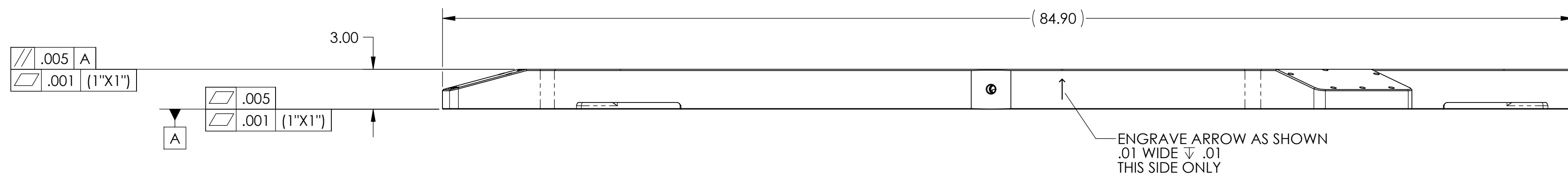
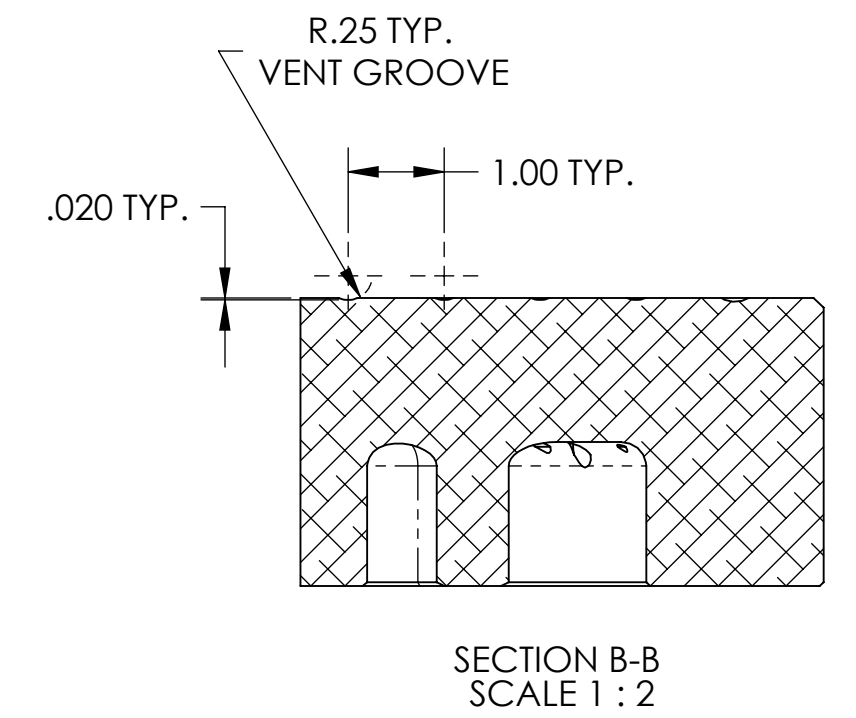
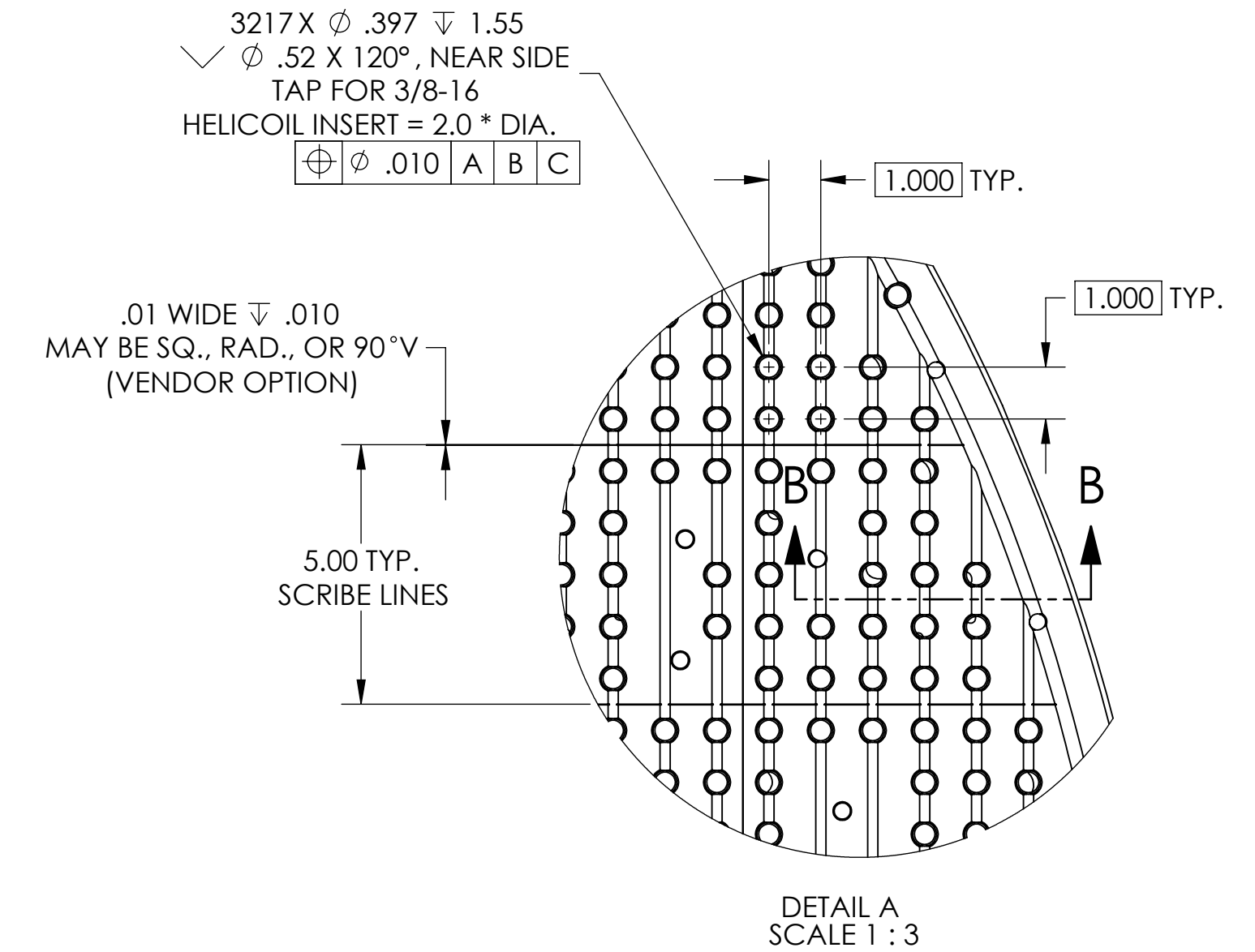
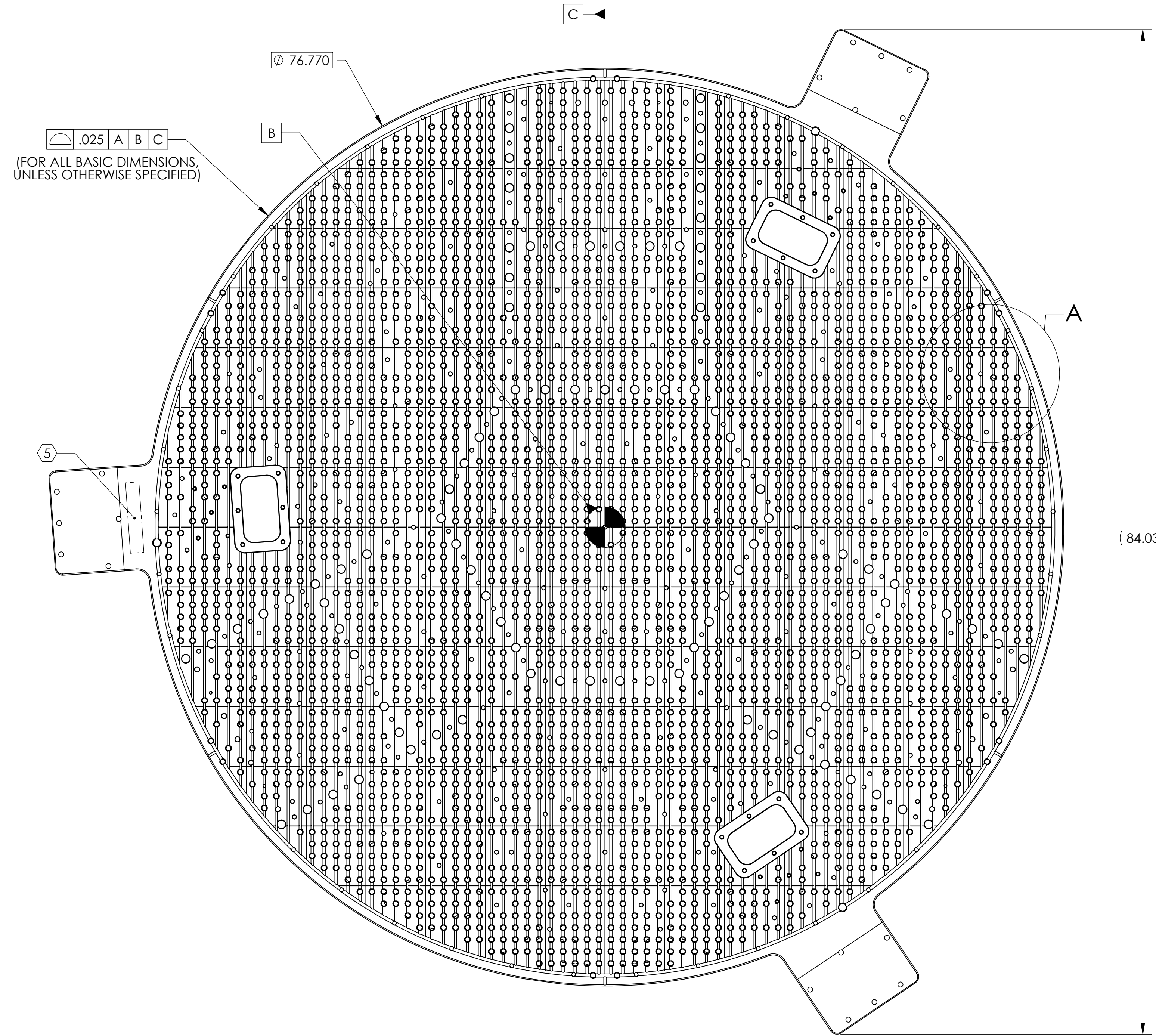


NOTES CONTINUED:

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 0.25" HIGH CHARACTERS, UNLESS THE SIZE OF THE PART DICTATES SMALLER CHARACTERS. A VIBRATORY TOOL MAY BE USED.
EXAMPLE DXXXXXX-VY, TYPE-XX, S/N XXX.
6. THIS DRAWING IS MINIMALLY DIMENSIONED. USE CAD MODEL TO EVALUATE FULL DIMENSIONAL DETAIL. UNLESS OTHERWISE SPECIFIED, THE MODEL TAKES PRECEDENCE OVER THE DRAWING WHEREVER THERE ARE DISCREPANCIES.
7. UNLESS OTHERWISE SPECIFIED, ALL SURFACES MUST SATISFY .025 PROFILE TOLERANCE WITH RESPECT TO DATUMS A, B, AND C.
8. APPROXIMATE WEIGHT = 860 LB.
9. MACHINE ALL SURFACES TO REMOVE OXIDES AND MILL FINISH. USE OF ABRASIVE REMOVAL TECHNIQUES IS NOT ALLOWED.
10. ALL PARTS SHALL BE MANUFACTURED IN ACCORDANCE WITH LIGO SPECIFICATION E0900364.
11. A TAPPED HOLE PITCH DIAMETER LIMIT OF H11 APPLIES TO ALL TAPPED HOLES, EXCLUDING THREADED INSERTS.
12. ALL THREADED INSERTS TO BE INSTALLED BY LIGO PERSONNEL AFTER DELIVERY OF FINISHED PARTS. USE ONLY NITRONIC 60 INSERTS.

FULL PART DETAIL SHOWN ON THIS SHEET ONLY. FOLLOWING SHEETS ARE SIMPLIFIED, FOR CLARITY. SIMPLIFIED VIEWS DO NOT INCLUDE 1"X1" PATTERN OF THREADED INSERTS, VENT GROOVES, OR SCRIBE LINES.

REV.	DATE	DCN #	DRAWING TREE #
v1	28 DEC 2009	E0900496	E1000025
v2	30 APR 2010	E1000129	E1000025



NOTES AND TOLERANCES: (UNLESS OTHERWISE SPECIFIED)

1. INTERPRET DRAWING PER ASME Y14.5-1994.
2. BREAK ALL EDGES AND CORNERS .030 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.

DIMENSIONS ARE IN INCHES

TOLERANCES:
 .XX ± .015
 .XXX ± .005

ANGULAR ± .5°

MATERIAL	6061-T6 Al	FINISH	63 μinch	NEXT ASSY	D0901181
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SYSTEM: **ADVANCED LIGO** SUB-SYSTEM: **SEI**

PART NAME				Optical Table, Down-Facing, aLIGO BSC ISI	
DESIGNER	A.STEIN	28 Dec.2009	SIZE	DWG. NO.	REV.
DRAFTER	M.HILLARD	28 Dec. 2009	D	D0901516	v2
CHECKER	F.MATCHARD	28 Dec. 2009	SCALE: 1:6	PROJECTION:	SHEET 1 OF 4
APPROVAL	K.MASON	28 Dec. 2009			

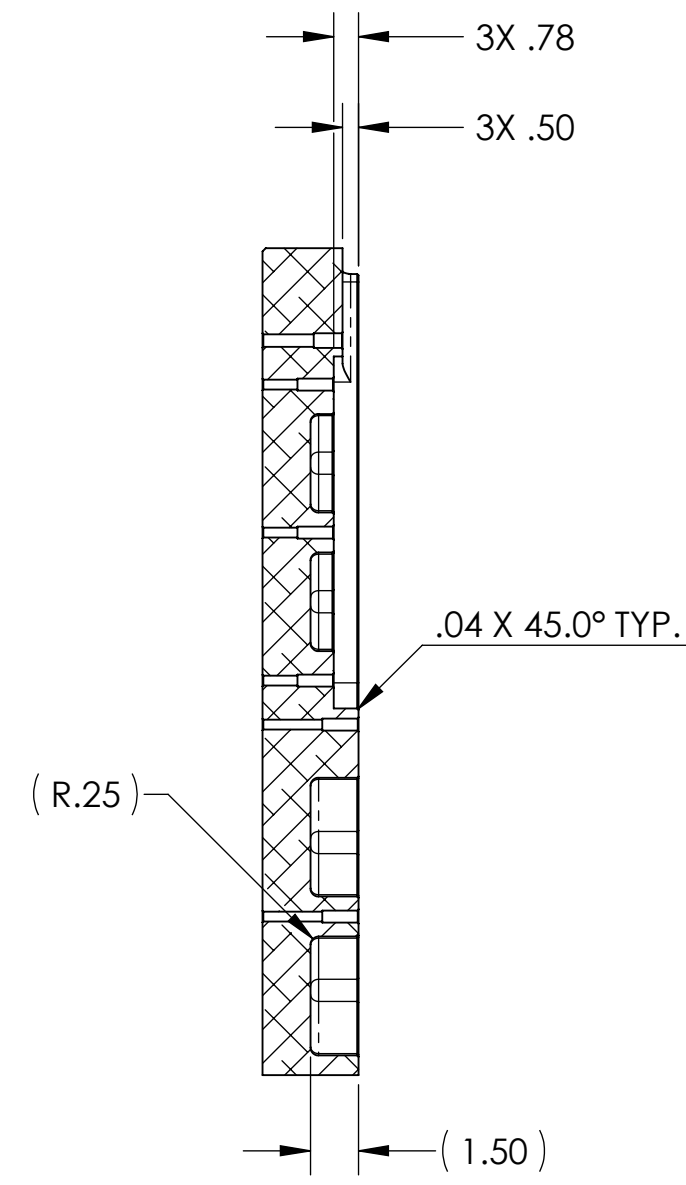
D0901516_Optical_Table_Down-Facing_BSC_ISI_PART_PDM_REV_X-069_DRAWING_PDM_REV_X-015

VIEW SHOWN IS SIMPLIFIED.
1"X1" GRID OF HELICOIL INSERTS IS SUPPRESSED.

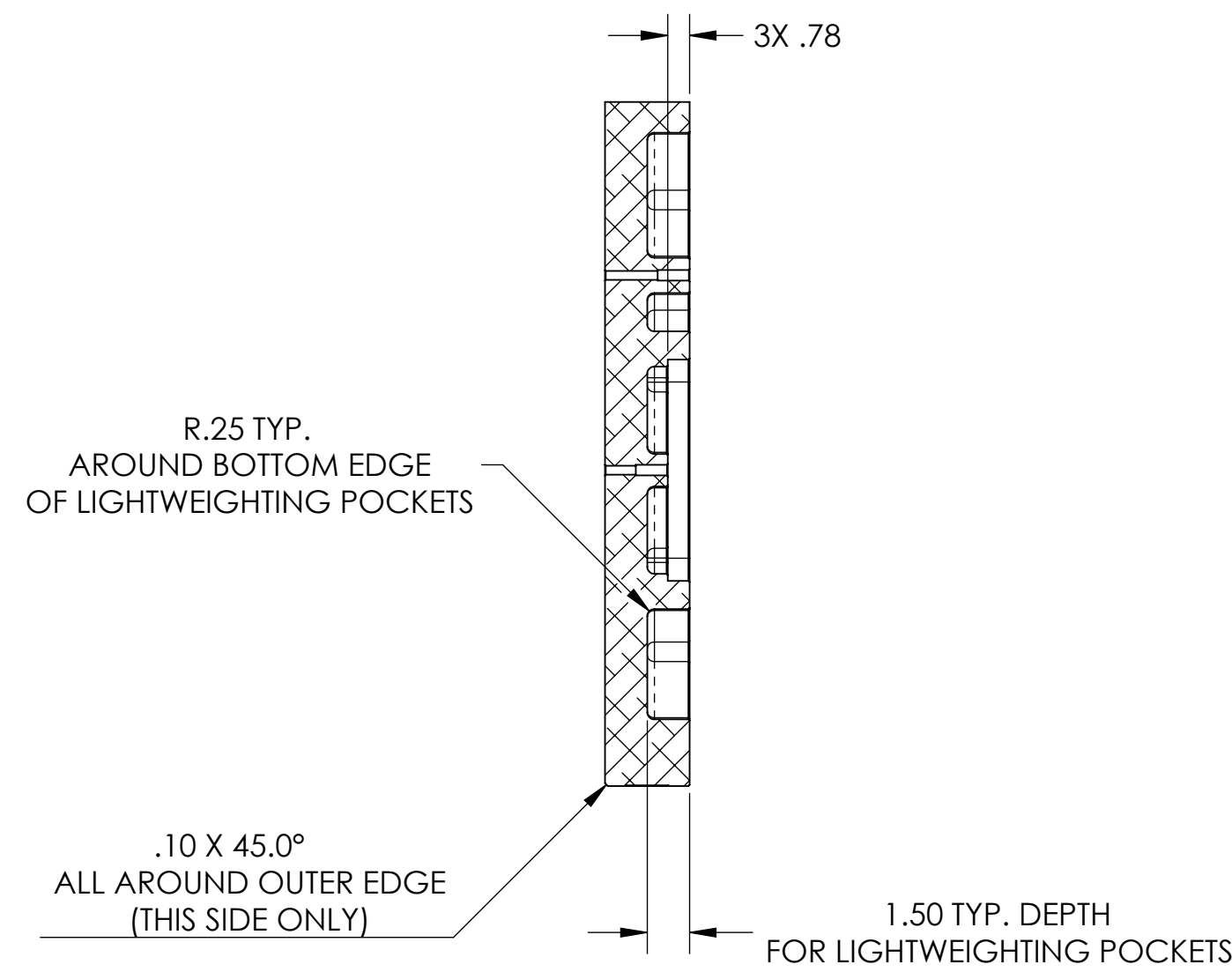
VIEW J INDICATES THE
BASE PATTERN, ARRAYED 3X.
SEE VIEW J ON SHEET 4, AND
OPPOSITE-SIDE VIEW K ON SHEET 3.

Ø .313 THRU ALL
3/8-16 UNC - H11 ∇ 1.13
✓ Ø .45 X 120°, NEAR SIDE
✓ Ø .36 X 90°, FAR SIDE
(CENTER HOLE)
⊕ Ø .010 | A | B | C
NOTE 11

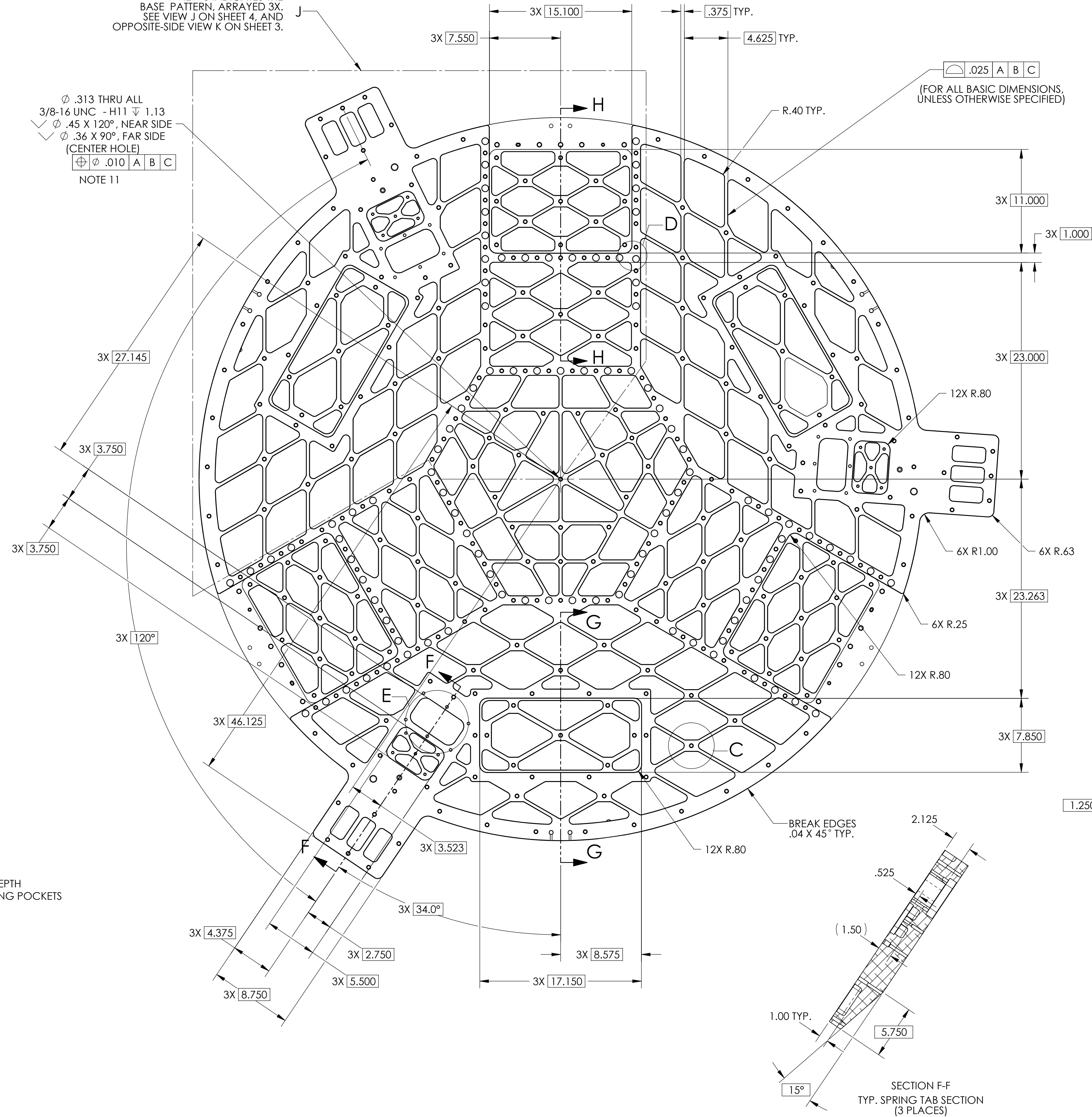
⊖ .025 | A | B | C
(FOR ALL BASIC DIMENSIONS,
UNLESS OTHERWISE SPECIFIED)



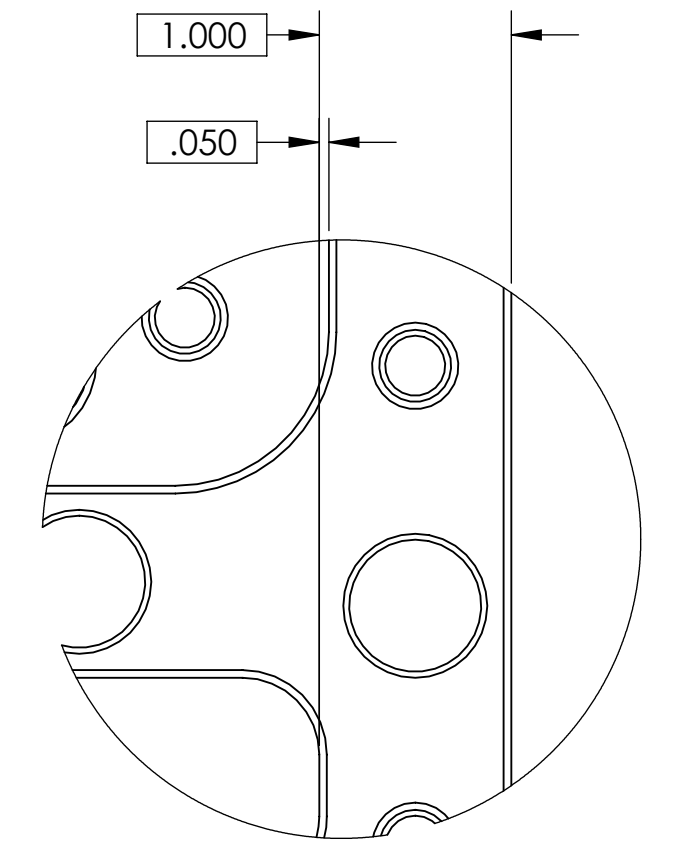
SECTION H-H



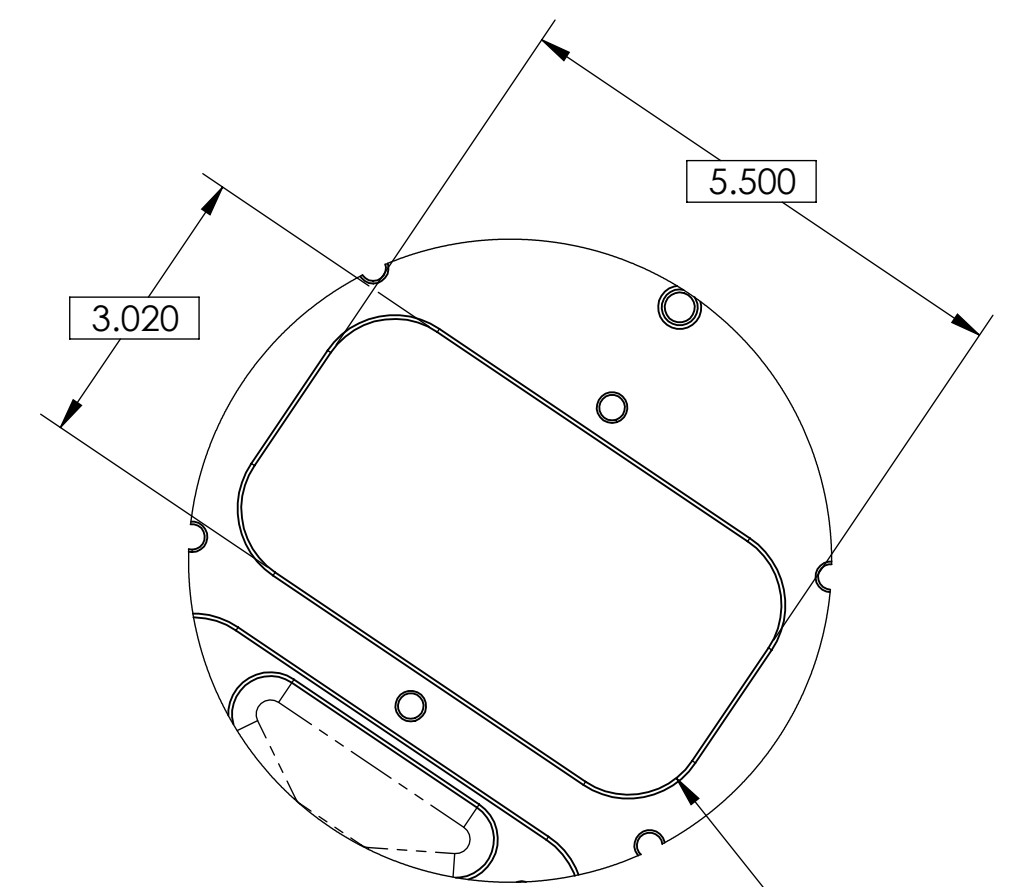
SECTION G-G



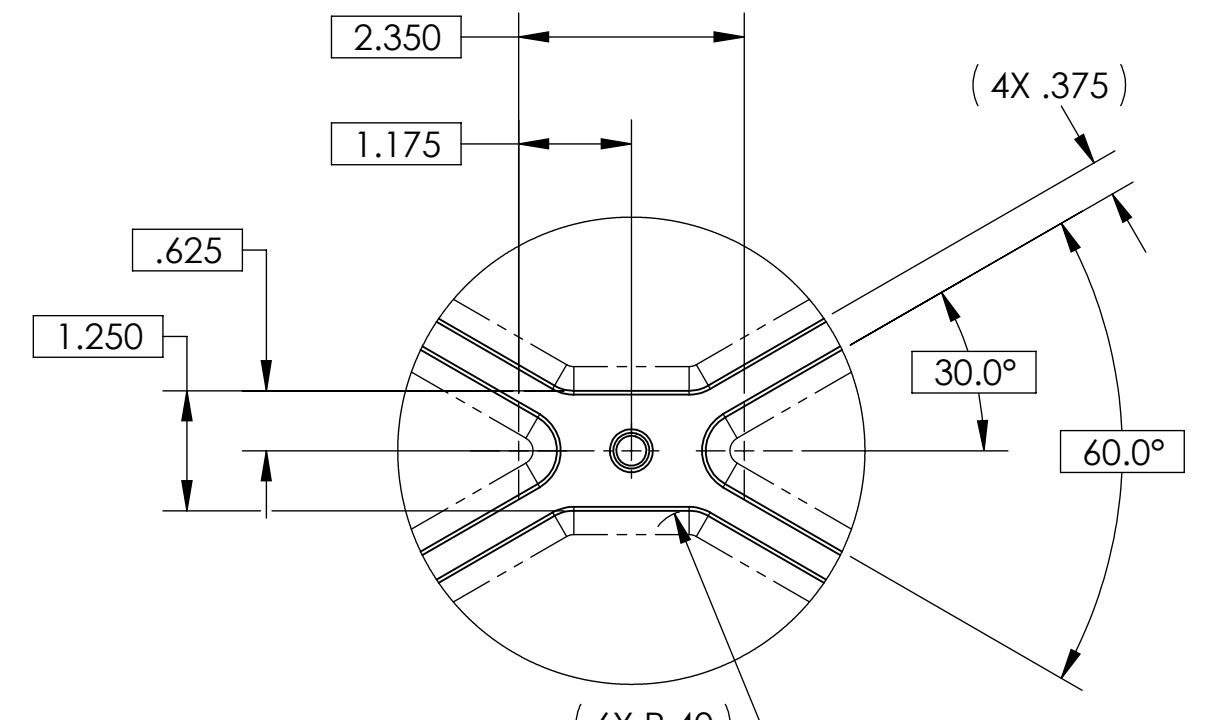
SECTION F-F
TYP. SPRING TAB SECTION
(3 PLACES)



DETAIL D
SCALE 1 : 1



DETAIL E
SCALE 1 : 2
TYP. SPRING ACCESS DETAIL
(3 PLACES)

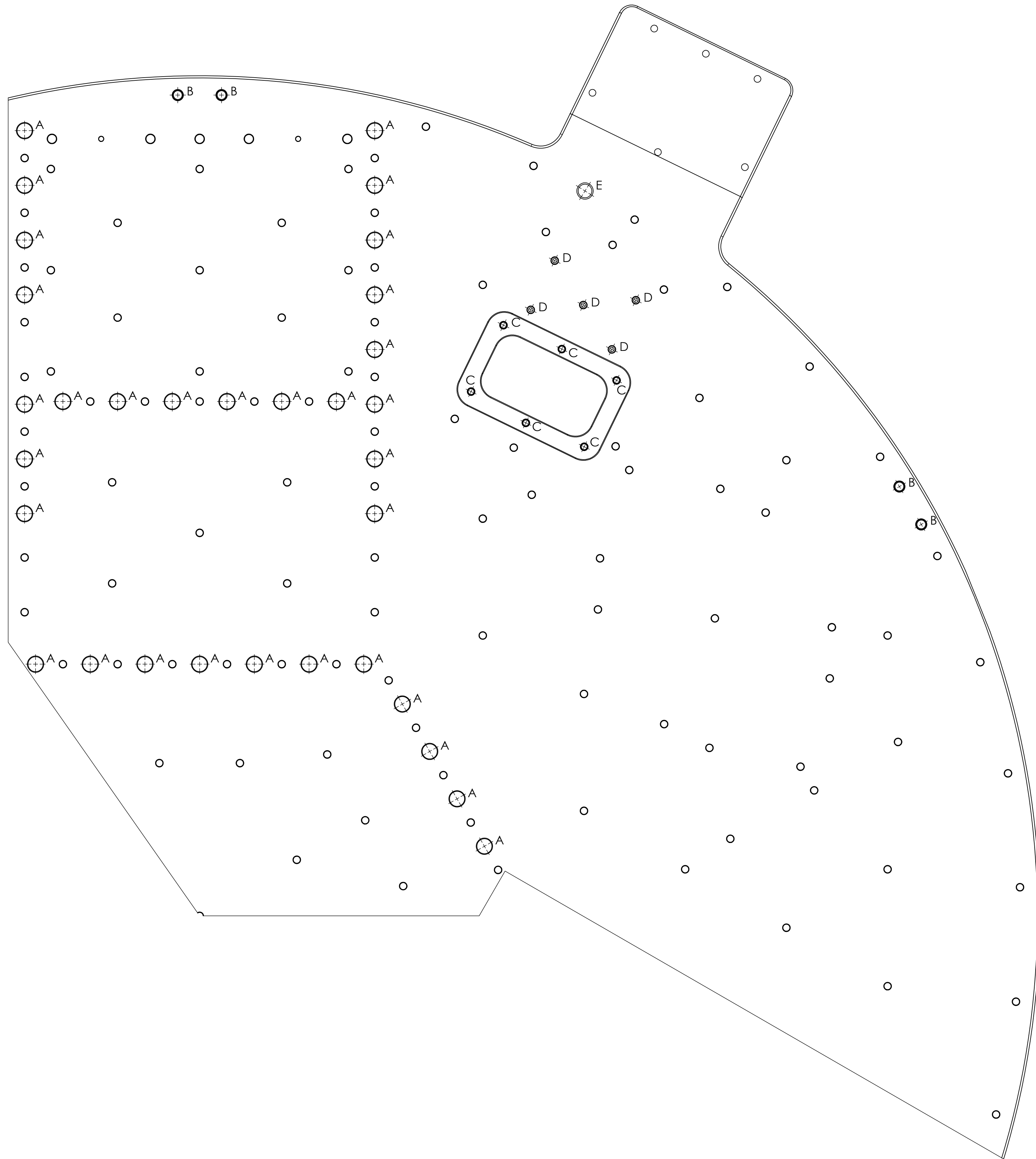


DETAIL C
SCALE 1 : 2
TYP. TAPPED HOLE / WEB DETAIL
(MULTIPLE PLACES)

LIGO CALIFORNIA INSTITUTE OF TECHNOLOGY MASSACHUSETTS INSTITUTE OF TECHNOLOGY	
SIZE DWG. NO.	REV.
D D0901516	v2
SCALE: 1:6	PROJECTION:
SHEET 2 OF 4	

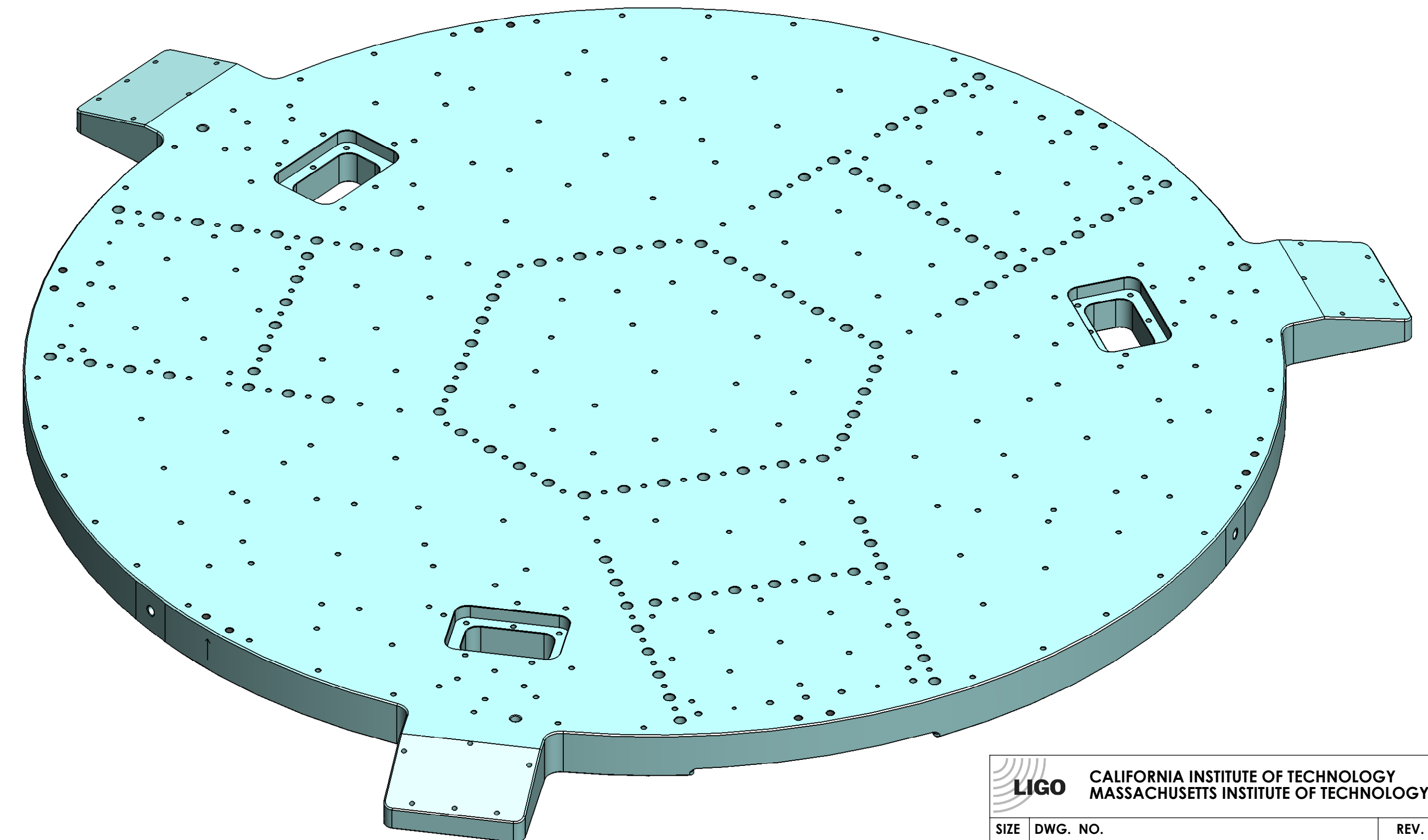
D0901516_Optical_Table-Down-Facing-BSC_US_PART_PDM_REV_X-069_DRAWING_PDM_REV_X-015

VIEW K
 VIEW SHOWN IS SIMPLIFIED.
 1"X1" GRID OF HELICOIL INSERTS, VENT GROOVES
 AND SCRIBE LINES ARE ALL SUPPRESSED.



TAG	SIZE	QUANTITY	TOLERANCE
A	ϕ .688 THRU ALL \checkmark ϕ .75 X 90°, NEAR SIDE \checkmark ϕ .75 X 90°, FAR SIDE	32	\oplus ϕ .030 (M) A B C
B	\checkmark ϕ .397 THRU ALL \checkmark ϕ .52 X 120°, NEAR SIDE TAP FOR 3/8-16 HELICOIL INSERT = 2.0 * DIA. \checkmark ϕ .45 X 90°, FAR SIDE	4	\oplus ϕ .010 A B C
C	\checkmark ϕ .266 THRU ALL \checkmark ϕ .36 X 120°, NEAR SIDE TAP FOR 1/4-20 HELICOIL INSERT = 2.0 * DIA. \checkmark ϕ .32 X 90°, FAR SIDE	6	\oplus ϕ .010 A B C
D	\checkmark ϕ .31 ∇ 1.43 \checkmark ϕ .36 X 90°, NEAR SIDE	5	\oplus ϕ .030 (M) A B C VENT HOLE
E	ϕ .531 THRU ALL 5/8-11 UNC - 2B THRU ALL \checkmark ϕ .75 X 120°, NEAR SIDE \checkmark ϕ .75 X 120°, FAR SIDE	1	\oplus ϕ .030 A B C FOR LIFTING HARDWARE

HOLE PATTERN ARRAYED 3X



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SIZE	DWG. NO.	REV.
D	D0901516	v2
SCALE: 1:3	PROJECTION:	SHEET 3 OF 4

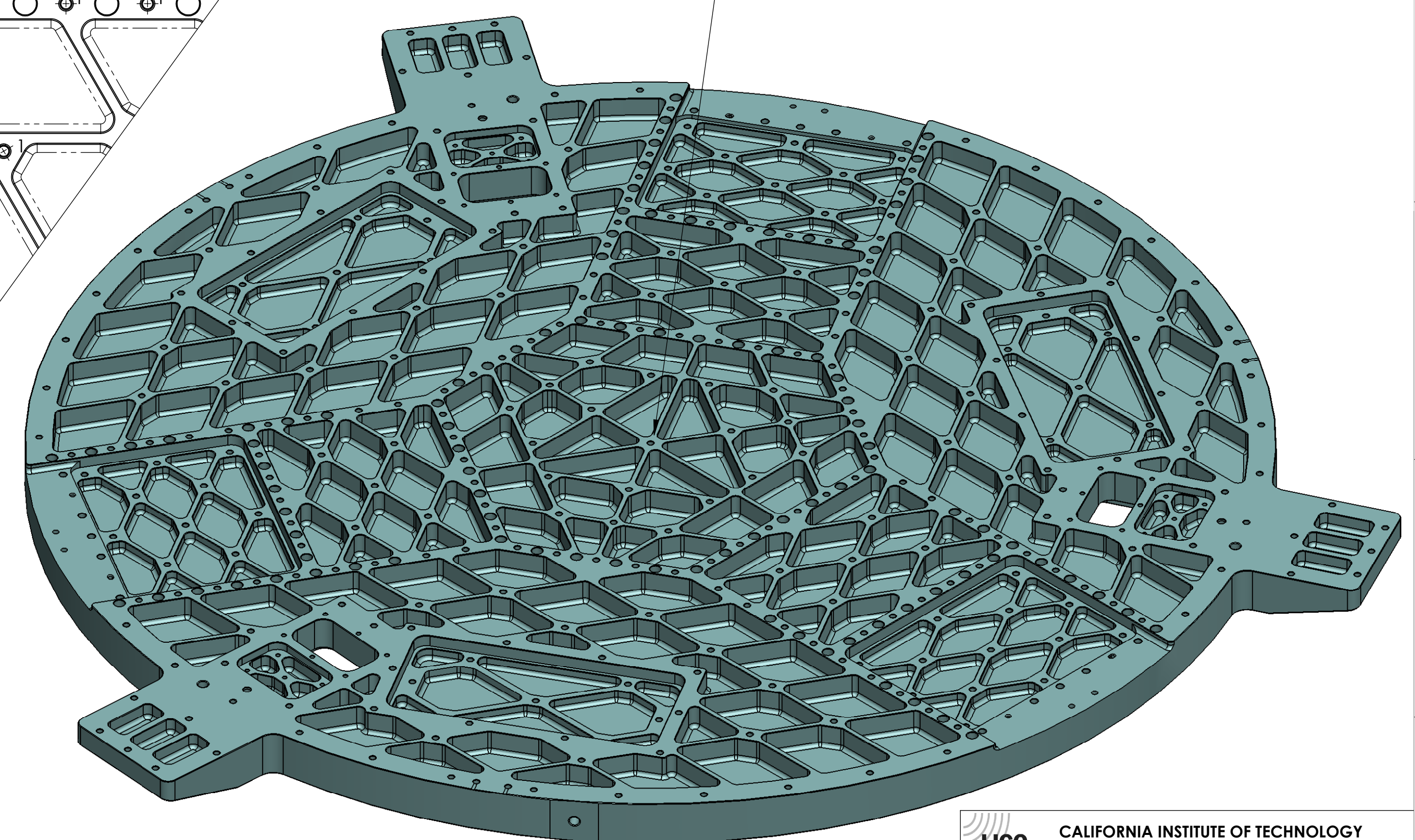
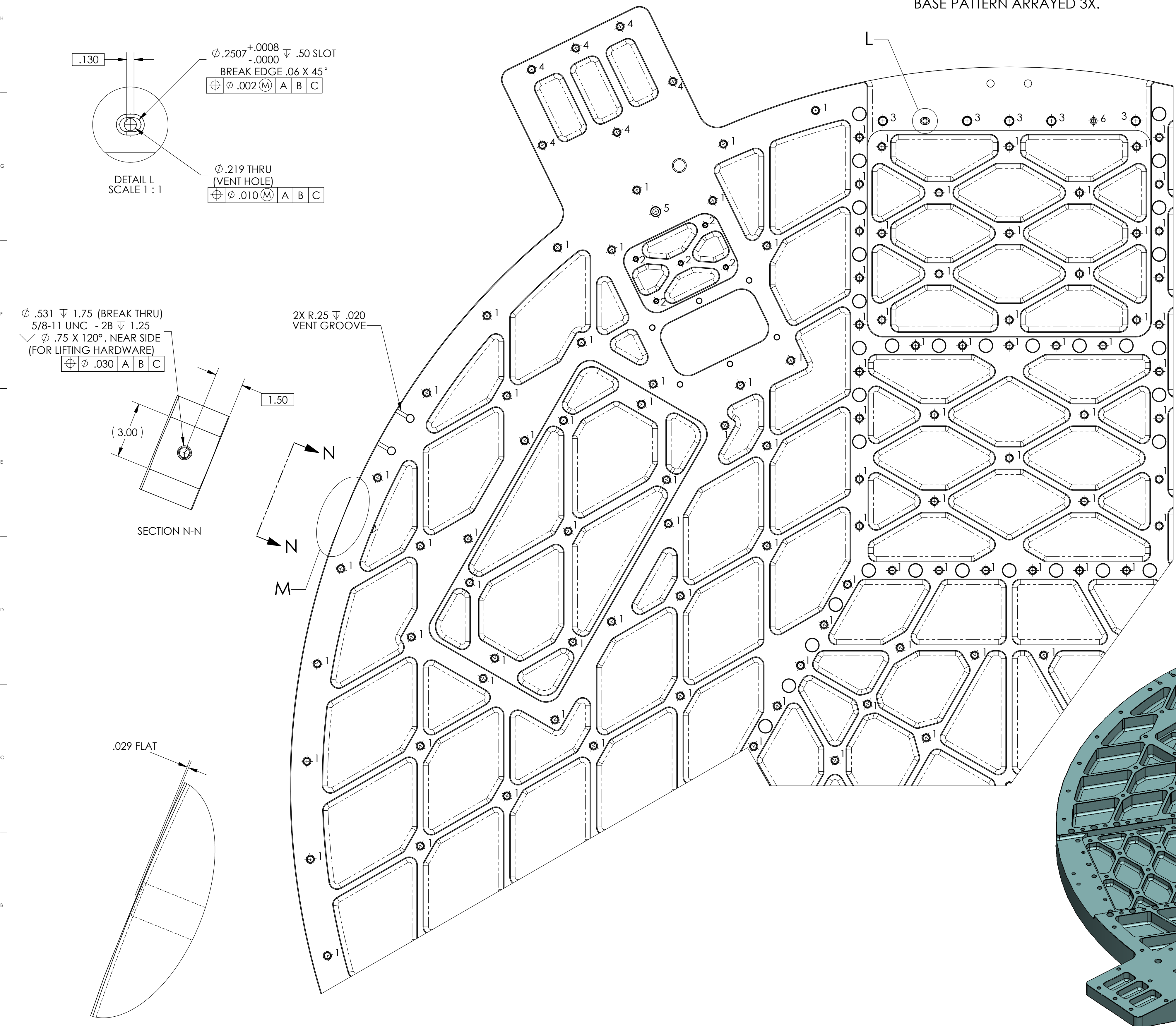
D0901516_Optical_Table-Down-Facing-BSC_USI_PART_PDM_REV_X-069_DRAWING_PDM_REV_X-015

VIEW J
 VIEW SHOWN IS SIMPLIFIED.
 1"X1" GRID OF HELICOIL INSERTS IS SUPPRESSED.
 BASE PATTERN ARRAYED 3X.

TAG	SIZE	QUANTITY	TOLERANCE
1	$\phi .313$ THRU ALL $3/8-16$ UNC $\nabla 1.13$ $\nabla \phi .45 \times 120^\circ$, NEAR SIDE $\nabla \phi .36 \times 90^\circ$, FAR SIDE	102	$\oplus \phi .010$ A B C NOTE 11
2	$\phi .201$ $\nabla 1.05$ $1/4-20$ UNC $\nabla .75$ $\nabla \phi .30 \times 120^\circ$, NEAR SIDE	5	$\oplus \phi .010$ A B C NOTE 11
3	$\phi .397$ THRU ALL $\phi .52 \times 120^\circ$, NEAR SIDE TAP FOR $3/8-16$ HELICOIL INSERT = $2.0 \times$ DIA. $\nabla \phi .45 \times 90^\circ$, FAR SIDE	5	$\oplus \phi .010$ A B C
4	$\phi .313$ THRU ALL $3/8-16$ UNC $\nabla 1.13$ $\nabla \phi .45 \times 120^\circ$, NEAR SIDE	6	$\oplus \phi .010$ A B C NOTE 11
5	$\phi .5000^{+.0000} \nabla .75$ $-.0006$ $\nabla \phi .502^{+.001} \nabla .15$ $-.000$ $\nabla \phi .55 \times 90^\circ$, NEAR SIDE $\phi .31$ THRU (VENT) $\nabla \phi .36 \times 90^\circ$, FAR SIDE	1	$\oplus \phi .002$ (M) A B C
6	$\phi .2507^{+.0008} \nabla .50$ $-.0000$ $\nabla \phi .38 \times 90^\circ$, NEAR SIDE $\phi .22$ THRU (VENT) $\nabla \phi .25 \times 90^\circ$, FAR SIDE	1	$\oplus \phi .002$ (M) A B C

HOLE PATTERN ARRAYED 3X

FOR SHIPPING:
 PLACE INTO CRATE WITH THIS SIDE FACING UP.



D0901516_Optical_Table-Down-Facing-BSC_USI_PART_PDM_REV_X-069_DRAWING_PDM_REV_X-015