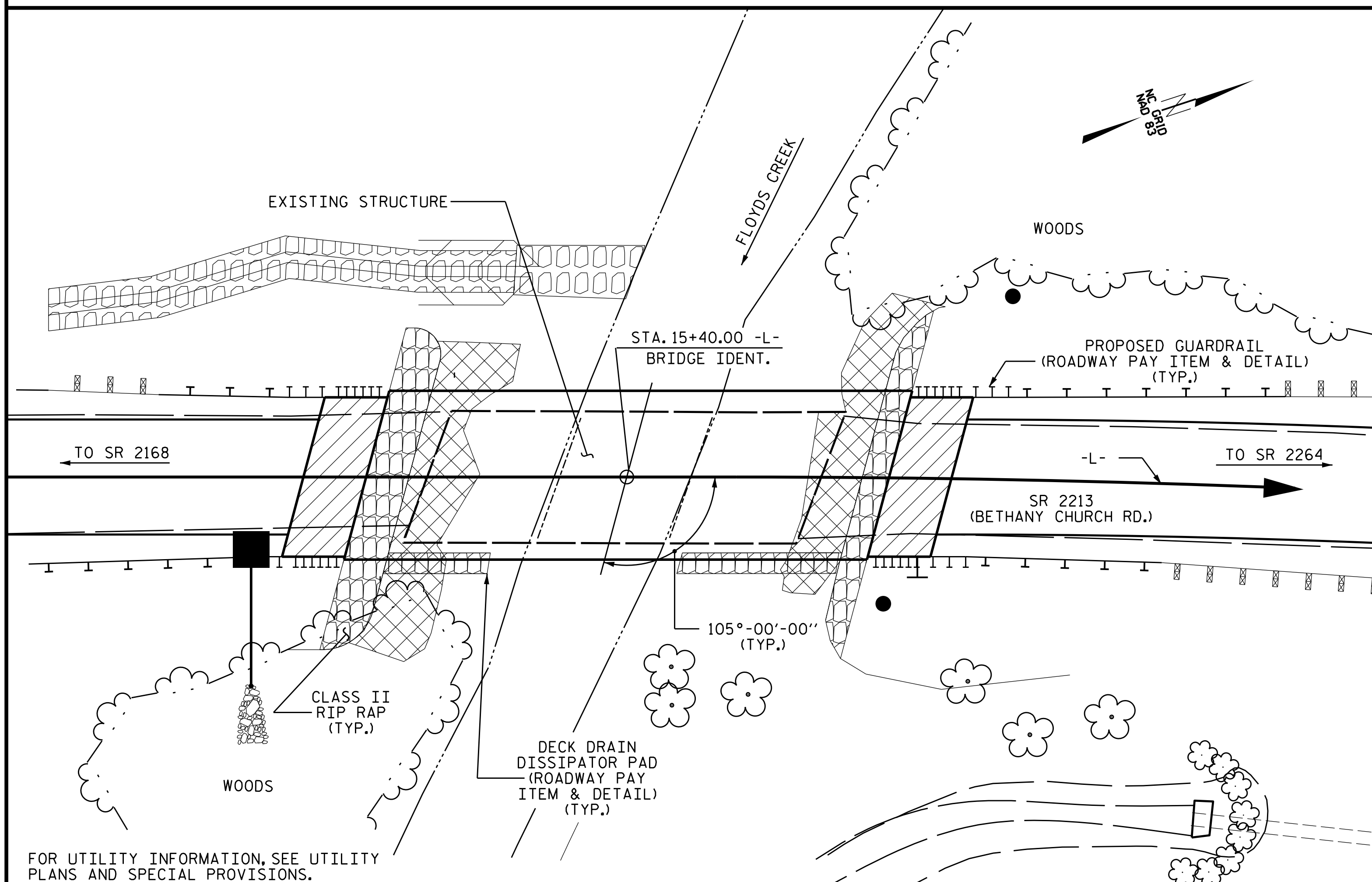


BENCHMARK #1 : RR SPIKE IN BASE OF 12" Ø SWEETGUM, STA. 14+45.63 -L-, 91.70' RT., ELEV. 870.68



LOCATION SKETCH

FOR UTILITY INFORMATION, SEE UTILITY PLANS AND SPECIAL PROVISIONS.

NOTES

- ASSUMED LIVE LOAD = HL-93 OR ALTERNATE LOADING.
- THIS BRIDGE HAS BEEN DESIGNED IN ACCORDANCE WITH THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS.
- THIS BRIDGE IS LOCATED IN SEISMIC ZONE 1.
- FOR OTHER DESIGN DATA AND GENERAL NOTES, SEE SHEET SN.
- FOR SUBMITTAL OF WORKING DRAWINGS, SEE SPECIAL PROVISIONS.
- FOR FALSEWORK AND FORMWORK, SEE SPECIAL PROVISIONS.
- FOR CRANE SAFETY, SEE SPECIAL PROVISIONS.
- FOR GROUT FOR STRUCTURES, SEE SPECIAL PROVISIONS.
- FOR ASBESTOS ASSESSMENT FOR BRIDGE DEMOLITION & RENOVATION ACTIVITIES, SEE SPECIAL PROVISIONS.
- 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. PAYMENT FOR THE SAMPLES OF REINFORCING STEEL SHALL BE CONSIDERED INCIDENTAL TO VARIOUS PAY ITEMS.
- 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'.

THE MATERIAL SHOWN IN THE CROSS-HATCHED AREA SHALL BE EXCAVATED FOR A DISTANCE OF 25 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. SEE SECTION 412 OF THE STANDARD SPECIFICATIONS.

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 IN A MANNER THAT PREVENTS DEBRIS FROM FALLING INTO THE WATER. THE CONTRACTOR SHALL SUBMIT DEMOLITION PLANS FOR REVIEW AND REMOVE THE BRIDGE IN ACCORDANCE WITH ARTICLE 402-2 OF THE STANDARD SPECIFICATIONS.

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

FOR EROSION CONTROL MEASURES, SEE EROSION CONTROL PLANS.

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

THE EXISTING 3-SPAN STRUCTURE (1 @ 25'-8", 1 @ 24'-6", 1 @ 25'-8") SHALL BE REMOVED. THE EXISTING STRUCTURE CONSISTS OF A TIMBER FLOOR ON 9 LINES OF STEEL I-BEAMS AND HAS A CLEAR ROADWAY WIDTH OF 23'-7" AND A 2 1/2" ASPHALT WEARING SURFACE. THE EXISTING SUBSTRUCTURE CONSISTS OF TIMBER CAPS AND PILES AT THE END BENTS AND BENTS. FOR REMOVAL OF EXISTING STRUCTURE, SEE SPECIAL PROVISIONS.

FOUNDATION NOTES

- FOR PILES, SEE GEOTECHNICAL SPECIAL PROVISIONS AND SECTION 450 OF THE STANDARD SPECIFICATIONS.
- PILES AT END BENT No. 1 AND END BENT No. 2 ARE DESIGNED FOR A FACTORED RESISTANCE OF 115 TONS PER PILE.
- DRIVE PILES AT END BENT No. 1 AND END BENT No. 2 TO A REQUIRED DRIVING RESISTANCE OF 192 TONS PER PILE.
- TESTING PILES WITH THE PDA DURING DRIVING. RESTRIKING OR REDRIVING MAY BE REQUIRED. THE ENGINEER WILL DETERMINE THE NEED FOR PDA TESTING. FOR PDA TESTING, SEE SECTION 450 OF THE STANDARD SPECIFICATIONS.

HYDRAULIC DATA

DESIGN DISCHARGE.....	2100 CFS.
FREQUENCY OF DESIGN FLOOD.....	25 YEARS
DESIGN HIGH WATER ELEVATION.....	869.7
DRAINAGE AREA.....	6.3 SQ. MI.
BASE DISCHARGE (Q100).....	2800 CFS.
BASE HIGH WATER ELEVATION.....	870.68

OVERTOPPING FLOOD DATA

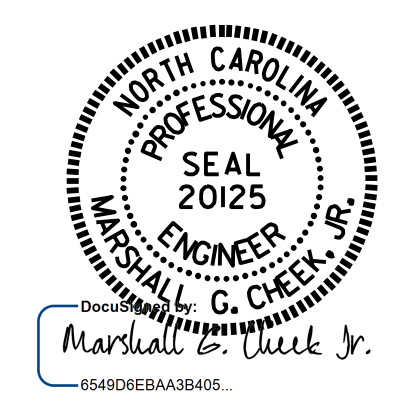
OVERTOPPING DISCHARGE.....	3600 + CFS.
FREQUENCY OF OVERTOPPING FLOOD.....	500 + YRS.
OVERTOPPING FLOOD ELEVATION AT STA. 14+72.00 -L-.....	880.5

TOTAL BILL OF MATERIAL

	REMOVAL OF EXISTING STRUCTURE	PDA TESTING	UNCLASSIFIED STRUCTURE EXCAVATION	CLASS A CONCRETE	BRIDGE APPROACH SLABS	REINFORCING STEEL	HP 12 X 53 STEEL PILES	TWO BAR METAL RAIL	1'-2" X 2'-10" CONCRETE PARAPET	RIP RAP CLASS II (2'-0" THICK)	GEOTEXTILE FOR DRAINAGE	ELASTOMERIC BEARINGS	3'-0" X 3'-3" PRESTRESSED CONCRETE BOX BEAMS	ASBESTOS ASSESSMENT
	LUMP SUM	EACH	LUMP SUM	CU. YD.	LUMP SUM	LBS.	NO. LIN. FT.	LIN. FT.	LIN. FT.	TONS	SO. YDS.	LUMP SUM	NO. LIN. FT.	LUMP SUM
SUPERSTRUCTURE	LUMP SUM				LUMP SUM			184.37	200.00			LUMP SUM	11 1100.00	LUMP SUM
END BENT No. 1			LUMP SUM	29.7		4701	7 210			190	210			
END BENT No. 2			LUMP SUM	29.7		4701	7 140			130	145			
TOTAL	LUMP SUM	1	LUMP SUM	59.4	LUMP SUM	9402	14 350	184.37	200.00	320	355	LUMP SUM	11 1100.00	LUMP SUM

PROJECT NO. B-5397
RUTHERFORD COUNTY
 STATION: 15+40.00 -L-

SHEET 2 OF 2



STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH
GENERAL DRAWING
 FOR BRIDGE
 OVER FLOYDS CREEK
 ON SR 2213 BETWEEN
 SR 2168 AND SR 2264

DRAWN BY : M. POOLE DATE : 8-15
 CHECKED BY : M. G. CHEEK DATE : 9-16

REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	
1			3			S-2
2			4			TOTAL SHEETS 18

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED