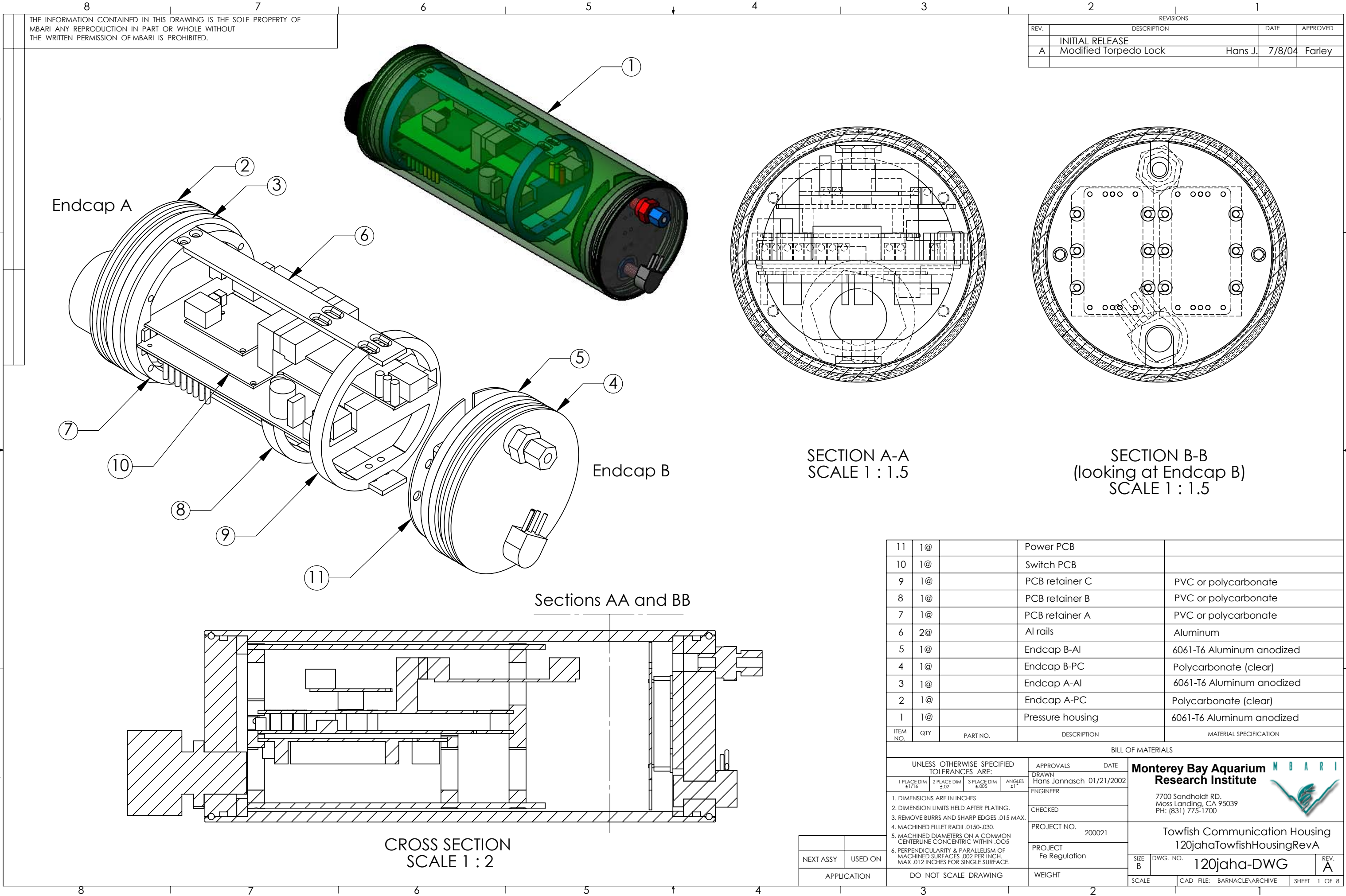




THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF MBARI. ANY REPRODUCTION IN PART OR WHOLE WITHOUT THE WRITTEN PERMISSION OF MBARI IS PROHIBITED.

REVISIONS			
REV.	DESCRIPTION	DATE	APPROVED
A	INITIAL RELEASE Modified Torpedo Lock	Hans J. 7/8/04	Farley

SECTION A-A
SCALE 1 : 1.5

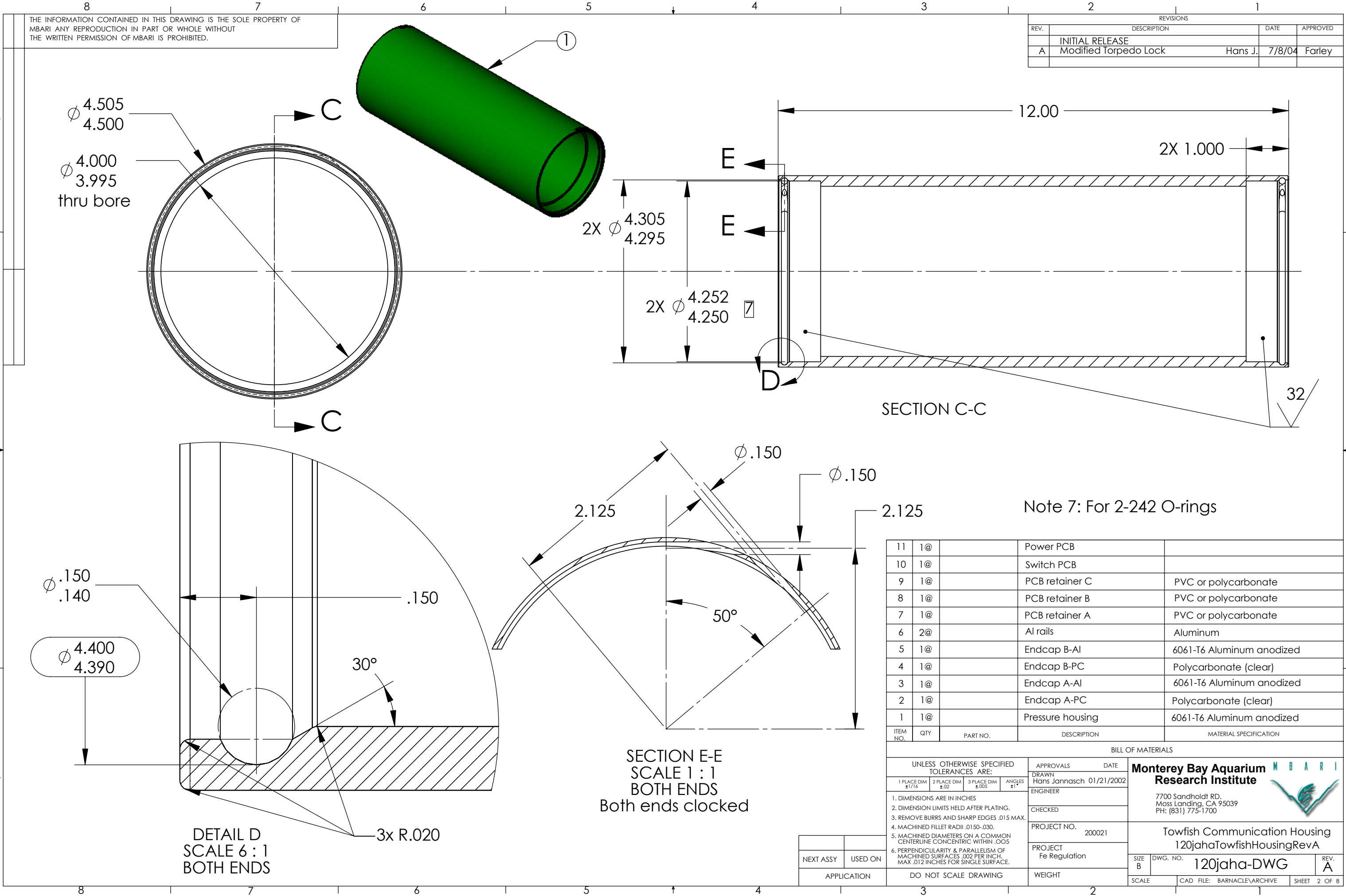
SECTION B-B
(looking at Endcap B)
SCALE 1 : 1.5

Sections AA and BB

CROSS SECTION
SCALE 1 : 2

11	1@		Power PCB	
10	1@		Switch PCB	
9	1@		PCB retainer C	PVC or polycarbonate
8	1@		PCB retainer B	PVC or polycarbonate
7	1@		PCB retainer A	PVC or polycarbonate
6	2@		Al rails	Aluminum
5	1@		Endcap B-Al	6061-T6 Aluminum anodized
4	1@		Endcap B-PC	Polycarbonate (clear)
3	1@		Endcap A-Al	6061-T6 Aluminum anodized
2	1@		Endcap A-PC	Polycarbonate (clear)
1	1@		Pressure housing	6061-T6 Aluminum anodized
ITEM NO.	QTY	PART NO.	DESCRIPTION	MATERIAL SPECIFICATION

UNLESS OTHERWISE SPECIFIED TOLERANCES ARE:				BILL OF MATERIALS			
1 PLACE DIM ±1/16	2 PLACE DIM ±.02	3 PLACE DIM ±.005	ANGLES ±1°	APPROVALS	DATE	Monterey Bay Aquarium Research Institute 7700 Sandholdt RD. Moss Landing, CA 95039 PH: (831) 775-1700	
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.				DRAWN Hans Jannasch	01/21/2002		
				ENGINEER			
				CHECKED		Towfish Communication Housing 120jahaTowfishHousingRevA	
				PROJECT NO.	200021		
				PROJECT	Fe Regulation		
				WEIGHT		SIZE B	DWG. NO. 120jaha-DWG
						SCALE	CAD FILE: BARNACLE\ARCHIVE
							SHEET 1 OF 8



THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF MBARI. ANY REPRODUCTION IN PART OR WHOLE WITHOUT THE WRITTEN PERMISSION OF MBARI IS PROHIBITED.

REVISIONS			
REV.	DESCRIPTION	DATE	APPROVED
A	INITIAL RELEASE Modified Torpedo Lock	Hans J. 7/8/04	Farley

SECTION C-C

SECTION E-E
SCALE 1 : 1
BOTH ENDS
Both ends clocked

DETAIL D
SCALE 6 : 1
BOTH ENDS

Note 7: For 2-242 O-rings

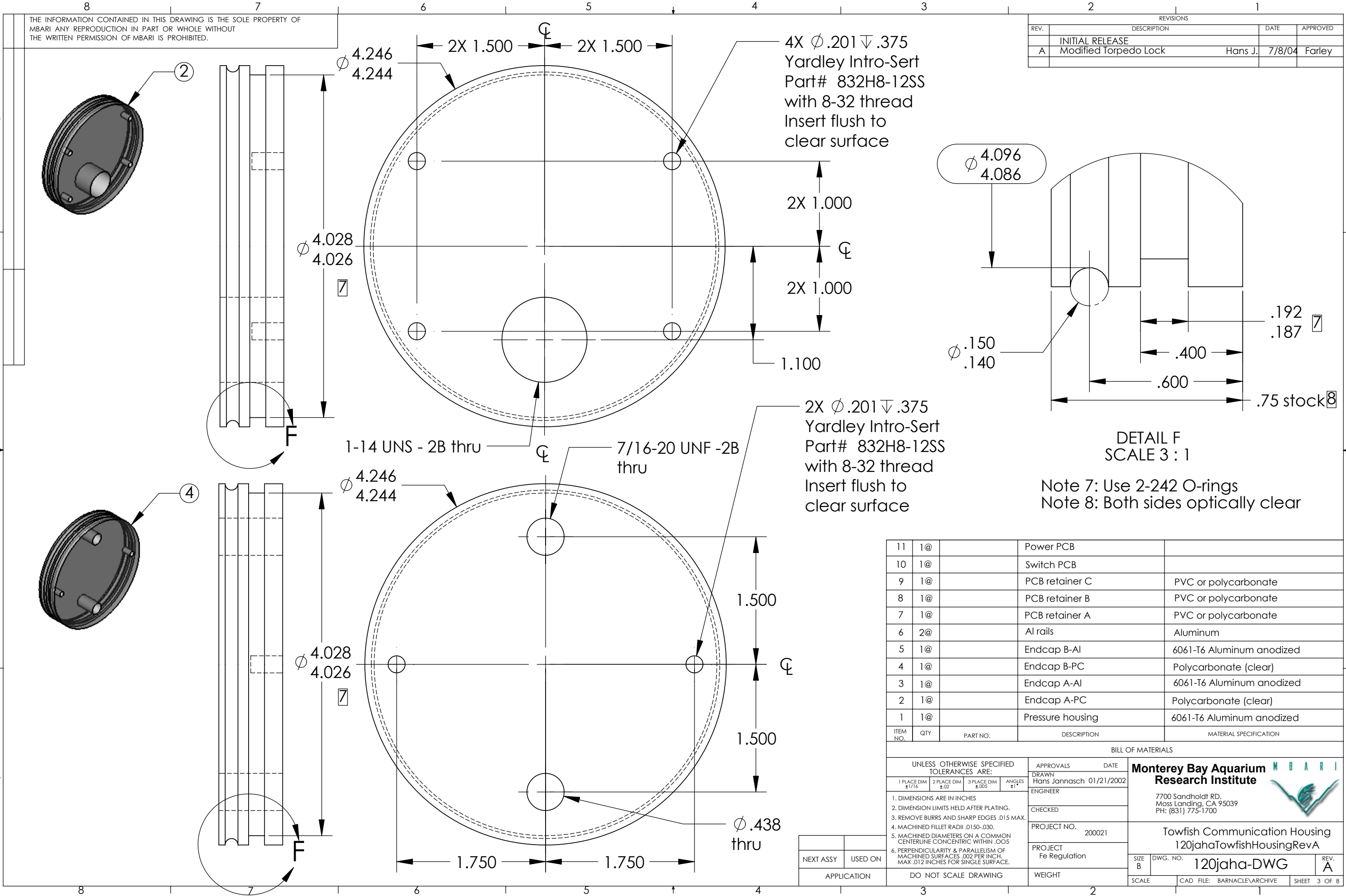
11	1@		Power PCB	
10	1@		Switch PCB	
9	1@		PCB retainer C	PVC or polycarbonate
8	1@		PCB retainer B	PVC or polycarbonate
7	1@		PCB retainer A	PVC or polycarbonate
6	2@		Al rails	Aluminum
5	1@		Endcap B-Al	6061-T6 Aluminum anodized
4	1@		Endcap B-PC	Polycarbonate (clear)
3	1@		Endcap A-Al	6061-T6 Aluminum anodized
2	1@		Endcap A-PC	Polycarbonate (clear)
1	1@		Pressure housing	6061-T6 Aluminum anodized
ITEM NO.	QTY	PART NO.	DESCRIPTION	MATERIAL SPECIFICATION

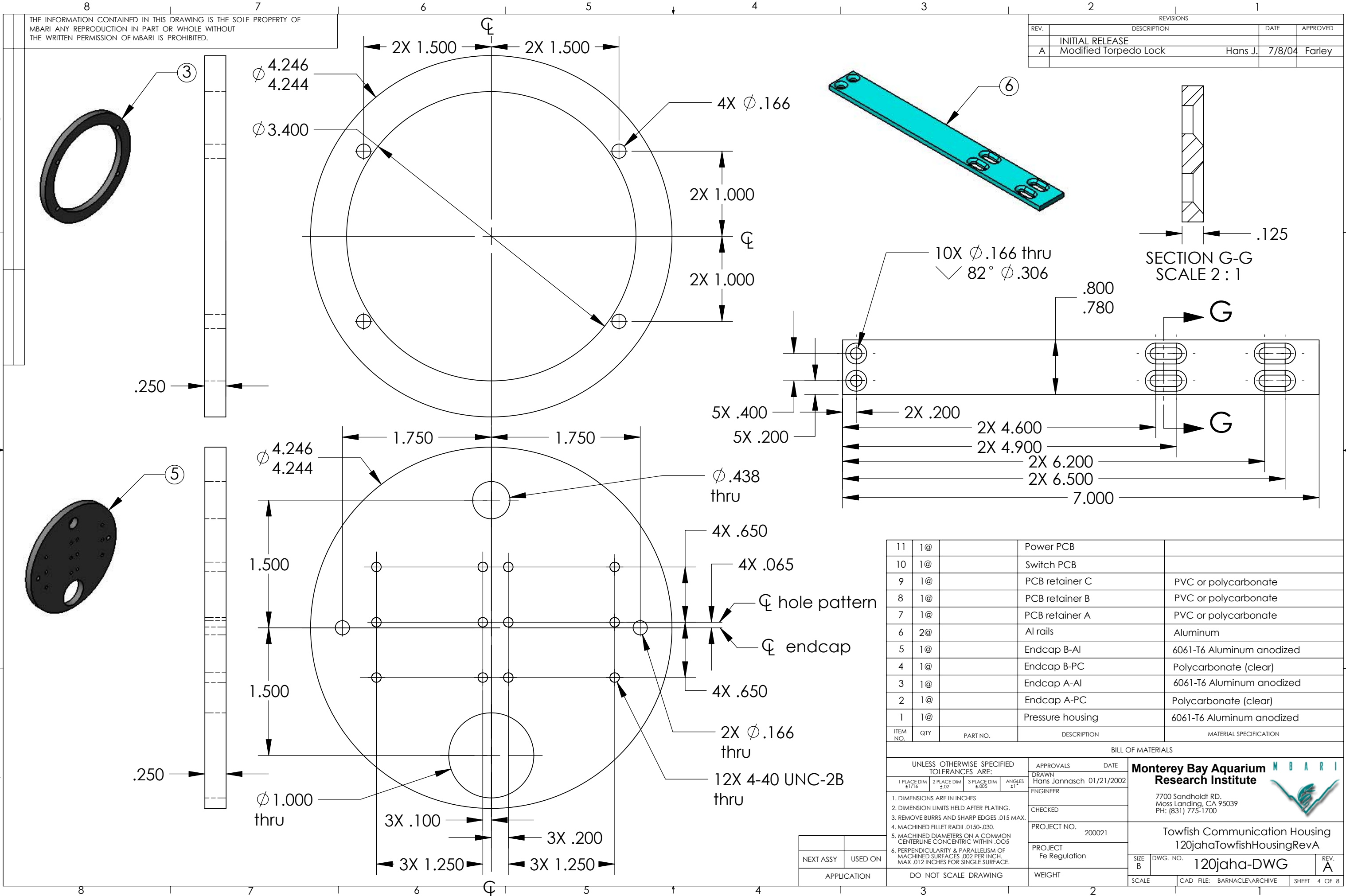
BILL OF MATERIALS				
UNLESS OTHERWISE SPECIFIED TOLERANCES ARE:			APPROVALS	DATE
1 PLACE DIM ±1/16	2 PLACE DIM ±.02	3 PLACE DIM ±.005	DRAWN Hans Jannasch	01/21/2002
1. DIMENSIONS ARE IN INCHES			ENGINEER	
2. DIMENSION LIMITS HELD AFTER PLATING.			CHECKED	
3. REMOVE BURRS AND SHARP EDGES .015 MAX.			PROJECT NO.	200021
4. MACHINED FILLET RADII .0150-.030.			PROJECT	Fe Regulation
5. MACHINED DIAMETERS ON A COMMON CENTERLINE CONCENTRIC WITHIN .005			WEIGHT	
6. PERPENDICULARITY & PARALLELISM OF MACHINED SURFACES .002 PER INCH. MAX .012 INCHES FOR SINGLE SURFACE.			SCALE	
			CAD FILE: BARNACLE\ARCHIVE	SHEET 2 OF 8

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

Towfish Communication Housing
120jahaTowfishHousingRevA

SIZE B DWG. NO. 120jaha-DWG REV. A





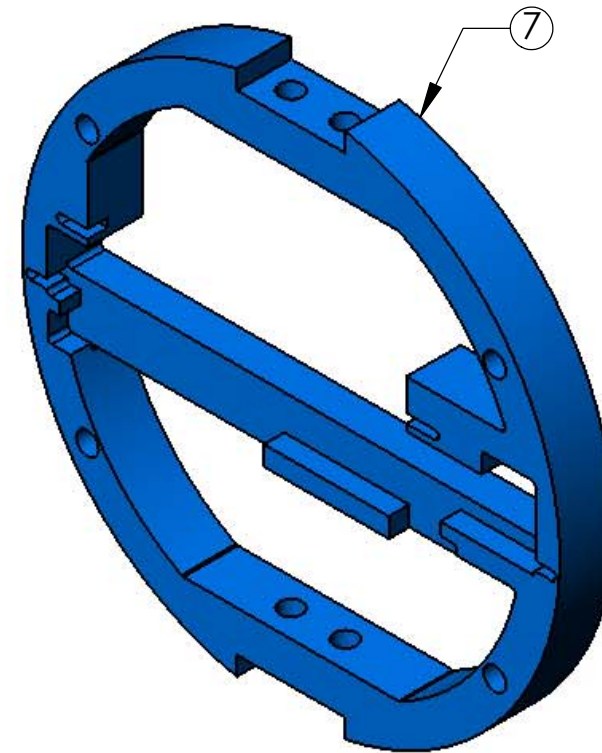
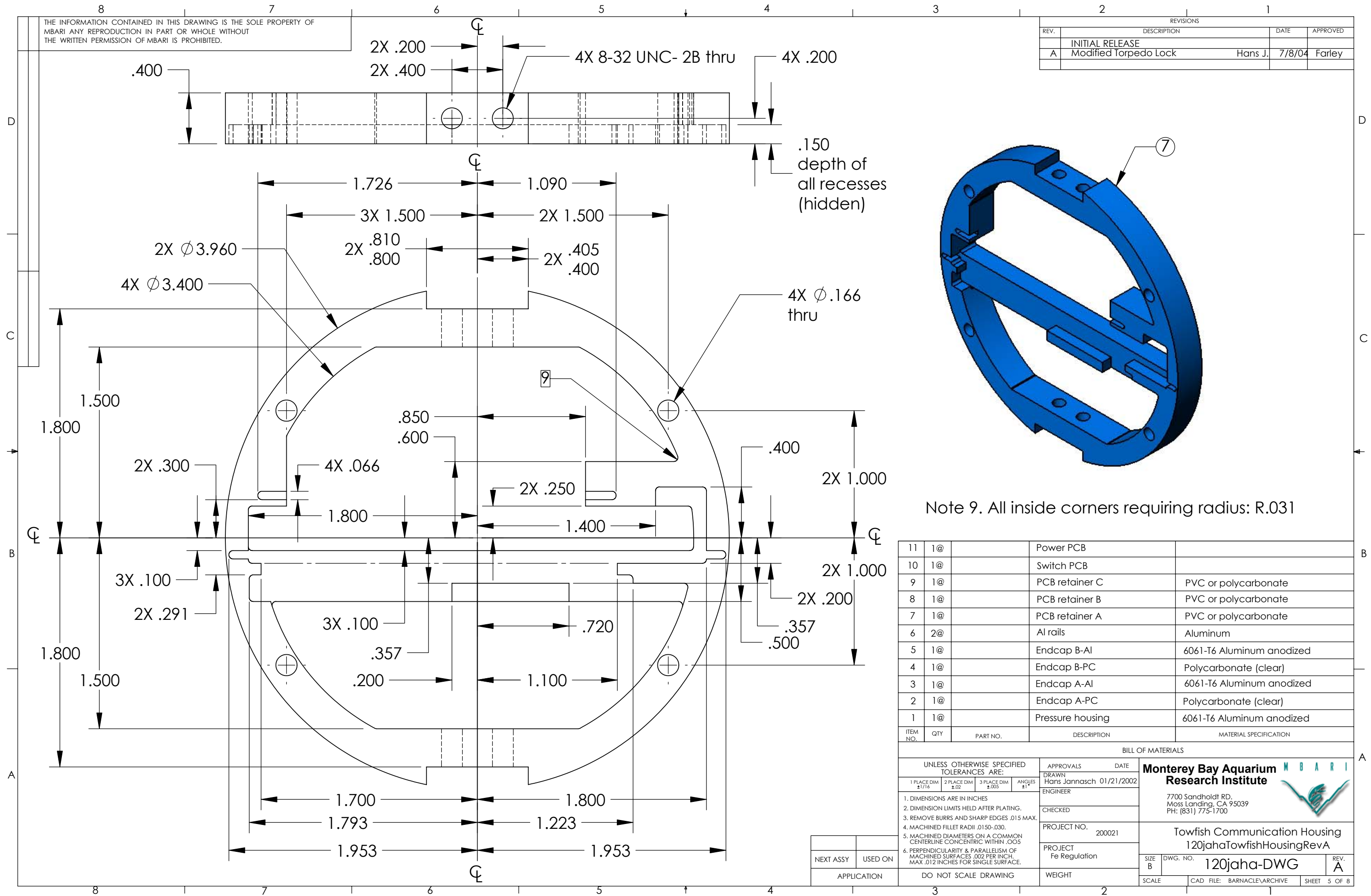
REVISIONS			
REV.	DESCRIPTION	DATE	APPROVED
A	INITIAL RELEASE Modified Torpedo Lock	Hans J. 7/8/04	Farley

11	1@		Power PCB	
10	1@		Switch PCB	
9	1@		PCB retainer C	PVC or polycarbonate
8	1@		PCB retainer B	PVC or polycarbonate
7	1@		PCB retainer A	PVC or polycarbonate
6	2@		Al rails	Aluminum
5	1@		Endcap B-Al	6061-T6 Aluminum anodized
4	1@		Endcap B-PC	Polycarbonate (clear)
3	1@		Endcap A-Al	6061-T6 Aluminum anodized
2	1@		Endcap A-PC	Polycarbonate (clear)
1	1@		Pressure housing	6061-T6 Aluminum anodized
ITEM NO.	QTY	PART NO.	DESCRIPTION	MATERIAL SPECIFICATION

UNLESS OTHERWISE SPECIFIED TOLERANCES ARE:				APPROVALS		DATE	Monterey Bay Aquarium Research Institute	
1 PLACE DIM ±1/16	2 PLACE DIM ±.02	3 PLACE DIM ±.005	ANGLES ±1°	DRAWN Hans Jannasch		01/21/2002	7700 Sandholdt RD. Moss Landing, CA 95039 PH: (831) 775-1700	
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				
				CHECKED			Towfish Communication Housing 120jahaTowfishHousingRevA	
				PROJECT NO. 200021				
				PROJECT Fe Regulation			SIZE B	
				WEIGHT				
				DO NOT SCALE DRAWING			DWG. NO. 120jaha-DWG	
							SCALE	
							CAD FILE: BARNACLE\ARCHIVE	
							SHEET 4 OF 8	

THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF MBARI ANY REPRODUCTION IN PART OR WHOLE WITHOUT THE WRITTEN PERMISSION OF MBARI IS PROHIBITED.

REVISIONS				
REV.	DESCRIPTION		DATE	APPROVED
	INITIAL RELEASE			
A	Modified Torpedo Lock	Hans J.	7/8/04	Farley

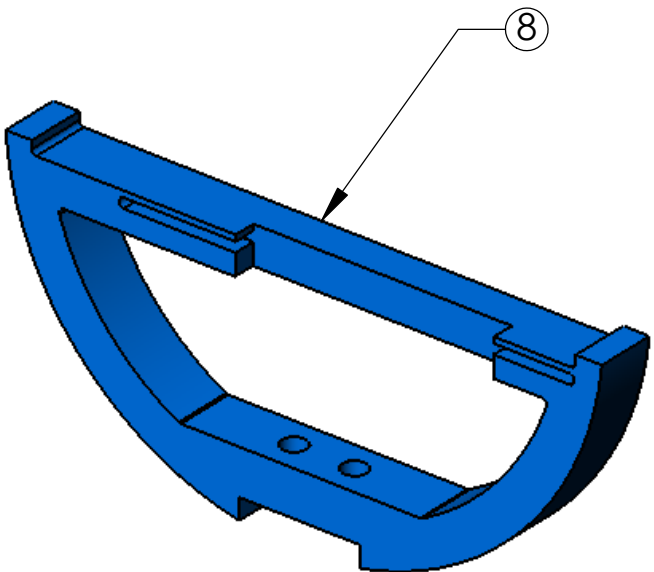


Note 9. All inside corners requiring radius: R.031

11	1@		Power PCB	
10	1@		Switch PCB	
9	1@		PCB retainer C	PVC or polycarbonate
8	1@		PCB retainer B	PVC or polycarbonate
7	1@		PCB retainer A	PVC or polycarbonate
6	2@		Al rails	Aluminum
5	1@		Endcap B-Al	6061-T6 Aluminum anodized
4	1@		Endcap B-PC	Polycarbonate (clear)
3	1@		Endcap A-Al	6061-T6 Aluminum anodized
2	1@		Endcap A-PC	Polycarbonate (clear)
1	1@		Pressure housing	6061-T6 Aluminum anodized
ITEM NO.	QTY	PART NO.	DESCRIPTION	MATERIAL SPECIFICATION

NO.		NO.		BILL OF MATERIALS	
UNLESS OTHERWISE SPECIFIED TOLERANCES ARE:				APPROVALS DATE	
1 PLACE DIM $\pm 1/16$ 2 PLACE DIM $\pm .02$ 3 PLACE DIM $\pm .005$ ANGLES $\pm .1^\circ$				DRAWN Hans Jannasch 01/21/2002 ENGINEER CHECKED PROJECT NO. 200021 PROJECT Fe Regulation	
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.				 7700 Sandholdt RD. Moss Landing, CA 95039 PH: (831) 775-1700 Towfish Communication Housing 120jahaTowfishHousingRevA	
DO NOT SCALE DRAWING				WEIGHT SIZE B DWG. NO. 120jaha-DWG REV. A	
				SCALE CAD FILE: BARNACLE\ARCHIVE SHEET 5 OF 6	

REVISIONS				
REV.	DESCRIPTION		DATE	APPROVED
	INITIAL RELEASE			
A	Modified Torpedo Lock	Hans J.	7/8/04	Farley

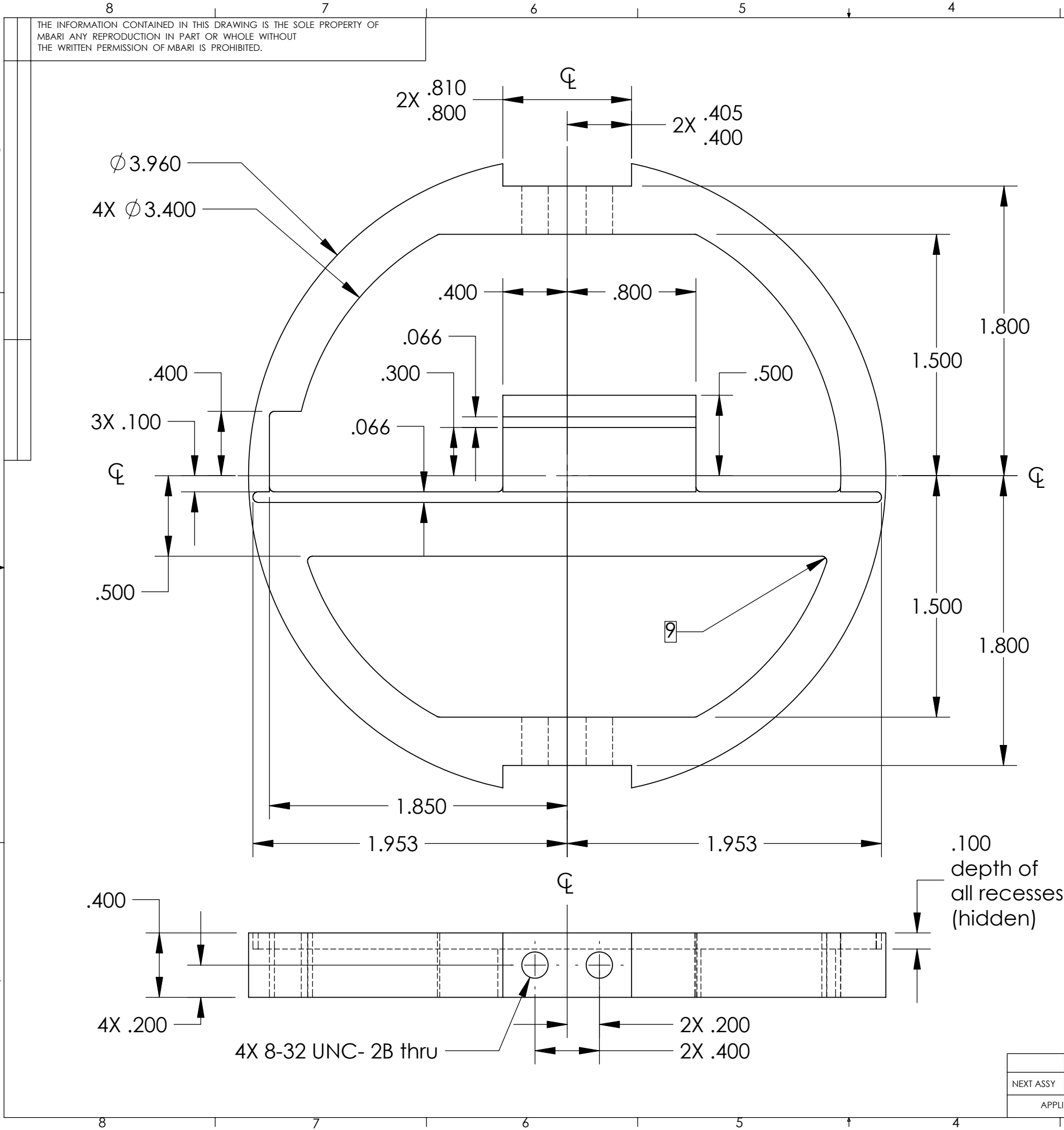


Note 9. All inside corners requiring radius: R.031

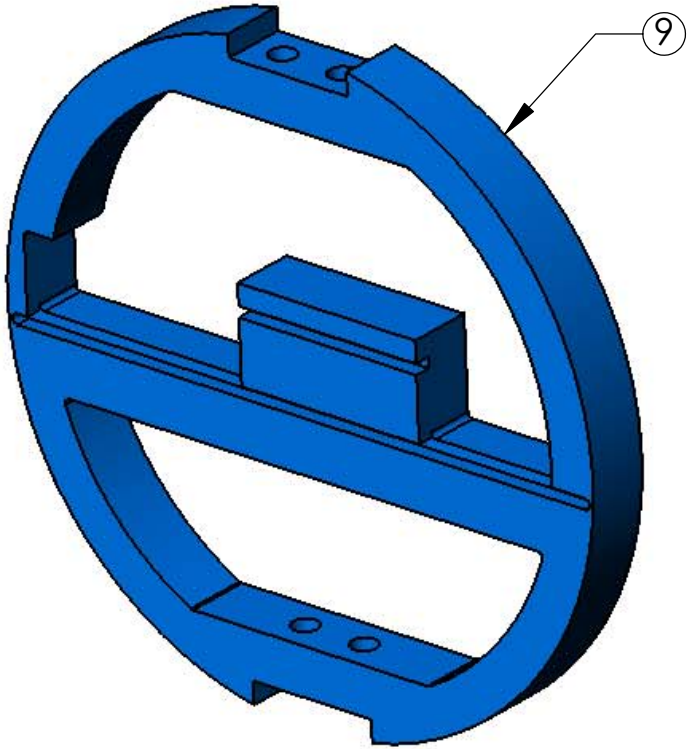
11	1@		Power PCB	
10	1@		Switch PCB	
9	1@		PCB retainer C	PVC or polycarbonate
8	1@		PCB retainer B	PVC or polycarbonate
7	1@		PCB retainer A	PVC or polycarbonate
6	2@		Al rails	Aluminum
5	1@		Endcap B-Al	6061-T6 Aluminum anodized
4	1@		Endcap B-PC	Polycarbonate (clear)
3	1@		Endcap A-Al	6061-T6 Aluminum anodized
2	1@		Endcap A-PC	Polycarbonate (clear)
1	1@		Pressure housing	6061-T6 Aluminum anodized
ITEM NO.	QTY	PART NO.	DESCRIPTION	MATERIAL SPECIFICATION

UNLESS OTHERWISE SPECIFIED TOLERANCES ARE:					APPROVALS		DATE		Monterey Bay Aquarium Research Institute M B A R I  7700 Sandholdt RD. Moss Landing, CA 95039 PH: (831) 775-1700 Towfish Communication Housing 120jahaTowfishHousingRevA				
1 PLACE DIM ±1/16	2 PLACE DIM ±.02	3 PLACE DIM ±.005	ANGLES ±1°	DRAWN Hans Jannasch		01/21/2002							
1. DIMENSIONS ARE IN INCHES 2. DIMENSION LIMITS HELD AFTER PLATING. 3. REMOVE BURRS AND SHARP EDGES .015 MAX. 4. MACHINED FILLED 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									
				CHECKED									
				PROJECT NO.		200021							
				PROJECT		Fe Regulation		SIZE B		DWG. NO. 120jaha-DWG		REV. A	
				DO NOT SCALE DRAWING		WEIGHT		SCALE		CAD FILE: BARNACLE\ARCHIVE		SHEET 6 OF 8	

NEXT ASSY	USED ON
APPLICATION	



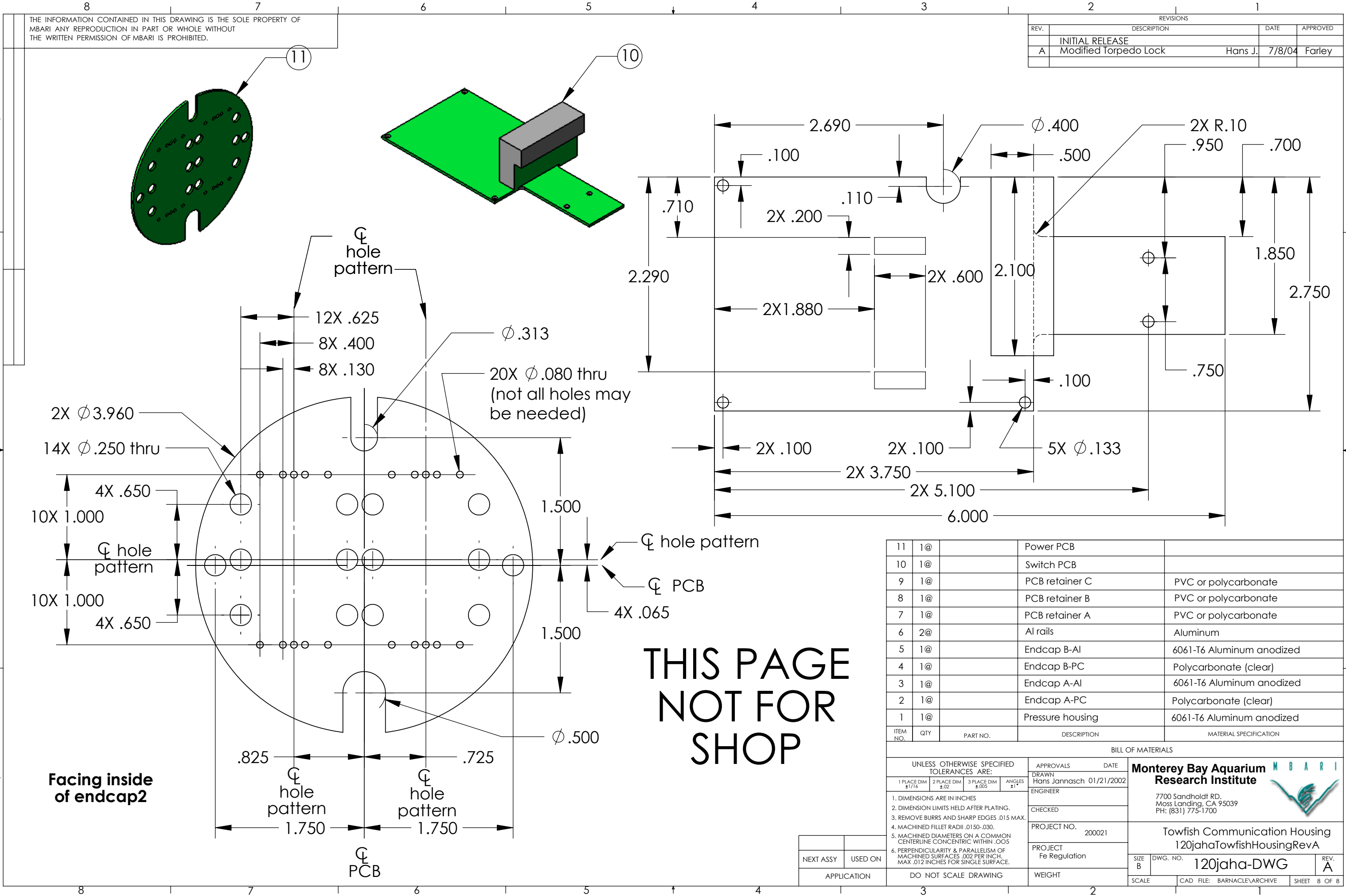
REVISIONS			
REV.	DESCRIPTION	DATE	APPROVED
A	INITIAL RELEASE		
A	Modified Torpedo Lock	Hans J. 7/8/04	Farley



Note 9. All inside corners requiring radius: R.031

11	1@		Power PCB	
10	1@		Switch PCB	
9	1@		PCB retainer C	PVC or polycarbonate
8	1@		PCB retainer B	PVC or polycarbonate
7	1@		PCB retainer A	PVC or polycarbonate
6	2@		Al rails	Aluminum
5	1@		Endcap B-Al	6061-T6 Aluminum anodized
4	1@		Endcap B-PC	Polycarbonate (clear)
3	1@		Endcap A-Al	6061-T6 Aluminum anodized
2	1@		Endcap A-PC	Polycarbonate (clear)
1	1@		Pressure housing	6061-T6 Aluminum anodized
ITEM NO.	QTY	PART NO.	DESCRIPTION	MATERIAL SPECIFICATION

UNLESS OTHERWISE SPECIFIED TOLERANCES ARE:				BILL OF MATERIALS			
1 PLACE DIM $\pm 1/16$	2 PLACE DIM $\pm .02$	3 PLACE DIM $\pm .005$	ANGLES $\pm 1^\circ$	APPROVALS	DATE	Monterey Bay Aquarium Research Institute 7700 Sandholdt RD. Moss Landing, CA 95039 PH: (831) 775-1700	
1. DIMENSIONS ARE IN INCHES				DRAWN	01/21/2002		
2. DIMENSION LIMITS HELD AFTER PLATING.				Hans Jannasch			
3. REMOVE BURRS AND SHARP EDGES .015 MAX.				ENGINEER		Towfish Communication Housing 120jahaTowfishHousingRevA	
4. MACHINED FILLET RADII .0150-.030.				CHECKED			
5. MACHINED DIAMETERS ON A COMMON CENTERLINE CONCENTRIC WITHIN .005				PROJECT NO.	200021		
6. PERPENDICULARITY & PARALLELISM OF MACHINED SURFACES .002 PER INCH. MAX .012 INCHES FOR SINGLE SURFACE.				PROJECT	Fe Regulation	SIZE B	DWG. NO.
				WEIGHT		120jaha-DWG	
						SCALE	REV. A
						CAD FILE: BARNACLE\ARCHIVE	SHEET 7 OF 8



THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF MBARI. ANY REPRODUCTION IN PART OR WHOLE WITHOUT THE WRITTEN PERMISSION OF MBARI IS PROHIBITED.

REVISIONS			
REV.	DESCRIPTION	DATE	APPROVED
A	INITIAL RELEASE Modified Torpedo Lock	Hans J. 7/8/04	Farley

11	1@		Power PCB	
10	1@		Switch PCB	
9	1@		PCB retainer C	PVC or polycarbonate
8	1@		PCB retainer B	PVC or polycarbonate
7	1@		PCB retainer A	PVC or polycarbonate
6	2@		Al rails	Aluminum
5	1@		Endcap B-Al	6061-T6 Aluminum anodized
4	1@		Endcap B-PC	Polycarbonate (clear)
3	1@		Endcap A-Al	6061-T6 Aluminum anodized
2	1@		Endcap A-PC	Polycarbonate (clear)
1	1@		Pressure housing	6061-T6 Aluminum anodized
ITEM NO.	QTY	PART NO.	DESCRIPTION	MATERIAL SPECIFICATION

UNLESS OTHERWISE SPECIFIED TOLERANCES ARE:				APPROVALS		DATE		Monterey Bay Aquarium Research Institute		M B A R I	
1 PLACE DIM ±1/16	2 PLACE DIM ±.02	3 PLACE DIM ±.005	ANGLES ±1°	DRAWN Hans Jannasch		01/21/2002		7700 Sandholdt RD. Moss Landing, CA 95039 PH: (831) 775-1700			
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							
				CHECKED							
				PROJECT NO.		200021					
				PROJECT		Fe Regulation					
DO NOT SCALE DRAWING				WEIGHT				SIZE B	DWG. NO. 120jaha-DWG	REV. A	
								SCALE	CAD FILE: BARNACLE\ARCHIVE	SHEET 8 OF 8	