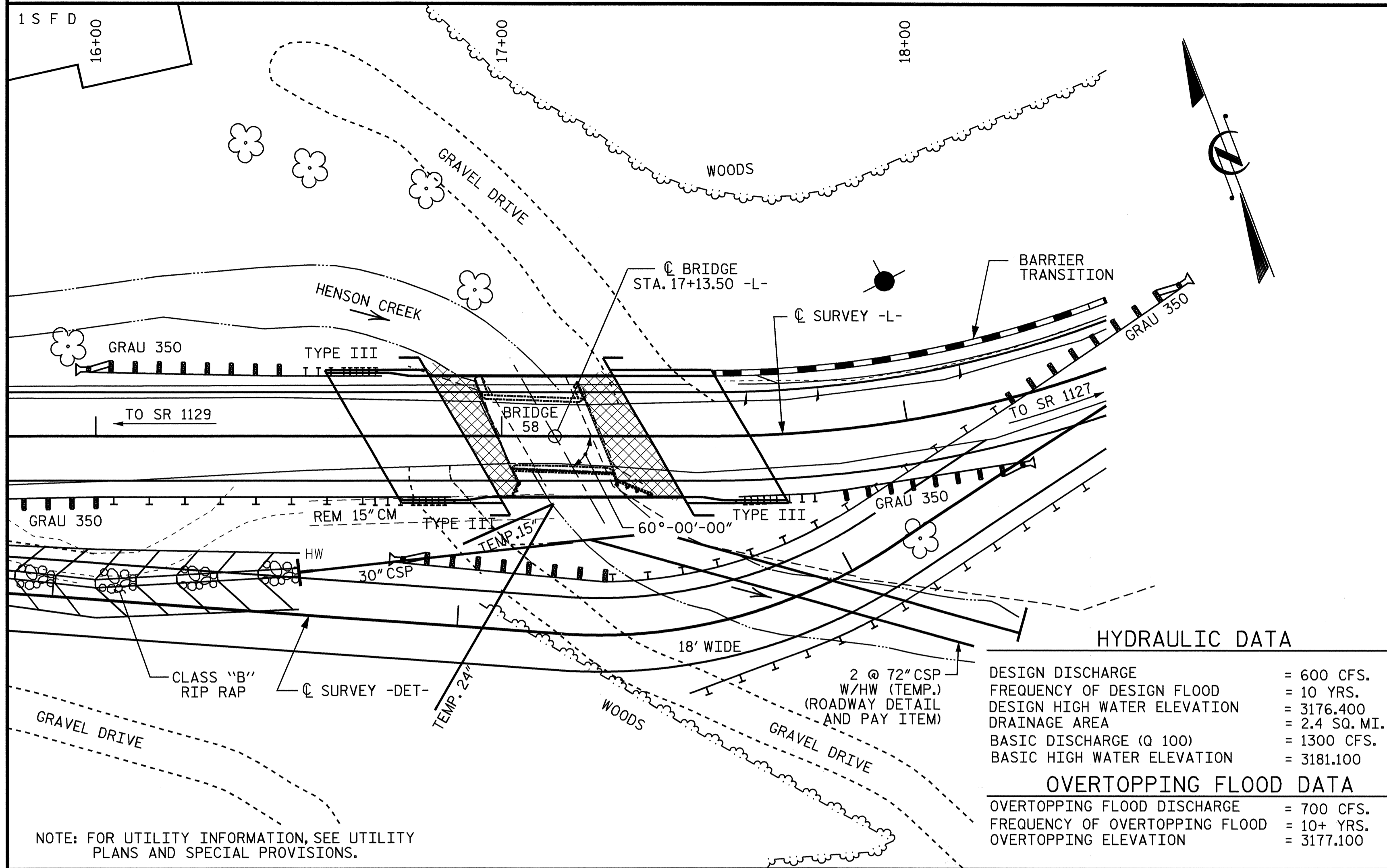


BENCH MARK : TBM-1 RAILROAD SPIKE SET IN BASE OF A 1.3' HARDWOOD TREE, 29.47' LEFT OF STA. 14+02.05 -L-, ELEVATION 3192.18



HYDRAULIC DATA

DESIGN DISCHARGE	= 600 CFS.
FREQUENCY OF DESIGN FLOOD	= 10 YRS.
DESIGN HIGH WATER ELEVATION	= 3176.400
DRAINAGE AREA	= 2.4 SQ. MI.
BASIC DISCHARGE (Q 100)	= 1300 CFS.
BASIC HIGH WATER ELEVATION	= 3181.100

OVERTOPPING FLOOD DATA

OVERTOPPING FLOOD DISCHARGE	= 700 CFS.
FREQUENCY OF OVERTOPPING FLOOD	= 10+ YRS.
OVERTOPPING ELEVATION	= 3177.100

LOCATION SKETCH

NOTES

ASSUMED LIVE LOAD = HS 20 OR ALTERNATE LOADING.

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 @ 25.5' WITH A CLEAR ROADWAY WIDTH OF 15.9' AND HAVING A TIMBER FLOOR COVERED WITH ASPHALT ON STEEL BEAMS SUPPORTED BY A SUBSTRUCTURE CONSISTING OF TIMBER CAPS ON TIMBER POSTS AND SILLS 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 MATERIAL SHOWN IN THE CROSS-HATCHED AREA SHALL BE EXCAVATED FOR A DISTANCE OF 20 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.

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 AASHTO STANDARD SPECIFICATIONS FOR SEISMIC DESIGN OF HIGHWAY BRIDGES FOR SEISMIC PERFORMANCE CATEGORY A.

FOR LIMITS OF TEMPORARY SHORING FOR MAINTENANCE OF TRAFFIC, SEE TRAFFIC CONTROL PLANS. FOR PAY ITEM FOR TEMPORARY SHORING FOR MAINTENANCE OF TRAFFIC, SEE ROADWAY PLANS.

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.

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 17+13.50 -L-."

FOR SUBMITTAL OF WORKING DRAWINGS, SEE SPECIAL PROVISIONS.

FOR FALSEWORK AND FORMWORK, SEE SPECIAL PROVISIONS.

FOR PRESTRESSED CONCRETE MEMBERS, SEE SPECIAL PROVISIONS.

FOR CONCRETE WEARING SURFACE, SEE SPECIAL PROVISIONS.

FOR CRANE SAFETY, SEE SPECIAL PROVISIONS.

THE DRILLED PIERS AT END BENT NOS. 1 & 2 HAVE BEEN DESIGNED FOR BOTH SKIN FRICTION AND TIP BEARING. THE REQUIRED TIP BEARING CAPACITY IS 15 TSF.

THE REQUIRED TIP BEARING CAPACITY AT END BENT NOS. 1 & 2 SHALL BE VERIFIED.

DRILLED PIERS FOR END BENT NOS. 1 & 2 HAVE BEEN DESIGNED FOR AN APPLIED LOAD OF 95 TONS EACH AT THE TOP OF THE COLUMN.

PERMANENT STEEL CASING MAY BE REQUIRED FOR DRILLED PIERS AT END BENT NO. 1. IF REQUIRED, THE CASING SHALL NOT EXTEND BELOW ELEVATION 3159.0 WITHOUT THE ENGINEER'S PERMISSION. THE NEED FOR PERMANENT STEEL CASING WILL BE DETERMINED BY THE ENGINEER.

PERMANENT STEEL CASING MAY BE REQUIRED FOR DRILLED PIERS AT END BENT NO. 2. IF REQUIRED, THE CASING SHALL NOT EXTEND BELOW ELEVATION 3168.0 WITHOUT THE ENGINEER'S PERMISSION. THE NEED FOR PERMANENT STEEL CASING WILL BE DETERMINED BY THE ENGINEER.

FOR PERMANENT STEEL CASING, SEE SPECIAL PROVISION FOR DRILLED PIERS.

DRILLED PIERS AT END BENT NO. 1 SHALL EXTEND TO AN ELEVATION NO HIGHER THAN 3156.0 AND SATISFY THE REQUIRED TIP BEARING CAPACITY.

DRILLED PIERS AT END BENT NO. 2 SHALL EXTEND TO AN ELEVATION NO HIGHER THAN 3158.0 AND SATISFY THE REQUIRED TIP BEARING CAPACITY.

FOR DRILLED PIERS, SEE SPECIAL PROVISIONS.

SPT TESTING IS NOT REQUIRED TO DETERMINE THE TIP BEARING CAPACITY OF THE DRILLED PIERS AT END BENT NOS. 1 & 2.

SLURRY CONSTRUCTION SHALL NOT BE USED FOR THIS PROJECT.

SID INSPECTIONS ARE NOT REQUIRED TO DETERMINE THE BOTTOM CLEANLINESS OF THE DRILLED PIERS AT END BENT NOS. 1 & 2.

CSL TUBES ARE REQUIRED AND CSL TESTING IS REQUIRED FOR THE DRILLED PIERS AT END BENT NOS. 1 & 2. SEE SPECIAL PROVISION FOR CROSSHOLE SONIC LOGGING.

TOTAL BILL OF MATERIAL

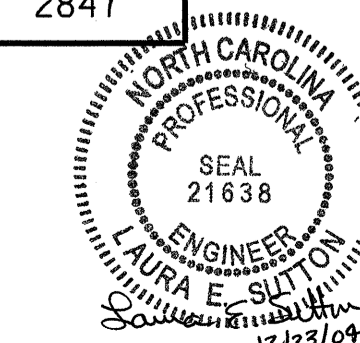
	REMOVAL OF EXISTING STRUCTURE	2'-6" Ø DRILLED PIERS IN SOIL	2'-6" Ø DRILLED PIERS NOT IN SOIL	PERMANENT STEEL CASING FOR 2'-6" Ø DRILLED PIERS	CROSSHOLE SONIC LOGGING	CSL TUBES	UNCLASSIFIED STRUCTURE EXCAVATION	GROOVING BRIDGE FLOORS	CLASS A CONCRETE	BRIDGE APPROACH SLABS	REINFORCING STEEL	SPIRAL COLUMN REINFORCING STEEL	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	CONCRETE WEARING SURFACE		
	LUMP SUM	LIN. FT.	LIN. FT.	LIN. FT.	EA.	LIN. FT.	LUMP SUM	SQ. FT.	CU. YDS.	LUMP SUM	LBS.	LBS.	LIN. FT.	TON	SQ. YDS.	LUMP SUM	NO.	LIN. FT.	SQ. FT.	
SUPERSTRUCTURE								2553.1		LUMP SUM			90.29			LUMP SUM	11	495.00	2847	
END BENT NO. 1		43.25	12.00	45.33		251.00			13.4		4862	815		43	48					
END BENT NO. 2		23.25	22.50	14.97	1	213.00			13.3		4598	681		31	34					
TOTAL	LUMP SUM	66.50	34.50	60.30	1	464.00	LUMP SUM	2553.1	26.7	LUMP SUM	9460	1496	90.29	74	82	LUMP SUM	11	495.00	2847	

PROJECT NO. B-3808
AVERY COUNTY
 STATION: 17+13.50 -L-

SHEET 3 OF 3

STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH

GENERAL DRAWING
 FOR BRIDGE OVER
 HENSON CREEK ON
 SR 1126 BETWEEN
 SR 1129 AND SR 1127



REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	S-3
1			3			TOTAL SHEETS
2			4			17

DRAWN BY : L.E. SUTTON/NOT. DATE : 11/02/04
 CHECKED BY : A.S. CALLAWAY DATE : 11/03/04

23-DEC-2004 10:14 AM d:\ad\3808\sub\turn\B3808.ec.dwg