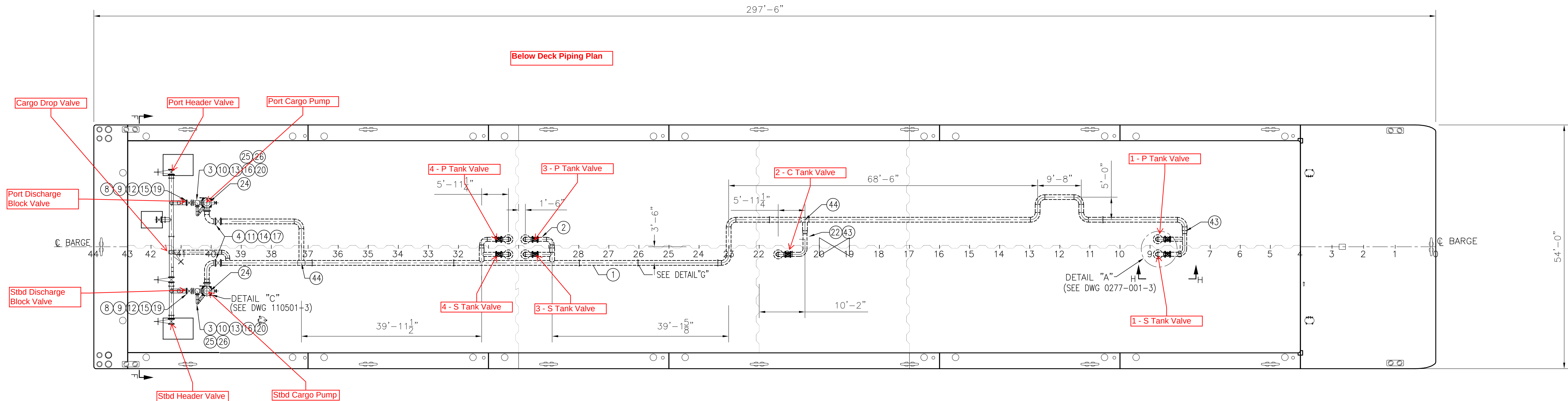
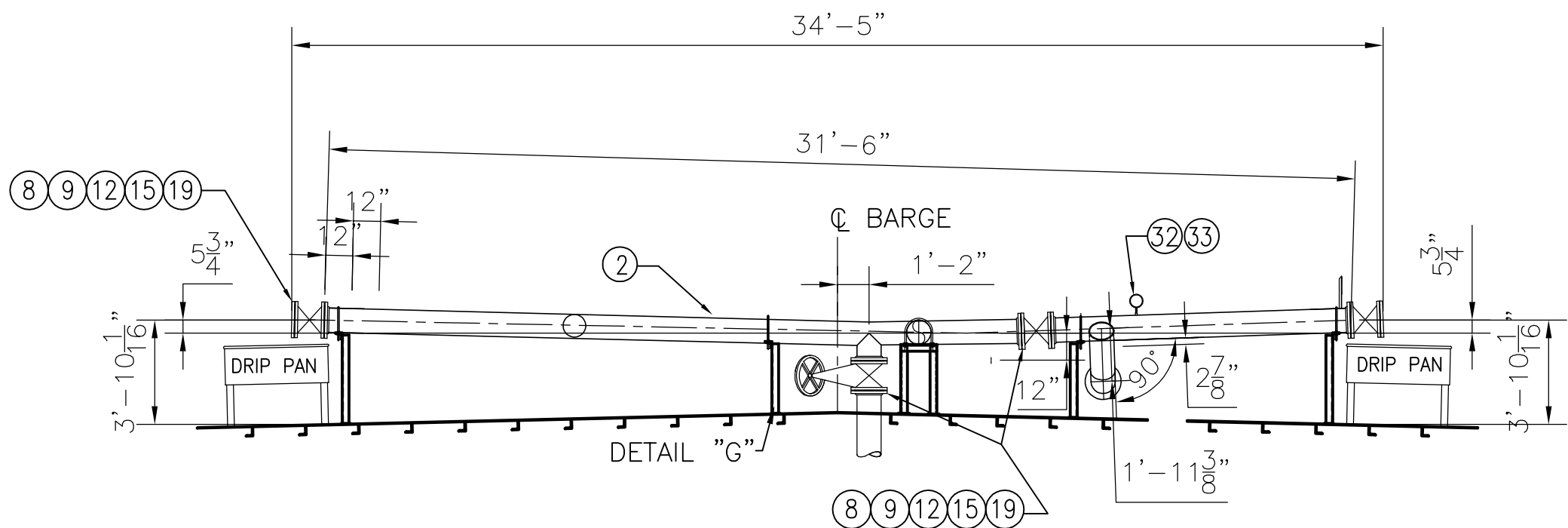
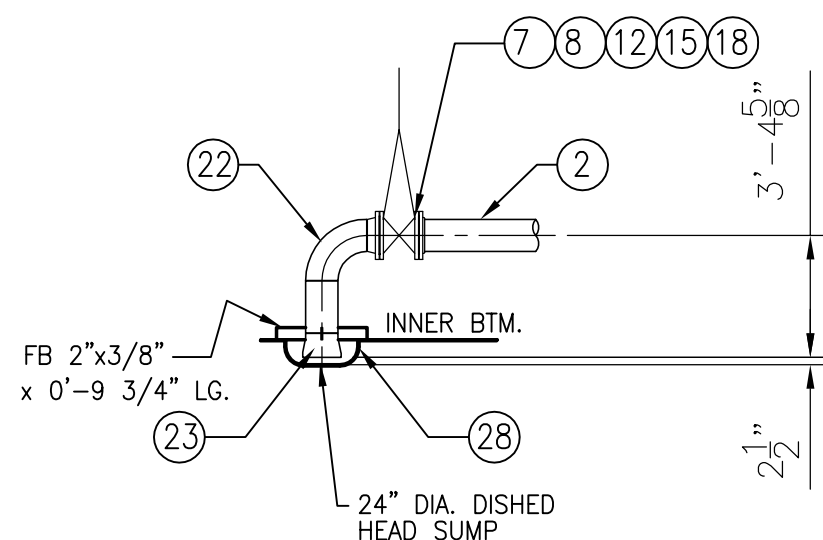




DECK PLAN



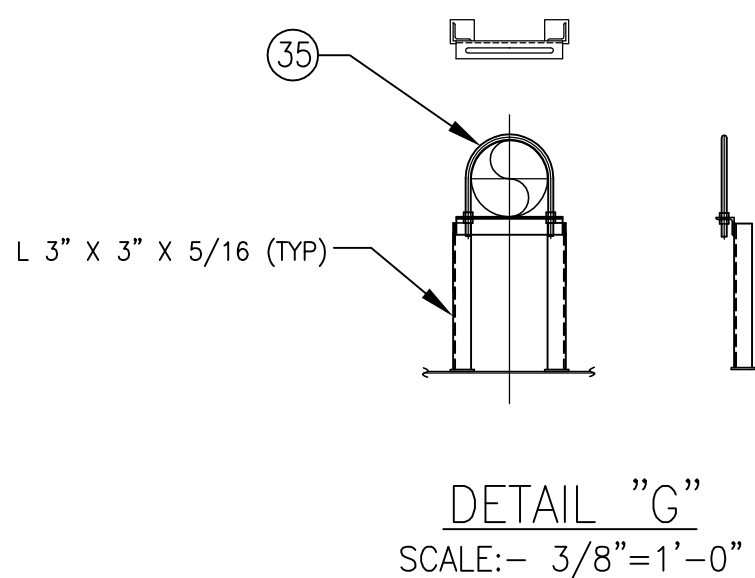
SECTION F-F
SCALE:- N.T.S.



SECTION H-H
SCALE:- 3/16"=1'-0"

MARK	DESCRIPTION	ASTM NO.	ANSI NO.
24	DEEP WELL PUMP, 10" DISCH., BYRON JACKSON 12LS16GH		
23	CONC. REDUCER, 12" x 10", SCH. 40, B.W.	A-234	B16.9
22	ELBOW, 90°, 10", SCH. 40, L.R., B.W.	A-234	B16.9
21	ELBOW, 90°, 12", SCH. 40, B.W.	A-234	B16.9
20	RELIEF VALVE, 4" x 6" SET @ 125 PSI, TELEDYNE #26PA10L-120 OR EQ	A-216	B16.5
19	GATE VALVE, 10", OS&Y, 150#, C.S. BODY/CR13 TRIM, SPACE#15011C	A-216	B16.5
18	GATE VALVE, 10", NON-RISING STEM, 125#, IBBM, SPACE #15021C	A-126 CLB	B16.10
17	GATE VALVE, 12", NON-RISING STEM, 125#, IBBM, SPACE #15021C	A-126 CLB	B16.10
16	BOLTS, 3/4"Ø X 3 1/4" LG. FOR 6" FLG.	A-307	B18.2.1
15	BOLTS, 7/8"Ø X 3 3/4" LG. FOR 10" FLG.	A-307	B18.2.1
14	BOLTS, 7/8"Ø X 4" LG. FOR 12" FLG.	A-307	B18.2.1
13	RING GASKET, 1/8" THK., NON-ASBESTOSS, 150# 6" FLG., KLINGERSIL OR EQ.		
12	RING GASKET, 1/8" THK., NON-ASBESTOSS, 150# 10" FLG., KLINGERSIL OR EQ.		
11	RING GASKET, 1/8" THK., NON-ASBESTOSS, 150# 12" FLG., KLINGERSIL OR EQ.		
10	6" FLANGE, 150#, WELD NECK, R.F., F.S.	A-105	B16.5
9	10" BLIND FLANGE, 150#, R.F., F.S.	A-105	B16.5
8	10" FLANGE, 150#, S.O., R.F., F.S.	A-105	B16.5
7	10" FLANGE, 150#, WELD NECK, R.F., F.S.	A-105	B16.5
6	12" BLIND FLANGE, 150#, R.F., F.S.	A-105	B16.5
5	12" FLANGE, 150#, S.O., R.F., F.S.	A-105	B16.5
4	12" FLANGE, 150#, WELD NECK, R.F., F.S.	A-105	B16.5
3	6" PIPE, SCH. 40, SEAMLESS, BLK. STEEL	A-53	B36.10
2	10" PIPE, SCH. 40, SEAMLESS, BLK. STEEL	A-53	B36.10
1	12" PIPE, SCH. 40, SEAMLESS, BLK. STEEL	A-53	B36.10

MARK	DESCRIPTION	ASTM NO.	ANSI NO.
45	12" X 10" REDUCING TEE, SCH. 40, BW	A-234	B16.9
44	12" TEE, SCH. 40, BW	A-234	B16.9
43	ECC. REDUCER, 12" X 10", SCH. 40, BW	A-234	B16.9
42	SWING CHECK VALVE, 1 1/4", 200#, SCR'D, 316 SS TRIM, SHARPE FIG. 20276	A-351	B16.10
41	1 1/4" FLANGE, 150#, S.O., R.F., F.S.	A-105	B16.5
40	1 1/4" PIPE, SCH. 40, SEAMLESS, BLK STEEL	A-106-B	B36.10
39	ELBOW, 90°, 1 1/4", 3000#, S.W.	A-105	B16.11
38	GATE VALVE, 1 1/4", 200#, SCR'D, NRS, 316 SS TRIM, SHARPE FIG. 30276	A-351	B16.10
37	GASKET, 1/8" THK., 30"ODx24"ID, TEFLONE ENVELOPE W/TETRA BLUE FILLER		
36	24" PIPE, STD., ERW, BLK. STEEL	A-53	B36.10
35	U-BOLT FOR 12" PIPE	A-307	B18.2.1
34	U-BOLT FOR 10" PIPE	A-307	B18.2.1
33	HALF COUPLING, 1/2", 3000#, F.S., THREADED	A-105	B16.11
32	PRESSURE GAUGE, 0-200 PSI, 1/2" CONN. ASHCROFT OR EQ		
31	ELBOW, 90°, 6", SCH. 40, L.R., B.W.	A-234	B16.9
30	4" FLANGE, 150#, S.O., R.F., F.S.	A-105	B16.5
29	ELBOW, 45°, 10", SCH. 40, B.W.	A-234	B16.9
28	24" DIAMETER DISHED HEAD, A-36		
27	CHECK VALVE, WAFER, 10", 150#, C.S. BODY/316SS TRIM, KEYSTONE #810	A-216	B16.5
26	BOLTS, 5/8"Ø X 3" LG. FOR 4" FLG.	A-307	
25	RING GASKET, 1/8" THK., NON-ASBESTOSS, 150# 4" FLG., KLINGERSIL OR EQ.		

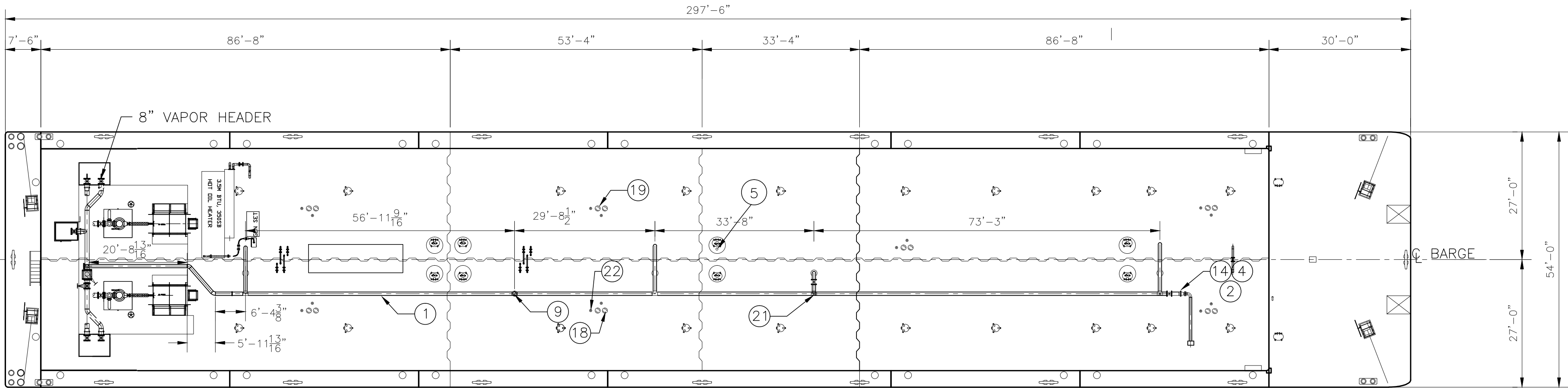


DETAIL "G"
SCALE:- 3/8"=1'-0"

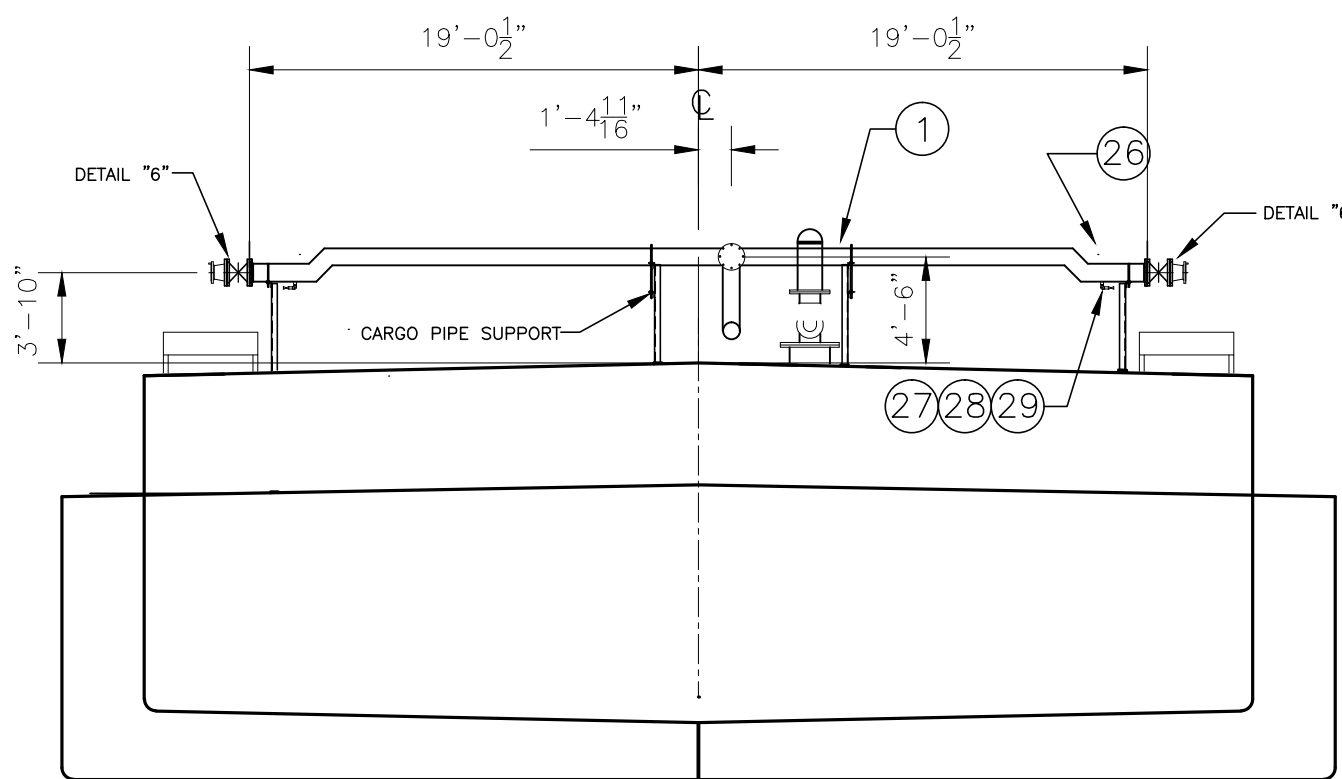
- GENERAL NOTES
- ALL PIPING TO MEET USCG II REGULATIONS.
 - BACKING RINGS SHALL BE USED AT BUTT WELD JOINTS 2" AND LARGER
 - PIPES PASSING THROUGH WATER/OIL TIGHT BOUNDARIES TO BE WELDED BOTH SIDES.
 - CARGO SYSTEM:
PRESSURE, WORKING 100 PSI
DESIGN 150 PSI
TEST 225 PSI
RELIEF VALVE 125 PSI
 - LABELS TO BE INSTALLED ON ALL VALVES WHERE REQUIRED TO IDENTIFY SERVICE.
 - ALL STRUCTURAL STEEL IS ASTM A-36.

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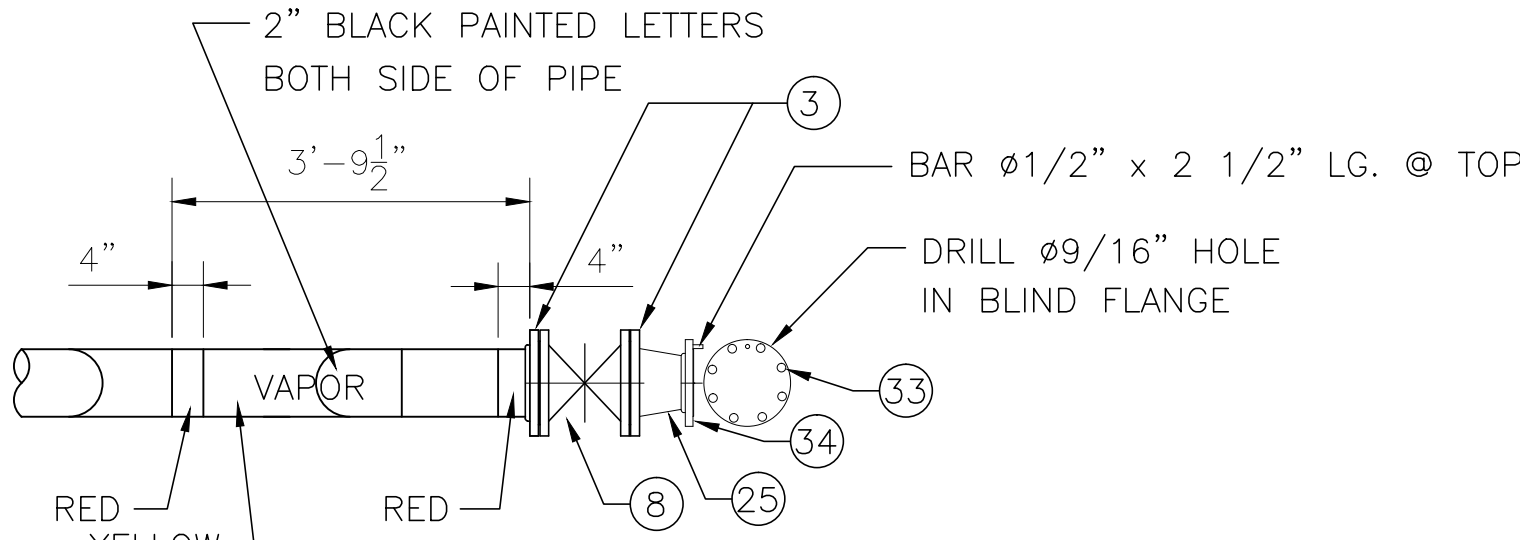
NO.	REVISION	BY	DATE
THE SHEARER GROUP, INC.			
NAVAL ARCHITECTS 3101 NASA ROAD ONE, SUITE I SEABROOK, TX. 77586			
297'-6" x 54'-0" x 12'-0" DOUBLE SKIN TANK BARGE			
SCALE: 3/32"=1'-0"		APPROVED BY:	
DATE: 4/4/12		JOB NO.: 0277-001	
		DRAWN BY: CLB REV. No. 0	
RAYMOND & ASSOCIATES, LLC, HULL 456			
CARGO PIPING ARRANGEMENT		DRAWING NUMBER 0277-001-02	



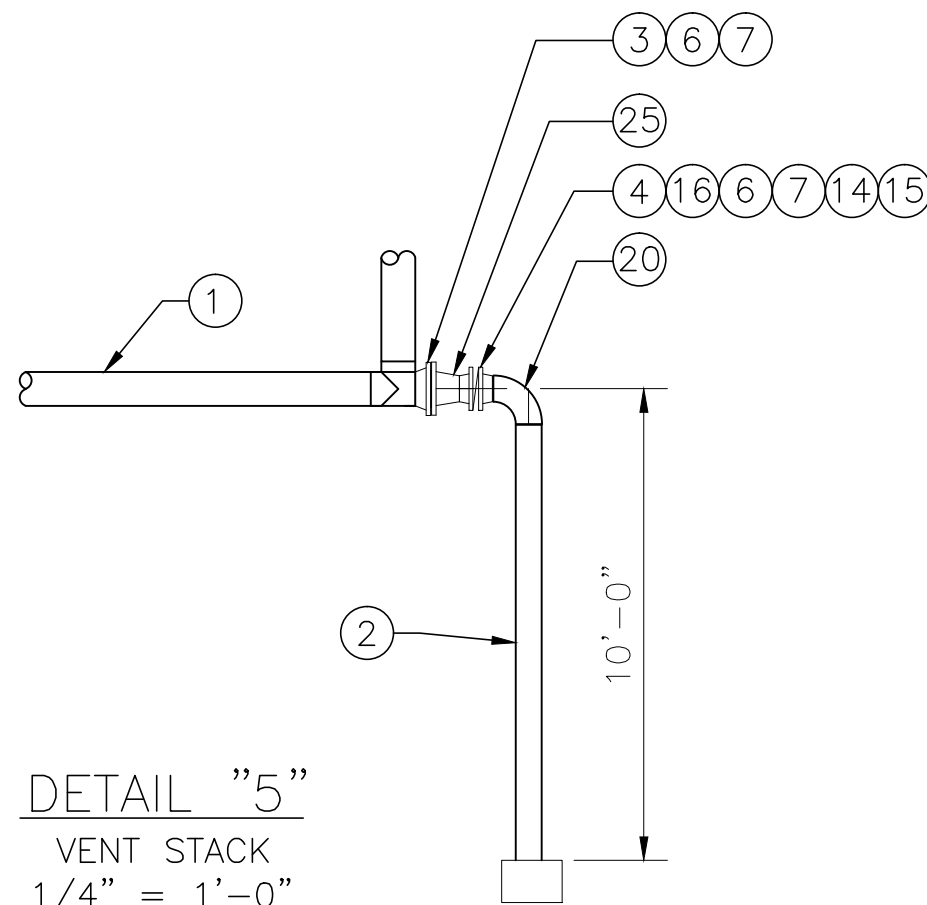
DECK PLAN



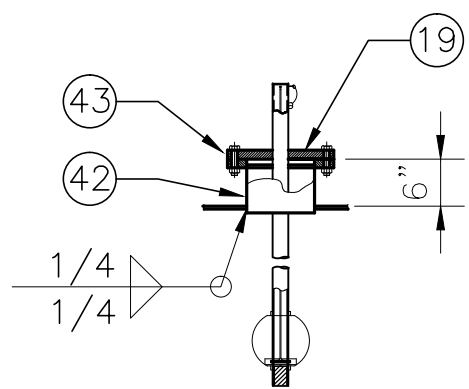
SECTION "A-A"
LOOKING FWD
1/8" = 1'-0"



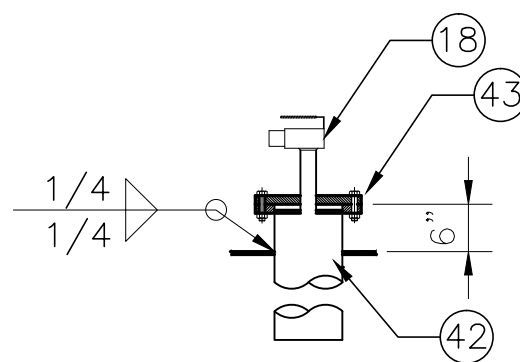
DETAIL "6"
STANDARD VAPOR MARKING
1/2" = 1'-0"



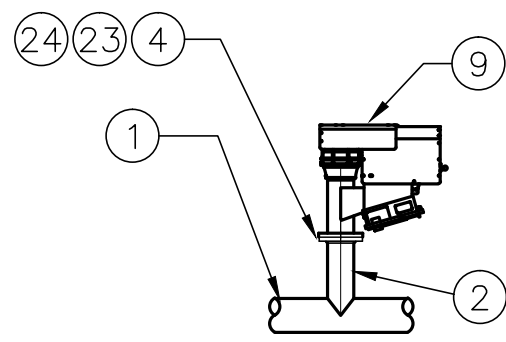
DETAIL "5"
VENT STACK
1/4" = 1'-0"



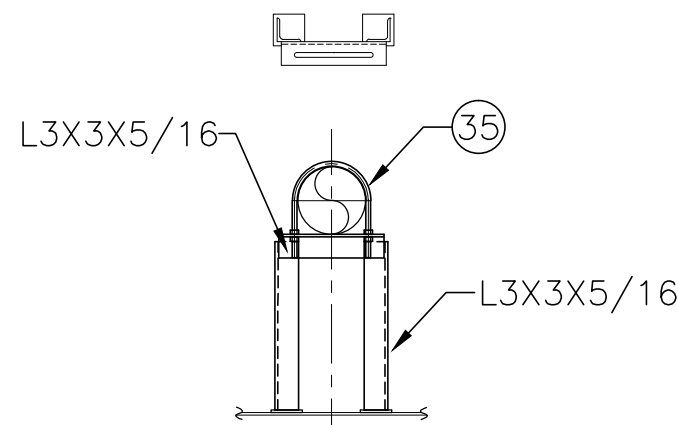
DETAIL "1"
HIGH LEVEL INDICATOR
1/2" = 1'-0"



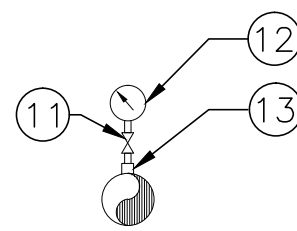
DETAIL "2"
HIGH LEVEL/ALARM
SHUTDOWN



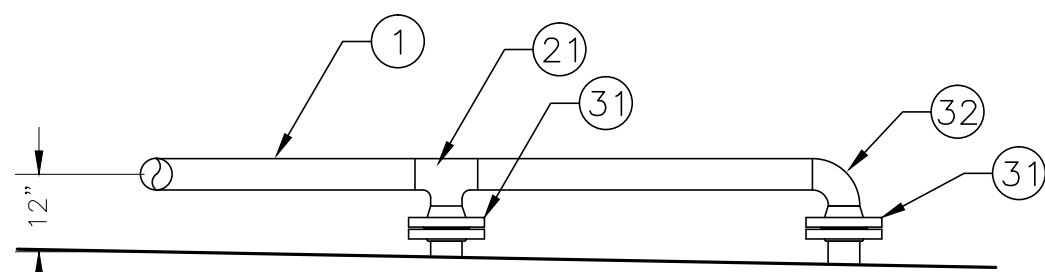
DETAIL "3"
P-V VALVE



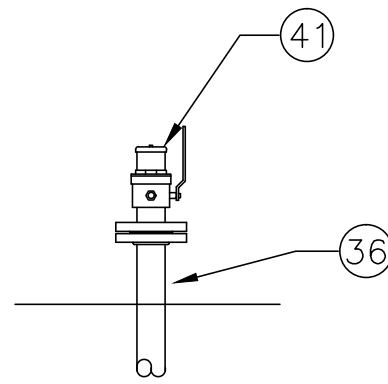
DETAIL "8"
8" PIPE SUPPORT



DETAIL "7"
PUMP DISCHARGE PRESSURE GAUGE
NTS



DETAIL "4"
VAPOR CONNECTION



DETAIL "9"
CLOSED GAUGING/SAMPLING DEVICE

GENERAL NOTES

- ALL PIPING TO MEET USCG II REGULATIONS.
- BACKING RINGS SHALL BE USED AT BUTT WELD JOINTS 2" AND LARGER
- PIPES PASSING THROUGH WATER/OIL TIGHT BOUNDARIES TO BE WELDED BOTH SIDES.
- VAPOR SYSTEM:
PRESSURE, WORKING 1.5 PSI
DESIGN 3.0 PSI
TEST 3.0 PSI
RELIEF VALVE 1.5 PSI
- LABELS TO BE INSTALLED ON ALL VALVES WHERE REQUIRED TO IDENTIFY SERVICE.
- ENDS OF VAPOR MANIFOLD SHOULD BE PAINTED AS SHOWN IN DETAIL "6" IN ACCORDANCE WITH CFR 46 PART 39.20-D-(d).
- THE VAPOR PIPING MUST BE ELECTRICALLY CONTINUOUS AND BONDED TO HULL.

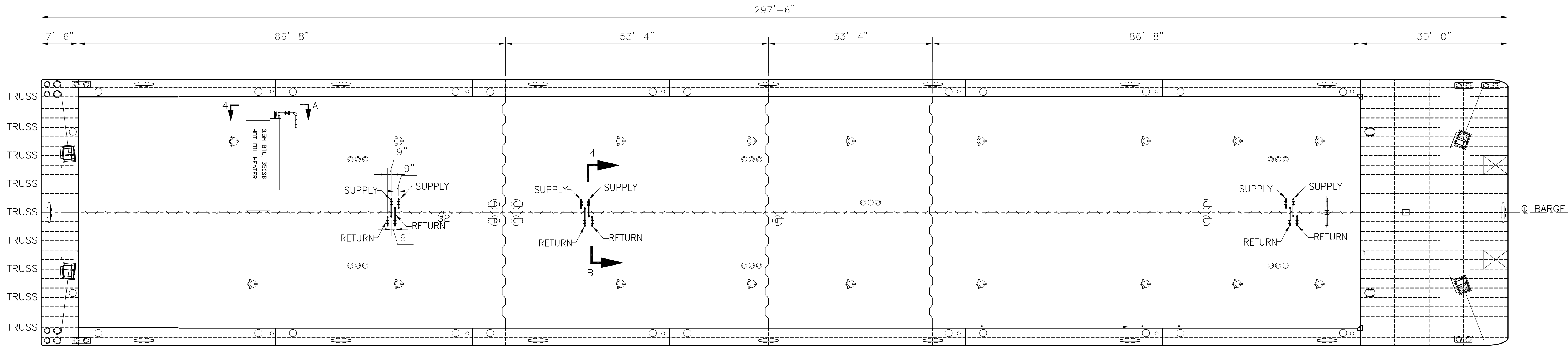
MARK	DESCRIPTION	ASTM NO.	ANSI NO.
1	8" PIPE, SCH. 40, ERW, BLK. STEEL	A-53	B36.10
2	6" PIPE, SCH. 10, S.S., GR. 316L	A-312	B36.10
3	8" FLANGE, 150#, WELD NECK, R.F., FS	A-105	B16.5
4	6" FLANGE, 150#, WELD NECK, R.F., FS	A-105	B16.5
5	PV VALVE, 2 1/2", SET @ 1.50 PSI PRESS & 0.50 PSI VACUUM		
6	RING GASKET, 1/8" THK., NON-ASBESTOSS, 150# 8" FLG., KLINGERSIL OR EQ.		
7	BOLTS, 3/4"ø x 3 1/2" LG. FOR 8" FLG.	A-307	B18.2.1
8	GATE VALVE, 8", 150#, C.S. BODY/CR13 TRIM, SPACE#15011C OR EQ	A-216	B16.5
9	PV VALVE, 6", ERL SUPERAC, SET @ 1.50 PSI PRESS & 0.5 PSI VACUUM	A-216	B16.5
10	NOT USED	-	-
11	VALVE, GLOBE, 1/2", SCR'D., FORGED STEEL BODY/CR13 TRIM, VOGT TYPE 600 #10103	A-105	B16.11
12	PRESSURE VACCUM GAUGE, 4 PSI VAC. TO 4 PSI PRESS., ASHCROFT OR EQ		
13	COUPLING, 1/2", 3000#, SCR'D	A-105	B16.11
14	BUTTERFLY VALVE, 6",150#, C.S. BODY/SS TRIM, KEYSTONE FIG 150 OR EQ	A-216	B16.5
15	6" FLANGE, LAP JOINT, 150#, TYPE A	A-105	B16.5
16	6" LAP JOINT STUB END, SCH 40, 8" LONG TYPE A, STEEL	A-53	B36.10
17	VISUAL TANK LEVEL INDICATOR, BERGAN MODEL DWSG-8		
18	HIGH LEVEL ALARM/SHUT DOWN SYSTEM, ERL MODEL DS-39-HT		
19	HIGH LEVEL INDICATING DEVISE, ERL LEVEL ALERT MODEL II		
20	ELBOW, 90°, 6", SCH. 40, L.R., B.W., S.S., GR. 316L	A403	B16.9
21	TEE, 8", SCH. 40, B.W.	A-234	B16.9
22	TEMP SENSOR, BAERGAN STS-100, 316SS		
23	RING GASKET, 1/8" THK., NON-ASBESTOSS, 150# 6" FLG., KLINGERSIL OR EQ.		
24	BOLTS, 3/4"ø x 3 1/4" LG. FOR 6" FLG.	A-307	B18.2.1
25	CONCENTRIC REDUCER, 8" X 6", SCH. 40, B.W.	A-234	B16.9
26	ELBOW, 45°, 8", SCH. 40, B.W.	A-234	B16.9
27	VALVE, GATE, 3/4", SCR'D., FORGED STEEL BODY/CR13 TRIM, FAIRBANK FIG#0418	A-105	B16.11
28	ELBOW, 90°, 3/4", 3000#, SCR'D, F.S.	A-105	B16.11
29	HALF COUPLING, 3/4", 3000#, SCR'D.	A-105	B16.11
30	8" PIPE, SCH. 40, ERW, BLK. STEEL	A-53	B36.10
31	8" FLANGE, 150#, SLIP ON, R.F., F.S.	A-105	B16.5
32	ELBOW, 90°, 8", SCH. 40, B.W.	A-234	B16.9
33	6" BLIND FLANGE, 150#, R.F., F.S.	A-105	B16.5
34	6" FLANGE, SLIP-ON, 150#, R.F., F.S.	A-105	B16.5
35	U-BOLT FOR 8" PIPE	A-307	B18.2.1
36	2" PIPE, SCH. 40, ERW, BLK. STL.	A-53	B36.10
37	2" FLANGE, SLIP-ON, 150#, R.F., F.S.	A-105	B16.5
38	RING GASKET, 1/8" THK., NON-ASBESTOSS, 150# 2" FLG., KLINGERSIL OR EQ.		
39	BOLTS, 5/8"ø x 2 3/4" LG. FOR 2" FLG.		
40	U-BOLT FOR 2" PIPE	A-307	B18.2.1
41	2" CLOSED SAMPLING/GAUGING DEVICE - HERMETIC		
42	8" PIPE, SCH. 10, S.S., GR. 316L	A-312	B36.10
43	8" FLANGE, 150#, WELD NECK, R.F., FS, GR. 316L	A182	B16.5
44	ERL MODEL APM PORTABLE ALARM PANEL		

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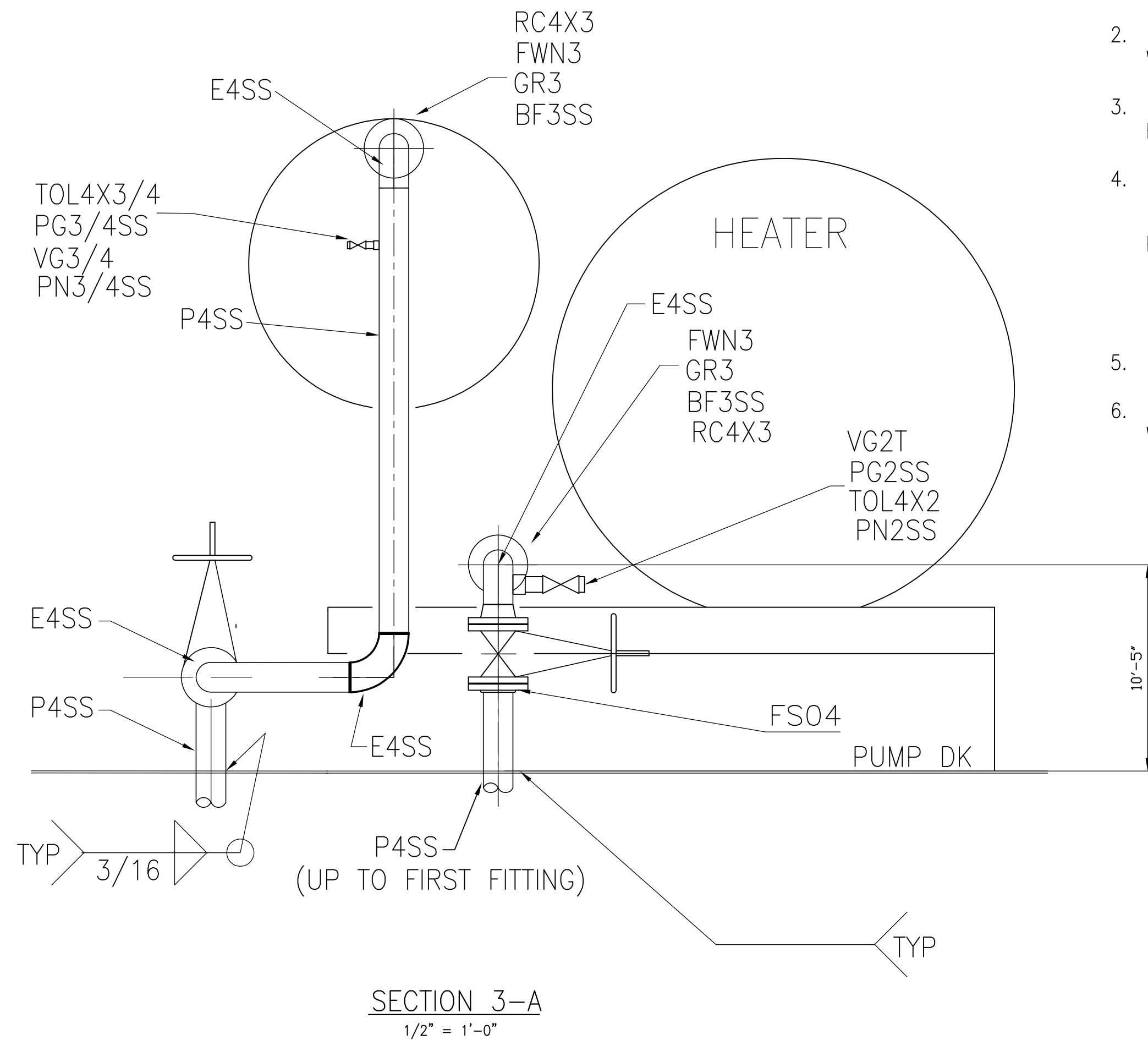
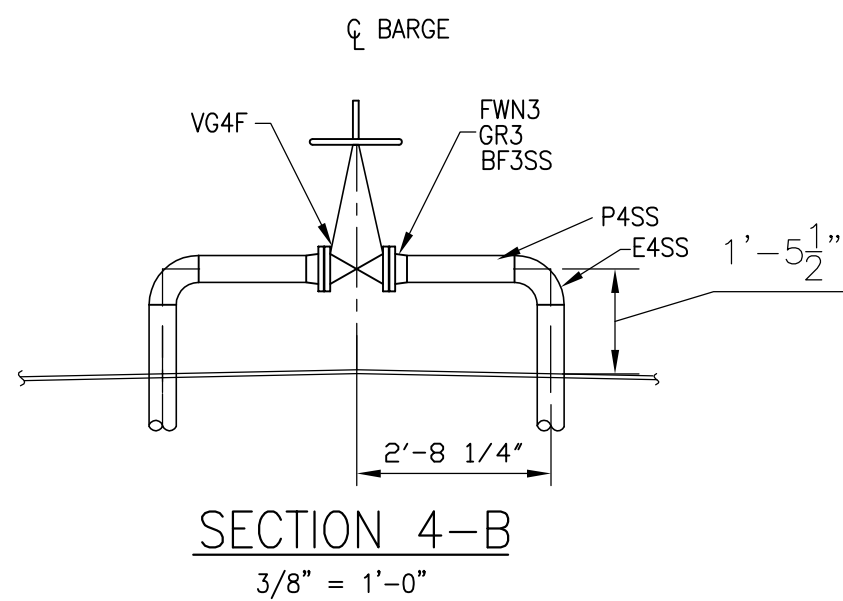
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3	MOVED ISOLATION VALVE FROM #1 TANK TO #2 TANK VAPOR DROP	CO	4.08.15
2	Added Expansion dome to port side of #2 tank	CO	8.06.12
1	Removed Vapor Drop to Port Side of #2 Tank	CO	8.02.12
NO.	REVISION	BY	DATE

THE SHEARER GROUP, INC.			
NAVAL ARCHITECTS 3101 NASA ROAD ONE, SUITE I SEABROOK, TX. 77586			
297'-6" x 54'-0" x 12'-0" DOUBLE SKIN TANK BARGE			
SCALE: 1/16"=1'-0"	APPROVED BY:	DRAWN BY: CLB	
DATE: 4/4/12	JOB NO.: 0277-001	REV. No. 3	
RAYMOND & ASSOCIATES, LLC, HULL 456			
VAPOR PIPING DETAILS			DRAWING NUMBER 0277-001-4



DECK PLAN



GENERAL NOTES

- ALL PIPING TO MEET USCG II REGULATIONS.
- BACKING RINGS SHALL BE USED AT BUTT WELD JOINTS 2" AND LARGER
- PIPES PASSING THROUGH WATER/OIL TIGHT BOUNDARIES TO BE WELDED BOTH SIDES.
- HOT OIL SYSTEM:

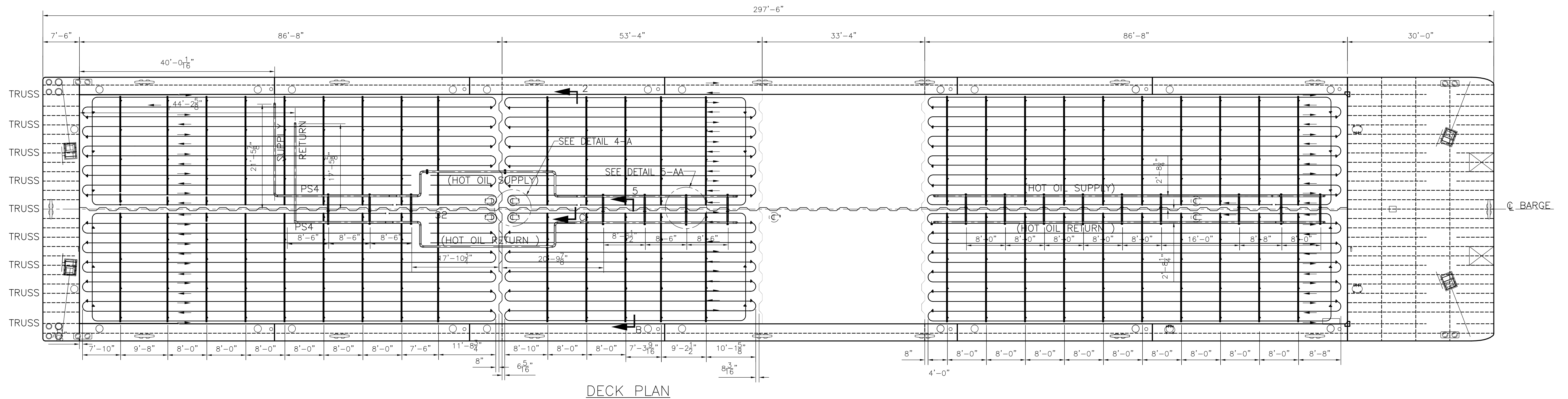
TEMPERATURE MAX	399 DEG. F
PRESSURE, WORKING	40 PSI
DESIGN	50 PSI
TEST	75 PSI
RELIEF VALVE	50 PSI
- MATERIAL TO BE AS SPECIFIED OR EQUAL.
- LABELS TO BE INSTALLED ON ALL VALVES WHERE REQUIRED TO IDENTIFY SERVICE.

PN2SS	2", NIPPLE, SCH. 40, 316SS	A-312	B36.10
TOL4X2	4 X 2, THREAOLET, 3000#, 316SS	A-182-316	B16.11
8CM	MALE CONNECTOR, 1/2" OD TUBE X 1/2" MPT, 316SS	A-479	
TS1/2	1/2", TUBING, 0.035" WALL, 316SS, COLD DRAWN	A-450	
RE4X3	4X3 ECCE. REDUCER, SCH 40, BW, 316SS	A-182-316	B16.9
VR3F	BACK PRESS. REGULATOR, 300#, FLG'D, TEM MAX. 400F, SET @ 40 PSI BACK PRESSURE, CAST IRON	A-126	B16.5
PG1/2	1/2" PLUG, 3000#, 316SS, SQ. HEAD, SCR'D.	A-182-316	B16.11
TOL4X1/2	4 X 1/2, THREAOLET, 3000#, 316SS	A-182-316	B16.11
BF4SS	BOLTS, 5/8"Ø X 3" LG. FOR 4" FLG.	BOLT: 304 NUT: 316	B18.2.1 B18.2.2
GR4	RING GASKET, 1/8" THK., NON-ASBESTOSS, 150# 4" FLG., TEFLON OR EQ.		
FWN4	4", WELD NECK FLANGE, 150#, R.F., 316SS	A-182-316	B16.5
VG4F	4" GATE VALVE, 150#, CF-8M BODY/316SS TRIM	A-351	B16.10
PN3/4SS	3/4", NIPPLE, SCH. 40, 316SS		
VG3/4	3/4", GATE VALVE, 200#,SCR'D, R.S., SS	A-315	B16.11
PG3/4SS	3/4" PLUG, 3000#, 316SS, SCR'D	A-182-316	B16.11
TOL4X3/4	4 X 3/4, THREAOLET, 3000#, 316SS	A-182-316	B16.11
BF3SS	BOLTS, 5/8"Ø X 3" LG. FOR 3" FLG.	BOLT: 304 NUT: 316	B18.2.1 B18.2.2
GR3	RING GASKET, 1/8" THK., NON-ASBESTOSS, 150# 3" FLG., TEFLON OR EQ.		
FWN3	3", WELD NECK FLANGE, 150#, R.F., 316SS	A-182-316	B16.5
RC4X3	4X3 CONC. REDUCER, SCH 40, BW, 316SS	A-182-316	B16.9
E4SS	4" ELBOW, 90°, BW, SCH 40, 316SS	A-182-316	B16.9
VG2T	2" GATE VALVE, 150#, CF-8M BODY/316 TRIM, SCR'D.	A-351	B16.10
E4	4" ELBOW, 90°, BW, SCH 40, STEEL	A-234	B16.9
BF2SS	BOLTS, 5/8"Ø X 2 3/4" LG. FOR 2" FLG.	BOLT: 304 NUT: 316	B18.2.1 B18.2.2
GR2	RING GASKET, 1/8" THK., NON-ASBESTOSS, 150# 2" FLG., TEFLON OR EQ.		
FSO2SS	2" SLIP ON FLANGE, 150#, RF, 316SS	A-182-316	B16.5
VG2F	2" GATE VALVE, 150#, CF-8M BODY/316 TRIM, FLANGED	A-351	B16.10
CT2SS	2" COUPLING, 3000#, SCR'D, 316SS	A-182-316	B16.11
PG2SS	2" PLUG, 3000#, SQ. HEAD, SCR'D,316SS	A-182-316	B16.11
T2SS	2" TEE, 3000#, SW, 316SS	A-182-316	B16.11
SOL4X2	4 X 2 SOCKOLET, 3000#, 316SS	A-182-316	B16.11
CP2SS	2" FULL COUPLING, 3000#, SW, 316SS	A-182-316	B16.11
P2SS	2" PIPE, SCH. 40, SEAMLESS, 316SS	A-312	B36.10
P2	2" PIPE, SCH. 40, SEAMLESS, BLK. STEEL	A-53	B36.10
P4SS	4" PIPE, SCH. 40, SEAMLESS, 316SS	A-312	B36.10
P4	4" PIPE, SCH. 40, SEAMLESS, BLK. STEEL	A-53	B36.10
MARK	DESCRIPTION	ASTM NO.	ANSI NO.

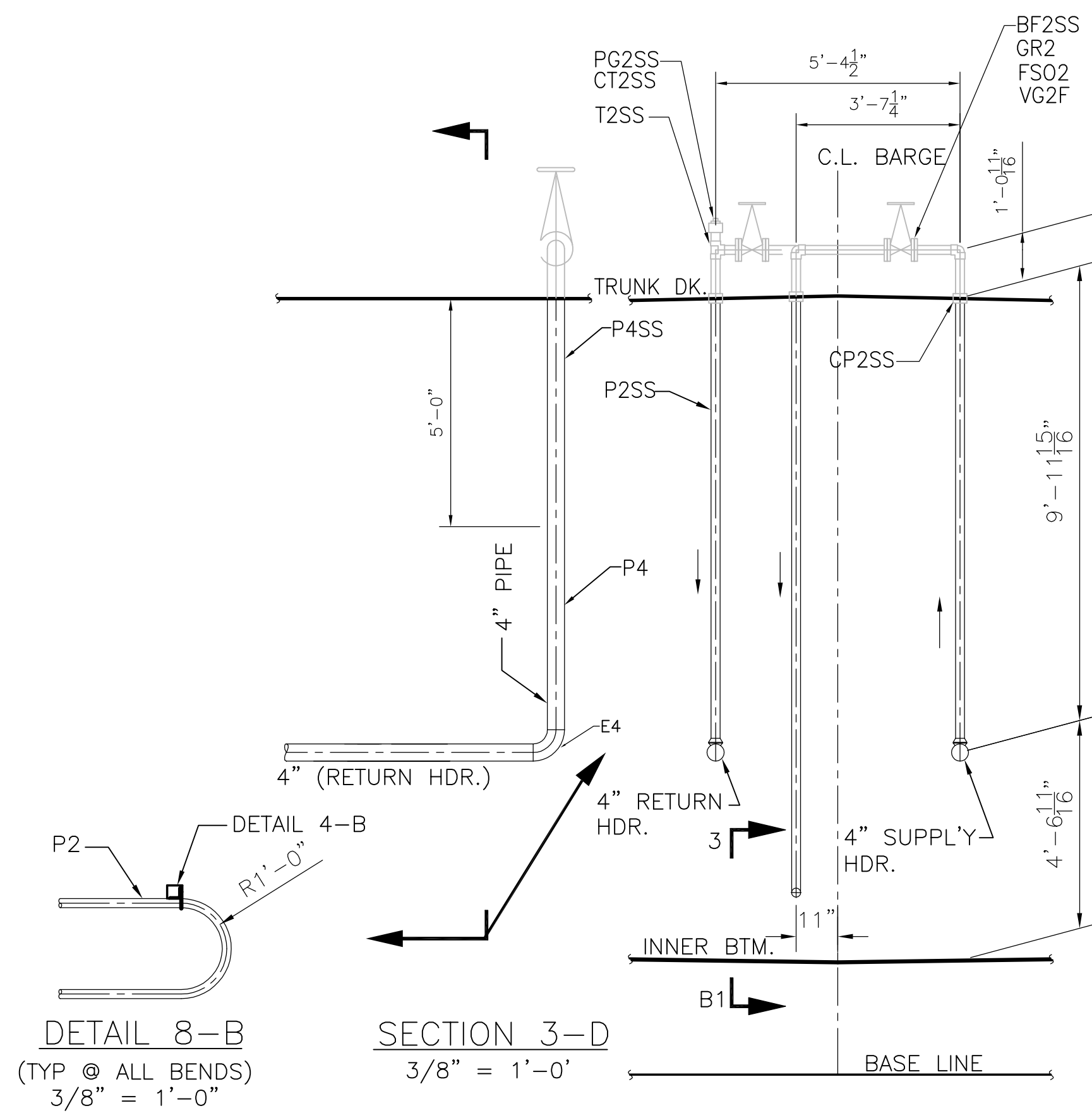
BF3SSX	BOLTS, 5/8"Ø X 3" LG. FOR 3 1/4" FLG.	BOLT: 304 NUT: 316	B18.2.1 B18.2.2
GR3X	RING GASKET, 1/8" THK., NON-ASBESTOSS, 300# 3" FLG., TEFLON OR EQ.		
FWN3X	3", WELD NECK FLANGE, 300#, R.F., 316SS	A-182-316	B16.5
FB4	4", BLIND FLANGE, 150#, R.F., 316SS	A-182-316	B16.5

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NO.	REVISION	BY	DATE
THE SHEARER GROUP, INC.			
NAVAL ARCHITECTS 3101 NASA ROAD ONE, SUITE 1 SEABROOK, TX. 77586			
297'-6" x 54'-0" x 12'-0" DOUBLE SKIN TANK BARGE			
SCALE: 3/32"=1'-0"		APPROVED BY:	
DATE: 4/4/12		JDB No. 0277-001	
		DRAWN BY: CLB	
		REV. No. 0	
RAYMOND & ASSOCIATES, LLC., HULL 456			
HOT OIL PIPING, ABOVE DECK		DRAWING NUMBER 0277-001-11	

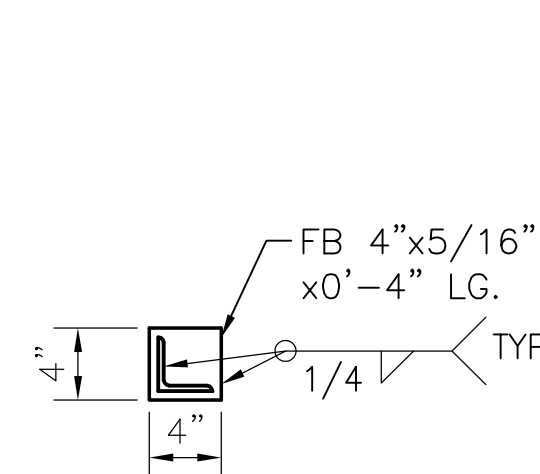


DECK PLAN

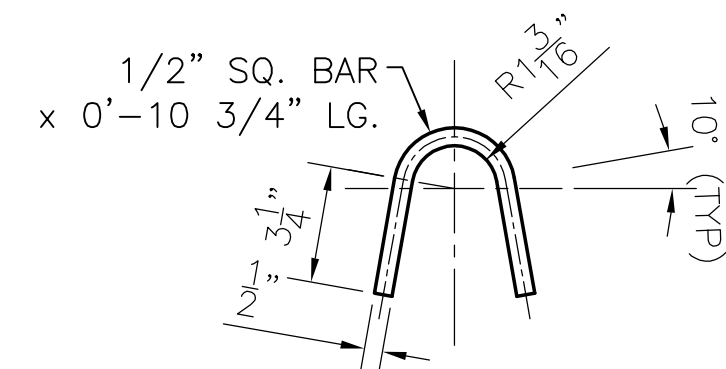


DETAIL 8-B
(TYP @ ALL BENDS)
3/8" = 1'-0"

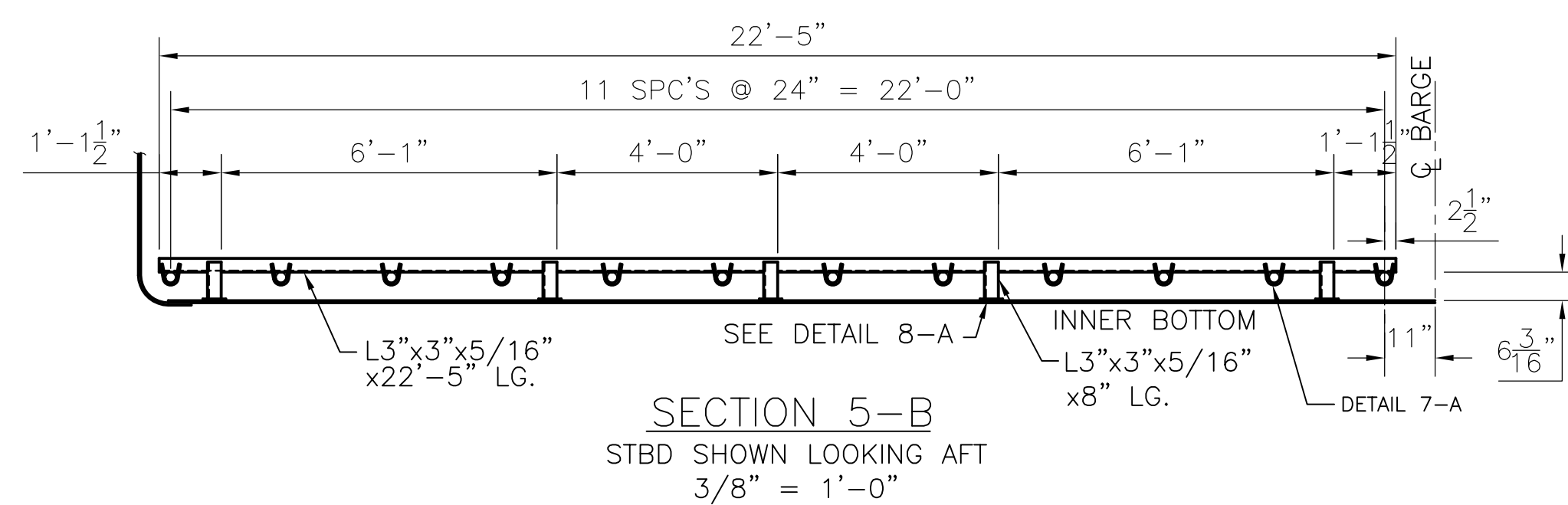
SECTION 3-D
3/8" = 1'-0"



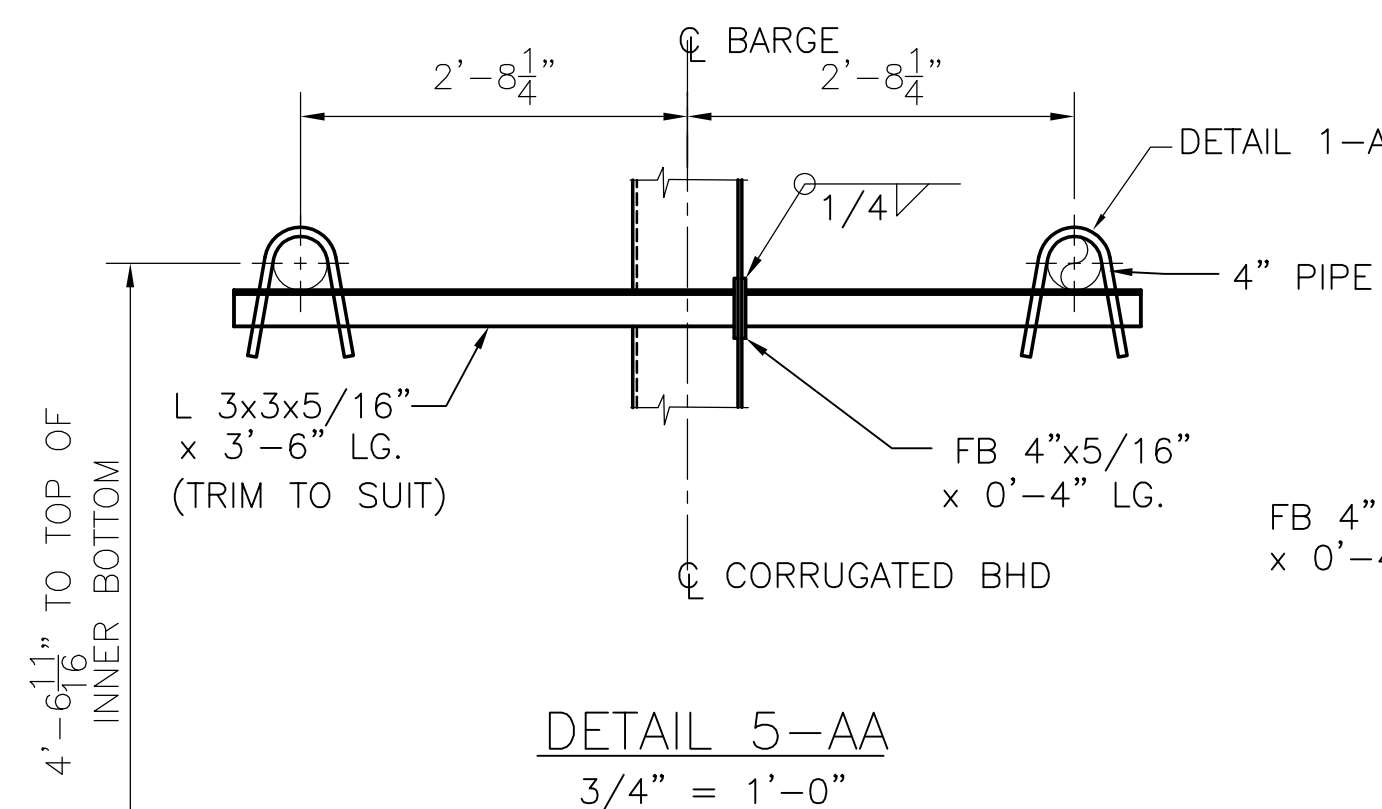
DETAIL 8-A
1 1/8" = 1'-0"



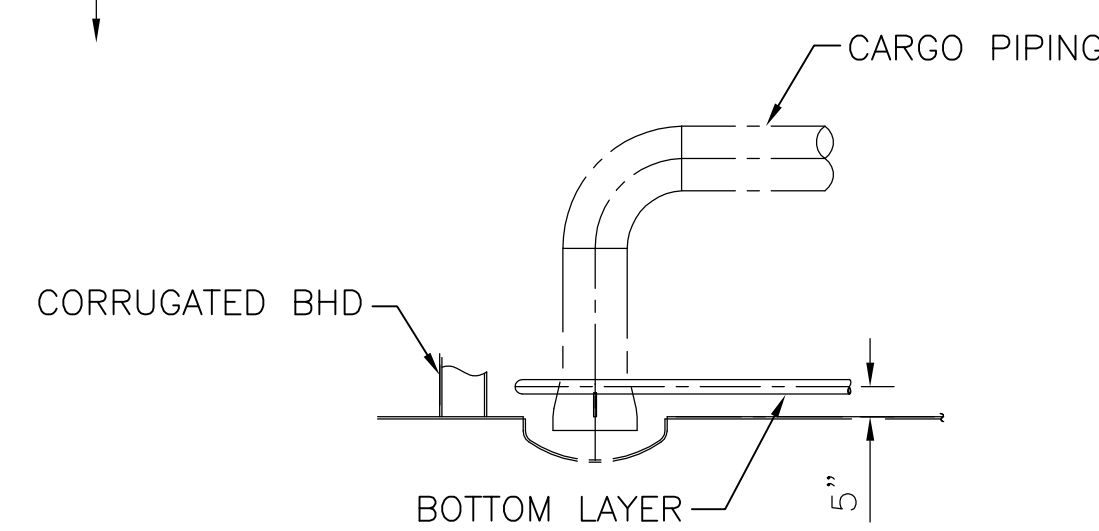
DETAIL 7-A
2 1/4" = 1'-0"



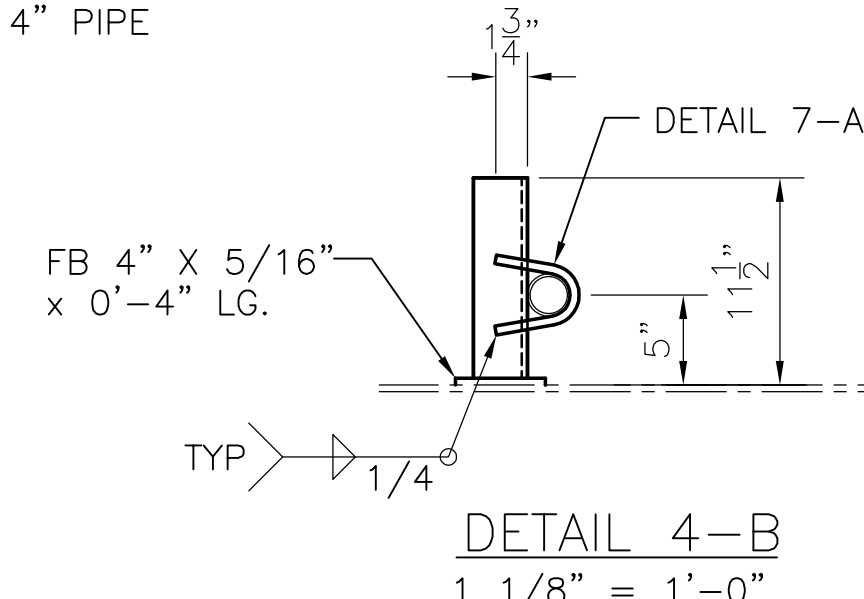
SECTION 5-B
STBD SHOWN LOOKING AFT
3/8" = 1'-0"



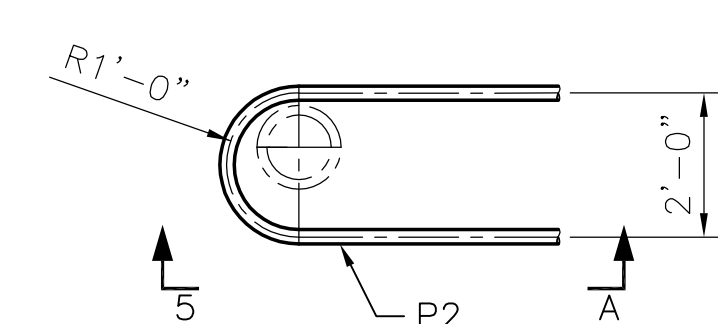
DETAIL 5-AA
3/4" = 1'-0"



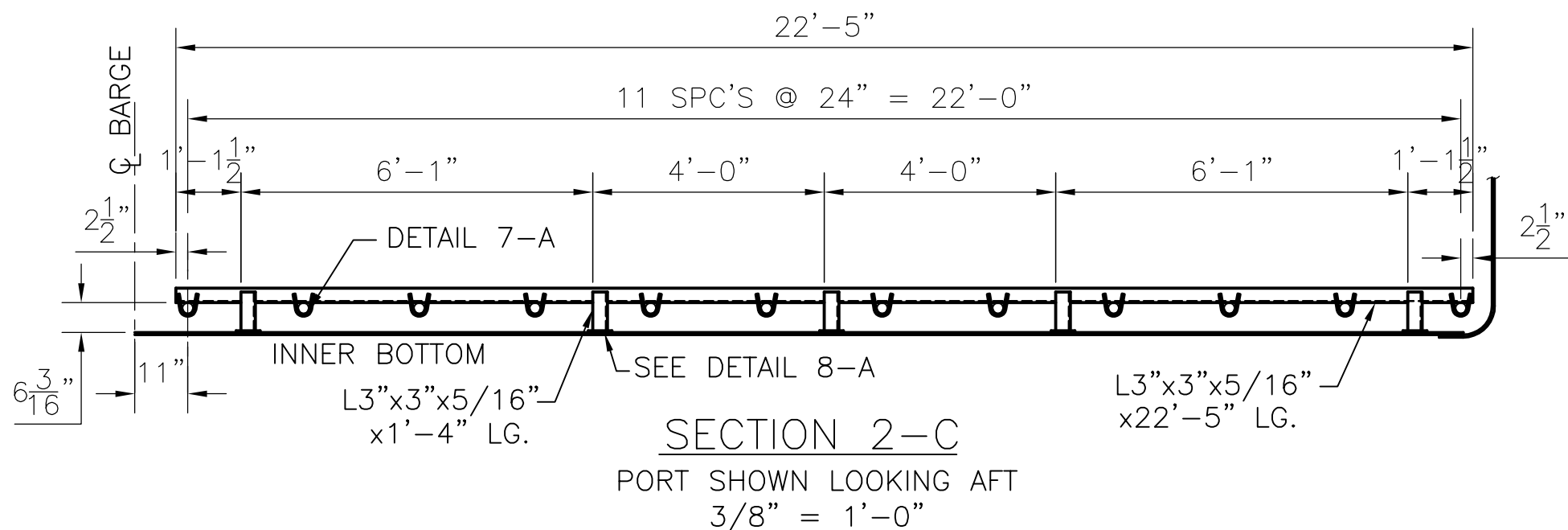
SECTION 5-A
3/8" = 1'-0"



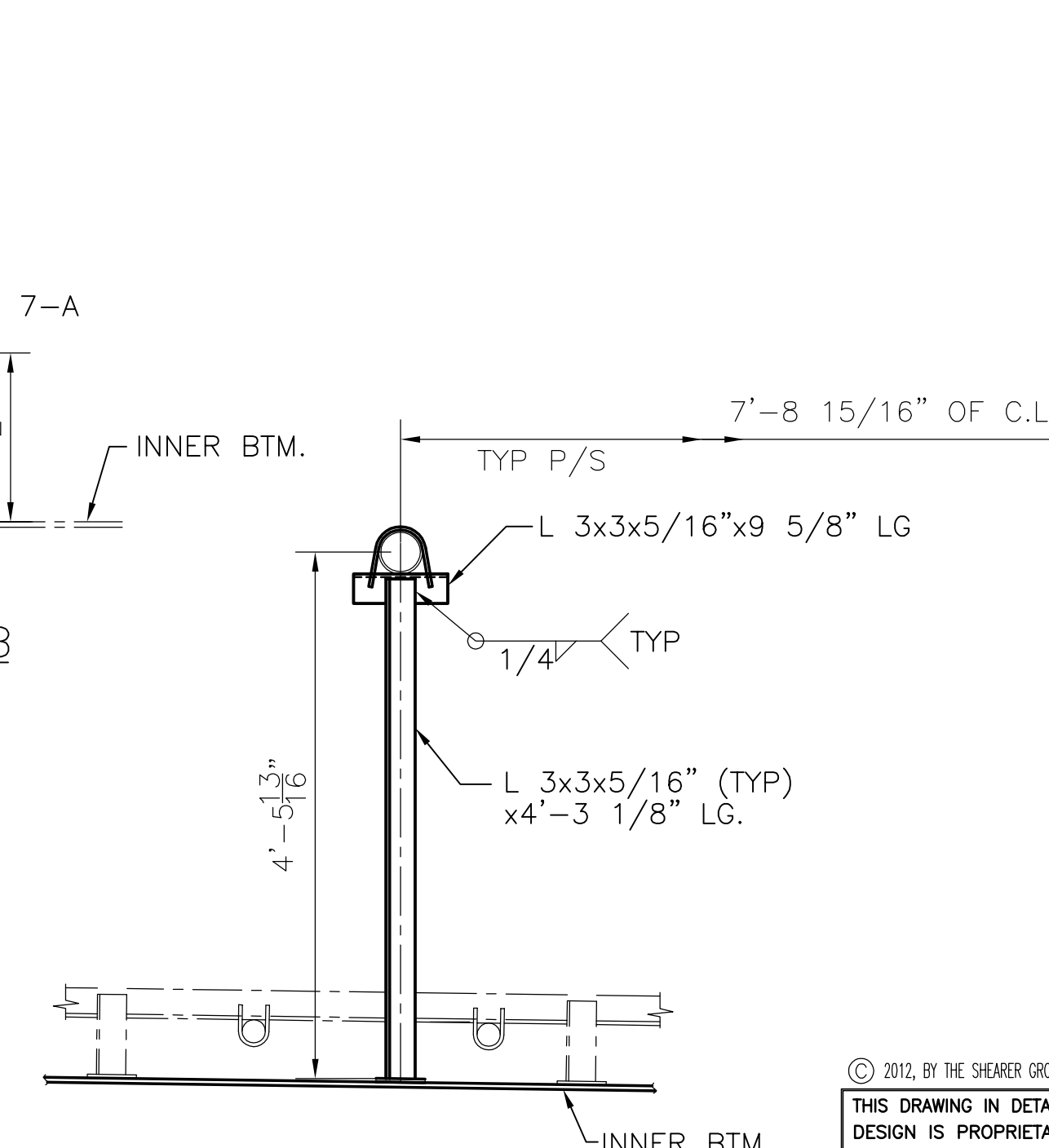
DETAIL 4-B
1 1/8" = 1'-0"



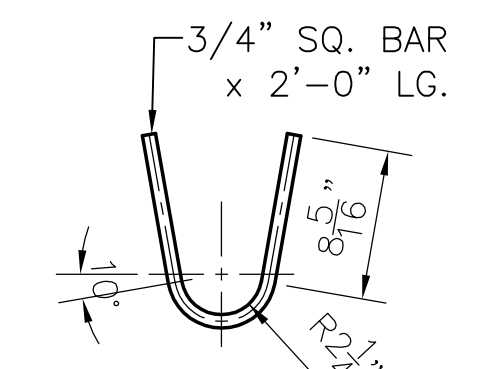
DETAIL 4-A
3/8" = 1'-0"



SECTION 2-C
PORT SHOWN LOOKING AFT
3/8" = 1'-0"



DETAIL 3-A
3/4" = 1'-0"



DETAIL 1-A
1 1/8" = 1'-0"

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NO.		REVISION		BY	DATE
THE SHEARER GROUP, INC.					
NAVAL ARCHITECTS 3101 NASA ROAD ONE, SUITE 1 SEABROOK, TX. 77586					
297'-6" x 54'-0" x 12'-0" DOUBLE SKIN TANK BARGE					
SCALE: 3/32"=1'-0"		APPROVED BY:		DRAWN BY: CLB	
DATE: 4/4/12		JOB No. 0277-001		REV. No. 0	
RAYMOND & ASSOCIATES, LLC, HULL 456					
HOT OIL PIPING, BELOW DECK				DRAWING NUMBER 0277-001-10	