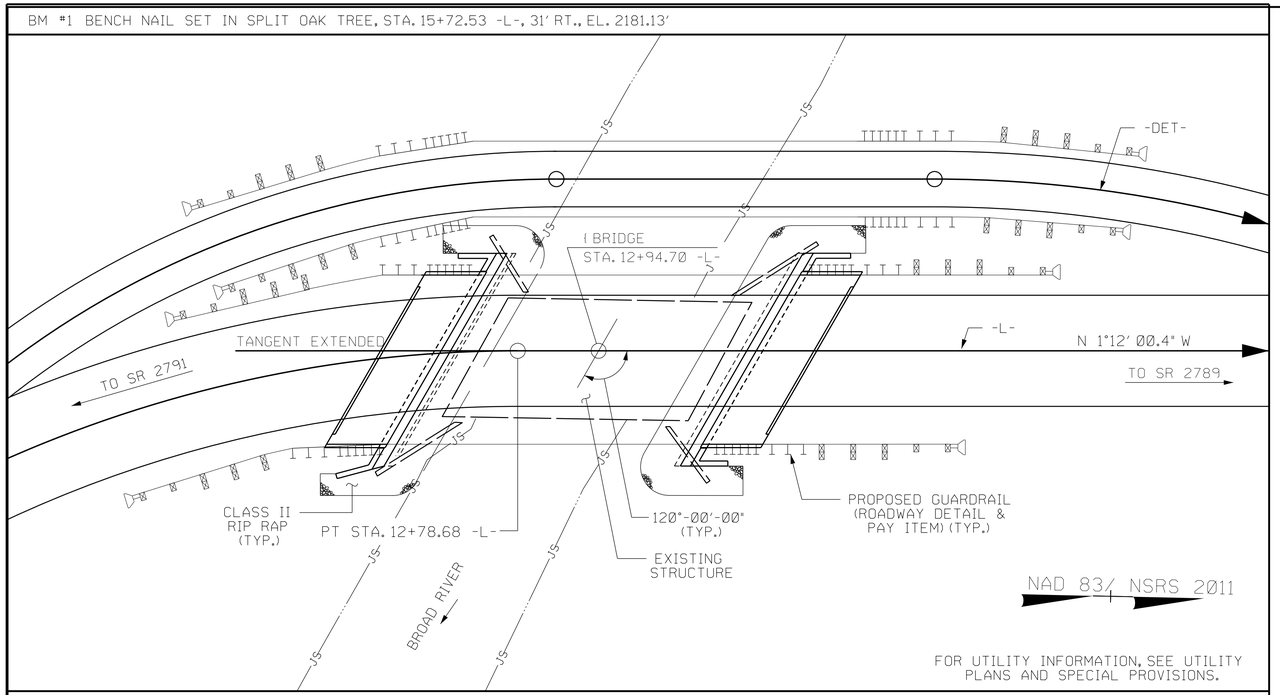

LOCATION SKETCH

HYDRAULIC DATA:

DESIGN DISCHARGE	= 2560 CFS
FREQUENCY OF DESIGN FLOOD	= 50 YEAR
DESIGN HIGH WATER ELEVATION	= 2184.2 FT
DRAINAGE AREA	= 10.3 SQ. MI.
BASE DISCHARGE (Q 100)	= 3030 CFS
BASE HIGH WATER ELEVATION	= 2186.2 FT

OVERTOPPING FLOOD DATA:

OVERTOPPING DISCHARGE	= 4700 CFS
FREQUENCY OF OVERTOPPING FLOOD	= 500+ YEAR
OVERTOPPING FLOOD ELEVATION	= 2188.3 * *

* * OVERTOPPING OCCURS AT ROADWAY SAG AT STA. 12+23.3 -L-

GENERAL NOTES

ASSUMED LIVE LOAD = HL-93 OR ALTERNATE LOADING.

THIS BRIDGE HAS BEEN DESIGNED IN ACCORDANCE WITH THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS.

THIS BRIDGE IS LOCATED IN SEISMIC ZONE 1.

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

FOR EROSION CONTROL MEASURES, SEE EROSION CONTROL PLANS.

THE EXISTING STRUCTURE CONSISTING OF 1 SPAN @ 42'-10" REINFORCED CONCRETE GIRDERS ON REINFORCED CONCRETE ABUTMENTS WITH A CLEAR ROADWAY WIDTH OF 20'-2" LOCATED AT THE PROPOSED STRUCTURE SITE SHALL BE REMOVED. THE EXISTING BRIDGE IS PRESENTLY NOT POSTED FOR LOAD LIMIT. SHOULD THE STRUCTURAL INTEGRITY OF THE BRIDGE DETERIORATE DURING CONSTRUCTION OF THE PROPOSED BRIDGE, A LOAD LIMIT MAY BE POSTED AND MAY BE REDUCED AS FOUND NECESSARY DURING THE LIFE OF THE PROJECT.

REMOVAL OF THE EXISTING BRIDGE SHALL BE PREFORMED SO AS NOT TO ALLOW DEBRIS TO FALL INTO THE WATER. THE CONTRACTOR SHALL REMOVE THE BRIDGE AND SUBMIT PLANS FOR DEMOLITION IN ACCORDANCE EITH ARTICLE 402-2 OF THE STANDARD SPECIFICATIONS.

THE STRUCTURE OF THE EXISTING BRIDGE INDICATED ON THE PLANS IS FROM THE BEST INFORMATION AVAILABLE, SINCE THIS INFORMATION IS SHOWN FOR THE CONVENIENCE OF THE CONTRACTOR, THE CONTRACTOR SHALL HAVE NO CLAIM WHATSOEVER AGAINST THE DEPARTMENT OF TRANSPORTATION FOR ANY DELAYS OR ADDITIONAL COST INCURRED BASED ON DIFFERENCES BETWEEN THE EXISTING BRIDGE SUBSTRUCTURE SHOWN ON THE PLANS AND THE ACTUAL CONDITIONS AT THE PROJECT SITE.

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

FOR SUBMITAL OF WORKING DRAWINGS, SEE SPECIAL PROVISIONS.

FOR FALSEWORK AND FORMWORK, SEE SPECIAL PROVISIONS.

FOR CRANE SAFETY, SEE SPECIAL PROVISIONS.

FOR GROUT FOR STRUCURES, SEE SPECIAL PROVISIONS.

THE MATERIAL SHOWN IN THE CROSS-HATCHED AREA ON SHEET 1 SHALL BE EXCAVATED FOR A DISTANCE OF 25 FT. EACH SIDE OF CENTERLINE ROADWAY AS DIRECTED BY THE ENGINEER. THIS WORK WILL BE PAID FOR AT THE CONTRACT LUMP SUM PRICE FOR UNCLASSIFIED STRUCTURE EXCAVATION. SEE SECTION 412 OF THE STANDARD SPECIFICATIONS.

ASPHALT WEARING SURFACE IS INCLUDED IN ROADWAY QUANTITY ON ROADWAY PLANS.

FOR ASBESTOS ASSESSMENT FOR BRIDGE DEMOLITION AND RENOVATION ACTIVITIES, SEE SPECIAL PROVISIONS.

AT THE CONTRACTOR'S OPTION, PRESTRESSED CONCRETE END BENT CAPS MAY BE SUBSTITUTED IN PLACE OF THE CAST-IN-PLACE CAPS. THE CONTRACTOR SHALL COORDINATE WITH THE RESIDENT ENGINEER TO RECEIVE REVISED PLANS AND DETAILS FROM THE STRUCTURES MANAGEMENT UNIT. THE REDESIGN AND ANY ADDITIONAL MATERIALS NEEDED WILL BE AT NO ADDITIONAL COST TO THE CONTRACTOR.

ALL PAVEMENT MARKING WILL BE IN ACCORDANCE WITH THE PAVEMENT MARKING PLANS AND SHALL PROVIDE FOR BICYCLES.

THE CONTRACTOR WILL BE REQUIRED TO CONSTRUCT, MAINTAIN AND AFTERWARDS REMOVE A TEMPORARY STRUCTURE AT STATION 13+24 -DET- FOR USE DURING CONSTRUCTION OF THE PROPOSED STRUCTURE. FOR CONSTRUCTION, MAINTENANCE AND REMOVAL OF TEMPORARY STRUCTURE, SEE SPECIAL PROVISIONS.

FOR LIMITS OF TEMPORARY SHORING FOR MAINTENANCE OF TRAFFIC, SEE TRAFFIC CONTROL PLANS. FOR PAY ITEM FOR TEMPORARY SHORING FOR MAINTENANCE OF TRAFFIC, SEE ROADWAY PLANS.

FOUNDATION NOTES

FOR PILES, SEE SECTION 450 OF THE STANDARD SPECIFICATIONS.

PILES AT END BENT NO. 1 ARE DESIGNED FOR A FACTORED RESISTANCE OF 85 TONS PER PILE.

DRIVE PILES AT END BENT NO. 1 TO A REQUIRED DRIVING RESISTANCE OF 142 TONS PER PILE.

STEEL H-PILE POINTS ARE REQUIRED FOR STEEL H-PILES AT END BENT NO. 1. FOR STEEL PILE POINTS, SEE SECTION 450 OF THE STANDARD SPECIFICATIONS.

PREDRILLING FOR PILES MAY BE REQUIRED AT END BENT NO. 1. PREDRILL PILE LOCATIONS TO AN ELEVATION NO LOWER THAN 2174.0 FT WITH EQUIPMENT THAT WILL RESULT IN A MAXIMUM PREDRILLING DIAMETER OF 12". FOR PREDRILLING FOR PILES, SEE SECTION 450 OF THE STANDARD SPECIFICATIONS.

PILES AT END BENT NO. 2 ARE DESIGNED FOR A FACTORED RESISTANCE OF 85 TONS PER PILE.

DRIVE PILES AT END BENT NO. 2 TO A REQUIRED DRIVING RESISTANCE OF 142 TONS PER PILE.

STEEL H-PILE POINTS ARE REQUIRED FOR STEEL H-PILES AT END BENT NO. 2. FOR STEEL PILE POINTS, SEE SECTION 450 OF THE STANDARD SPECIFICATIONS.

PREDRILLING FOR PILES MAY BE REQUIRED AT END BENT NO. 2. PREDRILL PILE LOCATIONS TO AN ELEVATION NO LOWER THAN 2170.5 FT (LEFT) WITH EQUIPMENT THAT WILL RESULT IN A MAXIMUM PREDRILLING DIAMETER OF 12". FOR PREDRILLING FOR PILES, SEE SECTION 450 OF THE STANDARD SPECIFICATIONS.

TOTAL BILL OF MATERIAL

	CONSTRUCTION, MAINTENANCE AND REMOVAL OF TEMP. STRUCTURE AT STA 13+24 -DET-.	REMOVAL OF EXISTING STRUCTURE	ASBESTOS ASSESSMENT	UNCLASSIFIED STRUCTURE EXCAVATION	CLASS A CONCRETE	BRIDGE APPROACH SLABS	REINFORCING STEEL	PILE DRIVING EQUIPMENT SETUP FOR HP 12x53 STEEL PILES
	LUMP SUM	LUMP SUM	LUMP SUM	LUMP SUM	CU. YARDS	LUMP SUM	LBS.	EACH
SUPERSTRUCTURE						LUMP SUM		
END BENT 1				LUMP SUM	27.4		3239	7
END BENT 2				LUMP SUM	27.4		3235	7
TOTAL	LUMP SUM	LUMP SUM	LUMP SUM	LUMP SUM	54.8	LUMP SUM	6474	14

TOTAL BILL OF MATERIAL

	HP 12 X 53 STEEL PILES		PREDRILLING FOR PILES	STEEL PILE POINTS	2 BAR METAL RAIL	1'-2"x2'-9 1/2" CONCRETE PARAPET	RIP RAP CLASS II (2'-0" THICK)	GEOTEXTILE FOR DRAINAGE	ELASTOMERIC BEARINGS	3'-0" X 2'-0" PRESTRESSED CONCRETE CORED SLABS	
	NO.	LIN. FT	LIN. FT.	EACH	LIN. FT	LIN. FT.	TONS	SQ. YARDS	LUMP SUM	NO.	LIN. FT.
SUPERSTRUCTURE					113.16	130			LUMP SUM	12	780
END BENT 1	7	123	56	7			70	76			
END BENT 2	7	123	23	7			70	76			
TOTAL	14	246	79	14	113.16	130	140	152	LUMP SUM	12	780

PROJECT NO. BR-0009

BUNCOMBE COUNTY

STATION: 12+94.70 -L-

SHEET 2 OF 2

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH

GENERAL DRAWING

FOR BRIDGE ON NC 9
OVER BROAD RIVER
BETWEEN SR 2791 AND SR 2789

33'-6" CLEAR ROADWAY - 120° SKEW

REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	S-2
1			3			TOTAL SHEETS
2			4			18

PLANS PREPARED BY:
CAROLINA Transportation Engineering & Associates, PC
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Belmont, NC 28012
(980) 722-6065
www.carolina_TEA.com
License No. C-4307

1/15/2021
NORTH CAROLINA PROFESSIONAL SEAL 027292 ENGINEER DEREK C. STATON

DocuSigned by: Derek Staton

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

DRAWN BY : J.D. BAKER DATE : 01-20
CHECKED BY : D.C. STATON DATE : 01-20
DESIGN ENGINEER OF RECORD: DCS DATE : 8-19

12-JAN-2021 15:05
$$$$$$$$$$$$$$$$$$$$$$$$DGN$$$$$$$$$$$$$$$$$$$$$$$$
Jonathan AT JONATHAN-5590