

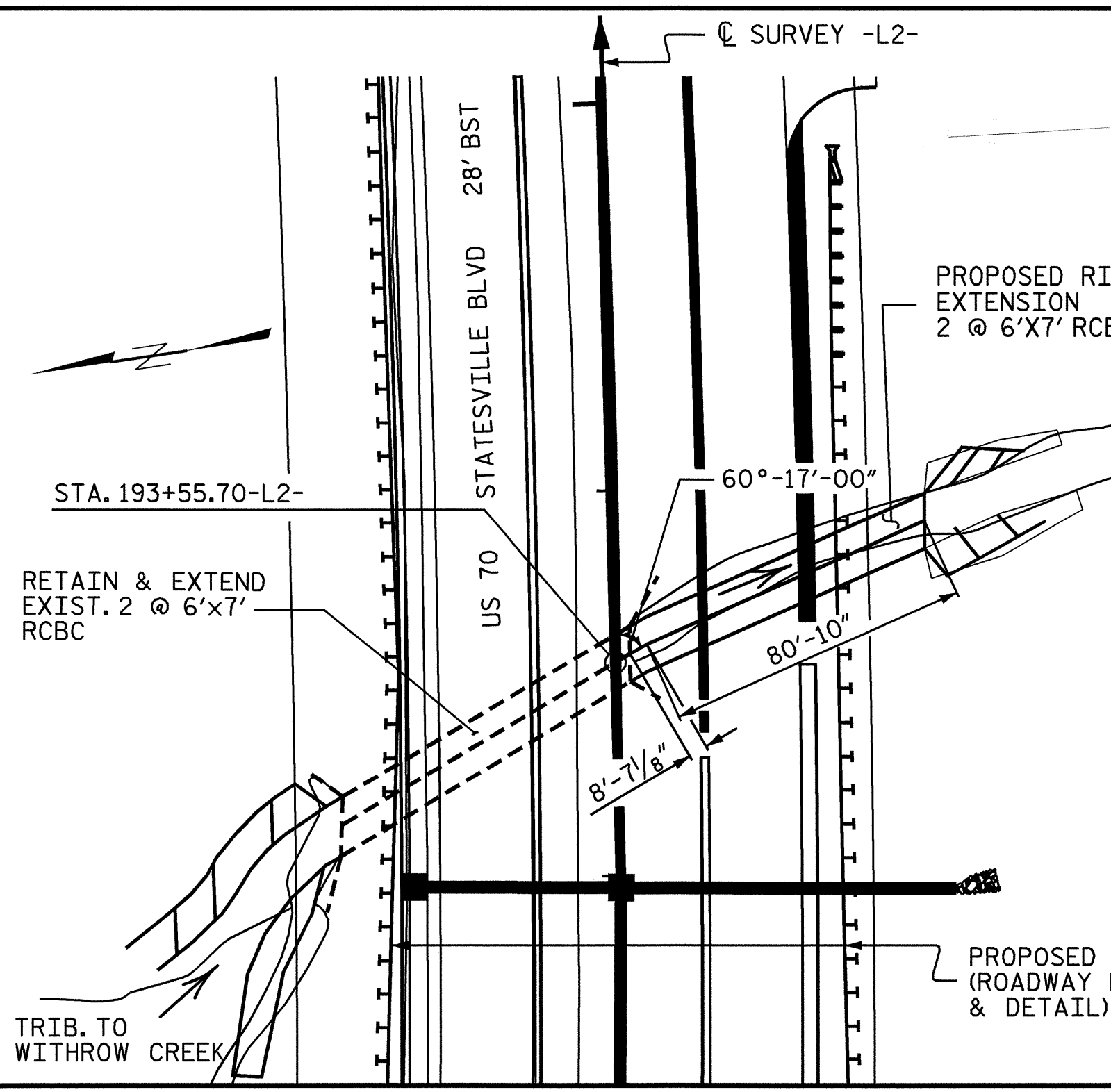
BM* 6 : RR SPIKE IN BASE OF 24" OAK STA. 203+55.92 -L2-, 318.34' LT. EL. 719.23

GRADE DATA -L2- LEFT	GRADE DATA -L2- RIGHT
-3.6400% Δ +1.5676%	-3.6400% Δ +1.5670%
PI = 190+00.00 -L2- LEFT EL. = 691.23 VC = 750'	PI = 190+00.00 -L2- RIGHT EL. = 691.24 VC = 750'

HYDRAULIC DATA	
DESIGN DISCHARGE	= 875 C.F.S.
FREQUENCY OF DESIGN FLOOD	= 50 YRS.
DESIGN HIGH WATER ELEVATION	= 690.3
DRAINAGE AREA	= 854 AC.
BASIC DISCHARGE (Q100)	= 1010 C.F.S.
BASIC HIGH WATER ELEVATION	= 691.7

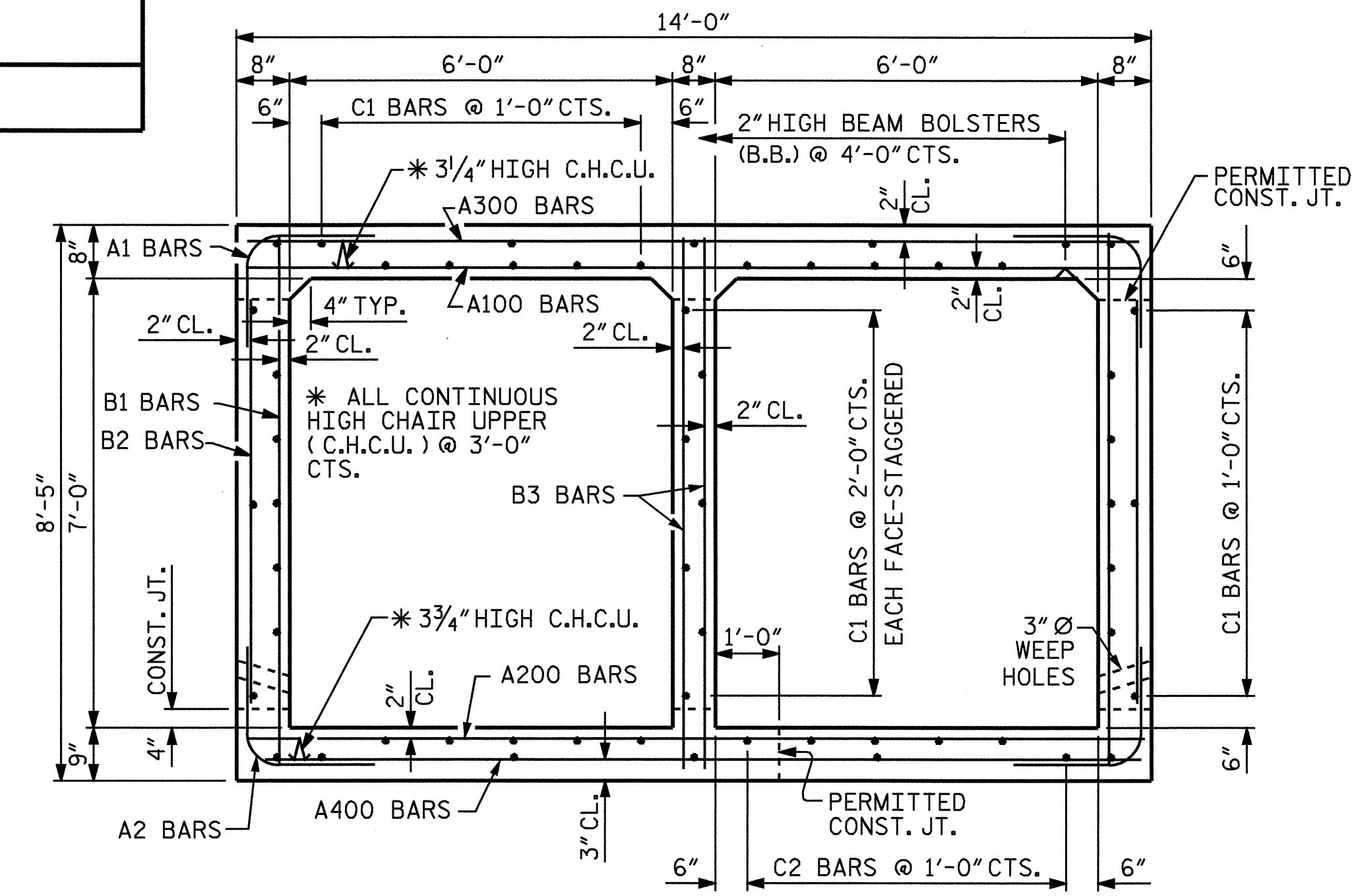
OVERTOPPING FLOOD DATA	
OVERTOPPING DISCHARGE	= 1360 C.F.S.
FREQUENCY OF OVERTOPPING FLOOD	= 200 ± YRS.
OVERTOPPING FLOOD ELEVATION	= 695.4

ROADWAY DATA	
GRADE POINT ELEV. @ STA. 193+55.70 -L2- LEFT	= 696.819
STA. 193+55.70 -L2- RIGHT	= 696.827
BED ELEV. @ STA. 193+55.70 -L2-	= 679.956
ROADWAY SLOPES	= 2 : 1



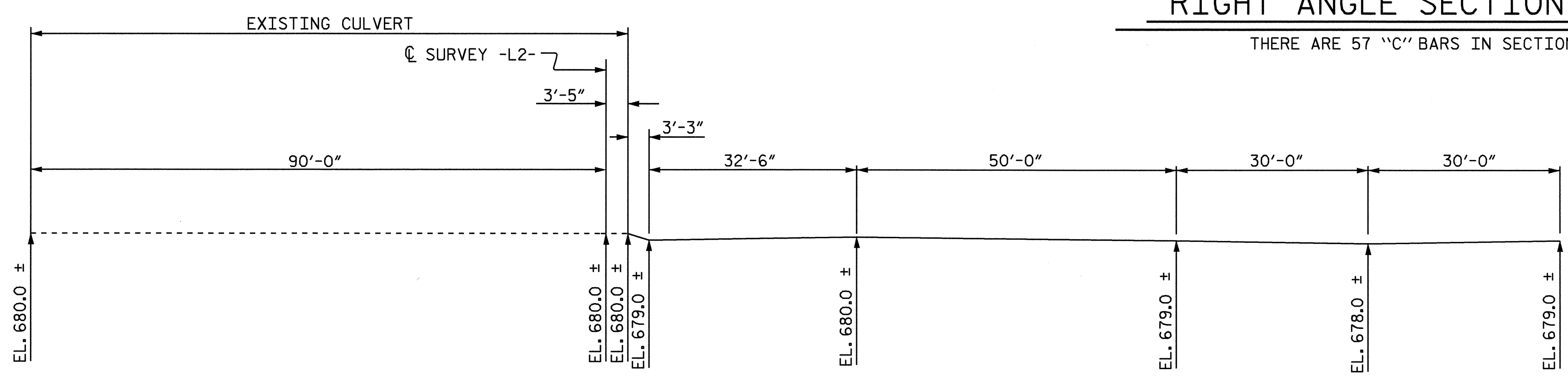
LOCATION SKETCH

TOTAL STRUCTURE QUANTITIES	
CLASS A CONCRETE	
RIGHT EXTENSION	118.3 C.Y.
LEFT WING & HEADWALL EXTENSIONS	5.1 C.Y.
TOTAL	123.4 C.Y.
REINFORCING STEEL	
RIGHT EXTENSION	18469 LBS.
LEFT WING & HEADWALL EXTENSIONS	627 LBS.
TOTAL	19096 LBS.
FOUNDATION CONDITIONING MATERIAL	99 TONS
CULVERT EXCAVATION	LUMP SUM



RIGHT ANGLE SECTION OF BARREL

THERE ARE 57 "C" BARS IN SECTION OF BARREL.



PROFILE ALONG CULVERT

NOTES

ASSUMED LIVE LOAD -----HS20-44 OR ALTERNATE LOADING.
 DESIGN FILL-----11.4' '
 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 4" OF ALL VERTICAL WALLS.
 2. THE REMAINING PORTIONS OF THE WALLS AND WINGS 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.
 TRANSVERSE CONSTRUCTION JOINTS SHALL BE USED IN THE BARREL, SPACED TO LIMIT THE POURS TO A MAXIMUM OF 70 FT. LOCATION OF JOINTS SHALL BE SUBJECT TO APPROVAL OF THE ENGINEER.
 STEEL IN THE BOTTOM SLAB MAY BE SPLICED AT THE PERMITTED CONSTRUCTION JOINT AT THE CONTRACTOR'S OPTION. EXTRA WEIGHT OF STEEL DUE TO THE SPLICES SHALL BE PAID FOR BY THE CONTRACTOR.
 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.
 NO PRECAST REINFORCED BOX CULVERT OPTION WILL BE ALLOWED.
 FOR SUBMITTAL OF WORKING DRAWINGS, SEE SPECIAL PROVISION.
 FOR FALSEWORK AND FORMWORK, SEE SPECIAL PROVISIONS.
 IF APPROVED BY THE ENGINEER, THE CONTRACTOR MAY USE THE EXISTING WINGS AS TEMPORARY SHORING FOR THE CONSTRUCTION OF THE CULVERT EXTENSIONS. IN THIS CASE, THE BOTTOM SLAB OF THE EXTENSION SHALL BE POURED AT LEAST 72 HOURS PRIOR TO CUTTING THE WINGS. THE WINGS MAY BE CUT EARLIER PROVIDED THE SLAB CONCRETE STRENGTH HAS REACHED A MINIMUM COMPRESSIVE STRENGTH OF 1500 PSI.
 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 DETAIL AND PAY ITEM, SEE EROSION CONTROL PLANS.



PROJECT NO. R-2911C
ROWAN COUNTY
 STATION: 193+55.70-L2-
 SHEET 1 OF 6

STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH
**DOUBLE 6 FT. X 7 FT.
 CONCRETE BOX CULVERT
 RIGHT EXTENSION & LEFT
 HEADWALL & WING EXTENSIONS
 60°-17'-00" SKEW**

REVISIONS						TOTAL SHEETS
NO.	BY:	DATE:	NO.	BY:	DATE:	20
1			3			
2			4			

ADDED 10-1-90

ASSEMBLED BY : <u>L.L. MURPHY</u> DATE : <u>06-04</u>	SPECIAL
CHECKED BY : <u>M.G. CHEEK</u> DATE : <u>09-04</u>	
DRAWN BY : <u>B. WYNN/D.DONOVAN</u> DATE : <u>SEPT. 1990</u>	STANDARD
CHECKED BY : <u>A.R. BISSETTE</u> DATE : <u>OCT. 90</u>	