



FOUNDATION LAYOUT

BRACE PILES AT END BENT 1 AND END BENT 2 SHALL BE BATTERED 3:12
 (DIMENSIONS LOCATING PILES ARE SHOWN TO THE CENTERLINE OF THE PILES)

NOTES

DRIVE PILES FOR END BENT NO.1 AND END BENT NO.2 TO A MINIMUM BEARING CAPACITY OF 45 TONS EACH.

DRIVE PILES AT BENT NO.1 AND BENT NO.2 TO AN ELEVATION NO HIGHER THAN -54.000 AND A MINIMUM BEARING CAPACITY OF 63 TONS EACH PLUS CAPACITY TO ACCOUNT FOR DOWN DRAG OR NEGATIVE SKIN FRICTION AND SCOUR.

DRIVE PILES AT BENT NO.3 TO AN ELEVATION NO HIGHER THAN -47.000 AND A MINIMUM BEARING CAPACITY OF 63 TONS EACH PLUS CAPACITY TO ACCOUNT FOR DOWN DRAG OR NEGATIVE SKIN FRICTION AND SCOUR.

IT HAS BEEN ESTIMATED THAT A HAMMER WITH AN EQUIVALENT RATED ENERGY IN THE RANGE OF 45 K-FEET TO 90 K-FEET PER BLOW WILL BE REQUIRED TO DRIVE THE 24" DIAMETER CLOSED ENDED PIPE PILES. THIS ESTIMATED ENERGY RANGE DOES NOT RELEASE THE CONTRACTOR FROM ARTICLE 450-6 OF THE STANDARD SPECIFICATIONS.

THE SCOUR CRITICAL ELEVATION FOR BENT NO.1, BENT NO.2, AND BENT NO.3 IS ELEVATION -36.000, -36.000, AND -31.000, RESPECTIVELY. BRIDGE MAINTENANCE USES SCOUR CRITICAL ELEVATIONS TO MONITOR POSSIBLE SCOUR PROBLEMS DURING THE LIFE OF THE STRUCTURE.

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

JETTING IS NOT ALLOWED TO INSTALL THE PILES AT BENT NO.1, BENT NO.2, AND BENT NO.3.

PIPE PILE PLATES ARE REQUIRED. USE PIPE PLATES WITH DIAMETER EQUAL TO THE PIPE PILE DIAMETER.

FOR PILE REDRIVES, SEE BEARING PILES SPECIAL PROVISION.

FOR STEEL H PILES, SEE SPECIAL PROVISIONS.

PILE QUANTITIES ARE FOR ESTIMATING PURPOSES ONLY. THE CONTRACTOR MUST PROVIDE TEST PILE LENGTHS WITH A MINIMUM OF FIVE FEET ABOVE THE PILE TEMPLATE UPON REACHING THE MINIMUM DESIGN BEARING CAPACITY WITH A FACTOR OF SAFETY OF TWO.

PILES AT END BENT NO.1, END BENT NO.2, BENT NO.1, BENT NO.2, AND BENT NO.3 MAY REQUIRE RESTRIKES OR REDRIVES. SEE BEARING PILE SPECIAL PROVISION. BEARING PILE SPECIAL PROVISION REPLACES SECTION 450 OF THE 2002 STANDARD SPECIFICATIONS.

TESTING THE FIRST PRODUCTION PILE WITH THE PILE DRIVING ANALYZER (PDA) DURING DRIVING IS REQUIRED AT BENT NO.1 OR BENT NO.2. PDA TESTING DURING RESTRIKES MAY BE REQUIRED. SEE PILE DRIVING ANALYZER SPECIAL PROVISION. THE PILE DRIVING ANALYZER AND WAVE EQUATION ANALYSIS WILL BE USED TO DETERMINE THE DRIVING CRITERIA FOR THE 24" DIAMETER PIPE PILES.

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PP 24 x 0.625 STEEL PILES SHALL BE METALLIZED. APPLY A 12 MIL THICK 1350 ALUMINUM (W-A1-1350) THERMAL SPRAYED COATING WITH A 0.5 MIL THICK SEAL COAT. FOR METALLIZATION SEE THE SPECIAL PROVISION "THERMAL SPRAYED COATINGS (METALLIZATION)." COST TO METALLIZE THE PILES SHALL BE INCLUDED IN THE COST OF THE PILES.

HP 14 X 73 STEEL PILES AT END BENT 1 AND END BENT 2 SHALL CONTAIN 0.2% COPPER.

SEE SHEET 3 OF 3 FOR ADDITIONAL NOTES.

PROJECT NO. B-3445

CURRITUCK COUNTY

STATION: 24+18.00 -L-

SHEET 2 OF 3

STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH

GENERAL DRAWING

FOR BRIDGE ON NC 615
 OVER COREYS DITCH BETWEEN
 SR 1255 AND VIRGINIA
 STATE LINE



DRAWN BY : W.R. BRILEY/AC DATE : 2/21/02
 CHECKED BY : K. D. LAYNE DATE : 5/14/02

28-FEB-2006 11:44
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REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	S-2
1			3			TOTAL SHEETS
2			4			44