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SUBMARINE SS 563

BOOKLET OF GENERAL DRAWING

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THIS MATERIAL CONTAINS INFORMATION AFFECTING THE NATIONAL DEFENSE OF THE UNITED STATES WITHIN THE MEANING OF THE ESPIONAGE LAWS, TITLE 18 U.S.C., SECTIONS 793 AND 794, THE TRANSMISSION OR REVELATION OF WHICH IN ANY MANNER TO AN UNAUTHORIZED PERSON IS PROHIBITED BY LAW.

CORRECTED TO SUIT SHIP		
SHIPYARD	DATE	APPROVED
PEARL HARBOR NAVAL SHIPYARD	10/30/68	<i>[Signature]</i>
PEARL HARBOR NAVAL SHIPYARD	4/20/72	<i>[Signature]</i>

PLATE NO. 1 TITLE COVER
PLATE NO. 2 GENERAL DIMENSIONS
PLATE NO. 3 OUTBOARD PROFILE
PLATE NO. 4 INBOARD PROFILE
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PEARL HARBOR NAVAL SHIPYARD

EXAMINED & FOUND CORRECT:

DATE: 10/30/68 *[Signature]* for DESIGN SUPT

NAVSHIPS DRAWING NUMBER

SS563 - 845 -2514667

PLATE NO. 1

TANK CAPACITIES

MAIN BALLAST TANKS (SEE NOTE 1)				CUBIC FEET	TONS SALT W	FUEL OIL TANKS (SEE NOTE 2)				GALLONS	TONS		
											OIL	SALT W	
NO. 1A & 1B MAIN BALLAST				1863	53.23	NO. 1 NORMAL FUEL OIL				7002	21.75	26.75	
NO. 1C & 1D MAIN BALLAST				2136	61.02	NO. 2A & 2B FUEL BALLAST				20654	62.47	78.29	
NO. 2A & 2B FUEL BALLAST				2740	78.28	NO. 2C & 2D FUEL BALLAST				23880	72.17	90.57	
NO. 2C & 2D FUEL BALLAST				3170	90.58	NO. 3A & 3B FUEL BALLAST				17689	53.65	67.18	
NO. 3A & 3B FUEL BALLAST				2351	67.16	NO. 4 NORMAL FUEL OIL				13072	40.60	49.93	
NO. 4A & 4B MAIN BALLAST				4694	134.10	NO. 5 NORMAL FUEL OIL				11734	36.44	44.82	
SAFETY				734	20.98	FUEL OIL COLLECTING				3249	10.09	12.41	
TOTAL				17688	505.35	FUEL OIL EXPANSION				3249	10.09	12.41	
						TOTAL				100529	307.26	382.36	
VARIABLE BALLAST TANKS						NO. 1 VARIABLE F O		95% NET	5452	16.93	21.92		
AUXILIARY NO. 1				548	15.64	NO. 2 VARIABLE F O		95% NET	3962	12.30	15.93		
AUXILIARY NO. 2				548	15.64	NO. 3 & 4 VARIABLE FO		95% NET	16648	51.70	66.94		
NEGATIVE				375	10.70	TOTAL			26062	80.93	104.79		
FORWARD TRIM				967	27.61	NO. 1 & 2 CLEAN F O		95% NET	696	2.16			
FORWARD WRT				125	3.57	COMBINED TOTAL			127287	390.35	487.15		
AFTER TRIM				846	24.18	LUBRICATING OIL TANKS							
						NO. 1 STOWAGE		95% NET	1416	4.87	*		
						NO. 2 STOWAGE		95% NET	1416	4.87			
						TOTAL			2832	9.74			
						PORT MAIN MOTOR SUMP		75% NET	71	0.24			
						NO. 1 ENGINE SUMP		75% NET	343	1.18	*		
						NO. 2 ENGINE SUMP		75% NET	328	1.13			
						NO. 3 ENGINE SUMP		75% NET	343	1.18			
						STBD MAIN MOTOR SUMP		75% NET	71	0.24			
						TOTAL			1156	3.97			
						COMBINED TOTAL			3988	13.71			
PLENUM TANK (INCLUDING RAM CYLINDERS)						308	8.80	HYDRAULIC OIL TANKS				CAPACITY	
				GALLONS							GALLONS	TONS OIL	
NO. 1 SANITARY 100%				603	81	2.30	HYDRAULIC OIL STOWAGE		95% CAP.	1349	4.46		
NO. 2 SANITARY 100%				603	81	2.30	HYD. OIL COOLING & SUPPLY		80% CAP.	469	1.55		
NO. 3 SANITARY 100%				1049	140	4.01							
TOTAL				2255	302	8.61							

NOTES
1. MBT CAPACITIES ARE GROSS TANK MINUS RESIDUAL WATER. GROSS TANK IS TANK PLUS VENT PIPING. VOLUME OCCUPIED BY LEAD BALLAST HAS NOT BEEN ACCOUNTED FOR IN THESE CALCULATIONS
2. FOT CAPACITIES
"GALLONS" IS GROSS TANK
"TONS OIL" IS USEABLE CAP. WHICH IS TANK CAP. MINUS WATER SEAL AND RESIDUAL WATER.
"TONS SALT WATER" IS GROSS TANK MINUS RESIDUAL WATER

* BASED ON SAFETY FOR 30° INCLINATION AND 60° ROLL

** AREA DIMENSIONS GIVEN ARE FOR ONE PLANE

▲ ESTIMATED - SEE INCLINING EXPERIMENT

PRINCIPAL DIMENSIONS

LENGTH, OVER ALL (ACTUAL)	292'-8 1/4"
LENGTH, BETWEEN PERPENDICULARS (DESIGNED)	292'-0"
PROJECTION, FORWARD OF FP	9 3/4"
LENGTH OF STRAIGHT KEEL	154'-5 1/8"
BREADTH, MOLDED	27'-1"
BREADTH, MAX (13 1/2" AFT FR 5T)	27'-0"
DRAFT-UNDERSIDE OF KEEL TO SURFACE-COND N (MEAN)	17'-4 3/4"
RATIO-LENGTH TO BREADTH (L/B)	10.26
DISPLACEMENT, TONS COND N	1966
SHAFT & OFF & SHIP AT 12" AFT FR 78	3'-7"
SHAFT & OFF & SHIP AT 4" AFT FR 101	6'-8"
SHAFT & ABOVE UNDERSIDE OF KEEL	8'-7"
RUDDER AREA 111.0 SQ FT - AXIS 8' 6" FWD OF AP	
BOW PLANE AREA 50 SQ FT - AXIS 103' 6" FWD OF	
STERN PLANE AREA 57.0 SQ FT - AXIS 132'-0" AFT OF	
PROPELLER CENTER FWD OF AP	16'-2"

ACCOMMODATIONS

COMPARTMENT	OFFICERS	C.P.O.	CREW
FWD TORP ROOM			18
OFFICERS QTRS	9+1 SPARE	8	
STERN ROOM			52
TOTALS	10	8	70

TOTAL ACCOMMODATIONS 88 MEN

HEIGHTS

(ALL DIMENSIONS ARE ABOVE UNDERSIDE OF KEEL)

TOP OF & FR BAR ON STRENGTH HULL	21'-10 13/16"
TOP OF PERISCOPE SUPPORT	43'-3 1/2"
TOP OF SNORKEL SUPPORT	39'-11"
TOP OF BRIDGE FAIRWATER	42'-7"
CENTER OF BOW ANCHOR LIGHT	34'-2"
CENTER OF SIDE LIGHT PORT & STBD	35'-6 3/4"
CENTER OF MASTHEAD LIGHT	41'-2 3/4"
CENTER OF STERN RUNNING LIGHT	29'-2 1/2"
CENTER OF STERN ANCHOR LIGHT	32'-6"
CENTER OF EMERGENCY STERN LIGHT	35'-1 3/8"
OPTICAL CTR-NO. 1 PERISCOPE (EXTENDED)	59'-2 1/16"
OPTICAL CTR-NO. 2 PERISCOPE (EXTENDED)	55'-1 11/16"
TOP OF STBD WHIP ANTENNA (RAISED)	71'-9 7/8"
TOP OF PORT WHIP ANTENNA (EXTENDED)	66'-7 7/8"
TOP OF IFF BUHF ANTENNA (EXTENDED)	60'-4 1/2"
TOP OF VLF LOOP ANT. (FIXED)	44'-7 1/4"
TOP OF AS-1640/BPS RADAR ANT. (EXTENDED)	57'-11 3/16"
TOP OF SNORKEL (EXTENDED)	54'-2 7/8"
TOP OF SNORKEL (LOWERED)	43'-5 5/8"
TOP OF ECM/DF ANT. (EXTENDED)	58'-1 1/8"
TOP OF ECM/DF ANT. (LOWERED)	44'-3 3/8"
TOP OF BRD-G D/F ANT. (EXTENDED)	57'-9 5/8"
TOP OF SNORKEL WHIP ANT. (SNORKEL EXT.)	66'-11"
TOP OF HELICAL ANT. (EXTENDED)	68'-0 1/16"
TOP OF PERISCOPE & ECM ANT. FAIRING	44'-4"

FRAME SPACING

FP TO FR 1	18"	1
FR 1 TO FR 23	24"	22
FR 23 TO FR 44	36"	26
FR 44 TO FR 55	24"	11
FR 55 TO FR 84	36"	32
FR 84 TO FR 109	24"	25
FR 109 TO AP	6"	1
NUMBER OF FRAMES - TOTAL		118

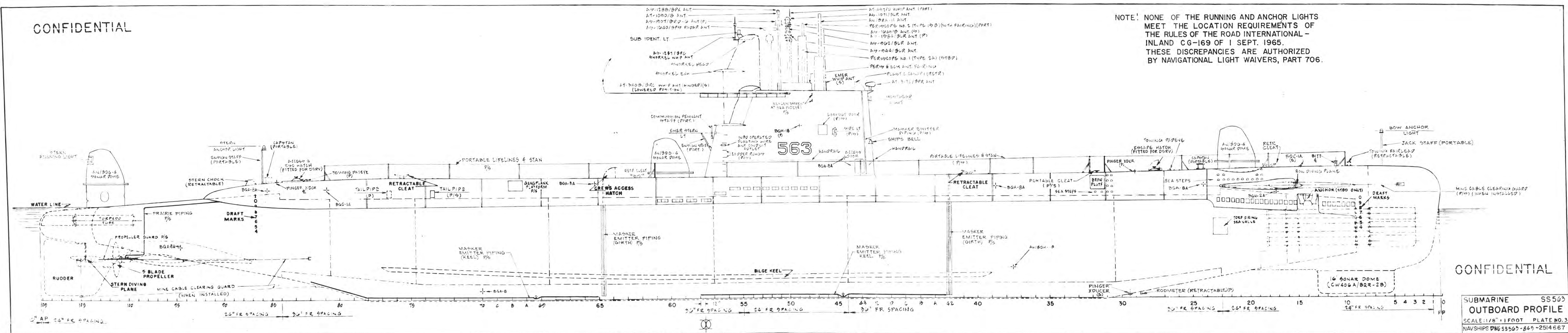
COMPARTMENT FLOODING EFFECT TABLE

COMPARTMENT	VOLUME		VCG (FT.)	LCG FWD (FT.)	LCG AFT (FT.)
	GALS	TONS (SW)			
FWD TORP ROOM	42045	160.60	13.26	94.76	
FWD BATT & OFF. QTRS	78734	300.74	13.20	50.64	
AMIDSHIP COMPT	45582	174.11	12.38	16.34	
AFT BATT & CREWS QTRS	40713	155.51	13.54		14.60
ENGINE ROOM	44708	170.77			46.13
MANEUVERING AND MOTOR ROOM	24078	91.97	12.68		69.36
STERN ROOM	31311	119.60	14.80		99.69

MAXIMUM HOLDING DEPTH OF BULKHEAD 12" FWD OF FR 75 - 150 FT
MAXIMUM HOLDING DEPTH OF OTHER MAIN SUBDIVISION BHD'S - 700 FT

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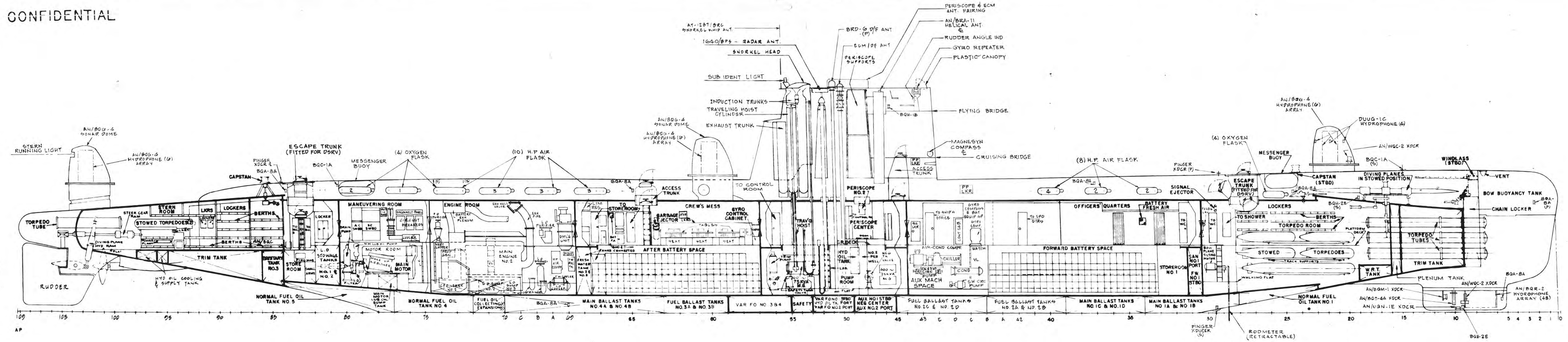
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OUTBOARD PROFILE
SCALE: 1/8" = 1 FOOT PLATE NO.
NAVSHIPS DWG SS563-845-2514667

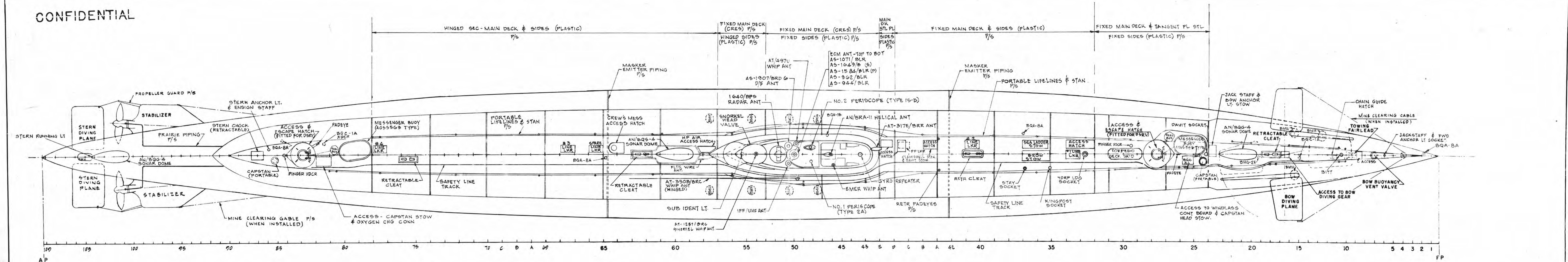
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SUBMARINE SS563
 INBOARD PROFILE
 SCALE: 1/8"=1 FOOT PLATE NO. 4
 NAVSHIPS DWG SS563-845-2514667

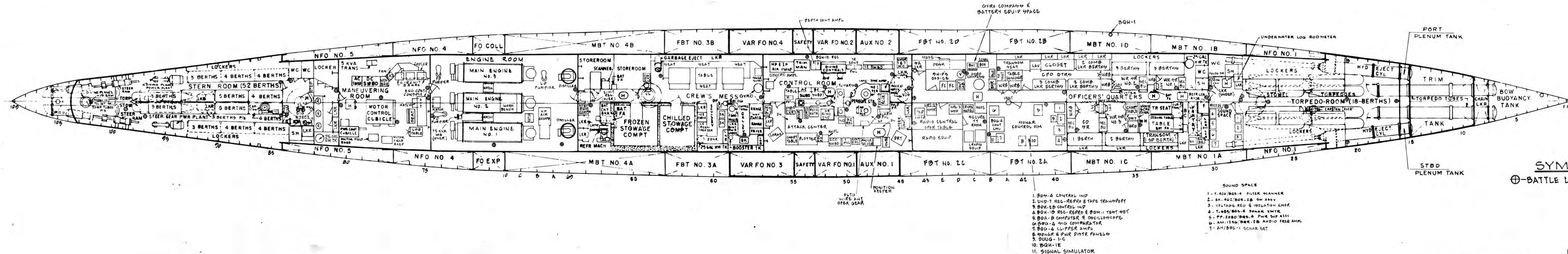
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SUBMARINE SS563
MAIN DECK
SCALE: 1/8" = 1 FOOT PLATE NO. 5
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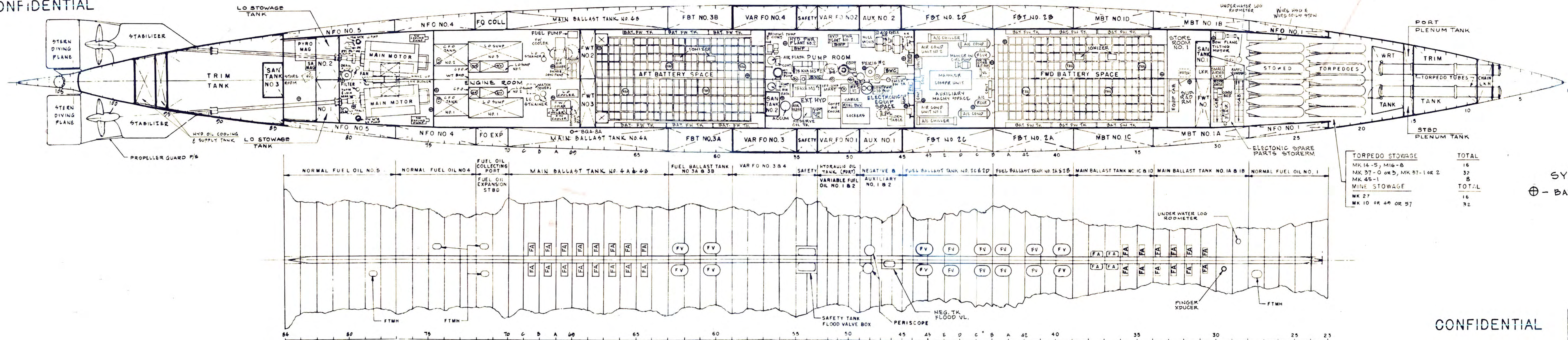
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SUBMARINE SS563
PLATFORM DECK
SCALE 1/8"=1 FOOT PLATE NO. 6
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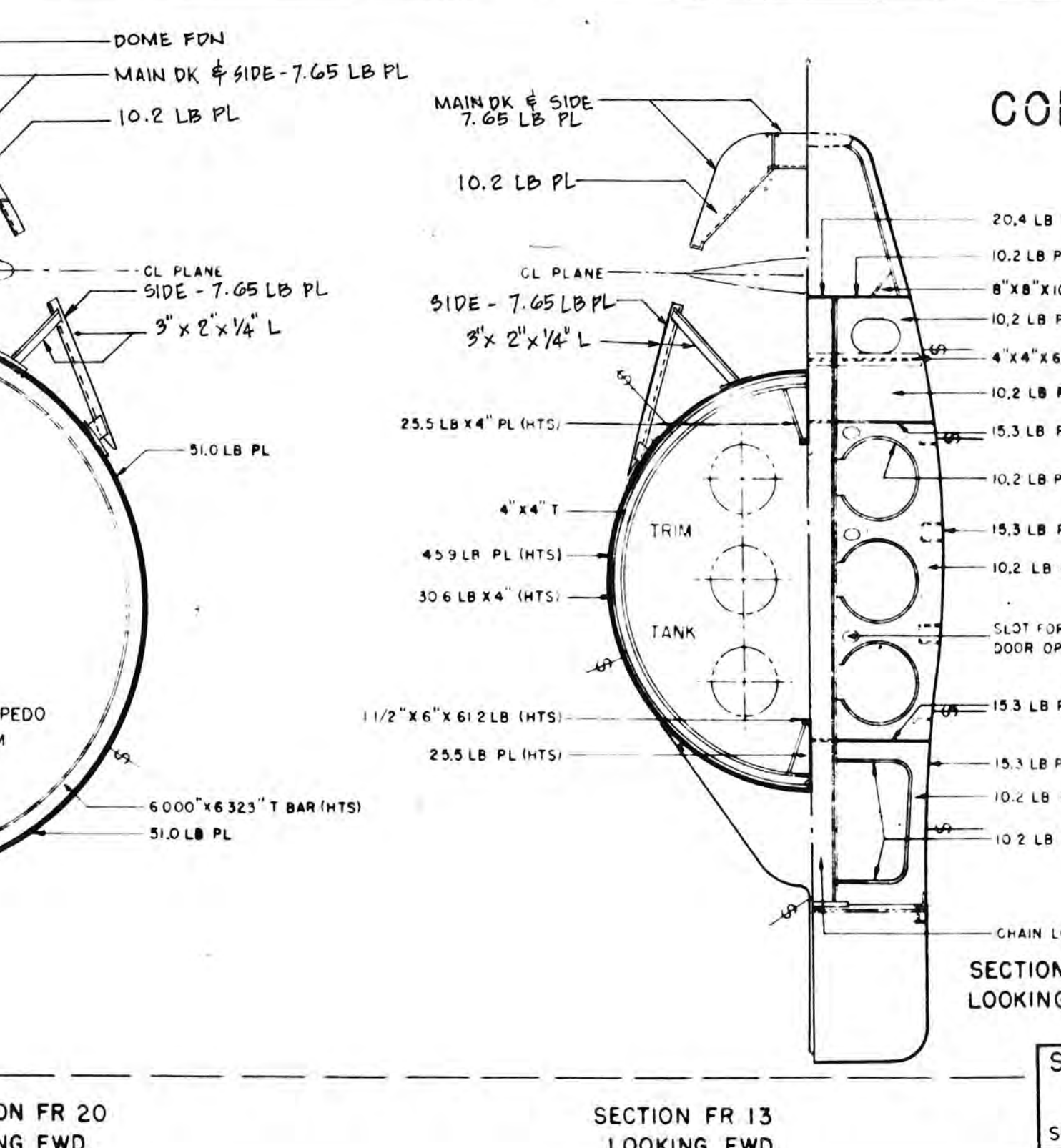
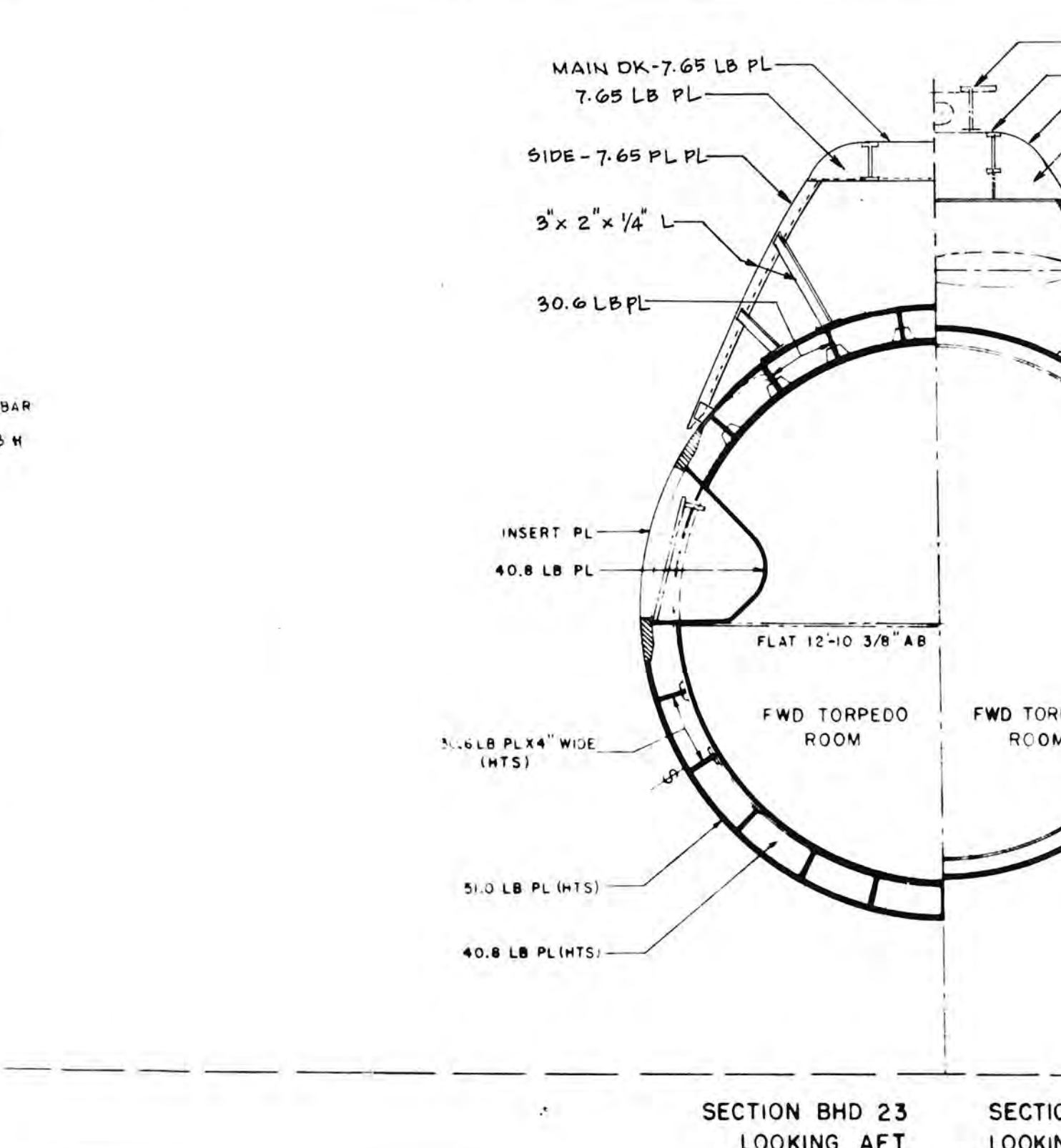
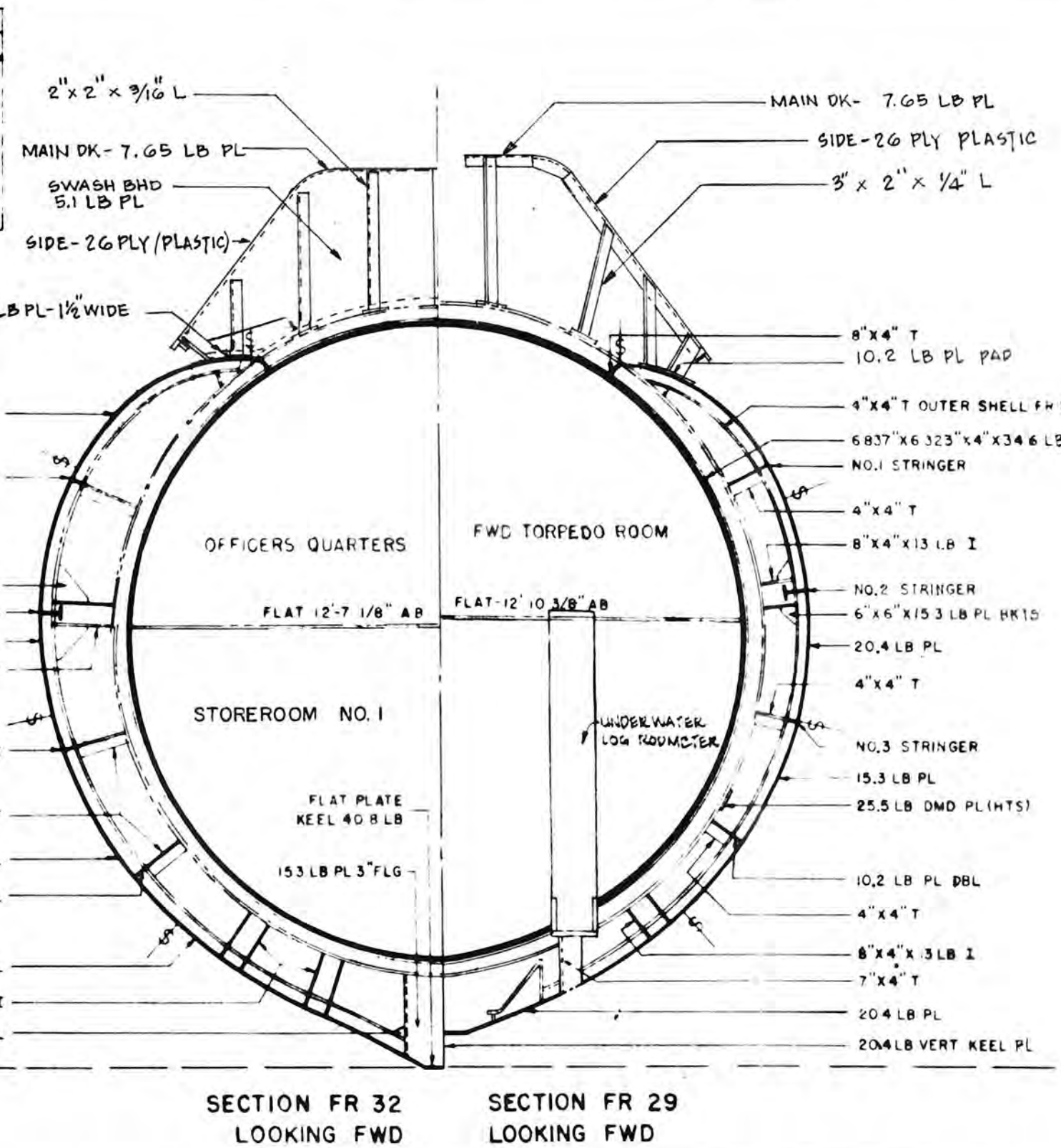
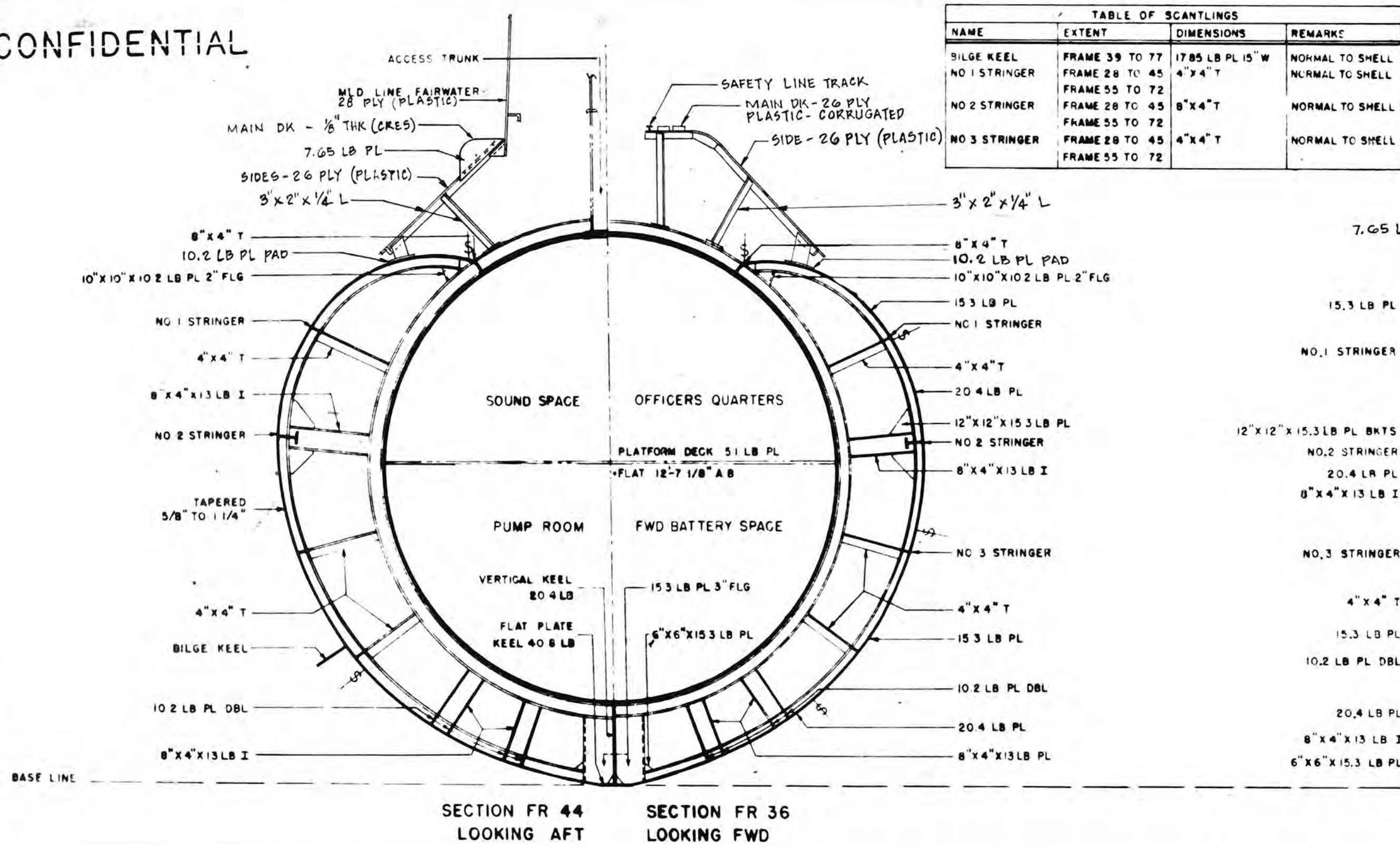


TORPEDO STOWAGE	
MK 14-5, M16-8	16
MK 37-0 or 3, MK 37-1 or 2	32
MK 45-1	8
MINE STOWAGE	
MK 27	16
MK 10 OR 49 OR 57	32
TOTAL	TOTAL
	32

SYMBOL
⊕ - BATTLE LANTERN

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SECTION FR 8
LOOKING FWD

SUBMARINE SS563
TYPICAL SECTIONS
SCALE 1/4"=1 FOOT
NAVSHIPS DWG 55503-845-2514667