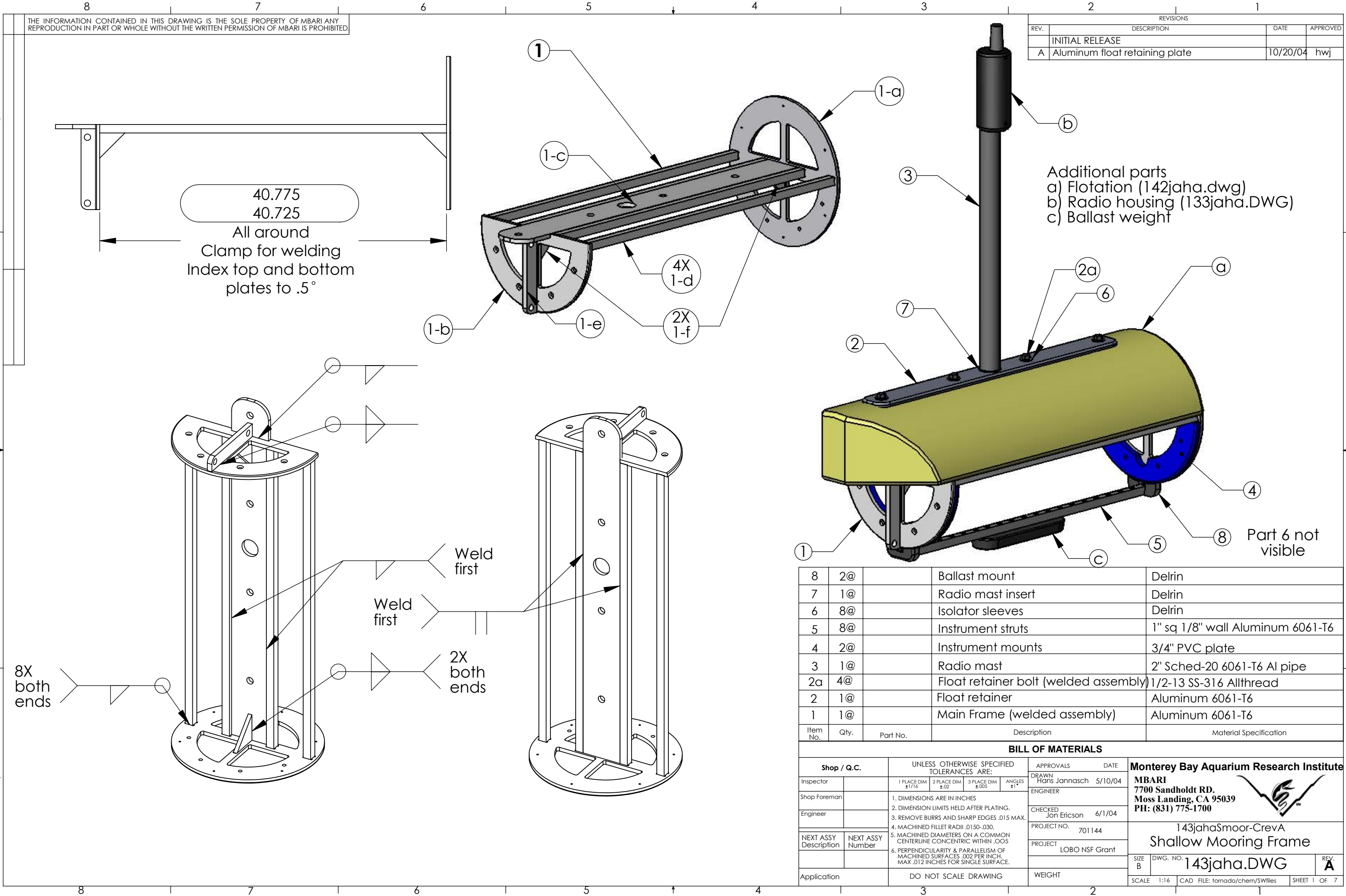
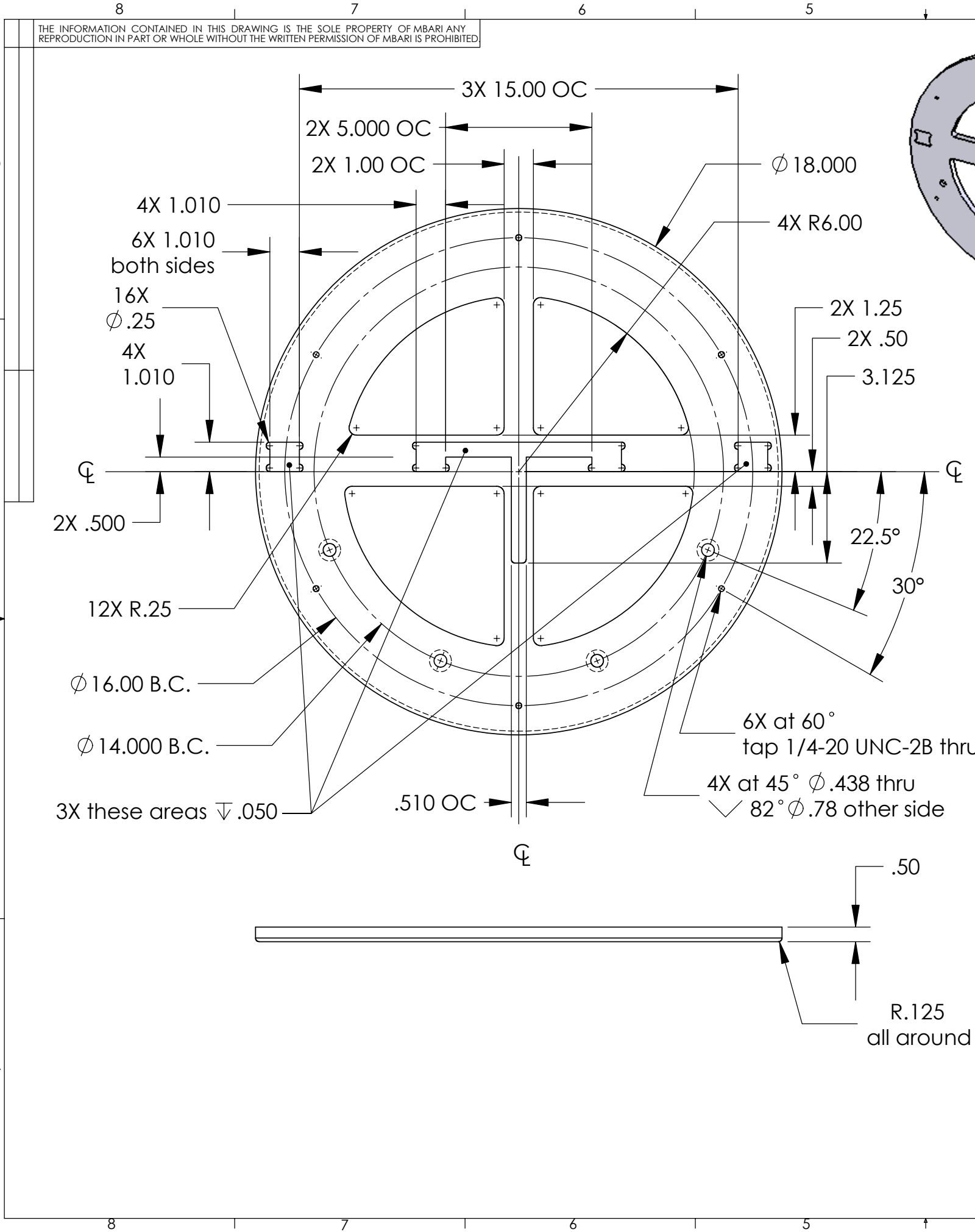






REVISIONS			
REV.	DESCRIPTION	DATE	APPROVED
	INITIAL RELEASE		
A	Aluminum float retaining plate	10/20/04	hwj

DETAIL A
SCALE 1 : 2

5.020
5.000 OC

5X these areas .050

.500

2X 1.000

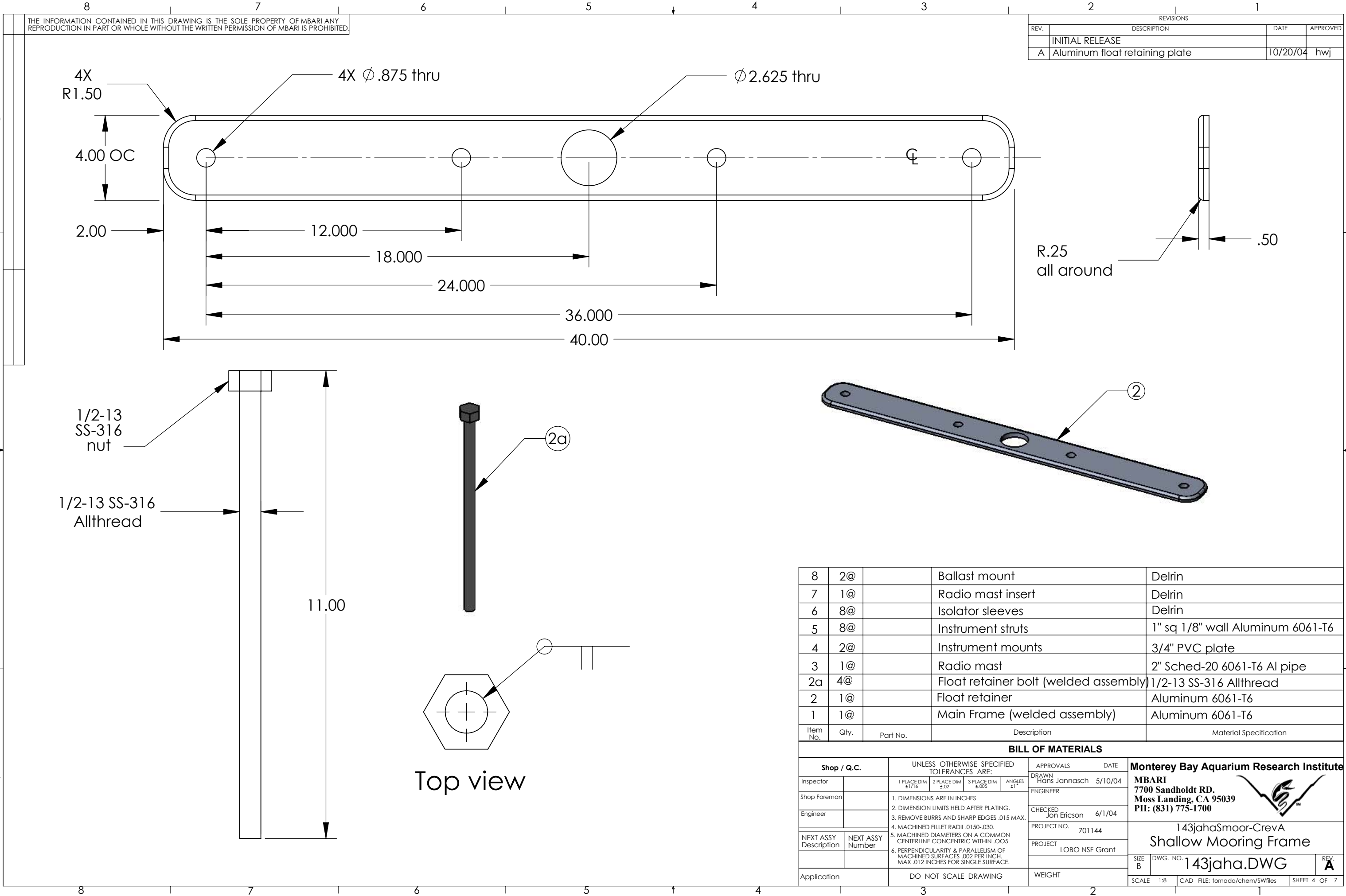
ALL OTHER DIMENSIONS
SAME AS PART 1-a.

Item No.	Qty.	Part No.	Description	Material Specification
8	2@		Ballast mount	Delrin
7	1@		Radio mast insert	Delrin
6	8@		Isolator sleeves	Delrin
5	8@		Instrument struts	1" sq 1/8" wall Aluminum 6061-T6
4	2@		Instrument mounts	3/4" PVC plate
3	1@		Radio mast	2" Sched-20 6061-T6 Al pipe
2a	4@		Float retainer bolt (welded assembly)	1/2-13 SS-316 Allthread
2	1@		Float retainer	Aluminum 6061-T6
1	1@		Main Frame (welded assembly)	Aluminum 6061-T6

BILL OF MATERIALS

Shop / Q.C.		UNLESS OTHERWISE SPECIFIED TOLERANCES ARE:				APPROVALS	DATE	Monterey Bay Aquarium Research Institute	
Inspector		1 PLACE DIM ±1/16	2 PLACE DIM ±.02	3 PLACE DIM ±.005	ANGLES ±1°	DRAWN Hans Jannasch	5/10/04	MBARI 7700 Sandholdt RD. Moss Landing, CA 95039 PH: (831) 775-1700	
Shop Foreman		1. DIMENSIONS ARE IN INCHES 2. DIMENSION LIMITS HELD AFTER PLATING. 3. REMOVE BURRS AND SHARP EDGES .015 MAX. 4. MACHINED FILLET RADII .0150-.030. 5. MACHINED DIAMETERS ON A COMMON CENTERLINE CONCENTRIC WITHIN .005 6. PERPENDICULARITY & PARALLELISM OF MACHINED SURFACES .002 PER INCH, MAX .012 INCHES FOR SINGLE SURFACE.				ENGINEER			
Engineer						CHECKED Jon Ericson	6/1/04		
NEXT ASSY Description	NEXT ASSY Number					PROJECT NO. 701144	PROJECT LOBO NSF Grant		
Application		DO NOT SCALE DRAWING		WEIGHT		SIZE B		DWG. NO. 143jaha.DWG	REV. A

SCALE 1:4 CAD FILE: tornado/chem/SWfiles SHEET 2 OF 7



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REVISIONS			
REV.	DESCRIPTION	DATE	APPROVED
	INITIAL RELEASE		
A	Aluminum float retaining plate	10/20/04	hwj

R.25
all around

Top view

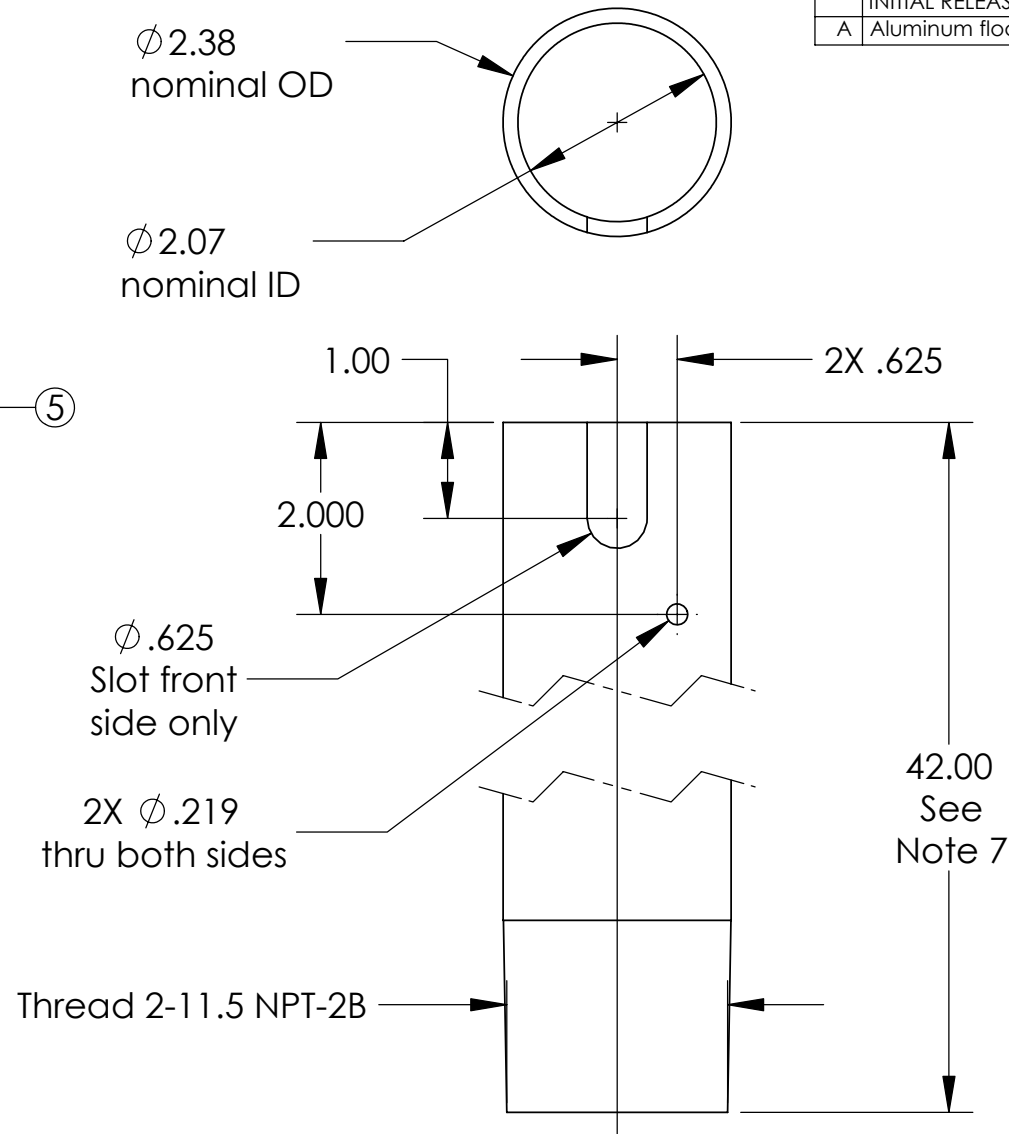
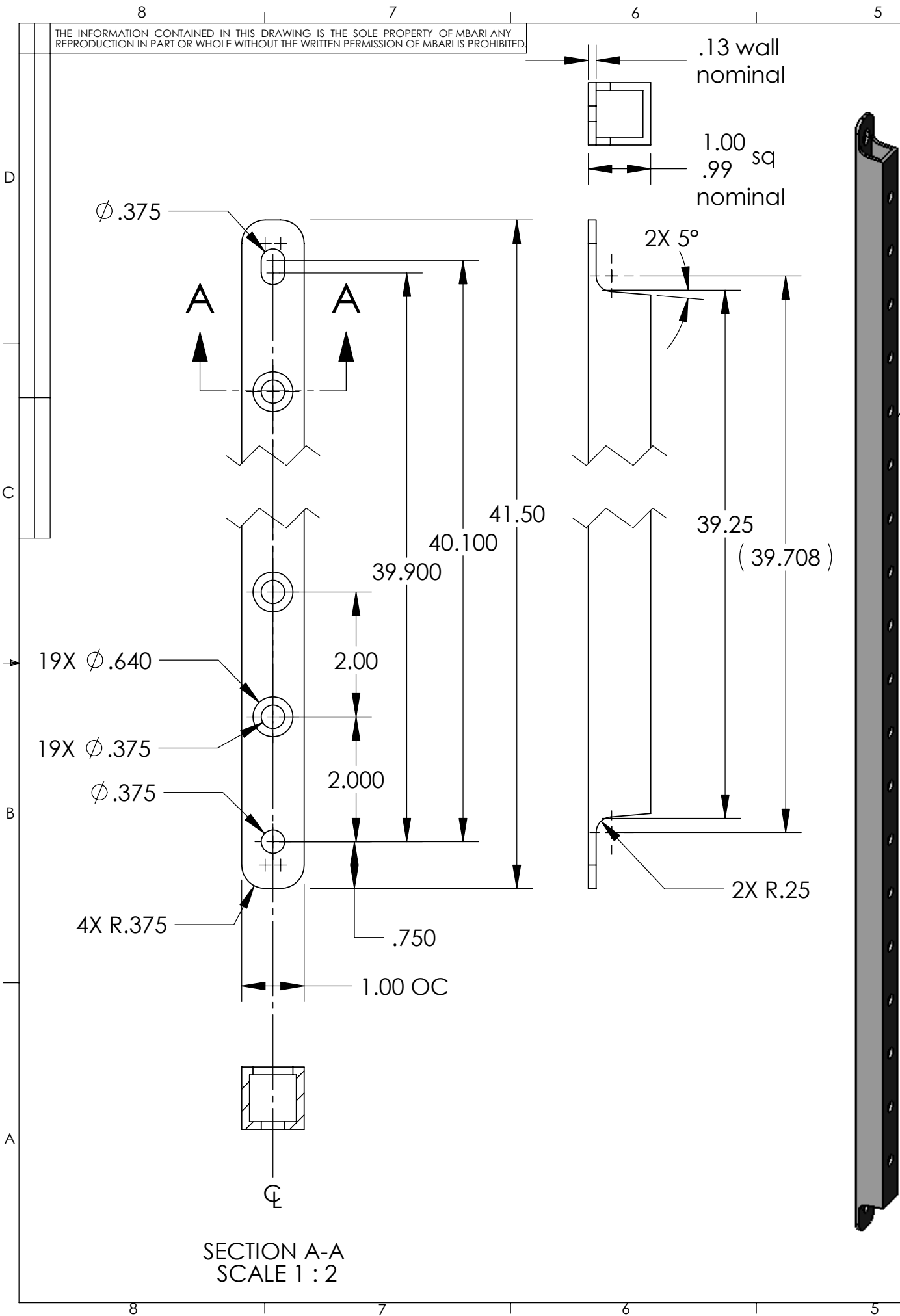
8	2@		Ballast mount	Delrin
7	1@		Radio mast insert	Delrin
6	8@		Isolator sleeves	Delrin
5	8@		Instrument struts	1" sq 1/8" wall Aluminum 6061-T6
4	2@		Instrument mounts	3/4" PVC plate
3	1@		Radio mast	2" Sched-20 6061-T6 Al pipe
2a	4@		Float retainer bolt (welded assembly)	1/2-13 SS-316 Allthread
2	1@		Float retainer	Aluminum 6061-T6
1	1@		Main Frame (welded assembly)	Aluminum 6061-T6
Item No.	Qty.	Part No.	Description	Material Specification
BILL OF MATERIALS				
Shop / Q.C.		UNLESS OTHERWISE SPECIFIED TOLERANCES ARE:		APPROVALS DATE
Inspector		1 PLACE DIM ±1/16	2 PLACE DIM ±.02	DRAWN Hans Jannasch 5/10/04
Shop Foreman		3 PLACE DIM ±.005	ANGLES ±1°	ENGINEER
Engineer		1. DIMENSIONS ARE IN INCHES		CHECKED Jon Ericson 6/1/04
NEXT ASSY Description	NEXT ASSY Number	2. DIMENSION LIMITS HELD AFTER PLATING.		PROJECT NO. 701144
		3. REMOVE BURRS AND SHARP EDGES .015 MAX.		PROJECT LOBO NSF Grant
		4. MACHINED FILLET RADII .0150-.030.		WEIGHT
		5. MACHINED DIAMETERS ON A COMMON CENTERLINE CONCENTRIC WITHIN .005		SCALE 1:8
		6. PERPENDICULARITY & PARALLELISM OF MACHINED SURFACES .002 PER INCH. MAX .012 INCHES FOR SINGLE SURFACE.		CAD FILE: tornado/chem/SWfiles
Application		DO NOT SCALE DRAWING		SHEET 4 OF 7

Monterey Bay Aquarium Research Institute
MBARI
7700 Sandholdt RD.
Moss Landing, CA 95039
PH: (831) 775-1700



143jahaSmoor-CrevA
Shallow Mooring Frame

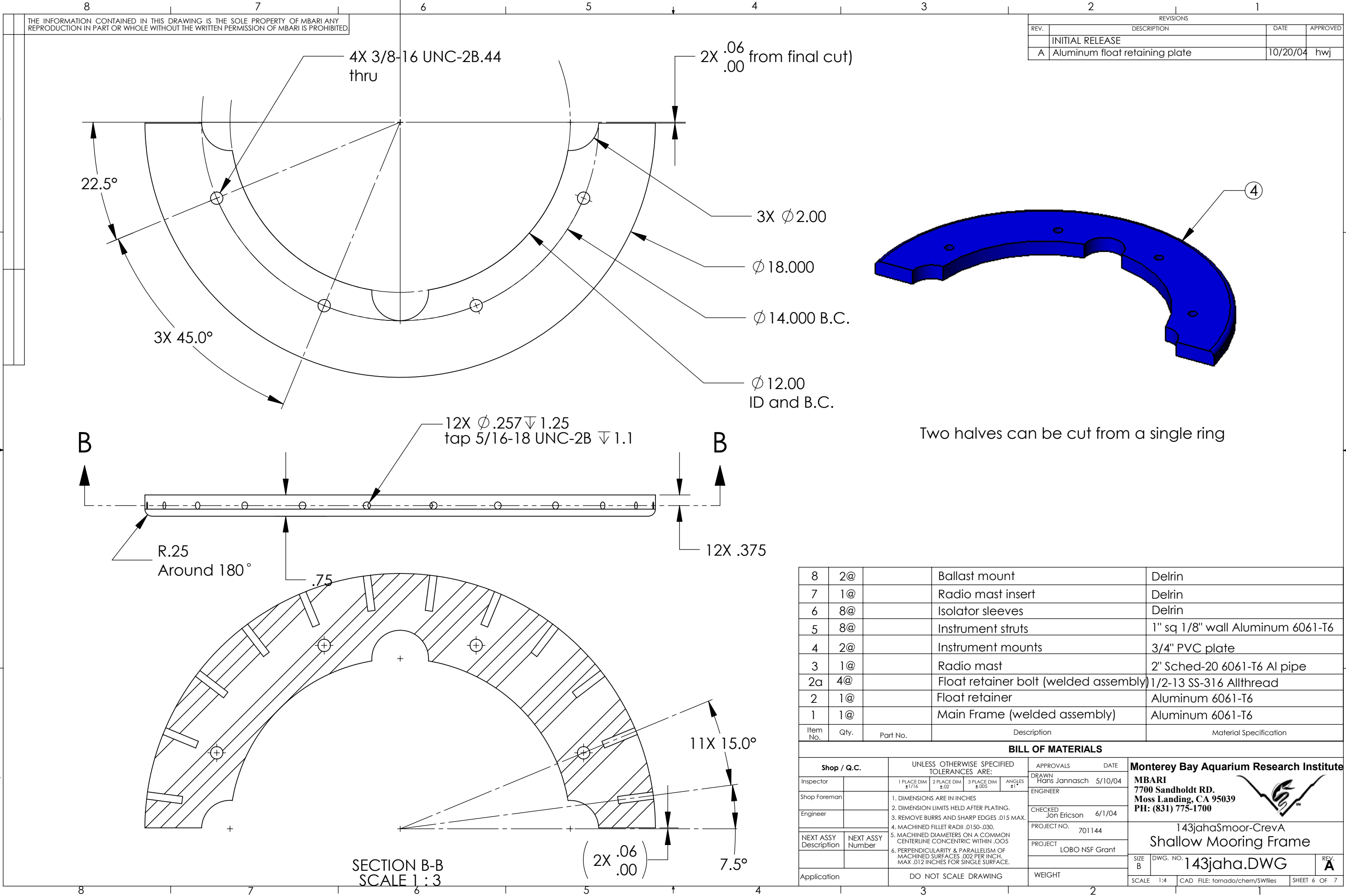
SIZE B
DWG. NO. 143jaha.DWG
REV. A



8	2@		Ballast mount	Delrin
7	1@		Radio mast insert	Delrin
6	8@		Isolator sleeves	Delrin
5	8@		Instrument struts	1" sq 1/8" wall Aluminum 6061-T6
4	2@		Instrument mounts	3/4" PVC plate
3	1@		Radio mast	2" Sched-20 6061-T6 Al pipe
2a	4@		Float retainer bolt (welded assembly)	1/2-13 SS-316 Allthread
2	1@		Float retainer	Aluminum 6061-T6
1	1@		Main Frame (welded assembly)	Aluminum 6061-T6
Item No.	Qty.	Part No.	Description	Material Specification

BILL OF MATERIALS

Shop / Q.C.		UNLESS OTHERWISE SPECIFIED TOLERANCES ARE:				APPROVALS		DATE		Monterey Bay Aquarium Research Institute MBARI 7700 Sandholdt RD. Moss Landing, CA 95039 PH: (831) 775-1700 						
Inspector		1 PLACE DIM ±1/16	2 PLACE DIM ±.02	3 PLACE DIM ±.005	ANGLES ±1°	DRAWN Hans Jannasch	5/10/04	ENGINEER								
Shop Foreman		1. DIMENSIONS ARE IN INCHES 2. DIMENSION LIMITS HELD AFTER PLATING. 3. REMOVE BURRS AND SHARP EDGES .015 MAX. 4. MACHINED FILLET RADII .0150-.030. 5. MACHINED DIAMETERS ON A COMMON CENTERLINE CONCENTRIC WITHIN .005 6. PERPENDICULARITY & PARALLELISM OF MACHINED SURFACES .002 PER INCH, MAX .012 INCHES FOR SINGLE SURFACE.				CHECKED Jon Ericson	6/1/04	PROJECT NO.	701144	143jahaSmoor-CrevA Shallow Mooring Frame						
Engineer						PROJECT	LOBO NSF Grant									
NEXT ASSY Description	NEXT ASSY Number															
Application						DO NOT SCALE DRAWING				WEIGHT		SIZE B		DWG. NO.	143jaha.DWG	REV. A
												SCALE	1:12	CAD FILE:	tornado/chem/SWfiles	SHEET 5 OF 7



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REVISIONS			
REV.	DESCRIPTION	DATE	APPROVED
	INITIAL RELEASE		
A	Aluminum float retaining plate	10/20/04	hwj

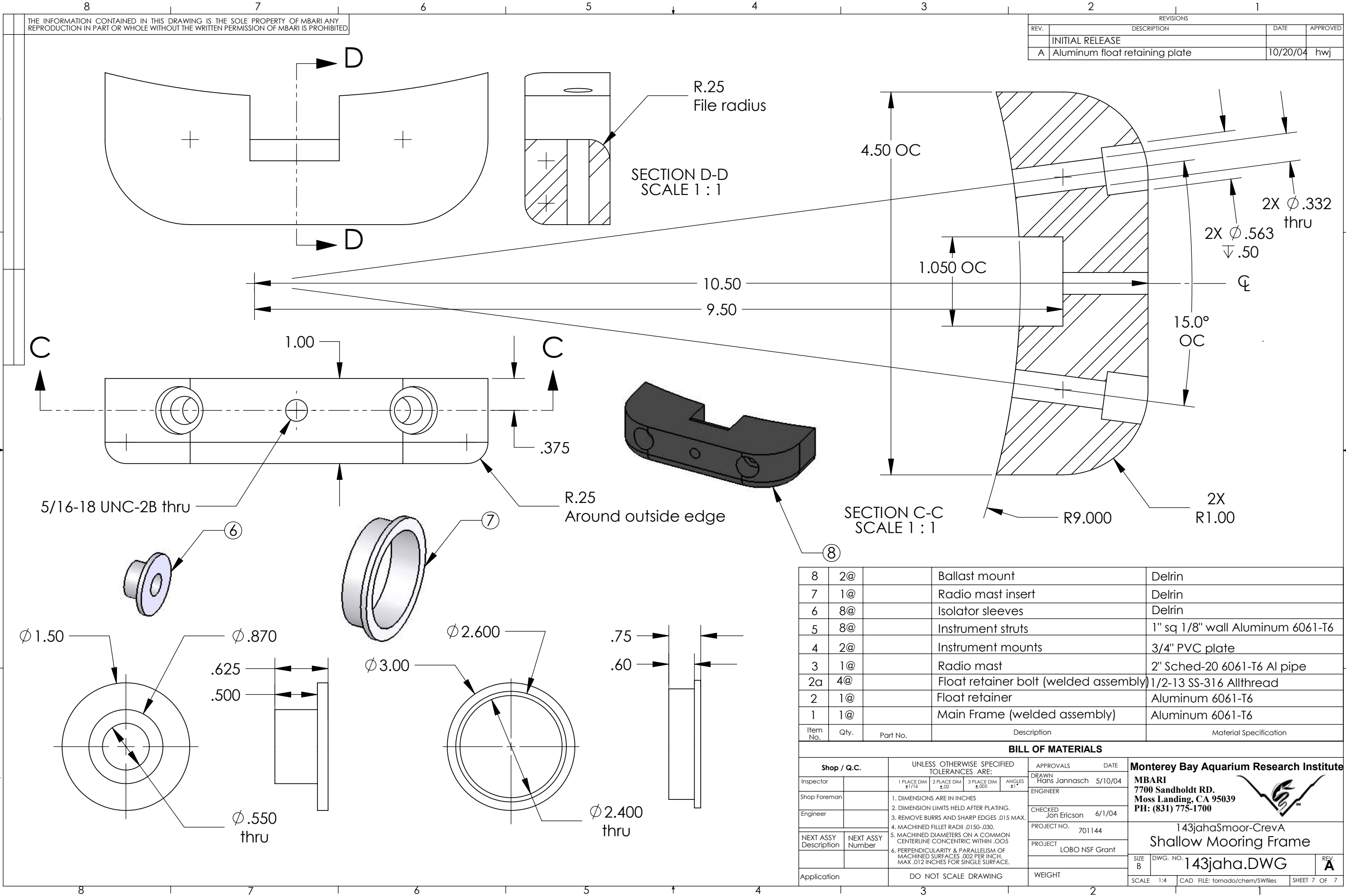
8	2@		Ballast mount	Delrin
7	1@		Radio mast insert	Delrin
6	8@		Isolator sleeves	Delrin
5	8@		Instrument struts	1" sq 1/8" wall Aluminum 6061-T6
4	2@		Instrument mounts	3/4" PVC plate
3	1@		Radio mast	2" Sched-20 6061-T6 Al pipe
2a	4@		Float retainer bolt (welded assembly)	1/2-13 SS-316 Allthread
2	1@		Float retainer	Aluminum 6061-T6
1	1@		Main Frame (welded assembly)	Aluminum 6061-T6
Item No.	Qty.	Part No.	Description	Material Specification

BILL OF MATERIALS				
Shop / Q.C.		UNLESS OTHERWISE SPECIFIED TOLERANCES ARE:		APPROVALS DATE
Inspector		1 PLACE DIM ±1/16	2 PLACE DIM ±.02	DRAWN Hans Jannasch 5/10/04
Shop Foreman		3 PLACE DIM ±.005	ANGLES ±1°	ENGINEER
Engineer		1. DIMENSIONS ARE IN INCHES		CHECKED Jon Ericson 6/1/04
NEXT ASSY Description	NEXT ASSY Number	2. DIMENSION LIMITS HELD AFTER PLATING.		PROJECT NO. 701144
		3. REMOVE BURRS AND SHARP EDGES .015 MAX.		PROJECT LOBO NSF Grant
		4. MACHINED FILLET RADII .0150-.030.		
		5. MACHINED DIAMETERS ON A COMMON CENTERLINE CONCENTRIC WITHIN .005		
		6. PERPENDICULARITY & PARALLELISM OF MACHINED SURFACES .002 PER INCH. MAX .012 INCHES FOR SINGLE SURFACE.		
Application		DO NOT SCALE DRAWING		WEIGHT
				SIZE B
				DWG. NO. 143jaha.DWG
				REV. A
				SCALE 1:4
				CAD FILE: tornado/chem/SWfiles
				SHEET 6 OF 7

Monterey Bay Aquarium Research Institute
MBARI
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Moss Landing, CA 95039
PH: (831) 775-1700



143jahaSmoor-CrevA
Shallow Mooring Frame



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REVISIONS			
REV.	DESCRIPTION	DATE	APPROVED
	INITIAL RELEASE		
A	Aluminum float retaining plate	10/20/04	hwj

8	2@		Ballast mount	Delrin
7	1@		Radio mast insert	Delrin
6	8@		Isolator sleeves	Delrin
5	8@		Instrument struts	1" sq 1/8" wall Aluminum 6061-T6
4	2@		Instrument mounts	3/4" PVC plate
3	1@		Radio mast	2" Sched-20 6061-T6 Al pipe
2a	4@		Float retainer bolt (welded assembly)	1/2-13 SS-316 Allthread
2	1@		Float retainer	Aluminum 6061-T6
1	1@		Main Frame (welded assembly)	Aluminum 6061-T6
Item No.	Qty.	Part No.	Description	Material Specification

BILL OF MATERIALS			
Shop / Q.C.		UNLESS OTHERWISE SPECIFIED TOLERANCES ARE:	APPROVALS DATE
Inspector		1 PLACE DIM ±1/16	DRAWN Hans Jannasch 5/10/04
Shop Foreman		2 PLACE DIM ±.02	ENGINEER
Engineer		3 PLACE DIM ±.005	CHECKED Jon Ericson 6/1/04
NEXT ASSY Description	NEXT ASSY Number	ANGLES ±1°	PROJECT NO. 701144
		1. DIMENSIONS ARE IN INCHES	PROJECT LOBO NSF Grant
		2. DIMENSION LIMITS HELD AFTER PLATING.	
		3. REMOVE BURRS AND SHARP EDGES .015 MAX.	
		4. MACHINED FILLET RADII .0150-.030.	
		5. MACHINED DIAMETERS ON A COMMON CENTERLINE CONCENTRIC WITHIN .005	
		6. PERPENDICULARITY & PARALLELISM OF MACHINED SURFACES .002 PER INCH. MAX .012 INCHES FOR SINGLE SURFACE.	
Application		DO NOT SCALE DRAWING	WEIGHT

Monterey Bay Aquarium Research Institute

MBARI
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143jahaSmoor-CrevA
Shallow Mooring Frame

SIZE B DWG. NO. 143jaha.DWG REV. A