Storage Container
Assembly
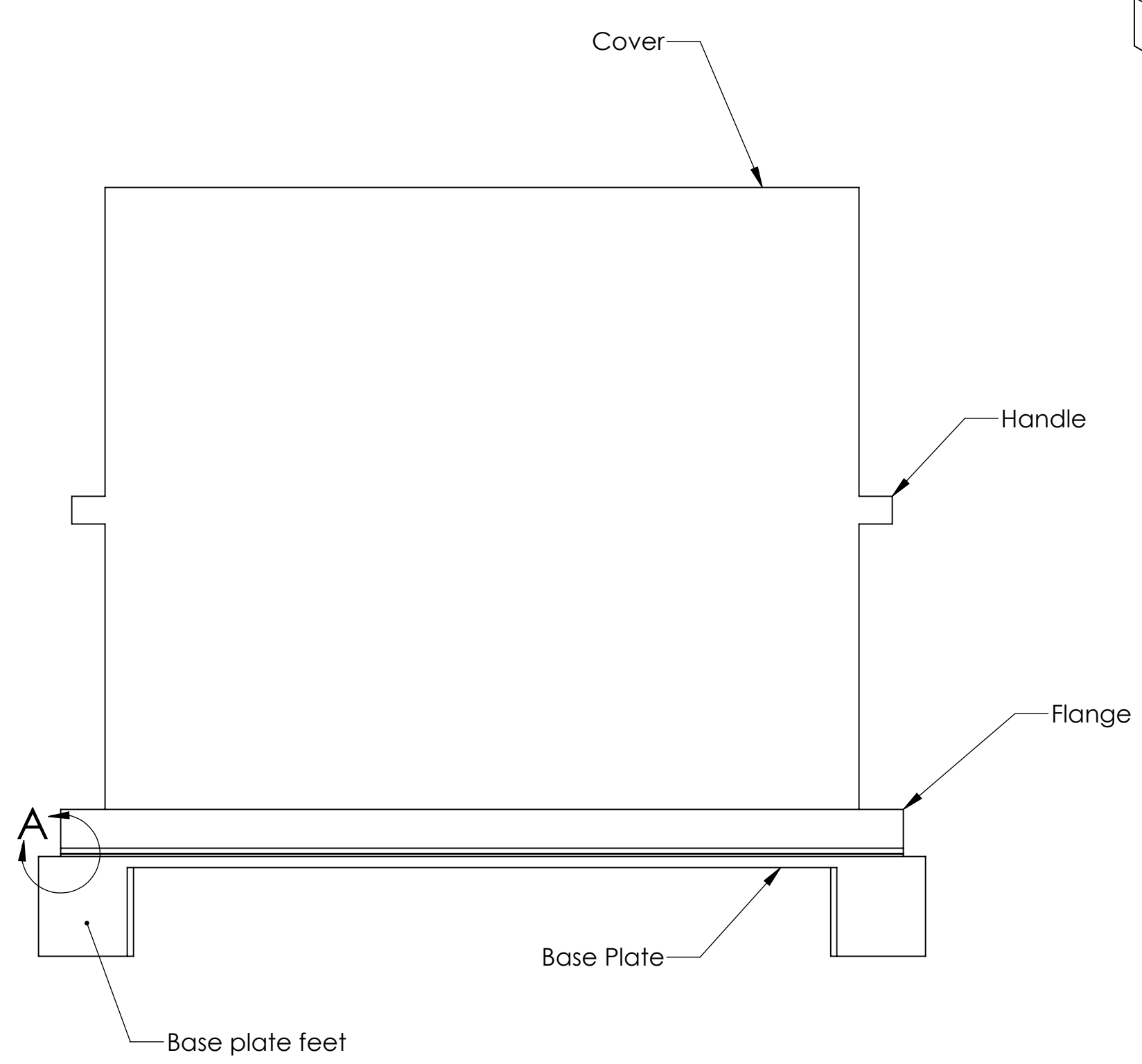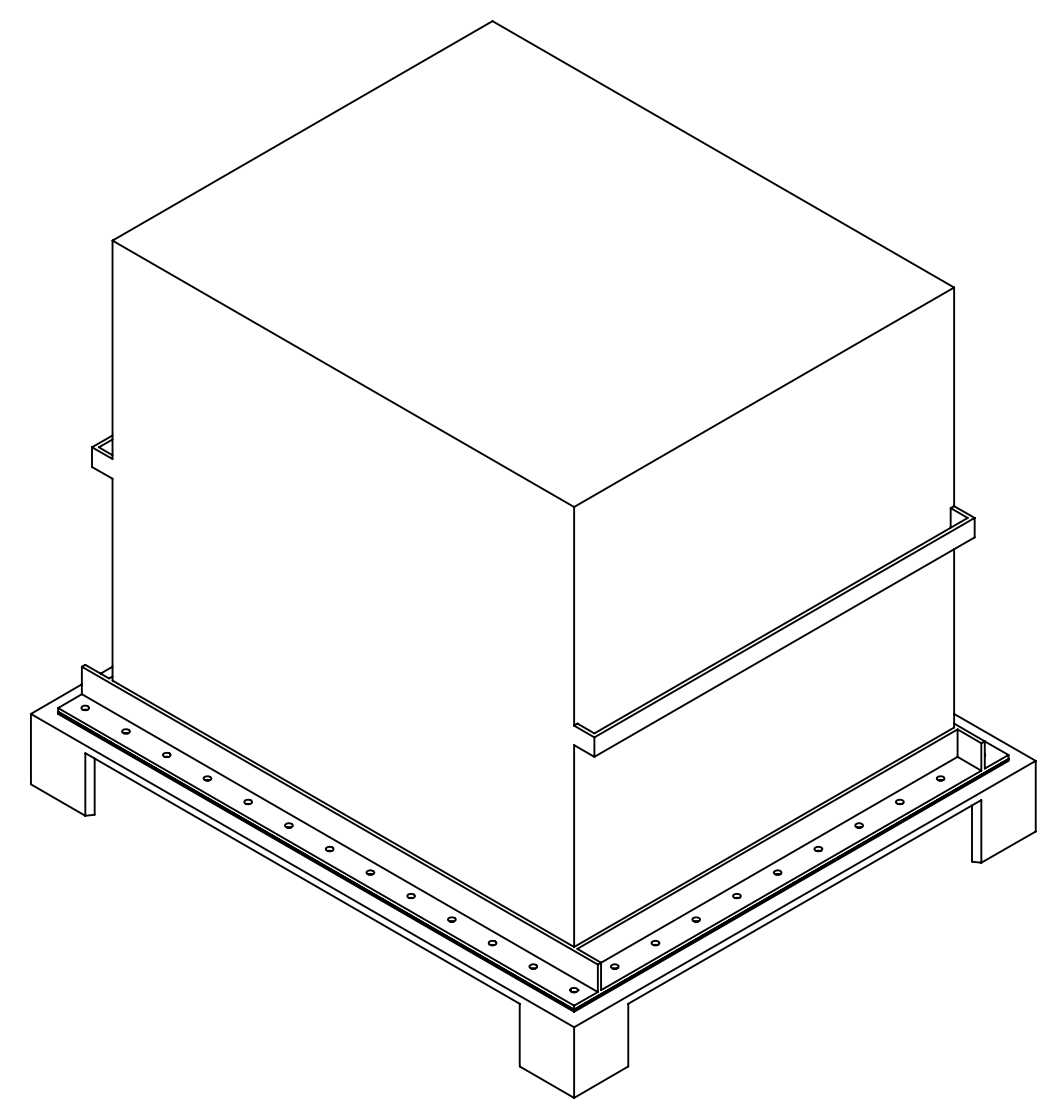
Cover

Removable 3/16"x2"
Viton Gasket
Provided by LIGO

Handle

Flange

DETAIL A
SCALE 1 : 1

A
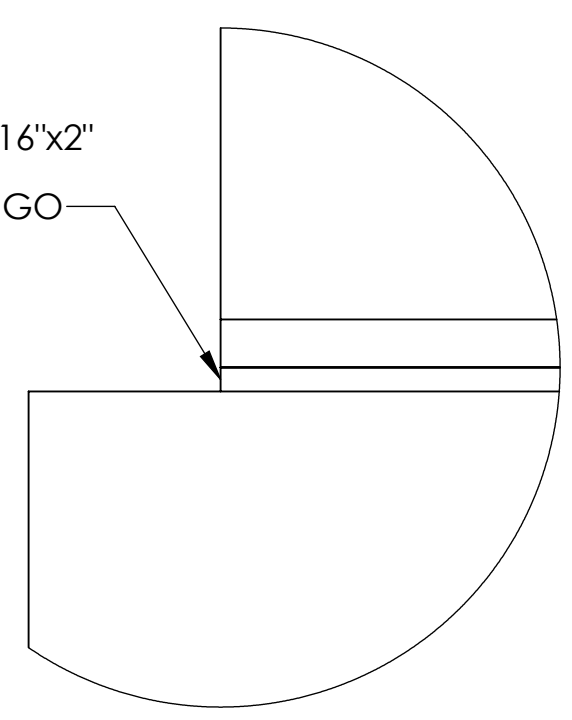
Base Plate

Base plate feet

ITEM NO.	PART NUMBER	QTY.
1	Upper Structure Cover	1
2	Upper Structure Base Plate	1
3	Flat Viton Gasket	1

DIMENSIONS ARE IN

TOLERANCES:
.XX   ±   REFER TO NOTES
.XXX ±   ON SHEET 2 and 3

ANGULAR ± °

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

MATERIAL
6061 or 5052 Aluminum

FINISH
refer to notes

LIGO   CALIFORNIA INSTITUTE OF TECHNOLOGY
       MASSACHUSETTS INSTITUTE OF TECHNOLOGY

SYSTEM

SUB-SYSTEM
SUS

NEXT ASSY

PART NAME
Upper Structure Storage Container

DESIGNER	Jim Warner
DRAFTER	
CHECKER	
APPROVAL	

SIZE: C
DWG. NO. D1002222
REV. v3

SCALE: 1:8   PROJECTION: SHEET 1 OF 3

Top view dimensions: 38.00, 34.00, 32.00, 28.00

44 x ⌀.41 Thru holes
1" From Edge
3" Spacing

Welded cover

Handle   Handle

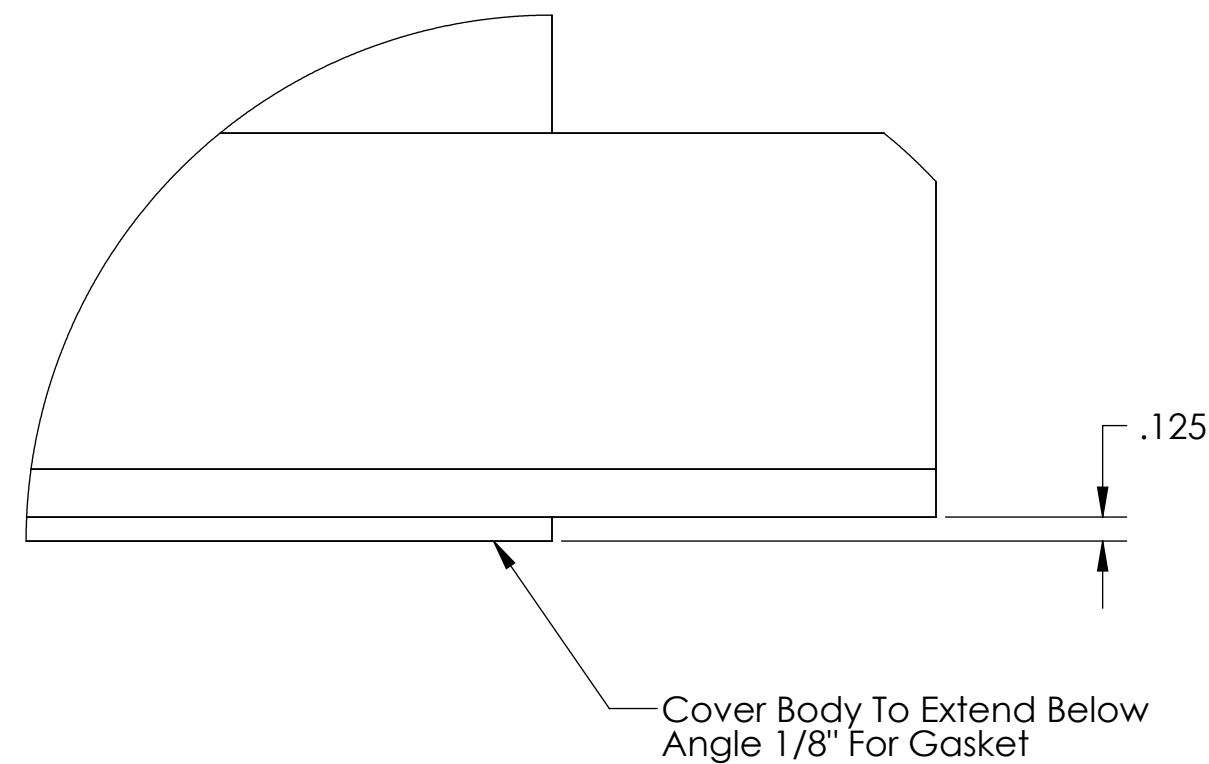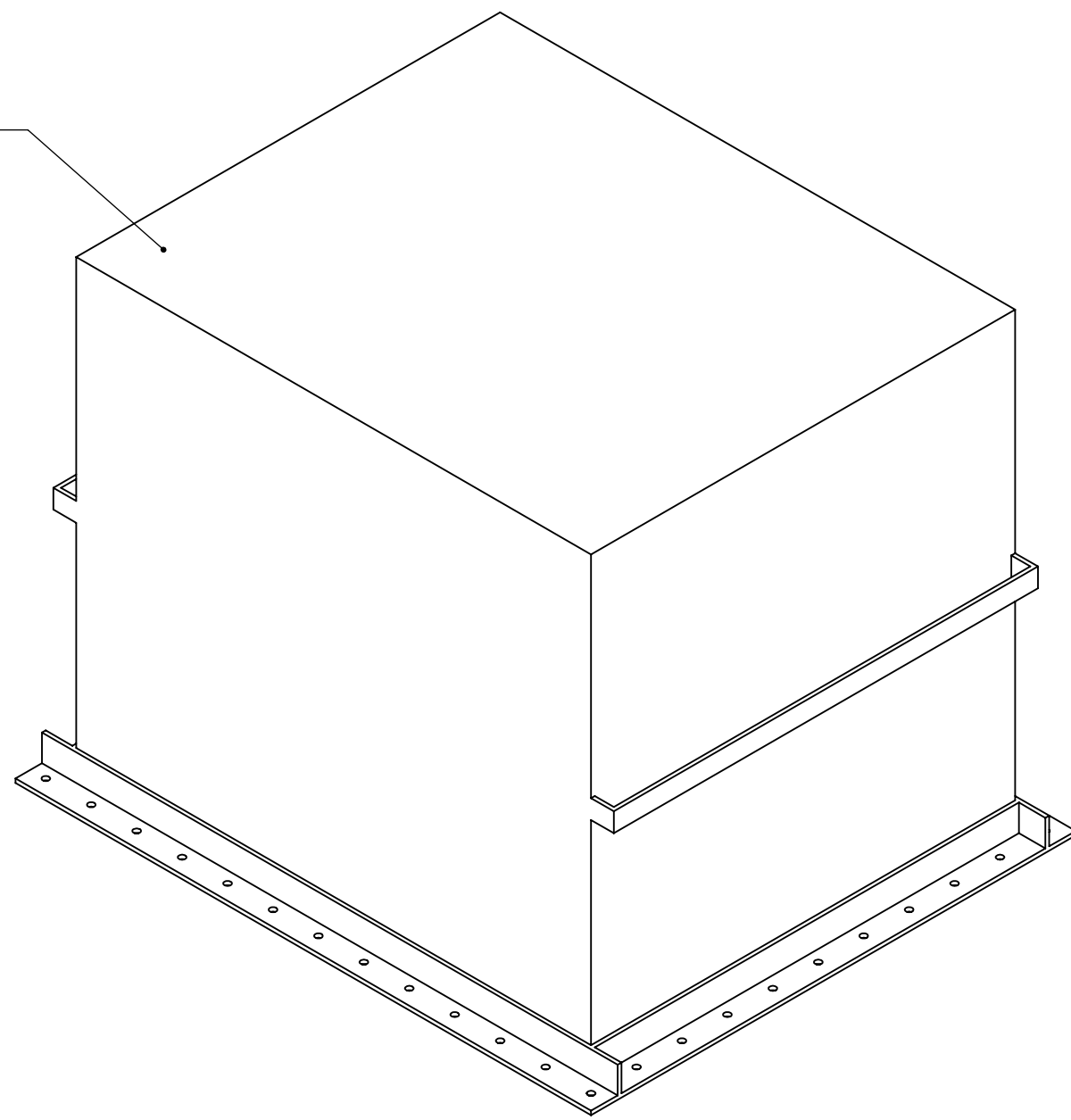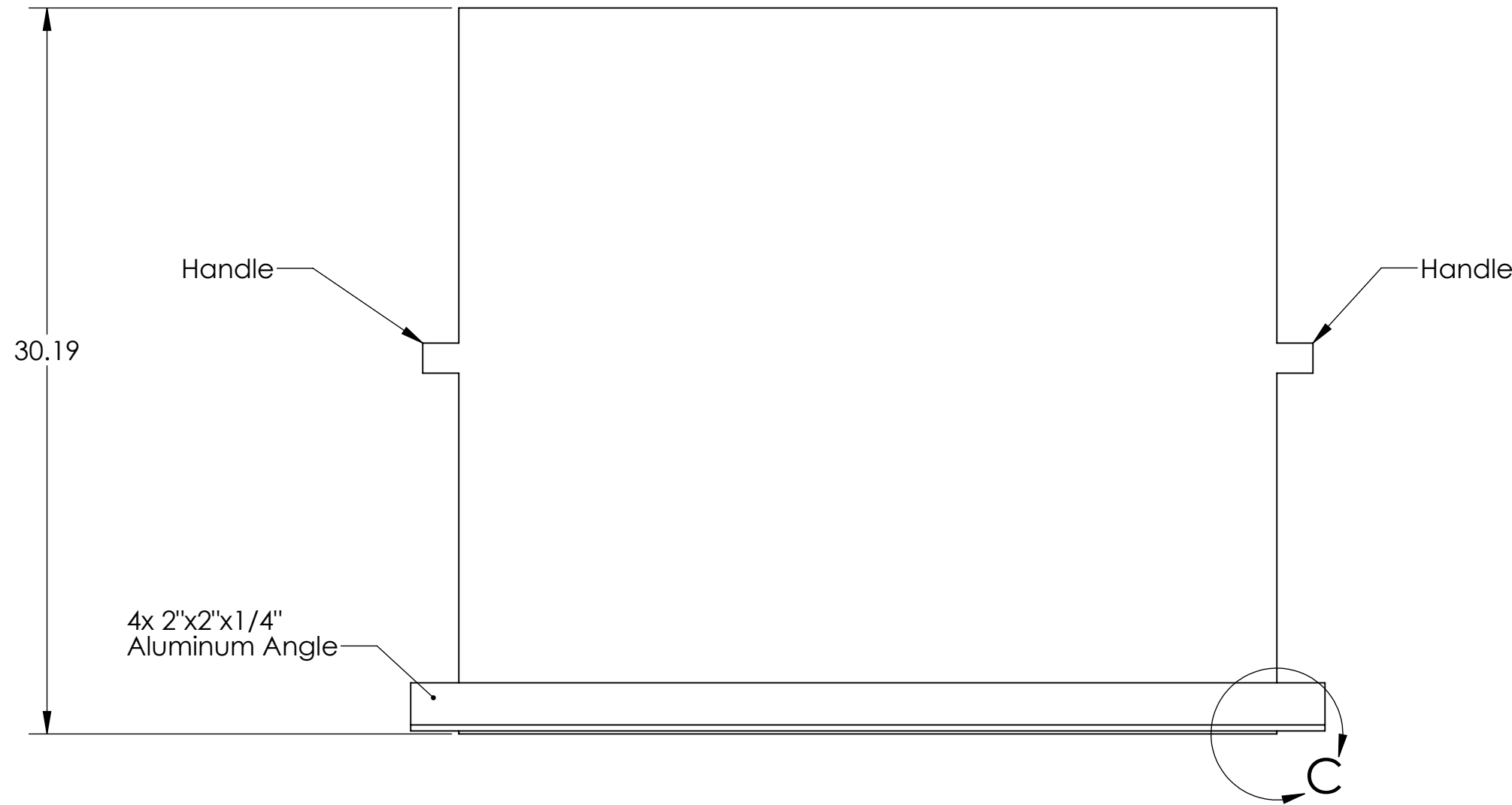30.19

4x 2"x2"x1/4"
Aluminum Angle

C

.125

Cover Body To Extend Below
Angle 1/8" For Gasket

DETAIL C
SCALE 1 : 1

I.   ALUM WELDED COVER BOX (INCLUDING HANDLES)

5. Use 1/16" 6061or 5052 Aluminum Sheet for 5-sided cover and handles.
6. 32 micor-inch finish as rec from supplier. If surface finish is higher than the standard 32 Ra micro-inch, the surface finish shall be discussed with LIGO officer prior to acceptance.
7. Minimum of 2 handles to be welded at midpoint of the cover such that seal is unaffected, location not critical.
8. Prior to welding all parts must be thoroughly cleaned to remove all oil, grease, ink markings, dirt and chips using soap and water or solvent (acetone)
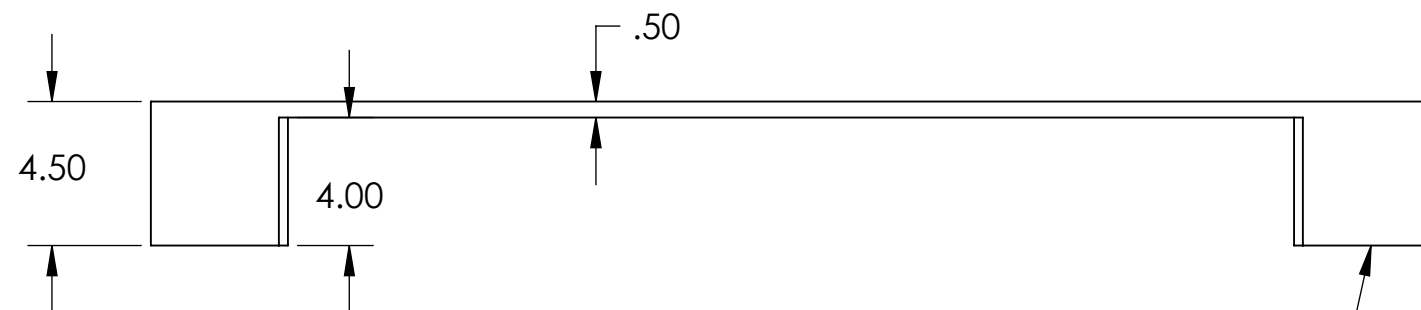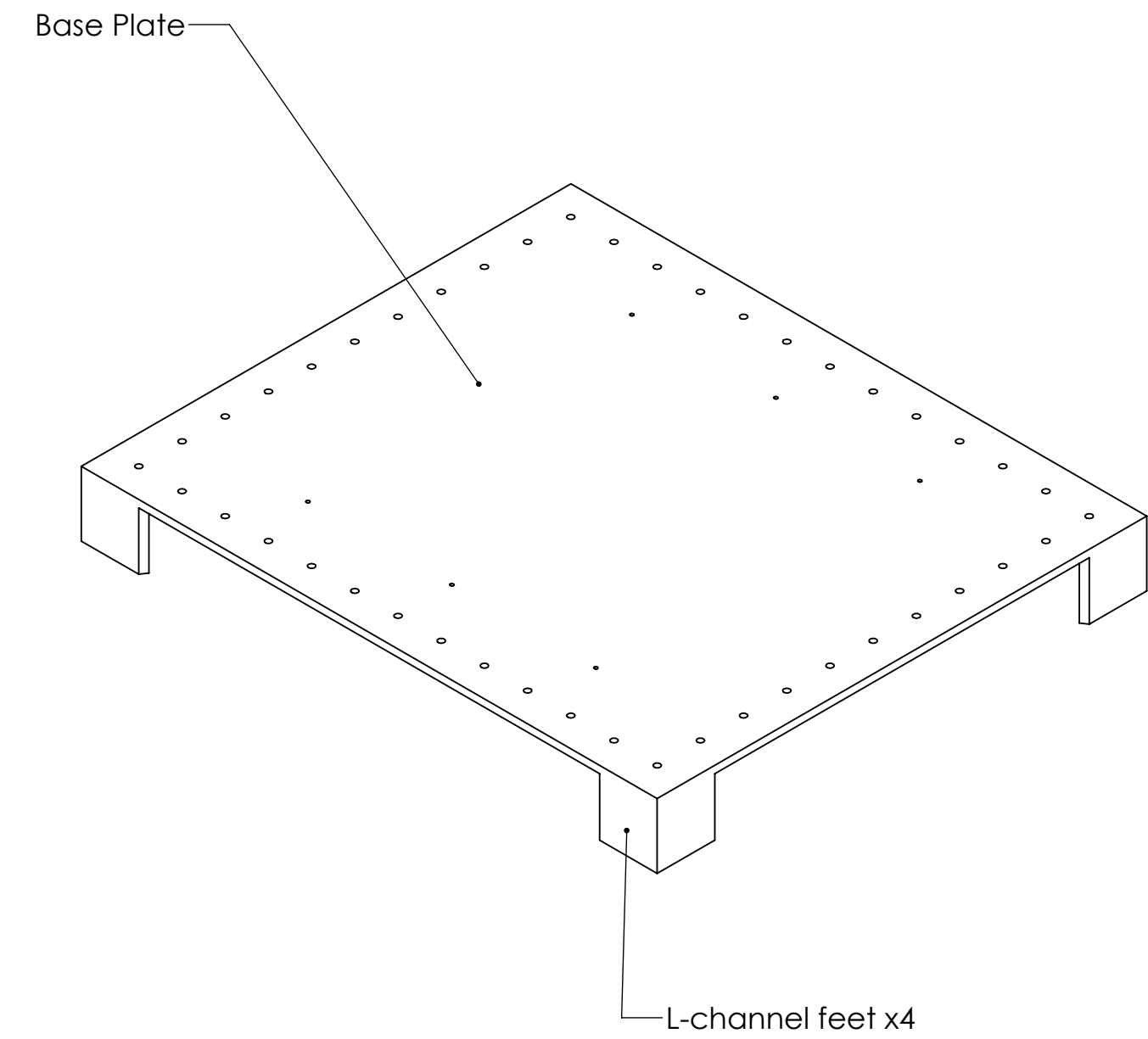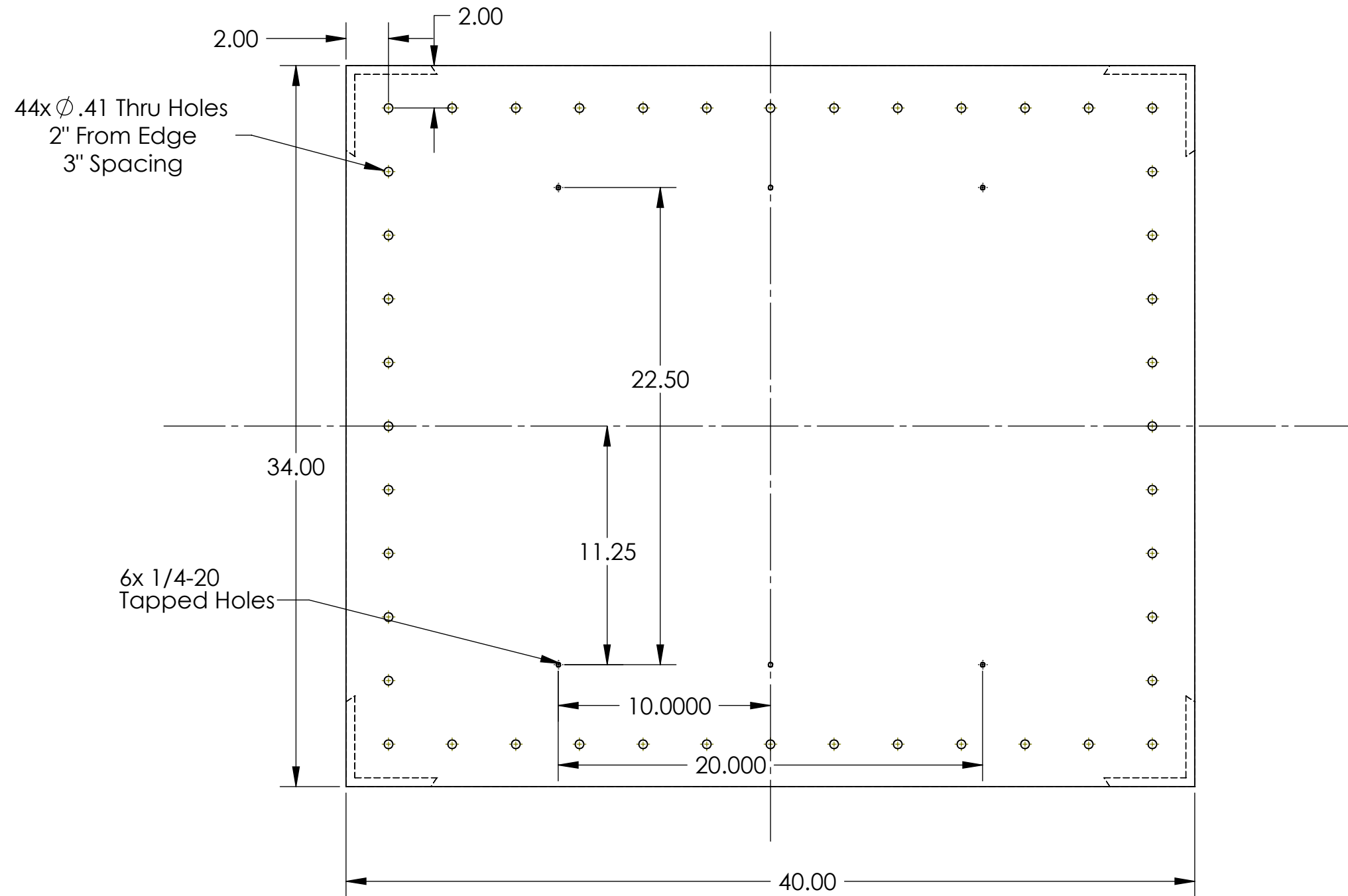
9. ALL DIMENSIONS APPLY AFTER WELDING. ALL WELDS MUST BE FULL PENETRATION AND FULL FUSION WELDS. THE CONTAINER SHOULD FULLY SEAL AT THE WELDS, SUCH THAT THE CONTAINER
IS AIR TIGHT. NO TRAPPED VOLUMES ARE PERMITTED. WELDMENTS WITH CREVICES ARE CONSIDERED NON-CLEANABLE SINCE THESE CREVICES ACT AS TRAPS FOR CLEANING SOLUTIONS. ALL WELDS
SHALL BE DONE ON THE INTERIOR OF THE CONTAINER SUCH THAT NO SEAMS ARE EXPOSEDON THE INTERIOR OF THE BOX. SEAMS WILL TRAP CONTAMINATION AND BE HARD TO CLEAN.ALL WELDERS
SHOULD BE CERTIFIED TO AMERICAN WELDING SOCIETY (AWS).

10. All interior dims +/- 0.010", exterior dims are +/- .125"
11. Brite dip might be a required step post-fabrication as per E090364, section 5

II.   ALUM ANGLE FOR COVER FLANGE

12. Use 4x 2"x2"x1/4" Aluminum angle for cover flange.
13. Material to be chosen such that localized digs, scratches and blemishes is minimized.
14. All interior dims +/- 0.010", exterior dims are +/- .125"

2.00

2.00

44x ∅ .41 Thru Holes
2" From Edge
3" Spacing

22.50

34.00

11.25

6x 1/4-20
Tapped Holes

10.0000

20.000

40.00

Base Plate

L-channel feet x4

.50

4.50

4.00

4x 4"x4" Aluminum L-Channel
Welded At Corners

III. ALUM BASE PLATE

15. Machine all surfaces of 1/2" plate.
16. Use 5052 or 6061-T6-Al 1/2" Aluminum Plate
17. All interior dims +/- 0.010", exterior dims are +/- .125"

IV. ALUM L-CHANNEL (FEET)

18. Use 4x 4"x4"x1/2"" Aluminum angle for feet.
19. Material to be chosen such that localized digs, scratches and blemishes is minimized.
20. All interior dims +/- 0.010", exterior dims are +/- .125"

21. Feet to be welded to base plate at corners,
22. Full seal welds on cover to be done from interior of cover.
23. Brite dip might be a required step post-fabrication as per E090364, section 5

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MASSACHUSETTS INSTITUTE OF TECHNOLOGY

SIZE	DWG. NO.		REV.
C		Base Plate	v3

| SCALE: | 1:8 | PROJECTION: | | SHEET 3 OF 3 |