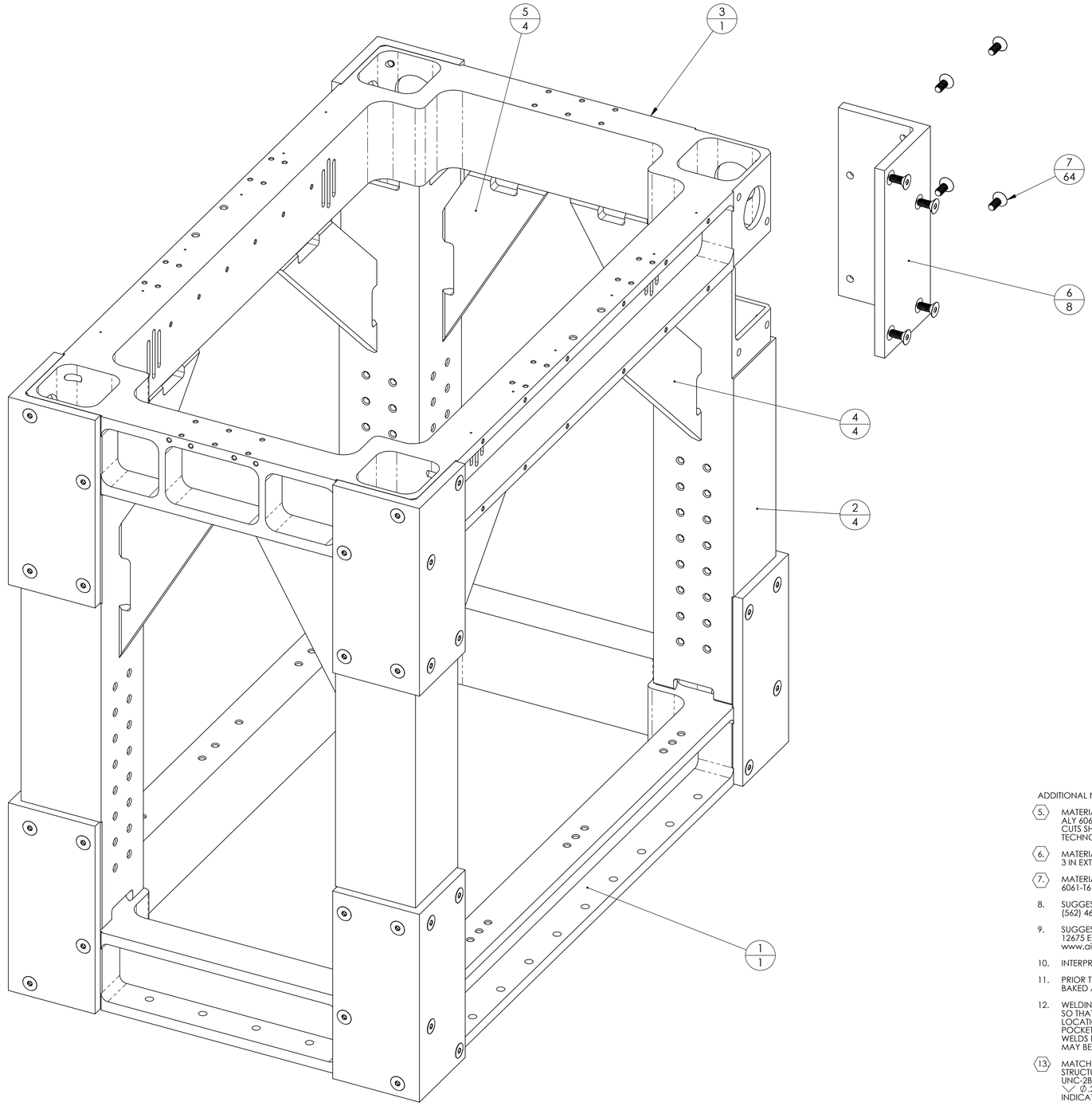
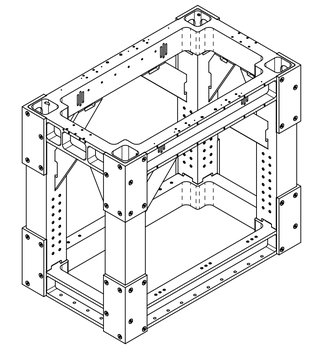
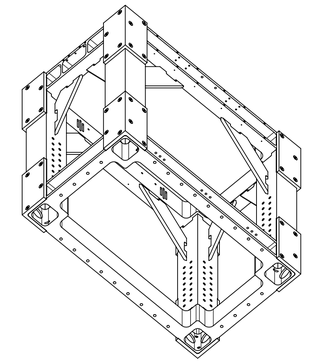
REV.	DATE	DCN #	DRAWING TREE #
A	28 MAR 2008	E080113	
B	10 APR 2008	E080157	







ADDITIONAL NOTES:

5. MATERIAL FOR BASE AND TOP, D060296-1 AND -2, SHALL BE AL ALY 6061-T6 PLATE. OUTSIDE PROFILE AND LARGE INTERIOR CUTS SHALL BE PERFORMED USING WATERJET MACHINING TECHNOLOGY.
6. MATERIAL FOR LEGS, D060296-2, SHALL BE AL ALY 6061-T6 3 IN X 3 IN EXTRUSION, .25 IN WALL THICKNESS.
7. MATERIAL FOR GUSSETS, D060296-4 AND -5, SHALL BE AL ALY 6061-T6 PLATE, .375 IN THICK.
8. SUGGESTED SOURCE OF SUPPLY FOR ITEM 7: McMASTER-CARR, (562) 463-4277, www.mcmaster.com.
9. SUGGESTED SOURCE OF SUPPLY FOR ITEM 8: AIR HARDWARE, 12675 ENCINTAS AVE, SYLMAR CA 91342, (877) 247-4393, www.airhardware.com.
10. INTERPRET DRAWING PER ANSI Y14.5 1994.
11. PRIOR TO WELDING, ALL PARTS SHALL BE CLEANED, VACUUM BAKED AND SEALED IN BAGS FOR DELIVERY TO THE WELDER.
12. WELDING PROCEDURES AND TECHNIQUES SHALL BE CHOSEN SO THAT FULL PENETRATION WELDS ARE ACHIEVED IN ALL LOCATIONS, WITH NO INCLUSIONS OR SIGNIFICANT GAS POCKETS. A REASONABLE ATTEMPT TO ACHIEVE CLASS A WELDS PER MIL-STD-2219 SHALL BE MADE. NO DYE PENETRANTS MAY BE USED DURING ANY STAGE OF THIS PROCESS.
13. MATCH DRILL CORNER BRACE (D060296-6) AND WELDED STRUCTURE. DRILL AND TAP WELDED STRUCTURE FOR 1/4-20 UNC-2B +.005 OVERSIZE BY ⅞ .50, .43 MIN FULL THD DEPTH, ⌵ Ø .265 X 82°. DRILL AND COUNTERSINK CORNER BRACE AS INDICATED.
14. INSTALL ITEM 8, #8-32 HELICOILS, IN INDICATED LOCATIONS AFTER CLEANING AND BAKING.
15. AFTER WELDING, MACHINE INDICATED SURFACES TO ACHIEVE NOTED DIMENSIONS.
16. ESTIMATED WEIGHT FROM CAD MODEL: 59.8 lbs. [27.1 kg]

ITEM NO.	PART NUMBER	DESCRIPTION	MAT'L	QTY
8	1185-2EN328	#8-32 X .328" LONG HELICOIL	NITRONIC 60	AR
7	90585A358	1/4-20 X 5/8" LONG COUNTERSUNK HEAD CAP SCREW	316 SS	64
6	D060296-6	CORNER BRACE, OMC	AL ALY 6061-T6	8
5	D060296-5	GUSSET, 7" X 4", OMC WELDMENT	⟨7⟩	4
4	D060296-4	GUSSET, 7" X 7", OMC WELDMENT	⟨7⟩	4
3	D060296-3	TOP, OMC STRUCTURE WELDMENT	⟨5⟩	1
2	D060296-2	LEG, OMC STRUCTURE WELDMENT	⟨6⟩	4
1	D060296-1	BASE, OMC STRUCTURE WELDMENT	⟨5⟩	1

PARTS LIST

NOTES: (UNLESS OTHERWISE SPECIFIED)

1. DO NOT SCALE FROM DRAWING.
2. REMOVE ALL SHARP EDGES, R.02 MAX.
3. ALL MACHINING FLUIDS SHALL BE WATER SOLUBLE AND FREE OF SULFUR, CHLORINE AND SILICONE.
4. SCRIBE, ENGRAVE OR MECHANICALLY STAMP DRAWING (NO INKS OR DYES) PART NUMBER, REV., AND DASH NO. 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 .12" HIGH CHARACTERS, UNLESS THE SIZE OF THE PART DICTATES SMALLER CHARACTERS. A VIBRATORY TOOL MAY BE USED. EXAMPLE:

D060333-A
S/N 001

DIMENSIONS ARE IN INCHES

TOLERANCES:
X ± 0.1
.XX ± 0.01
.XXX ± 0.005
ANGULAR ± 0.5 °

MATERIAL: AL ALY 6061-T6

FINISH: N/A

	NAME	DATE
DRAWN	C. ECHOLS	17 DEC 2004
CHECKED	J. ROMIE	
STRESS	C. TORRE	
ENGR	C. TORRE	

LIGO
CALIFORNIA INSTITUTE OF TECHNOLOGY
MASSACHUSETTS INSTITUTE OF TECHNOLOGY
IGR, GLASGOW UNIVERSITY GEO 600 GROUP

SYSTEM: ADVANCED LIGO

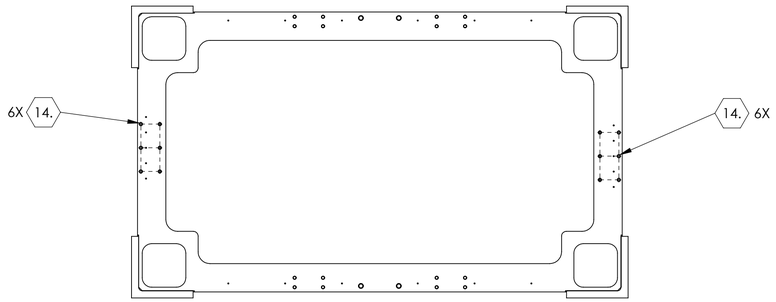
SUB-SYSTEM: SUS

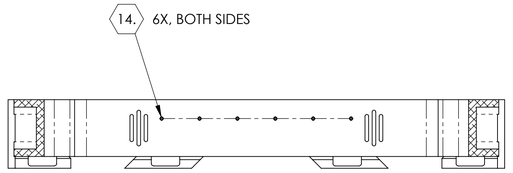
NEXT ASSY: D080125

PART NAME: STRUCTURE WELDMENT, OUTPUT MODE CLEANER

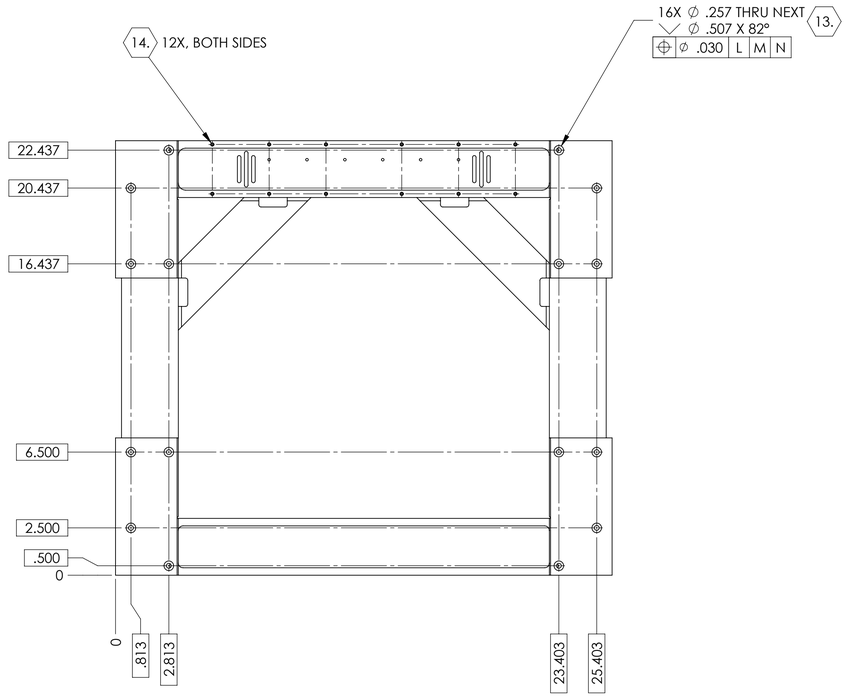
SIZE: D | DWG. NO.: D060296 | REV.: B

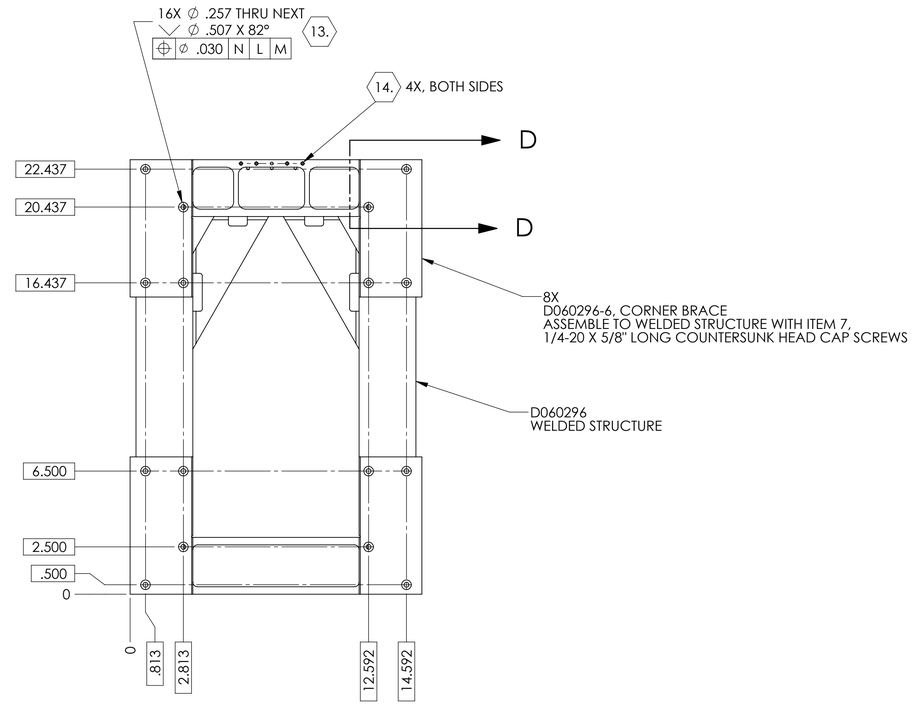
SCALE: 1:2 | PROJECTION: | SHEET 1 OF 8





SECTION D-D

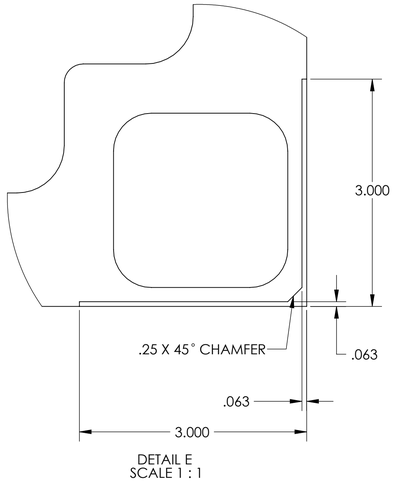




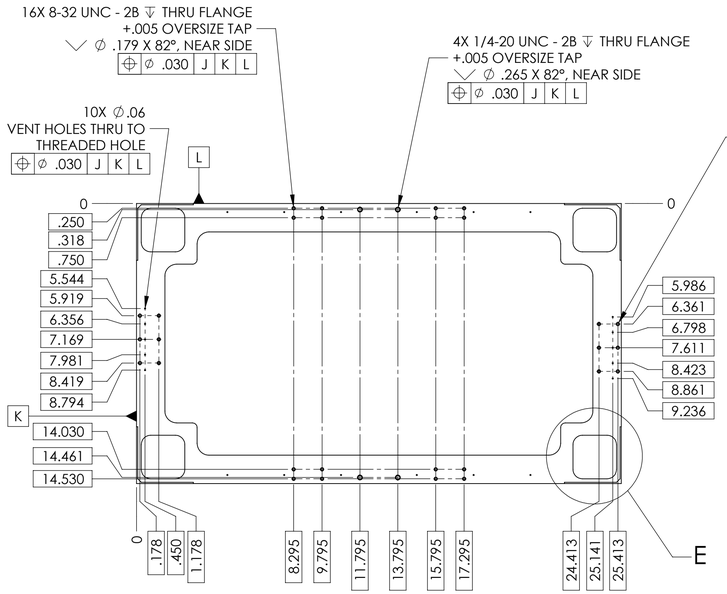
FINAL MACHINING AND ASSEMBLY

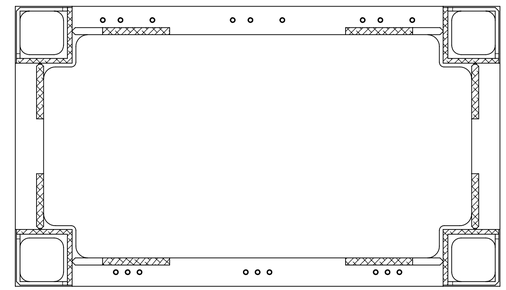
LIGO	CALIFORNIA INSTITUTE OF TECHNOLOGY MASSACHUSETTS INSTITUTE OF TECHNOLOGY IGR, GLASGOW UNIVERSITY GEO 600 GROUP
SYSTEM	ADVANCED LIGO
SUB-SYSTEM	SUS
NEXT ASSY	D080125
PART NAME	STRUCTURE WELDMENT, OUTPUT MODE CLEANER
SIZE	D
DWG. NO.	D060296
REV.	B
SCALE:	1:4
PROJECTION:	
SHEET 2 OF 8	

DIMENSIONS ARE IN INCHES
TOLERANCES:
.XX ± 0.01
.XXX ± 0.005
ANGULAR ± 0.5 °

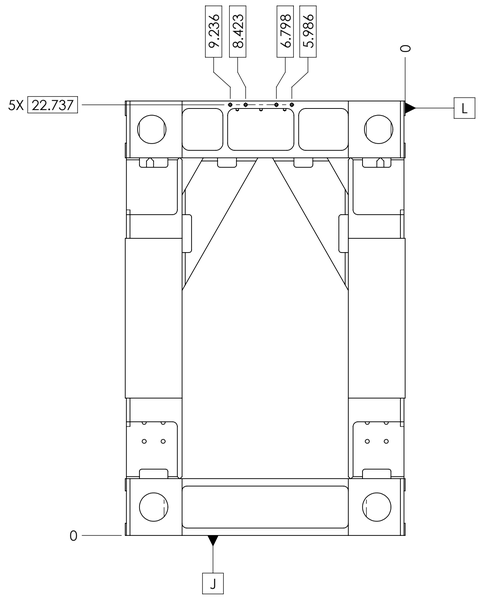


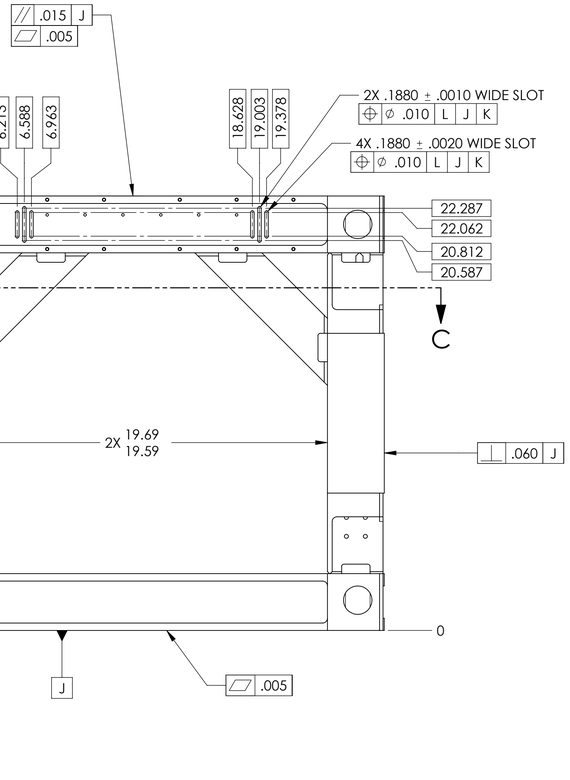
DETAIL E
SCALE 1 : 1

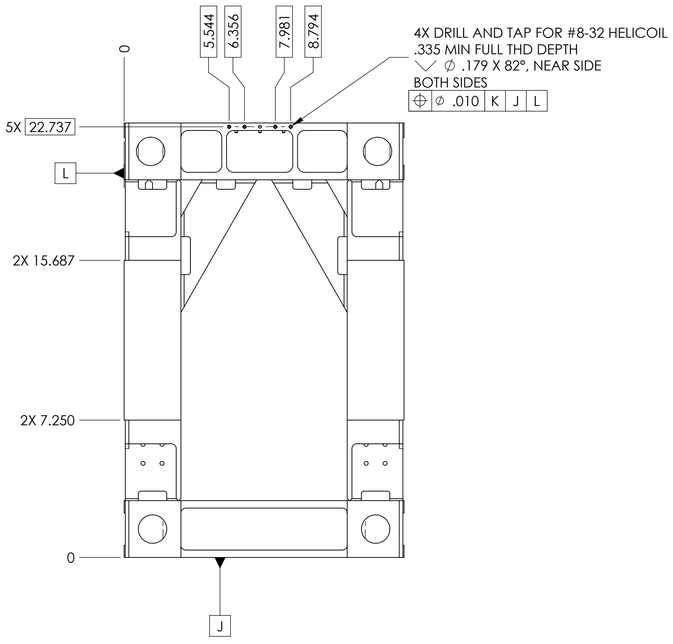




SECTION C-C

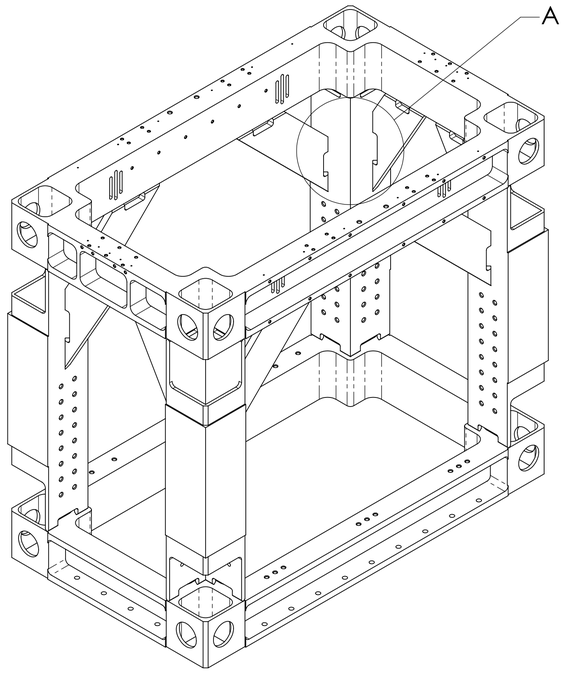


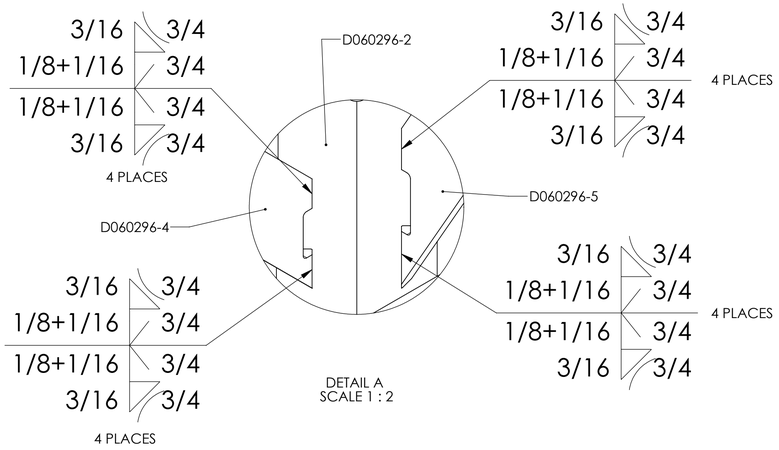




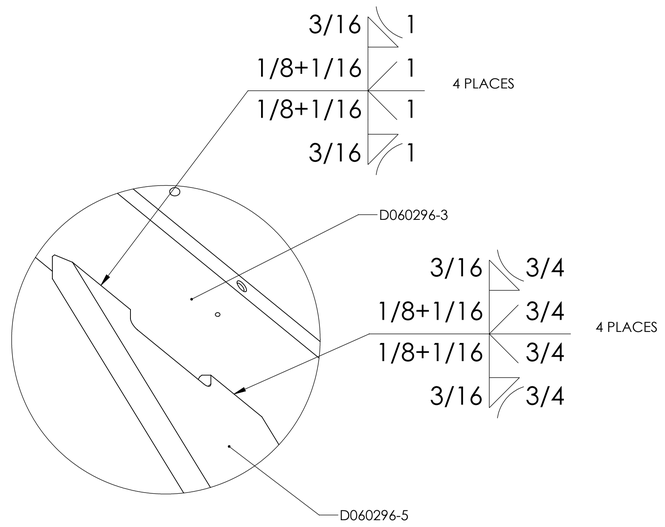
POST-WELD MACHINING

LIGO	CALIFORNIA INSTITUTE OF TECHNOLOGY MASSACHUSETTS INSTITUTE OF TECHNOLOGY IGR, GLASGOW UNIVERSITY GEO 600 GROUP
SYSTEM	ADVANCED LIGO
SUB-SYSTEM	SUS
NEXT ASSY	D080125
PART NAME	STRUCTURE WELDMENT, OUTPUT MODE CLEANER
DIMENSIONS ARE IN INCHES TOLERANCES: XX ± 0.01 .XXX ± 0.005 ANGULAR ± 0.5 °	SIZE D · DWG. NO. D060296 · REV. B SCALE: 1:4 · PROJECTION: · SHEET 3 OF 8

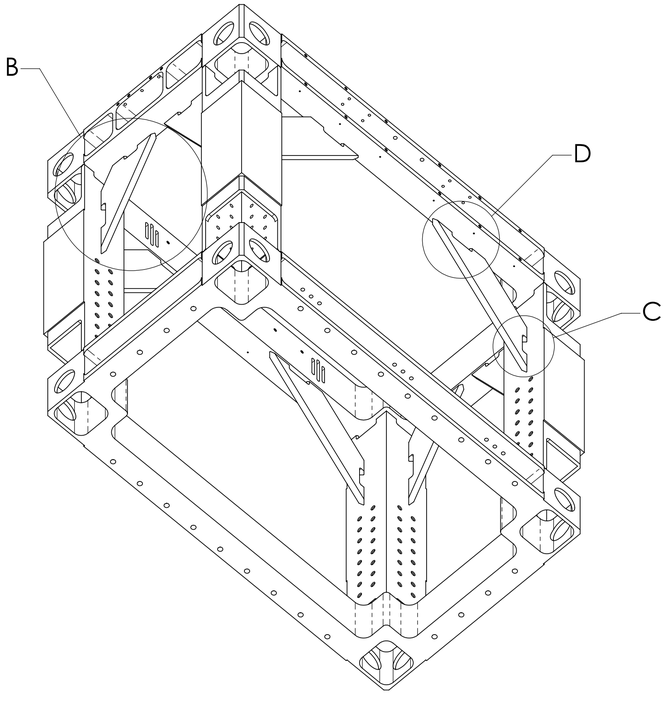


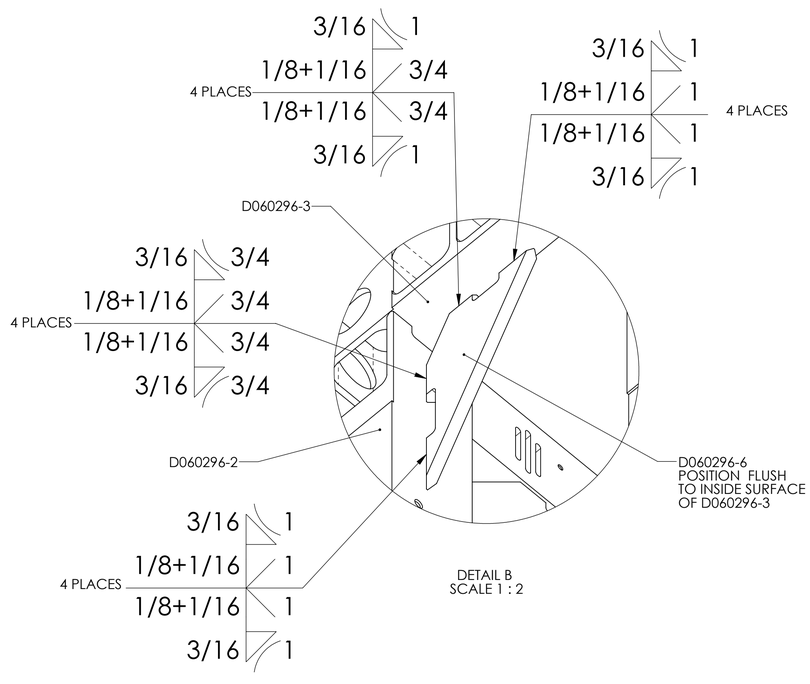


DETAIL A
SCALE 1 : 2

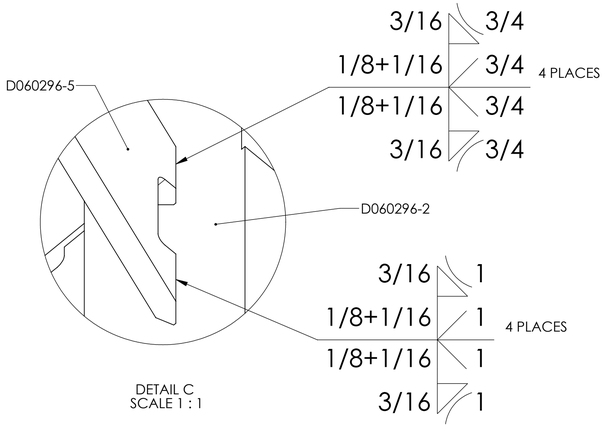


DETAIL D
SCALE 1 : 1





DETAIL B
SCALE 1 : 2

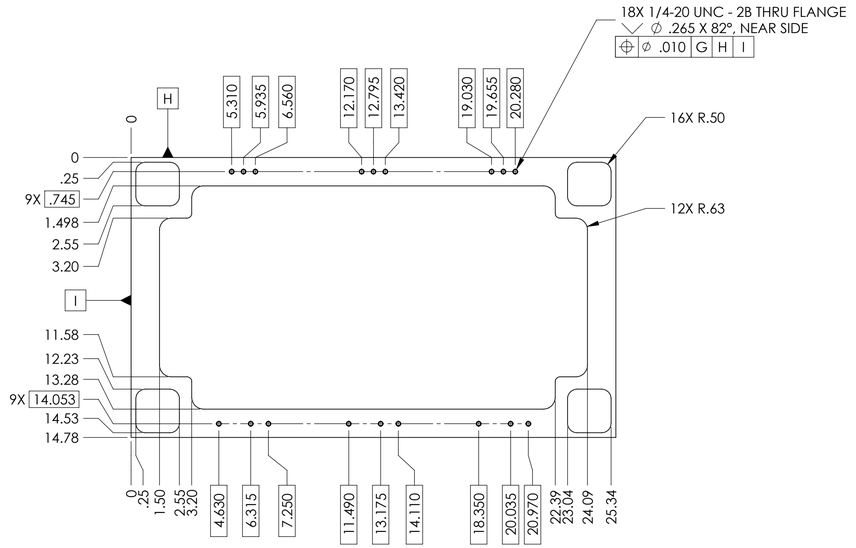


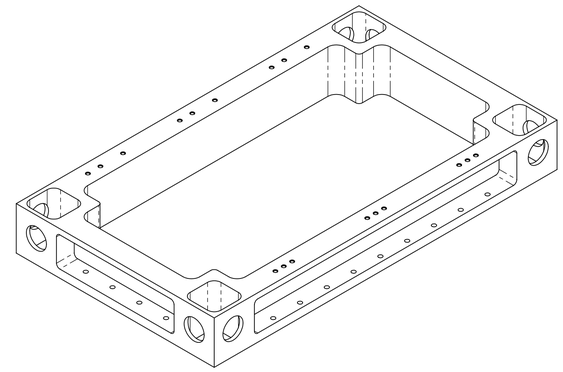
DETAIL C
SCALE 1 : 1

WELDMENT DETAILS

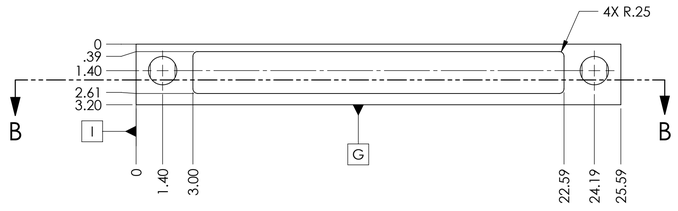
LIGO	CALIFORNIA INSTITUTE OF TECHNOLOGY MASSACHUSETTS INSTITUTE OF TECHNOLOGY IGR, GLASGOW UNIVERSITY GEO 600 GROUP
SYSTEM	ADVANCED LIGO
SUB-SYSTEM	SUS
NEXT ASSY	D080125
PART NAME	STRUCTURE WELDMENT, OUTPUT MODE CLEANER
SIZE	D
DWG. NO.	D060296
REV.	B
SCALE: 1:4	PROJECTION:
SHEET 4 OF 8	

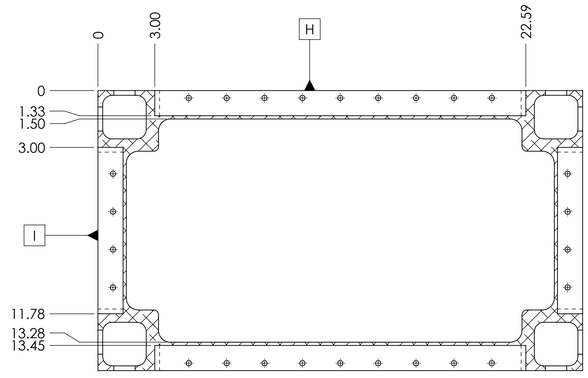
DIMENSIONS ARE IN INCHES
TOLERANCES:
XX ± 0.01
XXX ± 0.005
ANGULAR ± 0.5 °



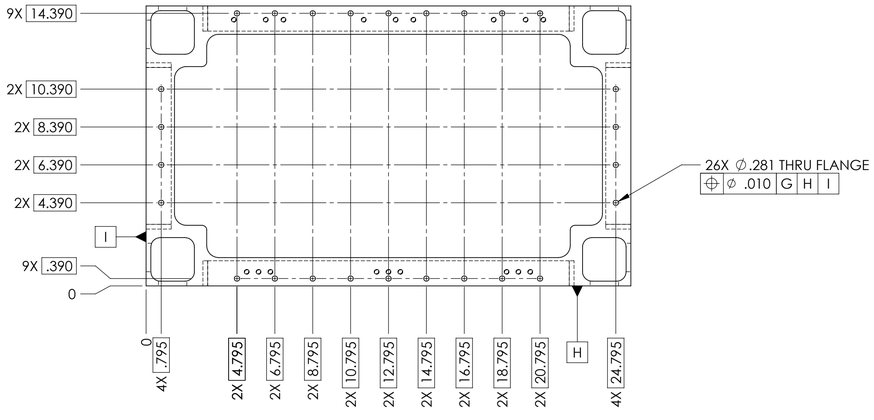


GENERAL VIEW
FOR REFERENCE ONLY
NO SCALE



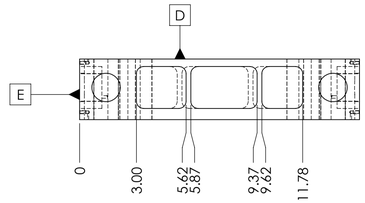


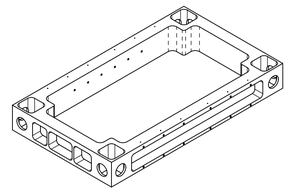
SECTION B-B



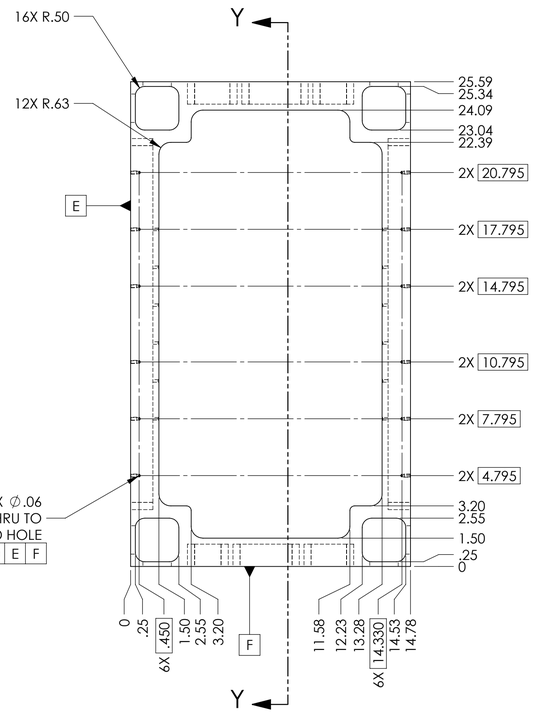
D060296-1
BOTTOM

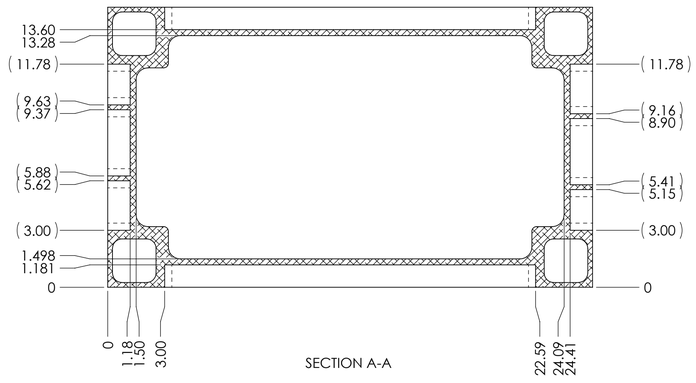
LIGO	CALIFORNIA INSTITUTE OF TECHNOLOGY MASSACHUSETTS INSTITUTE OF TECHNOLOGY IGR, GLASGOW UNIVERSITY GEO 600 GROUP
SYSTEM	ADVANCED LIGO
SUB-SYSTEM	SUS
NEXT ASSY	D080125
PART NAME	STRUCTURE WELDMENT, OUTPUT MODE CLEANER
DIMENSIONS ARE IN INCHES TOLERANCES: .XX ± 0.01 .XXX ± 0.005 ANGULAR ± 0.5 °	SIZE D · DWG. NO. D060296 · REV. B SCALE: 1:4 · PROJECTION: · SHEET 5 OF 8



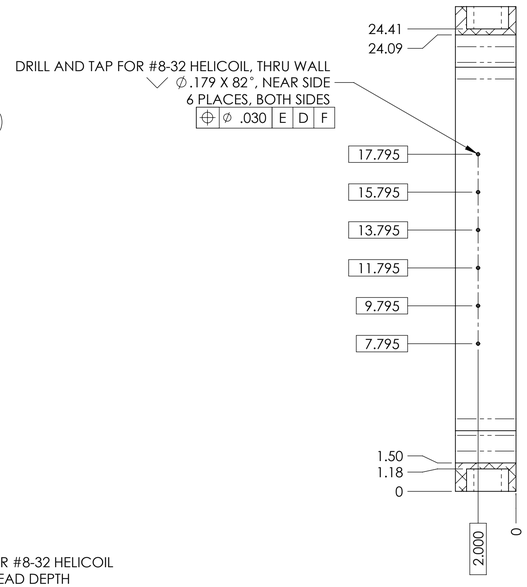


GENERAL VIEW
FOR REFERENCE ONLY
NO SCALE

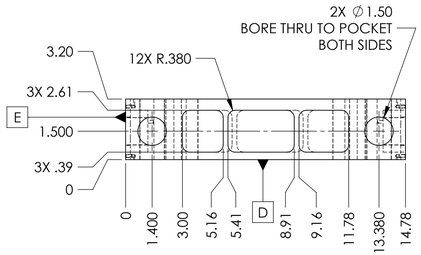


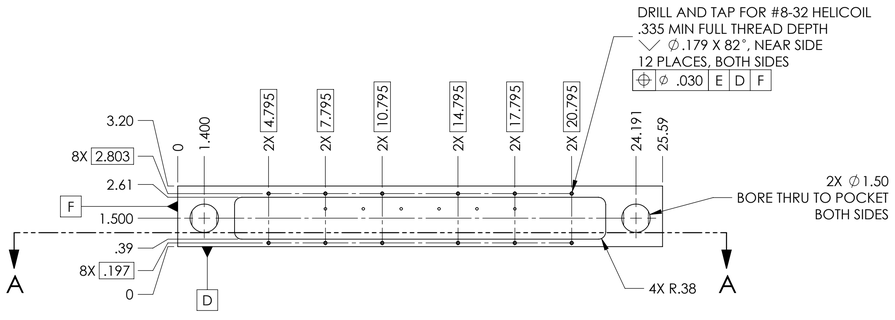


SECTION A-A



SECTION Y-Y

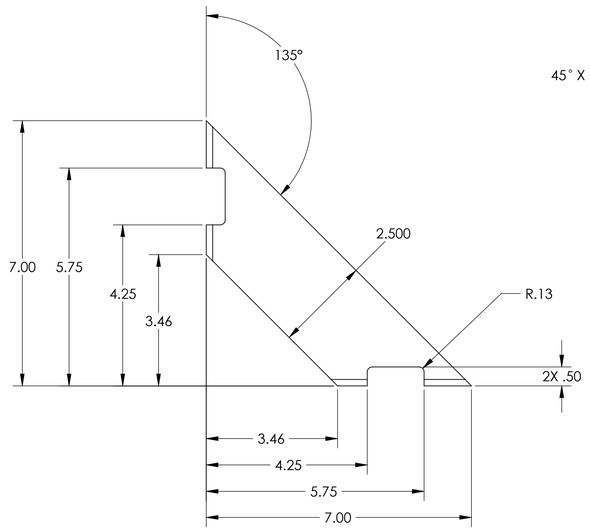


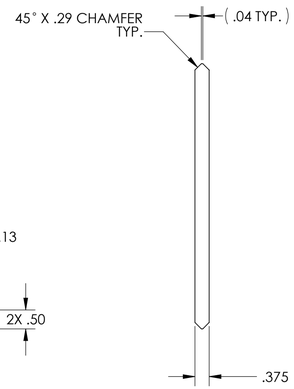


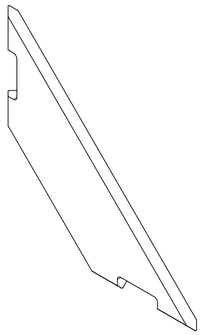
D060296-3
TOP

LIGO	CALIFORNIA INSTITUTE OF TECHNOLOGY MASSACHUSETTS INSTITUTE OF TECHNOLOGY IGR, GLASGOW UNIVERSITY GEO 600 GROUP
SYSTEM	ADVANCED LIGO
SUB-SYSTEM	SUS
NEXT ASSY	D080125
PART NAME	STRUCTURE WELDMENT, OUTPUT MODE CLEANER
SIZE	D
DWG. NO.	D060296
REV.	B
SCALE:	1:4
PROJECTION:	
SHEET 6 OF 8	

DIMENSIONS ARE IN INCHES
TOLERANCES:
.XX ± 0.01
.XXX ± 0.005
ANGULAR ± 0.5 °

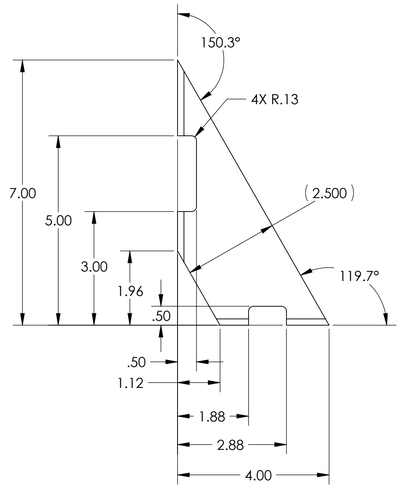


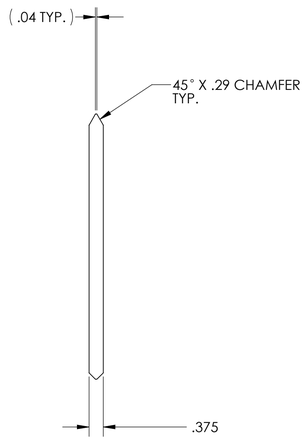


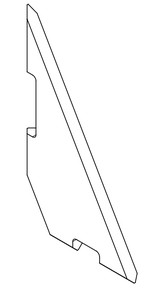


GENERAL VIEW
FOR REFERENCE ONLY
NO SCALE

D060296-4
7 IN X 7 IN GUSSET

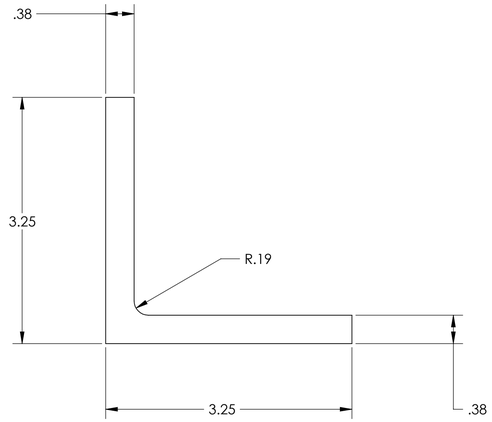


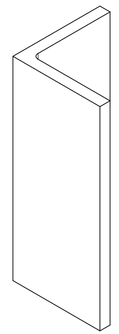




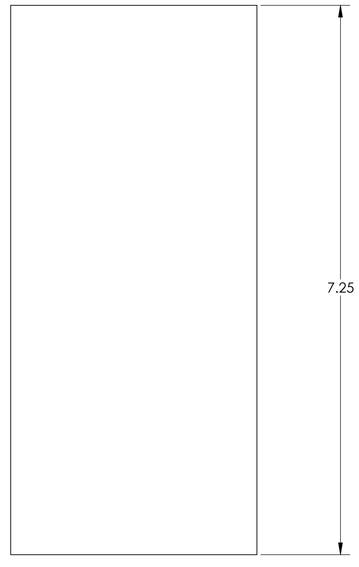
GENERAL VIEW
FOR REFERENCE ONLY
NO SCALE

D060296-5
3 IN X 7 IN GUSSET



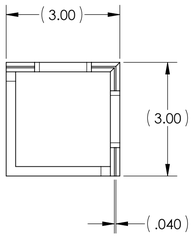


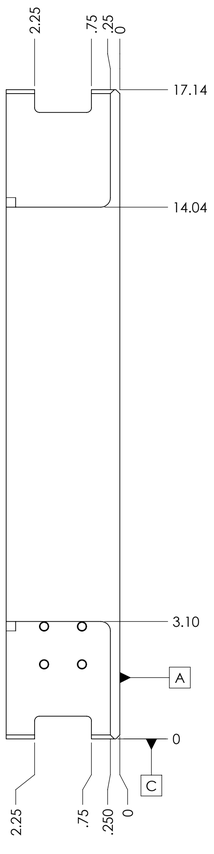
GENERAL VIEW
FOR REFERENCE ONLY
NO SCALE

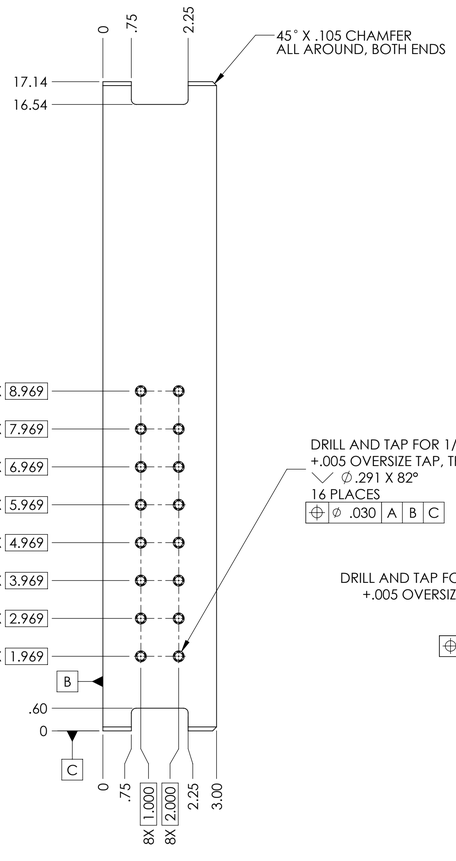


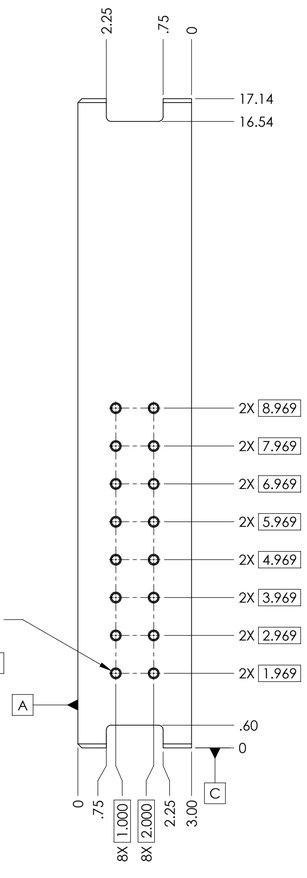
D060296-6
CORNER BRACE

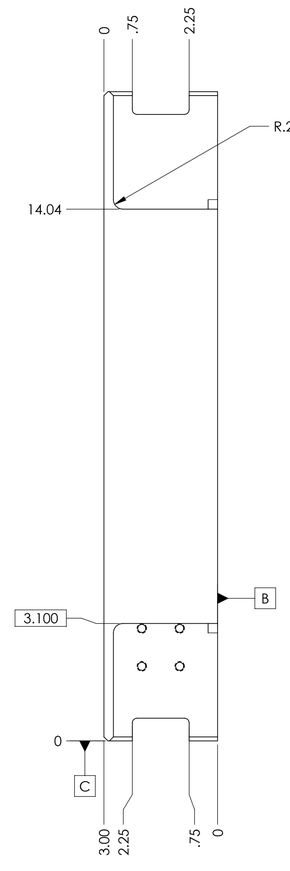
LIGO	CALIFORNIA INSTITUTE OF TECHNOLOGY MASSACHUSETTS INSTITUTE OF TECHNOLOGY IGR, GLASGOW UNIVERSITY GEO 600 GROUP
SYSTEM	ADVANCED LIGO
SUB-SYSTEM	SUS
NEXT ASSY	D080125
PART NAME	STRUCTURE WELDMENT, OUTPUT MODE CLEANER
DIMENSIONS ARE IN INCHES TOLERANCES: .XX ± 0.01 .XXX ± 0.005 ANGULAR ± 0.5 °	SIZE D · DWG. NO. D060296 · REV. B SCALE: 1:2 · PROJECTION: · SHEET 7 OF 8

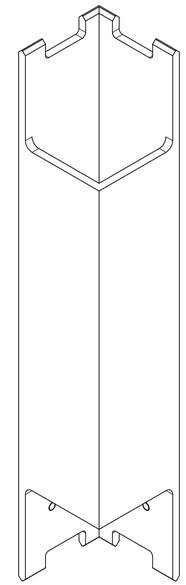












D060296-2
LEG

LIGO	CALIFORNIA INSTITUTE OF TECHNOLOGY MASSACHUSETTS INSTITUTE OF TECHNOLOGY IGR, GLASGOW UNIVERSITY GEO 600 GROUP
SYSTEM	ADVANCED LIGO
SUB-SYSTEM	SUS
NEXT ASSY	D080125
PART NAME	STRUCTURE WELDMENT, OUTPUT MODE CLEANER
DIMENSIONS ARE IN INCHES TOLERANCES: .XX ± 0.01 .XXX ± 0.005 ANGULAR ± 0.5 °	SIZE D · DWG. NO. D060296 · REV. B SCALE: 1:2 · PROJECTION: · SHEET 8 OF 8