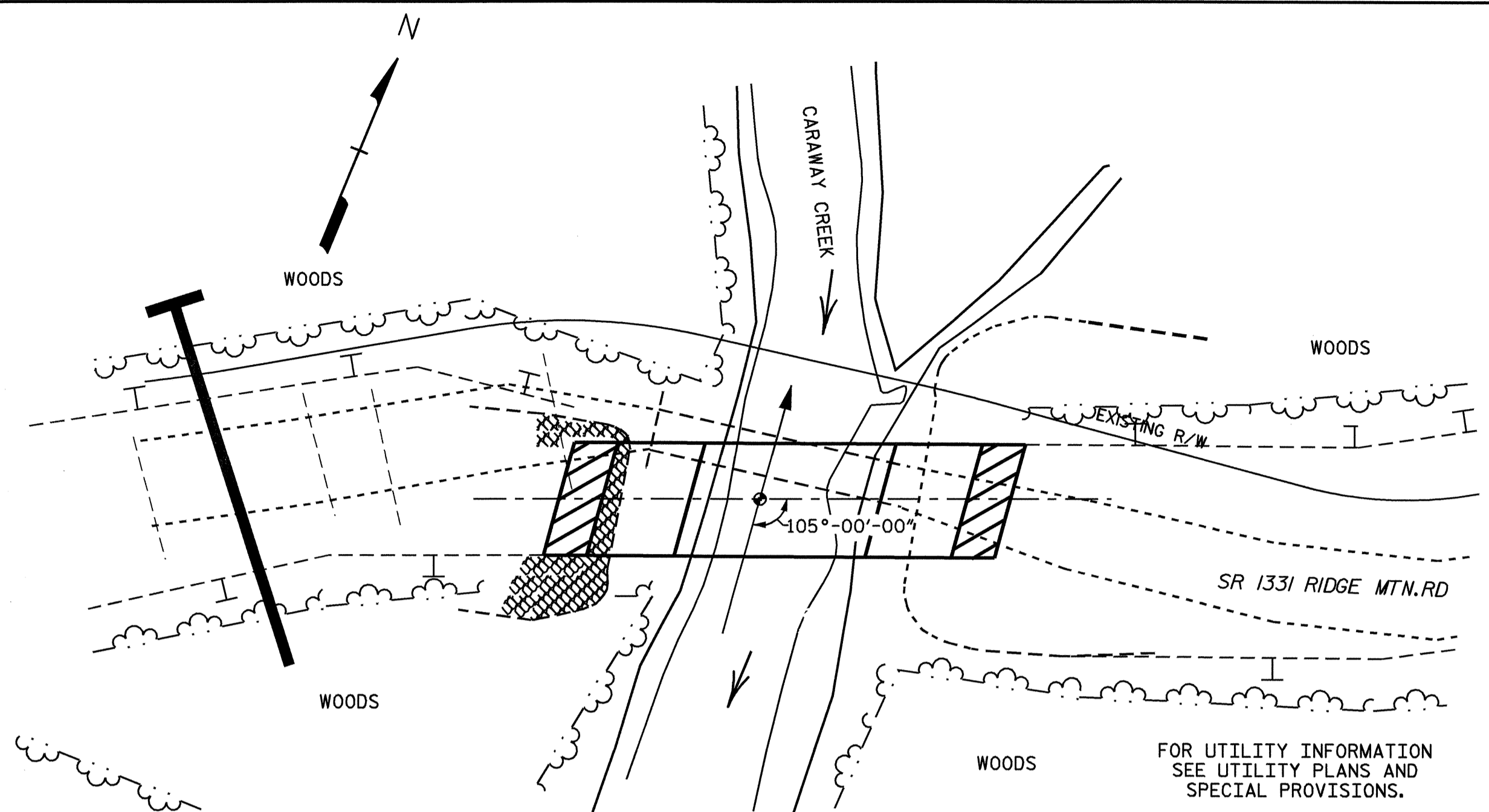


B.M. #1: RR SPIKE SET IN BASE OF 12" ELM,  
LOCATED 112.15' RIGHT OF -BL- STA. 13+21.87, EL. 433.53, DATUM NGVD 29



LOCATION SKETCH

HYDRAULIC DATA

DESIGN DISCHARGE \_\_\_\_\_ 1920 CFS  
 FREQUENCY OF DESIGN FLOOD \_\_\_\_\_ 2 YEARS  
 DESIGN HIGH WATER ELEVATION \_\_\_\_\_ 437.2'  
 DRAINAGE AREA \_\_\_\_\_ 43.9 SQ. MI.  
 BASIC DISCHARGE (Q100) \_\_\_\_\_ 7900 CFS  
 BASIC HIGH WATER ELEVATION \_\_\_\_\_ 441.30'

OVERTOPPING FLOOD DATA

OVERTOPPING DISCHARGE \_\_\_\_\_ 2800 CFS  
 FREQUENCY OF OVERTOPPING FLOOD \_\_\_\_\_ 2 YRS.+  
 OVERTOPPING FLOOD ELEVATION \_\_\_\_\_ 439.1'

TOTAL BILL OF MATERIAL

	REMOVAL OF EXISTING STRUCTURE	3'-6" DIA. DRILLED PIER IN SOIL	3'-6" DIA. DRILLED PIER NOT IN SOIL	PERMANENT STEEL CASING FOR 3'-6" DIAMETER DRILLED PIER	CROSSHOLE SONIC LOGGING	CSL TUBES	HP 12 X 53 STEEL PILES		STEEL PILE POINTS	PLAIN RIP RAP CLASS II (2'-0" THICK)	CONSTRUCTION OF SUBSTRUCTURE	CONSTRUCTION OF SUPERSTRUCTURE
							NO.	LIN. FT.				
	LUMP SUM	LIN. FT.	LIN. FT.	LIN. FT.	EA.	LIN. FT.	NO.	LIN. FT.	EA.	TONS	LUMP SUM	LUMP SUM
SUPERSTRUCTURE												
END BENT NO. 1							6	90	6	133		
BENT NO. 1		3.0	11.5	10.5	1	136						
BENT NO. 2		2.0	12.5	10.5	1	136						
END BENT NO. 2							6	120	6	177		
TOTAL	LUMP SUM	5.0	24	21	2	272	12	210	12	310	LUMP SUM	LUMP SUM

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.  
 FOR CONSTRUCTION OF SUPERSTRUCTURE, SEE SPECIAL PROVISIONS.  
 FOR CONSTRUCTION OF SUBSTRUCTURE, SEE SPECIAL PROVISIONS.

THE LOCATION OF THE CONSTRUCTION JOINT IN THE DRILLED PIERS IS BASED ON AN APPROXIMATE GROUND LINE ELEVATION. IF THE CONSTRUCTION JOINT IS ABOVE THE ACTUAL GROUND ELEVATION, THE CONTRACTOR SHALL PLACE THE CONSTRUCTION JOINT 1 FT. BELOW THE GROUND LINE.

THE EXISTING STRUCTURE CONSISTING OF 3 SPANS, 1 @ 17'-7", 1 @ 40'-2", 1 @ 17'-4", WITH A TIMBER DECK ON 6 LINES OF 12" I-BEAMS IN SPANS 1 & 3 AND 10-10" FLOOR BEAMS ON 4 LINES OF TIMBER JOISTS ON 2 LINES OF 21" I-BEAMS IN SPAN 2, ON TIMBER CAPS AND TIMBER POSTS AT END BENT 1 AND 2, AND RUBBLE MASONRY INTERIOR BENT ON CONCRETE CAPS, WITH A CLEAR ROADWAY WIDTH OF 11'-1" LOCATED AT THE SAME LOCATION AS THE PROPOSED STRUCTURE, SHALL BE REMOVED. SEE SPECIAL PROVISION FOR REMOVAL OF EXISTING STRUCTURE AT STATION 18+70.50 -L-.

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

ASPHALT WEARING SURFACE IS INCLUDED IN ROADWAY QUANTITY ON ROADWAY PLANS.  
 FOR PRESTRESSED CONCRETE MEMBERS, SEE SPECIAL PROVISIONS.

THE EXISTING PAVEMENT WITHIN THE AREA OF THE END BENT PILES SHALL BE REMOVED AND THE ROADBED SCARIFIED TO A MINIMUM DEPTH OF 2'-0".

INASMUCH AS THE PAINT SYSTEM ON THE EXISTING STRUCTURAL STEEL CONTAINS LEAD, THE CONTRACTOR'S ATTENTION IS DIRECTED TO ARTICLE 170-1 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 AT STATION 18+70.50 -L-.'

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.

FOR SUBMITTAL OF WORKING DRAWINGS, SEE SPECIAL PROVISIONS.  
 FOR FALSEWORK AND FORMWORK, SEE SPECIAL PROVISIONS.

PILES FOR THE END BENTS SHALL BE DRIVEN TO A MINIMUM BEARING CAPACITY OF 50 TONS EACH. AT END BENT NO. 1, PENETRATION AT LEAST TO EL. 425 FT IS REQUIRED. THE CONTRACTOR'S ATTENTION IS CALLED TO THE FACT IT MAY BE NECESSARY TO DRILL AT THE LEFT SIDE IN ORDER TO ATTAIN THIS PENETRATION. IF DRILLING IS REQUIRED, THE PILE SHALL BE PLACED IN THE DRILLED HOLE AND DRIVEN TO A MINIMUM BEARING CAPACITY OF 50 TONS EACH.

STEEL PILE POINTS (WITH TEETH) ARE REQUIRED FOR PILES AT BOTH END BENTS. SEE SPECIAL PROVISION FOR STEEL PILE POINTS.

WHEN DRIVING PILES, THE MAXIMUM BLOW COUNT SHALL NOT BE EXCEEDED.  
 FOR DRILLED PIERS, SEE SPECIAL PROVISIONS.

CSL TUBES ARE REQUIRED AND CSL TESTING IS REQUIRED FOR THE DRILLED PIERS AT BENT NO. 1 AND BENT NO. 2. SEE SPECIAL PROVISION FOR CROSSHOLE SONIC LOGGING.

THE DRILLED PIERS HAVE BEEN DESIGNED FOR BOTH SKIN FRICTION AND TIP BEARING. THE REQUIRED TIP BEARING CAPACITY IS 30 TSF.

DRILLED PIERS AT EACH END BENT SHALL EXTEND TO AN ELEVATION NO HIGHER THAN 421.0 FT. AND SATISFY THE REQUIRED TIP BEARING CAPACITY.

SLURRY CONSTRUCTION SHALL NOT BE USED FOR THIS PROJECT.

DRILLED PIERS HAVE BEEN DESIGNED FOR AN APPLIED LOAD OF 188 TONS EACH AT THE TOP OF THE COLUMN.

PERMANENT STEEL CASING MAY BE REQUIRED FOR DRILLED PIERS AT EACH BENT. IF REQUIRED, THE CASING SHALL NOT EXTEND BELOW ELEVATION 426.0 FT WITHOUT THE ENGINEER'S PERMISSION. THE NEED FOR PERMANENT STEEL CASING WILL BE DETERMINED BY THE ENGINEER.

SPT TESTING IS NOT REQUIRED TO DETERMINE THE TIP BEARING CAPACITY OF THE DRILLED PIERS.

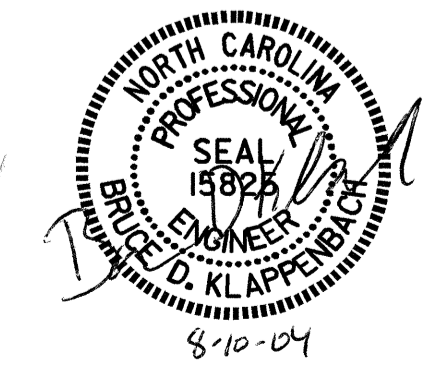
SID INSPECTIONS ARE NOT REQUIRED TO DETERMINE THE BOTTOM CLEANLINESS OF THE DRILLED PIERS.

PROJECT NO. B-3504  
RANDOLPH COUNTY  
 STATION: 18+70.50 -L-

SHEET 4 OF 4

STATE OF NORTH CAROLINA  
 DEPARTMENT OF TRANSPORTATION  
 RALEIGH

GENERAL DRAWING FOR  
 BRIDGE OVER  
 CARAWAY CREEK ON  
 SR 1331 BETWEEN  
 SR 1330 AND SR 1318



DRAWN BY : J.B. WILSON DATE : 12/03  
 CHECKED BY : G.M. PATTERSON DATE : 12/03

10-AUG-2004 15:23  
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 jwilson

REVISIONS						SHEET NO. 5-4
NO.	BY:	DATE:	NO.	BY:	DATE:	
1			3			TOTAL SHEETS 27
2			4			