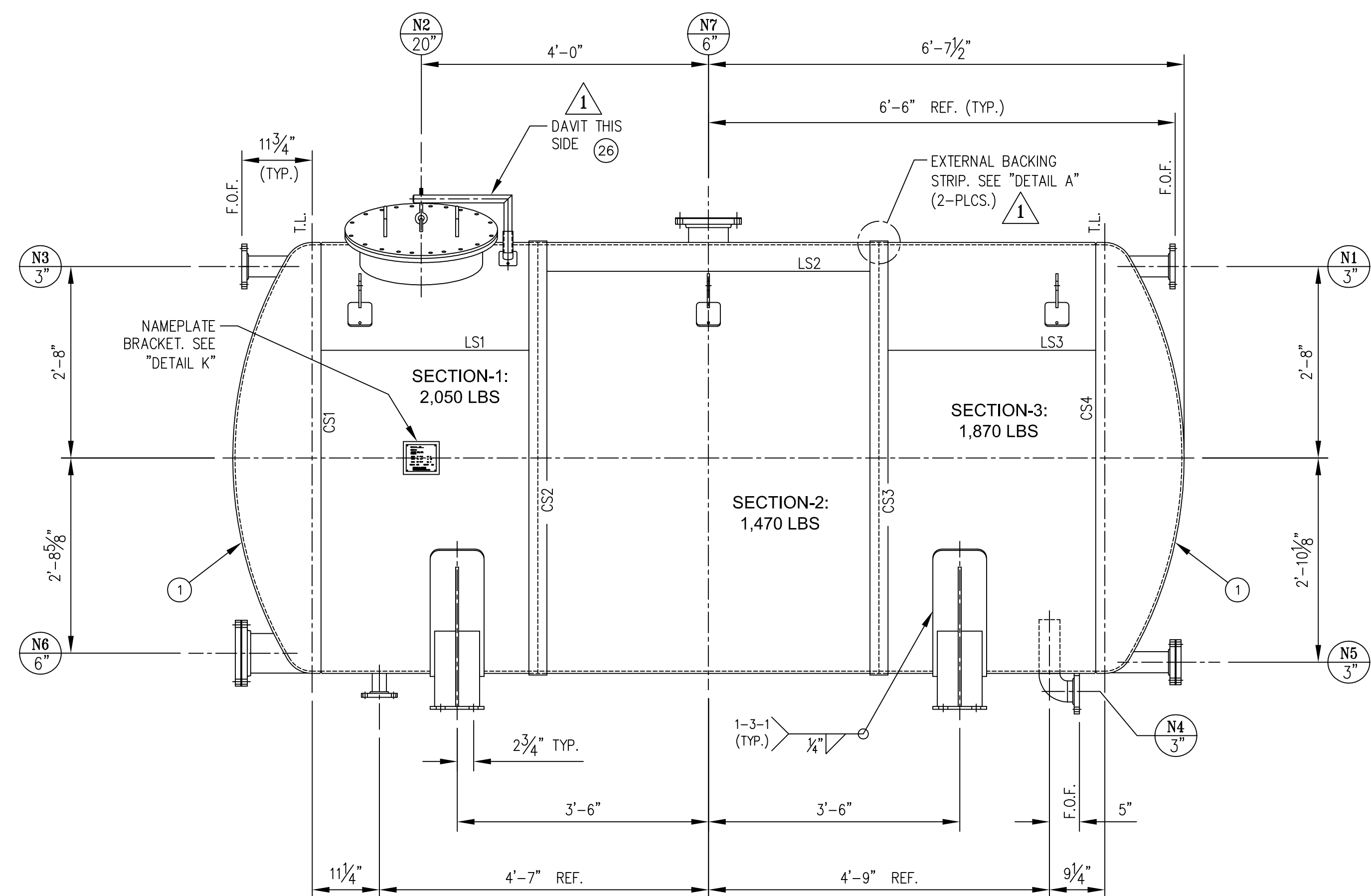
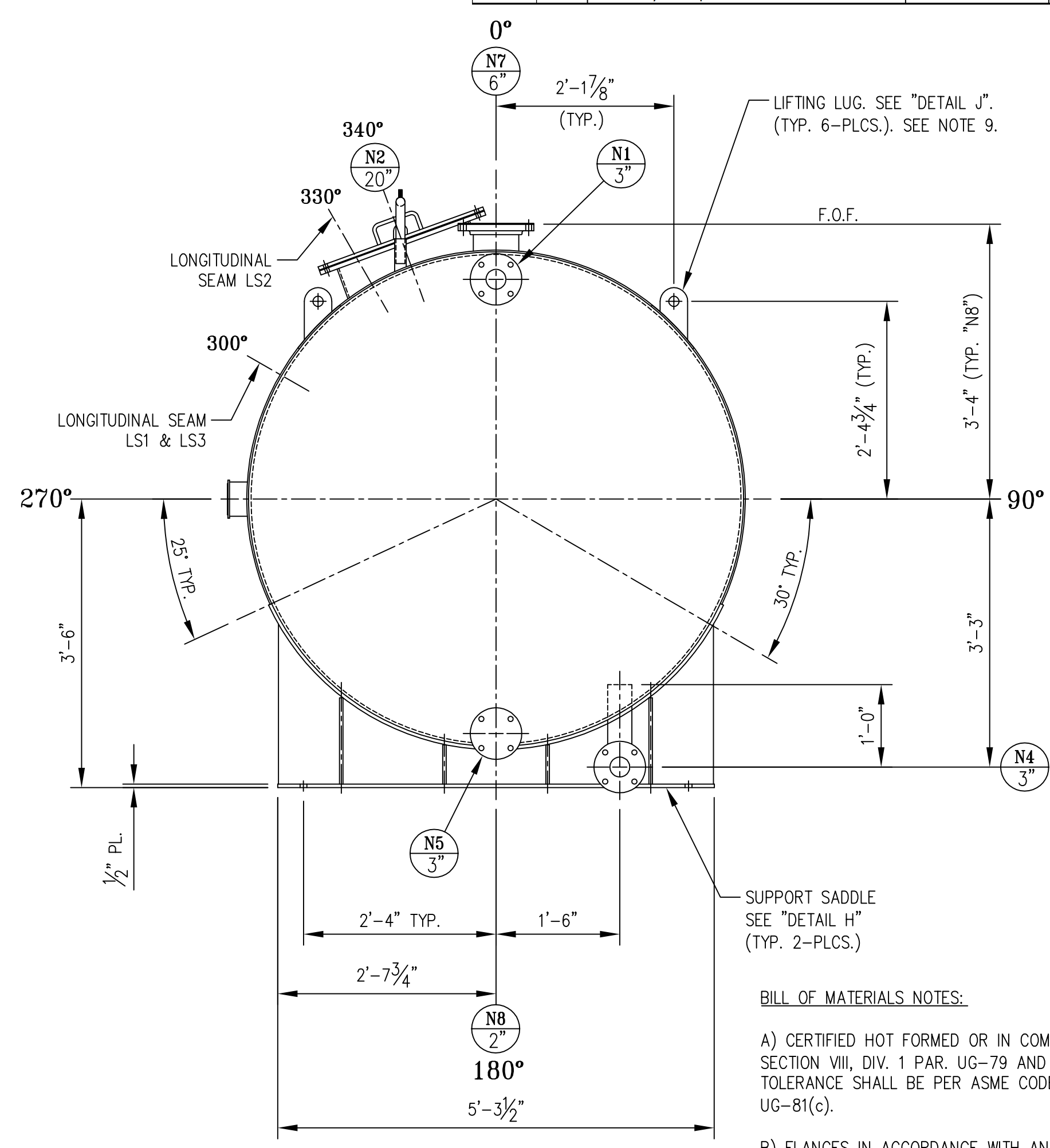


PLAN
SCALE: 3/4"=1'-0"

NOTES:
TANK SHALL BE SUPPLIED IN THREE SECTIONS COMPLETED TO THE FULLEST EXTENT POSSIBLE, THEN FINISH WELDED AND LINED/COATED IN THE FIELD



ELEVATION
SCALE: 3/4"=1'-0"



END VIEW
SCALE: 3/4"=1'-0"

NOZZLE SCHEDULE										
NOZZLE	QTY.	SIZE	ANSI RATING	SCH. or I.D.	FLANGE TYPE	FACE	DESCRIPTION	MATERIAL	REINF. THK.	WIDTH
N1	1	3"	150#	80 (0.390")	S.O.	F.F.	FILL (SEE "DETAIL B")	SA105/SA106 Gr.B	---	---
N2	1	20"	"SPECIAL"	20" I.D.	PLATE	F.F.	MANWAY (SEE "DETAIL G")	SA516 Gr.70	---	---
N3	1	3"	150#	80 (0.390")	S.O.	F.F.	OVERFLOW & VENT (SEE "DETAIL B")	SA105/SA106 Gr.B	---	---
N4	1	3"	150#	80 (0.390")	S.O.	F.F.	PUMP SUCTION (SEE "DETAIL C")	SA105/SA106 Gr.B	---	---
N5	1	3"	150#	80 (0.390")	S.O.	F.F.	CLEANOUT (SEE "DETAIL D")	SA105/SA106 Gr.B	---	---
N6	1	6"	150#	80 (0.432")	S.O.	F.F.	CLEANOUT (SEE "DETAIL D")	SA105/SA106 Gr.B	---	---
N7	1	6"	150#	80 (0.432")	S.O.	F.F.	LEVEL IND. (SEE "DETAIL E")	SA105/SA106 Gr.B	---	---
N8	1	2"	150#	80 (0.218")	S.O.	F.F.	DRAIN (SEE "DETAIL F")	SA105/SA106 Gr.B	---	---

BILL OF MATERIALS (QUANTITY FOR ONE (1) VESSEL)				
ITEM NO.	QTY.	Description	Material	Note
1	2	ASME Flanged & Dished Head, 72" O.D., 66" I.D.R., 4.375" I.K.R. x 0.375" Nominal, 1-1/2" Straight Flange, Bevel: 30° O.S., 1/16" Land I.S	SA516 Gr. 70	A)
2	2	Shell Plate, 0.375" Nominal Thk. x 36.1875" wide x 225.02" (theo.) long, Rolled to a 72" O.D Cylinder	SA516 Gr. 70	N/A
3	1	Shell Plate, 0.375" Nominal Thk. x 56.6875" wide x 225.02" (theo.) long, Rolled to a 72" O.D Cylinder	SA516 Gr. 70	N/A
4	4	3"-150# F.F. Slip-On Flange	SA105	B)
5	1	Lot, 3"-Sch. 80 (0.300") Pipe	SA106 Gr. B	C)
6	1	3"-Sch. 80 90° Short Radius B.W. Elbow	SA234 Gr. WPB	C)
7	2	6"-150# F.F. Slip-On Flange	SA105	B)
8	1	Lot, 6"-Sch. 80 (0.432") Pipe	SA106 Gr. B	C)
9	1	6"-150# F.F. Blind Flange	SA105	B)
10	1	3"-150# F.F. Blind Flange	SA105	B)
11	8	3/4"-10 x 4-1/4" Long w/ Heavy Hex Nuts	SA193-B7, Zinc Plated	N/A
12	4	5/8"-11 x 3-3/4" Long w/ Heavy Hex Nuts	SA193-B7, Zinc Plated	N/A
13	2	6"-150# Full Face Gasket x 1/8" thk.	Viton B	N/A
14	1	3"-150# Full Face Gasket x 1/8" thk.	Viton B	N/A
15		DELETED		
16	1	2"-150# F.F. Slip-On Flange	SA105	B)
17	1	Lot, 2"-Sch. 80 (0.218") Pipe	SA106 Gr. B	C)
18	1	Pl. Flange, 3/4" thk. x 25-1/2" O.D. x 20-5/8" I.D.	SA36	N/A
19	1	Pl. Cover, 1/2" thk. x 25-1/2" O.D. w/ (2) 1/2" diameter Handles	SA36	N/A
20	1	Cyl. Plate, 1/4" thk. x 5-5/8" wide x 63.62" long. Rol to a 20" Inside Diameter	SA36	N/A
21	20	1/2"-13 x 3" Long w/ Heavy Hex Nuts	SA193-B7, Zinc Plated	N/A
22	1	1/8" thk. x 25-1/2" OD x 20-1/2" ID Full Face Gsk.	Viton B	N/A
23	6	Lifting Lug, 3/8" thk.	SA36	N/A
24	6	Wear Plate, 1/4" thk. x 4" wide x 8-3/4" long	SA36	N/A
25	1	Support Saddle Plate, 1/2" thk.	SA36	N/A
26	1	Davit Assembly	SA36	N/A
27	1	Nameplate Bracket, 1/4" thk. Plate	SA36	N/A
28	1	Archer Day Nameplate	Stainless Steel	N/A

BILL OF MATERIALS NOTES:
A) CERTIFIED HOT FORMED OR IN COMPLETE COMPLIANCE WITH A.S.M.E. CODE SECTION VIII, DIV. 1 PAR. UG-79 AND PAR. UCS-79 (IF COLD FORMED). TOLERANCE SHALL BE PER ASME CODE SECTION VIII, DIV. 1 PARAGRAPH UG-81(c).
B) FLANGES IN ACCORDANCE WITH ANSI B16.5. FOREIGN ACCEPTABLE HOWEVER MATERIAL OF CHINESE ORIGIN IS NOT PERMITTED.
C) PIPE IN ACCORDANCE WITH ANSI B36.10. FITTINGS IN ACCORDANCE WITH ANSI B16.9

VESSEL DESIGN DATA	
DESIGN CODE:	ASME SECTION VIII, DIV. 1, 2010 EDITION, 2011a ADDENDA (NO STAMP)
CUSTOMER SPECIFICATION:	
DESIGN PRESSURE:	10 PSIG
OPERATING PRESSURE:	ATMOSPHERIC
MAX. ALLOW. WORKING PRESSURE:	10 PSIG
MAX. ALLOW. EXTERNAL WORKING PRESSURE:	N/A
DESIGN TEMPERATURE:	100 °F
OPERATING TEMPERATURE:	80 °F
MINIMUM DESIGN METAL TEMPERATURE:	-20 °F @ 10 PSIG
CORROSION ALLOWANCE:	0.0625"
HEAD NOM. THICKNESS:	0.375"
SHELL NOM. THICKNESS:	0.375"
HYDROSTATIC TEST PRESSURE:	50 PSIG (MAINT. FOR 30 MIN.-FIELD)
NOMINAL CAPACITY:	2,941 GALLONS (APPROX.)
CAPACITY @ 85% FULL:	2,500 GALLONS
EMPTY WEIGHT:	5,390 LBS.
RADIOGRAPHY:	NONE
SPECIAL SERVICE:	NONE
SPECIFIC GRAVITY CONTENTS:	1.84 (93% SULFURIC ACID, 66° BAUME)
INSPECTION	<input type="checkbox"/> REQUIRED ASME <input checked="" type="checkbox"/> NOT REQUIRED ASME
INSULATION:	NONE
INTERIOR LINING:	SEE NOTE 6
EXTERIOR COATING:	SEE NOTE 7

IDENTIFICATION DATA	
NATL. BO. NO.:	N/A
CERTIFIED BY:	ARCHER DAY, INC. AVENEL, N.J.
MAWP:	10 PSI AT 100 °F
M.D.M.T.:	-20 °F AT 10 PSI
MAEP:	N/A PSI AT N/A °F
SERIAL NO.:	6586 YEAR BUILT 2014
UNIT 2-SULFURIC ACID STORAGE TANK	

GENERAL NOTES

- ALL FLANGE BOLT HOLES SHALL STRADDLE MAJOR VESSEL CENTERLINES (0°, 90°, 180° & 270°) UNLESS OTHERWISE NOTED.
- LINEAR TOLERANCE SHALL BE ± 1/8", ANGULAR TOLERANCE SHALL BE ± 1/2°.
- ALL DIMENSIONS SHOWN TO STEEL.
- ALL WELDS SHALL BE CONTINUOUS ON THE INTERIOR AND EXTERIOR OF THE VESSEL UNLESS OTHERWISE NOTED.
- ALL INTERIOR WELDS AND ATTACHMENTS SHALL BE PREPARED FOR LINING IN ACCORDANCE WITH COATING MANUFACTURER'S RECOMMENDATIONS AND AS FOLLOWS:
 - ALL SLAG AND WELD SPATTER SHALL BE REMOVED.
 - ALL WELDS SHALL BE FREE OF POROSITY, CRACKS AND UNDERCUTS.
 - ALL WELDS SHALL BE GROUND SMOOTH, BUT NOT NECESSARILY FLUSH.
 - ALL EDGES AND CORNERS SHALL BE GROUND TO A 1/8" MIN. RADIUS.
- ALL INTERIOR VESSEL SURFACES SHALL BE PREPARED IN ACCORDANCE WITH SSPC-SP5 (WHITE, 3-4 MILS SURFACE PROFILE) AND AS RECOMMENDED BY THE LINING MANUFACTURER. ALL PREPARED SURFACES SHALL RECEIVE A SINGLE COAT OF KCC TECHNI-PLUS E3 PRIMER TO 3.0-5.0 MILS D.F.T. THEN FINISHED WITH KCC TECHNI-PLUS EN25.5 EPOXY COATING SYSTEM IN STRICT COMPLIANCE WITH MANUFACTURER'S INSTRUCTIONS TO 50-60 MILS D.F.T. LINING SHALL EXTEND THRU NOZZLES AND OVER FLANGE FACES.
- ALL EXTERIOR WELDS SHALL BE FREE OF POROSITY AND UNDERCUTS. ALL WELD SURFACES SHALL REMAIN IN THE "AS-WELDED" CONDITION WITH "START & STOPS" GROUND SMOOTH. BREAK ALL SHARP CORNERS. REMOVE ALL SLAG AND WELD SPATTER. ALL EXTERIOR SURFACES SHALL BE PREPARED IN ACCORDANCE WITH SSPC-SP10 (NEAR WHITE, 2-3 MILS SURFACE PROFILE) AND AS RECOMMENDED BY THE COATING MANUFACTURER. ALL PREPARED SURFACES SHALL RECEIVE A SINGLE COAT OF KCC TECHNI-PLUS E3 PRIMER TO 3.0-5.0 MILS D.F.T. THEN FINISHED WITH KCC TECHNI-PLUS EN25.5 EPOXY COATING SYSTEM IN STRICT COMPLIANCE WITH MANUFACTURER'S INSTRUCTIONS TO 20-30 MILS D.F.T (COLOR: SAFETY ORANGE). COATING SHALL EXTEND THRU ALL FLANGE BOLT HOLES.

NOTE: SURFACES SHALL BE MASKED BACK 3"-4" FROM EDGES TO BE FIELD WELDED
- ALL OPEN FLANGED CONNECTIONS SHALL RECEIVE WOOD OR STEEL COVERS AND ALL OPEN COUPLINGS SHALL HAVE THREADS PROTECTED WITH PLASTIC OR METAL PLUGS FOR SHIPMENT.
- LIFTING LUGS SHALL ONLY BE UTILIZED FOR LIFTING OPERATIONS WHEN VESSEL IS EMPTY.

REV.	DATE	DESCRIPTION	BY
2	12/09/13	REV. ITEM NO. 19 IN BOM	PMD
1	12/02/13	REV. A.N PER CUSTOMER COMMENTS	PMD
0	11/26/13	ISSUED FOR APPROVAL	PMD

ARCHER DAY
18 MILEED WAY
AVENEL, NJ 07001
TEL: 732.417.0333
FAX: 732.396.4533
www.archerday.com

PROJECT: _____

TITLE: SULFURIC ACID STORAGE TANK (FIELD ASSEMBLED)
72" O.D. x 13'-3" OVER-HEADS

DRAWN BY: PMD DATE: 11/23/2013
APPROVED: _____ SCALE: AS SHOWN

DWG. NO. 6586-10 REV. 2