

## OUTPUT FARADAY ISOLATOR-Drawing Tree

(in RED are for SQUEEZE LIGHT version ONLY)

<b>D0900136</b>	<b>FARADAY ISOLATOR ASSEMBLY-v2</b>	<b>BOM E1000442</b>	<b>(1)</b>
D0900655	STRUCTURAL WELDMENT ASSY, OMC		(1)
D0900048	MAGNET HOLDER ASSEMBLY -v2	<b>BOM E1000470</b>	(1)
D0900026	MAGNET MOUNTING PLATE-v2		(1)
D0901569	MAGNET PLATE MOUNTING FRONT BRACKET-v2		(2)
D0901570	MAGNETIC PLATE MOUNTING BACK BRACKET-v2		(1)
D1002112	MAGNETIC PLATE MOUNTING BACK (LOWERED) BRACKET-v1		(1)
D0900027	COPPER PLATE-v2		(2)
D0900579	BLADE GUARD ASSEMBLY-v2	<b>BOM E1000472</b>	(2)
D0901271	BLADE GUARD CROSSPIECE-v2		(1)
D0900578	BLADE GUARD RISER-v2		(2)
D0900623	FARADAY ISOLATOR TABLE ASSEMBLY-v2		(1)
D0900015	FARADAY ISOLATOR TABLE-v2		(1)
D1001958	WIRE SUPPORT BLOCK ASSEMBLY-v1	<b>BOM E1000473</b>	(4)
D1001960	WIRE SUPPORT BLOCK-v1		(4)
D0900464	ROTATOR 20mm 1064nm-VAC COMPATIBLE		(1)
D0900615	PRISM MOUNT ASSEMBLY RH-v1	<b>BOM E1000474</b>	(1)
D0900620	PRISM MOUNT BASE RH-v1		(1)
D1001859	FIXED STOP RH-v1		(1)
D0900617	OPTICAL PRISM-v1		(2)
D1001863	OPTICAL PRISM SPACER-v1		(1)
D1001864	PRISM BEAM DUMP-v1		(2)
D1001862	PRISM BASE SUPPORT-v1		(2)
D1001860	SPRING BLOCK RH-v1		(1)
D1001861	U-SPRING-v1		(1)

D0900618	OPTICAL PRISM TOP PLATE-v1		(1)
D0900619	SPRING CLIP-v1		(6)
D1001918	INPUT BAFFLE ASSEMBLY-v1	<b>BOM E1000527</b>	(1)
D1001915	INPUT BAFFLE HOLDER-v1		(1)
D1001917	INPUT BAFFLE BASE-v1		(1)
D1001916	INPUT BAFFLE SIDE SUPPORT-v1		(2)
D1001920	INPUT BAFFLE BEAM DUMP-v1		(1)
D1001924	C-MOUNT RETICLE-v1		(1)
D1001919	BEAM DUMP MOUNTING CLAMP-v1		(3)
D0900353	HALF WAVE PLATE HOLDER ASSEMBLY-v1	<b>BOM E1000529</b>	(1)
D0900352	HALF WAVE PLATE HOLDER-v2		(1)
D0900440	TFP POLARIZER PLATE ASSEMBLY-v1	<b>BOM E1000530</b>	(1)
D0900439	TFP POLARIZER PLATE-v2		(1)
D0900441	TFP MIRROR CLIP		(3)
D0900778	MAGNET ATTACHMENT PLATE-v2		(2)
D1001963	OUTPUT ALIGNMENT FIXTURE ASSEMBLY-v1	<b>BOM E1000531</b>	(1)
D1001959	RETICLE HOLDER-v1		(1)
D1001961	OUTPUT ALIGNMENT FIXTURE BASE-v1		(1)
D1001962	OUTPUT ALIGNMENT FIXTURE SUPPORT-v1		(1)
D1001924	C-MOUNT RETICLE-v1		(1)
D0900614	PRISM MOUNT ASSEMBLY LH-v1	<b>BOM E1000528</b>	(1)
D0900616	PRISM MOUNT BASE LH-v1		(1)
D1001862	PRISM BASE SUPPORT-v1		(2)
D1001870	FIXED STOP LH-v1		(1)
D0900617	OPTICAL PRISM-v1		(2)
D1001863	OPTICAL PRISM SPACER-v1		(1)
D1001871	SPRING BLOCK LH-v1		(1)
D1001861	U-SPRING-v1		(1)

D0900619	SPRING CLIP-v1		(6)
D1001864	PRISM BEAM DUMP-v1		(2)
D0900618	OPTICAL PRISM TOP PLATE-v1		(1)
D1002364	FARADAY ISOLATOR BEAM DUMP ASSEMBLY-v1	<b>BOM E1000534</b>	(2)
D1002362	FARADAY ISOLATOR BEAM DUMP MOUNT-v1		(1)
D1002363	FARADAY ISOLATOR BEAM DUMP-v1		(1)
D0900619	SPRING CLIP-v1		(2)
D1002533	OUTPUT FARADAY ISOLATOR DUMMY WEIGHT-v1		(1)
D1002540	OUTPUT FARADAY ISOLATOR DUMMY WEIGHT (ROTATE)-v1		(1)
D0901764	TABLE BALANCE WEIGHT-v1		(2)
D1002542	TABLE BALANCE WEIGHT, .75#-v1		(4)
<b>D1001965</b>	<b>TFP POLARIZER PLATE ASSEMBLY-V1</b>	<b>BOM E1000532</b>	<b>(1)</b>
<b>D1001966</b>	<b>TFP POLARIZER MOUNTING PLATE-v1</b>		<b>(1)</b>
<b>D0900441</b>	<b>TFP MIRROR CLIP</b>		<b>(3)</b>
<b>D1001967</b>	<b>IXM200 C2 MIRROR ASSEMBLY-v1</b>	<b>BOM E1000533</b>	<b>(1)</b>
<b>D1001968</b>	<b>IXM200 C2 MIRROR MOUNT-v1</b>		<b>(1)</b>
D1002520	TABLE BALANCE WEIGHT, Add on-v1		(2)
D0902845	REFLECTION BAFFLE-v2		(1)
D1002256	EARTHQUAKE CROSSBAR IN ASSEMBLY-v1	<b>BOM E1000535</b>	(1)
D1002257	CROSSBAR PLATE IN-v1		(1)
D0900169	CROSS SIDE-v2-v2		(2)
D0900170	EARTHQUAKE CROSSBAR ASSEMBLY-v2	<b>BOM E1000536</b>	(1)
D0900168	CROSS PLATE-v2		(1)
D0900169	CROSS SIDE-v2		(2)
D0901514	BLADE CLAMP PLATFORM-v1		(2)
D0900586	UPPER WIRE ASSEMBLY-v2	<b>BOM E1000537</b>	(2)
D0900541	F1 UPPER BLADE-v2		(1)
D1002168	MUSIC WIRE SPLIT CLAMP 3-v1		(1)

D1002169	MUSIC WIRE SPLIT CLAMP 4-v1	(1)
D1002170	LOWER MUSIC WIRE 2-v1	(1)
D0900582	MUSIC WIRE SPLIT CLAMP 1-v2	(2)
D0900583	MUSIC WIRE SPLIT CLAMP 2-v2	(2)
D0900588	WIRE ADJUSTABLE ADAPTER-v2	(2)
D0900566	UP BLADE CLAMP TOP-v2	(2)

## D1002598

### OUTPUT FARADAY ISOLATOR-Parts & Quantities

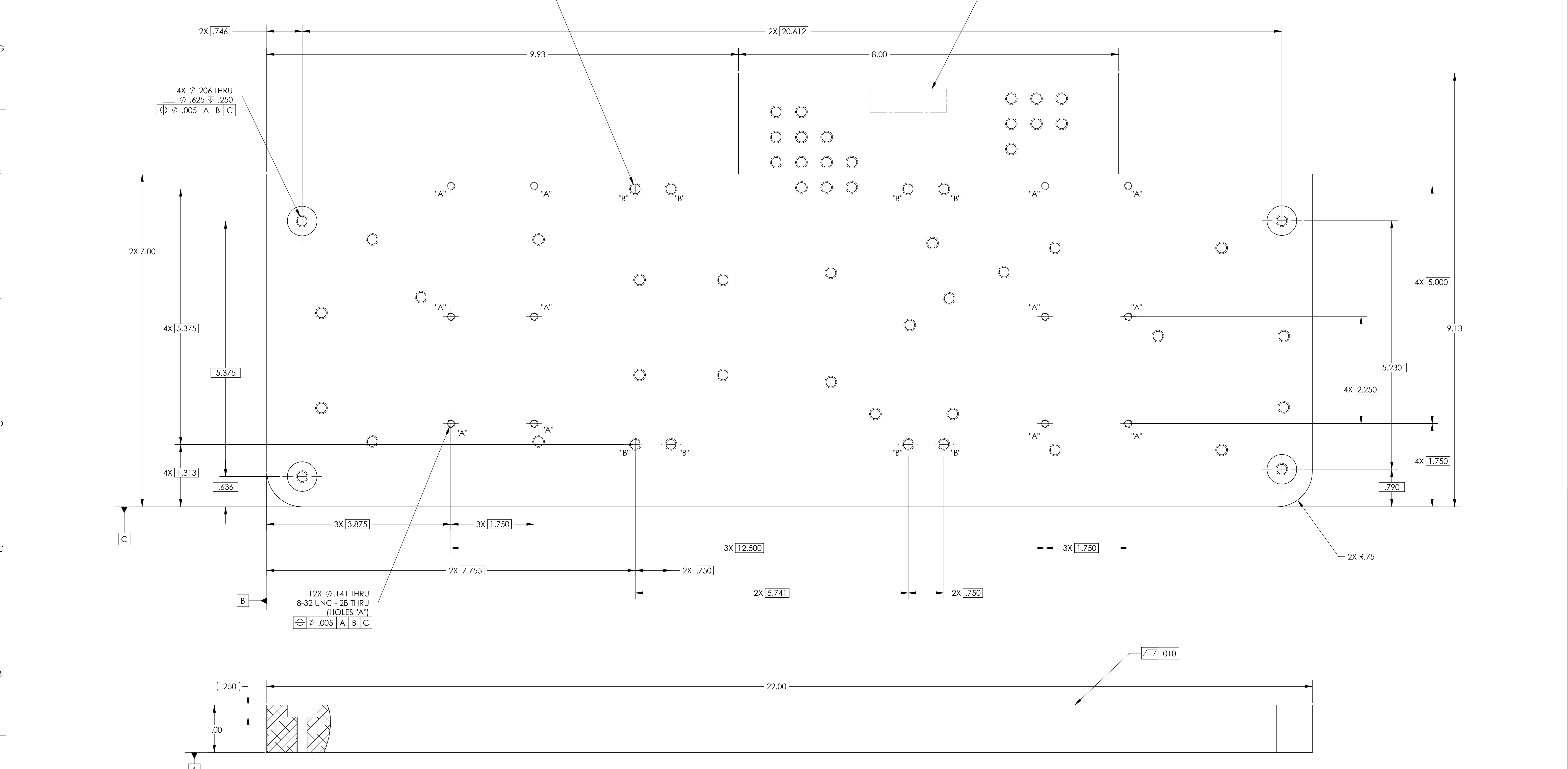
<u>Part Number</u>	<u>Description</u>	<u>Rev</u>	<u>Qty</u>
D0900136	FARADAY ISOLATOR ASSEMBLY	V1	1
D0900655	STRUCTURAL WELDMENT ASSY, OMC	V1	1
D0900048	MAGNET HOLDER ASSEMBLY	V1	1
D0900026	MAGNET MOUNTING PLATE	V2	1
D0901569	MAGNET PLATE MOUNTING FRONT BRACKET	V1	2
D0901570	MAGNETIC PLATE MOUNTING BACK BRACKET	V1	1
D1002112	MAGNETIC PLATE MOUNTING BACK (LOWERED) BRACKET	V1	1
D0900027	COPPER PLATE	V2	2
D0900579	BLADE GUARD ASSEMBLY	V1	2
D0901271	BLADE GUARD CROSSPIECE	V1	1
D0900578	BLADE GUARD RISER	V1	2
D0900623	FARADAY ISOLATOR TABLE ASSEMBLY	V1	1
D0900015	FARADAY ISOLATOR TABLE	V2	1
D1001958	WIRE SUPPORT BLOCK ASSEMBLY	V1	4
D1001960	WIRE SUPPORT BLOCK	V1	4
D0900464	ROTATOR 20mm 1064nm-VAC COMPATIBLE		1
D0900615	PRISM MOUNT ASSEMBLY RH	V1	1
D0900620	PRISM MOUNT BASE RH	V1	1
D1001859	FIXED STOP RH	V1	1
D0900617	OPTICAL PRISM	V1	4
D1001863	OPTICAL PRISM SPACER	V1	2
D1001864	PRISM BEAM DUMP	V1	2
D1001862	PRISM BASE SUPPORT	V1	2
D1001860	SPRING BLOCK RH	V1	1

<u>Part Number</u>	<u>Description</u>	<u>Rev</u>	<u>Qty</u>
D1001861	U-SPRING	V1	2
D0900618	OPTICAL PRISM TOP PLATE	V1	2
D0900619	SPRING CLIP	V1	12
D1001918	INPUT BAFFLE ASSEMBLY	V1	1
D1001915	INPUT BAFFLE HOLDER	V1	1
D1001917	INPUT BAFFLE BASE	V1	1
D1001916	INPUT BAFFLE SIDE SUPPORT	V1	2
D1001920	INPUT BAFFLE BEAM DUMP	V1	1
D1001924	C-MOUNT RETICLE	V1	1
D1001919	BEAM DUMP MOUNTING CLAMP	V1	3
D0900614	PRISM MOUNT ASSEMBLY LH	V1	1
D0900616	PRISM MOUNT BASE LH	V1	1
D1001862	PRISM BASE SUPPORT	V1	2
D1001870	FIXED STOP LH	V1	1
D1001871	SPRING BLOCK LH	V1	1
D1001864	PRISM BEAM DUMP	V1	2
D0900353	HALF WAVE PLATE HOLDER ASSEMBLY	V1	1
D0900352	HALF WAVE PLATE HOLDER	V1	1
D0900440	TFP POLARIZER PLATE ASSEMBLY	V1	1
D0900439	TFP POLARIZER PLATE	V1	1
D1001919	BEAM DUMP MOUNTING CLAMP	V1	3
D1001963	OUTPUT ALIGNMENT FIXTURE ASSEMBLY	V1	1
D1001959	RETICLE HOLDER	V1	1
D1001961	OUTPUT ALIGNMENT FIXTURE BASE	V1	1
D1001962	OUTPUT ALIGNMENT FIXTURE SUPPORT	V1	1
D1001924	C-MOUNT RETICLE	V1	1

<u>Part Number</u>	<u>Description</u>	<u>Rev</u>	<u>Qty</u>
D0900778	MAGNET ATTACHMENT PLATE	V2	2
D0901764	TABLE BALANCE WEIGHT	V1	2
D1002520	TABLE BALANCE WEIGHT, Add on	V1	2
D1002364	FARADAY ISOLATOR BEAM DUMP ASSEMBLY	V1	2
D1002362	FARADAY ISOLATOR BEAM DUMP MOUNT	V1	2
D1002363	FARADAY ISOLATOR BEAM DUMP	V1	2
D0900619	SPRING CLIP	V1	4
D0902845	REFLECTION BAFFLE	V2	1
D1002256	EARTHQUAKE CROSSBAR IN ASSEMBLY	V1	1
D1002257	CROSSBAR PLATE IN	V1	1
D0900169	CROSS SIDE	V2	4
D0900170	EARTHQUAKE CROSSBAR ASSEMBLY	V1	1
D0900168	CROSS PLATE	V2	1
D0901514	BLADE CLAMP PLATFORM	V1	2
D0900586	UPPER WIRE ASSEMBLY	V2	2
D0900541	F1 UPPER BLADE	V2	2
D1002168	MUSIC WIRE SPLIT CLAMP 3	V1	2
D1002169	MUSIC WIRE SPLIT CLAMP 4	V1	2
D1002170	LOWER MUSIC WIRE 2	V1	2
D0900582	MUSIC WIRE SPLIT CLAMP 1	V2	4
D0900583	MUSIC WIRE SPLIT CLAMP 2	V2	4
D0900588	WIRE ADJUSTABLE ADAPTER	V2	4
D0900566	UP BLADE CLAMP TOP	V2	4

**NOTES CONTINUED:**  
 5. SCRIBE, ENGRAVE, OR MECHANICALLY STAMP (NO INKS OR DYES) DRAWING PART NUMBER, REVISION (AND VARIANT OR TYPE IF APPLICABLE) ON NOTED SURFACE OF PART FOLLOWED ON THE NEXT LINE WITH A THREE DIGIT SERIAL NUMBER. SERIAL NUMBERS START AT 001 FOR THE FIRST ARTICLE AND PROCEED CONSECUTIVELY. USE MINIMUM 0.12" HIGH CHARACTERS, UNLESS THE SIZE OF THE PART DICTATES SMALLER CHARACTERS. A VIBRATORY TOOL MAY BE USED. EXAMPLE: DXXXXXX-VY, TYPE-XX, S/N XXX  
 6. MACHINE ALL SURFACES TO REMOVE OXIDES AND MILL FINISH. USE OF ABRASIVE REMOVAL TECHNIQUES IS NOT ALLOWED.  
 7. ALL PARTS SHALL BE MANUFACTURED IN ACCORDANCE WITH LIGO SPECIFICATION E0900364.

REV.	DATE	DCN #	DRAWING TREE #
v1	08 OCT 2010	E1000563	



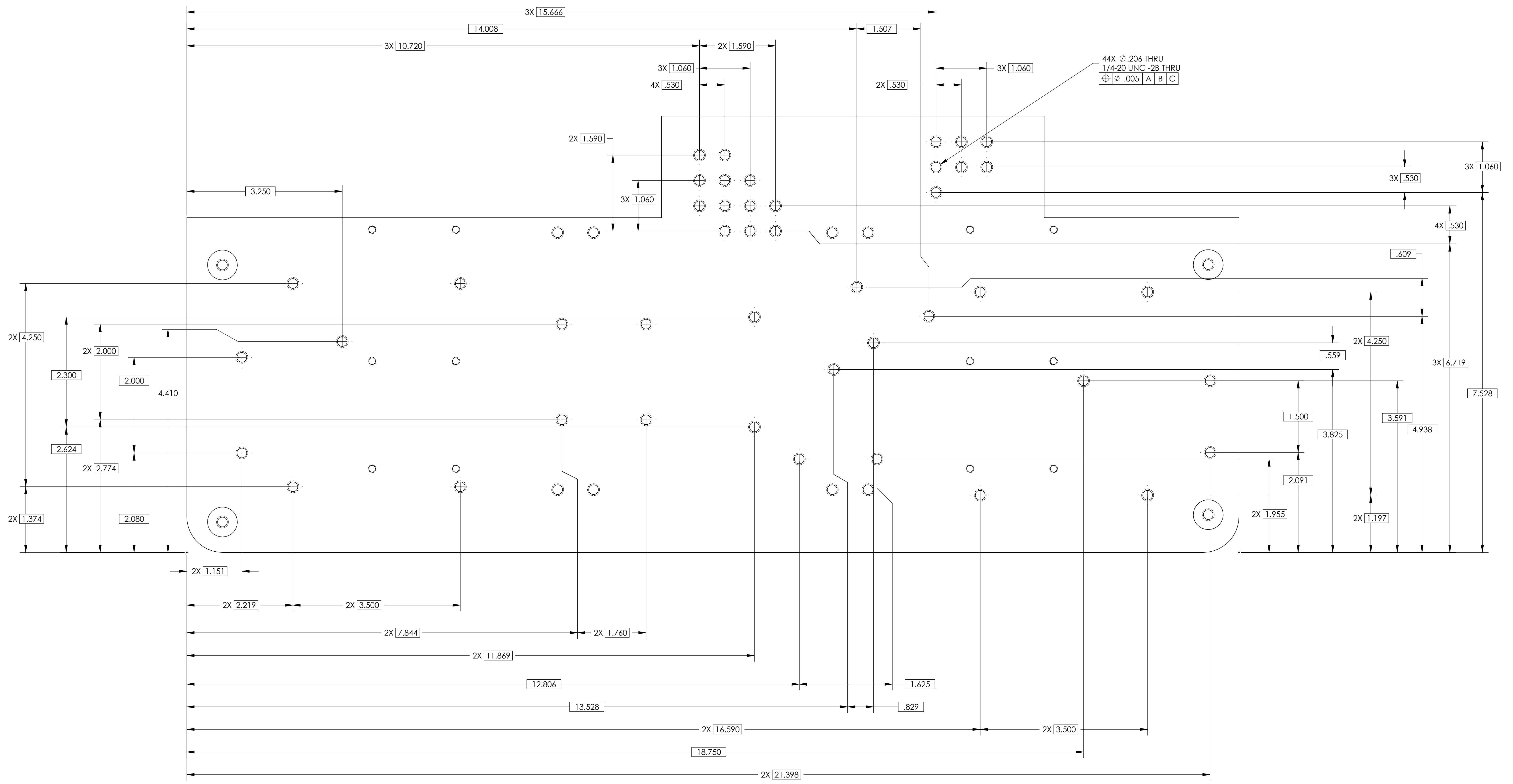
D090001E\_AudiGO\_ACS\_FID0900623\_Isolator Table: PART PDM REV: X.015, DRAWING PDM REV: X.024

NOTES AND TOLERANCES: (UNLESS OTHERWISE SPECIFIED)		LIGO CALIFORNIA INSTITUTE OF TECHNOLOGY MASSACHUSETTS INSTITUTE OF TECHNOLOGY		PART NAME	
DIMENSIONS ARE IN TOLERANCES: .XX ± .02 .XXX ± .010 ANGULAR ± .5°		1. INTERPRET DRAWING PER ASME Y14.5-1994. 2. REMOVE ALL SHARP EDGES, R.02 MIN. 3. DO NOT SCALE FROM DRAWING. 4. ALL MACHINING FLUIDS MUST BE FULLY SYNTHETIC, FULLY WATER SOLUBLE AND FREE OF SULFUR, SILICONE, AND CHLORINE.		<b>FARADAY ISOLATOR TABLE</b>	
MATERIAL: 6061-T6 Al FINISH: 63 μinch		SYSTEM: ADVANCED LIGO SUB-SYSTEM: AOS NEXT ASSY: D0900623		DESIGNER: M.RUIZ CHECKER: APPROVAL:	SIZE: D DWG. NO.: D0900015 SCALE: 1:1 PROJECTION:
				REV. v1 SHEET 1 OF 2	



8 7 6 5 4 3 2 1

H  
G  
F  
E  
D  
C  
B  
A



**LIGO** CALIFORNIA INSTITUTE OF TECHNOLOGY  
MASSACHUSETTS INSTITUTE OF TECHNOLOGY

SIZE	DWG. NO.	REV.
D	D0900015	v1
SCALE: 1:1	PROJECTION:	SHEET 2 OF 2

D0900015\_AudiLIGO\_ACS\_FID0900023\_Isolator\_Table\_PART\_PDM\_REV-X-05\_DRAWING\_PDM\_REV-X-024

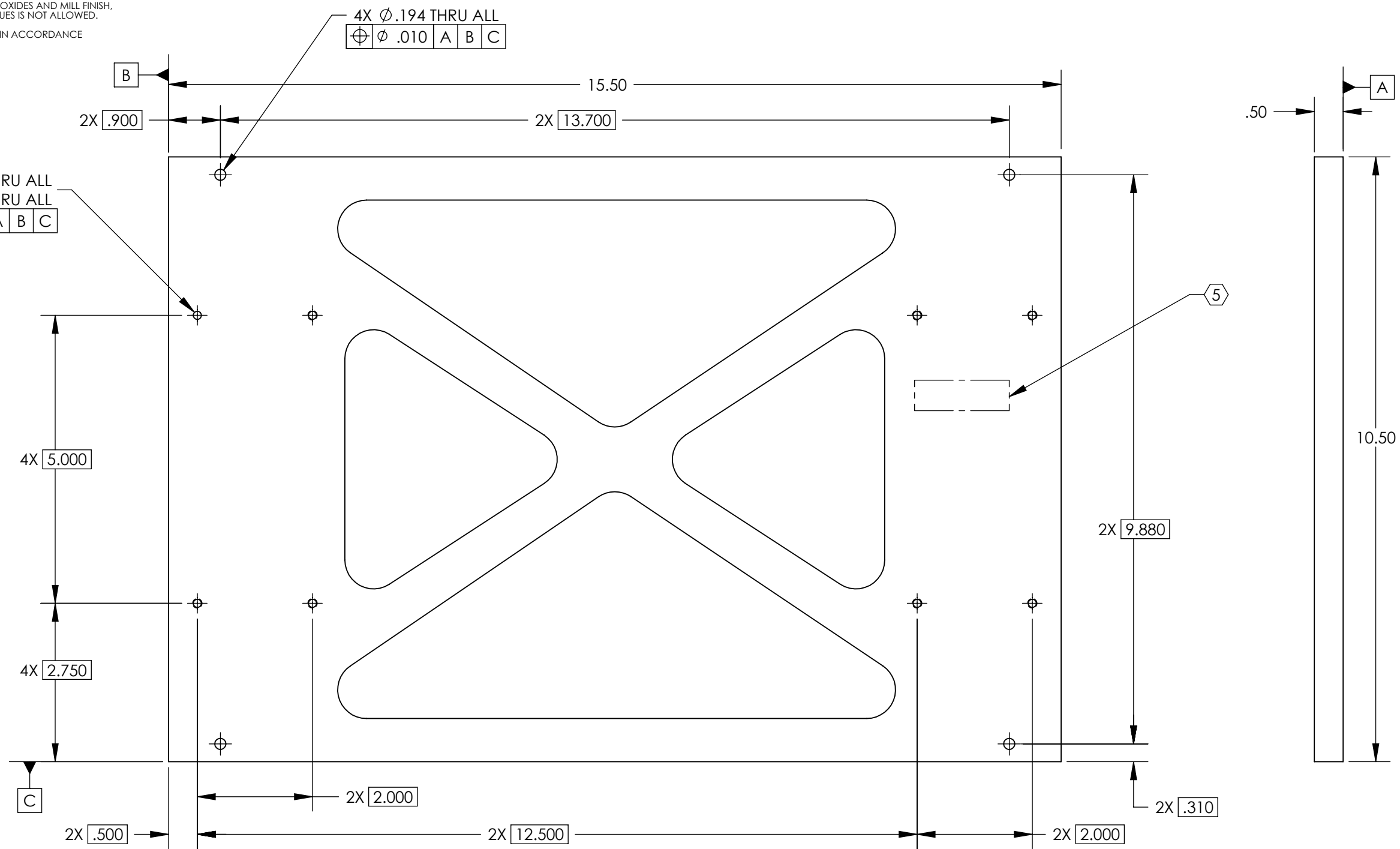
8 7 6 5 4 3 2 1

**NOTES CONTINUED:**  
 5. SCRIBE, ENGRAVE, OR MECHANICALLY STAMP (NO INKS OR DYES) DRAWING PART NUMBER, REVISION (AND VARIANT OR "TYPE" IF APPLICABLE) ON NOTED SURFACE OF PART FOLLOWED ON THE NEXT LINE WITH A THREE DIGIT SERIAL NUMBER. SERIAL NUMBERS START AT 001 FOR THE FIRST ARTICLE AND PROCEED CONSECUTIVELY. USE MINIMUM 0.12" HIGH CHARACTERS, UNLESS THE SIZE OF THE PART DICTATES SMALLER CHARACTERS. A VIBRATORY TOOL MAY BE USED.  
 EXAMPLE: DXXXXXX-VY, TYPE-XX, S/N XXX

6. MACHINE ALL SURFACES TO REMOVE OXIDES AND MILL FINISH. USE OF ABRASIVE REMOVAL TECHNIQUES IS NOT ALLOWED.

7. ALL PARTS SHALL BE MANUFACTURED IN ACCORDANCE WITH LIGO SPECIFICATION E0900364.

REV.	DATE	DCN #	DRAWING TREE #
V1	28 JUL 2009	E0900217	
v2	07 OCT 2010	E1000563	

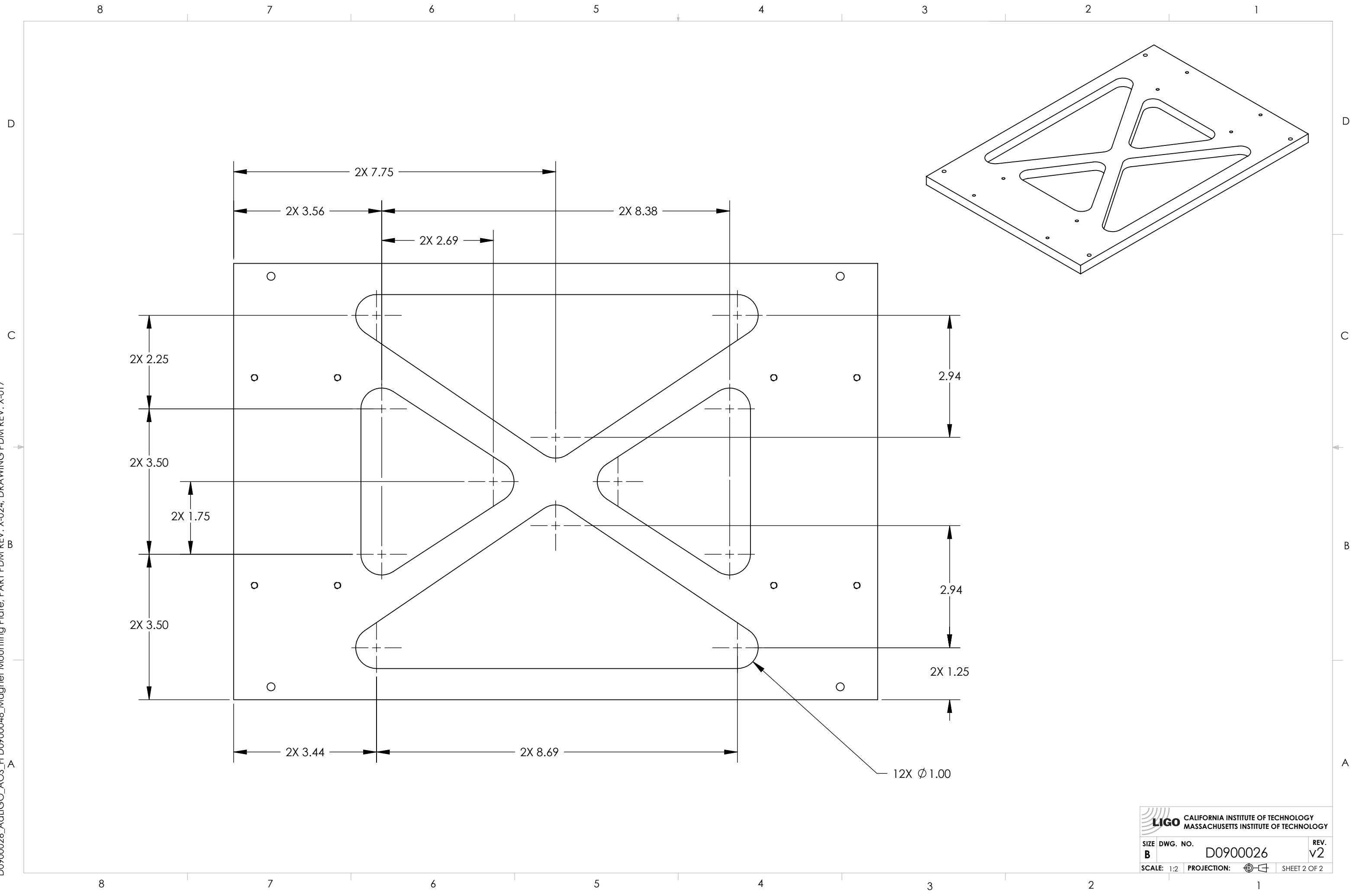




D0900026\_AdlIGO\_AOS\_FID0900048\_Magnet Mounting Plate, PART PDM REV: X-024, DRAWING PDM REV: X-017

NOTES AND TOLERANCES: (UNLESS OTHERWISE SPECIFIED)				LIGO CALIFORNIA INSTITUTE OF TECHNOLOGY MASSACHUSETTS INSTITUTE OF TECHNOLOGY		PART NAME	
DIMENSIONS ARE IN TOLERANCES: .XX $\pm$ .02 .XXX $\pm$ .010 ANGULAR $\pm$ 0.5°				1. INTERPRET DRAWING PER ASME Y14.5-1994. 2. REMOVE ALL SHARP EDGES, R.02 MIN. 3. DO NOT SCALE FROM DRAWING. 4. ALL MACHINING FLUIDS MUST BE FULLY SYNTHETIC, FULLY WATER SOLUBLE AND FREE OF SULFUR, SILICONE, AND CHLORINE.		<b>MAGNET MOUNTING PLATE</b>	
<b>MATERIAL</b> 6061-T6 Al		<b>FINISH</b> 63 $\mu$ inch		<b>SYSTEM</b> ADVANCED LIGO		<b>SUB-SYSTEM</b> AOS	
<b>NEXT ASSY</b> D0900048				<b>DESIGNER</b> N.Nguyen		<b>SIZE DWG. NO.</b> B D0900026	
				<b>DRAFTER</b> K. Mailand		<b>REV.</b> v2	
				<b>CHECKER</b> C. Torrie		<b>SCALE:</b> 1:2	
				<b>APPROVAL</b> C. Torrie		<b>PROJECTION:</b>	
						<b>SHEET 1 OF 2</b>	

8 7 6 5 4 3 2 1

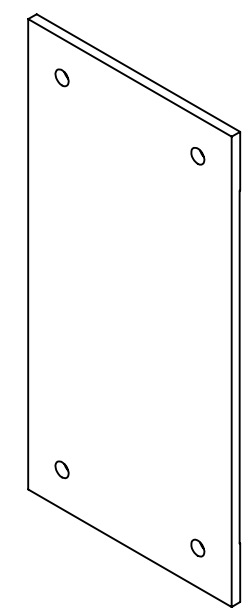
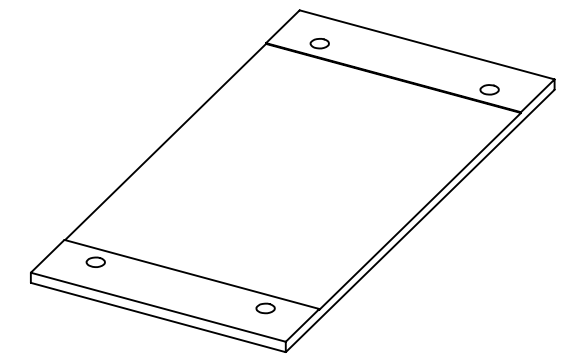
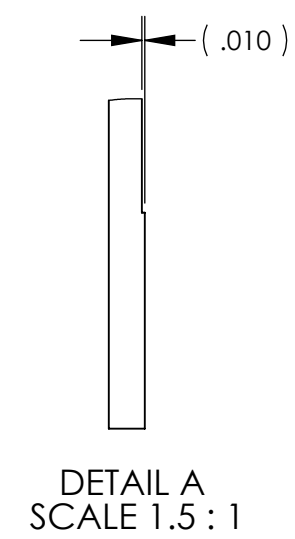
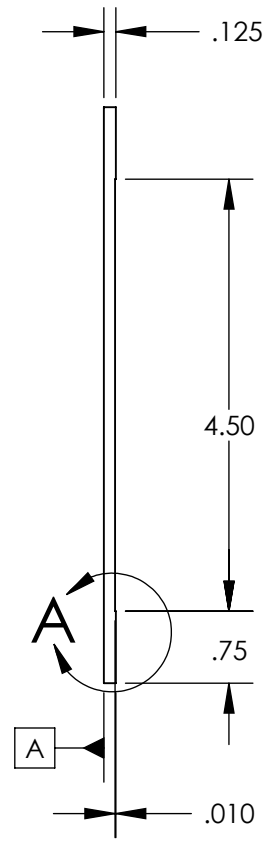
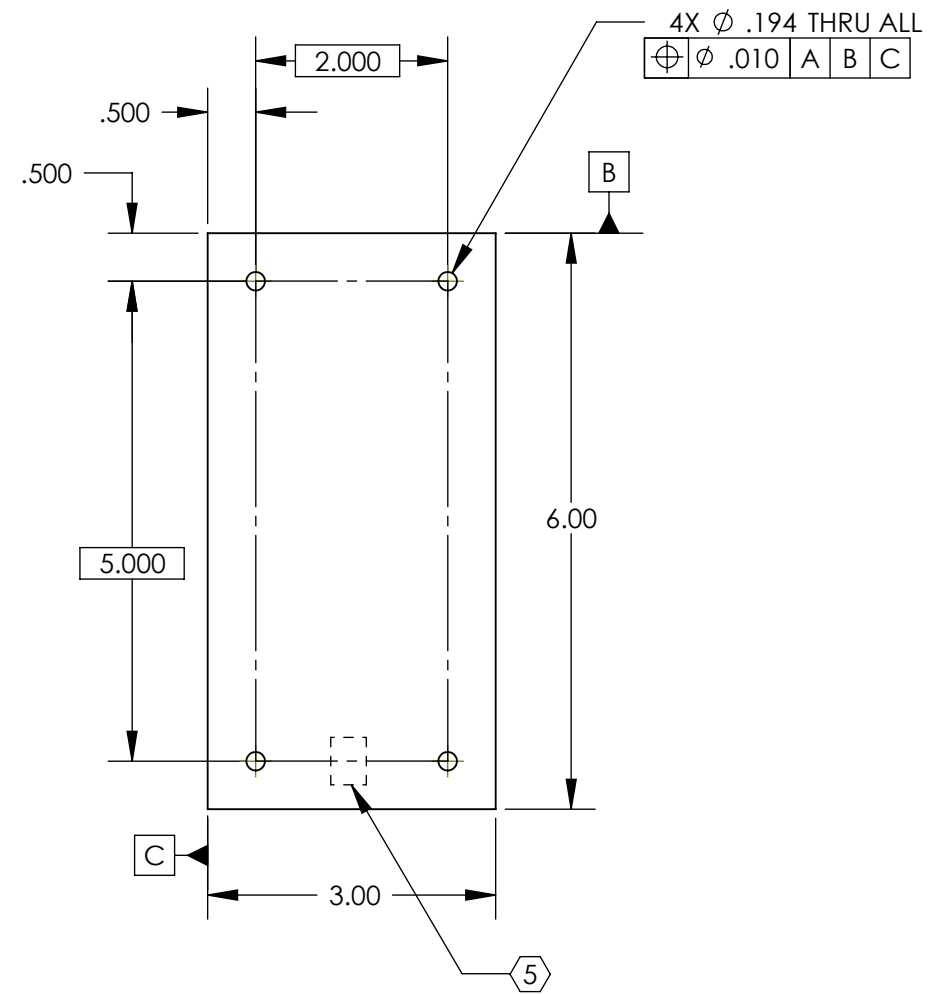
D0900026\_AcLIGO\_AOS\_FI D09000048\_Magnet Mounting Plate, PART PDM REV: X-024, DRAWING PDM REV: X-017



 <b>CALIFORNIA INSTITUTE OF TECHNOLOGY</b> <b>MASSACHUSETTS INSTITUTE OF TECHNOLOGY</b>		
SIZE	DWG. NO.	REV.
<b>B</b>	D0900026	<b>v2</b>
SCALE: 1:2	PROJECTION: 	SHEET 2 OF 2

- NOTES CONTINUED:**
- 5. SCRIBE, ENGRAVE, OR MECHANICALLY STAMP (NO INKS OR DYES) DRAWING PART NUMBER, REVISION (AND VARIANT OR "TYPE" IF APPLICABLE) ON NOTED SURFACE OF PART FOLLOWED ON THE NEXT LINE WITH A THREE DIGIT SERIAL NUMBER. SERIAL NUMBERS START AT 001 FOR THE FIRST ARTICLE AND PROCEED CONSECUTIVELY. USE MINIMUM 0.12" HIGH CHARACTERS, UNLESS THE SIZE OF THE PART DICTATES SMALLER CHARACTERS. A VIBRATORY TOOL MAY BE USED.
  - 6. ~~MACHINE EXPOSURES TO REMOVE OXIDES~~ AND MILL FINISH. USE OF ABRASIVE REMOVAL TECHNIQUES IS NOT ALLOWED.
  - 7. ALL PARTS SHALL BE MANUFACTURED IN ACCORDANCE WITH LIGO SPECIFICATION E0900364.

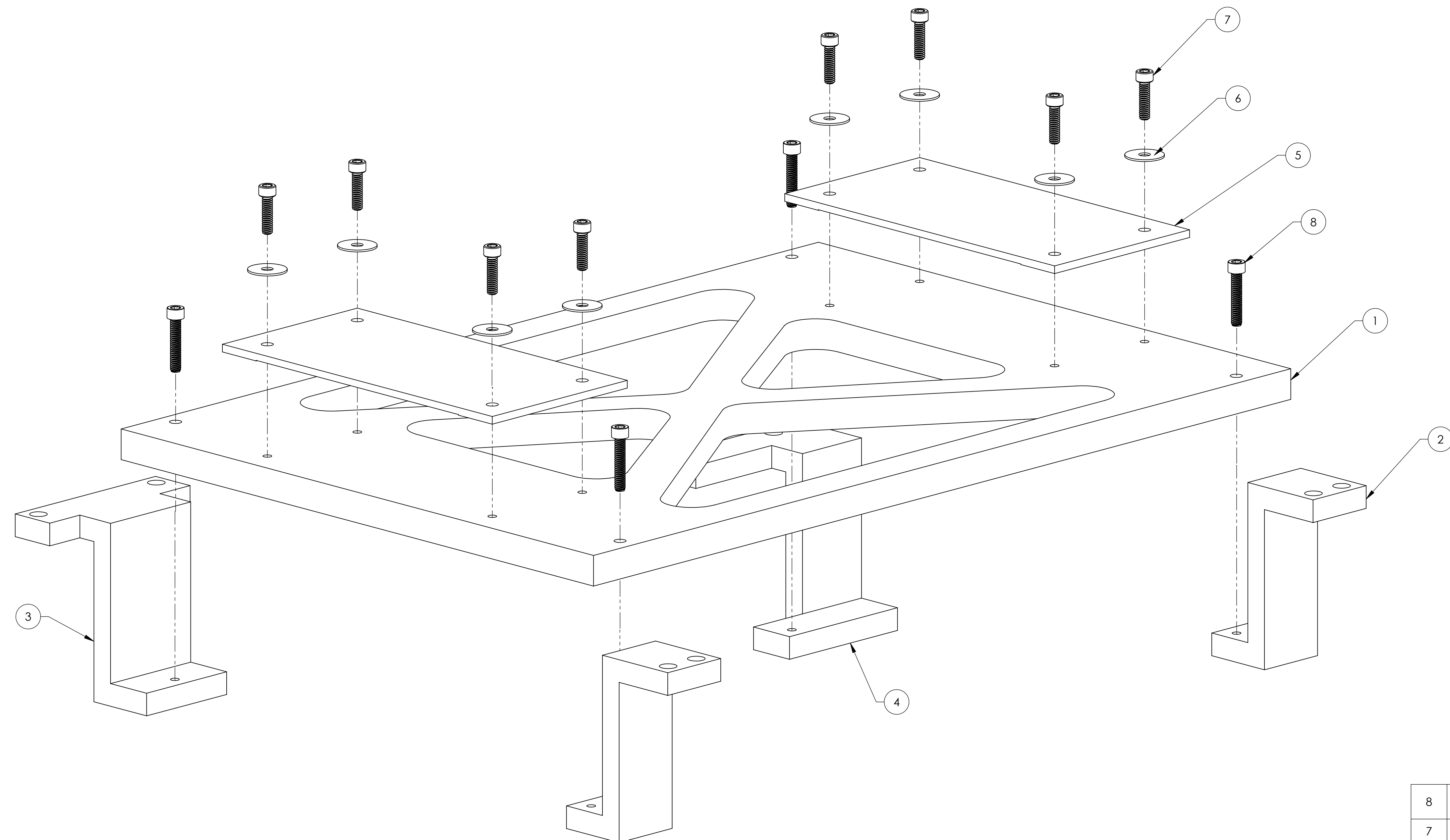
REV.	DATE	DCN #	DRAWING TREE #
v1	19 JUL 2009		
v2	07 OCT 2010	E1000563	



D0900027\_AdlIGO\_AOS\_D0900623\_Copper Plate, PART PDM REV: X-009, DRAWING PDM REV: X-014

NOTES AND TOLERANCES: (UNLESS OTHERWISE SPECIFIED)				LIGO CALIFORNIA INSTITUTE OF TECHNOLOGY MASSACHUSETTS INSTITUTE OF TECHNOLOGY		PART NAME	
DIMENSIONS ARE IN TOLERANCES: .XX $\pm .02$ .XXX $\pm .010$ ANGULAR $\pm ^\circ$				1. INTERPRET DRAWING PER ASME Y14.5-1994. 2. REMOVE ALL SHARP EDGES, R.02 MIN. 3. DO NOT SCALE FROM DRAWING. 4. ALL MACHINING FLUIDS MUST BE FULLY SYNTHETIC, FULLY WATER SOLUBLE AND FREE OF SULFUR, SILICONE, AND CHLORINE.		COPPER PLATE	
						MATERIAL 99.99% COPPER FINISH 63 $\mu$ inch	
SYSTEM ADVANCED LIGO SUB-SYSTEM AOS NEXT ASSY D0900048				DESIGNER		SIZE DWG. NO.	REV.
				DRAFTER	N.Nguyen 18 May 2009	B D0900027	v2
				CHECKER		SCALE: 1:1	PROJECTION:
				APPROVAL		SHEET 1 OF 1	

REV.	DATE	DCN #	DRAWING TREE #
v1	07 OCT 2010	E1000563	



ITEM NO.	PART NUMBER	DESCRIPTION	MATERIAL	RE Q	SPA	TOT
8	92200A198	SCREW, SCH, 8-32X 7/8, MS16995-29, MC #9220A198		4		4
7	95435A575	SHCS, 8-32 x .88, Titanium		8		8
6	94051A209	Washer, Flat, #8, Titanium		8		8
5	D0900027	COPPER PLATE	COPPER	2		2
4	D1002112	MAGNETIC PLATE MOUNTING BACK (LOWERED) BRACKET	6061-T6 Al	1		1
3	D0901570	MAGNETIC PLATE MOUNTING BACK BRACKET	6061-T6 Al	1		1
2	D0901569	MAGNETIC PLATE MOUNTING FRONT BRACKET	6061-T6 Al	2		2
1	D0900026	MAGNET MOUNTING PLATE	6061-T6 Al	1		1
			MATERIAL	RE	SPA	TOT
				Q	RE	AL

NOTES AND TOLERANCES: (UNLESS OTHERWISE SPECIFIED)	
1. INTERPRET DRAWING PER ASME Y14.5-1994.	
2. REMOVE ALL SHARP EDGES, R.02 MIN.	
3. DO NOT SCALE FROM DRAWING.	
4. ALL MACHINING FLUIDS SHALL BE WATER SOLUBLE AND FREE OF SULFUR, CHLORINE AND SILICONE, SUCH AS CINCINNATI MILACRON'S CIMTECH 410.	
DIMENSIONS ARE IN	
TOLERANCES:	
.XX ± .03	
.XXX ± .010	
ANGULAR ± °	
MATERIAL	BOM
FINISH	--

**LIGO** CALIFORNIA INSTITUTE OF TECHNOLOGY  
 MASSACHUSETTS INSTITUTE OF TECHNOLOGY

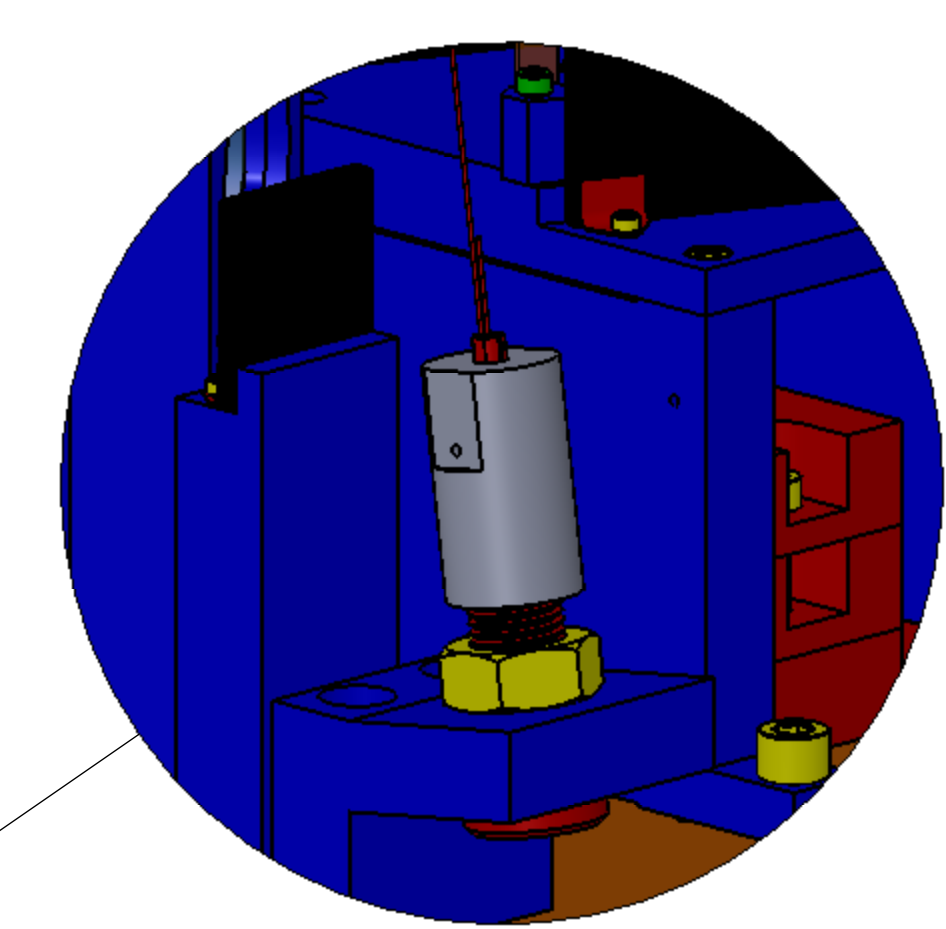
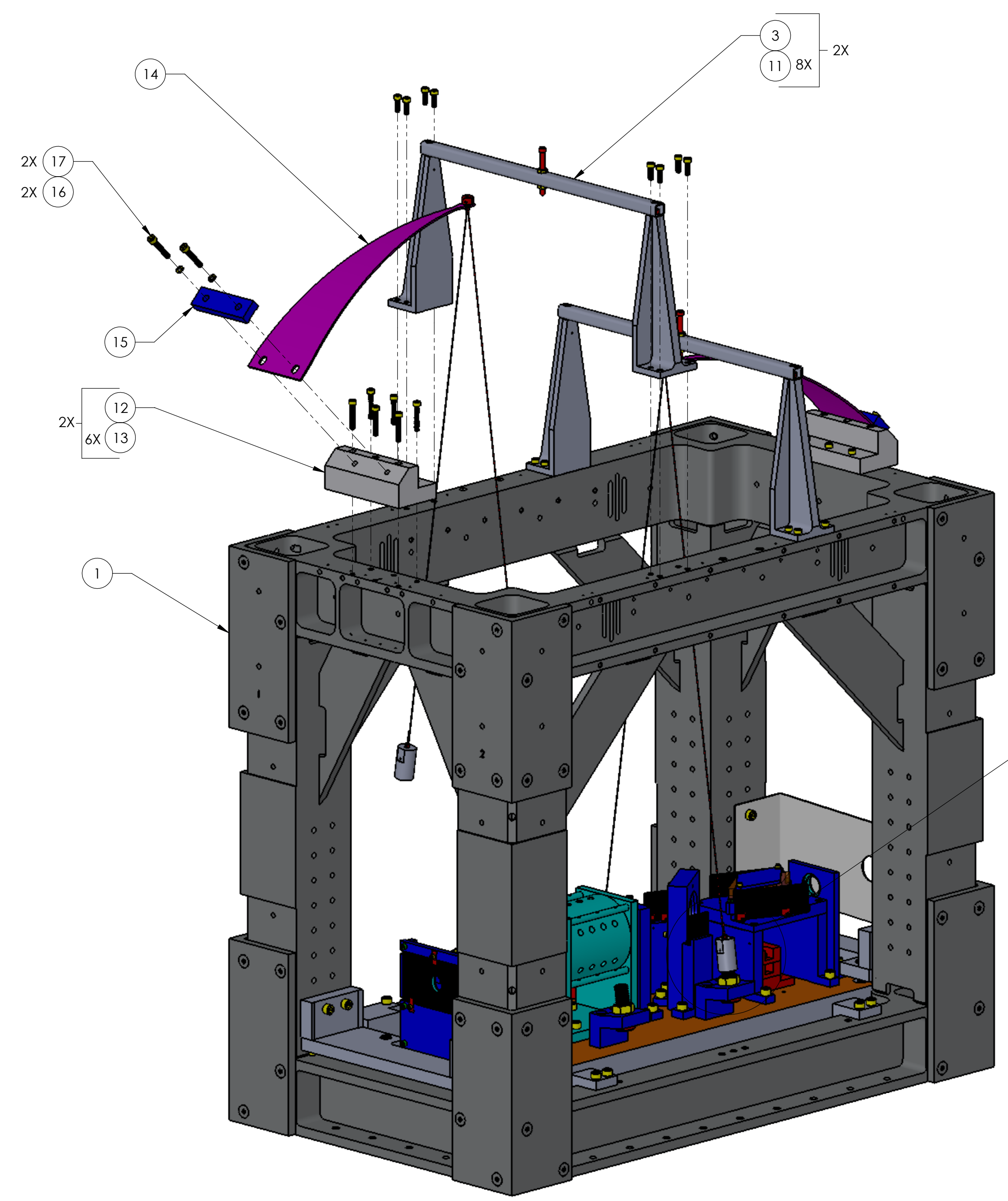
SYSTEM: ADVANCED LIGO SUB-SYSTEM: AOS

NEXT ASSY: D0900136

PART NAME		MAGNET HOLDER ASSEMBLY	
DESIGNER		SIZE	DWG. NO.
DRAFTER	M.RUIZ		D
CHECKER			D0900048
APPROVAL		SCALE: 1:1	PROJECTION:
			SHEET 1 OF 1

D:\090048\_Adi\GO\_AOS\_D090036\_Magnet Holder Assembly\_PRT\_PDM\_REV-X.085\_DRAWING\_PDM\_REV-X.019

REV.	DATE	DCN #	DRAWING TREE #
v1	07 OCT 2010	E1000563	-
-	-	-	-



4X DETAIL A  
SCALE 1 : 1

ITEM NO.	PART NUMBER	DESCRIPTION	MATERIAL	Def out /RE Q	SPARE	TOTAL
17	93235A248	SHCS, .25-20 x 1.13 LG. 1808 SSSL, Vented		4		0
16	-	WASHER, FLAT, #8 (NAS 620-C8 OR EQUIVALENT)	300 SSSL	4		0
15	D0900566	UP BLADE CLAMP TOP	6061-T6 Al	2		0
14	D0900586	UPPER WIRE ASSEMBLY	N/A	2		0
13	92200A199	8-32 x 1, SHCS 300SSSL		12		0
12	D0901514	BLADE CLAMP PLATFORM	6061-T6 Al	2		0
11	92200A194	SCREW, SHC, 8-32 x 1/2, MS16995-26, MC #92200A194	300 SSSL	16		0
10	92200A535	SCREW, SHC, 1/4-20 x 3/8, MS16995-47, MC #92200A535	300 SSSL	2		0
9	92200A542	Screw, Socket Head Cap, 1/4-20 UNC-2A x 1.00 lg.	300 SSSL	8		0
8	92200A540	SCREW, SHC, 1/4-20 x 3/4, MS16995-50, MC #92200A540	300 SSSL	8		0
7	D0900170	EARTHQUAKE CROSSBAR ASSY	--	1		0
6	D1002256	EARTHQUAKE CROSSBAR_IN ASSY	--	1		0
5	D0902845	REFLECTION BAFFLE	A424 TYPE I, 18GA, SSSL	1		0
4	D0900623	FARADAY ISOLATOR TABLE ASSY	--	1		0
3	D0900579	BLADE GUARD ASSY	--	2		0
2	D0900048	MAGNET HOLDER ASSEMBLY	--	1		0
1	D0900655	STRUCTURAL WELDMENT ASSY, OMC	N/A	1		0

NOTES AND TOLERANCES: (UNLESS OTHERWISE SPECIFIED)

- INTERPRET DRAWING PER ASME Y14.5-1994.
- REMOVE ALL SHARP EDGES, R.02 MIN.
- DO NOT SCALE FROM DRAWING.
- ALL MACHINING FLUIDS MUST BE FULLY SYNTHETIC, FULLY WATER SOLUBLE AND FREE OF SULFUR, SILICONE, AND CHLORINE.

DIMENSIONS ARE IN  
TOLERANCES:  
.XX ±  
.XXX ±  
ANGULAR ± °

MATERIAL: --  
FINISH: -- μinch

**LIGO** CALIFORNIA INSTITUTE OF TECHNOLOGY  
MASSACHUSETTS INSTITUTE OF TECHNOLOGY

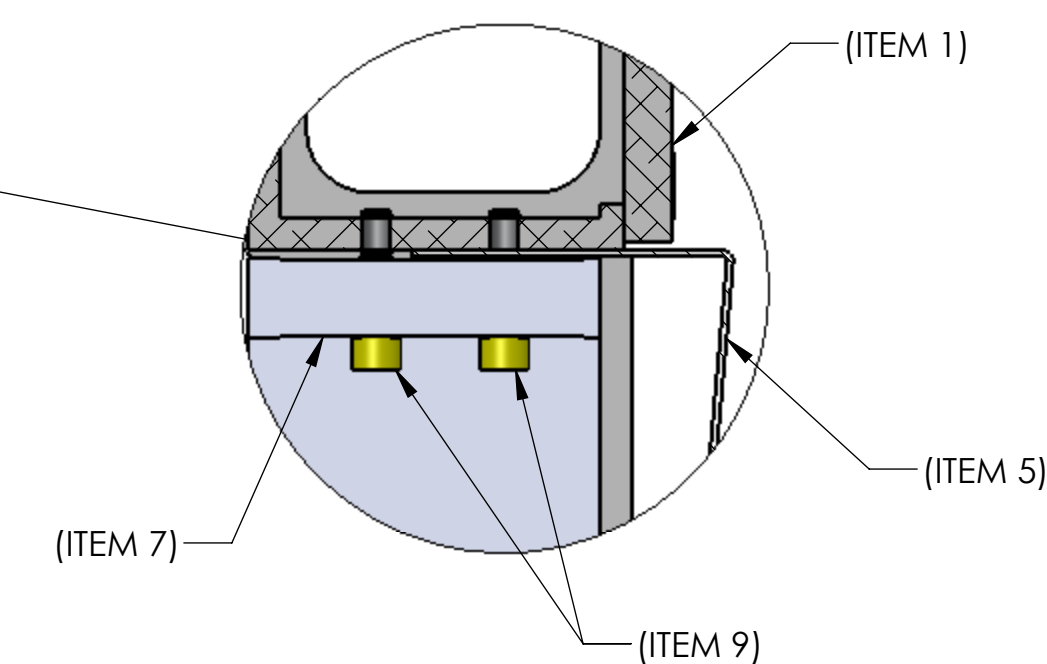
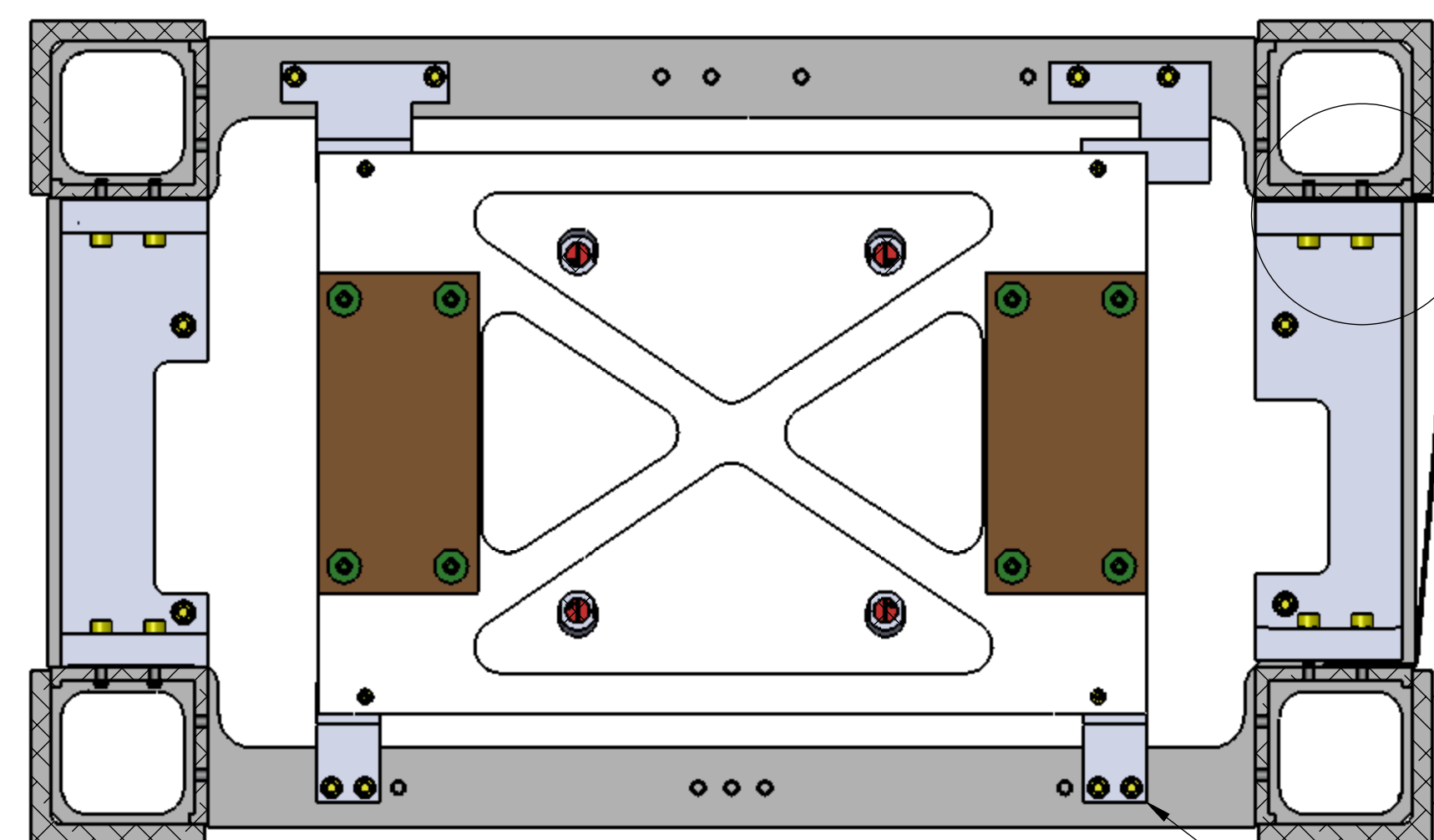
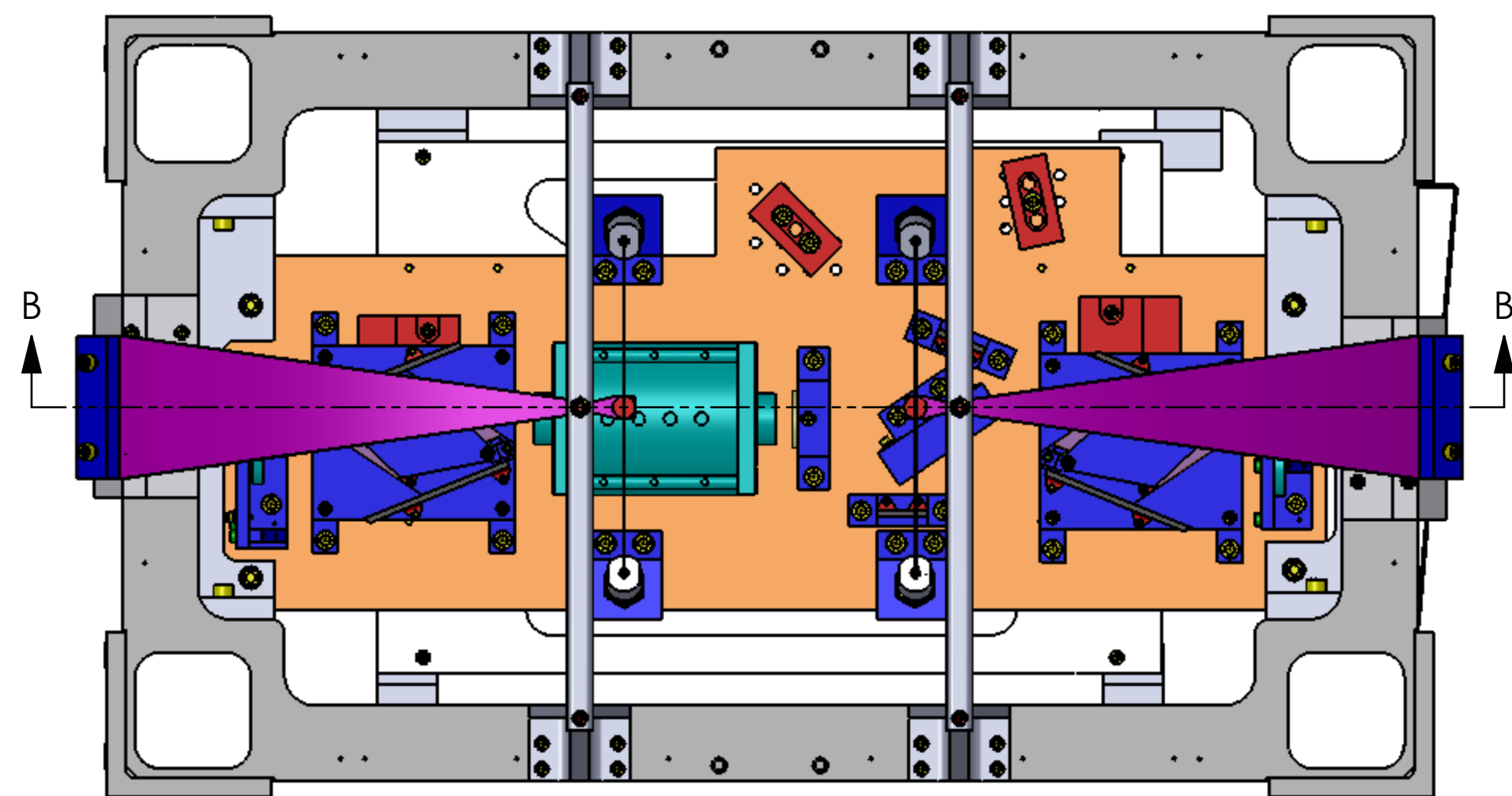
SYSTEM: ADVANCED LIGO  
SUB-SYSTEM: AOS

PART NAME: FARADAY ISOLATOR ASSEMBLY

DESIGNER	CHECKER	APPROVAL	SIZE	DWG. NO.	REV.
			D	D0900136	v1

SCALE: 1:3 PROJECTION: SHEET 1 OF 2

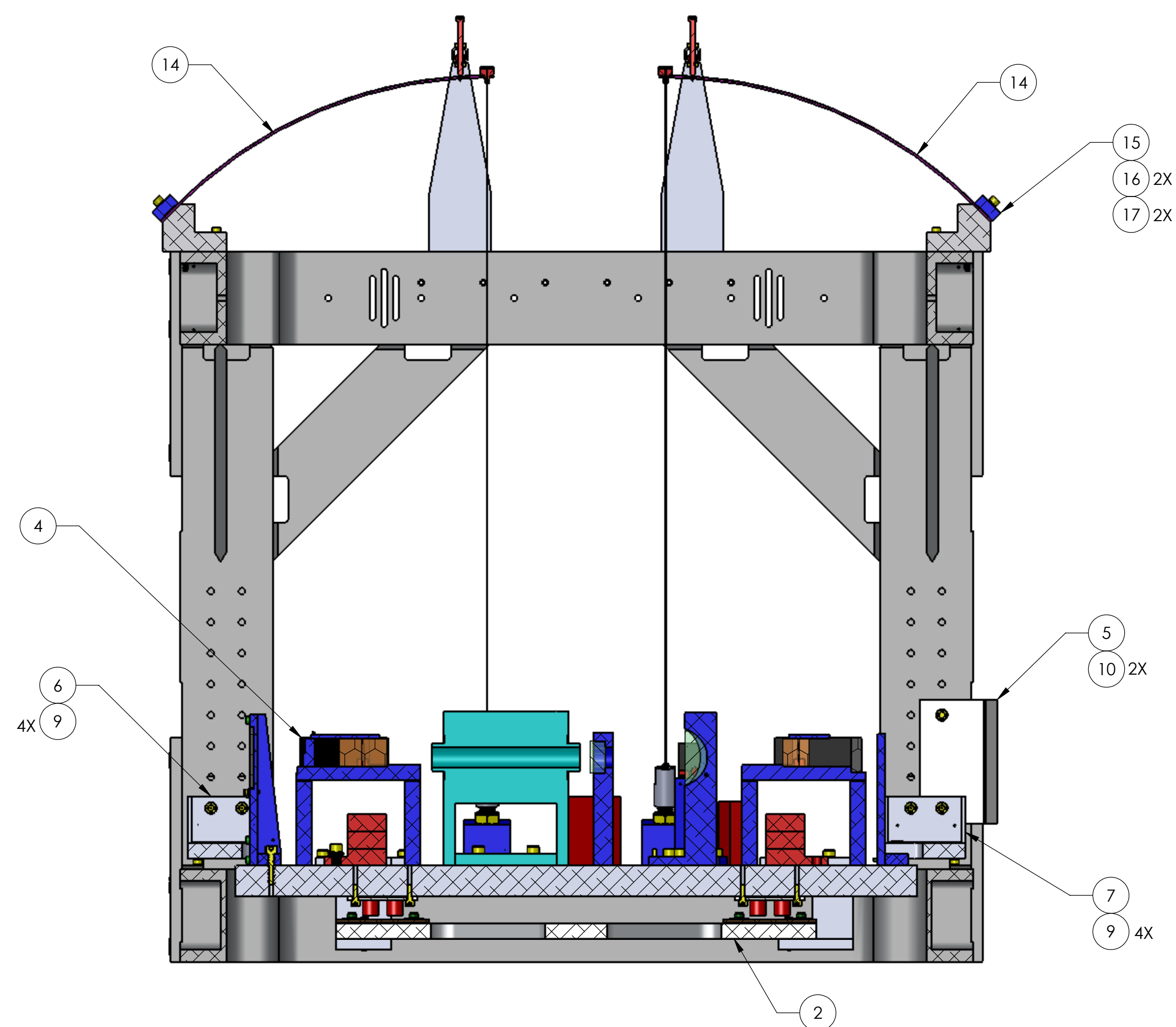
D0900136\_AudiGO\_AOS\_Faraday Isolator Assy, PART FDM REV: X-136, DRAWING FDM REV: X-023



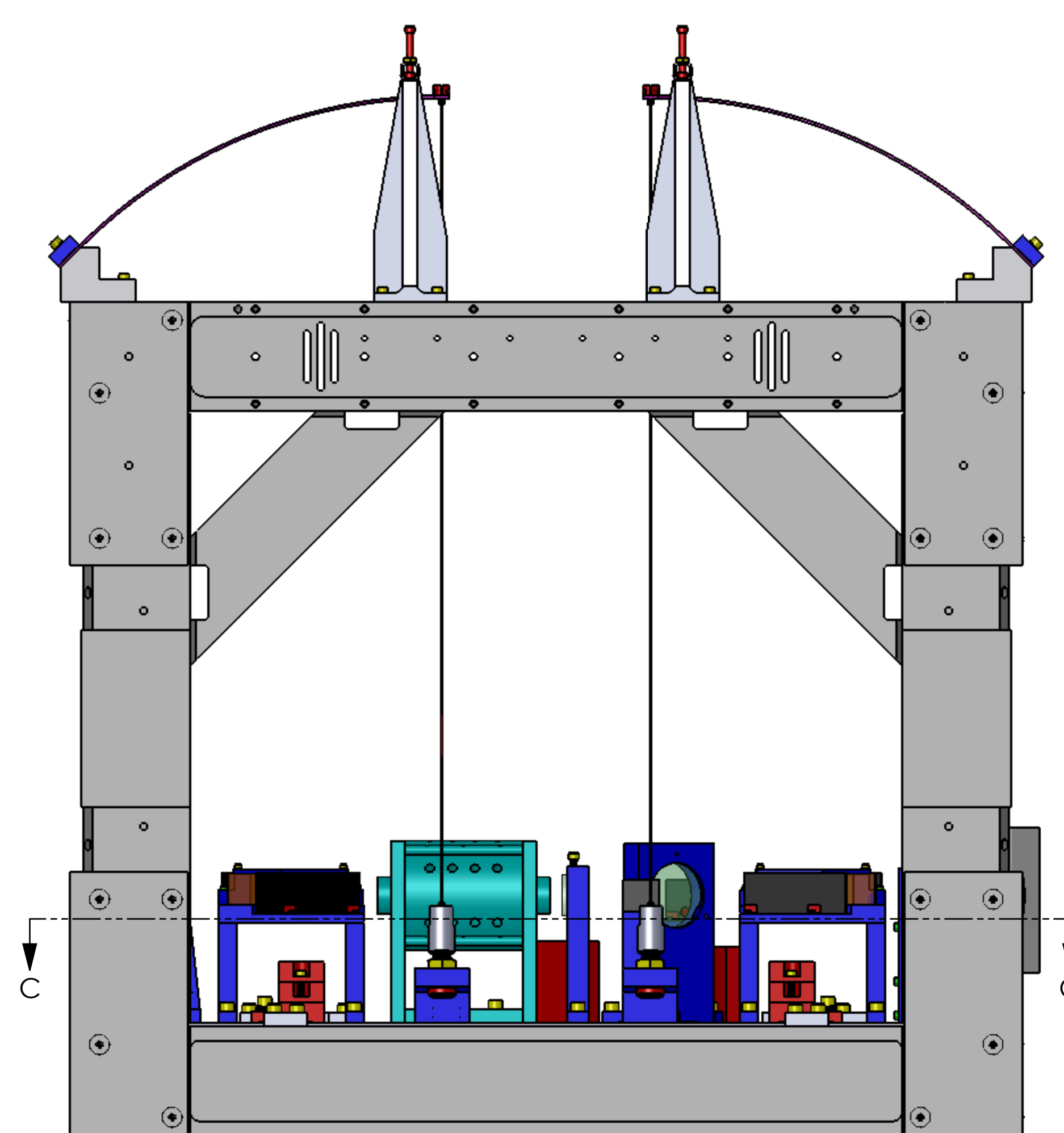
DETAIL D  
SCALE 2 : 3

SECTION C-C

2  
8 8X  
(ITEM 4 REMOVED FOR CLARITY)



SECTION B-B



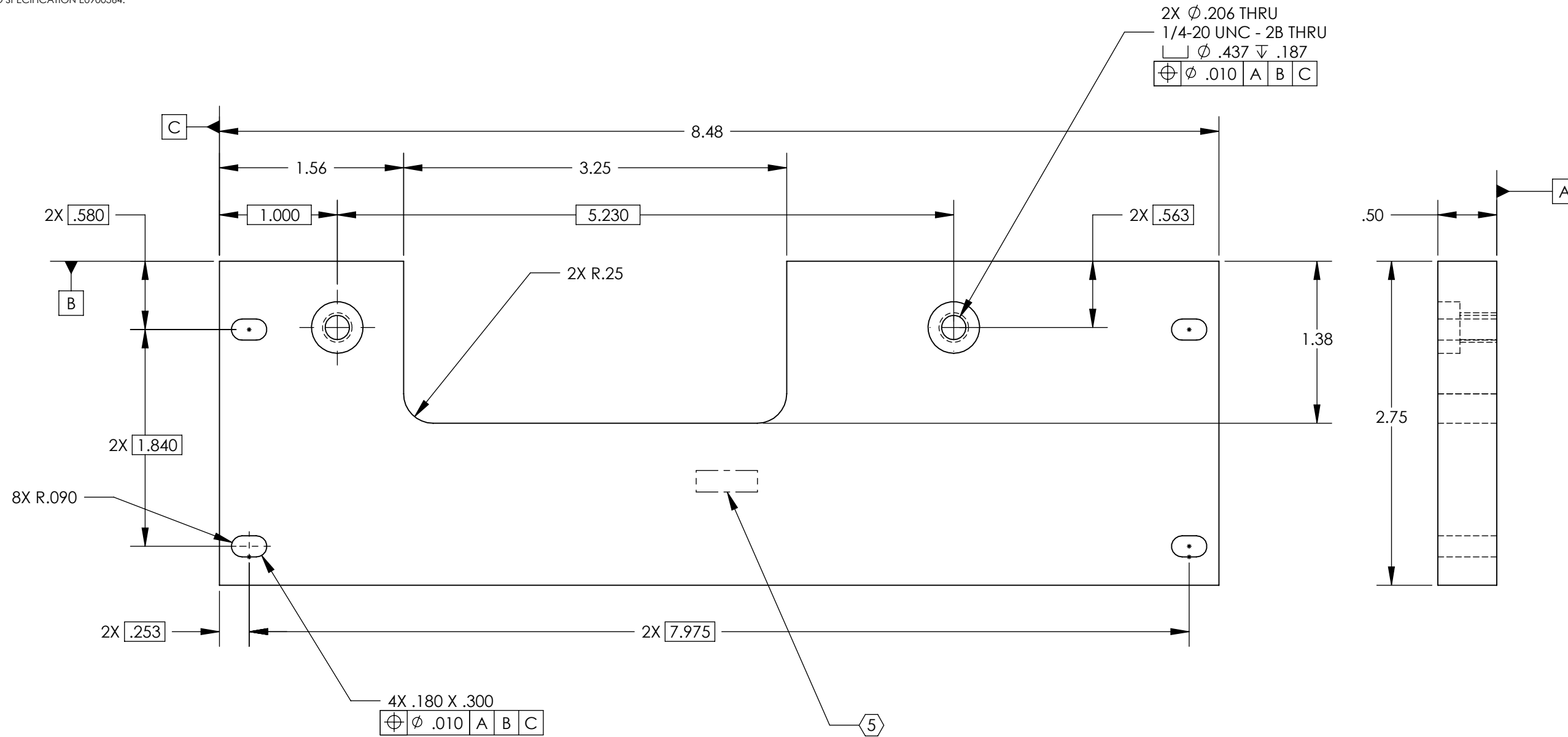
CALIFORNIA INSTITUTE OF TECHNOLOGY MASSACHUSETTS INSTITUTE OF TECHNOLOGY		REV.
SIZE	DWG. NO.	v1
D	D0900136	
SCALE: 1:3	PROJECTION:	SHEET 2 OF 2

D0900136\_AdlIGO\_AOS\_Faraday Isolator Assy. PART PDM REV. X-136. DRAWING PDM REV. X-023

D0900168\_AdlIGO\_AOS\_D0900170\_Crossbar Plate, PART PDM REV: X-011, DRAWING PDM REV: X-015

- NOTES CONTINUED:**
- 5. SCRIBE, ENGRAVE, OR MECHANICALLY STAMP (NO INKS OR DYES) DRAWING PART NUMBER, REVISION (AND VARIANT OR "TYPE" IF APPLICABLE) ON NOTED SURFACE OF PART FOLLOWED ON THE NEXT LINE WITH A THREE DIGIT SERIAL NUMBER. SERIAL NUMBERS START AT 001 FOR THE FIRST ARTICLE AND PROCEED CONSECUTIVELY. USE MINIMUM 0.12" HIGH CHARACTERS, UNLESS THE SIZE OF THE PART DICTATES SMALLER CHARACTERS. A VIBRATORY TOOL MAY BE USED.  
EXAMPLE: DXXXXXX-VY, TYPE-XX, S/N XXX
  - 6. MACHINE ALL SURFACES TO REMOVE OXIDES AND MILL FINISH. USE OF ABRASIVE REMOVAL TECHNIQUES IS NOT ALLOWED.
  - 7. ALL PARTS SHALL BE MANUFACTURED IN ACCORDANCE WITH LIGO SPECIFICATION E0900364.

REV.	DATE	DCN #	DRAWING TREE #
v1	01 JUL 2009	DCN #	
v2	07 OCT 2010	E1000563	



**NOTES AND TOLERANCES: (UNLESS OTHERWISE SPECIFIED)**

DIMENSIONS ARE IN  
TOLERANCES:  
.XX ± .02  
.XXX ± .010  
ANGULAR ± 0.5°

1. INTERPRET DRAWING PER ASME Y14.5-1994.  
2. REMOVE ALL SHARP EDGES, R.02 MIN.  
3. DO NOT SCALE FROM DRAWING.  
4. ALL MACHINING FLUIDS SHALL BE WATER SOLUBLE AND FREE OF SULFUR, CHLORINE AND SILICONE, SUCH AS CINCINNATI MILACRON'S CIMTECH 410.

**MATERIAL** 6061-T6 Al **FINISH** 63 μinch

**LIGO** CALIFORNIA INSTITUTE OF TECHNOLOGY  
MASSACHUSETTS INSTITUTE OF TECHNOLOGY

**SYSTEM** ADVANCED LIGO **SUB-SYSTEM** AOS

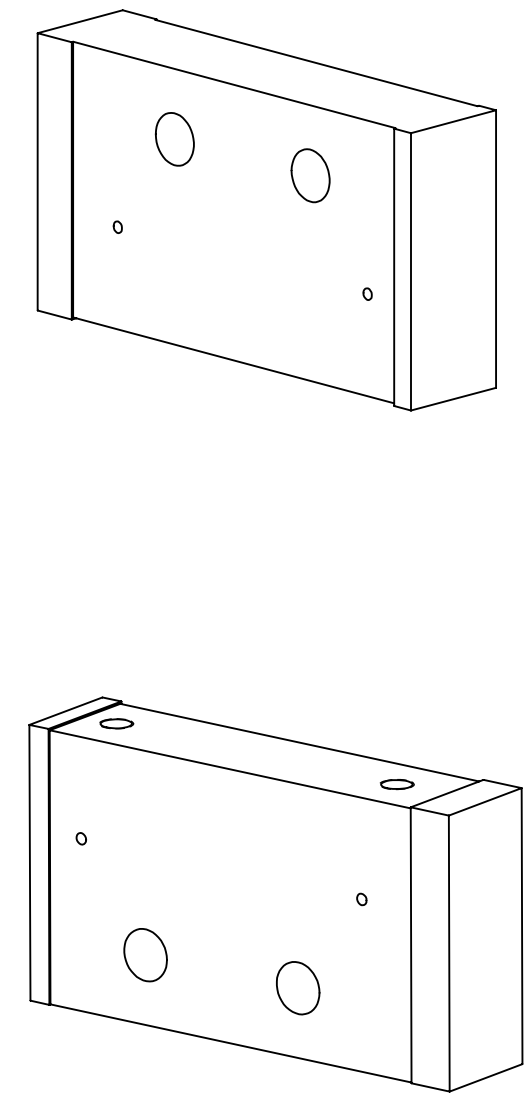
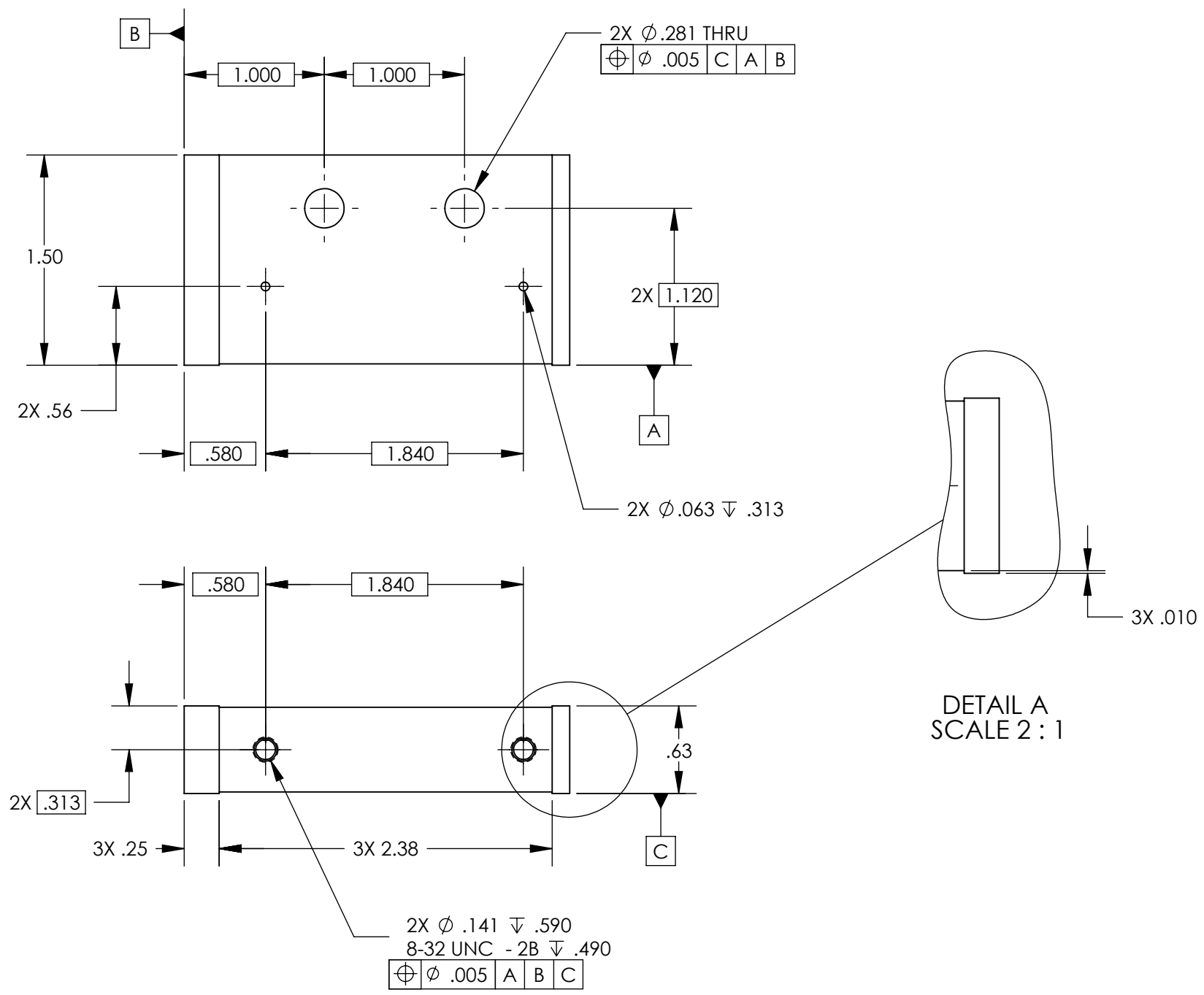
**NEXT ASSY** D0900170

PART NAME			SIZE DWG. NO.		REV.
CROSSBAR PLATE			B D0900168		v2
<b>DESIGNER</b>	N.Nguyen	26 May 2009			
<b>DRAFTER</b>	M. SMITH	01 JUL 2009			
<b>CHECKER</b>	C. TORRIE	01 JUL 2009			
<b>APPROVAL</b>			SCALE: 1:1	PROJECTION:	SHEET 1 OF 1



- NOTES CONTINUED:**
- 5. SCRIBE, ENGRAVE, OR MECHANICALLY STAMP (NO INKS OR DYES) DRAWING PART NUMBER, REVISION (AND VARIANT OR "TYPE" IF APPLICABLE) ON NOTED SURFACE OF PART FOLLOWED ON THE NEXT LINE WITH A THREE DIGIT SERIAL NUMBER. SERIAL NUMBERS START AT 001 FOR THE FIRST ARTICLE AND PROCEED CONSECUTIVELY. USE MINIMUM 0.12" HIGH CHARACTERS, UNLESS THE SIZE OF THE PART DICTATES SMALLER CHARACTERS. A VIBRATORY TOOL MAY BE USED.
  - 6. ~~FINISH: EXPOSED SURFACES TO BE CHAMFERED AND MILL FINISH. USE OF ABRASIVE REMOVAL TECHNIQUES IS NOT ALLOWED.~~
  - 7. ALL PARTS SHALL BE MANUFACTURED IN ACCORDANCE WITH LIGO SPECIFICATION E0900364.

REV.	DATE	DCN #	DRAWING TREE #
v1	01 JUL 2009	DCN #	
v2	07 OCT 2010	E1000563	

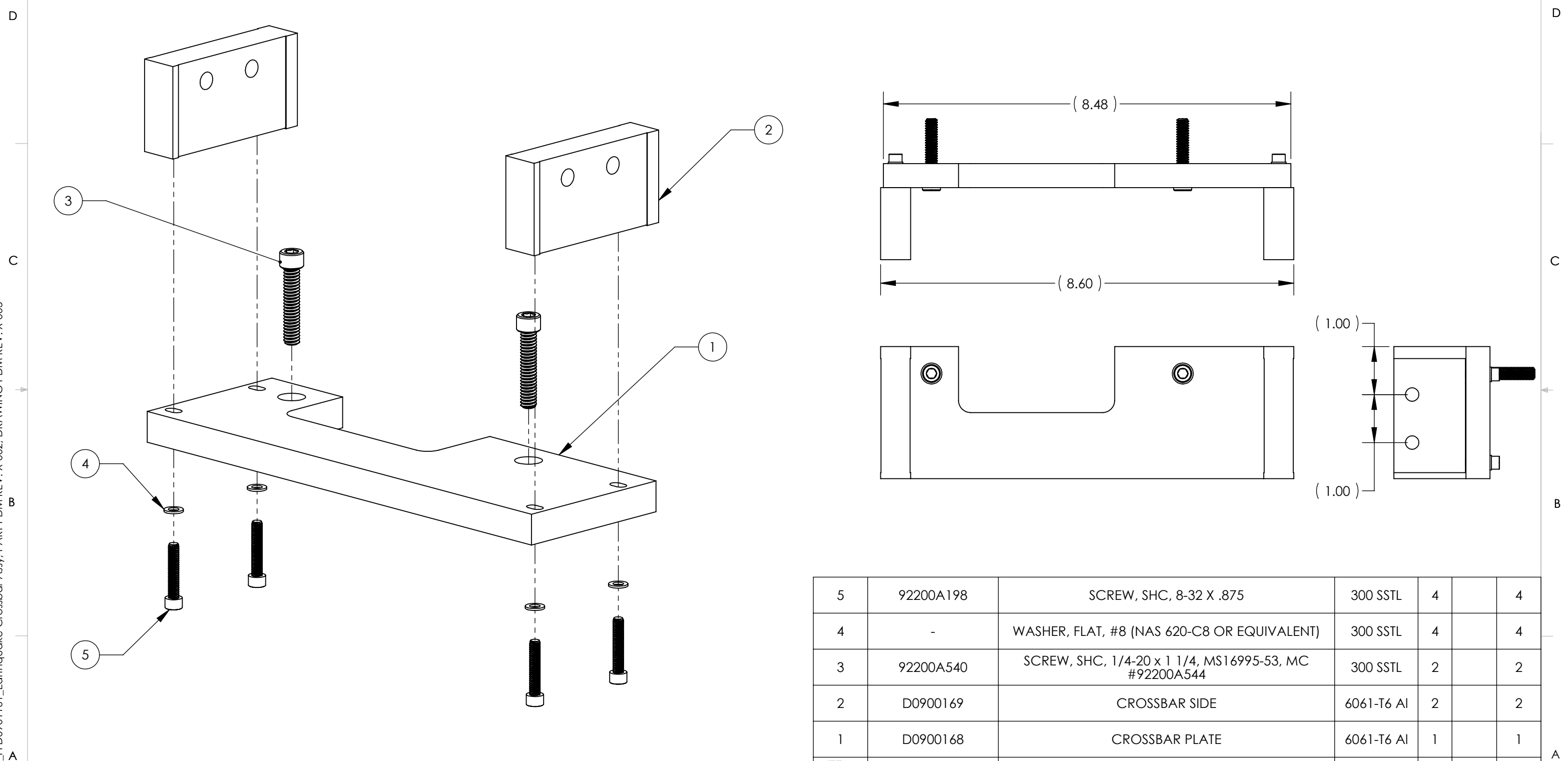


D0900169\_AdlIGO\_AOS\_D0900170\_Crossbar Side, PART PDM REV: X-014, DRAWING PDM REV: X-012

NOTES AND TOLERANCES: (UNLESS OTHERWISE SPECIFIED)				LIGO CALIFORNIA INSTITUTE OF TECHNOLOGY MASSACHUSETTS INSTITUTE OF TECHNOLOGY		PART NAME	
DIMENSIONS ARE IN TOLERANCES: .XX ± .02 .XXX ± .010 ANGULAR ± °				1. INTERPRET DRAWING PER ASME Y14.5-1994. 2. REMOVE ALL SHARP EDGES, R.02 MIN. 3. DO NOT SCALE FROM DRAWING. 4. ALL MACHINING FLUIDS SHALL BE WATER SOLUBLE AND FREE OF SULFUR, CHLORINE AND SILICONE, SUCH AS CINCINNATI MILACRON'S CIMTECH 410.		CROSSBAR SIDE	
						MATERIAL 6061-T6 Al FINISH 63 μinch	
SYSTEM ADVANCED LIGO SUB-SYSTEM AOS NEXT ASSY D0900170 & D1002256				DESIGNER	N.Nguyen	26 MAY 2009	SIZE DWG. NO.
				DRAFTER	M. SMITH	01 JUL 2009	<b>B</b> D0900169
				CHECKER	C. TORRIE	01 JUL 2009	REV. v2
				APPROVAL			SCALE: 1:1 PROJECTION: SHEET 1 OF 1

D0900170\_AdlIGO\_AOS\_FID0901161\_Earthquake Crossbar Assy, PART PDM REV: X-002, DRAWING PDM REV: X-005

REV.	DATE	DCN #	DRAWING TREE #
v1	07 OCT 2010	E1000563	-
-	-	-	-



ITEM NO.	PART NUMBER	DESCRIPTION	MATERIAL	REQ	SPARE	TOTAL
5	92200A198	SCREW, SHC, 8-32 X .875	300 S STL	4		4
4	-	WASHER, FLAT, #8 (NAS 620-C8 OR EQUIVALENT)	300 S STL	4		4
3	92200A540	SCREW, SHC, 1/4-20 x 1 1/4, MS16995-53, MC #92200A544	300 S STL	2		2
2	D0900169	CROSSBAR SIDE	6061-T6 Al	2		2
1	D0900168	CROSSBAR PLATE	6061-T6 Al	1		1

**NOTES AND TOLERANCES: (UNLESS OTHERWISE SPECIFIED)**

1. INTERPRET DRAWING PER ASME Y14.5-1994.  
 2. REMOVE ALL SHARP EDGES, R.02 MIN.  
 3. DO NOT SCALE FROM DRAWING.  
 4. ALL MACHINING FLUIDS MUST BE FULLY SYNTHETIC, FULLY WATER SOLUBLE AND FREE OF SULFUR, SILICONE, AND CHLORINE.

DIMENSIONS ARE IN  
 TOLERANCES:  
 .XX ±  
 .XXX ±  
 ANGULAR ± °

MATERIAL: -- FINISH: -- μinch

**LIGO** CALIFORNIA INSTITUTE OF TECHNOLOGY MASSACHUSETTS INSTITUTE OF TECHNOLOGY  
 SYSTEM: ADVANCED LIGO SUB-SYSTEM: AOS  
 NEXT ASSY: D0900136

PART NAME: EARTHQUAKE CROSSBAR ASSY  
 DESIGNER: N. Nguyen 17 Jun 2009  
 DRAFTER: M. SMITH 01 JUL 2009  
 CHECKER: C. TORRIE 01 JUL 2009  
 APPROVAL: C. TORRIE 01 JUL 2009

SCALE: 1:2 PROJECTION: SHEET 1 OF 1

SIZE DWG. NO. **B** **D0900170** REV. **v1**

8 7 6 5 4 3 2 1

D

C

B

A

8 7 6 5 4 3 2 1

D

C

B

A

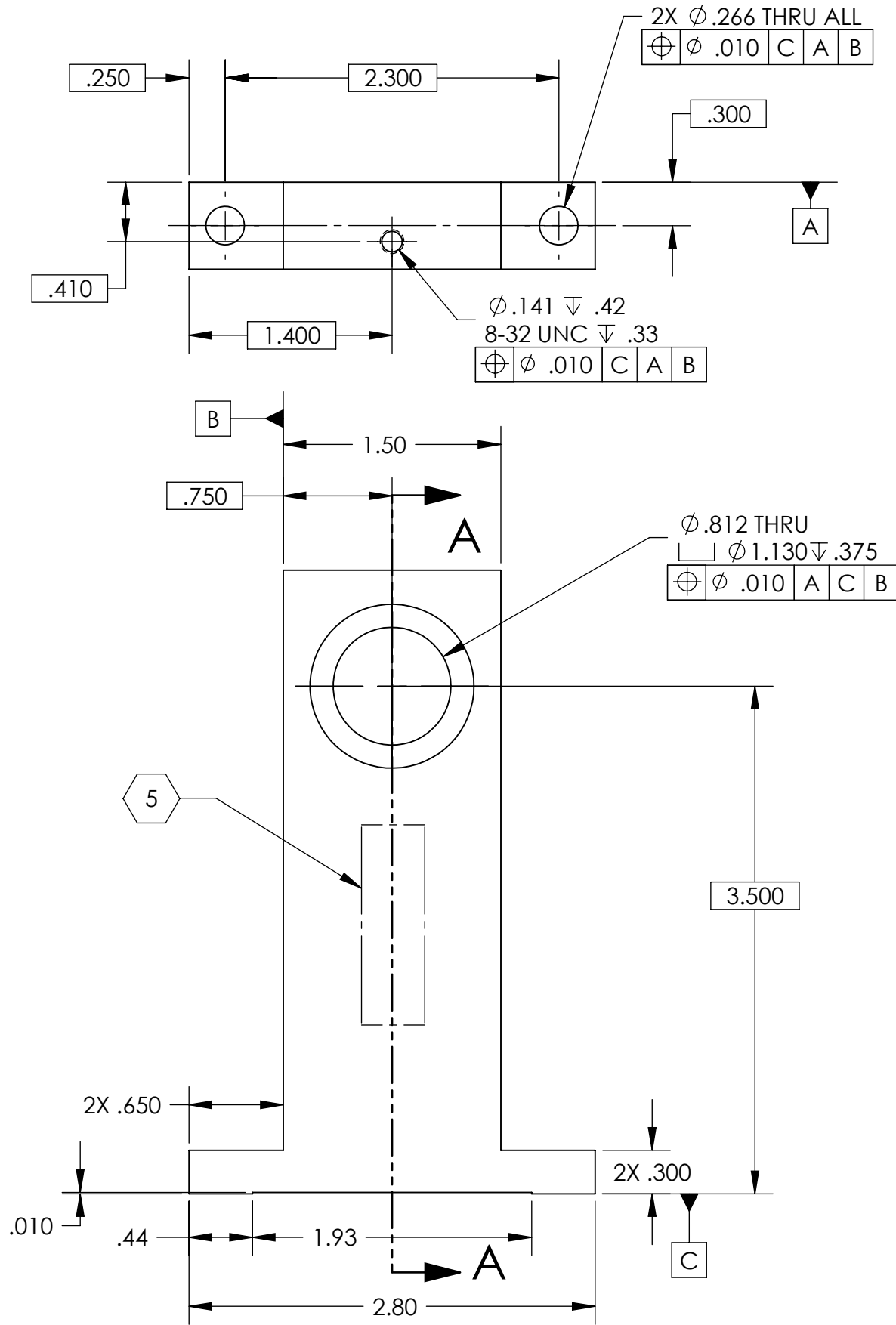
NOTES CONTINUED:

5. SCRIBE, ENGRAVE, OR MECHANICALLY STAMP (NO INKS OR DYES) DRAWING PART NUMBER, REVISION (AND VARIANT OR "TYPE" IF APPLICABLE) ON NOTED SURFACE OF PART FOLLOWED ON THE NEXT LINE WITH A THREE DIGIT SERIAL NUMBER. SERIAL NUMBERS START AT 001 FOR THE FIRST ARTICLE AND PROCEED CONSECUTIVELY. USE MINIMUM 0.12" HIGH CHARACTERS, UNLESS THE SIZE OF THE PART DICTATES SMALLER CHARACTERS. A VIBRATORY TOOL MAY BE USED.  
EXAMPLE: DXXXXXX-VY, TYPE-XX, S/N XXX

6. MACHINE ALL SURFACES TO REMOVE OXIDES AND MILL FINISH. USE OF ABRASIVE REMOVAL TECHNIQUES IS NOT ALLOWED.

7. ALL PARTS SHALL BE MANUFACTURED IN ACCORDANCE WITH LIGO SPECIFICATION E0900364.

REV.	DATE	DCN #	DRAWING TREE #
v1	08 OCT 2010	E1000563	



SECTION A-A

NOTES AND TOLERANCES: (UNLESS OTHERWISE SPECIFIED)

DIMENSIONS ARE IN INCHES  
TOLERANCES:  
.XX ± .02  
.XXX ± .010  
ANGULAR ± 0.6°

1. INTERPRET DRAWING PER ASME Y14.5-1994.  
2. REMOVE ALL SHARP EDGES, R.02 MIN.  
3. DO NOT SCALE FROM DRAWING.  
4. ALL MACHINING FLUIDS MUST BE FULLY SYNTHETIC, FULLY WATER SOLUBLE AND FREE OF SULFUR, SILICONE, AND CHLORINE.  
MATERIAL 6061-T6 Al  
FINISH 63 μinch

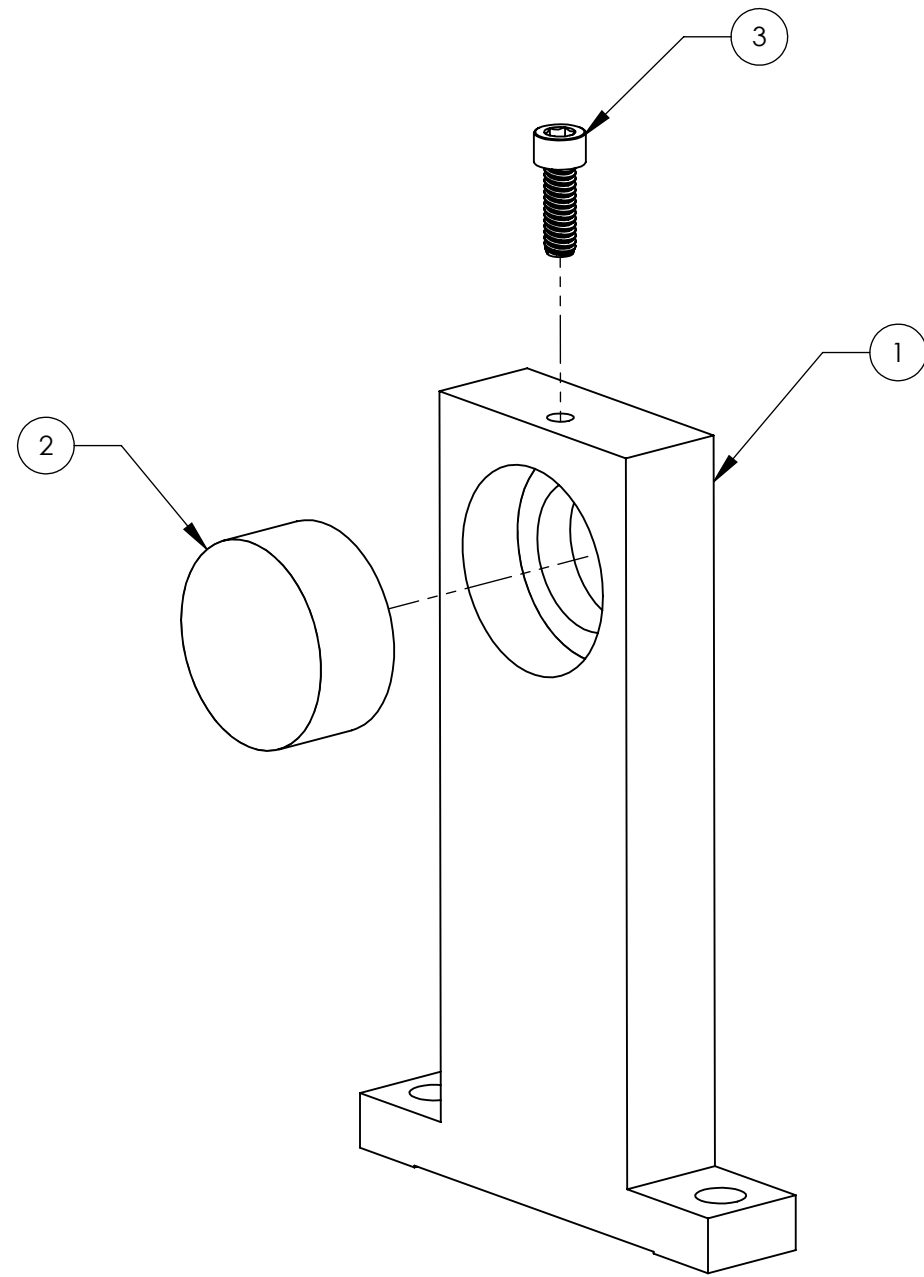
**LIGO** CALIFORNIA INSTITUTE OF TECHNOLOGY  
MASSACHUSETTS INSTITUTE OF TECHNOLOGY  
SYSTEM ADVANCED LIGO SUB-SYSTEM AOS  
NEXT ASSY D0900353

PART NAME		HALF WAVE PLATE HOLDER	
DESIGNER	N.Nguyen	DATE	09 FEB 2010
DRAFTER		SIZE	B
CHECKER		DWG. NO.	D0900352
APPROVAL		REV.	v1
SCALE: 1:1		PROJECTION:	
SHEET 1 OF 1			

D0900352\_AdlIGO-AOS\_D0900353\_Half Wave Plate Holder, PART PDM REV: X-009, DRAWING PDM REV: X-007

D0900353\_AdlIGO\_AOS\_D0900623\_Half Wave Plate Holder Assy., PART PDM REV: X-077, DRAWING PDM REV: X-003

REV.	DATE	DCN #	DRAWING TREE #
v1	08 OCT 2010	E1000563	



ITEM NO.	PART NUMBER	DESCRIPTION	MATERIAL	REQ	SPARE	TOTAL
3	92200A194	SCREW, SHC, 8-32 x 1/2, MS16995-26, MC #92200A194	300 SSSL	1		1
2	MWPQA2-22-1064-V	HALF WAVE PLATE-klccgo.com		1		1
1	D0900352	HALF WAVE PLATE HOLDER	6061-T6 Al	1		1

PARTS LIST

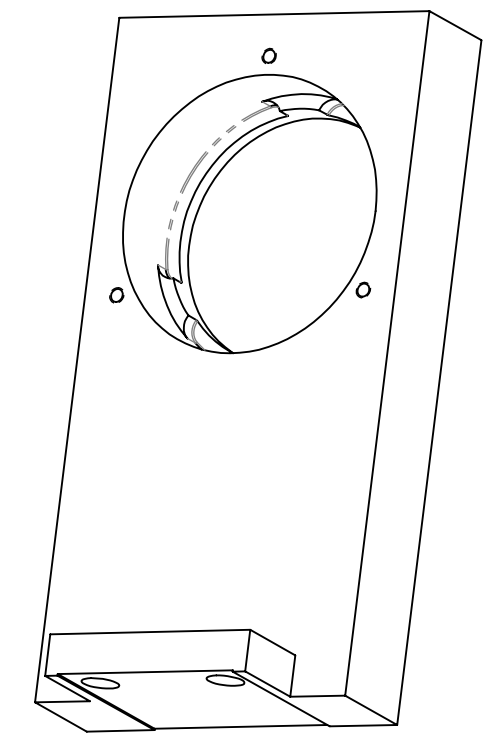
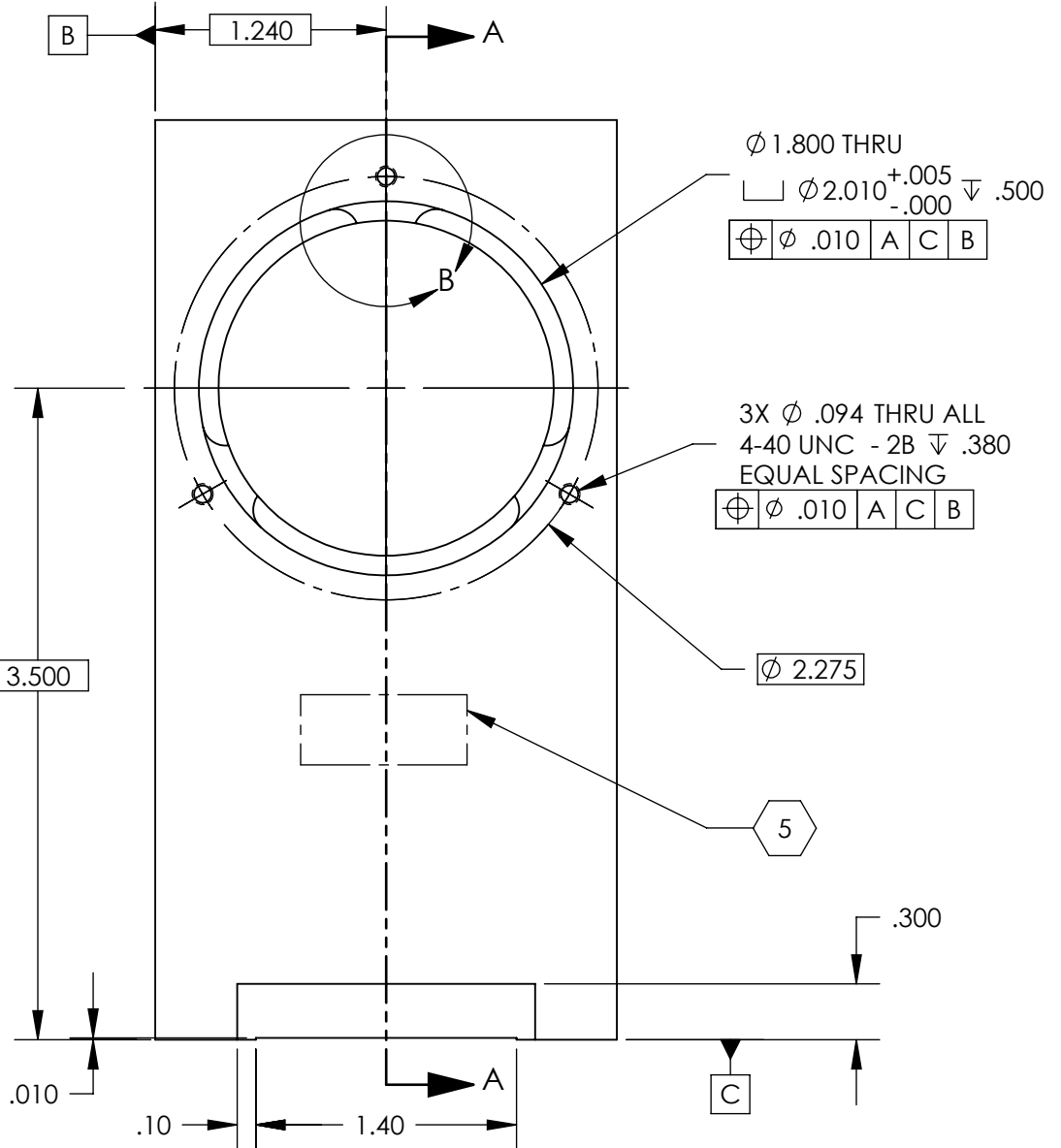
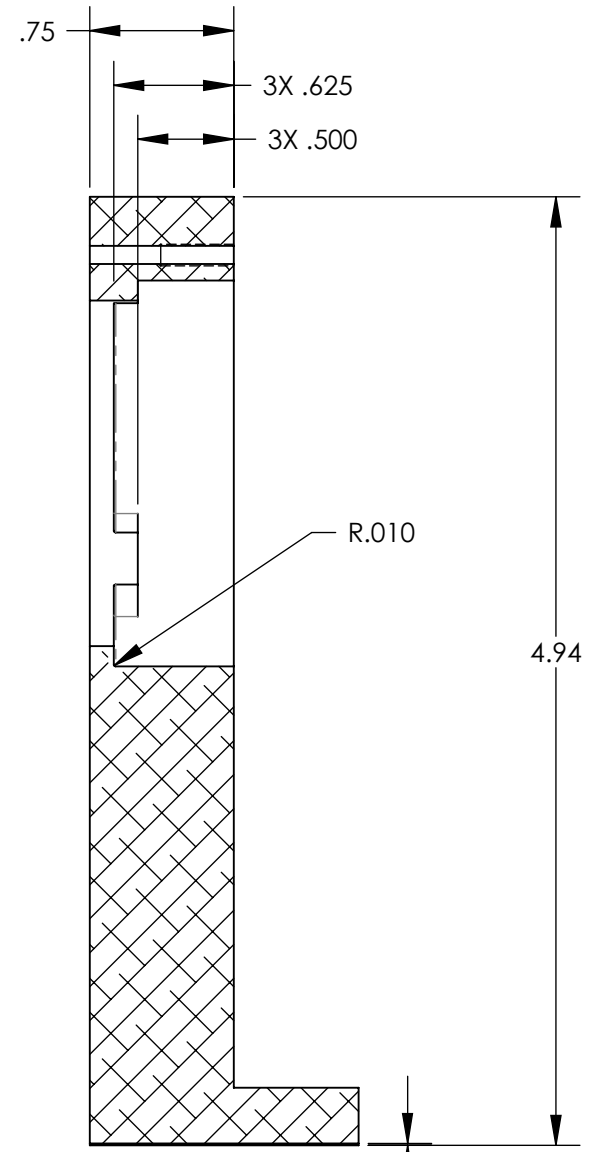
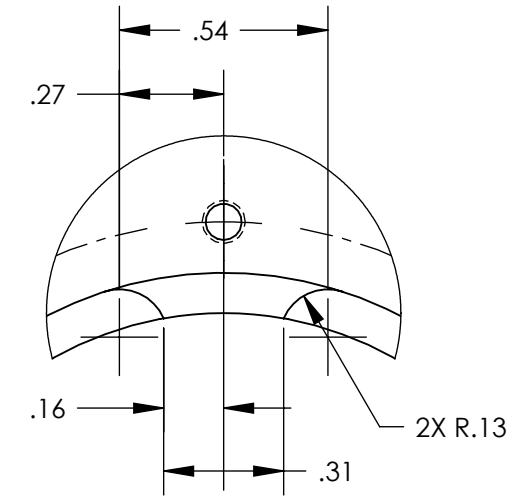
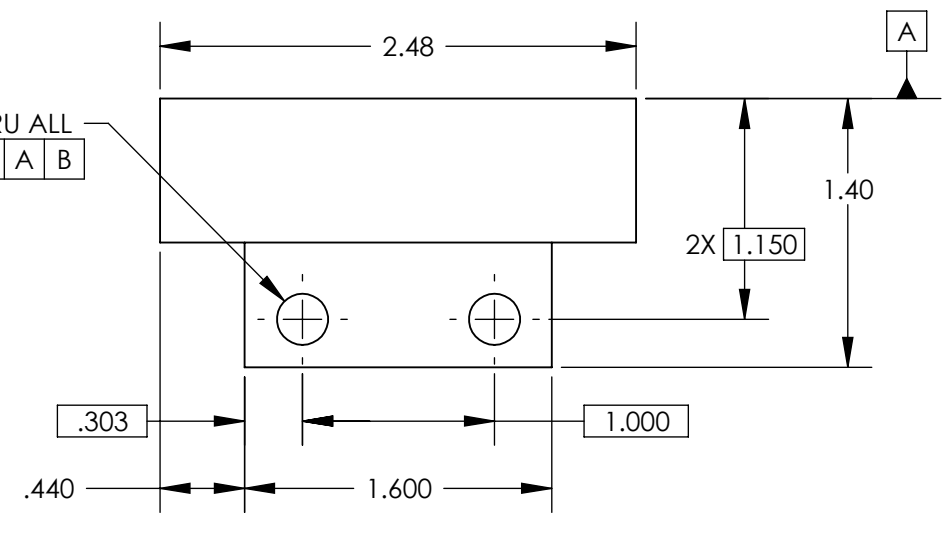
DIMENSIONS ARE IN TOLERANCES: .XX ± .XXX ± ANGULAR ± °		<b>NOTES AND TOLERANCES: (UNLESS OTHERWISE SPECIFIED)</b> 1. INTERPRET DRAWING PER ASME Y14.5-1994. 2. REMOVE ALL SHARP EDGES, R.02 MIN. 3. DO NOT SCALE FROM DRAWING. 4. ALL MACHINING FLUIDS MUST BE FULLY SYNTHETIC, FULLY WATER SOLUBLE AND FREE OF SULFUR, SILICONE, AND CHLORINE.		CALIFORNIA INSTITUTE OF TECHNOLOGY MASSACHUSETTS INSTITUTE OF TECHNOLOGY		PART NAME <b>HALF WAVE PLATE HOLDER ASSY</b>	
MATERIAL --		FINISH -- μinch		SYSTEM <b>ADVANCED LIGO</b>		SUB-SYSTEM <b>AOS</b>	
NEXT ASSY D0900623		DESIGNER DRAFTER CHECKER APPROVAL		SIZE DWG. NO. <b>B D0900353</b>		REV. <b>v1</b>	
				SCALE: 1:1 PROJECTION:		SHEET 1 OF 1	

NOTES CONTINUED:

- 5. SCRIBE, ENGRAVE, OR MECHANICALLY STAMP (NO INKS OR DYES) DRAWING PART NUMBER, REVISION (AND VARIANT OR "TYPE" IF APPLICABLE) ON NOTED SURFACE OF PART FOLLOWED ON THE NEXT LINE WITH A THREE DIGIT SERIAL NUMBER. SERIAL NUMBERS START AT 001 FOR THE FIRST ARTICLE AND PROCEED CONSECUTIVELY. USE MINIMUM 0.12" HIGH CHARACTERS, UNLESS THE SIZE OF THE PART DICTATES SMALLER CHARACTERS. A VIBRATORY TOOL MAY BE USED. EXAMPLE: DXXXXXX-VY, TYPE-XX, S/N XXX
- 6. MACHINE ALL SURFACES TO REMOVE OXIDES AND MILL FINISH. USE OF ABRASIVE REMOVAL TECHNIQUES IS NOT ALLOWED.
- 7. ALL PARTS SHALL BE MANUFACTURED IN ACCORDANCE WITH LIGO SPECIFICATION E0900364.

REV.	DATE	DCN #	DRAWING TREE #
v1	08 OCT 2010	E1000563	

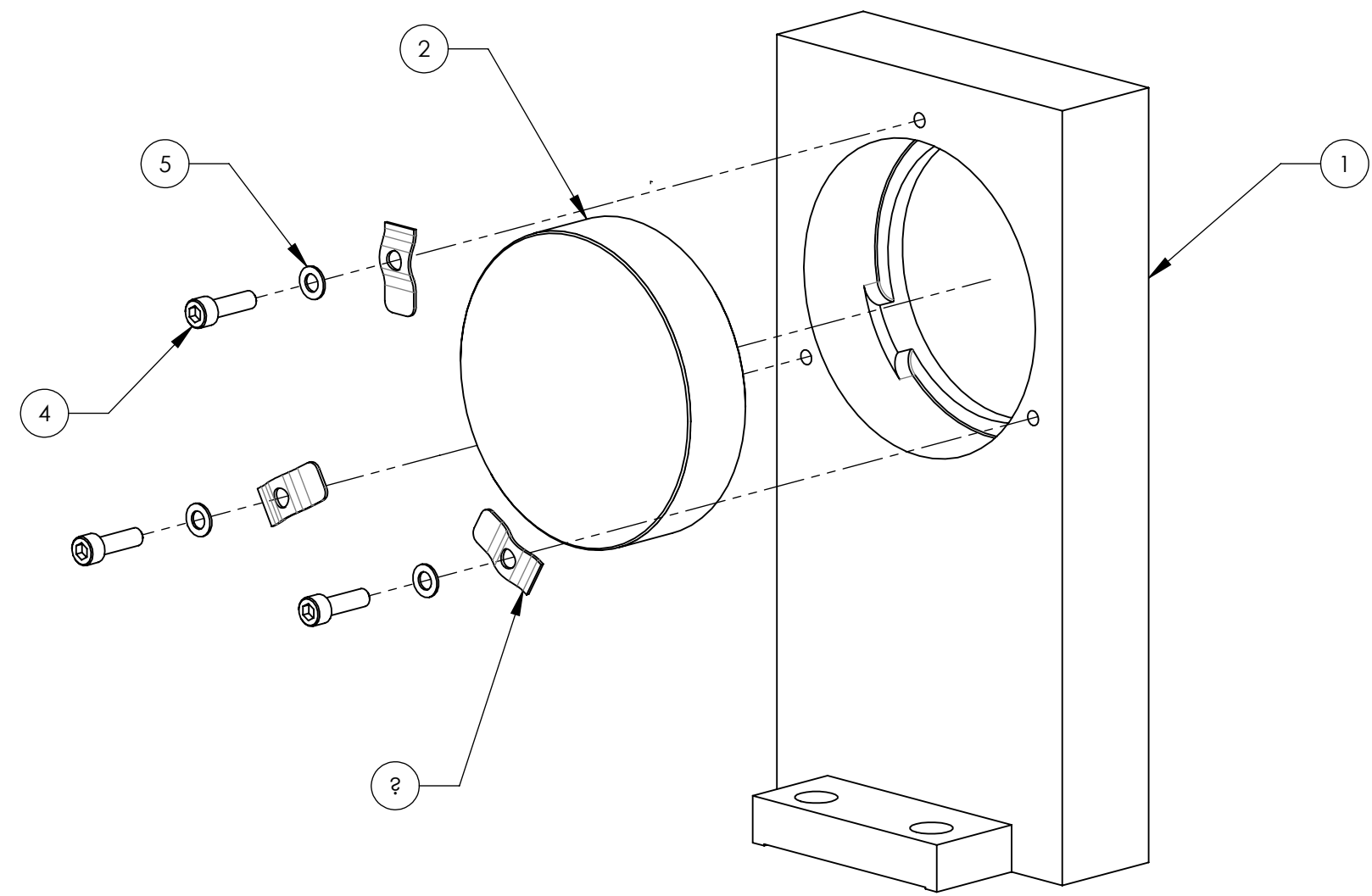
2X  $\phi .266$  THRU ALL  
 $\oplus \phi .010$  C A B



NOTES AND TOLERANCES: (UNLESS OTHERWISE SPECIFIED)				CALIFORNIA INSTITUTE OF TECHNOLOGY MASSACHUSETTS INSTITUTE OF TECHNOLOGY		PART NAME		
DIMENSIONS ARE IN INCHES				LIGO		TFP POLARIZER PLATE		
TOLERANCES: .XX ± .02 .XXX ± .010				ADVANCED LIGO		DESIGNER		
ANGULAR ± 0.5°				6061-T6 Al		DRAFTER		
FINISH 63 μinch				D0900440		N.Guyen		
MATERIAL				NEXT ASSY		10 FEB 2010		
				63 μinch		SIZE DWG. NO.		
				D0900440		B		
						D0900439		
						REV.		
						v1		
						SCALE: 1:1		
						PROJECTION:		
						SHEET 1 OF 1		

D0900440\_AdlIGO\_AOS\_D0900623\_TFP Polarizer Plate Assy, PART PDM REV: X-055, DRAWING PDM REV: X-005

REV.	DATE	DCN #	DRAWING TREE #
v1	08 OCT 2010	E1000563	



ITEM NO.	PART NUMBER	DESCRIPTION	MATERIAL	REQ	SPARE	TOTAL
5	-	WASHER, FLAT, #4 (NAS 620-C4L OR EQUIVALENT)	300 SSSL	3		3
4	-	SCREW, SOCKET HEAD CAP, #4-40 UNC-2A X 0.375 LONG	300 SSSL	3		3
3	D1001919	BEAM DUMP MOUNTING CLAMP	304 SSSL	3		3
2	TFP-1064-PW-2025-UV	STEERING MIRROR		1		1
1	D0900439	TFP POLARIZER PLATE	6061-T6 Al	1		1

**NOTES AND TOLERANCES: (UNLESS OTHERWISE SPECIFIED)**

1. INTERPRET DRAWING PER ASME Y14.5-1994.  
 2. REMOVE ALL SHARP EDGES, R.02 MIN.  
 3. DO NOT SCALE FROM DRAWING.  
 4. ALL MACHINING FLUIDS MUST BE FULLY SYNTHETIC, FULLY WATER SOLUBLE AND FREE OF SULFUR, SILICONE, AND CHLORINE.

DIMENSIONS ARE IN  
 TOLERANCES:  
 .XX ±  
 .XXX ±  
 ANGULAR ± °

MATERIAL: -- FINISH: -- μinch

**PARTS LIST**

CALIFORNIA INSTITUTE OF TECHNOLOGY MASSACHUSETTS INSTITUTE OF TECHNOLOGY		PART NAME <b>TFP POLARIZER PLATE ASSY</b>	
SYSTEM <b>ADVANCED LIGO</b>	SUB-SYSTEM <b>AOS</b>	DESIGNER DRAFTER CHECKER APPROVAL	SIZE DWG. NO. <b>B D0900440</b>
NEXT ASSY <b>D0900623</b>	MRUIZ 08/31/2010	REV. <b>v1</b>	SCALE: 1:1 PROJECTION:  SHEET 1 OF 1

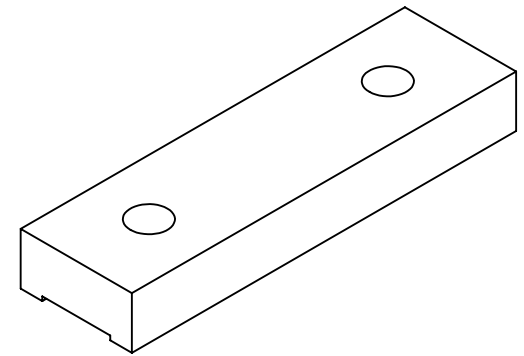
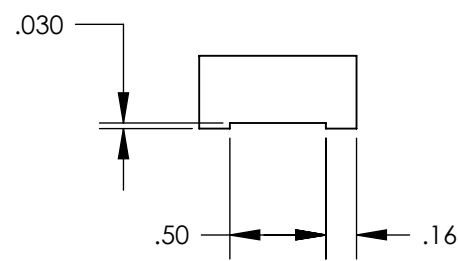
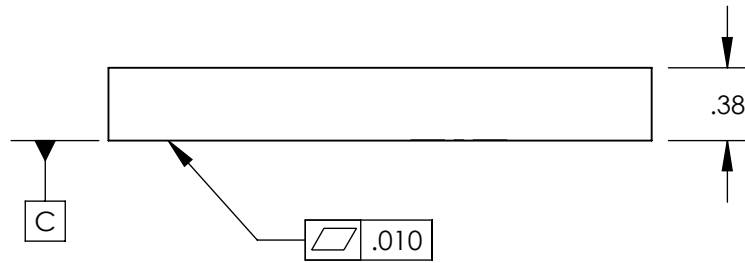
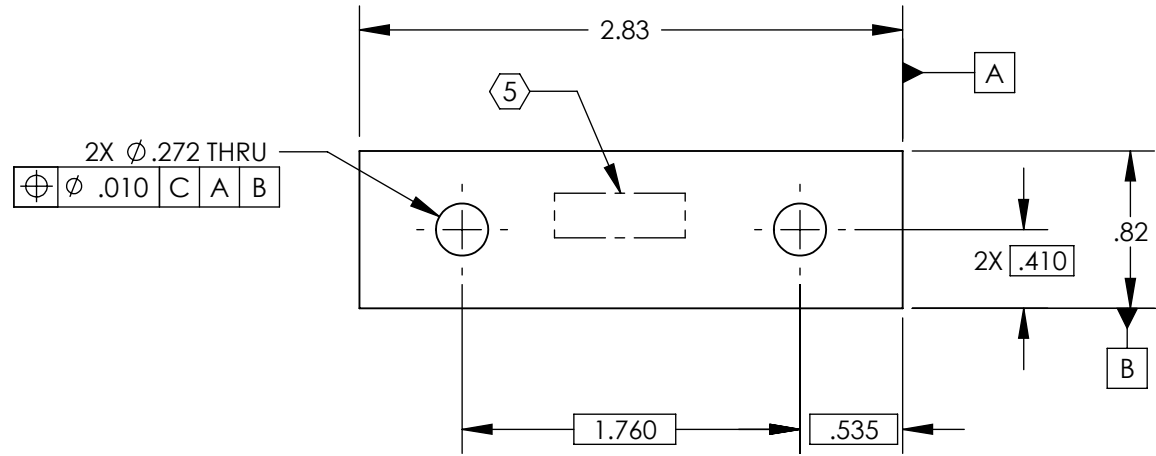
NOTES CONTINUED:

5. SCRIBE, ENGRAVE, OR MECHANICALLY STAMP (NO INKS OR DYES) DRAWING PART NUMBER, REVISION (AND VARIANT OR "TYPE" IF APPLICABLE) ON NOTED SURFACE OF PART FOLLOWED ON THE NEXT LINE WITH A THREE DIGIT SERIAL NUMBER. SERIAL NUMBERS START AT 001 FOR THE FIRST ARTICLE AND PROCEED CONSECUTIVELY. USE MINIMUM 0.12" HIGH CHARACTERS, UNLESS THE SIZE OF THE PART DICTATES SMALLER CHARACTERS. A VIBRATORY TOOL MAY BE USED.  
EXAMPLE: DXXXXXX-VY, TYPE-XX, S/N XXX

6. MACHINE ALL SURFACES TO REMOVE OXIDES AND MILL FINISH, USE OF ABRASIVE REMOVAL TECHNIQUES IS NOT ALLOWED.

7. ALL PARTS SHALL BE MANUFACTURED IN ACCORDANCE WITH LIGO SPECIFICATION E0900364.

REV.	DATE	DCN #	DRAWING TREE #
v1	14 Jul 2009	E0900203	
v2	07 OCT 2010	E1000563	



D0900566\_AdlIGO\_AOS\_D0900570\_Upper Blade Clamp\_Top, PART PDM REV: X-007, DRAWING PDM REV: X-008

NOTES AND TOLERANCES: (UNLESS OTHERWISE SPECIFIED)				LIGO CALIFORNIA INSTITUTE OF TECHNOLOGY MASSACHUSETTS INSTITUTE OF TECHNOLOGY		PART NAME	
DIMENSIONS ARE IN TOLERANCES: .XX ± .02 .XXX ± .010 ANGULAR ± °				1. INTERPRET DRAWING PER ASME Y14.5-1994. 2. REMOVE ALL SHARP EDGES, R.02 MIN. 3. DO NOT SCALE FROM DRAWING. 4. ALL MACHINING FLUIDS MUST BE FULLY SYNTHETIC, FULLY WATER SOLUBLE AND FREE OF SULFUR, SILICONE, AND CHLORINE.		UP BLADE CLAMP TOP	
						MATERIAL 6061-T6 Al FINISH 63 μinch NEXT ASSY D0900136	
				DESIGNER		SIZE DWG. NO.	REV.
				DRAFTER	N.Nguyen	14 Jul 2009	B
				CHECKER	K. Malland	16 Jul 2009	D0900566
				APPROVAL	C. Torrie	17 Jul 2009	v2
				SCALE: 1:1	PROJECTION:	SHEET 1 OF 1	

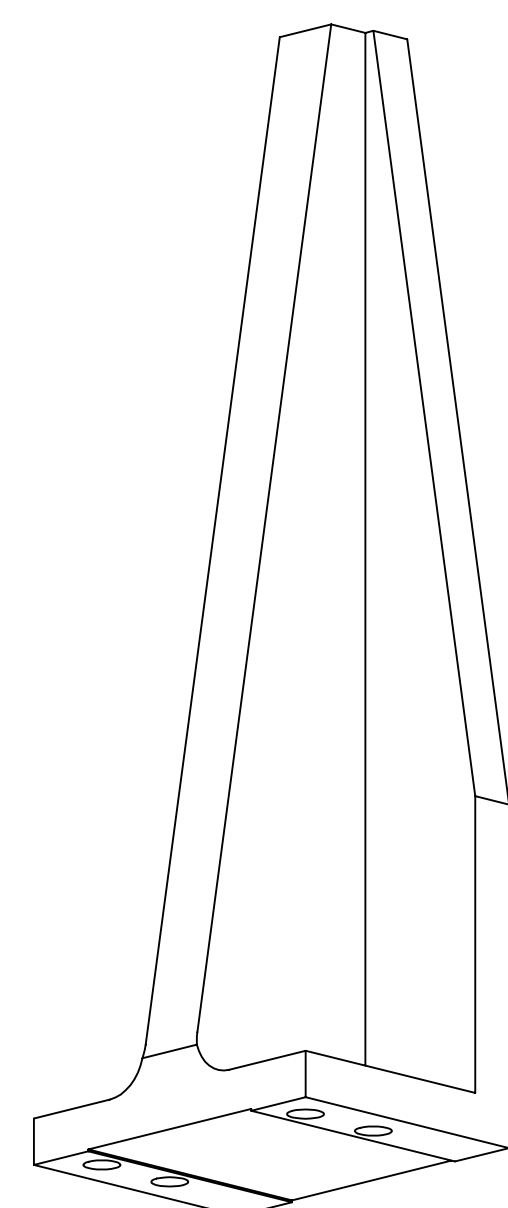
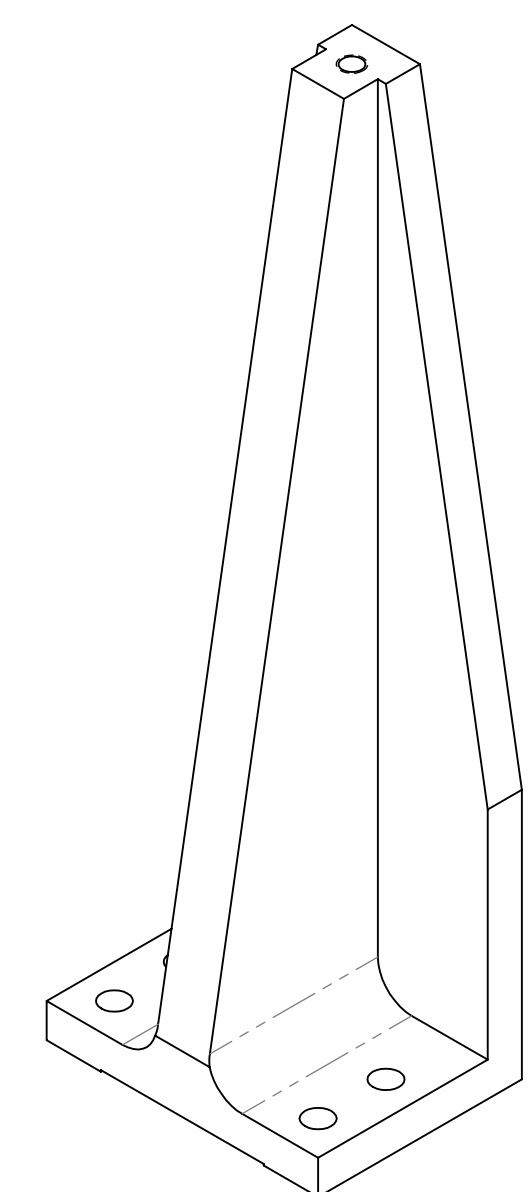
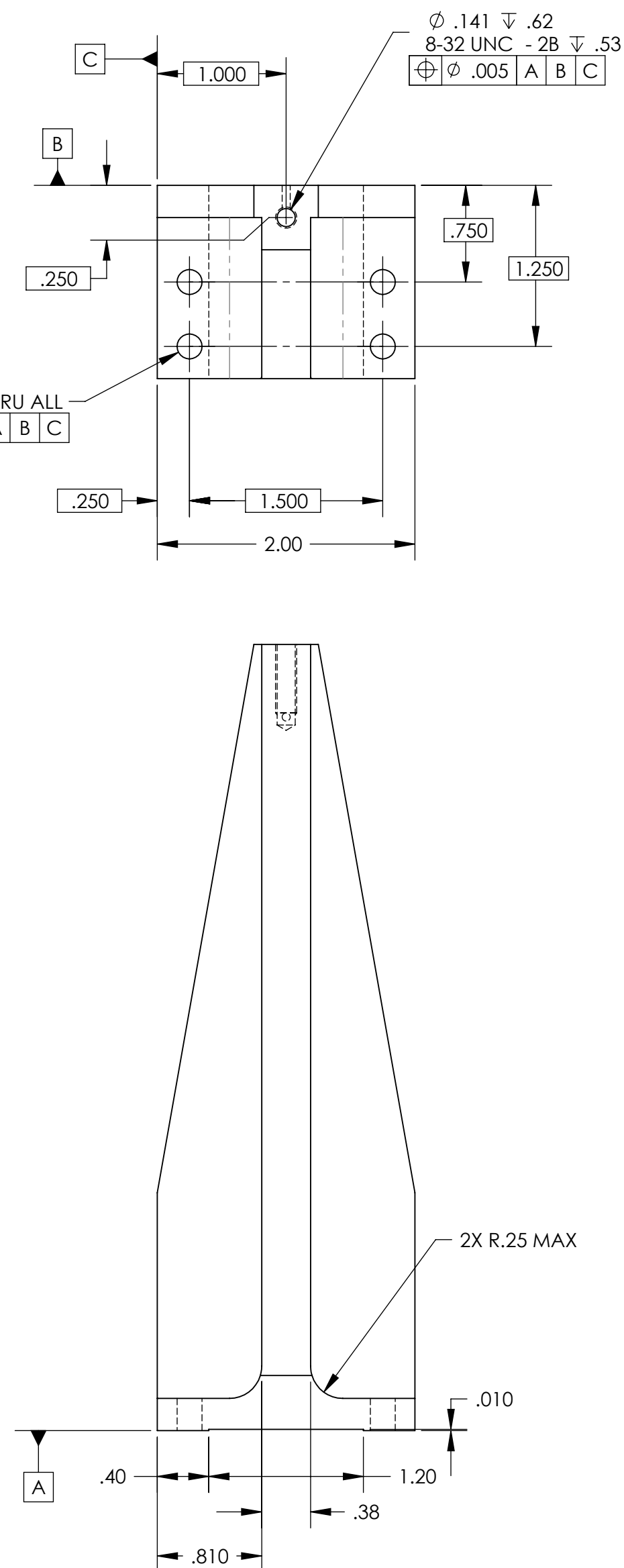
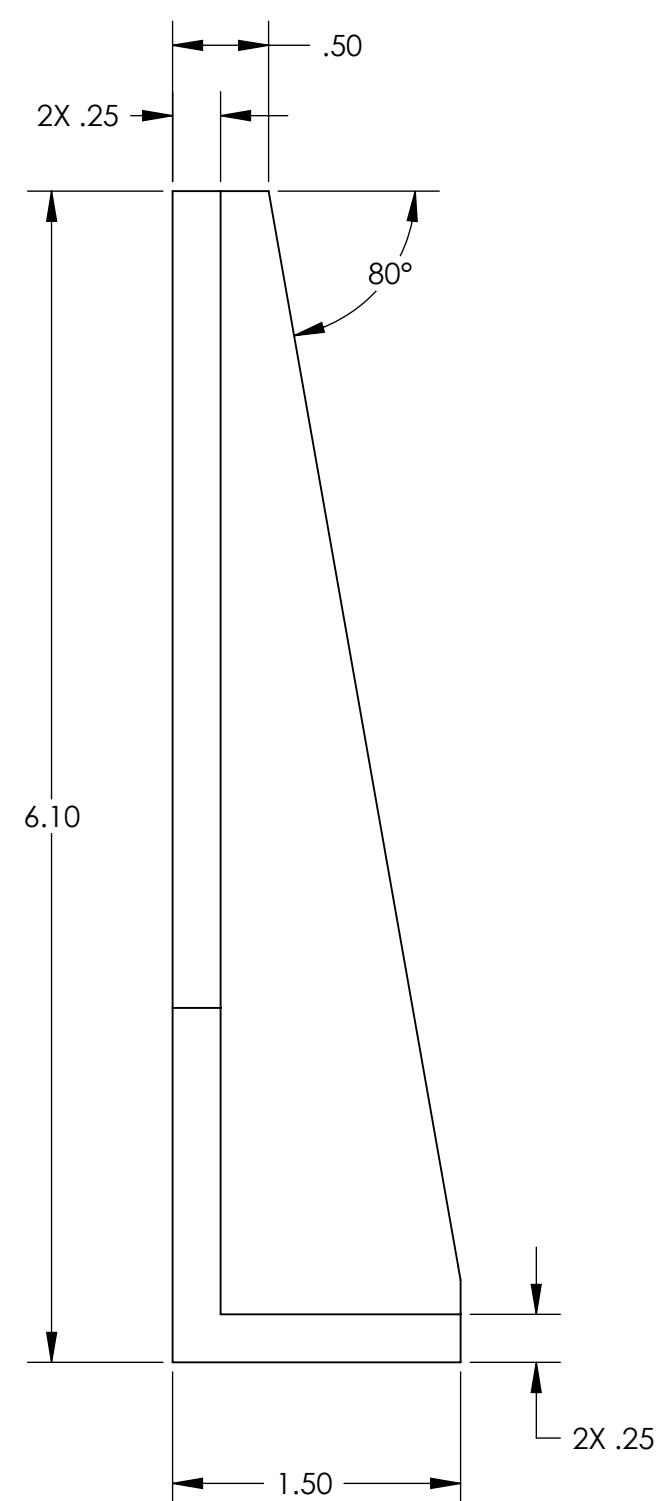
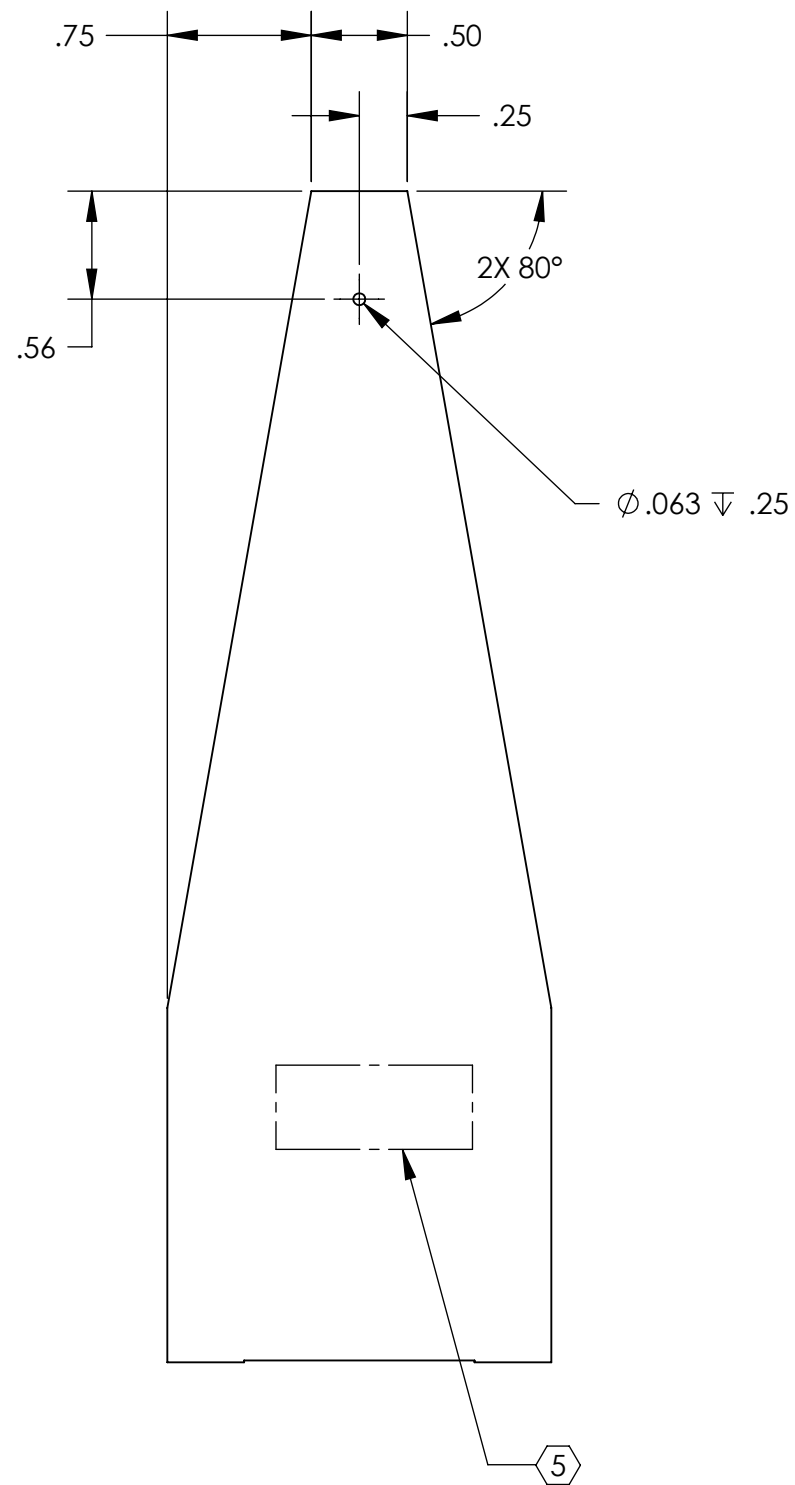
NOTES CONTINUED:

5. SCRIBE, ENGRAVE, OR MECHANICALLY STAMP (NO INKS OR DYES) DRAWING PART NUMBER, REVISION (AND VARIANT OR "TYPE" IF APPLICABLE) ON NOTED SURFACE OF PART FOLLOWED ON THE NEXT LINE WITH A THREE DIGIT SERIAL NUMBER. SERIAL NUMBERS START AT 001 FOR THE FIRST ARTICLE AND PROCEED CONSECUTIVELY. USE MINIMUM 0.12" HIGH CHARACTERS, UNLESS THE SIZE OF THE PART DICTATES SMALLER CHARACTERS. A VIBRATORY TOOL MAY BE USED. EXAMPLE: DXXXXXX-VY, TYPE-XX, S/N XXX

6. MACHINE ALL SURFACES TO REMOVE OXIDES AND MILL FINISH, USE OF ABRASIVE REMOVAL TECHNIQUES IS NOT ALLOWED.

7. ALL PARTS SHALL BE MANUFACTURED IN ACCORDANCE WITH LIGO SPECIFICATION E0900364.

REV.	DATE	DCN #	DRAWING TREE #
v1	21 JUL 2009	E0900209	-
v2	07 OCT 2010	E1000563	-
-	-	-	-



NOTES AND TOLERANCES: (UNLESS OTHERWISE SPECIFIED)

1. INTERPRET DRAWING PER ASME Y14.5-1994.
2. REMOVE ALL SHARP EDGES, R.02 MIN.
3. DO NOT SCALE FROM DRAWING.
4. ALL MACHINING FLUIDS SHALL BE WATER SOLUBLE AND FREE OF SULFUR, CHLORINE AND SILICONE, SUCH AS CINCINNATI MILACRON'S CIMTECH 410.

MATERIAL: 6061-T6 Al  
FINISH: 63 μinch

**LIGO** CALIFORNIA INSTITUTE OF TECHNOLOGY  
MASSACHUSETTS INSTITUTE OF TECHNOLOGY

SYSTEM: ADVANCED LIGO      SUB-SYSTEM: AOS

NEXT ASSY: D0900579

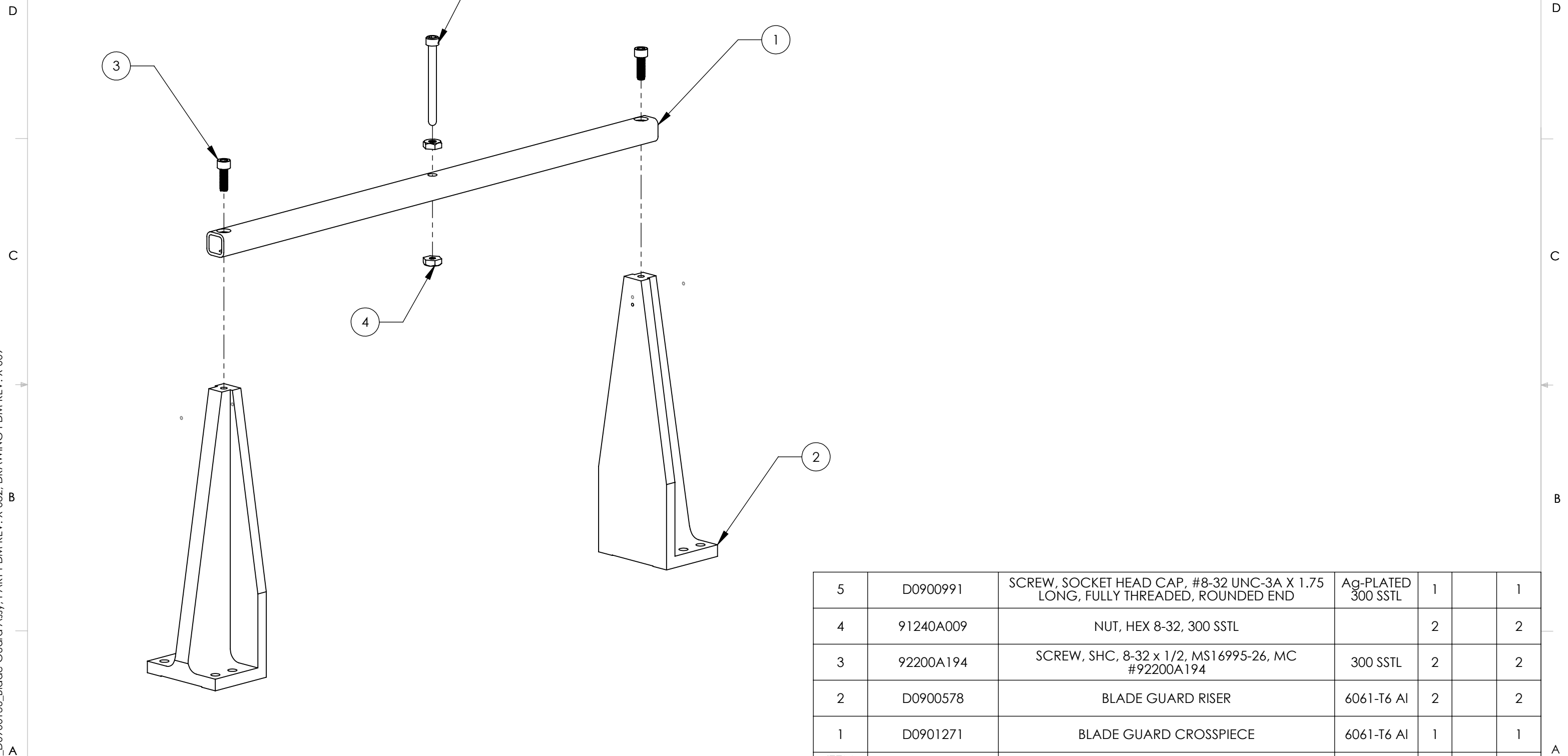
PART NAME: BLADE GUARD RISER

DESIGNER		SIZE	DWG. NO.	REV.
DRAFTER	N.Nguyen	c	D0900578	v2
CHECKER	K. MAILAND	SCALE: 1:1	PROJECTION:	SHEET 1 OF 1
APPROVAL	C. TORRIE			



D0900579\_AdlIGO\_AOS\_D0900136\_Blade Guard Assy, PART PDM REV: X-082, DRAWING PDM REV: X-009

REV.	DATE	DCN #	DRAWING TREE #
v1	21 JUL 2009	D0900209	-
v2	07 OCT 2010	E1000563	-
-	-	-	-



ITEM NO.	PART NUMBER	DESCRIPTION	MATERIAL	REQ	SPARE	TOTAL
5	D0900991	SCREW, SOCKET HEAD CAP, #8-32 UNC-3A X 1.75 LONG, FULLY THREADED, ROUNDED END	Ag-PLATED 300 SSSL	1		1
4	91240A009	NUT, HEX 8-32, 300 SSSL		2		2
3	92200A194	SCREW, SHC, 8-32 x 1/2, MS16995-26, MC #92200A194	300 SSSL	2		2
2	D0900578	BLADE GUARD RISER	6061-T6 Al	2		2
1	D0901271	BLADE GUARD CROSSPIECE	6061-T6 Al	1		1

**NOTES AND TOLERANCES: (UNLESS OTHERWISE SPECIFIED)**

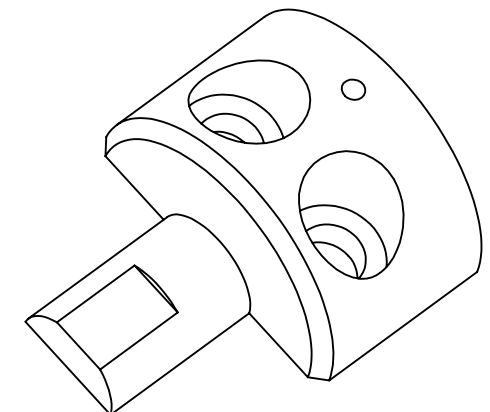
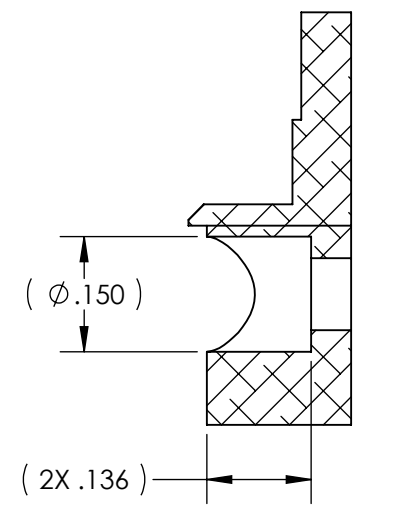
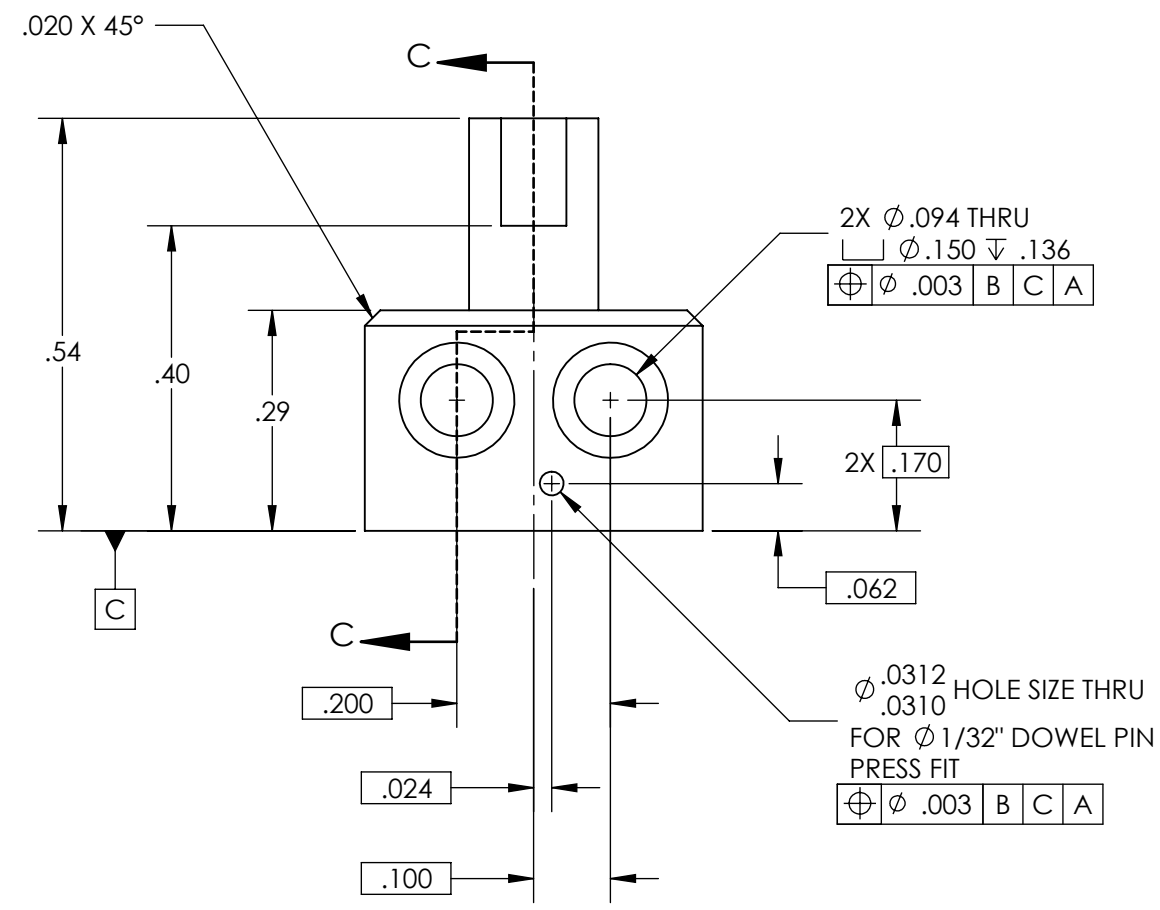
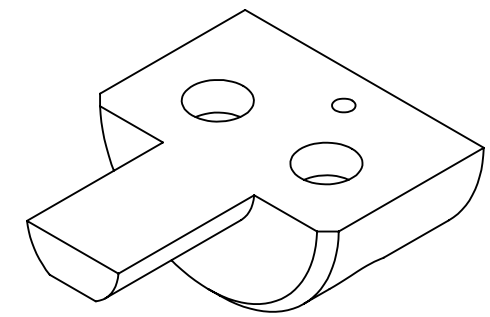
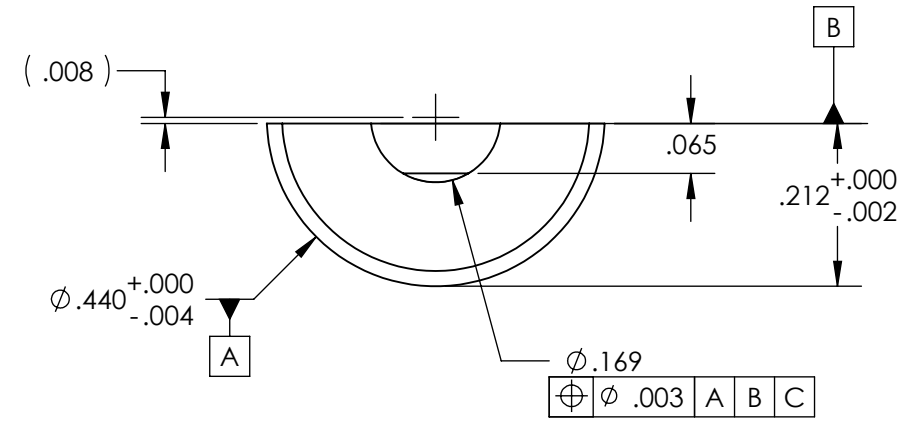
<p>DIMENSIONS ARE IN</p> <p>TOLERANCES:</p> <p>.XX ±</p> <p>.XXX ±</p> <p>ANGULAR ± °</p>	<p>1. INTERPRET DRAWING PER ASME Y14.5-1994.</p> <p>2. REMOVE ALL SHARP EDGES, R.02 MIN.</p> <p>3. DO NOT SCALE FROM DRAWING.</p> <p>4. ALL MACHINING FLUIDS MUST BE FULLY SYNTHETIC, FULLY WATER SOLUBLE AND FREE OF SULFUR, SILICONE, AND CHLORINE.</p>	<p><b>LIGO</b> CALIFORNIA INSTITUTE OF TECHNOLOGY MASSACHUSETTS INSTITUTE OF TECHNOLOGY</p> <p>SYSTEM: <b>ADVANCED LIGO</b> SUB-SYSTEM: <b>AOS</b></p> <p>NEXT ASSY: <b>D0900136</b></p>	<p>PART NAME: <b>BLADE GUARD ASSY</b></p> <table border="1"> <tr> <td>DESIGNER</td> <td></td> <td>SIZE</td> <td>DWG. NO.</td> <td>REV.</td> </tr> <tr> <td>DRAFTER</td> <td>N. Nguyen</td> <td>20 Jul 2009</td> <td rowspan="3"><b>B</b></td> <td rowspan="3"><b>D0900579</b></td> </tr> <tr> <td>CHECKER</td> <td>K. Mailland</td> <td>22 Jul 2009</td> </tr> <tr> <td>APPROVAL</td> <td>C. Torrie</td> <td>22 Jul 2009</td> </tr> </table>	DESIGNER		SIZE	DWG. NO.	REV.	DRAFTER	N. Nguyen	20 Jul 2009	<b>B</b>	<b>D0900579</b>	CHECKER	K. Mailland	22 Jul 2009	APPROVAL	C. Torrie	22 Jul 2009
DESIGNER		SIZE	DWG. NO.	REV.															
DRAFTER	N. Nguyen	20 Jul 2009	<b>B</b>	<b>D0900579</b>															
CHECKER	K. Mailland	22 Jul 2009																	
APPROVAL	C. Torrie	22 Jul 2009																	

SCALE: 1:2 PROJECTION: SHEET 1 OF 1

**NOTES CONTINUED:**  
 5. SCRIBE, ENGRAVE, OR MECHANICALLY STAMP (NO DYES OR INKS) A UNIQUE THREE DIGIT SERIAL NUMBER & REVISION NUMBER ON EACH PART. SERIAL NUMBERS START AT 001 FOR THE FIRST ARTICLE AND PROCEED CONSECUTIVELY. BAG AND TAG PARTS WITH THEIR DRAWING PART NUMBER, REVISION, VARIANT OR "TYPE" (IF APPLICABLE), AND QUANTITY. IF PARTS ARE TOO SMALL TO SCRIBE, BAGGING AND TAGGING ALONE IS SUFFICIENT.  
 EXAMPLE (PART): 001-v1  
 EXAMPLE (TAG): DXXXXXX-VY, TYPE-XX, QTY: TBD

REV.	DATE	DCN #	DRAWING TREE #
v1	01 APR 2009	E0900244	
v2	07 OCT 2010	E1000563	

D 6. MACHINE ALL SURFACES TO REMOVE OXIDES AND MILL FINISH. USE OF ABRASIVE REMOVAL TECHNIQUES IS NOT ALLOWED.  
 7. ALL PARTS SHALL BE MANUFACTURED IN ACCORDANCE WITH LIGO SPECIFICATION E0900364.



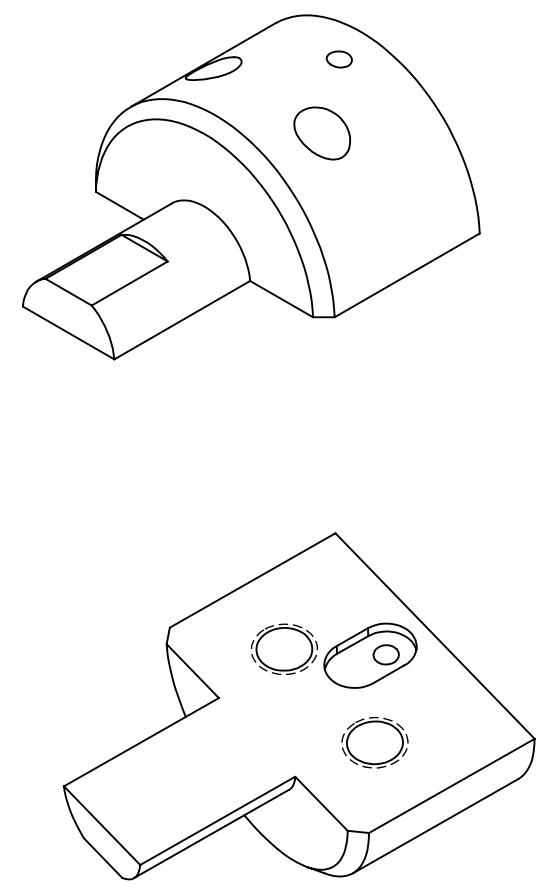
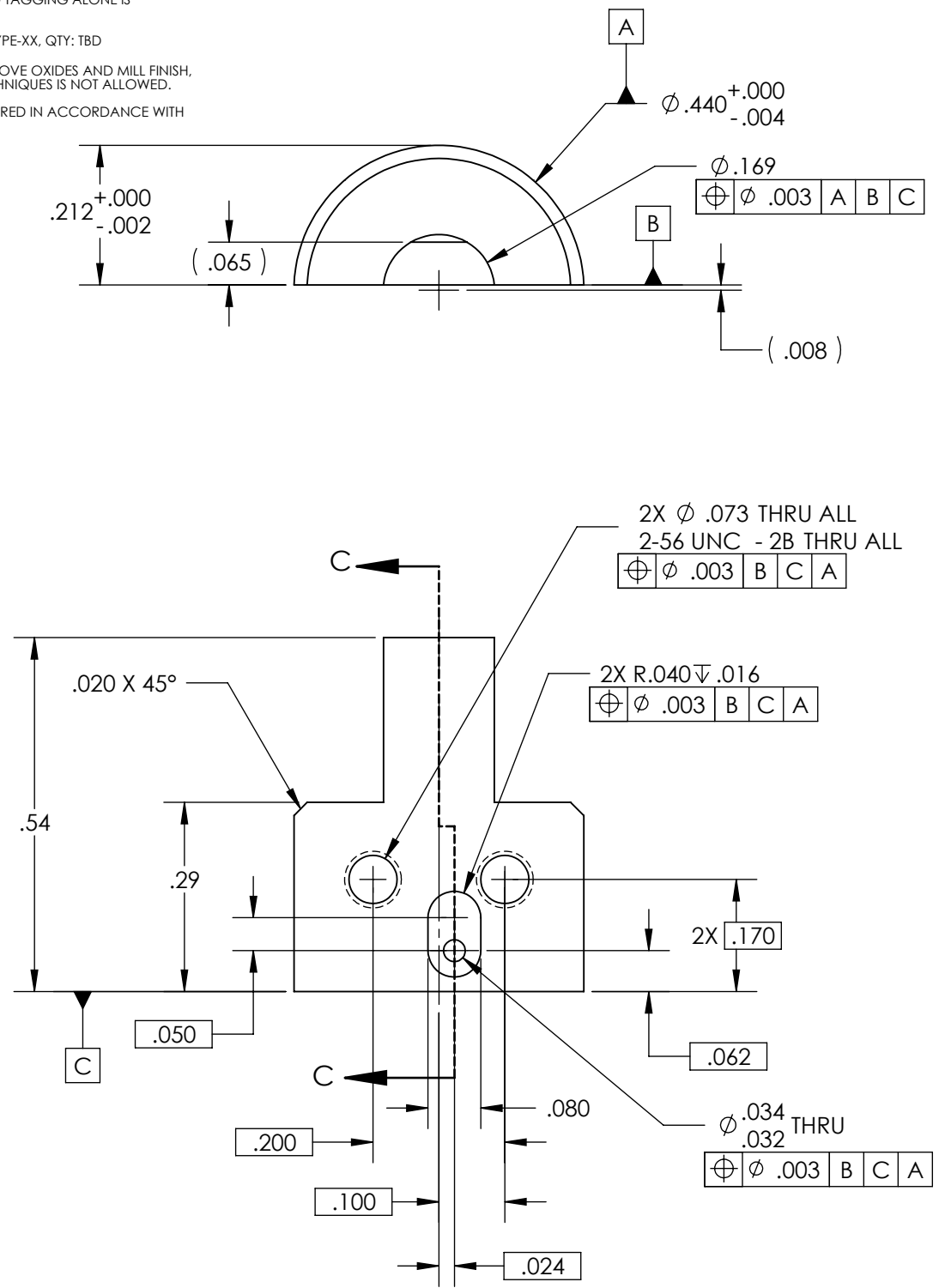
NOTES AND TOLERANCES: (UNLESS OTHERWISE SPECIFIED)				CALIFORNIA INSTITUTE OF TECHNOLOGY MASSACHUSETTS INSTITUTE OF TECHNOLOGY		PART NAME	
DIMENSIONS ARE IN INCHES				LIGO		MUSIC WIRE SPLIT CLAMP 1	
TOLERANCES: .XX ± .005 .XXX ± .002				ADVANCED LIGO		DESIGNER	
ANGULAR ± 0.5°				SUB-SYSTEM AOS		DRAFTER N.Nguyen 18 Aug 2009	
MATERIAL 304, 316 OR 302 SSSL				NEXT ASSY D0900586		CHECKER M.Smith 21 Aug 2009	
FINISH 63 μinch				APPROVAL		SIZE DWG. NO. B D0900582	
						REV. v2	
						SCALE: 1:1 PROJECTION: SHEET 1 OF 1	

D0900582\_AdlIGO\_AOS\_D0900586\_Music Wire Split Clamp 1, PART PDM REV: X-015, DRAWING PDM REV: X-013

**NOTES CONTINUED:**  
 5. SCRIBE, ENGRAVE, OR MECHANICALLY STAMP (NO DYES OR INKS) A UNIQUE THREE DIGIT SERIAL NUMBER & REVISION NUMBER ON EACH PART. SERIAL NUMBERS START AT 001 FOR THE FIRST ARTICLE AND PROCEED CONSECUTIVELY. BAG AND TAG PARTS WITH THEIR DRAWING PART NUMBER, REVISION, VARIANT OR "TYPE" (IF APPLICABLE), AND QUANTITY. IF PARTS ARE TOO SMALL TO SCRIBE, BAGGING AND TAGGING ALONE IS SUFFICIENT.  
 EXAMPLE (PART): 001-v1  
 EXAMPLE (TAG): DXXXXXX-VY, TYPE-XX, QTY: TBD

REV.	DATE	DCN #	DRAWING TREE #
v1	01 APR 2009	E0900244	
v2	07 OCT 2010	E1000563	

6. MACHINE ALL SURFACES TO REMOVE OXIDES AND MILL FINISH. USE OF ABRASIVE REMOVAL TECHNIQUES IS NOT ALLOWED.  
 7. ALL PARTS SHALL BE MANUFACTURED IN ACCORDANCE WITH LIGO SPECIFICATION E0900364.

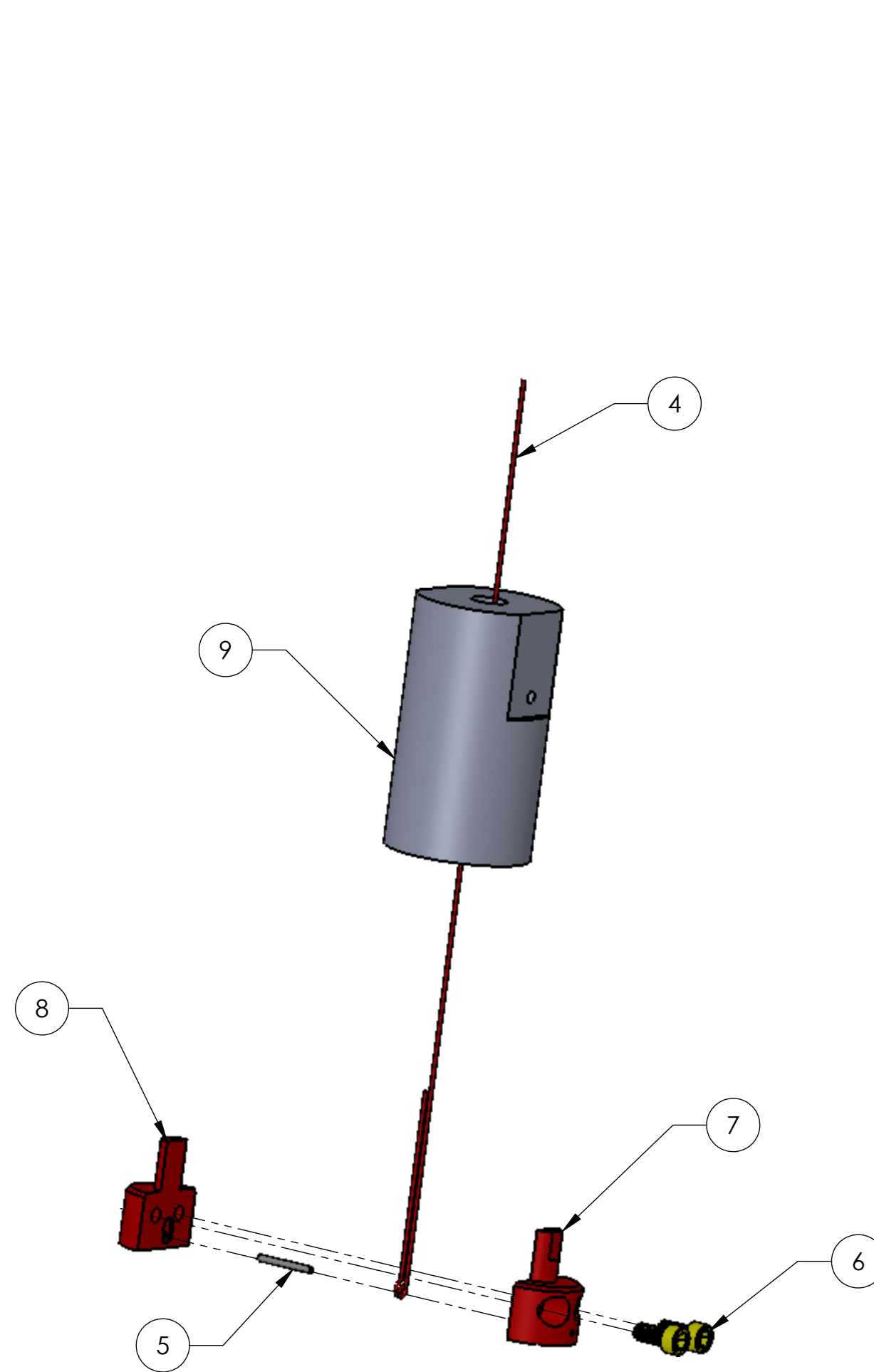
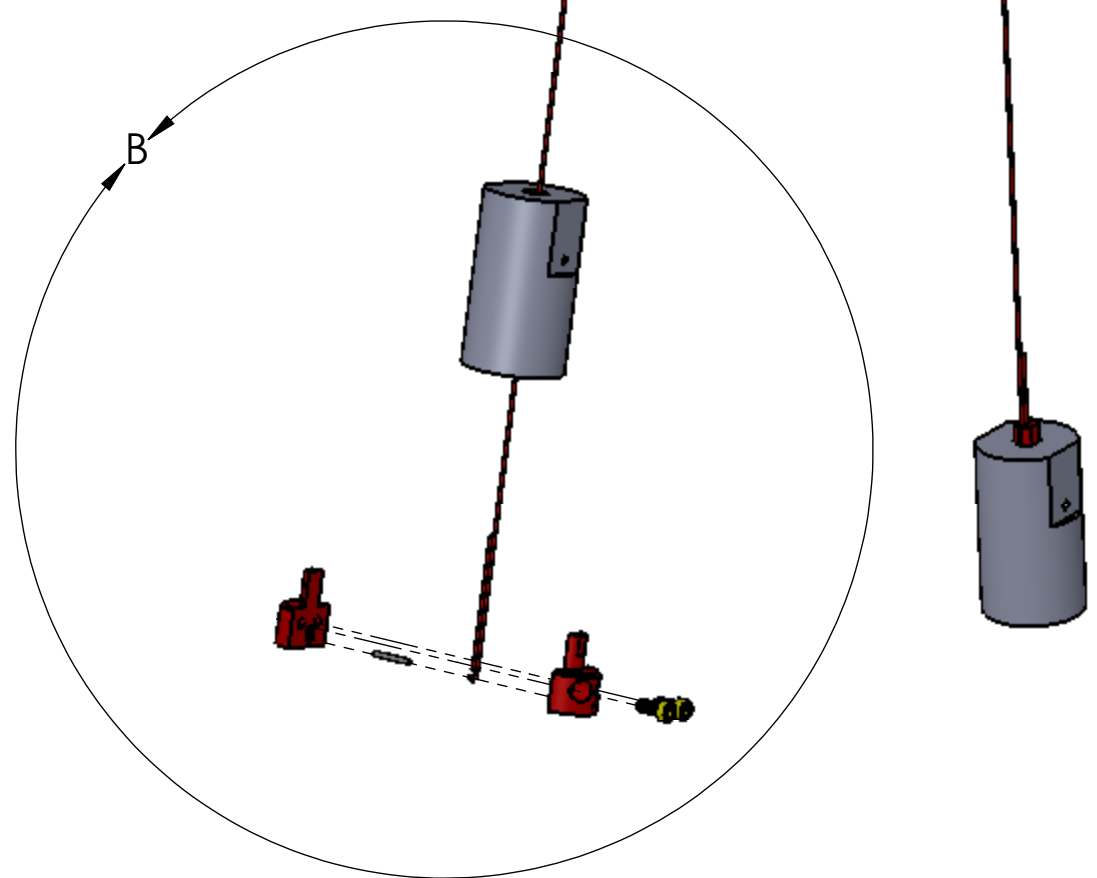
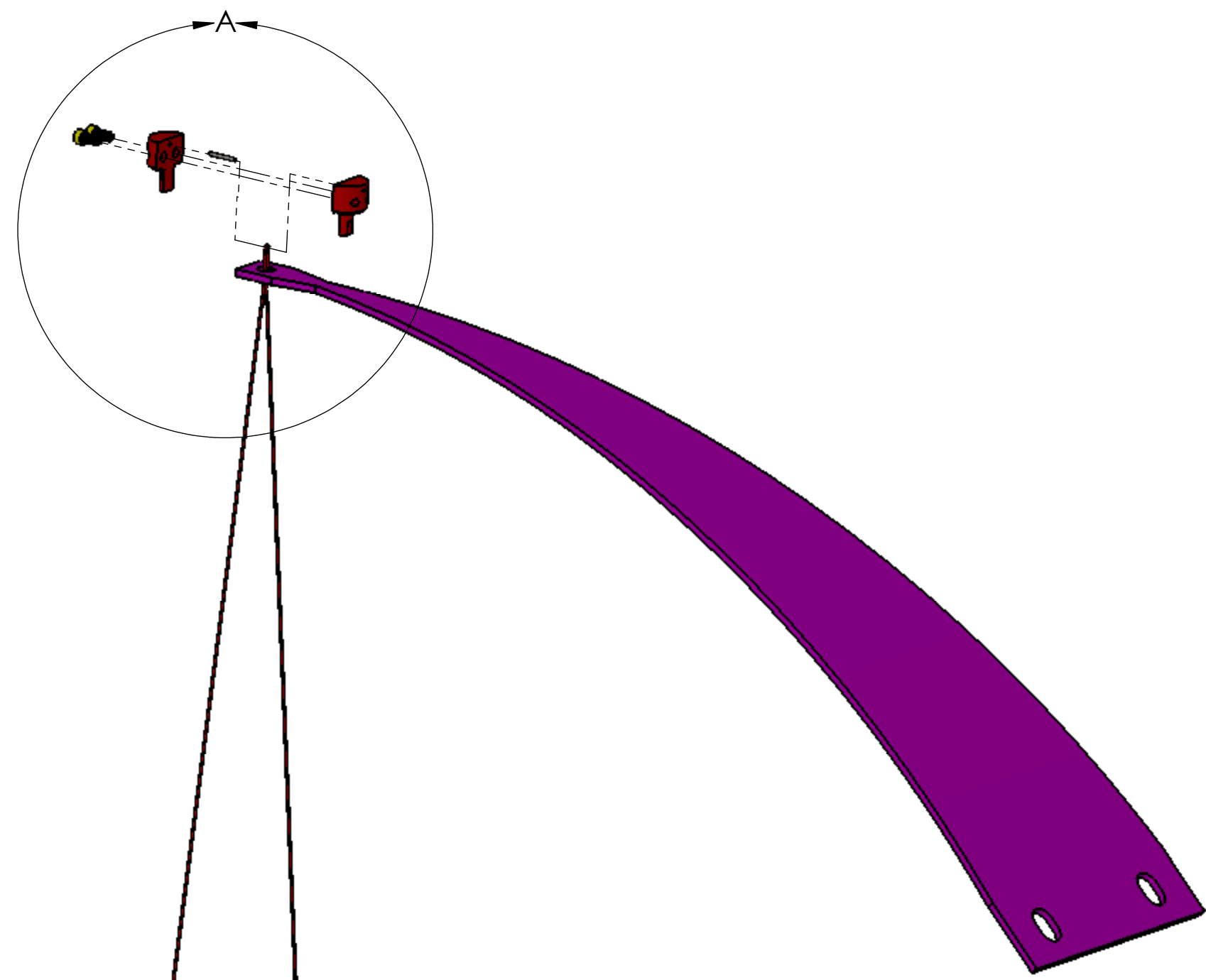


D0900583\_AdlIGO\_AOS\_D0900586\_Music Wire Split Clamp 2, PART PDM REV: X-010, DRAWING PDM REV: X-011

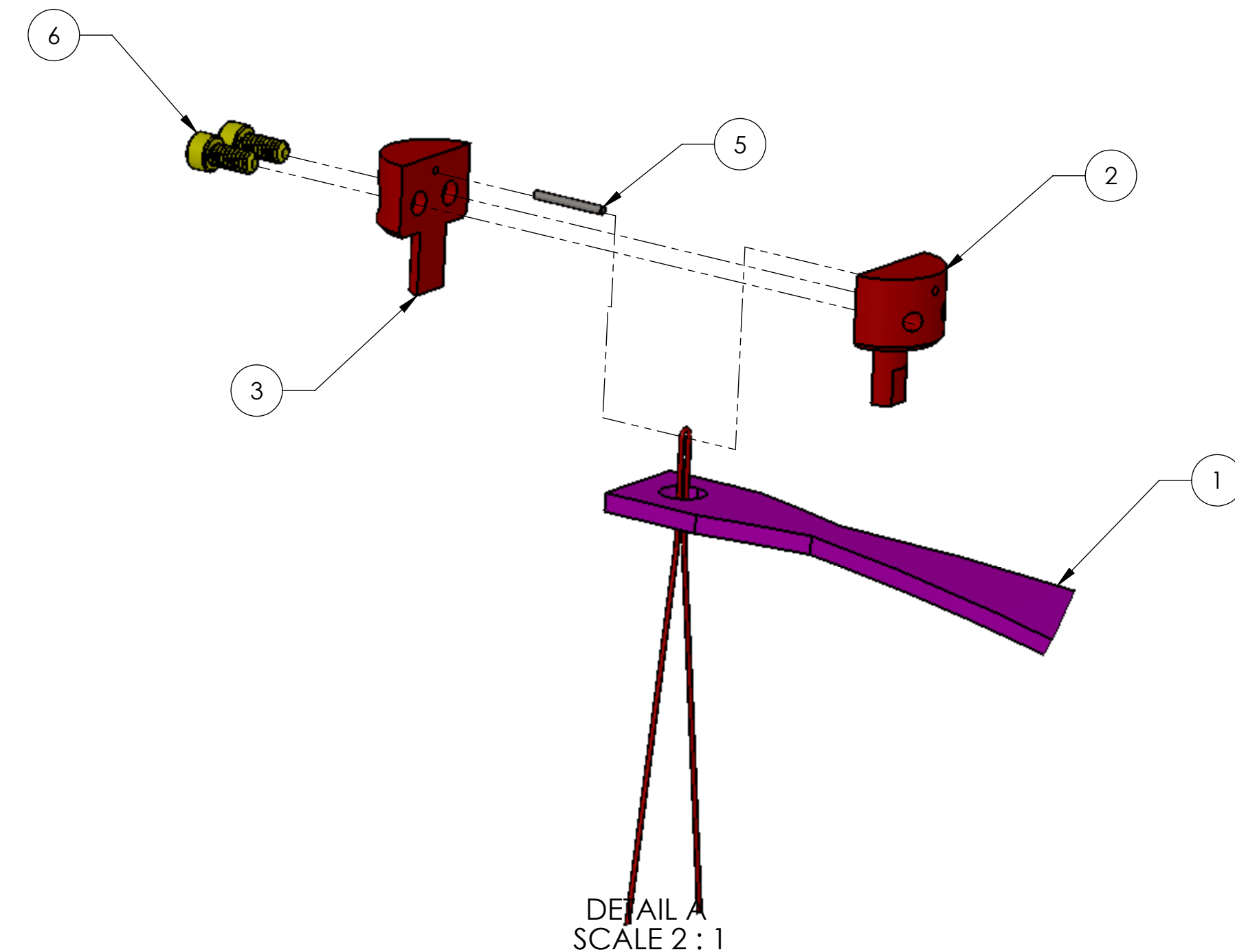
NOTES AND TOLERANCES: (UNLESS OTHERWISE SPECIFIED)				LIGO		PART NAME	
DIMENSIONS ARE IN INCHES TOLERANCES: .XX $\pm .005$ .XXX $\pm .002$ ANGULAR $\pm 0.5^\circ$				CALIFORNIA INSTITUTE OF TECHNOLOGY MASSACHUSETTS INSTITUTE OF TECHNOLOGY		<b>MUSIC WIRE SPLIT CLAMP 2</b>	
1. INTERPRET DRAWING PER ASME Y14.5-1994. 2. REMOVE ALL SHARP EDGES, R.02 MIN. 3. DO NOT SCALE FROM DRAWING. 4. ALL MACHINING FLUIDS MUST BE FULLY SYNTHETIC, FULLY WATER SOLUBLE AND FREE OF SULFUR, SILICONE, AND CHLORINE.				SYSTEM <b>ADVANCED LIGO</b>		SUB-SYSTEM <b>AOS</b>	
MATERIAL 304, 316 OR 302 SSSL				FINISH 63 $\mu$ inch		NEXT ASSY D0900586	
				DESIGNER N. Nguyen		SIZE DWG. NO. <b>B D0900583</b>	
				DRAFTER M. Smith		REV. v2	
				CHECKER M. Smith		SCALE: 1:1 PROJECTION:  SHEET 1 OF 1	
				APPROVAL			

NOTES CONTINUED:

REV.	DATE	DCN #	DRAWING TREE #
v1	12 AUG 2009	E0900244	
v2	07 OCT 2010	E1000563	



DETAIL B  
SCALE 6 : 4



DETAIL A  
SCALE 2 : 1

ITEM NO.	PART NUMBER	DESCRIPTION	MATERIAL	REQ QTY	SPARE	TOTAL
9	D0900588	WIRE ADJUSTABLE ADAPTER	6061-T6 Al	2		2
8	D0900583	MUSIC WIRE SPLIT CLAMP 2	304, 316 OR 302 SSSL	2		2
7	D0900582	MUSIC WIRE SPLIT CLAMP 1	304, 316 OR 302 SSSL	2		2
6	92200A076	Head Cap Screw 300 Series SS, 2-56 Thrd, 3/16" Length, MS 16995-1	300 SSSL	6		6
5	90145A313	DOWEL PIN .031DX.312L McMASTER CARR	316 SSSL	3		3
4	D1002170	LOWER MUSIC WIRE 2	STEEL MUSIC WIRE	1		1
3	D1002169	MUSIC WIRE SPLIT CLAMP 4	304, 316 OR 302 SSSL	1		1
2	D1002168	MUSIC WIRE SPLIT CLAMP 3	304, 316 OR 302 SSSL	1		1
1	D0900541	FI UPPER BLADE	MARAGING STEEL C250	1		1

NOTES AND TOLERANCES: (UNLESS OTHERWISE SPECIFIED)	
1. INTERPRET DRAWING PER ASME Y14.5-1994.	
2. REMOVE ALL SHARP EDGES, R.02 MIN.	
3. DO NOT SCALE FROM DRAWING.	
4. ALL MACHINING FLUIDS SHALL BE WATER SOLUBLE AND FREE OF SULFUR, CHLORINE AND SILICONE, SUCH AS CINCINNATI MILACRON'S CIMTECH 410.	
DIMENSIONS ARE IN INCHES	
TOLERANCES:	
.XX ± .03	
.XXX ± .010	
ANGULAR ± 0.5°	
MATERIAL	N/A
FINISH	N/A

CALIFORNIA INSTITUTE OF TECHNOLOGY MASSACHUSETTS INSTITUTE OF TECHNOLOGY	
SYSTEM	ADVANCED LIGO
SUB-SYSTEM	AOS
NEXT ASSY	D0900570

PART NAME			
UPPER WIRE ASSEMBLY			
DESIGNER	N.Nguyen	12 Aug 09	SIZE DWG. NO.
DRAFTER	M. Smith	21 Aug 2009	D D0900586
CHECKER	D. Coyne	21 Aug 2009	REV. v2
APPROVAL			SCALE: 3:4 PROJECTION:
		SHEET 1 OF 1	

D0900586\_AulIGO\_AOS\_PFD0900570\_Upper Wire Assembly, PART PDM REV: X072, DRAWING PDM REV: X011

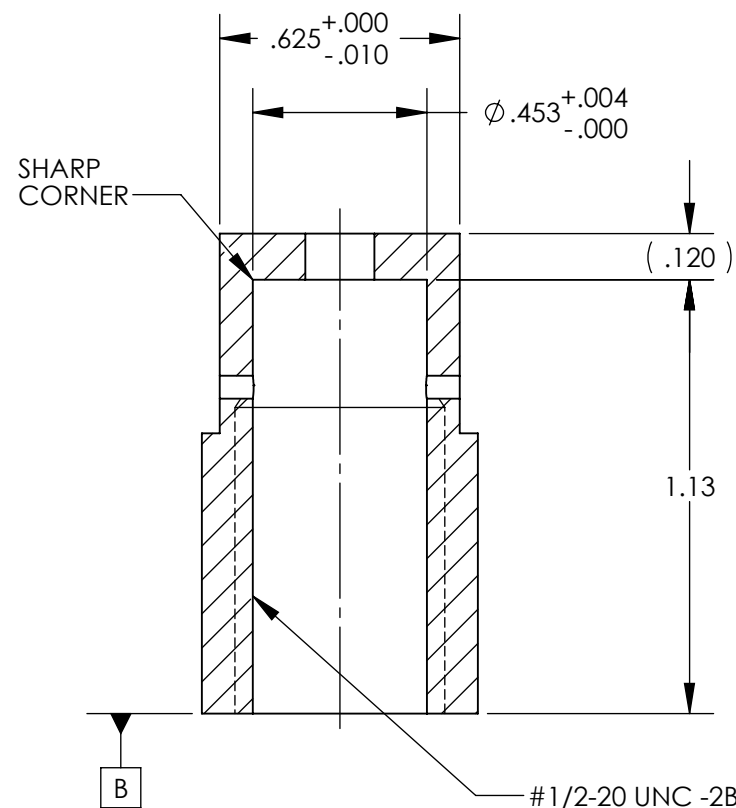
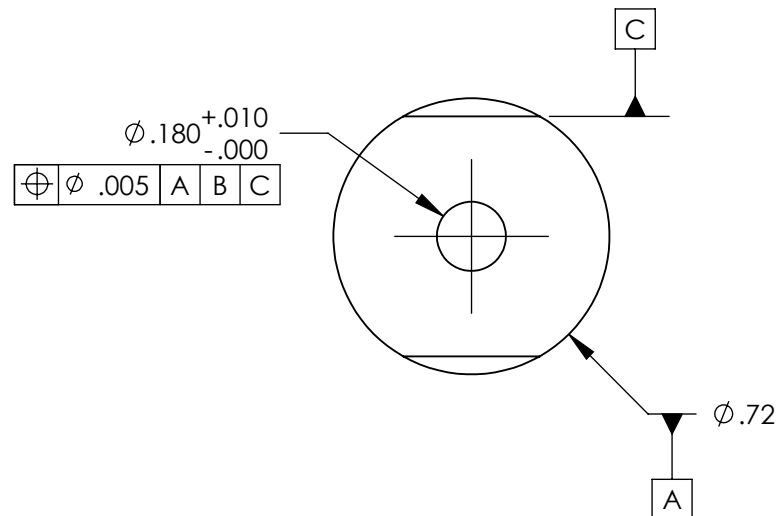
NOTES CONTINUED:

5. SCRIBE, ENGRAVE, OR MECHANICALLY STAMP (NO DYES OR INKS) A UNIQUE THREE DIGIT SERIAL NUMBER & REVISION NUMBER ON EACH PART. SERIAL NUMBERS START AT 001 FOR THE FIRST ARTICLE AND PROCEED CONSECUTIVELY. BAG AND TAG PARTS WITH THEIR DRAWING PART NUMBER, REVISION, VARIANT OR "TYPE" (IF APPLICABLE), AND QUANTITY. IF PARTS ARE TOO SMALL TO SCRIBE, BAGGING AND TAGGING ALONE IS SUFFICIENT.  
 EXAMPLE (PART): 001-v1  
 EXAMPLE (TAG): DXXXXXX-VY, TYPE-XX, QTY: TBD

6. MACHINE ALL SURFACES TO REMOVE OXIDES AND MILL FINISH. USE OF ABRASIVE REMOVAL TECHNIQUES IS NOT ALLOWED.

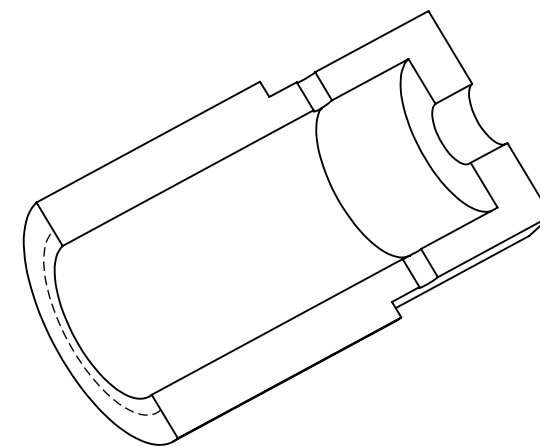
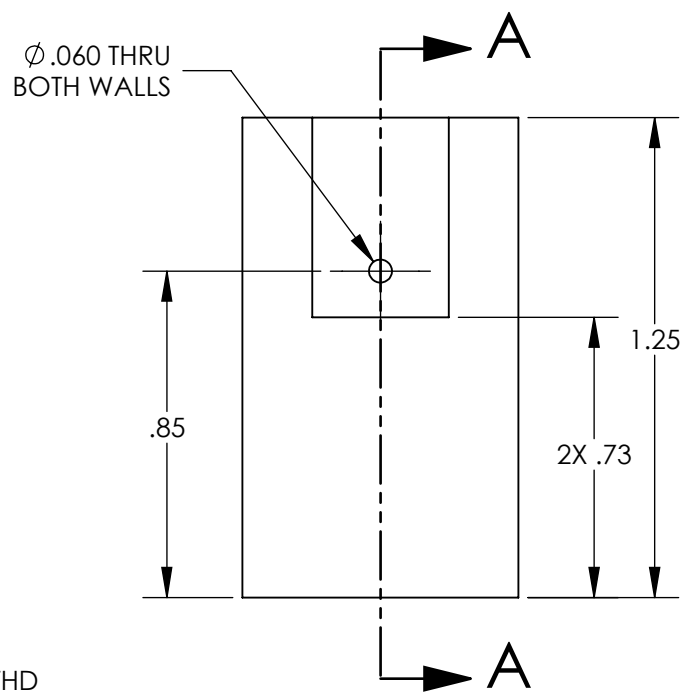
7. ALL PARTS SHALL BE MANUFACTURED IN ACCORDANCE WITH LIGO SPECIFICATION E0900364.

REV.	DATE	DCN #	DRAWING TREE #
v1	01 APR 2009	E0900244	
v2	07 OCT 2010	E1000563	



SECTION A-A  
SCALE 2:1

#1/2-20 UNC -2B X .79 DP THD  
(BOTTLE BRUSH THOROUGHLY TO CLEAN THREADS)



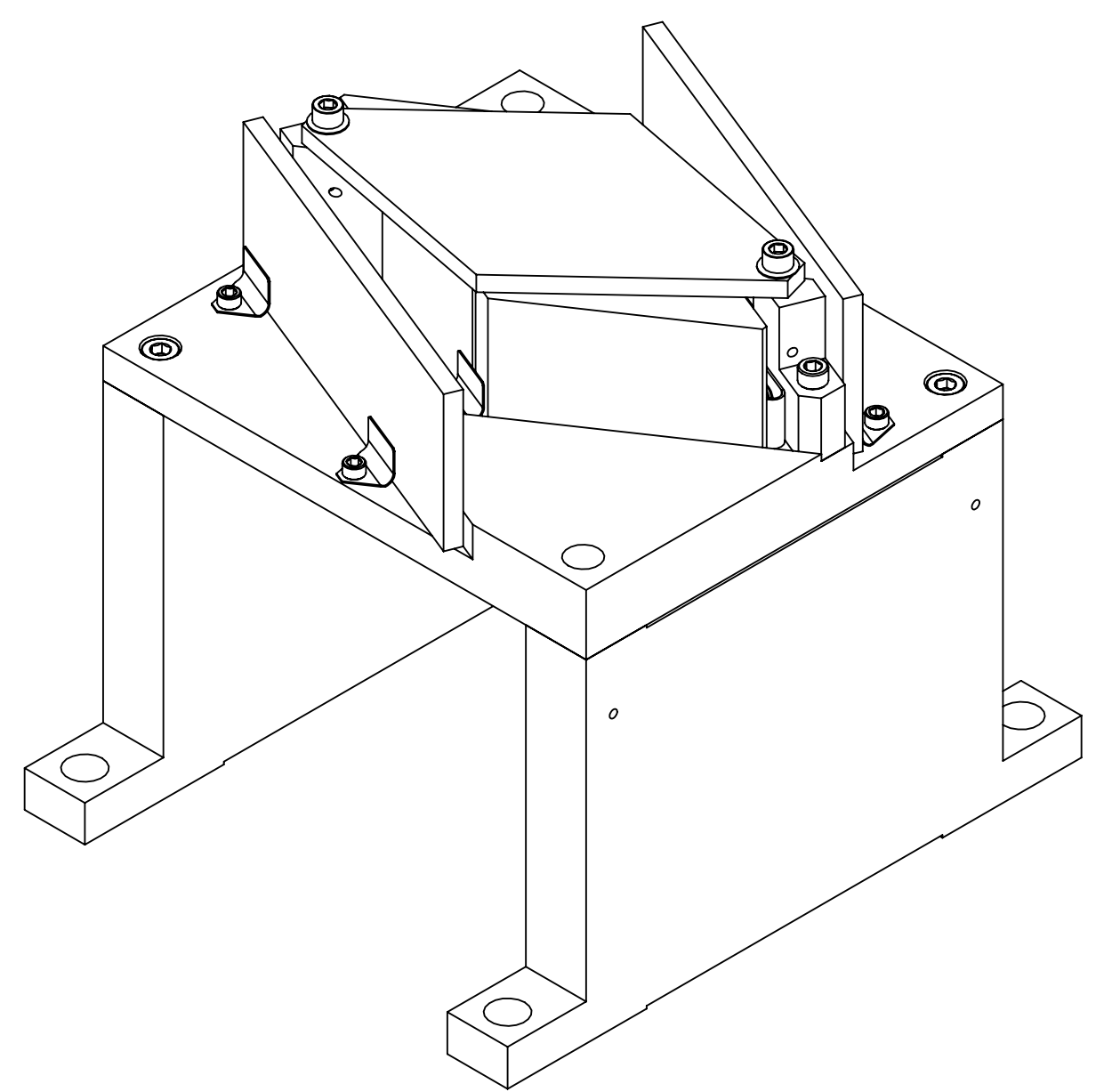
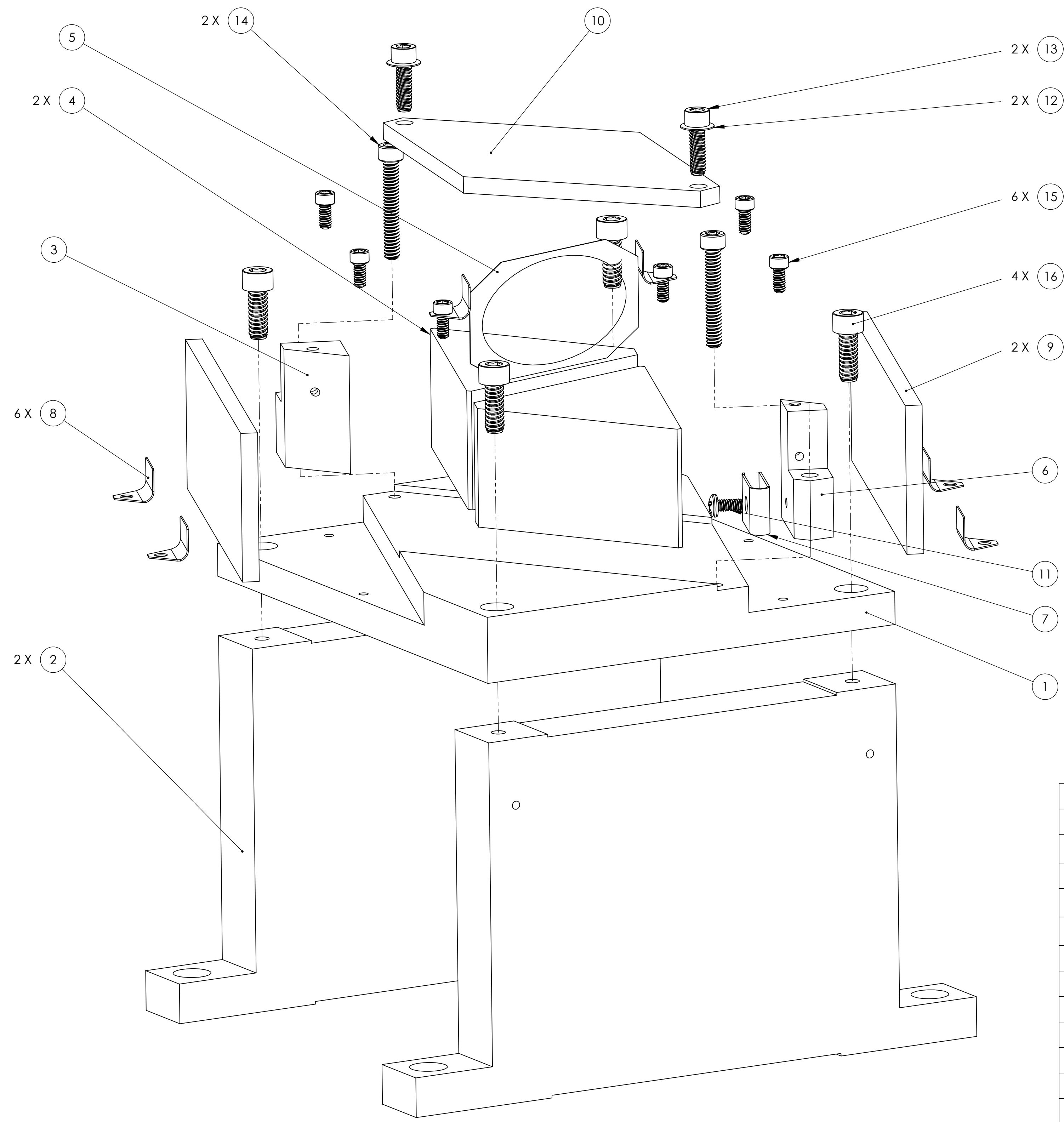
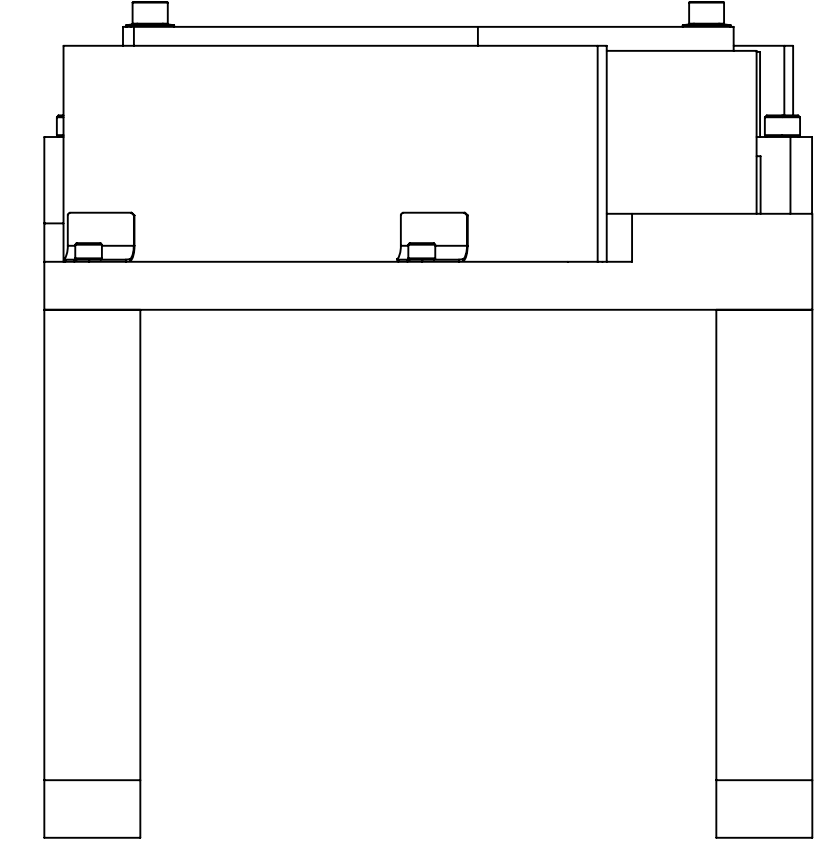
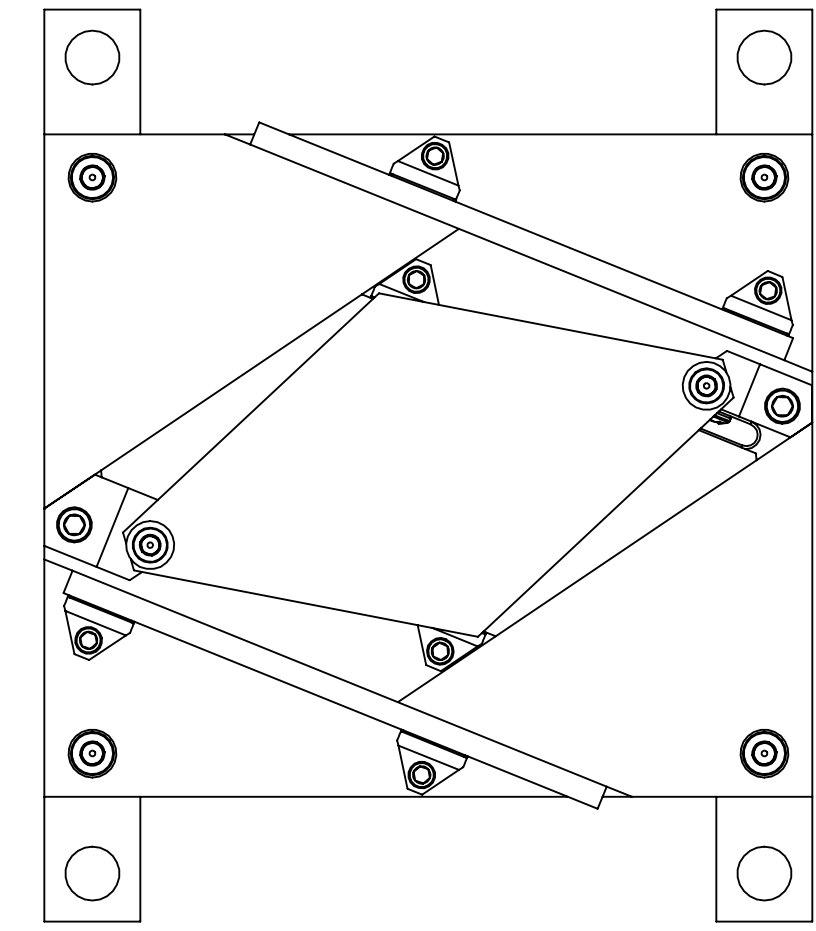
NOTES AND TOLERANCES: (UNLESS OTHERWISE SPECIFIED)

DIMENSIONS ARE IN		1. INTERPRET DRAWING PER ASME Y14.5-1994.	
TOLERANCES:		2. REMOVE ALL SHARP EDGES, R.02 MIN.	
.XX ± .01		3. DO NOT SCALE FROM DRAWING.	
.XXX ± .005		4. ALL MACHINING FLUIDS MUST BE FULLY SYNTHETIC, FULLY WATER SOLUBLE AND FREE OF SULFUR, SILICONE, AND CHLORINE.	
ANGULAR ± 0.5°		MATERIAL	FINISH
		6061-T6 Al	63 μinch

CALIFORNIA INSTITUTE OF TECHNOLOGY MASSACHUSETTS INSTITUTE OF TECHNOLOGY		PART NAME		WIRE ADJUSTABLE ADAPTER	
SYSTEM	ADVANCED LIGO	SUB-SYSTEM	AOS	DESIGNER	N.Nguyen
DRAFTER		CHECKER		DATE	12 May 09
APPROVAL		APPROVAL		SIZE	B
NEXT ASSY			DWG. NO.		REV.
FARADAY ISOLATOR			D0900588		v2
SCALE: 1:1		PROJECTION:		SHEET 1 OF 1	

NOTES CONTINUED:

REV.	DATE	DCN #	DRAWING TREE #
v1	8 OCT 2010	E1000563	-
-	-	-	-
-	-	-	-



GENERAL VIEW FOR REFERENCE ONLY NO SCALE

ITEM NO.	PART NUMBER	DESCRIPTION	MATERIAL	QTY	SPARE	TOTAL
16	92200A146	Head Cap Screw 300 Series SS, 6-32 Thrd, 3/8" Length, MS 16995-17	300 SSSL	4	0	0
15	92200A076	Head Cap Screw 300 Series SS, 2-56 Thrd, 3/16" Length, MS 16995-1	300 SSSL	6	0	0
14	92185A112	Head Cap Screw 300 Series SS, 4-40 Thrd, 3/4" Length	300 SSSL	2	0	0
13	92200A108	Head Cap Screw 300 Series SS, 4-40 Thrd, 3/8" Length, MS 16995-10	18-8 SSSL	2	0	0
12	9713K53	Disc Spring, Stainless Steel Belleville, .125 ID, .250 OD, .009 Thick	304 SSSL	2	0	0
11	91772A076	18-8 SS Pan Head Phillips Machine Screw	300 SSSL	1	0	0
10	D0900618	OPTICAL PRISM TOP PLATE	6061-T6 Al	1	0	0
9	D1001864	PRISM BEAM DUMP	#12 WELDER'S GLASS	2	0	0
8	D0900619	SPRING CLIP	304 SSSL	6	0	0
7	D1001861	U-SPRING	304 SSSL	1	0	0
6	D1001871	SPRING BLOCK_LH	6061-T6 Al	1	0	0
5	D1001863	OPTICAL PRISM SPACER	304 SSSL	1	0	0
4	D0900617	OPTICAL PRISM	BK7 GLASS	2	0	0
3	D1001870	FIXED STOP_LH	6061-T6 Al	1	0	0
2	D1001862	PRISM BASE SUPPORT	6061-T6 Al	2	0	0
1	D0900616	PRISM MOUNT BASE_LH	6061-T6 Al	1	0	0

PARTS LIST

NOTES AND TOLERANCES: (UNLESS OTHERWISE SPECIFIED)	
1. INTERPRET DRAWING PER ASME Y14.5-1994. 2. REMOVE ALL SHARP EDGES, R.02 MIN. 3. DO NOT SCALE FROM DRAWING. 4. ALL MACHINING FLUIDS MUST BE FULLY SYNTHETIC, FULLY WATER SOLUBLE AND FREE OF SULFUR, SILICONE, AND CHLORINE.	
DIMENSIONS ARE IN INCHES TOLERANCES: .XX ± .01 .XXX ± .005 ANGULAR ± 0.5°	MATERIAL: N/A FINISH: AS RECEIVED

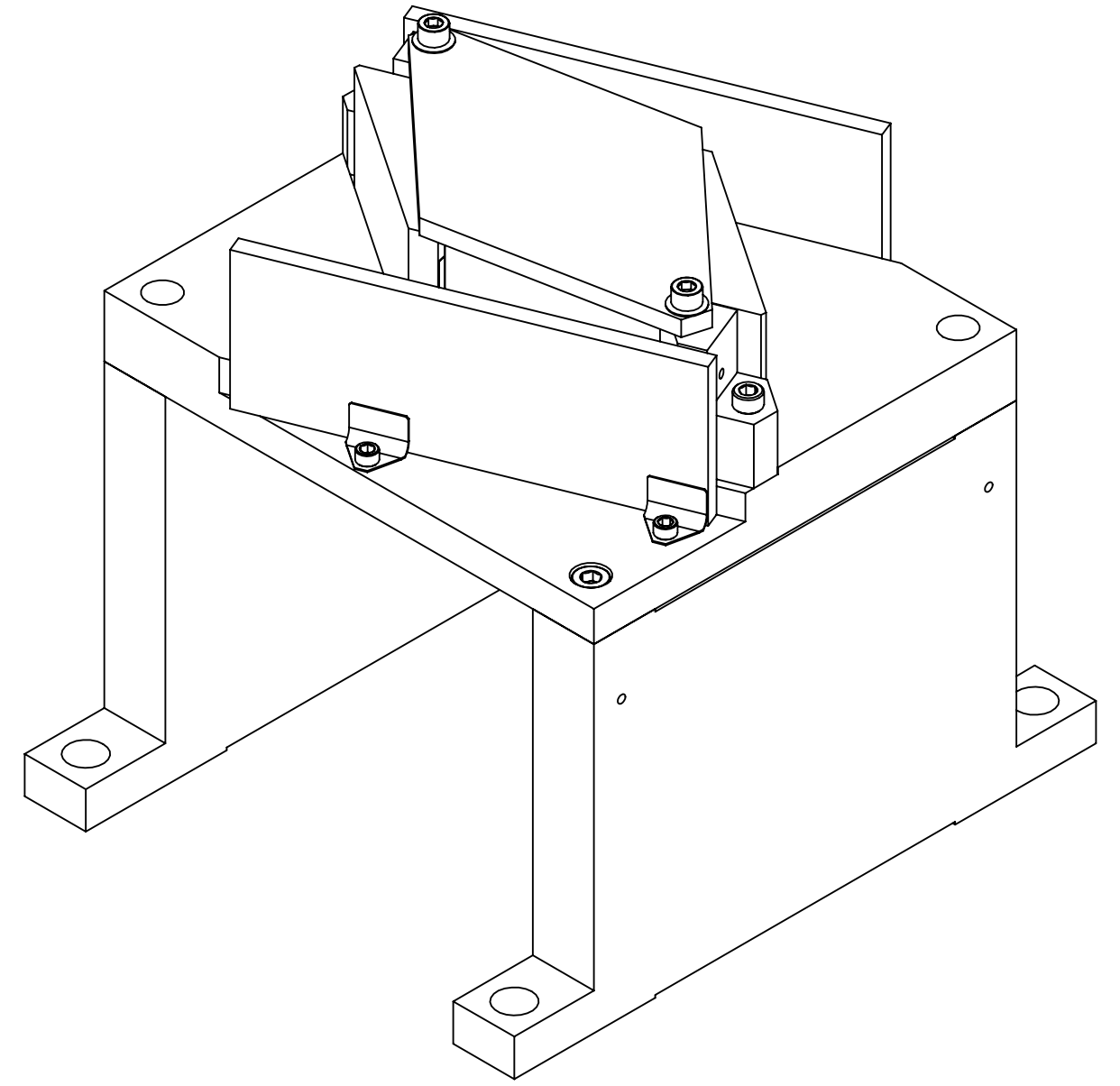
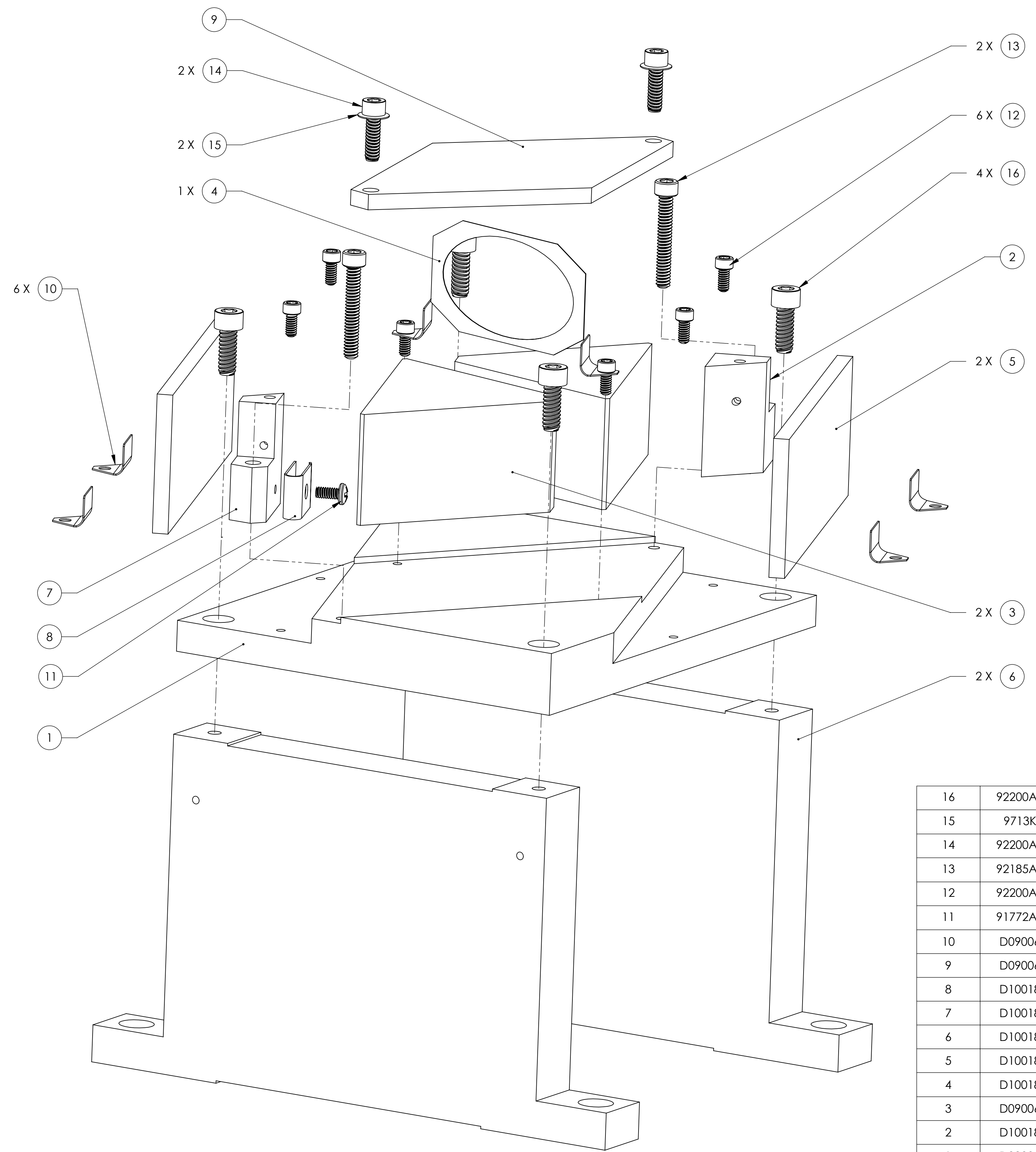
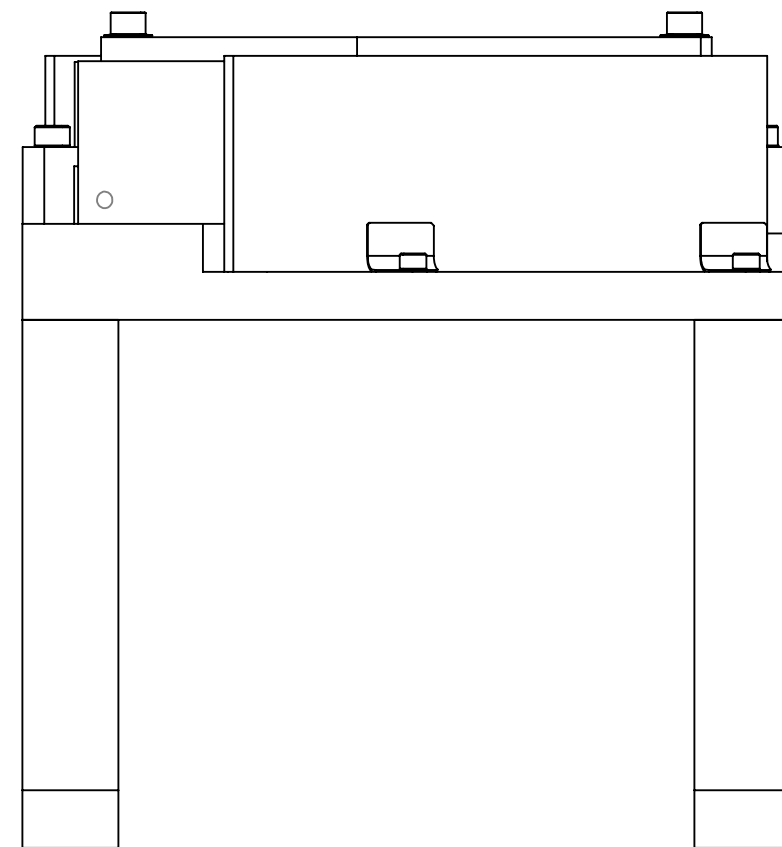
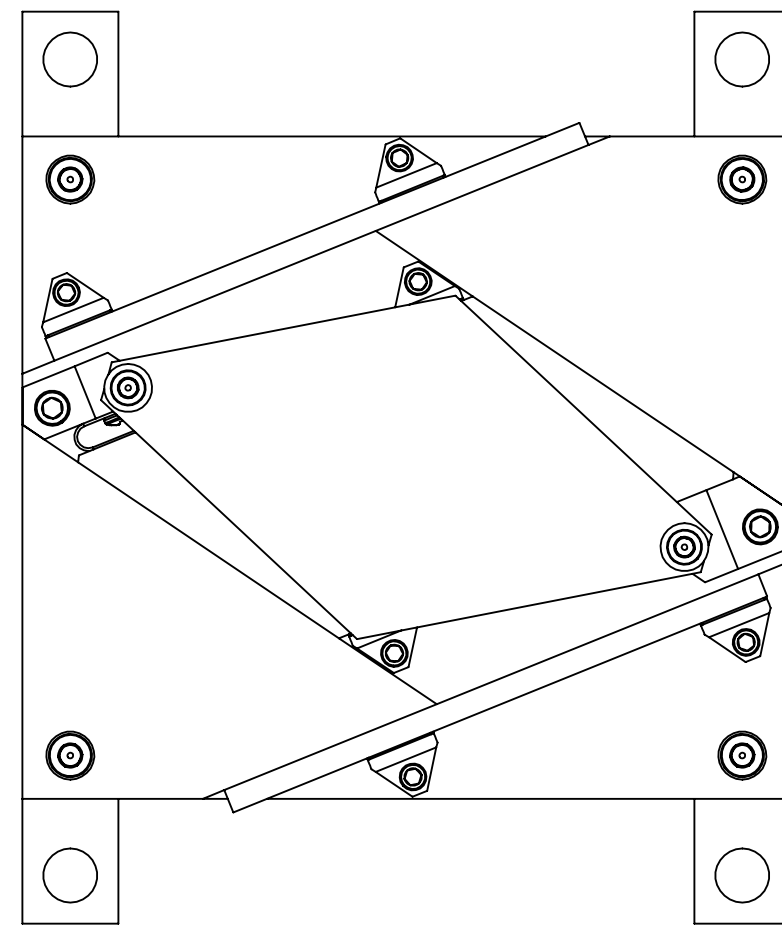
CALIFORNIA INSTITUTE OF TECHNOLOGY  
 MASSACHUSETTS INSTITUTE OF TECHNOLOGY  
 SYSTEM: ADVANCED LIGO  
 SUB-SYSTEM: AOS  
 NEXT ASSY: D0900623

PART NAME: PRISM MOUNT ASSY\_LH  
 DESIGNER: TQ. NGUYEN (23 JUL 2010)  
 DRAFTER: TQ. NGUYEN (27 AUG 2010)  
 CHECKER: M. SMITH  
 APPROVAL: D. COYNE  
 SIZE: D  
 DWG. NO.: D0900614  
 REV.: v1  
 SCALE: 1:1  
 PROJECTION: SHEET 1 OF 1

D0900616\_LIGO\_AOS\_Prim\_Mounting\_ASSY\_LH\_PART\_PDM\_REV\_X011\_PDM\_REV\_X008

NOTES CONTINUED:

REV.	DATE	DCN #	DRAWING TREE #
v1	7 OCT 2010	E1000563	-



GENERAL VIEW FOR REFERENCE ONLY NO SCALE

ITEM NO.	PART NUMBER	DESCRIPTION	MATERIAL	QTY	SPARE	TOTAL
16	92200A146	Head Cap Screw 300 Series SS, 6-32 Thrd, 3/8" Length, MS 16995-17	300 SSSL	4		0
15	9713K53	Disc Spring_Stainless Steel Belleville, .125 ID, .250 OD, .009 Thick	304 SSSL	2		0
14	92200A108	Head Cap Screw 300 Series SS, 4-40 Thrd, 3/8" Length, MS 16995-10	18-8 SSSL	2		0
13	92185A112	Head Cap Screw 300 Series SS, 4-40 Thrd, 3/4" Length	300 SSSL	2		0
12	92200A076	Head Cap Screw 300 Series SS, 2-56 Thrd, 3/16" Length, MS 16995-1	300 SSSL	6		0
11	91772A076	18-8 SS Pan Head Phillips Machine Screw	300 SSSL	1		0
10	D0900619	SPRING CLIP	304 SSSL	6		0
9	D0900618	OPTICAL PRISM TOP PLATE	6061-T6 Al	1		0
8	D1001861	U-SPRING	304 SSSL	1		0
7	D1001860	SPRING BLOCK_RH	6061-T6 Al	1		0
6	D1001862	PRISM BASE SUPPORT	6061-T6 Al	2		0
5	D1001864	PRISM BEAM DUMP	#12 WELDER'S GLASS	2		0
4	D1001863	OPTICAL PRISM SPACER	304 SSSL	1		0
3	D0900617	OPTICAL PRISM	BK7 GLASS	2		0
2	D1001859	FIXED STOP_RH	6061-T6 Al	1		0
1	D0900620	PRISM MOUNT BASE_RH	6061-T6 Al	1		0

NOTES AND TOLERANCES: (UNLESS OTHERWISE SPECIFIED)	
1. INTERPRET DRAWING PER ASME Y14.5-1994. 2. REMOVE ALL SHARP EDGES, R.02 MIN. 3. DO NOT SCALE FROM DRAWING. 4. ALL MACHINING FLUIDS MUST BE FULLY SYNTHETIC, FULLY WATER SOLUBLE AND FREE OF SULFUR, SILICONE, AND CHLORINE.	
DIMENSIONS ARE IN INCHES	
TOLERANCES: .XX ± .01 .XXX ± .005	
ANGULAR ± 0.5°	
MATERIAL	N/A
FINISH	N/A μinch

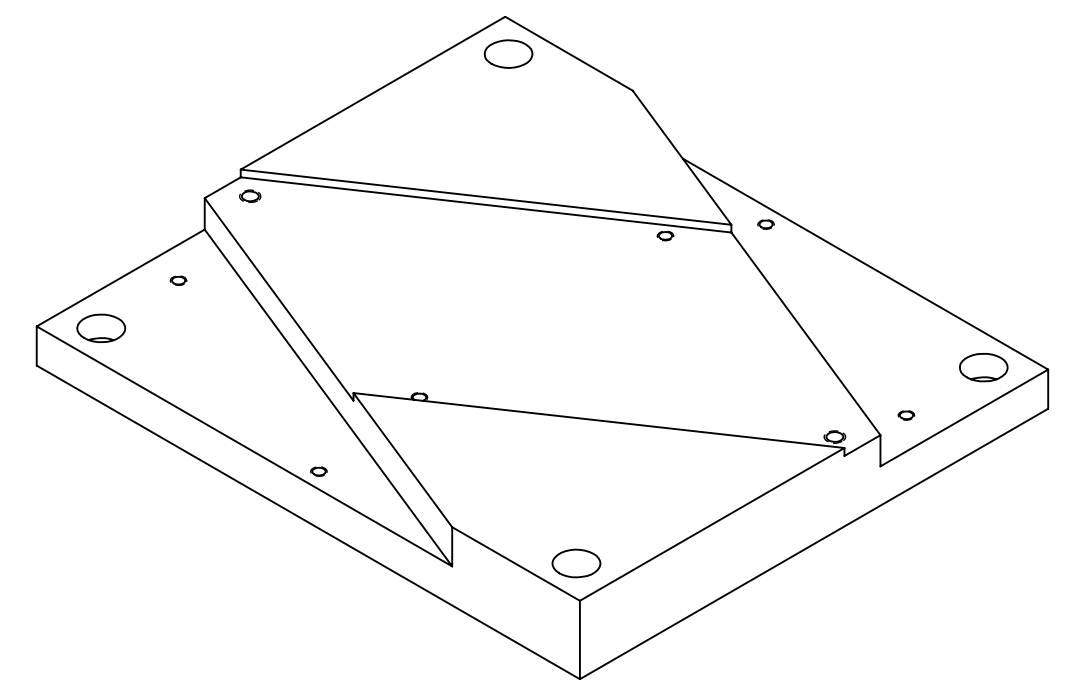
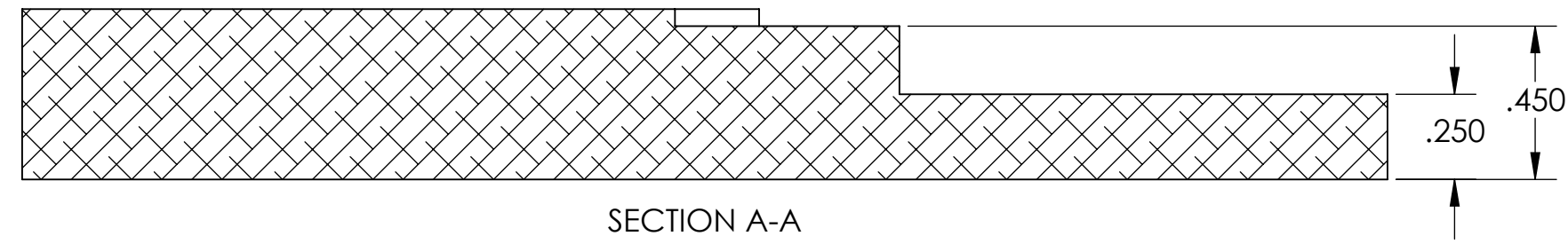
LIGO CALIFORNIA INSTITUTE OF TECHNOLOGY MASSACHUSETTS INSTITUTE OF TECHNOLOGY		PART NAME	
ADVANCED LIGO		PRISM MOUNT ASSY_RH	
DESIGNER	TQ. NGUYEN	19 JUL 2010	SIZE
DRAFTER	TQ. NGUYEN	23 AUG 2010	DWG. NO.
CHECKER	M. SMITH		D
APPROVAL	D. COYNE		D0900615
		SCALE: 1:2	PROJECTION:
			SHEET 1 OF 1

D0900615.dwg: AOS: Prism Mounting Assy\_RH PART PDM REV: X.015 DRAWING PDM REV: X.009

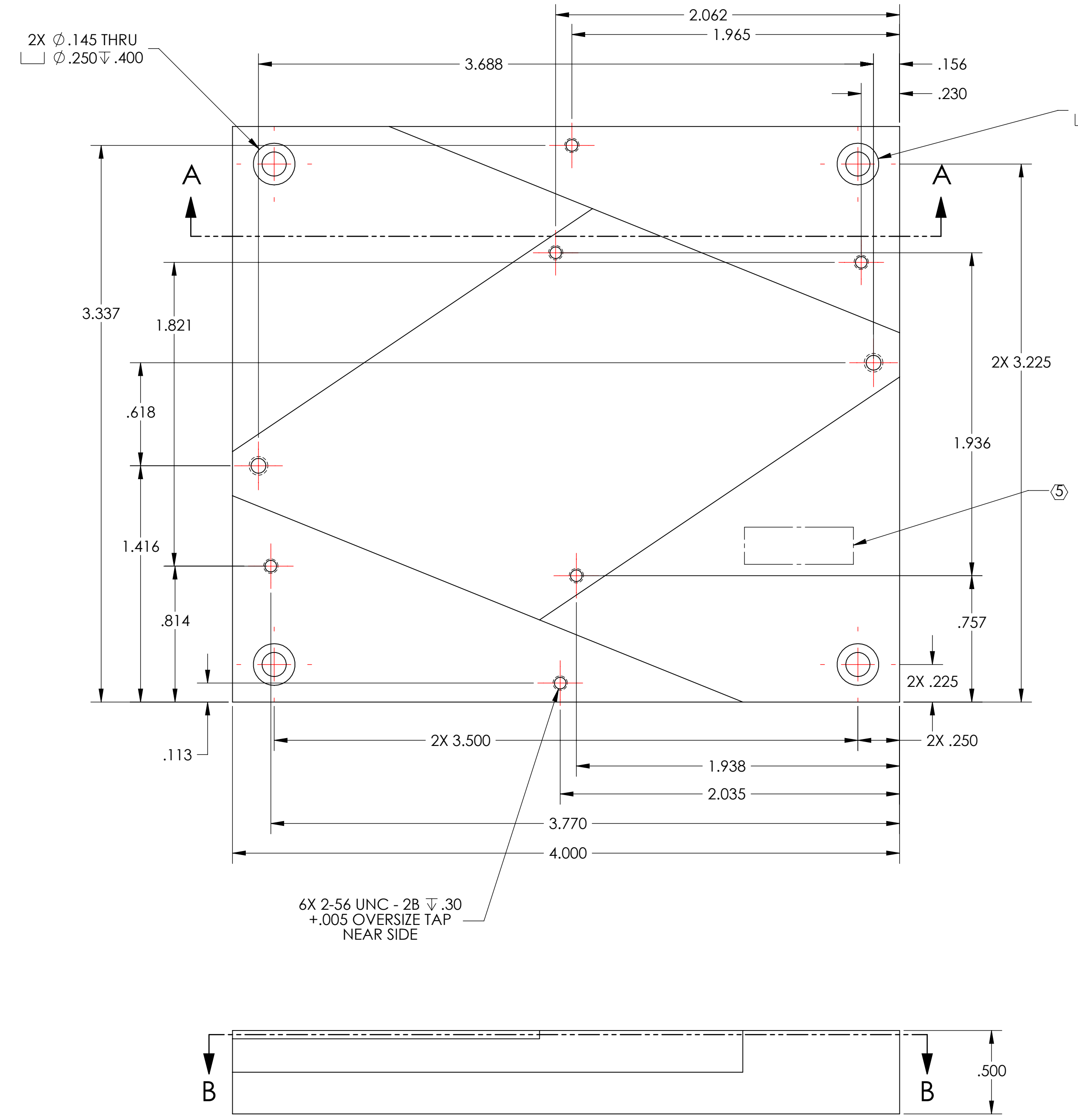
NOTES CONTINUED:  
 5. SCRIBE, ENGRAVE, OR MECHANICALLY STAMP (NO INKS OR DYES) DRAWING PART NUMBER, REVISION (AND VARIANT OR TYPE IF APPLICABLE) ON NOTED SURFACE OF PART FOLLOWED ON THE NEXT LINE WITH A THREE DIGIT SERIAL NUMBER. SERIAL NUMBERS START AT 001 FOR THE FIRST ARTICLE AND PROCEED CONSECUTIVELY. USE MINIMUM 0.12" HIGH CHARACTERS, UNLESS THE SIZE OF THE PART DICTATES SMALLER CHARACTERS. A VIBRATORY TOOL MAY BE USED. EXAMPLE: DXXXXXX-VY, TYPE-XX, S/N XXX

6. APPROXIMATE WEIGHT = 0.547 LB.  
 7. MACHINE ALL SURFACES TO REMOVE OXIDES AND MILL FINISH. USE OF ABRASIVE REMOVAL TECHNIQUES IS NOT ALLOWED.  
 8. ALL PARTS SHALL BE MANUFACTURED IN ACCORDANCE WITH LIGO SPECIFICATION E0900364.

REV.	DATE	DCN #	DRAWING TREE #
v1	8 OCT 2010	E1000563	



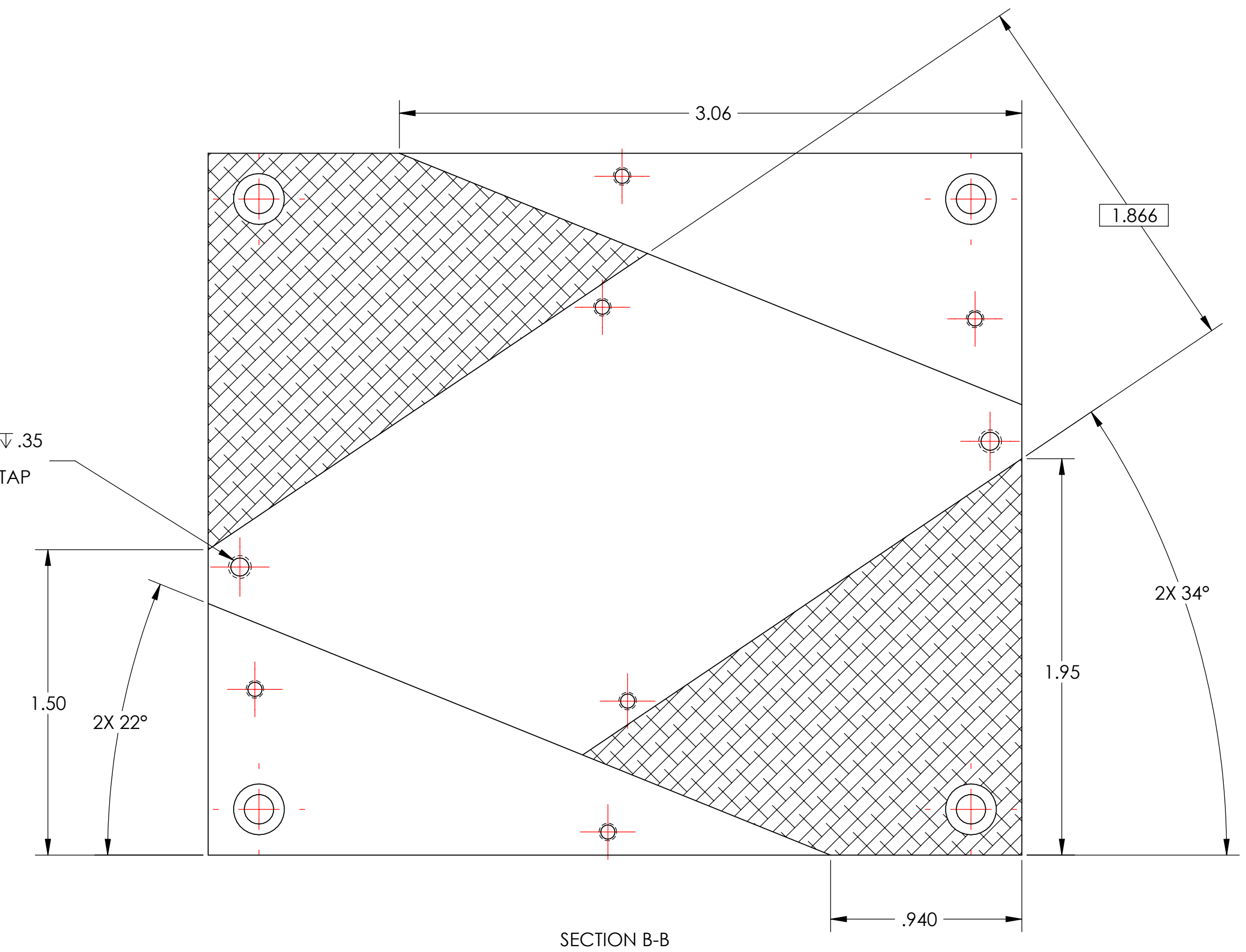
GENERAL VIEW FOR REFERENCE ONLY  
NO SCALE



2X Ø.145 THRU  
Ø.250 ±.150

2X #4-40 UNC-2B ±.35  
DRILL THRU  
+.005 OVERSIZE TAP

6X 2-56 UNC - 2B ±.30  
+.005 OVERSIZE TAP  
NEAR SIDE



SECTION B-B

NOTES AND TOLERANCES: (UNLESS OTHERWISE SPECIFIED)				LIGO CALIFORNIA INSTITUTE OF TECHNOLOGY MASSACHUSETTS INSTITUTE OF TECHNOLOGY		PART NAME	
DIMENSIONS ARE IN INCHES TOLERANCES: .XX ± .01 .XXX ± .005 ANGULAR ± 0.5°				1. INTERPRET DRAWING PER ASME Y14.5-1994. 2. REMOVE ALL SHARP EDGES, R.02 MIN. 3. DO NOT SCALE FROM DRAWING. 4. ALL MACHINING FLUIDS MUST BE FULLY SYNTHETIC, FULLY WATER SOLUBLE AND FREE OF SULFUR, SILICONE, AND CHLORINE.		<b>PRISM MOUNT BASE_LH</b>	
MATERIAL		FINISH		SYSTEM		SUB-SYSTEM	
6061-T6 Al		63 μinch		ADVANCED LIGO		AOS	
NEXT ASSY				DESIGNER		SIZE	
D0900614				TQ. NGUYEN		21 JUL 2010	
				DRAFTER		DWG. NO.	
				TQ. NGUYEN		D	
				CHECKER		REV.	
				M. SMITH		v1	
				APPROVAL		SCALE: 2:1	
				D. COYNE		PROJECTION:	
						SHEET 1 OF 1	

D0900614.dwg, AOS, D0900614, Faraday Isolator Prism Base\_LH, PART FDM REV: X.007, DRAWING FDM REV: X.005



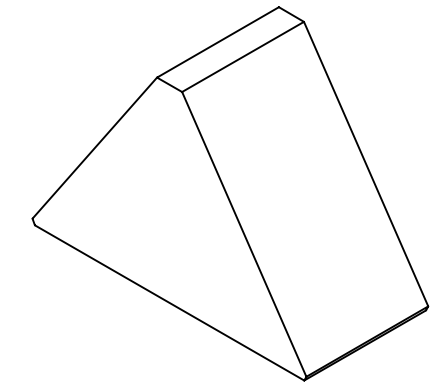
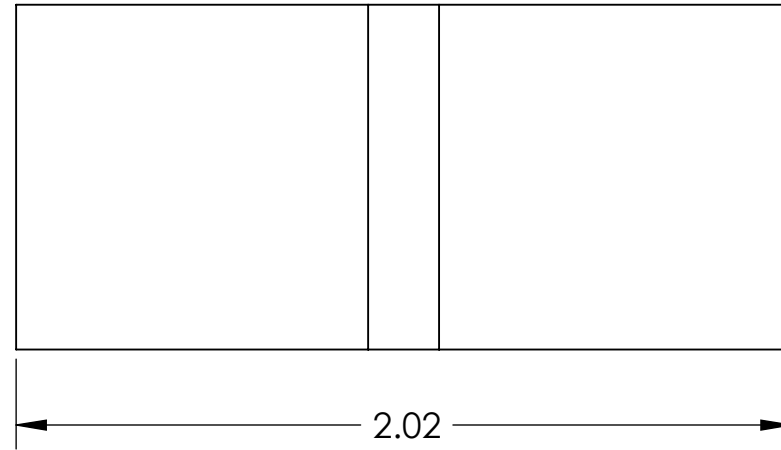
D0900617\_alIGO\_AOS\_D0900614\_Faraday Isolator Optical Prism, PART PDM REV: X-004, DRAWING PDM REV: X-010

**NOTES CONTINUED:**  
 5. BAG AND TAG PARTS WITH THEIR NUMBER, REVISION, VARIANT OR "TYPE" (IF APPLICABLE), AND QUANTITY. IF PARTS ARE TOO SMALL TO SCRIBE, BAGGING AND TAGGING ALONE IS SUFFICIENT. EXAMPLE (PART): 001-v1  
 EXAMPLE (TAG): DXXXXXX-VY, TYPE-XX, QTY: TBD

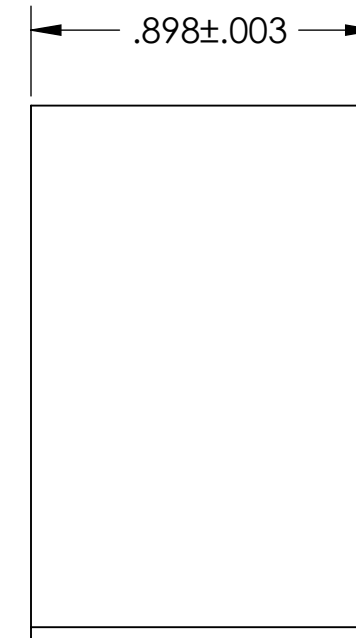
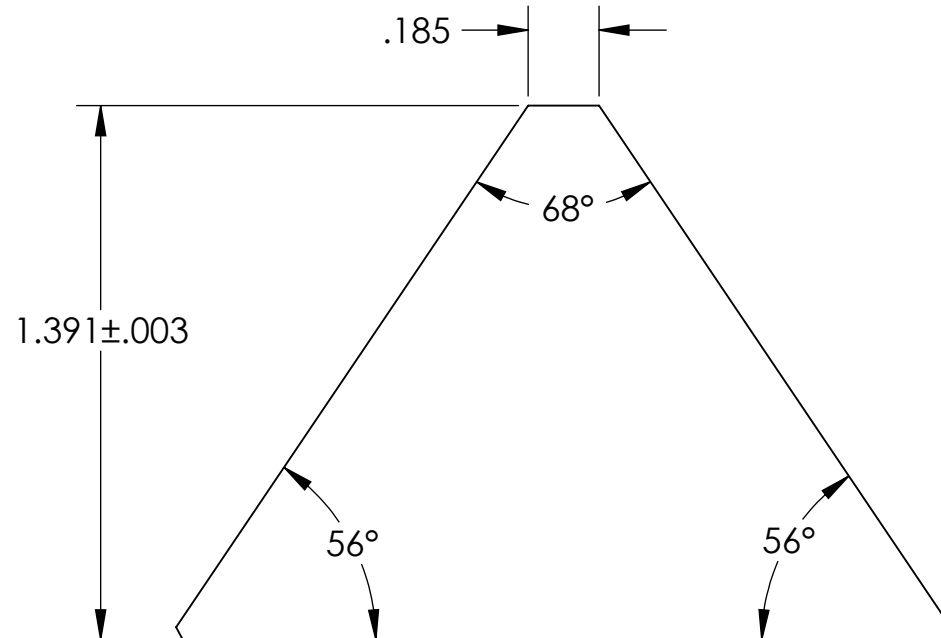
6. APPROXIMATE WEIGHT = 0.102 LB.

7. ITEM DESCRIPTION:  
 20 MM GLAN BREWSTER POLARIZER  
 PURCHASED FROM KARL LAMBRECHT CORP.  
 4204 N.LINCOHN AVENUE, CHICAGO, IL 60618  
 PHONE: (773) 472-5442  
 FAX: (773) 472 2724

REV.	DATE	DCN #	DRAWING TREE #
v1	7 OCT 2010	E1000563	-
-	-	-	-
-	-	-	-



GENERAL VIEW  
 FOR REFERENCE ONLY  
 NO SCALE



**NOTES AND TOLERANCES: (UNLESS OTHERWISE SPECIFIED)**

DIMENSIONS ARE IN INCHES	
TOLERANCES: .XX ± N/A .XXX ± N/A ANGULAR ± N/A*	
1. INTERPRET DRAWING PER ASME Y14.5-1994. 2. REMOVE ALL SHARP EDGES, R.02 MIN. 3. DO NOT SCALE FROM DRAWING. 4. ALL MACHINING FLUIDS MUST BE FULLY SYNTHETIC, FULLY WATER SOLUBLE AND FREE OF SULFUR, SILICONE, AND CHLORINE.	
MATERIAL	FINISH
BK7 GLASS	AS RECEIVED

**LIGO** CALIFORNIA INSTITUTE OF TECHNOLOGY  
 MASSACHUSETTS INSTITUTE OF TECHNOLOGY

SYSTEM: **ADVANCED LIGO** SUB-SYSTEM: **AOS**

NEXT ASSY: **D0900614 & D0900615**

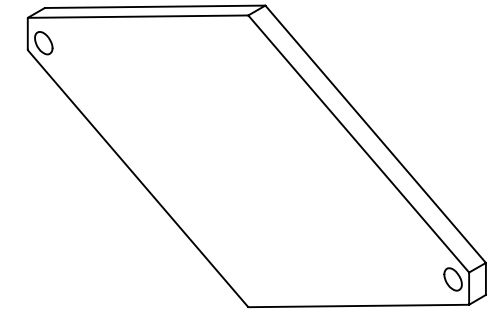
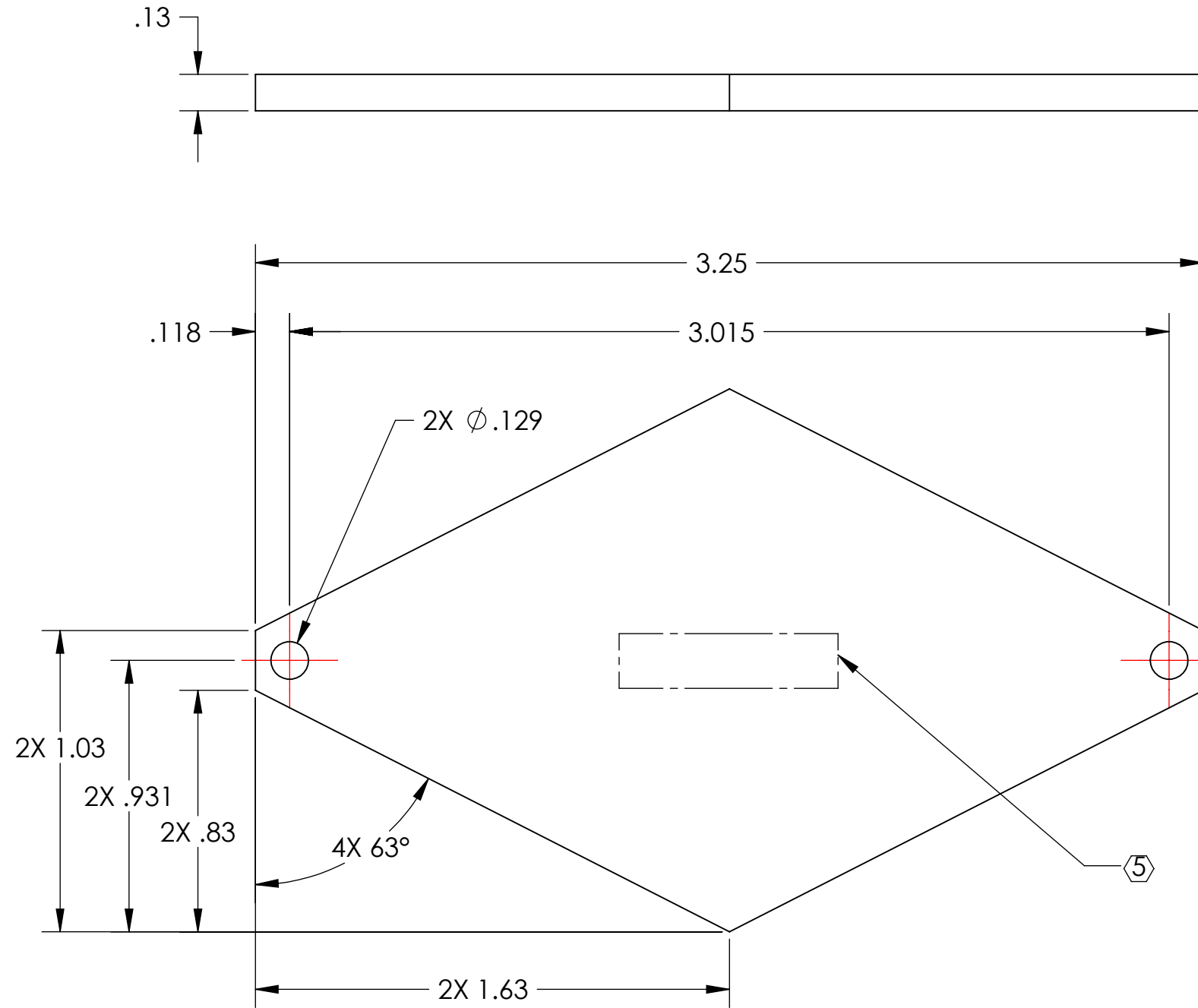
PART NAME		OPTICAL PRISM	
DESIGNER	TQ. NGUYEN	15 JUL 2010	SIZE DWG. NO.
DRAFTER	TQ. NGUYEN	25 AUG 2010	<b>B</b>
CHECKER	M. SMITH		<b>D0900617</b>
APPROVAL	D. COYNE		REV. <b>v1</b>
SCALE: 2:1		PROJECTION:	
		SHEET 1 OF 1	

D0900618\_atLIGO\_AOS\_D0900614\_Faraday Isolator Prism Clamp, PART PDM REV: X-003, DRAWING PDM REV: X-006

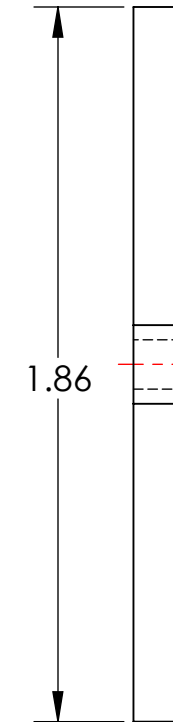
**NOTES CONTINUED:**  
 5. SCRIBE, ENGRAVE, OR MECHANICALLY STAMP (NO INKS OR DYES) DRAWING PART NUMBER, REVISION (AND VARIANT OR "TYPE" IF APPLICABLE) ON NOTED SURFACE OF PART FOLLOWED ON THE NEXT LINE WITH A THREE DIGIT SERIAL NUMBER. SERIAL NUMBERS START AT 001 FOR THE FIRST ARTICLE AND PROCEED CONSECUTIVELY. USE MINIMUM 0.12" HIGH CHARACTERS, UNLESS THE SIZE OF THE PART DICTATES SMALLER CHARACTERS. A VIBRATORY TOOL MAY BE USED.  
 EXAMPLE: DXXXXXX-VY, TYPE-XX, S/N XXX

6. APPROXIMATE WEIGHT = 0.041LB.  
 7. MACHINE ALL SURFACES TO REMOVE OXIDES AND MILL FINISH. USE OF ABRASIVE REMOVAL TECHNIQUES IS NOT ALLOWED.  
 8. ALL PARTS SHALL BE MANUFACTURED IN ACCORDANCE WITH LIGO SPECIFICATION E0900364.

REV.	DATE	DCN #	DRAWING TREE #
v1	8 OCT 2010	E1000563	-
-	-	-	-
-	-	-	-



GENERAL VIEW  
 FOR REFERENCE ONLY  
 NO SCALE



**NOTES AND TOLERANCES: (UNLESS OTHERWISE SPECIFIED)**

DIMENSIONS ARE IN INCHES		1. INTERPRET DRAWING PER ASME Y14.5-1994.	
TOLERANCES:		2. REMOVE ALL SHARP EDGES, R.02 MIN.	
.XX ± .01		3. DO NOT SCALE FROM DRAWING.	
.XXX ± .005		4. ALL MACHINING FLUIDS MUST BE FULLY SYNTHETIC, FULLY WATER SOLUBLE AND FREE OF SULFUR, SILICONE, AND CHLORINE.	
ANGULAR ± 0.5°		MATERIAL	6061-T6 Al
		FINISH	63 μinch

**LIGO** CALIFORNIA INSTITUTE OF TECHNOLOGY  
 MASSACHUSETTS INSTITUTE OF TECHNOLOGY

SYSTEM: **ADVANCED LIGO** SUB-SYSTEM: **AOS**

NEXT ASSY: **D0900615-D0900614**

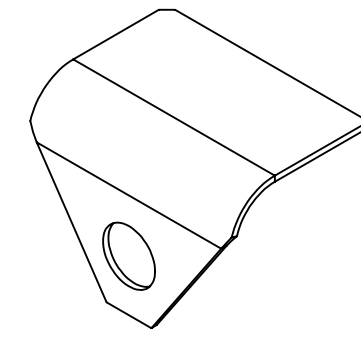
PART NAME				OPTICAL PRISM TOP PLATE			
DESIGNER	TQ. NGUYEN	12 JUL 2010	SIZE	DWG. NO.		REV.	
DRAFTER	TQ. NGUYEN	27 AUG 2010	<b>B</b>	<b>D0900618</b>		v1	
CHECKER	M. SMITH		SCALE: 2:1	PROJECTION:		SHEET 1 OF 1	
APPROVAL	D. COYNE						

D0900619\_atLIGO\_AOS\_D0900614\_Faraday Isolator SPRING Clip, PART PDM REV: X-007, DRAWING PDM REV: X-006

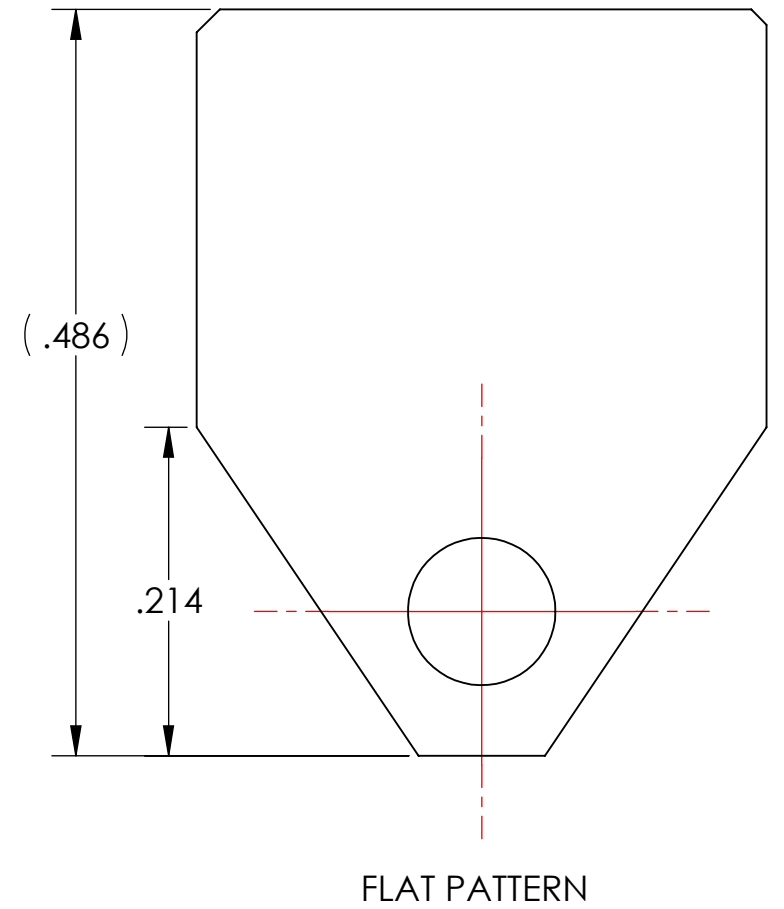
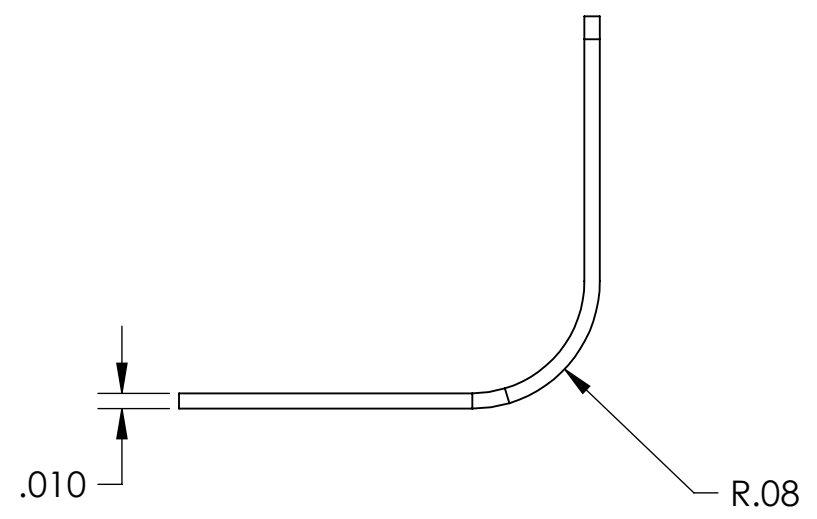
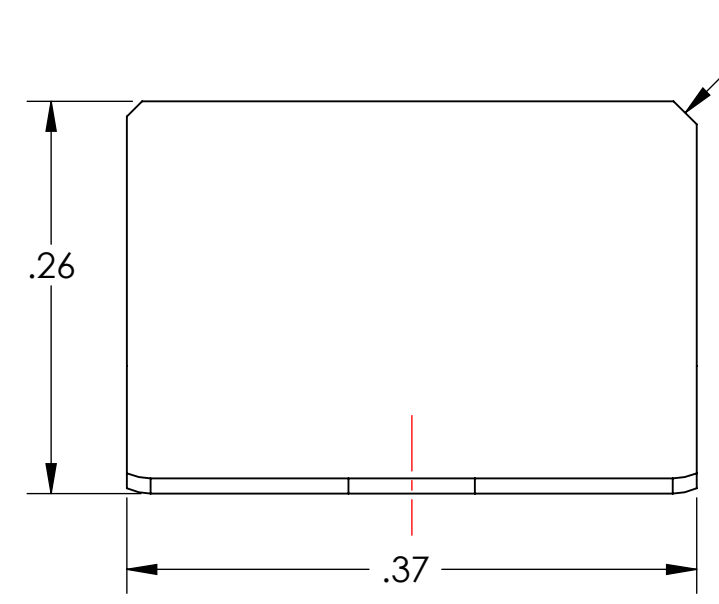
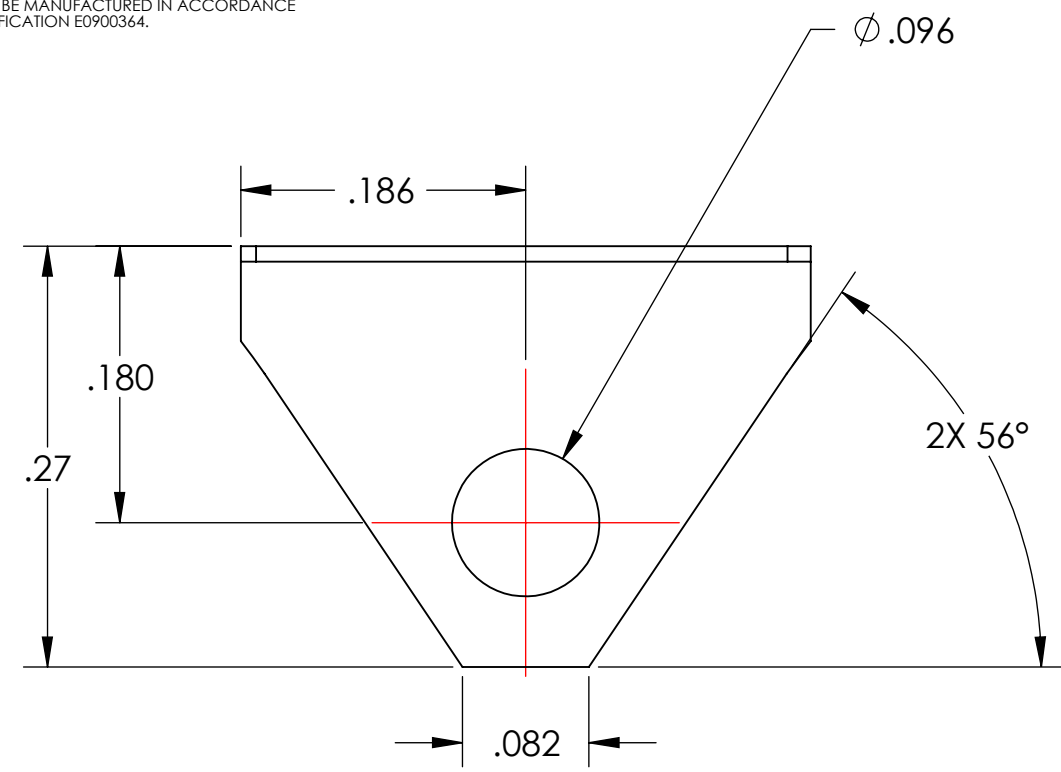
**NOTES CONTINUED:**  
 5. SCRIBE, ENGRAVE, OR MECHANICALLY STAMP (NO DYES OR INKS) A UNIQUE THREE DIGIT SERIAL NUMBER & REVISION NUMBER ON EACH PART. SERIAL NUMBERS START AT 001 FOR THE FIRST ARTICLE AND PROCEED CONSECUTIVELY. BAG AND TAG PARTS WITH THEIR DRAWING PART NUMBER, REVISION, VARIANT OR "TYPE" (IF APPLICABLE), AND QUANTITY. IF PARTS ARE TOO SMALL TO SCRIBE, BAGGING AND TAGGING ALONE IS SUFFICIENT.  
 EXAMPLE (PART): 001-v1  
 EXAMPLE (TAG): DXXXXXX-VY, TYPE-XX, QTY: TBD

6. APPROXIMATE WEIGHT = 0.0004 LB.  
 7. MACHINE ALL SURFACES TO REMOVE OXIDES AND MILL FINISH. USE OF ABRASIVE REMOVAL TECHNIQUES IS NOT ALLOWED.  
 8. ALL PARTS SHALL BE MANUFACTURED IN ACCORDANCE WITH LIGO SPECIFICATION E0900364.

REV.	DATE	DCN #	DRAWING TREE #
v1	8 OCT 2010	E1000563	-
-	-	-	-
-	-	-	-



GENERAL VIEW  
FOR REFERENCE ONLY  
NO SCALE



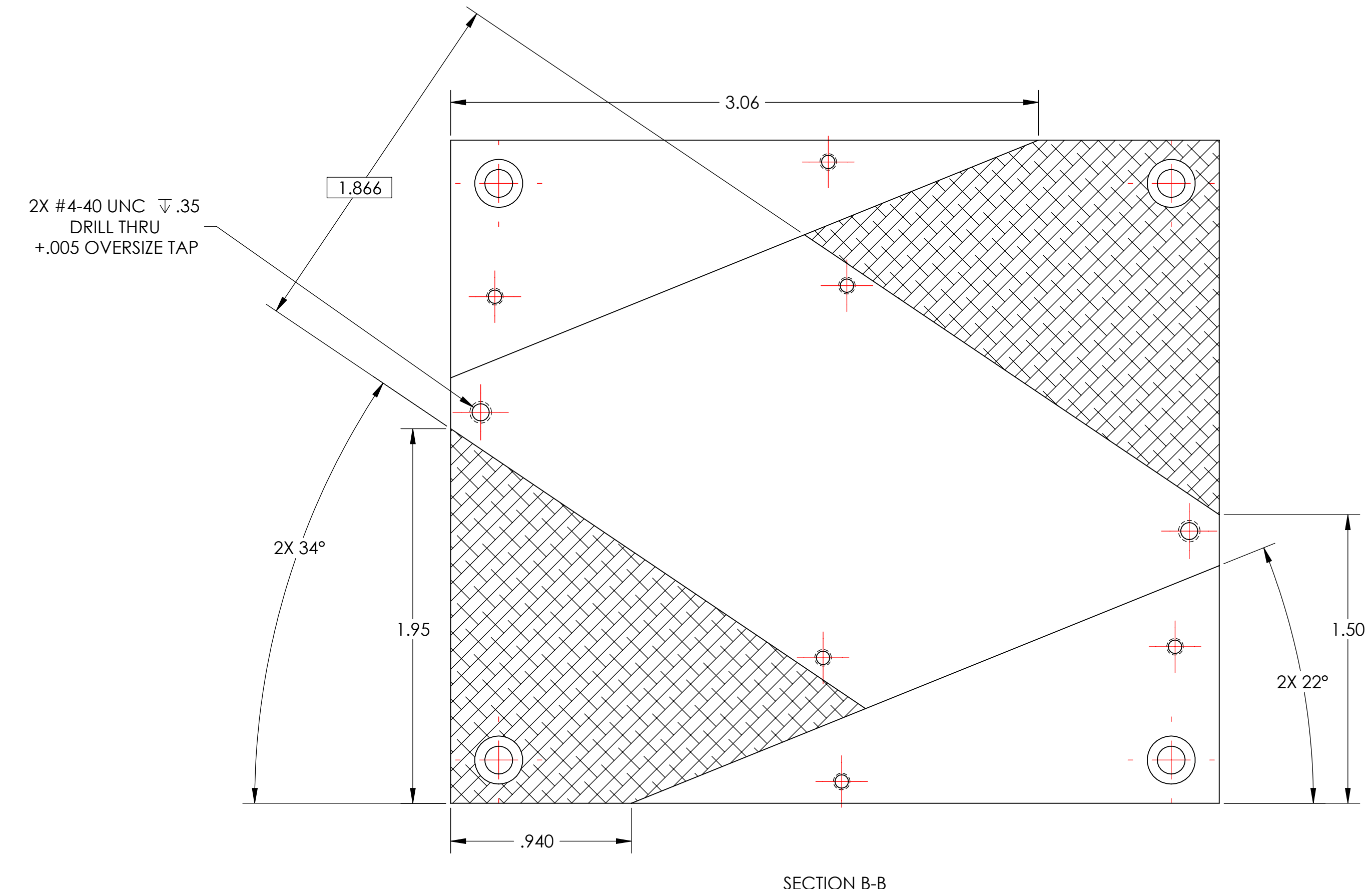
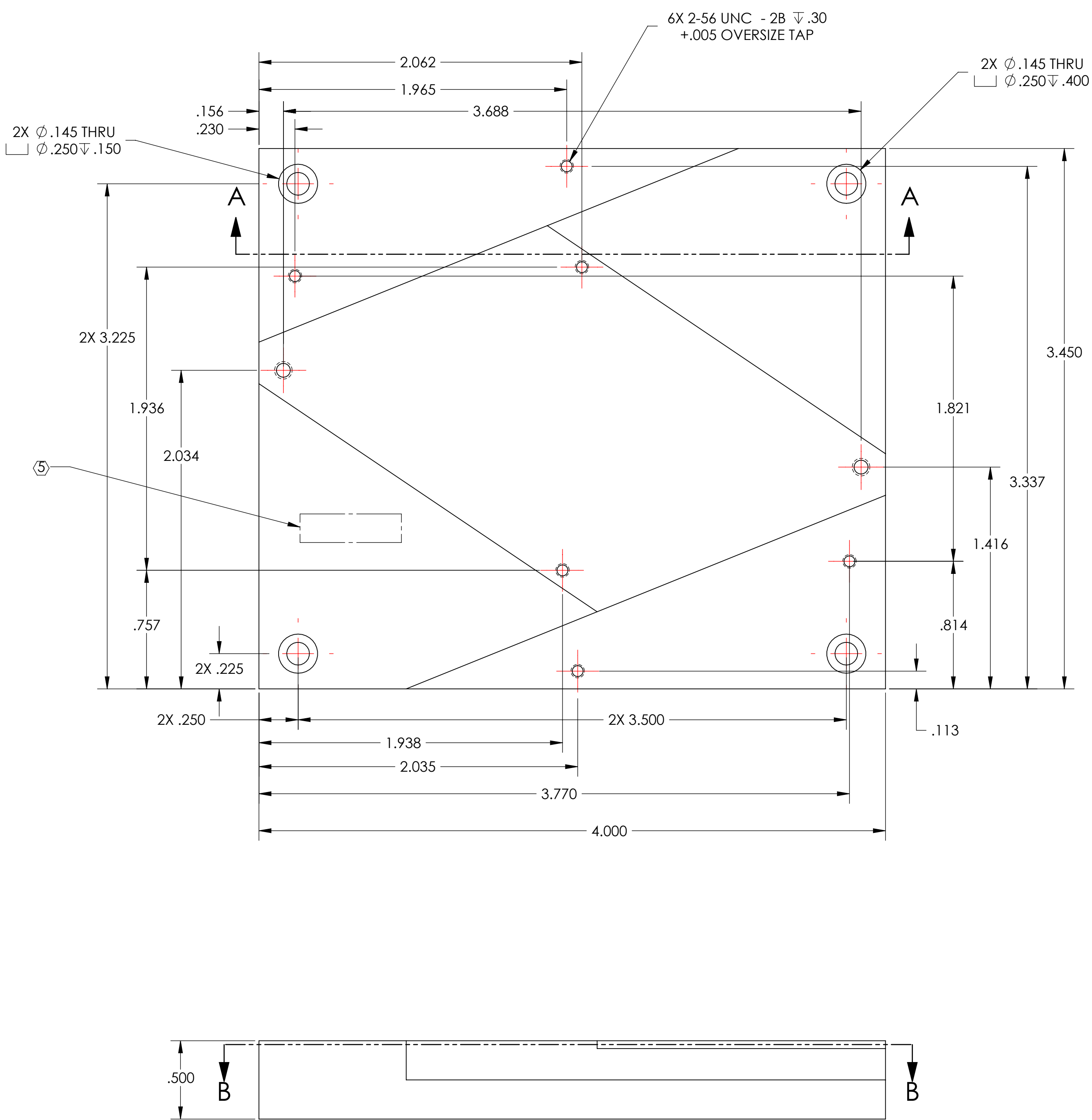
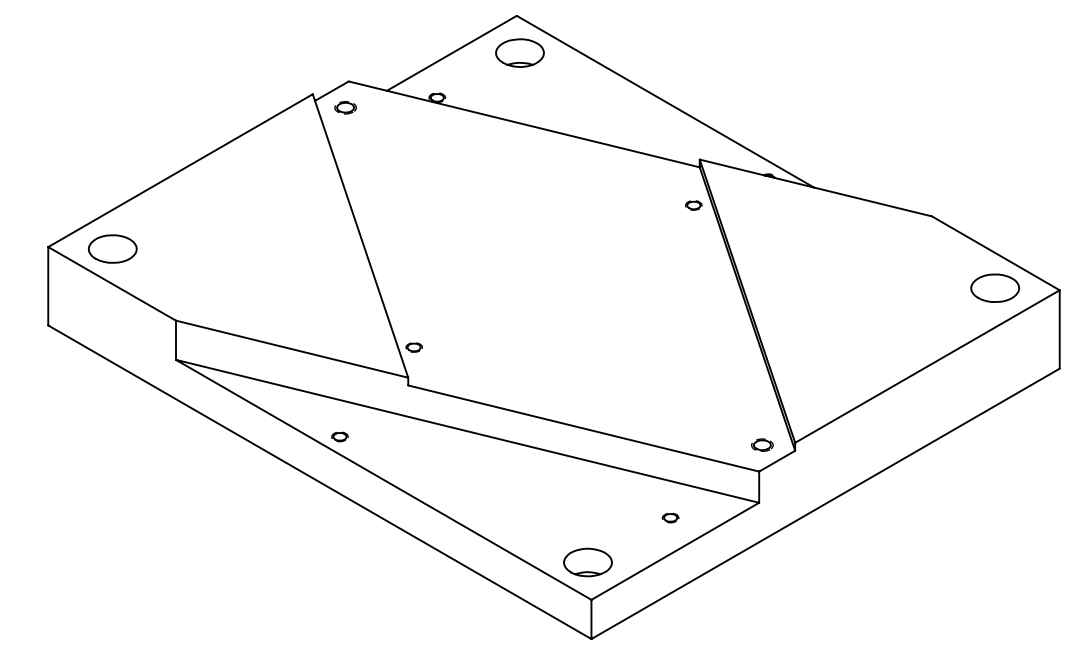
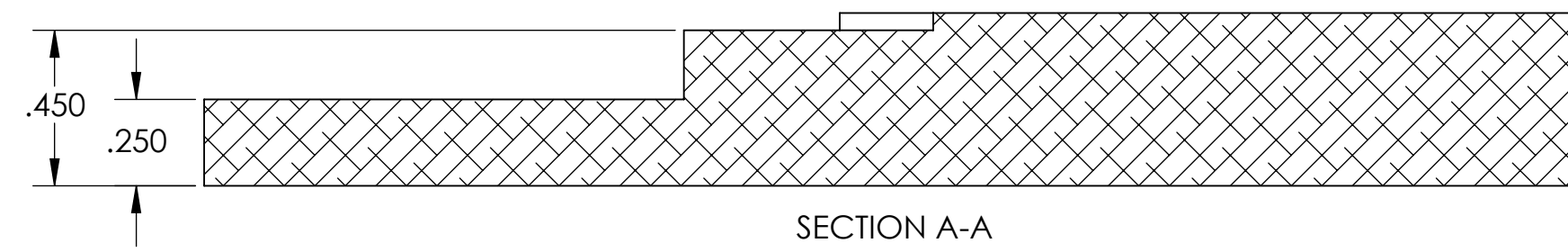
FLAT PATTERN

NOTES AND TOLERANCES: (UNLESS OTHERWISE SPECIFIED)				LIGO CALIFORNIA INSTITUTE OF TECHNOLOGY MASSACHUSETTS INSTITUTE OF TECHNOLOGY		PART NAME	
DIMENSIONS ARE IN INCHES TOLERANCES: .XX ± .01 .XXX ± .005 ANGULAR ± 0.5°				1. INTERPRET DRAWING PER ASME Y14.5-1994. 2. REMOVE ALL SHARP EDGES, R.02 MIN. 3. DO NOT SCALE FROM DRAWING. 4. ALL MACHINING FLUIDS MUST BE FULLY SYNTHETIC, FULLY WATER SOLUBLE AND FREE OF SULFUR, SILICONE, AND CHLORINE.		SPRING CLIP	
						SYSTEM: ADVANCED LIGO    SUB-SYSTEM: AOS	
MATERIAL: 304 SSSL    FINISH: 63 μinch				NEXT ASSY: D0900614-D0900615		DESIGNER: TQ. NGUYEN 12 JUL 2010    SIZE: B    DWG. NO.: D0900619    REV.: v1 DRAFTER: TQ. NGUYEN 23 AUG 2010 CHECKER: M. SMITH APPROVAL: D. COYNE	
SCALE: 8:1    PROJECTION:						SHEET 1 OF 1	

NOTES CONTINUED:  
 5. SCRIBE, ENGRAVE, OR MECHANICALLY STAMP (NO INKS OR DYES) DRAWING PART NUMBER, REVISION (AND VARIANT OR TYPE IF APPLICABLE) ON NOTED SURFACE OF PART FOLLOWED ON THE NEXT LINE WITH A THREE DIGIT SERIAL NUMBER. SERIAL NUMBERS START AT 001 FOR THE FIRST ARTICLE AND PROCEED CONSECUTIVELY. USE MINIMUM 0.12" HIGH CHARACTERS, UNLESS THE SIZE OF THE PART DICTATES SMALLER CHARACTERS. A VIBRATORY TOOL MAY BE USED. EXAMPLE: DXXXXXX-VY, TYPE-XX, S/N XXX

6. APPROXIMATE WEIGHT = 0.547 LB.  
 7. MACHINE ALL SURFACES TO REMOVE OXIDES AND MILL FINISH. USE OF ABRASIVE REMOVAL TECHNIQUES IS NOT ALLOWED.  
 8. ALL PARTS SHALL BE MANUFACTURED IN ACCORDANCE WITH LIGO SPECIFICATION E0900364.

REV.	DATE	DCN #	DRAWING TREE #
v1	7 OCT 2010	E1000563	-



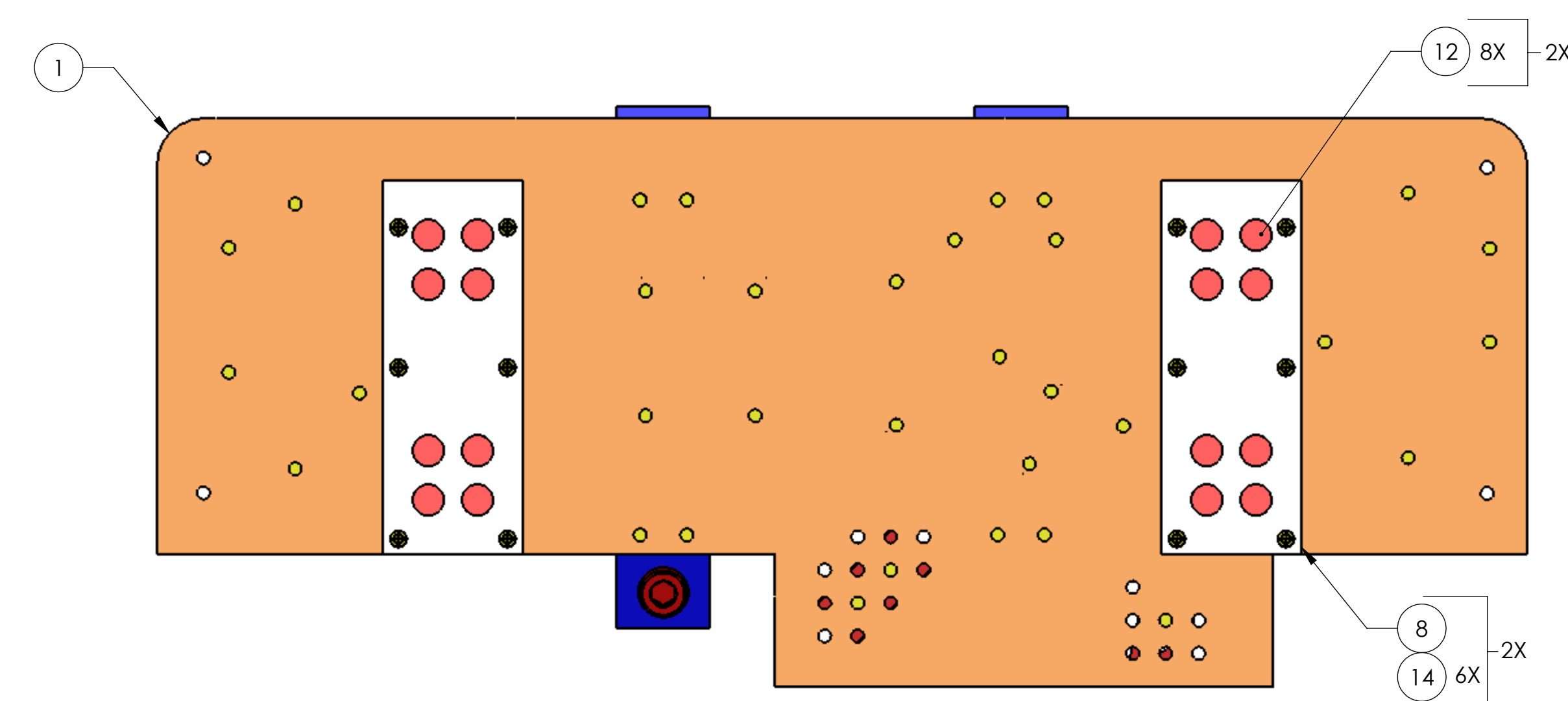
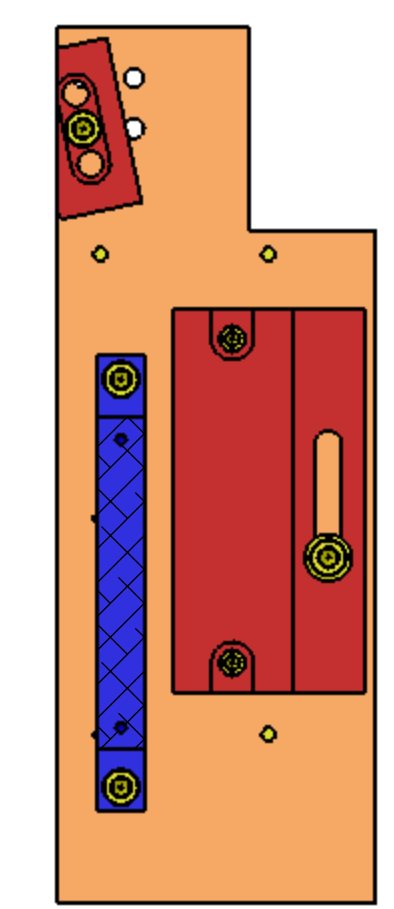
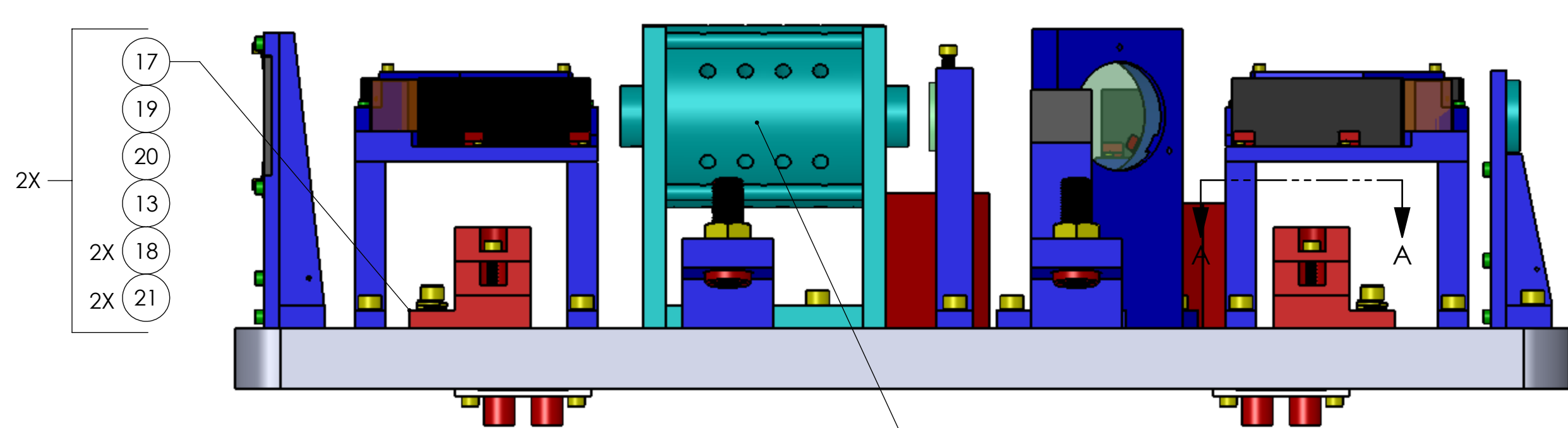
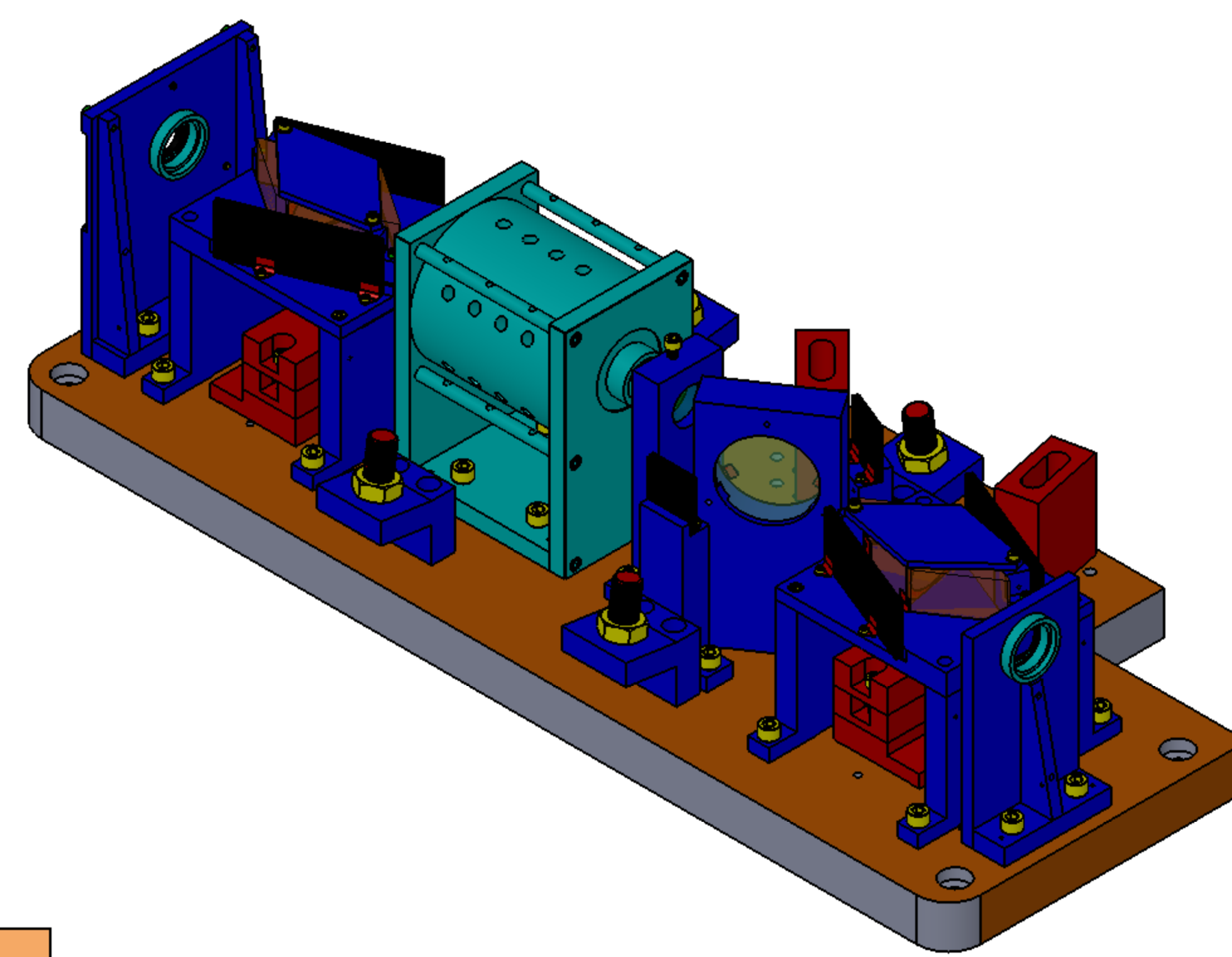
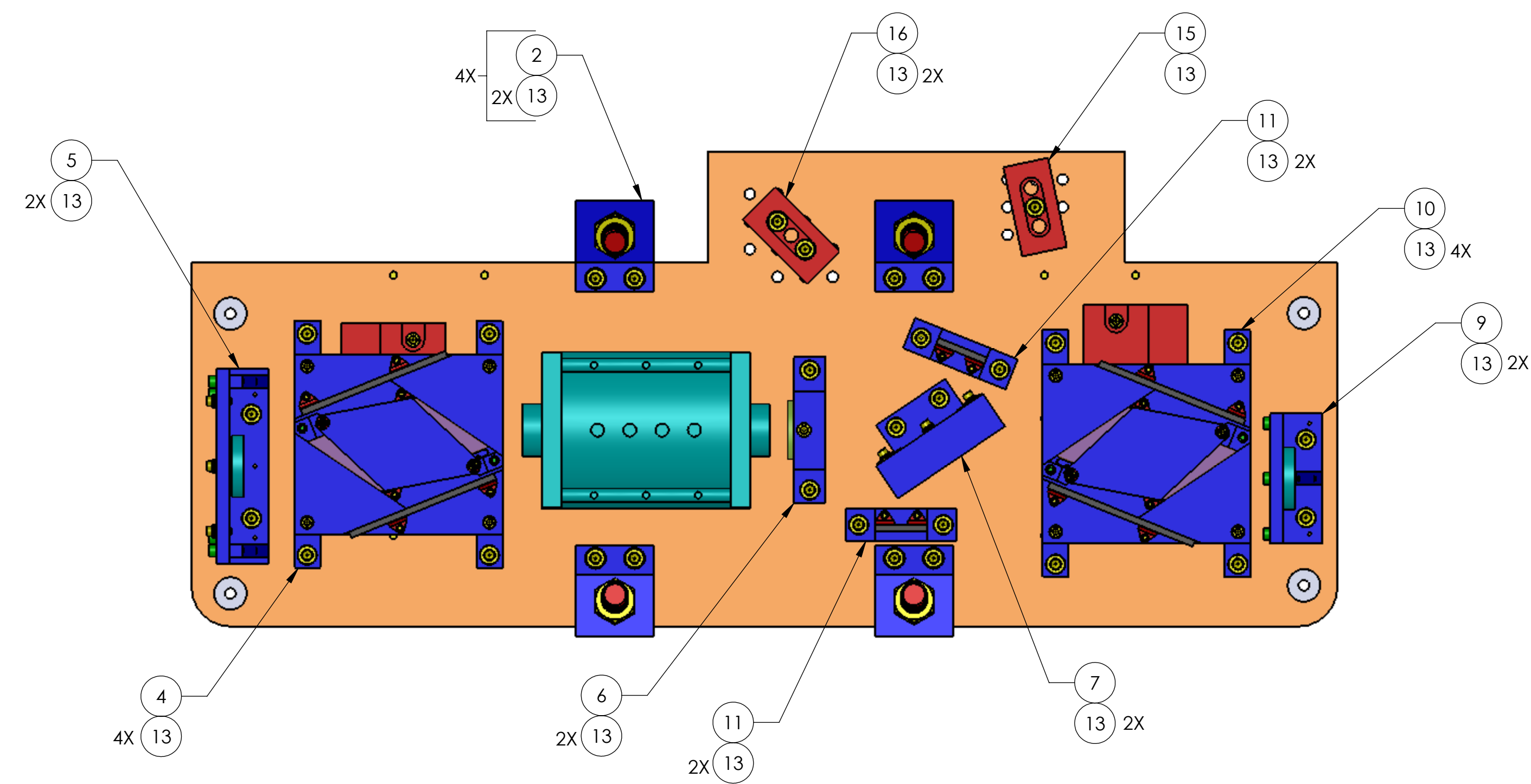
NOTES AND TOLERANCES: (UNLESS OTHERWISE SPECIFIED)	
DIMENSIONS ARE IN INCHES	
TOLERANCES: .XX ± .01 .XXX ± .005	
ANGULAR ± 0.5°	
MATERIAL	FINISH
6061-T6 Al	63 μinch

CALIFORNIA INSTITUTE OF TECHNOLOGY MASSACHUSETTS INSTITUTE OF TECHNOLOGY	
SYSTEM	SUB-SYSTEM
ADVANCED LIGO	AOS
NEXT ASSY	
D0900615	

PART NAME			
PRISM MOUNT BASE_RH			
DESIGNER	TQ. NGUYEN	16 JUL 2010	SIZE DWG. NO.
DRAFTER	TQ. NGUYEN	20 AUG 2010	D D0900620
CHECKER	M. SMITH		REV. v1
APPROVAL	D. COYNE		SCALE: 2:1 PROJECTION:

D0900620.dwg\_A03E\_D0900615\_Paradise Isolator Prism Mount Base RH\_PART PDM REV: X-009 DRAWING PDM REV: X-011

REV.	DATE	DCN #	DRAWING TREE #
v1	08 OCT 2010	E1000563	-
-	-	-	-



ITEM NO.	PART NUMBER	DESCRIPTION	MATERIAL	QTY	SPARE	TOTAL
21	92200A199	8-32 x 1, SHCS 300SSTL		4		0
20	91475A029	Washer, Lock, .25 x .49 OD, 300 SSSL		2		0
19	90945A760	Washer, Flat, .25 x .47 OD, 300 SSSL, Nas620-C416L		2		0
18	D1002542	TABLE BALANCE WEIGHT, .75#	304, 316 OR 302 SSSL	4		0
17	D0901764	TABLE BALANCE WEIGHT	304, 316 OR 302 SSSL	2		0
16	D1002540	Output Faraday Isolator Dummy Weight (rotate)	304, 316 OR 302 SSSL	1		0
15	D1002533	Output Faraday Isolator Dummy Weight	304, 316 OR 302 SSSL	1		0
14	92200A194	SCREW, SHC, 8-32 x 1/2, MS16995-26, MC #92200A194	300 SSSL	12		0
13	92200A542	Screw, Socket Head Cap, 1/4-20 UNC-2A x 1.00 lg.	300 SSSL	37		0
12	N35P500500HT	BLUNTING MAGNETICS-NEODYMIUM .50 DIA X .50L	NEO 35	16		0
11	D1002364	FARADAY ISOLATOR BEAM DUMP ASSY	N/A	2		0
10	D0900614	PRISM MOUNT ASSY_LH	N/A	1		0
9	D1001963	OUTPUT ALIGNMENT FIXTURE ASSY	N/A	1		0
8	D0900778	MAGNET ATTACHMENT PLATE	430F or 430FR	2		0
7	D0900440	TFP POLARIZER PLATE ASSY	--	1		0
6	D0900353	HALF WAVE PLATE HOLDER ASSY	--	1		0
5	D1001918	INPUT BAFFLE ASSY	N/A	1		0
4	D0900615	PRISM MOUNT ASSY_RH	N/A	1		0
3	D0900464	ROTATOR 20mm 1064nm-VAC COMPATIBLE	UNKNOW N	1		0
2	D1001958	WIRE SUPPORT BLOCK ASSY	N/A	4		0
1	D0900015	FARADAY ISOLATOR TABLE	6061-T6 AI	1		0

NOTES AND TOLERANCES: (UNLESS OTHERWISE SPECIFIED)

- INTERPRET DRAWING PER ASME Y14.5-1994.
- REMOVE ALL SHARP EDGES, R.02 MIN.
- DO NOT SCALE FROM DRAWING.
- ALL MACHINING FLUIDS SHALL BE WATER SOLUBLE AND FREE OF SULFUR, CHLORINE AND SILICONE, SUCH AS CINCINNATI MILACRON'S CIMTECH 410.

DIMENSIONS ARE IN  
TOLERANCES:  
.XX ±  
.XXX ±  
ANGULAR ± °

MATERIAL: -- FINISH: --

**LIGO** CALIFORNIA INSTITUTE OF TECHNOLOGY  
MASSACHUSETTS INSTITUTE OF TECHNOLOGY

SYSTEM: ADVANCED LIGO SUB-SYSTEM: AOS

PART NAME: FARADAY ISOLATOR TABLE ASSY

DESIGNER: MRUIZ DATE: 09/13/2010  
DRAFTER: CHECKER: APPROVAL:

SIZE: DWG. NO. D0900623 REV. v1  
SCALE: 1:4 PROJECTION: SHEET 1 OF 1

D0900623\_AdiLIGO\_AOS\_D0900136\_Faraday Isolator Table Assy\_PART PDM REV: X1.35 DRAWING PDM REV: X013

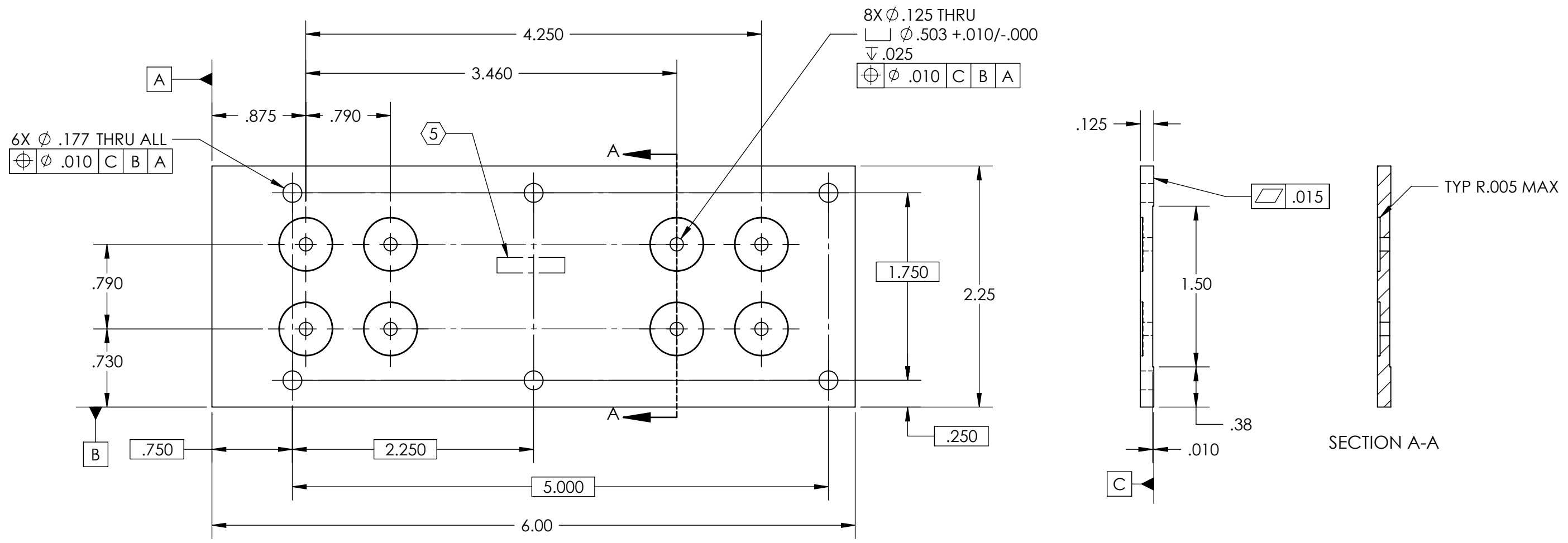
D0900778\_AdlIGO\_AOS\_FID0900048\_Magnet Attachment Plate, PART PDM REV: X-020, DRAWING PDM REV: X-013

**NOTES CONTINUED:**  
 5. SCRIBE, ENGRAVE, OR MECHANICALLY STAMP (NO INKS OR DYES) DRAWING PART NUMBER, REVISION (AND VARIANT OR "TYPE" IF APPLICABLE) ON NOTED SURFACE OF PART FOLLOWED ON THE NEXT LINE WITH A THREE DIGIT SERIAL NUMBER. SERIAL NUMBERS START AT 001 FOR THE FIRST ARTICLE AND PROCEED CONSECUTIVELY. USE MINIMUM 0.12" HIGH CHARACTERS, UNLESS THE SIZE OF THE PART DICTATES SMALLER CHARACTERS. A VIBRATORY TOOL MAY BE USED.  
 EXAMPLE: DXXXXXX-VY, TYPE-XX, S/N XXX

6. MACHINE ALL SURFACES TO REMOVE OXIDES AND MILL FINISH, USE OF ABRASIVE REMOVAL TECHNIQUES IS NOT ALLOWED.

7. ALL PARTS SHALL BE MANUFACTURED IN ACCORDANCE WITH LIGO SPECIFICATION E0900364.

REV.	DATE	DCN #	DRAWING TREE #
v1	27 APR 2009		
v2	08 OCT 2010	E1000563	



**NOTES AND TOLERANCES: (UNLESS OTHERWISE SPECIFIED)**

DIMENSIONS ARE IN  
 TOLERANCES:  
 .XX  $\pm$  .02  
 .XXX  $\pm$  .010  
 ANGULAR  $\pm$  0.5°

1. INTERPRET DRAWING PER ASME Y14.5-1994.  
 2. REMOVE ALL SHARP EDGES, R.02 MIN.  
 3. DO NOT SCALE FROM DRAWING.  
 4. ALL MACHINING FLUIDS MUST BE FULLY SYNTHETIC, FULLY WATER SOLUBLE AND FREE OF SULFUR, SILICONE, AND CHLORINE.

**MATERIAL** 430F OR 430FR **FINISH** 63  $\mu$ inch

**LIGO** CALIFORNIA INSTITUTE OF TECHNOLOGY  
 MASSACHUSETTS INSTITUTE OF TECHNOLOGY

**SYSTEM** ADVANCED LIGO **SUB-SYSTEM** AOS

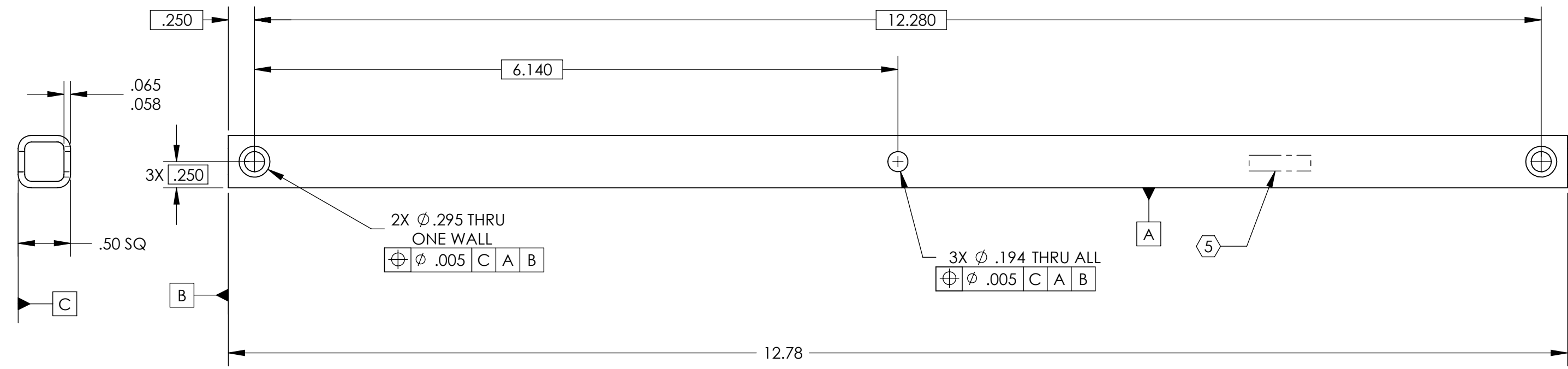
**NEXT ASSY** D0900048

PART NAME			MAGNET ATTACHMENT PLATE	
DESIGNER	DATE	SIZE	DWG. NO.	REV.
DRAFTER	N.Nguyen	26 Jul 2009	<b>B</b>	<b>D0900778</b>
CHECKER	K. Mailland	28 Jul 2009		
APPROVAL	C. Torrie	28 Jul 2009		
SCALE: 1:1			PROJECTION:	SHEET 1 OF 1

D0901271\_AdlIGO\_AOS\_FID0900579\_Blade Guard Crosspiece, PART PDM REV: X-007, DRAWING PDM REV: X-009

- NOTES CONTINUED:**
- 5. SCRIBE, ENGRAVE, OR MECHANICALLY STAMP (NO INKS OR DYES) DRAWING PART NUMBER AND REVISION ON NOTED SURFACE FOLLOWED ON THE NEXT LINE BY A THREE DIGIT SERIAL NUMBER. SERIAL NUMBERS START AT 001 FOR THE FIRST ARTICLE AND PROCEED CONSECUTIVELY. USE .07" HIGH CHARACTERS. EXAMPLE: DXXXXXX-VY, S/N 001. A VIBRATORY TOOL MAY BE USED.
  - 6. SUGGESTED SOURCE:  
AIRCRAFT SPRUCE & SPECIALTY CO.  
P/N 03-00008, 6061T6 TUBE 1/2" X 1/2' X .058  
AIRCRAFTSPRUCE.COM
  - 7. BRIGHT DIP PER E0900364 TO REMOVE ALL SURFACE OXIDES AND POTENTIALLY EMBEDDED CONTAMINATES.
  - 8. MACHINE ALL SURFACES TO REMOVE OXIDES AND MILL FINISH, USE OF ABRASIVE REMOVAL TECHNIQUES IS NOT ALLOWED.
  - 9. ALL PARTS SHALL BE MANUFACTURED IN ACCORDANCE WITH LIGO SPECIFICATION E0900364.

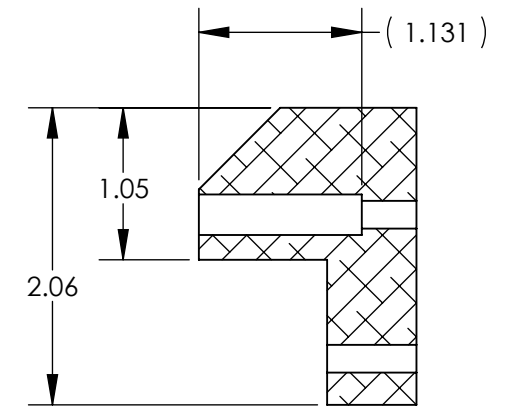
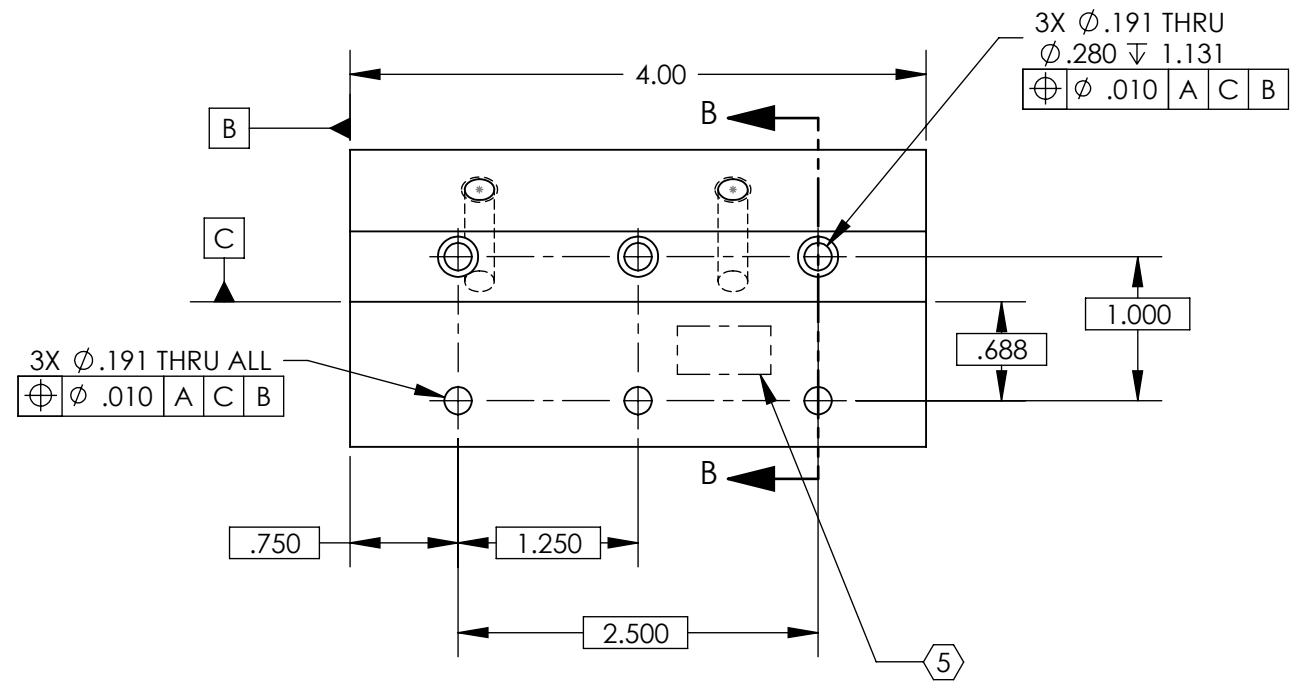
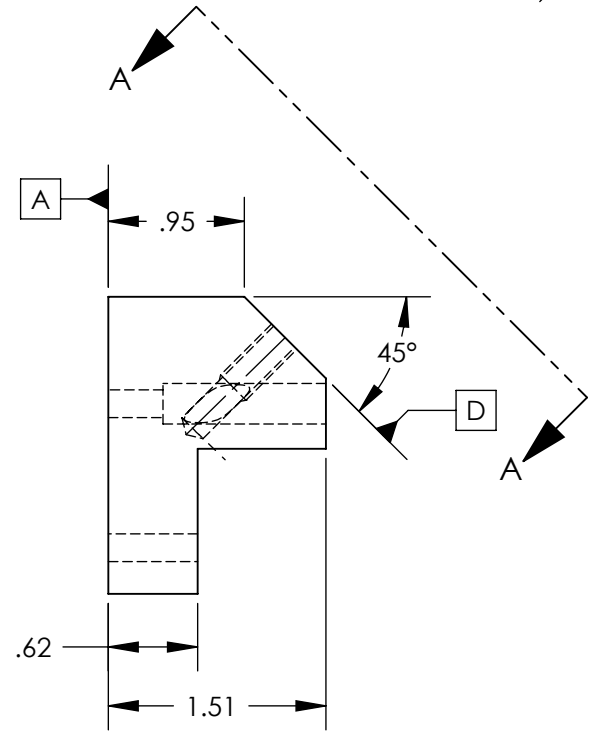
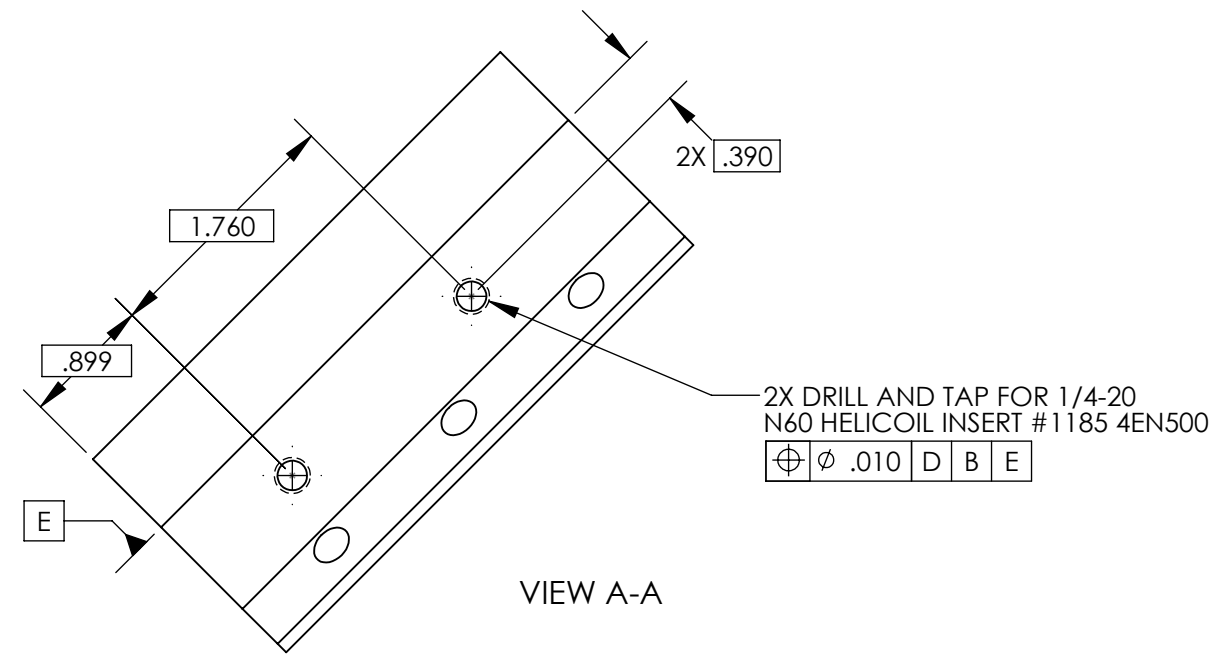
REV.	DATE	DCN #	DRAWING TREE #
v1	21 Jul 2009	E0900209	-
v2	07 OCT 2010	E1000563	-
-	-	-	-



NOTES AND TOLERANCES: (UNLESS OTHERWISE SPECIFIED)				LIGO CALIFORNIA INSTITUTE OF TECHNOLOGY MASSACHUSETTS INSTITUTE OF TECHNOLOGY		PART NAME	
DIMENSIONS ARE IN INCHES TOLERANCES: .XX ± .02 .XXX ± .005 ANGULAR ± 0.5°				1. INTERPRET DRAWING PER ASME Y14.5-1994. 2. REMOVE ALL SHARP EDGES, R.02 MIN. 3. DO NOT SCALE FROM DRAWING. 4. ALL MACHINING FLUIDS SHALL BE WATER SOLUBLE AND FREE OF SULFUR, CHLORINE AND SILICONE, SUCH AS CINCINNATI MILACRON'S CIMTECH 410.		<b>BLADE GUARD CROSSPIECE</b>	
<b>MATERIAL</b> 6061-T6 Al		<b>FINISH</b> stock tubing		<b>SYSTEM</b> ADVANCED LIGO		<b>SUB-SYSTEM</b> AOS	
<b>NOTES AND TOLERANCES: (UNLESS OTHERWISE SPECIFIED)</b>				<b>DESIGNER</b> N.Nguyen		<b>SIZE DWG. NO.</b> B D0901271	
<b>NEXT ASSY</b> D0900579				<b>CHECKER</b> K. Mailand		<b>REV.</b> v2	
				<b>APPROVAL</b> C. Torrie		<b>SCALE:</b> 1:4 <b>PROJECTION:</b>	
						<b>SHEET 1 OF 1</b>	

- NOTES CONTINUED:**
- 5. SCRIBE, ENGRAVE, OR MECHANICALLY STAMP (NO INKS OR DYES) DRAWING PART NUMBER, REVISION (AND VARIANT OR "TYPE" IF APPLICABLE) ON NOTED SURFACE OF PART FOLLOWED ON THE NEXT LINE WITH A THREE DIGIT SERIAL NUMBER. SERIAL NUMBERS START AT 001 FOR THE FIRST ARTICLE AND PROCEED CONSECUTIVELY. USE MINIMUM 0.12" HIGH CHARACTERS, UNLESS THE SIZE OF THE PART DICTATES SMALLER CHARACTERS. A VIBRATORY TOOL MAY BE USED.  
EXAMPLE: DXXXXXX-VY, TYPE-XX, S/N XXX
  - 6. MACHINE ALL SURFACES TO REMOVE OXIDES AND MILL FINISH, USE OF ABRASIVE REMOVAL TECHNIQUES IS NOT ALLOWED.
  - 7. ALL PARTS SHALL BE MANUFACTURED IN ACCORDANCE WITH LIGO SPECIFICATION E0900364.
  - 8. ALL HELI-COIL HOLES TO BE PREPARED ACCORDING TO EMHART HELI-COIL PRODUCT CATALOG, HC2000, REV 4
  - 9. ALL HELI-COIL INSERTS TO BE INSTALLED BY LIGO PERSONNEL, AFTER DELIVERY OF FINISHED PARTS, USE NITRONIC 60 THREADED INSERTS.

REV.	DATE	DCN #	DRAWING TREE #
v1	07 OCT 2010	E1000563	



NOTES AND TOLERANCES: (UNLESS OTHERWISE SPECIFIED)	
DIMENSIONS ARE IN TOLERANCES: .XX ± .01 .XXX ± .005 ANGULAR ± 0.5°	
1. INTERPRET DRAWING PER ASME Y14.5-1994. 2. REMOVE ALL SHARP EDGES, R.02 MIN. 3. DO NOT SCALE FROM DRAWING. 4. ALL MACHINING FLUIDS MUST BE FULLY SYNTHETIC, FULLY WATER SOLUBLE AND FREE OF SULFUR, SILICONE, AND CHLORINE.	
MATERIAL	6061-T6 Al
FINISH	63 μinch

CALIFORNIA INSTITUTE OF TECHNOLOGY MASSACHUSETTS INSTITUTE OF TECHNOLOGY		PART NAME		BLADE CLAMP PLATFORM	
SYSTEM	ADVANCED LIGO	SUB-SYSTEM	AOS	DESIGNER	N.Nguyen
NEXT ASSY	-	CHECKER	M. SMITH	DATE	30 Jul 2009
			APPROVAL		
			SIZE	DWG. NO.	REV.
			B	D0901514	v1
			SCALE:	3:4	PROJECTION:
					SHEET 1 OF 1

D0901514\_Blade Clamp Platform, PART PDM REV: X-000, DRAWING PDM REV: X-000

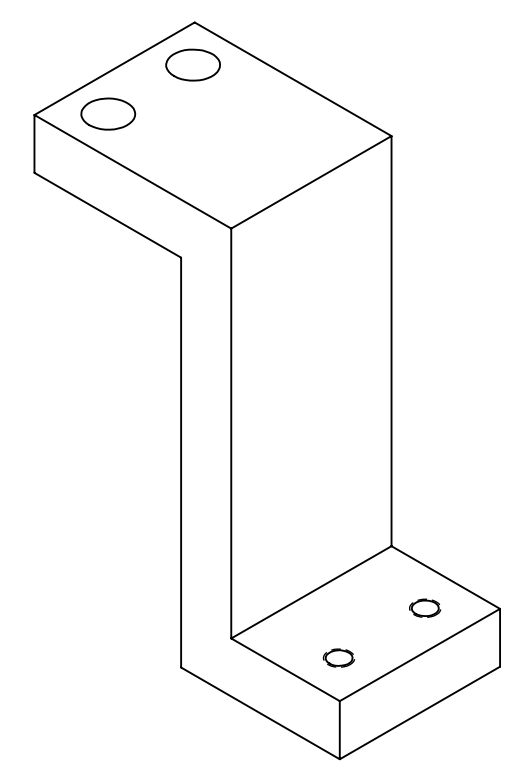
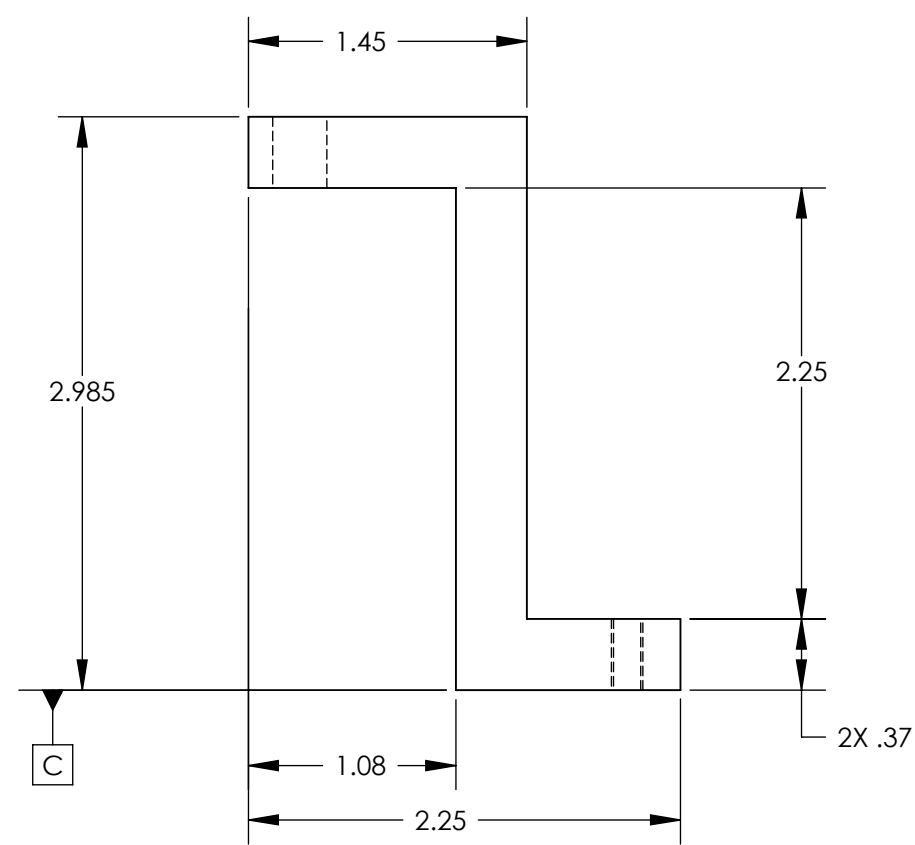
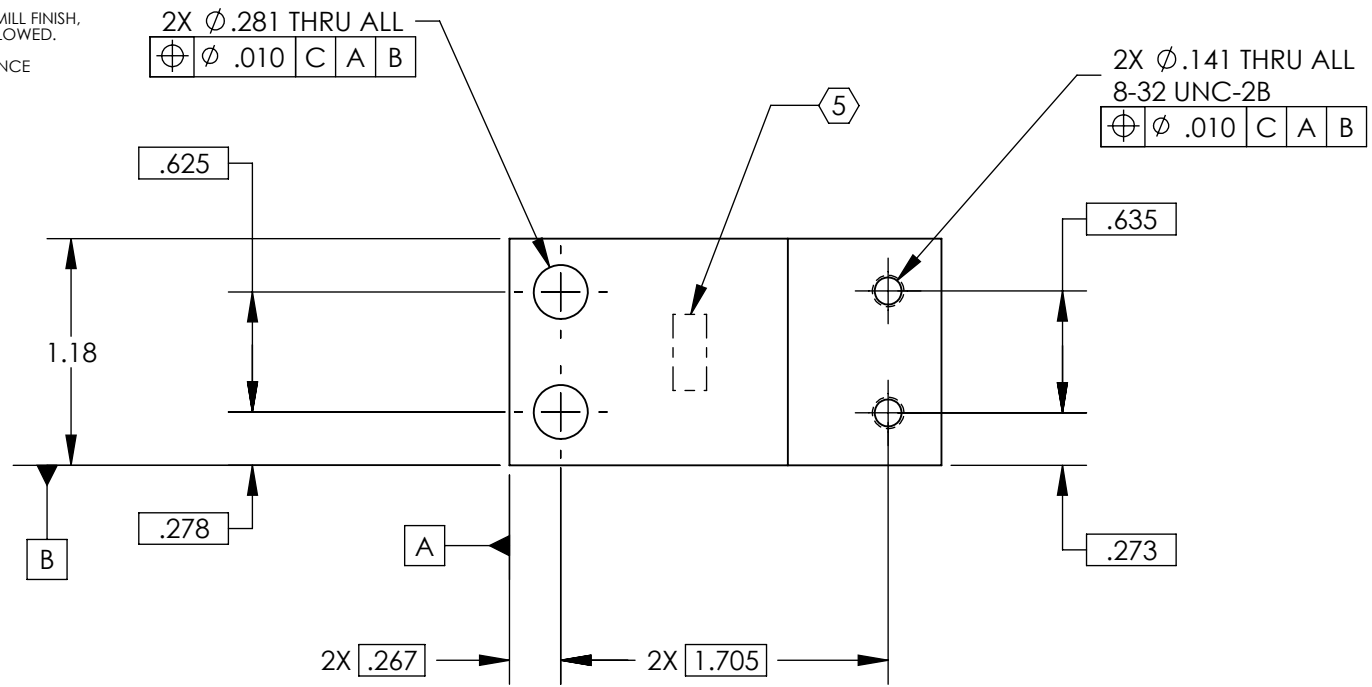


D0901569\_AdlIGO\_AOS\_FID0900136\_Magnetic Plate Mounting Front Bracket, PART PDM REV: X-003, DRAWING PDM REV: X-009

**NOTES CONTINUED:**  
 5. SCRIBE, ENGRAVE, OR MECHANICALLY STAMP (NO INKS OR DYES) DRAWING PART NUMBER, REVISION (AND VARIANT OR "TYPE" IF APPLICABLE) ON NOTED SURFACE OF PART FOLLOWED ON THE NEXT LINE WITH A THREE DIGIT SERIAL NUMBER. SERIAL NUMBERS START AT 001 FOR THE FIRST ARTICLE AND PROCEED CONSECUTIVELY. USE MINIMUM 0.12" HIGH CHARACTERS, UNLESS THE SIZE OF THE PART DICTATES SMALLER CHARACTERS. A VIBRATORY TOOL MAY BE USED.  
 EXAMPLE: DXXXXXX-VY, TYPE-XX, S/N XXX

6. MACHINE ALL SURFACES TO REMOVE OXIDES AND MILL FINISH, USE OF ABRASIVE REMOVAL TECHNIQUES IS NOT ALLOWED.  
 7. ALL PARTS SHALL BE MANUFACTURED IN ACCORDANCE WITH LIGO SPECIFICATION E0900364.

REV.	DATE	DCN #	DRAWING TREE #
v1	05 AUG 2009		
v2	07 OCT 2010	E1000563	
-	-	-	-



**NOTES AND TOLERANCES: (UNLESS OTHERWISE SPECIFIED)**

DIMENSIONS ARE IN INCHES.

TOLERANCES:  
 .XX ± .02  
 .XXX ± .010  
 ANGULAR ± 0.5°

1. INTERPRET DRAWING PER ASME Y14.5-1994.  
 2. REMOVE ALL SHARP EDGES, R.02 MIN.  
 3. DO NOT SCALE FROM DRAWING.  
 4. ALL MACHINING FLUIDS SHALL BE WATER SOLUBLE AND FREE OF SULFUR, CHLORINE AND SILICONE, SUCH AS CINCINNATI MILACRON'S CIMTECH 410.

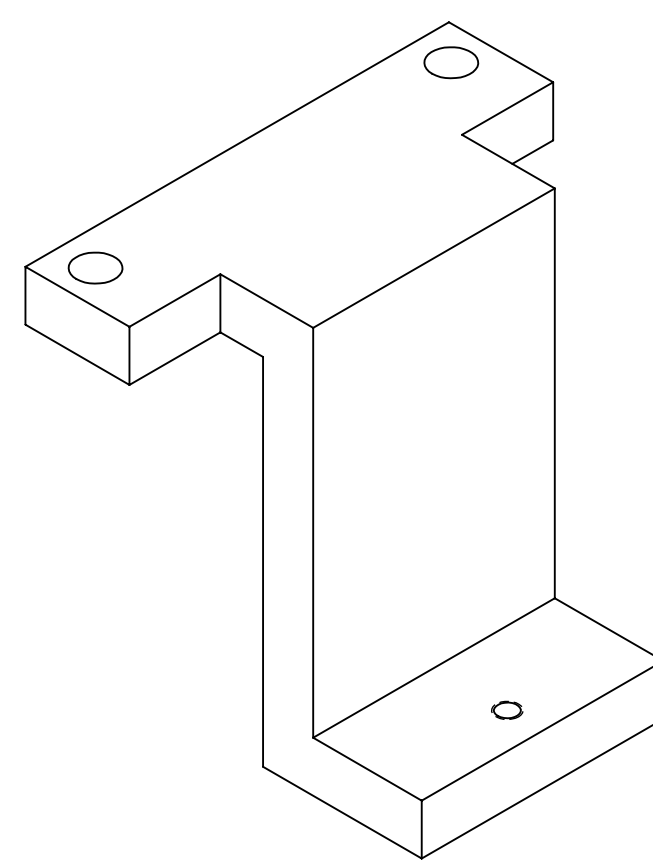
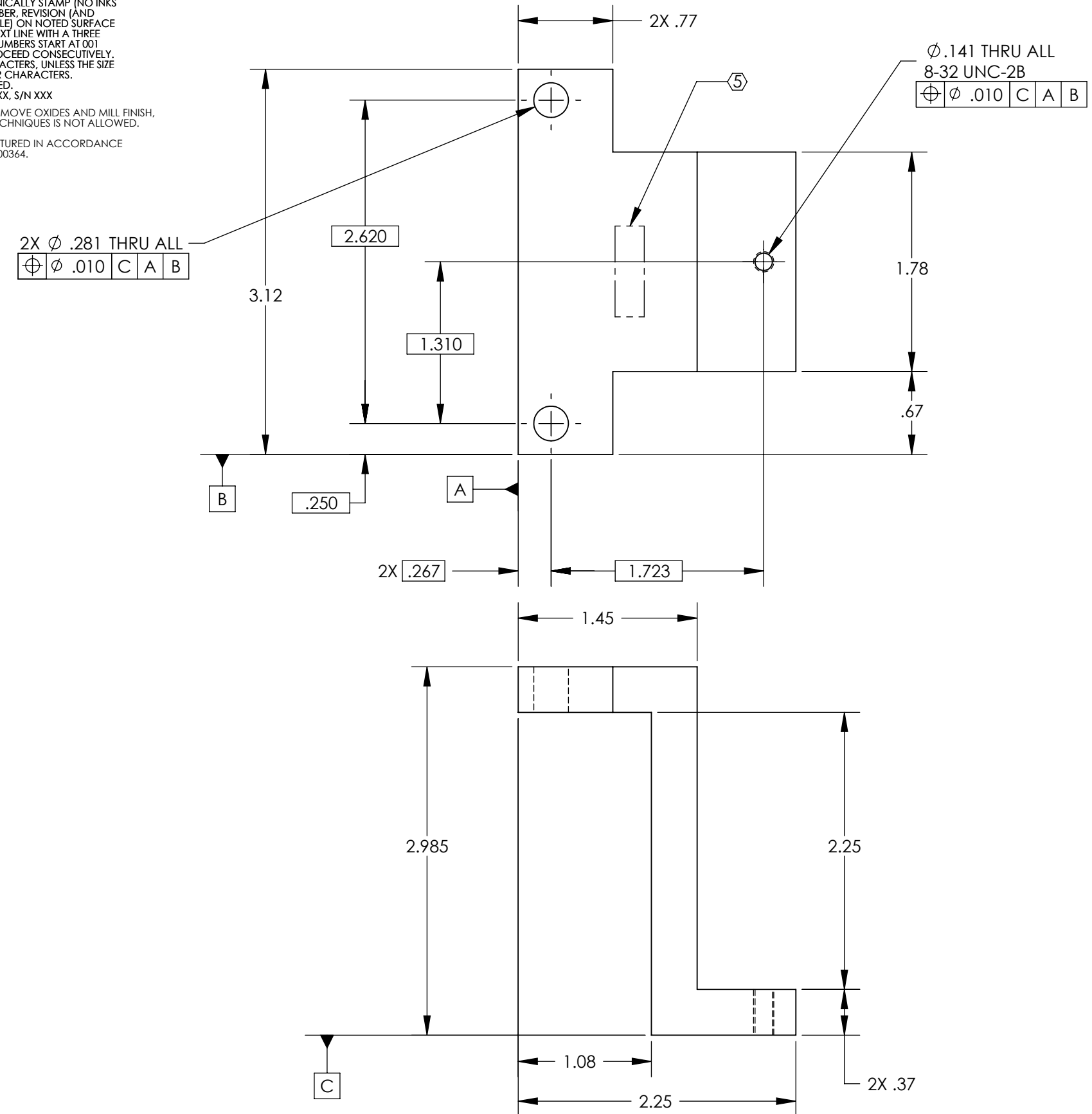
<b>MATERIAL</b>	6061-T6 Al	<b>FINISH</b>	63 μinch
-----------------	------------	---------------	----------

<b>SYSTEM</b>		<b>SUB-SYSTEM</b>		<b>PART NAME</b>	
ADVANCED LIGO		AOS		MAGNETIC PLATE MOUNTING FRONT BRACKET	
<b>DESIGNER</b>	N.Nguyen	05 Aug 2009	<b>SIZE</b>	<b>DWG. NO.</b>	<b>REV.</b>
<b>DRAFTER</b>	M. Smith	05 Aug 2009	B	D0901569	v2
<b>CHECKER</b>			<b>SCALE:</b> 1:1	<b>PROJECTION:</b>	<b>SHEET 1 OF 1</b>
<b>APPROVAL</b>					

D0901570\_AdlIGO\_AOS\_FID0900136\_Magnetic Plate Mounting Back Bracket, PART PDM REV: X-004, DRAWING PDM REV: X-007

**NOTES CONTINUED:**  
 5. SCRIBE, ENGRAVE, OR MECHANICALLY STAMP (NO INKS OR DYES) DRAWING PART NUMBER, REVISION (AND VARIANT OR "TYPE" IF APPLICABLE) ON NOTED SURFACE OF PART FOLLOWED ON THE NEXT LINE WITH A THREE DIGIT SERIAL NUMBER. SERIAL NUMBERS START AT 001 FOR THE FIRST ARTICLE AND PROCEED CONSECUTIVELY. USE MINIMUM 0.12" HIGH CHARACTERS, UNLESS THE SIZE OF THE PART DICTATES SMALLER CHARACTERS. A VIBRATORY TOOL MAY BE USED. EXAMPLE: DXXXXXX-VY, TYPE-XX, S/N XXX  
 6. MACHINE ALL SURFACES TO REMOVE OXIDES AND MILL FINISH. USE OF ABRASIVE REMOVAL TECHNIQUES IS NOT ALLOWED.  
 7. ALL PARTS SHALL BE MANUFACTURED IN ACCORDANCE WITH LIGO SPECIFICATION E0900364.

REV.	DATE	DCN #	DRAWING TREE #
v1	05 AUG 2009		
v2	07 OCT 2010	E1000563	-
-	-	-	-

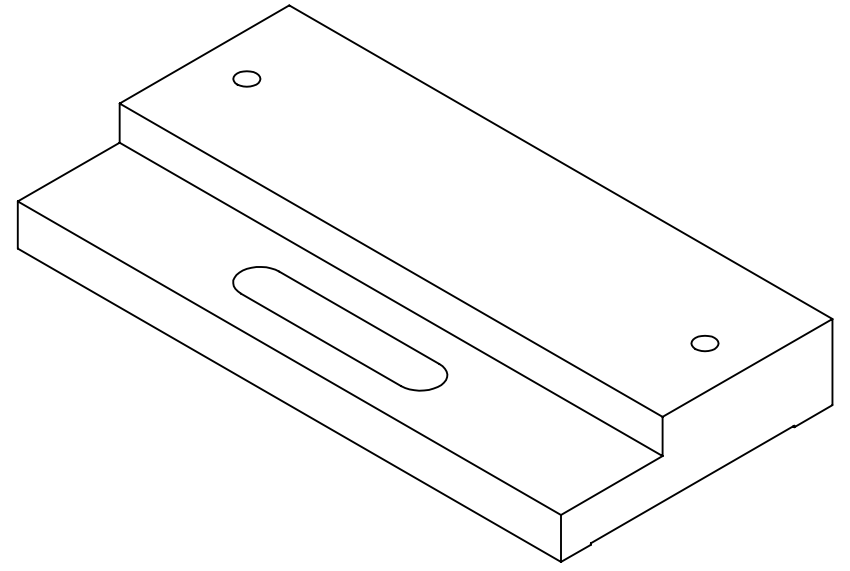
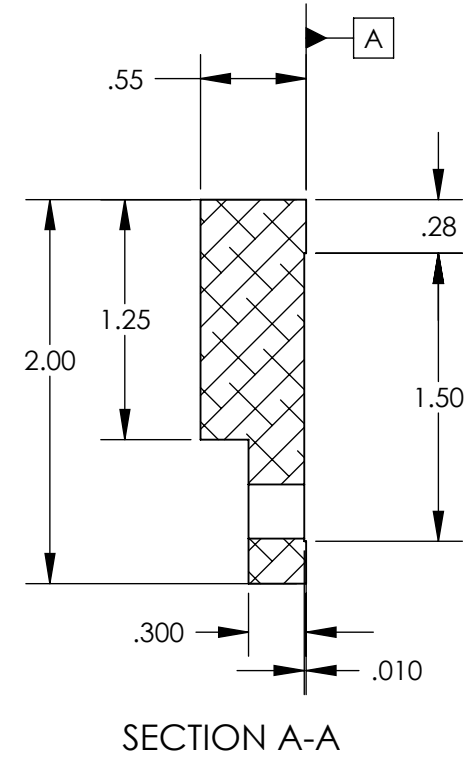
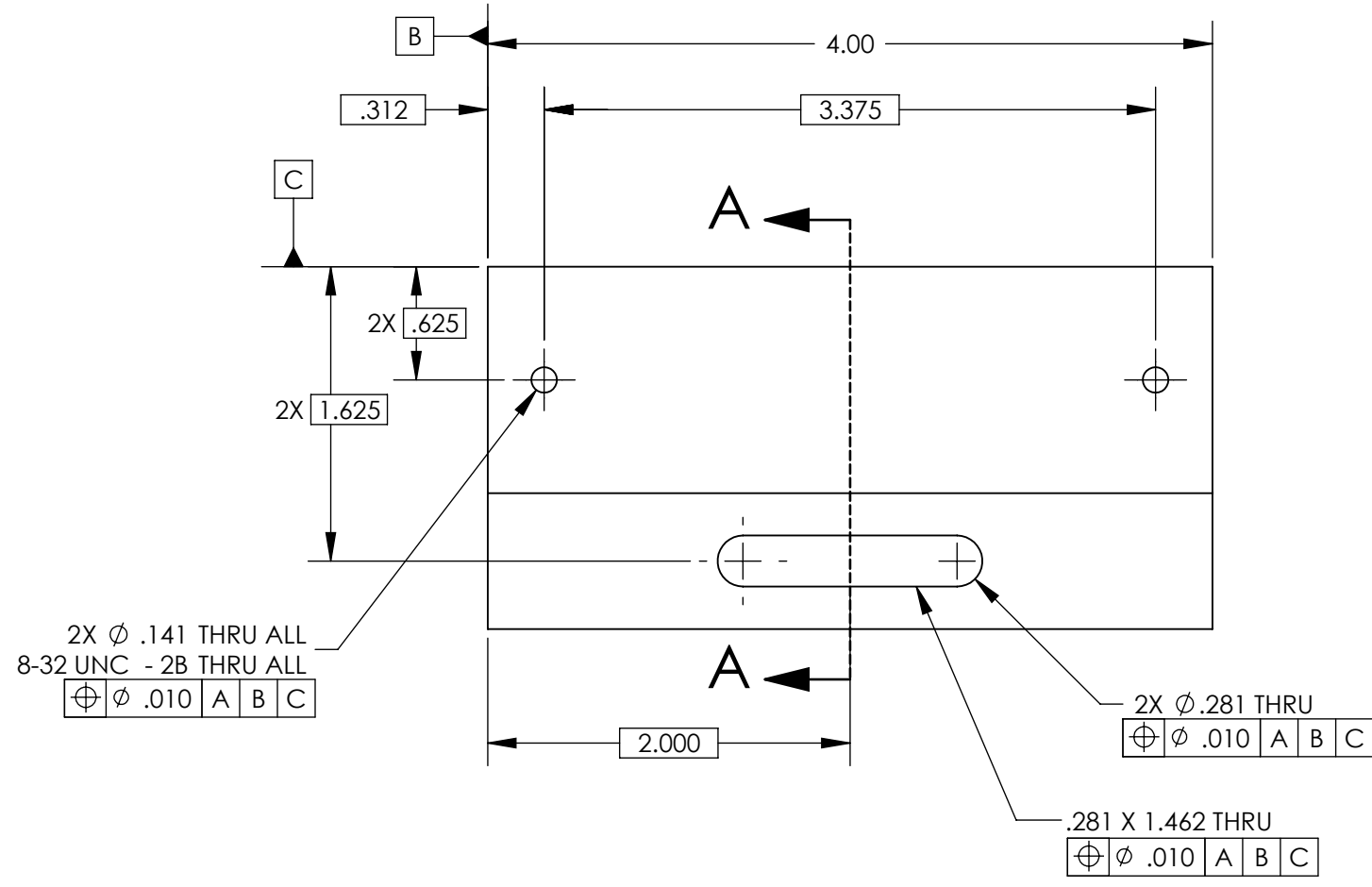


NOTES AND TOLERANCES: (UNLESS OTHERWISE SPECIFIED)				LIGO CALIFORNIA INSTITUTE OF TECHNOLOGY MASSACHUSETTS INSTITUTE OF TECHNOLOGY		PART NAME	
DIMENSIONS ARE IN INCHES. TOLERANCES: .XX $\pm .02$ .XXX $\pm .010$ ANGULAR $\pm 0.5^\circ$				1. INTERPRET DRAWING PER ASME Y14.5-1994. 2. REMOVE ALL SHARP EDGES, R.02 MIN. 3. DO NOT SCALE FROM DRAWING. 4. ALL MACHINING FLUIDS SHALL BE WATER SOLUBLE AND FREE OF SULFUR, CHLORINE AND SILICONE, SUCH AS CINCINNATI MILACRON'S CIMTECH 410.		<b>MAGNETIC PLATE MOUNTING BACK BRACKET</b>	
<b>MATERIAL</b> 6061-T6 Al		<b>FINISH</b> 63 $\mu$ inch		<b>SYSTEM</b> ADVANCED LIGO		<b>SUB-SYSTEM</b> AOS	
<b>NEXT ASSY</b> D0900136		<b>DESIGNER</b> N.Nguyen 04 Aug 2009		<b>SIZE DWG. NO.</b> B D0901570		<b>REV.</b> v2	
		<b>CHECKER</b> M. Smith 05 Aug 2009		<b>SCALE:</b> 1:1		<b>PROJECTION:</b>	
		<b>APPROVAL</b>		SHEET 1 OF 1			

**NOTES CONTINUED:**  
 5. SCRIBE, ENGRAVE, OR MECHANICALLY STAMP (NO INKS OR DYES) DRAWING PART NUMBER, REVISION (AND VARIANT OR "TYPE" IF APPLICABLE) ON NOTED SURFACE OF PART FOLLOWED ON THE NEXT LINE WITH A THREE DIGIT SERIAL NUMBER. SERIAL NUMBERS START AT 001 FOR THE FIRST ARTICLE AND PROCEED CONSECUTIVELY. USE MINIMUM 0.12" HIGH CHARACTERS, UNLESS THE SIZE OF THE PART DICTATES SMALLER CHARACTERS. A VIBRATORY TOOL MAY BE USED.  
 EXAMPLE: DXXXXXX-VY, TYPE-XX, S/N XXX

6. MACHINE ALL SURFACES TO REMOVE OXIDES AND MILL FINISH. USE OF ABRASIVE REMOVAL TECHNIQUES IS NOT ALLOWED.  
 7. ALL PARTS SHALL BE MANUFACTURED IN ACCORDANCE WITH LIGO SPECIFICATION E0900364.

REV.	DATE	DCN #	DRAWING TREE #
v1	08 OCT 2010	E1000563	



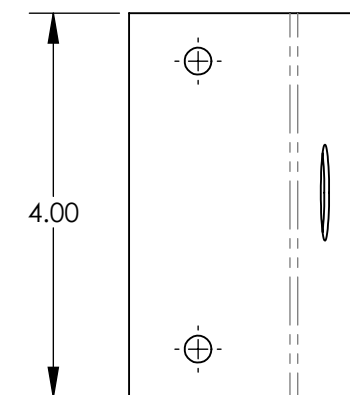
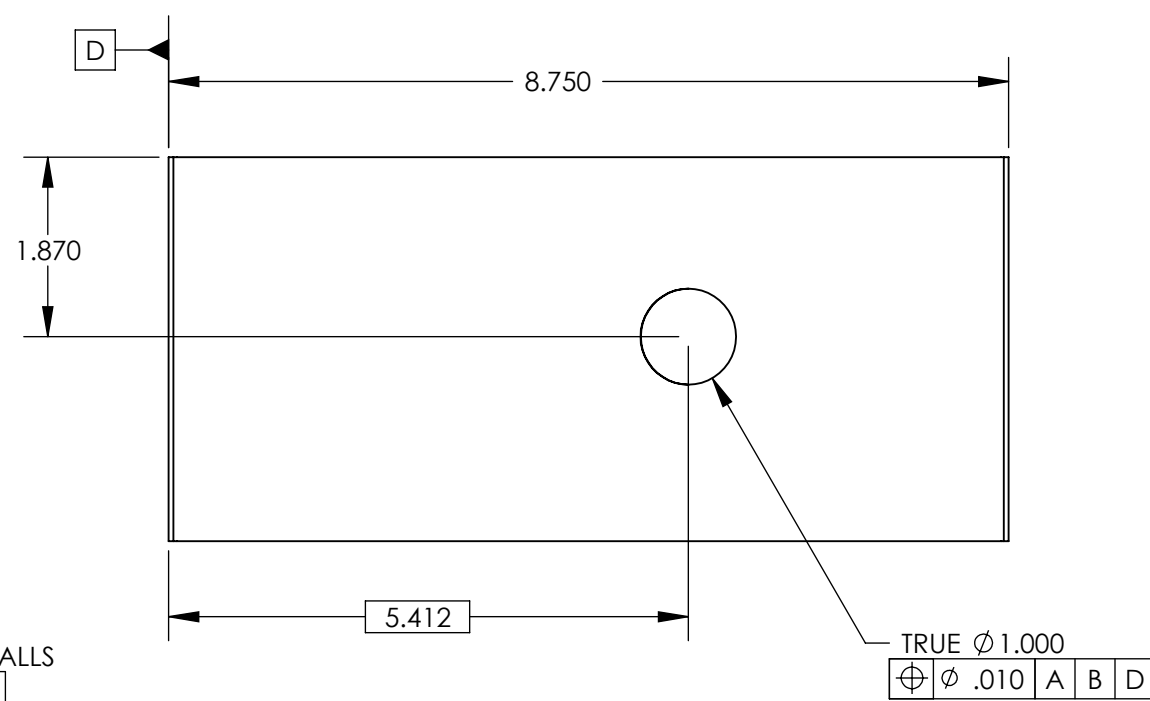
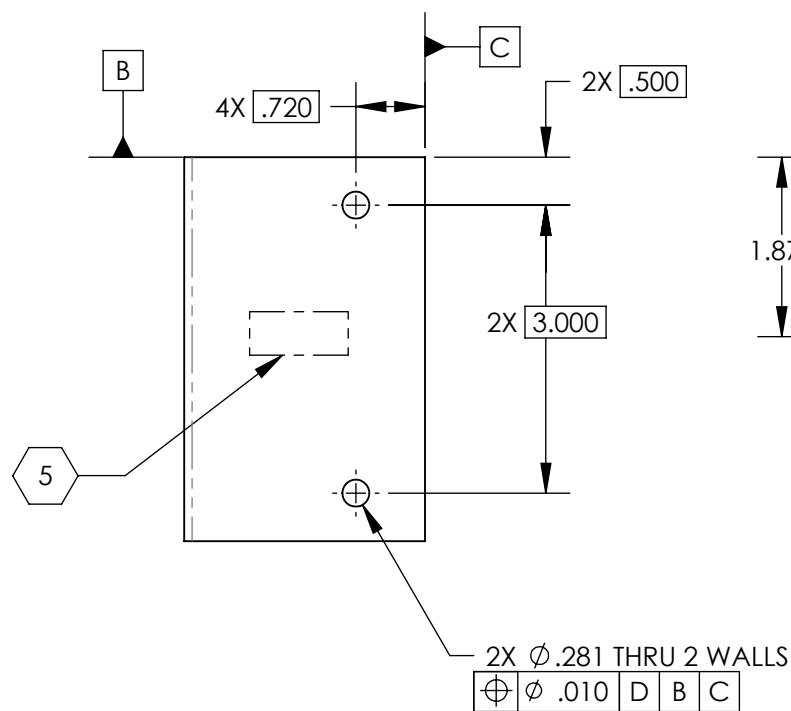
NOTES AND TOLERANCES: (UNLESS OTHERWISE SPECIFIED)				LIGO CALIFORNIA INSTITUTE OF TECHNOLOGY MASSACHUSETTS INSTITUTE OF TECHNOLOGY		PART NAME	
DIMENSIONS ARE IN INCHES TOLERANCES: .XX $\pm$ .01 .XXX $\pm$ .005 ANGULAR $\pm$ 0.5°				1. INTERPRET DRAWING PER ASME Y14.5-1994. 2. REMOVE ALL SHARP EDGES, R.02 MIN. 3. DO NOT SCALE FROM DRAWING. 4. ALL MACHINING FLUIDS MUST BE FULLY SYNTHETIC, FULLY WATER SOLUBLE AND FREE OF SULFUR, SILICONE, AND CHLORINE.		<b>TABLE BALANCE WEIGHT</b>	
MATERIAL 304, 316 OR 302 SSSL		FINISH 125 $\mu$ inch		SYSTEM ADVANCED LIGO		SUB-SYSTEM AOS	
NEXT ASSY D0900623				DESIGNER M.RUIZ		DATE 09 AUG 2010	
				CHECKER		SIZE DWG. NO. <b>B</b> D0901764	
				APPROVAL		REV. v1	
				SCALE: 1:1		PROJECTION:  SHEET 1 OF 1	

D0901764\_AdlIGO\_AOS\_FID0900623\_Table Balance Weight, PART PDM REV: X-020, DRAWING PDM REV: X-013

D0902845\_AdlIGO\_AOS\_FID0900136\_Reflection Baffle, PART PDM REV: X-010, DRAWING PDM REV: X-007

**NOTES CONTINUED:**  
 5. SCRIBE, ENGRAVE, OR MECHANICALLY STAMP (NO INKS OR DYES) DRAWING PART NUMBER, REVISION (AND VARIANT OR "TYPE" IF APPLICABLE) ON NOTED SURFACE OF PART FOLLOWED ON THE NEXT LINE WITH A THREE DIGIT SERIAL NUMBER. SERIAL NUMBERS START AT 001 FOR THE FIRST ARTICLE AND PROCEED CONSECUTIVELY. USE MINIMUM 0.12" HIGH CHARACTERS, UNLESS THE SIZE OF THE PART DICTATES SMALLER CHARACTERS. A VIBRATORY TOOL MAY BE USED.  
 EXAMPLE: DXXXXXX-VY, TYPE-XX, S/N XXX  
 6. PORCELAIN COAT PER SPECIFICATIONS E1000083  
 7. MATERIAL: MACHINE FINISH AS RECEIVED

REV.	DATE	DCN #	DRAWING TREE #
v1	09 APR 2009	-	-
v2	07 OCT 2010	E1000563	-
-	-	-	-



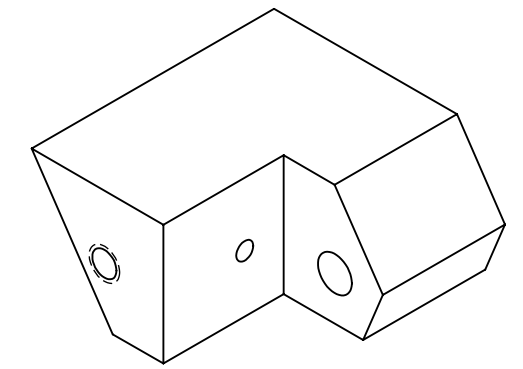
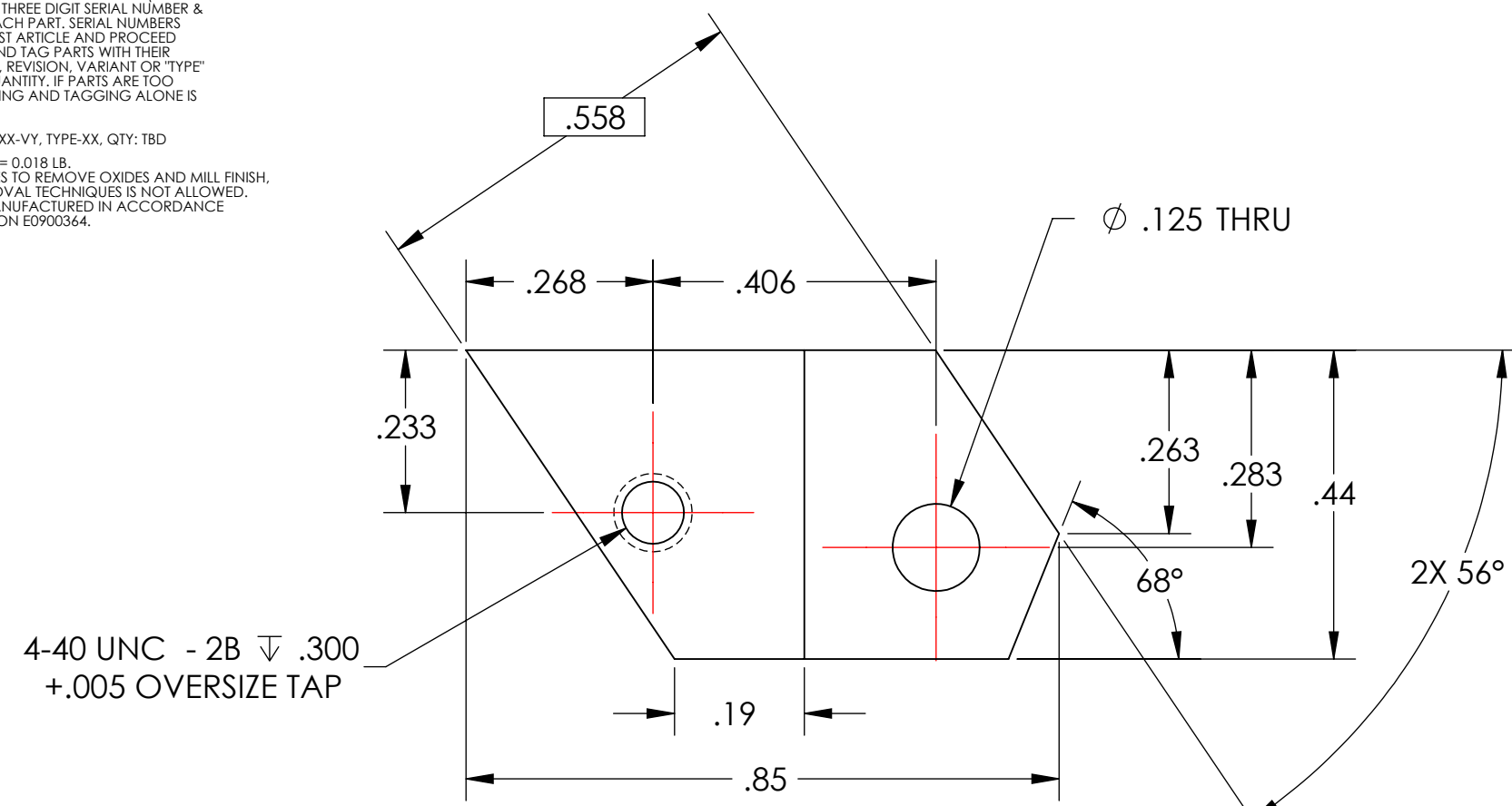
NOTES AND TOLERANCES: (UNLESS OTHERWISE SPECIFIED)				CALIFORNIA INSTITUTE OF TECHNOLOGY MASSACHUSETTS INSTITUTE OF TECHNOLOGY		PART NAME	
DIMENSIONS ARE IN TOLERANCES: .XX ± .03 .XXX ± .010 ANGULAR ± 1.0°				1. INTERPRET DRAWING PER ASME Y14.5-1994. 2. REMOVE ALL SHARP EDGES, R.02 MIN. 3. DO NOT SCALE FROM DRAWING. 4. ALL MACHINING FLUIDS MUST BE FULLY SYNTHETIC, FULLY WATER SOLUBLE AND FREE OF SULFUR, SILICONE, AND CHLORINE.		REFLECTION BAFFLE	
MATERIAL A424 TYPE I, 18GA, SSTL				FINISH SEE NOTE 7		SYSTEM ADVANCED LIGO	
				SUB-SYSTEM AOS		DESIGNER DRAFTER CHECKER APPROVAL	
				NEXT ASSY D0900136		SIZE DWG. NO. B D0902845	
						REV. v2	
						SCALE: 1:2 PROJECTION:	
						SHEET 1 OF 1	

D1001859\_d1lIGO\_AOS\_D0900615\_Faraday Isolator Fixed Stop RH, PART PDM REV: X-006, DRAWING PDM REV: X-007

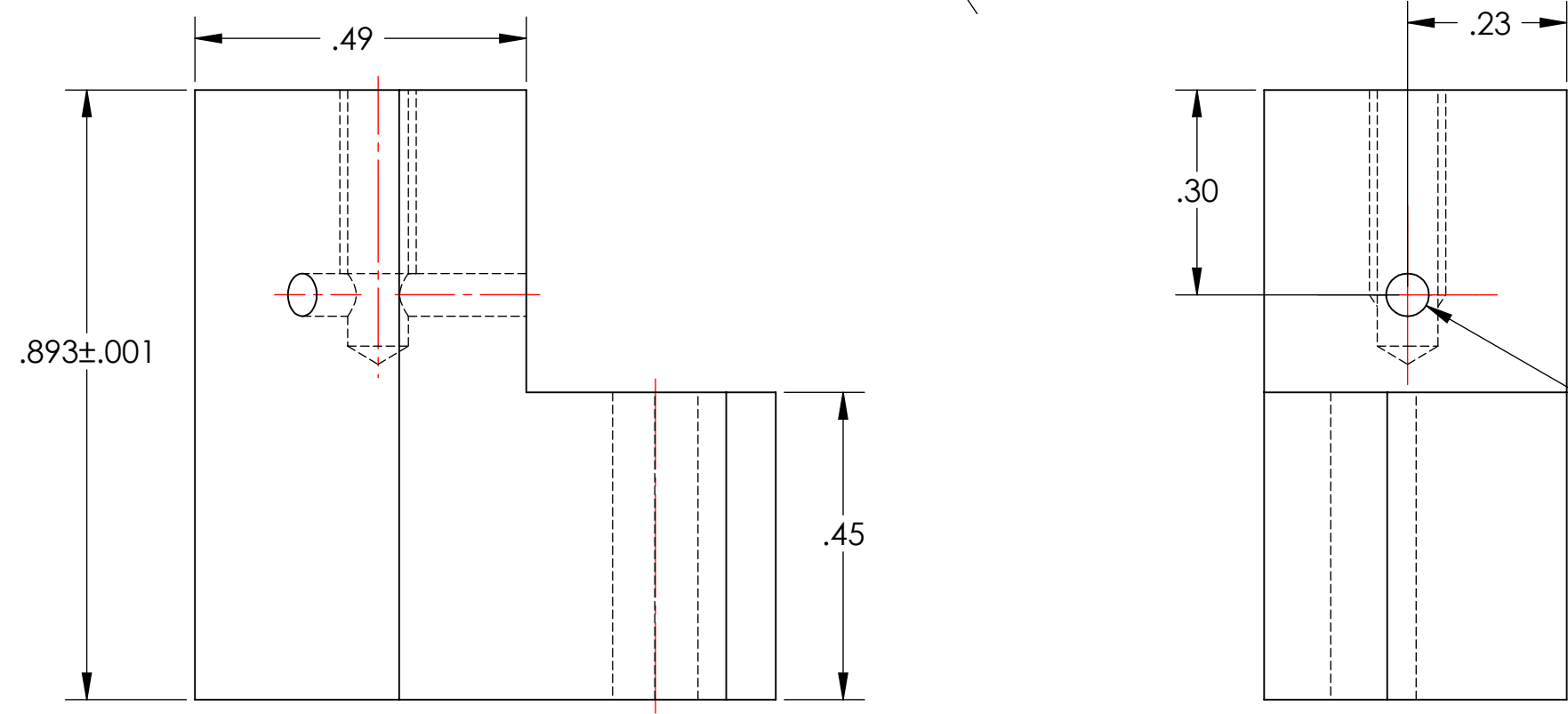
NOTES CONTINUED:  
5. SCRIBE, ENGRAVE, OR MECHANICALLY STAMP (NO DYES OR INKS) A UNIQUE THREE DIGIT SERIAL NUMBER & REVISION NUMBER ON EACH PART. SERIAL NUMBERS START AT 001 FOR THE FIRST ARTICLE AND PROCEED CONSECUTIVELY. BAG AND TAG PARTS WITH THEIR DRAWING PART NUMBER, REVISION, VARIANT OR "TYPE" (IF APPLICABLE), AND QUANTITY. IF PARTS ARE TOO SMALL TO SCRIBE, BAGGING AND TAGGING ALONE IS SUFFICIENT.  
EXAMPLE (PART): 001-v1  
EXAMPLE (TAG): DXXXXXX-VY, TYPE-XX, QTY: TBD

6. APPROXIMATE WEIGHT = 0.018 LB.  
7. MACHINE ALL SURFACES TO REMOVE OXIDES AND MILL FINISH. USE OF ABRASIVE REMOVAL TECHNIQUES IS NOT ALLOWED.  
8. ALL PARTS SHALL BE MANUFACTURED IN ACCORDANCE WITH LIGO SPECIFICATION E0900364.

REV.	DATE	DCN #	DRAWING TREE #
v1	7 OCT 2010	E1000563	-
-	-	-	-
-	-	-	-



GENERAL VIEW FOR REFERENCE ONLY NO SCALE



NOTES AND TOLERANCES: (UNLESS OTHERWISE SPECIFIED)	
DIMENSIONS ARE IN INCHES	
TOLERANCES: .XX ± .01 .XXX ± .005 ANGULAR ± 0.5°	
1. INTERPRET DRAWING PER ASME Y14.5-1994. 2. REMOVE ALL SHARP EDGES, R.02 MIN. 3. DO NOT SCALE FROM DRAWING. 4. ALL MACHINING FLUIDS MUST BE FULLY SYNTHETIC, FULLY WATER SOLUBLE AND FREE OF SULFUR, SILICONE, AND CHLORINE.	
MATERIAL	6061-T6 Al
FINISH	63 μinch

CALIFORNIA INSTITUTE OF TECHNOLOGY MASSACHUSETTS INSTITUTE OF TECHNOLOGY		PART NAME		FIXED STOP_RH	
SYSTEM	ADVANCED LIGO	SUB-SYSTEM	AOS	DESIGNER	TQ. NGUYEN 15 JUL 2010
NEXT ASSY	D0900615	DRAPER	TQ. NGUYEN 20 AUG 2010	SIZE	DWG. NO. B
CHECKER	M. SMITH	APPROVAL	D. COYNE	REV.	v1
				SCALE:	4:1
				PROJECTION:	
				SHEET	1 OF 1

D1001860\_alIGO\_AOS\_D0900615\_Faraday Isolator Spring Block RH, PART PDM REV: X-011, DRAWING PDM REV: X-005

NOTES CONTINUED:

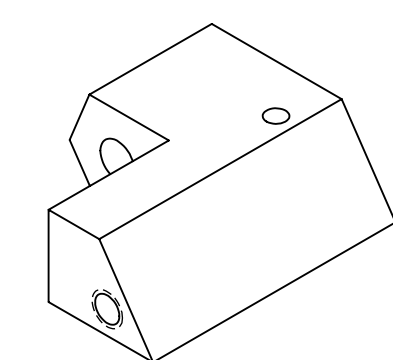
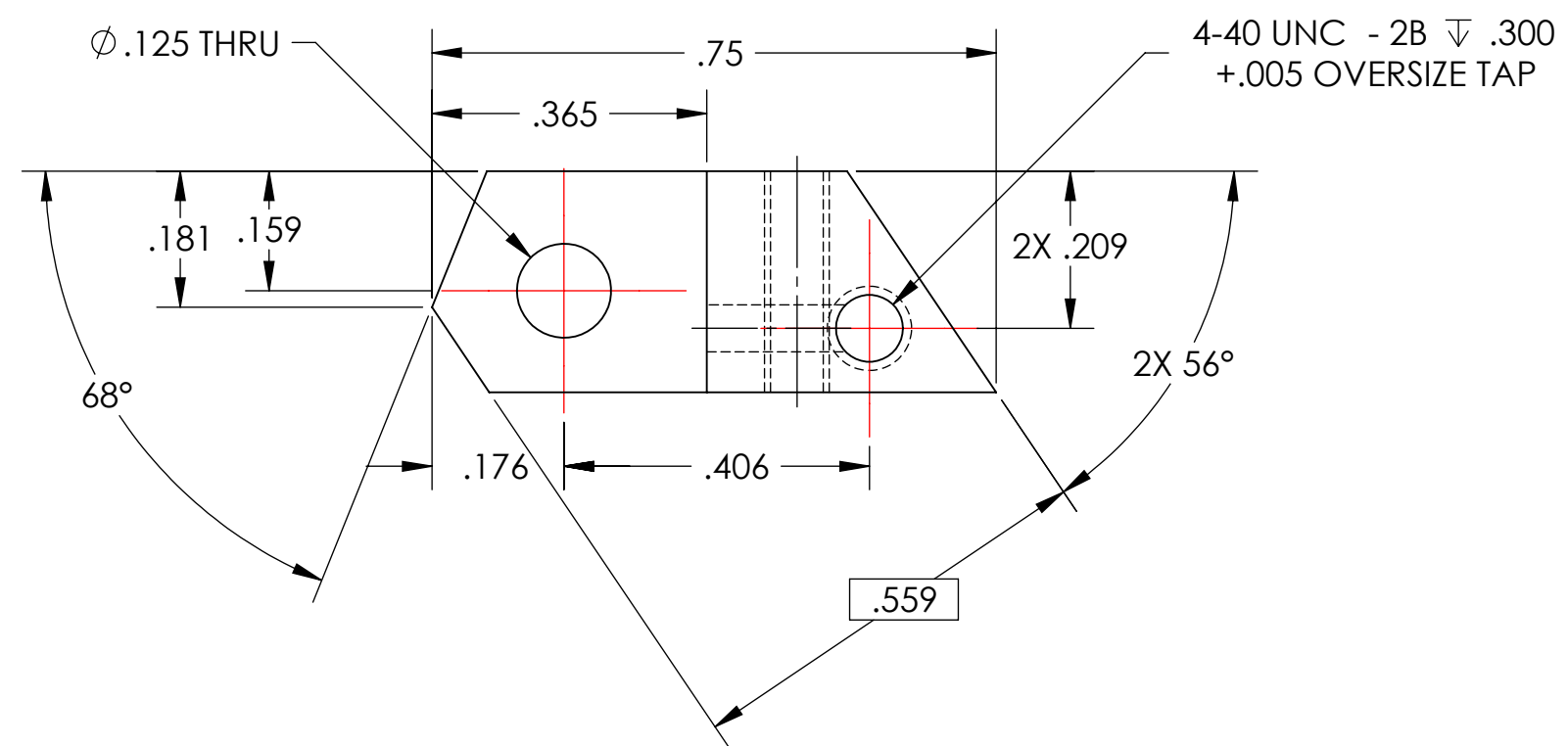
5. SCRIBE, ENGRAVE, OR MECHANICALLY STAMP (NO DYES OR INKS) A UNIQUE THREE DIGIT SERIAL NUMBER & REVISION NUMBER ON EACH PART. SERIAL NUMBERS START AT 001 FOR THE FIRST ARTICLE AND PROCEED CONSECUTIVELY. BAG AND TAG PARTS WITH THEIR DRAWING PART NUMBER, REVISION, VARIANT OR "TYPE" (IF APPLICABLE), AND QUANTITY. IF PARTS ARE TOO SMALL TO SCRIBE, BAGGING AND TAGGING ALONE IS SUFFICIENT.  
 EXAMPLE (PART): 001-v1  
 EXAMPLE (TAG): DXXXXXX-VY, TYPE-XX, QTY: TBD

6. APPROXIMATE WEIGHT = 0.011 LB.

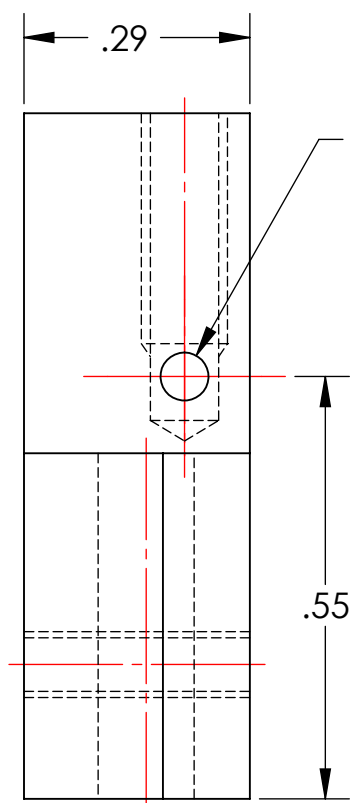
7. MACHINE ALL SURFACES TO REMOVE OXIDES AND MILL FINISH. USE OF ABRASIVE REMOVAL TECHNIQUES IS NOT ALLOWED.

8. ALL PARTS SHALL BE MANUFACTURED IN ACCORDANCE WITH LIGO SPECIFICATION E0900364.

REV.	DATE	DCN #	DRAWING TREE #
v1	8 OCT 2010	E1000563	-
-	-	-	-
-	-	-	-

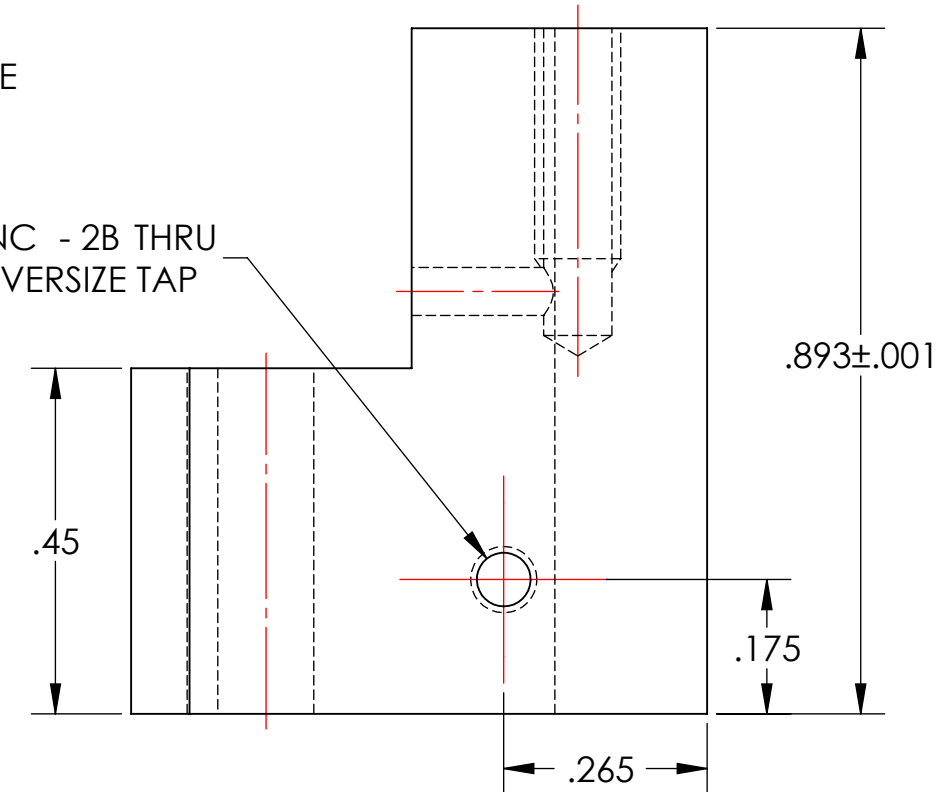


GENERAL VIEW  
FOR REFERENCE ONLY  
NO SCALE



$\phi$  .06  
VENT HOLE THRU TAP HOLE

# 2-56 UNC - 2B THRU  
+.005 OVERSIZE TAP



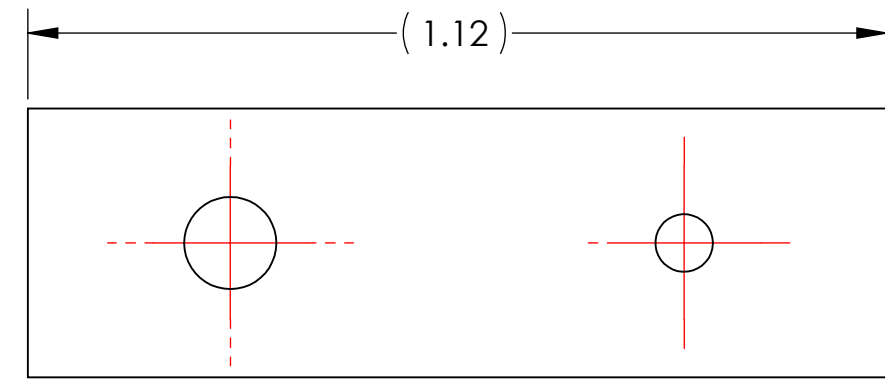
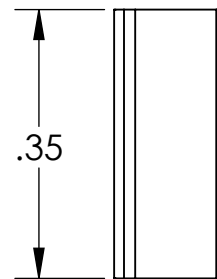
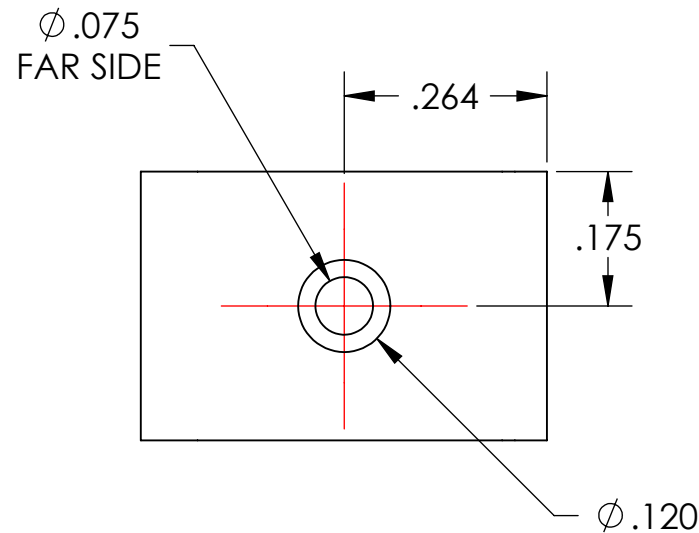
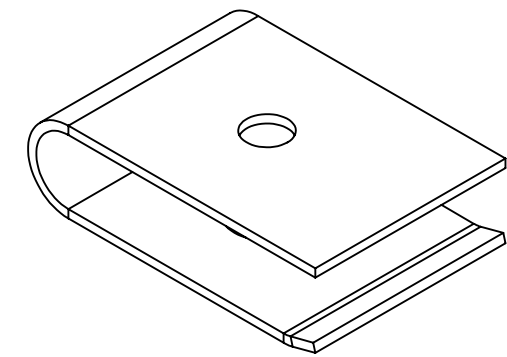
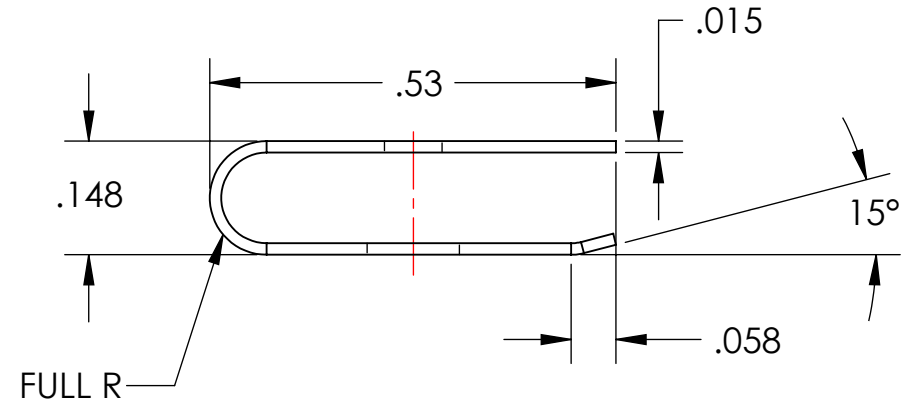
NOTES AND TOLERANCES: (UNLESS OTHERWISE SPECIFIED)				LIGO		CALIFORNIA INSTITUTE OF TECHNOLOGY MASSACHUSETTS INSTITUTE OF TECHNOLOGY		PART NAME	
DIMENSIONS ARE IN INCHES				ADVANCED LIGO		SUB-SYSTEM		SPRING BLOCK_RH	
TOLERANCES: .XX ± .01 .XXX ± .005				NEXT ASSY		AOS		DESIGNER	
ANGULAR ± 0.5°				6061-T6 Al		63 μinch		D0900615	
1. INTERPRET DRAWING PER ASME Y14.5-1994. 2. REMOVE ALL SHARP EDGES, R.02 MIN. 3. DO NOT SCALE FROM DRAWING. 4. ALL MACHINING FLUIDS MUST BE FULLY SYNTHETIC, FULLY WATER SOLUBLE AND FREE OF SULFUR, SILICONE, AND CHLORINE.				D0900615		DESIGNER		TQ. NGUYEN 14 JUL 2010	
						DRAFTER		TQ. NGUYEN 23 AUG 2010	
						CHECKER		M. SMITH	
						APPROVAL		D. COYNE	
						SIZE		DWG. NO.	
						B		D1001860	
						SCALE: 4:1		PROJECTION:	
								SHEET 1 OF 1	
								REV.	
								v1	

D1001861\_calIGO\_AOS\_D0900614\_Faraday Isolator U-Spring, PART PDM REV: X-004, DRAWING PDM REV: X-003

**NOTES CONTINUED:**  
 5. SCRIBE, ENGRAVE, OR MECHANICALLY STAMP (NO DYES OR INKS) A UNIQUE THREE DIGIT SERIAL NUMBER & REVISION NUMBER ON EACH PART. SERIAL NUMBERS START AT 001 FOR THE FIRST ARTICLE AND PROCEED CONSECUTIVELY. BAG AND TAG PARTS WITH THEIR DRAWING PART NUMBER, REVISION, VARIANT OR "TYPE" (IF APPLICABLE), AND QUANTITY. IF PARTS ARE TOO SMALL TO SCRIBE, BAGGING AND TAGGING ALONE IS SUFFICIENT.  
 EXAMPLE (PART): 001-v1  
 EXAMPLE (TAG): DXXXXXX-VY, TYPE-XX, QTY: TBD

6. APPROXIMATE WEIGHT = 0.002 LB.  
 7. MACHINE ALL SURFACES TO REMOVE OXIDES AND MILL FINISH. USE OF ABRASIVE REMOVAL TECHNIQUES IS NOT ALLOWED.  
 8. ALL PARTS SHALL BE MANUFACTURED IN ACCORDANCE WITH LIGO SPECIFICATION E0900364.

REV.	DATE	DCN #	DRAWING TREE #
v1	8 OCT 2010	E1000563	-
-	-	-	-
-	-	-	-



FLAT PATTERN

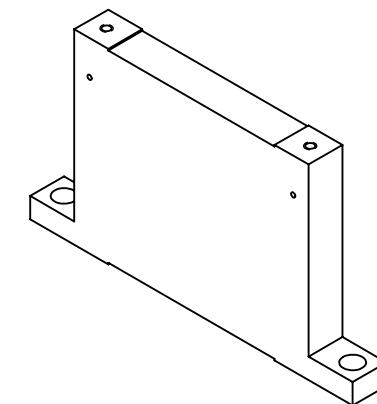
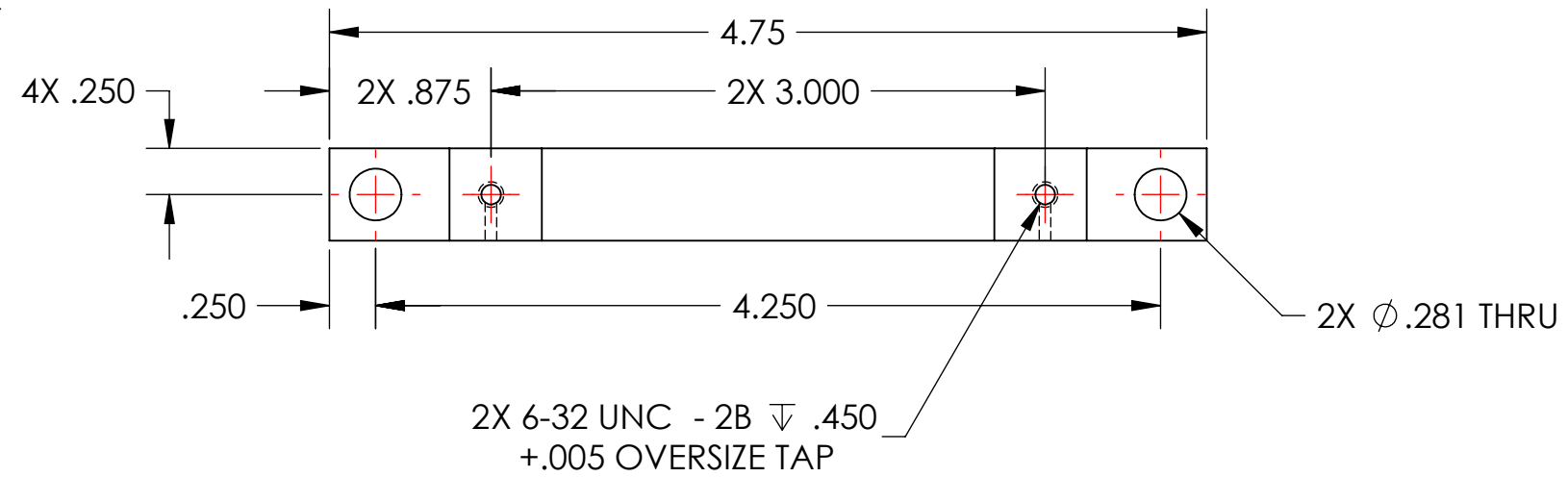
NOTES AND TOLERANCES: (UNLESS OTHERWISE SPECIFIED)				LIGO CALIFORNIA INSTITUTE OF TECHNOLOGY MASSACHUSETTS INSTITUTE OF TECHNOLOGY		PART NAME	
DIMENSIONS ARE IN INCHES TOLERANCES: .XX ± .01 .XXX ± .005 ANGULAR ± 0.5°				1. INTERPRET DRAWING PER ASME Y14.5-1994. 2. REMOVE ALL SHARP EDGES, R.02 MIN. 3. DO NOT SCALE FROM DRAWING. 4. ALL MACHINING FLUIDS MUST BE FULLY SYNTHETIC, FULLY WATER SOLUBLE AND FREE OF SULFUR, SILICONE, AND CHLORINE.		U-SPRING	
MATERIAL 304 SSSL		FINISH 63 μinch		SYSTEM ADVANCED LIGO SUB-SYSTEM AOS		DESIGNER TQ. NGUYEN 15 JUL 2010	
NEXT ASSY D0900614_D0900615		DRAFTER TQ. NGUYEN 23 AUG 2010		CHECKER M. SMITH		SIZE DWG. NO. B D1001861	
				APPROVAL D. COYNE		REV. v1	
				SCALE: 4:1		PROJECTION:	
				SHEET 1 OF 1			

D1001862\_alIGO\_AOS\_D0900614\_Faraday Isolator Base Mount Foot, PART PDM REV: X-009, DRAWING PDM REV: X-003

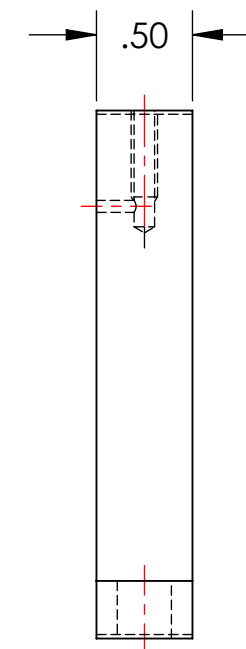
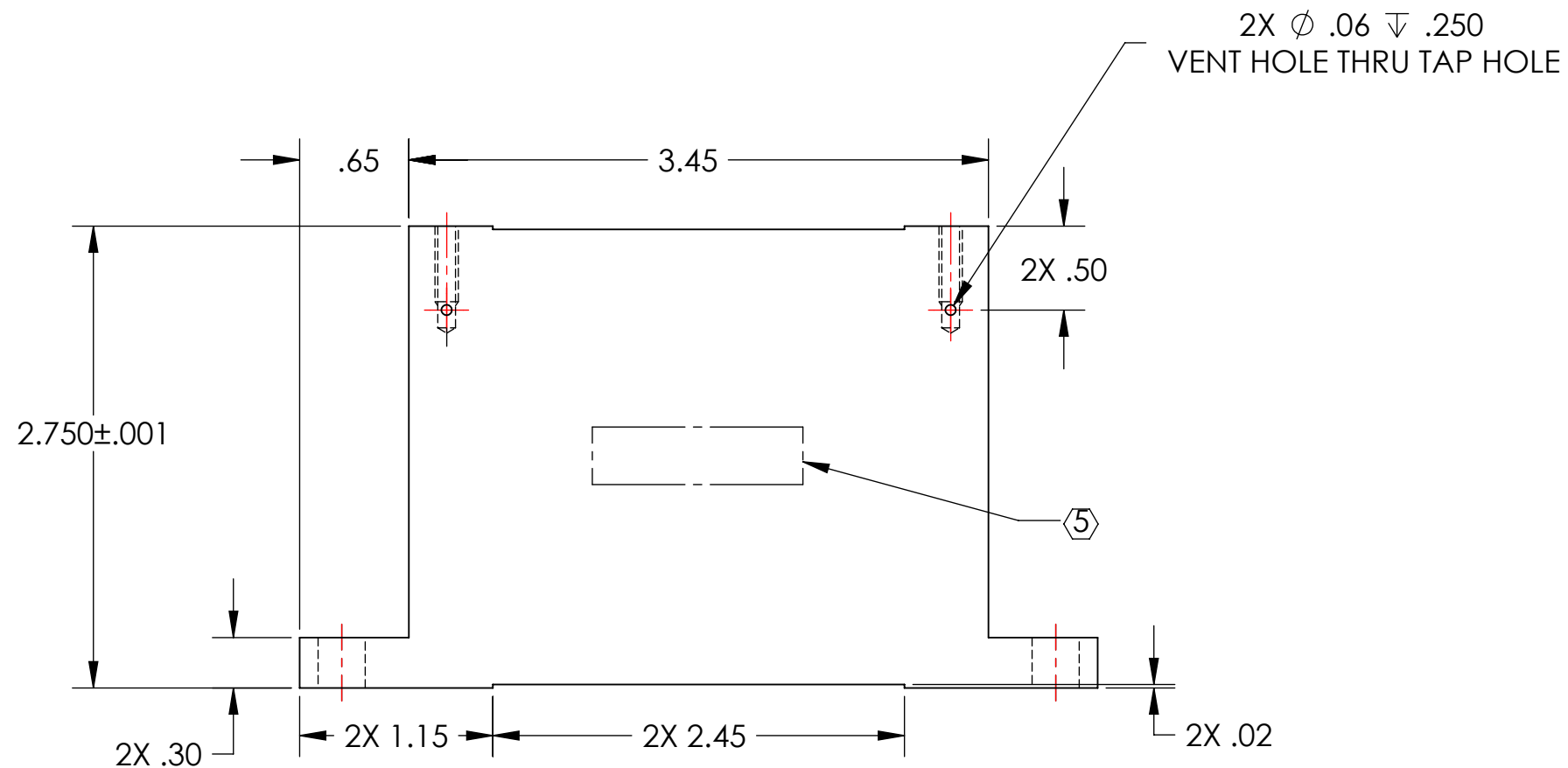
**NOTES CONTINUED:**  
 5. SCRIBE, ENGRAVE, OR MECHANICALLY STAMP (NO INKS OR DYES) DRAWING PART NUMBER, REVISION (AND VARIANT OR "TYPE" IF APPLICABLE) ON NOTED SURFACE OF PART FOLLOWED ON THE NEXT LINE WITH A THREE DIGIT SERIAL NUMBER. SERIAL NUMBERS START AT 001 FOR THE FIRST ARTICLE AND PROCEED CONSECUTIVELY. USE MINIMUM 0.12" HIGH CHARACTERS, UNLESS THE SIZE OF THE PART DICTATES SMALLER CHARACTERS. A VIBRATORY TOOL MAY BE USED.  
 EXAMPLE: DXXXXXX-VY, TYPE-XX, S/N XXX

6. APPROXIMATE WEIGHT = 0.472 LB.  
 7. MACHINE ALL SURFACES TO REMOVE OXIDES AND MILL FINISH. USE OF ABRASIVE REMOVAL TECHNIQUES IS NOT ALLOWED.  
 8. ALL PARTS SHALL BE MANUFACTURED IN ACCORDANCE WITH LIGO SPECIFICATION E0900364.

REV.	DATE	DCN #	DRAWING TREE #
v1	8 OCT 2010	E1000563	-
-	-	-	-
-	-	-	-



GENERAL VIEW FOR REFERENCE ONLY NO SCALE



**NOTES AND TOLERANCES: (UNLESS OTHERWISE SPECIFIED)**

DIMENSIONS ARE IN INCHES  
 TOLERANCES:  
 .XX ± .01  
 .XXX ± .005  
 ANGULAR ± 0.5°

1. INTERPRET DRAWING PER ASME Y14.5-1994.  
 2. REMOVE ALL SHARP EDGES, R.02 MIN.  
 3. DO NOT SCALE FROM DRAWING.  
 4. ALL MACHINING FLUIDS MUST BE FULLY SYNTHETIC, FULLY WATER SOLUBLE AND FREE OF SULFUR, SILICONE, AND CHLORINE.

MATERIAL: 6061-T6 Al  
 FINISH: 63 μinch

**LIGO** CALIFORNIA INSTITUTE OF TECHNOLOGY  
 MASSACHUSETTS INSTITUTE OF TECHNOLOGY

SYSTEM: ADVANCED LIGO  
 SUB-SYSTEM: AOS  
 NEXT ASSY: D0900615-D0900614

PART NAME		PRISM BASE SUPPORT	
DESIGNER	TQ. NGUYEN	19 JUL 2010	SIZE DWG. NO.
DRAFTER	TQ. NGUYEN	23 AUG 2010	<b>B</b>
CHECKER	M. SMITH		<b>D1001862</b>
APPROVAL	D. COYNE		REV. v1
SCALE: 1:1		PROJECTION:	SHEET 1 OF 1



D1001863\_d1lgo\_aos\_D0900614\_Faraday Isolator Optical Prism Spacer, PART PDM REV: X-008, DRAWING PDM REV: X-005

**NOTES CONTINUED:**

5. SCRIBE, ENGRAVE, OR MECHANICALLY STAMP (NO DYES OR INKS) A UNIQUE THREE DIGIT SERIAL NUMBER & REVISION NUMBER ON EACH PART. SERIAL NUMBERS START AT 001 FOR THE FIRST ARTICLE AND PROCEED CONSECUTIVELY. BAG AND TAG PARTS WITH THEIR DRAWING PART NUMBER, REVISION, VARIANT OR "TYPE" (IF APPLICABLE), AND QUANTITY. IF PARTS ARE TOO SMALL TO SCRIBE, BAGGING AND TAGGING ALONE IS SUFFICIENT.  
 EXAMPLE (PART): 001-v1  
 EXAMPLE (TAG): DXXXXXX-VY, TYPE-XX, QTY: TBD

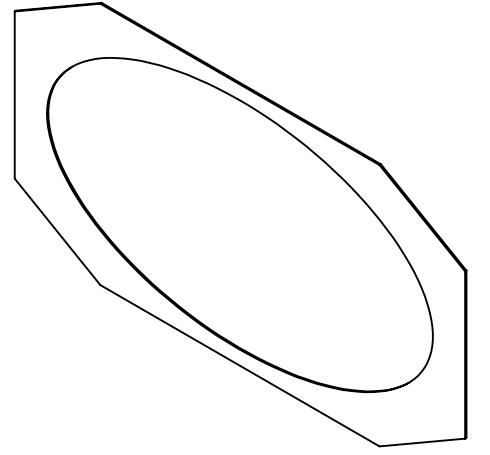
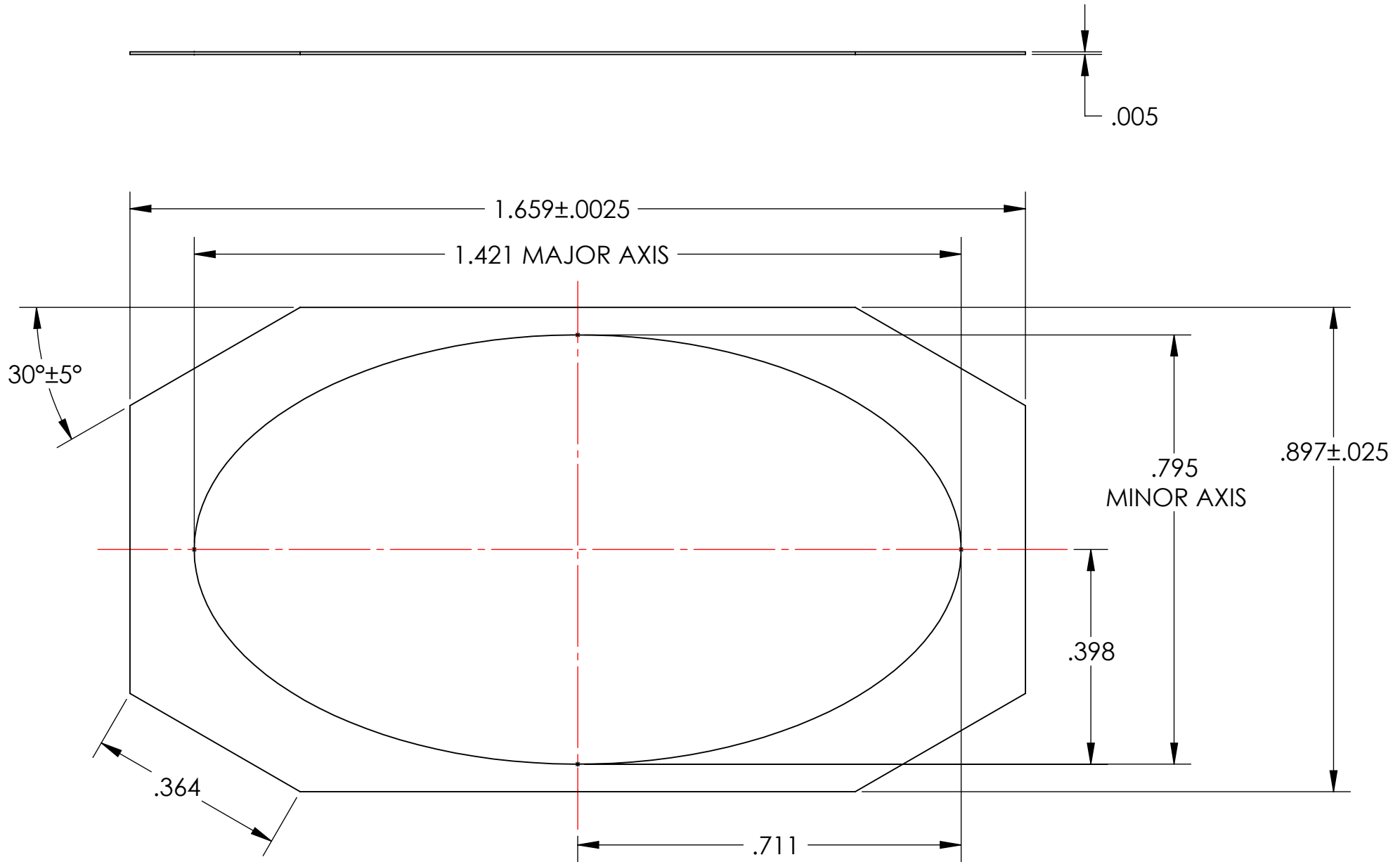
6. APPROXIMATE WEIGHT = 0.001 LB.

7. MACHINE ALL SURFACES TO REMOVE OXIDES AND MILL FINISH. USE OF ABRASIVE REMOVAL TECHNIQUES IS NOT ALLOWED.

8. ALL PARTS SHALL BE MANUFACTURED IN ACCORDANCE WITH LIGO SPECIFICATION E0900364.

9. ITEM DESCRIPTION:  
 SPACER FOR 20 MM GLAN BREWSTER POLARIZER  
 PURCHASED FROM KARL LAMBRECHT CORP.  
 4204 N. LINCOLN AVENUE, CHICAGO, IL 60618  
 PHONE: (773) 472-5442  
 FAX: (773) 472-2724

REV.	DATE	DCN #	DRAWING TREE #
v1	7 OCT 2010	E1000563	-
-	-	-	-
-	-	-	-



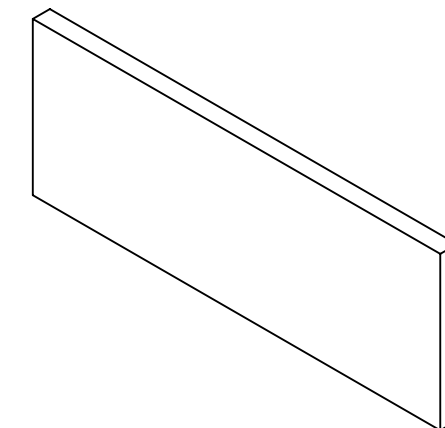
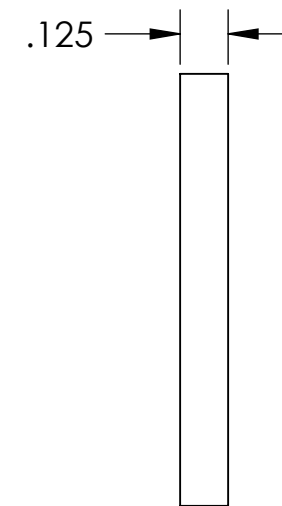
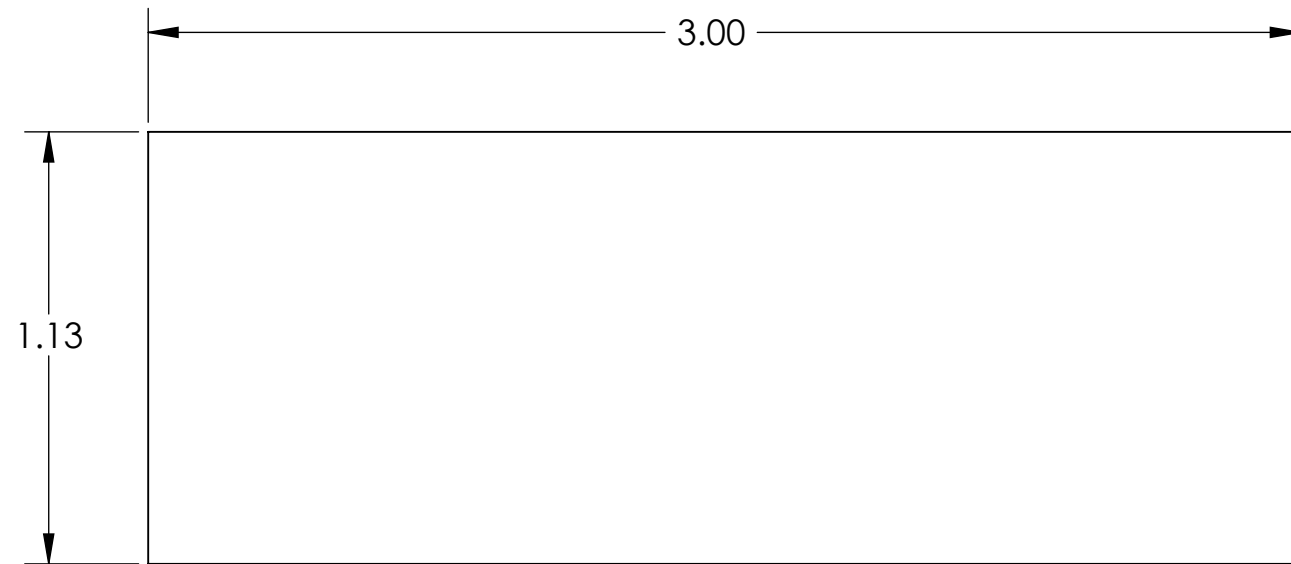
GENERAL VIEW  
 FOR REFERENCE ONLY  
 NO SCALE

NOTES AND TOLERANCES: (UNLESS OTHERWISE SPECIFIED)				LIGO CALIFORNIA INSTITUTE OF TECHNOLOGY MASSACHUSETTS INSTITUTE OF TECHNOLOGY		PART NAME	
DIMENSIONS ARE IN INCHES		1. INTERPRET DRAWING PER ASME Y14.5-1994. 2. REMOVE ALL SHARP EDGES, R.02 MIN. 3. DO NOT SCALE FROM DRAWING. 4. ALL MACHINING FLUIDS MUST BE FULLY SYNTHETIC, FULLY WATER SOLUBLE AND FREE OF SULFUR, SILICONE, AND CHLORINE.		SYSTEM <b>ADVANCED LIGO</b>		SUB-SYSTEM <b>AOS</b>	
TOLERANCES: .XX ± .01 .XXX ± .005		MATERIAL <b>304 SSSL</b>		NEXT ASSY <b>D0900614 &amp; 0900615</b>		FINISH <b>AS RECEIVED</b>	
ANGULAR ± 0.5°						DESIGNER TQ. NGUYEN 14 JUL 2010	
						DRAFTER TQ. NGUYEN 23 AUG 2010	
						CHECKER M. SMITH	
						APPROVAL D. COYNE	
						SIZE DWG. NO. <b>B D1001863</b>	
						REV. <b>v1</b>	
						SCALE: 4:1 PROJECTION:  SHEET 1 OF 1	

D1001864\_atLIGO\_AOS\_D0900614\_Faraday Isolator Beam Dump, PART PDM REV: X-004, DRAWING PDM REV: X-006

NOTES CONTINUED:  
5. SCHOTT North America, Inc.  
www.us.schott.com  
SCHOTT # 12 WELDER'S GLASS  
ARCOAT AT 1064 MM NORMAL INCIDENCE

REV.	DATE	DCN #	DRAWING TREE #
v1	7 OCT 2010	E1000563	-
-	-	-	-
-	-	-	-



GENERAL VIEW  
FOR REFERENCE ONLY  
NO SCALE

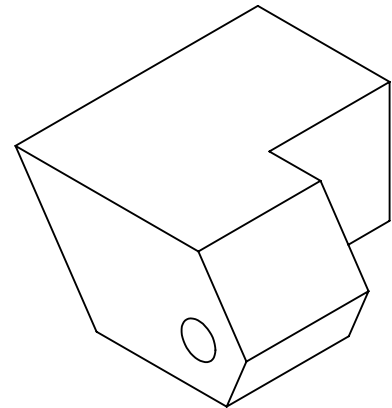
NOTES AND TOLERANCES: (UNLESS OTHERWISE SPECIFIED)				LIGO CALIFORNIA INSTITUTE OF TECHNOLOGY MASSACHUSETTS INSTITUTE OF TECHNOLOGY		PART NAME			
DIMENSIONS ARE IN INCHES		1. INTERPRET DRAWING PER ASME Y14.5-1994. 2. REMOVE ALL SHARP EDGES, R.02 MIN. 3. DO NOT SCALE FROM DRAWING. 4. ALL MACHINING FLUIDS MUST BE FULLY SYNTHETIC, FULLY WATER SOLUBLE AND FREE OF SULFUR, SILICONE, AND CHLORINE.		SYSTEM <b>ADVANCED LIGO</b>		SUB-SYSTEM <b>AOS</b>		PRISM BEAM DUMP	
TOLERANCES: .XX ± .01 .XXX ± .005		MATERIAL <b>SCHOTT #12 WELDER'S GLASS</b>		FINISH <b>AS RECEIVED</b>		NEXT ASSY <b>D0900615</b>		DESIGNER TQ. NGUYEN 19 JUL 2010	
ANGULAR ± 0.5°						DRAFTER TQ. NGUYEN 23 AUG 2010		SIZE DWG. NO. <b>B D1001864</b>	
						CHECKER M. SMITH		REV. v1	
						APPROVAL D. COYNE		SCALE: 2:1 PROJECTION:  SHEET 1 OF 1	

D1001870\_alIGO\_AOS\_D0900614\_Faraday Isolator Fixed Stop LH, PART PDM REV: X-004, DRAWING PDM REV: X-005

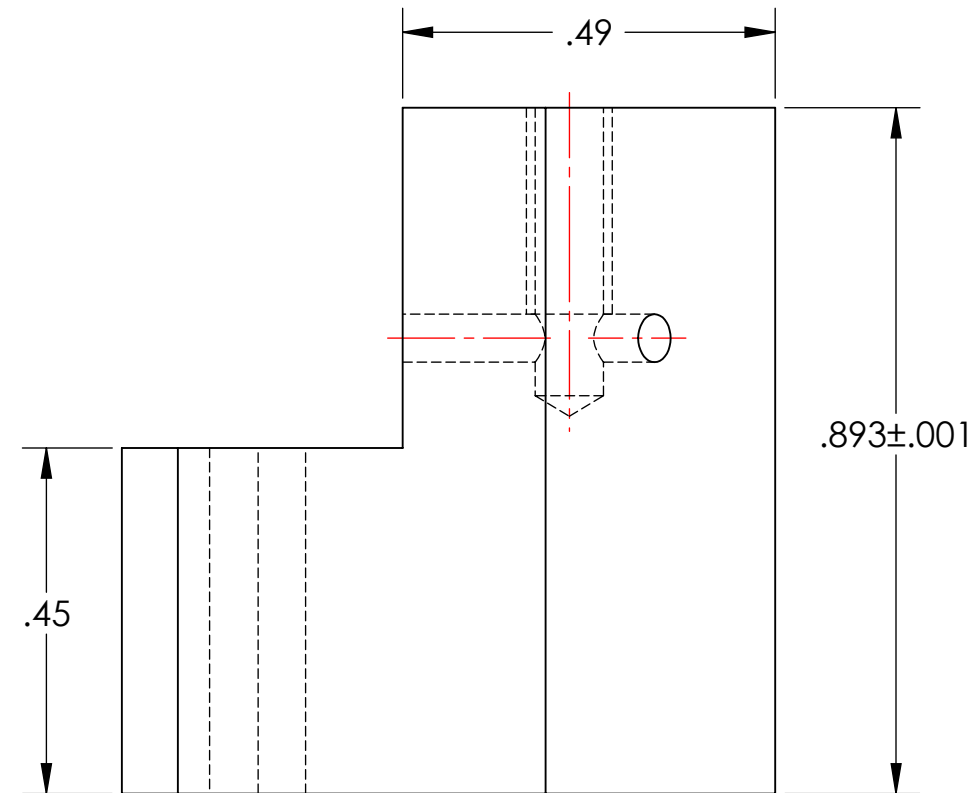
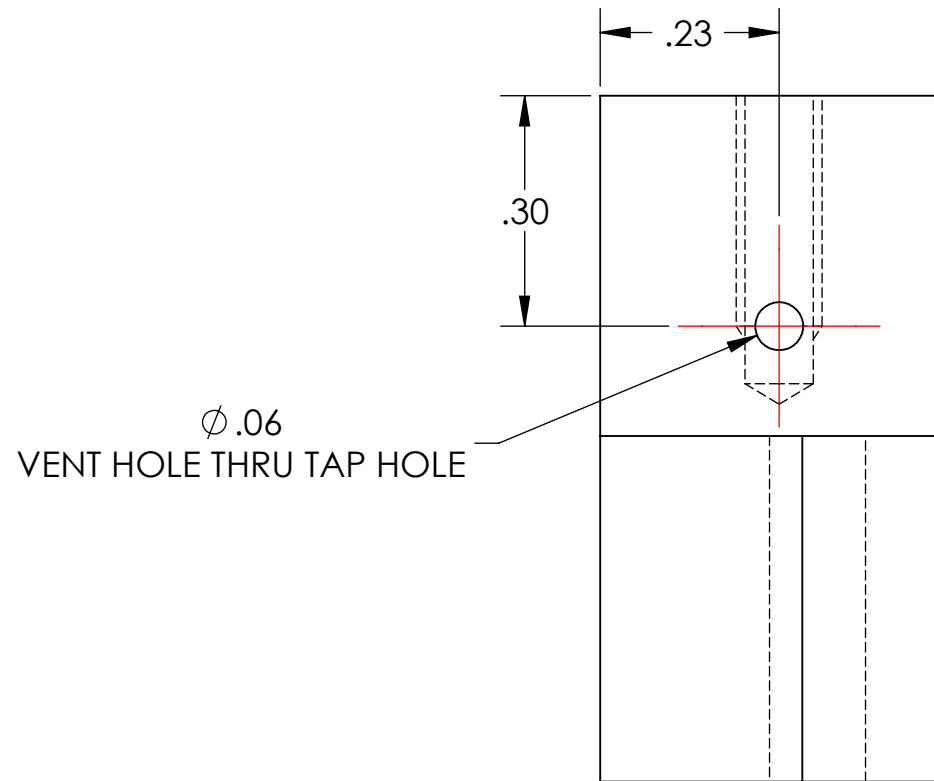
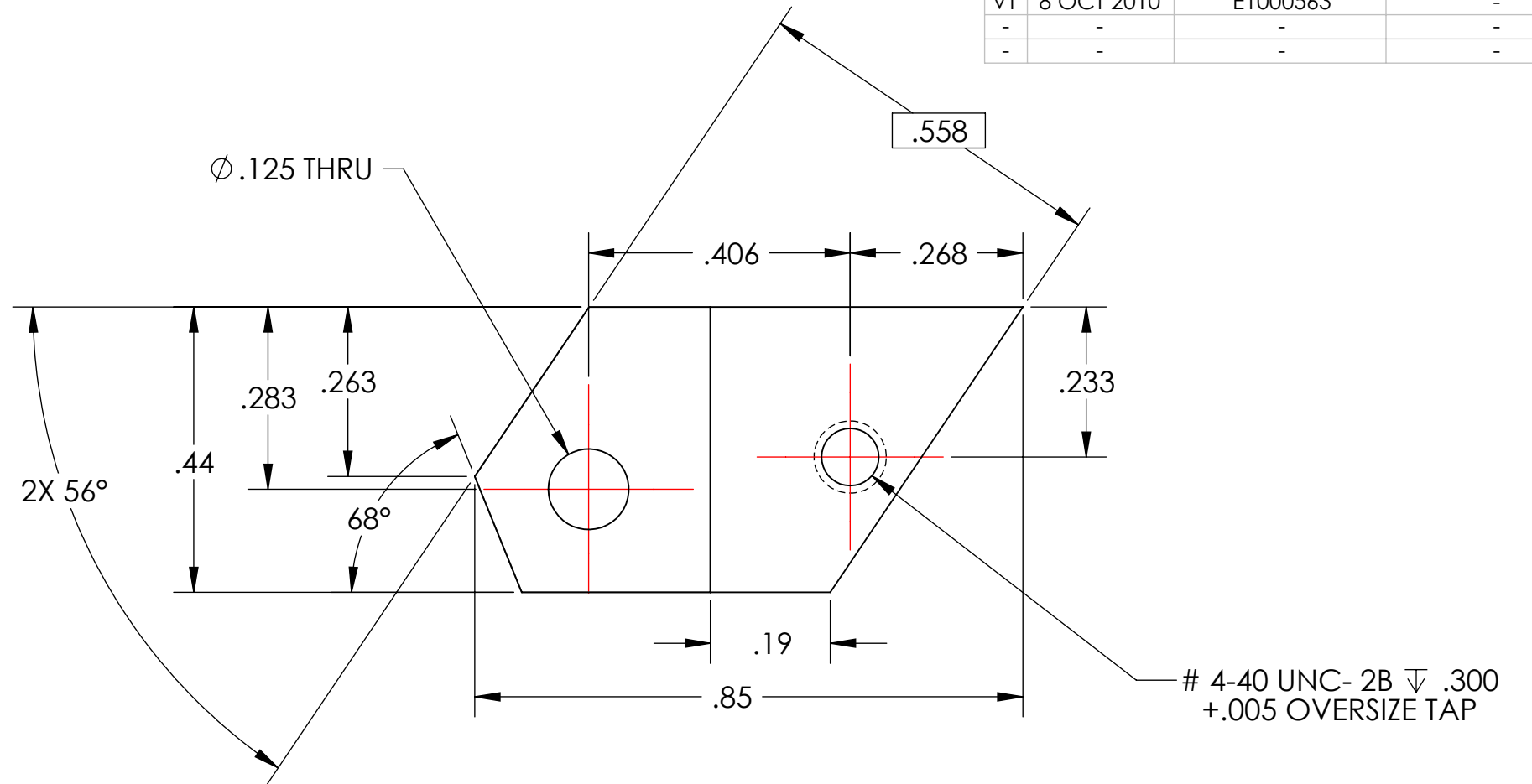
NOTES CONTINUED:  
5. SCRIBE, ENGRAVE, OR MECHANICALLY STAMP (NO DYES OR INKS) A UNIQUE THREE DIGIT SERIAL NUMBER & REVISION NUMBER ON EACH PART. SERIAL NUMBERS START AT 001 FOR THE FIRST ARTICLE AND PROCEED CONSECUTIVELY. BAG AND TAG PARTS WITH THEIR DRAWING PART NUMBER, REVISION, VARIANT OR "TYPE" (IF APPLICABLE), AND QUANTITY. IF PARTS ARE TOO SMALL TO SCRIBE, BAGGING AND TAGGING ALONE IS SUFFICIENT.  
EXAMPLE (PART): 001-v1  
EXAMPLE (TAG): DXXXXXX-VY, TYPE-XX, QTY: TBD

6. APPROXIMATE WEIGHT = 0.018 LB.  
7. MACHINE ALL SURFACES TO REMOVE OXIDES AND MILL FINISH. USE OF ABRASIVE REMOVAL TECHNIQUES IS NOT ALLOWED.  
8. ALL PARTS SHALL BE MANUFACTURED IN ACCORDANCE WITH LIGO SPECIFICATION E0900364.

REV.	DATE	DCN #	DRAWING TREE #
v1	8 OCT 2010	E1000563	-
-	-	-	-
-	-	-	-



GENERAL VIEW FOR REFERENCE ONLY NO SCALE



NOTES AND TOLERANCES: (UNLESS OTHERWISE SPECIFIED)

DIMENSIONS ARE IN INCHES

TOLERANCES:  
.XX ± .01  
.XXX ± .005

ANGULAR ± 0.5°

1. INTERPRET DRAWING PER ASME Y14.5-1994.  
2. REMOVE ALL SHARP EDGES, R.02 MIN.  
3. DO NOT SCALE FROM DRAWING.  
4. ALL MACHINING FLUIDS MUST BE FULLY SYNTHETIC, FULLY WATER SOLUBLE AND FREE OF SULFUR, SILICONE, AND CHLORINE.

MATERIAL 6061-T6 Al

FINISH 63 μinch

**LIGO** CALIFORNIA INSTITUTE OF TECHNOLOGY  
MASSACHUSETTS INSTITUTE OF TECHNOLOGY

SYSTEM ADVANCED LIGO SUB-SYSTEM AOS

NEXT ASSY D0900614

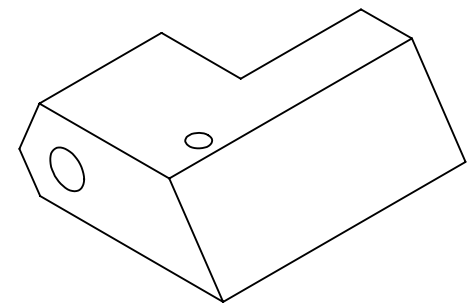
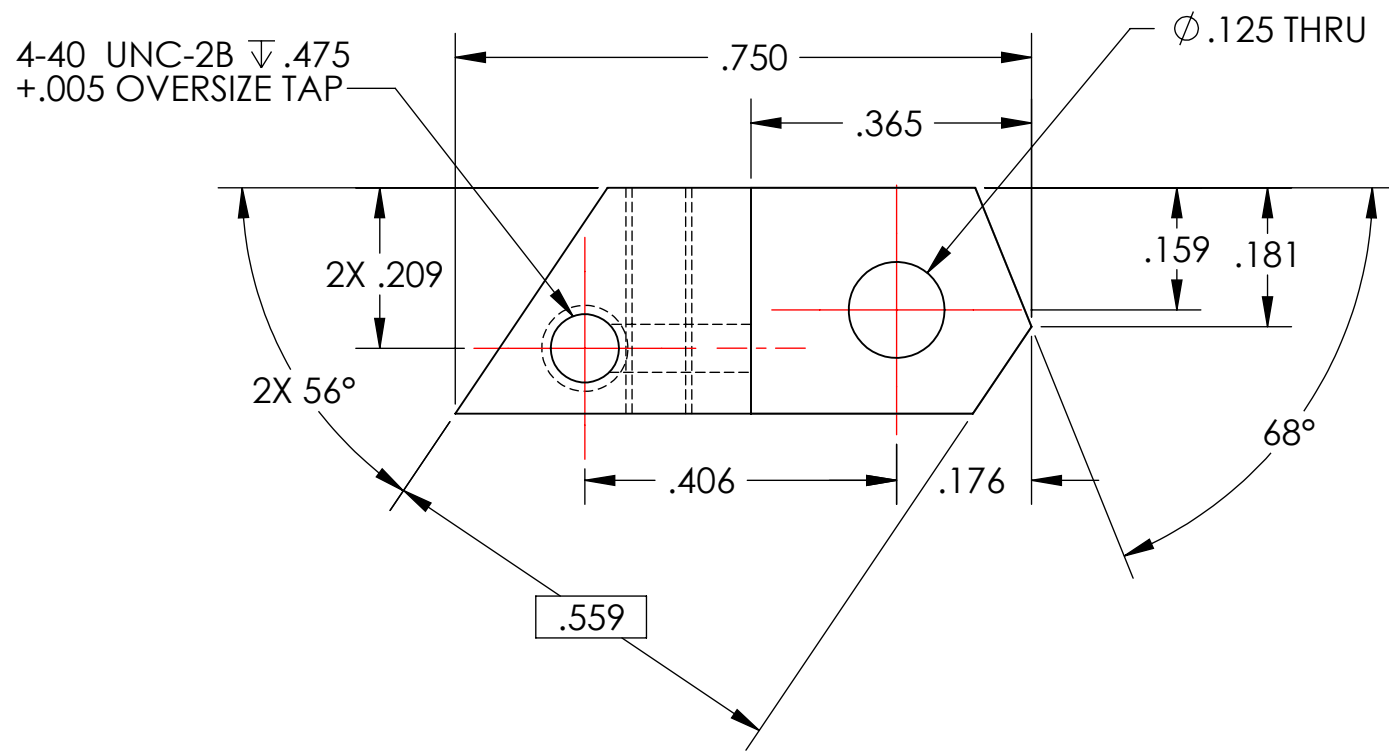
PART NAME FIXED STOP\_LH

DESIGNER	TQ. NGUYEN	15 JUL 2010	SIZE	DWG. NO.	REV.
DRAFTER	TQ. NGUYEN	27 AUG 2010	B	D1001870	v1
CHECKER	M. SMITH		SCALE:	4:1	PROJECTION:
APPROVAL	D. COYNE				SHEET 1 OF 1

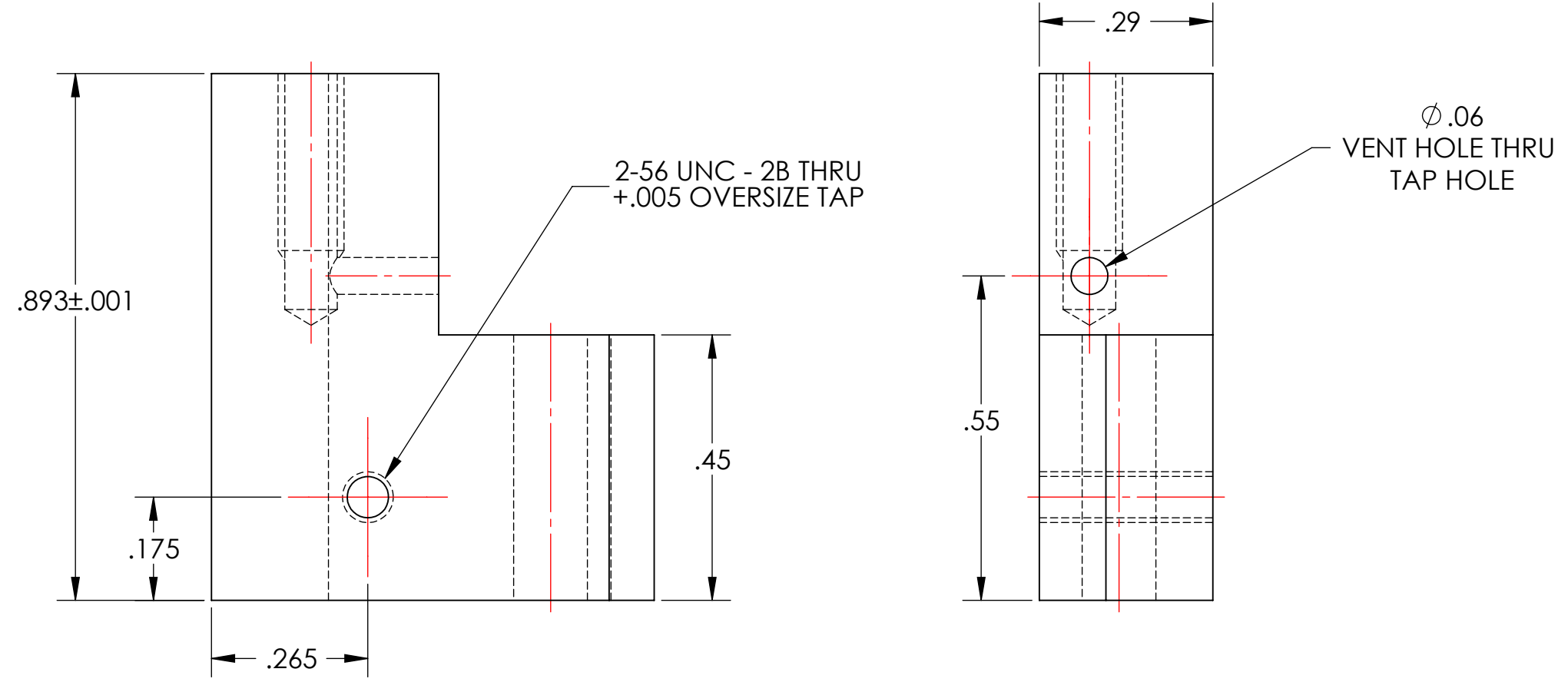
D1001871\_calIGO\_AOS\_D0900614\_Faraday Isolator Spring Block LH, PART PDM REV: X-004, DRAWING PDM REV: X-004

**NOTES CONTINUED:**  
 5. SCRIBE, ENGRAVE, OR MECHANICALLY STAMP (NO DYES OR INKS) A UNIQUE THREE DIGIT SERIAL NUMBER & REVISION NUMBER ON EACH PART. SERIAL NUMBERS START AT 001 FOR THE FIRST ARTICLE AND PROCEED CONSECUTIVELY. BAG AND TAG PARTS WITH THEIR DRAWING PART NUMBER, REVISION, VARIANT OR "TYPE" (IF APPLICABLE), AND QUANTITY. IF PARTS ARE TOO SMALL TO SCRIBE, BAGGING AND TAGGING ALONE IS SUFFICIENT.  
 EXAMPLE (PART): 001-v1  
 EXAMPLE (TAG): DXXXXXX-VY, TYPE-XX, QTY: TBD  
 6. MACHINE ALL SURFACES TO REMOVE OXIDES AND MILL FINISH. USE OF ABRASIVE REMOVAL TECHNIQUES IS NOT ALLOWED.  
 7. ALL PARTS SHALL BE MANUFACTURED IN ACCORDANCE WITH LIGO SPECIFICATION E0900364.

REV.	DATE	DCN #	DRAWING TREE #
v1	8 OCT 2010	E1000563	-
-	-	-	-
-	-	-	-



GENERAL VIEW  
 FOR REFERENCE ONLY  
 NO SCALE



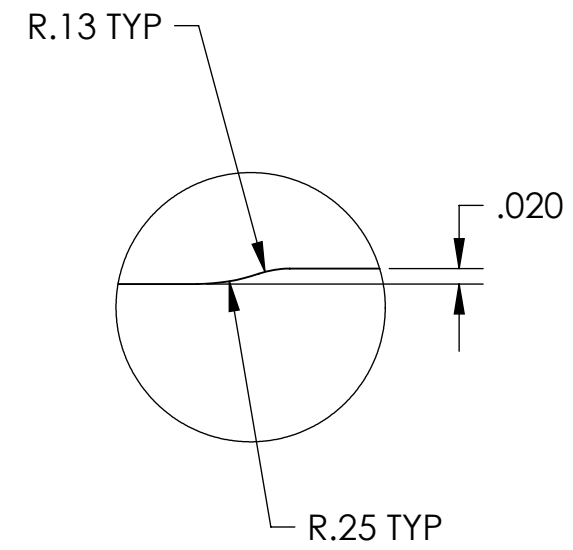
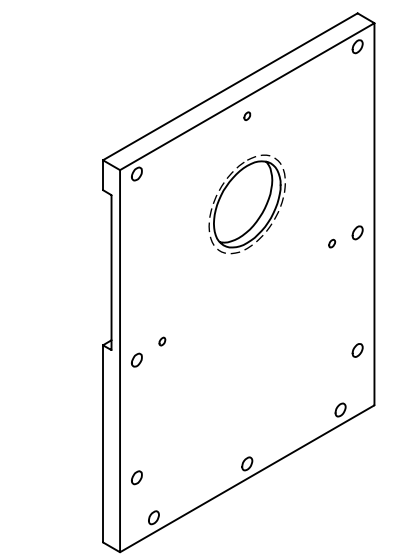
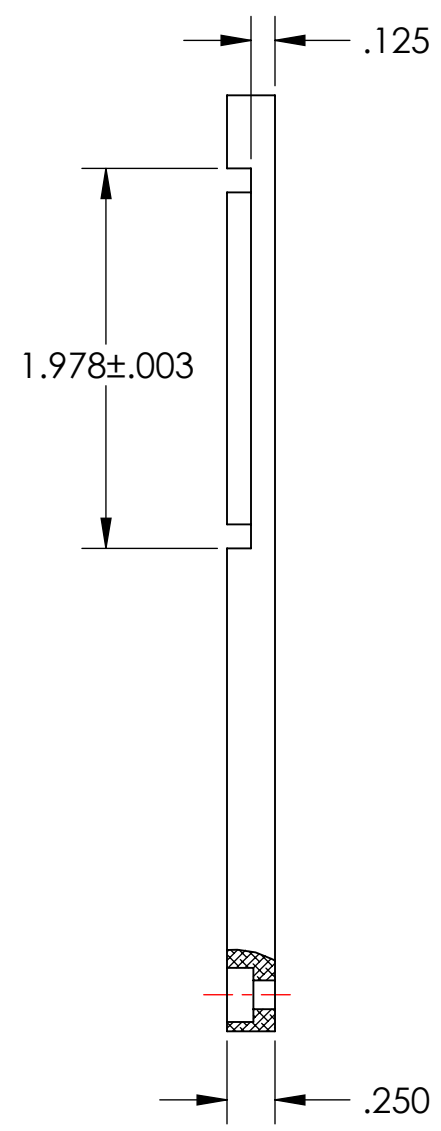
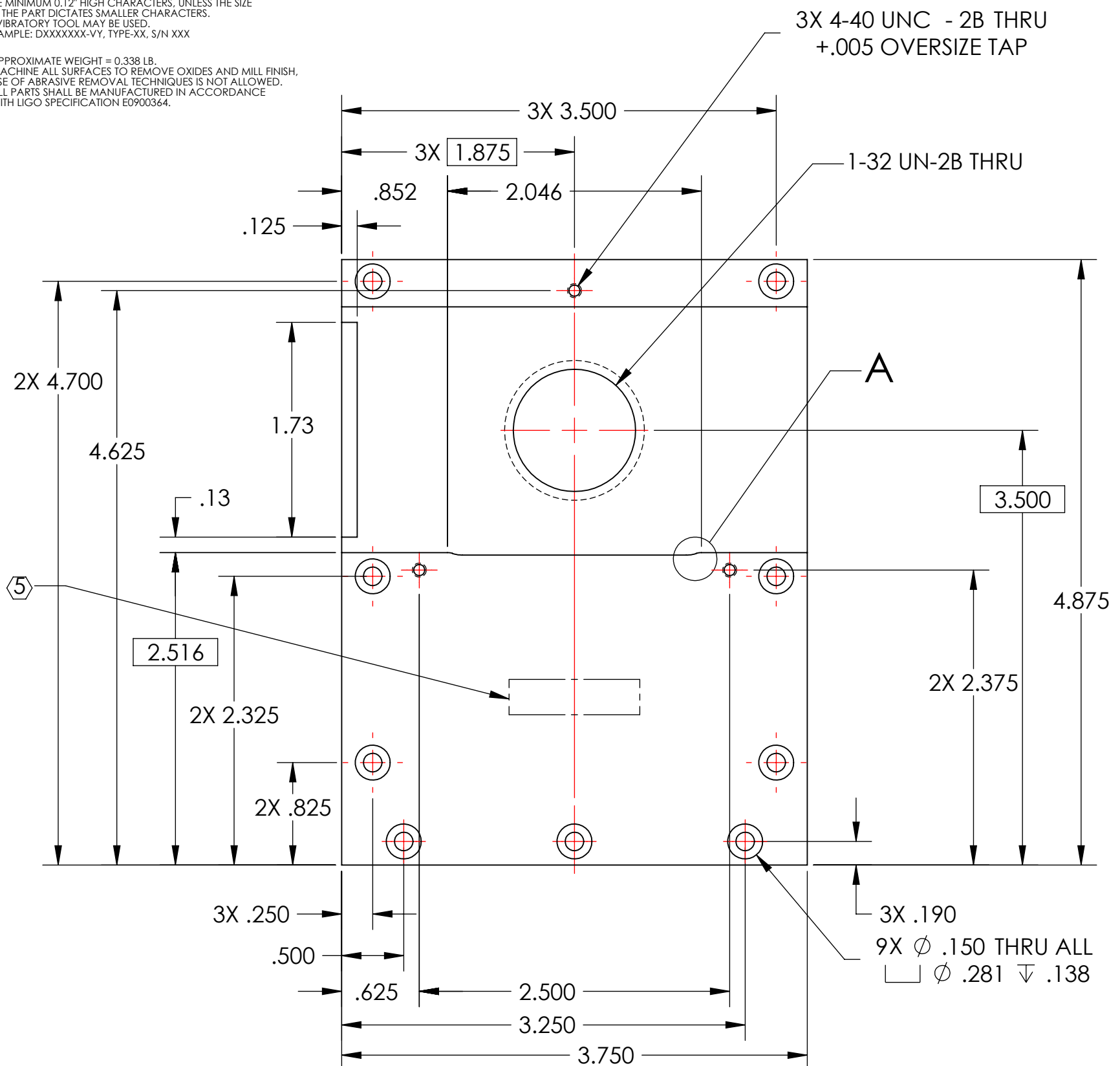
NOTES AND TOLERANCES: (UNLESS OTHERWISE SPECIFIED)				LIGO		CALIFORNIA INSTITUTE OF TECHNOLOGY MASSACHUSETTS INSTITUTE OF TECHNOLOGY		PART NAME	
DIMENSIONS ARE IN INCHES TOLERANCES: .XX ± .01 .XXX ± .005 ANGULAR ± 0.5°				1. INTERPRET DRAWING PER ASME Y14.5-1994. 2. REMOVE ALL SHARP EDGES, R.02 MIN. 3. DO NOT SCALE FROM DRAWING. 4. ALL MACHINING FLUIDS MUST BE FULLY SYNTHETIC, FULLY WATER SOLUBLE AND FREE OF SULFUR, SILICONE, AND CHLORINE.		<b>ADVANCED LIGO</b>		<b>SPRING BLOCK_LH</b>	
DIMENSIONS ARE IN INCHES				SYSTEM		SUB-SYSTEM		DESIGNER	
DIMENSIONS ARE IN INCHES				NEXT ASSY		AOS		TQ. NGUYEN 14 JUL 2010	
DIMENSIONS ARE IN INCHES				D0900614		M. SMITH		SIZE DWG. NO.	
DIMENSIONS ARE IN INCHES				D0900614		D. COYNE		B D1001871	
DIMENSIONS ARE IN INCHES				D0900614		D. COYNE		REV. v1	
DIMENSIONS ARE IN INCHES				D0900614		D. COYNE		SCALE: 4:1 PROJECTION:	
DIMENSIONS ARE IN INCHES				D0900614		D. COYNE		SHEET 1 OF 1	

D1001915\_d1LIGO\_AOS\_Wedge Window Panel\_Input Baffle, PART PDM REV: X-014, DRAWING PDM REV: X-007

**NOTES CONTINUED:**  
 5. SCRIBE, ENGRAVE, OR MECHANICALLY STAMP (NO INKS OR DYES) DRAWING PART NUMBER, REVISION (AND VARIANT OR "TYPE" IF APPLICABLE) ON NOTED SURFACE OF PART FOLLOWED ON THE NEXT LINE WITH A THREE DIGIT SERIAL NUMBER. SERIAL NUMBERS START AT 001 FOR THE FIRST ARTICLE AND PROCEED CONSECUTIVELY. USE MINIMUM 0.12" HIGH CHARACTERS, UNLESS THE SIZE OF THE PART DICTATES SMALLER CHARACTERS. A VIBRATORY TOOL MAY BE USED.  
 EXAMPLE: DXXXXXX-VY, TYPE-XX, S/N XXX

6. APPROXIMATE WEIGHT = 0.338 LB.  
 7. MACHINE ALL SURFACES TO REMOVE OXIDES AND MILL FINISH. USE OF ABRASIVE REMOVAL TECHNIQUES IS NOT ALLOWED.  
 8. ALL PARTS SHALL BE MANUFACTURED IN ACCORDANCE WITH LIGO SPECIFICATION E0900364.

REV.	DATE	DCN #	DRAWING TREE #
v1	7 OCT 2010	E1000563	-



DETAIL A  
 SCALE 4 : 1

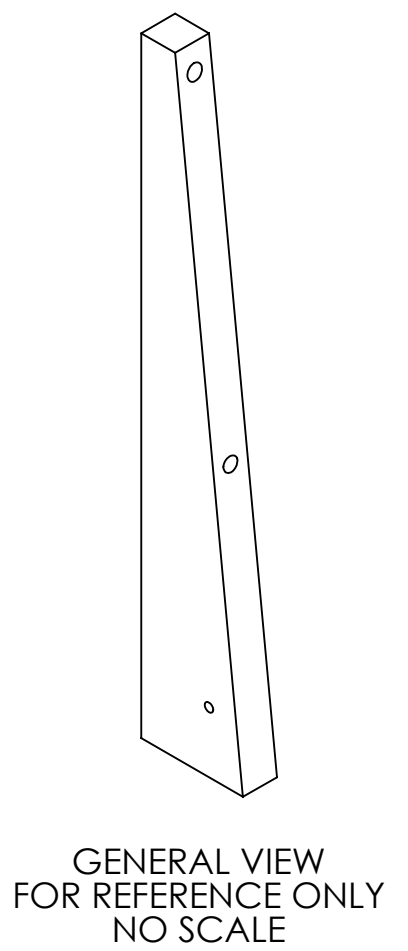
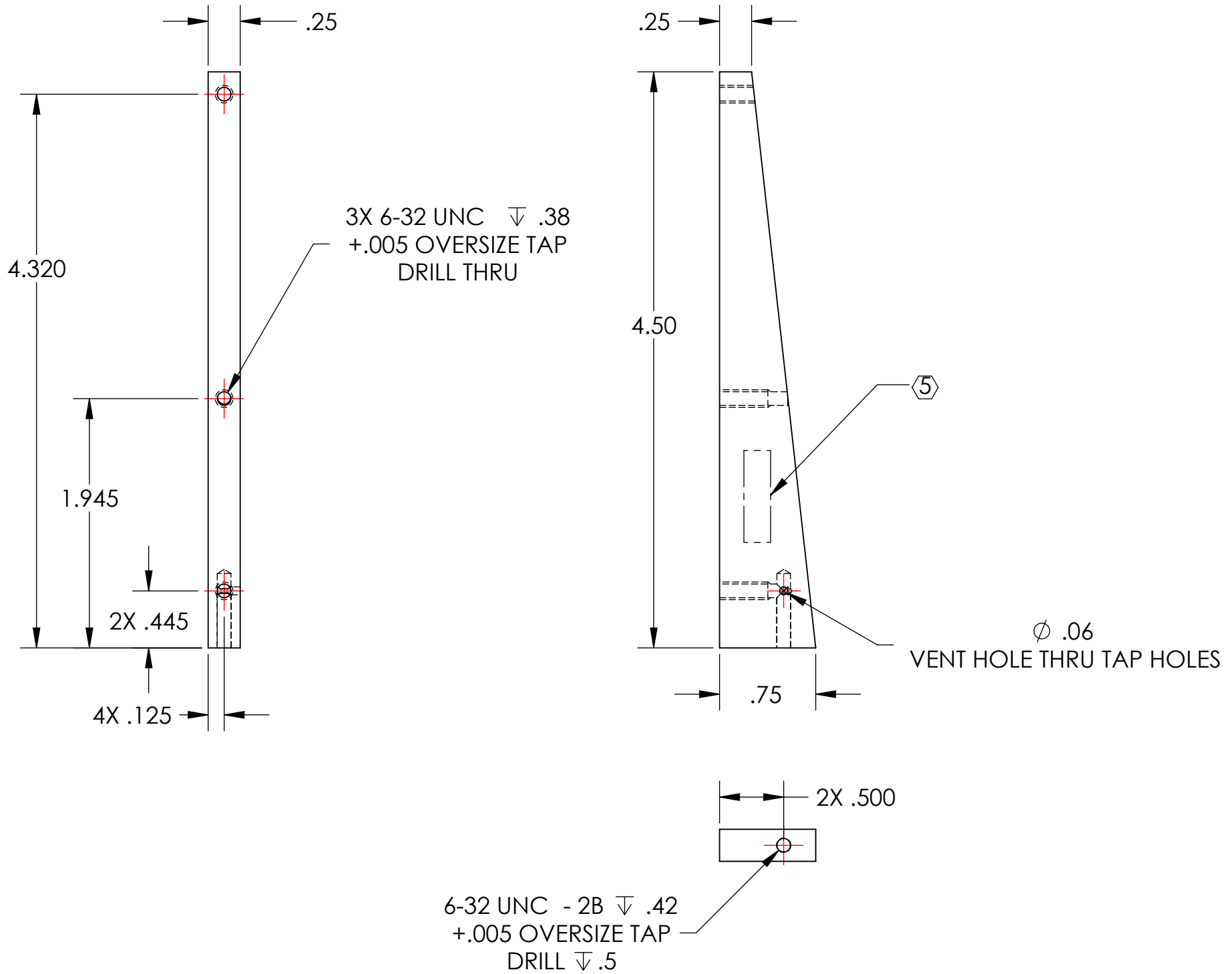
NOTES AND TOLERANCES: (UNLESS OTHERWISE SPECIFIED)				PART NAME	
DIMENSIONS ARE IN INCHES TOLERANCES: .XX $\pm$ .01 .XXX $\pm$ .005 ANGULAR $\pm$ 0.5°				INPUT Baffle HOLDER	
1. INTERPRET DRAWING PER ASME Y14.5-1994. 2. REMOVE ALL SHARP EDGES, R.02 MIN. 3. DO NOT SCALE FROM DRAWING. 4. ALL MACHINING FLUIDS MUST BE FULLY SYNTHETIC, FULLY WATER SOLUBLE AND FREE OF SULFUR, SILICONE, AND CHLORINE.				DESIGNER TQ. NGUYEN 26 JUL 2010 DRAFTER TQ. NGUYEN 23 AUG 2010 CHECKER M. SMITH APPROVAL D. COYNE	
MATERIAL 6061-T6 Al FINISH 63 $\mu$ inch		SYSTEM ADVANCED LIGO SUB-SYSTEM AOS NEXT ASSY D0900623		SIZE DWG. NO. B D1001915 REV. v1	
SCALE: 1:1 PROJECTION:				SHEET 1 OF 1	

8 7 6 5 4 3 2 1

**NOTES CONTINUED:**  
 5. SCRIBE, ENGRAVE, OR MECHANICALLY STAMP (NO INKS OR DYES) DRAWING PART NUMBER, REVISION (AND VARIANT OR "TYPE" IF APPLICABLE) ON NOTED SURFACE OF PART FOLLOWED ON THE NEXT LINE WITH A THREE DIGIT SERIAL NUMBER. SERIAL NUMBERS START AT 001 FOR THE FIRST ARTICLE AND PROCEED CONSECUTIVELY. USE MINIMUM 0.12" HIGH CHARACTERS, UNLESS THE SIZE OF THE PART DICTATES SMALLER CHARACTERS. A VIBRATORY TOOL MAY BE USED.  
 EXAMPLE: DXXXXXX-VY, TYPE-XX, S/N XXX

6. APPROXIMATE WEIGHT = 0.053 LB.  
 7. MACHINE ALL SURFACES TO REMOVE OXIDES AND MILL FINISH. USE OF ABRASIVE REMOVAL TECHNIQUES IS NOT ALLOWED.  
 8. ALL PARTS SHALL BE MANUFACTURED IN ACCORDANCE WITH LIGO SPECIFICATION E0900364.

REV.	DATE	DCN #	DRAWING TREE #
v1	7 OCT 2010	E1000563	-
-	-	-	-
-	-	-	-



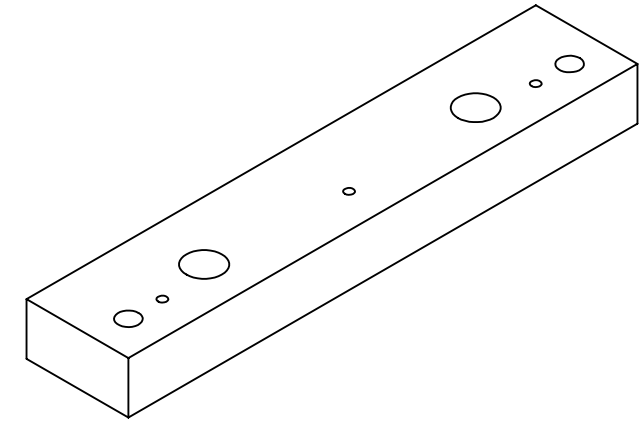
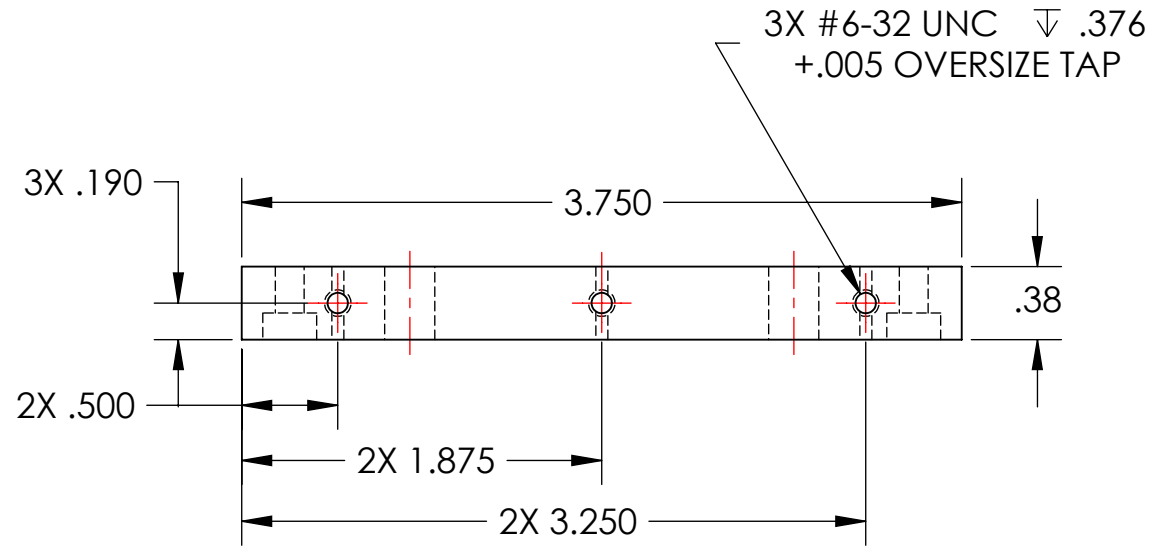
D1001916\_d1lGO\_AOs\_Wedge Window Side Support, PART PDM REV: X-007, DRAWING PDM REV: X-007

NOTES AND TOLERANCES: (UNLESS OTHERWISE SPECIFIED)				LIGO CALIFORNIA INSTITUTE OF TECHNOLOGY MASSACHUSETTS INSTITUTE OF TECHNOLOGY		PART NAME	
DIMENSIONS ARE IN INCHES TOLERANCES: .XX $\pm$ .01 .XXX $\pm$ .005 ANGULAR $\pm$ 0.5°				1. INTERPRET DRAWING PER ASME Y14.5-1994. 2. REMOVE ALL SHARP EDGES, R.02 MIN. 3. DO NOT SCALE FROM DRAWING. 4. ALL MACHINING FLUIDS MUST BE FULLY SYNTHETIC, FULLY WATER SOLUBLE AND FREE OF SULFUR, SILICONE, AND CHLORINE.		INPUT BAFFLE SIDE SUPPORT	
MATERIAL		FINISH		SYSTEM		SUB-SYSTEM	
6061-T6 Al		63 $\mu$ inch		ADVANCED LIGO		AOS	
NEXT ASSY				DESIGNER		DATE	
D1001918				TQ. NGUYEN		27 JUL 2010	
APPROVAL				DRAFTER		SIZE	
D. COYNE				M. SMITH		DWG. NO.	
SCALE: 1:1				APPROVAL		B D1001916	
PROJECTION:				REV.		v1	
SHEET 1 OF 1							

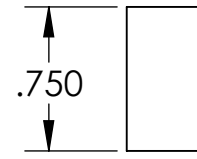
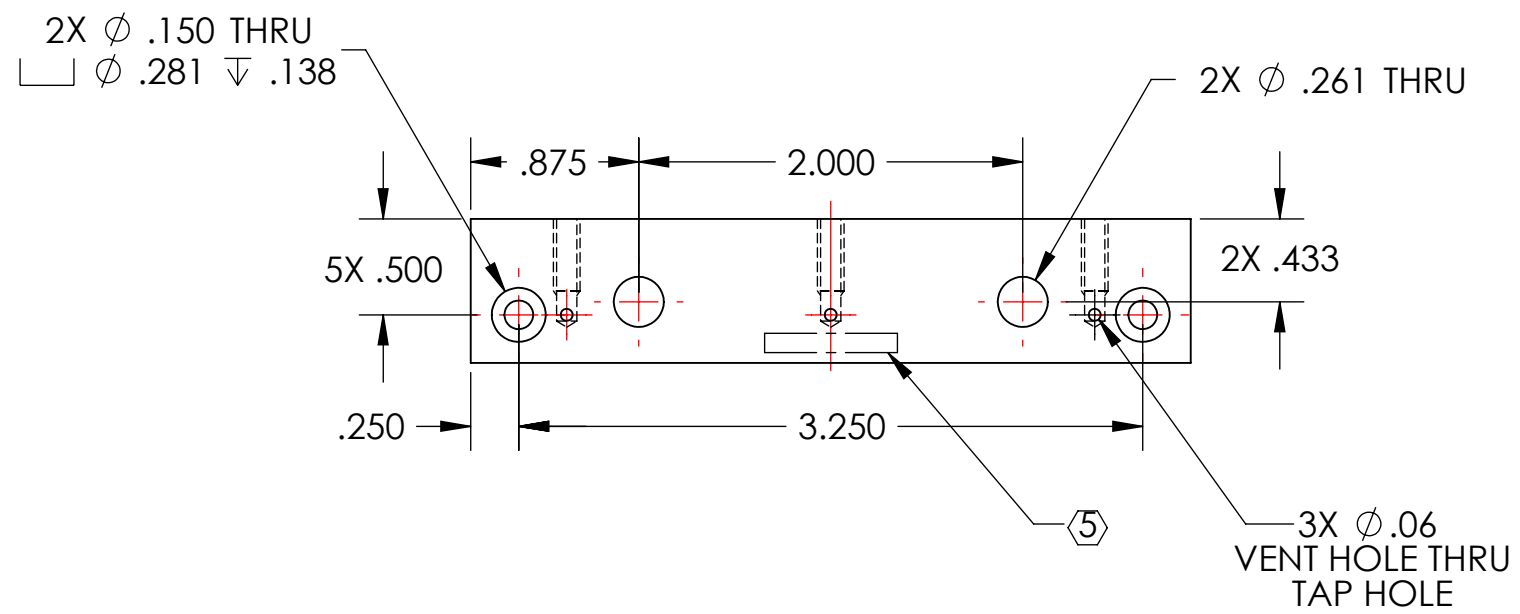
**NOTES CONTINUED:**  
 5. SCRIBE, ENGRAVE, OR MECHANICALLY STAMP (NO INKS OR DYES) DRAWING PART NUMBER, REVISION (AND VARIANT OR "TYPE" IF APPLICABLE) ON NOTED SURFACE OF PART FOLLOWED ON THE NEXT LINE WITH A THREE DIGIT SERIAL NUMBER. SERIAL NUMBERS START AT 001 FOR THE FIRST ARTICLE AND PROCEED CONSECUTIVELY. USE MINIMUM 0.12" HIGH CHARACTERS, UNLESS THE SIZE OF THE PART DICTATES SMALLER CHARACTERS. A VIBRATORY TOOL MAY BE USED.  
 EXAMPLE: DXXXXXX-VY, TYPE-XX, S/N XXX

REV.	DATE	DCN #	DRAWING TREE #
v1	7 OCT 2010	E1000563	-
-	-	-	-
-	-	-	-

6. APPROXIMATE WEIGHT = 0.096 LB.  
 7. MACHINE ALL SURFACES TO REMOVE OXIDES AND MILL FINISH. USE OF ABRASIVE REMOVAL TECHNIQUES IS NOT ALLOWED.  
 8. ALL PARTS SHALL BE MANUFACTURED IN ACCORDANCE WITH LIGO SPECIFICATION E0900364.



GENERAL VIEW  
 FOR REFERENCE ONLY  
 NO SCALE

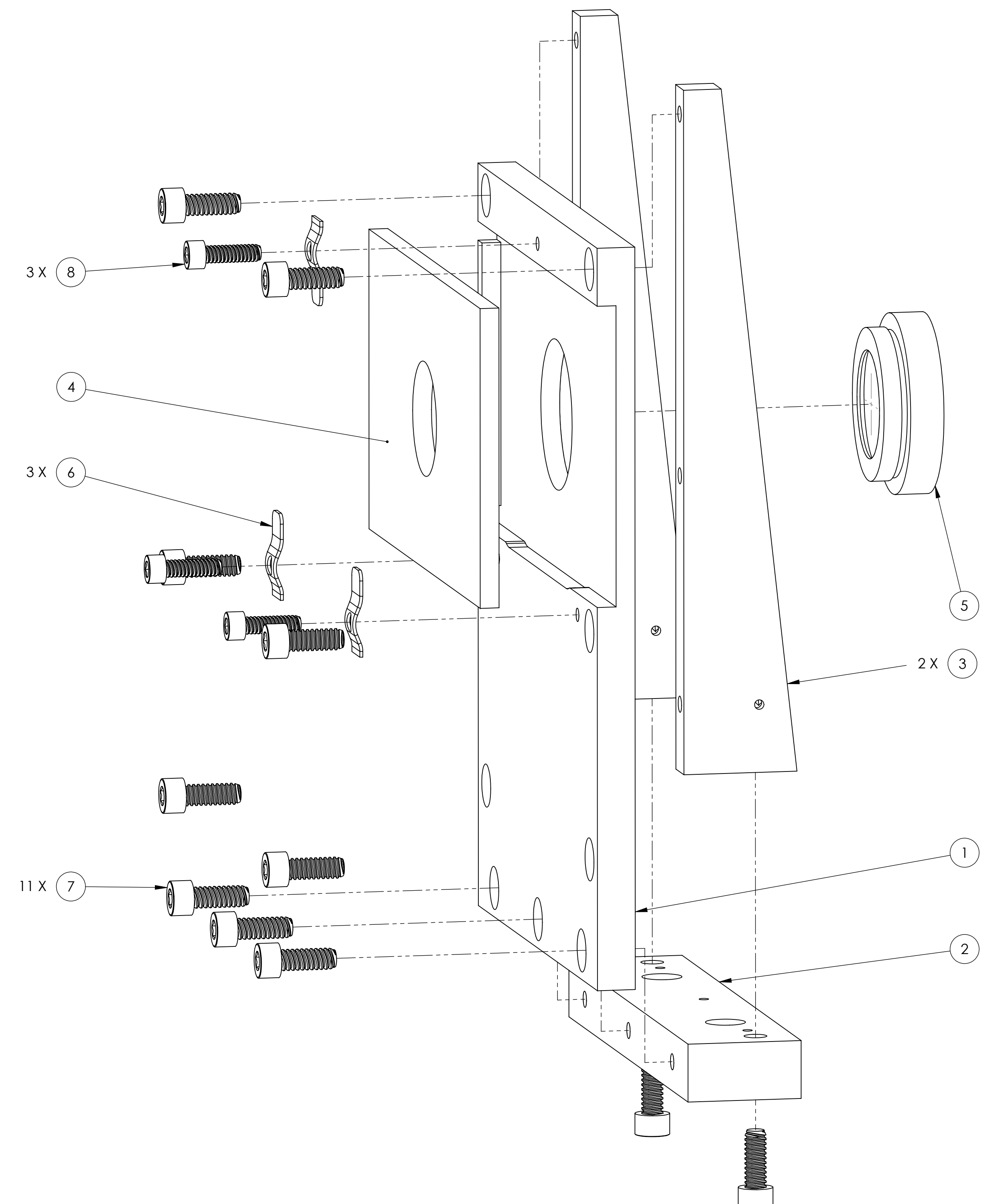


NOTES AND TOLERANCES: (UNLESS OTHERWISE SPECIFIED)				LIGO		CALIFORNIA INSTITUTE OF TECHNOLOGY MASSACHUSETTS INSTITUTE OF TECHNOLOGY		PART NAME	
DIMENSIONS ARE IN INCHES				ADVANCED LIGO		SUB-SYSTEM		INPUT BAFFLE BASE	
TOLERANCES: .XX $\pm$ .01 .XXX $\pm$ .005				NEXT ASSY		AOS		DESIGNER	
ANGULAR $\pm$ 0.5°				6061-T6 Al		FINISH		DRAFTER	
				63 $\mu$ inch		D1001918		TQ. NGUYEN	
								27 JUL 2010	
								24 AUG 2010	
								M. SMITH	
								D. COYNE	
								SIZE DWG. NO.	
								B D1001917	
								REV.	
								v1	
								SCALE: 1:1	
								PROJECTION:	
								SHEET 1 OF 1	

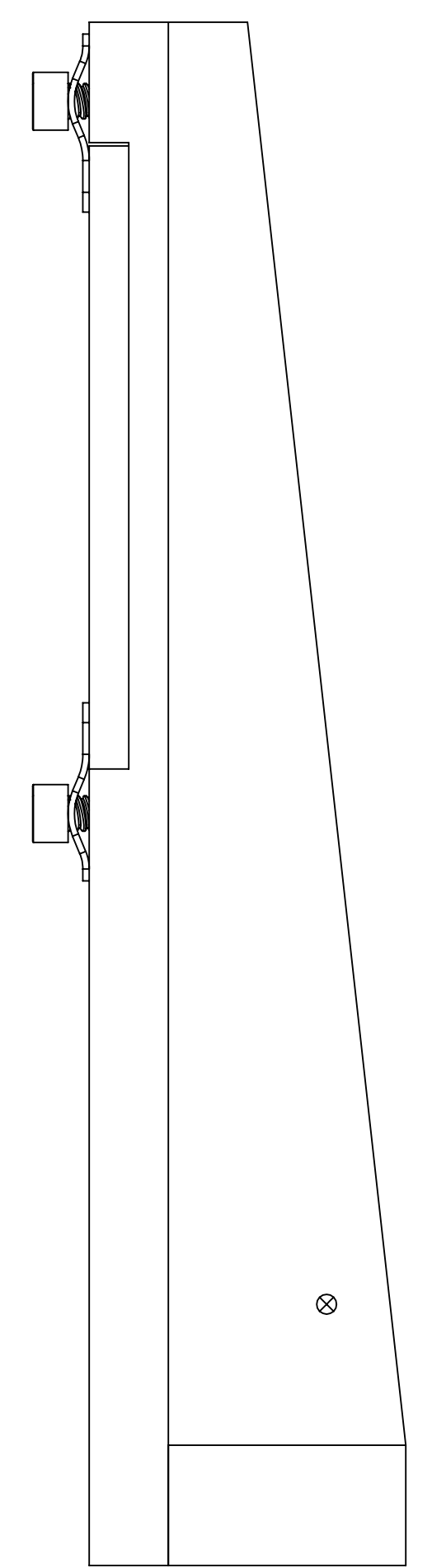
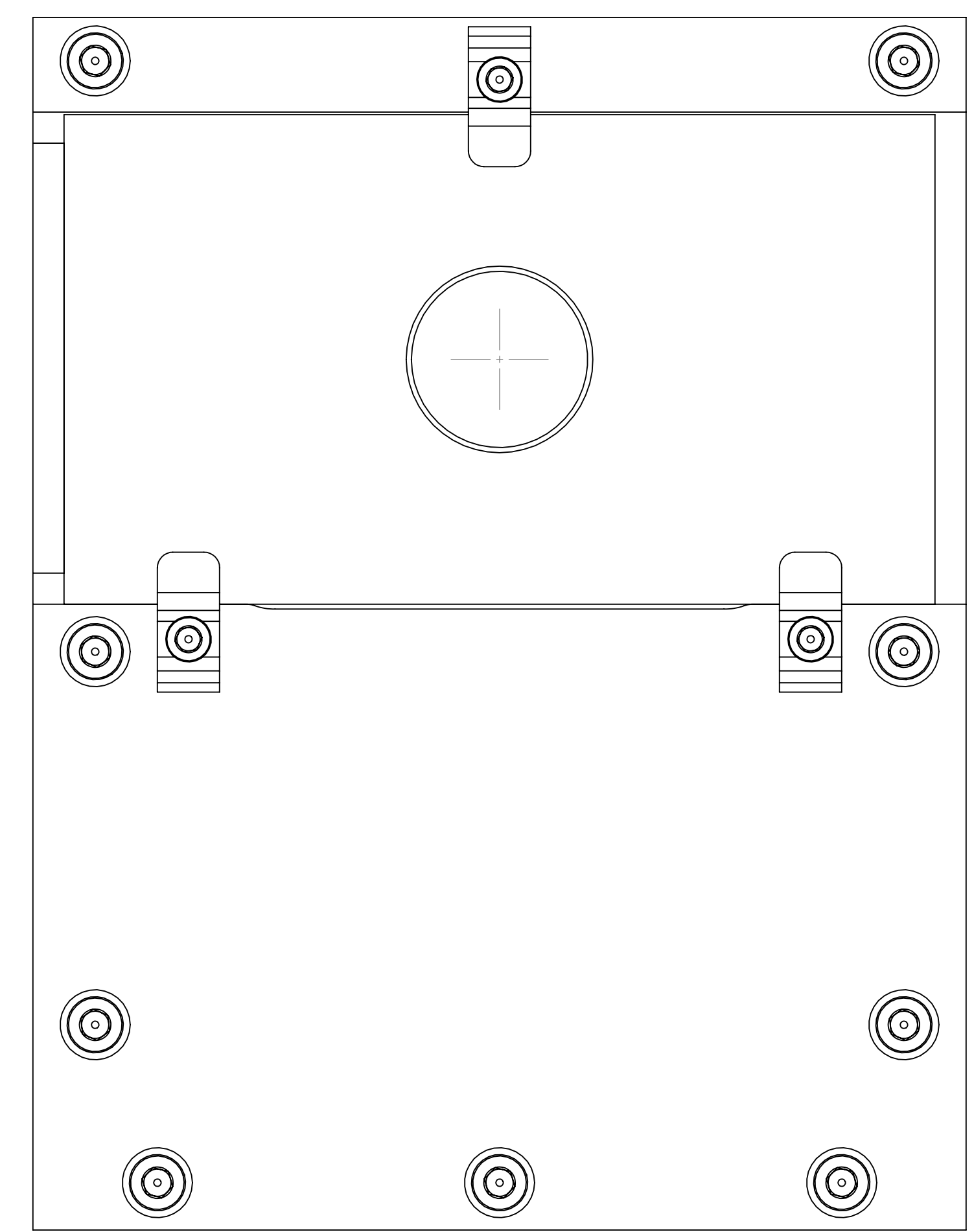
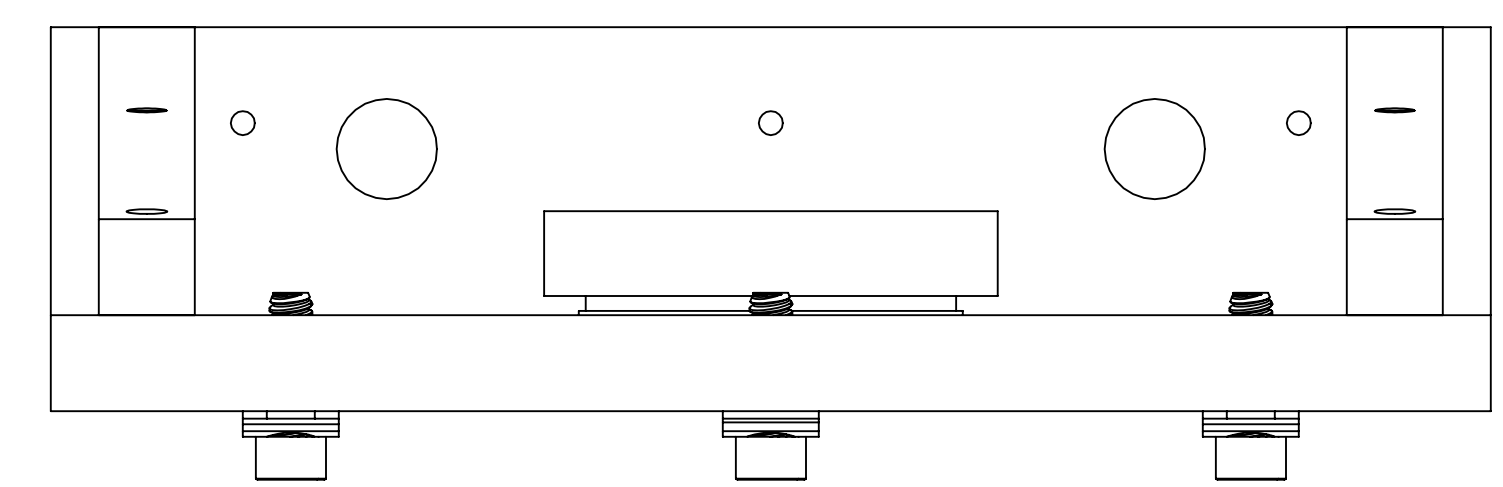
D1001917\_d1lGO\_Wedge window Flatform, PART PDM REV: X-007, DRAWING PDM REV: X-008

NOTES CONTINUED:  
 ⑤

REV.	DATE	DCN #	DRAWING TREE #
v1	7 OCT 2010	E1000563	-
-	-	-	-
-	-	-	-



EXPLODED VIEW  
 SCALE 2:1



ITEM NO.	PART NUMBER	DESCRIPTION	MATERIAL	QTY	SPARE	TOTAL
8	92200A108	Head Cap Screw 300 Series SS, 4-40 Thrd., 3/8\"/>				
7	92200A146	Head Cap Screw 300 Series SS, 6-32 Thrd., 3/8\"/>				
6	D1001919	BEAM DUMP MOUNTING CLAMP	304 SSSL	3		0
5	D1001924	C-MOUNT RETICLE	UNKNOWN	1		0
4	D1001920	INPUT BAFFLE BEAM DUMP	#12 WELDER'S GLASS	1		0
3	D1001916	INPUT BAFFLE SIDE SUPPORT	6061-T6 Al	2		0
2	D1001917	INPUT BAFFLE BASE	6061-T6 Al	1		0
1	D1001915	INPUT BAFFLE HOLDER	6061-T6 Al	1		0

DIMENSIONS ARE IN INCHES TOLERANCES: .XX ± .01 .XXX ± .005 ANGULAR ± 0.5°		NOTES AND TOLERANCES: (UNLESS OTHERWISE SPECIFIED) 1. INTERPRET DRAWING PER ASME Y14.5-1994. 2. REMOVE ALL SHARP EDGES, R.02 MIN. 3. DO NOT SCALE FROM DRAWING. 4. ALL MACHINING FLUIDS MUST BE FULLY SYNTHETIC, FULLY WATER SOLUBLE AND FREE OF SULFUR, SILICONE, AND CHLORINE.		CALIFORNIA INSTITUTE OF TECHNOLOGY MASSACHUSETTS INSTITUTE OF TECHNOLOGY		PART NAME <b>INPUT BAFFLE ASSY</b>	
MATERIAL N/A		FINISH N/A μinch		SYSTEM ADVANCED LIGO		SUB-SYSTEM AOS	
NEXT ASSY D0900623		DESIGNER TQ. NGUYEN		DATE 01 AUG 2010		SIZE D	
DWG. NO. <b>D1001918</b>		DRAFTER TQ. NGUYEN		DATE 25 AUG 2010		REV. v1	
CHECKER M. SMITH		APPROVAL D. COYNE		SCALE: 2:1		PROJECTION:	
				SHEET 1 OF 1			

D:\001918\_d\UGO\_ACS\_Wedge Window Input Baffle Assy\_PART PDM REV: X-007\_DRAWING PDM REV: X-005

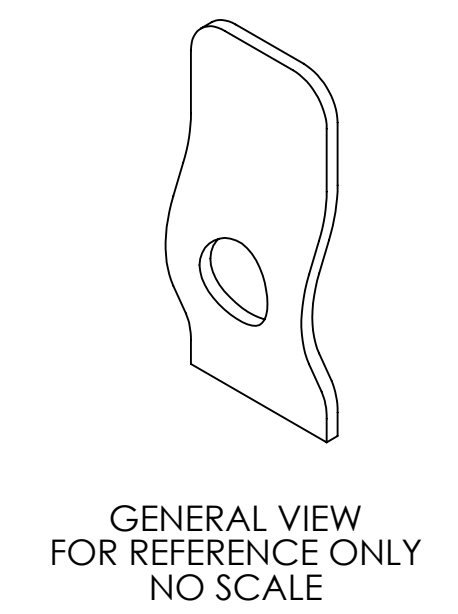
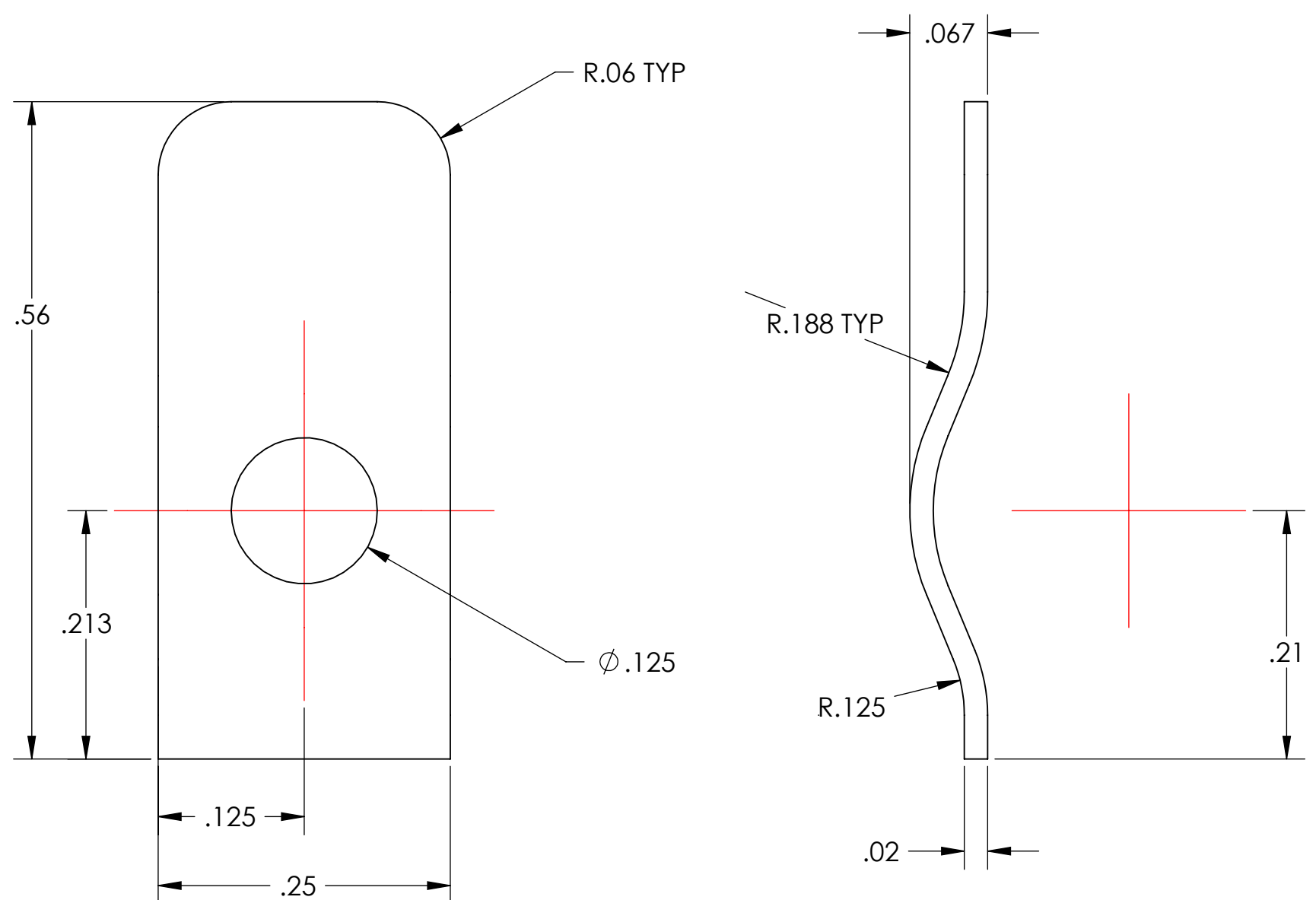


D1001919\_d1lgo\_aos\_dog\_clamp\_wedge\_window\_input\_baffle\_part\_pdm\_rev: x-009, drawing\_pdm\_rev: x-003

**NOTES CONTINUED:**  
 5. SCRIBE, ENGRAVE, OR MECHANICALLY STAMP (NO DYES OR INKS) A UNIQUE THREE DIGIT SERIAL NUMBER & REVISION NUMBER ON EACH PART. SERIAL NUMBERS START AT 001 FOR THE FIRST ARTICLE AND PROCEED CONSECUTIVELY. BAG AND TAG PARTS WITH THEIR DRAWING PART NUMBER, REVISION, VARIANT OR "TYPE" (IF APPLICABLE), AND QUANTITY. IF PARTS ARE TOO SMALL TO SCRIBE, BAGGING AND TAGGING ALONE IS SUFFICIENT.  
 EXAMPLE (PART): 001-v1  
 EXAMPLE (TAG): DXXXXXX-VY, TYPE-XX, QTY: TBD

6. APPROXIMATE WEIGHT = 0.001 LB.  
 7. MACHINE ALL SURFACES TO REMOVE OXIDES AND MILL FINISH. USE OF ABRASIVE REMOVAL TECHNIQUES IS NOT ALLOWED.  
 8. ALL PARTS SHALL BE MANUFACTURED IN ACCORDANCE WITH LIGO SPECIFICATION E0900364.

REV.	DATE	DCN #	DRAWING TREE #
v1	7 OCT 2010	E1000563	-
-	-	-	-
-	-	-	-



**NOTES AND TOLERANCES: (UNLESS OTHERWISE SPECIFIED)**

DIMENSIONS ARE IN INCHES	
TOLERANCES: .XX ± .01 .XXX ± .005 ANGULAR ± 0.5°	
1. INTERPRET DRAWING PER ASME Y14.5-1994. 2. REMOVE ALL SHARP EDGES, R.02 MIN. 3. DO NOT SCALE FROM DRAWING. 4. ALL MACHINING FLUIDS MUST BE FULLY SYNTHETIC, FULLY WATER SOLUBLE AND FREE OF SULFUR, SILICONE, AND CHLORINE.	
MATERIAL	FINISH
304 SSSL	63 μinch

**LIGO** CALIFORNIA INSTITUTE OF TECHNOLOGY  
 MASSACHUSETTS INSTITUTE OF TECHNOLOGY

SYSTEM: **ADVANCED LIGO** SUB-SYSTEM: **AOS**

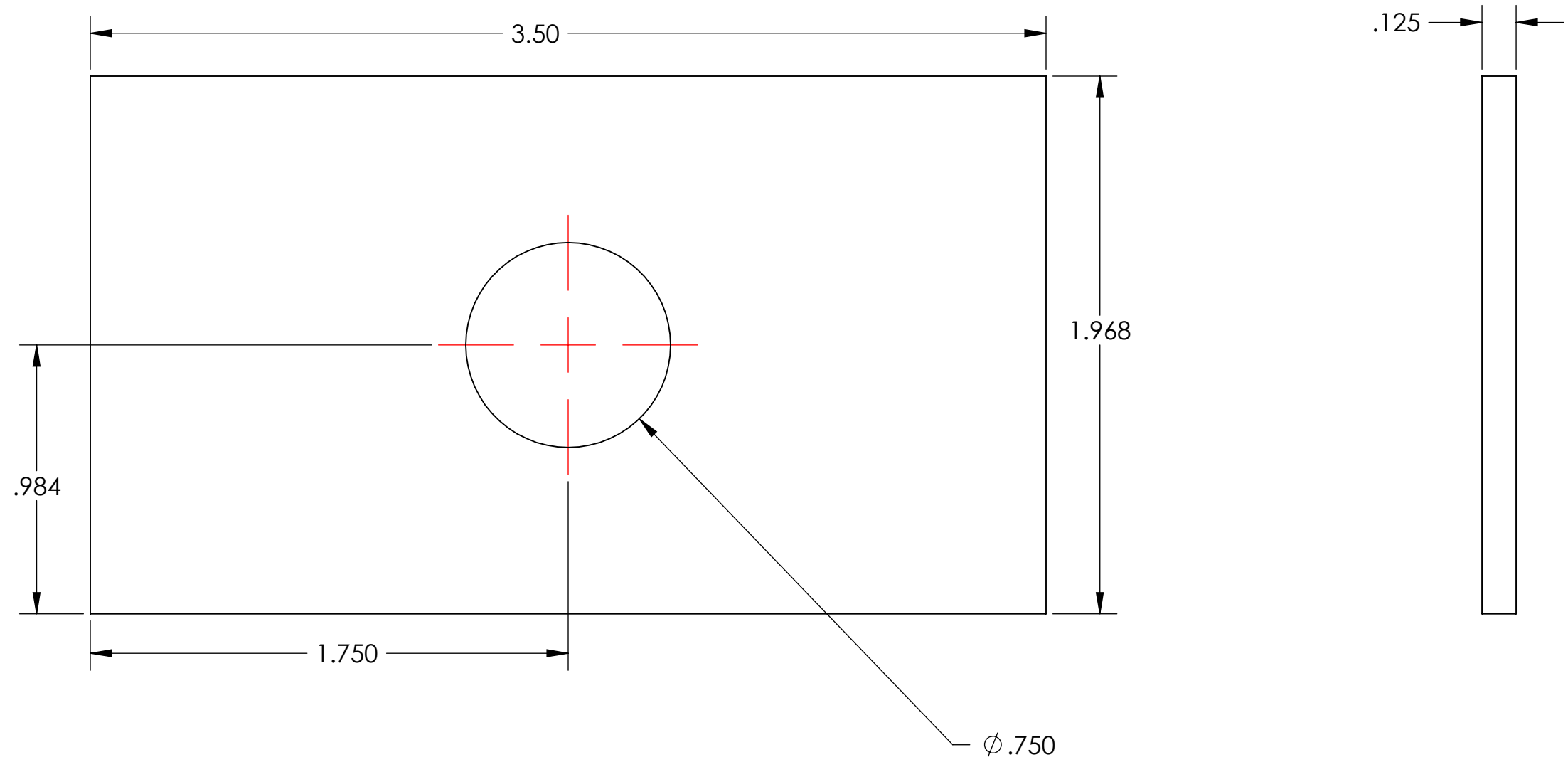
NEXT ASSY: **D1001918**

PART NAME		<b>BEAM DUMP MOUNTING CLAMP</b>	
DESIGNER	TQ. NGUYEN	2 AUG 2010	SIZE DWG. NO.
DRAFTER	TQ. NGUYEN	24 AUG 2010	<b>B</b>
CHECKER	M. SMITH		<b>D1001919</b>
APPROVAL	D. COYNE		REV. <b>v1</b>
SCALE: 8:1		PROJECTION:	
		SHEET 1 OF 1	

D1001920\_d1lgo\_AOS\_Beam Dump\_Wedge Window\_Input Baffle, PART PDM REV: X-004, DRAWING PDM REV: X-002

NOTES CONTINUED:  
 6. PURCHASE FROM SCHOTT North America, Inc.  
 SCHOTT #12 WELDER'S GLASS

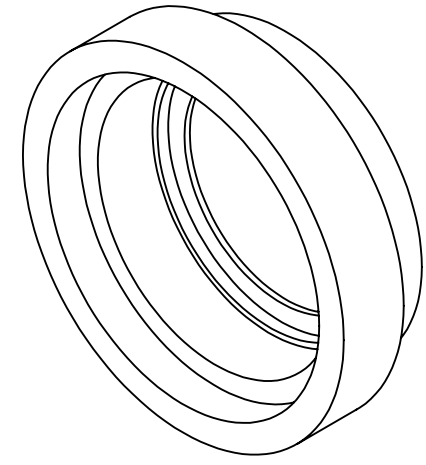
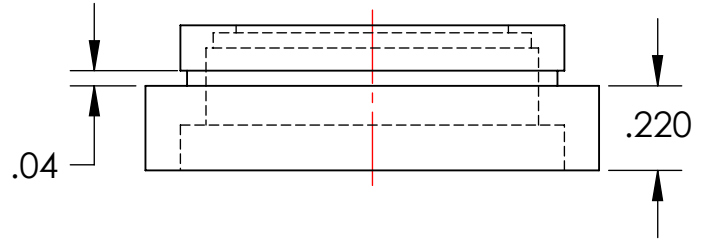
REV.	DATE	DCN #	DRAWING TREE #
v1	7 OCT 2010	E1000563	E1000527
-	-	-	-
-	-	-	-



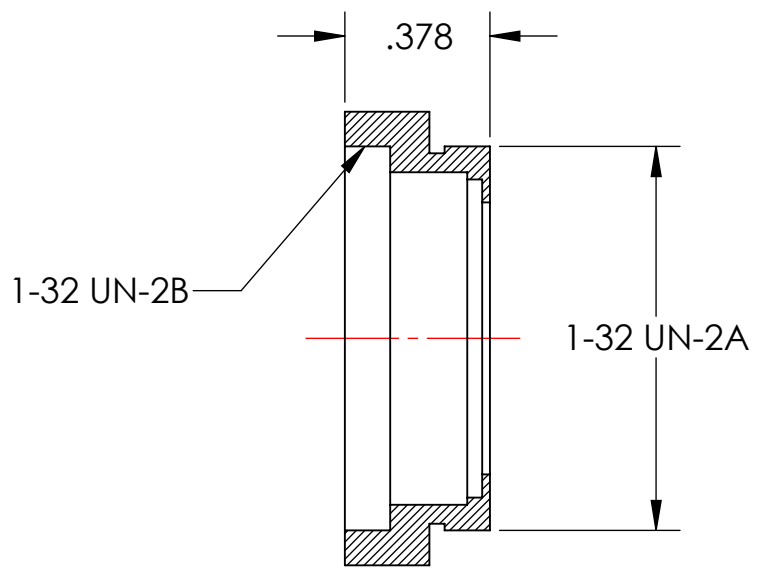
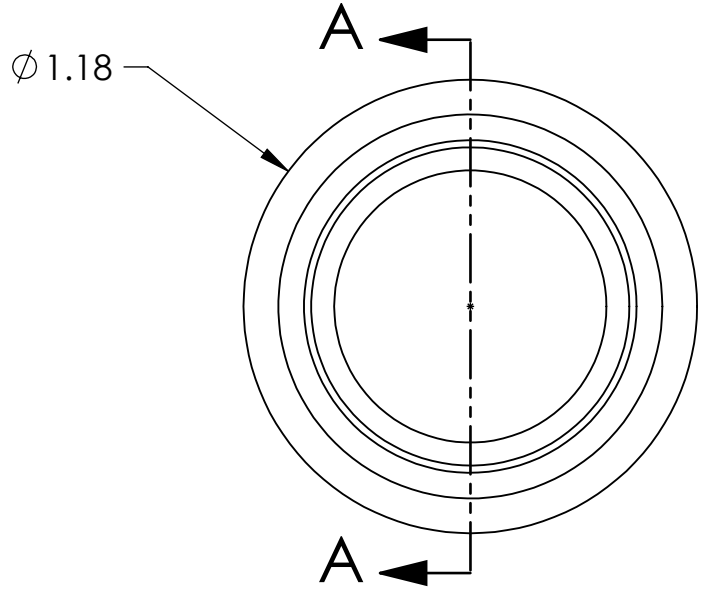
NOTES AND TOLERANCES: (UNLESS OTHERWISE SPECIFIED)				LIGO		PART NAME	
DIMENSIONS ARE IN INCHES TOLERANCES: .XX ± .01 .XXX ± .005 ANGULAR ± 0.5°				CALIFORNIA INSTITUTE OF TECHNOLOGY MASSACHUSETTS INSTITUTE OF TECHNOLOGY		<b>INPUT BAFFLE BEAM DUMP</b>	
1. INTERPRET DRAWING PER ASME Y14.5-1994. 2. REMOVE ALL SHARP EDGES, R.02 MIN. 3. DO NOT SCALE FROM DRAWING. 4. ALL MACHINING FLUIDS MUST BE FULLY SYNTHETIC, FULLY WATER SOLUBLE AND FREE OF SULFUR, SILICONE, AND CHLORINE.				<b>ADVANCED LIGO</b>		<b>AOS</b>	
<b>MATERIAL</b> SCHOTT # 12 WELDER'S GLASS		<b>FINISH</b> AS RECEIVED		<b>NEXT ASSY</b> D1001918		<b>DESIGNER</b> TQ. NGUYEN 27 JUL 2010 <b>DRAFTER</b> TQ. NGUYEN 24 AUG 2010 <b>CHECKER</b> M. SMITH <b>APPROVAL</b> D. COYNE	
				<b>SIZE DWG. NO.</b> <b>B D1001920</b>		<b>REV.</b> v1	
				<b>SCALE:</b> 2:1		<b>PROJECTION:</b>	
				SHEET 1 OF 1			

NOTES CONTINUED:  
 5. PURCHASE THE ITEM FROM EDMUND OPTICS, INC.  
 101 E. GLOUCESTER PIKE, BARRINGTON, NJ 08007  
 Phone: 1-856-573-6250  
 Toll-Free: 1-800-363-1992  
 Fax: 1-856-573-6295  
 C-MOUNT RETICLE MOUNT: STOCK No. NT53-860

REV.	DATE	DCN #	DRAWING TREE #
v1	7 OCT 2010	E1000563	-
-	-	-	-
-	-	-	-



GENERAL VIEW  
 FOR REFERENCE ONLY  
 NO SCALE



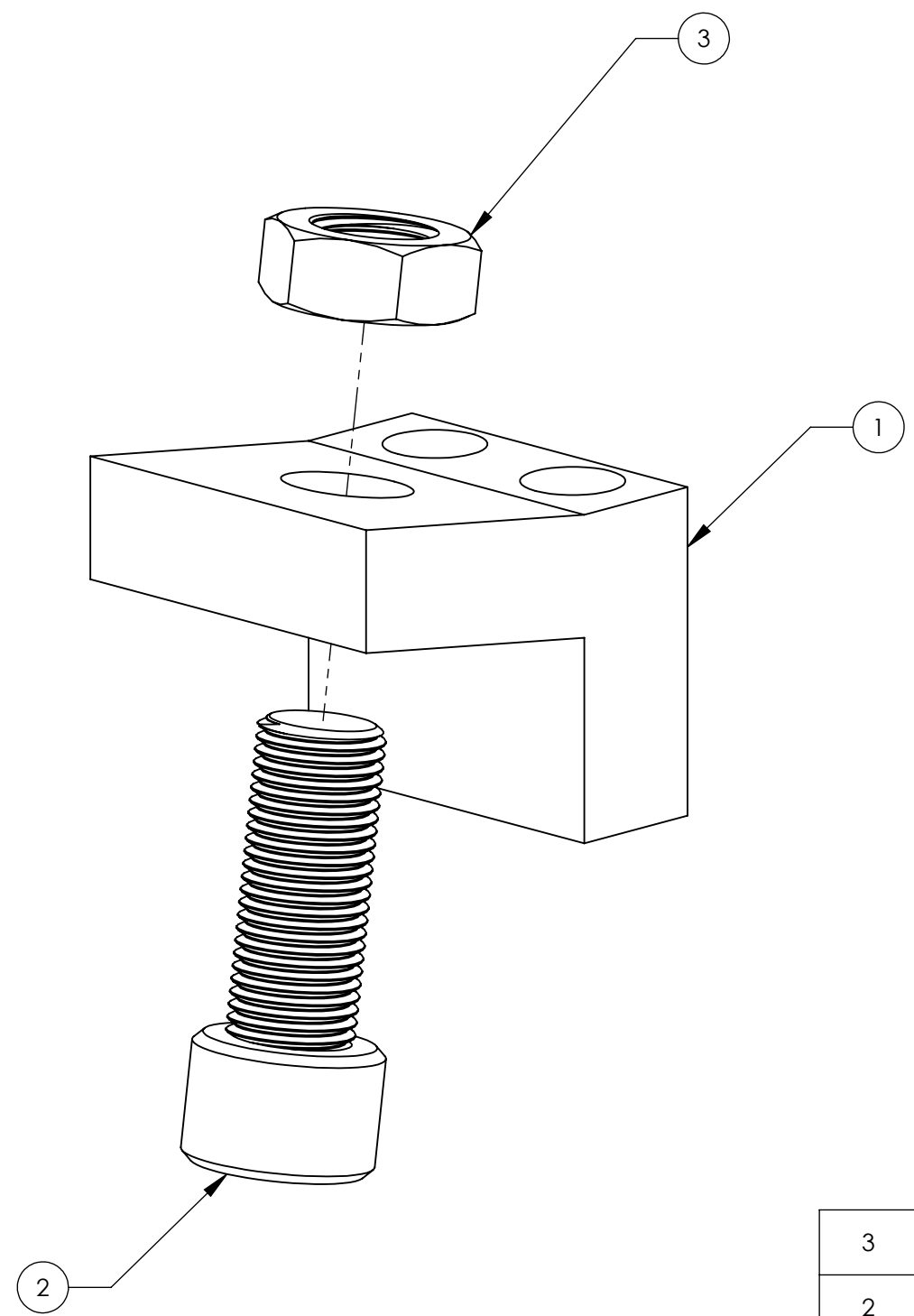
SECTION A-A

D1001924\_d1lgo\_AOS\_Faraday Isolator\_D0900614\_C Mount Reticle, PART PDM REV: X-010, DRAWING PDM REV: X-009

NOTES AND TOLERANCES: (UNLESS OTHERWISE SPECIFIED)				LIGO CALIFORNIA INSTITUTE OF TECHNOLOGY MASSACHUSETTS INSTITUTE OF TECHNOLOGY		PART NAME	
DIMENSIONS ARE IN INCHES TOLERANCES: .XX ± .01 .XXX ± .005 ANGULAR ± 0.5°				1. INTERPRET DRAWING PER ASME Y14.5-1994. 2. REMOVE ALL SHARP EDGES, R.02 MIN. 3. DO NOT SCALE FROM DRAWING. 4. ALL MACHINING FLUIDS MUST BE FULLY SYNTHETIC, FULLY WATER SOLUBLE AND FREE OF SULFUR, SILICONE, AND CHLORINE.		C-MOUNT RETICLE	
MATERIAL UNKNOWN		FINISH AS RECEIVED		SYSTEM ADVANCED LIGO NEXT ASSY D1001918	SUB-SYSTEM AOS	DESIGNER TQ. NGUYEN 27 JUL 2010 DRAFTER TQ. NGUYEN 24 AUG 2010 CHECKER M. SMITH APPROVAL D. COYNE	SIZE DWG. NO. B D1001924 SCALE: 2:1 PROJECTION:
						REV. v1	SHEET 1 OF 1

D1001958\_d1lgo\_AOS\_D0900623\_Wire Support Block Assy, PART PDM REV: X-029, DRAWING PDM REV: X-005

REV.	DATE	DCN #	DRAWING TREE #
v1	08 OCT 2010	E1000563	



ITEM NO.	PART NUMBER	DESCRIPTION	MATERIAL	REQ	SPARE	TOTAL
3	92101A980	Nut, Jam .50-20 300 SST		1		1
2	92196A386	SCREW SOCKET HD #.50-20X1.25	304, 316 OR 302 SSTL	1		1
1	D1001960	WIRE SUPPORT BLOCK	6061-T6 Al	1		1

**NOTES AND TOLERANCES: (UNLESS OTHERWISE SPECIFIED)**

1. INTERPRET DRAWING PER ASME Y14.5-1994.  
 2. REMOVE ALL SHARP EDGES, R.02 MIN.  
 3. DO NOT SCALE FROM DRAWING.  
 4. ALL MACHINING FLUIDS MUST BE FULLY SYNTHETIC, FULLY WATER SOLUBLE AND FREE OF SULFUR, SILICONE, AND CHLORINE.

DIMENSIONS ARE IN  
 TOLERANCES:  
 .XX ±  
 .XXX ±  
 ANGULAR ± °

MATERIAL: N/A      FINISH: N/A μinch

SYSTEM: LIGO CALIFORNIA INSTITUTE OF TECHNOLOGY MASSACHUSETTS INSTITUTE OF TECHNOLOGY      SUB-SYSTEM:      PART NAME: WIRE SUPPORT BLOCK ASSY

DESIGNER:      DRAFTER: MRUIZ      03 AUG 2010      SIZE: B      DWG. NO.: D1001958      REV.: v1

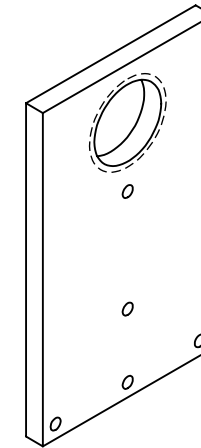
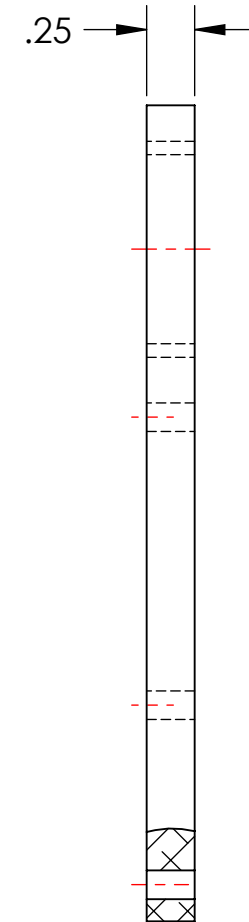
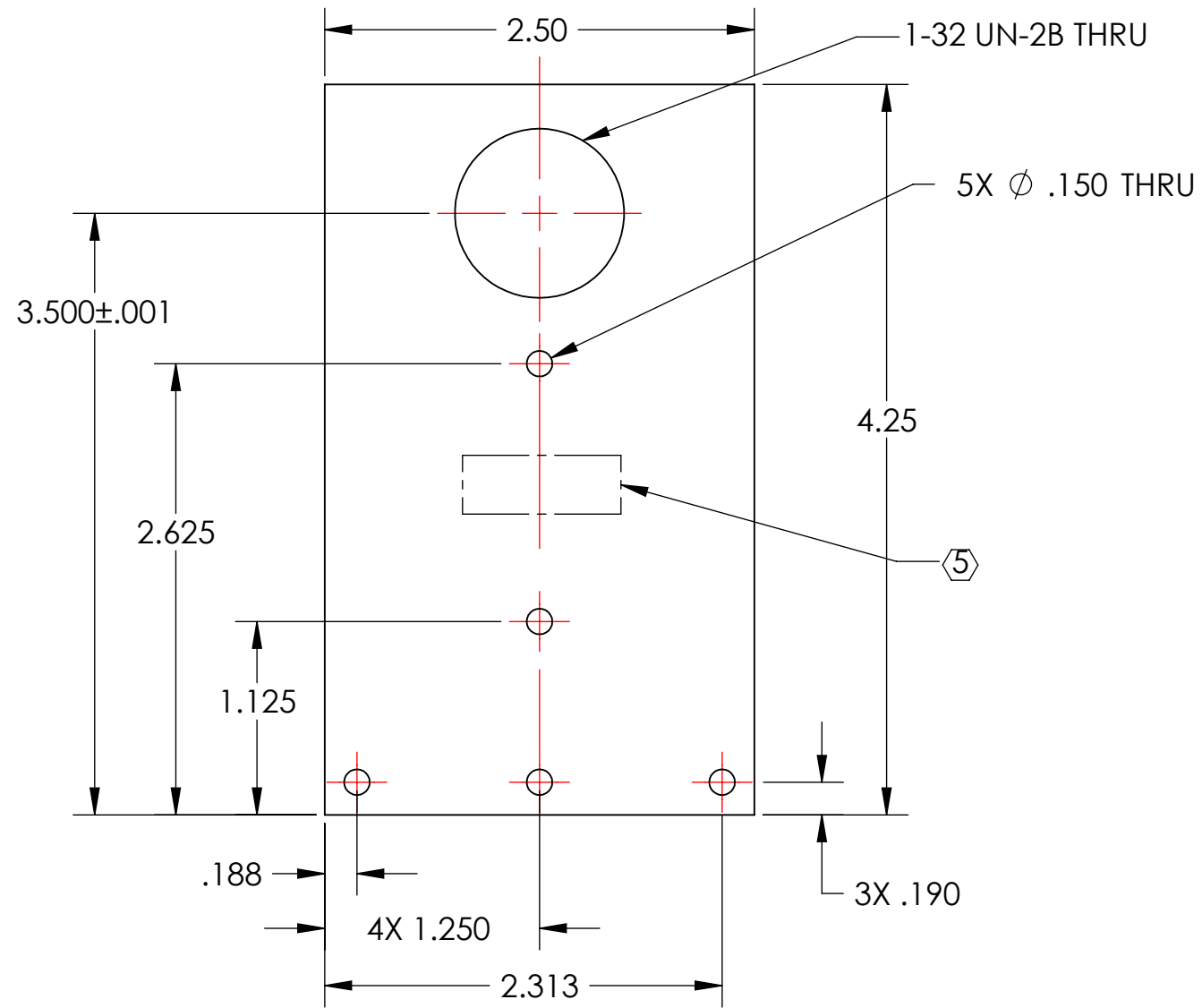
CHECKER:      APPROVAL:      NEXT ASSY: D0900623      SCALE: 2:1      PROJECTION:      SHEET 1 OF 1

D1001959\_d1lGO\_AOs\_Wedge Window Panel\_OUTPUT BAFFLE, PART PDM REV: X-013, DRAWING PDM REV: X-009

**NOTES CONTINUED:**  
 5. SCRIBE, ENGRAVE, OR MECHANICALLY STAMP (NO INKS OR DYES) DRAWING PART NUMBER, REVISION (AND VARIANT OR "TYPE" IF APPLICABLE) ON NOTED SURFACE OF PART FOLLOWED ON THE NEXT LINE WITH A THREE DIGIT SERIAL NUMBER. SERIAL NUMBERS START AT 001 FOR THE FIRST ARTICLE AND PROCEED CONSECUTIVELY. USE MINIMUM 0.12" HIGH CHARACTERS, UNLESS THE SIZE OF THE PART DICTATES SMALLER CHARACTERS. A VIBRATORY TOOL MAY BE USED.  
 EXAMPLE: DXXXXXX-VY, TYPE-XX, S/N XXX

6. MACHINE ALL SURFACES TO REMOVE OXIDES AND MILL FINISH. USE OF ABRASIVE REMOVAL TECHNIQUES IS NOT ALLOWED.  
 7. ALL PARTS SHALL BE MANUFACTURED IN ACCORDANCE WITH LIGO SPECIFICATION E0900364.

REV.	DATE	DCN #	DRAWING TREE #
v1	7 OCT 2010	E1000563	-
-	-	-	-
-	-	-	-



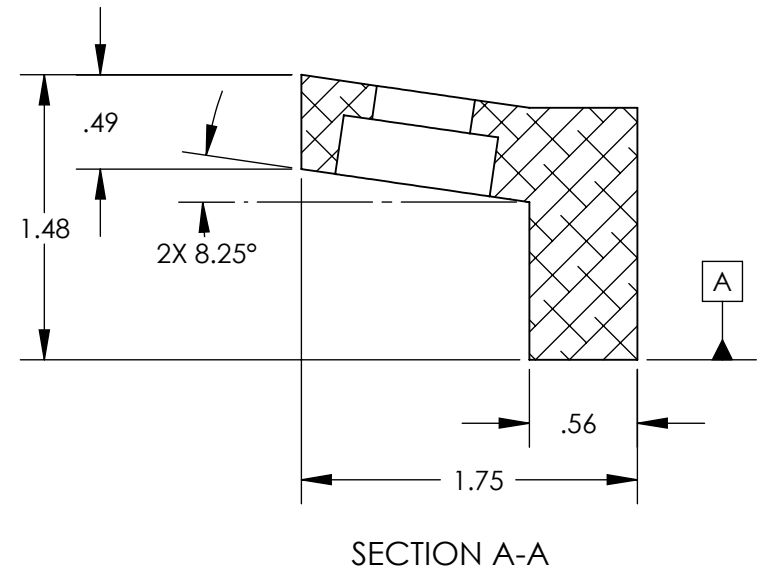
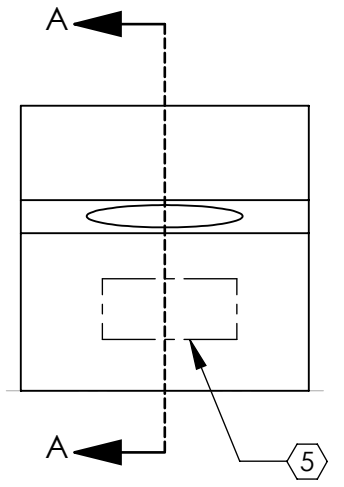
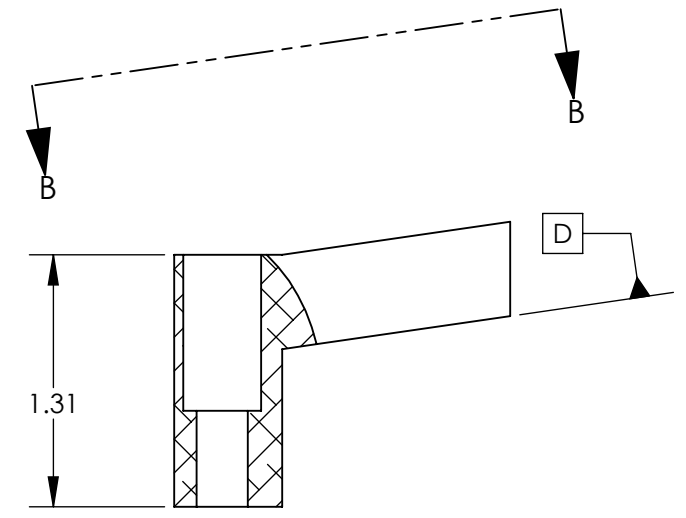
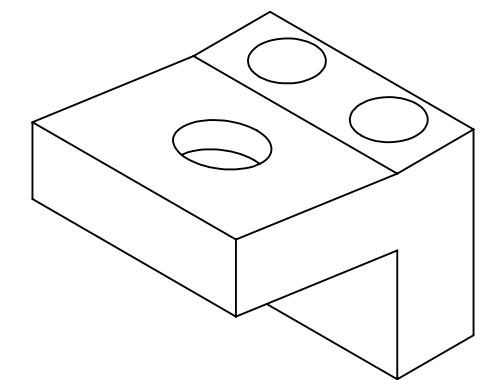
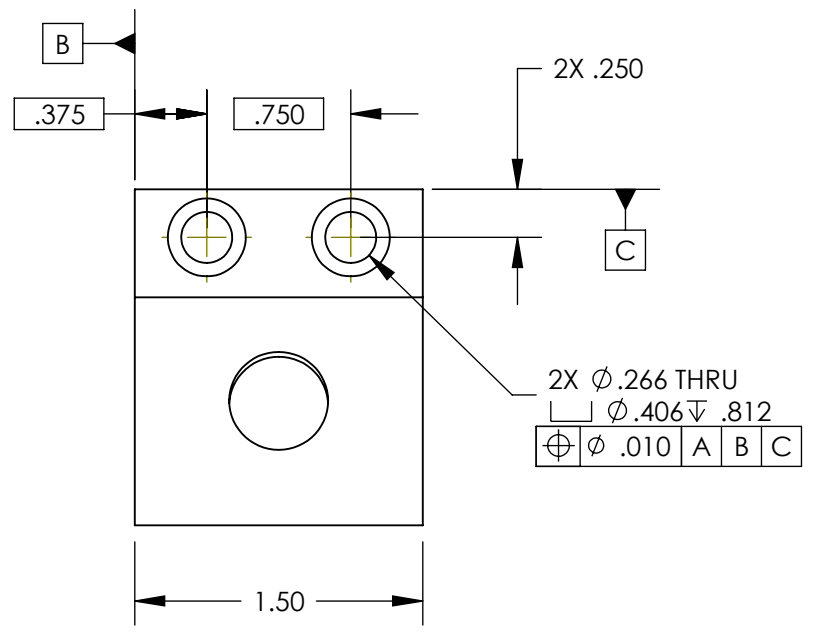
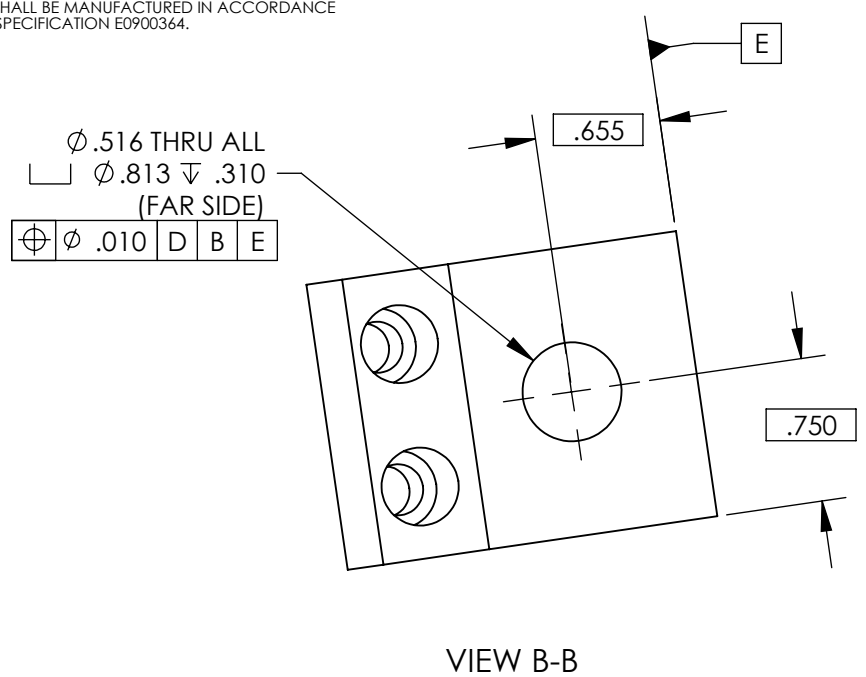
GENERAL VIEW  
 FOR REFERENCE ONLY  
 NO SCALE

NOTES AND TOLERANCES: (UNLESS OTHERWISE SPECIFIED)				LIGO CALIFORNIA INSTITUTE OF TECHNOLOGY MASSACHUSETTS INSTITUTE OF TECHNOLOGY		PART NAME	
DIMENSIONS ARE IN INCHES				SYSTEM		RETICLE HOLDER	
TOLERANCES: .XX ± .01 .XXX ± .005				ADVANCED LIGO		DESIGNER TQ. NGUYEN 26 JUL 2010	
ANGULAR ± 0.5°				SUB-SYSTEM		DRAFTER TQ. NGUYEN 25 AUG 2010	
MATERIAL 6061-T6 Al				NEXT ASSY D1001963		SIZE DWG. NO. B D1001959	
FINISH 63 μinch				APPROVAL D. COYNE		REV. v1	
				SCALE: 1:1		PROJECTION:  SHEET 1 OF 1	

**NOTES CONTINUED:**  
 5. SCRIBE, ENGRAVE, OR MECHANICALLY STAMP (NO INKS OR DYES) DRAWING PART NUMBER, REVISION (AND VARIANT OR "TYPE" IF APPLICABLE) ON NOTED SURFACE OF PART FOLLOWED ON THE NEXT LINE WITH A THREE DIGIT SERIAL NUMBER. SERIAL NUMBERS START AT 001 FOR THE FIRST ARTICLE AND PROCEED CONSECUTIVELY. USE MINIMUM 0.12" HIGH CHARACTERS, UNLESS THE SIZE OF THE PART DICTATES SMALLER CHARACTERS. A VIBRATORY TOOL MAY BE USED.  
 EXAMPLE: DXXXXXX-VY, TYPE-XX, S/N XXX

REV.	DATE	DCN #	DRAWING TREE #
v1	08 OCT 2010	E1000563	

6. MACHINE ALL SURFACES TO REMOVE OXIDES AND MILL FINISH. USE OF ABRASIVE REMOVAL TECHNIQUES IS NOT ALLOWED.  
 7. ALL PARTS SHALL BE MANUFACTURED IN ACCORDANCE WITH LIGO SPECIFICATION E0900364.



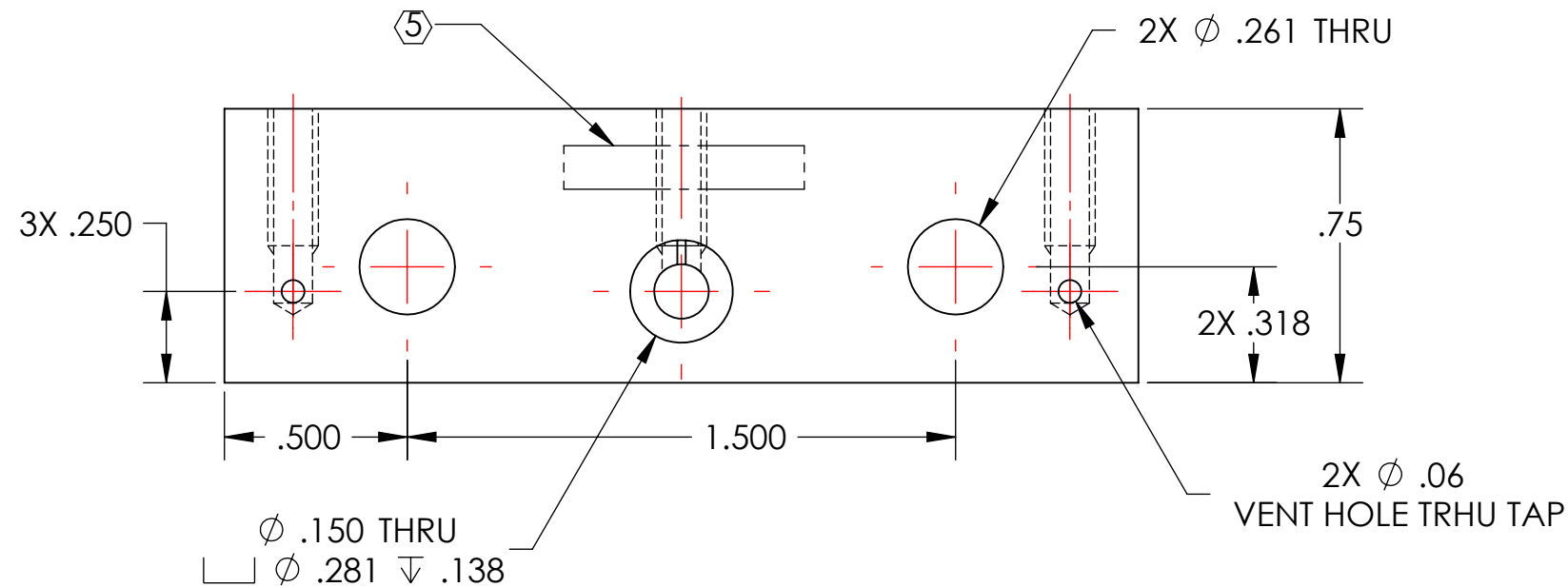
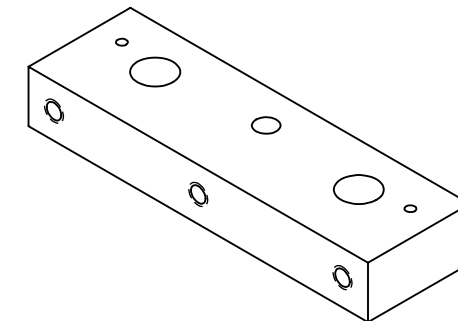
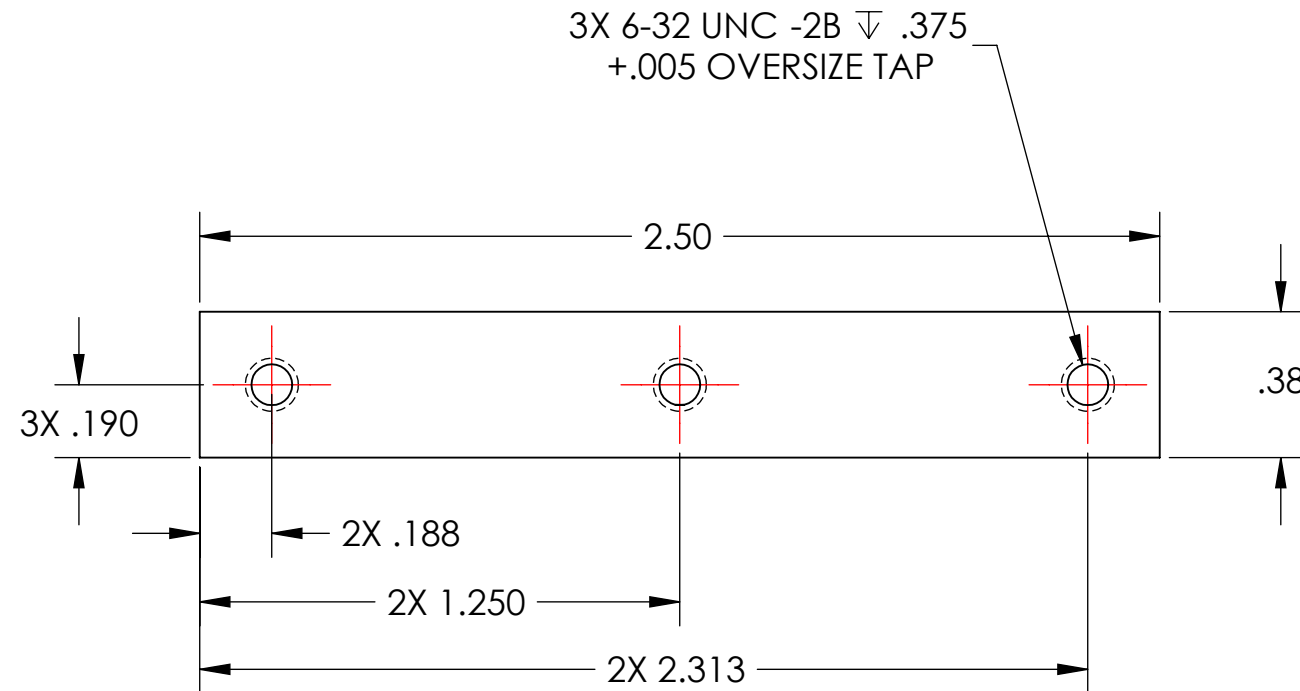
D1001960\_alIGO\_AOS\_D0901958\_Wire Support Block, PART PDM REV: X-008, DRAWING PDM REV: X-008

NOTES AND TOLERANCES: (UNLESS OTHERWISE SPECIFIED)				LIGO CALIFORNIA INSTITUTE OF TECHNOLOGY MASSACHUSETTS INSTITUTE OF TECHNOLOGY		PART NAME	
DIMENSIONS ARE IN TOLERANCES: .XX ± .02 .XXX ± .010 ANGULAR ± 5°				1. INTERPRET DRAWING PER ASME Y14.5-1994. 2. REMOVE ALL SHARP EDGES, R.02 MIN. 3. DO NOT SCALE FROM DRAWING. 4. ALL MACHINING FLUIDS MUST BE FULLY SYNTHETIC, FULLY WATER SOLUBLE AND FREE OF SULFUR, SILICONE, AND CHLORINE.		WIRE SUPPORT BLOCK	
MATERIAL		FINISH		NEXT ASSY		DESIGNER	SIZE DWG. NO.
6061-T6 Al		63 μinch		D1001958		DRAFTER	B D1001960
						CHECKER	REV.
						APPROVAL	v1
						SCALE: 1:1	PROJECTION:  SHEET 1 OF 1

NOTES CONTINUED:  
 5. SCRIBE, ENGRAVE, OR MECHANICALLY STAMP (NO INKS OR DYES) DRAWING PART NUMBER, REVISION (AND VARIANT OR "TYPE" IF APPLICABLE) ON NOTED SURFACE OF PART FOLLOWED ON THE NEXT LINE WITH A THREE DIGIT SERIAL NUMBER. SERIAL NUMBERS START AT 001 FOR THE FIRST ARTICLE AND PROCEED CONSECUTIVELY. USE MINIMUM 0.12" HIGH CHARACTERS, UNLESS THE SIZE OF THE PART DICTATES SMALLER CHARACTERS. A VIBRATORY TOOL MAY BE USED.  
 EXAMPLE: DXXXXXX-VY, TYPE-XX, S/N XXX

6. MACHINE ALL SURFACES TO REMOVE OXIDES AND MILL FINISH. USE OF ABRASIVE REMOVAL TECHNIQUES IS NOT ALLOWED.  
 7. ALL PARTS SHALL BE MANUFACTURED IN ACCORDANCE WITH LIGO SPECIFICATION E0900364.

REV.	DATE	DCN #	DRAWING TREE #
v1	7 OCT 2010	E1000563	-
-	-	-	-
-	-	-	-



NOTES AND TOLERANCES: (UNLESS OTHERWISE SPECIFIED)

DIMENSIONS ARE IN INCHES

TOLERANCES:  
 .XX  $\pm$  .01  
 .XXX  $\pm$  .005

ANGULAR  $\pm$  0.5°

1. INTERPRET DRAWING PER ASME Y14.5-1994.  
 2. REMOVE ALL SHARP EDGES, R.02 MIN.  
 3. DO NOT SCALE FROM DRAWING.  
 4. ALL MACHINING FLUIDS MUST BE FULLY SYNTHETIC, FULLY WATER SOLUBLE AND FREE OF SULFUR, SILICONE, AND CHLORINE.

MATERIAL 6061-T6 Al

FINISH 63  $\mu$ inch

**LIGO** CALIFORNIA INSTITUTE OF TECHNOLOGY  
 MASSACHUSETTS INSTITUTE OF TECHNOLOGY

SYSTEM ADVANCED LIGO

SUB-SYSTEM AOS

NEXT ASSY D1001963

PART NAME OUTPUT ALIGNMENT FIXTURE BASE

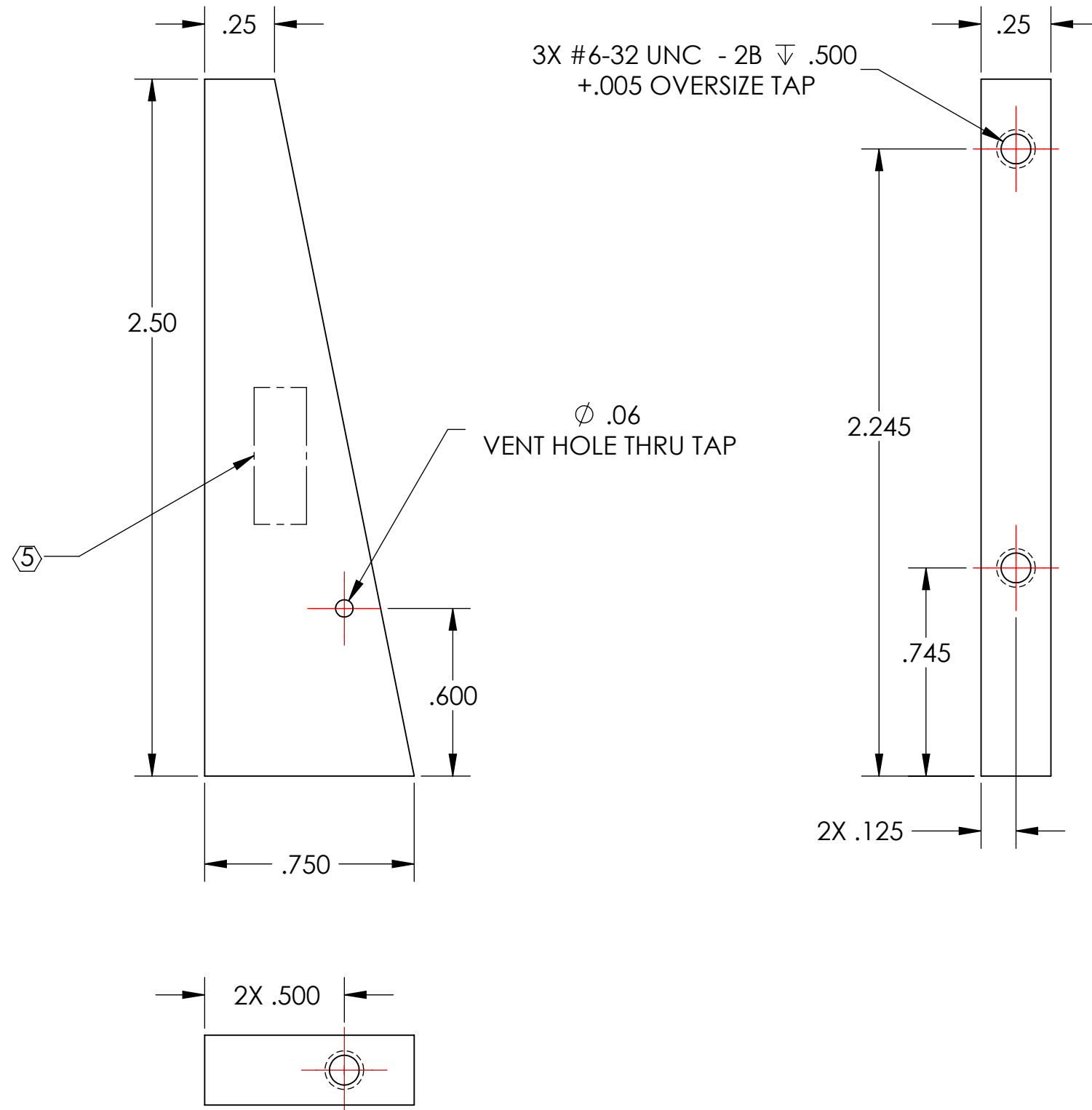
DESIGNER	TQ. NGUYEN	27 JUL 2010	SIZE	DWG. NO.	REV.
DRAFTER	TQ. NGUYEN	25 AUG 2010	<b>B</b>	<b>D1001961</b>	v1
CHECKER	M. SMITH		SCALE: 2:1	PROJECTION:	SHEET 1 OF 1
APPROVAL	D. COYNE				

D1001962\_d1lGO\_AOs\_Wedge Window Middle Support\_Output Baffle, PART PDM REV: X-009, DRAWING PDM REV: X-007

**NOTES CONTINUED:**  
 5. SCRIBE, ENGRAVE, OR MECHANICALLY STAMP (NO INKS OR DYES) DRAWING PART NUMBER, REVISION (AND VARIANT OR "TYPE" IF APPLICABLE) ON NOTED SURFACE OF PART FOLLOWED ON THE NEXT LINE WITH A THREE DIGIT SERIAL NUMBER. SERIAL NUMBERS START AT 001 FOR THE FIRST ARTICLE AND PROCEED CONSECUTIVELY. USE MINIMUM 0.12" HIGH CHARACTERS, UNLESS THE SIZE OF THE PART DICTATES SMALLER CHARACTERS. A VIBRATORY TOOL MAY BE USED.  
 EXAMPLE: DXXXXXX-VY, TYPE-XX, S/N XXX

6. MACHINE ALL SURFACES TO REMOVE OXIDES AND MILL FINISH. USE OF ABRASIVE REMOVAL TECHNIQUES IS NOT ALLOWED.  
 7. ALL PARTS SHALL BE MANUFACTURED IN ACCORDANCE WITH LIGO SPECIFICATION E0900364.

REV.	DATE	DCN #	DRAWING TREE #
v1	7 OCT 2010	E1000563	-
-	-	-	-
-	-	-	-



GENERAL VIEW  
 FOR REFERENCE ONLY  
 NO SCALE

**NOTES AND TOLERANCES: (UNLESS OTHERWISE SPECIFIED)**

DIMENSIONS ARE IN INCHES  
 TOLERANCES:  
 .XX ± .01  
 .XXX ± .005  
 ANGULAR ± 0.5°

1. INTERPRET DRAWING PER ASME Y14.5-1994.  
 2. REMOVE ALL SHARP EDGES, R.02 MIN.  
 3. DO NOT SCALE FROM DRAWING.  
 4. ALL MACHINING FLUIDS MUST BE FULLY SYNTHETIC, FULLY WATER SOLUBLE AND FREE OF SULFUR, SILICONE, AND CHLORINE.

MATERIAL 6061-T6 Al FINISH 63 μinch

**LIGO** CALIFORNIA INSTITUTE OF TECHNOLOGY  
 MASSACHUSETTS INSTITUTE OF TECHNOLOGY

SYSTEM ADVANCED LIGO SUB-SYSTEM AOS

NEXT ASSY D1001963

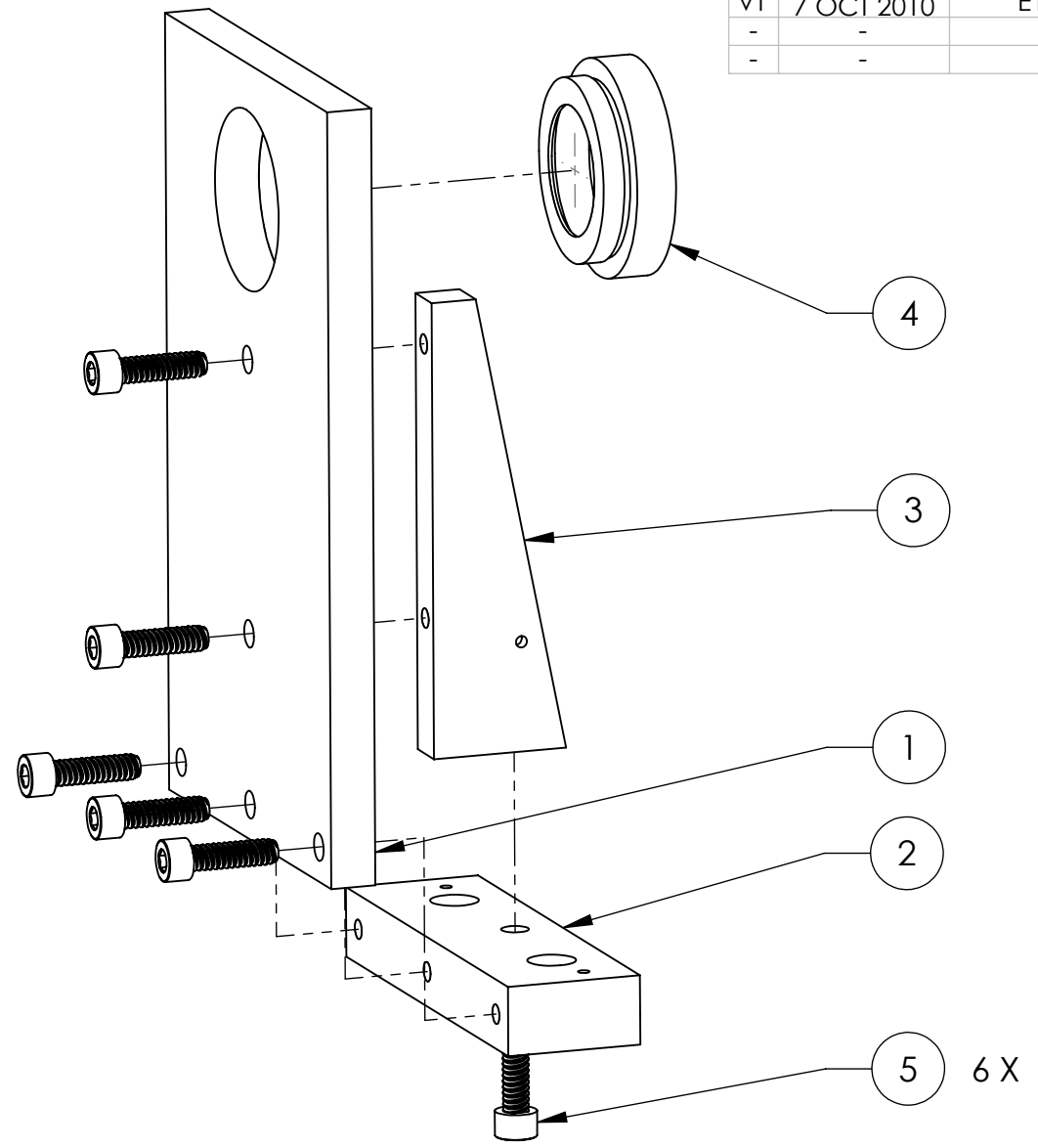
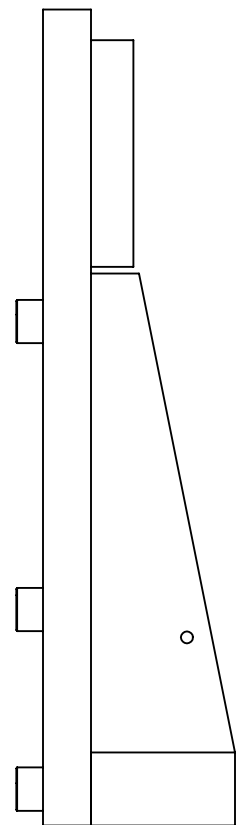
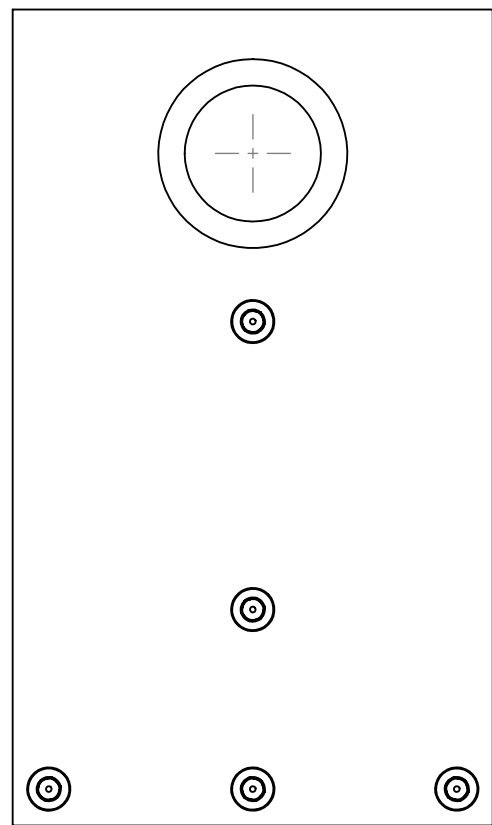
PART NAME  
**OUTPUT ALIGNMENT FIXTURE SUPPORT**

DESIGNER	TQ. NGUYEN	27 JUL 2010	SIZE	DWG. NO.	REV.
DRAFTER	TQ. NGUYEN	25 AUG 2010	<b>B</b>	<b>D1001962</b>	<b>v1</b>
CHECKER	M. SMITH		SCALE: 2:1	PROJECTION:	SHEET 1 OF 1
APPROVAL	D. COYNE				



NOTES CONTINUED:

REV.	DATE	DCN #	DRAWING TREE #
V1	7 OCT 2010	E1000563	-
-	-	-	-
-	-	-	-



5	92200A148	Head Cap Screw 300 Series SS, 6-32 Thrd, 1/2" Length, MS 16995-16	Ag-PLATED 300 SSTL	6		0
4	D1001924	C-MOUNT RETICLE	UNKNOWN	1		0
3	D1001962	OUTPUT ALIGNMENT FIXTURE SUPPORT	6061-T6 Al	1		0
2	D1001961	OUTPUT ALIGNMENT FIXTURE BASE	6061-T6 Al	1		0
1	D1001959	RETICLE HOLDER	6061-T6 Al	1		0
ITEM NO.	PART NUMBER	DESCRIPTION	MATERIAL	QTY	SPARE	TOTAL

**NOTES AND TOLERANCES: (UNLESS OTHERWISE SPECIFIED)**

1. INTERPRET DRAWING PER ASME Y14.5-1994.  
 2. REMOVE ALL SHARP EDGES, R.02 MIN.  
 3. DO NOT SCALE FROM DRAWING.  
 4. ALL MACHINING FLUIDS MUST BE FULLY SYNTHETIC, FULLY WATER SOLUBLE AND FREE OF SULFUR, SILICONE, AND CHLORINE.

DIMENSIONS ARE IN INCHES  
 TOLERANCES:  
 .XX ± .01  
 .XXX ± .005  
 ANGULAR ± 0.5°

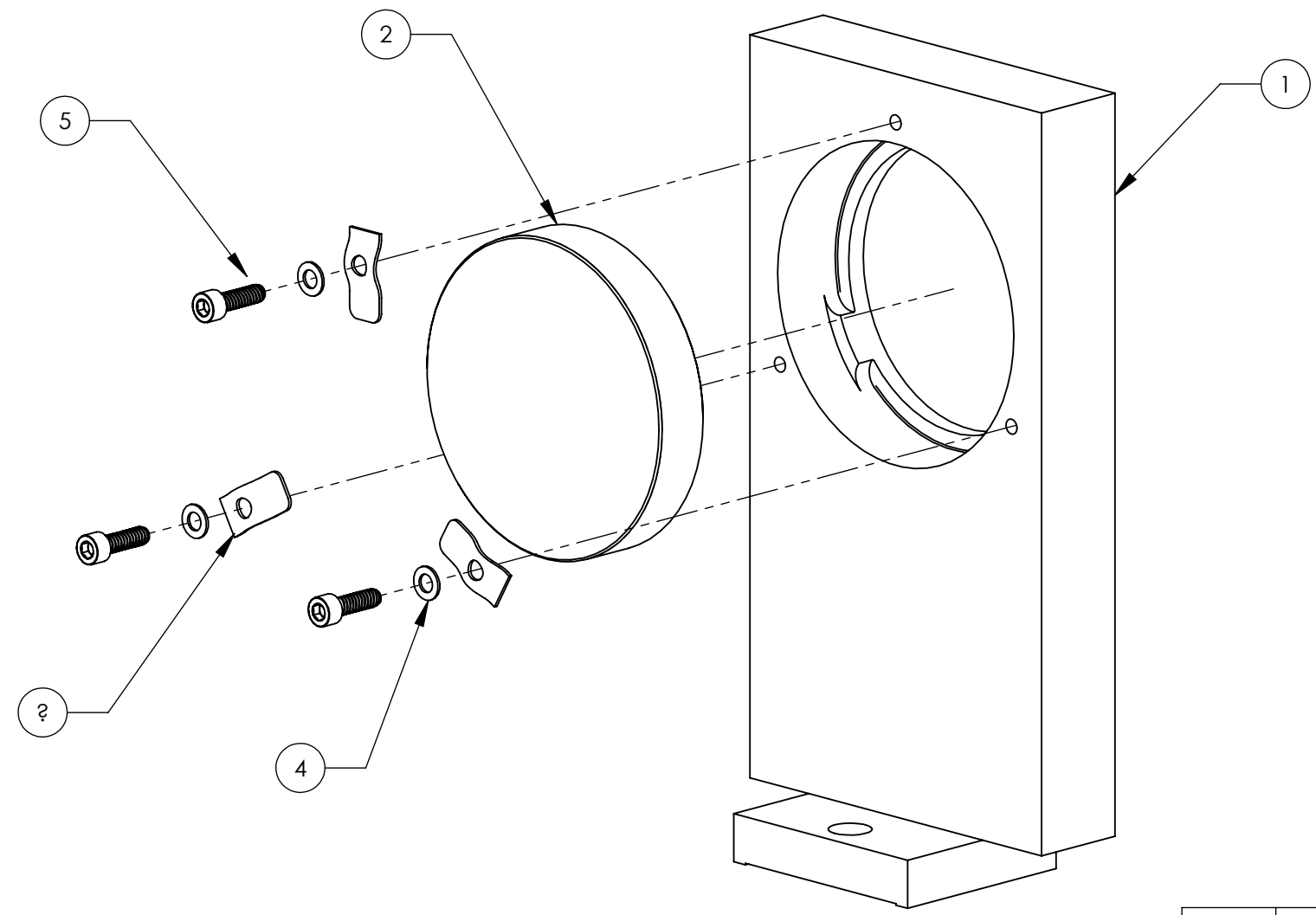
**PARTS LIST**

CALIFORNIA INSTITUTE OF TECHNOLOGY MASSACHUSETTS INSTITUTE OF TECHNOLOGY		PART NAME	
SYSTEM <b>ADVANCED LIGO</b>		SUB-SYSTEM <b>AOS</b>	
DESIGNER	TQ. NGUYEN	20 JUL 2010	SIZE
DRAFTER	TQ. NGUYEN	25 AUG 2010	DWG. NO.
CHECKER	M. SMITH		<b>B</b>
APPROVAL	D. COYNE		<b>D1001963</b>
NEXT ASSY		REV.	
D0900623		v1	
SCALE: 1:2		PROJECTION:	
		SHEET 1 OF 1	

D1001963\_alIGO\_AOS\_Output Baffle ASSY, PART PDM REV: X-012, DRAWING PDM REV: X-010

D1001965\_d1lGO\_AOS\_D101964\_Fixed Mirror Assy, PART PDM REV: X-008, DRAWING PDM REV: X-003

REV.	DATE	DCN #	DRAWING TREE #
v1	08 OCT 2010	E1000563	



ITEM NO.	PART NUMBER	DESCRIPTION	MATERIAL	REQ	SPARE	TOTAL
5	92200A108	Head Cap Screw 300 Series SS, 4-40 Thrd, 3/8" Length, MS 16995-10	18-8 SSSL	3		3
4	-	WASHER, FLAT, #4 (NAS 620-C4L OR EQUIVALENT)	300 SSSL	3		3
3	D1001919	BEAM DUMP MOUNTING CLAMP	304 SSSL	3		3
2	TFP-1064-PW-2025-UV	STEERING MIRROR		1		1
1	D1001966	FIXED MIRROR MOUNT	6061-T6 Al	1		1

**NOTES AND TOLERANCES: (UNLESS OTHERWISE SPECIFIED)**

DIMENSIONS ARE IN  
TOLERANCES:  
.XX ± .02  
.XXX ± .010  
ANGULAR ± 0.5°

1. INTERPRET DRAWING PER ASME Y14.5-1994.  
2. REMOVE ALL SHARP EDGES, R.02 MIN.  
3. DO NOT SCALE FROM DRAWING.  
4. ALL MACHINING FLUIDS MUST BE FULLY SYNTHETIC, FULLY WATER SOLUBLE AND FREE OF SULFUR, SILICONE, AND CHLORINE.

**MATERIAL** -- **FINISH** -- μinch

**SYSTEM** ADVANCED LIGO **SUB-SYSTEM** AOS **PART NAME** FIXED MIRROR ASSY

**DESIGNER** **DRAFTER** MRUIZ 03 AUG 2010 **SIZE** B **DWG. NO.** D1001965 **REV.** v1

**CHECKER** **APPROVAL** **SCALE:** 3:4 **PROJECTION:** **SHEET 1 OF 1**

**NEXT ASSY** D0900623

8 7 6 5 4 3 2 1

D  
C  
B  
A

D  
C  
B  
A

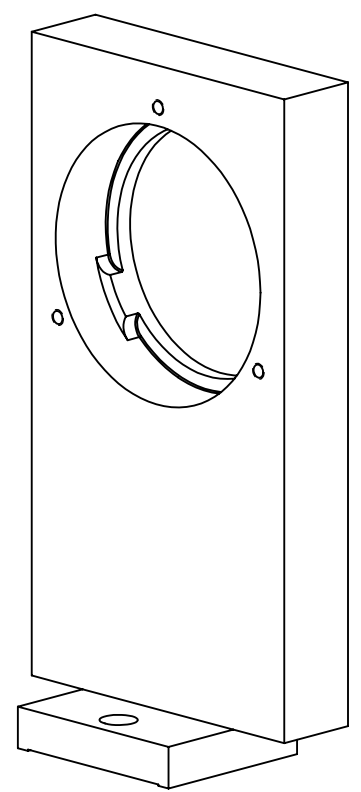
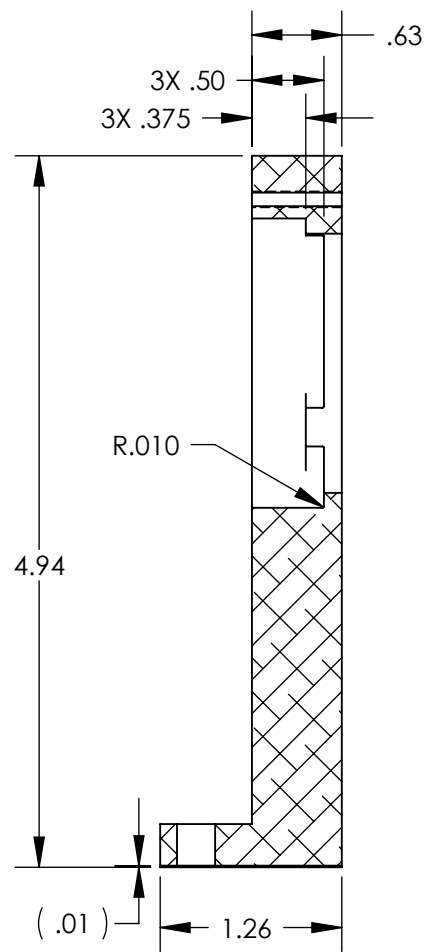
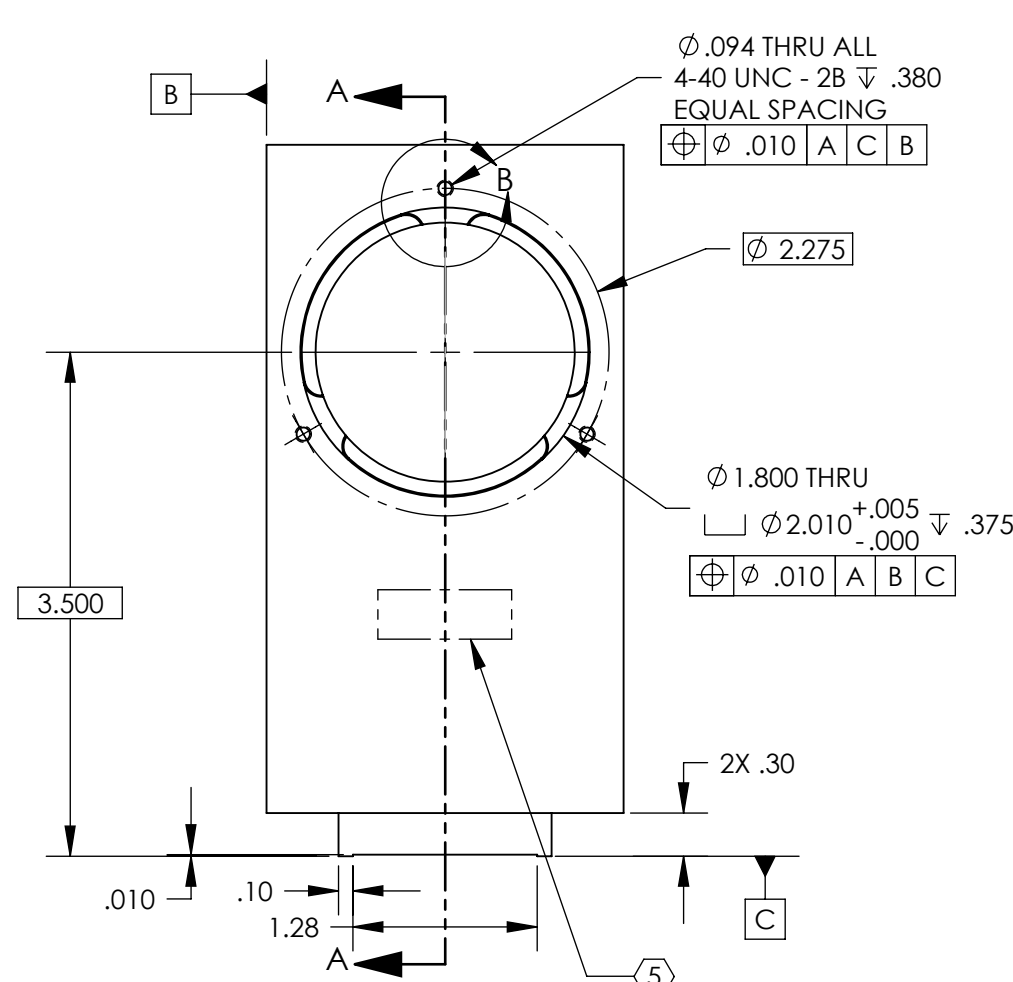
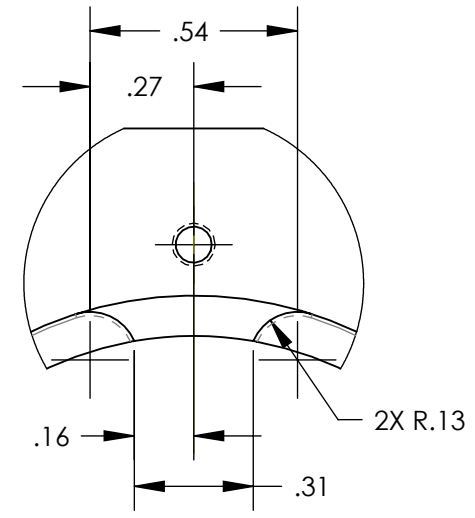
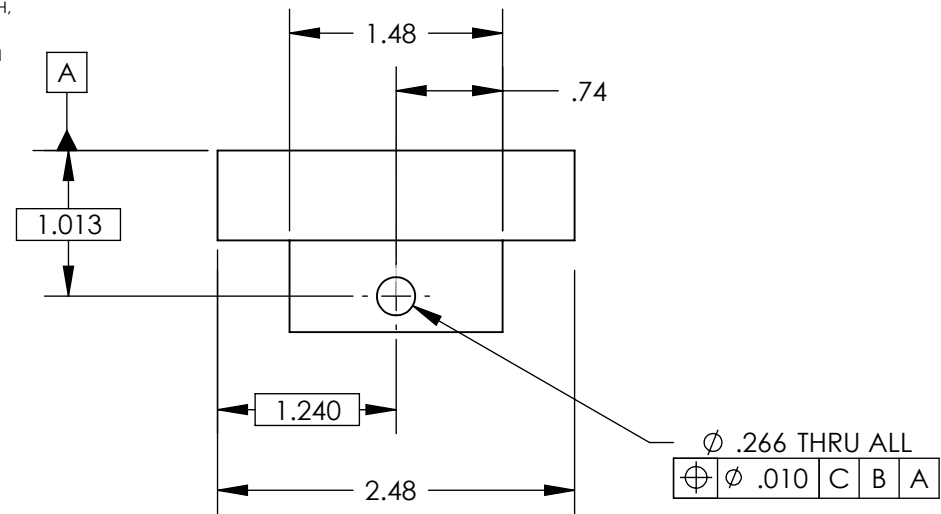
8 7 6 5 4 3 2 1

D1001966\_ALIGO\_AOS\_D1001964\_Fixed Mirror Mount, PART PDM REV: X-000, DRAWING PDM REV: X-004

**NOTES CONTINUED:**  
 5. SCRIBE, ENGRAVE, OR MECHANICALLY STAMP (NO INKS OR DYES) DRAWING PART NUMBER, REVISION (AND VARIANT OR "TYPE" IF APPLICABLE) ON NOTED SURFACE OF PART FOLLOWED ON THE NEXT LINE WITH A THREE DIGIT SERIAL NUMBER. SERIAL NUMBERS START AT 001 FOR THE FIRST ARTICLE AND PROCEED CONSECUTIVELY. USE MINIMUM 0.12" HIGH CHARACTERS, UNLESS THE SIZE OF THE PART DICTATES SMALLER CHARACTERS. A VIBRATORY TOOL MAY BE USED.  
 EXAMPLE: DXXXXXX-VY, TYPE-XX, S/N XXX

6. MACHINE ALL SURFACES TO REMOVE OXIDES AND MILL FINISH. USE OF ABRASIVE REMOVAL TECHNIQUES IS NOT ALLOWED.

7. ALL PARTS SHALL BE MANUFACTURED IN ACCORDANCE WITH LIGO SPECIFICATION E0900364.



**NOTES AND TOLERANCES: (UNLESS OTHERWISE SPECIFIED)**

- INTERPRET DRAWING PER ASME Y14.5-1994.
- REMOVE ALL SHARP EDGES, R.02 MIN.
- DO NOT SCALE FROM DRAWING.
- ALL MACHINING FLUIDS MUST BE FULLY SYNTHETIC, FULLY WATER SOLUBLE AND FREE OF SULFUR, SILICONE, AND CHLORINE.

DIMENSIONS ARE IN  
 TOLERANCES:  
 .XX  $\pm .02$   
 .XXX  $\pm .010$   
 ANGULAR  $\pm .5^\circ$

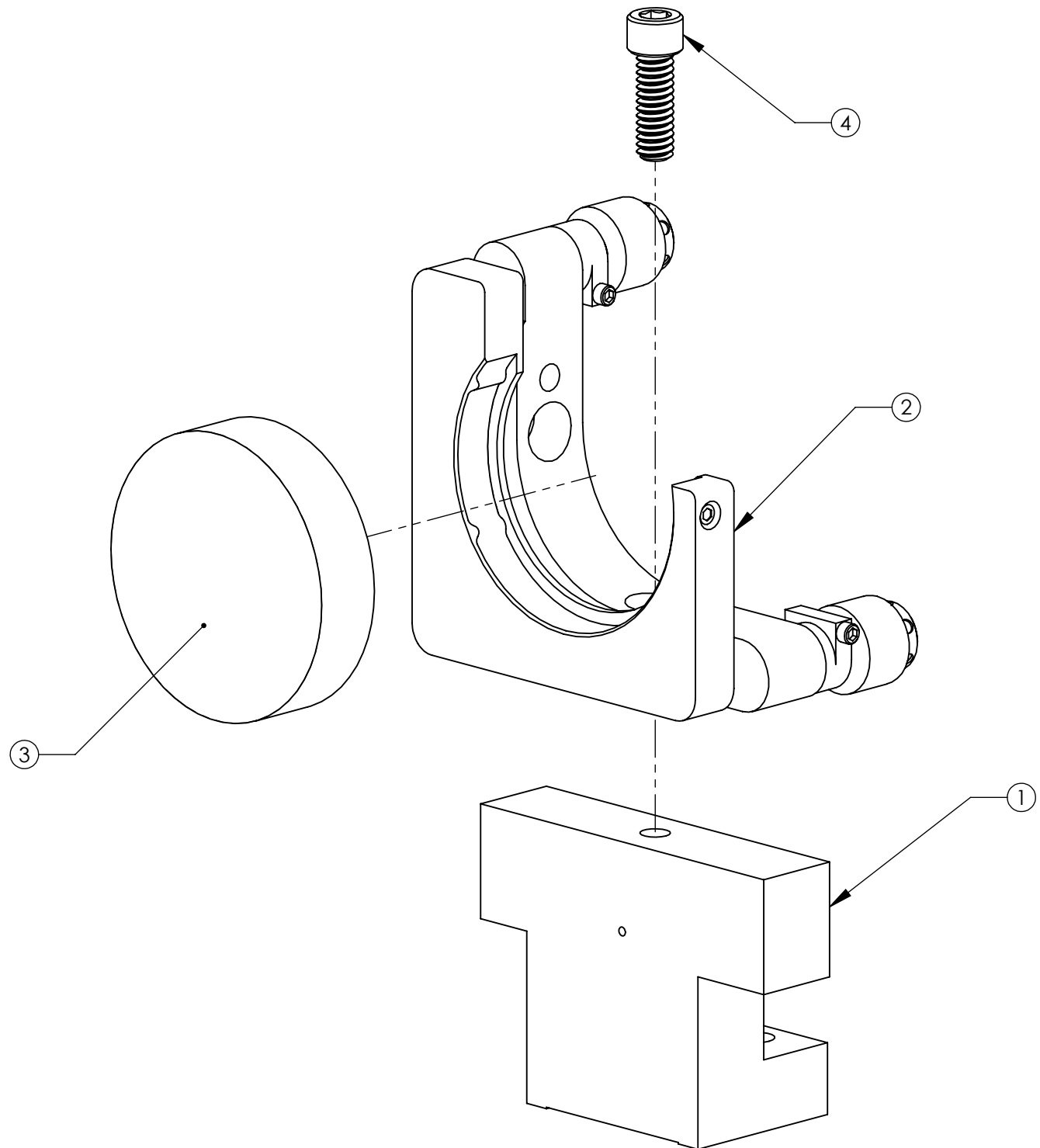
MATERIAL	6061-T6 Al	FINISH	63 $\mu$ inch
----------	------------	--------	---------------

CALIFORNIA INSTITUTE OF TECHNOLOGY MASSACHUSETTS INSTITUTE OF TECHNOLOGY		PART NAME	
SYSTEM ADVANCED LIGO		SUB-SYSTEM AOS	
DESIGNER	MRUIZ	22 AUG 2010	SIZE DWG. NO.
DRAFTER			B
CHECKER			D1001966
APPROVAL			REV. v1
SCALE: 3:4		PROJECTION:	
		SHEET 1 OF 1	

REV.	DATE	DCN #	DRAWING TREE #
v1	08 OCT 2010	E1000563	

D1001967\_d1lgo\_aos\_d1001964\_ixm200\_c2 Mirror Assy, PART PDM REV: X-015, DRAWING PDM REV: X-007

REV.	DATE	DCN #	DRAWING TREE #
v1	08 OCT 2010	E1000563	



ITEM NO.	PART NUMBER	DESCRIPTION	MATERIAL	REQ	SPARE	TOTAL
4	92200A540	SCREW, SHC, 1/4-20 x 3/4, MS16995-50, MC #92200A540	300 SSSL	1		1
3		IXM200_C2 MIRROR	TRANSPARENT GLASS	1		1
2	IXM200 C2 Mirror Mount	IXM200_C2_MIRROR MOUNT	6061-T6 Al	1		1
1	D1001968	IXM200_C2 MIRROR MOUNT	6061-T6 Al	1		1

PARTS LIST

<p><b>NOTES AND TOLERANCES: (UNLESS OTHERWISE SPECIFIED)</b></p> <p>1. INTERPRET DRAWING PER ASME Y14.5-1994.                  2. REMOVE ALL SHARP EDGES, R.02 MIN.                  3. DO NOT SCALE FROM DRAWING.                  4. ALL MACHINING FLUIDS MUST BE FULLY SYNTHETIC, FULLY WATER SOLUBLE AND FREE OF SULFUR, SILICONE, AND CHLORINE.</p>		<p><b>DIMENSIONS ARE IN</b></p> <p>TOLERANCES:                  .XX ± .02                  .XXX ± .010                  ANGULAR ± 0.5°</p>		<p><b>MATERIAL</b> N/A</p>		<p><b>FINISH</b> N/A μinch</p>		<p><b>NEXT ASSY</b> D0900623</p>		<p><b>SCALE</b> 1:1</p>		<p><b>PROJECTION</b></p>		<p><b>SHEET 1 OF 1</b></p>	
<p><b>NOTES AND TOLERANCES: (UNLESS OTHERWISE SPECIFIED)</b></p>				<p><b>SYSTEM</b> CALIFORNIA INSTITUTE OF TECHNOLOGY MASSACHUSETTS INSTITUTE OF TECHNOLOGY</p>				<p><b>PART NAME</b> IXM200_C2 MIRROR ASSY</p>							
<p><b>DESIGNER</b></p>				<p><b>DRAPER</b> MRUIZ 03 AUG 2010</p>				<p><b>SIZE DWG. NO.</b> B D1001967</p>							
<p><b>CHECKER</b></p>				<p><b>APPROVAL</b></p>				<p><b>REV.</b> v1</p>							

8 7 6 5 4 3 2 1

D C B A

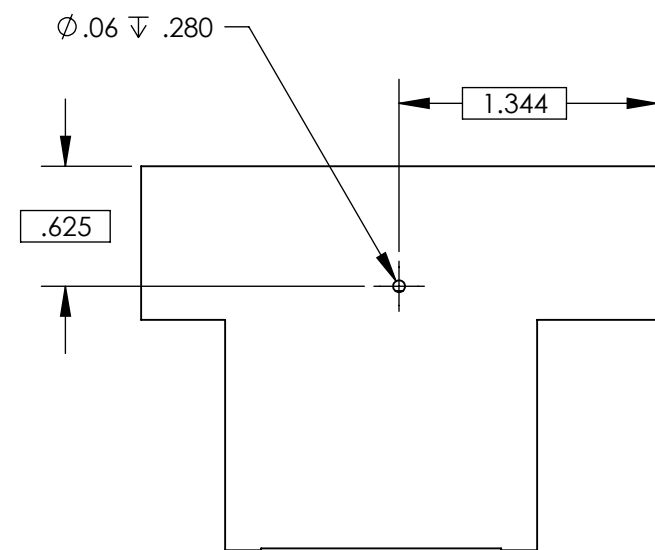
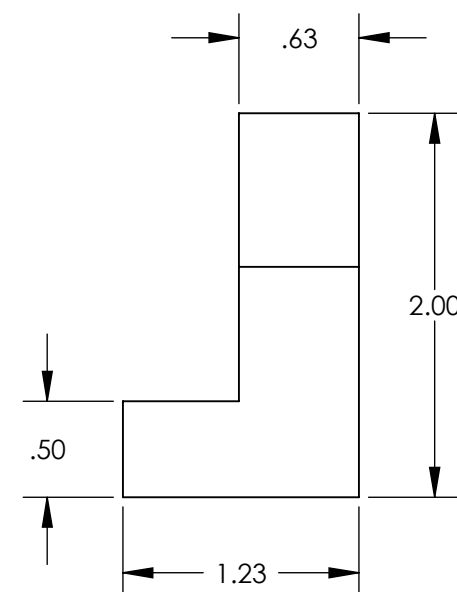
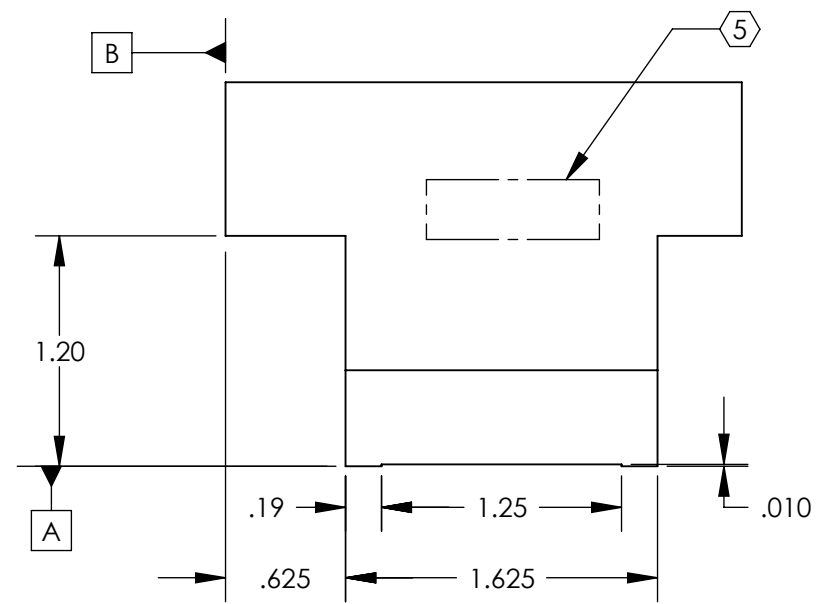
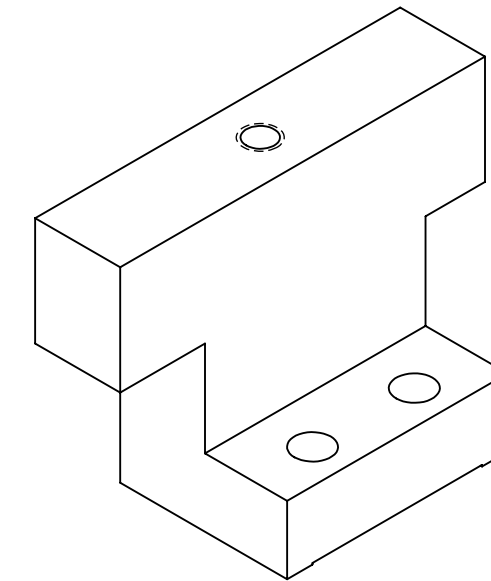
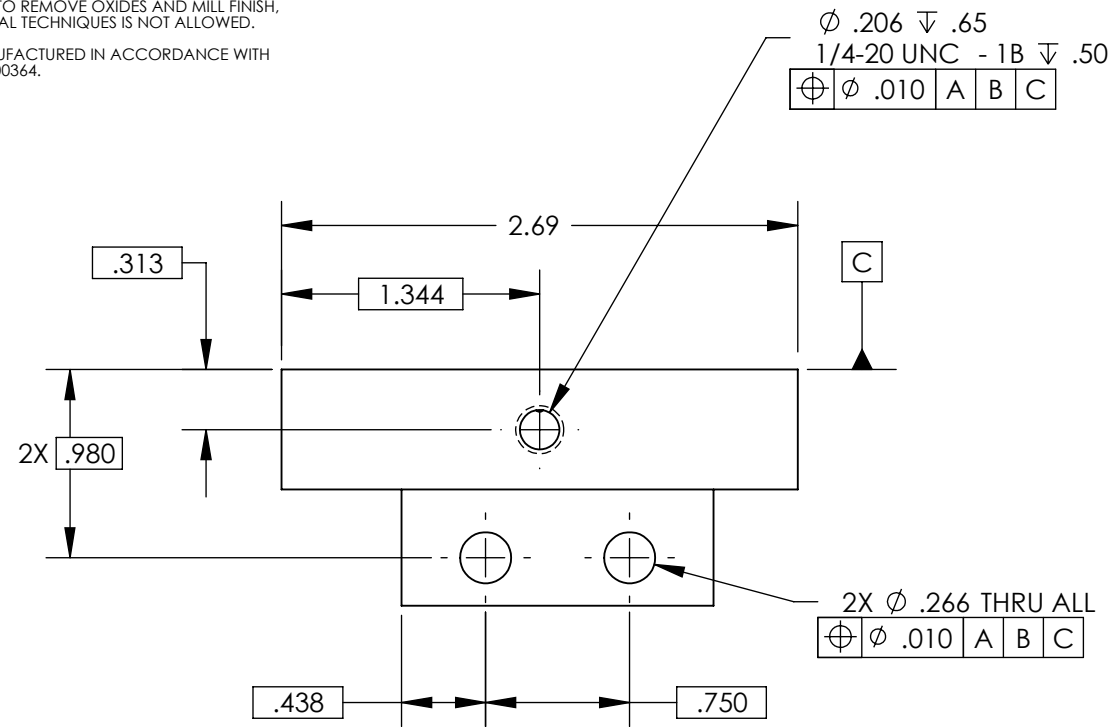
D C B A

8 7 6 5 4 3 2 1

**NOTES CONTINUED:**  
 5. SCRIBE, ENGRAVE, OR MECHANICALLY STAMP (NO INKS OR DYES) DRAWING PART NUMBER, REVISION (AND VARIANT OR "TYPE" IF APPLICABLE) ON NOTED SURFACE OF PART FOLLOWED ON THE NEXT LINE WITH A THREE DIGIT SERIAL NUMBER. SERIAL NUMBERS START AT 001 FOR THE FIRST ARTICLE AND PROCEED CONSECUTIVELY. USE MINIMUM 0.12" HIGH CHARACTERS, UNLESS THE SIZE OF THE PART DICTATES SMALLER CHARACTERS. A VIBRATORY TOOL MAY BE USED.  
 EXAMPLE: DXXXXXX-VY, TYPE-XX, S/N XXX

REV.	DATE	DCN #	DRAWING TREE #
v1	08 OCT 2010	E1000563	

6. MACHINE ALL SURFACES TO REMOVE OXIDES AND MILL FINISH. USE OF ABRASIVE REMOVAL TECHNIQUES IS NOT ALLOWED.  
 7. ALL PARTS SHALL BE MANUFACTURED IN ACCORDANCE WITH LIGO SPECIFICATION E0900364.



NOTES AND TOLERANCES: (UNLESS OTHERWISE SPECIFIED)				LIGO CALIFORNIA INSTITUTE OF TECHNOLOGY MASSACHUSETTS INSTITUTE OF TECHNOLOGY		PART NAME	
DIMENSIONS ARE IN TOLERANCES: .XX ± .02 .XXX ± .010 ANGULAR ± .5°				1. INTERPRET DRAWING PER ASME Y14.5-1994. 2. REMOVE ALL SHARP EDGES, R.02 MIN. 3. DO NOT SCALE FROM DRAWING. 4. ALL MACHINING FLUIDS MUST BE FULLY SYNTHETIC, FULLY WATER SOLUBLE AND FREE OF SULFUR, SILICONE, AND CHLORINE.		IXM200_C2 MIRROR MOUNT	
MATERIAL		FINISH		NEXT ASSY		DESIGNER	SIZE DWG. NO.
6061-T6 Al		63 μinch		D0900623		MRUIZ	B
						03 AUG 2010	D1001968
							REV. v1
							SCALE: 1:1 PROJECTION: SHEET 1 OF 1

D1001968\_d1lgo\_AOS\_D1001967\_IXM200\_C2 Mirror Mount, PART PDM REV: X-007, DRAWING PDM REV: X-008

D1002112\_Magnetic Plate Mounting Back (Lowered) Bracket, PART PDM REV: X-006, DRAWING PDM REV: X-009

**NOTES CONTINUED:**  
 5. SCRIBE, ENGRAVE, OR MECHANICALLY STAMP (NO INKS OR DYES) DRAWING PART NUMBER, REVISION (AND VARIANT OR "TYPE" IF APPLICABLE) ON NOTED SURFACE OF PART FOLLOWED ON THE NEXT LINE WITH A THREE DIGIT SERIAL NUMBER. SERIAL NUMBERS START AT 001 FOR THE FIRST ARTICLE AND PROCEED CONSECUTIVELY. USE MINIMUM 0.12" HIGH CHARACTERS, UNLESS THE SIZE OF THE PART DICTATES SMALLER CHARACTERS. A VIBRATORY TOOL MAY BE USED.  
 EXAMPLE: DXXXXXX-VY, TYPE-XX, S/N XXX

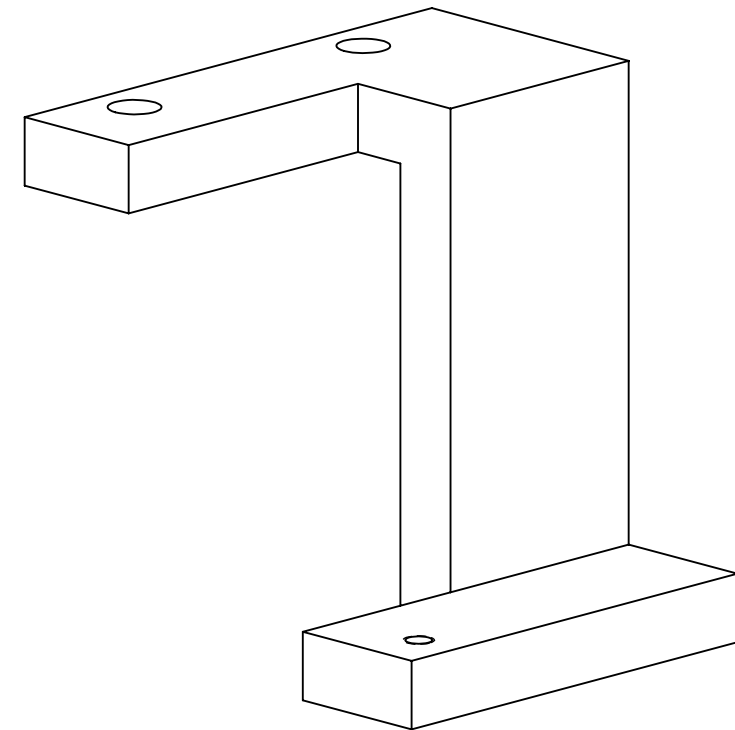
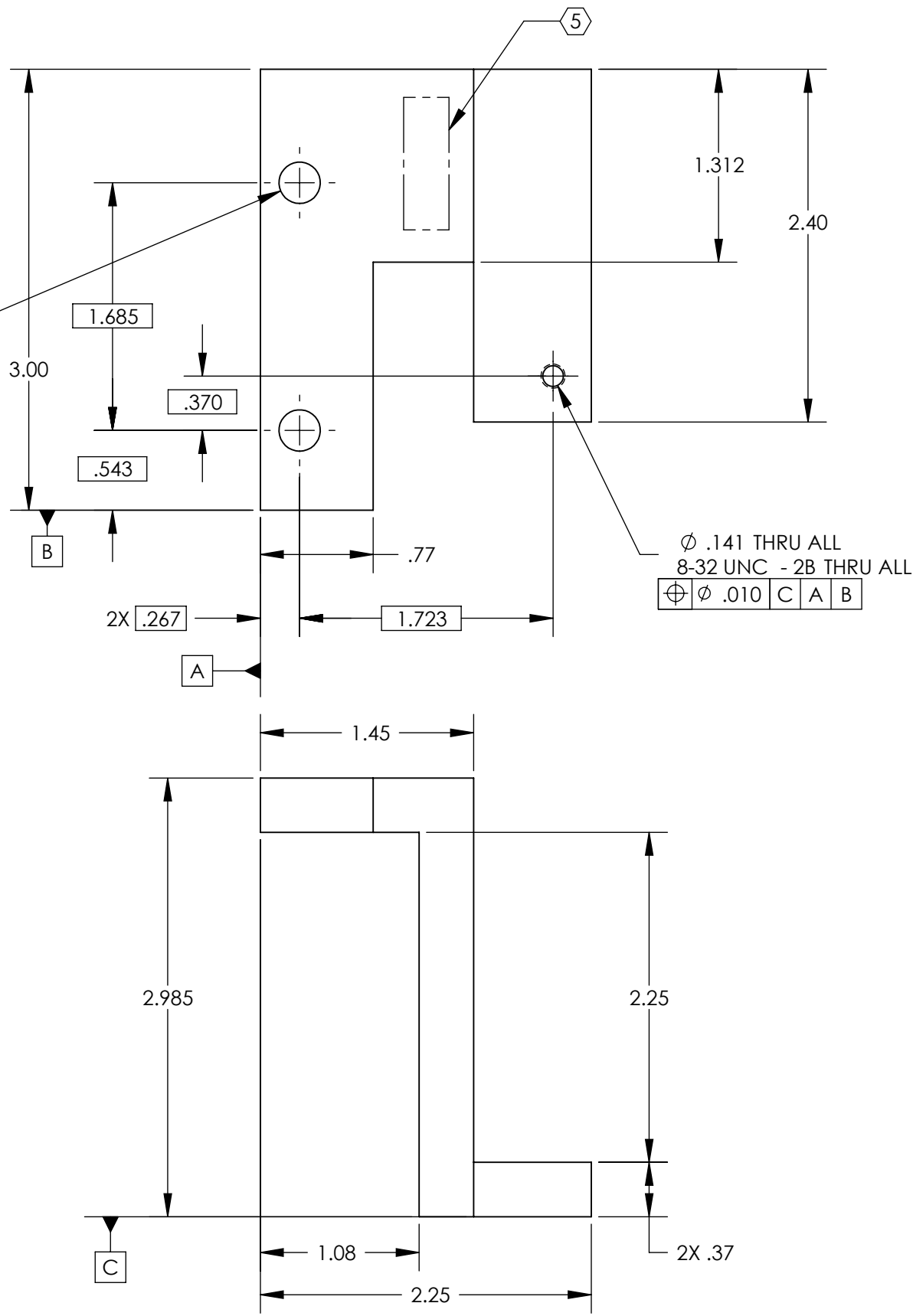
6. MACHINE ALL SURFACES TO REMOVE OXIDES AND MILL FINISH. USE OF ABRASIVE REMOVAL TECHNIQUES IS NOT ALLOWED.

7. ALL PARTS SHALL BE MANUFACTURED IN ACCORDANCE WITH LIGO SPECIFICATION E0900364.

REV.	DATE	DCN #	DRAWING TREE #
v1	07 OCT 2010	E1000563	

2X  $\varnothing$  .281 THRU ALL  
 $\oplus \varnothing$  .010 C A B

$\varnothing$  .141 THRU ALL  
 8-32 UNC - 2B THRU ALL  
 $\oplus \varnothing$  .010 C A B



**NOTES AND TOLERANCES: (UNLESS OTHERWISE SPECIFIED)**

DIMENSIONS ARE IN  
 TOLERANCES:  
 .XX  $\pm$  .02  
 .XXX  $\pm$  .010  
 ANGULAR  $\pm$  .5°

1. INTERPRET DRAWING PER ASME Y14.5-1994.  
 2. REMOVE ALL SHARP EDGES, R.02 MIN.  
 3. DO NOT SCALE FROM DRAWING.  
 4. ALL MACHINING FLUIDS MUST BE FULLY SYNTHETIC, FULLY WATER SOLUBLE AND FREE OF SULFUR, SILICONE, AND CHLORINE.

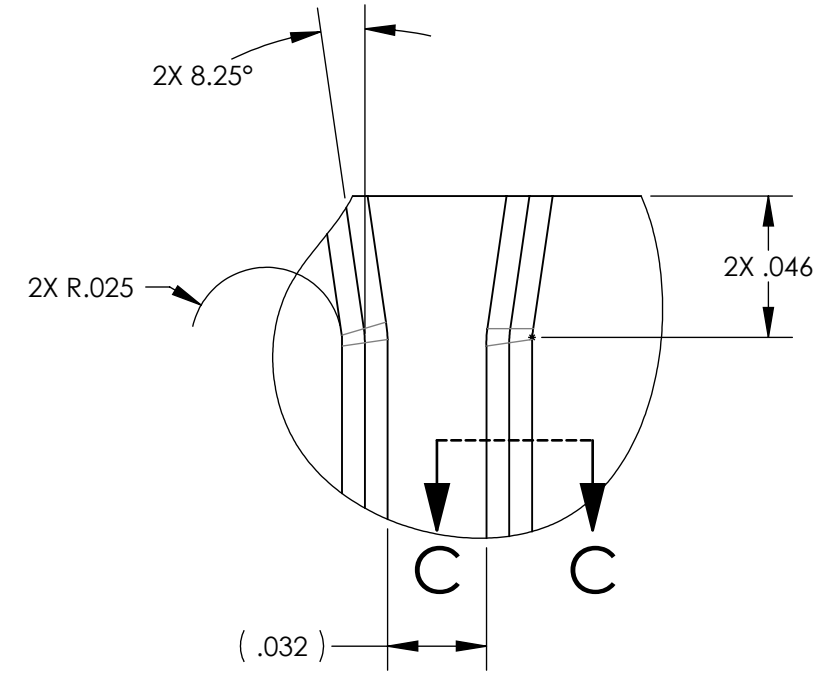
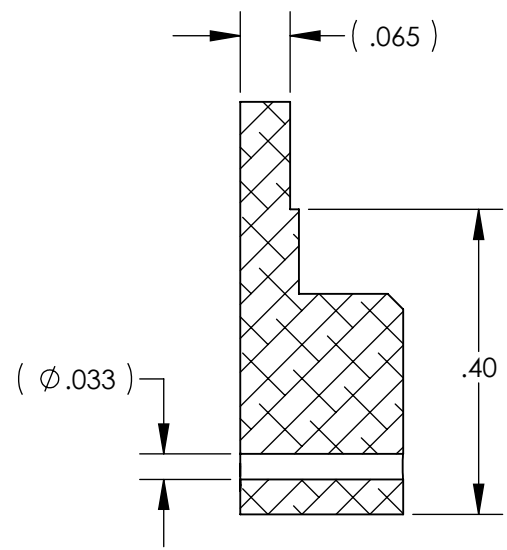
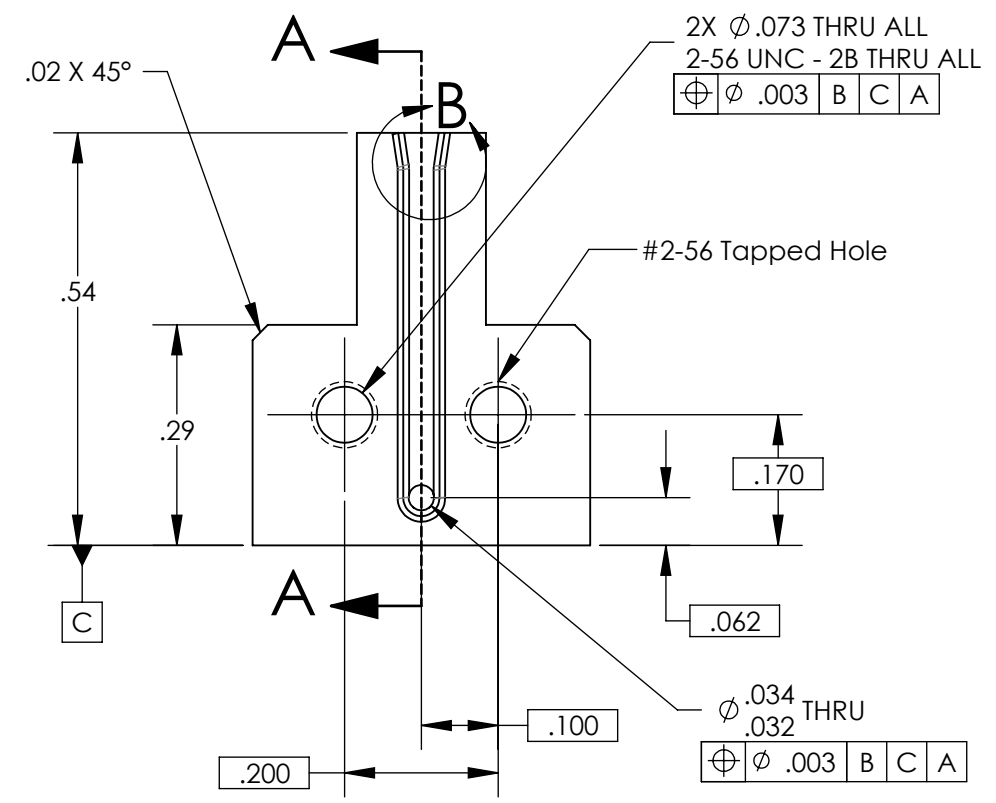
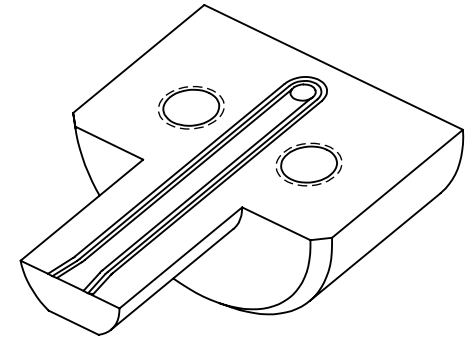
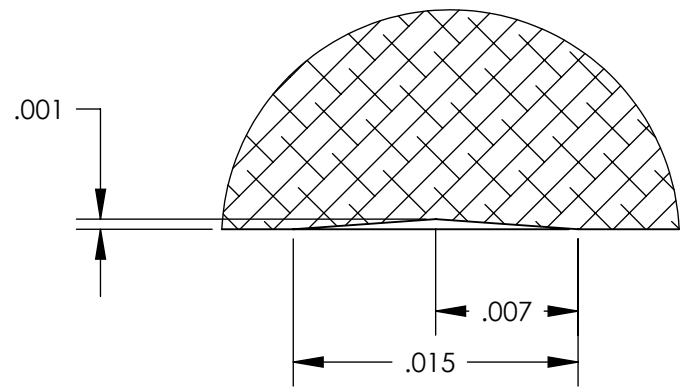
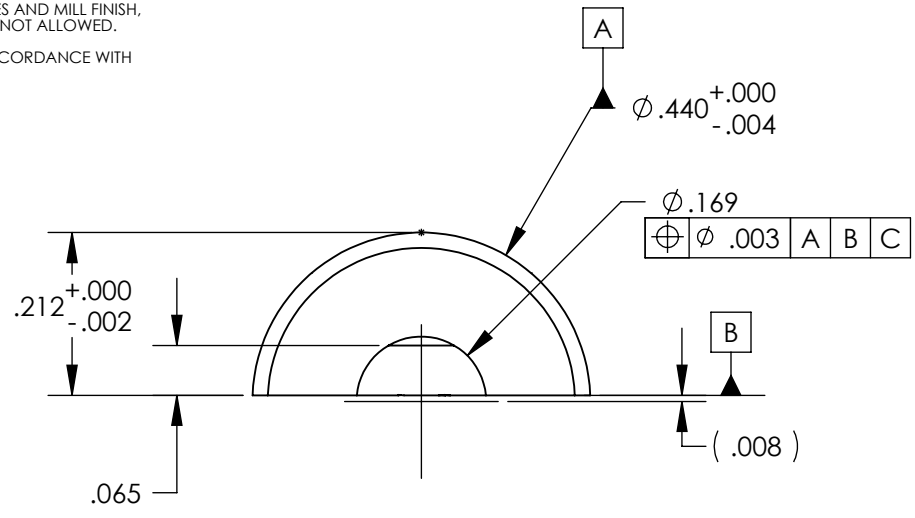
MATERIAL 6061-T6 Al FINISH 63  $\mu$ inch

CALIFORNIA INSTITUTE OF TECHNOLOGY MASSACHUSETTS INSTITUTE OF TECHNOLOGY		PART NAME		MAGNETIC PLATE MOUNTING BACK (LOWER) BRACKET	
SYSTEM	ADVANCED LIGO	SUB-SYSTEM	AOS	DESIGNER	
				DRAFTER	MRUIZ
				CHECKER	
				APPROVAL	
DATE	16 AUG 2010	SIZE	DWG. NO.	D1002112	REV.
		B			v1
NEXT ASSY		D0900048		SCALE:	1:1
		PROJECTION:		SHEET 1 OF 1	

**NOTES CONTINUED:**  
 5. SCRIBE, ENGRAVE, OR MECHANICALLY STAMP (NO DYES OR INKS) A UNIQUE THREE DIGIT SERIAL NUMBER & REVISION NUMBER ON EACH PART. SERIAL NUMBERS START AT 001 FOR THE FIRST ARTICLE AND PROCEED CONSECUTIVELY. BAG AND TAG PARTS WITH THEIR DRAWING PART NUMBER, REVISION, VARIANT OR "TYPE" (IF APPLICABLE), AND QUANTITY. IF PARTS ARE TOO SMALL TO SCRIBE, BAGGING AND TAGGING ALONE IS SUFFICIENT.  
 EXAMPLE (PART): 001-v1  
 EXAMPLE (TAG): DXXXXXX-VY, TYPE-XX, QTY: TBD

REV.	DATE	DCN #	DRAWING TREE #
v1	07 OCT 2010	E1000563	

D 6. MACHINE ALL SURFACES TO REMOVE OXIDES AND MILL FINISH. USE OF ABRASIVE REMOVAL TECHNIQUES IS NOT ALLOWED.  
 7. ALL PARTS SHALL BE MANUFACTURED IN ACCORDANCE WITH LIGO SPECIFICATION E0900364.



**NOTES AND TOLERANCES: (UNLESS OTHERWISE SPECIFIED)**  
 1. INTERPRET DRAWING PER ASME Y14.5-1994.  
 2. REMOVE ALL SHARP EDGES, R.02 MIN.  
 3. DO NOT SCALE FROM DRAWING.  
 4. ALL MACHINING FLUIDS MUST BE FULLY SYNTHETIC, FULLY WATER SOLUBLE AND FREE OF SULFUR, SILICONE, AND CHLORINE.  
 DIMENSIONS ARE IN  
 TOLERANCES:  
 .XX ± .005  
 .XXX ± .002  
 ANGULAR ± .5°

**LIGO** CALIFORNIA INSTITUTE OF TECHNOLOGY  
 MASSACHUSETTS INSTITUTE OF TECHNOLOGY  
 SYSTEM: **ADVANCED LIGO** SUB-SYSTEM: **AOS**  
 MATERIAL: 304, 316 OR 302 SSSL FINISH: 63 μinch  
 NEXT ASSY: D0900586

PART NAME		MUSIC WIRE SPLIT CLAMP 3	
DESIGNER	M.RUIZ	DATE	24 SEP 2010
DRAFTER		SIZE	DWG. NO. <b>B</b>
CHECKER			<b>D1002168</b>
APPROVAL		REV.	v1
SCALE: 4:1		PROJECTION:  SHEET 1 OF 1	

D1002168\_AdlIGO\_AOS\_Music Wire Split Clamp 3, PART PDM REV: X-008, DRAWING PDM REV: X-007

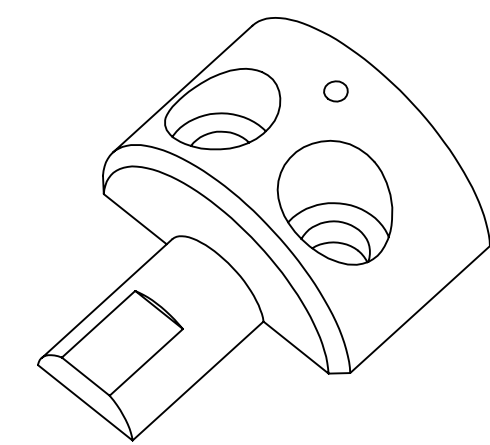
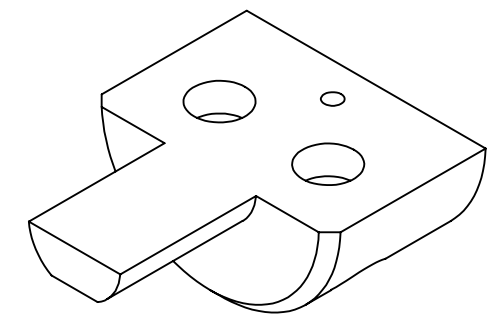
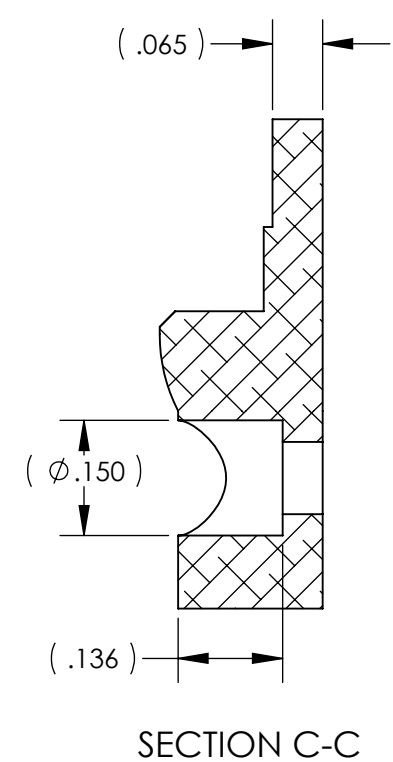
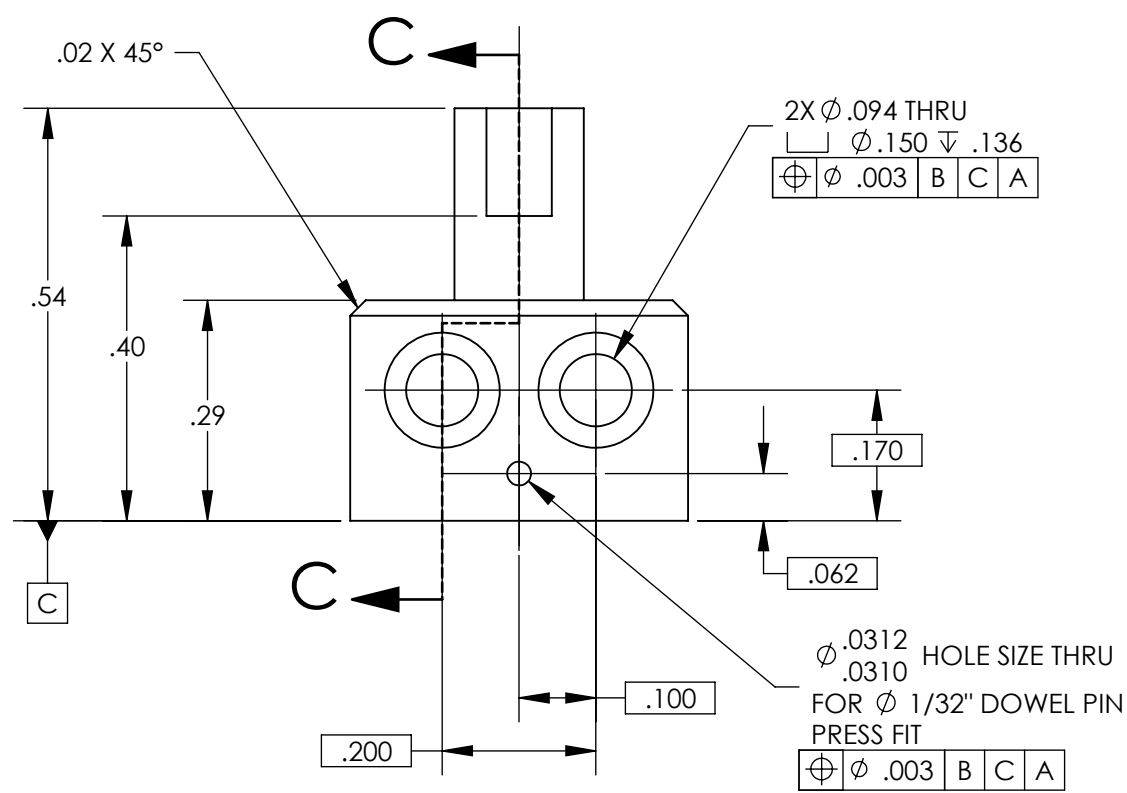
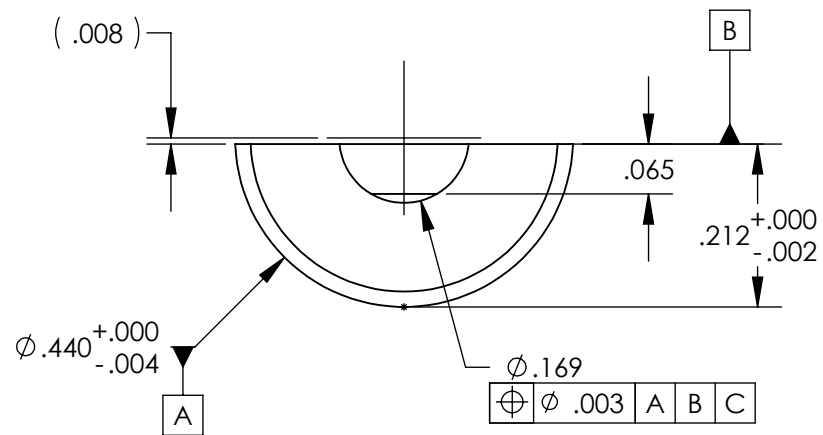
NOTES CONTINUED:

5. SCRIBE, ENGRAVE, OR MECHANICALLY STAMP (NO DYES OR INKS) A UNIQUE THREE DIGIT SERIAL NUMBER & REVISION NUMBER ON EACH PART. SERIAL NUMBERS START AT 001 FOR THE FIRST ARTICLE AND PROCEED CONSECUTIVELY. BAG AND TAG PARTS WITH THEIR DRAWING PART NUMBER, REVISION, VARIANT OR "TYPE" (IF APPLICABLE), AND QUANTITY. IF PARTS ARE TOO SMALL TO SCRIBE, BAGGING AND TAGGING ALONE IS SUFFICIENT.  
 EXAMPLE (PART): 001-v1  
 EXAMPLE (TAG): DXXXXXX-VY, TYPE-XX, QTY: TBD

D 6. MACHINE ALL SURFACES TO REMOVE OXIDES AND MILL FINISH. USE OF ABRASIVE REMOVAL TECHNIQUES IS NOT ALLOWED.

7. ALL PARTS SHALL BE MANUFACTURED IN ACCORDANCE WITH LIGO SPECIFICATION E0900364.

REV.	DATE	DCN #	DRAWING TREE #
v1	07 OCT 2010	E1000563	



D1002169\_AdlIGO\_AOS\_D0900586\_Music Wire Split Clamp 4, PART PDM REV: X-002, DRAWING PDM REV: X-007

NOTES AND TOLERANCES: (UNLESS OTHERWISE SPECIFIED)				LIGO CALIFORNIA INSTITUTE OF TECHNOLOGY MASSACHUSETTS INSTITUTE OF TECHNOLOGY		PART NAME	
DIMENSIONS ARE IN TOLERANCES: .XX ± .005 .XXX ± .002 ANGULAR ± .5°				1. INTERPRET DRAWING PER ASME Y14.5-1994. 2. REMOVE ALL SHARP EDGES, R.02 MIN. 3. DO NOT SCALE FROM DRAWING. 4. ALL MACHINING FLUIDS MUST BE FULLY SYNTHETIC, FULLY WATER SOLUBLE AND FREE OF SULFUR, SILICONE, AND CHLORINE.		<b>MUSIC WIRE SPLIT CLAMP 4</b>	
MATERIAL 304, 316 OR 302 SSSL		FINISH 63 μinch		SYSTEM ADVANCED LIGO		SUB-SYSTEM AOS	
NEXT ASSY D0900586				DESIGNER M.RUIZ		DATE 24 SEP 2010	
				CHECKER		SIZE DWG. NO. <b>B D1002169</b>	
				APPROVAL		REV. v1	
				SCALE: 4:1		PROJECTION:	
						SHEET 1 OF 1	

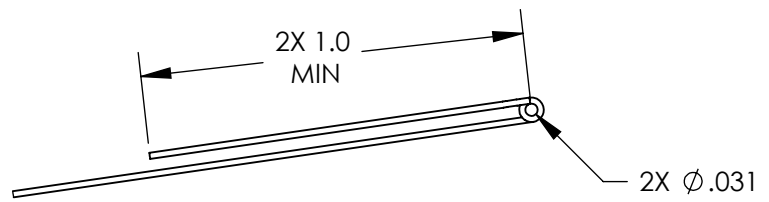


8 7 6 5 4 3 2 1

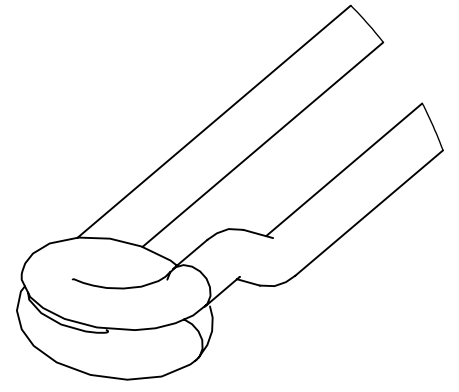
**NOTES CONTINUED:**  
 5. SCRIBE, ENGRAVE, OR MECHANICALLY STAMP (NO DYES OR INKS) A UNIQUE THREE DIGIT SERIAL NUMBER & REVISION NUMBER ON EACH PART. SERIAL NUMBERS START AT 001 FOR THE FIRST ARTICLE AND PROCEED CONSECUTIVELY. BAG AND TAG PARTS WITH THEIR DRAWING PART NUMBER, REVISION, VARIANT OR "TYPE" (IF APPLICABLE), AND QUANTITY. IF PARTS ARE TOO SMALL TO SCRIBE, BAGGING AND TAGGING ALONE IS SUFFICIENT.  
 EXAMPLE (PART): 001-v1  
 EXAMPLE (TAG): DXXXXXX-VY, TYPE-XX, QTY: TBD

REV.	DATE	DCN #	DRAWING TREE #
v1	07 OCT 2010	E1000563	

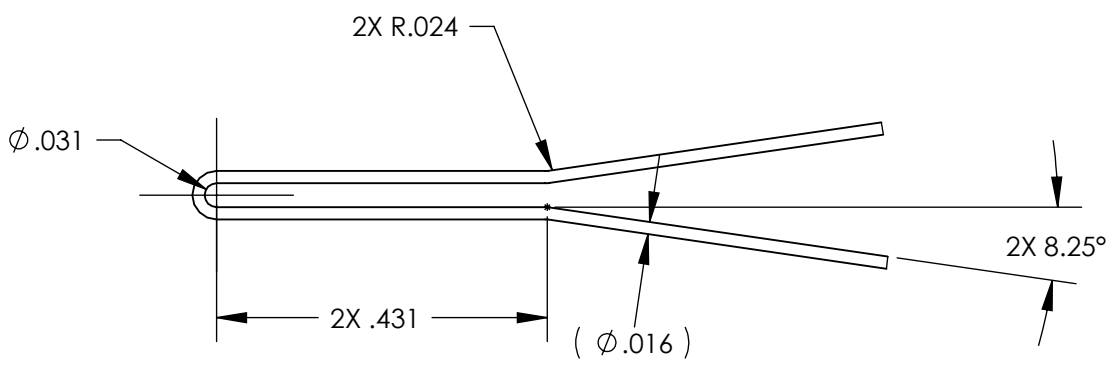
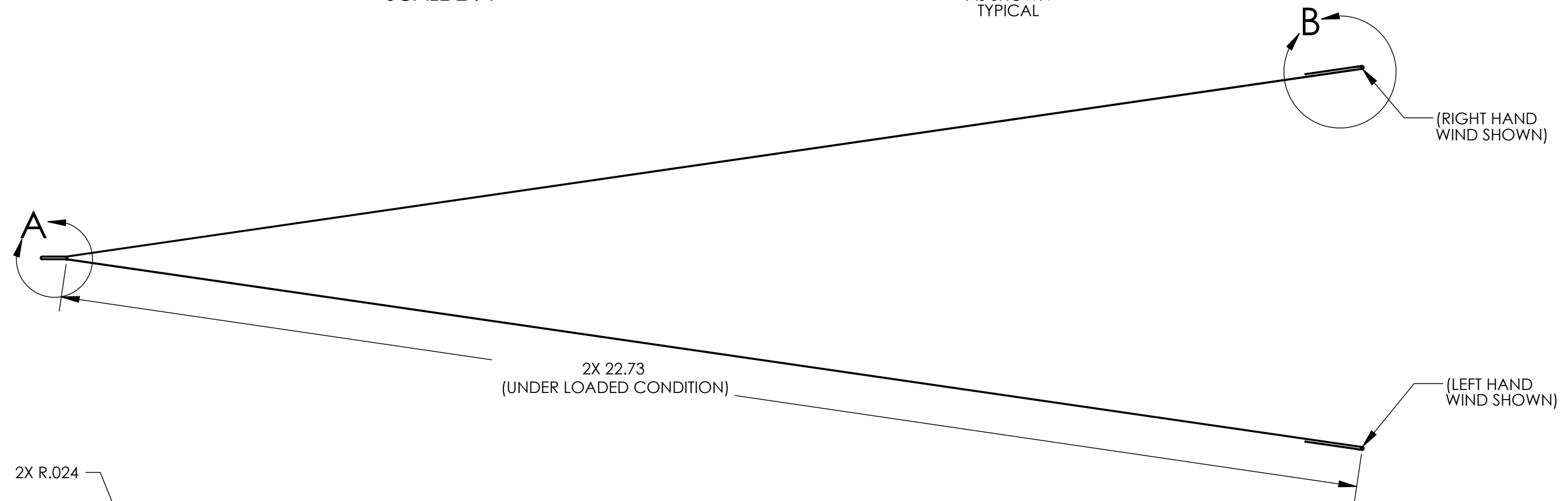
6. MACHINE ALL SURFACES TO REMOVE OXIDES AND MILL FINISH. USE OF ABRASIVE REMOVAL TECHNIQUES IS NOT ALLOWED.  
 7. ALL PARTS SHALL BE MANUFACTURED IN ACCORDANCE WITH LIGO SPECIFICATION E0900364.



DETAIL B  
SCALE 2 : 1



2 COILS WIND  
AS SHOWN  
TYPICAL



DETAIL A  
SCALE 4 : 1

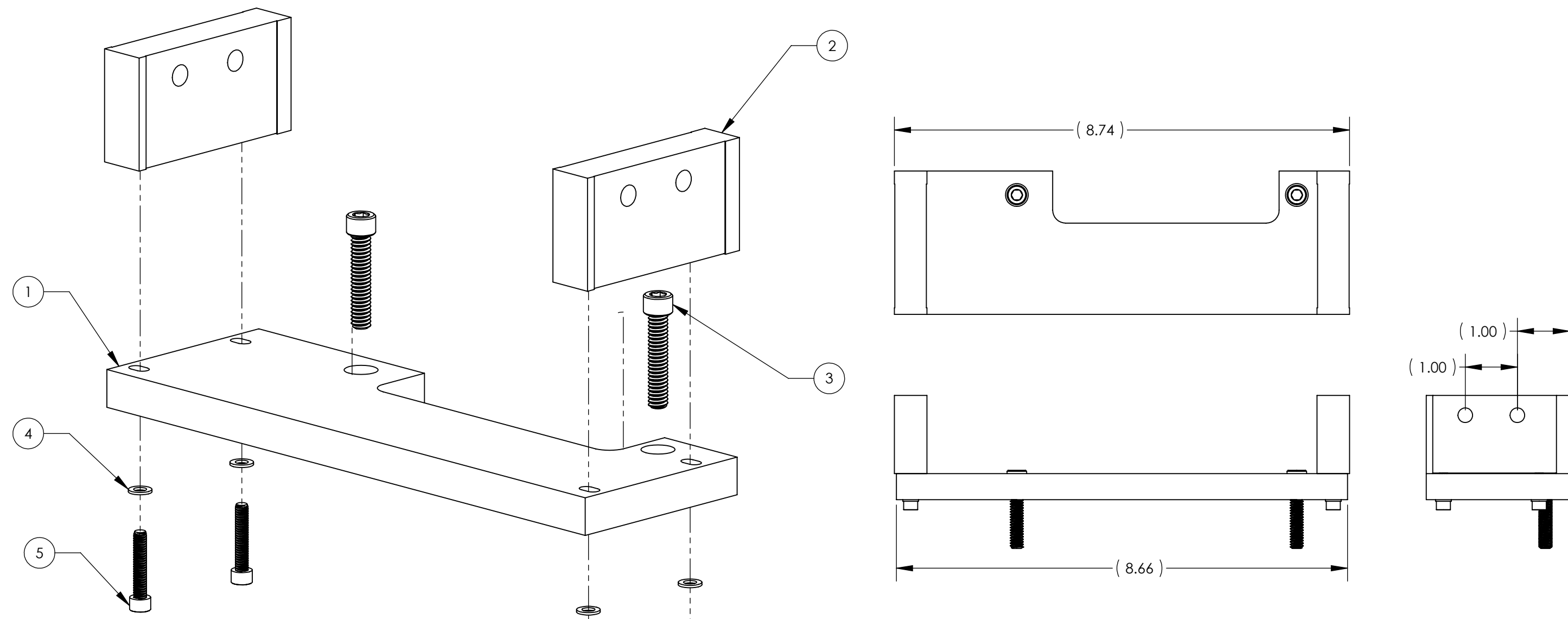
NOTES AND TOLERANCES: (UNLESS OTHERWISE SPECIFIED)				LIGO CALIFORNIA INSTITUTE OF TECHNOLOGY MASSACHUSETTS INSTITUTE OF TECHNOLOGY		PART NAME	
DIMENSIONS ARE IN TOLERANCES: .XX ± .02 .XXX ± .010 ANGULAR ± .5°				1. INTERPRET DRAWING PER ASME Y14.5-1994. 2. REMOVE ALL SHARP EDGES, R.02 MIN. 3. DO NOT SCALE FROM DRAWING. 4. ALL MACHINING FLUIDS MUST BE FULLY SYNTHETIC, FULLY WATER SOLUBLE AND FREE OF SULFUR, SILICONE, AND CHLORINE.		LOWER MUSIC WIRE 2	
						MATERIAL STEEL MUSIC WIRE FINISH	
				SYSTEM ADVANCED LIGO SUB-SYSTEM AOS NEXT ASSY D0900587		SIZE DWG. NO. B D1002170 REV. v1	
						SCALE: 1:2 PROJECTION: SHEET 1 OF 1	

D1002170\_ALIGO\_AOS\_D0900587\_Lower Music Wire 2, PART PDM REV: X-008, DRAWING PDM REV: X-006

8 7 6 5 4 3 2 1

D1002256\_AdlIGO\_AOS\_D0900136\_Earthquake Crossbar\_In Assy, PART PDM REV: X-004, DRAWING PDM REV: X-003

REV.	DATE	DCN #	DRAWING TREE #
v1	08 OCT 2010	E1000563	



ITEM NO.	PART NUMBER	DESCRIPTION	MATERIAL	REQ	SPARE	TOTAL
5	92200A198	SCREW, SHC, 8-32 X .875	300 SSTL	4		4
4	NAS 620-C8	WASHER, FLAT, #8 (NAS 620-C8 OR EQUIVALENT)	300 SSTL	4		4
3	92200A540	SCREW, SHC, 1/4-20 x 1 1/4, MS16995-53, MC #92200A544	300 SSTL	2		2
2	D0900169	CROSSBAR SIDE	6061-T6 Al	2		2
1	D1002257	CROSSBAR PLATE_IN	6061-T6 Al	1		1

**NOTES AND TOLERANCES: (UNLESS OTHERWISE SPECIFIED)**

1. INTERPRET DRAWING PER ASME Y14.5-1994.  
 2. REMOVE ALL SHARP EDGES, R.02 MIN.  
 3. DO NOT SCALE FROM DRAWING.  
 4. ALL MACHINING FLUIDS MUST BE FULLY SYNTHETIC, FULLY WATER SOLUBLE AND FREE OF SULFUR, SILICONE, AND CHLORINE.

DIMENSIONS ARE IN  
 TOLERANCES:  
 .XX ±  
 .XXX ±  
 ANGULAR ± °

MATERIAL: -- FINISH: -- μinch

**LIGO** CALIFORNIA INSTITUTE OF TECHNOLOGY  
 MASSACHUSETTS INSTITUTE OF TECHNOLOGY

SYSTEM: **ADVANCED LIGO** SUB-SYSTEM: **AOS**

PART NAME: **EARTHQUAKE CROSSBAR\_IN ASSY**

DESIGNER: MRUIZ DATE: 30 AUG 2010  
 DRAFTER: APPROVAL:   
 CHECKER:   
 APPROVAL:   
 NEXT ASSY: **D0900136**

SCALE: 3:4 PROJECTION: SHEET 1 OF 1

REV. **D1002256** v1

8 7 6 5 4 3 2 1

D C B A

D C B A

8 7 6 5 4 3 2 1

8 7 6 5 4 3 2 1

**NOTES CONTINUED:**  
 5. SCRIBE, ENGRAVE, OR MECHANICALLY STAMP (NO INKS OR DYES) DRAWING PART NUMBER, REVISION (AND VARIANT OR "TYPE" IF APPLICABLE) ON NOTED SURFACE OF PART FOLLOWED ON THE NEXT LINE WITH A THREE DIGIT SERIAL NUMBER. SERIAL NUMBERS START AT 001 FOR THE FIRST ARTICLE AND PROCEED CONSECUTIVELY. USE MINIMUM 0.12" HIGH CHARACTERS, UNLESS THE SIZE OF THE PART DICTATES SMALLER CHARACTERS. A VIBRATORY TOOL MAY BE USED.  
 EXAMPLE: DXXXXXX-VY, TYPE-XX, S/N XXX

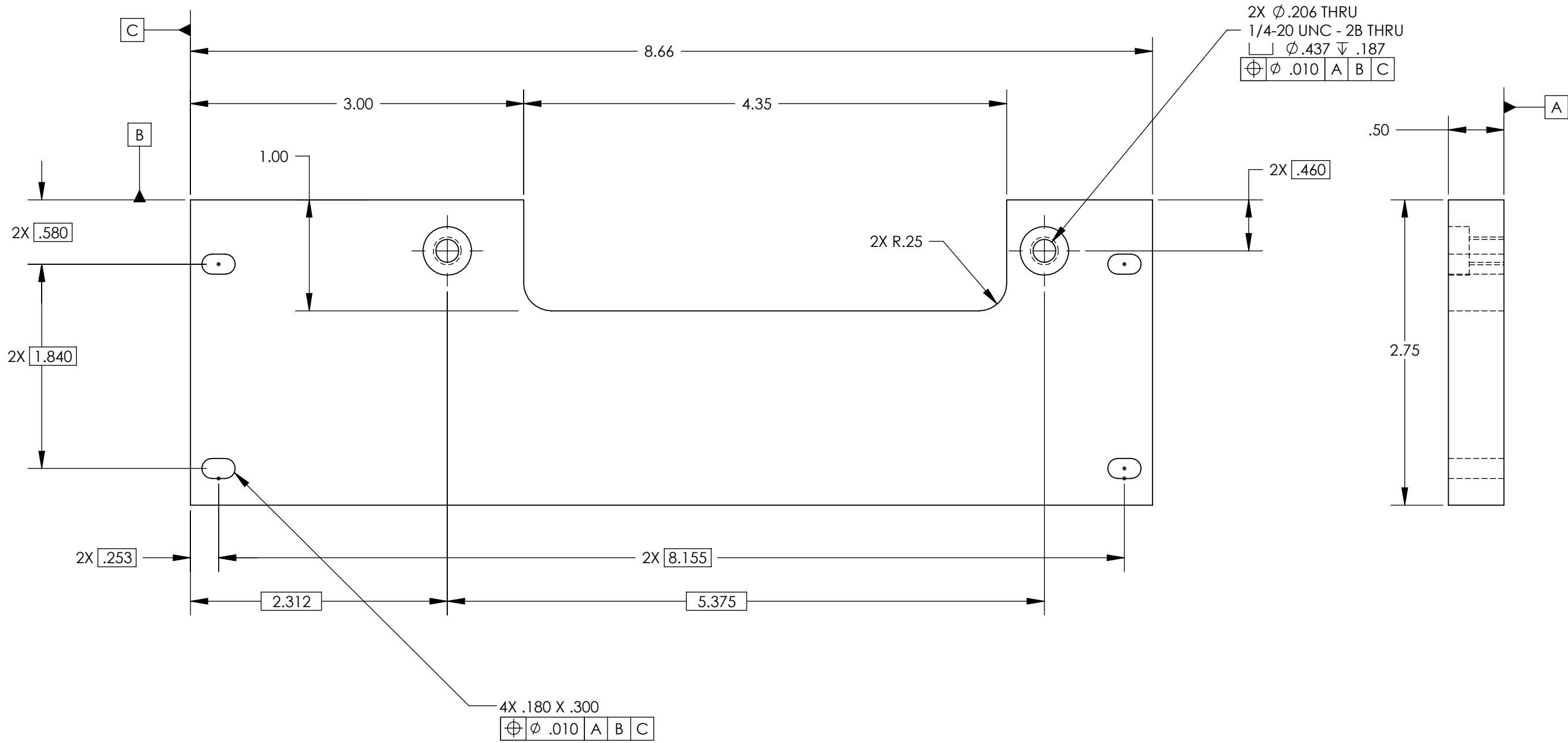
6. MACHINE ALL SURFACES TO REMOVE OXIDES AND MILL FINISH, USE OF ABRASIVE REMOVAL TECHNIQUES IS NOT ALLOWED.

7. ALL PARTS SHALL BE MANUFACTURED IN ACCORDANCE WITH LIGO SPECIFICATION E0900364.

REV.	DATE	DCN #	DRAWING TREE #
v1	08 OCT 2010	E1000563	

D  
C  
B  
A

D  
C  
B  
A



D1002257\_ALIGO\_AOS\_D100256\_Crossbar Plate\_In, PART PDM REV: X-005, DRAWING PDM REV: X-009

NOTES AND TOLERANCES: (UNLESS OTHERWISE SPECIFIED)				LIGO CALIFORNIA INSTITUTE OF TECHNOLOGY MASSACHUSETTS INSTITUTE OF TECHNOLOGY		PART NAME	
DIMENSIONS ARE IN TOLERANCES: .XX ± .02 .XXX ± .010 ANGULAR ± .5°				1. INTERPRET DRAWING PER ASME Y14.5-1994. 2. REMOVE ALL SHARP EDGES, R.02 MIN. 3. DO NOT SCALE FROM DRAWING. 4. ALL MACHINING FLUIDS MUST BE FULLY SYNTHETIC, FULLY WATER SOLUBLE AND FREE OF SULFUR, SILICONE, AND CHLORINE.		<b>CROSSBAR PLATE_IN</b>	
<b>MATERIAL</b> 6061-T6 Al		<b>FINISH</b> 63 µinch		<b>SYSTEM</b> ADVANCED LIGO		<b>SUB-SYSTEM</b> AOS	
<b>NEXT ASSY</b> D1002256				<b>DESIGNER</b> MRUIZ		<b>DATE</b> 08/25/2010	
				<b>CHECKER</b>		<b>SIZE DWG. NO.</b> <b>B D1002257</b>	
				<b>APPROVAL</b>		<b>REV.</b> v1	
				<b>SCALE:</b> 1:1		<b>PROJECTION:</b>	
						<b>SHEET 1 OF 1</b>	

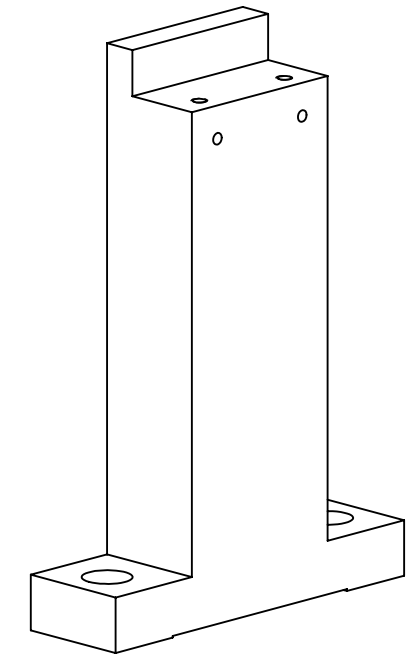
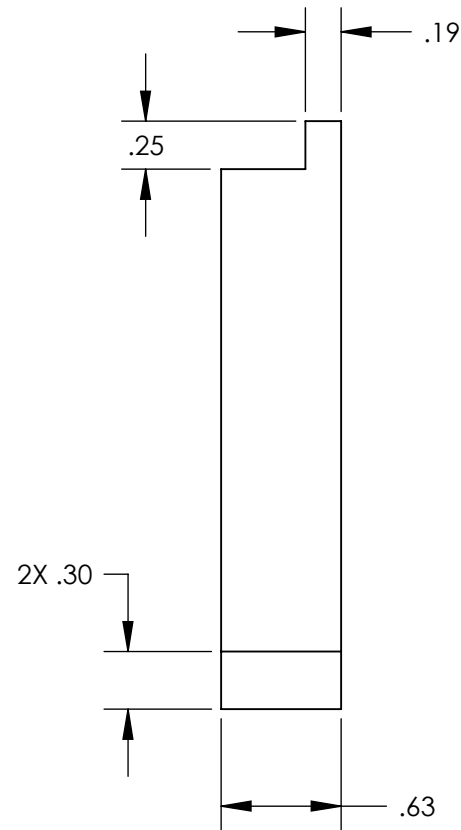
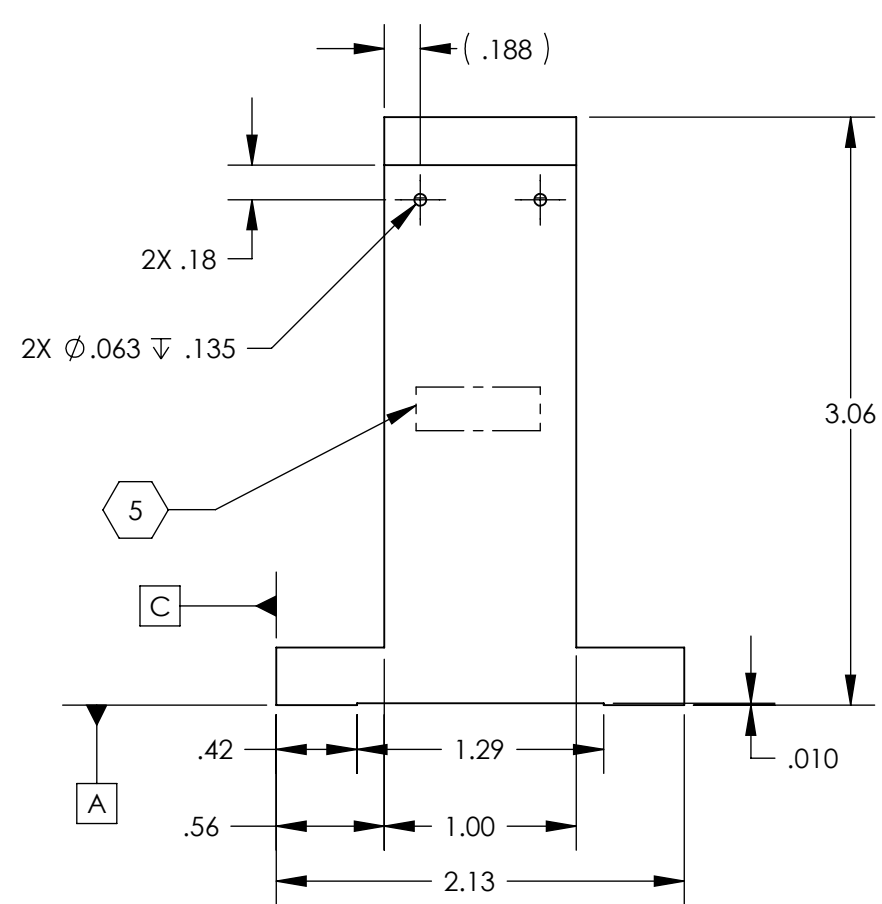
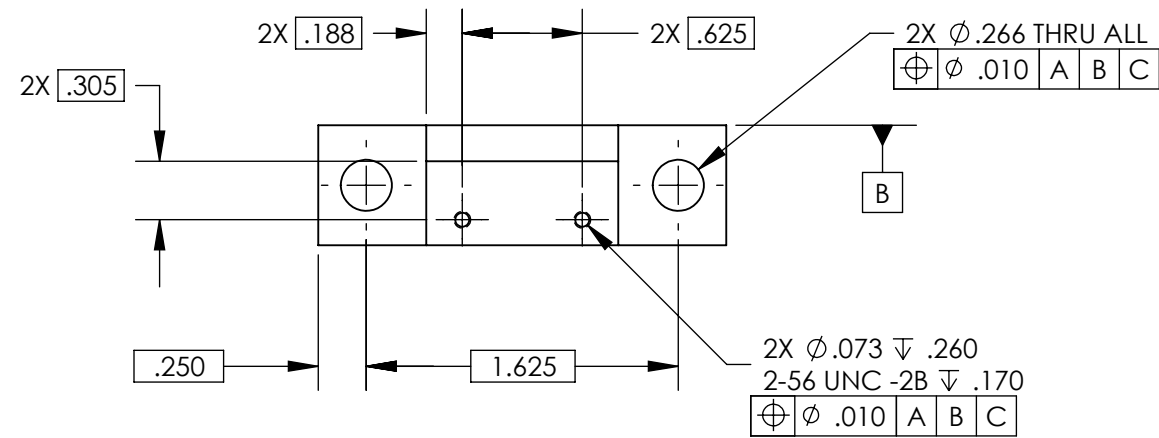
8 7 6 5 4 3 2 1

D1002362\_d1lGO\_AOS\_D0900623\_Faraday Isolator Beam Dump Mount, PART PDM REV: X-004, DRAWING PDM REV: X-004

NOTES CONTINUED:  
5. SCRIBE, ENGRAVE, OR MECHANICALLY STAMP (NO INKS OR DYES) DRAWING PART NUMBER, REVISION (AND VARIANT OR "TYPE" IF APPLICABLE) ON NOTED SURFACE OF PART FOLLOWED ON THE NEXT LINE WITH A THREE DIGIT SERIAL NUMBER. SERIAL NUMBERS START AT 001 FOR THE FIRST ARTICLE AND PROCEED CONSECUTIVELY. USE MINIMUM 0.12" HIGH CHARACTERS, UNLESS THE SIZE OF THE PART DICTATES SMALLER CHARACTERS. A VIBRATORY TOOL MAY BE USED.  
EXAMPLE: DXXXXXX-VY, TYPE-XX, S/N XXX

6. MACHINE ALL SURFACES TO REMOVE OXIDES AND MILL FINISH. USE OF ABRASIVE REMOVAL TECHNIQUES IS NOT ALLOWED.  
7. ALL PARTS SHALL BE MANUFACTURED IN ACCORDANCE WITH LIGO SPECIFICATION E0900364.

REV.	DATE	DCN #	DRAWING TREE #
v1	07 OCT 2010	E1000563	



NOTES AND TOLERANCES: (UNLESS OTHERWISE SPECIFIED)

DIMENSIONS ARE IN  
TOLERANCES:  
.XX  $\pm .02$   
.XXX  $\pm .010$   
ANGULAR  $\pm .5^\circ$

1. INTERPRET DRAWING PER ASME Y14.5-1994.  
2. REMOVE ALL SHARP EDGES, R.02 MIN.  
3. DO NOT SCALE FROM DRAWING.  
4. ALL MACHINING FLUIDS MUST BE FULLY SYNTHETIC, FULLY WATER SOLUBLE AND FREE OF SULFUR, SILICONE, AND CHLORINE.  
MATERIAL 6061-T6 Al  
FINISH 63  $\mu$ inch

**LIGO** CALIFORNIA INSTITUTE OF TECHNOLOGY  
MASSACHUSETTS INSTITUTE OF TECHNOLOGY

SYSTEM **ADVANCED LIGO** SUB-SYSTEM **AOS**

NEXT ASSY **D1002364**

PART NAME **FARADAY ISOLATOR BEAM DUMP MOUNT**

DESIGNER	MRUIZ	09 SEP 2010	SIZE DWG. NO.	REV.
DRAFTER			<b>B</b>	<b>D1002362</b>
CHECKER				v1
APPROVAL			SCALE: 1:1	PROJECTION:  SHEET 1 OF 1

D1002363\_d1lgo\_aos\_D0900623\_Faraday Isolator Beam Dump, PART PDM REV: X-001, DRAWING PDM REV: X-006

8

7

6

5

4

3

2

1

REV.	DATE	DCN #	DRAWING TREE #
v1	07 OCT 2010	E1000563	

D

D

C

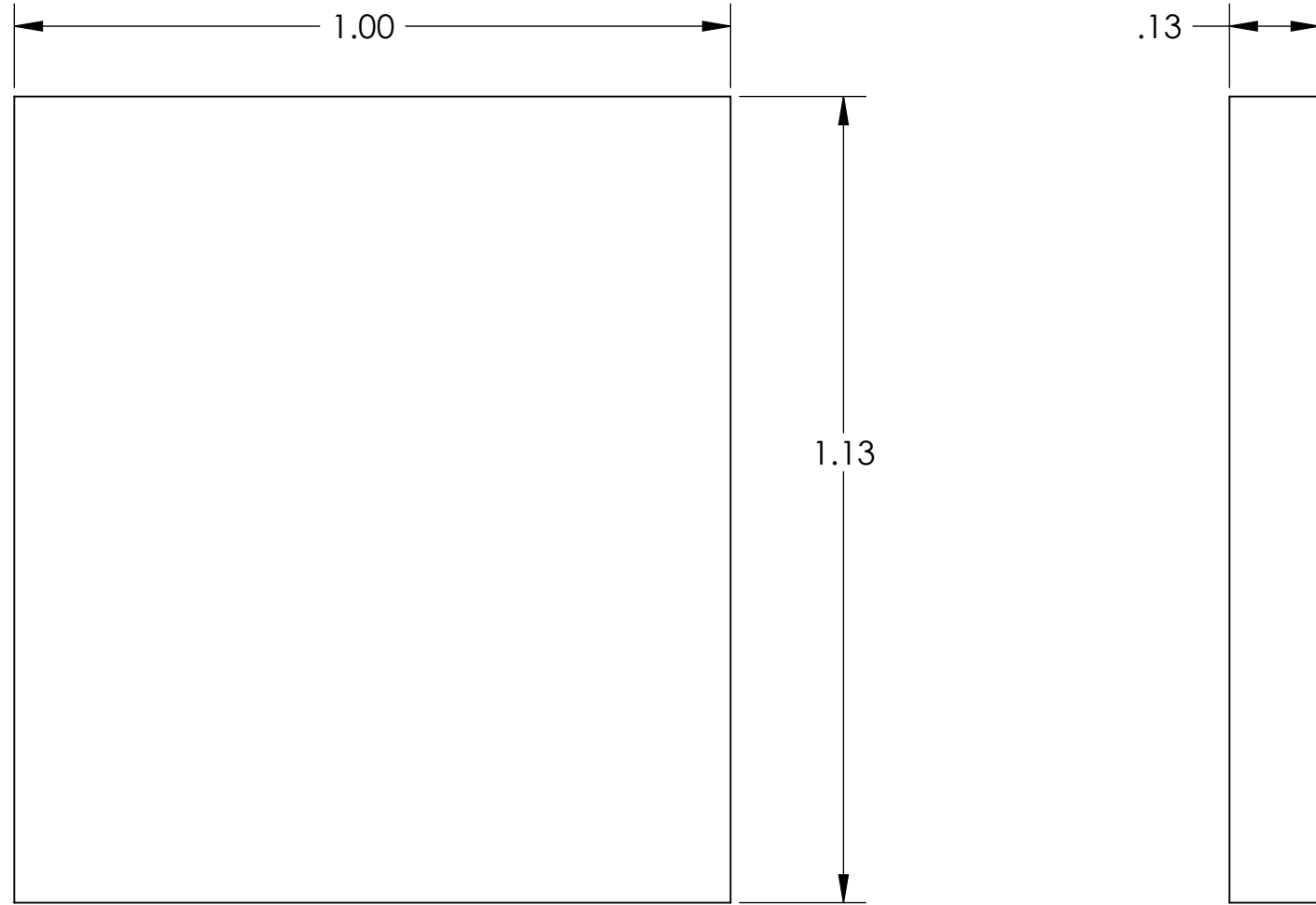
C

B

B

A

A



NOTES AND TOLERANCES: (UNLESS OTHERWISE SPECIFIED)

DIMENSIONS ARE IN  
 TOLERANCES:  
 .XX ± .01  
 .XXX ± .005  
 ANGULAR ± .5°

1. INTERPRET DRAWING PER ASME Y14.5-1994.
2. REMOVE ALL SHARP EDGES, R.02 MIN.
3. DO NOT SCALE FROM DRAWING.
4. ALL MACHINING FLUIDS MUST BE FULLY SYNTHETIC, FULLY WATER SOLUBLE AND FREE OF SULFUR, SILICONE, AND CHLORINE.

MATERIAL SCHOTT #12 WELDER'S GLASS FINISH AS SUPPLIED

**LIGO** CALIFORNIA INSTITUTE OF TECHNOLOGY  
 MASSACHUSETTS INSTITUTE OF TECHNOLOGY

SYSTEM ADVANCED LIGO SUB-SYSTEM AOS  
 NEXT ASSY D1002364

PART NAME FARADAY ISOLATOR BEAM DUMP

DESIGNER  
 DRAFTER MRUIZ 09 SEP 2010  
 CHECKER  
 APPROVAL

SIZE DWG. NO. B D1002363 REV. v1

SCALE: 2:1 PROJECTION: SHEET 1 OF 1

8

7

6

5

4

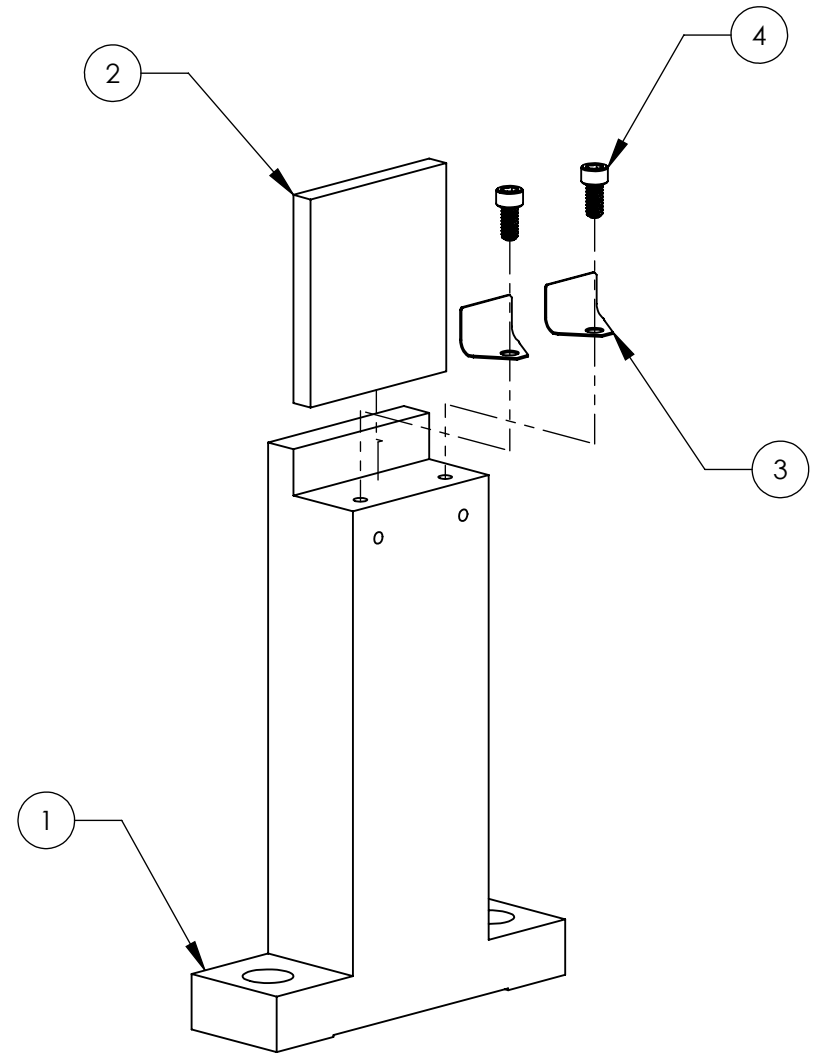
3

2

1

D1002364\_ALIGO\_AOS\_D0900623\_Faraday Isolator Beam Dump Assy, PART PDM REV: X-010, DRAWING PDM REV: X-003

REV.	DATE	DCN #	DRAWING TREE #
v1	07 OCT 2010	E1000563	



ITEM NO.	PART NUMBER	DESCRIPTION	MATERIAL	REQ	SPARE	TOTAL
4	92200A076	Head Cap Screw 300 Series SS, 2-56 Thrd, 3/16" Length, MS 16995-1	300 SSSL	2		2
3	D0900619	SPRING CLIP	304 SSSL	2		2
2	D1002363	FARADAY ISOLATOR BEAM DUMP	BLACK GLASS	1		1
1	D1002362	FARADAY ISOLATOR BEAM DUMP MOUNT	6061-T6 Al	1		1

PARTS LIST

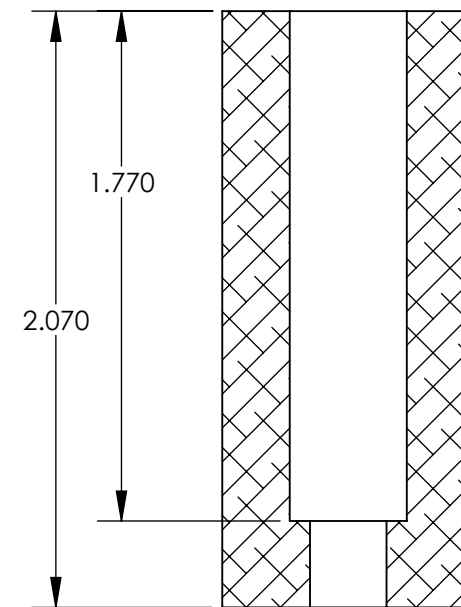
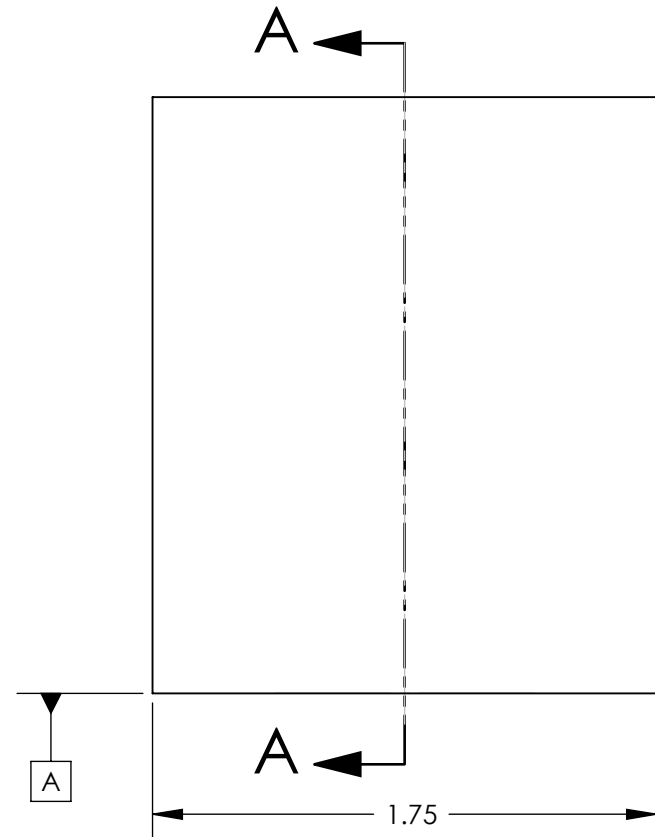
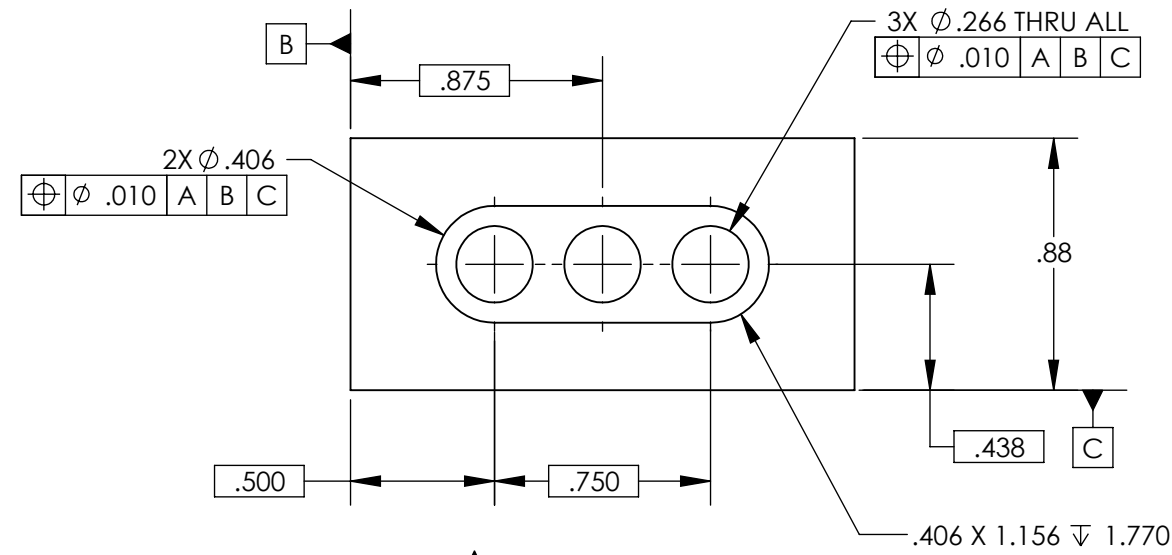
<p><b>NOTES AND TOLERANCES: (UNLESS OTHERWISE SPECIFIED)</b></p> <p>1. INTERPRET DRAWING PER ASME Y14.5-1994.                  2. REMOVE ALL SHARP EDGES, R.02 MIN.                  3. DO NOT SCALE FROM DRAWING.                  4. ALL MACHINING FLUIDS MUST BE FULLY SYNTHETIC, FULLY WATER SOLUBLE AND FREE OF SULFUR, SILICONE, AND CHLORINE.</p>		<p><b>LIGO</b> CALIFORNIA INSTITUTE OF TECHNOLOGY                  MASSACHUSETTS INSTITUTE OF TECHNOLOGY</p>		<p><b>PART NAME</b>                  FARADAY ISOLATOR BEAM DUMP ASSY</p>	
<p>DIMENSIONS ARE IN</p> <p>TOLERANCES:                  .XX ±                  .XXX ±</p> <p>ANGULAR ± °</p>	<p><b>MATERIAL</b>                  N/A</p>	<p><b>FINISH</b>                  N/A μinch</p>	<p><b>NEXT ASSY</b>                  D0900623</p>	<p><b>DESIGNER</b>                  MRUIZ</p>	<p><b>DATE</b>                  09 AUG 2010</p>
<p><b>SCALE:</b> 1:1 <b>PROJECTION:</b> </p>				<p><b>SIZE DWG. NO.</b>                  B D1002364</p>	<p><b>REV.</b>                  v1</p>

D1002533\_ALIGO\_AOS\_Output Faraday Isolator Dummy Weight, PART PDM REV: X-004, DRAWING PDM REV: X-002

**NOTES CONTINUED:**  
 5. SCRIBE, ENGRAVE, OR MECHANICALLY STAMP (NO INKS OR DYES) DRAWING PART NUMBER, REVISION (AND VARIANT OR "TYPE" IF APPLICABLE) ON NOTED SURFACE OF PART FOLLOWED ON THE NEXT LINE WITH A THREE DIGIT SERIAL NUMBER. SERIAL NUMBERS START AT 001 FOR THE FIRST ARTICLE AND PROCEED CONSECUTIVELY. USE MINIMUM 0.12" HIGH CHARACTERS, UNLESS THE SIZE OF THE PART DICTATES SMALLER CHARACTERS. A VIBRATORY TOOL MAY BE USED.  
 EXAMPLE: DXXXXXX-VY, TYPE-XX, S/N XXX

6. MACHINE ALL SURFACES TO REMOVE OXIDES AND MILL FINISH, USE OF ABRASIVE REMOVAL TECHNIQUES IS NOT ALLOWED.  
 7. ALL PARTS SHALL BE MANUFACTURED IN ACCORDANCE WITH LIGO SPECIFICATION E0900364.

REV.	DATE	DCN #	DRAWING TREE #
v1	07 OCT 2010	E1000563	-
-	-	-	-
-	-	-	-



SECTION A-A

**NOTES AND TOLERANCES: (UNLESS OTHERWISE SPECIFIED)**

DIMENSIONS ARE IN  
 TOLERANCES:  
 .XX ± .02  
 .XXX ± .010  
 ANGULAR ± .5°

1. INTERPRET DRAWING PER ASME Y14.5-1994.  
 2. REMOVE ALL SHARP EDGES, R.02 MIN.  
 3. DO NOT SCALE FROM DRAWING.  
 4. ALL MACHINING FLUIDS MUST BE FULLY SYNTHETIC, FULLY WATER SOLUBLE AND FREE OF SULFUR, SILICONE, AND CHLORINE.

MATERIAL 304, 316 OR 302 SSTL FINISH 63 μinch

**LIGO** CALIFORNIA INSTITUTE OF TECHNOLOGY  
 MASSACHUSETTS INSTITUTE OF TECHNOLOGY

SYSTEM SUB-SYSTEM

NEXT ASSY D0900623

PART NAME  
**Output Faraday Isolator Dummy Weight**

DESIGNER	M.RUIZ	01 OCT 2010	SIZE DWG. NO.	REV.
DRAFTER			<b>B</b>	<b>D1002533</b>
CHECKER				v1
APPROVAL			SCALE: 3:2	PROJECTION:  SHEET 1 OF 1

D1002540\_ALIGO\_AOS\_Output Faraday Isolator Dummy Weight (rotate), PART PDM REV: X-002, DRAWING PDM REV: X-003

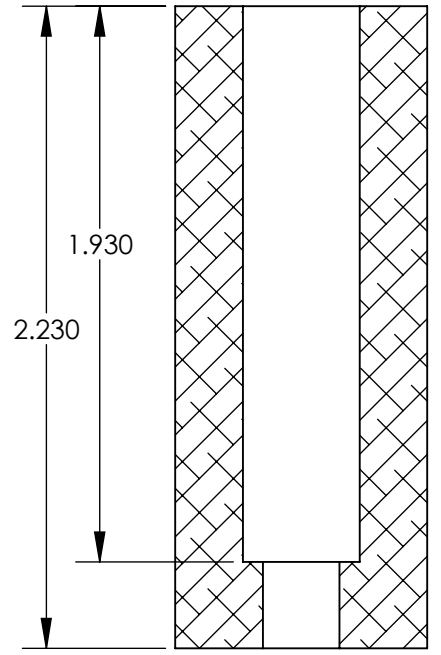
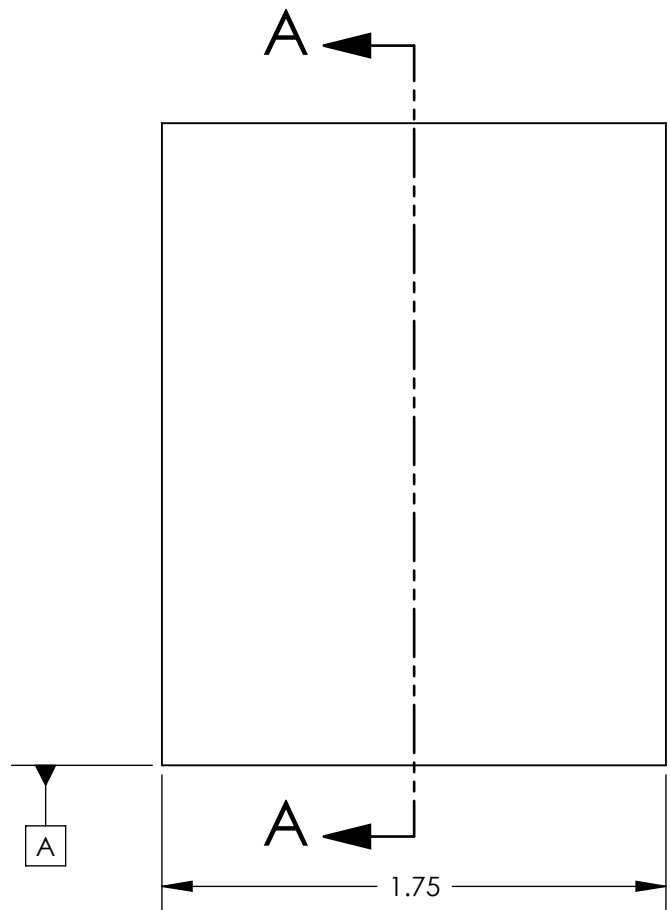
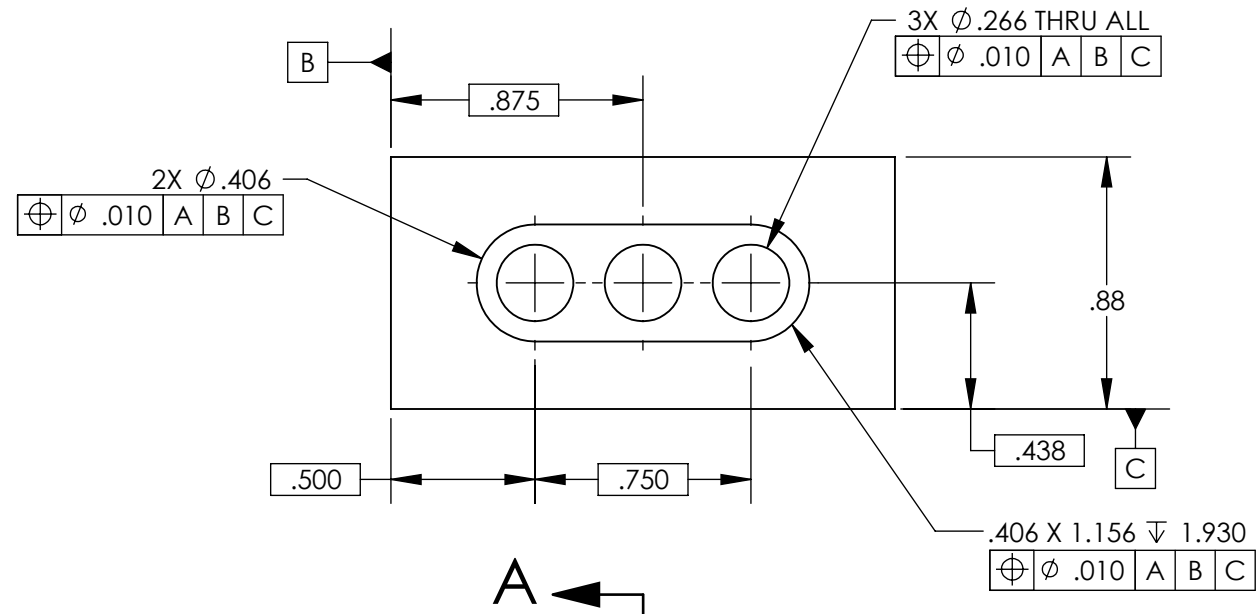
**NOTES CONTINUED:**

5. SCRIBE, ENGRAVE, OR MECHANICALLY STAMP (NO INKS OR DYES) DRAWING PART NUMBER, REVISION (AND VARIANT OR "TYPE" IF APPLICABLE) ON NOTED SURFACE OF PART FOLLOWED ON THE NEXT LINE WITH A THREE DIGIT SERIAL NUMBER. SERIAL NUMBERS START AT 001 FOR THE FIRST ARTICLE AND PROCEED CONSECUTIVELY. USE MINIMUM 0.12" HIGH CHARACTERS, UNLESS THE SIZE OF THE PART DICTATES SMALLER CHARACTERS. A VIBRATORY TOOL MAY BE USED.  
EXAMPLE: DXXXXXX-VY, TYPE-XX, S/N XXX

6. MACHINE ALL SURFACES TO REMOVE OXIDES AND MILL FINISH. USE OF ABRASIVE REMOVAL TECHNIQUES IS NOT ALLOWED.

7. ALL PARTS SHALL BE MANUFACTURED IN ACCORDANCE WITH LIGO SPECIFICATION E0900364.

REV.	DATE	DCN #	DRAWING TREE #
v1	07 OCT 2010	E1000563	-
-	-	-	-
-	-	-	-



SECTION A-A

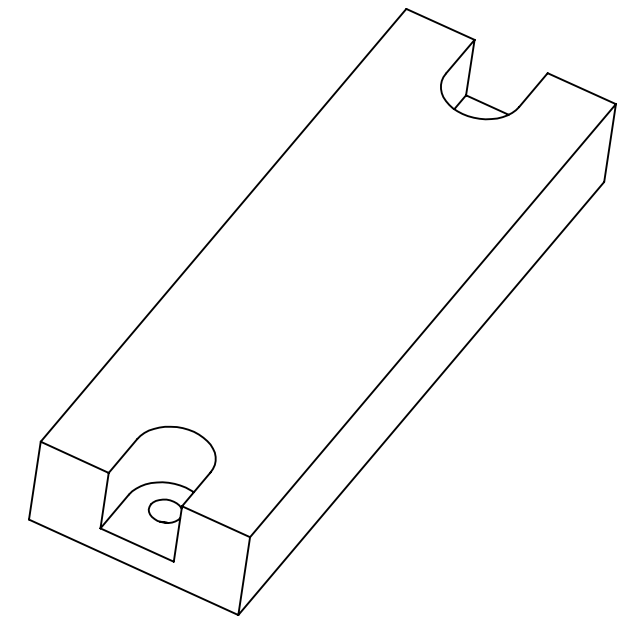
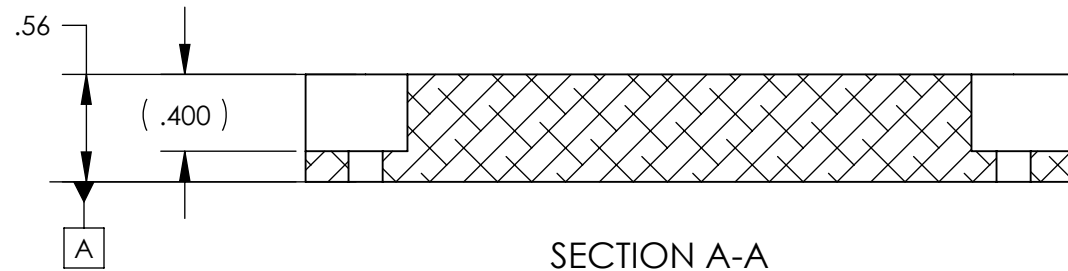
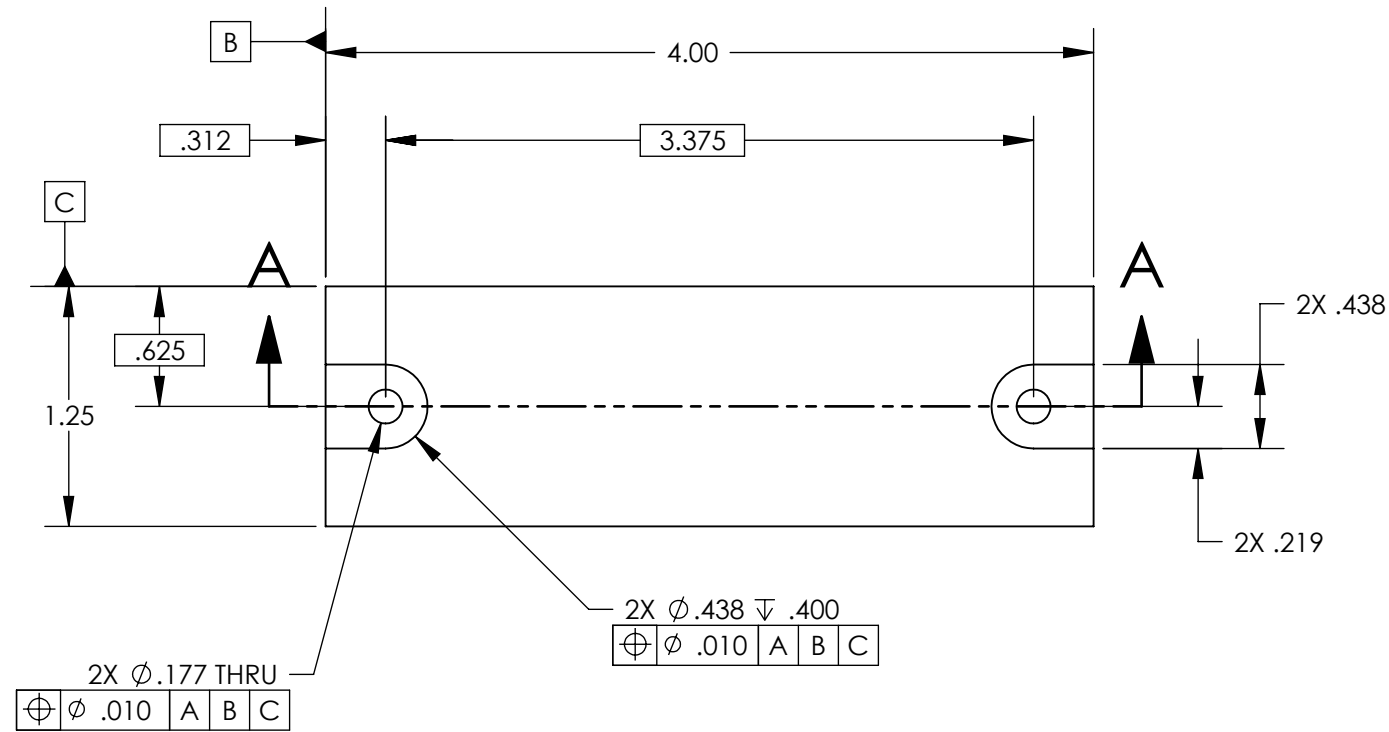
DIMENSIONS ARE IN		NOTES AND TOLERANCES: (UNLESS OTHERWISE SPECIFIED)		LIGO CALIFORNIA INSTITUTE OF TECHNOLOGY MASSACHUSETTS INSTITUTE OF TECHNOLOGY		PART NAME	
TOLERANCES:		1. INTERPRET DRAWING PER ASME Y14.5-1994.		SYSTEM		Output Faraday Isolator Dummy Weight (rotate)	
.XX $\pm$ .02		2. REMOVE ALL SHARP EDGES, R.02 MIN.		SUB-SYSTEM		DESIGNER	
.XXX $\pm$ .010		3. DO NOT SCALE FROM DRAWING.		NEXT ASSY		DRAFTER	
ANGULAR $\pm$ .5°		4. ALL MACHINING FLUIDS MUST BE FULLY SYNTHETIC, FULLY WATER SOLUBLE AND FREE OF SULFUR, SILICONE, AND CHLORINE.		D0900623		CHECKER	
MATERIAL		FINISH		SCALE: 3:2		PROJECTION:	
304, 316 OR 302 SSSL		63 $\mu$ inch		SHEET 1 OF 1		SIZE DWG. NO.	
						B D1002540	
						REV.	
						v1	



**NOTES CONTINUED:**  
 5. SCRIBE, ENGRAVE, OR MECHANICALLY STAMP (NO INKS OR DYES) DRAWING PART NUMBER, REVISION (AND VARIANT OR "TYPE" IF APPLICABLE) ON NOTED SURFACE OF PART FOLLOWED ON THE NEXT LINE WITH A THREE DIGIT SERIAL NUMBER. SERIAL NUMBERS START AT 001 FOR THE FIRST ARTICLE AND PROCEED CONSECUTIVELY. USE MINIMUM 0.12" HIGH CHARACTERS, UNLESS THE SIZE OF THE PART DICTATES SMALLER CHARACTERS. A VIBRATORY TOOL MAY BE USED.  
 EXAMPLE: DXXXXXX-VY, TYPE-XX, S/N XXX

6. MACHINE ALL SURFACES TO REMOVE OXIDES AND MILL FINISH. USE OF ABRASIVE REMOVAL TECHNIQUES IS NOT ALLOWED.  
 7. ALL PARTS SHALL BE MANUFACTURED IN ACCORDANCE WITH LIGO SPECIFICATION E0900364.

REV.	DATE	DCN #	DRAWING TREE #
v1	07 OCT 2010	E1000563	-
-	-	-	-
-	-	-	-



D1002542\_AdlIGO\_AOS\_FID0900623\_Table Balance Weight. 75#, PART PDM REV: X-007, DRAWING PDM REV: X-004

**NOTES AND TOLERANCES: (UNLESS OTHERWISE SPECIFIED)**

DIMENSIONS ARE IN  
 TOLERANCES:  
 .XX ± .01  
 .XXX ± .005  
 ANGULAR ± .5°

1. INTERPRET DRAWING PER ASME Y14.5-1994.  
 2. REMOVE ALL SHARP EDGES, R.02 MIN.  
 3. DO NOT SCALE FROM DRAWING.  
 4. ALL MACHINING FLUIDS MUST BE FULLY SYNTHETIC, FULLY WATER SOLUBLE AND FREE OF SULFUR, SILICONE, AND CHLORINE.

MATERIAL: 304, 316 OR 302 SSSL  
 FINISH: 125 μinch

CALIFORNIA INSTITUTE OF TECHNOLOGY MASSACHUSETTS INSTITUTE OF TECHNOLOGY		PART NAME	
SYSTEM: ADVANCED LIGO NEXT ASSY: D0900623		TABLE BALANCE WEIGHT, .75#	
DESIGNER	CHECKER	APPROVAL	REV.
MRUIZ			v1
DATE	01 OCT 2010	SIZE DWG. NO.	B
		D1002542	
SCALE: 1:1	PROJECTION:	SHEET 1 OF 1	