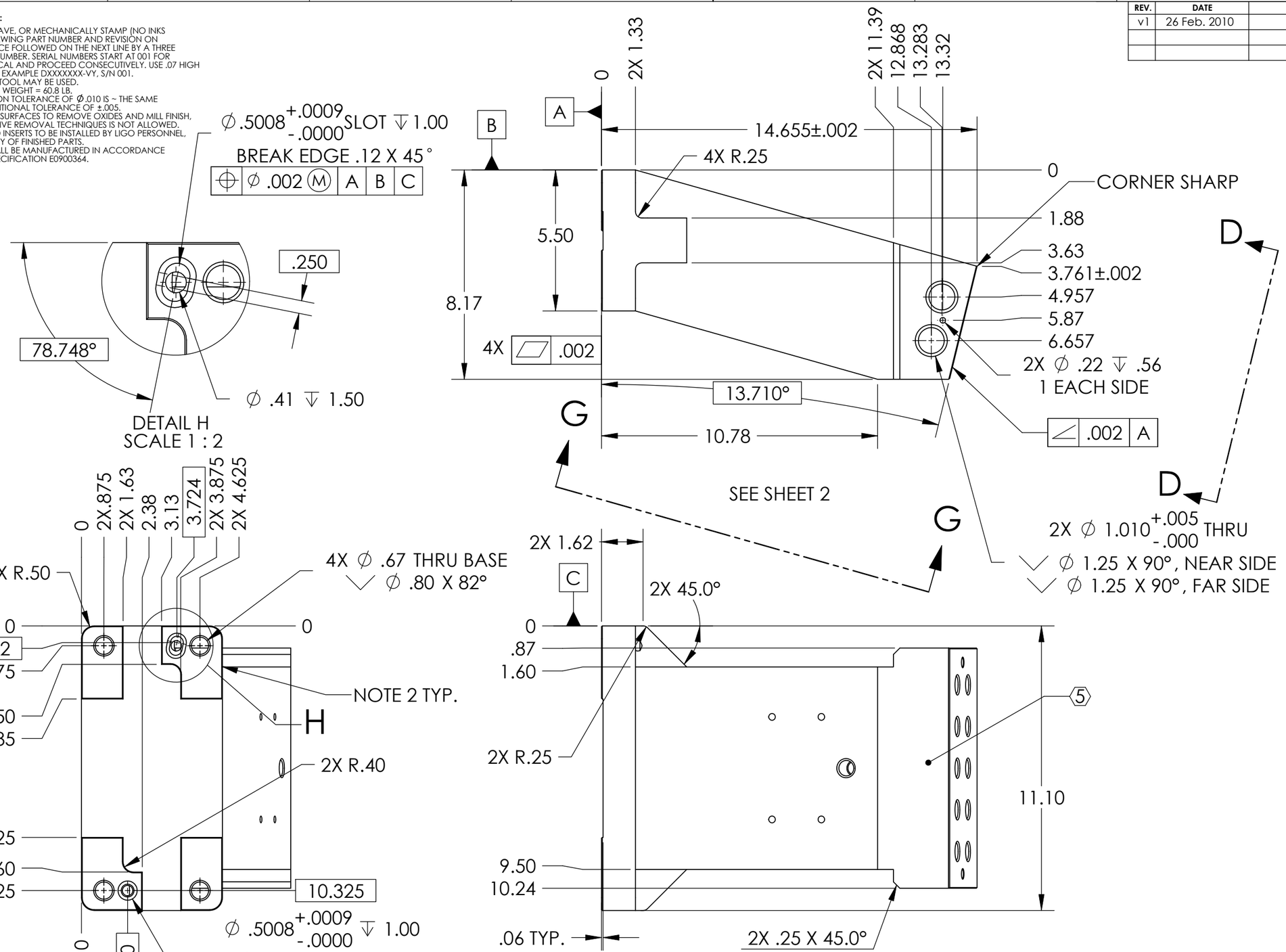
NOTES CONTINUED:

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 ARTICAL AND PROCEED CONSECUTIVELY. USE .07 HIGH CHARACTERS. EXAMPLE DXXXXXXX-VY, S/N 001. A VIBRATORY TOOL MAY BE USED.
6. APPROXIMATE WEIGHT = 60.8 LB.
7. A TRUE POSITION TOLERANCE OF Ø.010 IS ~ THE SAME AS A CONVENTIONAL TOLERANCE OF ±.005.
8. MACHINE ALL SURFACES TO REMOVE OXIDES AND MILL FINISH, USE OF ABRASIVE REMOVAL TECHNIQUES IS NOT ALLOWED.
9. ALL THREADED INSERTS TO BE INSTALLED BY LIGO PERSONNEL, AFTER DELIVERY OF FINISHED PARTS.
10. ALL PARTS SHALL BE MANUFACTURED IN ACCORDANCE WITH LIGO SPECIFICATION E0900364.

REV.	DATE	DCN #	DRAWING TREE #
v1	26 Feb. 2010	E1000022	E1000025



NOTES AND TOLERANCES: (UNLESS OTHERWISE SPECIFIED)			
DIMENSIONS ARE IN INCHES TOLERANCES: .XX ± .015 .XXX ± .005 ANGULAR ± .5°	1. INTERPRET DRAWING PER ASME Y14.5-1994. 2. BREAK ALL CORNERS AND EDGES .03 X 45°. 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

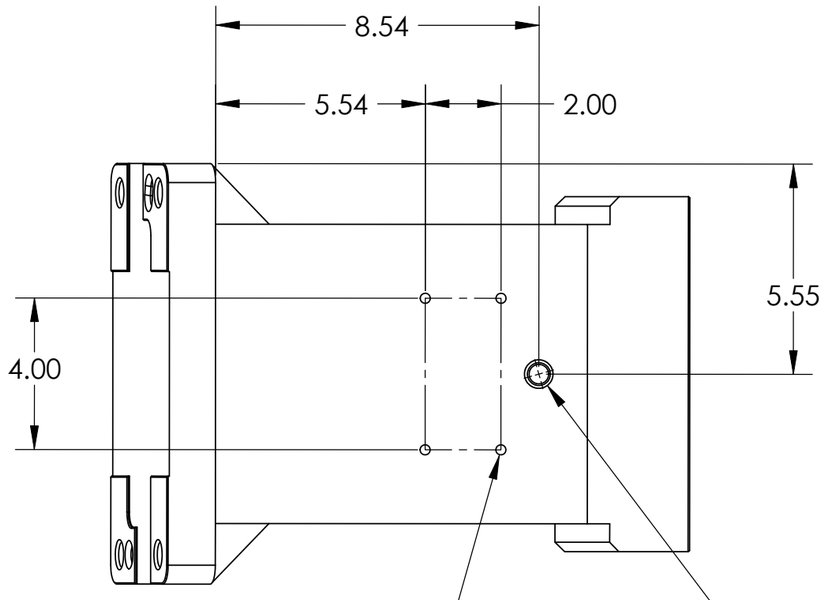
SYSTEM: ADVANCED LIGO | SUB-SYSTEM: SEI | NEXT ASSY: D0901197

PART NAME: BLADE POST,STAGE 0-1, aLIGO BSC ISI

DESIGNER	A.STEIN	01 Feb. 2010	SIZE	DWG. NO.	REV.
DRAFTER	M.HILLARD	01 Feb. 2010	B	D0901499	v1
CHECKER	F.MATICHARD	01 Feb. 2010			
APPROVAL	K.MASON	01 Feb. 2010	SCALE: 1:4	PROJECTION:	SHEET 1 OF 2

D0901499 Blade spring Post Stage 0-1, PART PDM REV: X-018, DRAWING PDM REV: X-007

VIEW G-G



2X ∅ .3750 $^{+.0000}_{-.0004}$ ↧ .60

⌴ ∅ .377 $^{+.001}_{-.000}$ ↧ .13

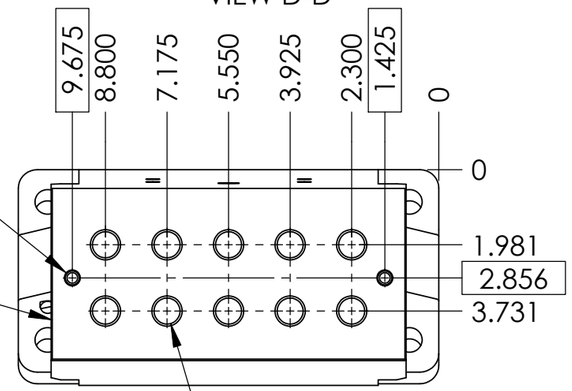
∨ ∅ .42 X 90°, NEAR SIDE

∅.28↧1.00

⌖ | ∅ .002 Ⓜ | A | B | C

SEE NOTE 2 TYP

VIEW D-D



10X ∅ .69 ↧ 2.00

∨ ∅ .80 X 90°, NEAR SIDE

∅ .52 ↧ 2.25

∨ ∅ .75 X 120°, NEAR SIDE

TAP FOR 1/2-13 HELICOIL INSERT = 2.0 * DIA.

∅.56↧3.06 FAR SIDE

4X ∅ .27 THRU ALL

∨ ∅ .37 X 90°, NEAR SIDE

TAP FOR 1/4-20 HELICOIL INSERT = 2.0 * DIA. FAR SIDE

∨ ∅ .37 X 90°, FAR SIDE

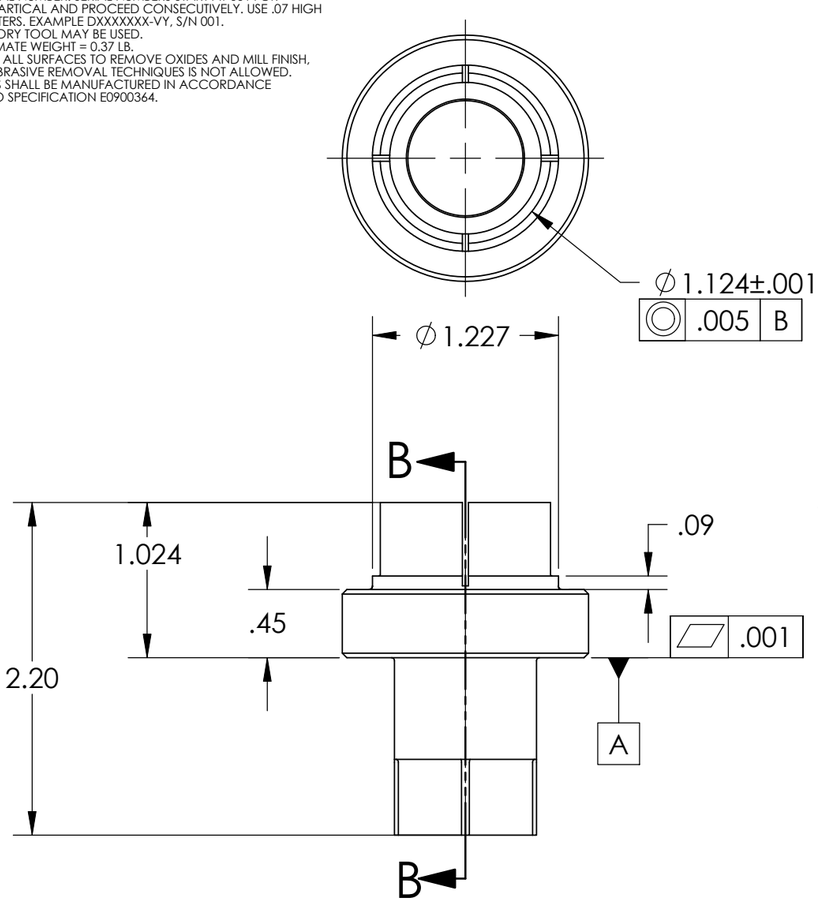
D0901499 Blade spring Post Stage 0-1, PART PDM REV: X-018, DRAWING PDM REV: X-007

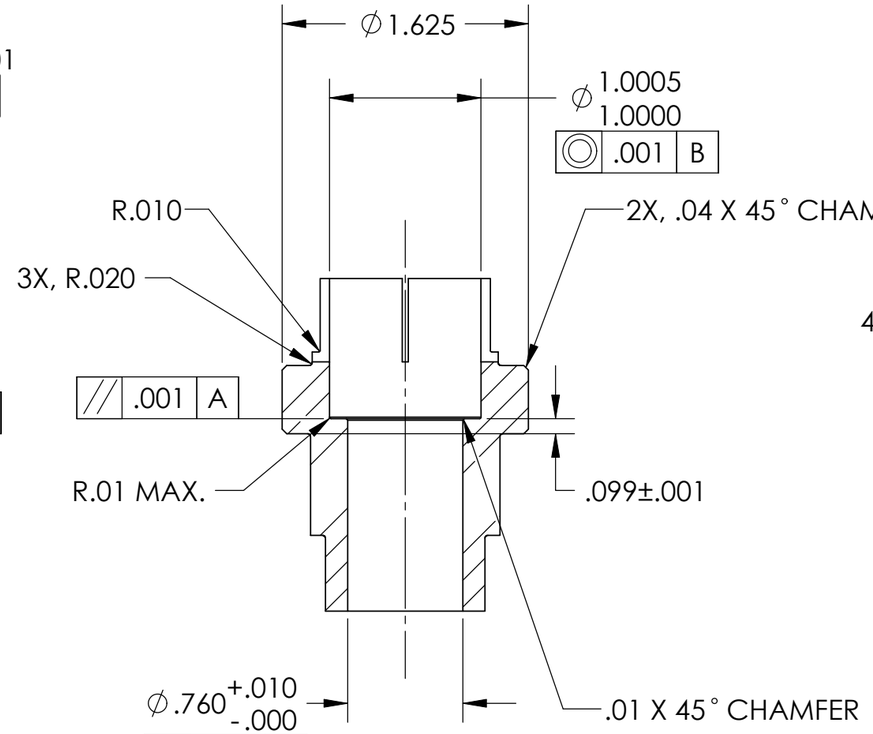
LIGO CALIFORNIA INSTITUTE OF TECHNOLOGY MASSACHUSETTS INSTITUTE OF TECHNOLOGY			
SIZE B	DWG. NO. D0901499		REV. V1
SCALE: 1:4	PROJECTION:		SHEET 2 OF 2

NOTES CONTINUED:

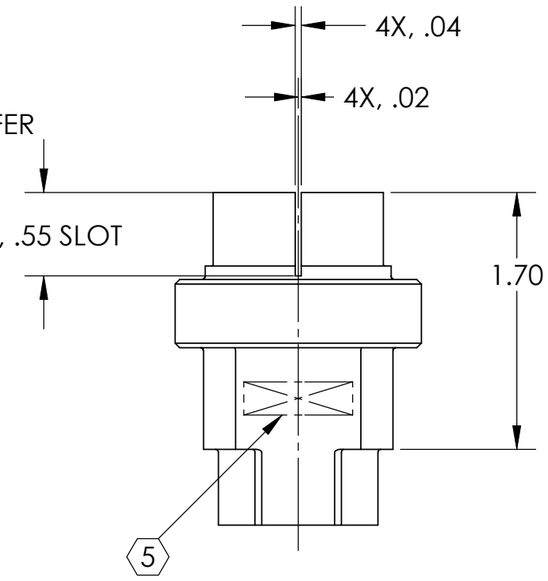
5. SCRIBE, ENGRAVE, OR MECHANICALLY STAMP (NO INKS OR DYES) DRAWING PART NUMBER AND REVISION ON NOTED SURFACE FOLLOWED ON THE NEXT LINE BY A THREE DIGIT SERIAL NUMBER. SERIAL NUMBERS START AT 001 FOR THE FIRST ARTICAL AND PROCEED CONSECUTIVELY. USE .07 HIGH CHARACTERS. EXAMPLE DXXXXXX-VY, S/N 001. A VIBRATORY TOOL MAY BE USED.
6. APPROXIMATE WEIGHT = 0,37 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.

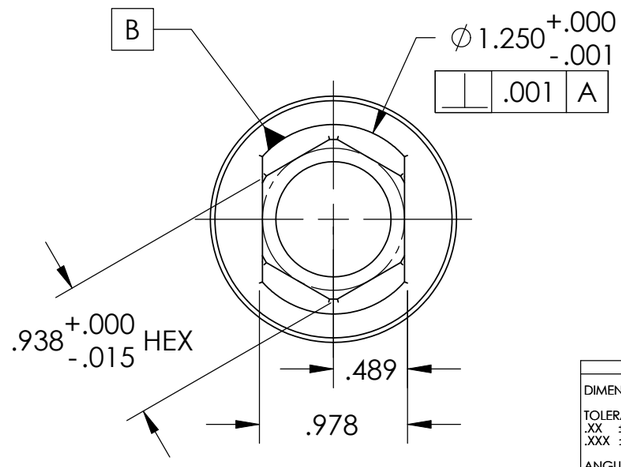
REV.	DATE	DCN #	DRAWING TREE #
v1	26 Feb. 2010	E1000022	E1000025

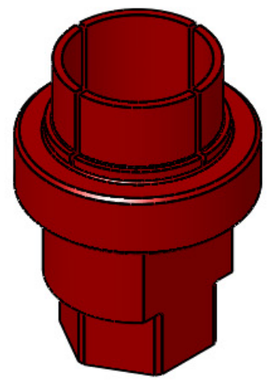




SECTION B-B







NOTES AND TOLERANCES: (UNLESS OTHERWISE SPECIFIED)			
DIMENSIONS ARE IN INCHES TOLERANCES: .XX ± .015 .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: 17-4 PH SSTL, H 1150		FINISH: 32 µinch	

LIGO — CALIFORNIA INSTITUTE OF TECHNOLOGY, MASSACHUSETTS INSTITUTE OF TECHNOLOGY

SYSTEM: ADVANCED LIGO	SUB-SYSTEM: SEI	NEXT ASSY: D0902103	

PART NAME: STAGE 0-1, FLEXURE ROD SHIM, BSC ISI

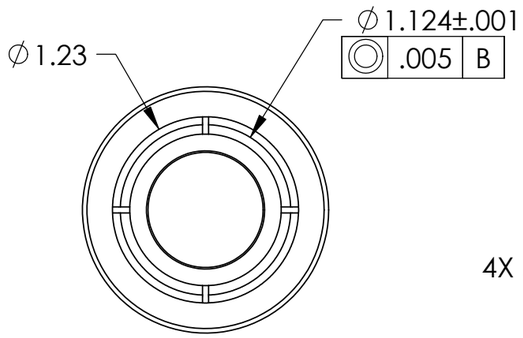
DESIGNER	C.RAMET	01 Feb. 2010	SIZE: B	DWG. NO.: D0901500	REV.: v1
DRAFTER	M.HILLARD	01 Feb. 2010			
CHECKER	F.MATICHARD	01 Feb. 2010			
APPROVAL	K.MASON	01 Feb. 2010	SCALE: 1:1	PROJECTION:	SHEET 1 OF 1

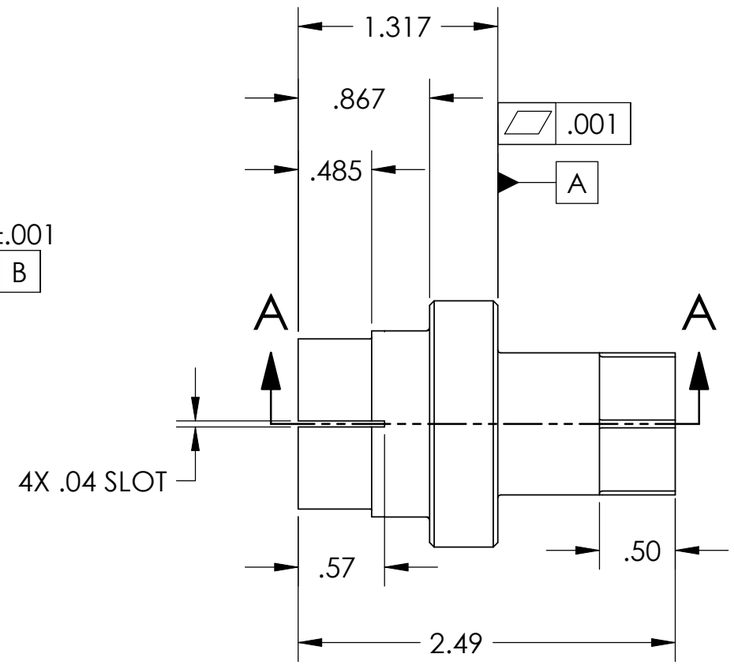
D0901500 Flexure Rod Shim, Stage 0-1, aLIGO BSC ISI, PART PDM REV: X-011, DRAWING PDM REV: X-011

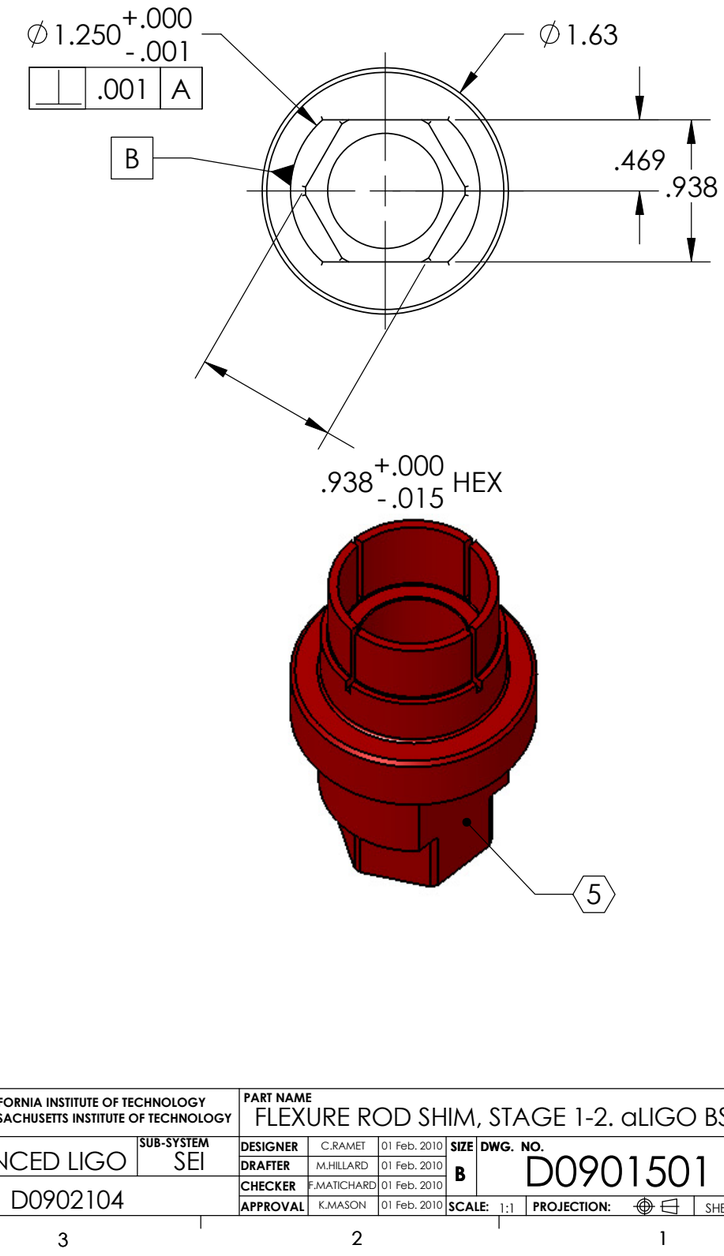
NOTES CONTINUED:

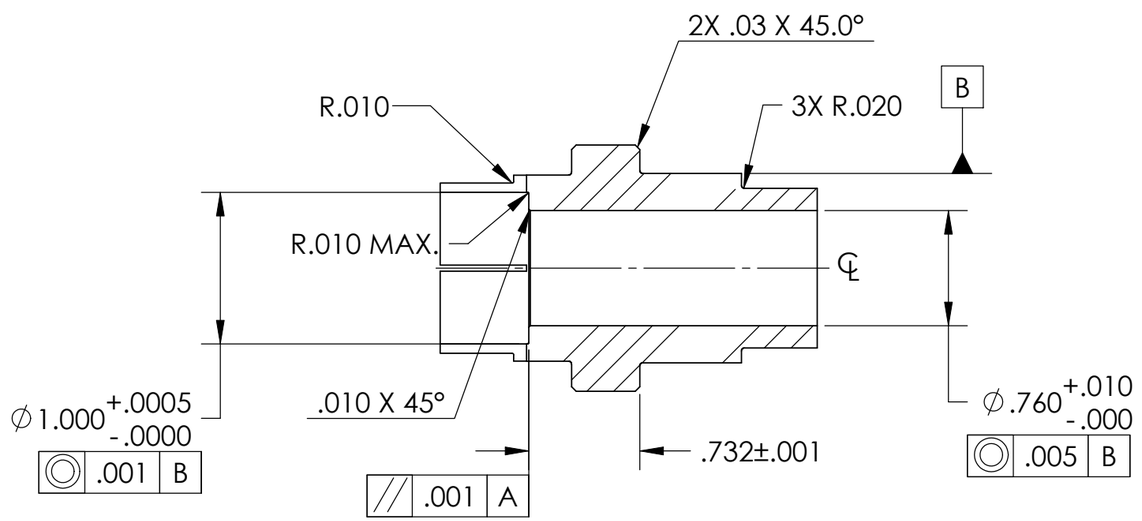
5. SCRIBE, ENGRAVE, OR MECHANICALLY STAMP (NO INKS OR DYES) DRAWING PART NUMBER AND REVISION ON NOTED SURFACE FOLLOWED ON THE NEXT LINE BY A THREE DIGIT SERIAL NUMBER. SERIAL NUMBERS START AT 001 FOR THE FIRST ARTICAL AND PROCEED CONSECUTIVELY. USE .07 HIGH CHARACTERS. EXAMPLE DXXXXXXX-VY, S/N 001. A VIBRATORY TOOL MAY BE USED.
6. APPROXIMATE WEIGHT = 0.46 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	01 Mar. 2010	E1000026	E1000025









SECTION A-A

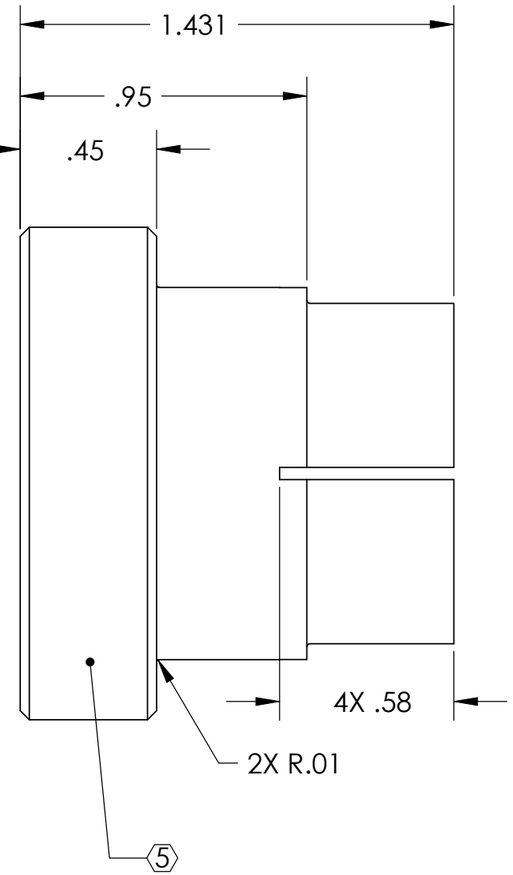
NOTES AND TOLERANCES: (UNLESS OTHERWISE SPECIFIED)					
DIMENSIONS ARE IN INCHES TOLERANCES: .XX ± .015 .XXX ± .005 ANGULAR ± .5°	1. INTERPRET DRAWING PER ASME Y14.5-1994. 2. REMOVE ALL SHARP EDGES, R.02 MIN. 3. DO NOT SCALE FROM DRAWING. 4. ALL MACHINING FLUIDS MUST BE FULLY SYNTHETIC, FULLY WATER SOLUBLE AND FREE OF SULFUR, SILICONE, AND CHLORINE.		LIGO CALIFORNIA INSTITUTE OF TECHNOLOGY MASSACHUSETTS INSTITUTE OF TECHNOLOGY	PART NAME: FLEXURE ROD SHIM, STAGE 1-2. aLIGO BSC ISI	
	MATERIAL: 17-4 PH SSTL, H 1150	FINISH: 32 µinch	SYSTEM: ADVANCED LIGO	SUB-SYSTEM: SEI	
			NEXT ASSY: D0902104	DESIGNER C.RAMET 01 Feb. 2010 DRAFTER M.HILLARD 01 Feb. 2010 CHECKER F.MATICHARD 01 Feb. 2010 APPROVAL K.MASON 01 Feb. 2010	SIZE B; DWG. NO. D0901501; REV. v1 SCALE: 1:1; PROJECTION:; SHEET 1 OF 1

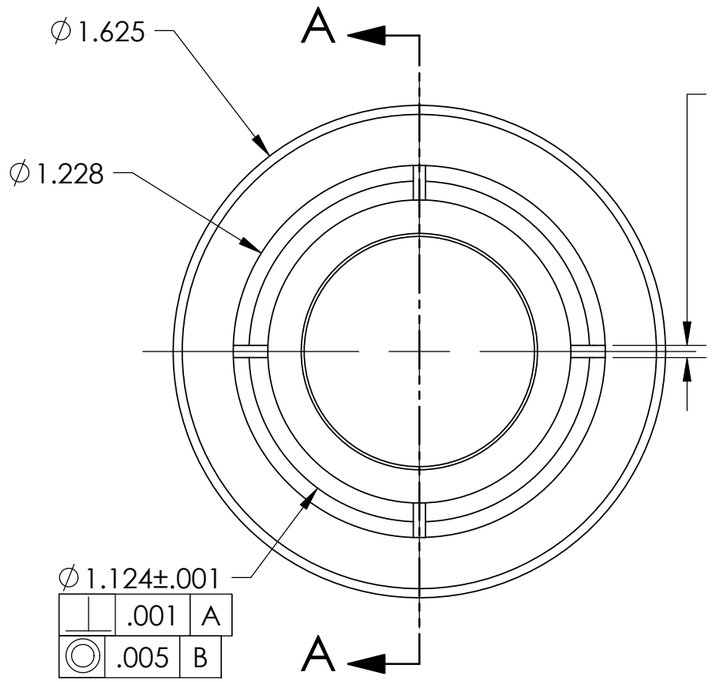
D0901501 Flexure Rod Shim, Stage 1-2, aLIGO BSC ISI. PART PDM REV: X-007, DRAWING PDM REV: X-004

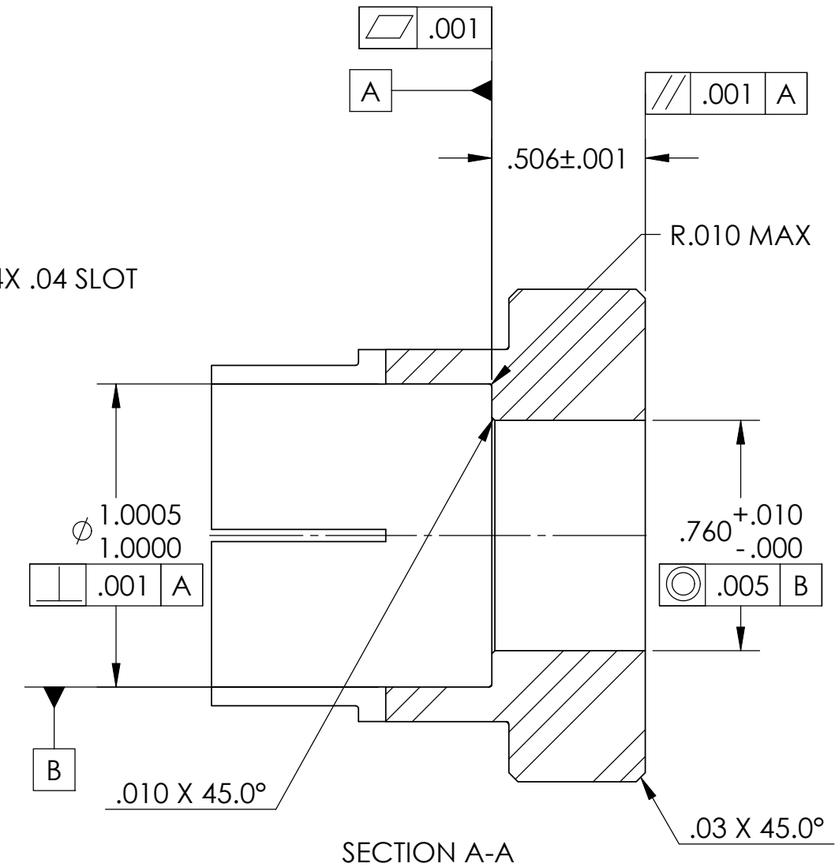
NOTES CONTINUED:

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 ARTICAL AND PROCEED CONSECUTIVELY. USE .07 HIGH CHARACTERS. EXAMPLE DXXXXXXX-VY, S/N 001. A VIBRATORY TOOL MAY BE USED.
6. APPROXIMATE WEIGHT = 0.13 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	26 Feb. 2010	E1000022	E1000025







SECTION A-A

D0901502 Bracket Flexure Rod Shim, Stage 0-1, aLIGO BSC ISI, PART PDM REV: X-006, DRAWING PDM REV: X-004

NOTES AND TOLERANCES: (UNLESS OTHERWISE SPECIFIED)			
DIMENSIONS ARE IN INCHES TOLERANCES: .XX ± .015 .XXX ± .005 ANGULAR ± .5°	1. INTERPRET DRAWING PER ASME Y14.5-1994. 2. REMOVE ALL SHARP EDGES, R.02 MIN. 3. DO NOT SCALE FROM DRAWING. 4. ALL MACHINING FLUIDS MUST BE FULLY SYNTHETIC, FULLY WATER SOLUBLE AND FREE OF SULFUR, SILICONE, AND CHLORINE. MATERIAL: 17-4 PH SSTL, H 1150	FINISH: 32 µinch	

LIGO — CALIFORNIA INSTITUTE OF TECHNOLOGY, MASSACHUSETTS INSTITUTE OF TECHNOLOGY

SYSTEM	ADVANCED LIGO
SUB-SYSTEM	SEI
NEXT ASSY	D0902103

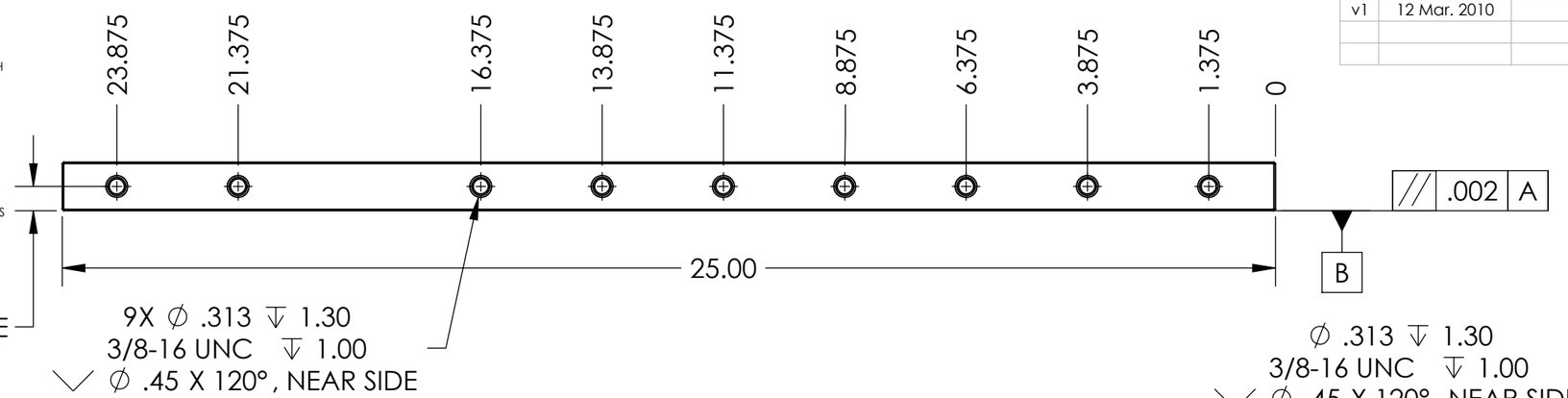
PART NAME: BRACKET FLEXURE SHIM, STAGE 0-1, aLIGO BSC ISI

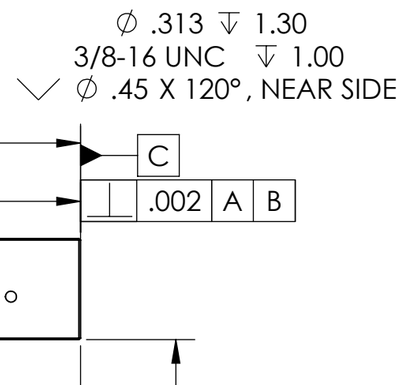
DESIGNER	C.RAMET	01 Feb. 2010	SIZE	DWG. NO.	REV.
DRAFTER	M.HILLARD	01 Feb. 2010	B	D0901502	v1
CHECKER	F.MATICHARD	01 Feb. 2010			
APPROVAL	K.MASON	01 Feb. 2010	SCALE: 2:1	PROJECTION:	SHEET 1 OF 1

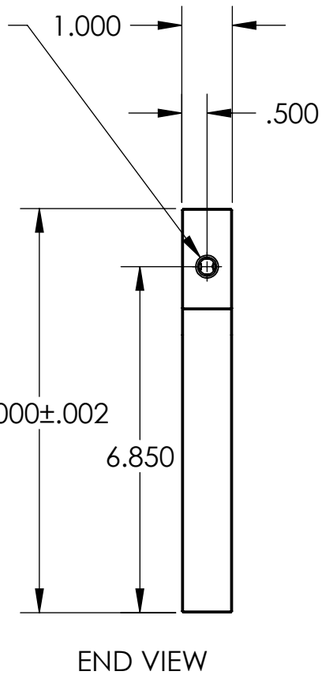
REV.	DATE	DCN #	DRAWING TREE #
v1	12 Mar. 2010	E1000020	E1000025

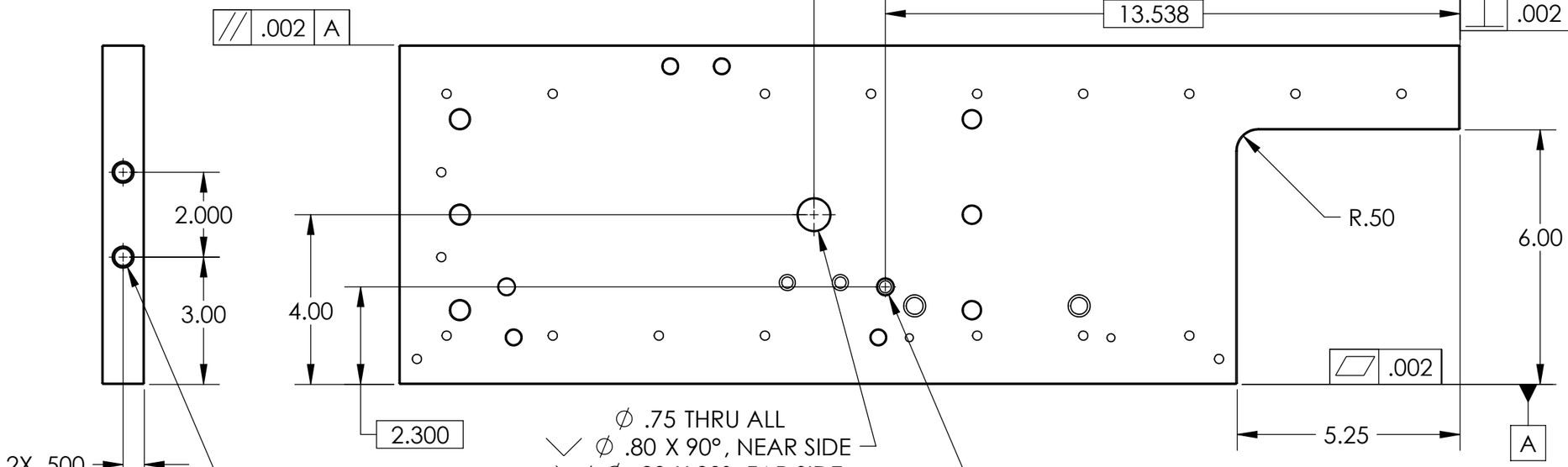
NOTES CONTINUED:

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 DXXXXXXX-VY, S/N 001. A VIBRATORY TOOL MAY BE USED.
6. APPROXIMATE WEIGHT = 15.7 LB.
7. A TRUE POSITION TOLERANCE OF Ø.010 IS ~ THE SAME AS A CONVENTIONAL TOLERANCE OF ±.005.
8. MACHINE ALL SURFACES TO REMOVE OXIDES AND MILL FINISH, USE OF ABRASIVE REMOVAL TECHNIQUES IS NOT ALLOWED.
9. ALL THREADED INSERTS TO BE INSTALLED BY LIGO PERSONNEL, AFTER DELIVERY OF FINISHED PARTS.
10. ALL PARTS SHALL BE MANUFACTURED IN ACCORDANCE WITH LIGO SPECIFICATION E0900364.
11. A TAPPED HOLE PITCH DIAMETER LIMIT OF H11 APPLIES, BUT DOES NOT APPLY TO THREADED INSERTS.









NOTES AND TOLERANCES: (UNLESS OTHERWISE SPECIFIED)

DIMENSIONS ARE IN INCHES

TOLERANCES:
.XX ± .015
.XXX ± .005

ANGULAR ± 0.5°

1. INTERPRET DRAWING PER ASME Y14.5-1994.
2. BREAK ALL EDGES AND CORNERS .03 X 45°.
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

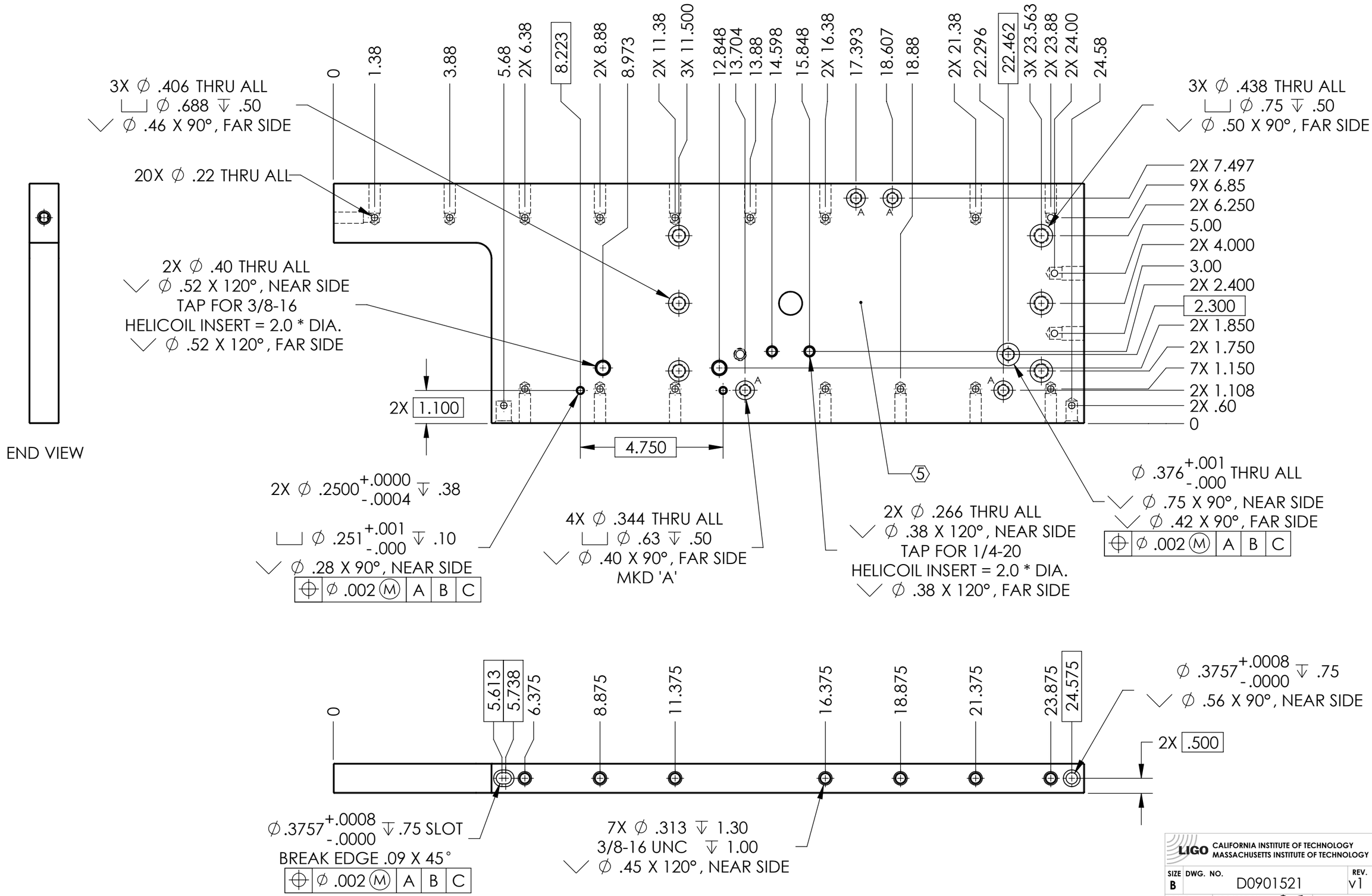
SYSTEM: ADVANCED LIGO
SUB-SYSTEM: SEI
NEXT ASSY: D0901181

PART NAME: Radial Wall, Left, aLIGO BSC ISI

DESIGNER	A.STEIN	11 Jan. 2010	
DRAFTER	M.HILLARD	11 Jan. 2010	
CHECKER	F.MATICHARD	11 Jan. 2010	
APPROVAL	K.MASON	11 Jan. 2010	

SIZE: B | DWG. NO.: D0901521 | REV.: v1
SCALE: 1:3 | PROJECTION: | SHEET 1 OF 2

D0901521_RadialWall-Left-BSC_ISI, PART PDM REV: X-036, DRAWING PDM REV: X-013

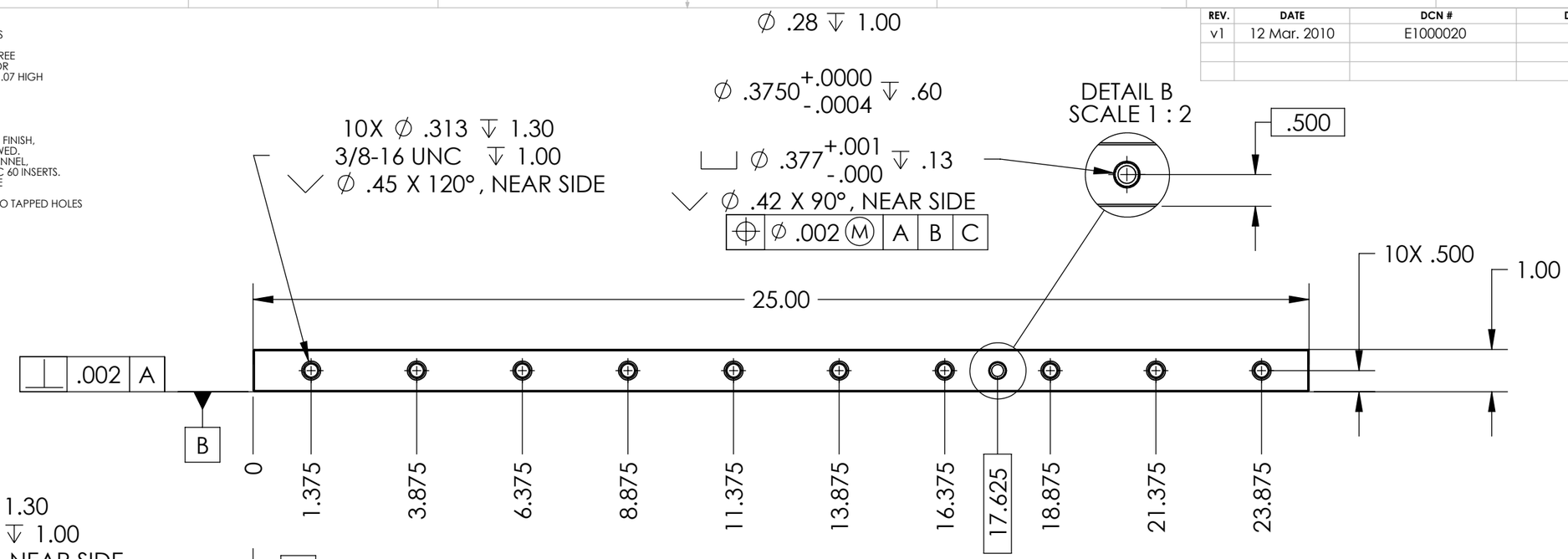


D0901521_Radial_Wall-Left-BSC_ISI, PART PDM REV: X-036, DRAWING PDM REV: X-013

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 DXXXXXXX-VY, S/N 001. A VIBRATORY TOOL MAY BE USED.
6. APPROXIMATE WEIGHT = 15.2 LB.
7. A TRUE POSITION TOLERANCE OF Ø.010 IS ~ THE SAME AS A CONVENTIONAL TOLERANCE OF ±.005.
8. MACHINE ALL SURFACES TO REMOVE OXIDES AND MILL FINISH, USE OF ABRASIVE REMOVAL TECHNIQUES IS NOT ALLOWED.
9. ALL THREADED INSERTS TO BE INSTALLED BY LIGO PERSONNEL, AFTER DELIVERY OF FINISHED PARTS, USE ONLY NITRONIC 60 INSERTS.
10. ALL PARTS SHALL BE MANUFACTURED IN ACCORDANCE WITH LIGO SPECIFICATION E0900364.
11. A TAPPED HOLE PITCH DIAMETER LIMIT OF H11 APPLIES TO TAPPED HOLES BUT DOES NOT APPLY TO THREADED INSERTS.

REV.	DATE	DCN #	DRAWING TREE #
v1	12 Mar. 2010	E1000020	E1000025



NOTES AND TOLERANCES: (UNLESS OTHERWISE SPECIFIED)

DIMENSIONS ARE IN INCHES

TOLERANCES:
.XX ± .015
.XXX ± .005

ANGULAR ± 0.5°

1. INTERPRET DRAWING PER ASME Y14.5-1994.
2. BREAK ALL EDGES AND CORNERS .03 X 45°.
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: SEI

NEXT ASSY: D0901181

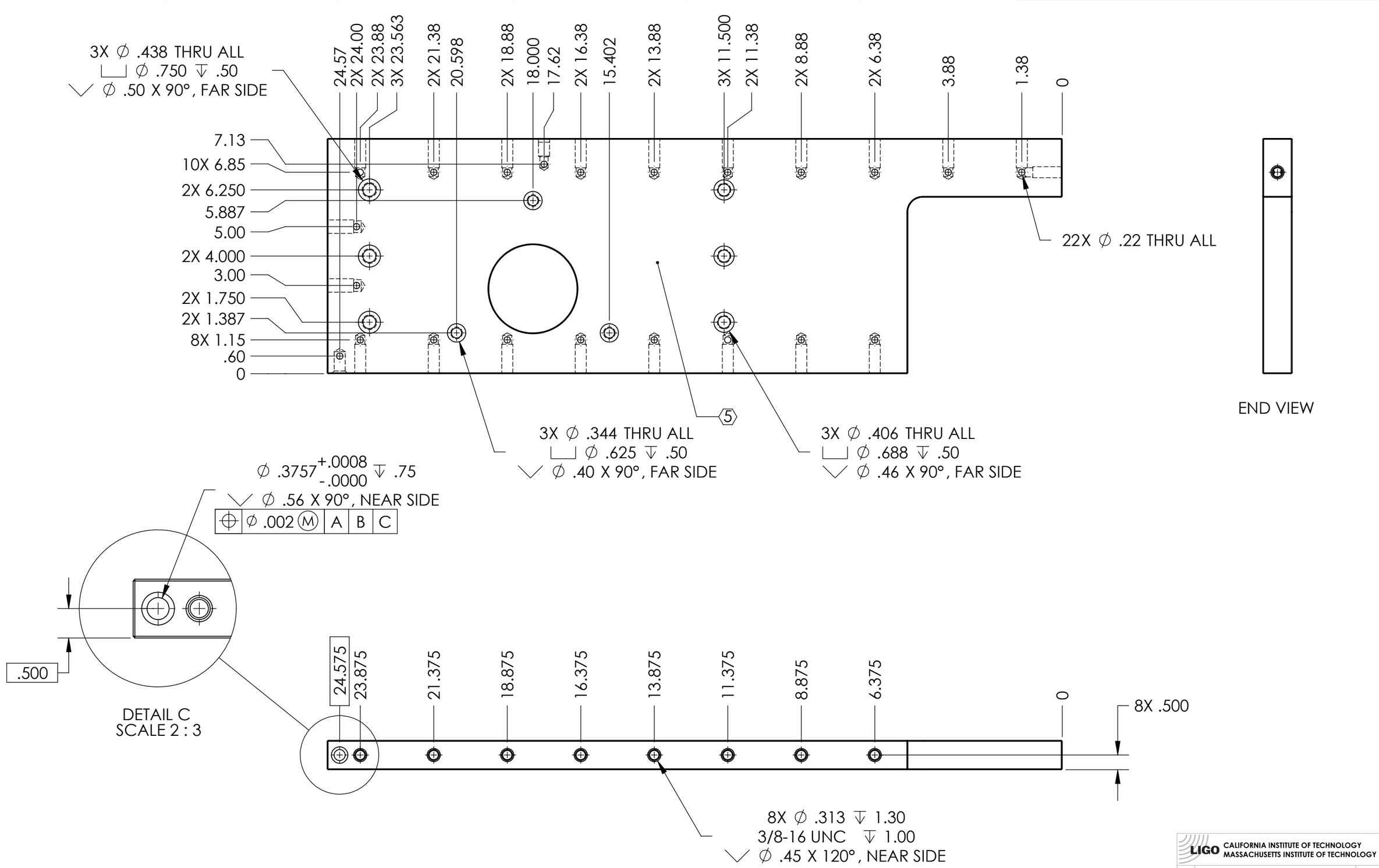
PART NAME: Radial Wall, Right, aLIGO BSC ISI

DESIGNER	A.STEIN	11 Jan.2010	
DRAFTER	M.Hillard	11 Jan. 2010	
CHECKER	F.MATICHARD	11 Jan. 2010	
APPROVAL	K.MASON	11 Jan. 2010	

SIZE: B — DWG. NO.: D0901522 — REV.: v1

SCALE: 1:3 — PROJECTION: — SHEET 1 OF 2

D0901522_Radial_Wall-Right-BSC_ISI, PART PDM REV: X-036, DRAWING PDM REV: X-012



D0901522_Radial_Wall-Right-BSC_ISI, PART PDM REV: X-036, DRAWING PDM REV: X-012

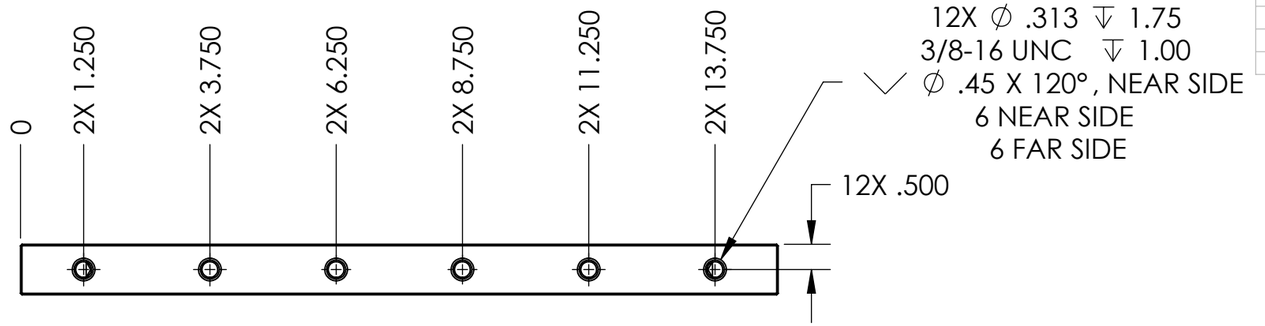
LIGO CALIFORNIA INSTITUTE OF TECHNOLOGY
MASSACHUSETTS INSTITUTE OF TECHNOLOGY

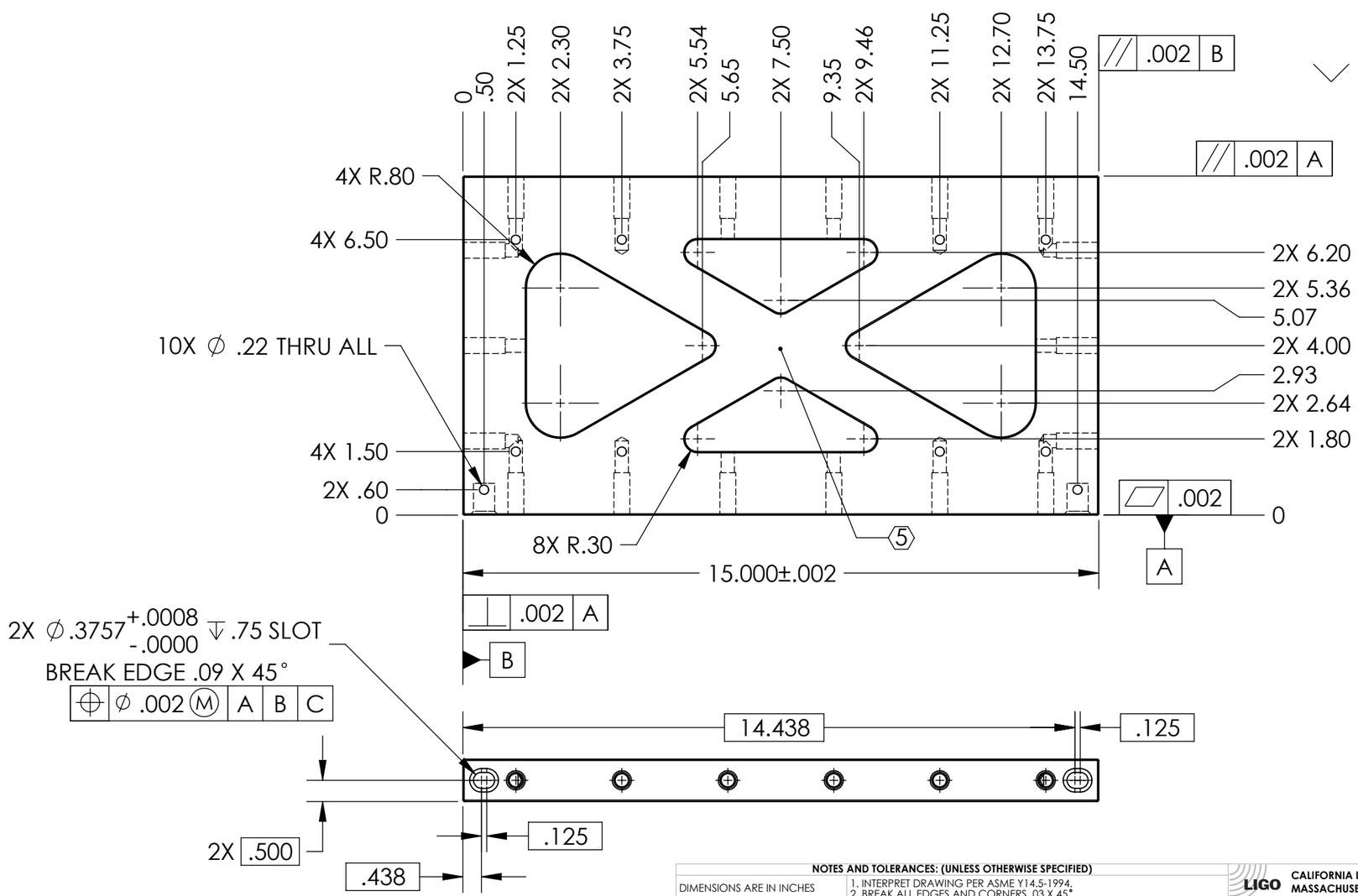
SIZE	DWG. NO.	REV.
B	D0901522	v1
SCALE: 1:3	PROJECTION:	SHEET 2 OF 2

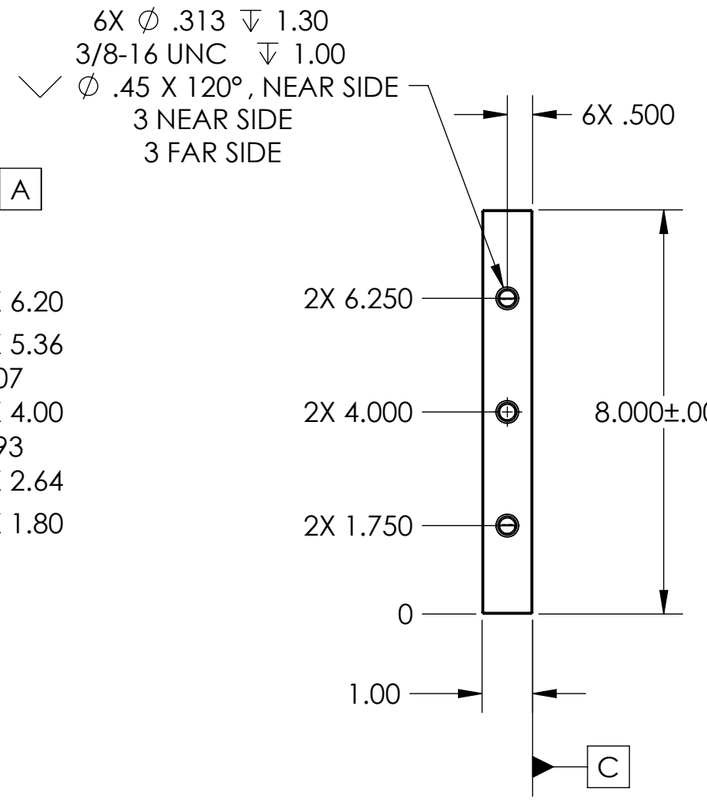
NOTES CONTINUED:

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 DXXXXXXX-VY, S/N 001. A VIBRATORY TOOL MAY BE USED.
6. APPROXIMATE WEIGHT = 8.0 LB.
7. A TRUE POSITION TOLERANCE OF Ø.010 IS ~ THE SAME AS A CONVENTIONAL TOLERANCE OF ±.005.
8. MACHINE ALL SURFACES TO REMOVE OXIDES AND MILL FINISH, USE OF ABRASIVE REMOVAL TECHNIQUES IS NOT ALLOWED.
9. A PITCH DIAMETER LIMIT OF H11 APPLIES TO ALL THREADED HOLES.
10. ALL PARTS SHALL BE MANUFACTURED IN ACCORDANCE WITH LIGO SPECIFICATION E0900364.

REV.	DATE	DCN #	DRAWING TREE #
v1	12 Mar. 2010	E1000020	E1000025







NOTES AND TOLERANCES: (UNLESS OTHERWISE SPECIFIED)

DIMENSIONS ARE IN INCHES

TOLERANCES:
.XX ± .015
.XXX ± .005

ANGULAR ± 0.5°

1. INTERPRET DRAWING PER ASME Y14.5-1994.
2. BREAK ALL EDGES AND CORNERS .03 X 45°.
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: SEI

NEXT ASSY: D0901181

PART NAME: Tangential Wall, aLIGO BSC ISI

DESIGNER	A.STEIN	11 Jan. 2010	
DRAFTER	M.HILLARD	11 Jan. 2010	
CHECKER	F.MATICHERD	11 Jan. 2010	
APPROVAL	K.MASON	11 Jan. 2010	

SIZE: B — DWG. NO.: D0901523 — REV.: v1

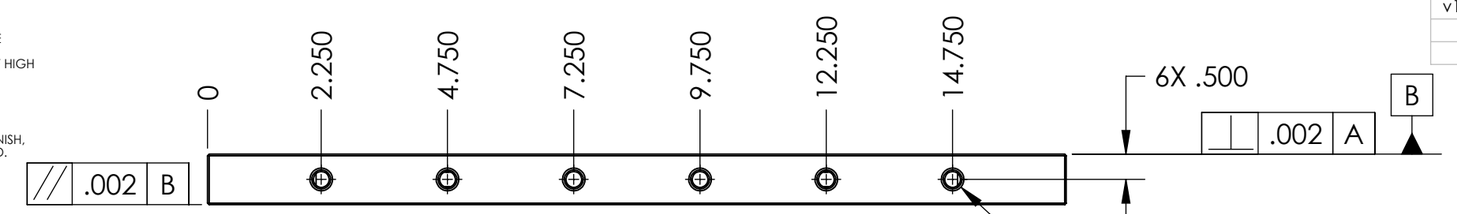
SCALE: 1:3 — PROJECTION: — SHEET 1 OF 1

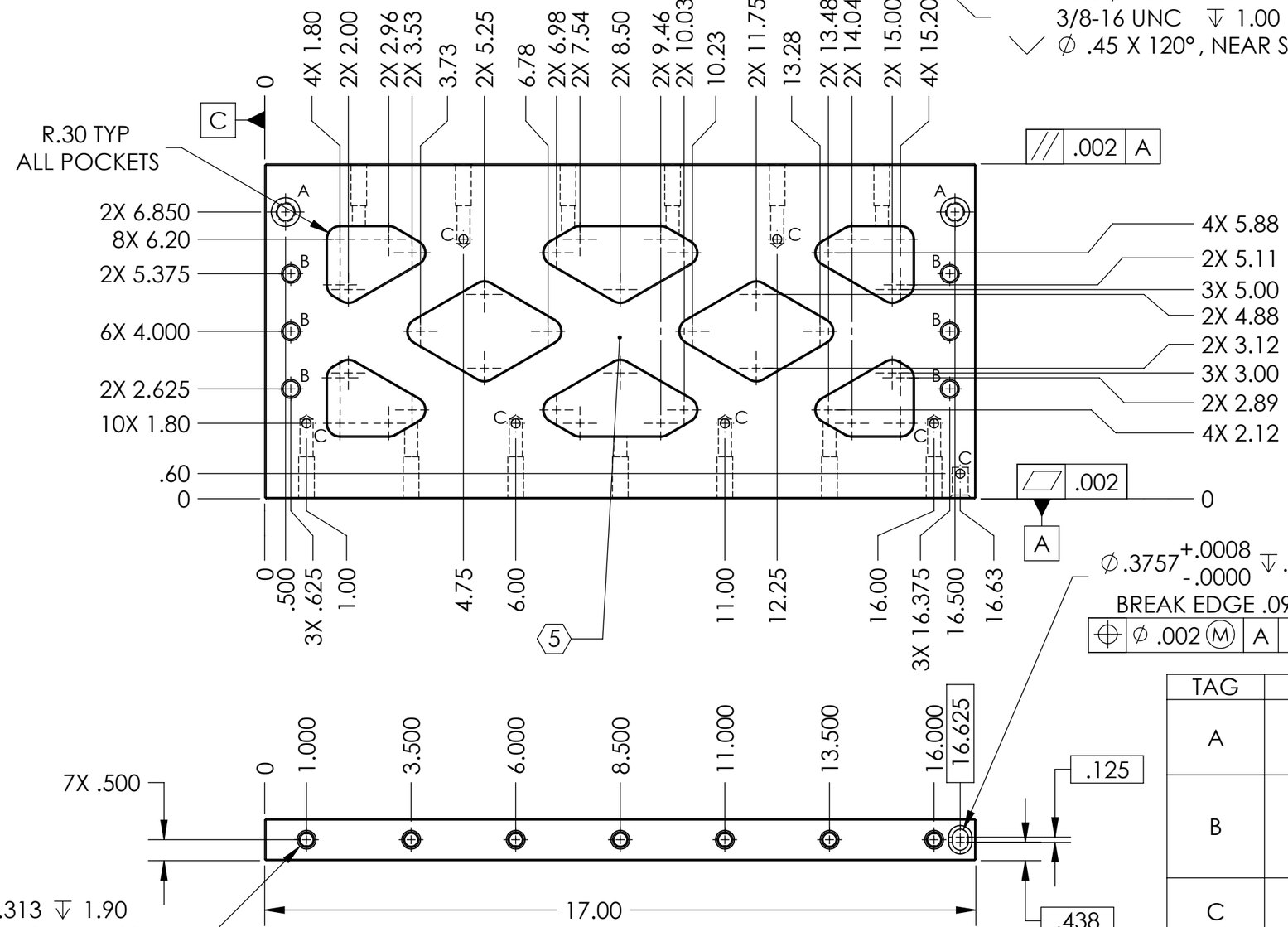
D0901523_Tangential_Wall-BSC_ISI, PART PDM REV: X-013, DRAWING PDM REV: X-007

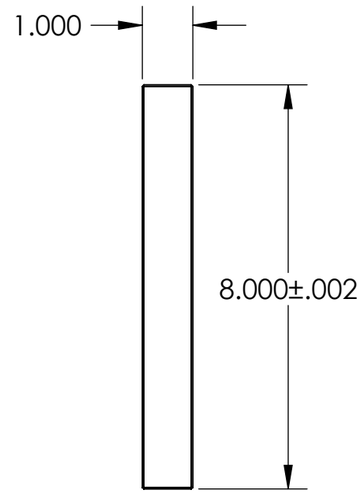
NOTES CONTINUED:

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 DXXXXXXX-VY, S/N 001. A VIBRATORY TOOL MAY BE USED.
6. APPROXIMATE WEIGHT = 9.8 LB.
7. A TRUE POSITION TOLERANCE OF Ø.010 IS ~ THE SAME AS A CONVENTIONAL TOLERANCE OF ±.005.
8. MACHINE ALL SURFACES TO REMOVE OXIDES AND MILL FINISH, USE OF ABRASIVE REMOVAL TECHNIQUES IS NOT ALLOWED.
9. A TAPPED HOLE PITCH DIAMETER LIMIT OF H11 APPLIES.
10. ALL PARTS SHALL BE MANUFACTURED IN ACCORDANCE WITH LIGO SPECIFICATION E09000364.

REV.	DATE	DCN #	DRAWING TREE #
v1	12 Mar. 2010	E1000020	E1000025







TAG	SIZE	QUANTITY
A	Ø .406 THRU ALL ⌴ Ø .688 ↧ .50 Ø .46 X 90°, FAR SIDE	2
B	Ø .313 THRU ALL 3/8-16 UNC THRU ALL Ø .45 X 120°, NEAR SIDE Ø .45 X 120°, FAR SIDE	6
C	Ø .22 THRU ALL	7

NOTES AND TOLERANCES: (UNLESS OTHERWISE SPECIFIED)

DIMENSIONS ARE IN INCHES

TOLERANCES:
.XX ± .015
.XXX ± .005

ANGULAR ± 0.5°

1. INTERPRET DRAWING PER ASME Y14.5-1994.
2. BREAK ALL EDGES AND CORNERS .03 X 45°.
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

PART NAME Hex Wall, Lower, Large, aLIGO BSC ISI

SYSTEM ADVANCED LIGO

SUB-SYSTEM SEI

NEXT ASSY D0901181

DESIGNER	A.STEIN	11 Jan. 2010	
DRAFTER	M.HILLARD	11 Jan. 2010	
CHECKER	F.MATICHARD	11 Jan. 2010	
APPROVAL	K.MASON	11 Jan. 2010	

SIZE B **DWG. NO.** D0901524 **REV.** v1

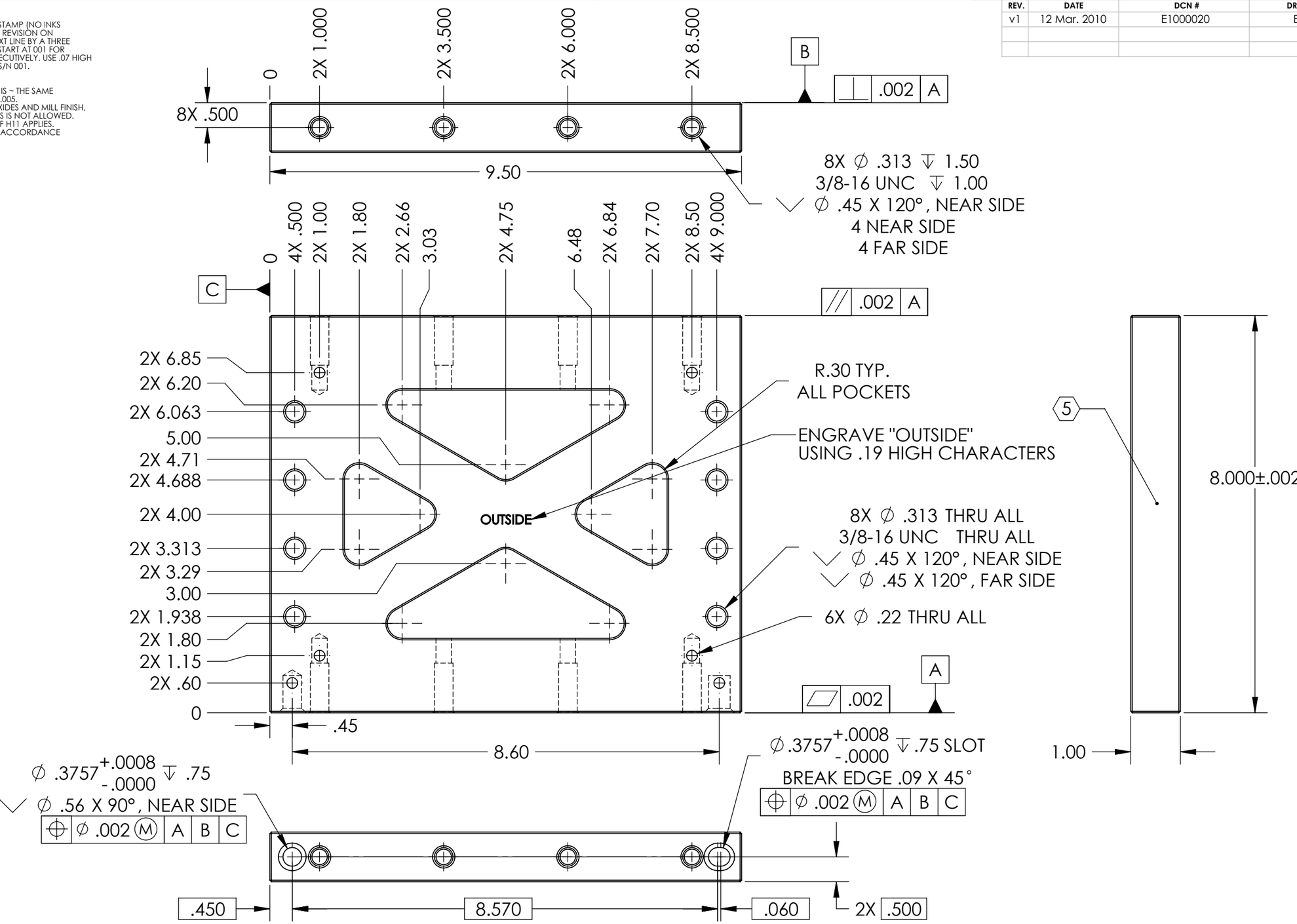
SCALE: 1:3 **PROJECTION:** SHEET 1 OF 1

D0901524_Hex_Wall-Lower-Large-BSC_ISI, PART PDM REV: X-021, DRAWING PDM REV: X-008

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 DXXXXXXX-VY, S/N 001. A VIBRATORY TOOL MAY BE USED.
6. APPROXIMATE WEIGHT = 5.6 LB.
7. A TRUE POSITION TOLERANCE OF Ø.010 IS ~ THE SAME AS A CONVENTIONAL TOLERANCE OF ±.005.
8. MACHINE ALL SURFACES TO REMOVE OXIDES AND MILL FINISH, USE OF ABRASIVE REMOVAL TECHNIQUES IS NOT ALLOWED.
9. A TAPPED HOLE PITCH DIAMETER LIMIT OF H11 APPLIES.
10. ALL PARTS SHALL BE MANUFACTURED IN ACCORDANCE WITH LIGO SPECIFICATION E0900364.

REV.	DATE	DCN #	DRAWING TREE #
v1	12 Mar. 2010	E1000020	E1000025



NOTES AND TOLERANCES: (UNLESS OTHERWISE SPECIFIED)

DIMENSIONS ARE IN INCHES

TOLERANCES:
.XX ± .015
.XXX ± .005

ANGULAR ± 0.5°

1. INTERPRET DRAWING PER ASME Y14.5-1994.
2. BREAK ALL EDGES AND CORNERS .03 X 45°.
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: SEI

NEXT ASSY: D0901181

PART NAME: Hex Wall, Lower, Small, aLIGO BSC ISI

DESIGNER	A.STEIN	11 Jan. 2010	
DRAFTER	M.HILLARD	11 Jan. 2010	
CHECKER	F.MATICHARD	11 Jan. 2010	
APPROVAL	K.MASON	11 Jan. 2010	

SIZE: B — DWG. NO.: D0901525 — REV.: v1

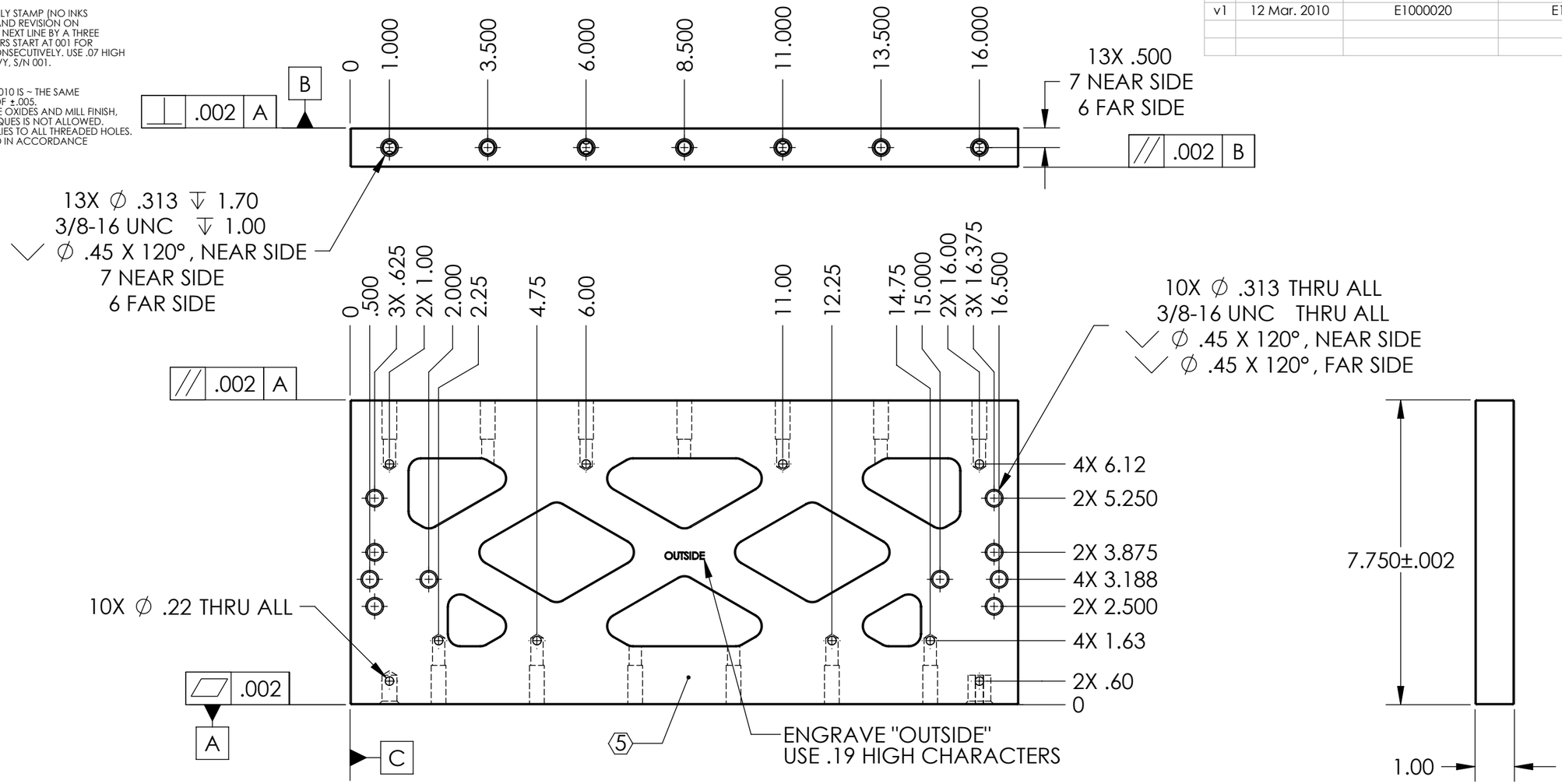
SCALE: 1:2 — PROJECTION: — SHEET 1 OF 1

D0901525_Hex_Wall-Lower-Small-BSC_ISI, PART PDM REV: X-026, DRAWING PDM REV: X-008

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 DXXXXXXX-VY, S/N 001. A VIBRATORY TOOL MAY BE USED.
6. APPROXIMATE WEIGHT = 9.6 LB.
7. A TRUE POSITION TOLERANCE OF Ø.010 IS ~ THE SAME AS A CONVENTIONAL TOLERANCE OF ±.005.
8. MACHINE ALL SURFACES TO REMOVE OXIDES AND MILL FINISH, USE OF ABRASIVE REMOVAL TECHNIQUES IS NOT ALLOWED.
9. A PITCH DIAMETER LIMIT OF H11 APPLIES TO ALL THREADED HOLES.
10. ALL PARTS SHALL BE MANUFACTURED IN ACCORDANCE WITH LIGO SPECIFICATION E0900364.

REV.	DATE	DCN #	DRAWING TREE #
v1	12 Mar. 2010	E1000020	E1000025



NOTES AND TOLERANCES: (UNLESS OTHERWISE SPECIFIED)

DIMENSIONS ARE IN INCHES

TOLERANCES:
.XX ± .015
.XXX ± .005

ANGULAR ± 0.5°

1. INTERPRET DRAWING PER ASME Y14.5-1994.
2. BREAK ALL EDGES AND CORNERS .03 X 45°.
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: SEI
NEXT ASSY: D0901181

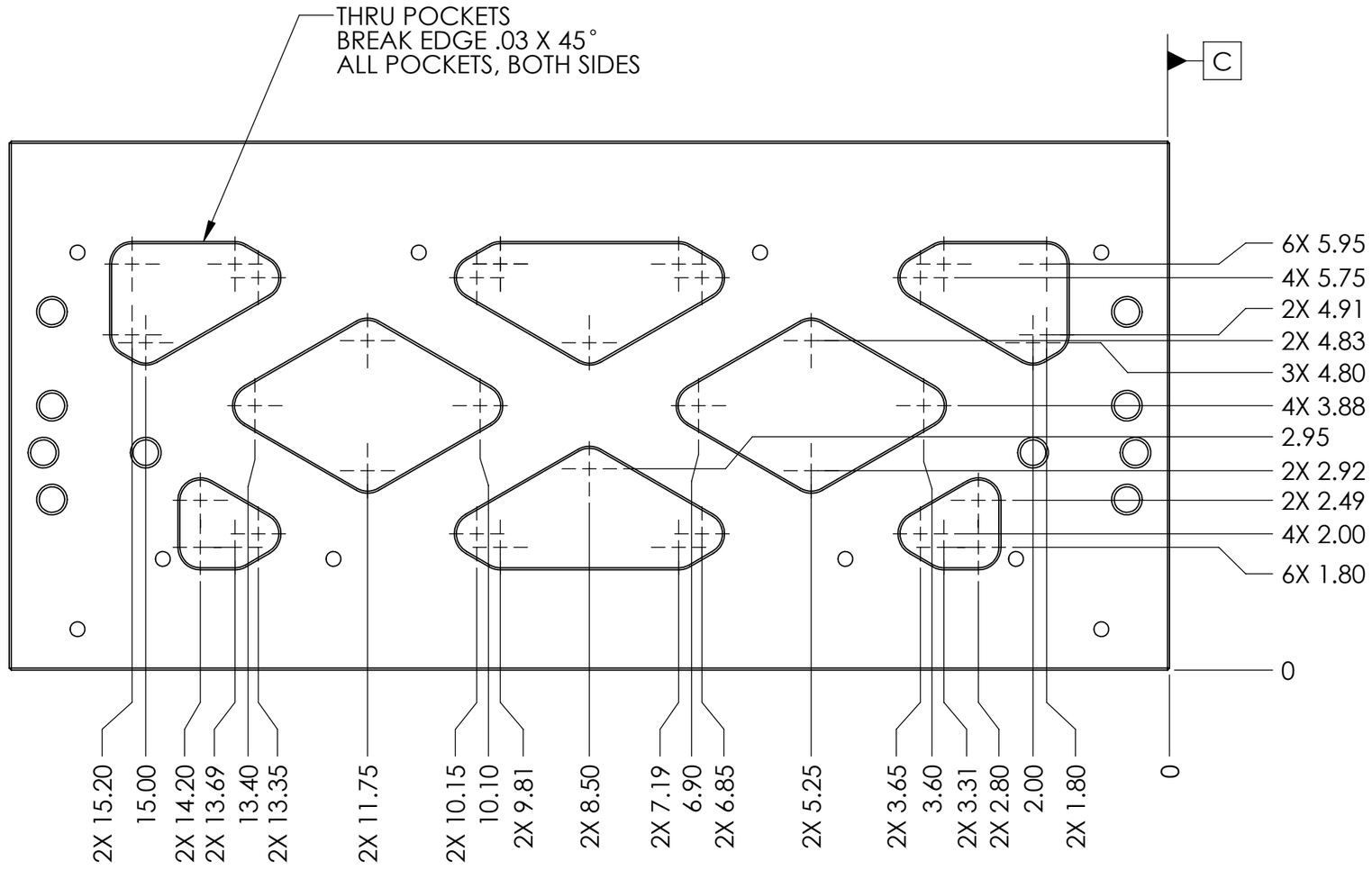
PART NAME: Hex Wall, Upper, Large, aLIGO BSC ISI

DESIGNER	A.STEIN	11 Jan. 2010	
DRAFTER	M.HILLARD	11 Jan. 2010	
CHECKER	F.MATICHARD	11 Jan. 2010	
APPROVAL	K.MASON	11 Jan. 2010	

SIZE: B | DWG. NO.: D0901526 | REV.: v1
SCALE: 1:3 | PROJECTION: | SHEET 1 OF 2

D0901526_Hex_Wall-Upper-Large-BSC_ISI, PART PDM REV: X-029, DRAWING PDM REV: X-008

SCALE 1/2



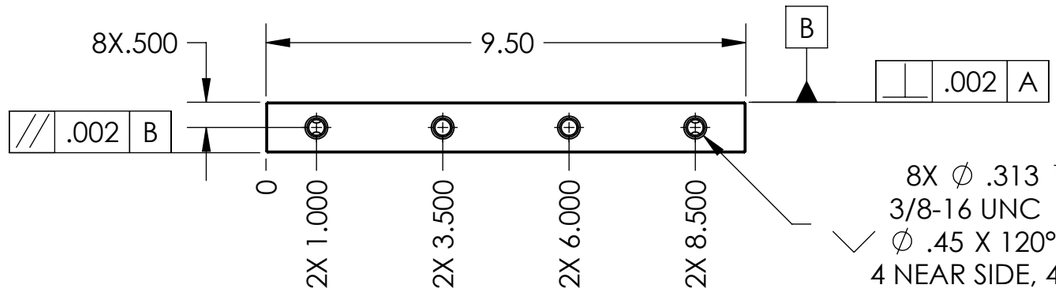
D0901526_Hex_Wall-Upper-Large-BSC_ISI, PART PDM REV: X-029, DRAWING PDM REV: X-008

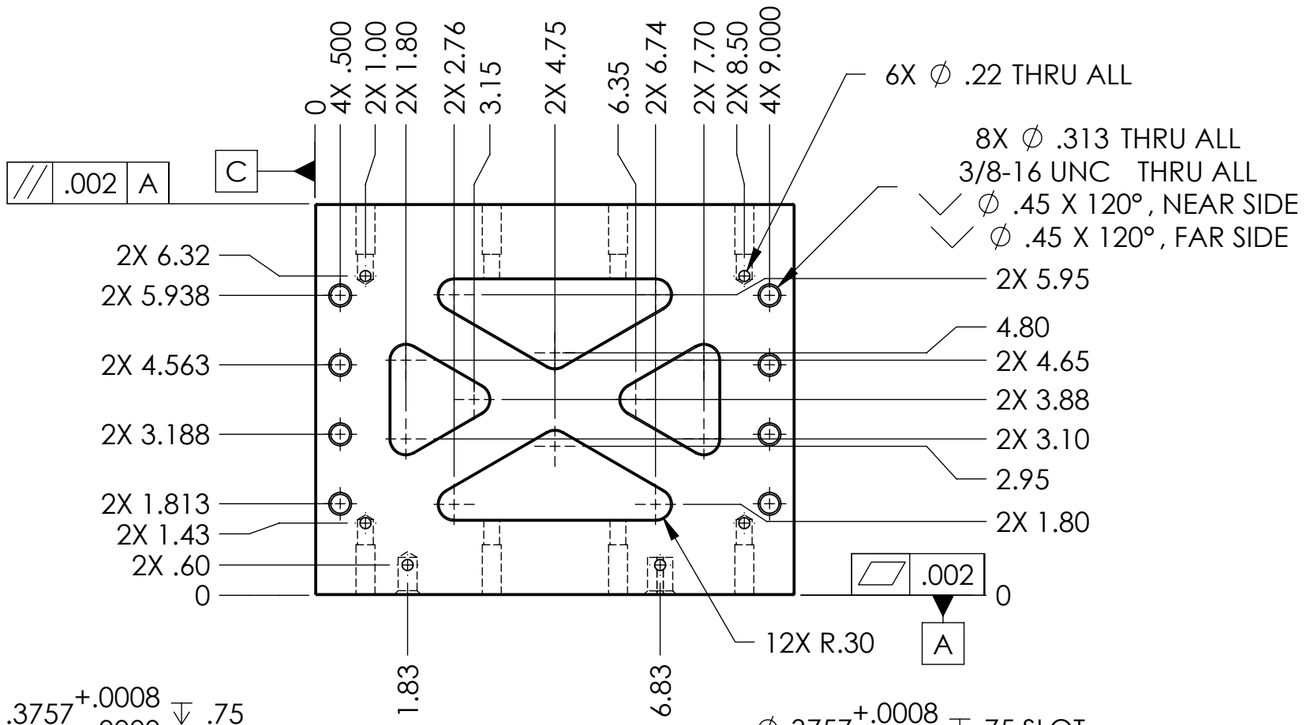
LIGO	CALIFORNIA INSTITUTE OF TECHNOLOGY MASSACHUSETTS INSTITUTE OF TECHNOLOGY		
SIZE B	DWG. NO. D0901526	REV. v1	
SCALE: 1:2	PROJECTION:	SHEET 2 OF 2	

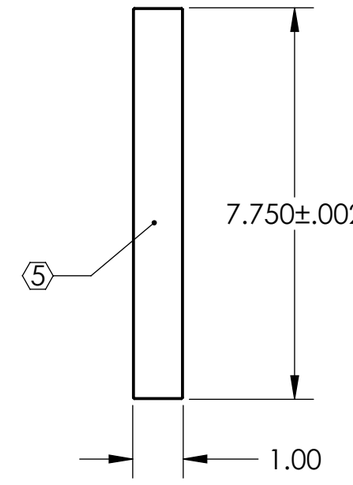
REV.	DATE	DCN #	DRAWING TREE #
v1	12 Mar. 2010	E1000020	E1000025

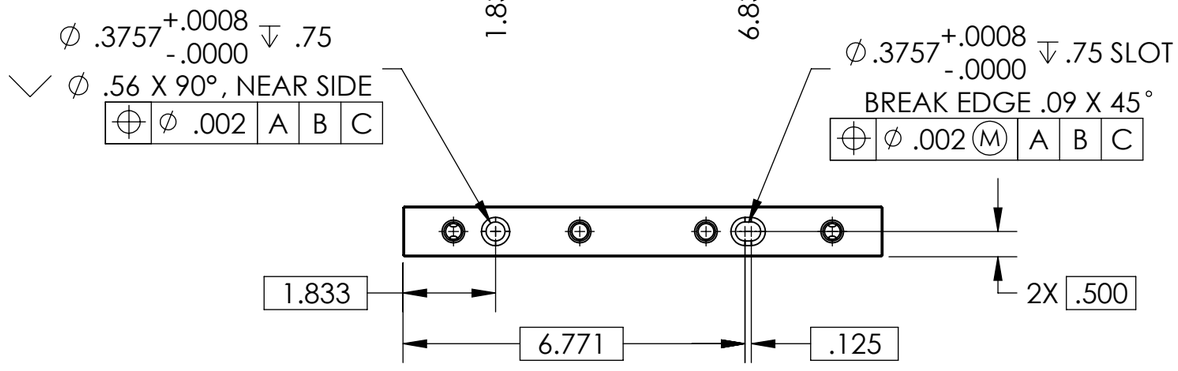
NOTES CONTINUED:

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. APPROXIMATE WEIGHT = 5.4 LB.
7. A TRUE POSITION TOLERANCE OF Ø.010 IS ~ THE SAME AS A CONVENTIONAL TOLERANCE OF ±.005.
8. MACHINE ALL SURFACES TO REMOVE OXIDES AND MILL FINISH, USE OF ABRASIVE REMOVAL TECHNIQUES IS NOT ALLOWED.
9. A TAPPED HOLE PITCH DIAMETER LIMIT OF H11 APPLIES.
10. ALL PARTS SHALL BE MANUFACTURED IN ACCORDANCE WITH LIGO SPECIFICATION E0900364.









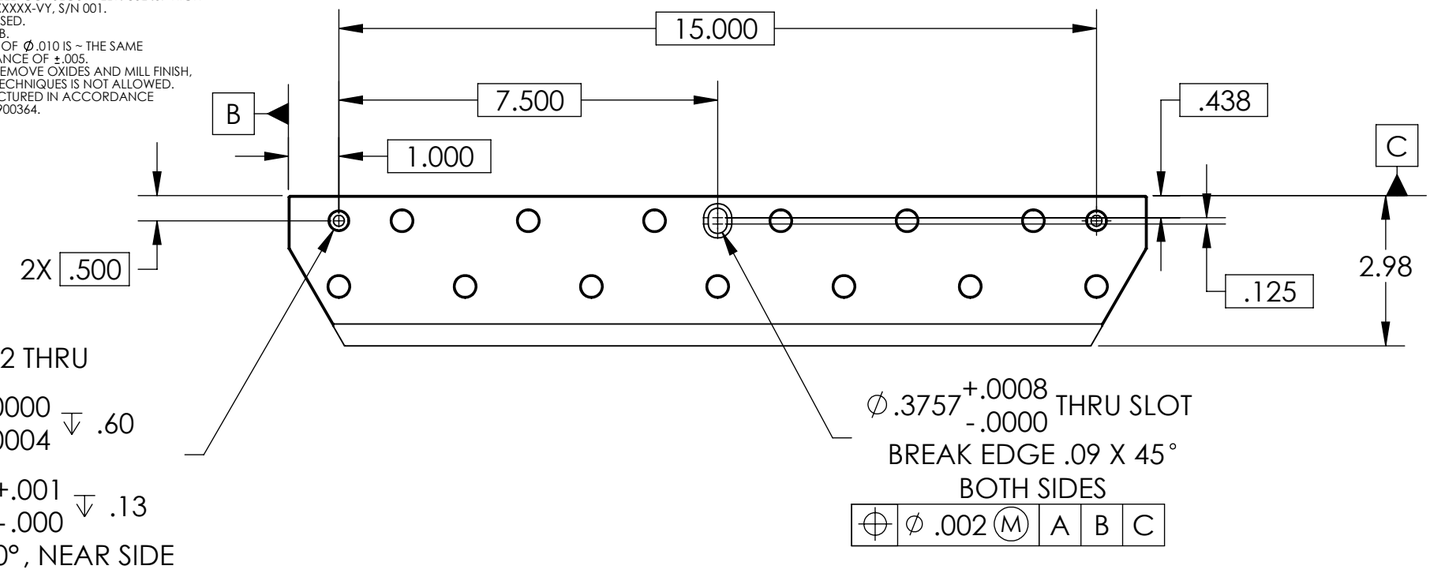
NOTES AND TOLERANCES: (UNLESS OTHERWISE SPECIFIED)										
DIMENSIONS ARE IN INCHES TOLERANCES: .XX ± .015 .XXX ± .005 ANGULAR ± 0.5°	1. INTERPRET DRAWING PER ASME Y14.5-1994. 2. BREAK ALL EDGES AND CORNERS .03 X 45°. 3. DO NOT SCALE FROM DRAWING. 4. ALL MACHINING FLUIDS MUST BE FULLY SYNTHETIC, FULLY WATER SOLUBLE AND FREE OF SULFUR, SILICONE, AND CHLORINE.		LIGO CALIFORNIA INSTITUTE OF TECHNOLOGY MASSACHUSETTS INSTITUTE OF TECHNOLOGY		PART NAME: Hex Wall, Upper, Small, aLIGO BSC ISI					
	MATERIAL: 6061-T6 Al	FINISH: 63 µinch	SYSTEM: ADVANCED LIGO	SUB-SYSTEM: SEI	DESIGNER A.STEIN 11 Jan. 2010	SIZE: B	DWG. NO.: D0901528	REV.: v1		
			NEXT ASSY: D0901181		DRAFTER M.HILLARD 11 Jan. 2010					
					CHECKER F.MATICHARD 11 Jan. 2010					
					APPROVAL K.MASON 11 Jan. 2010	SCALE: 1:3	PROJECTION:	SHEET 1 OF 1		

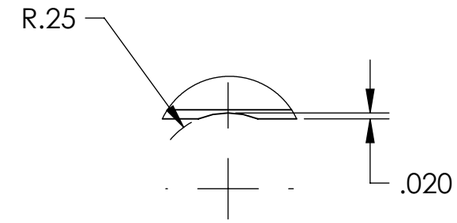
D0901528_Hex_Wall-Upper-Small-BSC_ISI, PART PDM REV: X-022, DRAWING PDM REV: X-007

REV.	DATE	DCN #	DRAWING TREE #
v1	12 Mar. 2010	E1000020	E1000025

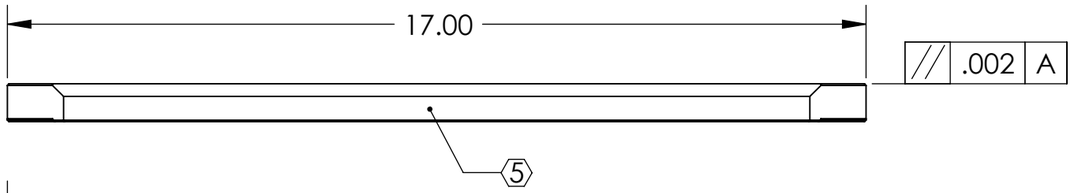
NOTES CONTINUED:

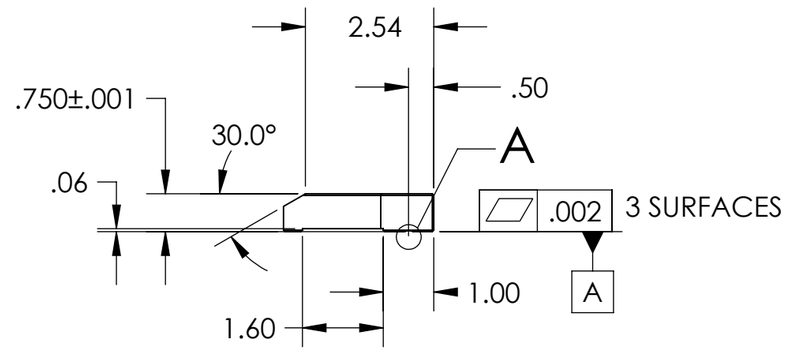
5. SCRIBE, ENGRAVE, OR MECHANICALLY STAMP (NO INKS OR DYES) DRAWING PART NUMBER AND REVISION ON NOTED SURFACE FOLLOWED ON THE NEXT LINE BY A THREE DIGIT SERIAL NUMBER. SERIAL NUMBERS START AT 001 FOR THE FIRST ARTICLE AND PROCEED CONSECUTIVELY. USE .07 HIGH CHARACTERS. EXAMPLE DXXXXXXX-VY, S/N 001. A VIBRATORY TOOL MAY BE USED.
6. APPROXIMATE WEIGHT = 3.1 LB.
7. A TRUE POSITION TOLERANCE OF ∅.010 IS ~ THE SAME AS A CONVENTIONAL TOLERANCE OF ±.005.
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.

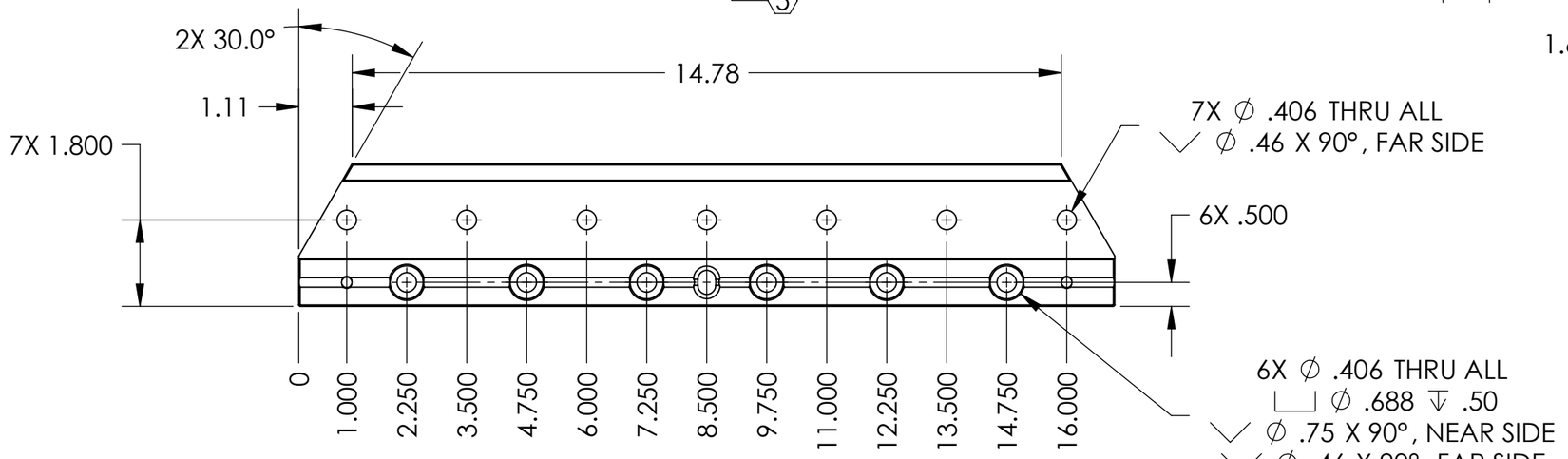




DETAIL A
SCALE 2 : 1
(VENT GROOVE)







NOTES AND TOLERANCES: (UNLESS OTHERWISE SPECIFIED)					
DIMENSIONS ARE IN INCHES TOLERANCES: .XX ± .015 .XXX ± .005 ANGULAR ± 0.5°	1. INTERPRET DRAWING PER ASME Y14.5-1994. 2. BREAK ALL EDGES AND CORNERS .03 X 45°. 3. DO NOT SCALE FROM DRAWING. 4. ALL MACHINING FLUIDS MUST BE FULLY SYNTHETIC, FULLY WATER SOLUBLE AND FREE OF SULFUR, SILICONE, AND CHLORINE.		LIGO CALIFORNIA INSTITUTE OF TECHNOLOGY MASSACHUSETTS INSTITUTE OF TECHNOLOGY	PART NAME: Adapter, Large Hex Wall, aLIGO BSC ISI	
	MATERIAL: 6061-T6 Al	FINISH: 63 µinch	SYSTEM: ADVANCED LIGO / SUB-SYSTEM: SEI	NEXT ASSY: D0901181	

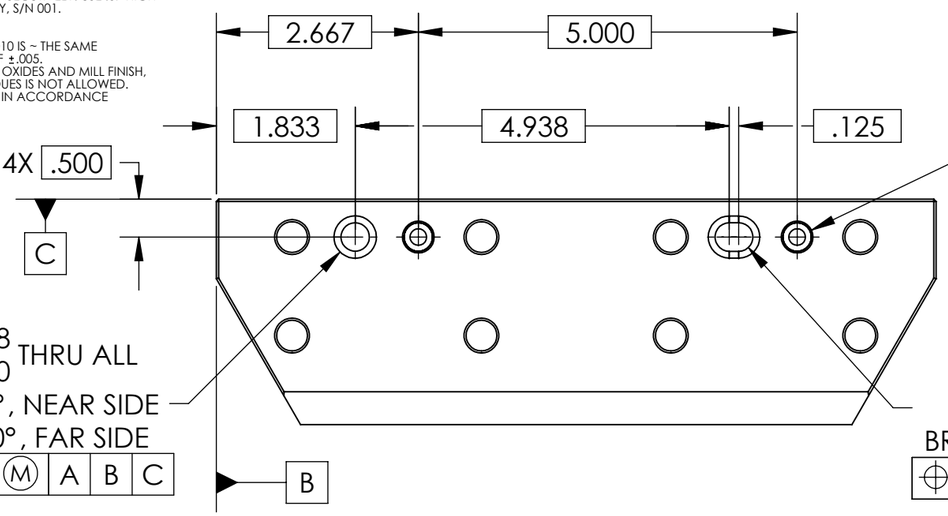
DESIGNER	A.STEIN	11 Jan. 2010	SIZE: B	DWG. NO.: D0901530	REV.: v1
DRAFTER	M.HILLARD	11 Jan. 2010			
CHECKER	F.MATICHARD	11 Jan. 2010			
APPROVAL	K.MASON	11 Jan. 2010	SCALE: 1:3	PROJECTION:	SHEET 1 OF 1

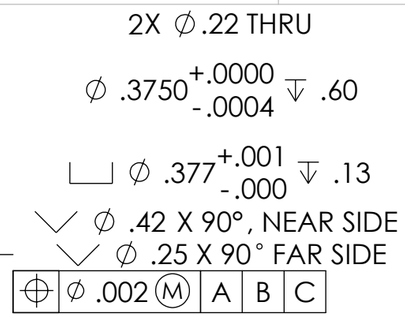
D0901530_Adapter-Large_Hex_Wall-BSC_ISI, PART PDM REV: X-019, DRAWING PDM REV: X-006

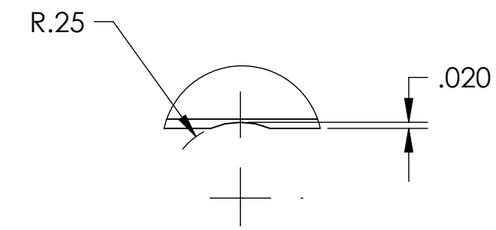
NOTES CONTINUED:

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 DXXXXXXX-VY, S/N 001. A VIBRATORY TOOL MAY BE USED.
6. APPROXIMATE WEIGHT = 1.6 LB.
7. A TRUE POSITION TOLERANCE OF Ø.010 IS ~ THE SAME AS A CONVENTIONAL TOLERANCE OF ±.005.
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.

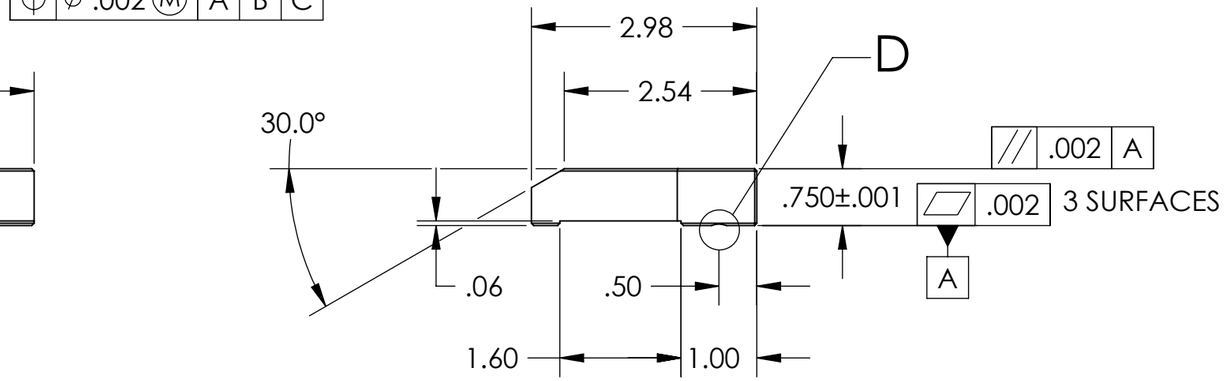
REV.	DATE	DCN #	DRAWING TREE #
v1	12 Mar. 2010	E1000020	E1000025

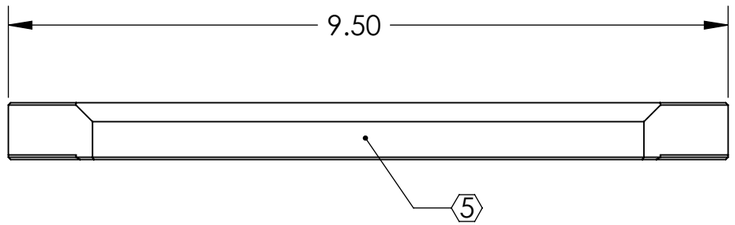


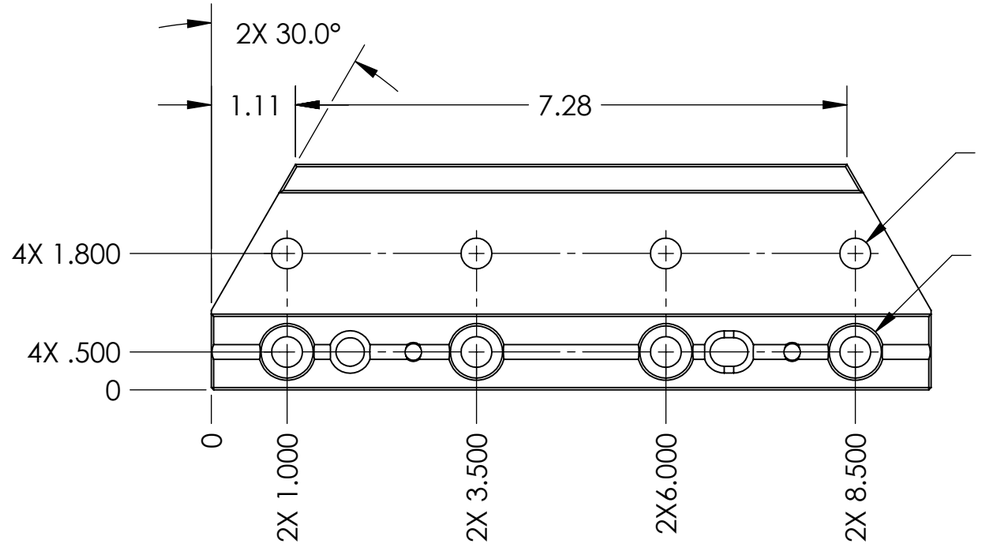


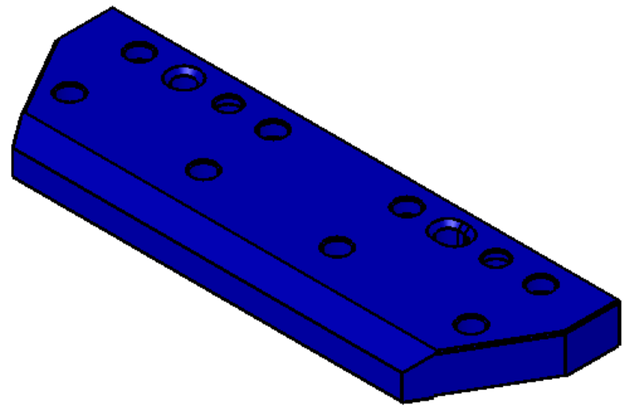


DETAIL D
SCALE 2 : 1
(VENT GROOVE)









NOTES AND TOLERANCES: (UNLESS OTHERWISE SPECIFIED)					
DIMENSIONS ARE IN INCHES TOLERANCES: .XX ± .015 .XXX ± .005 ANGULAR ± 0.5°	1. INTERPRET DRAWING PER ASME Y14.5-1994. 2. BREAK ALL EDGES AND CORNERS .03 X 45°. 3. DO NOT SCALE FROM DRAWING. 4. ALL MACHINING FLUIDS MUST BE FULLY SYNTHETIC, FULLY WATER SOLUBLE AND FREE OF SULFUR, SILICONE, AND CHLORINE.		LIGO CALIFORNIA INSTITUTE OF TECHNOLOGY MASSACHUSETTS INSTITUTE OF TECHNOLOGY	PART NAME: Adapter, Small Hex Wall, aLIGO BSC ISI	
	MATERIAL: 6061-T6 Al	FINISH: 63 µinch	SYSTEM: ADVANCED LIGO	SUB-SYSTEM: SEI	
			NEXT ASSY: D0901181		

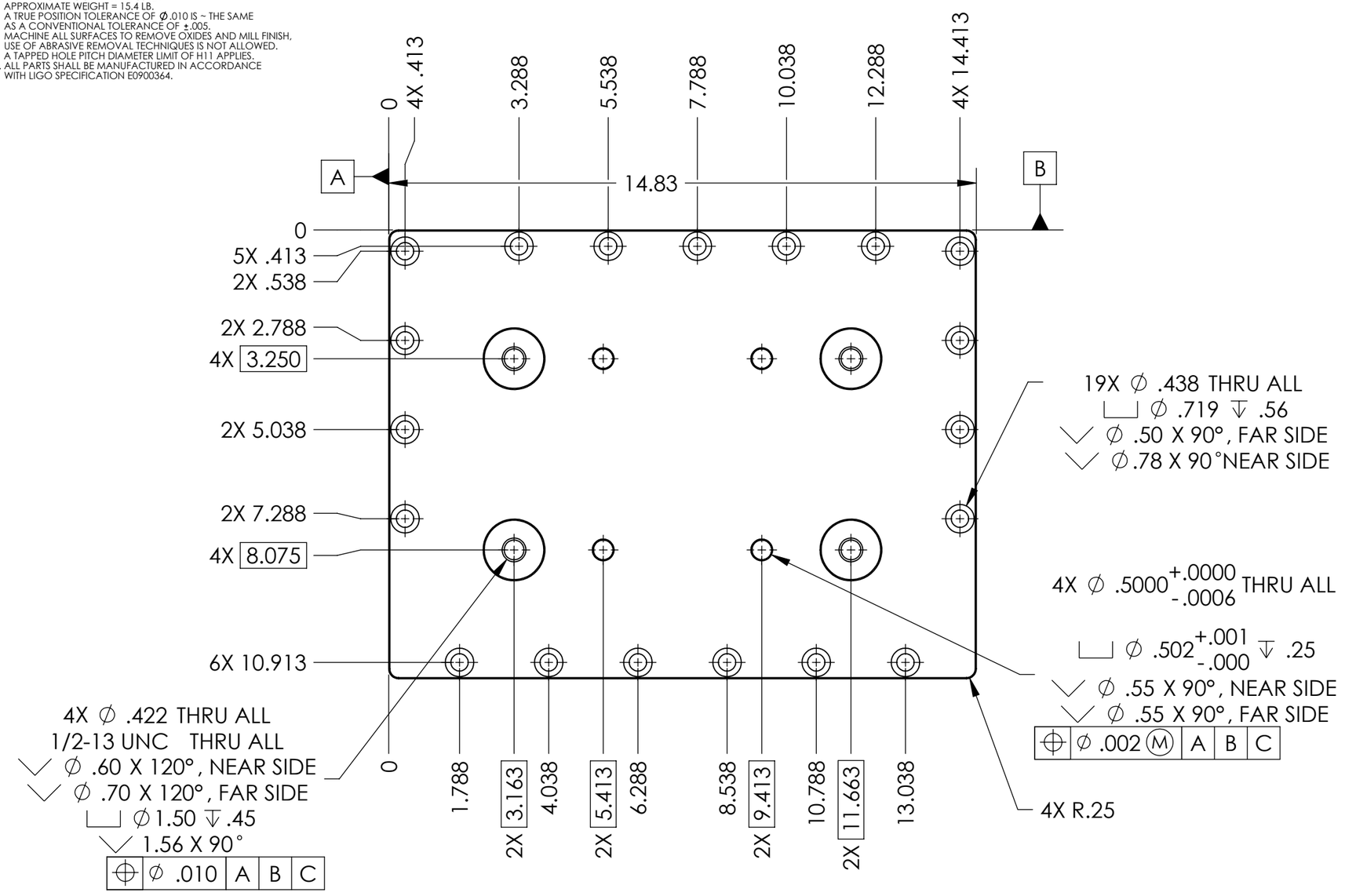
DESIGNER	Andy Stein	30 JUL 2009	SIZE: B	DWG. NO.: D0901531	REV.: v1
DRAFTER	M.HILLARD	11 Jan. 2010			
CHECKER	F.MATICHARD	11 Jan. 2010			
APPROVAL	K.MASON	11 Jan. 2010	SCALE: 1:2	PROJECTION:	SHEET 1 OF 1

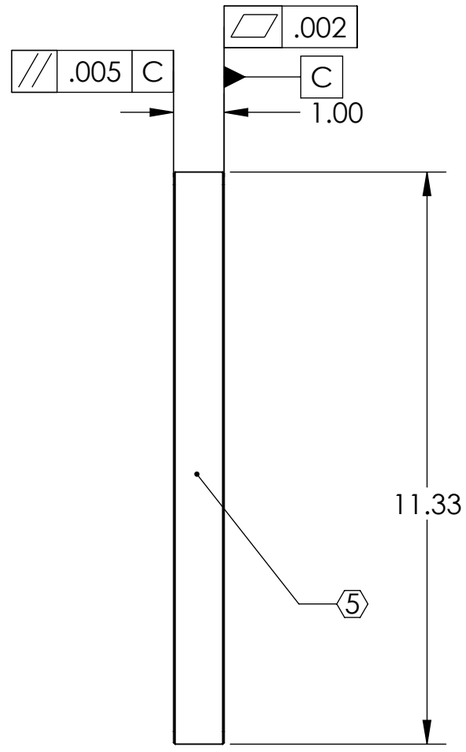
D0901531_Adapter-Small_Hex_Wall-BSC_ISI, PART PDM REV: X-017, DRAWING PDM REV: X-008

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 DXXXXXXX-VY, S/N 001. A VIBRATORY TOOL MAY BE USED.
6. APPROXIMATE WEIGHT = 15.4 LB.
7. A TRUE POSITION TOLERANCE OF ∅.010 IS ~ THE SAME AS A CONVENTIONAL TOLERANCE OF ±.005.
8. MACHINE ALL SURFACES TO REMOVE OXIDES AND MILL FINISH, USE OF ABRASIVE REMOVAL TECHNIQUES IS NOT ALLOWED.
9. A TAPPED HOLE PITCH DIAMETER LIMIT OF H11 APPLIES.
10. ALL PARTS SHALL BE MANUFACTURED IN ACCORDANCE WITH LIGO SPECIFICATION E0900364.

REV.	DATE	DCN #	DRAWING TREE #
v1	12 Mar. 2010	E1000020	E1000025





NOTES AND TOLERANCES: (UNLESS OTHERWISE SPECIFIED)

DIMENSIONS ARE IN INCHES

TOLERANCES:
.XX ± .015
.XXX ± .005

ANGULAR ± 0.5°

1. INTERPRET DRAWING PER ASME Y14.5-1994.
2. BREAK ALL EDGES AND CORNERS .03 X 45°.
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: SEI
NEXT ASSY: D1000052

PART NAME: Outer Wall, Lower, aLIGO BSC ISI

DESIGNER	A.STEIN	14 Jan. 2010	
DRAFTER	M.HILLARD	14 Jan. 2010	
CHECKER	F.MATICHARD	14 Jan. 2010	
APPROVAL	K.MASON	14 Jan. 2010	

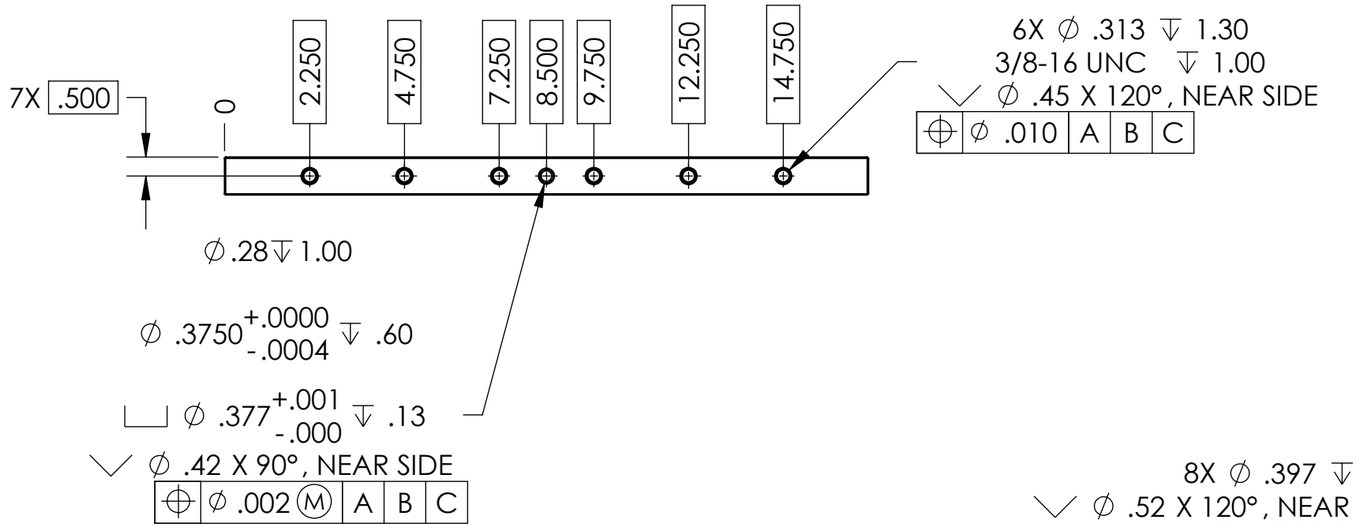
SIZE: B | DWG. NO.: D0901532 | REV.: v1
SCALE: 1:3 | PROJECTION: | SHEET 1 OF 1

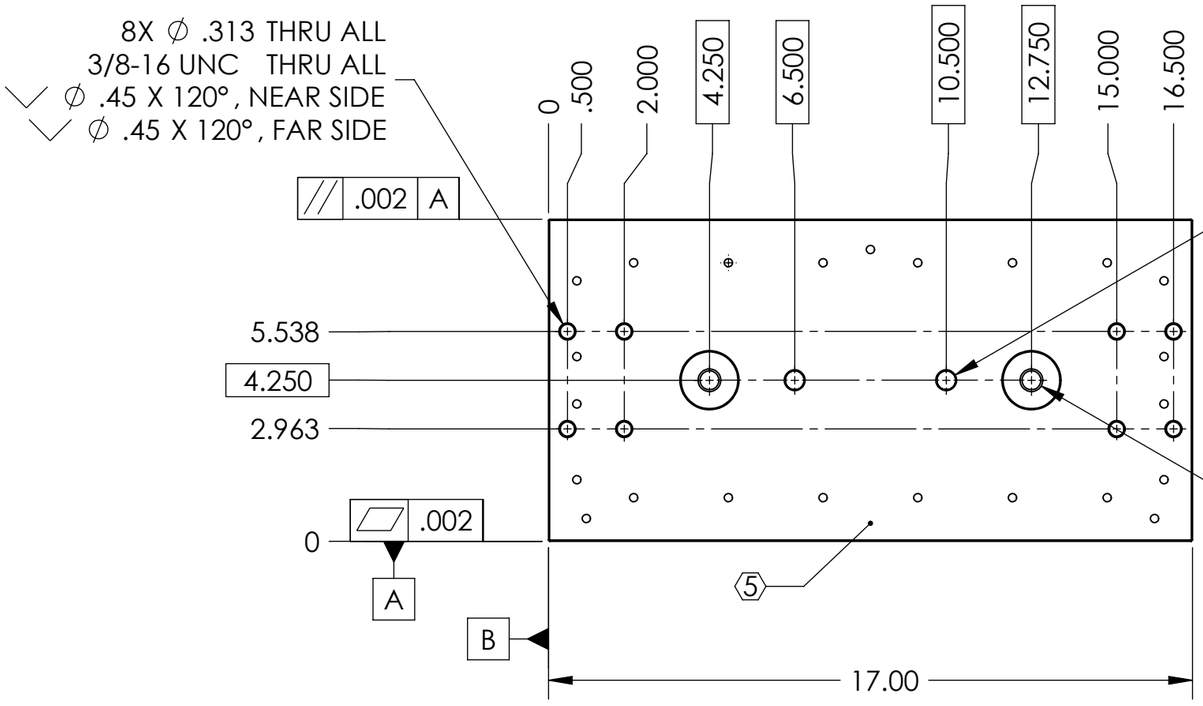
D0901532_Outer_Wall-Lower-BSC_ISI, PART PDM REV: X-027, DRAWING PDM REV: X-007

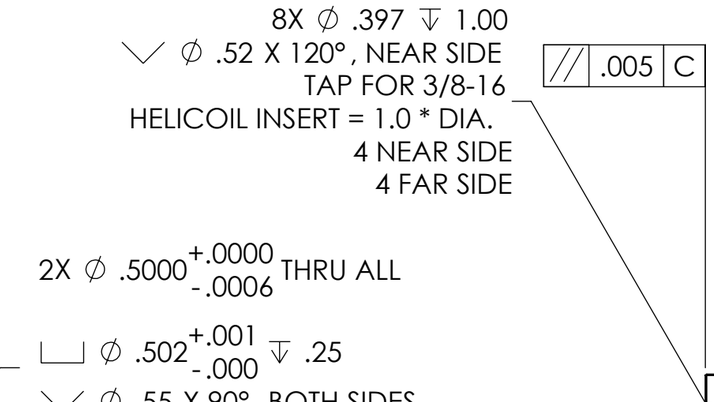
REV.	DATE	DCN #	DRAWING TREE #
v1	12 Mar. 2010	E1000020	E1000025

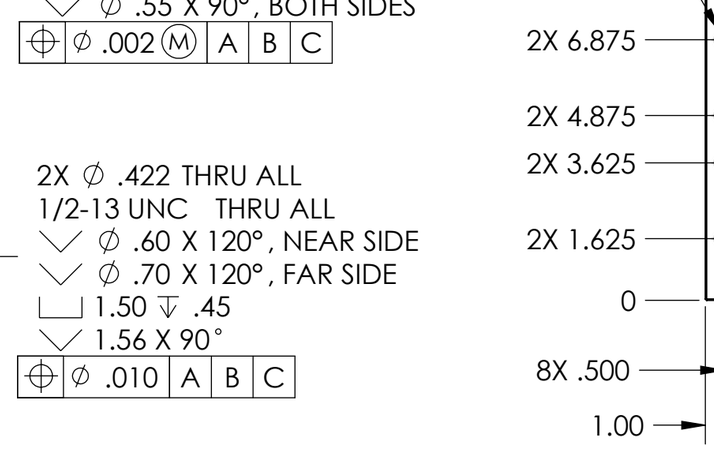
NOTES CONTINUED:

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. APPROXIMATE WEIGHT = 13.4 LB.
7. A TRUE POSITION TOLERANCE OF Ø.010 IS ~ THE SAME AS A CONVENTIONAL TOLERANCE OF ±.005.
8. MACHINE ALL SURFACES TO REMOVE OXIDES AND MILL FINISH, USE OF ABRASIVE REMOVAL TECHNIQUES IS NOT ALLOWED.
9. ALL THREADED INSERTS TO BE INSTALLED BY LIGO PERSONNEL, AFTER DELIVERY OF FINISHED PARTS.
10. ALL PARTS SHALL BE MANUFACTURED IN ACCORDANCE WITH LIGO SPECIFICATION E0900364.
11. A TAPPED HOLE PITCH DIAMETER LIMIT OF H11 APPLIES.









D0901533_Outer_Wall-Upper-BSC_ISI, PART PDM REV: X-036, DRAWING PDM REV: X-008

NOTES AND TOLERANCES: (UNLESS OTHERWISE SPECIFIED)

DIMENSIONS ARE IN INCHES

TOLERANCES:
.XX ± .015
.XXX ± .005

ANGULAR ± 0.5°

1. INTERPRET DRAWING PER ASME Y14.5-1994.
2. BREAK ALL EDGES AND CORNERS .03 X 45°.
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

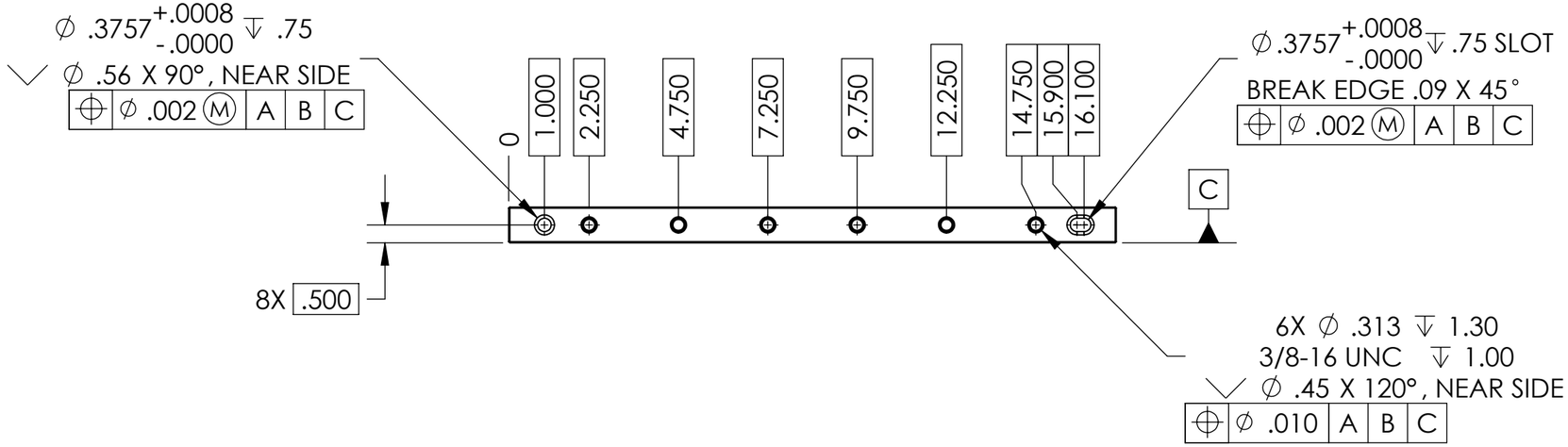
LIGO — CALIFORNIA INSTITUTE OF TECHNOLOGY, MASSACHUSETTS INSTITUTE OF TECHNOLOGY

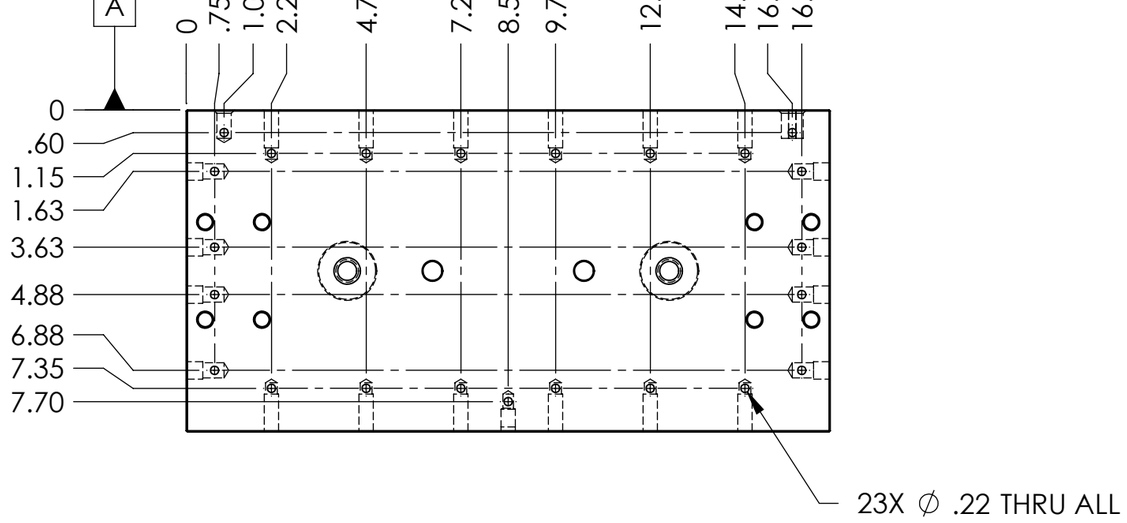
SYSTEM: ADVANCED LIGO
SUB-SYSTEM: SEI
NEXT ASSY: D1000053

PART NAME: Outer Wall, Upper, aLIGO BSC ISI

DESIGNER	A.STEIN	14 Jan. 2010	
DRAFTER	M.HILLARD	14 Jan. 2010	
CHECKER	F.MATICHARD	14 Jan. 2010	
APPROVAL	K.MASON	11 Jan. 2010	

SIZE: B — DWG. NO.: D0901533 — REV.: v1
SCALE: 1:4 — PROJECTION: — SHEET 1 OF 2





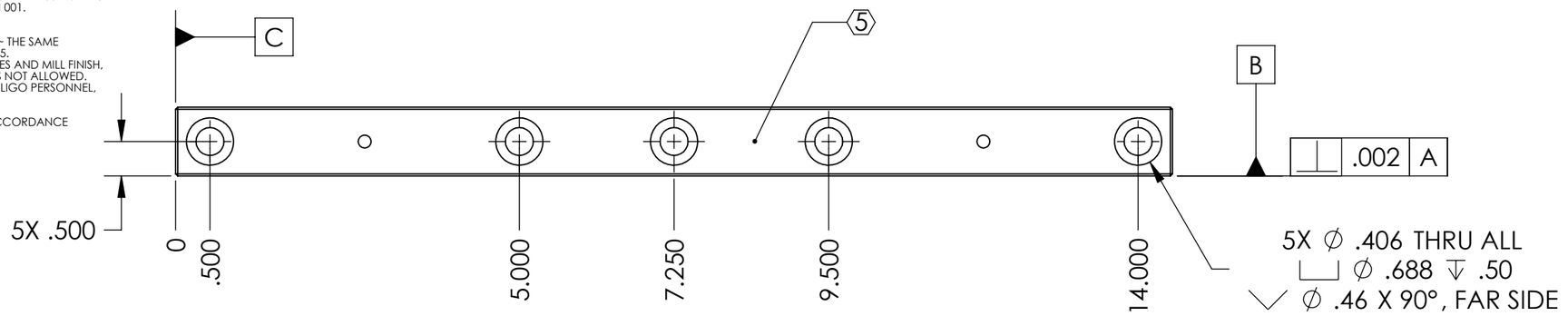
D0901533_Outer_Wall-Upper-BSC_ISI, PART PDM REV: X-036, DRAWING PDM REV: X-008

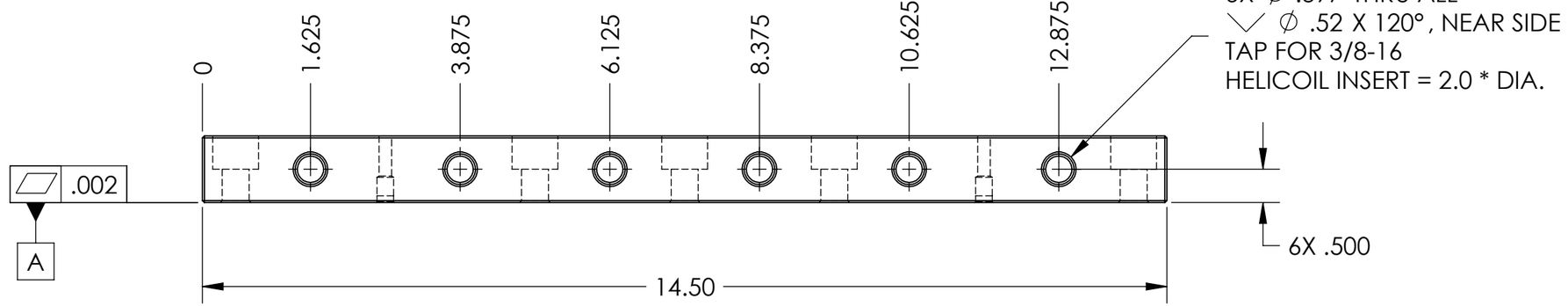
LIGO CALIFORNIA INSTITUTE OF TECHNOLOGY MASSACHUSETTS INSTITUTE OF TECHNOLOGY		
SIZE B	DWG. NO. D0901533	REV. v1
SCALE: 1:4	PROJECTION:	SHEET 2 OF 2

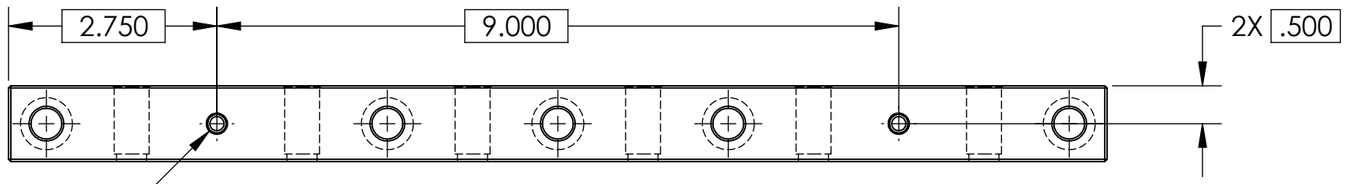
REV.	DATE	DCN #	DRAWING TREE #
v1	12 Mar. 2010	E1000020	E1000025

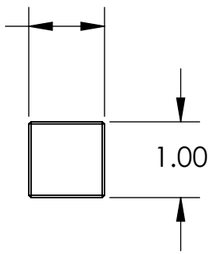
NOTES CONTINUED:

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 DXXXXXXX-VY, S/N 001. A VIBRATORY TOOL MAY BE USED.
6. APPROXIMATE WEIGHT = 1.2 LB.
7. A TRUE POSITION TOLERANCE OF ∅.010 IS ~ THE SAME AS A CONVENTIONAL TOLERANCE OF ±.005.
8. MACHINE ALL SURFACES TO REMOVE OXIDES AND MILL FINISH, USE OF ABRASIVE REMOVAL TECHNIQUES IS NOT ALLOWED.
9. ALL THREADED INSERTS TO BE INSTALLED BY LIGO PERSONNEL, AFTER DELIVERY OF FINISHED PARTS. USE ONLY NITRONIC 60 INSERTS.
10. ALL PARTS SHALL BE MANUFACTURED IN ACCORDANCE WITH LIGO SPECIFICATION E0900364.









2X ∅.19 THRU

∅ .2500 +.0000 -.0004 ↧ .38

⌴ ∅ .251 +.001 -.000 ↧ .10

∨ ∅ .28 X 90°, NEAR SIDE

⌖	∅ .002 Ⓜ	A	B	C

NOTES AND TOLERANCES: (UNLESS OTHERWISE SPECIFIED)			
DIMENSIONS ARE IN INCHES TOLERANCES: .XX ± .015 .XXX ± .005 ANGULAR ± 0.5°	1. INTERPRET DRAWING PER ASME Y14.5-1994. 2. BREAK ALL EDGES AND CORNERS .03 X 45°. 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

PART NAME	Bracket, Lower Outer Wall, Bottom, aLIGO BSC ISI
SYSTEM	ADVANCED LIGO
SUB-SYSTEM	SEI
NEXT ASSY	D0901181

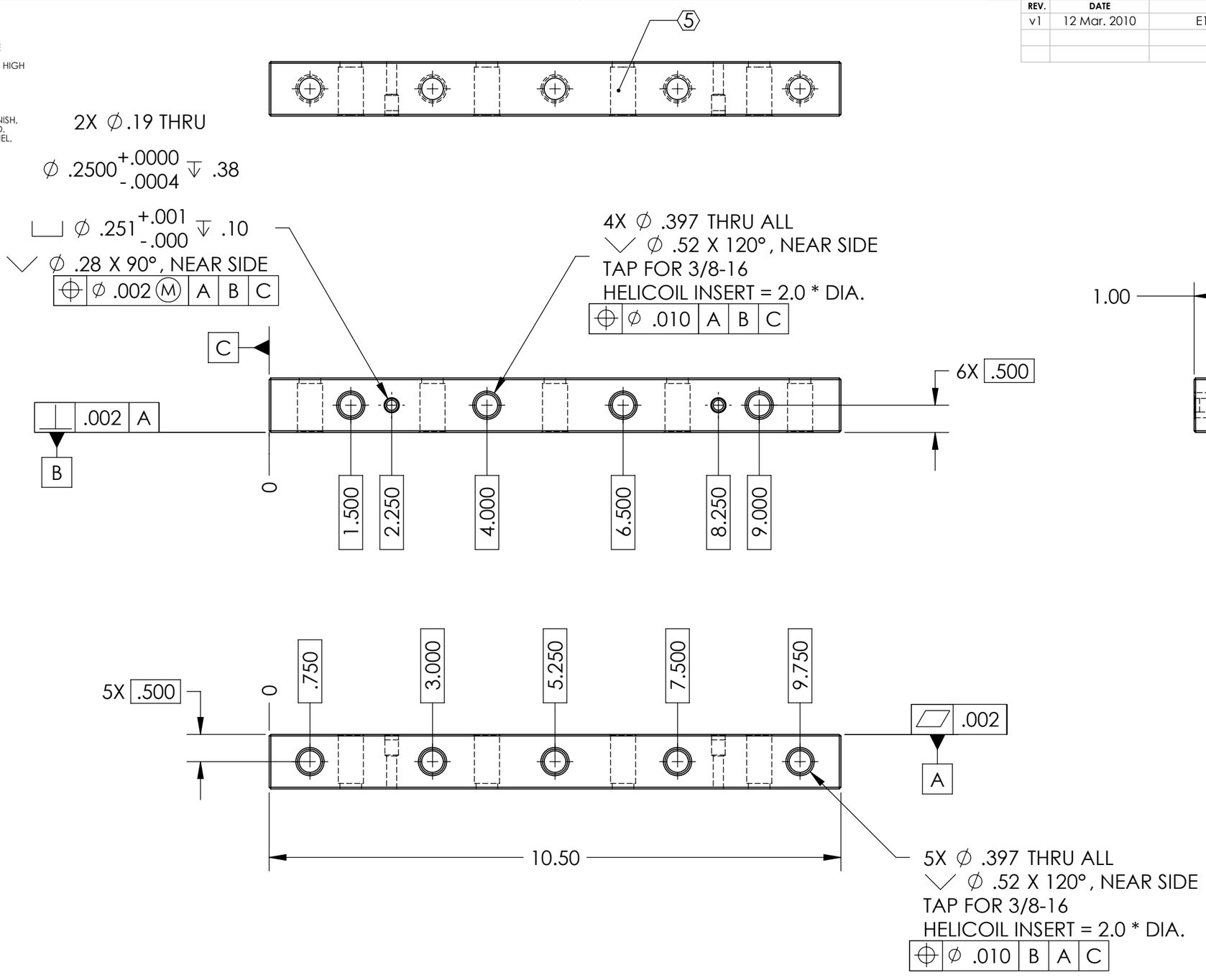
DESIGNER	A.STEIN	11 Jan. 2010	SIZE	DWG. NO.	REV.
DRAFTER	M.HILLARD	11 Jan. 2010	B	D0901535	v1
CHECKER	F.MATICHARD	11 Jan. 2010			
APPROVAL	K.MASON	11 Jan. 2010	SCALE: 1:2	PROJECTION:	SHEET 1 OF 1

D0901535_Bracket-Lower_Outer_Wall-Bottom-BSC_ISI, PART PDM REV: X-016, DRAWING PDM REV: X-010

REV.	DATE	DCN #	DRAWING TREE #
v1	12 Mar. 2010	E1000020	E1000025

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. APPROXIMATE WEIGHT = 0.9 LB.
7. A TRUE POSITION TOLERANCE OF Ø.010 IS – THE SAME AS A CONVENTIONAL TOLERANCE OF ±.005.
8. MACHINE ALL SURFACES TO REMOVE OXIDES AND MILL FINISH. USE OF ABRASIVE REMOVAL TECHNIQUES IS NOT ALLOWED.
9. ALL THREADED INSERTS TO BE INSTALLED BY LIGO PERSONNEL, AFTER DELIVERY OF FINISHED PARTS. USE ONLY NITRONIC 60 INSERTS.
10. ALL PARTS SHALL BE MANUFACTURED IN ACCORDANCE WITH LIGO SPECIFICATION E0900364.



NOTES AND TOLERANCES: (UNLESS OTHERWISE SPECIFIED)

DIMENSIONS ARE IN INCHES

TOLERANCES:
.XX ± .015
.XXX ± .005

ANGULAR ± 0.5°

1. INTERPRET DRAWING PER ASME Y14.5-1994.
2. BREAK ALL EDGES AND CORNERS .03 X 45°.
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: SEI
NEXT ASSY: D0901181

PART NAME: Bracket, Lower Outer Wall, Top, aLIGO BSC ISI

DESIGNER	A.STEIN	11 Jan. 2010	
DRAFTER	M.HILLARD	11 Jan. 2010	
CHECKER	F.MATICHARD	11 Jan. 2010	
APPROVAL	K.MASON	11 Jan. 2010	

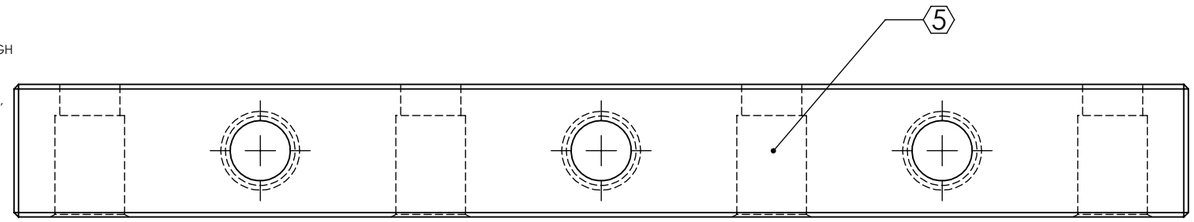
SIZE: B — DWG. NO.: D0901536 — REV.: v1
SCALE: 1:2 — PROJECTION: — SHEET 1 OF 1

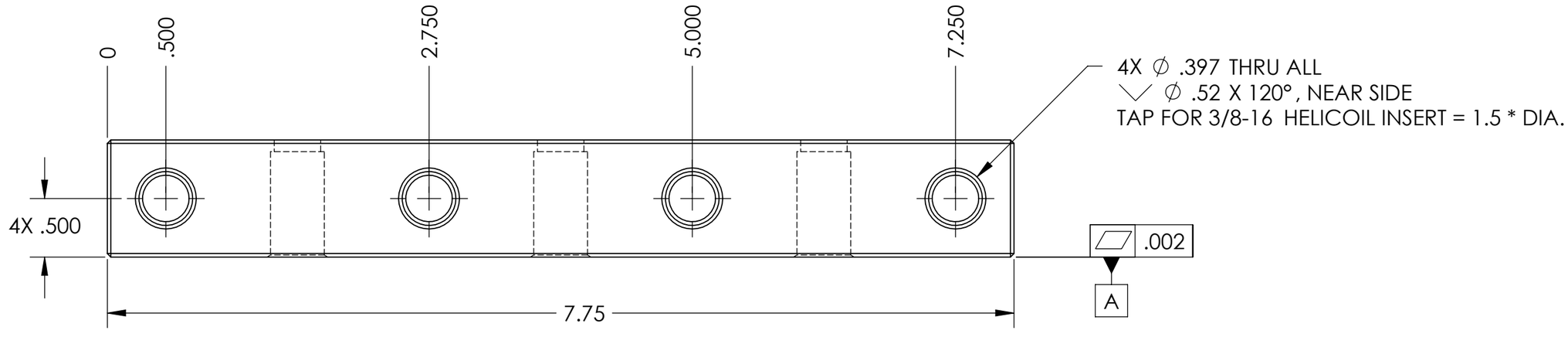
D0901536_Bracket-Lower_Outer_Wall-Top-BSC_ISI, PART PDM REV: X-013, DRAWING PDM REV: X-008

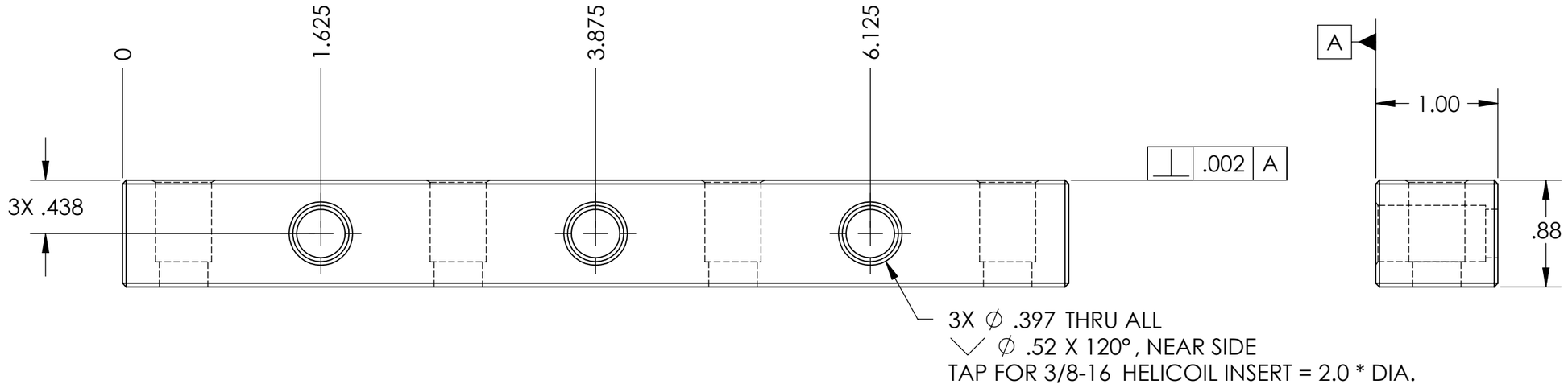
REV.	DATE	DCN #	DRAWING TREE #
v1	12 Mar. 2010	E1000020	E1000025

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 DXXXXXXX-VY, S/N 001. A VIBRATORY TOOL MAY BE USED.
6. APPROXIMATE WEIGHT = 0.6 LB.
7. MACHINE ALL SURFACES TO REMOVE OXIDES AND MILL FINISH, USE OF ABRASIVE REMOVAL TECHNIQUES IS NOT ALLOWED.
8. ALL THREADED INSERTS TO BE INSTALLED BY LIGO PERSONNEL, AFTER DELIVERY OF FINISHED PARTS. USE ONLY NITRONIC 60 HELICOILS.
9. ALL PARTS SHALL BE MANUFACTURED IN ACCORDANCE WITH LIGO SPECIFICATION E0900364.







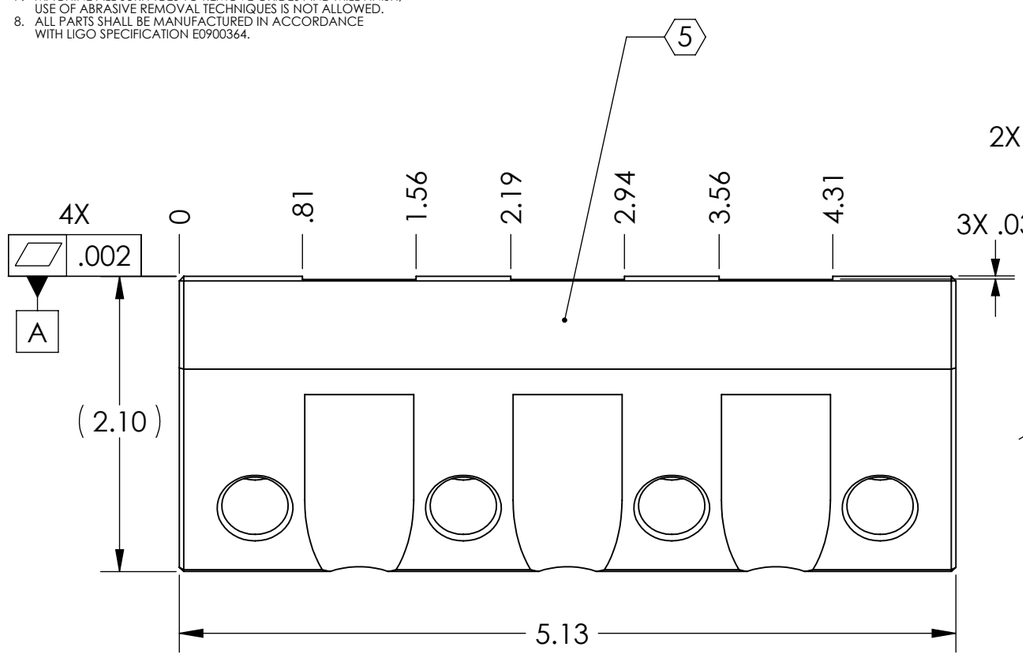
D0901537_Bracket-Lower_Outer_Wall-Side-BSC_ISI, PART PDM REV: X-014, DRAWING PDM REV: X-006

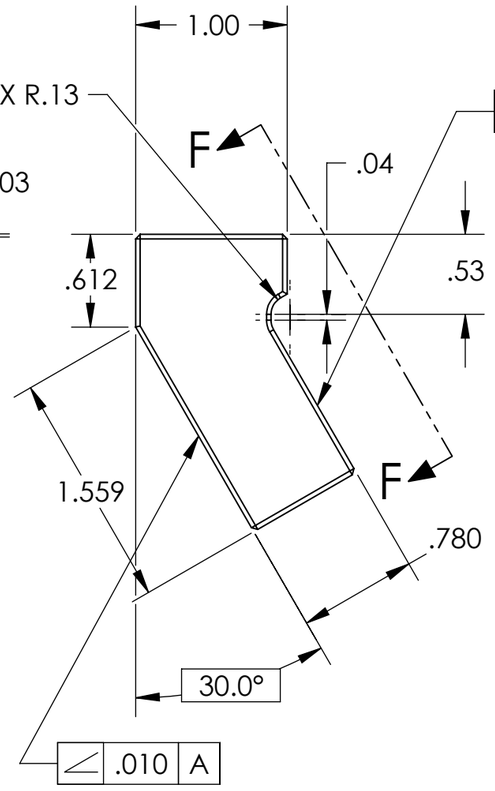
NOTES AND TOLERANCES: (UNLESS OTHERWISE SPECIFIED)										
DIMENSIONS ARE IN INCHES TOLERANCES: .XX ± .015 .XXX ± .005 ANGULAR ± 0.5°	1. INTERPRET DRAWING PER ASME Y14.5-1994. 2. BREAK ALL EDGES AND CORNERS .03 X 45°. 3. DO NOT SCALE FROM DRAWING. 4. ALL MACHINING FLUIDS MUST BE FULLY SYNTHETIC, FULLY WATER SOLUBLE AND FREE OF SULFUR, SILICONE, AND CHLORINE.		LIGO CALIFORNIA INSTITUTE OF TECHNOLOGY MASSACHUSETTS INSTITUTE OF TECHNOLOGY		PART NAME Bracket, Lower Outer Wall, Side, aLIGO BSC ISI					
	MATERIAL 6061-T6 Al	FINISH 63 µinch	SYSTEM ADVANCED LIGO	SUB-SYSTEM SEI	DESIGNER	A.STEIN	11 Jan. 2010	SIZE B	DWG. NO. D0901537	REV. v1
			NEXT ASSY D0901181		DRAFTER	M.HILLARD	11 Jan. 2010			
					CHECKER	F.MATICHARD	11 Jan. 2010			
					APPROVAL	K.MASON	11 Jan. 2010	SCALE: 1:1	PROJECTION:	SHEET 1 OF 1

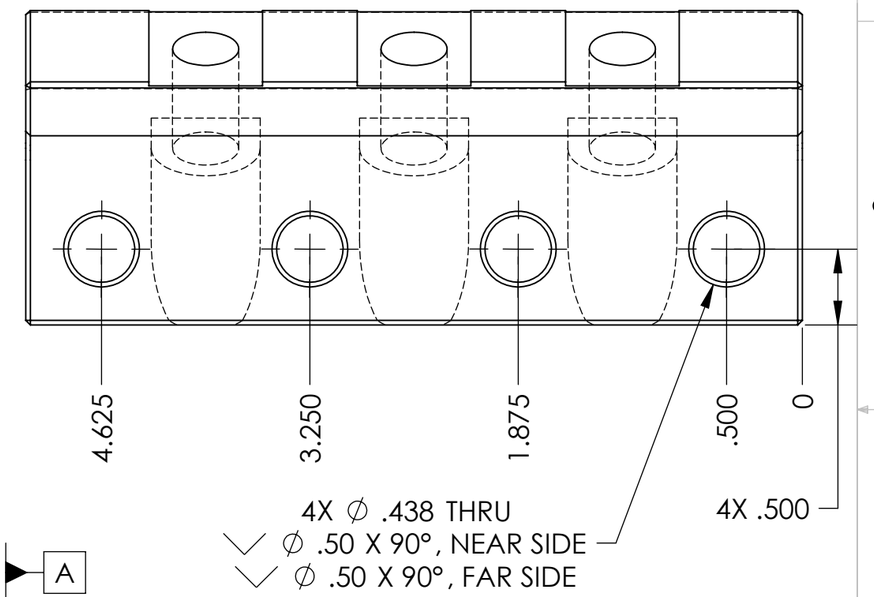
NOTES CONTINUED:

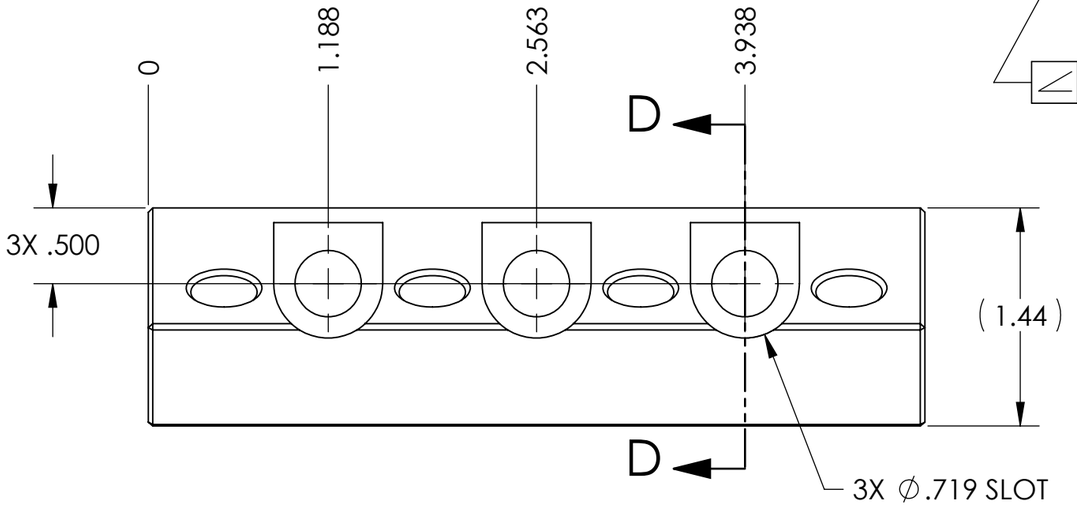
5. SCRIBE, ENGRAVE, OR MECHANICALLY STAMP (NO INKS OR DYES) DRAWING PART NUMBER AND REVISION ON NOTED SURFACE FOLLOWED ON THE NEXT LINE BY A THREE DIGIT SERIAL NUMBER. SERIAL NUMBERS START AT 001 FOR THE FIRST ARTICLE AND PROCEED CONSECUTIVELY. USE .07 HIGH CHARACTERS. EXAMPLE DXXXXXXX-VY, S/N 001. A VIBRATORY TOOL MAY BE USED.
6. APPROXIMATE WEIGHT = 0.6 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.

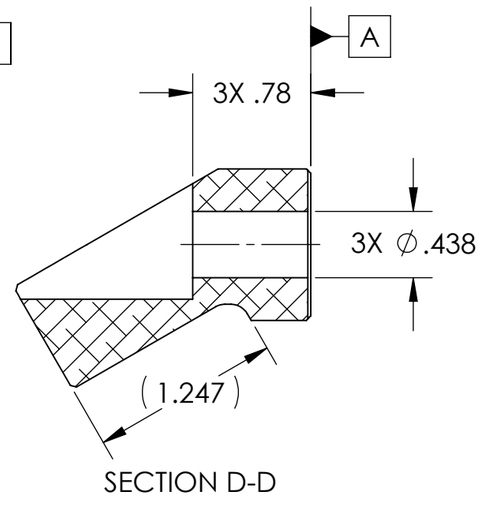
REV.	DATE	DCN #	DRAWING TREE #
v1	12 Mar. 2010	E1000020	E1000025

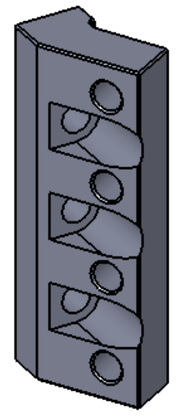












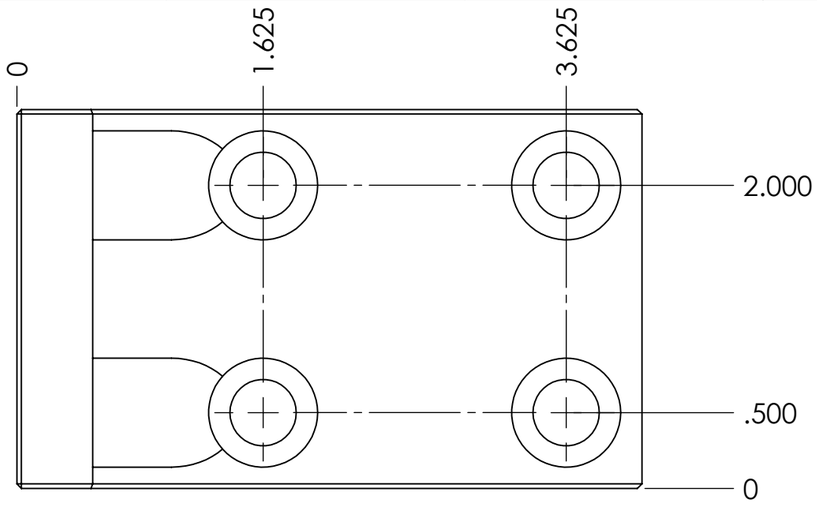
NOTES AND TOLERANCES: (UNLESS OTHERWISE SPECIFIED)									
DIMENSIONS ARE IN INCHES TOLERANCES: .XX ± .015 .XXX ± .005 ANGULAR ± 0.5°	1. INTERPRET DRAWING PER ASME Y14.5-1994. 2. BREAK ALL EDGES AND CORNERS .03 X 45°. 3. DO NOT SCALE FROM DRAWING. 4. ALL MACHINING FLUIDS MUST BE FULLY SYNTHETIC, FULLY WATER SOLUBLE AND FREE OF SULFUR, SILICONE, AND CHLORINE.		LIGO CALIFORNIA INSTITUTE OF TECHNOLOGY MASSACHUSETTS INSTITUTE OF TECHNOLOGY		PART NAME: Bracket, Hex Wall, aLIGO BSC ISI				
	MATERIAL: 6061-T6 Al	FINISH: 63 µinch	SYSTEM: ADVANCED LIGO	SUB-SYSTEM: SEI	DESIGNER: A.STEIN 11 Jan. 2010	SIZE: B	DWG. NO.: D0901538	REV.: v1	
			NEXT ASSY: D0901181		DRAFTER: M.HILLARD 11 Jan. 2010				
					CHECKER: F.MATICHARD 11 Jan. 2010				
					APPROVAL: K.MASON 11 Jan. 2010	SCALE: 1:1	PROJECTION:	SHEET 1 OF 1	

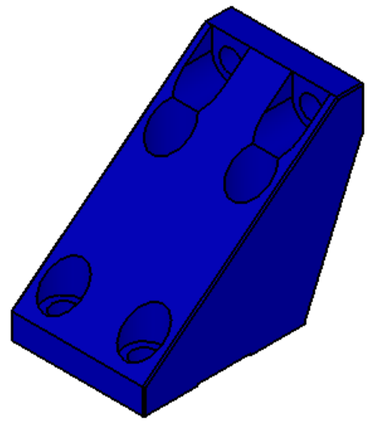
D0901538_Bracket-Hex_Wall-BSC_ISI, PART PDM REV: X-014, DRAWING PDM REV: X-006

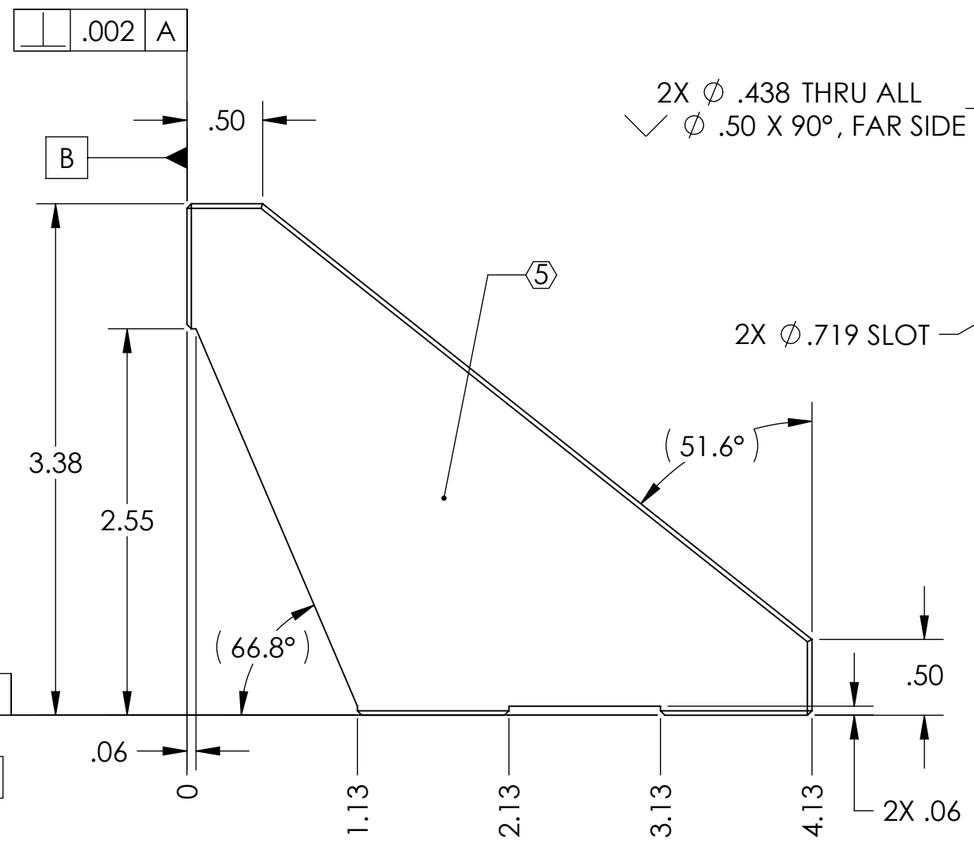
NOTES CONTINUED:

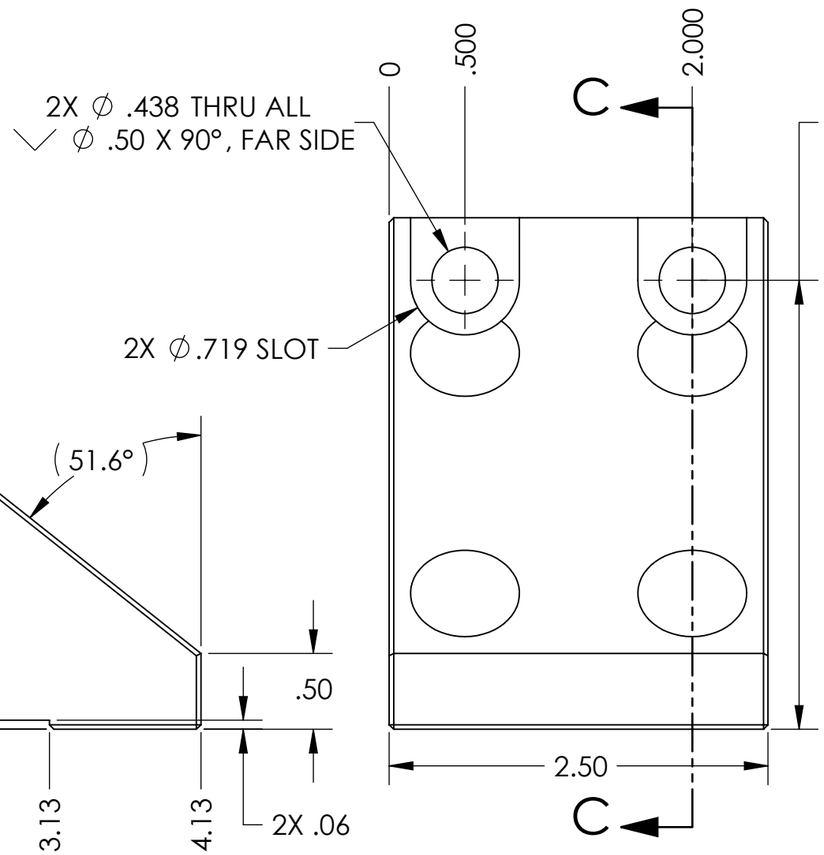
5. SCRIBE, ENGRAVE, OR MECHANICALLY STAMP (NO INKS OR DYES) DRAWING PART NUMBER AND REVISION ON NOTED SURFACE FOLLOWED ON THE NEXT LINE BY A THREE DIGIT SERIAL NUMBER. SERIAL NUMBERS START AT 001 FOR THE FIRST ARTICLE AND PROCEED CONSECUTIVELY. USE .07 HIGH CHARACTERS. EXAMPLE DXXXXXX-VY, S/N 001. A VIBRATORY TOOL MAY BE USED.
6. APPROXIMATE WEIGHT = 1.5 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.

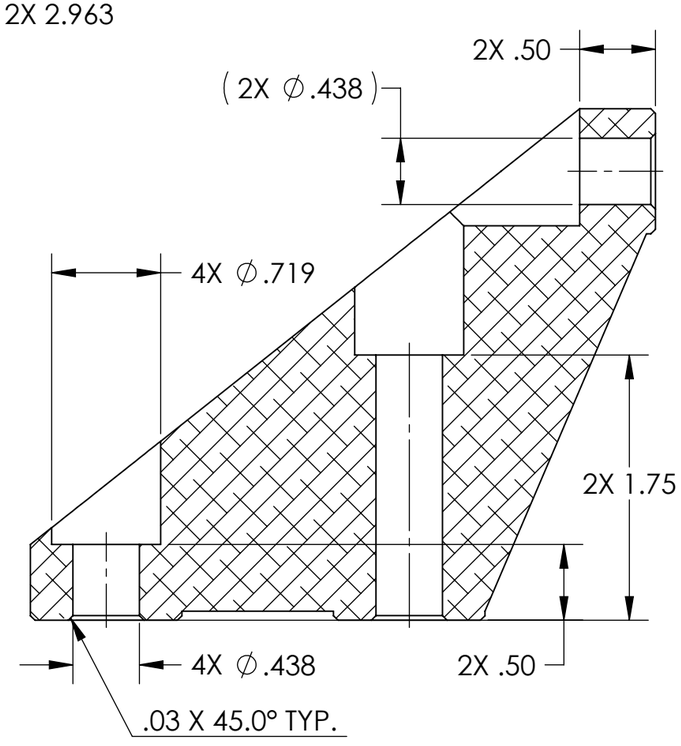
REV.	DATE	DCN #	DRAWING TREE #
v1	12 Mar. 2010	E1000020	E1000025











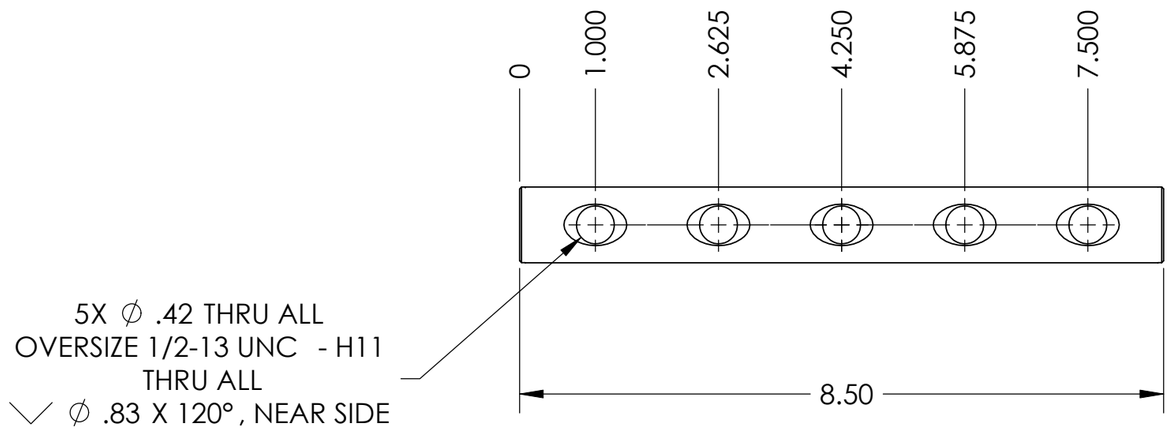
NOTES AND TOLERANCES: (UNLESS OTHERWISE SPECIFIED)										
DIMENSIONS ARE IN INCHES TOLERANCES: .XX ± .015 .XXX ± .005 ANGULAR ± 0.5°	1. INTERPRET DRAWING PER ASME Y14.5-1994. 2. BREAK ALL EDGES AND CORNERS .03 X 45°. 3. DO NOT SCALE FROM DRAWING. 4. ALL MACHINING FLUIDS MUST BE FULLY SYNTHETIC, FULLY WATER SOLUBLE AND FREE OF SULFUR, SILICONE, AND CHLORINE.		LIGO CALIFORNIA INSTITUTE OF TECHNOLOGY MASSACHUSETTS INSTITUTE OF TECHNOLOGY		PART NAME: Gusset, Outer Wall, aLIGO BSC ISI					
	MATERIAL: 6061-T6 Al	FINISH: 63 µinch	SYSTEM: ADVANCED LIGO	SUB-SYSTEM: SEI	DESIGNER	A.STEIN	11 Jan. 2010	SIZE: B	DWG. NO.: D0901539	REV.: v1
			NEXT ASSY: D0901181		DRAFTER	M.HILLARD	11 Jan. 2010			
					CHECKER	F.MATICHARD	11 Jan. 2010	SCALE: 1:1	PROJECTION:	SHEET 1 OF 1
					APPROVAL	K.MASON	11 Jan. 2010			

D0901539_Gusset-BSC_ISI, PART PDM REV: X-013, DRAWING PDM REV: X-007

NOTES CONTINUED:

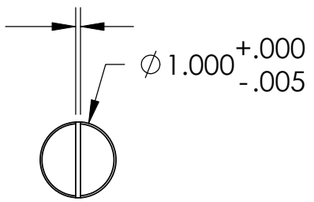
5. BAG AND TAG PART, INCLUDING THE DRAWING PART NUMBER AND REVISION ON FOLLOWED ON THE NEXT LINE BY A THREE DIGIT SERIAL NUMBER. SERIAL NUMBERS START AT 001 FOR THE FIRST ARTICAL AND PROCEED CONSECUTIVELY. USE .07 HIGH CHARACTERS. EXAMPLE DXXXXXXX-VY, S/N 001. A VIBRATORY TOOL MAY BE USED.
6. APPROXIMATE WEIGHT = 1.6 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. PART TO BE ELECTROPOLISHED.
10. DIMENSIONS AND TOLERANCES APPLY AFTER ELECTROPOLISHING.

REV.	DATE	DCN #	DRAWING TREE #
v1	26 Feb. 2010	E1000022	E1000025



5X ∅ .42 THRU ALL
OVERSIZE 1/2-13 UNC - H11
THRU ALL
⌵ ∅ .83 X 120°, NEAR SIDE
⌵ ∅ .83 X 120°, FAR SIDE

2X .06 WIDE SLOT ↧ .075
1 EACH END



D0901542 Barrel Nut Bar, Spring Post, Stage 0-1, PART PDM REV: X-010, DRAWING PDM REV: X-005

NOTES AND TOLERANCES: (UNLESS OTHERWISE SPECIFIED)			
DIMENSIONS ARE IN INCHES TOLERANCES: .XX ± .015 .XXX ± .005 ANGULAR ± .5°	1. INTERPRET DRAWING PER ASME Y14.5-1994. 2. REMOVE ALL SHARP EDGES, R.02 MIN. 3. DO NOT SCALE FROM DRAWING. 4. ALL MACHINING FLUIDS MUST BE FULLY SYNTHETIC, FULLY WATER SOLUBLE AND FREE OF SULFUR, SILICONE, AND CHLORINE.	MATERIAL: 17-4 PH H1150	FINISH: 63 µinch

LIGO — CALIFORNIA INSTITUTE OF TECHNOLOGY, MASSACHUSETTS INSTITUTE OF TECHNOLOGY

SYSTEM	ADVANCED LIGO
SUB-SYSTEM	SEI
NEXT ASSY	D0901197

PART NAME: BARREL NUT BAR, SPRING POST, STAGE 0-1, aLIGO BSC ISI

DESIGNER	A.STEIN	01 Feb. 2010	
DRAFTER	M.HILLARD	01 Feb. 2010	
CHECKER	F.MATICHARD	01 Feb. 2010	
APPROVAL	K.MASON	01 Feb. 2010	

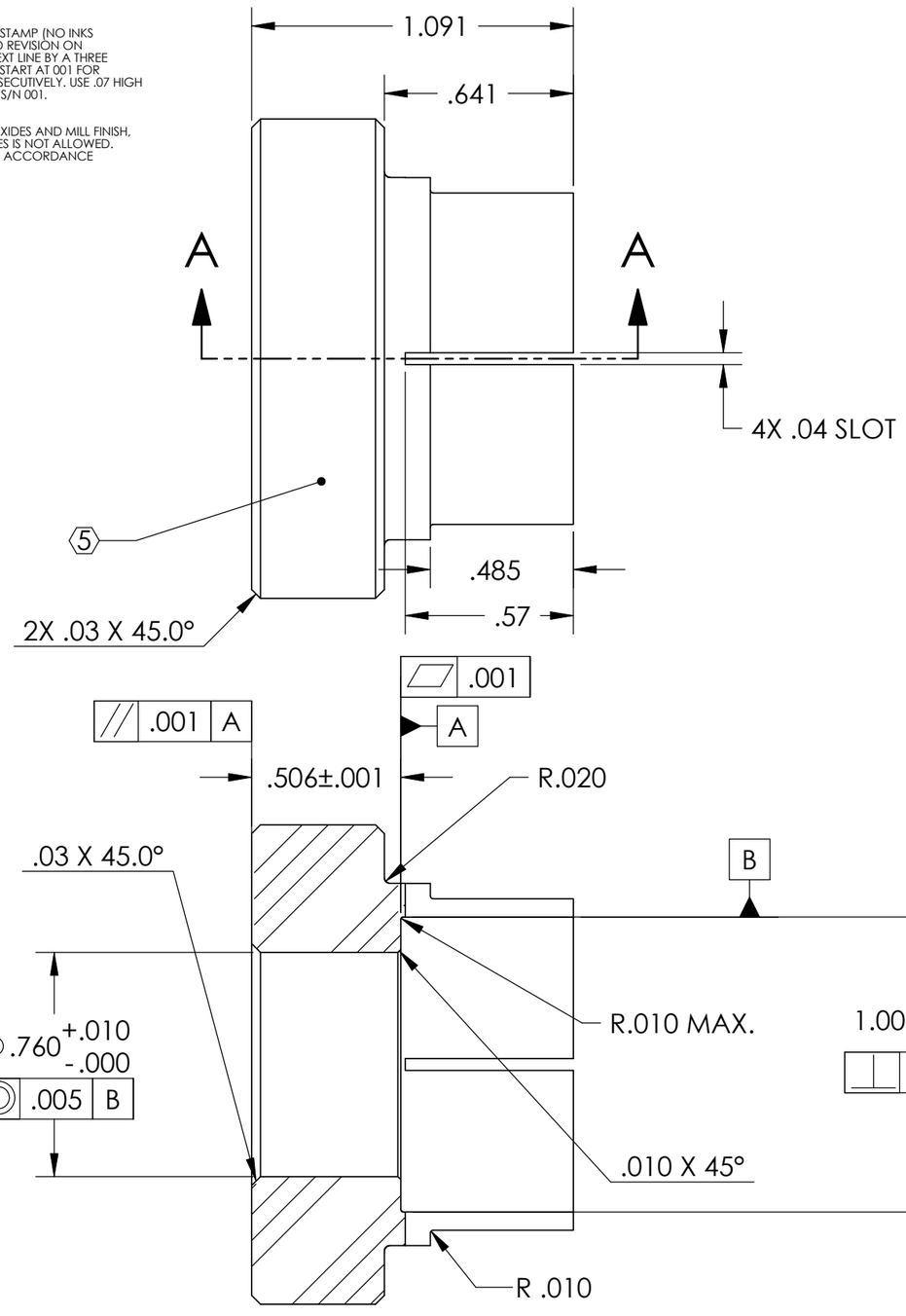
SIZE: B — DWG. NO.: D0901542 — REV.: v1

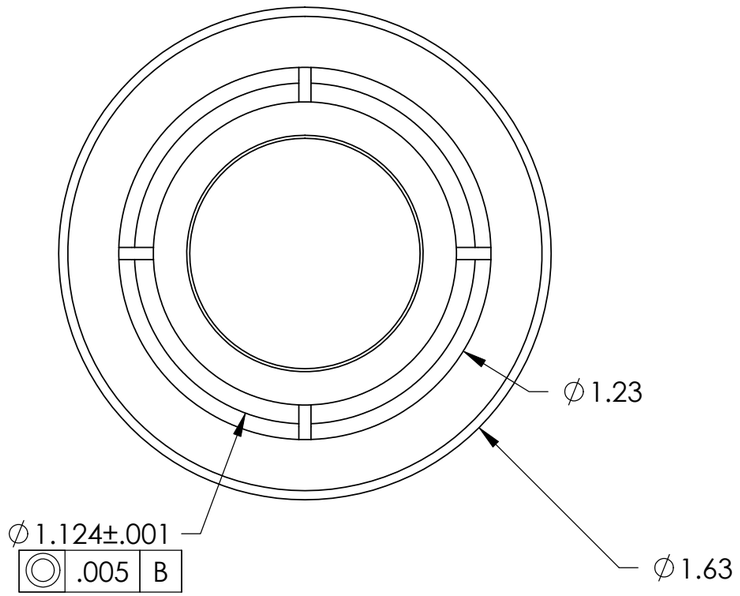
SCALE: 1:2 — PROJECTION: — SHEET 1 OF 1

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 ARTICAL AND PROCEED CONSECUTIVELY. USE .07 HIGH CHARACTERS. EXAMPLE DXXXXXX-VY, S/N 001. A VIBRATORY TOOL MAY BE USED.
6. APPROXIMATE WEIGHT = 0.25 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	01 Mar. 2010	E1000026	E1000025





SECTION A-A

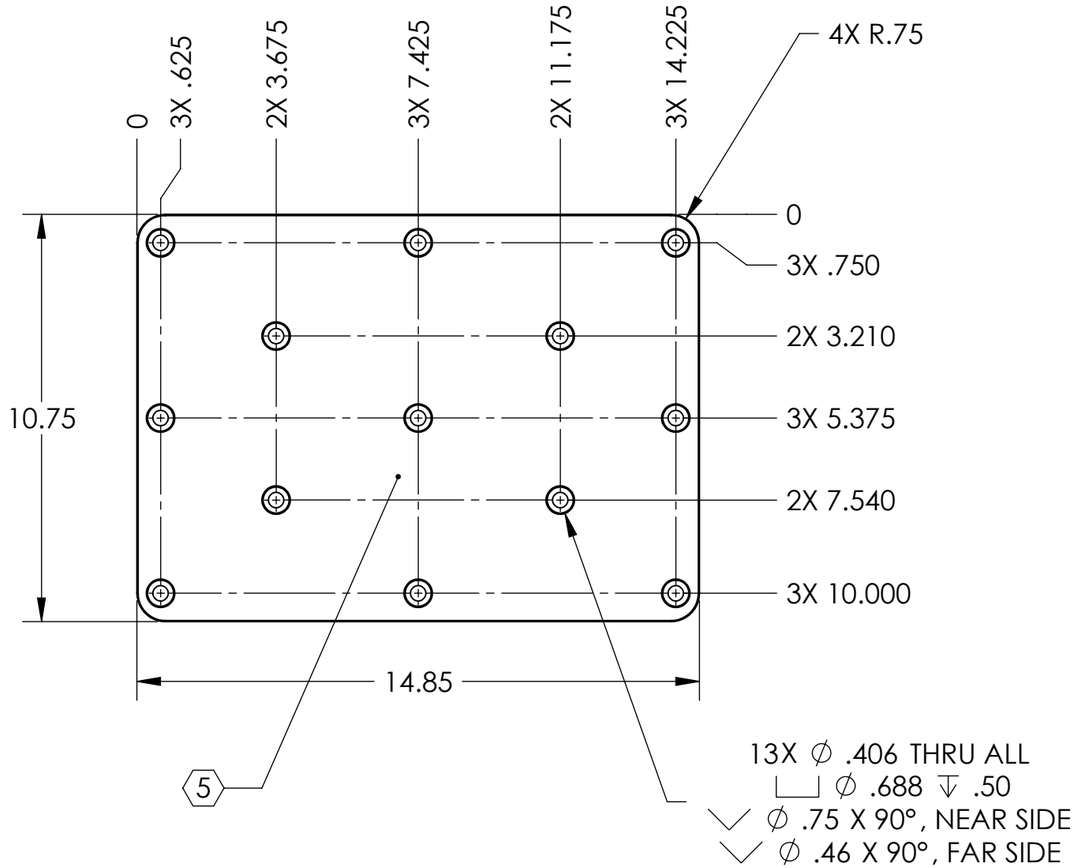
NOTES AND TOLERANCES: (UNLESS OTHERWISE SPECIFIED)					
DIMENSIONS ARE IN INCHES TOLERANCES: .XX ± .015 .XXX ± .005 ANGULAR ± .5°	1. INTERPRET DRAWING PER ASME Y14.5-1994. 2. REMOVE ALL SHARP EDGES, R.02 MIN. 3. DO NOT SCALE FROM DRAWING. 4. ALL MACHINING FLUIDS MUST BE FULLY SYNTHETIC, FULLY WATER SOLUBLE AND FREE OF SULFUR, SILICONE, AND CHLORINE.		LIGO CALIFORNIA INSTITUTE OF TECHNOLOGY MASSACHUSETTS INSTITUTE OF TECHNOLOGY	PART NAME: BRACKET FLEXURE SHIM, STAGE 1-2, aLIGO BSC ISI	
	MATERIAL: 17-4 PH SSTL, H 1150	FINISH: 32 µinch	SYSTEM: ADVANCED LIGO / SUB-SYSTEM: SEI	DESIGNER C.RAMET 01 Feb. 2010 DRAFTER M.HILLARD 01 Feb. 2010 CHECKER F.MATICHARD 01 Feb. 2010 APPROVAL K.MASON 01 Feb. 2010	SIZE: B / DWG. NO.: D0901743 / REV.: v1 SCALE: 2:1 / PROJECTION: / SHEET 1 OF 1
			NEXT ASSY: D0902104		

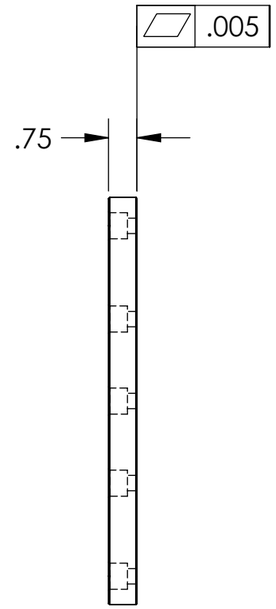
D0901743 Bracket Flexure Shim, Stage 1-2, aLIGO BSC ISI, PART PDM REV: X-007, DRAWING PDM REV: X-003

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 DXXXXXXX-VY, S/N 001. A VIBRATORY TOOL MAY BE USED.
6. APPROXIMATE WEIGHT = 11.4 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	12 Mar. 2010	E1000020	E1000025





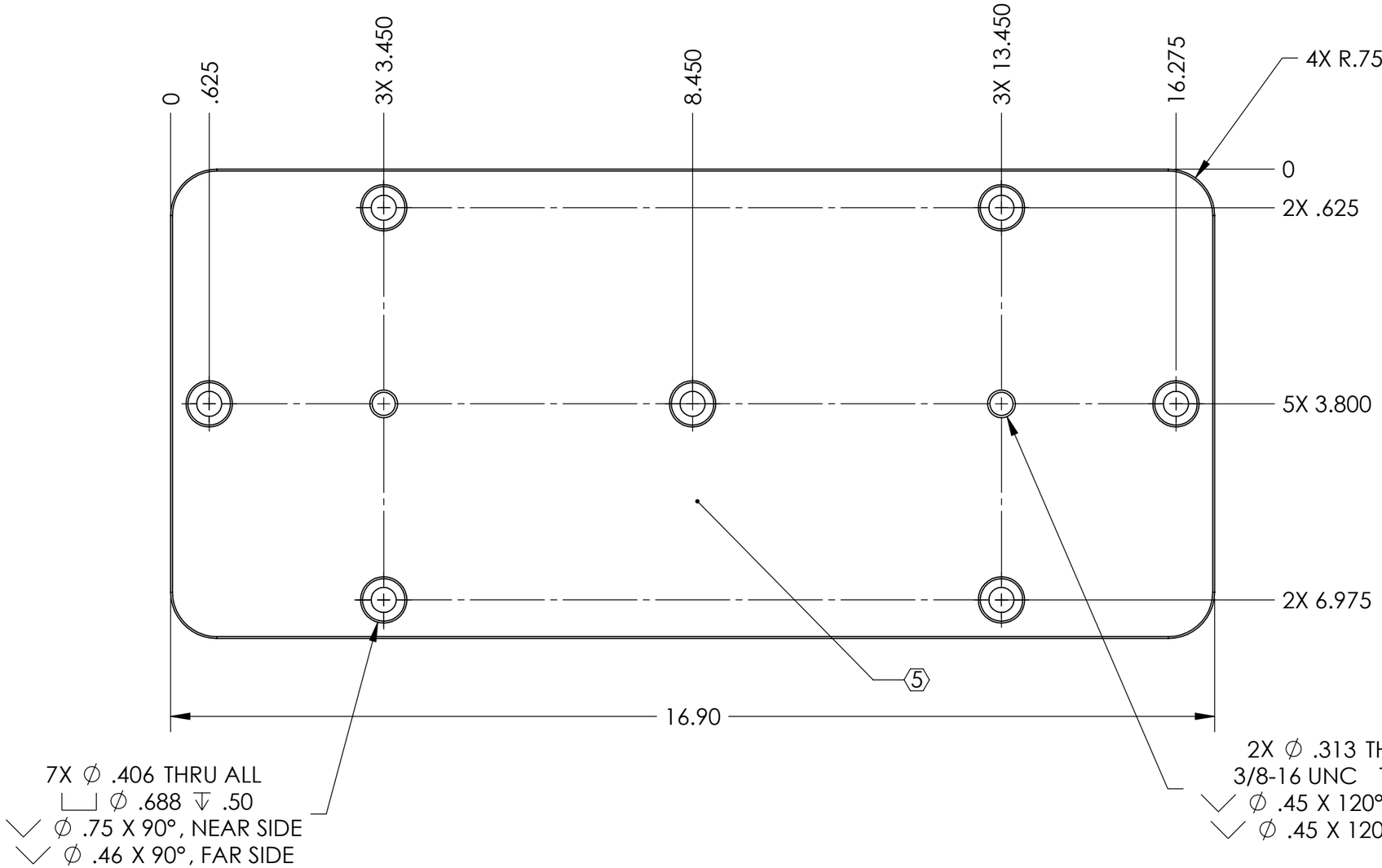
D0901842_Cover_1-BSC_Optical_Table, PART PDM REV: X-008, DRAWING PDM REV: X-007

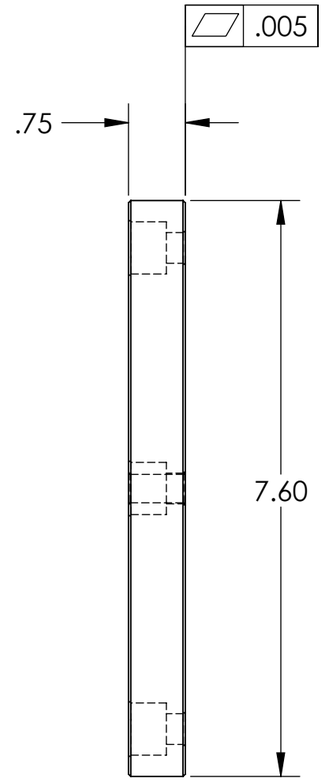
NOTES AND TOLERANCES: (UNLESS OTHERWISE SPECIFIED)							
DIMENSIONS ARE IN INCHES TOLERANCES: .XX ± .015 .XXX ± .005 ANGULAR ± 0.5°	1. INTERPRET DRAWING PER ASME Y14.5-1994. 2. BREAK ALL EDGES AND CORNERS .03 X 45°. 3. DO NOT SCALE FROM DRAWING. 4. ALL MACHINING FLUIDS MUST BE FULLY SYNTHETIC, FULLY WATER SOLUBLE AND FREE OF SULFUR, SILICONE, AND CHLORINE.		LIGO CALIFORNIA INSTITUTE OF TECHNOLOGY MASSACHUSETTS INSTITUTE OF TECHNOLOGY		PART NAME: Cover 1, Optical Table, aLIGO BSC ISI		
	MATERIAL: 6061-T6 Al	FINISH: 63 µinch	SYSTEM: ADVANCED LIGO	SUB-SYSTEM: SEI	DESIGNER A.STEIN 11 Jan. 2010 DRAFTER M.HILLARD 11 Jan. 2010 CHECKER F.MATICHARD 11 Jan. 2010 APPROVAL K.MASON 11 Jan. 2010	SIZE: B	DWG. NO.: D0901842 REV.: v1
			NEXT ASSY: D0901181		SCALE: 1:4 PROJECTION:		SHEET 1 OF 1

REV.	DATE	DCN #	DRAWING TREE #
v1	12 Mar. 2010	E1000020	E1000025

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 DXXXXXXX-VY, S/N 001. A VIBRATORY TOOL MAY BE USED.
6. APPROXIMATE WEIGHT = 9.2 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. A TAPPED HOLE PITCH DIAMETER LIMIT OF H11 APPLIES.





NOTES AND TOLERANCES: (UNLESS OTHERWISE SPECIFIED)

DIMENSIONS ARE IN INCHES

TOLERANCES:
.XX ± .015
.XXX ± .005

ANGULAR ± 0.5°

1. INTERPRET DRAWING PER ASME Y14.5-1994.
2. BREAK ALL EDGES AND CORNERS .03 X 45°.
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: SEI

NEXT ASSY: D0901181

PART NAME: Cover 2, Optical Table, aLIGO BSC ISI

DESIGNER	A.STEIN	11 Jan. 2010	
DRAFTER	M.HILLARD	11 Jan. 2010	
CHECKER	F.MATICHARD	11 Jan. 2010	
APPROVAL	K.MASON	11 Jan. 2010	

SIZE: B — DWG. NO.: D0901843 — REV.: v1

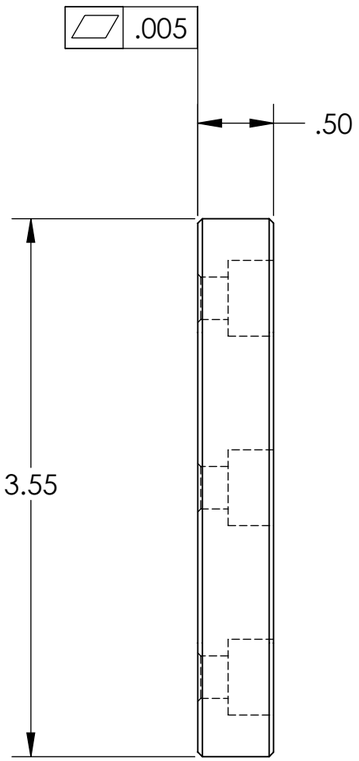
SCALE: 1:2 — PROJECTION: — SHEET 1 OF 1

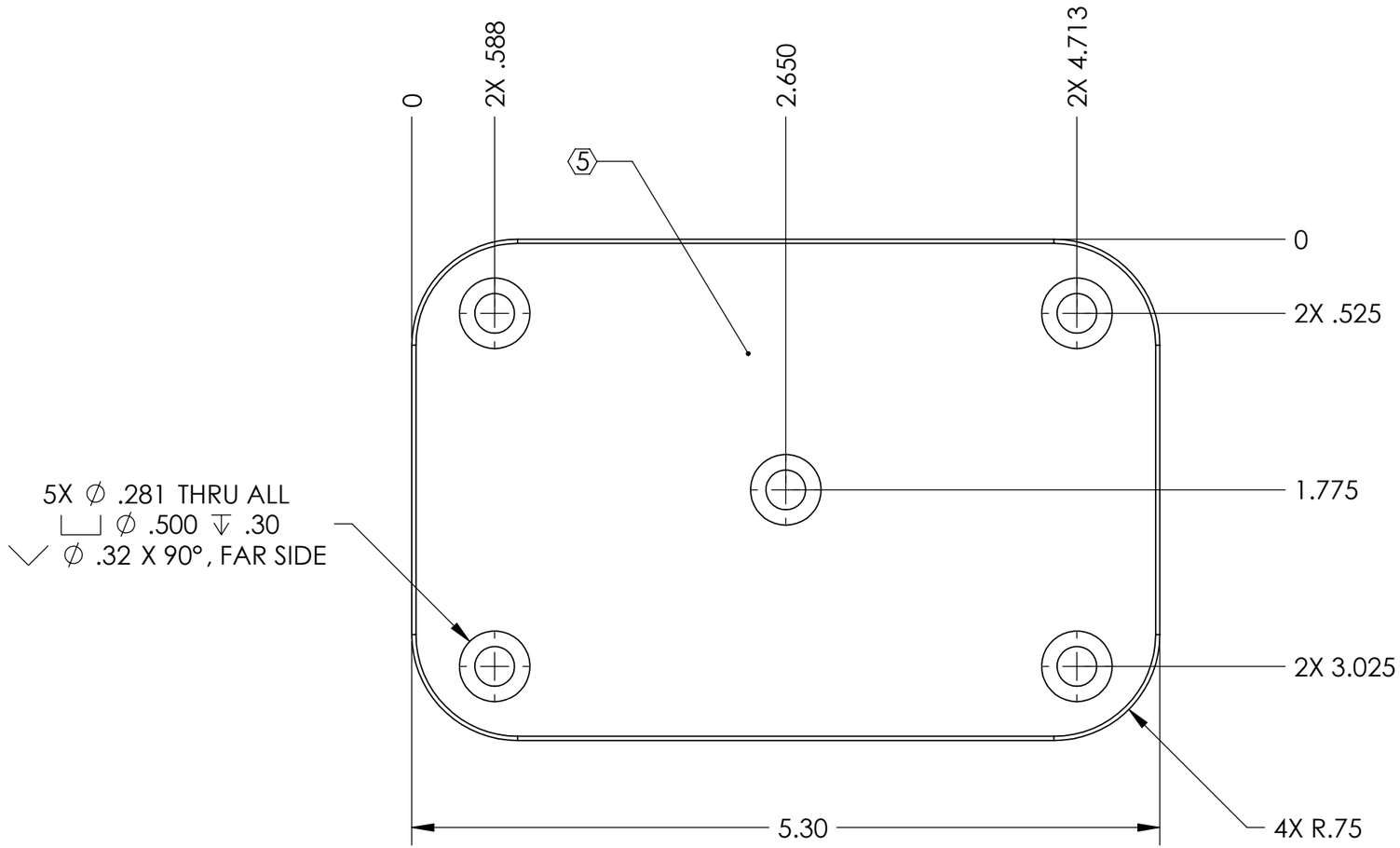
D0901843_Cover_2-BSC_Optical_Table, PART PDM REV: X-007, DRAWING PDM REV: X-008

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 DXXXXXXX-VY, S/N 001. A VIBRATORY TOOL MAY BE USED.
6. APPROXIMATE WEIGHT = 0.9 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	12 Mar. 2010	E1000020	E1000025





D0901844_Cover_3-BSC_Optical_Table, PART PDM REV: X-006, DRAWING PDM REV: X-006

NOTES AND TOLERANCES: (UNLESS OTHERWISE SPECIFIED)

DIMENSIONS ARE IN INCHES

TOLERANCES:
.XX ± .015
.XXX ± .005

ANGULAR ± 0.5°

1. INTERPRET DRAWING PER ASME Y14.5-1994.
2. BREAK ALL EDGES AND CORNERS .03 X 45°.
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 SEI

NEXT ASSY D0901181

PART NAME Cover 3, Optical Table, aLIGO BSC ISI

DESIGNER	A. STEIN	11 Jan. 2010
DRAFTER	M.HILLARD	11 Jan. 2010
CHECKER	F.MATICHARD	11 Jan. 2010
APPROVAL	K.MASON	11 Jan. 2010

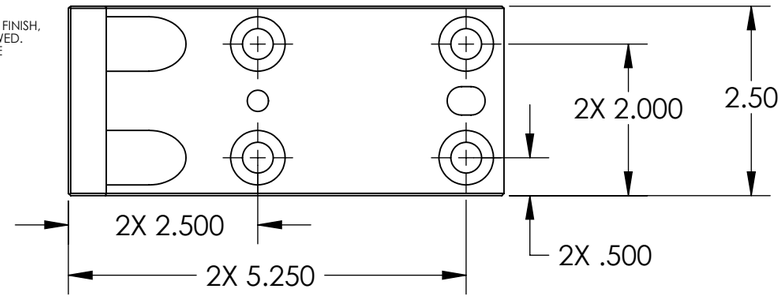
SIZE B **DWG. NO.** D0901844 **REV.** v1

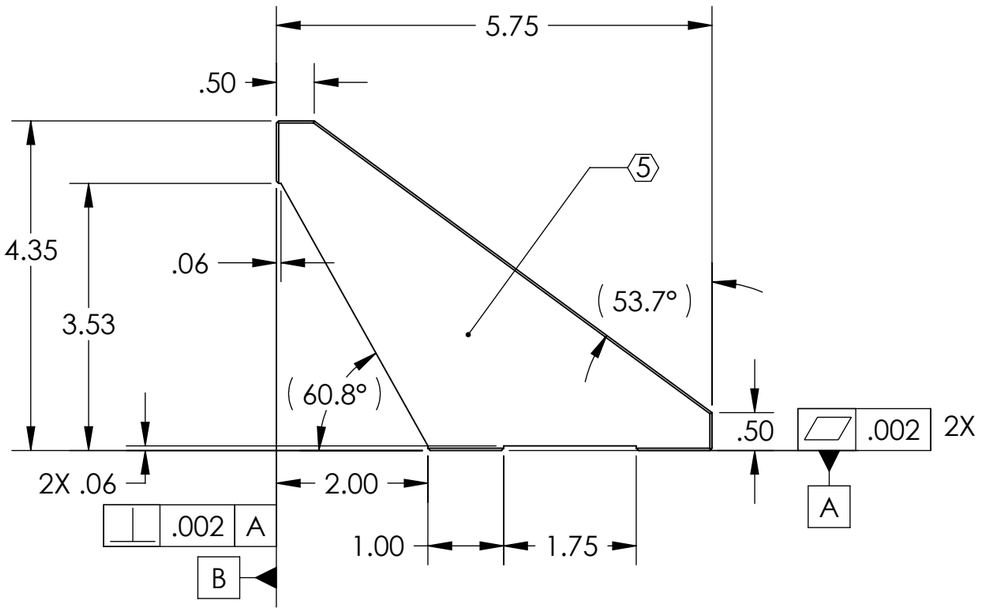
SCALE: 1:1 **PROJECTION:** SHEET 1 OF 1

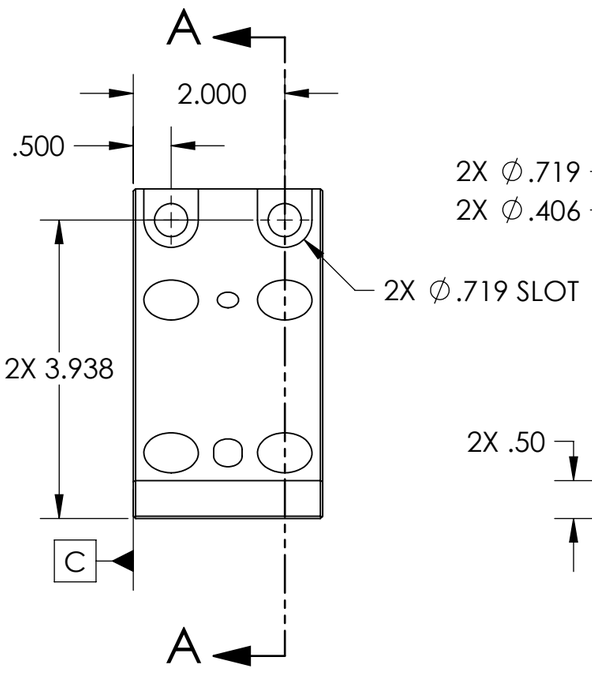
NOTES CONTINUED:

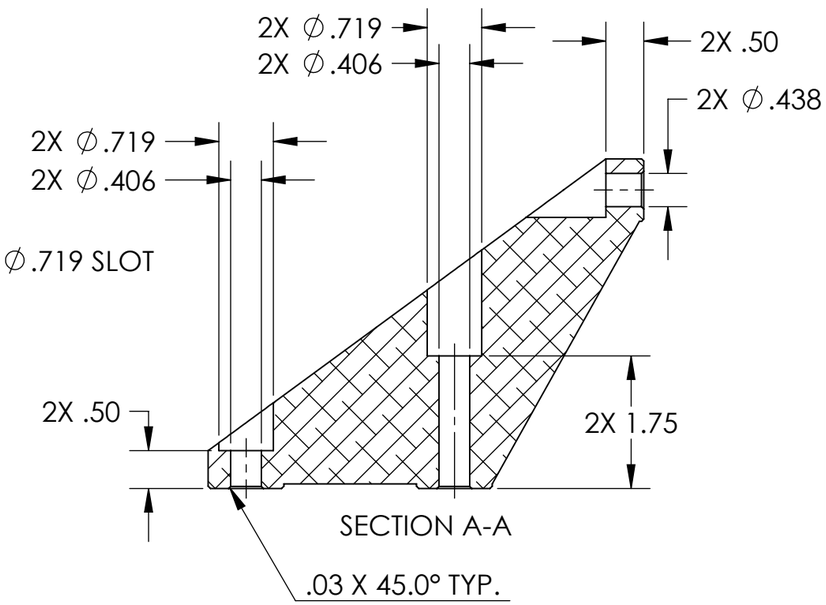
5. SCRIBE, ENGRAVE, OR MECHANICALLY STAMP (NO INKS OR DYES) DRAWING PART NUMBER AND REVISION ON NOTED SURFACE FOLLOWED ON THE NEXT LINE BY A THREE DIGIT SERIAL NUMBER. SERIAL NUMBERS START AT 001 FOR THE FIRST ARTICLE AND PROCEED CONSECUTIVELY. USE .07 HIGH CHARACTERS. EXAMPLE DXXXXXX-VY, S/N 001. A VIBRATORY TOOL MAY BE USED.
6. APPROXIMATE WEIGHT = 2.4 LB.
7. A TRUE POSITION TOLERANCE OF Ø.010 IS ~ THE SAME AS A CONVENTIONAL TOLERANCE OF ±.005.
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.

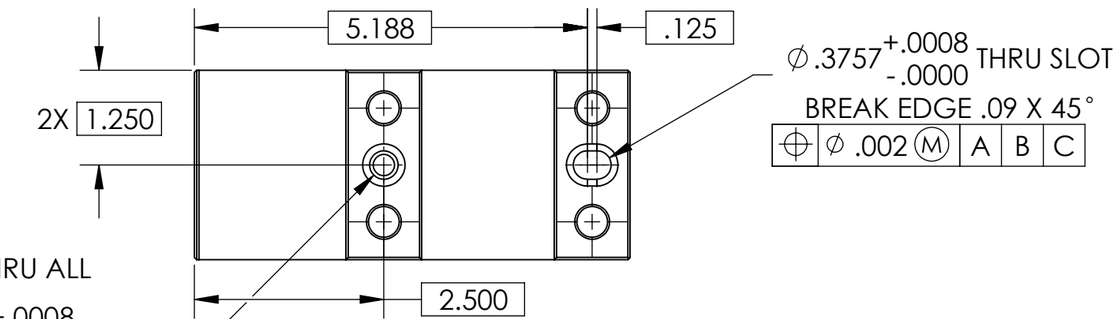
REV.	DATE	DCN #	DRAWING TREE #
v1	12 Mar. 2010	E1000020	E1000025

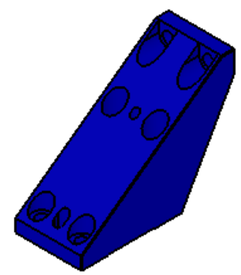












NOTES AND TOLERANCES: (UNLESS OTHERWISE SPECIFIED)

DIMENSIONS ARE IN INCHES

TOLERANCES:
.XX ± .015
.XXX ± .005

ANGULAR ± 0.5°

1. INTERPRET DRAWING PER ASME Y14.5-1994.
2. BREAK ALL EDGES AND CORNERS .03 X 45°.
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 SEI

NEXT ASSY D0901181

PART NAME Gusset, Hex Wall, aLIGO BSC ISI

DESIGNER	A.STEIN	11 Jan. 2010	
DRAFTER	M.HILLARD	11 Jan. 2010	
CHECKER	F.MATICHARD	11 Jan. 2010	
APPROVAL	K.MASON	11 Jan. 2010	

SIZE B **DWG. NO.** D0902133 **REV.** v1

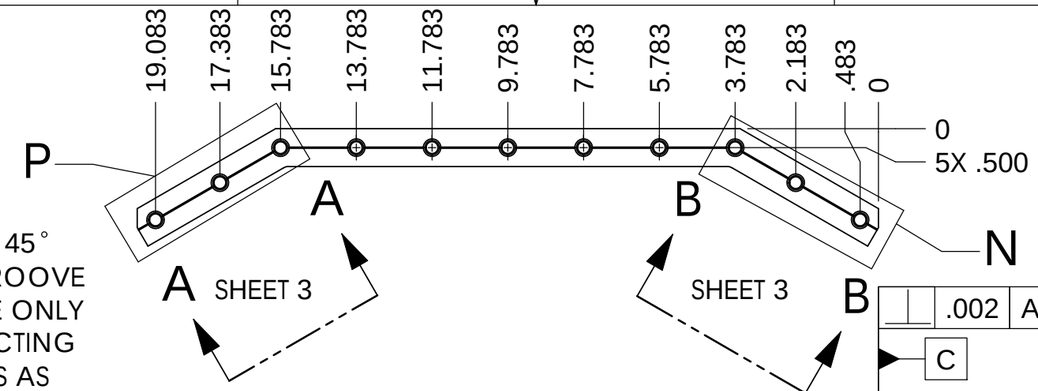
SCALE: 1:2 **PROJECTION:** SHEET 1 OF 1

D0902133_Gusset-Hex_Wall-BSC_ISI, PART PDM REV: X-012, DRAWING PDM REV: X-009

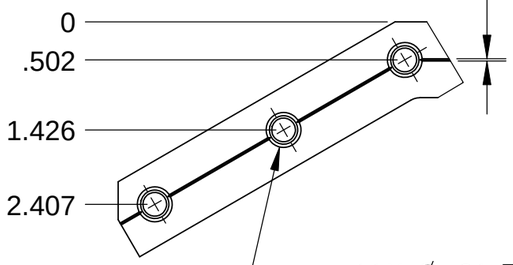
NOTES CONTINUED:

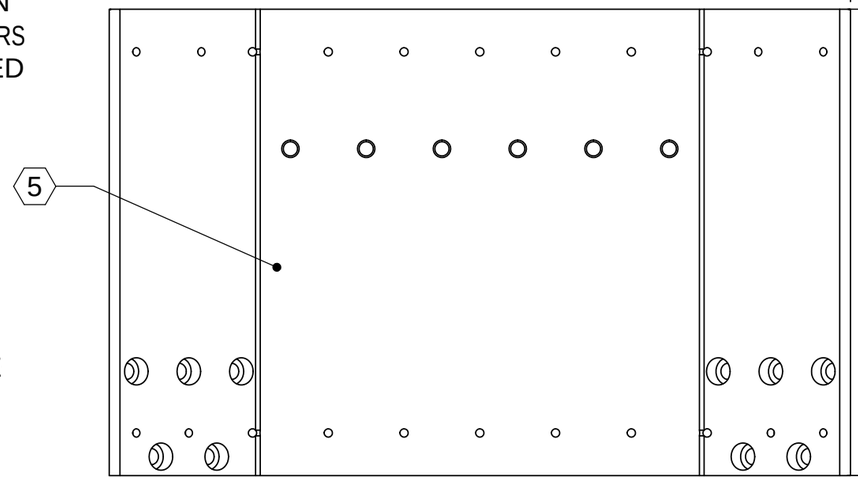
5. SCRIBE, ENGRAVE, OR MECHANICALLY STAMP (NO INKS OR DYES) DRAWING PART NUMBER, REVISION (AND VARIENT OR "TYPE" IF APPLICABLE ON NOTED SURFACE OF PART FOLLOWED ON THE NEXT LINE WITH A THREE DIGIT SERIAL NUMBER. SERIAL NUMBERS START AT 001 FOR THE FIRST ARTICLE AND PROCEED CONSECUTIVELY. USE MINIMUM 0.12 HIGH CHARACTERS, UNLESS THE SIZE OF THE PART DICTATES SMALLER CHARACTERS. A VIBRATORY TOOL MAY BE USED. EXAMPLE DXXXXXXX-VY, TYPE-XX, S/N XXX.
6. APPROXIMATE WEIGHT = 24.0 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. A TAPPED HOLE PITCH DIAMETER LIMIT OF H11 APPLIES TO ALL TAPPED HOLES.
10. A TRUE POSITION TOLERANCE OF Ø.010 IS ~ THE SAME AS A CONVENTIONAL TOLERANCE OF ±.005.

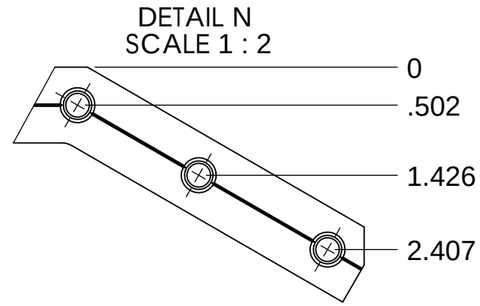
REV.	DATE	DCN #	DRAWING TREE #
v1	12 Mar. 2010	E0900495	E1000025



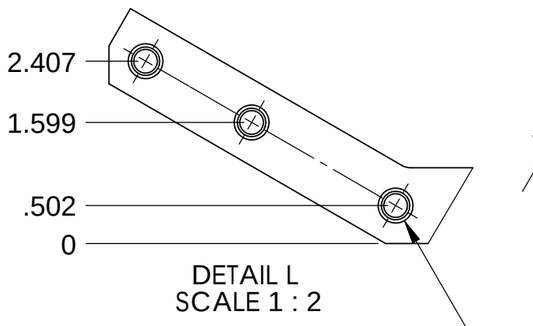
.030 X 45 ° VENT GROOVE THIS SIDE ONLY CONNECTING HOLES AS SHOWN NO BURRS ALLOWED



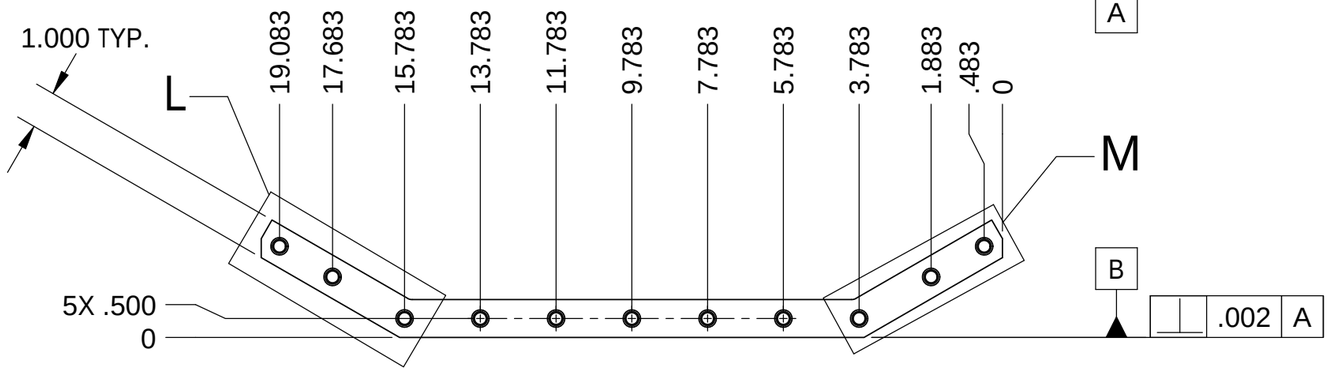


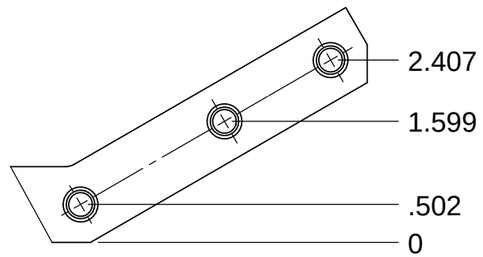


11X ∅ .31 ↧ 1.25
3/8-16 UNC ↧ 1.00
⌵ ∅ .46 X 120° , NEAR SIDE AS SHOWN



11X ∅ .31 ↧ 1.25
3/8-16 UNC ↧ 1.00
⌵ ∅ .46 X 120° , NEAR SIDE AS SHOWN





NOTES AND TOLERANCES: (UNLESS OTHERWISE SPECIFIED)					
DIMENSIONS ARE IN INCHES TOLERANCES: .XX ± .015 .XXX ± .005 ANGULAR ± 0.5°	1. INTERPRET DRAWING PER ASME Y14.5-1994. 2. BREAK ALL EDGES AND CORNERS .03 X 45°. 3. DO NOT SCALE FROM DRAWING. 4. ALL MACHINING FLUIDS MUST BE FULLY SYNTHETIC, FULLY WATER SOLUBLE AND FREE OF SULFUR, SILICONE, AND CHLORINE.		LIGO CALIFORNIA INSTITUTE OF TECHNOLOGY MASSACHUSETTS INSTITUTE OF TECHNOLOGY		PART NAME: ANGLED HEX WALL, STAGE 1, aLIGO BSC ISI
	MATERIAL: 6061-T6 Al	FINISH: 63 µinch	SYSTEM: ADVANCED LIGO	SUB-SYSTEM: SEI	
			NEXT ASSY: D0901180		

DESIGNER	F.MATICHARD	15 Jan. 2010	SIZE: B	DWG. NO.: D0902271	REV.: v1
DRAFTER	M.HILLARD	15 Jan. 2010			
CHECKER	A.STEIN	15 Jan. 2010	SCALE: 1:4	PROJECTION:	SHEET 1 OF 3
APPROVAL	K.MASON	15 Jan. 2010			

D0902271 Angled Hex Wall, Stage1, BSC-ISI, PART PDM REV: X-026, DRAWING PDM REV: X-010

14X ∅ .22 THRU ALL

15.78 14.783 13.78 12.783 11.78 10.783 9.78 8.783 7.78 6.783 5.78 4.783 3.78 0

A

0

1.13

6X ∅ .313 THRU ALL
3/8-16 UNC THRU ALL
∨ ∅ .46 X 120° , NEAR SIDE
∨ ∅ .46 X 120° , FAR SIDE

8.625

11.19

C

2X 4.468±.002

(2X .250)

15.914±.002

3.653±.002

2X R.250

B

30.0°

⊥	.002	A
∠	.002	B

⊥	.002	A
∠	.002	B

30.0°

(2X 3.100)

(2X .433)

19.567

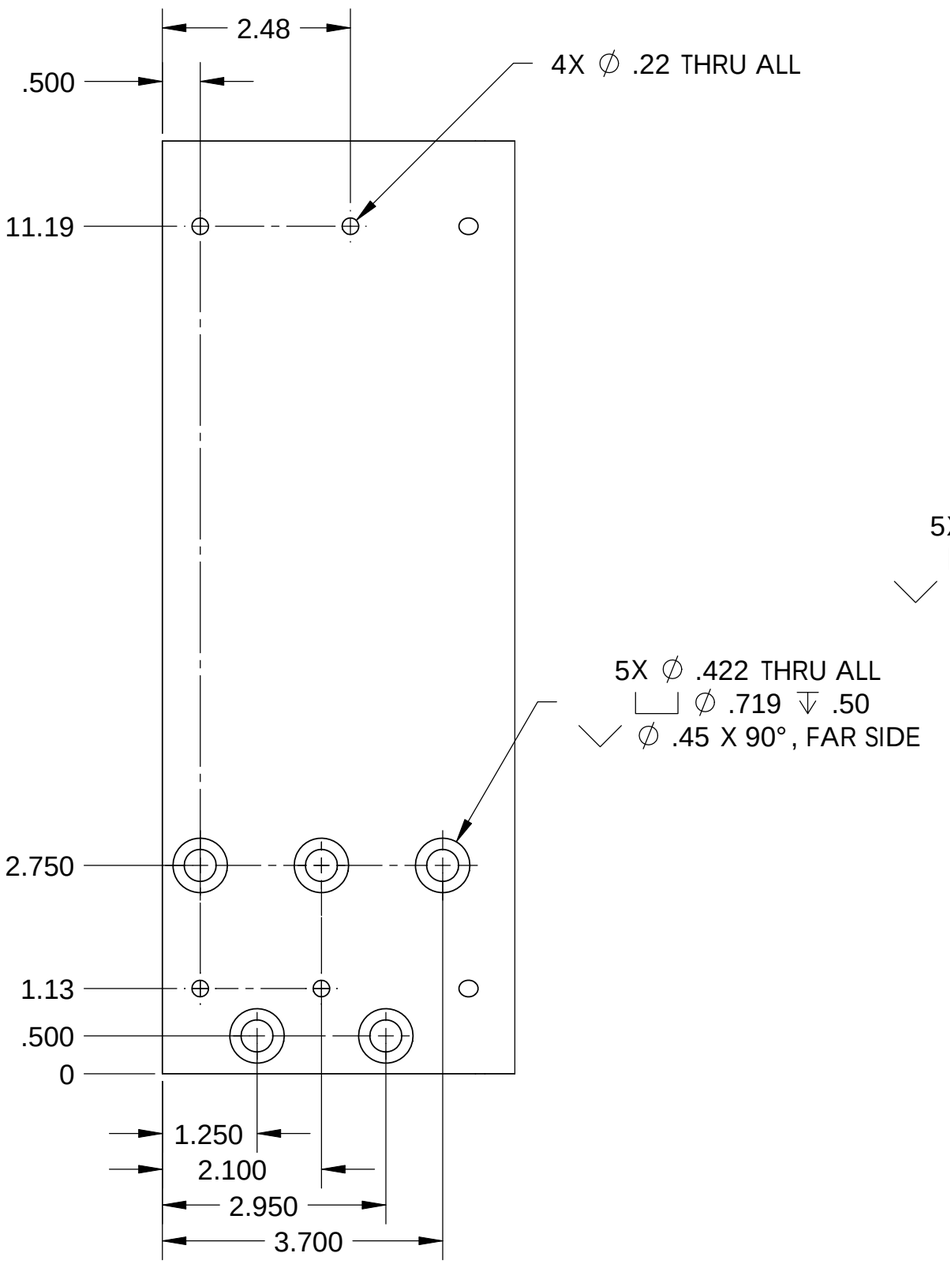
D0902271 Angled Hex Wall, Stage1, BSC-ISI, PART PDM REV: X-026, DRAWING PDM REV: X-010

LIGO CALIFORNIA INSTITUTE OF TECHNOLOGY
MASSACHUSETTS INSTITUTE OF TECHNOLOGY

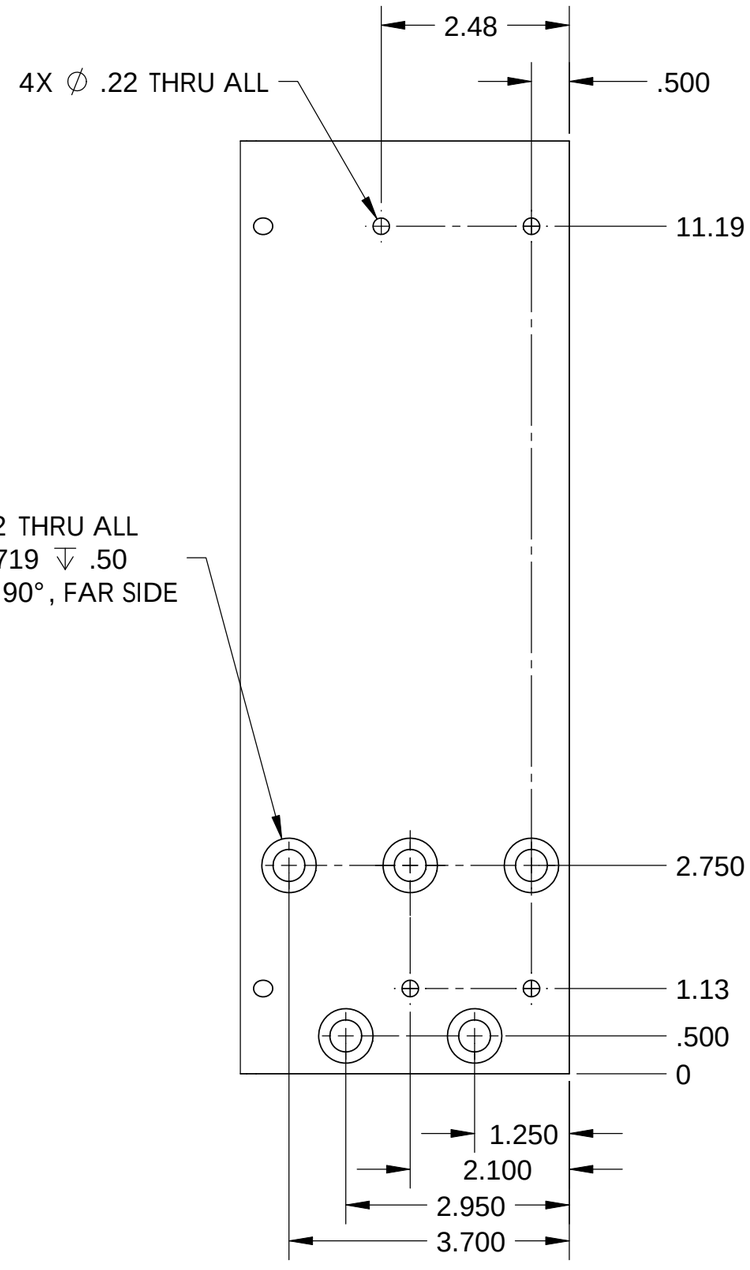
SIZE	DWG. NO.	REV.
B	D0902271	v1

SCALE: 1:3 PROJECTION: SHEET 2 OF 3

VIEW A-A



VIEW B-B



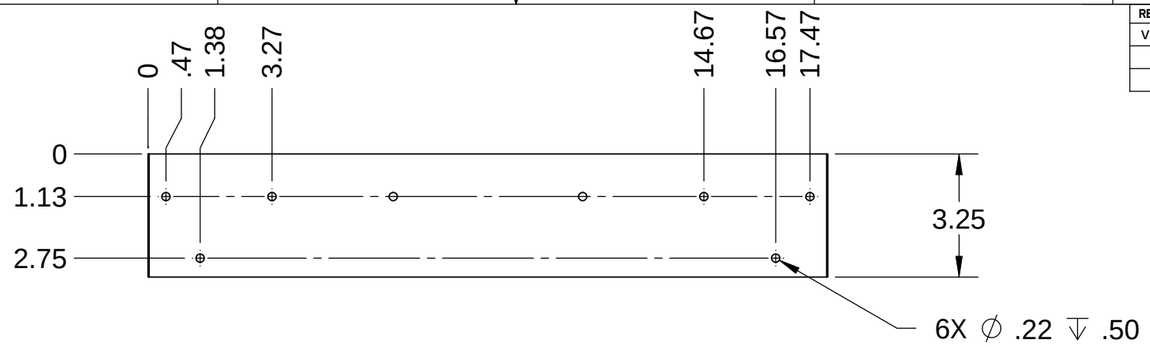
D0902271 Angled Hex Wall, Stage1, BSC-ISI, PART PDM REV: X-026, DRAWING PDM REV: X-010

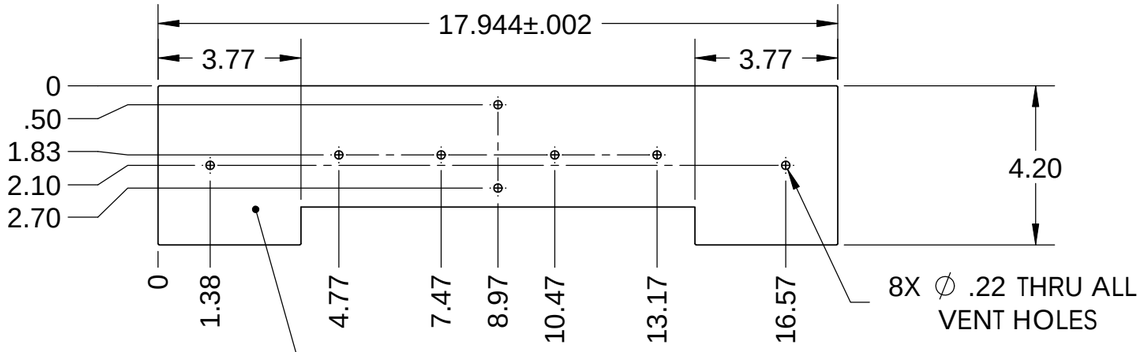
LIGO	CALIFORNIA INSTITUTE OF TECHNOLOGY MASSACHUSETTS INSTITUTE OF TECHNOLOGY	
SIZE B	DWG. NO. D0902271	REV. v1
SCALE: 1:2	PROJECTION:	SHEET 3 OF 3

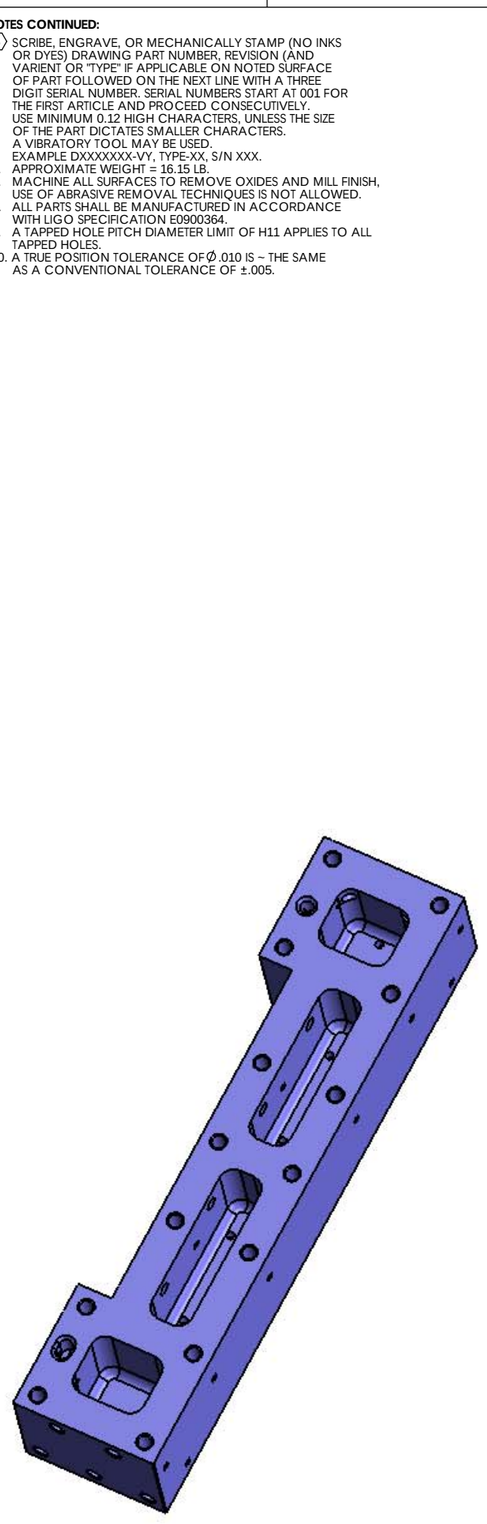
NOTES CONTINUED:

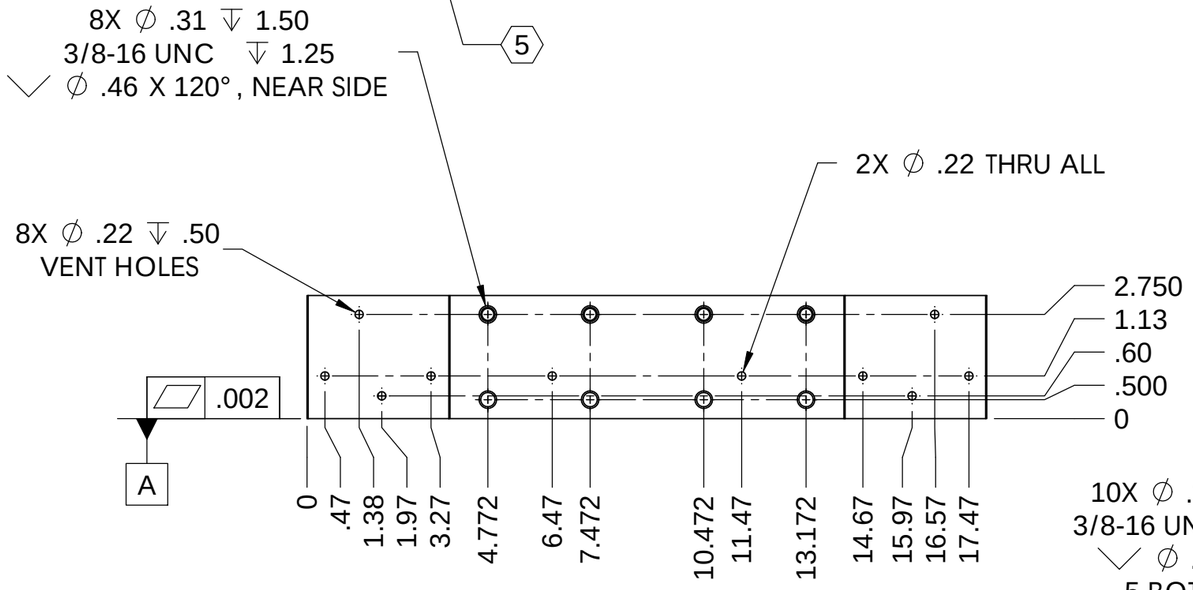
5. SCRIBE, ENGRAVE, OR MECHANICALLY STAMP (NO INKS OR DYES) DRAWING PART NUMBER, REVISION (AND VARIENT OR "TYPE" IF APPLICABLE ON NOTED SURFACE OF PART FOLLOWED ON THE NEXT LINE WITH A THREE DIGIT SERIAL NUMBER. SERIAL NUMBERS START AT 001 FOR THE FIRST ARTICLE AND PROCEED CONSECUTIVELY. USE MINIMUM 0.12 HIGH CHARACTERS, UNLESS THE SIZE OF THE PART DICTATES SMALLER CHARACTERS. A VIBRATORY TOOL MAY BE USED. EXAMPLE DXXXXXXX-VY, TYPE-XX, S/N XXX.
6. APPROXIMATE WEIGHT = 16.15 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. A TAPPED HOLE PITCH DIAMETER LIMIT OF H11 APPLIES TO ALL TAPPED HOLES.
10. A TRUE POSITION TOLERANCE OF Ø.010 IS ~ THE SAME AS A CONVENTIONAL TOLERANCE OF ±.005.

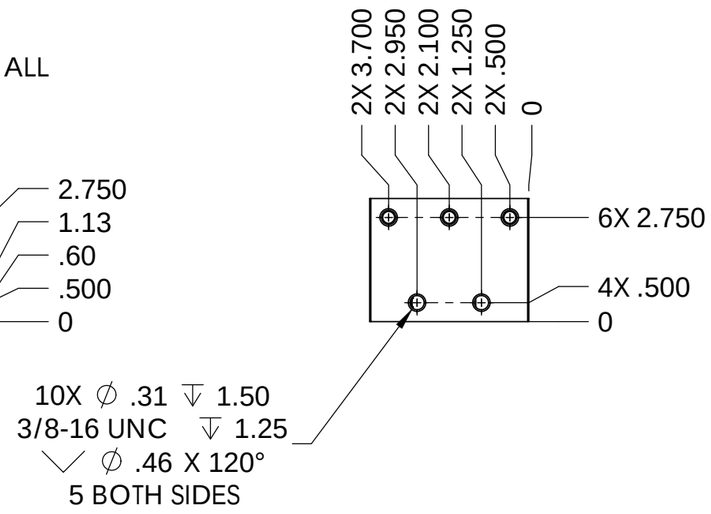
REV.	DATE	DCN #	DRAWING TREE #
v1	12 Mar. 2010	E0900495	E1000025











BOTTOM VIEW SEE SHEET 2
SHEETS HAVE DIFFERENT SCALE

NOTES AND TOLERANCES: (UNLESS OTHERWISE SPECIFIED)			
DIMENSIONS ARE IN INCHES TOLERANCES: .XX ± .015 .XXX ± .005 ANGULAR ± 0.5°	1. INTERPRET DRAWING PER ASME Y14.5-1994. 2. BREAK ALL EDGES AND CORNERS .03 X 45° 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

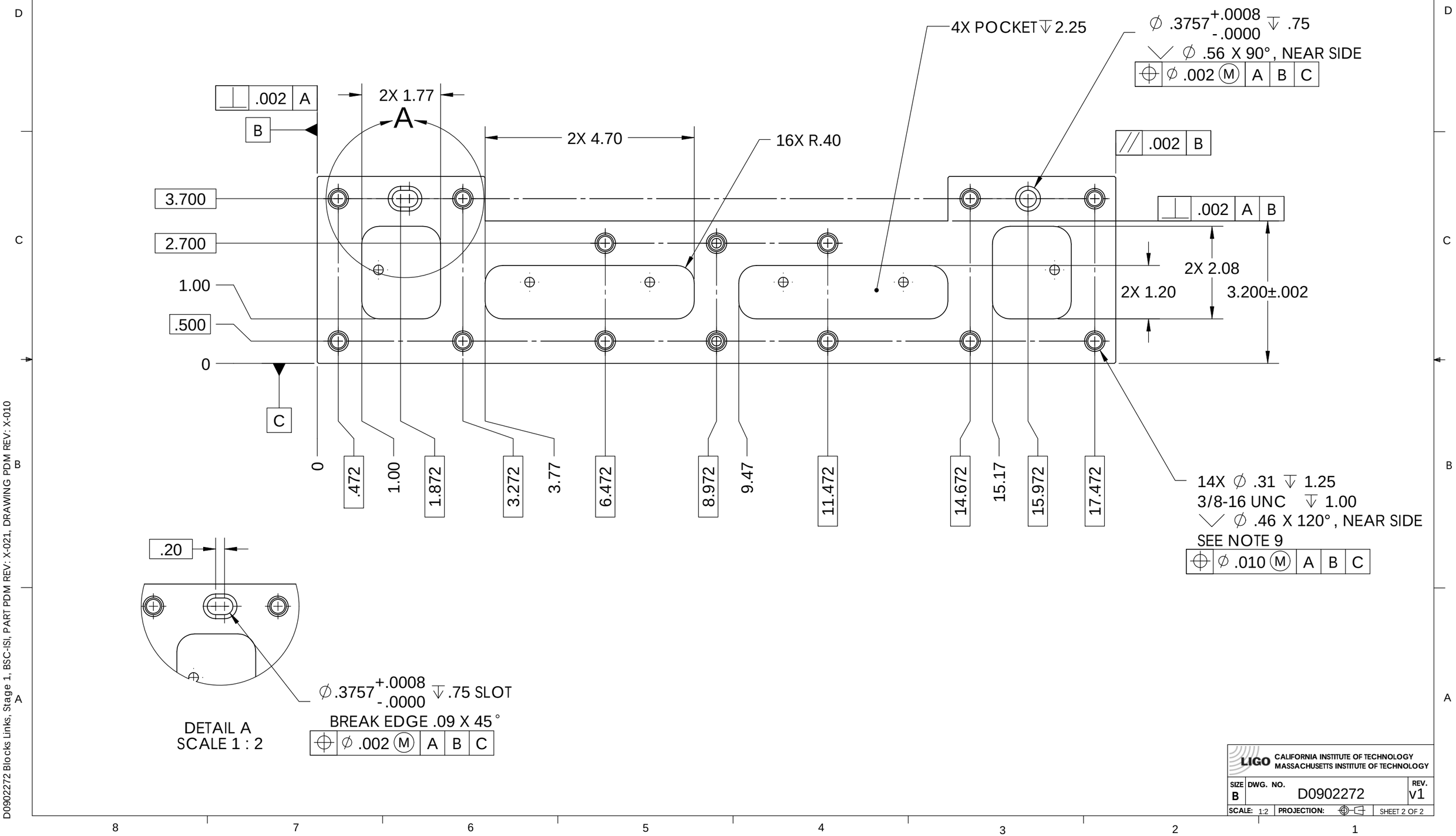
SYSTEM: ADVANCED LIGO | SUB-SYSTEM: SEI | NEXT ASSY: D0901180

PART NAME: BLOCKS LINK, STAGE 1, aLIGO BSC ISI

DESIGNER	F.MATICHARD	15 Jan. 2010	
DRAFTER	M.HILLARD	15 Jan. 2010	
CHECKER	A.STEIN	15 Jan. 2010	
APPROVAL	K.MASON	15 Jan. 2010	

SIZE: B | DWG. NO.: D0902272 | REV.: v1 | SCALE: 1:4 | PROJECTION: | SHEET 1 OF 2

D0902272 Blocks Links, Stage 1, BSC-ISI, PART PDM REV: X-021, DRAWING PDM REV: X-010



D0902272 Blocks Links, Stage 1, BSC-ISI, PART PDM REV: X-021, DRAWING PDM REV: X-010

LIGO CALIFORNIA INSTITUTE OF TECHNOLOGY
MASSACHUSETTS INSTITUTE OF TECHNOLOGY

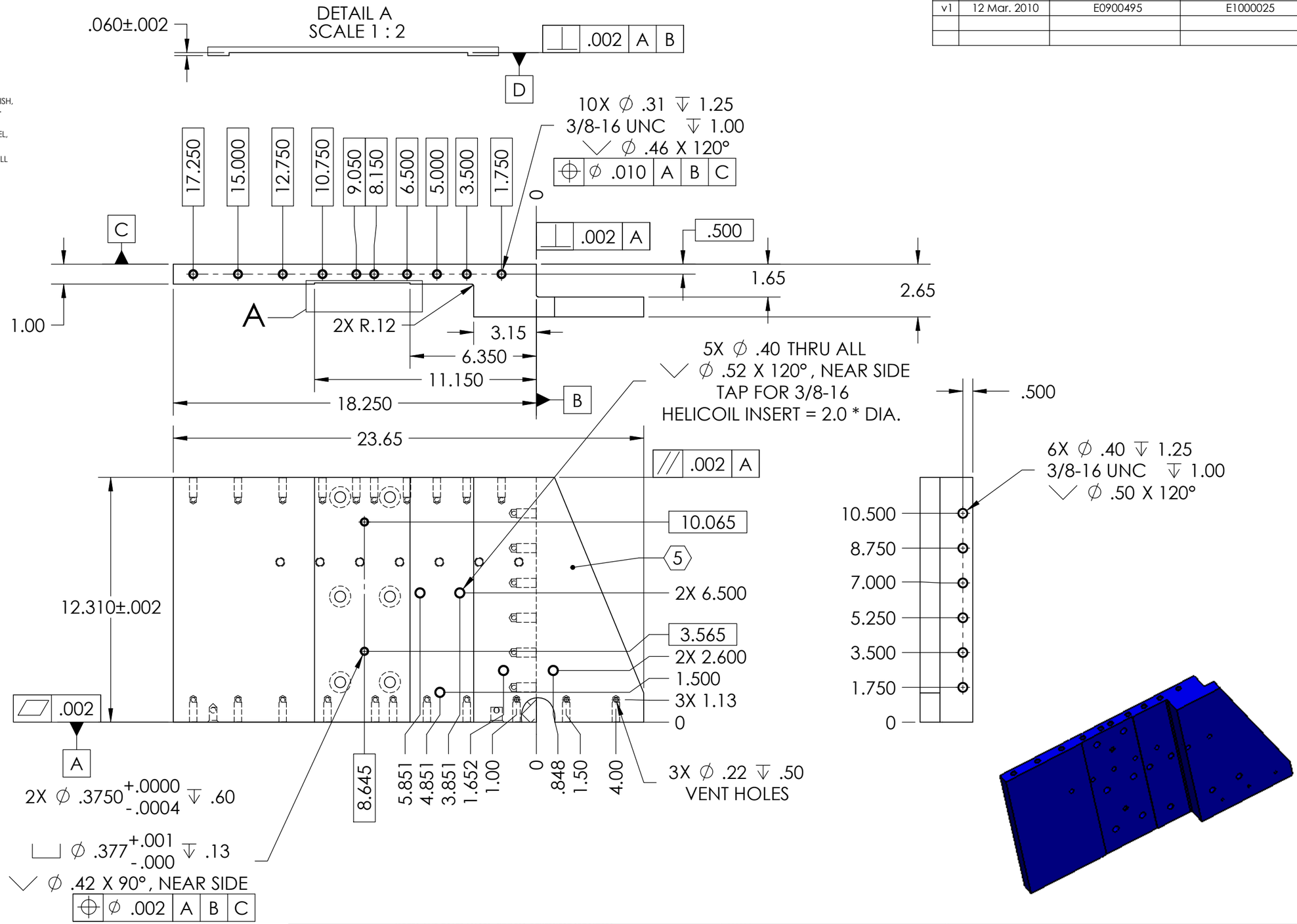
SIZE	DWG. NO.	REV.
B	D0902272	v1

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 VARIENT 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 DXXXXXXX-VY, TYPE-XX, S/N XXX.
6. APPROXIMATE WEIGHT = 14.0 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. ALL THREADED INSERTS TO BE INSTALLED BY LIGO PERSONNEL, AFTER DELIVERY OF FINSIHED PARTS, USE NITRONIC 60 THREADED INSERTS.
10. A TAPPED HOLE PITCH DIAMETER LIMIT OF H11 APPLIES TO ALL TAPPED HOLES EXCLUDING THREADED INSERTS.
11. A TRUE POSITION TOLERANCE OF Ø.010 IS ~ THE SAME AS A CONVENTIONAL TOLERANCE OF ±.005.

REV.	DATE	DCN #	DRAWING TREE #
v1	12 Mar. 2010	E0900495	E1000025



NOTES AND TOLERANCES: (UNLESS OTHERWISE SPECIFIED)			
DIMENSIONS ARE IN INCHES TOLERANCES: .XX ± .015 .XXX ± .005 ANGULAR ± .5°	1. INTERPRET DRAWING PER ASME Y14.5-1994. 2. BREAK ALL EDGES AND CORNERS .03 X 45°. 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

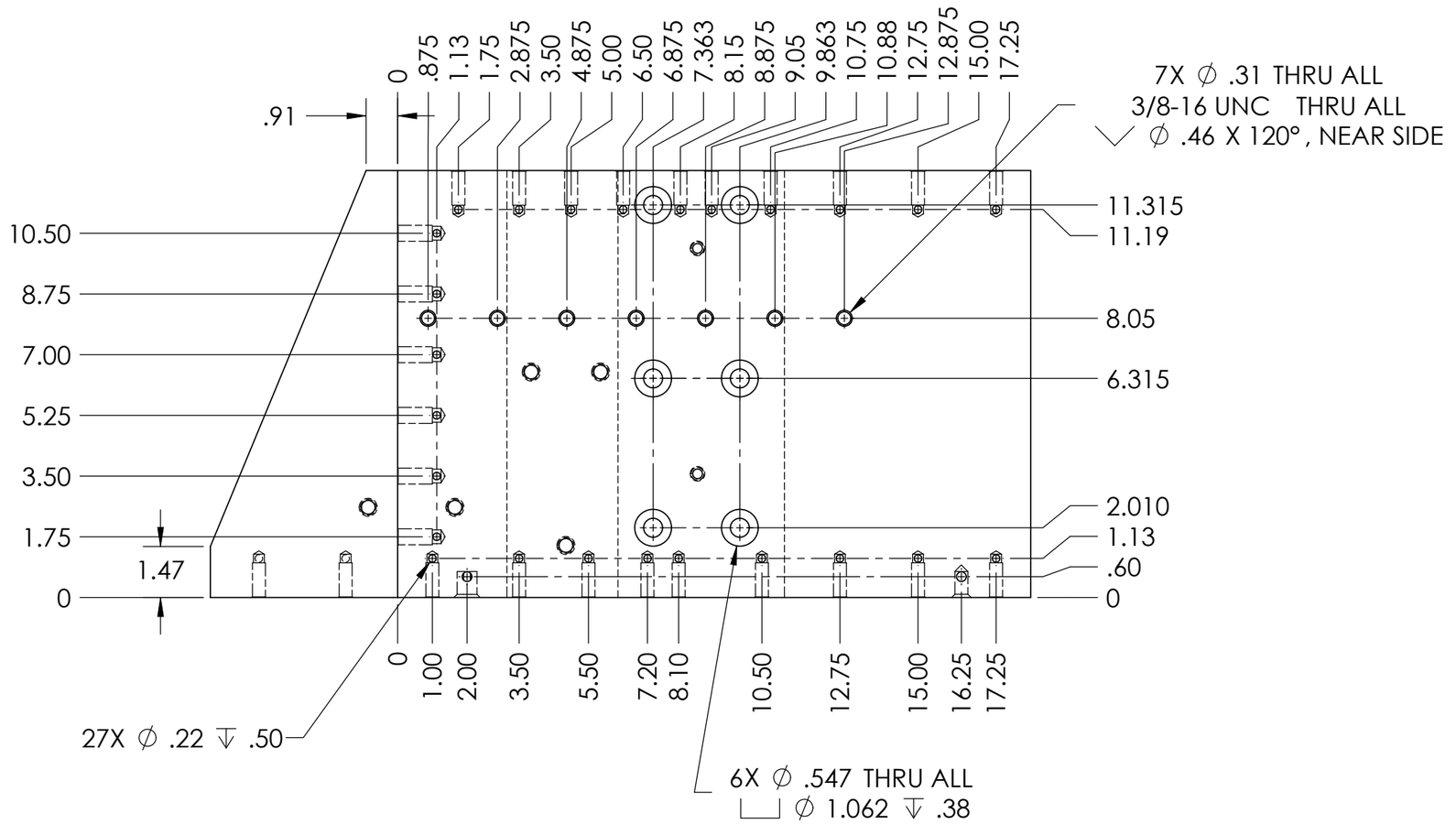
LIGO — CALIFORNIA INSTITUTE OF TECHNOLOGY, MASSACHUSETTS INSTITUTE OF TECHNOLOGY

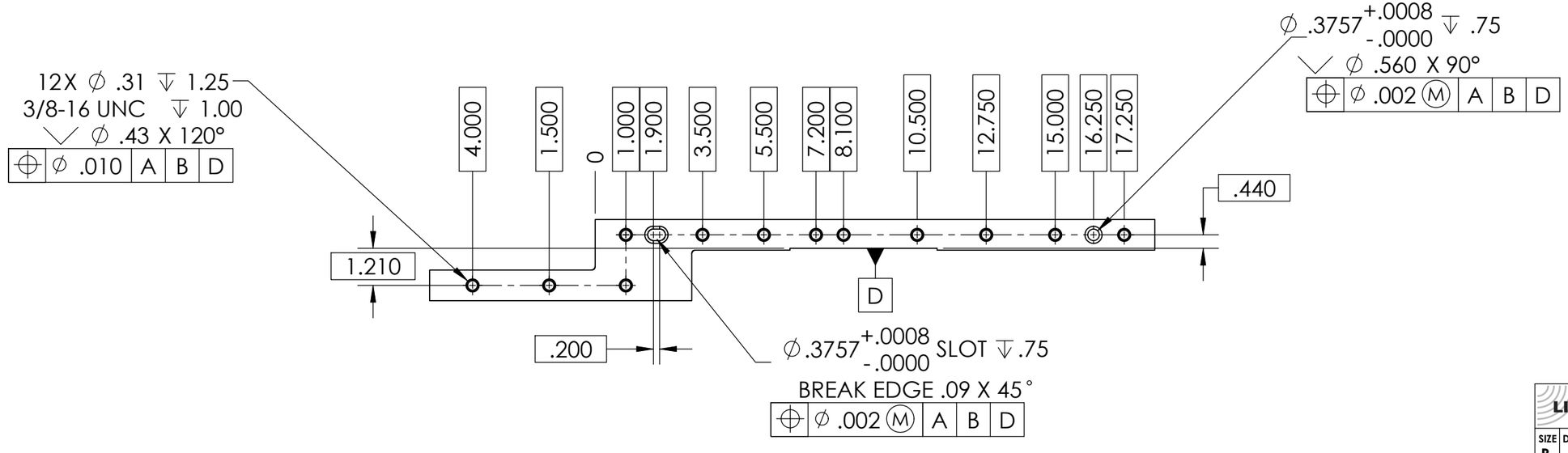
PART NAME	FLEXURE WALL, STAGE 1, aLIGO BSC ISI
SYSTEM	ADVANCED LIGO
SUB-SYSTEM	SEI
NEXT ASSY	D0901180

DESIGNER	F.MATICHARD	15 Jan.2010
DRAFTER	M.HILLARD	15 Jan. 2010
CHECKER	A.STEIN	15 Jan. 2010
APPROVAL	K.MASON	15 Jan. 2010

SIZE: B | DWG. NO.: D0902274 | REV.: v1 | SCALE: 1:5 | PROJECTION: | SHEET 1 OF 2

D0902274 Flexure Wall, Stage 1, BSC ISI, PART PDM REV: X-040, DRAWING PDM REV: X-016





LIGO CALIFORNIA INSTITUTE OF TECHNOLOGY
MASSACHUSETTS INSTITUTE OF TECHNOLOGY

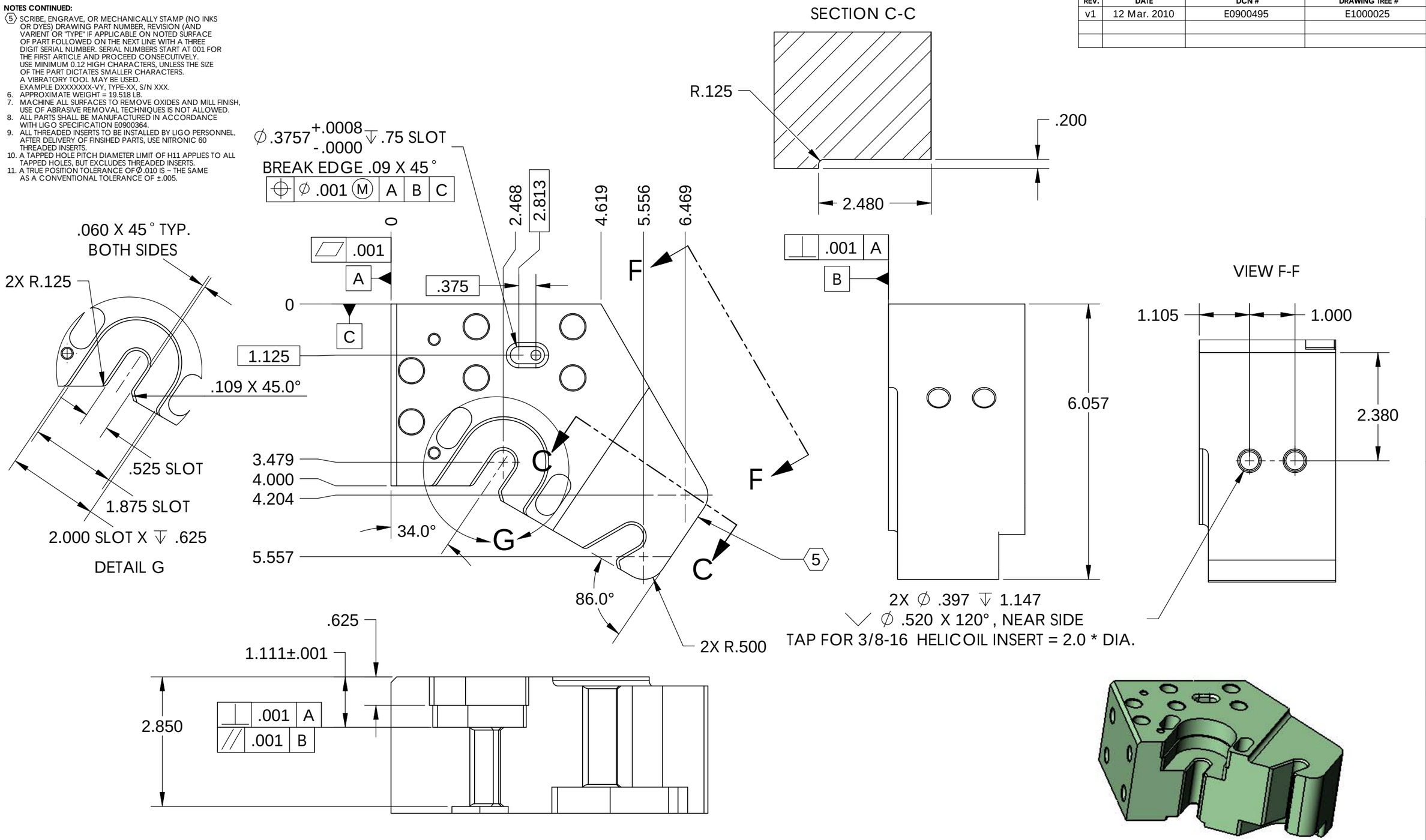
SIZE	DWG. NO.	REV.
B	D0902274	v1
SCALE: 1:4	PROJECTION:	SHEET 2 OF 2

D0902274 Flexure Wall, Stage 1, BSC ISI, PART PDM REV: X-040, DRAWING PDM REV: X-016

NOTES CONTINUED:

5. SCRIBE, ENGRAVE, OR MECHANICALLY STAMP (NO INKS OR DYES) DRAWING PART NUMBER, REVISION (AND VARIENT 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 DXXXXXXX-VY, TYPE-XX, S/N XXX.
6. APPROXIMATE WEIGHT = 19.518 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. ALL THREADED INSERTS TO BE INSTALLED BY LIGO PERSONNEL, AFTER DELIVERY OF FINSIHED PARTS, USE NITRONIC 60 THREADED INSERTS.
10. A TAPPED HOLE PITCH DIAMETER LIMIT OF H11 APPLIES TO ALL TAPPED HOLES, BUT EXCLUDES THREADED INSERTS.
11. A TRUE POSITION TOLERANCE OF Ø.010 IS ~ THE SAME AS A CONVENTIONAL TOLERANCE OF ±.005.

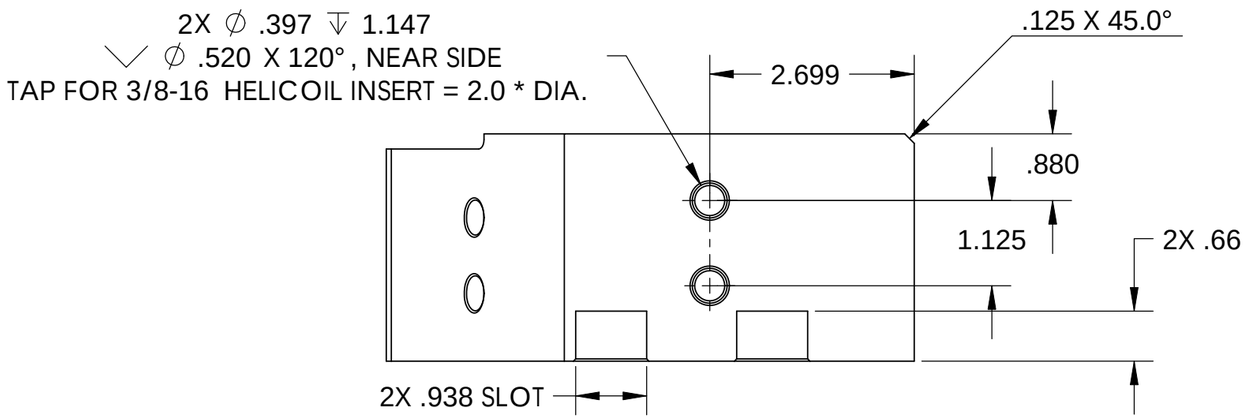
REV.	DATE	DCN #	DRAWING TREE #
v1	12 Mar. 2010	E0900495	E1000025

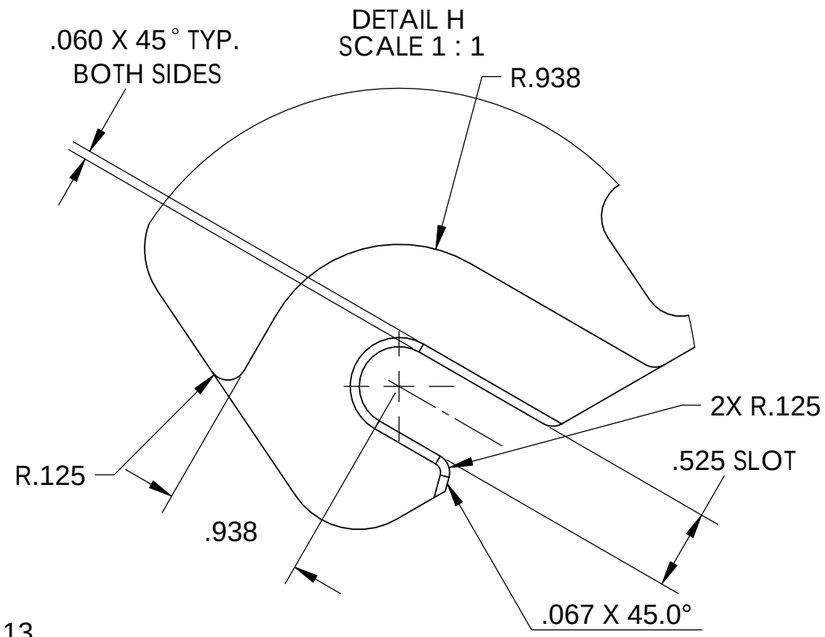


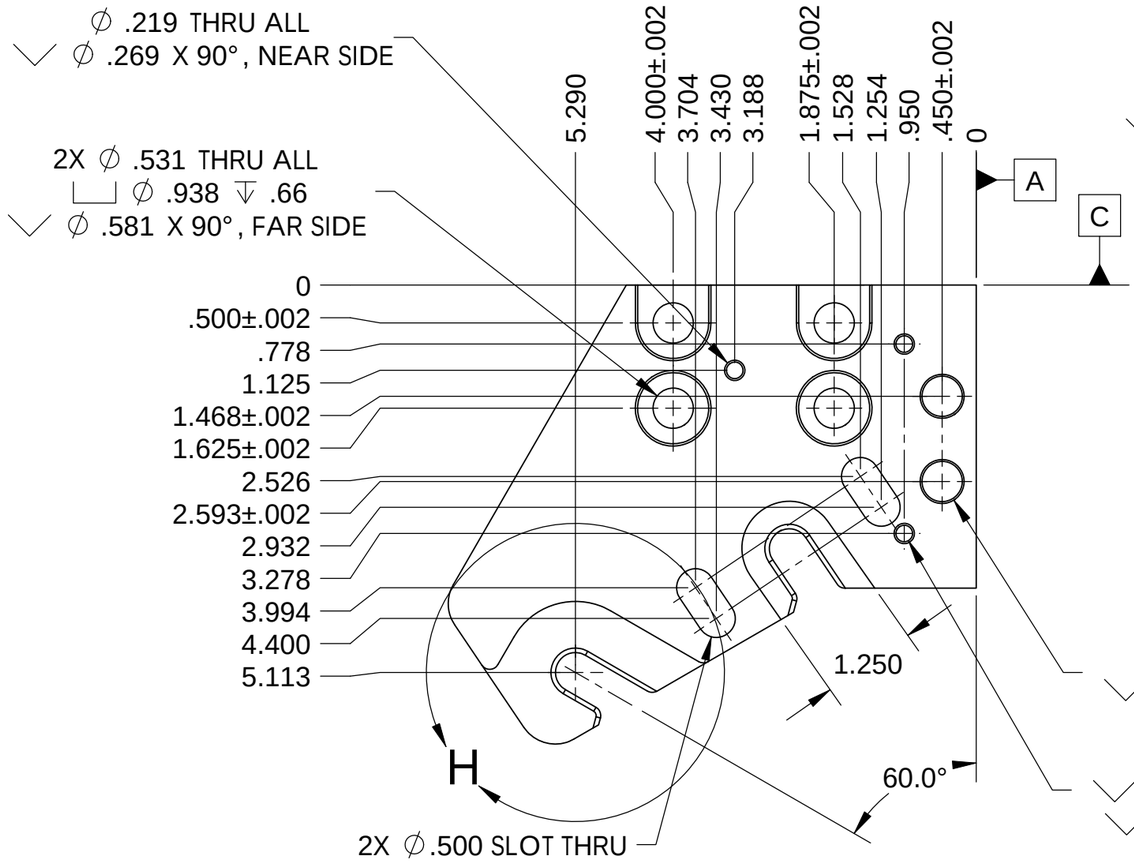
NOTES AND TOLERANCES: (UNLESS OTHERWISE SPECIFIED)							
DIMENSIONS ARE IN INCHES TOLERANCES: .XX ± .015 .XXX ± .005 ANGULAR ± .5°	1. INTERPRET DRAWING PER ASME Y14.5-1994. 2. REMOVE ALL SHARP EDGES, R.02 MIN. 3. DO NOT SCALE FROM DRAWING. 4. ALL MACHINING FLUIDS MUST BE FULLY SYNTHETIC, FULLY WATER SOLUBLE AND FREE OF SULFUR, SILICONE, AND CHLORINE.	MATERIAL: AISI 304	FINISH: 63 µinch	LIGO CALIFORNIA INSTITUTE OF TECHNOLOGY MASSACHUSETTS INSTITUTE OF TECHNOLOGY	SYSTEM: ADVANCED LIGO	SUB-SYSTEM: SEI	NEXT ASSY: D0908120

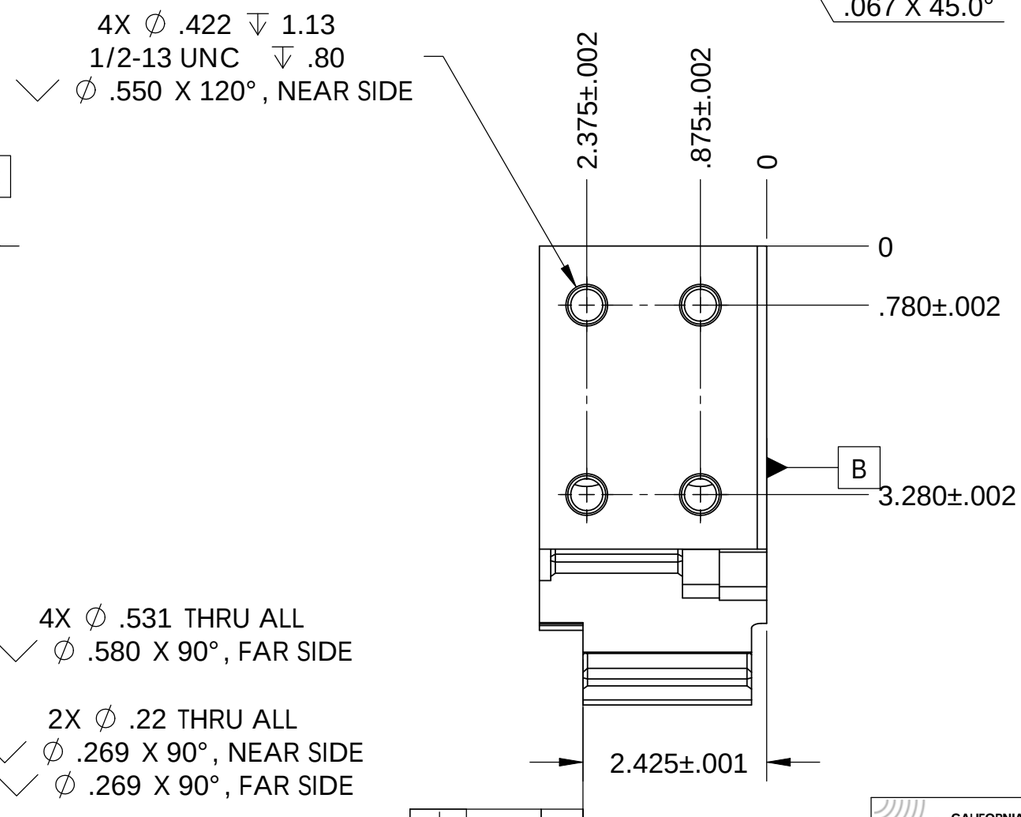
PART NAME: STAGE 1 FLEXURE ROD BRACKET					
DESIGNER	F. MATICHARD	15 Jan. 2010	SIZE: B	DWG. NO.: D0902276	REV.: v1
DRAFTER	M.HILLARD	15 Jan. 2010			
CHECKER	A.STEIN	15 Jan. 2010			
APPROVAL	K.MASON	15 Jan. 2010	SCALE: 1:2	PROJECTION:	SHEET 1 OF 2

D0902276 Flexure Rod Bracket, Stage 1, BSC-ISI, PART PDM REV: X-015, DRAWING PDM REV: X-005









⊥	.001	A
//	.001	B

LIGO CALIFORNIA INSTITUTE OF TECHNOLOGY
MASSACHUSETTS INSTITUTE OF TECHNOLOGY

SIZE	DWG. NO.	REV.
B	D0902276	v1
SCALE: 1:2	PROJECTION:	SHEET 2 OF 2

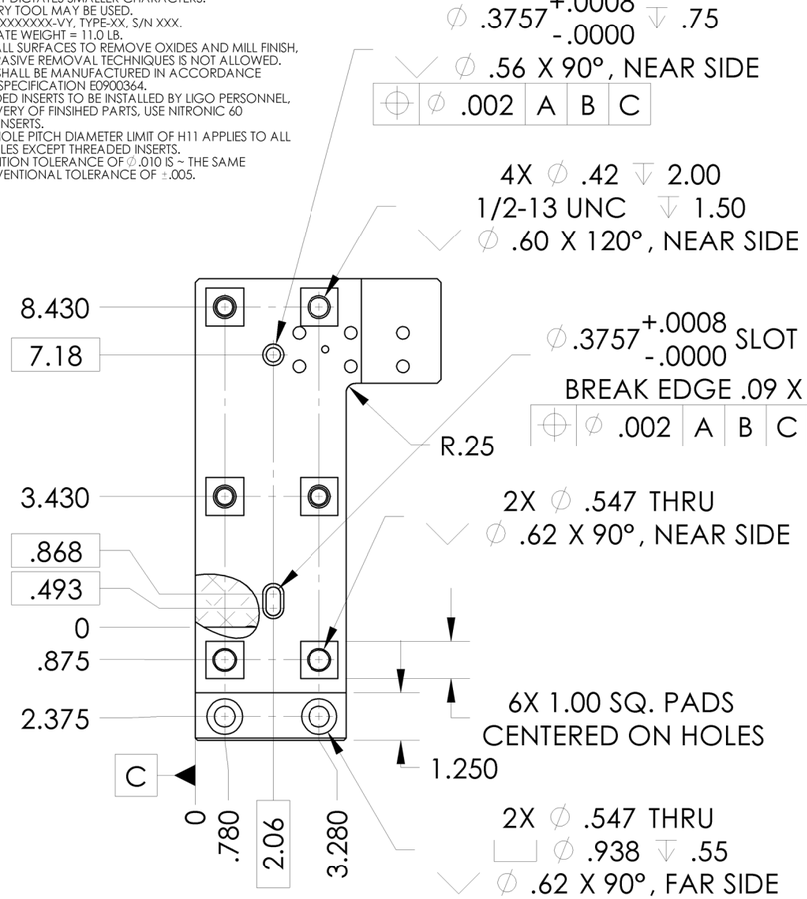
D0902276 Flexure Rod Bracket, Stage 1, BSC-ISI, PART PDM REV: X-015, DRAWING PDM REV: X-005

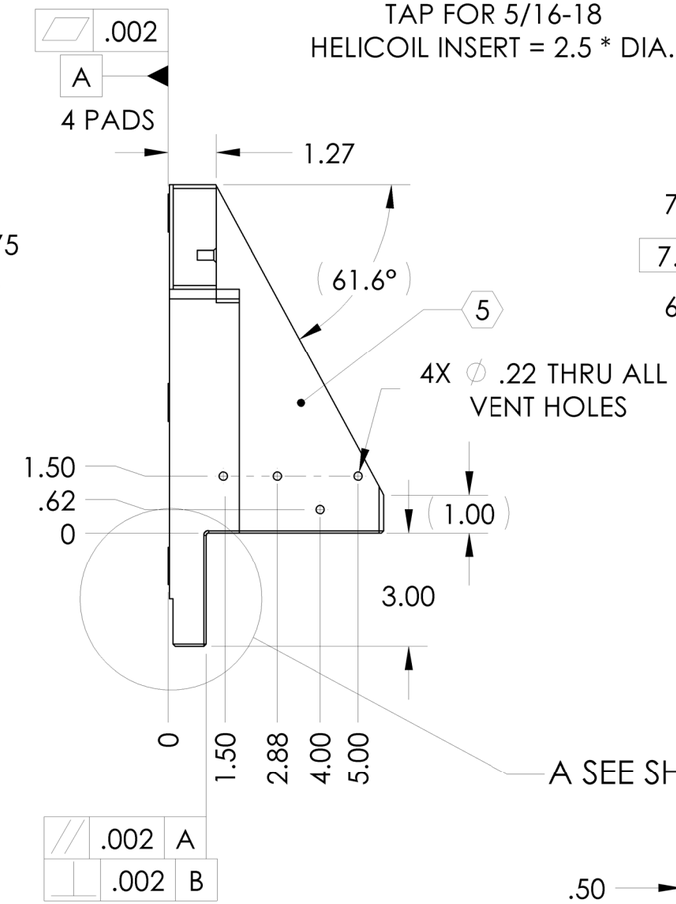
REV.	DATE	DCN #	DRAWING TREE #
v1	12 Mar. 2010	E0900495	E1000025

NOTES CONTINUED:

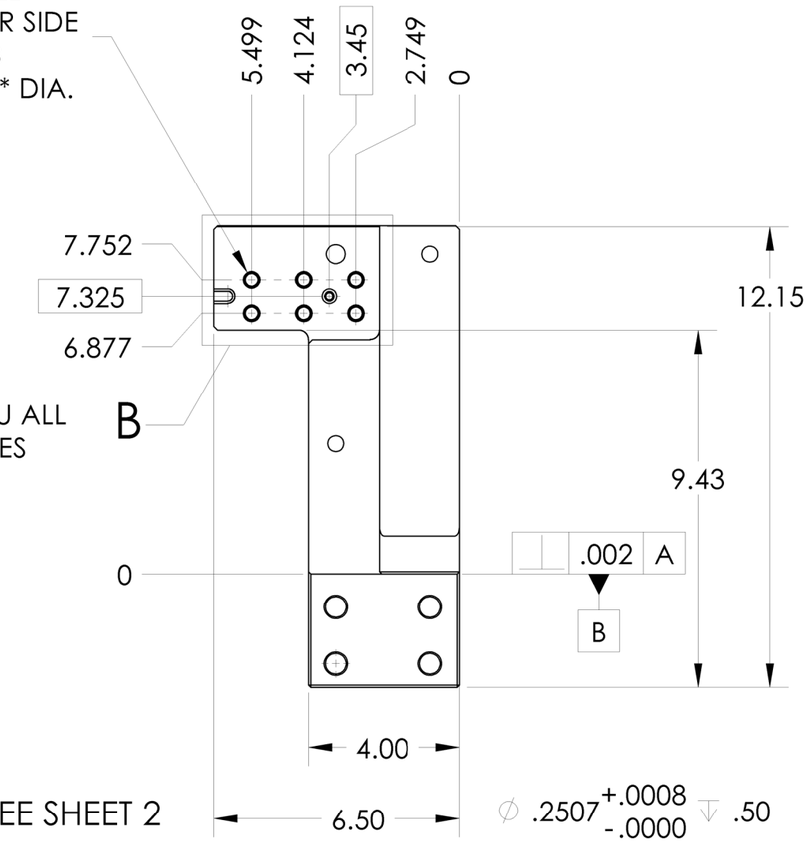
(5) SCRIBE, ENGRAVE, OR MECHANICALLY STAMP (NO INKS OR DYES) DRAWING PART NUMBER, REVISION (AND VARIENT OR "TYPE" IF APPLICABLE ON NOTED SURFACE OF PART FOLLOWED ON THE NEXT LINE WITH A THREE DIGIT SERIAL NUMBER. SERIAL NUMBERS START AT 001 FOR THE FIRST ARTICLE AND PROCEED CONSECUTIVELY. USE MINIMUM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

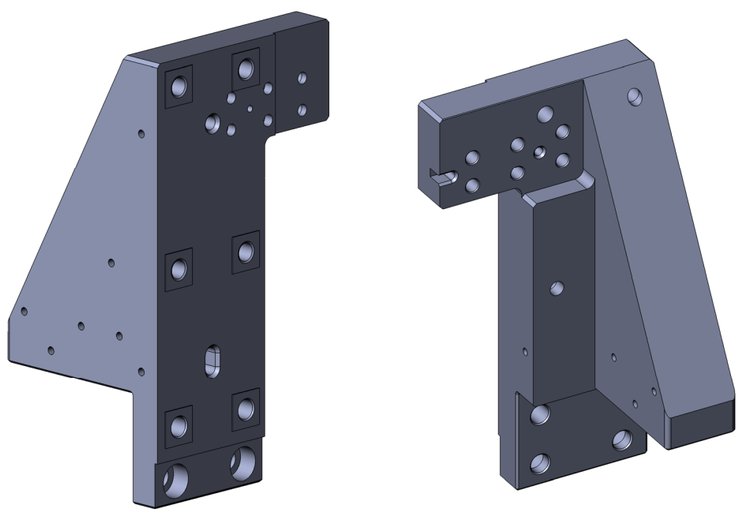
6. APPROXIMATE WEIGHT = 11.0 LB.
7. MACHINE ALL SURFACES TO REMOVE OXIDES AND MILL FINISH, USE OF ABRASIVE REMOVAL TECHNIQUES IS NOT ALLOWED.
8. ALL PARTS SHALL BE MANUFACTURED IN ACCORDANCE WITH LIGO SPECIFICATION E0900364.
9. ALL THREADED INSERTS TO BE INSTALLED BY LIGO PERSONNEL, AFTER DELIVERY OF FINSIHED PARTS, USE NITRONIC 60 THREADED INSERTS.
10. A TAPPED HOLE PITCH DIAMETER LIMIT OF H11 APPLIES TO ALL TAPPED HOLES EXCEPT THREADED INSERTS.
11. A TRUE POSITION TOLERANCE OF ∅.010 IS ~ THE SAME AS A CONVENTIONAL TOLERANCE OF ±.005.

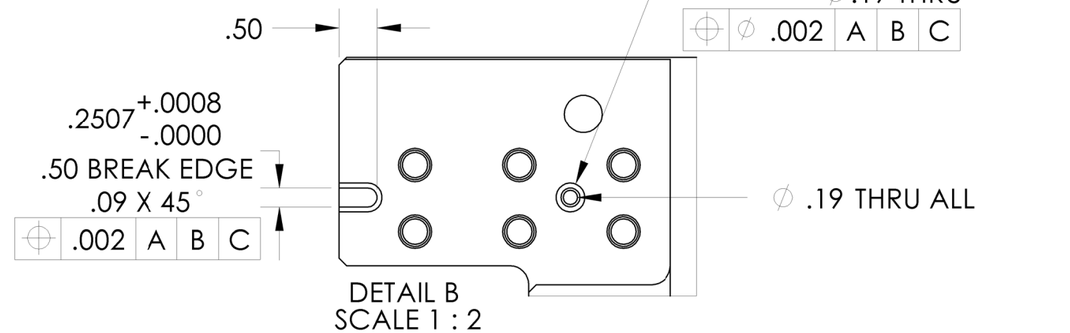




BOTTOM VIEW SEE SHEET 2
SCALE 1:2







DETAIL B
SCALE 1 : 2

NOTES AND TOLERANCES: (UNLESS OTHERWISE SPECIFIED)

DIMENSIONS ARE IN INCHES

TOLERANCES:
.XX ± .015
.XXX ± .005

ANGULAR ± .5°

1. INTERPRET DRAWING PER ASME Y14.5-1994.
2. BREAK ALL EDGES AND CORNERS .03 X 45°.
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

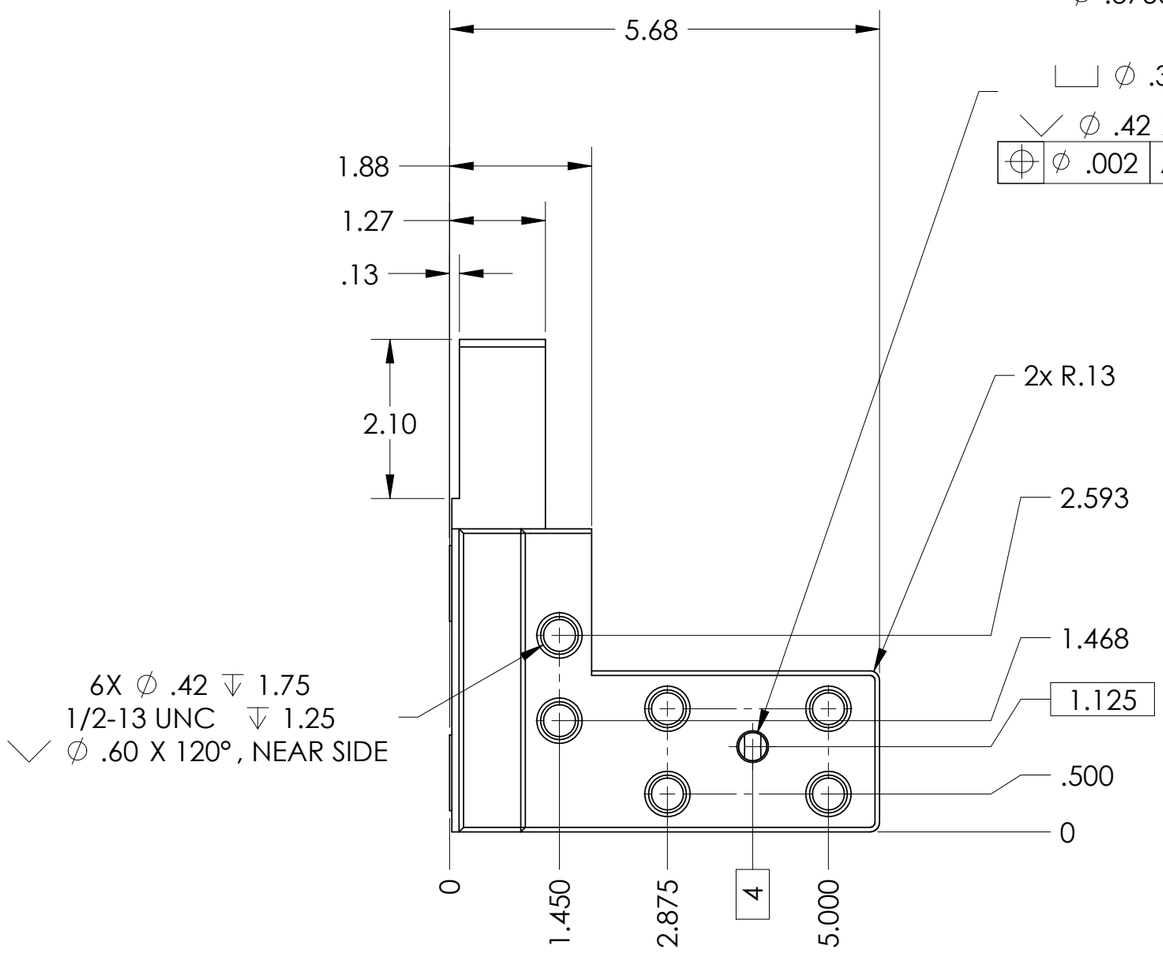
SYSTEM: ADVANCED LIGO
SUB-SYSTEM: SEI
NEXT ASSY: D0901180

PART NAME: FLEXURE ROD GUSSET, STAGE 1, aLIGO BSC ISI

DESIGNER	F.MATICHARD	15 Jan. 2010	
DRAFTER	M.HILLARD	15 Jan. 2010	
CHECKER	A.STEIN	15 Jan. 2010	
APPROVAL	K.MASON	15 Jan. 2010	

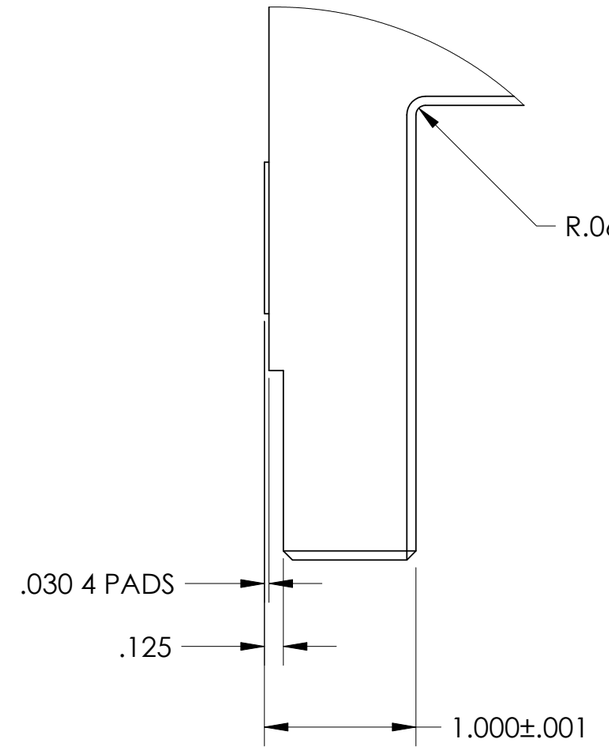
SIZE: B — DWG. NO.: D0902277 — REV.: v1
SCALE: 1:4 — PROJECTION: — SHEET 1 OF 2

D0902277 Flexure Rod Gusset, Stage 1, BSC-ISI, PART PDM REV: X-021, DRAWING PDM REV: X-006



BOTTOM VIEW

DETAIL A SEE SHEET 2
SCALE 1 : 1



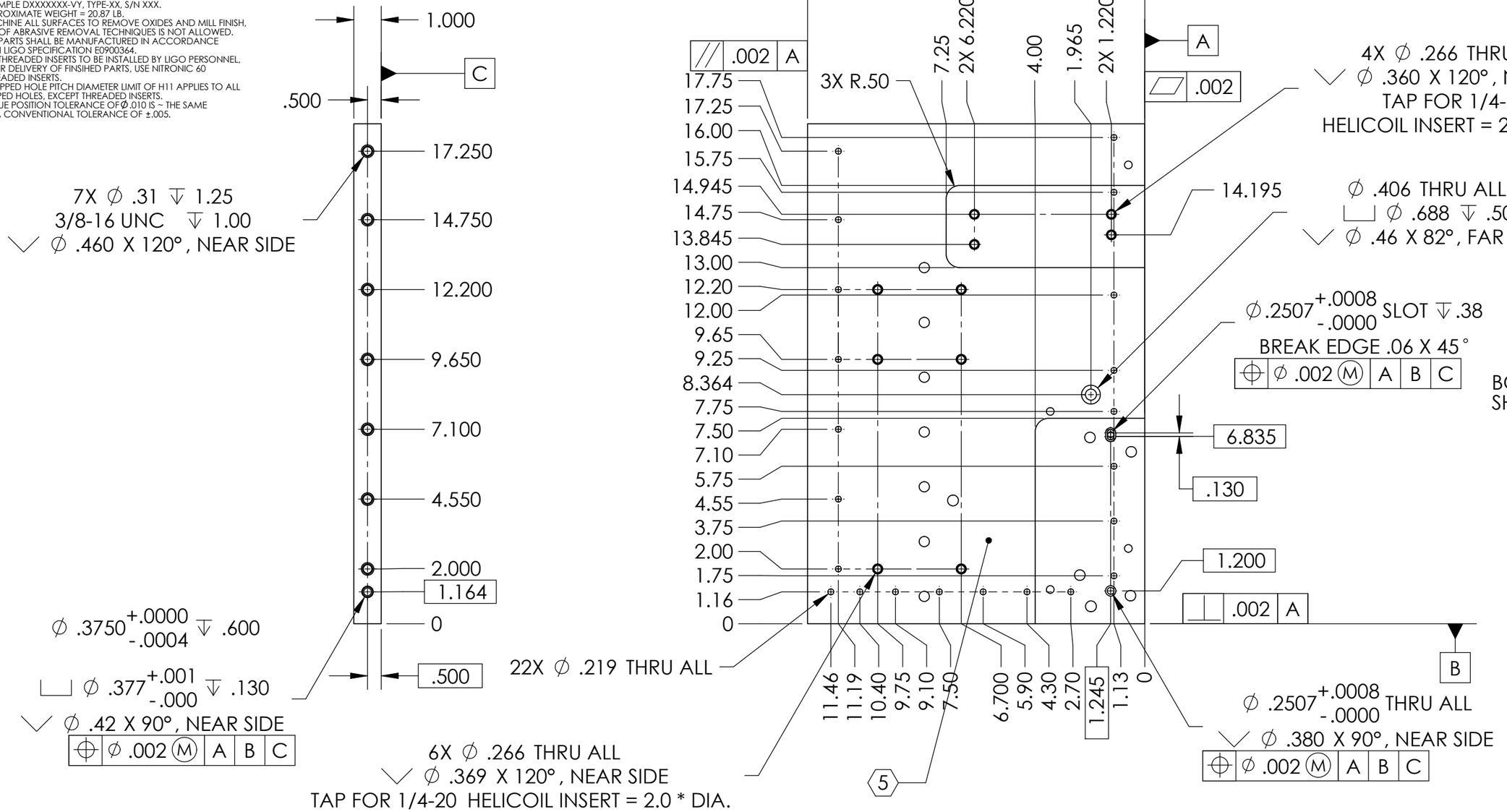
D0902277 Flexure Rod Gusset, Stage 1, BSC-ISI, PART PDM REV: X-021, DRAWING PDM REV: X-006

LIGO CALIFORNIA INSTITUTE OF TECHNOLOGY MASSACHUSETTS INSTITUTE OF TECHNOLOGY			
SIZE B	DWG. NO. D0902277		REV. v1
SCALE: 1:2	PROJECTION:	SHEET 2 OF 2	

REV.	DATE	DCN #	DRAWING TREE #
v1	12 Mar. 2010	E0900495	E1000025

NOTES CONTINUED:

5. SCRIBE, ENGRAVE, OR MECHANICALLY STAMP (NO INKS OR DYES) DRAWING PART NUMBER, REVISION (AND VARIENT 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 DXXXXXXX-VY, TYPE-XX, S/N XXX.
6. APPROXIMATE WEIGHT = 20.87 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. ALL THREADED INSERTS TO BE INSTALLED BY LIGO PERSONNEL, AFTER DELIVERY OF FINSIHED PARTS, USE NITRONIC 60 THREADED INSERTS.
10. A TAPPED HOLE PITCH DIAMETER LIMIT OF H11 APPLIES TO ALL TAPPED HOLES, EXCEPT THREADED INSERTS.
11. A TRUE POSITION TOLERANCE OF Ø.010 IS ~ THE SAME AS A CONVENTIONAL TOLERANCE OF ±.005.

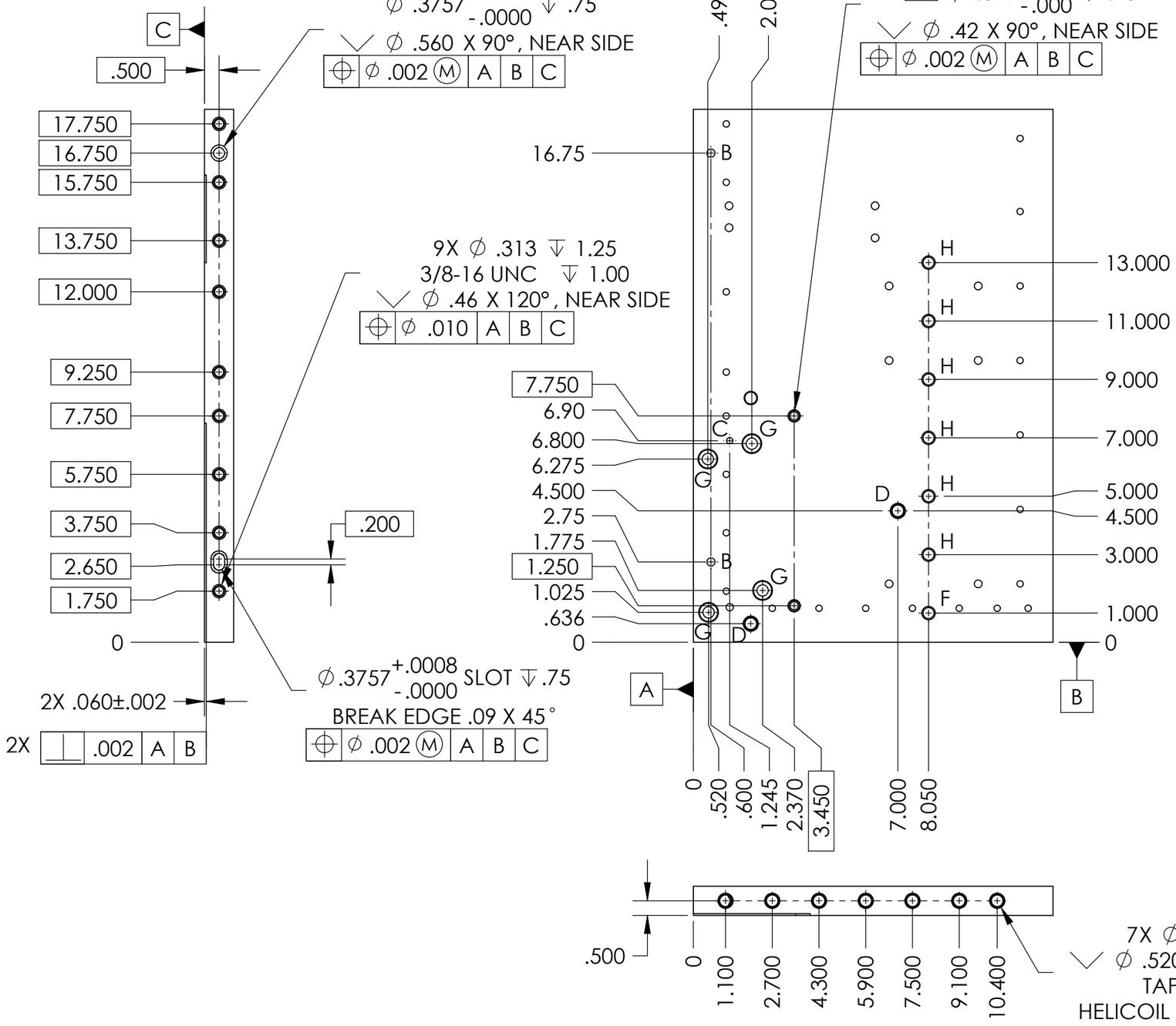


NOTES AND TOLERANCES: (UNLESS OTHERWISE SPECIFIED)					
DIMENSIONS ARE IN INCHES TOLERANCES: .XX ± .015 .XXX ± .005 ANGULAR ± .5°	1. INTERPRET DRAWING PER ASME Y14.5-1994. 2. REMOVE ALL SHARP EDGES, R.02 MIN. 3. DO NOT SCALE FROM DRAWING. 4. ALL MACHINING FLUIDS MUST BE FULLY SYNTHETIC, FULLY WATER SOLUBLE AND FREE OF SULFUR, SILICONE, AND CHLORINE.		LIGO CALIFORNIA INSTITUTE OF TECHNOLOGY MASSACHUSETTS INSTITUTE OF TECHNOLOGY		PART NAME: L4C WALL, STAGE 1, aLIGO BSC ISI
	MATERIAL: 6061-T6 Al	FINISH: 63 µinch	SYSTEM: ADVANCED LIGO	SUB-SYSTEM: SEI	
			NEXT ASSY: D0901180		

DESIGNER	F.MATICHARD	15 Jan. 2010	SIZE: B	DWG. NO.: D0902278	REV.: v1
DRAFTER	M.HILLARD	15 Jan. 2010			
CHECKER	A.STEIN	15 Jan. 2010			
APPROVAL	K.MASON	15 Jan. 2010	SCALE: 1:4	PROJECTION:	SHEET 1 OF 2

D0902278 L4C Wall, Stage 1, BSC-ISI, PART PDM REV: X-043, DRAWING PDM REV: X-014

BOTTOM VIEW



TAG	SIZE	QUANTITY
B	∅ .28 THRU ALL	2
C	∅ .22 THRU TO SLOT	1
D	∅ .397 THRU ALL ⌵ ∅ .52 X 120°, NEAR SIDE TAP FOR 3/8-16 HELICOIL INSERT = 2.0 * DIA.	2
F	∅ .313 THRU ALL 3/8-16 UNC THRU ALL ⌵ ∅ .46 X 120°, NEAR SIDE	1
G	∅ .386 THRU ALL ⌴ ∅ .625 ↧ .375 ⌵ ∅ .68 X 90°, NEAR SIDE	4

LIGO CALIFORNIA INSTITUTE OF TECHNOLOGY
MASSACHUSETTS INSTITUTE OF TECHNOLOGY

SIZE	DWG. NO.	REV.
B	D0902278	V1

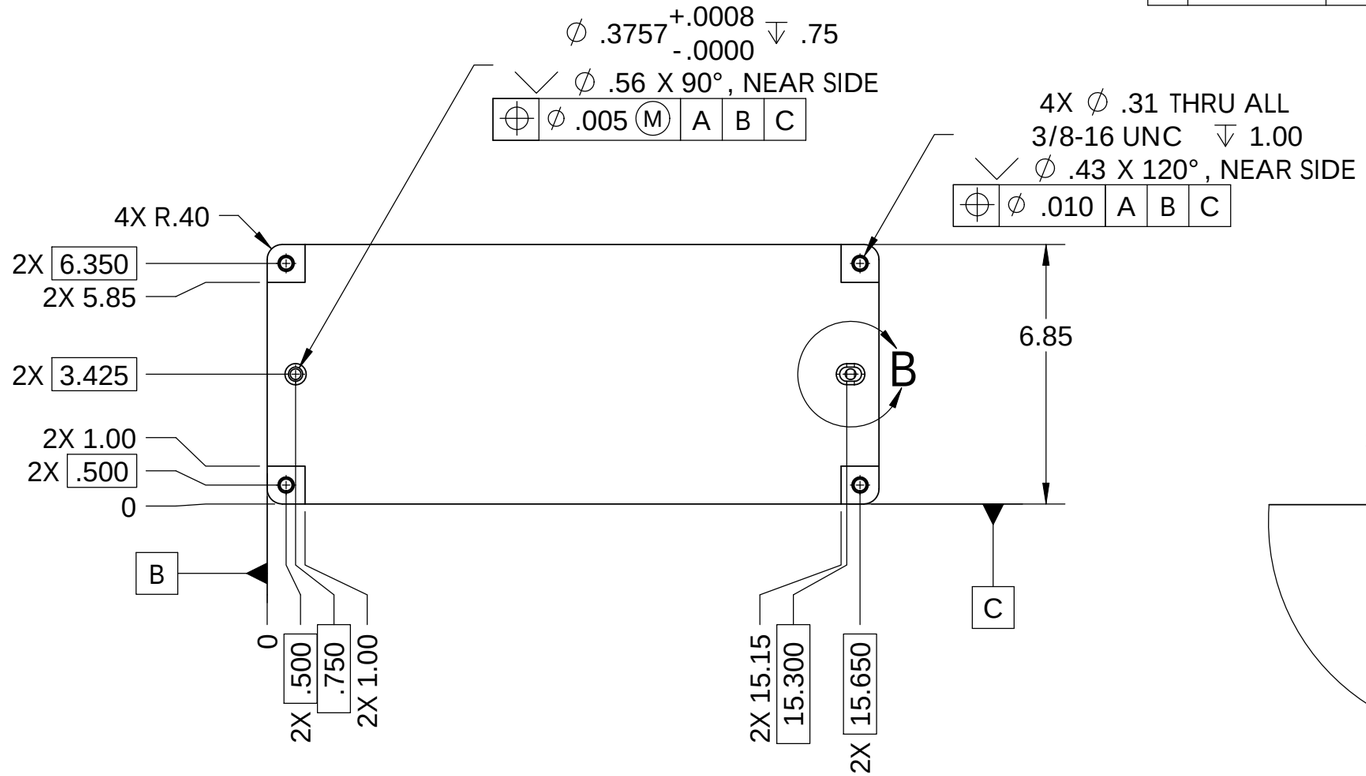
SCALE: 1:4 | PROJECTION: | SHEET 2 OF 2

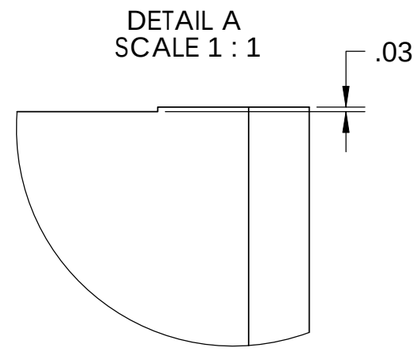
D0902278 L4C Wall, Stage 1, BSC-ISI, PART PDM REV: X-043, DRAWING PDM REV: X-014

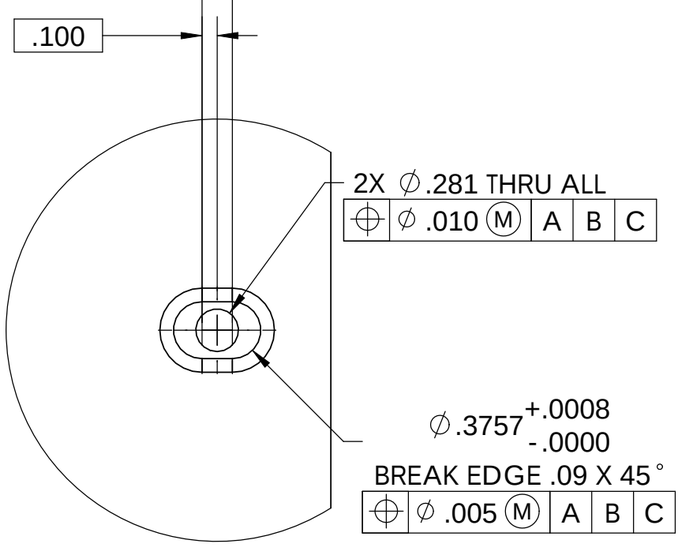
NOTES CONTINUED:

5. SCRIBE, ENGRAVE, OR MECHANICALLY STAMP (NO INKS OR DYES) DRAWING PART NUMBER, REVISION (AND VARIENT 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 DXXXXXXX-VY, TYPE-XX, S/N XXX.
6. APPROXIMATE WEIGHT = 31.9 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. A TAPPED HOLE PITCH DIAMETER LIMIT OF H11 APPLIES TO ALL TAPPED HOLES.
10. A TRUE POSITION TOLERANCE OF Ø.010 IS ~ THE SAME AS A CONVENTIONAL TOLERANCE OF ±.005.

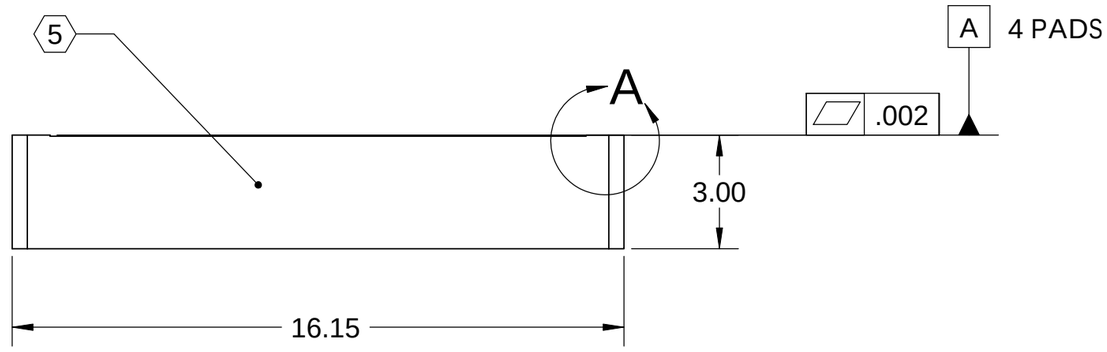
REV.	DATE	DCN #	DRAWING TREE #
v1	12 Mar. 2010	D0900495	E1000025







DETAIL B
SCALE 1 : 1



NOTES AND TOLERANCES: (UNLESS OTHERWISE SPECIFIED)			
DIMENSIONS ARE IN INCHES TOLERANCES: .XX ± .015 .XXX ± .005 ANGULAR ± .5°	1. INTERPRET DRAWING PER ASME Y14.5-1994. 2. REMOVE ALL SHARP EDGES, R.02 MIN. 3. DO NOT SCALE FROM DRAWING. 4. ALL MACHINING FLUIDS MUST BE FULLY SYNTHETIC, FULLY WATER SOLUBLE AND FREE OF SULFUR, SILICONE, AND CHLORINE.	MATERIAL: 6061-T6 Al	FINISH: 63 µinch

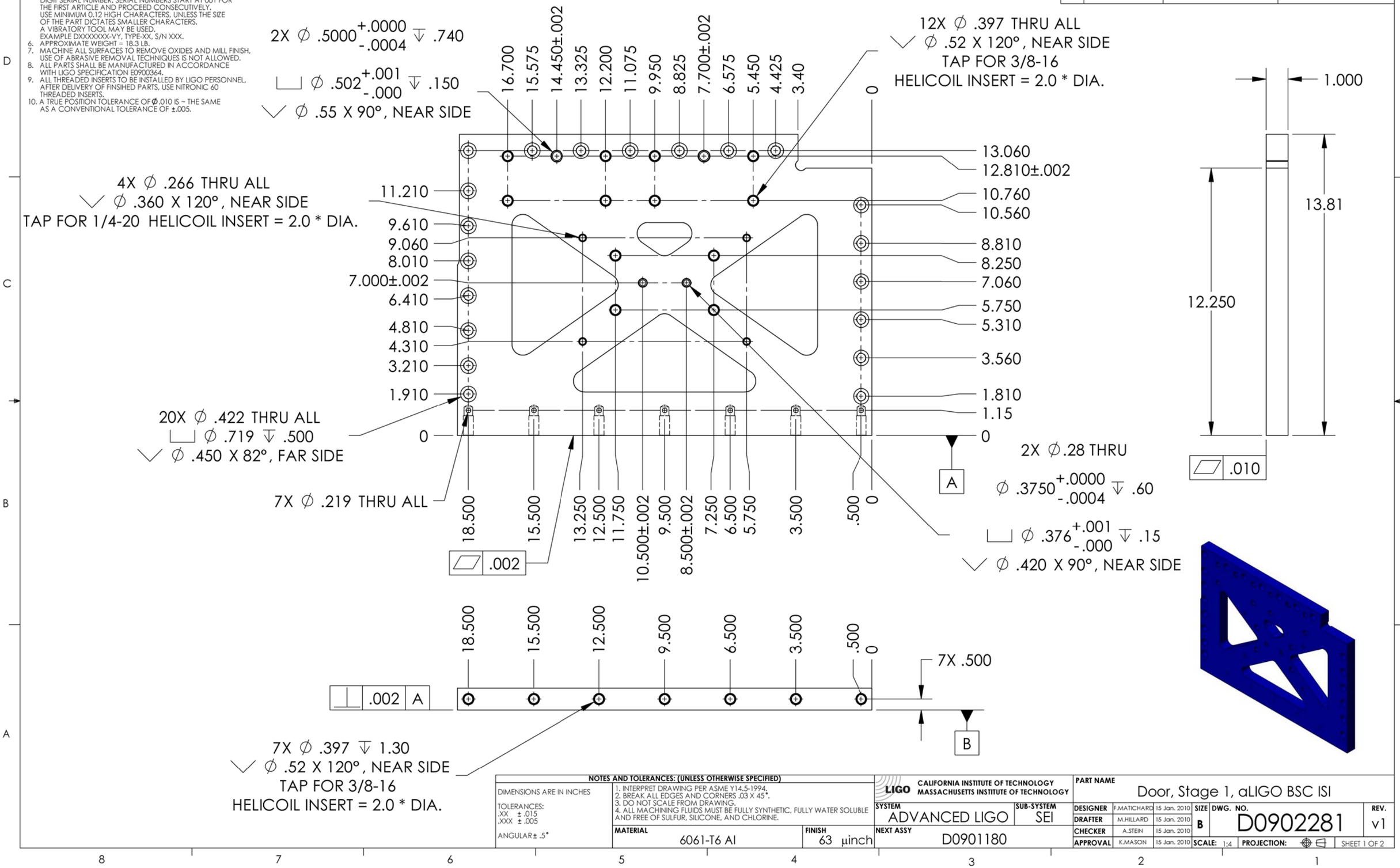
LIGO	CALIFORNIA INSTITUTE OF TECHNOLOGY MASSACHUSETTS INSTITUTE OF TECHNOLOGY	PART NAME: BALLAST, STAGE 1, aLIGO BSC-ISI	
SYSTEM: ADVANCED LIGO	SUB-SYSTEM: SEI	DESIGNER: F.MATICHARD 15 Jan. 2010	SIZE: B
NEXT ASSY: D0901180		DRAFTER: M.HILLARD 15 Jan. 2010	DWG. NO.: D0902280
		CHECKER: A.STEIN 15 Jan. 2010	REV.: v1
		APPROVAL: K.MASON 15 Jan. 2010	SCALE: 1:4 PROJECTION: SHEET 1 OF 1

D0902280 Ballast, Stage 1, BSC-ISI, PART PDM REV: X-012, DRAWING PDM REV: X-010

NOTES CONTINUED:

5. SCRIBE, ENGRAVE, OR MECHANICALLY STAMP (NO INKS OR DYES) DRAWING PART NUMBER, REVISION (AND VARIENT 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 DXXXXXXX-VY, TYPE-XX, S/N XXX.
6. APPROXIMATE WEIGHT = 18.3 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. ALL THREADED INSERTS TO BE INSTALLED BY LIGO PERSONNEL, AFTER DELIVERY OF FINSIHED PARTS, USE NITRONIC 60 THREADED INSERTS.
10. A TRUE POSITION TOLERANCE OF Ø.010 IS ~ THE SAME AS A CONVENTIONAL TOLERANCE OF ±.005.

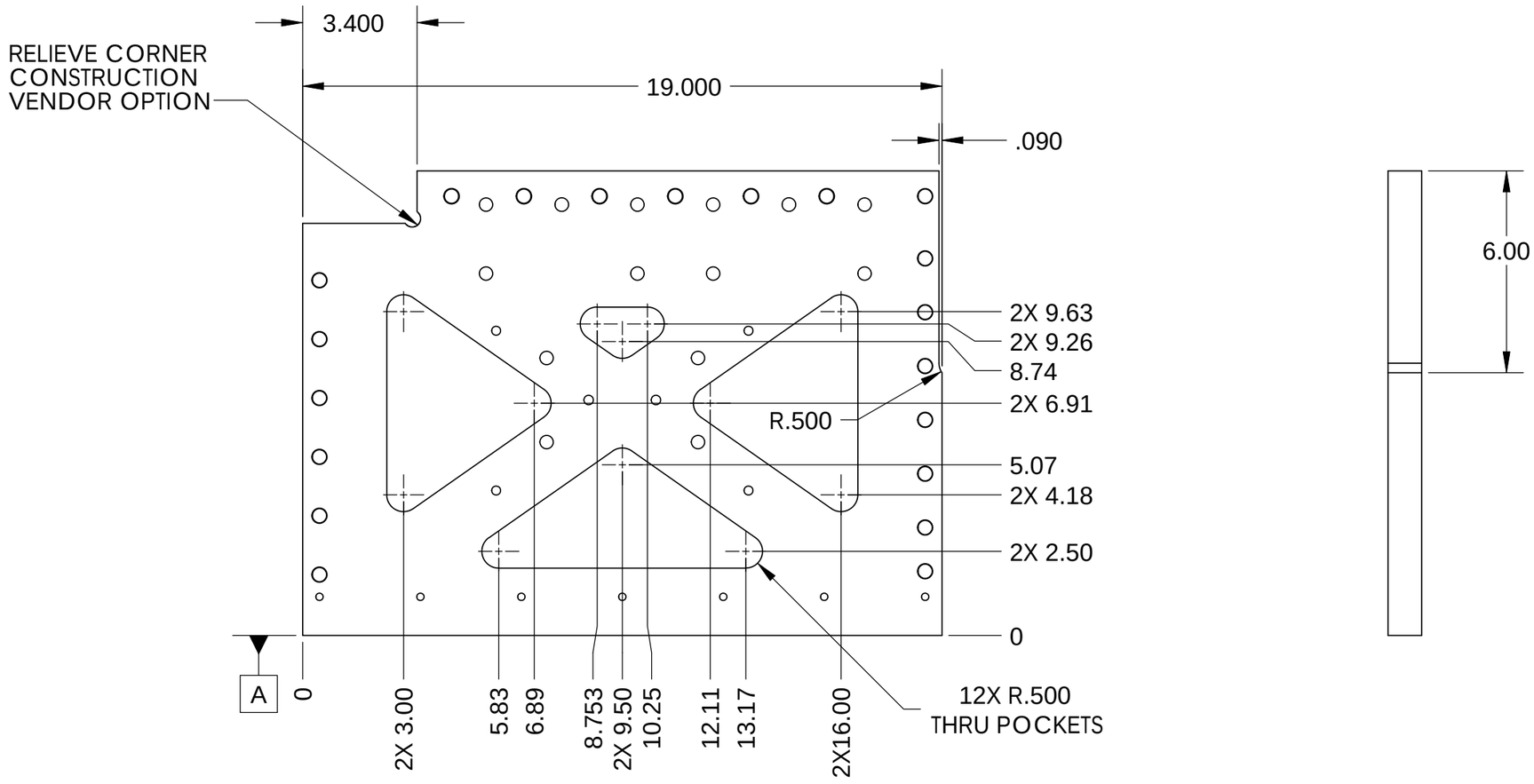
REV.	DATE	DCN #	DRAWING TREE #
v1	12 Mar. 2010	E0900495	E1000025



NOTES AND TOLERANCES: (UNLESS OTHERWISE SPECIFIED)							
DIMENSIONS ARE IN INCHES TOLERANCES: .XX ± .015 .XXX ± .005 ANGULAR ± .5°	1. INTERPRET DRAWING PER ASME Y14.5-1994. 2. BREAK ALL EDGES AND CORNERS .03 X 45°. 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: SEI	NEXT ASSY: D0901180

PART NAME				SIZE	DWG. NO.	REV.
Door, Stage 1, aLIGO BSC ISI						
DESIGNER	F.MATICHARD	15 Jan. 2010		B	D0902281	v1
DRAFTER	M.HILLARD	15 Jan. 2010				
CHECKER	A.STEIN	15 Jan. 2010				
APPROVAL	K.MASON	15 Jan. 2010	SCALE: 1:4	PROJECTION:	SHEET 1 OF 2	

D0902281 Door, Stage 1, BSC ISI, PART PDM REV: X-023, DRAWING PDM REV: X-009



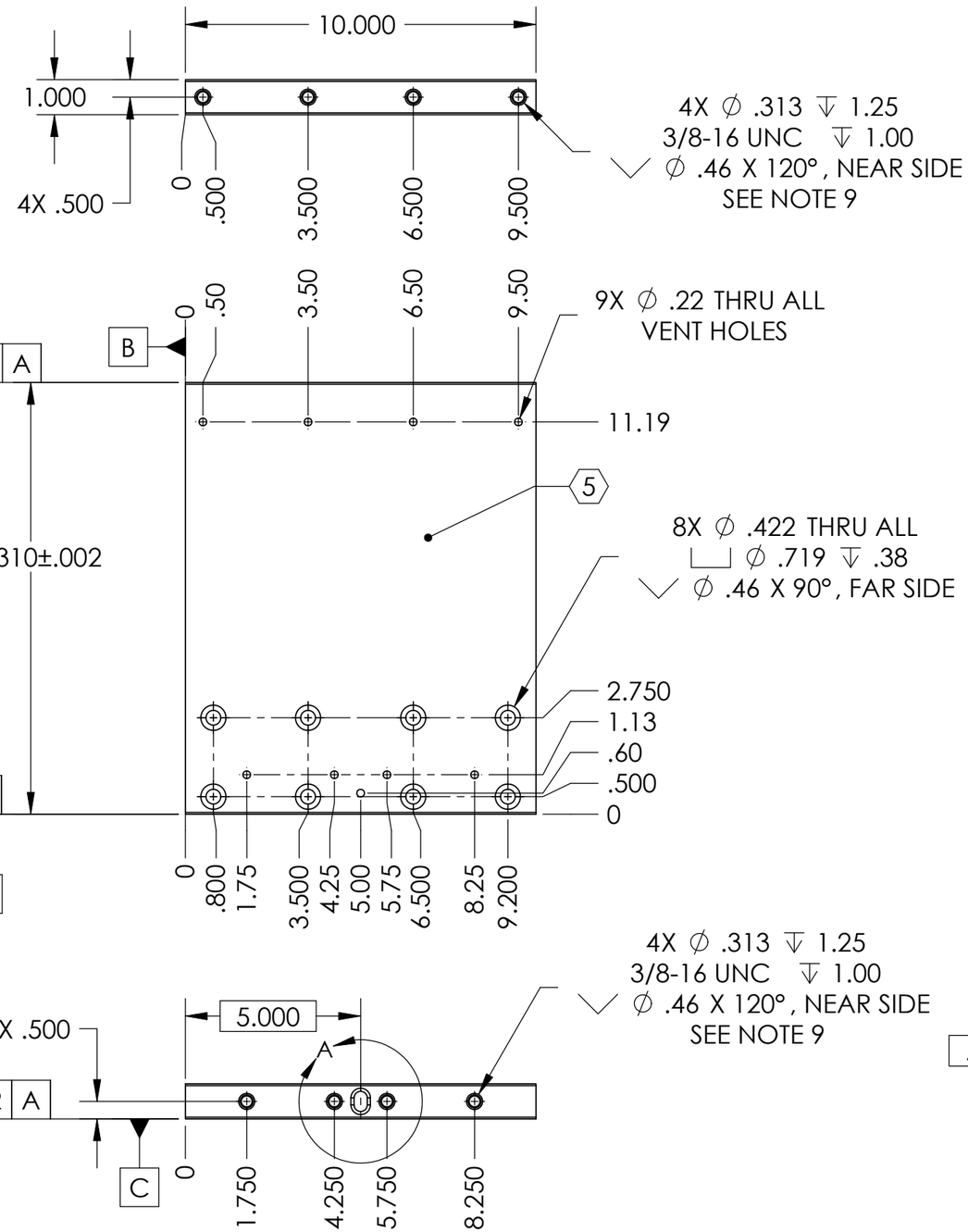
LIGO	CALIFORNIA INSTITUTE OF TECHNOLOGY MASSACHUSETTS INSTITUTE OF TECHNOLOGY	
SIZE B	DWG. NO. D0902281	REV. v1
SCALE: 1:4	PROJECTION:	SHEET 2 OF 2

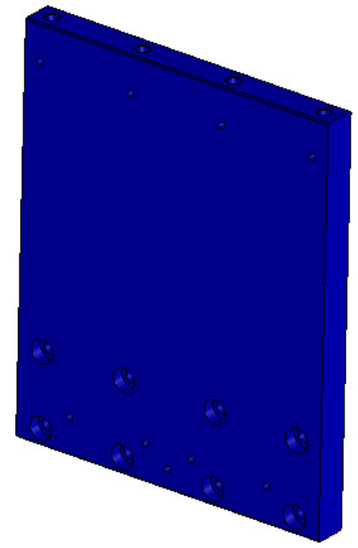
D0902281 Door, Stage 1, BSC ISI, PART PDM REV: X-023, DRAWING PDM REV: X-009

NOTES CONTINUED:

5. SCRIBE, ENGRAVE, OR MECHANICALLY STAMP (NO INKS OR DYES) DRAWING PART NUMBER, REVISION (AND VARIENT 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 DXXXXXXX-VY, TYPE-XX, S/N XXX.
6. APPROXIMATE WEIGHT = 11.67 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. A TAPPED HOLE PITCH DIAMETER LIMIT OF H11 APPLIES TO ALL TAPPED HOLES.
10. A TRUE POSITION TOLERANCE OF Ø.010 IS ~ THE SAME AS A CONVENTIONAL TOLERANCE OF ±.005.

REV.	DATE	DCN #	DRAWING TREE #
v1	12 Mar. 2010	E0900495	E1000025





NOTES AND TOLERANCES: (UNLESS OTHERWISE SPECIFIED)					
DIMENSIONS ARE IN INCHES TOLERANCES: .XX ± .015 .XXX ± .005 ANGULAR ± 0.5°	1. INTERPRET DRAWING PER ASME Y14.5-1994. 2. BREAK ALL EDGES AND CORNERS .03 x 45°. 3. DO NOT SCALE FROM DRAWING. 4. ALL MACHINING FLUIDS MUST BE FULLY SYNTHETIC, FULLY WATER SOLUBLE AND FREE OF SULFUR, SILICONE, AND CHLORINE.		LIGO CALIFORNIA INSTITUTE OF TECHNOLOGY MASSACHUSETTS INSTITUTE OF TECHNOLOGY	PART NAME: HEX INNER WALL, STAGE 1, aLIGO BSC ISI	
	MATERIAL: 6061-T6 Al	FINISH: 63 µinch	SYSTEM: ADVANCED LIGO / SUB-SYSTEM: SEI	NEXT ASSY: D0901180	

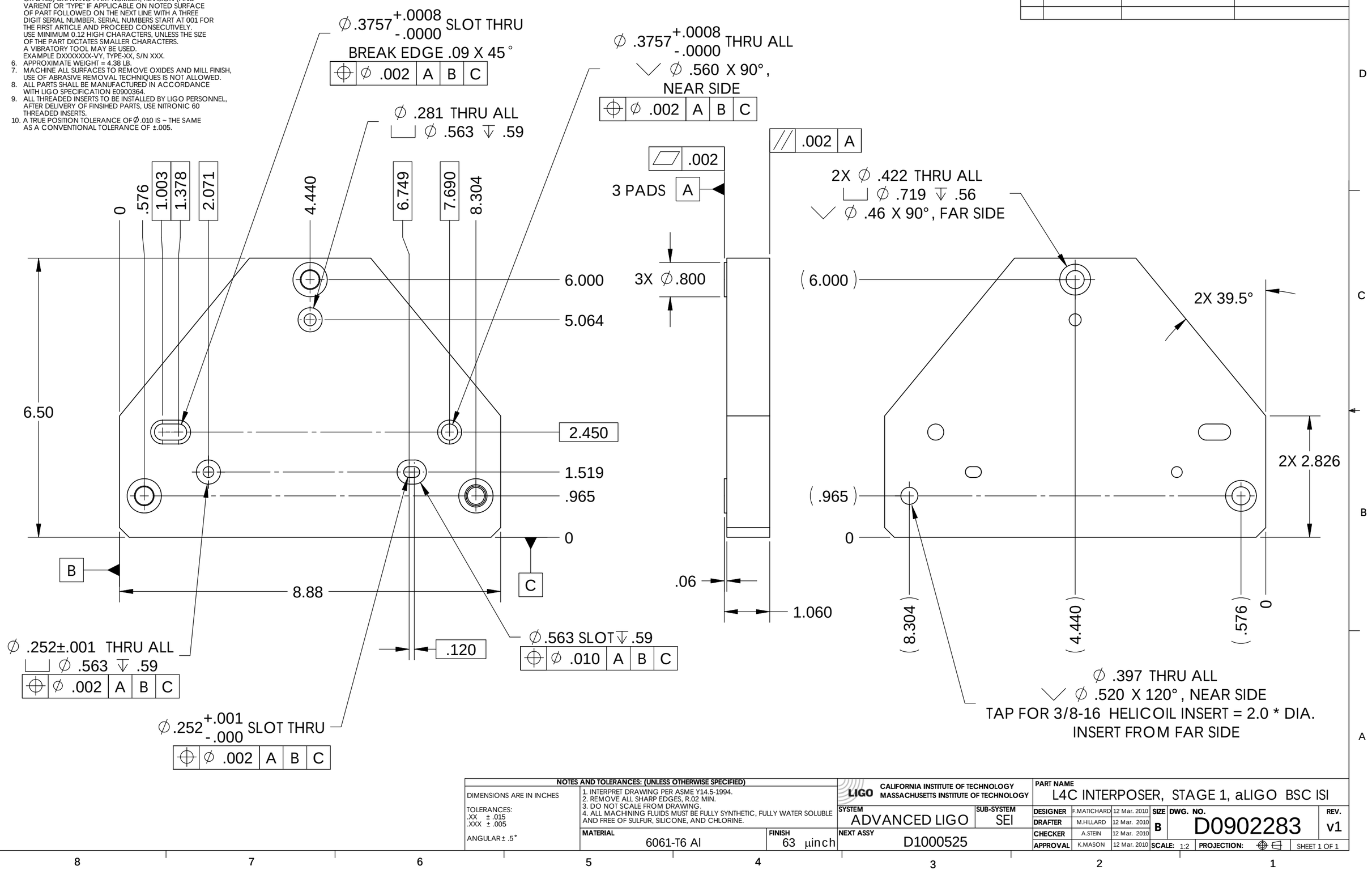
DESIGNER	F.MATICHARD	15 Jan. 2010	SIZE: B	DWG. NO.: D0902282	REV.: v1
DRAFTER	M.HILLARD	15 Jan. 2010			
CHECKER	A.STEIN	15 Jan. 2010			
APPROVAL	K.MASON	15 Jan. 2010	SCALE: 1:4	PROJECTION:	SHEET 1 OF 1

D0902282 Hex Inner Wall, Stage 1, BSC-ISI, PART PDM REV: X-019, DRAWING PDM REV: X-008

NOTES CONTINUED:

5. SCRIBE, ENGRAVE, OR MECHANICALLY STAMP (NO INKS OR DYES) DRAWING PART NUMBER, REVISION (AND VARIENT 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 DXXXXXXX-VY, TYPE-XX, S/N XXX.
6. APPROXIMATE WEIGHT = 4.38 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. ALL THREADED INSERTS TO BE INSTALLED BY LIGO PERSONNEL, AFTER DELIVERY OF FINSIHED PARTS, USE NITRONIC 60 THREADED INSERTS.
10. A TRUE POSITION TOLERANCE OF Ø.010 IS ~ THE SAME AS A CONVENTIONAL TOLERANCE OF ±.005.

REV.	DATE	DCN #	DRAWING TREE #
v1	12 Mar. 2010	E0900495	E1000025



NOTES AND TOLERANCES: (UNLESS OTHERWISE SPECIFIED)			
DIMENSIONS ARE IN INCHES TOLERANCES: .XX ± .015 .XXX ± .005 ANGULAR ± .5°	1. INTERPRET DRAWING PER ASME Y14.5-1994. 2. REMOVE ALL SHARP EDGES, R.02 MIN. 3. DO NOT SCALE FROM DRAWING. 4. ALL MACHINING FLUIDS MUST BE FULLY SYNTHETIC, FULLY WATER SOLUBLE AND FREE OF SULFUR, SILICONE, AND CHLORINE.	MATERIAL: 6061-T6 Al	FINISH: 63 µinch

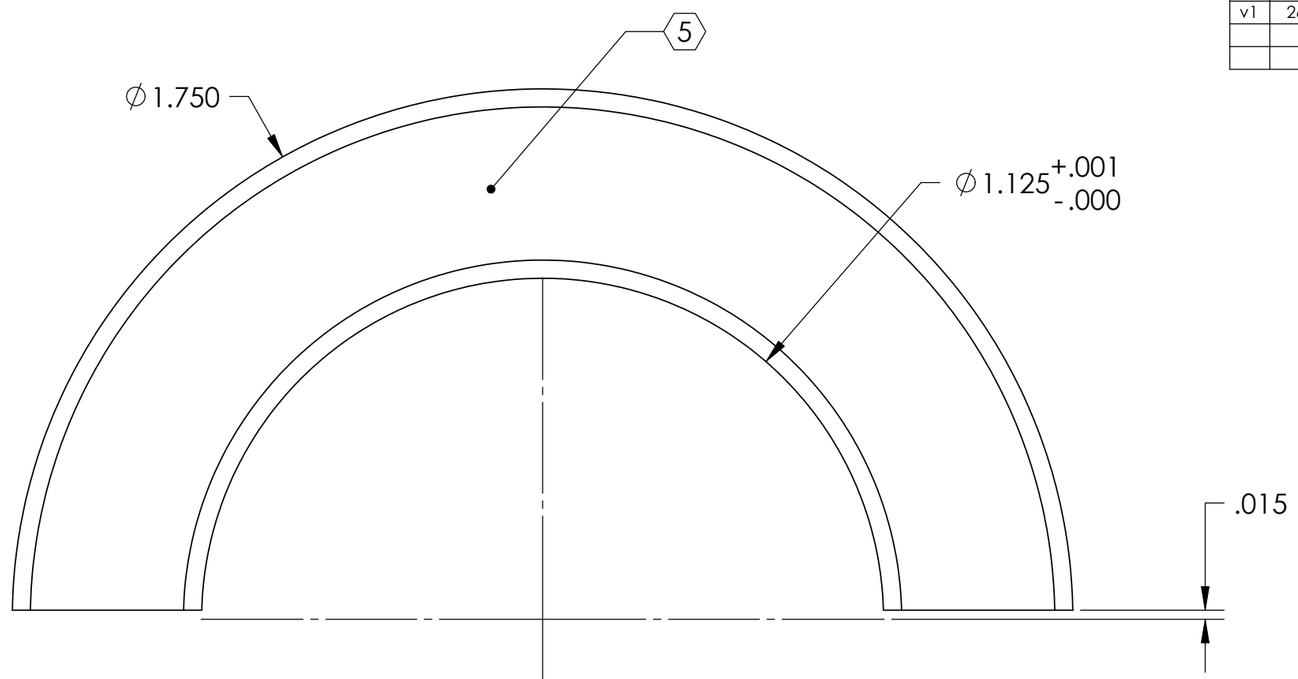
LIGO	CALIFORNIA INSTITUTE OF TECHNOLOGY MASSACHUSETTS INSTITUTE OF TECHNOLOGY	PART NAME: L4C INTERPOSER, STAGE 1, aLIGO BSC ISI	
SYSTEM: ADVANCED LIGO	SUB-SYSTEM: SEI	DESIGNER: F.MATICHARD 12 Mar. 2010	SIZE: B
NEXT ASSY: D1000525		DRAFTER: M.HILLARD 12 Mar. 2010	DWG. NO.: D0902283
		CHECKER: A.STEIN 12 Mar. 2010	REV.: v1
		APPROVAL: K.MASON 12 Mar. 2010	SCALE: 1:2 PROJECTION: SHEET 1 OF 1

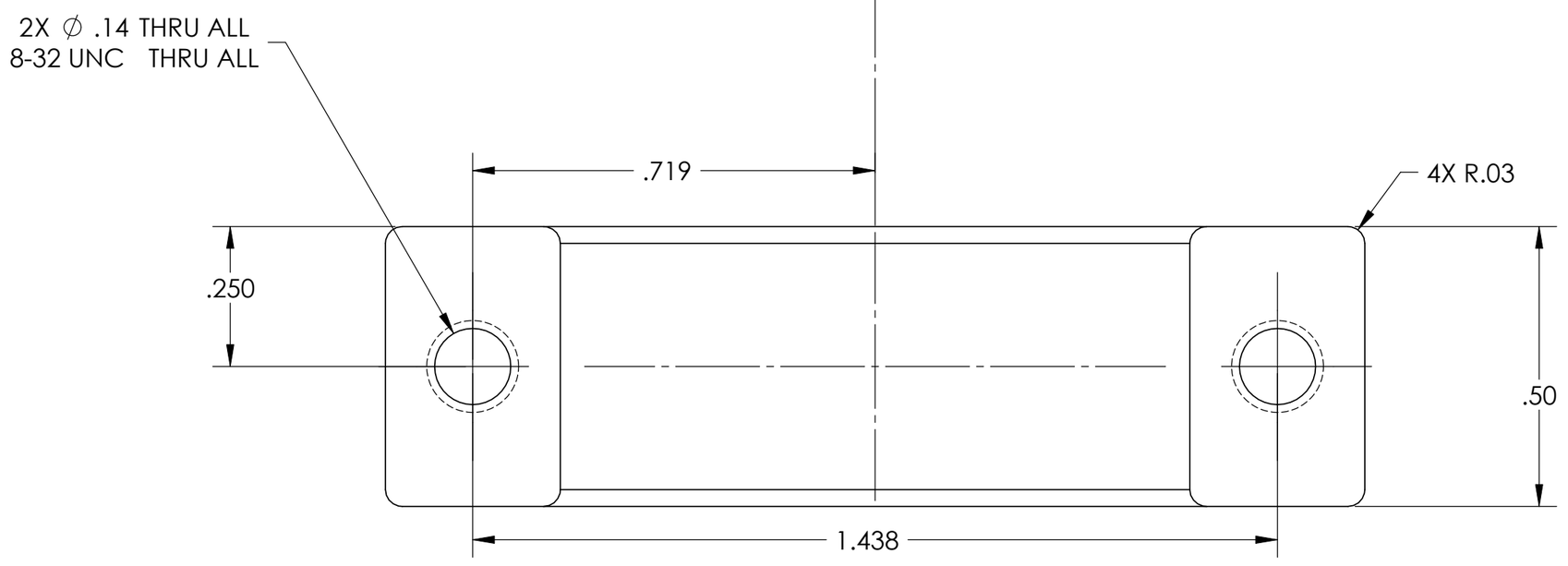
D0902283 L4C Interposer, Stage 1, BSC-ISI, PART PDM REV: X-010, DRAWING PDM REV: X-005

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 ARTICAL AND PROCEED CONSECUTIVELY. USE .07 HIGH CHARACTERS. EXAMPLE DXXXXXX-VY, S/N 001. A VIBRATORY TOOL MAY BE USED.
6. APPROXIMATE WEIGHT = 0.10 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	26 Feb. 2010	E1000022	E1000025





NOTES AND TOLERANCES: (UNLESS OTHERWISE SPECIFIED)								
DIMENSIONS ARE IN INCHES TOLERANCES: .XX ± .015 .XXX ± .005 ANGULAR ± .5°	1. INTERPRET DRAWING PER ASME Y14.5-1994. 2. REMOVE ALL SHARP EDGES, R.02 MIN. 3. DO NOT SCALE FROM DRAWING. 4. ALL MACHINING FLUIDS MUST BE FULLY SYNTHETIC, FULLY WATER SOLUBLE AND FREE OF SULFUR, SILICONE, AND CHLORINE.	MATERIAL: 316 SSTL	FINISH: 32 µinch	LIGO CALIFORNIA INSTITUTE OF TECHNOLOGY MASSACHUSETTS INSTITUTE OF TECHNOLOGY	SYSTEM: ADVANCED LIGO	SUB-SYSTEM: SEI	NEXT ASSY: D0901504	PART NAME: FLEXURE ROD SHAFT COLLAR TAPPED SIDE, STAGE 0-1, aLIGO BSC ISI

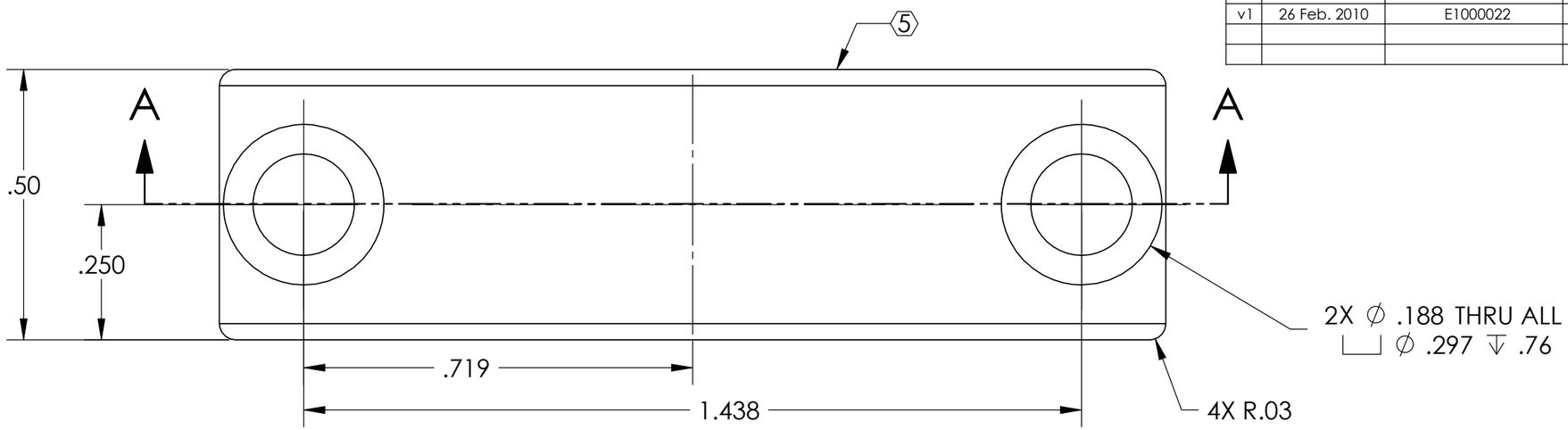
DESIGNER	C.RAMET	01 Feb. 2010	SIZE: B	DWG. NO.: D0902420	REV.: v1	
DRAFTER	M.HILLARD	01 Feb. 2010				
CHECKER	F.MATICHARD	01 Feb. 2010				
APPROVAL	K.MASON	01 Feb. 2010	SCALE: 4:1	PROJECTION:	SHEET 1 OF 1	

D0902420 Flexure Rod Shaft Collar Tapped Side, Stage 0-1, aLIGO BSC ISI, PART PDM REV: X-009, DRAWING PDM REV: X-003

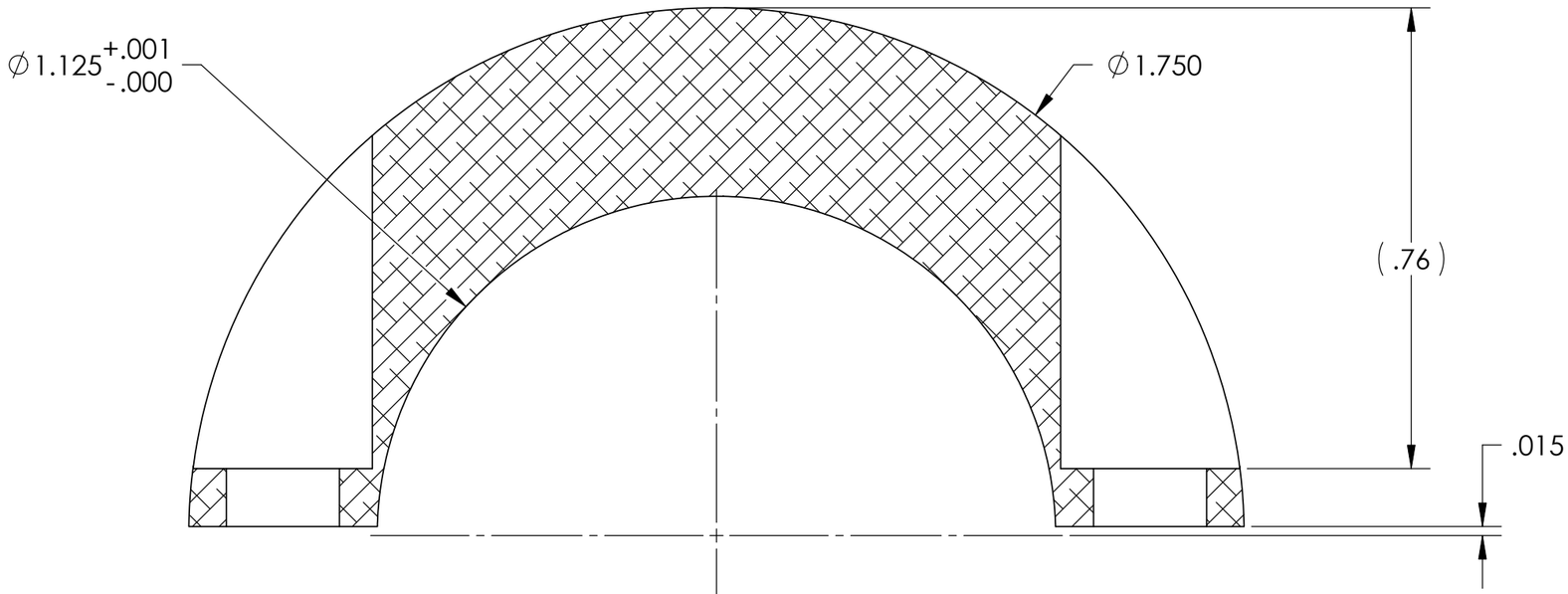
NOTES CONTINUED:

5. SCRIBE, ENGRAVE, OR MECHANICALLY STAMP (NO INKS OR DYES) DRAWING PART NUMBER AND REVISION ON NOTED SURFACE FOLLOWED ON THE NEXT LINE BY A THREE DIGIT SERIAL NUMBER. SERIAL NUMBERS START AT 001 FOR THE FIRST ARTICAL AND PROCEED CONSECUTIVELY. USE .07 HIGH CHARACTERS. EXAMPLE DXXXXXX-VY, S/N 001. A VIBRATORY TOOL MAY BE USED.
6. APPROXIMATE WEIGHT = 0.08 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	26 Feb. 2010	E1000022	E1000025



SECTION A-A



D0902421 Flexure Rod Shaft Collar C Bore Side, Stage 0-1, aLIGO BSC ISI, PART PDM REV: X-003, DRAWING PDM REV: X-009

NOTES AND TOLERANCES: (UNLESS OTHERWISE SPECIFIED)			
DIMENSIONS ARE IN INCHES TOLERANCES: .XX ± .015 .XXX ± .005 ANGULAR ± .5°	1. INTERPRET DRAWING PER ASME Y14.5-1994. 2. REMOVE ALL SHARP EDGES, R.02 MIN. 3. DO NOT SCALE FROM DRAWING. 4. ALL MACHINING FLUIDS MUST BE FULLY SYNTHETIC, FULLY WATER SOLUBLE AND FREE OF SULFUR, SILICONE, AND CHLORINE.	MATERIAL: 316 SSTL	FINISH: 32 µinch

LIGO CALIFORNIA INSTITUTE OF TECHNOLOGY, MASSACHUSETTS INSTITUTE OF TECHNOLOGY

SYSTEM	SUB-SYSTEM	NEXT ASSY
ADVANCED LIGO	SEI	D0901504

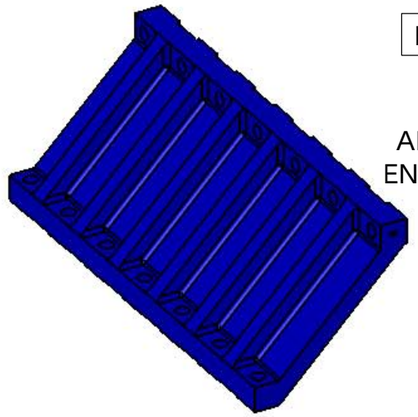
PART NAME: FLEXURE ROD SHAFT COLLAR C'BORE SIDE, STAGE 0-1, aLIGO BSC ISI

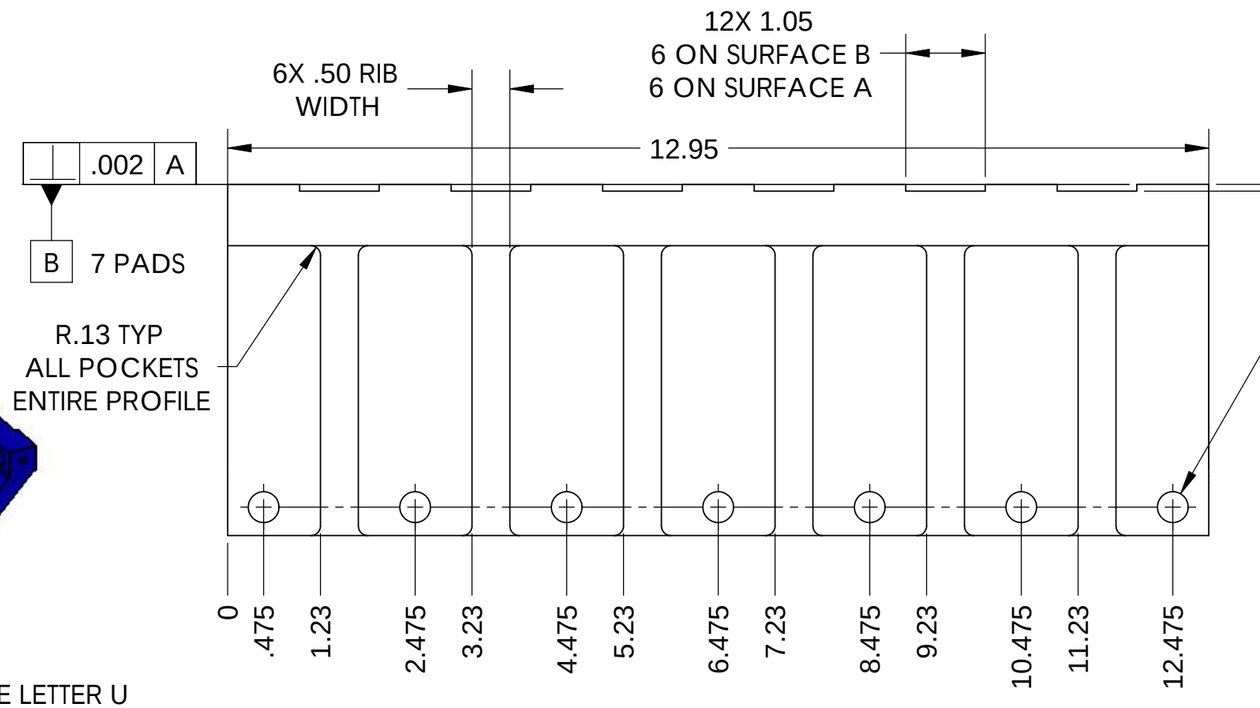
DESIGNER	C.RAMET	01 Feb. 2010	SIZE: B	DWG. NO.: D0902421	REV.: v1
DRAFTER	M.HILLARD	01 Feb.2010			
CHECKER	F.MATICHARD	01 Feb. 2010			
APPROVAL	K.MASON	01 Feb. 2010	SCALE: 4:1	PROJECTION:	SHEET 1 OF 1

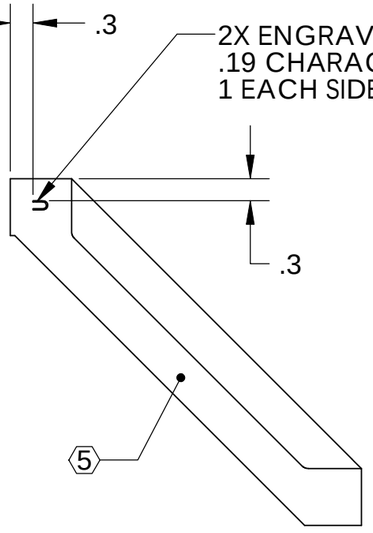
REV.	DATE	DCN #	DRAWING TREE #
v1	12 Mar. 2010	E0900495	E1000025

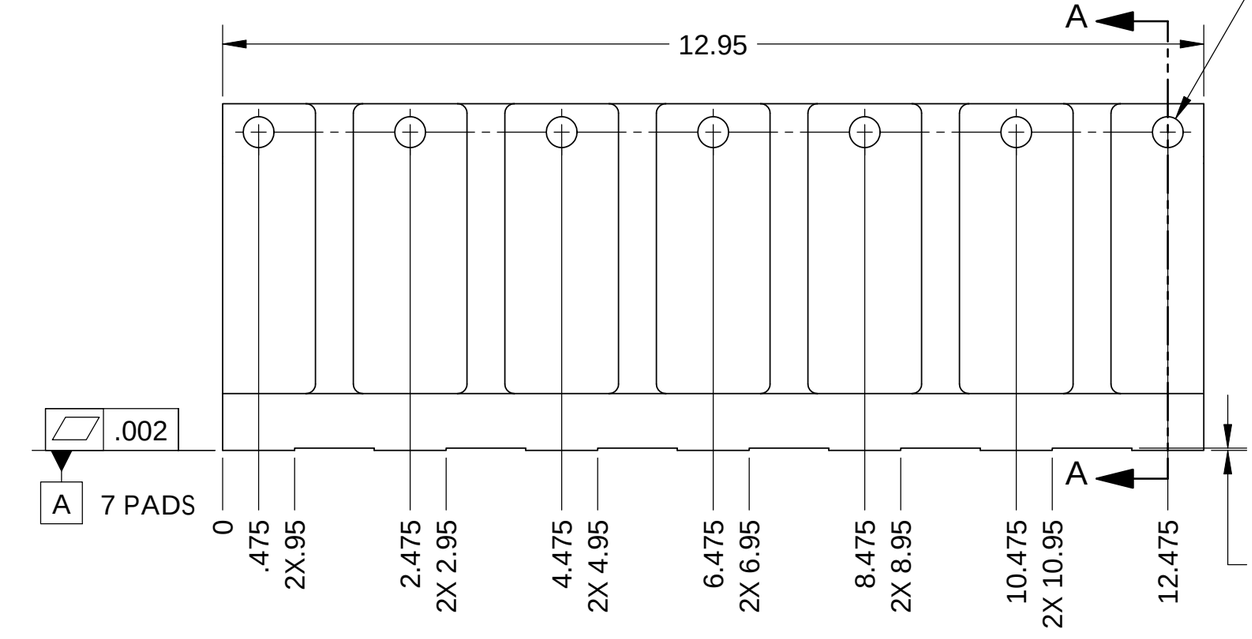
NOTES CONTINUED:

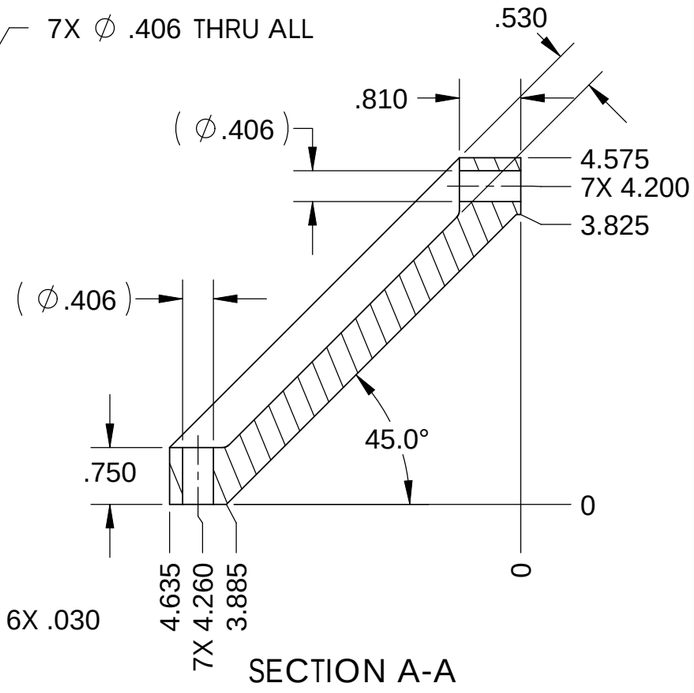
5. SCRIBE, ENGRAVE, OR MECHANICALLY STAMP (NO INKS OR DYES) DRAWING PART NUMBER, REVISION (AND VARIENT OR "TYPE" IF APPLICABLE ON NOTED SURFACE OF PART FOLLOWED ON THE NEXT LINE WITH A THREE DIGIT SERIAL NUMBER. SERIAL NUMBERS START AT 001 FOR THE FIRST ARTICLE AND PROCEED CONSECUTIVELY. USE MINIMUM 0.12 HIGH CHARACTERS, UNLESS THE SIZE OF THE PART DICTATES SMALLER CHARACTERS. A VIBRATORY TOOL MAY BE USED. EXAMPLE DXXXXXXX-VY, TYPE-XX, S/N XXX.
6. APPROXIMATE WEIGHT = 5.3 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.











NOTES AND TOLERANCES: (UNLESS OTHERWISE SPECIFIED)							
DIMENSIONS ARE IN INCHES TOLERANCES: .XX ± .015 .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: SEI	NEXT ASSY: D0901180

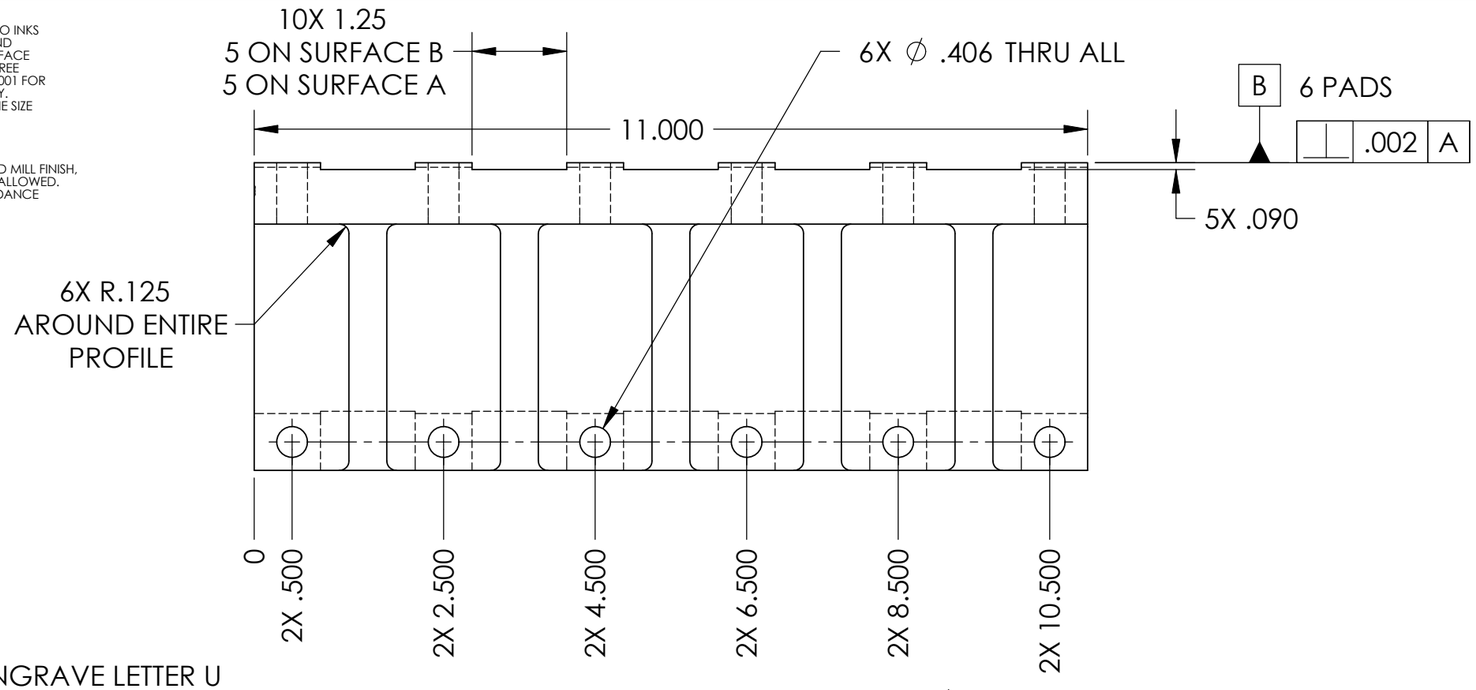
PART NAME: SIDE RIBS, STAGE 1, aLIGO BSC ISI					
DESIGNER	F.MATICHARD	15 Jan. 2010	SIZE: B	DWG. NO.: D0902441	REV.: v1
DRAFTER	M.HILLARD	15 Jan. 2010			
CHECKER	A.STEIN	15 Jan. 2010			
APPROVAL	K.MASON	15 Jan. 2010	SCALE: 1:2	PROJECTION:	SHEET 1 OF 1

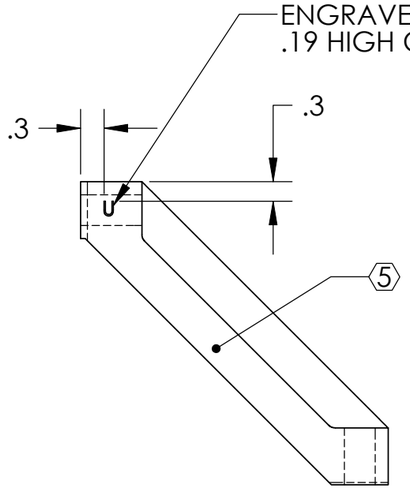
D0902441, Side Ribs, Stage 1, BSC ISI, PART PDM REV: X-011, DRAWING PDM REV: X-011

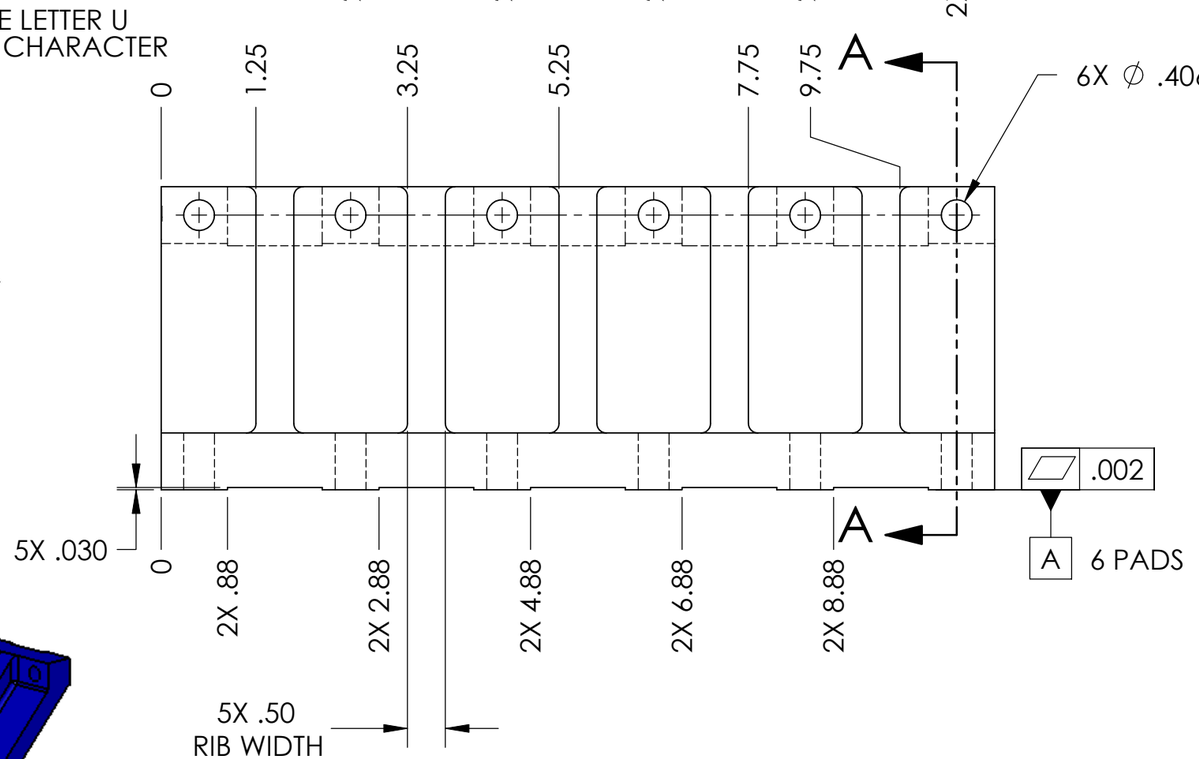
NOTES CONTINUED:

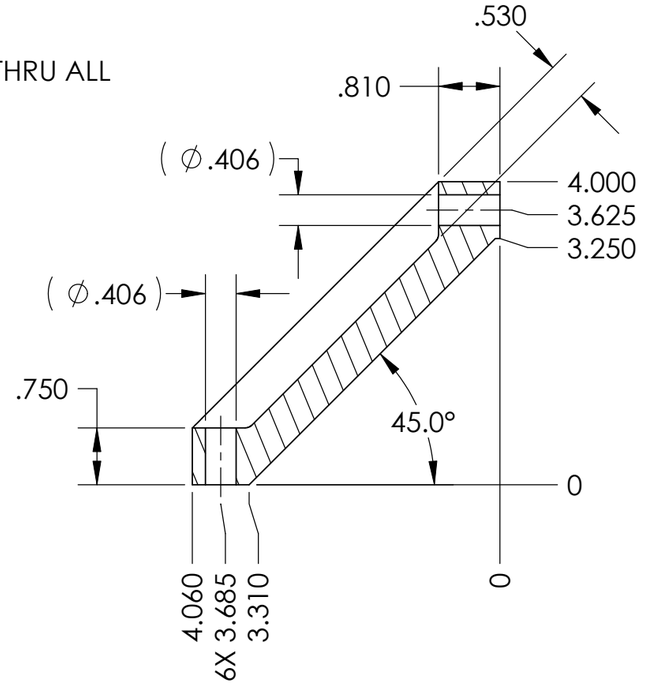
5. SCRIBE, ENGRAVE, OR MECHANICALLY STAMP (NO INKS OR DYES) DRAWING PART NUMBER, REVISION (AND VARIENT OR "TYPE" IF APPLICABLE ON NOTED SURFACE OF PART FOLLOWED ON THE NEXT LINE WITH A THREE DIGIT SERIAL NUMBER. SERIAL NUMBERS START AT 001 FOR THE FIRST ARTICLE AND PROCEED CONSECUTIVELY. USE MINIMUM 0.12 HIGH CHARACTERS, UNLESS THE SIZE OF THE PART DICTATES SMALLER CHARACTERS. A VIBRATORY TOOL MAY BE USED. EXAMPLE DXXXXXXX-VY, TYPE-XX, S/N XXX.
6. APPROXIMATE WEIGHT = 3.9 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	12 Mar. 2010	E0900495	E1000025

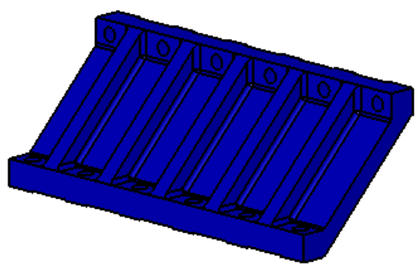








SECTION A-A



NOTES AND TOLERANCES: (UNLESS OTHERWISE SPECIFIED)

DIMENSIONS ARE IN INCHES

TOLERANCES:
.XX ± .015
.XXX ± .005

ANGULAR ± .5°

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

MATERIAL: 6061-T6 Al
FINISH: 63 µinch

LIGO — CALIFORNIA INSTITUTE OF TECHNOLOGY, MASSACHUSETTS INSTITUTE OF TECHNOLOGY

SYSTEM: ADVANCED LIGO
SUB-SYSTEM: SEI
NEXT ASSY: D0901180

PART NAME: BACK RIBS, STAGE 1, aLIGO BSC ISI

DESIGNER	F.MATICHARD	15 Jan. 2010
DRAFTER	M.HILLARD	15 Jan. 2010
CHECKER	A.STEIN	15 Jan. 2010
APPROVAL	K.MASON	15 Jan. 2010

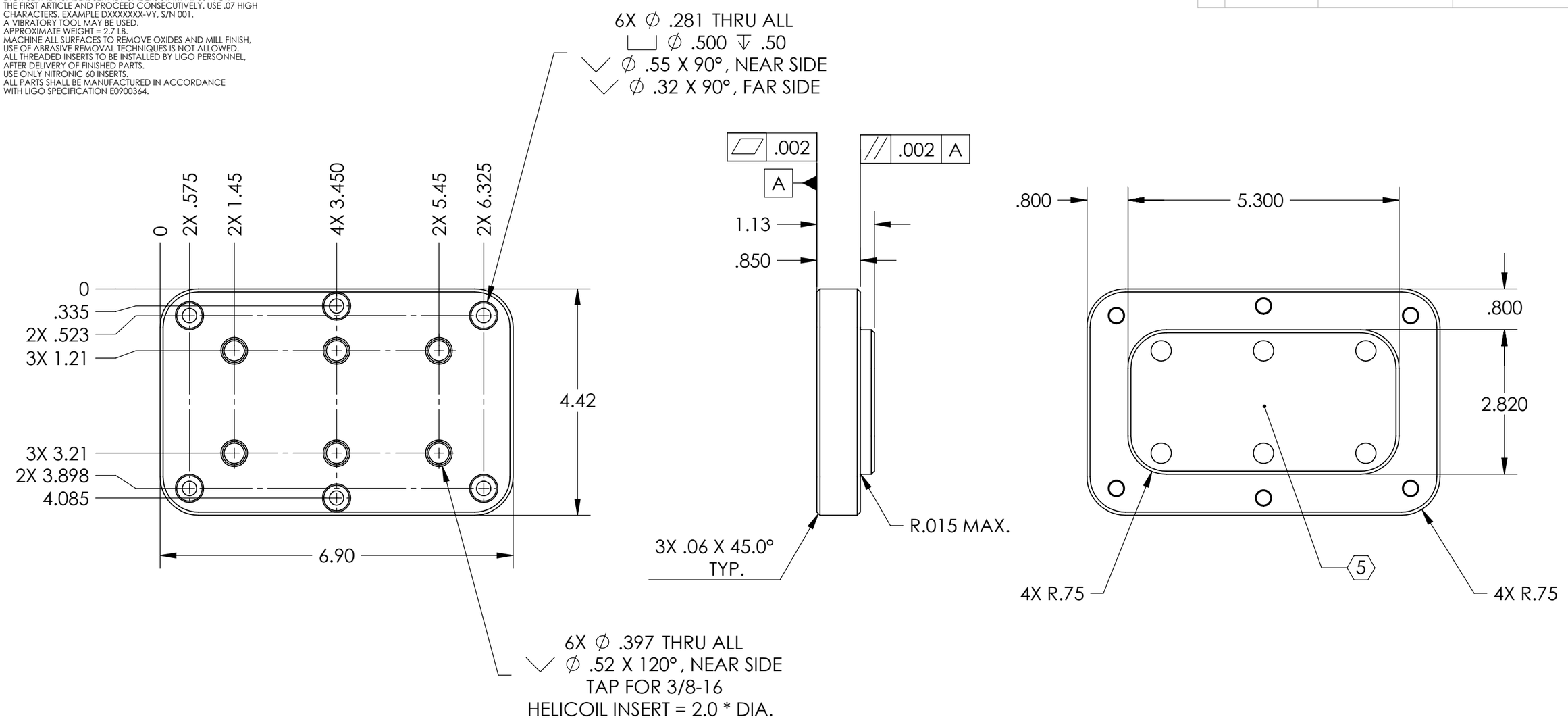
SIZE: B | DWG. NO.: D0902443 | REV.: v1
SCALE: 1:2 | PROJECTION: | SHEET 1 OF 1

D0902443, Back Ribs, Stage 1, BSC ISI, PART PDM REV: X-009, DRAWING PDM REV: X-007

REV.	DATE	DCN #	DRAWING TREE #
v1	12 Mar. 2010	E1000020	E1000025

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 DXXXXXXX-VY, S/N 001. A VIBRATORY TOOL MAY BE USED.
6. APPROXIMATE WEIGHT = 2.7 LB.
7. MACHINE ALL SURFACES TO REMOVE OXIDES AND MILL FINISH, USE OF ABRASIVE REMOVAL TECHNIQUES IS NOT ALLOWED.
8. ALL THREADED INSERTS TO BE INSTALLED BY LIGO PERSONNEL, AFTER DELIVERY OF FINISHED PARTS. USE ONLY NITRONIC 60 INSERTS.
9. ALL PARTS SHALL BE MANUFACTURED IN ACCORDANCE WITH LIGO SPECIFICATION E0900364.



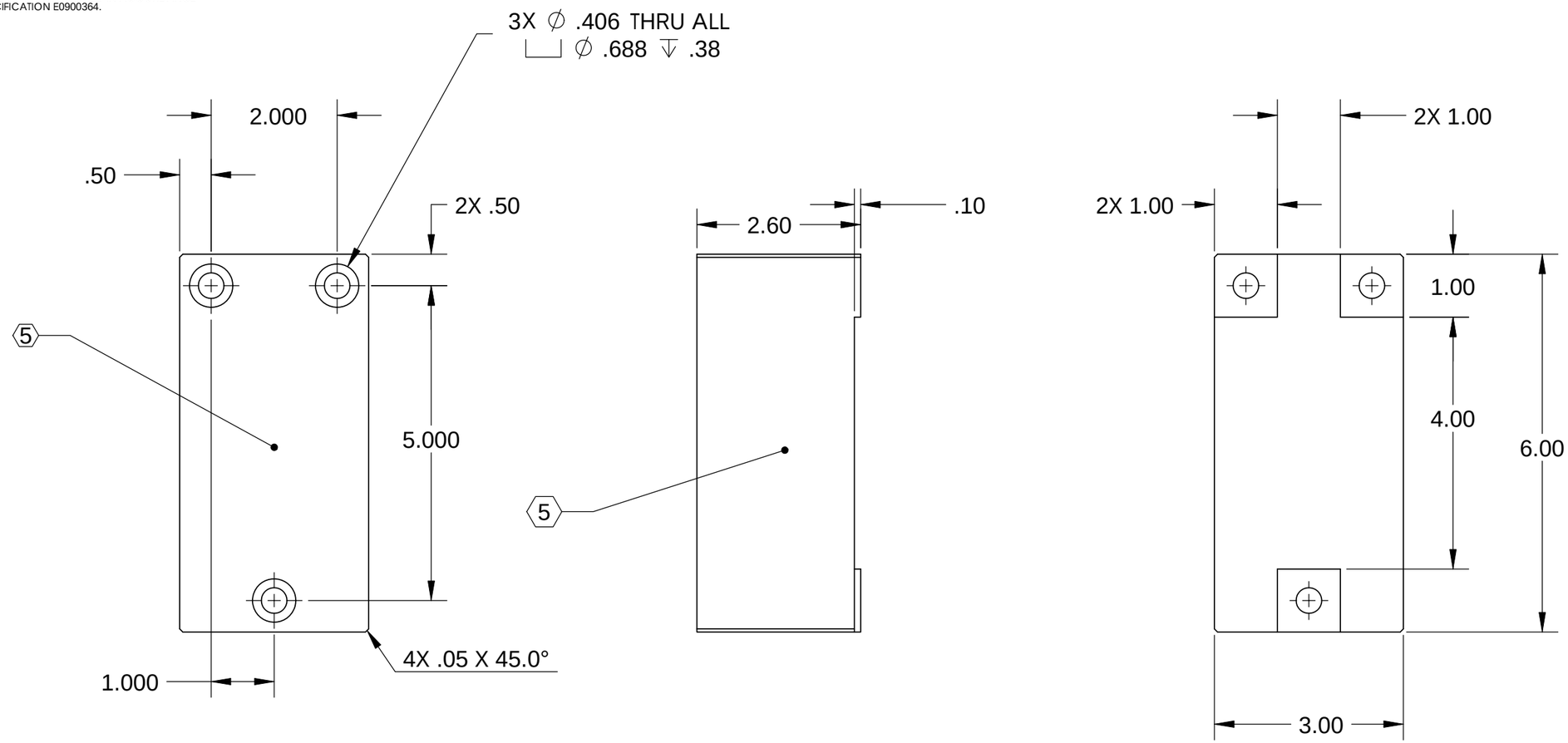
NOTES AND TOLERANCES: (UNLESS OTHERWISE SPECIFIED)											
DIMENSIONS ARE IN INCHES TOLERANCES: .XX ± .015 .XXX ± .005 ANGULAR ± .5°	1. INTERPRET DRAWING PER ASME Y14.5-1994. 2. REMOVE ALL SHARP EDGES, R.02 MIN. 3. DO NOT SCALE FROM DRAWING. 4. ALL MACHINING FLUIDS MUST BE FULLY SYNTHETIC, FULLY WATER SOLUBLE AND FREE OF SULFUR, SILICONE, AND CHLORINE.		LIGO CALIFORNIA INSTITUTE OF TECHNOLOGY MASSACHUSETTS INSTITUTE OF TECHNOLOGY		PART NAME: Spring Hatch, aLIGO BSC ISI					
	MATERIAL: 6061-T6 Al	FINISH: 63 µinch	SYSTEM: ADVANCED LIGO	SUB-SYSTEM: SEI	DESIGNER	A.STEIN	11 Jan. 2010	SIZE: B	DWG. NO.: D0902487	REV.: v1
			NEXT ASSY: D0901181		DRAFTER	M.HILLARD	11 Jan. 2010			
					CHECKER	F.MATICHARD	11 Jan. 2010			
					APPROVAL	K.MASON	11 Jan. 2010	SCALE: 1:2	PROJECTION:	SHEET 1 OF 1

D0902487_Spring_Hatch-BSC_ISI, PART PDM REV: X-008, DRAWING PDM REV: X-004

REV.	DATE	DCN #	DRAWING TREE #
v1	12 Mar. 2010	E0900495	E1000025

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 ARTICAL AND PROCEED CONSECUTIVELY. USE .07 HIGH CHARACTERS. EXAMPLE DXXXXXX-VY, S/N 001. A VIBRATORY TOOL MAY BE USED.
6. APPROXIMATE WEIGHT = 12.72 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.



NOTES AND TOLERANCES: (UNLESS OTHERWISE SPECIFIED)			
DIMENSIONS ARE IN INCHES TOLERANCES: .XX ± .015 .XXX ± .005 ANGULAR ± .5°	1. INTERPRET DRAWING PER ASME Y14.5-1994. 2. REMOVE ALL SHARP EDGES, R.02 MIN. 3. DO NOT SCALE FROM DRAWING. 4. ALL MACHINING FLUIDS MUST BE FULLY SYNTHETIC, FULLY WATER SOLUBLE AND FREE OF SULFUR, SILICONE, AND CHLORINE.		
	MATERIAL: AISI 304	FINISH: 63 µinch	

LIGO — CALIFORNIA INSTITUTE OF TECHNOLOGY, MASSACHUSETTS INSTITUTE OF TECHNOLOGY

SYSTEM	ADVANCED LIGO
SUB-SYSTEM	SEI
NEXT ASSY	D0901180

PART NAME: LATERAL TRIM MASS 12 LBS, STAGE 1, aLIGO BSC-ISI

DESIGNER	F.MATICHARD	15 Jan. 2010	
DRAFTER	M.HILLARD	15 Jan. 2010	
CHECKER	A.STEIN	15 Jan. 2010	
APPROVAL	K.MASON	15 Jan. 2010	

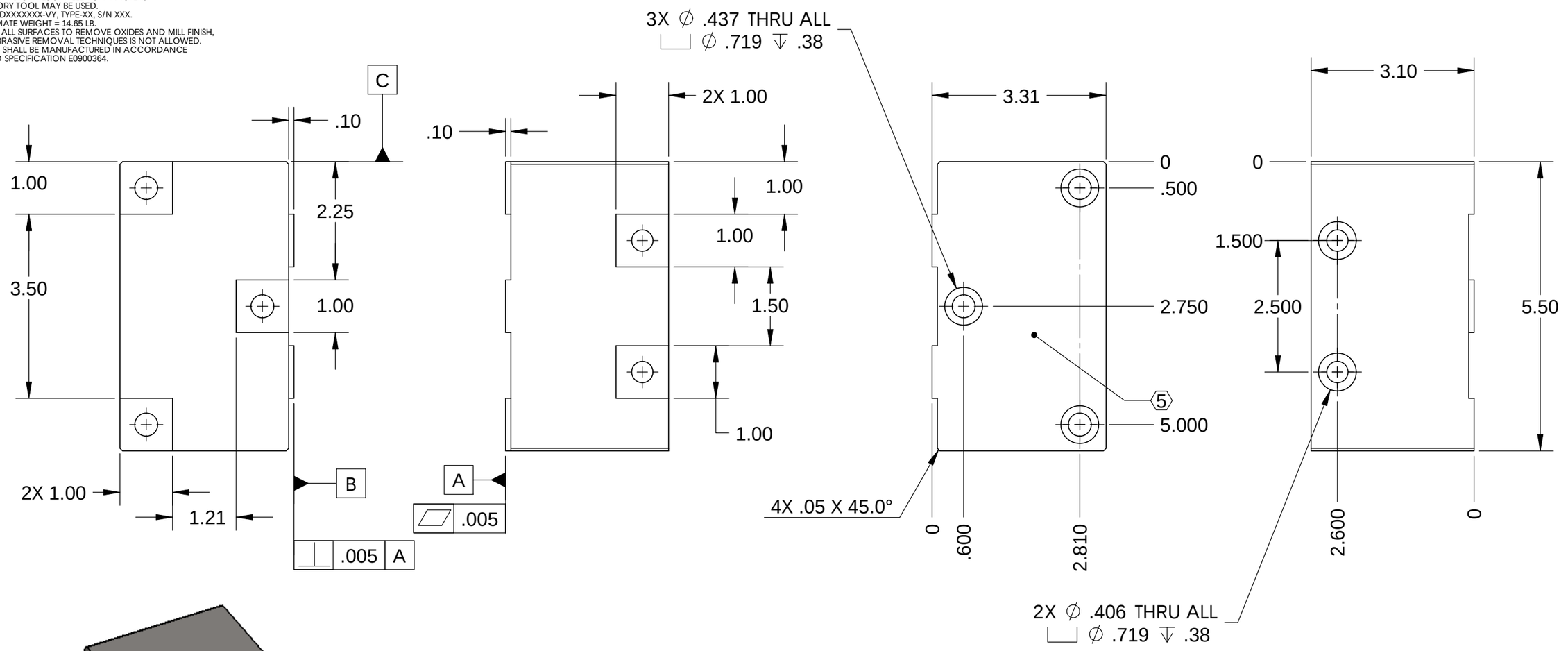
SIZE: B | DWG. NO.: D0902612 | REV.: v1 | SCALE: 1:2 | PROJECTION: | SHEET 1 OF 1

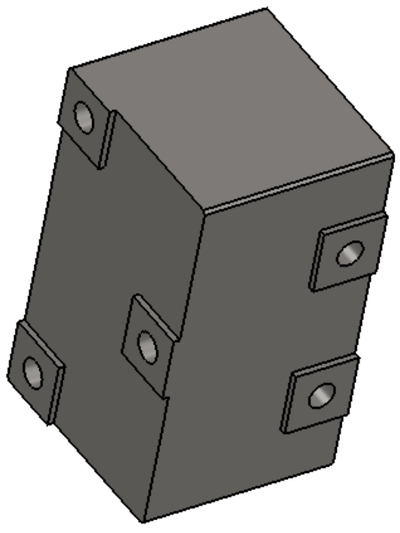
D0902612 Lateral Trim Mass 12 Lbs., Stage 1, aLIGO BSC-ISI, PART PDM REV: X-008, DRAWING PDM REV: X-005

NOTES CONTINUED:

5. SCRIBE, ENGRAVE, OR MECHANICALLY STAMP (NO INKS OR DYES) DRAWING PART NUMBER, REVISION (AND VARIENT 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 DXXXXXXX-VY, TYPE-XX, S/N XXX.
6. APPROXIMATE WEIGHT = 14.65 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	12 Mar. 2010	E0900495	E1000025





NOTES AND TOLERANCES: (UNLESS OTHERWISE SPECIFIED)					
DIMENSIONS ARE IN INCHES TOLERANCES: .XX ± .015 .XXX ± .005 ANGULAR ± .5°	1. INTERPRET DRAWING PER ASME Y14.5-1994. 2. REMOVE ALL SHARP EDGES, R.02 MIN. 3. DO NOT SCALE FROM DRAWING. 4. ALL MACHINING FLUIDS MUST BE FULLY SYNTHETIC, FULLY WATER SOLUBLE AND FREE OF SULFUR, SILICONE, AND CHLORINE.	MATERIAL: AISI 304	FINISH: 63 µinch	NEXT ASSY: D0901180	SYSTEM: ADVANCED LIGO / SUB-SYSTEM: SEI

LIGO — CALIFORNIA INSTITUTE OF TECHNOLOGY, MASSACHUSETTS INSTITUTE OF TECHNOLOGY

PART NAME: LATERAL TRIM MASS 15 LBS, STAGE 1, aLIGO BSC ISI

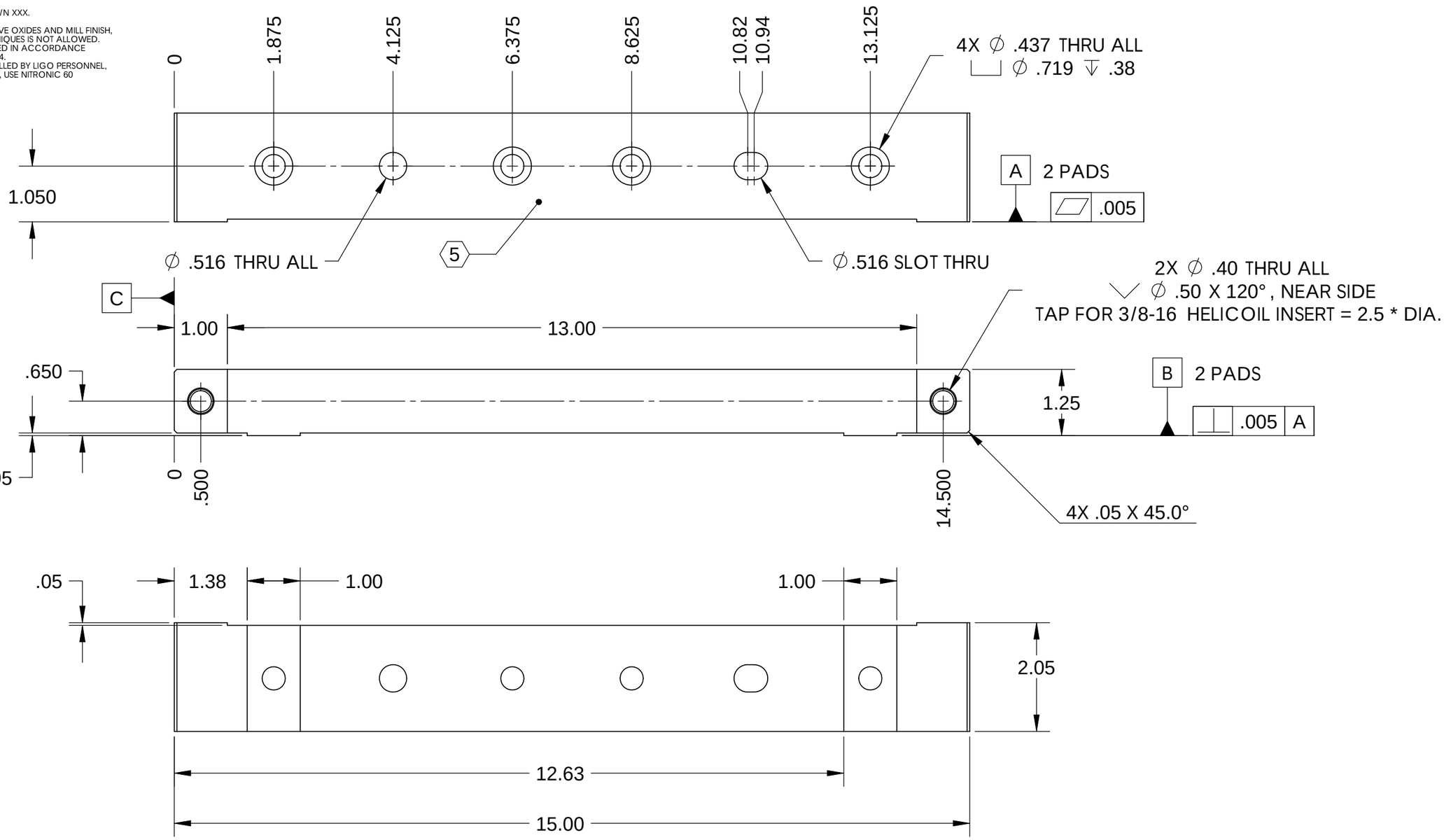
DESIGNER	F.MATICHARD	15 Jan. 2010	SIZE: B	DWG. NO.: D0902613	REV.: v1
DRAFTER	M.HILLARD	15 Jan. 2010			
CHECKER	A.STEIN	15 Jan. 2010			
APPROVAL	K.MASON	15 Jan. 2010	SCALE: 1:2	PROJECTION:	SHEET 1 OF 1

D0902613 Lateral Trim Mass 15 Lbs.,Stage 1, aLIGO BSC-ISI, PART PDM REV: X-009, DRAWING PDM REV: X-004

REV.	DATE	DCN #	DRAWING TREE #
v1	12 Mar. 2010	E0900495	E1000025

NOTES CONTINUED:

5. SCRIBE, ENGRAVE, OR MECHANICALLY STAMP (NO INKS OR DYES) DRAWING PART NUMBER, REVISION (AND VARIENT 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 DXXXXXXX-VY, TYPE-XX, S/N XXX.
6. APPROXIMATE WEIGHT = 9.83 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. ALL THREADED INSERTS TO BE INSTALLED BY LIGO PERSONNEL, AFTER DELIVERY OF FINSIHED PARTS, USE NITRONIC 60 THREADED INSERTS.



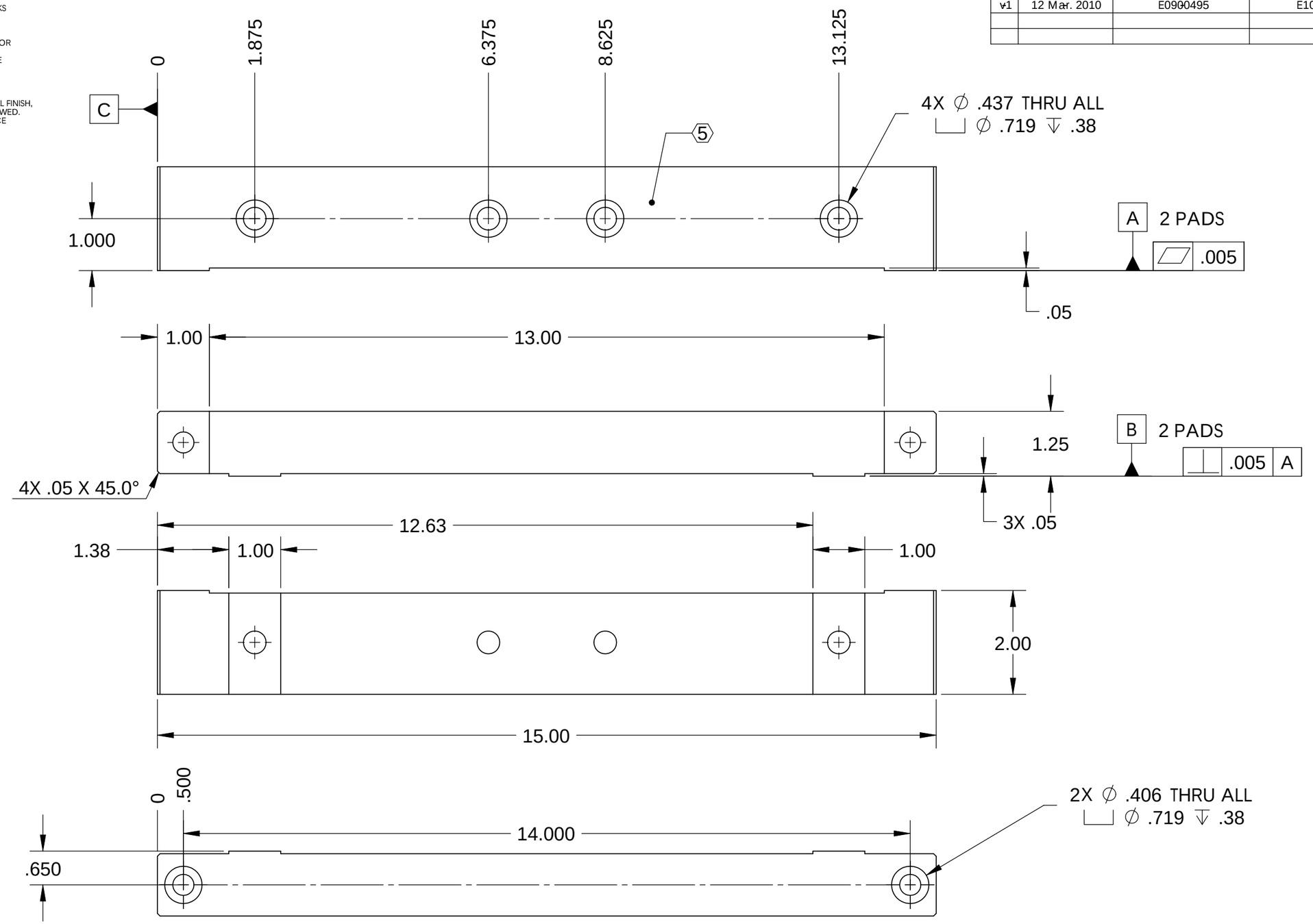
NOTES AND TOLERANCES: (UNLESS OTHERWISE SPECIFIED)							
DIMENSIONS ARE IN INCHES TOLERANCES: .XX ± .015 .XXX ± .005 ANGULAR ± .5°	1. INTERPRET DRAWING PER ASME Y14.5-1994. 2. REMOVE ALL SHARP EDGES, R.02 MIN. 3. DO NOT SCALE FROM DRAWING. 4. ALL MACHINING FLUIDS MUST BE FULLY SYNTHETIC, FULLY WATER SOLUBLE AND FREE OF SULFUR, SILICONE, AND CHLORINE.		CALIFORNIA INSTITUTE OF TECHNOLOGY MASSACHUSETTS INSTITUTE OF TECHNOLOGY		PART NAME	Front Lower Trim Mass 10 Lbs., Stage 1, aLIGO BSC ISI	
	MATERIAL: AISI 304	FINISH: 63 µinch	SYSTEM: ADVANCED LIGO	SUB-SYSTEM: SEI	DESIGNER: F.MATICHARD 15 Jan. 2010 DRAFTER: M.HILLARD 15 Jan. 2010 CHECKER: A.STEIN 15 Jan. 2010 APPROVAL: K.MASON 15 Jan. 2010	SIZE: B DWG. NO.: D0902614 REV.: v1	
			NEXT ASSY: D0901180		SCALE: 1:2	PROJECTION:	SHEET 1 OF 1

D0902614 Front Lower Trim Mass 10 Lbs., Stage 1, aLIGO BSC-ISI, PART PDM REV: X-010, DRAWING PDM REV: X-007

NOTES CONTINUED:

5. SCRIBE, ENGRAVE, OR MECHANICALLY STAMP (NO INKS OR DYES) DRAWING PART NUMBER, REVISION (AND VARIENT 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 DXXXXXXX-VY, TYPE-XX, S/N XXX.
6. APPROXIMATE WEIGHT = 9.70 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	12 Mar. 2010	E0900495	E1000025



NOTES AND TOLERANCES: (UNLESS OTHERWISE SPECIFIED)			
DIMENSIONS ARE IN INCHES TOLERANCES: .XX ± .015 .XXX ± .005 ANGULAR ± .5°	1. INTERPRET DRAWING PER ASME Y14.5-1994. 2. REMOVE ALL SHARP EDGES, R.02 MIN. 3. DO NOT SCALE FROM DRAWING. 4. ALL MACHINING FLUIDS MUST BE FULLY SYNTHETIC, FULLY WATER SOLUBLE AND FREE OF SULFUR, SILICONE, AND CHLORINE.	MATERIAL: AISI 304	FINISH: 63 µinch

LIGO — CALIFORNIA INSTITUTE OF TECHNOLOGY, MASSACHUSETTS INSTITUTE OF TECHNOLOGY

SYSTEM	ADVANCED LIGO
SUB-SYSTEM	SEI
NEXT ASSY	D0901180
PART NAME	Front Upper Trim Mass 10 Lbs., Stage 1, aLIGO BSC-ISI

DESIGNER	F.MATICHARD	15 Jan. 2010
DRAFTER	M.HILLARD	15 Jan. 2010
CHECKER	A.STEIN	15 Jan. 2010
APPROVAL	K.MASON	15 Jan. 2010

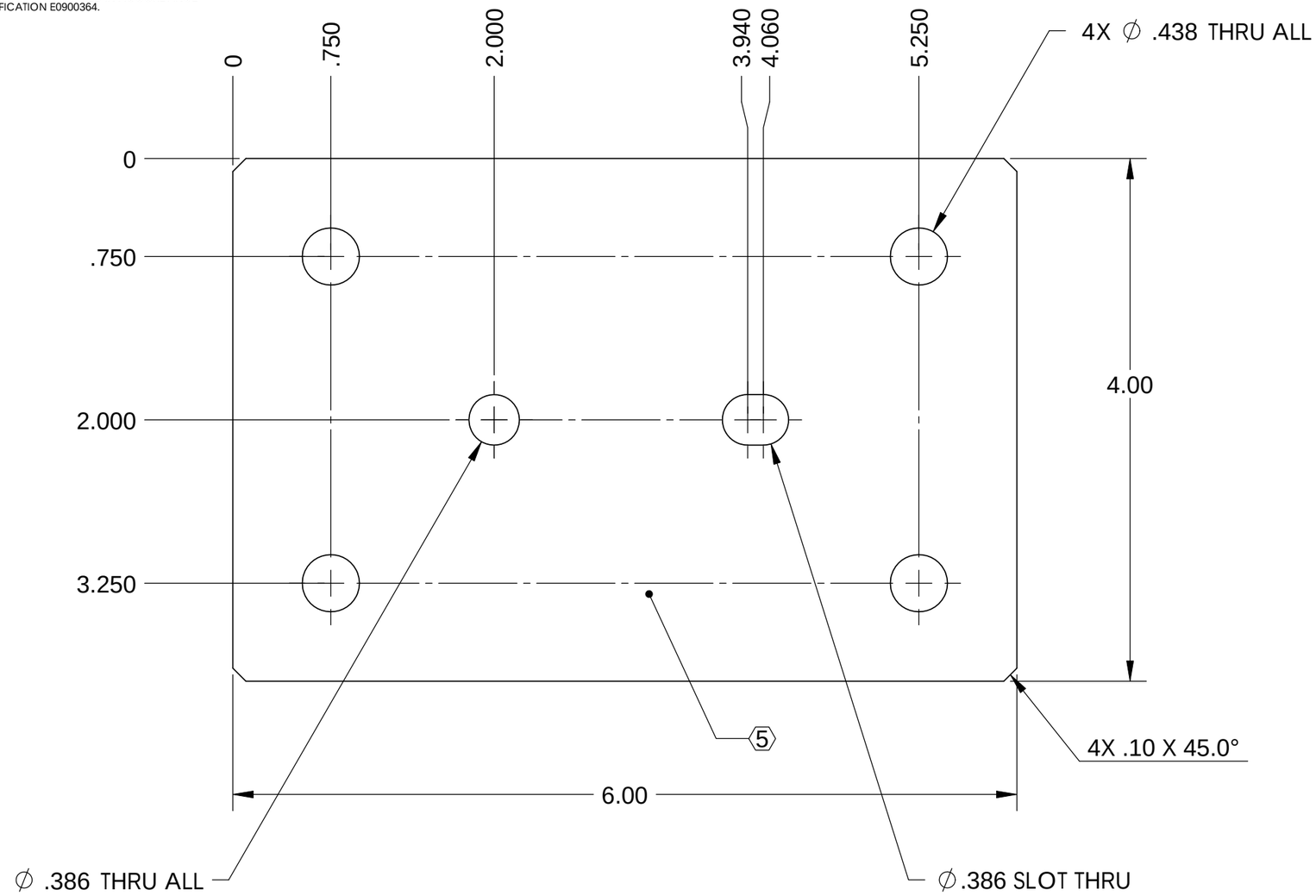
SIZE: B — DWG. NO.: D0902615 — REV.: v1 — SCALE: 1:2 — PROJECTION: — SHEET 1 OF 1

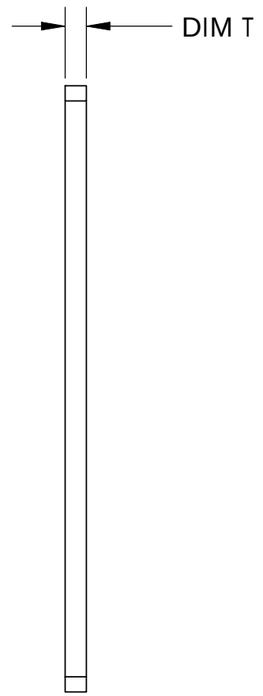
D0902615 Front Upper Trim Mass 10 Lbs., Stage 1, aLIGO BSC-ISI, PART PDM REV: X-009, DRAWING PDM REV: X-004

REV.	DATE	DCN #	DRAWING TREE #
v1	12 Mar. 2010	E0900495	E1000025

NOTES CONTINUED:

5. SCRIBE, ENGRAVE, OR MECHANICALLY STAMP (NO INKS OR DYES) DRAWING PART NUMBER, REVISION (AND VARIENT 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 DXXXXXXX-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.





PART NUMBER	DIM T
D0902616-1	0.500
D0902616-2	0.140
D0902616-3	0.280
D0902616-4	0.720
D0902616-5	0.070

NOTES AND TOLERANCES: (UNLESS OTHERWISE SPECIFIED)

DIMENSIONS ARE IN INCHES

TOLERANCES:
.XX ± .015
.XXX ± .005

ANGULAR ± .5°

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

MATERIAL: AISI 304
FINISH: 63 µinch

LIGO CALIFORNIA INSTITUTE OF TECHNOLOGY
MASSACHUSETTS INSTITUTE OF TECHNOLOGY

SYSTEM: ADVANCED LIGO
SUB-SYSTEM: SEI
NEXT ASSY: D0901180

PART NAME: Small Trim Masses, Stage 1, aLIGO BSC-ISI

DESIGNER	F.Matichard	15 Jan. 2010
DRAFTER	M.HILLARD	15 Jan. 2010
CHECKER	A.STEIN	15 Jan. 2010
APPROVAL	K.MASON	15 Jan. 2010

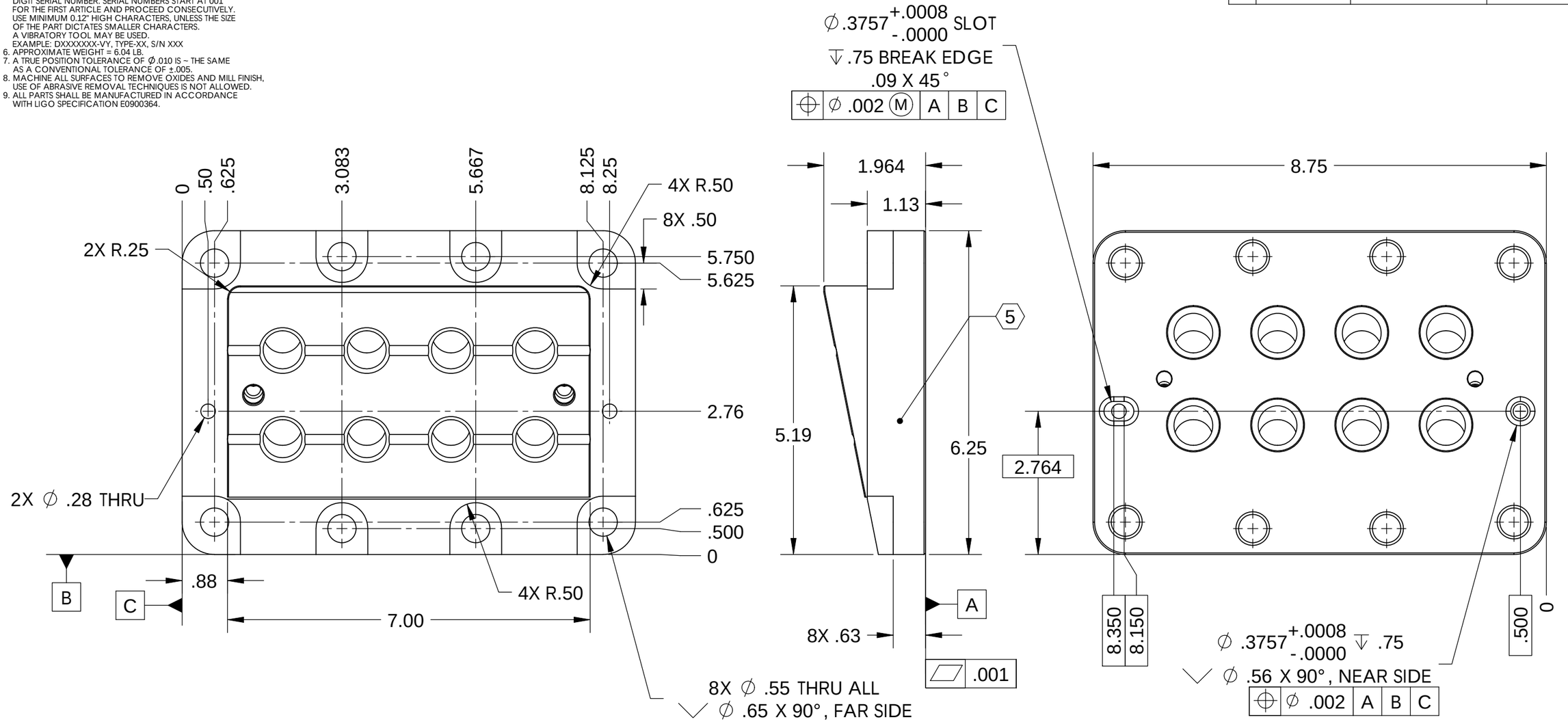
SIZE: B
DWG. NO.: D0902616
REV.: v1
SCALE: 1:1
PROJECTION:
SHEET 1 OF 1

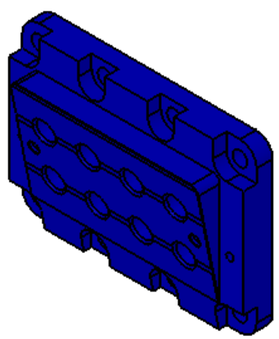
D0902616 Small Trim Masses, Stage 1, aLIGO BSC-ISI, PART PDM REV: X-010, DRAWING PDM REV: X-007

REV.	DATE	DCN #	DRAWING TREE #
v1	01 Mar. 2010	E1000026	E1000025

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: DXXXXXXX-VY, TYPE-XX, S/N XXX
6. APPROXIMATE WEIGHT = 6.04 LB.
7. A TRUE POSITION TOLERANCE OF ∅.010 IS ~ THE SAME AS A CONVENTIONAL TOLERANCE OF ±.005.
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.





NOTES AND TOLERANCES: (UNLESS OTHERWISE SPECIFIED)			
DIMENSIONS ARE IN INCHES TOLERANCES: .XX ± .015 .XXX ± .005 ANGULAR ± .5°	1. INTERPRET DRAWING PER ASME Y14.5-1994. 2. BREAK ALL EDGES AND CORNERS .03 X 45°. 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: 32 µinch

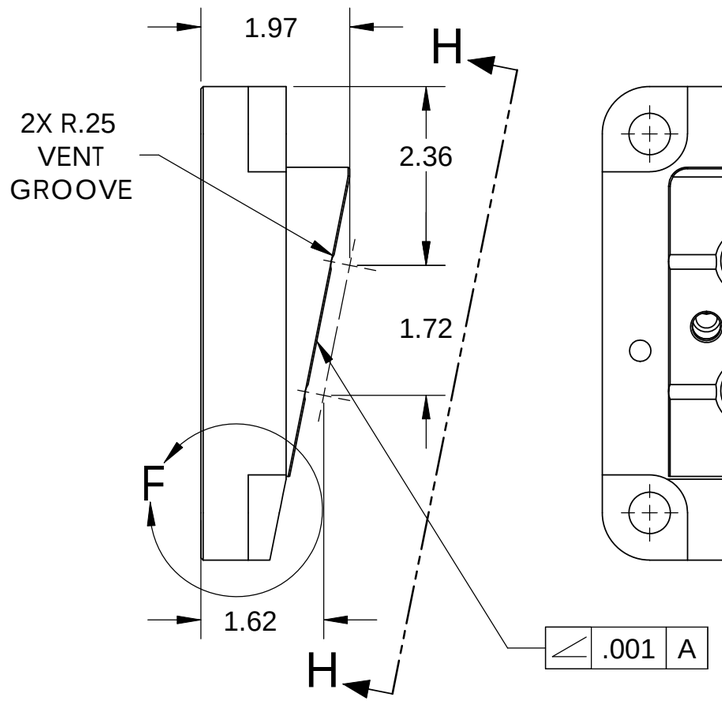
LIGO — CALIFORNIA INSTITUTE OF TECHNOLOGY, MASSACHUSETTS INSTITUTE OF TECHNOLOGY

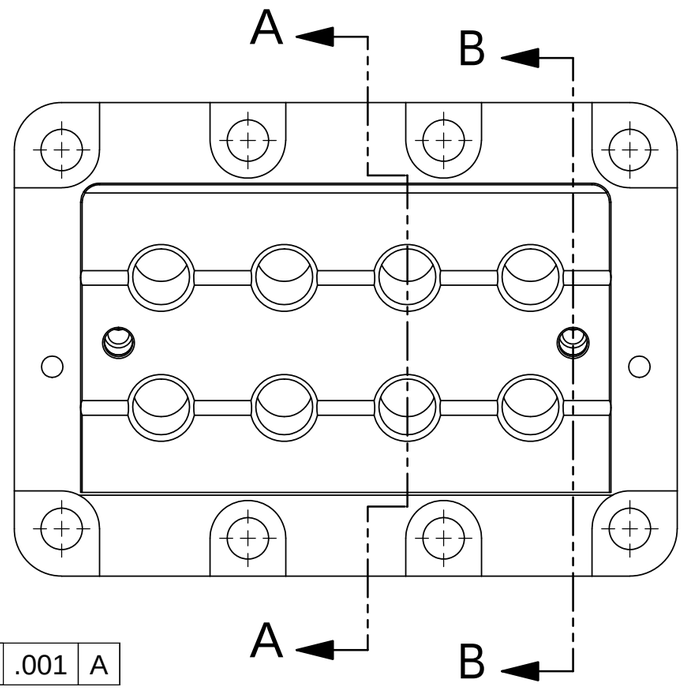
SYSTEM	SUB-SYSTEM	NEXT ASSY
ADVANCED LIGO	SEI	D0902485

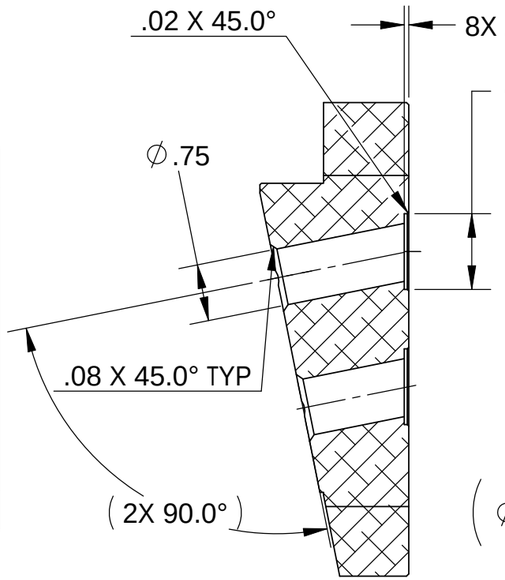
PART NAME: Spring Base, Stage 1-2, aLIGO BSC ISI

DESIGNER	A. STEIN	01 Feb. 2010	SIZE: B	DWG. NO.: D0902647	REV.: v1
DRAFTER	M.HILLARD	01 Feb. 2010			
CHECKER	F.MATICHARD	01 Feb. 2010			
APPROVAL	K.MASON	01 Feb. 2010	SCALE: 1:2	PROJECTION:	SHEET 1 OF 2

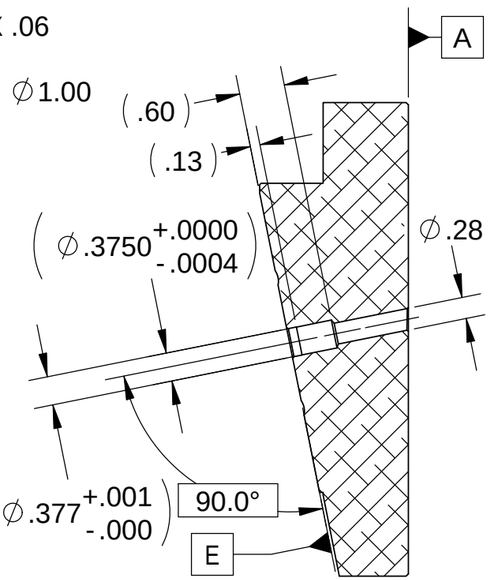
D0902647 Spring Base, Stage 1-2, aLIGO BSC ISI, PART PDM REV: X-024, DRAWING PDM REV: X-009





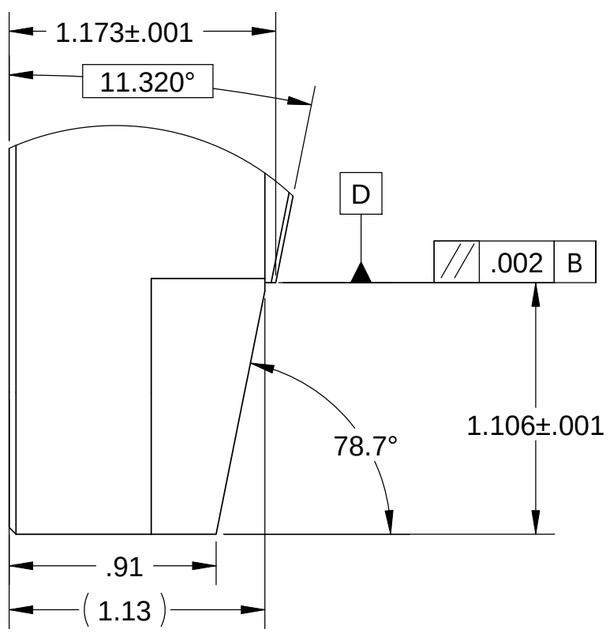


SECTION A-A
8X

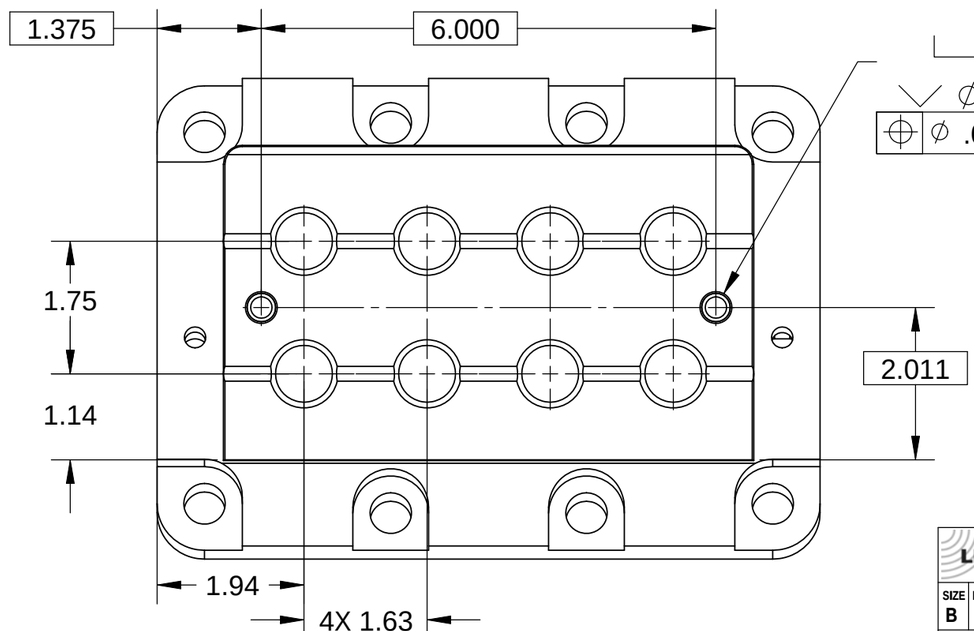


SECTION B-B
2X

DETAIL F
SCALE 1.5 : 1



VIEW H-H



2X ∅ .3750 +.0000 -.0004 ⌵ .60

⌴ ∅ .377 +.001 -.000 ⌵ .13

∨ ∅ .42 X 90°, NEAR SIDE

⌖ ∅ .002 E C D

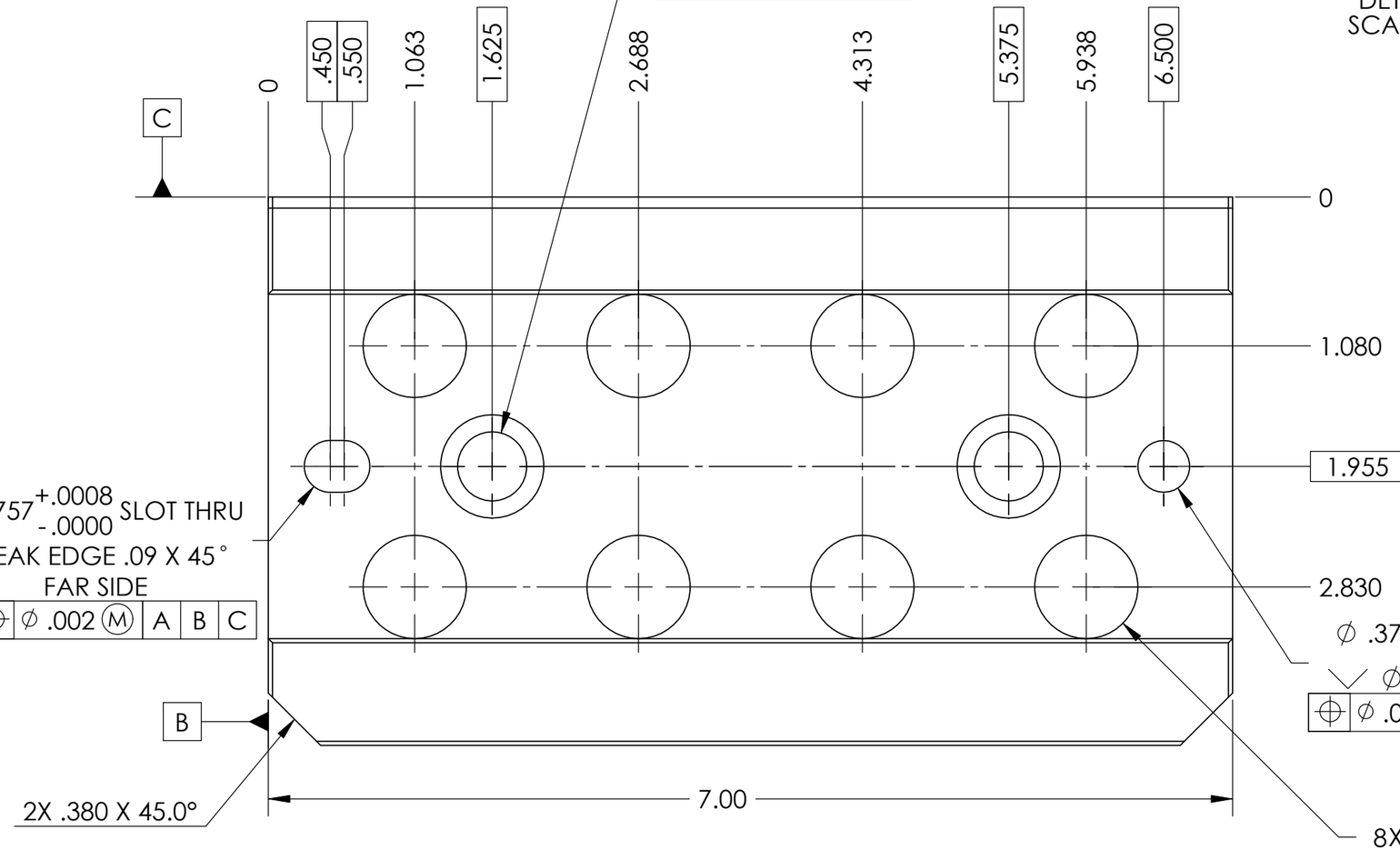
LIGO	CALIFORNIA INSTITUTE OF TECHNOLOGY MASSACHUSETTS INSTITUTE OF TECHNOLOGY	
SIZE B	DWG. NO. D0902647	REV. v1
SCALE: 1:2	PROJECTION:	SHEET 2 OF 2

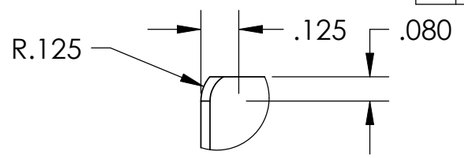
D0902647 Spring Base, Stage 1-2, aLIGO BSC ISI, PART PDM REV: X-024, DRAWING PDM REV: X-009

NOTES CONTINUED:

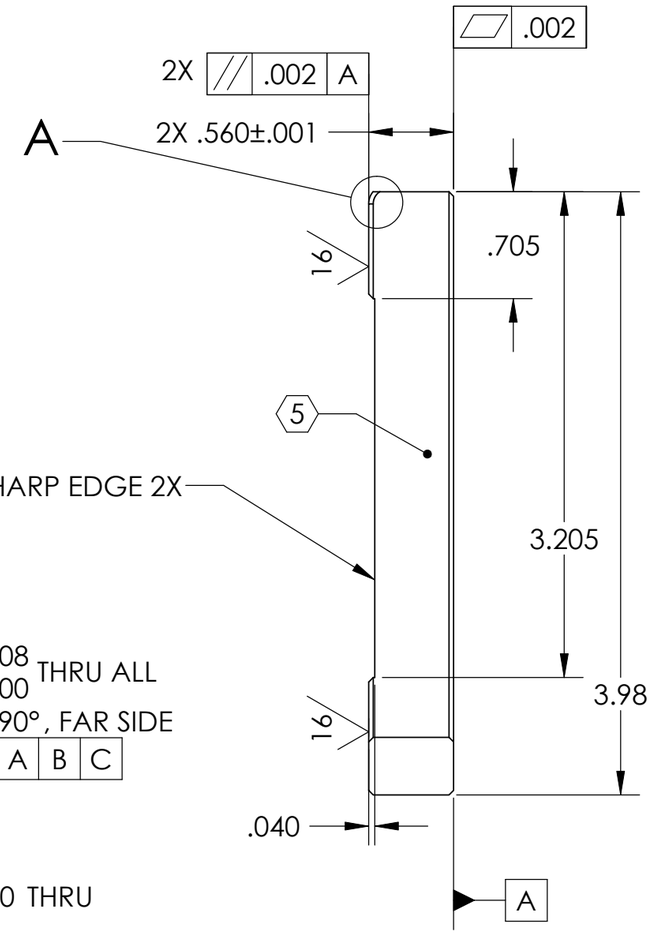
5. SCRIBE, ENGRAVE, OR MECHANICALLY STAMP (NO INKS OR DYES) DRAWING PART NUMBER, REVISION (AND VARIANT OR "TYPE" IF APPLICABLE) ON NOTED SURFACE OF PART FOLLOWED ON THE NEXT LINE WITH A THREE DIGIT SERIAL NUMBER. SERIAL NUMBERS START AT 001 FOR THE FIRST ARTICLE AND PROCEED CONSECUTIVELY. USE MINIMUM 0.12" HIGH CHARACTERS, UNLESS THE SIZE OF THE PART DICTATES SMALLER CHARACTERS. A VIBRATORY TOOL MAY BE USED. EXAMPLE: DXXXXXXX-VY, TYPE-XX, S/N XXX
6. APPROXIMATE WEIGHT = 3.54 LB.
7. A TRUE POSITION TOLERANCE OF Ø.010 IS ~ THE SAME AS A CONVENTIONAL TOLERANCE OF ±.005.
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.
10. PART TO BE ELECTROPOLISHED.
11. DIMENSIONS AND TOLERANCES APPLY AFTER ELECTROPOLISHING.

REV.	DATE	DCN #	DRAWING TREE #
v1	01 Mar. 2010	E1000026	E1000025





DETAIL A
SCALE 2 : 1



D0902648 Spring Clamp Plate, Stage 1-2, aLIGO BSC ISI, PART PDM REV: X-022, DRAWING PDM REV: X-008

NOTES AND TOLERANCES: (UNLESS OTHERWISE SPECIFIED)			
DIMENSIONS ARE IN INCHES TOLERANCES: .XX ± .015 .XXX ± .005 ANGULAR ± .5°	1. INTERPRET DRAWING PER ASME Y14.5-1994. 2. BREAK ALL CORNERS AND EDGES .03 X 45°. 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: 17-4 PH SSTL, H 1150	FINISH: 32 µinch	

LIGO CALIFORNIA INSTITUTE OF TECHNOLOGY MASSACHUSETTS INSTITUTE OF TECHNOLOGY

SYSTEM	SUB-SYSTEM
ADVANCED LIGO	SEI

NEXT ASSY: D0902485

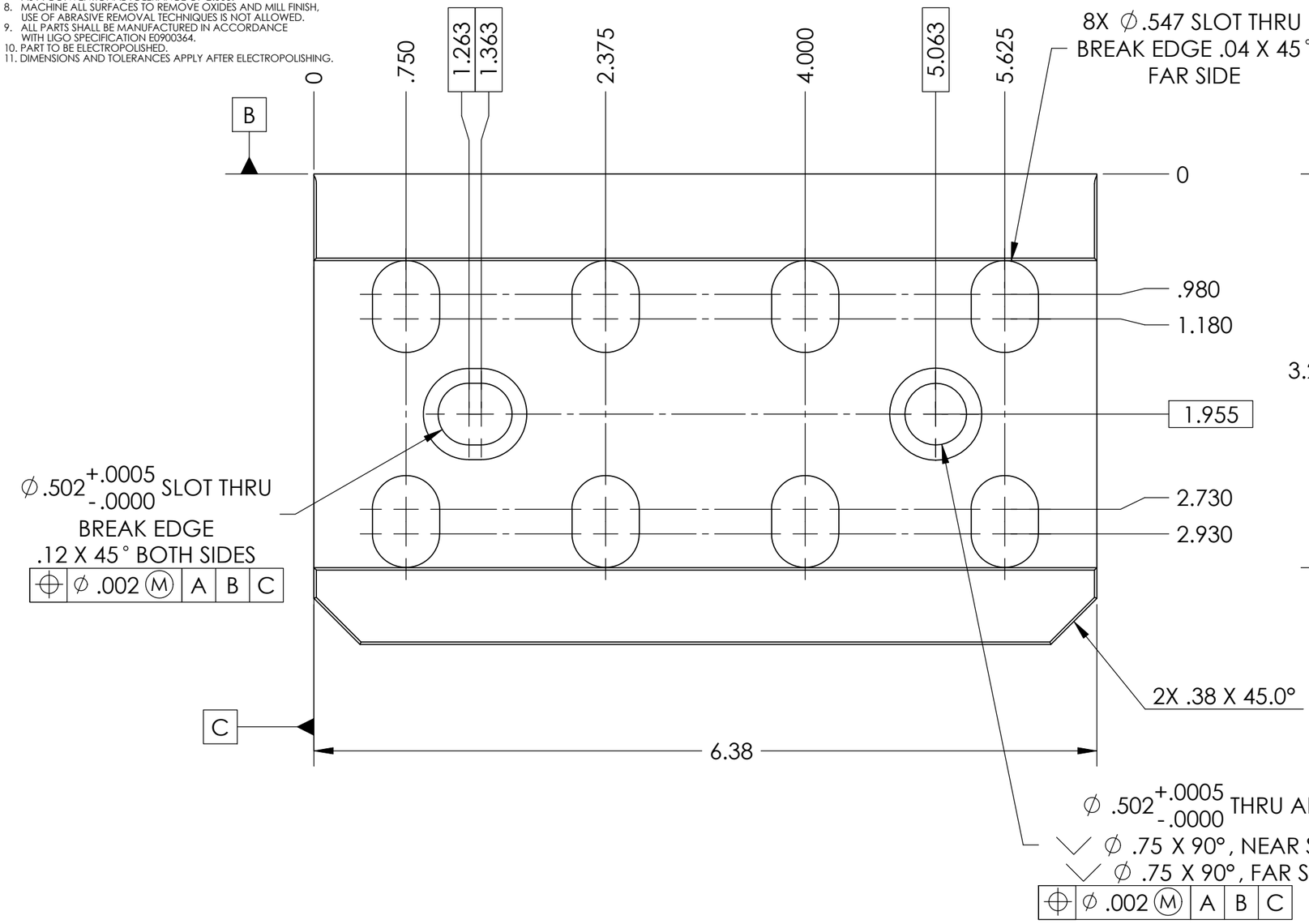
PART NAME: Spring Clamp Plate, Stage 1-2, aLIGO BSC ISI

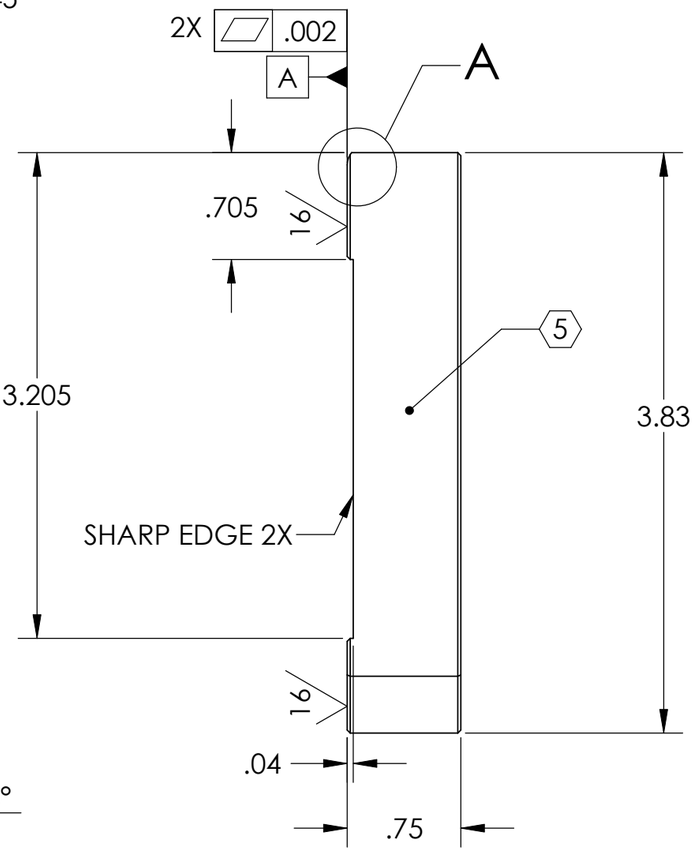
DESIGNER	A.STEIN	01 Feb. 2010	SIZE	DWG. NO.	REV.
DRAFTER	M.HILLARD	01 Feb. 2010	B	D0902648	v1
CHECKER	F.MATICHARD	01 Feb. 2010			
APPROVAL	K.MASON	01 Feb. 2010	SCALE: 1:1	PROJECTION:	SHEET 1 OF 1

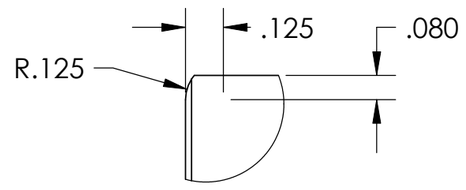
NOTES CONTINUED:

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: DXXXXXXX-VY, TYPE-XX, S/N XXX
6. APPROXIMATE WEIGHT = 4.31 LB.
7. A TRUE POSITION TOLERANCE OF Ø.010 IS ~ THE SAME AS A CONVENTIONAL TOLERANCE OF ±.005.
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.
10. PART TO BE ELECTROPOLISHED.
11. DIMENSIONS AND TOLERANCES APPLY AFTER ELECTROPOLISHING.

REV.	DATE	DCN #	DRAWING TREE #
v1	01 Mar. 2010	E1000026	E1000025







DETAIL A
SCALE 2 : 1

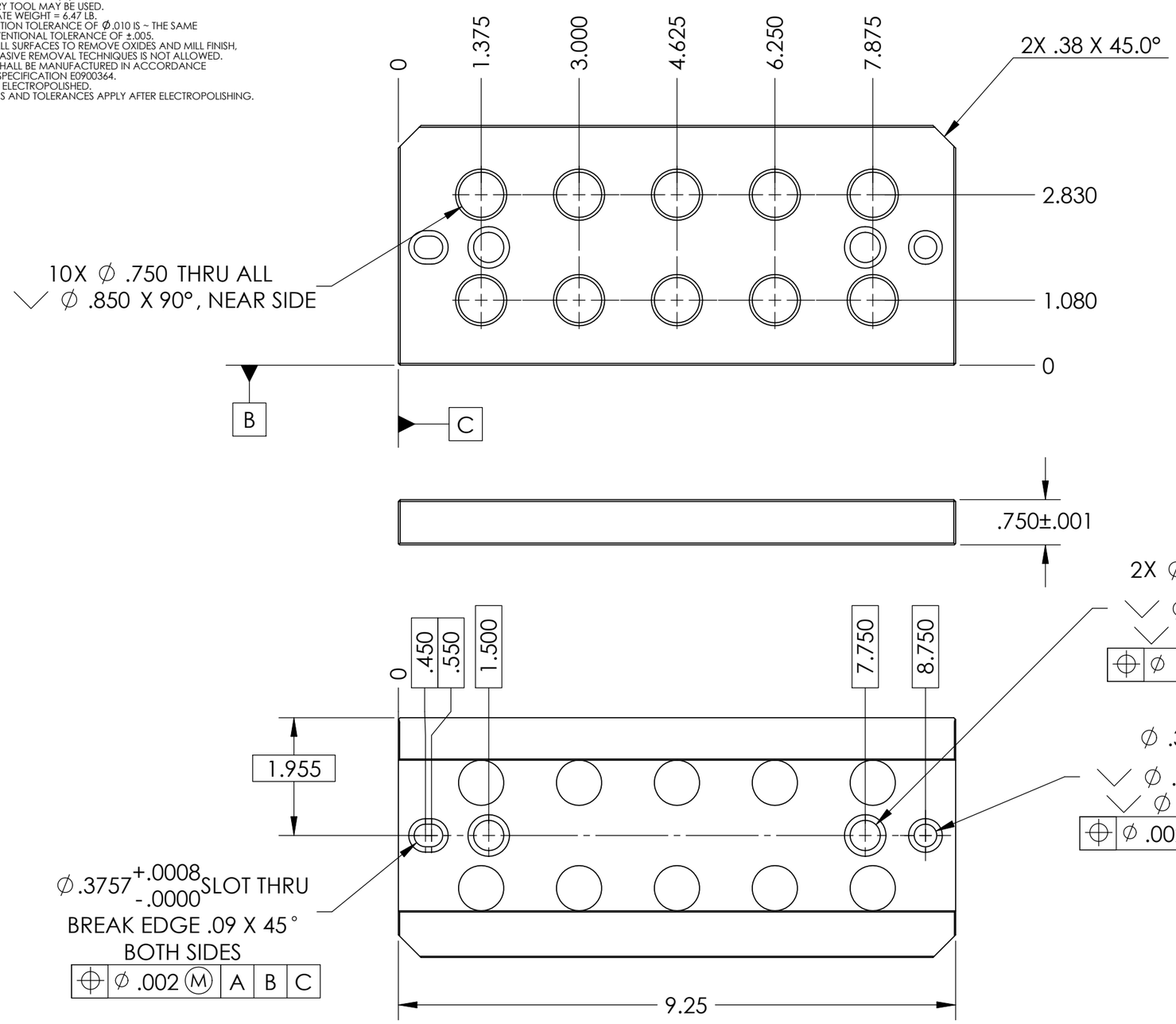
NOTES AND TOLERANCES: (UNLESS OTHERWISE SPECIFIED)					
DIMENSIONS ARE IN INCHES TOLERANCES: .XX ± .015 .XXX ± .005 ANGULAR ± .5°	1. INTERPRET DRAWING PER ASME Y14.5-1994. 2. BREAL ALL EDGES AND CORNERS .03 X 45°. 3. DO NOT SCALE FROM DRAWING. 4. ALL MACHINING FLUIDS MUST BE FULLY SYNTHETIC, FULLY WATER SOLUBLE AND FREE OF SULFUR, SILICONE, AND CHLORINE.	MATERIAL: 17-4 PH SSTL, H 1150	FINISH: 32 µinch	LIGO CALIFORNIA INSTITUTE OF TECHNOLOGY MASSACHUSETTS INSTITUTE OF TECHNOLOGY SYSTEM: ADVANCED LIGO SUB-SYSTEM: SEI NEXT ASSY: D0902485	PART NAME: Spring Clamp Cap, Stage 1-2, aLIGO BSC ISI DESIGNER A.STEIN 01 Feb. 2010 DRAFTER M.HILLARD 01 Feb. 2010 CHECKER F.MATICHARD 01 Feb. 2010 APPROVAL K.MASON 01 Feb. 2010 SIZE: B DWG. NO.: D0902695 REV.: v1 SCALE: 1:1 PROJECTION: SHEET 1 OF 1

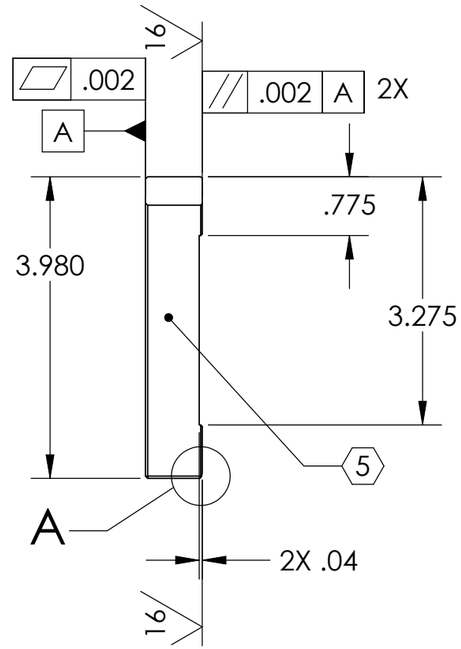
D0902695 Spring Clamp Cap, Stage 1-2, aLIGO BSC ISI, PART PDM REV: X-008, DRAWING PDM REV: X-005

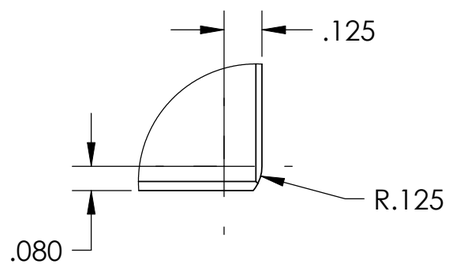
NOTES CONTINUED:

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: DXXXXXXX-VY, S/N 001. A VIBRATORY TOOL MAY BE USED.
6. APPROXIMATE WEIGHT = 6.47 LB.
7. A TRUE POSITION TOLERANCE OF Ø.010 IS ~ THE SAME AS A CONVENTIONAL TOLERANCE OF ±.005.
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.
10. PART TO BE ELECTROPOLISHED.
11. DIMENSIONS AND TOLERANCES APPLY AFTER ELECTROPOLISHING.

REV.	DATE	DCN #	DRAWING TREE #
v1	26 Feb. 2010	E1000022	E1000025







DETAIL A
SCALE 2 : 1

NOTES AND TOLERANCES: (UNLESS OTHERWISE SPECIFIED)					
DIMENSIONS ARE IN INCHES TOLERANCES: .XX ± .015 .XXX ± .005 ANGULAR ± .5°	1. INTERPRET DRAWING PER ASME Y14.5-1994. 2. BREAK ALL EDGES AND CORNERS .03 X 45°. 3. DO NOT SCALE FROM DRAWING. 4. ALL MACHINING FLUIDS MUST BE FULLY SYNTHETIC, FULLY WATER SOLUBLE AND FREE OF SULFUR, SILICONE, AND CHLORINE.		LIGO CALIFORNIA INSTITUTE OF TECHNOLOGY MASSACHUSETTS INSTITUTE OF TECHNOLOGY	PART NAME: SPRING CLAMP PLATE, STAGE 0, aLIGO BSC ISI	
	MATERIAL: 17-4 PH SSTL, H 1150	FINISH: 63 µinch	SYSTEM: ADVANCED LIGO / SUB-SYSTEM: SEI	NEXT ASSY: D0901197	

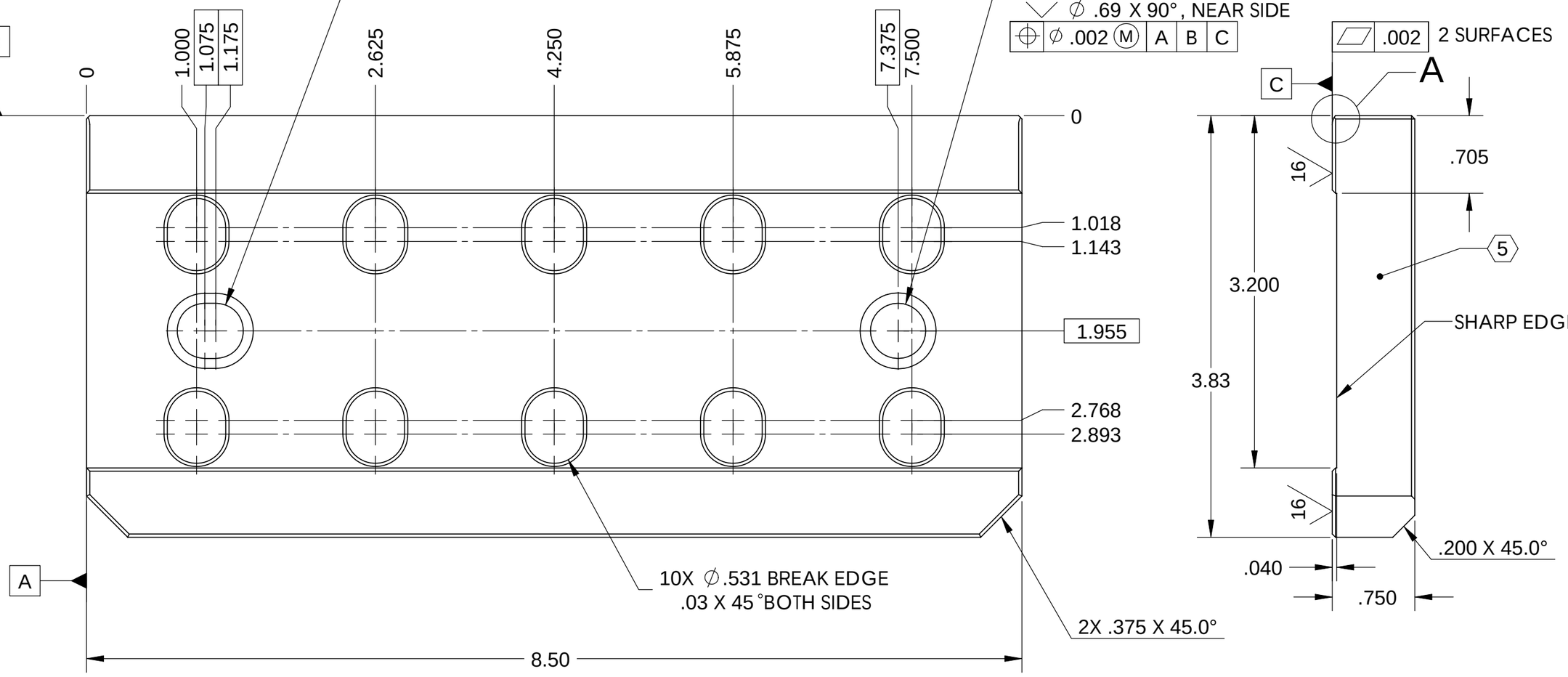
DESIGNER	A.STEIN	01 Feb. 2010	SIZE: B	DWG. NO.: D0902696	REV.: v1	
DRAFTER	M.HILLARD	01 Feb. 2010				
CHECKER	F.MATICHARD	01 Feb. 2010				
APPROVAL	K.MASON	01 Feb. 2010	SCALE: 1:2	PROJECTION:	SHEET 1 OF 1	

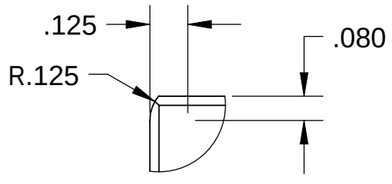
D0902696 Spring Clamp Plate, Stage 0, aLIGO BSC ISI, PART PDM REV: X-009, DRAWING PDM REV: X-002

REV.	DATE	DCN #	DRAWING TREE #
v1	26 Feb. 2010	E1000022	E1000025

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 ARTICAL AND PROCEED CONSECUTIVELY. USE .07 HIGH CHARACTERS. EXAMPLE DXXXXXXX-VY, S/N 001. A VIBRATORY TOOL MAY BE USED.
6. APPROXIMATE WEIGHT = 5.91 LB.
7. A TRUE POSITION TOLERANCE OF Ø.010 IS ~ THE SAME AS A CONVENTIONAL TOLERANCE OF ±.005.
8. MACHINE ALL SURFACES TO REMOVE OXIDES AND MILL FINISH, USE OF ABRASIVE REMOVAL TECHNIQUES IS NOT ALLOWED.
9. PART TO BE ELECTROPOLISHED.
10. ALL PARTS SHALL BE MANUFACTURED IN ACCORDANCE WITH LIGO SPECIFICATION E0900364.
11. DIMENSIONS AND TOLERANCES APPLY AFTER ELECTROPOLISHING.





DETAIL A
SCALE 2 : 1

NOTES AND TOLERANCES: (UNLESS OTHERWISE SPECIFIED)					
DIMENSIONS ARE IN INCHES TOLERANCES: .XX ± .015 .XXX ± .005 ANGULAR ± .5°	1. INTERPRET DRAWING PER ASME Y14.5-1994. 2. BREAK ALL EDGES AND CORNERS .03 X 45°. 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: 17-4 PH SSTL, H 1150	FINISH: 63 µinch	NEXT ASSY: D0901197	SYSTEM: ADVANCED LIGO / SUB-SYSTEM: SEI

LIGO — CALIFORNIA INSTITUTE OF TECHNOLOGY, MASSACHUSETTS INSTITUTE OF TECHNOLOGY

PART NAME: SPRING CLAMP CAP, STAGE 0, aLIGO BSC ISI

DESIGNER	A.STEIN	01 Feb. 2010	SIZE: B	DWG. NO.: D0902697	REV.: v1
DRAFTER	M.HILLARD	01 Feb. 2010			
CHECKER	F.MATICHARD	01 Feb. 2010			
APPROVAL	K.MASON	01 Feb. 2010	SCALE: 1:1	PROJECTION:	SHEET 1 OF 1

D0902697 Spring Clamp Cap, Stage 0, aLIGO BSC ISI, PART PDM REV: X-006, DRAWING PDM REV: X-004