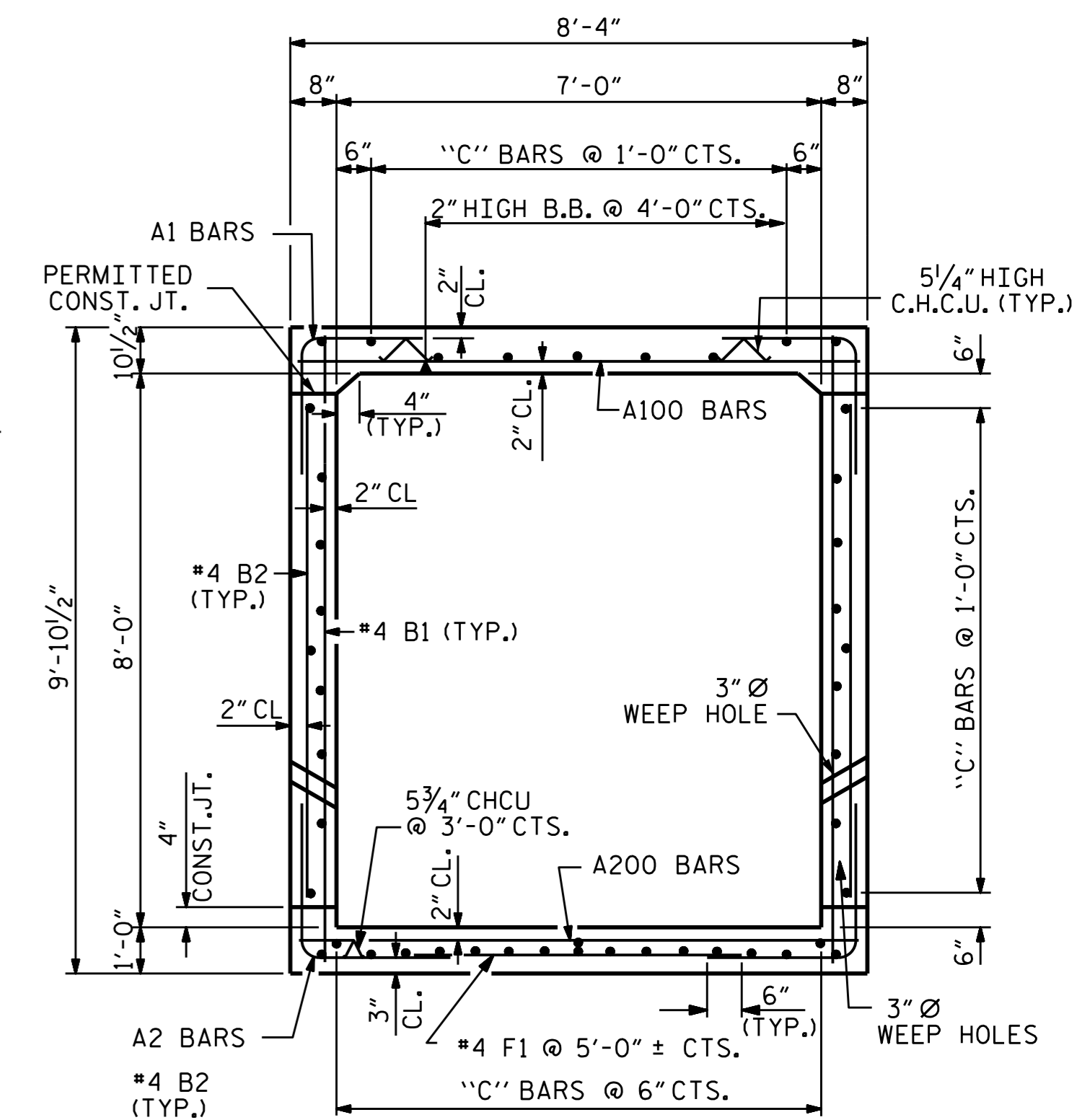


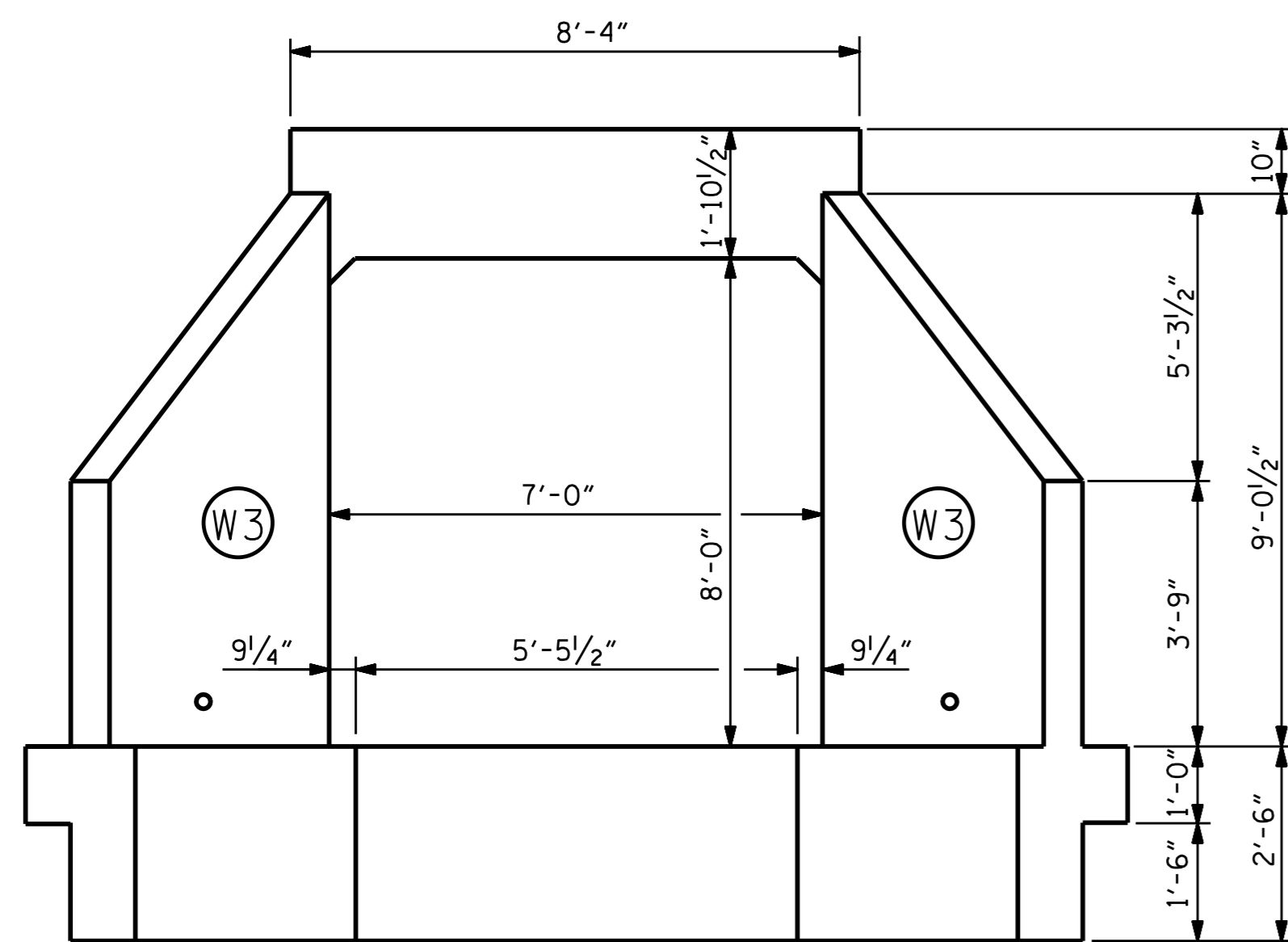
**CULVERT SECTION (ALONG C CULVERT)**

FOR PIPES THRU EXTERIOR WALL, SEE WALL OPENING DETAILS.



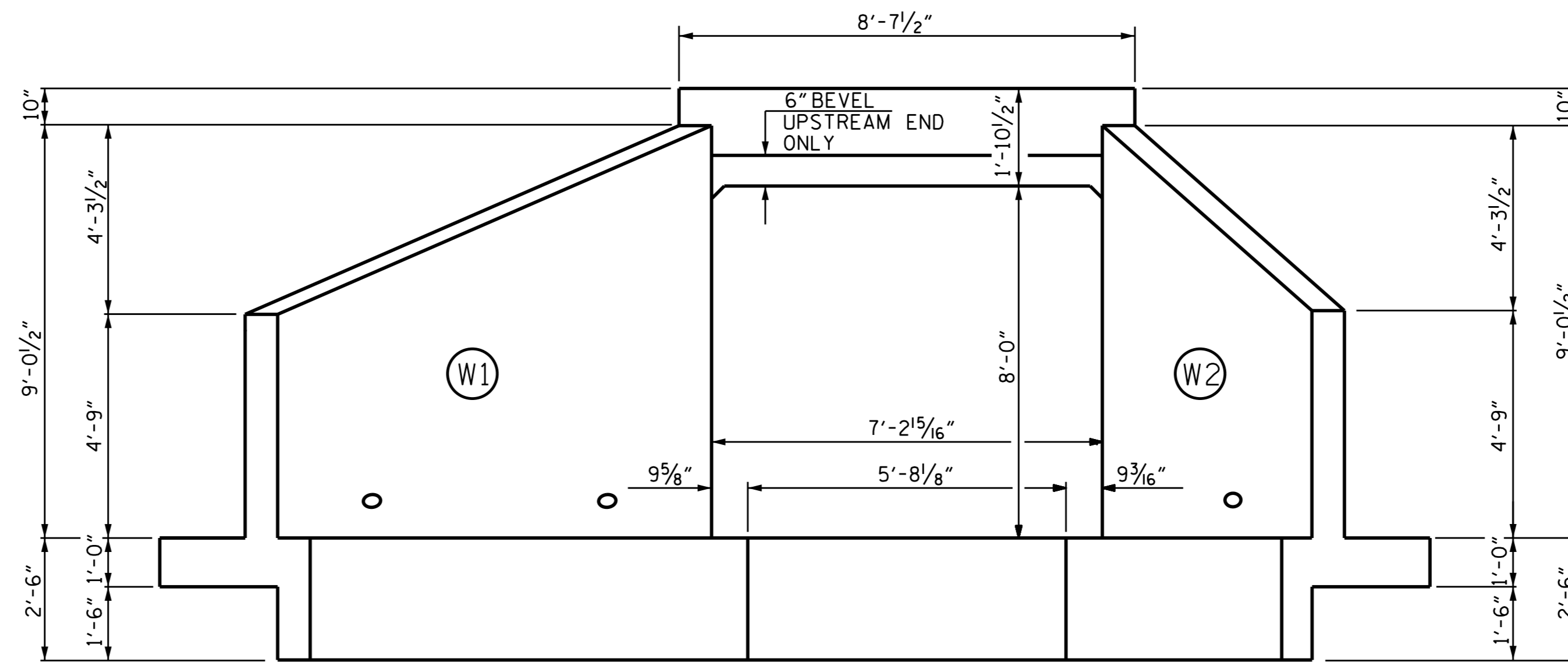
**RIGHT ANGLE SECTION OF BARREL**

THERE ARE 45 "C" BARS IN SECTION OF BARREL



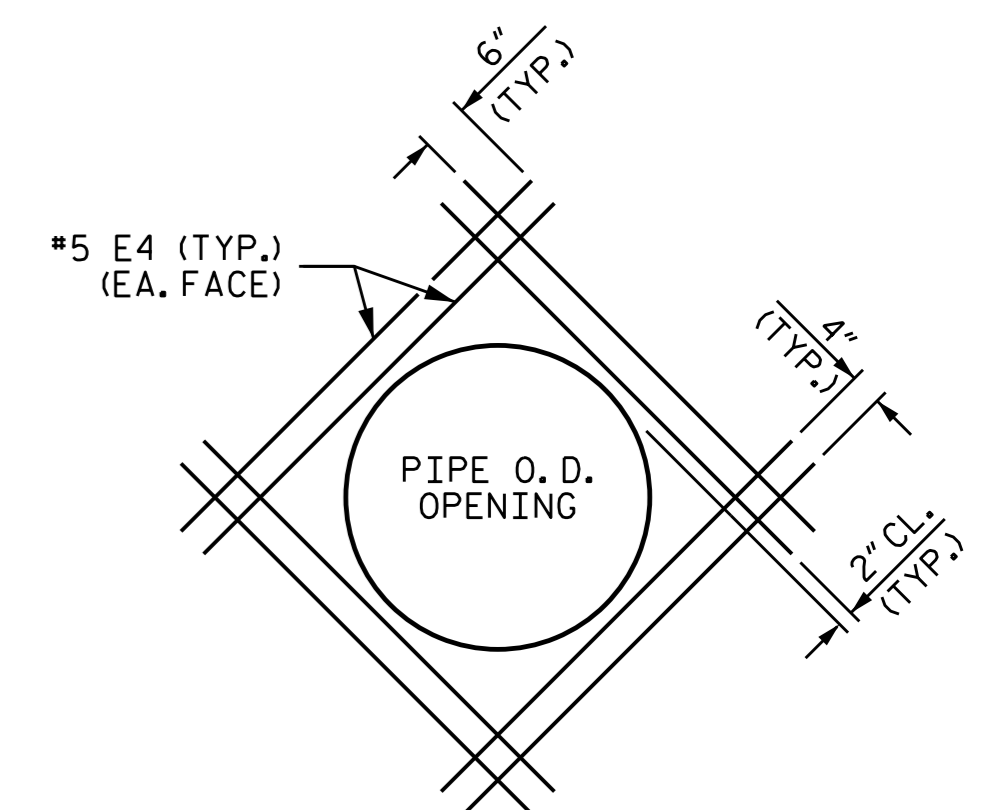
**OUTLET END ELEVATION**

LOOKING UPSTREAM



**INLET END ELEVATION NORMAL TO SKEW**

LOOKING DOWNSTREAM



**WALL OPENING DETAILS**

FOR 36" Ø CAAP THRU EXTERIOR WALL, FIELD CUT & BEND "B" & "C" BARS AS NEEDED TO CLEAR PIPE

TOTAL CULVERT#4 QUANTITIES			
PHASE I		PHASE II	
CLASS A CONCRETE		CLASS A CONCRETE	
BARREL @ 0.978	CY/FT 210.3 C.Y.	BARREL @ 0.978	CY/FT 97.8 C.Y.
WING ETC.	0 C.Y.	WING ETC.	23.5 C.Y.
SILLS & BAFFLES	2.6 C.Y.	SILLS & BAFFLES	2.1 C.Y.
TOTAL	212.9 C.Y.	TOTAL	123.4 C.Y.
REINFORCING STEEL		REINFORCING STEEL	
BARREL	27,330 LBS.	BARREL	12,955 LBS.
WINGS ETC.	0 LBS.	WINGS ETC.	1,497 LBS.
TOTAL	27,330 LBS.	TOTAL	14,452 LBS.
CULVERT EXCAVATION	LUMP SUM	CULVERT EXCAVATION	LUMP SUM
FOUNDATON COND. MAT'L	187 TONS	FOUNDATON COND. MAT'L	87 TONS

PROJECT NO. U-2524D  
GUILFORD COUNTY  
 STATION: 505+19.00 -L-

SHEET 2 OF 7

STATE OF NORTH CAROLINA  
 DEPARTMENT OF TRANSPORTATION  
 RALEIGH

**CULVERT #4**  
**SINGLE 7 FT. X 8 FT.**  
**CONCRETE BOX CULVERT**  
**101° SKEW**



Drawn by: Ting Fang 7/15/2016

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

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

TOTAL SHEETS 34

DRAWN BY: REZA KOUCHEKI DATE: 4/29/16  
 CHECKED BY: T. H. FANG DATE: 5/30/16  
 DESIGN ENGINEER OF RECORD: REZA KOUCHEKI DATE: 1/29/16