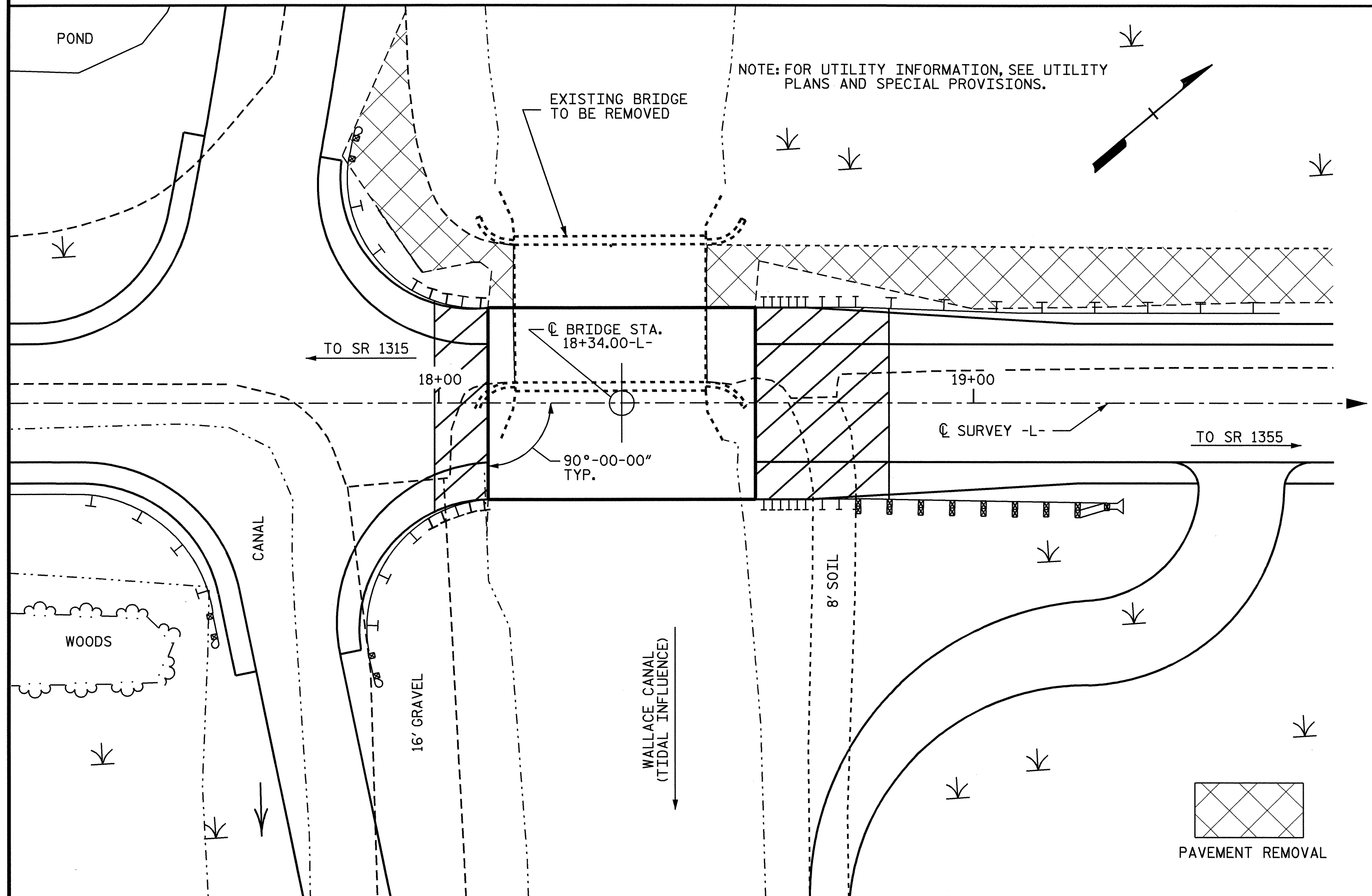


B.M. #10: BRIDGE NAIL IN 18" PINE 275.13' RT. STA. 18+18.75 -L- ELEV.= 2.69' NGVD 29



LOCATION SKETCH

HYDRAULIC DATA

DESIGN DISCHARGE 170 CFS
 FREQUENCY OF DESIGN FLOOD 50 YRS.
 DESIGN HIGH WATER ELEVATION 2.2'
 DRAINAGE AREA 492 ACRES
 BASIC DISCHARGE (Q100) 210 CFS
 BASIC HIGH WATER ELEVATION 2.3'

OVERTOPPING FLOOD DATA

OVERTOPPING DISCHARGE 1300 CFS
 FREQUENCY OF OVERTOPPING FLOOD 500+ YRS.
 OVERTOPPING FLOOD ELEVATION 3.6'

TOTAL BILL OF MATERIAL

| | REMOVAL OF EXISTING STRUCTURE | UNCLASSIFIED STRUCTURE EXCAVATION | CLASS AA CONCRETE | BRIDGE APPROACH SLABS | EPOXY COATED REINFORCING STEEL | 16" PRESTRESSED CONCRETE PILES | | 18" STEEL SHEET PILES | TWO BAR METAL RAIL | 1'-2" X 2'-9" CONCRETE PARAPET | ELASTOMERIC BEARINGS | 3'-0" X 1'-9" PRESTRESSED CONCRETE CORED SLABS | |
|----------------|-------------------------------|-----------------------------------|-------------------|-----------------------|--------------------------------|--------------------------------|----------|-----------------------|--------------------|--------------------------------|----------------------|--|----------|
| | | | | | | NO. | LIN. FT. | | | | | SQ. FT. | LIN. FT. |
| SUPERSTRUCTURE | LUMP SUM | LUMP SUM | CU. YDS. | LUMP SUM | LBS. | | | | 80.50 | 95.75 | LUMP SUM | 13 | 620.75 |
| END BENT No. 1 | | | 25.4 | | 3,565 | 8 | 440 | 2,377.7 | | | | | |
| END BENT No. 2 | | | 25.4 | | 3,565 | 8 | 440 | 2,373.5 | | | | | |
| TOTAL | LUMP SUM | LUMP SUM | 50.8 | LUMP SUM | 7,130 | 16 | 880 | 4,751.2 | 80.50 | 95.75 | LUMP SUM | 13 | 620.75 |

DRAWN BY : S.B. WILLIAMS DATE : 2-25-04
 CHECKED BY : P.C. BREWER DATE : 5-3-04

26-MAY-2004 06:59
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NOTES CON'T.

THIS BRIDGE SHALL BE CONSTRUCTED USING TOP DOWN CONSTRUCTION METHODS. THE USE OF TEMPORARY CAUSEWAYS OR A WORK BRIDGE WILL NOT BE PERMITTED.

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

ALL PAVEMENT MARKING WILL BE IN ACCORDANCE WITH THE PAVEMENT MARKING PLANS AND SHALL PROVIDE FOR BICYCLES.

THIS STRUCTURE CONTAINS THE NECESSARY CORROSION PROTECTION REQUIRED FOR A CORROSIVE SITE.

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

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

THE CONCRETE IN THE END BENT CAPS 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 SUBSTITUTION 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.

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.

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

PRESTRESSED CONCRETE CORED SLAB UNITS SHALL CONTAIN CALCIUM NITRITE CORROSION INHIBITOR. SEE SPECIAL PROVISIONS FOR CALCIUM NITRITE CORROSION INHIBITOR.

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.

STEEL SHEET PILING REQUIRED FOR END BENTS SHALL CONFORM TO THE REQUIREMENTS OF ASTM A690 MARINE STEEL.

IF DOMESTIC A690 MARINE STEEL IS NOT AVAILABLE, FOREIGN A690 MARINE STEEL WILL BE ALLOWED.

STEEL SHEET PILING REQUIRED SHALL BE HOT ROLLED.

FOR SUBMITTAL OF WORKING DRAWINGS, SEE SPECIAL PROVISIONS.

FOR FALSEWORK AND FORMWORK, SEE SPECIAL PROVISIONS.

PILES AT END BENTS No. 1 AND No. 2 SHALL BE DRIVEN TO A MINIMUM BEARING CAPACITY OF 50 TONS EACH.

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

IT HAS BEEN ESTIMATED THAT A HAMMER WITH AN EQUIVALENT RATED ENERGY IN THE RANGE OF 28,000 TO 51,500 FT-LBS. PER BLOW WILL BE REQUIRED TO DRIVE THE CONCRETE PILES. THIS ESTIMATED ENERGY RANGE DOES NOT RELEASE THE CONTRACTOR FROM THE PROVISIONS OUTLINED IN ARTICLE 450-6 OF THE STANDARD SPECIFICATIONS.

THE CONTRACTOR SHALL INSTALL THE PRESTRESSED CONCRETE PILES AT EACH END BENT PRIOR TO THE CONSTRUCTION OF THE SHEET PILE ABUTMENT WALLS IN EACH STAGE.

THE SCOUR CRITICAL ELEVATION FOR ABUTMENT WALLS AT END BENT No. 1 AND No. 2 IS -10.5 FT. THE SCOUR CRITICAL ELEVATIONS ARE FOR USE BY MAINTENANCE FORCES TO MONITOR POSSIBLE SCOUR PROBLEMS DURING THE LIFE OF THE STRUCTURE.

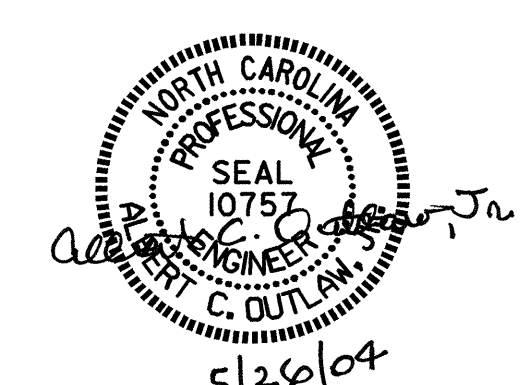
THE CONTRACTOR AT HIS OPTION, MAY SUBSTITUTE HP 12 X 53 STEEL PILES IN LIEU OF 16" PRESTRESSED CONCRETE PILES AT NO ADDITIONAL COST TO THE DEPARTMENT.

PROJECT NO. B-3348
 HYDE COUNTY
 STATION: 18+34.00 -L-

SHEET 4 OF 4

STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH

GENERAL DRAWING
 FOR BRIDGE ON US 264
 OVER WALLACE CANAL
 BETWEEN SR 1315 AND
 SR 1355



| REVISIONS | | | | | | SHEET NO. |
|-----------|-----|-------|-----|-----|-------|--------------|
| NO. | BY: | DATE: | NO. | BY: | DATE: | S-4 |
| 1 | | | 3 | | | TOTAL SHEETS |
| 2 | | | 4 | | | 76 |