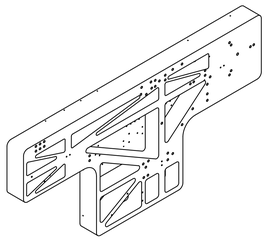
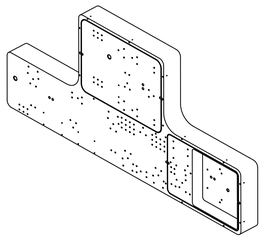
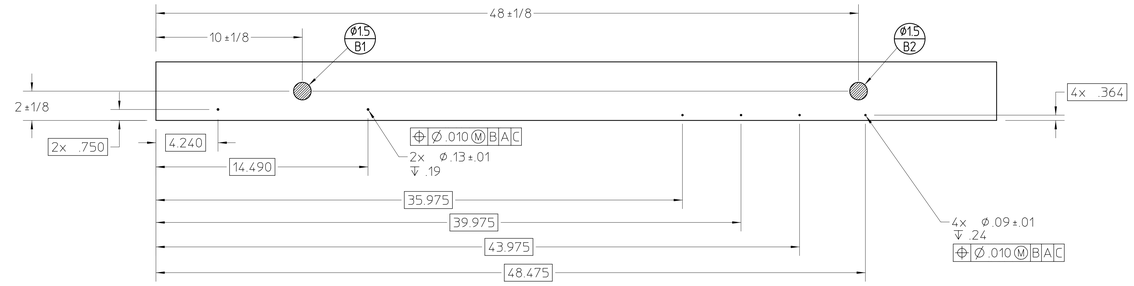
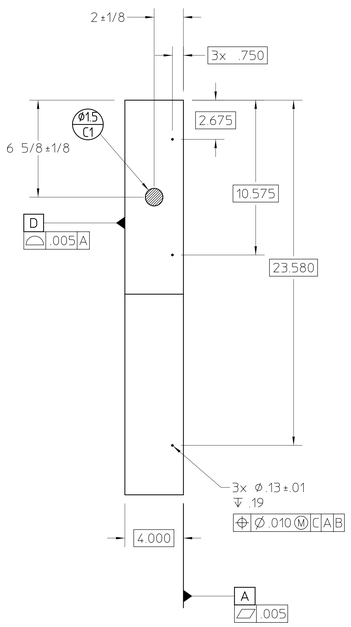


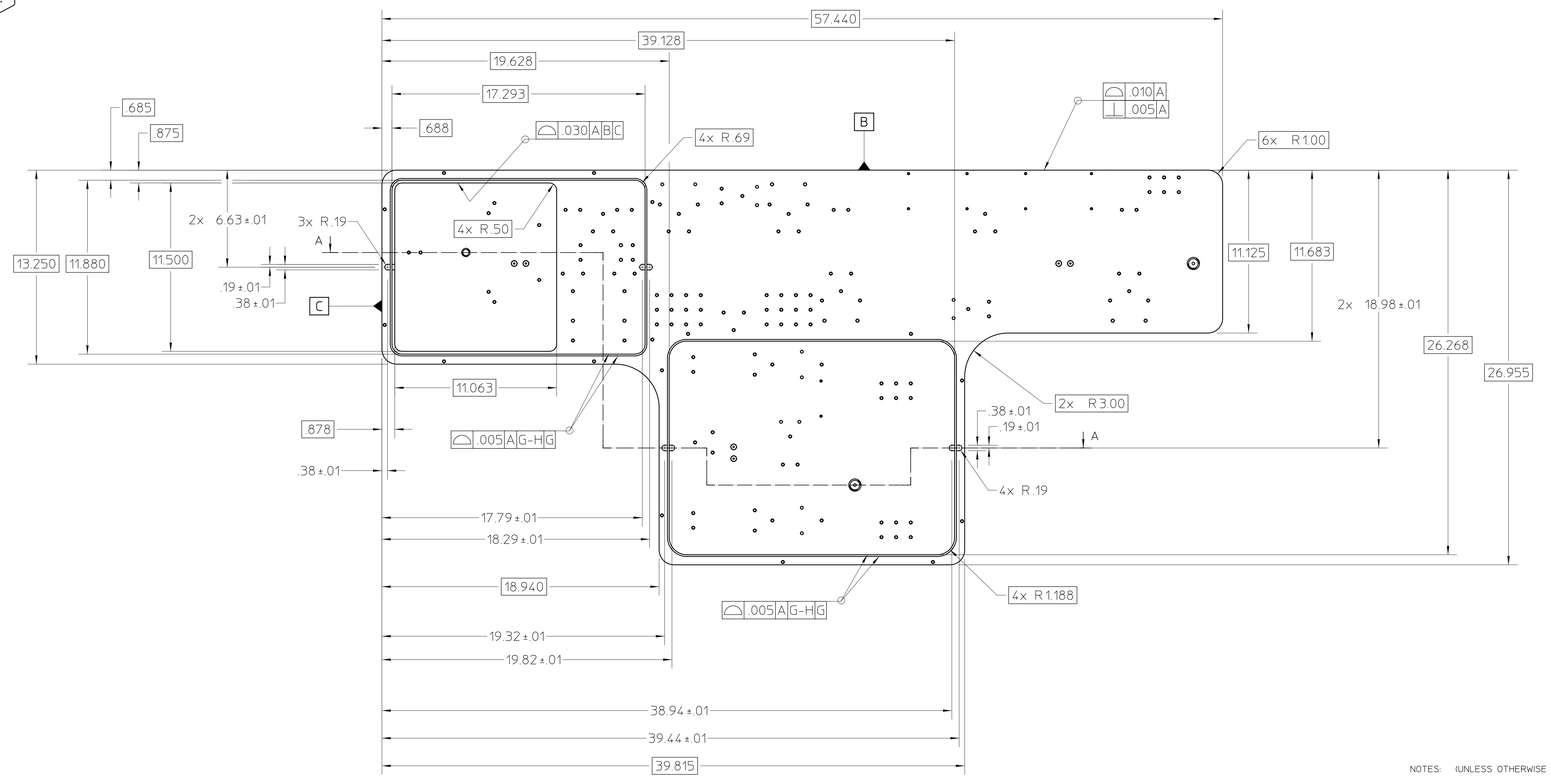
ISO VIEW BOTTOM
SCALE 1:10

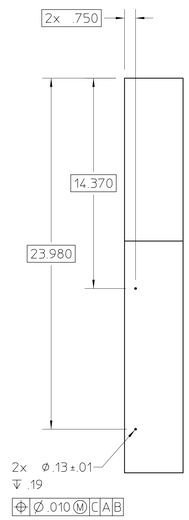


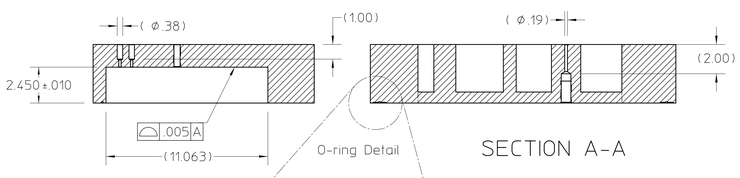
ISO VIEW TOP
SCALE 1:10

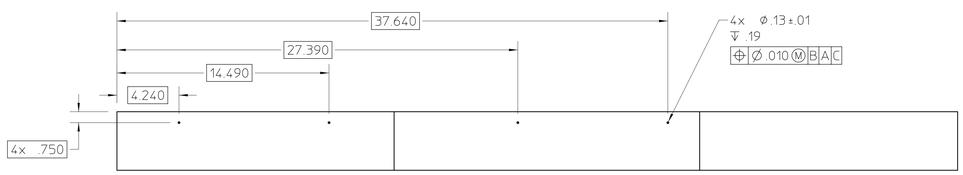


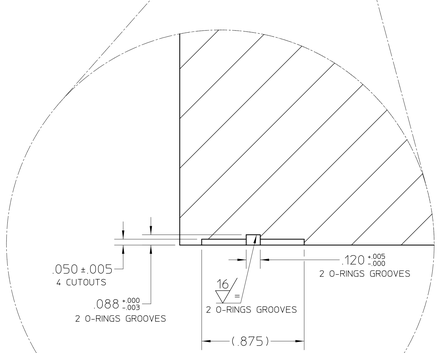












NOTES: (UNLESS OTHERWISE SPECIFIED)

1. THIS IS AN ULTRA HIGH VACUUM COMPONENT AND REQUIRES SPECIAL ATTENTION TO AVOID CONTAMINATION, REFER TO LBNL ENGINEERING SPECIFICATION #M20013 FOR CLEANING PROCEDURES.
2. USE OF SULPHUR-BEARING OR SILICONE-BEARING OILS,LUBRICANTS, OR COOLANTS IS PROHIBITED. USE OF POWER DRIVEN, RESIN BONDED, OR RUBBER BONDED ABRASIVES IS PROHIBITED. CERAMIC BONDED ABRASIVES,TUNGSTEN CARBIDE AND DIAMOND WHEELS ARE ACCEPTABLE.
3. THIS IS AN ULTRA HIGH VACUUM COMPONENT. NO WELDING ONTHIS PART IS PERMITTED WITHOUT PRIOR LBNL PERMISSION.
4. STRESS RELIEVE AFTER ROUGH CUTTING ALL POCKETS AT 375°F TO 400°F FOR 12 HOURS. KEEP THE T6 CONDITION.
5. ALL HIDDEN LINES MAY NOT BE SHOWN.
6. ALL DIMENSIONS ARE IN INCHES
7. ALL HOLES SHALL BE FREE OF DEBRIS.
8. TAKE EXTREME CARE NOT TO DING, SCRATCH, DENT,OR OTHERWISE MARK ANY MACHINED SURFACE. PROTECT FINISHED PART BY BAGGING OR SIMILAR METHOD TO MAINTAIN CLEANLINESS DURING SHIPMENT AND STORAGE.
9. POSITION TOLERANCE APPLIES TO A HOLE DEPTH OF 0.50 INCH FROM DATUM SURFACE "A". POSITION TOLERANCE DOES NOT APPLY TO HOLES DRILLED FROM DATUM SURFACE "D" TO MEET HOLES IN SURFACE "A". IF A PORTION OF THESE HOLES ARE DRILLED FROM DATUM SURFACE "D" THEN THE POSITION TOLERANCE FROM SURFACE "D" SHALL BE Ø .030 M D B C
10. REVISION "D" CHANGES:
ADD NOTE #9.
CHANGE BLOCK TOLERANCE FOR SURFACE FINISH FROM 125 TO 63.
SHEET 1 OF 3, LOCATION F5, CHANGE PROFILE TOLERANCE FROM .01 TO .03.
SHEET 1 OF 3, LOCATION C8, CHANGE 2.450 BASIC DIMENSION TO ±.010 DIMENSION.
SHEET 1 OF 3, LOCATION D4 AND E5, CHANGE POSITION TOLERANCE FROM DATUMS A, B AND C TO DATUMS A, G-H AND G.
SHEET 1 OF 3, LOCATION H3, ADD DATUM TARGET AREA B2.
SHEET 1 OF 3, LOCATION H5, ADD DATUM TARGET AREA B1.
SHEET 1 OF 3, LOCATION F8, ADD DATUM TARGET AREA C1.
SHEET 2 OF 3, LOCATIONS B5, C3, C6, C7 AND G4, CHANGE PROFILE TOLERANCE FROM .01 TO .05.
SHEET 2 OF 3, LOCATIONS B4, E3 AND E7, ADD POSITION TOLERANCE FROM DATUMS A, B AND C, OF 0.030".
SHEET 3 OF 3, REMOVE HIDDEN LINES FOR CLARITY.
SHEET 3 OF 3, LOCATION E5, ADD DATUM "G" AND AT LOCATION G5, ADD DATUM "H".
SHEET 3 OF 3, LOCATION D4, ADD POSITION TOLERANCE TO HOLE MARKED DATUM "G", FROM DATUMS A, B AND C, OF 0.015".
SHEET 3 OF 3, LOCATION G3, ADD POSITION TOLERANCE TO HOLE MARKED DATUM "H", FROM DATUMS A, B AND C, OF 0.015".
SHEET 3 OF 3, LOCATION D2, ADD HOLE DESCRIPTION.
SHEET 3 OF 3, LOCATION F3, ADD HOLE DESCRIPTION.
SHEET 3 OF 3, LOCATIONS C2, D2, F3, C4, G4, C6, C7 AND G7, CHANGE POSITION TOLERANCE FROM DATUMS A, B AND C TO DATUMS A, G-H AND G.
SHEET 3 OF 3, LOCATIONS D2, C4, D4, AND C7, ADD POSITION TOLERANCE FROM DATUMS D, B AND C, OF 0.030".
SHEET 3 OF 3, LOCATIONS G4, H2, H4, ADD REFERENCE TO NOTE #9.

REV	AUTHOR	APPROVER	DATE	CHANGE DESCRIPTION
D	ajdemell	ajdemell	08-17-05	SEE NOTE #10 ON SHEET 1 OF 3
C	ajdemell	ajdemell	06-28-05	ADD WIDTH DIMENSION, MOVE R.3 RADII, LOC. E8 CHANGE C TYPE TO B TYPE HOLE, LOC. F3 CHANGE A TYPE TO B TYPE HOLE
B	ajdemell	ajdemell	05-24-05	MOVE KINEMATIC MOUNT HOLES, 90° TABLE
A	ajdemell	ajdemell	05-23-05	INITIAL REVISION

UNLESS OTHERWISE SPECIFIED
TOLERANCES: .X± - .XX± - - .XXX± - - - ; FRACTIONS: ± - / - - ; ANGLES: ± - - °/INCH ; MACH. SURFS.: 63 √ OR BETTER
REF: ASME Y14.5M-1994, THREADS ARE CLASS 2
BREAK EDGES .016 MAX. ON MACHINED WORK
REMOVE BURRS, WELD SPLATTER & LOOSE SCALE

MAT 2: . — NOTES:
MAT 1: PLATE, ALUMINUM 6061-T6 — NOTES:

PROJECT NAME: Advanced Light Source
UNIQUE NUMBER: AL-0015-0271
DO NOT SCALE PRINT — CATEGORY CODE: AL9021
SCALE: 1 : 1
THIRD ANGLE PROJECTION

ERNEST ORLANDO LAWRENCE BERKELEY NATIONAL LABORATORY
UNIVERSITY OF CALIFORNIA

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PEEM 3 ELECTRON OPTICS
MICROSCOPE BASE PLATE

SHEET 1 OF 3 — SIZE: E — DWG NO: 26C350 — REV D

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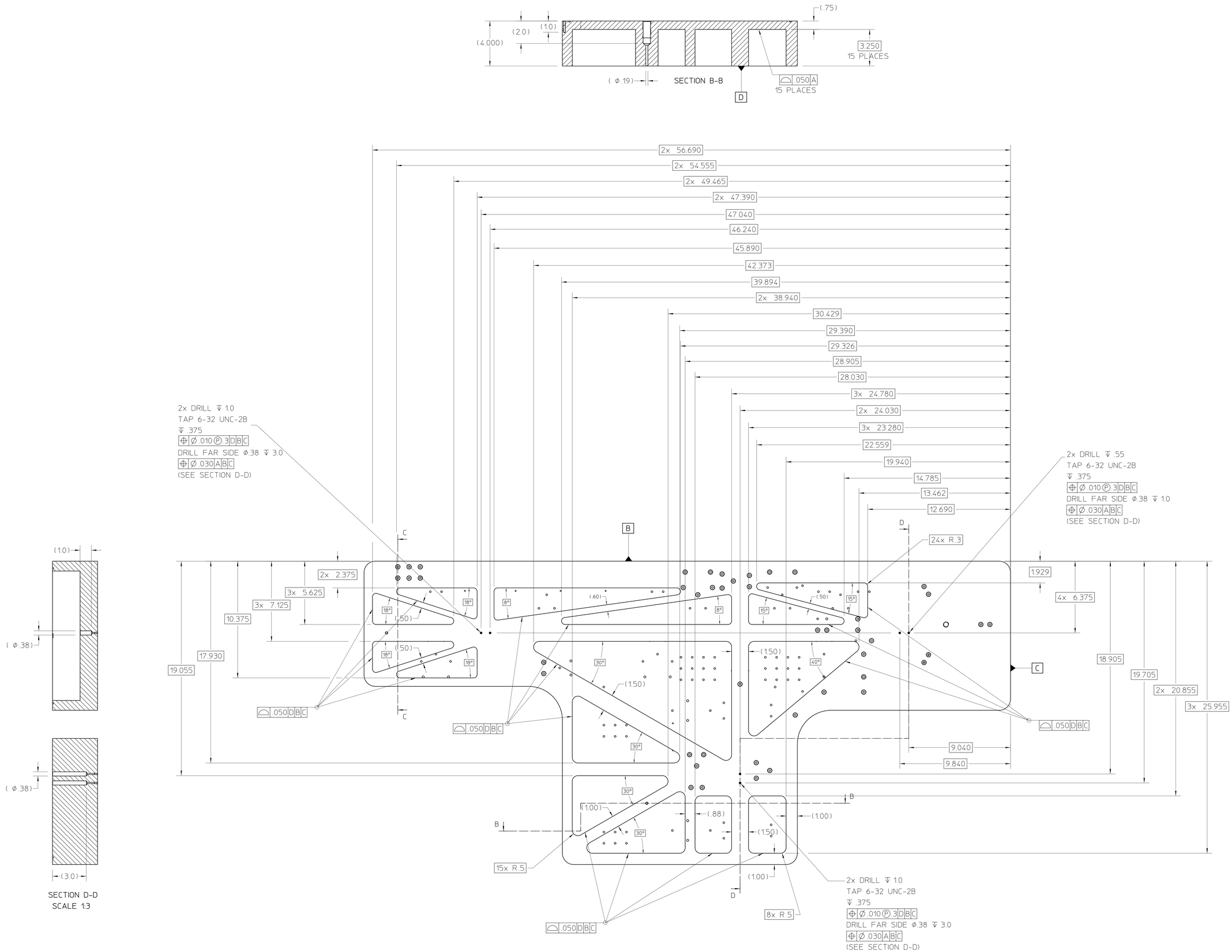

REV	AUTHOR	APPROVER	DATE	CHANGE DESCRIPTION
D	ajdemell	ajdemell	08-17-05	SEE NOTE #10 ON SHEET 1 OF 3
C	ajdemell	ajdemell	06-28-05	ADD WIDTH DIMENSION, MOVE R.3 RADII, LOC. E8 CHANGE C TYPE TO B TYPE HOLE, LOC. F3 CHANGE A TYPE TO B TYPE HOLE
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A	ajdemell	ajdemell	05-23-05	INITIAL REVISION

UNLESS OTHERWISE SPECIFIED
TOLERANCES:
.X± -- .XX± -.-- .XXX± -.---
FRACTIONS: ± -/--
ANGLES: ± -.-°/INCH
MACH. SURFS.: 63 ✓ OR BETTER
REF: ASME Y14.5M-1994; THREADS ARE CLASS 2
BREAK EDGES .016 MAX. ON MACHINED WORK
REMOVE BURRS, WELD SPLATTER & LOOSE SCALE

MAT 2: . NOTES:
MAT 1: PLATE, ALUMINUM 6061-T6 NOTES:

PROJECT NAME:
Advanced Light Source
UNIQUE NUMBER: AL-0015-0271
DO NOT SCALE PRINT SCALE: 1 : 1
CATEGORY CODE: AL 9021
THIRD ANGLE PROJECTION

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PEEM 3 ELECTRON OPTICS
MICROSCOPE BASE PLATE

SHEET 2 OF 3 | SIZE: E | DWG NO: 26C350 | REV D

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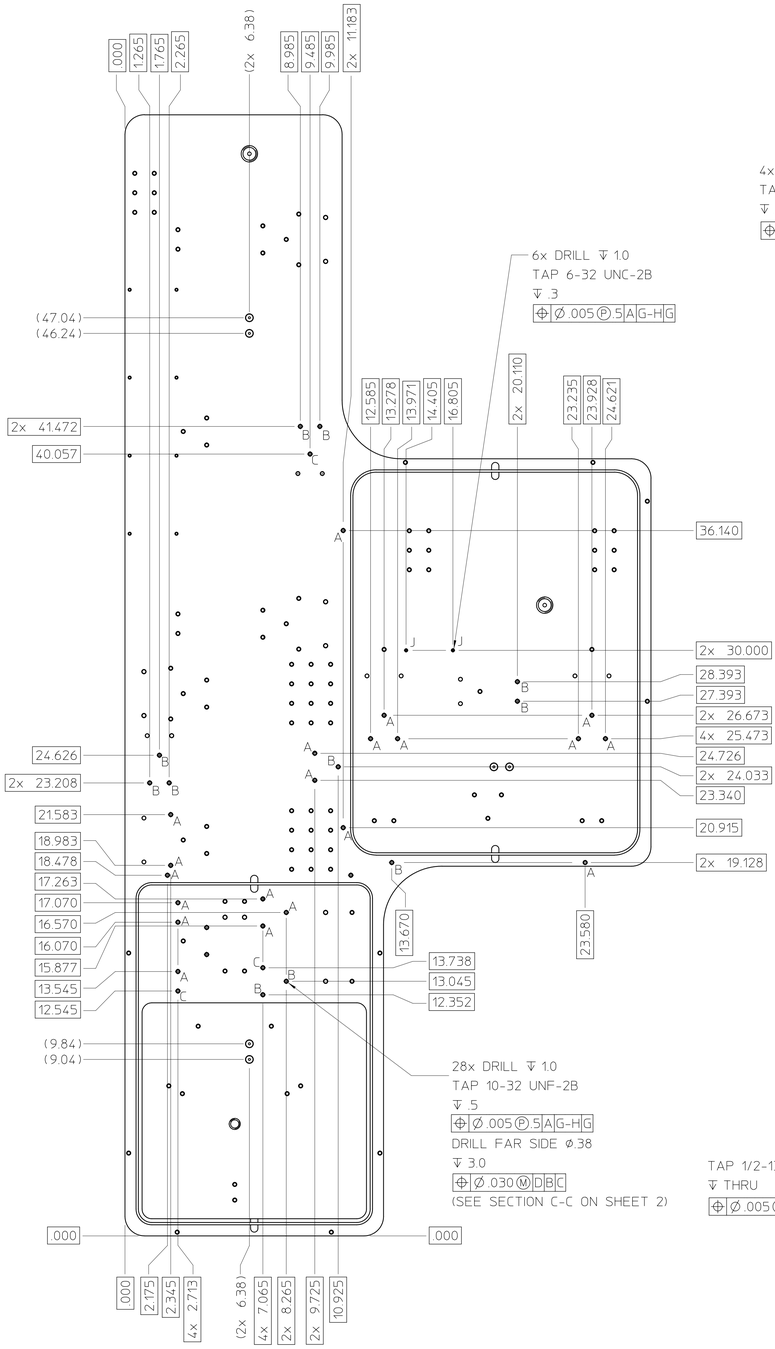
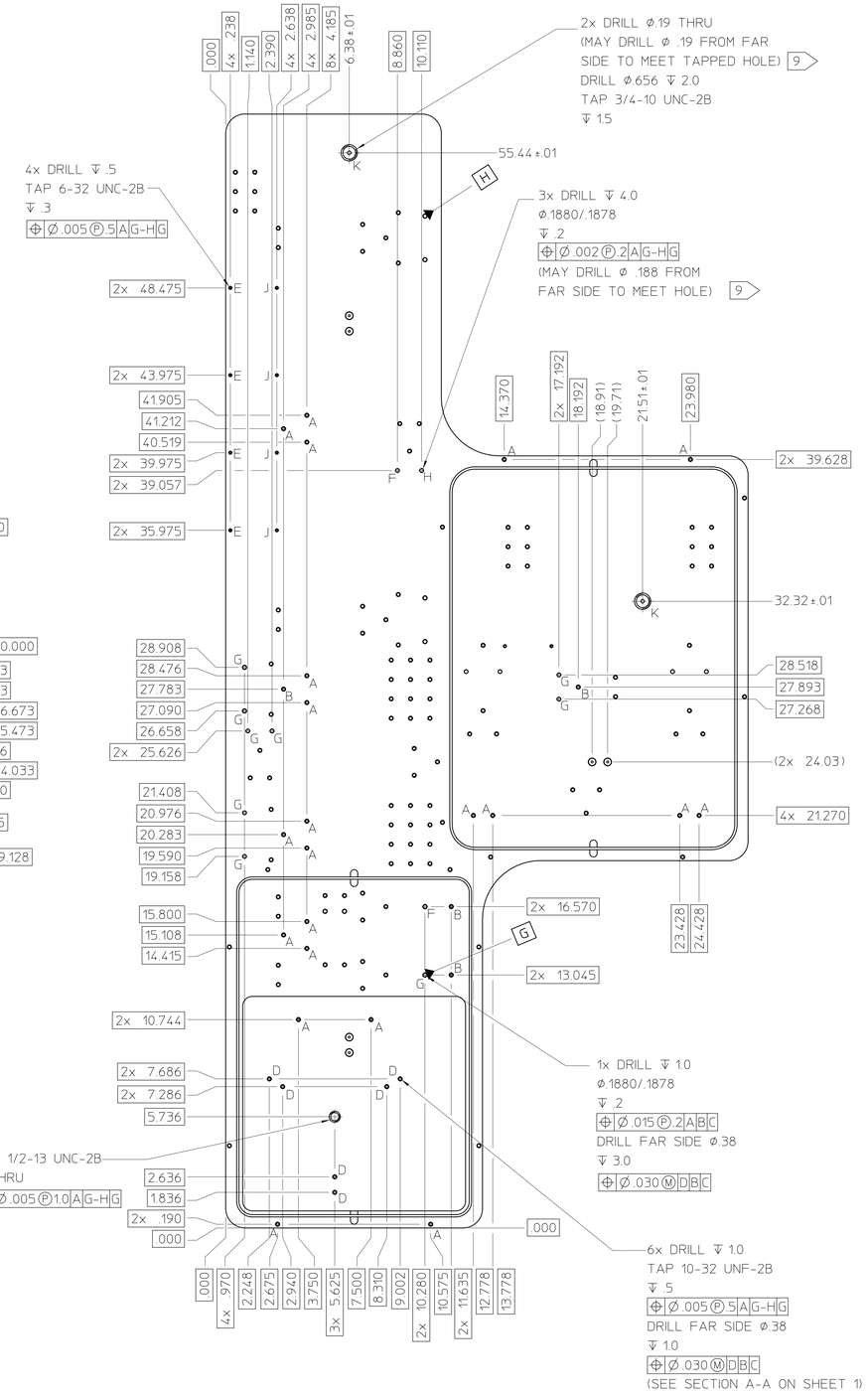


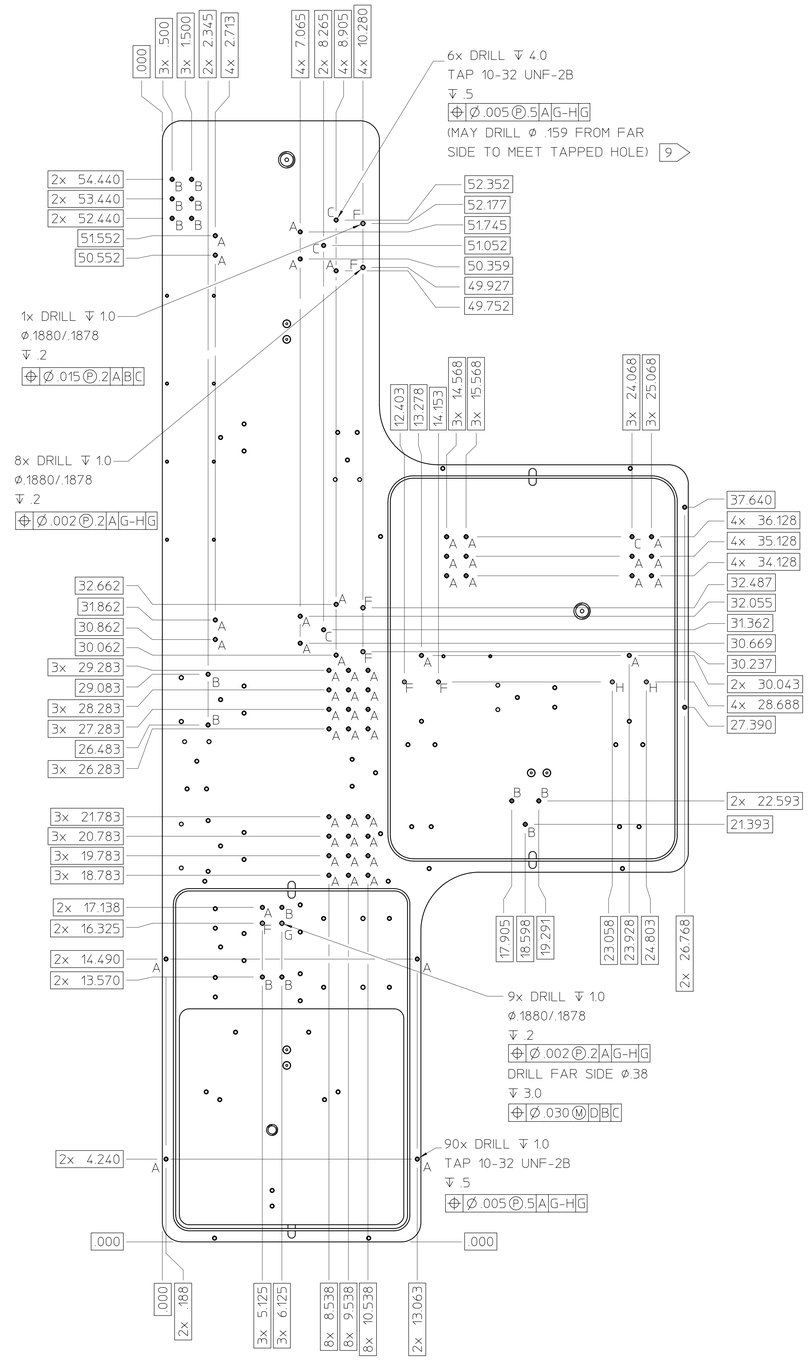
AUXILLARY FRONT VIEW #1

SCALE 1:3



AUXILLARY FRONT VIEW #2

SCALE 1:3



AUXILLARY FRONT VIEW #3

SCALE 1:3

HOLE DESCRIPTIONS

HOLE DESCRIPTOR	QUANTITY	DESCRIPTION (FOR REFERENCE ONLY)
A	90	DRILL ↧ 1.0, TAP 10-32 UNF-2B ↧ .5
B	28	DRILL ↧ 1.0, TAP 10-32 UNF-2B ↧ .5, DRILL FAR SIDE Ø.38 ↧ 3.0, (SEE SECTION C-C ON SHEET 2)
C	6	DRILL ↧ 4.0, TAP 10-32 UNF-2B ↧ .5, (MAY DRILL Ø .159 FROM FAR SIDE TO MEET TAPPED HOLE)
D	6	DRILL ↧ 1.0, TAP 10-32 UNF-2B ↧ .5, DRILL FAR SIDE Ø.38 ↧ 1.0, (SEE SECTION A-A ON SHEET 1)
E	4	DRILL ↧ .5, TAP 6-32 UNC-2B ↧ .3
F	9	DRILL ↧ 1.0, Ø.1880/.1878 ↧ .2
G	10	DRILL ↧ 1.0, Ø.1880/.1878 ↧ .2, DRILL FAR SIDE Ø.38 ↧ 3.0
H	3	DRILL ↧ 4.0, Ø.1880/.1878 ↧ .2, (MAY DRILL Ø .188 FROM FAR SIDE TO MEET HOLE)
J	6	DRILL ↧ 1.0, TAP 6-32 UNC-2B ↧ .3
K	2	DRILL ↧ 2.0, TAP 3/4-10 UNC-2B ↧ 1.5, DRILL FAR SIDE Ø.188 ↧ 2.0, (SEE SECTION B-B ON SHEET 2)

REV	AUTHOR	APPROVER	DATE	CHANGE DESCRIPTION
D	ajdemell	ajdemell	08-17-05	SEE NOTE #10 ON SHEET 1 OF 3
C	ajdemell	ajdemell	06-28-05	ADD WIDTH DIMENSION, MOVE R.3 RADII, LOC. E8 CHANGE C TYPE TO B TYPE HOLE, LOC. F3 CHANGE A TYPE TO B TYPE HOLE
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UNLESS OTHERWISE SPECIFIED
TOLERANCES: .X± .- .XX± .-- .XXX± .--- ; FRACTIONS: ± -/-- ; ANGLES: ± - .-°/INCH ; MACH. SURFS.: 63 ✓ OR BETTER
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MAT 2: . NOTES:
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MICROSCOPE BASE PLATE

SHEET 3 OF 3 | SIZE: E | DWG NO: 26C350 | REV D

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