



CALIFORNIA INSTITUTE OF TECHNOLOGY  
 MASSACHUSETTS INSTITUTE OF TECHNOLOGY

DRWG NO. REV GID

**E1000672-v1**

SHEET 1 OF 2

ASSEMBLY NO:

D0900136

# OVERALL BILL OF MATERIALS

TITLE: OUTPUT FARADAY ISOLATOR, METAL MECHANICAL PARTS & QUANTITIES

	APPROVALS:	DATE:	REV	DCN NO.	BY	CHECK	DCC	DATE
DRAWN / AUTHOR: (REFERENCE CONTENTS)	CIT, CC	6-Nov-10	v1	E1000563	MR			
CHECKED:								
APPROVED:								
DCC RELEASE								

ITEM NO	REQ.	SPARE	TOT.	PART NUMBER	REVISION	DESCRIPTION	MATERIAL
1	1		1	D0900015	V2	Faraday Isolator Table	6061-T6 Al
2	1		1	D0900026	V1	Magnet Mount Plate	6061-T6 Al
3	2		2	D0900027	V1	Copper Plate	Copper
4	1		1	D0900168	V2	Crossbar Plate	6061-T6 Al
5	4		4	D0900169	V2	Crossbar Side	6061-T6 Al
6	1		1	D0900352	V1	Half Wave Plate Holder	6061-T6 Al
7	1		1	D0900439	V1	TFP Polarizer Plate	6061-T6 Al
8	2		2	D0900566	V2	Up Blade Clamp Top	6061-T6 Al
9	4		4	D0900578	V1	Blade Guard Riser	6061-T6 Al
10	4		4	D0900582	V2	Music Wire Split Clamp 1	304, 316 or 302 SSTL
11	4		4	D0900583	V2	Music Wire Split Clamp 2	304, 316 or 302 SSTL
12	4		4	D0900588	V2	Wire Adjustable Adapter	6061-T6 Al
13	1		1	D0900616	V1	Prism Mount Base LH	6061-T6 Al
14	2		2	D0900618	V1	Optical Prism Top Plate	6061-T6 Al
15	16	2	18	D0900619	V1	Spring Clip	304 SSTL
16	1		1	D0900620	V1	Prism Mount Base RH	6061-T6 Al
17	2		2	D0900778	V2	Magnet Attachment Plate	430F or 430FR
18	2		2	D0901271	V2	Blade Guard Crosspiece	6061-T6 Al
19	2		2	D0901514	V1	Blade Clamp Platform	6061-T6 Al
20	2		2	D0901569	V2	Magnet Plate Mounting Front Bracket	6061-T6 Al
21	1		1	D0901570	V2	Magnetic Plate Mounting Back Bracket	6061-T6 Al
22	2		2	D0901764	V1	Table Balance Weight	304, 316 or 302 SSTL
23	1		1	D0902845	V2	Reflection Baffle	A424, Type1, 18 Ga
24	1		1	D1001859	V1	Fixed Stop RH	6061-T6 Al
25	1		1	D1001860	V1	Spring Block RH	6061-T6 Al
26	2	1	3	D1001861	V1	U-Spring	
27	4		4	D1001862	V1	Prism Base Support	6061-T6 Al
28	2		2	D1001863	V1	Optical Prism Spacer	304 SSTL
29	1		1	D1001870	V1	Fixed Stop LH	6061-T6 Al
30	1		1	D1001871	V1	Spring Block LH	6061-T6 Al
31	1		1	D1001915	V1	Input Baffle Holder	6061-T6 Al
32	2		2	D1001916	V1	Input Baffle Side Support	6061-T6 Al
33	1		1	D1001917	V1	Input Baffle Base	6061-T6 Al
34	6	1	7	D1001919	V1	Beam Dump Mounting Clamp	304 SSTL
35	1		1	D1001959	V1	Recticle Holder	6061-T6 Al
36	4		4	D1001960	V1	Wire Support Block	6061-T6 Al
37	1		1	D1001961	V1	Output Alignment Fixture Base	6061-T6 Al



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DRWG NO. REV GID

**E1000672-v1**

SHEET 1 OF 2

ASSEMBLY NO:

D0900136

# OVERALL BILL OF MATERIALS

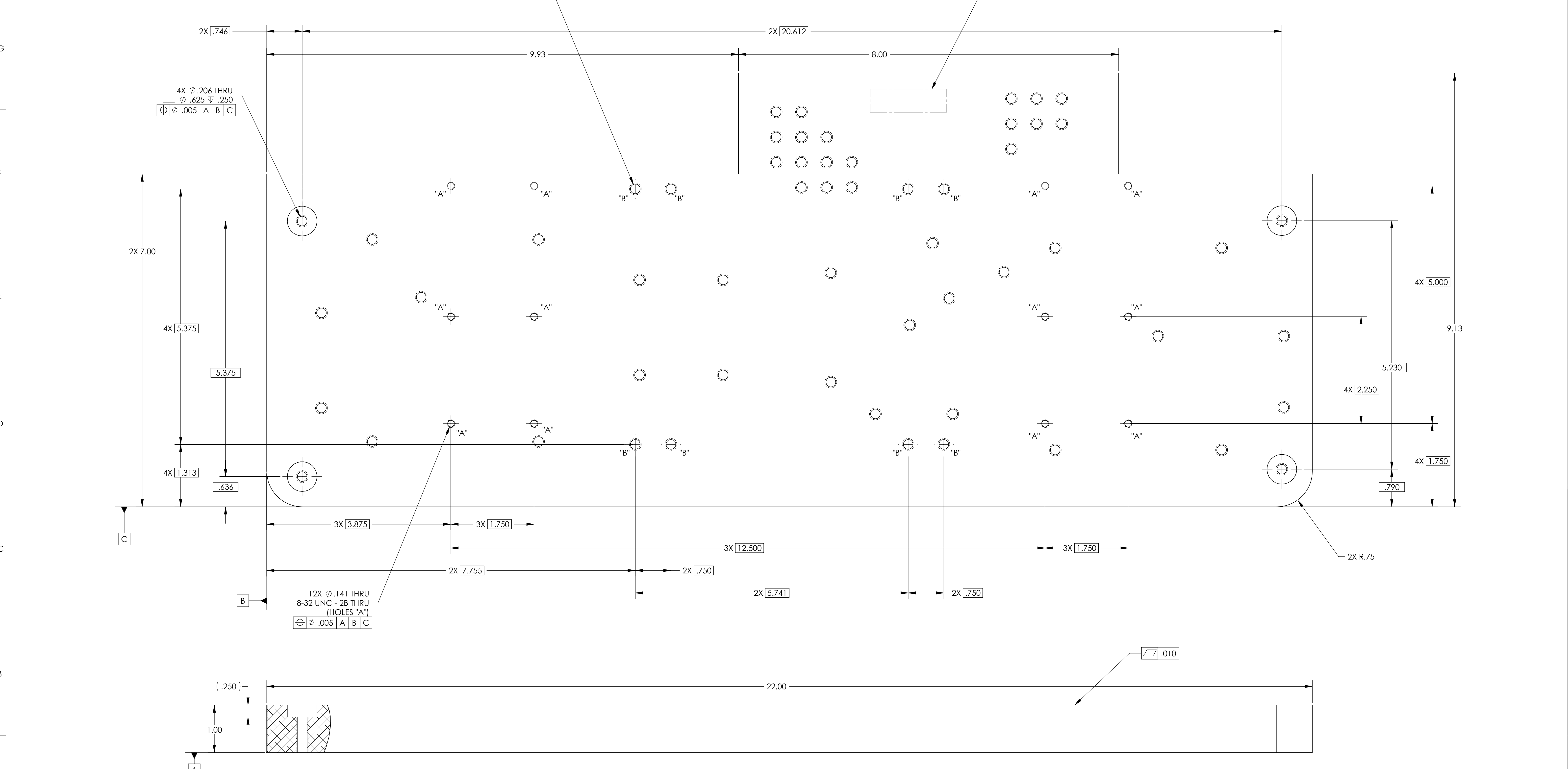
TITLE:

OUTPUT FARADAY ISOLATOR, METAL MECHANICAL PARTS & QUANTITIES

38	1		1	D1001962	V1	Output Alignment Fixture Support	6061-T6 Al
39	1		1	D1002112	V1	Magnetic Plate Mount Back (Lowered) Bracket	6061-T6 Al
40	2		2	D1002168	V1	Music Wire Split Clamp 3	304, 316 or 302 SSSL
41	2		2	D1002169	V1	Music Wire Split Clamp 4	304, 316 or 302 SSSL
42	1		1	D1002257	V1	Crossbar Plate In	6061-T6 Al
43	2		2	D1002362	V1	Faraday Isolator Beam Dump Mount	6061-T6 Al
44	2		2	D1002533	V1	Output Faraday Isolator Dummy Weight	304, 316 or 302 SSSL
45	2		2	D1002540	V1	Output Faraday Isolator Dummy Weight (Rotate)	304, 316 or 302 SSSL
46	4		4	D1002542	V1	Table Balance Weight .75#	304, 316 or 302 SSSL

**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	

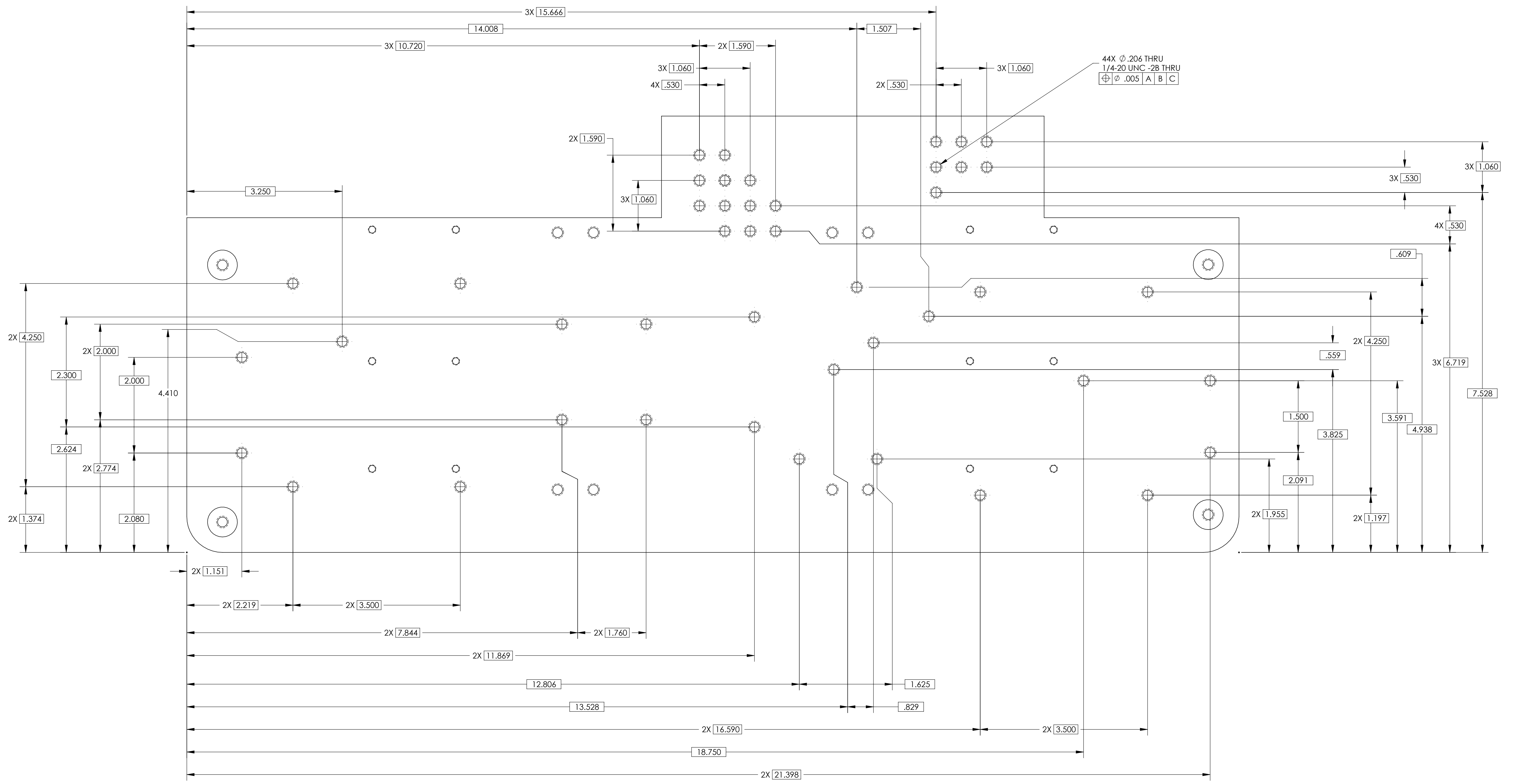


D090001E\_AudiGO\_ACS\_FID0900623\_Isolator Table: PART PDM REV: X.005, DRAWING PDM REV: X.024

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.		<b>LIGO</b> CALIFORNIA INSTITUTE OF TECHNOLOGY MASSACHUSETTS INSTITUTE OF TECHNOLOGY		PART NAME <b>FARADAY ISOLATOR TABLE</b>	
DIMENSIONS ARE IN TOLERANCES: .XX ± .02 .XXX ± .010 ANGULAR ± .5°	MATERIAL 6061-T6 Al	FINISH 63 μinch	SYSTEM ADVANCED LIGO	SUB-SYSTEM AOS	DESIGNER M.RUIZ
			NEXT ASSY D0900623	CHECKER	SIZE DWG. NO. D D0900015
			APPROVAL	DATE 09 Sept. 2010	REV. v1
			SCALE: 1:1	PROJECTION:	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

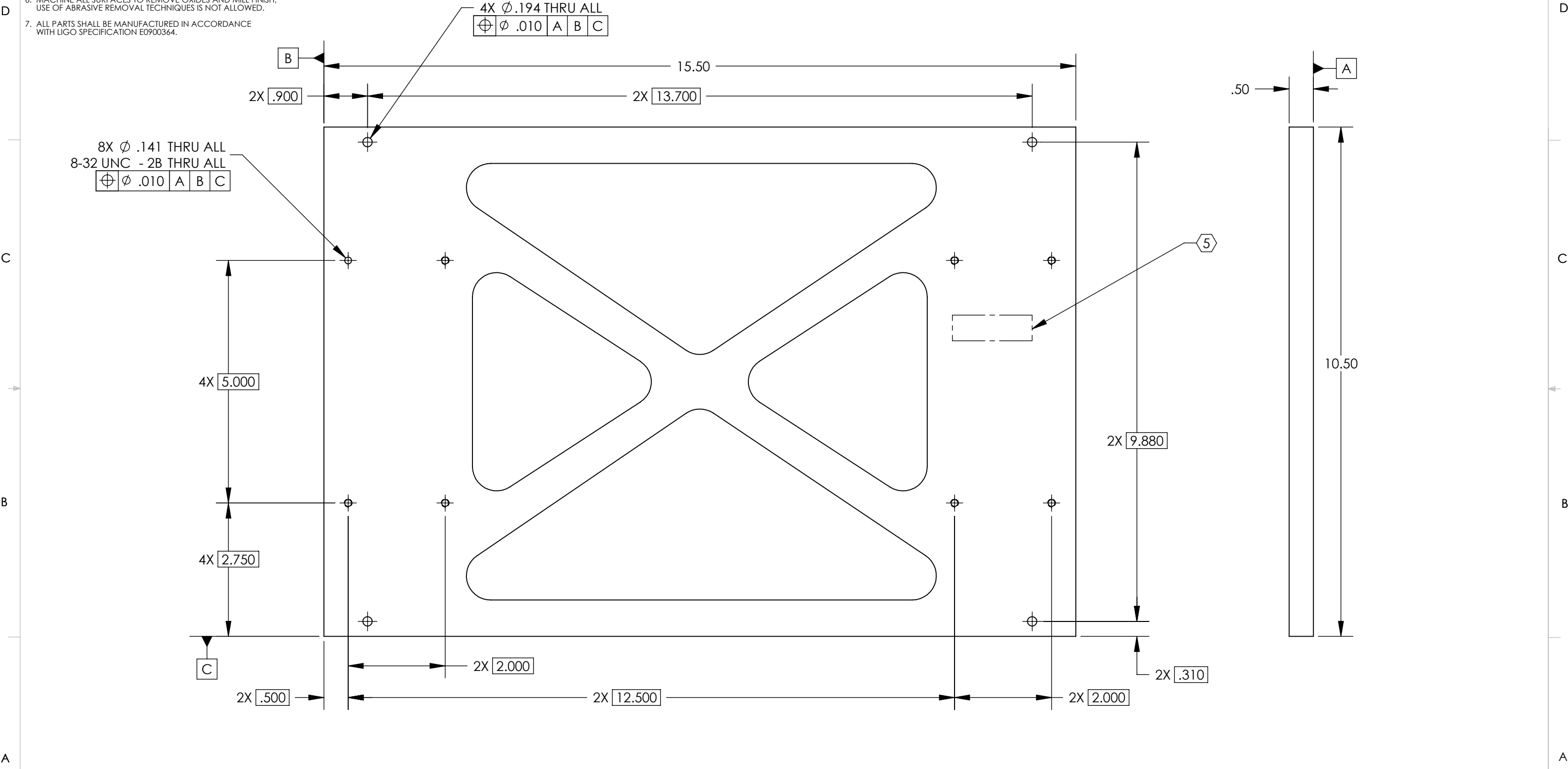
D0900015\_AudiLIGO\_ACS\_FT09090623\_Isolator\_Table\_PART\_PDM\_REV-X-05\_DRAWING\_PDM\_REV-X-024

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

REV.	DATE	DCN #	DRAWING TREE #
V1	28 JUL 2009	E0900217	
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.



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

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

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.		

MATERIAL	FINISH
6061-T6 Al	63 μinch

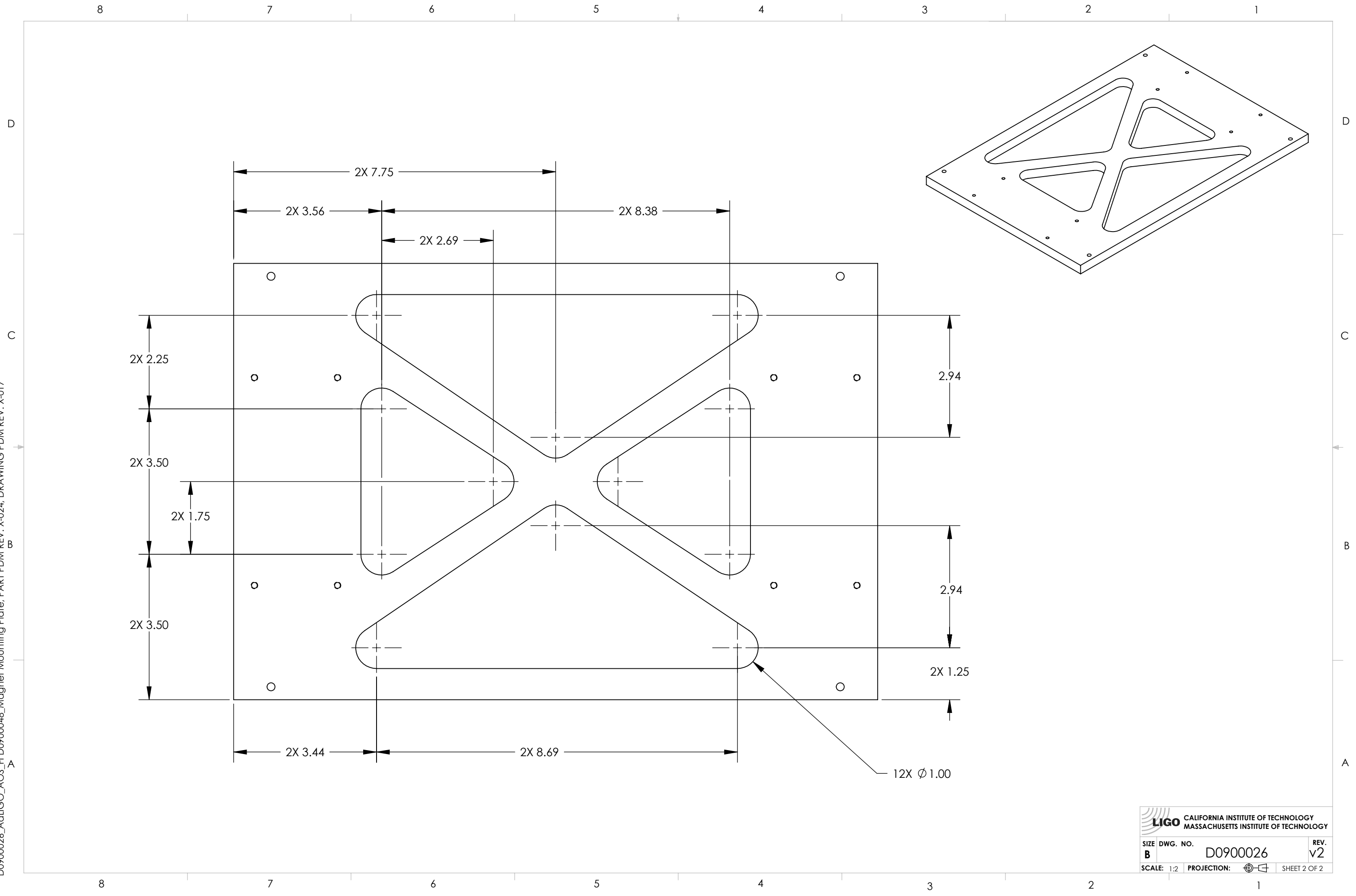
SYSTEM	SUB-SYSTEM
ADVANCED LIGO	AOS


NEXT ASSY	
D0900048	

CALIFORNIA INSTITUTE OF TECHNOLOGY			MASSACHUSETTS INSTITUTE OF TECHNOLOGY			PART NAME		
MAGNET MOUNTING PLATE								
DESIGNER	N.Nguyen	22 Jul 2009	SIZE	DWG. NO.	REV.			
DRAFTER			B	D0900026	v2			
CHECKER	K. Mailand	28 Jul 2009	SCALE:	1:2	PROJECTION:			
APPROVAL	C. Torrie	28 Jul 2009				SHEET 1 OF 2		

8 7 6 5 4 3 2 1

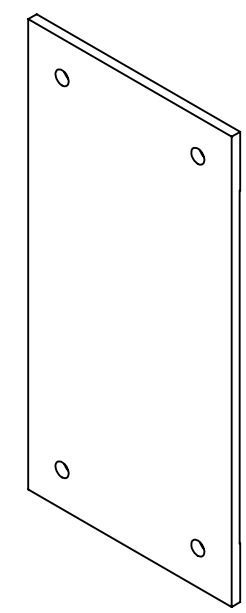
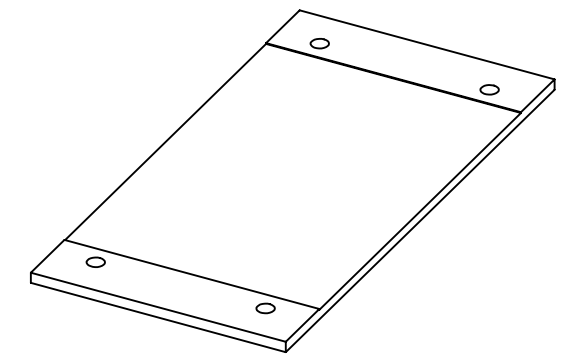
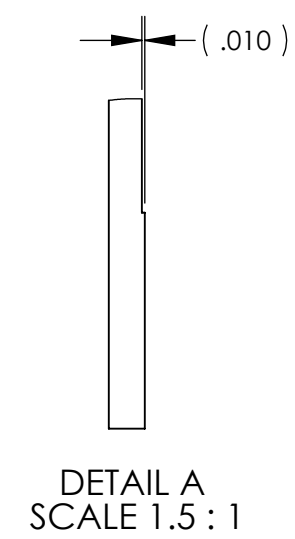
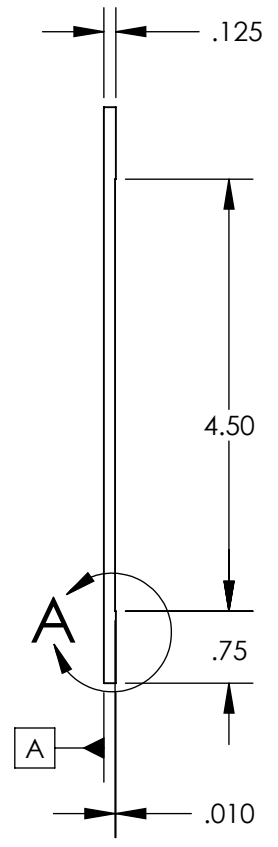
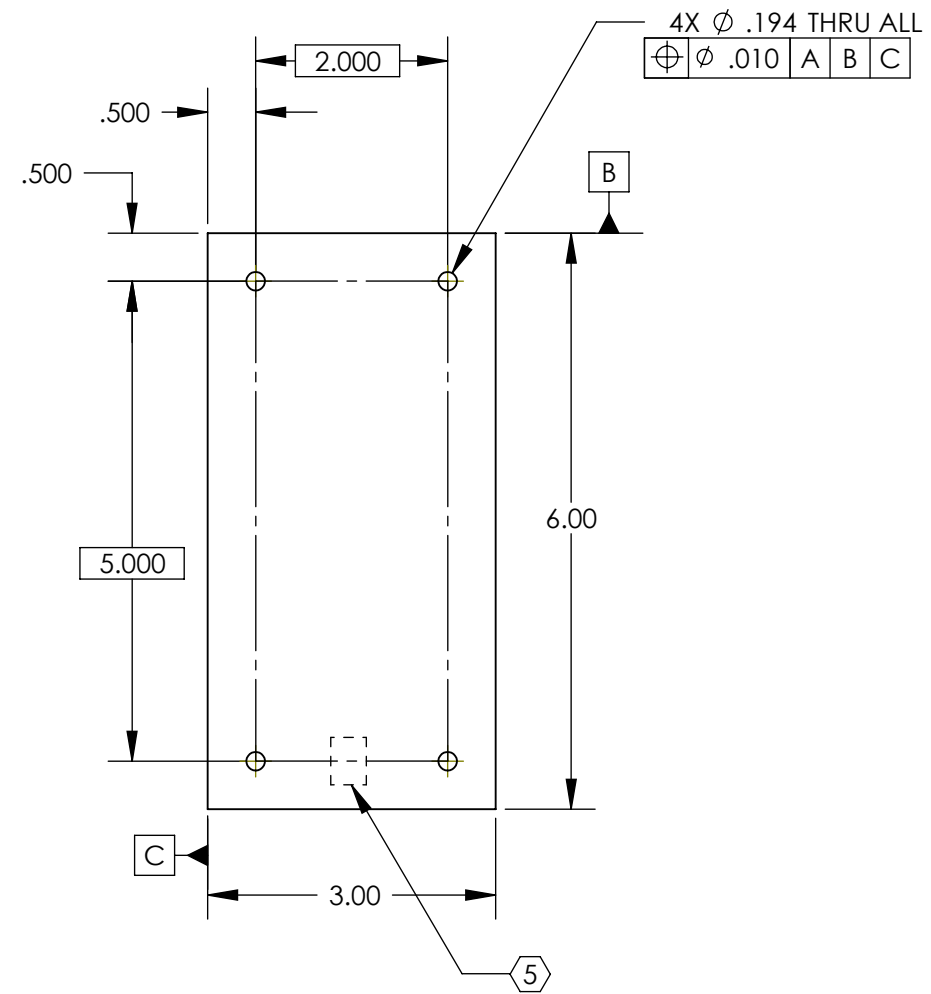
D0900026\_AcLIGO\_AOS\_FI D09000048\_Magnet Mounting Plate, PART PDM REV: X-024, DRAWING PDM REV: X-017



 <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

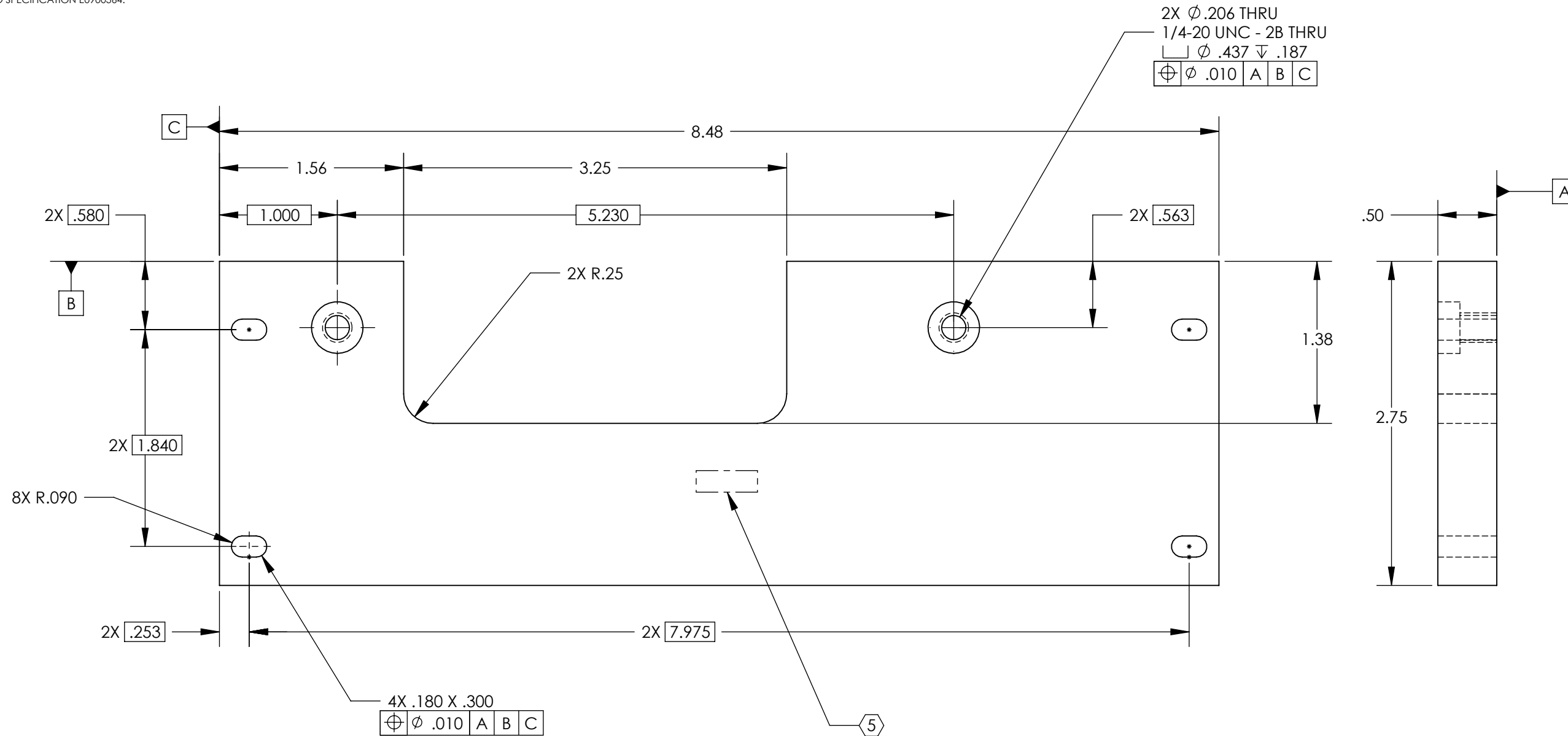
NOTES AND TOLERANCES: (UNLESS OTHERWISE SPECIFIED)				LIGO CALIFORNIA INSTITUTE OF TECHNOLOGY MASSACHUSETTS INSTITUTE OF TECHNOLOGY		PART NAME	
DIMENSIONS ARE IN TOLERANCES: .XX $\pm .02$ .XXX $\pm .010$ ANGULAR $\pm ^\circ$				1. INTERPRET DRAWING PER ASME Y14.5-1994. 2. REMOVE ALL SHARP EDGES, R.02 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		FINISH		SYSTEM		SUB-SYSTEM	
99.99% COPPER		63 $\mu$ inch		ADVANCED LIGO		AOS	
NEXT ASSY				DESIGNER		SIZE DWG. NO.	
D0900048				DRAFTER		B D0900027	
				CHECKER		REV.	
				APPROVAL		v2	
				SCALE: 1:1		PROJECTION:  SHEET 1 OF 1	

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

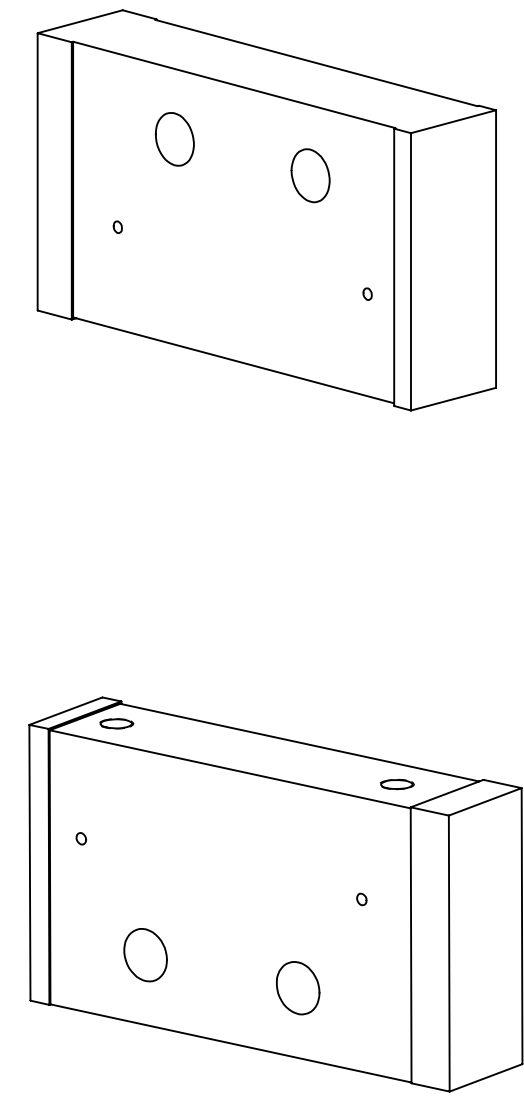
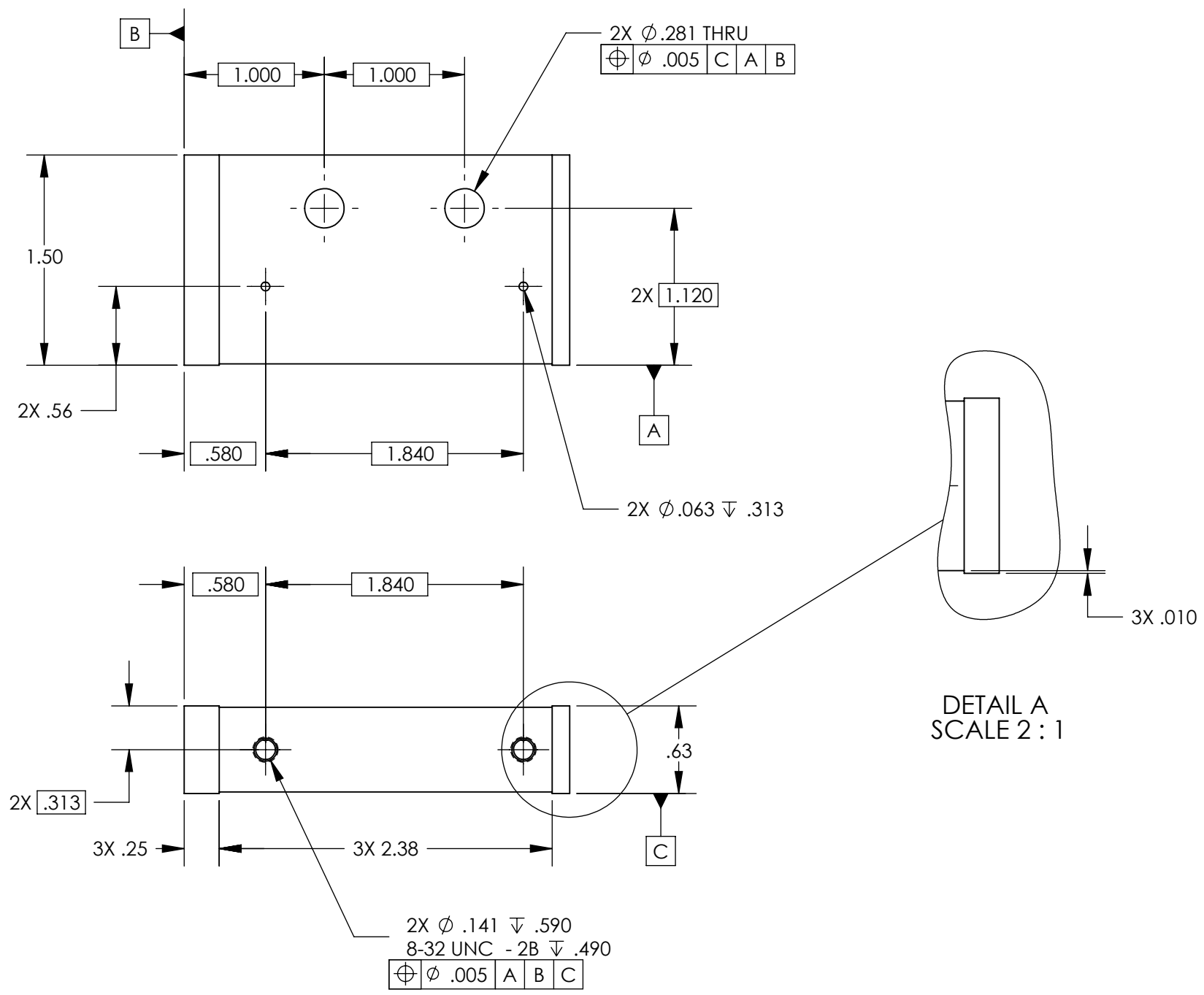
SYSTEM ADVANCED LIGO SUB-SYSTEM AOS  
 NEXT ASSY D0900170

PART NAME			CROSSBAR PLATE		REV.
DESIGNER	DRAWN	DATE	SIZE	DWG. NO.	
			B	D0900168	v2
CHECKER	APPROVAL		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

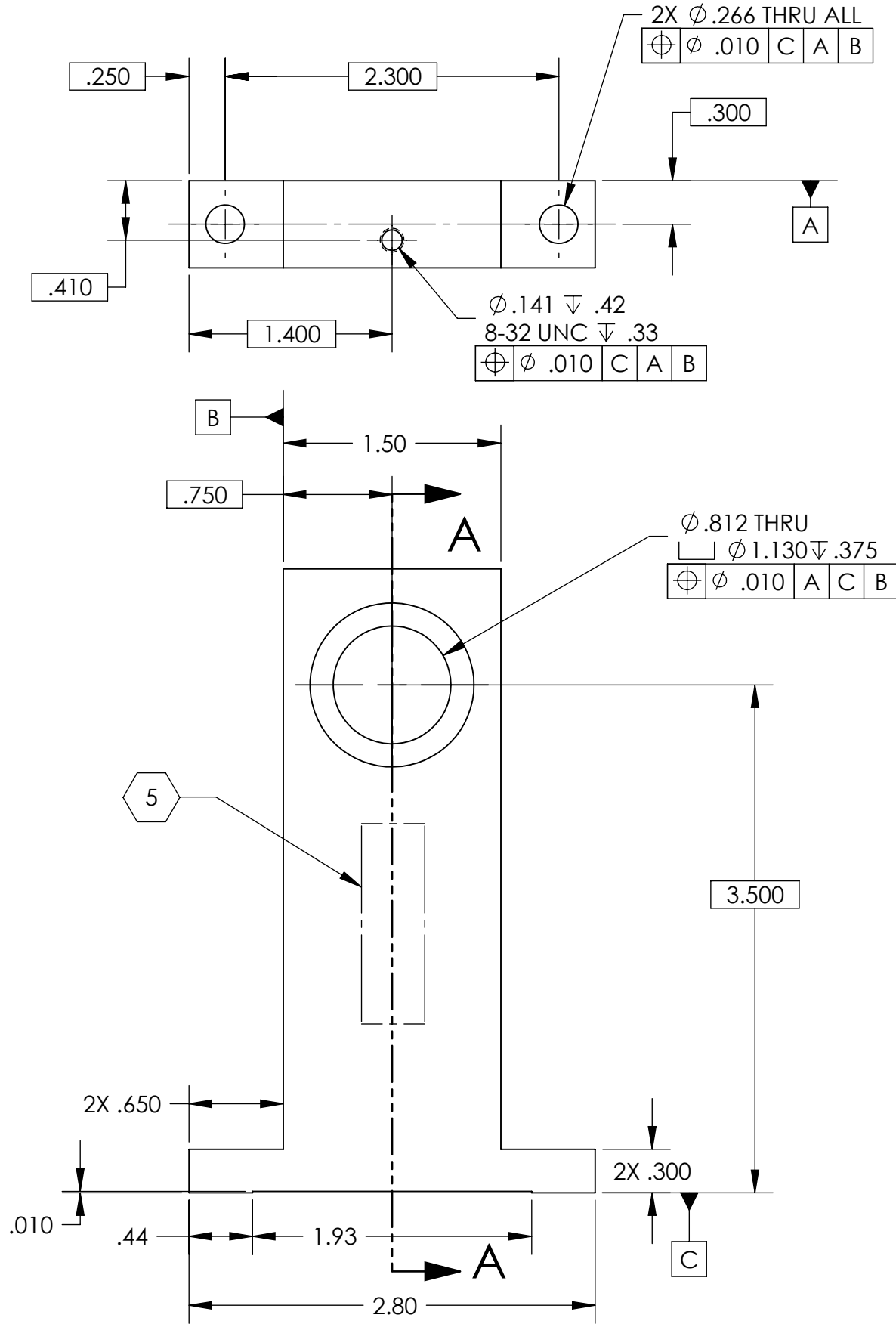
NOTES AND TOLERANCES: (UNLESS OTHERWISE SPECIFIED)				LIGO CALIFORNIA INSTITUTE OF TECHNOLOGY MASSACHUSETTS INSTITUTE OF TECHNOLOGY		PART NAME	
DIMENSIONS ARE IN TOLERANCES: .XX ± .02 .XXX ± .010 ANGULAR ± °				1. INTERPRET DRAWING PER ASME Y14.5-1994. 2. REMOVE ALL SHARP EDGES, R.02 MIN. 3. DO NOT SCALE 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			<b>B</b>
				CHECKER	M. SMITH	01 JUL 2009	<b>D0900169</b>
				APPROVAL	C. TORRIE	01 JUL 2009	REV. 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	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		SIZE		DWG. NO.		REV.	
HALF WAVE PLATE HOLDER		B		D0900352		v1	
DESIGNER	N.Nguyen	DATE	09 FEB 2010				
DRAFTER							
CHECKER							
APPROVAL							
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

D0900439\_AdlIGO\_AOS\_D0900440\_TFP Polarizer Plate, PART PDM REV: X-012, DRAWING PDM REV: X-018

**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

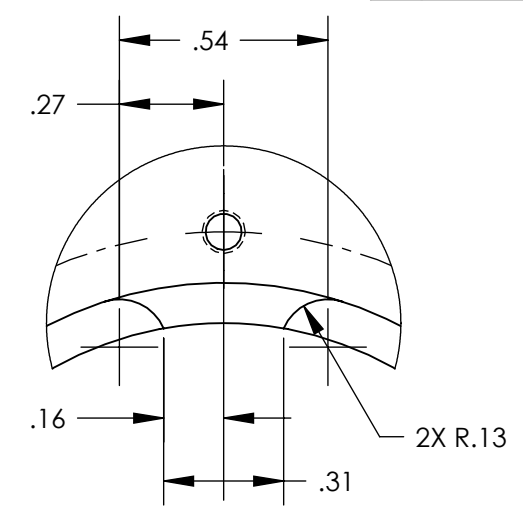
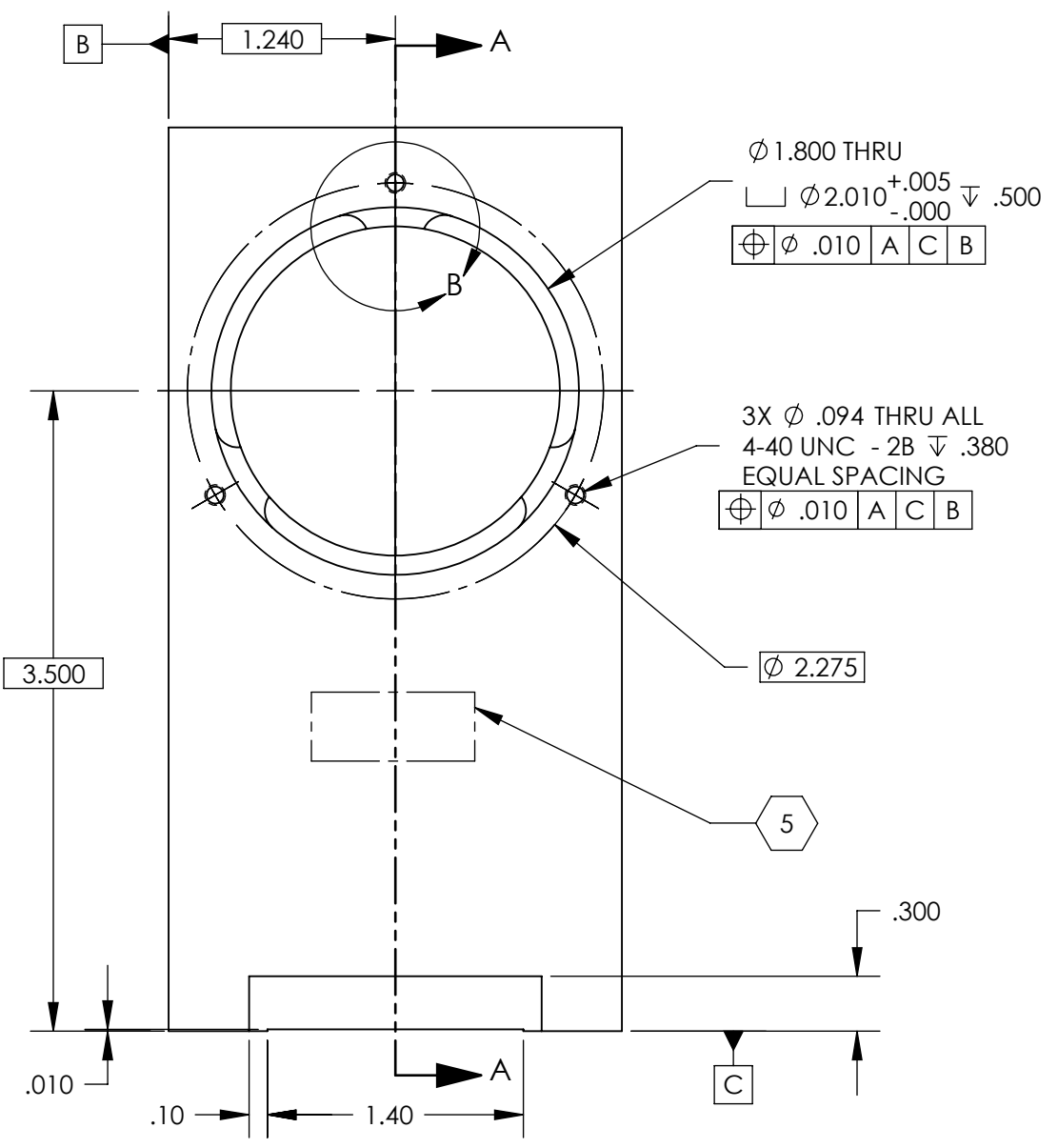
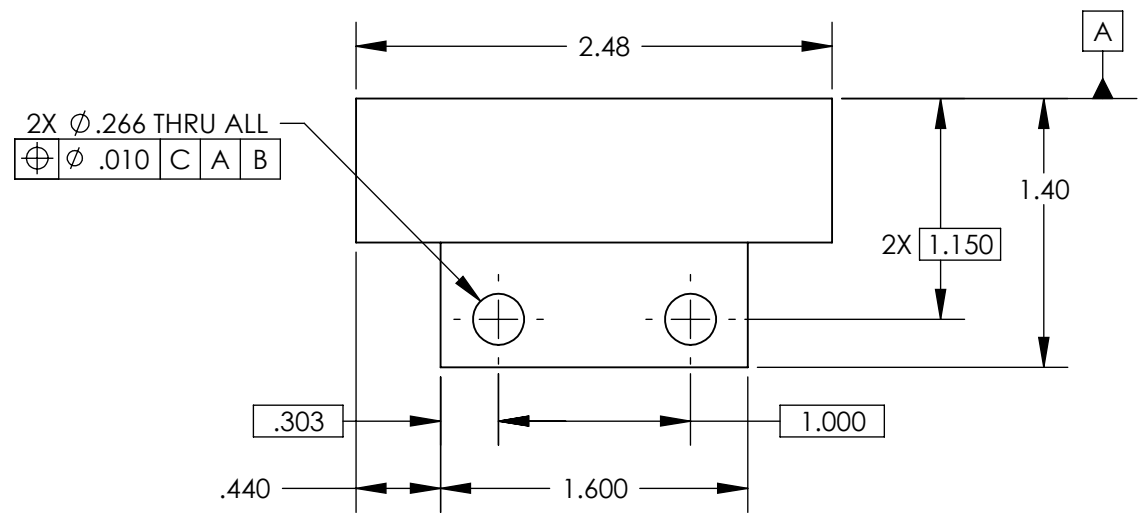
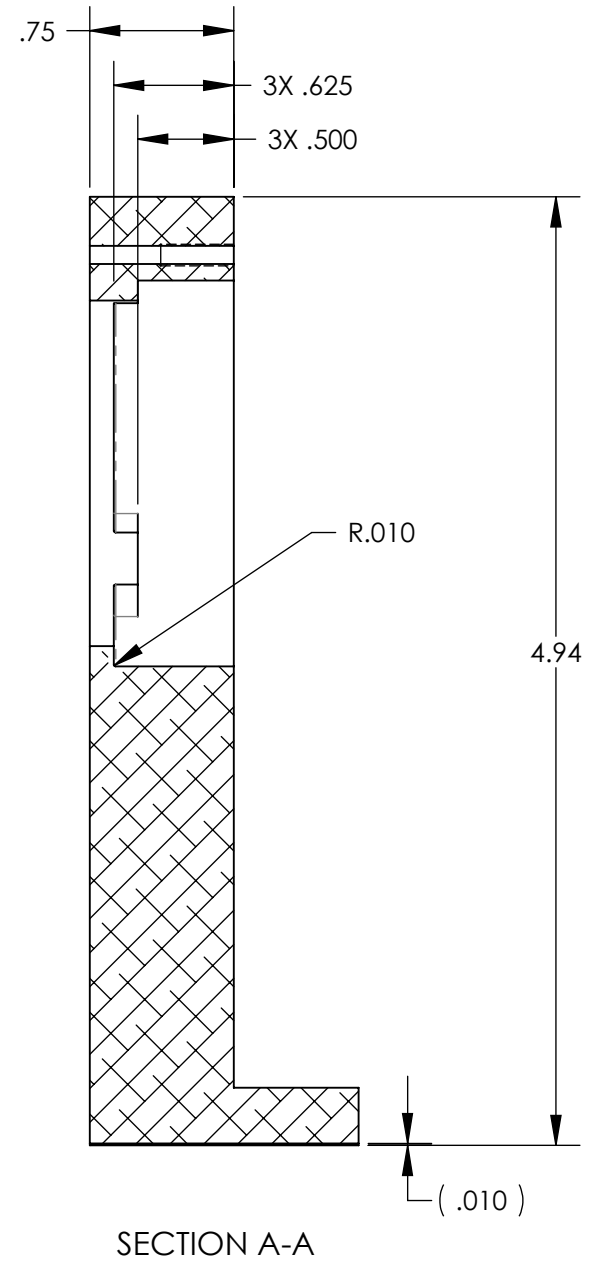
A

D

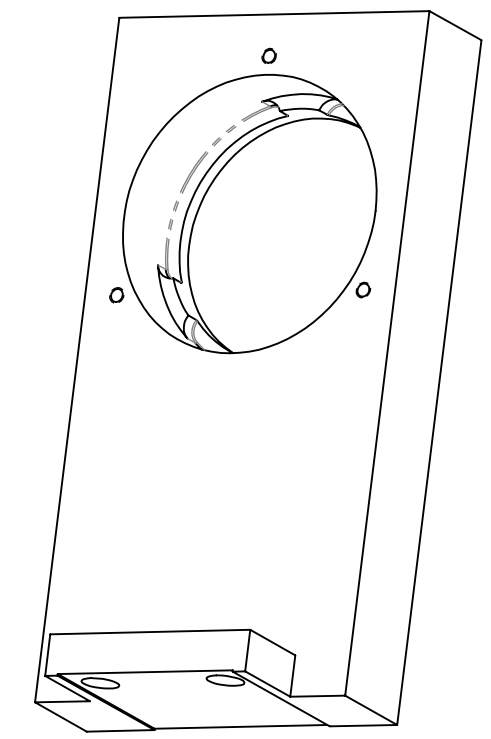
C

B

A



3X DETAIL B  
 SCALE 2 : 1  
 (EQUALLY SPACED)



NOTES AND TOLERANCES: (UNLESS OTHERWISE SPECIFIED)	
DIMENSIONS ARE IN INCHES	
TOLERANCES: .XX ± .02 .XXX ± .010 ANGULAR ± 0.5°	
MATERIAL	6061-T6 Al
FINISH	63 µinch

CALIFORNIA INSTITUTE OF TECHNOLOGY MASSACHUSETTS INSTITUTE OF TECHNOLOGY	PART NAME	
	TFP POLARIZER PLATE	
SYSTEM	SUB-SYSTEM	DESIGNER
ADVANCED LIGO	AOS	N. Nguyen
NEXT ASSY	D0900440	CHECKER
		APPROVAL

SIZE	DWG. NO.	REV.
B	D0900439	v1
SCALE: 1:1	PROJECTION:	SHEET 1 OF 1

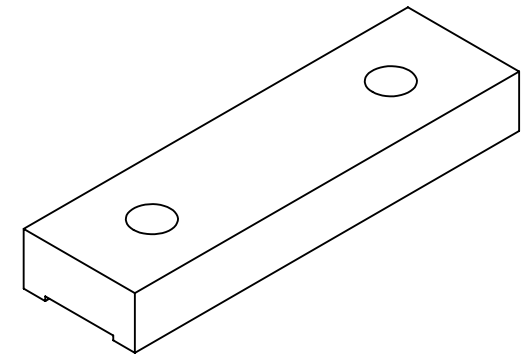
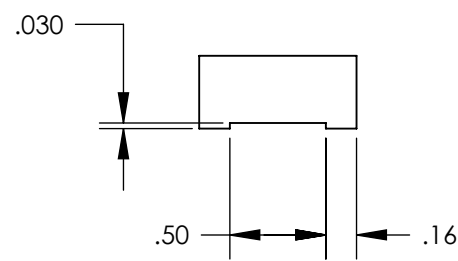
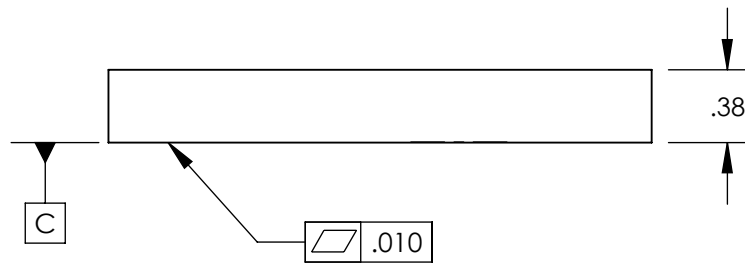
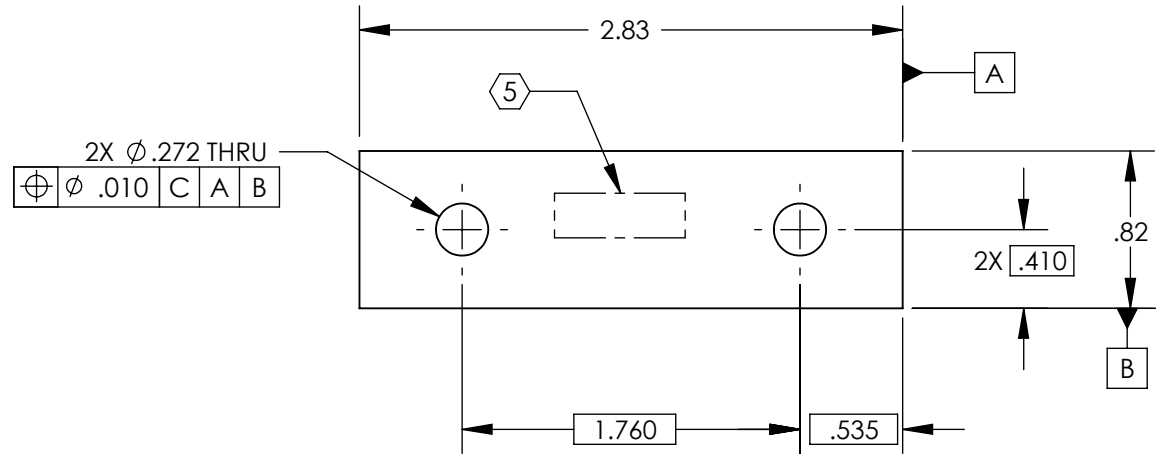
NOTES CONTINUED:

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	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	
				CHECKER	K. Malland	16 Jul 2009	
				APPROVAL	C. Torrie	17 Jul 2009	
				SCALE: 1:1 PROJECTION:		SHEET 1 OF 1	

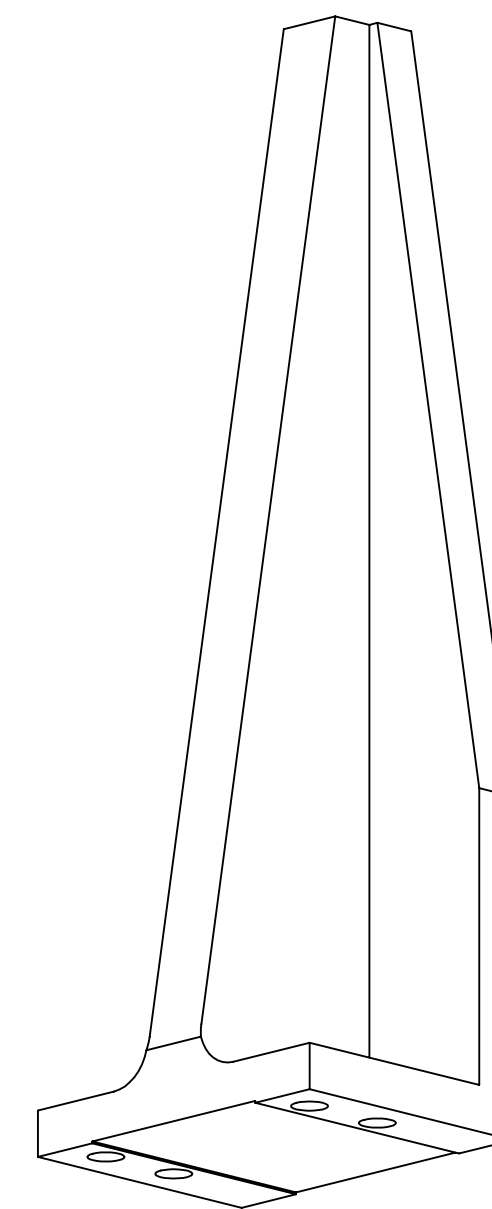
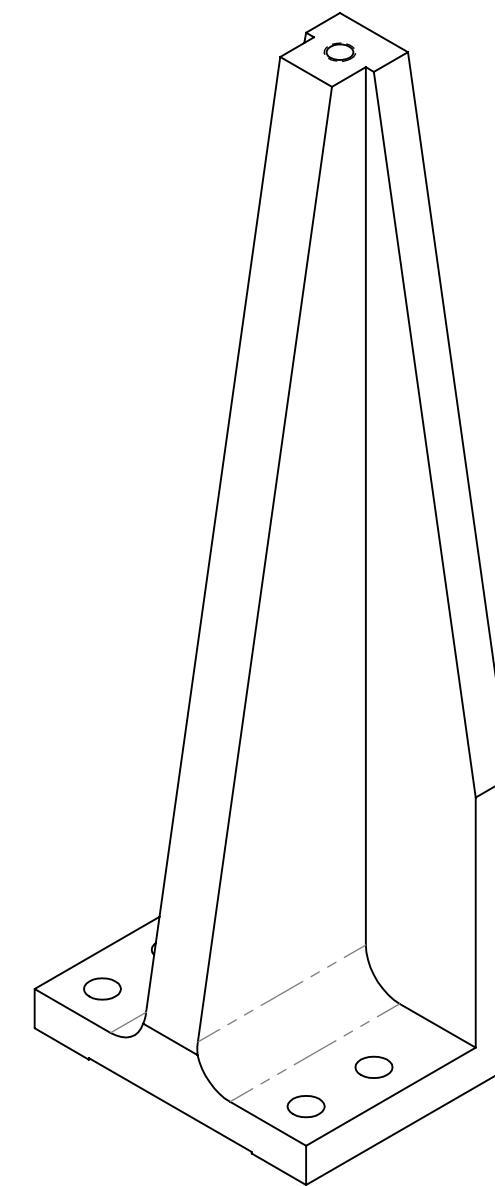
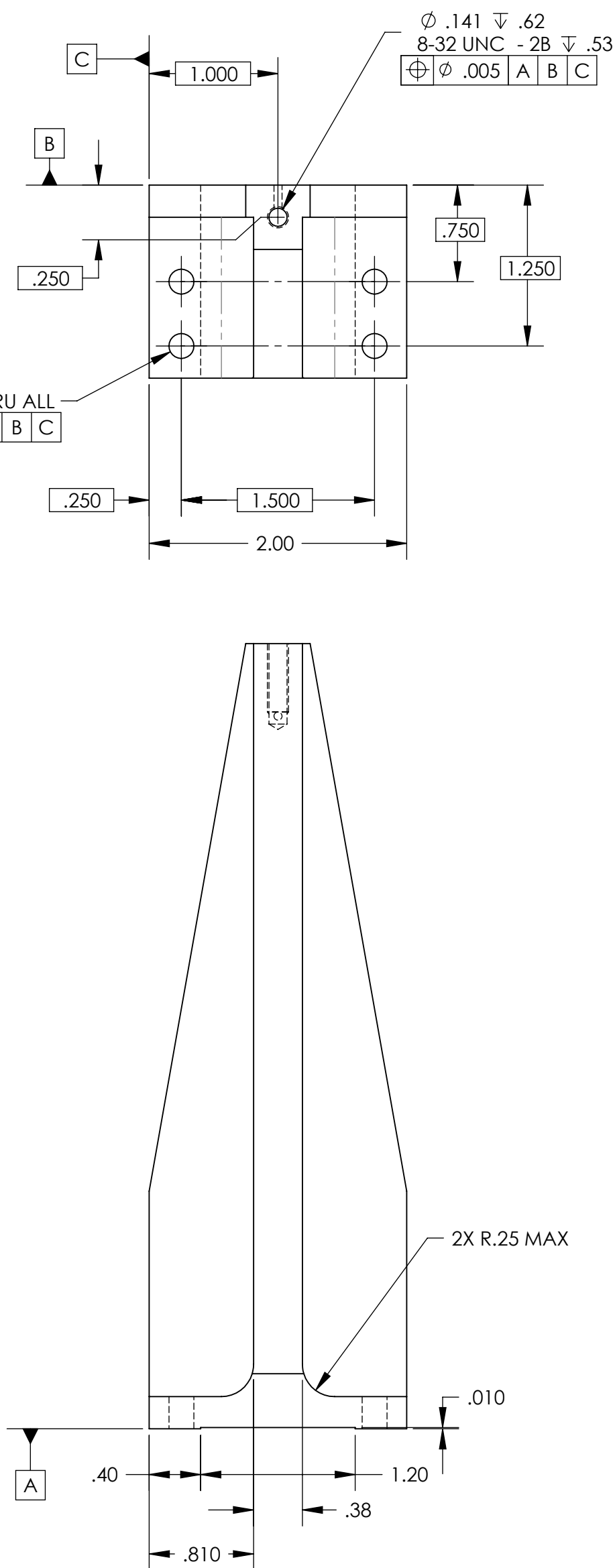
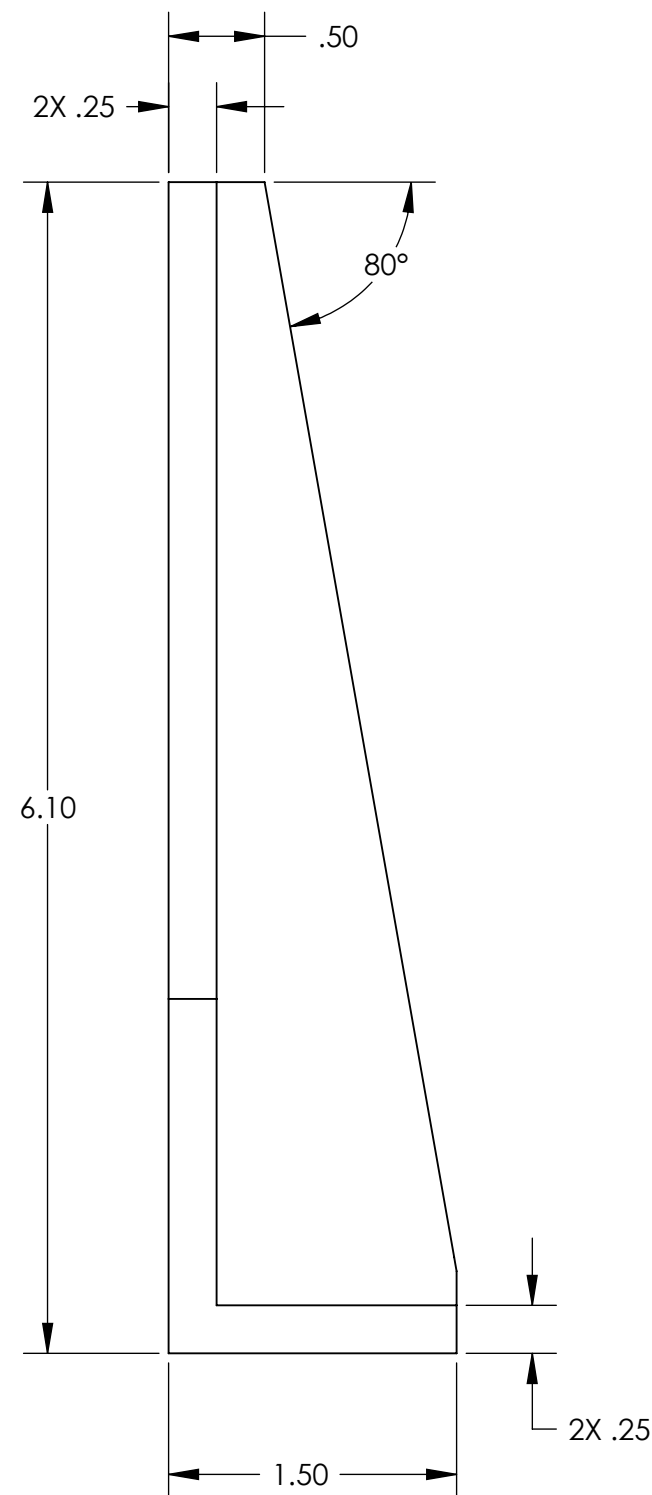
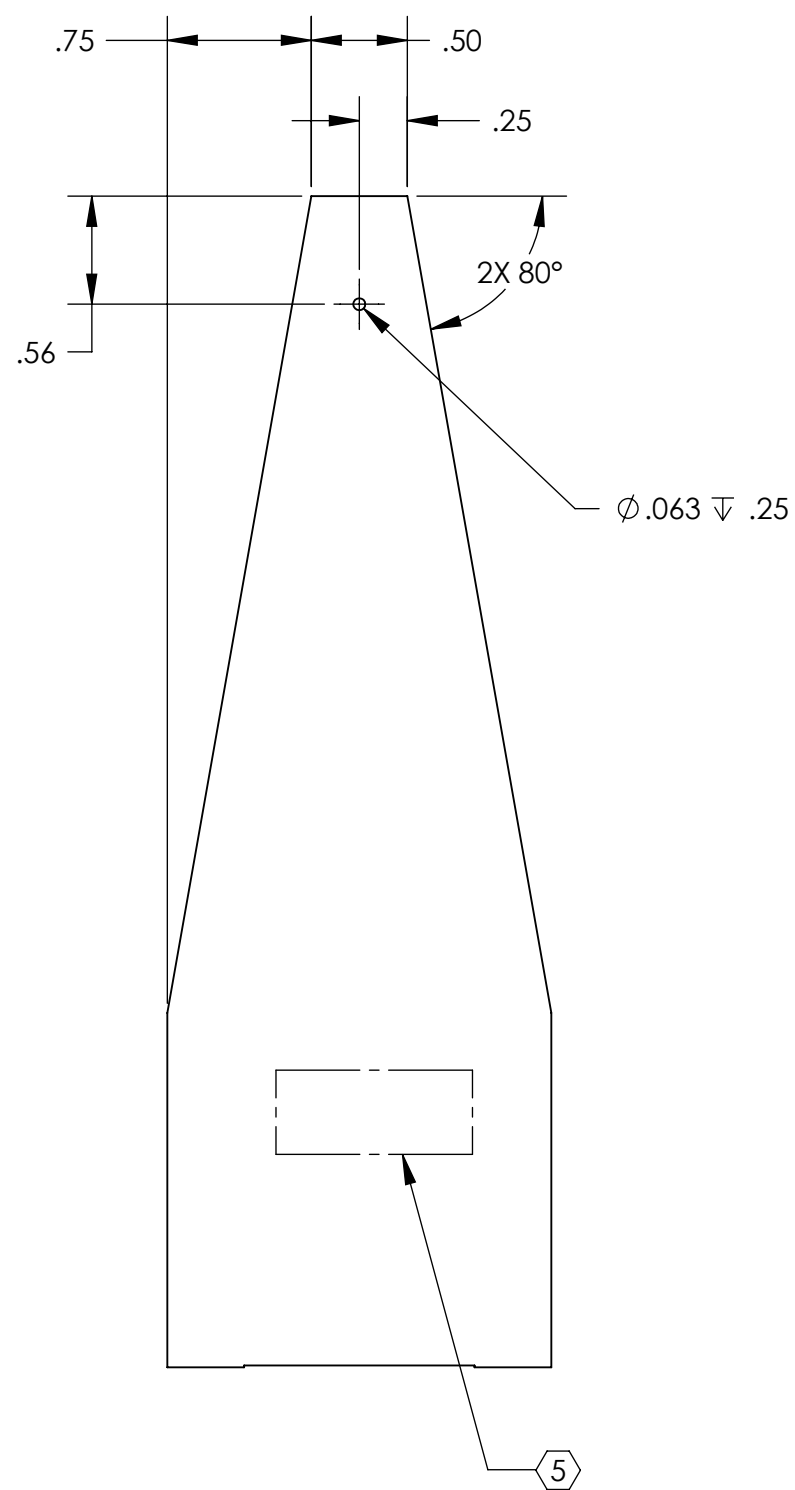
NOTES CONTINUED:

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)

- 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.

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.
N.Nguyen	c	D0900578	v2
K. MAILAND	SCALE: 1:1	PROJECTION:	SHEET 1 OF 1
C. TORRIE			

DIMENSIONS ARE IN INCHES

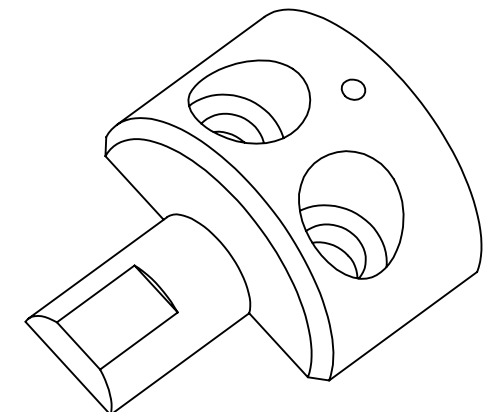
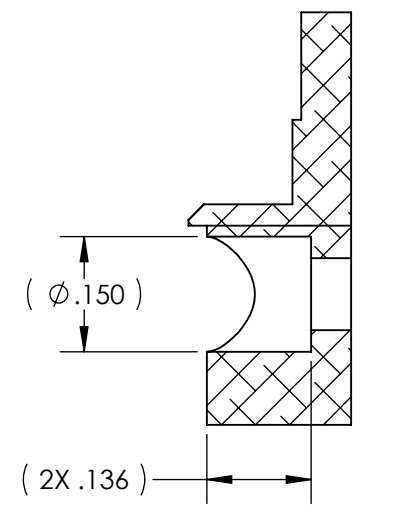
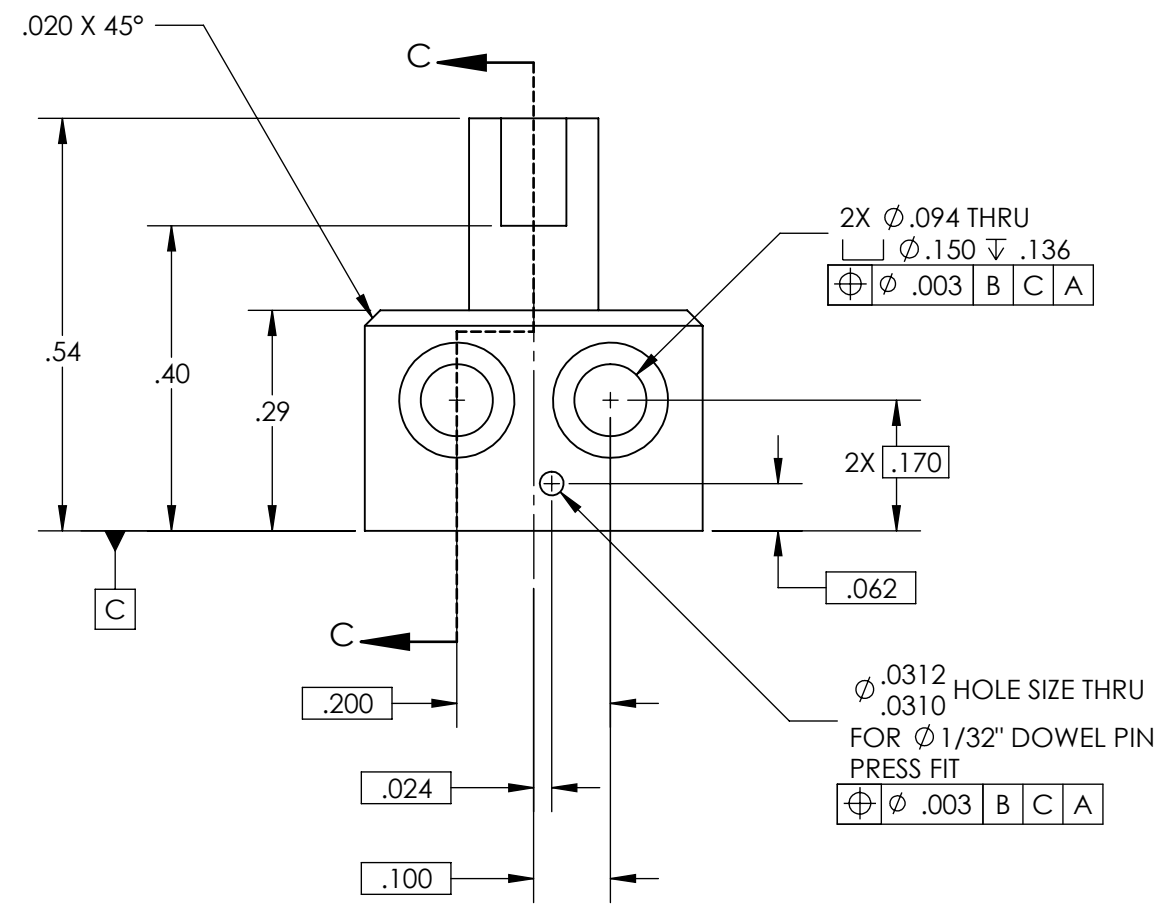
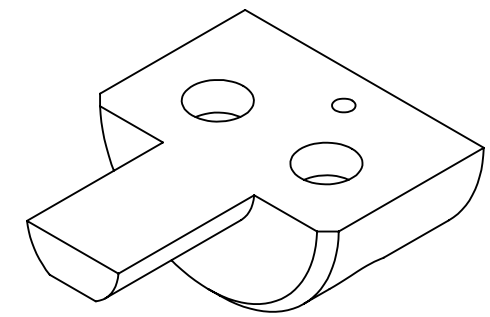
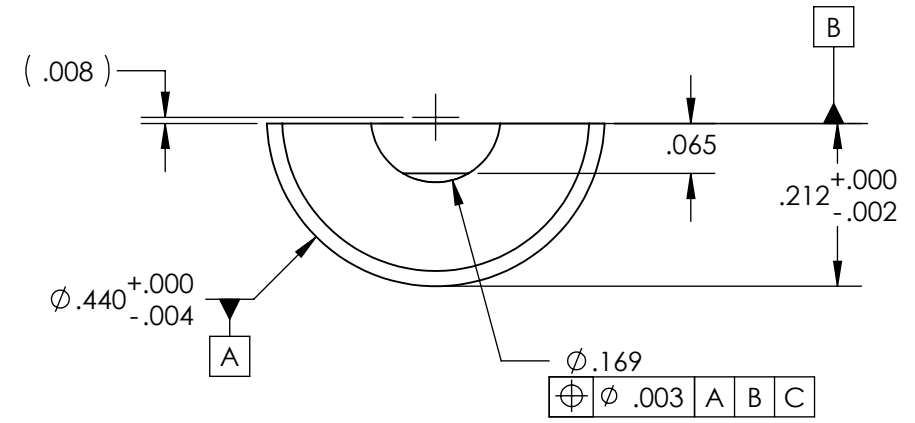
TOLERANCES:  
.XX ± .01  
.XXX ± .005

ANGULAR ± 0.5°

**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)				LIGO CALIFORNIA INSTITUTE OF TECHNOLOGY MASSACHUSETTS INSTITUTE OF TECHNOLOGY		PART NAME	
DIMENSIONS ARE IN INCHES TOLERANCES: .XX ± .005 .XXX ± .002 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.		MUSIC WIRE SPLIT CLAMP 1	
MATERIAL		FINISH		NEXT ASSY		DESIGNER	
304, 316 OR 302 SSTL		63 μinch		D0900586		N.Nguyen 18 Aug 2009	
				SYSTEM		SUB-SYSTEM	
				ADVANCED LIGO		AOS	
				CHECKER		M. Smith 21 Aug 2009	
				APPROVAL			
				SIZE DWG. NO.		REV.	
				B		D0900582 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

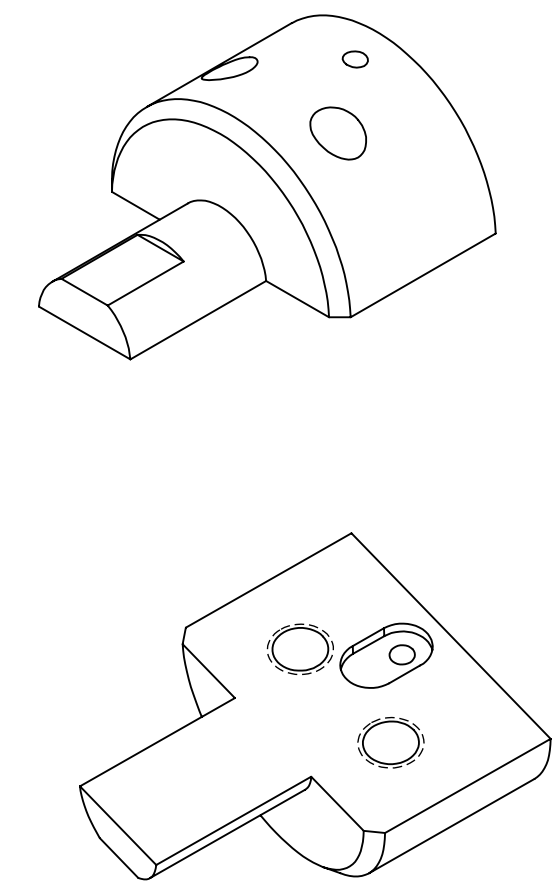
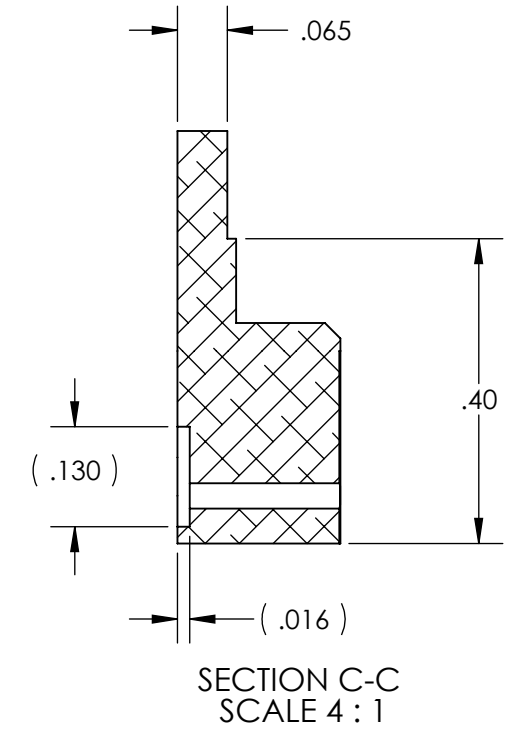
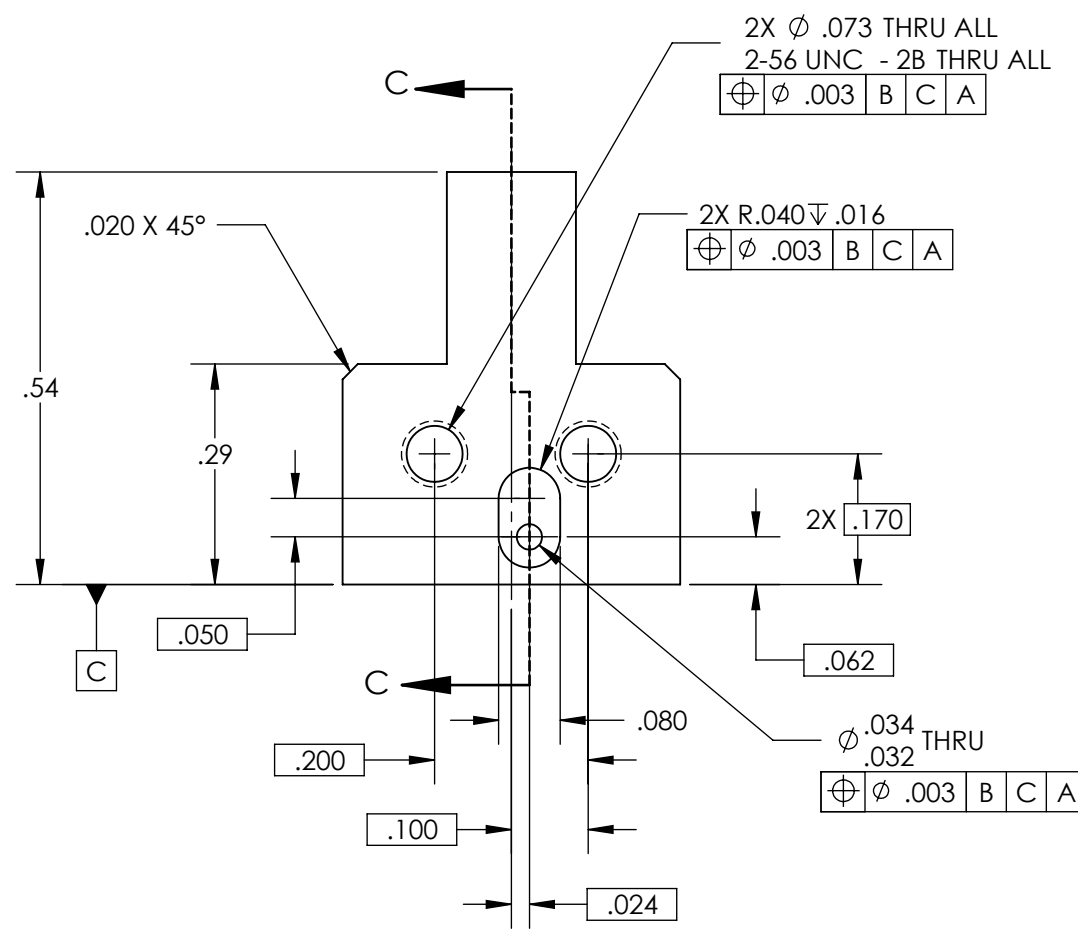
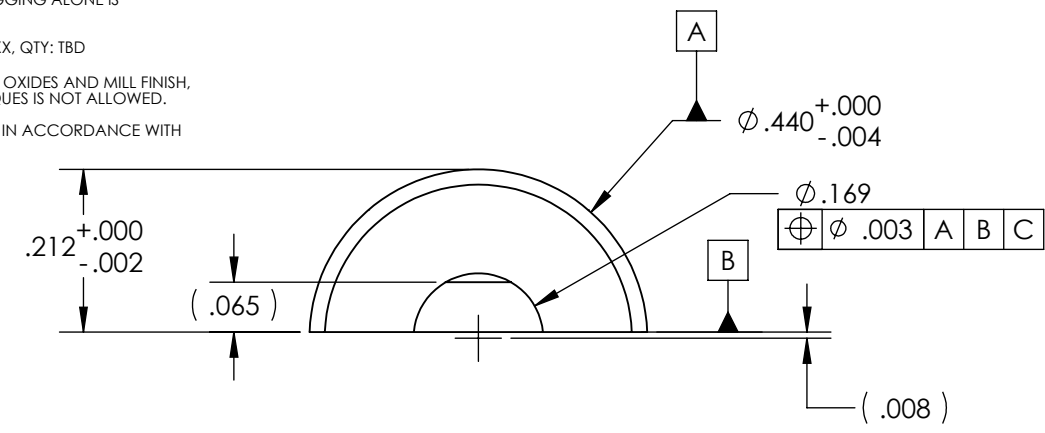
**NOTES CONTINUED:**

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

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	



NOTES AND TOLERANCES: (UNLESS OTHERWISE SPECIFIED)					LIGO CALIFORNIA INSTITUTE OF TECHNOLOGY MASSACHUSETTS INSTITUTE OF TECHNOLOGY		PART NAME			
DIMENSIONS ARE IN INCHES					ADVANCED LIGO		MUSIC WIRE SPLIT CLAMP 2			
TOLERANCES: .XX ± .005 .XXX ± .002					SUB-SYSTEM AOS		DESIGNER N. Nguyen 18 Aug 2009			
ANGULAR ± 0.5°					NEXT ASSY D0900586		DRAFTER M. Smith 21 Aug 2009			
MATERIAL 304, 316 OR 302 SSTL					FINISH 63 μinch		CHECKER M. Smith 21 Aug 2009			
							APPROVAL			
							SIZE DWG. NO. B		REV. v2	
							SCALE: 1:1		PROJECTION:	
									SHEET 1 OF 1	

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

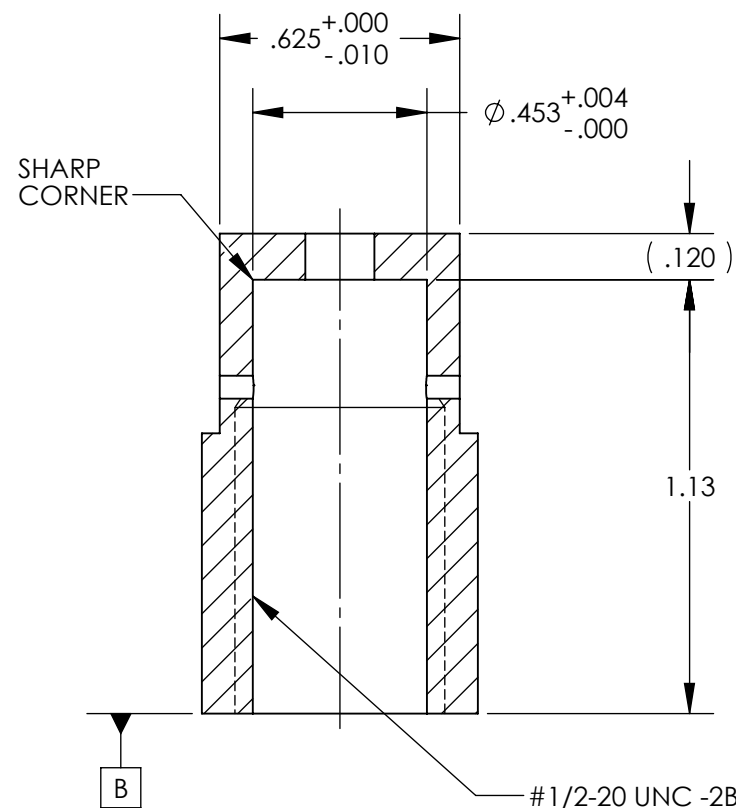
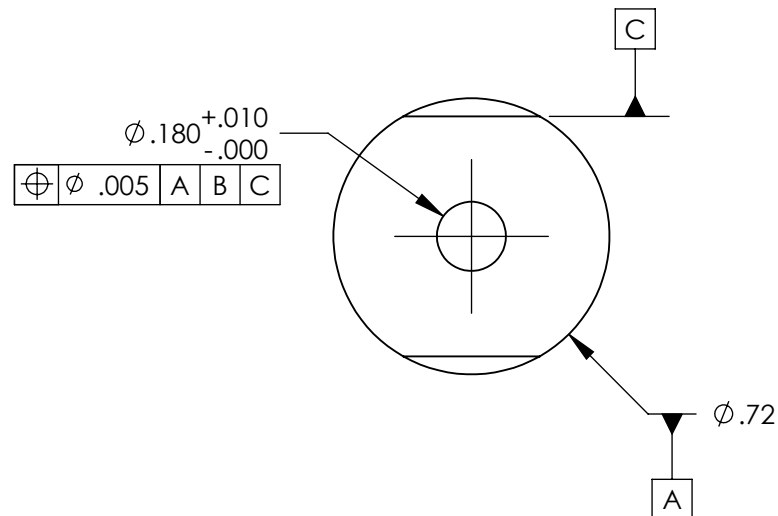
NOTES CONTINUED:

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.

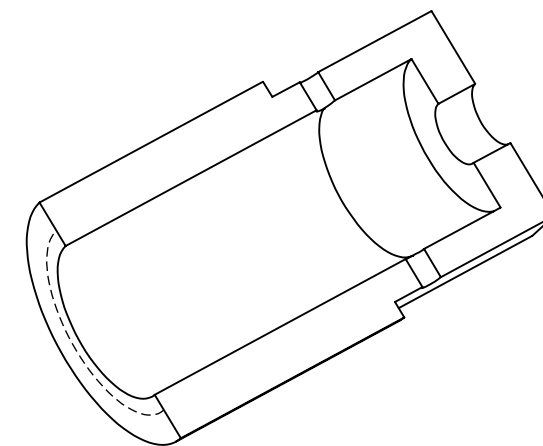
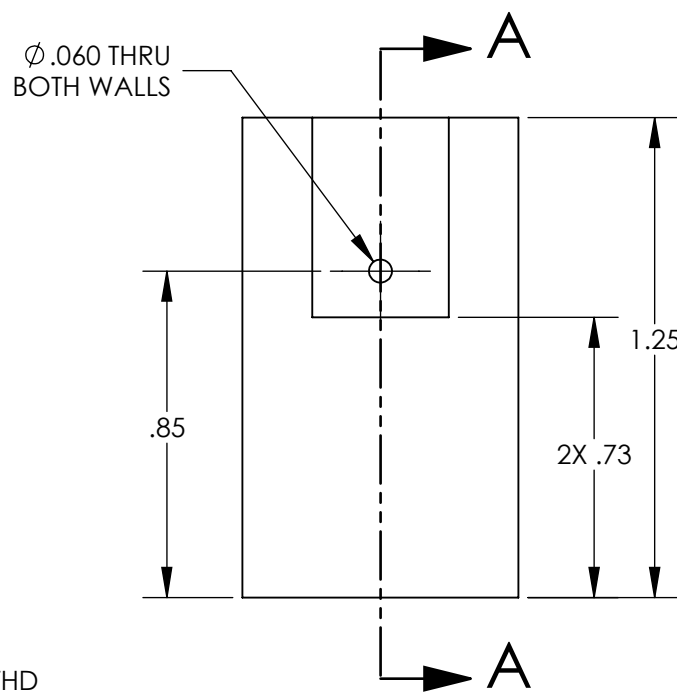
7. ALL PARTS SHALL BE MANUFACTURED IN ACCORDANCE WITH LIGO SPECIFICATION E0900364.

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

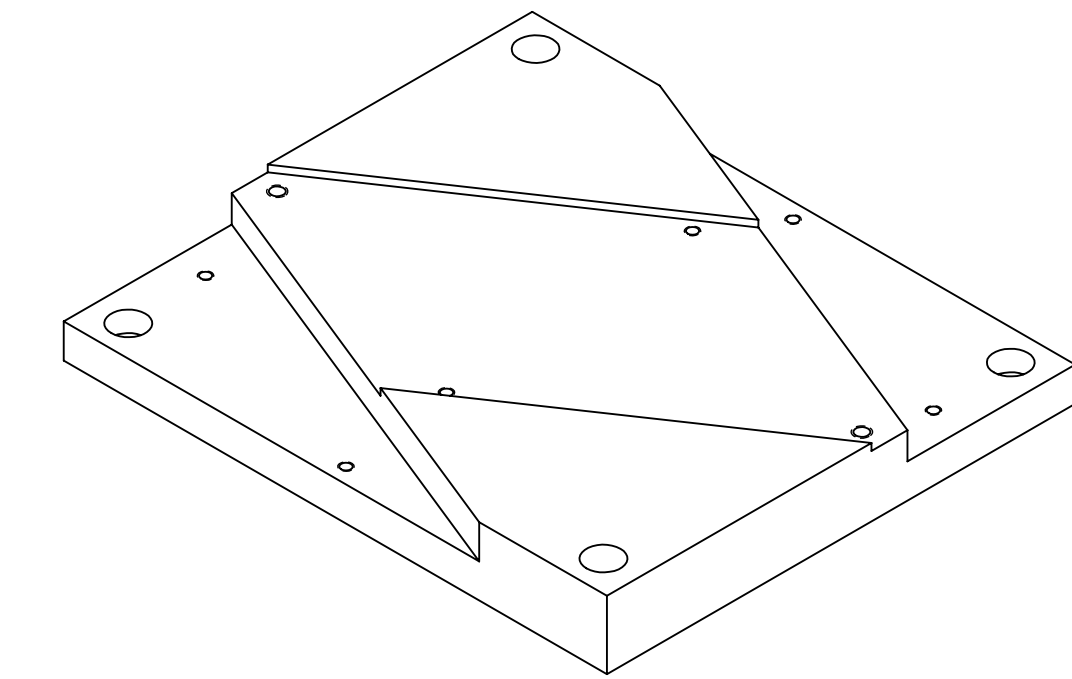
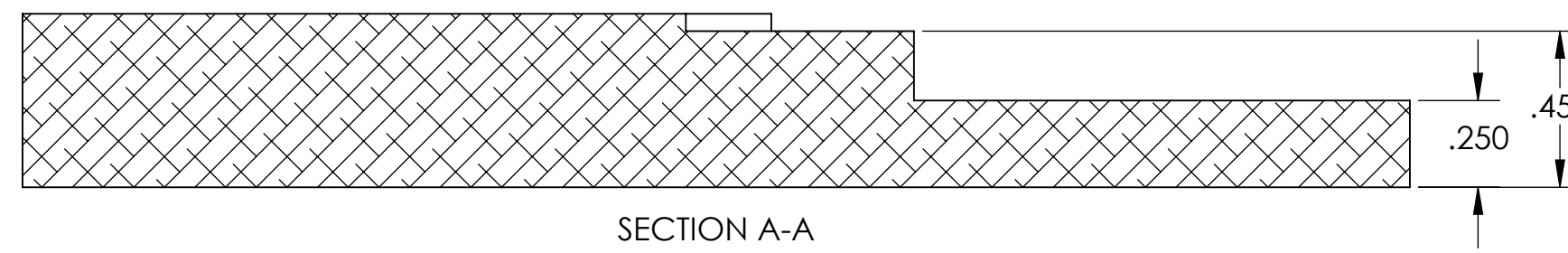
CALIFORNIA INSTITUTE OF TECHNOLOGY MASSACHUSETTS INSTITUTE OF TECHNOLOGY		PART NAME		WIRE ADJUSTABLE ADAPTER	
SYSTEM	ADVANCED LIGO	SUB-SYSTEM	AOS	DESIGNER	
DRAFTER		CHECKER		APPROVAL	
NEXT ASSY			SCALE	1:1	PROJECTION
FARADAY ISOLATOR			SIZE	DWG. NO.	REV.
			B	D0900588	v2
			SHEET	1 OF 1	



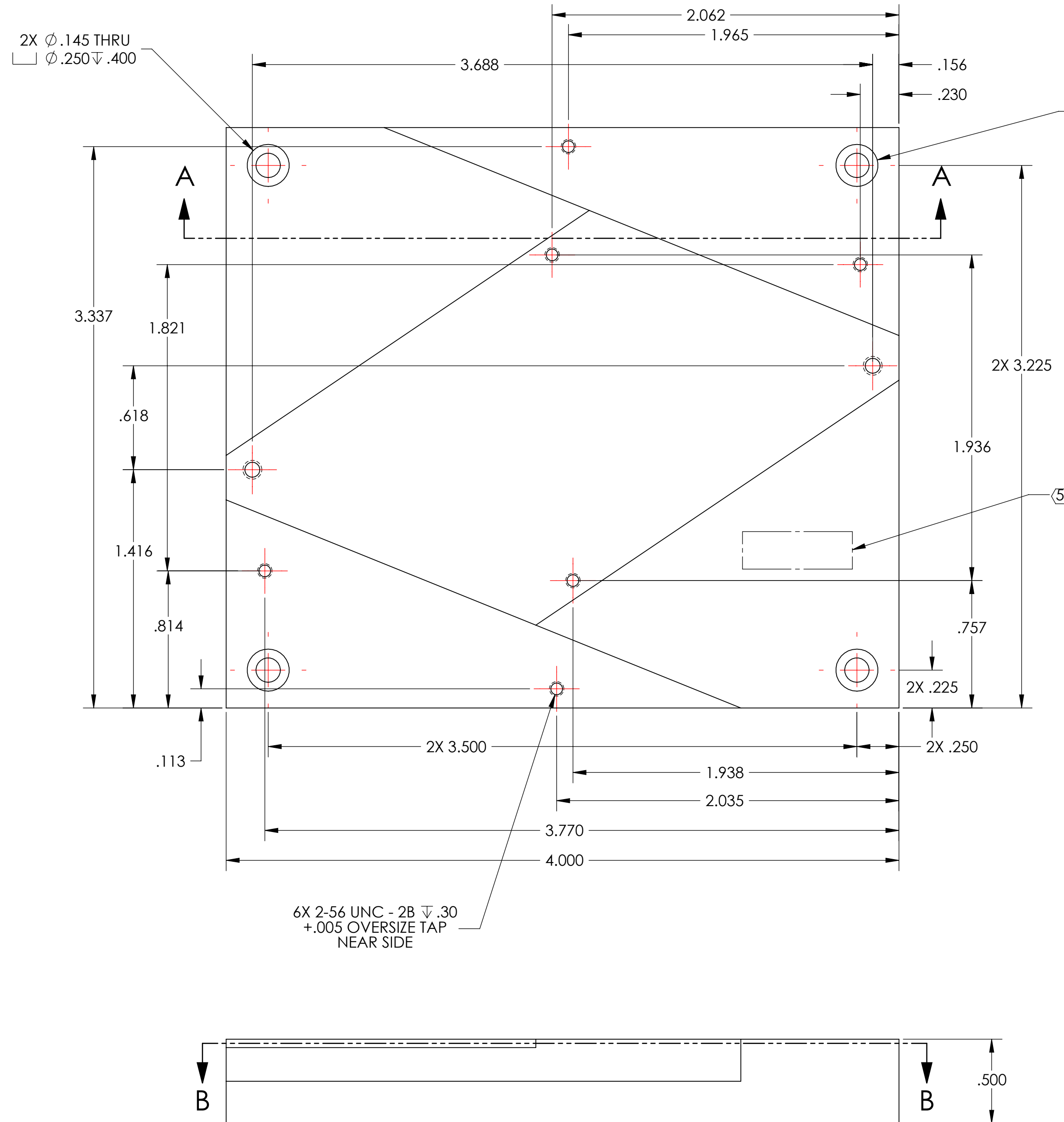
NOTES CONTINUED:  
 5. SCRIBE, ENGRAVE, OR MECHANICALLY STAMP (NO INKS OR DYES) DRAWING PART NUMBER, REVISION (AND VARIANT OR TYPE IF APPLICABLE) ON NOTED SURFACE OF PART FOLLOWED ON THE NEXT LINE WITH A THREE DIGIT SERIAL NUMBER. SERIAL NUMBERS START AT 001 FOR THE FIRST ARTICLE AND PROCEED CONSECUTIVELY. 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	8 OCT 2010	E1000563	

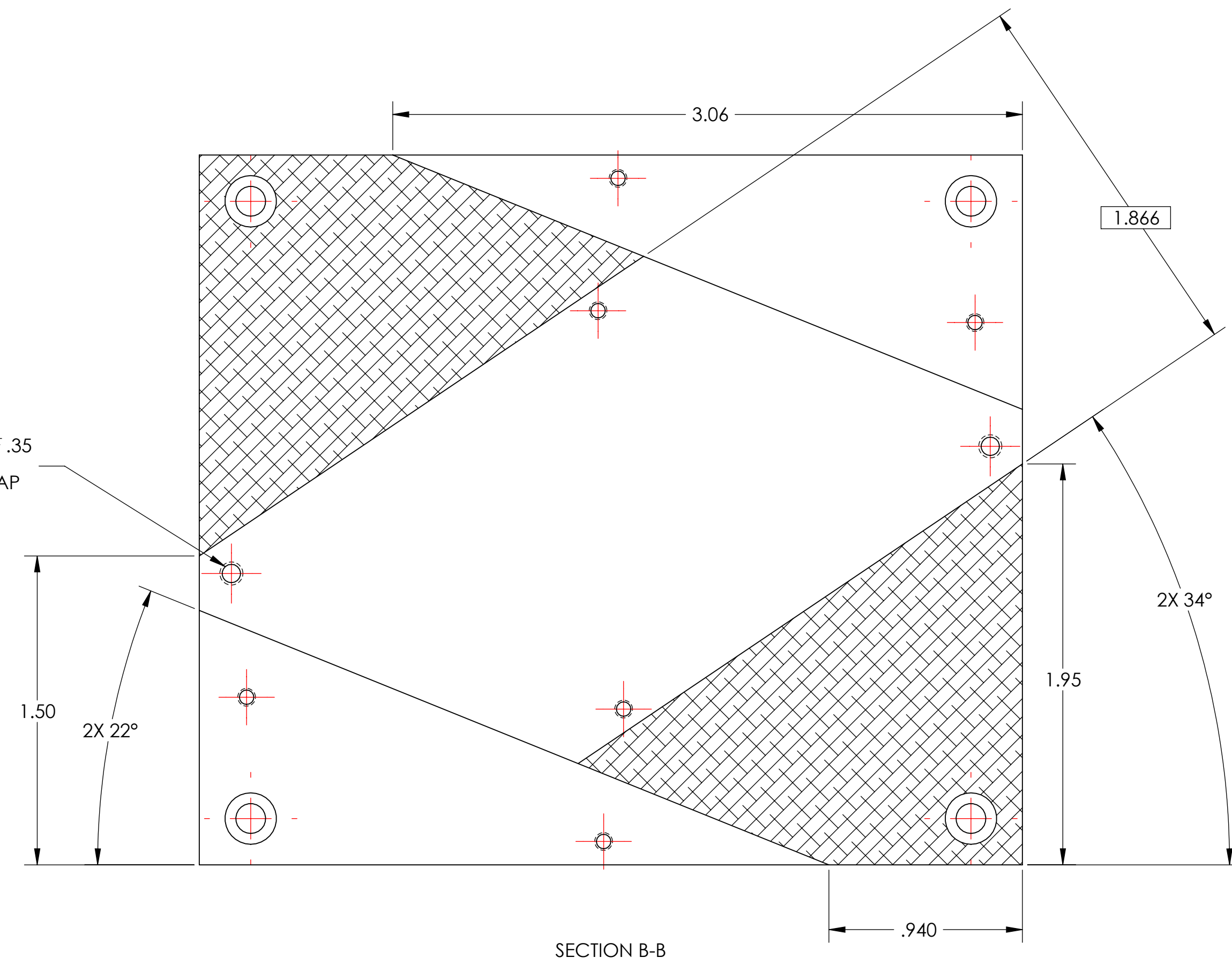


GENERAL VIEW FOR REFERENCE ONLY  
NO SCALE



2X  $\phi$ .145 THRU  
 $\phi$ .250  $\nabla$ .150

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



SECTION B-B

NOTES AND TOLERANCES: (UNLESS OTHERWISE SPECIFIED)				LIGO CALIFORNIA INSTITUTE OF TECHNOLOGY MASSACHUSETTS INSTITUTE OF TECHNOLOGY		PART NAME							
DIMENSIONS ARE IN INCHES				SYSTEM		SUB-SYSTEM		PRISM MOUNT BASE_LH					
TOLERANCES: .XX $\pm$ .01 .XXX $\pm$ .005				ADVANCED LIGO		AOS		DESIGNER	TQ. NGUYEN	21 JUL 2010	SIZE	DWG. NO.	REV.
ANGULAR $\pm$ 0.5°				MATERIAL		NEXT ASSY		DRAFTER	TQ. NGUYEN	26 AUG 2010	D	D0900616	v1
				6061-T6 Al		D0900614		CHECKER	M. SMITH		SCALE: 2:1	PROJECTION:	SHEET 1 OF 1
				FINISH				APPROVAL	D. COYNE				
				63 $\mu$ inch									

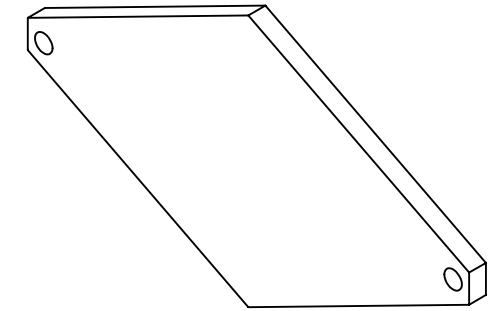
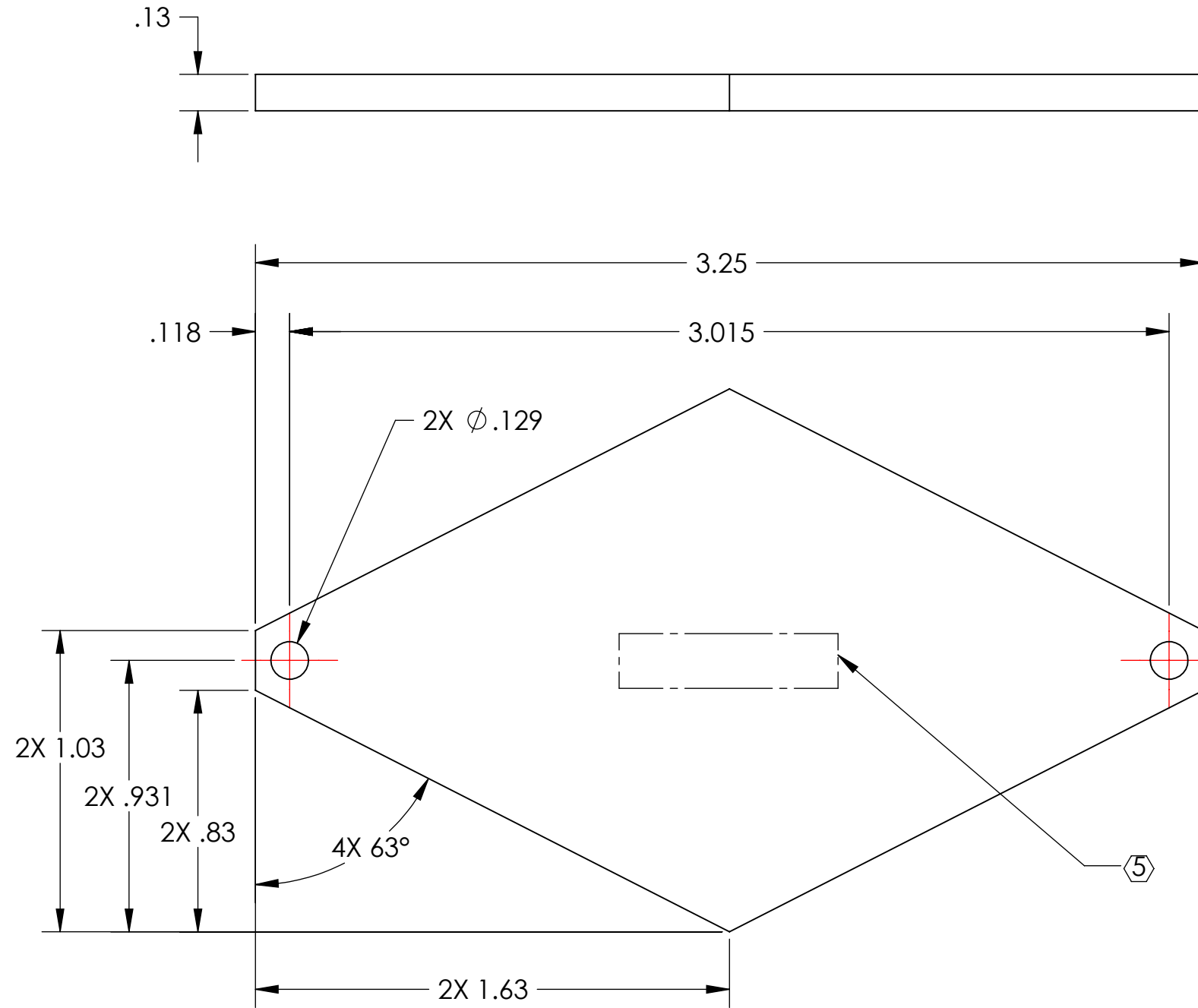
D0900616\_LH\_LIGO\_AOS\_E1000563\_Prim Mount Base\_LH\_PART.FDM REV: X.007\_DRAWING.FDM REV: X.005

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

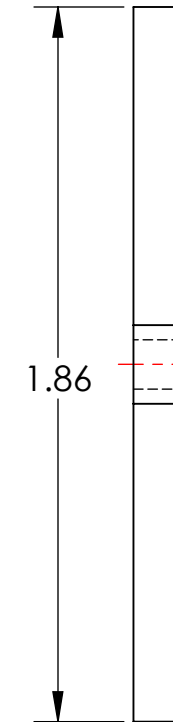
**NOTES CONTINUED:**  
 5. SCRIBE, ENGRAVE, OR MECHANICALLY STAMP (NO INKS OR DYES) DRAWING PART NUMBER, REVISION (AND VARIANT OR "TYPE" IF APPLICABLE) ON NOTED SURFACE OF PART FOLLOWED ON THE NEXT LINE WITH A THREE DIGIT SERIAL NUMBER. SERIAL NUMBERS START AT 001 FOR THE FIRST ARTICLE AND PROCEED CONSECUTIVELY. 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	
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
6061-T6 Al	63 μinch

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

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

NEXT ASSY: **D0900615-D0900614**

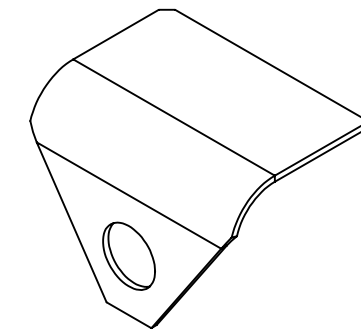
PART NAME		OPTICAL PRISM TOP PLATE	
DESIGNER	TQ. NGUYEN	12 JUL 2010	SIZE DWG. NO.
DRAFTER	TQ. NGUYEN	27 AUG 2010	<b>B</b>
CHECKER	M. SMITH		<b>D0900618</b>
APPROVAL	D. COYNE		REV. <b>v1</b>
SCALE: 2:1		PROJECTION:	SHEET 1 OF 1

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

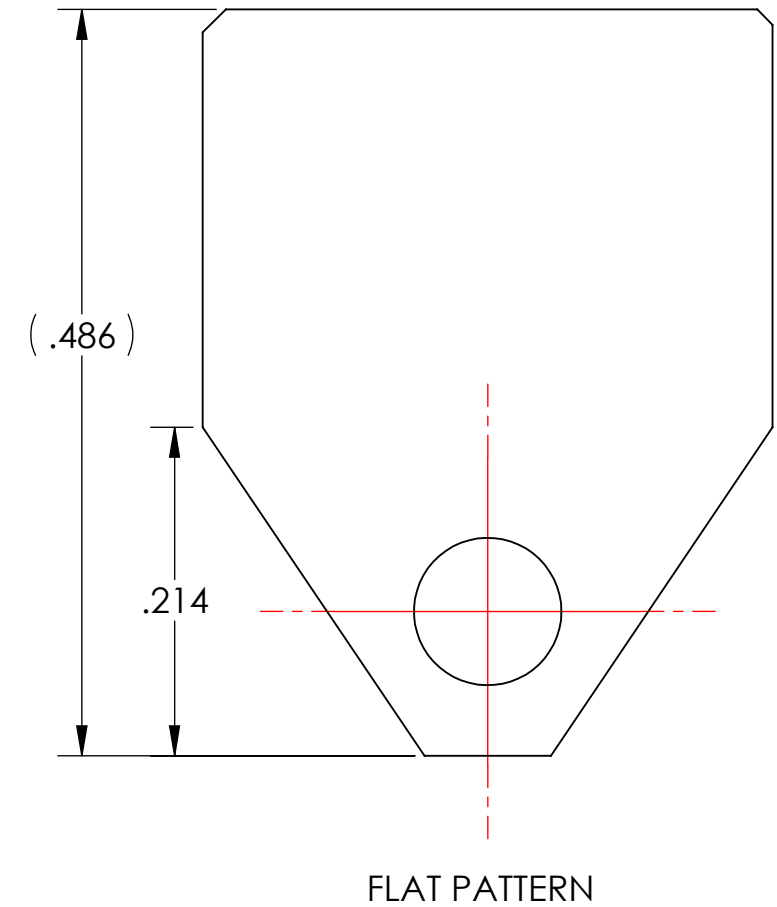
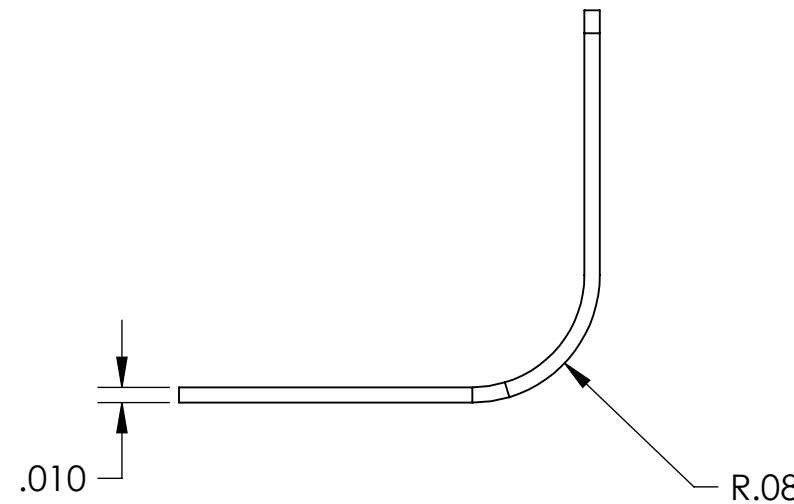
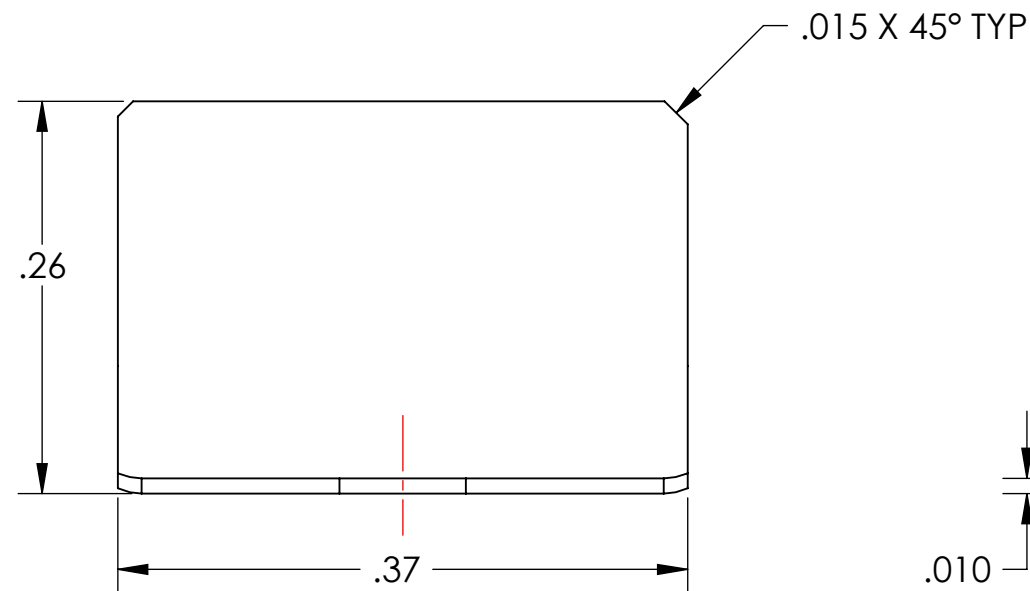
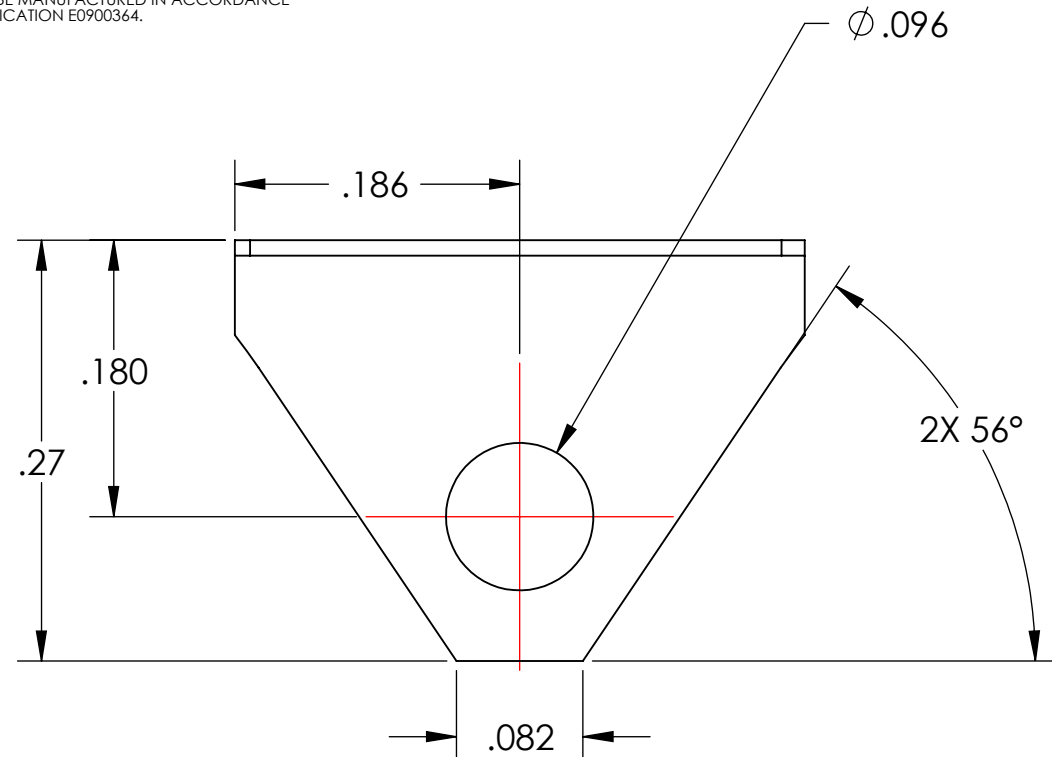
**NOTES CONTINUED:**  
 5. SCRIBE, ENGRAVE, OR MECHANICALLY STAMP (NO DYES OR INKS) A UNIQUE THREE DIGIT SERIAL NUMBER & REVISION NUMBER ON EACH PART. SERIAL NUMBERS START AT 001 FOR THE FIRST ARTICLE AND PROCEED CONSECUTIVELY. BAG AND TAG PARTS WITH THEIR DRAWING PART NUMBER, REVISION, VARIANT OR "TYPE" (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



**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: 304 SSSL  
 FINISH: 63 μinch

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

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

PART NAME: SPRING CLIP  
 DESIGNER: TQ. NGUYEN 12 JUL 2010  
 DRAFTER: TQ. NGUYEN 23 AUG 2010  
 CHECKER: M. SMITH  
 APPROVAL: D. COYNE

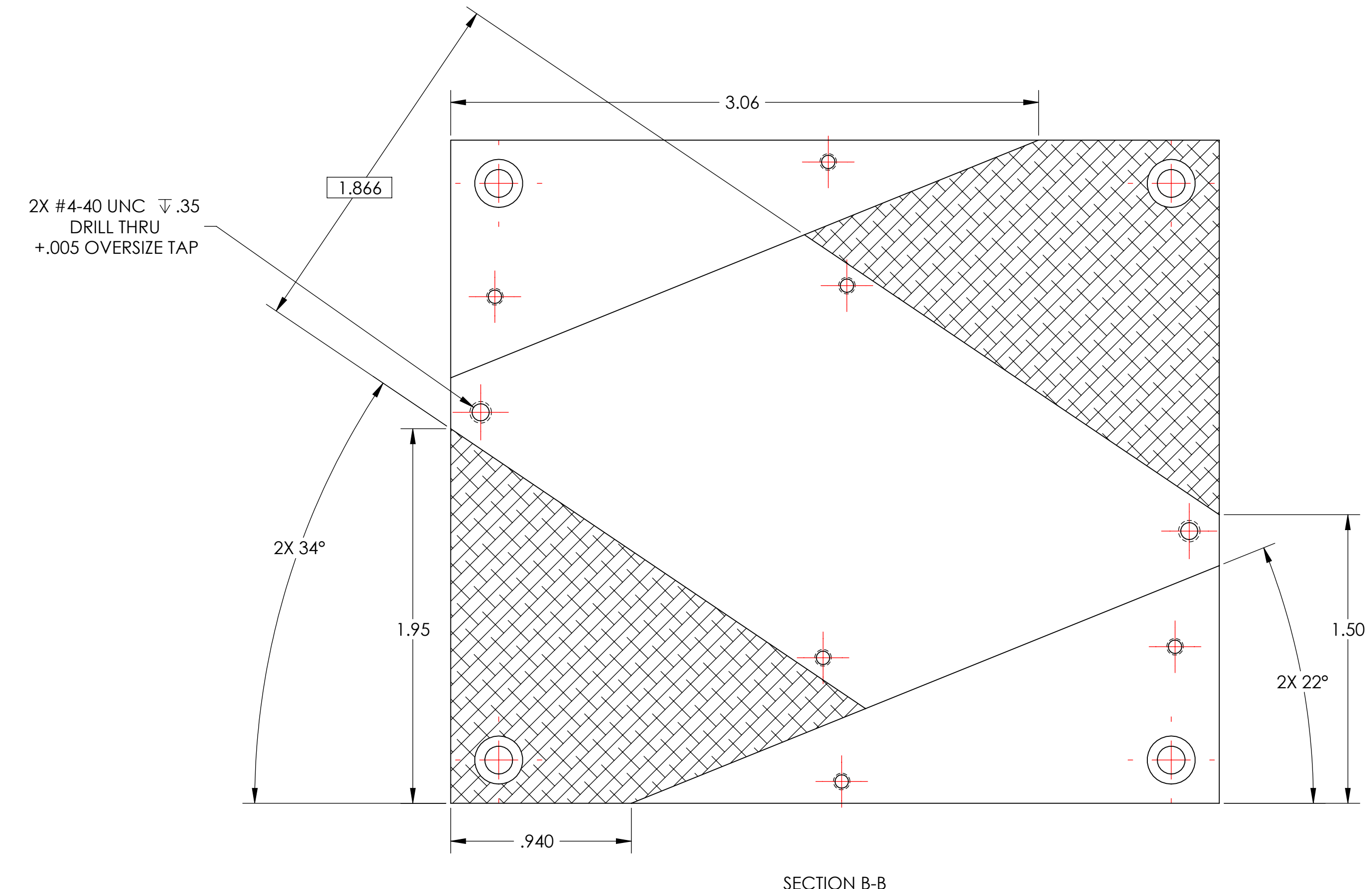
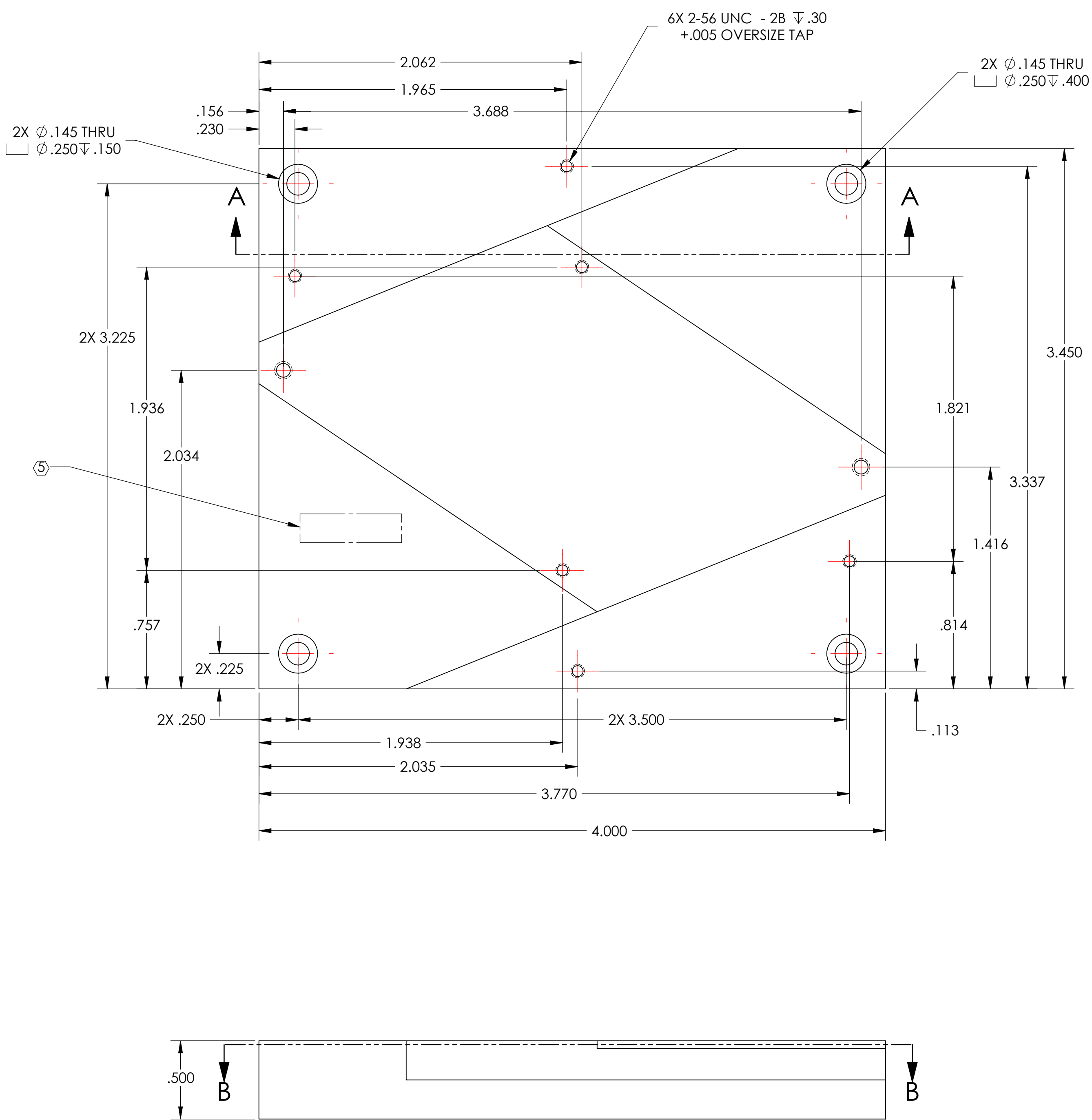
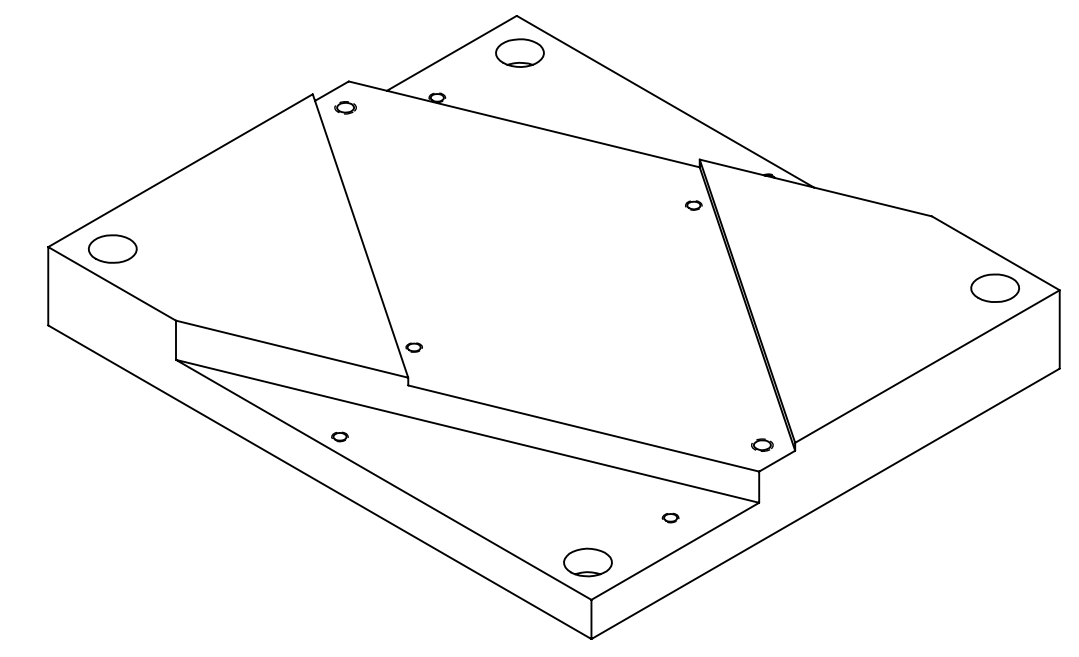
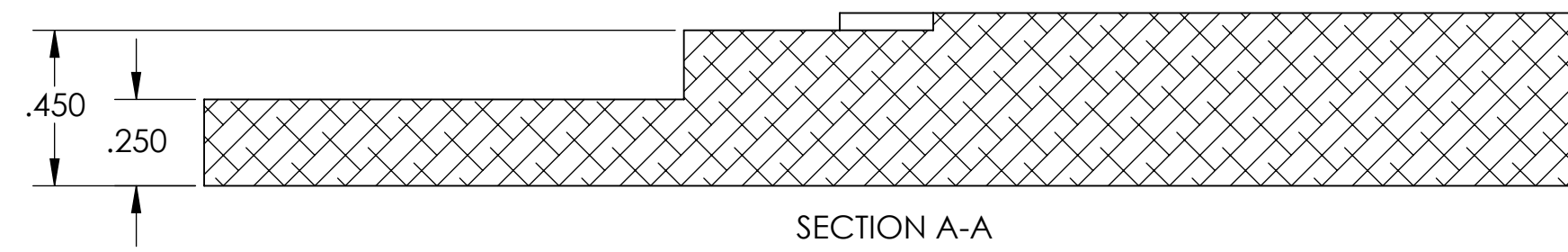
SIZE: B  
 DWG. NO.: D0900619  
 REV.: v1

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)	
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	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:
		SHEET 1 OF 1	

D0900620.dwg\_ACSL D0900615\_Paradise Isolator Prism Mount Base RH\_PART PDM REV: X-009 DRAWING PDM REV: X-011

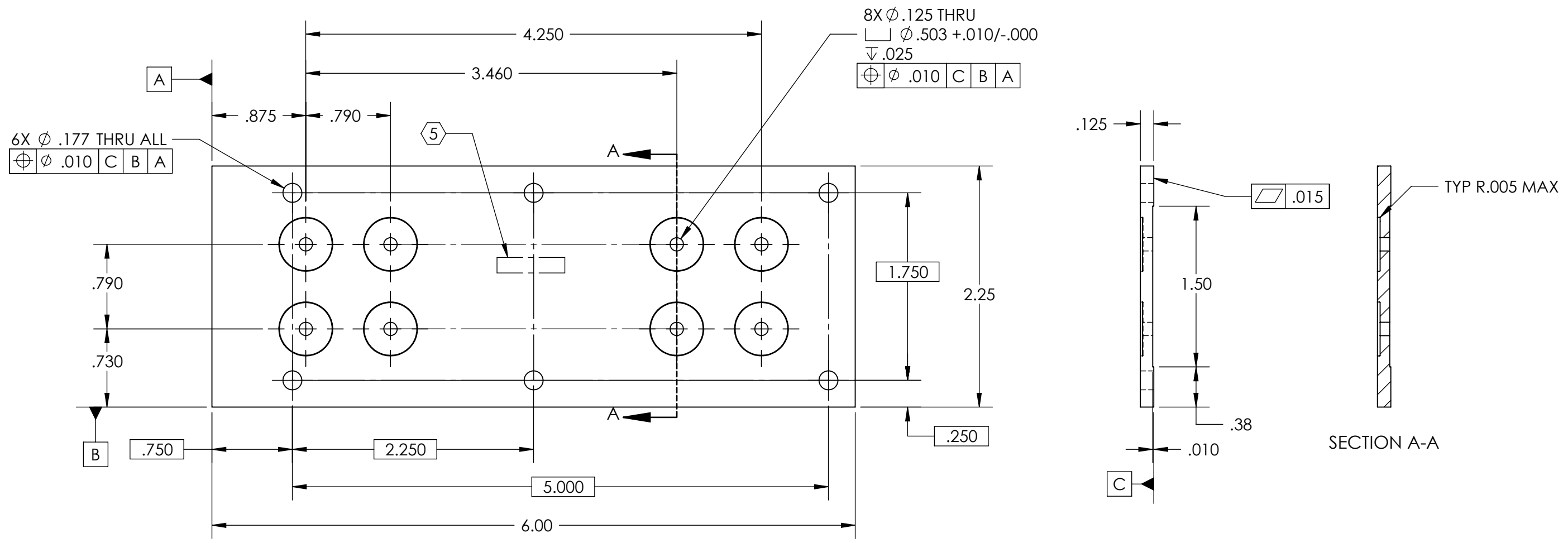
D0900778\_AdlIGO\_AOS\_FID0900048\_Magnet Attachment Plate, PART PDM REV: X-020, DRAWING PDM REV: X-013

**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

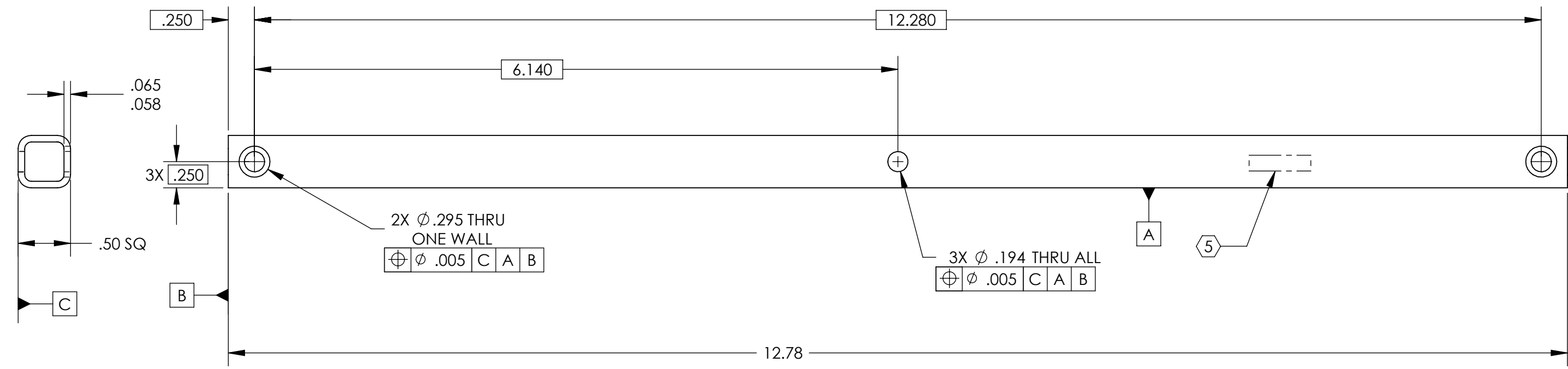
**NEXT ASSY** D0900048

PART NAME			MAGNET ATTACHMENT PLATE		REV.
DESIGNER	DRFTR	CHECKER	APPROVAL	SIZE DWG. NO.	REV.
N.Nguyen	26 Jul 2009	K. Malland	28 Jul 2009	<b>B</b>	<b>D0900778</b>
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	-
-	-	-	-

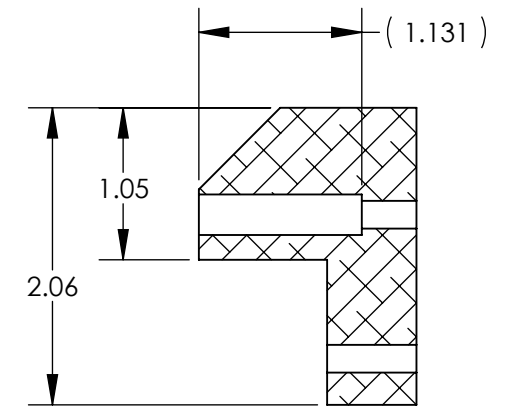
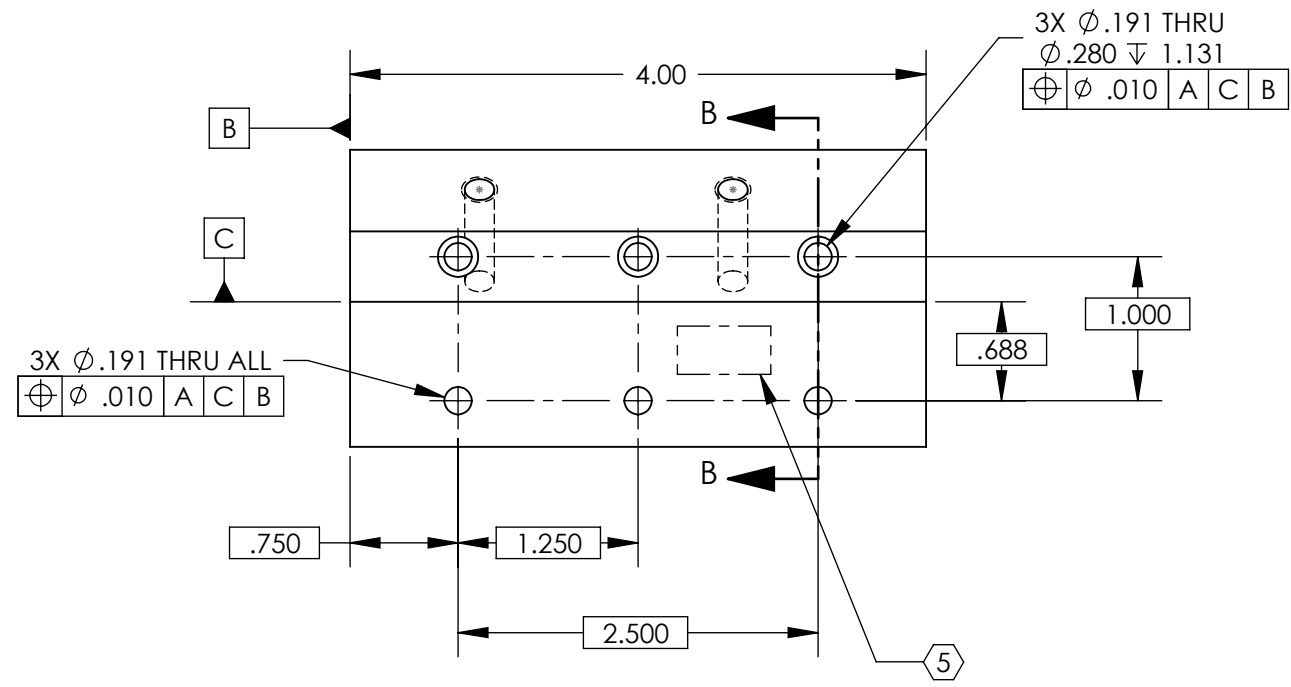
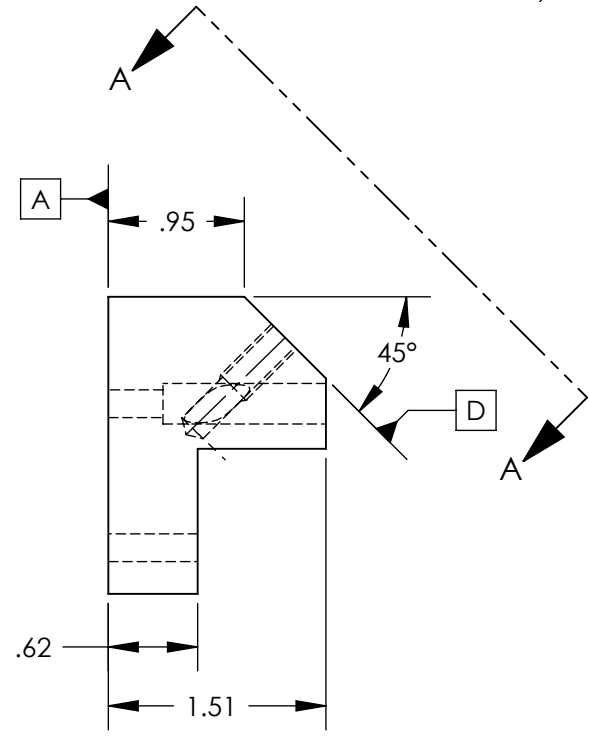
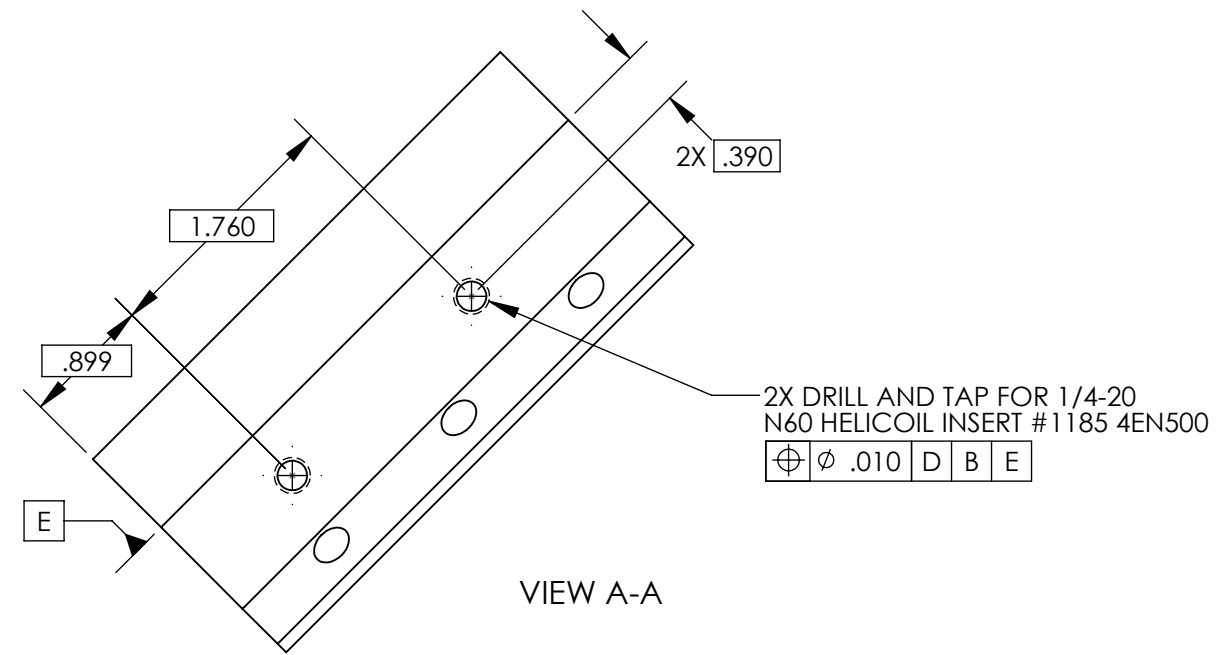


NOTES AND TOLERANCES: (UNLESS OTHERWISE SPECIFIED)	
DIMENSIONS ARE IN INCHES	
TOLERANCES: .XX ± .02 .XXX ± .005	
ANGULAR ± 0.5°	
1. INTERPRET DRAWING PER ASME Y14.5-1994. 2. REMOVE ALL SHARP EDGES, R.02 MIN. 3. DO NOT SCALE FROM DRAWING. 4. ALL MACHINING FLUIDS SHALL BE WATER SOLUBLE AND FREE OF SULFUR, CHLORINE AND SILICONE, SUCH AS CINCINNATI MILACRON'S CIMTECH 410.	
MATERIAL	6061-T6 Al
FINISH	stock tubing

CALIFORNIA INSTITUTE OF TECHNOLOGY MASSACHUSETTS INSTITUTE OF TECHNOLOGY		PART NAME		BLADE GUARD CROSSPIECE	
SYSTEM	ADVANCED LIGO	SUB-SYSTEM	AOS	DESIGNER	N.Nguyen
CHECKER	K. Mailand	DATE	21 Jul 2009	SIZE	DWG. NO.
APPROVAL	C. Torrie	DATE	22 Jul 2009	B	D0901271
NEXT ASSY				SCALE	1:4
D0900579				PROJECTION	
SHEET 1 OF 1					REV.
					v2

- 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)				LIGO CALIFORNIA INSTITUTE OF TECHNOLOGY MASSACHUSETTS INSTITUTE OF TECHNOLOGY		PART NAME	
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.		BLADE CLAMP PLATFORM	
						MATERIAL 6061-T6 Al FINISH 63 μinch	
SYSTEM ADVANCED LIGO SUB-SYSTEM AOS				DESIGNER N.Nguyen 30 Jul 2009 DRAFTER M. SMITH 05 Aug 2009 CHECKER APPROVAL		SIZE DWG. NO. B D0901514 REV. v1	
NEXT ASSY -				SCALE: 3:4 PROJECTION:		SHEET 1 OF 1	

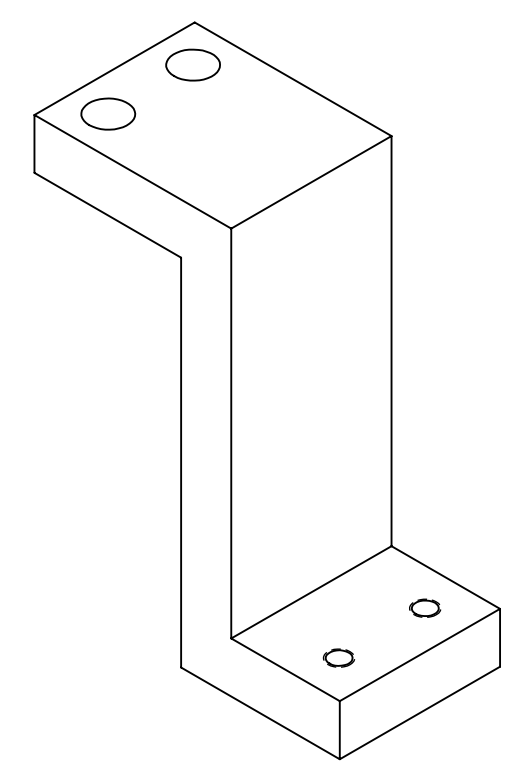
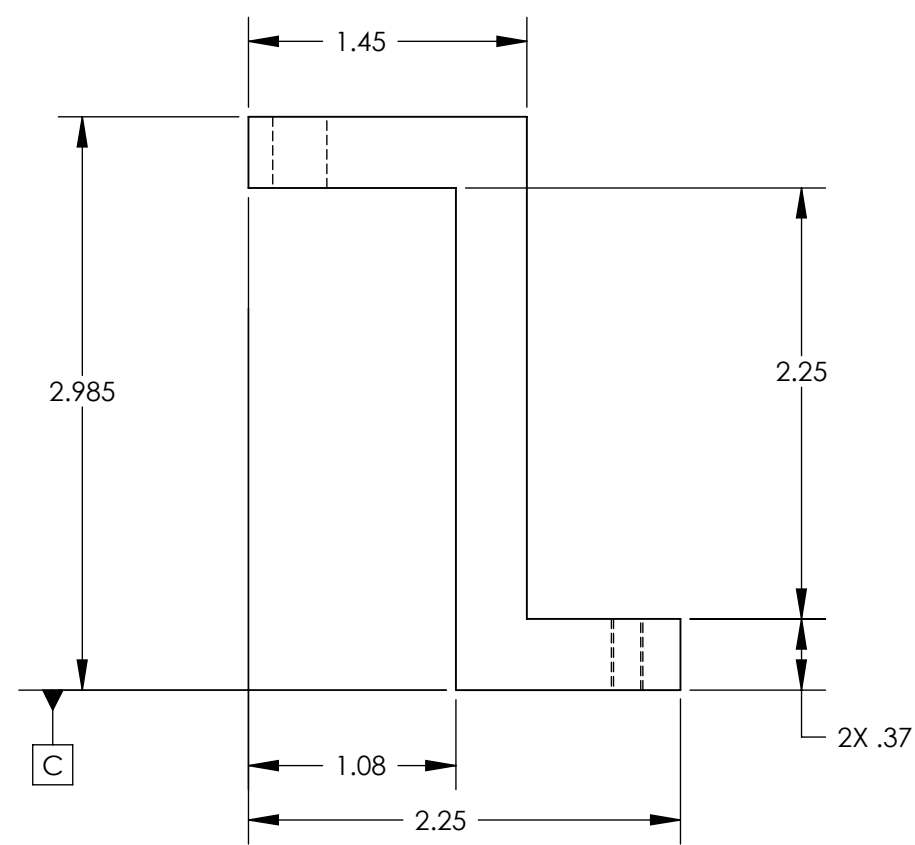
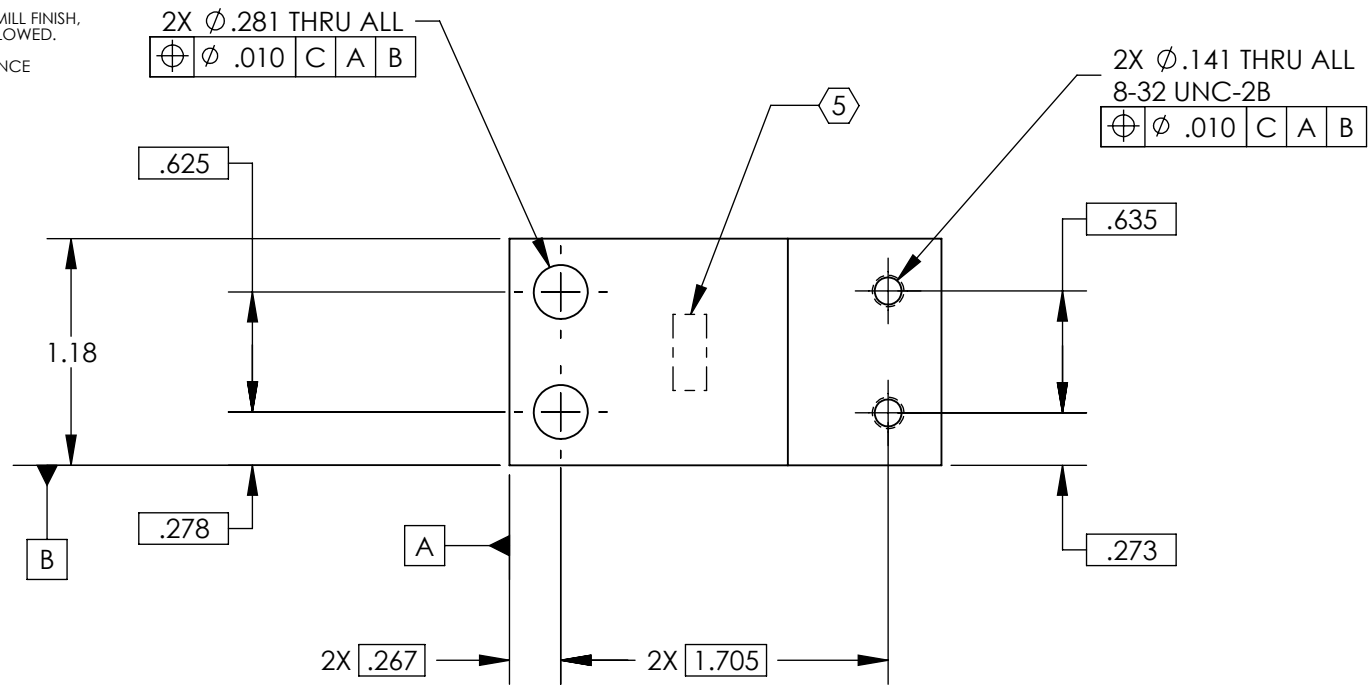
D0901514\_Blade Clamp Platform, PART PDM REV: X-000, DRAWING PDM REV: X-000

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°	
MATERIAL	6061-T6 Al
FINISH	63 μinch

<b>LIGO</b> CALIFORNIA INSTITUTE OF TECHNOLOGY MASSACHUSETTS INSTITUTE OF TECHNOLOGY	PART NAME <b>MAGNETIC PLATE MOUNTING FRONT BRACKET</b>
SYSTEM <b>ADVANCED LIGO</b>	SUB-SYSTEM <b>AOS</b>
NEXT ASSY <b>D0900136</b>	

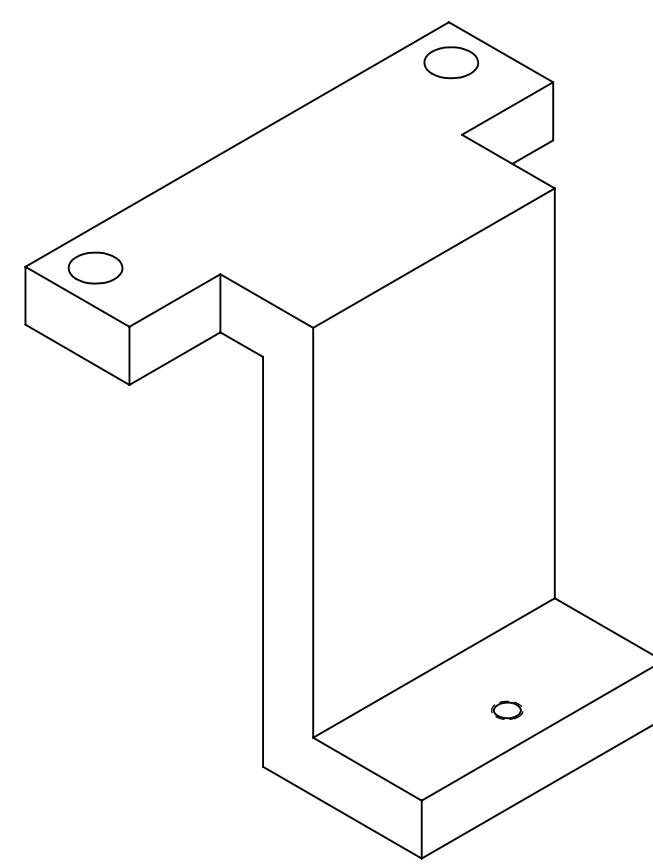
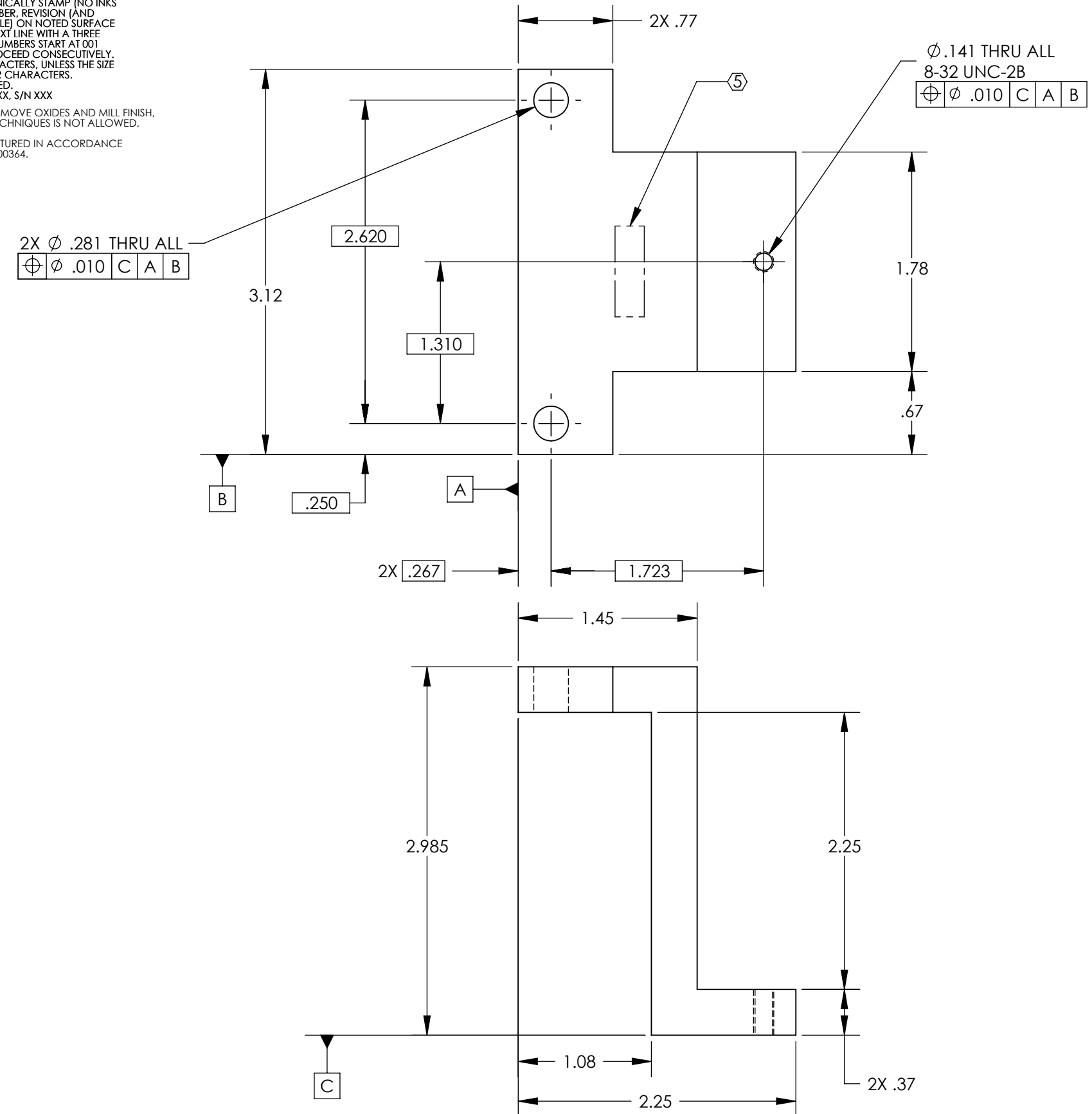
DESIGNER N.Nguyen	05 Aug 2009	SIZE DWG. NO. <b>B</b>	<b>D0901569</b>	REV. <b>v2</b>
CHECKER M. Smith	05 Aug 2009	SCALE: 1:1	PROJECTION:	SHEET 1 OF 1
APPROVAL				



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	-
-	-	-	-



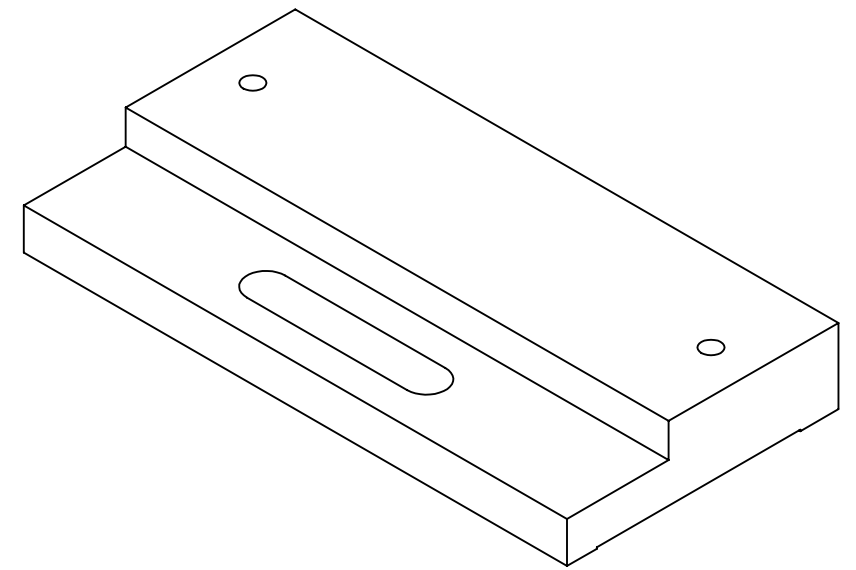
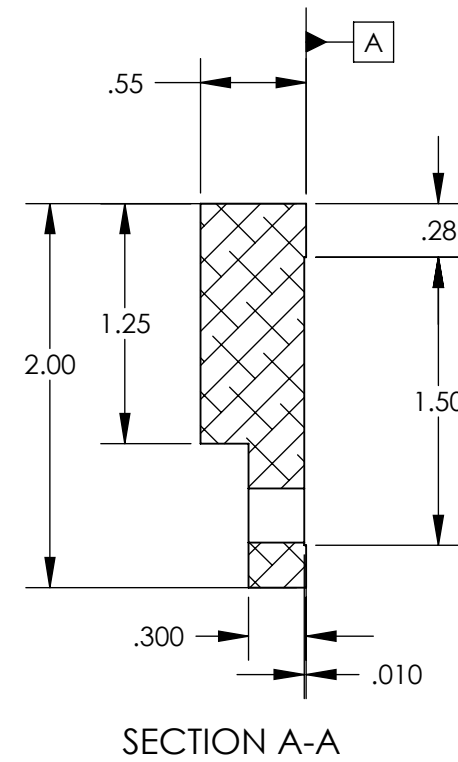
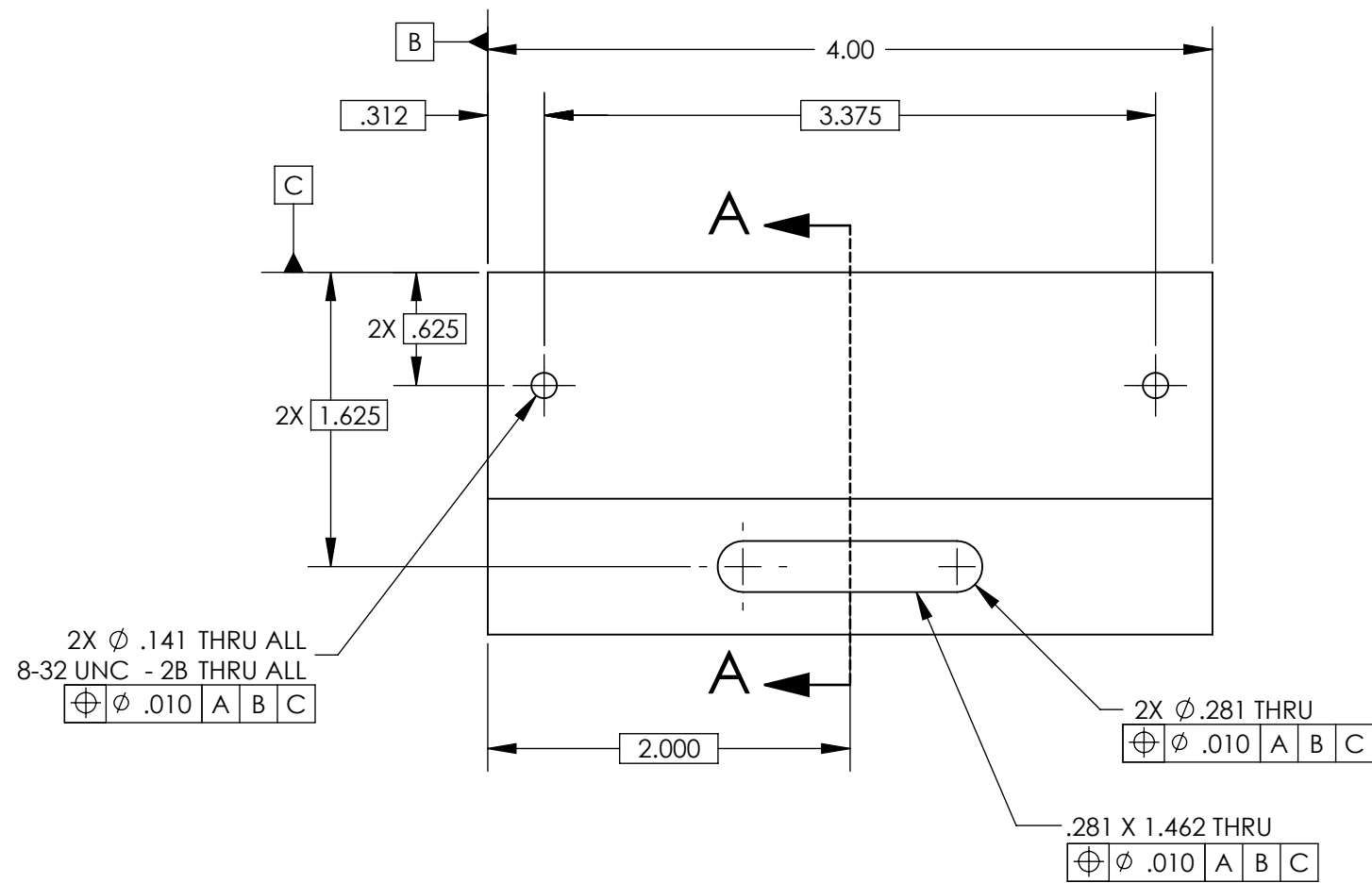
NOTES AND TOLERANCES: (UNLESS OTHERWISE SPECIFIED)				LIGO CALIFORNIA INSTITUTE OF TECHNOLOGY MASSACHUSETTS INSTITUTE OF TECHNOLOGY		PART NAME	
DIMENSIONS ARE IN INCHES. TOLERANCES: .XX $\pm$ .02 .XXX $\pm$ .010 ANGULAR $\pm$ 0.5°				1. INTERPRET DRAWING PER ASME Y14.5-1994. 2. REMOVE ALL SHARP EDGES, 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>NOTES AND TOLERANCES: (UNLESS OTHERWISE SPECIFIED)</b>				<b>DESIGNER</b> N.Nguyen 04 Aug 2009		<b>SIZE DWG. NO.</b> B D0901570	
<b>NEXT ASSY</b> D0900136				<b>CHECKER</b> M. Smith 05 Aug 2009		<b>REV.</b> v2	
				<b>APPROVAL</b>		<b>SCALE:</b> 1:1 <b>PROJECTION:</b> <b>SHEET 1 OF 1</b>	

D0901764\_AdlIGO\_AOS\_FID0900623\_Table Balance Weight, 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	08 OCT 2010	E1000563	



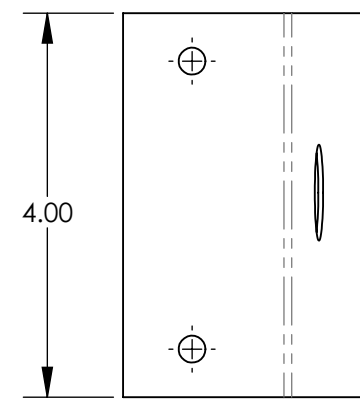
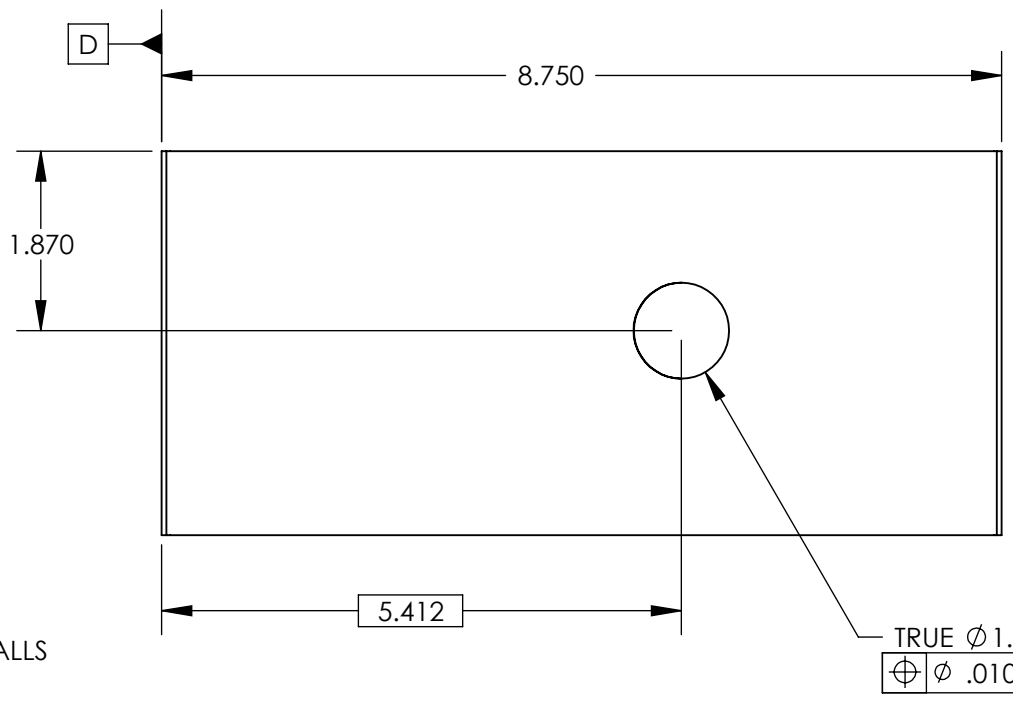
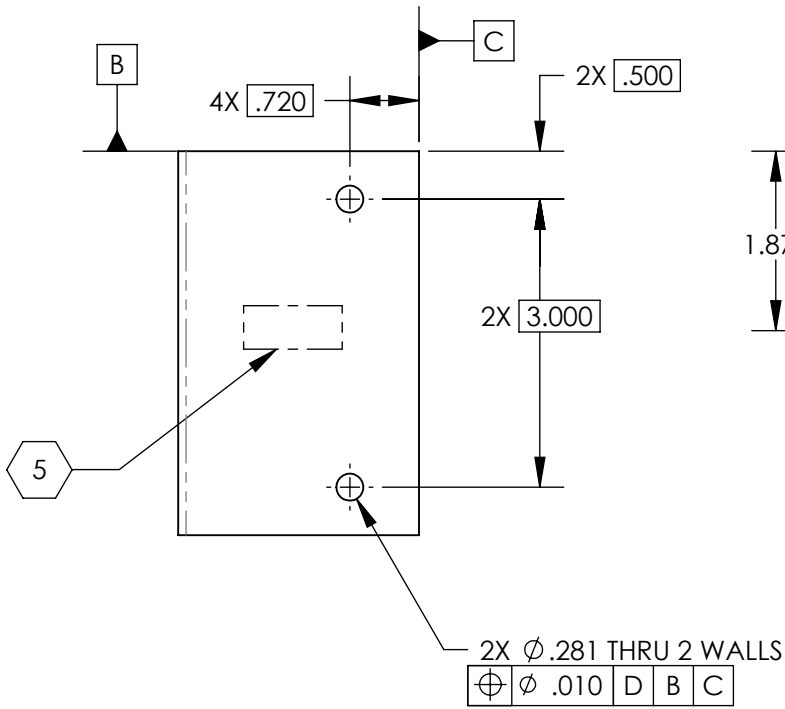
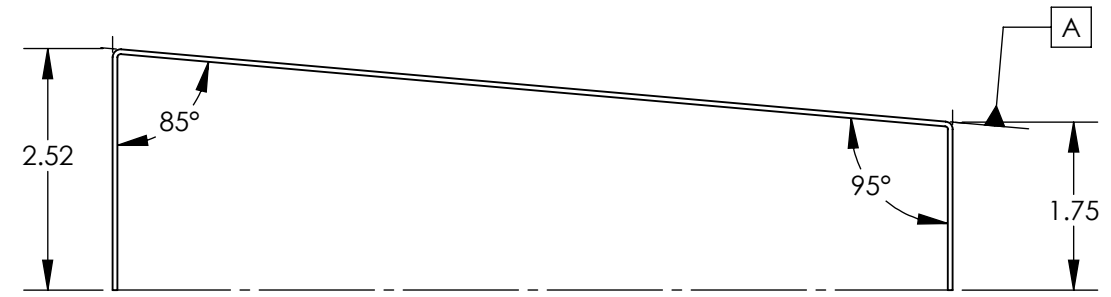
NOTES AND TOLERANCES: (UNLESS OTHERWISE SPECIFIED)	
DIMENSIONS ARE IN INCHES	
TOLERANCES: .XX $\pm$ .01 .XXX $\pm$ .005 ANGULAR $\pm$ 0.5°	
1. INTERPRET DRAWING PER ASME Y14.5-1994. 2. REMOVE ALL SHARP EDGES, R.02 MIN. 3. DO NOT SCALE FROM DRAWING. 4. ALL MACHINING FLUIDS MUST BE FULLY SYNTHETIC, FULLY WATER SOLUBLE AND FREE OF SULFUR, SILICONE, AND CHLORINE.	
MATERIAL	FINISH
304, 316 OR 302 SSSL	125 $\mu$ inch

CALIFORNIA INSTITUTE OF TECHNOLOGY MASSACHUSETTS INSTITUTE OF TECHNOLOGY		PART NAME		TABLE BALANCE WEIGHT	
SYSTEM	ADVANCED LIGO	SUB-SYSTEM	AOS	DESIGNER	
NEXT ASSY	D0900623	CHECKER	M.RUIZ	DATE	09 AUG 2010
			APPROVAL	SCALE	1:1
			SIZE	DWG. NO.	REV.
			B	D0901764	v1
			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. 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.		<b>REFLECTION BAFFLE</b>	
<b>MATERIAL</b> A424 TYPE I, 18GA, SSTL				<b>FINISH</b> SEE NOTE 7		<b>SYSTEM</b> ADVANCED LIGO	
				<b>SUB-SYSTEM</b> AOS		<b>DESIGNER</b> MRUIZ	
				<b>NEXT ASSY</b> D0900136		<b>DATE</b> 04/09/2010	
						<b>SIZE DWG. NO.</b> <b>B</b>	
						<b>DWG. NO.</b> <b>D0902845</b>	
						<b>REV.</b> <b>v2</b>	
						<b>SCALE:</b> 1:2	
						<b>PROJECTION:</b>	
						<b>SHEET 1 OF 1</b>	

8 7 6 5 4 3 2 1

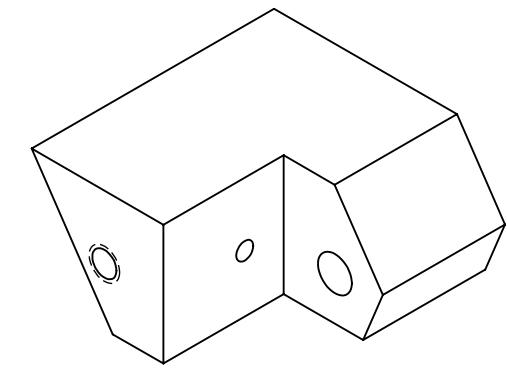
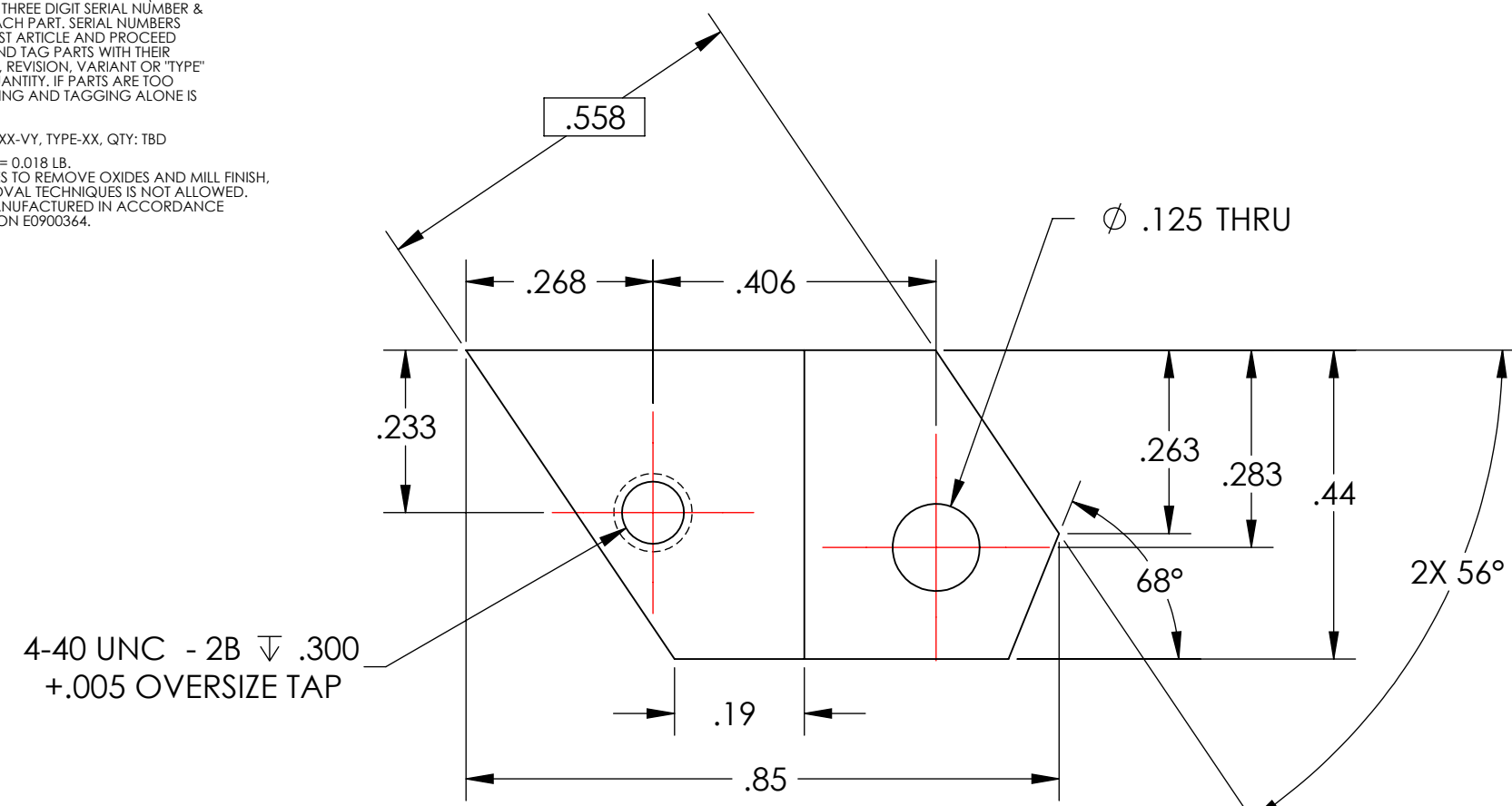
D0902845\_AdlIGO\_AOS\_FID0900136\_Reflection Baffle, PART PDM REV: X-010, DRAWING PDM REV: X-007

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

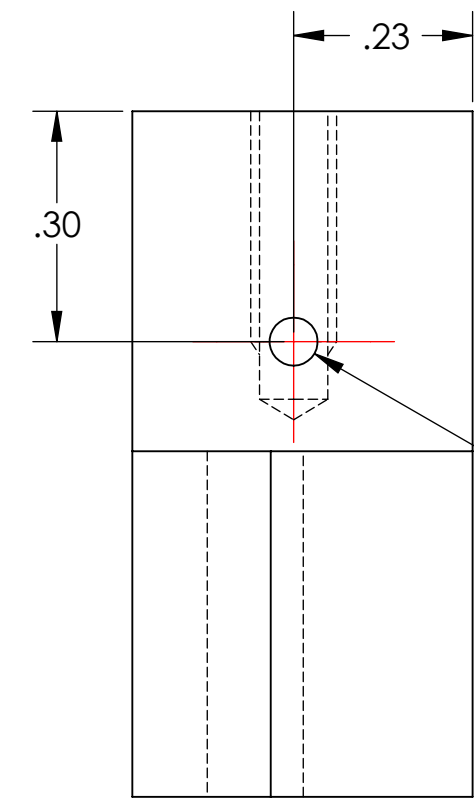
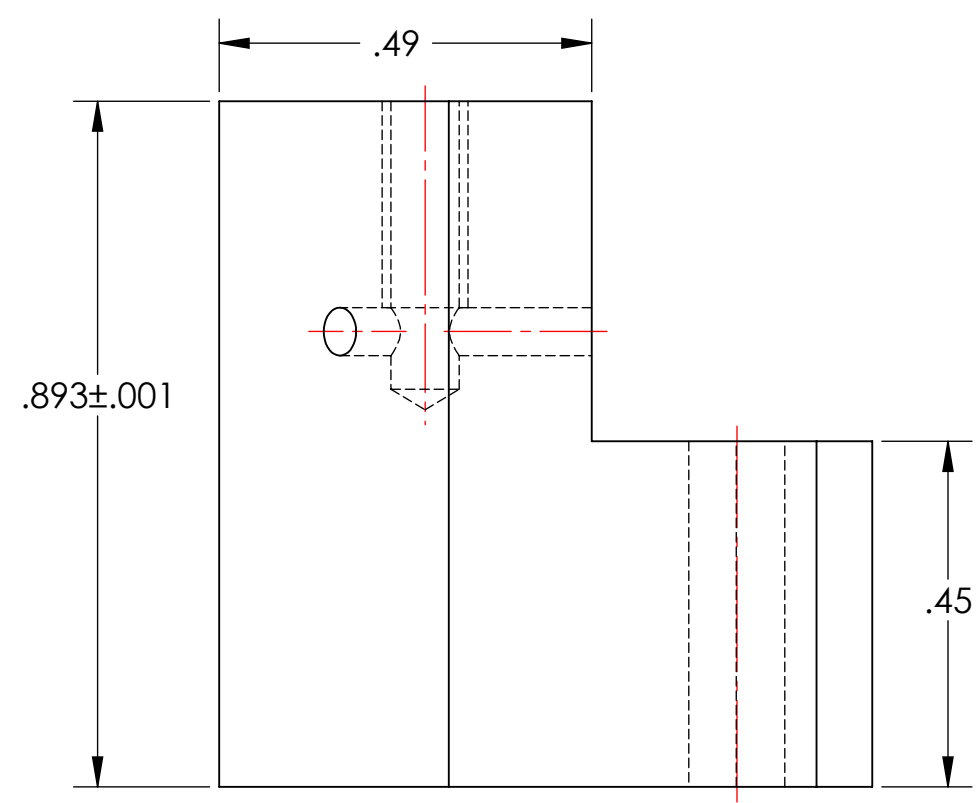
NOTES CONTINUED:  
5. SCRIBE, ENGRAVE, OR MECHANICALLY STAMP (NO DYES OR INKS) A UNIQUE THREE DIGIT SERIAL NUMBER & REVISION NUMBER ON EACH PART. SERIAL NUMBERS START AT 001 FOR THE FIRST ARTICLE AND PROCEED CONSECUTIVELY. BAG AND TAG PARTS WITH THEIR DRAWING PART NUMBER, REVISION, VARIANT OR "TYPE" (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



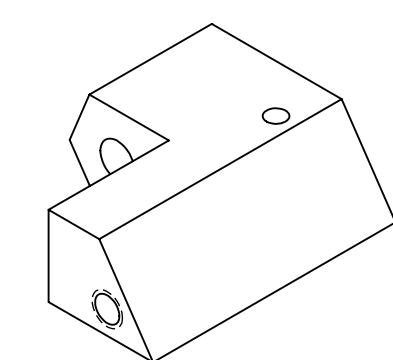
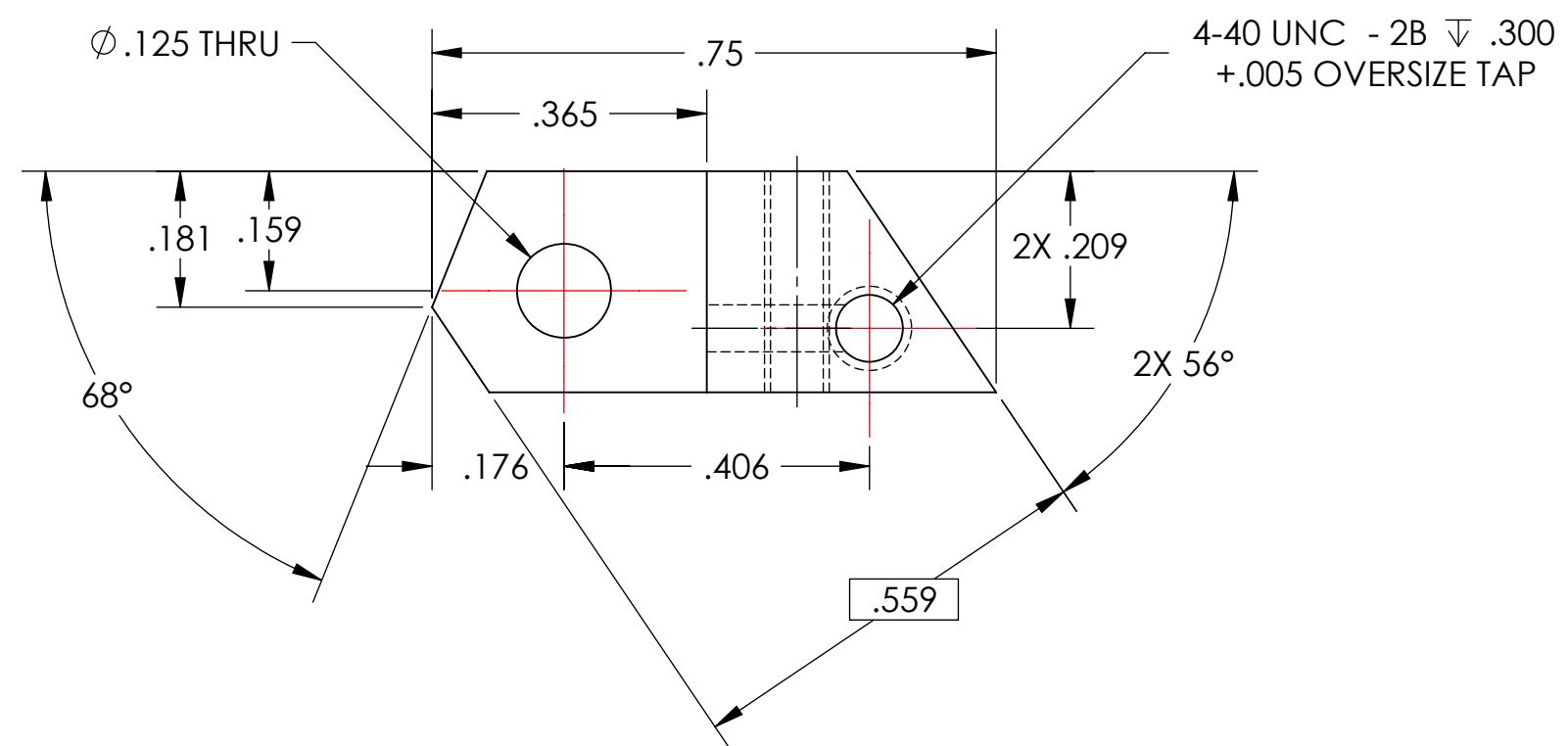
NOTES AND TOLERANCES: (UNLESS OTHERWISE SPECIFIED)	
DIMENSIONS ARE IN INCHES	
TOLERANCES: .XX ± .01 .XXX ± .005	
ANGULAR ± 0.5°	
1. INTERPRET DRAWING PER ASME Y14.5-1994. 2. REMOVE ALL SHARP EDGES, R.02 MIN. 3. DO NOT SCALE FROM DRAWING. 4. ALL MACHINING FLUIDS MUST BE FULLY SYNTHETIC, FULLY WATER SOLUBLE 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	DRFTER	TQ. NGUYEN 20 AUG 2010	SIZE	DWG. NO. B
		CHECKER	M. SMITH		D1001859
		APPROVAL	D. COYNE	SCALE:	4:1
				PROJECTION:	
					SHEET 1 OF 1

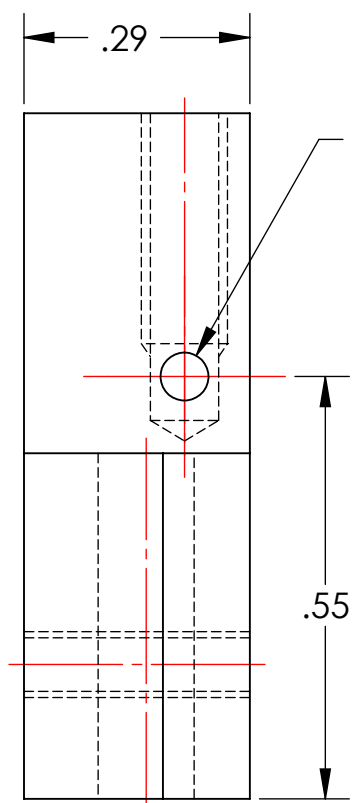
D1001860\_alIGO\_AOS\_D0900615\_Faraday Isolator Spring Block RH, PART PDM REV: X-011, DRAWING PDM REV: X-005

**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	-
-	-	-	-
-	-	-	-

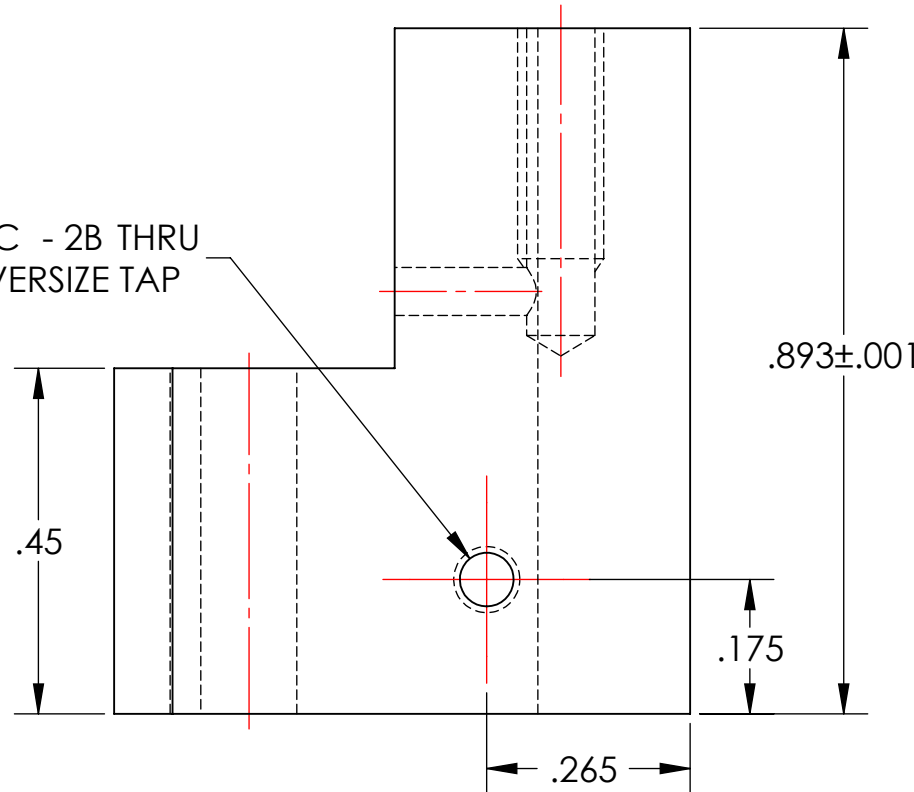


GENERAL VIEW  
FOR REFERENCE ONLY  
NO SCALE



∅ .06  
VENT HOLE THRU TAP HOLE

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

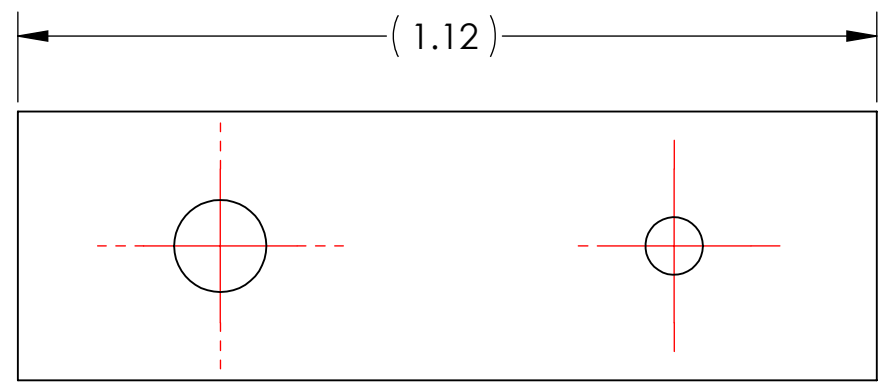
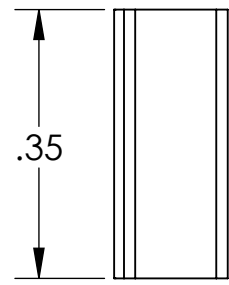
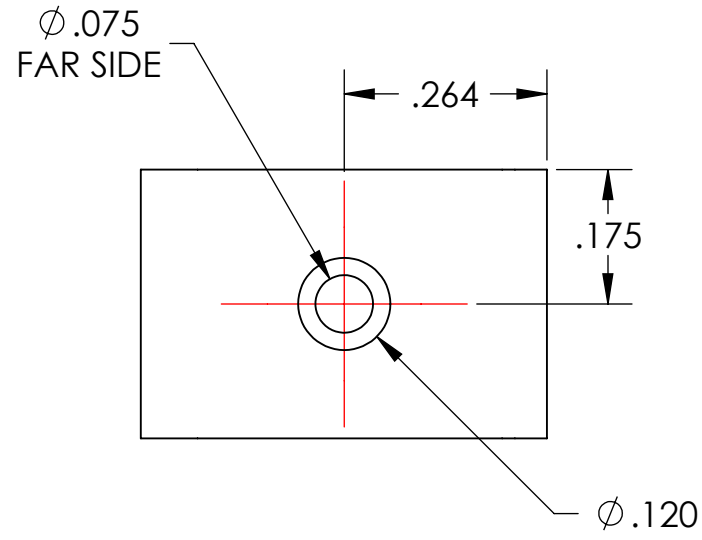
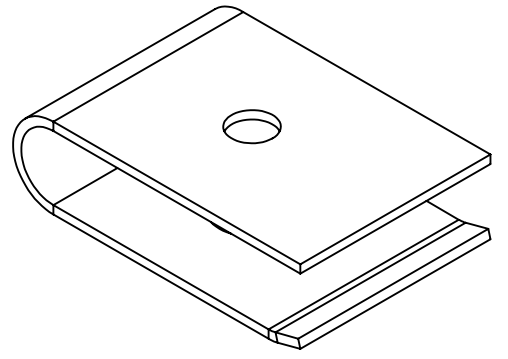
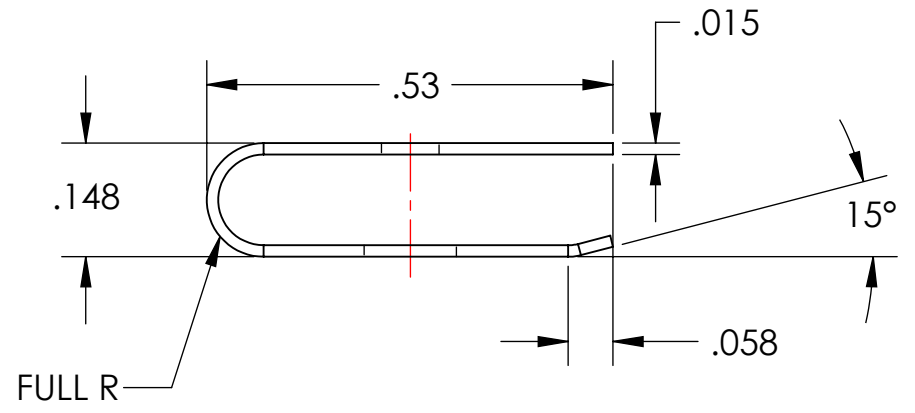


NOTES AND TOLERANCES: (UNLESS OTHERWISE SPECIFIED)				LIGO CALIFORNIA INSTITUTE OF TECHNOLOGY MASSACHUSETTS INSTITUTE OF TECHNOLOGY		PART NAME	
DIMENSIONS ARE IN INCHES TOLERANCES: .XX ± .01 .XXX ± .005 ANGULAR ± 0.5°				1. INTERPRET DRAWING PER ASME Y14.5-1994. 2. REMOVE ALL SHARP EDGES, R.02 MIN. 3.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

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	-
-	-	-	-
-	-	-	-



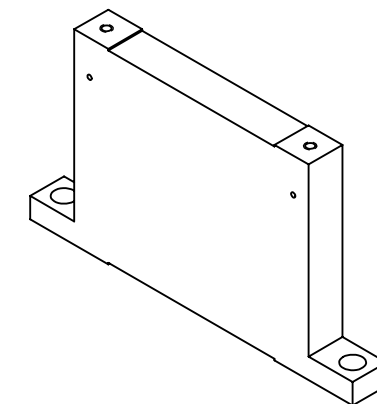
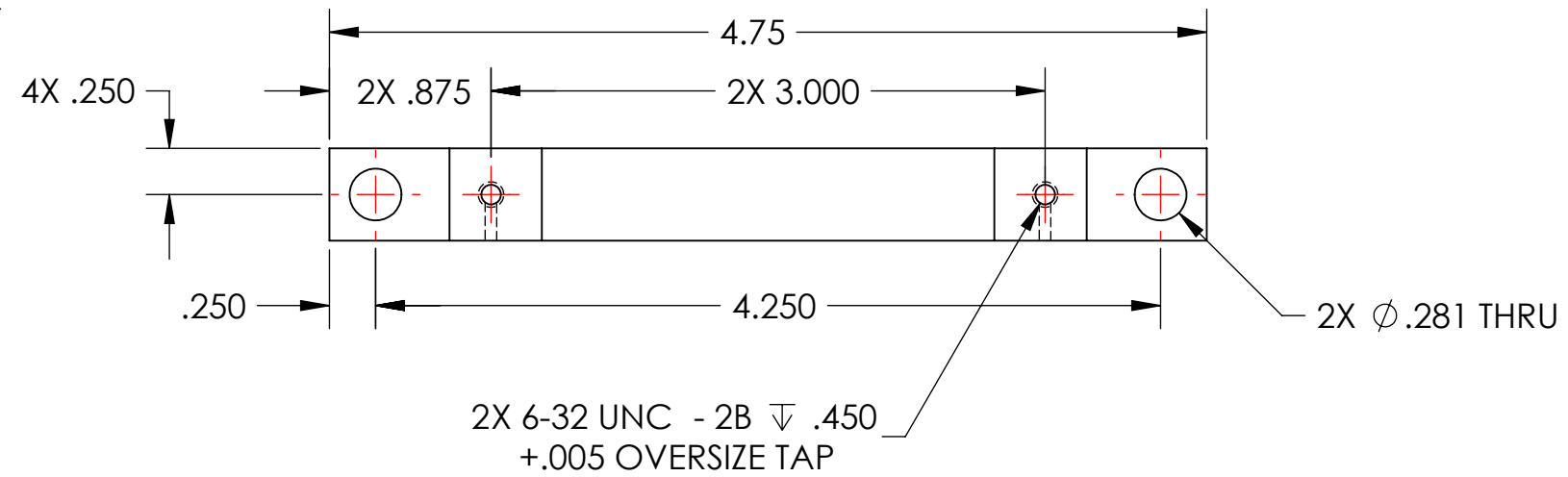
NOTES AND TOLERANCES: (UNLESS OTHERWISE SPECIFIED)				LIGO CALIFORNIA INSTITUTE OF TECHNOLOGY MASSACHUSETTS INSTITUTE OF TECHNOLOGY		PART NAME	
DIMENSIONS ARE IN INCHES TOLERANCES: .XX ± .01 .XXX ± .005 ANGULAR ± 0.5°				1. INTERPRET DRAWING PER ASME Y14.5-1994. 2. REMOVE ALL SHARP EDGES, R.02 MIN. 3.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

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

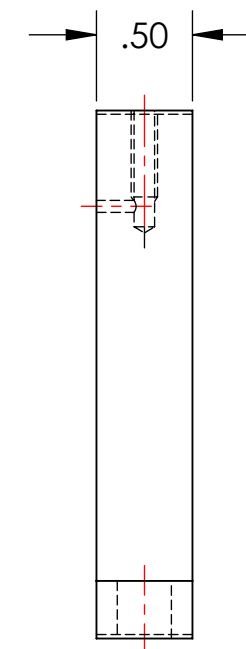
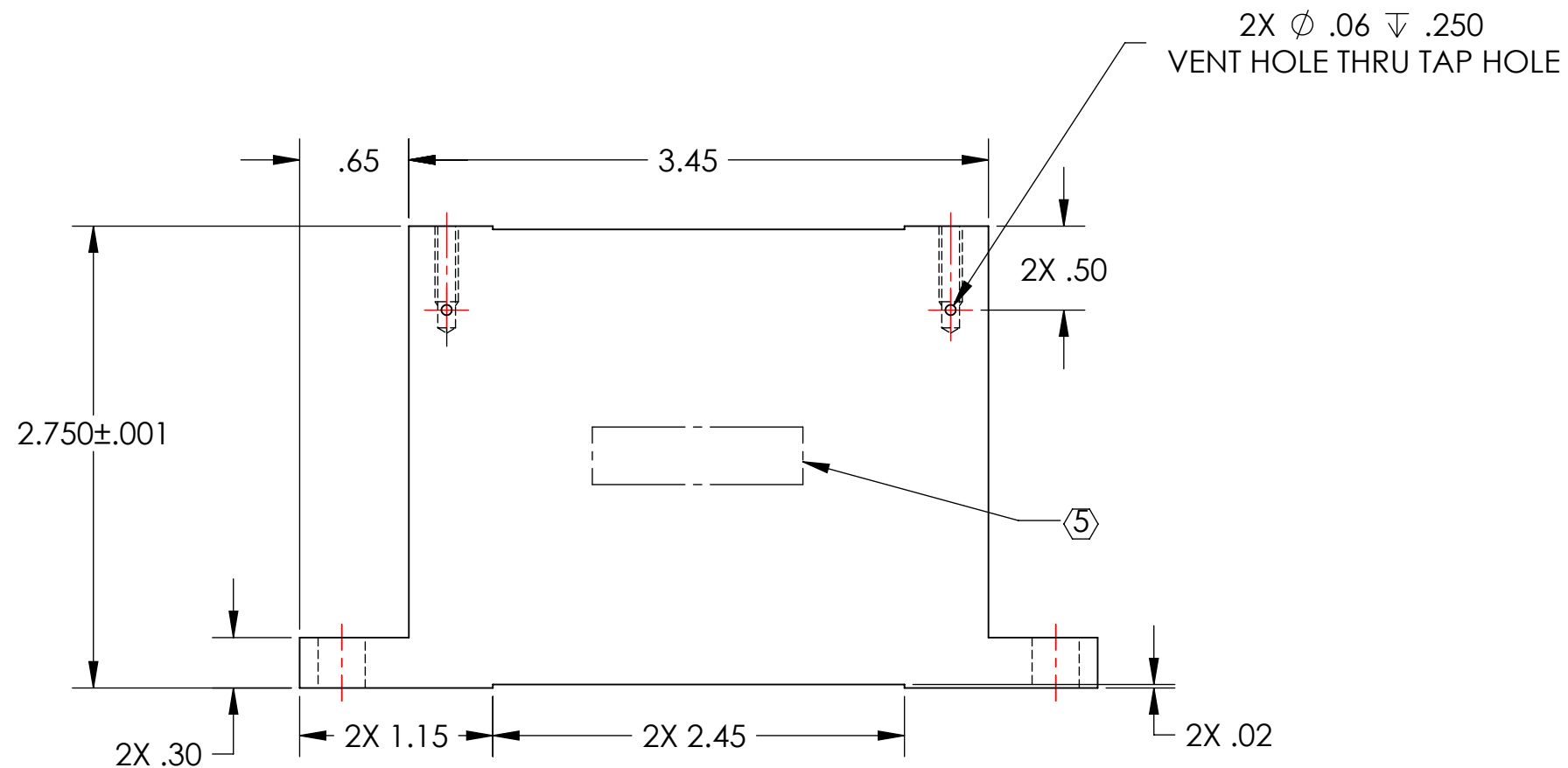
NOTES CONTINUED:  
5. SCRIBE, ENGRAVE, OR MECHANICALLY STAMP (NO INKS OR DYES) DRAWING PART NUMBER, REVISION (AND VARIANT OR "TYPE" IF APPLICABLE) ON NOTED SURFACE OF PART FOLLOWED ON THE NEXT LINE WITH A THREE DIGIT SERIAL NUMBER. SERIAL NUMBERS START AT 001 FOR THE FIRST ARTICLE AND PROCEED CONSECUTIVELY. 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.	REV.
DRAFTER	TQ. NGUYEN	23 AUG 2010	B	D1001862	v1
CHECKER	M. SMITH		SCALE:	1:1	PROJECTION:
APPROVAL	D. COYNE				SHEET 1 OF 1

8

7

6

5

4

3

2

1

8

7

6

5

4

3

2

1

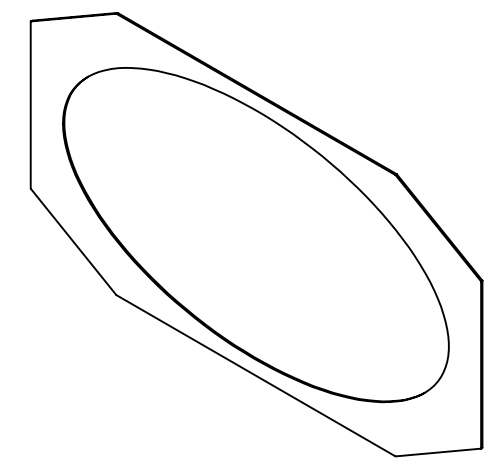
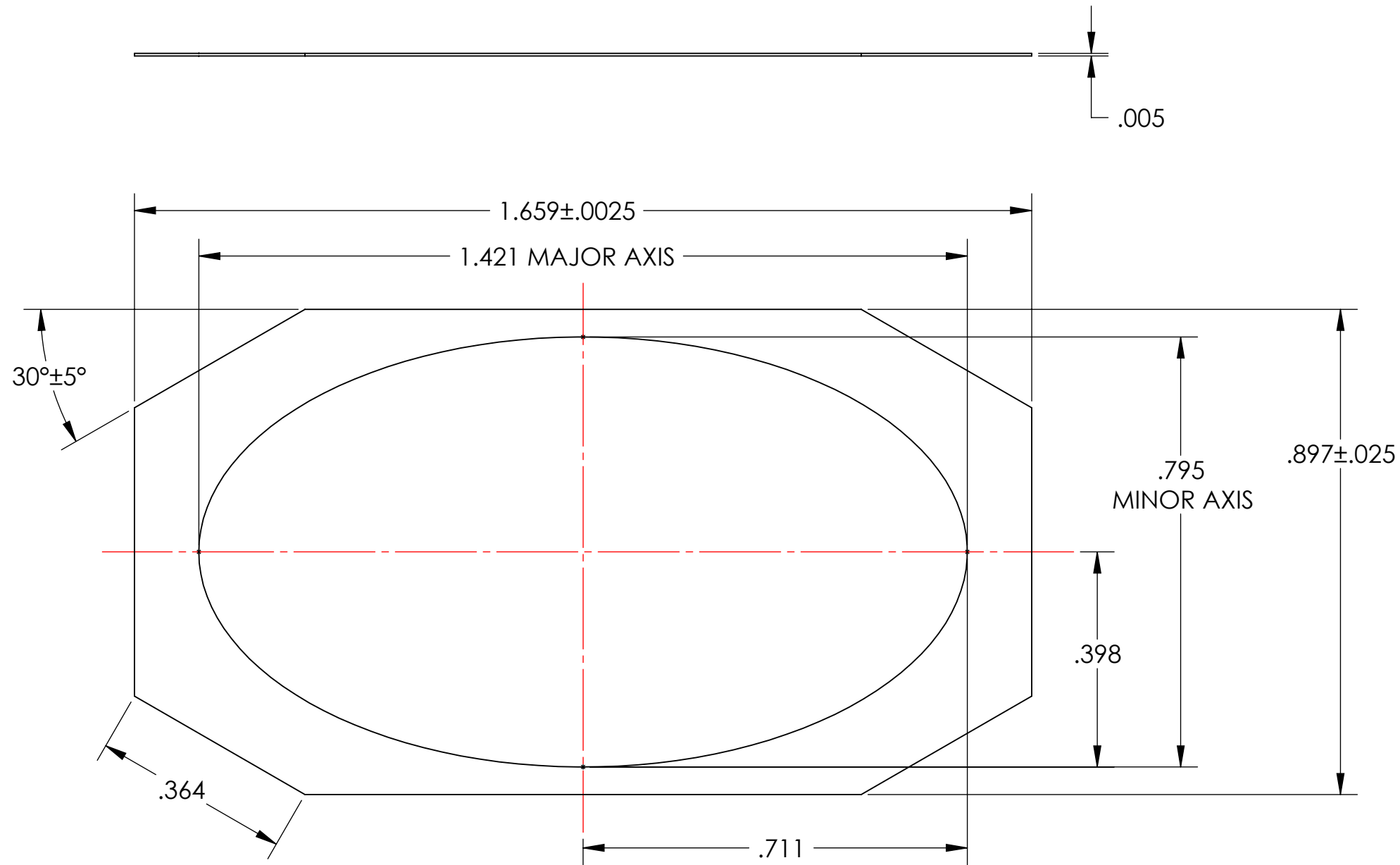
D1001863\_d1lgo\_aos\_D0900614\_Faraday Isolator Optical Prism Spacer, PART PDM REV: X-008, DRAWING PDM REV: X-005

**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)**

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	AS RECEIVED

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

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

NEXT ASSY: **D0900614 & 0900615**

PART NAME		OPTICAL PRISM SPACER	
DESIGNER	TQ. NGUYEN	14 JUL 2010	SIZE DWG. NO.
DRAFTER	TQ. NGUYEN	23 AUG 2010	<b>B</b>
CHECKER	M. SMITH		<b>D1001863</b>
APPROVAL	D. COYNE		REV. <b>v1</b>
SCALE: 4:1		PROJECTION:	
		SHEET 1 OF 1	

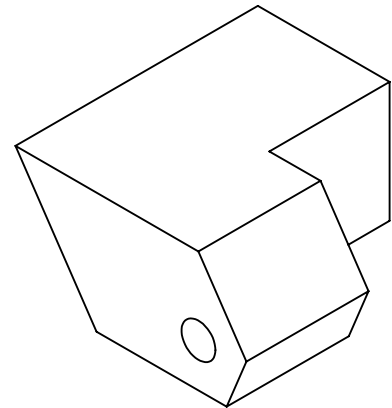


D1001870\_alIGO\_AOS\_D0900614\_Faraday Isolator Fixed Stop LH, PART PDM REV: X-004, DRAWING PDM REV: X-005

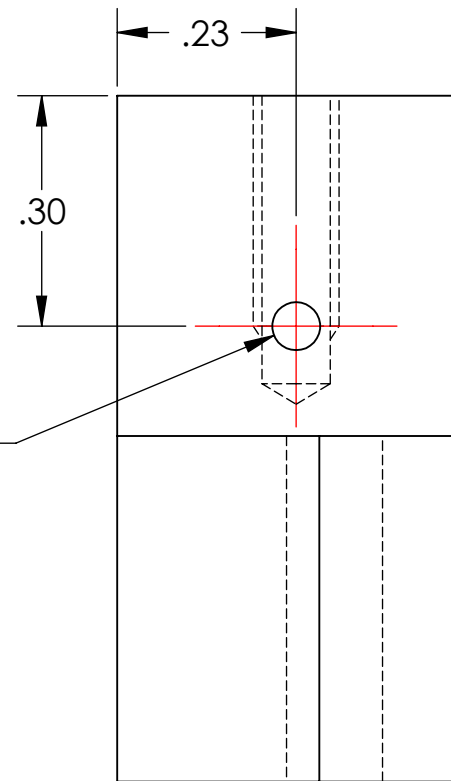
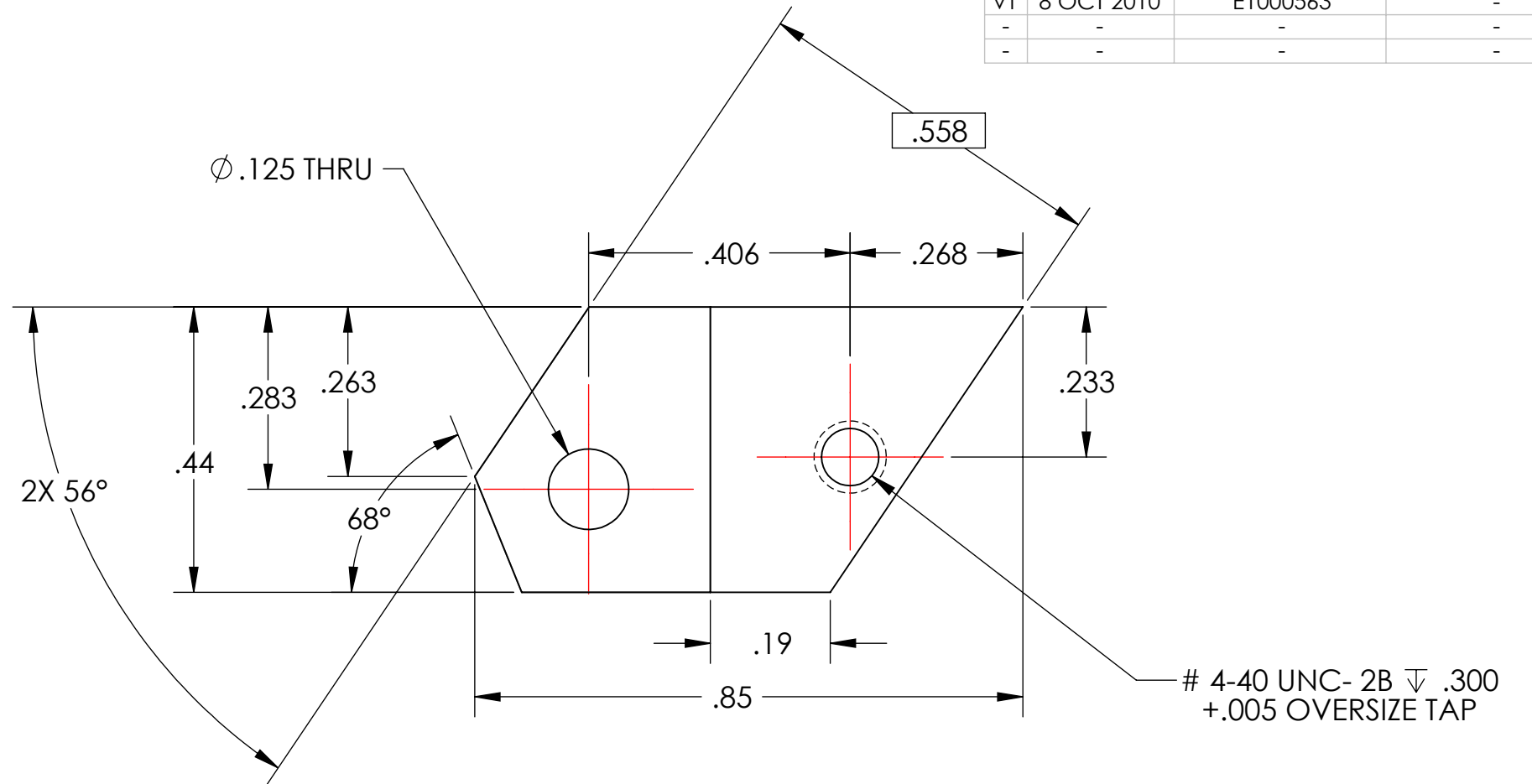
NOTES CONTINUED:  
5. SCRIBE, ENGRAVE, OR MECHANICALLY STAMP (NO DYES OR INKS) A UNIQUE THREE DIGIT SERIAL NUMBER & REVISION NUMBER ON EACH PART. SERIAL NUMBERS START AT 001 FOR THE FIRST ARTICLE AND PROCEED CONSECUTIVELY. BAG AND TAG PARTS WITH THEIR DRAWING PART NUMBER, REVISION, VARIANT OR "TYPE" (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.

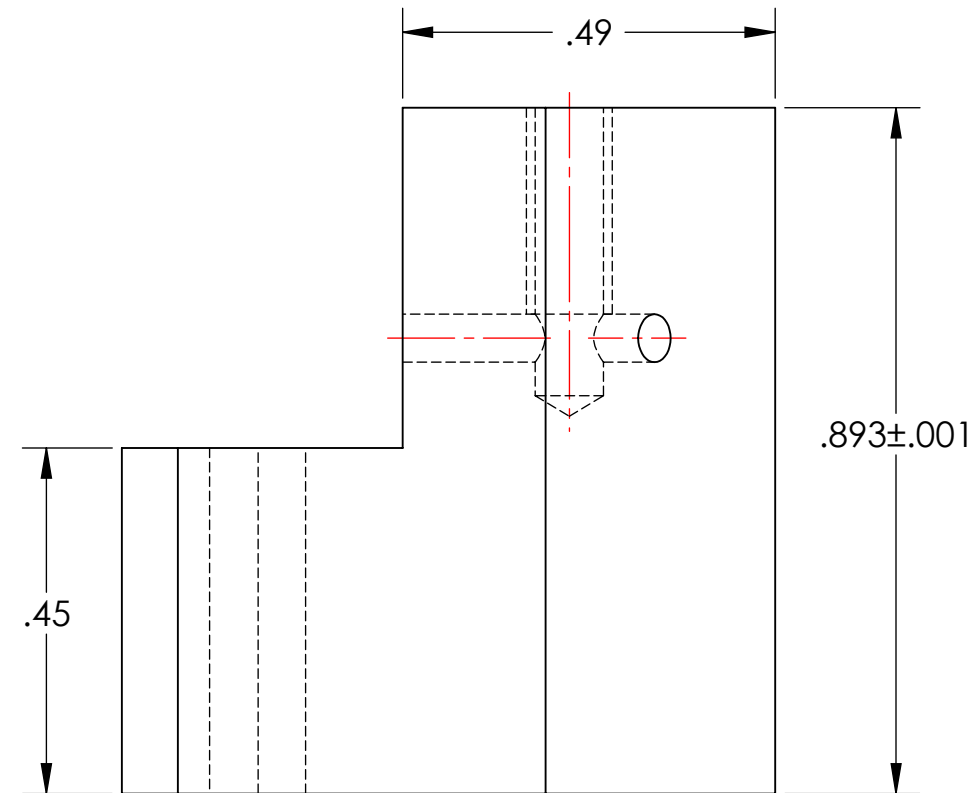
REV.	DATE	DCN #	DRAWING TREE #
v1	8 OCT 2010	E1000563	-
-	-	-	-
-	-	-	-



GENERAL VIEW FOR REFERENCE ONLY NO SCALE



VENT HOLE THRU TAP HOLE



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°

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

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

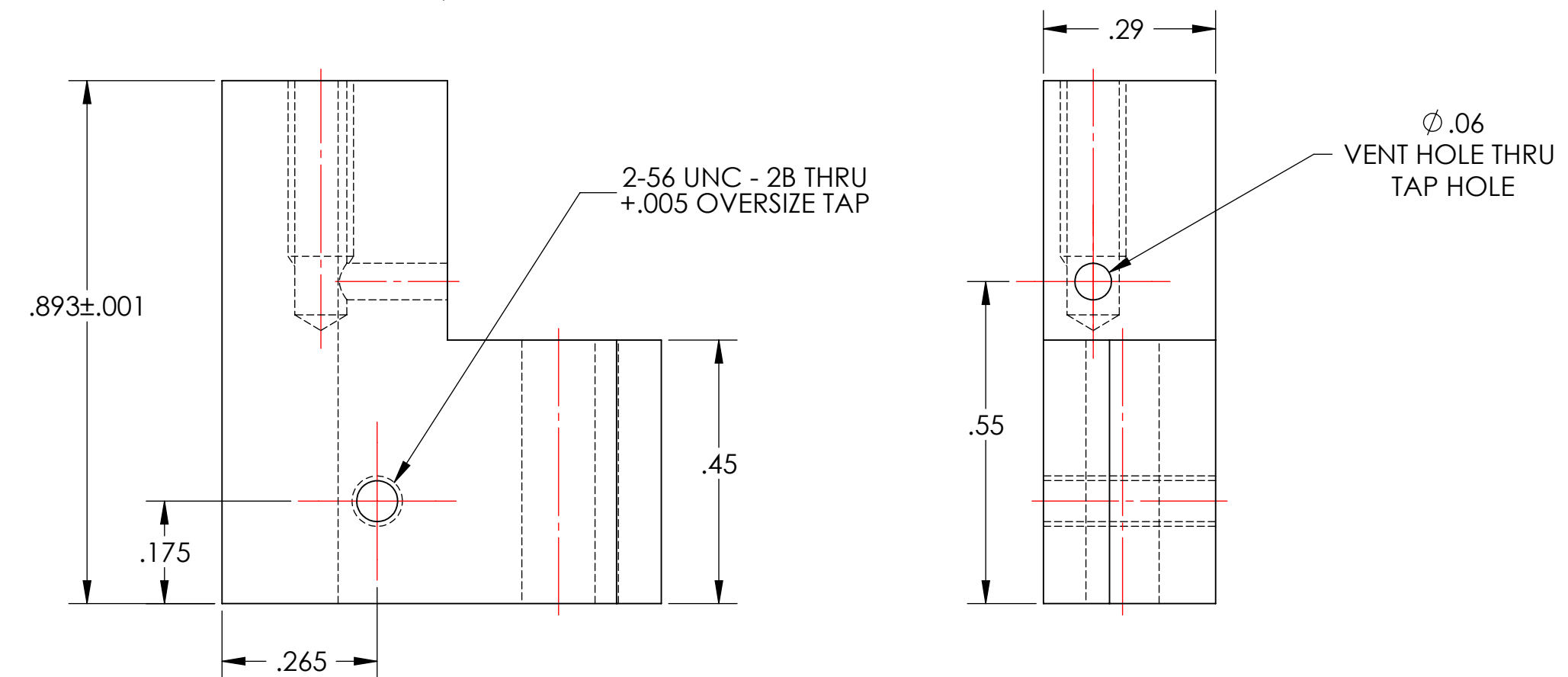
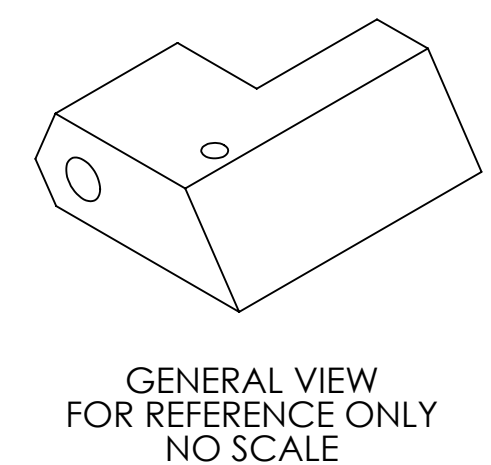
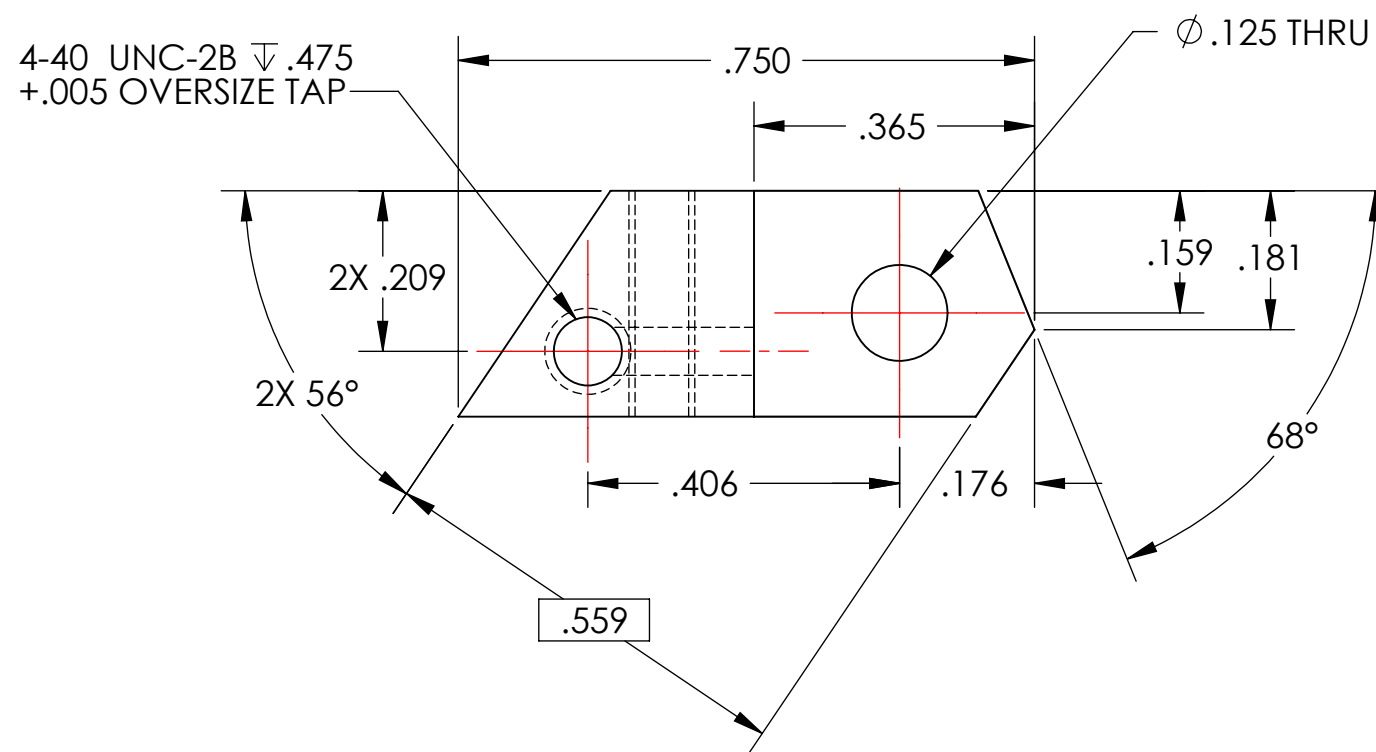
PART NAME: FIXED STOP\_LH

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

D1001871\_allIGO\_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	-
-	-	-	-
-	-	-	-



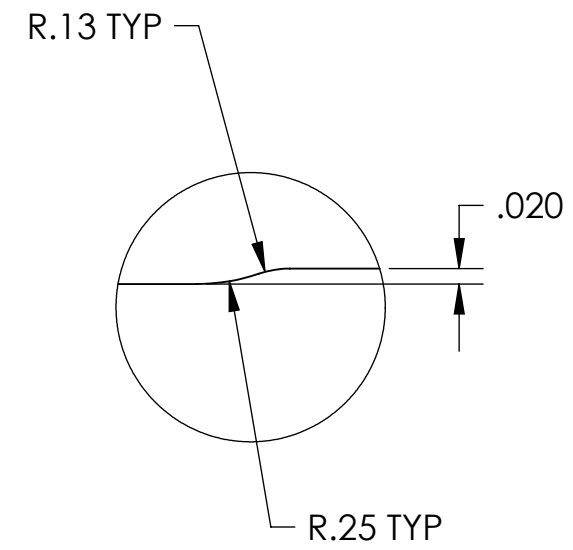
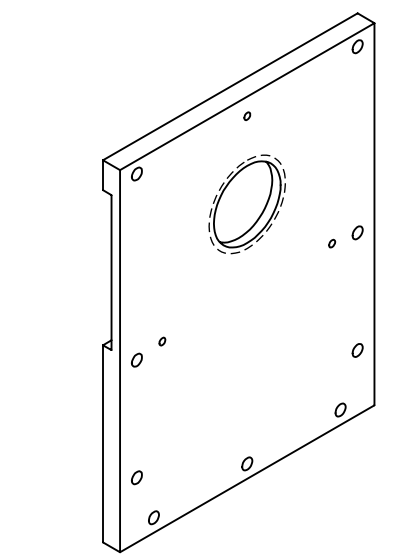
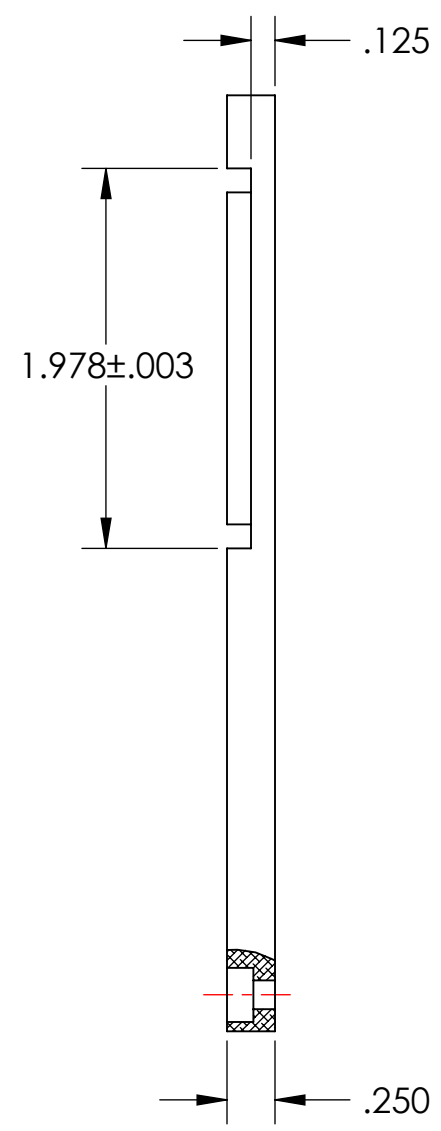
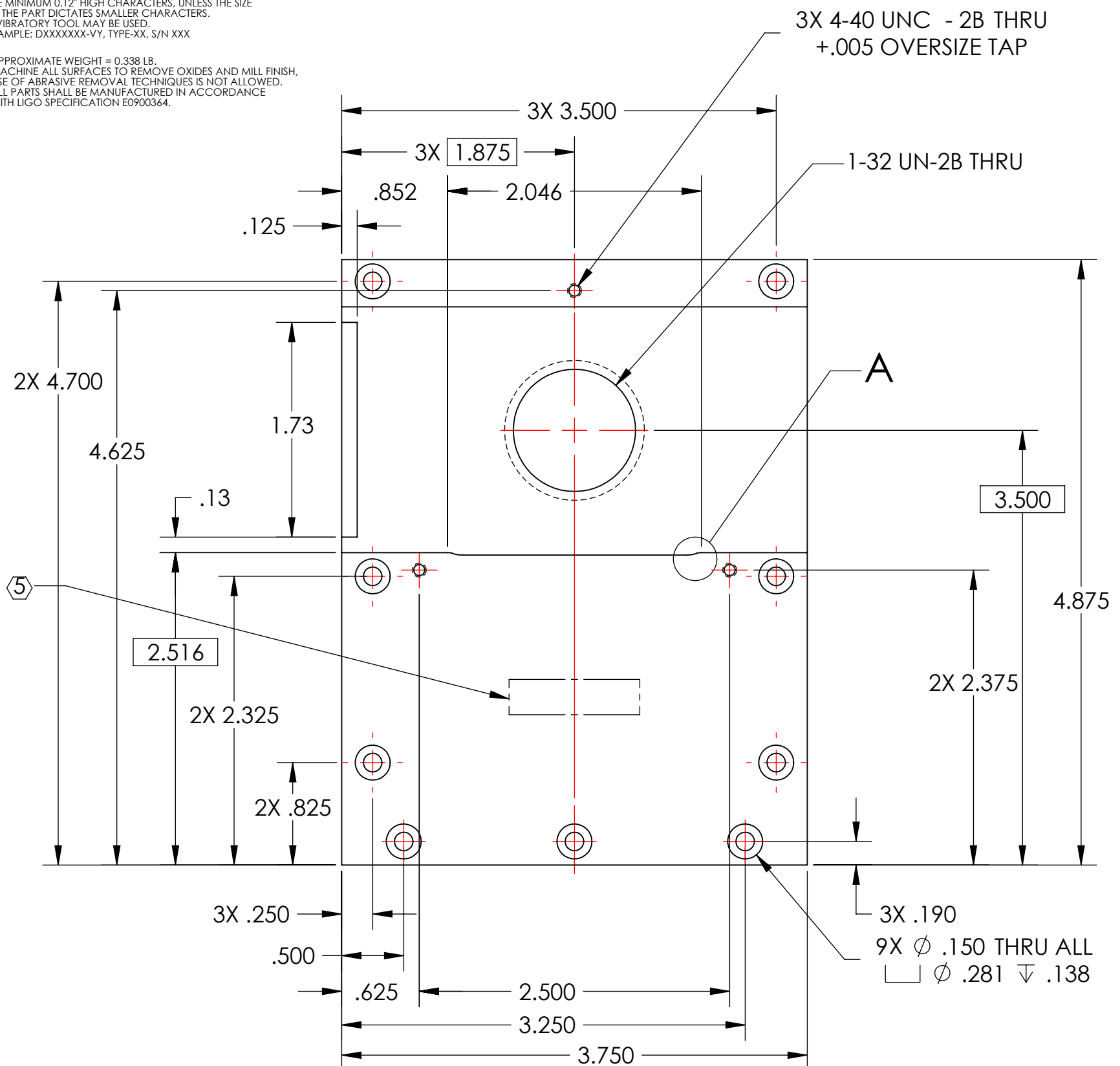
NOTES AND TOLERANCES: (UNLESS OTHERWISE SPECIFIED)				LIGO		PART NAME	
DIMENSIONS ARE IN INCHES TOLERANCES: .XX ± .01 .XXX ± .005 ANGULAR ± 0.5°				CALIFORNIA INSTITUTE OF TECHNOLOGY MASSACHUSETTS INSTITUTE OF TECHNOLOGY		<b>SPRING BLOCK_LH</b>	
1. INTERPRET DRAWING PER ASME Y14.5-1994. 2. REMOVE ALL 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> 6061-T6 Al				<b>FINISH</b> 63 μinch		<b>NEXT ASSY</b> D0900614	
				<b>DESIGNER</b> TQ. NGUYEN 14 JUL 2010		<b>SIZE DWG. NO.</b> B	
				<b>DRAFTER</b> TQ. NGUYEN 27 AUG 2010		<b>DWG. NO.</b> D1001871	
				<b>CHECKER</b> M. SMITH		<b>REV.</b> v1	
				<b>APPROVAL</b> D. COYNE		<b>SCALE:</b> 4:1 <b>PROJECTION:</b>	
						<b>SHEET 1 OF 1</b>	

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

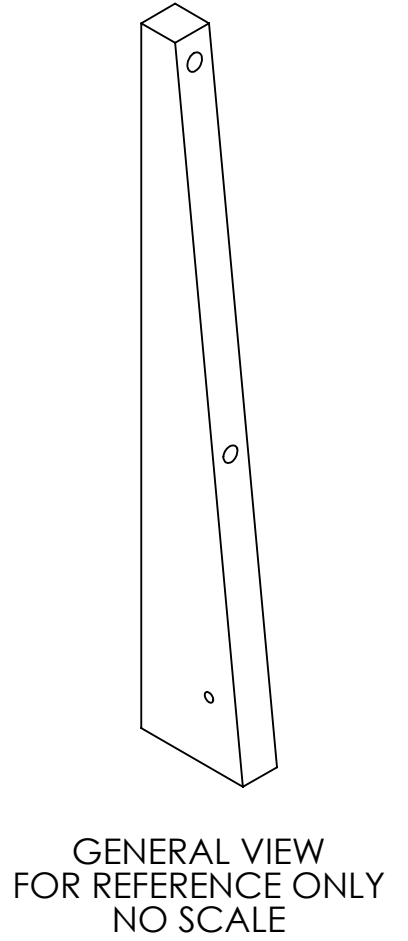
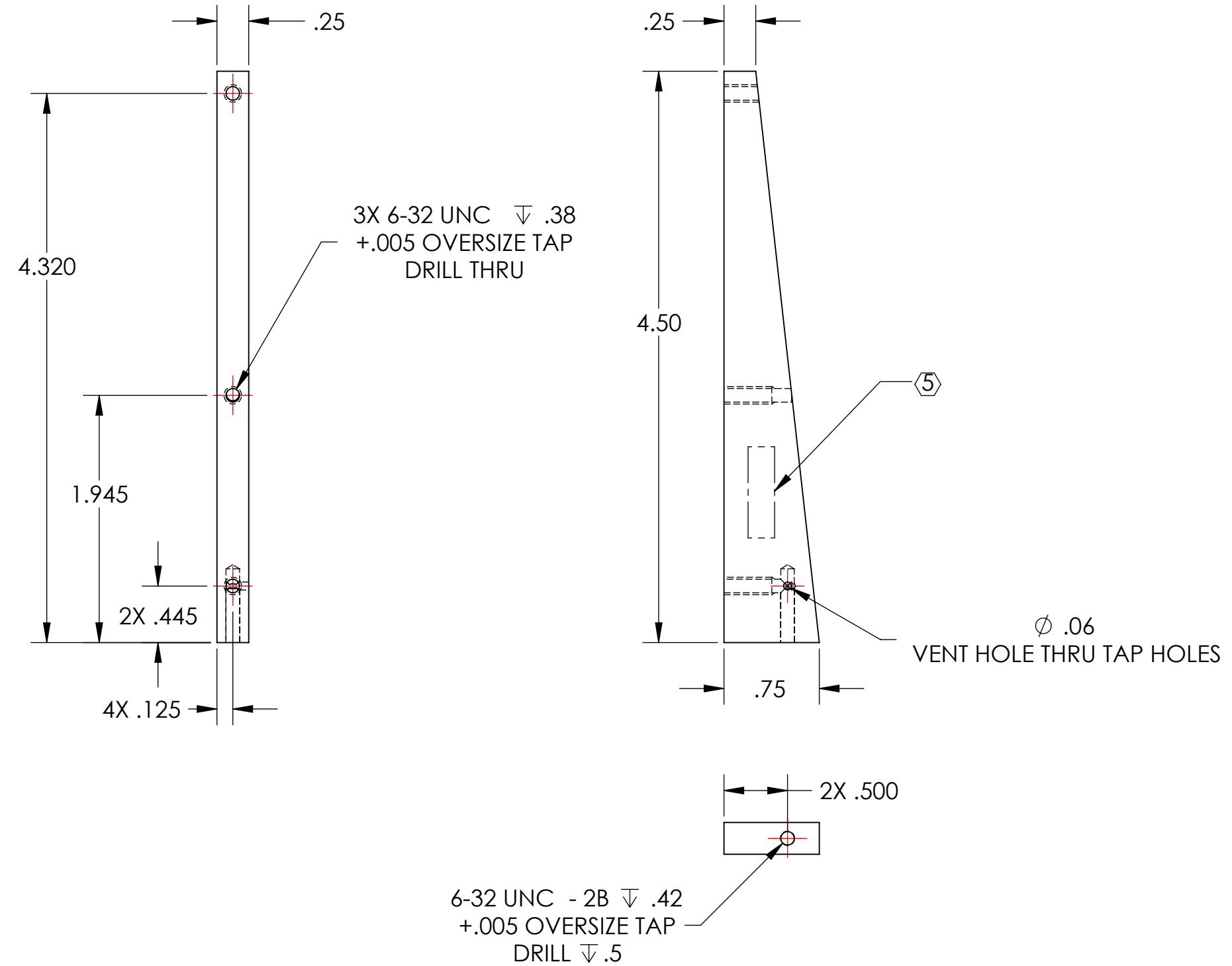
NOTES AND TOLERANCES: (UNLESS OTHERWISE SPECIFIED)				PART NAME	
DIMENSIONS ARE IN INCHES TOLERANCES: .XX $\pm$ .01 .XXX $\pm$ .005 ANGULAR $\pm$ 0.5°				INPUT Baffle HOLDER	
1. INTERPRET DRAWING PER ASME Y14.5-1994. 2. REMOVE ALL SHARP EDGES, R.02 MIN. 3. DO NOT SCALE FROM DRAWING. 4. ALL MACHINING 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	-
-	-	-	-
-	-	-	-



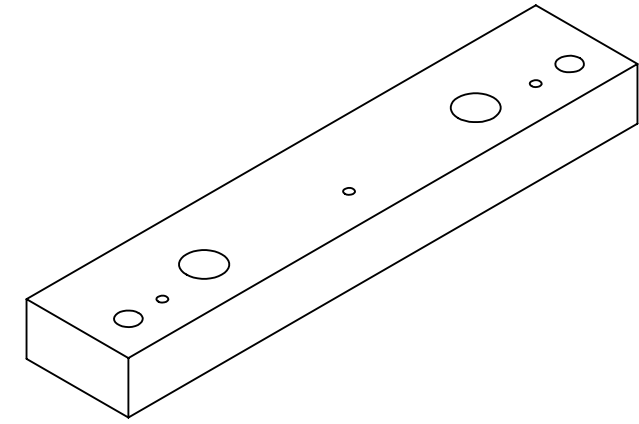
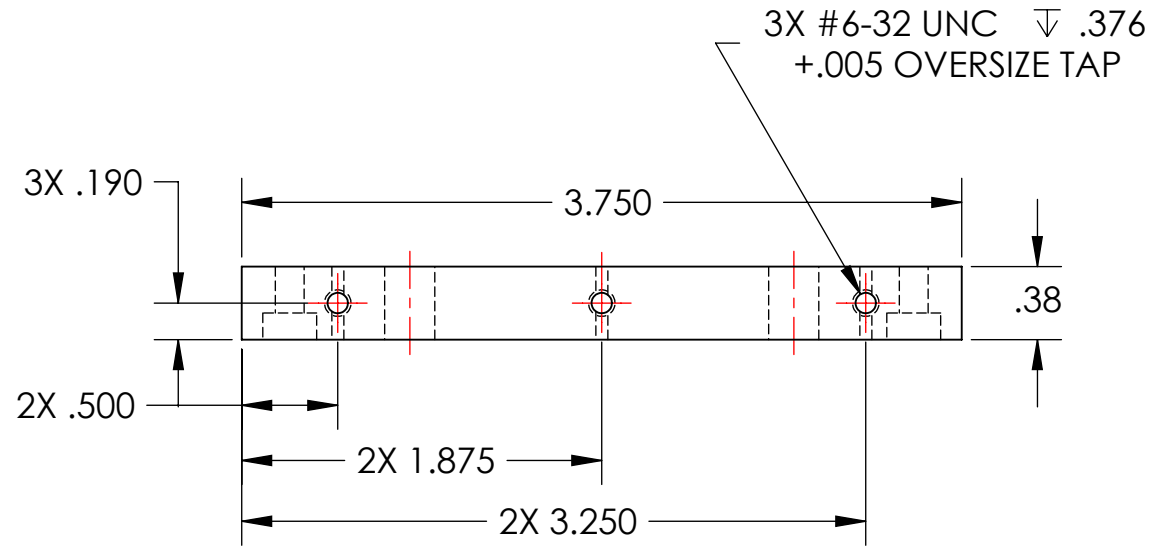
D1001916\_d1lGO\_AOs\_Wedge Window Side Support, PART PDM REV: X-007, DRAWING PDM REV: X-007

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		DESIGNER	DATE	SIZE	DWG. NO.	REV.
6061-T6 Al		63 $\mu$ inch		ADVANCED LIGO		AOS		TQ. NGUYEN	27 JUL 2010	B	D1001916	v1
NEXT ASSY		D1001918		CHECKER		APPROVAL		M. SMITH	24 AUG 2010	SCALE: 1:1 PROJECTION:  SHEET 1 OF 1		
D. COYNE												

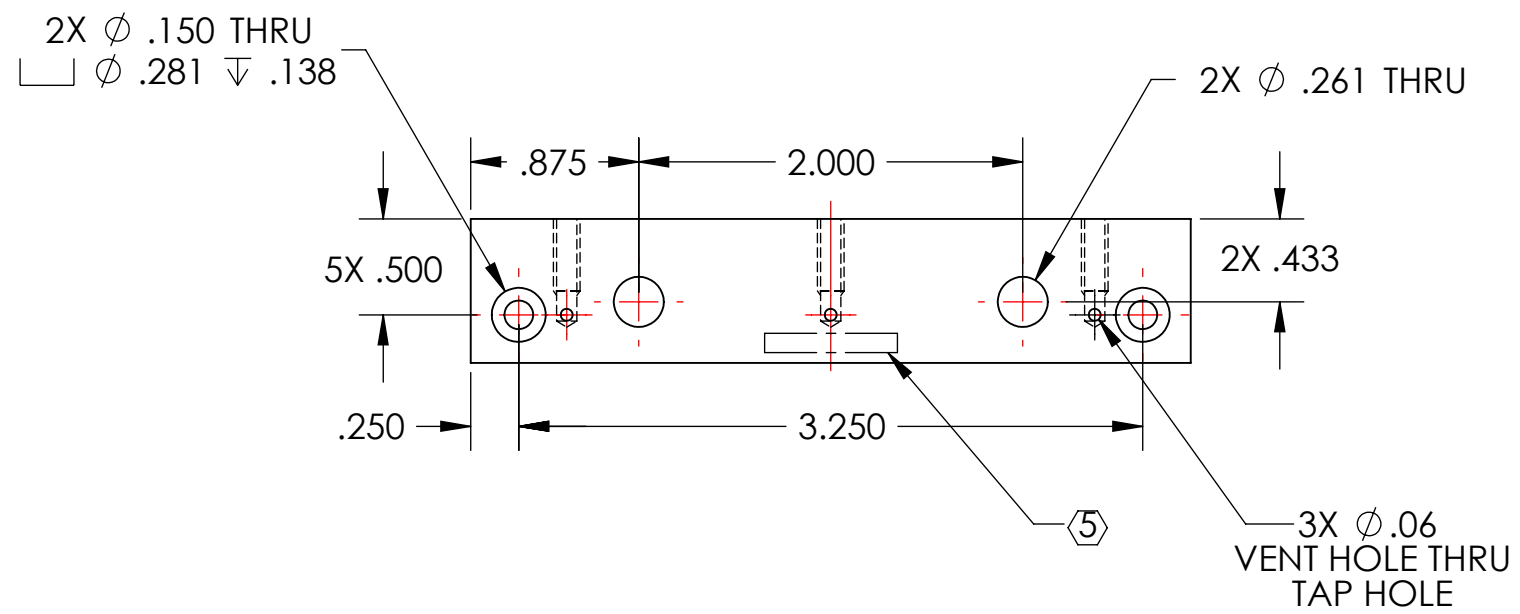
**NOTES CONTINUED:**  
 5. SCRIBE, ENGRAVE, OR MECHANICALLY STAMP (NO INKS OR DYES) DRAWING PART NUMBER, REVISION (AND VARIANT OR "TYPE" IF APPLICABLE) ON NOTED SURFACE OF PART FOLLOWED ON THE NEXT LINE WITH A THREE DIGIT SERIAL NUMBER. SERIAL NUMBERS START AT 001 FOR THE FIRST ARTICLE AND PROCEED CONSECUTIVELY. 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 ± .01 .XXX ± .005				NEXT ASSY		AOS		DESIGNER	TQ. NGUYEN
ANGULAR ± 0.5°				MATERIAL		6061-T6 Al		DRAWN	TQ. NGUYEN
FINISH				63 μinch		D1001918		CHECKER	M. SMITH
1. INTERPRET DRAWING PER ASME Y14.5-1994.				63 μinch		D1001918		APPROVAL	D. COYNE
2. REMOVE ALL SHARP EDGES, R.02 MIN.				63 μinch		D1001918		SCALE	1:1
3. DO NOT SCALE FROM DRAWING.				63 μinch		D1001918		PROJECTION	ASME
4. ALL MACHINING FLUIDS MUST BE FULLY SYNTHETIC, FULLY WATER SOLUBLE AND FREE OF SULFUR, SILICONE, AND CHLORINE.				63 μinch		D1001918		SHEET	1 OF 1
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				63 μinch		D1001918		REV.	v1

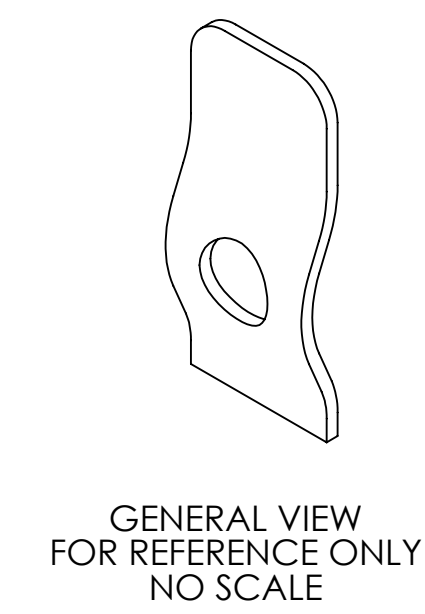
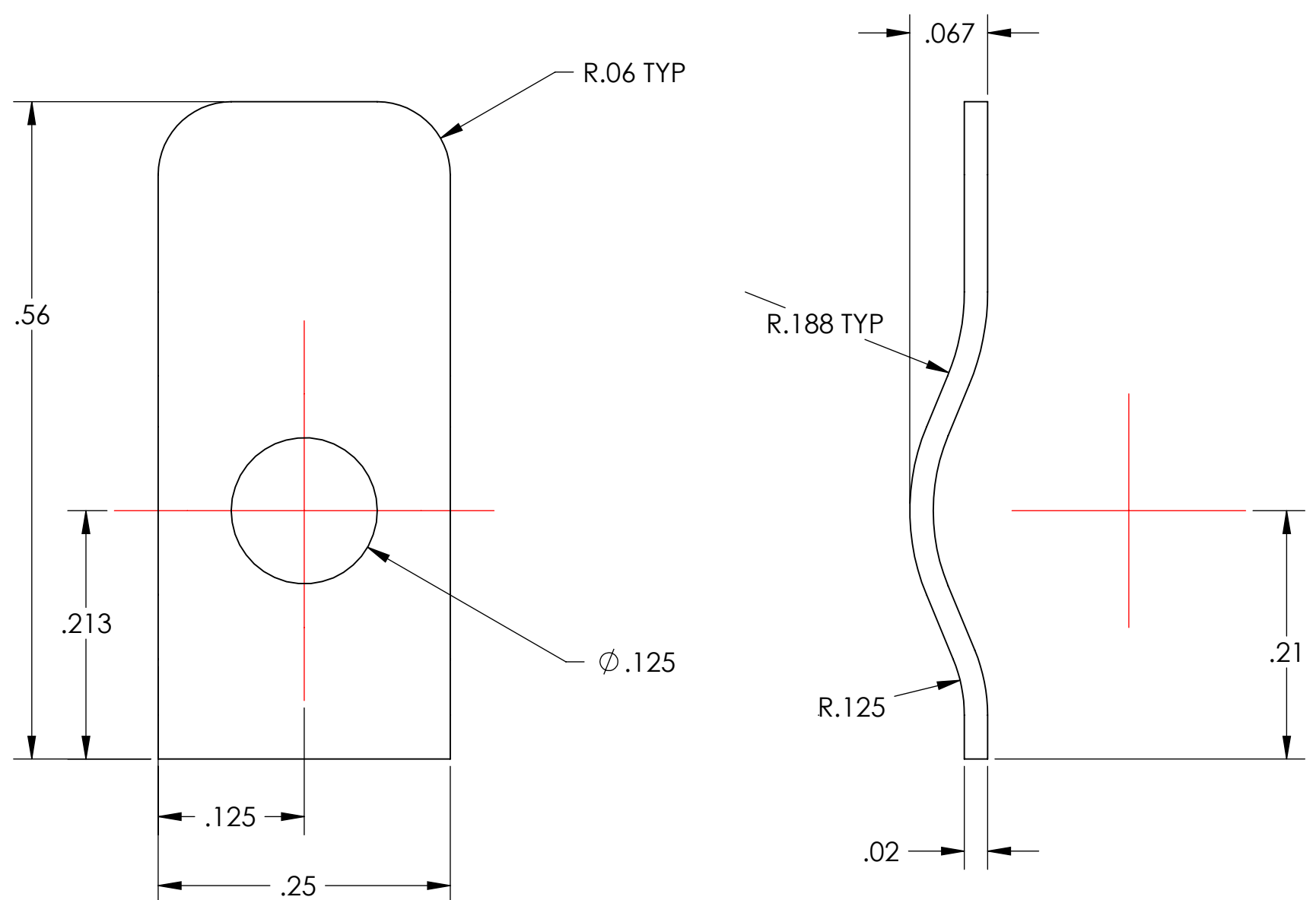
D1001917\_d1lgo\_Wedge window Flatform, PART PDM REV: X-007, DRAWING PDM REV: X-008

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	-
-	-	-	-
-	-	-	-



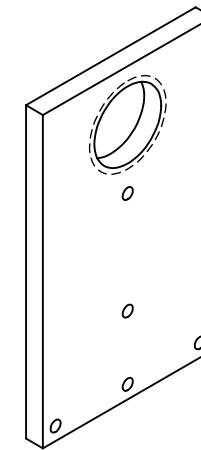
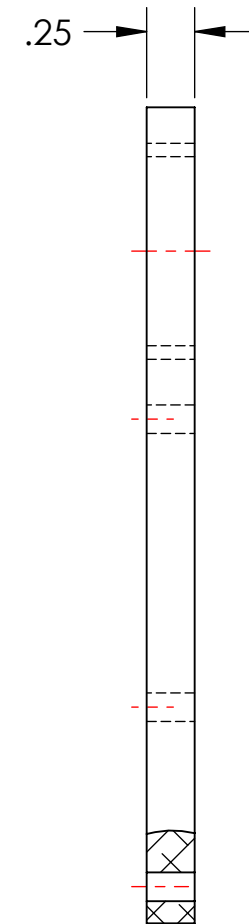
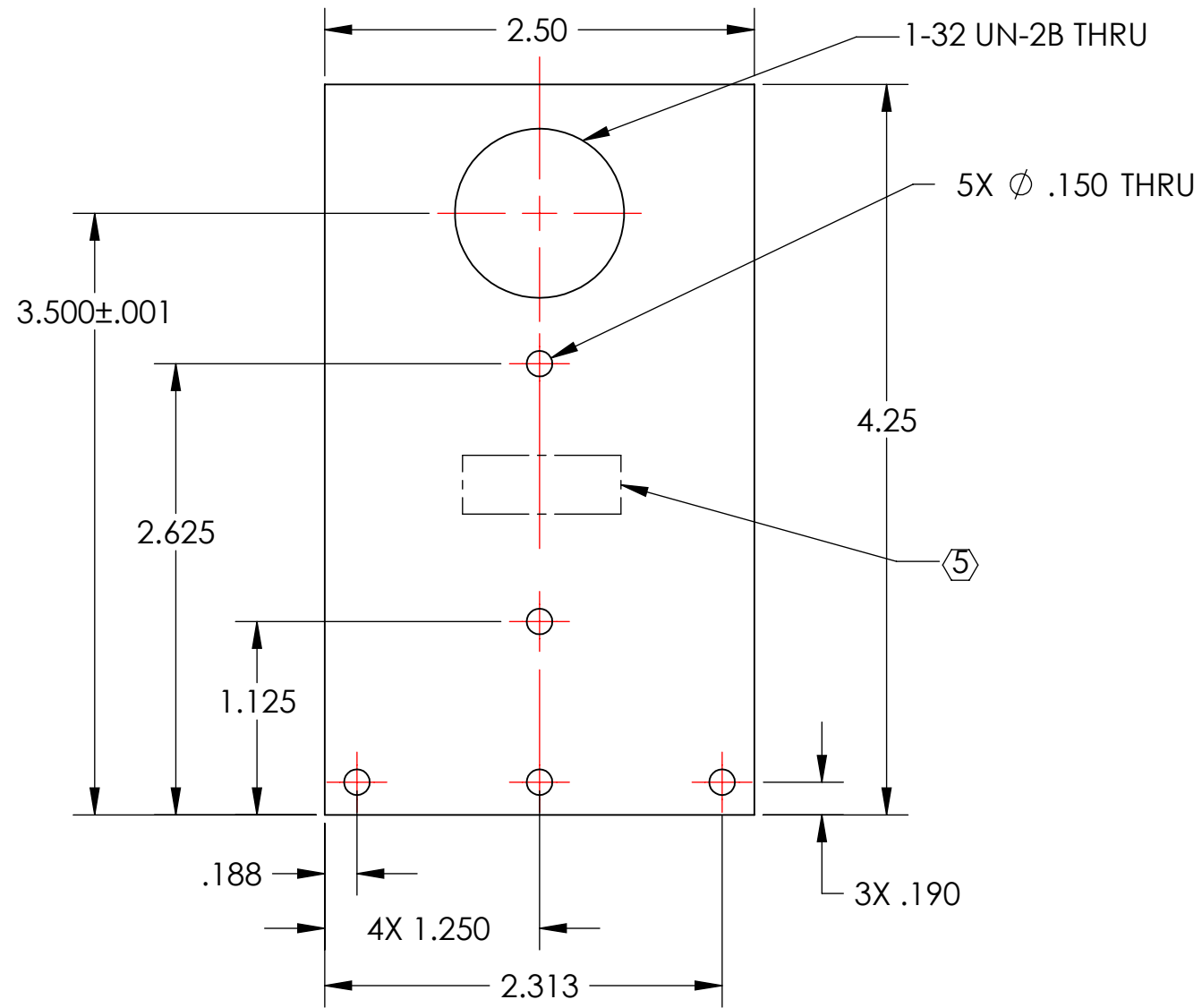
NOTES AND TOLERANCES: (UNLESS OTHERWISE SPECIFIED)				LIGO CALIFORNIA INSTITUTE OF TECHNOLOGY MASSACHUSETTS INSTITUTE OF TECHNOLOGY		PART NAME	
DIMENSIONS ARE IN INCHES				ADVANCED LIGO		BEAM DUMP MOUNTING CLAMP	
TOLERANCES: .XX ± .01 .XXX ± .005				SUB-SYSTEM AOS		DESIGNER	TQ. NGUYEN 2 AUG 2010
ANGULAR ± 0.5°				NEXT ASSY D1001918		DRAFTER	TQ. NGUYEN 24 AUG 2010
MATERIAL 304 SSSL				FINISH 63 μinch		CHECKER	M. SMITH
						APPROVAL	D. COYNE
						SIZE	DWG. NO. B D1001919
						REVISION	v1
						SCALE	8:1
						PROJECTION	AS SHOWN
						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)**

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

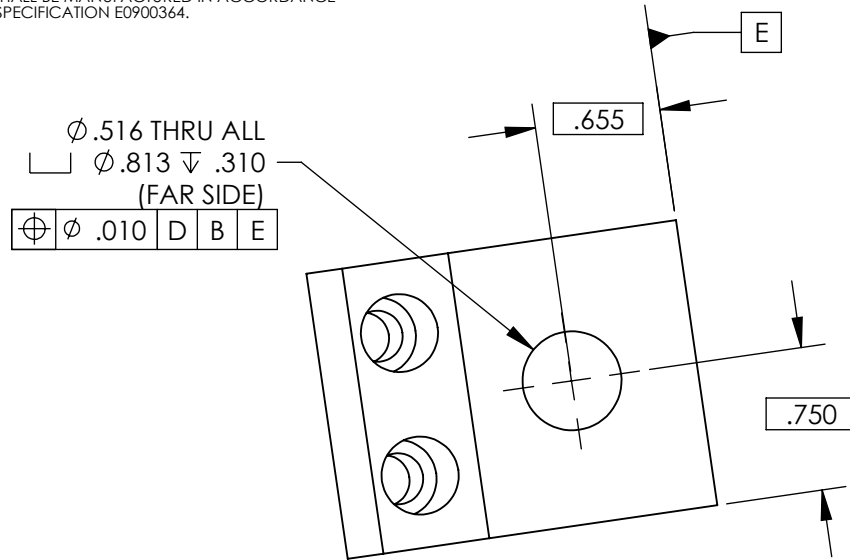
**PART NAME** RETICLE HOLDER

<b>DESIGNER</b>	TQ. NGUYEN	26 JUL 2010	<b>SIZE</b>	<b>DWG. NO.</b>	<b>REV.</b>
<b>DRAFTER</b>	TQ. NGUYEN	25 AUG 2010	<b>B</b>	<b>D1001959</b>	<b>v1</b>
<b>CHECKER</b>	M. SMITH		<b>SCALE:</b> 1:1	<b>PROJECTION:</b>	<b>SHEET 1 OF 1</b>
<b>APPROVAL</b>	D. COYNE				

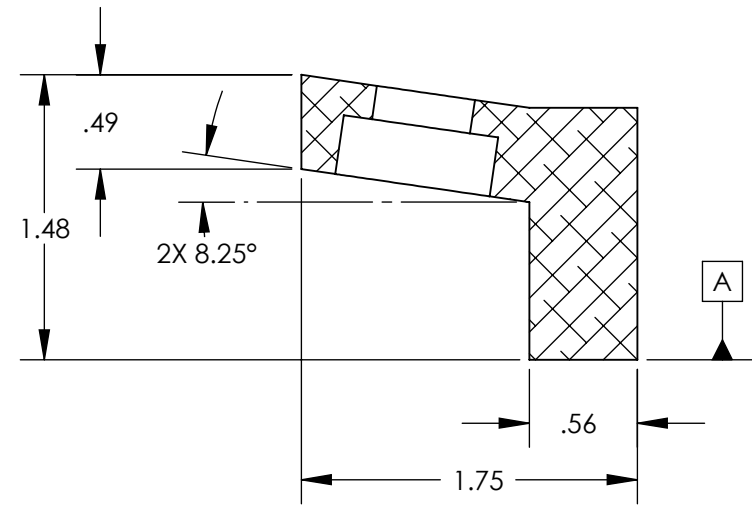
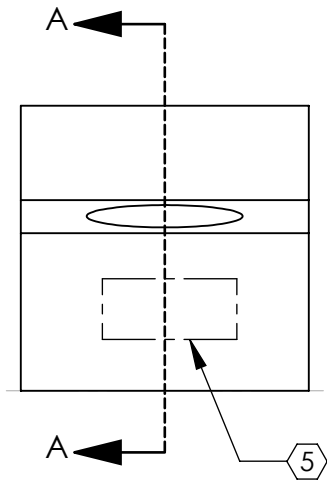
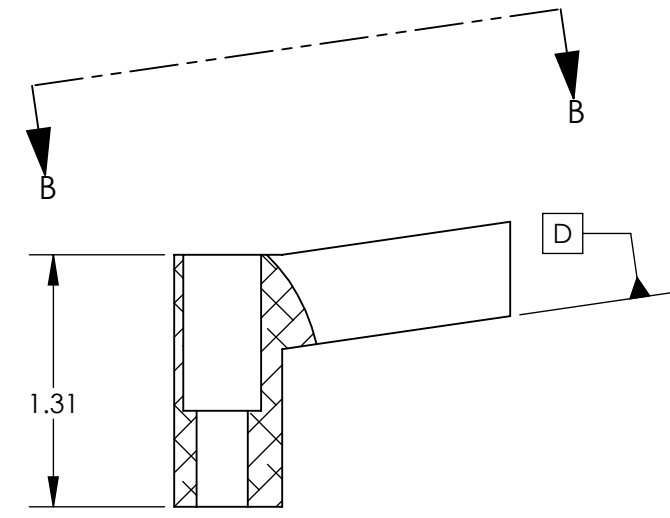
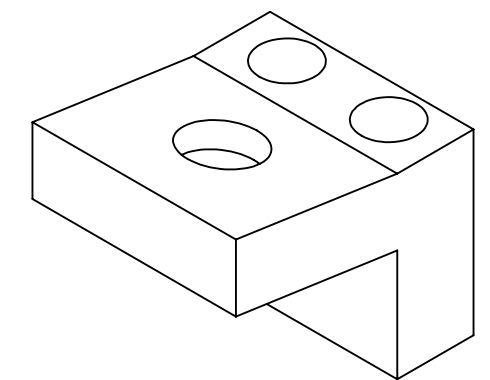
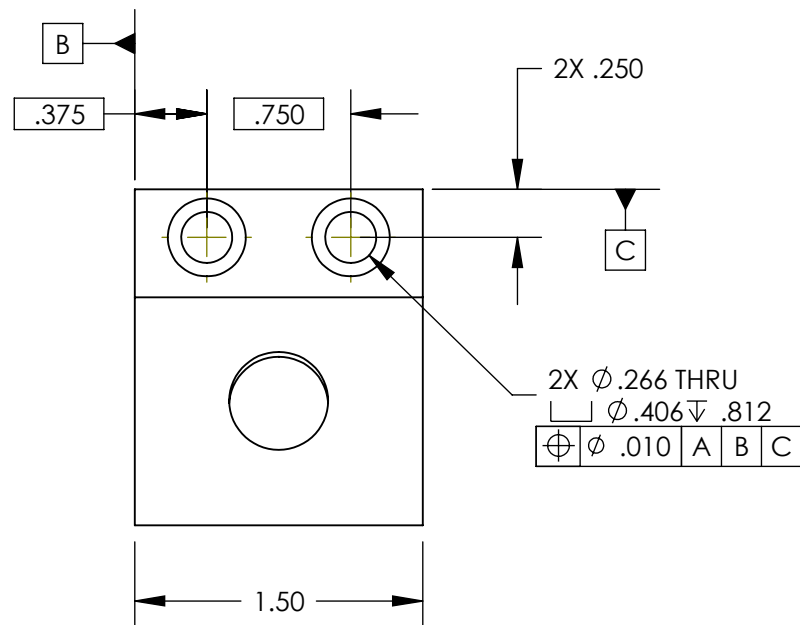
**NOTES CONTINUED:**  
 5. SCRIBE, ENGRAVE, OR MECHANICALLY STAMP (NO INKS OR DYES) DRAWING PART NUMBER, REVISION (AND VARIANT OR "TYPE" IF APPLICABLE) ON NOTED SURFACE OF PART FOLLOWED ON THE NEXT LINE WITH A THREE DIGIT SERIAL NUMBER. SERIAL NUMBERS START AT 001 FOR THE FIRST ARTICLE AND PROCEED CONSECUTIVELY. 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.



VIEW B-B



SECTION A-A

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	

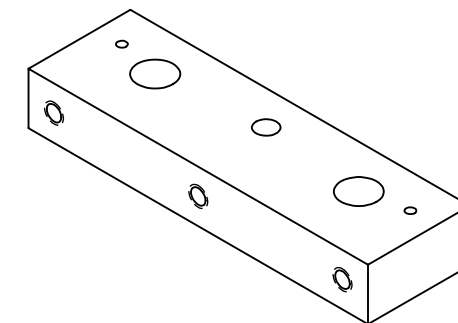
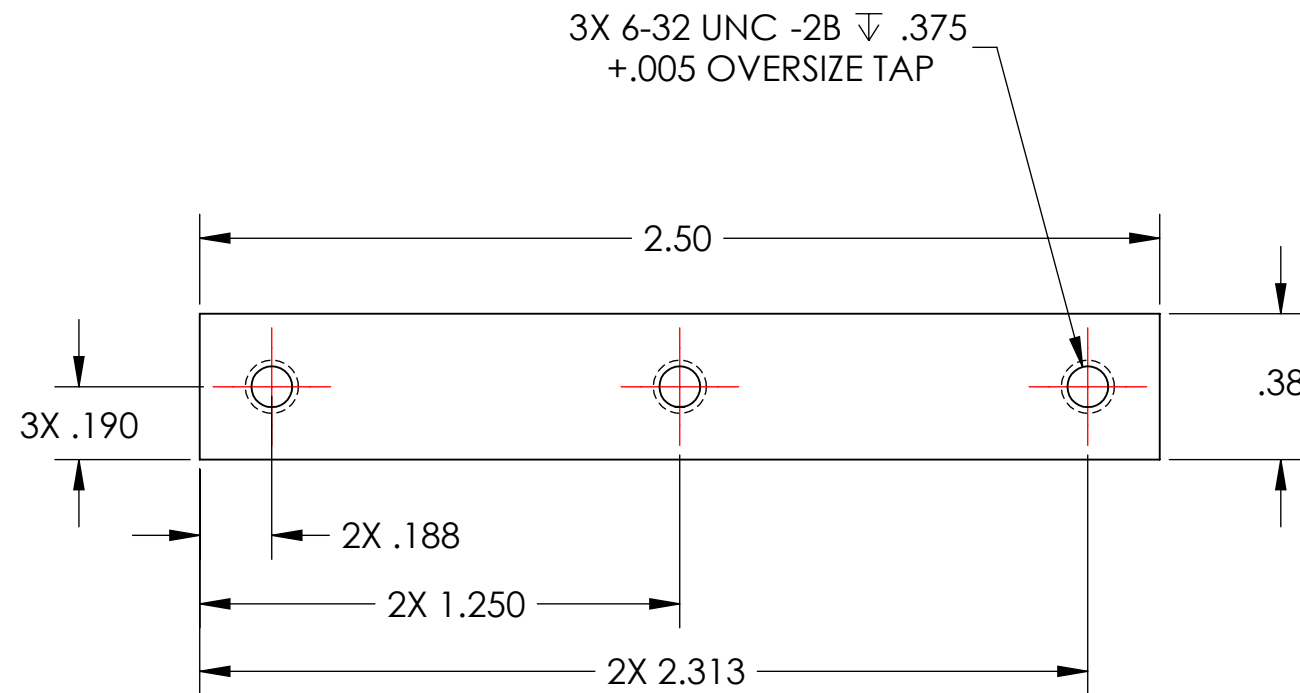
D1001960\_alIGO\_AOS\_D0901958\_Wire Support Block, PART PDM REV: X-008, DRAWING PDM REV: X-008



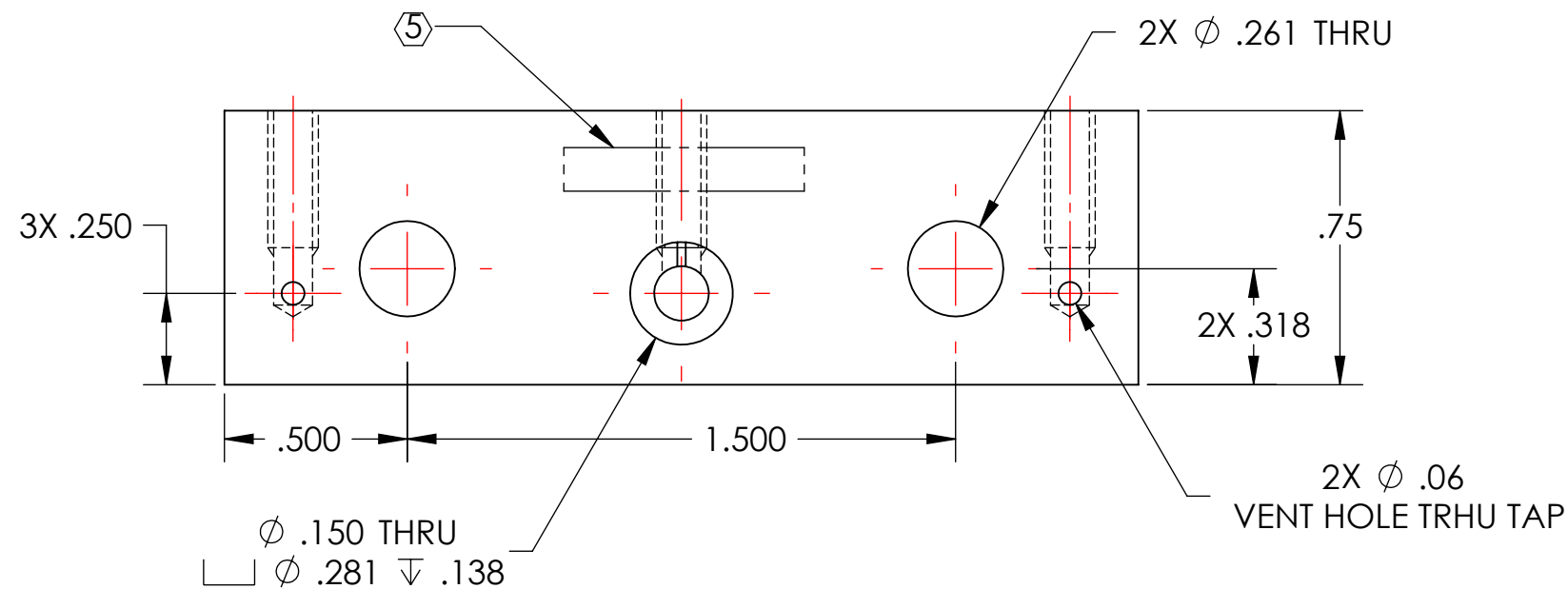
NOTES CONTINUED:  
 5. SCRIBE, ENGRAVE, OR MECHANICALLY STAMP (NO INKS OR DYES) DRAWING PART NUMBER, REVISION (AND VARIANT OR "TYPE" IF APPLICABLE) ON NOTED SURFACE OF PART FOLLOWED ON THE NEXT LINE WITH A THREE DIGIT SERIAL NUMBER. SERIAL NUMBERS START AT 001 FOR THE FIRST ARTICLE AND PROCEED CONSECUTIVELY. 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 BASE

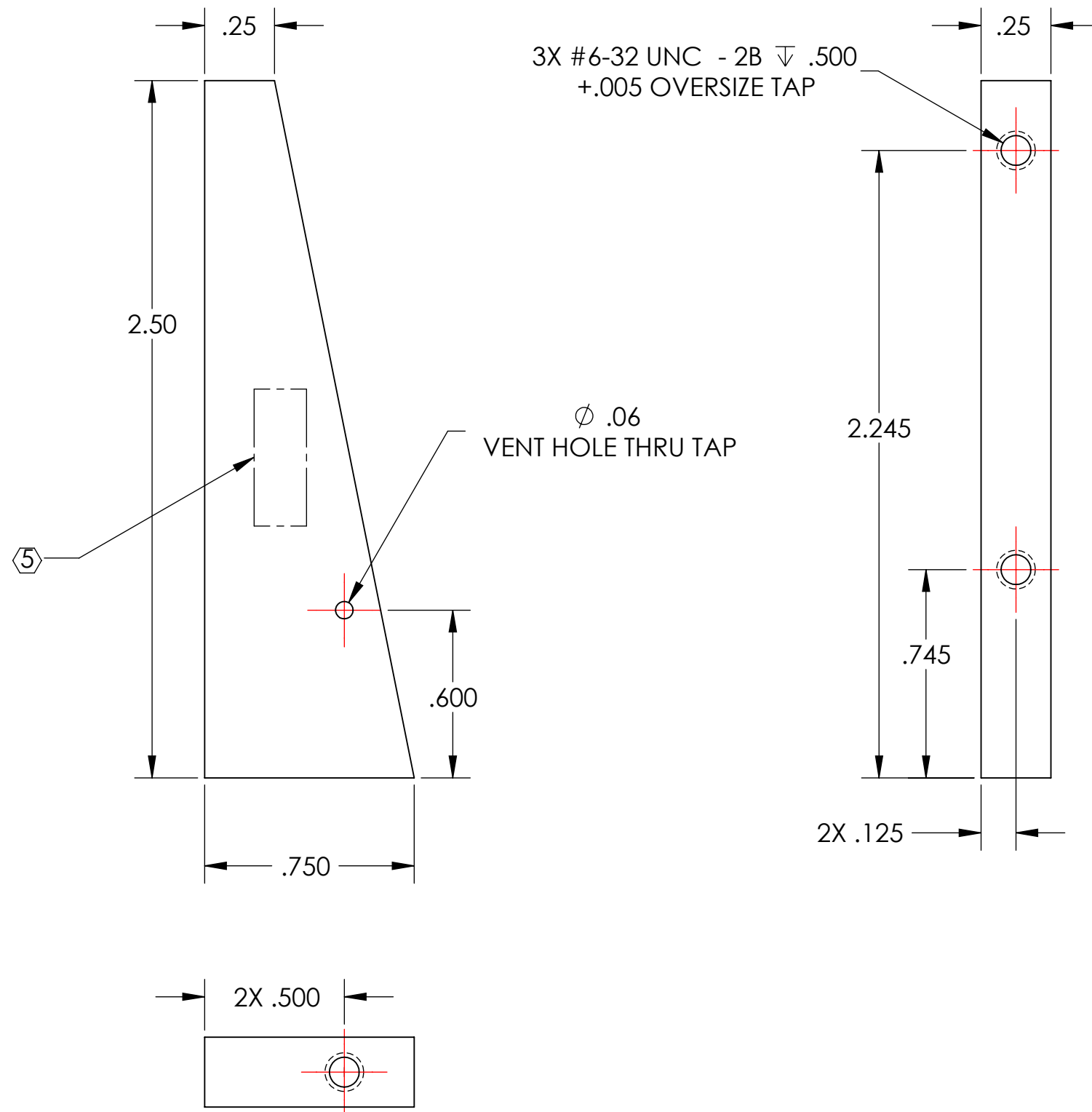
DESIGNER	TQ. NGUYEN	27 JUL 2010	SIZE	DWG. NO.	REV.
DRAFTER	TQ. NGUYEN	25 AUG 2010	B	D1001961	v1
CHECKER	M. SMITH				
APPROVAL	D. COYNE		SCALE: 2:1	PROJECTION:	SHEET 1 OF 1

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  
 DRAFTER TQ. NGUYEN 25 AUG 2010  
 CHECKER M. SMITH  
 APPROVAL D. COYNE

SIZE DWG. NO. B D1001962  
 SCALE: 2:1 PROJECTION: SHEET 1 OF 1

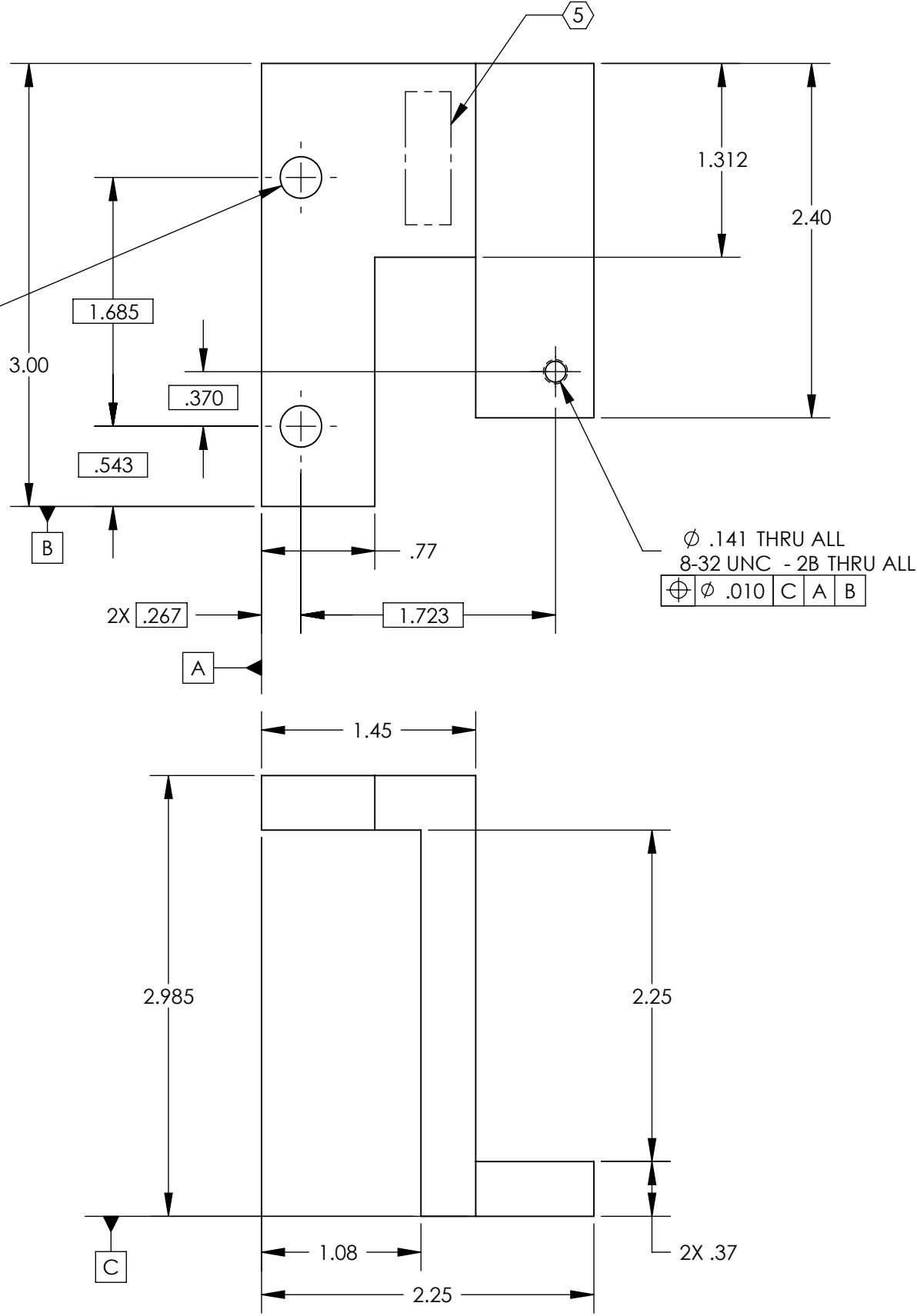
REV. v1

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

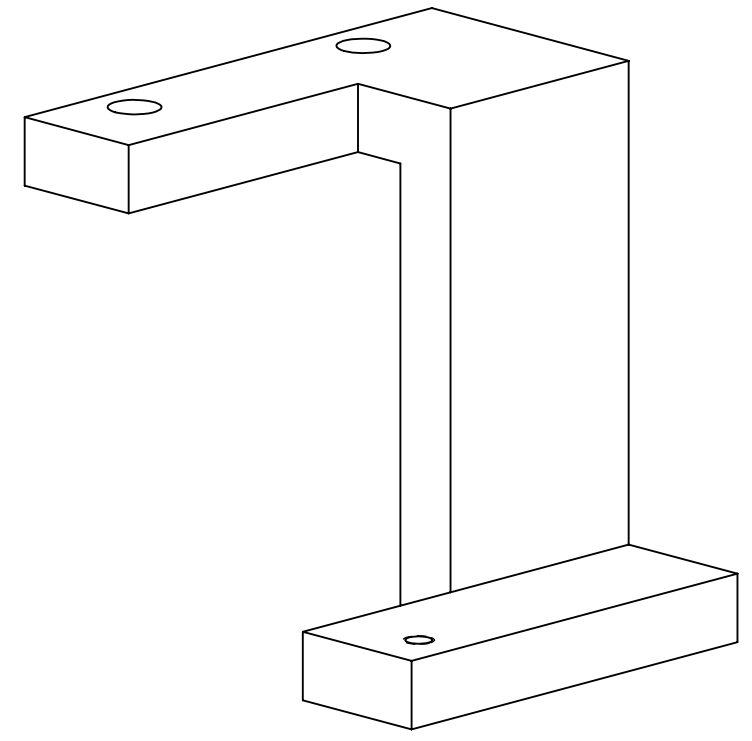
- NOTES CONTINUED:**
- 5. SCRIBE, ENGRAVE, OR MECHANICALLY STAMP (NO INKS OR DYES) DRAWING PART NUMBER, REVISION (AND VARIANT OR "TYPE" IF APPLICABLE) ON NOTED SURFACE OF PART FOLLOWED ON THE NEXT LINE WITH A THREE DIGIT SERIAL NUMBER. SERIAL NUMBERS START AT 001 FOR THE FIRST ARTICLE AND PROCEED CONSECUTIVELY. 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

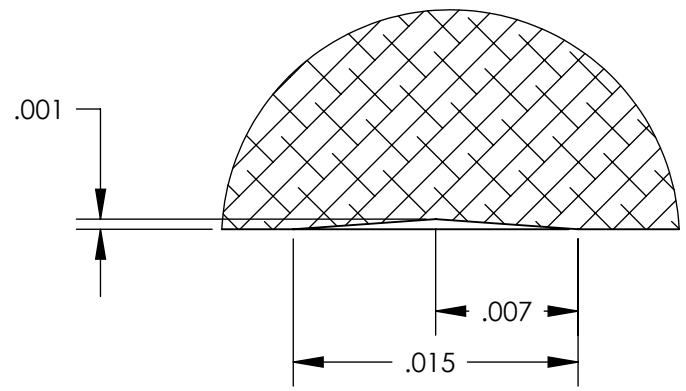
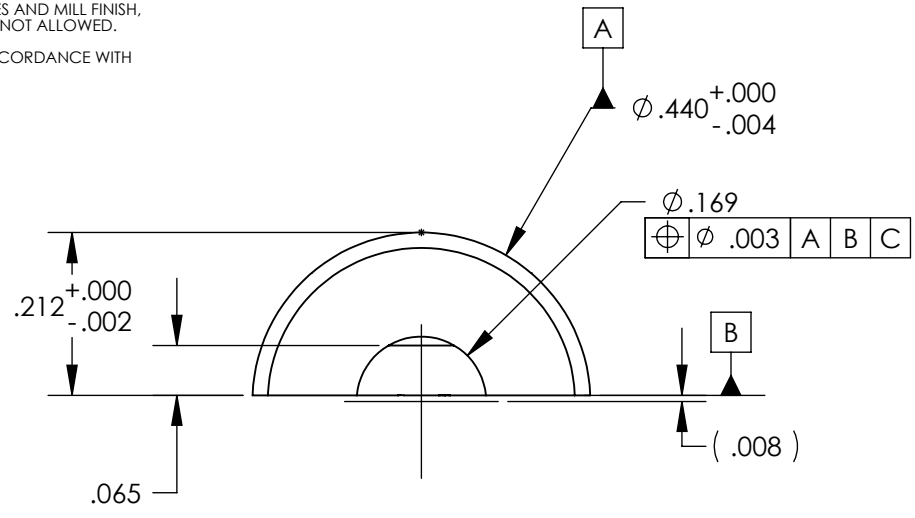


NOTES AND TOLERANCES: (UNLESS OTHERWISE SPECIFIED)				LIGO		PART NAME	
DIMENSIONS ARE IN TOLERANCES: .XX $\pm$ .02 .XXX $\pm$ .010 ANGULAR $\pm$ .5°				CALIFORNIA INSTITUTE OF TECHNOLOGY MASSACHUSETTS INSTITUTE OF TECHNOLOGY		MAGNETIC PLATE MOUNTING BACK (LOWER) BRACKET	
1. INTERPRET DRAWING PER ASME 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 6061-T6 Al				FINISH 63 $\mu$ inch		NEXT ASSY D0900048	
DESIGNER DRAFTER CHECKER APPROVAL				DESIGNER MRUIZ 16 AUG 2010		SIZE DWG. NO. <b>B</b>	
MATERIAL				FINISH		NEXT ASSY	
6061-T6 Al				63 $\mu$ inch		D0900048	
SCALE: 1:1				PROJECTION:		SHEET 1 OF 1	
REV.				D1002112		v1	

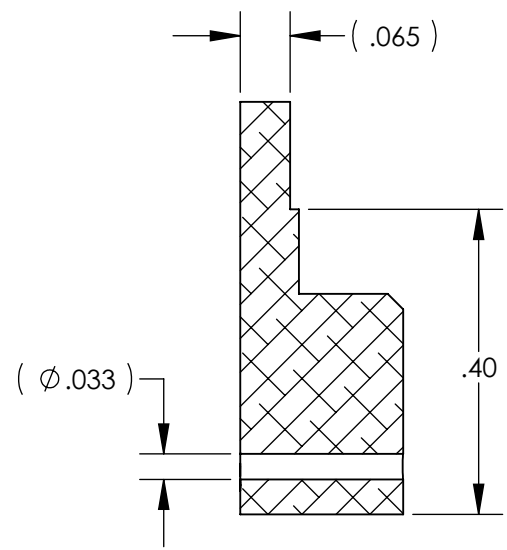
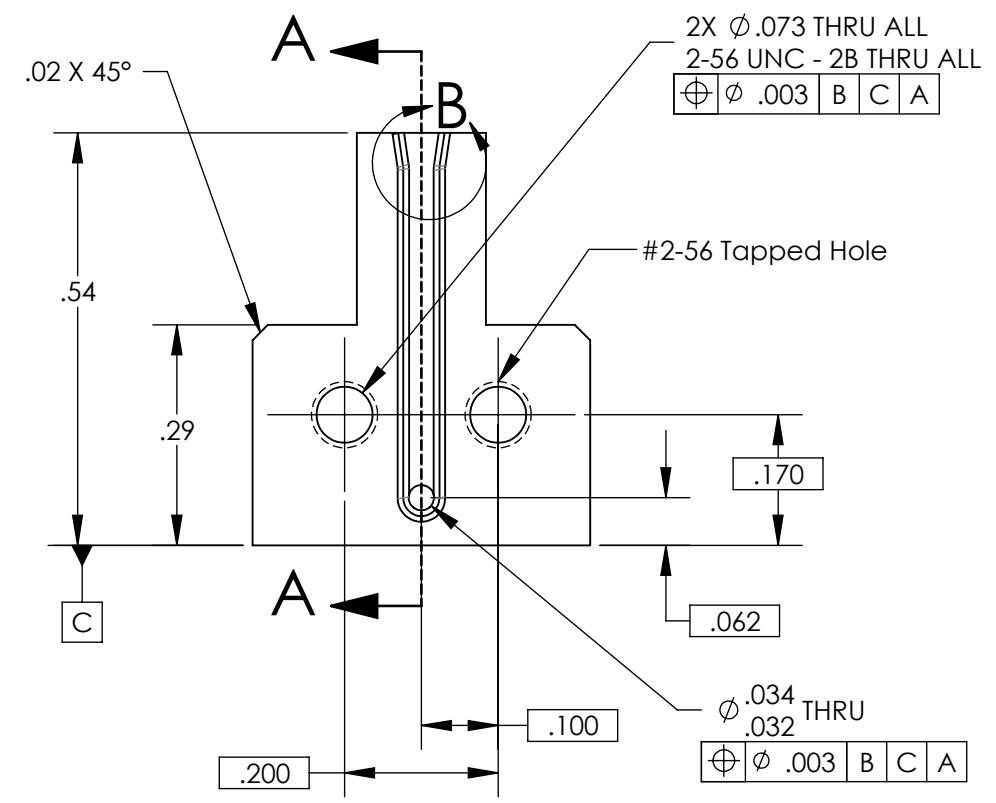
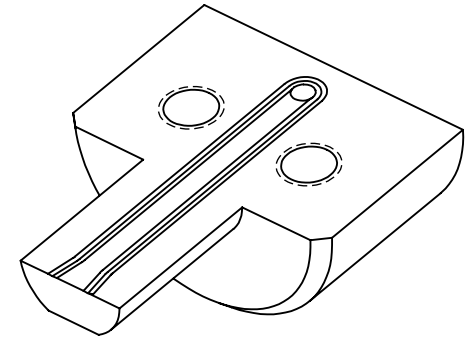
**NOTES CONTINUED:**  
 5. SCRIBE, ENGRAVE, OR MECHANICALLY STAMP (NO DYES OR INKS) A UNIQUE THREE DIGIT SERIAL NUMBER & REVISION NUMBER ON EACH PART. SERIAL NUMBERS START AT 001 FOR THE FIRST ARTICLE AND PROCEED CONSECUTIVELY. BAG AND TAG PARTS WITH THEIR DRAWING PART NUMBER, REVISION, VARIANT OR "TYPE" (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	

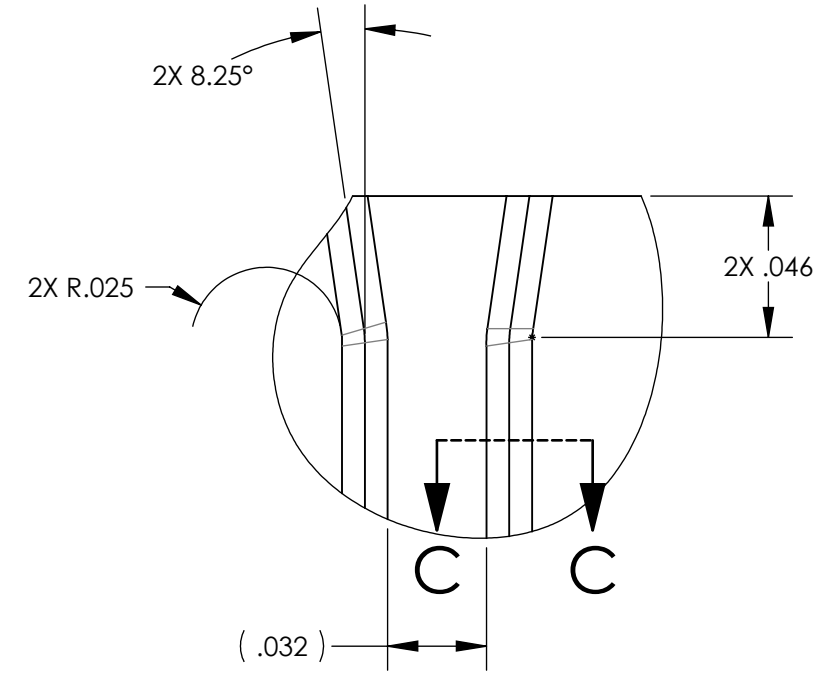
D 6. MACHINE ALL SURFACES TO REMOVE OXIDES AND MILL FINISH. USE OF ABRASIVE REMOVAL TECHNIQUES IS NOT ALLOWED.  
 7. ALL PARTS SHALL BE MANUFACTURED IN ACCORDANCE WITH LIGO SPECIFICATION E0900364.



DETAIL C  
SCALE 100 : 1



SECTION A-A



DETAIL B  
SCALE 16 : 1

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 3</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 D1002168	
				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

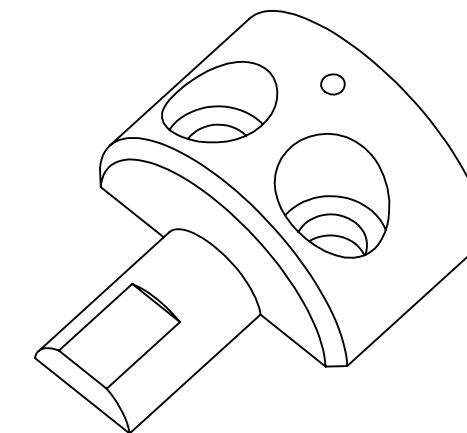
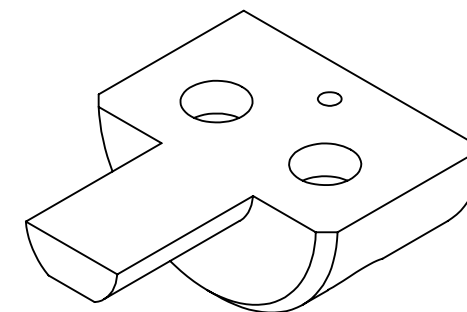
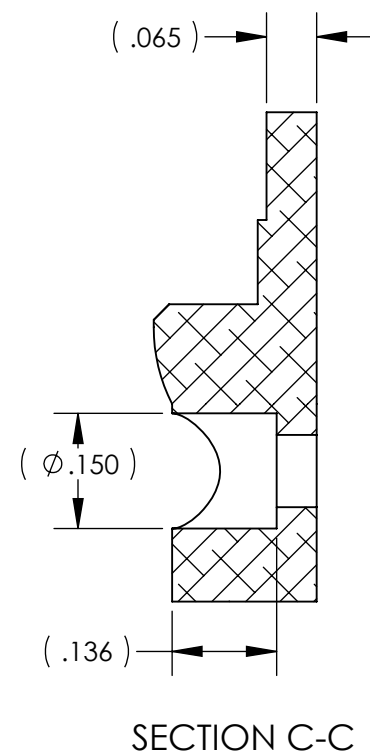
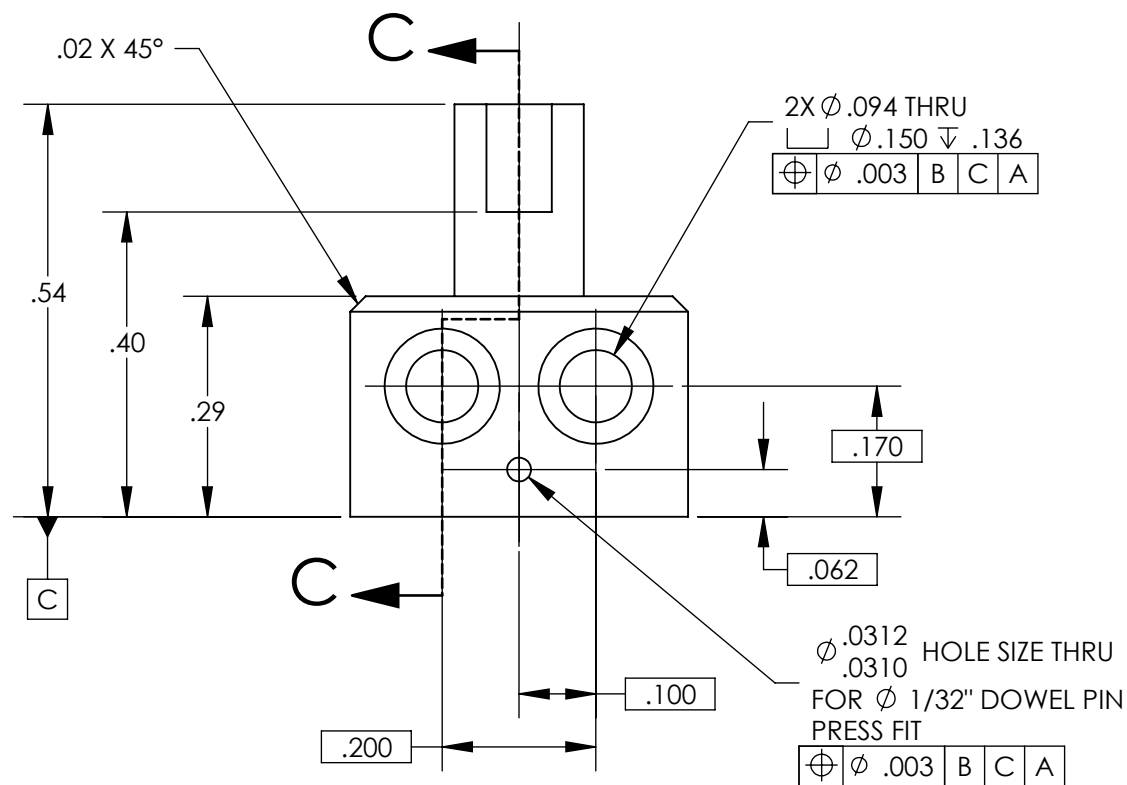
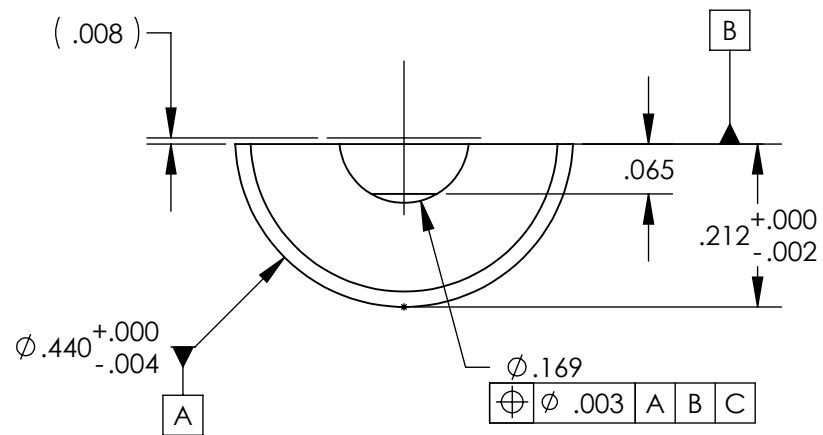
NOTES CONTINUED:

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

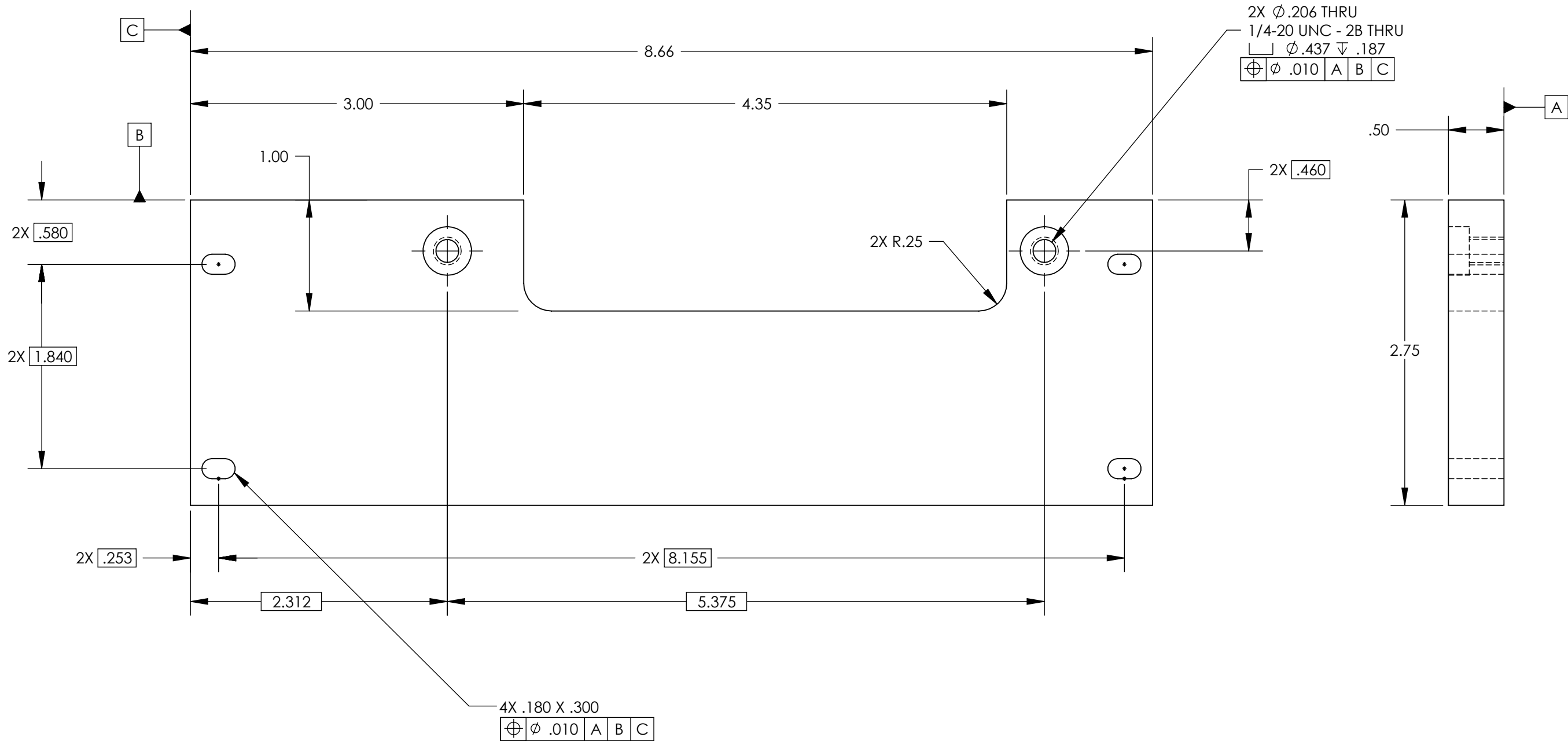
NOTES AND TOLERANCES: (UNLESS OTHERWISE SPECIFIED)				LIGO CALIFORNIA INSTITUTE OF TECHNOLOGY MASSACHUSETTS INSTITUTE OF TECHNOLOGY		PART NAME	
DIMENSIONS ARE IN TOLERANCES: .XX ± .005 .XXX ± .002 ANGULAR ± .5°				1. INTERPRET DRAWING PER ASME Y14.5-1994. 2. REMOVE ALL SHARP EDGES, R.02 MIN. 3. DO NOT 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 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	



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>	
MATERIAL 6061-T6 Al		FINISH 63 µinch		SYSTEM <b>ADVANCED LIGO</b> SUB-SYSTEM <b>AOS</b>		DESIGNER DRAFTER MRUIZ CHECKER APPROVAL	
NEXT ASSY D1002256				SIZE DWG. NO. <b>B D1002257</b>		REV. <b>v1</b>	
				SCALE: 1:1 PROJECTION:		SHEET 1 OF 1	

8 7 6 5 4 3 2 1

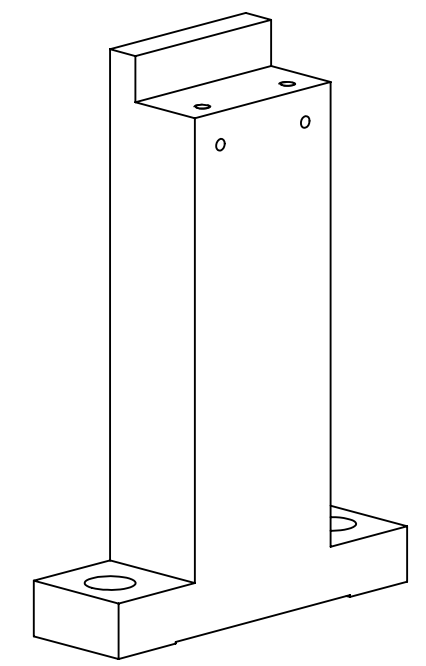
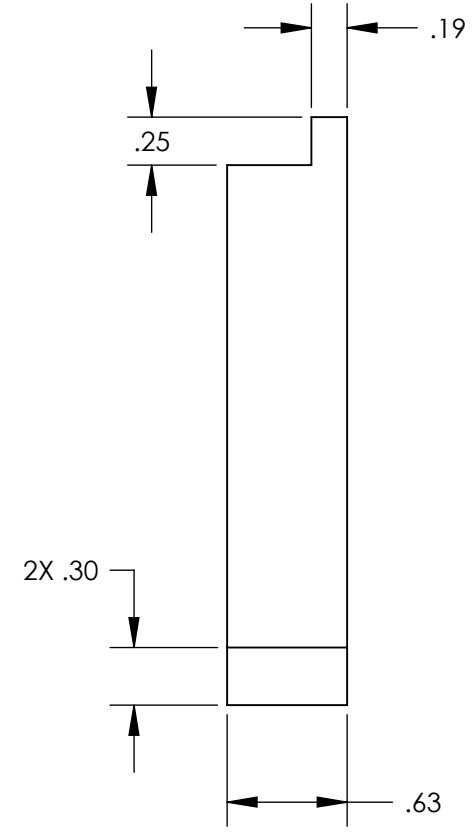
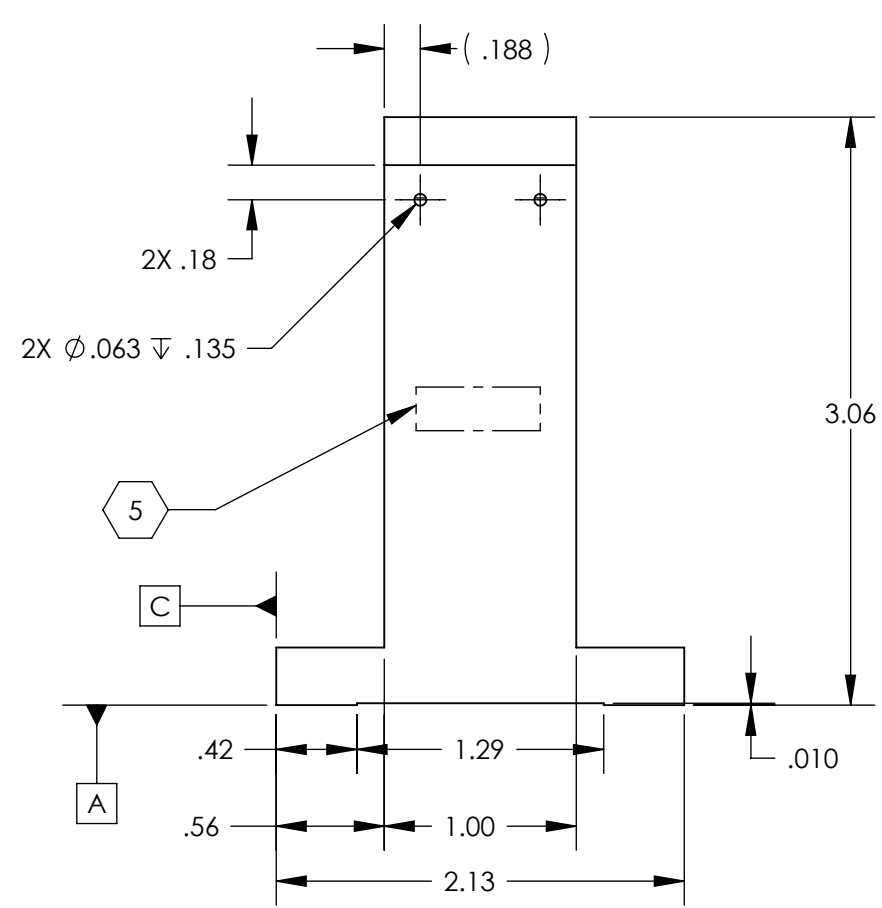
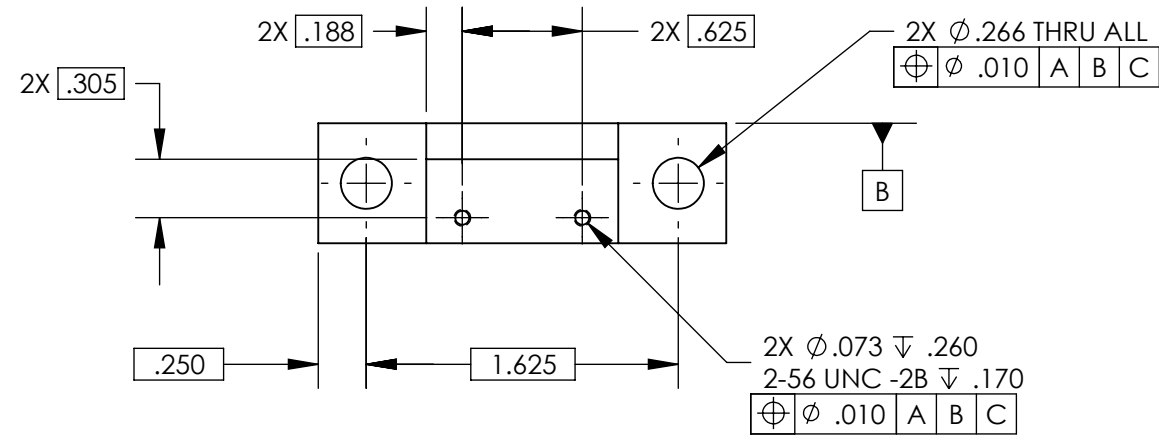
D1002362\_d1lGO\_AOS\_D0900623\_Faraday Isolator Beam Dump Mount, PART PDM REV: X-004, DRAWING PDM REV: X-004

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	07 OCT 2010	E1000563	



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.		FARADAY ISOLATOR BEAM DUMP MOUNT	
MATERIAL 6061-T6 Al		FINISH 63 μinch		SYSTEM ADVANCED LIGO		SUB-SYSTEM AOS	
NEXT ASSY D1002364				DESIGNER MRUIZ		DATE 09 SEP 2010	
				CHECKER		SIZE DWG. NO. B D1002362	
				APPROVAL		REV. v1	
				SCALE: 1:1		PROJECTION:  SHEET 1 OF 1	

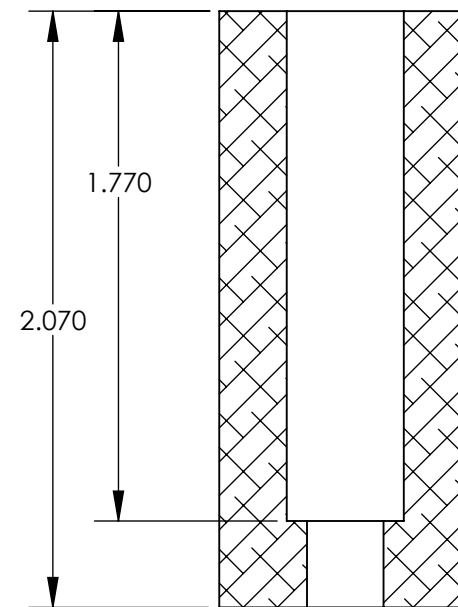
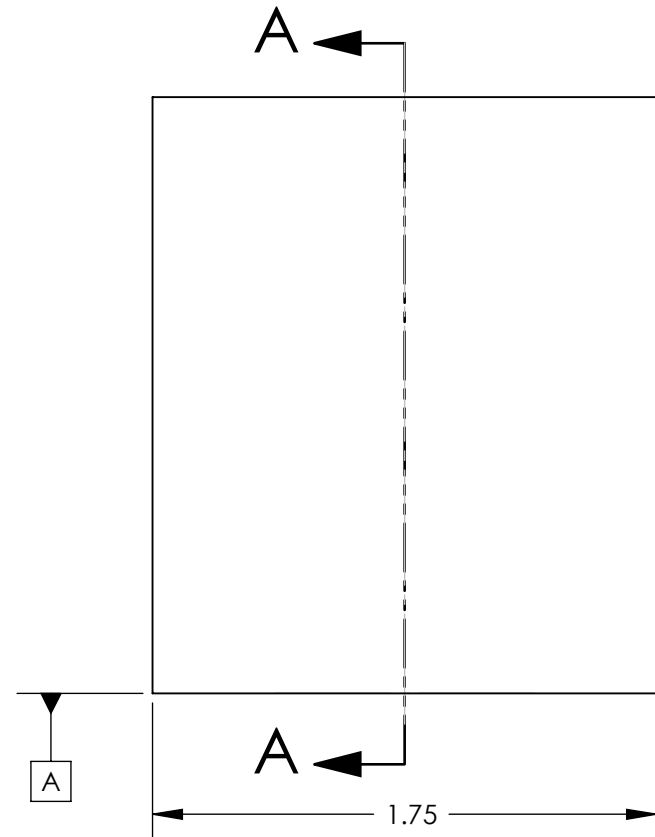
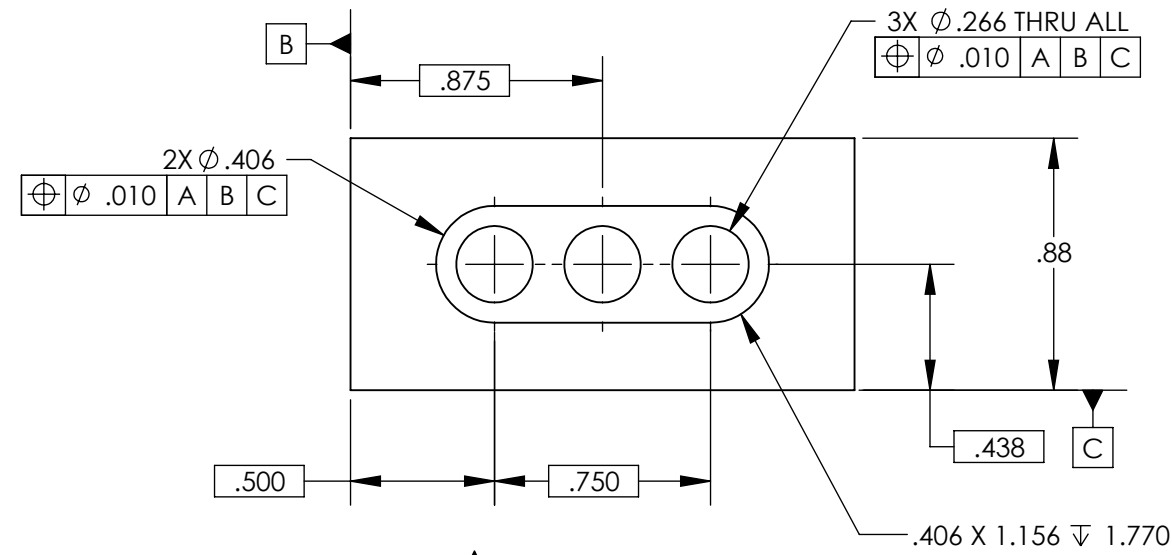
8 7 6 5 4 3 2 1

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 SSSL **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

<b>DESIGNER</b>	<b>SIZE</b>	<b>DWG. NO.</b>	<b>REV.</b>
M.RUIZ	B	D1002533	v1
<b>DRAFTER</b>			
<b>CHECKER</b>			
<b>APPROVAL</b>			

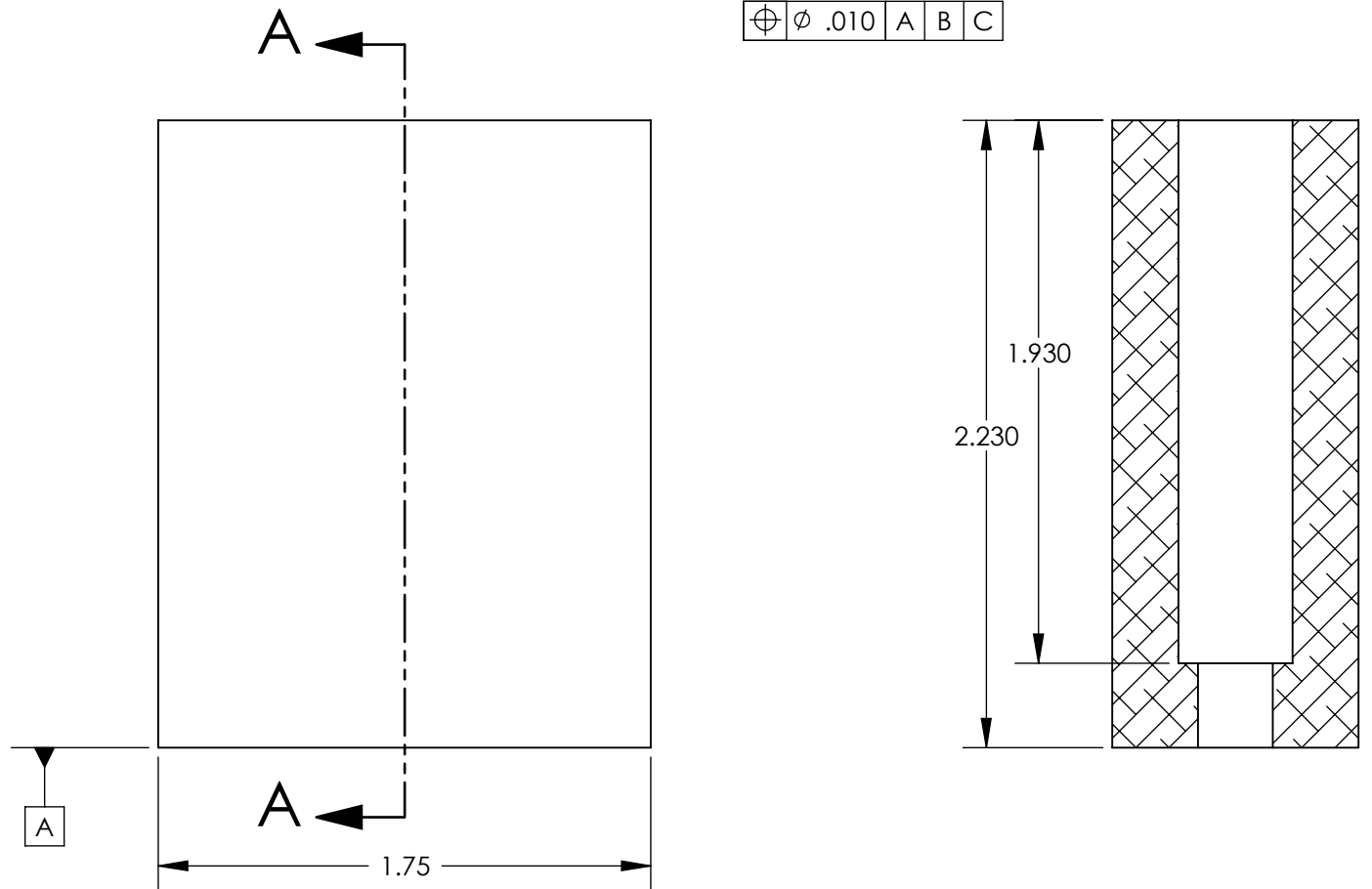
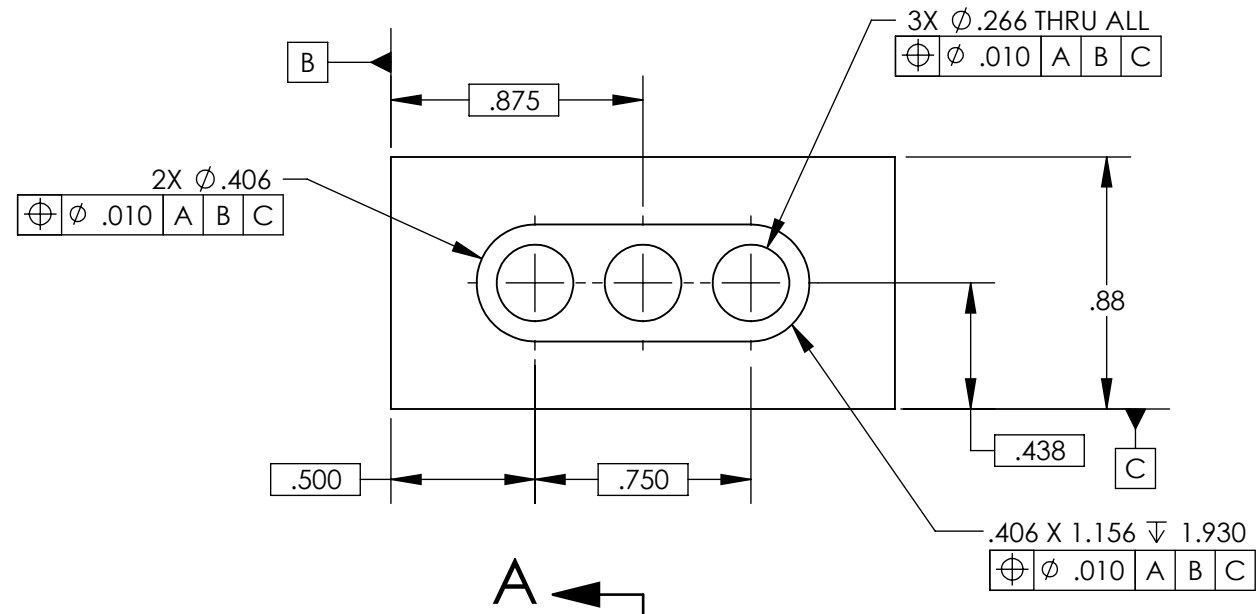
SCALE: 3:2 PROJECTION: SHEET 1 OF 1



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	-
-	-	-	-
-	-	-	-



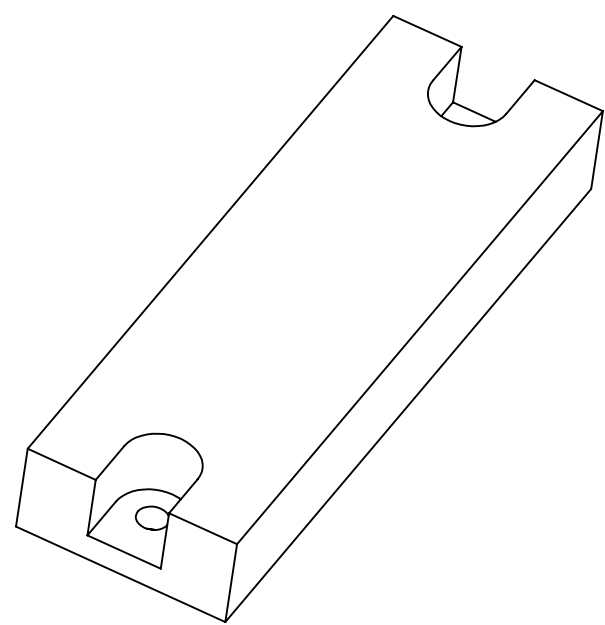
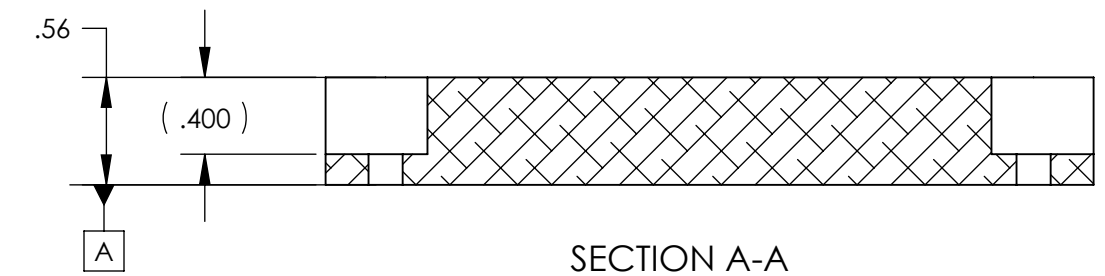
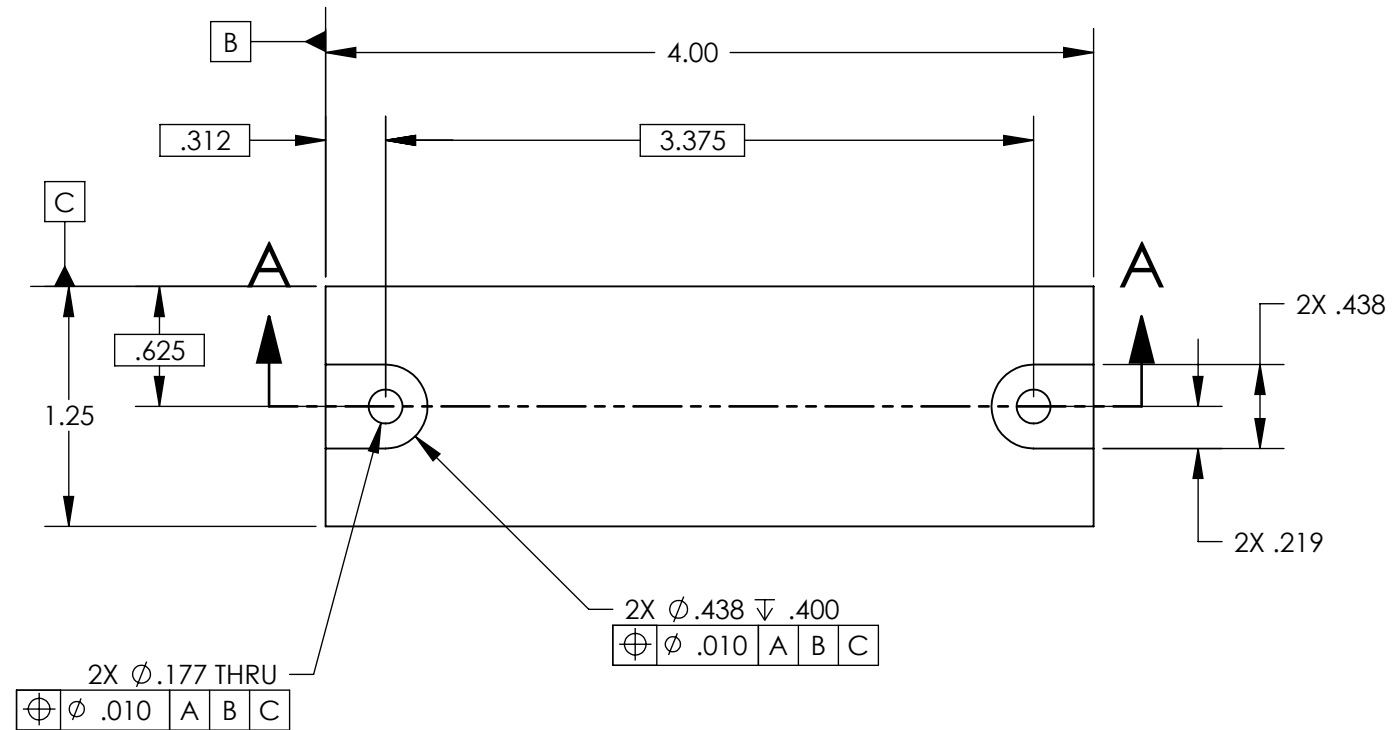
SECTION A-A

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 $\pm$ .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.		SYSTEM		SUB-SYSTEM		DESIGNER DRAFTER CHECKER APPROVAL	
MATERIAL 304, 316 OR 302 SSSL				FINISH 63 $\mu$ inch		NEXT ASSY D0900623		PART NAME Output Faraday Isolator Dummy Weight (rotate)		SIZE DWG. NO. B D1002540	
								DESIGNER MRUIZ		REV. v1	
								DATE 01 OCT 2010		SCALE: 3:2	
								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	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)				LIGO CALIFORNIA INSTITUTE OF TECHNOLOGY MASSACHUSETTS INSTITUTE OF TECHNOLOGY		PART NAME	
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.		TABLE BALANCE WEIGHT, .75#	
MATERIAL 304, 316 OR 302 SSSL		FINISH 125 μinch		SYSTEM ADVANCED LIGO		SUB-SYSTEM AOS	
NEXT ASSY D0900623				DESIGNER MRUIZ		DATE 01 OCT 2010	
DIMENSIONS ARE IN TOLERANCES: .XX ± .01 .XXX ± .005 ANGULAR ± .5°				SIZE DWG. NO. B D1002542		REV. v1	
				SCALE: 1:1		PROJECTION:	
				SHEET 1 OF 1			