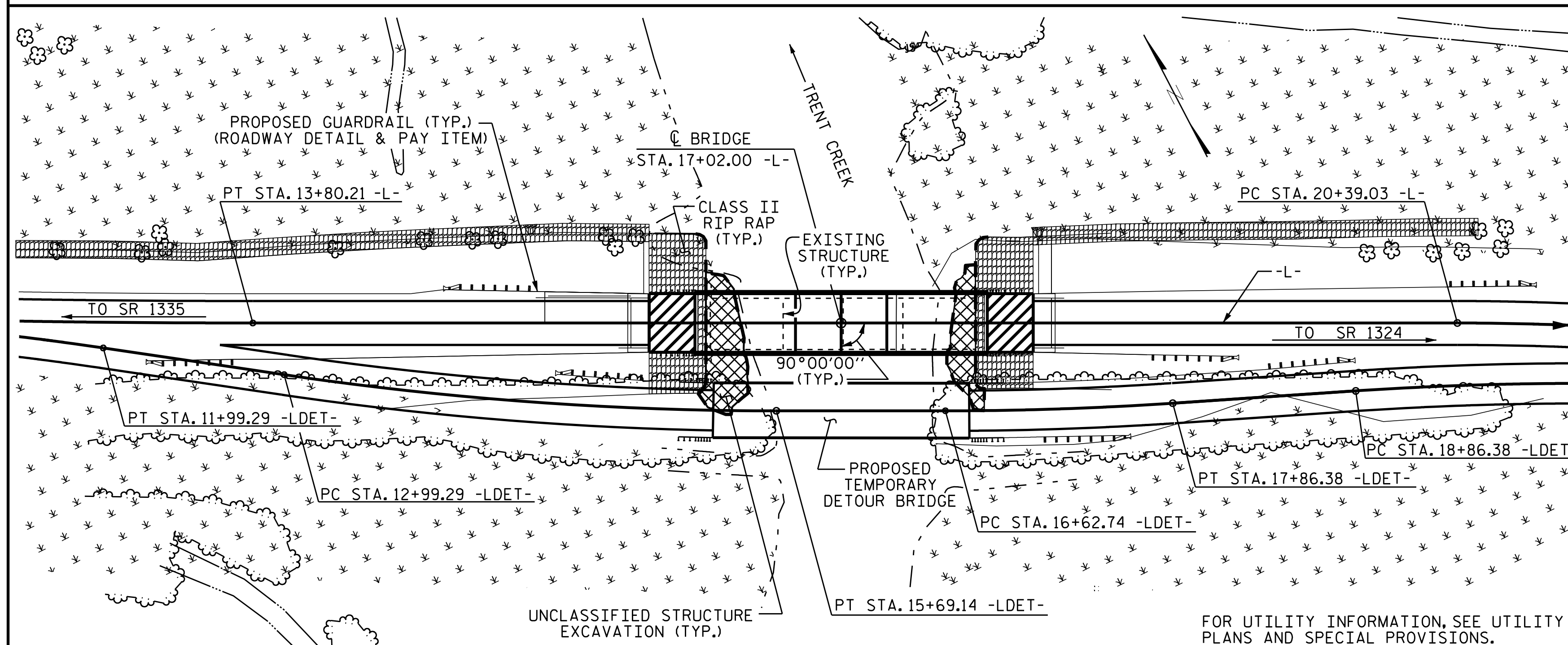


BM: NCGS MONUMENT, 19' LT. OF STA. 18+09.00 -L-, ELEV. = 9.54, DATUM: NAVD 88



LOCATION SKETCH

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 EROSION CONTROL MEASURES, SEE EROSION CONTROL PLANS.
- NEEDLE BEAMS WILL NOT BE ALLOWED UNLESS OTHERWISE CALLED FOR ON THE PLANS OR APPROVED BY THE ENGINEER.
- THIS STRUCTURE CONTAINS THE NECESSARY CORROSION PROTECTION REQUIRED FOR A CORROSIVE SITE.
- CLASS AA CONCRETE SHALL BE USED IN ALL CAST-IN-PLACE COLUMNS, BENT CAPS, PILE CAPS, AND FOOTINGS, AND SHALL CONTAIN CALCIUM NITRATE CORROSION INHIBITOR. FOR CALCIUM NITRATE CORROSION INHIBITOR, SEE STANDARD SPECIFICATIONS.
- ALL METALLIZED SURFACES SHALL RECEIVE SEAL COATING AS SPECIFIED IN THE SPECIAL PROVISION FOR THERMAL SPRAYED COATINGS (METALLIZATION).
- ALL BAR SUPPORTS USED IN THE PARAPET, DECK, PRESTRESSED CONCRETE GIRDERS, END BENTS, BENT CAPS, PRESTRESSED CONCRETE PILES, AND ALL INCIDENTAL REINFORCING STEEL SHALL BE EPOXY COATED IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS.

THE MATERIAL SHOWN IN THE CROSS-HATCHED AREA SHALL BE EXCAVATED FOR A DISTANCE OF 28 FT. LEFT OF CENTERLINE ROADWAY AND 50 FT. RIGHT OF CENTERLINE ROADWAY AT END BENT 1 AND 32 FT. RIGHT OF CENTERLINE ROADWAY AND 48 FT. RIGHT OF CENTERLINE ROADWAY AT END BENT 2 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 CONTRACTOR WILL BE REQUIRED TO CONSTRUCT, MAINTAIN AND AFTERWARDS REMOVE A TEMPORARY STRUCTURE AT STATION 16+05.00 -LDET- FOR USE DURING CONSTRUCTION OF THE PROPOSED STRUCTURE. FOR CONSTRUCTION, MAINTENANCE AND REMOVAL OF TEMPORARY STRUCTURE, SEE SPECIAL PROVISIONS.

THE EXISTING STRUCTURE CONSISTING OF 1 @ 40', 2 @ 32.7', 1 @ 40' SPANS OF REINFORCED CONCRETE FLOOR ON STEEL I-BEAMS ON REINFORCED CONCRETE ABUTMENT END BENTS AND BENTS WITH 28'-0" CLEAR ROADWAY WIDTH LOCATED AT THE SAME LOCATION AS THE PROPOSED BRIDGE, SHALL BE REMOVED. THE EXISTING BRIDGE IS PRESENTLY NOT POSTED FOR LOAD LIMIT. SHOULD THE STRUCTURAL INTEGRITY OF THE BRIDGE DETERIORATE DURING CONSTRUCTION OF THE PROPOSED BRIDGE, 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.

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+02.00 -L-".

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

FOR ASBESTOS ASSESSMENT FOR BRIDGE DEMOLITION AND RENOVATION ACTIVITIES, SEE SPECIAL PROVISIONS.

PILE DRIVING EQUIPMENT SETUP FOR 24" SQUARE PRESTRESSED CONCRETE PILES INCLUDES ENTIRE COMPOSITE PILE. SEE "24" PRESTRESSED CONCRETE COMPOSITE PILE" SHEET.

TOTAL BILL OF MATERIAL

	CONSTRUCTION MAINTENANCE, AND REMOVAL OF TEMPORARY STRUCTURE	REMOVAL OF EXISTING STRUCTURE	ASBESTOS ASSESSMENT	PDA TESTING	UNCLASSIFIED STRUCTURE EXCAVATION	REINFORCED CONCRETE DECK SLAB	GROOVING BRIDGE FLOORS	CLASS AA CONCRETE	BRIDGE APPROACH SLABS	EPOXY COATED REINFORCING STEEL	36" PRESTRESSED CONCRETE GIRDERS	
	LUMP SUM	LUMP SUM	LUMP SUM	EACH	LUMP SUM	SO. FT.	SO. FT.	CU. YDS.	LUMP SUM	LBS.	NO.	LIN. FT.
SUPERSTRUCTURE						5,533	6,003		LUMP SUM		12	629.7
END BENT NO. 1								26.6		4302		
BENT NO. 1								18.4		2307		
BENT NO. 2								18.4		2307		
END BENT NO. 2								26.6		4302		
TOTAL	LUMP SUM	LUMP SUM	LUMP SUM	2	LUMP SUM	5,533	6,003	90.0	LUMP SUM	13218	12	629.7

THE CONCRETE IN THE PRESTRESSED CONCRETE PILES 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 OF FLY ASH TO 1.0 LB OF CEMENT. NO PAYMENT WILL BE MADE FOR THIS SUBSTITUTION AS IT IS CONSIDERED INCIDENTAL TO THE VARIOUS PAY ITEMS.

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 SAMPLE BARS SHOULD COME FROM STEEL ACTUALLY USED IN THE PROJECT AND THE SAMPLE BARS SHOULD BE REPLACED BY SPLICED BARS AS SPECIFIED IN THE SAMPLE BAR REPLACEMENT CHART. PAYMENT FOR THE SAMPLE BARS AND REPLACEMENT REINFORCING STEEL SHALL BE CONSIDERED INCIDENTAL TO VARIOUS PAY ITEMS.

ALL REMNANT PILES FROM THE EXISTING BRIDGE OR ANY PREVIOUS BRIDGES SHALL BE REMOVED. IN THE EVENT THAT A PILE CANNOT BE REMOVED COMPLETELY, THE PILE SHALL BE CUT OFF AT THE MUD LINE.

	PILE DRIVING EQUIPMENT SETUP FOR 12" PRESTRESSED CONCRETE PILES	PILE DRIVING EQUIPMENT SETUP FOR 24" PRESTRESSED CONCRETE PILES	12" PRESTRESSED CONCRETE PILES	24" PRESTRESSED CONCRETE PILES	HP 12 X 84 STEEL PILES	PILE REDRIVES	TWO BAR METAL RAIL	1'- 2" X 2'- 6" CONCRETE PARAPET	RIP RAP CLASS II (2'- 0" THICK)	GEOTEXTILE FOR DRAINAGE	ELASTOMERIC BEARINGS
	EACH	EACH	NO.	LIN. FT.	NO.	LIN. FT.	NO.	LIN. FT.	TONS	SO. YDS.	LUMP SUM
SUPERSTRUCTURE								301.17	316.67		LUMP SUM
END BENT NO. 1	5		5	175			3		263	292	
BENT NO. 1		6		6	150	6	120	3			
BENT NO. 2		6		6	150	6	120	3			
END BENT NO. 2	5		5	175			3		237	263	
TOTAL	10	12	10	350	12	300	12	240	12	555	LUMP SUM

SIZE	LENGTH
#3	6'-2"
#4	7'-4"
#5	8'-6"
#6	9'-8"
#7	10'-10"
#8	12'-0"
#9	13'-2"
#10	14'-6"
#11	15'-10"

NOTE: SAMPLE BAR REPLACEMENT LENGTHS BASED ON 30" (SAMPLE LENGTH) PLUS TWO SPLICE LENGTHS AND $f_y = 60\text{ksi}$.

HYDRAULIC DATA		OVERTOPPING FLOOD DATA	
DESIGN DISCHARGE	= N/A C.F.S.	OVERTOPPING DISCHARGE	= 3450 C.F.S.
FREQUENCY OF DESIGN FLOOD	= N/A YEARS	FREQUENCY OF OVERTOPPING FLOOD	= 500+ YEARS
DESIGN HIGH WATER ELEVATION	= N/A FT.	OVERTOPPING FLOOD ELEVATION	= 4.6 FT.
DRAINAGE AREA	= 16.5 SO. MI.	OVERTOPPING OCCURS	403' PAST STATION 26+00.00 -L- (ALONG NC 55)
BASE DISCHARGE (Q100)	= N/A C.F.S.		
BASE HIGH WATER ELEVATION	= N/A FT.		

DRAWN BY : J.R. MCROY DATE : 12/18
 CHECKED BY : P. N. HOLDER DATE : 12/18
 DESIGN ENGINEER OF RECORD: J.R. MCROY DATE : 12/18

VOLKERT
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 Tel. 919-854-0344 Fax. 919-854-0355
 NC License No. F-0765



PROJECT NO. B-4593
PAMLICO COUNTY
 STATION: 17+02.00 -L-

SHEET 3 OF 3

REVISIONS						TOTAL SHEETS
NO.	BY:	DATE:	NO.	BY:	DATE:	42
1			3			
2			4			

STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH

GENERAL DRAWING
 FOR BRIDGE ON NC 55
 OVER TRENT CREEK
 BETWEEN SR 1324 AND SR 1335

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED