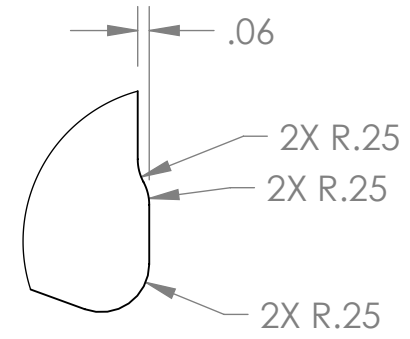


8 7 6 5 4 3 2 1

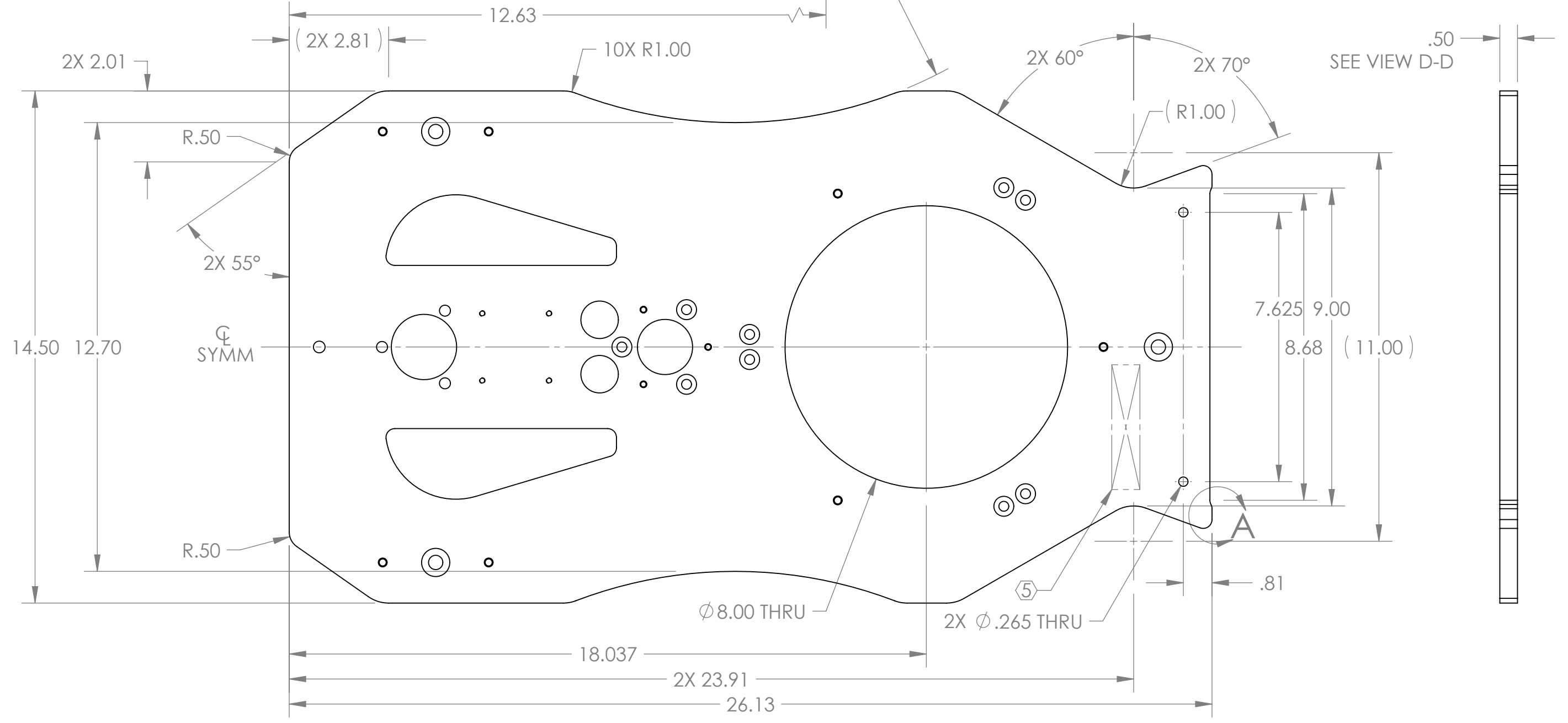
**NOTES CONTINUED:**  
 5. SCRIBE, ENGRAVE, OR MECHANICALLY STAMP (NO DYES OR INKS) A UNIQUE THREE DIGIT SERIAL NUMBER & REVISION NUMBER ON EACH PART. SERIAL NUMBERS START AT 001 FOR THE FIRST ARTICLE AND PROCEED CONSECUTIVELY. BAG AND TAG PARTS WITH THEIR DRAWING PART NUMBER, REVISION, VARIANT OR "TYPE" (IF APPLICABLE), AND QUANTITY. IF PARTS ARE TOO SMALL TO SCRIBE, BAGGING AND TAGGING ALONE IS SUFFICIENT.  
 EXAMPLE (PART): 001-v1  
 EXAMPLE (TAG): DXXXXXX-VY, TYPE-XX, QTY: TBD  
 6. APPROXIMATE WEIGHT = 12.16 LB [5.52 kg].  
 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 MATERIAL IS TO BE VIRGIN MATERIAL (i.e. NOT WELD REPAIRS OR PLUGS UNLESS APPROVED IN ADVANCE IN WRITING BY LIGO. REFER TO LIGO-E0900364.  
 10. NO REPAIRS SHALL BE MADE UNLESS APPROVED IN ADVANCE, AND IN WRITING, BY LIGO LABORATORY. IN GENERAL WELD REPAIRS AND PRESS FIT INSERT REPAIRS ARE NEVER ACCEPTABLE; THE MATERIAL SHOULD BE MADE WITH VIRGIN MATERIAL. SPECIAL CIRCUMSTANCES CAN BE REVIEWED IF / WHEN BROUGHT TO THE ATTENTION OF LIGO CONTRACTING OFFICER'S REPRESENTATIVE (COTR) THROUGH A MATERIAL REVIEW BOARD (MRB) PROCESS. REFER TO LIGO-E0900364.  
 11. ALL TAPPED HOLES- USE .005 OVERSIZE BOTH DRILL & TAP.

**MANUFACTURING PROCESS** (DOES NOT PERTAIN TO .0003 T.I.R. COPLANAR REGIONS, SHEET 5):  
 PURCHASE 3/4" ALUM. ALLOY 6061-T651 PLATE.  
 ROUGH BLANCHARD GRIND, EQUAL AMOUNTS FROM STOCK FROM EACH SIDE OF ALUM. PLATES.  
 COLD STABILIZE PLATES.  
 FINISH GRIND BOTH SIDES TO: .535 THICKNESS WITH A FLATNESS OF .002 ACROSS ENTIRE FACE.  
 RE-CLAMP, MACHINE & ENGRAVE BALANCE OF PART IN THE FLAT.  
 ON TOOLROOM VERTICAL MILL MACHINE, CLAMP PART TO ANGLE PLATE. MACHINE HOLE FOR 5/16-18 OVERSIZE THREAD PER 11 ON (1) END OF EACH PART.  
 HAND DEBURR PARTS WITH BURR KNIVES & ROTARY CARBIDE BURRS.  
 HAND TAP ALL REQUIRED HOLES, .005 OVERSIZE PER 11.  
 INSPECT PARTS. ASSURE A FLATNESS OF .003 OR BETTER OVER FACE 'A' (SEE SHEET 5). SEND MATERIAL CERTS.

REV.	DATE	DCN #	DRAWING TREE #
v1	08 NOV 2010	E1000365-v1	-
-	-	-	-
-	-	-	-



DETAIL A



D1000070 TRANSMON\_TEL\_END\_PLATE\_PRIMARY\_3\_TUBE, PART PDM REV: X-099, DRAWING PDM REV: X-042

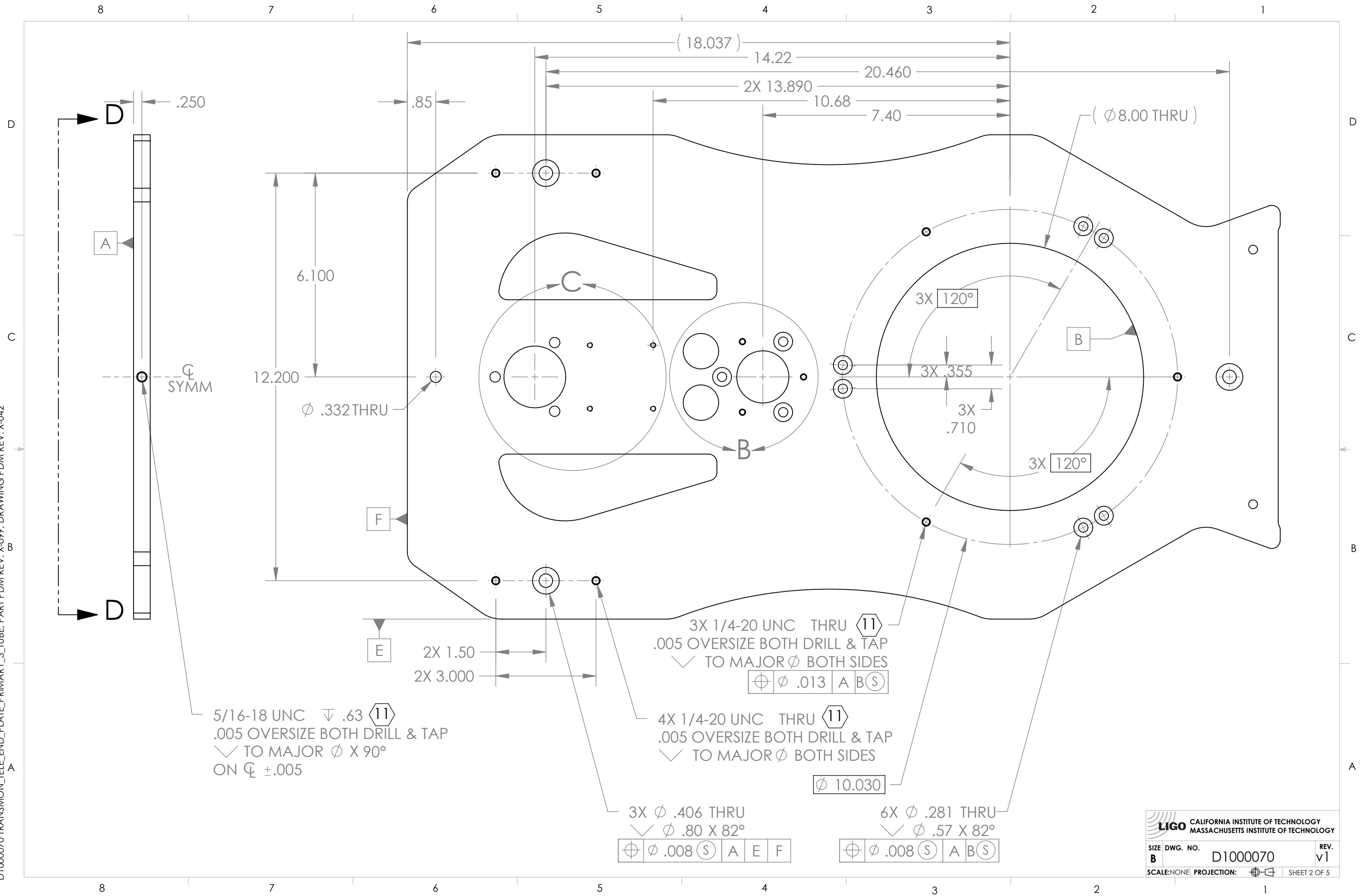
NOTES AND TOLERANCES: (UNLESS OTHERWISE SPECIFIED)	
DIMENSIONS ARE IN INCHES	
TOLERANCES: .XX ± .01 .XXX ± .005	
ANGULAR ± 1.0°	
1. INTERPRET DRAWING PER ASME Y14.5-1994. 2. REMOVE ALL SHARP EDGES, R.02 MIN. 3. DO NOT SCALE FROM DRAWING. 4. ALL MACHINING FLUIDS MUST BE FULLY SYNTHETIC, FULLY WATER SOLUBLE AND FREE OF SULFUR, SILICONE, AND CHLORINE.	
MATERIAL	FINISH
6061-T6 Al	63 μinch Ra

CALIFORNIA INSTITUTE OF TECHNOLOGY MASSACHUSETTS INSTITUTE OF TECHNOLOGY		PART NAME	
SYSTEM <b>ADVANCED LIGO</b>		SUB-SYSTEM <b>AOS</b>	
NEXT ASSY		D1002296	

PART NAME			TRANSMON TELE END PLATE PRIMARY 3 TUBE		
DESIGNER	K. MAILAND	21 JUN 2010	SIZE	DWG. NO.	
DRAFTER	C. CONLEY	24 SEP 2010	B	D1000070	
CHECKER	K. MAILAND	27 SEP 2010			
APPROVAL	K. MAILAND	08 NOV 2010			
SCALE: NONE			PROJECTION:	SHEET 1 OF 5	

8 7 6 5 4 3 2 1

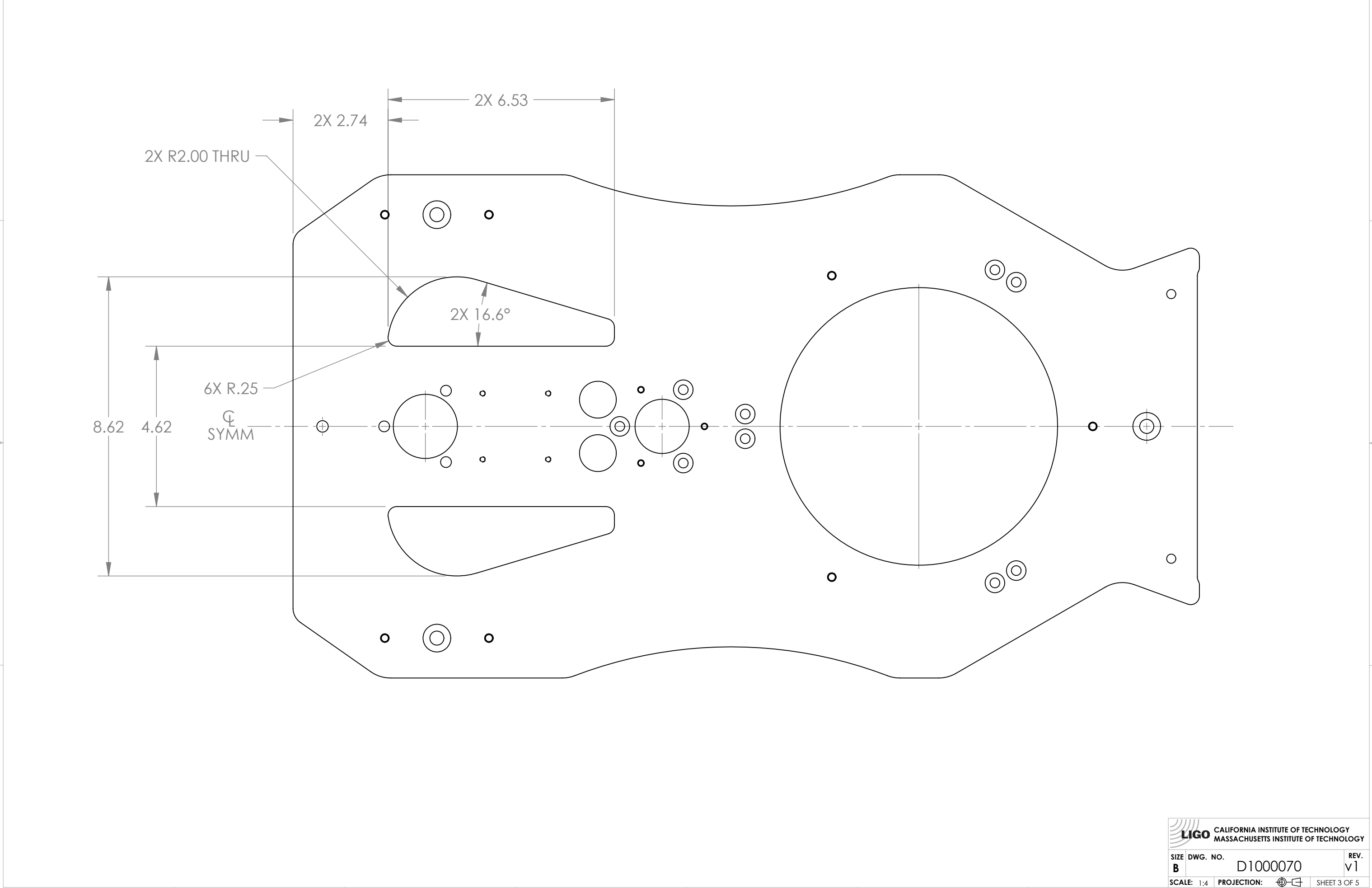
D1000070 TRANSMON\_TEL\_END\_PLATE\_PRIMARY\_3\_TUBE, PART PDM REV: X-099, DRAWING PDM REV: X-042




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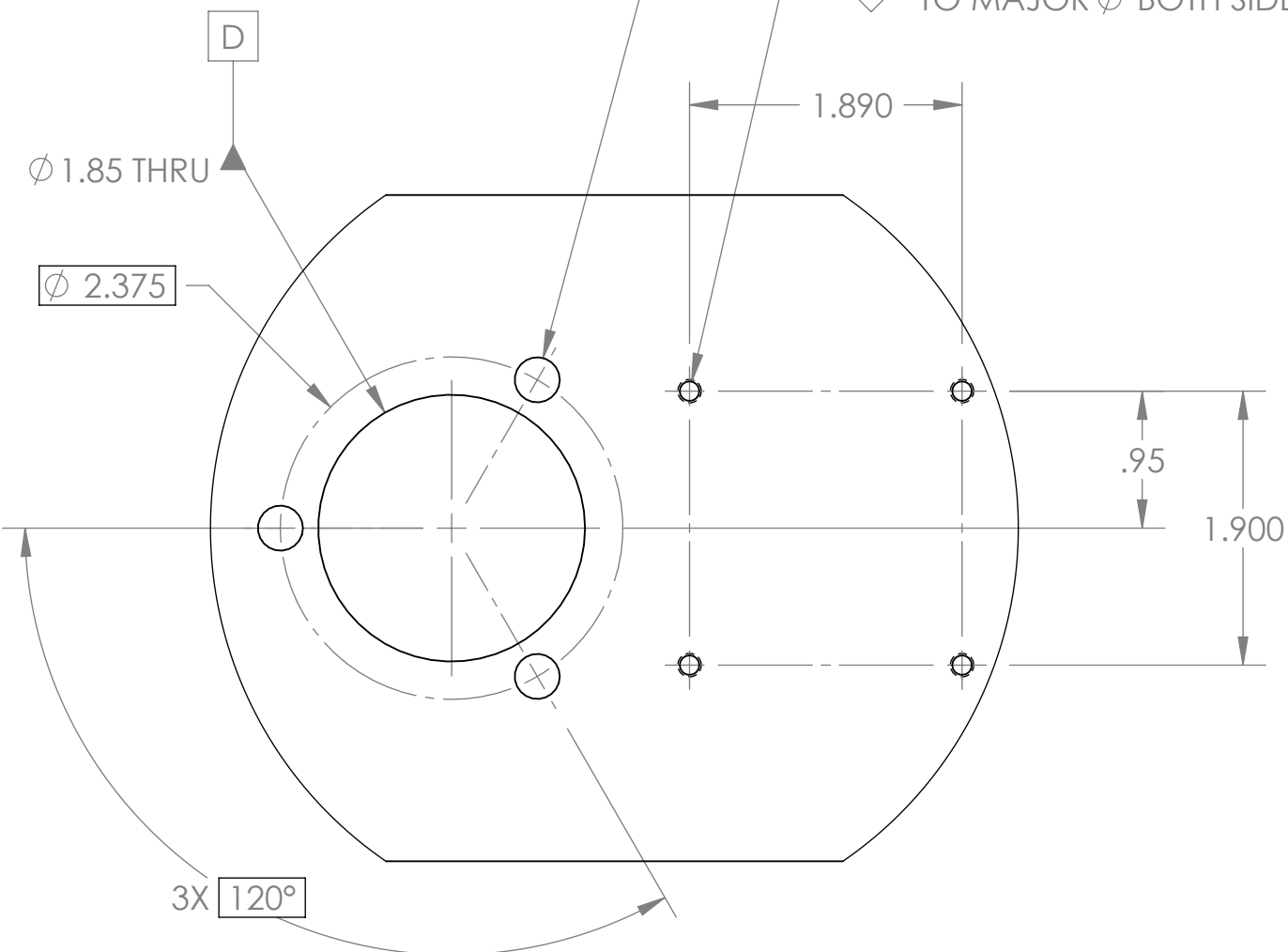
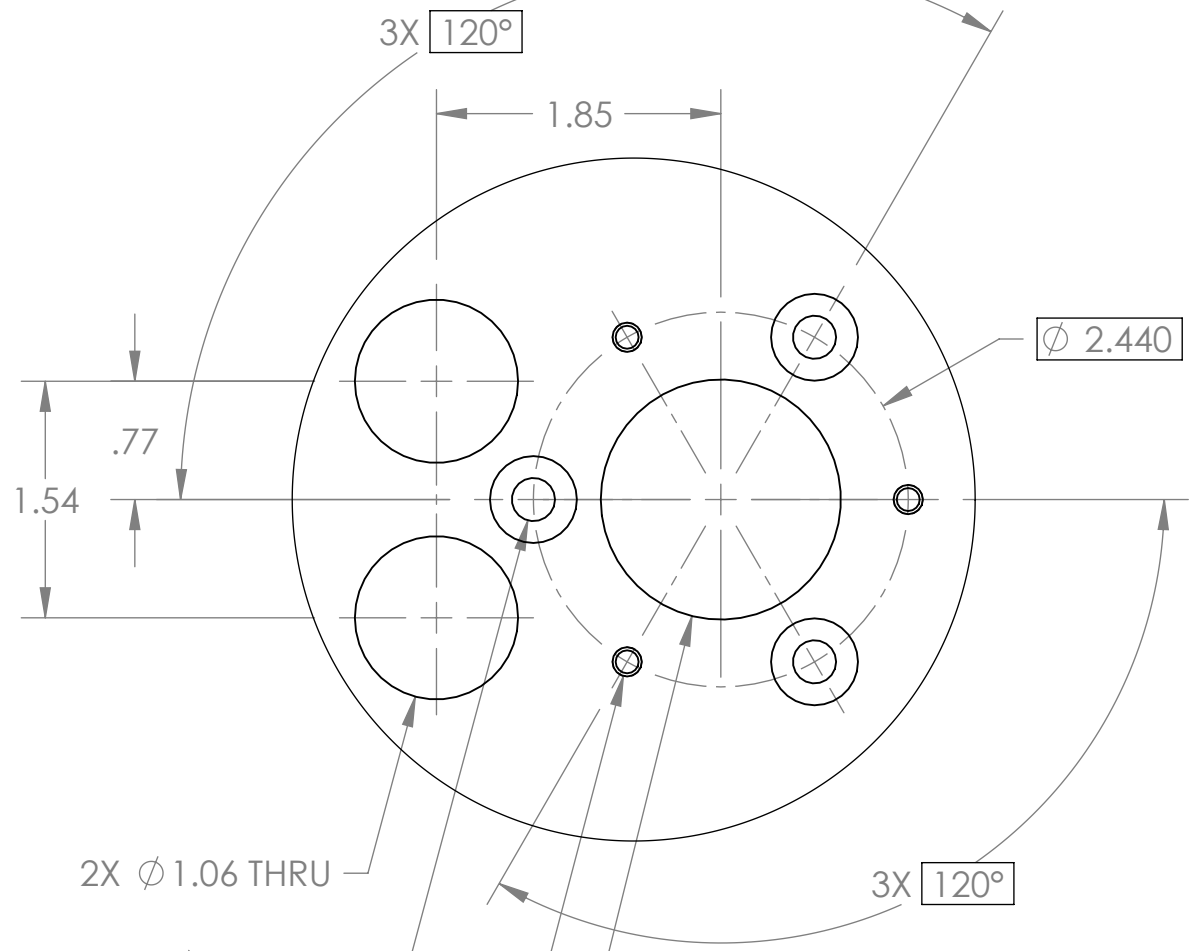
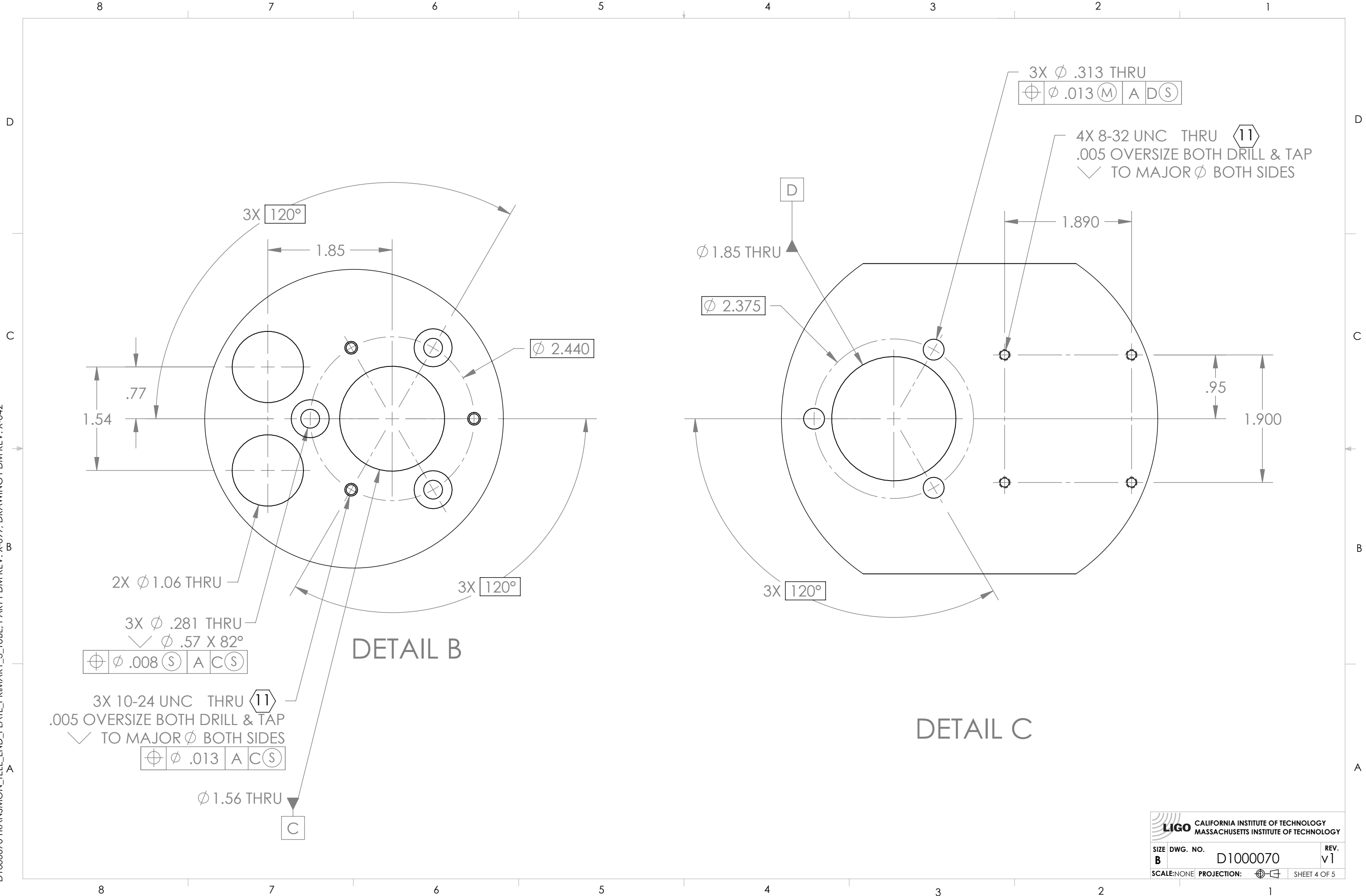
SIZE	DWG. NO.	REV.
B	D1000070	v1
SCALE: NONE	PROJECTION:	SHEET 2 OF 5

D1000070 TRANSMON\_TELE\_END\_PLATE\_PRIMARY\_3\_TUBE, PART PDM REV: X-099, DRAWING PDM REV: X-042



 <b>CALIFORNIA INSTITUTE OF TECHNOLOGY</b> <b>MASSACHUSETTS INSTITUTE OF TECHNOLOGY</b>		
SIZE	DWG. NO.	REV.
<b>B</b>	D1000070	v1
SCALE: 1:4	PROJECTION:	SHEET 3 OF 5

D1000070 TRANSMON\_TELE\_END\_PLATE\_PRIMARY\_3\_TUBE, PART PDM REV: X-099, DRAWING PDM REV: X-042



3X  $\phi$  .281 THRU  
 $\checkmark$   $\phi$  .57 X 82°  
 $\oplus$   $\phi$  .008 (S) | A | C (S)

3X 10-24 UNC THRU  $\text{\textcircled{11}}$   
 .005 OVERSIZE BOTH DRILL & TAP  
 $\checkmark$  TO MAJOR  $\phi$  BOTH SIDES  
 $\oplus$   $\phi$  .013 | A | C (S)

3X  $\phi$  .313 THRU  
 $\oplus$   $\phi$  .013 (M) | A | D (S)

4X 8-32 UNC THRU  $\text{\textcircled{11}}$   
 .005 OVERSIZE BOTH DRILL & TAP  
 $\checkmark$  TO MAJOR  $\phi$  BOTH SIDES

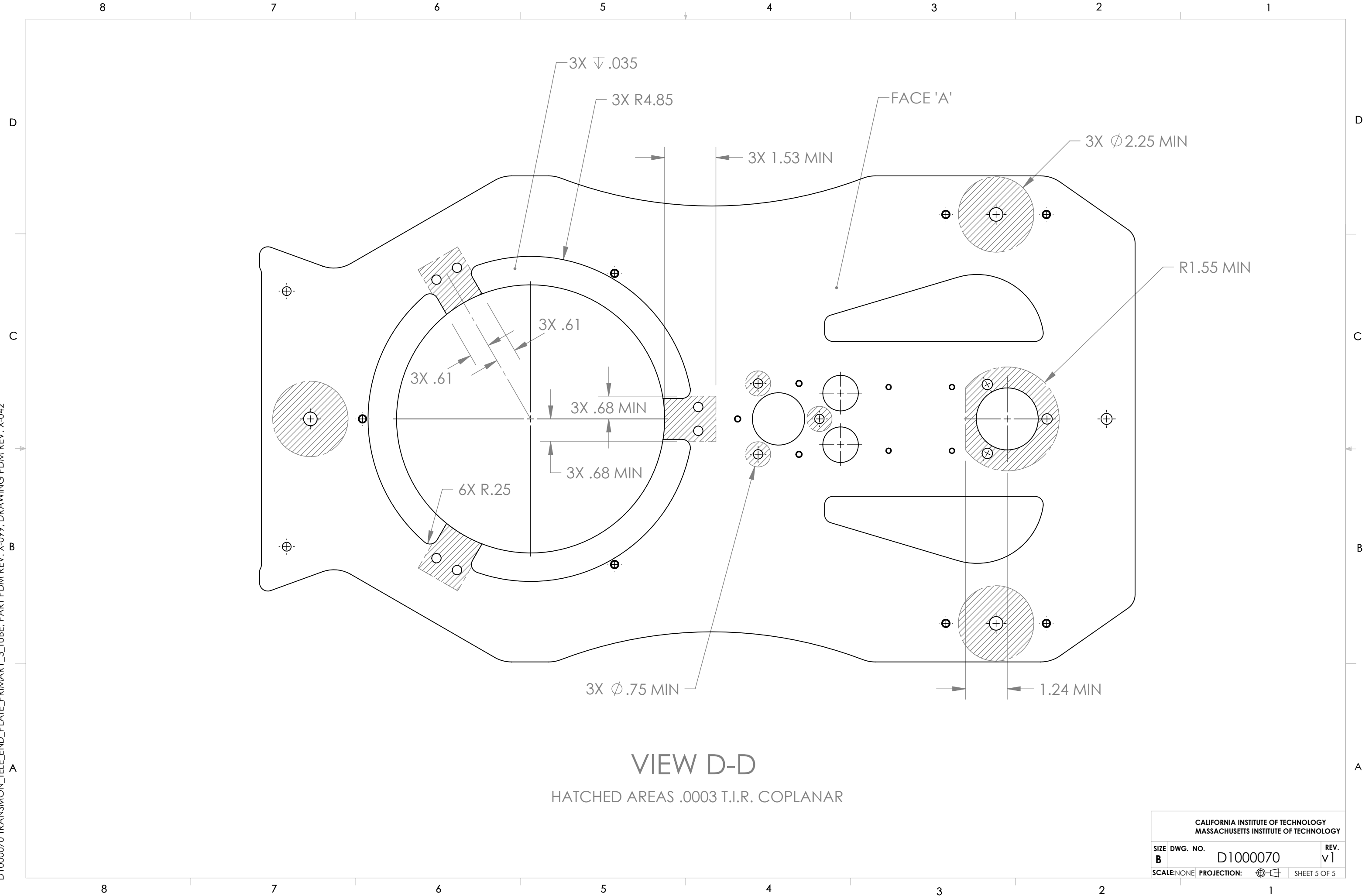
DETAIL B

DETAIL C

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SIZE	DWG. NO.	REV.
B	D1000070	v1
SCALE: NONE	PROJECTION:	SHEET 4 OF 5

D1000070 TRANSMON\_TLE\_END\_PLATE\_PRIMARY\_3\_TUBE, PART PDM REV: X-099, DRAWING PDM REV: X-042



### VIEW D-D

HATCHED AREAS .0003 T.I.R. COPLANAR

CALIFORNIA INSTITUTE OF TECHNOLOGY MASSACHUSETTS INSTITUTE OF TECHNOLOGY		
SIZE	DWG. NO.	REV.
B	D1000070	v1
SCALE: NONE	PROJECTION:	SHEET 5 OF 5