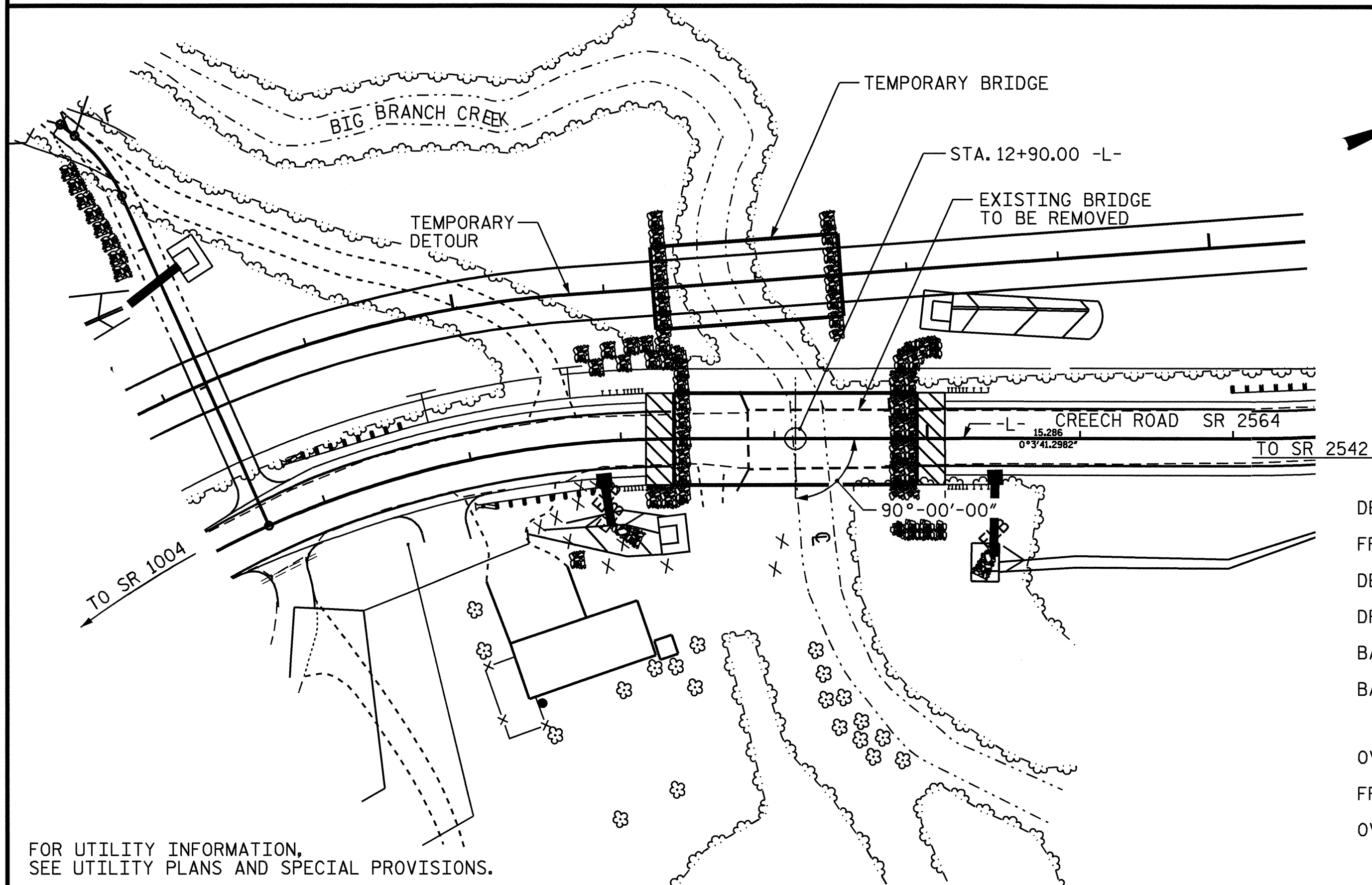


BENCH MARK: RAILROAD SPIKE SET IN 0.700m HICKORY TREE; -BL- STA. 7+73.851, 14.03m RT., ELEV. 71.577, NGVD 1929



**HYDRAULIC DATA**

DESIGN DISCHARGE = 45.3 m<sup>3</sup>/S.  
 FREQUENCY OF DESIGN FLOOD = 50 YRS.  
 DESIGN HIGH WATER ELEVATION = 68.690  
 DRAINAGE AREA = 5.957 SQ. km.  
 BASIC DISCHARGE(Q100) = 50.7 m<sup>3</sup>/S.  
 BASIC HIGH WATER ELEVATION = 68.840

**OVERTOPPING FLOOD DATA**

OVERTOPPING DISCHARGE = 256 m<sup>3</sup>/S.  
 FREQUENCY OF OVERTOPPING FLOOD = >500 YRS.  
 OVERTOPPING FLOOD ELEVATION = 72.570

FOR UTILITY INFORMATION, SEE UTILITY PLANS AND SPECIAL PROVISIONS.

LOCATION SKETCH

**NOTES**

ALL DIMENSIONS ARE IN MILLIMETERS UNLESS OTHERWISE NOTED.  
 ALL ELEVATIONS ARE IN METERS.  
 ASSUMED LIVE LOAD = MS 18 OR ALTERNATE LOADING.  
 THIS BRIDGE HAS BEEN DESIGNED BY THE STRENGTH DESIGN METHOD AS SPECIFIED IN AASHTO STANDARD SPECIFICATIONS.  
 FOR OTHER DESIGN DATA AND GENERAL NOTES, SEE SHEET SNSM.  
 FOR SUBMITTAL OF WORKING DRAWINGS, SEE SPECIAL PROVISIONS.  
 REMOVABLE FORMS MAY BE USED IN LIEU OF METAL STAY-IN-PLACE FORMS IN ACCORDANCE WITH ARTICLE 420-3 OF THE STANDARD SPECIFICATIONS.  
 THE EXISTING STRUCTURE CONSISTING OF 2 SPANS WITH ASPHALT WEARING SURFACE @ 9.150m ON 10 PRESTRESSED CONCRETE CHANNELS WITH A CLEAR ROADWAY WIDTH OF 7.800m ON PRESTRESSED CONCRETE CAPS AND TIMBER PILES SHALL BE REMOVED.  
 THE CONTRACTOR WILL BE REQUIRED TO CONSTRUCT, MAINTAIN AND AFTERWARDS REMOVE A TEMPORARY STRUCTURE AT STATION 12+25.000 -DET- FOR USE DURING CONSTRUCTION OF THE PROPOSED STRUCTURE. SEE SPECIAL PROVISIONS FOR CONSTRUCTION, MAINTENANCE AND REMOVAL OF TEMPORARY STRUCTURE.  
 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.  
 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 360,000 kg OF REINFORCING STEEL, ONE 760mm SAMPLE OF EACH SIZE BAR USED, AND FOR PROJECTS REQUIRING OVER 360,000 kg OF REINFORCING STEEL, TWO 760mm SAMPLES OF EACH SIZE BAR USED. THE BARS FROM WHICH THE SAMPLES ARE TAKEN MUST THEN BE SPICED WITH REPLACEMENT BARS OF THE SIZE AND LENGTH OF THE SAMPLE PLUS A MINIMUM LAP SPLICE OF THIRTY BAR DIAMETERS.  
 FOR EROSION CONTROL MEASURES SEE EROSION CONTROL PLANS.  
 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 MATERIAL SHOWN IN THE CROSS-HATCHED AREA SHALL BE EXCAVATED FOR A DISTANCE OF 8.800m EACH SIDE OF CENTERLINE ROADWAY AS DIRECTED BY THE ENGINEER. THIS WORK WILL BE MEASURED AND PAID FOR AS UNCLASSIFIED STRUCTURE EXCAVATION.  
 NEEDLE BEAMS WILL NOT BE ALLOWED UNLESS OTHERWISE CALLED FOR ON THE PLANS OR APPROVED BY THE ENGINEER.  
 FOR FALSEWORK AND FORMWORK, SEE SPECIAL PROVISIONS.  
 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.  
 INASMUCH AS THE PAINT SYSTEM ON THE EXISTING RAIL POSTS 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 STA. 12+90.000 -L-."  
 FOR SAND SEAL, SEE SPECIAL PROVISIONS.  
 FOR METRIC STRUCTURAL STEEL, SEE SPECIAL PROVISIONS.  
 FOR FABRICATED METAL STAY-IN-FORMS, SEE SPECIAL PROVISIONS.

**TOTAL BILL OF MATERIAL**

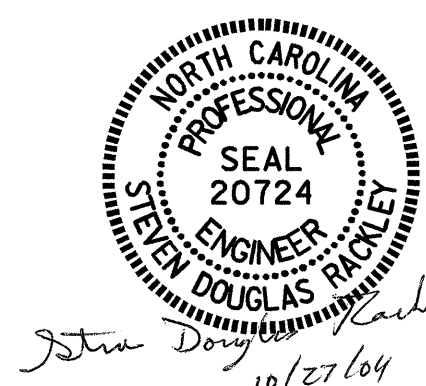
	CONSTRUCTION, MAINTENANCE, & REMOVAL OF TEMPORARY STRUCTURE	REMOVAL OF EXISTING STRUCTURE	PILE EXCAVATION IN SOIL	PILE EXCAVATION NOT IN SOIL	UNCLASSIFIED STRUCTURE EXCAVATION	REINFORCED CONCRETE DECK SLAB	GROOVING BRIDGE FLOORS	CLASS A CONCRETE	BRIDGE APPROACH SLABS	REINFORCING STEEL	MODIFIED 1600mm PRESTRESSED CONCRETE GIRDERS	HP 310 X 79 STEEL PILES	STEEL PILE POINTS	CONCRETE BARRIER RAIL	PLAIN RIP RAP CLASS II (600mm THICK)	FILTER FABRIC FOR DRAINAGE	ELASTOMERIC BEARINGS	EVAZOTE JOINT SEALS
	LUMP SUM	LUMP SUM	METERS	METERS	CU. METERS	SQ. METERS	SQ. METERS	CU. METERS	LUMP SUM	kg	NO., METERS	NO., METERS	EA.	METERS	METRIC TONS	SQ. METERS	LUMP SUM	LUMP SUM
SUPERSTRUCTURE	LUMP SUM	LUMP SUM				363.5	445		LUMP SUM		5 156.200			62.730			LUMP SUM	LUMP SUM
END BENT 1			13.3	11.9	291			25.4		2243		13 43.2	6		200	204		
END BENT 2					131			25.3		2238		13 71.5			205	209		
TOTAL	LUMP SUM	LUMP SUM	13.3	11.9	422	363.5	445	50.7	LUMP SUM	4481	5 156.200	26 114.7	6	62.730	405	413	LUMP SUM	LUMP SUM

PROJECT NO. B-3376  
WAKE COUNTY  
 STATION: 12+90.000 -L-

SHEET 3 OF 3

STATE OF NORTH CAROLINA  
 DEPARTMENT OF TRANSPORTATION  
 RALEIGH

GENERAL DRAWING  
 FOR BRIDGE ON SR 2564  
 OVER BIG BRANCH CREEK  
 BETWEEN SR 1004 & SR 2542



DRAWN BY: A. K. PATEL DATE: 7-16-04  
 CHECKED BY: S. H. SOCKWELL DATE: 8-09-04

27-OCT-2004 12:41  
 W:\squads\B3376\FINALP\B3376-2.DGN  
 srackley

REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	S-3
1			3			TOTAL SHEETS 23
2			4			