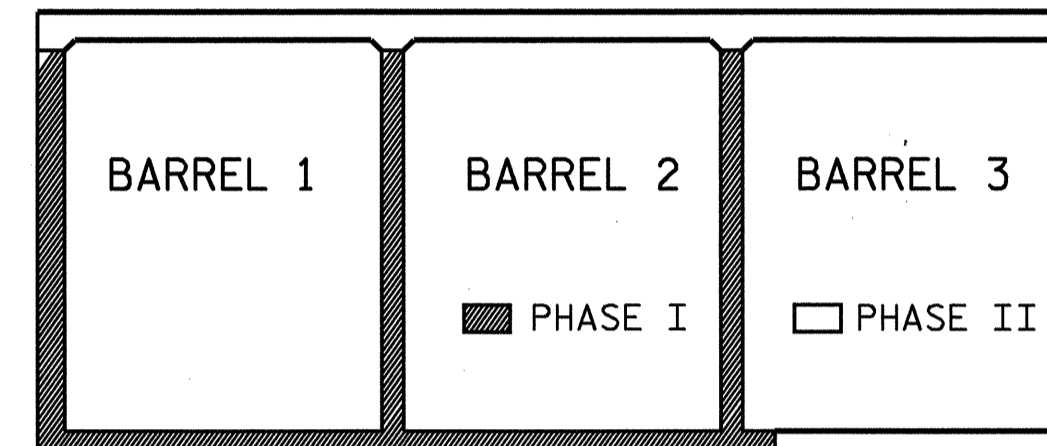


BM. #2 RR SPIKE IN 16" OAK, -BL- STA. 11+35.00, 164'-0" RIGHT, ELEV. 389.05

F. A. PROJECT NO. BRZ-1565(6)

NOTES

- ASSUMED LIVE LOAD -----HS20-44 OR ALTERNATE LOADING.
- DESIGN FILL-----4.57'
- FOR OTHER DESIGN DATA AND NOTES SEE STANDARD NOTE SHEET.
- 3" Ø WEEP HOLES INDICATED TO BE IN ACCORDANCE WITH THE SPECIFICATIONS.
- CONCRETE IN CULVERTS TO BE POURED IN THE FOLLOWING ORDER:
 1. WING FOOTINGS AND FLOOR SLAB INCLUDING 3/2" OF ALL VERTICAL WALLS OF PHASE I FOLLOWED BY THE REMAINING PORTIONS OF THE WALLS AND WING FULL HEIGHT.
 2. WING FOOTINGS AND FLOOR SLAB INCLUDING 3/2" OF ALL VERTICAL WALLS OF PHASE II FOLLOWED BY THE REMAINING PORTIONS OF THE WALLS AND WING FULL HEIGHT FOLLOWED BY ROOF SLAB AND HEADWALLS.
- 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.
- DIMENSIONS FOR WING LAYOUT AS WELL AS ADDITIONAL REINFORCING STEEL EMBEDDED IN BARREL ARE SHOWN ON WING SHEET.
- AT THE CONTRACTOR'S OPTION, HE MAY SPLICE THE VERTICAL REINFORCING STEEL IN THE INTERIOR FACE OF EXTERIOR WALL AND BOTH FACES OF INTERIOR WALLS ABOVE LOWER WALL CONSTRUCTION JOINT. THE SPLICE LENGTH SHALL BE AS PROVIDED IN THE SPLICE LENGTH CHART SHOWN ON THE PLANS. EXTRA WEIGHT OF STEEL DUE TO THE SPLICES SHALL BE PAID FOR BY THE CONTRACTOR.
- THE EXISTING STRUCTURE CONSISTING OF A TIMBER DECK ON A TIMBER FLOOR JOISTS BEAM SYSTEM WITH 2 SPANS OF 1 @ 17'-7 1/2" AND 1 @ 17'-11" AND WITH A CLEAR ROADWAY WIDTH 15.9 FEET WITH TIMBER CAPS ON TIMBER PILES FOR THE BENTS AND END BENTS, WITH BENTS HAVING STEEL CAP AND PILE CRUTCH AND LOCATED AT THE SITE OF PROPOSED STRUCTURE SHALL BE REMOVED. THE EXISTING BRIDGE IS PRESENTLY POSTED. SHOULD THE STRUCTURAL INTEGRITY OF THE BRIDGE FURTHER DETERIORATE, THE 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 ARTICLE 402-2 OF THE STANDARD SPECIFICATIONS.
- 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.
- FOR CULVERT DIVERSION DETAILS AND PAY ITEM, SEE EROSION CONTROL PLANS.
- 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.
- FOR SUBMITTAL OF WORKING DRAWINGS, SEE SPECIAL PROVISIONS.
- FOR FALSEWORK AND FORMWORK, SEE SPECIAL PROVISIONS.
- NO PRECAST REINFORCED BOX CULVERT OPTION WILL BE ALLOWED.



CONSTRUCTION SEQUENCE
(LOOKING DOWNSTREAM)

GRADE DATA

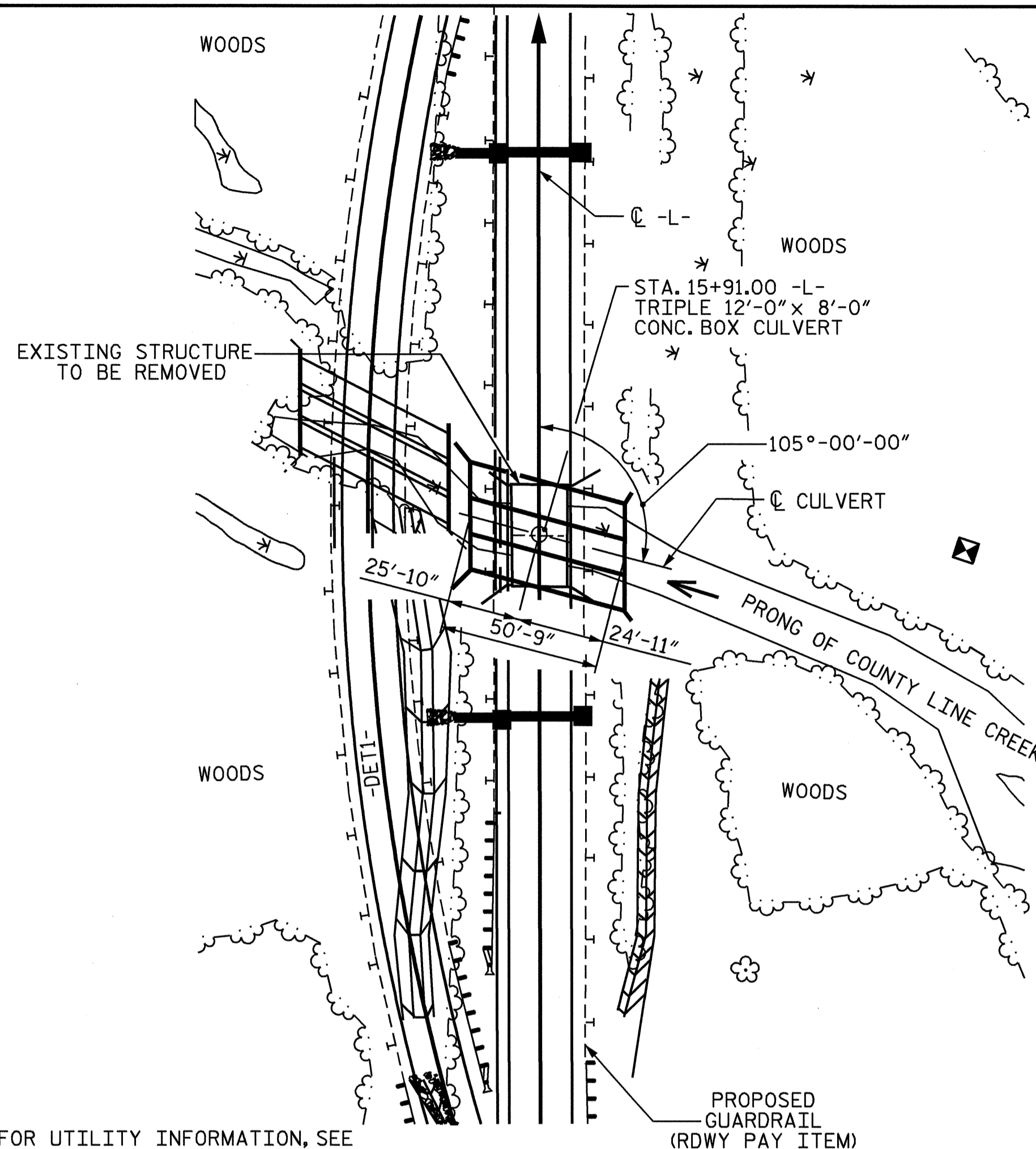
GRADE POINT EL. @ STA. 15+91.00 -L- = 394.040
 BED EL. @ STA. 15+91.00 -L- = 381.550
 ROADWAY SLOPES = 2 : 1

HYDRAULIC DATA

DESIGN DISCHARGE = 1744 C.F.S.
 FREQUENCY OF DESIGN FLOOD = 25 YRS
 DESIGN HIGH WATER ELEVATION = 390.8
 DRAINAGE AREA = 120.0 SQ.MILE
 BASIC DISCHARGE (Q100) = 1761 C.F.S.
 BASIC HIGH WATER ELEVATION = 391.8

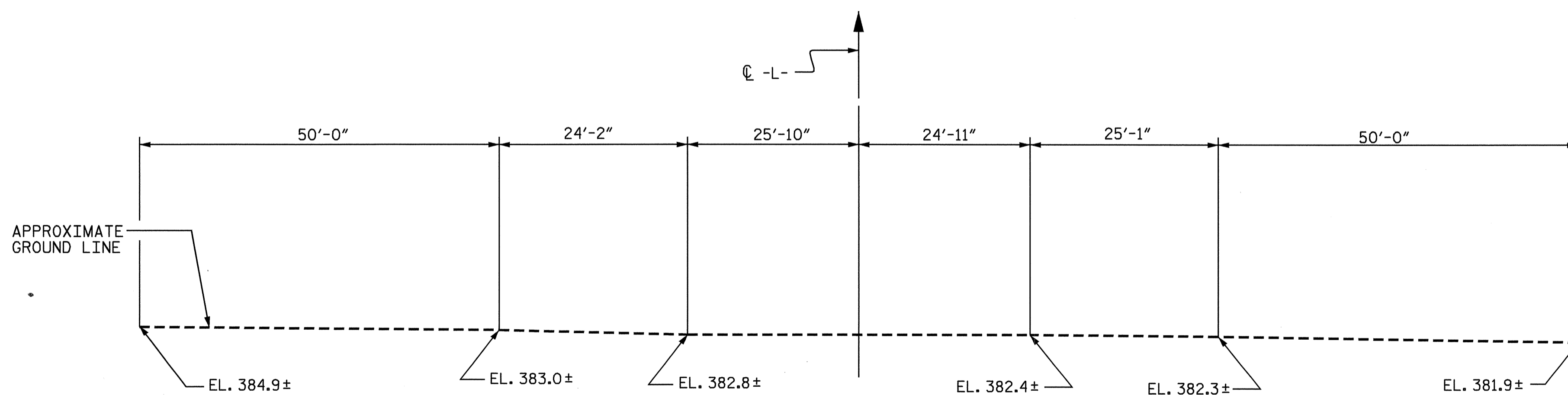
OVERTOPPING FLOOD DATA

OVERTOPPING DISCHARGE = 21000 C.F.S.
 FREQUENCY OF OVERTOPPING FLOOD = 500 YRS
 OVERTOPPING FLOOD ELEVATION = 393.9



NOTE:-FOR UTILITY INFORMATION, SEE UTILITY PLANS AND SPECIAL PROVISIONS.

LOCATION SKETCH



PROFILE ALONG CULVERT

TOTAL STRUCTURE QUANTITIES

CLASS A CONCRETE	
BARREL @ 3.249 C.Y./FT.	164.9 C.Y.
WING ETC.	31.0 C.Y.
TOTAL	195.9 C.Y.
REINFORCING STEEL	
BARREL	38336 LBS.
WINGS ETC.	1547 LBS.
TOTAL	39883 LBS.
CULVERT EXCAVATION	LUMP SUM
FOUNDATION COND. MAT'L	138 TONS
REMOVAL OF EXISTING STRUCTURE	LUMP SUM

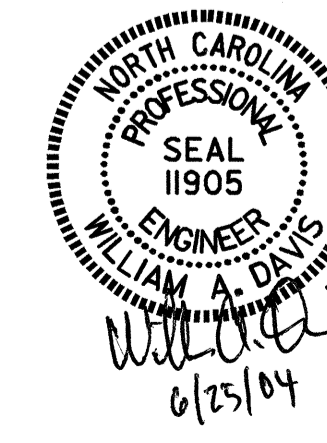
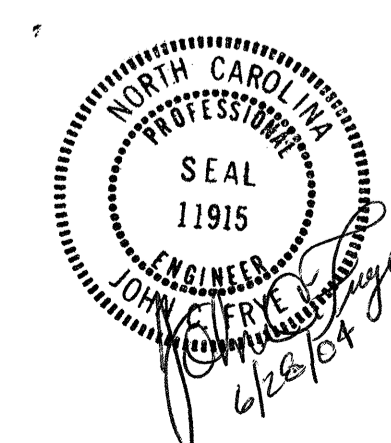
PROJECT NO. B-3629
CASWELL COUNTY
 STATION: 15+91.00 -L-

SHEET 1 OF 6 REPLACES BRIDGE NO. 72

STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH

TRIPLE 12 FT. x 8 FT. CONCRETE BOX CULVERT 105° SKEW

REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	C-1
1			3			TOTAL SHEETS
2			4			6



ASSEMBLED BY : J.D. HAWK DATE : 02-27-04
 CHECKED BY : J.L. WALTON DATE : 03-22-04