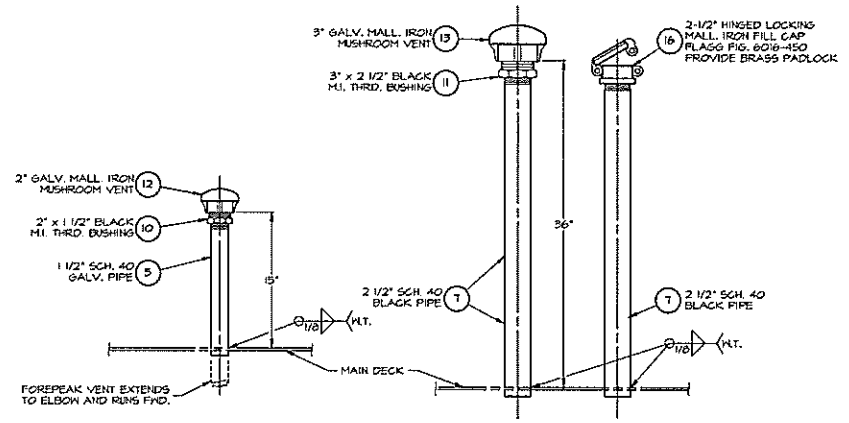
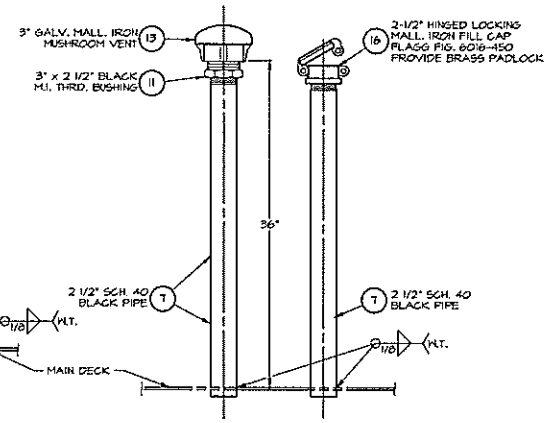


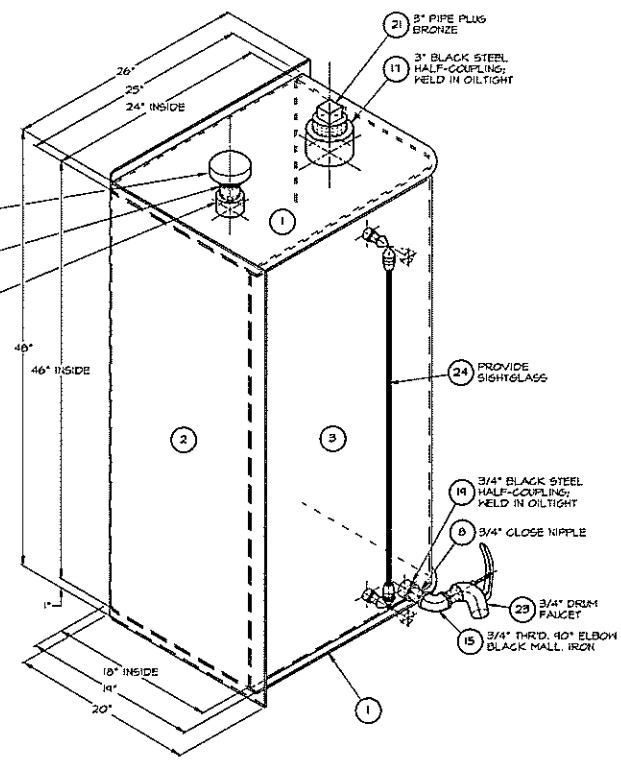
REVISIONS			
LN	DESCRIPTION	DATE	APPROVED
1	FIRST ISSUE	09/22/99	



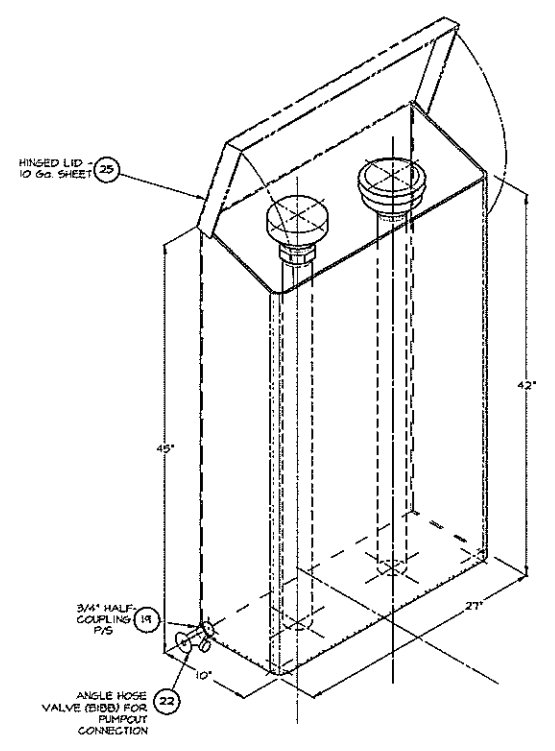
DETAIL 5-D
COMPARTMENT VENT TERMINAL
SCALE: 1 1/2" = 1'-0"



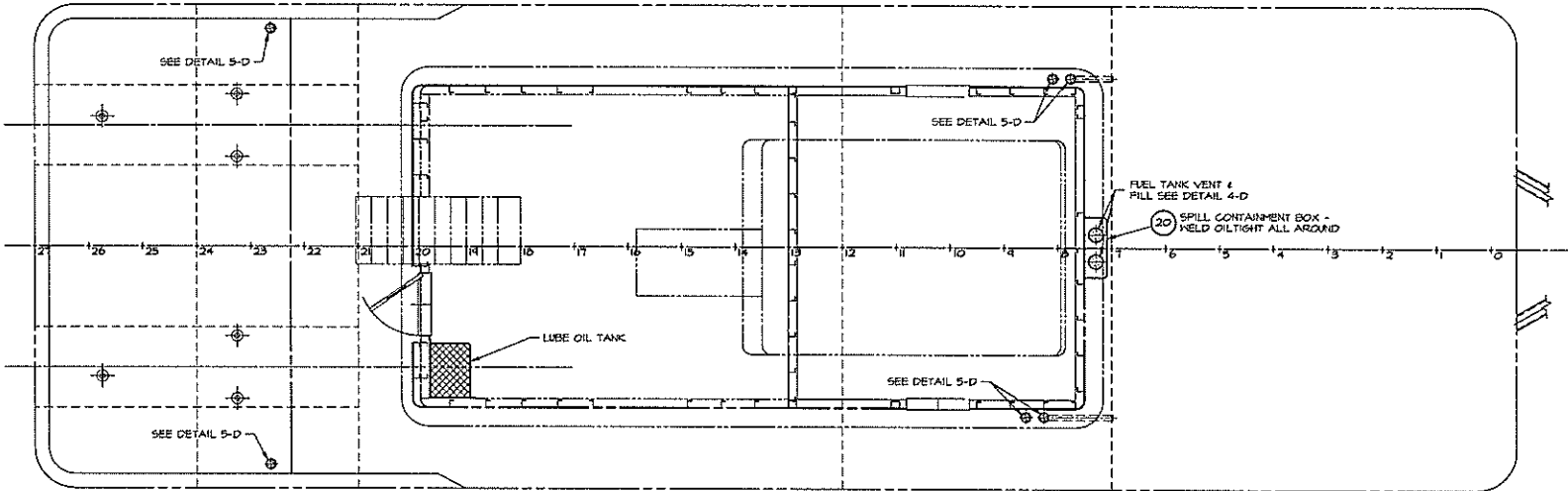
DETAIL 4-D
FUEL TANK VENT AND FILL
SCALE: 1 1/2" = 1'-0"



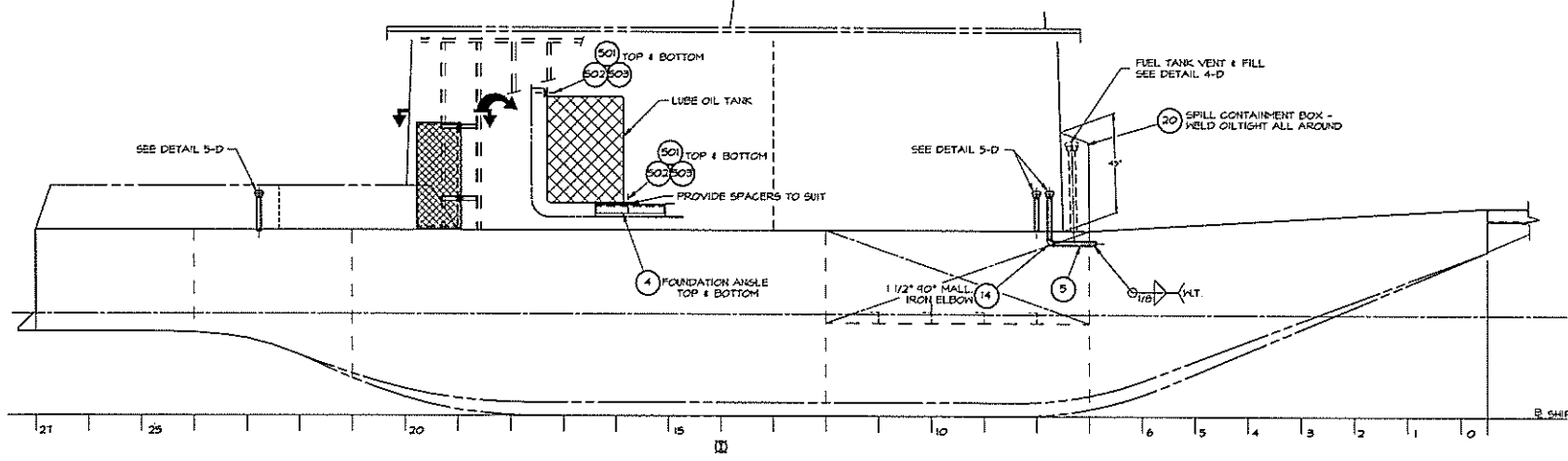
86 GALLON LUBE OIL TANK
WELD OILTIGHT THROUGHOUT
ISOMETRIC - 1 1/2" = 1'-0"



SPILL CONTAINMENT BOX
WELD OILTIGHT THROUGHOUT
ISOMETRIC - 1 1/2" = 1'-0"



HULL PLAN



HULL PROFILE

ITEM	QTY.	DESCRIPTION	MATERIAL/SPECIFICATION/REMARKS
501	4	BOLTS, 1/2"-13 UNC, HEX HEAD, LENGTH AS REQUIRED	GRADE 5 STEEL
502	4	1/2" FLATWASHERS	COMMERCIAL STEEL
503	4	SELF-LOCKING NUTS, 1/2"-13 UNC	GRADE 5 STEEL
-	-	-	-
-	-	-	-
-	-	-	-
-	-	-	-
-	-	-	-
-	-	-	-
-	-	-	-
-	-	-	-
25	1	HINGED LID, 10" x 9" WITH 2" LIP	10 GA. SHEET, ASTM-A36 STEEL
24	1	SIGHT GLASS W/ SHUTOFF VALVES	BRONZE / GLASS
23	1	DRUM FAUCET (BARREL COCK), 3/4" NPT	BRASS (FM APPROVED), MCMASTER-CARR No. 400551B
22	2	ANGLE HOSE VALVE (BIBB), 3/4" THREADED	BRONZE
21	1	PIPE PLUG, 3" THREADED, SQUARE HEAD	BRONZE
20	1	SPILL CONTAINMENT BOX, 10" x 21" x 10" FLANGED	10GA. SHEET, ASTM-A36 STEEL, 45" HIGH
19	3	HALF-COUPLES, 3/4" THREADED, COMMERCIAL	BLACK STEEL
18	1	HALF-COUPLES, 2" THREADED, COMMERCIAL	BLACK STEEL
17	1	HALF-COUPLES, 3" THREADED, COMMERCIAL	BLACK STEEL
16	1	HINGED LOCKING FILL CAP, 2-1/2" FPT	GALV. MALL. IRON, FLAGG FIG. 6110-450 OR EQUAL
15	1	ELBOW, 3/4" 40" THREADED 150#	GALV. MALL. IRON
14	2	ELBOW, 1-1/2" 40" THREADED 150#	GALV. MALL. IRON
13	1	MUSHROOM VENT, 3" FPT W/ BRASS SCREEN	GALV. MALL. IRON, FLAGG FIG. 6110-500 OR EQUAL
12	7	MUSHROOM VENT, 2" FPT W/ BRASS SCREEN	GALV. MALL. IRON, FLAGG FIG. 6110-400 OR EQUAL
11	1	BUSHING, 3" x 2-1/2" THREADED	GALV. MALL. IRON
10	6	BUSHING, 2" x 1-1/2" THREADED	GALV. MALL. IRON
9	1	HALF NIPPLE, 3" SCH. 40 BLACK STEEL	ASTM-A36 SEAMLESS
8	1	CLOSE NIPPLE, 3/4" SCH. 40 BLACK STEEL	ASTM-A36 SEAMLESS
7	6	L/F PIPE, 2-1/2" SCH. 40 BLACK STEEL	ASTM-A36 SEAMLESS
6	1	CLOSE NIPPLE, 2" SCH. 40 BLACK STEEL	ASTM-A36 SEAMLESS
5	1	PIPE, 1-1/2" SCH. 40 GALV. STEEL	ASTM-A36 SEAMLESS
4	2	FOUNDATION ANGLE, 15-3/4" LONG	L2"x2"x1/4" ANGLE, ASTM-A36
3	1	TANK FRONT, 54" HIGH, 24" x 54" FLANGED	3/16" SHEET, ASTM-A36 STEEL
2	1	TANK BACK, 56" HIGH, 26" x 20" FLANGED	3/16" SHEET, ASTM-A36 STEEL
1	2	TANK TOP / BOTTOM, 25" x 11"	3/16" SHEET, ASTM-A36 STEEL

BILL OF MATERIALS

DWN. HLG. HITT
 APPD. **TGMD, Inc. / Timothy Graul marine design**
 naval architects marine engineers
 DATE 20 SEPT 1999 Sturgeon Bay, WI 54235

PROJECT 55'-0" x 18'-0" x 7'-0" BRUSSELS FERRY PUSHBOAT Project No. 99005
 IDOT JOB D-48-078-99 Scale: 3/8" = 1'-0"
 ILLINOIS DEPARTMENT OF TRANSPORTATION REV. - Date: 09/20/99
 TITLE HULL AND TANK VENTS, SOUNDS & FILLS Drawing No. 506-101

Title: HULL AND TANK VENTS, SOUNDS AND FILLS