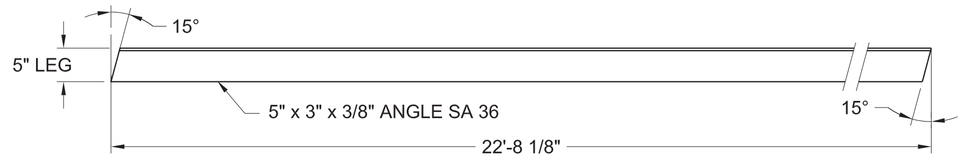
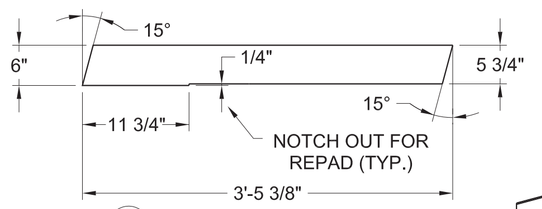
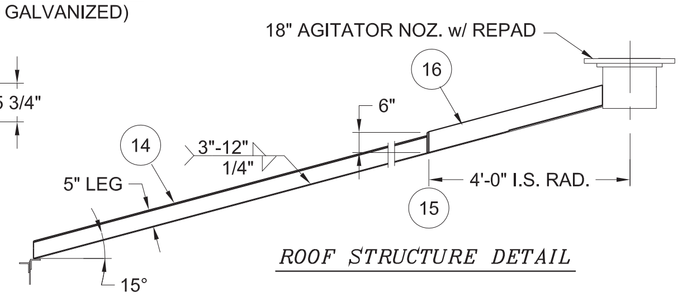


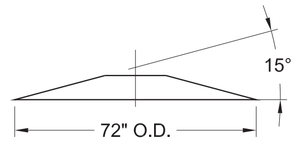
14 EXTERNAL RAFTER DETAIL
(HOT-DIPPED GALVANIZED)



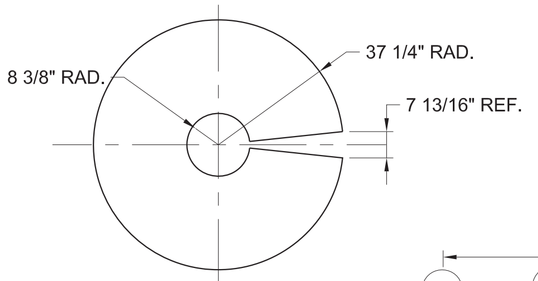
16 STIFFENING GUSSET DETAIL

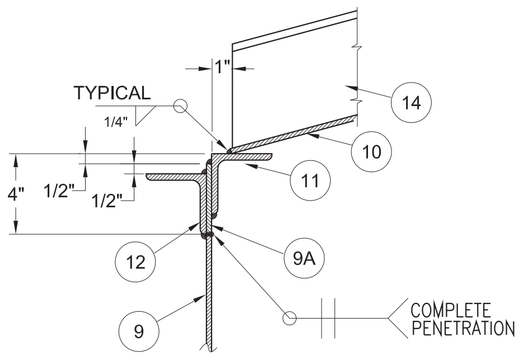


ROOF STRUCTURE DETAIL



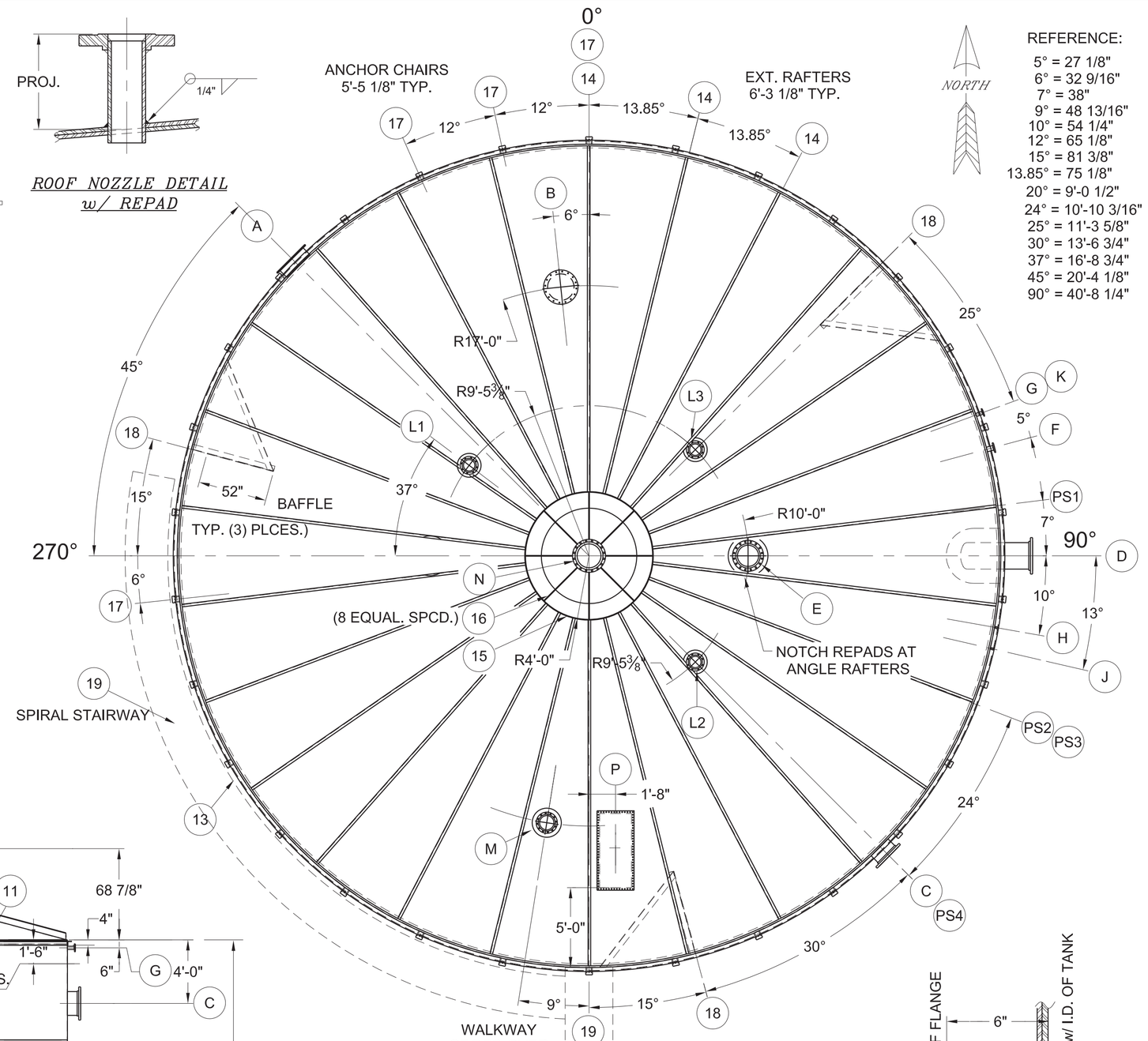
FORMED VIEW





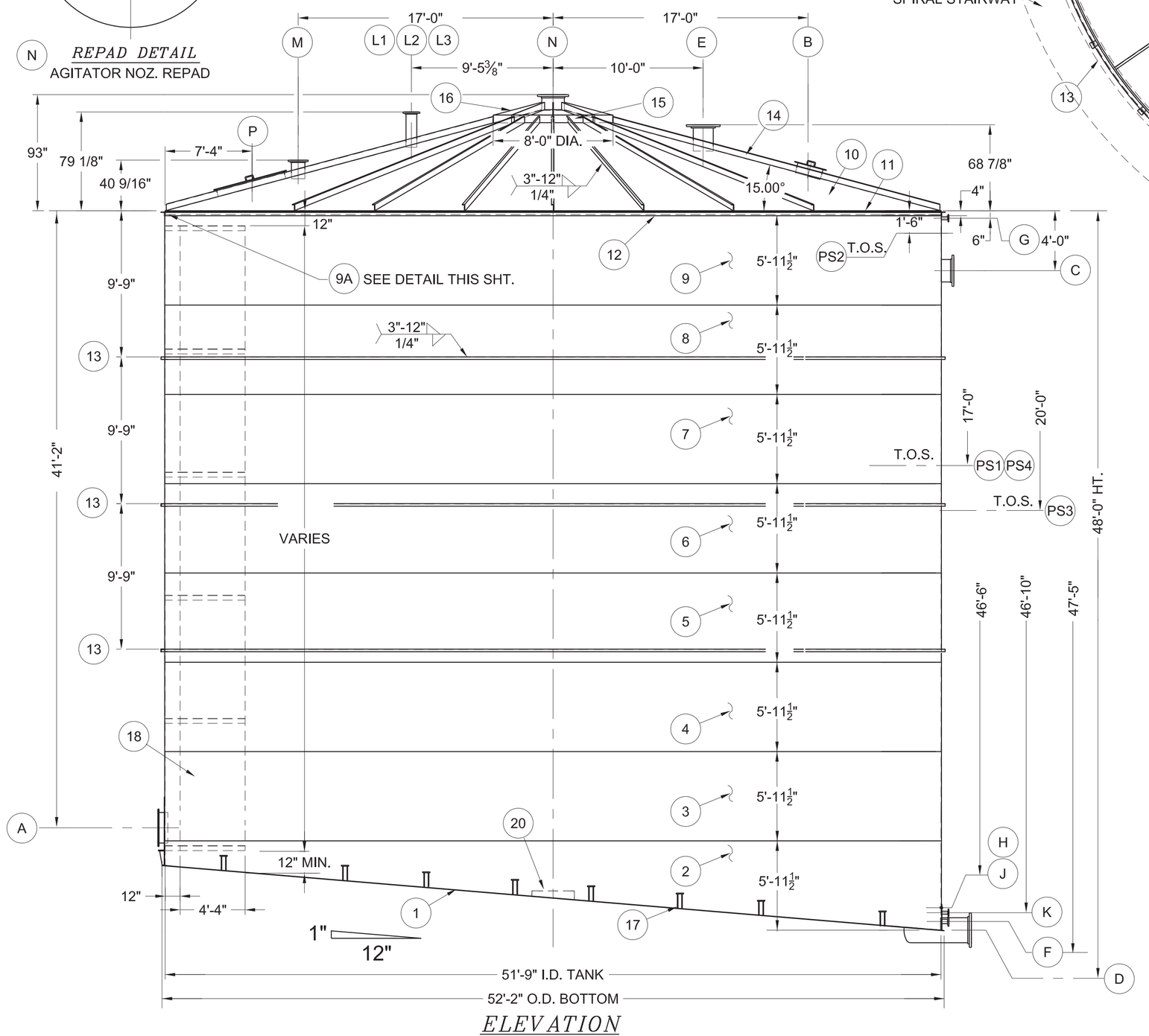
CHIME ANGLE DETAIL

ROOF NOZZLE DETAIL
w/ REPAD



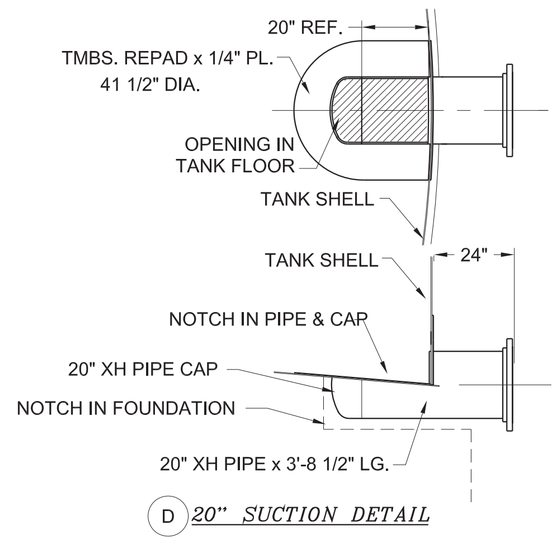
PLAN VIEW

REFERENCE:
5° = 27 1/8"
6° = 32 9/16"
7° = 38"
9° = 48 13/16"
10° = 54 1/4"
12° = 65 1/8"
15° = 81 3/8"
13.85° = 75 1/8"
20° = 9'-0 1/2"
24° = 10'-10 3/16"
25° = 11'-3 5/8"
30° = 13'-6 3/4"
37° = 16'-8 3/4"
45° = 20'-4 1/8"
90° = 40'-8 1/4"

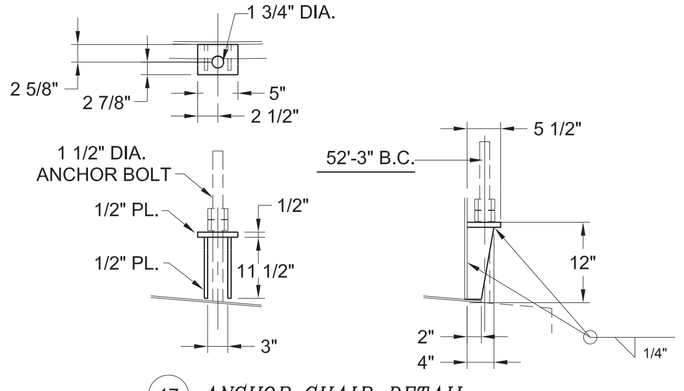


ELEVATION

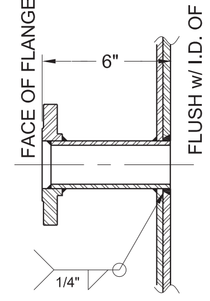
NOTE: ALL DIMENSIONS ARE TAKEN FROM TOP OF RIM ANGLE
(SEE PLAN VIEW FOR TRUE ORIENTATION)



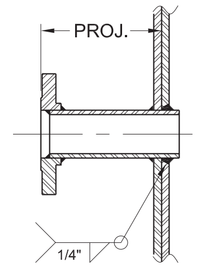
D 20" SUCTION DETAIL



17 ANCHOR CHAIR DETAIL



F NOZZLE DETAIL
w/ REPAD
G (NO REPAD ON NOZ. G)



TYP. SHELL NOZ. DETAIL
w/ REPAD

NOZZ. LOC. ELEV.	NOZZ. LOC. PROJ.	WEIGHT	ITEM NO.	BILL OF MATERIALS DESCRIPTION	QTY.	SERVICE
		26,115	1	BOTTOM 1/4" x 72" x 360° PLATE (26-1" REF. RADIUS)	13	304 SS (D-13458)
		8,456	2	1st. SHELL RING 5/16" X 71 1/2" X 325 1/4" LG.	6	304 SS (D-13460 A)
		13,324	3	2nd. SHELL RING 5/16" X 71 1/2" X 325 1/4" LG.	6	304 SS
		10,814	4	3rd. SHELL RING 1/4" X 71 1/2" X 325 1/4" LG.	6	304 SS
		10,814	5	4th. SHELL RING 1/4" X 71 1/2" X 325 1/4" LG.	6	304 SS
		10,814	6	5th. SHELL RING 1/4" X 71 1/2" X 325 1/4" LG.	6	304 SS
		10,814	7	6th. SHELL RING 1/4" X 71 1/2" X 325 1/4" LG.	6	304 SS
		10,814	8	7th. SHELL RING 1/4" X 71 1/2" X 325 1/4" LG.	6	304 SS
		10,814	9	8th. SHELL RING 1/4" X 71 1/2" X 325 1/4" LG.	6	304 SS
		536	9A	SHELL RING EXTENSION 1/4" x 3 1/2" F.B. x 20'-0" LG.	9	304 SS
		21,620	10	DECK 3/16" X 72" X 360° LG. PLATE (26'- 8 1/2" CUT RADIUS)	14	304 SS (D-13459)
		738	11	INSIDE CHIME 2 1/2" x 2 1/2" x 1/4" x 20'-0" LG. (LEG-IN)	9	304 SS
		738	12	OUTSIDE CHIME 2 1/2" x 2 1/2" x 1/4" x 20'-0" LG. (LEG-OUT)	9	304 SS
		2,214	13	VACUUM RINGS 3" x 2" x 1/4" x 20'-0" LG. (3" LEG-IN)	27	304 SS
		5,768	14	EXTERNAL RAFTER 5" x 3" x 3/8" x 22'-8 1/8" LG.		
				INSTALLED 5" "LEG DOWN" & HOT-DIPPED GALAVANIZED	26	SA-36 (SEE DETAIL)
		274	15	STIFF. RING 1/2" x 6" F.B. x 25'-3" LG. (ROLL 8' I.D.)	1	304 SS (SEE DETAIL)
		310	16	STIFFENING GUSSET 1/2" x 6" F.B. x 3'-6 7/8" LG.	8	304 SS (SEE DETAIL)
12"	5"	436	17	ANCHOR CHAIR 12" HT. x 1/2" PLATE	30	304 SS (SEE DETAIL)
-	-	9,935	18	BAFFLE 1/4" PL. x 52" WD. w/ 4" x 4" x 3/8" ANGLE BRACES	3	304SS (C-13462)
			19	GALV. SPIRAL STAIRWAY, 360° HANDRAILS, & CROSS- WALK	1	A36 (C-13506)
-	-	803	20	STEADY BEARING SUPPORT 2 1/2" PL. x 28" DIA.	1	B-13545
** 41'-2"	6"	541	A	24" API 650 SHELL MW w/ 5/16" TMBS. REPAD & NP BRKT	1	B-13451, B-10396
ROOF	6"	110	B	20" API 650 ROOF MANWAY 304 SS	1	B-11904
* 4'-0"	6"	292	C	NOZ. 18" 150# RFSO XH PIPE x 11 1/4" LG. w/ 1/4" PLATE		
				REPAD 37 1/2" O.D. x 18 1/8" I.D. 304 SS	1	RECIRCULATION
* 48'-0"	2'-0"	695	D	NOZ. 20" 150# RFSO XH PIPE x 3'-8 1/2" LG. w/ 20" XH PIPE		
				CAP, 5/16" HALF TMBS REPAD & 1/4" BOTT REPAD x 42" O.D.	1	MASH OUTLET (B-13490)
** ROOF	68 7/8"	224	E	16" 150# RFSO NOZ. W/ STD. PIPE x 20 1/2" LG. w/ 1/4" PL.		
				REPAD 30" O.D. x 16 1/8" I.D. 304 SS	1	C02 OUTLET
* 47'-5"	5 11/16"	28	F	NOZ. 3" 150# RFSO S/80 x 7 1/4" LG. w/ 5/16" TMBS REPAD	1	LEVEL TRANSMITTER
* 0'-6"	5 3/4"	9	G	NOZ. 2" 150# RFSO S/80 PIPE x 7 1/4" LG.	1	LEVEL SWITCH
* 46'-6"	-	3	H	3/4" 3000# COUPLING 304 SS	1	T.I.
* 46'-6"	-	3	J	3/4" 3000# COUPLING 304 SS	1	T.E.
* 46'-10"	6"	9	K	NOZ. 2" 150# RFSO S/80 PIPE x 7 1/4" LG.	1	STEAM INLET
** ROOF	79 1/8"	331	L1,2,3	8" 150# RFSO NOZ. W/ STD. PIPE x 28" LG. w/ 1/4" PL.		
				REPAD 18" O.D. x 8 3/4" I.D. 304 SS	3	CIP INLET
** ROOF	40 9/16"	112	M	10" 150# RFSO NOZ. W/ STD. PIPE x 14" LG. w/ 1/4" PL.		
				REPAD 22" O.D. x 10 7/8" I.D. 304 SS	1	PSV VENT
** ROOF	93"	520	N	18" 150# RFSO NOZ. W/ STD. PIPE x 14 1/2" LG. w/ 1/4" PL.		
				REPAD 72" O.D. x 18 1/8" I.D. 304 SS (SEE DETAIL)	1	AGITATOR
ROOF	6"	225	P	24" x 56" ROOF HATCH w/ BOLTED COVER PLATE	1	B-13452
* 17'-0"	-		PS1	PIPE SUPPORT PS-VESB (REF. 6,324 LBS.) DETAIL "B"	1	C-13469
* 18"	-		PS2	PIPE SUPPORT PS-VESB (REF. 420 LBS.) DETAIL "A"	1	C-13469
* 20'-0"	-		PS3	PIPE SUPPORT PS-VESB (REF. 420 LBS.) DETAIL "A"	1	C-13469
* 17'-0"	-		PS4	PIPE SUPPORT PS-VESB (REF. 4,455 LBS.) DETAIL "B"	1	C-13469

ESTIMATED TOTAL WEIGHT = 159,255 LBS. (WT. OF PIPE SUP'TS, HANRAILS, WALKWAYS NOT INCL.)

* NOTE: ELEVATIONS ARE FROM TOP OF RIM ANGLE "DOWN".
*NOTE: PROJECTIONS ARE FROM TOP OF RIM ANGLE "UP".

CERTIFIED "AS-BUILT" BY BAKER TANK CO.

TK–3105

NOTES:
DESIGNED & BUILT IN ACCORDANCE TO API 650

WELDING DETAILS: SEE B-6456
NOZZLE DETAILS: SEE B-5234
NOZZLE & MANWAY REPADS: SEE B-7830

DESIGN: 0.5 PSIG / -5" WC VACUUM @ 200 °F
CORROSION ALLOW.: NONE
SPECIFIC GRAVITY: 1.06
SEISMIC: ZONE 1 (PER API 650)
WIND LOAD: 90 MPH

EXTERNAL RAFTERS TO BE HOT-DIPPED GALVANIZED
FIELD WELDS TO BE COLD SPRAY GALV. AFTER INSTALLATION

BOLTS: SA-193-B7 w/ THREAD COMPOUND
NUTS: SA-194-2H w/ THREAD COMPOUND
GASKETS: 1/8" GARLOCK 3000 / EPDM OR EQUAL

ROOF NOZZLES BOLT HOLES TO STRADDLE RADIAL CENTERLINE.

BOTTOM TO BE SLOPED "HILLSIDE" 1" IN 1'-0"

API 650

APPENDIX	S	YEAR COMPLETED	2007
EDITION	10	REVISION NUMBER	4
NOMINAL DIAMETER	51'-9"	NOMINAL HEIGHT	48'-0"
NOMINAL CAPACITY (BBL)	17,996	DESIGN LIQUID LEVEL	48'-0"
DESIGN SPECIFIC GRAVITY	1.06	MAXIMUM OPERATING TEMP.	200°F
DESIGN PRESSURE PSIG	0.5	PARTIAL STRESS RELIEF	
MANUFACTURER'S SERIAL NO.	07232	PURCHASER'S TANK NO.	TK-3105
FABRICATED BY	BAKER TANK COMPANY		
ERECTED BY	BAKER TANK COMPANY		

SHELL COURSE	APPENDIX	MATERIAL
1st - 2nd = 5/16"	S	304 SS TYP.
3rd THRU 8th = 1/4"	S	304 SS TYP.

WELDING PROCEDURES

WELDED JOINT	PROCEDURE
LONG SEAM	29, 37
ROUND SEAM	29, 37
BOTTOM LAP JOINTS	29, 37
CONNECTIONS	29, 37
INTERNALS	29, 37

TOLERANCE +/- 1/4" LINEAR +/- 1° ANGULAR

NO.	REVISION	APP.	DRWN	DATE
8	REV. ADDED SPIRAL STAIRWAY, RELOCATED MW "A"		RAM	8/24/07
7	REV. EXT. RAFTER SIZE ITEM 14, REV. ELEV. ITEM 13		RAM	8/16/07
6	REV. NOZ. "M" FROM 12" TO 10" DIA.		RAM	7/24/07
5	REV. PROJ. NOZ'S E & M, ADDED 360° H.R., WALKWAY DATA		RAM	7/9/07
4	REV. NOZ. N TO 18" DIA. REV. LENGTH ITEM # 16		RAM	6/28/07
3	REV. EXTERNAL RAFTERS TO HOT-DIPPED GALVANIZED		RAM	6/18/07
2	REV. PER CUST. RELOC. NOZ. J, REV. PROJ. NOZ. F& G		RAM	6/11/07
1	REV. PER CUST. COMMENTS, ADDED PIPE SUPPORTS		RAM	5/22/07

BAKER TANK CO. DIVISION OF JUSTISS OIL COMPANY

51'–9" I.D. X 48'–0" HT.
FERMENTER # 2
STORAGE TANK

BUNGE-ERGON VICKSBURG, LLC. TANK# TK-3105 @ VICKSBURG, MS.

SCALE	DRAWN BY	JOB NO.	DRAWING NO.	REV.
3/16"=1'-0"	RM	07232	D-13437	8
DATE: 4/25/07	APP. BY: MB			