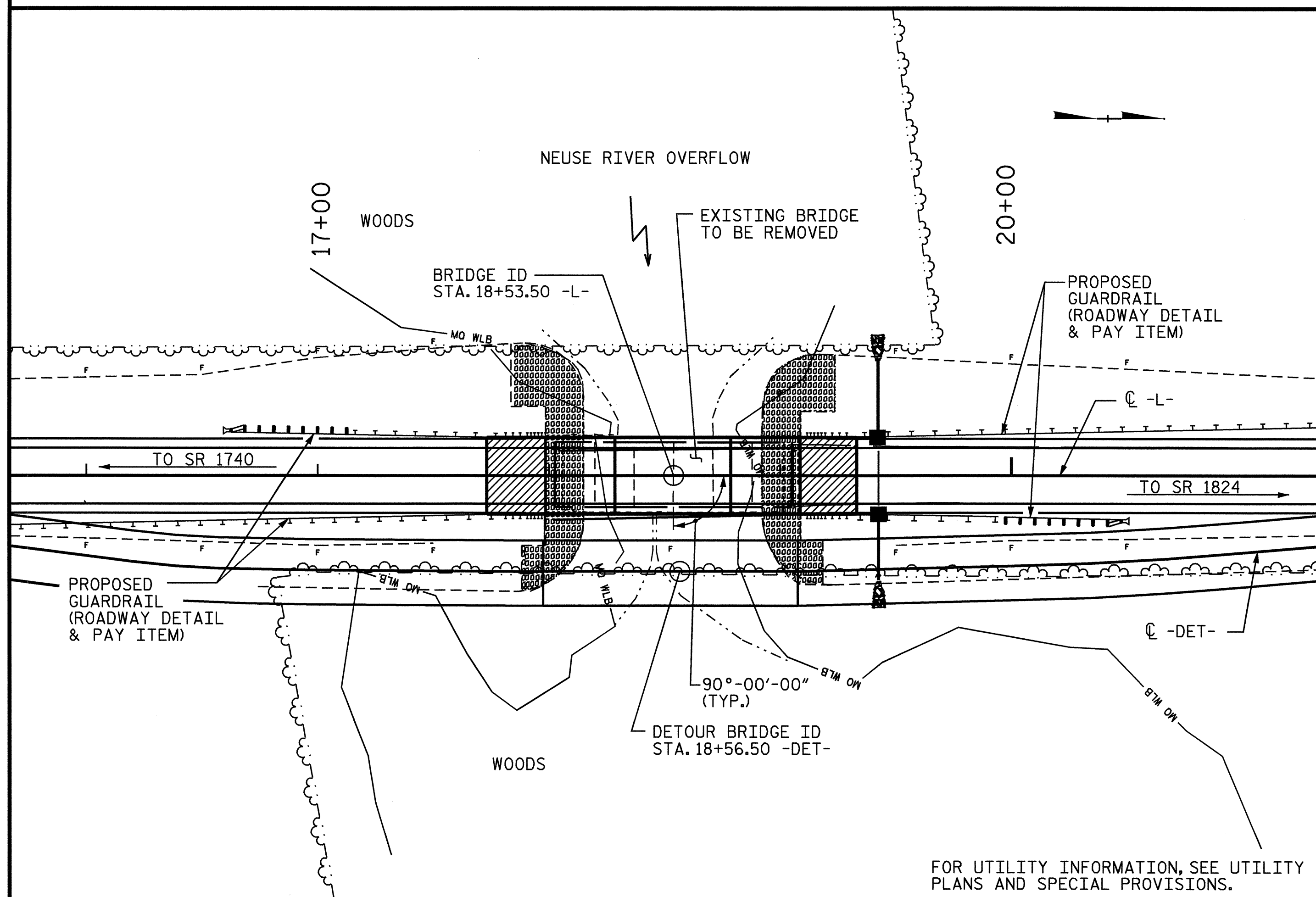


TBM #2 RR SPIKE IN BASE OF 18" TWIN PINE, 70.06' RT. BL STA. 24+91.71, ELEV. 60.44', NGVD 29.



LOCATION SKETCH

HYDRAULIC DATA

DESIGN DISCHARGE = 27900 C.F.S.
 FREQUENCY OF DESIGN FLOOD = 50 YR.
 DESIGN HIGH WATER ELEVATION = 60.5'
 DRAINAGE AREA = 2466 SQ. MI.
 BASIC DISCHARGE (Q100) = 33000 C.F.S.
 BASIC HIGH WATER ELEVATION = 61.7'

OVERTOPPING FLOOD DATA

OVERTOPPING DISCHARGE = 33000 C.F.S.
 FREQUENCY OF OVERTOPPING FLOOD = 100 YR.
 OVERTOPPING FLOOD ELEVATION = 61.6'

TOTAL BILL OF MATERIAL

| | CONSTRUCTION, MAINTENANCE & REMOVAL OF TEMPORARY STRUCTURE | REMOVAL OF EXISTING STRUCTURE | UNCLASSIFIED STRUCTURE EXCAVATION | CLASS A CONCRETE | BRIDGE APPROACH SLABS | REINFORCING STEEL | HP 12 X 53 STEEL PILES | | HP 14 X 73 STEEL PILES | | GALVANIZING STEEL PILES | CONCRETE BARRIER RAIL | PLAIN RIP RAP CLASS II (2'-0" THICK) | FILTER FABRIC FOR DRAINAGE | ELASTOMERIC BEARINGS | 3'-0" X 1'-9" PRESTRESSED CONCRETE CORED SLABS | |
|----------------|--|-------------------------------|-----------------------------------|------------------|-----------------------|-------------------|------------------------|---------|------------------------|---------|-------------------------|-----------------------|--------------------------------------|----------------------------|----------------------|--|---------|
| | | | | | | | NO. | LIN.FT. | NO. | LIN.FT. | | | | | | LUMP SUM | LIN.FT. |
| SUPERSTRUCTURE | LUMP SUM | LUMP SUM | LUMP SUM | CU. YDS. | LUMP SUM | LBS. | | | | | | 215.50 | | | LUMP SUM | 36 | 1290.00 |
| END BENT NO. 1 | | | LUMP SUM | 12.6 | | 1975 | 6 | 270 | | | | | 127 | 141 | | | |
| BENT NO. 1 | | | | 10.8 | | 1885 | | | 9 | 405 | LUMP SUM | | | | | | |
| BENT NO. 2 | | | | 10.8 | | 1885 | | | 9 | 405 | LUMP SUM | | | | | | |
| END BENT NO. 2 | | | LUMP SUM | 12.6 | | 1975 | 6 | 270 | | | | | 122 | 136 | | | |
| TOTAL | LUMP SUM | LUMP SUM | LUMP SUM | 46.8 | LUMP SUM | 7720 | 12 | 540 | 18 | 810 | LUMP SUM | 215.50 | 249 | 277 | LUMP SUM | 36 | 1290.00 |

DRAWN BY : PEGGY ADKINS DATE : 10-03
 CHECKED BY : T. AVERETTE DATE : 6-04

01-NOV-2004 09:40
 W:\squad\B3711\pdklins\Microstation\B3711_SD_GD_01.dgn
 padklins

NOTES:

ASSUMED LIVE LOAD = HS 20 OR ALTERNATE LOADING, EXCEPT THAT CORED SLAB UNITS HAVE BEEN DESIGNED FOR HS 25..

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.

THE EXISTING STRUCTURE CONSISTING OF 1 SPAN @ 17'-9", 4 SPANS @ 17'-0" AND 1 SPAN @ 17'-7" WITH A CLEAR ROADWAY WIDTH OF 28.0', A REINFORCED CONCRETE DECK ON I-BEAMS SUPPORTED BY TIMBER CAPS AND TIMBER PILES AND LOCATED AT THE SITE OF THE 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.

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 CONTRACTOR WILL BE REQUIRED TO CONSTRUCT, MAINTAIN AND AFTERWARDS REMOVE A TEMPORARY STRUCTURE AT STATION 18+53.50 -L- FOR USE DURING CONSTRUCTION OF THE PROPOSED STRUCTURE. SEE SPECIAL PROVISIONS FOR CONSTRUCTION, MAINTENANCE AND REMOVAL OF TEMPORARY STRUCTURE.

FOR SAND SEAL, SEE SPECIAL PROVISIONS.

THE MATERIAL SHOWN IN THE CROSS-HATCHED AREA SHALL BE EXCAVATED FOR A DISTANCE OF 31 FT. EACH SIDE OF CENTERLINE ROADWAY AS DIRECTED BY THE ENGINEER. THIS WORK WILL BE PAID FOR AT THE CONTRACT LUMP SUM PRICE FOR UNCLASSIFIED STRUCTURE EXCAVATION. FOR UNCLASSIFIED STRUCTURE EXCAVATION, SEE SPECIAL PROVISIONS.

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.

ASPHALT WEARING SURFACE IS INCLUDED IN ROADWAY QUANTITY ON ROADWAY 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 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.

INASMUCH AS THE PAINT SYSTEM ON THE EXISTING STRUCTURAL STEEL CONTAINS LEAD, THE CONTRACTOR'S ATTENTION IS DIRECTED TO ARTICLE 107-1 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+53.50 -L-.

FOR SUBMITTAL OF WORKING DRAWINGS, SEE SPECIAL PROVISIONS.

FOR FALSEWORK AND FORMWORK, SEE SPECIAL PROVISIONS.

PILES FOR END BENT NO.1 AND END BENT NO.2 SHALL BE DRIVEN TO A MINIMUM BEARING CAPACITY OF 50 TONS EACH.

PILES FOR BENT NO.1 AND BENT NO.2 SHALL BE DRIVEN TO AN ELEVATION NO HIGHER THAN 19 FT. AND SATISFY THE BEARING CAPACITY OF 50 TONS EACH.

THE SCOUR CRITICAL ELEVATION FOR BENT NO.1 AND BENT NO.2 IS 34 FT. THE SCOUR CRITICAL ELEVATION IS FOR USE BY MAINTENANCE FORCES TO MONITOR POSSIBLE SCOUR PROBLEMS DURING THE LIFE OF THE STRUCTURE.

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

FOR MAINTENANCE OF TRAFFIC, SEE TRAFFIC CONTROL PLANS.

THE STEEL PILES AT BENT 1 & 2 SHALL BE GALVANIZED IN ACCORDANCE WITH SECTION 1076 OF THE STANDARD SPECIFICATION. FOR GALVANIZING STEEL PILES SEE SPECIAL PROVISIONS.

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

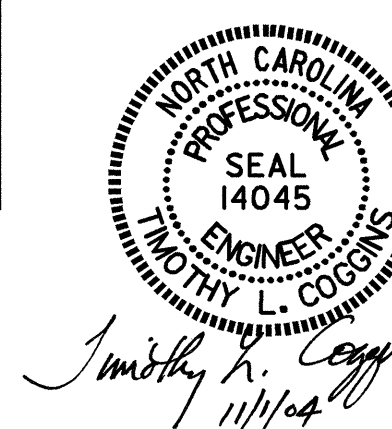
PROJECT NO. B-3711
 WAYNE COUNTY
 STATION: 18+53.50 -L-

SHEET 3 OF 3

STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH

GENERAL DRAWING

FOR BRIDGE OVER NEUSE RIVER
 OVERFLOW ON NC 111 BETWEEN
 SR 1740 AND SR 1824



| REVISIONS | | | | | | SHEET NO. |
|-----------|-----|-------|-----|-----|-------|--------------|
| NO. | BY: | DATE: | NO. | BY: | DATE: | S-3 |
| 1 | | | 3 | | | TOTAL SHEETS |
| 2 | | | 4 | | | 19 |

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