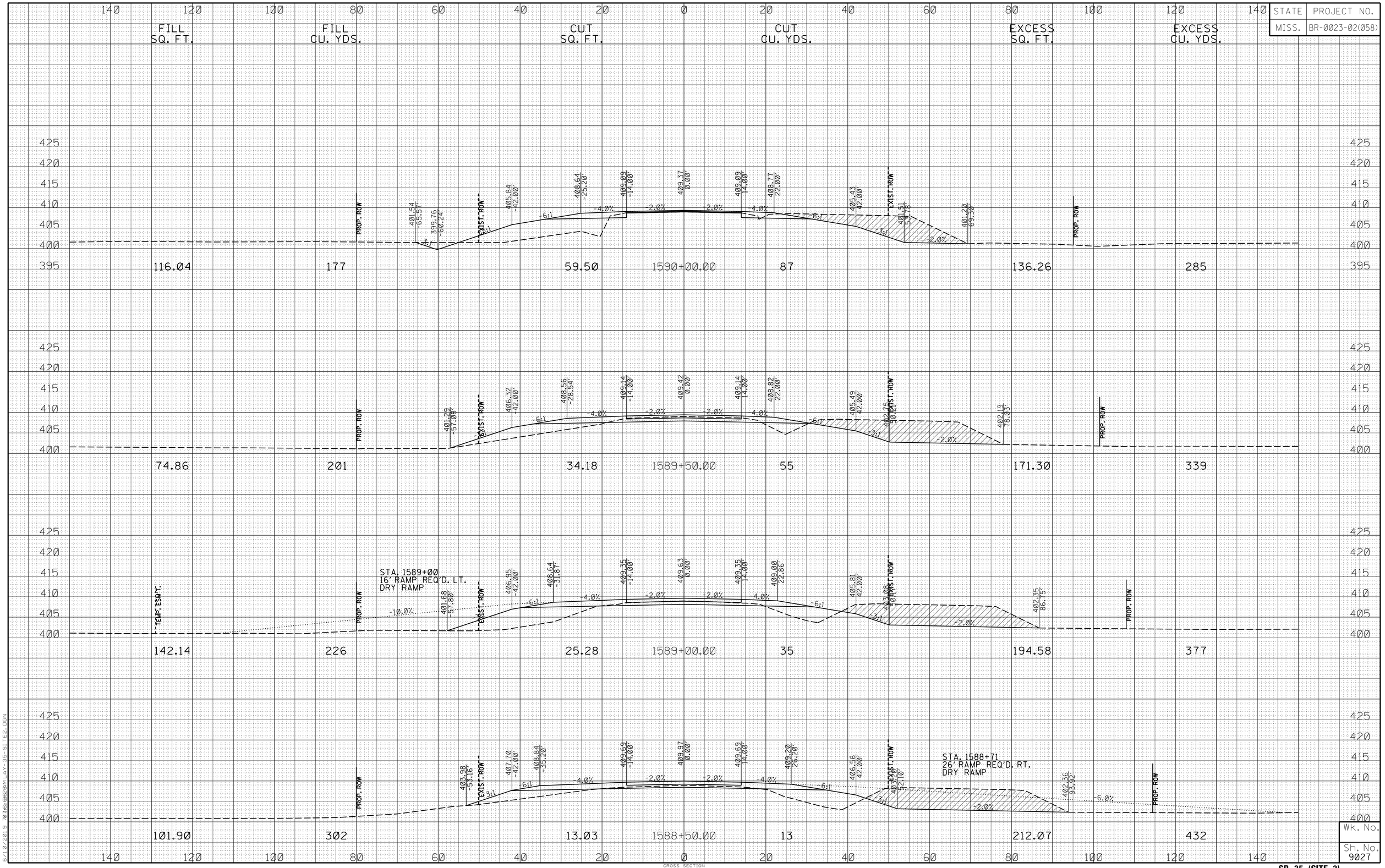
Sh. No. 9026

SR 35 (SITE 2)

CROSS SECTION
ROADWAY DESIGN DIVISION C.A.D.D. SECTION
MISSISSIPPI DEPARTMENT OF TRANSPORTATION

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

FILL SQ. FT.	FILL CU. YDS.	CUT SQ. FT.	CUT CU. YDS.	STA.	EXCESS SQ. FT.	EXCESS CU. YDS.
116.04	177	59.50	87	1590+00.00	136.26	285
74.86	201	34.18	55	1589+50.00	171.30	339
142.14	226	25.28	35	1589+00.00	194.58	377
101.90	302	13.03	13	1588+50.00	212.07	432



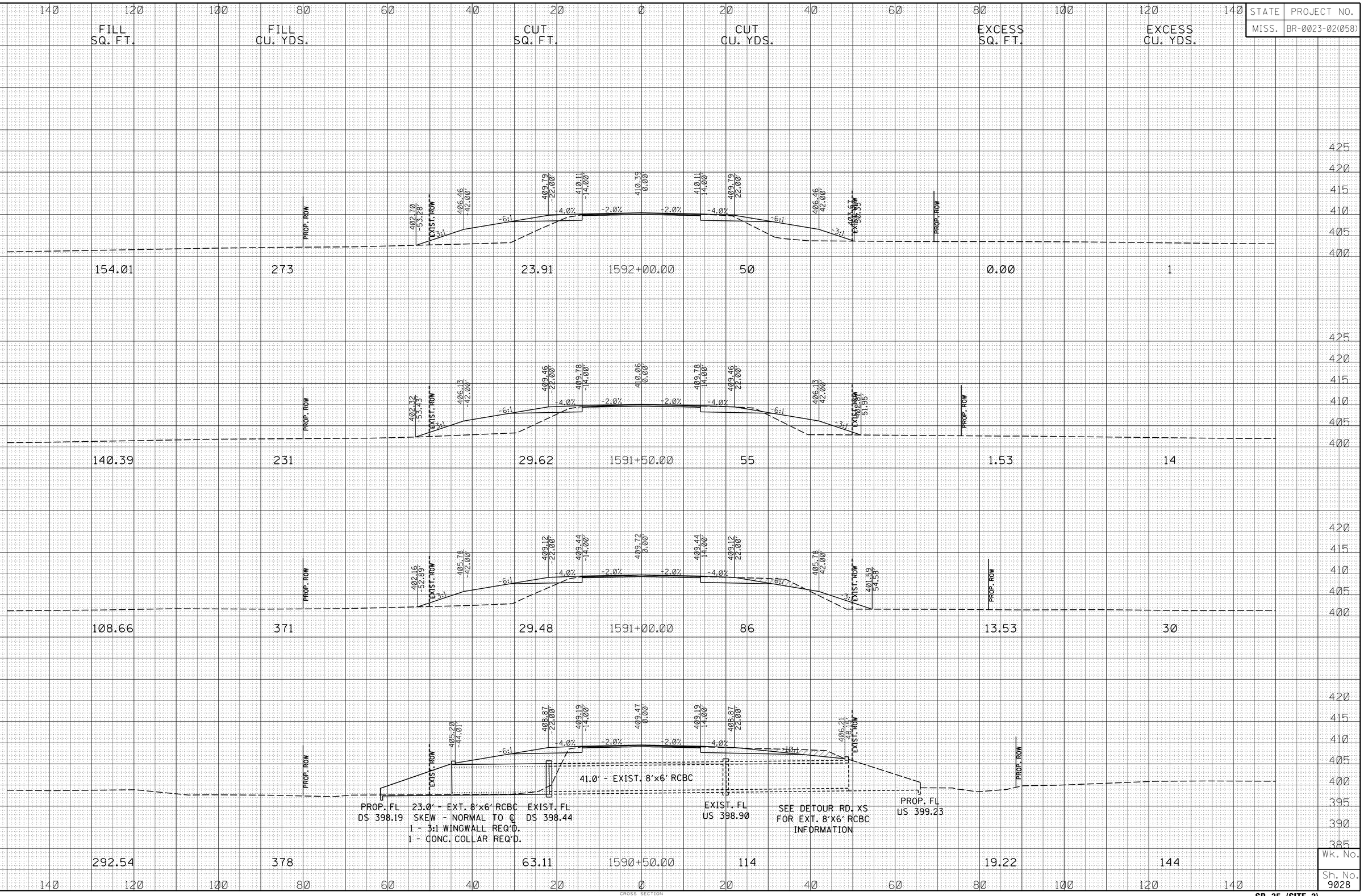
Wk. No.
Sh. No. 9027

6/10/2019 7:16:55 AM LAY-35 SITE2.DGN

CROSS SECTION
ROADWAY DESIGN DIVISION C.A.D.D. SECTION
MISSISSIPPI DEPARTMENT OF TRANSPORTATION

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

FILL SQ. FT.	FILL CU. YDS.	CUT SQ. FT.	CUT CU. YDS.	EXCESS SQ. FT.	EXCESS CU. YDS.
154.01	273	23.91	1592+00.00	0.00	1
140.39	231	29.62	1591+50.00	1.53	14
108.66	371	29.48	1591+00.00	13.53	30
292.54	378	63.11	1590+50.00	19.22	144



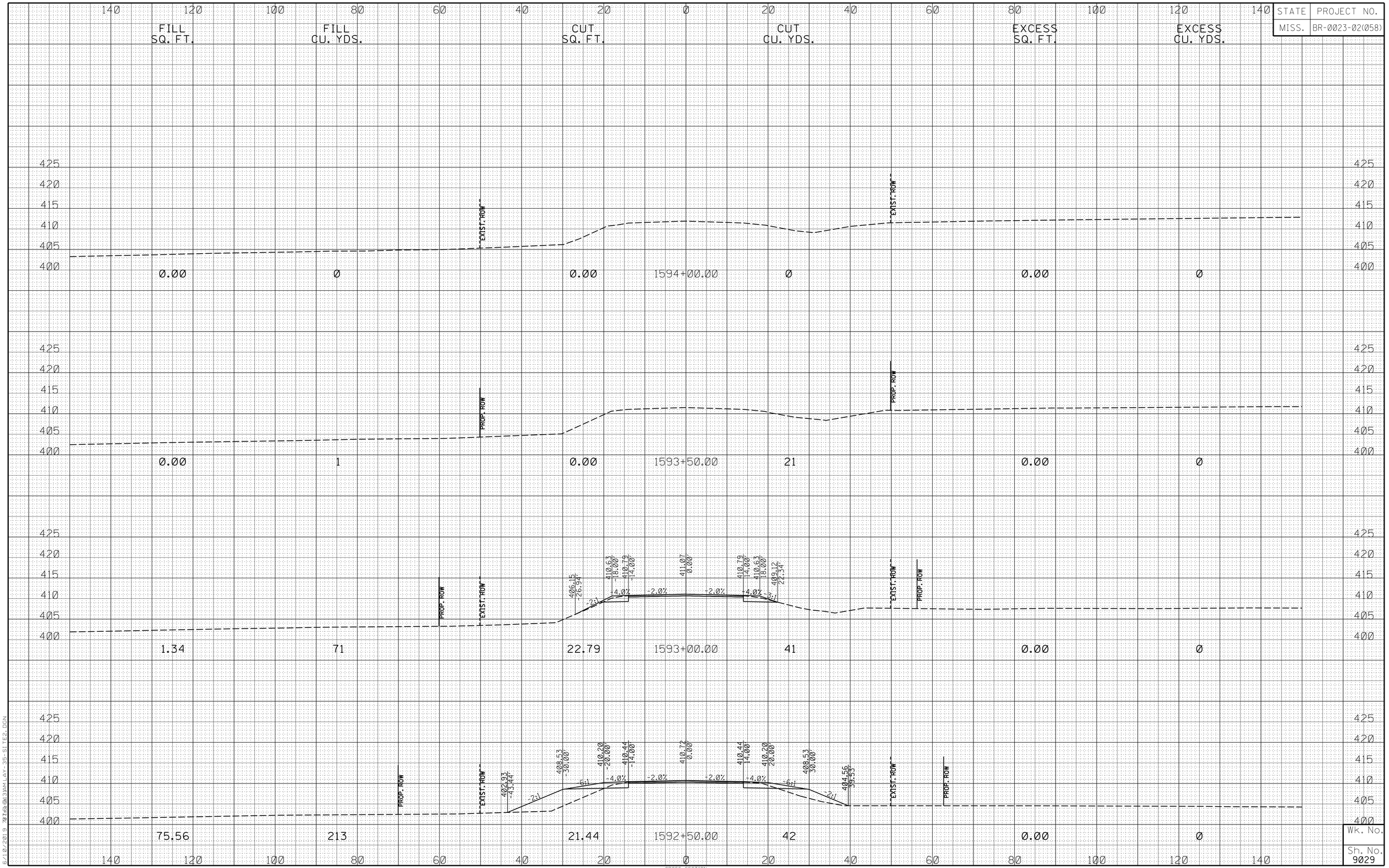
Wk. No.
Sh. No. 9028

6/10/2019 7:48:39 AM LAY 35-SITE2.DGN

CROSS SECTION
ROADWAY DESIGN DIVISION C.A.D.D. SECTION
MISSISSIPPI DEPARTMENT OF TRANSPORTATION

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

FILL SQ. FT.	FILL CU. YDS.	CUT SQ. FT.	CUT CU. YDS.	EXCESS SQ. FT.	EXCESS CU. YDS.
0.00	0	0.00	1594+00.00	0	0.00	0
0.00	1	0.00	1593+50.00	21	0.00	0
1.34	71	22.79	1593+00.00	41	0.00	0
75.56	213	21.44	1592+50.00	42	0.00	0



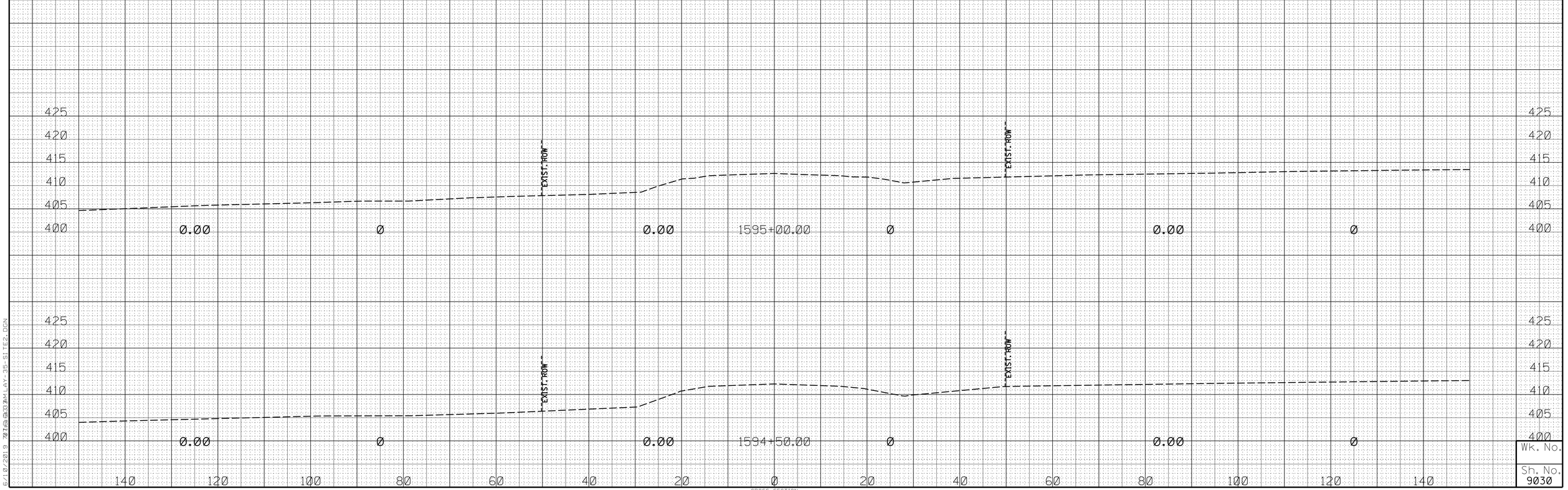
Wk. No.
Sh. No. 9029

6/10/2019 9:16:53 AM LAY-35 SITE2.DGN

CROSS SECTION
ROADWAY DESIGN DIVISION C.A.D.D. SECTION
MISSISSIPPI DEPARTMENT OF TRANSPORTATION

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

140	120	100	80	60	40	20	0	20	40	60	80	100	120	140
FILL SQ. FT.			FILL CU. YDS.			CUT SQ. FT.			CUT CU. YDS.			EXCESS SQ. FT.		EXCESS CU. YDS.



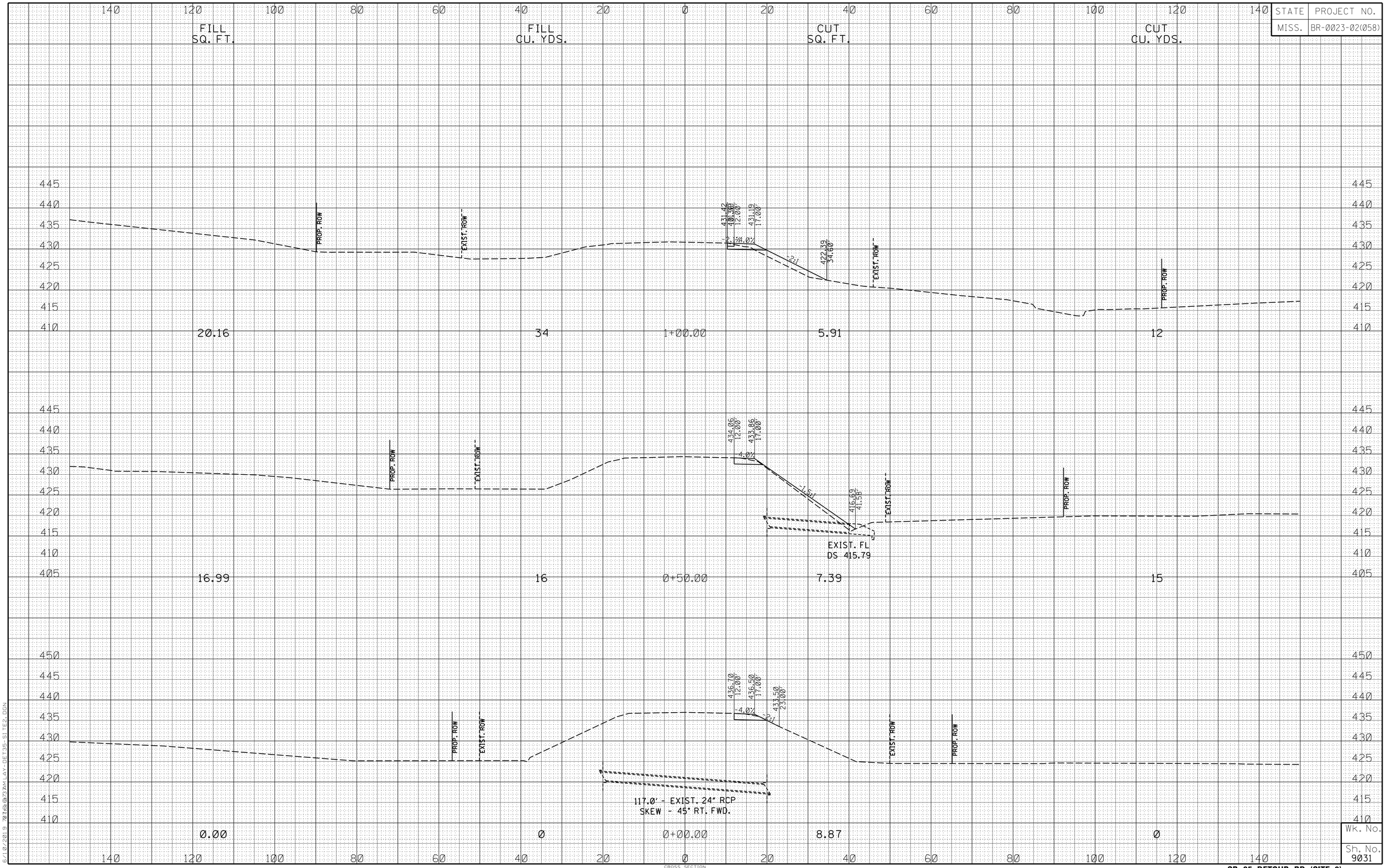
Wk. No.
Sh. No. 9030

6/10/2019 7:56:33 AM LAY 35-SITE2.DGN

CROSS SECTION
ROADWAY DESIGN DIVISION C.A.D.D. SECTION
MISSISSIPPI DEPARTMENT OF TRANSPORTATION

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

FILL SQ. FT. | FILL CU. YDS. | CUT SQ. FT. | CUT CU. YDS.



CROSS SECTION
ROADWAY DESIGN DIVISION C.A.D.D. SECTION
MISSISSIPPI DEPARTMENT OF TRANSPORTATION

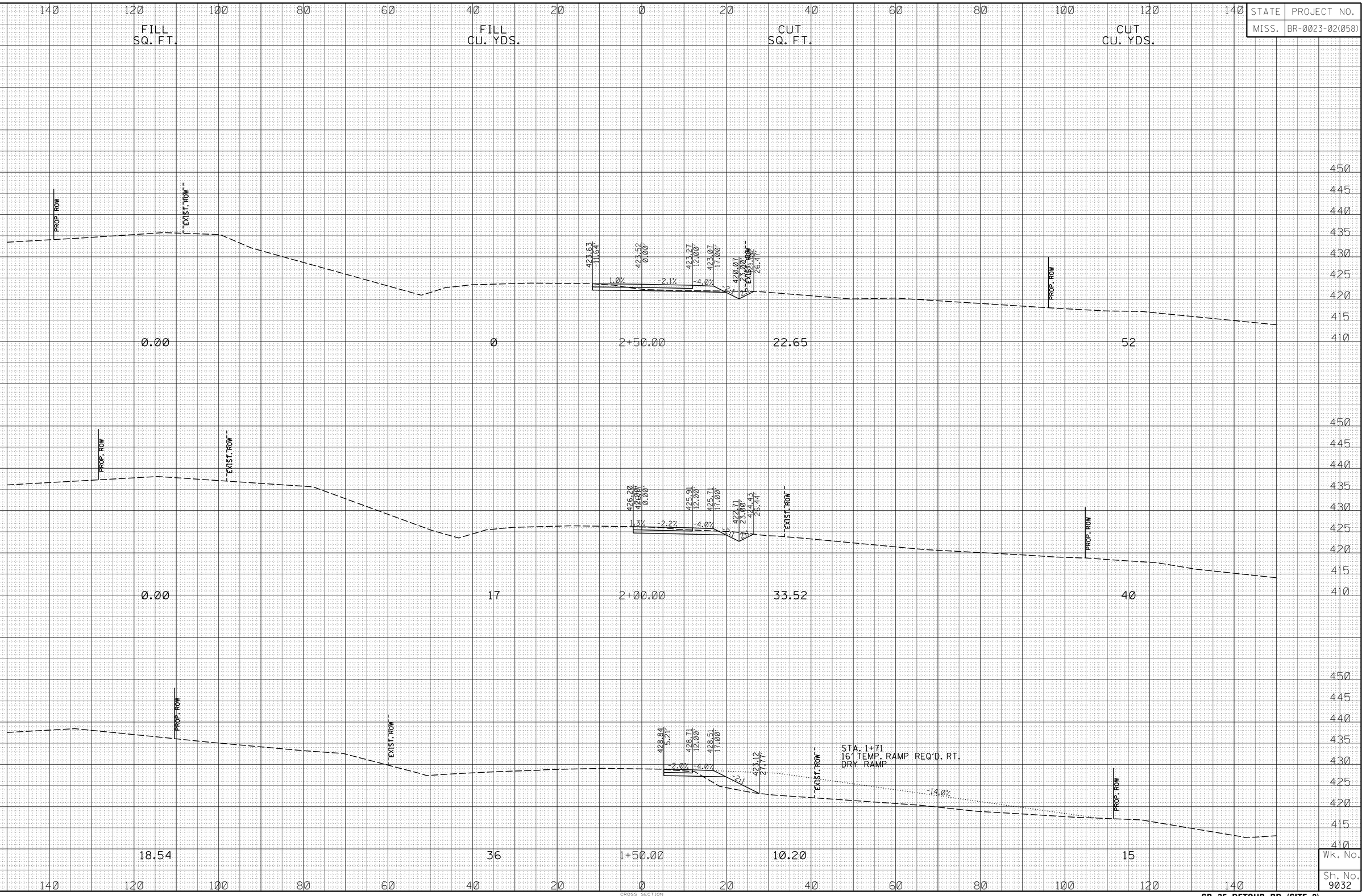
Wk. No.	
Sh. No.	9031

SR 35 DETOUR RD. (SITE 2)

6/10/2019 7:45:03 AM LAY_DET35_SITE2.DGN

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

FILL SQ. FT. | FILL CU. YDS. | CUT SQ. FT. | CUT CU. YDS.



6/10/2019 7:48:39 AM LAY_DET35_SITE2.DGN

CROSS SECTION
ROADWAY DESIGN DIVISION C.A.D.D. SECTION
MISSISSIPPI DEPARTMENT OF TRANSPORTATION

Wk. No.
Sh. No. 9032

SR 35 DETOUR RD. (SITE 2)

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

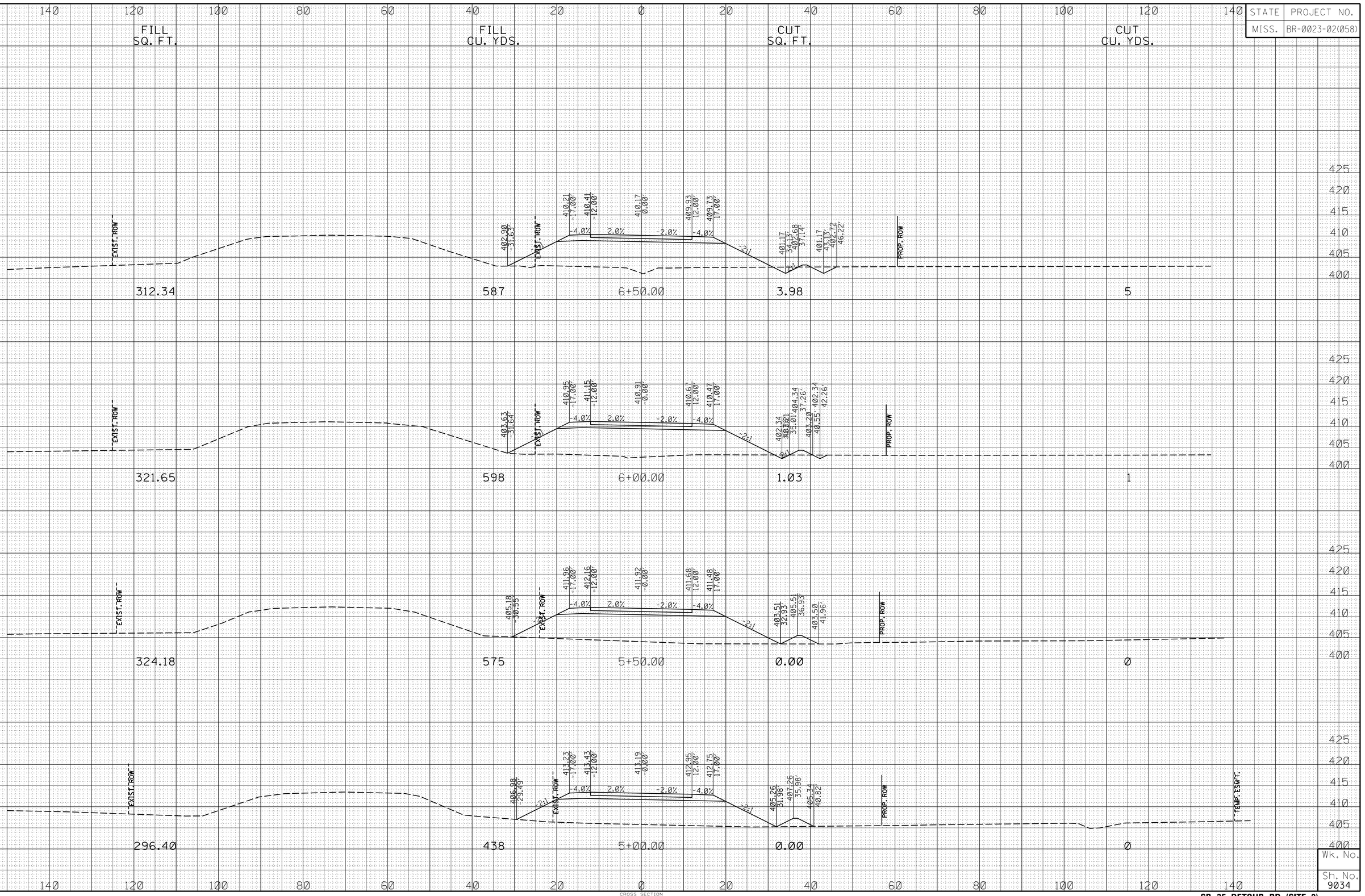
Wk. No.

Sh. No. 9033

SR 35 DETOUR RD. (SITE 2)

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

FILL SQ. FT.	FILL CU. YDS.	CUT SQ. FT.	CUT CU. YDS.
312.34	587	3.98	5
321.65	598	1.03	1
324.18	575	0.00	0
296.40	438	0.00	0



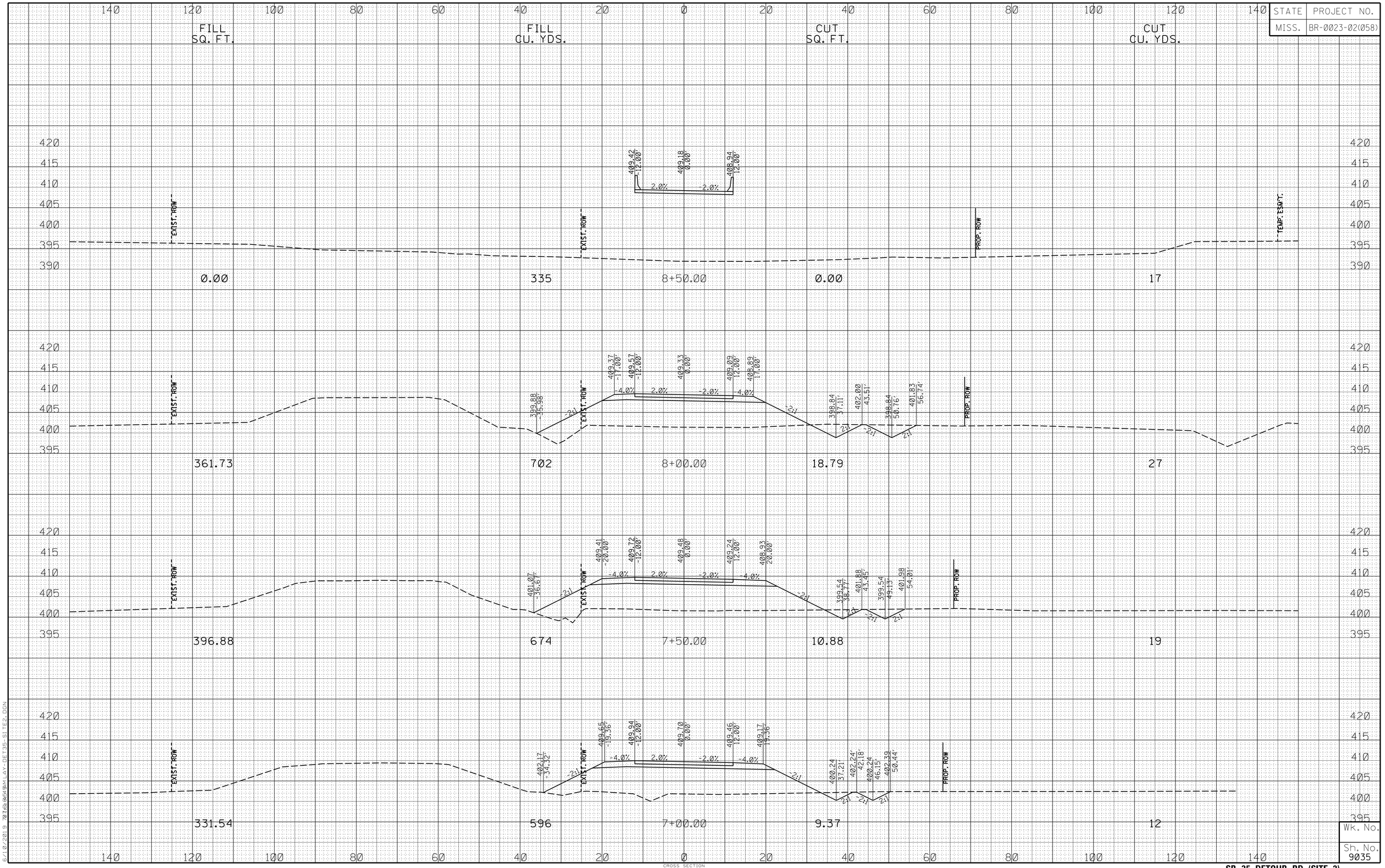
Wk. No.
Sh. No. 9034

CROSS SECTION
ROADWAY DESIGN DIVISION C.A.D.D. SECTION
MISSISSIPPI DEPARTMENT OF TRANSPORTATION

SR 35 DETOUR RD. (SITE 2)

6/10/2019 7:16:34 AM LAY_DE135_SITE2.DGN

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



Wk. No.
Sh. No. 9035

CROSS SECTION
ROADWAY DESIGN DIVISION C.A.D.D. SECTION
MISSISSIPPI DEPARTMENT OF TRANSPORTATION

SR 35 DETOUR RD. (SITE 2)

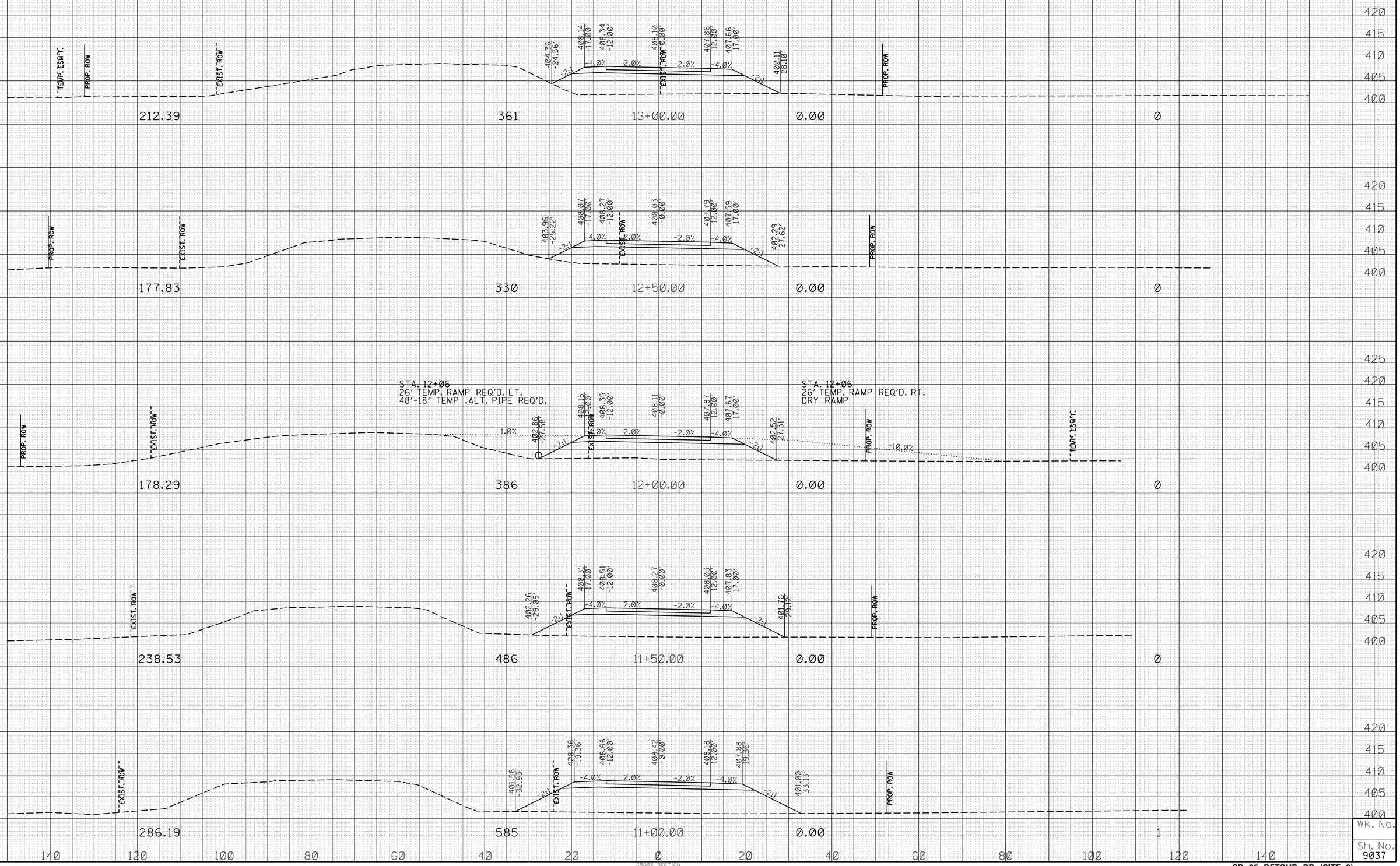
6/10/2019 7:16:25 AM LAY_DE135_SITE2.DGN

CROSS SECTION
ROADWAY DESIGN DIVISION C.A.D.D. SECTION
MISSISSIPPI DEPARTMENT OF TRANSPORTATION

SR 35 DETOUR RD. (SITE 2)

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

FILL SQ. FT.	FILL CU. YDS.	CUT SQ. FT.	CUT CU. YDS.
212.39	361	0.00	0
177.83	330	0.00	0
178.29	386	0.00	0
238.53	486	0.00	0
286.19	585	0.00	1



6/10/2019 7:16:53 AM LAY-DET35 SITE2.DGN

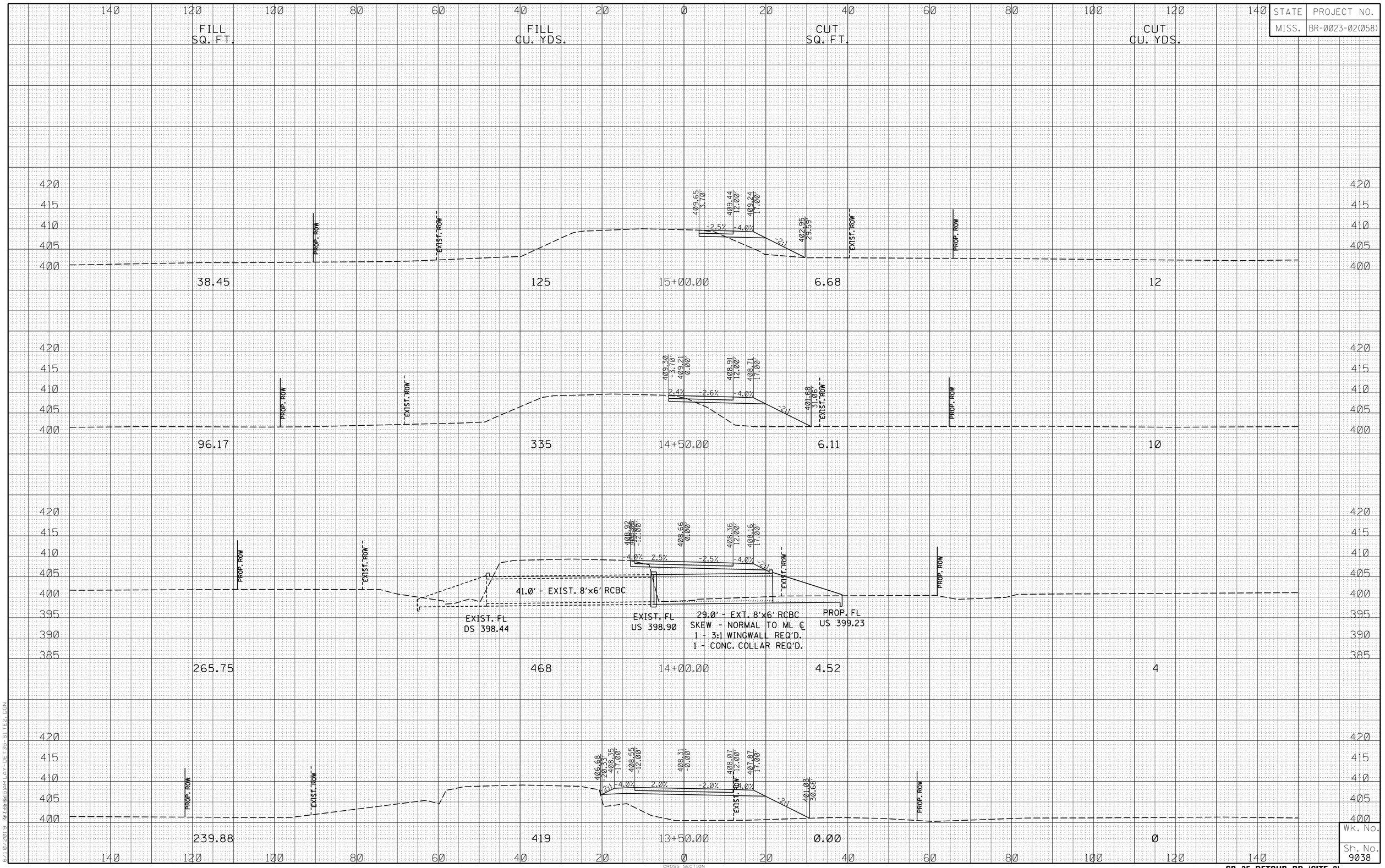
CROSS SECTION
ROADWAY DESIGN DIVISION C.A.D.D. SECTION
MISSISSIPPI DEPARTMENT OF TRANSPORTATION

Wk. No.	
Sh. No.	9037

SR 35 DETOUR RD. (SITE 2)

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

FILL SQ. FT.	FILL CU. YDS.		CUT SQ. FT.	CUT CU. YDS.
38.45	125	15+00.00	6.68	12
96.17	335	14+50.00	6.11	10
265.75	468	14+00.00	4.52	4
239.88	419	13+50.00	0.00	0



Wk. No.
Sh. No. 9038

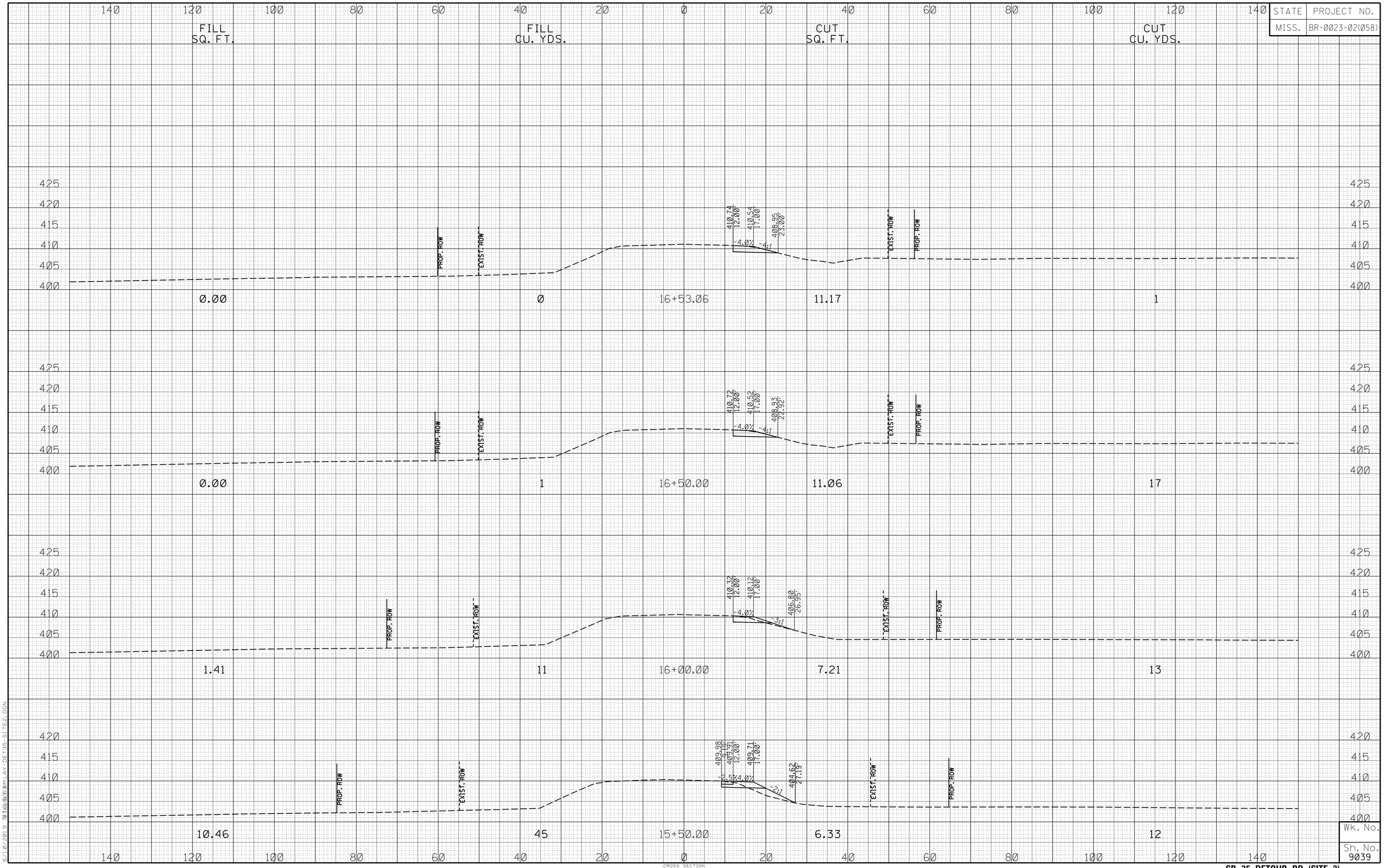
6/10/2019 7:56:55 AM LAY-DET35_SITE2.DGN

CROSS SECTION
ROADWAY DESIGN DIVISION C.A.D.D. SECTION
MISSISSIPPI DEPARTMENT OF TRANSPORTATION

SR 35 DETOUR RD. (SITE 2)

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

FILL SQ. FT.	FILL CU. YDS.		CUT SQ. FT.	CUT CU. YDS.
0.00	0	16+53.06	11.17	1
0.00	1	16+50.00	11.06	17
1.41	11	16+00.00	7.21	13
10.46	45	15+50.00	6.33	12



CROSS SECTION
ROADWAY DESIGN DIVISION C.A.D.D. SECTION
MISSISSIPPI DEPARTMENT OF TRANSPORTATION

Wk. No.	
Sh. No.	9039

SR 35 DETOUR RD. (SITE 2)

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