

**FOUNDATION LAYOUT**

( DIMENSIONS LOCATING PILES ARE TO THE CENTERLINE OF THE PILE AT THE BOTTOM OF THE CAP )

**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.  
 REMOVABLE FORMS MAY BE USED IN LIEU OF METAL STAY-IN-PLACE FORMS IN ACCORDANCE WITH ARTICLE 420-3 OF THE STANDARD SPECIFICATIONS.  
 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.  
 AFTER SERVING AS A TEMPORARY STRUCTURE THE EXISTING STRUCTURE CONSISTING OF FIVE SPANS, 1 @ 30'-3", 3 @ 30'-0" AND 1 @ 30'-3"; CLEAR ROADWAY WIDTH OF 24'-1" ON PRECAST PRESTRESSED CONCRETE CHANNELS ON PPC CAP & TIMBER PILES SUBSTRUCTURE WITH STEEL CAP & PILE CRUTCH BENT AT BENT No. 1 AND LOCATED APPROXIMATELY 65' DOWNSTREAM FROM 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, THIS LOAD LIMITATION MAY BE REDUCED AS FOUND NECESSARY DURING THE LIFE OF THE PROJECT.  
 THE CLASS AA CONCRETE IN THE BRIDGE DECK SHALL CONTAIN FLY ASH OR GROUND GRANULATED BLAST FURNACE SLAG AT THE SUBSTITUTION RATE SPECIFIED IN ARTICLE 1024-1 AND IN ACCORDANCE WITH ARTICLES 1024-5 AND 1024-6 OF THE STANDARD SPECIFICATIONS. NO PAYMENT WILL BE MADE FOR THIS SUBSTITUTION AS IT IS CONSIDERED INCIDENTAL TO THE COST OF THE REINFORCED CONCRETE DECK SLAB.  
 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.  
 FOR FABRICATED METAL STAY-IN-PLACE FORMS, SEE SPECIAL PROVISIONS.  
 FOR CRANE SAFETY, SEE SPECIAL PROVISIONS.

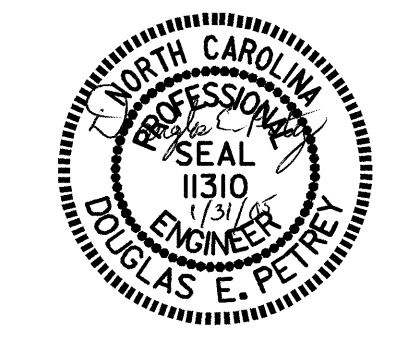
THIS STRUCTURE HAS BEEN DESIGNED IN ACCORDANCE WITH HEC 18, "EVALUATING SCOUR AT BRIDGES", NOVEMBER, 1995.  
 THIS BRIDGE HAS BEEN DESIGNED IN ACCORDANCE WITH THE REQUIREMENTS OF THE AASHTO STANDARD SPECIFICATIONS FOR SEISMIC DESIGN OF HIGHWAY BRIDGES FOR SEISMIC PERFORMANCE CATEGORY A.  
 THE CONTRACTOR 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 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.  
 AT THE CONTRACTOR'S OPTION, AND UPON REMOVAL OF THE WORKPADS, THE CLASS II RIP RAP USED IN THE WORKPAD MAY BE PLACED AS RIP RAP SLOPE PROTECTION. SEE SPECIAL PROVISIONS FOR CONSTRUCTION, MAINTENANCE AND REMOVAL OF TEMPORARY ACCESS AT STATION 17+27.50 -L-.  
 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.  
 PILES FOR END BENT No.'s 1 AND 2 SHALL BE DRIVEN TO A MINIMUM BEARING CAPACITY OF 50 TONS EACH.  
 WHEN DRIVING PILES, THE MAXIMUM BLOW COUNT SHALL NOT BE EXCEEDED.  
 THE DRILLED PIERS AT BENT No.'s 1 AND 2 HAVE BEEN DESIGNED FOR BOTH SKIN FRICTION AND TIP BEARING. THE REQUIRED TIP BEARING CAPACITY IS 15 TSF.  
 THE REQUIRED TIP BEARING CAPACITY AT BENT No.'s 1 AND 2 SHALL BE VERIFIED.  
 DRILLED PIERS FOR BENT No.'s 1 AND 2 HAVE BEEN DESIGNED FOR AN APPLIED LOAD OF 220 TONS EACH AT THE TOP OF THE COLUMN.  
 PERMANENT STEEL CASING MAY BE REQUIRED FOR DRILLED PIERS AT BENT No. 1. IF REQUIRED, THE CASING SHALL NOT EXTEND BELOW ELEVATION 550 FT. WITHOUT THE ENGINEER'S PERMISSION. THE NEED FOR PERMANENT STEEL CASING WILL BE DETERMINED BY THE ENGINEER.  
 PERMANENT STEEL CASING MAY BE REQUIRED FOR DRILLED PIERS AT BENT No. 2. IF REQUIRED, THE CASING SHALL NOT EXTEND BELOW ELEVATION 552 FT. (LEFT AND CENTER), OR ELEVATION 557 FT. (RIGHT) WITHOUT THE ENGINEER'S PERMISSION. THE NEED FOR PERMANENT STEEL CASING WILL BE DETERMINED BY THE ENGINEER.  
 FOR PERMANENT STEEL CASING, SEE SPECIAL PROVISION FOR DRILLED PIERS.

DRILLED PIERS AT BENT No. 1 SHALL EXTEND TO AN ELEVATION NO HIGHER THAN 531 FT. (LEFT AND CENTER) OR ELEVATION 542 FT. (RIGHT) AND SATISFY THE REQUIRED TIP BEARING CAPACITY.  
 DRILLED PIERS AT BENT No. 2 SHALL EXTEND TO AN ELEVATION NO HIGHER THAN 543 FT. (LEFT AND CENTER) OR ELEVATION 547 FT. (RIGHT) AND SATISFY THE REQUIRED TIP BEARING CAPACITY, AND HAVE A MINIMUM PENETRATION OF 3 FEET INTO ROCK AS DEFINED BY THE DRILLED PIERS SPECIAL PROVISION.  
 THE SCOUR CRITICAL ELEVATION FOR BENT No.'s 1 AND 2 IS 561 FT. AND 563 FT., RESPECTIVELY. THE SCOUR CRITICAL ELEVATIONS ARE FOR USE BY MAINTENANCE FORCES TO MONITOR POSSIBLE SCOUR PROBLEMS DURING THE LIFE OF THE STRUCTURE.  
 FOR DRILLED PIERS, SEE SPECIAL PROVISIONS.  
 SPT TESTING IS NOT REQUIRED TO DETERMINE THE TIP BEARING CAPACITY OF THE DRILLED PIERS AT BENT No.'s 1 OR 2.  
 SID INSPECTIONS ARE NOT REQUIRED TO DETERMINE THE BOTTOM CLEANLINESS OF THE DRILLED PIERS AT BENT No.'s 1 OR 2.  
 CSL TUBES ARE REQUIRED AND CSL TESTING IS REQUIRED FOR THE DRILLED PIERS AT BENT No.'s 1 AND 2. SEE SPECIAL PROVISION FOR CROSSHOLE SONIC LOGGING.

THE CONTRACTOR MAY CHOOSE TO UTILIZE THE STANDARD OVERHANG FALSEWORK BRACING SYSTEM. SEE "STANDARD OVERHANG FALSEWORK" SHEETS.

PROJECT NO. B-3694  
 ROCKINGHAM COUNTY  
 STATION: 17+27.50 -L-

SHEET 3 OF 4  
 STATE OF NORTH CAROLINA  
 DEPARTMENT OF TRANSPORTATION  
 RALEIGH  
 GENERAL DRAWING  
 BRIDGE ON  
 SR 1138 (LINDSEY BRIDGE RD.)  
 OVER BELEWS CREEK  
 BETWEEN PINEHALL AND SR 1137



REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	S-3
1			3			TOTAL SHEETS 36
2			4			

DRAWN BY : MIKE BRITT DATE : 11-24-04  
 CHECKED BY : B.N. GRADY DATE : 1-05