

NOTES

THIS BRIDGE HAS BEEN DESIGNED BY THE STRENGTH DESIGN METHOD AS SPECIFIED IN AASHTO STANDARD SPECIFICATIONS.

ASSUMED LIVE LOAD = HS 20 OR ALTERNATE LOADING EXCEPT THAT CORED SLAB UNITS HAVE BEEN DESIGNED FOR HS25.

FOR OTHER DESIGN DATA AND GENERAL NOTES, SEE SHEET SN.

FOR EROSION CONTROL MEASURES SEE EROSION CONTROL PLANS. 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 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.

THE SCOUR CRITICAL ELEVATION FOR BENTS NO. 1 AND 2 IS ELEVATION 41 FT. THE SCOUR CRITICAL ELEVATION IS FOR USE BY MAINTENANCE FORCES TO MONITOR POSSIBLE SCOUR PROBLEMS DURING THE LIFE OF THE STRUCTURE.

PIPE PILES FOR BENTS NO.1 AND NO.2 SHALL BE DRIVEN TO AN ELEVATION NO HIGHER THAN 30 FT. AND SATISFY THE BEARING CAPACITY OF 85 TONS EACH.

IT HAS BEEN ESTIMATED THAT A HAMMER WITH AN EQUIVALENT RATED ENERGY IN THE RANGE OF 32,000-60,000 FT-POUNDS PER BLOW WILL BE REQUIRED TO DRIVE THE 18 INCH DIAMETER STEEL PIPE PILES. THIS ESTIMATED ENERGY RANGE DOES NOT RELEASE THE CONTRACTOR FROM THE PROVISIONS OUTLINED IN ARTICLE 450-6 OF THE STANDARD SPECIFICATIONS.

PILES FOR END BENT NO.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 STEEL PP18 × 0.50 PILES SHALL BE GALVANIZED IN ACCORDANCE WITH SECTION 1076 OF THE STANDARD SPECIFICATIONS. NO SEPARATE PAYMENT SHALL BE MADE FOR GALVANIZING STEEL PIPE PILES.

TESTING THE FIRST PRODUCTION PILE WITH THE PILE DRIVING ANALYZER (PDA) DURING DRIVING OR REDRIVING IS REQUIRED AT BENT 1 OR BENT 2. SEE PILE DRIVING ANALYZER SPECIAL PROVISIONS.

THE EXISTING STRUCTURE CONSISTING OF 1 SPAN @ 30'-5", 1 @ 30'-0", 1 @ 35'-5"; 23'-10" CLEAR ROADWAY WIDTH AND DOUBLE TIMBER FLOOR ON I-BEAMS; END BENTS AND INTERIOR BENTS: TIMBER CAPS ON TIMBER PILES, AND LOCATED AT 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 LIMITATION MAY BE REDUCED AS FOUND NECESSARY DURING THE LIFE OF THE PROJECT.

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. 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 FALSEWORK AND FORMWORK, SEE SPECIAL PROVISIONS.

FOR SUBMITTAL OF WORKING DRAWINGS, SEE SPECIAL PROVISIONS.

FOR CONSTRUCTION OF SUPERSTRUCTURE, SEE SPECIAL PROVISIONS.

FOR CONSTRUCTION OF SUBSTRUCTURE, SEE SPECIAL PROVISIONS.

FOR PRESTRESSED CONCRETE MEMBERS, SEE SPECIAL PROVISIONS.

THE MATERIAL SHOWN IN THE CROSS-HATCHED AREA AT END BENT NO.1 SHALL BE EXCAVATED FOR A DISTANCE OF 20 FT.LEFT SIDE AND 20 FT.RIGHT SIDE OF CENTERLINE ROADWAY AS DIRECTED BY THE ENGINEER. THE ESTIMATED QUANTITY IS LESS THAN 500 CUBIC YARDS. THIS WORK WILL BE PAID FOR AT THE CONTRACT LUMP SUM PRICE FOR UNCLASSIFIED STRUCTURE EXCAVATION. FOR UNCLASSIFIED STRUCTURE EXCAVATION, SEE SPECIAL PROVISIONS.

WAITING PERIOD FOR APPROACH SLABS CONSTRUCTION IS WAIVED.

FOR CRANE SAFETY, SEE SPECIAL PROVISIONS.

FOR STEEL H PILES, SEE SPECIAL PROVISIONS.

THIS BRIDGE SHALL BE CONSTRUCTED USING TOP-DOWN CONSTRUCTION METHODS. THE USE OF TEMPORARY CAUSEWAY OR WORK BRIDGE IS NOT PERMITTED.

TOTAL BILL OF MATERIAL REMOVAL OF UNCLASSIFIED STRUCTURE HP 12 X 53 PLAIN CONSTRUCTION PP 18 × 0.50 STEEL PILES CONSTRUCTION BRIDGE STEEL PILES EXISTING RIP RAP **ASSISTANCE TESTING APPROACH** OF OF STRUCTURE **EXCAVATION** CLASS II **SUPERSTRUCTURE** SUBSTRUCTURE SLABS (2'-0" THICK) LUMP SUM LUMP SUM LUMP SUM LUMP SUM LIN.FT. LIN.FT. EACH LUMP SUM TONS EACH SUPERSTRUCTURE LUMP SUM LUMP SUM LUMP SUM END BENT NO. 1 LUMP SUM 200 77 BENT NO.1 180 BENT NO. 2 180 END BENT NO. 2 240 81 TOTAL LUMP SUM LUMP SUM LUMP SUM 440 360 LUMP SUM 158 LUMP SUM

PROJECT NO. B-3639 EDGECOMBE STATION: 17+59.40 -L-

SHEET 3 OF 3

STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION

GENERAL DRAWING BRIDGE ON SR 1223 OVER COKEY SWAMP BETWEEN SR 1006 AND SR 1224

SHEET NO. **REVISIONS** S-3 DATE: BY: DATE: TOTAL SHEETS 20

DRAWN BY: N. Q. TRAN DATE: 12-3-02 CHECKED BY: S. M. RASHIDI DATE: 10-3-05