

STATE	PROJECT NUMBER	SHEET NO.
MISSISSIPPI	ER-0063-04(010)	1

GENERAL INDEX

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

STATE OF MISSISSIPPI

MISSISSIPPI DEPARTMENT OF TRANSPORTATION

PLAN AND PROFILE OF PROPOSED STATE HIGHWAY FEDERAL AID PROJECT NO. ER-0063-04(010)

SR 42 ACROSS CHICKASAWHAY RIVER

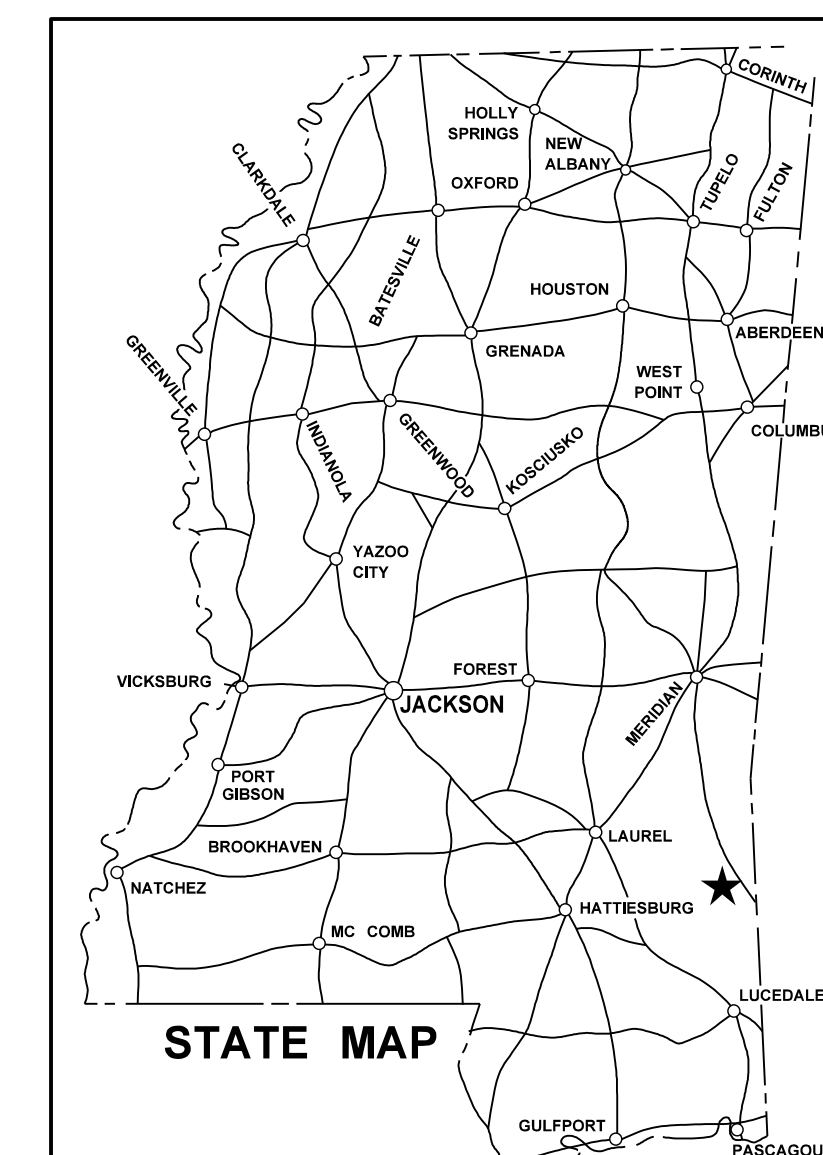
FMS CON. NO. 106793/ 302000

BRIDGE NO. 107.9

GREENE COUNTY

SCALES

PLAN	1 IN. = 100 FT.
PROFILE	HOR. 1 IN. = 100 FT.
	VERT. 1 IN. = 10 FT.
LAYOUT	1 IN. = 2000 FT.

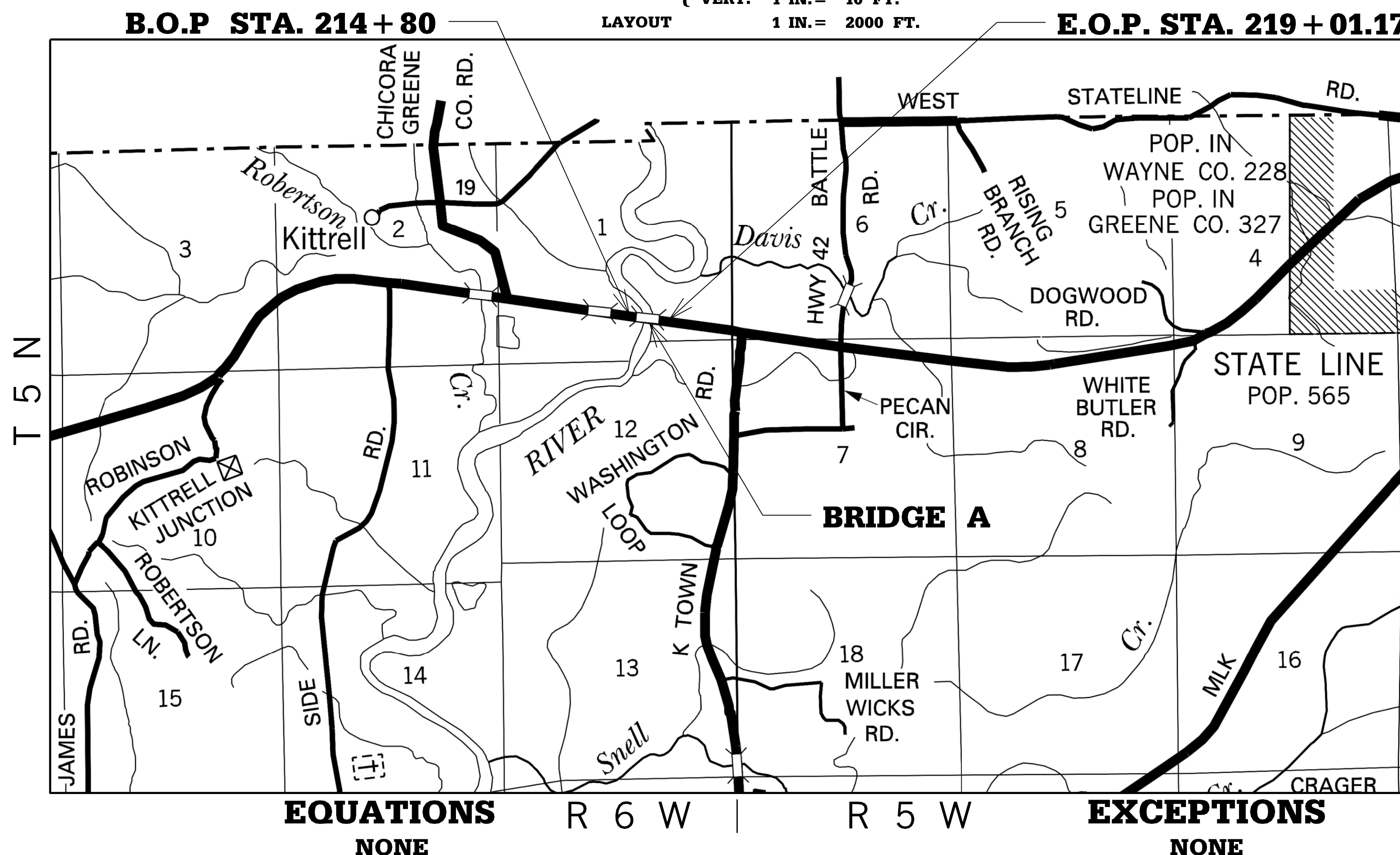


STATE MAP
 NOTE
 * INDICATES APPROXIMATE LOCATION OF PROJECT.
 LAT. 31°25'22" N LONG. 88°32'29" W
 (APPROX. MIDDLE OF PROJECT)

BRIDGE STRUCTURES REQ'D.

- (A) STA. 214+80
 BRIDGE NO. 107.9
 REPAIRS REQ'D. BENT 3 & 4

BOX BRIDGES REQ'D.
 NONE



DESIGN CONTROL

MPH = V (SPEED DESIGN)

ADT () = : ADT () =

DHV = : D = % T = %

PERMITS ACQUIRED BY MDOT

WETLANDS AND WATERS PERMITS

	WATERS	WETLANDS
NATIONWIDE #14	<input type="checkbox"/> N	<input type="checkbox"/> N
NATIONWIDE (OTHER)*	<input type="checkbox"/> Y	<input type="checkbox"/> Y
GENERAL*	<input type="checkbox"/> N	<input type="checkbox"/> N
INDIVIDUAL (404)*	<input type="checkbox"/> N	<input type="checkbox"/> N

STORMWATER PERMIT N

Y REQUIRED, CNDI SUBMITTED BY MDOT (DISTURBED AREA = 5 ACRES)

S REQUIRED, SCNDI TO BE SUBMITTED BY CONTRACTOR (1 TO 4.99 ACRES)

N NO STORMWATER PERMIT REQUIRED (<1 ACRE)

APPROVED BY: _____

CONVENTIONAL SYMBOLS

- COUNTY LINE
- TOWN CORPORATION LINE
- SECTION LINE
- EXISTING ROAD OR TRAVELED WAY
- PROPOSED ROAD OR TRAVELED WAY
- RAILROAD
- SURVEY LINE
- BRIDGES

LENGTH DATA

LENGTH OF ROADWAY	FT.	0.00	MI.
LENGTH OF BRIDGES	FT.	0.08	MI.
LENGTH OF PROJECT (NET)		0.08	MI.
LENGTH OF EXCEPTIONS	FT.	0.00	MI.
LENGTH OF PROJECT (GROSS)		0.08	MI.



P S & E DATE: 05/31/19

APPROVED: _____
 DEPUTY EXECUTIVE DIRECTOR / CHIEF ENGINEER

 EXECUTIVE DIRECTOR



5/30/2019 1:11 PM TITLE.DGN

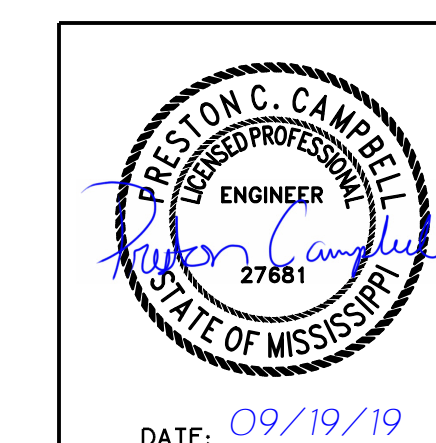
1st O.REV.

STATE	PROJECT NO.
MISS.	ER-0063-04(010)

DESCRIPTION OF SHEETS	WORKING NO(S).	SHEET NO(S).
DETAILED INDEX	DI-BR-1	8001
SR 42 ACROSS CHICKASAWHAY RIVER BRIDGE REPAIR	1	8002
SR 42 ACROSS CHICKASAWHAY RIVER	2	8003
FOUNDATION PLAN	3	8004
BENT NO. 3 REPLACEMENT DETAILS	4	8005
BENT NO. 3 REPLACEMENT DETAILS	5	8006
BENT NO. 3 REPLACEMENT DETAILS	6	8007
BENT NO. 4 REPLACEMENT DETAILS	7	8008
BENT NO. 4 REPLACEMENT DETAILS	8	8009
BENT NO. 4 REPLACEMENT DETAILS	9	8010
BENT NOS. 3 & 4 REPLACEMENT DETAILS	10	8011
DRILLED SHAFT DETAILS	11	8012
CAP BEAM SIDE PLATING DETAILS	12	8013
NEOPRENE PAD DETAILS	13	8014
PILE DEMOLITION PLAN	14	8015
MDOT BORING LOGS	15	8016
BURNS, COOLEY, DENNIS BORINGS	16	8017
INFORMATION PLANS - PROJECT NO. FH-S391(1)/S-0221(1)A	---	8018-8020

BRIDGE DIVISION		
REVISIONS		
DATE	SHEET NO.	BY
6/12/2019	8002, 8004	PCC
9/19/2019	8002, 8003, 8004, 8009, 8012, 8013	PCC

9:26:53 AM 9/19/2019 L:\2019\19T05006 - MDOT SR 42 Chickasawhay Repair Drawings\SR42-S001-QT.dgn



DATE	DESIGNER Amanda Blankenship	CHECKER Preston Campbell	ISSUE DATE	WORKING NUMBER DI-BR-1

MISSISSIPPI DEPARTMENT OF TRANSPORTATION
BRIDGE @ STA. 214+80.00

DETAILED INDEX

PROJECT 106793/302000
ER-0063-04(010)

GREENE COUNTY

STATE	PROJECT NO.
MISS.	ER-0063-04(101)

DRILLED SHAFT NOTES:

1st O.REV.

The contractor shall notify the State Geotechnical Engineer at least three (3) days in advance of any shaft construction. All shafts shall be constructed as specified in Section 803 of the specifications. The trial shaft shall be constructed at locations shown on this sheet. The trial shaft will require the use of a temporary casing that shall be the same length as the permanent casing specified for production shafts. The Contractor may reuse this casing in a production shaft. For computation of quantities, top of trial shaft shall be elev. 94.0 (approximate ground). Bottom of trial shaft shall be elev. -13.0. Trial shaft reinforcing steel shall be identical to the production shaft reinforcing steel as shown on sheet no. 11. The length of trial shaft reinforcing steel cage shall be 107 ft. Roller type centralizers are required for construction of all drilled shafts. Under no circumstance shall the pitch of the spiral reinforcement be adjusted to accommodate the installation of the chosen centralizer device. All excavated material from drilled shaft construction shall be hauled from the site expeditiously in order to prevent the material from getting into the river. The Contractor will not be allowed to stockpile material along the riverbank. There will be no separate payment for this work, and it will be considered absorbed in the other items bid.

SCOPE OF WORK

1. Construct work platform at bent nos. 3 & 4.
2. Construct replacement bent nos. 3 & 4 per these plans.
3. Remove existing piling at bent nos. 3 & 4 per the demolition plan on sheet no. 14.
4. All refuse will become property of contractor and removed from site.

INFORMATION PLANS

Original Plans
Project No. FH-5-39-1(11)/S-0221(11A)
For original bridge plans, see INFORMATION PLANS on sheet nos. 801B-802D.
Additional information on the existing bridge is available for inspection in the bridge division.

GENERAL NOTES:

Specifications: Mississippi Standard Specifications For Road And Bridge Construction, 2017
No change of plans will be permitted except by written approval of the Director of Structures, State Bridge Engineer. Minor changes in details 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. Bridge concrete shall be Class "AA" unless noted otherwise. Bar bending details shall be in accordance with "Manual Of Standard Practice for Detailing Reinforced Concrete Structures" (ACI 318R-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. 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 items are provided in the proposal will not be paid for directly and compensation therefore will be included in the prices and payments for bid items.

STRUCTURAL STEEL NOTES:

Special attention is called to section 810 of The Mississippi Standard Specifications concerning shop drawings, assembly and erection of steel structures. Structural steel plates and shapes shall conform to ASTM designation A709, Grade 50W as noted in the plans. All girder webs and flanges shall meet the longitudinal charpy-v-notch toughness test. Miscellaneous steel less than 1/4" thick shall be approved by The Director Of Structures, State Bridge Engineer and shall be identified on the shop drawings. This steel will be included in the structural steel quantity and payment will be made as ASTM A709, Grade 50W Steel. Web and flange material heat numbers shall be stenciled on each girder using low stress die stamps. The heat numbers shall be stamped on the near side of the web in the upper left hand corner or as directed by The MDOT Shop Inspector. All welding shall be done by the electric arc process and shall conform to the AASHTO/AWS D1.5 BRIDGE WELDING CODE, and as directed herein. Certification for all welders to be used on this project shall be submitted to the Director Of Structures, State Bridge Engineer through the Shop Inspector. Welding machines shall have operating, properly calibrated current meters with attached calibration stickers. Run-off tabs of adequate length shall be used to help prevent weld defects at weld edges.

Station	Location	Shaft Diameter (In.)	Estimated Length (Ft.)	Tip Elevation
215+80	40' Ft. Rt. of L SR 42	60	107	-13.0

STRUCTURAL STEEL NOTES (CONTINUED):

Material surfaces for flange to web fillet welds shall be ground prior to fit-up for welding to remove all mill scale. This area includes the flange, near and far side web, and the web edge. With the exception of surface condition repairs to correct undercut or overlap conditions, repairs to groove welds require an approved welding repair procedure that includes supporting documentation, size and location of the repair, NDE Reports and the Fabricator's non-conformance report. Approval from the Director Of Structures, State Bridge Engineer is required prior to performing these repairs. Repairs to base metal (including flame cut edges with excessive gouges) require an approved welding repair procedure that includes supporting documentation, size and location of the repair, NDE reports and the Fabricator's non-conformance report. Approval from the Director Of Structures, State Bridge Engineer is required prior to performing these repairs. The Fabricator shall have a Certified Welding Inspector (CWI) on each work shift where welding or other significant work is performed. Quality control inspections for acceptance shall precede quality assurance inspections. Quality control shop inspection records shall be made available to the MDOT Shop Inspector. NDE applications for unusual or nonstandard weld geometries shall require the fabricator to determine specific inspection procedures that include techniques and acceptance standards. These inspection procedures shall be submitted to the Director Of Structures, State Bridge Engineer for approval. Radiography of weld transitions shall be performed by placing the film on the flat side of the transition. A floating center punch shall be placed on the base metal adjacent to the weld and shall be visible on each radiographic film in the area of interest. Prior to any fabrication, the Fabricator shall have shop drawings, welding procedures, a procedure for storage and handling of welding electrodes, wire and flux, and a flux recovery procedure (if applicable) that have been approved by the Director Of Structures, State Bridge Engineer. No fabrication shall begin until a pre-fabrication conference has been held and the facilities have been inspected and approved by the Director Of Structures, State Bridge Engineer. A pre-fabrication meeting shall be held at each fabrication location unless otherwise directed by the Director Of Structures, State Bridge Engineer. Prior to fabrication, the Fabricator and/or Subcontractor shall submit their NDE procedures to the Director Of Structures, State Bridge Engineer for review. The NDE procedure shall include a written practice, a method procedure for each inspection process and personnel certifications. Breaks in fabrication shall require at least two weeks advance notification to the Director Of Structures, State Bridge Engineer prior to restarting work for mobilization of MDOT Inspectors. Field connections shall be 3/4" diameter high strength bolts per ASTM F3125, Gr. A325 Type 3, unless otherwise noted. High strength bolts shall be placed with threaded ends protected from the weather, where feasible. See SPECIAL NOTES ON BOLTS, NUTS, WASHERS AND DIRECT TENSION INDICATORS. Each high strength bolt shall be tightened to provide, when all bolts in the joint are tight, at least a minimum tension as follows:
1" Dia. Bolts --- 51,500 Lbs.
3/4" Dia. Bolts --- 39,250 Lbs.
3/4" Dia. Bolts --- 28,400 Lbs.
5/8" Dia. Bolts --- 19,200 Lbs.
High strength bolts, nuts, washers and direct tension indicators shall be domestic products and shall be shipped to the project site in sealed metal containers or approved equal. Each container shall be permanently marked with the rotational capacity lot number such that identification will be possible at any stage prior to installation. They shall be stored out of the weather in a location approved by the Engineer. The container shall remain unopened until the contents are needed for erection. All fasteners shall be sampled for testing to be performed by MDOT. Fastener containers shall be marked as "sampled" after samples are obtained and stamped by the MDOT Inspector once samples are approved by MDOT.

Bent No.	Shaft Diameter (In.)	Estimated Length (Ft.)	Minimum Tip Elevation
3	60	100	12.8
4	60	100	7.7

STRUCTURAL STEEL NOTES (CONTINUED):

The Contractor shall submit a falsework and erection plan for erection of the steel structure in accordance with section 810 of the specifications to the Director of Structures, State Bridge Engineer for approval. To be eligible for advance payment as allowed by the Specifications, all structural steel shall be completely fabricated and ready for shipment. Structural steel shall be considered fabricated when all welding, testing, blasting, repair, fit up and shop assembly, including the drilling of the members and splice plates, have been completed and accepted by the Director Of Structures, State Bridge Engineer. The Fabricator shall furnish MDOT shop inspection personnel with at least 140 square feet of floor space. Additional space shall be provided as directed by the Director Of Structures, State Bridge Engineer. The office shall contain desks, chairs, file cabinets, telephone with long distance access, electric lights, power outlets, shelves and tables. The office shall be provided with adequate heating, ventilation and air conditioning. The office shall have access to convenient sanitary facilities with running water. The office shall be in good repair, located where there is not excessive noise and shall be used for MDOT shop inspection personnel only. Convenient and adequate parking shall be provided. The Fabricator shall provide MDOT shop inspection personnel convenient access to a fax machine and a copy machine. Changes in office location or facilities shall be made only upon approval of the Director Of Structures, State Bridge Engineer. For the plate girder components designated as "ASTM A709, Gr. 50W," provide steel that conforms to the requirement of ASTM A709, Gr. 50WF. Impact testing for all plate girder components shall meet the requirements of Zone 1 for fracture critical, F, material. Structural steel surfaces shall be cleaned in accordance with Section 814 of the Standard Specifications. Cost associated with the pay item Structural Steel, A 709, Grade 50W shall include all labor and material costs required to erect the structural steel shown in the plans. The material cost of the structural steel shown in the plans shall not be included.

CONSTRUCTION FIELD WELDING NOTES:

All field welding shall be done by the electric arc process and shall conform to the ANSI/AASHTO/AWS D1.5 bridge welding code, the latest edition of the AASHTO Guide Specification for Highway Bridge Fabrication with high performance steel. A Certified Welding Inspector shall be present for all field welding. All field welding shall be performed by certified welders with approved electrodes and supplies specific to weathering steel ASTM A709, Gr. 50W. Certification for all welders and a procedure for storage and handling of electrodes and materials to be used for field welding shall be submitted to the Director of Structures, State Bridge Engineer through the project engineer for approval prior to construction. All field welds shall be inspected by a Certified Welding Inspector (CWI) specific to ASTM A 709 Gr. 50W welding prior to acceptance by MDOT. Any field weld found not to be in conformance by the CWI shall be redone and any material damaged beyond repair shall be replaced at the Contractor's expense.

DEBRIS REMOVAL NOTE:

For the duration of the project, care shall be exercised to ensure that no debris fall into the hydraulic crossing below the structure. The debris that is removed from the bridge shall become the property of the Contractor and shall be removed from the construction site.

DESIGN DATA

Specifications.....	A.A.S.H.T.O. 2002
Loading.....	HS-20
Seismic Performance Zone.....	Zone 1
Site Class.....	D
Operational Class.....	Other
Concrete.....	Class "AA" (4000 psi)
Drilled Shaft Concrete.....	Class "DS" (4000 psi)
Permanent Steel Casing.....	ASTM A252, Grade 2 (Fy = 35 ksi)
Structural Steel.....	ASTM A709, Grade 50W (Fy = 50 ksi)

PAY ITEM CODE	DESCRIPTION	QUANTITIES	UNIT
202-B036	Removal of Bridge Piling	14	Each
620-A001	Mobilization	1	L5
803-K008	Drilled Shaft, 60" Diameter	400	LF
803-M007	Trial Shaft, 60" Diameter	115	LF
803-N001	Exploration	40	LF
803-0009	Permanent Casing, 60" Diameter	280	LF
804-A001	Bridge Concrete, Class "AA"	41.50	CY
805-A001	Reinforcement	5,094	LBS
810-A007	Structural Steel, A 709, Grade 50W **	104,169	LBS
815-A007	Loose Riprap, Size 300 *	100	TON

* To be used as needed.
** Pay item to be furnished to the Contractor by Mississippi Department of Transportation.

MAINTENANCE OF TRAFFIC NOTE:

A maintenance of traffic plan will not be required. The bridge is currently closed and will remain closed to traffic for the duration of the project.

DRIFT REMOVAL NOTE:

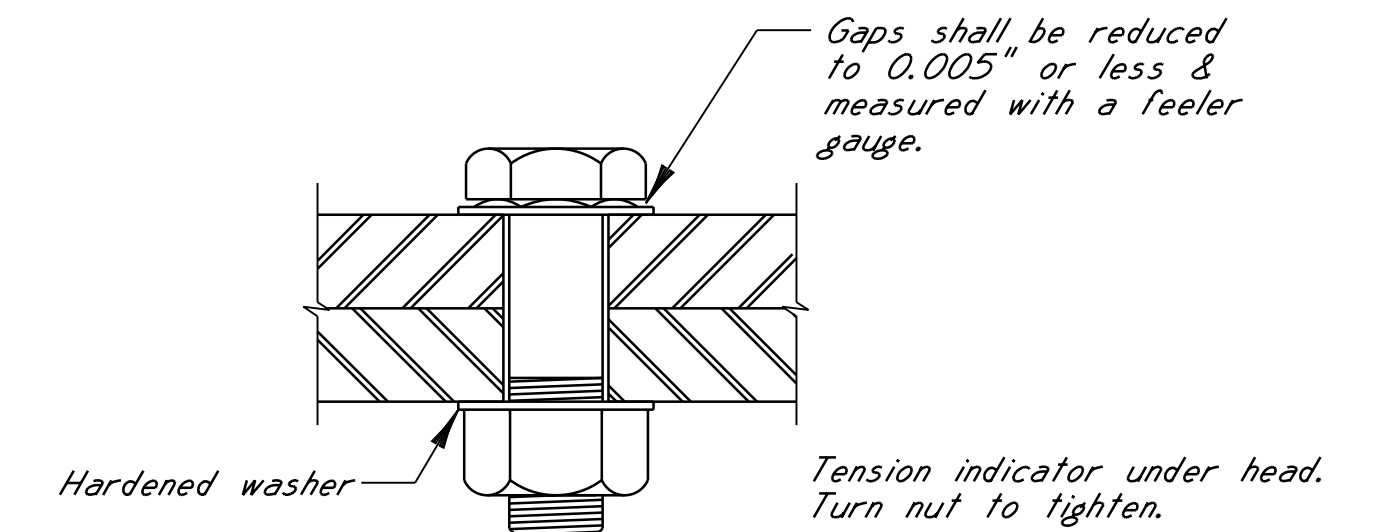
The Contractor shall be responsible for removing all drift build up at bent nos. 3 and 4. All cost associated with the removal of drift shall be absorbed.

REMOVAL OF WORK PLATFORM NOTE:

Upon completion of work, the riprap work platform shall be removed and/or regraded to the slope(s) indicated in the Project No. ER-0063-04(1006) plans. Any excess riprap following removal of the work platform is to be hauled to and stockpiled at a location designated by the Engineer within two (2) miles of the project. The cost associated with the removal, regrading, hauling, and stockpiling are to be absorbed in the pay item 815-A007 Loose Riprap, Size 300.

CONTRACTOR FIELD VERIFICATION & SHOP DRAWING SUBMITTAL NOTES:

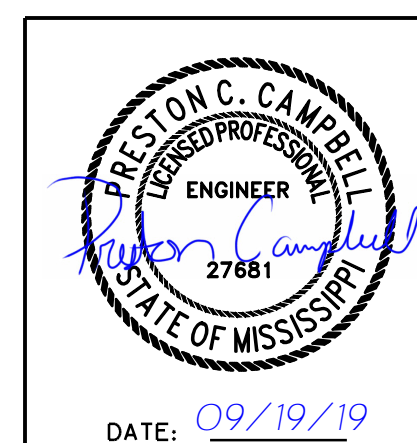
1. Prior to fabrication and construction, the Contractor shall field verify the dimensions of the existing structure. The Contractor shall be responsible for adjusting the elements of the new construction to ensure proper fit with the existing structure.
2. Prior to fabrication and construction, the Contractor shall submit verification of the existing bridge elements associated with pay items nos. 803-K008 Drilled Shaft, 60" Diameter, 803-0009 Permanent Casing, 60" Diameter, and 810-A007 Structural Steel, A 709, Grade 50W to the Director of Structures, State Bridge Engineer for approval.



DIRECT TENSION INDICATOR INSTALLATION

SPECIAL NOTES ON BOLTS, NUTS, WASHERS AND DIRECT TENSION INDICATORS:

High strength bolts shall meet the requirements of ASTM F3125, Gr. A325 Type 3. Maximum hardness for high strength bolts shall be 33 Rockwell C (RC). Nuts for high strength bolts shall be heavy hex and meet the requirements of ASTM A563, Grade DH3. Hardened steel washers shall meet the requirements of ASTM F436, Type 3. Direct tension indicators shall meet the requirements of ASTM F959, Type 325-3. High strength bolts, nuts, or direct tension indicators shall not be reused after tightening. Mill test reports, certified test reports, and certificates of compliance are required for high strength bolts, nuts, hardened washers and direct tension indicators.

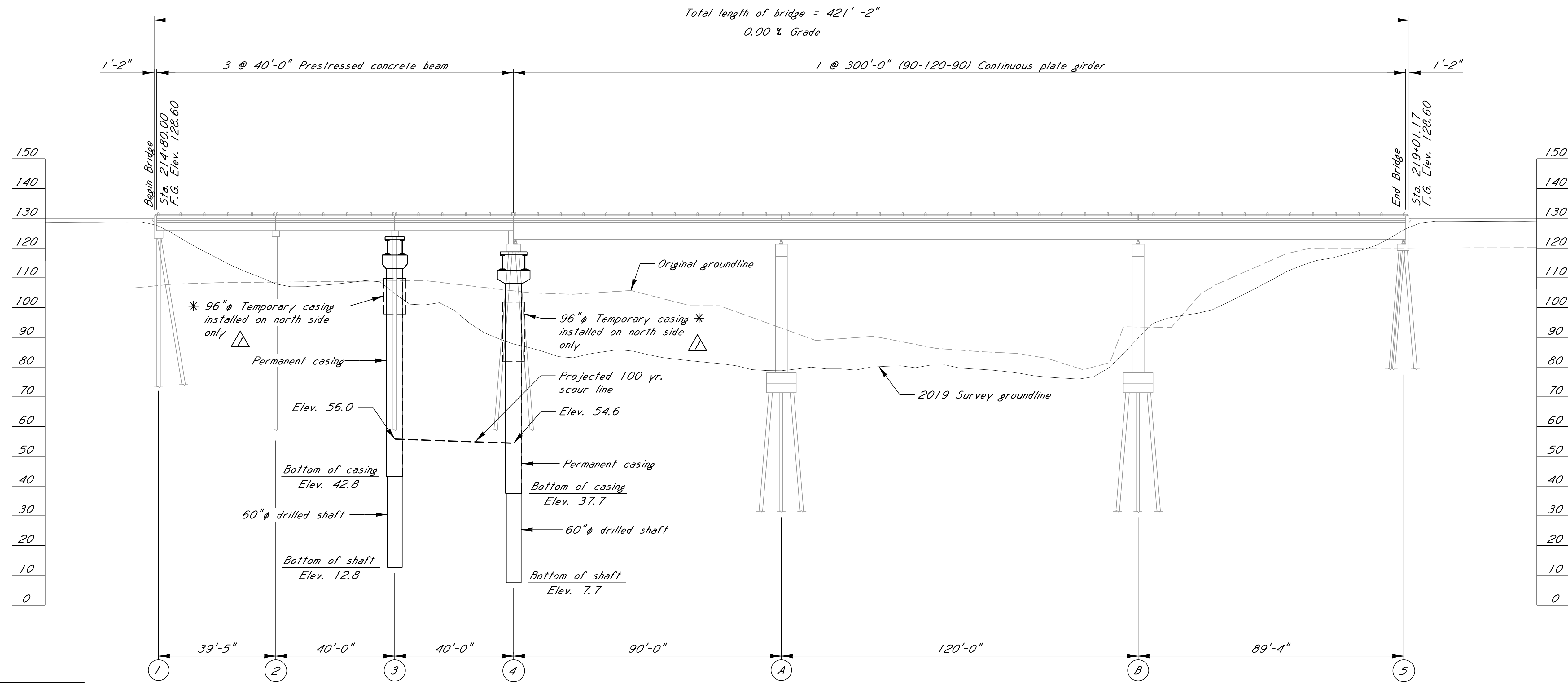


DATE: 09/19/19

9/19/19	REVISED NOTES AND ESTIMATED QTY. TABLE	PCC	BY	MISSISSIPPI DEPARTMENT OF TRANSPORTATION BRIDGE @ STA. 214+80.00 SR 42 ACROSS CHICKASAWHAY RIVER BRIDGE REPAIR PROJECT 106793/302000 ER-0063-04(101) GREENE COUNTY WORKING NUMBER 1 of 16 SHEET NUMBER 8002
6/12/19	ADDED DRILLED SHAFT NOTE, REVISED INFORMATION PLAN SHEET NUMBERS, REVISED TRIAL SHAFT LOCATION, ADDED BOLT DIAMETERS TO NOTE	PCC	REVISIONS	
				DESIGNER <u>Amanda Blankenship</u> CHECKER <u>Preston Campbell</u> DETAILER <u>Amanda Blankenship</u> ISSUE DATE _____ DIRECTOR OF STRUCTURES, STATE BRIDGE ENGINEER - JUSTIN WALKER PE. DEP. DIR. OF STRUCTURES, ASSIST. STATE BRIDGE ENGINEER - SCOTT WESTERFIELD PE.

1st O.REV.

STATE	PROJECT NO.
MISS.	ER-0063-04(010)



Bent	Elevation
3	42.4
4	40.9

Replacement of bent nos. 3 & 4 per details on sheet nos. 4-10

ELEVATION WITH PROFILE ON & SR 42
Scale: 1" = 20'-0"

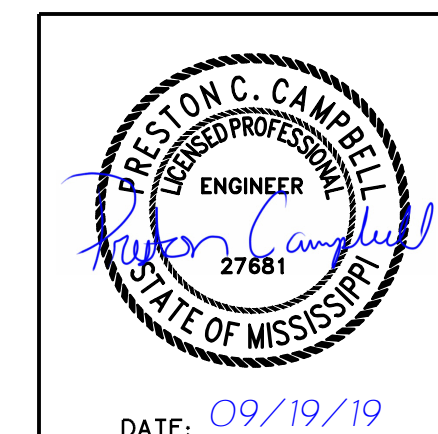
214+00 215+00 216+00 217+00 218+00 219+00

* 96" temporary casing installed under previous contract is to be salvaged onsite at a location designated by the Engineer upon completion of drilled shaft construction.

WATER SURFACE ELEVATION NOTES:

Water surface elevations (WSEL) shown in the table are based on historical data and are provided for information purposes only. Elevations given may not predict actual WSELs at the site during the time of construction. Historical stream data was obtained from USGS Gage 02478500 on the Chickasawhay River at Leakesville, MS. This data can be found at the following web address: waterwatch.usgs.gov. WSELs were estimated using a one-dimensional steady state hydraulic model for the river reach in the vicinity of the project. Historical discharge for the period of record from 1938-09 to 2019-02 at the USGS gage station at Leakesville, MS was transferred upstream to the site based on procedures defined in "Effective Discharge Calculation: A Practical Guide" (Briedenham, et. al., August 2000).

Period of Record Values (1938-09 to 2019-02)	
Mean High WSEL	101.4'
Mean Normal WSEL	93.6'
Mean Low WSEL	87.2'
3-month Average Values (June, July, and August)	
Max. High WSEL	104.5'
Mean Normal WSEL	90.4'
Min. Low WSEL	85.8'

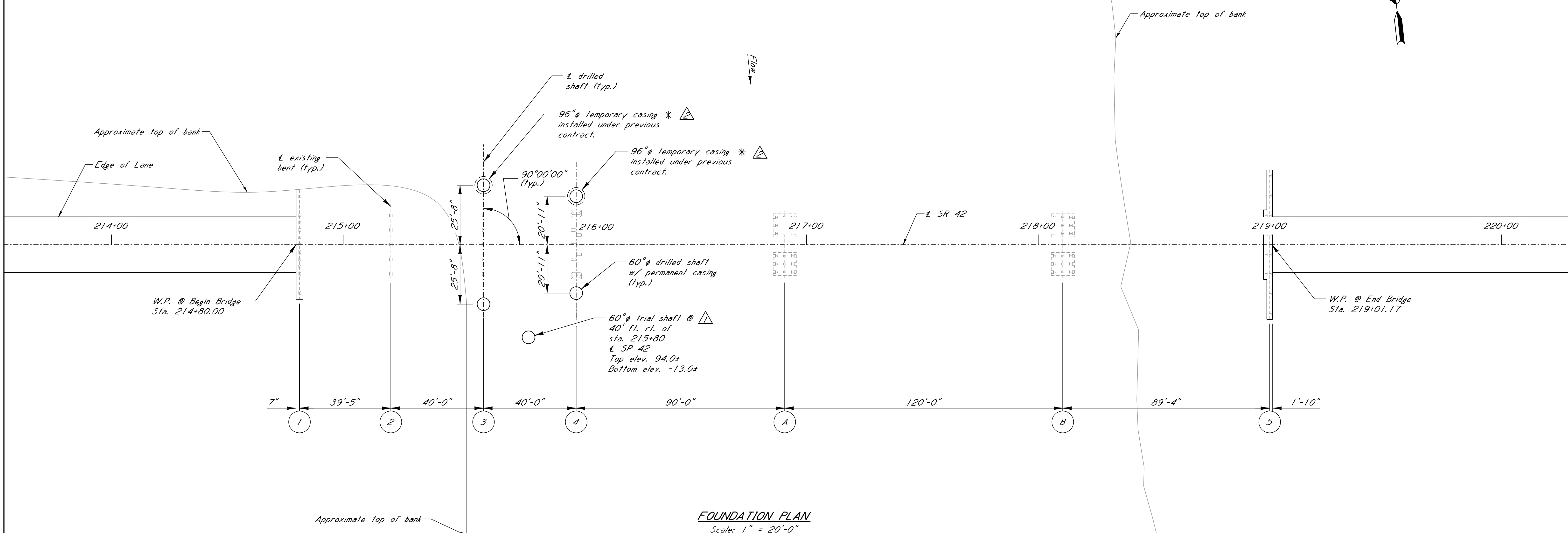


REVISIONS DATE: 9/19/19 DESIGNED: Amanda Blankenship CHECKER: Preston Campbell DETAILER: Amanda Blankenship ISSUE DATE:	PCC BY REVISIONS	MISSISSIPPI DEPARTMENT OF TRANSPORTATION BRIDGE @ STA. 214+80.00 SR 42 ACROSS CHICKASAWHAY RIVER PROJECT 106793/302000 ER-0063-04(010) GREENE COUNTY	WORKING NUMBER 2 of 16 SHEET NUMBER 8003
	DESIGNER: Amanda Blankenship CHECKER: Preston Campbell DIRECTOR OF STRUCTURES, STATE BRIDGE ENGINEER - JUSTIN WALKER PE. DEP. DIR. OF STRUCTURES, ASSIST. STATE BRIDGE ENGINEER - SCOTT WESTERFIELD PE.		

1st O.REV.

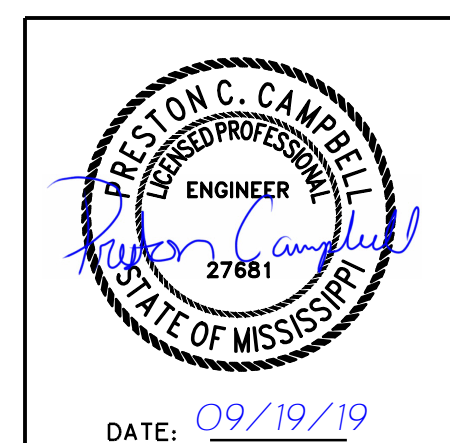
STATE	PROJECT NO.
MISS.	ER-0063-04(010)

* 96" ϕ temporary casing installed under previous contract is to be salvaged onsite at a location designated by the Engineer upon completion of drilled shaft construction.

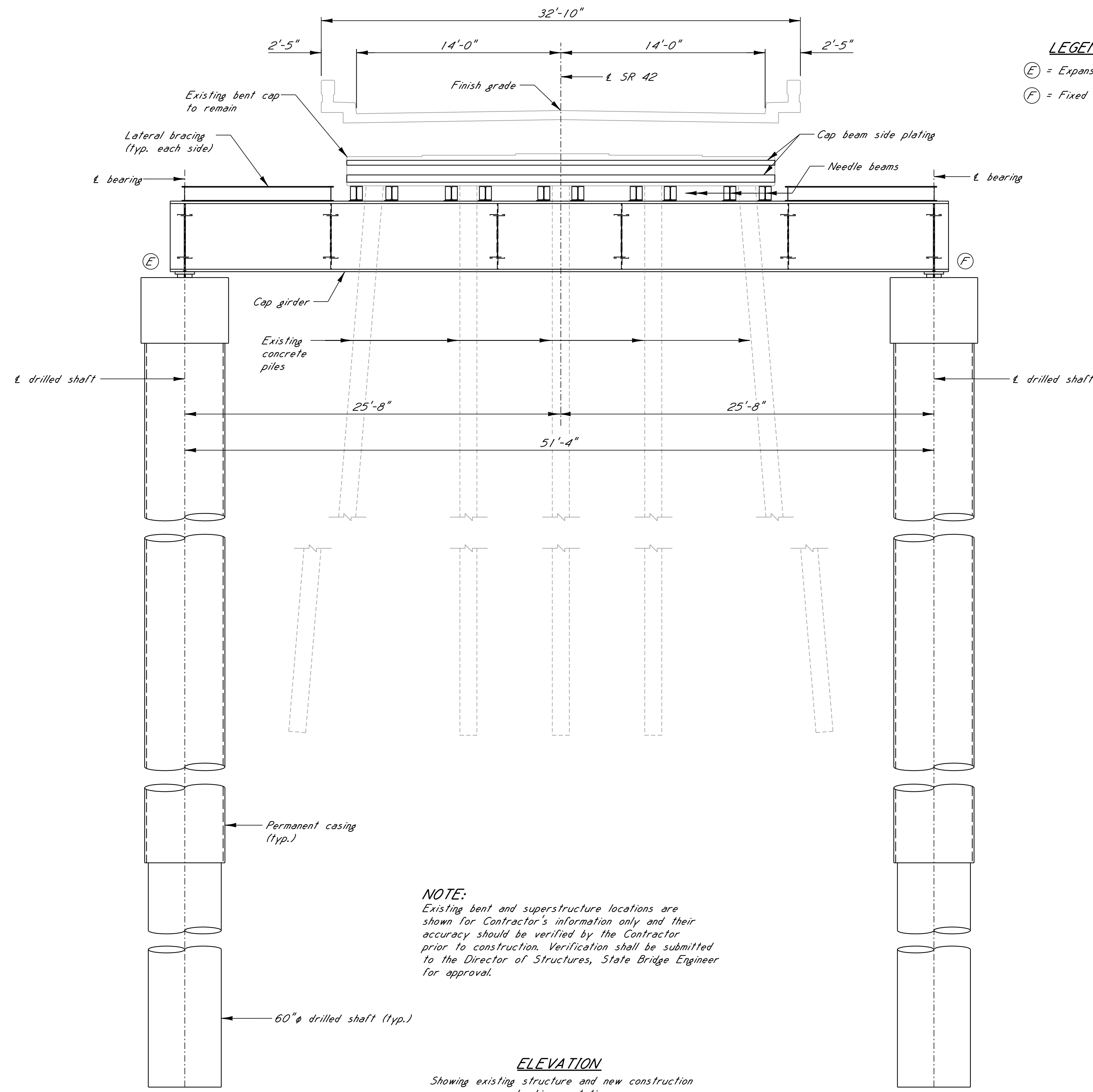


FOUNDATION PLAN
Scale: 1" = 20'-0"

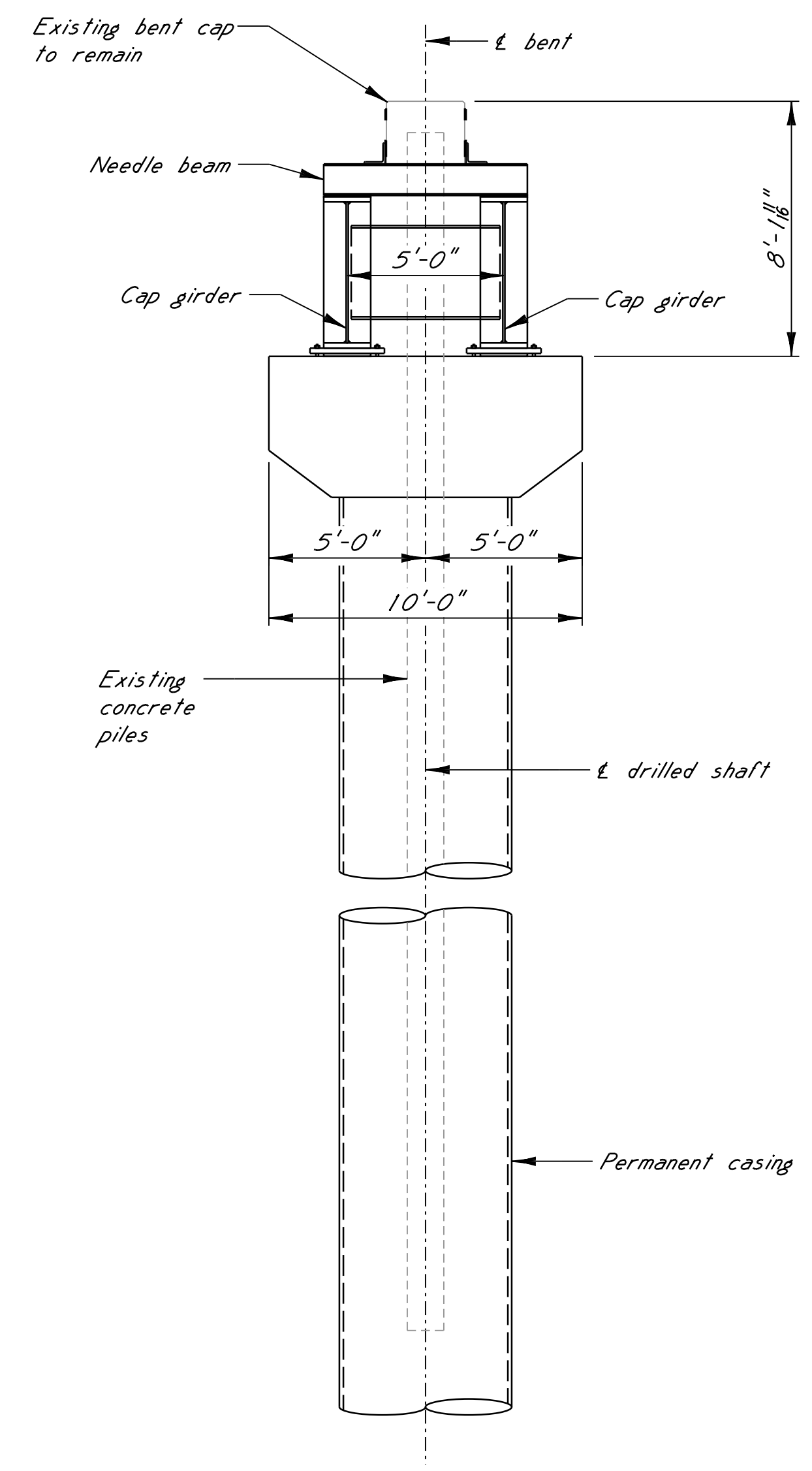
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9/19/19	REMOVED TEMPORARY CASING LOCATIONS: PCC	PCC	BY	MISSISSIPPI DEPARTMENT OF TRANSPORTATION BRIDGE @ STA. 214+80.00 FOUNDATION PLAN PROJECT 106793/302000 ER-0063-04(010) GREENE COUNTY	WORKING NUMBER 3 of 16
6/12/19	ADDED TEMPORARY CASING NOTE	PCC	REVISIONS		DESIGNER <u>Amanda Blankenship</u> CHECKER <u>Preston Campbell</u> DATE <u>6/12/19</u> ISSUE DATE _____ DIRECTOR OF STRUCTURES, STATE BRIDGE ENGINEER - JUSTIN WALKER PE. DEP. DIR. OF STRUCTURES, ASSIST. STATE BRIDGE ENGINEER - SCOTT WESTERFIELD PE.
	ADDED TRIAL SHAFT LOCATION	PCC			



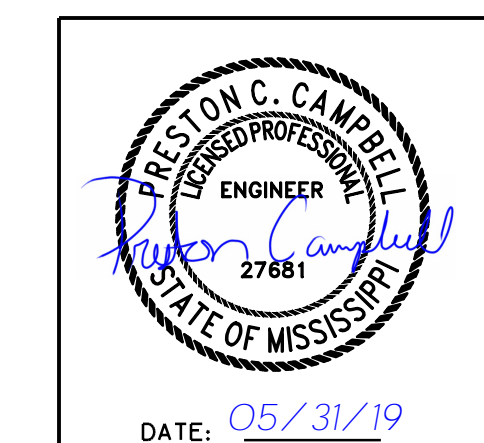
LEGEND
 (E) = Expansion End
 (F) = Fixed End



END ELEVATION
 Showing existing structure and new construction

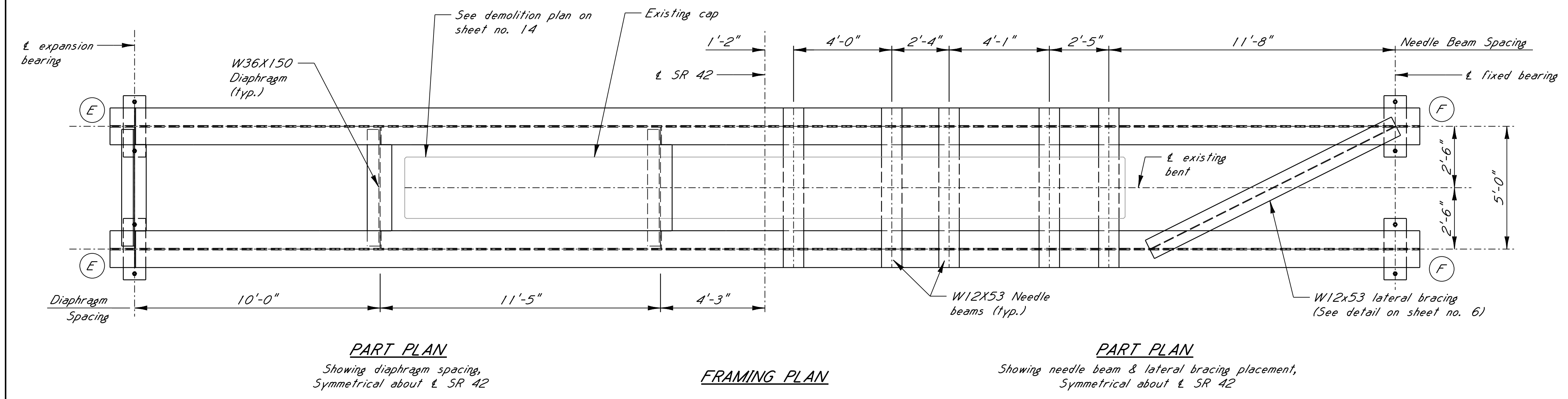
NOTE:
 Existing bent and superstructure locations are shown for Contractor's information only and their accuracy should be verified by the Contractor prior to construction. Verification shall be submitted to the Director of Structures, State Bridge Engineer for approval.

ELEVATION
 Showing existing structure and new construction
 Looking upstation



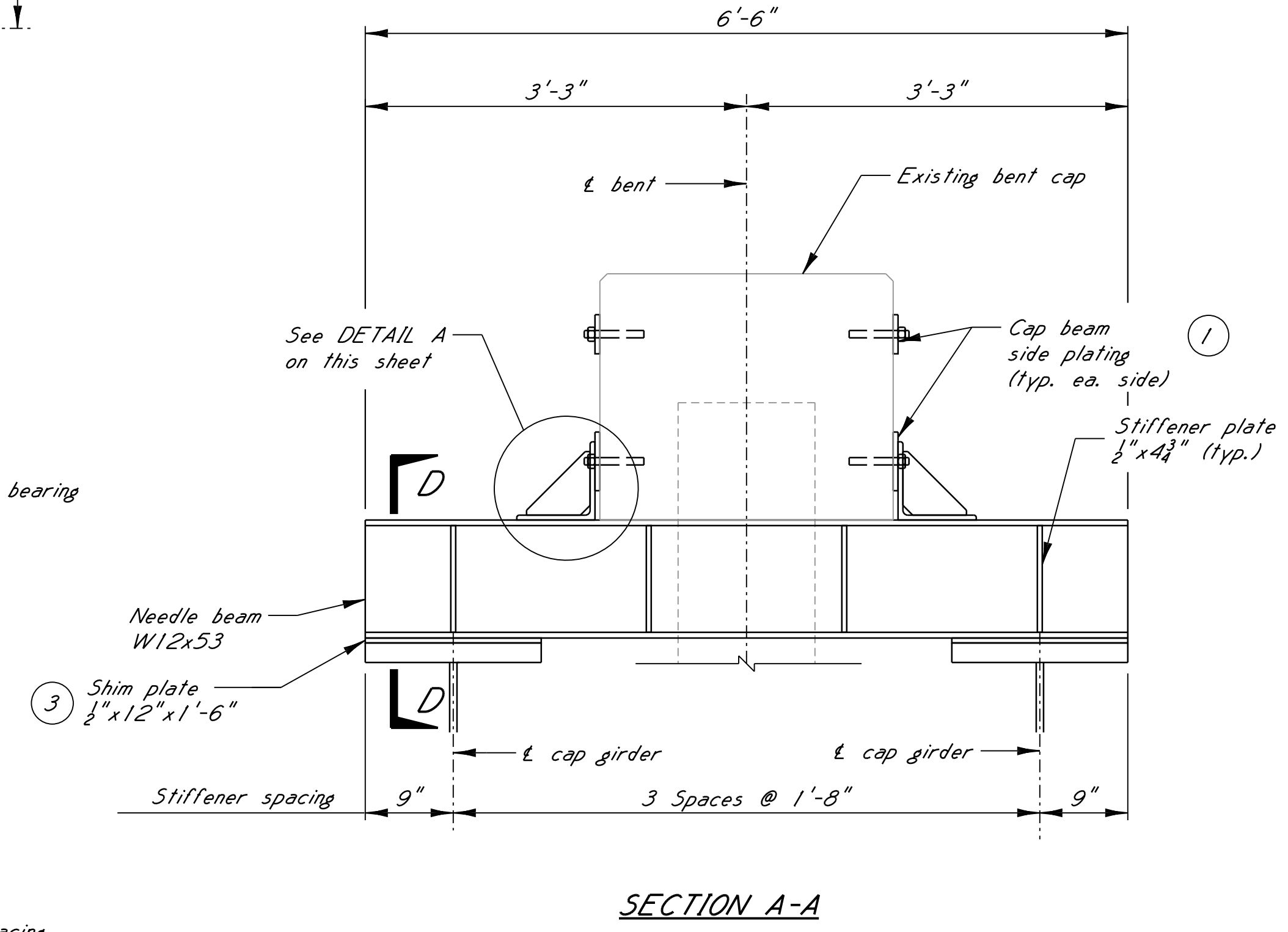
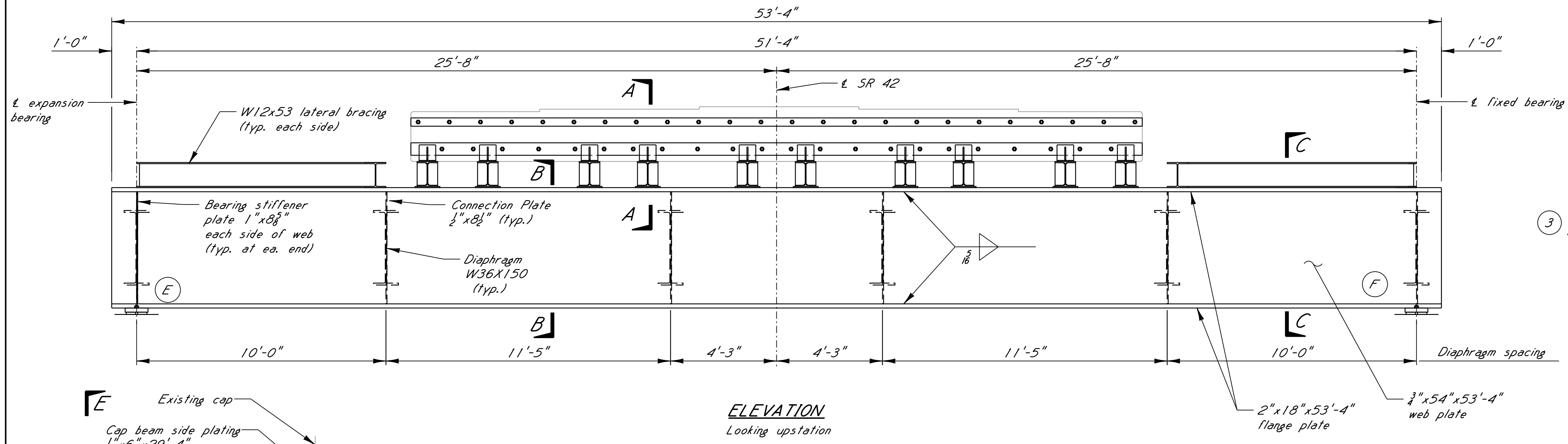
DATE: 05/31/19

BY		MISSISSIPPI DEPARTMENT OF TRANSPORTATION BRIDGE @ STA. 214+80.00	
REVISIONS		BENT NO. 3 REPLACEMENT DETAILS	
DATE		PROJECT	106793/302000
DESIGNER		GREENE	ER-0063-04(010)
DETAILER		COUNTY	GREENE
CHECKER		WORKING NUMBER	4 of 16
ISSUE DATE		SHEET NUMBER	8005
DIRECTOR OF STRUCTURES, STATE BRIDGE ENGINEER - JUSTIN WALKER PE. DEP. DIR. OF STRUCTURES, ASSIST. STATE BRIDGE ENGINEER - SCOTT WESTERFIELD PE.			



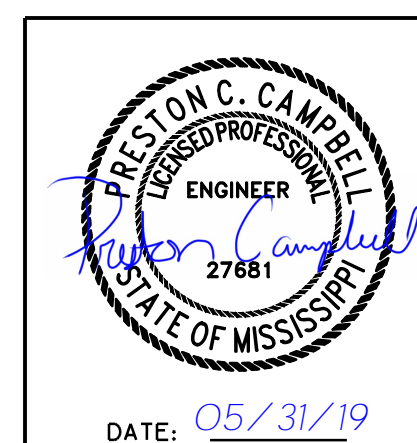
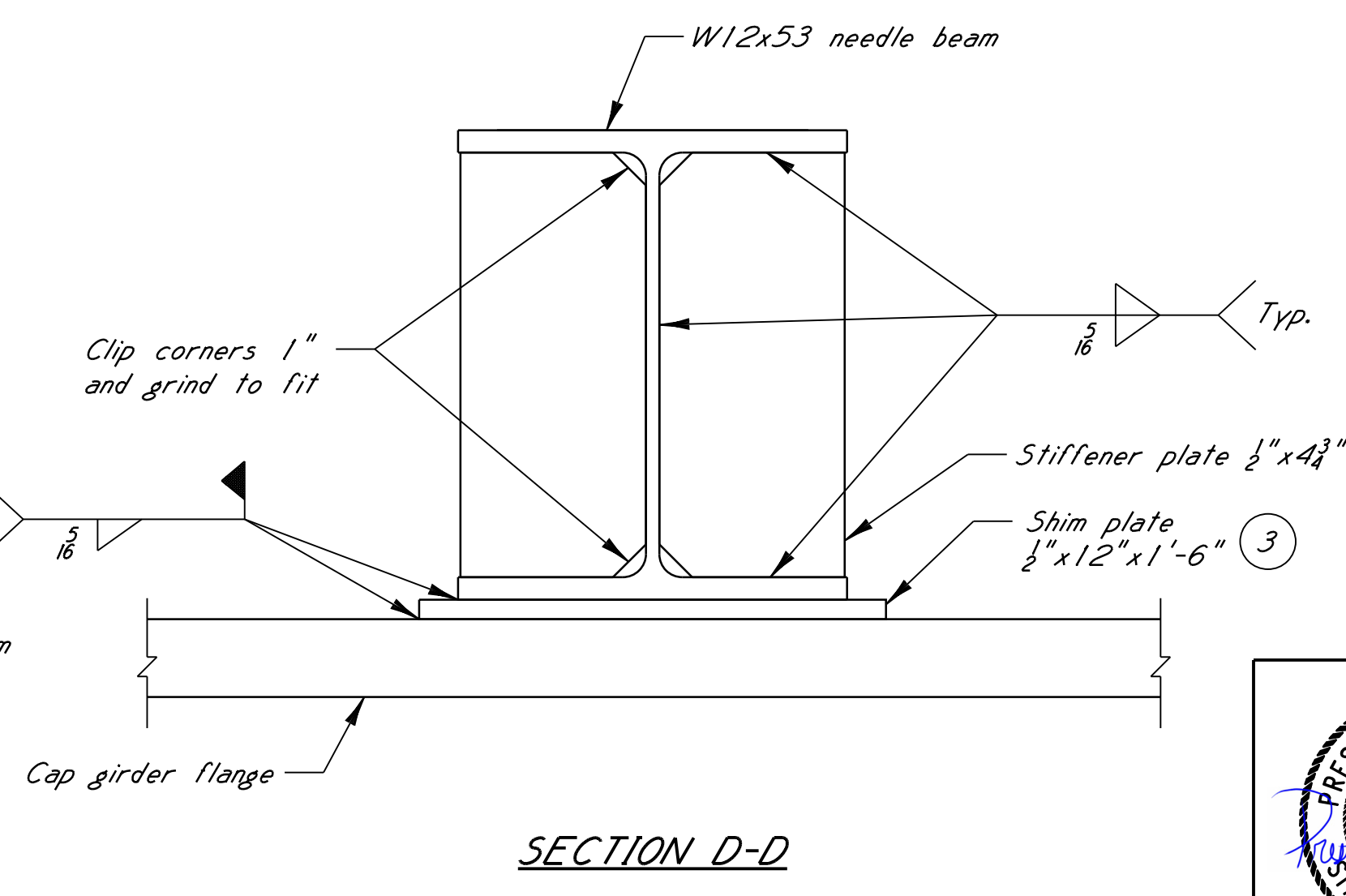
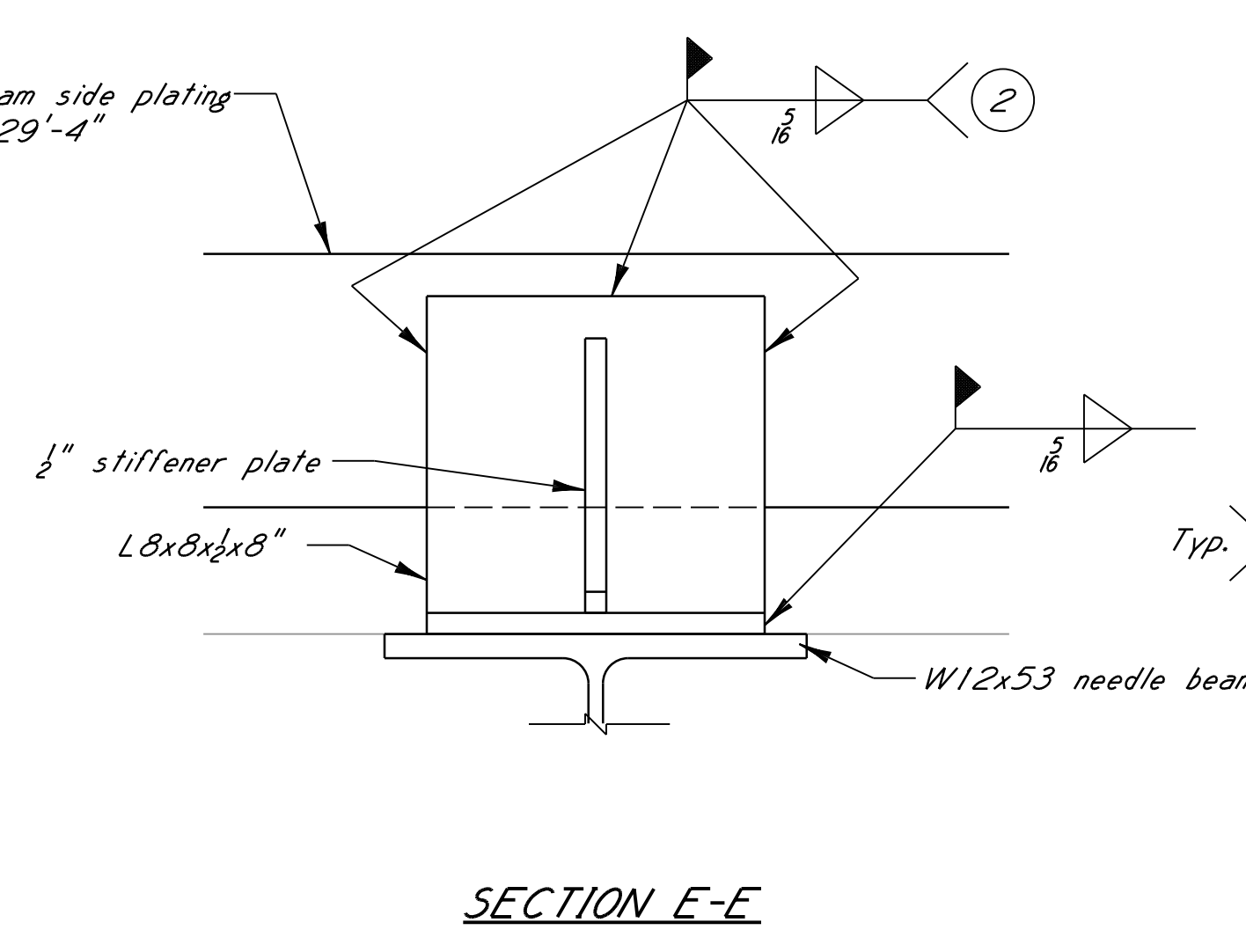
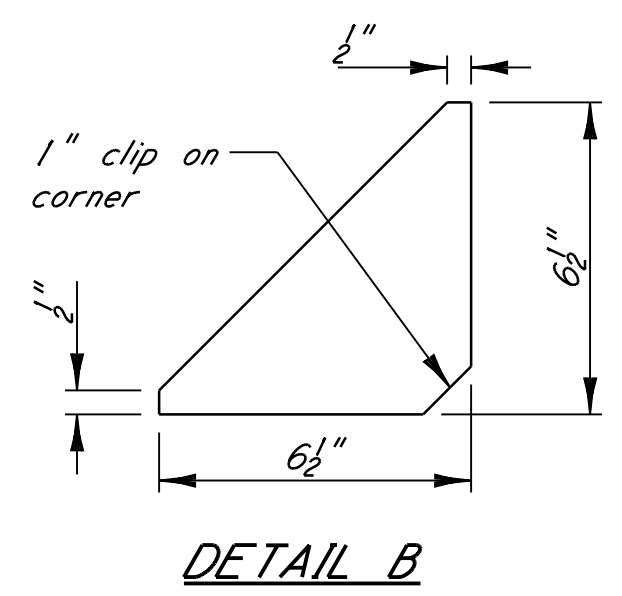
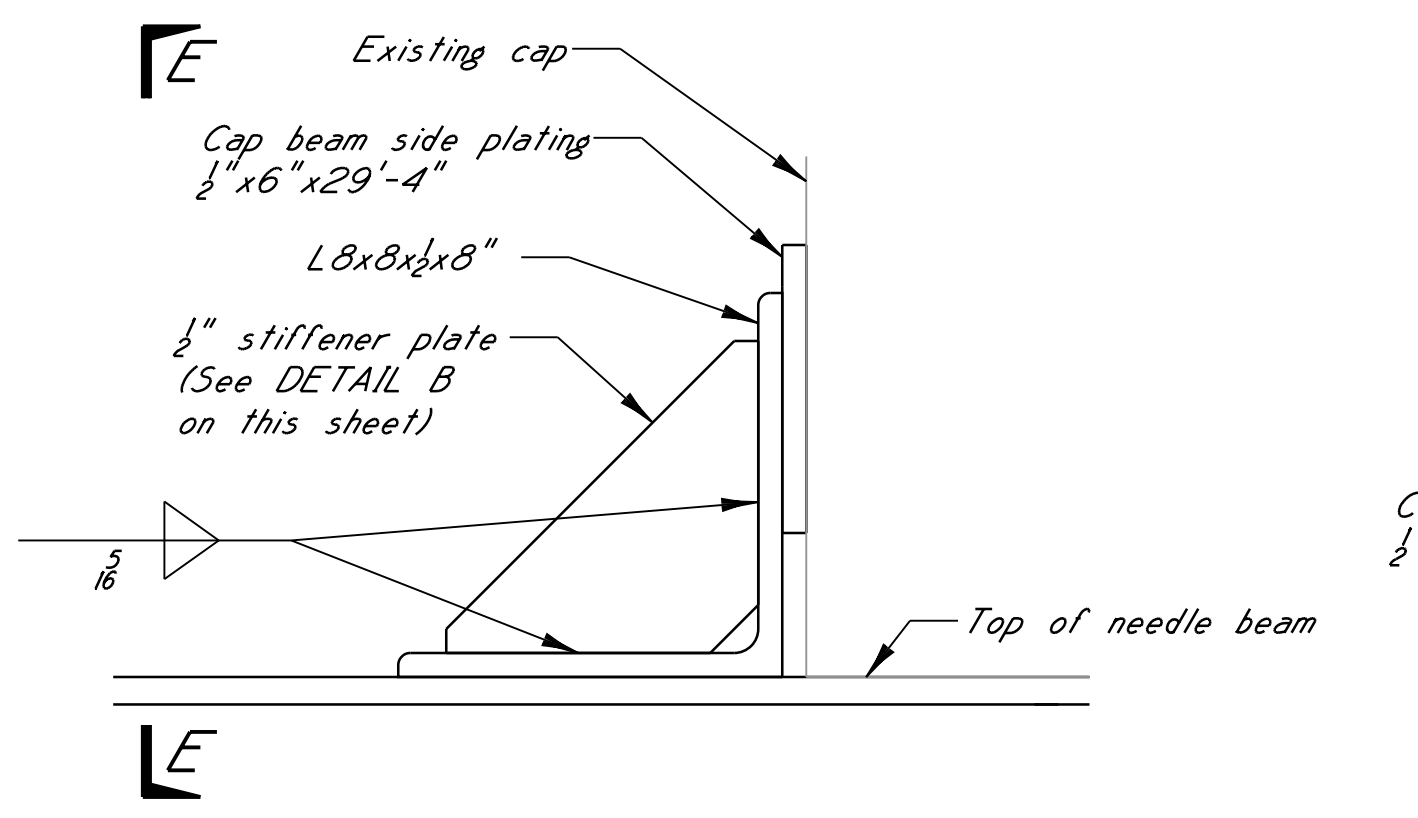
LEGEND

(E) = Expansion end
(F) = Fixed end

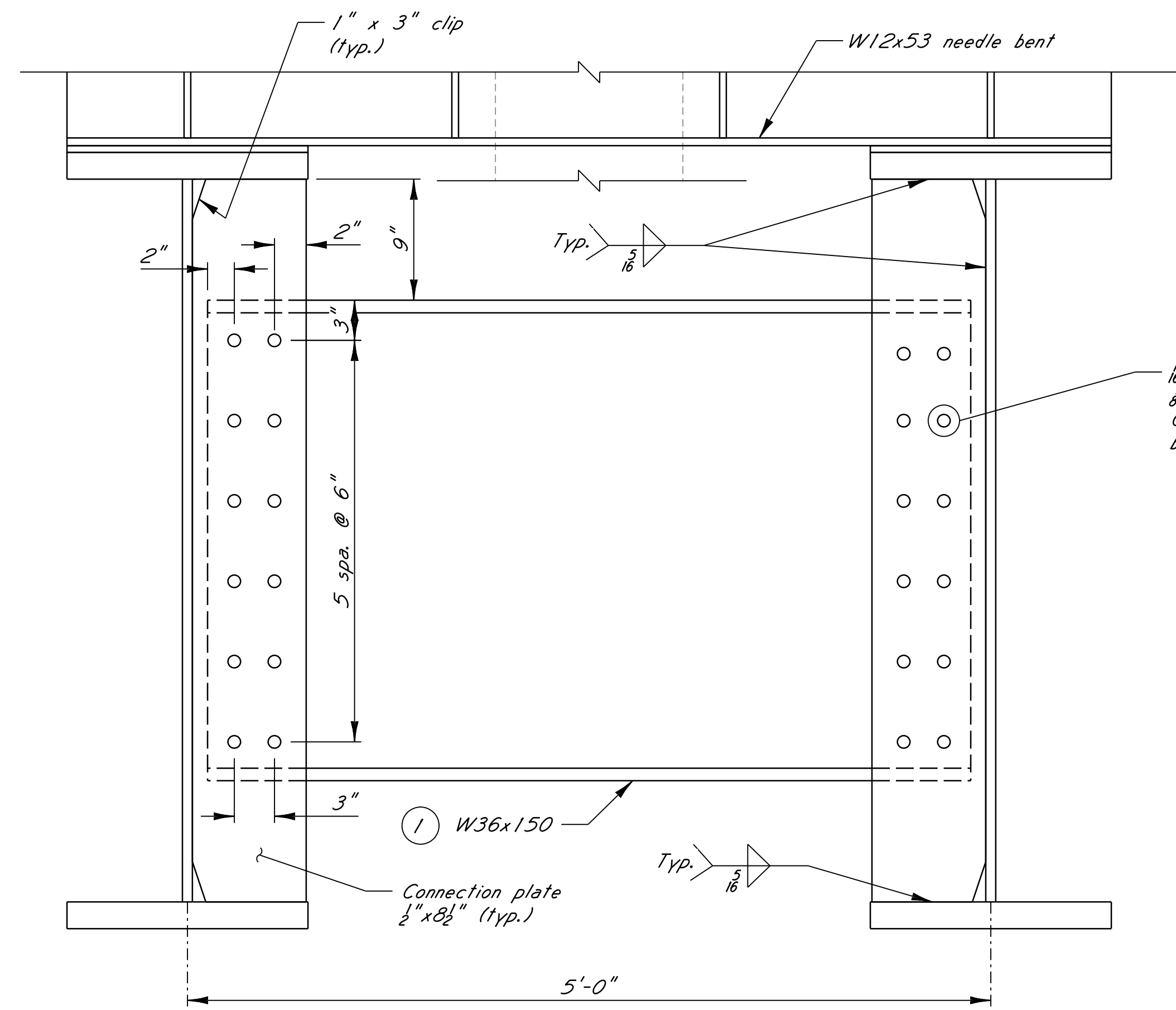


- (1) For cap beam side plating details, see sheet no. 12
- (2) Weld shall not be made until piling has been removed.
- (3) Shim plate thickness shown as a minimum. A thicker, single shim plate may be required to ensure full width contact between needle beam flange and cap beam soffit. The contractor shall be responsible for providing the necessary plate thickness.

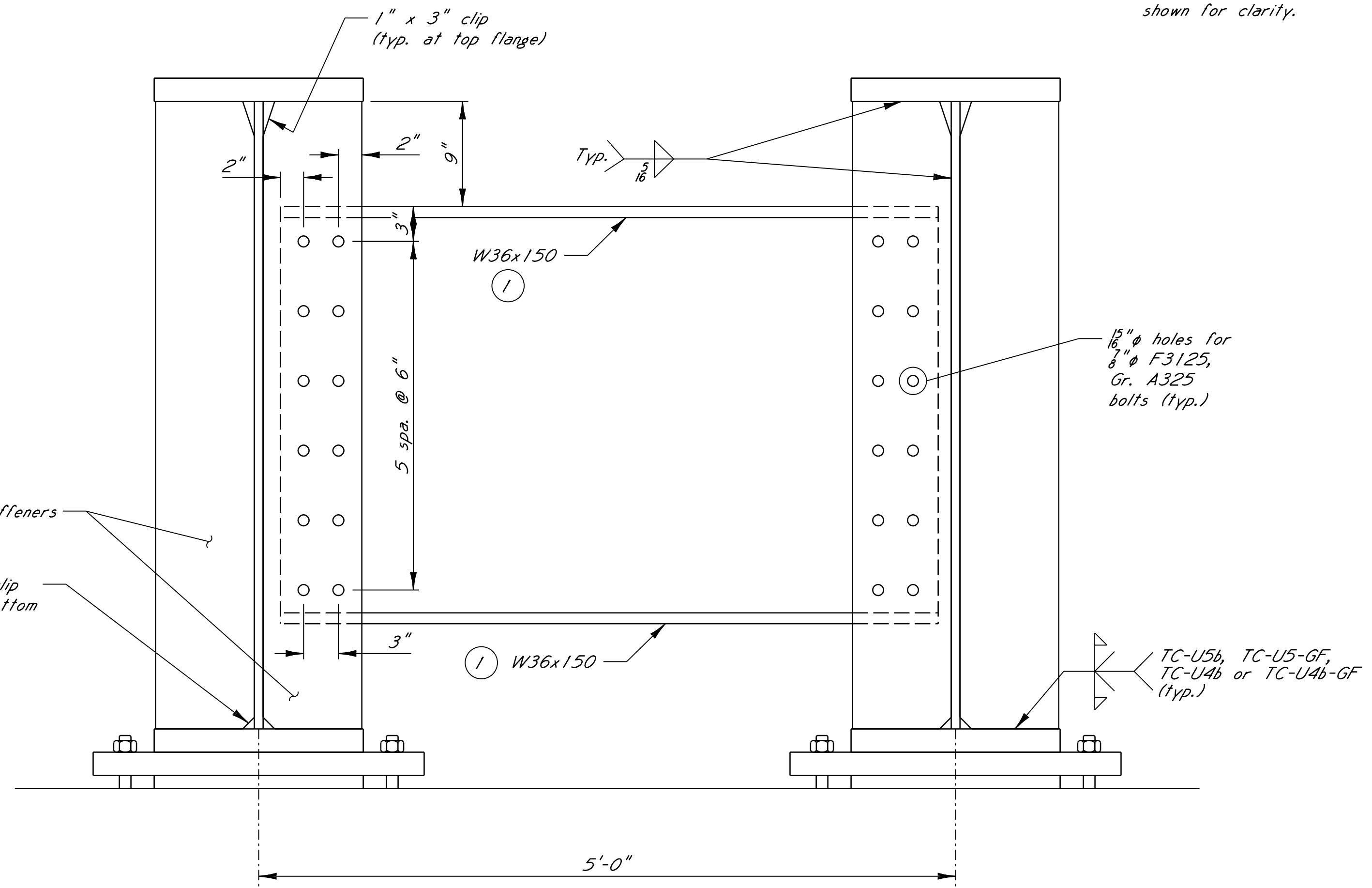
NOTE:
For SECTIONS B-B & C-C, see sheet no. 6



BY		MISSISSIPPI DEPARTMENT OF TRANSPORTATION BRIDGE @ STA. 214+80.00	
REVISIONS		BENT NO. 3 REPLACEMENT DETAILS	
DATE		PROJECT 106793/302000 ER-0063-04(010)	
DESIGNER		GREENE COUNTY	
DETAILER		WORKING NUMBER 5 of 16	
CHECKER		SHEET NUMBER 8006	
ISSUE DATE		DESIGNER: Preston Campbell CHECKER: Preston Campbell DETAILER: Jonathan Lewis ISSUE DATE: _____ DIRECTOR OF STRUCTURES, STATE BRIDGE ENGINEER - JUSTIN WALKER PE. DEP. DIR. OF STRUCTURES, ASSIST. STATE BRIDGE ENGINEER - SCOTT WESTERFIELD PE.	



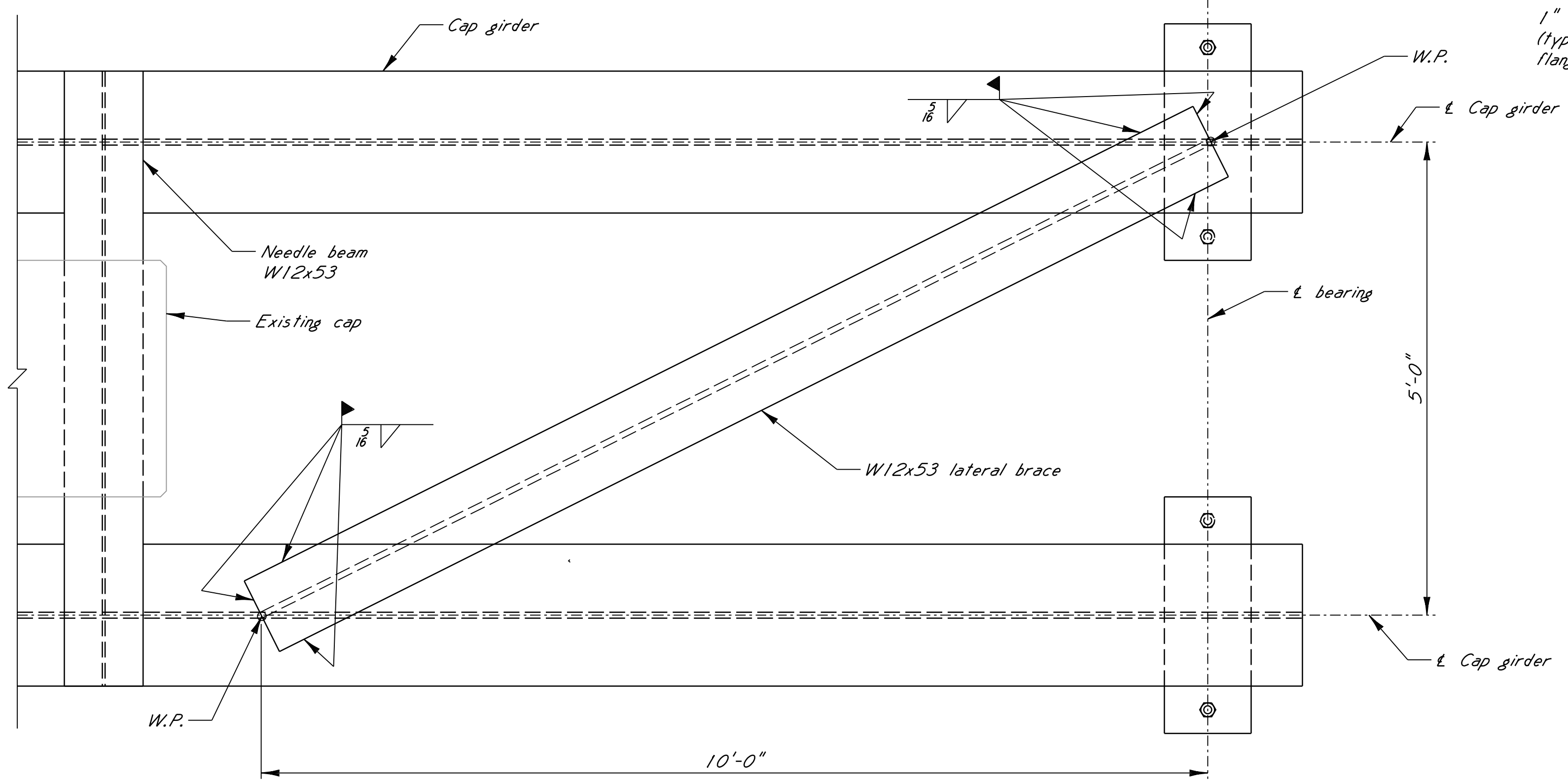
SECTION B-B



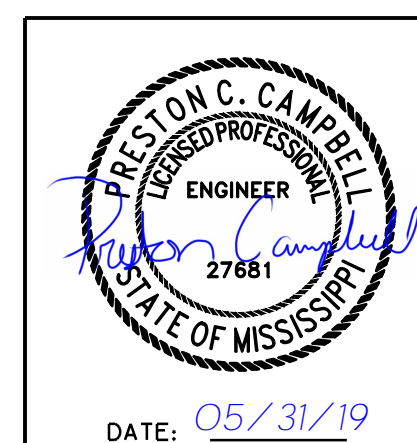
SECTION C-C

NOTE:
Lateral bracing not shown for clarity.

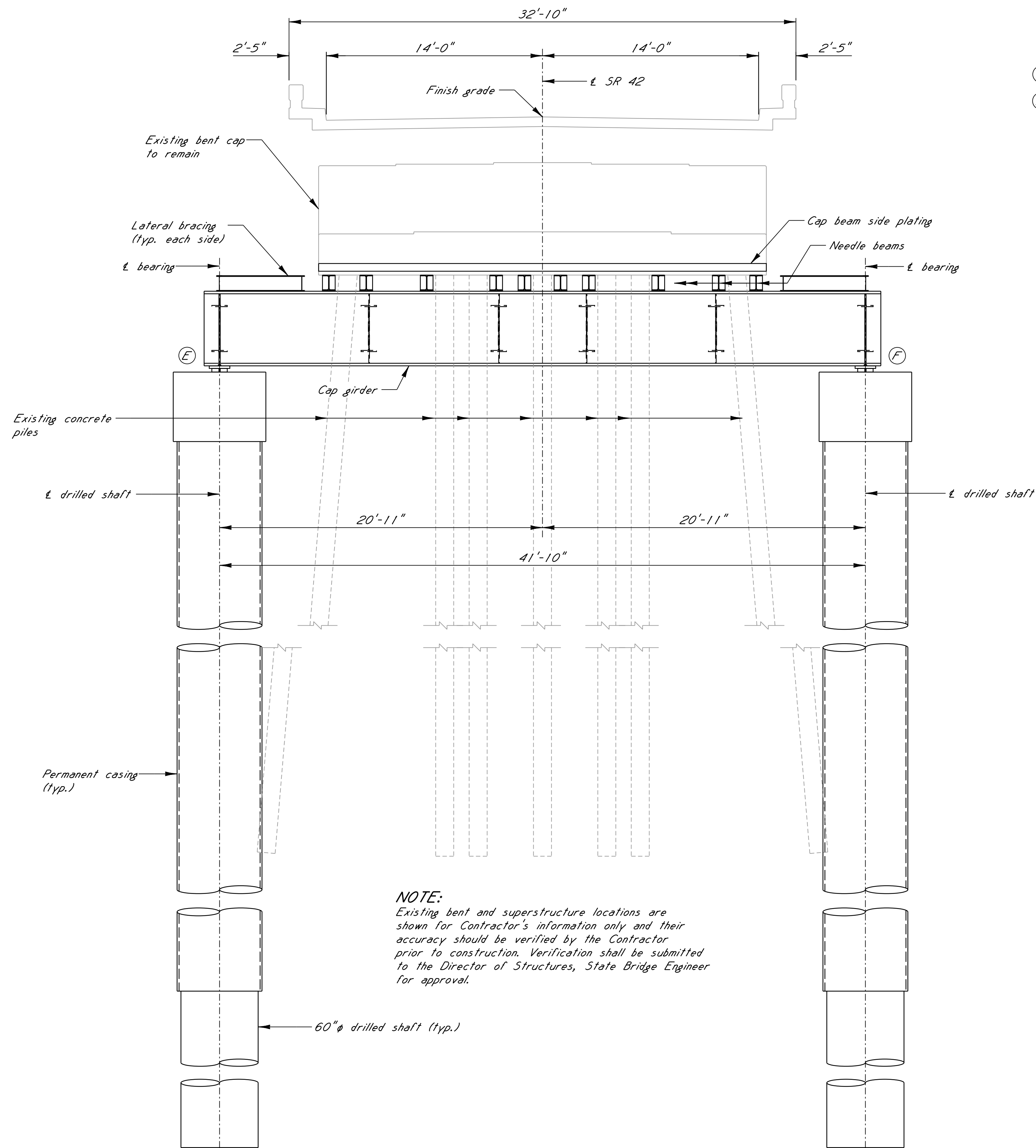
① Cape top and bottom flange one side of web on each end



LATERAL BRACING DETAIL



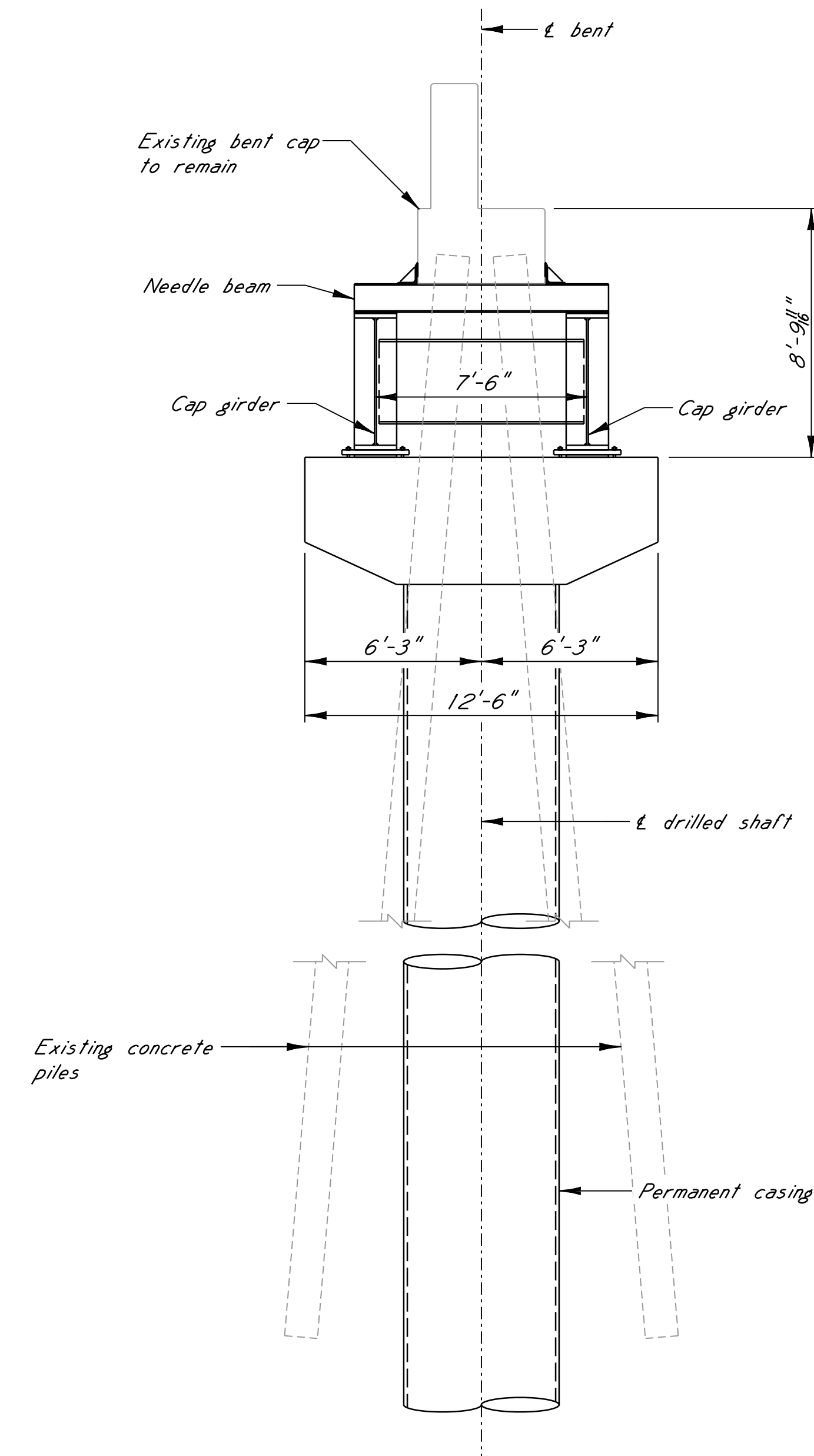
BY		MISSISSIPPI DEPARTMENT OF TRANSPORTATION BRIDGE @ STA. 214+80.00	
REVISIONS		BENT NO. 3 REPLACEMENT DETAILS	
DESIGNER		PROJECT 106793/302000	
DETAILER		ER-0063-04(010)	
DATE		GREENE COUNTY	
CHECKER		WORKING NUMBER	
ISSUE DATE		6 of 16	
DIRECTOR OF STRUCTURES, STATE BRIDGE ENGINEER - JUSTIN WALKER PE.		SHEET NUMBER	
DEP. DIR. OF STRUCTURES, ASSIST. STATE BRIDGE ENGINEER - SCOTT WESTERFIELD PE.		8007	



NOTE:
Existing bent and superstructure locations are shown for Contractor's information only and their accuracy should be verified by the Contractor prior to construction. Verification shall be submitted to the Director of Structures, State Bridge Engineer for approval.

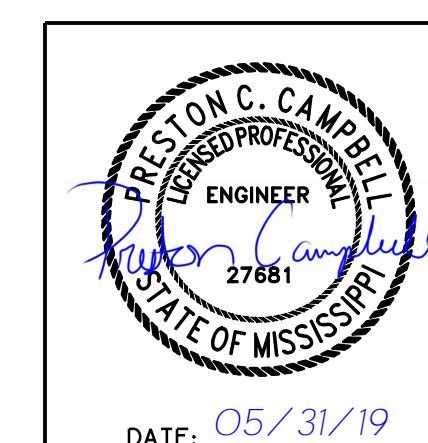
ELEVATION
Showing existing structure and new construction
Looking upstation

LEGEND
 (E) = Expansion End
 (F) = Fixed End



END ELEVATION
Showing existing structure and new construction

1:45:00 PM 5/31/2019 L:\2019\19T05006 - MDT SR 42 Chickasawhay Repair Drawings\SR42-S204-BE.dgn

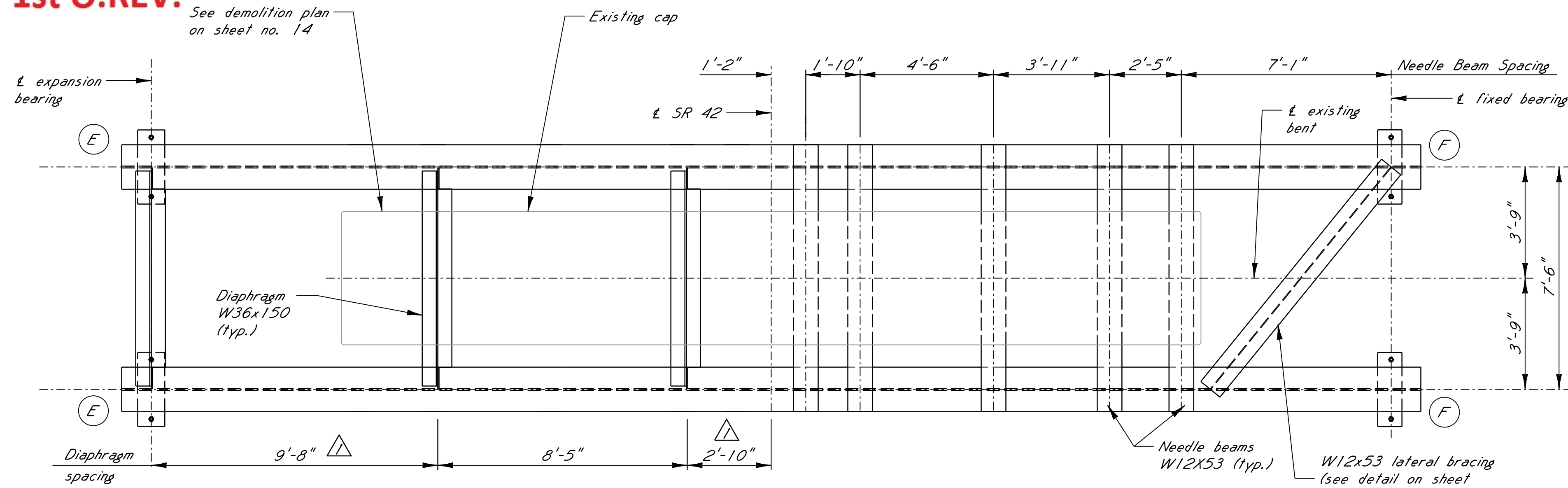


BY		MISSISSIPPI DEPARTMENT OF TRANSPORTATION BRIDGE @ STA. 214+80.00	
REVISIONS		BENT NO. 4 REPLACEMENT DETAILS	
DATE		PROJECT 106793/302000	WORKING NUMBER 7 of 16
DESIGNER Preston Campbell		CHECKER Amanda Blankenship	SHEET NUMBER 8008
DETAILER Preston Campbell		ISSUE DATE	
DIRECTOR OF STRUCTURES, STATE BRIDGE ENGINEER - JUSTIN WALKER PE. DEP. DIR. OF STRUCTURES, ASSIST. STATE BRIDGE ENGINEER - SCOTT WESTERFIELD PE.			

1st O.REV.

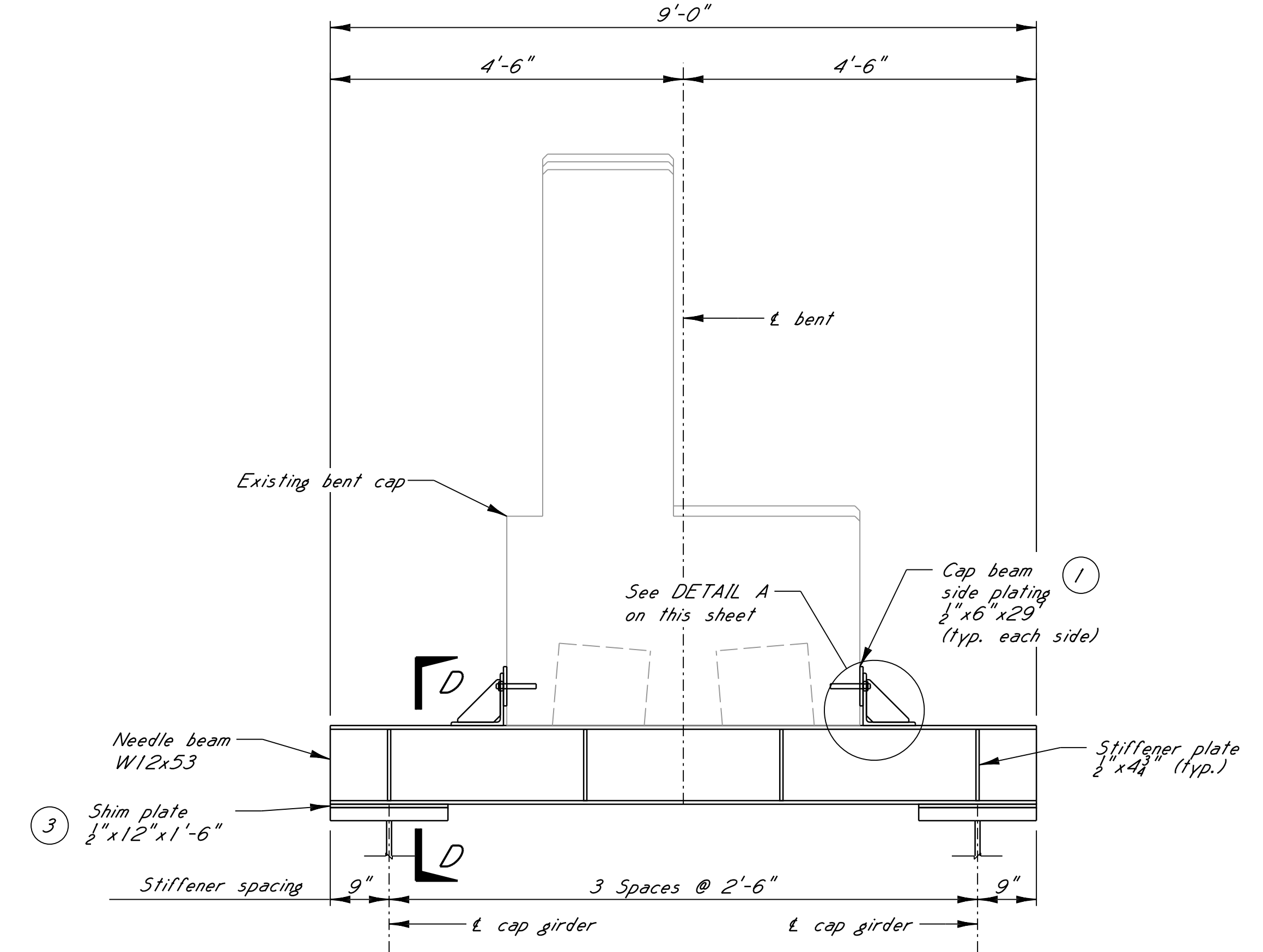
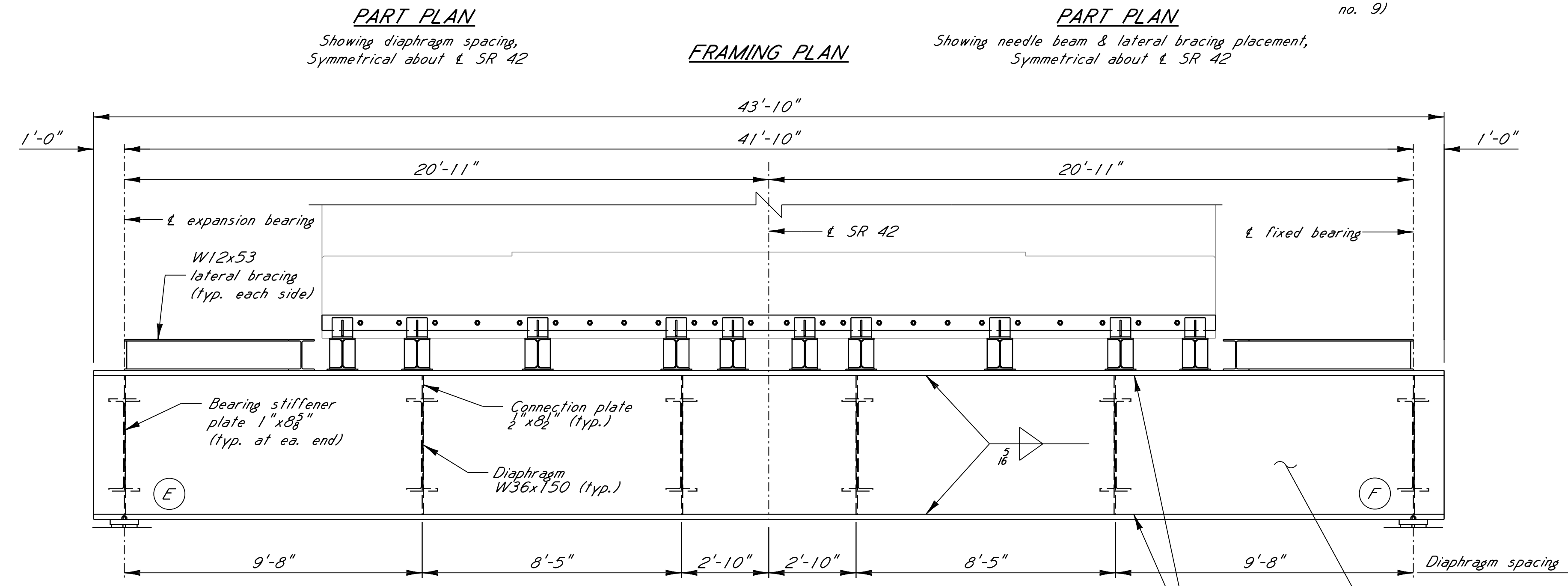
See demolition plan on sheet no. 14

STATE	PROJECT NO.
MISS.	ER-0063-04(010)



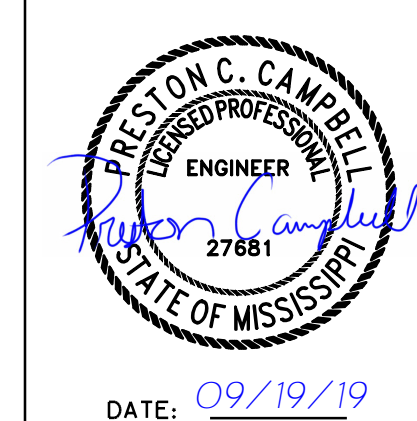
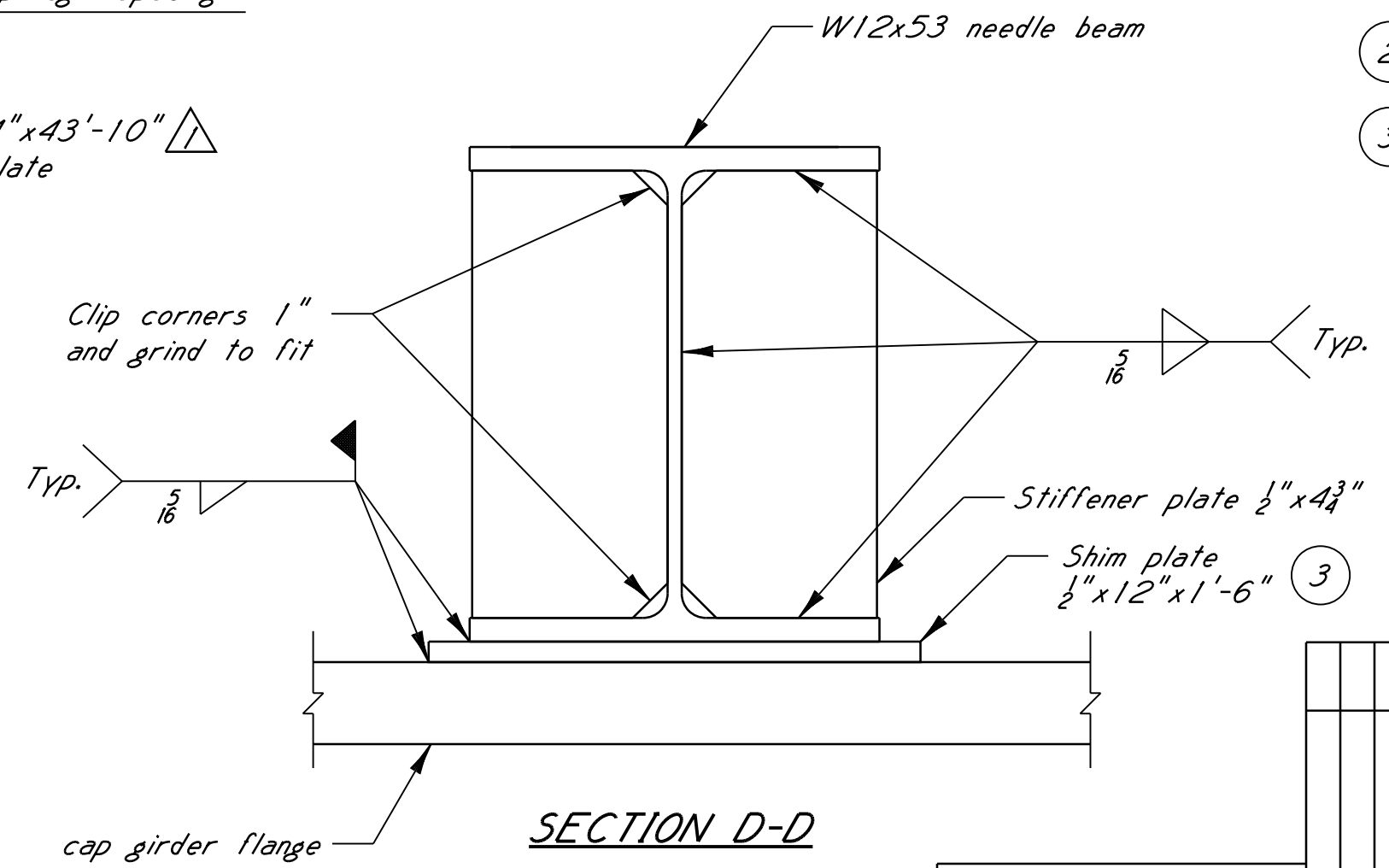
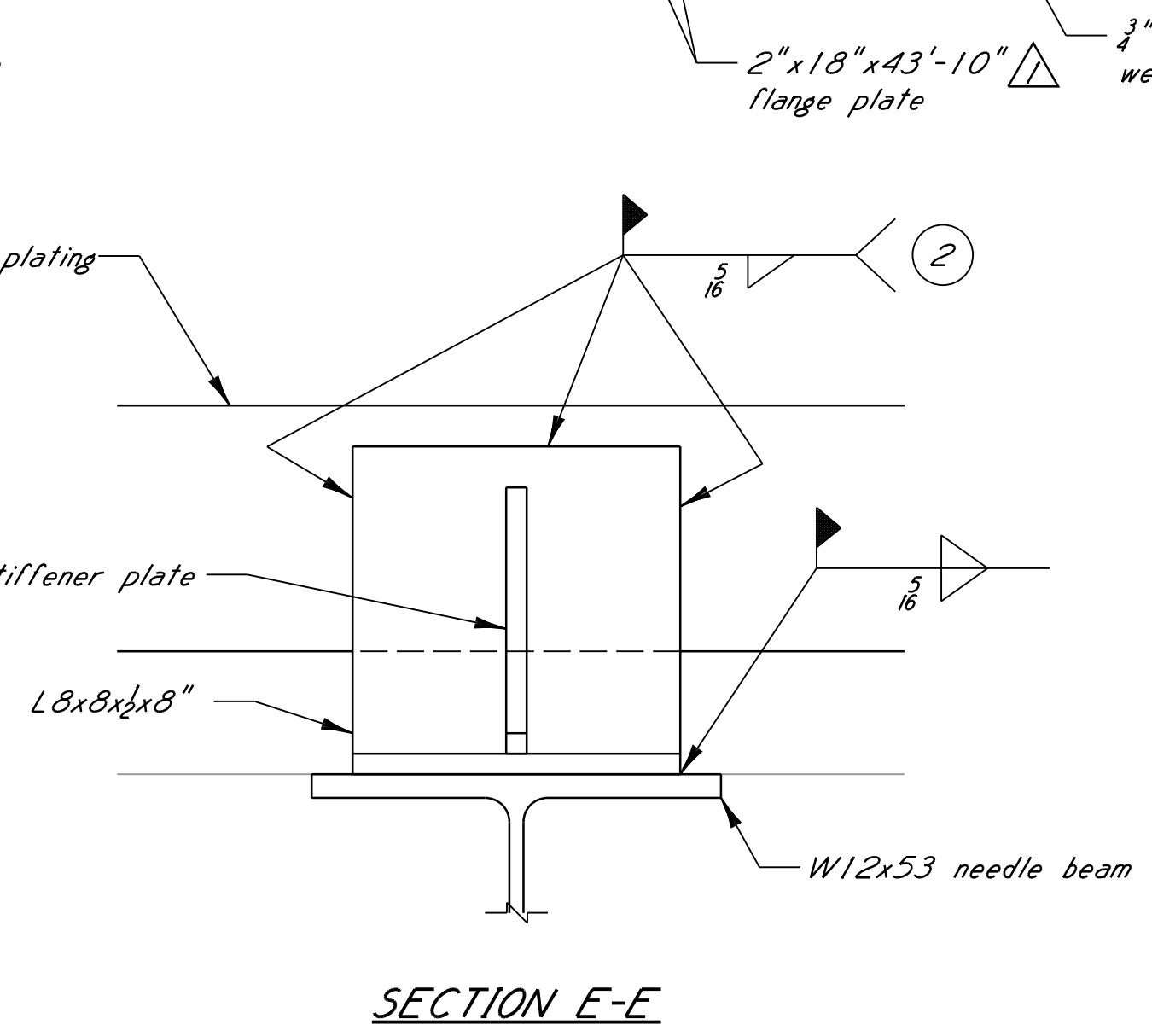
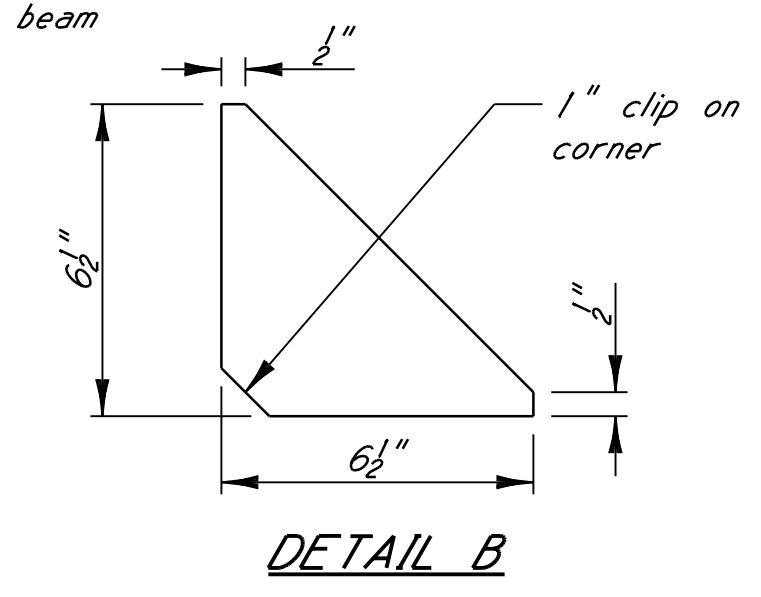
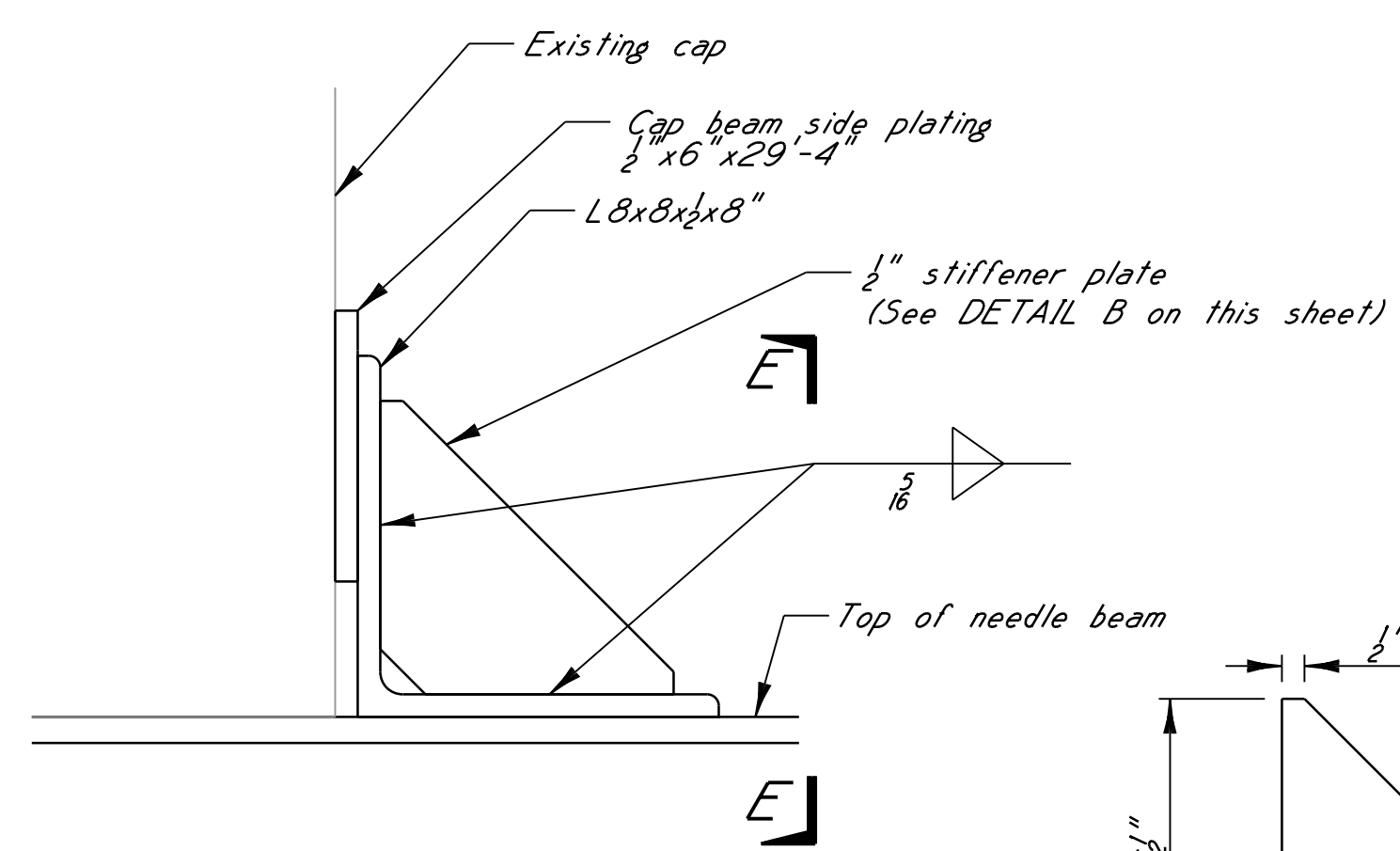
LEGEND

- (E) = Expansion end
- (F) = Fixed end



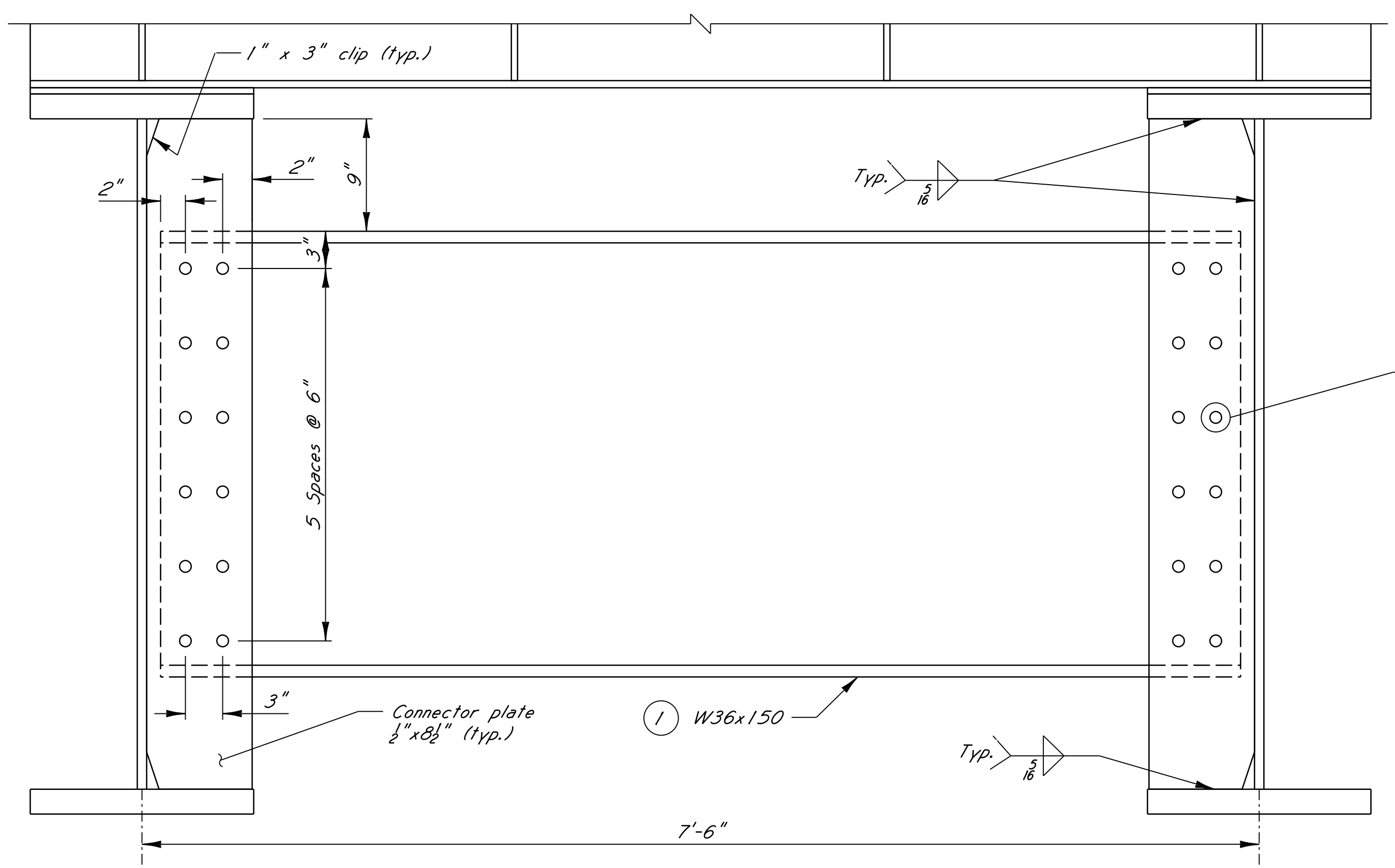
- (1) For cap beam side plating details, see sheet no. 12
- (2) Weld shall not be made until piling has been removed.
- (3) Shim plate thickness shown as a minimum. A thicker, single shim plate may be required to ensure full width contact between needle beam flange and cap beam soffit. The contractor shall be responsible for providing the necessary plate thickness.

NOTE:
For SECTIONS B-B & C-C see sheet no. 9



DESIGNER	Preston Campbell	CHECKER	Preston Campbell	WORKING NUMBER
DETAILER	Jonathan Lewis	ISSUE DATE		8 of 16
MISSISSIPPI DEPARTMENT OF TRANSPORTATION BRIDGE @ STA. 214+80.00 BENT NO. 4 REPLACEMENT DETAILS PROJECT 106793/302000 ER-0063-04(010) GREENE COUNTY				SHEET NUMBER
DATE: 09/19/19				8009

9:27:08 AM 9/19/2019 L:\2019\19T05006 - MDT SR 42 Chickasawhay Repair Drawings\SR42-S205-BE.dgn

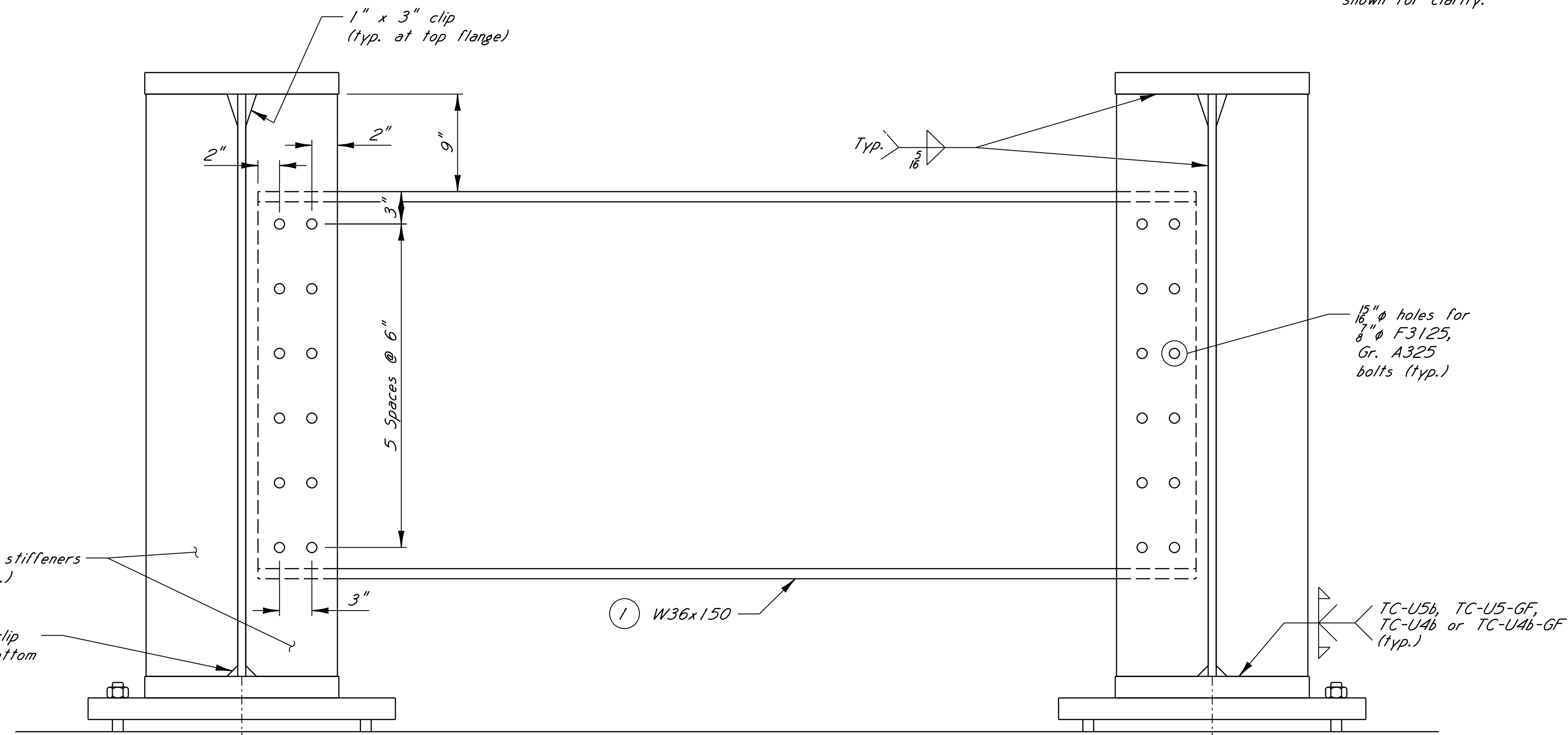


SECTION B-B

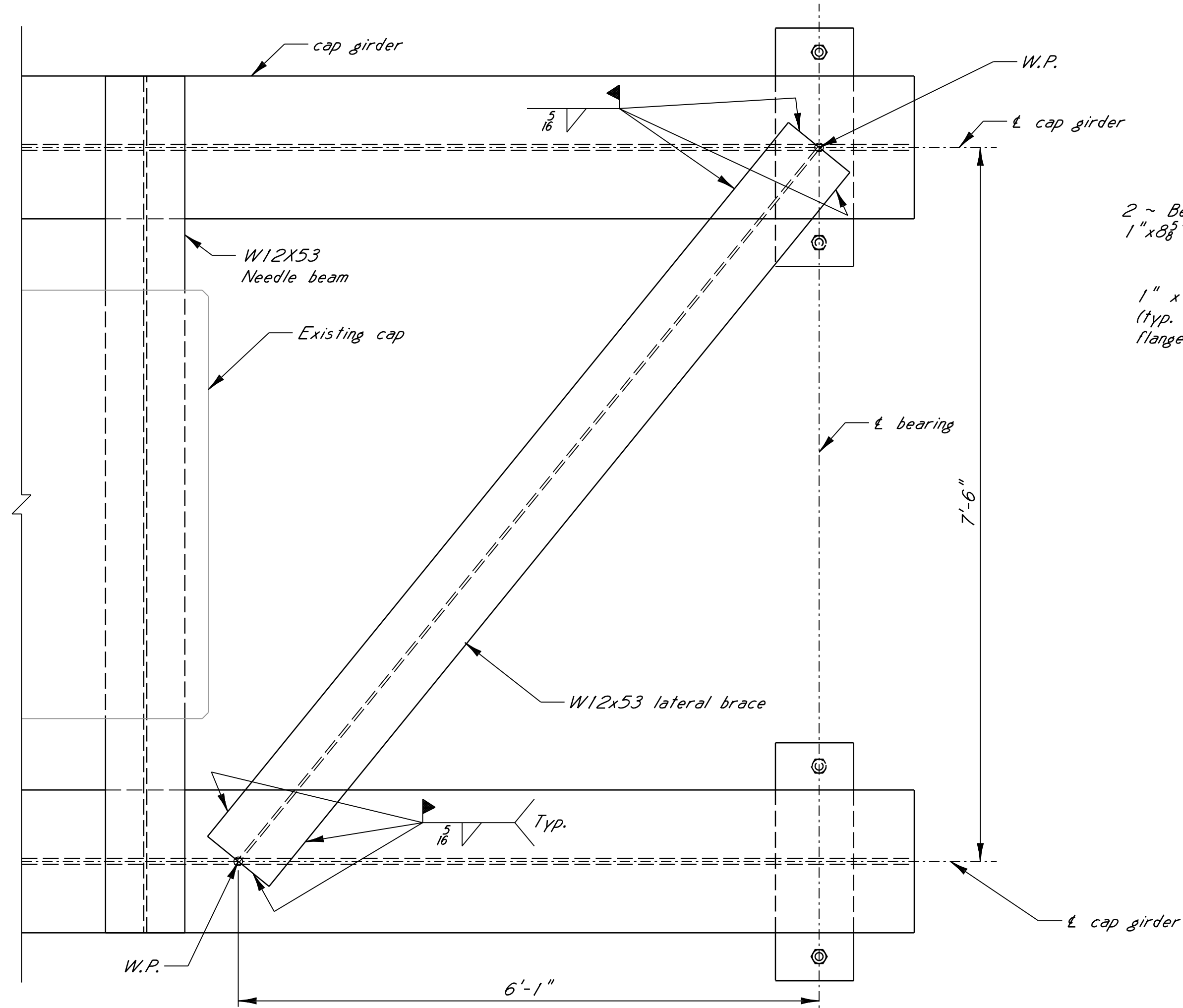
① Cope top and bottom flange one side of web on each end

15" holes for 8" F3125, Gr. A325 bolts (typ.)

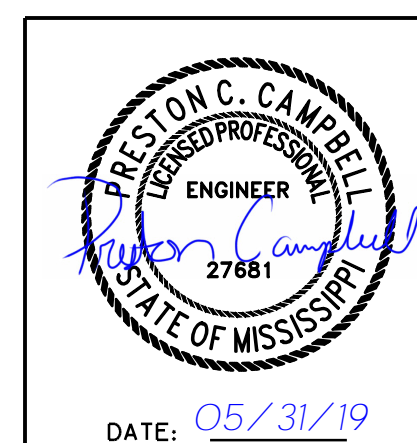
NOTE:
Lateral bracing not shown for clarity.



SECTION C-C

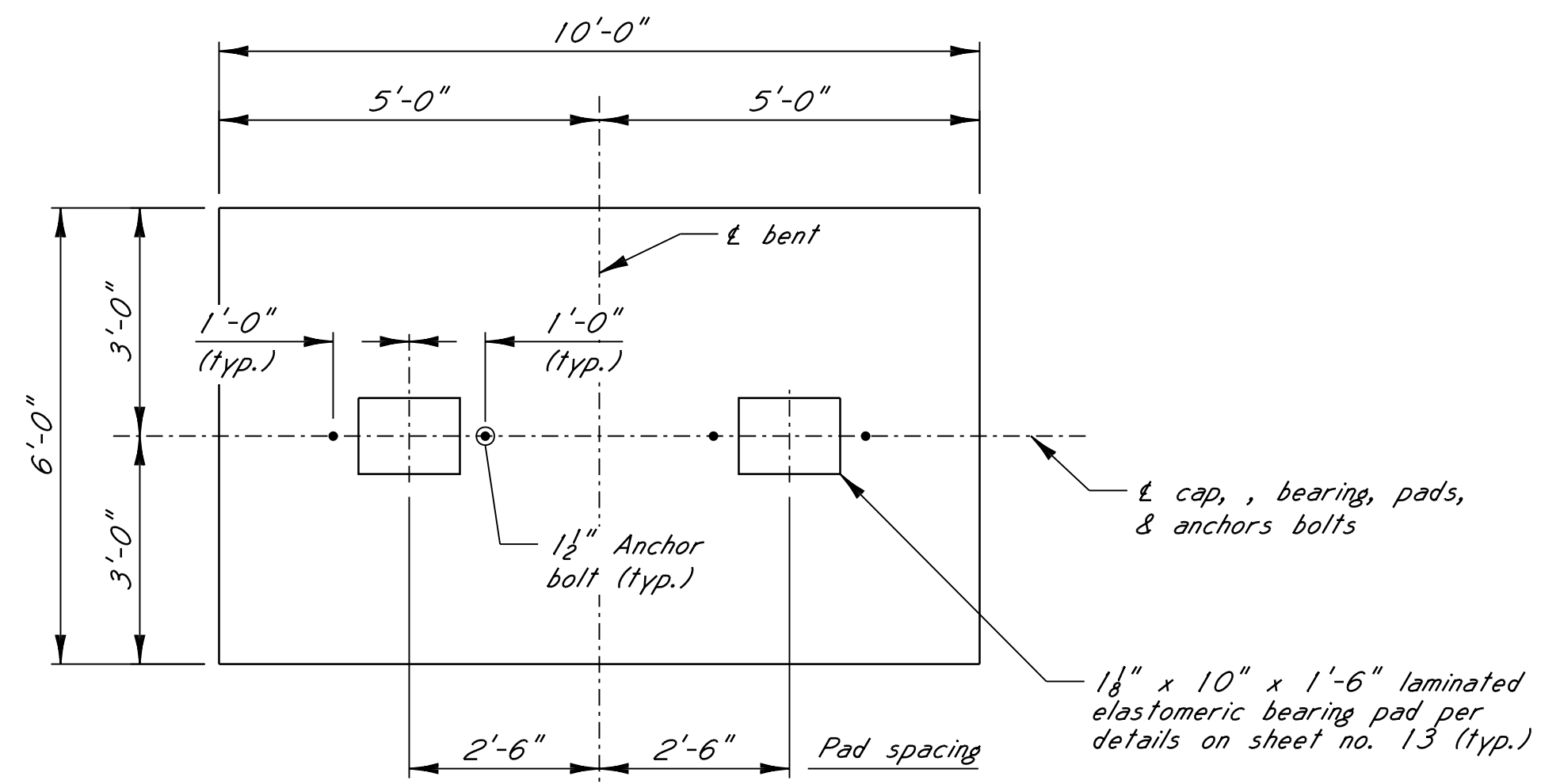


LATERAL BRACING DETAIL



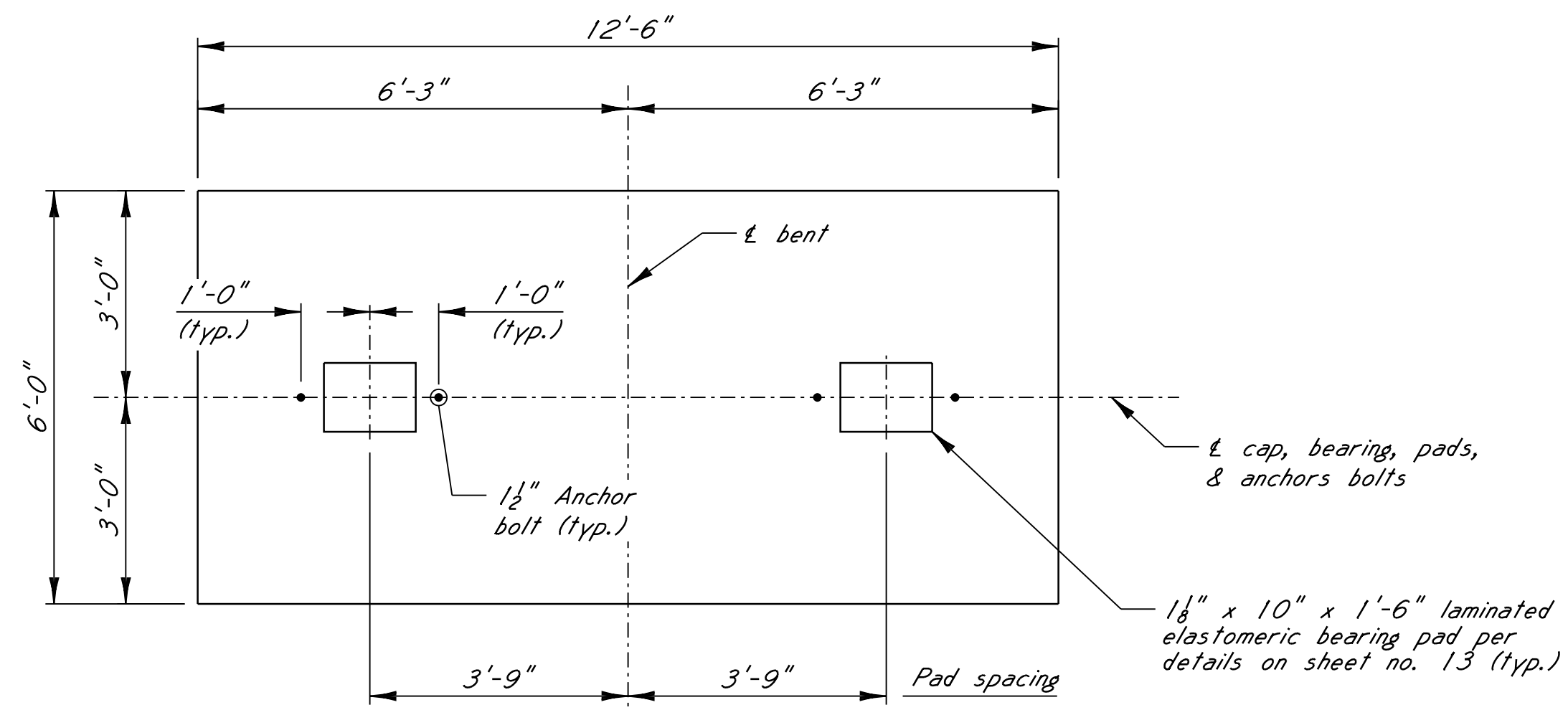
DATE: 05/31/19

BY		MISSISSIPPI DEPARTMENT OF TRANSPORTATION BRIDGE @ STA. 214+80.00	
REVISIONS		BENT NO. 4 REPLACEMENT DETAILS	
DESIGNER		PROJECT 106793/302000	
DETAILER		ER-0063-04(010)	
DATE		GREENE COUNTY	
CHECKER		WORKING NUMBER	
ISSUE DATE		9 of 16	
DIRECTOR OF STRUCTURES, STATE BRIDGE ENGINEER - JUSTIN WALKER PE.		SHEET NUMBER	
DEP. DIR. OF STRUCTURES, ASSIST. STATE BRIDGE ENGINEER - SCOTT WESTERFIELD PE.		8010	



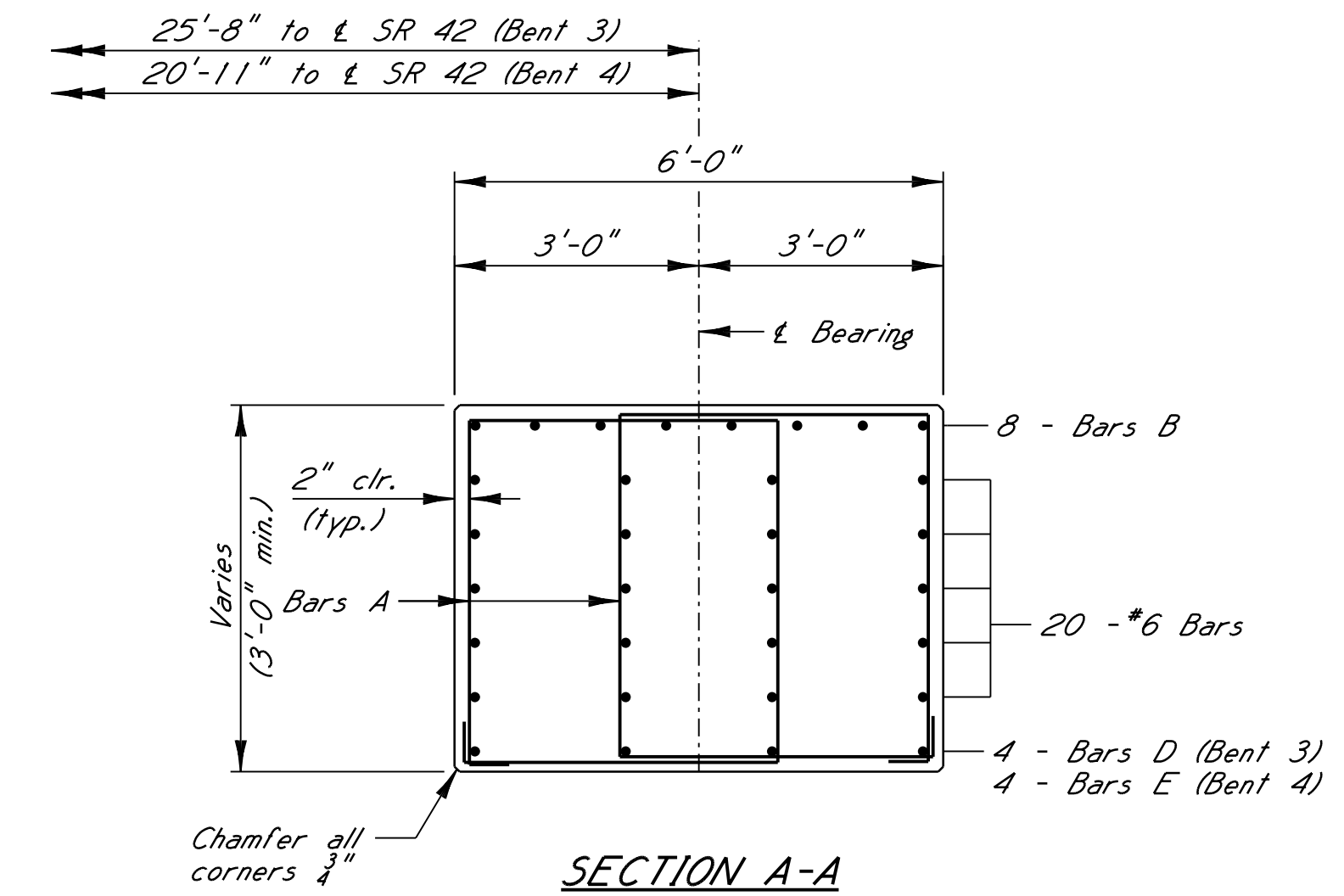
PLAN OF BENT 3

Showing concrete dimensions, laminated pad placement and anchor bolt spacing

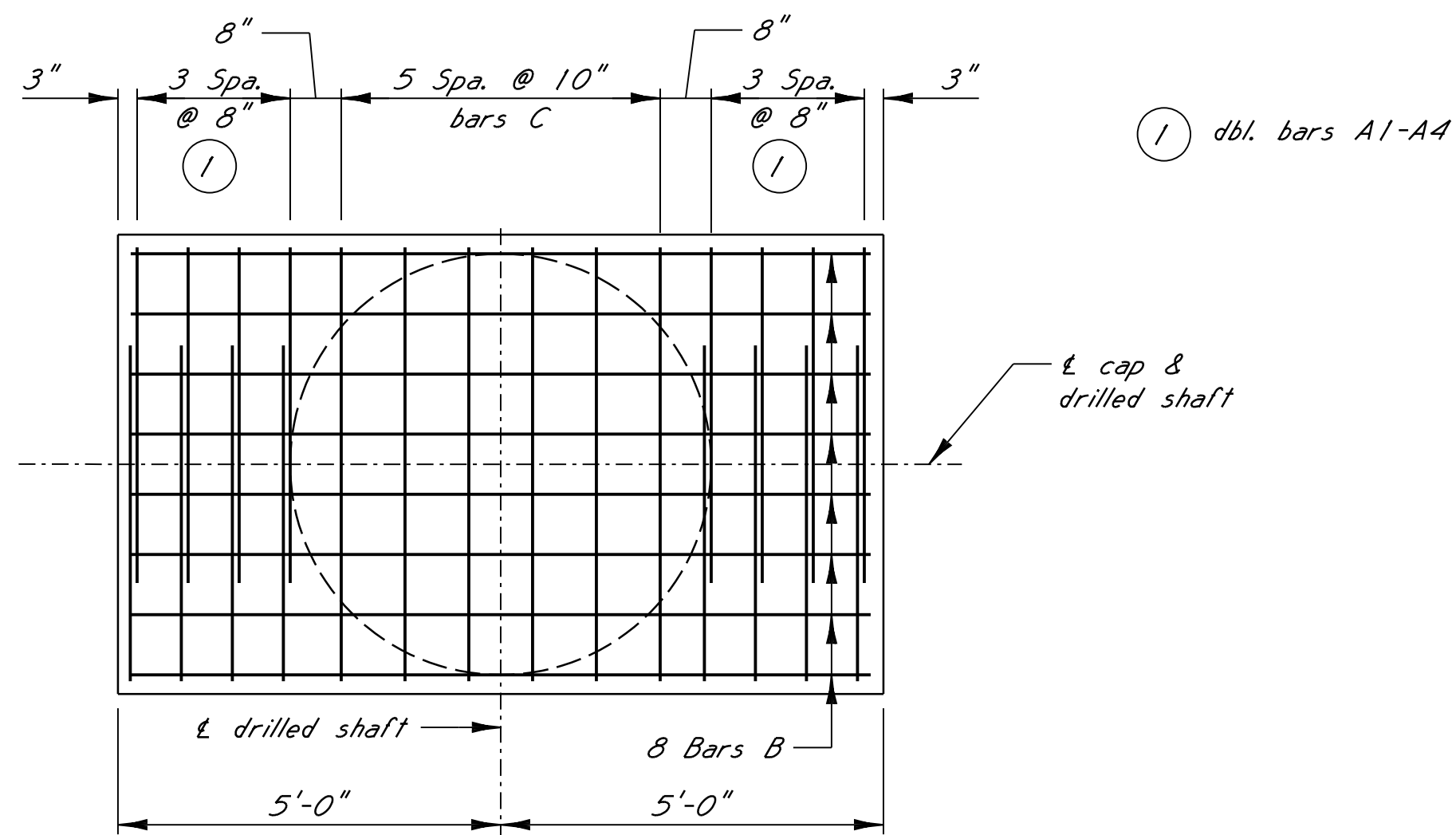


PLAN OF BENT 4

Showing concrete dimensions, laminated pad placement and anchor bolt spacing

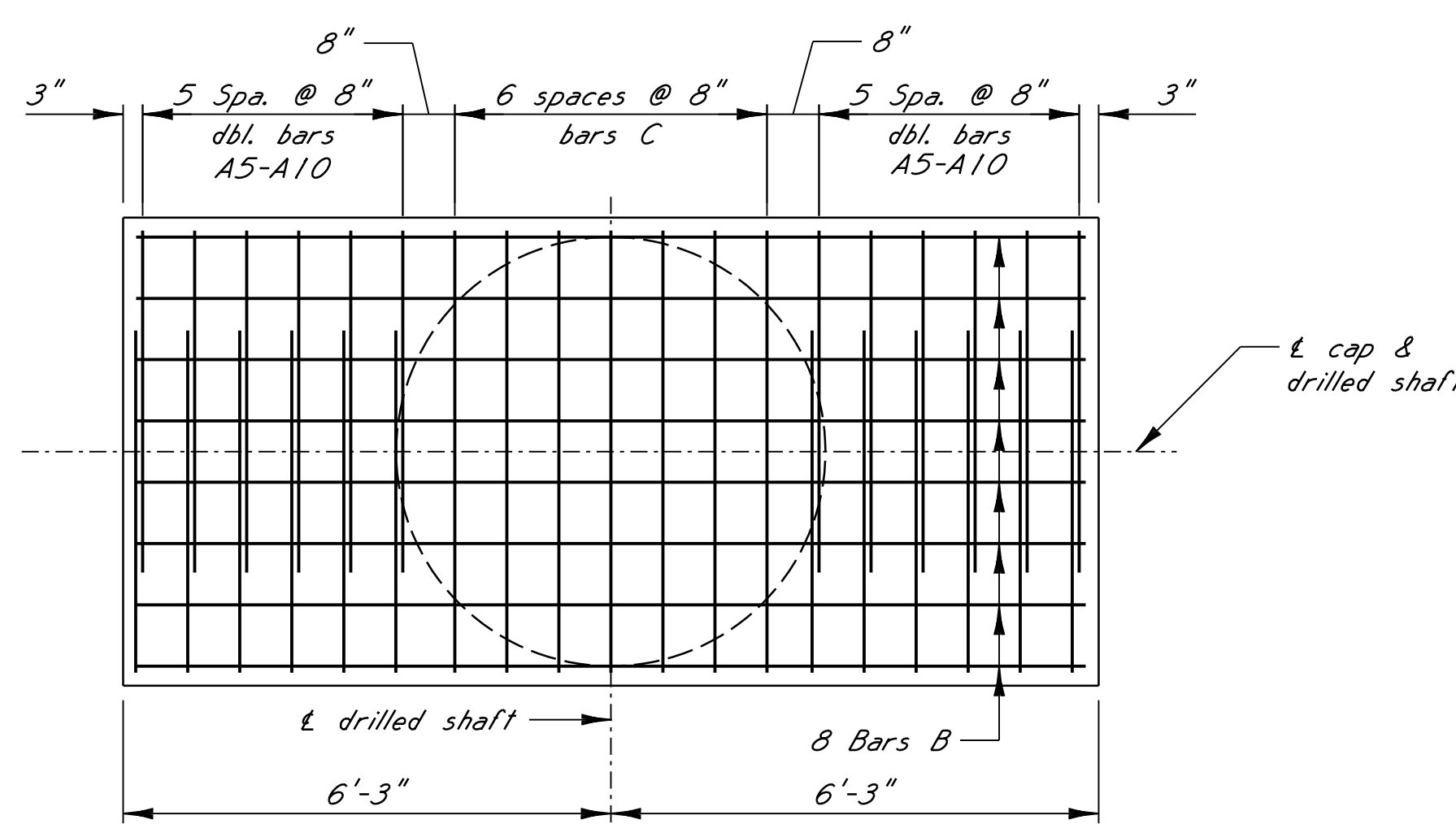


SECTION A-A



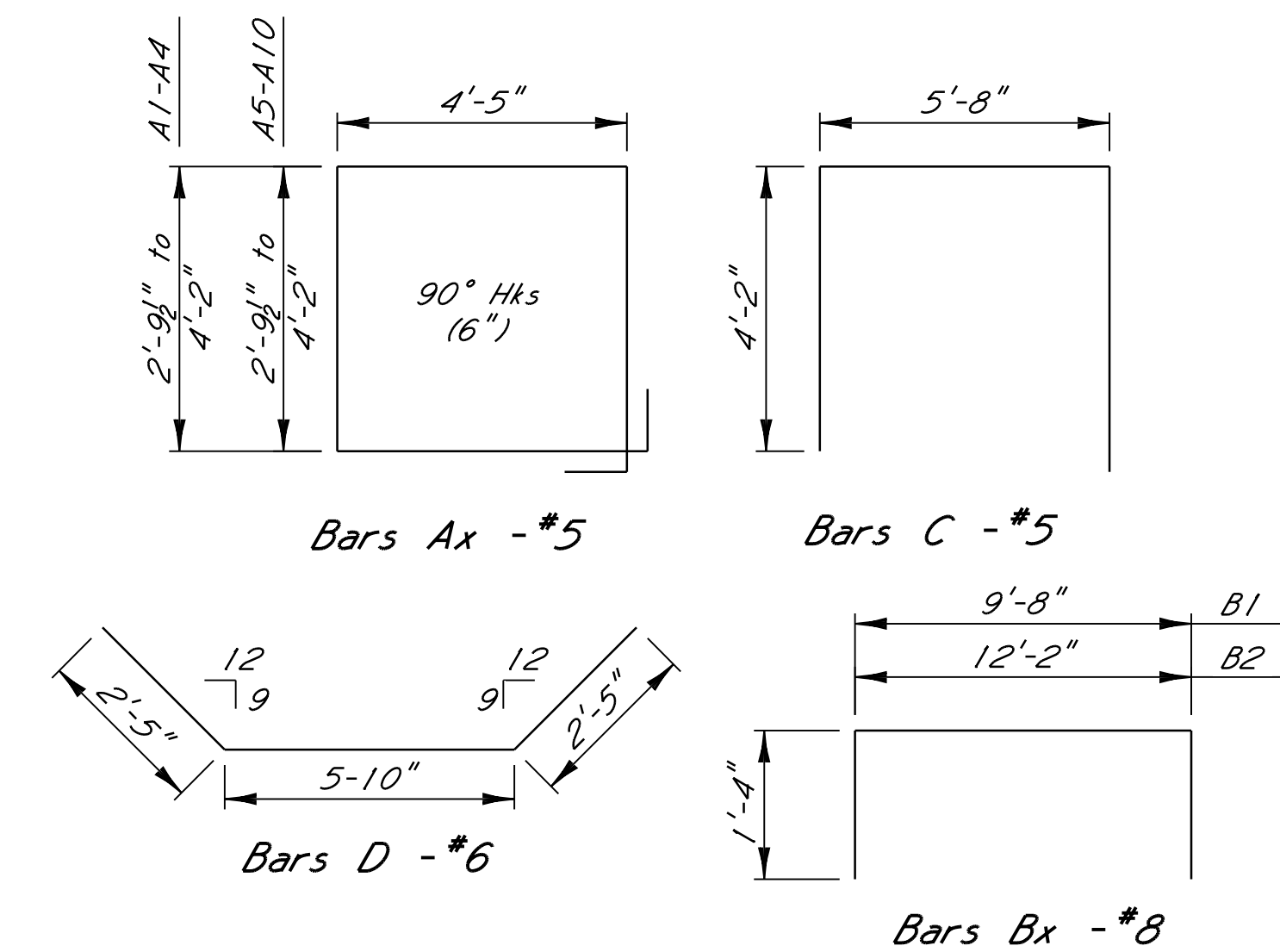
PLAN OF CAP - BENT 3

Showing reinforcing in the top of cap and drilled shaft spacing

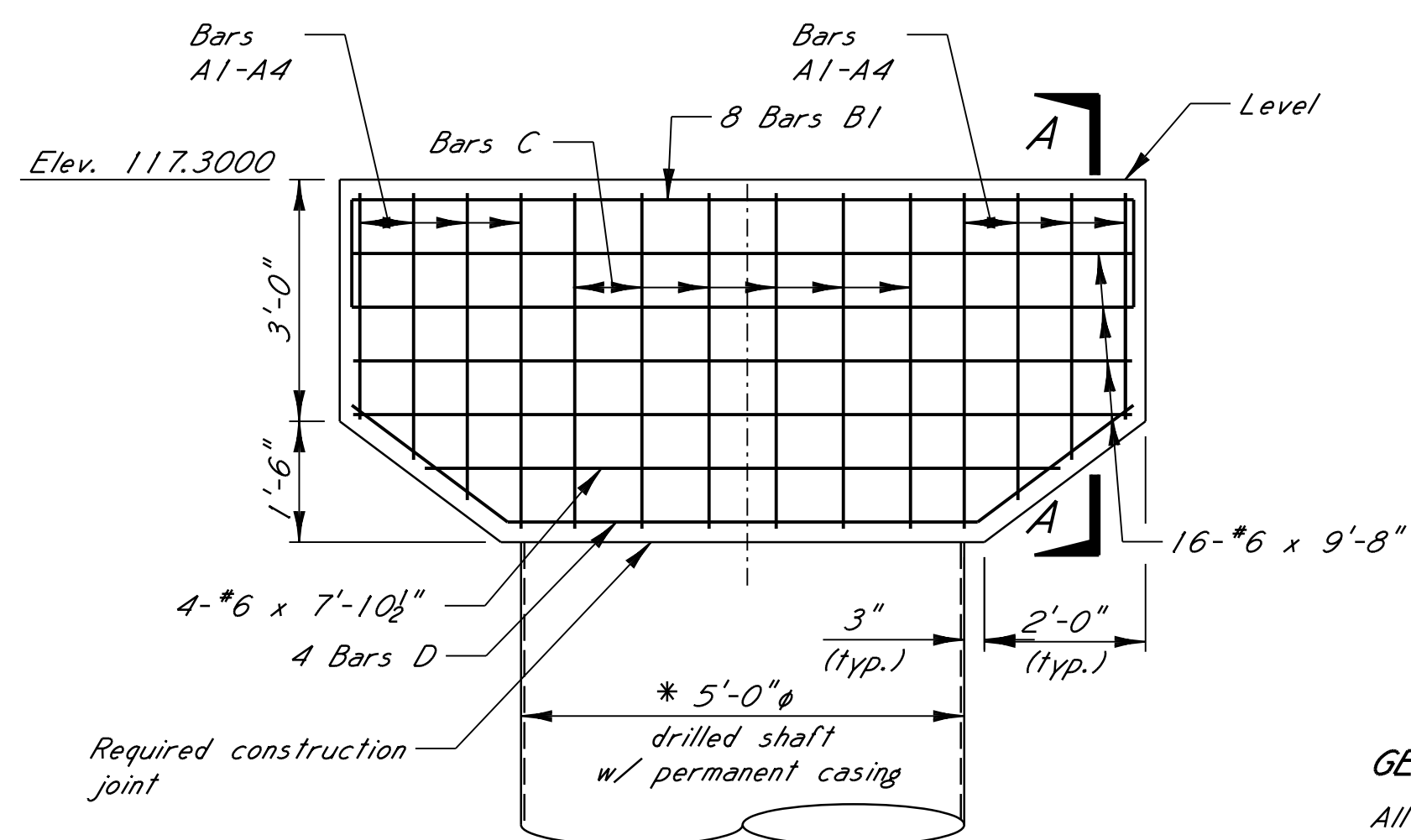


PLAN OF CAP - BENT 4

Showing reinforcing in the top of cap and drilled shaft spacing

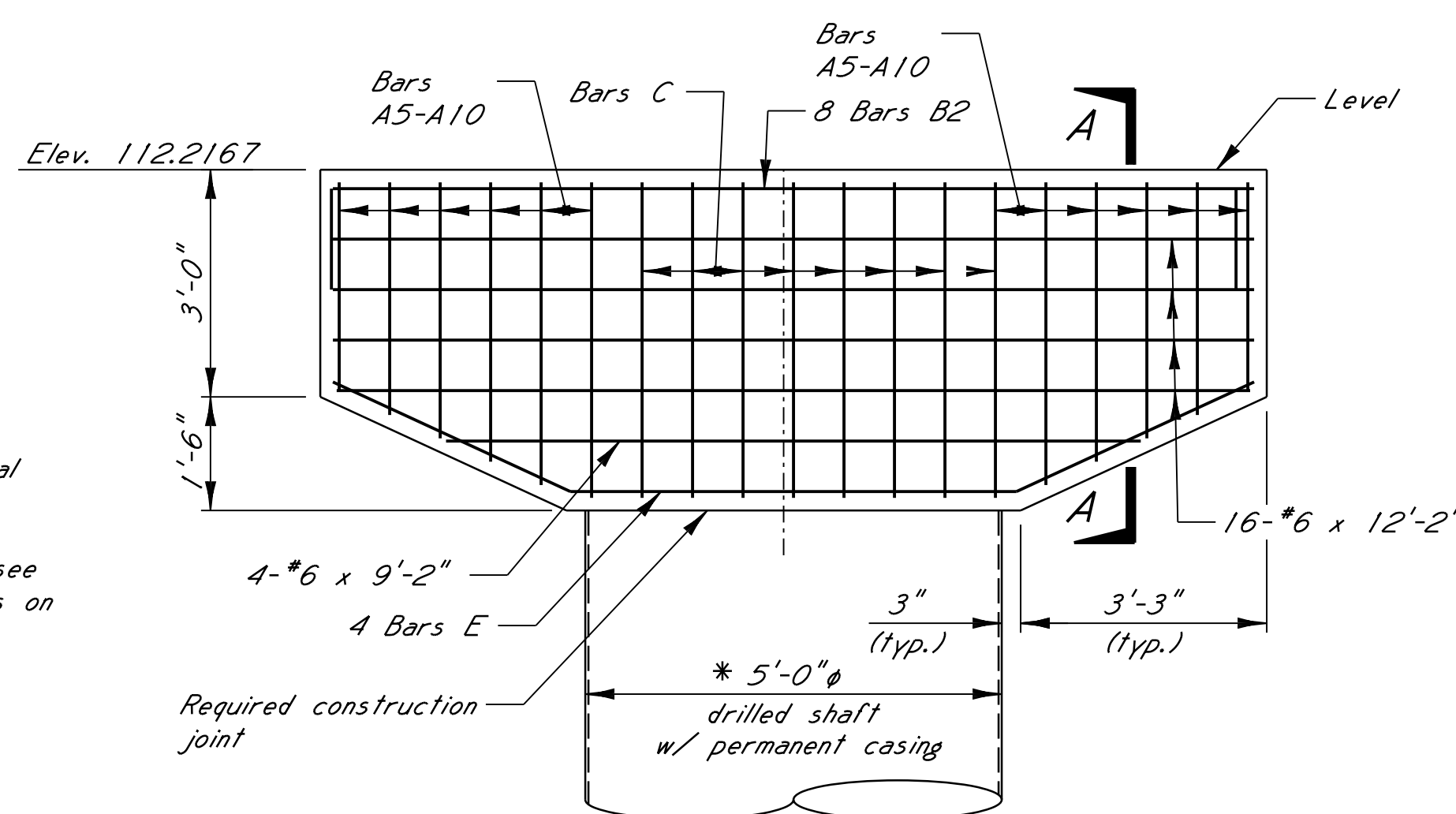


BAR BENDING DETAILS
Dimensions Are Out To Out



ELEVATION - BENT 3

Looking perpendicular to SR 42



ELEVATION - BENT 4

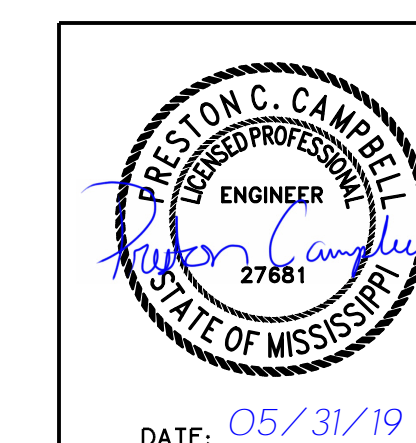
Looking perpendicular to SR 42

NOTE:
Anchor bolts not shown for clarity.

* 5'-0" is the nominal diameter of the drilled shaft. For actual dimensions, see drilled shaft details on sheet no. 11.

GENERAL NOTES:

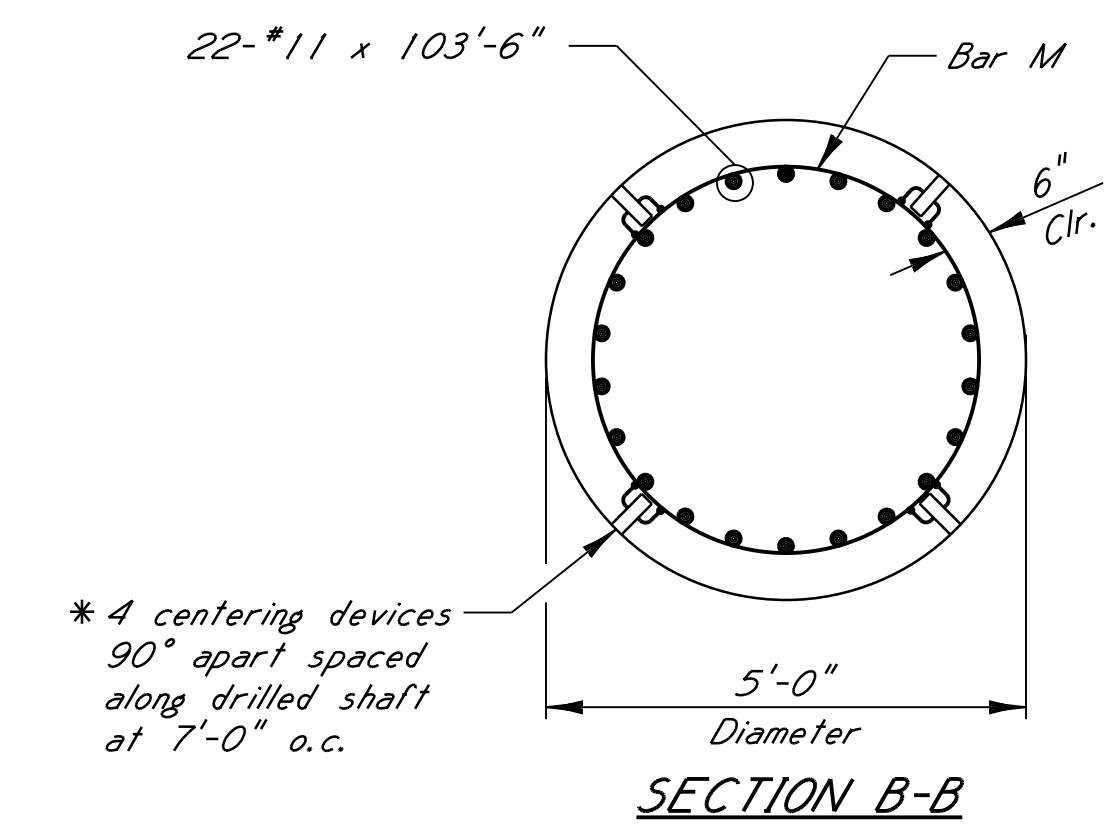
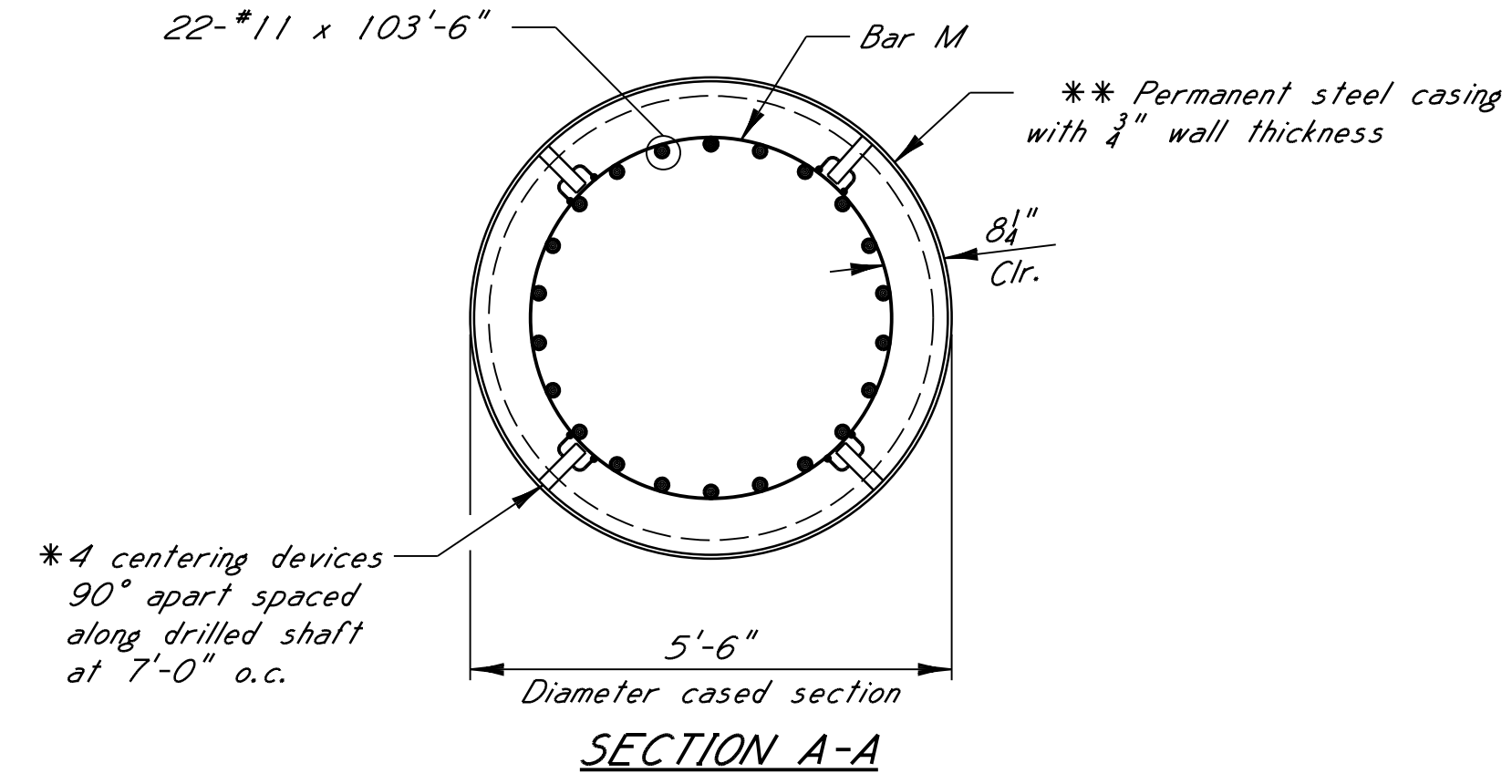
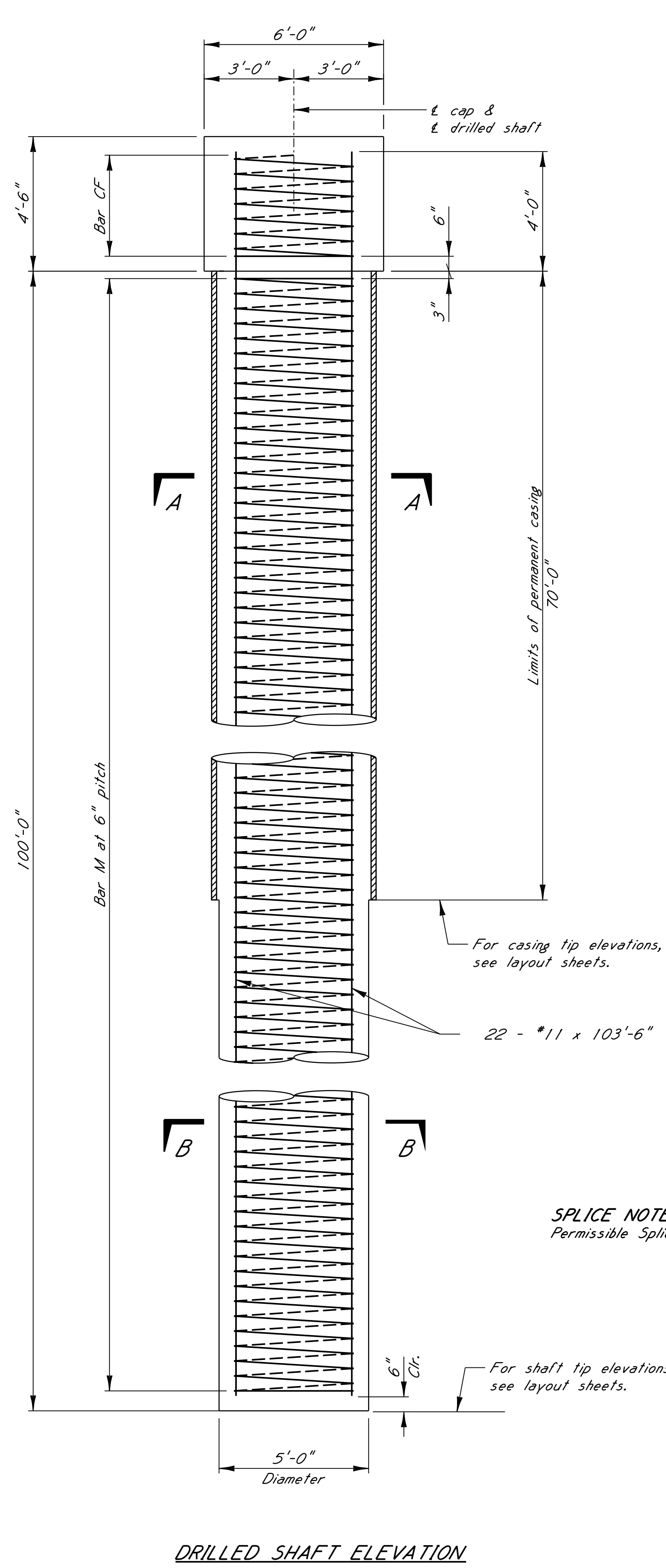
All concrete shall be Class "AA".
Chamfer all corners 3/4" unless noted otherwise.
Placing dimensions from reinforcing steel to concrete surfaces are clear distances.



MISSISSIPPI DEPARTMENT OF TRANSPORTATION BRIDGE @ STA. 214+80.00	
BENT NOS. 3 & 4 REPLACEMENT DETAILS	
PROJECT 106793/302000 ER-0063-04(010)	
DESIGNER: Preston Campbell CHECKER: Preston Campbell	DATE: 05/31/19
DETAILER: Jonathan Lewis ISSUE DATE:	WORKING NUMBER 10 of 16
DIRECTOR OF STRUCTURES, STATE BRIDGE ENGINEER - JUSTIN WALKER PE. DEP. DIR. OF STRUCTURES, ASSIST. STATE BRIDGE ENGINEER - SCOTT WESTERFIELD PE.	SHEET NUMBER 8011

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STATE	PROJECT NO.
MISS.	ER-0063-04(010)



GENERAL NOTES:

Steel permanent casing shall conform to ASTM A252, Grade 2 (Fy = 35ksi) and shall be either seamless or spiral butt-welded.

All concrete in drilled shaft shall be Self-Consolidating Concrete.

All reinforcing steel shall conform to ASTM A615, Grade 60.

Two coats of epoxy coal tar coating shall be applied to the outside of permanent casing prior to installation. The color shall be black. The limits of the epoxy coal tar coating for permanent casing shall be from the planned bottom of cap to an elevation five feet below the 100 year scour line elevation as shown on the layout. Epoxy coal tar coating application below the elevation specified is not allowed. Extending the coating below the specified elevation may result in a possible capacity reduction of up to 50%. Any sustained damages to initial coat due to transport, handling, or welding shall be repaired with an additional field applied coating.

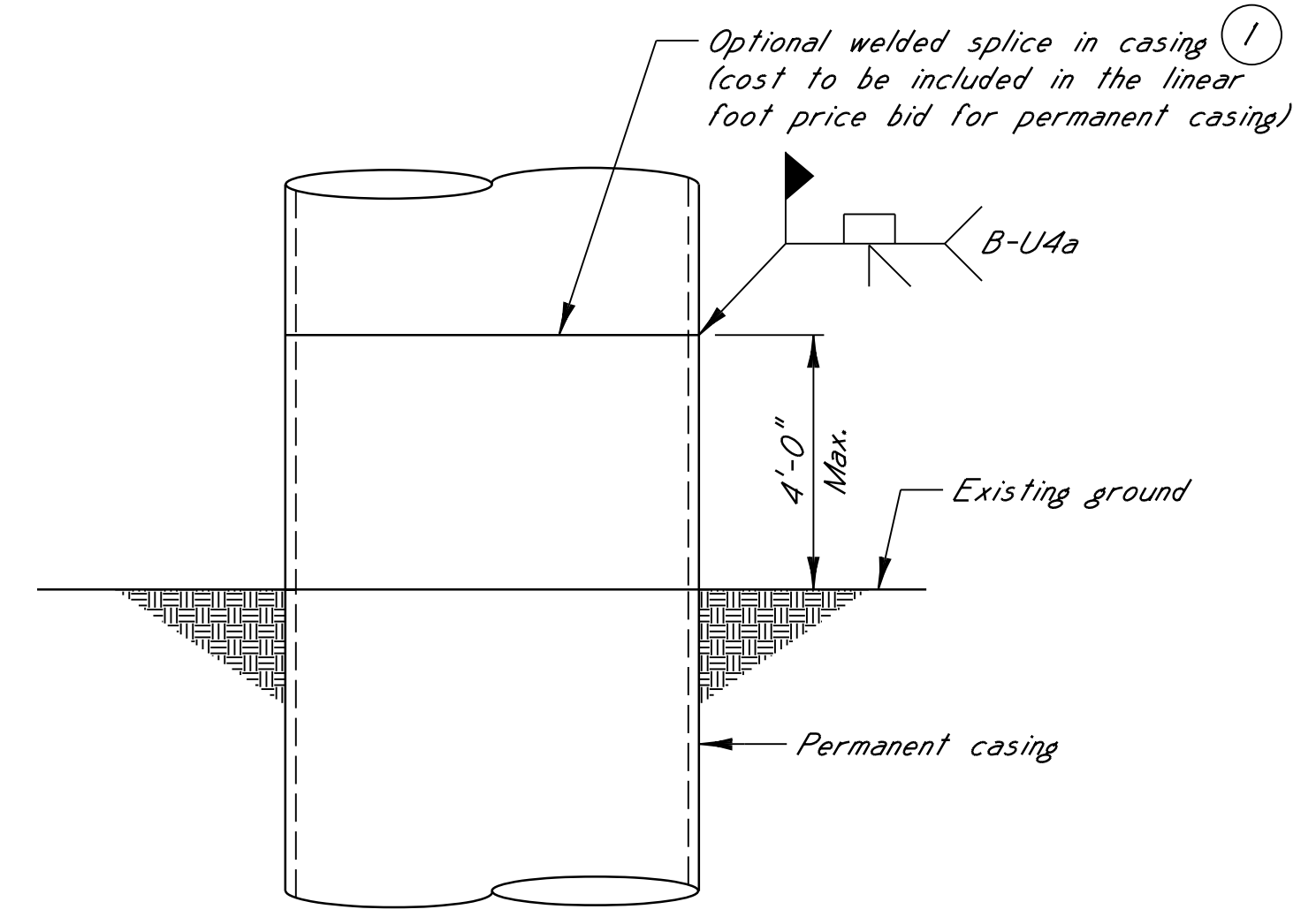
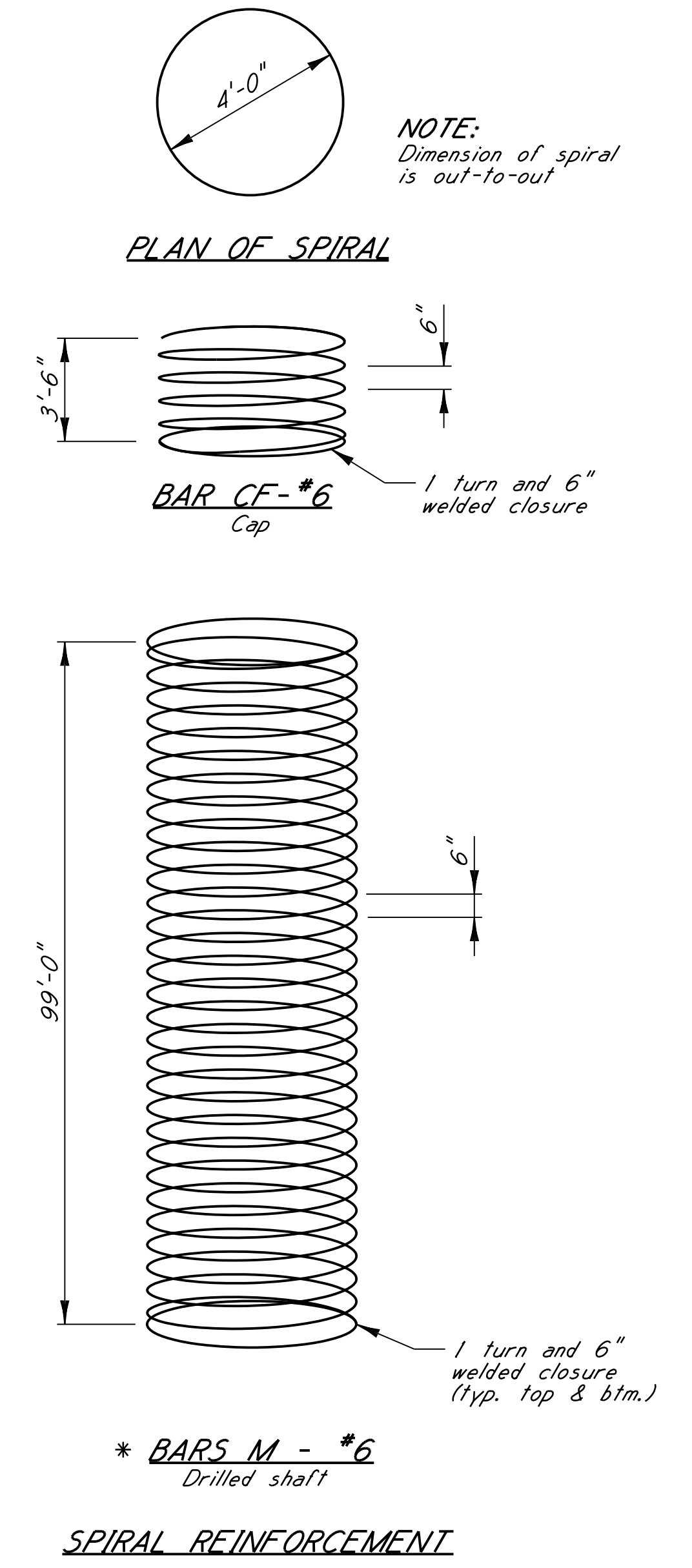
The epoxy coal tar coating shall be one of the following, applied according to Manufacturer's specifications:

- A. PermoTar Epoxy/Coal Tar Coating, Manufactured By Pilgrim Permocoat, Inc. In Tampa, FL www.pilgrimpermocoat.com
- B. TarGuard Coal Tar Epoxy, Manufactured By The Sherwin-Williams Company In Cleveland, OH www.sherwin-williams.com
- C. Bitumastic 300M Coal Tar Epoxy, Manufactured By Carboline In St. Louis, MO www.carboline.com

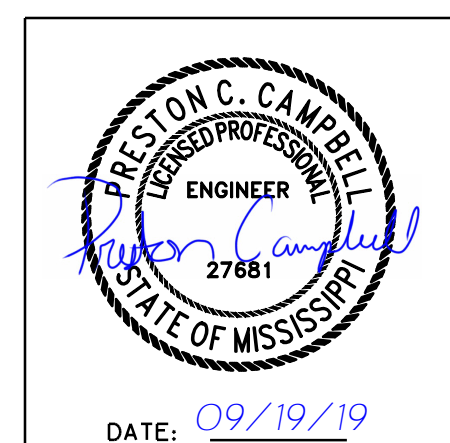
NOTE:

The cost of the drilled shaft reinforcement shall be absorbed in the price bid for pay item "DRILLED SHAFT, 60" DIAMETER", including longitudinal reinforcement from shaft extending into cap. Bars CF shall be paid for with cap reinforcing. Permanent steel casing shall be paid for separately at the price bid for pay item "PERMANENT CASING, 60" DIAMETER".

- * See DRILLED SHAFT NOTES On Sheet No. 1 For Further Requirements.
- ** No Substitutions For Thickness Or Diameter Will Be Permitted.



OPTIONAL SPLICE IN PERMANENT CASING
 ① If the optional welded splice is used, the casing shall be extended to the bottom of cap prior to the placement of the reinforcing cage.

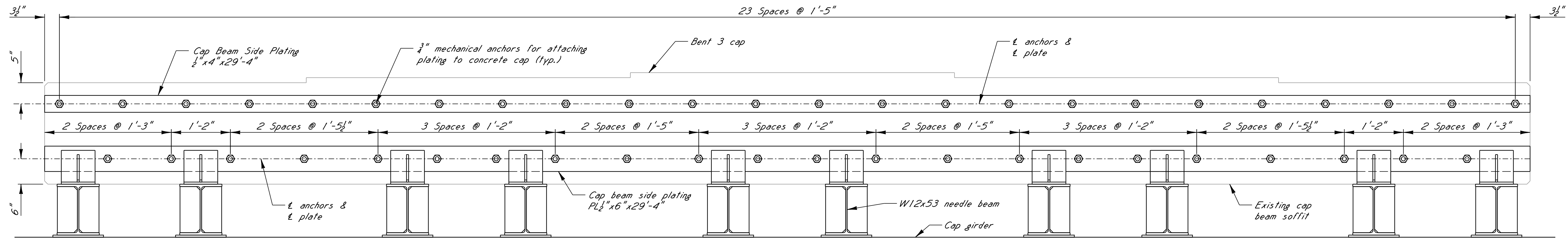


MISSISSIPPI DEPARTMENT OF TRANSPORTATION BRIDGE @ STA. 214+80.00	
DRILLED SHAFT DETAILS	
PROJECT 106793/302000 ER-0063-04(010)	WORKING NUMBER 11 of 16
GREENE COUNTY	SHEET NUMBER 8012
DESIGNER Preston Campbell DETAILER Amanda Blankenship	CHECKER Preston Campbell ISSUE DATE
DIRECTOR OF STRUCTURES, STATE BRIDGE ENGINEER - JUSTIN WALKER PE. DEP. DIR. OF STRUCTURES, ASSIST. STATE BRIDGE ENGINEER - SCOTT WESTERFIELD PE.	

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1st O.REV.

STATE	PROJECT NO.
MISS.	ER-0063-04(010)

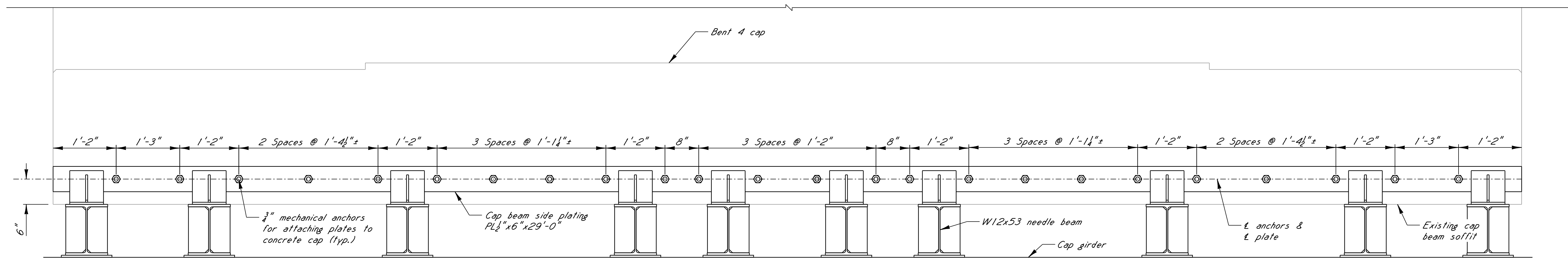


CONSTRUCTION NOTES:

1. Cap beam side plating shall be installed before any piles are removed.
2. Angles shall be welded to cap beam side plating once all piles have been removed.
3. All cap beam side plating shall installed with 3/4" mechanical anchor bolts and epoxy adhesive.

BENT 3 CAP BEAM SIDE PLATING

Showing cap stiffening plates and bolt placement



BENT 4 CAP BEAM SIDE PLATING

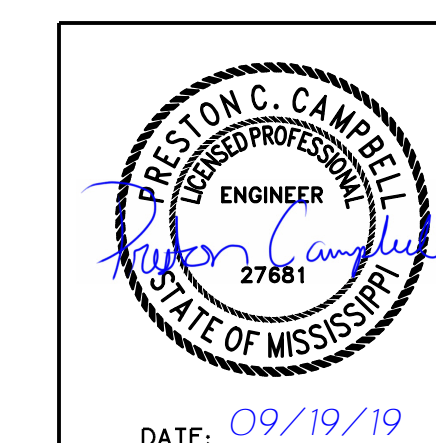
Showing cap stiffening plates and bolt placement

MECHANICAL ANCHOR NOTES: (Not a separate pay item)

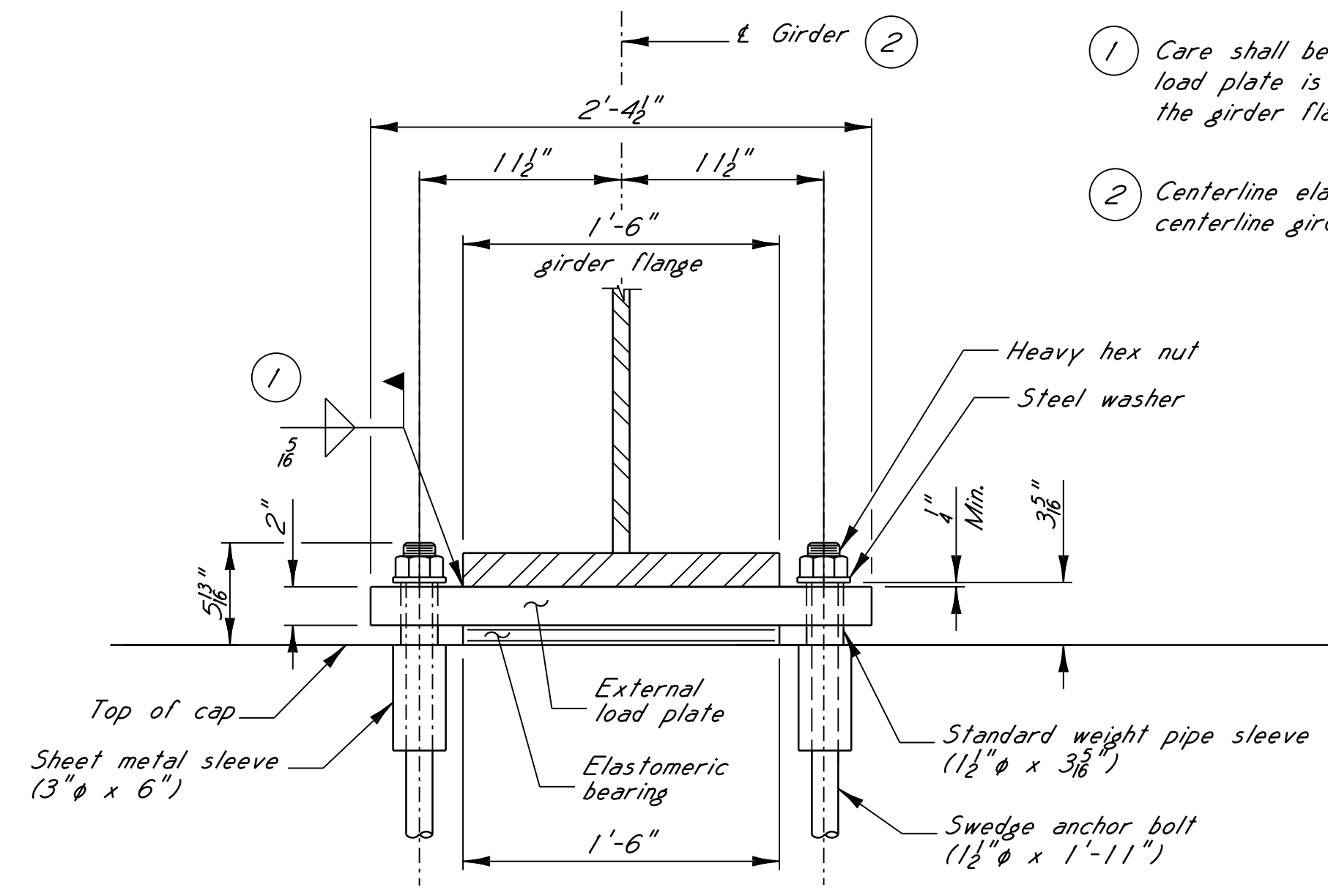
1. Mechanical anchoring system shall be one of the following products:
 - A. "KWIK Bolt TZ" Shall be as manufactured by Hilli, Inc., www.hilli.com
 - B. "Strong-Bolt 2" Shall be as manufactured by Simpson Strong Tie, Inc., www.strongtie.com
 - C. "Power-Stud SD2" Shall be as manufactured by Powers Fasteners, www.powers.com
2. Installation shall be in strict accordance with manufacturer's recommendations.
3. A representative of the anchoring system must be present for a sufficient time to ensure that the contractor is properly schooled in the installation of the anchoring system.
4. Mechanical anchors shall be stainless steel.

EPOXY ADHESIVE NOTES: (Not a separate pay item)

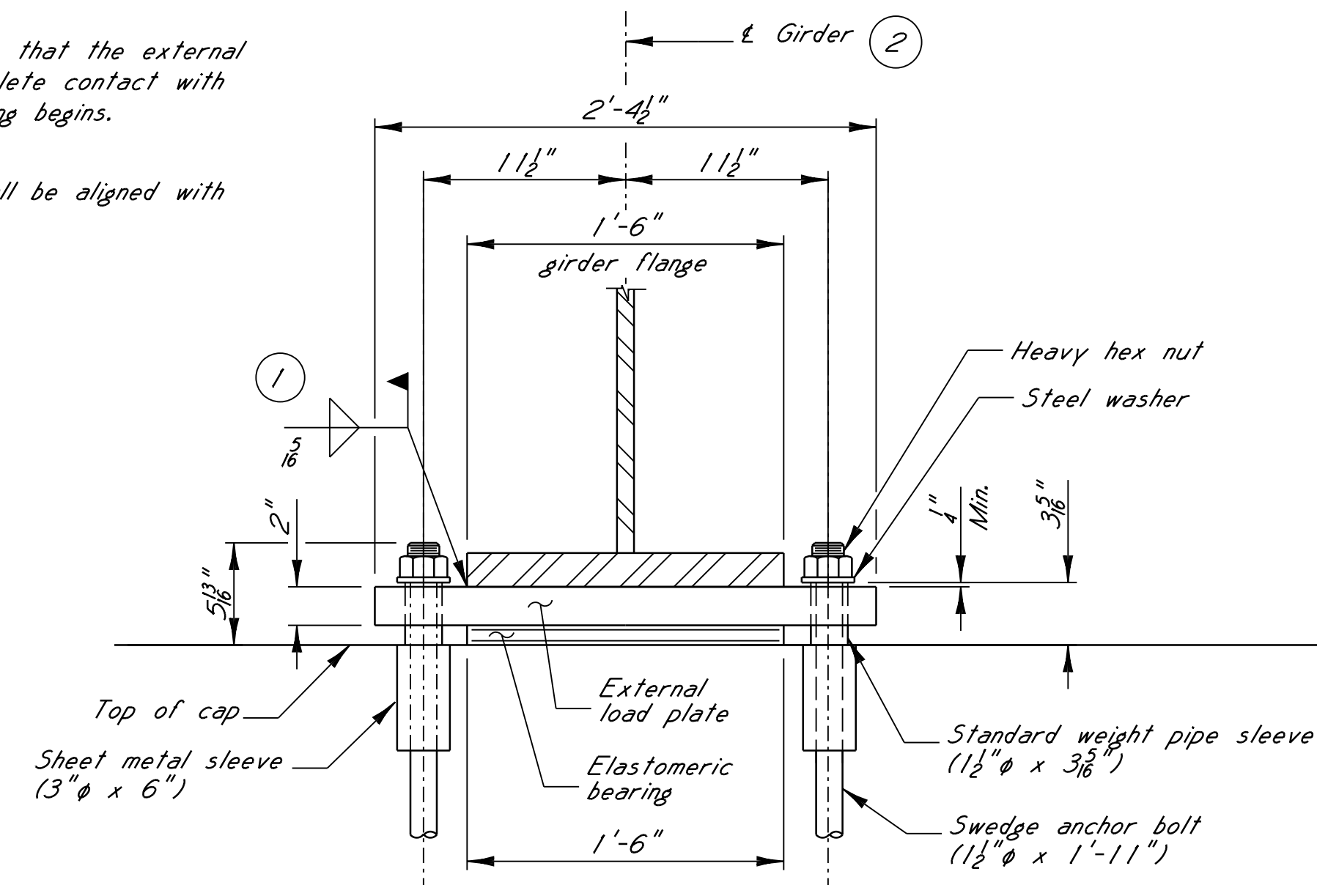
- 1.) Cap beam side plating shall be adhered to existing concrete cap beam where designated in the plans with one of the following products, or approved equal:
 - A. "Sikadur 30" shall be as manufactured by Sika Corporation, usa.sika.com
 - B. "Scotch-Weld DP420" shall be as manufactured by The 3M Company, www.3m.com
 - C. "Permabond ET505" shall be as manufactured by Permabond, LLC, www.permabond.com
- 2.) Application of product shall be in strict accordance with manufacturer's recommendations.



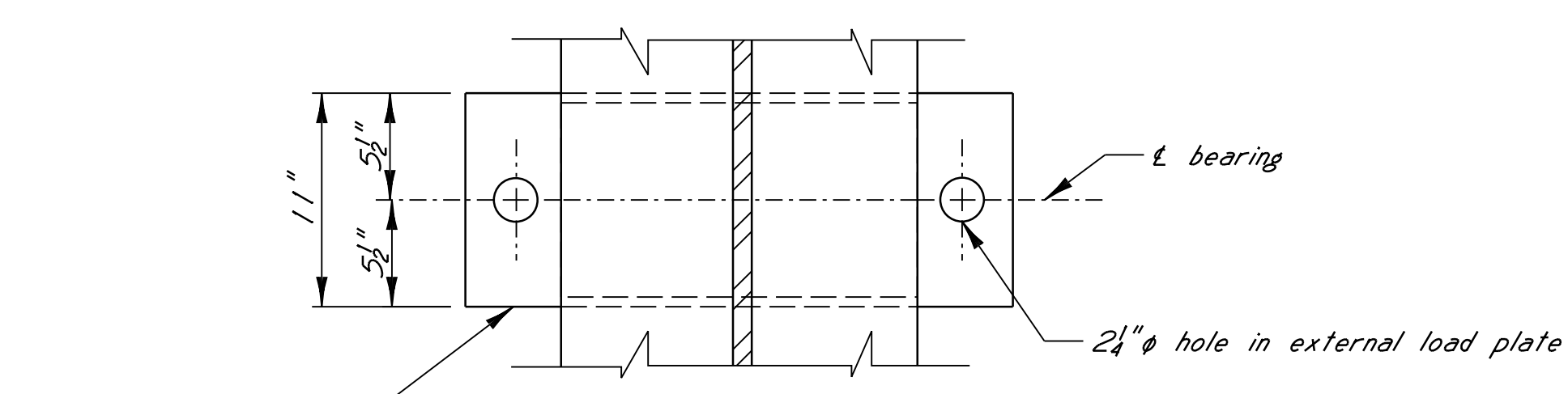
MISSISSIPPI DEPARTMENT OF TRANSPORTATION BRIDGE @ STA. 214+80.00	
CAP BEAM SIDE PLATING DETAILS	
PROJECT 106793/302000 ER-0063-04(010)	WORKING NUMBER 12 of 16
GREENE COUNTY	SHEET NUMBER 8013
DESIGNER: Preston Campbell DATE: 9/19/19	CHECKER: Preston Campbell ISSUE DATE:
DIRECTOR OF STRUCTURES, STATE BRIDGE ENGINEER - JUSTIN WALKER PE. DEP. DIR. OF STRUCTURES, ASSIST. STATE BRIDGE ENGINEER - SCOTT WESTERFIELD PE.	



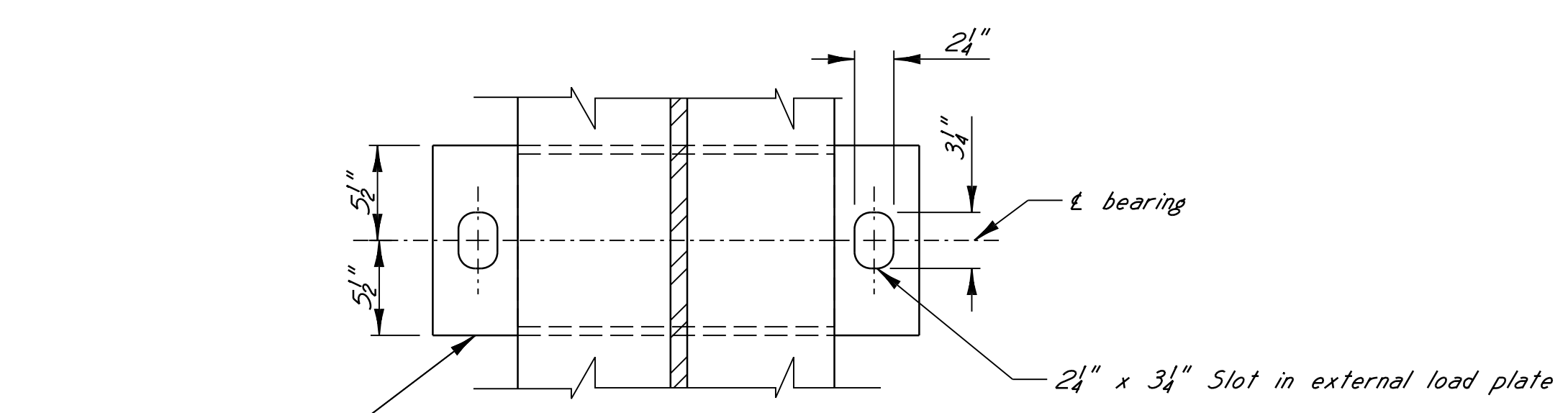
FRONT VIEW - FIXED BEARING
Scale 1 1/2" = 1'-0"



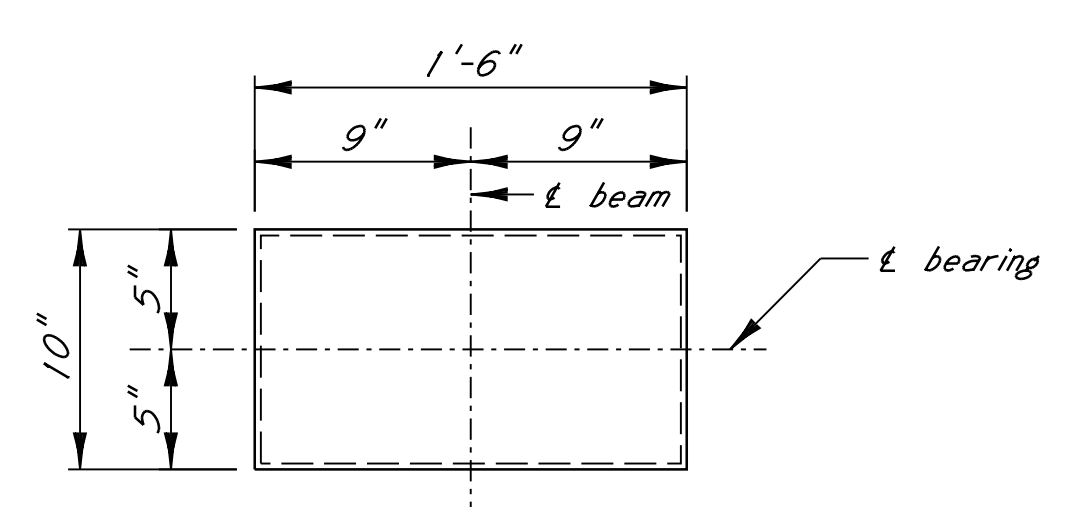
FRONT VIEW - EXPANSION BEARING
Scale 1 1/2" = 1'-0"



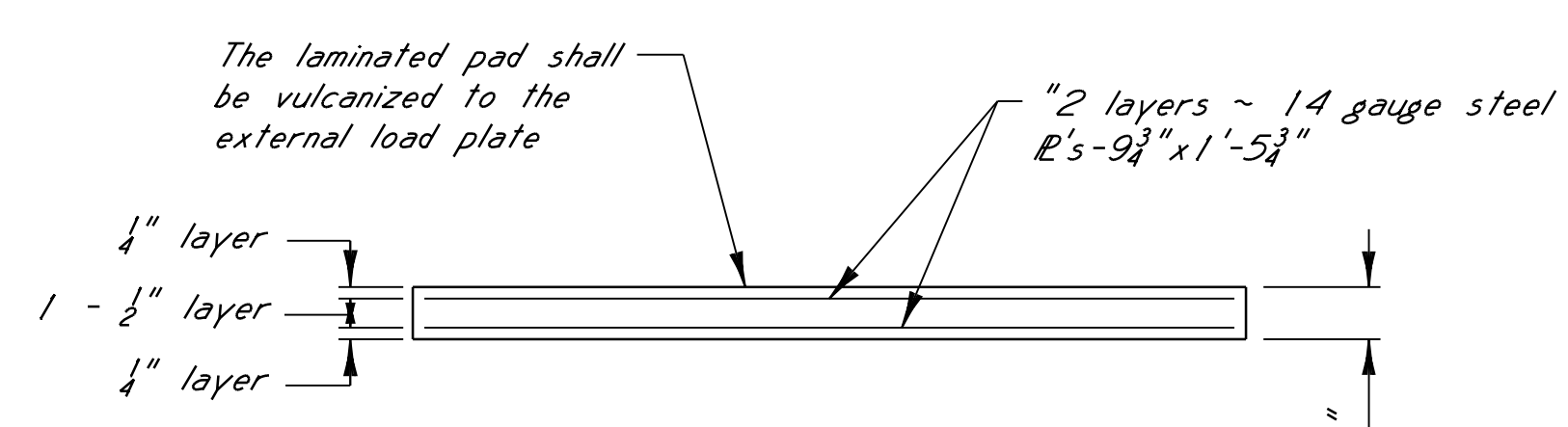
PLAN VIEW - FIXED BEARING
Scale 1 1/2" = 1'-0"



PLAN VIEW - EXPANSION BEARING
Scale 1 1/2" = 1'-0"



PLAN VIEW - LAMINATED PAD
Scale 1 1/2" = 1'-0"



ELEVATION VIEW - LAMINATED PAD
Not a separate pay item
Scale 3" = 1'-0"

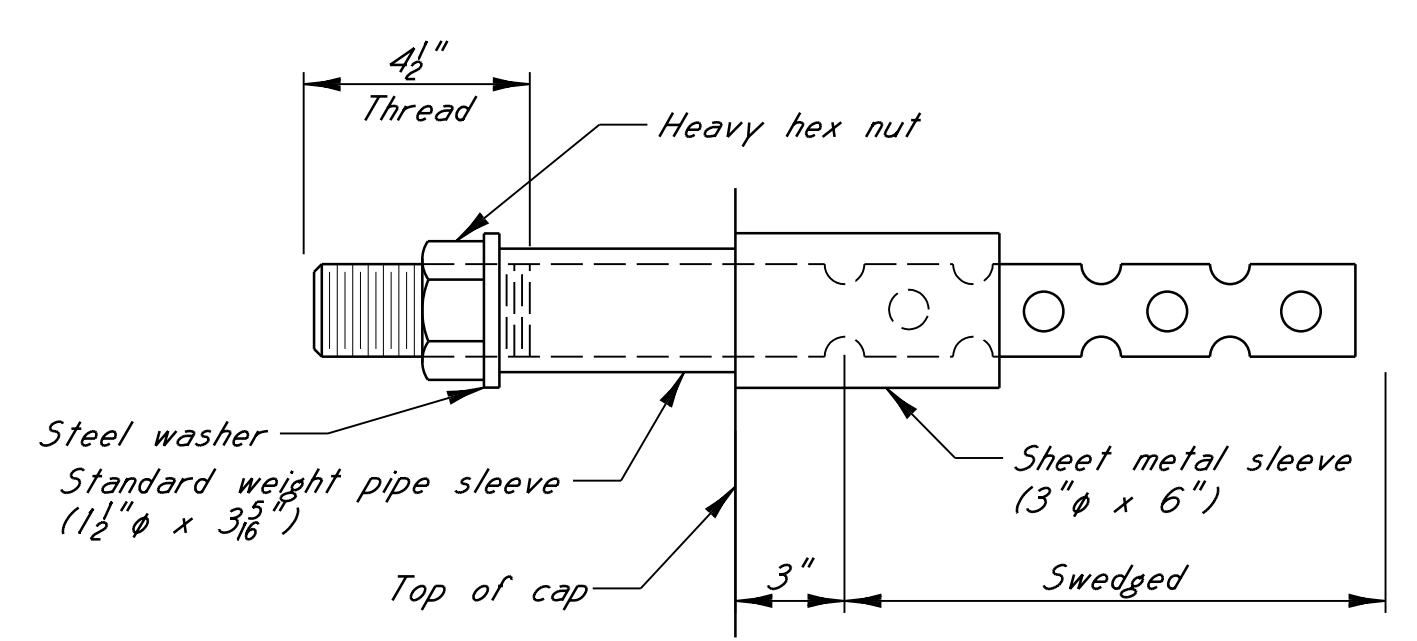
- Care shall be taken to ensure that the external load plate is in full and complete contact with the girder flange before welding begins.
- Centerline elastomeric pad shall be aligned with centerline girder.

NOTES:

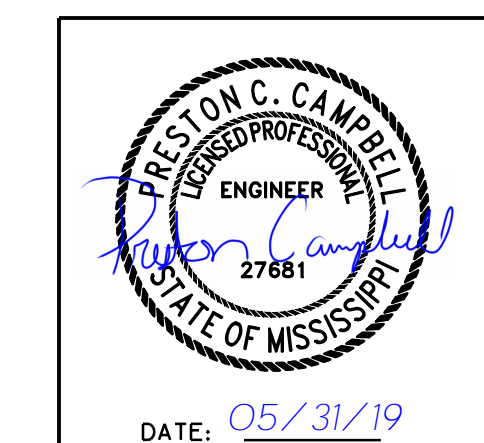
- In no case shall neoprene pads be field cut. Bearing area on top of cap shall be cast smooth and true to grade.
- Steel laminates shall be ASTM Grade 50.
- Elastomer for the laminated neoprene pads shall have a hardness of 50 durometer with a minimum shear modulus at 73°F of 0.095 k.s.i. and a maximum shear modulus at 73°F of 0.130 k.s.i.
- Testing acceptance shall be in accordance with Section 714.10.6 of the Specification.
- External load plates shall conform to AASHTO A709, Grade 50W. Pipe sleeves shall be ASTM A53, Grade B, and shall be galvanized to conform to AASHTO M232, Class C or ASTM B695, Class 50.
- External load plates shall be completely fabricated (including bolt holes) and shall be cleaned before vulcanizing to the elastomeric bearing.
- Anchor bolts shall conform to ASTM F1554 Grade 55 Anchor bolts galvanized in accordance with ASTM A153 Class C, or mechanically galvanized in accordance with ASTM B695 Class 50. Heavy hex nuts shall conform to ASTM A563 Grade C. Washers shall conform to ASTM F436.
- Pipe sleeves, anchor bolts, washers and nuts shall be paid for at the unit price bid for "Structural Steel, A 709, Grade 50". External load plates and bearing pads will not be measured or paid for separately but shall be absorbed in the price for other contract items.
- Unless otherwise approved by the Engineer, the external load plate at the expansion bearings may be welded to the girder when:
 - the approximate average air temperature during the 24 hour period immediately preceding welding is between 40°F and 80°F; and
 - the slots in the external load plate are positioned to center on the anchor bolts; and
 - no horizontal deformation of the elastomeric pad is evident.

ANCHOR BOLT INSTALLATION NOTES:

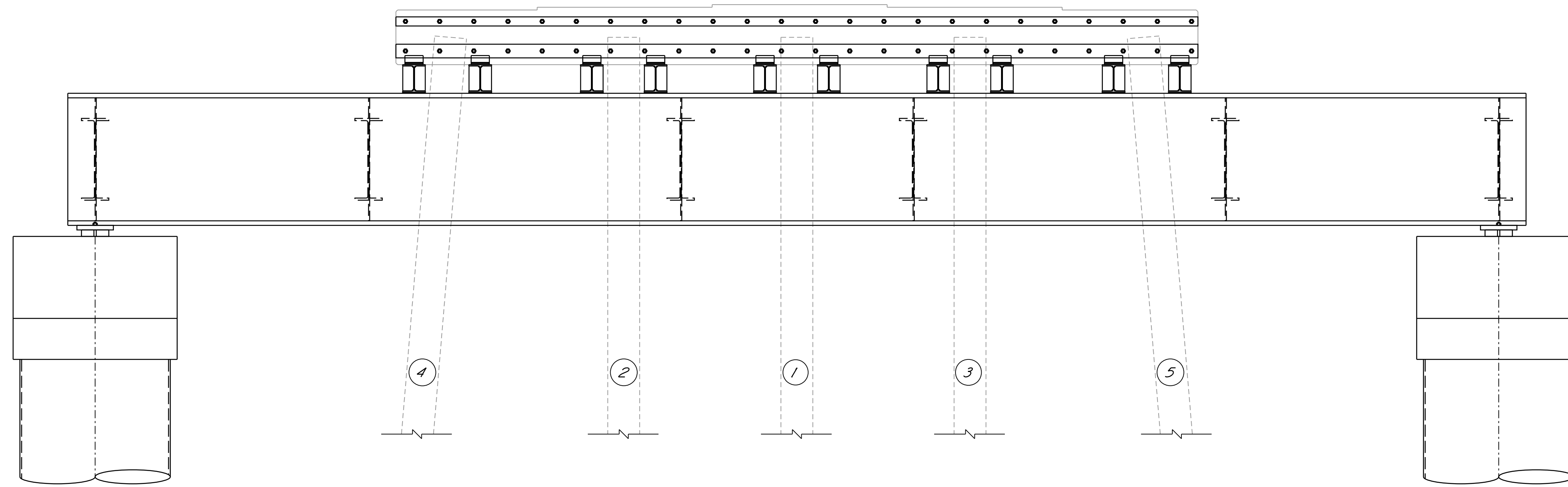
Anchor bolts may be cast in place or drilled and grouted into place. If anchor bolts are to be cast in place, the galvanized sheet metal sleeves will not be required. If anchor bolts are to be drilled and grouted in place, the galvanized sheet metal sleeves shall be cast in place as shown. Sleeves shall be dry packed with styrofoam, urethane foam or approved equal prior to pouring of concrete. After pouring of the cap and prior to erection of structural steel, the dry pack shall be removed and holes for the anchor bolts shall be accurately drilled into the masonry. Bolts placed in drilled holes shall be accurately set and fixed using an approved epoxy or non-shrink grout that completely fills the holes. Galvanized sheet metal sleeves will not be paid for directly but will be considered subsidiary to the item "Structural Steel, A 709, Grade 50W".



SWEDGED ANCHOR BOLT DETAIL (1 1/2" x 1'-11")
Not to scale



MISSISSIPPI DEPARTMENT OF TRANSPORTATION BRIDGE @ STA. 214+80.00	
NEOPRENE PAD DETAILS	
PROJECT 106793/302000 ER-0063-04(010)	WORKING NUMBER 13 of 16
GREENE COUNTY	SHEET NUMBER 8014
DESIGNER Preston Campbell DETAILER Jonathan Lewis	CHECKER Preston Campbell ISSUE DATE
DIRECTOR OF STRUCTURES, STATE BRIDGE ENGINEER - JUSTIN WALKER PE. DEP. DIR. OF STRUCTURES, ASSIST. STATE BRIDGE ENGINEER - SCOTT WESTERFIELD PE.	



PILE DEMOLITION PLAN
Showing bent 3

DEMOLITION PLAN NOTES:

The Contractor shall submit a demolition plan to the Director of Structures, State Bridge Engineer, for approval. After the demolition plan has been approved, a minimum of seven (7) days notice shall be given by the Contractor to the Director of Structures, State Bridge Engineer, prior to beginning demolition of existing piling. Demolition shall include removal of concrete piling from an elevation two (2) feet below the cap soffit to an elevation of two (2) feet below the ground line. Removal of piling shall be paid for under pay item 202-B036 Removal of Bridge Piling.

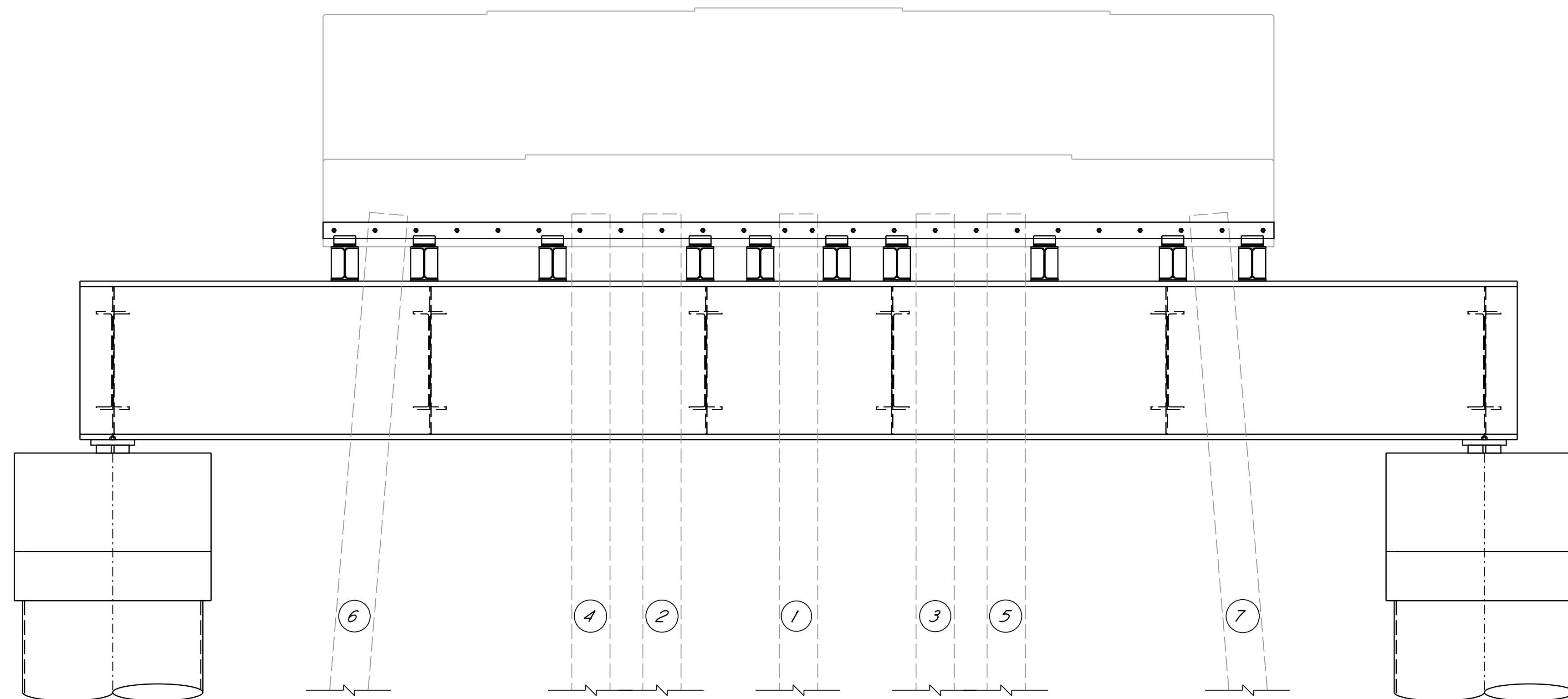
Demolition of piling shall not take place until all new construction elements are properly installed in their final position. Piling shall be removed in numerical order as shown in details on this sheet.

Concrete pile removal shall be completed by use of small chipping hammers (35 pound max.) or by other means (subject to the approval of the Engineer) that leaves remaining concrete substructure in satisfactory condition and prevents damage to the new construction.

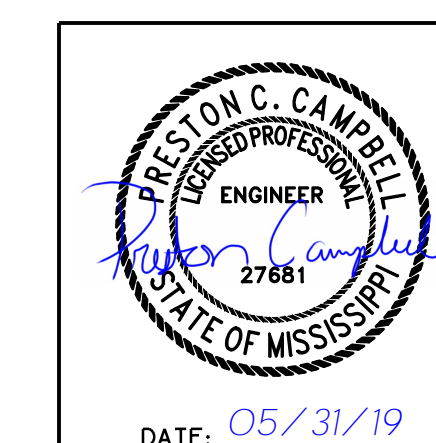
Any damage to the repair or other bridge components, caused by this item of work, shall be repaired by a method approved by the Director of Structures, State Bridge Engineer and at no expense to the state.

All material removed shall become the property of the contractor and removed from the site at his expense.

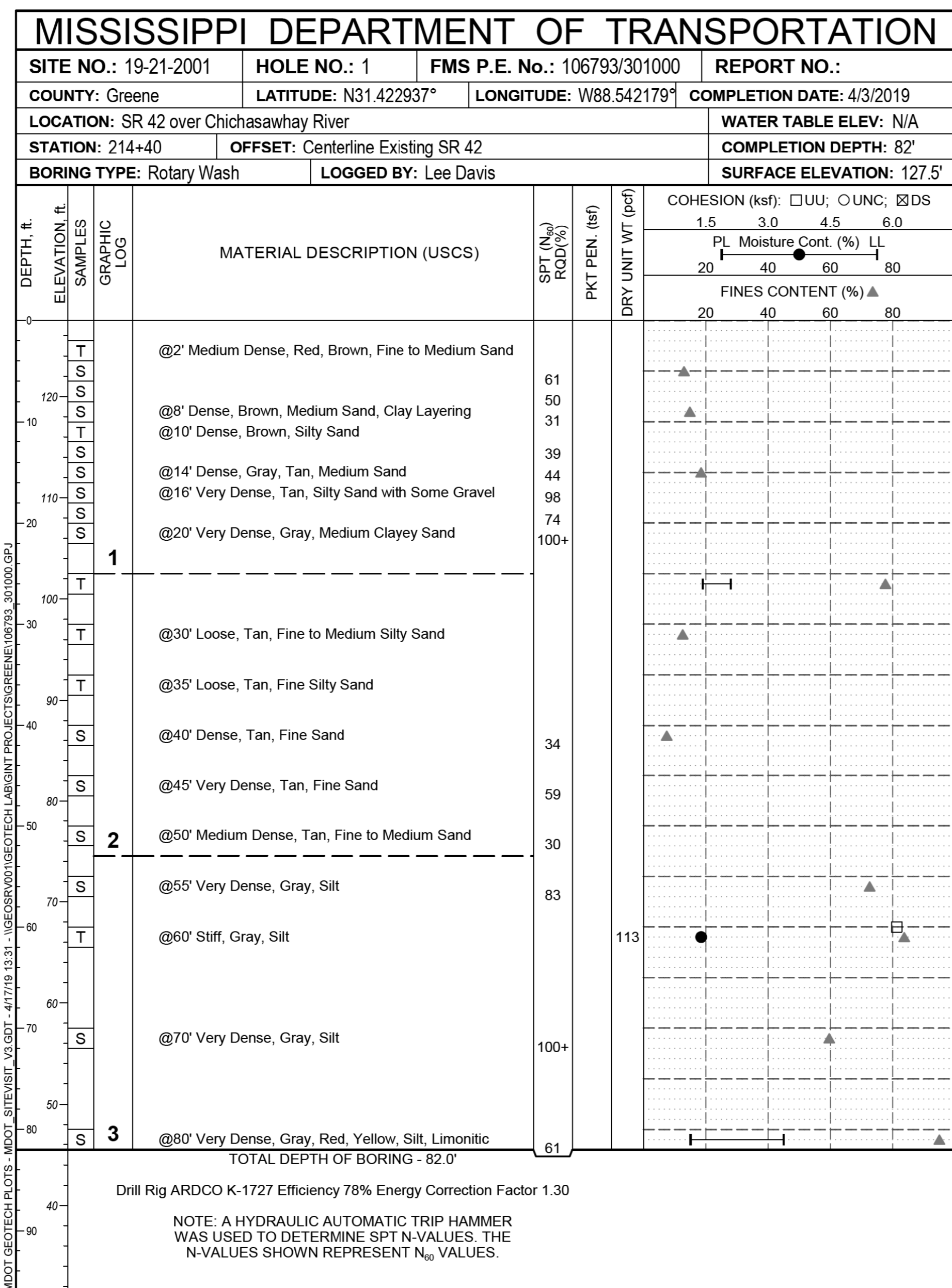
All exposed pile reinforcement that is to remain shall be sealed with a rust inhibitor.



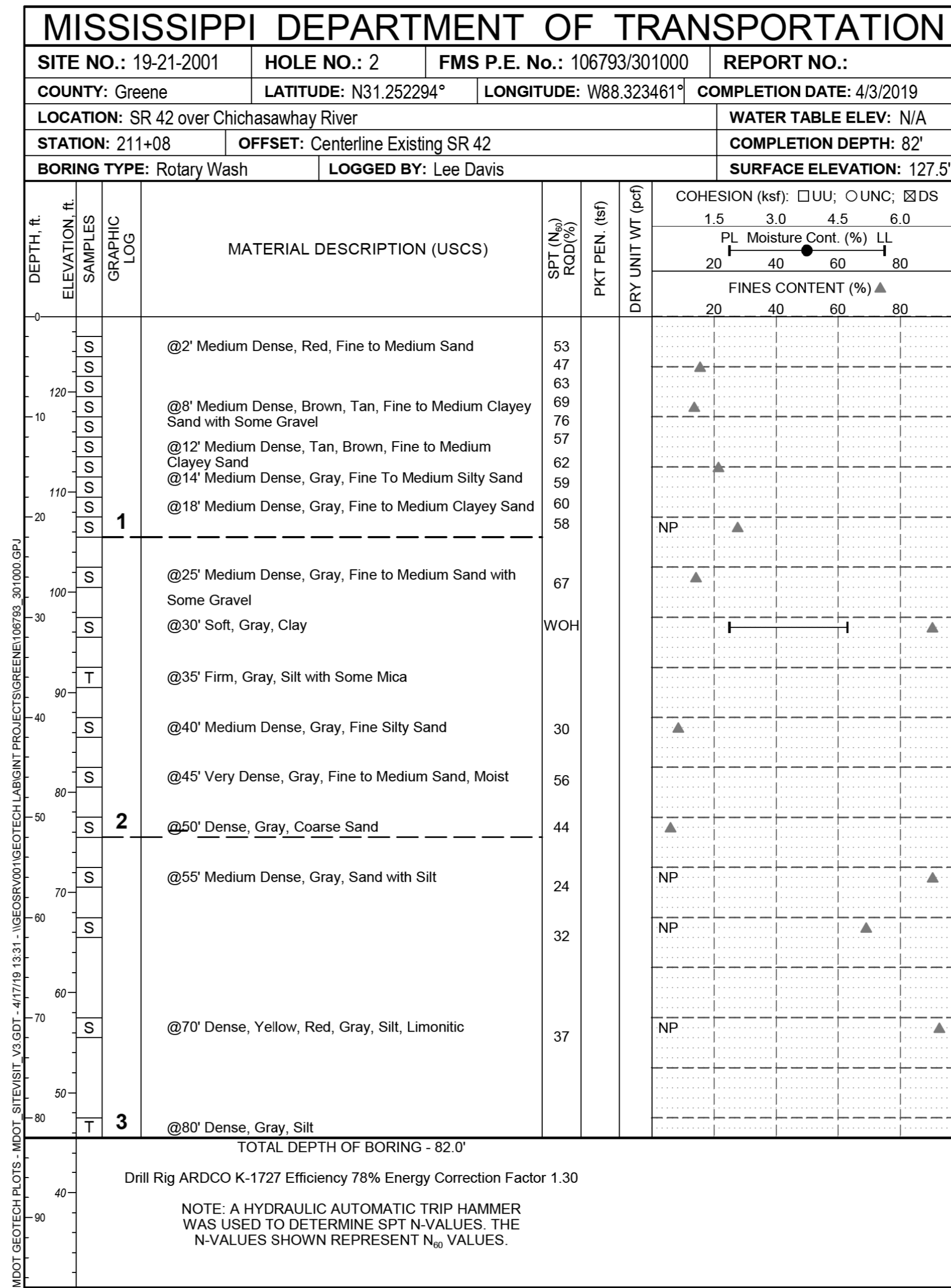
PILE DEMOLITION PLAN
Showing bent 4



BY MISSISSIPPI DEPARTMENT OF TRANSPORTATION BRIDGE @ STA. 214+80.00	
PILE DEMOLITION PLAN	
PROJECT 106793/302000 ER-0063-04(010)	WORKING NUMBER 14 of 16
GREENE COUNTY	SHEET NUMBER 8015
DESIGNER Preston Campbell DETAILER Jonathan Lewis	CHECKER Preston Campbell ISSUE DATE
DATE: 05/31/19	
DIRECTOR OF STRUCTURES, STATE BRIDGE ENGINEER - JUSTIN WALKER PE. DEP. DIR. OF STRUCTURES, ASSIST. STATE BRIDGE ENGINEER - SCOTT WESTERFIELD PE.	



S: Split Spoon, T: Shelby Tube, C: Rock Core, P: Pitcher □ UU Cohesion, O: UNC Cohesion, ⊠ DS Cohesion, ● Moisture Content (%)

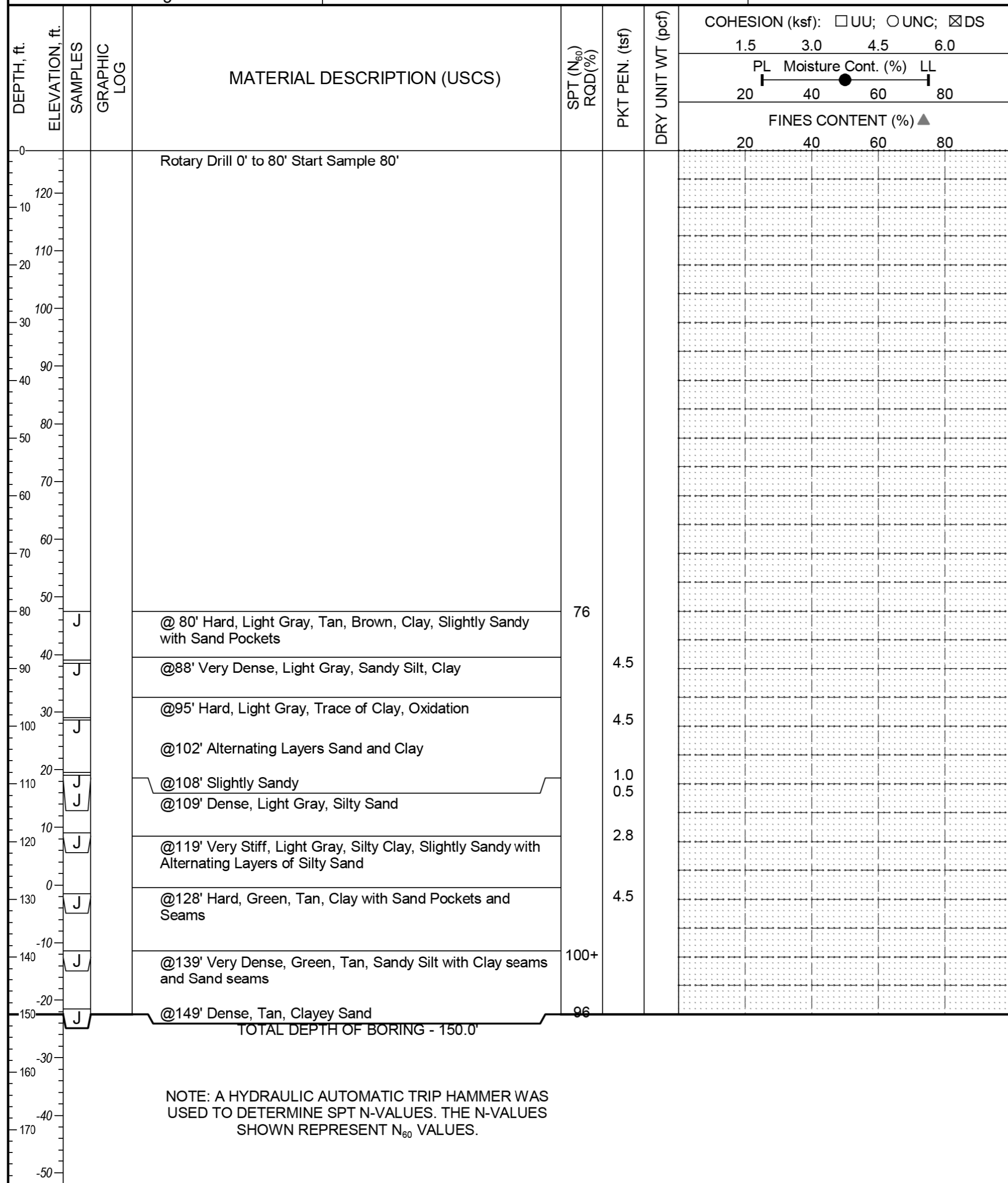


S: Split Spoon, T: Shelby Tube, C: Rock Core, P: Pitcher □ UU Cohesion, O: UNC Cohesion, ⊠ DS Cohesion, ● Moisture Content (%)

DRAWING FILE: .DGN		REPORT NO.: - -	
REVISIONS	BY:	MISSISSIPPI DEPARTMENT OF TRANSPORTATION	
	DATE:	MDOT BORING LOGS	
		SR 42 ACROSS CHICKASAWHAY RIVER	
		STATION NO.: 214+80.00	
		SITE NO: 19-21-2001	
		106793/301000	
		PROJECT NO: ER-0063-04(010)	
		COUNTY: GREENE	
		DESIGNED: ...	WORKING NUMBER
		Detailed: ...	15 OF 16
		Drawn: CADD	SHEET NUMBER
		Checked: ...	8016
		Issued: ...	
		Date: - - -	

MISSISSIPPI DEPARTMENT OF TRANSPORTATION

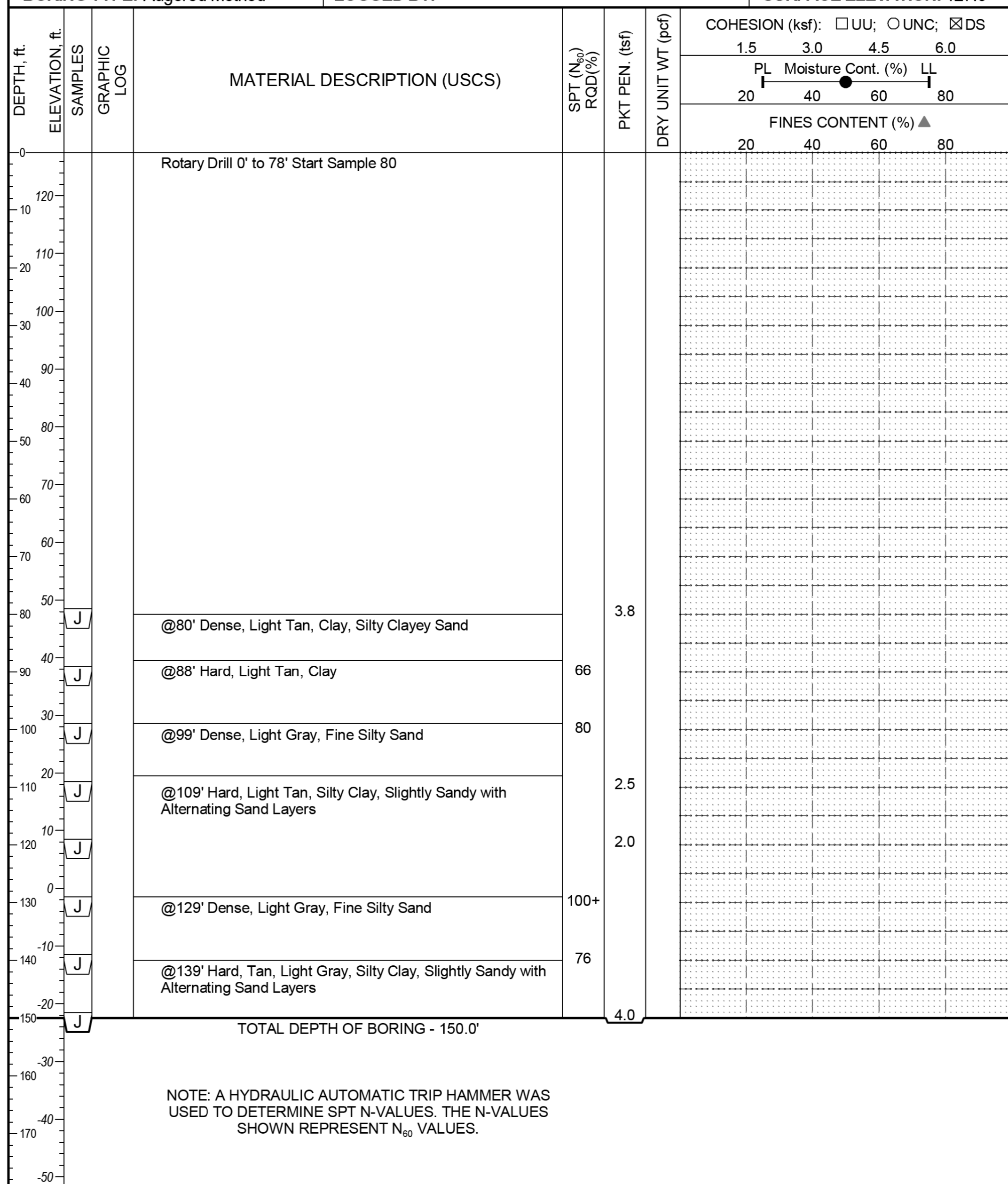
SITE NO.: 19-21-2001	HOLE NO.: 3	FMS P.E. No.: 106973/301000	REPORT NO.:
COUNTY: Greene	LATITUDE: N31.4229722°	LONGITUDE: W88.5422222°	COMPLETION DATE: 5/15/2019
LOCATION: SR 42 over Chickasawhay River		WATER TABLE ELEV: N/A	
STATION: 214+40	OFFSET: 54' West of Existing Bridge Abutment on Centerline SR 42	COMPLETION DEPTH: 150'	
BORING TYPE: Augered Method	LOGGED BY:	SURFACE ELEVATION: 127.5'	



S: Split Spoon, T: Shelby Tube, C: Rock Core, P: Pitcher UU Cohesion, UNC Cohesion, DS Cohesion, ● Moisture Content (%)

MISSISSIPPI DEPARTMENT OF TRANSPORTATION

SITE NO.: 19-21-2001	HOLE NO.: 4	FMS P.E. No.: 106973/301000	REPORT NO.:
COUNTY: Greene	LATITUDE: N31.4230556°	LONGITUDE: W88.5430556°	COMPLETION DATE: 5/16/2019
LOCATION: SR 42 over Chickasawhay River		WATER TABLE ELEV: N/A	
STATION: 211+08	OFFSET: 248' West of Existing Bridge Abutment on Centerline SR 42	COMPLETION DEPTH: 150'	
BORING TYPE: Augered Method	LOGGED BY:	SURFACE ELEVATION: 127.5'	

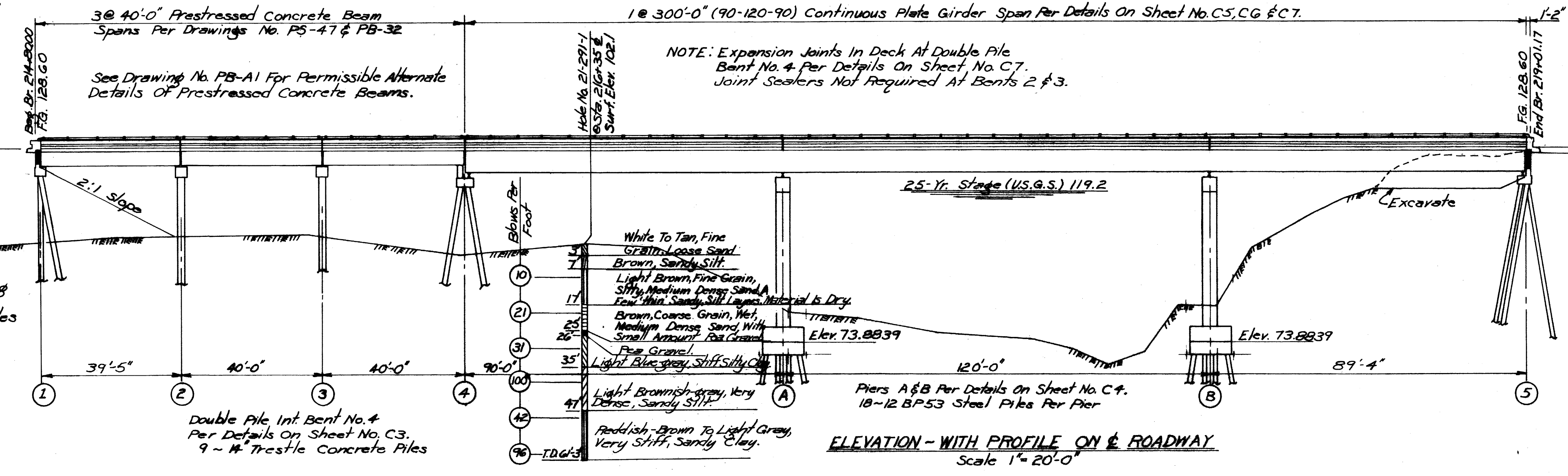


S: Split Spoon, T: Shelby Tube, C: Rock Core, P: Pitcher UU Cohesion, UNC Cohesion, DS Cohesion, ● Moisture Content (%)

DRAWING FILE: .DGN		REPORT NO.: - -	
REVISIONS	BY:	MISSISSIPPI DEPARTMENT OF TRANSPORTATION	
		BURNS, COOLEY, DENNIS BORINGS	
		SR 42 ACROSS CHICKASAWHAY RIVER	
		STATION NO.: 214+80	
		SITE NO: 19-21-2001	
		106793/301000	
		PROJECT NO: ER-0063-04(010)	
		COUNTY: GREENE	
DATE	DESIGNED: ...	DETAILED: ...	DRAWN: CADD
	CHECKED: ...	ISSUED: ...	DATE: - - -
		WORKING NUMBER	SHEET NUMBER
		16 OF 16	8017

150 Ft. Spur Dike Required On Upstream Side Per Drawing No. ED-1 Loose Rip Rap Required On Top Of Dike Berm Elev. = 128.2

Total Length Of Bridge = 421'-2"
0.00% Grade



End Bent Per Details On Sheet No. C2.
12 ~ 12 BP53 Steel Piles

DRAINAGE DATA

Drainage Area : 2520 Sq. Miles
Q₂₅ (U.S.G.S.) 62,000 c.f.s.

Total Effective Area Provided, All Bridges :

DESCRIPTION OF BRIDGE	STATION NO.	DISCHARGE DISTRIBUTION	EFFECTIVE AREA PROVIDED
Relief At Robertson Creek	176+24	1,100 cfs	2,122 Sq. Ft.
Relief Chickasawhay River	203+40	19,900 cfs	7800 Sq. Ft.
	214+80	41,000 cfs	9,020 Sq. Ft.

DESIGN DATA

Specifications: AA.S.H.O. 1961 & Int. 2(61) & Int. 1(64)
Loading: HS20-44
Roadway Width: 28'-0" Curb Width: 1'-6"

SPECIAL PROVISIONS REQUIRED

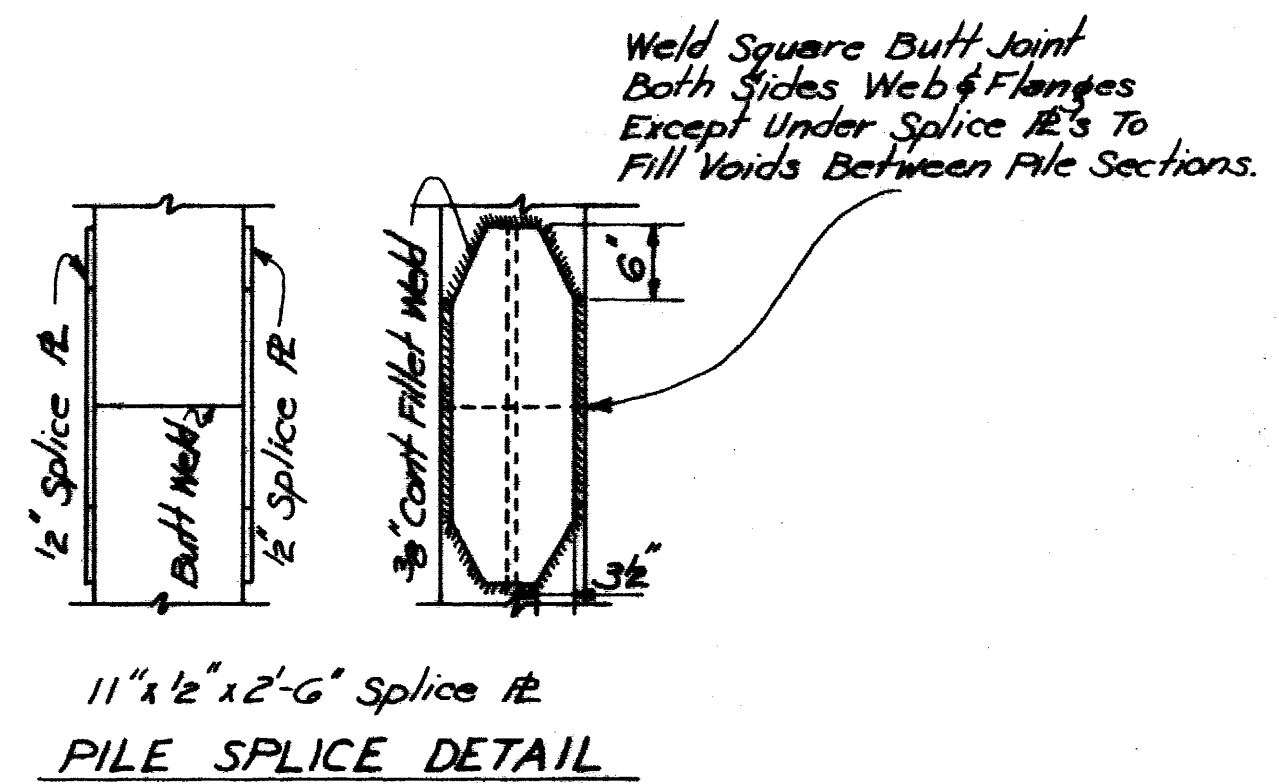
Neoprene Pads ~ No. 216 - Revised (2-18-64)
Prestressed Members ~ No. 112 - Rev. (8-18-64) & Supp. Dtd (9-23-64)
High Tensile Bolts ~ No. 1129 And Supplement Dated (7-21-66)
Stud Welding ~ No. 260 - Revised (11-11-63)
Alt. Finish ~ No. 135B
Railings ~ No. 1210 - Rev. (11-29-65)
Shop Welding ~ No. 1149 - Revised (5-19-65)

Drawings Req'd: CB-36 (7-12-65); CP-20R (8-12-65);
EB-62 (7-15-66); ED-1 (12-23-57); PB-A1 (9-21-64);
PB-32 (7-25-66); PS-47 (5-19-65); RF-1 (4-13-59);
MR-2 (11-29-65).

FOUNDATION NOTES: Boring Data Shown Is For Information Only And Its Accuracy For Construction Purposes Is Not Guaranteed. This Boring Is Only Representative. Other Borings Are On File In The Bridge Division.

Spread Footings Shall Not Used Except On Written Authority Of The Bridge Engineer. In The Event That Spread Footings Are Authorized, The Depth Of The Foundation Is Subject To Change As Considered Necessary To Meet Field Conditions. If The Contractor Wishes To Propose A Change To Spread Footings He Shall Do The Following: After Excavation Is Complete To Elevation Shown On The Plans, The Contractor Shall Make Suitable Borings Below This Elevation To Depths Determined By The Engineer. It Is Intended That Borings Shall Average 20 Ft. There Shall Be One Boring For Each Pier. Boring Shall Be Made By Such Methods As Will Produce Samples From Which The Material Can Be Accurately Classified. The Engineer Will Determine On Basis Of Material Exposed Whether Piers Shall Be Carried To Lower Elevations. The Cost And Payment For All Borings Shall Be Considered Included In The Prices And Payments For Bid Items.

NOTE: Seal Shown For Pier Foundation Is Proportioned For Water Elevation 88.0. If Water Is Above That Elevation At Time Of Pouring Seal, The Thickness Of The Seal Shall Be Increased To 25% Of Distance From Water Level To Bottom Of Seal.



MINIMUM PILE BEARING CAPACITY

End Bents ~	30 Tons
Double File Bent 4 ~	45 Tons
Int. Bent No. 2 & 3 ~	40 Tons
Piers A & B ~	46.5 Tons

ESTIMATED QUANTITIES

Item Location	Class 'B' Bridge Concrete Cu. Yds.	Class 'S' Seal Concrete Cu. Yds.	Reinforcing Steel Lbs.	Structural Steel Lbs.	Concrete ~ Metal Railing Lin. Ft.	40 Ft. Prestressed Conc. Beams Lin. Ft.	14" Trestle Conc. Piling Lin. Ft.	14" Trestle Conc. Test Piles Units	12 BP53 Steel Test Piles Units	12 BP53 Steel Piling Lin. Ft.	Loading Tests Units	Bridge Excavation Cu. Yds.
Spans	354.50		85,069	285,000	840	596.25						
End Bents	49.51		6,734				550			480		
Int. Bents	31.55		4,215				935	2				
Piers A & B	165.18	74.68	28,920						2	1,190		359
Totals	600.74	74.68	124,938	285,000	840	596.25	1,485	2	2	1,670	1	359

Specifications: Mississippi State Highway Department. No Unauthorized Change Of Plans Will Be Permitted Except By Written Authority Of The Bridge Engineer. Minor Changes In Details Of Design & Construction May Be Authorized In Writing By The Bridge Engineer, Provided Such Changes Are Not Justifiable Reasons For Contract Price Adjustments.

Concrete Surfaces Shall Be Finished Per Article 200.19 Of The Specs. And Drawing No. RF-1. All Spray Finish Per S.P. No. 135B.

Expansion Joint Material Shall Be Bituminous Fiber Type. All Prestressed Members Shall Be Manufactured Per Special Provision No. 112 - Revised.

Neoprene Pads Shall Be In Accordance With Special Provision No. 216 - Revised.

All Welding Shall Be Done By The Electric Arc Process. Decks Shall Not Be Poured On The 300 Ft. Continuous Span Or Adjacent 40 Ft. Spans Until All Structural Steel Has Been Erected For The Continuous Span.

Concrete Test Piles Shall Be Driven As Permanent Piles In Bents Nos. 2 & 4. To A Minimum Bearing Capacity Of 45 Tons And Minimum Penetration Of 35 Feet And Will Be Paid For As Test Piles Only. Steel Test Piles Shall Be Driven As Permanent Piles In Piers A & B. Minimum Bearing 46.5 Tons, Minimum Penetration 35 Feet.

Test Pile Data And Recommended Pile Lengths Shall Be Submitted To The Bridge Engineer For Approval. Precast Concrete Piles Shall Be Prestressed Type Per Drawing No. CP-20R.

All Work For Which No Items Are Provided In The Proposal Will Not Be Paid For Directly And Compensation Therefor Will Be Considered Included In The Prices And Payments For Bid Items.

FOR INFORMATION ONLY

MISSISSIPPI STATE HIGHWAY DEPARTMENT

BRIDGE AT STA. 214+80 OVER CHICKASAWHAY RIVER

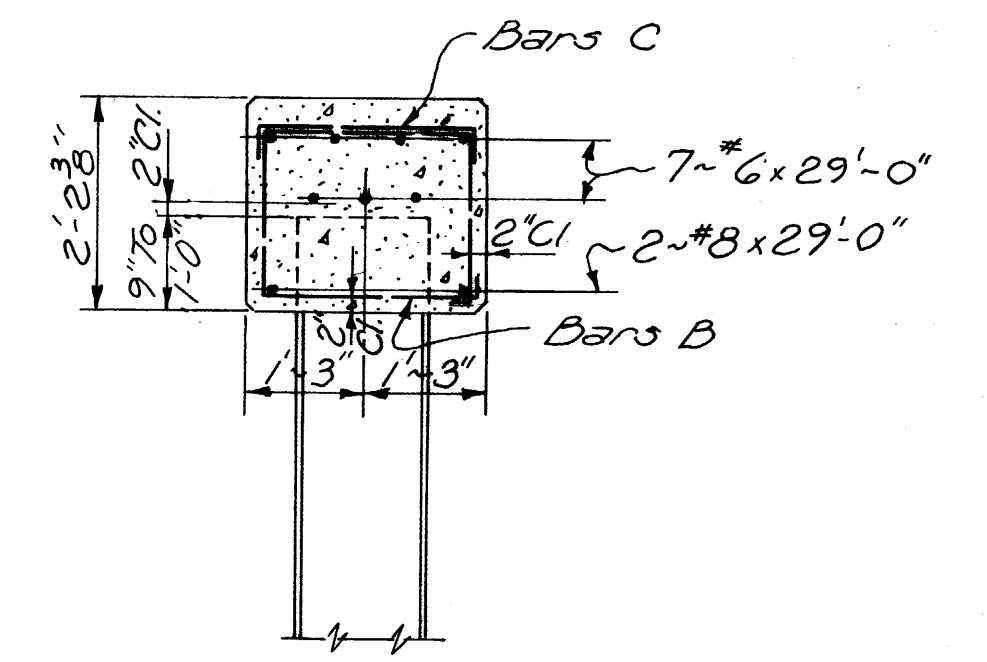
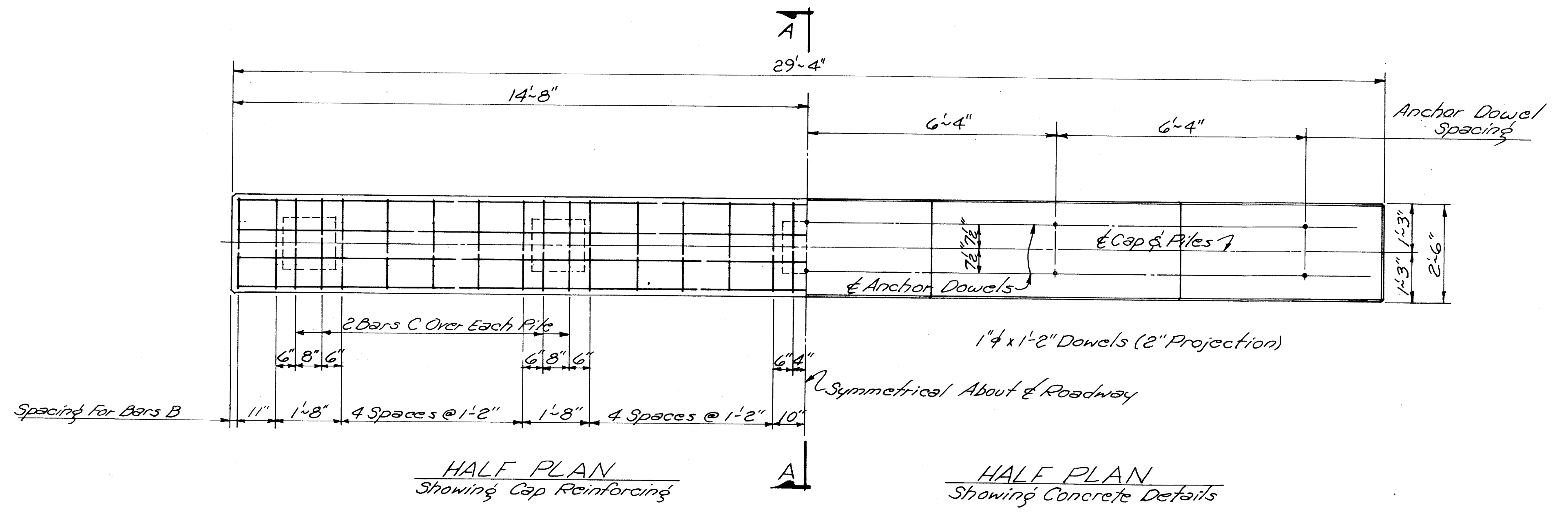
PROJECT FH-S-39-1(K) / S-0221(A)

GREENE COUNTY

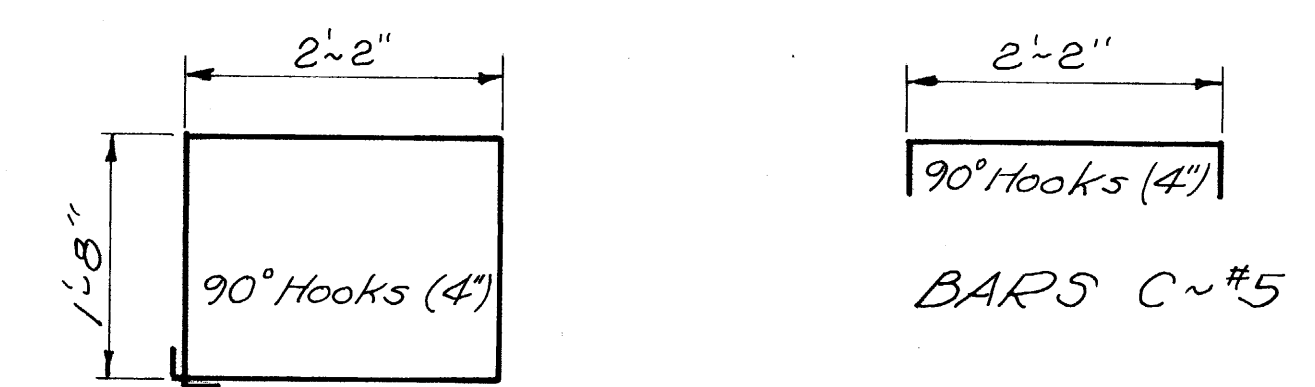
SUBMITTED BY: _____ BRIDGE ENGINEER

DESIGNED: D.E.B. AS DETAILED: S.A.S. TRACED: J.H.K. SHEET NUMBER: 8018

CHECKED: W.L. ISSUED: 7-29-66 DATE: 7-29-66

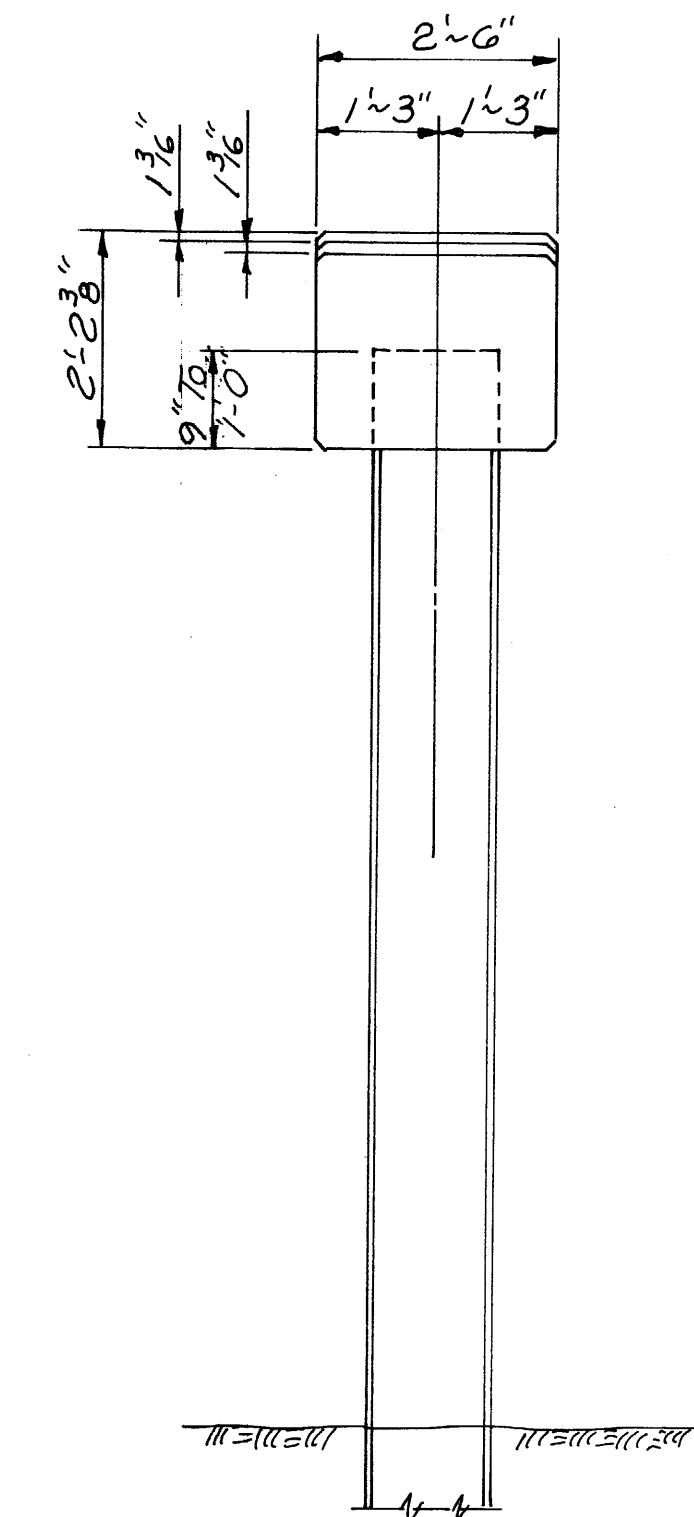
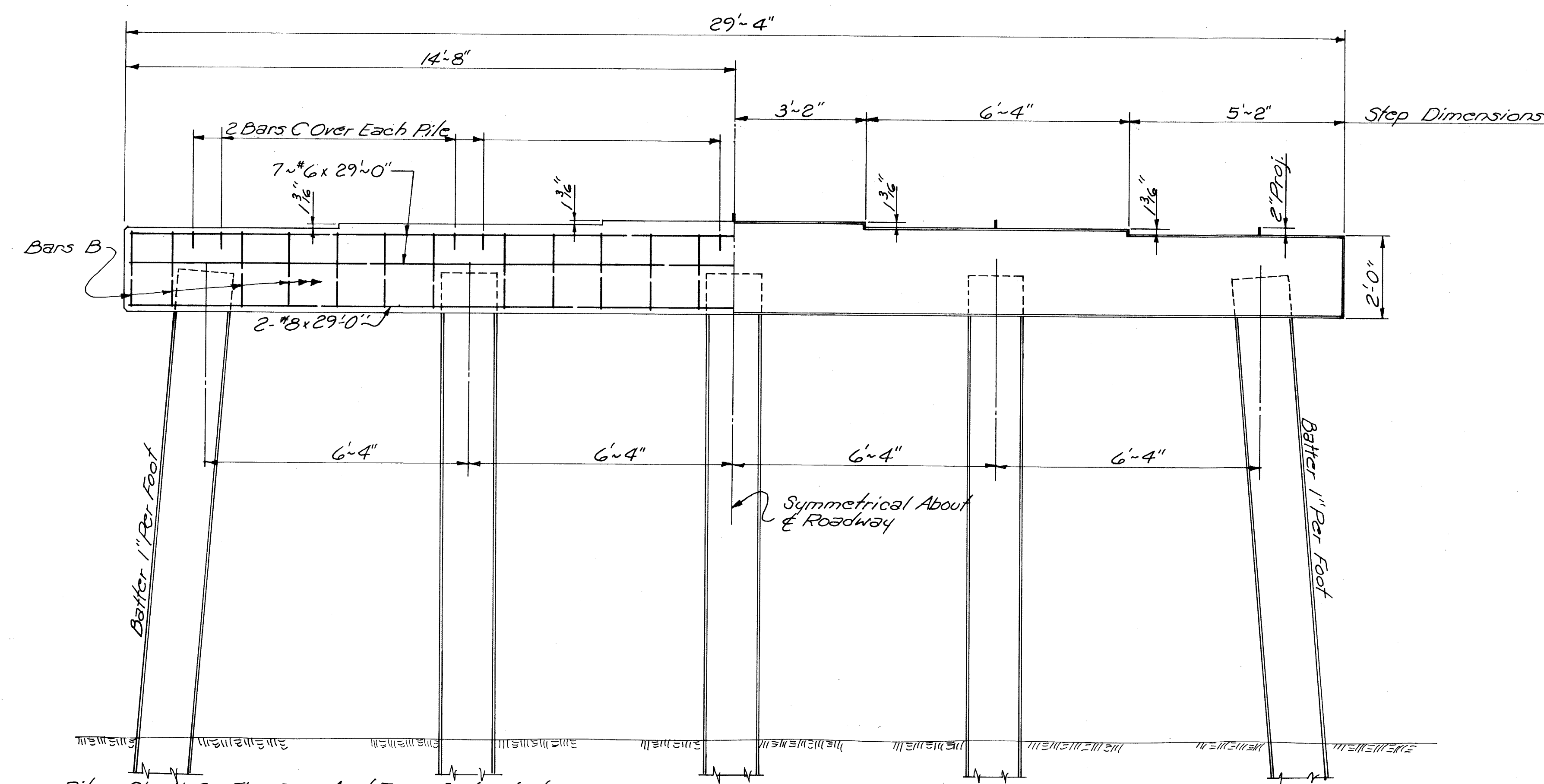


SECTION A-A



BARS B ~ #5

BAR BENDING DETAILS
Dimensions Are Out To Out.



Piles Shall Be The Size And Type Indicated On The Bridge Layout.
Piles Shall Be Driven To A Minimum Bearing Capacity Of 40 Tons.

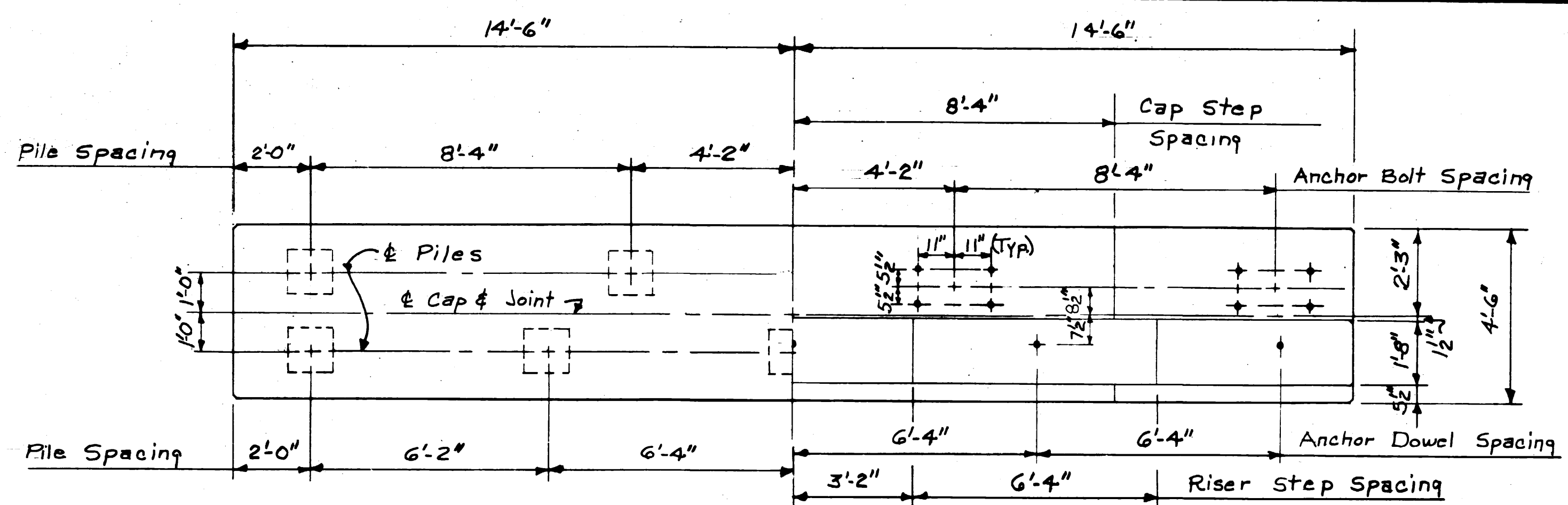
Precast Concrete Piles May Be Either Conventional Type Per Drawing No. CP-10, or Prestressed Type Per Drawing No. CP-20, & Special Provision No. 204.

ELEVATION

GENERAL NOTES:-
Concrete In Cap Shall Be Class 'B'
All Edges Shall Be Chamfered 1/4", Except As Shown.

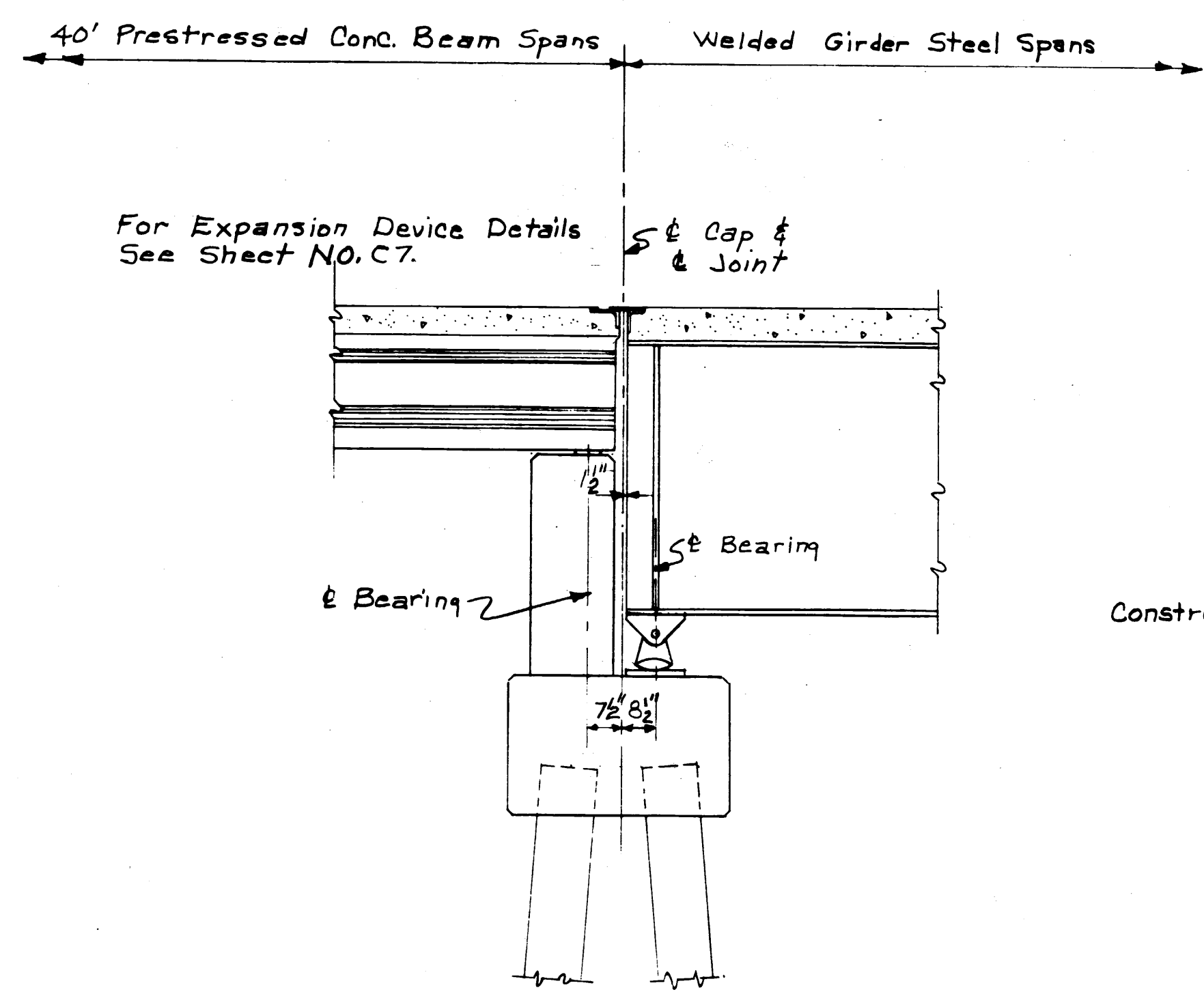
FOR INFORMATION ONLY

BY		MISSISSIPPI STATE HIGHWAY DEPARTMENT	
REVISIONS		CONC. PILE INTERMEDIATE BENT	
DATE		FOR USE WITH	
DESIGNED		40 FT. PRESTRESSED CONCRETE BM.SPAN	
CHECKED		DRAWING NO. PS-47 [28 FT. ROADWAY]	
ISSUED		SUBMITTED BY _____ BRIDGE ENGINEER	
DATE		DESIGNED _____ DETAILED <i>J.B.S.</i> TRACED <i>A.B.S.</i>	
DATE		CHECKED <i>J.R.R.</i> ISSUED <i>MHB</i> DATE 7-12-65	
DRAWING NO.		8019	

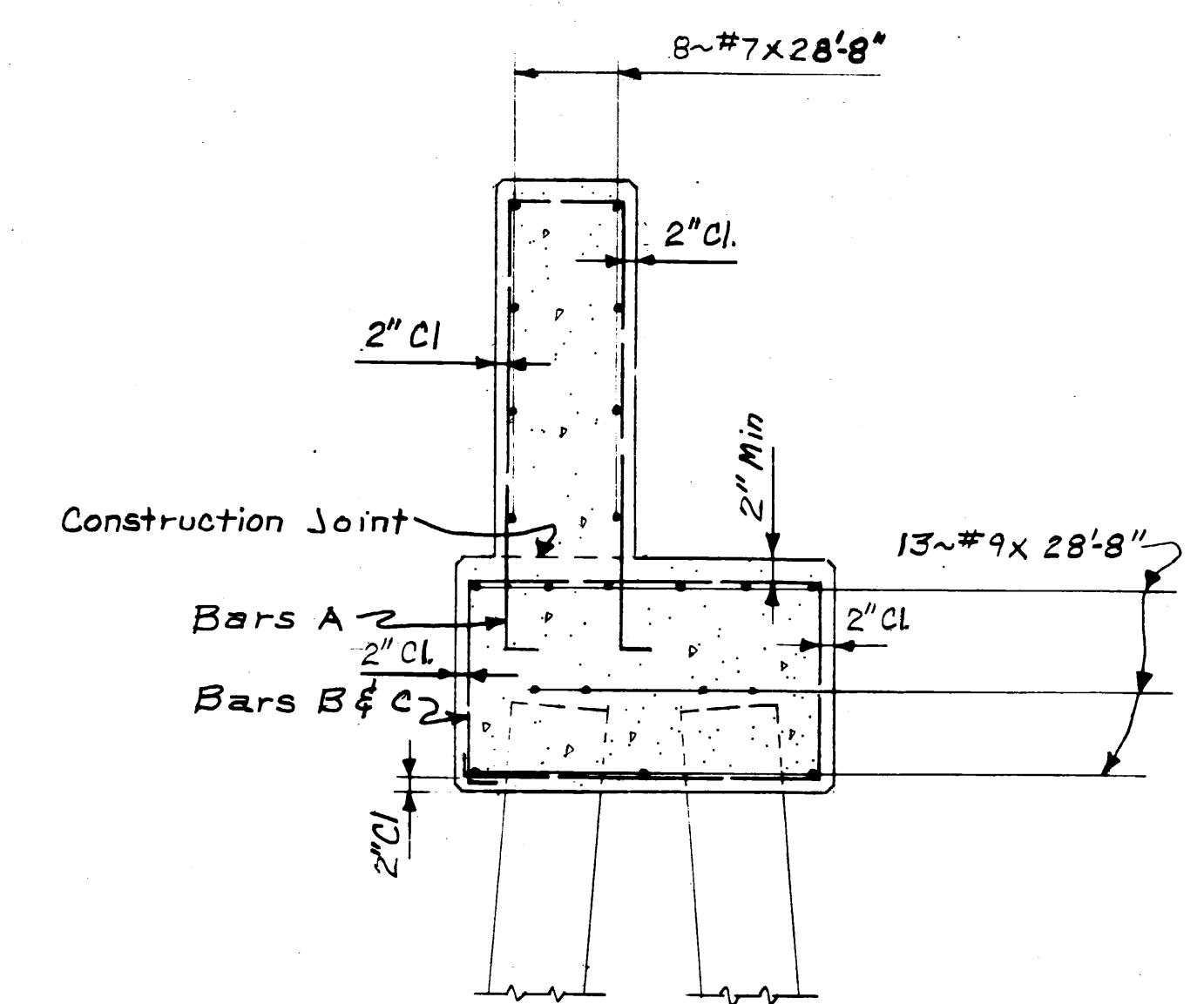


HALF PLAN OF CAP
Showing Pile Spacing

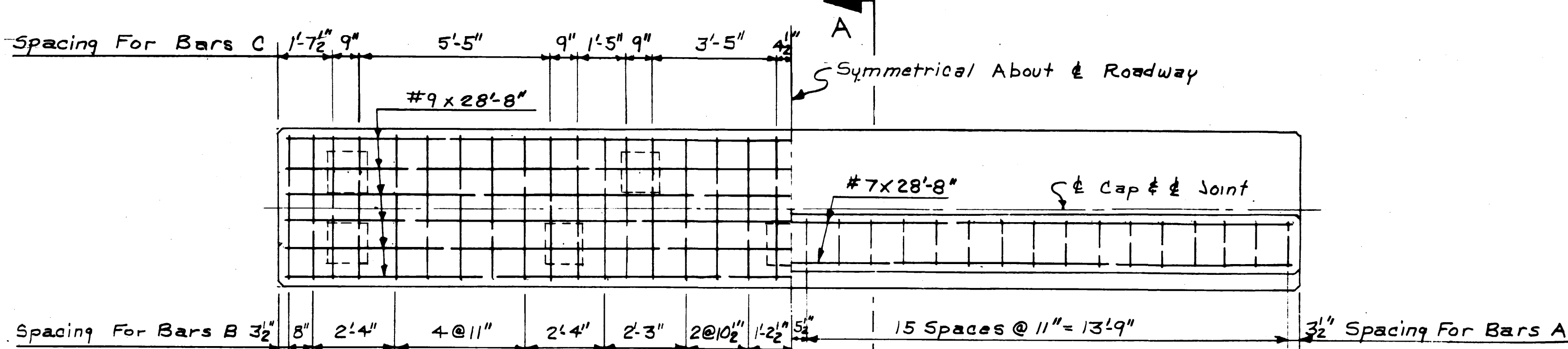
HALF PLAN OF CAP
Showing Concrete Dimensions & Anchor Bolt Spacing



SPAN CONNECTION DETAIL

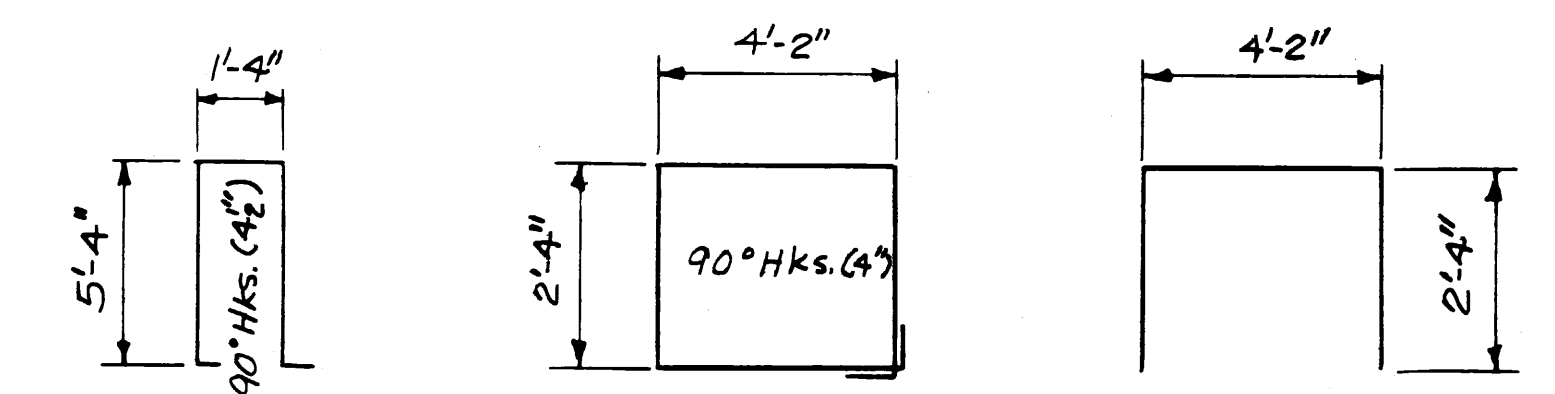


SECTION A-A



HALF PLAN OF CAP
Showing Reinforcing In Top Of Cap

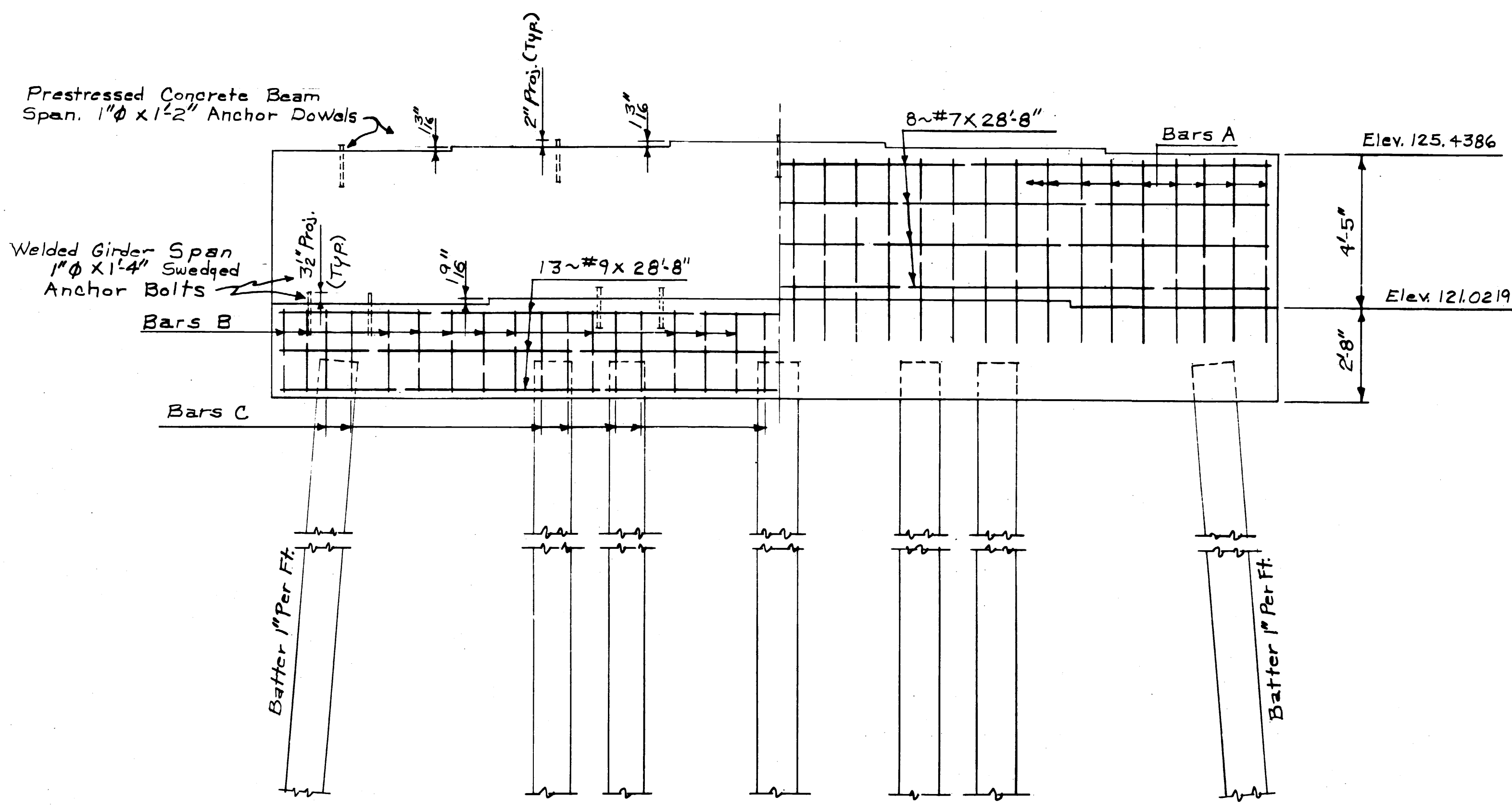
HALF PLAN OF CAP
Showing Reinforcing In Top Of Riser



BARS A ~ #6 BARS B ~ #5 BARS C ~ #5

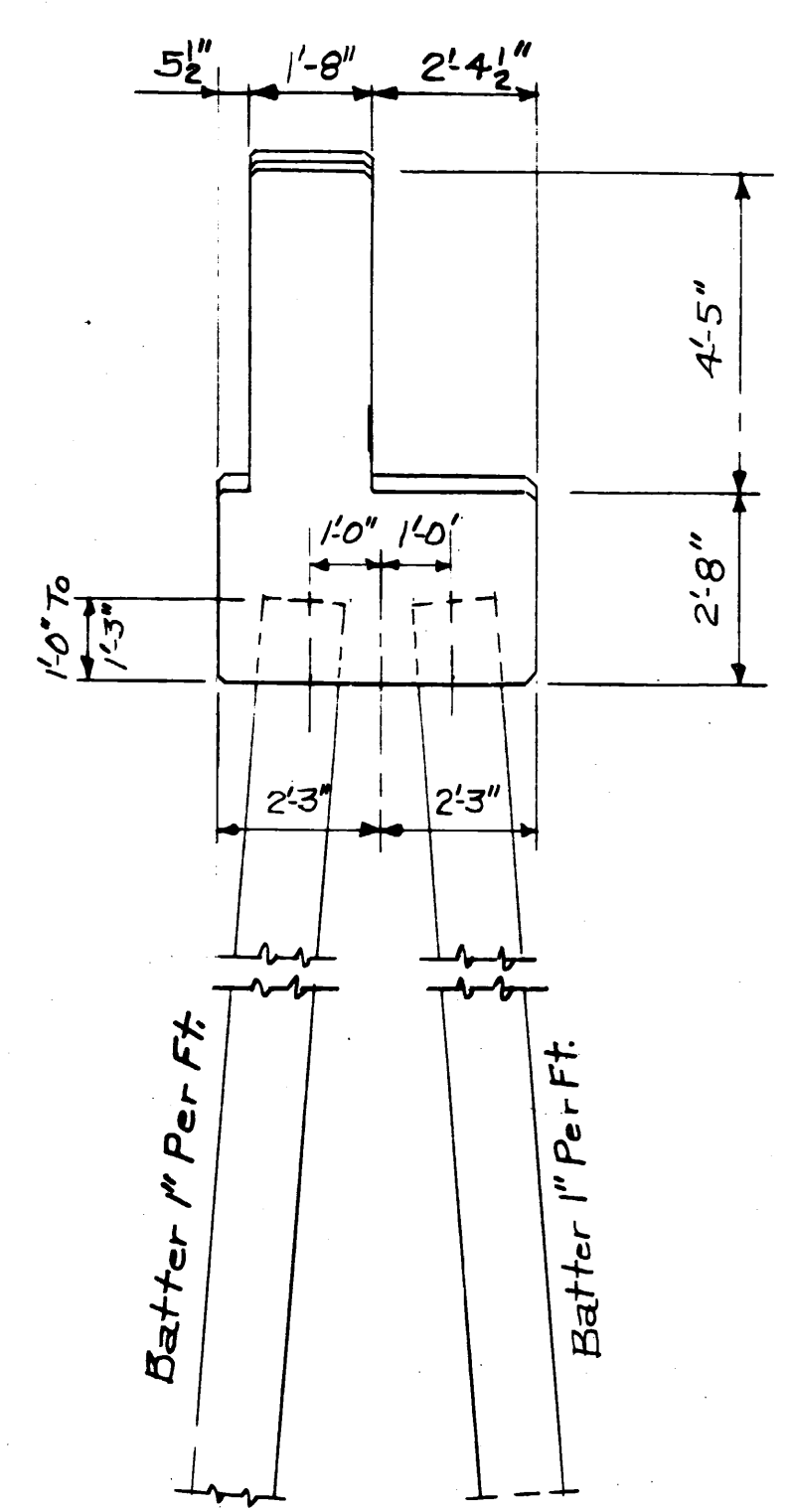
BAR BENDING DETAILS

Dimensions Are Out To Out



ELEVATION

14" x 14" Prestressed Piles Per Drawing No. CP-20R Shall Be Driven To A Minimum Bearing Capacity Of 4.5 Tons.



END ELEVATION

GENERAL NOTES:~

Concrete In Cap & Riser Shall Be Class "B"
All Edges Shall Be Chamfered 3/4"

FOR INFORMATION ONLY

MISSISSIPPI STATE HIGHWAY DEPARTMENT BRIDGE AT STA. 214 + 80 DOUBLE PILE BENT NO. 4 PROJECT FH-S-39-101/S-0221(C)A GREENE COUNTY SUBMITTED BY: _____ BRIDGE ENGINEER			
DESIGNED: D.E.B. CHECKED: W.B.L.	DETAILED: J.A.S. ISSUED: W.B.L.	TRACED: R.T. DATE: 7-29-66	SHEET NUMBER 8020