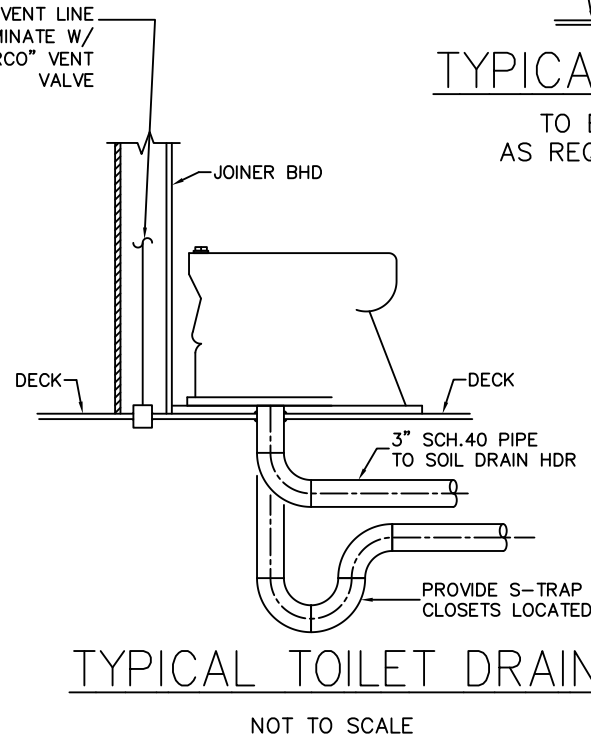
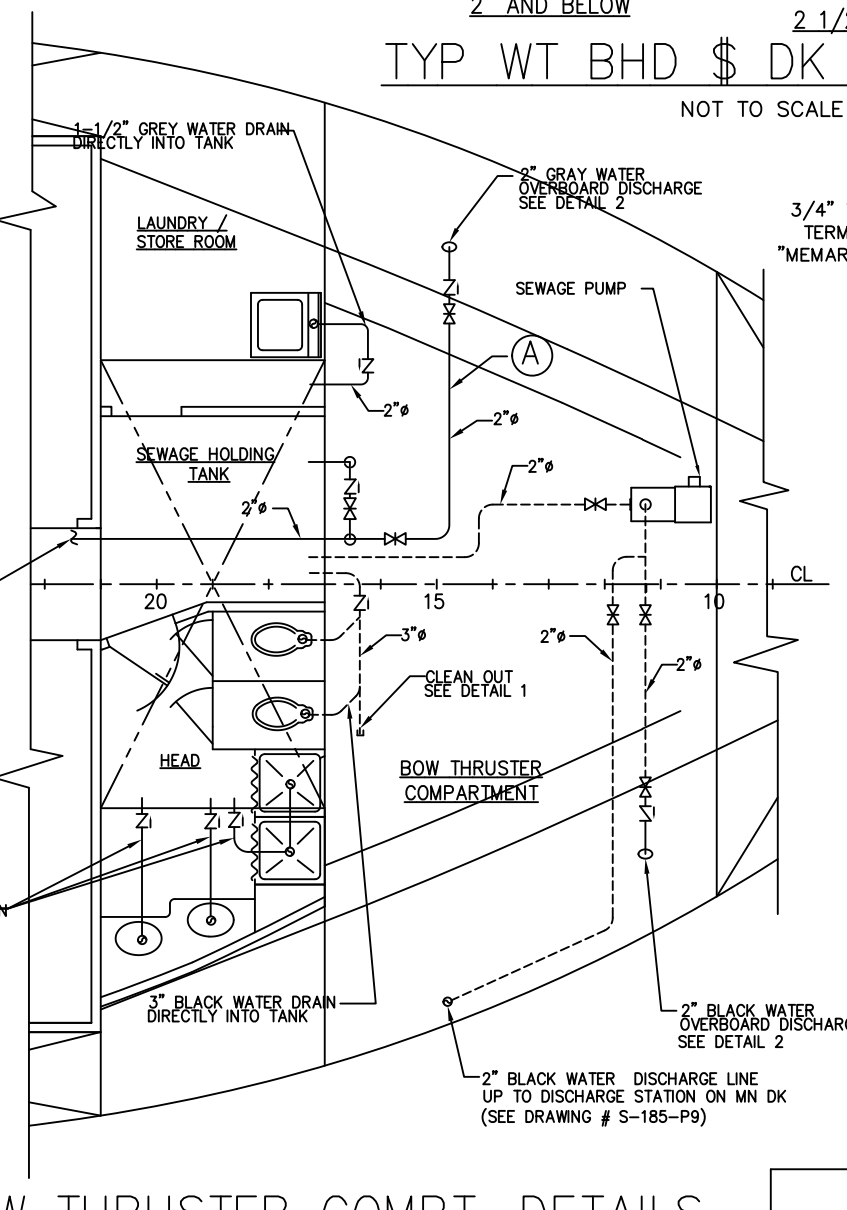
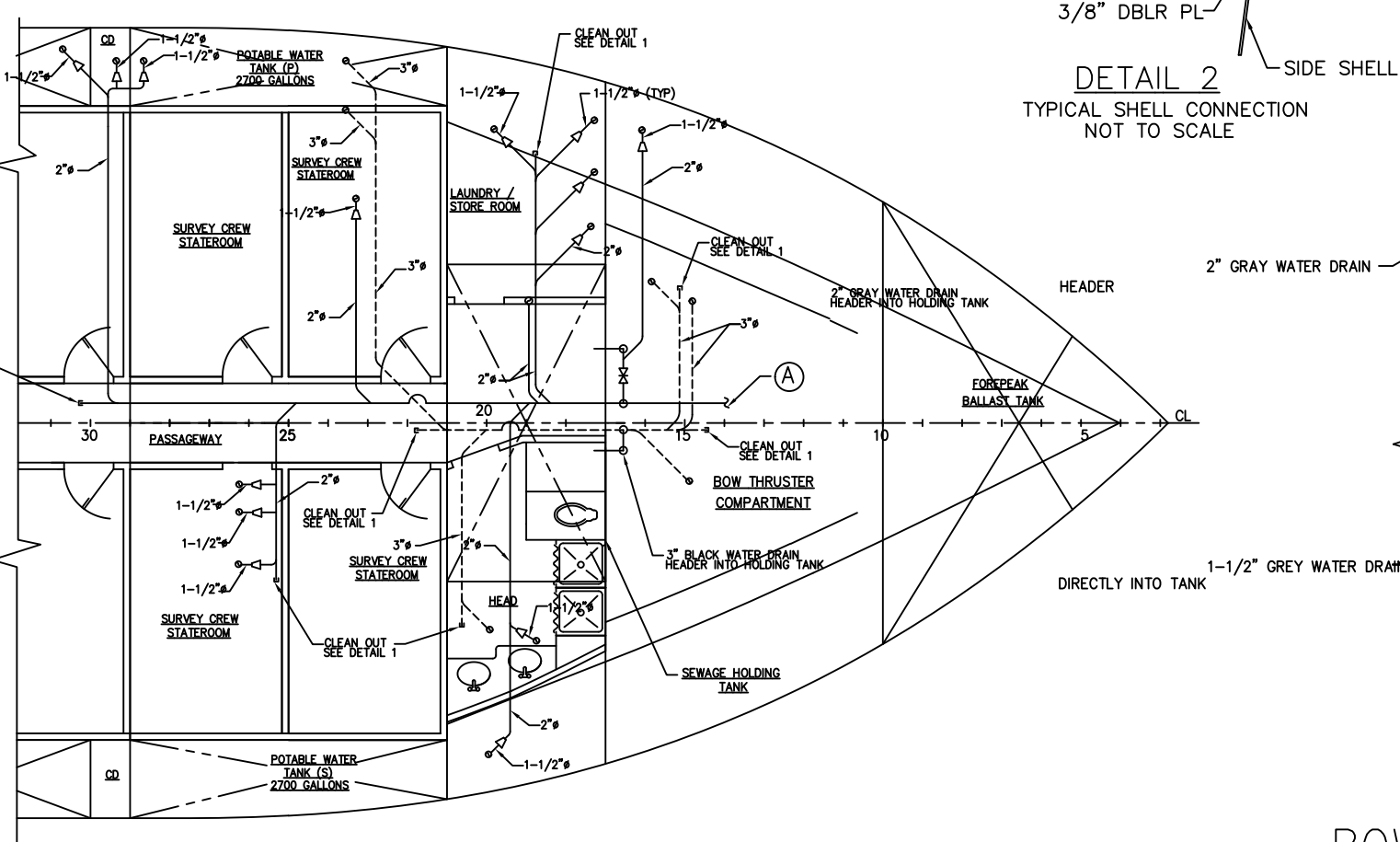
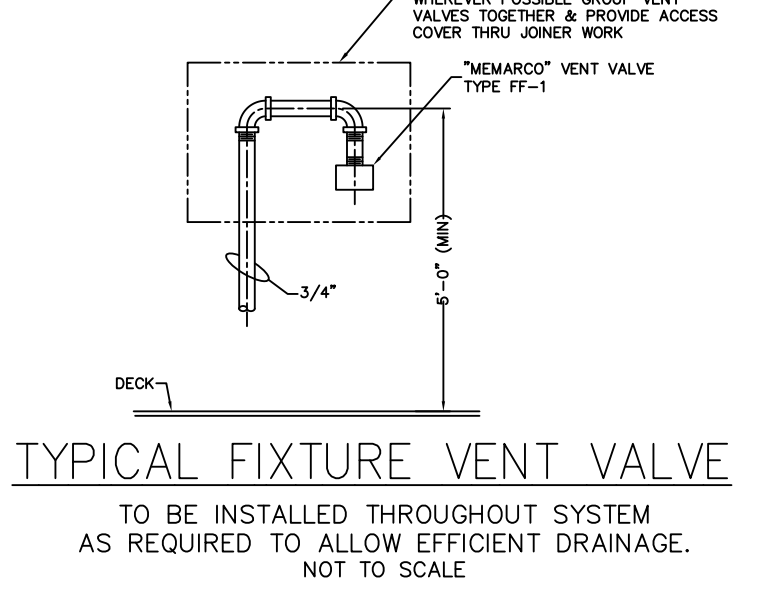
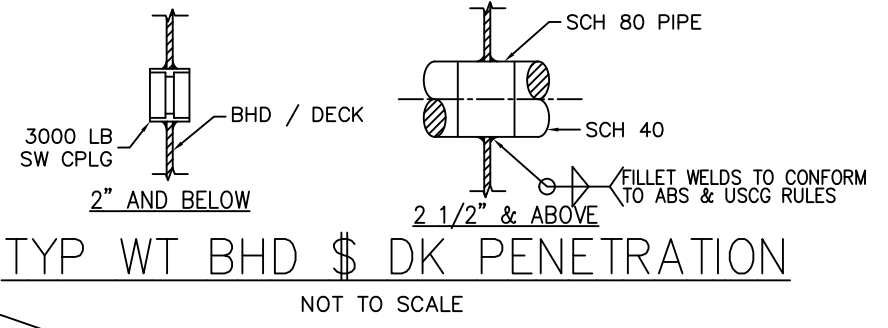
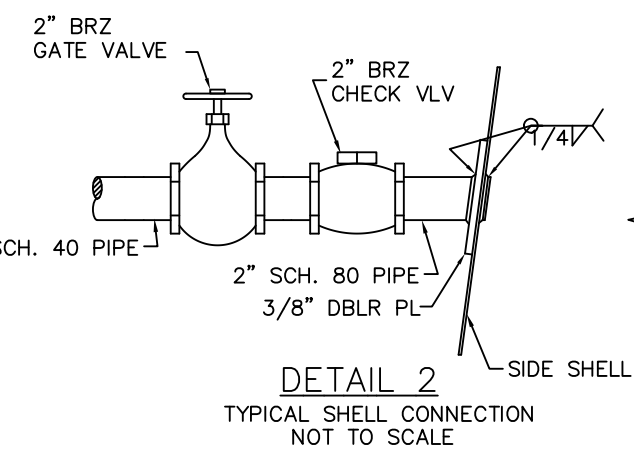
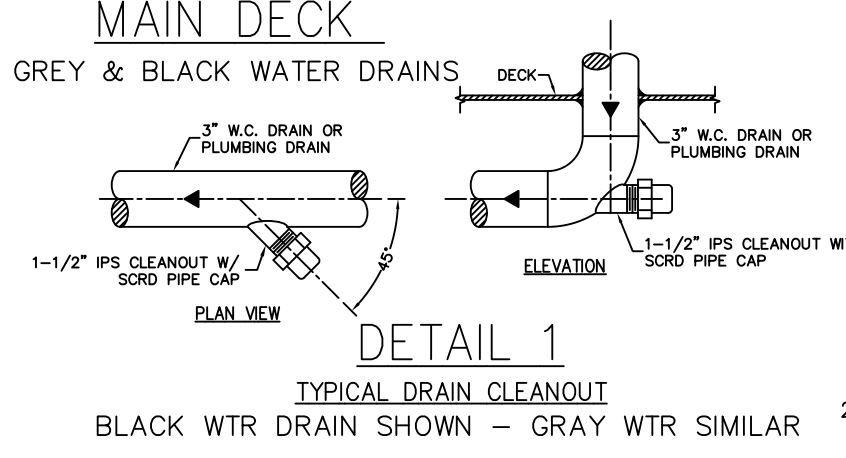
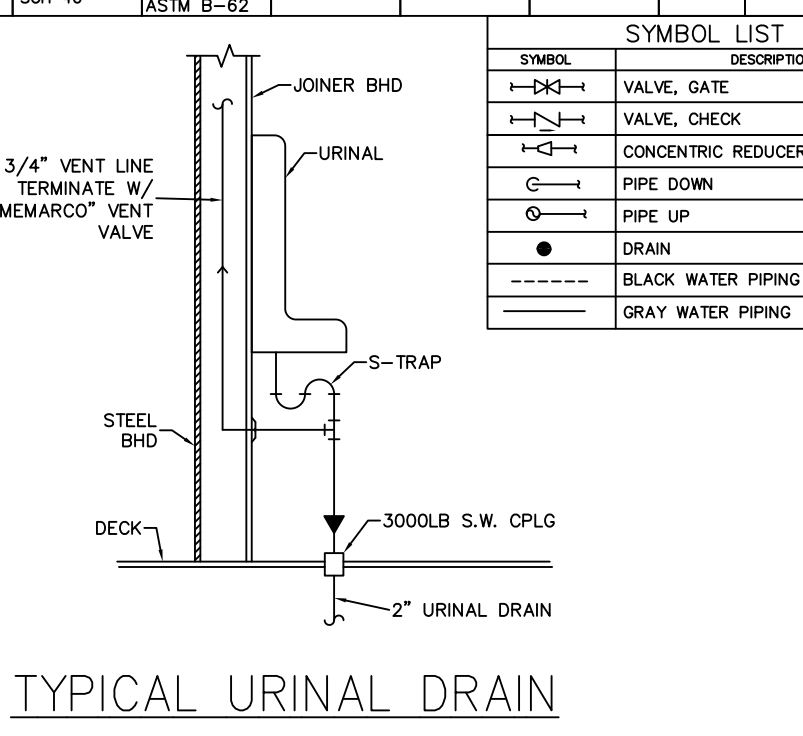
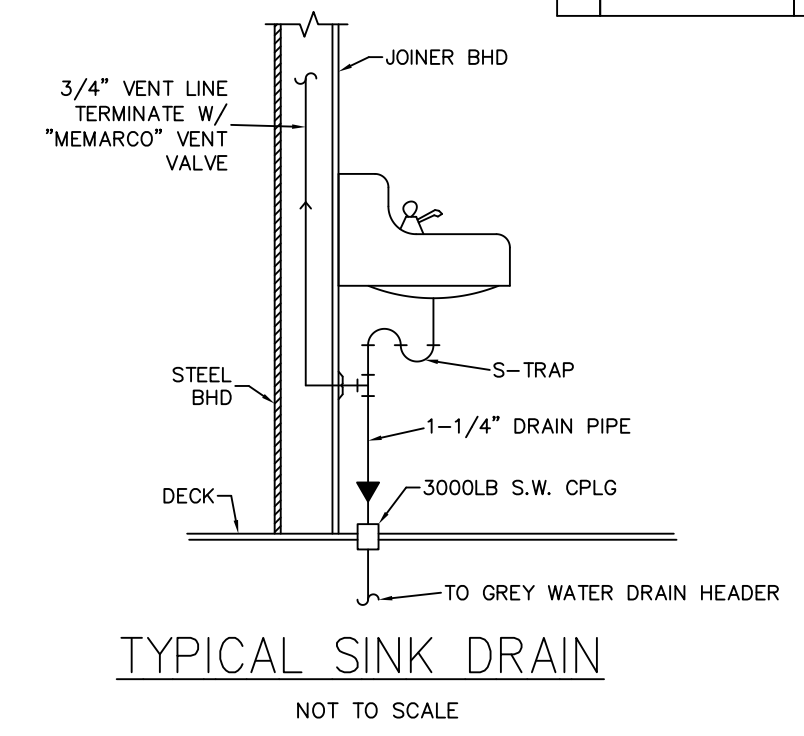
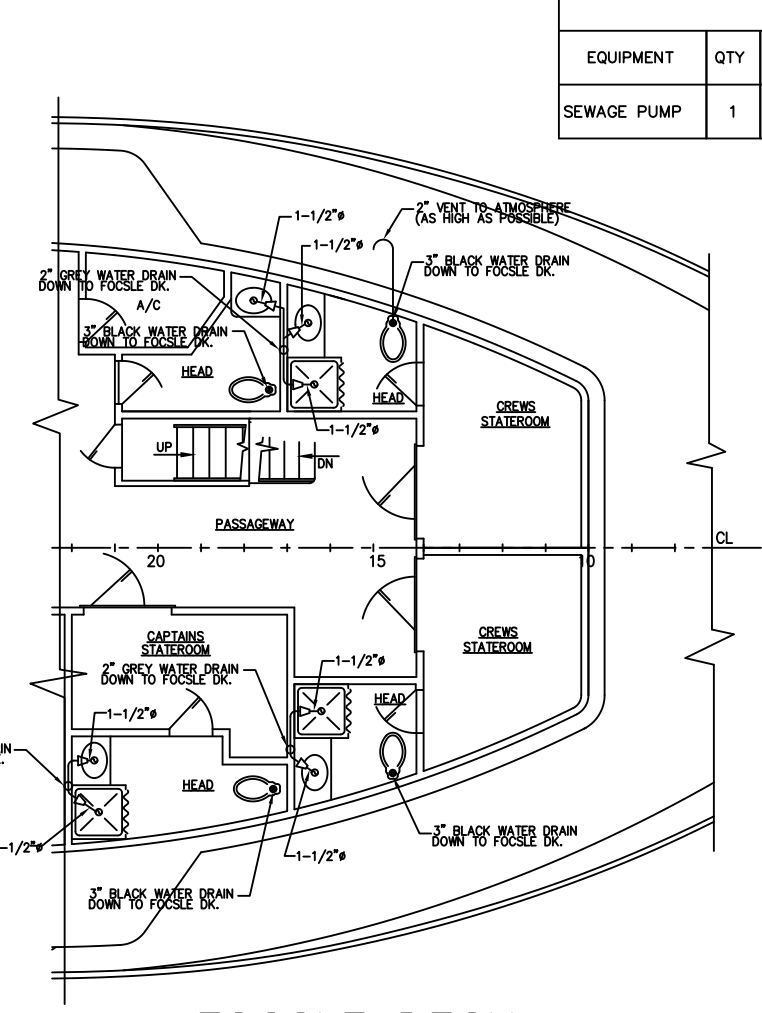
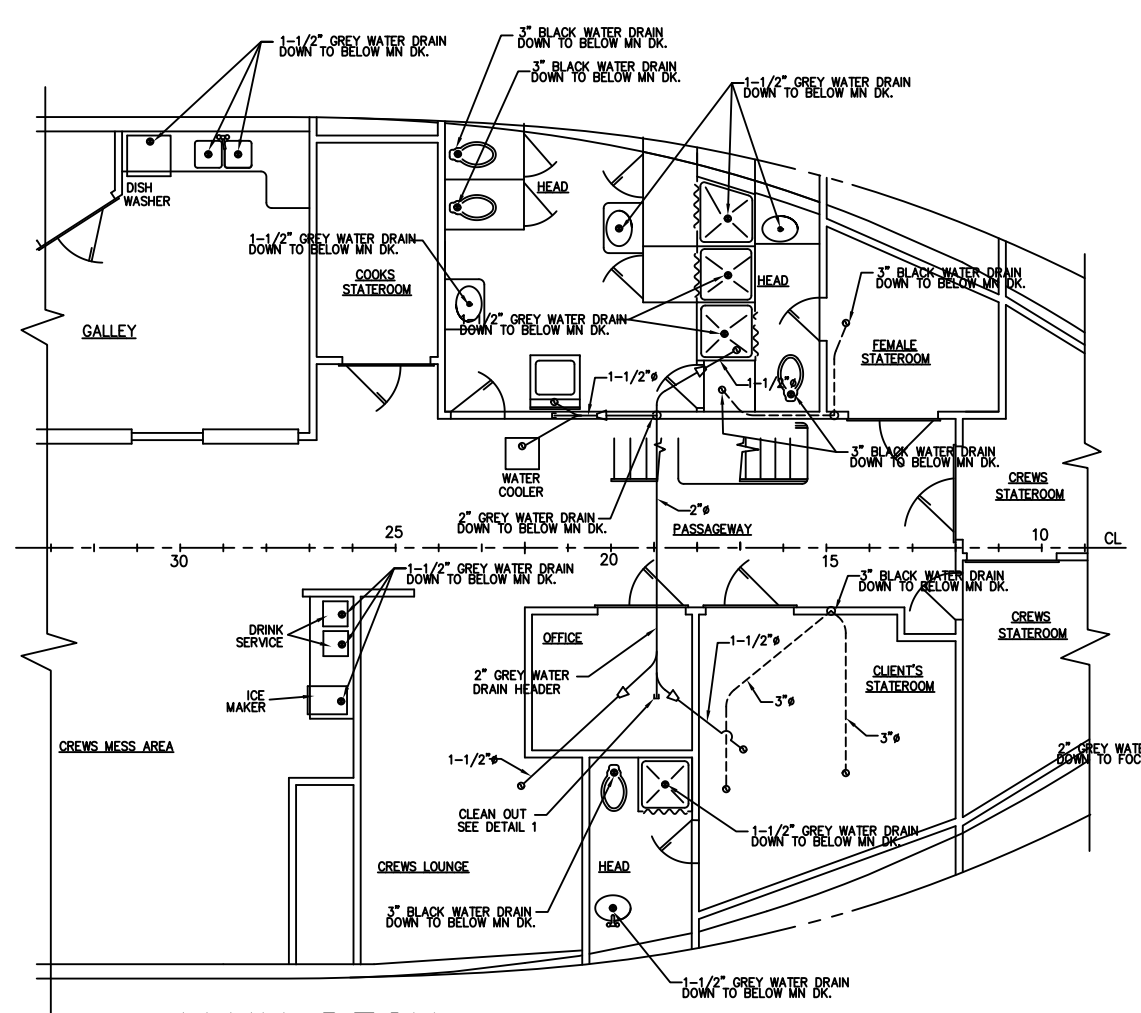


EQUIPMENT LIST					
EQUIPMENT	QTY	DESCRIPTION	MATERIAL	MFR	REMARKS
SEWAGE PUMP	1	CNTRFL		BARNES	MOD# 56V20621 2HP@3450RPM, 480V

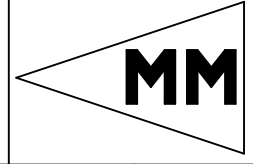
MATERIAL SCHEDULE										
NO.	SERVICE	SIZES	PIPE	VALVES		FITTINGS	TAKE-DOWN JOINTS	ASTM SPEC		GASKETS
				BODIES	TRIM			BOLTS	NUTS	
1	GRAY WATER DRAINS	ALL	BLACK STEEL ASTM A-53-B SCH 40	GATE, BRZ. 125# THD ASTM B-62	BRONZE	BW, SCH 40 SWEEP, STL ANSI B16.11	FLG, BLK STL 150#, RF ASTM A-105	A 305 OR B	A 305 OR A	RF
2	BLACK WATER DRAINS	ALL	GALV. STEEL ASTM A-53-B SCH 40	CHECK, BRZ. 125# THD ASTM B-62	BRONZE					

SYMBOL LIST	
SYMBOL	DESCRIPTION
	VALVE, GATE
	VALVE, CHECK
	CONCENTRIC REDUCER
	PIPE DOWN
	PIPE UP
	DRAIN
	BLACK WATER PIPING
	GRAY WATER PIPING



- GENERAL NOTES**
- 1) ALL SINKS, LAVATORIES AND SHOWERS TO BE EQUIPPED WITH SUITABLE "P" TRAPS.
 - 2) ALL WELDING, MATERIALS AND COMPONENTS TO BE USCG APPROVED.
 - 3) ALL DRAIN LINES TO SLOPE 3/8" PER FOOT WHERE POSSIBLE OR AS MUCH AS POSSIBLE TO ENSURE PROPER DRAINAGE.
 - 4) PROVIDE CLEANOUTS AS NECESSARY IN DRAIN PIPING FOR MAINTENANCE OF SYSTEM. (NO CLEANOUTS IN GALLEY AREA)
 - 5) THIS DRAWING REPRESENTS A DIAGRAMMATIC TYPE SYSTEM DESCRIPTION. DO NOT SCALE. SOME EQUIPMENT AND PIPE RUNS MAY BE SHOWN OUT OF PLACE TO ALLOW ALL SYSTEM COMPONENTS TO BE CLEARLY SHOWN.
 - 6) ALL GRAY WATER FIXTURES AND URINAL TRAPS ARE TO HAVE ADEQUATE DEPTH.

1	ISSUED FOR CONSTRUCTION.	RLP	4/26/99
NO.	ALTERATIONS	BY/DATE	
TITLE:	160'-0"x40'-0"x13'-0" RESEARCH VESSEL BLACK & GREY WATER DRAINS SYSTEM DIAGRAM		
PREPARED FOR:	CAMERON OFFSHORE BOATS, INC. CAMERON, LOUISIANA		
DRAWN BY: RLP		DATE:	4/26/99
CHECKED BY:		DATE:	
APPROVED BY:		DATE:	
APPROVED BY:		DATE:	
SCALE:	NONE	CONTRACT NO.:	S-185-32
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MARINE MANAGEMENT INC.		SHT:	1
MARINE DESIGNERS and SURVEYORS		OF:	1
P.O. Box 1803 Ocean Springs, MS 39566-1803		ALT NO.:	1
Ph: 601-872-2846 Fax: 601-872-3666 Online: rlpayne@datatrac.com			



S-185-P7 ALT.1