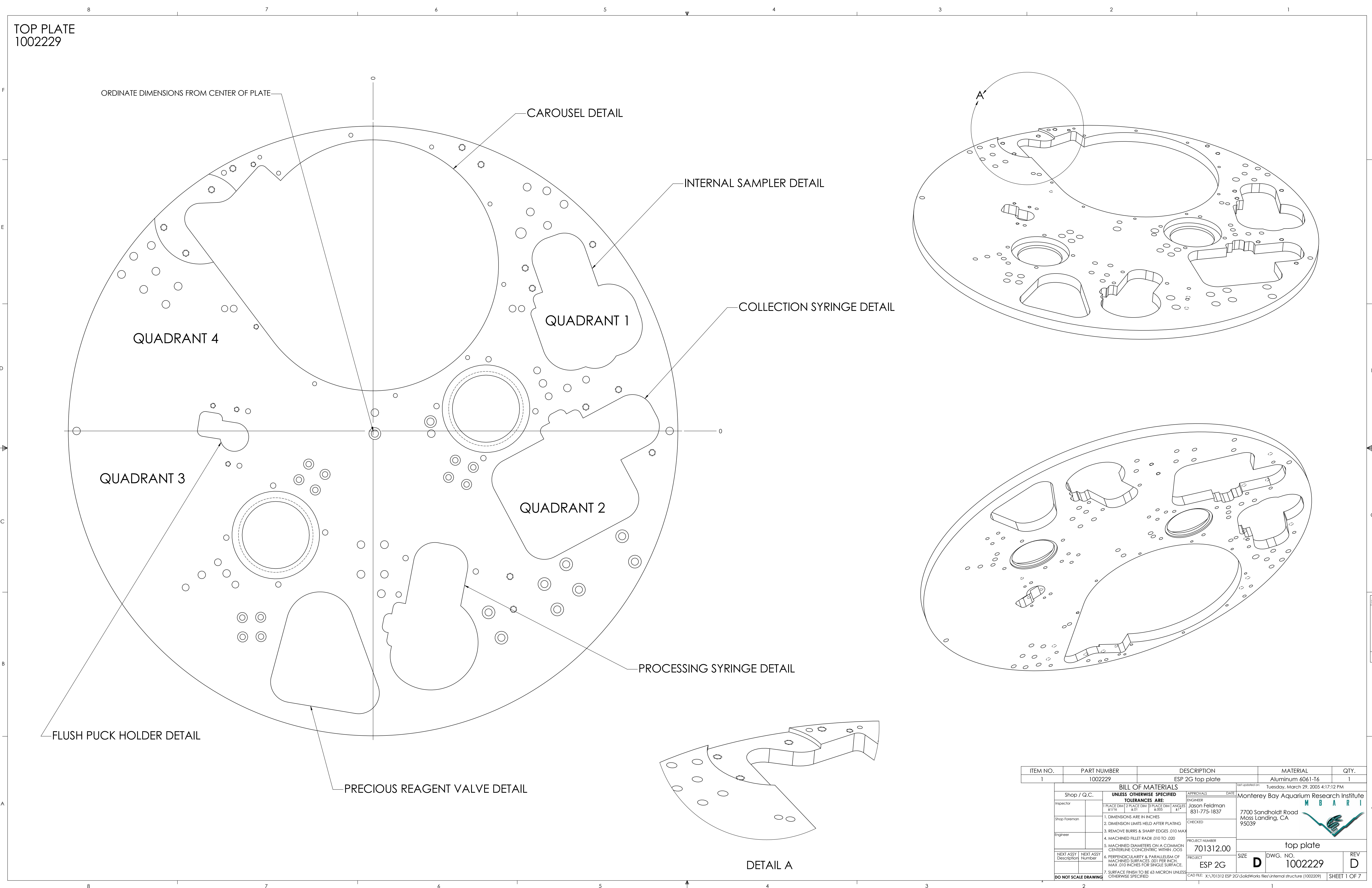




ITEM NO.	PART NUMBER	DESCRIPTION	MATERIAL	QTY.
1	1002229	ESP 2G top plate	Aluminum 6061-T6	1
BILL OF MATERIALS				
Shop / Q.C.		UNLESS OTHERWISE SPECIFIED		APPROVALS
Inspector		TOLERANCES ARE:		DATE
Shop Foreman		1. PLACE DIM ±1/16 2. PLACE DIM ±.01 3. PLACE DIM ±.005 4. ANGLES ±1°		ENGINEER
Engineer		1. DIMENSIONS ARE IN INCHES		Jason Feldman
		2. DIMENSION LIMITS HELD AFTER PLATING		831-775-1837
		3. REMOVE BURRS & SHARP EDGES .010 MAX		CHECKED
		4. MACHINED FILLET RADII .010 TO .020		PROJECT NUMBER
		5. MACHINED DIAMETERS ON A COMMON CENTERLINE CONCENTRIC WITHIN .005		701312.00
NEXT ASSY Description	NEXT ASSY Number	6. PERPENDICULARITY & PARALLELISM OF MACHINED SURFACES .001 PER INCH MAX .010 INCHES FOR SINGLE SURFACE.		PROJECT
		7. SURFACE FINISH TO BE 63 MICRON UNLESS OTHERWISE SPECIFIED		ESP 2G
DO NOT SCALE DRAWING		CAD FILE: X:\701312 ESP 2G\SolidWorks Files\Internal structure (1002209)		SHEET 1 OF 7

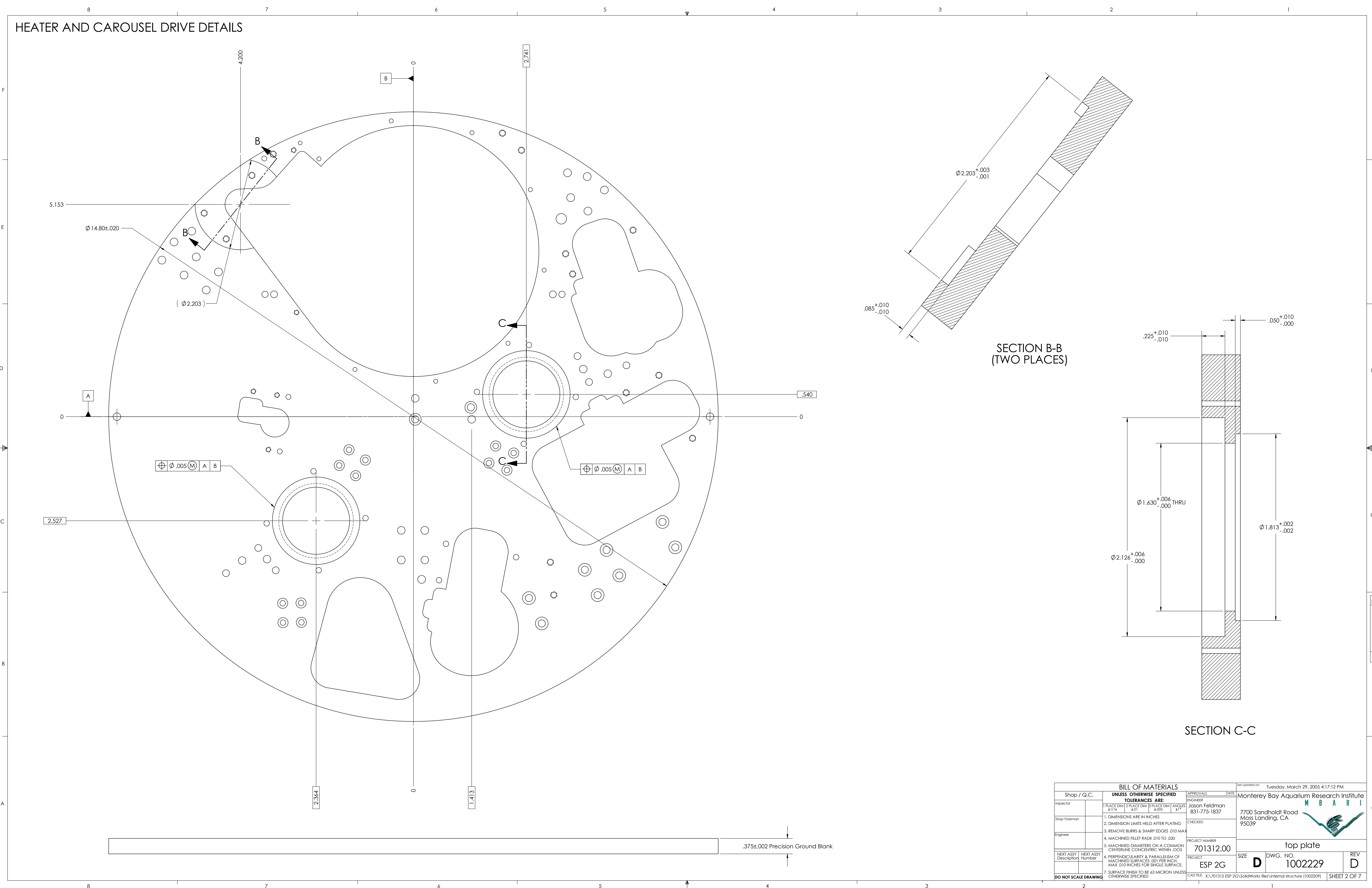
last updated on: Tuesday, March 29, 2005 4:17:12 PM

Monterey Bay Aquarium Research Institute

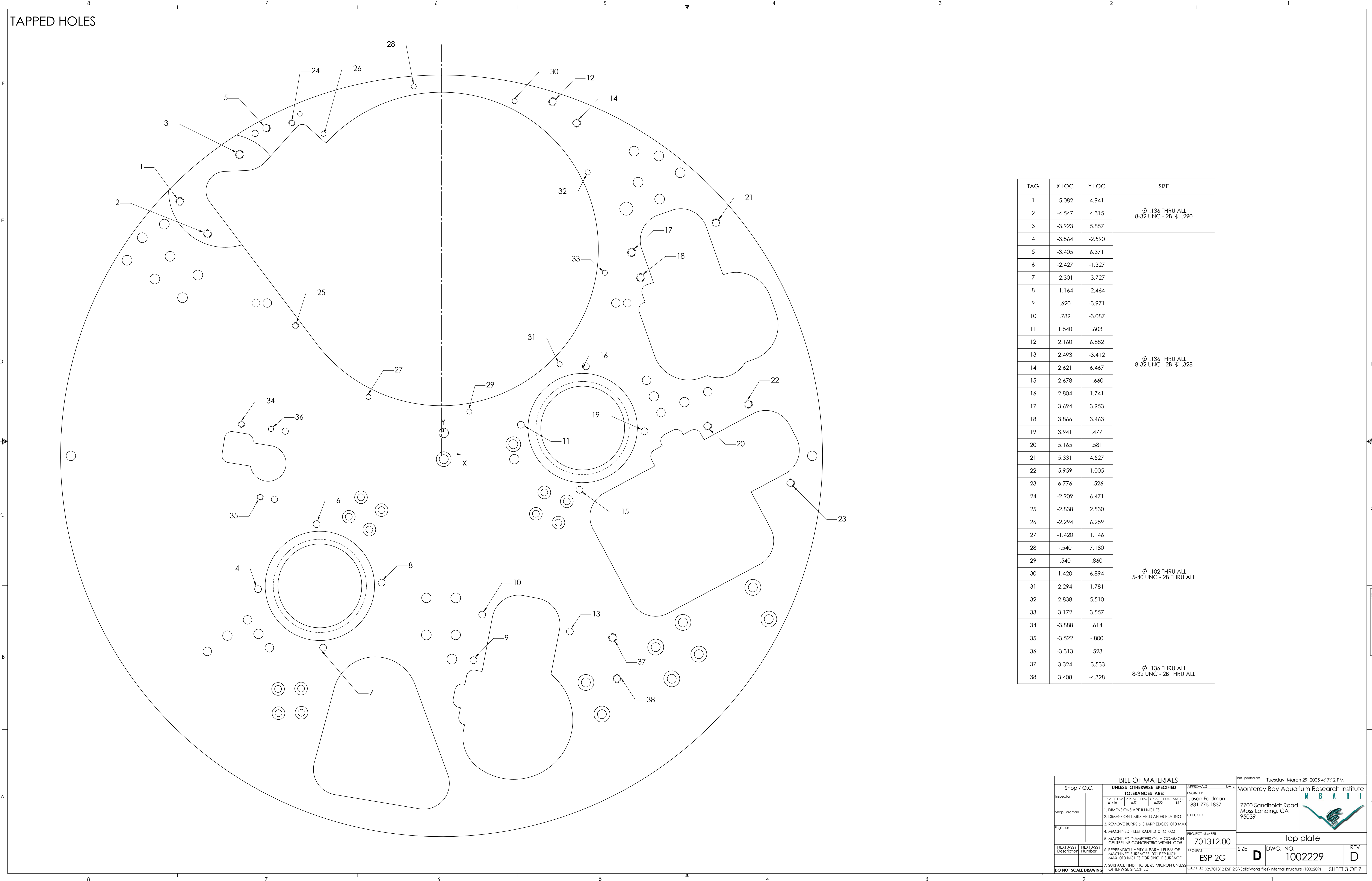
7700 Sandholdt Road
 Moss Landing, CA 95039

top plate

SIZE **D** DWG. NO. 1002229 REV **D**



BILL OF MATERIALS										last updated on: Tuesday, March 29, 2005 4:17:12 PM			
Shop / Q.C.		UNLESS OTHERWISE SPECIFIED TOLERANCES ARE:						APPROVALS		DATE			
Inspector		1 PLACE DIM ±1/16	2 PLACE DIM ±.01	3 PLACE DIM ±.005	ANGLES ±1°	ENGINEER Jason Feldman 831-775-1837						Monterey Bay Aquarium Research Institute	
Shop Foreman		1. DIMENSIONS ARE IN INCHES 2. DIMENSION LIMITS HELD AFTER PLATING 3. REMOVE BURRS & SHARP EDGES .010 MAX 4. MACHINED FILLET RADII .010 TO .020 5. MACHINED DIAMETERS ON A COMMON CENTERLINE CONCENTRIC WITHIN .005						CHECKED		7700 Sandholdt Road Moss Landing, CA 95039			
Engineer		6. PERPENDICULARITY & PARALLELISM OF MACHINED SURFACES .001 PER INCH MAX .010 INCHES FOR SINGLE SURFACE. 7. SURFACE FINISH TO BE 63 MICRON UNLESS OTHERWISE SPECIFIED						PROJECT NUMBER 701312.00		top plate			
NEXT ASSY Description	NEXT ASSY Number	PROJECT ESP 2G						SIZE D		DWG. NO. 1002229		REV D	
DO NOT SCALE DRAWING		CAD FILE: X:\701312 ESP 2G\SolidWorks files\Internal structure (1002209)						SHEET 2 OF 7					



TAG	X LOC	Y LOC	SIZE
1	-5.082	4.941	Ø .136 THRU ALL 8-32 UNC - 2B Ψ .290
2	-4.547	4.315	
3	-3.923	5.857	
4	-3.564	-2.590	Ø .136 THRU ALL 8-32 UNC - 2B Ψ .328
5	-3.405	6.371	
6	-2.427	-1.327	
7	-2.301	-3.727	
8	-1.164	-2.464	
9	.620	-3.971	
10	.789	-3.087	
11	1.540	.603	
12	2.160	6.882	
13	2.493	-3.412	
14	2.621	6.467	
15	2.678	-.660	
16	2.804	1.741	
17	3.694	3.953	
18	3.866	3.463	
19	3.941	.477	
20	5.165	.581	Ø .102 THRU ALL 5-40 UNC - 2B THRU ALL
21	5.331	4.527	
22	5.959	1.005	
23	6.776	-.526	
24	-2.909	6.471	
25	-2.838	2.530	
26	-2.294	6.259	
27	-1.420	1.146	
28	-.540	7.180	
29	.540	.860	
30	1.420	6.894	
31	2.294	1.781	
32	2.838	5.510	Ø .136 THRU ALL 8-32 UNC - 2B THRU ALL
33	3.172	3.557	
34	-3.888	.614	
35	-3.522	-.800	
36	-3.313	.523	
37	3.324	-3.533	
38	3.408	-4.328	

Shop / Q.C.

Inspector

Shop Foreman

Engineer

UNLESS OTHERWISE SPECIFIED

TOLERANCES ARE:

1. PLACE DIM ±1/16

2. PLACE DIM ±.01

3. PLACE DIM ±.005

4. ANGLES ±1°

1. DIMENSIONS ARE IN INCHES

2. DIMENSION LIMITS HELD AFTER PLATING

3. REMOVE BURRS & SHARP EDGES .010 MAX

4. MACHINED FILLET RADII .010 TO .020

5. MACHINED DIAMETERS ON A COMMON CENTERLINE CONCENTRIC WITHIN .005

6. PERPENDICULARITY & PARALLELISM OF MACHINED SURFACES .001 PER INCH MAX .010 INCHES FOR SINGLE SURFACE.

7. SURFACE FINISH TO BE 63 MICRON UNLESS OTHERWISE SPECIFIED

APPROVALS

DATE

ENGINEER

CHECKED

PROJECT NUMBER

PROJECT

last updated on: Tuesday, March 29, 2005 4:17:12 PM

Monterey Bay Aquarium Research Institute

7700 Sandholdt Road
Moss Landing, CA 95039



top plate

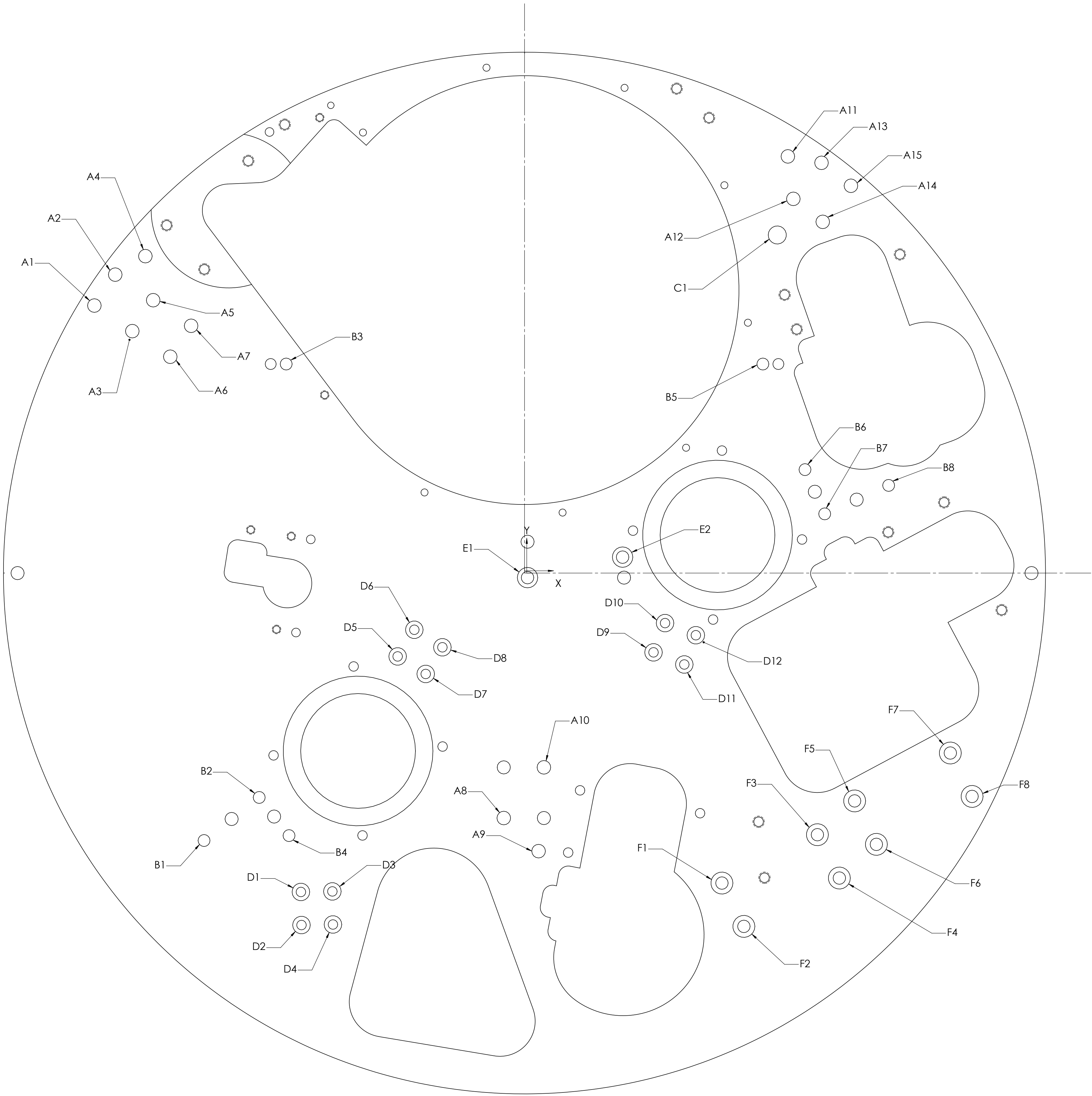
SIZE **D** DWG. NO. 1002229 REV **D**

DO NOT SCALE DRAWING

CAD FILE: X:\701312 ESP 2G\SolidWorks Res\Internal structure (1002209)

SHEET 3 OF 7

CLEARANCE and COUNTERBORE HOLES



TAG	X LOC	Y LOC	SIZE
A1	-6.109	3.801	Ø .194 THRU ALL
A2	-5.813	4.240	
A3	-5.570	3.437	
A4	-5.385	4.503	
A5	-5.274	3.877	
A6	-5.031	3.074	
A7	-4.735	3.513	
A8	-.295	-3.480	
A9	.200	-3.950	
A10	.275	-2.760	
A11	3.740	5.920	
A12	3.818	5.317	
A13	4.218	5.829	
A14	4.235	4.990	
A15	4.635	5.503	
B1	-4.552	-3.799	Ø .170 THRU ALL
B2	-3.768	-3.188	
B3	-3.385	2.970	
B4	-3.345	-3.730	
B5	3.385	2.970	
B6	3.983	1.470	
B7	4.263	.841	
B8	5.171	1.246	
C1	3.589	4.804	Ø .257 THRU ALL
D1	-3.176	-4.530	Ø .136 THRU ALL └┐ Ø .250 ▽ .200
D2	-3.168	-5.000	
D3	-2.729	-4.522	
D4	-2.721	-4.992	
D5	-1.802	-1.184	
D6	-1.565	-.805	
D7	-1.403	-1.433	
D8	-1.167	-1.054	
D9	1.832	-1.126	
D10	1.996	-.710	
D11	2.269	-1.298	
D12	2.433	-.883	
E1	.043	-.064	Ø .178 THRU ALL └┐ Ø .290 ▽ .200
E2	1.393	.227	
F1	2.803	-4.404	Ø .177 THRU ALL └┐ Ø .313 ▽ .230
F2	3.115	-5.019	
F3	4.159	-3.717	
F4	4.471	-4.332	
F5	4.688	-3.237	
F6	4.997	-3.854	
F7	6.047	-2.556	
F8	6.356	-3.173	

Shop / Q.C.

Inspector

Shop Foreman

Engineer

Next Assy Description

Next Assy Number

UNLESS OTHERWISE SPECIFIED TOLERANCES ARE:

1. PLACE DIM ±.01

2. PLACE DIM ±.01

3. PLACE DIM ±.01

4. ANGLES ±1°

1. DIMENSIONS ARE IN INCHES

2. DIMENSION LIMITS HELD AFTER PLATING

3. REMOVE BURRS & SHARP EDGES .010 MAX

4. MACHINED FILLET RADII .010 TO .020

5. MACHINED DIAMETERS ON A COMMON CENTERLINE CONCENTRIC WITHIN .005

6. PERPENDICULARITY & PARALLELISM OF MACHINED SURFACES .001 PER INCH MAX .010 INCHES FOR SINGLE SURFACE.

7. SURFACE FINISH TO BE 63 MICRON UNLESS OTHERWISE SPECIFIED

APPROVALS

DATE

ENGINEER

831-775-1837

CHECKED

PROJECT NUMBER

701312.00

PROJECT

ESP 2G

last updated on:

Tuesday, March 29, 2005 4:17:12 PM

Monterey Bay Aquarium Research Institute

7700 Sandholdt Road
 Moss Landing, CA
 95039

PROJECT NUMBER

701312.00

PROJECT

ESP 2G

top plate

SIZE

D

DWG. NO.

1002229

REV

D

DO NOT SCALE DRAWING

CAD FILE: X:\701312 ESP 2G\SolidWorks Res\Internal structure (1002209)

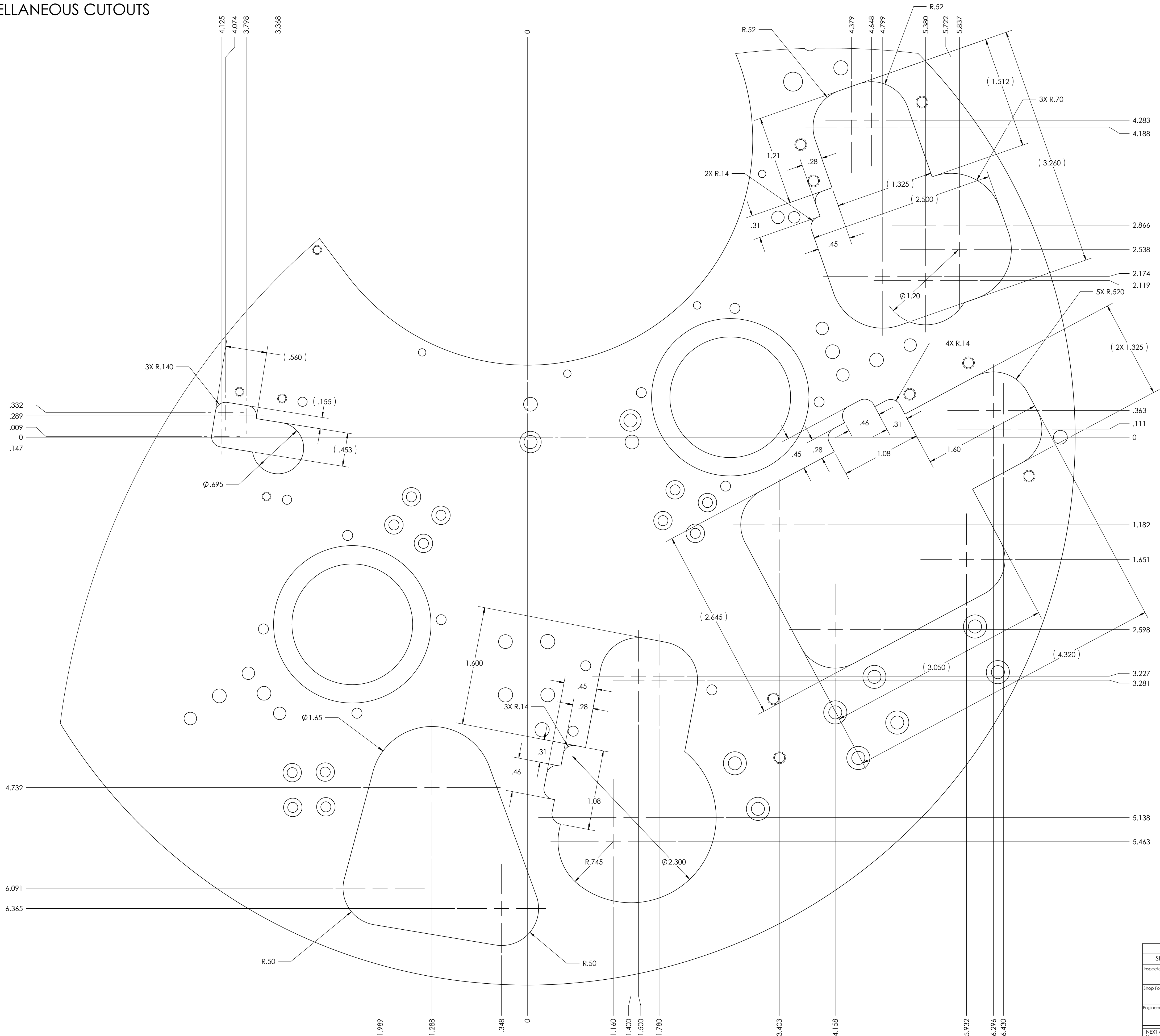
SHEET 4 OF 7



A B C D E F

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SYRINGE AND MISCELLANEOUS CUTOUTS



BILL OF MATERIALS										last updated on: Tuesday, March 29, 2005 4:17:12 PM	
Shop / Q.C.		UNLESS OTHERWISE SPECIFIED TOLERANCES ARE:				APPROVALS		DATE		Monterey Bay Aquarium Research Institute	
Inspector		1. PLACE DIM ±.010		2. PLACE DIM ±.015		3. PLACE DIM ±.005		4. ANGLES ±1°		ENGINEER Jason Feldman 831-775-1837	
Shop Foreman		1. DIMENSIONS ARE IN INCHES				2. DIMENSION LIMITS HELD AFTER PLATING		3. REMOVE BURRS & SHARP EDGES .010 MAX		CHECKED 7700 Sandholdt Road Moss Landing, CA 95039	
Engineer		4. MACHINED FILLET RAD. .010 TO .020				5. MACHINED DIAMETERS ON A COMMON CENTERLINE CONCENTRIC WITHIN .005		PROJECT NUMBER 701312.00		top plate	
NEXT ASSY Description	NEXT ASSY Number	6. PERPENDICULARITY & PARALLELISM OF MACHINED SURFACES .010 PER INCH MAX .010 INCHES FOR SINGLE SURFACE				PROJECT ESP 2G		SIZE D DWG. NO. 1002229		REV D	
DO NOT SCALE DRAWING		7. SURFACE FINISH TO BE #6 MICRON UNLESS OTHERWISE SPECIFIED				CAD FILE: X:\701312 ESP 2G\SolidWorks files\Internal structure (1002209)		SHEET 6 OF 7			

CAROUSEL CUTOUT

The drawing shows a semi-circular plate with a horizontal centerline. Key dimensions include a radius of R.375±.010 for the outer edge, a radius of R.140 for an internal feature, and a radius of R.52 for another internal feature. Angles of 48°, 42°, 37.02°, and 55.52° are specified. A hole is dimensioned as Ø 6.09 THRU. Other dimensions include 4.200, 3.804, .630, 6.066, 5.153, and 4.020. The drawing is labeled 'CAROUSEL CUTOUT' and includes a title block with project information.

Shop / Q.C.				BILL OF MATERIALS				APPROVALS		DATE	
Inspector				UNLESS OTHERWISE SPECIFIED TOLERANCES ARE:				ENGINEER		Jason Feldman 831-775-1837	
Shop Foreman				1. PLACE DIM ±.014	2. PLACE DIM ±.01	3. PLACE DIM ±.003	4. ANGLES ±1°	CHECKED		PROJECT NUMBER 701312.00	
Engineer				1. DIMENSIONS ARE IN INCHES 2. DIMENSION LIMITS HELD AFTER PLATING 3. REMOVE BURRS & SHARP EDGES .010 MAX 4. MACHINED FILLET RADI .010 TO .020 5. MACHINED DIAMETERS ON A COMMON CENTERLINE CONCENTRIC WITHIN .005				PROJECT		ESP 2G	
NEXT ASSY Description		NEXT ASSY Number		6. PERPENDICULARITY & PARALLELISM OF MACHINED SURFACES .001 PER INCH MAX .010 INCHES FOR SINGLE SURFACE. 7. SURFACE FINISH TO BE 63 MICRON UNLESS OTHERWISE SPECIFIED				PROJECT		SIZE D	
DO NOT SCALE DRAWING				CAD FILE: X:\701312 ESP 2G\SolidWorks files\internal structure (1002209)				SHEET 7 OF 7		top plate	

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7700 Sandholdt Road
Moss Landing, CA 95039

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