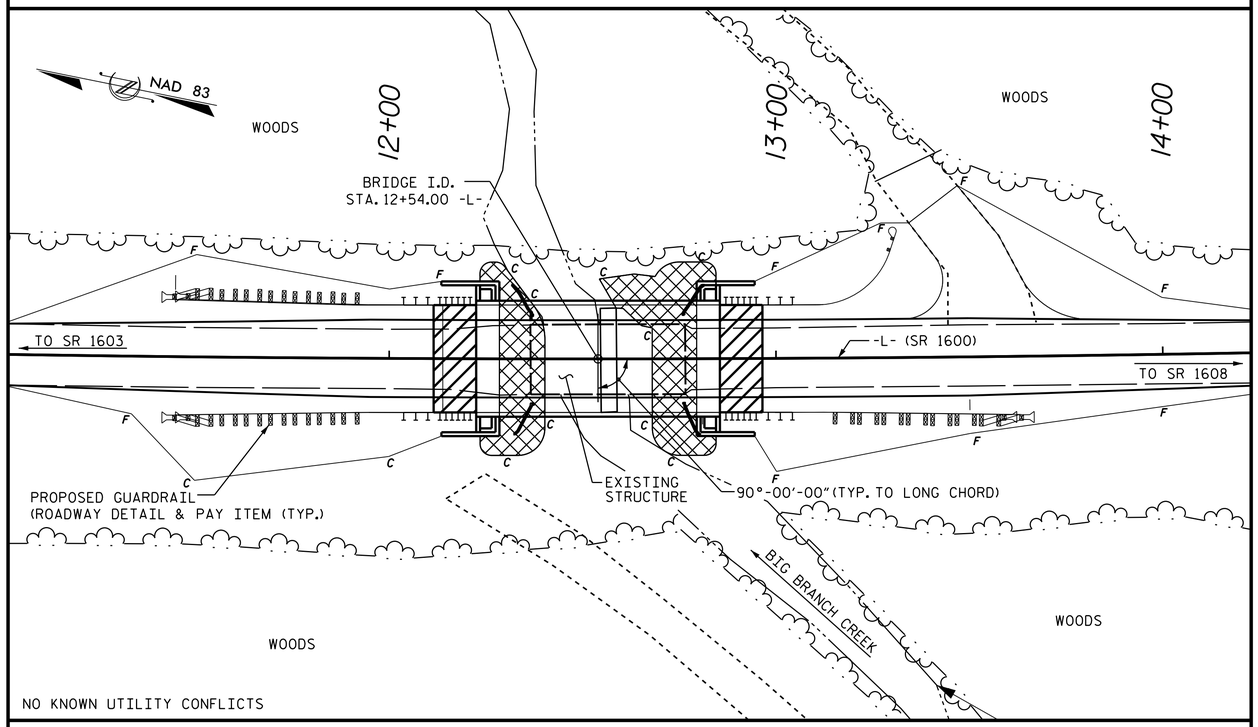
BM#1: MONUMENT BL-1 (N 508490.0317, E 1633843.2060) STA. 14+87.46 -L-, 13.00' RT



LOCATION SKETCH

HYDRAULIC DATA

DESIGN DISCHARGE	= 800 CFS
FREQUENCY OF DESIGN FLOOD	= 25 YR.
DESIGN HIGH WATER ELEVATION	= 296.2'
DRAINAGE AREA	= 1.9 SQ. MI.
BASE DISCHARGE (Q100)	= 1100 CFS
BASE HIGH WATER ELEVATION	= 296.99'

OVERTOPPING FLOOD DATA

OVERTOPPING DISCHARGE	= >1600 CFS
FREQUENCY OF OVERTOPPING FLOOD	= >500 YR.
OVERTOPPING FLOOD ELEVATION	= >301.5'

NOTES

ASSUMED LIVE LOAD = HL-93 OR ALTERNATE LOADING.

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

FOR EROSION CONTROL MEASURES, SEE EROSION CONTROL PLANS.

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

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

THE SUBSTRUCTURE 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 "HEC 18, EVALUATING SCOUR AT BRIDGES".

THE SCOUR CRITICAL ELEVATION FOR END BENTS NO. 1 AND 2 IS ELEVATION 292.5'. SCOUR CRITICAL ELEVATIONS ARE USED TO MONITOR POSSIBLE SCOUR PROBLEMS DURING THE LIFE OF THE STRUCTURE.

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 SPLICED 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.

INASMUCH AS THE PAINT SYSTEM ON THE EXISTING STRUCTURAL STEEL CONTAINS LEAD, THE CONTRACTOR'S ATTENTION IS DIRECTED TO ARTICLE 107-1 OF THE STANDARD SPECIFICATIONS. ANY COSTS RESULTING FROM COMPLIANCE WITH APPLICABLE STATE OR FEDERAL REGULATIONS PERTAINING TO HANDLING OF MATERIALS CONTAINING LEAD BASED PAINT SHALL BE INCLUDED IN THE BID PRICE FOR "REMOVAL OF EXISTING STRUCTURE".

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.

THIS BRIDGE IS LOCATED IN SEISMIC ZONE 1.

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

THE EXISTING STRUCTURE CONSISTING OF 2 SPANS (1 SPAN @ 20'-0", 1 SPAN @ 20'-7") FOR A TOTAL LENGTH OF 40'-7"; CLEAR ROADWAY WIDTH OF 18'-1" WITH A TIMBER DECK ON W21x62 I-BEAMS AT 2'-10" CENTERS; SUBSTRUCTURE CONSISTING OF END BENTS WITH TIMBER CAPS ON TIMBER PILES AT VARIABLE CENTERS AND AN INTERIOR CRUTCH BENT WITH STEEL CAPS AND CROSS CAPS ON STEEL POSTS AND LOCATED AT PROPOSED STRUCTURE SHALL BE REMOVED. THE EXISTING BRIDGE IS PRESENTLY POSTED BELOW THE LEGAL LOAD LIMIT. SHOULD THE STRUCTURAL INTEGRITY OF THE BRIDGE FURTHER DETERIORATE DURING CONSTRUCTION OF THE PROPOSED BRIDGE, THIS LOAD LIMITATION MAY BE REDUCED AS FOUND NECESSARY DURING THE LIFE OF THE PROJECT. FOR REMOVAL OF EXISTING STRUCTURE, SEE SPECIAL PROVISIONS.

THE MATERIAL SHOWN IN THE CROSS-HATCHED AREA SHALL BE EXCAVATED FOR A DISTANCE OF 25.0 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.

THE ADDITIONAL AREA OF MATERIAL TO BE EXCAVATED FOR THE REINFORCED SOIL FOUNDATION WILL BE PAID FOR AT THE CONTRACT UNIT PRICE FOR REINFORCED SOIL FOUNDATIONS. SEE GEOSYNTHETIC REINFORCED SOIL WALLS PROVISION.

SEE RIP RAP SHEET FOR GEOTEXTILE FOR DRAINAGE PAY ITEM. FOR ALL OTHER GEOSYNTHETICS REQUIRED, SEE GEOSYNTHETIC REINFORCED SOIL WALLS SPECIAL PROVISION.

FOR GRS RETAINING WALLS, BRIDGE APPROACH FILL FOR GRS ABUTMENT, AND REINFORCED SOIL FOUNDATION, SEE GEOSYNTHETIC REINFORCED SOIL WALLS SPECIAL PROVISION.

FOR PLACING LOAD ON STRUCTURE MEMBERS, SEE SPECIAL PROVISIONS.

PROJECT NO. B-5935

ANSON COUNTY

STATION: 12+54.00 -L-

SHEET 3 OF 3 REPLACES BRIDGE NO. 201

TOTAL BILL OF MATERIAL

	REMOVAL OF EXISTING STRUCTURE	UNCLASSIFIED STRUCTURE EXCAVATION	CLASS A CONCRETE	BRIDGE APPROACH SLABS	REINFORCING STEEL	VERTICAL CONCRETE BARRIER RAIL	RIP RAP CLASS II	GEOTEXTILE FOR DRAINAGE	ELASTOMERIC BEARINGS	3'-0" x 2'-0" PRESTRESSED CONCRETE CORED SLABS		REINFORCED SOIL FOUNDATION
	LUMP SUM	LUMP SUM	CU. YDS.	LUMP SUM	LBS.	LIN. FT.	TONS	SQ. YDS.	LUMP SUM	NO.	LIN. FT.	CU. YDS.
SUPERSTRUCTURE				LUMP SUM		120.00			LUMP SUM	10	600.00	
END BENT NO. 1		LUMP SUM	9.3		1875		120	60				105
END BENT NO. 2		LUMP SUM	9.3		1875		120	70				80
TOTAL	LUMP SUM	LUMP SUM	18.6	LUMP SUM	3750	120.00	240	130	LUMP SUM	10	600.00	185

NORTH CAROLINA PROFESSIONAL SEAL 033139 ENGINEER TODD M. GARRISON

DocuSigned by:
61EAF7523943466...
8/3/2015

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH

GENERAL DRAWING
FOR BRIDGE OVER
BIG BRANCH CREEK
ON SR-1600 BETWEEN
SR-1603 AND SR-1608

REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	S-3
1			3			TOTAL SHEETS
2			4			17

DRAWN BY : E. K. POPE, P.E. DATE : 2/15
CHECKED BY : T. M. GARRISON, P.E. DATE : 2/15
DESIGN ENGINEER OF RECORD: T.M.GARRISON, P.E. DATE : 2/15

17-JUL-2015 10:30
S:\DEV\Squad_D\Anson Co Bridge (17BP_10_R_55)\B5935\Final Plans dgn\B5935_SMU_GD.dgn
tgarrison