

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

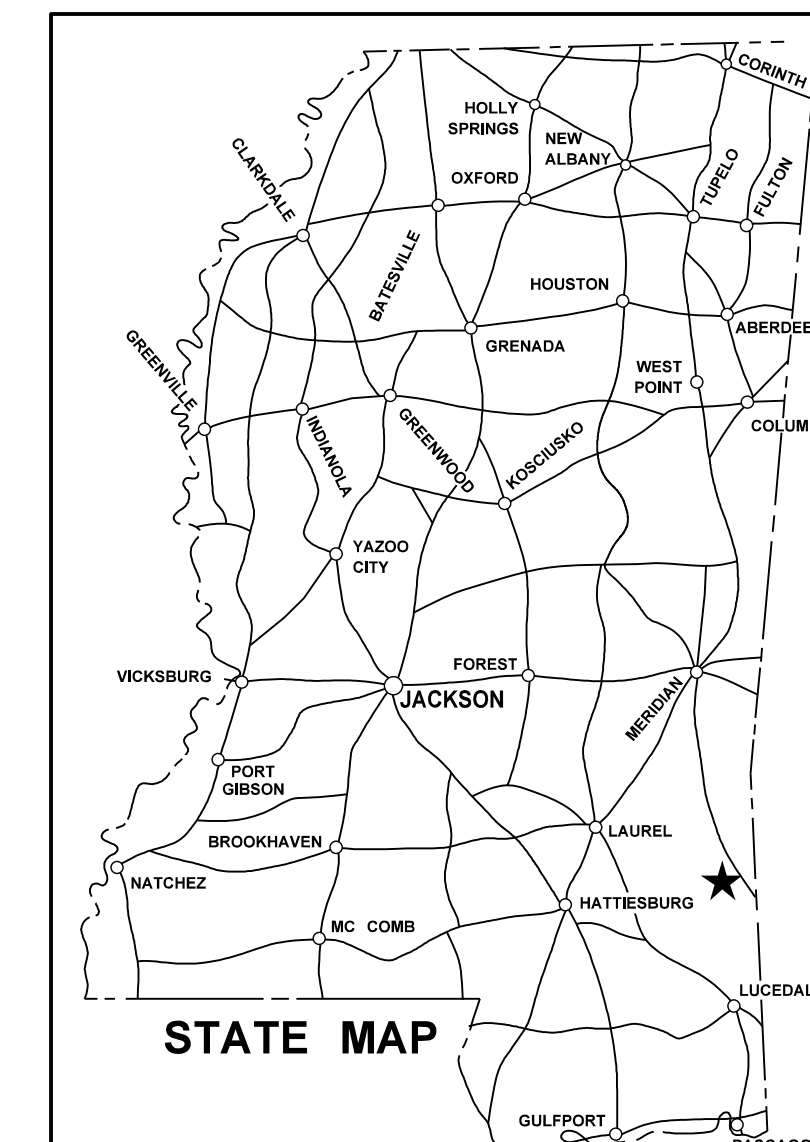
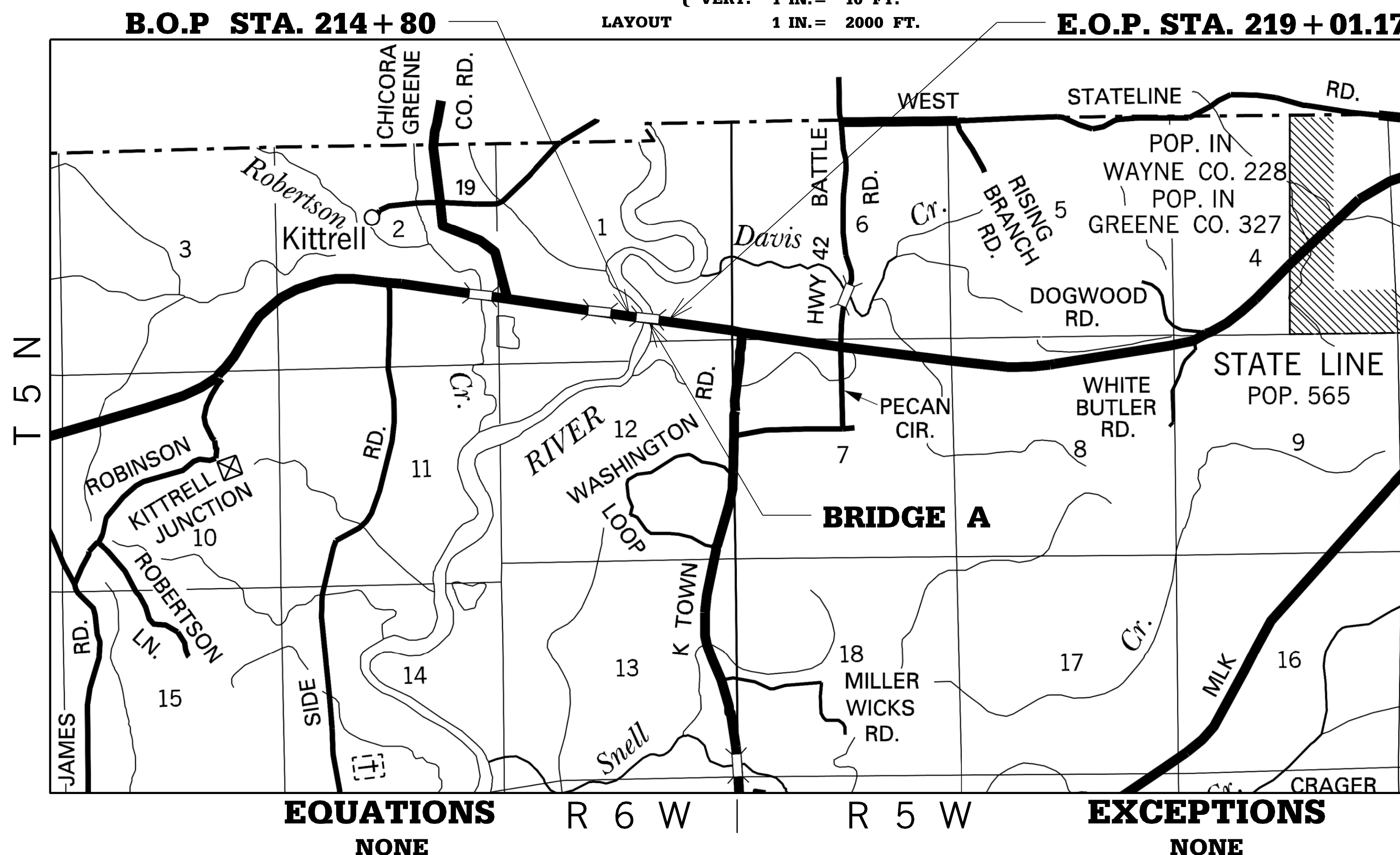
SCALES

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

BRIDGE STRUCTURES REQ'D.

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

BOX BRIDGES REQ'D.
NONE



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

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



P S & E DATE: _____

APPROVED: _____

DEPUTY EXECUTIVE DIRECTOR / CHIEF ENGINEER

EXECUTIVE DIRECTOR

MDOT
MISSISSIPPI DEPARTMENT OF TRANSPORTATION

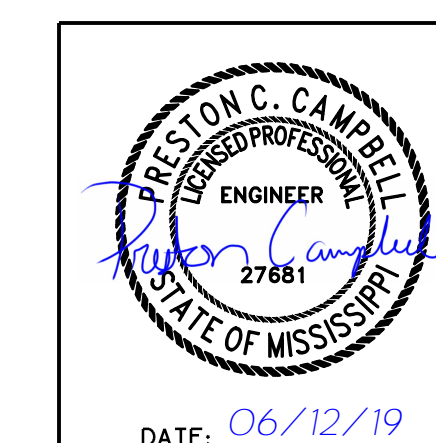
1st O.REV.

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

3:16:35 PM 6/12/2019 L:\2019\19T05006 - MDOT SR 42 Chickasawhay Repair Drawings\SR42-S001-QT.dgn



DATE	DESIGNER	Amanda Blankenship	CHECKER	Preston Campbell	WORKING NUMBER
	DETAILER	Amanda Blankenship	ISSUE DATE		
	MISSISSIPPI DEPARTMENT OF TRANSPORTATION BRIDGE @ STA. 214+80.00 DETAILED INDEX PROJECT 106793/302000 ER-0063-04(010) GREENE COUNTY				SHEET NUMBER
	DIRECTOR OF STRUCTURES, STATE BRIDGE ENGINEER - JUSTIN WALKER PE. DEP. DIR. OF STRUCTURES, ASSIST. STATE BRIDGE ENGINEER - SCOTT WESTERFIELD PE.				8001

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

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. Trial 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. 102.0 (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 115 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)/5-0221(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+30	40' Ft. Lt. of E. SR 42	60	115	-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.
3/8" 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. 50WT. Impact testing for all plate girder components shall meet the requirements of Zone 1 for fracture critical, T, material. Structural steel surfaces shall be cleaned in accordance with Section 814 of the Standard Specifications.

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)

SPECIAL PROVISIONS REQUIRED

Maturity Meters In Drilled Shafts.....No. 907-803
Self-Consolidating Concrete For Drilled Shafts.....No. 907-803

PAY ITEM CODE	DESCRIPTION	QUANTITIES	UNIT
202-B036	Removal of Bridge Piling	14	Each
620-A001	Mobilization	1	LS
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
803-0025	Temporary Casing, 78" Diameter	76	LF
804-A001	Bridge Concrete, Class "AA"	41.50	CY
805-A001	Reinforcement	1,617	LBS
810-A007	Structural Steel, A 709, Grade 50W	104,169	LBS
815-A007	Loose Riprap, Size 300 *	7,700	TON

* Estimated quantity shown is based on an assumed 6,600 square foot work platform at bent nos. 3 and 4 and does not include riprap required for access to work platform.

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:

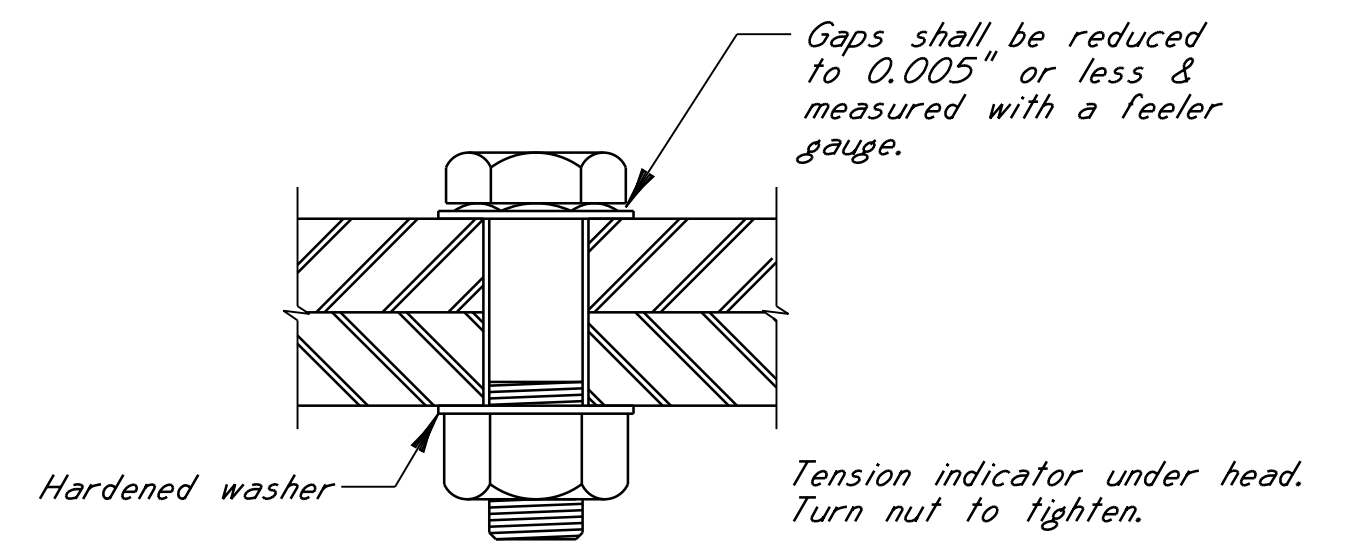
The Contractor shall be responsible for removing all drift build up at bent nos. 3 and 4. All cost associated with the removal of drift shall be absorbed.

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(006) 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:

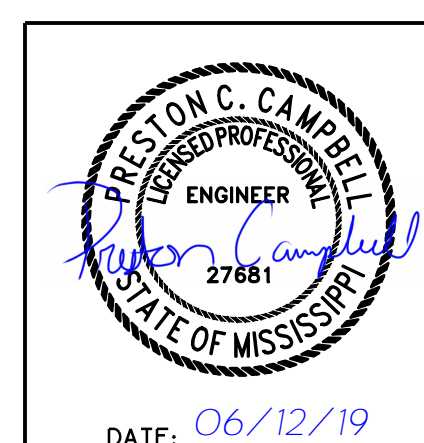
1. Prior to fabrication and construction, the Contractor shall field verify the dimensions of the existing structure. The Contractor shall be responsible for adjusting the elements of the new construction to ensure proper fit with the existing structure.
2. Prior to fabrication and construction, the 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 A325, 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: 06/12/19

PCC ADDED DRILLED SHAFT NOTE, REVISED INFORMATION PLAN SHEET NUMBERS, REVISED TRIAL SHAFT LOCATION, ADDED BOLT DIAMETERS TO NOTE	BY REVISIONS	MISSISSIPPI DEPARTMENT OF TRANSPORTATION BRIDGE @ STA. 214+80.00		WORKING NUMBER 1 of 16
		SR 42 ACROSS CHICKASAWHAY RIVER BRIDGE REPAIR		
PROJECT 106793/302000 ER-0063-04(010)		GREENE COUNTY		SHEET NUMBER 8002
DESIGNER - Amanda Blankenship DETAILER - Amanda Blankenship		CHECKER - Preston Campbell ISSUE DATE		
DATE 6/12/19		DIRECTOR OF STRUCTURES, STATE BRIDGE ENGINEER - JUSTIN WALKER PE. DEP. DIR. OF STRUCTURES, ASSIST. STATE BRIDGE ENGINEER - SCOTT WESTERFIELD PE.		