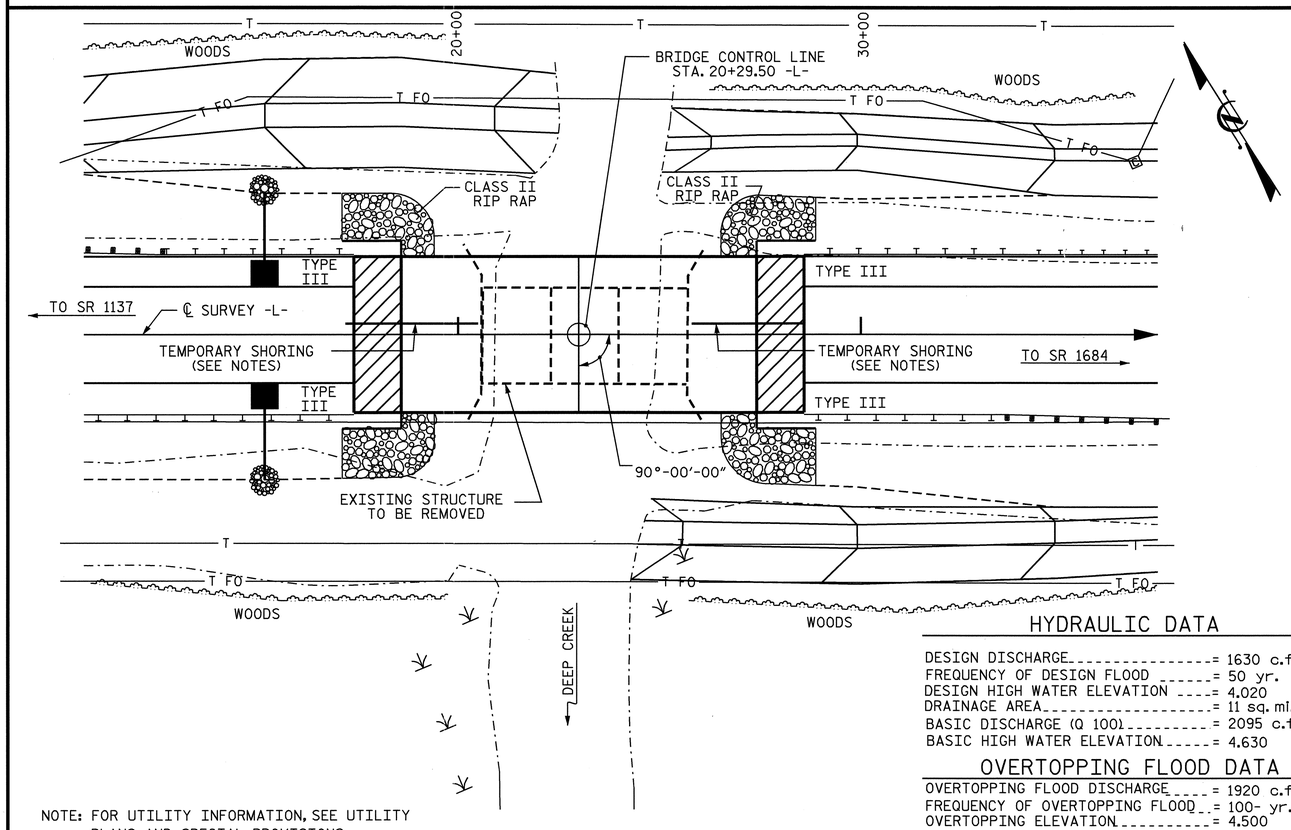
BENCH MARK : BM1, RAILROAD SPIKE IN 24"PINE TREE; -BL- STA. 6+78.88 ELEVATION 5.940



NOTE: FOR UTILITY INFORMATION, SEE UTILITY PLANS AND SPECIAL PROVISIONS.

HYDRAULIC DATA

DESIGN DISCHARGE	= 1630 c.f.s.
FREQUENCY OF DESIGN FLOOD	= 50 yr.
DESIGN HIGH WATER ELEVATION	= 4.020
DRAINAGE AREA	= 11 sq. mi.
BASIC DISCHARGE (Q 100)	= 2095 c.f.s.
BASIC HIGH WATER ELEVATION	= 4.630

OVERTOPPING FLOOD DATA

OVERTOPPING FLOOD DISCHARGE	= 1920 c.f.s.
FREQUENCY OF OVERTOPPING FLOOD	= 100- yr.
OVERTOPPING ELEVATION	= 4.500

LOCATION SKETCH

NOTES

ASSUMED LIVE LOAD = HS 20 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 BY THE STRENGTH DESIGN METHOD AS SPECIFIED IN AASHTO STANDARD SPECIFICATIONS.

THIS STRUCTURE HAS BEEN DESIGNED IN ACCORDANCE WITH HEC 18,"EVALUATING SCOUR AT BRIDGES", NOVEMBER, 1995.

THIS BRIDGE HAS BEEN DESIGNED IN ACCORDANCE WITH THE REQUIREMENTS OF THE STANDARD SPECIFICATIONS FOR SEISMIC DESIGN OF HIGHWAY BRIDGES FOR SEISMIC PERFORMANCE CATEGORY A.

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. FOR UNCLASSIFIED STRUCTURE EXCAVATION, SEE SPECIAL PROVISIONS.

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.

AFTER SERVING AS A TEMPORARY STRUCTURE, THE EXISTING STRUCTURE CONSISTING OF 3 SPANS (1 @ 17.9', 1 @ 17.2', AND 1 @ 17.7') WITH A CLEAR ROADWAY WIDTH OF 24.0' AND HAVING A REINFORCED CONCRETE DECK COVERED WITH 1"ASPHALT ON TIMBER JOISTS AND A TIMBER CAP SUPPORTED BY A SUBSTRUCTURE CONSISTING OF TIMBER PILES SHALL BE REMOVED. THE EXISTING BRIDGE IS PRESENTLY POSTED BELOW THE LEGAL LOAD LIMIT. SHOULD THE STRUCTURAL INTEGRITY OF THE BRIDGE FURTHER DETERIORATE, THIS LOAD LIMITATION MAY BE REDUCED AS FOUND NECESSARY DURING THE LIFE OF THE PROJECT.

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 ARTICLE 402-2 OF THE STANDARD SPECIFICATIONS.

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.

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

FOR SUBMITTAL OF WORKING DRAWINGS, SEE SPECIAL PROVISIONS.

FOR FALSEWORK AND FORMWORK, SEE SPECIAL PROVISIONS.

FOR ADHESIVELY ANCHORED ANCHOR BOLTS AND DOWELS, SEE SPECIAL PROVISIONS.

FOR MECHANICAL BUTT SPLICING FOR REINFORCING STEEL, SEE SPECIAL PROVISIONS.

FOR STEEL PILE SPLICER, SEE SPECIAL PROVISIONS.

FOR STEEL PILE TIPS, SEE SPECIAL PROVISIONS.

SEE SPECIAL PROVISIONS FOR W 10x77 STEEL PILES.

CLASS AA CONCRETE SHALL BE USED IN ALL CAST-IN-PLACE BENT CAPS AND SHALL CONTAIN CALCIUM NITRITE CORROSION INHIBITOR. FOR CALCIUM NITRITE CORROSION INHIBITOR, SEE SPECIAL PROVISONS.

ALL BAR SUPPORTS USED IN THE BARRIER RAIL AND BENT CAPS AND ALL INCIDENTAL REINFORCING STEEL SHALL BE EPOXY COATED IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS.

THE CONCRETE IN THE BENT CAPS AND PILES OF BENT NO. 1 SHALL CONTAIN SILICA FUME. SILICA FUME SHALL BE SUBSTITUTED FOR 5% OF THE PORTLAND CEMENT BY WEIGHT. IF THE OPTION OF ARTICLE 1024-1 OF THE STANDARD SPECIFICATIONS TO PARTIALLY SUBSTITUTE CLASS F FLY ASH FOR PORTLAND CEMENT IS EXERCISED, THEN THE RATE OF FLY ASH SUBTITUTION SHALL BE REDUCED TO 1.0 LB OF FLY ASH PER 1.0 LB OF CEMENT. NO PAYMENT WILL BE MADE FOR THIS SUBSTITUTION AS IT IS CONSIDERED INCIDENTAL TO THE VARIOUS PAY ITEMS.

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.

PILES FOR END BENT NO. 1 AND END BENT NO. 2 SHALL BE DRIVEN TO A MINIMUM BEARING CAPACITY OF 50 TONS EACH.

PILES AT BENT NO. 1 SHALL BE DRIVEN TO A MINIMUM BEARING CAPACITY OF 60 TONS EACH.

WHEN DRIVING PILES, THE MAXIMUM BLOW COUNT SHALL NOT BE EXCEEDED.

THE SCOUR CRITICAL ELEVATION FOR BENT NO. 1 IS -20.0. THE SCOUR CRITICAL ELEVATIONS ARE FOR USE BY MAINTENANCE FORCES TO MONITOR POSSIBLE SCOUR PROBLEMS DURING THE LIFE OF THE STRUCTURE.

INSTALLATION OF PILE UTILIZING JETTING WILL NOT BE ALLOWED FOR BENT NO. 1.

THE CONCRETE SECTION OF PILES AT BENT NO. 1 SHALL BE DRIVEN TO AN ELEVATION NO HIGHER THAN -11.0. THE STEEL SECTION OF PILES AT BENT NO. 1 SHALL BE DRIVEN TO AN ELEVATION NO HIGHER THAN -30.0.

THE FIRST PRODUCTION 20"PRESTRESSED CONCRETE PILE WITH W 10x77 STEEL PILE AT BENT NO. 1 SHALL BE DRIVEN AS A DYNAMIC LOAD TEST PILE AS DIRECTED BY THE ENGINEER. SEE PILE DRIVING ANALYZER (PDA) SPECIAL PROVISION.

FOR PRESTRESSED CONCRETE MEMBERS, SEE SPECIAL PROVISIONS.

TOTAL BILL OF MATERIAL

	REMOVAL OF EXISTING STRUCTURE	UNCLASSIFIED STRUCTURE EXCAVATION	CLASS AA CONCRETE	BRIDGE APPROACH SLABS	EPOXY COATED REINFORCING STEEL	20" SQUARE PRESTRESSED CONCRETE PILES		HP 12 X 53 STEEL PILES		STEEL PILE TIPS	CONCRETE BARRIER RAIL	PLAIN RIP RAP CLASS II (2'-0" THICK)	FILTER FABRIC FOR DRAINAGE	ELASTOMERIC BEARINGS	3'-0" X 1'-9" PRESTRESSED CONCRETE CORED SLABS		W 10x77 STEEL PILES		DYNAMIC LOAD TEST
	LUMP SUM	LUMP SUM	CU. YDS.	LUMP SUM	LBS.	NO.	LIN.FT.	NO.	LIN.FT.	EACH	LIN.FT.	TONS	SQ. YDS.	LUMP SUM	NO.	LIN.FT.	NO.	LIN.FT.	EACH
SUPERSTRUCTURE				LUMP SUM							180.50			LUMP SUM	28	1260.00			
END BENT NO. 1			13.9		2459			9	270			106	118						
BENT NO. 1			17.8		2819	10	120			10							10	400	1
END BENT NO. 2			13.9		2459			9	270			135	150						
TOTAL	LUMP SUM	LUMP SUM	45.6	LUMP SUM	7737	10	120	18	540	10	180.50	241	268	LUMP SUM	28	1260.00	10	400	1

PROJECT NO. B-3626

CARTERET COUNTY

STATION: 20+29.50 -L-

SHEET 3 OF 3

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH

GENERAL DRAWING FOR BRIDGE OVER DEEP CREEK ON ON SR 1154 BETWEEN SR 1137 AND SR 1684

NORTH CAROLINA PROFESSIONAL SEAL 21638 ENGINEER LAURA E. SUTTON
1/20/04

REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	S-3
1			3			TOTAL SHEETS
2			4			23

DRAWN BY : B.N.BARODAWALA DATE : 10-01-03
CHECKED BY : L.E. SUTTON DATE : 12-19-03

20-JAN-2004 15:16
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