

GENERAL NOTES

ASSUMED LIVE LOAD = AREMA E80 W/FULL DIESEL IMPACT OR ALTERNATE LOADING.

THIS BRIDGE HAS BEEN DESIGNED IN ACCORDANCE WITH THE REQUIREMENTS OF THE CURRENT EDITION OF AREMA'S MANUAL FOR RAILWAY ENGINEERING, "VOL. 2 STRUCTURES" AND CSX TRANSPORTATION'S "UNDERGRADE BRIDGE CRITERIA INCLUDING BALLAST DECK" AND THE STRUCTURE SPECIAL PROVISIONS.

THIS BRIDGE HAS BEEN DESIGNED IN ACCORDANCE WITH SEISMIC PERFORMANCE CATEGORY A REQUIREMENTS OF THE AASHTO "STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES", AND CHAPTER NINE "SEISMIC DESIGN FOR RAILWAY STRUCTURES" OF THE CURRENT EDITION OF AREMA'S MANUAL FOR RAILWAY ENGINEERING, "VOL. 2 STRUCTURES".

WELDING SHALL BE IN ACCORDANCE WITH THE AMERICAN WELDING SOCIETY (AWS) BRIDGE WELDING CODE D1.5 AS AMENDED AND COMPLEMENTED BY THE AREMA MANUAL.

FOR OTHER DESIGN DATA AND GENERAL NOTES, SEE SHEET SN.

FOR SUBMITTAL OF WORKING DRAWINGS, SEE SPECIAL PROVISIONS.

FOR FALSEWORK AND FORMWORK, SEE SPECIAL PROVISIONS.

FOR CRANE SAFETY, SEE SPECIAL PROVISIONS.

FOR GROUT FOR STRUCTURES, SEE SPECIAL PROVISIONS.

REINFORCING STEEL SHALL BE DEFORMED BILLET STEEL CONFORMING TO ASTM DESIGNATION A615, GRADE 60. ALL DIMENSIONS RELATING TO BAR SPACING ARE TO BAR CENTERS UNLESS NOTED. FABRICATION TO BE IN ACCORDANCE WITH THE "MANUAL OF STANDARD PRACTICE", A.C.I. 315-80.

WATERPROOFING: ALL CONSTRUCTION JOINTS AND ANY VISIBLE SHRINKAGE CRACKS WHICH WILL BE COVERED BY FILL SHALL BE WATERPROOFED WITH A COLD LIQUID APPLIED ELASTOMERIC MEMBRANE. FOR WATERPROOFING, SEE SPECIAL PROVISIONS.

WATERPROOFING IS REQUIRED AT THE FOLLOWING LOCATIONS:

1. ALONG FULL LENGTH OF HORIZONTAL CONSTRUCTION JOINT AT TOP OF CAP WITH BACKWALL AT EACH ABUTMENT (FILL FACE OF BACKWALL AND WINGWALLS ONLY).
2. AT ANY CONCRETE SHRINKAGE CRACKS WHICH WILL BE COVERED BY FILL.

WATERPROOFING FOR LOCATIONS 1 AND 2 ABOVE SHALL BE 24" WIDE AND SHALL BE CENTERED OVER JOINTS OR CRACKS.

DAMP-PROOFING SHALL BE APPLIED TO THE FOLLOWING SURFACES REGARDLESS OF WHETHER OR NOT THE PLAN DETAILS SO INDICATE:

1. ON FILL FACE OF FOOTING AND BACKWALL AT EACH ABUTMENT.
2. ON FILL FACE OF ABUTMENT WINGWALLS FROM BOTTOM OF WINGWALL TO TOP OF BACKWALL ELEVATION AT EACH ABUTMENT.

THE CONTRACTOR SHALL PROVIDE INDEPENDENT ASSURANCE SAMPLES OF REINFORCING STEEL AS FOLLOWS: FOR PROJECTS REQUIRING UP TO 400 TONS OF REINFORCING STEEL, ONE 30 INCH SAMPLE OF EACH SIZE BAR USED, AND FOR PROJECTS REQUIRING OVER 400 TONS OF REINFORCING STEEL, TWO 30 INCH SAMPLES OF EACH SIZE BAR USED. THE BARS FROM WHICH THE SAMPLES ARE TAKEN MUST THEN BE SPICED WITH REPLACEMENT BARS OF THE SIZE AND LENGTH OF THE SAMPLE, PLUS A MINIMUM LAP SPlice OF THIRTY BAR DIAMETERS. PAYMENT FOR THE SAMPLES OF REINFORCING STEEL SHALL BE CONSIDERED INCIDENTAL TO VARIOUS PAY ITEMS.

THIS STRUCTURE HAS BEEN DESIGNED IN ACCORDANCE WITH "HEC 18- EVALUATING SCOUR AT BRIDGES."

FOR REINFORCING, CONCRETE AND DAMPPROOFING, SEE "CAST-IN-PLACE CONCRETE" SPECIAL PROVISIONS.

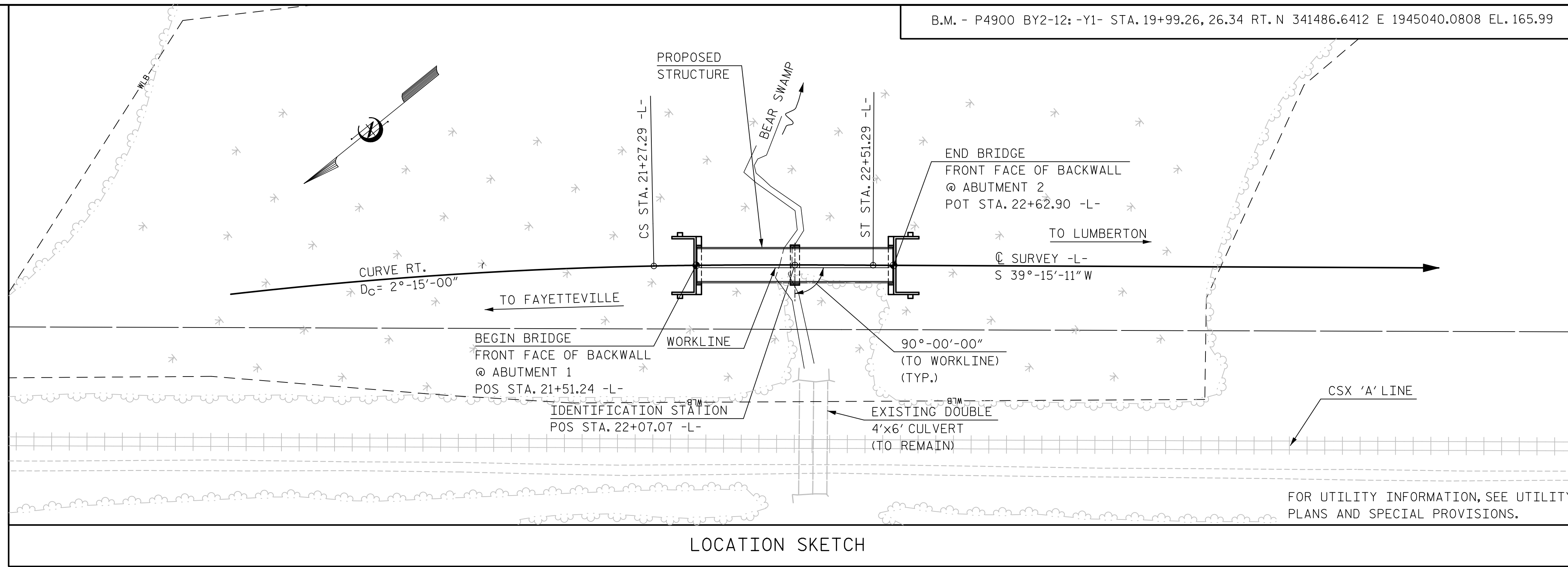
THE SCOUR CRITICAL ELEVATION FOR PIER NO. 1 IS ELEVATION 145.5 FEET. SCOUR CRITICAL ELEVATIONS ARE USED TO MONITOR POSSIBLE SCOUR PROBLEMS DURING THE LIFE OF THE STRUCTURE.

FOR INTERIOR PIER NO. 1, ONLY PARTIAL GALVANIZING OF THE PILES IS REQUIRED. SEE PIER 1 SHEET(S) FOR REQUIRED GALVANIZED LENGTHS. PAYMENT FOR PARTIALLY GALVANIZED PILES WILL BE MADE UNDER THE CONTRACT UNIT PRICE FOR GALVANIZED STEEL PILES.

ONLY ITEMS IN THE PROPOSAL AS PAY ITEMS WILL BE PAID FOR. COMPENSATION FOR ALL LABOR, MATERIALS, TOOLS, EQUIPMENT, AND INCIDENTALS FOR THE ENTIRE CONTRACT SHALL BE INCLUDED IN THE PRICE BID FOR PAY ITEMS.

CONTROL OF WORK: ALL WORK INVOLVED IN THE CONSTRUCTION OF THE RAILROAD STRUCTURE SHALL BE PERFORMED TO THE SATISFACTION OF THE ENGINEER AND/OR CSX TRANSPORTATION. ALL METHODS OF HANDLING WORK AFFECTING THE SAFETY OF RAIL OPERATIONS MUST BE APPROVED BY THE RAILWAY ENGINEER BEFORE PROCEEDING WITH THAT PORTION OF THE WORK. RAIL TRAFFIC SHALL, AT ALL TIMES, BE MAINTAINED AND PROTECTED. THE CONTRACTOR SHALL NOT AT ANY TIME DELAY OR INTERFERE WITH RAIL OPERATIONS.

ALL CONSTRUCTION JOINTS SHOWN ON THESE PLANS SHALL BE REQUIRED UNLESS SHOWN AS OPTIONAL. CONSTRUCTION JOINTS SHALL NOT BE PERMITTED EXCEPT AS SHOWN ON THESE PLANS, OR WHERE WRITTEN APPROVAL HAS BEEN OBTAINED.



TOTAL BILL OF MATERIAL

	PDA TESTING	CAST-IN-PLACE CONCRETE (4,000 PSI)	REINFORCING STEEL	HP 12 x 53 STEEL PILES		PP 18 x 0.50 GALVANIZED STEEL PILES		STEEL PILE POINTS	PIPE PILE PLATES	PILE REDRIVES	CONCRETE BALLAST CURB	RIP RAP CLASS II (2'-0" THICK)	GEOTEXTILE FOR DRAINAGE	ELASTOMERIC BEARINGS	4'-0" x 4'-6" PRESTRESSED CONCRETE BOX BEAMS		STEEL HANDRAIL
				NO.	L.F.	NO.	L.F.								EACH	EACH	
SUPERSTRUCTURE	---	---	---	---	---	---	---	---	---	---	222.6	---	---	LUMP SUM	10	556.5	222.8
ABUTMENT 1	---	36.8	5,713	10	650	---	---	10	---	10	---	281	312	---	---	---	38.2
PIER 1	---	16.5	4,784	---	---	8	520	---	8	8	---	---	---	---	---	---	---
ABUTMENT 2	---	37.4	5,739	10	650	---	---	10	---	10	---	342	379	---	---	---	39.2
TOTAL	3	90.7	16,236	20	1,300	8	520	20	8	28	222.6	623	691	LUMP SUM	10	556.5	300.2

FOR STEEL HANDRAIL, SEE SPECIAL PROVISIONS.

FOR EROSION CONTROL MEASURES, SEE EROSION CONTROL PLANS.

FOR BACKFILL BEHIND ABUTMENTS AND OTHER BACKFILL AROUND THE STRUCTURE, SEE SPECIAL PROVISION "BACKFILLING AROUND STRUCTURES".

FOR WATERSTOPS, SEE SPECIAL PROVISIONS.

FOR RAILROAD TRACKWORK, SEE RAILROAD TRACKWORK PLANS.

FOR CONCRETE BALLAST CURB, SEE SPECIAL PROVISIONS.

FOR WATERPROOFING, SEE SPECIAL PROVISIONS.

METAL DRAINS BEHIND ABUTMENTS SHALL BE AS SHOWN ON THE PLANS OR IN THE SPECIAL PROVISIONS. DETAILS OF THE DRAINAGE SYSTEM SHALL BE SUBMITTED FOR REVIEW.

FOR FOUNDATION NOTES, SEE "FOUNDATION LAYOUT" SHEET.

FOR 4'-0" x 4'-6" PRESTRESSED CONCRETE BOX BEAM, SEE SPECIAL PROVISIONS.

ALL MATERIALS AND WORKMANSHIP SHALL BE IN ACCORDANCE WITH "STANDARD SPECIFICATIONS FOR ROADS AND STRUCTURES", JANUARY 2012, NORTH CAROLINA DEPARTMENT OF TRANSPORTATION (HEREIN CALLED STANDARD SPECIFICATIONS, EXCEPT AS NOTED HEREIN, ELSEWHERE ON THE PLANS, OR IN THE SPECIAL PROVISIONS.

THIS BRIDGE SHALL BE CONSTRUCTED USING TOP-DOWN CONSTRUCTION METHODS. THE USE OF A TEMPORARY CAUSWAY OR WORK BRIDGE IS NOT PERMITTED.

TOTAL BILL OF MATERIAL

	STRUCTURE DRAINAGE SYSTEM AT STATION 22+07.07 -L-	DAMP-PROOFING	WATERPROOFING
SUPERSTRUCTURE	LUMP SUM	---	---
ABUTMENT 1	---	46.6	12.3
PIER 1	---	---	---
ABUTMENT 2	---	47.6	12.5
TOTAL	LUMP SUM	94.2	24.8

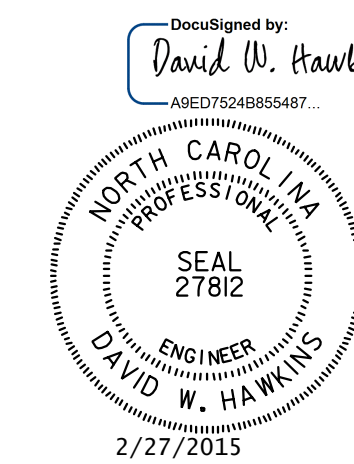
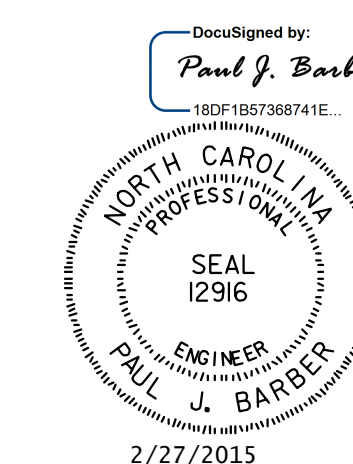
PROJECT NO. P-4900A

ROBESON COUNTY

STATION: POS 22+07.07 -L-

MILE POST: 0.23

SHEET 3 OF 3



STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH

GENERAL DRAWING

LOCATION SKETCH,
TOTAL BILL OF MATERIAL
AND GENERAL NOTES

HNTB HNTB NORTH CAROLINA, P.C. License No. C-1554 343 E. Six Forks Rd., Suite 200, Raleigh, N.C. 27609						REVISIONS						SHEET NO. S-3	
DRAWN BY <u>M. WRIGHT</u>		DATE <u>7/14</u>		DWG. NO. <u>3</u>		NO. <u>1</u>	BY:	DATE:	NO. <u>3</u>	BY:	DATE:	TOTAL SHEETS 54	
CHECKED BY <u>D. RAGAN</u>		DATE <u>1/15</u>				NO. <u>2</u>			NO. <u>4</u>				