S E C T I O N 9 0 5 -- P R O P O S A L (CONTINUED)

I (We) further propose to execute the attached contract agreement (Section 902) as soon as the work is awarded to me (us), and to begin and complete the work within the time limit(s) provided for in the Specifications and Advertisement. I (We) also propose to execute the attached contract bond (Section 903) in an amount not less than one hundred (100) percent of the total of my (our) part, but also to guarantee the excellence of both workmanship and materials until the work is finally accepted.

I (We) enclose a certified check, cashier's check or bid bond for **five percent (5%) of total bid** and hereby agree that in case of my (our) failure to execute the contract and furnish bond within Ten (10) days after notice of award, the amount of this check (bid bond) will be forfeited to the State of Mississippi as liquidated damages arising out of my (our) failure to execute the contract as proposed. It is understood that in case I am (we are) not awarded the work, the check will be returned as provided in the Specifications.

Bidder acknowledges receipt of and has added to and made a part of the proposal and contract documents the following addendum (addenda):

ADDENDUM NO.	**1**	DATED	**10/16/2013**	ADDENDUM NO.		DATED	
ADDENDUM NO		DATED		ADDENDUM NO.		DATED	

Number	Description
1	Revise Table of Contents, replace same; Add NTB Nos 4658, & 4662; Revise Bid Items, replace same; Add or Revise Plan Sheet Nos. 2-3, 5, 8, 11-12, 14, 19, 28, 53, 55, 87, 8001-8004, 8006, 8008-8009, 8011-8013, 8017, 8019, 8027, 8029-8030, 8032, 8034-8037, 8042, 8048-8051, 8053, 8055-8056, 8062, 8068; Amendment EBS Download Required.

TOTAL ADDENDA: **1**
(Must agree with total addenda issued prior to opening of bids)

Respectfully Submitted,

DATE _____

_____
Contractor

BY _____
Signature

TITLE _____

ADDRESS _____

CITY, STATE, ZIP _____

PHONE _____

FAX _____

E-MAIL _____

(To be filled in if a corporation)

Our corporation is chartered under the Laws of the State of _____ and the names, titles and business addresses of the executives are as follows:

President	Address
Secretary	Address
Treasurer	Address

The following is my (our) itemized proposal.

MISSISSIPPI DEPARTMENT OF TRANSPORTATION

TABLE OF CONTENTS

PROJECT: BR-0019-02(041) / 105189301 – Marshall County

- CONTINUED ON NEXT PAGE -

907-109-6: Measurement and Payment
907-110-2: Wage Rates
907-216-1: Solid Sodding
907-225-3: Grassing
907-226-2: Temporary Grassing
907-227-10: Hydroseeding
907-234-5: Siltation Barriers
907-237-4: Wattles
907-245-2: Triangular Silt Dikes
907-246-3: Sandbags & Rockbags
907-249-1: Riprap for Erosion Control
907-304-13: Granular Courses
907-307-4: Lime Treated Courses
907-308-4: Portland Cement Treated Courses
907-311-3: Lime-Fly Ash Treated Courses
907-401-2: Hot Mix Asphalt (HMA), w/ Supplement
907-401-6: Warm Mix Asphalt(WMA)
907-403-4: Hot Mix Asphalt (HMA), w/ Supplement
907-403-12: Warm Mix Asphalt (WMA)
907-407-1: Tack Coat
907-413-5: Sawing & Sealing Transverse Joints in Asphalt Pavement
907-601-1: Structural Concrete
907-603-8: Culverts & Storm Drains
907-605-3: Underdrains
907-617-2: Right-of-Way Markers
907-618-9: Placement of Temporary Traffic Stripe
907-626-5: Inverted Profile Thermoplastic Traffic Stripe
907-626-25: Thermoplastic Traffic Markings
907-631-1: Flowable Fill
907-699-4: Construction Stakes
907-701-4: Hydraulic Cement
907-702-3: Polyphosphoric Acid (PPA) Modification of Petroleum Asphalt Cement
907-703-11: Aggregates
907-707-5: Joint Material
907-708-6: Non-Metal Drainage Structures
907-709-1: Metal Pipe
907-710-1: Fast Dry Solvent Traffic Paint
907-711-4: Snythetic Structural Fiber Reinforcement
907-713-3: Admixtures for Concrete
907-714-8: Miscellaneous Materials
907-715-4: Roadside Development Materials
907-720-2: Pavement Marking Materials
907-804-13: Concrete Bridges and Structures, w/ Supplement

906-7: Training Special Provision

SECTION 905 - PROPOSAL, PROPOSAL BID ITEMS
COMBINATION BID PROPOSAL
CERTIFICATION OF PERFORMANCE - PRIOR FEDERAL-AID CONTRACTS
CERTIFICATION REGARDING NON-COLLUSION, DEBARMENT AND SUSPENSION
SECTION 902- CONTRACT FORM, AND SECTION 903 - CONTRACT BOND FORMS
PILE DRIVING FORM
FORM -- OCR-485

(REVISIONS TO THE ABOVE WILL BE INDICATED ON THE SECOND SHEET OF SECTION 905 AS ADDENDA)

- CONTINUED ON NEXT PAGE -

MISSISSIPPI DEPARTMENT OF TRANSPORTATION

SECTION 904- NOTICE TO BIDDERS NO. 4658 **CODE: (SP)**

DATE: 10/11/2013

SUBJECT: Steel Pile Grade

PROJECT: BR-0019-02 (041) / 105189301 – Marshall County

The Contractor is hereby advised that bridge steel piles shall be A.S.T.M. A709, Grade 50. The Bridge plans do not carry a note regarding the required grade. Special bid considerations should be taken as a result of this material.

MISSISSIPPI DEPARTMENT OF TRANSPORTATION

SECTION 904 - NOTICE TO BIDDERS NO. 4662 **CODE: (SP)**

DATE: 10/16/2013

SUBJECT: Plan General Note Correction

PROJECT: BR-0019-02(041) / 105189301 – Marshall County

Bidders are hereby advised that General Note No. 20 shown on Plan Sheet No. 4, Working Sheet No. GN-1, is hereby revised as follows.

(20) CLEARING IN WETLANDS IS LIMITED TO TEN (10) FEET BEYOND CONSTRUCTION LIMITS EXCEPT UNDER BRIDGES AND IN SIGHT FLARES. CLEARING ADJACENT TO THE BRIDGES (IN WETLANDS) IS LIMITED TO WITHIN TWENTY-FIVE (25) FEET ON ONE SIDE OF THE CENTERLINE AND FIFTY (50) FEET ON THE OTHER SIDE OF THE CENTERLINE. WITHIN THIS SEVENTY-FIVE (75) FOOT WIDE AREA, THE CONTRACTOR SHALL BE PERMITTED TO CONSTRUCT A TEMPORARY HAUL ROAD. UPON COMPLETION OF THE BRIDGE, THIS ROAD SHALL BE REMOVED BY THE CONTRACTOR TO NATURAL GROUND ELEVATION. ALL COSTS ASSOCIATED WITH THE HAUL ROAD ARE TO BE INCLUDED IN OTHER BID ITEMS. ADDITIONAL CLEARING IN THE VICINITY OF THE BRIDGE, OUTSIDE THE SEVENTY-FIVE (75) FOOT WIDE AREA IS TO BE DONE WITH SAWS ONLY (NO DOZERS OR OTHER MECHANIZED CLEARING WHICH WILL DISTURB THE NATURAL GROUND SURFACE.)

Bridge Replacements on SR 7 at Bridge Nos. 154.0, 154.8, 155.0, known as Federal Aid Project No. BR-0019-02(041) / 105189301 in Marshall County.

Line No.	Item Code	Adj Code	Quantity	Units	Description [Fixed Unit Price]
					Roadway Items
0010	201-A001		1	Lump Sum	Clearing and Grubbing
0020	201-B001		1	Acre	Clearing and Grubbing
0030	202-A001		1	Lump Sum	Removal of Obstructions
0040	202-B005		24,860	Square Yard	Removal of Asphalt Pavement, All Depths
0050	202-B019		7	Each	Removal of Concrete Headwall
0060	202-B038		240	Linear Feet	Removal of Curb, All Types
0070	202-B064		190	Linear Feet	Removal of Pipe, 8" And Above
0080	202-B076		4,000	Linear Feet	Removal of Traffic Stripe
0090	202-B102		1,815	Linear Feet	Removal of Guard Rail
0100	202-B131		1	Each	Removal of Box Culvert, Including Headwalls
0110	203-A003	(E)	50,144	Cubic Yard	Unclassified Excavation, FM, AH
0120	203-EX017	(E)	34,225	Cubic Yard	Borrow Excavation, AH, FME, Class B9
Changed 10/14/2013					
0130	203-G003	(E)	22,204	Cubic Yard	Excess Excavation, FM, AH
0140	206-A001	(S)	836	Cubic Yard	Structure Excavation
0150	206-B001	(E)	49	Cubic Yard	Select Material for Undercuts, Contractor Furnished, FM
0160	209-A004		9,766	Square Yard	Geotextile Stabilization, Type V, Non-Woven
0170	213-B001		1	Ton	Combination Fertilizer, 13-13-13
0180	213-C001		33	Ton	Superphosphate
0190	217-A001		350	Square Yard	Ditch Liner
0200	219-A001		26	Thousand Gallon	Watering [$20.00]
0210	220-A001		33	Acre	Insect Pest Control [$30.00]
0220	221-A001	(S)	114	Cubic Yard	Portland Cement Concrete Paved Ditch
0230	223-A001		66	Acre	Mowing [$50.00]
0240	234-A001		3,000	Linear Feet	Temporary Silt Fence
0250	235-A001		300	Bale	Temporary Erosion Checks
0260	236-A004		12	Each	Silt Basin, Type D
0270	239-A001		438	Linear Feet	Temporary Slope Drains
0280	406-A001		934	Square Yard	Cold Milling of Bituminous Pavement, All Depths
0290	423-A001		4	Mile	Rumble Strips, Ground In
0300	501-E001		281	Linear Feet	Expansion Joints, Without Dowels
0310	502-A001	(C)	613	Square Yard	Reinforced Cement Concrete Bridge End Pavement

Line No.	Item Code	Adj Code	Quantity	Units	Description [Fixed Unit Price]
0320	602-A001	(S)	18,200	Pounds	Reinforcing Steel
0330	603-CA002	(S)	68	Linear Feet	18" Reinforced Concrete Pipe, Class III
0340	603-CA003	(S)	460	Linear Feet	24" Reinforced Concrete Pipe, Class III
0350	603-CB001	(S)	1	Each	18" Reinforced Concrete End Section
0360	603-CB002	(S)	8	Each	24" Reinforced Concrete End Section
0370	603-CE002	(S)	56	Linear Feet	29" x 18" Concrete Arch Pipe, Class A III
0380	603-CE005	(S)	44	Linear Feet	51" x 31" Concrete Arch Pipe, Class A III
0390	603-CF002	(S)	2	Each	29" x 18" Concrete Arch Pipe End Section
0400	603-CF005	(S)	2	Each	51" x 31" Concrete Arch Pipe End Section
0410	605-AA003	(S)	125	Square Yard	Geotextile for Subsurface Drainage, Type III
0420	605-W001	(GY)	11	Cubic Yard	Filter Material for Combination Storm Drain and/or Underdrains,Type A, FM
0430	605-W002	(GY)	11	Cubic Yard	Filter Material for Combination Storm Drain and/or Underdrains,Type B, FM
0440	606-B001		1,275	Linear Feet	Guard Rail, Class A, Type 1
0450	606-D012		12	Each	Guard Rail, Bridge End Section, Type I
0460	606-E002		12	Each	Guard Rail, Terminal End Section, Flared
0470	609-D007	(S)	736	Linear Feet	Combination Concrete Curb and Gutter Type 2 Modified
0480	615-A018	(S)	120	Linear Feet	Concrete Bridge End Barrier, 33.5"
0490	616-A001	(S)	105	Square Yard	Concrete Median and/or Island Pavement, 4-inch
0500	616-A003	(S)	29	Square Yard	Concrete Median and/or Island Pavement, 10-inch
0510	618-A001		1	Lump Sum	Maintenance of Traffic
0520	619-A1001		21,678	Linear Feet	Temporary Traffic Stripe, Continuous White
0530	619-A2001		8,951	Linear Feet	Temporary Traffic Stripe, Continuous Yellow
0540	619-A4001		8,600	Linear Feet	Temporary Traffic Stripe, Skip Yellow
0550	619-A5001		796	Linear Feet	Temporary Traffic Stripe, Detail
0560	619-A6001		236	Linear Feet	Temporary Traffic Stripe, Legend
0570	619-C7001		233	Each	Two-Way Yellow Reflective High Performance Raised Marker
0580	619-D1001		154	Square Feet	Standard Roadside Construction Signs, Less than 10 Square Feet
0590	619-D2001		422	Square Feet	Standard Roadside Construction Signs, 10 Square Feet or More
0600	619-G4001		238	Linear Feet	Barricades, Type III, Single Faced
0610	619-G4005		24	Linear Feet	Barricades, Type III, Double Faced
0620	619-G5001		261	Each	Free Standing Plastic Drums
0630	619-G7001		2	Each	Warning Lights, Type "B"
0640	620-A001		1	Lump Sum	Mobilization
0650	621-A001		1	Each	Field Laboratory
0660	627-L001		233	Each	Two-Way Yellow Reflective High Performance Raised Markers

Line No.	Item Code	Adj Code	Quantity	Units	Description [Fixed Unit Price]
0670	630-A001		7	Square Feet	Standard Roadside Signs, Sheet Aluminum, 0.080" Thickness
0680	630-A002		103	Square Feet	Standard Roadside Signs, Sheet Aluminum, 0.125" Thickness
0690	630-C004		125	Linear Feet	Steel U-Section Posts, 3.0 to 3.5 lb/ft
0700	630-E004		19	Pounds	Structural Steel Angles & Bars, 7/16" x 2 1/2" Flat Bar
0710	630-F001		66	Each	Delineators, Guard Rail, White
0720	630-G002		12	Each	Type 3 Object Markers, OM-3R or OM-3L, Post Mounted
0730	630-K003		15	Linear Feet	Welded & Seamless Steel Pipe Posts, 4"
0740	815-A006	(S)			
Deleted 10/14/2013					
0750	815-A009	(S)	12,634	Ton	Loose Riprap, Size 300
0760	815-E001	(S)	15,350	Square Yard	Geotextile under Riprap
0762	815-F002	(S)	493	Ton	Sediment Control Stone
Added 10/14/2013					
0770	907-216-A001		637	Square Yard	Solid Sodding
0780	907-225-A001		66	Acre	Grassing
0790	907-225-B001		196	Ton	Agricultural Limestone
0800	907-225-C001		131	Ton	Mulch, Vegetative Mulch
0810	907-226-A001		66	Acre	Temporary Grassing
0820	907-234-C002		11,545	Linear Feet	Super Silt Fence
0830	907-234-F001		600	Linear Feet	Turbidity Barrier
0840	907-237-A003		300	Linear Feet	Wattles, 20"
0850	907-245-A001		300	Linear Feet	Triangular Silt Dike
0860	907-246-A002		300	Each	Sandbags
0870	907-249-A001		3,100	Ton	Riprap for Erosion Control
Changed 10/14/2013					
0880	907-304-A011	(GY)	113,726	Cubic Yard	Granular Material, LVM, Class 9, Group A
0890	907-304-B009	(GT)	15,597	Ton	Granular Material, Class 3, Group D
0900	907-307-C003	(M)	12,724	Square Yard	6" Soil-Lime-Water Mixing, Class C
0910	907-307-D001		172	Ton	Lime
0920	907-307-S001	(A3)	3,181	Gallon	Bituminous Curing Seal
0930	907-407-A001	(A2)	2,821	Gallon	Asphalt for Tack Coat
0940	907-413-E001		281	Linear Feet	Sawing and Sealing Transverse Joints in Asphalt Pavement
0950	907-601-A001	(S)	104	Cubic Yard	Class "B" Structural Concrete
0960	907-601-B003	(S)	7	Cubic Yard	Class "B" Structural Concrete, Minor Structures
0970	907-603-ALT01	(S)	288	Linear Feet	18" Type A Alternate Pipe

Line No.	Item Code	Adj Code	Quantity	Units	Description [Fixed Unit Price]
0980	907-603-ALT04	(S)	60	Linear Feet	36" Type A Alternate Pipe
0990	907-605-O003	(S)	280	Linear Feet	4" Perforated Sewer Pipe for Underdrains, SDR 23.5
1000	907-605-P003	(S)	90	Linear Feet	4" Non-perforated Sewer Pipe for Underdrains, SDR 23.5
1010	907-617-A001		49	Each	Right-of-Way Marker
1020	907-626-C004		4	Mile	6" Thermoplastic Edge Stripe, Continuous White
1030	907-626-D003		2	Mile	6" Thermoplastic Traffic Stripe, Skip Yellow
1040	907-626-E004		2	Mile	6" Thermoplastic Traffic Stripe, Continuous Yellow
1050	907-626-G004		2,360	Linear Feet	Thermoplastic Detail Stripe, White
1060	907-626-G005		315	Linear Feet	Thermoplastic Detail Stripe, Yellow
1070	907-626-H004		165	Linear Feet	Thermoplastic Legend, White
1080	907-631-A001		3	Cubic Yard	Flowable Fill, Excavatable
1090	907-699-A002		1	Lump Sum	Roadway Construction Stakes
1100	907-906001		720	Hours	Trainees [$5.00]
					ALTERNATE GROUP AA NUMBER 1
1110	907-304-F002	(GT)	15,631	Ton	Size 610 Crushed Stone Base
					ALTERNATE GROUP AA NUMBER 2
1120	907-304-F003	(GT)	15,631	Ton	3/4" and Down Crushed Stone Base
					ALTERNATE GROUP AA NUMBER 3
1130	907-304-F004	(GT)	15,631	Ton	Size 825B Crushed Stone Base
					ALTERNATE GROUP BB NUMBER 1
1140	907-308-A001		115	Ton	Portland Cement
1150	907-308-B001	(M)	12,724	Square Yard	Soil-Cement-Water Mixing, Optional Mixers, Base
1160	907-308-S001	(A3)	3,181	Gallon	Bituminous Curing Seal
					ALTERNATE GROUP BB NUMBER 2
1170	907-311-A003	(M)	12,724	Square Yard	Processing Lime and Fly Ash Treated Course, 6" Thick
1180	907-311-B001		86	Ton	Lime
1190	907-311-C001		344	Ton	Fly Ash, Class C
1200	907-311-S001	(A3)	3,181	Gallon	Bituminous Curing Seal
					ALTERNATE GROUP CC NUMBER 1
1210	907-403-A006	(BA1)	2,949	Ton	Hot Mix Asphalt, MT, 12.5-mm mixture
					ALTERNATE GROUP CC NUMBER 2
1220	907-403-M002	(BA1)	2,949	Ton	Warm Mix Asphalt, MT, 12.5-mm mixture
					ALTERNATE GROUP DD NUMBER 1
1230	907-403-A007	(BA1)	3,912	Ton	Hot Mix Asphalt, MT, 19-mm mixture
					ALTERNATE GROUP DD NUMBER 2

Line No.	Item Code	Adj Code	Quantity	Units	Description [Fixed Unit Price]
1240	907-403-M007	(BA1)	3,912	Ton	Warm Mix Asphalt, MT, 19-mm mixture
					ALTERNATE GROUP EE NUMBER 1
1250	907-403-A010	(BA1)	3,090	Ton	Hot Mix Asphalt, MT, 9.5-mm mixture
					ALTERNATE GROUP EE NUMBER 2
1260	907-403-M006	(BA1)	3,090	Ton	Warm Mix Asphalt, MT, 9.5-mm mixture
					ALTERNATE GROUP FF NUMBER 1
1270	907-626-J003		3,160	Linear Feet	6" Inverted Profile Thermoplastic Traffic Stripe, Continuous White
1280	907-626-K003		1,600	Linear Feet	6" Inverted Profile Thermoplastic Traffic Stripe, Skip Yellow
1290	907-626-L001		202	Linear Feet	6" Inverted Profile Thermoplastic Traffic Stripe, Continuous Yellow
					ALTERNATE GROUP FF NUMBER 2
1300	628-J002		3,160	Linear Feet	6" High Performance Cold Plastic Traffic Stripe, Continuous White
1310	628-L002		1,600	Linear Feet	6" High Performance Cold Plastic Traffic Stripe, Skip Yellow
1320	628-M002		202	Linear Feet	6" High Performance Cold Plastic Traffic Stripe, Continuous Yellow
					Bridge Items
1330	501-K001		6,488	Square Yard	Transverse Grooving
1340	803-B002	(S)	3	Each	Conventional Static Pile Load Test [$5,000.00]
1350	803-D006	(S)	4,640	Linear Feet	HP 14 x 117 Steel Piling
1360	803-D007	(S)	9,750	Linear Feet	HP 14 x 89 Steel Piling
1370	803-I001	(S)	18	Each	PDA Test Pile
1380	803-J001	(S)	3	Each	Pile Restrike
1390	805-A001	(S)	588,764	Pounds	Reinforcement
Changed 10/14/2013					
1400	813-A002	(S)	2,920	Linear Feet	Concrete Railing, 32"
1410	815-A009	(S)	1,578	Ton	Loose Riprap, Size 300
Changed 10/14/2013					
1420	815-E001	(S)	2,116	Square Yard	Geotextile under Riprap
Changed 10/14/2013					
1430	907-804-A001	(S)	2,761	Cubic Yard	Bridge Concrete, Class AA
Changed 10/14/2013					
1440	907-804-C016	(S)	7,313	Linear Feet	40' Prestressed Concrete Beam, Type I+2
1450	907-804-C019	(S)	359	Linear Feet	60' Prestressed Concrete Beam, Type II+2
1460	907-804-C030	(S)	957	Linear Feet	80' Prestressed Concrete Beam, Type III

ADDENDUM

STATE	PROJECT NO.
MISS.	BR-0019-02(041)

DESCRIPTION OF SHEET	WKG. NO.	SH. NO.
TITLE SHEET (1)		1
DETAILED INDEX & GENERAL NOTES (4)		
DETAILED INDEX	DI-1	2
DETAILED INDEX	DI-2	3
GENERAL NOTES	GN-1	4
GENERAL NOTES	GN-2	5
TYPICAL SECTION SHEETS (5)		
TYPICAL SECTION - MAINLINE	TS-1	6
TYPICAL SECTION - MAINLINE WIDENING	TS-2	7
TYPICAL SECTIONS - LOCAL ROADS & BRIDGING MATERIAL	TS-3	8
TYPICAL SECTIONS - CHANNELIZED INTERSECTION AND TURNOUT	TS-4	9
TYPICAL SECTIONS - EMBANKMENT REMOVAL	TS-5	10
QUANTITY SHEETS (13)		
SUMMARY OF QUANTITIES	SQ-1	11
SUMMARY OF QUANTITIES	SQ-2	12
SUMMARY OF QUANTITIES	SQ-3	13
SUMMARY OF QUANTITIES	SQ-4	14
ESTIMATED QUANTITIES - DRAINAGE STRUCTURES	EQ-1	15
ESTIMATED QUANTITIES - BOX CULVERT, JUNCTION BOXES	EQ-2	16
ESTIMATED QUANTITIES - SIDE DRAINS, RAMPS	EQ-3	17
ESTIMATED QUANTITIES - GUARDRAIL & BRIDGE END PAVEMENT	EQ-4	18
ESTIMATED QUANTITIES - EARTHWORK	EQ-5	19
ESTIMATED QUANTITIES - REMOVAL ITEMS	EQ-6	20
ESTIMATED QUANTITIES - FOR TRAFFIC CONTROL SIGNS	EQ-7	21
STANDARD ROADSIDE SIGN QUANTITIES	SRS-1	22
STANDARD ROADSIDE SIGN QUANTITIES	SRS-2	23
PLAN & PROFILE SHEETS (6)		
STA. 206+00 TO STA. 234+00 - MAINLINE	3	24
LOCAL ROAD AT STA. 212+79.76	3A	25
STA. 234+00 TO STA. 263+00 - MAINLINE	4	26
LOCAL ROAD AT STA. 244+00	4A	27
STA. 263+00 TO STA. 293+00 - MAINLINE	5	28
STA. 293+00 TO STA. 307+00 - MAINLINE	6	29
SPECIAL DESIGN SHEETS (82) 1		
CONSTRUCTION SIGNING	CS-1	30
TRAFFIC CONTROL PLAN - PHASE I, B.O.P. STA. 206+00 TO STA. 223+00	TC-1	31
TRAFFIC CONTROL PLAN - PHASE I, STA. 223+00 TO STA. 241+00	TC-2	32
TRAFFIC CONTROL PLAN - PHASE I, STA. 241+00 TO STA. 257+00	TC-3	33
TRAFFIC CONTROL PLAN - PHASE I, LOCAL ROAD AT STA. 244+00	TC-4	34
TRAFFIC CONTROL PLAN - PHASE I, STA. 257+00 TO STA. 275+00	TC-5	35
TRAFFIC CONTROL PLAN - PHASE I, STA. 275+00 TO STA. 293+00	TC-6	36
TRAFFIC CONTROL PLAN - PHASE I, STA. 293+00 TO E.O.P. STA. 307+00	TC-7	37
TRAFFIC CONTROL PLAN - PHASE II, B.O.P. STA. 206+00 TO STA. 223+00	TC-8	38
TRAFFIC CONTROL PLAN - PHASE II, STA. 223+00 TO STA. 241+00	TC-9	39
TRAFFIC CONTROL PLAN - PHASE II, STA. 241+00 TO STA. 257+00	TC-10	40
TRAFFIC CONTROL PLAN - PHASE II, LOCAL ROAD AT STA. 244+00	TC-11	41
TRAFFIC CONTROL PLAN - PHASE II, STA. 257+00 TO STA. 275+00	TC-12	42
TRAFFIC CONTROL PLAN - PHASE II, STA. 275+00 TO STA. 293+00	TC-13	43
TRAFFIC CONTROL PLAN - PHASE II, STA. 293+00 TO E.O.P. STA. 307+00	TC-14	44

DESCRIPTION OF SHEET	WKG. NO.	SH. NO.
SPECIAL DESIGN SHEETS (CONTINUED)		
PAVEMENT MARKINGS - B.O.P. STA. 206+00 TO STA. 223+00	PM-1	45
PAVEMENT MARKINGS - STA. 223+00 TO STA. 241+00	PM-2	46
PAVEMENT MARKINGS - STA. 241+00 TO STA. 257+00	PM-3	47
PAVEMENT MARKINGS - LOCAL RD AT STA. 244+00	PM-4	48
PAVEMENT MARKINGS - STA. 257+00 TO STA. 275+00	PM-5	49
PAVEMENT MARKINGS - STA. 275+00 TO STA. 293+00	PM-6	50
PAVEMENT MARKINGS - STA. 293+00 TO E.O.P. STA. 307+00	PM-7	51
INTERSECTION DETAIL - STATION 212+79.76	ID-1	52
INTERSECTION DETAIL - STATION 244+00	ID-2	53
FORM GRADE - STA. 244+00	FG-1	54
VEGETATION SCHEDULE	VS-1	55
MISCELLANEOUS CONSTRUCTION DETAILS	MD-1	56
MISCELLANEOUS CONSTRUCTION DETAILS	MD-2	57
TRAFFIC CONTROL DETAILS - DRUM PLACEMENT AND SHOULDER CLOSURE	TCP-SC	58
GUARD RAIL : BRIDGE END SECTION - TYPE "I" (WOOD POSTS)	SDGR-2F	59
GUARD RAIL : BRIDGE END SECTION - TYPE "I" (STEEL POSTS)	SDGR-2G	60
GUARD RAIL : RUB RAIL HARDWARE SHEET	SDGR-RR	61
BRIDGE END PAVEMENT WITH RAIL AND OVERLAY	BE-1C	62
33.5" BRIDGE END PAVEMENT RAIL	BE-PR-1B	63
BOX CULVERT BENDING DETAIL	BCB-1	64
LOCATION OF R16-3 SIGNS	LS-1	65
RIGHT OF WAY MARKER	RW-1	66
RIGHT-OF-WAY MARKERS	RW-2	67
SPECIAL DESIGN: RUMBLE STRIPES (GROUND-IN) 2 LANE	RS-2L	68
SUPERELEVATION TRANSITION FOR LOCAL FACILITIES	SDSE-1	69
SUPERELEVATION CASE I ROTATION ABOUT CENTERLINE (2% NORMAL SUBGRADE)	SDSE-2A	70
SUPERELEVATION RUNOFF CASE I ROTATION ABOUT CENTERLINE	SDRO-1	71
BOX CULVERT DRAWING BARREL JOINT LOCATIONS, NORMAL AND SKEWED CULVERTS	SD-IBJL-1	72
SKEWED COLLAR DETAILS FOR BOX STRUCTURES (SINGLE, DOUBLE, TRIPLE & QUADRUPLED)	SD-ICLS	73
BASIC CULVERT DRAWING - SINGLE CELL HEIGHT 4 FT., SPANS 4-10 FT. WINGS WITH 3:1 SLOPE FOR BASIC CULVERT DRAWING SINGLE CELL HEIGHTS 4-12 FT., SPANS 4-24 FT.	SD-IBS-4-2W	74
WINGS WITH 3:1 SLOPE FOR BASIC CULVERT DRAWING SINGLE CELL HEIGHTS 4-12 FT., SPANS 4-24 FT.	SD-IWS-3	75
BOX CULVERT DRAWING - IBS CULVERTS MODIFIED FOR HIGH COVER WINGS WITH 3:1 SLOPE	SD-IWS-3A	76
BOX CULVERT DRAWING - IBS CULVERTS MODIFIED FOR HIGH COVER WINGS WITH 3:1 SLOPE	SD-IBSM-3W	77
BOX CULVERT DRAWING 30° SKEW DETAILS WINGS WITH 3:1 SLOPE SINGLE & DOUBLE CELL CULVERTS	SD-IBSM-3WA	78
BOX CULVERT DRAWING 45° SKEW DETAILS WINGS WITH 3:1 SLOPE SINGLE & DOUBLE CELL CULVERTS	SD-ISK-30-3W	79
TYPICAL INSTALLATION & DETAILS OF DELINEATORS AND DISTANCE REFERENCE SIGNS	SD-ISK-45-3W	80
HIGHWAY SIGN AND BARRICADE DETAILS FOR CONSTRUCTION PROJECTS	SDSN-8	81
DRIVEWAYS, CURB & GUTTER, & SIDEWALK	SDTCP-10	82
	SDSD-1	83

McCOLLUM

PS & E PLANS-DATE: 08/23/2013		
FMS CON. # 105189/301000		
REVISIONS		
DATE	SHEET NO.	BY
9/12/13	3,5,8,11,12,14,19,	
	28,53,55,87	DMM

MISSISSIPPI DEPARTMENT OF TRANSPORTATION

DETAILED INDEX

PROJ. NO. BR-0019-02(041)

COUNTY: MARSHALL

WORKING NUMBER: DI-1

SHEET NUMBER: 2

FILENAME: DETAIL INDEX.DGN

DESIGN TEAM McCOLLUM CHECKED _____ DATE 06/28/12

REVISION BY DATE

PLAN
ROADWAY DESIGN DIVISION
MISSISSIPPI DEPARTMENT OF TRANSPORTATION

0/14/2013 8:24 AM DETAIL INDEX.DGN

ADDENDUM

STATE	PROJECT NO.
MISS.	BR-0019-02(041)

DESCRIPTION OF SHEET	WKG. NO.	SH. NO.
SPECIAL DESIGN SHEETS (CONTINUED)		
PRELIMINARY EROSION CONTROL PLAN - MAINLINE	ECP-3	84
PRELIMINARY EROSION CONTROL PLAN - MAINLINE	ECP-4	85
PRELIMINARY EROSION CONTROL PLAN - LOCAL ROAD AT STA. 244+00	ECP-4A	86
PRELIMINARY EROSION CONTROL PLAN - MAINLINE	ECP-5	87
PRELIMINARY EROSION CONTROL PLAN - MAINLINE	ECP-6	88
TYPICAL TEMPORARY EROSION / SEDIMENT CONTROL APPLICATIONS	ECD-1	89
DETAILS OF SEDIMENT BARRIER APPLICATIONS	ECD-2	90
DETAILS OF SILT FENCE INSTALLATION	ECD-3	91
DITCH CHECK STRUCTURES, TYPICAL APPLICATIONS AND DETAILS	ECD-4	92
TEMPORARY EROSION, SEDIMENT AND WATER POLLUTION CONTROL MEASURES, SILT FENCE AND HAY BALE DITCH CHECKS	ECD-5	93
DETAILS OF EROSION CONTROL WATTLE DITCH CHECK	ECD-6	94
DETAILS OF EROSION CONTROL SILT DIKE DITCH CHECK	ECD-7	95
ROCK DITCH CHECK	ECD-8	96
ROCK DITCH CHECK WITH SUMP EXCAVATION	ECD-9	97
INLET PROTECTION TYPICAL APPLICATIONS AND DETAILS	ECD-10	98
INLET PROTECTION DETAILS FOR COARSE AGGREGATE ON GRADES & SAGS	ECD-11	99
INLET PROTECTION DETAILS OF WATTLES	ECD-12	100
INLET PROTECTION DETAILS OF MANUFACTURED INLET PROTECTION DEVICE	ECD-13	101
INLET PROTECTION DETAILS OF SAND BAG	ECD-14	102
STABILIZED CONSTRUCTION ENTRANCE	ECD-15	103
TEMPORARY CULVERT STREAM CROSSING	ECD-16	104
TEMPORARY STREAM DIVERSION	ECD-17	105
TEMPORARY STREAM DIVERSION (BOX EXTENSIONS)	ECD-18	106
FLOATING TURBIDITY CURTAIN	ECD-19	107
DETAILS OF EROSION CONTROL SANDBAG DITCH CHECK	ECD-20	108
TYPICAL TEMPORARY EROSION CONTROL MEASURES (SLOPE DRAIN AND TYPE A SILT BASIN)	SDTEC-2	109
TYPICAL TEMPORARY EROSION CONTROL MEASURES (TYPE "D" SILT BASIN) (RIPRAP DIKE SILT BASIN)	TEC-D	110
DETAILS OF DITCH TREATMENT	DT-1	111
PERMANENT SIGNING SHEETS (6)		
PERMANENT SIGNING - B.O.P. STA. 206+00 TO STA. 223+00	PSP-1	1001
PERMANENT SIGNING - STA. 223+00 TO STA. 241+00	PSP-2	1002 ⚠1
PERMANENT SIGNING - STA. 241+00 TO STA. 257+00	PSP-3	1003 ⚠1
PERMANENT SIGNING - LOCAL RD. AT STA. 244+00	PSP-4	1004 ⚠1
PERMANENT SIGNING - STA. 257+00 TO STA. 275+00	PSP-5	1005 ⚠1
PERMANENT SIGNING - STA. 275+00 TO STA. 293+00	PSP-6	1006 ⚠1

DESCRIPTION OF SHEET	REVISION DATE	WKG. NO.	SH. NO.
STANDARD DRAWINGS - ROADWAY SHEETS (32)			
PAVEMENT MARKING DETAILS FOR 2 & 4-LANE DIVIDED ROADWAYS	12-01-99	PM-1	6120
EROSION CONTROL		EC-1	6140
TYPICAL TEMPORARY EROSION CONTROL MEASURES (TYPE B SILT BASIN)		TEC-3	6144
GUARD RAIL : "W" BEAM (WOOD POSTS)	3-01-02	GR-1	6180
GUARD RAIL : THRIE BEAM (WOOD POSTS)	3-01-02	GR-1A	6181
GUARD RAIL : "W" BEAM (STEEL POSTS)	3-01-02	GR-1B	6182
GUARD RAIL : MODIFIED THRIE BEAM (STEEL POSTS)	3-01-02	GR-1C	6183
GUARD RAIL : TYPICAL INSTALLATION AT BRIDGE APPROACHES FOR 2-LANE, 2-WAY HIGHWAYS	12-01-99	GR-4A	6195
GUARD RAIL : MISCELLANEOUS HARDWARE	3-01-02	GR-HW	6202
ROUTE SHIELDS AND "EXIT ONLY" PANELS		SN-2	6221
STANDARD ROADSIDE SIGNS		SN-3A	6223
STANDARD ROADSIDE SIGNS		SN-3B	6224
STANDARD ROADSIDE SIGN ASSEMBLY AND INSTALLATION		SN-4	6225
STANDARD ROADSIDE SIGN ASSEMBLY AND INSTALLATION		SN-4A	6226
STANDARD ROADSIDE SIGN ASSEMBLY AND INSTALLATION		SN-4B	6227
TYPICAL GUARD RAIL DELINEATION	3-01-02	SN-8C	6236
TRAFFIC CONTROL PLAN WITH FLAGGER (ONE-LANE CLOSURE OF TWO WAY TRAFFIC)		TCP-1	6250
SHORT DURATION CLOSING OF TWO-LANE TWO-WAY HIGHWAYS		TCP-8	6257
TRAFFIC CONTROL PLAN MOBILE OPERATIONS MULTILANE ROADS AND TWO-LANE ROADS	12-01-99	TCP-11	6260
TRAFFIC CONTROL PLAN : UNEVEN PAVEMENT DETAILS		TCP-14	6263
TEMPORARY STRIPING FOR TRAFFIC CONTROL 2-LANE AND 4-LANE DIVIDED HIGHWAYS	12-01-99	TCP-15	6264
RURAL DRIVEWAYS		RD-1	6271
TYPICAL GRADING TRANSITION BETWEEN CUTS & FILLS		GT-1	6272
SIGHT FLARE	12-01-99	SF-1	6273
SPUR DIKE: EARTH	12-01-99	ED-1	6274
MISCELLANEOUS DETAIL SHEET 1. STACKED PIPE JOINT 2. EXCAVATION AT GRADE POINTS		MDS-1	6290
DETAILS OF PAVED FLUMES		PF-1	6291
PIPE CULVERT INSTALLATION		PI-1	6300
CONCRETE PIPE COLLAR		PC-1	6301
JUNCTION BOX FOR BOX CULVERT TO CONCRETE ARCH PIPE		JB-1A	6303
FLARED END SECTION FOR CONCRETE PIPE		FE-1	6328
FLARED END SECTION FOR CONCRETE ARCH PIPE		FE-1A	6329
CROSS SECTIONS (37)			
MAINLINE			9001-9033
LOCAL ROAD AT STA. 212+79.76			9034
LOCAL ROAD AT STA. 244+00			9035-9037
TOTAL SHEETS (ROADWAY)			186 ⚠1

NO.	DELETED SHEETS, REVISED SHEET NO. REVISION	DATE	BY
1		9/2/13	DMM

MISSISSIPPI DEPARTMENT OF TRANSPORTATION

DETAILED INDEX

PROJ. NO. BR-0019-02(041)

COUNTY: MARSHALL

FILENAME: DETAIL INDEX.DGN

DESIGN TEAM McCOLLUM CHECKED _____ DATE 06/28/12

WORKING NUMBER DI-2

SHEET NUMBER 3

PLAN
ROADWAY DESIGN DIVISION
MISSISSIPPI DEPARTMENT OF TRANSPORTATION

9/10/2013 8:17 AM DETAIL INDEX.DGN

STATE	PROJECT NO.
MISS.	BR-0019-02(041)

ADDENDUM

GENERAL NOTES

(24) 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.

(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) ALL ITEMS OF WORK ASSOCIATED WITH THE INSTALLATION OF A CONSTRUCTION ENTRANCE SHALL BE ABSORBED IN OTHER ITEMS OF WORK.

(28) 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.

(29) SEE BRIDGE PLANS FOR DETAILED INDEX SHEET(S), ESTIMATED AND SUMMARY OF QUANTITY SHEETS, AND EROSION CONTROL SHEETS.

(30) THE CLEARING LIMITS ADJACENT TO THE STREAMS AT STATIONS 231+70, 275+00, AND 283+00 WILL BE LIMITED TO NO FURTHER THAN TEN (10) FEET OUTSIDE THE CONSTRUCTION LIMITS WHEN ANY CLOSER TO THE STREAM THAN FIFTY (50) FEET FROM THE TOP OF THE BANKS.

1

(32) 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.

(33) BIDDERS ARE ADVISED THAT HARD COPIES OF ANY ADDENDA FOR THIS PROJECT WILL NO LONGER BE MAILED. ALL ADDENDA FOR THIS PROJECT WILL BE POSTED TO WWW.MDOT.MS.GOV UNDER THE PROPOSAL ADDENDA COLUMN. IT IS THE BIDDER'S RESPONSIBILITY TO CHECK AND SEE IF ANY ADDENDA HAVE BEEN POSTED FOR THIS PROJECT. PLEASE CONTACT CONTRACT ADMINISTRATION DIVISION AT 601-359-7700 FOR ANY QUESTIONS REGARDING ELECTRONIC ADDENDA.

GENERAL NOTES

DATE	REVISION	BY
9/12/13	DELETED NOTE	DMM

MISSISSIPPI DEPARTMENT OF TRANSPORTATION

GENERAL NOTES

PROJECT NO. BR–0019–02(041)
COUNTY : MARSHALL

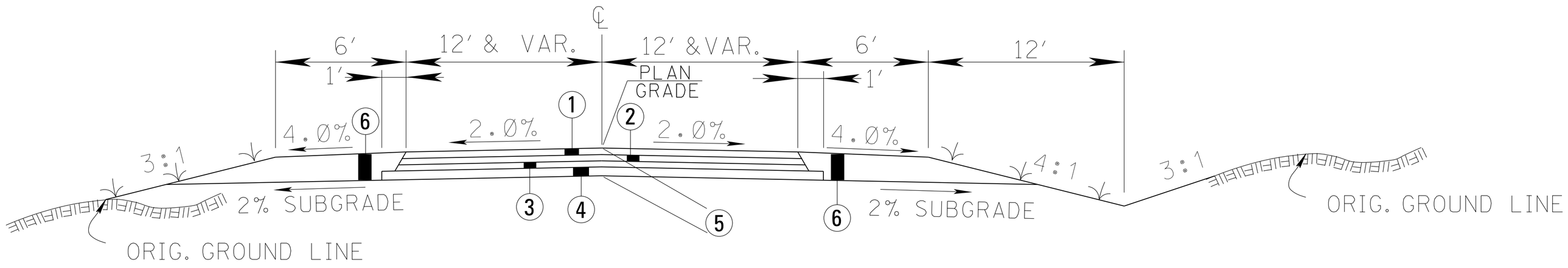
FILENAME: GENERAL_NOTES.DGN
DESIGN TEAM McCOLLUM CHECKED DATE

WORKING NUMBER GN-2

SHEET NUMBER 5

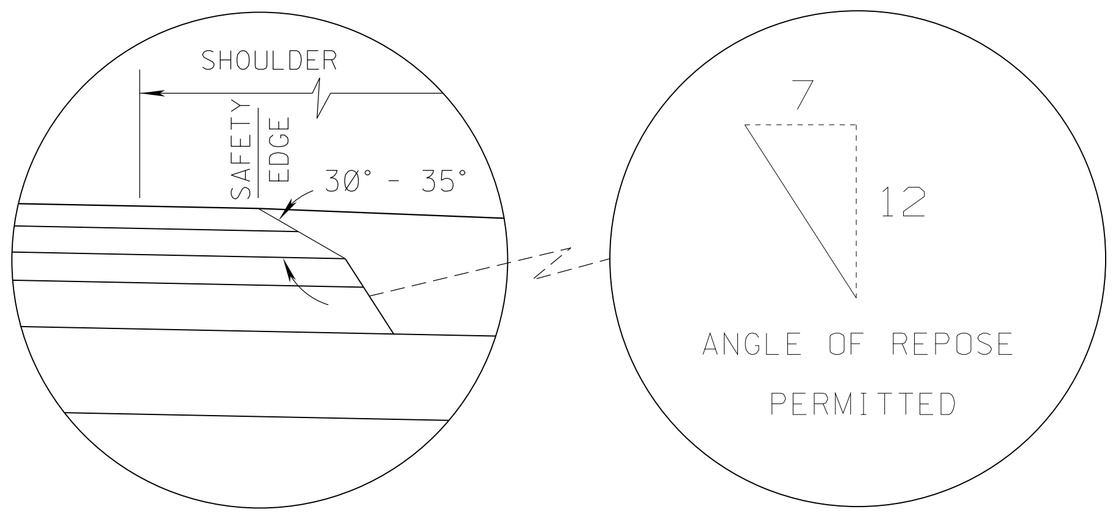
ADDENDUM

STATE	PROJECT NO.
MISS.	BR-0019-02(041)



TYPICAL SECTION
LOCAL ROADS

STA. 212+79.76 RT. (STA. 10+70.40 - STA. 11+70.40)
STA. 244+00 LT. (STA. 1+12.556 - STA. 8+64.49)



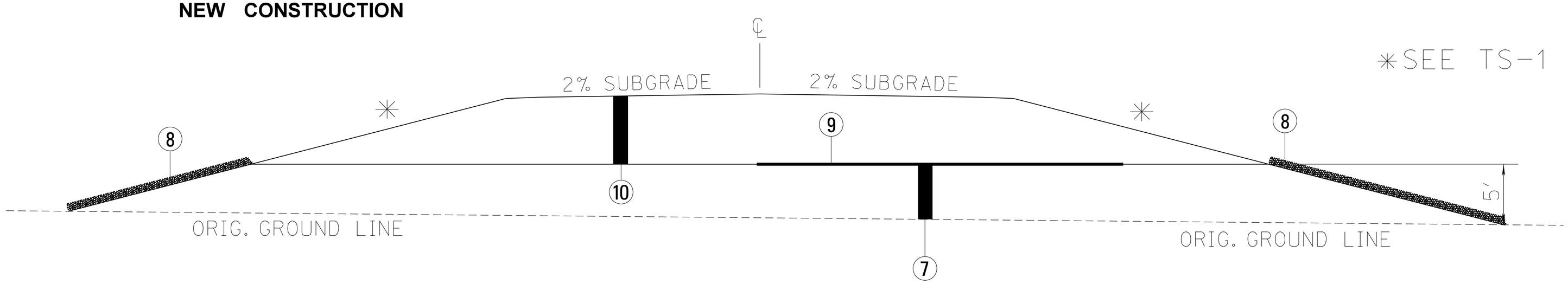
SAFETY EDGE REQ'D
TOP 2 LIFTS ONLY
(NOT A PAY ITEM)
NEW CONSTRUCTION

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

PROPOSED PAVEMENT

1. 1.5" ASPHALT, MT (9.5 mm MIXTURE) (1@1.5") REQ'D.
2. 2.0" ASPHALT, MT (12.5 mm MIXTURE) (1@2") REQ'D.
3. 2.25" ASPHALT, MT (19 mm MIXTURE) (1@2.5") REQ'D.
4. 8.0" CRUCHED STONE W/ GEOTEXTILE FABRIC REQ'D. NON-WOVEN
5. 13.75" STRUCTURE THICKNESS
6. 13.75" & VAR. GRANULAR MATERIAL REQ'D. (CLASS 3, GROUP D)
7. 5' & VAR. GRANULAR MATERIAL REQ'D. (CLASS 9, GROUP A)
8. RIPRAP (300 LB) W/ GEOTEXTILE FABRIC REQ'D. UNDER RIPRAP
9. GEOTEXTILE STABILIZATION, TYPE 5, NON-WOVEN (AS DIRECTED BY THE ENGINEER)
10. BORROW MATERIAL (3' MIN. DEPTH)

1



*SEE TS-1 AND TS-2 FOR SLOPES

NOT TO SCALE

TYPICAL SECTION
BRIDGING MATERIAL

STA. 223+00 - STA. 230+10
STA. 234+60 - STA. 238+50
STA. 257+00 - STA. 274+00
STA. 277+60 - STA. 280+75
STA. 284+60 - STA. 299+00

MISSISSIPPI DEPARTMENT OF TRANSPORTATION
TYPICAL SECTION
LOCAL ROADS &
BRIDGING MATERIAL

PROJ. NO. BR-0019-02(041)
MARSHALL COUNTY

WORKING NUMBER TS-3

FILENAME: TYP1.DGN
DESIGN TEAM McCOLLUM CHECKED DATE

SHEET NUMBER 8

REVISION BY DATE

PLAN
ROADWAY DESIGN DIVISION
MISSISSIPPI DEPARTMENT OF TRANSPORTATION

0/14/2013 8:21 AM TYP1.DGN

ADDENDUM

STATE	PROJECT NO.
MISS.	BR-0019-02(041)

SUMMARY OF QUANTITIES (SHEET 1)

PAY ITEM NO.	PAY ITEM	UNIT	PRELIMINARY	FINAL	
201-A001	CLEARING AND GRUBBING	LS	100%		
201-B001	CLEARING AND GRUBBING	ACRE	1		(1)
202-A001	REMOVAL OF OBSTRUCTIONS	LS	100%		(2)
202-B005	REMOVAL OF ASPHALT PAVEMENT, ALL DEPTHS	SY	24,860		
202-B019	REMOVAL OF CONCRETE HEADWALL	EA	7		
202-B038	REMOVAL OF CURB, ALL TYPES	LF	240		
202-B064	REMOVAL OF PIPE, 8" AND ABOVE	LF	190		
202-B076	REMOVAL OF TRAFFIC STRIPE	LF	4,000		(3)
202-B102	REMOVAL OF GUARD RAIL	LF	1815		(4)
202-B131	REMOVAL OF BOX CULVERT, INCLUDING HEADWALLS	EA	1		
203-A003	UNCLASSIFIED EXCAVATION, FM, AH	CY	50,144		
203-EX017	BORROW EXCAVATION, AH, FME, CLASS B9	CY	34,225		
203-G003	EXCESS EXCAVATION, FM, AH	CY	22,204		
206-A001	STRUCTURE EXCAVATION	CY	836		
206-B001	SELECT MATERIAL FOR UNDERCUTS, CONTRACTOR FURNISHED, FM	CY	49		
209-A004	GEOTEXTILE STABILIZATION, TYPE V, NON-WOVEN	SY	9,766		(9)
213-B001	COMBINATION FERTILIZER, 13-13-13	TON	1		
213-C001	SUPERPHOSPHATE	TON	33		
907-216-A001	SOLID SODDING	SY	637		(5)
217-A001	DITCH LINER	SY	350		(3)
219-A001	WATERING	KGAL	26		(6)
220-A001	INSECT PEST CONTROL	ACRE	33		
221-A001	PORTLAND CEMENT CONCRETE PAVED DITCH	CY	114		(7)
223-A001	MOWING	ACRE	66		
907-225-A001	GRASSING	ACRE	66		
907-225-B001	AGRICULTURAL LIMESTONE	TON	196		
907-225-C001	MULCH, VEGETATIVE MULCH	TON	131		
907-226-A001	TEMPORARY GRASSING	ACRE	66		
234-A001	TEMPORARY SILT FENCE	LF	3000		
907-234-C002	SUPER SILT FENCE	LF	11,545		
907-234-F001	TURBIDITY BARRIER	LF	600		
235-A001	TEMPORARY EROSION CHECKS	BALE	300		
236-A004	SILT BASIN, TYPE D	EA	12		(8)
907-237-A003	WATTLES, 20"	LF	300		
239-A001	TEMPORARY SLOPE DRAINS	LF	438		
907-245-A001	TRIANGULAR SILT DIKE	LF	300		
907-246-A002	SANDBAGS	EA	300		
907-249-A001	RIPRAP FOR EROSION CONTROL	TON	3100		(1)

(1) FOR EASEMENTS

(2) BR# 154.0, STA. 231+20 – STA. 232+61
2@20',1@40',3@20' I–BEAM SPAN, TIMBER PILE BRIDGE
BR# 154.8, STA. 273+62 – STA. 276+24.85
11@20',1@40' I–BEAM SPAN, TIMBER PILE BRIDGE
BR# 155.0, STA. 282+50.05 – STA. 283+50.96
5@20' I–BEAM SPAN, TIMBER PILE BRIDGE
INCLUDES BRIDGE END SLAB

(3) ESTIMATED QUANTITY, ACTUAL QUANTITY MAY VARY AS DIRECTED BY THE ENGINEER

(4) INCLUDES TERMINAL SECTIONS, BRIDGE END SECTIONS, FOOTINGS AND OTHER APPURTENANCES.

(5) INCLUDES 139 S.Y. FOR PAVED FLUMES

(6) INCLUDES 3 K/GAL. FOR PAVED FLUMES

(7) INCLUDES 17 C.Y. FOR PAVED FLUMES

(8) INCLUDES INSTALLATION, MAINTENANCE AND REMOVAL

(9) INCLUDES 2000 S.Y. TO BE USED AS DIRECTED BY THE ENGINEER

BY	REVISION	DATE
DMM	REVISED QUANTITY	9/12/13

MISSISSIPPI DEPARTMENT OF TRANSPORTATION
SUMMARY OF QUANTITIES

PROJ. NO.:BR-0019-02(041)
COUNTY: MARSHALL
FILENAME: SQS.DGN
DESIGN TEAM McCOLLUM CHECKED DATE

WORKING NUMBER SQ-1
SHEET NUMBER 11

PLAN
ROADWAY DESIGN DIVISION
MISSISSIPPI DEPARTMENT OF TRANSPORTATION

9/11/2013 01:49:49 AM SQS.DGN

ADDENDUM

STATE	PROJECT NO.
MISS.	BR-0019-02(041)

SUMMARY OF QUANTITIES (SHEET 2)

PAY ITEM NO.	PAY ITEM	UNIT	PRELIMINARY	FINAL	
907-304-A011	GRANULAR MATERIAL, LVM, CLASS 9, GROUP A	CY	113,726		1
907-304-B009	GRANULAR MATERIAL, CLASS 3, GROUP D	TON	15,597		1
907-304-F002	SIZE 610 CRUSHED STONE BASE	TON	15,631		
OR					
907-304-F003	3/4" AND DOWN CRUSHED STONE BASE	TON	15,631		
OR					
907-304-F004	SIZE 825B CRUSHED STONE BASE	TON	15,631		
907-307-C003	6" SOIL-LIME-WATER MIXING, CLASS C	SY	12,724		
907-307-D001	LIME	TON	172		
907-307-S001	BITUMINOUS CURING SEAL	GAL	3181		
907-308-A001	PORTLAND CEMENT	TON	115		
907-308-B001	SOIL-CEMENT-WATER MIXING, OPTIONAL MIXERS, BASE	SY	12,724		
907-308-S001	BITUMINOUS CURING SEAL	GAL	3,181		
OR					
907-311-A003	PROCESSING LIME AND FLY ASH TREATED COURSE, 6" THICK	SY	12,724		
907-311-B001	LIME	TON	86		
907-311-C001	FLY ASH, CLASS C	TON	344		
907-311-S001	BITUMINOUS CURING SEAL	GAL	3181		
907-403-A006	HOT MIX ASPHALT, MT, 12.5-MM MIXTURE	TON	2949		
OR					
907-403-M002	WARM MIX ASPHALT, MT, 12.5-MM MIXTURE	TON	2949		
907-403-A007	HOT MIX ASPHALT, MT, 19-MM MIXTURE	TON	3912		
OR					
907-403-M007	WARM MIX ASPHALT, MT, 19-MM MIXTURE	TON	3912		
907-403-A010	HOT MIX ASPHALT, MT, 9.5-MM MIXTURE	TON	3090		
OR					
907-403-M006	WARM MIX ASPHALT, MT, 9.5-MM MIXTURE	TON	3090		
406-A001	COLD MILLING OF BITUMINOUS PAVEMENT, ALL DEPTHS	SY	934		2
907-407-A001	ASPHALT FOR TACK COAT	GAL	2821		
907-413-E001	SAWING AND SEALING TRANSVERSE JOINTS IN ASPHALT PAVEMENT	LF	281		
423-A001	RUMBLE STRIPS, GROUND IN	MI	4		
501-E001	EXPANSION JOINTS, WITHOUT DOWELS	LF	281		
502-A001	REINFORCED CEMENT CONCRETE BRIDGE END PAVEMENT	SY	613		
907-601-A001	CLASS "B" STRUCTURAL CONCRETE	CY	104		
907-601-B003	CLASS "B" STRUCTURAL CONCRETE, MINOR STRUCTURES	CY	7		
602-A001	REINFORCING STEEL	LBS	18,200		

(1) INCLUDES 20% INCREASE FROM CALCULATED QUANTITY.

(2) ESTIMATED QUANTITY, ACTUAL QUANTITY MAY VARY AS DIRECTED BY THE ENGINEER

BY	REVISION	DATE
DMM	ADDED PAY ITEM	9/12/13

MISSISSIPPI DEPARTMENT OF TRANSPORTATION

SUMMARY OF QUANTITIES

PROJ. NO.:BR-0019-02(041)

COUNTY: MARSHALL

FILENAME: SQS.DGN

DESIGN TEAM McCOLLUM CHECKED DATE

WORKING NUMBER SQ-2

SHEET NUMBER 12

PLAN
ROADWAY DESIGN DIVISION
MISSISSIPPI DEPARTMENT OF TRANSPORTATION

9/10/2013 11:25AM SQS.DGN

ADDENDUM

STATE	PROJECT NO.
MISS.	BR-0019-02(041)

SUMMARY OF QUANTITIES (SHEET 4)

PAY ITEM NO.	PAY ITEM	UNIT	PRELIMINARY	FINAL
620-A001	MOBILIZATION	LS	100%	
621-A001	FIELD LABORATORY	EA	1	
907-626-C004	6" THERMOPLASTIC EDGE STRIPE, CONTINUOUS WHITE	MI	4	
907-626-D003	6" THERMOPLASTIC TRAFFIC STRIPE, SKIP YELLOW	MI	2	
907-626-E004	6" THERMOPLASTIC TRAFFIC STRIPE, CONTINUOUS YELLOW	MI	2	
907-626-G004	THERMOPLASTIC DETAIL STRIPE, WHITE	LF	2360	
907-626-G005	THERMOPLASTIC DETAIL STRIPE, YELLOW	LF	315	
907-626-H004	THERMOPLASTIC LEGEND, WHITE	LF	165	
627-L001	TWO-WAY YELLOW REFLECTIVE HIGH PERFORMANCE RAISED MARKERS	EA	233	
907-626-J003	6" INVERTED PROFILE THERMOPLASTIC TRAFFIC STRIPE, CONTINUOUS WHITE	LF	3160	
OR				
628-J002	6" HIGH PERFORMANCE COLD PLASTIC TRAFFIC STRIPE, CONTINUOUS WHITE	LF	3160	
907-626-K003	6" INVERTED PROFILE THERMOPLASTIC TRAFFIC STRIPE, SKIP YELLOW	LF	1600	
OR				
628-L002	6" HIGH PERFORMANCE COLD PLASTIC TRAFFIC STRIPE, SKIP YELLOW	LF	1600	
907-626-L001	6" INVERTED PROFILE THERMOPLASTIC TRAFFIC STRIPE, CONTINUOUS YELLOW	LF	202	
OR				
628-M002	6" HIGH PERFORMANCE COLD PLASTIC TRAFFIC STRIPE, CONTINUOUS YELLOW	LF	202	
630-A001	STANDARD ROADSIDE SIGNS, SHEET ALUMINUM, 0.080" THICKNESS	SF	7	
630-A002	STANDARD ROADSIDE SIGNS, SHEET ALUMINUM, 0.125" THICKNESS	SF	103	
630-C004	STEEL U-SECTION POSTS, 3.0 TO 3.5 LB/FT	LF	125	
630-E004	STRUCTURAL STEEL ANGLES & BARS, 7/16" X 2 1/2" FLAT BAR	LBS	19	
630-F001	DELINEATORS, GUARD RAIL, WHITE	EA	66	
630-G002	TYPE 3 OBJECT MARKERS, OM-3R OR OM-3L, POST MOUNTED	EA	12	
630-K003	WELDED & SEAMLESS STEEL PIPE POSTS, 4"	LF	15	
907-631-A001	FLOWABLE FILL, EXCAVATABLE	CY	3	
907-699-A002	ROADWAY CONSTRUCTION STAKES	LS	100%	
815-A009	LOOSE RIPRAP, SIZE 300	TON	12,634	
815-E001	GEOTEXTILE UNDER RIPRAP	SY	15,350	
815-F002	SEDIMENT CONTROL STONE	TON	493	

(1) INCLUDES 200 TONS TO BE USED AS DIRECTED BY THE ENGINEER

1
1 1
1

BY	REVISION	DATE
DMM	REVISED PAY ITEMS	9/12/13

MISSISSIPPI DEPARTMENT OF TRANSPORTATION
SUMMARY OF QUANTITIES

PROJ. NO.:BR-0019-02(041)
COUNTY: MARSHALL
FILENAME: SQS.DGN
DESIGN TEAM McCOLLUM CHECKED DATE

WORKING NUMBER SQ-4
SHEET NUMBER 14

PLAN
ROADWAY DESIGN DIVISION
MISSISSIPPI DEPARTMENT OF TRANSPORTATION

9/11/2013 01:49:49 AM SQS.DGN

ADDENDUM

STATE	PROJECT NO.
MISS.	BR–0019–02(041)

PHASE I

ESTIMATED EARTHWORK QUANTITIES

WK. SH. NUMBER	CUT	FILL	GRANULAR (9,A)	BORROW (B9)	UNCLASSIFIED EXCAVATION	EXCAVATION		REMARKS
						EXCESS	SURPLUS	
3	14,186	11,163	11,331					
3A	775	0						
4	7987	13,220	6928					
4A	10,723	0						
5	1793	35,006	37,195					
6	2837	5477	2217					
TOTAL	38,301	64,866	57,671					
CUT = UNCLASSIFIED					38,301			
9,A X 1.5 X 1.25 =			108,133					1.5 (LVM) 1.25 (SHRINKAGE)
FILL – (CUT/1.25) = BORROW								
64,866 – (38,301/1.25) =				34,225				
UNIT			CU. YD.	CU. YD.	CU. YD.			
TOTAL			108,133	34,225	38,301			

PHASE II

ESTIMATED EARTHWORK QUANTITIES

WK. SH. NUMBER	CUT	FILL	GRANULAR (9,A)	BORROW (B9)	UNCLASSIFIED EXCAVATION	EXCAVATION		REMARKS
						EXCESS	SURPLUS	
3	8452	3271	513					
4	8097	1473	0					
5	15,286	4269	2449					
6	2212	461	21					
TOTAL	34,047	9474	2983					
CUT – (FILL x 1.25) = EXCESS								
34,047 – (9474 x 1.25) =						22,204		
9,A X 1.5 X 1.25 =			5593					1.5 (LVM) 1.25 (SHRINKAGE)
FILL x 1.25 = UNCLASSIFIED								
9474 x 1.25 =					11,843			
UNIT			CU. YD.		CU. YD.	CU. YD.		
TOTAL			5593		11,843	22,204		

JOB TOTALS

ESTIMATED EARTHWORK QUANTITIES

WK. SH. NUMBER	CUT	FILL	GRANULAR (9,A)	BORROW (B9)	UNCLASSIFIED EXCAVATION	EXCAVATION		REMARKS
						EXCESS	SURPLUS	
PHASE I			108,133	34,225	38,301			
PHASE II			5593		11,843	22,204		
UNIT			CU. YD.	CU. YD.	CU. YD.	CU. YD.		
TOTAL			113,726	34,225	50,144	22,204		

BY	REVISION	DATE
DMM	TOTALS	9/2/13

MISSISSIPPI DEPARTMENT OF TRANSPORTATION

ESTIMATED QUANTITIES

EARTHWORK

PROJ.NO: BR-0019-02(041)
MARSHALL COUNTY

WORKING NUMBER EQ-5

FILENAME: 102435-301-43\eq.dgn
DESIGN TEAM McCOLLUM CHECKED DATE 08-24-12

SHEET NUMBER 19

PLAN
ROADWAY DESIGN DIVISION
MISSISSIPPI DEPARTMENT OF TRANSPORTATION

10/11/2013 8:33 AM EQ.DGN

ADDENDUM
NOTE: REMOVAL OF EXISTING EMBANKMENT IN WETLANDS TO NATURAL GROUND BETWEEN STA. 225+00 – STA. 235+00 AND STA. 261+00 – STA. 297+00 SEE X-SECTIONS FOR MORE DETAIL
= PAVEMENT REMOVAL
= PAVEMENT & EMBANKMENT REMOVAL
REVISED NOTE AND EARTHWORK
B.M.ELEV. 428.33
N 1946356.0740
E 809508.9826
DESC. GPS747005
STATE MISS.
PROJECT NO. BR-0019-02(041)
REVISIONS DATE BY 9/12/13 DMM
COLDWATER FARMS LP DB.323; P.819
CALAME, PAUL JR. ETAL DB. 159, PG. 68A-68B
PC Sta. 262+92.221
PT Sta. 268+99.441
268+99.441 130' LT
271+30 130' LT
272+00 200' LT
285+00 180' LT
286+50 115' LT
288+88.642 115' LT
PC Sta. 288+88.642
R = 7754.437'
BR. ABUT. STA. 272+68.21
BR. ABUT. STA. 277+89.79
BR. ABUT. STA. 280+47.21
BR. ABUT. STA. 284+88.79
C.L. PROPOSED S.R. 7
N 49° 21' 06.436" E
REMOVE
BR. ABUT. 273+62.00 EXISTING
BR. ABUT. 276+24.85 EXISTING
BR. ABUT. 282+50.05 EXISTING
BR. ABUT. 283+50.96 EXISTING
S 89°30'41" E 1,320.57'
NOTE: PROPOSED ROW MARKERS ARE MEASURED FROM C.L. PROPOSED/REALIGNMENT S.R.7
SUPER EL. 0.026 FT/FT WIDTH
EXTRA WIDTH ON INSIDE FT
SEE DWG. SDSE-2A CASE I
Curve C112
Δ = 4° 33' 14.950" (RT)
D = 0° 45' 00.000"
L = 607.220'
T = 303.770'
R = 7,639.437'
BK N 44° 47' 51.486" E
AH N 49° 21' 06.436" E
PC 262+92.221
PT 268+99.441
Curve C113
Δ = 4° 33' 14.950" (RT)
D = 0° 45' 00.000"
L = 607.220'
T = 303.770'
R = 7,639.437'
BK N 49° 21' 06.436" E
AH N 53° 54' 21.386" E
PC 288+88.642
PT 294+95.862
IMPAIRED WATER BODY
Coldwater River IS IMPAIRED DUE TO Pathogens
BRIDGE NO. 154.8
BRIDGE NO. 155.0
STA. 266+25
120' – 24" RCP REQ'D. (104' PHASE I, 16' PHASE II)
2 – 24" FE-1 REQ'D.
U.S. F.L. = 419.52
D.S. F.L. = 418.59
D.A. = 0.25 AC
STA. 269+75
16' RAMP REQ'D. RT.
52' – 18" ALT. PIPE REQ'D.
72' – 18" ALT. PIPE REQ'D.
STA. 272+68.21
REMOVE EXISTING BRIDGE
BRIDGE REQ'D.
(SPANS: 5@40',1@80',6@40')
2 – TERMINAL SECTIONS REQ'D.
2 – TYPE "I" BR. END SECTIONS REQ'D.
A = 193.1458
B = 150.00
C = 105.6458
D = 62.50
11 – WHITE DELINEATORS REQ'D.
D.A. = 22.1 SQ. MI.
STA. 277+89.79
2 – TERMINAL SECTIONS REQ'D.
2 – TYPE "I" BR. END SECTIONS REQ'D.
A = 193.1458
B = 150.00
C = 105.6458
D = 62.50
11 – WHITE DELINEATORS REQ'D.
STA. 280+47.21
REMOVE EXISTING BRIDGE
BRIDGE REQ'D.
(SPANS: 5@40',1@80',4@40')
2 – TERMINAL SECTIONS REQ'D.
2 – TYPE "I" BR. END SECTIONS REQ'D.
A = 193.1458
B = 150.00
C = 105.6458
D = 62.50
11 – WHITE DELINEATORS REQ'D.
D.A. = RELIEF
STA. 284+88.79
2 – TERMINAL SECTIONS REQ'D.
2 – TYPE "I" BR. END SECTIONS REQ'D.
A = 193.1458
B = 150.00
C = 105.6458
D = 62.50
11 – WHITE DELINEATORS REQ'D.
STA. 287+91
116' – 24" RCP REQ'D.
(108' PHASE I, 8' PHASE II)
2 – 24" FE-1 REQ'D.
U.S. F.L. = 426.80
U.S. F.L. = 425.40
STA. 289+75
16' RAMP REQ'D. LT.
60' – 36" ALT. PIPE REQ'D.
VPI 263+00.000 EL. 427.70 400.000' V.C.
VPT 265+00.000 EL. 429.940
VPC 267+00.000 EL. 432.180
VPI 277+00.000 EL. 443.38 2,000.000' V.C.
VPT 287+00.000 EL. 436.980
VPC 293+50.000 EL. 432.820
+1.12000%
-0.64000%
RIPRAP REQ'D. 3:1 SLOPE
HIGH WATER ELEV. 428.4
U.S.F.L. 419.52
D.S.F.L. 418.59
U.S.F.L. 426.80
D.S.F.L. 425.40
1261 CUT PHASE I
14,814 FILL PHASE I
17,208 FILL 9,A PHASE I
5137 CUT PHASE II
1915 FILL PHASE II
1356 FILL 9,A PHASE II
295 CUT PHASE I
8421 FILL PHASE I
5545 FILL 9,A PHASE I
4744 CUT PHASE II
1171 FILL PHASE II
146 FILL 9,A PHASE II
237 CUT PHASE I
11,771 FILL PHASE I
14,422 FILL 9,A PHASE I
5405 CUT PHASE II
1183 FILL PHASE II
947 FILL 9,A PHASE II
460 450 440 430 420 410 400 390
263 264 265 266 267 268 269 270 271 272 273 274 275 276 277 278 279 280 281 282 283 284 285 286 287 288 289 290 291 292 293
Wk. Sh. 5
Sh. No. 28

EARTHWORK TOTAL THIS SHEET		
Phase I		
Cut	1793	Cu.Yds
Fill	35,006	Cu.Yds
Fill 9,A	37,195	Cu.Yds

EARTHWORK TOTAL THIS SHEET		
Phase II		
Cut	15,286	Cu.Yds
Fill	4269	Cu.Yds
Fill 9,A	2449	Cu.Yds

WETLAND SITE		
TEMPORARILY FILLED	2.38	AC.
PERMANENTLY FILLED	6.35	AC.
BRIDGED	1.17	AC.

Station	263		264		265		266		267		268		269		270		271		272		273		274		275		276		277		278		279		280		281		282		283		284		285		286		287		288		289		290		291		292		293	
Grade	427.83	428.14	428.51	428.93	429.41	429.94	430.50	431.06	431.62	432.18	432.73	433.26	433.76	434.24	434.71	435.14	435.56	435.96	436.33	436.68	437.01	437.32	437.60	437.86	438.11	438.32	438.52	438.70	438.85	438.98	439.09	439.18	439.24	439.28	439.31	439.30	439.28	439.24	439.17	439.08	438.97	438.84	438.68	438.50	438.31	438.08	437.84	437.58	437.29	436.98	436.66	436.34	436.02	435.70	435.38	435.06	434.74	434.42	434.10	433.78	433.46	433.14	432.82	432.56
Ground	419.80	419.68	419.62	419.56	419.51	419.51	420.16	420.85	420.72	420.55	420.53	420.61	421.02	421.36	421.92	422.29	422.39	421.22	423.42	423.80	424.16	423.16	424.07	424.57	425.07	424.31	425.39	424.06	424.52	424.30	424.02	423.05	422.39	422.35	422.52	422.77	423.15	423.66	423.92	423.20	421.97	417.61	424.56	423.83	423.55	423.33	423.07	422.93	422.99	423.09	423.54	424.15	425.10	426.20	425.91	425.48	425.20	425.13	425.06	424.82	424.83	424.87	425.08	425.25

DESIGN TEAM: McCOLLUM FILENAME: WK5.DGN COUNTY: MARSHALL PROJECT NO. BR-0019-02(041) SHEET ID: HWY 7

MISSISSIPPI DEPARTMENT OF TRANSPORTATION ROADWAY DESIGN DIVISION PLAN-PROFILE

ADDENDUM

STATE	PROJECT NO.
MISS.	BR-0019-02(041)

Δ = 81° 21′ 28.79″
R = 125.001′
L = 177.497′
T = 107.438′

Δ = 81° 21′ 29.00″
R = 125.000′
L = 177.496′
T = 107.437′

PAVED FLUME REQ'D.
20.00′ × + 64.49

PAVED FLUME REQ'D.
+ 64.49 × 20.00′

R = 125.00′

R = 125.00′

TYPE 2 CURB & GUTTER MOD. REQ'D.

TYPE 2 CURB & GUTTER MOD. REQ'D.

20′ 20′ 20′ 20′

2′ 2′ 2′ 2′

5′ 5′

20′ 20′ 20′ 20′

S 45° 07′ 10.058″ E

+ 64.64 × 22.00′

+ 35.35 × 22.00′

PAVED FLUME REQ'D.

TYPE 2 CURB & GUTTER MOD. REQ'D.

TYPE 2 CURB & GUTTER MOD. REQ'D.

22′ 22′ 22′ 22′ 22′

90°

245

N 49° 21′ 41.347″ E

1
244 + 00.00 S.R.7 =
10 + 00.00 L.R.

SCALE: 1″ = 15′

MISSISSIPPI DEPARTMENT OF TRANSPORTATION
INTERSECTION DETAIL

STA. 244+00

PROJ.NO.: BR-0019-02(041)
MARSHALL COUNTY

WORKING NUMBER ID-2

SHEET NUMBER 53

REVISED LABEL	REVISION	BY
9/12/13	DATE	DMM

FILENAME: INTERSECTION DETAIL.DGN
DESIGN TEAM McCOLUM CHECKED DATE 08-24-12

PLAN
ROADWAY DESIGN DIVISION
MISSISSIPPI DEPARTMENT OF TRANSPORTATION

9/10/2013 11:16AM INTERSECTION DETAIL.DGN

ADDENDUM

STATE	PROJECT NO.
MISS.	BR-0019-02(041)

VEGETATION SCHEDULE

	EROSION CONTROL ITEMS		SEASONAL APPLICATIONS-DATES & RATES				REQUIREMENTS
			SPRING & SUMMER		FALL & WINTER		
	PAY ITEM NO.	ITEMS	RATES	DATES	RATES	DATES	
	907-225-B001	AGRICULTURAL LIMESTONE	3 TONS/ACRE	MARCH 1 TO SEPTEMBER 1	3 TONS/ACRE	SEPTEMBER 1 TO MARCH 1	LIMESTONE 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).
	215-A001	VEGETATIVE MATERIAL FOR 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).
	907-216-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.
	907-225-A001	GRASSING					
		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.
		COMBINATION FERTILIZER (13-13-13)	1000 LBS./ACRE	MARCH 1 TO SEPTEMBER 1	1000 LBS./ACRE	SEPTEMBER 1 TO MARCH 1	FERTILIZER SHALL BE MECHANICALLY SPREAD UNIFORMLY AND INCORPORATED INTO THE SOIL PRIOR TO PLANTING.
②		SEEDING (BERMUDAGRASS)	20 LBS./ACRE	MARCH 1 TO SEPTEMBER 1	20 LBS./ACRE	SEPTEMBER 1 TO MARCH 1	SEED REQUIRED ON DISTURBED AREAS. UNHULLED SEED MAY BE REQUIRED DURING THE DORMANT SEASON AS DIRECTED.
②		SEEDING (TALL FESCUE)	25 LBS./ACRE	MARCH 1 TO SEPTEMBER 1	25 LBS./ACRE	SEPTEMBER 1 TO MARCH 1	SEED REQUIRED ON DISTURBED AREAS.
③		SEEDING (CRIMSON CLOVER)			20 LBS./ACRE	AUGUST 1 TO APRIL 1	SEED REQUIRED ON DISTURBED AREAS.
		TEMPORARY EROSION CONTROL ITEMS					
	907-226-A001	TEMPORARY GRASSING					SAME AREA AS PERMANENT GRASSING
		LIGHT GROUND PREPARATION	PER SQ.YD.		PER SQ.YD.		SAME AREA AS STANDARD GROUND PREPARATION
		COMBINATION FERTILIZER (13-13-13)	0.25 TONS/ACRE		0.25 TONS/ACRE		QUANTITY BASED ON LIGHT GROUND PREPARATION
		SEEDING (BROWN TOP MILLET)	20 LBS./ACRE	APRIL 1 TO AUGUST 31	———	———	QUANTITY BASED ON LIGHT GROUND PREPARATION
		SEEDING (RYE GRASS)	———	———	25 LBS./ACRE	SEPTEMBER 1 TO MARCH 31	QUANTITY BASED ON LIGHT GROUND PREPARATION
		SEEDING (OATS)	———	———	90 LBS./ACRE	SEPTEMBER 1 TO DECEMBER 15	QUANTITY BASED ON LIGHT GROUND PREPARATION
		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.

PLAN
ROADWAY DESIGN DIVISION
MISSISSIPPI DEPARTMENT OF TRANSPORTATION

9/10/2013 1:39 PM VS_SH.DGN

BY	DATE	REVISED SHEET	REVISION
DMM	9/12/13		

MISSISSIPPI DEPARTMENT OF TRANSPORTATION

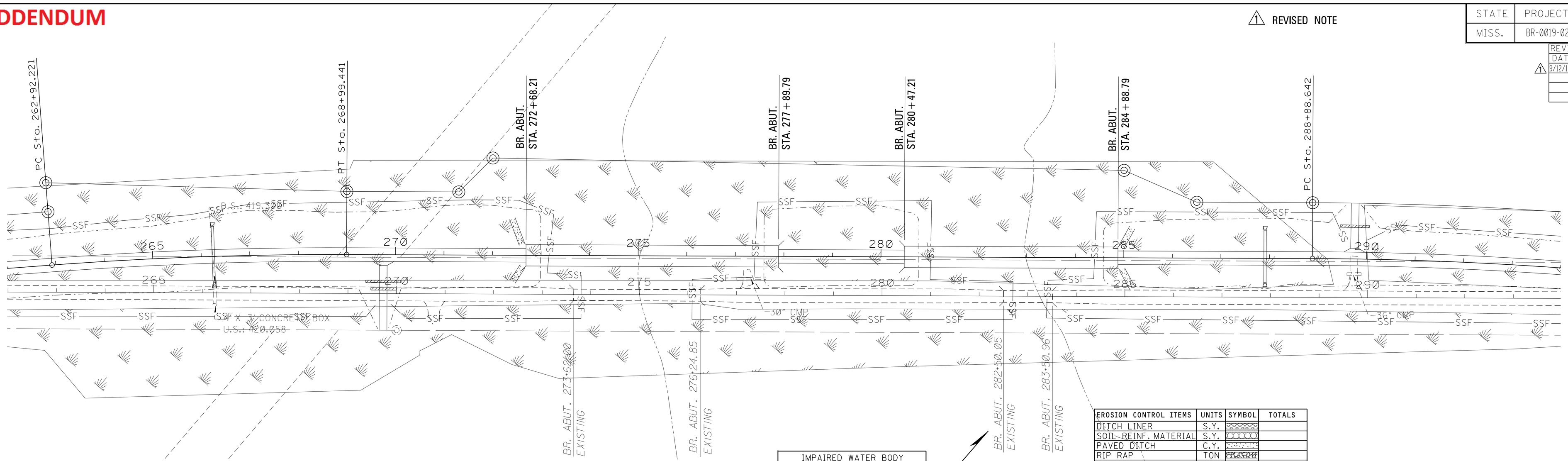
VEGETATION SCHEDULE

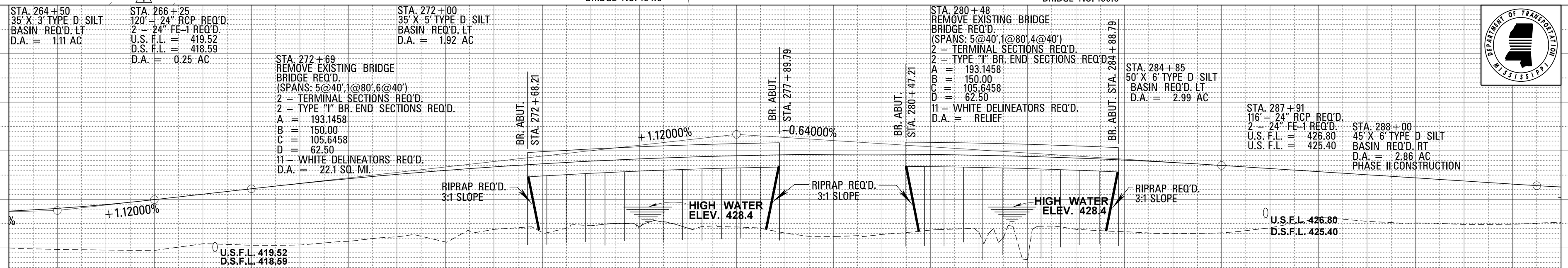
PROJECT NO.: BR-0019-02(041)
COUNTY : MARSHALL

FILENAME: VS_SH.DGN
DESIGN TEAM McCOLLUM CHECKED _____ DATE _____

WORKING NUMBER
VS-1

SHEET NUMBER
55





ADDENDUM

STATE	PROJECT NO.
MISS.	BR-0019-02(041)

REVISIONS	
DATE	BY
9/12/13	DMM

⚠ REVISED NOTE

WETLAND SITE		
TEMPORARILY FILLED	2.38	AC.
PERMANENTLY FILLED	6.35	AC.
BRIDGED	1.17	AC.

IMPAIRED WATER BODY
Coldwater River IS IMPAIRED
DUE TO Pathogens

EROSION CONTROL ITEMS	UNITS	SYMBOL	TOTALS
DITCH LINER	S.Y.	▨	
SOIL REINF. MATERIAL	S.Y.	○○○○	
PAVED DITCH	C.Y.	⁘	
RIP RAP	TON	▨	
SILT FENCE	L.F.	—SF—	
GEOTEXTILE	S.Y.		
SOLID SOD	S.Y.		
EROSION CHECKS	BALE		
SUPER SILT FENCE	L.F.	—SSF—	

BRIDGE NO. 154.8

BRIDGE NO. 155.0

427.83	419.80
428.14	419.68
428.51	419.62
428.93	419.56
429.41	419.51
429.94	419.51
430.50	420.16
431.06	420.85
431.62	420.72
432.18	420.55
432.73	420.53
433.26	420.61
433.76	421.02
434.24	421.36
434.71	421.92
435.14	422.29
435.56	422.39
435.96	421.22
436.33	423.42
436.68	423.80
437.01	424.16
437.32	423.16
437.60	424.07
437.86	424.57
438.11	425.07
438.32	424.31
438.52	425.39
438.70	424.06
438.85	424.52
438.98	424.30
439.09	424.02
439.18	423.05
439.24	422.39
439.28	422.35
439.31	422.52
439.30	422.77
439.28	423.15
439.24	423.66
439.17	423.92
439.08	423.20
438.97	421.97
438.84	417.61
438.68	424.56
438.50	423.83
438.31	423.55
438.08	423.33
437.84	423.07
437.58	422.93
437.29	422.99
436.98	423.09
436.66	423.54
436.34	424.15
436.02	425.10
435.70	426.20
435.38	425.91
435.06	425.48
434.74	425.20
434.42	425.13
434.10	425.06
433.78	424.82
433.46	424.83
433.14	424.87
432.82	425.08
432.56	425.25

262 263 264 265 266 267 268 269 270 271 272 273 274 275 276 277 278 279 280 281 282 283 284 285 286 287 288 289 290 291 292 293 29

Wk. Sh. ECP5

Sh. No. 87

DESIGN TEAM: McCOLLUM
FILENAME: ECP5.DGN
COUNTY: **MARSHALL**
PROJECT NO. **BR-0019-02(041)**
SHEET ID: **HWY 7**

PLAN-PROFILE
ROADWAY DESIGN DIVISION
MISSISSIPPI DEPARTMENT OF TRANSPORTATION

9/10/2013 11:16AM ECP5.DGN

ADDENDUM

STATE	PROJECT NO.
MISS.	BR-019-02(041)

DESCRIPTION OF SHEET	WKG. NO.	SH. NO.
DRAWING INDEX SHEETS BRIDGE (1)		
DETAILED INDEX OF BRIDGE SHEETS	BDI-BR	8001
QUANTITY SHEETS BRIDGE (2)		
SUMMARY OF QUANTITIES (BRIDGE)	SQ-BR	8002
ESTIMATED QUANTITES (BRIDGE)	EQ-BR	8003
BRIDGE "A" - BRIDGE AT STA. 229+81.21 - SR7 OVER COLDWATER RIVER TRIB. (24)		
SR 7 OVER COLDWATER RIVER TRIBUTARY	A1 OF 24	8004
SR 7 OVER COLDWATER RIVER TRIBUTARY	A2 OF 24	8005
SR 7 OVER COLDWATER RIVER TRIBUTARY	A3 OF 24	8006
GENERALIZED SOIL PROFILE	A4 OF 24	8007
END BENT NO. 1 DETAILS	A5 OF 24	8008
END BENT NO. 13 DETAILS	A6 OF 24	8009
END BENT DETAILS	A7 OF 24	8010
INTERMEDIATE BENTS NO. 2-4, 7-8 & 10-12 DETAILS	A8 OF 24	8011
INTERMEDIATE BENT NO. 9 DETAILS	A9 OF 24	8012
INTERMEDIATE BENTS NO. 5 & 6 DETAILS	A10 OF 24	8013
40 FT. SPAN 1-4 & 6-12 DETAILS	A11 OF 24	8014
40 FT. SPAN DETAILS (SPAN 1 &2)	A12 OF 24	8015
40 FT. SPAN DETAILS (SPAN 3 & 4)	A13 OF 24	8016
40 FT. SPAN DETAILS (SPAN 6 & 7)	A14 OF 24	8017
40 FT. SPAN DETAILS (SPAN 8)	A15 OF 24	8018
40 FT. SPAN DETAILS (SPAN 9 & 10)	A16 OF 24	8019
40 FT. SPAN DETAILS (SPAN 11 & 12)	A17 OF 24	8020
60 FT. SPAN 5 DETAILS	A18 OF 24	8021
60 FT. SPAN DETAILS (SPAN 5)	A19 OF 24	8022
2'-8" RAILING DETAILS	A20 OF 24	8023
MISC. SPAN DETAILS	A21 OF 24	8024
40 FT. BEAM DETAILS (TYPE I+2, SPAN 1, 4, 6, 8-9, & 12)	A22 OF 24	8025
40 FT. BEAM DETAILS (TYPE I+2, SPANS 2-3, 7 & 10-11)	A23 OF 24	8026
60 FT. BEAM DETAILS (TYPE II+2, SPAN 5)	A24 OF 24	8027
BRIDGE "B" - BRIDGE AT 272+68.21 - SR7 OVER COLDWATER RIVER (21)		
SR 7 ACROSS COLDWATER RIVER	B1 OF 21	8028
SR 7 ACROSS COLDWATER RIVER	B2 OF 21	8029
SR 7 ACROSS COLDWATER RIVER	B3 OF 21	8030
GENERALIZED SOIL PROFILE	B4 OF 21	8031
END BENT NO. 1 & 13 DETAILS	B5 OF 21	8032
END BENT DETAILS	B6 OF 21	8033
INTERMEDIATE BENTS NO. 2-5, 8-9 & 11-12 DETAILS	B7 OF 21	8034
INTERMEDIATE BENTS NO. 6 & 7 DETAILS	B8 OF 21	8035
INTERMEDIATE BENT NO. 10 DETAILS	B9 OF 21	8036
40 FT. SPAN DETAILS (SPANS 1-5 & 7-12)	B10 OF 21	8037
40 FT. SPAN DETAILS (SPANS 1-3)	B11 OF 21	8038
40 FT. SPAN DETAILS (SPANS 4-5)	B12 OF 21	8039
40 FT. SPAN DETAILS (SPANS 7-9)	B13 OF 21	8040
40 FT. SPAN DETAILS (SPANS 10-12)	B14 OF 21	8041
80 FT. SPAN DETAILS (SPAN 6)	B15 OF 21	8042
80 FT. SPAN DETAILS (SPAN 6)	B16 OF 21	8043
2'-8" RAILING DETAILS	B17 OF 21	8044
MISC. SPAN DETAILS	B18 OF 21	8045
40 FT. BEAM DETAILS (TYPE I+2, SPANS 1, 5, 7, 9-10 & 12)	B19 OF 21	8046
40 FT. BEAM DETAILS (TYPE I+2, SPANS 2-4, 8 & 11)	B20 OF 21	8047
80 FT. BEAM DETAILS (TYPE III, SPAN 6)	B21 OF 21	8048

DESCRIPTION OF SHEET	WKG. NO.	SH. NO.
BRIDGE "C" - BRIDGE AT STA. 280+47.21 - SR7 OVER COLDWATER RIVER RELIEF (20)		
SR 7 OVER COLDWATER RIVER RELIEF	C1 OF 20	8049
SR 7 OVER COLDWATER RIVER RELIEF	C2 OF 20	8050
SR 7 OVER COLDWATER RIVER RELIEF	C3 OF 20	8051
GENERALIZED SOIL PROFILE	C4 OF 20	8052
END BENTS NO. 1 & 11	C5 OF 20	8053
END BENT DETAILS	C6 OF 20	8054
INT. BENTS NO. 2-5 & 8-10 DETAILS	C7 OF 20	8055
INTERMEDIATE BENTS NO. 6 & 7 DETAILS	C8 OF 20	8056
40 FT. SPAN DETAILS	C9 OF 20	8057
40 FT. SPAN DETAILS (SPANS 1-3)	C10 OF 20	8058
40 FT. SPAN DETAILS (SPANS 4 & 5)	C11 OF 20	8059
40 FT. SPAN DETAILS (SPANS 7 & 8)	C12 OF 20	8060
40 FT. SPAN DETAILS (SPANS 9 & 10)	C13 OF 20	8061
80 FT. SPAN DETAILS	C14 OF 20	8062
80 FT. SPAN DETAILS (SPAN 6)	C15 OF 20	8063
2'-8" RAILING DETAILS	C16 OF 20	8064
MISC. SPAN DETAILS	C17 OF 20	8065
40 FT. BEAM DETAILS (SPANS 1, 5, 7 & 10) (TYPE I+2)	C18 OF 20	8066
40 FT. BEAM DETAILS (SPANS 2-4, 8 & 9) (TYPE I+2)	C19 OF 20	8067
80 FT. BEAM DETAILS (SPAN 6) (TYPE III)	C20 OF 20	8068
EROSION CONTROL PLANS (6)		
BRIDGE A - EROSION CONTROL ELEVATION VIEW	ECP-BR1	8069
BRIDGE A - EROSION CONTROL PLAN VIEW	ECP-BR2	8070
BRIDGE B - EROSION CONTROL ELEVATION VIEW	ECP-BR3	8071
BRIDGE B - EROSION CONTROL PLAN VIEW	ECP-BR4	8072
BRIDGE C - EROSION CONTROL ELEVATION VIEW	ECP-BR5	8073
BRIDGE C - EROSION CONTROL PLAN VIEW	ECP-BR6	8074

BRIDGE DIVISION REVISIONS		
DATE	SHEET NO.	BY
9-12-13	8001-8003,8004,8006,8008, 8009,8011-8013,8017,8019,8027, 8029,8030,8032,8034-8037,8042, 8048-8051,8053,8055,8056,8062,8068	BEG

CARTER D. BEARDEN — LICENSED PROFESSIONAL ENGINEER — 18834 — STATE OF MISSISSIPPI
DATE: 8/29/13

DATE	Working Number revised REVISIONS	BY
9-12-13		BEG

MISSISSIPPI DEPARTMENT OF TRANSPORTATION

DETAILED INDEX (BRIDGE)

PROJECT BR-0019-02(041) 105189/301000

MARSHALL COUNTY

DESIGNER BEG CHECKER CDB
DETAILER CDB ISSUE DATE 10/12
DIRECTOR OF STRUCTURES, STATE BRIDGE ENGINEER - NICK J. ALTOBELLI PE.
DEP. DIRECTOR OF STRUCTURES, ASSIST. STATE BRIDGE ENGINEER - JUSTIN WALKER PE.

WORKING NUMBER BDI-BR 1

SHEET NUMBER 8001

DESIGN TEAM: Florence & Hutcheson

COUNTY: MARSHALL

PROJECT NO. BR-0019-02(041) 1

ADDENDUM

STATE	PROJECT NO.
MISS.	BR-019-02(041)

SUMMARY OF QUANTITIES

	PAY ITEM NO.	PAY ITEM	UNIT	PRELIMINARY	FINAL
		**** BRIDGE ITEMS ****			
	501-K001	Transverse Grooving	Square Yard	6,488	
	803-D007	HP14x89 Steel Piling	Linear Foot	9,750	
	803-D006	HP14x117 Steel Piling	Linear Foot	4,640	
	803-B002	Conventional Static Load Test	Each	3	
	803-I001	PDA Test Pile	Each	18	
	803-J001	Pile Restrike	Each	3	
⚠	907-804-A001	Bridge Concrete, Class "AA"	Cubic Yard	2,761	
	907-804-C016	40' Prestressed Concrete Beam, Type I+2	Linear Foot	7,313	
	907-804-C019	60' Prestressed Concrete Beam, Type II+2	Linear Foot	359	
	907-804-C030	80' Prestressed Concrete Beam, Type III	Linear Foot	957	
⚠	805-A001	Reinforcement	Pounds	588,764	
	813-A002	Concrete Railing, 32"	Linear Foot	2,920	
⚠	815-A009	Loose Riprap, Size 300	Ton	1,578	
⚠	815-E001	Geotextile Under Riprap	Square Yard	2,116	

CARTER D. BEARDEN LICENSED PROFESSIONAL ENGINEER 18834 STATE OF MISSISSIPPI

DATE: 8/29/13

BY	DATE	REVISIONS
BEG	9-12-13	Working Number & Quantities revised

MISSISSIPPI DEPARTMENT OF TRANSPORTATION

SUMMARY OF QUANTITIES (BRIDGE)

PROJECT BR-0019-02(041) 105189/301000

MARSHALL COUNTY

WORKING NUMBER 50-BR ⚠

SHEET NUMBER 8002

DESIGNER BEG CHECKER CDB

DETAILER BEG ISSUE DATE

DIRECTOR OF STRUCTURES, STATE BRIDGE ENGINEER - NICK J. ALTOBELLI PE.

DEP. DIRECTOR OF STRUCTURES, ASSIST. STATE BRIDGE ENGINEER - JUSTIN WALKER PE.

DESIGN TEAM: Florence & Hutcheson

COUNTY: MARSHALL

PROJECT NO. BR-0019-02(041) ⚠

ADDENDUM

STATE	PROJECT NO.
MISS.	BR-019-02(041)

ESTIMATED BRIDGE QUANTITIES

BRIDGE	BEGINNING STATION	SPANS-SIZE	OVERALL LENGTH	ITEM	Transverse Grooving	Conventional Static Load Test	PDA Test Pile	Pile Restrike	HP14x89 Steel Piling	HP14x117 Steel Piling	Bridge Concrete Class "AA"	40 Ft. Prest. Conc. Beam Type I+2	60 Ft. Prest. Conc. Beam Type II+2	80 Ft. Prest. Conc. Beam Type III	Reinforcement	Concrete Railing, 32"	Loose Riprap (Size 300)	Geotextile Under Riprap
					SQ. YD.	EACH	EACH	EACH	L.F.	L.F.	CU. YD.	L.F.	L.F.	L.F.	Lbs.	L.F.	Ton	SQ. YD.
"A"	229+81.21	4@40'*-60'-3@40'*-4@40'*	501'-7"	Spans	2,222.0						643.6	2,595.5	358.5		166,072			
		* CONTINUOUS FOR LIVE LOAD		End Bents			2		970		47.1				7,034	1,000.0	534.0	668.0
				Int. Bents		1	4	1	2,030	1,910	248.7				27,722			
				Total	2,222.0	1	6	1	3,000	1,910	939.4	2,595.5	358.5		200,828	1,000.0	534.0	668.0
"B"	272+68.21	5@40'*-80'-3@40'*-3@40'*	521'-7"	Spans	2,310.7						663.2	2,595.5		478.5	172,165			
		* CONTINUOUS FOR LIVE LOAD		End Bents			2		970		47.8				7,319	1,040.0	384.0	505.0
				Int. Bents		1	4	1	2,910	1,150	269.6				29,999			
				Total	2,310.7	1	6	1	3,880	1,150	980.6	2,595.5		478.5	209,483	1,040.0	384.0	505.0
"C"	280+47.21	5@40'*-80'-4@40'*	441'-7"	Spans	1,955.6						569.9	2,122.0		478.5	145,706			
		* CONTINUOUS FOR LIVE LOAD		End Bents			2		1,020		47.8				7,667	880.0	660.1	943.4
				Int. Bents		1	4	1	1,850	1,580	223.7				25,080			
				Total	1,955.6	1	6	1	2,870	1,580	841.4	2,122.0		478.5	178,453	880.0	660.1	943.4
				Total	6,488.3	3	18	3	9,750	4,640	2,761.4 ⚠	7,313.0	358.5	957.0	588,764 ⚠	2,920.0	1,578.1 ⚠	2,116.4 ⚠

DATE	REVISIONS	BY
9-12-13	Working Number & Quantities revised	BEG

MISSISSIPPI DEPARTMENT OF TRANSPORTATION

ESTIMATED QUANTITIES (BRIDGE)

PROJECT BR-0019-02(041) 105189/301000

MARSHALL COUNTY

DESIGNER BEG CHECKER CDB
DETAILER BEG ISSUE DATE
DIRECTOR OF STRUCTURES, STATE BRIDGE ENGINEER - NICK J. ALTOBELLI PE.
DEP. DIRECTOR OF STRUCTURES, ASSIST. STATE BRIDGE ENGINEER - JUSTIN WALKER PE.

WORKING NUMBER E0-BR ⚠
SHEET NUMBER 8003

CARTER D. BEARDEN LICENSED PROFESSIONAL ENGINEER 18834 STATE OF MISSISSIPPI
DATE: 8/29/13

ADDENDUM

STATE	PROJECT NO.
MISS.	BR-019-02(041)

GENERAL NOTES:

Specifications: Mississippi Standard Specifications For Road and Bridge Construction, 2004.

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".

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.

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.

⚠1 An extra dead load of 18 p.s.f. is incorporated into the design of this structure to accommodate the use of steel stay-in-place forms.

P/S CONCRETE GIRDER BRIDGE:

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.

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 minimum ground penetration shown in the PDA TEST PILE SCHEDULE, unless otherwise directed by the Director of Structures, State Bridge Engineer.

Permanent piles shall be driven to an elevation no higher than the elevation shown in the REQUIRED ULTIMATE PILE BEARING CAPACITY AND TIP ELEVATION SCHEDULE.

The tip elevation of piling, for hydraulic structures, may be determined by the scour line.

When feasible, bearing piles shall be driven full length and be spliced, only, as approved by the Director of Structures, State Bridge Engineer.

Welding shall be done by the ELECTRIC ARC process. Welders shall be certified and electrodes shall be approved.

When loading tests are required, the maximum test load shall be one and one half (1 1/2) times the minimum pile bearing capacity.

PDA test piles shall require a 1 day and 7 day restrike unless otherwise directed by the Engineer.

Pile lengths and driving criteria shall be provided based on the results of the PDA test piles.

The required ultimate pile bearing shown in the REQUIRED ULTIMATE PILE BEARING AND TIP ELEVATION SCHEDULE includes the LRFD resistance factor for PDA of 0.65.

ESTIMATED QUANTITIES

Item / Location	Transverse Grooving S.Y.	Conventional Static Load Test Each	PDA Test Piles Each	Pile Restrike Each	HP14x89 Steel Piling L.F.	HP14x117 Steel Piling L.F.	Class AA Bridge Concrete C.Y.	40 Ft. Prest. Conc. Beam Type I•2 L.F.	60 Ft. Prest. Conc. Beam Type II•2 L.F.	Reinforcement Lb.	Concrete Railing L.F.	Loose Riprap (300#) Ton	Geotextile Under Riprap S.Y.
Spans	2222.00						643.61	2595.50	358.50	166072	1000		
End Bents			2		970		47.08			7034		534	668
Int. Bents		1	4	1	2030	1910	248.7			27722			
Total	2222.00	1	6	1	3000	1910	939.40	2595.50	358.50	200828	1000	534	668

NOTE: All end bent riprap & geotextile fabric included in bridge quantities

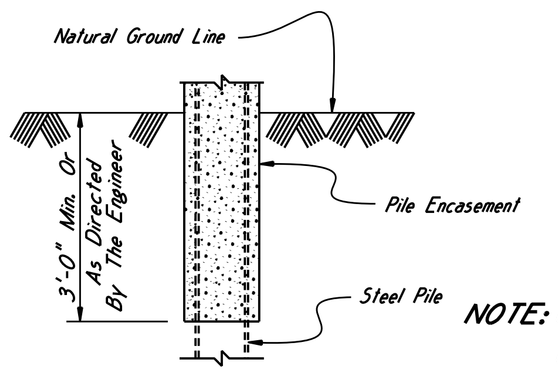
REQUIRED ULTIMATE PILE BEARING CAPACITY AND TIP ELEVATION SCHEDULE

Bent No.	Pile Size Inches	Ult. Bearing Tons	Est. Length Feet	Min. Tip Elevation
1	HP14x89	110	45	400.4
2	HP14x89	185	55	398.2
3	HP14x89	185	55	398.2
4	HP14x89	185	60	398.2
5	HP14x117	220	65	389.1
6	HP14x117	220	65	389.1
7	HP14x89	190	55	390.2
8	HP14x89	190	55	390.2
9	HP14x89	195	55	391.2
10	HP14x117	190	60	387.2
11	HP14x117	190	60	387.9
12	HP14x117	205	65	386.9
13	HP14x89	125	50	393.4

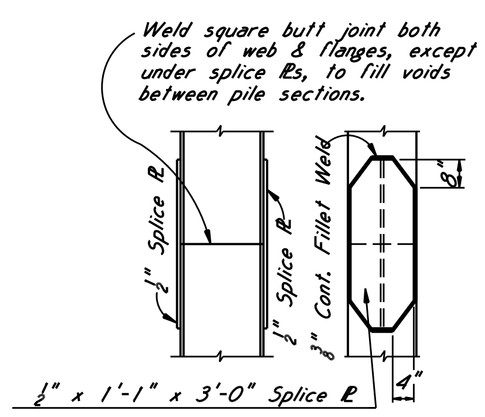
PDA TEST PILE SCHEDULE

Bent No.	Min. Lgth.-Ft.	Tip Elevation
1	55	372.8840
3	65	362.5264
5	75	356.2743
8	65	366.2377
11	70	360.4609
13	60	369.8945

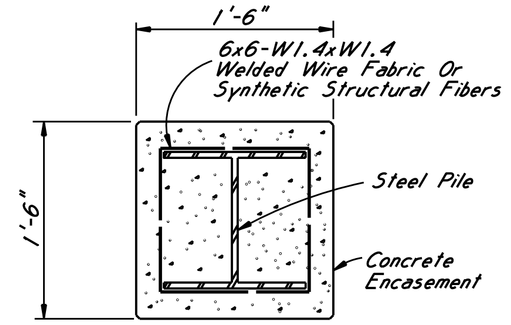
NOTE: PDA test pile results for all bents must be submitted to The Director Of Structures, State Bridge Engineer before permanent pile lengths will be recommended.



PILE ENCASEMENT DETAIL



PILE SPLICE DETAIL
HP14x89 Steel Piles
HP14x117 Steel Piles



NOTE: 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 special provision No. 907-711 (not a separate pay item).
Chamfer corners of encasement ¾".

PILE ENCASEMENT DETAIL
HP14x89 Steel Piles
HP14x117 Steel Piles

SPECIAL PROVISIONS REQUIRED:

Concrete Bridges And Structures . . . . . No. 907-804

DESIGN DATA:

Loading. HL-93
Specifications. . . . . A.A.S.H.T.O., LRFD 2012
Roadway Width. . . . . 44'-0" Gutter To Gutter
Concrete. . . . . Class "AA" (4,000 p.s.i.)
Reinforcing . . . . . ASTM A615, Grade 60 (Fy = 60 ksi)

SEISMIC INFO: Seismic Performance Category B
Site Class D, SD1=0.272
Importance Category Other

DRAINAGE DATA:

Drainage Area.....10.5 Sq. Mi.
0100 (U.S.G.S).....4,870 c.f.s.
Effective Area.....2,155 Sq. Ft.

CARTER D. BEARDEN REGISTERED PROFESSIONAL ENGINEER 18834 STATE OF MISSISSIPPI
DATE: 6/29/13

BY	DATE	REVISIONS
BEG	9-12-13	Note added & title revised

MISSISSIPPI DEPARTMENT OF TRANSPORTATION
⚠1 BRIDGE AT STA. 229+81.21
SR 7 OVER COLDWATER RIVER TRIB.
PROJECT BR-0019-02(041) 105189/301000
MARSHALL COUNTY

DESIGNER DLM CHECKER CDB
DETAILER DLM ISSUE DATE
DIRECTOR OF STRUCTURES, STATE BRIDGE ENGINEER - NICK J. ALTOBELLI PE.
DEP. DIRECTOR OF STRUCTURES, ASSIST. STATE BRIDGE ENGINEER - JUSTIN WALKER PE.

WORKING NUMBER A1 OF 24
SHEET NUMBER 8004

DESIGN TEAM: Florence & Hutcheson

COUNTY: MARSHALL

PROJECT NO. BR-0019-02(041) ⚠1

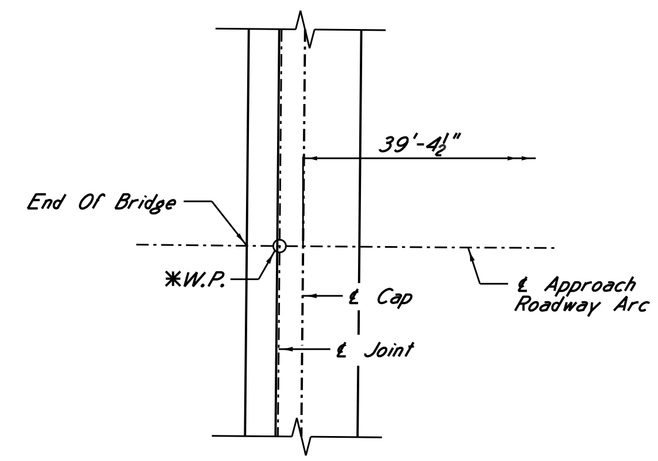
ADDENDUM

STATE	PROJECT NO.
MISS.	BR-019-02(041)

CURVE DATA

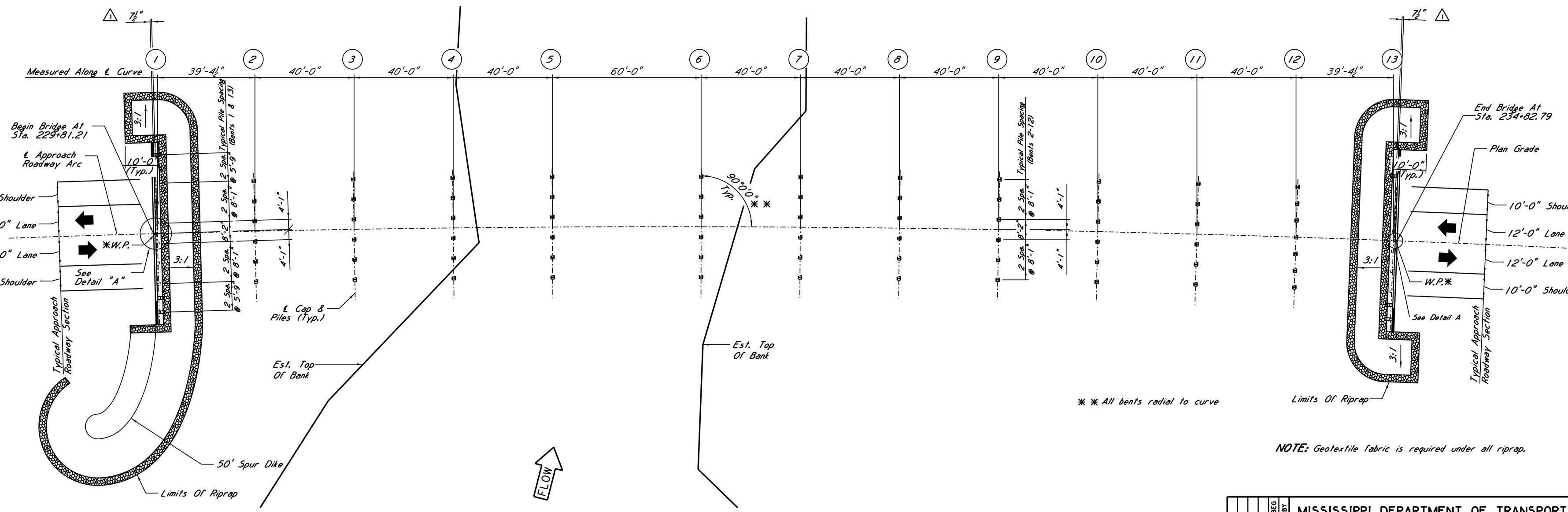
Mainline

P.C. Sta. = 207+56.015
P.I. Sta. = 229+32.947
P.T. Sta. = 249+97.460
△ = 31°48'39.002" Right
Dc = 0°45'00.000"
L = 4,241.445'
T = 2,176.932'
R = 7,639.437'



DETAIL "A"

*NOTE: WP @ ℄ joint & ℄ approach roadway arc



** All bents radial to curve

NOTE:
50' spur dike required on upstream side of south end bent per details on sheet no. ED-1 of The M.D.O.T. Roadway Design Drawings

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

NOTE: Geotextile fabric is required under all riprap.

CARTER D. BEARDEN
LICENSED PROFESSIONAL ENGINEER
18834
STATE OF MISSISSIPPI
DATE: 6/29/13

BY	REVISIONS	DATE
BEG	Dimension revised	9-12-13

MISSISSIPPI DEPARTMENT OF TRANSPORTATION
BRIDGE AT STA. 229+81.21

SR 7 OVER COLDWATER RIVER TRIB.

PROJECT BR-0019-02(041)
105189/301000

MARSHALL COUNTY

WORKING NUMBER A3 OF 24

DESIGNER DLM CHECKER COB
DETAILER DLM ISSUE DATE
DIRECTOR OF STRUCTURES, STATE BRIDGE ENGINEER - NICK J. ALTOBELLI PE.
DEP. DIRECTOR OF STRUCTURES, ASSIST. STATE BRIDGE ENGINEER - JUSTIN WALKER PE.

SHEET NUMBER 8006

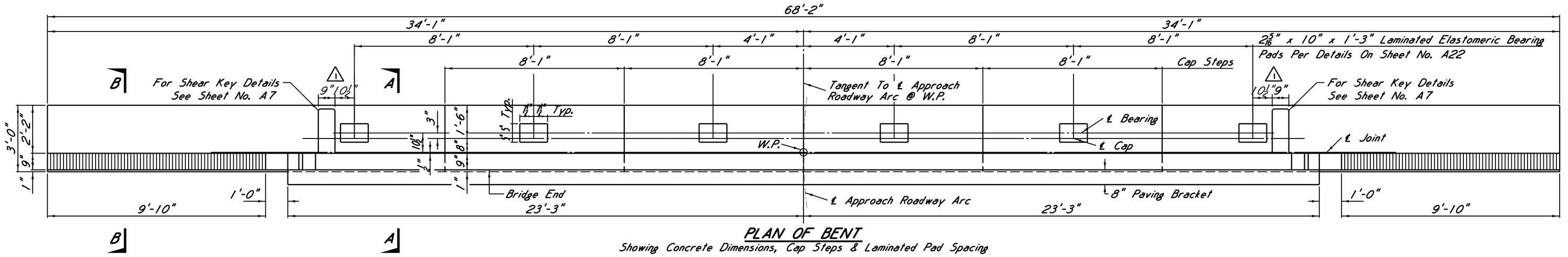
DESIGN TEAM: Florence & Hutcheson

COUNTY: MARSHALL

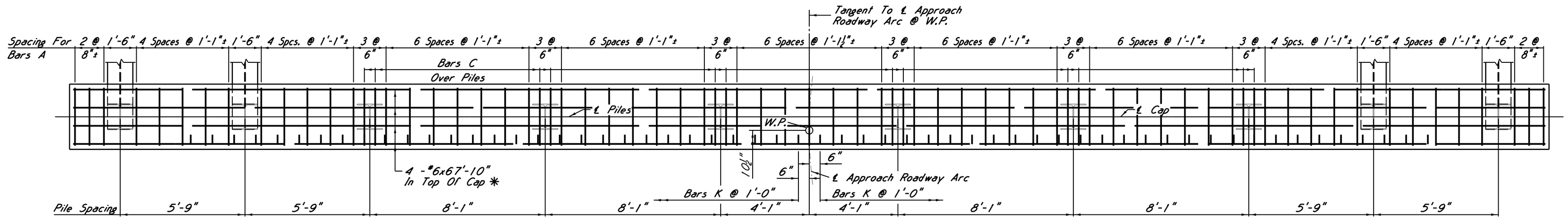
PROJECT NO. BR-0019-02(041) △1

ADDENDUM

STATE	PROJECT NO.
MISS.	BR-019-02(041)

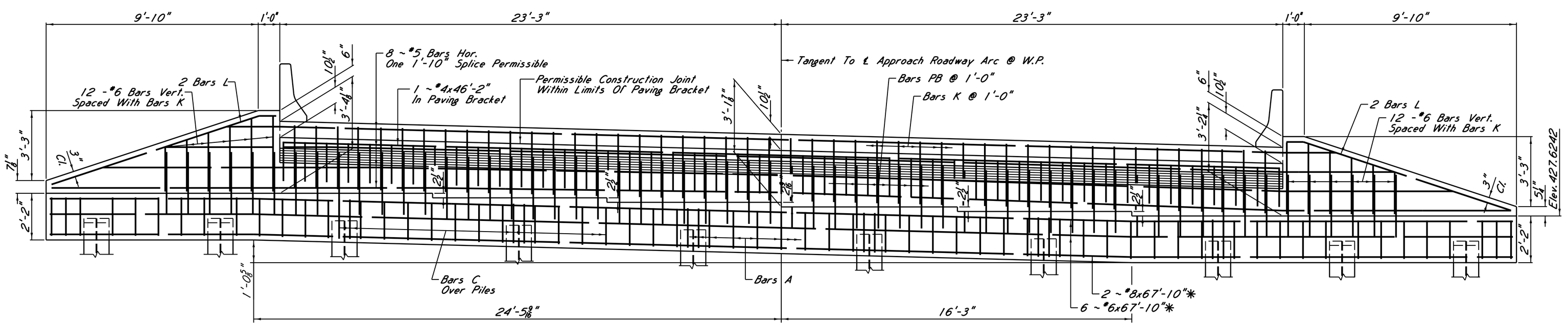


PLAN OF BENT
Showing Concrete Dimensions, Cap Steps & Laminated Pad Spacing

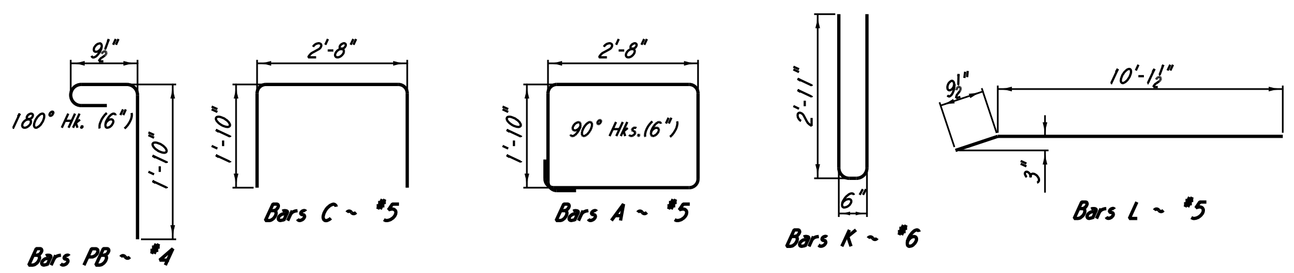


PLAN OF CAP
Showing Reinforcing Steel In Top Of Cap & Pile Spacing

NOTE: Piles shall be of the size, type, and driven to the required ultimate bearing capacity as shown on sheet no. A1 batter indicated piles 2" per foot as shown.



ELEVATION OF BENT - FROM FILL SIDE



BAR BENDING DETAILS
Dimensions Are Out To Out

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

For GENERAL NOTES and other details see sheet no. A7

*** SPLICE NOTE:**
Long. bars in cap may be lap spliced.
#6 Bars - 2'-3"
#8 Bars - 3'-8"

CARTER D. BEARDEN — LICENSED PROFESSIONAL ENGINEER — 18834 — STATE OF MISSISSIPPI
DATE: 5/29/13

DATE	Dimension revised	BEG BY
9-12-13	REVISIONS	

MISSISSIPPI DEPARTMENT OF TRANSPORTATION
BRIDGE AT STA. 229+81.21

END BENT NO. 1 DETAILS

PROJECT BR-0019-02(041)
105189/301000

MARSHALL COUNTY

WORKING NUMBER A5 OF 24

SHEET NUMBER 8008

DESIGNER DLM CHECKER COB
DETAILER DLM ISSUE DATE
DIRECTOR OF STRUCTURES, STATE BRIDGE ENGINEER - NICK J. ALTOBELLI PE.
DEP. DIRECTOR OF STRUCTURES, ASSIST. STATE BRIDGE ENGINEER - JUSTIN WALKER PE.

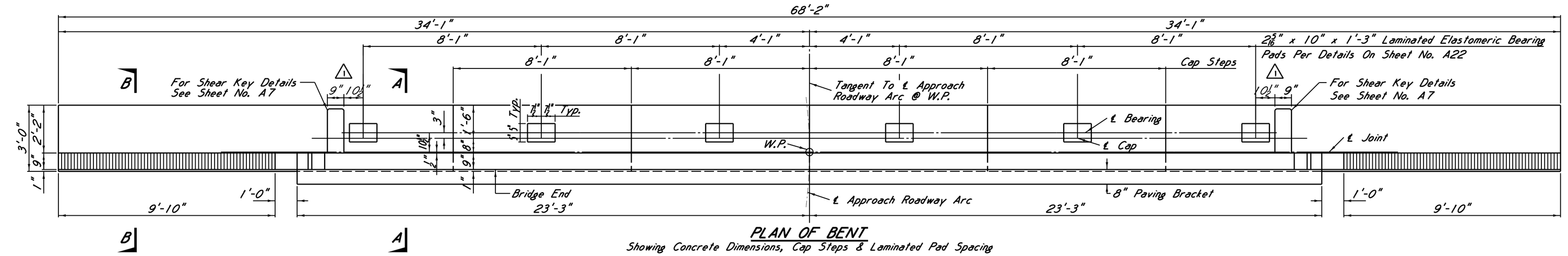
DESIGN TEAM: Florence & Hutcheson

COUNTY: MARSHALL

PROJECT NO. BR-0019-02(041) ⚠1

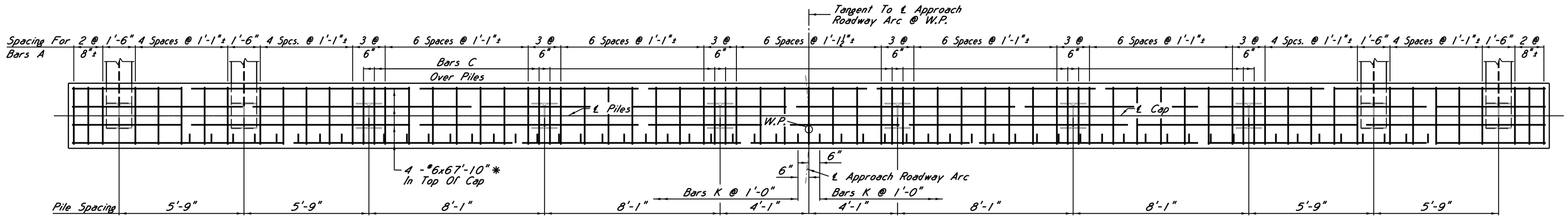
ADDENDUM

STATE	PROJECT NO.
MISS.	BR-019-02(041)



PLAN OF BENT

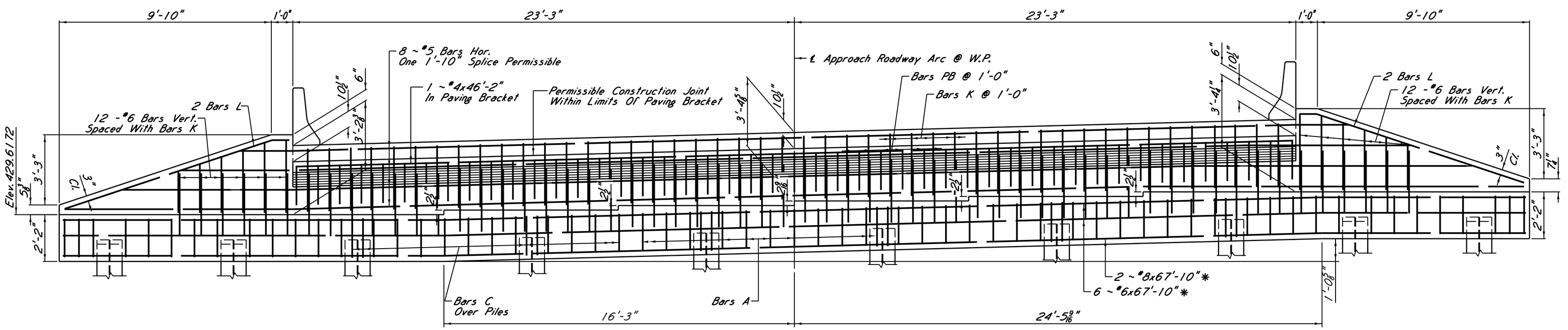
Showing Concrete Dimensions, Cap Steps & Laminated Pad Spacing



PLAN OF CAP

Showing Reinforcing Steel In Top Of Cap & Pile Spacing

NOTE: Piles shall be of the size, type, and driven to the required ultimate bearing capacity as shown on sheet no. A1 batter indicated piles 2" per foot as shown.

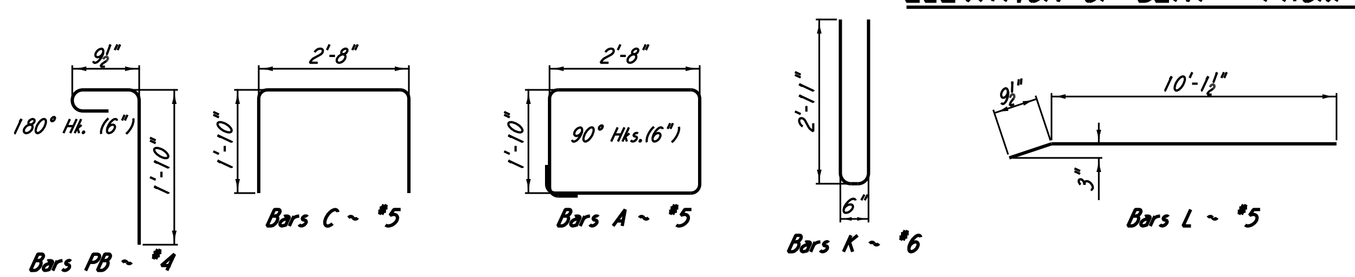


ELEVATION OF BENT - FROM FILL SIDE

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

For GENERAL NOTES and other details see sheet no. A7

*** SPLICE NOTE:**
Long. bars in cap may be lap spliced.
#6 Bars ~ 2'-3"
#8 Bars ~ 3'-8"



BAR BENDING DETAILS

Dimensions Are Out To Out

CARTER D. BEARDEN LICENSED PROFESSIONAL ENGINEER 18834 STATE OF MISSISSIPPI
DATE: 6/29/13

BEG BY	Dimension revised	REVISIONS
9-12-13	DESIGNER DLM	CHECKER CDB
DATE	DETAILER DLM	ISSUE DATE
	DIRECTOR OF STRUCTURES, STATE BRIDGE ENGINEER - NICK J. ALTOBELLI PE. DEP. DIRECTOR OF STRUCTURES, ASSIST. STATE BRIDGE ENGINEER - JUSTIN WALKER PE.	

MISSISSIPPI DEPARTMENT OF TRANSPORTATION
BRIDGE AT STA. 229+81.21

END BENT NO. 13 DETAILS

PROJECT BR-0019-02(041)
105189/301000

MARSHALL COUNTY

WORKING NUMBER A6 OF 24

SHEET NUMBER 8009

DESIGN TEAM: Florence & Hutcheson

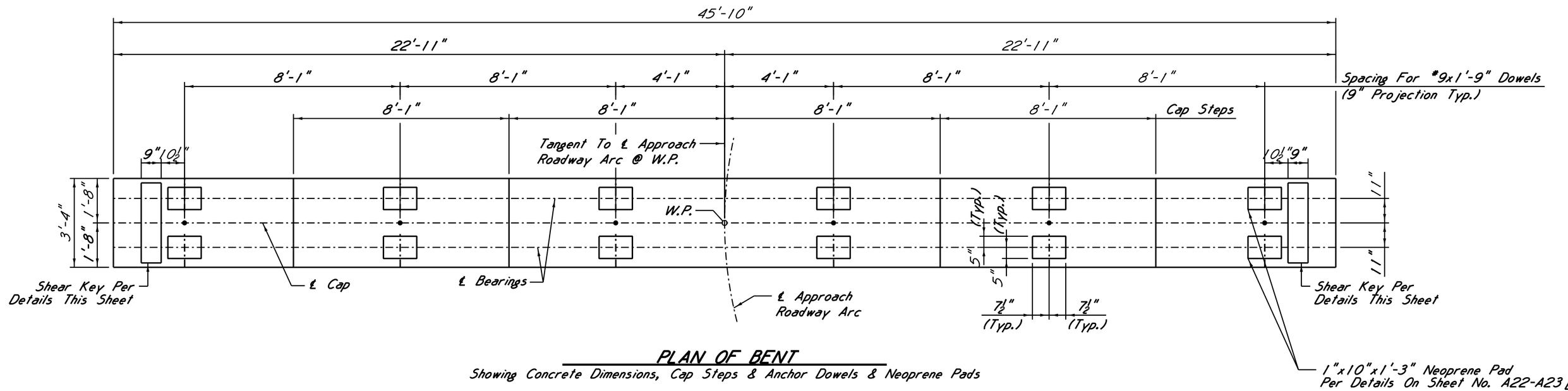
COUNTY: MARSHALL

PROJECT NO. BR-0019-02(041)

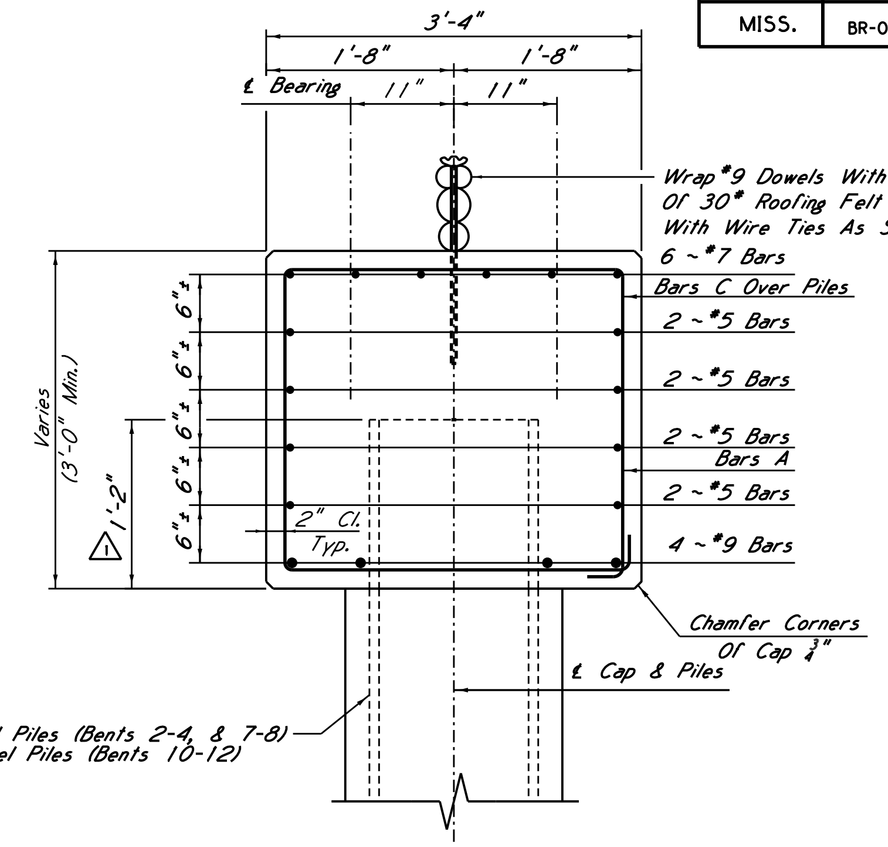
△1

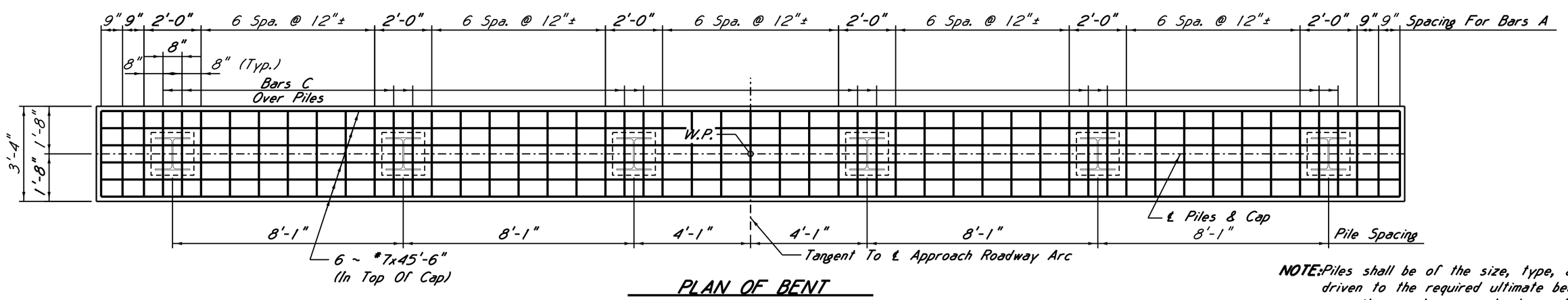
ADDENDUM

STATE	PROJECT NO.
MISS.	BR-019-02(041)



PLAN OF BENT
Showing Concrete Dimensions, Cap Steps & Anchor Dowels & Neoprene Pads



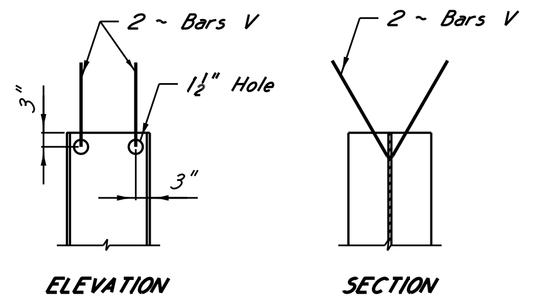


PLAN OF BENT
Showing Steel Reinforcing In Top Of Cap & Pile Spacing

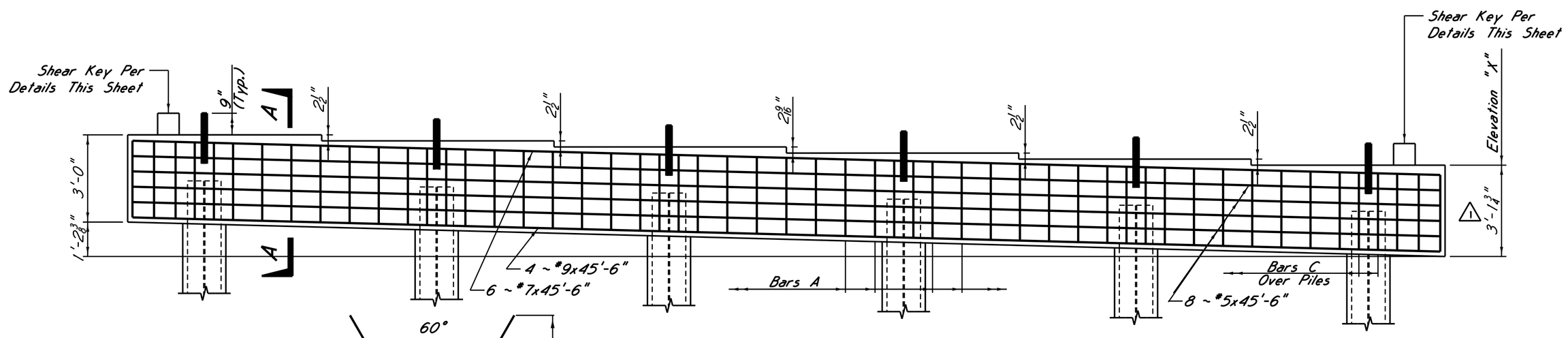
HP14x89 Steel Piles (Bents 2-4, & 7-8)
HP14x117 Steel Piles (Bents 10-12)

SECTION A-A
Pile Anchorage Not Shown For Clarity.

NOTE: Piles shall be of the size, type, and driven to the required ultimate bearing capacity as shown on sheet no. A1.

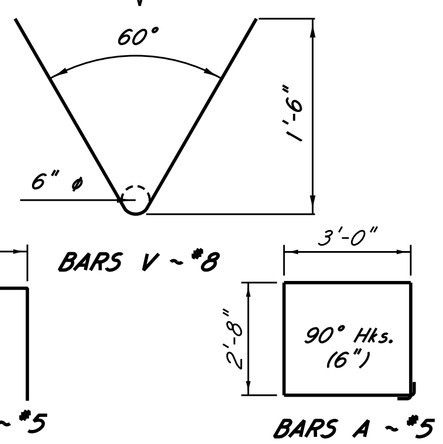


PILE ANCHORAGE DETAIL

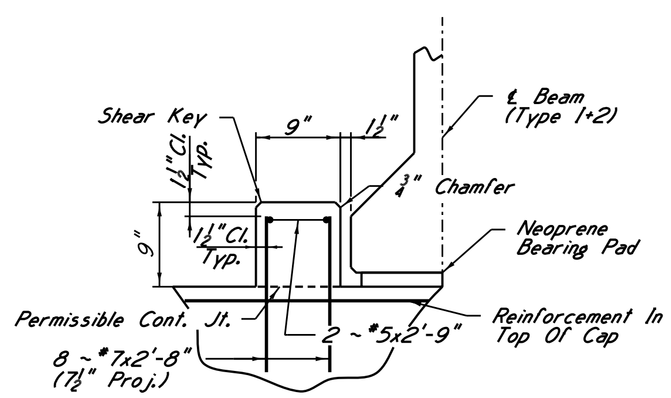


ELEVATION
Looking Upstation

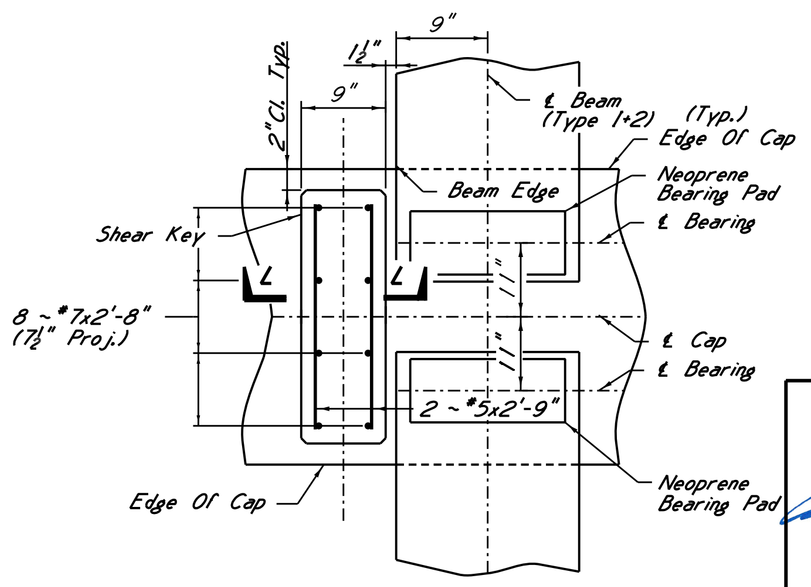
TABLE OF BENT ELEVATIONS	
Bent No.	Elev. "X"
2	427.8864
3	428.0464
4	428.2064
7	428.7664
8	428.9264
10	429.2464
11	429.4064
12	429.5664



BAR BENDING DETAILS
Dimensions Are Out To Out



SECTION L-L



SHEAR KEY DETAIL

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.

CARTER D. BEARDEN LICENSED PROFESSIONAL ENGINEER 18834 STATE OF MISSISSIPPI
DATE: 8/29/13

DATE	REVISIONS	BY
9-12-13	Dimension, elevation & reference revised	BEG

MISSISSIPPI DEPARTMENT OF TRANSPORTATION
BRIDGE AT STA. 229+81.21

INTERMEDIATE BENT NO. 2-4, 7-8, & 10-12

PROJECT BR-0019-02(041) 105189/301000

MARSHALL COUNTY

WORKING NUMBER A8 OF 24

DESIGNER DLM CHECKER CDB
DETAILER DLM ISSUE DATE
DIRECTOR OF STRUCTURES, STATE BRIDGE ENGINEER - NICK J. ALTOBELLI PE.
DEP. DIRECTOR OF STRUCTURES, ASSIST. STATE BRIDGE ENGINEER - JUSTIN WALKER PE.

SHEET NUMBER 8011

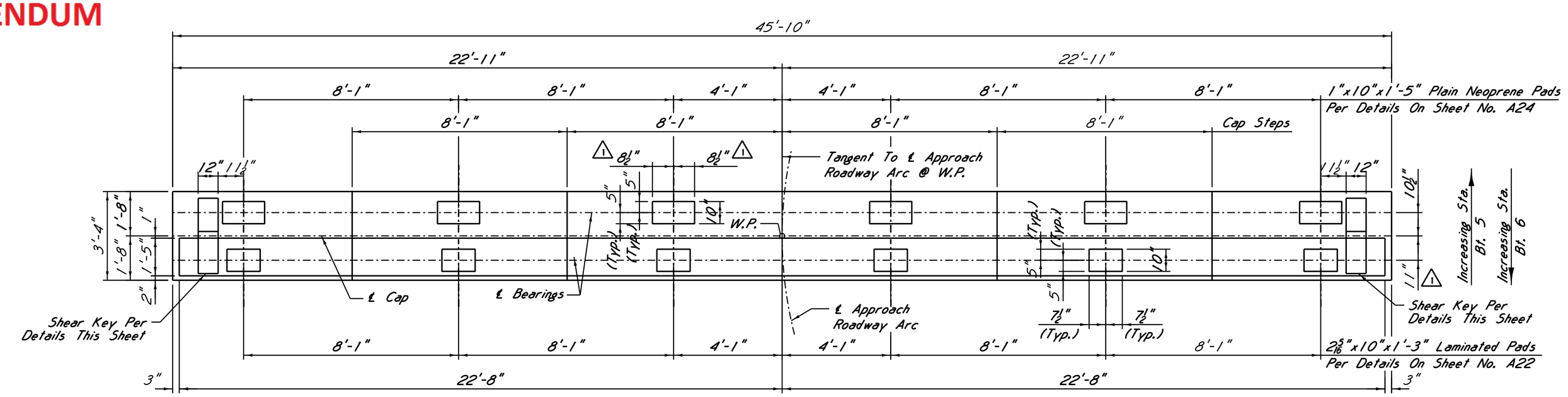
DESIGN TEAM: Florence & Hutcheson

COUNTY: MARSHALL

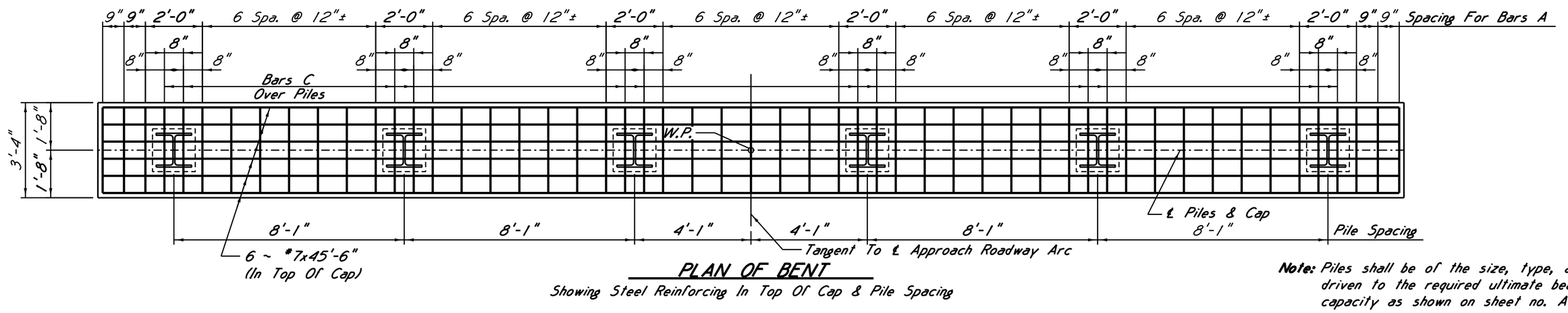
PROJECT NO. BR-0019-02(041) 1

ADDENDUM

STATE	PROJECT NO.
MISS.	BR-019-02(041)

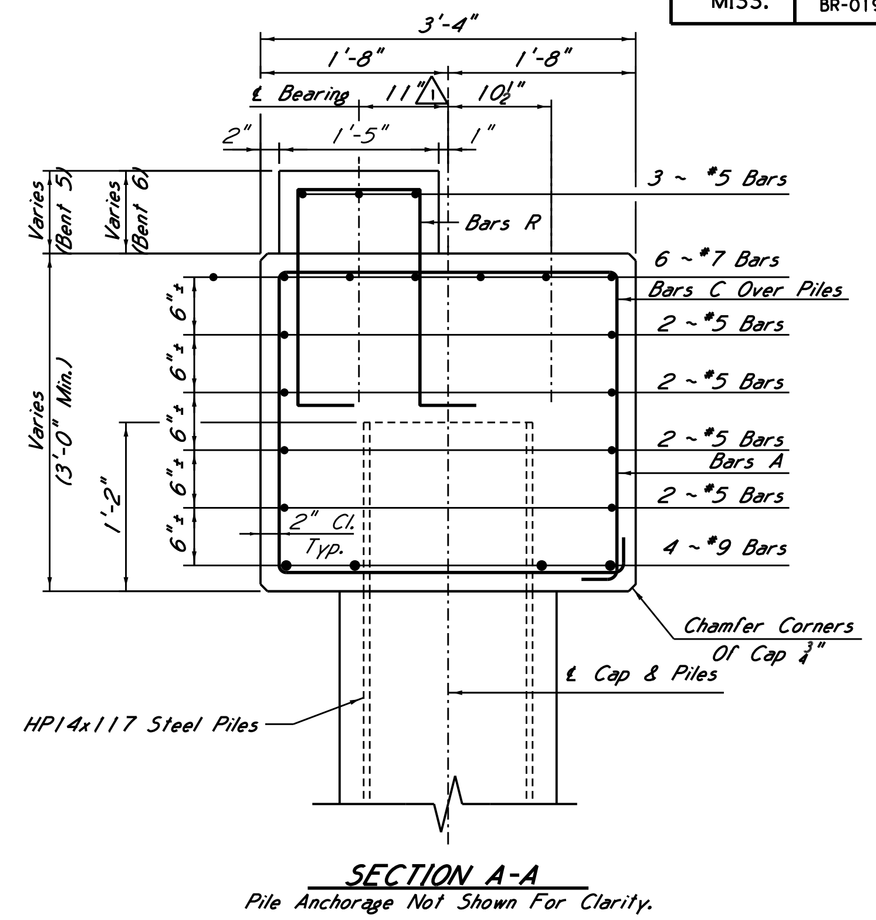


PLAN OF BENT
Showing Concrete Dimensions, Cap Steps, Laminated & Neoprene Pads ⚠1

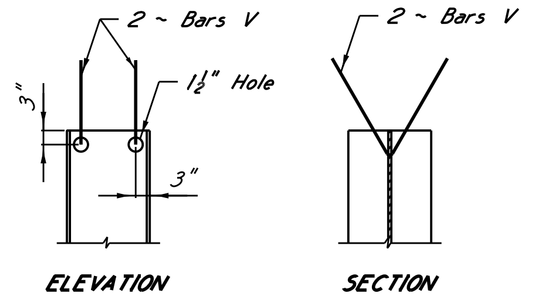


PLAN OF BENT
Showing Steel Reinforcing In Top Of Cap & Pile Spacing

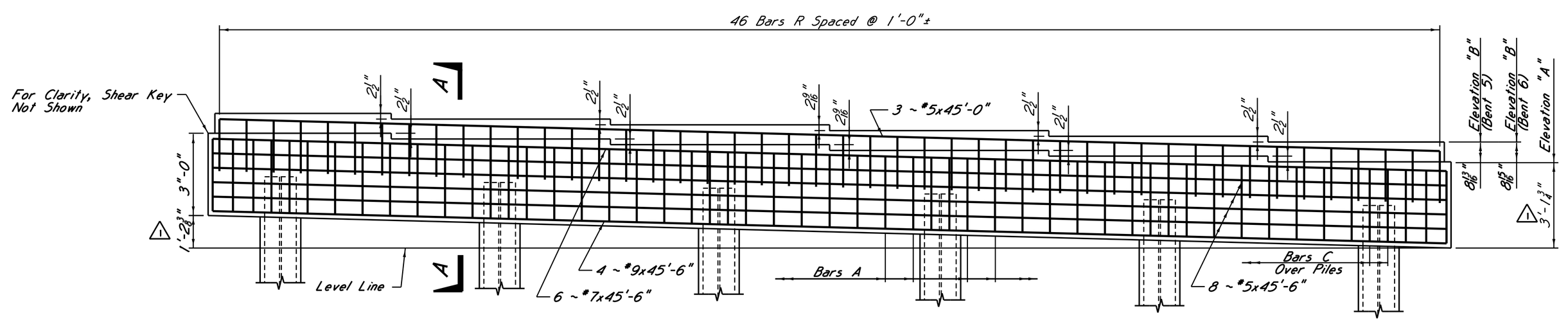
Note: Piles shall be of the size, type, and driven to the required ultimate bearing capacity as shown on sheet no. A1.



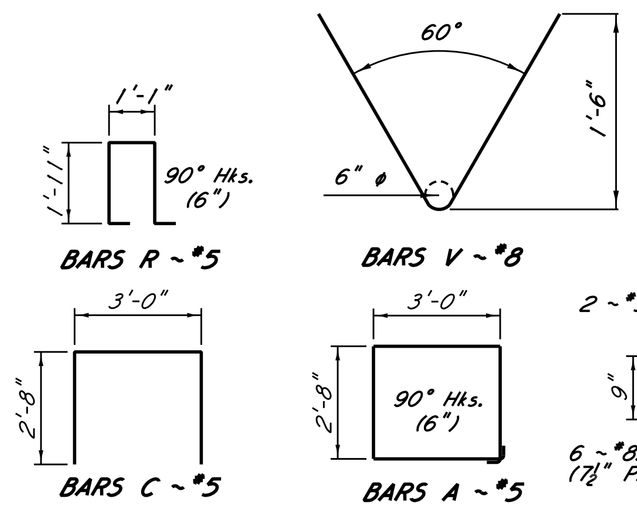
SECTION A-A
Pile Anchorage Not Shown For Clarity.



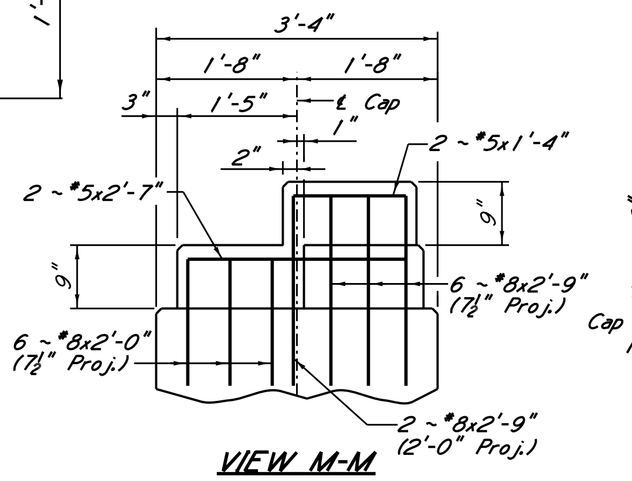
PILE ANCHORAGE DETAIL



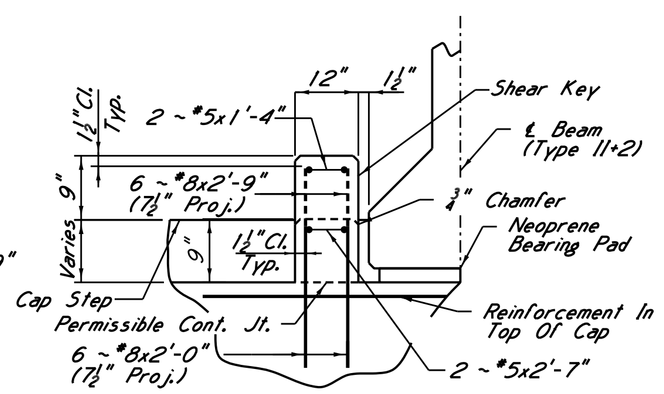
ELEVATION
Looking Upstation



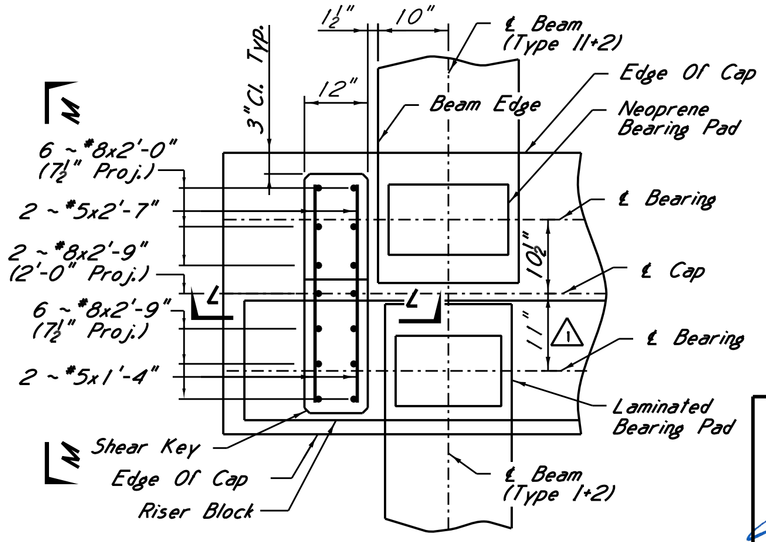
BAR BENDING DETAILS
Dimensions Are Out To Out



VIEW M-M



SECTION L-L



SHEAR KEY DETAIL

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.

TABLE OF BENT ELEVATIONS		
Bent No.	Elev. "A"	Elev. "B"
5	427.6340	428.3669
6	427.8670	428.6132

CARTER D. BEARDEN
LICENSED PROFESSIONAL ENGINEER
ENGINEER
18834
STATE OF MISSISSIPPI
DATE: 6/29/13

BY	DATE	REVISIONS
BEG	9-12-13	Dimension & note revised

MISSISSIPPI DEPARTMENT OF TRANSPORTATION
BRIDGE AT STA. 229+81.21

INTERMEDIATE BENT NO. 5 & 6

PROJECT BR-0019-02(041)
105189/301000

MARSHALL COUNTY

WORKING NUMBER A9 OF 24

SHEET NUMBER 8012

DESIGNER DLM CHECKER COB
DETAILER DLM ISSUE DATE
DIRECTOR OF STRUCTURES, STATE BRIDGE ENGINEER - NICK J. ALTOBELLI PE.
DEP. DIRECTOR OF STRUCTURES, ASSIST. STATE BRIDGE ENGINEER - JUSTIN WALKER PE.

DESIGN TEAM: Florence & Hutcheson

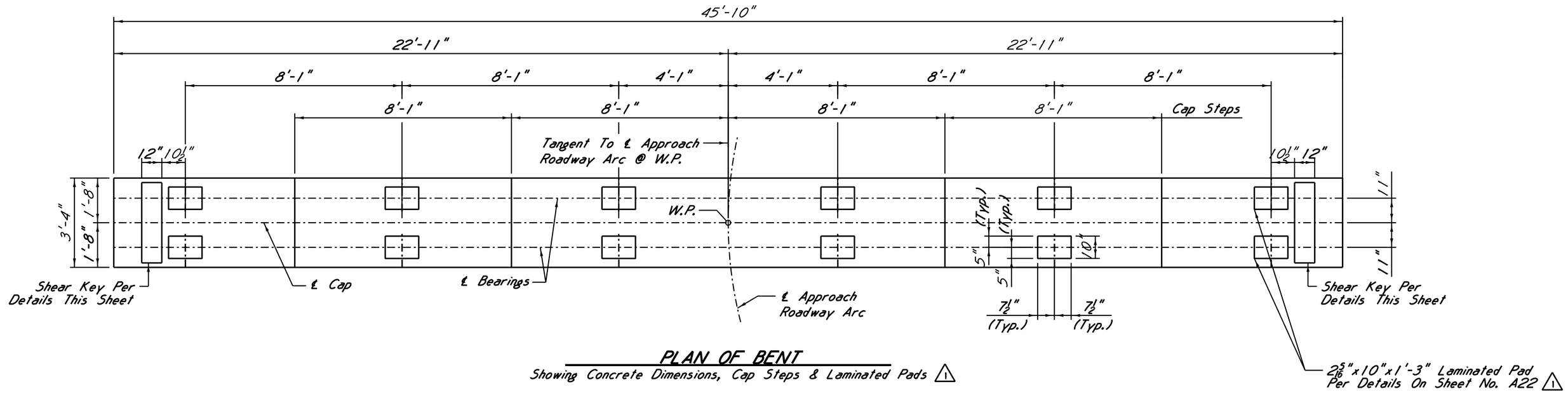
COUNTY: MARSHALL

PROJECT NO. BR-0019-02(041)

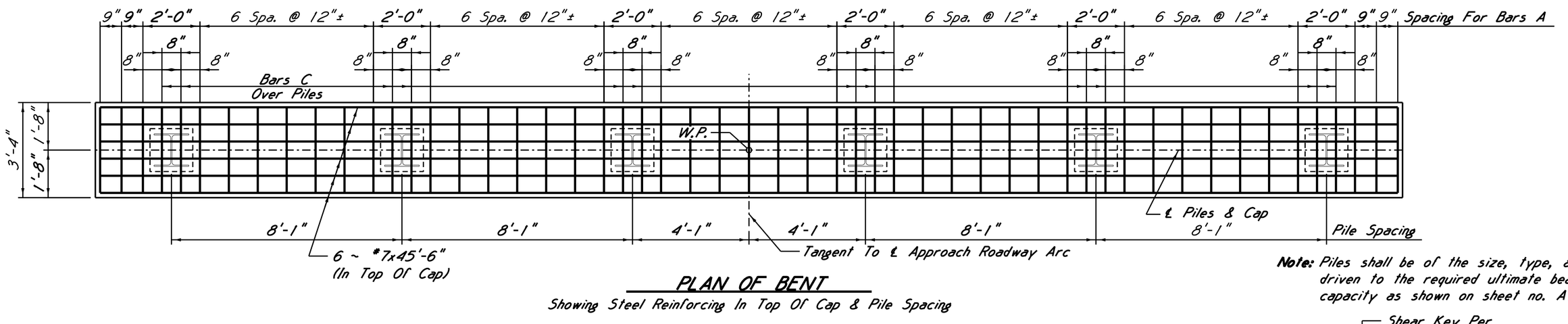
⚠1

ADDENDUM

STATE	PROJECT NO.
MISS.	BR-019-02(041)

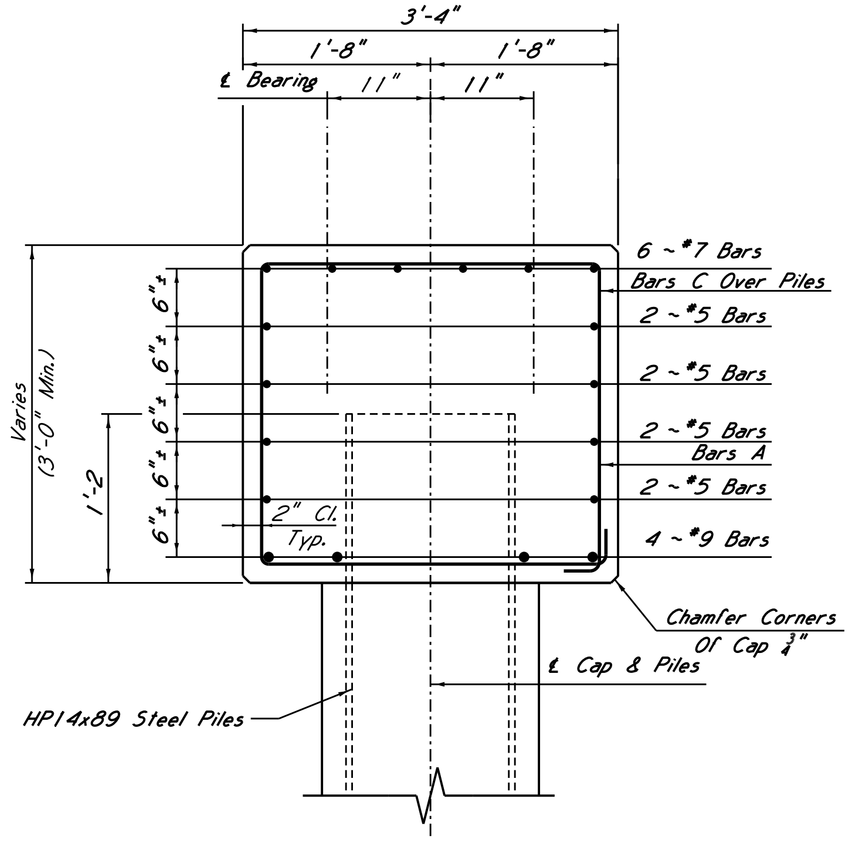


PLAN OF BENT
Showing Concrete Dimensions, Cap Steps & Laminated Pads ⚠1

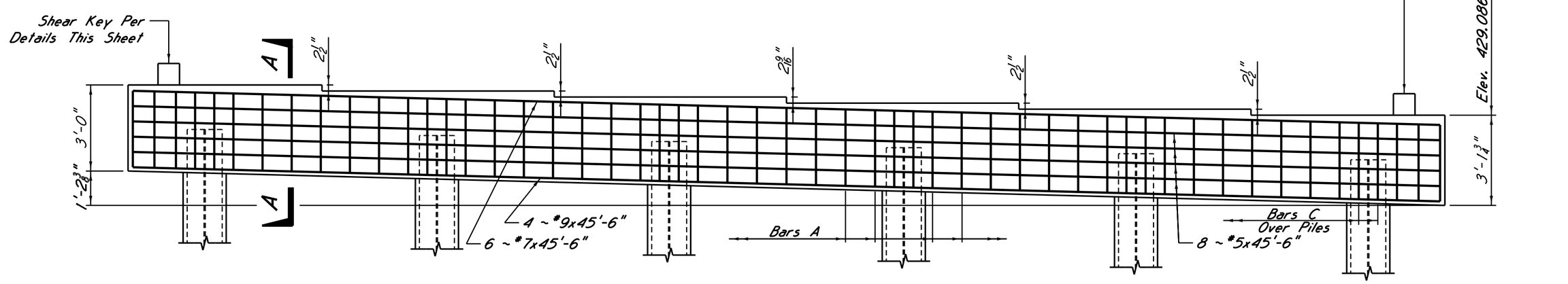


PLAN OF BENT
Showing Steel Reinforcing In Top Of Cap & Pile Spacing

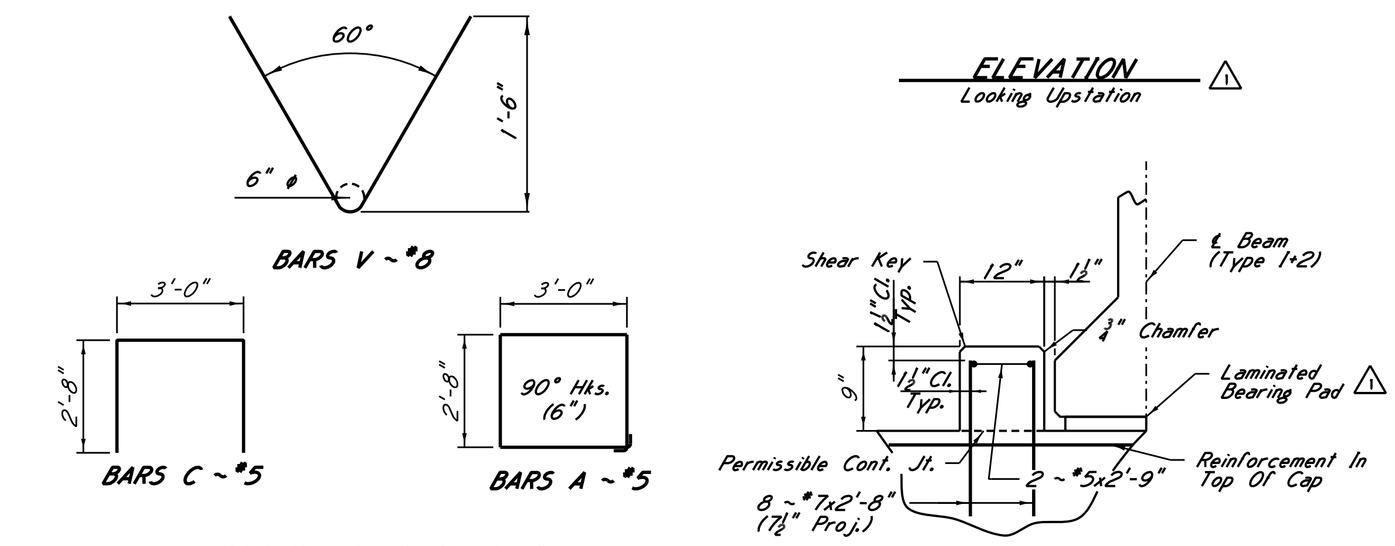
Note: Piles shall be of the size, type, and driven to the required ultimate bearing capacity as shown on sheet no. A1.



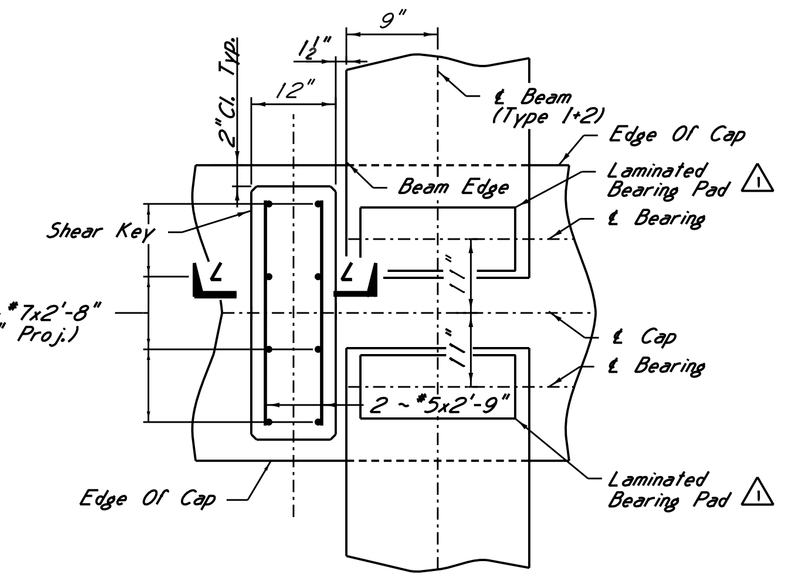
SECTION A-A
Pile Anchorage Not Shown For Clarity.



ELEVATION ⚠1
Looking Upstation

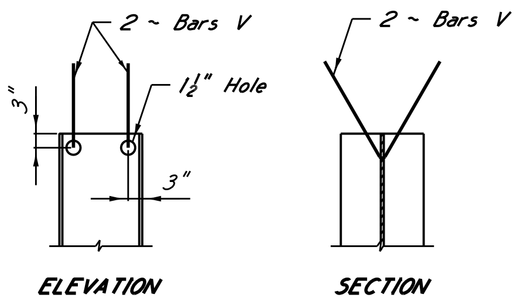


SECTION L-L



SHEAR KEY DETAIL

BAR BENDING DETAILS
Dimensions Are Out To Out



PILE ANCHORAGE DETAIL

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.

CARTER D. BEARDEN LICENSED PROFESSIONAL ENGINEER 18834 STATE OF MISSISSIPPI
DATE: 5/29/13

BY	DATE	REVISIONS
BEG	9-12-13	Reference & note revised

MISSISSIPPI DEPARTMENT OF TRANSPORTATION
BRIDGE AT STA. 229+81.21

INTERMEDIATE BENT NO. 9

PROJECT BR-0019-02(041)
105189/301000

MARSHALL COUNTY

WORKING NUMBER A10 OF 24

SHEET NUMBER 8013

DESIGNER DLM CHECKER CDB
DETAILER DLM ISSUE DATE
DIRECTOR OF STRUCTURES, STATE BRIDGE ENGINEER - NICK J. ALTOBELLI PE.
DEP. DIRECTOR OF STRUCTURES, ASSIST. STATE BRIDGE ENGINEER - JUSTIN WALKER PE.

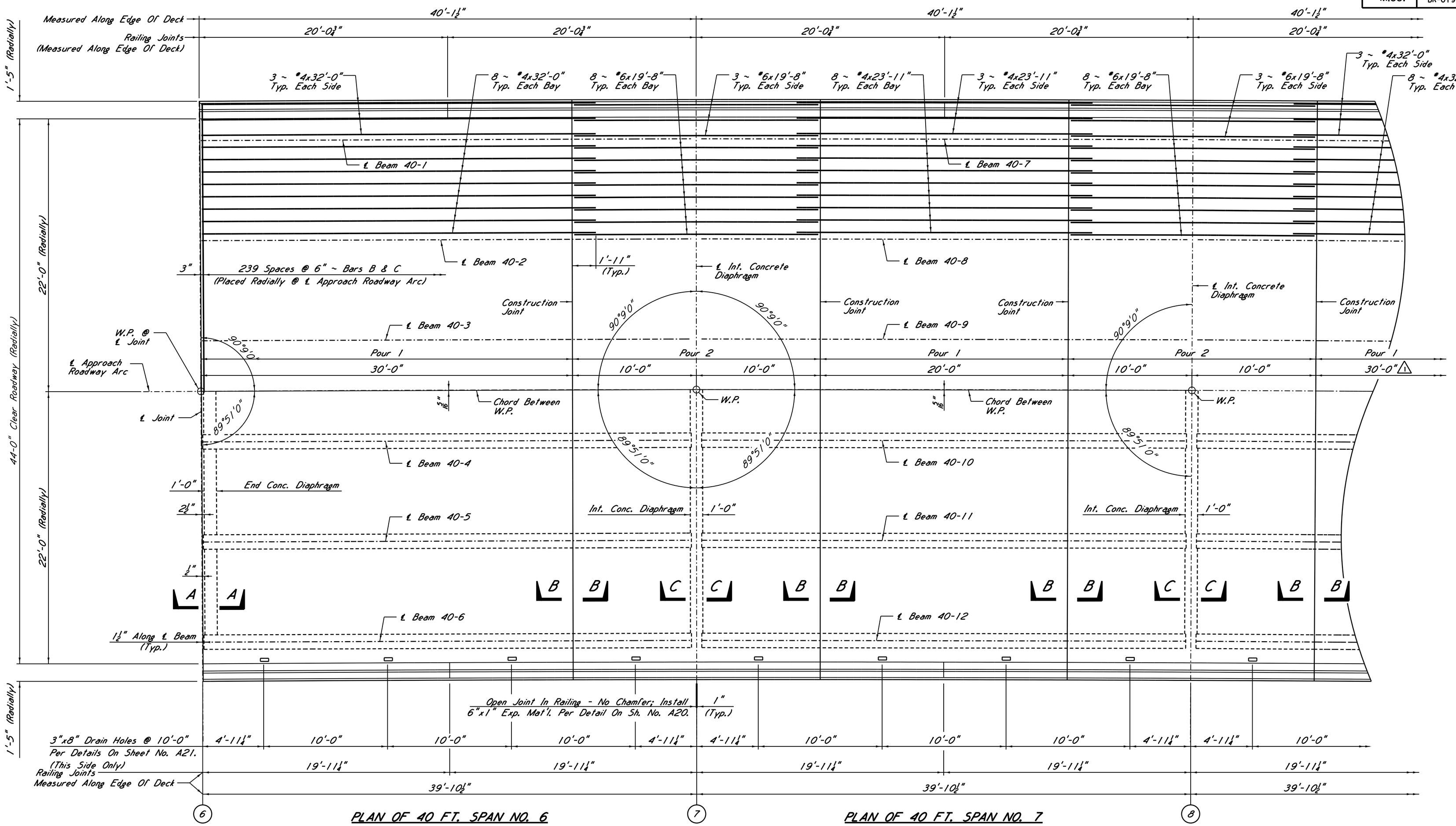
DESIGN TEAM: Florence & Hutcheson

COUNTY: MARSHALL

PROJECT NO. BR-0019-02(041) ⚠1

ADDENDUM

STATE	PROJECT NO.
MISS.	BR-019-02(041)



PLAN OF 40 FT. SPAN NO. 6

Top Half Showing Reinforcing In Top Of Slab
Bottom Half Showing Concrete Dimensions

PLAN OF 40 FT. SPAN NO. 7

Top Half Showing Reinforcing In Top Of Slab
Bottom Half Showing Concrete Dimensions

TABLE OF RAILING BARS	
For One 40 Ft. Span	
Mark	No.
D	136
R	136

NOTE: For GENERAL NOTES and other span details see sheet no. A21.

NOTE: All longitudinal dimensions are arc lengths transverse reinforcing shall be placed on radial lines spaced along ℄ approach roadway arc.

NOTE: Angles shown are measured from chord to radial lines @ ℄ joint.

NOTE: Interior beams are parallel to ℄ approach roadway chord.

NOTE: The deck pouring schedule shall be as shown on these plans. No alternate sequence will be permitted.

CARTER D. BEARDEN LICENSED PROFESSIONAL ENGINEER 18834 STATE OF MISSISSIPPI
DATE: 8/29/13

BY	DATE	REVISIONS
BEG	9-12-13	Dimension revised

MISSISSIPPI DEPARTMENT OF TRANSPORTATION
BRIDGE AT STA. 229+81.21

40 FT. SPAN DETAILS
(SPAN 6 & 7)

PROJECT BR-0019-02(041)
105189/301000

MARSHALL COUNTY

DESIGNER DLM CHECKER CDB
DETAILER DLM ISSUE DATE
DIRECTOR OF STRUCTURES, STATE BRIDGE ENGINEER - NICK J. ALTOBELLI PE.
DEP. DIRECTOR OF STRUCTURES, ASSIST. STATE BRIDGE ENGINEER - JUSTIN WALKER PE.

WORKING NUMBER	SHEET NUMBER
A14 OF 24	8017

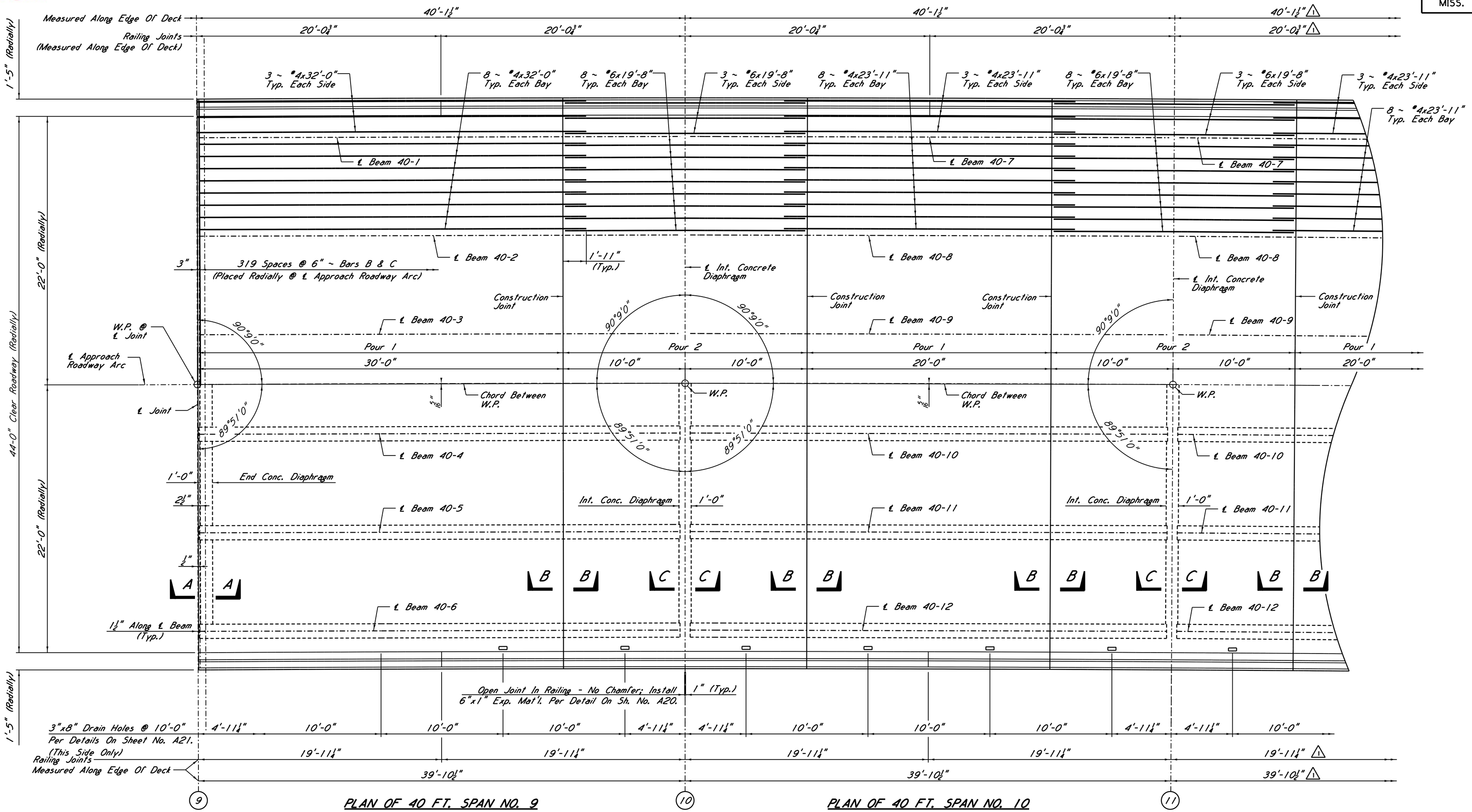
DESIGN TEAM: Florence & Hutcheson

COUNTY: MARSHALL

PROJECT NO. BR-0019-02(041) ⚠1

ADDENDUM

STATE	PROJECT NO.
MISS.	BR-019-02(041)



PLAN OF 40 FT. SPAN NO. 9
Top Half Showing Reinforcing In Top Of Slab
Bottom Half Showing Concrete Dimensions

PLAN OF 40 FT. SPAN NO. 10
Top Half Showing Reinforcing In Top Of Slab
Bottom Half Showing Concrete Dimensions

TABLE OF RAILING BARS	
For One 40 Ft. Span	
Mark	No.
D	136
R	136

NOTE: For GENERAL NOTES and other span details see sheets no. A21.

NOTE: All longitudinal dimensions are arc lengths transverse reinforcing shall be placed on radial lines spaced along ℄ approach roadway arc.

NOTE: Angles shown are measured from chord to radial lines @ ℄ joint.

NOTE: Interior beams are parallel to ℄ approach roadway chord.

NOTE: The deck pouring schedule shall be as shown on these plans. No alternate sequence will be permitted.

CARTER D. BEARDEN LICENSED PROFESSIONAL ENGINEER 18834 STATE OF MISSISSIPPI
DATE: 6/29/13

DATE	REVISIONS	BEG BY
9-12-13	Dimension revised	

MISSISSIPPI DEPARTMENT OF TRANSPORTATION
BRIDGE AT STA. 229+81.21

40 FT. SPAN DETAILS
(SPAN 9 & 10)

PROJECT BR-0019-02(041)
105189/301000

MARSHALL COUNTY

WORKING NUMBER A16 OF 24

DESIGNER DLM CHECKER CDB
DETAILER DLM ISSUE DATE
DIRECTOR OF STRUCTURES, STATE BRIDGE ENGINEER - NICK J. ALTOBELLI PE.
DEP. DIRECTOR OF STRUCTURES, ASSIST. STATE BRIDGE ENGINEER - JUSTIN WALKER PE.

SHEET NUMBER 8019

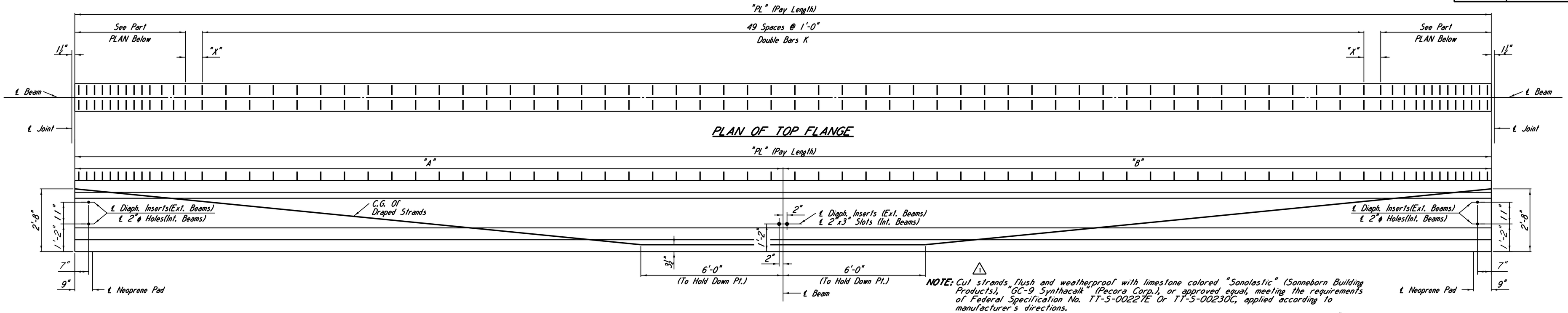
DESIGN TEAM: Florence & Hutcheson

COUNTY: MARSHALL

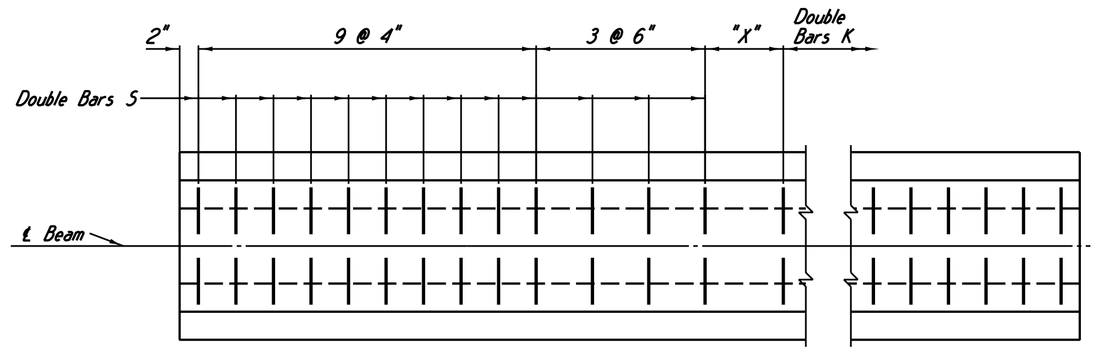
PROJECT NO. BR-0019-02(041) 1

ADDENDUM

STATE	PROJECT NO.
MISS.	BR-019-02(041)

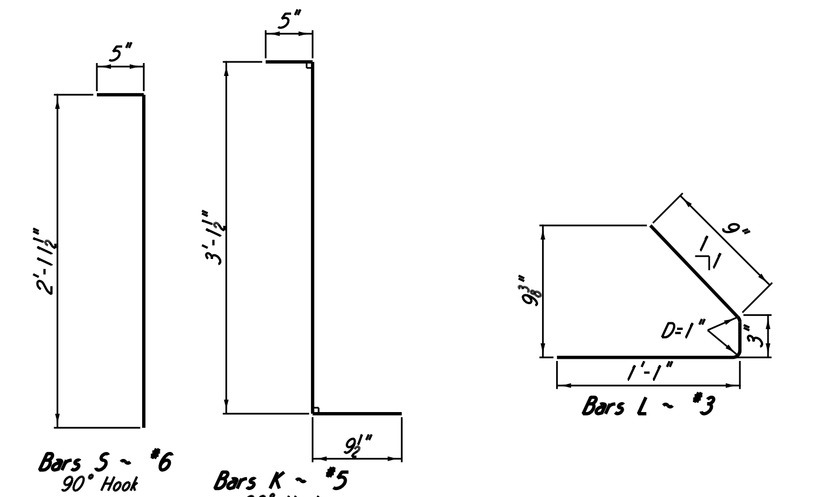


NOTE: Cut strands flush and weatherproof with limestone colored "Sonolastic" (Sonneborn Building Products), "GC-9 Synthacalk" (Pecora Corp.) or approved equal, meeting the requirements of Federal Specification No. TT-S-00227E or TT-S-00230C, applied according to manufacturer's directions.

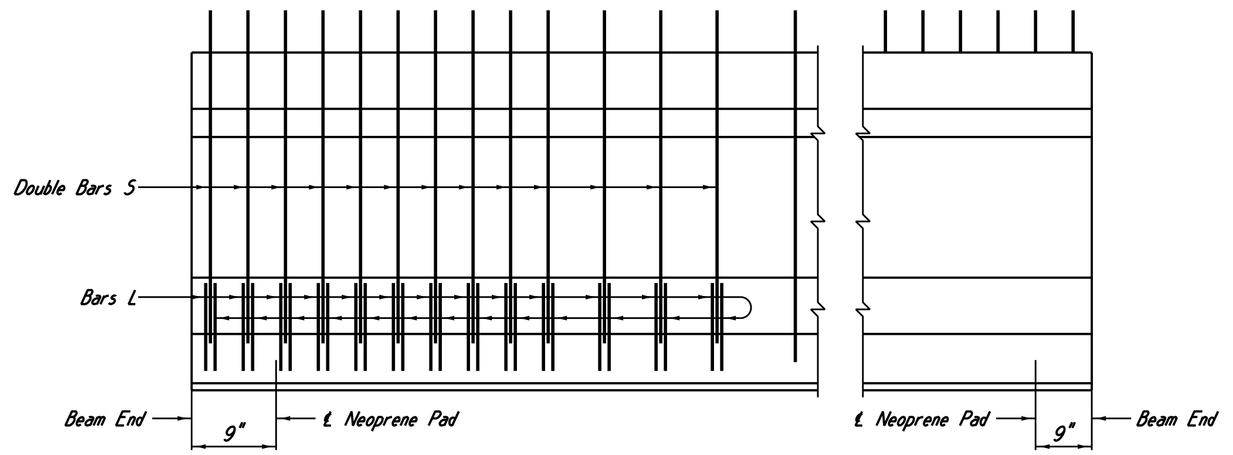


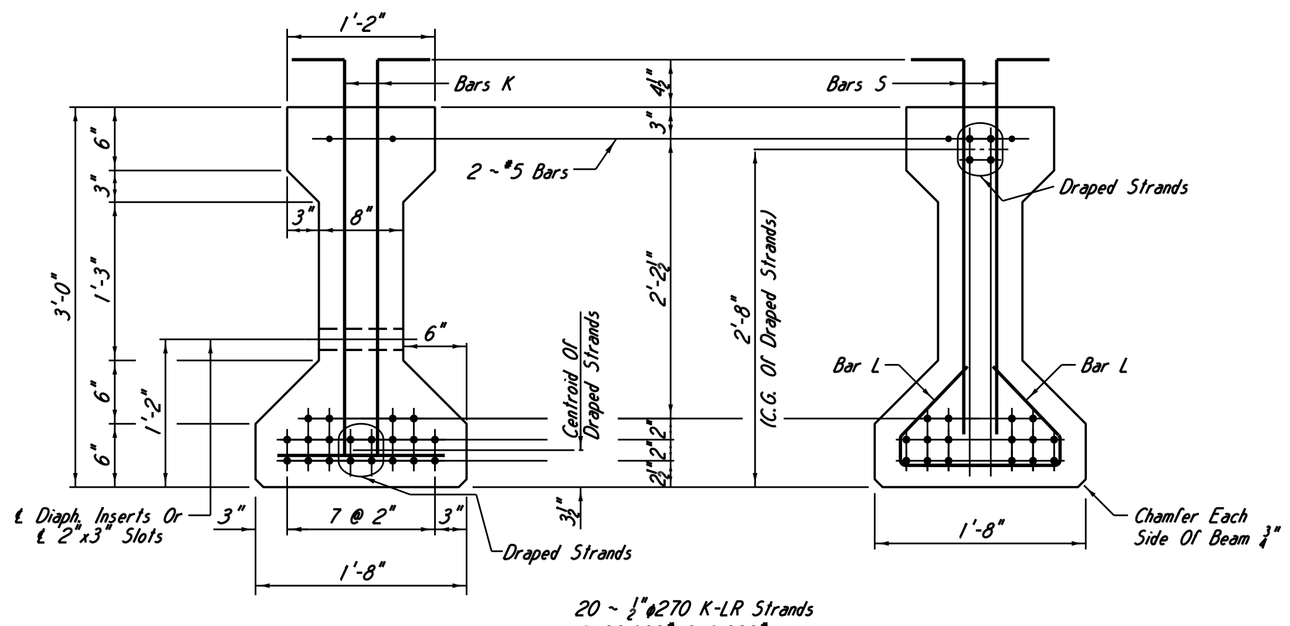
PART PLAN

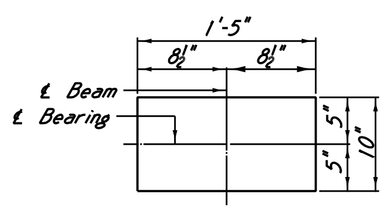
TABLE OF BEAM DIMENSIONS				
Beam No.	"PL"	"A"	"X"	"B"
60-1	59'-10 15/16"	29'-11 3/16"	9½"	29'-11½"
60-2	59'-10⅛"	29'-11 1/16"	9 1/16"	29'-11 1/16"
60-3	59'-9⅜"	29'-10 13/16"	8 11/16"	29'-10 11/16"
60-4	59'-8⅝"	29'-10 5/16"	8 5/16"	29'-10 5/16"
60-5	59'-7⅞"	29'-9 13/16"	7 15/16"	29'-9 13/16"
60-6	59'-7 1/16"	29'-9 3/16"	7½"	29'-9½"



BAR BENDING DETAILS
Dimensions Are Out To Out







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 Specification For Road & Bridge Construction, 2004.
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 6000 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 6000 p.s.i. concrete.
If any cylinder tests below 6000 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. LRFD, 2012
An extra dead load of 18 p.s.f. is incorporated into the design of this structure to accommodate the use of steel stay-in-place forms.

L.R Indicates Low-Relaxation Strands

PRESTRESS REQUIREMENTS

For deflection diagram, see misc. span details per sheet no. A21.

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 Number Strands	Straight Strands Centroid (in.)	Draped Strands Number Strands	Draped Strands Centroid (in.) ℄ Span	Draped Strands Centroid (in.) Beam End	At ℄ Span	At Beam End			A	B	C	
	lbs/strand	lbs/strand														
½"ø270 K-LR	41,300	30,980	20	16	4.25	4	3.50	32.00	4.10	9.80	6'-0"	0 To 2½"	11/16"	13/16"	⅝"	5000

DESIGN TEAM: Florence & Hutcheson

COUNTY: MARSHALL

PROJECT NO. BR-0019-02(041)

CARTER D. BEARDEN LICENSED PROFESSIONAL ENGINEER 18834 STATE OF MISSISSIPPI
DATE: 8/29/13

DATE	REVISIONS	BY
		BEG
9-12-13	Note revised	

MISSISSIPPI DEPARTMENT OF TRANSPORTATION
BRIDGE AT STA. 229+81.21
60 FT. BEAM DETAILS
(TYPE II+2, SPAN 5)

PROJECT BR-0019-02(041)
105189/301000

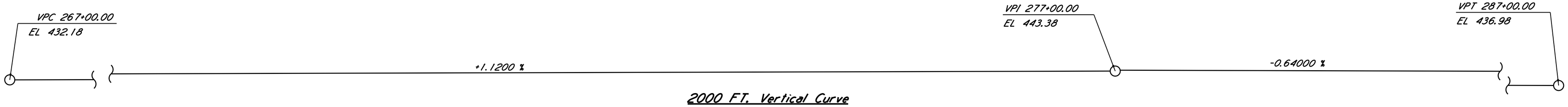
MARSHALL COUNTY

DESIGNER DLM CHECKER CDB
DETAILER DLM ISSUE DATE
DIRECTOR OF STRUCTURES, STATE BRIDGE ENGINEER - NICK J. ALTOBELLI PE.
DEP. DIRECTOR OF STRUCTURES, ASSIST. STATE BRIDGE ENGINEER - JUSTIN WALKER PE.

WORKING NUMBER A24 OF 24
SHEET NUMBER 8027

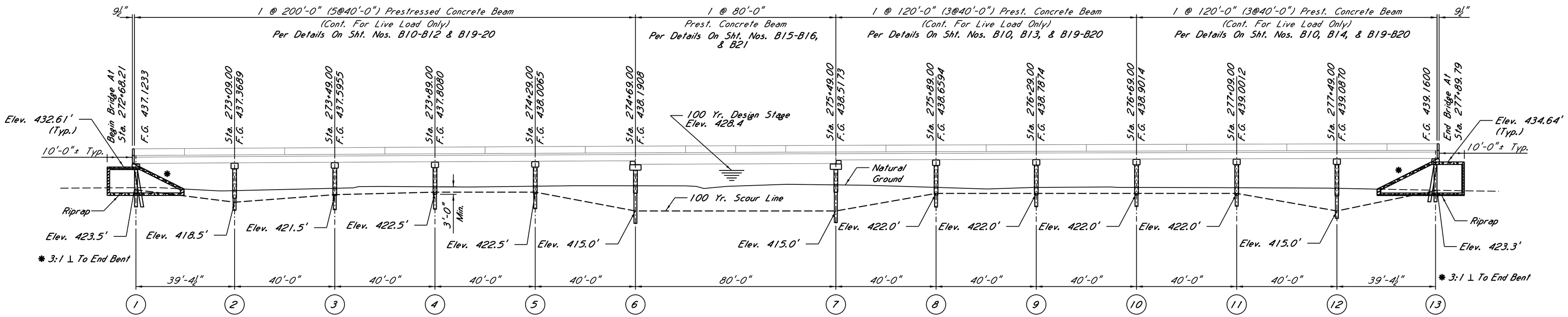
ADDENDUM

STATE	PROJECT NO.
MISS.	BR-019-02(041)



2000 FT. Vertical Curve

Total Length Of Bridge = 521'-7"



Steel Pile End Bent No. 1
Per Details On Sheet No. B5 & B6 ⚠1
10 ~ HP14x89 Steel Piles

Intermediate Bents No. 2-5, 8-9, & 11
Per Details On Sheet No. B7
6 ~ HP14x89 Steel Piles Per Bent

Intermediate Bents No. 6 & 7
Per Details On Sheet No. B8
6 ~ HP14x117 Steel Piles Per Bent

Intermediate Bent No. 10
Per Details On Sheet No. B9
6 ~ HP14x89 Steel Piles

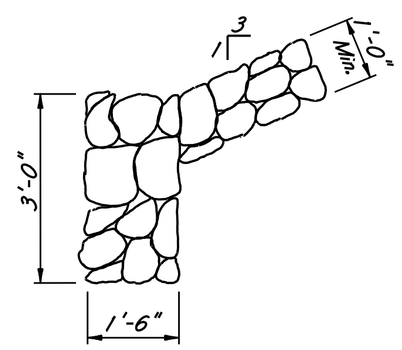
Intermediate Bent No. 12
Per Details On Sheet No. B7
6 ~ HP14x117 Steel Piles

Steel Pile End Bent No. 13
Per Details On Sheet No. B5 & B6 ⚠1
10 ~ HP14x89 Steel Piles

ELEVATION WITH PROFILE ALONG ℄ APPROACH ROADWAY

Scale 1" = 20'-0"

500 YEAR SCOUR	
Bent No.	Elevation (Ft.)
1	423.5
2	417.5
3	421.5
4	422.5
5	422.5
6	414.5
7	414.5
8	422.0
9	422.0
10	422.0
11	422.0
12	413.0
13	422.6



RIPRAP TOE DETAILS

NOTE: For general notes, quantities and additional details, see sheet no. B1.

CARTER D. BEARDEN
LICENSED PROFESSIONAL ENGINEER
18834
STATE OF MISSISSIPPI
DATE: 8/29/13

DATE	BY	REVISIONS
9-12-13	BEG	Reference revised

MISSISSIPPI DEPARTMENT OF TRANSPORTATION
BRIDGE AT STA. 272+68.21

SR 7 OVER COLDWATER RIVER

PROJECT BR-0019-02(041)
105189/301000

MARSHALL COUNTY

DESIGNER JEG CHECKER CDB
DETAILER JEG ISSUE DATE
DIRECTOR OF STRUCTURES, STATE BRIDGE ENGINEER - NICK J. ALTOBELLI PE.
DEP. DIRECTOR OF STRUCTURES, ASSIST. STATE BRIDGE ENGINEER - JUSTIN WALKER PE.

WORKING NUMBER B2 OF 21
SHEET NUMBER 8029

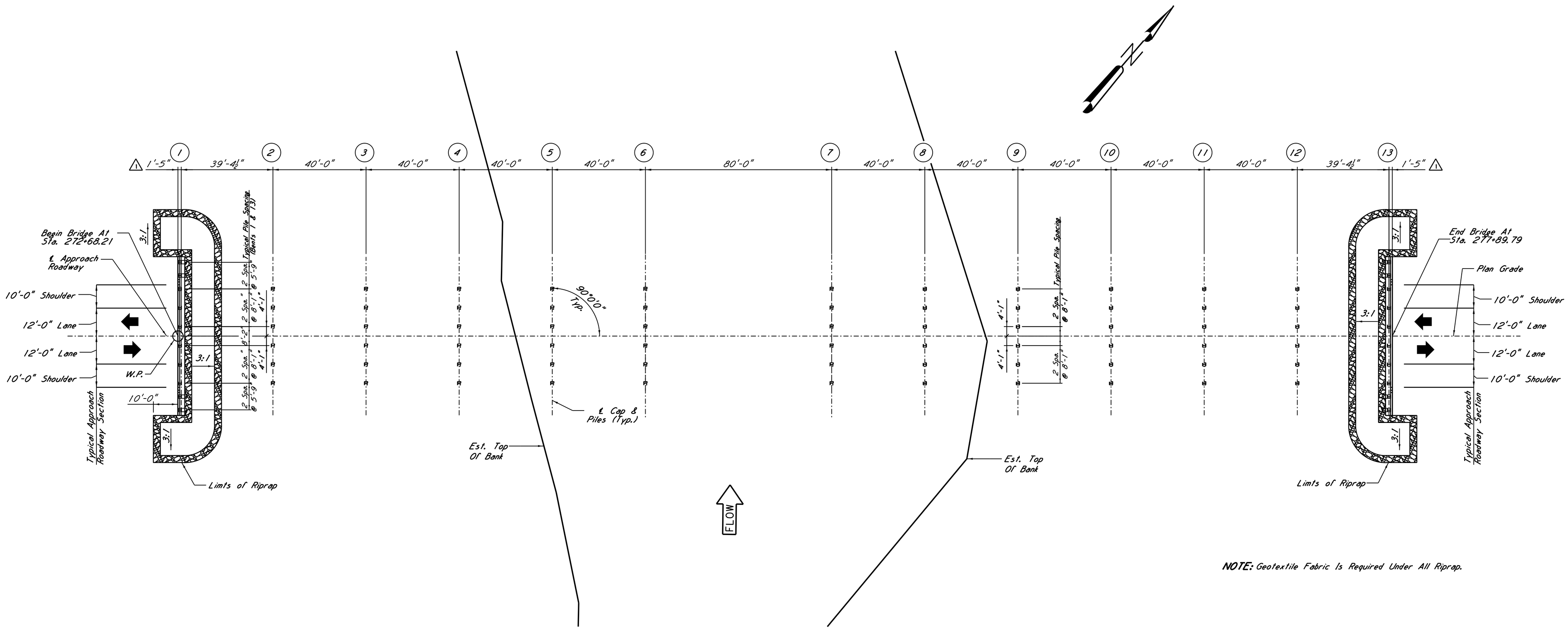
DESIGN TEAM: Florence & Hutcheson

COUNTY: MARSHALL

PROJECT NO. BR-0019-02(041) ⚠1

ADDENDUM

STATE	PROJECT NO.
MISS.	BR-019-02(041)



NOTE: Geotextile Fabric Is Required Under All Riprap.

FOUNDATION PLAN

Scale: 1" = 20'-0"

CARTER D. BEARDEN
LICENSED PROFESSIONAL ENGINEER
18834
STATE OF MISSISSIPPI

DATE: 8/29/13

DATE	REVISIONS	BY
9-12-13	Title & Dimension revised	DEG

MISSISSIPPI DEPARTMENT OF TRANSPORTATION
⚠BRIDGE AT STA. 272+68.21

SR 7 OVER COLDWATER RIVER

PROJECT BR-0019-02(041)
105189/301000

MARSHALL COUNTY

DESIGNER JEG CHECKER CDB
DETAILER JEG ISSUE DATE
DIRECTOR OF STRUCTURES, STATE BRIDGE ENGINEER - NICK J. ALTOBELLI PE.
DEP. DIRECTOR OF STRUCTURES, ASSIST. STATE BRIDGE ENGINEER - JUSTIN WALKER PE.

WORKING NUMBER
B3 OF 21

SHEET NUMBER
8030

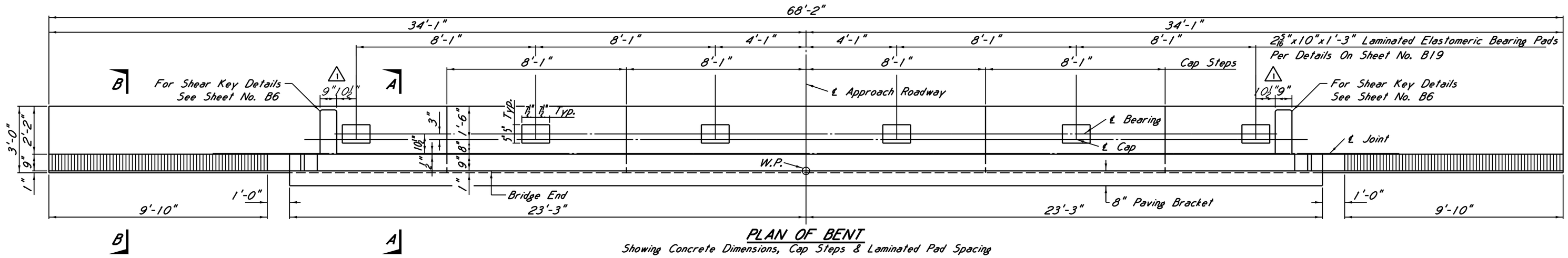
DESIGN TEAM: Florence & Hutcheson

COUNTY: MARSHALL

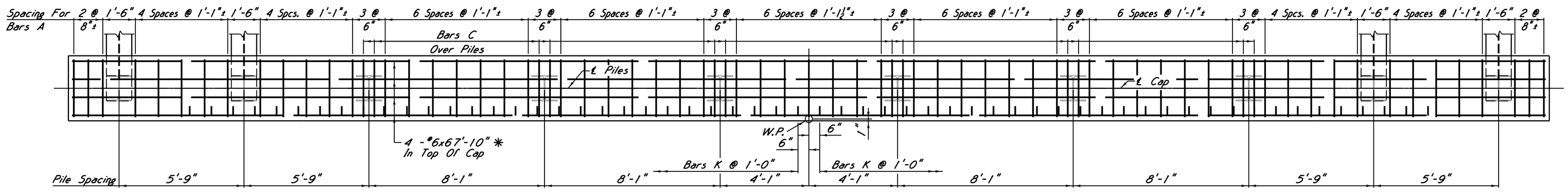
PROJECT NO. BR-0019-02(041) ⚠

ADDENDUM

STATE	PROJECT NO.
MISS.	BR-019-02(041)

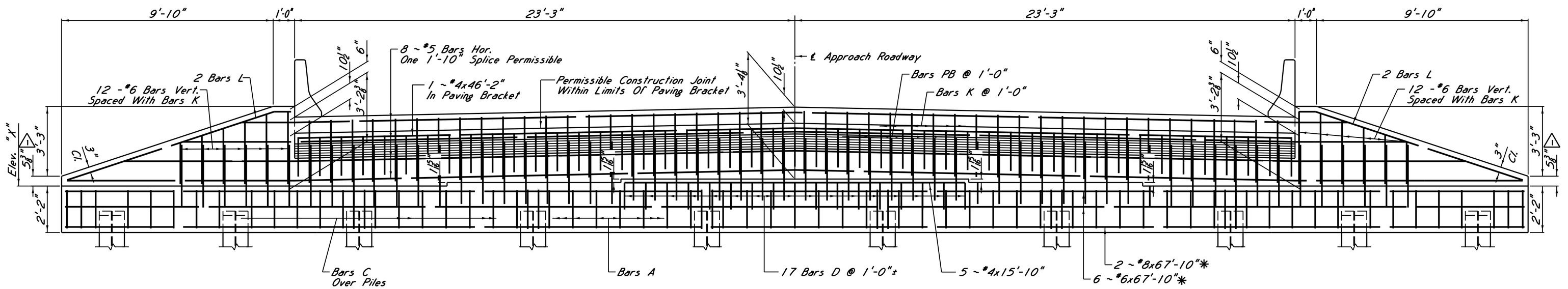


PLAN OF BENT
Showing Concrete Dimensions, Cap Steps & Laminated Pad Spacing



PLAN OF CAP
Showing Reinforcing Steel In Top Of Cap & Pile Spacing

NOTE: Piles shall be of the size, type, and driven to the required ultimate bearing capacity as shown on sheet no. B1 ⚠1 batter indicated piles 2" per foot as shown.



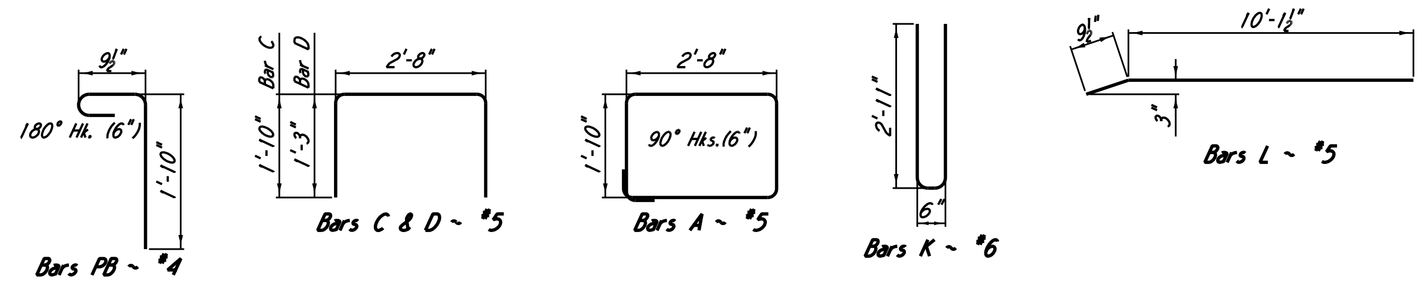
ELEVATION OF BENT - FROM FILL SIDE

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

For GENERAL NOTES and other details see sheet no. B6

* **SPLICE NOTE:**
Long. bars in cap may be lap spliced.

#6 bars ~ 2'-3" min. lap
#8 bars ~ 3'-8" min. lap



BAR BENDING DETAILS
Dimensions Are Out To Out

TABLE OF BENT ELEVATIONS	
Bent No.	Elev. "X"
1	433.4578
13	435.4815

CARTER D. BEARDEN — REGISTERED PROFESSIONAL ENGINEER — 18834 — STATE OF MISSISSIPPI
DATE: 6/29/13

DATE	REVISIONS	BY
9-12-13	Dimension & reference revised	BEG

MISSISSIPPI DEPARTMENT OF TRANSPORTATION
BRIDGE AT STA. 272+68.21

END BENT NO. 1 & 13 DETAILS

PROJECT BR-0019-02(041)
105189/301000

MARSHALL COUNTY

DESIGNER BEG CHECKER CDB
DETAILER BEG ISSUE DATE
DIRECTOR OF STRUCTURES, STATE BRIDGE ENGINEER - NICK J. ALTOBELLI PE.
DEP. DIRECTOR OF STRUCTURES, ASSIST. STATE BRIDGE ENGINEER - JUSTIN WALKER PE.

WORKING NUMBER B5 OF 21
SHEET NUMBER 8032

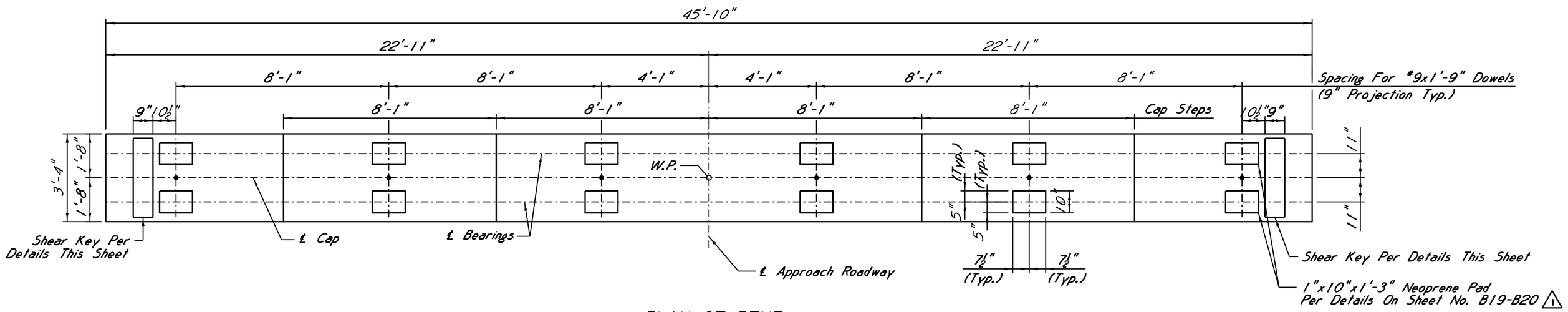
DESIGN TEAM: Florence & Hutcheson

COUNTY: MARSHALL

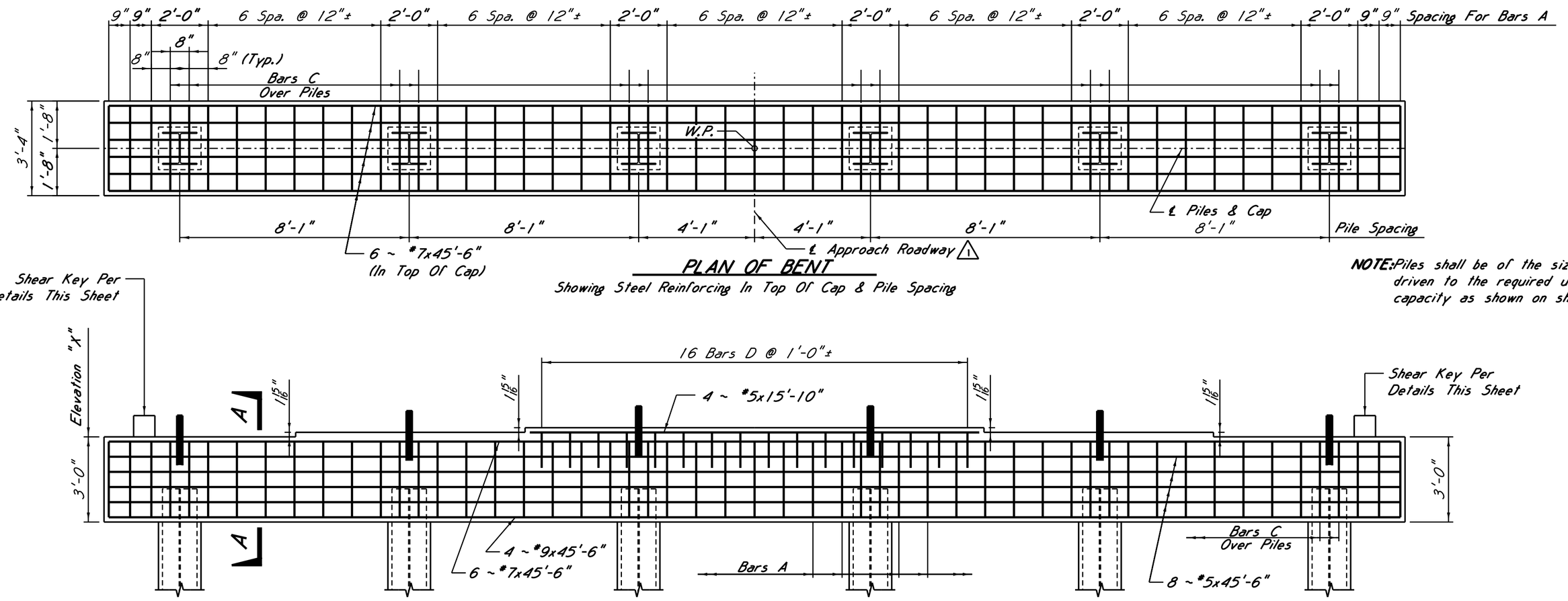
PROJECT NO. BR-0019-02(041) ⚠1

ADDENDUM

STATE	PROJECT NO.
MISS.	BR-019-02(041)

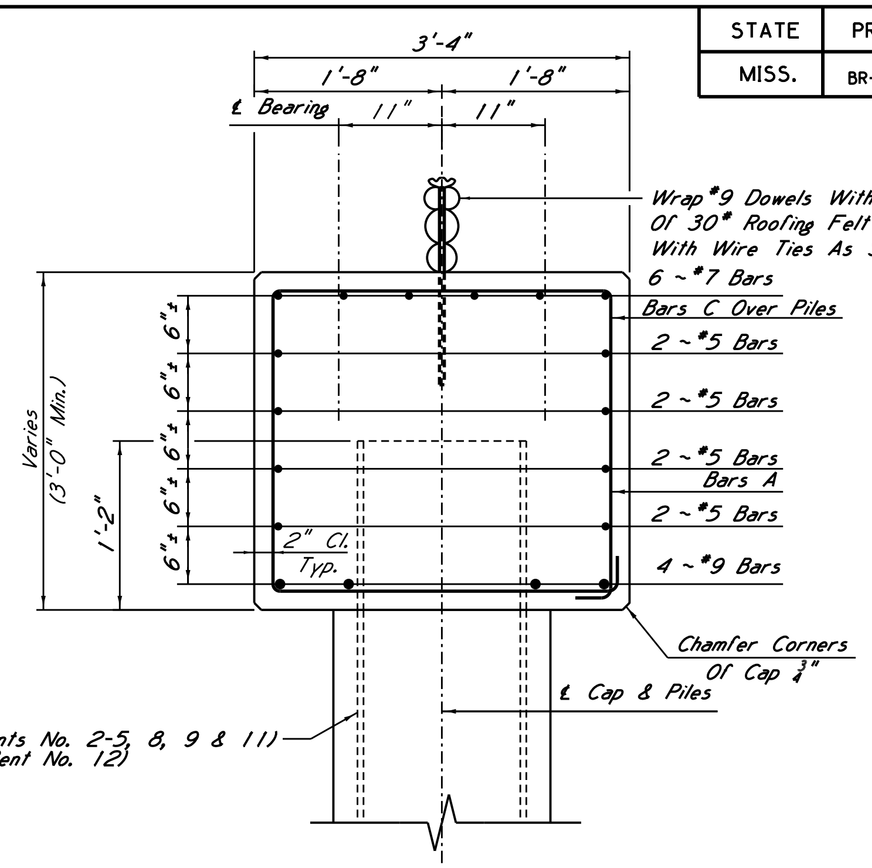


PLAN OF BENT
Showing Concrete Dimensions, Cap Steps, Anchor Dowels & Neoprene Pads ⚠1

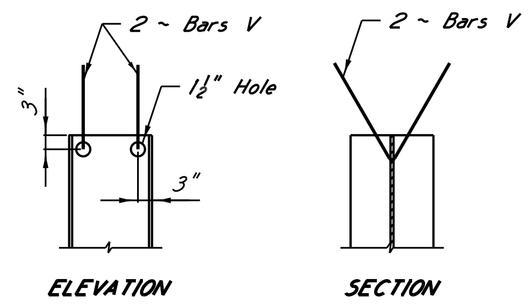


PLAN OF BENT
Showing Steel Reinforcing In Top Of Cap & Pile Spacing

NOTE: Piles shall be of the size, type, and driven to the required ultimate bearing capacity as shown on sheet no. B1.

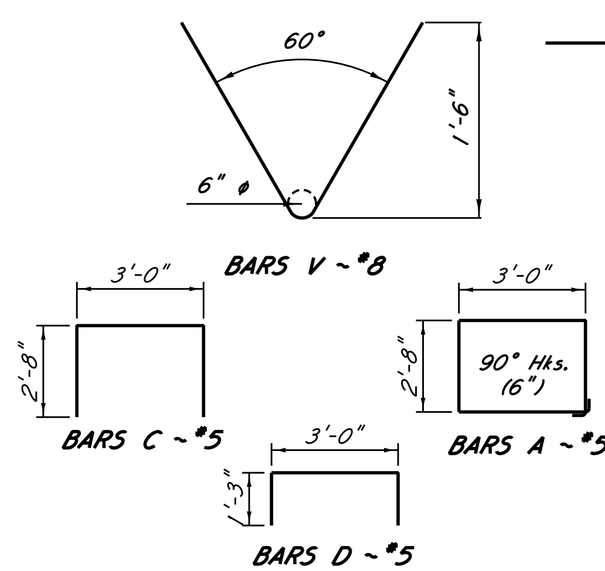


SECTION A-A
Pile Anchorage Not Shown For Clarity.



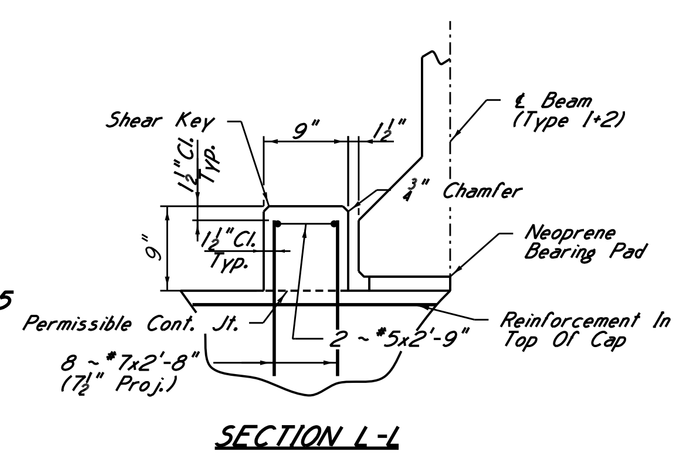
PILE ANCHORAGE DETAIL

TABLE OF BENT ELEVATIONS	
Bent No.	Elev. "X"
2	433.7971
3	434.0240
4	434.2369
5	434.4356
8	435.0898
9	435.2182
11	435.4327
12	435.5188

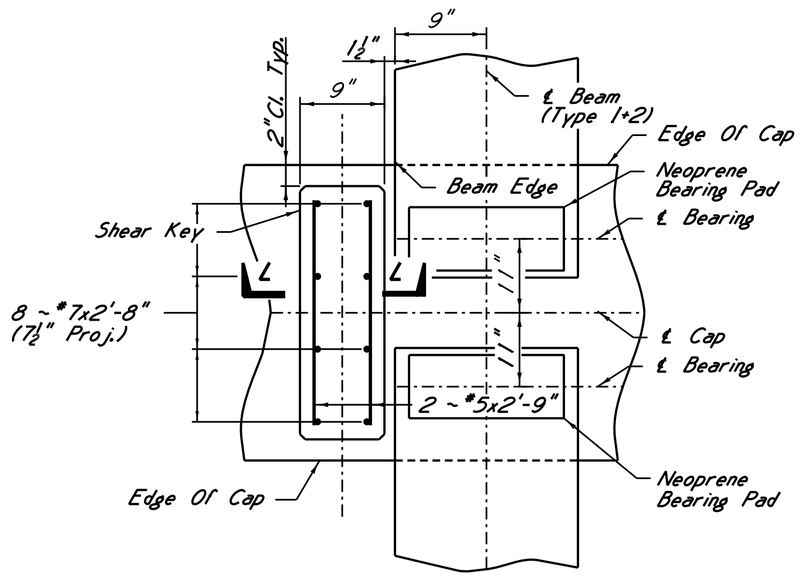


BAR BENDING DETAILS
Dimensions Are Out To Out

ELEVATION
Looking Upstation



SECTION L-L



SHEAR KEY DETAIL

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.

CARTER D. BEARDEN
LICENSED PROFESSIONAL ENGINEER
18834
STATE OF MISSISSIPPI
DATE: 6/29/13

DATE	REVISIONS	BY
9-12-13	Note & reference revised	BEG

MISSISSIPPI DEPARTMENT OF TRANSPORTATION
BRIDGE AT STA. 272+68.21

INTERMEDIATE BENT NO. 2-5, 8-9, & 11-12

PROJECT BR-0019-02(041)
105189/301000

MARSHALL COUNTY

WORKING NUMBER B7 OF 21

SHEET NUMBER 8034

DESIGNER BEG/MCS CHECKER CDB
DETAILER BEG/MCS ISSUE DATE
DIRECTOR OF STRUCTURES, STATE BRIDGE ENGINEER - NICK J. ALTOBELLI PE.
DEP. DIRECTOR OF STRUCTURES, ASSIST. STATE BRIDGE ENGINEER - JUSTIN WALKER PE.

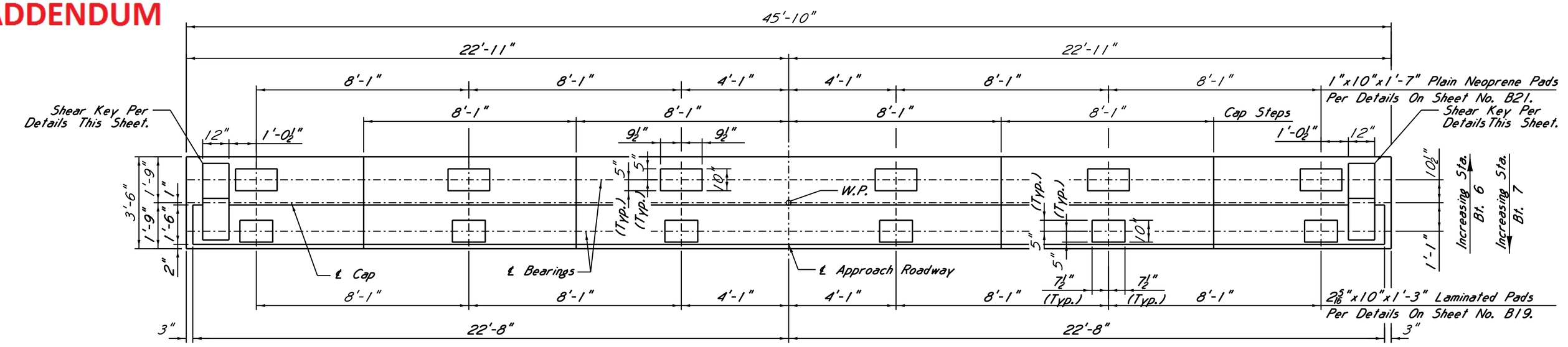
DESIGN TEAM: Florence & Hutcheson

COUNTY: MARSHALL

PROJECT NO. BR-0019-02(041) ⚠1

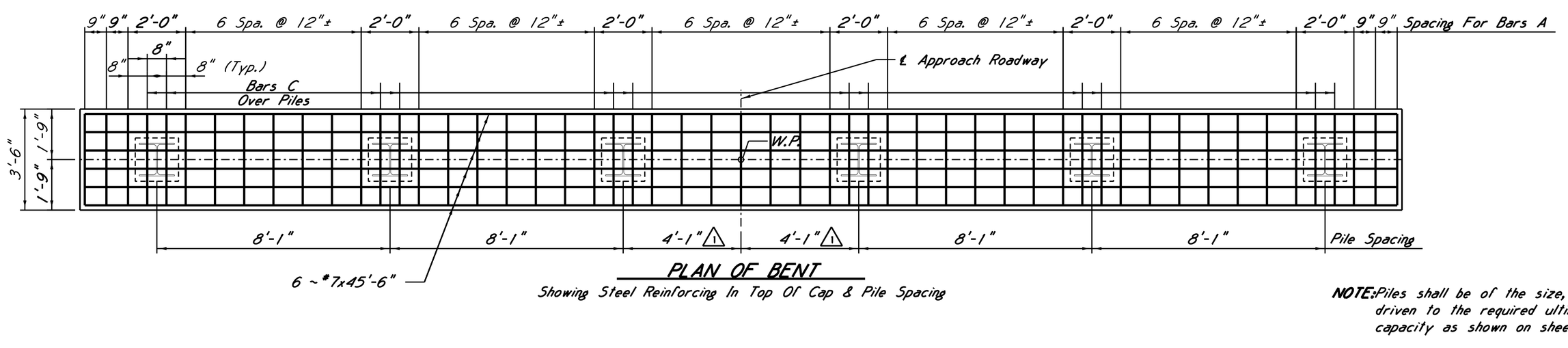
ADDENDUM

STATE	PROJECT NO.
MISS.	BR-019-02(041)



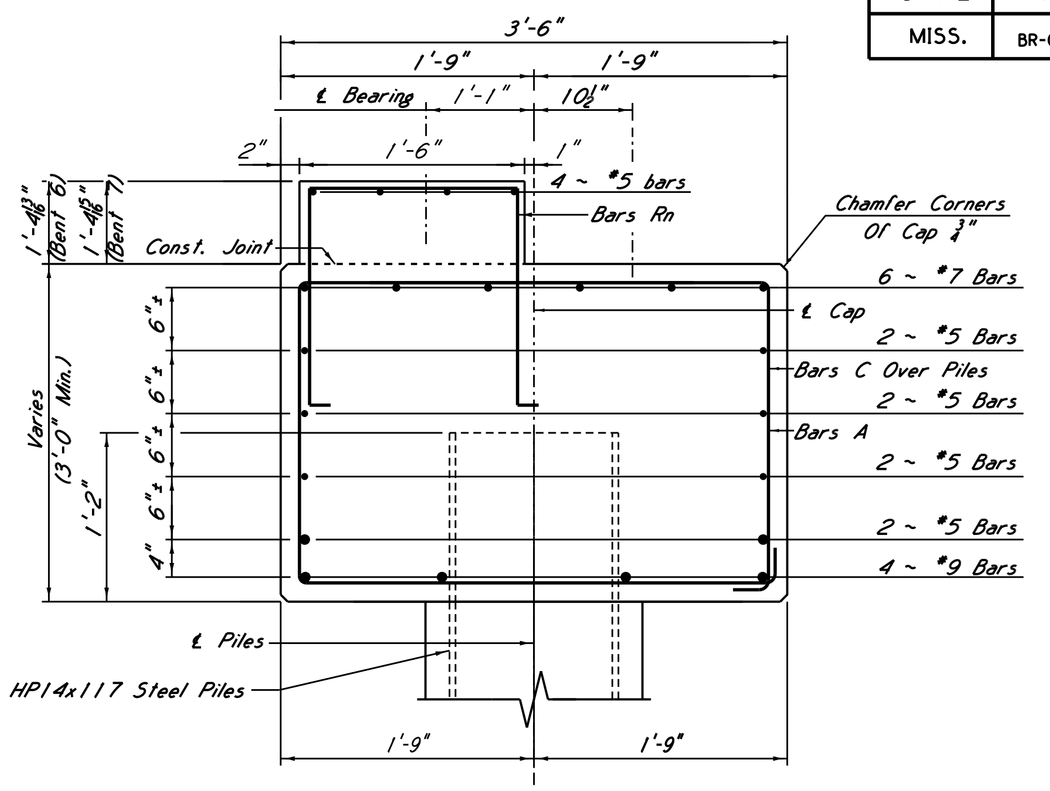
PLAN OF BENT

Showing Concrete Dimensions, Cap Steps, Laminated & Neoprene Pads



PLAN OF BENT

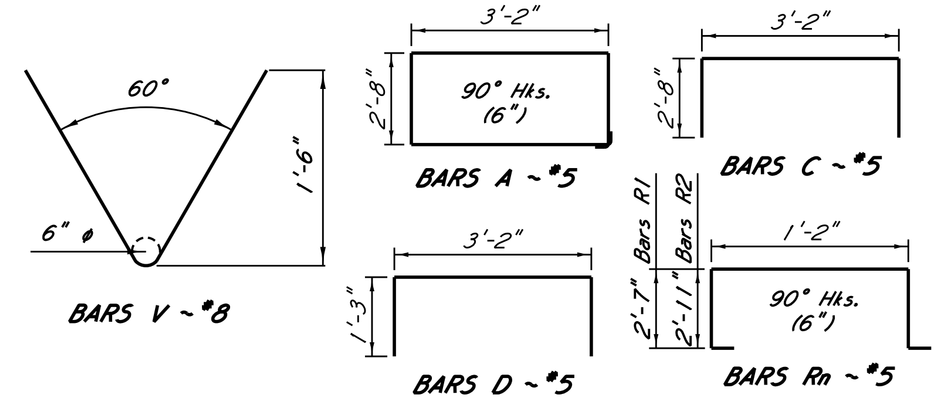
Showing Steel Reinforcing In Top Of Cap & Pile Spacing



SECTION A-A

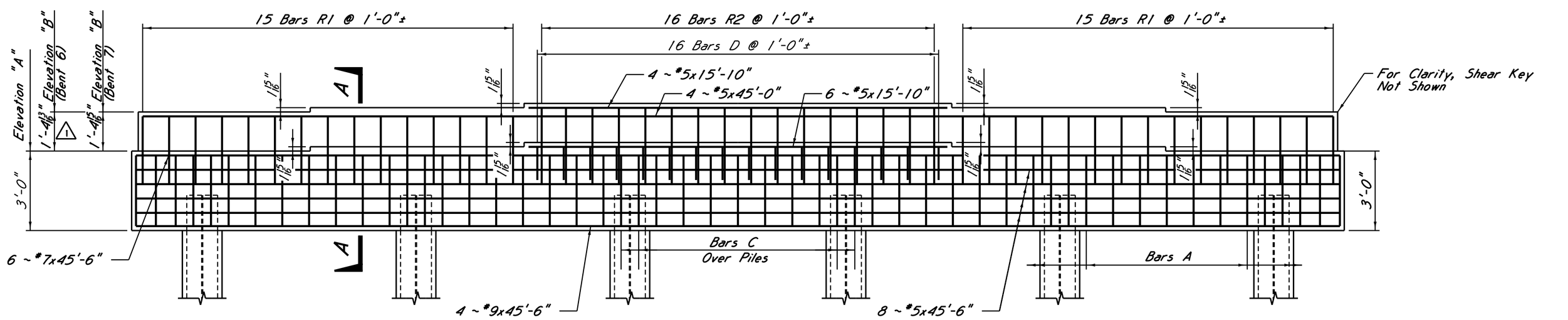
Pile Anchorage Not Shown For Clarity.

NOTE: Piles shall be of the size, type, and driven to the required ultimate bearing capacity as shown on sheet no. B1.



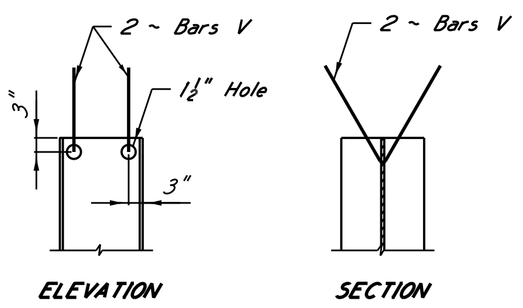
BAR BENDING DETAILS

Dimensions Are Out To Out

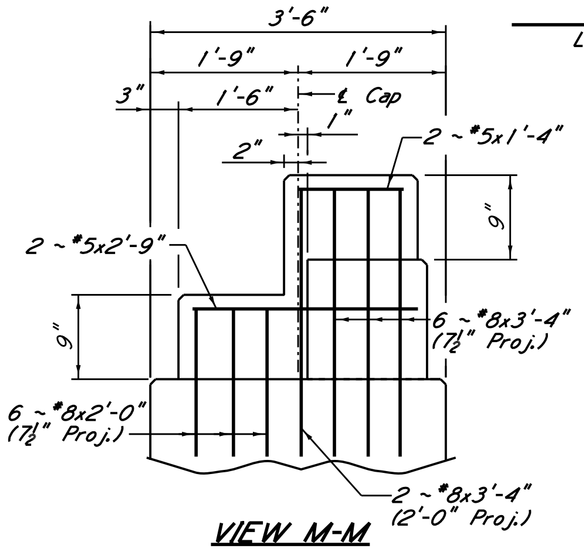


ELEVATION

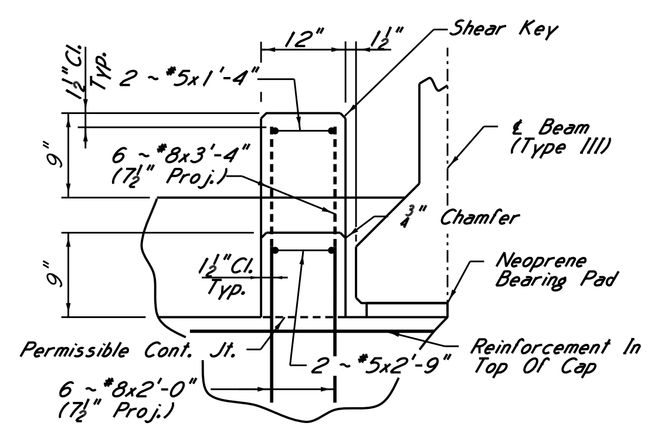
Looking Upstation



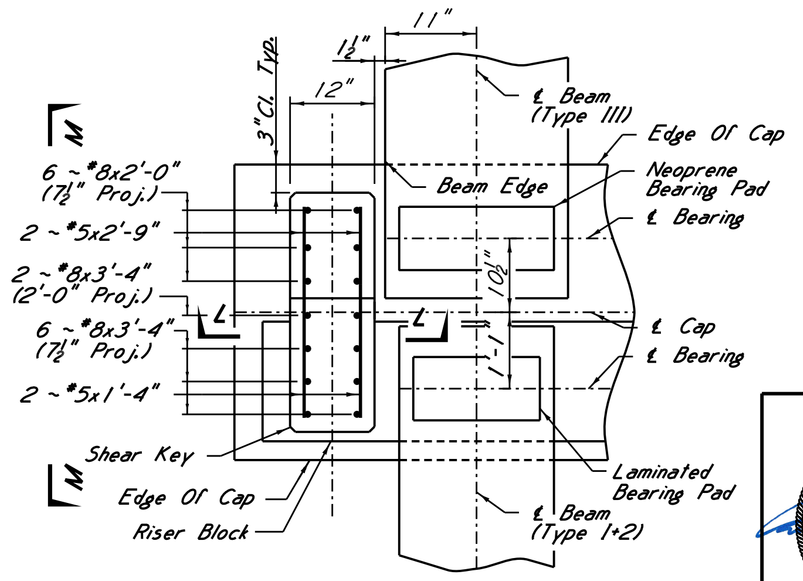
PILE ANCHORAGE DETAIL



VIEW M-M



SECTION L-L



SHEAR KEY DETAIL

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.

TABLE OF BENT ELEVATIONS		
Bent No.	Elev. "A"	Elev. "B"
6	433.1126	434.5115
7	433.4319	434.8444

CARTER D. BEARDEN — LICENSED PROFESSIONAL ENGINEER — 18834 — STATE OF MISSISSIPPI
DATE: 6/29/13

DATE	BY	REVISIONS
9-12-13	BEG	Dimension revised

MISSISSIPPI DEPARTMENT OF TRANSPORTATION
BRIDGE AT STA. 272+68.21

INTERMEDIATE BENT NO. 6 & 7

PROJECT BR-0019-02(041)
105189/301000

MARSHALL COUNTY

WORKING NUMBER B8 OF 21

SHEET NUMBER 8035

DESIGNER BEG — CHECKER COB
DETAILER BEG — ISSUE DATE
DIRECTOR OF STRUCTURES, STATE BRIDGE ENGINEER - NICK J. ALTOBELLI PE.
DEP. DIRECTOR OF STRUCTURES, ASSIST. STATE BRIDGE ENGINEER - JUSTIN WALKER PE.

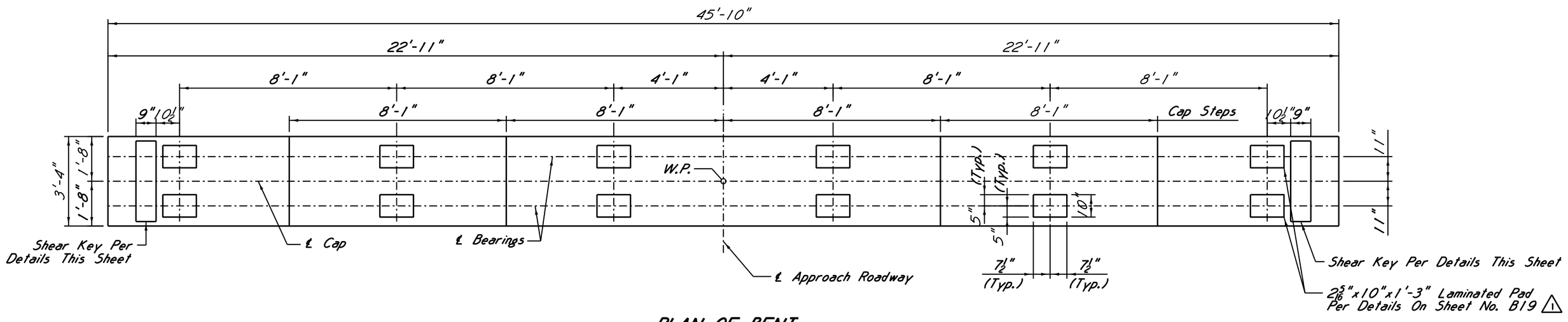
DESIGN TEAM: Florence & Hutcheson

COUNTY: MARSHALL

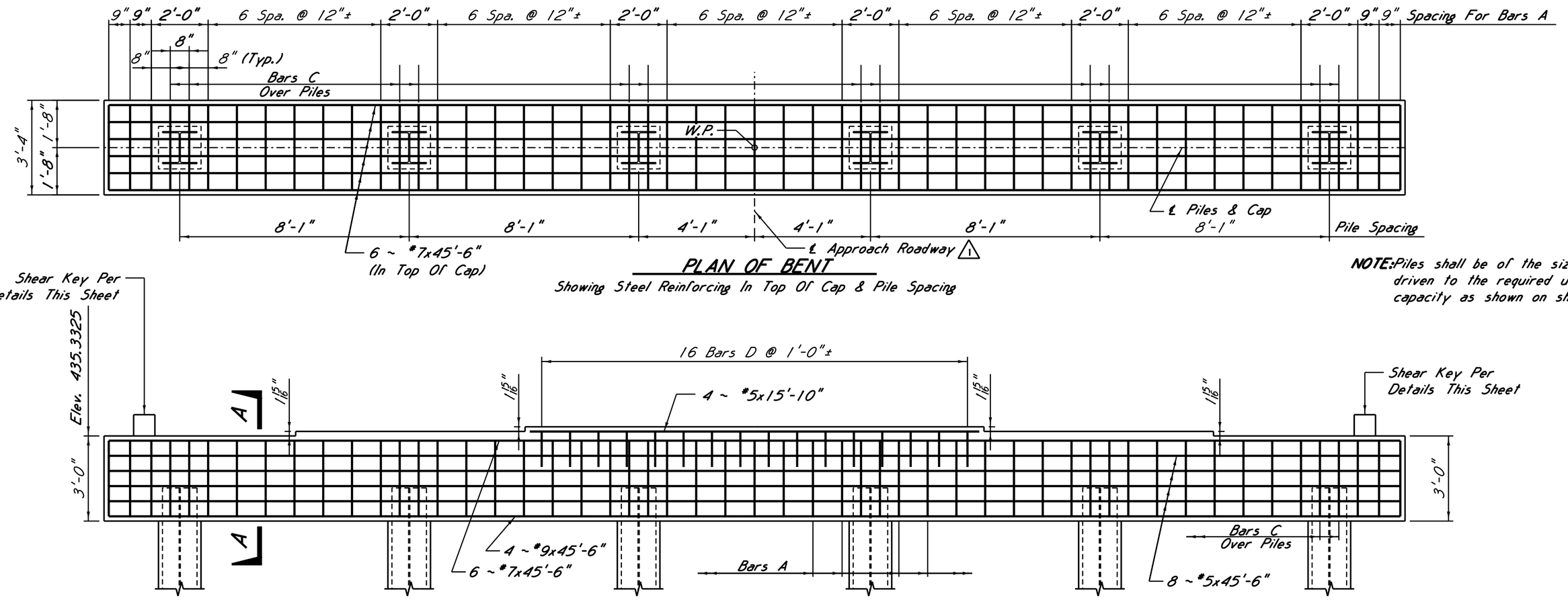
PROJECT NO. BR-0019-02(041) △

ADDENDUM

STATE	PROJECT NO.
MISS.	BR-019-02(041)

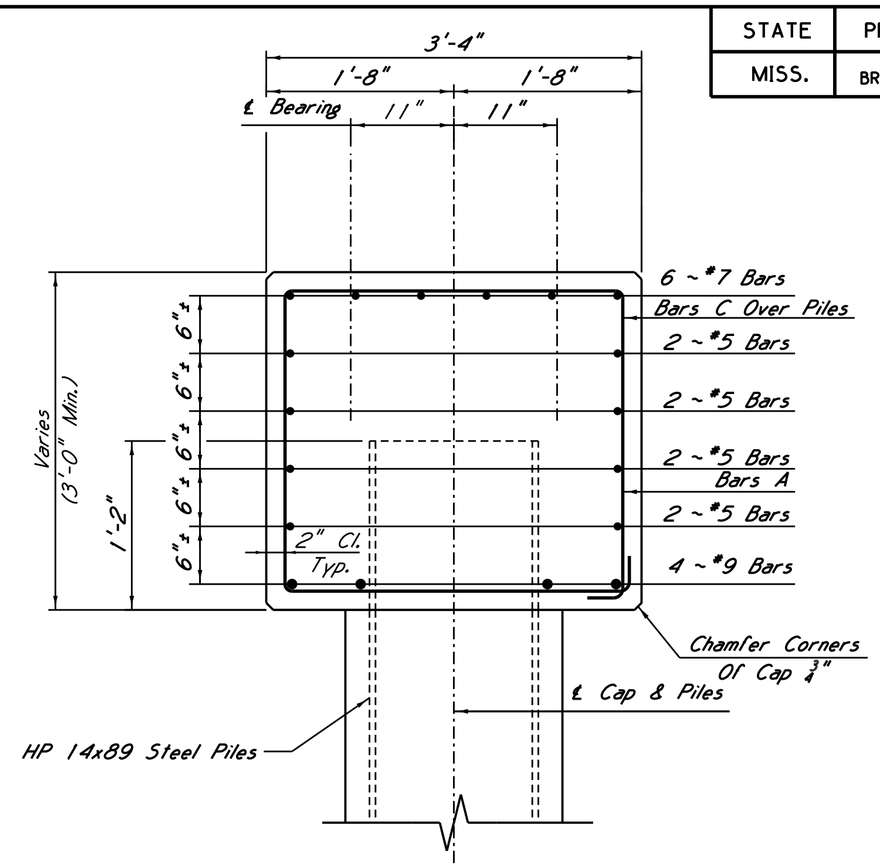


PLAN OF BENT
Showing Concrete Dimensions, Cap Steps & Laminated Pads ⚠1

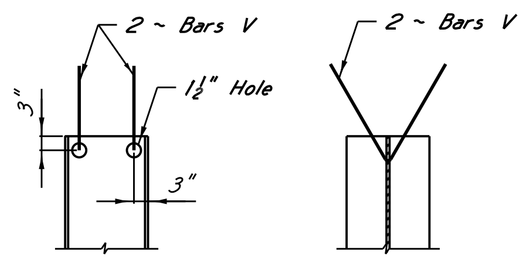


PLAN OF BENT
Showing Steel Reinforcing In Top Of Cap & Pile Spacing

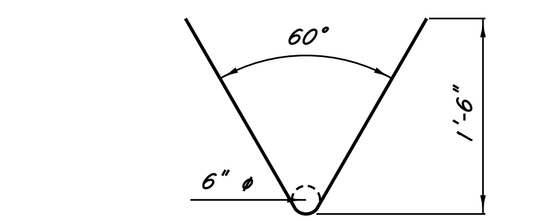
NOTE: Piles shall be of the size, type, and driven to the required ultimate bearing capacity as shown on sheet no. B1.



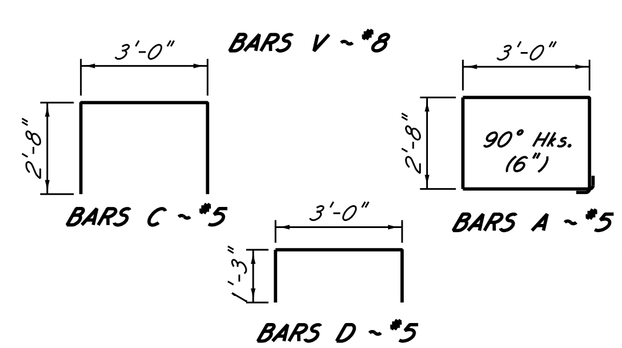
SECTION A-A
Pile Anchorage Not Shown For Clarity.



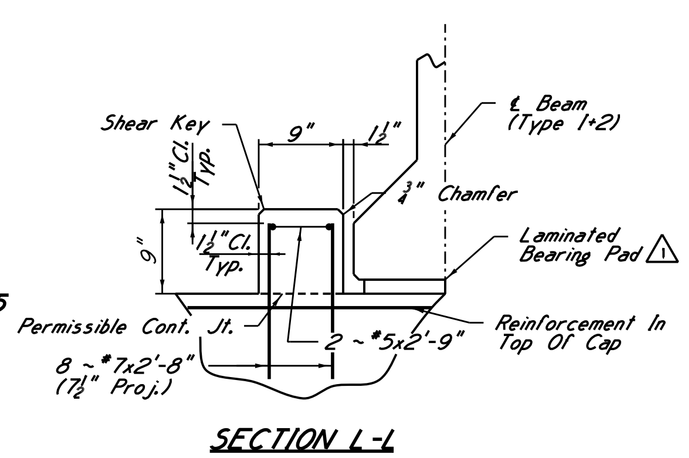
PILE ANCHORAGE DETAIL



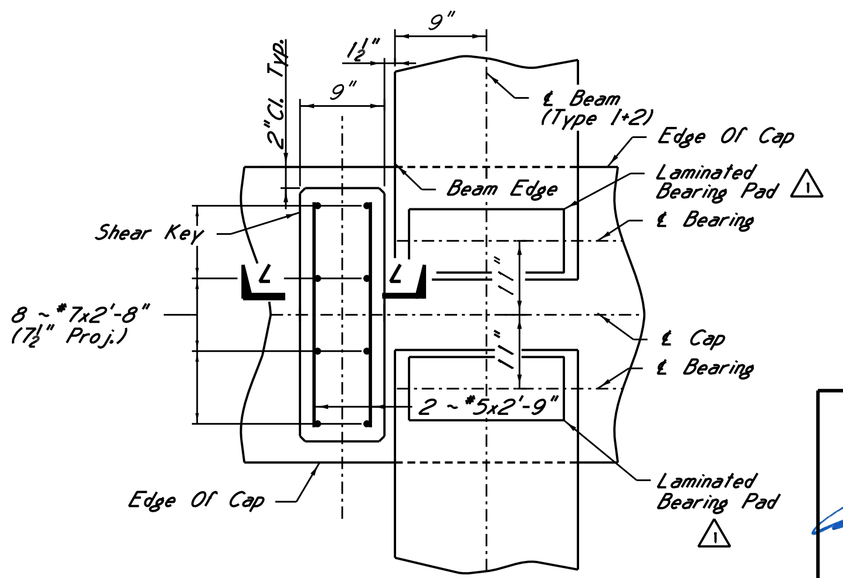
ELEVATION
Looking Upstation



BAR BENDING DETAILS
Dimensions Are Out To Out



SECTION L-L



SHEAR KEY DETAIL

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.

CARTER D. BEARDEN LICENSED PROFESSIONAL ENGINEER 18834 STATE OF MISSISSIPPI
DATE: 8/29/13

DATE	BY	REVISIONS
9-12-13	BEG	Note & reference revised

MISSISSIPPI DEPARTMENT OF TRANSPORTATION
BRIDGE AT STA. 272+68.21

INTERMEDIATE BENT NO. 10

PROJECT BR-0019-02(041)
105189/301000

MARSHALL COUNTY

WORKING NUMBER B9 OF 21

SHEET NUMBER 8036

DESIGNER BEG/VCS CHECKER COB
DETAILER BEG/VCS ISSUE DATE
DIRECTOR OF STRUCTURES, STATE BRIDGE ENGINEER - NICK J. ALTOBELLI PE.
DEP. DIRECTOR OF STRUCTURES, ASSIST. STATE BRIDGE ENGINEER - JUSTIN WALKER PE.

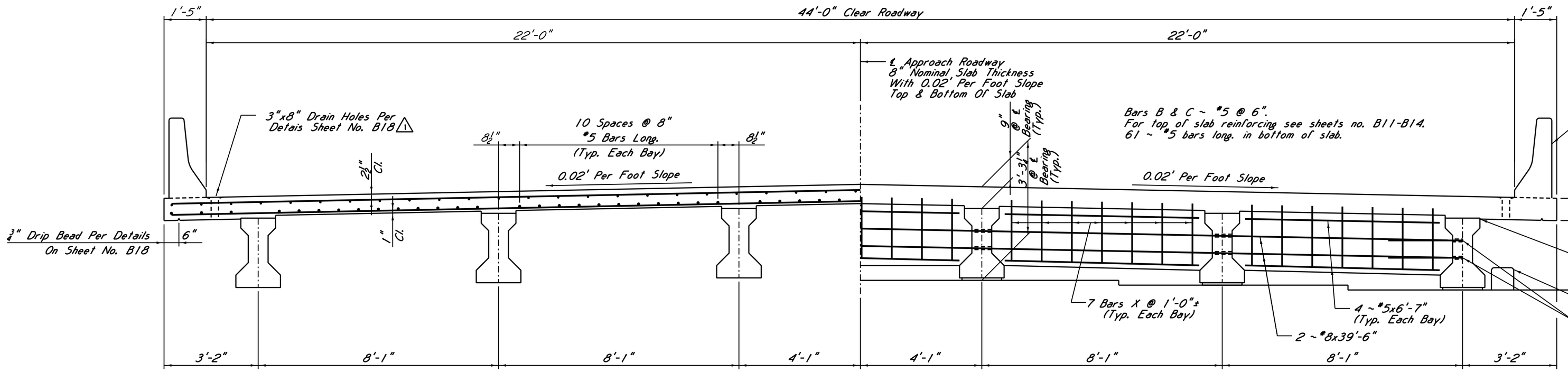
DESIGN TEAM: Florence & Hutcheson

COUNTY: MARSHALL

PROJECT NO. BR-0019-02(041) ⚠1

ADDENDUM

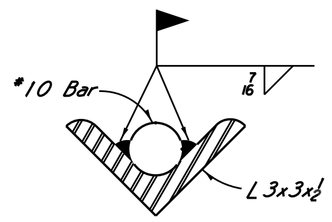
STATE	PROJECT NO.
MISS.	BR-019-02(041)



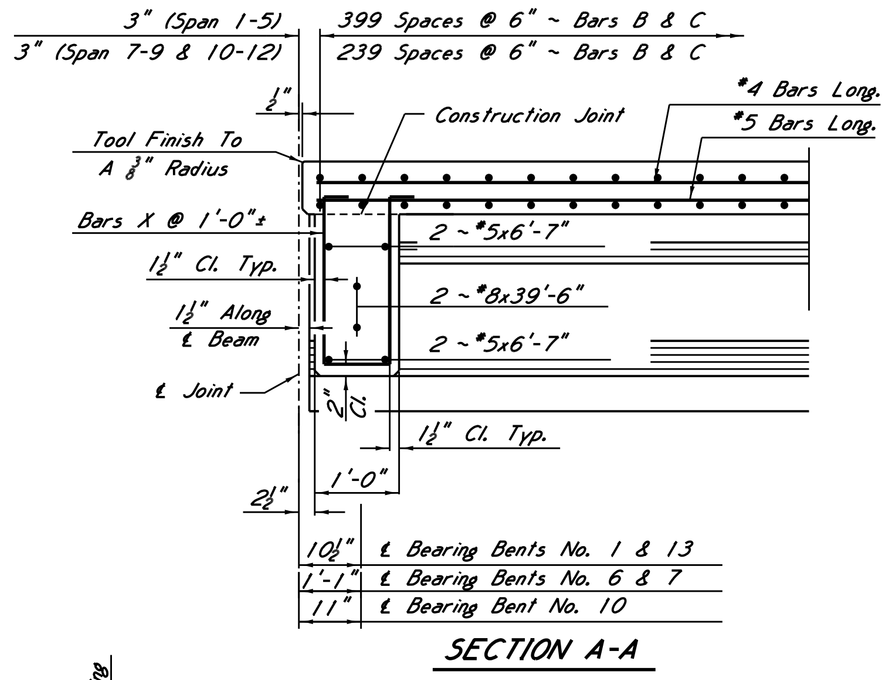
NOTE: Ensure That Holes In Beam Webs Are Completely Filled With Diaphragm Concrete.

PART SECTION NEAR MIDSPAN
Showing Slab Reinforcing

PART SECTION NEAR END OF SPAN
Showing 1'-0" End Concrete Diaphragm Details

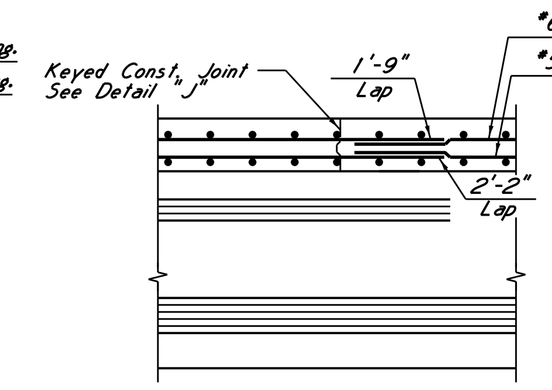


SECTION K-K



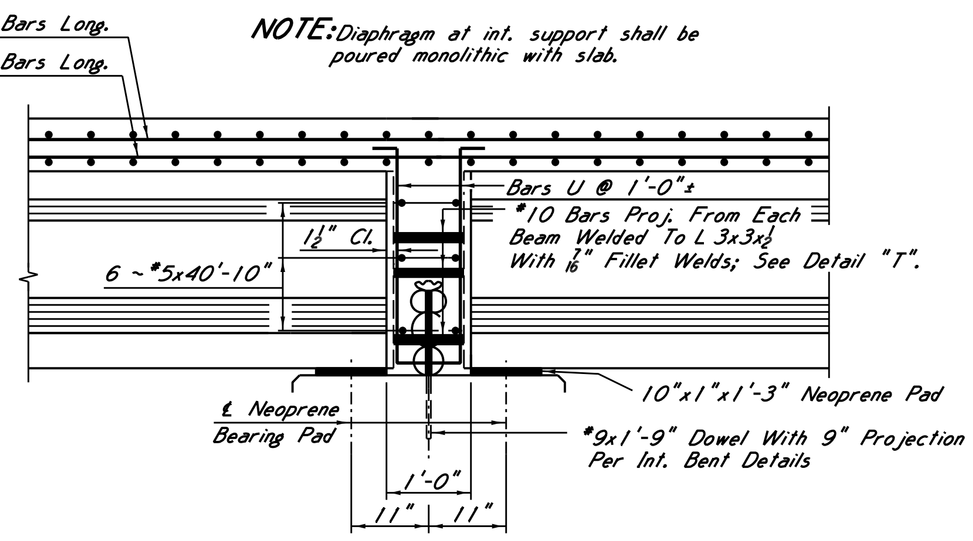
SECTION A-A

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

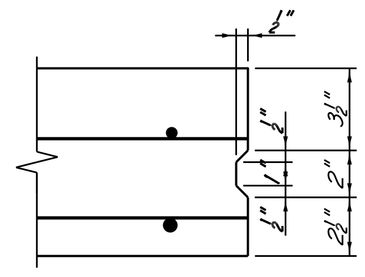


SECTION B-B

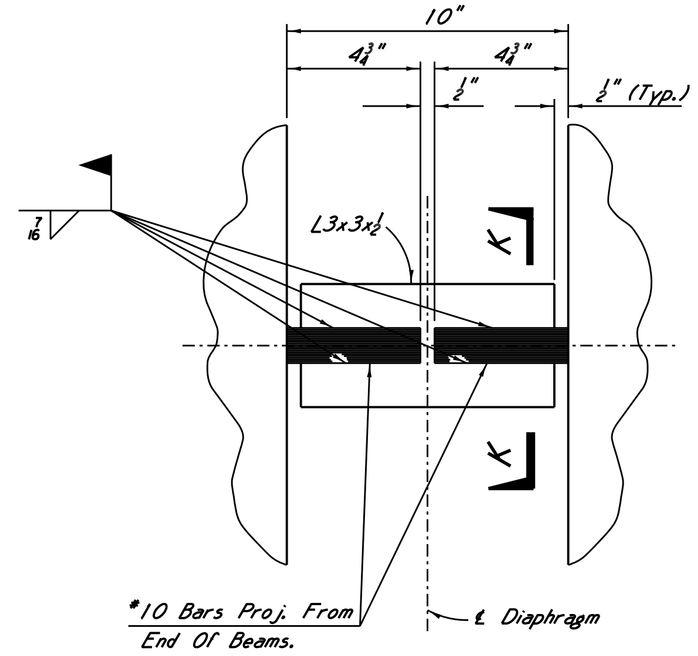
NOTE: Diaphragm at int. support shall be poured monolithic with slab.



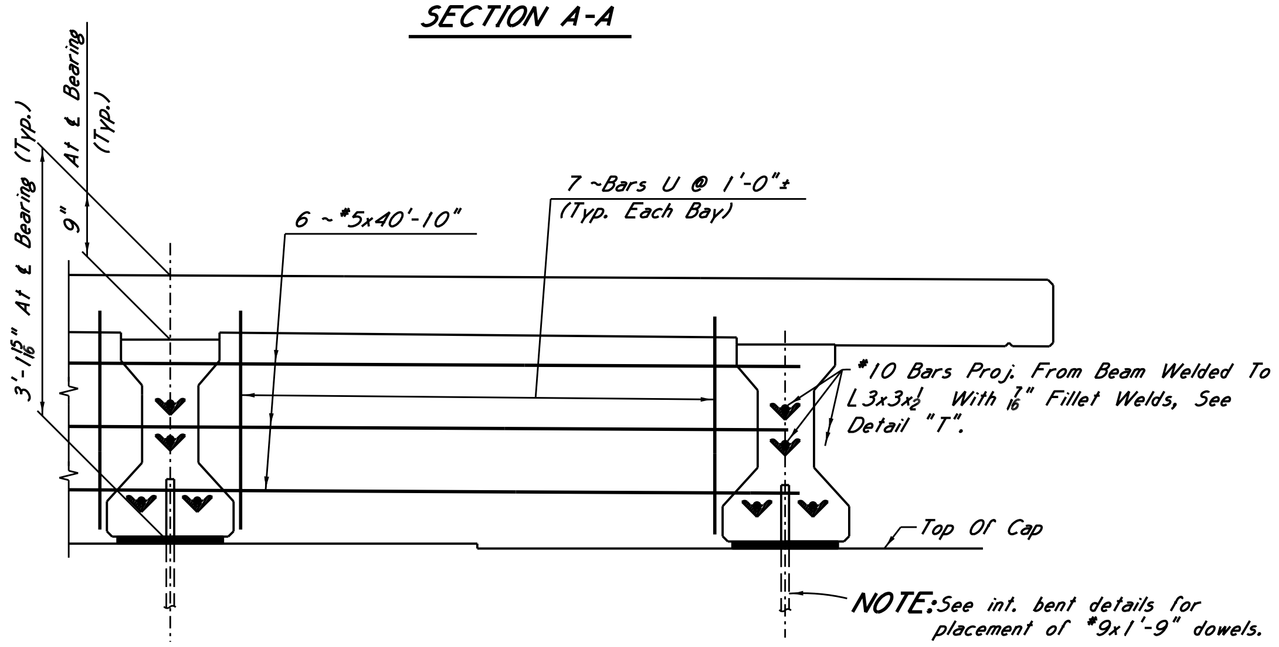
SECTION C-C



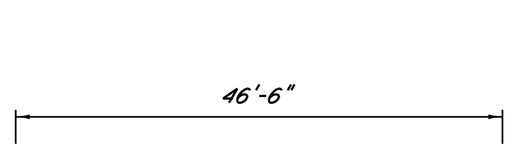
DETAIL "J"



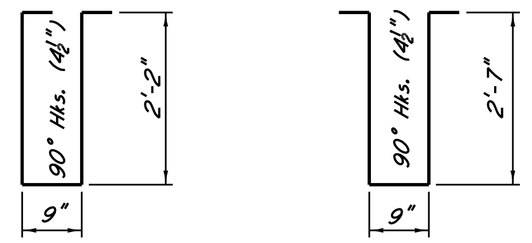
DETAIL "T"



PART SECTION NEAR 1'-0" INT. DIAPHRAGM



BARS B&C ~ #5



BARS X ~ #4 BARS U ~ #4

BAR BENDING DETAILS
Dimensions Are Out To Out

NOTE: The volume of concrete in the fillets between the bottom of the nominal slab and the top of the beam has been estimated by using one half (1/2) of 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.
For GENERAL NOTES, railing details and other typical span details see sheets no. B17 & B18.

DESIGN DATA:
Specifications. . . . . A.A.S.H.T.O., LRFD 2012
Loading. HL-93
Prestressed Beam Details. . .See Sheets No. B19 & B20

CARTER D. BEARDEN LICENSED PROFESSIONAL ENGINEER 18834 STATE OF MISSISSIPPI
DATE: 8/29/13

BY	DATE	Reference revised REVISIONS
BEG	9-12-13	

MISSISSIPPI DEPARTMENT OF TRANSPORTATION
BRIDGE AT STA. 272+68.21

40 FT. SPAN DETAILS
(SPANS 1-5 & 7-12)

PROJECT BR-0019-02(041)
105189/301000

MARSHALL COUNTY

WORKING NUMBER B10 OF 21

SHEET NUMBER 8037

DESIGNER JEG CHECKER CDB
DETAILER JEG ISSUE DATE
DIRECTOR OF STRUCTURES, STATE BRIDGE ENGINEER - NICK J. ALTOBELLI PE.
DEP. DIRECTOR OF STRUCTURES, ASSIST. STATE BRIDGE ENGINEER - JUSTIN WALKER PE.

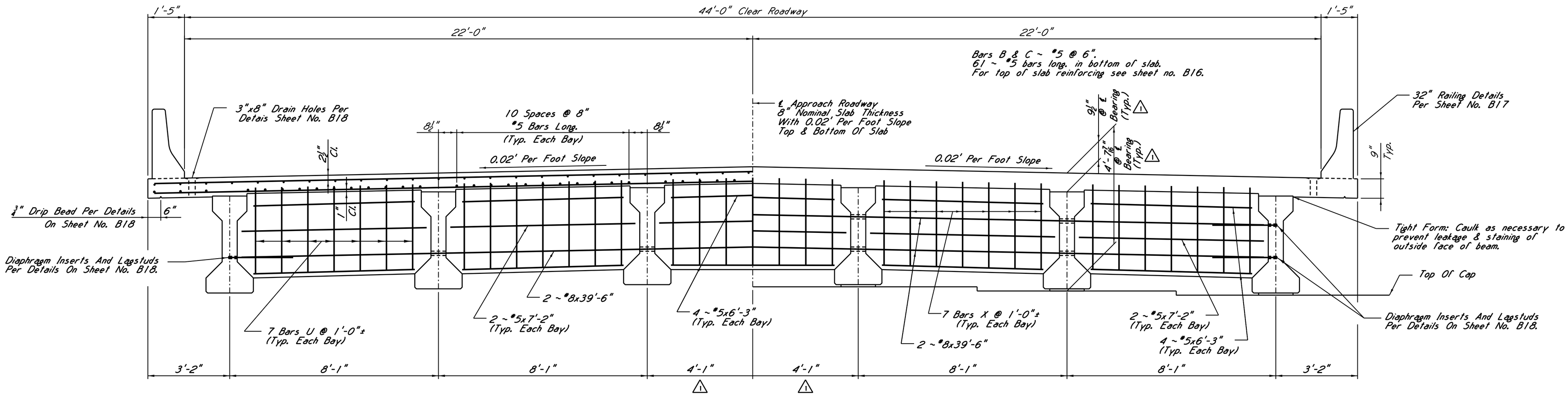
DESIGN TEAM: Florence & Hutcheson

COUNTY: MARSHALL

PROJECT NO. BR-0019-02(041) ⚠1

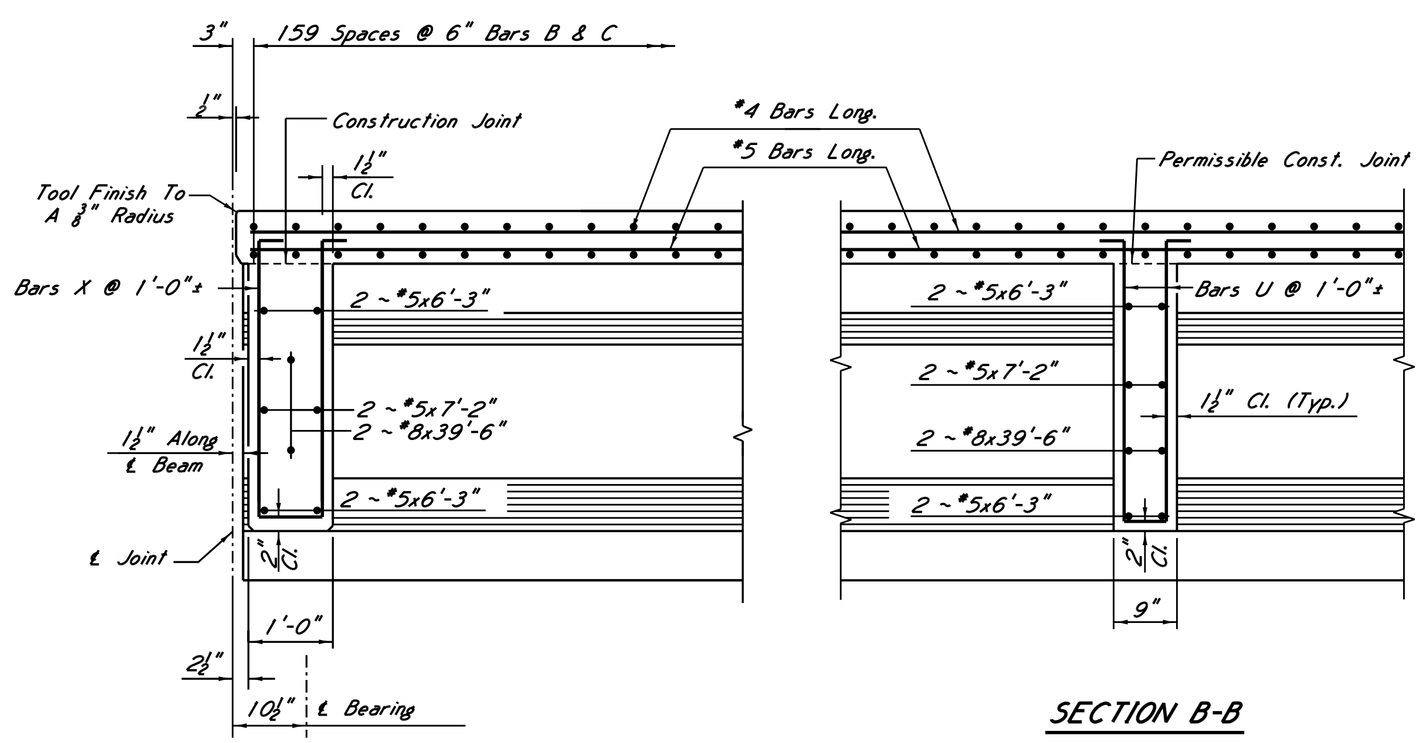
ADDENDUM

STATE	PROJECT NO.
MISS.	BR-019-02(041)



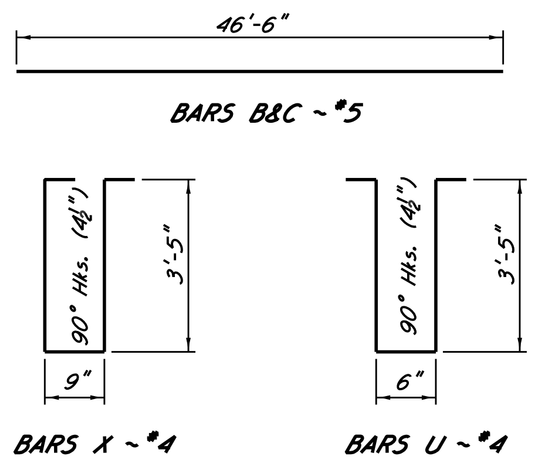
PART SECTION NEAR INT. DIAPHRAGM
Showing Slab Reinforcing & 9" Int. Concrete Diaphragm Details

PART SECTION NEAR END OF SPAN
Showing 1'-0" End Concrete Diaphragm Details



SECTION A-A

SECTION B-B



BAR BENDING DETAILS
Dimensions Are Out To Out

NOTE:
The volume of concrete in the fillets between the bottom of the nominal slab and the top of the beam has been estimated by using one half (1/2) of 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.
For GENERAL NOTES, railing details and other typical span details see sheets no. B17 & B18.

DESIGN DATA:
Specifications. . . . . A.A.S.H.T.O., LRFD 2012
Loading. HL-93
Prestressed Beam Details. . .See Sheet No. B21

CARTER D. BERRIEN LICENSED PROFESSIONAL ENGINEER 18834 STATE OF MISSISSIPPI
DATE: 6/29/13

BY	DATE	REVISIONS
BEG	9-12-13	Dimension revised

MISSISSIPPI DEPARTMENT OF TRANSPORTATION
BRIDGE AT STA. 272+68.21

80 FT. SPAN DETAILS
(SPAN 6)

PROJECT BR-0019-02(041)
105189/301000

MARSHALL COUNTY

WORKING NUMBER B15 OF 21

SHEET NUMBER 8042

DESIGNER JEG CHECKER CDB
DETAILER JEG ISSUE DATE
DIRECTOR OF STRUCTURES, STATE BRIDGE ENGINEER - NICK J. ALTOBELLI PE.
DEP. DIRECTOR OF STRUCTURES, ASSIST. STATE BRIDGE ENGINEER - JUSTIN WALKER PE.

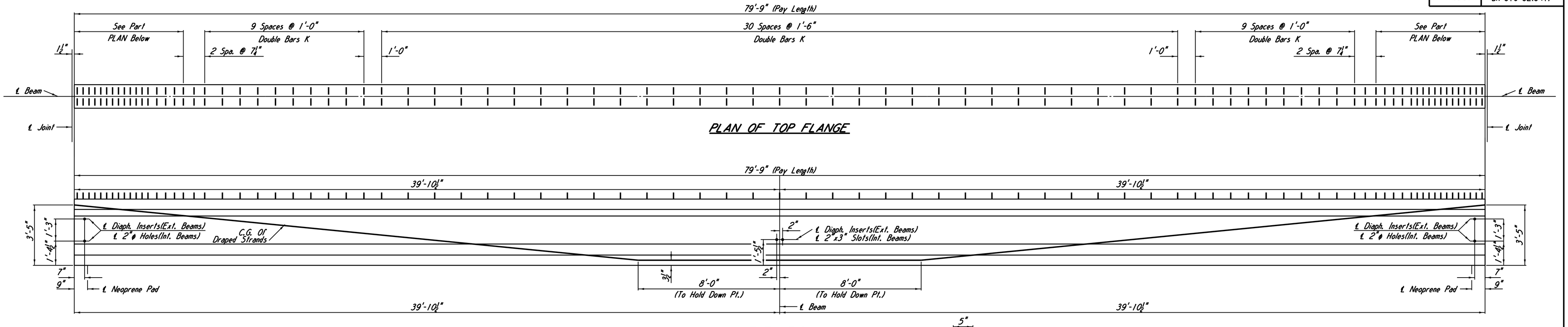
DESIGN TEAM: Florence & Hutcheson

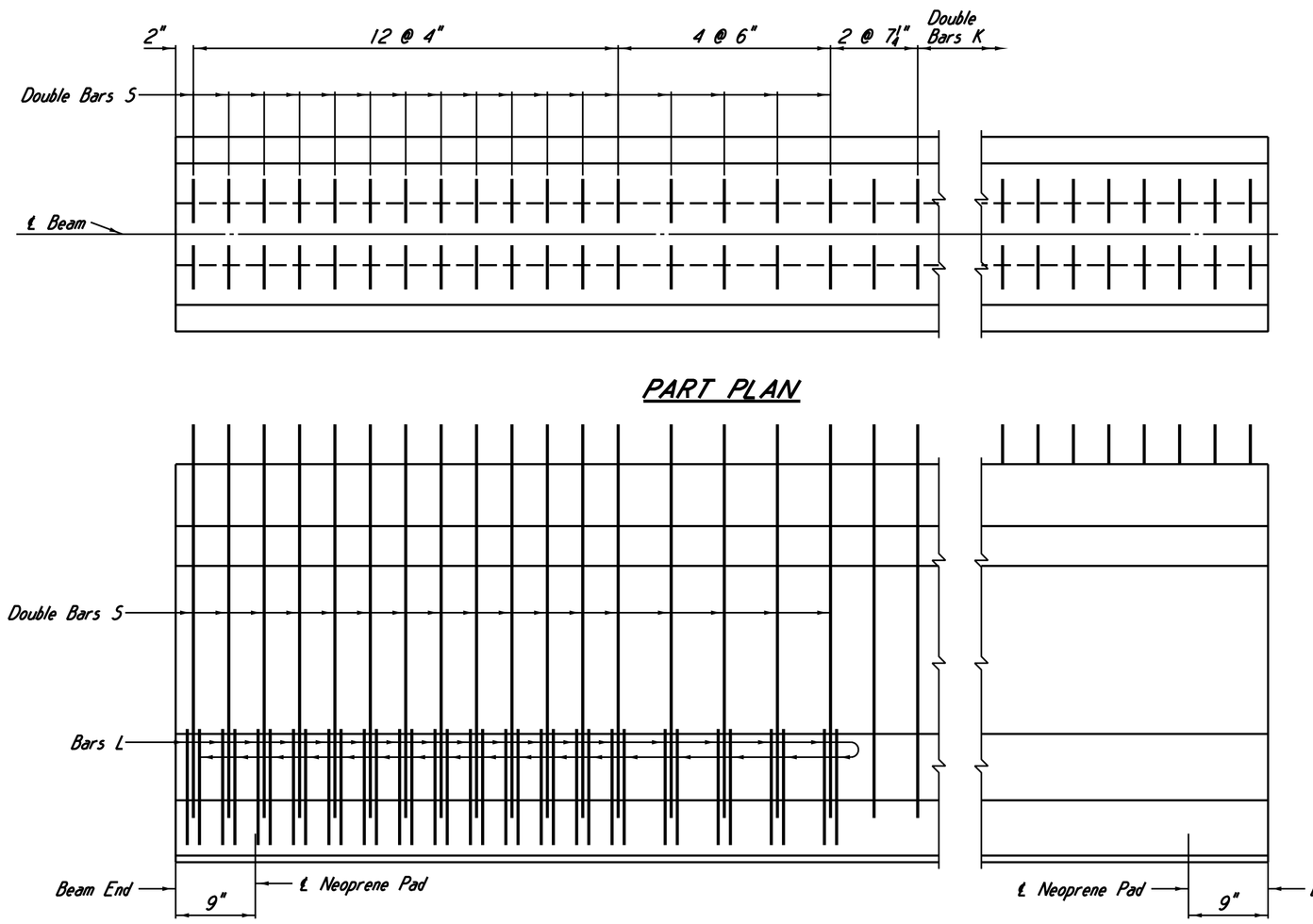
COUNTY: MARSHALL

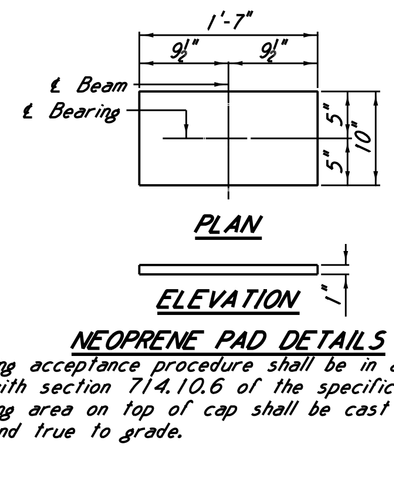
PROJECT NO. BR-0019-02(041) 1

ADDENDUM

STATE	PROJECT NO.
MISS.	BR-019-02(041)

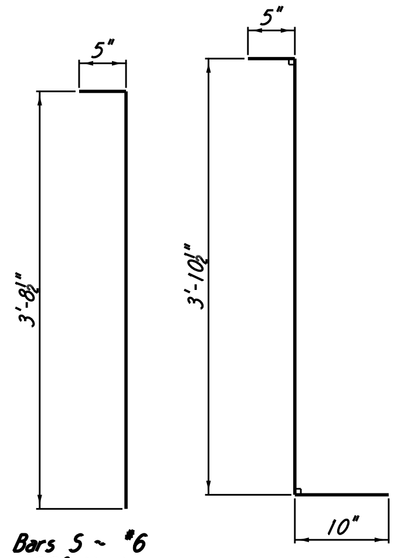


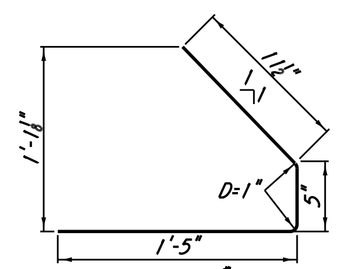




NEOPRENE PAD DETAILS

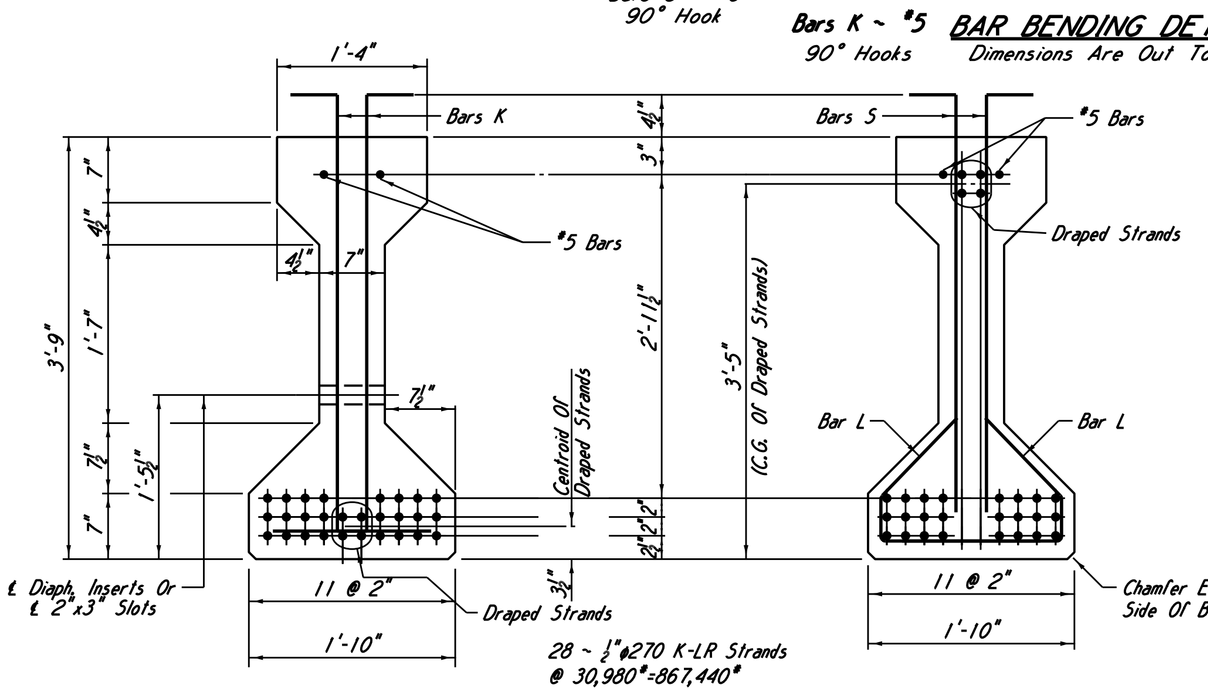
Testing acceptance procedure shall be in accordance with section 714.10.6 of the specifications. Bearing area on top of cap shall be cast smooth and true to grade.





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.

BAR BENDING DETAILS Dimensions Are Out To Out



SECTION NEAR ℄ SPAN

END ELEVATION

GENERAL NOTES:

Beams shall be manufactured in accordance with Mississippi Standard Specification For Road & Bridge Construction, 2004.

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 6000 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 6000 p.s.i. concrete.

If any cylinder tests below 6000 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. LRFD, 2012

An extra dead load of 18 p.s.f. is incorporated into the design of this structure to accommodate the use of steel stay-in-place forms.

LR Indicates Low-Relaxation Strands

PRESTRESS REQUIREMENTS

For deflection diagram, see misc. span details per sheet no. B18.

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							A	B	C	
				Number Strands	Centroid (in.)	Number Strands	Centroid (in.) ℄ Span	Centroid (in.) Beam End	At ℄ Span	At Beam End						
	lbs/strand	lbs/strand														
½"ø270 K-LR	41,300	30,980	28	24	4.5	4	3.50	41.00	4.36	9.71	8'-0"	0 To 3¼"	1¾"	1⅛"	⅝"	5000

DESIGN TEAM: Florence & Hutcheson

COUNTY: MARSHALL

PROJECT NO. BR-0019-02(041) △1

CARTER D. BEARDEN LICENSED PROFESSIONAL ENGINEER 18834 STATE OF MISSISSIPPI

DATE: 8/29/13

DATE	REVISIONS	BY
9-12-13	Value revised	BEG

MISSISSIPPI DEPARTMENT OF TRANSPORTATION
BRIDGE OVER COLDWATER RIVER

80 FT. BEAM DETAILS
(TYPE III, SPAN 6)

PROJECT BR-0019-02(041)
105189/301000

MARSHALL COUNTY

WORKING NUMBER B21 OF 21

SHEET NUMBER 8048

DESIGNER JEG CHECKER CDB
DETAILER JEG ISSUE DATE
DIRECTOR OF STRUCTURES, STATE BRIDGE ENGINEER - NICK J. ALTOBELLI PE.
DEP. DIRECTOR OF STRUCTURES, ASSIST. STATE BRIDGE ENGINEER - JUSTIN WALKER PE.

ADDENDUM

STATE	PROJECT NO.
MISS.	BR-019-02(041)

GENERAL NOTES:

Specifications: Mississippi Standard Specifications For Road and Bridge Construction, 2004.

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".

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.

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.

⚠1 An extra dead load of 18 p.s.f. is incorporated into the design of this structure to accommodate the use of steel stay-in-place forms.

P/S CONCRETE GIRDER BRIDGE:

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.

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 minimum ground penetration shown in the PDA TEST PILE SCHEDULE, unless otherwise directed by the Director of Structures, State Bridge Engineer.

Permanent piles shall be driven to an elevation no higher than the elevation shown in the REQUIRED ULTIMATE PILE BEARING CAPACITY AND TIP ELEVATION SCHEDULE.

The tip elevation of piling, for hydraulic structures, may be determined by the scour line.

When feasible, bearing piles shall be driven full length and be spliced, only, as approved by the Director of Structures, State Bridge Engineer.

Welding shall be done by the ELECTRIC ARC process. Welders shall be certified and electrodes shall be approved.

When loading tests are required, the maximum test load shall be one and one half (1 1/2) times the minimum pile bearing capacity.

PDA test piles shall require a 1 day and 7 day restrike unless otherwise directed by the Engineer.

Pile lengths and driving criteria shall be provided based on the results of the PDA test piles.

The required ultimate pile bearing shown in the REQUIRED ULTIMATE PILE BEARING AND TIP ELEVATION SCHEDULE includes the LRFD resistance factor for PDA of 0.65.

⚠1 ESTIMATED QUANTITIES

Item / Location	Transverse Grooving S.Y.	Conventional Static Load Test Each	PDA Test Piles Each	Pile Restrike Each	HP14x89 Steel Piling L.F.	HP14x117 Steel Piling L.F.	Class AA Bridge Concrete C.Y.	40 Ft. Prest. Conc. Beam Type I-2 L.F.	80 Ft. Prest. Conc. Beam Type III L.F.	Reinforcement Lb.	Concrete Railing L.F.	Loose Riprap (300#) Ton	Geotextile Under Riprap S.Y.
Spans	1955.56						569.93	2122.00	478.50	145706	880.00		
End Bents			2		1020		47.78			7667		660.1	943.4
Int. Bents		1	4	1	1850	1580	223.71			25080			
Total	1955.56	1	6	1	2870	1580	841.42	2122.00	478.50	178453	880.00	660.1	943.4

NOTE: All end bent riprap & geotextile fabric included in bridge quantities.

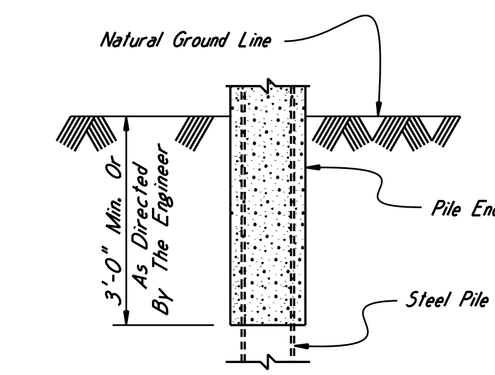
REQUIRED ULTIMATE PILE BEARING CAPACITY AND TIP ELEVATION SCHEDULE

Bent No.	Pile Size	Ult. Bearing Tons	Est. Length Feet	Min. Tip Elevation
1	HP14x89	105	50	400.7
2	HP14x117	195	65	383.7
3	HP14x89	185	60	393.7
4	HP14x89	185	60	393.7
5	HP14x89	185	65	390.8
6	HP14x117	235	70	386.1
7	HP14x117	235	65	386.1
8	HP14x89	180	60	393.7
9	HP14x89	180	60	393.7
10	HP14x117	190	60	383.7
11	HP14x89	110	50	400.8

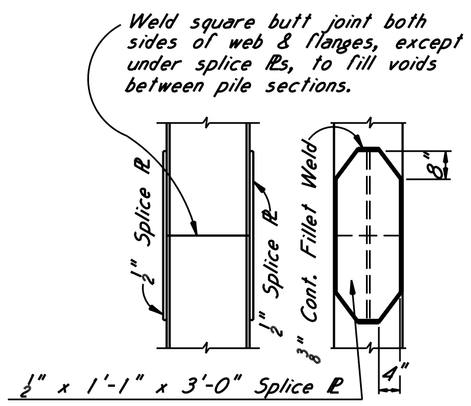
PDA TEST PILE SCHEDULE

Bent No.	Min. Lgth. Feet	Tip Elevation
1	60	378.1379
2	75	363.5408
4	70	364.9581
6	80	355.8016
8	70	366.3173
11	60	373.3789

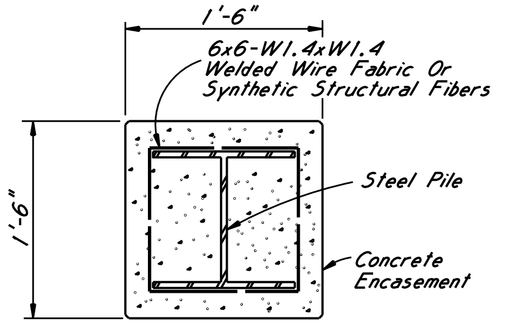
NOTE: PDA test pile results for all bents must be submitted to The Director Of Structures, State Bridge Engineer before permanent pile lengths will be recommended.



PILE ENCASEMENT DETAIL



PILE SPLICE DETAIL
HP14x89 Steel Piles
HP14x117 Steel Piles



NOTE: 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 special provision No. 907-711 (not a separate pay item). Chamfer corners of encasement 3/4".

PILE ENCASEMENT DETAIL
HP14x89 Steel Piles
HP14x117 Steel Piles

SPECIAL PROVISIONS REQUIRED:

Concrete Bridges and Structures.....No. 907-804.

DESIGN DATA:

Specifications.....A.A.S.H.T.O. LRFD 2012

Loading.....HL-93

Roadway Width.....44'-0" Gutter To Gutter

Concrete.....Class "AA" (4,000 p.s.i.)

Reinforcing.....ASTM A615, Grade 60 (Fy = 60 ksi)

SEISMIC INFO:

Seismic Performance Category B
Site Class D, SD1=0.272
Importance Category Other

DRAINAGE DATA:

Drainage Area.....Relief

0100 (U.S.G.S).....5,127 c.f.s.

Effecitve Area.....1,856 Sq. Ft.

CARTER D. BEARDEN LICENSED PROFESSIONAL ENGINEER 18834 STATE OF MISSISSIPPI

DATE: 8/29/13

DATE	REVISIONS	BY
9-12-13	Note added & Quantities revised	BEG

MISSISSIPPI DEPARTMENT OF TRANSPORTATION
BRIDGE AT STA. 280+47.21

SR 7 OVER COLDWATER RIVER RELIEF

PROJECT BR-0019-02(041)
105189/301000

MARSHALL COUNTY

WORKING NUMBER CI OF 20

DESIGNER RWG CHECKER TKD
DETAILER RWG ISSUE DATE
DIRECTOR OF STRUCTURES, STATE BRIDGE ENGINEER - NICK J. ALTOBELLI PE.
DEP. DIRECTOR OF STRUCTURES, ASSIST. STATE BRIDGE ENGINEER - JUSTIN WALKER PE.

SHEET NUMBER 8049

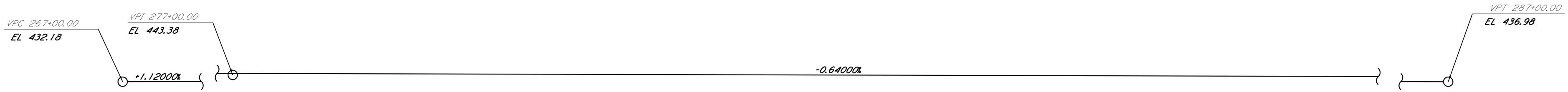
DESIGN TEAM: Florence & Hutcheson

COUNTY: MARSHALL

PROJECT NO. BR-0019-02(041) ⚠1

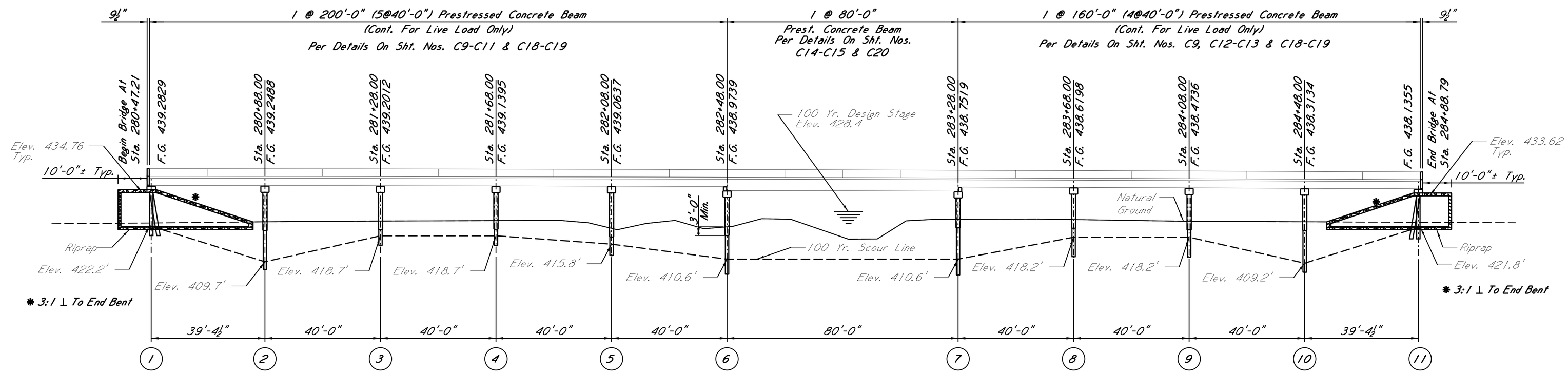
ADDENDUM

STATE	PROJECT NO.
MISS.	BR-019-02(041)



2000 FT. Vertical Curve

Total Length of Bridge = 441'-7"



Steel Pile End Bent No. 1
Per Details On Sheet No. C5-C6
10 ~ HP14x89 Steel Piles ⚠1

Intermediate Bent No. 2
Per Details On Sheet No. C7
6 ~ HP14x117 Steel Piles

Intermediate Bents No. 3 - 5
Per Details On Sheet No. C7
6 ~ HP14x89 Steel
Piles Per Bent

Intermediate Bents No. 6 - 7
Per Details On Sheet No. C8
6 ~ HP14x117 Steel
Piles Per Bent

Intermediate Bents No. 8 - 9
Per Details On Sheet No. C7
6 ~ HP14x89 Steel
Piles Per Bent

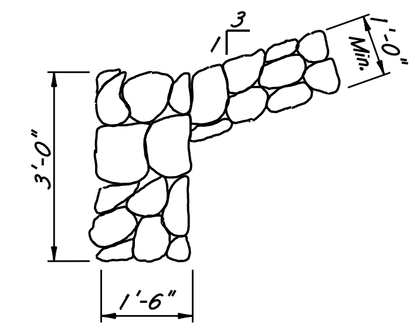
Intermediate Bent No. 10
Per Details On Sheet No. C7
6 ~ HP14x117 Steel Piles

Steel Pile End Bent No. 11
Per Details On Sheet No. C5-C6
10 ~ HP14X89 Steel Piles ⚠1

ELEVATION WITH PROFILE ALONG ℄ APPROACH ROADWAY

Scale 1" = 20'-0"

500 YEAR SCOUR	
Bent No.	Elevation (Ft.)
1	420.7
2	403.7
3	413.7
4	413.7
5	410.8
6	406.1
7	406.1
8	413.7
9	413.7
10	403.7
11	420.8



RIPRAP TOE DETAILS

NOTE: For general notes, quantities, and additional details, see sheet no. C1

CARTER D. BEARDEN
LICENSED PROFESSIONAL ENGINEER
ENGINEER
18834
STATE OF MISSISSIPPI
DATE: 6/29/13

DATE	BY	REVISIONS
9-12-13	DEG	Reference revised

MISSISSIPPI DEPARTMENT OF TRANSPORTATION
BRIDGE AT STA. 280+47.21

SR 7 OVER COLDWATER RIVER RELIEF

PROJECT BR-0019-02(041)
105189/301000

MARSHALL COUNTY

WORKING NUMBER C2 OF 20

SHEET NUMBER 8050

DESIGNER RWG CHECKER TKD
DETAILER JEG/PGP ISSUE DATE
DIRECTOR OF STRUCTURES, STATE BRIDGE ENGINEER - NICK J. ALTOBELLI PE.
DEP. DIRECTOR OF STRUCTURES, ASSIST. STATE BRIDGE ENGINEER - JUSTIN WALKER PE.

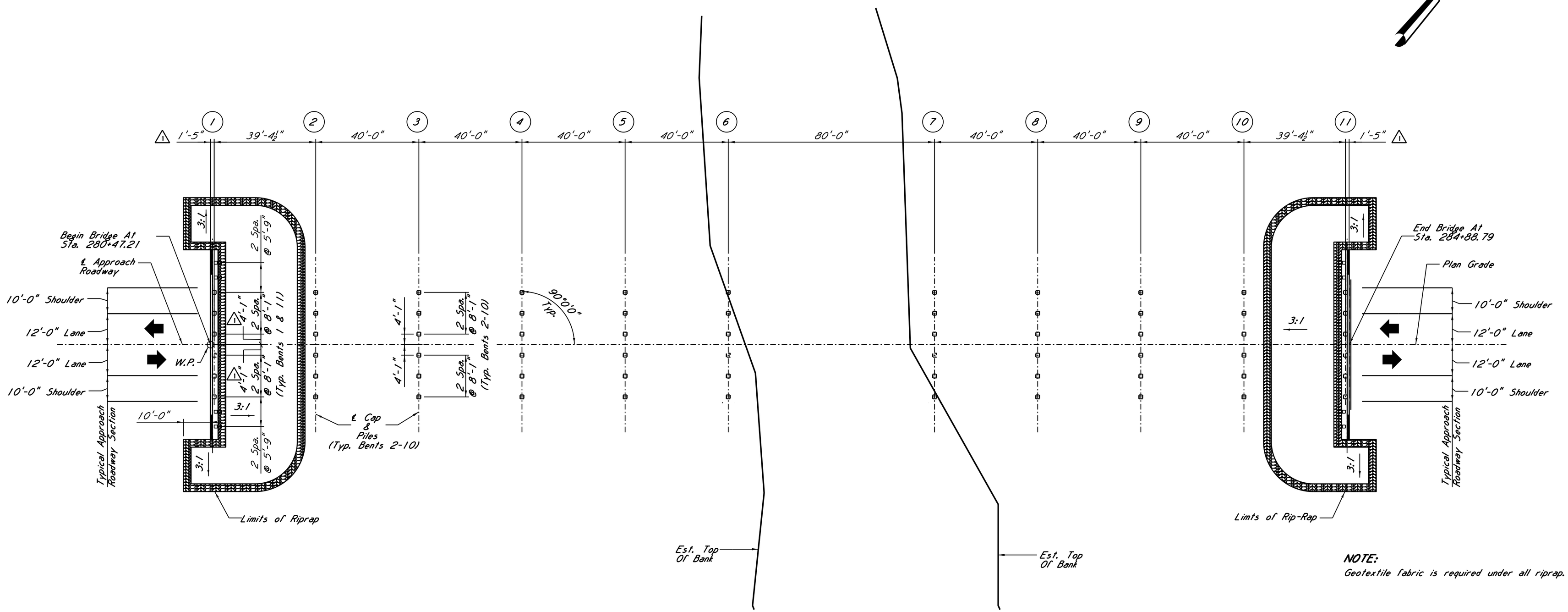
DESIGN TEAM: Florence & Hutcheson

COUNTY: MARSHALL

PROJECT NO. BR-0019-02(041) ⚠1

ADDENDUM

STATE	PROJECT NO.
MISS.	BR-019-02(041)



NOTE:
Geotextile fabric is required under all riprap.

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

CARTER D. BEARDEN
LICENSED PROFESSIONAL ENGINEER
18834
STATE OF MISSISSIPPI
DATE: 8/29/13

BEG BY	REVISIONS	DATE
	Dimension revised	9-12-13

MISSISSIPPI DEPARTMENT OF TRANSPORTATION
BRIDGE AT STA. 280+47.21

SR 7 OVER COLDWATER RIVER RELIEF

PROJECT BR-0019-02(041)
105189/301000

MARSHALL COUNTY

DESIGNER RWG CHECKER TKD
DETAILER JEG/PGP ISSUE DATE
DIRECTOR OF STRUCTURES, STATE BRIDGE ENGINEER - NICK J. ALTOBELLI PE.
DEP. DIRECTOR OF STRUCTURES, ASSIST. STATE BRIDGE ENGINEER - JUSTIN WALKER PE.

WORKING NUMBER
C3 OF 20

SHEET NUMBER
8051

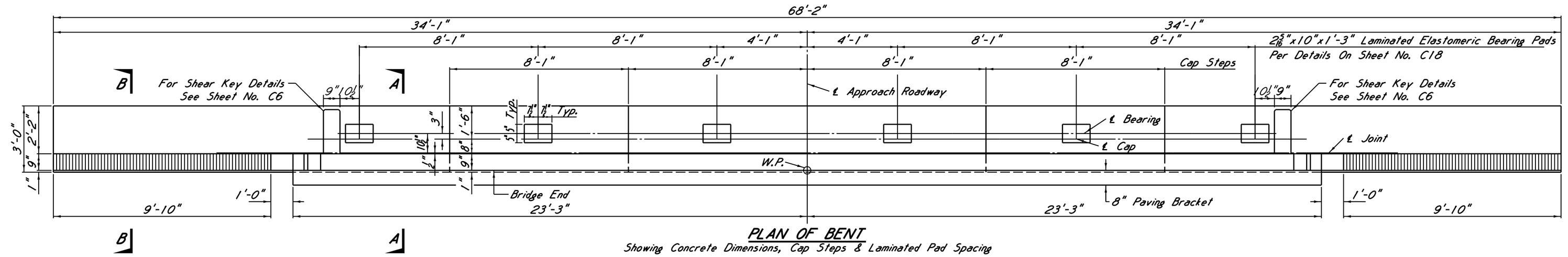
DESIGN TEAM: Florence & Hutcheson

COUNTY: MARSHALL

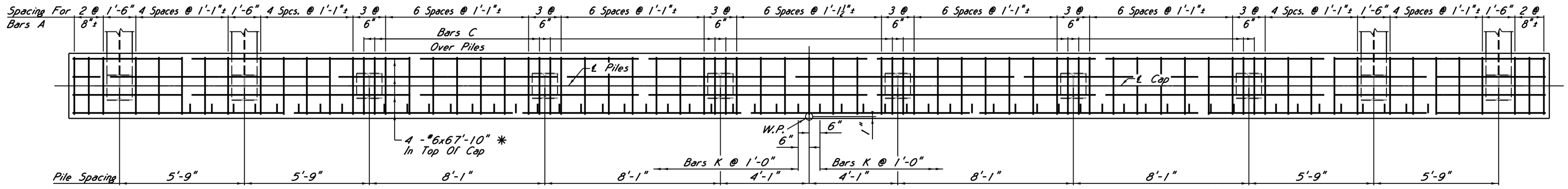
PROJECT NO. BR-0019-02(041)

ADDENDUM

STATE	PROJECT NO.
MISS.	BR-019-02(041)

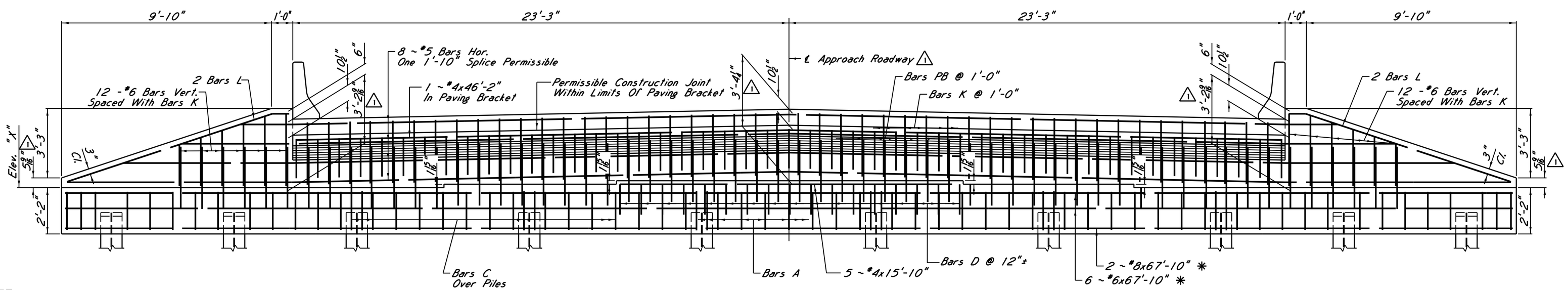


PLAN OF BENT
Showing Concrete Dimensions, Cap Steps & Laminated Pad Spacing



PLAN OF CAP
Showing Reinforcing Steel In Top Of Cap & Pile Spacing

NOTE: Piles shall be of the size, type, and driven to the required ultimate bearing capacity as shown on sheet no. C1. Batter indicated piles 2" per foot as shown.

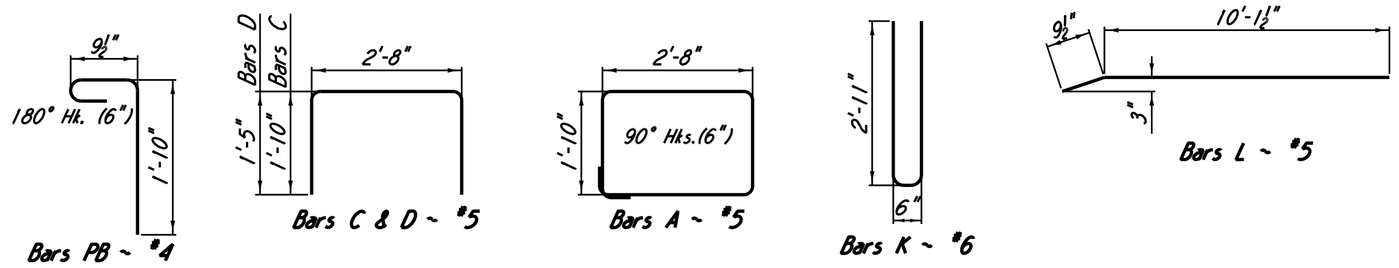


ELEVATION OF BENT - FROM FILL SIDE

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

For GENERAL NOTES, Pile Anchorage Details And Other Details See Sheet No. C6.

*** SPLICE NOTE:**
Long. Bars In Cap May Be Lap Spliced.
#6 Bars ~ 2'-3"
#8 Bars ~ 3'-8"



BAR BENDING DETAILS
Dimensions Are Out To Out

TABLE OF BENT ELEVATIONS

Bent No.	Elev. "X"
I	435.6059 ⚠1
II	434.4672 ⚠1

CARTER D. BEARDEN
LICENSED PROFESSIONAL ENGINEER
ENGINEER
18834
STATE OF MISSISSIPPI
DATE: 6/29/13

BY	DATE	REVISIONS
BEG	9-12-13	Dimension, elevation & note revised

MISSISSIPPI DEPARTMENT OF TRANSPORTATION
BRIDGE AT STA. 280+47.21

END BENT NO. I & II DETAILS

PROJECT BR-0019-02(041)
105189/301000

MARSHALL COUNTY

WORKING NUMBER C5 OF 20

SHEET NUMBER 8053

DESIGNER RWG CHECKER TKD
DETAILER RWG ISSUE DATE
DIRECTOR OF STRUCTURES, STATE BRIDGE ENGINEER - NICK J. ALTOBELLI PE.
DEP. DIRECTOR OF STRUCTURES, ASSIST. STATE BRIDGE ENGINEER - JUSTIN WALKER PE.

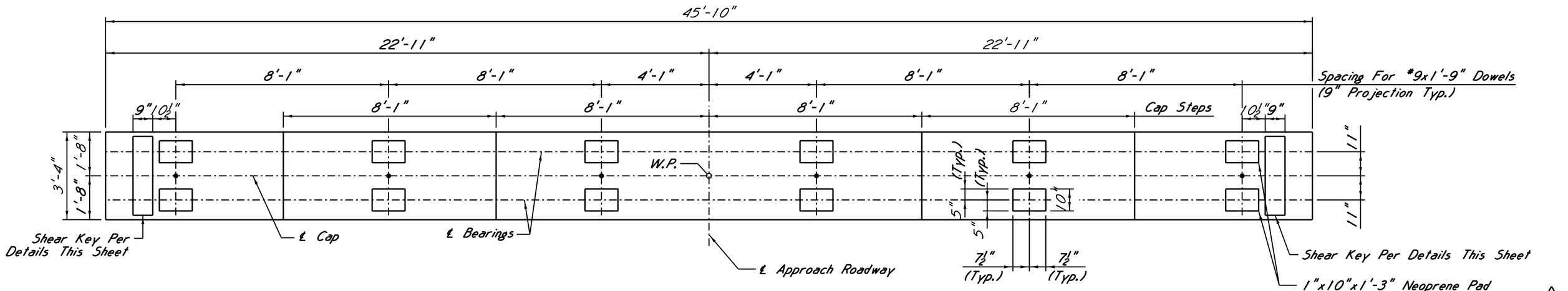
DESIGN TEAM: Florence & Hutcheson

COUNTY: MARSHALL

PROJECT NO. BR-0019-02(041) ⚠1

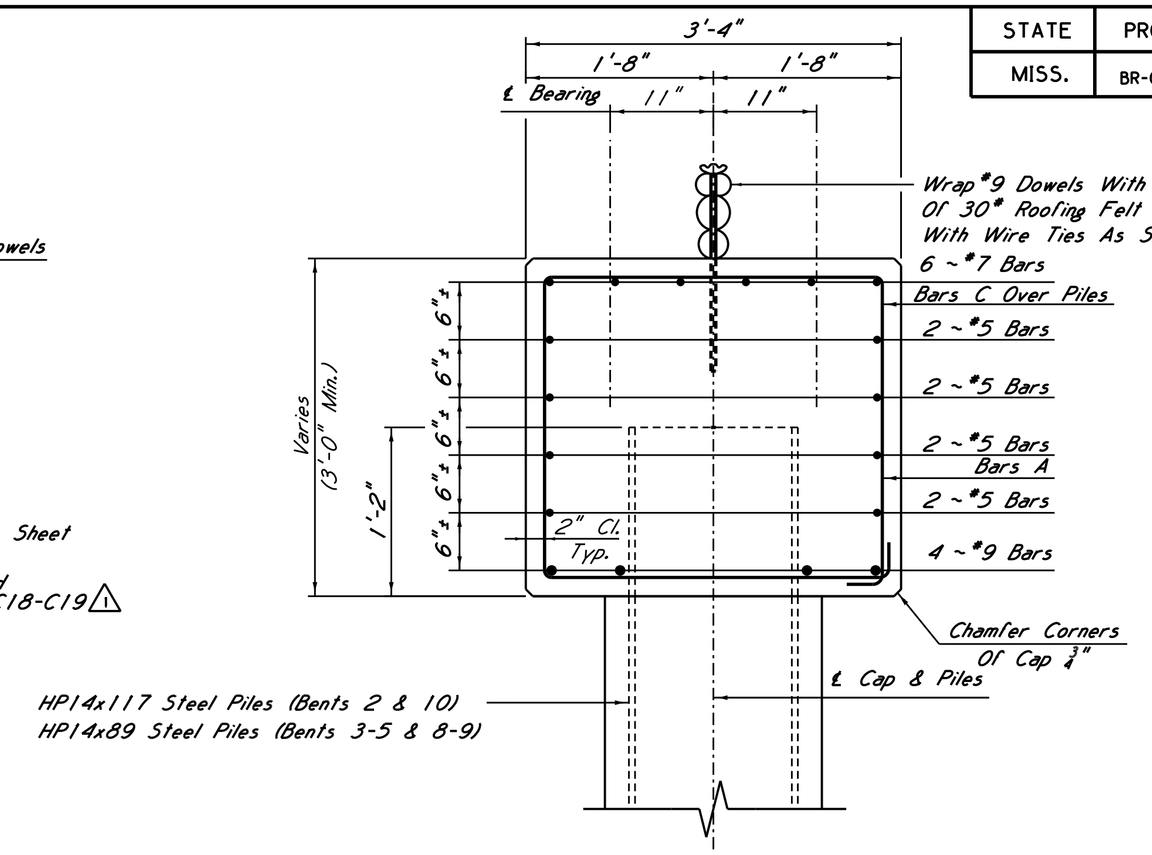
ADDENDUM

STATE	PROJECT NO.
MISS.	BR-019-02(041)



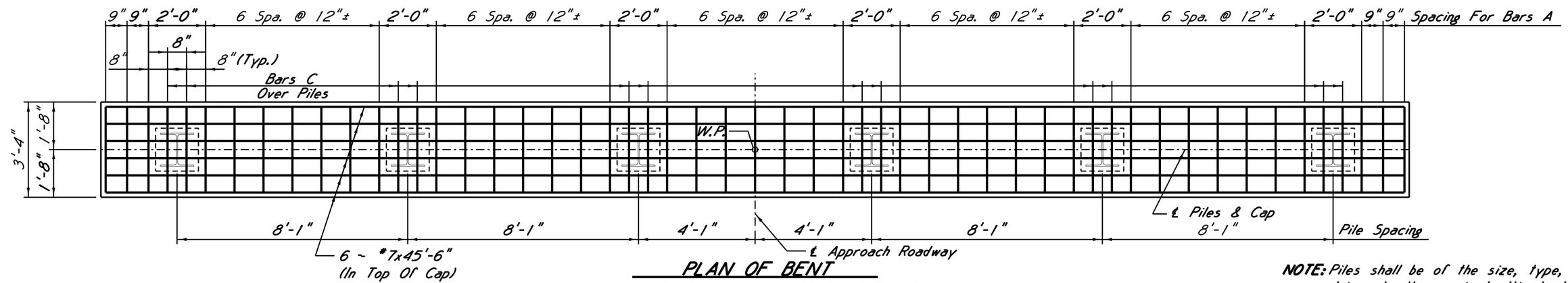
PLAN OF BENT

Showing Concrete Dimensions, Cap Steps, Neoprene Pad Placement, Anchor Dowels, & Neoprene Pads



SECTION A-A

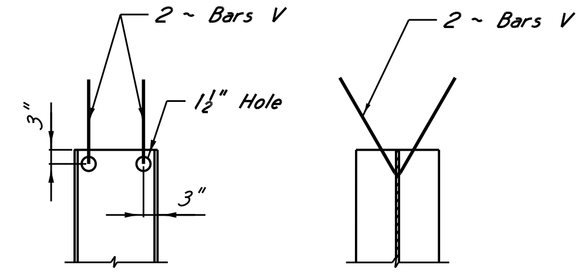
Pile Anchorage Not Shown For Clarity.



PLAN OF BENT

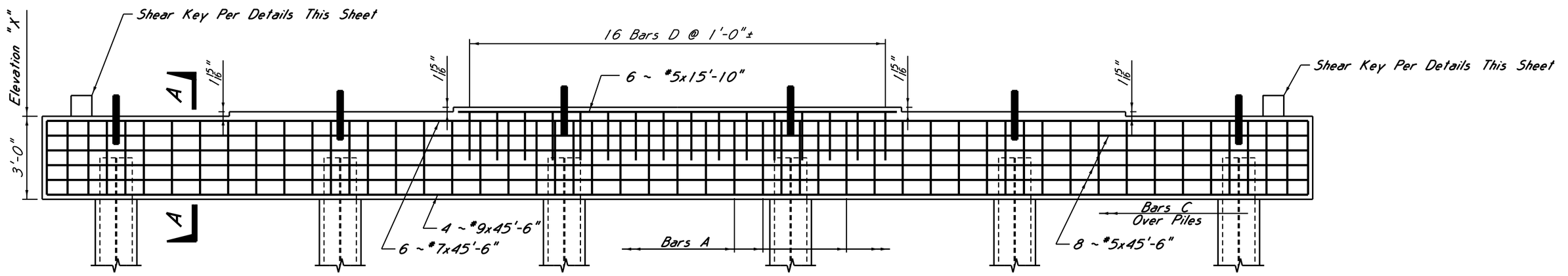
Showing Steel Reinforcing In Top Of Cap & Pile Spacing

NOTE: Piles shall be of the size, type, and driven to the required ultimate bearing capacity as shown on sheet no. C1.



ELEVATION SECTION

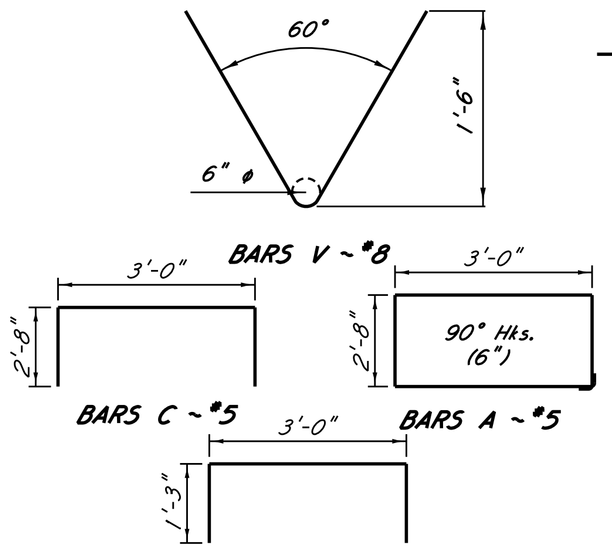
PILE ANCHORAGE DETAIL



ELEVATION

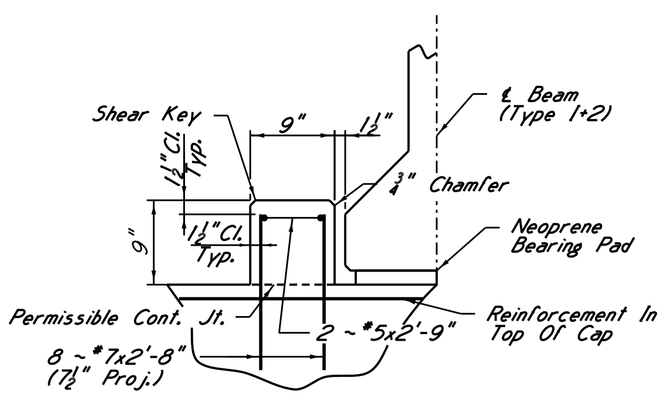
Looking Upstation

TABLE OF BENT ELEVATIONS	
Bent No.	Elev. "X"
2	435.6833
3	435.6360
4	435.5746
5	435.4992
8	435.0565
9	434.9107
10	434.7508

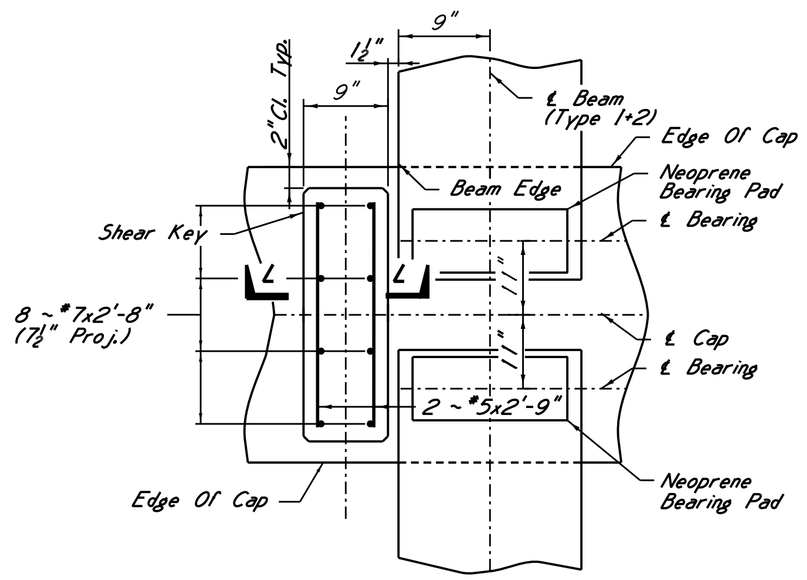


BAR BENDING DETAILS

Dimensions Are Out To Out



SECTION L-L



SHEAR KEY DETAIL

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.

CARTER D. BEARDEN
LICENSED PROFESSIONAL ENGINEER
ENGINEER
18834
STATE OF MISSISSIPPI
DATE: 8/29/13

DATE	BY	REVISIONS
9-12-13	BEG	Reference revised

MISSISSIPPI DEPARTMENT OF TRANSPORTATION
BRIDGE AT STA. 280+47.21

INTERMEDIATE BENT NO. 2-5 & 8-10

PROJECT BR-0019-02(041)
105189/301000

MARSHALL COUNTY

WORKING NUMBER C7 OF 20

SHEET NUMBER 8055

DESIGNER RMG CHECKER TKD
DETAILER RGP ISSUE DATE
DIRECTOR OF STRUCTURES, STATE BRIDGE ENGINEER - NICK J. ALTOBELLI PE.
DEP. DIRECTOR OF STRUCTURES, ASSIST. STATE BRIDGE ENGINEER - JUSTIN WALKER PE.

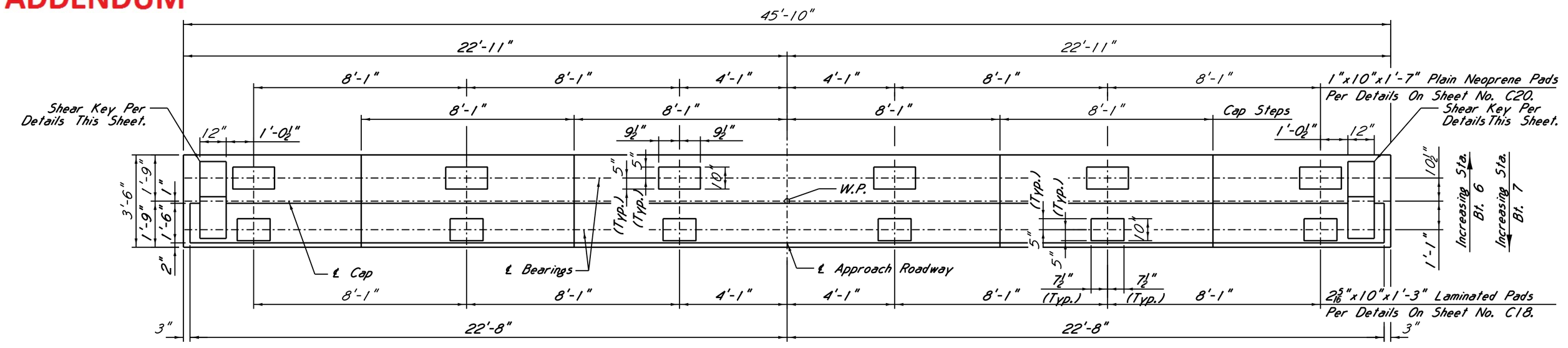
DESIGN TEAM: Florence & Hutcheson

COUNTY: MARSHALL

PROJECT NO. BR-0019-02(041) ⚠

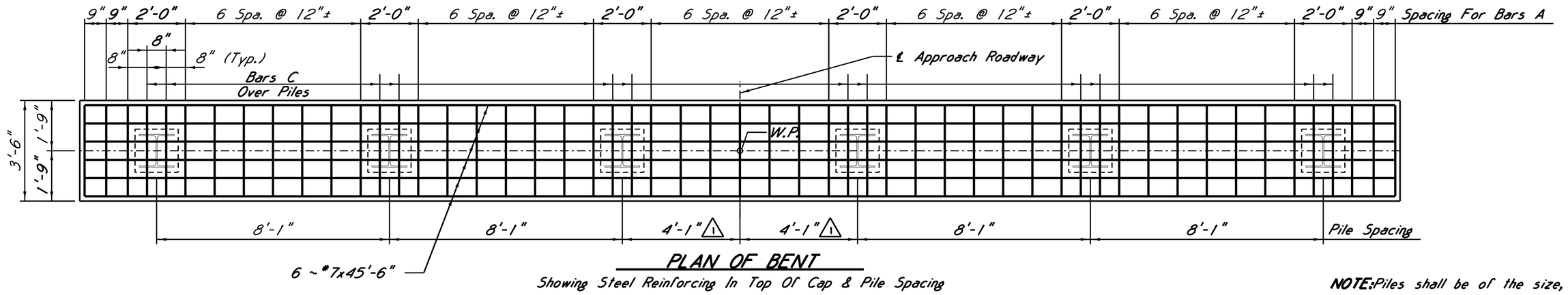
ADDENDUM

STATE	PROJECT NO.
MISS.	BR-019-02(041)



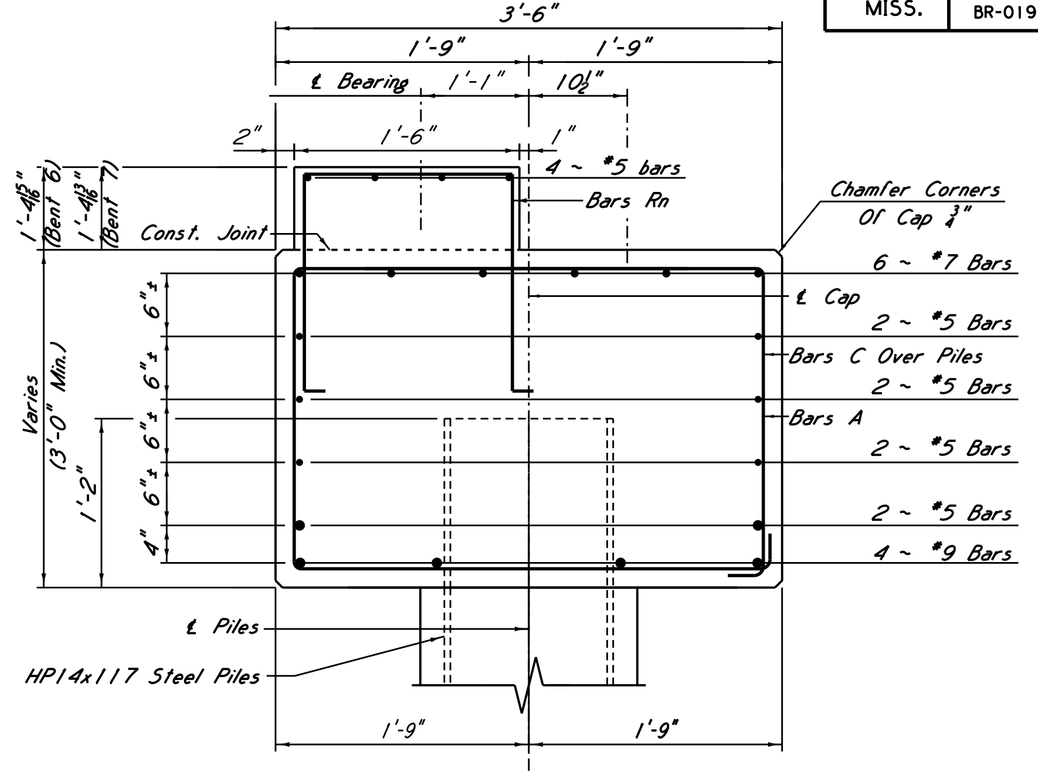
PLAN OF BENT

Showing Concrete Dimensions, Cap Steps, Laminated & Neoprene Pads



PLAN OF BENT

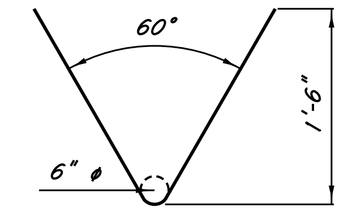
Showing Steel Reinforcing In Top Of Cap & Pile Spacing



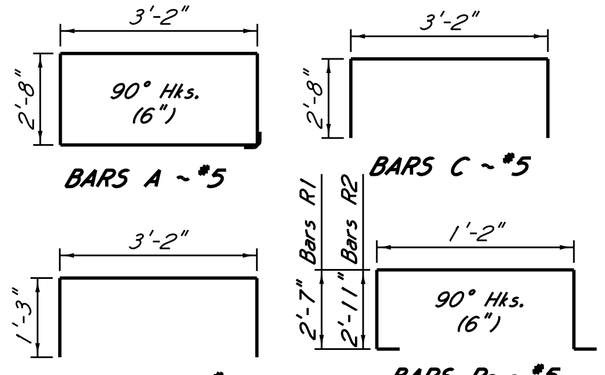
SECTION A-A

Pile Anchorage Not Shown For Clarity.

NOTE: Piles shall be of the size, type, and driven to the required ultimate bearing capacity as shown on sheet no. C1.

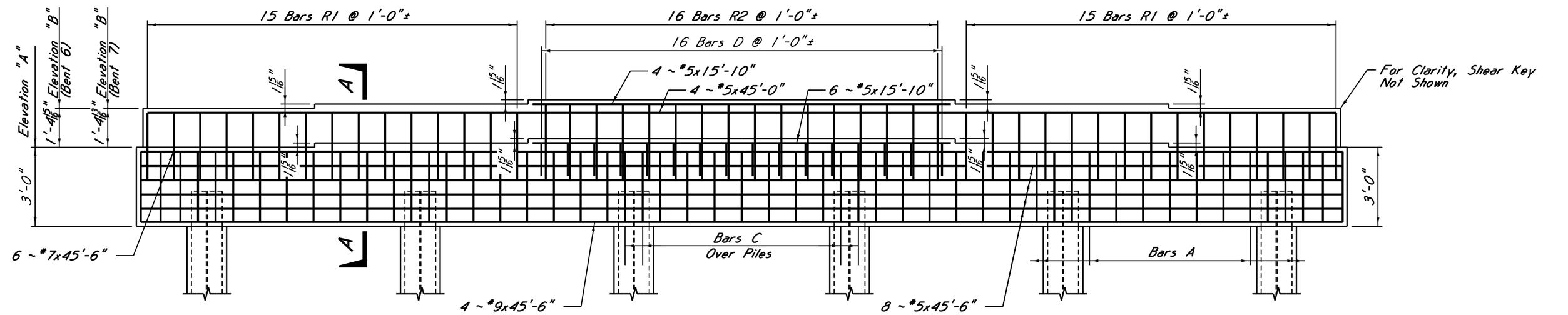


BARS V ~ #8



BAR BENDING DETAILS

Dimensions Are Out To Out



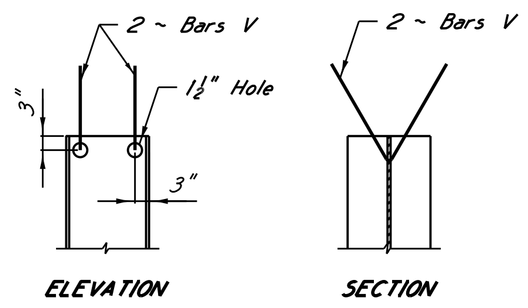
ELEVATION

Looking Upstation

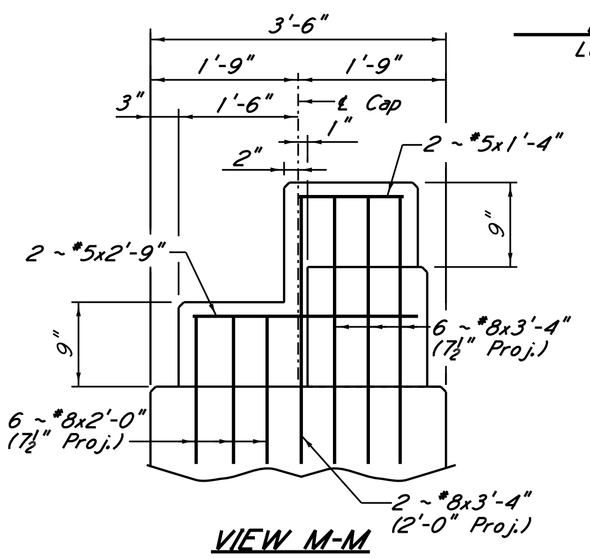
TABLE OF BENT ELEVATIONS		
Bent No.	Elev. "A"	Elev. "B"
6	433.8897	435.2999
7	433.6726	435.0736

GENERAL NOTES:

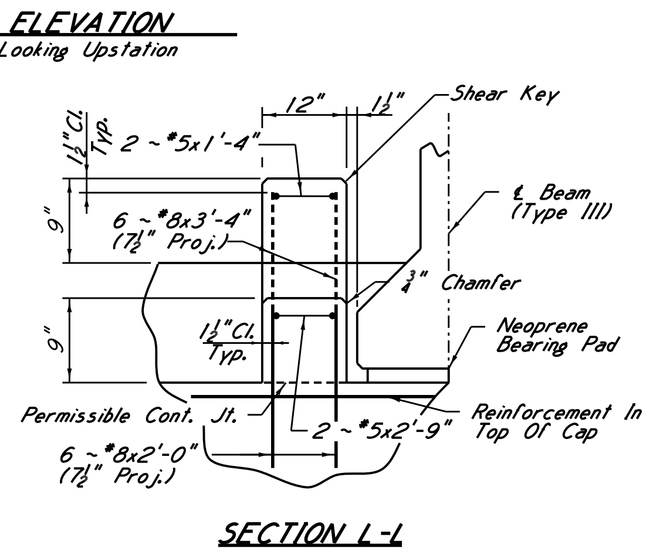
All concrete in cap shall be class "AA". Chamfer all edges ¾" unless otherwise noted. Placing dimensions from reinforcing steel to concrete surfaces are clear distances.



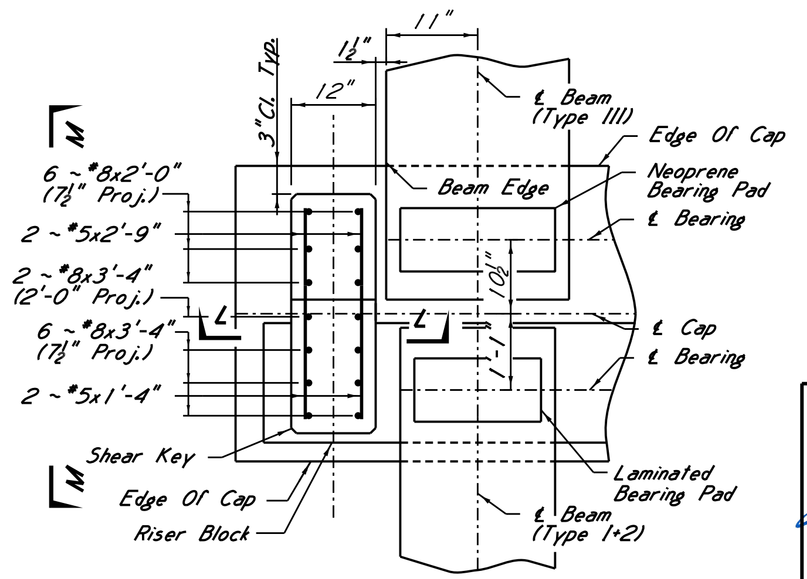
PILE ANCHORAGE DETAIL



VIEW M-M



SECTION L-L



SHEAR KEY DETAIL

Increasing Sta. Bl. 6

Increasing Sta. Bl. 7

CARTER D. BEARDEN LICENSED PROFESSIONAL ENGINEER 18834 STATE OF MISSISSIPPI

DATE: 6/29/13

BY	REVISIONS	DATE
BEG	Dimension revised	9-12-13

MISSISSIPPI DEPARTMENT OF TRANSPORTATION
BRIDGE AT STA. 280+47.21

INTERIOR BENT NO. 6 & 7

PROJECT BR-0019-02(041)
105189/301000

MARSHALL COUNTY

WORKING NUMBER C8 OF 20

SHEET NUMBER 8056

DESIGNER RWG CHECKER RWG
DETAILER RGP ISSUE DATE
DIRECTOR OF STRUCTURES, STATE BRIDGE ENGINEER - NICK J. ALTOBELLI PE.
DEP. DIRECTOR OF STRUCTURES, ASSIST. STATE BRIDGE ENGINEER - JUSTIN WALKER PE.

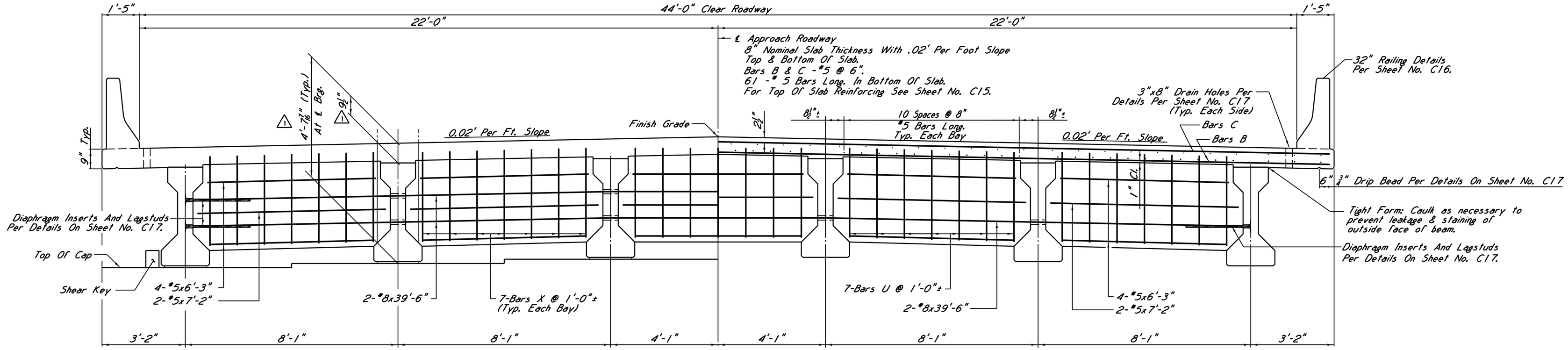
DESIGN TEAM: Florence & Hutcheson

COUNTY: MARSHALL

PROJECT NO. BR-0019-02(041) ⚠

ADDENDUM

STATE	PROJECT NO.
MISS.	BR-019-02(041)

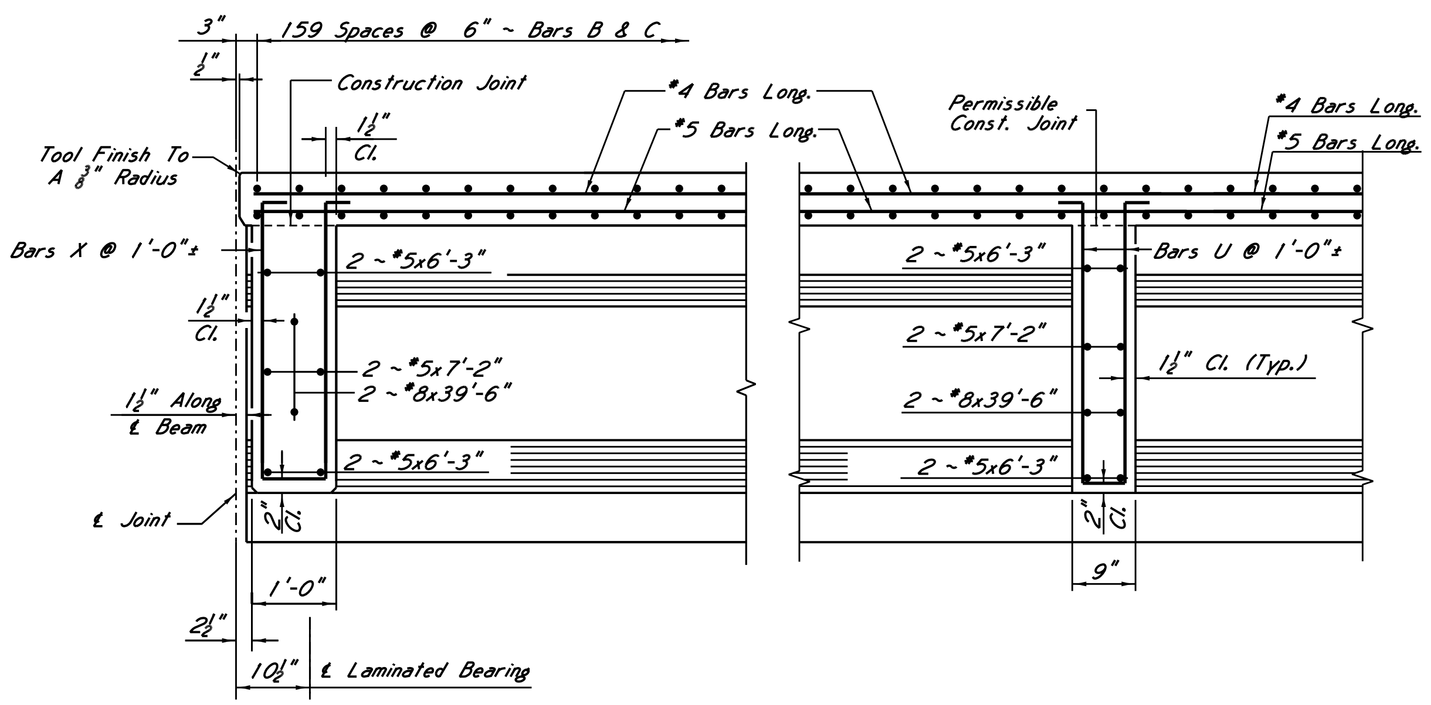


PART SECTION NEAR END OF SPAN
Showing 1'-0" End Concrete Diaphragm Details.

PART SECTION NEAR INT. DIAPHRAGM
Showing Slab Reinforcing & 9" Int. Concrete Diaphragm Details

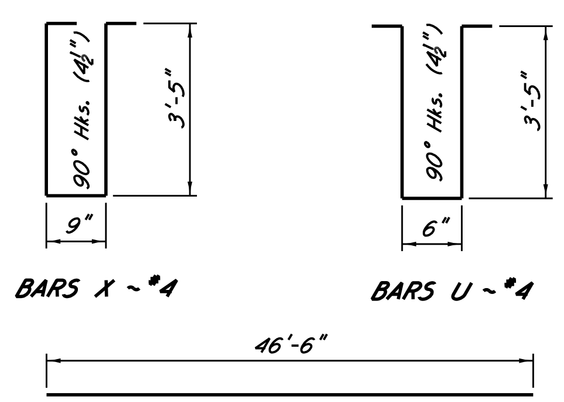
NOTE: Contractor should be aware of possible tilting of exterior beams during construction of the superstructure and should take precautionary steps to prevent such tilting of beams.

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



SECTION A-A

SECTION B-B



BAR BENDING DETAILS
Dimensions Are Out To Out

NOTE:
The volume of concrete in the fillets between the bottom of the nominal slab and the top of the beam has been estimated by using one half (1/2) of 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.
For GENERAL NOTES, railing details and other typical span details see sheets no. C16 & C17.

⚠ DESIGN DATA:
Specifications. . . . . A.A.S.H.T.O., LRFD 2012
Loading. HL-93
Prestressed Beam Details. . .See Sheet No. C20

CARTER D. BERDEN
LICENSED PROFESSIONAL
ENGINEER
18834
STATE OF MISSISSIPPI
DATE: 6/29/13

REVISIONS	DATE	BY
Dimension revised & note added	9-12-13	BEG

MISSISSIPPI DEPARTMENT OF TRANSPORTATION
BRIDGE AT STA. 280+47.21

80 FT. SPAN DETAILS

PROJECT BR-0019-02(041)
105189/301000

MARSHALL COUNTY

DESIGNER BWG CHECKER TKD
DETAILER RDP ISSUE DATE
DIRECTOR OF STRUCTURES, STATE BRIDGE ENGINEER - NICK J. ALTOBELLI PE.
DEP. DIRECTOR OF STRUCTURES, ASSIST. STATE BRIDGE ENGINEER - JUSTIN WALKER PE.

WORKING NUMBER C14 OF 20
SHEET NUMBER 8062

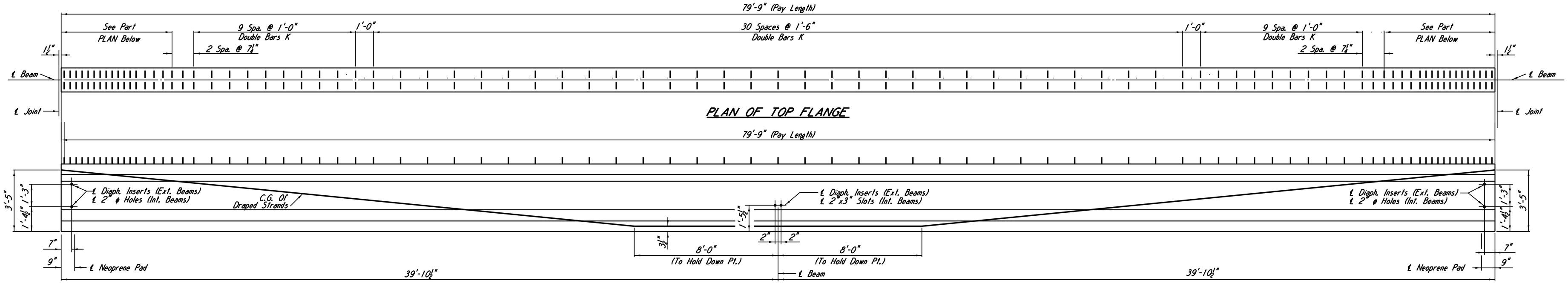
DESIGN TEAM: Florence & Hutcheson

COUNTY: MARSHALL

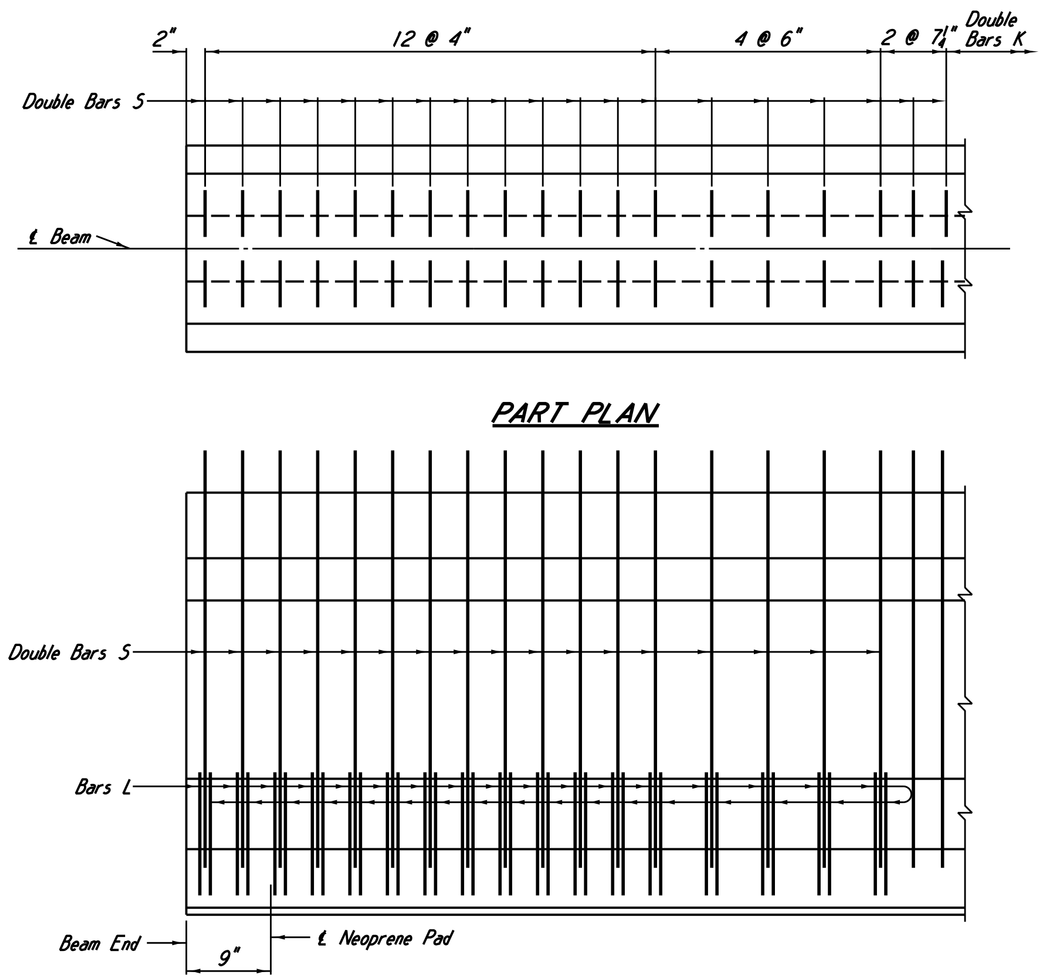
PROJECT NO. BR-0019-02(041) ⚠1

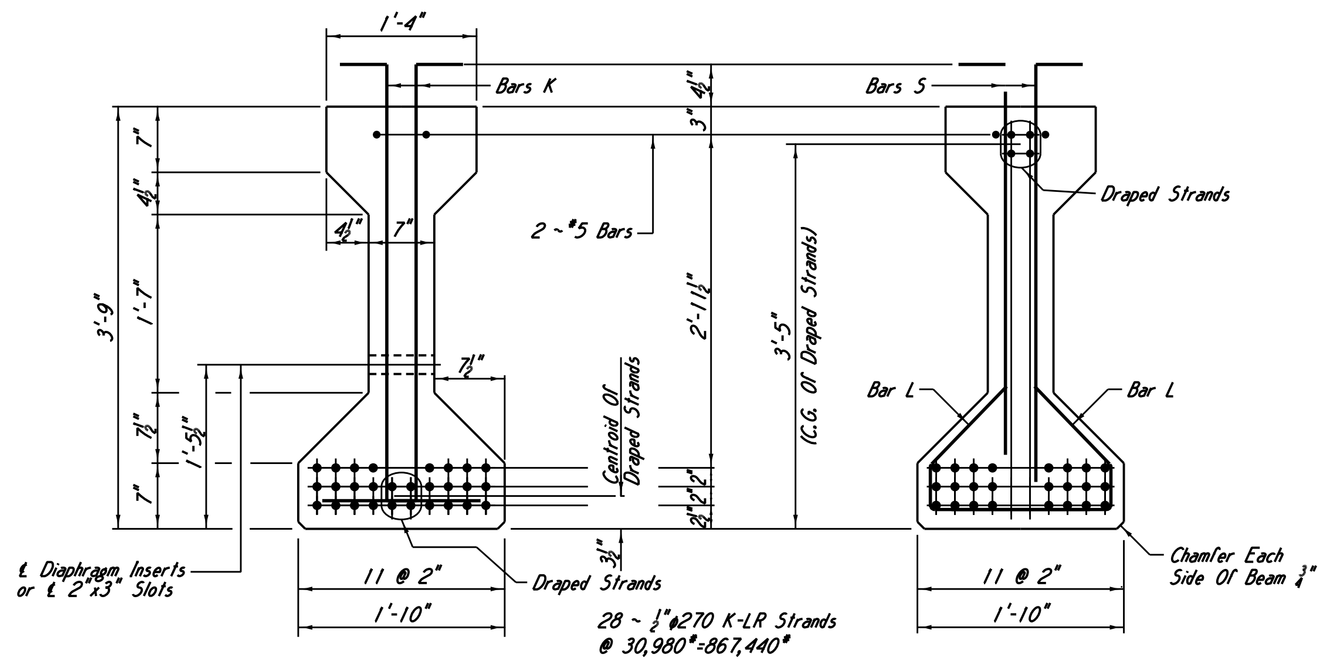
ADDENDUM

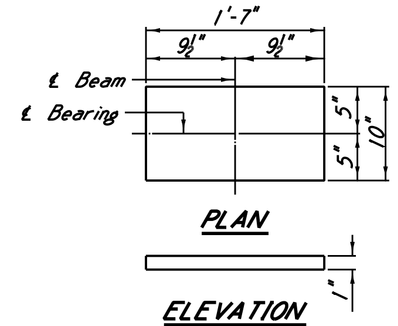
STATE	PROJECT NO.
MISS.	BR-019-02(041)



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.

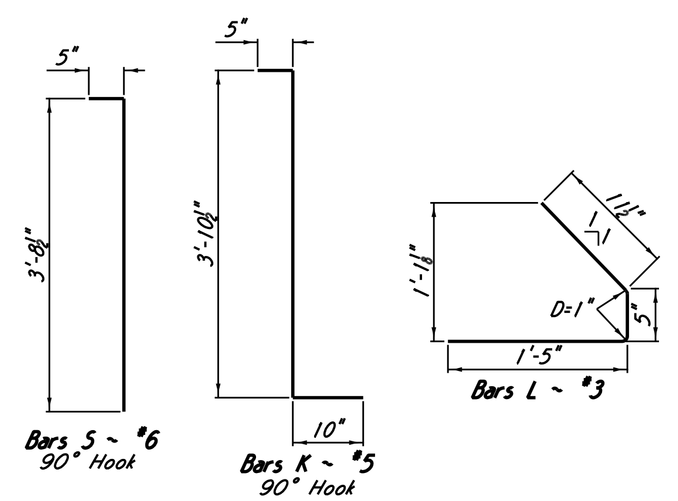






NEOPRENE PAD DETAILS

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



BAR BENDING DETAILS

Dimensions Are Out To Out

LR Indicates Low-Relaxation Strands

For deflection diagram, see misc. span details per sheet no. C17.

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										
				Number Strands	Centroid (in.)	Number Strands	Centroid (in.) ℄ Span	Centroid (in.) Beam End	At ℄ Span	At Beam End			A	B	C	
	lbs/strand	lbs/strand										⚠1	⚠1	⚠1	⚠1	
½"ø270 K-LR	41,300	30,980	28	24	4.50	4	3.50	41.00	4.36	9.71	8'-0"	0 To 3¼"	⅛"	1¼"	⅜"	5000

GENERAL NOTES:

Beams shall be manufactured in accordance with Mississippi Standard Specification For Road & Bridge Construction, 2004.

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 6000 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 6000 p.s.i. concrete.

If any cylinder tests below 6000 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. LRFD, 2012

An extra dead load of 18 p.s.f. is incorporated into the design of this structure to accommodate the use of steel stay-in-place forms.

CARTER D. BEARDEN JR. LICENSED PROFESSIONAL ENGINEER 18834 STATE OF MISSISSIPPI

DATE: 8/29/13

BY	DATE	REVISIONS
BEG	9-12-13	Value revised ⚠1

MISSISSIPPI DEPARTMENT OF TRANSPORTATION
BRIDGE AT STA. 280+47.21

80 FT. BEAM DETAILS
(BEAM 80-1) (TYPE III)

PROJECT BR-0019-02(041)
105189/301000

MARSHALL COUNTY

WORKING NUMBER C20 OF 20

SHEET NUMBER 8068

DESIGNER RWG CHECKER TKD
DETAILER POP ISSUE DATE
DIRECTOR OF STRUCTURES, STATE BRIDGE ENGINEER - NICK J. ALTOBELLI PE.
DEP. DIRECTOR OF STRUCTURES, ASSIST. STATE BRIDGE ENGINEER - JUSTIN WALKER PE.

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