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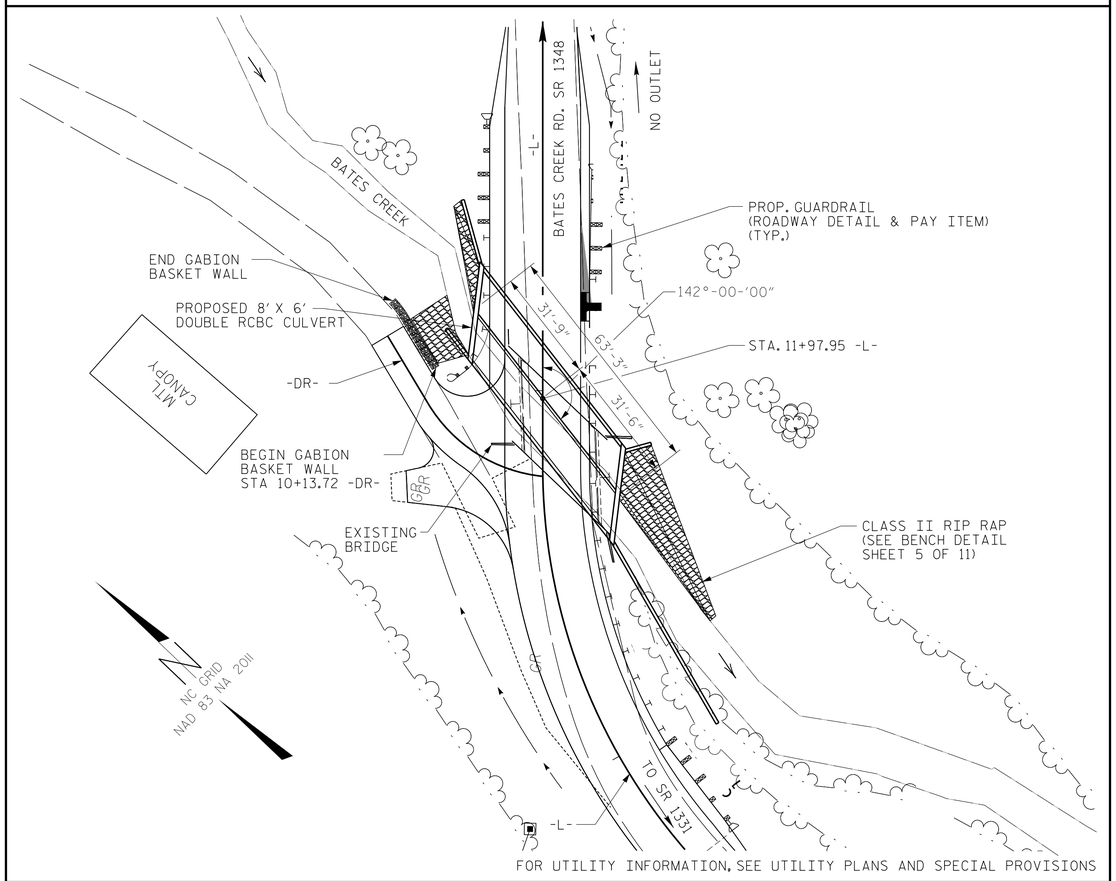
BM #1: 8" SPIKE IN BASE OF 26" RED OAK, 33.00' LEFT OF -L- STA. 5+54.00
N 534869.72, E 489980.97 EL. 1741.00



FOR UTILITY INFORMATION, SEE UTILITY PLANS AND SPECIAL PROVISIONS

LOCATION SKETCH

NOTES

ASSUMED LIVE LOAD ----- HL-93 OR ALTERNATE LOADING.

DESIGN FILL ----- MAX.=3.00' MIN.=2.38'

FOR OTHER DESIGN DATA AND GENERAL NOTES, SEE STANDARD NOTES SHEET SN.

THE RESIDENT ENGINEER SHALL CHECK THE LENGTH OF CULVERT BEFORE STAKING IT OUT TO MAKE CERTAIN THAT IT WILL PROPERLY TAKE CARE OF THE FILL.

CONCRETE IN CULVERT SHALL BE POURED IN THE FOLLOWING ORDER:
1. WINGS FOOTINGS AND FLOOR SLAB INCLUDING 4" OF ALL VERTICAL WALLS.
2. THE REMAINING PORTIONS OF THE WALLS AND WINGS FULL HEIGHT FOLLOWED BY ROOF SLAB AND HEADWALLS.

FOR MAINTENANCE OF TRAFFIC, SEE TRAFFIC MANAGEMENT PLANS.

FOR FALSEWORK AND FORMWORK, SEE SPECIAL PROVISIONS.

FOR CRANE SAFETY, SEE SPECIAL PROVISIONS.

FOR SUBMITTAL OF WORKING DRAWINGS, SEE SPECIAL PROVISIONS.

FOR GROUT FOR STRUCTURES, SEE SPECIAL PROVISIONS.

TEMPORARY SHORING WILL BE REQUIRED. SEE STANDARD DRAWING NO. 1801.01 FOR STANDARD TEMPORARY SHORING.

NO PRECAST REINFORCED BOX CULVERT OPTION WILL BE ALLOWED.

THE EXISTING STRUCTURE CONSISTING OF SINGLE SPAN 25'-6"; CLEAR ROADWAY WIDTH OF 19'-0" TIMBER FLOOR ON STEEL BEAMS; END BENTS CONSISTING OF TIMBER CAPS ON TIMBER POSTS AND CONCRETE SILLS AND LOCATED AT THE PROPOSED STRUCTURE SITE SHALL BE REMOVED. THE EXISTING BRIDGE IS PRESENTLY POSTED FOR LOAD LIMIT.

AT THE CONTRACTOR'S OPTION HE MAY SPLICE THE VERTICAL REINFORCING STEEL IN THE INTERIOR FACE OF THE EXTERIOR WALLS AND BOTH FACES OF THE INTERIOR WALL ABOVE LOWER WALL CONSTRUCTION JOINT. THE SPLICE SHALL BE AS PROVIDED IN THE SPLICE LENGTH CHART SHOWN ON THE PLANS. EXTRA WEIGHT OF STEEL DUE THE SPLICES SHALL BE PAID FOR BY THE CONTRACTOR.

FOR CULVERT DIVERSION DETAILS AND PAY ITEM, SEE EROSION CONTROL PLAN.

A 3 FOOT STRIP OF FILTER FABRIC SHALL BE ATTACHED TO THE FILL FACE OF THE WING COVERING THE ENTIRE LENGTH OF THE EXPANSION JOINT.

STEEL IN THE BOTTOM SLAB MAY BE SPLICED AT THE PERMITTED, CONSTRUCTION JOINT AT THE CONTRACOR'S OPTION. EXTRA WEIGHT OF STEEL DUE TO THE SPLICES WILL BE PAID FOR BY THE CONTRACTOR.

FOR GABION BASKET WALL, SEE SPECIAL PROVISIONS.

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.

3"Ø WEEP HOLES INDICATED SHALL BE IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS.

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 OFTRANSPORTATION FOR ANY DELAYS OR ADDITIONAL COST INCURRED BASED ON DIFFERENCES BETWEEN THE EXISTING BRIDGE SHOWN ON THE PLANS AND THE ACTUAL CONDITIONS AT THE PROJECT SITE.

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.

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".

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

DIMENSIONS FOR THE WING LAYOUT AS WELL AS ADDITIONAL REINFORCING STEEL EMBEDDED IN BARREL ARE SHOWN ON WING SHEETS.

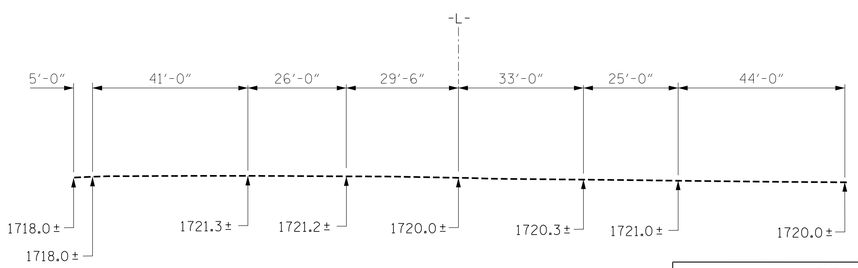
FOUNDATION NOTES

ECAVATE 1 FOOT BELOW CULVERT AND FOOTINGS AND REPLACE WITH FOUNDATION CONDITIONING MATERIAL IN ACCORDANCE WITH ARTICLE 414-4 OF THE STANDARD SPECIFICATIONS.

CULVERT EXCAVATION LUMP SUM PAY ITEM SHALL INCLUDE A MINIMUM OF 50 C.Y. OF ROCK EXCAVATION.

TOTAL STRUCTURE QUANTITIES

REMOVAL OF EXISTING STRUCTURE	LUMP SUM			
ASBESTOS ASSESSMENT	LUMP SUM			
CULVERT EXCAVATION	LUMP SUM			
FOUNDATION CONDITIONING MATERIAL	100.0	TONS		
GABION BASKET WALL	96	SF		
CLASS A CONCRETE				
BARREL @	2.07	CY/FT	130.9	C.Y.
WINGS, SILLS, ETC.	48.3	C.Y.		
TOTAL	179.2	C.Y.		
REINFORCING STEEL				
BARREL	17,168	LBS.		
WINGS ETC.	4,172	LBS.		
TOTAL	21,340	LBS.		
CLASS II RIP RAP (2'-0" THICK)	47	TONS		
GEOTEXTILE FOR DRAINAGE	72	SY		



ROADWAY DATA

GRADE POINT ELEV. @ STATION 11+97.95 -L- = 1727.16
BED ELEV. @ STATION 11+97.95 -L- = 1718.49
ROADWAY SLOPES 2:1

PROFILE ALONG ℄ CULVERT

HYDRAULIC DATA

DESIGN DISCHARGE	= 550	CFS
DESIGN FREQUENCY	= 25	YRS
DESIGN HW ELEVATION	= 1724.6	FT
DRAINAGE AREA	= 1.64	SQ. MI.
BASE DISCHARGE	= 800	CFS
BASE FREQUENCY	= 100	YRS
BASE HW ELEVATION	= 1727.19	FT

REVISED FINAL
02/03/17

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

OVERTOPPING FLOOD DATA

OVERTOPPING DISCHARGE	= 750	CFS
OVERTOPPING FREQUENCY	= 50	YRS
OVERTOPPING ELEVATION	= 1727.0	FT
W.S. ELEVATION AT DATE OF SURVEY	= 1720.1	FT
	DATE: 11/14/2013	

NORTH CAROLINA PROFESSIONAL SEAL 20717 ENGINEER HARRY L. WILLIS
7/20/2018 1:49:14 PM EDT

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PROJECT NO. 14SP.20201.1
CHEROKEE COUNTY
STATION: 11+97.95 -L-
SHEET 1 OF 11 REPLACE BRIDGE No. 163

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH

GENERAL DRAWING
DOUBLE BARREL
8' X 6' RCBC
ALONG BATES CREEK
ON SR 1348 (BATES CREEK ROAD)
NEAR INTERSECTION WITH PEAR LANE

DRAWN BY: AW	DATE: 02/2016	
CHECKED BY: HLW	DATE: 02/2016	
ENG. OF RECORD: RTS	DATE: 02/2016	

REVISIONS

NO.	BY:	DATE:	NO.	BY:	DATE:
1			3		
2			4		

SHEET NO. C-1
TOTAL SHEETS 11