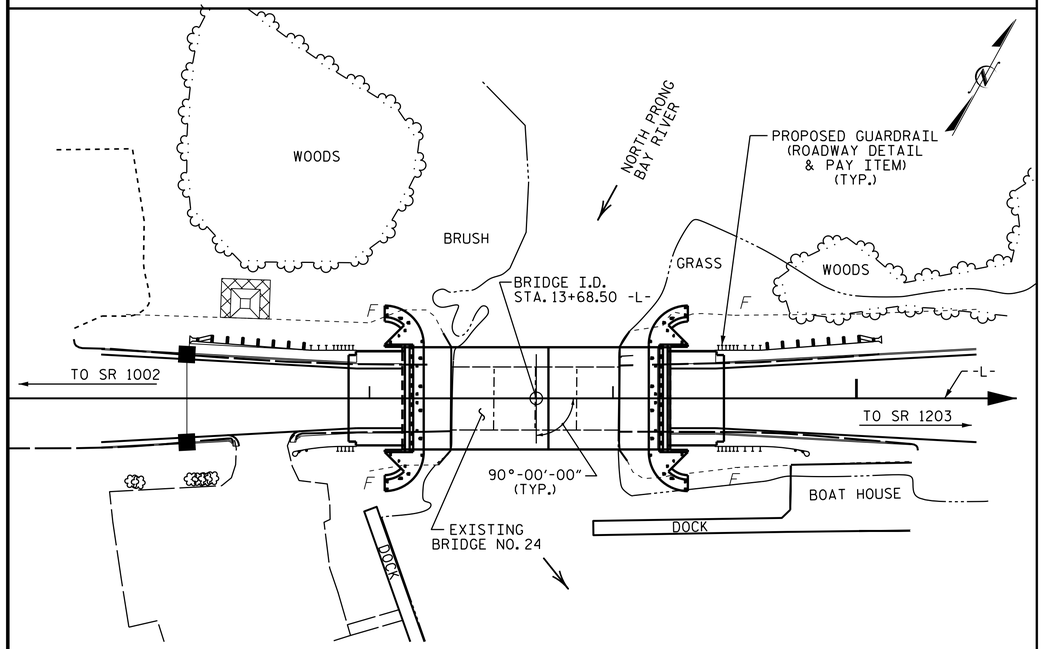
BM1 : RAILROAD SPIKE IN BASE OF POWER POLE NO. 7MG35, 71.21' RIGHT OF STA. 11+93.55 -L-, EL. 4.72', NAVD 88.



FOR UTILITY INFORMATION, SEE UTILITY PLANS AND SPECIAL PROVISIONS.

LOCATION SKETCH

NOTES

ASSUMED LIVE LOAD = HL-93 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 IN ACCORDANCE WITH THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS.

THE EXISTING STRUCTURE CONSISTING OF 4 SPANS, 1 @ 17.8', 2 @ 17' AND 1 @ 17.8' WITH A CLEAR ROADWAY WIDTH OF 26.083 FT. AND A REINFORCED CONCRETE DECK ON TIMBER JOISTS AND SUPPORTED BY A TIMBER CAP AND TIMBER PILES AT THE END BENTS AND BENTS AND LOCATED AT THE SITE OF THE PROPOSED STRUCTURE, SHALL BE REMOVED. THE EXISTING BRIDGE IS PRESENTLY NOT POSTED FOR LEGAL LOAD LIMIT. SHOULD THE STRUCTURAL INTEGRITY OF THE BRIDGE FURTHER DETERIORATE, A LOAD LIMIT MAY BE POSTED AND 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 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.

THE MATERIAL SHOWN IN THE CROSS-HATCHED AREA SHALL BE EXCAVATED FOR A DISTANCE OF 30 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.

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

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.

THIS STRUCTURE CONTAINS THE NECESSARY CORROSION PROTECTION REQUIRED FOR A CORROSIVE SITE.

CLASS AA CONCRETE SHALL BE USED IN ALL CAST-IN-PLACE BENT & END BENT CAPS, SIDEWALK, PARAPET & PEDESTALS, AND SHALL CONTAIN CALCIUM NITRITE CORROSION INHIBITOR.

ALL BAR SUPPORTS USED IN THE SIDEWALK, PARAPET, PEDESTALS, BENT CAPS AND END BENT CAPS AND ALL INCIDENTAL REINFORCING STEEL SHALL BE EPOXY COATED IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS.

THE CONCRETE IN THE PILES OF BENT 1 SHALL CONTAIN SILICA FUME. SILICA FUME SHALL BE SUBSTITUTED FOR 5% OF THE PORTLAND CEMENT BY WEIGHT. IF THE OPTION OF ARTICLE 1024-1 OF THE STANDARD SPECIFICATIONS TO PARTIALLY SUBSTITUTE CLASS F FLY ASH FOR PORTLAND CEMENT IS EXERCISED, THEN THE RATE OF FLY ASH SUBSTITUTION SHALL BE REDUCED TO 1.0 LB (1.0 KG) OF FLY ASH PER 1.0 LB (1.0 KG) OF CEMENT. NO PAYMENT WILL BE MADE FOR THIS SUBSTITUTION AS IT IS CONSIDERED INCIDENTAL TO THE VARIOUS PAY ITEMS.

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.

THIS BRIDGE IS LOCATED IN SEISMIC ZONE 1.

TOTAL BILL OF MATERIAL

	REMOVAL OF EXISTING STRUCTURE	PDA TESTING	UNCLASSIFIED STRUCTURE EXCAVATION	CONCRETE WEARING SURFACE	GROOVING BRIDGE FLOORS	CLASS AA CONCRETE	BRIDGE APPROACH SLABS	EPOXY COATED REINFORCING STEEL	16" PRESTRESSED CONCRETE PILES		24" PRESTRESSED CONCRETE PILES		PREDRILLING FOR PILES	PILE REDRIVES	RIP RAP CLASS II (2'-0" THICK)	GEOTEXTILE FOR DRAINAGE	ELASTOMERIC BEARINGS	3'-0" X 2'-0" PRESTRESSED CONCRETE CORED SLABS		AESTHETIC LIGHTING	DECORATIVE METAL RAIL & CONCRETE PARAPET
	LUMP SUM	EACH	LUMP SUM	SQ. FT.	SQ. FT.	CU. YDS.	LUMP SUM	LBS.	NO.	LIN. FT.	NO.	LIN. FT.	LIN. FT.	EACH	TONS	SQ. YDS.	LUMP SUM	NO.	LIN.FT.	LUMP SUM	LIN. FT.
SUPERSTRUCTURE				3139	4039	53.8	LUMP SUM	2077									LUMP SUM	28	1540.0	LUMP SUM	307.67
END BENT 1						29.0		3394	6	480				3	62	69					
BENT 1						17.5		2941			8	640	320	4							
END BENT 2						29.0		3394	6	480				3	62	69					
TOTAL	LUMP SUM	2	LUMP SUM	3139	4039	129.3	LUMP SUM	11806	12	960	8	640	320	10	124	138	LUMP SUM	28	1540.0	LUMP SUM	307.67

HYDRAULIC DATA

DESIGN DISCHARGE	=	2220 cfs
FREQUENCY OF DESIGN FLOOD	=	50 yr
DESIGN HIGH WATER ELEVATION	=	2.20'
DRAINAGE AREA	=	18.1 sq. mi.
BASE DISCHARGE (Q100)	=	2840 cfs
BASE HIGH WATER ELEVATION	=	2.77'

*OVERTOPPING FLOOD DATA

OVERTOPPING DISCHARGE	=	--- cfs
FREQUENCY OF OVERTOPPING FLOOD	=	>500 yr
OVERTOPPING FLOOD ELEVATION	=	5.52'

* ℄ @ SAG -L- STA. 17+45.00

NORTH CAROLINA PROFESSIONAL SEAL 22005 ENGINEER A. KEITH PASCHAL

DocuSigned by: A. Keith Paschal F8B6AD6DB2FC48F...
12/5/2014

PROJECT NO. B-5129A
PAMLICO COUNTY
STATION: 13+68.50 -L-

SHEET 3 OF 3

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH

GENERAL DRAWING
BRIDGE OVER NORTH PRONG BAY RIVER ON NC 304 BETWEEN SR 1002 AND SR 1203

REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	S-3
1			3			TOTAL SHEETS
2			4			25

DRAWN BY : D. G. ELY DATE : 2-6-14
CHECKED BY : B. N. BARODAWALA DATE : 3-18-14
DESIGN ENGINEER OF RECORD: A. K. PASCHAL DATE : 5-22-14

04-DEC-2014 15:08
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kpaschal