

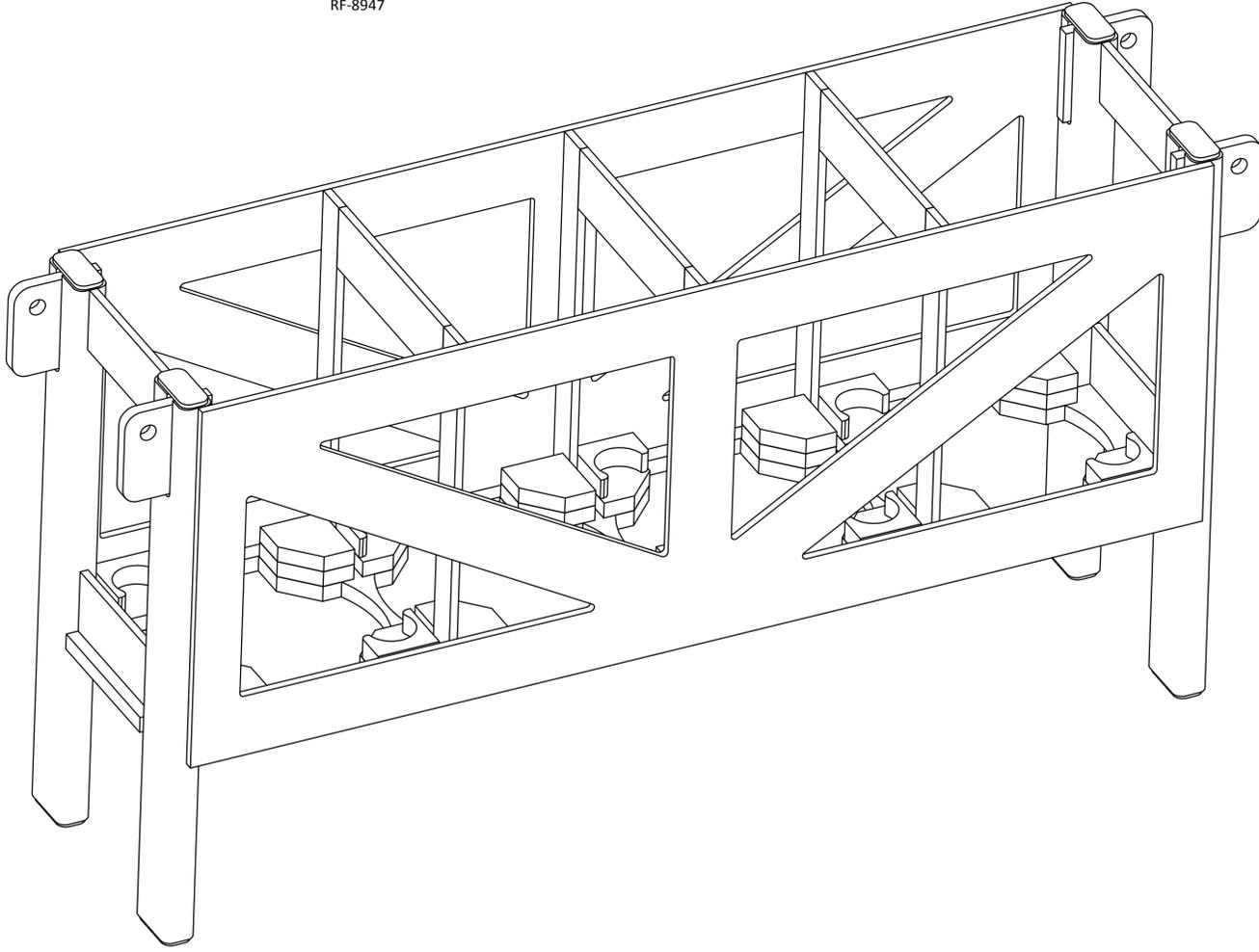
1. THIS DRAWING PROVIDES CONSTRUCTION DETAILS FOR ONE URGA RACK.
2. THIS RACK IS DESIGNED FOR SYMETRICAL LOADING AND LEVEL LIFTING ONLY.
3. **MANUFACTURING REQUIREMENTS:**
 - a. WHEN WELDING STANDARDS, MIL-SPECS, OR SIMILAR INSTRUCTIONS ARE NOTED ON THIS DRAWING, THE LATEST REVISION SHALL BE IN EFFECT UNLESS OTHERWISE AUTHORIZED BY PSNS & IMF.
 - b. UNLESS OTHERWISE SPECIFIED, ALL TOLERANCES ARE SPECIFIED IN THE DRAWING BLOCK IN THE LOWER RIGHT CORNER OF THIS DRAWING. GEOMETRIC DIMENSIONING AND TOLERANCE ARE PER ANSI/ASM Y14.5.
 - c. BREAK ALL SHARP EDGES TO A 1/32" CHAMFER (MINIMUM) AND REMOVE ALL WELD SPLATTER FROM EXPOSED SURFACES.
 - d. ENSURE TOP SURFACE OF PC. 1 HAS BEEN THOROUGHLY DE BURRED.
 - e. MANUFACTURE REQUIRED QTYS OF PCS. 8 AND 9 AS SHOWN IN THE BILL OF MATERIALS. APPLY ADHESIVE (PC. 11) TO SECURE QTY 16 PC. 8 TO PC. 1 IN THE ORIENTATION SHOWN ON SHEET 2. PERFORM AFTER WELDING. REMAINING QTY OF PC. 8 AS WELL AS PC. 9 WILL BE ATTACHED AT A LATER DATE AT PSNS & IMF.
 - f. MANUFACTURE AN ADDITIONAL QTY 150 PC. 8 AND PC. 9 AS SPARES.
 - g. FOR PC. 1, RADIUS CORNERS TO SUIT, NOT TO EXCEED A RADIUS OF 0.25".
 - h. WIDTH OF SLOT SHOULD BE SIZED TO SUIT PC. 7. RADIUS AT BOTTOM OF SLOT NOT TO EXCEED WIDTH OF SLOT.
4. **MATERIAL REQUIREMENTS:**
 - a. MATERIAL SPECIFICATIONS ARE SPECIFIED IN THE BILL OF MATERIALS LISTED ON THIS DRAWING.
 - b. APPROVED EQUIVALENTS MAY BE USED WITH PSNS & IMF CODE 2370 APPROVAL.
5. **WELDING REQUIREMENTS:**
 - a. WELDING PERFORMED BY CONTRACTOR SHALL COMPLY WITH WELDING PROCEDURE AND PERFORMANCE REQUIREMENTS OF ANSI/AWS D1.6 (FOR STAINLESS STEEL).
 - b. WELD SYMBOLS ARE SHOWN IN ACCORDANCE WITH ANSI/AWS A2.4.
 - c. VISUALLY INSPECT ALL WELDS IN ACCORDANCE WITH ANSI/AWS D1.6 (FOR STAINLESS STEEL) WITH THE FOLLOWING EXCEPTION: NO UNDERSIZED WELDS ARE ALLOWED AND NO POROSITY GREATER THAN 1/8" IS ALLOWED. WHERE "PT" IS CALLED OUT THE REQUIREMENTS OF MIL-STD-2035 APPLY.
 - d. WELD SURFACE FINISH SHALL SATISFY GENERAL NOTE 6. UNLESS OTHERWISE SPECIFIED.
 - e. WELD SIZES SHOWN ARE MINIMUM ACCEPTABLE SIZES.
 - f. WELDS SHALL BE SEQUENCED TO MINIMIZE DISTORTION. WHERE DISTORTION DOES OCCUR, STRAIGHTENING PER ANSI/AWS D1.6 (FOR STAINLESS STEEL) SHALL BE PERFORMED TO ACHIEVE TOLERANCES OF THIS DRAWING.
 - g. DO NOT WELD WHERE PC 5 INTERSECTS THE WELD CONNECTING PC 2 TO PC 1.
6. **SURFACE FINISH REQUIREMENTS:**
 - a. WELDED SURFACES SHALL BE FREE OF CRACKS, CRATERS, BURRS, SHARP EDGES, AND WELD SPLATTER. THE SURFACE SHALL BE GENERALLY SMOOTH TO THE TOUCH. CONTOUR GRINDING MAY BE NECESSARY DEPENDING ON THE WELD PROCESS, MATERIAL AND DESIGN. THE REMAINING SURFACES SHALL BE FREE OF WELD SPLATTER, DEEP SCRATCHES, BURRS, DIRT AND LOOSE RUST. IN GENERAL ALL SURFACES SHALL BE SMOOTH ENOUGH TO PERMIT WIPING SURFACES WITH CLEANING CLOTH WITHOUT SNAGGING THE CLOTH. DO NO PAINT OR MASK STAINLESS STEEL WITH ANY PRODUCTS THAT CANNOT BE COMPLETELY REMOVED WITH A CLEANING CLOTH. GLASS BEAD BLASTING MAY BE OPTIONALLY USED BY CONTRACTOR TO IMPROVE SURFACE FINISH. DO NOT GLASS BEAD BLAST PLASTIC OR RUBBER PARTS. DO NOT USE METAL SHOT. ENSURE ALL GLASS BEAD BLAST MATERIAL IS CLEANED FROM THE STRUCTURE (IF BLASTING IS PERFORMED.)
7. **LOAD TEST REQUIREMENTS:**
 - a. PRIOR TO LOAD TEST, INSPECT EACH PADEYE AS FOLLOWS:
 - i. PERFORM A VISUAL INSPECTION OF THE PADEYES AND WELDS MARKED "PT". THERE SHALL BE NO APPARENT DEFORMATION OR DAMAGE OF WELDS SUCH AS CRACKED, BROKEN, WORN, DISTORTED, BENDING, TWISTING, ELONGATION, OR EXCESSIVE WEAR.
 - ii. PERFORM A VISUAL INSPECTION OF THE WELDS MARKED "PT" PER GENERAL NOTE 5.C AND 5.D. VERIFY WELDS ARE FREE OF DEFECTS SUCH AS CRACKS, INCOMPLETE FUSION, SLAG, INCLUSION AND UNDERCUT.
 - b. ATTACH APPROXIMATELY 3375 LBS OF TEST WEIGHT TO THE ASSEMBLED RACK. THE TOTAL WEIGHT OF THE RACK AND ADDITIONAL TEST WEIGHT SHOULD BE 4125 LBS (+138 LBS., -0 LBS.). DISTRIBUTE WEIGHT SYMETRICALLY AND ENSURE RACK IS LEVEL WHEN LIFTED. ADJUST ADDITIONAL WEIGHT AS NECESSARY TO ACHIEVE THE WEIGHT. IF ATTACHING WEIGHT IS NOT FEASIBLE, SEE NOTE 7.d AS AN OPTION.
 - c. ATTACH SHACKLES AND PENDANTS TO DIAMETRICALLY OPPOSITE PAD EYES. WHEN ASSEMBLED AND STRETCHED, THE PENDANTS SHOULD BE A MINIMUM OF 30 DEGREES FROM VERTICAL (SEE SHEET 7 OF THIS DRAWING). LIFT THE RACK (WITH THE ATTACHED WEIGHTS) AND HOLD FOR A MINIMUM OF 10 MINUTES. REPEAT THIS LOAD TEST FOR THE REMAINING PAD EYES.
 - d. IF USING ADDITIONAL TEST WEIGHT IS NOT FEASIBLE THE FABRICATOR MAY RESTRAIN THE RACK FROM MOVEMENT AND PULL ON DIAMETRICALLY OPPOSITE PAD EYES TOGETHER WITH THE REQUIRED 4125 LBS. (+138 LBS., -0 LBS.) AND HOLD FOR A MINIMUM OF 10 MINUTES (SEE SHEET 7 OF THIS DRAWING). REPEAT FOR REMAINING PAD EYES.
 - e. FOLLOWING LOAD TEST, INSPECT EACH LIFT POINT AS FOLLOWS:
 - i. PERFORM A VISUAL INSPECTION OF THE PADEYES AND WELDS MARKED "PT". THERE SHALL BE NO APPARENT DEFORMATION OR DAMAGE OF WELDS SUCH AS CRACKED, BROKEN, WORN, DISTORTED, BENDING, TWISTING, ELONGATION, OR EXCESSIVE WEAR.
 - ii. PERFORM A VISUAL INSPECTION OF THE WELDS MARKED "PT" PER GENERAL NOTE 5.C AND 5.D. VERIFY WELDS ARE FREE OF DEFECTS SUCH AS CRACKS, INCOMPLETE FUSION, SLAG, INCLUSION AND UNDERCUT.
 - iii. PT INSPECT ACCESSIBLE PORTIONS OF THE PADEYES AND WELDS THAT ARE MARKED "PT" TO VERIFY NO DEFECTS. PT INSPECT PER NAVESEA TECH PUBLICATION T9074-AS-GIB-010/271, REQUIREMENTS FOR NONDESTRUCTIVE TESTING. ACCEPTANCE CRITERIA ARE PER MIL-STD-2035 FOR WROUGHT MATERIAL, CLASS 3 WELDS. PT INSPECT UNTHREADED HOLES TO THE MAXIMUM EXTENT PRACTICAL. PORTIONS OF UNTREADED HOLES THAT ARE NOT PRACTICAL TO NDT SHALL BE VISUALLY INSPECTED TO THE MAXIMUM EXTENT PRACTICAL FOR DEFICIENCIES THAT WOULD AFFECT LOAD BEARING CAPABILITY.
 - f. PROVIDE WRITTEN DOCUMENTATION THAT THE ABOVE LOAD TESTS, INSPECTIONS AND NDT REQUIREMENTS WERE SATISFACTORILY PERFORMED.

8. **WEIGH URGA RACK:**
 - a. FOLLOWING SUCCESSFUL TESTING AND NDT OF PADEYES, INSTALL SHACKLES AND PENDANTS WITH SUITABLE SIZED RIGGING TO ENSURE RIGGING ANGLE IS MAINTAINED LESS THAN OR EQUAL TO 30 DEGREES FROM VERTICAL. ESTIMATED WEIGHT OF RACK IS 750 LBS.
 - b. LIFT AND WEIGH RACK TO +/- 2 % ACCURACY.
 - c. PROVIDE WRITTEN DOCUMENTATION OF WEIGHT OBSERVED TO PSNS & IMF UPON DELIVERY OF RACK.

SPS PADEYE
SPS CAPACITY: 1587 LBS PER PADEYE
MAX 30 DEG. FROM VERTICAL
TEST DATE: (DATE ABOVE TESTS ARE COMPLETED)
CERT EXPIRATION DATE: N/A, SF>10
MIN SHACKLE PIN DIA: 0.88"
 - d. CHEM ETCH OR VIBRO TOOL THE FOLLOWING INFORMATION USING .5" MINIMUM LETTERS ON THE OUTER FACES OF BOTH PC. 2 AT LOCATION SPECIFIED ON SHEET 2. AS AN ADDITIONAL OPTION CHEM ETCH OR VIBRO TOOL A LABEL PLATE MADE OF SIMILAR MATERIAL AS PC.2 WITH THE FOLLOWING INFORMATION. SPOT WELD LABEL PLATE TO RACK ON THE OUTER FACES OF BOTH PC 2. AT LOCATION SPECIFIED ON SHEET 2.

URGA RACK, 4 POSITION
DWG 2370 – 1938
EMPTY WEIGHT: (ENTER WEIGHT OBSERVED)
RF-8947
 - e. CHEM ETCH OR VIBRO TOOL THE FOLLOWING INFORMATION USING .5" MINIMUM LETTERS ON THE OUTER FACES OF BOTH PC. 2 AT LOCATION SPECIFIED ON SHEET 2. AS AN ADDITIONAL OPTION CHEM ETCH OR VIBRO TOOL A LABEL PLATE MADE OF SIMILAR MATERIAL AS PC.2 WITH THE FOLLOWING INFORMATION. SPOT WELD LABEL PLATE TO RACK ON THE OUTER FACES OF BOTH PC 2. AT LOCATION SPECIFIED ON SHEET 2.

URGA RACK, 4 POSITION
DWG 2370 – 1938
EMPTY WEIGHT: (ENTER WEIGHT OBSERVED)
RF-8947



LIST OF MATERIALS					
PC. #	QTY	DESCRIPTION	MATERIAL	SIZE	SPECIFICATION
1	1	SUPPORT PLATE	CRES 304	PL, 20.4# (1/2" THICK)	ASTM A240 OR BETTER
2	2	SIDE PLATE	CRES 304	PL, 20.4# (1/2" THICK)	ASTM A240 OR BETTER
3	4	LEG	CRES 304	2.00" X 4.00" X 0.25" RECTANGULAR TUBING	ASTM A554 OR BETTER
4	4	LEG STIFFNER	CRES 304	PL, 20.4# (1/2" THICK)	ASTM A240 OR BETTER
5	6	VERTICAL STIFFNER	CRES 304	PL, 20.4# (1/2" THICK)	ASTM A240 OR BETTER
6	3	SIDE STIFFNER	CRES 304	PL, 20.4# (1/2" THICK)	ASTM A240 OR BETTER
7	4	PAD EYE	CRES 304	PL, 30.6# (3/4" THICK)	ASTM A240 OR BETTER
8	24	SUPPORT PAD	BUNA-N RUBBER	1" THICK SHEET	SAE AMS-R-6855 OR BUNA-N
9	8	PIN SUPPORT PAD	BUNA-N RUBBER	1" THICK SHEET	SAE AMS-R-6855 OR BUNA-N
10	8	END CAPS	CRES 304	PL, 10.2# (0.25")	ASTM A240 OR BETTER
11	AS REQUIRED	ADHESIVE			3M 1357 CONTACT ADHESIVE OR SIMILAR FOR RUBBER TO METAL

REVISIONS					
ZONE	REV.	DESCRIPTION	DATE	CHANGE BY	APPROVAL
	A	DELETED SHEET 2, CHANGED WELD CALLOUTS TO FRACTIONS, ADDED WELD CALLOUT TO WELD PC. 4 TO PC. 1, ADDED REFERENCE DIMENSIONS FOR THE HEIGHT, CHANGED MATERIAL DESCRIPTIONS	12/16/2015	/S/ M. FARRELL	/S/ M. ENSIGN 12/18/15

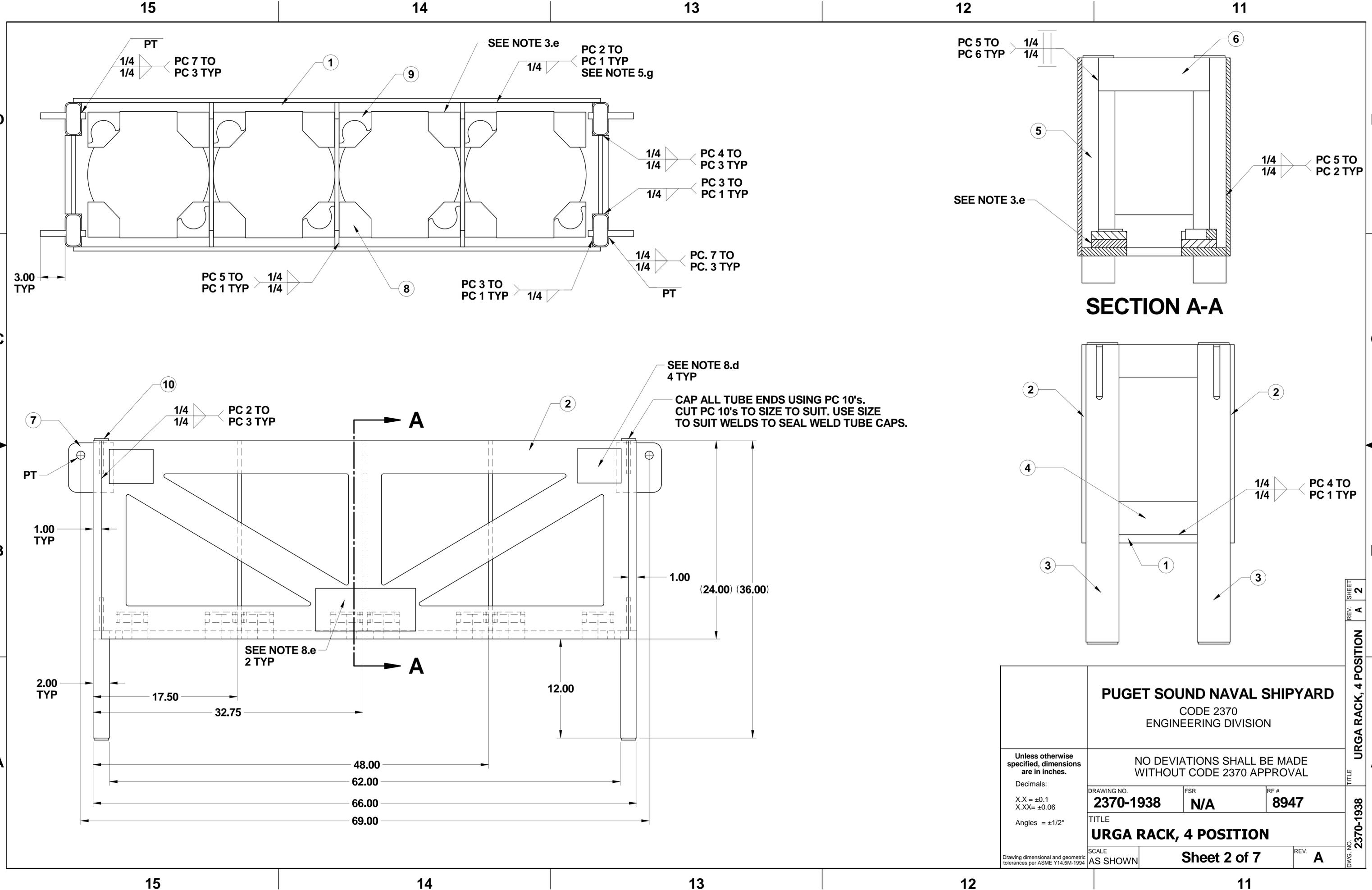
DISTRIBUTION STATEMENT: N/A

A.D.C. REVIEW	
SIGNATURE	DATE
/S/ M. FARRELL	10-20-15

CONCURRENCE		
CODE	SIGNATURE	DATE
2370.21	/S/ K. GARRETT	10-20-15

/S/ SIGNATURE ON FILE		APPROVAL	
	SIGNATURE		DATE
BRANCH SUPV.	/S/ A. ROSS		10-20-15
CHECKED	/S/ J. HIGGINS		10-20-15
DRAWN			
DRAWN	/S/ M. FARRELL		10-20-15
DESIGNED	/S/ M. FARRELL		10-20-15
FILE PATH			

PUGET SOUND NAVAL SHIPYARD			
CODE 2370 ENGINEERING DIVISION			
NO DEVIATIONS SHALL BE MADE WITHOUT CODE 2370 APPROVAL			
Unless otherwise specified, dimensions are in inches. Decimals: X.X = ±0.1 X.XX = ±0.06 Angles = ±1/2°	DRAWING NO. 2370-1938	FSR N/A	RF # 8947
	TITLE URGA RACK, 4 POSTION		
DWG. NO. 2370-1938	SCALE AS SHOWN	Sheet 1 of 7	
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Drawing dimensional and geometric tolerances per ASME Y14.5M-1994		REV. A

REV. SHEET
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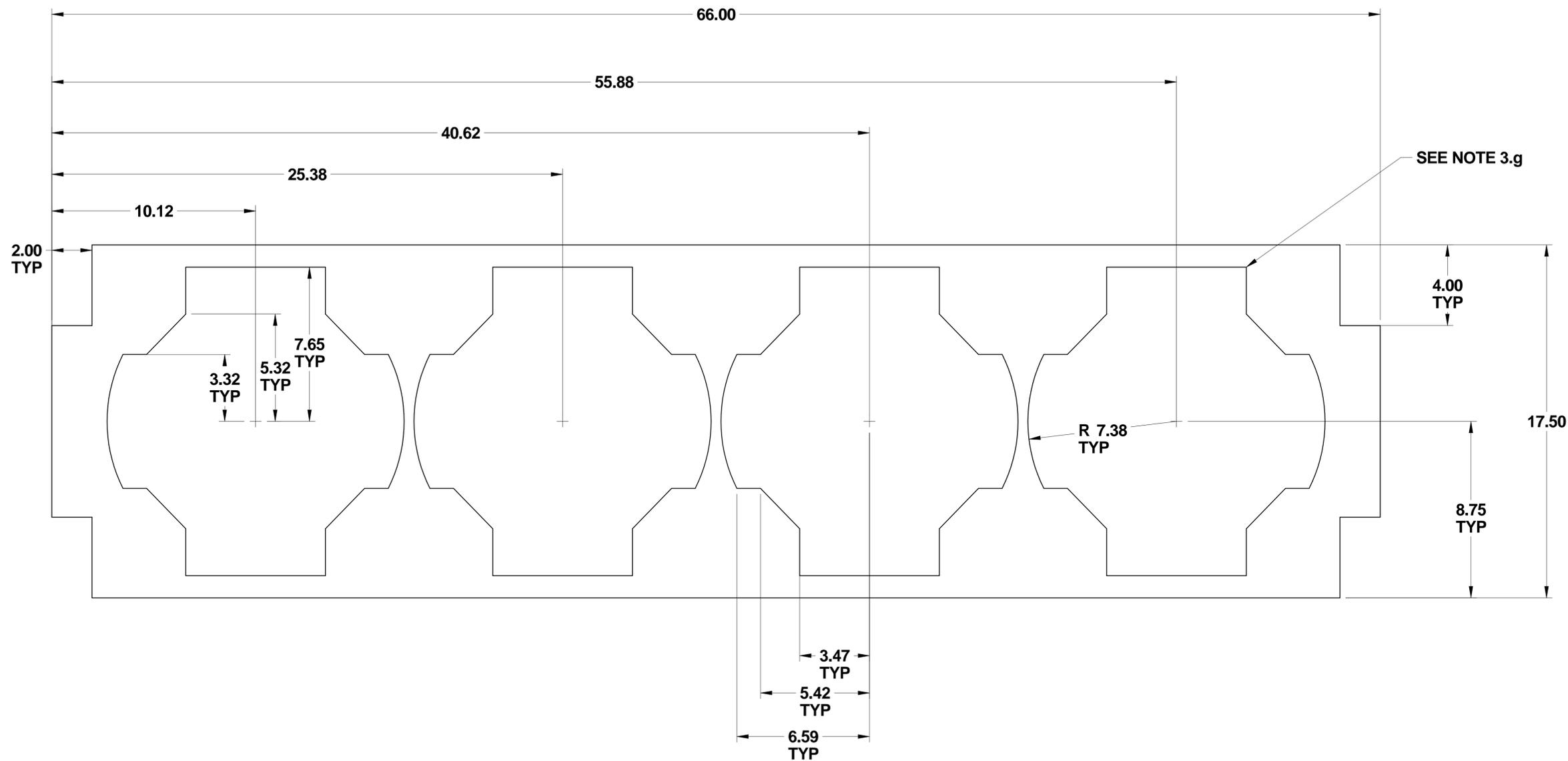
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PC. 1: SUPPORT PLATE

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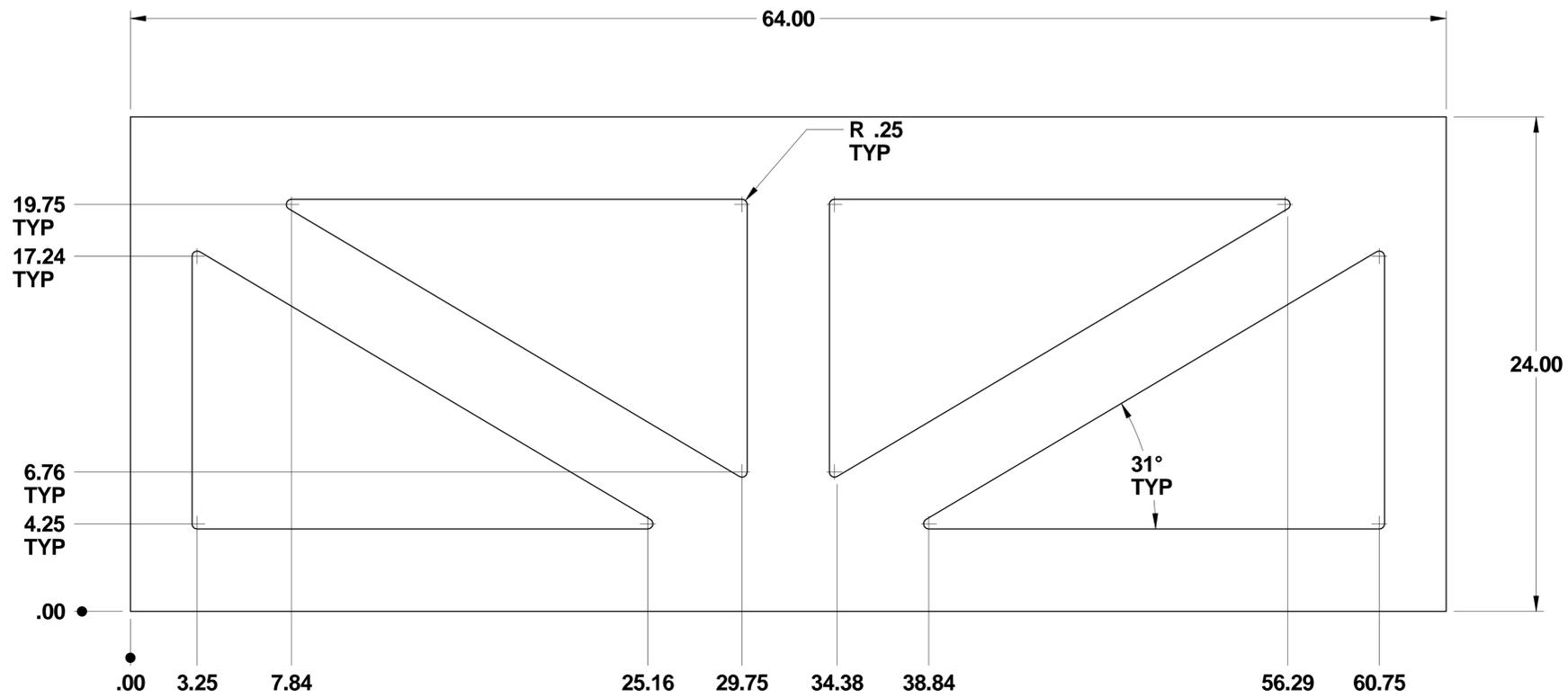
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PC. 2: SIDE PLATE

Unless otherwise specified, dimensions are in inches. Decimals: X.X = ±0.1 X.XX = ±0.06 Angles = ±1/2° <small>Drawing dimensional and geometric tolerances per ASME Y14.5M-1994</small>		PUGET SOUND NAVAL SHIPYARD CODE 2370 ENGINEERING DIVISION		
		NO DEVIATIONS SHALL BE MADE WITHOUT CODE 2370 APPROVAL		
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2370-1938	N/A	8947	URGA RACK, 4 POSITION	
SCALE	Sheet 4 of 7		REV.	A
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URGA RACK, 4 POSITION
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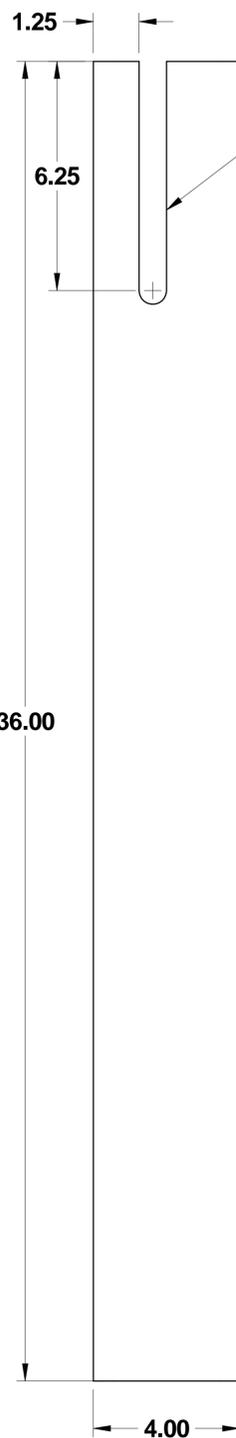
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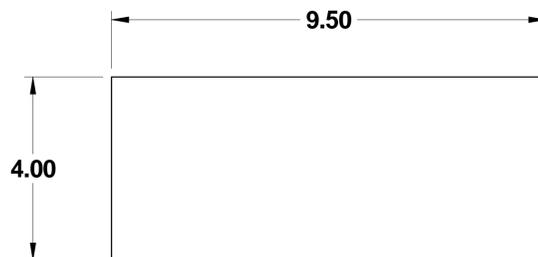
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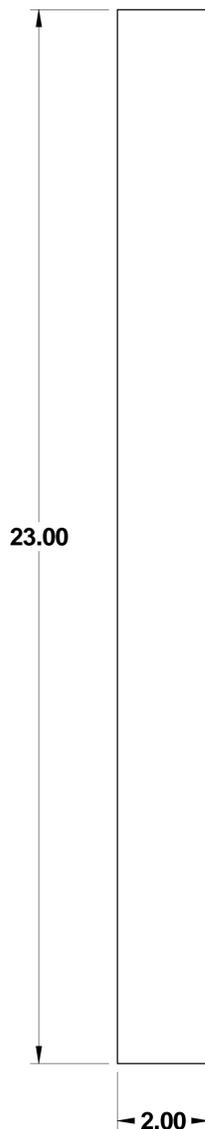
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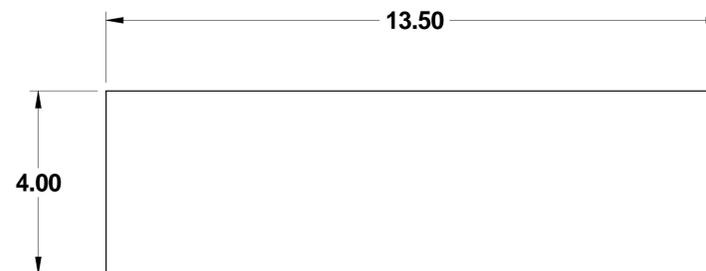
PC. 3: LEG



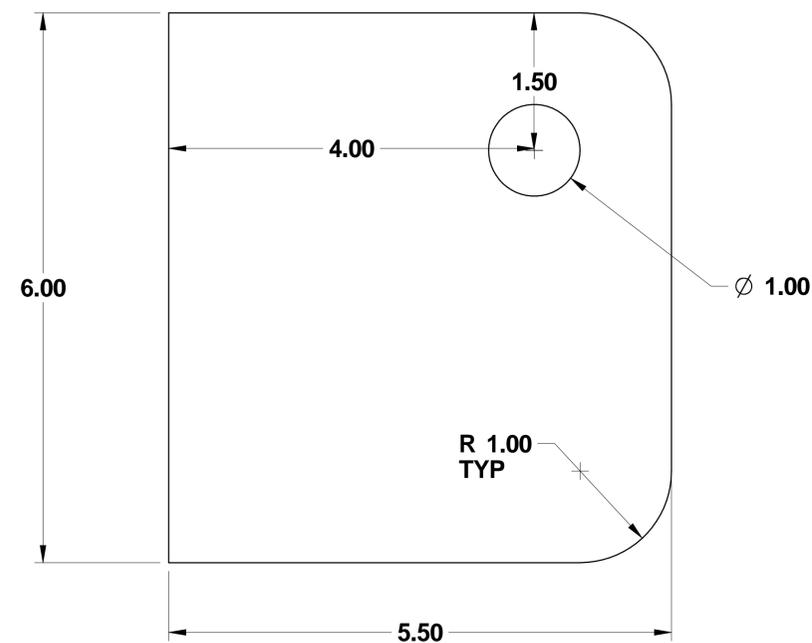
PC. 4: LEG SIDE STIFFNER



PC. 5: VERTICAL STIFFNER



PC. 6: SIDE STIFFNER



PC. 7: PAD EYE

<p>Unless otherwise specified, dimensions are in inches.</p> <p>Decimals: X.X = ±0.1 X.XX = ±0.06</p> <p>Angles = ±1/2°</p> <p><small>Drawing dimensional and geometric tolerances per ASME Y14.5M-1994</small></p>	<p>PUGET SOUND NAVAL SHIPYARD CODE 2370 ENGINEERING DIVISION</p>		
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	<p>DRAWING NO. 2370-1938</p>	<p>FSR N/A</p>	<p>RF # 8947</p>
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<p>SCALE AS SHOWN</p>	<p>Sheet 5 of 7</p>		<p>REV. A</p>

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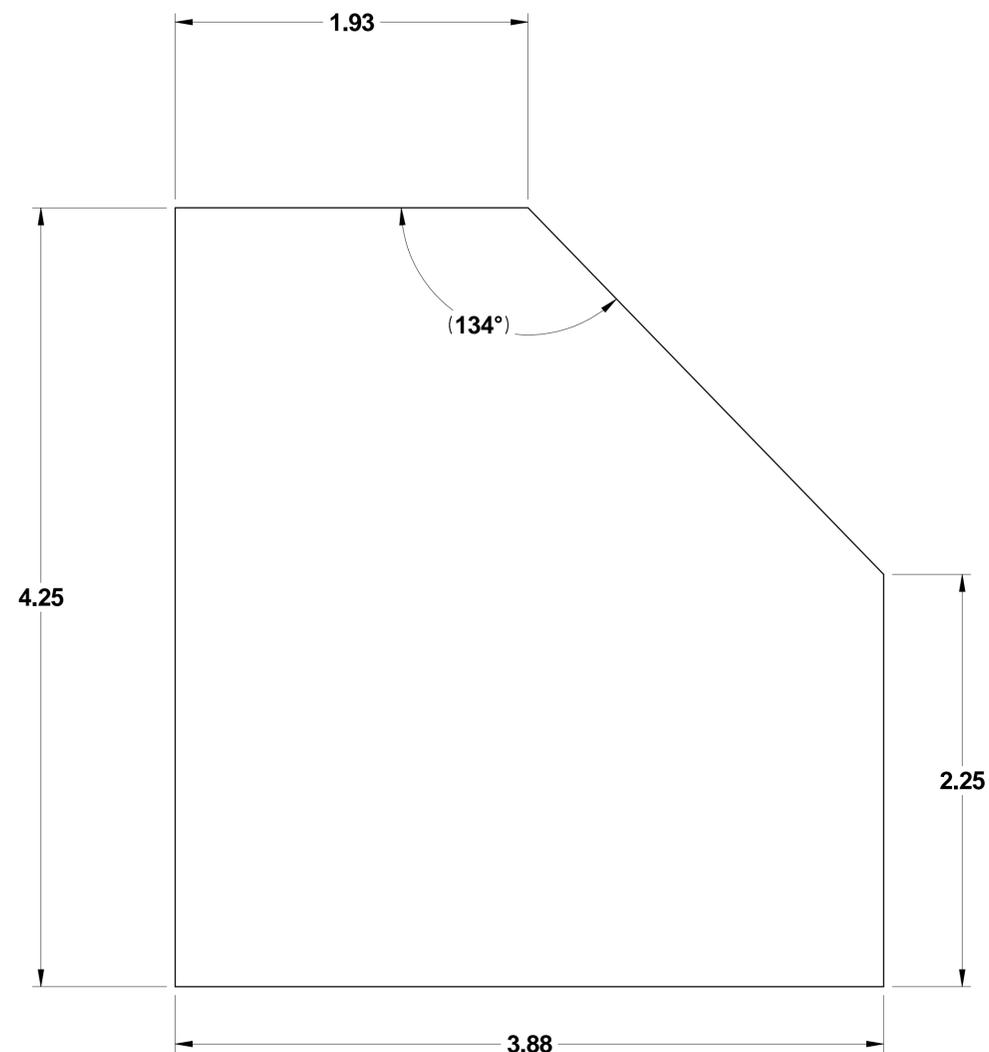
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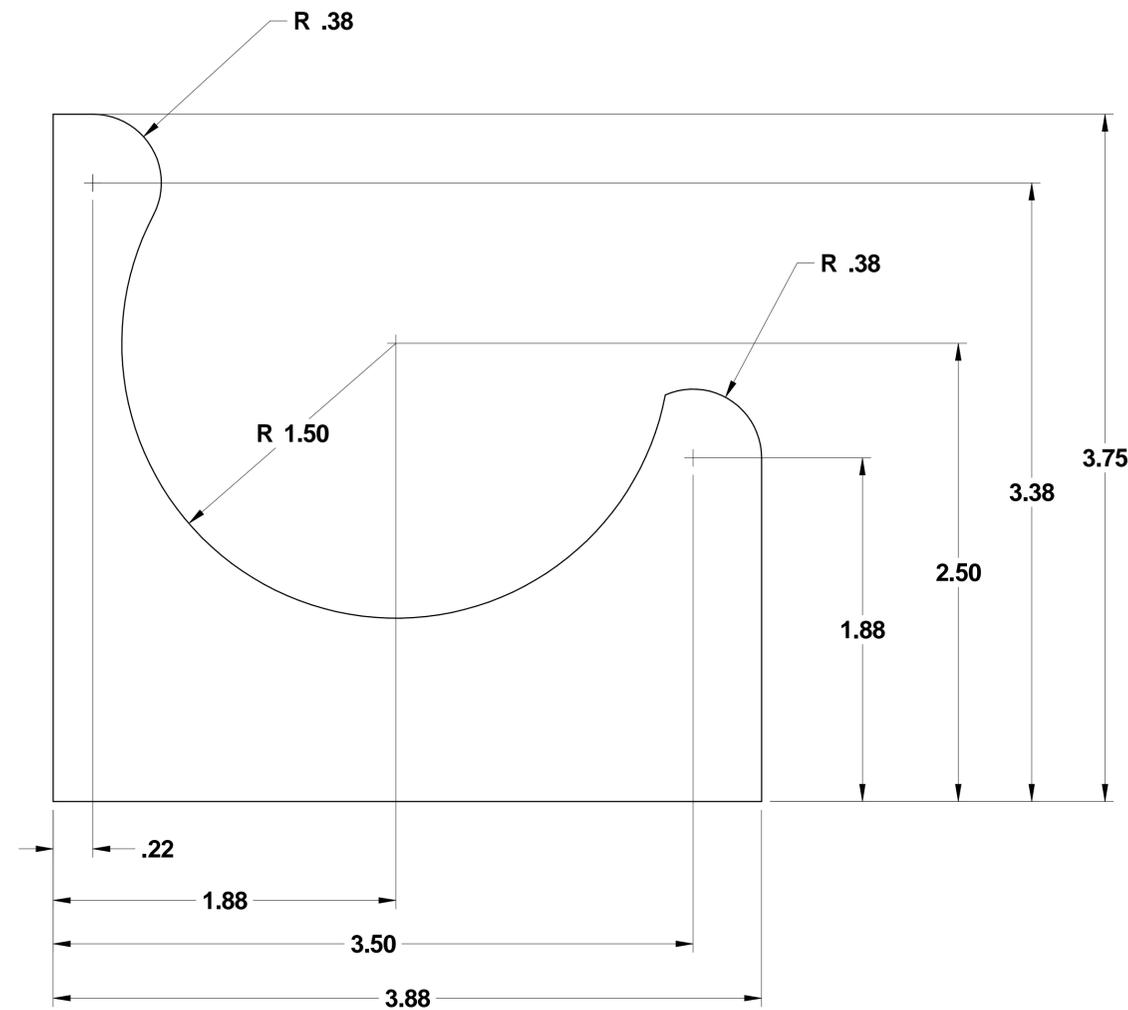
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PC. 8: SUPPORT PAD



PC. 9: PIN SUPPORT PAD

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<small>Drawing dimensional and geometric tolerances per ASME Y14.5M-1994</small>		<small>SCALE</small> AS SHOWN	<small>REV.</small> A

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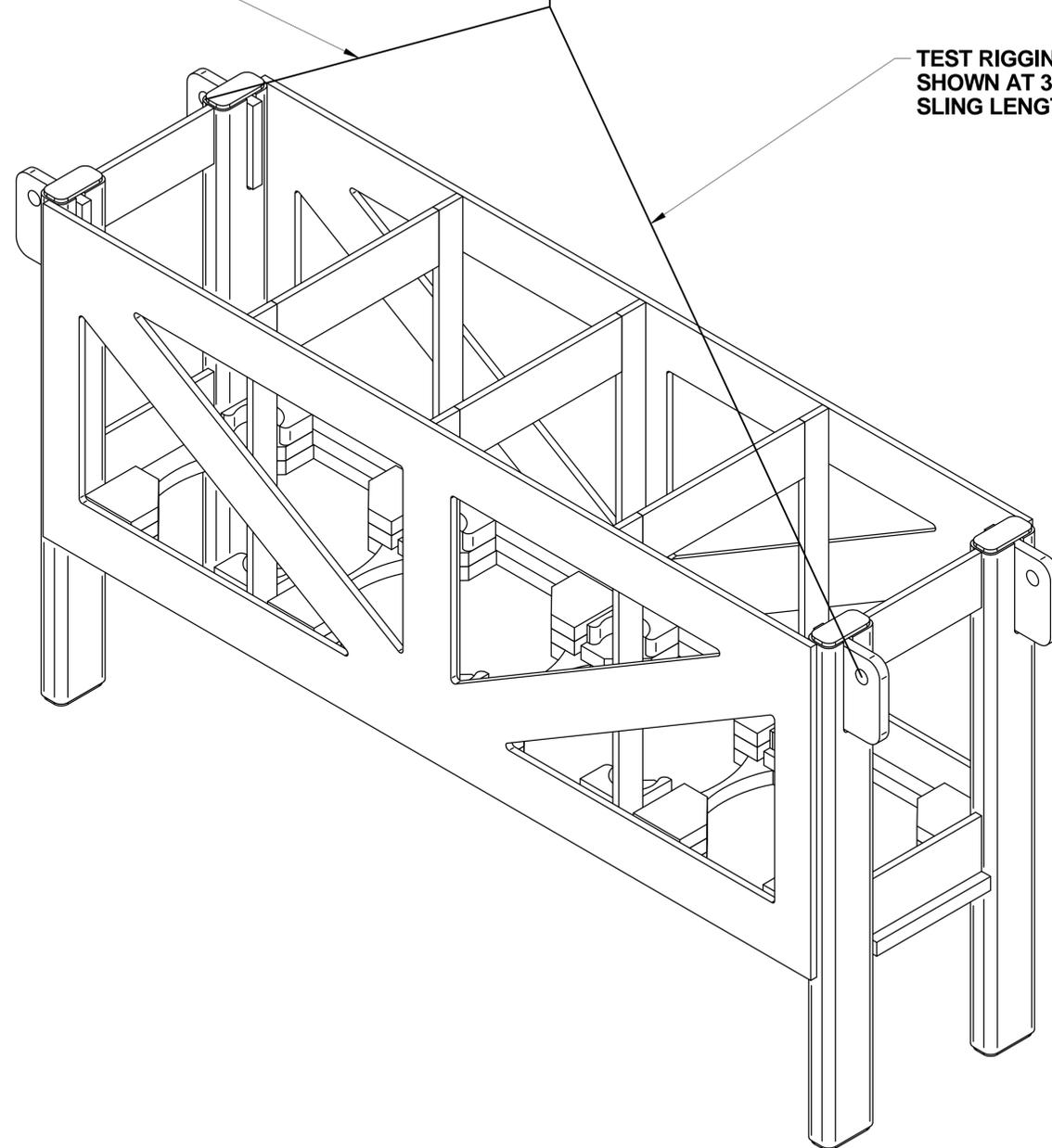
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TEST RIGGING IS ARRANGED AS SHOWN AT 30° ANGLE (APPROX) FROM VERTICAL SLING LENGTH IS 72 INCH (APPROX)

4125 LBF - 4263 LBF
(150% - 155%)
TEST LOAD
(SEE NOTE 7)

TEST RIGGING IS ARRANGED AS SHOWN AT 30° ANGLE (APPROX) FROM VERTICAL SLING LENGTH IS 72 INCH (APPROX)



LOAD TEST DIAGRAM

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<small>TITLE</small> URGA RACK, 4 POSITION			
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