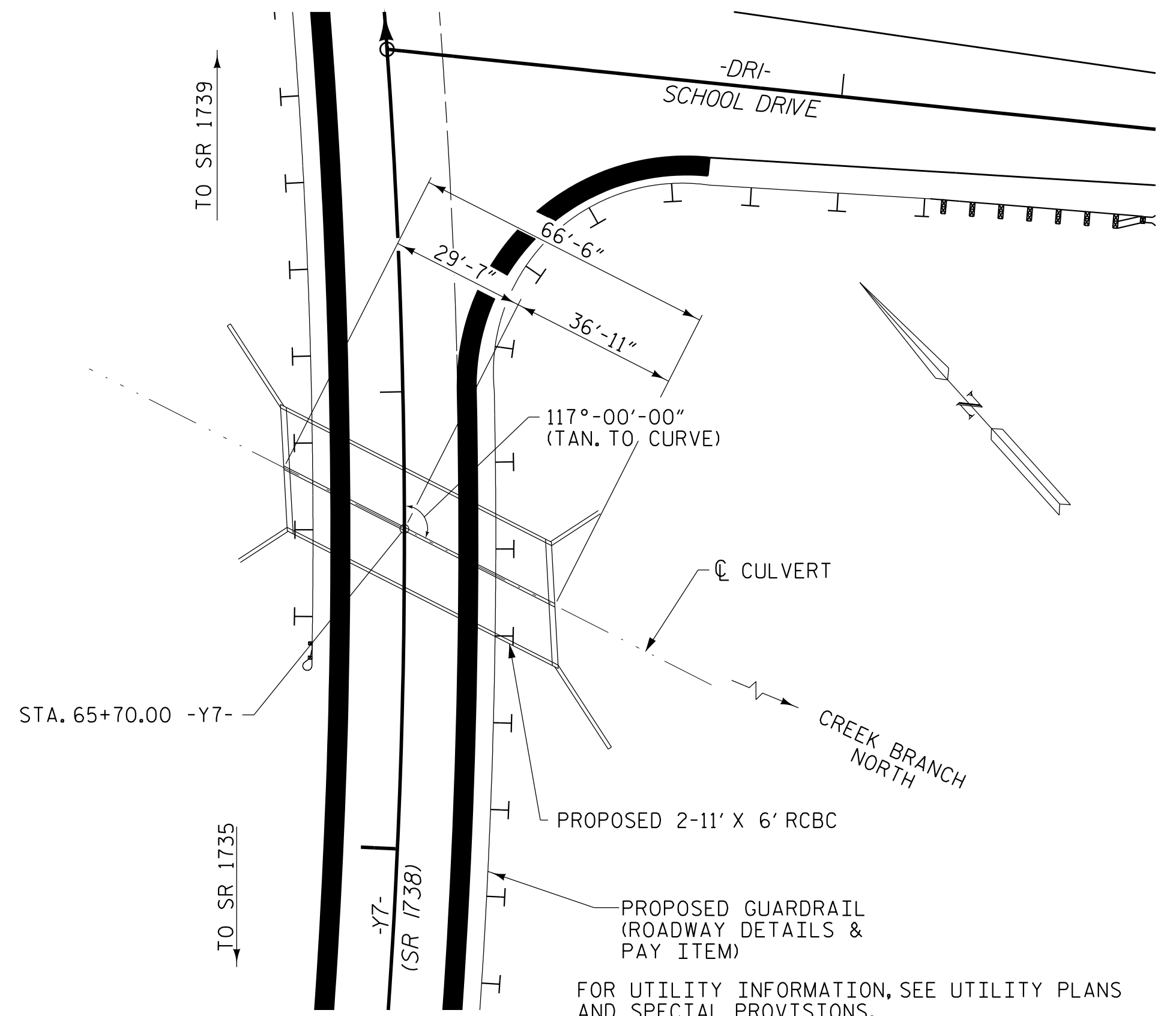


BM: BM#17 - RR SPIKE IN 14" PINE 93' LT OF -Y7- STA. 71+55



LOCATION SKETCH

GRADE DATA

GRADE POINT ELEV. @ STA. 65+70.00 -Y7- = 61.33
 BED ELEV. @ STA. 65+70.00 -Y7- = 51.73
 ROADWAY SLOPES 3:1

HYDRAULIC DATA

DESIGN DISCHARGE = 310 C.F.S.
 FREQUENCY OF DESIGN FLOOD = 25 YRS.
 DESIGN HIGH WATER ELEVATION = 57.0 FT
 DRAINAGE AREA = 1.5 SQ. MI.
 BASE DISCHARGE (Q100) = 480 C.F.S.
 BASE HIGH WATER ELEVATION = 58.1 FT

OVERTOPPING FLOOD DATA

OVERTOPPING DISCHARGE = 480 C.F.S.
 FREQUENCY OF OVERTOPPING FLOOD = 100 YRS.
 OVERTOPPING FLOOD ELEVATION = 57.6 FT
 PROPOSED OVERTOPPING OCCURS AT STA. 44+00 -Y7-

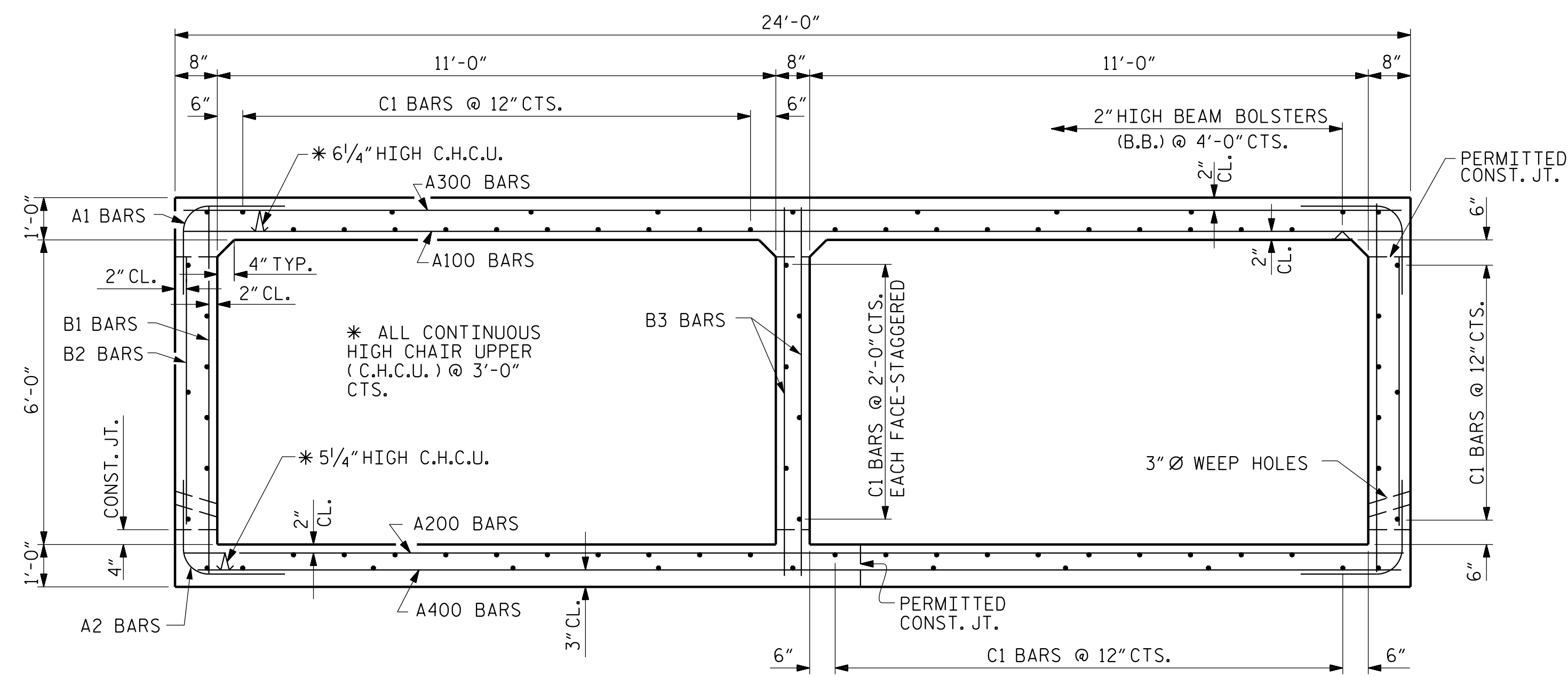
TOTAL STRUCTURE QUANTITIES			
CLASS A CONCRETE			
BARREL @	2.230	CY/FT	148.3 C.Y.
WINGS, ETC.			31.9 C.Y.
TOTAL			180.2 C.Y.
REINFORCING STEEL			
BARREL		29789	LBS.
WINGS		1747	LBS.
TOTAL		31536	LBS.
CULVERT EXCAVATION STA. 65+70.00 -Y7-			LUMP SUM
FOUNDATION COND. MAT'L.			131.3 TONS

NOTES

- ASSUMED LIVE LOAD ----- HL-93 OR ALTERNATE LOADING.
- DESIGN FILL----- 4.42 FT. (MAX.), 2.58 FT. (MIN.)
- 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.
- 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.
- AT THE CONTRACTOR'S OPTION HE MAY SUBMIT, TO THE ENGINEER FOR APPROVAL, DESIGN AND DETAIL DRAWINGS FOR A PRECAST REINFORCED CONCRETE BOX CULVERT IN LIEU OF THE CAST-IN-PLACE CULVERT SHOWN ON THE PLANS. THE DESIGN SHALL PROVIDE THE SAME SIZE AND NUMBER OF BARRELS AS USED ON THE CAST-IN-PLACE DESIGN. FOR OPTIONAL PRECAST REINFORCED CONCRETE BOX CULVERT, SEE SPECIAL PROVISIONS.
- 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.

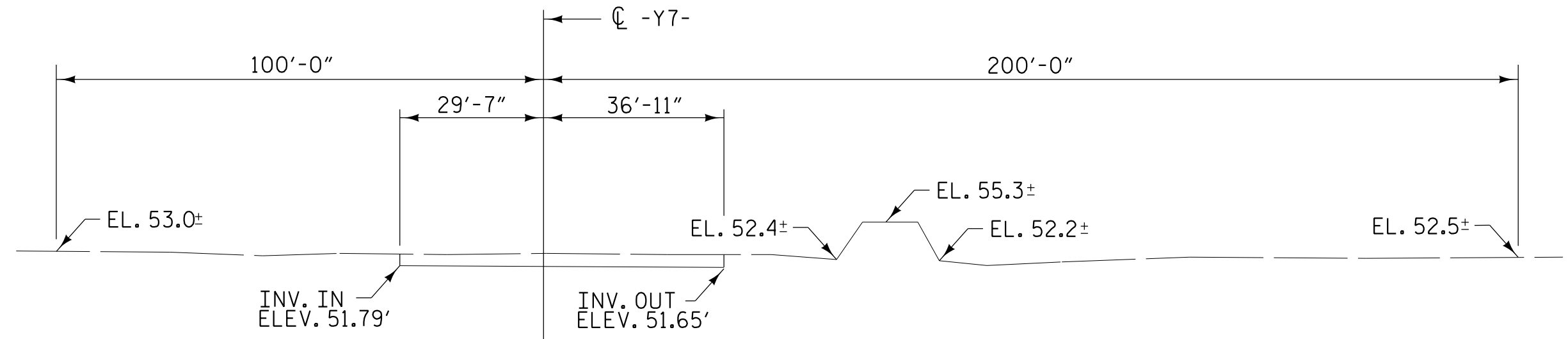
FOUNDATION NOTES

- THE REINFORCED BOX CULVERT SHALL BE PLACED ON THE STANDARD 1.0 FOOT BLANKET OF FOUNDATION CONDITIONING MATERIAL. SEE SECTION 414 OF THE STANDARD SPECIFICATIONS.
- REMOVE ANY STUMPS OR ROOT MATS BENEATH THE CULVERT AND FILL THE UNDERCUT AREAS WITH FOUNDATION CONDITIONING MATERIAL.
- A CAMBER IS NOT REQUIRED FOR CONSTRUCTION OF THE CULVERT.



RIGHT ANGLE SECTION OF BARREL

THERE ARE 82 "C" BARS IN SECTION OF BARREL.



PROFILE ALONG CULVERT

I HEREBY CERTIFY THESE PLANS ARE THE AS-BUILT PLANS

PLANS PREPARED BY:

PROJECT NO. R-5819
 COLUMBUS COUNTY
 STATION: 65+70.00 -Y7-

SHEET 1 OF 7 STRUCTURE NO. C-230423

STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH
DOUBLE 11 FT. X 6 FT. CONCRETE BOX CULVERT
117° SKEW

REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	C-1
1			3			TOTAL SHEETS
2			4			7

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

4/11/2022

4/8/2022 3:39:43 PM G:\Project\2016\2016032\0\CLIENT\Structures\Y7- Culvert1 -R-5819\CADD_Files\5819_Small_CUL.dgn

DRAWN BY: J. A. PANDOLI DATE: 2/22
 CHECKED BY: L. K. AUSTIN DATE: 2/22
 DESIGN ENGINEER OF RECORD: L. K. AUSTIN DATE: 2/22