

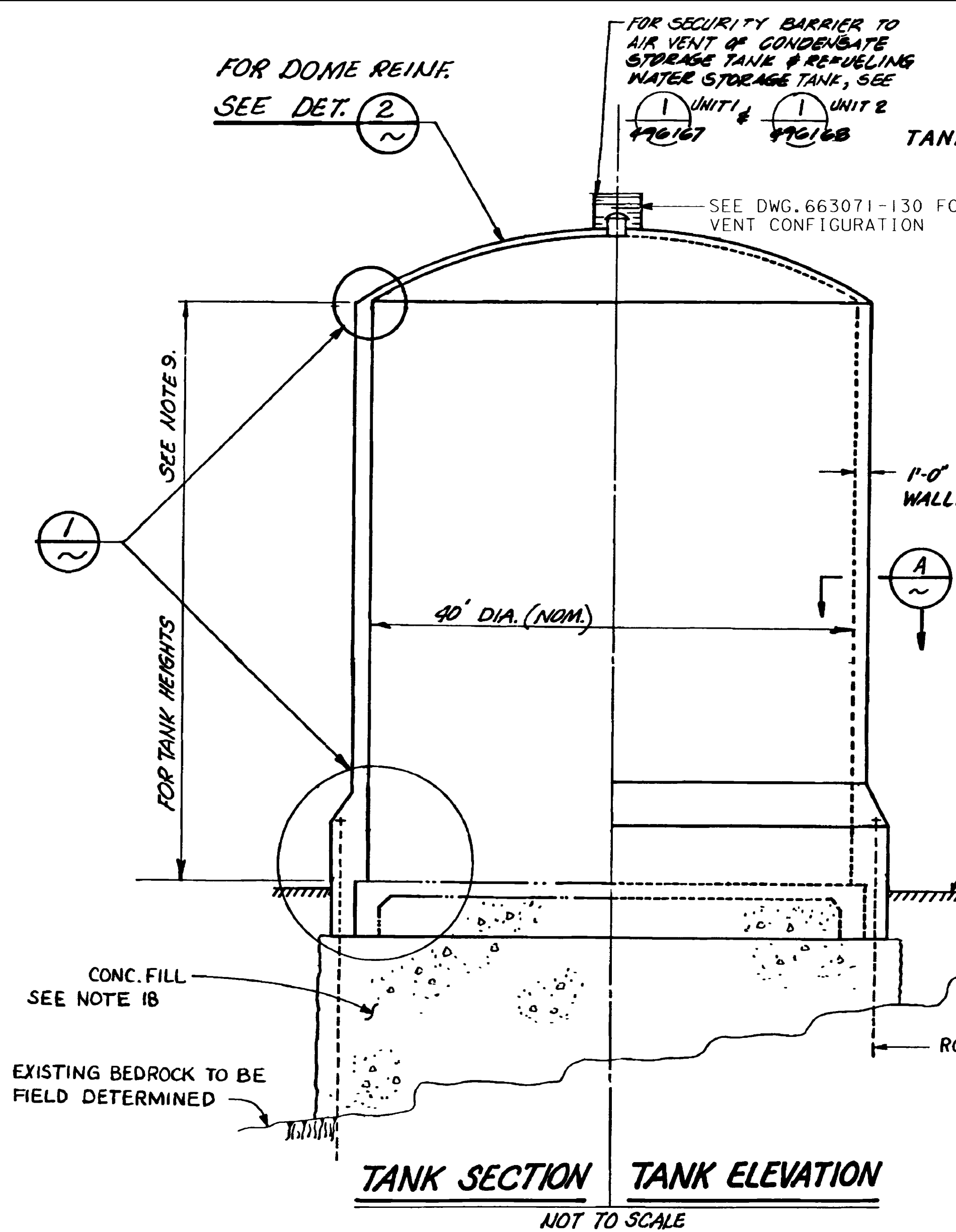
FOR SECURITY BARRIER TO AIR VENT OF CONDENSATE STORAGE TANK & REFUELING WATER STORAGE TANK, SEE DWG. 663071-130 FOR VENT CONFIGURATION

5" PL (USE A36 STEEL FOR CARBON STEEL TANKS USE ASTM A240 TYPE 304L FOR STAINLESS STEEL TANKS)

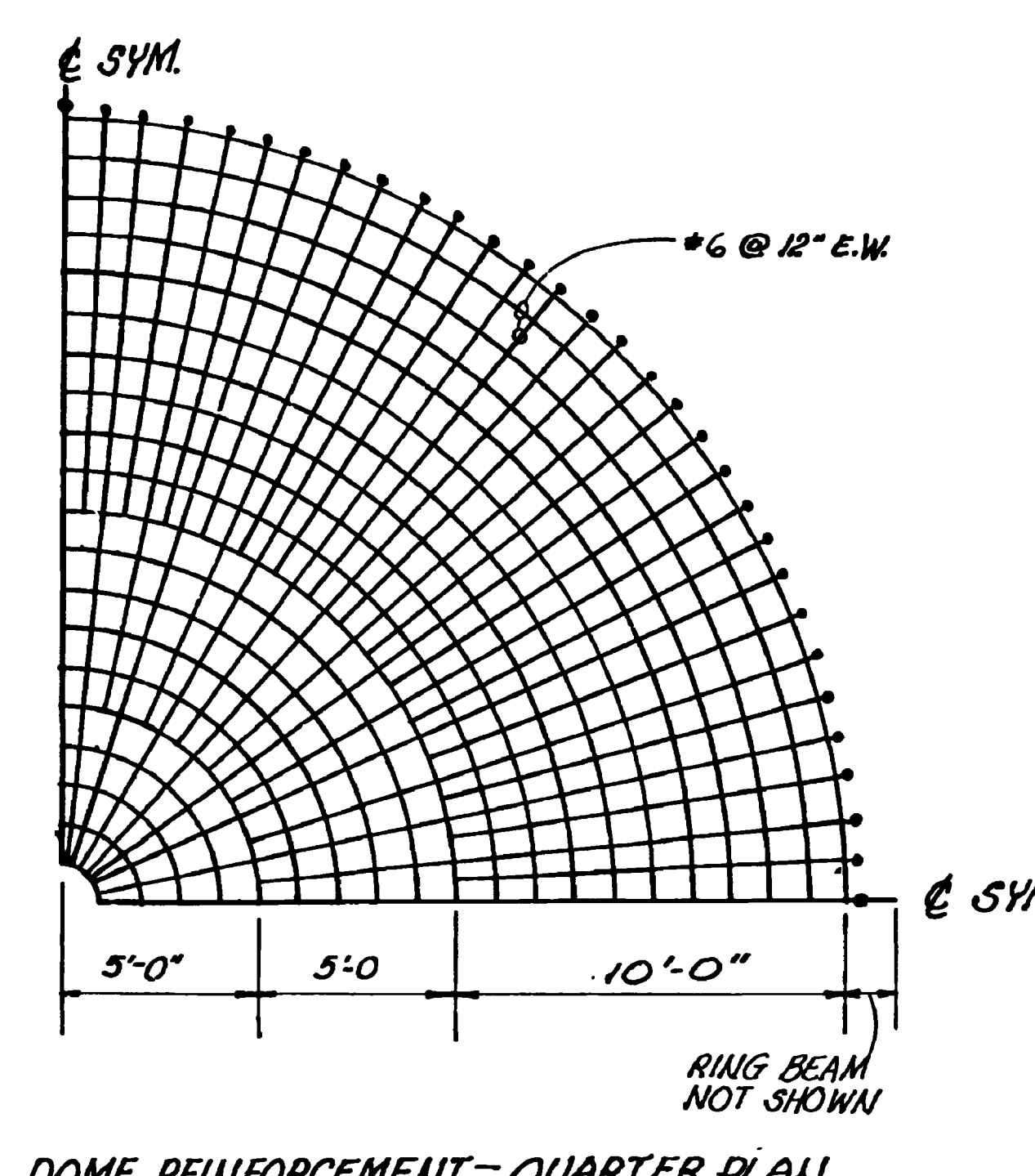
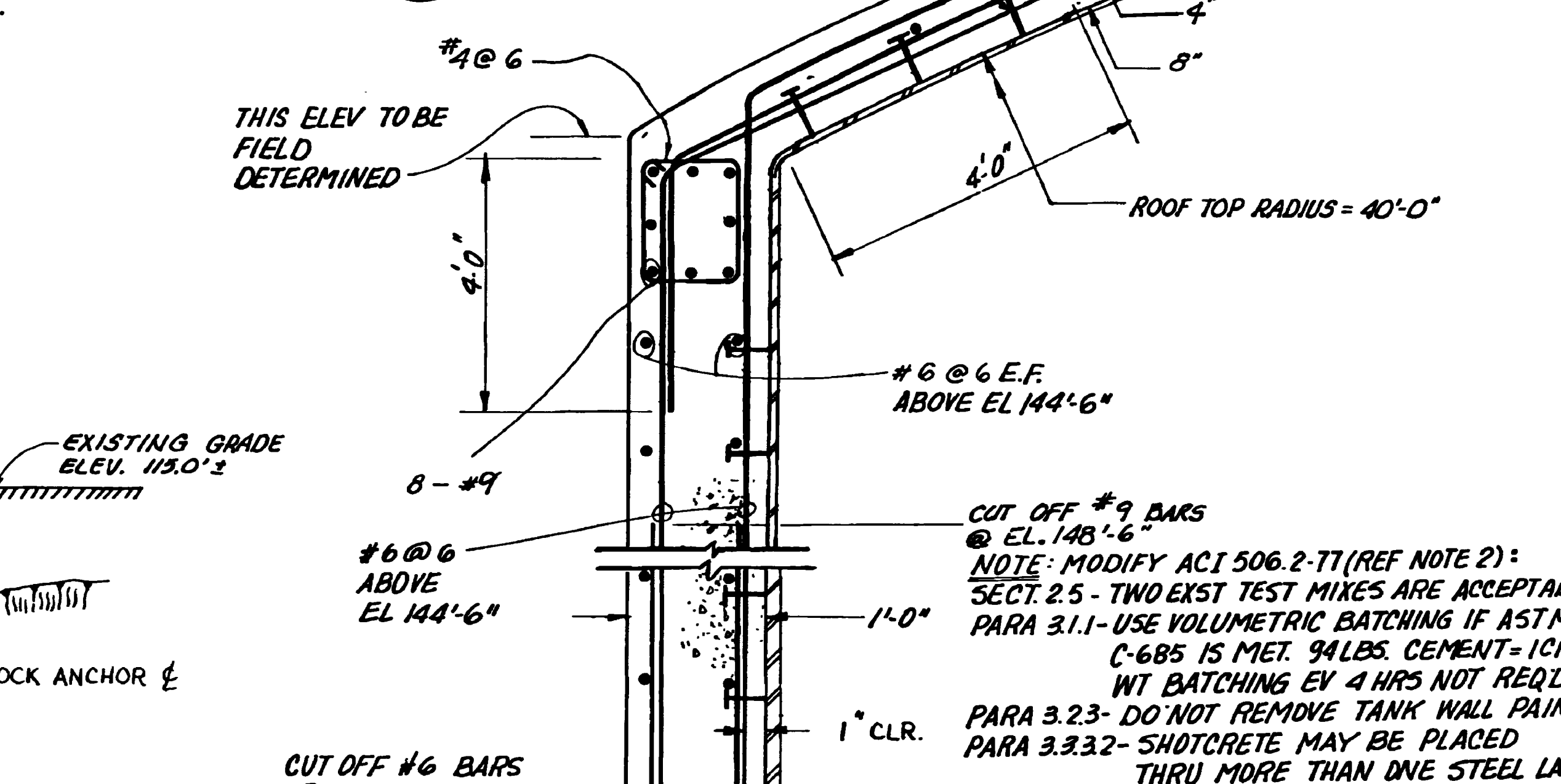
NOTE: HOLE & PL SIZE DETERMINED BY CONTRACTOR

AIR VENT SIZE TABLE D= DIAMETER OF VENT  
SEE DWG. 663071-130 FOR VENT CONFIG.

NAME OF TANK	UNIT 2	UNIT 2
COND	D=16"Ø	D=16"Ø
RFW ST	D=30"Ø	D=30"Ø
FIRE WATER	D=12"Ø	
TRANSFER	D=12"Ø	



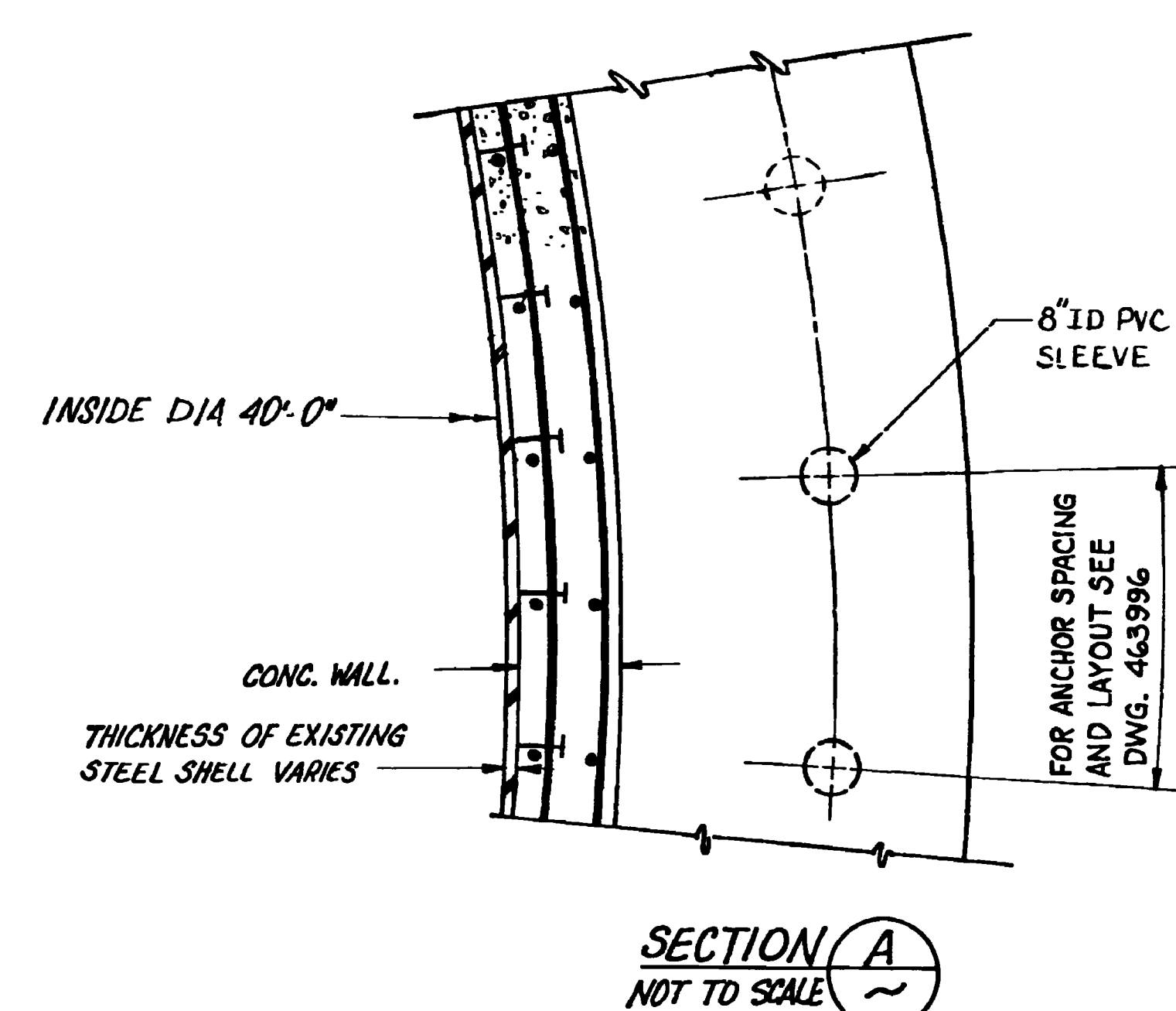
DETAIL 3 NOT TO SCALE



DETAIL 2 NOT TO SCALE

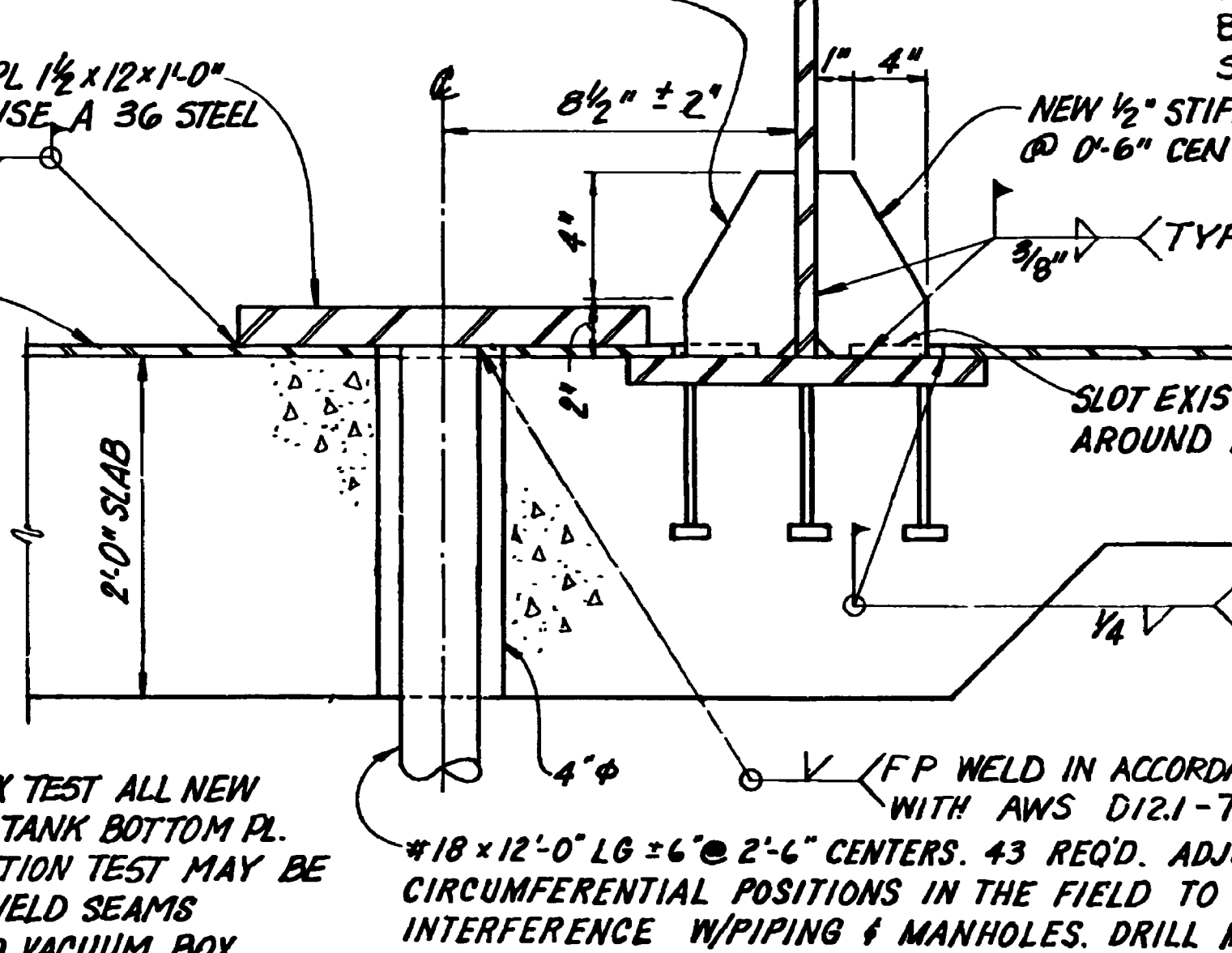
NOTE: DOWEL BARS BETWEEN DOME & WALL ARE NOT SHOWN FOR CLARITY

TANK SECTION TANK ELEVATION NOT TO SCALE

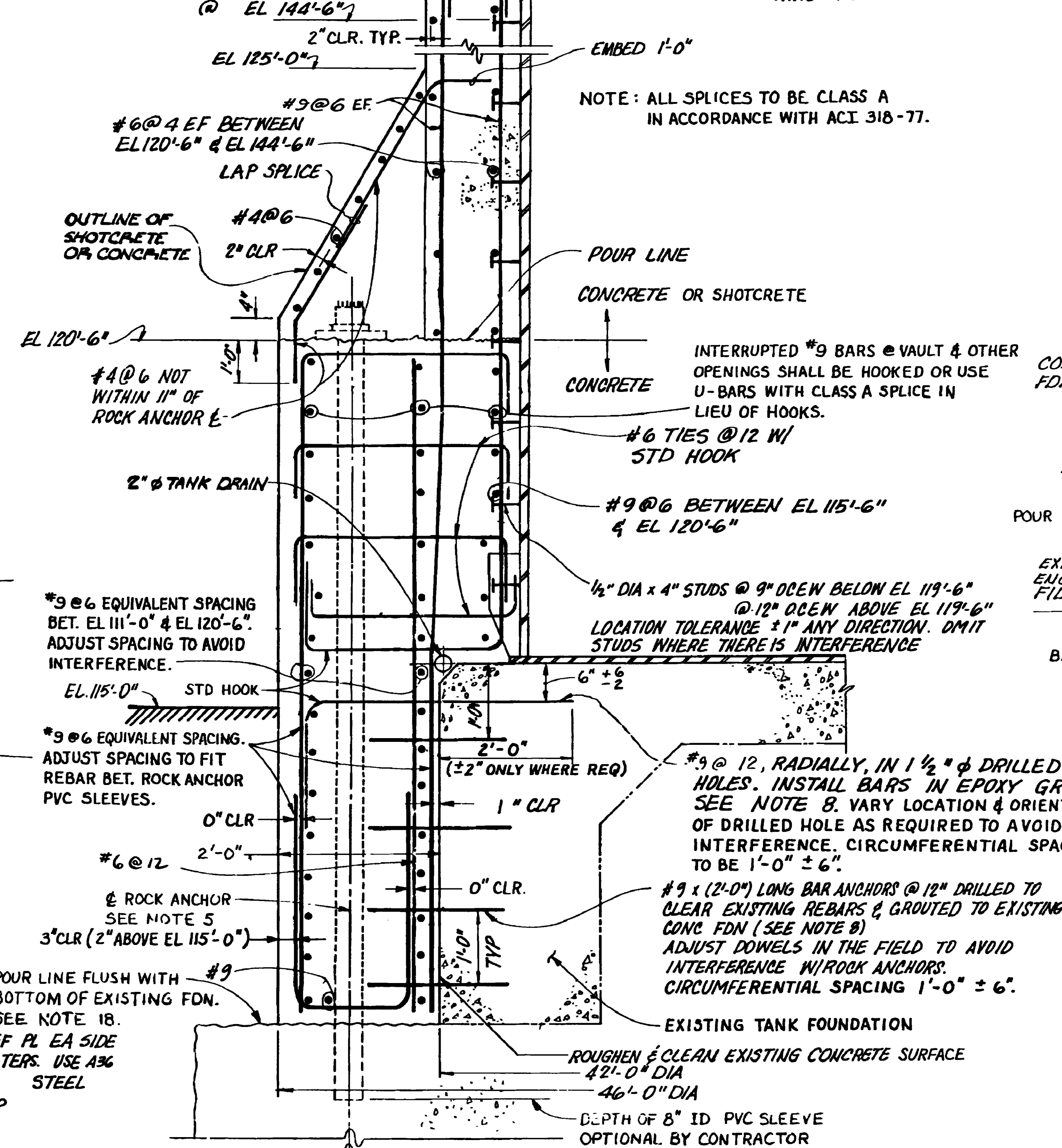


SECTION A NOT TO SCALE

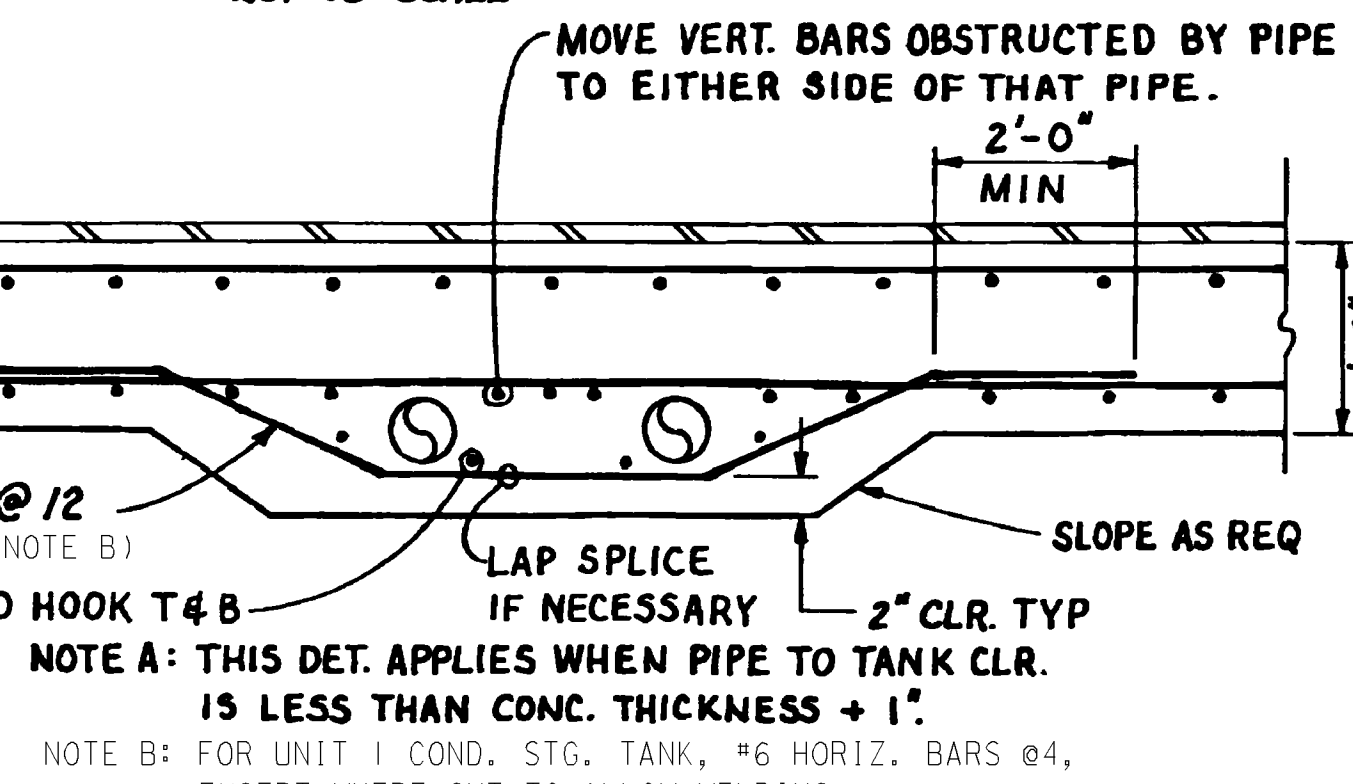
VARY SPACING IN THE FIELD AS REQ'D TO AVOID INTERFERENCES. TRIM LOWER END OF STIFF. PL. AS REQ. OMIT STIFFENERS IF SPACING LESS THAN 3".



TIE DOWN DETAIL FIREWATER & TRANSFER STORAGE TANK ONLY NTS



TYPICAL ROCK ANCHOR DETAIL NOT TO SCALE



TYP. PIPE ENCASEMENT SECTION D 988 NOT TO SCALE

**NOTES**  
 1. PROTECTION NEEDED ONLY FOR REFUELING, CONDENSATE, FIREWATER, AND TRANSFER.  
 2. A. CONCRETE SHALL BE IN ACCORDANCE WITH ACI 318-77. SHOTCRETING SHALL CONFORM TO ALL REQUIREMENTS OF "SPECIFICATION FOR MATERIALS, PROPORTIONING AND APPLICATION OF SHOTCRETE (ACI 306.2-77)." CONCRETE AND SHOTCRETE COMPRESSIVE STRENGTH SHALL BE 4 KSI MIN @ 28 DAYS SEE DET. 1.  
 B. CONCRETE COMPRESSIVE STRENGTH MAY BE 3 KSI MIN FOR FIREWATER AND TRANSFER STORAGE TANK ON SECTION C; DWG. 463969.

3. REINFORCING STEEL SHALL BE 60KSI MINIMUM.  
 4. STAINLESS STEEL TANKS SHALL HAVE STAINLESS STUDS. (SEE NOTE 16).  
 5. ROCK ANCHOR SHALL BE KSL 28 STRAND #ERS-28 WITH DOUBLE CORROSION PROTECTION. 46 ROCK ANCHORS REQUIRED PER TANK. FULLY GROUT ROCK ANCHORS WITH GROUT HAVING MINIMUM STRENGTH OF 4 KSI @ 28 DAYS. GROUT STRENGTH TO BE 3 KSI MIN BEFORE ROCK ANCHOR TESTING OR PROOF-LOADING. RELOCATE UP TO 9" TO AVOID OBSTRUCTIONS.  
 6. LADDERS AND ACCESSORIES SHALL BE FIELD MODIFIED TO FIT NEW TANK CONFIGURATION.  
 7. SHOTCRETE MAY BE APPLIED TO TANK ROOF UP TO FULL 8" THICKNESS AT ONE TIME.  
 8. USE CONCRESSIVE 1411 EPOXY-GROUT. (ADHESIVE ENGINEERING CO.) OR APPROVED EQUAL.  
 9. EXISTING TANKS HEIGHTS:  
 REFUELING WATER STORAGE..... 52'-6"  
 FIREWATER & TRANSFER..... 50'-0"  
 CONDENSATE STORAGE..... 41'-3"  
 10. A. EXISTING PAINT:  
 EXTERIOR SURFACES - PRIMED WITH MOBIL CHEMICAL "MOBILZINC 7" INORGANIC ZINC PRIMER. FINISHED WITH MOBIL CHEMICAL "CHLORINATED RUBBER 27-G-703" (R.G.#E. NO. 607 GRAY GREEN).  
 INTERIOR SURFACES - CONDENSATE STORAGE & TRANSFER TANKS COATED WITH MOBIL CHEMICAL "VAL-CHEM80 SERIES VINYL," DRY FILM THICKNESS 8 MILS. FIREWATER TANK COATED WITH "CARBOGUARD 890N" IN ACCORDANCE WITH PG&E SPECIFICATION NO 10100-C-NPG. APPLY A BEAD OF 3M FAST CURE 4000 UV CAULKING TO ALL GAPS BETWEEN THE STIFFENER RING AND THE WALLS. APPLIED OVER TOP COAT.

B. DAMAGED COATINGS:  
 EXTERIOR SURFACES - SPOT PRIME WITH ZINC PRIMER NO. 56.  
 INTERIOR SURFACES - CLEAN DAMAGED AREAS BY SPOT BLAST CLEANING, BRUSHING OR OTHER MEANS. REAPPLY COATING TO MATCH EXISTING PER NOTE 10.

C. EXPOSED CONCRETE SURFACES:  
 CURE CONCRETE MINIMUM OF 30 DAYS. BRUSH OFF BLAST CONCRETE SURFACES. APPLY TWO COATS REPUBLIC POWDERED METALS "NU-SENSATION" (VIBRATED TYPE) - 15 MILS WET FILM THICKNESS PER COAT. COLOR: PG & E NO. 607 GRAY GREEN.  
 11. RELOCATE 4" Ø PVC WASHDOWN AREA DRAIN PIPE ON UNIT #1 TO AVOID ALL NEW CONCRETE.  
 12. EXCAVATE WITH CAUTION TO AVOID RUPTURING BURIED PIPE AND CONDUIT RUNNING TO OR NEAR EXISTING TANK FOUNDATIONS. EMBED THESE PIPES AND CONDUITS IN NEW CONCRETE IF NECESSARY AND PLACE REBAR TO AVOID THEM.  
 13. ALL WELDING TO TANK WALL SHALL MEET THE REQUIREMENTS OF AWS D1.1.  
 14. SHORTEN DRAIN NOZZLES TO CLEAR ROCK BOLT BLOCKOUTS, IF NECESSARY.  
 15. REROUTE THE 4" Ø TRANSFER TANK GRAVITY FLOW LINE (CONDENSATE STORAGE TANK) SO THAT PIPING AFTER THE VALVE AVOIDS ALL NEW CONCRETE. REPOSITION PIPE SUPPORTS AS REQUIRED.  
 16. STAINLESS STEEL STUDS SHALL CONFORM TO ASTM A276 TYPE 304 ANNEALED. (SEE NOTE 4) CARBON STEEL STUDS SHALL CONFORM TO THE REQUIREMENTS OF THE SPECIFICATION FOR COLD FINISHED CARBON STEEL BARS AND SHAPING ASTM A108 GRADES 1018 ASME SA28.  
 17. INSTALL 3 TEST ANCHORS ON THE SITE AND LOAD UNTIL BOND FAILURE BETWEEN ANCHOR AND ROCK. DETERMINE EMBEDMENT LENGTH FROM TEST RESULTS USING A SAFETY FACTOR OF 2. PROOF-LOAD EACH INSTALLED ROCK ANCHOR TO 925 KIPS (10.8M) AND HOLD FOR 30 SECONDS WITH NO LOSS IN PROOF LOAD. CONTINUE TO HOLD PROOF LOAD FOR 5 MINUTES WITH A MAXIMUM LOSS OF 75 KIPS. THEN RELEASE TO 500 KIPS. PROTECT ANCHOR HEADS FROM CORROSION BY PLACING #4 REBAR & FILL WITH SHOTCRETE TO OUTLINE SHOWN.  
 18. CONCRETE FILL SHALL BE MIN. 3 KSI COMPRESSIVE STRENGTH @ 28 DAYS. LARGE SUMP CONCRETE AND REBAR/ANCHORS MAY BE USED FOR DURABILITY IF NEEDED DRILL HOLES IN TANK BOTTOM IF REQUIRED FOR PLACING CONCRETE (SEE DET. 3). QUALITY ASSURANCE SHALL BE LIMITED TO: A) CONCRETE MIX SHALL BE APPROVED BY RES. CIVIL ENGINEER B) VERIFY STRENGTH BY CYLINDER TEST PER ACI 318.  
 19. FOR VORTEX SUPPRESSION CAGES SEE DWG 464831  
 20. SEISMIC GAP BETWEEN RWST AND CST SEALED WITH LDSE. ETHAFOAM USED AS BACKING. 2" MIN. OPENING MAINTAINED FOR DRAINAGE.

**REFERENCE DWGS:**

1. CONCRETE OUTLINE & REINFORCEMENT WATER STORAGE TANK FDN & VAULT UNIT #1,2	438033
2. FOUNDATIONS FOR WATER TANKS UNIT #1,2	438034
3. REQUIREMENTS FOR WATER STORAGE TANKS UNIT #1,2	438038
4. REQUIREMENTS FOR WATER STORAGE TANKS UNIT #2	443008
5. LOCATION NOZZLE SCHEDULE & VAULT DETAILS FOR WATER STORAGE TANKS UNIT #2	443014
6. DETAILS, EXTERIOR CONCRETE TANK PROTECTION, UNITS #1,2	463988
7. DETAILS, EXTERIOR CONCRETE TANK PROTECTION, UNITS #1,2	463989
8. APPLICABLE DESIGN CHANGES: DCO-E-C-154, 161, 164; DCO-G-C-038, 223, 440, 448, 579, 624, 630, 632, 634; DCI-G-C-463, 493, 515, 522, 542, 543, 547, 611, 616; DCP-G-C-561; DCI-G-C-657, 691.	496, 467
9. MODIFICATIONS OF CONDENSATE & REFUELING WATER STORAGE TANK - UNIT 1	496, 467
10. MODIFICATIONS OF CONDENSATE & REFUELING WATER STORAGE TANK - UNIT 2	496, 467
11. VENT CONFIGURATION	663071-130

DATE	REVISION DESCRIPTION	DWG SCALES
02-10-2014	REVISION PER DFT-12405	BILL OF MAT'L
D.D. IA21		SUPDS#
R.E. FxC2		SUPDS#1
T.V. KJD3		SUPDS#2
P.E. N/A		DRAWING SHEET PAGE REV
		463987 1 0 27

RASTER=463987S1.DGN  
 DWTN=463987S1.DGN  
 CDD=463987S1.DGN  
 02-10-2014