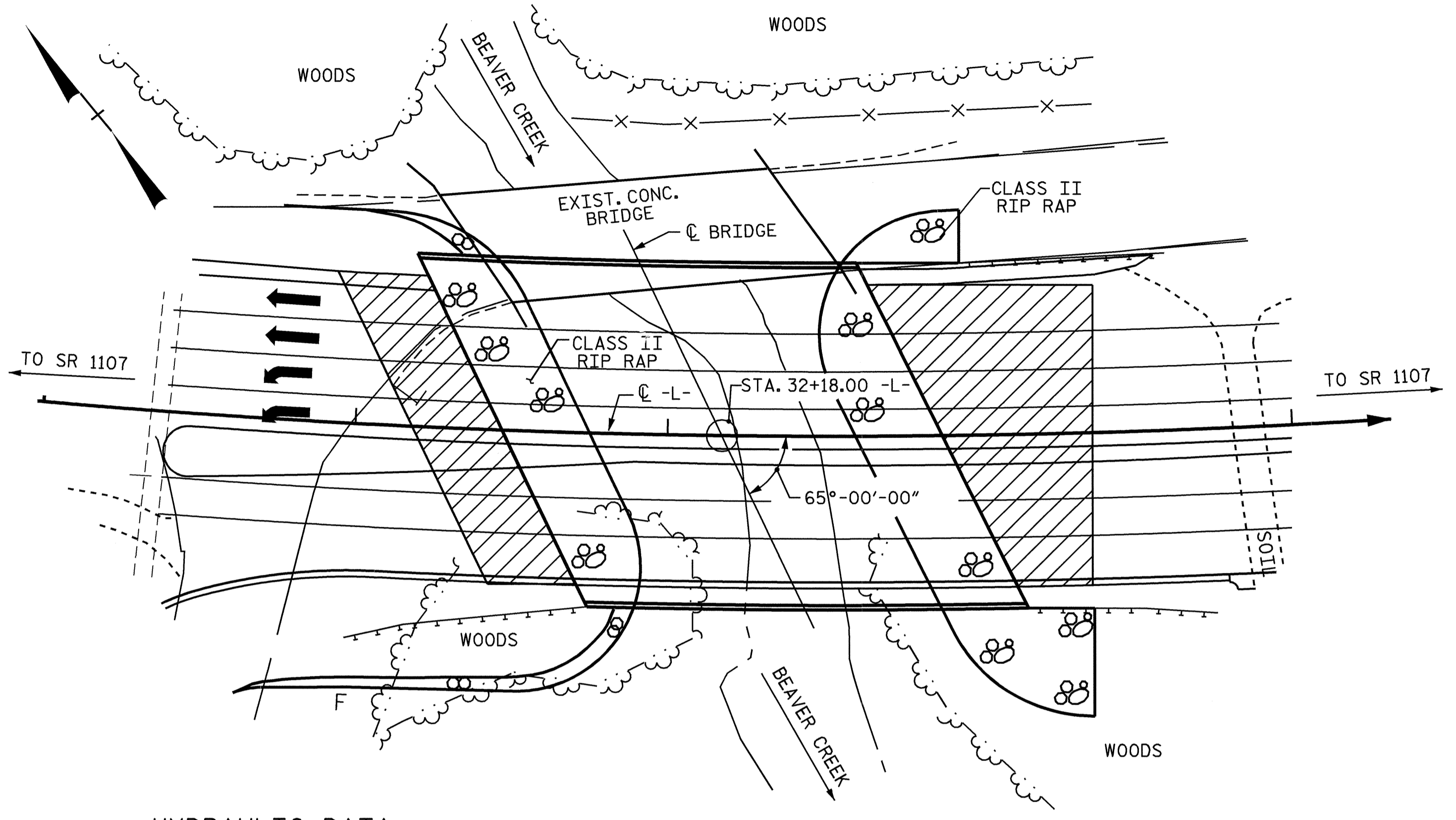


BM#100 : CUT IN CONC. ON BRIDGE END BENT 50.52' LT OF -L- STA. 32+54.64
ELEV. 125.63 DATUM : NGVD 29



HYDRAULIC DATA

DESIGN DISCHARGE = 4700 C.F.S.
 FREQUENCY OF DESIGN FLOOD = 50 YRS.
 DESIGN HIGH WATER ELEVATION = 126.20
 DRAINAGE AREA = 32.6 SQ. MI.
 BASIC DISCHARGE (Q100) = 5300 C.F.S.
 BASIC HIGH WATER ELEVATION = 127.02

OVERTOPPING FLOOD DATA

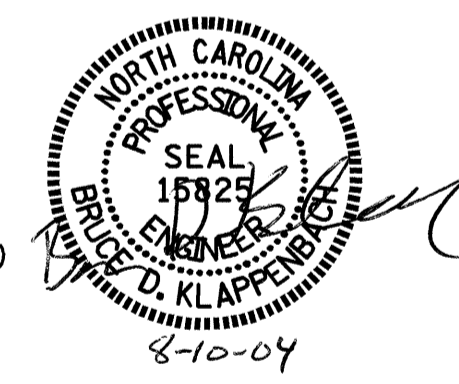
OVERTOPPING DISCHARGE = 8500 C.F.S.
 FREQUENCY OF OVERTOPPING FLOOD = 200 YRS.
 OVERTOPPING FLOOD ELEVATION = 131.75

LOCATION SKETCH

FOR UTILITY INFORMATION,
SEE UTILITY PLANS AND
SPECIAL PROVISIONS

NOTES

ASSUMED LIVE LOAD = HS 20 OR ALTERNATE LOADING.
 THIS BRIDGE HAS BEEN DESIGNED BY THE STRENGTH DESIGN METHOD AS SPECIFIED IN AASHTO STANDARD SPECIFICATIONS.
 FOR OTHER DESIGN DATA AND GENERAL NOTES, SEE SHEET SN
 FOR EROSION CONTROL MEASURES, SEE EROSION CONTROL PLANS
 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.
 UNCLASSIFIED STRUCTURE EXCAVATION IS REQUIRED AT THE LOCATION OF THE EXISTING BRIDGE AS DIRECTED BY THE ENGINEER. THIS WORK WILL BE MEASURED AND PAID FOR AS UNCLASSIFIED STRUCTURE EXCAVATION. FOR UNCLASSIFIED STRUCTURE EXCAVATION, SEE SPECIAL PROVISIONS.
 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 AASHTO STANDARD SPECIFICATIONS FOR SEISMIC DESIGN OF HIGHWAY BRIDGES FOR SEISMIC PERFORMANCE CATEGORY A.
 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 SAMPLE 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.
 NEEDLE BEAMS WILL NOT BE ALLOWED UNLESS OTHERWISE CALLED FOR ON THE PLANS OR APPROVED BY THE ENGINEER.
 FOR SUBMITTAL OF WORKING DRAWINGS, SEE SPECIAL PROVISIONS.
 FOR FALSEWORK AND FORMWORK, SEE SPECIAL PROVISIONS.
 FOR PRESTRESSED CONCRETE MEMBERS, SEE SPECIAL PROVISIONS.
 WHEN DRIVING PILES THE MAXIMUM BLOW COUNT SHALL NOT BE EXCEEDED.
 PILES FOR END BENTS No.1 AND No.2 SHALL BE DRIVEN TO A MINIMUM BEARING CAPACITY OF 60 TONS EACH.
 PILES AT BENT No.1 AND BENT No.2 SHALL BE DRIVEN TO AN ELEVATION NO HIGHER THAN 89.0' AND SATISFY THE BEARING CAPACITY OF 70 TONS EACH.
 THE SCOUR CRITICAL ELEVATION FOR BENT No.1 IS 105'. THE SCOUR CRITICAL ELEVATIONS ARE FOR USE BY MAINTENANCE FORCES TO MONITOR POSSIBLE SCOUR PROBLEMS DURING THE LIFE OF THE STRUCTURE.
 THE SCOUR CRITICAL ELEVATION FOR BENT No.2 IS 107'. THE SCOUR CRITICAL ELEVATIONS ARE FOR USE BY MAINTENANCE FORCES TO MONITOR POSSIBLE SCOUR PROBLEMS DURING THE LIFE OF THE STRUCTURE.
 AFTER SERVING AS A TEMPORARY STRUCTURE, THE EXISTING STRUCTURE CONSISTING OF 3 SPANS AT 35' EACH ON 13 LINES OF PRESTRESSED CONCRETE CORED SLABS, ON CONCRETE CAPS WITH H-PILES AND A CLEAR ROADWAY WIDTH OF 34.8' LOCATED 60 FEET UP STREAM FROM THE PROPOSED STRUCTURE, 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 STRUCTURE, A LOAD LIMIT MAY BE POSTED AND MAY BE REDUCED AS FOUND NECESSARY DURING THE LIFE OF THE PROJECT.
 THE STEEL PILES AT BENT 1 AND BENT 2 SHALL BE GALVANIZED IN ACCORDANCE WITH SECTION 1076 OF THE STANDARD SPECIFICATIONS. FOR GALVANIZED STEEL PILES, SEE SPECIAL PROVISIONS.



TOTAL BILL OF MATERIAL

	REMOVAL OF EXISTING STRUCTURE	UNCLASSIFIED STRUCTURE EXCAVATION	REINFORCED CONCRETE DECK SLAB	GROOVING BRIDGE FLOORS	CLASS A CONCRETE	BRIDGE APPROACH SLABS	REINFORCING STEEL	45" PRESTRESSED CONCRETE GIRDERS		HP 12 x 53 PILES		HP 14 x 73 PILES		GALVANIZING STEEL PILES	3-BAR METAL RAIL	PLAIN RIP RAP CLASS II (2'-0" THICK)	FILTER FABRIC FOR DRAINAGE	ELASTOMERIC BEARINGS	EVAZOTE JOINT SEALS	
								NO.	LIN. FT.	NO.	LIN. FT.	NO.	LIN. FT.							LUMP SUM
SUPERSTRUCTURE	LUMP SUM	LUMP SUM	15287	19674				39	1751.32						259.20					
END BENT NO. 1					69.9		10842			16	960					209	233			
BENT NO. 1					55.6		9253					20	1000	LUMP SUM						
BENT NO. 2					54.1		9320					20	1000	LUMP SUM						
END BENT NO. 2					68.3		10765			16	960					285	316			
TOTAL	LUMP SUM	LUMP SUM	15287	19674	247.9	LUMP SUM	41180	39	1751.32	32	1920	40	2000	LUMP SUM	259.20	494	549	LUMP SUM	LUMP SUM	

PROJECT NO. U-0620
CUMBERLAND COUNTY
 STATION: 32+18.00 -L-

SHEET 4 OF 4

STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH
 GENERAL DRAWING FOR BRIDGE
 ON HOPE MILLS BYPASS
 OVER BEAVER CREEK
 BETWEEN SR 1107 AND SR 1133

REVISIONS						SHEET NO. S-4
NO.	BY:	DATE:	NO.	BY:	DATE:	
1			3			TOTAL SHEETS 129
2			4			

DRAWN BY : M. G. SHAIKH DATE : 05-01-01
 CHECKED BY : B.D. KLAPPENBACH DATE : 6/04